



# Full wwPDB X-ray Structure Validation Report ⓘ

May 25, 2020 – 10:54 pm BST

PDB ID : 5E81  
Title : Structure of T. thermophilus 70S ribosome complex with mRNA and tRNA<sup>Lys</sup> in the A-site with wobble pair  
Authors : Rozov, A.; Demeshkina, N.; Khusainov, I.; Yusupov, M.; Yusupova, G.  
Deposited on : 2015-10-13  
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.

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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 : 1.8.5 (274361), CSD as541be (2020)  
Xtriage (Phenix) : 1.13  
EDS : 2.11  
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) : 2.11

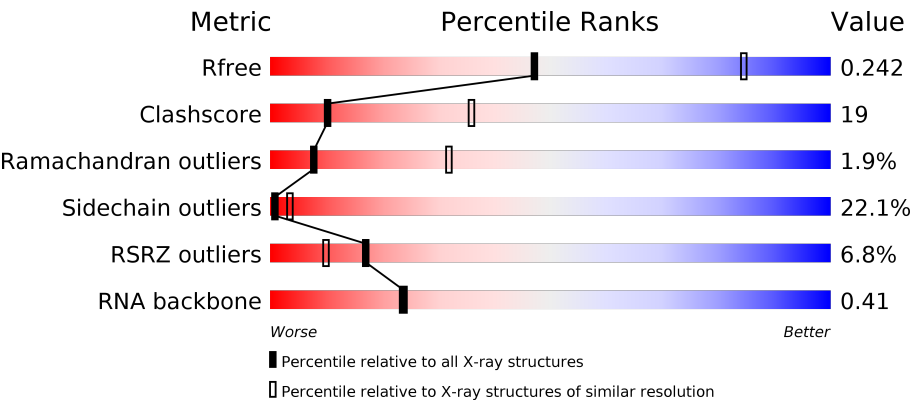
# 1 Overall quality at a glance i

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 <sub>free</sub>	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 on 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	1519	<div><div>24%45%24%5%</div><div></div></div>
1	1G	1519	<div><div>32%44%18%</div><div>%</div></div>
2	12	256	<div><div>8%34%38%7%19%</div><div></div></div>
2	1E	256	<div><div>5%38%39%13%10%</div><div></div></div>

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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	

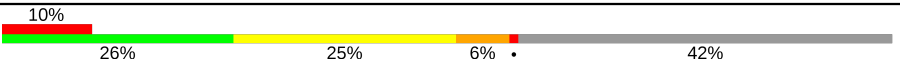

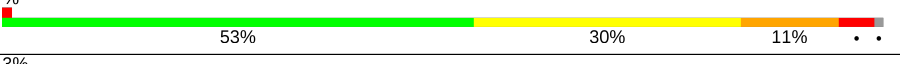
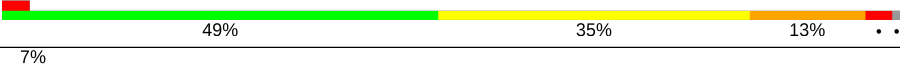
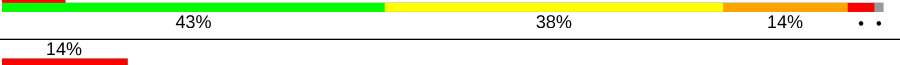

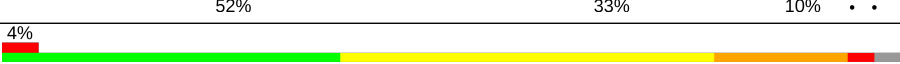

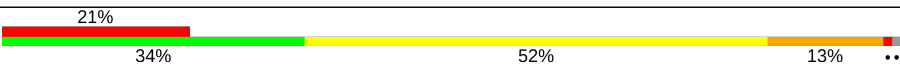

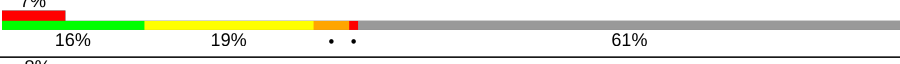
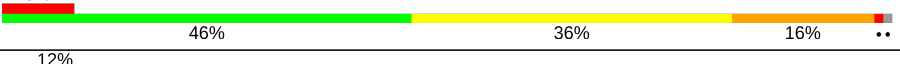




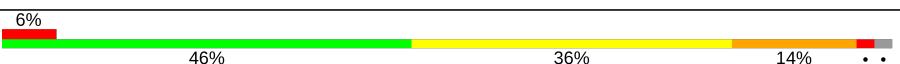
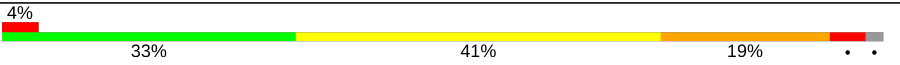
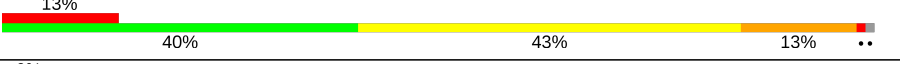






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Mol	Chain	Length	Quality of chain
15	6I	89	
16	7A	88	
16	7I	88	
17	8A	105	
17	8I	105	
18	9A	88	
18	9I	88	
19	AA	93	
19	AI	93	
20	BA	106	
20	BI	106	
21	1B	27	
21	1F	27	
22	1K	76	
22	1L	76	
23	2K	77	
23	2L	77	
24	3K	76	
24	3L	76	
25	4K	27	
25	4L	27	
26	14	2917	
26	1H	2917	
27	16	122	
27	1J	122	

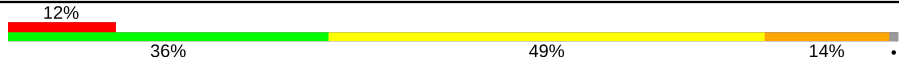
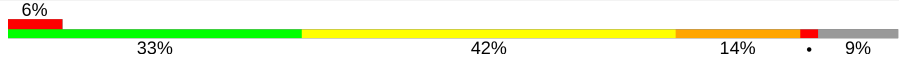
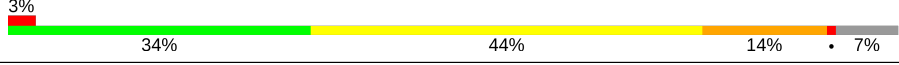
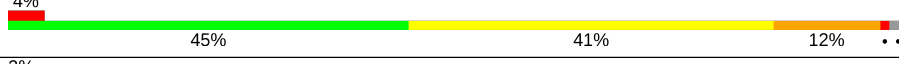

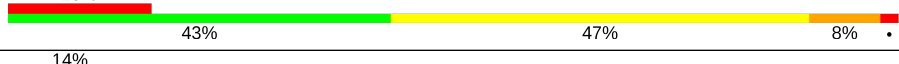
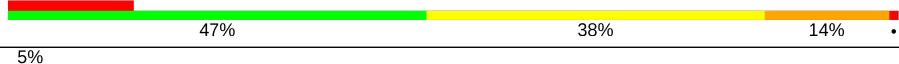

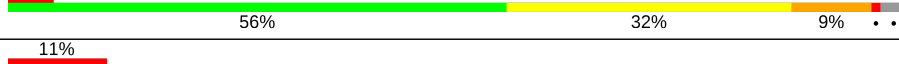
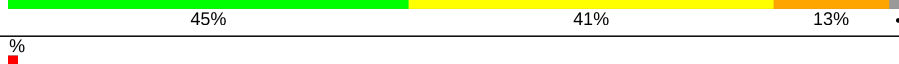

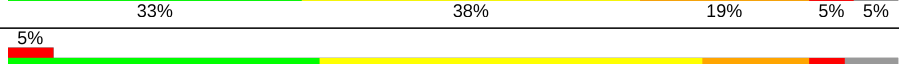
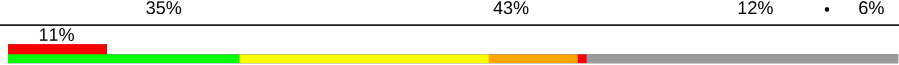
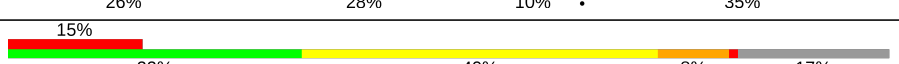
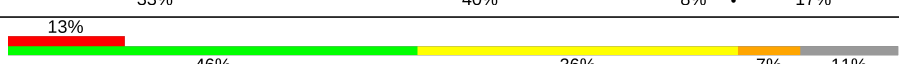



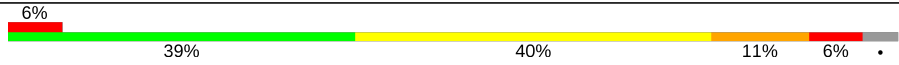
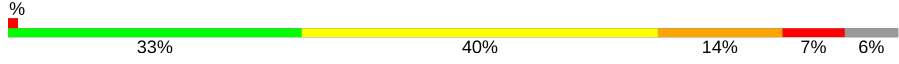

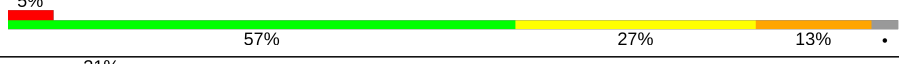



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Mol	Chain	Length	Quality of chain
28	71	229	
28	79	229	
29	11	276	
29	19	276	
30	21	206	
30	29	206	
31	31	210	
31	39	210	
32	41	182	
32	49	182	
33	51	180	
33	59	180	
34	61	148	
34	69	148	
35	15	140	
35	58	140	
36	25	122	
36	68	122	
37	35	150	
37	78	150	
38	45	141	
38	88	141	
39	55	118	
39	98	118	
40	65	112	

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Mol	Chain	Length	Quality of chain
40	A8	112	
41	75	146	
41	B8	146	
42	85	118	
42	C8	118	
43	95	101	
43	D8	101	
44	A5	113	
44	E8	113	
45	B5	96	
45	F8	96	
46	C5	110	
46	G8	110	
47	D5	206	
47	H8	206	
48	E5	85	
48	I8	85	
49	F5	98	
49	J8	98	
50	G5	72	
50	K8	72	
51	H5	60	
51	L8	60	
52	M8	71	
53	J5	60	

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Mol	Chain	Length	Quality of chain
53	N8	60	
54	L5	49	
54	P8	49	
55	M5	65	
55	Q8	65	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	13	1616	-	-	-	X
56	MG	13	1643	-	-	-	X
56	MG	13	1661	-	-	-	X
56	MG	14	3028	-	-	-	X
56	MG	14	3131	-	-	-	X
56	MG	14	3141	-	-	-	X
56	MG	14	3149	-	-	-	X
56	MG	14	3151	-	-	-	X
56	MG	14	3161	-	-	-	X
56	MG	14	3169	-	-	-	X
56	MG	14	3181	-	-	-	X
56	MG	14	3189	-	-	-	X
56	MG	14	3194	-	-	-	X
56	MG	14	3200	-	-	-	X
56	MG	14	3209	-	-	-	X
56	MG	14	3216	-	-	-	X
56	MG	14	3234	-	-	-	X
56	MG	14	3238	-	-	-	X
56	MG	1G	1617	-	-	-	X
56	MG	1G	1632	-	-	-	X
56	MG	1G	1637	-	-	-	X
56	MG	1G	1641	-	-	-	X
56	MG	1G	1656	-	-	-	X
56	MG	1G	1661	-	-	-	X
56	MG	1G	1668	-	-	-	X
56	MG	1H	3015	-	-	-	X
56	MG	1H	3047	-	-	-	X
56	MG	1H	3076	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	1H	3081	-	-	-	X
56	MG	1H	3096	-	-	-	X
56	MG	1H	3136	-	-	-	X
56	MG	1H	3168	-	-	-	X
56	MG	1H	3194	-	-	-	X
56	MG	1H	3201	-	-	-	X
56	MG	1H	3214	-	-	-	X
56	MG	1H	3220	-	-	-	X
56	MG	1H	3230	-	-	-	X
56	MG	1H	3234	-	-	-	X
56	MG	1H	3267	-	-	-	X
56	MG	1H	3270	-	-	-	X
56	MG	2I	302	-	-	-	X
56	MG	4K	101	-	-	-	X
56	MG	P8	101	-	-	-	X
57	SF4	32	302	-	-	X	-



## 2 Entry composition

There are 59 unique types of molecules in this entry. The entry contains 297904 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	13	1496	Total	C	N	O	P	0	0	0
			32157	14313	5960	10388	1496			
1	1G	1506	Total	C	N	O	P	0	0	0
			32371	14409	6001	10456	1505			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	1E	231	Total	C	N	O	S	0	0	0
			1874	1199	334	336	5			
2	12	207	Total	C	N	O	S	0	0	0
			1696	1083	306	303	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	2E	205	Total	C	N	O	S	0	0	0
			1605	1011	313	280	1			
3	22	195	Total	C	N	O	S	0	0	0
			1537	973	297	266	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	3E	207	Total	C	N	O	S	0	0	0
			1698	1064	338	289	7			
4	32	208	Total	C	N	O	S	0	0	0
			1702	1066	339	290	7			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	4E	149	Total	C	N	O	S	0	0	0
			1142	722	216	200	4			
5	42	149	Total	C	N	O	S	0	0	0
			1139	721	216	198	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	5E	100	Total	C	N	O	S	0	0	0
			837	528	154	152	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	154	Total	C	N	O	S	0	0	0
			1242	770	250	216	6			
7	62	140	Total	C	N	O	S	0	0	0
			1120	695	223	196	6			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	8E	126	Total	C	N	O		0	0	0
			1000	634	196	170				
9	82	121	Total	C	N	O		0	0	0
			953	605	186	162				

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1I	95	Total	C	N	O	S	0	0	0
			754	471	148	134	1			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
10	1A	80	Total	C	N	O	0	0	0
			646	403	129	114			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	2I	111	Total	C	N	O	S	0	0	0
			823	512	154	154	3			
11	2A	113	Total	C	N	O	S	0	0	0
			835	520	156	156	3			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	4I	119	Total	C	N	O	S	0	0	0
			942	582	194	164	2			
13	4A	111	Total	C	N	O	S	0	0	0
			893	552	183	156	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	5I	60	Total	C	N	O	S	0	0	0
			491	312	104	71	4			
14	5A	59	Total	C	N	O	S	0	0	0
			486	309	103	70	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	6I	87	Total	C	N	O	S	0	0	0
			729	457	146	124	2			
15	6A	87	Total	C	N	O	S	0	0	0
			729	457	146	124	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	7I	83	Total	C	N	O	S	0	0	0
			700	443	139	117	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	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	9I	68	Total	C	N	O	0	0	0
			549	352	105	92			
18	9A	67	Total	C	N	O	0	0	0
			544	349	104	91			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AI	82	Total	C	N	O	S	0	0	0
			661	422	123	114	2			
19	AA	62	Total	C	N	O	S	0	0	0
			481	306	85	88	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	BI	97	Total	C	N	O	S	0	0	0
			746	461	157	126	2			
20	BA	99	Total	C	N	O	S	0	0	0
			762	470	162	128	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	1F	23	Total	C	N	O	0	0	0
			199	122	48	29			
21	1B	22	Total	C	N	O	0	0	0
			188	116	44	28			

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

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
22	1K	72	Total	C	N	O	P	S	0	0	0
			1542	691	269	509	72	1			
22	1L	69	Total	C	N	O	P	S	0	0	0
			1477	662	257	488	69	1			

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

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
23	2K	77	Total	C	N	O	P	S	0	0	0
			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-Lys.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	3K	70	Total	C	N	O	P	0	0	0
			1483	664	260	490	69			
24	3L	72	Total	C	N	O	P	0	0	0
			1528	684	270	503	71			

- Molecule 25 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	4K	21	Total	C	N	O	P	0	0	0
			464	208	99	136	21			
25	4L	19	Total	C	N	O	P	0	0	0
			419	188	89	123	19			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	1H	2885	Total	C	N	O	P	0	3	0
			62204	27685	11631	20000	2888			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	14	2855	Total	C	N	O	P	0	0	0
			61505	27372	11512	19766	2855			

There are 14 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
1H	161	U	UNK	conflict	GB 55771382
1H	654A	A	G	conflict	GB 55771382
1H	654E	C	G	conflict	GB 55771382
1H	654P	G	C	conflict	GB 55771382
1H	654T	A	C	conflict	GB 55771382
1H	1058	U	G	conflict	GB 55771382
1H	1080	A	C	conflict	GB 55771382
14	158	U	UNK	conflict	GB 55771382
14	654A	A	G	conflict	GB 55771382
14	654E	C	G	conflict	GB 55771382
14	654P	G	C	conflict	GB 55771382
14	654T	A	C	conflict	GB 55771382
14	1058	U	G	conflict	GB 55771382
14	1080	A	C	conflict	GB 55771382

- 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 L1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	71	133	Total	C	N	O	S	0	0	0
			1033	651	194	187	1			
28	79	57	Total	C	N	O		0	0	0
			456	283	91	82				

- Molecule 29 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	11	273	Total	C	N	O	S	0	0	0
			2120	1338	421	358	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	19	274	Total	C	N	O	S	0	0	0
			2125	1341	422	359	3			

- Molecule 30 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	21	203	Total	C	N	O	S	0	0	0
			1558	985	298	269	6			
30	29	204	Total	C	N	O	S	0	0	0
			1563	988	299	270	6			

- Molecule 31 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	31	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			
31	39	204	Total	C	N	O	S	0	0	0
			1602	1022	299	279	2			

- Molecule 32 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	41	179	Total	C	N	O	S	0	0	0
			1457	931	265	257	4			
32	49	181	Total	C	N	O	S	0	0	0
			1468	937	268	259	4			

- Molecule 33 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	51	174	Total	C	N	O	S	0	0	0
			1328	842	249	236	1			
33	59	70	Total	C	N	O	S	0	0	0
			543	341	110	92				

- Molecule 34 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	61	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			
34	69	145	Total	C	N	O	S	0	0	0
			1131	723	200	207	1			

- Molecule 35 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	58	137	Total	C	N	O	S	0	0	0
			1096	706	205	181	4			
35	15	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

- Molecule 36 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	68	122	Total	C	N	O	S	0	0	0
			932	588	171	169	4			
36	25	122	Total	C	N	O	S	0	0	0
			932	588	171	169	4			

- Molecule 37 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	78	147	Total	C	N	O	S	0	0	0
			1122	698	229	192	3			
37	35	147	Total	C	N	O	S	0	0	0
			1122	698	229	192	3			

- Molecule 38 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	88	141	Total	C	N	O	S	0	0	0
			1117	712	211	187	7			
38	45	139	Total	C	N	O	S	0	0	0
			1104	705	209	184	6			

- Molecule 39 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	98	118	Total	C	N	O	S	0	0	0
			967	604	203	159	1			
39	55	118	Total	C	N	O	S	0	0	0
			967	604	203	159	1			

- Molecule 40 is a protein called 50S ribosomal protein L18.



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
40	A8	111	Total	C	N	O	0	0	0
			881	556	176	149			
40	65	110	Total	C	N	O	0	0	0
			876	553	175	148			

- Molecule 41 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	B8	136	Total	C	N	O	S	0	0	0
			1124	700	231	192	1			
41	75	133	Total	C	N	O	S	0	0	0
			1109	691	228	189	1			

- Molecule 42 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	C8	115	Total	C	N	O	S	0	0	0
			950	603	199	147	1			
42	85	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

- Molecule 43 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	D8	100	Total	C	N	O	S	0	0	0
			774	499	141	133	1			
43	95	100	Total	C	N	O	S	0	0	0
			770	496	140	133	1			

- Molecule 44 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	E8	110	Total	C	N	O	S	0	0	0
			876	552	171	151	2			
44	A5	111	Total	C	N	O	S	0	0	0
			886	558	174	152	2			

- Molecule 45 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	F8	95	Total	C	N	O	S	0	0	0
			743	482	134	126	1			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
45	B5	94	Total	C	N	O	0	0	0
			735	477	133	125			

- Molecule 46 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	G8	103	Total	C	N	O	S	0	0	0
			783	504	148	126	5			
46	C5	104	Total	C	N	O	S	0	0	0
			794	510	152	127	5			

- Molecule 47 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	H8	170	Total	C	N	O	S	0	0	0
			1365	870	246	246	3			
47	D5	133	Total	C	N	O	S	0	0	0
			1079	694	194	189	2			

- Molecule 48 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	I8	77	Total	C	N	O	S	0	0	0
			611	378	129	103	1			
48	E5	76	Total	C	N	O	S	0	0	0
			603	372	128	102	1			

- Molecule 49 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	J8	94	Total	C	N	O	S	0	0	0
			737	463	146	127	1			
49	F5	94	Total	C	N	O	S	0	0	0
			737	463	146	127	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	K8	68	Total	C	N	O	S	0	0	0
			575	358	116	100	1			
50	G5	69	Total	C	N	O	S	0	0	0
			576	358	116	101	1			

- Molecule 51 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
51	L8	58	Total	C	N	O	0	0	0
			459	293	89	77			
51	H5	58	Total	C	N	O	0	0	0
			459	293	89	77			

- Molecule 52 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	M8	49	Total	C	N	O	S	0	0	0
			376	240	63	68	5			

- Molecule 53 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	N8	48	Total	C	N	O	S	0	0	0
			369	229	75	60	5			
53	J5	56	Total	C	N	O	S	0	0	0
			434	272	87	70	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	P8	47	Total	C	N	O	S	0	0	0
			401	246	99	54	2			
54	L5	47	Total	C	N	O	S	0	0	0
			401	246	99	54	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	Q8	64	Total	C	N	O	S	0	0	0
			516	331	102	81	2			
55	M5	64	Total	C	N	O	S	0	0	0
			516	331	102	81	2			

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	98	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	45	2	Total 2	Mg 2	0	0
56	P8	1	Total 1	Mg 1	0	0
56	32	1	Total 1	Mg 1	0	0
56	13	161	Total 161	Mg 161	0	0
56	1J	11	Total 11	Mg 11	0	0
56	5I	1	Total 1	Mg 1	0	0
56	35	3	Total 3	Mg 3	0	0
56	16	13	Total 13	Mg 13	0	0
56	42	2	Total 2	Mg 2	0	0
56	B5	1	Total 1	Mg 1	0	0
56	25	2	Total 2	Mg 2	0	0
56	M5	1	Total 1	Mg 1	0	0
56	21	3	Total 3	Mg 3	0	0
56	2K	3	Total 3	Mg 3	0	0
56	Q8	1	Total 1	Mg 1	0	0
56	L8	1	Total 1	Mg 1	0	0
56	I8	1	Total 1	Mg 1	0	0
56	52	1	Total 1	Mg 1	0	0
56	2A	1	Total 1	Mg 1	0	0
56	5E	1	Total 1	Mg 1	0	0
56	29	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	78	2	Total 2	Mg 2	0	0
56	39	2	Total 2	Mg 2	0	0
56	1G	126	Total 126	Mg 126	0	0
56	11	3	Total 3	Mg 3	0	0
56	1H	572	Total 572	Mg 572	0	0
56	E5	3	Total 3	Mg 3	0	0
56	88	3	Total 3	Mg 3	0	0
56	14	471	Total 471	Mg 471	0	0
56	F8	1	Total 1	Mg 1	0	0
56	4K	1	Total 1	Mg 1	0	0
56	1K	1	Total 1	Mg 1	0	0
56	41	2	Total 2	Mg 2	0	0
56	2L	3	Total 3	Mg 3	0	0

- Molecule 57 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe<sub>4</sub>S<sub>4</sub>).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
57	3E	1	Total	Fe	S	0	0
			8	4	4		
57	32	1	Total	Fe	S	0	0
			8	4	4		

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

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

- Molecule 59 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	13	389	Total	O	0	0
			389	389		
59	1E	1	Total	O	0	0
			1	1		
59	3E	2	Total	O	0	0
			2	2		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	4E	1	Total 1	O 1	0	0
59	8E	3	Total 3	O 3	0	0
59	1I	2	Total 2	O 2	0	0
59	3I	2	Total 2	O 2	0	0
59	4I	2	Total 2	O 2	0	0
59	5I	2	Total 2	O 2	0	0
59	6I	3	Total 3	O 3	0	0
59	7I	1	Total 1	O 1	0	0
59	1F	2	Total 2	O 2	0	0
59	1K	8	Total 8	O 8	0	0
59	2K	6	Total 6	O 6	0	0
59	3K	1	Total 1	O 1	0	0
59	4K	5	Total 5	O 5	0	0
59	1H	1539	Total 1539	O 1539	0	0
59	16	35	Total 35	O 35	0	0
59	11	16	Total 16	O 16	0	0
59	21	7	Total 7	O 7	0	0
59	31	6	Total 6	O 6	0	0
59	41	1	Total 1	O 1	0	0
59	58	2	Total 2	O 2	0	0
59	68	2	Total 2	O 2	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	78	8	Total 8	O 8	0	0
59	88	8	Total 8	O 8	0	0
59	C8	4	Total 4	O 4	0	0
59	D8	2	Total 2	O 2	0	0
59	F8	2	Total 2	O 2	0	0
59	G8	1	Total 1	O 1	0	0
59	I8	7	Total 7	O 7	0	0
59	J8	2	Total 2	O 2	0	0
59	K8	1	Total 1	O 1	0	0
59	L8	3	Total 3	O 3	0	0
59	P8	1	Total 1	O 1	0	0
59	Q8	8	Total 8	O 8	0	0
59	1G	297	Total 297	O 297	0	0
59	32	2	Total 2	O 2	0	0
59	42	1	Total 1	O 1	0	0
59	52	4	Total 4	O 4	0	0
59	62	3	Total 3	O 3	0	0
59	2A	3	Total 3	O 3	0	0
59	3A	1	Total 1	O 1	0	0
59	6A	1	Total 1	O 1	0	0
59	7A	6	Total 6	O 6	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	9A	2	Total 2	O 2	0	0
59	BA	5	Total 5	O 5	0	0
59	1L	1	Total 1	O 1	0	0
59	2L	6	Total 6	O 6	0	0
59	4L	5	Total 5	O 5	0	0
59	14	1225	Total 1225	O 1225	0	0
59	1J	12	Total 12	O 12	0	0
59	19	11	Total 11	O 11	0	0
59	29	5	Total 5	O 5	0	0
59	39	7	Total 7	O 7	0	0
59	25	6	Total 6	O 6	0	0
59	35	8	Total 8	O 8	0	0
59	45	4	Total 4	O 4	0	0
59	55	3	Total 3	O 3	0	0
59	85	1	Total 1	O 1	0	0
59	95	1	Total 1	O 1	0	0
59	A5	1	Total 1	O 1	0	0
59	B5	1	Total 1	O 1	0	0
59	C5	3	Total 3	O 3	0	0
59	F5	1	Total 1	O 1	0	0
59	H5	2	Total 2	O 2	0	0

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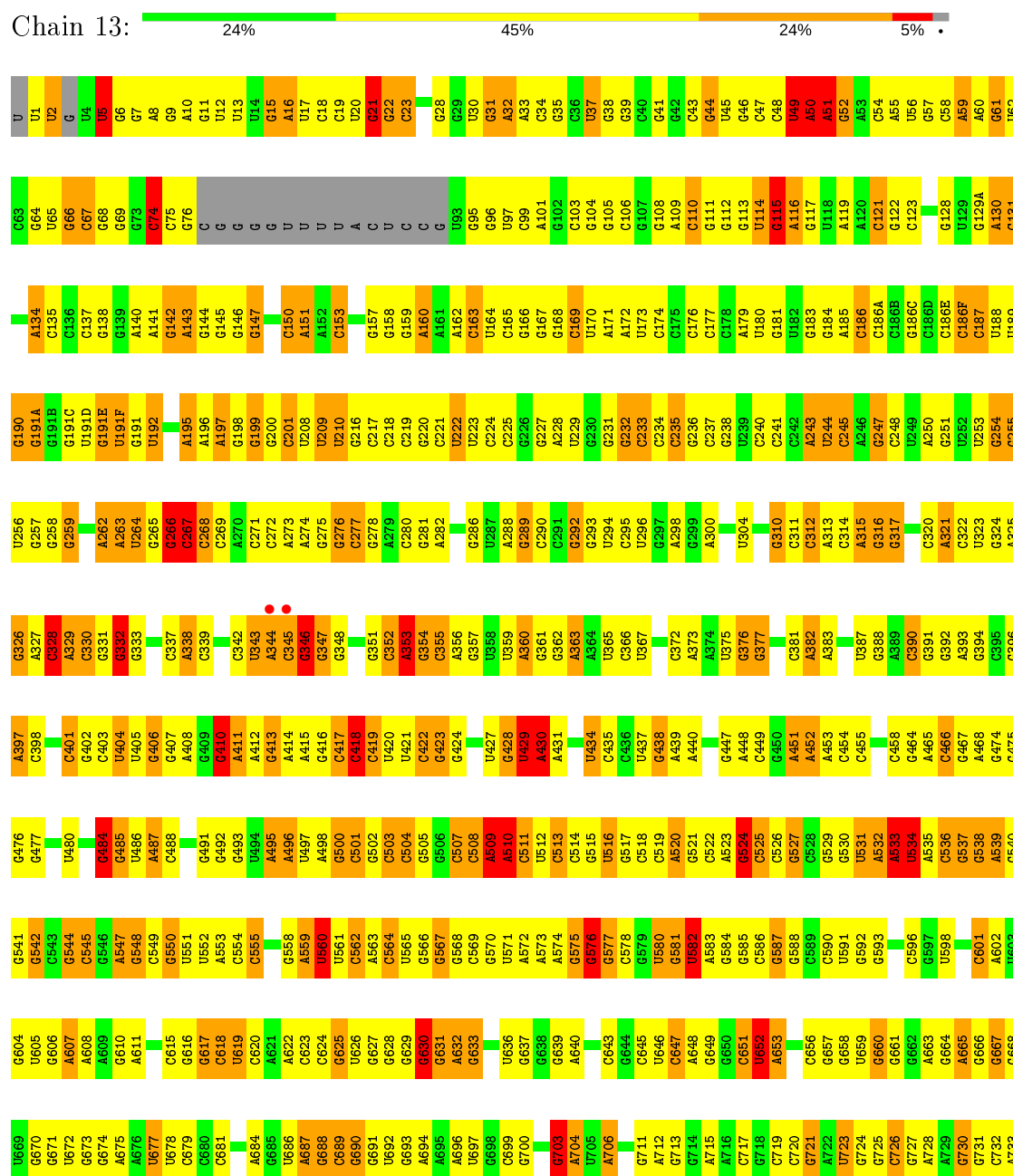
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	L5	3	Total	O	0	0
			3	3		
59	M5	6	Total	O	0	0
			6	6		

### 3 Residue-property plots [i](#)

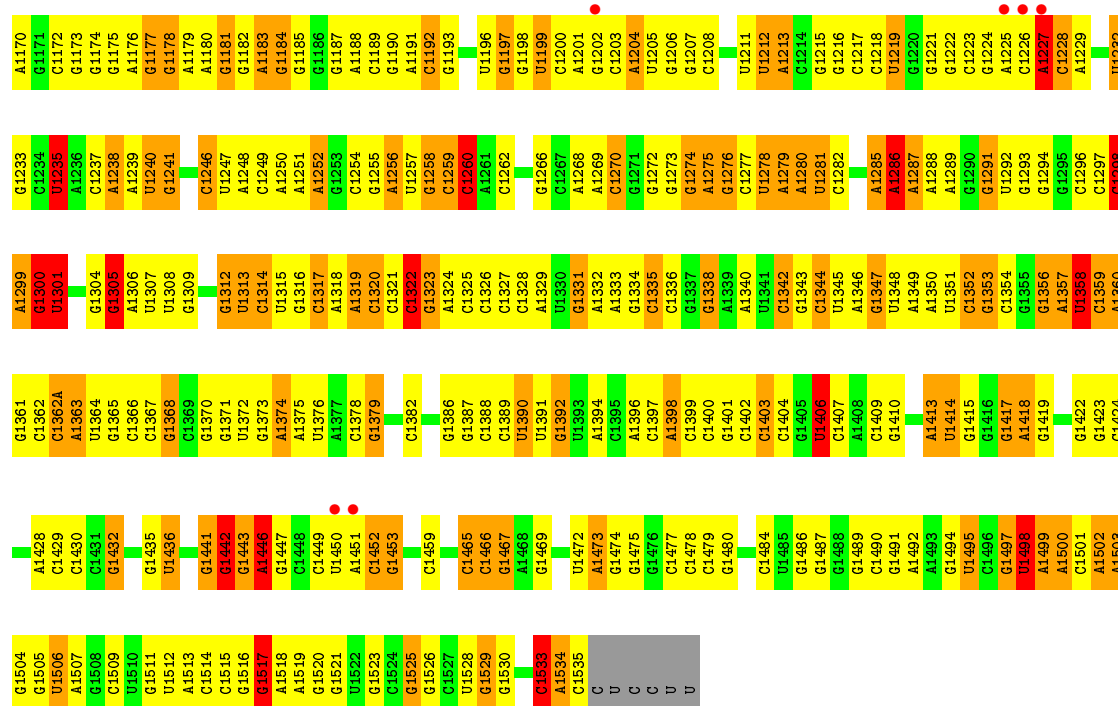
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are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

- Molecule 1: 16S ribosomal RNA

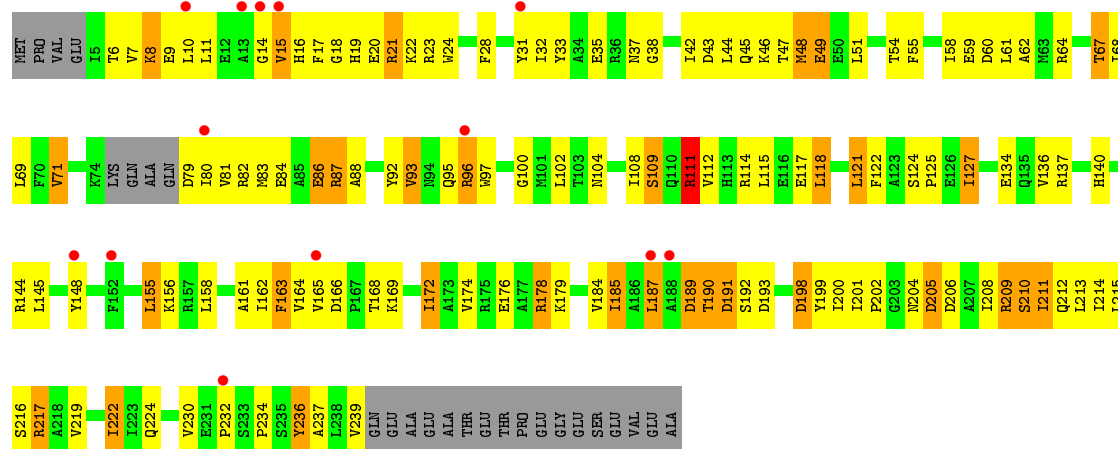


[illegible]

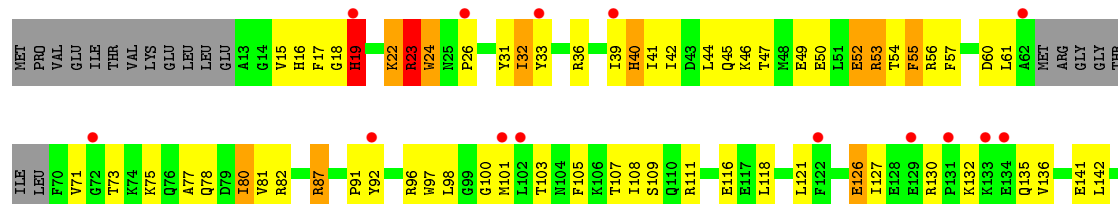




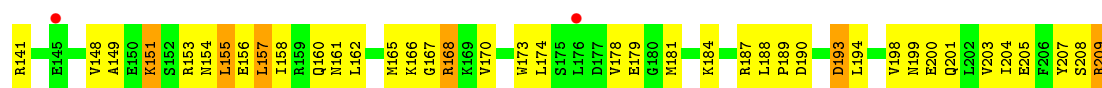
### • Molecule 2: 30S ribosomal protein S2



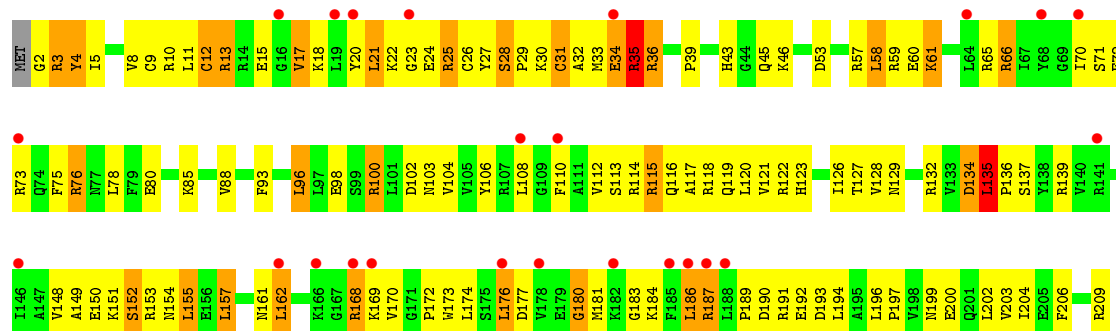
### • Molecule 2: 30S ribosomal protein S2



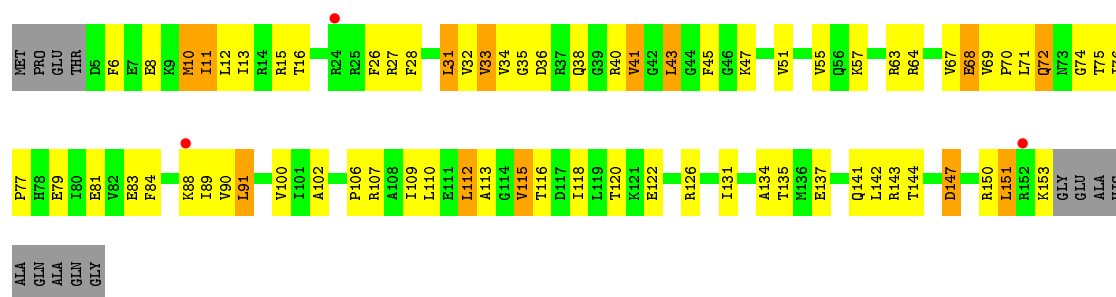




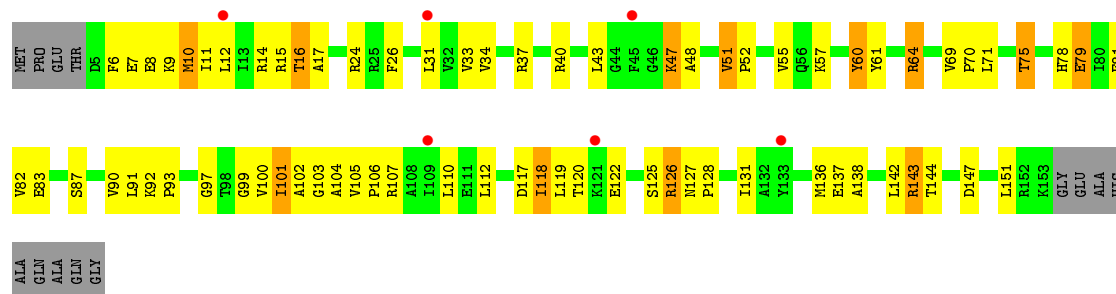
• Molecule 4: 30S ribosomal protein S4



• Molecule 5: 30S ribosomal protein S5



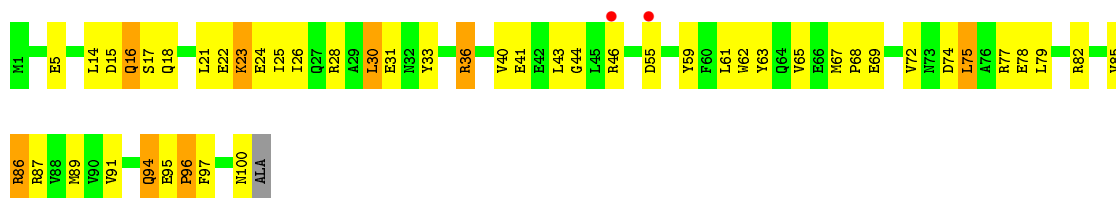
• Molecule 5: 30S ribosomal protein S5



• Molecule 6: 30S ribosomal protein S6

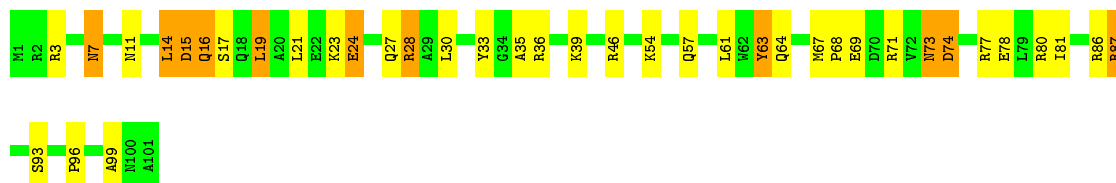






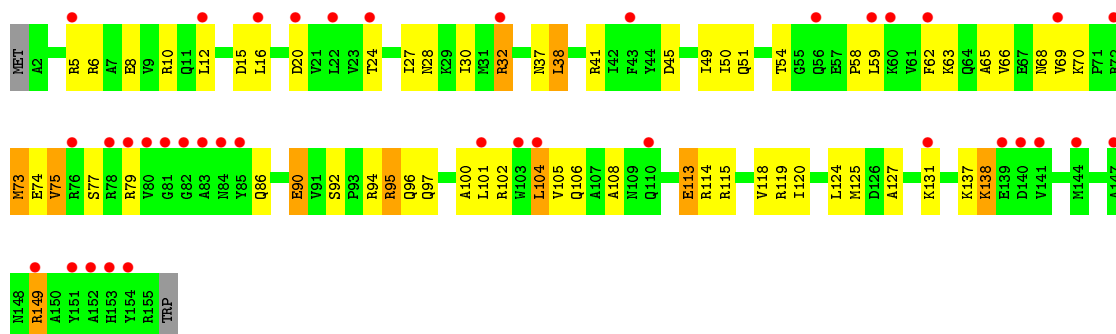
- Molecule 6: 30S ribosomal protein S6

Chain 52: 61% 28% 11%



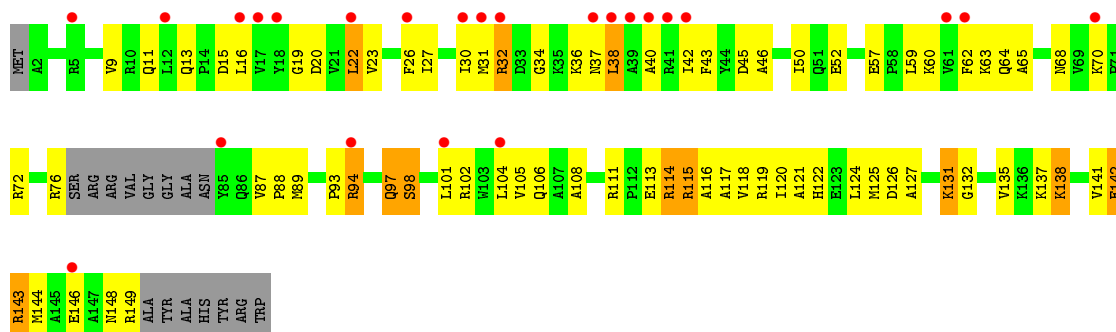
- Molecule 7: 30S ribosomal protein S7

Chain 6E: 24% 59% 33% 6%



- Molecule 7: 30S ribosomal protein S7

Chain 62: 15% 41% 41% 8% 10%

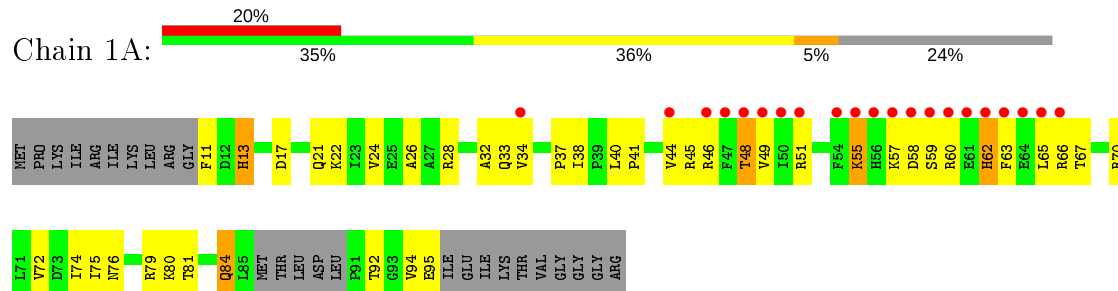


- Molecule 8: 30S ribosomal protein S8

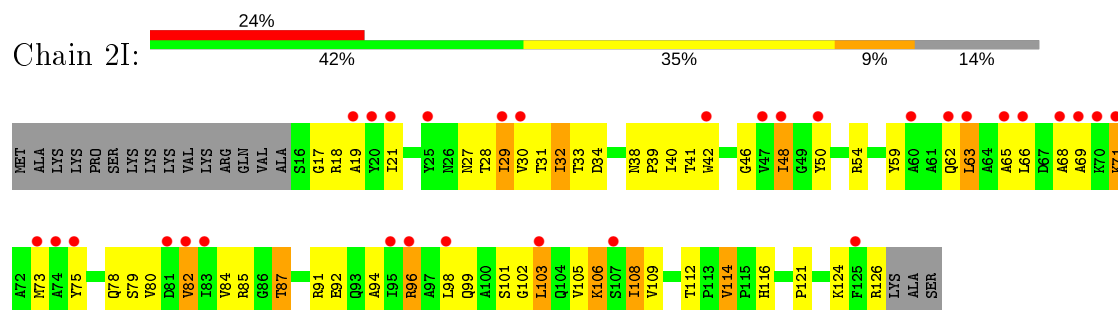
Chain 7E: 17% 44% 42% 14%



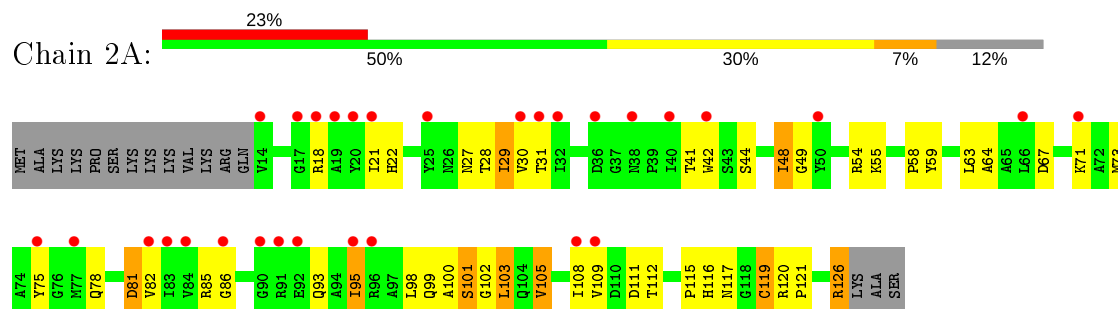
- Molecule 10: 30S ribosomal protein S10



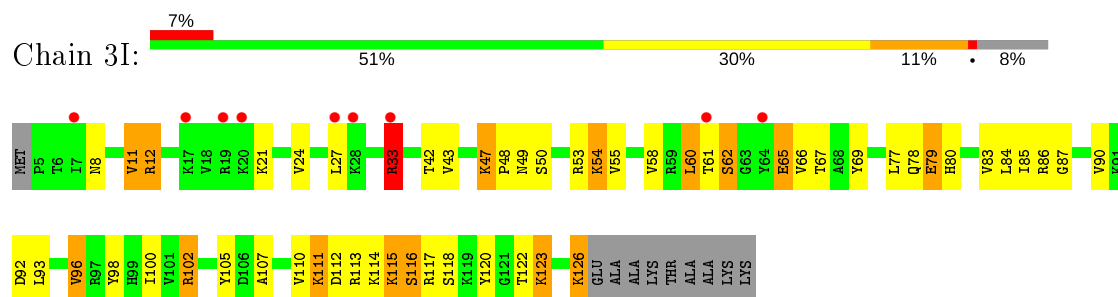
- Molecule 11: 30S ribosomal protein S11



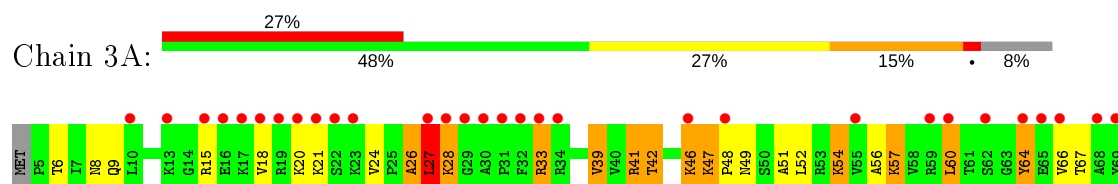
- Molecule 11: 30S ribosomal protein S11



- Molecule 12: 30S ribosomal protein S12

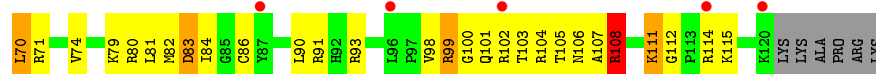
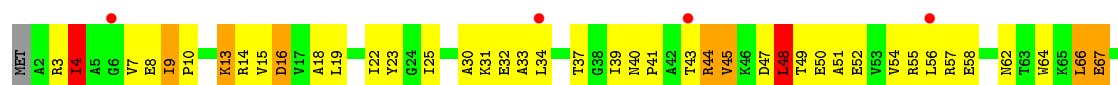


- Molecule 12: 30S ribosomal protein S12

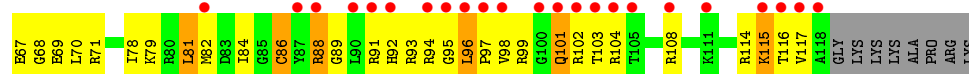




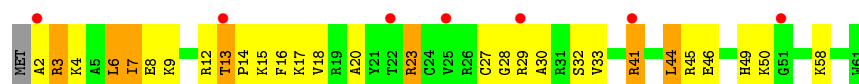
- Molecule 13: 30S ribosomal protein S13



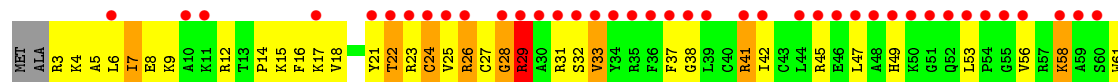
- Molecule 13: 30S ribosomal protein S13



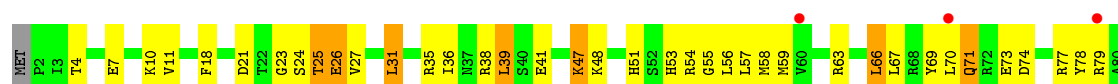
- Molecule 14: 30S ribosomal protein S14 type Z



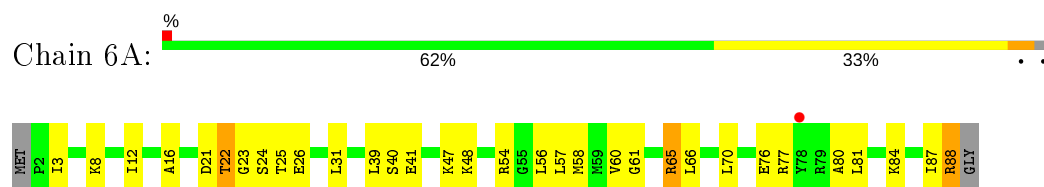
- Molecule 14: 30S ribosomal protein S14 type Z



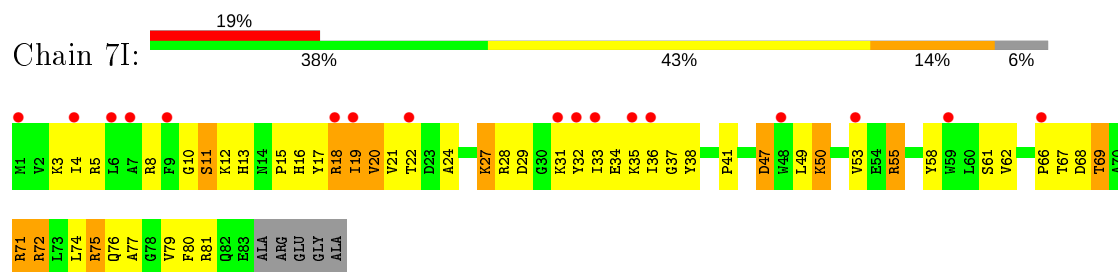
- Molecule 15: 30S ribosomal protein S15



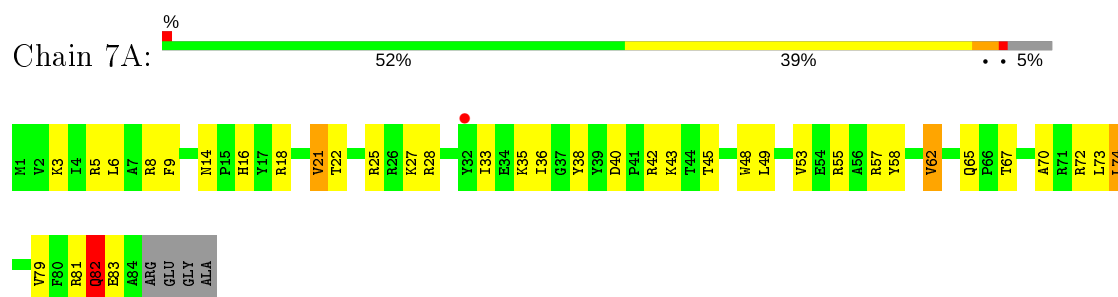
## • Molecule 15: 30S ribosomal protein S15



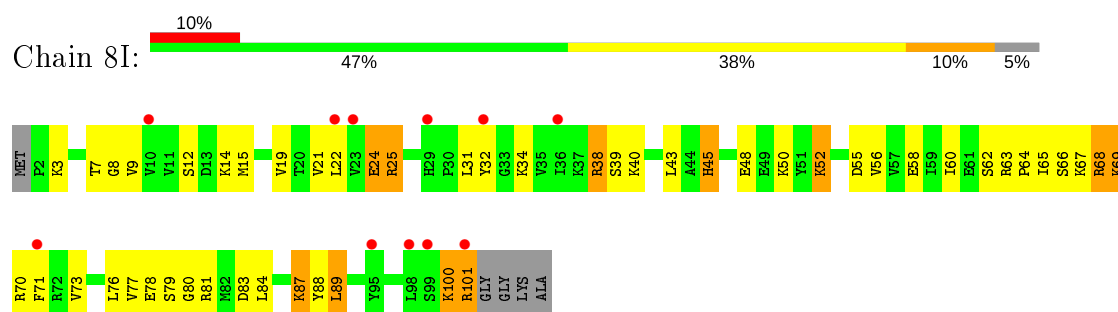
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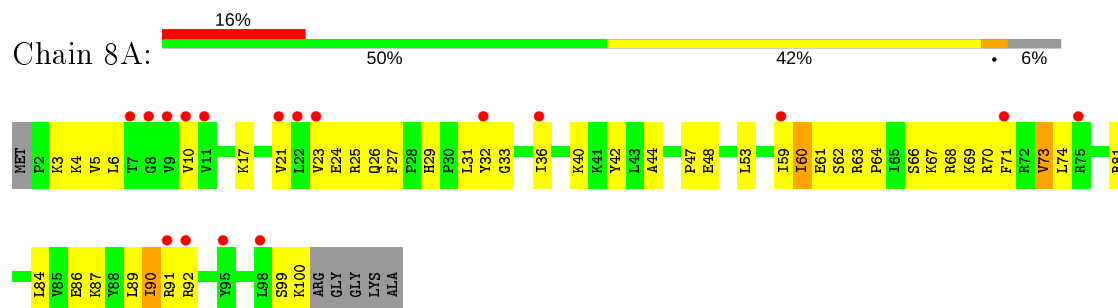
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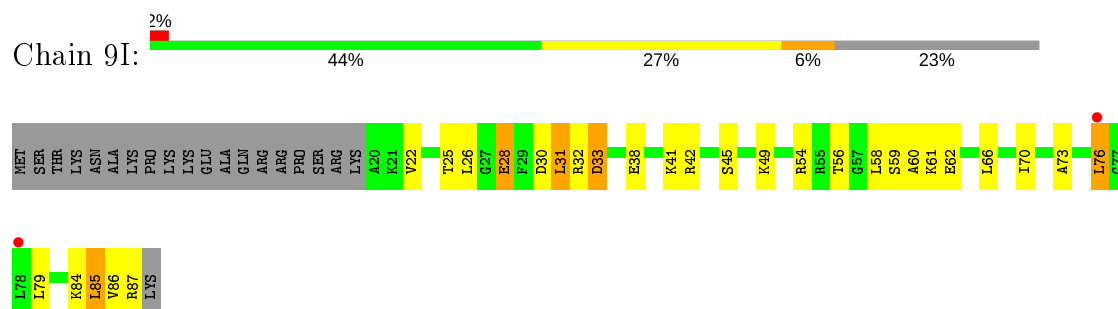
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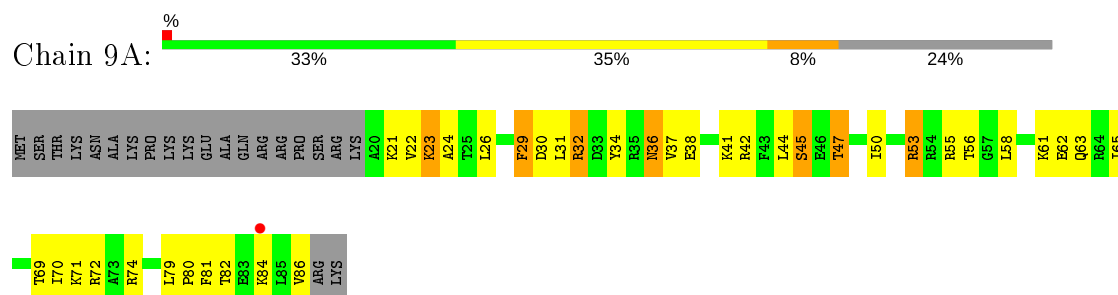
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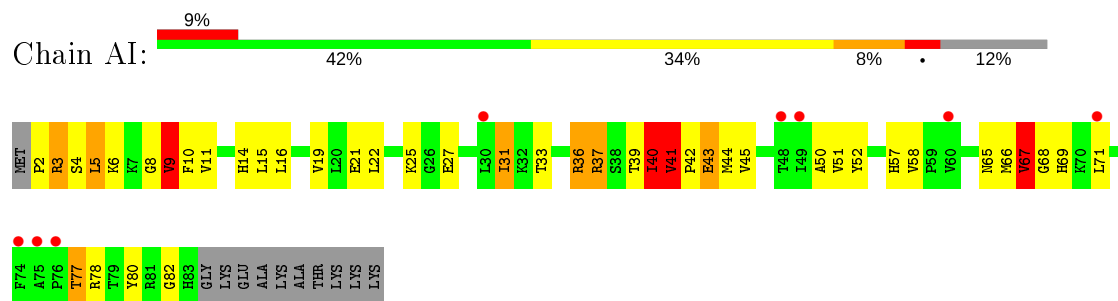
- Molecule 18: 30S ribosomal protein S18



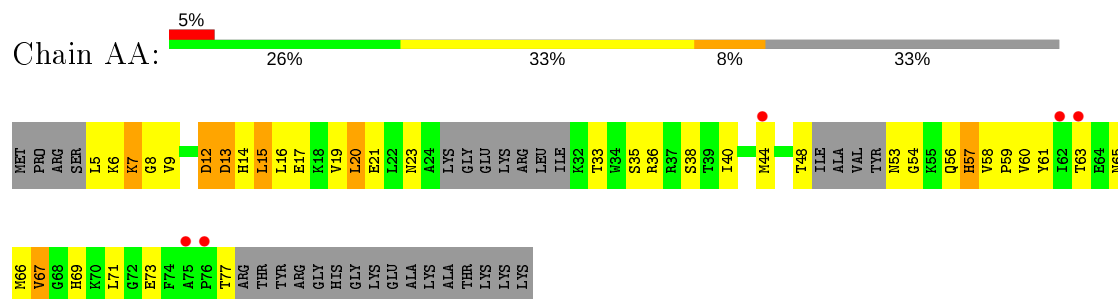
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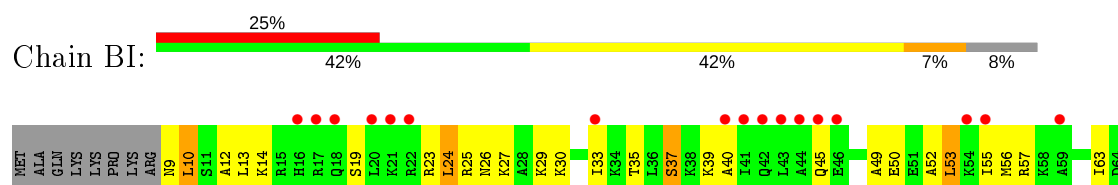
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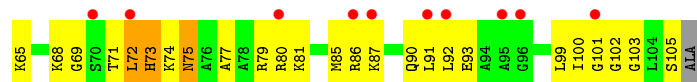


- Molecule 19: 30S ribosomal protein S19

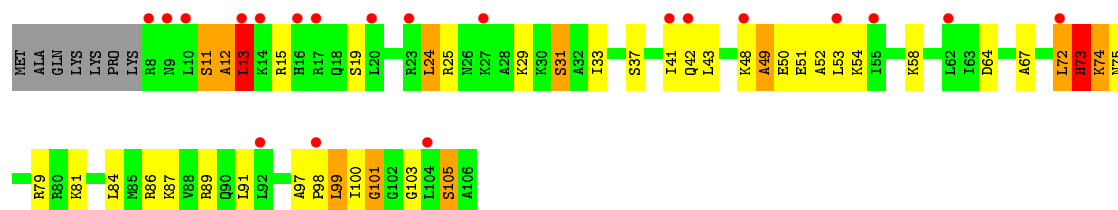


- Molecule 20: 30S ribosomal protein S20





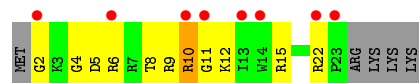
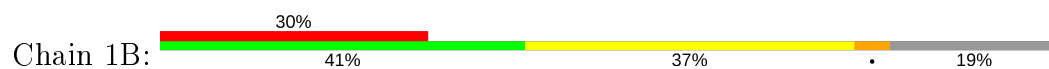
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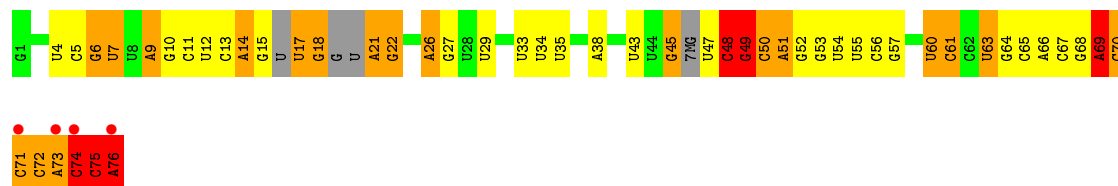
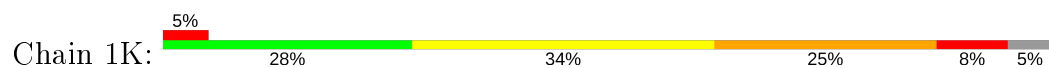
- Molecule 21: 30S ribosomal protein Thx



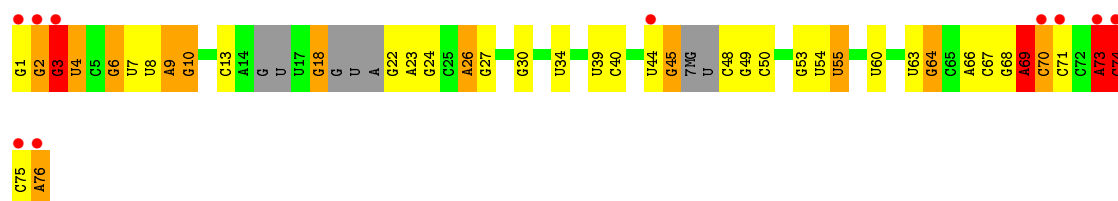
- Molecule 21: 30S ribosomal protein Thx



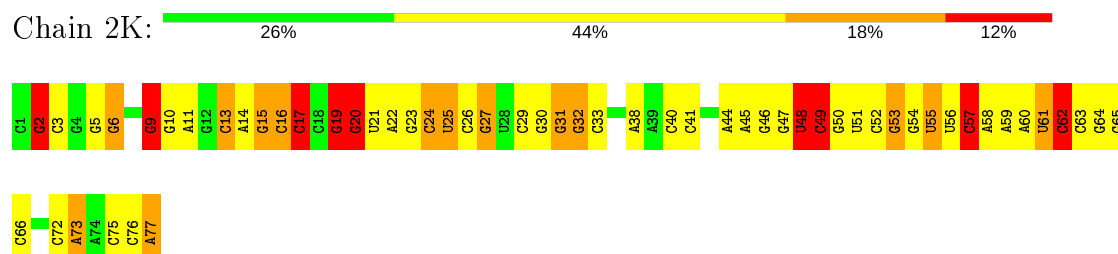
- Molecule 22: tRNA-Lys



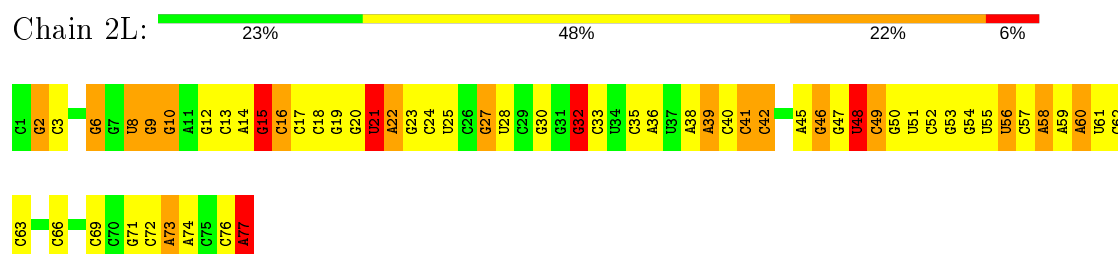
- Molecule 22: tRNA-Lys



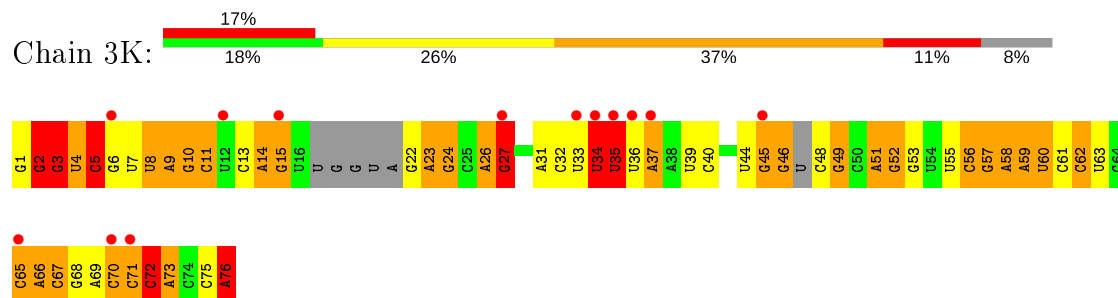
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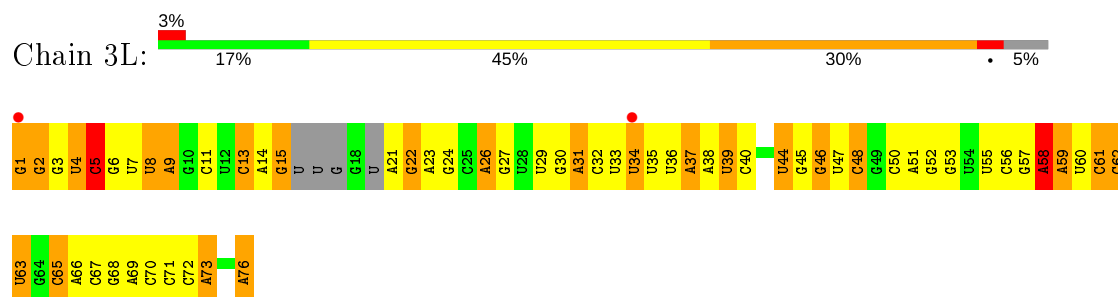
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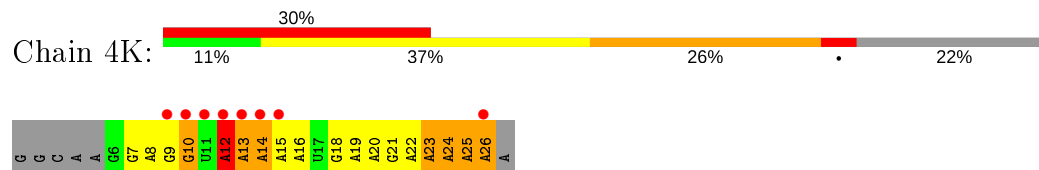
- Molecule 24: tRNA-Lys



- Molecule 24: tRNA-Lys

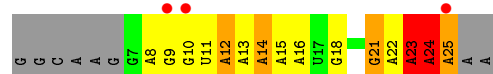


- Molecule 25: mRNA

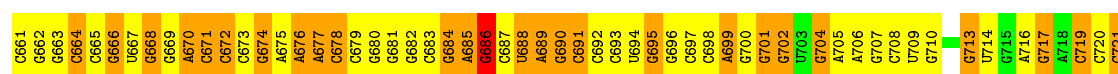
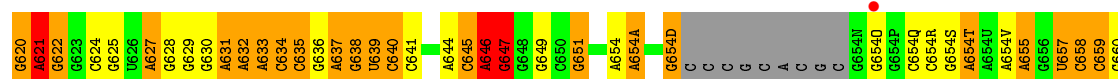
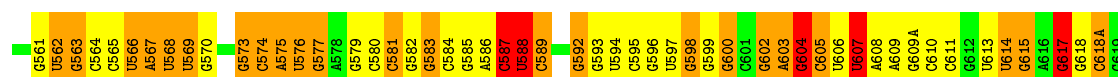
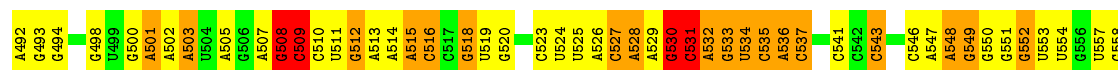
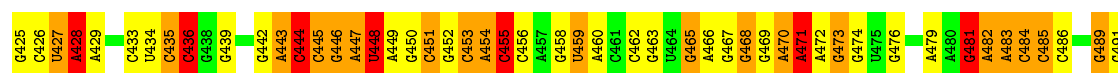
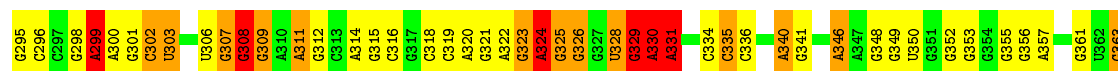
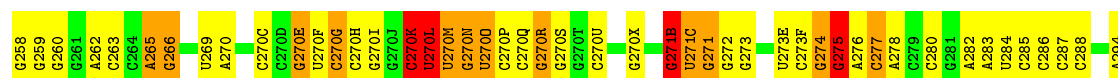
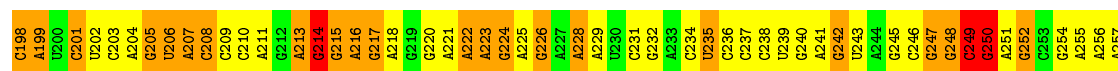
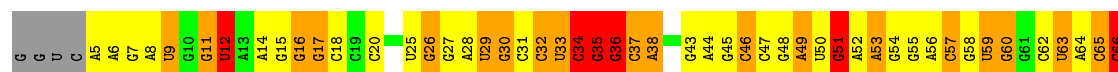
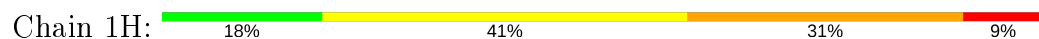


- Molecule 25: mRNA



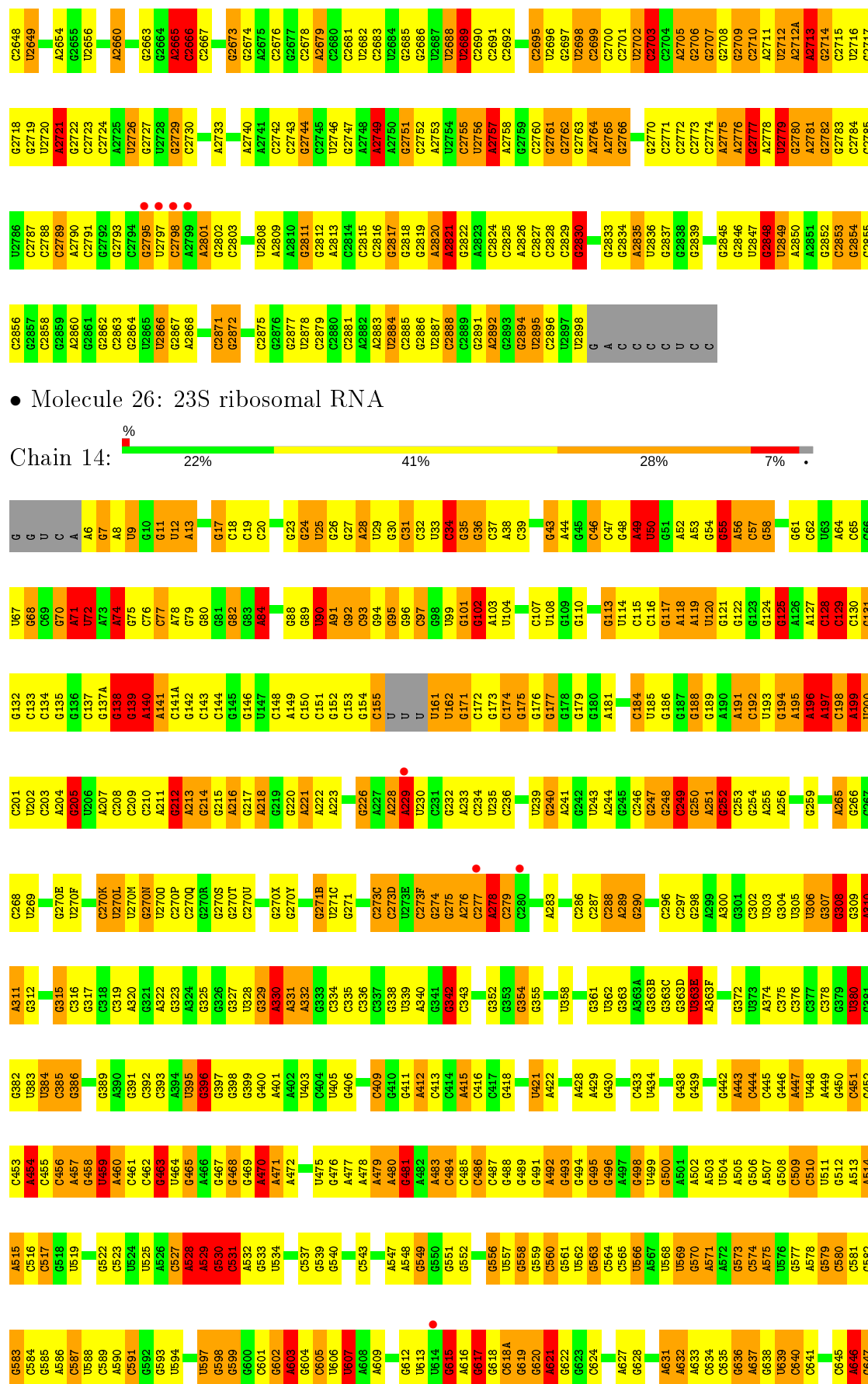


• Molecule 26: 23S ribosomal RNA





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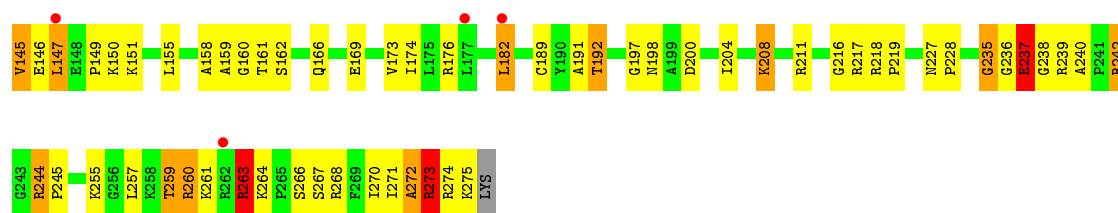
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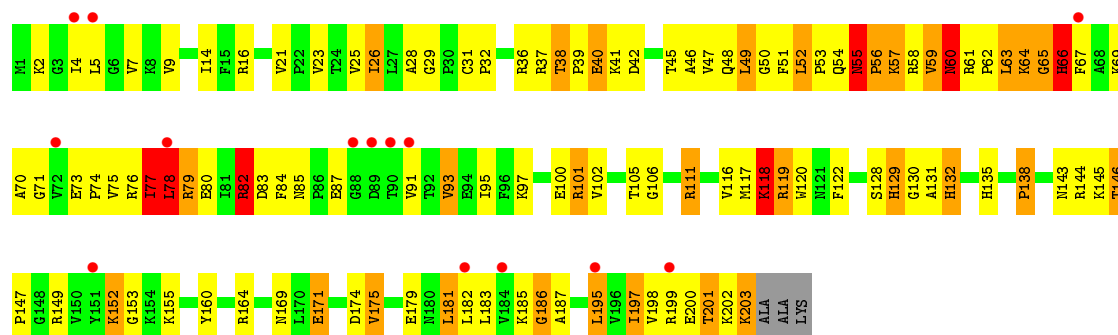




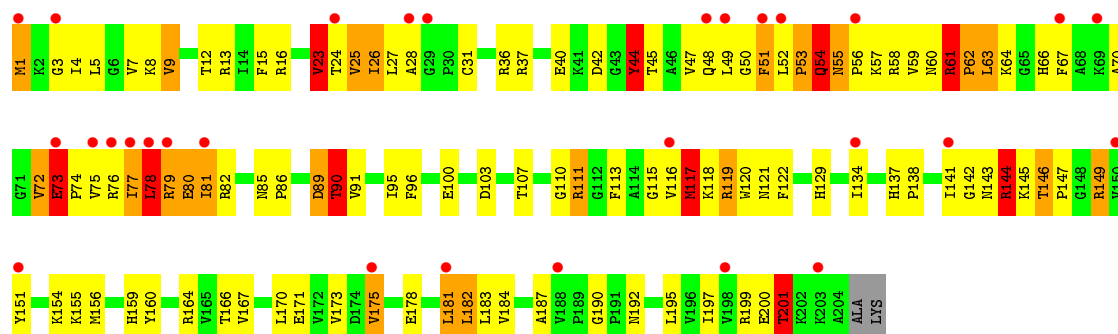




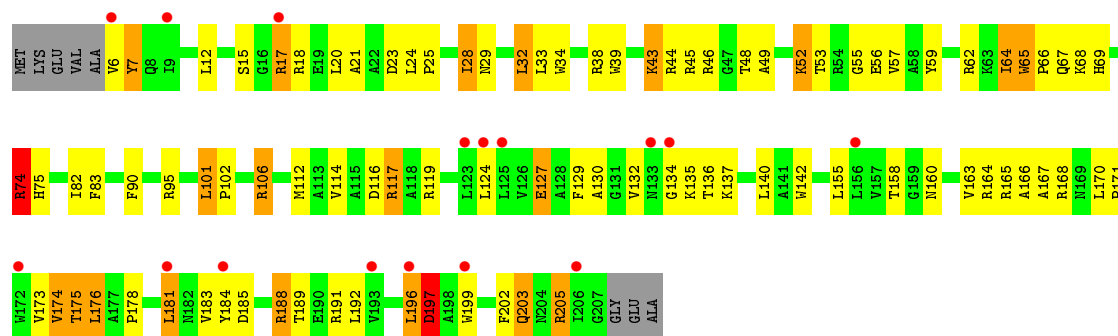
• Molecule 30: 50S ribosomal protein L3



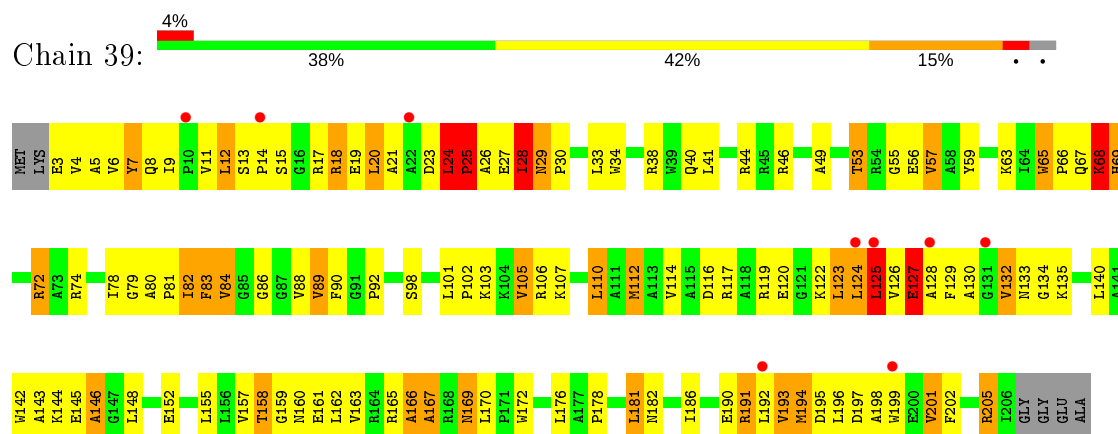
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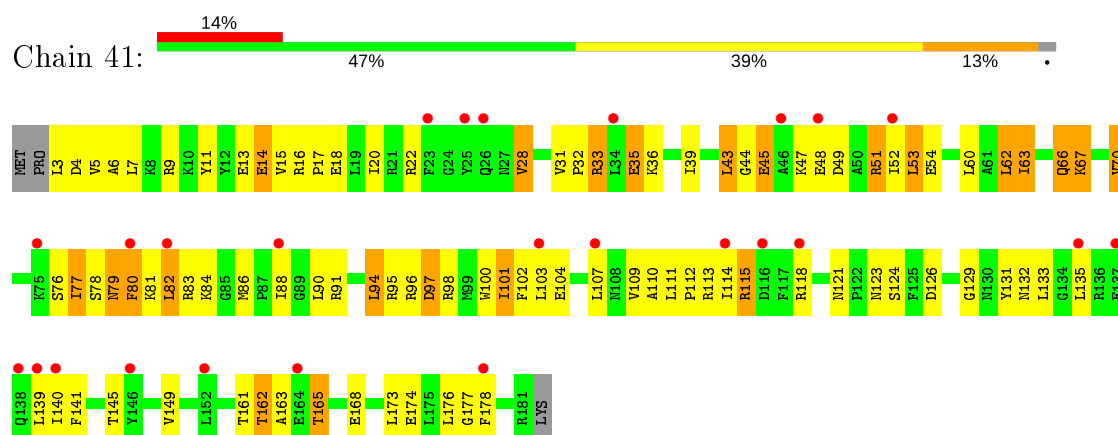
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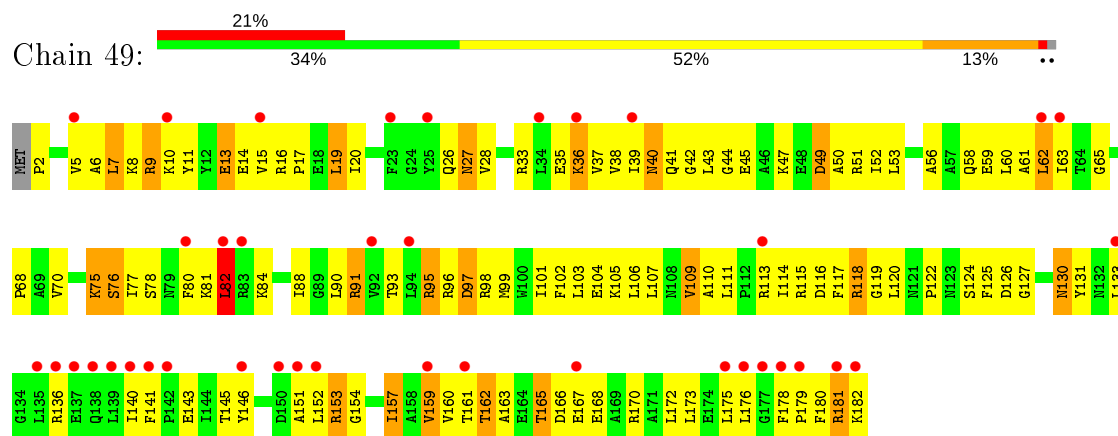
- Molecule 31: 50S ribosomal protein L4



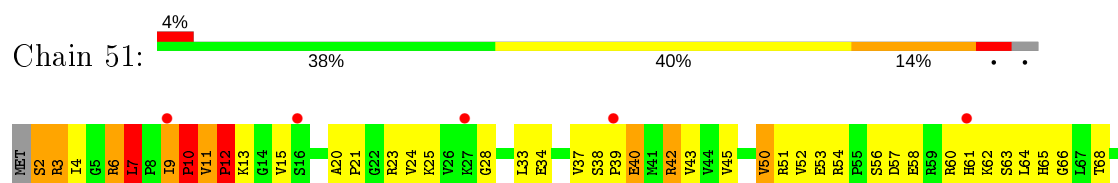
- Molecule 32: 50S ribosomal protein L5

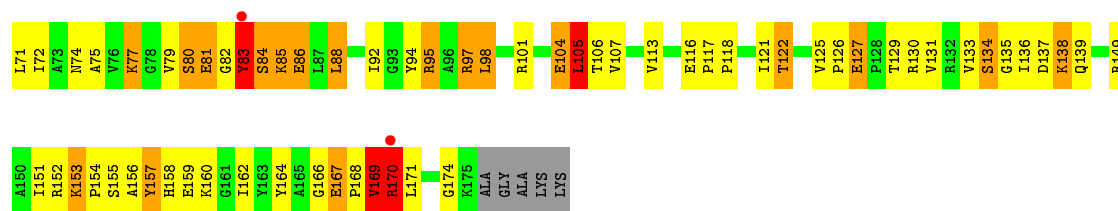


- Molecule 32: 50S ribosomal protein L5

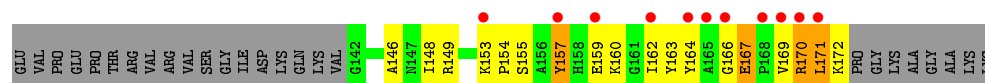
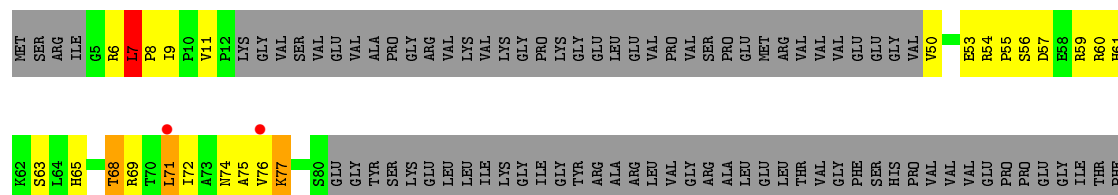


- Molecule 33: 50S ribosomal protein L6

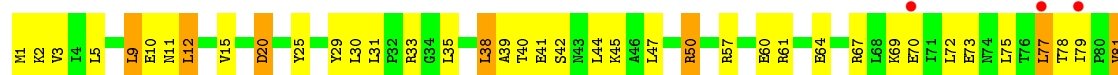




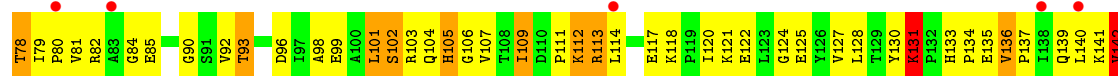
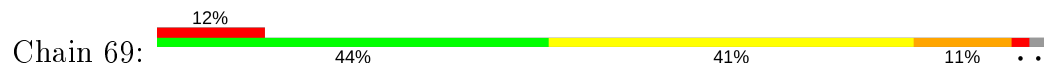
• Molecule 33: 50S ribosomal protein L6



• Molecule 34: 50S ribosomal protein L9

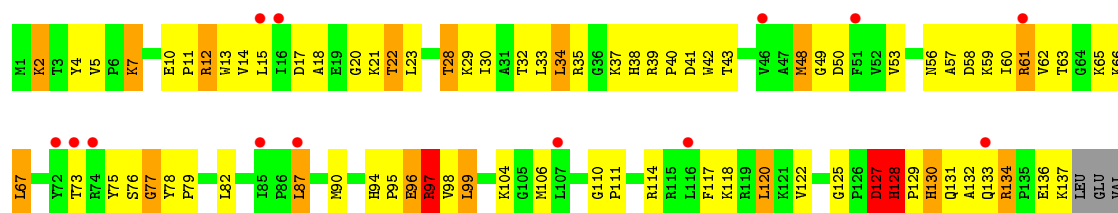


• Molecule 34: 50S ribosomal protein L9

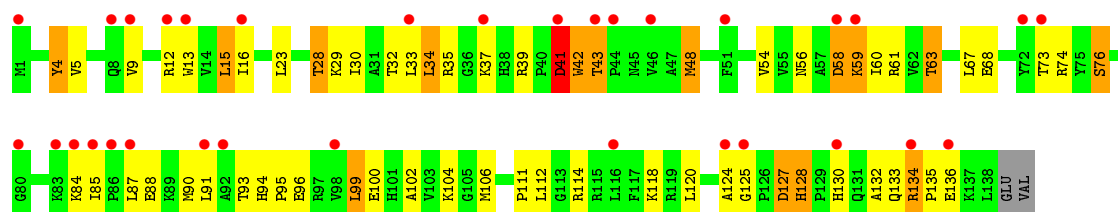


• Molecule 35: 50S ribosomal protein L13

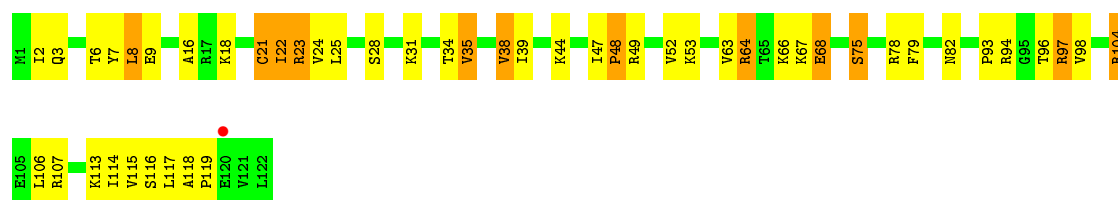




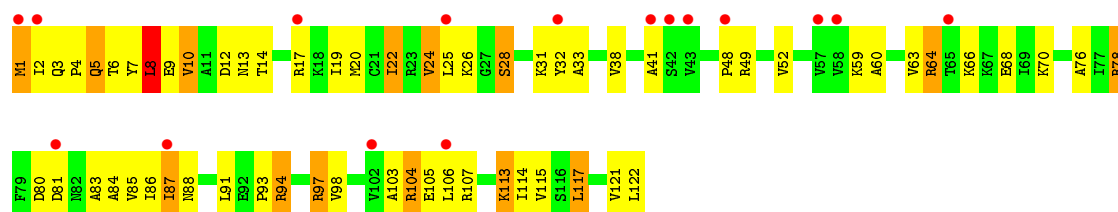
• Molecule 35: 50S ribosomal protein L13



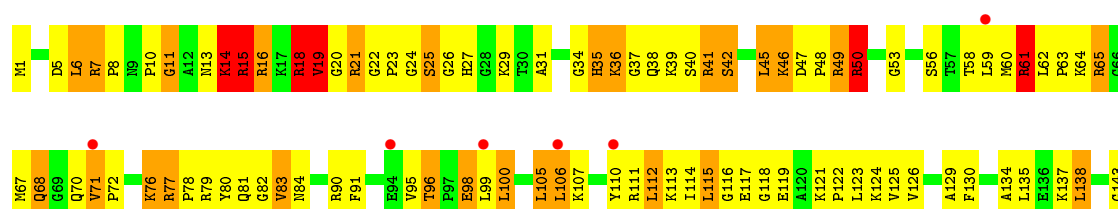
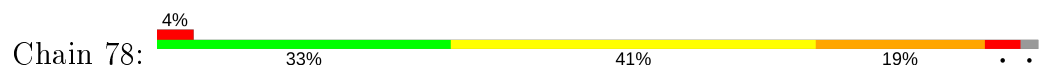
• Molecule 36: 50S ribosomal protein L14



• Molecule 36: 50S ribosomal protein L14

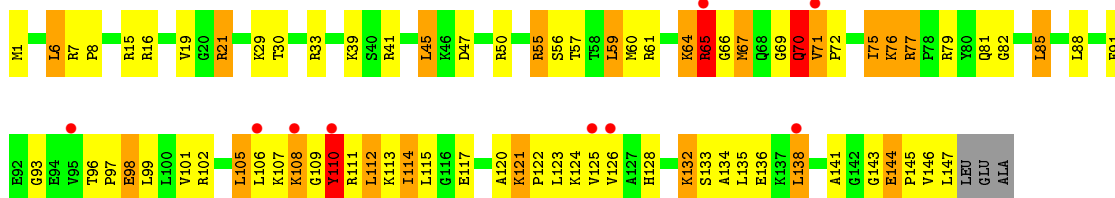


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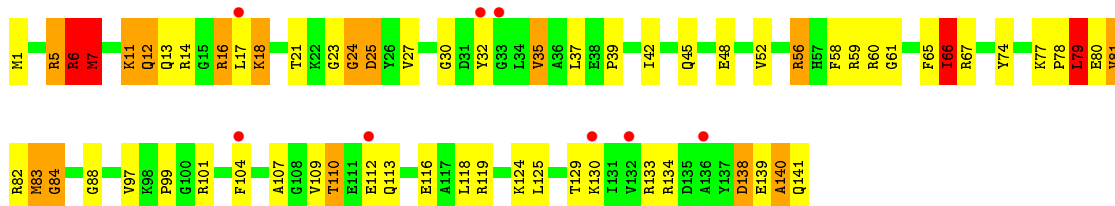




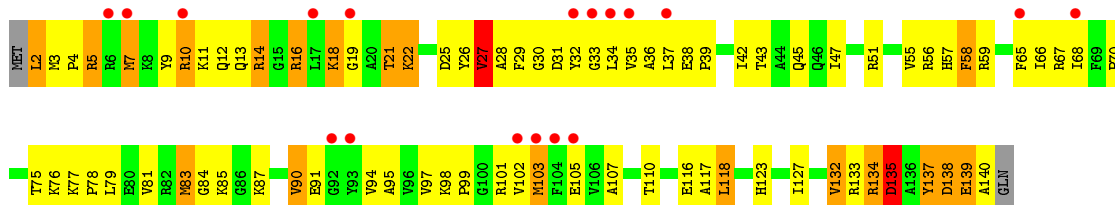
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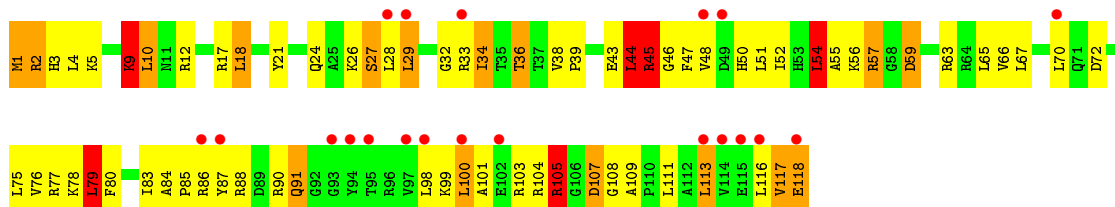
- Molecule 38: 50S ribosomal protein L16



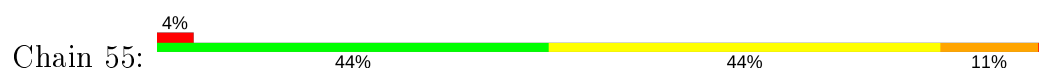
- Molecule 38: 50S ribosomal protein L16

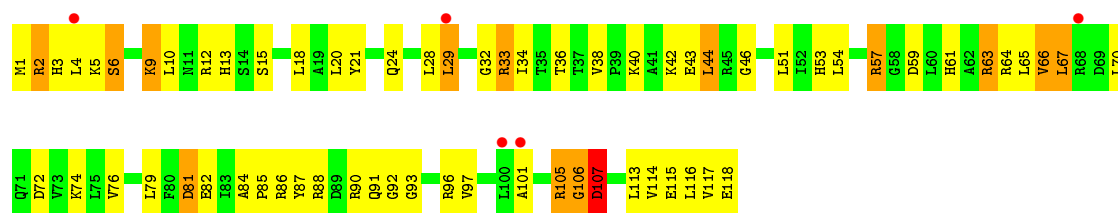


- Molecule 39: 50S ribosomal protein L17

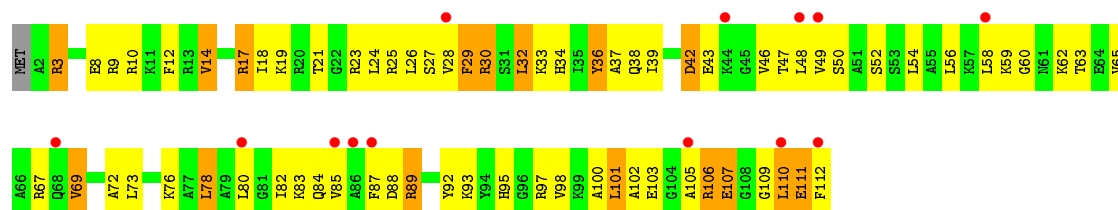


- Molecule 39: 50S ribosomal protein L17

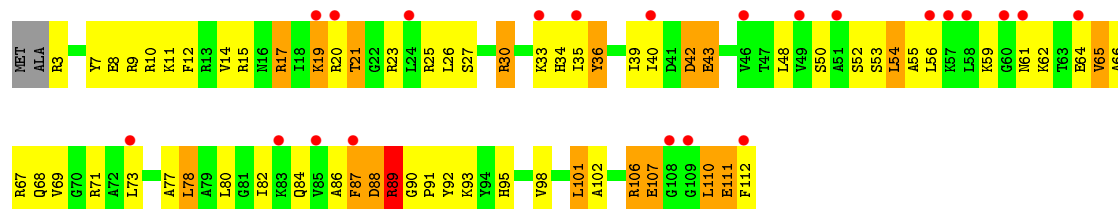
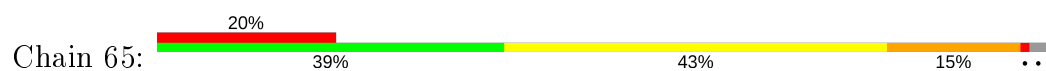




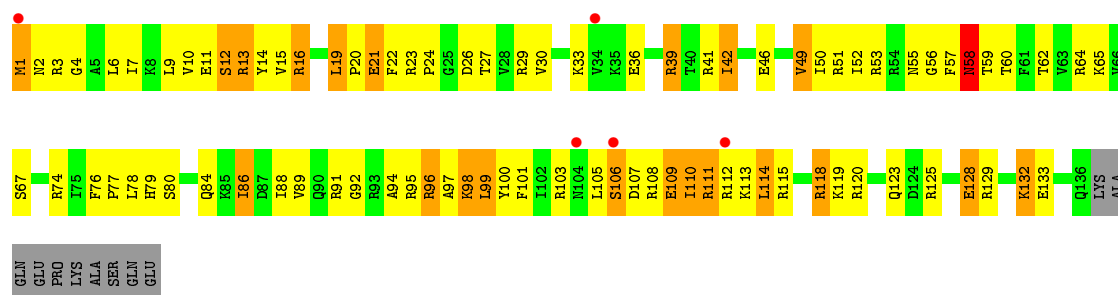
• Molecule 40: 50S ribosomal protein L18



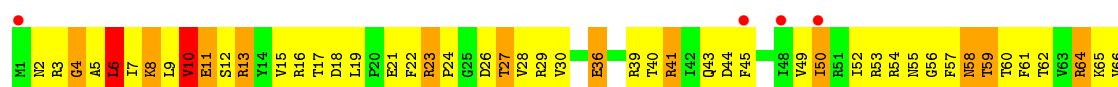
• Molecule 40: 50S ribosomal protein L18

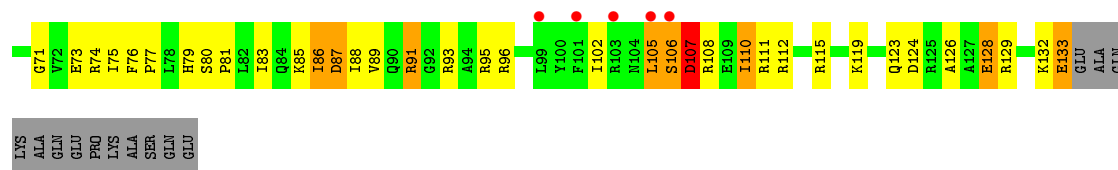


• Molecule 41: 50S ribosomal protein L19



• Molecule 41: 50S ribosomal protein L19





- Molecule 42: 50S ribosomal protein L20



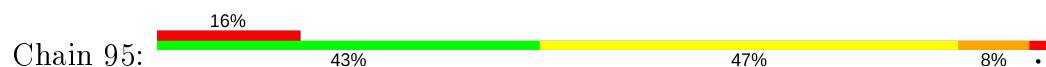
- Molecule 42: 50S ribosomal protein L20



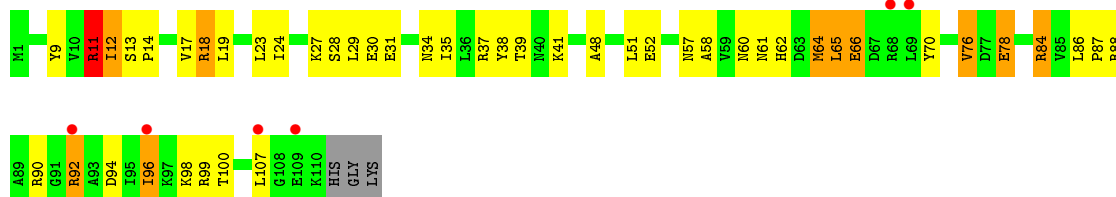
- Molecule 43: 50S ribosomal protein L21



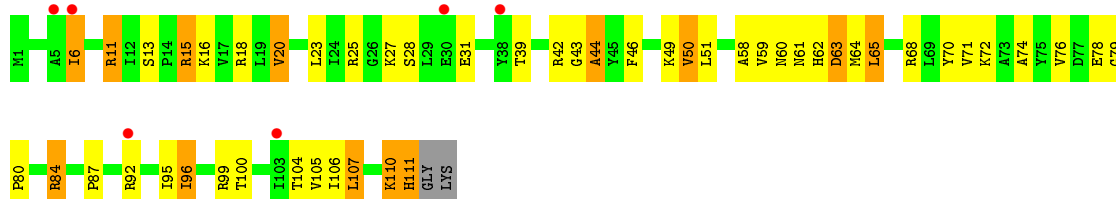
- Molecule 43: 50S ribosomal protein L21



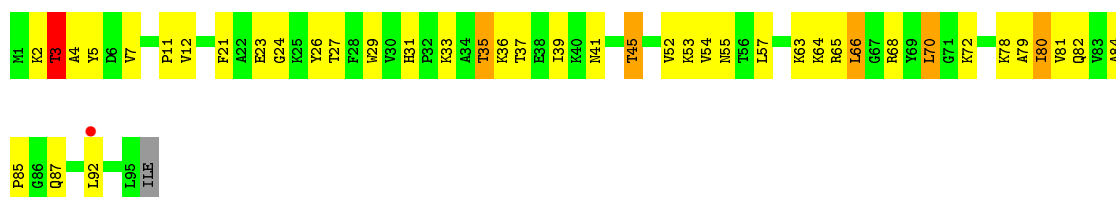
- Molecule 44: 50S ribosomal protein L22



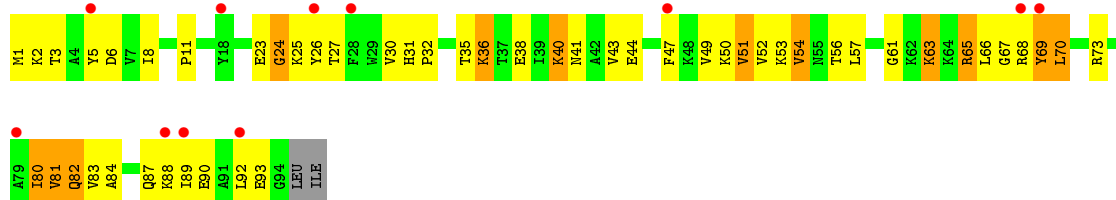
- Molecule 44: 50S ribosomal protein L22



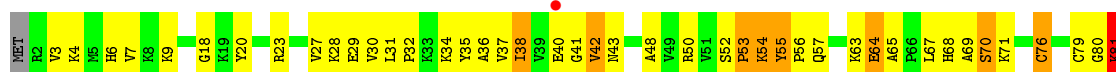
- Molecule 45: 50S ribosomal protein L23



- Molecule 45: 50S ribosomal protein L23

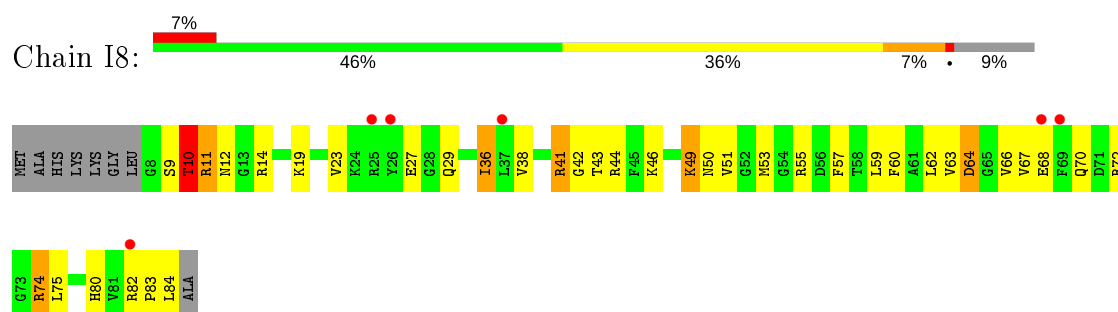


- Molecule 46: 50S ribosomal protein L24

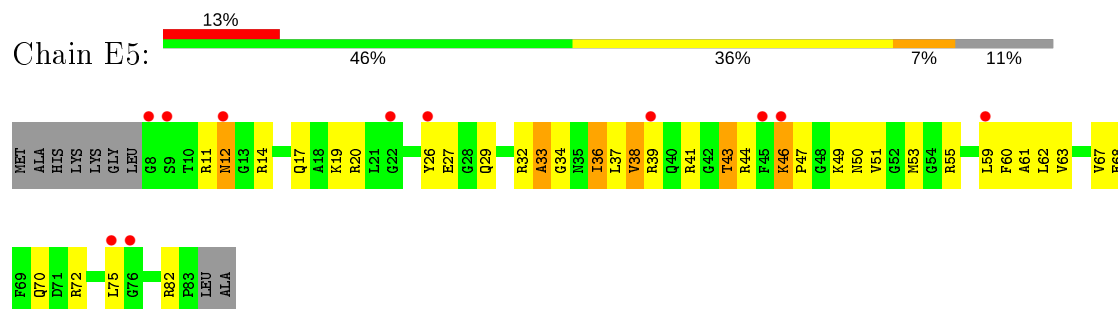




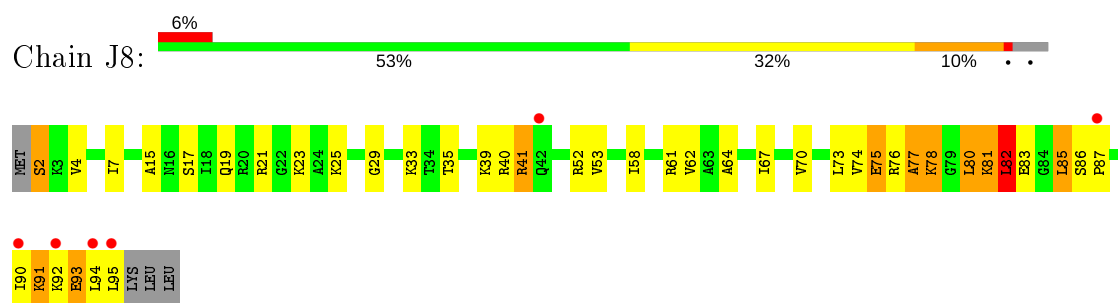




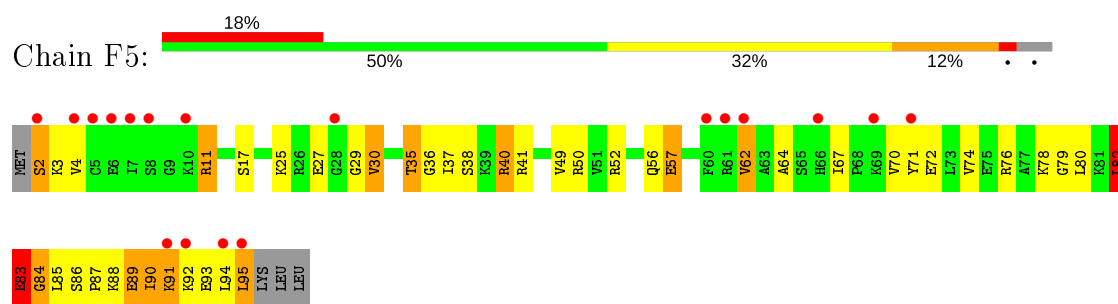
- Molecule 48: 50S ribosomal protein L27



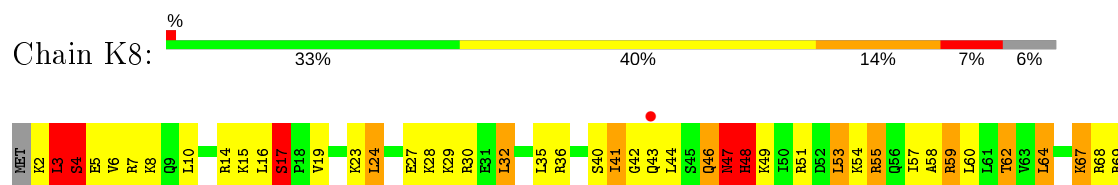
- Molecule 49: 50S ribosomal protein L28



- Molecule 49: 50S ribosomal protein L28



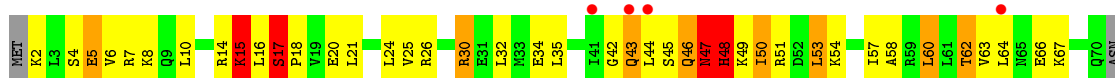
- Molecule 50: 50S ribosomal protein L29



GLN  
ASN  
ALA

- Molecule 50: 50S ribosomal protein L29

Chain G5: 




ALA

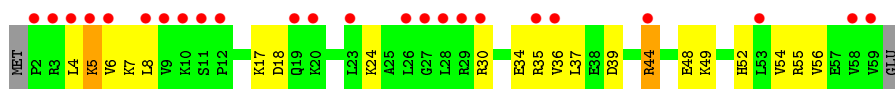
- Molecule 51: 50S ribosomal protein L30

Chain L8: 




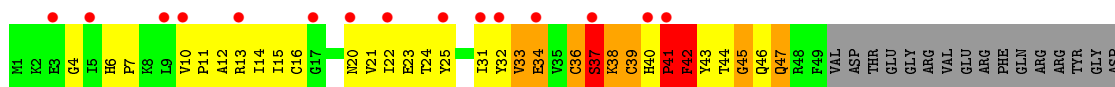
- Molecule 51: 50S ribosomal protein L30

Chain H5: 



- Molecule 52: 50S ribosomal protein L31

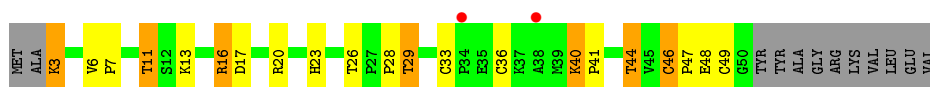
Chain M8: 



SER  
TYR  
ARG  
LYS  
GLY  
ARG

- Molecule 53: 50S ribosomal protein L32

Chain N8: 



- Molecule 53: 50S ribosomal protein L32

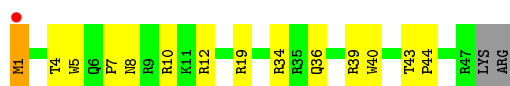
Chain J5: 



- Molecule 54: 50S ribosomal protein L34



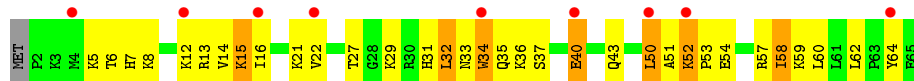
- Molecule 54: 50S ribosomal protein L34



- Molecule 55: 50S ribosomal protein L35



- Molecule 55: 50S ribosomal protein L35



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	209.20 Å 448.50 Å 619.90 Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	147.01 – 2.95 147.01 – 2.95	Depositor EDS
% Data completeness (in resolution range)	100.0 (147.01-2.95) 91.6 (147.01-2.95)	Depositor EDS
$R_{merge}$	0.32	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	0.91 (at 2.96 Å)	Xtriage
Refinement program	PHENIX	Depositor
R, $R_{free}$	0.196 , 0.242 0.196 , 0.242	Depositor DCC
$R_{free}$ test set	2000 reflections (0.17%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	77.9	Xtriage
Anisotropy	0.354	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.28 , 72.1	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.48$ , $\langle L^2 \rangle = 0.30$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
$F_o, F_c$ correlation	0.95	EDS
Total number of atoms	297904	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	98.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.48% 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: 5MU, OMC, ZN, U8U, G7M, SF4, MG, 4SU, T6A, PSU

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	0.92	23/35994 (0.1%)	1.67	897/56171 (1.6%)
1	1G	0.79	7/36236 (0.0%)	1.48	499/56555 (0.9%)
2	12	0.44	0/1727	0.73	1/2326 (0.0%)
2	1E	0.47	0/1908	0.76	4/2573 (0.2%)
3	22	0.43	0/1560	0.67	0/2104
3	2E	0.58	0/1629	0.73	1/2195 (0.0%)
4	32	0.58	1/1732 (0.1%)	0.81	3/2318 (0.1%)
4	3E	0.61	0/1728	0.84	3/2313 (0.1%)
5	42	0.53	0/1155	0.72	0/1555
5	4E	0.64	0/1158	0.77	0/1559
6	52	0.65	0/855	0.72	0/1154
6	5E	0.66	0/850	0.76	0/1147
7	62	0.51	0/1132	0.70	0/1514
7	6E	0.52	0/1259	0.65	0/1686
8	72	0.48	0/1127	0.66	0/1517
8	7E	0.59	0/1135	0.81	1/1527 (0.1%)
9	82	0.43	0/971	0.70	0/1304
9	8E	0.51	0/1019	0.72	0/1367
10	1A	0.46	0/658	0.70	0/885
10	1I	0.60	0/767	0.82	0/1034
11	2A	0.55	0/850	0.67	0/1150
11	2I	0.62	0/838	0.79	0/1133
12	3A	0.68	0/972	0.89	2/1301 (0.2%)
12	3I	0.87	0/972	1.04	3/1301 (0.2%)
13	4A	0.48	0/903	0.73	0/1211
13	4I	0.67	0/952	0.87	2/1277 (0.2%)
14	5A	0.54	0/495	0.80	1/657 (0.2%)
14	5I	0.70	0/500	0.89	0/664
15	6A	0.60	0/740	0.70	0/987
15	6I	0.64	0/740	0.78	0/987
16	7A	0.64	0/721	0.86	1/970 (0.1%)
16	7I	0.59	0/716	0.83	0/963

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
17	8A	0.57	0/836	0.70	0/1117
17	8I	0.69	0/847	0.82	1/1131 (0.1%)
18	9A	0.63	0/549	0.82	1/732 (0.1%)
18	9I	0.62	0/554	0.84	0/739
19	AA	0.44	0/490	0.69	0/662
19	AI	0.73	1/676 (0.1%)	1.03	5/910 (0.5%)
20	BA	0.51	0/764	0.78	1/1007 (0.1%)
20	BI	0.45	0/748	0.74	2/986 (0.2%)
21	1B	0.50	0/192	0.74	0/252
21	1F	0.57	0/203	0.82	0/266
22	1K	0.80	1/1589 (0.1%)	1.36	23/2464 (0.9%)
22	1L	0.62	3/1516 (0.2%)	1.18	9/2350 (0.4%)
23	2K	1.02	2/1721 (0.1%)	1.76	50/2682 (1.9%)
23	2L	0.83	2/1721 (0.1%)	1.56	30/2682 (1.1%)
24	3K	0.70	2/1654 (0.1%)	1.41	25/2570 (1.0%)
24	3L	0.66	0/1705	1.30	14/2650 (0.5%)
25	4K	1.03	1/523 (0.2%)	1.55	10/813 (1.2%)
25	4L	0.78	0/473	1.44	9/737 (1.2%)
26	14	1.13	193/68883 (0.3%)	1.96	3155/107521 (2.9%)
26	1H	1.33	416/69669 (0.6%)	2.20	4553/108757 (4.2%)
27	16	1.07	7/2928 (0.2%)	2.00	135/4568 (3.0%)
27	1J	0.92	2/2928 (0.1%)	1.73	88/4568 (1.9%)
28	71	0.39	0/1055	0.68	1/1425 (0.1%)
28	79	0.36	0/459	0.66	1/608 (0.2%)
29	11	1.07	6/2170 (0.3%)	1.22	16/2926 (0.5%)
29	19	0.92	1/2175 (0.0%)	1.09	11/2933 (0.4%)
30	21	0.87	1/1591 (0.1%)	1.12	7/2146 (0.3%)
30	29	0.81	1/1596 (0.1%)	1.06	8/2153 (0.4%)
31	31	0.91	3/1620 (0.2%)	1.11	12/2194 (0.5%)
31	39	0.78	1/1637 (0.1%)	1.02	3/2218 (0.1%)
32	41	0.69	0/1481	0.89	2/1994 (0.1%)
32	49	0.53	0/1492	0.77	2/2008 (0.1%)
33	51	0.74	0/1354	1.06	7/1833 (0.4%)
33	59	0.47	0/552	0.87	2/743 (0.3%)
34	61	0.59	0/1151	0.86	3/1558 (0.2%)
34	69	0.56	0/1146	0.86	5/1551 (0.3%)
35	15	0.57	0/1131	0.75	0/1525
35	58	0.71	0/1123	0.93	0/1514
36	25	0.73	0/942	0.86	1/1269 (0.1%)
36	68	0.83	0/942	0.92	2/1269 (0.2%)
37	35	0.73	0/1139	1.07	1/1514 (0.1%)
37	78	0.91	0/1139	1.35	16/1514 (1.1%)
38	45	0.77	0/1125	1.00	0/1505

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
38	88	0.98	0/1138	1.14	3/1523 (0.2%)
39	55	0.73	0/981	0.96	0/1312
39	98	0.72	0/981	1.01	8/1312 (0.6%)
40	65	0.65	0/886	1.01	4/1180 (0.3%)
40	A8	0.79	0/891	1.03	0/1187
41	75	0.70	0/1123	0.93	4/1500 (0.3%)
41	B8	0.81	0/1138	1.01	2/1521 (0.1%)
42	85	0.76	0/977	0.91	2/1301 (0.2%)
42	C8	0.85	1/968 (0.1%)	0.99	4/1289 (0.3%)
43	95	0.70	0/781	0.95	2/1048 (0.2%)
43	D8	0.76	0/785	1.00	5/1052 (0.5%)
44	A5	0.82	0/897	0.94	0/1204
44	E8	0.82	0/886	1.06	5/1189 (0.4%)
45	B5	0.81	0/749	0.88	0/1007
45	F8	0.90	0/757	1.07	4/1017 (0.4%)
46	C5	0.75	0/807	0.97	2/1076 (0.2%)
46	G8	0.91	0/796	1.15	5/1062 (0.5%)
47	D5	0.55	0/1103	0.79	2/1494 (0.1%)
47	H8	0.61	0/1395	0.87	2/1890 (0.1%)
48	E5	0.77	0/611	0.95	0/814
48	I8	0.95	1/619 (0.2%)	1.23	3/825 (0.4%)
49	F5	0.83	0/744	1.13	6/989 (0.6%)
49	J8	0.92	1/744 (0.1%)	1.09	4/989 (0.4%)
50	G5	0.69	0/578	0.88	1/766 (0.1%)
50	K8	0.95	0/577	1.26	6/763 (0.8%)
51	H5	0.66	0/464	0.86	0/623
51	L8	0.83	1/464 (0.2%)	0.93	0/623
52	M8	0.65	0/385	1.05	2/521 (0.4%)
53	J5	0.82	0/448	1.06	3/606 (0.5%)
53	N8	0.85	0/381	1.03	0/516
54	L5	0.85	0/409	1.08	3/540 (0.6%)
54	P8	1.04	0/409	1.21	1/540 (0.2%)
55	M5	0.93	2/524 (0.4%)	1.05	1/691 (0.1%)
55	Q8	0.99	0/524	1.25	3/691 (0.4%)
All	All	1.01	680/318108 (0.2%)	1.71	9716/476630 (2.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
2	12	0	5

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	1E	0	1
4	32	0	1
9	82	0	1
9	8E	0	1
10	1I	0	1
11	2A	0	1
11	2I	0	1
12	3I	0	3
13	4A	0	2
13	4I	0	3
14	5A	0	1
20	BA	0	3
28	71	0	3
29	11	0	6
29	19	0	5
30	21	0	9
30	29	0	5
31	39	0	10
32	41	0	1
32	49	0	3
33	51	0	5
33	59	0	3
34	61	0	3
34	69	0	5
35	15	0	2
35	58	0	2
37	35	0	3
37	78	0	5
38	45	0	3
38	88	0	2
39	55	0	1
39	98	0	1
40	65	0	1
41	75	0	1
41	B8	0	3
42	85	0	3
42	C8	0	2
43	95	0	1
43	D8	0	4
44	A5	0	1
45	B5	0	2
45	F8	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
46	C5	0	2
46	G8	0	6
47	D5	0	5
47	H8	0	3
49	F5	0	2
49	J8	0	3
50	G5	0	3
50	K8	0	4
52	M8	0	4
54	P8	0	1
55	M5	0	2
55	Q8	0	2
All	All	0	158

All (680) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2430	A	N9-C4	-17.68	1.27	1.37
26	1H	1698	A	N9-C4	-15.72	1.28	1.37
26	1H	783	A	N3-C4	-14.91	1.25	1.34
26	1H	774	A	N9-C4	-14.16	1.29	1.37
26	14	1786	A	N9-C4	-13.34	1.29	1.37
26	1H	2287	A	N9-C4	-13.01	1.30	1.37
26	1H	71	A	N9-C4	-12.65	1.30	1.37
26	1H	676	A	N9-C4	-12.59	1.30	1.37
26	1H	1698	A	N3-C4	-12.31	1.27	1.34
26	1H	1899	G	N9-C4	-12.30	1.28	1.38
26	1H	1786	A	N9-C4	-11.99	1.30	1.37
26	1H	676	A	N9-C8	11.93	1.47	1.37
26	14	2430	A	N9-C4	-11.80	1.30	1.37
26	1H	1678	G	N9-C8	11.74	1.46	1.37
26	14	783	A	N3-C4	-11.72	1.27	1.34
1	13	792	A	N9-C4	-11.54	1.30	1.37
26	14	783	A	N9-C4	-11.46	1.30	1.37
26	14	2062	A	N7-C5	11.14	1.46	1.39
26	1H	528	A	N9-C4	-11.11	1.31	1.37
19	AI	41	VAL	CB-CG1	-11.10	1.29	1.52
26	1H	2062	A	N9-C4	11.06	1.44	1.37
26	1H	138	G	N9-C8	10.91	1.45	1.37
26	1H	783	A	N9-C4	-10.72	1.31	1.37
26	1H	774	A	N9-C8	10.71	1.46	1.37
26	1H	2062	A	N3-C4	10.67	1.41	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	783	A	C5-C6	-10.59	1.31	1.41
26	14	528	A	N9-C4	-10.52	1.31	1.37
26	1H	805	G	N9-C8	-10.33	1.30	1.37
26	1H	1332	G	N9-C4	-10.12	1.29	1.38
26	1H	945	A	N7-C5	-10.05	1.33	1.39
26	1H	945	A	N9-C4	-9.95	1.31	1.37
26	1H	2713	A	N9-C4	-9.80	1.31	1.37
26	1H	2072	G	C8-N7	-9.79	1.25	1.30
26	1H	71	A	N9-C8	9.70	1.45	1.37
26	1H	71	A	C6-N6	-9.57	1.26	1.33
26	1H	1142(A)	A	N9-C4	-9.55	1.32	1.37
26	14	774	A	N9-C4	-9.54	1.32	1.37
26	1H	2346	A	N7-C5	-9.45	1.33	1.39
26	14	783	A	C5-C6	-9.40	1.32	1.41
26	1H	1021	A	N9-C4	-9.28	1.32	1.37
26	1H	1899	G	N9-C8	9.27	1.44	1.37
26	1H	1950	G	N9-C8	9.25	1.44	1.37
26	14	783	A	N7-C5	-9.23	1.33	1.39
26	1H	1332	G	N9-C8	9.14	1.44	1.37
26	14	1786	A	N3-C4	-9.01	1.29	1.34
26	1H	2451	A	C6-N1	-9.01	1.29	1.35
26	1H	2713	A	C5-C4	8.99	1.45	1.38
26	1H	621	A	N9-C4	-8.98	1.32	1.37
26	1H	1776	G	C8-N7	-8.98	1.25	1.30
26	1H	776	G	N7-C5	-8.93	1.33	1.39
26	1H	2346	A	N3-C4	-8.92	1.29	1.34
26	1H	1678	G	N9-C4	-8.88	1.30	1.38
26	1H	945	A	C5-C6	-8.87	1.33	1.41
26	1H	2311	A	N9-C4	-8.86	1.32	1.37
26	1H	2287	A	C5-C6	-8.85	1.33	1.41
26	14	1903	G	N9-C8	-8.72	1.31	1.37
26	1H	1966	A	N9-C4	-8.69	1.32	1.37
26	1H	71	A	C5-C6	-8.65	1.33	1.41
26	1H	74	A	N9-C4	-8.65	1.32	1.37
26	1H	1786	A	N3-C4	-8.63	1.29	1.34
26	1H	2497	A	N3-C4	-8.62	1.29	1.34
26	14	1616	A	N9-C4	-8.62	1.32	1.37
26	14	945	A	C5-C6	-8.56	1.33	1.41
26	1H	71	A	C5-C4	8.53	1.44	1.38
1	13	792	A	C5-C6	-8.50	1.33	1.41
26	1H	676	A	C5-C4	8.40	1.44	1.38
31	39	65	TRP	CB-CG	-8.39	1.35	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2056	G	N9-C8	-8.34	1.32	1.37
26	1H	1255	U	C4-O4	8.32	1.30	1.23
26	14	774	A	N9-C8	8.26	1.44	1.37
26	14	1308	A	N7-C5	-8.21	1.34	1.39
29	11	30	GLU	CG-CD	8.11	1.64	1.51
26	1H	2490	G	C2-N3	8.04	1.39	1.32
26	1H	1616	A	N9-C4	-8.03	1.33	1.37
26	1H	1950	G	N9-C4	-8.03	1.31	1.38
26	1H	945	A	N3-C4	-8.02	1.30	1.34
26	14	733	G	N9-C8	-8.00	1.32	1.37
26	14	1678	G	N9-C4	-7.96	1.31	1.38
26	1H	138	G	C8-N7	7.95	1.35	1.30
26	1H	829	A	N9-C4	-7.94	1.33	1.37
26	1H	2392	A	N9-C4	-7.92	1.33	1.37
26	1H	2062	A	C5-C6	7.92	1.48	1.41
26	1H	2498	C	N1-C6	7.92	1.41	1.37
26	1H	2713	A	N9-C8	7.89	1.44	1.37
26	14	945	A	N3-C4	-7.89	1.30	1.34
26	1H	1786	A	N7-C5	-7.89	1.34	1.39
26	1H	1204	A	N3-C4	-7.86	1.30	1.34
26	1H	1786	A	C5-C6	-7.86	1.33	1.41
26	1H	2751	G	C8-N7	-7.86	1.26	1.30
26	1H	1786	A	C5-C4	7.84	1.44	1.38
26	1H	2392	A	N9-C8	7.82	1.44	1.37
26	14	2518	A	C5-C6	-7.82	1.34	1.41
1	13	539	A	N3-C4	-7.80	1.30	1.34
26	14	1786	A	C5-C6	-7.80	1.34	1.41
26	14	2287	A	N9-C4	-7.77	1.33	1.37
26	1H	1566	A	C8-N7	7.76	1.36	1.31
26	1H	679	C	N1-C6	-7.75	1.32	1.37
26	1H	197	A	N3-C4	-7.66	1.30	1.34
1	13	1227	A	N9-C4	-7.65	1.33	1.37
26	1H	530	G	N9-C8	7.64	1.43	1.37
26	14	828	U	N3-C4	-7.63	1.31	1.38
26	14	2346	A	N3-C4	-7.62	1.30	1.34
26	1H	1966	A	N3-C4	-7.62	1.30	1.34
26	1H	838	C	N1-C6	-7.60	1.32	1.37
26	1H	140	A	N9-C4	-7.59	1.33	1.37
26	14	1698	A	N7-C5	-7.55	1.34	1.39
26	14	945	A	N9-C4	-7.53	1.33	1.37
26	1H	1899	G	C2-N3	-7.52	1.26	1.32
26	1H	2442	C	N1-C6	-7.50	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2062	A	C6-N1	7.44	1.40	1.35
27	16	115	G	C2-N3	7.43	1.38	1.32
26	1H	1332	G	C5-C4	7.43	1.43	1.38
1	13	780	A	N9-C4	-7.42	1.33	1.37
26	1H	1385	G	N9-C4	-7.39	1.32	1.38
26	14	2600	A	N7-C5	-7.38	1.34	1.39
26	14	676	A	N9-C4	-7.38	1.33	1.37
26	1H	245	G	N7-C5	-7.35	1.34	1.39
26	14	2072	G	C8-N7	-7.34	1.26	1.30
26	14	776	G	N7-C5	-7.34	1.34	1.39
26	1H	2252	G	C5-C4	-7.33	1.33	1.38
26	1H	1616	A	C5-C6	-7.32	1.34	1.41
26	14	1698	A	C5-C6	-7.29	1.34	1.41
26	1H	663	G	N7-C5	-7.28	1.34	1.39
26	1H	1241	A	N9-C4	-7.25	1.33	1.37
26	14	1633	G	N7-C5	-7.25	1.34	1.39
27	1J	89(A)	A	N9-C4	7.23	1.42	1.37
26	1H	2445	G	C6-N1	-7.23	1.34	1.39
26	14	1785	A	N7-C5	-7.20	1.34	1.39
26	1H	1899	G	N3-C4	-7.17	1.30	1.35
26	14	1950	G	N9-C4	-7.15	1.32	1.38
26	1H	1382	G	C5-C6	-7.13	1.35	1.42
26	1H	2062	A	N7-C5	7.11	1.43	1.39
26	1H	821	A	N7-C5	-7.10	1.34	1.39
26	1H	774	A	C6-N1	7.04	1.40	1.35
26	14	1612	C	N1-C6	-7.03	1.32	1.37
26	1H	2068	U	C2-N3	-7.02	1.32	1.37
26	1H	783	A	C6-N1	-7.02	1.30	1.35
26	14	528	A	C5-C6	-7.01	1.34	1.41
26	1H	945	A	C5-C4	7.01	1.43	1.38
26	14	509	C	N1-C6	-6.99	1.32	1.37
26	1H	676	A	N3-C4	-6.99	1.30	1.34
26	1H	2598	A	C8-N7	-6.99	1.26	1.31
26	1H	866	A	N3-C4	6.98	1.39	1.34
30	21	131	ALA	CA-CB	6.98	1.67	1.52
26	1H	2378	A	N9-C4	-6.97	1.33	1.37
26	1H	945	A	C2-N3	6.93	1.39	1.33
23	2L	77	A	N9-C4	-6.93	1.33	1.37
26	1H	472	A	N3-C4	-6.91	1.30	1.34
26	14	1899	G	C2-N3	6.91	1.38	1.32
26	1H	576	U	N3-C4	-6.89	1.32	1.38
26	14	461	C	N3-C4	-6.89	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	621	A	C5-C4	6.88	1.43	1.38
26	14	1616	A	C5-C6	-6.88	1.34	1.41
26	1H	179	G	C6-O6	6.87	1.30	1.24
26	14	781	A	C6-N6	-6.86	1.28	1.33
26	1H	71	A	N1-C2	6.85	1.40	1.34
26	1H	1614	A	N9-C4	-6.85	1.33	1.37
26	1H	774	A	C5-C6	-6.85	1.34	1.41
26	1H	1613	G	C6-N1	-6.84	1.34	1.39
1	13	50	A	N9-C4	6.84	1.42	1.37
26	1H	1616	A	N9-C8	6.82	1.43	1.37
26	14	2873	A	N3-C4	-6.81	1.30	1.34
26	1H	1678	G	C8-N7	6.80	1.35	1.30
26	1H	2490	G	N9-C8	6.79	1.42	1.37
31	31	65	TRP	CB-CG	-6.79	1.38	1.50
26	1H	825	C	N1-C6	-6.78	1.33	1.37
26	1H	188	G	C2-N3	6.74	1.38	1.32
26	1H	2510	C	N3-C4	-6.74	1.29	1.33
26	1H	678	C	C4'-C3'	-6.72	1.45	1.53
26	14	1678	G	N9-C8	6.72	1.42	1.37
26	1H	1950	G	C5-C4	6.71	1.43	1.38
26	1H	2450	A	C8-N7	-6.69	1.26	1.31
24	3K	76	A	C5-C4	6.69	1.43	1.38
26	1H	869	G	C6-N1	-6.69	1.34	1.39
26	14	1950	G	N9-C8	6.67	1.42	1.37
26	1H	1363	C	N3-C4	-6.67	1.29	1.33
26	1H	330	A	N9-C4	-6.66	1.33	1.37
29	11	28	GLU	CG-CD	6.65	1.61	1.51
26	14	2598	A	C8-N7	-6.65	1.26	1.31
26	1H	1950	G	C8-N7	6.65	1.34	1.30
26	1H	2377	A	N9-C4	-6.65	1.33	1.37
26	14	1676	A	N3-C4	-6.64	1.30	1.34
26	1H	2700	C	N3-C4	6.64	1.38	1.33
26	1H	2392	A	C5-C6	-6.64	1.35	1.41
26	1H	804	A	N3-C4	-6.63	1.30	1.34
1	13	792	A	N3-C4	-6.63	1.30	1.34
26	1H	845	G	N9-C8	6.62	1.42	1.37
26	1H	1812	A	C6-N1	-6.61	1.30	1.35
26	1H	2082	A	N3-C4	-6.61	1.30	1.34
26	1H	739	G	C5-C4	-6.60	1.33	1.38
1	13	1502	A	C5-C6	-6.60	1.35	1.41
26	1H	2446	G	C6-O6	-6.60	1.18	1.24
26	1H	2392	A	N3-C4	-6.60	1.30	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2248	C	N3-C4	-6.59	1.29	1.33
26	14	2713	A	C5-C4	6.59	1.43	1.38
26	1H	2609	U	N1-C6	-6.57	1.32	1.38
26	14	1698	A	N9-C4	-6.57	1.33	1.37
26	1H	2590	A	C6-N1	-6.56	1.30	1.35
26	14	2252	G	N9-C8	-6.56	1.33	1.37
26	14	2329	G	C2-N3	6.55	1.38	1.32
26	14	1332	G	C5-C4	6.55	1.43	1.38
26	1H	1785	A	N7-C5	-6.54	1.35	1.39
26	1H	945	A	N1-C2	6.53	1.40	1.34
26	1H	2246	G	N9-C8	-6.51	1.33	1.37
26	1H	141	A	N9-C4	-6.50	1.33	1.37
26	1H	661	C	N1-C6	-6.50	1.33	1.37
26	1H	1660	C	C2-O2	-6.49	1.18	1.24
26	14	2082	A	N3-C4	-6.49	1.30	1.34
26	14	2503	A	N3-C4	6.49	1.38	1.34
26	14	2060	A	C6-N1	-6.48	1.31	1.35
26	14	1616	A	N9-C8	6.47	1.43	1.37
26	1H	1307	A	N3-C4	6.47	1.38	1.34
26	14	71	A	N9-C4	-6.46	1.33	1.37
26	14	74	A	N9-C4	-6.46	1.33	1.37
26	1H	1626	G	C2-N3	-6.46	1.27	1.32
26	1H	2587	A	C6-N1	-6.46	1.31	1.35
26	1H	2276	G	C2-N3	-6.45	1.27	1.32
26	14	90	U	N1-C2	6.45	1.44	1.38
26	14	1142(A)	A	N9-C4	-6.42	1.33	1.37
26	1H	2252	G	N9-C8	-6.42	1.33	1.37
26	14	2711	A	N3-C4	6.40	1.38	1.34
26	1H	608	A	N9-C4	-6.38	1.34	1.37
26	1H	960	A	N3-C4	-6.36	1.31	1.34
26	14	2025	C	N1-C6	-6.35	1.33	1.37
26	1H	1204	A	N9-C4	-6.35	1.34	1.37
26	14	2252	G	N7-C5	-6.34	1.35	1.39
26	1H	1950	G	N3-C4	-6.34	1.31	1.35
26	14	500	G	N9-C8	-6.34	1.33	1.37
55	M5	35	GLN	CG-CD	6.34	1.65	1.51
26	1H	1332	G	C5-C6	-6.33	1.36	1.42
26	1H	1496	A	C5-C6	-6.33	1.35	1.41
26	1H	2239	G	C6-N1	-6.33	1.35	1.39
26	14	1936	A	C8-N7	-6.33	1.27	1.31
26	1H	1676	A	N9-C4	-6.32	1.34	1.37
26	14	676	A	C5-C4	6.31	1.43	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	38	A	C6-N6	-6.30	1.28	1.33
29	11	122	ASP	CB-CG	6.30	1.65	1.51
26	1H	1434	A	N9-C4	-6.30	1.34	1.37
26	14	330	A	N9-C4	-6.29	1.34	1.37
26	14	1678	G	N3-C4	-6.29	1.31	1.35
26	1H	2817	G	C2-N3	6.27	1.37	1.32
26	1H	2709	G	C6-N1	-6.26	1.35	1.39
26	14	737	C	N1-C6	-6.26	1.33	1.37
26	14	2062	A	C8-N7	6.26	1.35	1.31
26	1H	2051	A	N7-C5	-6.25	1.35	1.39
26	1H	2506	U	N1-C2	6.25	1.44	1.38
1	13	1408	A	N7-C5	-6.24	1.35	1.39
26	14	945	A	N7-C5	-6.24	1.35	1.39
26	14	1616	A	N3-C4	-6.24	1.31	1.34
26	14	1566	A	C5-C6	-6.23	1.35	1.41
26	1H	1827	C	N3-C4	-6.22	1.29	1.33
26	1H	761	A	N3-C4	-6.22	1.31	1.34
26	1H	2505	G	N1-C2	-6.22	1.32	1.37
26	14	1786	A	C5-C4	6.21	1.43	1.38
26	1H	1780	A	C6-N1	-6.21	1.31	1.35
26	1H	1617	C	N1-C6	-6.21	1.33	1.37
26	1H	587	C	N1-C6	-6.21	1.33	1.37
26	14	530	G	C5-C6	-6.20	1.36	1.42
26	14	2392	A	C5-C6	-6.20	1.35	1.41
26	14	2503	A	N9-C4	6.19	1.41	1.37
27	16	82	G	C5-C4	-6.19	1.34	1.38
26	1H	1271	G	N7-C5	-6.18	1.35	1.39
26	1H	1698	A	C5-C6	-6.18	1.35	1.41
26	14	1772	G	N9-C8	-6.18	1.33	1.37
26	1H	2053	G	C5-C4	-6.14	1.34	1.38
26	1H	695	G	C6-N1	-6.14	1.35	1.39
26	1H	1786	A	C6-N6	-6.13	1.29	1.33
26	1H	2502	G	C6-N1	-6.13	1.35	1.39
26	1H	2518	A	N9-C4	-6.13	1.34	1.37
26	14	2542	A	N7-C5	6.13	1.43	1.39
23	2K	77	A	N9-C4	-6.13	1.34	1.37
26	14	621	A	N9-C4	-6.13	1.34	1.37
26	1H	122	G	N7-C5	-6.12	1.35	1.39
26	1H	1308	A	N3-C4	-6.12	1.31	1.34
26	1H	1978	A	N7-C5	-6.10	1.35	1.39
26	1H	2388	A	N9-C4	-6.09	1.34	1.37
26	14	2713	A	N1-C2	6.09	1.39	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	1775	U	C2-O2	-6.09	1.16	1.22
29	11	40	THR	CA-C	6.09	1.68	1.52
26	14	461	C	N1-C6	-6.09	1.33	1.37
22	1L	76	A	C5-C4	6.08	1.43	1.38
26	14	1827	C	N3-C4	-6.08	1.29	1.33
48	18	10	THR	CA-CB	6.08	1.69	1.53
26	1H	122	G	C2-N3	6.07	1.37	1.32
26	1H	752	A	N9-C4	-6.07	1.34	1.37
27	16	81	G	N9-C8	6.06	1.42	1.37
26	14	793	A	C5-C4	-6.05	1.34	1.38
26	1H	1932	A	C6-N1	6.05	1.39	1.35
26	14	2377	A	N9-C4	-6.04	1.34	1.37
26	1H	1889	A	N9-C4	-6.04	1.34	1.37
26	14	471	A	N9-C4	-6.02	1.34	1.37
26	1H	2254	C	N1-C2	-6.02	1.34	1.40
26	1H	781	A	C5-C4	-6.00	1.34	1.38
26	1H	2064	C	N3-C4	-6.00	1.29	1.33
26	14	1272	A	N3-C4	6.00	1.38	1.34
26	1H	774	A	N7-C5	-6.00	1.35	1.39
26	14	2449	U	N1-C2	6.00	1.44	1.38
26	1H	2594	C	N1-C6	-5.99	1.33	1.37
26	14	1142(A)	A	N3-C4	-5.99	1.31	1.34
26	1H	2763	G	C5-C6	-5.99	1.36	1.42
26	14	578	A	N9-C4	-5.99	1.34	1.37
26	14	1384	A	N3-C4	-5.98	1.31	1.34
26	1H	777	A	N9-C4	-5.97	1.34	1.37
26	1H	2287	A	N7-C5	-5.96	1.35	1.39
26	1H	649	G	N7-C5	-5.96	1.35	1.39
26	1H	2713	A	N1-C2	5.96	1.39	1.34
26	1H	1365	A	N9-C4	-5.96	1.34	1.37
26	1H	737	C	N1-C6	-5.95	1.33	1.37
26	14	1776	G	C8-N7	-5.95	1.27	1.30
26	1H	2688	U	N3-C4	-5.94	1.33	1.38
29	11	123	ALA	CA-CB	-5.94	1.40	1.52
26	1H	682	G	C5-C4	-5.94	1.34	1.38
26	1H	1255	U	N1-C6	-5.94	1.32	1.38
26	14	2439	A	N7-C5	-5.94	1.35	1.39
26	14	2582	G	N7-C5	-5.93	1.35	1.39
26	1H	1553	A	N7-C5	-5.93	1.35	1.39
1	1G	1502	A	N9-C4	-5.93	1.34	1.37
26	1H	132	G	C8-N7	5.93	1.34	1.30
26	1H	2430	A	C6-N1	5.93	1.39	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	70	G	C6-N1	-5.92	1.35	1.39
26	14	2063	C	N1-C6	-5.92	1.33	1.37
26	14	2392	A	N9-C4	-5.92	1.34	1.37
1	13	5	U	N1-C2	5.92	1.43	1.38
26	14	113	G	N9-C4	-5.91	1.33	1.38
26	1H	1275	A	N3-C4	5.91	1.38	1.34
26	1H	677	A	N7-C5	-5.91	1.35	1.39
26	14	125	G	C8-N7	5.91	1.34	1.30
26	1H	1787	A	C6-N1	-5.90	1.31	1.35
26	1H	2713	A	C5-C6	-5.90	1.35	1.41
26	14	1950	G	N3-C4	-5.90	1.31	1.35
26	1H	2430	A	N3-C4	-5.90	1.31	1.34
26	14	1665	A	N7-C5	-5.90	1.35	1.39
31	31	65	TRP	CD2-CE2	5.89	1.48	1.41
26	14	2084	C	N1-C6	-5.89	1.33	1.37
26	1H	1384	A	N7-C5	-5.89	1.35	1.39
26	1H	749	C	N1-C6	-5.89	1.33	1.37
26	1H	1853	A	N7-C5	-5.88	1.35	1.39
26	14	1676	A	N9-C4	-5.88	1.34	1.37
26	1H	512	G	C5-C4	-5.88	1.34	1.38
26	1H	2393	A	N9-C8	-5.87	1.33	1.37
26	14	2245	U	C4-O4	-5.87	1.19	1.23
26	1H	1661	G	C5-C4	-5.87	1.34	1.38
26	1H	774	A	C2-N3	-5.86	1.28	1.33
26	1H	789	A	N9-C4	-5.86	1.34	1.37
26	14	1969	A	N7-C5	-5.86	1.35	1.39
26	1H	265	A	N9-C4	-5.86	1.34	1.37
26	1H	1379	A	N9-C4	-5.85	1.34	1.37
4	32	31	CYS	CB-SG	-5.85	1.72	1.81
26	1H	1271	G	N9-C8	-5.85	1.33	1.37
26	14	2328	A	N3-C4	-5.85	1.31	1.34
26	1H	74	A	C5-C4	5.85	1.42	1.38
26	1H	786	C	C4-N4	-5.85	1.28	1.33
26	14	1785	A	N9-C8	-5.84	1.33	1.37
26	1H	1198	U	C2-N3	-5.84	1.33	1.37
26	1H	827	U	N1-C2	-5.83	1.33	1.38
26	1H	1332	G	N1-C2	5.83	1.42	1.37
26	1H	678	C	C5-C6	-5.82	1.29	1.34
26	1H	1210	A	C5-C6	-5.82	1.35	1.41
26	1H	380	U	N3-C4	-5.82	1.33	1.38
26	1H	761	A	C5-C4	-5.82	1.34	1.38
26	14	2873	A	N7-C5	-5.81	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2297	C	N3-C4	-5.80	1.29	1.33
26	1H	763	G	N3-C4	-5.80	1.31	1.35
26	1H	1349	A	C5-C4	5.80	1.42	1.38
42	C8	69	CYS	CB-SG	-5.80	1.72	1.81
26	14	2392	A	N7-C5	-5.79	1.35	1.39
26	1H	2591	C	C2-O2	-5.79	1.19	1.24
26	14	216	A	N9-C4	-5.78	1.34	1.37
26	1H	132	G	N7-C5	5.78	1.42	1.39
26	14	528	A	N3-C4	-5.78	1.31	1.34
26	1H	518	G	C6-N1	-5.77	1.35	1.39
26	1H	2248	C	C4-N4	-5.77	1.28	1.33
26	1H	1817	G	N3-C4	5.77	1.39	1.35
26	1H	608	A	N3-C4	-5.76	1.31	1.34
26	14	775	G	N9-C8	-5.76	1.33	1.37
26	1H	990	A	N7-C5	-5.76	1.35	1.39
26	14	469	G	C5-C6	-5.76	1.36	1.42
26	1H	138	G	C5-C4	5.76	1.42	1.38
26	1H	1559	G	N9-C4	-5.75	1.33	1.38
26	1H	2490	G	C6-O6	-5.75	1.19	1.24
26	1H	783	A	N7-C5	-5.75	1.35	1.39
51	L8	57	GLU	CG-CD	5.75	1.60	1.51
26	1H	780	G	N3-C4	-5.75	1.31	1.35
24	3K	76	A	N9-C8	5.75	1.42	1.37
26	1H	2286	A	N9-C4	5.75	1.41	1.37
26	1H	2441	C	C4-N4	-5.74	1.28	1.33
26	1H	698	C	N1-C6	-5.74	1.33	1.37
27	16	98	G	N7-C5	-5.74	1.35	1.39
26	14	2688	U	N3-C4	-5.74	1.33	1.38
26	1H	2251	G	N9-C8	-5.74	1.33	1.37
26	1H	862	G	C6-N1	-5.73	1.35	1.39
26	14	676	A	N9-C8	5.72	1.42	1.37
26	1H	458	G	C5-C4	-5.72	1.34	1.38
26	1H	680	G	N7-C5	-5.72	1.35	1.39
26	14	118	A	N3-C4	-5.71	1.31	1.34
26	14	733	G	C6-N1	-5.71	1.35	1.39
26	14	71	A	C5-C4	5.71	1.42	1.38
26	1H	805	G	N7-C5	-5.70	1.35	1.39
26	1H	2352	A	N3-C4	5.70	1.38	1.34
26	14	2581	G	N1-C2	-5.69	1.33	1.37
26	1H	204	A	N3-C4	-5.68	1.31	1.34
26	14	1660	C	C4-N4	-5.68	1.28	1.33
26	1H	2297	C	N1-C6	-5.68	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2230	G	C2-N3	-5.68	1.28	1.32
1	1G	1518	A	N9-C4	5.68	1.41	1.37
26	14	1313	U	N1-C2	-5.68	1.33	1.38
26	1H	682	G	C8-N7	-5.67	1.27	1.30
26	1H	579	G	C2-N3	-5.67	1.28	1.32
26	1H	402	A	N3-C4	-5.67	1.31	1.34
1	13	792	A	N9-C8	5.66	1.42	1.37
26	1H	1366	A	C5-C6	-5.66	1.35	1.41
1	13	1502	A	N7-C5	-5.66	1.35	1.39
26	14	1241	A	N9-C4	-5.65	1.34	1.37
26	14	2453	A	N7-C5	-5.65	1.35	1.39
26	1H	1792	G	C6-N1	-5.65	1.35	1.39
26	14	2572	A	C5-C4	-5.64	1.34	1.38
26	1H	2825	C	N1-C6	-5.63	1.33	1.37
26	14	200	U	N1-C2	5.63	1.43	1.38
26	1H	1510	A	N3-C4	5.62	1.38	1.34
26	1H	57	C	C2-O2	5.62	1.29	1.24
26	14	733	G	C5-C4	-5.61	1.34	1.38
26	1H	1904	G	C6-O6	-5.61	1.19	1.24
26	1H	1968	G	N7-C5	-5.61	1.35	1.39
26	1H	587	C	N3-C4	-5.61	1.30	1.33
26	1H	1275	A	N9-C8	-5.61	1.33	1.37
26	1H	1313	U	C4-C5	-5.61	1.38	1.43
25	4K	26	A	N9-C4	5.60	1.41	1.37
26	1H	2437	U	C2-O2	-5.60	1.17	1.22
26	1H	1187	G	C5-C4	-5.60	1.34	1.38
26	1H	1637	A	C6-N1	-5.59	1.31	1.35
26	14	744	G	N9-C8	-5.59	1.33	1.37
26	1H	57	C	N3-C4	-5.59	1.30	1.33
26	1H	2764	A	N9-C4	-5.58	1.34	1.37
26	1H	1354	A	C5-C6	-5.58	1.36	1.41
26	1H	2443	C	C2-O2	-5.58	1.19	1.24
26	1H	621	A	N1-C2	5.57	1.39	1.34
26	1H	516	C	N3-C4	-5.57	1.30	1.33
26	14	788	A	N7-C5	-5.56	1.35	1.39
1	13	817	C	N1-C6	-5.55	1.33	1.37
26	1H	1569	A	N9-C4	-5.55	1.34	1.37
26	1H	1678	G	C5-C4	5.55	1.42	1.38
26	14	2681	C	N3-C4	-5.55	1.30	1.33
26	1H	2336	A	N3-C4	5.54	1.38	1.34
26	14	71	A	N9-C8	5.54	1.42	1.37
26	1H	2048	G	C6-O6	5.54	1.29	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1G	690	G	N9-C8	5.53	1.41	1.37
26	1H	598	G	N7-C5	-5.53	1.35	1.39
26	1H	2490	G	C5-C4	5.53	1.42	1.38
26	14	1899	G	N7-C5	-5.53	1.35	1.39
26	1H	1624	G	C6-N1	-5.52	1.35	1.39
26	1H	1786	A	N1-C2	5.52	1.39	1.34
26	14	774	A	C6-N1	5.51	1.39	1.35
26	1H	2311	A	N3-C4	-5.51	1.31	1.34
27	1J	89(A)	A	N3-C4	5.51	1.38	1.34
1	13	1498	U	C2-N3	5.50	1.41	1.37
26	14	2324	C	N3-C4	5.50	1.37	1.33
26	14	2725	A	N9-C4	-5.50	1.34	1.37
26	1H	180	G	C2-N3	5.50	1.37	1.32
26	14	1899	G	C5-C4	5.50	1.42	1.38
26	1H	2062	A	C6-N6	5.48	1.38	1.33
26	1H	2490	G	C6-N1	-5.48	1.35	1.39
26	14	1304	C	N3-C4	-5.48	1.30	1.33
26	14	2267	A	N3-C4	-5.48	1.31	1.34
26	14	528	A	N7-C5	-5.47	1.35	1.39
26	1H	140	A	N7-C5	-5.47	1.35	1.39
26	14	2392	A	N9-C8	5.47	1.42	1.37
26	14	1605	C	N1-C6	-5.47	1.33	1.37
26	1H	621	A	C5-C6	-5.46	1.36	1.41
1	13	582	U	C2-N3	-5.46	1.33	1.37
29	19	35	LYS	CE-NZ	5.46	1.62	1.49
1	13	1502	A	N9-C4	-5.45	1.34	1.37
26	1H	1969	A	N9-C8	-5.45	1.33	1.37
1	1G	1358	U	N1-C2	5.45	1.43	1.38
26	14	2062	A	N9-C8	5.44	1.42	1.37
55	M5	35	GLN	CB-CG	5.44	1.67	1.52
26	1H	2393	A	N7-C5	-5.44	1.35	1.39
26	1H	1660	C	C2-N3	-5.42	1.31	1.35
26	14	2713	A	N9-C4	-5.42	1.34	1.37
31	31	65	TRP	CZ3-CH2	5.42	1.48	1.40
26	1H	2561	A	N9-C8	-5.41	1.33	1.37
26	1H	1931	U	C2-N3	-5.41	1.33	1.37
26	1H	1931	U	N3-C4	-5.41	1.33	1.38
26	1H	1608	A	N3-C4	5.40	1.38	1.34
26	14	2058	A	N3-C4	-5.40	1.31	1.34
26	1H	2436	G	C5-C4	-5.39	1.34	1.38
26	1H	1131	G	C6-N1	-5.39	1.35	1.39
26	14	761	A	N9-C8	-5.38	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	2070	G	N1-C2	-5.38	1.33	1.37
26	14	1349	A	N9-C8	5.38	1.42	1.37
26	1H	452	G	N7-C5	5.37	1.42	1.39
26	1H	463	G	N1-C2	-5.37	1.33	1.37
26	14	1327	C	N3-C4	-5.37	1.30	1.33
26	1H	1558	A	N3-C4	-5.36	1.31	1.34
26	1H	677	A	C4'-C3'	-5.36	1.47	1.52
26	1H	1971	A	C5-C4	-5.36	1.34	1.38
26	14	2430	A	N3-C4	-5.36	1.31	1.34
26	1H	2442	C	C5-C6	-5.36	1.30	1.34
26	1H	2695	C	N1-C6	-5.35	1.33	1.37
1	13	794	A	N7-C5	-5.35	1.36	1.39
26	1H	2476	A	N9-C4	5.35	1.41	1.37
26	14	778	G	N7-C5	-5.35	1.36	1.39
26	14	1902	C	C4-N4	-5.34	1.29	1.33
26	1H	48	G	C8-N7	5.34	1.34	1.30
26	1H	202	U	C4-O4	-5.34	1.19	1.23
26	1H	677	A	N9-C4	-5.34	1.34	1.37
26	14	2430	A	C8-N7	5.34	1.35	1.31
26	1H	150	C	N3-C4	-5.34	1.30	1.33
26	1H	783	A	N9-C8	5.34	1.42	1.37
1	1G	250	A	C5-C6	5.34	1.45	1.41
26	14	1143	A	C6-N1	-5.34	1.31	1.35
1	13	533	A	C5-C6	-5.33	1.36	1.41
26	14	2031	A	C5-C6	-5.33	1.36	1.41
26	1H	216	A	N9-C4	-5.33	1.34	1.37
22	1L	73	A	N9-C4	5.32	1.41	1.37
26	14	766	C	N3-C4	-5.32	1.30	1.33
26	1H	1032	A	C6-N1	5.32	1.39	1.35
26	14	2392	A	C5-C4	5.32	1.42	1.38
26	1H	207	A	C5-C6	-5.32	1.36	1.41
26	1H	2254	C	N3-C4	-5.32	1.30	1.33
26	1H	2392	A	C5-C4	5.32	1.42	1.38
26	1H	739	G	C2-N3	-5.31	1.28	1.32
26	14	2244	U	C2-O2	-5.31	1.17	1.22
26	1H	1558	A	C5-C6	-5.31	1.36	1.41
26	1H	2497	A	C5-C4	-5.31	1.35	1.38
26	14	55	G	C2-N3	-5.30	1.28	1.32
26	14	2555	U	N1-C2	-5.30	1.33	1.38
26	1H	530	G	N7-C5	5.29	1.42	1.39
26	1H	771	G	N7-C5	5.29	1.42	1.39
26	1H	960	A	N9-C4	-5.29	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	1204	A	C6-N1	-5.29	1.31	1.35
26	14	585	G	N7-C5	-5.29	1.36	1.39
26	14	2332	U	C4-C5	5.29	1.48	1.43
26	1H	2069	G	N9-C8	-5.28	1.34	1.37
26	1H	2373	G	C2-N3	5.28	1.36	1.32
26	14	586	A	C5-C6	-5.28	1.36	1.41
26	14	2062	A	C5-C6	5.28	1.45	1.41
26	1H	2329	G	C6-N1	-5.27	1.35	1.39
26	14	783	A	N9-C8	5.27	1.42	1.37
1	13	792	A	N7-C5	-5.27	1.36	1.39
26	1H	330	A	N9-C8	5.27	1.42	1.37
26	1H	390	A	N3-C4	-5.27	1.31	1.34
26	1H	113	G	N9-C4	-5.27	1.33	1.38
26	1H	1424	G	N3-C4	-5.26	1.31	1.35
26	1H	1621	U	N1-C6	-5.26	1.33	1.38
23	2K	75	C	N3-C4	-5.26	1.30	1.33
26	1H	860	U	N1-C2	5.26	1.43	1.38
26	1H	568	U	N1-C2	-5.26	1.33	1.38
26	14	2621	A	N9-C4	-5.26	1.34	1.37
26	1H	939	G	N3-C4	-5.26	1.31	1.35
26	1H	739	G	C5-C6	-5.25	1.37	1.42
26	1H	761	A	N9-C4	-5.25	1.34	1.37
26	1H	1496	A	N7-C5	-5.25	1.36	1.39
26	1H	2059	A	N7-C5	-5.25	1.36	1.39
26	1H	2425	A	N9-C4	-5.25	1.34	1.37
1	1G	231	G	N7-C5	-5.24	1.36	1.39
26	14	1332	G	C2-N3	5.24	1.36	1.32
26	1H	689	A	C6-N1	-5.24	1.31	1.35
26	14	131	G	C2-N3	5.24	1.36	1.32
26	14	2629	A	N9-C4	5.24	1.41	1.37
26	14	2600	A	N9-C8	-5.24	1.33	1.37
26	14	2600	A	C5-C4	-5.24	1.35	1.38
26	1H	1969	A	C6-N1	-5.23	1.31	1.35
26	1H	2199	A	N3-C4	5.23	1.38	1.34
27	16	6	C	C2-N3	5.23	1.40	1.35
26	1H	917	A	C2-N3	-5.23	1.28	1.33
26	1H	1956	U	C2-O2	-5.23	1.17	1.22
26	14	1616	A	C5-C4	5.23	1.42	1.38
26	1H	530	G	C8-N7	5.22	1.34	1.30
26	1H	2449	U	C4-O4	5.22	1.27	1.23
26	1H	471	A	N9-C4	-5.22	1.34	1.37
26	1H	1275	A	N7-C5	-5.22	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	1510	A	N9-C4	5.22	1.41	1.37
27	16	115	G	N9-C8	5.22	1.41	1.37
26	1H	933	A	C6-N1	-5.22	1.31	1.35
23	2L	21	U	N1-C2	5.21	1.43	1.38
26	1H	610	C	N3-C4	-5.21	1.30	1.33
26	1H	179	G	N3-C4	-5.21	1.31	1.35
26	14	469	G	C6-O6	-5.21	1.19	1.24
26	14	2822	G	C8-N7	-5.21	1.27	1.30
26	1H	869	G	N1-C2	-5.21	1.33	1.37
26	1H	2072	G	C2-N2	5.20	1.39	1.34
26	1H	2508	G	N9-C4	-5.20	1.33	1.38
26	1H	609	A	C5-C6	-5.20	1.36	1.41
26	1H	664	C	C2-O2	-5.20	1.19	1.24
26	1H	787	U	C2-N3	-5.20	1.34	1.37
26	14	2278	A	N3-C4	-5.19	1.31	1.34
26	1H	1984	G	C6-N1	-5.19	1.35	1.39
26	1H	2322	A	N9-C4	-5.19	1.34	1.37
26	14	2713	A	N9-C8	5.19	1.41	1.37
26	1H	735	A	C5-C4	-5.18	1.35	1.38
26	1H	2239	G	C6-O6	-5.18	1.19	1.24
26	1H	2819	G	C5-C4	-5.18	1.34	1.38
26	1H	1815	A	N7-C5	-5.18	1.36	1.39
26	1H	1903	G	N9-C8	-5.18	1.34	1.37
26	14	2581	G	C6-N1	-5.17	1.35	1.39
26	1H	909	A	N3-C4	-5.17	1.31	1.34
1	13	974	A	N7-C5	-5.17	1.36	1.39
26	1H	912	C	N1-C6	-5.17	1.34	1.37
26	1H	2330	G	N7-C5	-5.16	1.36	1.39
26	1H	2537	U	N3-C4	-5.16	1.33	1.38
26	1H	796	C	C4-N4	-5.16	1.29	1.33
26	14	2581	G	C2-N2	-5.16	1.29	1.34
26	1H	1634	A	N7-C5	-5.15	1.36	1.39
26	14	2690	C	N1-C6	-5.15	1.34	1.37
26	1H	862	G	N3-C4	-5.15	1.31	1.35
26	1H	1026	U	C2-N3	5.15	1.41	1.37
27	16	81	G	N1-C2	5.15	1.41	1.37
30	29	151	TYR	CE2-CZ	5.15	1.45	1.38
26	14	1326	U	C2-N3	-5.14	1.34	1.37
26	1H	1782	C	N1-C2	5.14	1.45	1.40
26	1H	1593	G	C2-N3	-5.14	1.28	1.32
26	1H	202	U	C2-O2	5.14	1.26	1.22
26	1H	2457	U	C4-O4	-5.14	1.19	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	798	G	N9-C4	-5.13	1.33	1.38
26	1H	663	G	N9-C8	-5.13	1.34	1.37
26	1H	956	G	C6-O6	5.13	1.28	1.24
26	1H	1957	C	N3-C4	-5.13	1.30	1.33
26	1H	2593	U	C2-N3	-5.13	1.34	1.37
26	1H	1246	A	N7-C5	-5.13	1.36	1.39
26	14	2213	U	N1-C2	5.13	1.43	1.38
26	14	1617	C	N1-C6	-5.12	1.34	1.37
26	1H	1916	A	N7-C5	-5.12	1.36	1.39
26	1H	1364	G	N1-C2	-5.12	1.33	1.37
26	14	1342	A	N3-C4	-5.11	1.31	1.34
26	1H	2018	G	C5-C6	-5.11	1.37	1.42
26	14	1313	U	C4-C5	-5.11	1.39	1.43
26	1H	1204	A	N7-C5	-5.11	1.36	1.39
26	1H	1785	A	N9-C8	-5.10	1.33	1.37
26	1H	1433	U	C4-O4	-5.10	1.19	1.23
26	1H	1803	A	N7-C5	-5.10	1.36	1.39
26	14	132	G	C8-N7	5.09	1.34	1.30
26	1H	1643	G	N9-C8	-5.09	1.34	1.37
26	14	1303	G	C6-N1	-5.09	1.35	1.39
26	1H	797	C	C2-N3	5.08	1.39	1.35
26	1H	1204	A	C5-C6	-5.08	1.36	1.41
26	14	974(A)	C	N1-C2	5.08	1.45	1.40
26	14	2379	G	C2-N3	5.08	1.36	1.32
26	1H	1295	C	N3-C4	-5.08	1.30	1.33
26	1H	1373	A	N7-C5	5.08	1.42	1.39
26	1H	1553	A	C5-C6	-5.08	1.36	1.41
26	14	932	G	N9-C4	-5.07	1.33	1.38
26	1H	119	A	N9-C8	-5.07	1.33	1.37
29	11	224	ALA	CA-CB	-5.07	1.41	1.52
26	14	1789	A	C5-C6	-5.06	1.36	1.41
26	14	1678	G	C2-N3	-5.06	1.28	1.32
22	1L	74	C	N1-C2	5.06	1.45	1.40
26	1H	528	A	N9-C8	5.06	1.41	1.37
26	14	1663	C	N3-C4	5.06	1.37	1.33
1	13	890	G	C5-C4	-5.06	1.34	1.38
26	1H	2708	G	C2-N3	5.05	1.36	1.32
26	14	2323	G	C6-O6	5.05	1.28	1.24
22	1K	76	A	C5-C4	5.05	1.42	1.38
26	1H	2577	A	N9-C8	-5.05	1.33	1.37
26	14	1241	A	C5-C6	-5.05	1.36	1.41
26	1H	2199	A	N9-C4	5.05	1.40	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	1H	82	G	C5-C4	-5.04	1.34	1.38
26	1H	1698	A	N9-C8	5.04	1.41	1.37
49	J8	93	GLU	CB-CG	5.04	1.61	1.52
26	14	2711	A	N9-C4	5.04	1.40	1.37
26	1H	119	A	N7-C5	-5.04	1.36	1.39
1	1G	690	G	N9-C4	-5.04	1.33	1.38
26	1H	1659	U	C2-O2	-5.04	1.17	1.22
26	14	733	G	N1-C2	-5.03	1.33	1.37
26	1H	1621	U	N1-C2	-5.03	1.34	1.38
26	14	1020	A	N9-C4	-5.03	1.34	1.37
26	1H	502	A	N9-C4	-5.03	1.34	1.37
26	1H	2490	G	C5-C6	-5.03	1.37	1.42
26	1H	676	A	N1-C2	5.03	1.38	1.34
1	13	690	G	N9-C8	5.02	1.41	1.37
1	13	1079	G	C2-N3	-5.02	1.28	1.32
26	1H	780	G	N9-C4	-5.02	1.33	1.38
26	14	2447	G	N7-C5	-5.02	1.36	1.39
26	1H	214	G	N9-C4	5.01	1.42	1.38
26	1H	2707	G	C8-N7	5.01	1.33	1.30
26	1H	765	G	N7-C5	5.01	1.42	1.39
26	1H	127	A	N9-C4	-5.01	1.34	1.37
26	1H	17	G	C5-C4	-5.00	1.34	1.38
26	14	2453	A	N9-C4	-5.00	1.34	1.37
26	1H	2005	A	N3-C4	-5.00	1.31	1.34
26	1H	866	A	N9-C4	5.00	1.40	1.37

All (9716) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1899	G	N3-C4-N9	-30.28	107.83	126.00
26	1H	945	A	N1-C6-N6	25.42	133.85	118.60
26	1H	2287	A	C2-N3-C4	-25.22	97.99	110.60
26	1H	1899	G	N3-C4-C5	25.13	141.17	128.60
26	1H	945	A	C6-C5-N7	-24.82	114.92	132.30
26	1H	1332	G	C2-N3-C4	-23.86	99.97	111.90
26	1H	676	A	C2-N3-C4	-23.43	98.89	110.60
26	1H	783	A	C2-N3-C4	-22.42	99.39	110.60
26	1H	1332	G	C5-N7-C8	-22.04	93.28	104.30
26	1H	1678	G	N3-C4-C5	21.92	139.56	128.60
26	14	1332	G	C6-C5-N7	-21.80	117.32	130.40
26	1H	1678	G	N3-C4-N9	-21.67	113.00	126.00
26	14	1786	A	C5-N7-C8	-21.11	93.35	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	800	A	O5'-P-OP1	-20.81	85.73	110.70
26	1H	71	A	C2-N3-C4	-20.40	100.40	110.60
26	1H	783	A	C5-N7-C8	-20.32	93.74	103.90
26	1H	945	A	C5-N7-C8	-20.30	93.75	103.90
26	1H	2346	A	N1-C2-N3	20.27	139.43	129.30
26	1H	1332	G	C4-C5-N7	19.81	118.72	110.80
26	14	783	A	C2-N3-C4	-19.76	100.72	110.60
26	1H	1784	A	O5'-P-OP2	-19.41	87.40	110.70
26	1H	1678	G	C2-N3-C4	-19.30	102.25	111.90
26	1H	1382	G	C5-C6-O6	-19.21	117.07	128.60
26	1H	1698	A	C2-N3-C4	-19.15	101.03	110.60
26	14	2518	A	N1-C6-N6	19.12	130.07	118.60
26	1H	1786	A	C5-N7-C8	-18.94	94.43	103.90
26	1H	774	A	N3-C4-C5	18.83	139.98	126.80
26	1H	74	A	C2-N3-C4	-18.80	101.20	110.60
26	1H	621	A	C2-N3-C4	-18.75	101.23	110.60
26	14	1616	A	C5-N7-C8	-18.58	94.61	103.90
26	1H	2490	G	C5-N7-C8	-18.58	95.01	104.30
26	1H	576	U	N3-C2-O2	-18.55	109.21	122.20
1	13	792	A	C5-N7-C8	-18.52	94.64	103.90
26	1H	2430	A	C2-N3-C4	-18.50	101.35	110.60
26	1H	1786	A	C2-N3-C4	-18.43	101.38	110.60
26	14	783	A	N1-C6-N6	18.39	129.63	118.60
26	1H	252	G	O5'-P-OP2	-18.31	88.73	110.70
26	1H	216	A	O5'-P-OP1	-18.16	88.91	110.70
26	14	945	A	C2-N3-C4	-18.15	101.53	110.60
26	1H	1332	G	N3-C4-C5	17.98	137.59	128.60
26	14	786	C	O5'-P-OP2	-17.98	89.12	110.70
26	14	945	A	N1-C6-N6	17.94	129.36	118.60
26	14	1786	A	C2-N3-C4	-17.91	101.65	110.60
26	1H	2430	A	N3-C4-C5	17.87	139.31	126.80
26	1H	1678	G	C5-N7-C8	-17.79	95.41	104.30
26	1H	1603	A	O5'-P-OP1	-17.79	89.36	110.70
26	14	1899	G	N1-C2-N2	-17.70	100.27	116.20
26	1H	945	A	C4-C5-C6	17.60	125.80	117.00
26	1H	1950	G	C2-N3-C4	-17.57	103.11	111.90
26	1H	576	U	C5-C4-O4	17.54	136.43	125.90
26	1H	1899	G	C2-N3-C4	-17.49	103.15	111.90
26	1H	1616	A	C5-N7-C8	-17.45	95.18	103.90
26	1H	793	A	O5'-P-OP2	-17.37	89.85	110.70
26	1H	2430	A	N3-C4-N9	-17.37	113.50	127.40
26	1H	2713	A	C2-N3-C4	-17.29	101.96	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1786	A	N7-C8-N9	17.27	122.44	113.80
26	1H	1950	G	N3-C4-N9	-17.23	115.66	126.00
26	14	1332	G	C5-N7-C8	-17.18	95.71	104.30
26	1H	783	A	N7-C8-N9	17.16	122.38	113.80
26	14	1786	A	N7-C8-N9	17.15	122.38	113.80
26	1H	945	A	C4-C5-N7	17.15	119.27	110.70
26	14	1332	G	N1-C6-O6	17.14	130.19	119.90
26	14	528	A	C2-N3-C4	-17.12	102.04	110.60
26	14	2430	A	C2-N3-C4	-16.95	102.13	110.60
26	1H	576	U	N1-C2-N3	16.76	124.96	114.90
26	14	1332	G	C4-C5-N7	16.68	117.47	110.80
26	1H	774	A	N3-C4-N9	-16.65	114.08	127.40
26	1H	945	A	N7-C8-N9	16.65	122.12	113.80
26	1H	676	A	N3-C4-C5	16.62	138.43	126.80
26	1H	2713	A	C5-N7-C8	-16.59	95.61	103.90
26	14	1698	A	N1-C6-N6	16.57	128.54	118.60
26	1H	2490	G	C4-C5-N7	16.55	117.42	110.80
26	1H	1428	C	O5'-P-OP1	-16.54	90.81	105.70
26	14	2287	A	C2-N3-C4	-16.47	102.37	110.60
26	1H	2392	A	C5-N7-C8	-16.46	95.67	103.90
26	1H	1204	A	C2-N3-C4	-16.40	102.40	110.60
26	1H	1950	G	N3-C4-C5	16.31	136.76	128.60
26	14	1899	G	N3-C2-N2	16.31	131.32	119.90
26	14	1332	G	N7-C8-N9	16.25	121.22	113.10
26	14	783	A	C5-N7-C8	-16.23	95.79	103.90
26	1H	945	A	C2-N3-C4	-16.20	102.50	110.60
26	1H	676	A	N3-C4-N9	-16.19	114.45	127.40
26	14	74	A	C2-N3-C4	-16.14	102.53	110.60
26	1H	1899	G	N3-C2-N2	-16.01	108.69	119.90
26	1H	2490	G	N7-C8-N9	16.00	121.10	113.10
26	1H	617	G	O5'-P-OP2	-15.96	91.33	105.70
26	1H	967	C	O5'-P-OP2	-15.95	91.34	105.70
26	1H	1931	U	N3-C2-O2	-15.94	111.04	122.20
26	14	945	A	C6-C5-N7	-15.94	121.15	132.30
26	14	1816	G	O5'-P-OP1	-15.94	91.36	105.70
26	1H	784	A	O5'-P-OP1	-15.78	91.50	105.70
26	1H	1950	G	C5-N7-C8	-15.72	96.44	104.30
26	1H	1781	C	C6-N1-C2	15.70	126.58	120.30
1	13	792	A	C4-C5-N7	15.64	118.52	110.70
26	14	1812	A	O5'-P-OP2	-15.64	91.63	105.70
26	14	1332	G	C2-N3-C4	-15.55	104.12	111.90
26	14	963	U	O5'-P-OP1	-15.55	91.71	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1021	A	C2-N3-C4	-15.51	102.85	110.60
26	1H	140	A	C5-N7-C8	-15.47	96.17	103.90
26	14	1950	G	N3-C4-N9	-15.47	116.72	126.00
26	14	330	A	C2-N3-C4	-15.46	102.87	110.60
26	1H	1382	G	N1-C6-O6	15.46	129.17	119.90
26	1H	1994	C	O5'-P-OP2	-15.45	91.80	105.70
26	1H	621	A	C5-N7-C8	-15.40	96.20	103.90
26	1H	1660	C	N3-C4-N4	-15.31	107.28	118.00
26	14	1698	A	C6-C5-N7	-15.28	121.60	132.30
26	1H	1332	G	N1-C6-O6	15.28	129.07	119.90
26	1H	783	A	N1-C6-N6	15.25	127.75	118.60
26	1H	783	A	C8-N9-C4	-15.23	99.71	105.80
26	1H	917	A	C2-N3-C4	-15.21	103.00	110.60
26	1H	1332	G	N7-C8-N9	15.19	120.70	113.10
26	14	2329	G	C5-C6-O6	-15.10	119.54	128.60
26	1H	1376	C	O5'-P-OP1	-15.08	92.12	105.70
26	14	2518	A	C6-C5-N7	-15.03	121.78	132.30
24	3K	76	A	C5-N7-C8	-15.02	96.39	103.90
26	14	1829	A	O5'-P-OP1	-15.00	92.20	105.70
26	14	2873	A	N1-C2-N3	15.00	136.80	129.30
26	1H	1829	A	O5'-P-OP1	-14.98	92.22	105.70
26	1H	2311	A	C2-N3-C4	-14.97	103.11	110.60
26	14	1678	G	C5-N7-C8	-14.97	96.81	104.30
26	14	2873	A	N7-C8-N9	14.87	121.24	113.80
26	14	1899	G	C6-C5-N7	-14.87	121.48	130.40
26	14	530	G	C4-C5-N7	14.69	116.68	110.80
26	1H	676	A	C5-N7-C8	-14.64	96.58	103.90
26	1H	1496	A	C5-N7-C8	-14.62	96.59	103.90
26	14	1614	A	C2-N3-C4	-14.61	103.29	110.60
26	14	2248	C	O5'-P-OP2	-14.61	92.56	105.70
26	1H	1970	A	O5'-P-OP2	-14.55	92.60	105.70
26	1H	2287	A	N3-C4-C5	14.47	136.93	126.80
26	1H	138	G	C5-N7-C8	-14.45	97.07	104.30
26	14	1786	A	C4-C5-N7	14.44	117.92	110.70
26	14	1616	A	N7-C8-N9	14.41	121.00	113.80
26	1H	2346	A	C8-N9-C4	-14.38	100.05	105.80
26	1H	576	U	N3-C4-O4	-14.37	109.34	119.40
26	14	1835	G	O5'-P-OP1	-14.36	92.78	105.70
26	1H	740	U	O5'-P-OP2	-14.33	92.80	105.70
26	14	1312	U	O5'-P-OP1	-14.32	92.81	105.70
26	14	783	A	C6-C5-N7	-14.31	122.28	132.30
26	1H	1971	A	O5'-P-OP1	-14.30	92.83	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1255	U	N3-C4-O4	14.29	129.40	119.40
26	14	774	A	N3-C4-C5	14.28	136.80	126.80
26	14	835	A	O5'-P-OP2	-14.28	92.85	105.70
26	1H	140	A	N7-C8-N9	14.27	120.93	113.80
26	1H	913	U	O5'-P-OP2	-14.21	92.91	105.70
26	14	2873	A	C6-C5-N7	-14.20	122.36	132.30
26	1H	774	A	C2-N3-C4	-14.19	103.50	110.60
26	14	2430	A	N1-C6-N6	14.20	127.12	118.60
26	1H	1129	A	O5'-P-OP2	-14.18	92.94	105.70
26	1H	1349	A	O5'-P-OP1	-14.09	93.02	105.70
26	1H	1496	A	N1-C6-N6	14.03	127.02	118.60
26	1H	586	A	O5'-P-OP1	-14.03	93.07	105.70
26	14	2430	A	C5-N7-C8	-14.01	96.90	103.90
26	1H	2346	A	N7-C8-N9	13.94	120.77	113.80
26	1H	783	A	C4-C5-N7	13.90	117.65	110.70
26	14	783	A	C4-C5-N7	13.89	117.64	110.70
26	1H	1899	G	N9-C4-C5	13.88	110.95	105.40
26	14	1698	A	C2-N3-C4	-13.85	103.67	110.60
26	1H	1698	A	C5-N7-C8	-13.79	97.01	103.90
26	14	828	U	C5-C4-O4	13.78	134.17	125.90
26	1H	678	C	N3-C4-C5	13.77	127.41	121.90
26	14	819	A	O5'-P-OP1	-13.74	93.33	105.70
26	1H	589	C	O5'-P-OP2	-13.72	93.35	105.70
26	1H	2710	C	C6-N1-C2	13.72	125.79	120.30
26	14	1342	A	N1-C2-N3	13.72	136.16	129.30
26	1H	783	A	C6-C5-N7	-13.70	122.71	132.30
26	1H	2346	A	C4-C5-C6	13.70	123.85	117.00
26	1H	1616	A	C4-C5-N7	13.69	117.54	110.70
26	1H	2276	G	N3-C2-N2	-13.68	110.33	119.90
26	1H	2346	A	C6-C5-N7	-13.66	122.73	132.30
26	14	1602	U	O5'-P-OP2	13.66	127.10	110.70
26	1H	1496	A	N7-C8-N9	13.66	120.63	113.80
26	1H	751	A	O5'-P-OP1	-13.66	93.41	105.70
26	14	774	A	N3-C4-N9	-13.63	116.50	127.40
1	13	1502	A	N1-C6-N6	13.60	126.76	118.60
26	14	1678	G	N3-C4-N9	-13.59	117.85	126.00
26	1H	2346	A	O4'-C1'-N9	13.57	119.06	108.20
26	1H	1931	U	C5-C4-O4	13.57	134.04	125.90
26	14	1950	G	N3-C4-C5	13.56	135.38	128.60
26	1H	71	A	C5-N7-C8	-13.56	97.12	103.90
26	1H	2392	A	N7-C8-N9	13.48	120.54	113.80
26	14	1616	A	C4-C5-N7	13.46	117.43	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2253	G	N1-C6-O6	13.45	127.97	119.90
1	13	1502	A	C5-N7-C8	-13.44	97.18	103.90
26	1H	621	A	N1-C6-N6	13.43	126.66	118.60
26	1H	2287	A	N1-C6-N6	13.42	126.65	118.60
26	1H	1325	G	C5-C6-O6	-13.38	120.57	128.60
26	1H	2584	U	N3-C2-O2	-13.37	112.84	122.20
26	14	1614	A	N1-C2-N3	13.34	135.97	129.30
1	13	1502	A	C4-C5-N7	13.31	117.36	110.70
26	14	2714	G	O5'-P-OP2	-13.29	93.74	105.70
26	1H	2712	U	C5-C4-O4	-13.26	117.94	125.90
26	14	1396	U	O5'-P-OP1	-13.26	93.77	105.70
26	14	1932	A	O5'-P-OP1	-13.25	93.77	105.70
1	13	1195	C	C6-N1-C2	-13.25	115.00	120.30
26	1H	2430	A	O5'-P-OP2	-13.25	93.78	105.70
26	1H	774	A	C5-N7-C8	-13.24	97.28	103.90
1	13	792	A	N1-C6-N6	13.21	126.53	118.60
26	14	2092	U	C5-C4-O4	13.21	133.83	125.90
26	1H	770	G	O5'-P-OP1	-13.21	93.81	105.70
26	1H	1021	A	C5-N7-C8	-13.19	97.30	103.90
26	14	1249	U	O5'-P-OP1	-13.19	93.83	105.70
26	14	2713	A	C5-N7-C8	-13.19	97.31	103.90
26	1H	915	C	N1-C2-O2	13.17	126.80	118.90
26	1H	1496	A	C4-C5-N7	13.15	117.28	110.70
26	14	1678	G	N3-C4-C5	13.15	135.18	128.60
26	1H	1332	G	C6-C5-N7	-13.13	122.52	130.40
26	14	1678	G	C2-N3-C4	-13.12	105.34	111.90
26	14	2477	C	N1-C2-O2	13.12	126.77	118.90
26	1H	2392	A	C4-C5-N7	13.11	117.25	110.70
26	1H	783	A	N1-C2-N3	13.09	135.84	129.30
26	1H	2504	U	O5'-P-OP2	-13.09	93.92	105.70
26	14	676	A	C2-N3-C4	-13.08	104.06	110.60
26	1H	1204	A	N1-C2-N3	13.07	135.83	129.30
26	1H	679	C	C6-N1-C2	13.05	125.52	120.30
26	1H	1396	U	O5'-P-OP1	-13.04	93.96	105.70
26	14	2542	A	C8-N9-C4	13.02	111.01	105.80
1	13	1502	A	C6-C5-N7	-13.01	123.19	132.30
26	1H	944	G	O5'-P-OP2	-13.00	94.00	105.70
24	3K	76	A	N7-C8-N9	12.99	120.29	113.80
26	1H	945	A	C5-C6-N6	-12.98	113.31	123.70
26	1H	1784	A	O5'-P-OP1	12.98	126.27	110.70
26	1H	2287	A	C5-C6-N1	-12.94	111.23	117.70
26	1H	945	A	N1-C2-N3	12.92	135.76	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2713	A	N7-C8-N9	12.91	120.26	113.80
26	14	530	G	C2-N3-C4	-12.89	105.46	111.90
26	1H	1616	A	N7-C8-N9	12.88	120.24	113.80
26	1H	2490	G	C6-C5-N7	-12.86	122.69	130.40
26	14	2873	A	C5-N7-C8	-12.84	97.48	103.90
26	1H	1676	A	O5'-P-OP2	-12.81	94.17	105.70
26	1H	1786	A	C8-N9-C4	-12.80	100.68	105.80
26	14	2023	G	O5'-P-OP2	-12.78	94.19	105.70
1	13	792	A	C2-N3-C4	-12.76	104.22	110.60
26	14	2392	A	C2-N3-C4	-12.76	104.22	110.60
26	14	774	A	C2-N3-C4	-12.74	104.23	110.60
26	14	530	G	N1-C6-O6	12.73	127.54	119.90
26	1H	966	G	N1-C6-O6	-12.72	112.27	119.90
26	1H	2713	A	N1-C6-N6	12.70	126.22	118.60
26	14	2518	A	C5-N7-C8	-12.70	97.55	103.90
26	1H	49	A	O5'-P-OP2	-12.68	94.29	105.70
26	1H	329	G	O5'-P-OP2	-12.62	94.35	105.70
26	1H	2591	C	N1-C2-O2	-12.58	111.35	118.90
26	14	2253	G	C5-C6-O6	-12.58	121.05	128.60
26	1H	774	A	C6-N1-C2	12.56	126.14	118.60
26	14	2430	A	N3-C4-C5	12.54	135.58	126.80
26	14	1993	U	O5'-P-OP1	-12.53	94.43	105.70
26	14	1678	G	N7-C8-N9	12.52	119.36	113.10
26	1H	1950	G	N7-C8-N9	12.50	119.35	113.10
26	1H	2390	U	O5'-P-OP1	-12.49	94.46	105.70
24	3L	76	A	C5-N7-C8	-12.48	97.66	103.90
26	1H	1678	G	N7-C8-N9	12.46	119.33	113.10
26	1H	1786	A	C5-C6-N1	-12.46	111.47	117.70
26	14	205	G	O5'-P-OP2	-12.45	94.50	105.70
26	1H	195	A	N1-C6-N6	12.44	126.06	118.60
26	1H	196	A	N7-C8-N9	12.43	120.02	113.80
26	14	510	C	O5'-P-OP2	-12.42	94.52	105.70
26	1H	1528	A	C8-N9-C4	-12.42	100.83	105.80
26	1H	1678	G	C4-C5-N7	12.42	115.77	110.80
1	13	328	C	O5'-P-OP1	-12.42	94.52	105.70
26	14	2688	U	C5-C4-O4	12.41	133.34	125.90
26	1H	111	A	O5'-P-OP2	-12.38	94.56	105.70
26	14	2518	A	C2-N3-C4	-12.38	104.41	110.60
26	14	1496	A	N7-C8-N9	12.34	119.97	113.80
26	1H	787	U	O5'-P-OP2	-12.34	94.60	105.70
1	13	690	G	C6-C5-N7	-12.32	123.01	130.40
26	1H	2346	A	C2-N3-C4	-12.31	104.44	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1255	U	N3-C4-C5	-12.30	107.22	114.60
26	1H	774	A	C4-C5-N7	12.30	116.85	110.70
1	13	884	U	O5'-P-OP2	-12.29	94.64	105.70
26	14	1899	G	C2-N3-C4	-12.30	105.75	111.90
26	14	2873	A	C2-N3-C4	-12.29	104.45	110.60
26	1H	1589	C	O5'-P-OP2	12.29	125.45	110.70
26	14	829	A	O5'-P-OP2	-12.27	94.65	105.70
26	14	945	A	N1-C2-N3	12.27	135.44	129.30
26	1H	930	U	C5-C4-O4	12.26	133.25	125.90
26	1H	1274	A	O5'-P-OP1	-12.25	94.67	105.70
26	1H	2490	G	C8-N9-C4	-12.25	101.50	106.40
26	14	835	A	O5'-P-OP1	12.24	125.39	110.70
26	14	2688	U	N3-C2-O2	-12.24	113.63	122.20
26	14	2430	A	C5-C6-N1	-12.22	111.59	117.70
26	14	733	G	N3-C4-N9	12.20	133.32	126.00
26	1H	1558	A	O5'-P-OP1	-12.19	94.72	105.70
26	14	2346	A	N1-C2-N3	12.18	135.39	129.30
26	1H	1210	A	C2-N3-C4	-12.18	104.51	110.60
26	14	528	A	N1-C2-N3	12.17	135.39	129.30
26	1H	2713	A	C4-C5-N7	12.17	116.78	110.70
26	14	621	A	C2-N3-C4	-12.16	104.52	110.60
26	1H	2392	A	C2-N3-C4	-12.15	104.53	110.60
26	14	1899	G	C4-C5-N7	12.14	115.66	110.80
26	1H	2688	U	N3-C2-O2	-12.14	113.70	122.20
26	14	140	A	C5-N7-C8	-12.14	97.83	103.90
1	13	1266	G	N1-C6-O6	12.13	127.18	119.90
26	1H	908	C	O5'-P-OP2	-12.13	94.78	105.70
26	1H	1424	G	O5'-P-OP2	-12.13	94.78	105.70
26	14	71	A	C5-N7-C8	-12.13	97.84	103.90
26	14	632	A	O5'-P-OP2	12.13	125.25	110.70
26	1H	1332	G	N3-C4-N9	-12.10	118.74	126.00
26	1H	2712	U	C2-N3-C4	-12.10	119.74	127.00
1	13	529	G	N1-C6-O6	12.09	127.15	119.90
26	1H	805	G	O5'-P-OP1	-12.08	94.83	105.70
26	14	2700	C	C6-N1-C2	12.07	125.13	120.30
26	1H	913	U	N1-C2-O2	12.06	131.24	122.80
26	1H	2430	A	C5-C6-N1	-12.05	111.67	117.70
26	1H	330	A	C2-N3-C4	-12.04	104.58	110.60
26	1H	2248	C	N3-C4-N4	-12.03	109.58	118.00
26	1H	1496	A	C6-C5-N7	-12.03	123.88	132.30
26	14	1342	A	C2-N3-C4	-12.02	104.59	110.60
26	1H	129	C	C5-C4-N4	-12.00	111.80	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2357	U	O5'-P-OP2	-11.99	94.91	105.70
26	1H	528	A	N3-C4-C5	11.98	135.18	126.80
26	14	2490	G	N7-C8-N9	11.96	119.08	113.10
26	1H	621	A	C4-C5-N7	11.96	116.68	110.70
26	14	530	G	C6-C5-N7	-11.93	123.24	130.40
26	14	1616	A	C2-N3-C4	-11.91	104.64	110.60
1	13	892	A	N1-C6-N6	11.90	125.74	118.60
1	13	971	G	O5'-P-OP2	-11.90	94.99	105.70
26	1H	1931	U	N1-C2-N3	11.90	122.04	114.90
26	14	2591	C	N1-C2-O2	-11.88	111.77	118.90
1	13	792	A	N7-C8-N9	11.87	119.73	113.80
23	2K	61	U	O5'-P-OP2	-11.87	95.02	105.70
26	14	2490	G	C5-N7-C8	-11.86	98.37	104.30
26	14	508	G	O5'-P-OP1	-11.85	95.03	105.70
26	14	1786	A	C6-C5-N7	-11.84	124.01	132.30
26	14	1786	A	N1-C6-N6	11.84	125.70	118.60
26	14	744	G	O5'-P-OP2	-11.84	95.05	105.70
26	1H	621	A	N7-C8-N9	11.83	119.72	113.80
26	1H	491	G	O5'-P-OP1	-11.82	95.06	105.70
26	14	2331	G	C5-C6-O6	-11.82	121.51	128.60
1	13	792	A	C6-C5-N7	-11.79	124.04	132.30
26	1H	1142(A)	A	C2-N3-C4	-11.79	104.71	110.60
26	1H	1308	A	C8-N9-C4	-11.78	101.09	105.80
26	1H	2712	U	C2-N1-C1'	11.76	131.81	117.70
31	31	74	ARG	NE-CZ-NH1	11.76	126.18	120.30
26	14	694	U	O5'-P-OP2	-11.75	95.13	105.70
26	1H	138	G	C4-C5-N7	11.73	115.49	110.80
26	14	778	G	N1-C6-O6	-11.73	112.86	119.90
26	1H	2330	G	N1-C6-O6	11.73	126.94	119.90
26	1H	1021	A	N7-C8-N9	11.72	119.66	113.80
1	13	1502	A	C2-N3-C4	-11.72	104.74	110.60
26	1H	1382	G	C4-C5-N7	11.71	115.48	110.80
26	14	2073	C	N1-C2-O2	-11.71	111.88	118.90
26	1H	138	G	N7-C8-N9	11.70	118.95	113.10
26	1H	120	U	C5-C6-N1	-11.68	116.86	122.70
1	1G	60	A	C8-N9-C4	11.68	110.47	105.80
26	1H	1786	A	C4-C5-N7	11.67	116.54	110.70
26	1H	621	A	N1-C2-N3	11.66	135.13	129.30
26	1H	71	A	C4-C5-N7	11.65	116.53	110.70
26	14	2518	A	C4-C5-N7	11.64	116.52	110.70
26	1H	530	G	N3-C4-N9	-11.62	119.03	126.00
26	14	528	A	N1-C6-N6	11.62	125.57	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1678	G	C8-N9-C4	-11.60	101.76	106.40
26	1H	788	A	N9-C4-C5	-11.60	101.16	105.80
1	1G	1322	C	N1-C2-O2	11.59	125.85	118.90
26	1H	179	G	N1-C6-O6	11.58	126.85	119.90
26	1H	370	G	O5'-P-OP2	-11.57	95.29	105.70
26	1H	1271	G	O5'-P-OP2	-11.57	95.29	105.70
26	14	2256	G	O5'-P-OP2	-11.56	95.30	105.70
26	1H	1899	G	C8-N9-C1'	11.54	142.00	127.00
26	1H	528	A	C6-N1-C2	11.53	125.52	118.60
26	14	467	G	O5'-P-OP2	-11.53	95.33	105.70
26	1H	71	A	N3-C4-C5	11.51	134.86	126.80
26	1H	2700	C	C5-C4-N4	-11.51	112.14	120.20
1	13	1335	C	C6-N1-C2	11.50	124.90	120.30
26	14	2688	U	N1-C2-N3	11.50	121.80	114.90
26	14	669	G	O5'-P-OP2	-11.49	95.36	105.70
26	14	1616	A	N1-C6-N6	11.48	125.49	118.60
26	1H	1698	A	N3-C4-C5	11.48	134.84	126.80
26	1H	1204	A	O4'-C1'-N9	11.47	117.38	108.20
24	3K	76	A	N1-C6-N6	11.47	125.48	118.60
26	1H	729	G	C8-N9-C4	-11.47	101.81	106.40
26	1H	528	A	N3-C4-N9	-11.45	118.24	127.40
26	14	2542	A	N7-C8-N9	-11.44	108.08	113.80
1	13	792	A	O4'-C1'-N9	11.43	117.34	108.20
26	1H	1416	G	O5'-P-OP2	-11.43	95.41	105.70
27	16	81	G	C5-N7-C8	-11.43	98.59	104.30
26	1H	860	U	C4-C5-C6	11.43	126.56	119.70
26	1H	1955	U	C5-C6-N1	-11.42	116.99	122.70
26	14	1566	A	N1-C6-N6	11.41	125.44	118.60
24	3K	76	A	C4-C5-N7	11.40	116.40	110.70
26	14	2282	G	O5'-P-OP1	-11.39	95.45	105.70
26	14	974(A)	C	N1-C2-O2	11.38	125.73	118.90
26	14	687	C	O5'-P-OP1	-11.38	95.46	105.70
1	13	1369	C	O5'-P-OP2	-11.38	95.46	105.70
26	14	2873	A	C4-C5-C6	11.38	122.69	117.00
26	1H	754	C	N1-C2-O2	-11.38	112.07	118.90
26	1H	120	U	C4-C5-C6	11.38	126.53	119.70
26	1H	1950	G	C8-N9-C4	-11.38	101.85	106.40
26	1H	1835	G	O5'-P-OP1	-11.37	95.46	105.70
26	1H	1600	C	O5'-P-OP2	-11.37	95.47	105.70
26	1H	865	C	O5'-P-OP2	11.37	124.34	110.70
24	3L	76	A	N1-C6-N6	11.37	125.42	118.60
26	14	1496	A	C5-N7-C8	-11.37	98.22	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1950	G	C5-N7-C8	-11.37	98.62	104.30
26	14	140	A	N7-C8-N9	11.36	119.48	113.80
26	1H	121	G	C5-C6-O6	-11.35	121.79	128.60
26	1H	2326	C	O5'-P-OP1	-11.33	95.50	105.70
26	14	733	G	N3-C4-C5	-11.32	122.94	128.60
26	14	463	G	O5'-P-OP2	-11.31	95.52	105.70
26	1H	324	A	O5'-P-OP2	11.28	124.24	110.70
26	14	148	C	C6-N1-C2	11.28	124.81	120.30
26	14	2490	G	C4-C5-N7	11.28	115.31	110.80
1	13	966	G	C5-C6-O6	-11.27	121.84	128.60
26	1H	1786	A	C6-C5-N7	-11.24	124.43	132.30
26	14	945	A	C4-C5-C6	11.24	122.62	117.00
26	14	1440	G	O5'-P-OP2	-11.23	95.59	105.70
26	1H	1940	U	O5'-P-OP2	-11.23	95.59	105.70
26	14	2477	C	N3-C2-O2	-11.22	114.05	121.90
26	14	922	U	O5'-P-OP1	-11.22	95.61	105.70
1	13	760	G	N1-C6-O6	11.19	126.61	119.90
26	1H	140	A	N1-C6-N6	11.19	125.31	118.60
26	1H	638	G	O5'-P-OP1	-11.18	95.64	105.70
26	14	312	G	O5'-P-OP1	-11.17	95.64	105.70
26	14	783	A	N7-C8-N9	11.16	119.38	113.80
26	1H	129	C	C2-N3-C4	-11.15	114.32	119.90
26	14	1325	G	O5'-P-OP2	11.15	124.08	110.70
26	14	2713	A	C2-N3-C4	-11.15	105.02	110.60
26	1H	2330	G	C6-C5-N7	-11.15	123.71	130.40
26	14	621	A	C5-N7-C8	-11.15	98.33	103.90
26	1H	1528	A	N7-C8-N9	11.14	119.37	113.80
26	1H	2490	G	C2-N3-C4	-11.13	106.33	111.90
26	1H	2688	U	C5-C4-O4	11.12	132.57	125.90
27	1J	114	G	C8-N9-C4	11.13	110.85	106.40
26	14	2873	A	N1-C6-N6	11.12	125.27	118.60
26	1H	774	A	C4-C5-C6	-11.11	111.45	117.00
26	1H	987	G	O5'-P-OP2	11.11	124.03	110.70
26	14	197	A	C5-C6-N6	-11.11	114.81	123.70
26	14	669	G	OP1-P-OP2	11.11	136.26	119.60
26	1H	2379	G	C5-C6-O6	-11.10	121.94	128.60
26	14	773	U	C5-C6-N1	-11.09	117.16	122.70
26	1H	214	G	C8-N9-C4	-11.08	101.97	106.40
26	1H	1813	G	O5'-P-OP1	-11.07	95.73	105.70
26	14	945	A	C4-C5-N7	11.07	116.23	110.70
26	1H	210	C	C5-C6-N1	-11.06	115.47	121.00
1	13	1502	A	O5'-P-OP2	-11.05	95.75	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1022	G	N9-C4-C5	11.05	109.82	105.40
26	1H	683	C	C5-C4-N4	-11.04	112.47	120.20
26	1H	770	G	O5'-P-OP2	11.04	123.95	110.70
26	1H	2392	A	N1-C6-N6	11.04	125.23	118.60
26	1H	2703	C	C6-N1-C2	-11.04	115.88	120.30
26	1H	324	A	O5'-P-OP1	-11.03	95.77	105.70
26	1H	2555	U	N1-C2-O2	-11.03	115.08	122.80
26	14	1204	A	C2-N3-C4	-11.02	105.09	110.60
26	14	1332	G	C4-N9-C1'	11.02	140.82	126.50
26	14	2713	A	N7-C8-N9	11.02	119.31	113.80
26	14	2078	C	O5'-P-OP2	11.01	123.92	110.70
26	1H	124	G	N1-C6-O6	11.01	126.50	119.90
26	14	2297	C	O5'-P-OP1	-11.01	95.80	105.70
26	1H	528	A	C5-C6-N1	-11.00	112.20	117.70
26	1H	1496	A	C8-N9-C4	-10.98	101.41	105.80
26	14	1321	A	C8-N9-C4	10.98	110.19	105.80
26	14	1899	G	N7-C8-N9	10.98	118.59	113.10
26	14	212	G	O5'-P-OP2	-10.96	95.83	105.70
26	1H	254	G	C5-C6-O6	-10.96	122.02	128.60
26	1H	2287	A	C5-N7-C8	-10.96	98.42	103.90
26	14	2371	G	N9-C4-C5	-10.95	101.02	105.40
26	1H	1558	A	C2-N3-C4	-10.95	105.13	110.60
26	1H	2425	A	O5'-P-OP2	-10.94	95.85	105.70
26	1H	140	A	C6-C5-N7	-10.94	124.65	132.30
24	3L	76	A	N7-C8-N9	10.93	119.27	113.80
26	1H	2073	C	N1-C2-O2	-10.93	112.34	118.90
26	1H	140	A	C4-C5-N7	10.93	116.16	110.70
26	1H	1767	C	O5'-P-OP1	-10.92	95.87	105.70
26	1H	2751	G	C8-N9-C1'	-10.92	112.80	127.00
26	1H	1698	A	N3-C4-N9	-10.91	118.67	127.40
26	1H	845	G	N3-C4-N9	-10.91	119.46	126.00
26	1H	966	G	C5-C6-O6	10.91	135.14	128.60
26	1H	2346	A	C4-N9-C1'	10.89	145.91	126.30
26	14	1616	A	C6-C5-N7	-10.88	124.68	132.30
26	1H	66	C	C6-N1-C2	-10.88	115.95	120.30
26	14	829	A	OP1-P-OP2	10.88	135.92	119.60
26	14	1698	A	C4-C5-C6	10.88	122.44	117.00
26	1H	1325	G	N1-C6-O6	10.88	126.43	119.90
26	1H	1678	G	C8-N9-C4	-10.88	102.05	106.40
26	1H	2502	G	C8-N9-C4	-10.87	102.05	106.40
26	1H	121	G	C5-C6-N1	10.85	116.93	111.50
26	14	2681	C	N3-C4-N4	-10.85	110.41	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	757	U	O5'-P-OP2	-10.83	95.95	105.70
26	14	2430	A	O5'-P-OP2	10.83	123.69	110.70
26	14	2713	A	N1-C6-N6	10.82	125.09	118.60
26	1H	1332	G	C5-C6-O6	-10.81	122.11	128.60
26	14	1784	A	O5'-P-OP2	-10.81	95.97	105.70
26	14	793	A	O5'-P-OP2	-10.80	95.98	105.70
26	1H	140	A	C8-N9-C4	-10.79	101.48	105.80
26	14	71	A	C2-N3-C4	-10.79	105.20	110.60
26	1H	205	G	O5'-P-OP2	-10.79	95.99	105.70
26	1H	1759	A	O5'-P-OP1	-10.78	96.00	105.70
26	1H	1308	A	N1-C2-N3	10.78	134.69	129.30
26	14	1284	A	O5'-P-OP2	-10.78	96.00	105.70
26	1H	245	G	N1-C6-O6	10.77	126.36	119.90
26	1H	621	A	C6-C5-N7	-10.77	124.76	132.30
26	1H	451	C	N1-C2-O2	-10.77	112.44	118.90
26	1H	821	A	O5'-P-OP2	-10.76	96.01	105.70
26	1H	2503	A	OP1-P-OP2	-10.76	103.47	119.60
26	1H	51	G	O5'-P-OP1	-10.75	96.03	105.70
27	16	81	G	C4-C5-N7	10.75	115.10	110.80
26	14	913	U	O5'-P-OP2	-10.75	96.03	105.70
26	1H	806	C	N3-C4-C5	10.74	126.20	121.90
1	1G	1502	A	C5-N7-C8	-10.74	98.53	103.90
26	14	2873	A	C8-N9-C4	-10.74	101.50	105.80
26	1H	196	A	C8-N9-C4	-10.74	101.50	105.80
26	1H	2085	C	O5'-P-OP2	-10.73	96.04	105.70
26	1H	318	C	O5'-P-OP1	-10.72	96.05	105.70
26	14	1678	G	C4-C5-N7	10.72	115.09	110.80
26	1H	138	G	C8-N9-C4	-10.72	102.11	106.40
26	1H	2751	G	N3-C4-N9	10.71	132.43	126.00
26	14	1778	U	O5'-P-OP1	-10.70	96.07	105.70
26	1H	210	C	C2-N3-C4	-10.70	114.55	119.90
26	1H	676	A	N7-C8-N9	10.69	119.14	113.80
26	1H	774	A	N1-C6-N6	10.68	125.01	118.60
26	1H	1610	A	C2-N3-C4	-10.68	105.26	110.60
26	14	1332	G	C4-C5-C6	10.68	125.21	118.80
26	1H	2392	A	C6-C5-N7	-10.68	124.83	132.30
26	14	1332	G	N1-C2-N3	10.68	130.31	123.90
26	1H	2448	A	C5-C6-N6	-10.67	115.16	123.70
26	14	74	A	C5-C6-N1	-10.67	112.37	117.70
26	1H	512	G	O4'-C1'-N9	10.65	116.72	108.20
26	1H	537	C	O5'-P-OP1	10.65	123.48	110.70
26	1H	1660	C	N3-C2-O2	-10.65	114.45	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	74	A	C5-C6-N1	-10.64	112.38	117.70
26	14	1251	C	N3-C4-N4	10.63	125.44	118.00
26	1H	796	C	N3-C4-C5	10.60	126.14	121.90
26	1H	848	G	O5'-P-OP2	-10.60	96.16	105.70
26	14	641	C	O5'-P-OP2	10.59	123.41	110.70
26	1H	1818	U	O5'-P-OP2	-10.58	96.17	105.70
26	14	1394	U	O5'-P-OP2	10.58	123.40	110.70
1	1G	1502	A	C2-N3-C4	-10.58	105.31	110.60
26	14	783	A	N3-C4-C5	10.57	134.20	126.80
26	1H	2689	U	N3-C4-O4	-10.57	112.00	119.40
26	14	703	U	C5-C4-O4	10.57	132.24	125.90
26	1H	1284	A	O5'-P-OP2	-10.56	96.19	105.70
26	1H	658	C	O5'-P-OP2	-10.56	96.20	105.70
26	1H	330	A	C5-N7-C8	-10.55	98.62	103.90
26	1H	1566	A	O5'-P-OP2	-10.55	96.20	105.70
26	14	2430	A	N3-C4-N9	-10.55	118.96	127.40
26	1H	1700	A	O5'-P-OP2	-10.54	96.21	105.70
26	14	2371	G	C5-C6-O6	-10.54	122.28	128.60
26	14	530	G	C5-N7-C8	-10.53	99.04	104.30
26	14	1825	A	O5'-P-OP2	-10.52	96.23	105.70
26	1H	2604	U	N3-C2-O2	-10.52	114.84	122.20
26	1H	2406	U	O5'-P-OP1	-10.51	96.24	105.70
26	1H	1255	U	C4-C5-C6	10.51	126.00	119.70
26	14	1610	A	C8-N9-C4	10.51	110.00	105.80
26	14	1698	A	C4-C5-N7	10.51	115.95	110.70
26	1H	2698	U	O5'-P-OP2	-10.50	96.25	105.70
26	1H	1626	G	O5'-P-OP2	10.49	123.29	110.70
26	1H	245	G	C6-C5-N7	-10.49	124.11	130.40
26	1H	46	C	O5'-P-OP2	-10.49	96.26	105.70
26	1H	853	G	O5'-P-OP2	-10.49	96.26	105.70
26	14	184	C	C6-N1-C2	10.48	124.49	120.30
26	14	800	A	O5'-P-OP1	-10.48	96.27	105.70
26	1H	1393	A	O5'-P-OP2	-10.48	96.27	105.70
26	14	2544	G	N1-C6-O6	10.48	126.19	119.90
26	14	2252	G	C8-N9-C4	10.46	110.58	106.40
26	14	530	G	N9-C4-C5	-10.45	101.22	105.40
26	14	1904	G	O5'-P-OP2	-10.45	96.30	105.70
48	I8	10	THR	N-CA-C	-10.44	82.81	111.00
26	14	1304	C	N3-C4-N4	-10.44	110.69	118.00
26	14	778	G	C5-C6-O6	10.44	134.86	128.60
26	14	2287	A	N1-C2-N3	10.43	134.51	129.30
26	14	2712	U	C5-C6-N1	-10.43	117.49	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1266	G	C8-N9-C4	10.43	110.57	106.40
26	1H	2441	C	N3-C4-N4	-10.42	110.71	118.00
26	1H	210	C	C6-N1-C2	10.42	124.47	120.30
26	1H	869	G	N1-C6-O6	-10.41	113.65	119.90
26	14	945	A	C5-N7-C8	-10.41	98.69	103.90
26	1H	1210	A	C5-N7-C8	-10.40	98.70	103.90
26	1H	2003	G	O5'-P-OP1	-10.38	96.36	105.70
1	13	690	G	C4-C5-N7	10.37	114.95	110.80
26	1H	202	U	N3-C4-C5	10.36	120.82	114.60
26	14	1426	G	C5-C6-O6	-10.36	122.38	128.60
26	1H	201	C	O5'-P-OP2	-10.36	96.38	105.70
1	1G	690	G	N3-C4-C5	10.35	133.78	128.60
26	14	47	C	C6-N1-C2	10.34	124.44	120.30
26	1H	2567	G	O5'-P-OP1	-10.34	96.40	105.70
26	1H	2688	U	N1-C2-N3	10.33	121.10	114.90
26	1H	2469	A	N1-C6-N6	10.32	124.79	118.60
26	1H	2469	A	C5-N7-C8	-10.32	98.74	103.90
26	1H	913	U	N3-C2-O2	-10.32	114.98	122.20
1	13	1512	U	O5'-P-OP2	-10.32	96.42	105.70
26	1H	122	G	N1-C2-N3	10.32	130.09	123.90
26	14	71	A	N1-C6-N6	10.32	124.79	118.60
26	1H	774	A	C5-C6-N1	-10.31	112.54	117.70
26	14	2335	A	N1-C6-N6	-10.31	112.41	118.60
26	1H	74	A	N3-C4-C5	10.31	134.01	126.80
1	1G	690	G	N3-C4-N9	-10.31	119.81	126.00
26	14	71	A	N1-C2-N3	10.30	134.45	129.30
26	1H	1639	U	O5'-P-OP2	-10.30	96.43	105.70
26	1H	2392	A	C8-N9-C4	-10.29	101.69	105.80
26	14	2713	A	C4-C5-N7	10.29	115.84	110.70
26	14	2066	C	O5'-P-OP1	-10.28	96.44	105.70
26	14	2392	A	C5-N7-C8	-10.28	98.76	103.90
26	1H	71	A	N1-C6-N6	10.27	124.76	118.60
1	13	690	G	N1-C6-O6	10.27	126.06	119.90
26	14	698	C	O5'-P-OP2	-10.26	96.46	105.70
26	1H	1394	U	OP1-P-OP2	-10.26	104.21	119.60
26	1H	1626	G	N3-C2-N2	-10.26	112.72	119.90
26	1H	828	U	C5-C4-O4	10.25	132.05	125.90
27	16	45	A	O5'-P-OP1	-10.23	96.50	105.70
26	1H	1678	G	C8-N9-C1'	10.22	140.29	127.00
26	14	1408	C	N1-C2-O2	-10.22	112.77	118.90
1	13	5	U	N1-C2-O2	10.21	129.95	122.80
26	14	2429	G	OP1-P-OP2	-10.21	104.28	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2238	G	O5'-P-OP2	-10.21	96.51	105.70
26	14	2329	G	N3-C4-N9	10.21	132.12	126.00
26	1H	783	A	N3-C4-C5	10.20	133.94	126.80
26	1H	2584	U	C5-C4-O4	10.20	132.02	125.90
26	1H	2265	U	O5'-P-OP1	-10.19	96.53	105.70
26	14	2282	G	O5'-P-OP2	10.19	122.93	110.70
26	14	621	A	N7-C8-N9	10.18	118.89	113.80
26	1H	1367	A	C2-N3-C4	-10.18	105.51	110.60
1	13	1504	G	O5'-P-OP1	-10.18	96.54	105.70
23	2L	36	A	O5'-P-OP1	-10.18	96.54	105.70
26	14	2518	A	O4'-C1'-N9	-10.17	100.06	108.20
26	1H	1616	A	C8-N9-C4	-10.16	101.73	105.80
27	1J	30	C	C6-N1-C2	-10.16	116.23	120.30
26	1H	956	G	N1-C6-O6	10.16	126.00	119.90
26	1H	1332	G	N1-C2-N3	10.15	129.99	123.90
26	1H	677	A	O5'-P-OP2	-10.15	96.57	105.70
26	1H	1571	A	C5-C6-N6	-10.15	115.58	123.70
26	1H	788	A	C6-N1-C2	10.15	124.69	118.60
26	1H	2439	A	N1-C6-N6	10.15	124.69	118.60
26	1H	1604	C	N1-C2-O2	-10.14	112.81	118.90
26	1H	2377	A	C8-N9-C4	10.14	109.86	105.80
26	1H	1204	A	C5-C6-N1	-10.13	112.63	117.70
26	14	2544	G	C5-C6-O6	-10.13	122.52	128.60
26	1H	2298	A	O5'-P-OP2	-10.13	96.59	105.70
26	14	876	C	N1-C2-O2	10.12	124.97	118.90
26	1H	2287	A	N3-C4-N9	-10.09	119.33	127.40
26	1H	2713	A	N3-C4-C5	10.09	133.87	126.80
26	14	783	A	N1-C2-N3	10.09	134.35	129.30
26	1H	208	C	C5-C6-N1	-10.08	115.96	121.00
26	1H	1312	U	C5-C6-N1	-10.07	117.66	122.70
26	1H	284	U	O5'-P-OP1	-10.07	96.64	105.70
26	1H	847	U	C5-C6-N1	-10.07	117.66	122.70
26	1H	1621	U	N1-C2-O2	-10.07	115.75	122.80
24	3L	76	A	C4-C5-N7	10.07	115.73	110.70
27	16	115	G	C5-C6-N1	10.06	116.53	111.50
26	1H	856	C	O5'-P-OP1	-10.05	96.65	105.70
26	1H	2311	A	N1-C2-N3	10.05	134.33	129.30
26	1H	624	C	O5'-P-OP1	-10.05	96.66	105.70
26	1H	2510	C	N3-C4-N4	-10.04	110.97	118.00
26	1H	2699	C	C6-N1-C2	10.04	124.31	120.30
26	1H	942	G	C5-C6-N1	10.03	116.52	111.50
26	14	918	A	O5'-P-OP1	-10.03	96.67	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	122	G	C6-N1-C2	-10.02	119.09	125.10
26	1H	1300	U	N1-C2-N3	10.02	120.91	114.90
26	1H	2689	U	C5-C6-N1	-10.02	117.69	122.70
26	14	1559	G	C6-C5-N7	-10.02	124.39	130.40
26	14	1248	G	O5'-P-OP1	10.02	122.72	110.70
26	14	1274	A	O5'-P-OP1	-10.01	96.69	105.70
26	1H	252	G	O5'-P-OP1	9.99	122.69	110.70
26	14	2287	A	N1-C6-N6	9.99	124.59	118.60
26	14	1566	A	N9-C4-C5	-9.99	101.81	105.80
26	1H	1928	A	O5'-P-OP1	-9.98	96.72	105.70
26	1H	2270	G	C5-C6-O6	-9.97	122.62	128.60
26	1H	1477	A	O5'-P-OP2	-9.97	96.72	105.70
26	1H	2712	U	N3-C4-O4	9.97	126.38	119.40
26	1H	2597	G	O5'-P-OP1	9.97	122.66	110.70
26	1H	928	G	N1-C6-O6	9.97	125.88	119.90
26	1H	1950	G	C4-C5-N7	9.96	114.79	110.80
26	14	1566	A	C5-C6-N6	-9.97	115.73	123.70
26	1H	1498	C	O5'-P-OP1	-9.96	96.73	105.70
26	1H	2469	A	C4-C5-N7	9.96	115.68	110.70
26	1H	1401	G	C8-N9-C4	-9.95	102.42	106.40
1	13	1486	G	O5'-P-OP2	-9.95	96.75	105.70
26	1H	1970	A	O5'-P-OP1	-9.95	96.75	105.70
26	1H	2506	U	N1-C2-O2	9.94	129.76	122.80
26	1H	1204	A	O5'-P-OP2	-9.93	96.77	105.70
26	14	1616	A	C8-N9-C4	-9.93	101.83	105.80
1	13	5	U	N3-C2-O2	-9.92	115.25	122.20
26	1H	1423	G	C8-N9-C4	9.92	110.37	106.40
26	14	2565	A	O5'-P-OP2	9.92	122.60	110.70
1	1G	690	G	C5-N7-C8	-9.91	99.34	104.30
26	14	1329	U	O5'-P-OP1	-9.91	96.78	105.70
26	14	1129	A	O5'-P-OP2	-9.91	96.78	105.70
26	1H	941	A	N1-C6-N6	9.90	124.54	118.60
26	14	681	G	C4-C5-N7	9.90	114.76	110.80
26	1H	2544	G	C5-C6-O6	-9.89	122.66	128.60
26	1H	2084	C	C5-C6-N1	-9.89	116.06	121.00
26	14	2335	A	O4'-C1'-N9	9.89	116.11	108.20
26	14	2779	U	N3-C2-O2	-9.89	115.28	122.20
26	1H	845	G	C8-N9-C1'	9.89	139.85	127.00
26	1H	2329	G	N1-C6-O6	-9.88	113.97	119.90
27	16	6	C	C5-C4-N4	-9.88	113.28	120.20
26	14	1698	A	N1-C2-N3	9.88	134.24	129.30
26	1H	1786	A	N3-C4-C5	9.88	133.72	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2697	G	OP1-P-OP2	9.88	134.41	119.60
26	1H	1428	C	N1-C2-O2	-9.87	112.98	118.90
26	1H	120	U	O5'-P-OP2	-9.87	96.82	105.70
26	14	2438	U	O5'-P-OP2	-9.86	96.82	105.70
26	14	621	A	C5-C6-N1	-9.86	112.77	117.70
26	14	2429	G	O5'-P-OP1	9.86	122.53	110.70
26	1H	2346	A	N1-C6-N6	9.86	124.51	118.60
26	1H	2502	G	O5'-P-OP1	-9.85	96.83	105.70
22	1L	74	C	N1-C2-O2	9.85	124.81	118.90
26	1H	247	G	C8-N9-C4	9.84	110.34	106.40
1	1G	117	G	N1-C6-O6	9.84	125.81	119.90
26	14	737	C	N1-C2-O2	-9.84	113.00	118.90
26	1H	930	U	N3-C4-O4	-9.84	112.52	119.40
26	1H	1187	G	O5'-P-OP2	-9.84	96.85	105.70
26	1H	2600	A	O5'-P-OP2	-9.83	96.85	105.70
26	1H	738	G	C4-C5-N7	9.83	114.73	110.80
26	1H	1350	C	O5'-P-OP1	-9.82	96.86	105.70
26	14	205	G	C5-C6-O6	-9.82	122.71	128.60
26	1H	2324	C	C5-C4-N4	-9.82	113.33	120.20
26	1H	2609	U	C5-C6-N1	-9.81	117.79	122.70
26	1H	917	A	N1-C2-N3	9.81	134.20	129.30
26	14	2777	G	C5-C6-O6	-9.80	122.72	128.60
26	1H	1428	C	C2-N1-C1'	-9.80	108.02	118.80
26	14	2503	A	N1-C6-N6	9.80	124.48	118.60
26	1H	1616	A	N1-C6-N6	9.79	124.48	118.60
26	14	2441	C	O5'-P-OP1	-9.79	96.89	105.70
26	14	668	G	C8-N9-C4	9.79	110.32	106.40
26	1H	1796	U	C5-C6-N1	-9.79	117.81	122.70
26	14	1899	G	C5-N7-C8	-9.79	99.41	104.30
26	1H	1006	C	O5'-P-OP1	-9.78	96.90	105.70
26	1H	783	A	N3-C4-N9	-9.77	119.58	127.40
50	K8	3	LEU	CA-CB-CG	9.77	137.78	115.30
26	1H	951	C	N3-C4-N4	-9.77	111.16	118.00
26	14	2301	C	C6-N1-C2	-9.77	116.39	120.30
1	13	50	A	C8-N9-C4	-9.77	101.89	105.80
1	13	529	G	C5-C6-O6	-9.77	122.74	128.60
26	1H	141	A	C5-N7-C8	-9.77	99.02	103.90
26	1H	2518	A	C5-N7-C8	-9.76	99.02	103.90
26	1H	1986	A	C8-N9-C4	-9.76	101.90	105.80
26	1H	2062	A	C2-N3-C4	9.76	115.48	110.60
26	1H	1817	G	N3-C2-N2	9.76	126.73	119.90
26	1H	2346	A	C5-N7-C8	-9.76	99.02	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2346	A	O4'-C1'-N9	9.75	116.00	108.20
26	14	469	G	C5-C6-O6	-9.74	122.75	128.60
26	1H	1611	C	C5-C6-N1	-9.74	116.13	121.00
26	1H	2287	A	C4-C5-N7	9.74	115.57	110.70
26	1H	2444	G	C8-N9-C4	-9.73	102.51	106.40
26	1H	945	A	C5-C6-N1	-9.73	112.83	117.70
26	1H	1698	A	N1-C2-N3	9.73	134.17	129.30
26	1H	2348	U	O5'-P-OP2	-9.73	96.94	105.70
26	1H	2712	U	C6-N1-C1'	-9.73	107.58	121.20
26	1H	933	A	O5'-P-OP2	-9.72	96.95	105.70
26	14	1644	C	N3-C2-O2	-9.72	115.10	121.90
26	14	1781	C	O4'-C1'-N1	9.71	115.97	108.20
26	1H	2559	C	O5'-P-OP2	-9.71	96.96	105.70
26	14	12	U	N3-C2-O2	-9.71	115.40	122.20
26	14	1304	C	N3-C2-O2	-9.71	115.10	121.90
26	14	746	A	O5'-P-OP2	9.71	122.35	110.70
26	14	1496	A	C8-N9-C4	-9.71	101.92	105.80
26	1H	1806	C	OP1-P-OP2	9.71	134.16	119.60
26	1H	226	G	O4'-C1'-N9	9.70	115.96	108.20
26	1H	676	A	O4'-C1'-N9	9.70	115.96	108.20
26	1H	840	C	O5'-P-OP2	-9.70	96.97	105.70
26	14	2776	A	C8-N9-C4	-9.70	101.92	105.80
26	14	796	C	O5'-P-OP2	-9.70	96.97	105.70
26	1H	2713	A	C6-C5-N7	-9.70	125.51	132.30
26	1H	1312	U	O5'-P-OP1	-9.70	96.97	105.70
26	14	471	A	C2-N3-C4	-9.70	105.75	110.60
26	1H	198	C	C6-N1-C2	9.69	124.18	120.30
26	1H	816	C	O5'-P-OP1	9.69	122.33	110.70
26	14	783	A	C8-N9-C4	-9.69	101.92	105.80
26	1H	528	A	C5-N7-C8	-9.68	99.06	103.90
26	14	197	A	N1-C6-N6	9.68	124.41	118.60
26	1H	2584	U	N1-C2-N3	9.68	120.71	114.90
26	14	1142(A)	A	C2-N3-C4	-9.68	105.76	110.60
26	1H	2572	A	C8-N9-C4	9.68	109.67	105.80
26	1H	1660	C	C5-C4-N4	9.67	126.97	120.20
26	14	1786	A	N3-C4-C5	9.67	133.57	126.80
26	14	2581	G	O5'-P-OP2	-9.67	96.99	105.70
26	1H	179	G	N3-C2-N2	-9.67	113.13	119.90
26	1H	217	G	N3-C2-N2	-9.66	113.14	119.90
26	1H	1308	A	N9-C4-C5	9.65	109.66	105.80
1	1G	1502	A	N7-C8-N9	9.65	118.63	113.80
26	14	2713	A	C6-C5-N7	-9.65	125.54	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1698	A	C5-N7-C8	-9.64	99.08	103.90
26	1H	624	C	O5'-P-OP2	9.64	122.27	110.70
26	1H	2086	U	O5'-P-OP2	-9.64	97.03	105.70
26	1H	1404	C	O5'-P-OP2	-9.63	97.03	105.70
26	1H	508	G	C8-N9-C4	-9.63	102.55	106.40
26	14	788	A	N7-C8-N9	9.63	118.61	113.80
26	1H	2503	A	C5-C6-N6	-9.62	116.00	123.70
26	1H	137(A)	G	C5-C6-O6	-9.62	122.83	128.60
26	1H	2328	A	C2-N3-C4	-9.61	105.80	110.60
26	1H	1257	C	C4-C5-C6	9.61	122.20	117.40
26	14	1588	C	C6-N1-C2	-9.61	116.46	120.30
26	1H	2004	G	O5'-P-OP1	-9.60	97.06	105.70
26	14	2681	C	C5-C4-N4	9.60	126.92	120.20
26	14	1781	C	C6-N1-C1'	-9.60	109.28	120.80
26	14	1955	U	C5-C6-N1	-9.60	117.90	122.70
26	1H	2069	G	C8-N9-C4	9.60	110.24	106.40
26	14	140	A	C4-C5-N7	9.59	115.50	110.70
23	2L	21	U	N3-C2-O2	-9.59	115.49	122.20
26	14	1619	G	O5'-P-OP2	-9.59	97.07	105.70
26	1H	2714	G	O5'-P-OP2	-9.59	97.07	105.70
26	14	2873	A	C4-N9-C1'	9.59	143.56	126.30
26	1H	952	G	O5'-P-OP2	9.58	122.19	110.70
1	1G	560	U	O5'-P-OP2	-9.58	97.08	105.70
26	1H	121	G	N3-C4-N9	9.57	131.74	126.00
29	11	242	ARG	NE-CZ-NH1	9.56	125.08	120.30
26	14	265	A	C2-N3-C4	-9.56	105.82	110.60
1	13	690	G	C5-N7-C8	-9.55	99.52	104.30
26	1H	821	A	OP1-P-OP2	9.55	133.93	119.60
26	1H	1899	G	N1-C2-N2	9.55	124.79	116.20
26	1H	1899	G	C5-C6-N1	-9.54	106.73	111.50
26	1H	945	A	C4-N9-C1'	9.53	143.46	126.30
1	13	523	A	N1-C6-N6	9.53	124.32	118.60
26	1H	604	G	O5'-P-OP1	-9.52	97.13	105.70
26	1H	1586	A	N1-C6-N6	9.52	124.31	118.60
26	1H	1660	C	N3-C4-C5	9.52	125.71	121.90
26	1H	1899	G	C6-C5-N7	9.52	136.11	130.40
26	1H	774	A	C8-N9-C1'	9.51	144.83	127.70
26	1H	869	G	N1-C2-N2	-9.51	107.64	116.20
26	1H	133	C	C6-N1-C2	9.51	124.10	120.30
1	1G	800	G	O5'-P-OP2	-9.51	97.14	105.70
26	1H	695	G	N1-C6-O6	-9.51	114.20	119.90
26	1H	788	A	N1-C6-N6	9.51	124.30	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	676	A	N3-C4-C5	9.51	133.46	126.80
26	1H	1187	G	OP2-P-O3'	9.51	126.11	105.20
26	1H	678	C	C2-N3-C4	-9.50	115.15	119.90
26	14	737	C	N3-C4-N4	9.50	124.65	118.00
26	1H	754	C	C5-C4-N4	-9.49	113.56	120.20
26	14	1975	G	O5'-P-OP2	-9.49	97.16	105.70
26	1H	695	G	N3-C2-N2	9.49	126.54	119.90
26	1H	1394	U	C5-C6-N1	9.48	127.44	122.70
26	1H	1825	A	N1-C6-N6	-9.48	112.91	118.60
26	1H	2418	A	N1-C6-N6	-9.48	112.91	118.60
26	14	2296	U	C2-N1-C1'	9.48	129.08	117.70
26	1H	2392	A	C5-C6-N1	-9.48	112.96	117.70
46	G8	81	LYS	C-N-CD	-9.47	99.77	120.60
26	14	2371	G	C8-N9-C4	9.47	110.19	106.40
26	14	774	A	C5-C6-N1	-9.46	112.97	117.70
26	14	1332	G	C5-C6-N1	-9.46	106.77	111.50
1	13	902	G	O5'-P-OP2	-9.46	97.19	105.70
26	1H	2502	G	N3-C4-C5	-9.45	123.87	128.60
26	1H	1339	G	O5'-P-OP2	9.45	122.04	110.70
26	1H	659	C	C5-C6-N1	-9.44	116.28	121.00
26	14	1644	C	N1-C2-O2	9.44	124.57	118.90
26	14	2689	U	C5-C4-O4	9.44	131.57	125.90
26	1H	784	A	N1-C6-N6	-9.44	112.94	118.60
26	1H	628	G	O5'-P-OP2	-9.44	97.20	105.70
26	1H	2252	G	C8-N9-C4	9.44	110.17	106.40
26	14	2518	A	C5-C6-N6	-9.43	116.16	123.70
26	14	584	C	N3-C4-C5	9.43	125.67	121.90
26	1H	2501	C	OP1-P-OP2	-9.42	105.47	119.60
1	1G	192	U	O5'-P-OP1	-9.42	97.22	105.70
1	13	1446	A	O4'-C1'-N9	9.42	115.74	108.20
26	14	1801	G	C5-C6-O6	-9.42	122.95	128.60
26	1H	2251	G	C4-C5-N7	-9.42	107.03	110.80
26	14	2328	A	N1-C2-N3	9.42	134.01	129.30
26	1H	1653	G	O5'-P-OP2	-9.41	97.23	105.70
26	1H	2464	C	O5'-P-OP2	-9.41	97.23	105.70
1	1G	254	G	O5'-P-OP1	-9.41	97.23	105.70
1	13	899	C	N1-C2-O2	-9.41	113.25	118.90
26	14	2424	C	O5'-P-OP1	-9.41	97.23	105.70
26	1H	2430	A	O5'-P-OP1	9.40	121.98	110.70
26	1H	836	G	C8-N9-C4	-9.40	102.64	106.40
26	1H	968	G	N1-C6-O6	-9.40	114.26	119.90
26	14	2518	A	C4-C5-C6	9.39	121.70	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2743	C	C2-N3-C4	-9.39	115.20	119.90
38	88	140	ALA	N-CA-C	-9.39	85.65	111.00
26	14	2329	G	N9-C4-C5	-9.39	101.64	105.40
26	1H	1776	G	N9-C4-C5	-9.38	101.65	105.40
26	1H	2600	A	C6-N1-C2	-9.38	112.97	118.60
26	1H	1496	A	C5-C6-N6	-9.38	116.20	123.70
26	1H	179	G	C5-C6-N1	-9.38	106.81	111.50
26	1H	530	G	N1-C6-O6	-9.38	114.28	119.90
26	1H	2316	C	C6-N1-C2	-9.38	116.55	120.30
1	1G	337	C	C6-N1-C2	-9.38	116.55	120.30
27	16	5	C	C6-N1-C2	9.37	124.05	120.30
26	1H	966	G	N3-C2-N2	9.37	126.46	119.90
26	1H	74	A	N3-C4-N9	-9.37	119.91	127.40
26	1H	917	A	N1-C6-N6	9.37	124.22	118.60
26	14	1610	A	N9-C4-C5	-9.37	102.05	105.80
26	1H	1359	A	N1-C6-N6	9.36	124.22	118.60
26	14	71	A	C4-C5-N7	9.36	115.38	110.70
26	1H	2276	G	N1-C2-N2	9.36	124.62	116.20
1	13	1502	A	C5-C6-N6	-9.36	116.22	123.70
26	14	1520	U	C5-C4-O4	9.35	131.51	125.90
26	14	1283	G	O5'-P-OP2	-9.35	97.29	105.70
26	14	2503	A	C5-C6-N6	-9.35	116.22	123.70
23	2K	41	C	O5'-P-OP1	-9.35	97.29	105.70
27	16	81	G	C2-N3-C4	-9.35	107.23	111.90
26	14	2430	A	C4-C5-N7	9.34	115.37	110.70
1	13	968	A	N1-C6-N6	9.34	124.20	118.60
26	1H	71	A	N1-C2-N3	9.34	133.97	129.30
26	1H	599	G	C5-N7-C8	9.33	108.97	104.30
26	1H	2430	A	C8-N9-C1'	9.33	144.50	127.70
26	14	528	A	C5-N7-C8	-9.33	99.23	103.90
26	1H	1574	C	OP2-P-O3'	9.33	125.72	105.20
26	14	2581	G	OP1-P-OP2	9.33	133.59	119.60
26	1H	2245	U	OP1-P-OP2	-9.31	105.63	119.60
26	14	1781	C	C2-N1-C1'	9.31	129.05	118.80
26	1H	2328	A	N1-C2-N3	9.31	133.96	129.30
26	14	2490	G	C6-C5-N7	-9.30	124.82	130.40
26	14	194	G	O5'-P-OP2	9.30	121.86	110.70
26	14	1939	U	OP2-P-O3'	9.29	125.64	105.20
26	14	1944	U	C5-C4-O4	-9.29	120.33	125.90
26	1H	1605	C	C2-N3-C4	-9.28	115.26	119.90
26	14	1332	G	C5-C6-O6	-9.28	123.03	128.60
26	1H	2598	A	N9-C4-C5	-9.28	102.09	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	130	C	C5-C4-N4	-9.27	113.71	120.20
26	14	1836	C	O5'-P-OP2	-9.27	97.35	105.70
26	1H	973	A	C2-N3-C4	-9.27	105.96	110.60
23	2L	21	U	N1-C2-O2	9.27	129.29	122.80
26	14	954	G	N9-C4-C5	9.27	109.11	105.40
26	14	1428	C	O5'-P-OP1	-9.27	97.36	105.70
1	13	580	U	C2-N3-C4	-9.26	121.44	127.00
26	1H	122	G	C2-N3-C4	-9.26	107.27	111.90
26	14	330	A	C5-N7-C8	-9.26	99.27	103.90
22	1K	76	A	C8-N9-C4	-9.26	102.10	105.80
26	1H	676	A	C8-N9-C4	-9.26	102.10	105.80
26	1H	1899	G	C4-N9-C1'	-9.26	114.47	126.50
26	14	2554	U	O5'-P-OP1	-9.24	97.38	105.70
26	14	1763	G	O5'-P-OP2	-9.24	97.39	105.70
1	13	914	A	O5'-P-OP1	-9.23	97.39	105.70
26	1H	1318	C	O5'-P-OP1	-9.23	97.39	105.70
1	13	1502	A	N7-C8-N9	9.23	118.41	113.80
26	1H	683	C	C2-N3-C4	-9.23	115.29	119.90
26	14	492	A	O5'-P-OP2	-9.22	97.40	105.70
26	1H	736	C	O5'-P-OP2	9.22	121.77	110.70
26	1H	1437	C	C6-N1-C2	-9.22	116.61	120.30
26	14	733	G	C4-C5-C6	9.21	124.33	118.80
26	14	1559	G	N1-C6-O6	9.21	125.43	119.90
26	1H	265	A	C2-N3-C4	-9.21	105.99	110.60
26	1H	2430	A	C5-N7-C8	-9.21	99.30	103.90
26	1H	2311	A	C5-N7-C8	-9.21	99.30	103.90
26	1H	1297	C	OP2-P-O3'	-9.20	84.96	105.20
26	1H	754	C	C2-N3-C4	-9.20	115.30	119.90
26	14	34	C	C2-N1-C1'	9.20	128.92	118.80
26	1H	2603	G	O5'-P-OP1	-9.19	97.43	105.70
27	16	6	C	N1-C2-O2	-9.19	113.39	118.90
26	1H	634	C	O5'-P-OP2	-9.18	97.44	105.70
27	16	56	G	O5'-P-OP2	-9.18	97.44	105.70
26	1H	74	A	C5-N7-C8	-9.18	99.31	103.90
26	1H	681	G	C8-N9-C4	9.17	110.07	106.40
26	1H	1955	U	N3-C4-O4	-9.17	112.98	119.40
26	14	250	G	O5'-P-OP1	-9.17	97.45	105.70
24	3K	76	A	C6-C5-N7	-9.17	125.88	132.30
26	1H	793	A	C5-C6-N6	-9.17	116.36	123.70
26	1H	2447	G	N3-C2-N2	-9.17	113.48	119.90
27	16	47	C	C6-N1-C2	9.17	123.97	120.30
26	1H	815	C	N3-C4-C5	9.16	125.56	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	945	A	C8-N9-C4	-9.16	102.14	105.80
1	1G	1260	C	C6-N1-C2	-9.16	116.64	120.30
26	1H	528	A	C2-N3-C4	-9.16	106.02	110.60
26	14	2244	U	N1-C2-N3	9.15	120.39	114.90
26	1H	2324	C	O5'-P-OP2	-9.15	97.47	105.70
26	1H	470	A	C5-N7-C8	-9.13	99.33	103.90
26	1H	2042	A	O5'-P-OP2	-9.13	97.48	105.70
26	14	1359	A	C8-N9-C4	9.13	109.45	105.80
26	1H	917	A	C5-C6-N1	-9.13	113.14	117.70
26	14	774	A	C6-N1-C2	9.12	124.07	118.60
26	1H	214	G	N3-C4-C5	-9.12	124.04	128.60
26	1H	1204	A	C6-C5-N7	-9.12	125.91	132.30
26	14	205	G	N9-C4-C5	-9.12	101.75	105.40
26	14	569	U	C5-C6-N1	-9.12	118.14	122.70
26	1H	659	C	C6-N1-C2	9.11	123.94	120.30
26	1H	1899	G	C5-C6-O6	9.11	134.07	128.60
26	1H	2612	C	O5'-P-OP2	-9.11	97.50	105.70
26	14	1388	G	O5'-P-OP2	-9.11	97.50	105.70
26	1H	256	A	N1-C6-N6	9.10	124.06	118.60
27	16	67	G	O5'-P-OP1	-9.10	97.51	105.70
26	1H	116	C	N1-C2-O2	-9.10	113.44	118.90
26	14	1585	C	N1-C2-O2	9.10	124.36	118.90
1	1G	1517	G	O5'-P-OP2	-9.09	97.52	105.70
26	14	1786	A	C8-N9-C4	-9.09	102.16	105.80
1	13	108	G	C4-C5-N7	9.09	114.44	110.80
26	1H	1613	G	N1-C6-O6	-9.09	114.45	119.90
26	1H	2276	G	N9-C4-C5	9.09	109.03	105.40
26	14	1950	G	C8-N9-C4	-9.09	102.77	106.40
26	1H	1634	A	OP1-P-OP2	9.09	133.23	119.60
26	14	963	U	O5'-P-OP2	9.08	121.60	110.70
26	1H	576	U	C6-N1-C2	-9.08	115.55	121.00
26	14	2779	U	N3-C4-O4	-9.08	113.05	119.40
26	1H	2023	G	O5'-P-OP1	-9.08	97.53	105.70
26	1H	860	U	C5-C6-N1	-9.07	118.16	122.70
26	1H	2525	G	C5-C6-O6	-9.07	123.16	128.60
26	1H	1158	C	C5-C6-N1	-9.07	116.47	121.00
26	14	917	A	O5'-P-OP1	-9.06	97.54	105.70
26	1H	2429	G	OP1-P-OP2	-9.06	106.01	119.60
26	14	2060	A	N1-C6-N6	-9.06	113.16	118.60
26	1H	1939	U	N3-C4-C5	9.06	120.03	114.60
26	14	2377	A	C2-N3-C4	-9.06	106.07	110.60
26	1H	825	C	N1-C2-O2	-9.05	113.47	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1210	A	N7-C8-N9	9.05	118.33	113.80
24	3K	5	C	C6-N1-C2	-9.05	116.68	120.30
26	1H	2297	C	OP1-P-OP2	9.05	133.17	119.60
44	E8	90	ARG	NE-CZ-NH1	-9.05	115.78	120.30
26	1H	2046	G	O5'-P-OP2	-9.05	97.56	105.70
26	1H	681	G	C2-N3-C4	-9.04	107.38	111.90
26	1H	575	A	C8-N9-C4	9.04	109.41	105.80
26	1H	646	A	C8-N9-C4	-9.04	102.19	105.80
26	1H	1313	U	C5-C6-N1	9.03	127.22	122.70
26	1H	2270	G	N1-C6-O6	9.03	125.32	119.90
26	14	2560	C	O5'-P-OP1	-9.03	97.57	105.70
26	14	1594	G	O5'-P-OP1	-9.03	97.58	105.70
26	1H	216	A	O5'-P-OP2	9.02	121.52	110.70
26	14	2346	A	C2-N3-C4	-9.02	106.09	110.60
26	1H	845	G	OP1-P-O3'	9.02	125.04	105.20
26	14	208	C	C5-C4-N4	-9.02	113.89	120.20
1	13	1354	C	C6-N1-C2	-9.01	116.69	120.30
26	1H	809	G	C5-C6-O6	-9.01	123.20	128.60
26	1H	738	G	C5-N7-C8	-9.00	99.80	104.30
26	14	945	A	C5-C6-N1	-9.00	113.20	117.70
26	1H	481	G	C5-C6-O6	-8.99	123.20	128.60
26	1H	188	G	O5'-P-OP2	-8.99	97.61	105.70
26	1H	2700	C	C6-N1-C2	8.99	123.90	120.30
26	14	773	U	C2-N3-C4	-8.98	121.61	127.00
27	1J	60	C	C6-N1-C2	-8.98	116.71	120.30
26	1H	1571	A	N1-C6-N6	8.98	123.99	118.60
26	14	1564	C	N3-C4-N4	-8.98	111.71	118.00
26	1H	123	G	C5-C6-N1	8.98	115.99	111.50
26	1H	71	A	O4'-C1'-N9	-8.97	101.02	108.20
26	14	684	G	C8-N9-C4	-8.96	102.81	106.40
26	14	2510	C	C5-C4-N4	8.96	126.47	120.20
26	14	1700	A	O5'-P-OP2	8.96	121.45	110.70
26	14	2392	A	C4-C5-N7	8.95	115.18	110.70
26	1H	2430	A	C4-N9-C1'	-8.95	110.19	126.30
26	1H	676	A	C5-C6-N1	-8.95	113.22	117.70
26	1H	845	G	P-O3'-C3'	8.94	130.43	119.70
26	1H	1336	A	N1-C6-N6	-8.94	113.23	118.60
26	14	954	G	N1-C6-O6	-8.94	114.54	119.90
26	1H	746	A	O5'-P-OP2	8.94	121.43	110.70
26	14	2249	U	C6-N1-C2	-8.94	115.64	121.00
26	1H	1210	A	C8-N9-C4	-8.93	102.23	105.80
26	14	775	G	N3-C4-N9	8.93	131.36	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1021	A	C8-N9-C4	-8.93	102.23	105.80
26	14	698	C	OP1-P-OP2	8.92	132.98	119.60
26	1H	2710	C	C5-C6-N1	-8.92	116.54	121.00
26	1H	207	A	N1-C6-N6	8.91	123.95	118.60
26	1H	1636	C	N3-C4-C5	-8.91	118.33	121.90
1	1G	1502	A	N1-C2-N3	8.91	133.76	129.30
26	14	140	A	C8-N9-C4	-8.91	102.24	105.80
26	14	308	G	O5'-P-OP2	-8.91	97.68	105.70
26	1H	214	G	N7-C8-N9	8.91	117.55	113.10
26	1H	611	C	C5-C6-N1	-8.91	116.55	121.00
26	1H	1392	A	O5'-P-OP1	-8.90	97.69	105.70
26	1H	839	U	O5'-P-OP2	-8.90	97.69	105.70
26	1H	1379	A	C5-N7-C8	-8.90	99.45	103.90
26	1H	2636	U	O5'-P-OP1	-8.90	97.69	105.70
1	13	581	G	N1-C6-O6	8.89	125.24	119.90
26	14	2328	A	C6-N1-C2	-8.89	113.26	118.60
26	1H	845	G	N3-C4-C5	8.89	133.05	128.60
26	14	1394	U	O5'-P-OP1	-8.89	97.70	105.70
26	1H	1359	A	N1-C2-N3	8.89	133.74	129.30
26	1H	1339	G	O5'-P-OP1	-8.88	97.71	105.70
26	1H	683	C	C6-N1-C2	8.88	123.85	120.30
26	14	778	G	N3-C2-N2	8.88	126.11	119.90
26	14	2612	C	O5'-P-OP2	-8.87	97.71	105.70
26	1H	330	A	N1-C2-N3	8.87	133.74	129.30
26	1H	123	G	C6-N1-C2	-8.87	119.78	125.10
26	14	773	U	N1-C2-N3	8.87	120.22	114.90
26	14	2313	C	C6-N1-C2	-8.86	116.76	120.30
26	1H	941	A	O5'-P-OP1	-8.85	97.73	105.70
26	1H	2277	G	N1-C6-O6	-8.85	114.59	119.90
26	1H	1142(A)	A	N3-C4-C5	8.85	132.99	126.80
26	1H	1123	C	N1-C2-O2	-8.84	113.59	118.90
26	1H	1614	A	O5'-P-OP1	-8.84	97.74	105.70
26	14	1241	A	C2-N3-C4	-8.84	106.18	110.60
1	1G	740	U	O5'-P-OP2	-8.83	97.75	105.70
26	1H	968	G	N3-C2-N2	8.83	126.08	119.90
26	1H	1786	A	N1-C6-N6	8.83	123.90	118.60
26	1H	2430	A	N1-C6-N6	8.83	123.90	118.60
26	14	2329	G	C8-N9-C4	8.83	109.93	106.40
26	1H	2252	G	N7-C8-N9	-8.83	108.69	113.10
27	16	81	G	N7-C8-N9	8.82	117.51	113.10
1	13	1489	G	C8-N9-C4	8.82	109.93	106.40
26	14	2518	A	N7-C8-N9	8.81	118.21	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	198	C	N3-C4-C5	8.81	125.42	121.90
26	14	130	C	N3-C4-C5	8.81	125.42	121.90
26	1H	1776	G	N1-C6-O6	8.81	125.19	119.90
26	14	121	G	C5-C6-O6	-8.80	123.32	128.60
26	14	954	G	C4-C5-N7	-8.80	107.28	110.80
26	1H	1543	A	C5-C6-N1	-8.80	113.30	117.70
26	14	49	A	O5'-P-OP2	-8.80	97.78	105.70
26	14	2712	U	C2-N3-C4	-8.80	121.72	127.00
27	1J	89	G	O5'-P-OP1	-8.80	97.78	105.70
26	1H	207	A	C2-N3-C4	-8.80	106.20	110.60
26	1H	739	G	O5'-P-OP2	-8.80	97.78	105.70
26	1H	906	G	N9-C4-C5	8.79	108.92	105.40
26	1H	1660	C	N1-C2-O2	8.79	124.18	118.90
26	1H	790	C	N3-C2-O2	8.79	128.05	121.90
26	1H	1780	A	N1-C2-N3	8.79	133.70	129.30
27	1J	114	G	N3-C4-C5	8.79	133.00	128.60
1	13	1198	G	O5'-P-OP1	-8.79	97.79	105.70
26	1H	757	U	C5-C6-N1	-8.78	118.31	122.70
26	1H	1950	G	O4'-C1'-N9	8.79	115.23	108.20
26	14	755	C	C4-C5-C6	8.78	121.79	117.40
26	1H	2324	C	C6-N1-C2	8.78	123.81	120.30
26	14	128	C	C2-N3-C4	-8.78	115.51	119.90
26	1H	1142(A)	A	N3-C4-N9	-8.77	120.38	127.40
26	1H	2762	G	C8-N9-C4	8.77	109.91	106.40
26	14	1955	U	C2-N3-C4	-8.77	121.74	127.00
26	14	2076	U	O5'-P-OP2	-8.77	97.81	105.70
26	14	2427	C	O5'-P-OP2	8.77	121.22	110.70
26	1H	640	C	OP1-P-O3'	8.76	124.48	105.20
26	14	1391	U	O5'-P-OP2	8.76	121.22	110.70
26	1H	2331	G	C5-C6-O6	-8.76	123.34	128.60
27	16	115	G	C4-C5-N7	8.76	114.31	110.80
26	1H	836	G	C2-N3-C4	8.76	116.28	111.90
26	1H	1786	A	N3-C4-N9	-8.76	120.39	127.40
26	1H	2353	G	O5'-P-OP1	-8.76	97.82	105.70
26	14	1379	A	C8-N9-C4	-8.76	102.30	105.80
26	1H	113	G	N3-C4-C5	8.76	132.98	128.60
26	14	330	A	C4-C5-N7	8.76	115.08	110.70
26	1H	1241	A	C5-C6-N1	-8.75	113.32	117.70
26	1H	2271	G	O5'-P-OP2	-8.75	97.82	105.70
26	14	382	G	O5'-P-OP1	-8.75	97.82	105.70
1	13	1502	A	N1-C2-N3	8.75	133.68	129.30
26	1H	124	G	C5-C6-O6	-8.75	123.35	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1302	A	OP1-P-OP2	8.75	132.72	119.60
26	14	1566	A	C8-N9-C4	8.75	109.30	105.80
26	1H	695	G	C5-C6-O6	8.75	133.85	128.60
26	1H	2712	U	O4'-C1'-N1	8.75	115.20	108.20
26	14	1830	C	C5-C4-N4	-8.75	114.08	120.20
26	14	2390	U	O5'-P-OP1	-8.74	97.83	105.70
37	78	15	ARG	C-N-CA	8.74	143.56	121.70
26	1H	1950	G	C5-C6-N1	-8.74	107.13	111.50
1	1G	1260	C	C5-C6-N1	8.73	125.37	121.00
26	1H	2318	G	C5-N7-C8	-8.73	99.93	104.30
26	1H	2688	U	C4-C5-C6	8.73	124.94	119.70
1	1G	1489	G	C8-N9-C4	8.73	109.89	106.40
26	1H	676	A	C4-C5-N7	8.73	115.06	110.70
26	14	205	G	N1-C6-O6	8.73	125.14	119.90
1	13	760	G	C5-C6-O6	-8.72	123.37	128.60
27	16	82	G	O5'-P-OP2	-8.72	97.85	105.70
26	14	1253	A	C5-C6-N6	-8.72	116.73	123.70
1	13	1266	G	C6-C5-N7	-8.71	125.17	130.40
26	1H	773	U	C5-C6-N1	-8.71	118.34	122.70
26	1H	1574	C	C6-N1-C2	8.70	123.78	120.30
26	1H	1602	U	C5-C6-N1	-8.70	118.35	122.70
26	1H	1598	C	OP1-P-O3'	8.70	124.34	105.20
26	14	1162	G	O5'-P-OP1	-8.70	97.87	105.70
26	1H	452	G	N1-C6-O6	-8.70	114.68	119.90
26	1H	778	G	N1-C6-O6	-8.69	114.68	119.90
26	1H	1198	U	N3-C2-O2	-8.69	116.12	122.20
26	1H	2503	A	N1-C6-N6	8.69	123.81	118.60
26	14	2689	U	N3-C4-O4	-8.69	113.32	119.40
26	1H	1021	A	N1-C2-N3	8.69	133.64	129.30
26	14	1992	G	C8-N9-C4	-8.69	102.93	106.40
26	1H	140	A	OP2-P-O3'	8.68	124.30	105.20
26	1H	518	G	N1-C6-O6	-8.68	114.69	119.90
26	14	2516	G	OP2-P-O3'	8.68	124.29	105.20
26	1H	1607	C	N3-C4-N4	8.67	124.07	118.00
26	14	2062	A	C4-C5-C6	-8.67	112.66	117.00
26	1H	196	A	O4'-C1'-N9	8.67	115.14	108.20
26	14	783	A	C5-C6-N1	-8.67	113.36	117.70
26	14	788	A	C8-N9-C4	-8.67	102.33	105.80
37	78	61	ARG	NE-CZ-NH1	8.67	124.63	120.30
26	14	49	A	P-O3'-C3'	8.67	130.10	119.70
26	14	1678	G	N3-C2-N2	-8.67	113.83	119.90
26	1H	378	C	C5-C4-N4	-8.66	114.14	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	800	A	OP1-P-OP2	8.66	132.60	119.60
26	14	71	A	N7-C8-N9	8.66	118.13	113.80
26	14	855	G	C8-N9-C4	-8.66	102.94	106.40
26	1H	2394	C	O5'-P-OP2	-8.66	97.91	105.70
27	16	13	A	OP1-P-OP2	8.66	132.59	119.60
26	1H	321	G	N1-C6-O6	8.65	125.09	119.90
26	14	1950	G	N7-C8-N9	8.65	117.43	113.10
26	1H	210	C	N3-C4-C5	8.65	125.36	121.90
26	14	2249	U	C5-C6-N1	8.65	127.03	122.70
26	1H	668	G	O5'-P-OP2	-8.65	97.92	105.70
26	1H	2507	C	O5'-P-OP1	-8.65	97.92	105.70
26	1H	2532	G	N1-C6-O6	8.64	125.08	119.90
1	13	1487	G	O5'-P-OP2	-8.64	97.93	105.70
26	1H	661	C	C6-N1-C2	8.64	123.75	120.30
26	14	34	C	N1-C2-O2	8.64	124.08	118.90
26	1H	2618	G	O5'-P-OP2	-8.63	97.93	105.70
26	1H	641	C	O5'-P-OP1	-8.63	97.93	105.70
26	14	2287	A	C8-N9-C4	8.63	109.25	105.80
26	1H	1681	G	N3-C4-C5	8.63	132.91	128.60
26	14	530	G	N3-C4-C5	8.63	132.91	128.60
26	1H	795	C	O5'-P-OP2	-8.62	97.94	105.70
26	1H	238	C	C5-C6-N1	-8.62	116.69	121.00
26	1H	2275	C	OP1-P-O3'	8.62	124.17	105.20
1	13	1279	A	N7-C8-N9	8.62	118.11	113.80
26	1H	141(A)	C	C5-C4-N4	-8.62	114.17	120.20
26	1H	2622	C	O5'-P-OP2	-8.62	97.94	105.70
1	13	690	G	N7-C8-N9	8.61	117.41	113.10
26	1H	2275	C	O5'-P-OP2	-8.61	97.95	105.70
26	1H	71	A	N3-C4-N9	-8.61	120.51	127.40
26	1H	1616	A	C6-C5-N7	-8.61	126.27	132.30
26	14	330	A	N1-C2-N3	8.61	133.60	129.30
26	14	1786	A	N9-C1'-C2'	8.60	125.18	114.00
26	1H	915	C	N3-C2-O2	-8.60	115.88	121.90
26	1H	978	G	O5'-P-OP2	-8.60	97.96	105.70
26	1H	1241	A	C5-N7-C8	-8.60	99.60	103.90
26	1H	1428	C	C5-C6-N1	-8.59	116.70	121.00
26	1H	1695	G	OP1-P-OP2	8.59	132.49	119.60
26	1H	2357	U	O5'-P-OP2	-8.59	97.97	105.70
26	14	2779	U	C5-C4-O4	8.59	131.06	125.90
26	14	746	A	O4'-C1'-N9	8.59	115.07	108.20
1	13	1517	G	O5'-P-OP2	-8.59	97.97	105.70
26	1H	530	G	C6-C5-N7	8.59	135.55	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1698	A	C5-C6-N1	-8.59	113.41	117.70
26	1H	2287	A	O5'-P-OP2	-8.59	97.97	105.70
26	14	1599	C	C6-N1-C2	-8.59	116.87	120.30
27	16	60	C	C6-N1-C2	-8.58	116.87	120.30
26	14	569	U	C2-N3-C4	-8.58	121.85	127.00
26	1H	208	C	C6-N1-C2	8.58	123.73	120.30
26	1H	2699	C	N3-C4-C5	8.58	125.33	121.90
26	14	194	G	N1-C6-O6	8.58	125.05	119.90
26	1H	1786	A	OP1-P-O3'	8.58	124.07	105.20
26	1H	1325	G	C6-C5-N7	-8.57	125.26	130.40
26	1H	2388	A	O5'-P-OP1	8.57	120.99	110.70
24	3L	76	A	C6-C5-N7	-8.57	126.30	132.30
1	13	524	G	O5'-P-OP1	-8.57	97.99	105.70
26	14	681	G	C6-C5-N7	-8.57	125.26	130.40
26	1H	863	A	O5'-P-OP1	8.57	120.98	110.70
26	1H	2712	U	N1-C2-N3	8.57	120.04	114.90
26	14	1430	C	O5'-P-OP2	-8.57	97.99	105.70
26	1H	25	U	C5-C4-O4	-8.56	120.76	125.90
26	1H	961	C	OP1-P-O3'	8.56	124.04	105.20
1	1G	974	A	O4'-C1'-N9	8.56	115.05	108.20
1	1G	1526	G	C5-C6-O6	-8.56	123.46	128.60
1	13	580	U	C5-C6-N1	-8.55	118.42	122.70
26	1H	1027	A	C2-N3-C4	-8.55	106.32	110.60
26	14	2501	C	C2-N1-C1'	-8.55	109.39	118.80
26	1H	2721	A	N1-C6-N6	8.55	123.73	118.60
26	1H	2278	A	C6-N1-C2	-8.54	113.47	118.60
26	1H	2405	G	C8-N9-C4	-8.54	102.98	106.40
1	13	813	U	N3-C4-O4	-8.54	113.42	119.40
26	1H	1644	C	N3-C2-O2	-8.54	115.92	121.90
26	1H	2055	C	C5-C6-N1	8.54	125.27	121.00
26	14	1684	C	C6-N1-C2	8.54	123.72	120.30
26	1H	271(B)	G	P-O3'-C3'	8.54	129.95	119.70
26	1H	271(B)	G	N3-C4-C5	-8.53	124.33	128.60
1	13	1519	A	C8-N9-C4	-8.53	102.39	105.80
26	1H	121	G	C6-N1-C2	-8.53	119.98	125.10
26	1H	1574	C	C5-C6-N1	-8.53	116.73	121.00
26	1H	2266	A	C6-N1-C2	-8.53	113.48	118.60
26	1H	917	A	O5'-P-OP1	-8.53	98.02	105.70
26	1H	2665	A	N1-C2-N3	8.53	133.56	129.30
26	14	1332	G	C8-N9-C4	-8.53	102.99	106.40
1	1G	547	A	C8-N9-C4	8.53	109.21	105.80
26	14	773	U	C4-C5-C6	8.53	124.81	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1366	A	C8-N9-C4	8.52	109.21	105.80
26	1H	668	G	N3-C2-N2	8.52	125.86	119.90
26	14	1907	G	O5'-P-OP1	-8.52	98.03	105.70
26	14	1396	U	N3-C2-O2	-8.52	116.24	122.20
26	1H	944	G	N7-C8-N9	8.52	117.36	113.10
26	1H	530	G	C8-N9-C1'	8.52	138.07	127.00
26	14	783	A	N3-C4-N9	-8.51	120.59	127.40
26	14	2873	A	C4-C5-N7	8.51	114.95	110.70
27	1J	114	G	OP1-P-OP2	8.51	132.36	119.60
26	1H	1517	G	OP1-P-O3'	8.50	123.90	105.20
26	1H	2061	G	OP1-P-O3'	8.50	123.90	105.20
26	1H	2258	C	N1-C2-O2	-8.50	113.80	118.90
26	14	828	U	N3-C2-O2	-8.50	116.25	122.20
26	1H	673	C	N3-C4-N4	8.50	123.95	118.00
26	1H	954	G	N3-C2-N2	-8.50	113.95	119.90
26	1H	1366	A	N9-C4-C5	-8.50	102.40	105.80
1	1G	354	G	O5'-P-OP2	-8.50	98.05	105.70
26	14	730	C	O5'-P-OP2	-8.50	98.05	105.70
1	13	1326	C	O5'-P-OP2	-8.49	98.06	105.70
26	14	184	C	C5-C6-N1	-8.49	116.76	121.00
26	14	829	A	O5'-P-OP1	-8.49	98.06	105.70
26	14	778	G	N1-C2-N2	-8.48	108.56	116.20
26	14	1391	U	O5'-P-OP1	-8.48	98.07	105.70
26	1H	676	A	N1-C2-N3	8.48	133.54	129.30
1	13	1502	A	N9-C4-C5	-8.48	102.41	105.80
26	14	1925	C	N1-C2-O2	-8.48	113.81	118.90
26	1H	974(A)	C	C5-C6-N1	-8.47	116.76	121.00
1	1G	518	C	N1-C2-O2	8.47	123.98	118.90
26	14	1313	U	C5-C6-N1	8.47	126.94	122.70
26	1H	2089	U	C5-C4-O4	-8.47	120.82	125.90
1	1G	894	G	C4-C5-N7	8.47	114.19	110.80
26	14	2437	U	C5-C4-O4	8.47	130.98	125.90
26	1H	520	G	N1-C6-O6	-8.47	114.82	119.90
26	14	2252	G	N9-C4-C5	-8.47	102.01	105.40
24	3K	76	A	C2-N3-C4	-8.46	106.37	110.60
26	1H	858	U	O5'-P-OP2	-8.46	98.08	105.70
26	14	2443	C	O5'-P-OP1	-8.46	98.08	105.70
1	13	904	C	N3-C4-C5	8.46	125.28	121.90
26	1H	1776	G	C5-C6-O6	-8.46	123.52	128.60
1	13	974	A	C6-C5-N7	-8.46	126.38	132.30
1	13	903	G	O5'-P-OP2	-8.46	98.09	105.70
26	14	197	A	C6-N1-C2	-8.46	113.53	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1297	C	OP1-P-O3'	8.45	123.80	105.20
26	14	140	A	N1-C6-N6	8.45	123.67	118.60
26	14	768	G	OP1-P-OP2	8.45	132.28	119.60
26	1H	74	A	N1-C2-N3	8.45	133.53	129.30
1	13	690	G	C2-N3-C4	-8.45	107.68	111.90
26	14	2392	A	N7-C8-N9	8.45	118.02	113.80
26	1H	1528	A	O4'-C1'-N9	8.45	114.96	108.20
26	1H	977	G	O5'-P-OP2	-8.44	98.10	105.70
26	1H	1375	C	OP1-P-O3'	8.44	123.78	105.20
26	14	2441	C	OP1-P-OP2	-8.44	106.94	119.60
26	1H	1698	A	N7-C8-N9	8.44	118.02	113.80
26	14	2596	U	C5-C6-N1	-8.44	118.48	122.70
26	1H	501	A	O5'-P-OP2	-8.44	98.11	105.70
26	14	1612	C	C6-N1-C2	8.44	123.67	120.30
26	1H	1286	A	O5'-P-OP2	-8.44	98.11	105.70
26	1H	2502	G	N7-C8-N9	8.44	117.32	113.10
26	1H	784	A	OP1-P-O3'	8.43	123.75	105.20
26	1H	1623	G	N1-C6-O6	-8.43	114.84	119.90
26	14	74	A	N1-C2-N3	8.43	133.52	129.30
26	14	205	G	C8-N9-C4	8.43	109.77	106.40
26	1H	120	U	N1-C2-N3	8.43	119.96	114.90
26	1H	968	G	N1-C2-N2	-8.43	108.61	116.20
26	1H	784	A	N9-C4-C5	8.43	109.17	105.80
26	14	1605	C	C5-C6-N1	-8.43	116.79	121.00
1	13	974	A	O4'-C1'-N9	8.43	114.94	108.20
27	16	82	G	N7-C8-N9	-8.43	108.89	113.10
26	14	2365	G	C5-C6-O6	-8.42	123.55	128.60
26	1H	860	U	N3-C2-O2	-8.42	116.31	122.20
26	1H	193	U	N1-C2-O2	-8.42	116.91	122.80
26	1H	514	A	C6-N1-C2	-8.42	113.55	118.60
26	1H	593	G	O5'-P-OP2	-8.42	98.12	105.70
26	1H	598	G	OP1-P-OP2	8.42	132.22	119.60
26	1H	1676	A	C2-N3-C4	-8.41	106.39	110.60
26	1H	265	A	C5-N7-C8	-8.41	99.69	103.90
26	1H	1347	G	OP1-P-O3'	8.41	123.70	105.20
26	1H	2092	U	O5'-P-OP2	-8.41	98.13	105.70
26	14	1477	A	O5'-P-OP2	-8.41	98.13	105.70
26	14	1786	A	O5'-P-OP2	-8.41	98.13	105.70
26	1H	1300	U	O5'-P-OP1	8.41	120.79	110.70
26	14	2477	C	C2-N1-C1'	8.41	128.05	118.80
19	AI	41	VAL	C-N-CD	-8.40	102.11	120.60
26	14	528	A	C4-C5-N7	8.40	114.90	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1332	G	C8-N9-C1'	-8.40	116.08	127.00
26	1H	99	U	N3-C2-O2	-8.40	116.32	122.20
26	1H	1021	A	C5-C6-N1	-8.40	113.50	117.70
26	1H	1602	U	O5'-P-OP2	8.40	120.78	110.70
26	14	2256	G	N3-C2-N2	8.40	125.78	119.90
1	1G	1281	U	N3-C2-O2	-8.39	116.32	122.20
26	1H	1394	U	O5'-P-OP2	8.39	120.76	110.70
26	1H	913	U	N3-C4-O4	-8.38	113.53	119.40
26	1H	1779	U	O5'-P-OP1	-8.38	98.16	105.70
26	1H	1122	G	C5-C6-O6	-8.38	123.57	128.60
26	1H	2500	U	C5-C6-N1	-8.38	118.51	122.70
26	1H	2604	U	C2-N1-C1'	8.38	127.76	117.70
1	1G	250	A	N1-C6-N6	-8.38	113.57	118.60
26	1H	906	G	N1-C6-O6	-8.38	114.87	119.90
26	1H	2314	C	O5'-P-OP2	-8.38	98.16	105.70
26	14	856	C	O5'-P-OP1	-8.38	98.16	105.70
26	14	1359	A	N9-C4-C5	-8.38	102.45	105.80
26	1H	537	C	O5'-P-OP2	-8.38	98.16	105.70
26	14	783	A	C5-C6-N6	-8.38	117.00	123.70
26	1H	1646	C	C6-N1-C2	8.37	123.65	120.30
26	1H	1932	A	N1-C6-N6	8.37	123.62	118.60
27	16	5	C	N3-C4-C5	8.37	125.25	121.90
22	1K	76	A	N7-C8-N9	8.36	117.98	113.80
26	1H	2256	G	O5'-P-OP2	-8.36	98.17	105.70
27	16	6	C	N3-C4-N4	8.36	123.85	118.00
1	1G	1413	A	C2-N3-C4	-8.36	106.42	110.60
26	1H	1566	A	O5'-P-OP1	8.36	120.73	110.70
1	13	792	A	N3-C4-C5	8.35	132.65	126.80
26	1H	2068	U	N3-C4-O4	-8.35	113.55	119.40
26	14	1824	G	O5'-P-OP2	-8.35	98.18	105.70
26	1H	783	A	C5-C6-N1	-8.35	113.53	117.70
26	1H	1599	C	OP2-P-O3'	8.35	123.57	105.20
26	1H	2346	A	C6-N1-C2	-8.35	113.59	118.60
31	31	176	LEU	CB-CG-CD2	-8.35	96.81	111.00
26	1H	1646	C	C5-C6-N1	-8.35	116.83	121.00
26	1H	1241	A	C2-N3-C4	-8.34	106.43	110.60
26	1H	2604	U	N1-C2-O2	8.34	128.64	122.80
26	14	528	A	C6-C5-N7	-8.34	126.46	132.30
26	1H	1141	U	O4'-C1'-N1	8.34	114.87	108.20
26	1H	113	G	N3-C2-N2	-8.34	114.06	119.90
26	14	1902	C	O5'-P-OP1	-8.34	98.19	105.70
26	1H	2496	C	O5'-P-OP1	8.34	120.70	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	775	G	N3-C4-C5	-8.34	124.43	128.60
26	14	733	G	C8-N9-C1'	-8.33	116.17	127.00
27	1J	84	C	C5-C6-N1	-8.33	116.83	121.00
26	14	1314	C	N1-C2-O2	8.33	123.90	118.90
1	13	571	U	OP1-P-O3'	-8.33	86.88	105.20
26	1H	1023	U	O5'-P-OP1	-8.33	98.21	105.70
26	1H	2418	A	N9-C4-C5	8.33	109.13	105.80
26	14	1011	G	C4-N9-C1'	-8.33	115.68	126.50
26	1H	2751	G	C5-N7-C8	8.32	108.46	104.30
1	1G	1498	U	P-O3'-C3'	8.32	129.69	119.70
26	1H	2234	G	C8-N9-C4	8.32	109.73	106.40
26	14	1306	C	O5'-P-OP1	-8.32	98.21	105.70
26	1H	683	C	N3-C4-C5	8.32	125.23	121.90
26	1H	1223	C	C5-C4-N4	-8.32	114.38	120.20
26	14	2024	G	C5-C6-O6	-8.31	123.61	128.60
26	1H	738	G	C5-C6-O6	-8.31	123.61	128.60
26	1H	1636	C	C4-C5-C6	8.31	121.56	117.40
26	1H	1955	U	C5-C4-O4	8.31	130.88	125.90
26	14	1283	G	N3-C4-C5	-8.31	124.45	128.60
26	14	2392	A	C5-C6-N1	-8.30	113.55	117.70
26	1H	1899	G	C4-C5-C6	-8.30	113.82	118.80
26	1H	1781	C	N3-C4-C5	8.30	125.22	121.90
26	1H	2377	A	N1-C6-N6	8.30	123.58	118.60
26	14	1274	A	O5'-P-OP2	-8.30	98.23	105.70
27	1J	114	G	O5'-P-OP2	-8.29	98.24	105.70
26	14	607	U	O5'-P-OP2	-8.29	98.24	105.70
26	14	1349	A	C5-N7-C8	-8.29	99.75	103.90
26	14	2329	G	C5-C6-N1	8.29	115.64	111.50
26	14	765	G	N9-C4-C5	8.29	108.72	105.40
26	14	2822	G	C5-N7-C8	8.29	108.44	104.30
26	1H	983	A	C8-N9-C4	8.29	109.11	105.80
26	1H	673	C	C5-C4-N4	-8.28	114.40	120.20
26	14	512	G	O4'-C1'-N9	8.29	114.83	108.20
26	1H	103	A	C8-N9-C4	8.28	109.11	105.80
26	1H	2700	C	N3-C4-C5	8.28	125.21	121.90
26	14	1786	A	OP1-P-O3'	8.28	123.42	105.20
26	1H	760	G	N1-C6-O6	8.28	124.87	119.90
26	1H	968	G	C5-C6-O6	8.28	133.57	128.60
24	3L	76	A	O4'-C1'-N9	8.28	114.82	108.20
26	1H	1321	A	C8-N9-C4	8.27	109.11	105.80
26	1H	595	C	N3-C4-C5	8.27	125.21	121.90
26	1H	663	G	OP1-P-OP2	8.27	132.00	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	829	A	O5'-P-OP2	-8.27	98.26	105.70
26	1H	1968	G	O5'-P-OP1	8.27	120.62	110.70
26	1H	2713	A	C5-C6-N1	-8.27	113.57	117.70
26	1H	1752	C	C6-N1-C2	8.26	123.61	120.30
26	1H	1778	U	OP2-P-O3'	8.26	123.38	105.20
26	1H	774	A	C4-N9-C1'	-8.26	111.43	126.30
26	1H	1423	G	N3-C2-N2	8.26	125.68	119.90
26	1H	1698	A	C4-C5-N7	8.26	114.83	110.70
26	1H	1701	A	O5'-P-OP2	-8.26	98.27	105.70
26	14	2296	U	O5'-P-OP1	-8.26	98.27	105.70
26	1H	224	G	O5'-P-OP2	-8.26	98.27	105.70
26	1H	1303	G	N1-C2-N2	-8.26	108.77	116.20
26	1H	2584	U	N3-C4-O4	-8.26	113.62	119.40
1	13	905	U	O5'-P-OP2	8.26	120.61	110.70
26	14	2282	G	N1-C6-O6	8.25	124.85	119.90
26	1H	1300	U	O5'-P-OP2	-8.25	98.27	105.70
26	1H	691	C	C5-C6-N1	-8.25	116.87	121.00
26	1H	829	A	OP1-P-OP2	8.25	131.97	119.60
26	1H	1611	C	C6-N1-C2	8.25	123.60	120.30
1	13	22	G	N3-C2-N2	-8.25	114.13	119.90
26	1H	391	G	N1-C6-O6	8.25	124.85	119.90
26	1H	223	A	O5'-P-OP2	-8.24	98.28	105.70
26	1H	258	G	N1-C6-O6	-8.24	114.95	119.90
26	14	133	C	N3-C4-C5	8.24	125.20	121.90
26	1H	695	G	N1-C2-N2	-8.24	108.79	116.20
1	1G	428	G	N3-C4-N9	-8.24	121.06	126.00
26	14	784	A	P-O3'-C3'	8.24	129.59	119.70
26	14	1600	C	O5'-P-OP2	-8.24	98.29	105.70
1	13	1371	G	O5'-P-OP2	8.23	120.58	110.70
26	14	213	A	O5'-P-OP2	-8.23	98.29	105.70
26	14	2252	G	OP1-P-OP2	8.23	131.95	119.60
26	1H	1649	G	N3-C4-C5	-8.23	124.48	128.60
26	14	774	A	C8-N9-C1'	8.23	142.51	127.70
26	1H	983	A	N7-C8-N9	-8.23	109.69	113.80
26	1H	1931	U	C4-C5-C6	8.23	124.64	119.70
26	14	2237	G	N1-C2-N2	-8.22	108.80	116.20
26	1H	798	G	O5'-P-OP2	8.22	120.56	110.70
26	14	2387	U	C2-N3-C4	-8.22	122.07	127.00
26	14	2427	C	C6-N1-C2	8.22	123.59	120.30
26	1H	913	U	N3-C4-C5	8.22	119.53	114.60
1	13	1530	G	N3-C4-C5	8.22	132.71	128.60
26	1H	792	G	O5'-P-OP1	-8.22	98.30	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	845	G	C4-N9-C1'	-8.22	115.82	126.50
26	14	2779	U	C5-C6-N1	-8.22	118.59	122.70
26	1H	134	C	C2-N3-C4	-8.21	115.79	119.90
26	14	2371	G	N3-C4-N9	8.21	130.93	126.00
26	1H	607	U	O5'-P-OP1	-8.21	98.31	105.70
26	1H	755	C	C4-C5-C6	8.21	121.51	117.40
26	1H	1939	U	N3-C4-O4	-8.21	113.65	119.40
26	1H	1128	A	O5'-P-OP1	-8.21	98.31	105.70
26	14	330	A	N1-C6-N6	8.21	123.52	118.60
26	14	1663	C	C5-C4-N4	-8.21	114.45	120.20
26	14	1698	A	N9-C4-C5	-8.21	102.52	105.80
26	14	2237	G	N3-C2-N2	8.21	125.65	119.90
26	14	2392	A	N1-C6-N6	8.21	123.52	118.60
26	1H	380	U	N3-C4-O4	-8.20	113.66	119.40
26	1H	999	U	O5'-P-OP2	8.20	120.55	110.70
26	1H	1830	C	C5-C4-N4	-8.20	114.46	120.20
26	1H	2689	U	C2-N3-C4	-8.20	122.08	127.00
26	14	556	G	C8-N9-C1'	-8.21	116.33	127.00
26	14	1681	G	C5-N7-C8	-8.20	100.20	104.30
23	2K	76	C	C5-C4-N4	-8.20	114.46	120.20
26	14	672	C	N3-C4-N4	-8.19	112.26	118.00
26	1H	698	C	C2-N3-C4	-8.19	115.80	119.90
26	14	1786	A	C5-C6-N1	-8.19	113.60	117.70
26	1H	2441	C	C5-C4-N4	8.19	125.93	120.20
26	1H	2751	G	C8-N9-C4	8.19	109.68	106.40
26	14	2425	A	O4'-C1'-N9	8.19	114.75	108.20
26	1H	872	A	O5'-P-OP1	-8.19	98.33	105.70
26	14	740	U	C5-C4-O4	8.19	130.81	125.90
26	1H	860	U	C2-N1-C1'	8.19	127.53	117.70
26	1H	2763	G	N9-C4-C5	-8.19	102.13	105.40
26	1H	2375	G	C8-N9-C4	8.18	109.67	106.40
26	1H	530	G	N3-C4-C5	8.18	132.69	128.60
1	1G	504	C	N1-C2-O2	-8.18	113.99	118.90
26	1H	1528	A	C5-N7-C8	-8.18	99.81	103.90
26	1H	1428	C	OP1-P-OP2	8.18	131.86	119.60
26	14	2307	G	O4'-C1'-N9	8.18	114.74	108.20
26	1H	532	A	O5'-P-OP1	-8.17	98.34	105.70
26	1H	2318	G	O4'-C1'-N9	8.17	114.74	108.20
26	14	1950	G	C2-N3-C4	-8.17	107.81	111.90
27	16	115	G	C6-N1-C2	-8.17	120.20	125.10
26	14	2542	A	O5'-P-OP2	-8.17	98.34	105.70
26	14	422	A	O5'-P-OP2	-8.17	98.35	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	994	C	N3-C4-C5	-8.17	118.63	121.90
26	14	2777	G	N1-C6-O6	8.17	124.80	119.90
30	29	144	ARG	NE-CZ-NH1	8.17	124.38	120.30
26	14	1528	A	C5-N7-C8	-8.16	99.82	103.90
26	14	2779	U	N1-C2-N3	8.16	119.80	114.90
26	1H	1899	G	C8-N9-C4	-8.16	103.14	106.40
26	14	602	G	C8-N9-C1'	-8.16	116.39	127.00
26	14	2374	C	C6-N1-C2	8.16	123.56	120.30
26	1H	383	U	C2-N1-C1'	-8.16	107.91	117.70
26	1H	2311	A	N3-C4-C5	8.16	132.51	126.80
26	14	574	C	N3-C4-N4	-8.16	112.29	118.00
26	1H	679	C	C5-C6-N1	-8.15	116.92	121.00
26	14	786	C	N3-C4-N4	-8.15	112.29	118.00
26	1H	245	G	C5-C6-O6	-8.15	123.71	128.60
26	14	534	U	O5'-P-OP2	-8.15	98.36	105.70
26	14	676	A	N3-C4-N9	-8.15	120.88	127.40
26	14	1858	G	N1-C6-O6	8.15	124.79	119.90
26	14	74	A	N3-C4-C5	8.15	132.50	126.80
26	1H	906	G	C6-C5-N7	8.14	135.29	130.40
27	16	115	G	C5-C6-O6	-8.14	123.71	128.60
26	14	2253	G	O5'-P-OP1	8.14	120.47	110.70
26	1H	772	C	N3-C2-O2	8.14	127.60	121.90
26	1H	1325	G	C4-C5-N7	8.14	114.06	110.80
26	14	1602	U	O5'-P-OP1	-8.14	98.37	105.70
26	1H	129	C	N3-C4-N4	8.14	123.70	118.00
26	1H	190	A	C5-C6-N6	-8.14	117.19	123.70
26	1H	2424	C	OP1-P-OP2	8.14	131.81	119.60
26	14	330	A	N3-C4-C5	8.14	132.50	126.80
26	14	201	C	C2-N3-C4	-8.14	115.83	119.90
26	14	2329	G	N1-C6-O6	8.13	124.78	119.90
26	1H	2751	G	N9-C4-C5	-8.13	102.15	105.40
1	1G	1322	C	N3-C2-O2	-8.13	116.21	121.90
26	14	2003	G	C5-C6-O6	-8.13	123.72	128.60
26	14	736	C	O5'-P-OP2	8.12	120.45	110.70
26	1H	806	C	C2-N3-C4	-8.12	115.84	119.90
26	1H	1621	U	N3-C2-O2	8.12	127.89	122.20
26	14	130	C	C2-N3-C4	-8.12	115.84	119.90
26	14	755	C	C5-C6-N1	-8.12	116.94	121.00
1	13	266	G	N1-C6-O6	8.12	124.77	119.90
26	1H	2510	C	C5-C4-N4	8.12	125.88	120.20
1	1G	449	C	N3-C2-O2	-8.12	116.22	121.90
26	1H	142	G	C8-N9-C4	8.11	109.65	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1773	A	O5'-P-OP1	8.12	120.44	110.70
26	14	2503	A	N9-C4-C5	-8.12	102.55	105.80
26	1H	330	A	C4-C5-N7	8.11	114.75	110.70
1	1G	108	G	C4-C5-N7	8.11	114.05	110.80
1	13	897	C	C4-C5-C6	8.11	121.45	117.40
26	14	12	U	N1-C2-O2	8.11	128.48	122.80
26	14	856	C	C6-N1-C2	-8.11	117.06	120.30
26	1H	1611	C	C2-N3-C4	-8.11	115.85	119.90
26	14	134	C	C2-N3-C4	-8.10	115.85	119.90
26	1H	1573	G	C8-N9-C4	8.10	109.64	106.40
27	16	77	U	C5-C6-N1	-8.10	118.65	122.70
26	1H	73	A	C2-N3-C4	8.10	114.65	110.60
26	14	562	U	N3-C2-O2	-8.10	116.53	122.20
26	14	2385	C	N1-C2-O2	-8.10	114.04	118.90
26	14	2838	G	O5'-P-OP1	-8.10	98.41	105.70
26	1H	128	C	C6-N1-C2	8.10	123.54	120.30
26	1H	2287	A	N1-C2-N3	8.10	133.35	129.30
26	14	1574	C	OP2-P-O3'	8.10	123.01	105.20
26	14	2378	A	N1-C6-N6	8.10	123.46	118.60
26	1H	705	A	N1-C6-N6	8.09	123.45	118.60
26	1H	955	C	O5'-P-OP2	-8.09	98.42	105.70
26	1H	697	C	N3-C4-C5	8.09	125.14	121.90
38	88	24	GLY	N-CA-C	-8.09	92.89	113.10
26	1H	694	U	O5'-P-OP1	8.08	120.40	110.70
26	1H	1026	U	O4'-C1'-N1	8.08	114.67	108.20
26	1H	1634	A	O5'-P-OP2	-8.08	98.42	105.70
26	1H	628	G	OP1-P-OP2	8.08	131.72	119.60
26	1H	1914	C	N3-C2-O2	-8.08	116.25	121.90
26	1H	1420	U	O5'-P-OP2	-8.08	98.43	105.70
26	1H	481	G	N1-C6-O6	8.07	124.74	119.90
26	14	472	A	N9-C4-C5	8.07	109.03	105.80
22	1K	76	A	O4'-C1'-N9	8.07	114.66	108.20
26	1H	2540	C	N3-C4-C5	8.07	125.13	121.90
26	14	2490	G	C8-N9-C4	-8.07	103.17	106.40
26	1H	967	C	O5'-P-OP1	8.06	120.38	110.70
45	F8	3	THR	C-N-CA	8.06	141.86	121.70
26	14	90	U	O4'-C1'-N1	8.06	114.65	108.20
26	1H	1363	C	N3-C4-N4	-8.06	112.36	118.00
26	1H	1543	A	C2-N3-C4	-8.06	106.57	110.60
26	1H	1558	A	N1-C2-N3	8.06	133.33	129.30
27	16	81	G	N3-C4-C5	8.06	132.63	128.60
26	1H	788	A	C8-N9-C4	8.05	109.02	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	925	C	O5'-P-OP2	-8.05	98.45	105.70
26	1H	990	A	C8-N9-C4	-8.05	102.58	105.80
26	14	933	A	C5-N7-C8	-8.05	99.88	103.90
26	1H	2518	A	C4-C5-N7	8.05	114.72	110.70
26	14	1965	C	O5'-P-OP1	-8.04	98.46	105.70
26	1H	2537	U	N3-C4-O4	-8.04	113.77	119.40
26	1H	825	C	C4-C5-C6	8.04	121.42	117.40
26	1H	2448	A	C6-N1-C2	-8.04	113.78	118.60
26	14	133	C	C2-N3-C4	-8.04	115.88	119.90
26	1H	1616	A	O4'-C1'-N9	8.04	114.63	108.20
1	13	690	G	O4'-C1'-N9	8.03	114.63	108.20
1	13	1408	A	C8-N9-C4	-8.04	102.59	105.80
26	1H	1423	G	N7-C8-N9	-8.04	109.08	113.10
26	1H	184	C	C6-N1-C2	8.03	123.51	120.30
26	14	1932	A	O5'-P-OP2	8.03	120.34	110.70
26	1H	681	G	N1-C2-N3	8.03	128.72	123.90
41	75	4	GLY	N-CA-C	8.03	133.16	113.10
26	14	189	G	C5-C6-O6	-8.02	123.79	128.60
26	14	1471	A	N7-C8-N9	8.02	117.81	113.80
26	1H	1616	A	C2-N3-C4	-8.02	106.59	110.60
26	14	2688	U	N3-C4-O4	-8.02	113.78	119.40
26	1H	757	U	C5-C4-O4	8.02	130.71	125.90
26	14	1528	A	N7-C8-N9	8.02	117.81	113.80
26	14	2880	C	C6-N1-C2	-8.02	117.09	120.30
29	11	260	ARG	NE-CZ-NH1	-8.02	116.29	120.30
26	1H	673	C	N1-C2-O2	-8.02	114.09	118.90
26	14	632	A	N7-C8-N9	8.02	117.81	113.80
26	1H	468	G	C8-N9-C4	8.01	109.61	106.40
26	1H	2439	A	O5'-P-OP2	-8.01	98.49	105.70
24	3L	5	C	C6-N1-C2	-8.01	117.09	120.30
26	14	1900	A	C8-N9-C4	-8.01	102.59	105.80
1	13	452	A	O5'-P-OP1	-8.01	98.49	105.70
26	1H	2330	G	C5-C6-O6	-8.01	123.79	128.60
26	14	602	G	N9-C4-C5	-8.01	102.20	105.40
26	14	1564	C	C5-C4-N4	8.01	125.81	120.20
26	14	1684	C	C5-C6-N1	-8.01	117.00	121.00
26	14	2329	G	C4-C5-N7	8.01	114.00	110.80
26	1H	621	A	N3-C4-C5	8.01	132.40	126.80
24	3K	76	A	C8-N9-C4	-8.00	102.60	105.80
26	1H	1781	C	C5-C4-N4	-8.00	114.60	120.20
26	1H	2276	G	C8-N9-C4	-8.00	103.20	106.40
37	78	50	ARG	NE-CZ-NH2	8.00	124.30	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1368	G	C2-N3-C4	8.00	115.90	111.90
1	1G	13	U	O5'-P-OP1	-8.00	98.50	105.70
26	14	697	C	O5'-P-OP1	-8.00	98.50	105.70
26	14	1639	U	N3-C4-O4	-8.00	113.80	119.40
26	1H	778	G	O5'-P-OP2	-8.00	98.50	105.70
26	1H	1971	A	N1-C2-N3	-7.99	125.30	129.30
26	14	1899	G	C8-N9-C4	-7.99	103.20	106.40
26	1H	1399	C	OP2-P-O3'	7.99	122.78	105.20
26	14	783	A	O5'-P-OP1	7.99	120.29	110.70
26	1H	378	C	N3-C4-N4	7.99	123.59	118.00
26	1H	2706	G	N1-C2-N2	-7.99	109.01	116.20
26	1H	508	G	N7-C8-N9	7.99	117.09	113.10
26	1H	1673	U	C5-C6-N1	-7.99	118.71	122.70
26	14	2688	U	C5-C6-N1	-7.99	118.70	122.70
26	1H	67	U	O5'-P-OP2	7.99	120.28	110.70
26	1H	1202	C	N3-C4-C5	-7.99	118.71	121.90
26	1H	1900	A	O5'-P-OP1	7.98	120.28	110.70
26	1H	239	U	N3-C4-O4	-7.98	113.81	119.40
26	1H	1639	U	N3-C2-O2	-7.98	116.61	122.20
26	14	1496	A	C6-C5-N7	-7.98	126.72	132.30
26	14	2866	U	C5-C4-O4	7.98	130.69	125.90
26	1H	1502	C	C6-N1-C2	-7.98	117.11	120.30
26	1H	2503	A	C2-N3-C4	7.98	114.59	110.60
26	14	315	G	O5'-P-OP2	-7.98	98.52	105.70
26	14	774	A	C5-N7-C8	-7.97	99.91	103.90
26	1H	2751	G	C4-N9-C1'	7.97	136.87	126.50
26	14	179	G	C8-N9-C4	7.97	109.59	106.40
26	14	1282	U	C5-C6-N1	-7.97	118.71	122.70
26	1H	2308	G	C6-N1-C2	7.97	129.88	125.10
26	14	1496	A	C4-C5-N7	7.97	114.69	110.70
26	1H	125	G	C5-C6-O6	-7.97	123.82	128.60
26	1H	470	A	O5'-P-OP1	-7.97	98.53	105.70
26	1H	2830	G	C8-N9-C4	-7.97	103.21	106.40
26	14	252	G	O5'-P-OP1	7.97	120.26	110.70
26	14	2581	G	N1-C2-N2	-7.97	109.03	116.20
26	14	2688	U	C4-C5-C6	7.97	124.48	119.70
1	13	780	A	C2-N3-C4	-7.97	106.62	110.60
26	14	2062	A	C6-C5-N7	7.97	137.88	132.30
26	1H	1427	A	C6-N1-C2	-7.96	113.82	118.60
26	14	767	U	C5-C6-N1	-7.96	118.72	122.70
26	1H	842	G	C5-C6-O6	-7.96	123.83	128.60
27	16	41	U	C5-C6-N1	-7.96	118.72	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	621	A	C8-N9-C4	-7.96	102.62	105.80
1	1G	110	C	C6-N1-C2	7.96	123.48	120.30
26	1H	1728	G	C4-C5-N7	7.96	113.98	110.80
26	1H	1520	U	C5-C4-O4	7.95	130.67	125.90
26	14	52	A	O5'-P-OP1	-7.95	98.54	105.70
26	1H	2513	G	O5'-P-OP2	-7.95	98.54	105.70
26	1H	2285	C	N3-C4-N4	-7.95	112.44	118.00
26	1H	1973	G	N1-C6-O6	-7.95	115.13	119.90
26	14	2477	C	C6-N1-C2	-7.95	117.12	120.30
1	13	715	A	O5'-P-OP2	-7.95	98.55	105.70
26	14	251	A	C8-N9-C4	7.95	108.98	105.80
26	14	1605	C	O5'-P-OP1	-7.95	98.55	105.70
26	14	2401	U	C5-C6-N1	7.94	126.67	122.70
1	13	49	U	P-O3'-C3'	7.94	129.23	119.70
26	1H	1376	C	N1-C2-O2	-7.94	114.14	118.90
26	1H	2706	G	N3-C2-N2	7.94	125.46	119.90
26	14	1321	A	N7-C8-N9	-7.94	109.83	113.80
26	14	1930	G	C4-C5-N7	-7.94	107.62	110.80
26	1H	1258	C	OP2-P-O3'	7.94	122.66	105.20
26	14	912	C	C6-N1-C2	-7.94	117.12	120.30
1	1G	1054	C	OP1-P-OP2	-7.93	107.70	119.60
27	16	6	C	N3-C2-O2	7.93	127.45	121.90
26	14	1298	C	O5'-P-OP2	7.93	120.22	110.70
1	13	1126	U	C5-C6-N1	7.93	126.67	122.70
26	1H	1378	A	O5'-P-OP1	-7.93	98.56	105.70
26	1H	1788	C	N3-C4-C5	-7.93	118.73	121.90
26	14	2040	C	O5'-P-OP1	-7.93	98.56	105.70
1	13	22	G	O5'-P-OP2	-7.93	98.56	105.70
26	14	558	G	C8-N9-C4	7.93	109.57	106.40
26	14	457	A	O5'-P-OP2	-7.93	98.57	105.70
26	1H	321	G	C6-C5-N7	-7.92	125.65	130.40
1	1G	766	A	O5'-P-OP2	-7.92	98.58	105.70
1	13	266	G	C4-C5-N7	7.92	113.97	110.80
26	14	2273	A	O5'-P-OP2	-7.91	98.58	105.70
1	13	975	A	N1-C6-N6	7.91	123.34	118.60
26	1H	740	U	N3-C4-O4	-7.91	113.86	119.40
26	1H	68	G	O5'-P-OP1	-7.91	98.58	105.70
26	1H	728	G	O5'-P-OP2	-7.91	98.58	105.70
26	1H	2446	G	C4-C5-N7	7.91	113.96	110.80
1	1G	1449	C	C2-N1-C1'	7.91	127.50	118.80
26	1H	509	C	O5'-P-OP2	-7.91	98.58	105.70
26	1H	1759	A	OP1-P-OP2	7.91	131.46	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	1358	U	N1-C2-O2	7.90	128.33	122.80
26	14	664	C	C5-C6-N1	-7.90	117.05	121.00
26	14	1787	A	O5'-P-OP1	-7.90	98.59	105.70
26	1H	195	A	P-O3'-C3'	7.90	129.18	119.70
26	1H	2587	A	C5-C6-N6	7.90	130.02	123.70
1	13	571	U	OP2-P-O3'	7.89	122.57	105.20
26	1H	1022	G	C8-N9-C4	-7.89	103.24	106.40
26	1H	1528	A	C2-N3-C4	-7.89	106.65	110.60
26	1H	2318	G	C4-C5-N7	7.89	113.96	110.80
26	14	71	A	C6-C5-N7	-7.89	126.78	132.30
26	14	2867	G	O5'-P-OP1	-7.89	98.60	105.70
1	13	529	G	N9-C4-C5	-7.89	102.25	105.40
1	13	817	C	C5-C4-N4	-7.89	114.68	120.20
26	1H	1586	A	C6-C5-N7	-7.89	126.78	132.30
26	1H	2299	G	O5'-P-OP2	7.88	120.16	110.70
26	14	2253	G	C4-C5-N7	7.88	113.95	110.80
26	14	990	A	N7-C8-N9	7.88	117.74	113.80
26	1H	263	C	O5'-P-OP2	-7.88	98.61	105.70
26	1H	691	C	C6-N1-C2	7.87	123.45	120.30
26	1H	814	C	O5'-P-OP2	-7.87	98.61	105.70
26	1H	933	A	O5'-P-OP1	7.87	120.15	110.70
26	1H	1282	U	C5-C6-N1	-7.87	118.76	122.70
26	1H	1575	C	O5'-P-OP1	7.87	120.15	110.70
26	14	2265	U	O5'-P-OP1	-7.87	98.61	105.70
26	1H	1248	G	C5-C6-N1	-7.87	107.56	111.50
26	1H	627	A	C8-N9-C4	7.87	108.95	105.80
26	14	575	A	C5-C6-N6	-7.87	117.41	123.70
26	1H	148	C	C2-N3-C4	-7.87	115.97	119.90
31	31	176	LEU	CA-CB-CG	7.86	133.38	115.30
1	1G	114	U	C5-C6-N1	-7.86	118.77	122.70
26	14	2518	A	C5-C6-N1	-7.86	113.77	117.70
1	1G	246	A	O5'-P-OP2	-7.86	98.62	105.70
1	1G	576	G	C4-N9-C1'	7.86	136.72	126.50
1	1G	817	C	C6-N1-C2	7.86	123.44	120.30
26	14	1605	C	C4-C5-C6	7.86	121.33	117.40
26	1H	939	G	C5-C6-O6	7.86	133.31	128.60
26	1H	1444	G	N1-C6-O6	-7.86	115.19	119.90
27	1J	81	G	C4-C5-N7	7.86	113.94	110.80
26	14	1318	C	O5'-P-OP1	-7.86	98.63	105.70
1	13	1259	C	C6-N1-C2	-7.86	117.16	120.30
26	1H	1785	A	N1-C2-N3	7.86	133.23	129.30
26	14	791	C	C6-N1-C2	7.86	123.44	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	808	G	N1-C2-N2	-7.86	109.13	116.20
26	14	2324	C	C5-C4-N4	-7.86	114.70	120.20
26	1H	2594	C	C2-N3-C4	-7.85	115.97	119.90
1	13	792	A	N9-C1'-C2'	7.85	124.21	114.00
26	1H	1606	G	C5-C6-O6	-7.85	123.89	128.60
1	1G	541	G	N1-C6-O6	7.85	124.61	119.90
26	14	1937	A	O4'-C1'-N9	7.85	114.48	108.20
26	1H	140	A	O4'-C1'-N9	7.85	114.48	108.20
26	14	1643	G	O5'-P-OP2	-7.85	98.63	105.70
1	13	1503	A	O5'-P-OP1	-7.85	98.64	105.70
1	1G	945	G	N1-C6-O6	7.85	124.61	119.90
26	14	945	A	C5-C6-N6	-7.85	117.42	123.70
26	1H	71	A	N7-C8-N9	7.85	117.72	113.80
26	14	146	G	C5-C6-O6	-7.85	123.89	128.60
26	14	2199	A	O5'-P-OP1	-7.84	98.64	105.70
1	13	623	C	C6-N1-C2	-7.84	117.16	120.30
26	1H	140	A	C5-C6-N6	-7.84	117.43	123.70
26	1H	1610	A	N9-C4-C5	-7.84	102.66	105.80
26	1H	1649	G	C8-N9-C4	-7.84	103.26	106.40
26	14	1304	C	N1-C2-O2	7.84	123.60	118.90
26	1H	16	G	O5'-P-OP2	-7.84	98.65	105.70
26	1H	2552	U	N1-C2-O2	-7.84	117.31	122.80
26	1H	2665	A	C2-N3-C4	-7.84	106.68	110.60
26	1H	133	C	C5-C6-N1	-7.83	117.08	121.00
26	1H	729	G	N7-C8-N9	7.83	117.02	113.10
26	1H	1268	A	O5'-P-OP2	-7.83	98.65	105.70
26	1H	1558	A	N1-C6-N6	7.83	123.30	118.60
26	1H	134	C	C5-C6-N1	-7.83	117.08	121.00
26	14	2386	C	C6-N1-C2	7.83	123.43	120.30
26	1H	1811	G	N3-C2-N2	-7.83	114.42	119.90
24	3K	76	A	O4'-C1'-N9	7.83	114.46	108.20
26	1H	515	A	C2-N3-C4	7.82	114.51	110.60
26	1H	695	G	O5'-P-OP1	-7.82	98.66	105.70
26	1H	2032	G	C2-N3-C4	-7.82	107.99	111.90
26	14	2329	G	C6-N1-C2	-7.82	120.41	125.10
26	1H	1970	A	OP2-P-O3'	7.82	122.40	105.20
26	1H	812	C	N1-C2-O2	-7.81	114.21	118.90
1	13	890	G	N3-C2-N2	7.81	125.37	119.90
26	1H	2367	G	C8-N9-C4	-7.81	103.28	106.40
26	14	1348	G	OP1-P-OP2	-7.81	107.88	119.60
26	1H	671	C	N3-C4-C5	7.81	125.02	121.90
26	1H	1601	G	OP1-P-O3'	7.81	122.38	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	974	A	C5-N7-C8	-7.81	100.00	103.90
26	1H	139	G	O5'-P-OP1	-7.81	98.67	105.70
26	14	2610	C	O5'-P-OP1	-7.81	98.67	105.70
26	1H	1021	A	C4-C5-N7	7.80	114.60	110.70
26	1H	1302	A	OP1-P-OP2	7.80	131.31	119.60
26	1H	205	G	C8-N9-C4	7.80	109.52	106.40
26	1H	1700	A	OP1-P-OP2	7.80	131.31	119.60
26	1H	459	U	O5'-P-OP2	-7.80	98.68	105.70
1	13	1412	C	C2-N3-C4	-7.80	116.00	119.90
26	1H	1695	G	O5'-P-OP1	-7.80	98.68	105.70
26	1H	1699	G	O5'-P-OP1	-7.80	98.68	105.70
26	1H	2270	G	N3-C2-N2	-7.80	114.44	119.90
26	1H	579	G	N1-C2-N2	7.80	123.22	116.20
26	1H	689	A	C2-N3-C4	-7.80	106.70	110.60
26	1H	2448	A	N1-C6-N6	7.80	123.28	118.60
26	1H	217	G	C4-C5-N7	-7.80	107.68	110.80
26	1H	790	C	N1-C2-O2	-7.80	114.22	118.90
26	1H	793	A	N1-C6-N6	7.80	123.28	118.60
26	1H	1275	A	O5'-P-OP1	-7.80	98.68	105.70
26	1H	530	G	C4-C5-C6	-7.79	114.12	118.80
26	14	2382	G	N3-C4-N9	7.79	130.68	126.00
26	14	2402	C	C6-N1-C2	-7.79	117.18	120.30
26	1H	2287	A	C6-C5-N7	-7.79	126.84	132.30
26	1H	2443	C	N1-C2-O2	-7.79	114.22	118.90
26	1H	2404	C	O5'-P-OP1	-7.79	98.69	105.70
26	14	1300	U	O5'-P-OP2	-7.79	98.69	105.70
26	1H	1899	G	C5-N7-C8	-7.79	100.41	104.30
26	14	2443	C	O5'-P-OP2	7.79	120.05	110.70
26	1H	757	U	N3-C4-O4	-7.79	113.95	119.40
26	1H	2248	C	N3-C4-C5	7.79	125.02	121.90
26	14	779	U	C5-C4-O4	-7.79	121.23	125.90
26	1H	939	G	N1-C6-O6	-7.78	115.23	119.90
39	98	105	ARG	NE-CZ-NH1	-7.78	116.41	120.30
26	1H	1572	A	C2-N3-C4	-7.78	106.71	110.60
26	14	801	G	N1-C6-O6	-7.78	115.23	119.90
26	14	1644	C	C6-N1-C2	-7.78	117.19	120.30
26	14	2287	A	N3-C4-C5	7.78	132.24	126.80
26	14	670	A	C8-N9-C4	7.77	108.91	105.80
26	1H	2575	C	C2-N3-C4	-7.77	116.01	119.90
26	1H	417	C	C5-C4-N4	-7.77	114.76	120.20
26	14	1801	G	C4-C5-N7	7.77	113.91	110.80
31	39	80	ALA	C-N-CD	7.77	144.72	128.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	247	G	N7-C8-N9	-7.77	109.22	113.10
26	1H	1702	G	O5'-P-OP1	-7.77	98.71	105.70
26	1H	2604	U	C6-N1-C2	-7.77	116.34	121.00
1	1G	183	G	N1-C6-O6	7.77	124.56	119.90
26	14	1762	A	N9-C4-C5	-7.77	102.69	105.80
26	14	1772	G	OP1-P-OP2	7.77	131.26	119.60
26	1H	772	C	C6-N1-C2	7.77	123.41	120.30
26	1H	1021	A	N3-C4-C5	7.77	132.24	126.80
26	1H	2451	A	N1-C6-N6	-7.77	113.94	118.60
26	1H	518	G	N3-C2-N2	7.76	125.33	119.90
26	1H	1359	A	C2-N3-C4	-7.76	106.72	110.60
26	1H	1437	C	N3-C2-O2	-7.76	116.47	121.90
26	1H	633	A	O5'-P-OP2	7.76	120.02	110.70
26	1H	2239	G	N1-C6-O6	-7.76	115.24	119.90
26	1H	2402	C	C6-N1-C2	-7.76	117.20	120.30
1	13	976	G	C5-C6-N1	-7.76	107.62	111.50
26	14	2392	A	C6-C5-N7	-7.76	126.87	132.30
26	1H	1215	G	O5'-P-OP2	-7.76	98.72	105.70
26	1H	2375	G	N7-C8-N9	-7.76	109.22	113.10
26	14	71	A	C5-C6-N6	-7.76	117.49	123.70
1	1G	1502	A	C6-C5-N7	-7.75	126.88	132.30
1	13	974	A	N7-C8-N9	7.75	117.67	113.80
26	14	1905	C	O5'-P-OP2	-7.75	98.73	105.70
26	14	675	A	N9-C4-C5	-7.75	102.70	105.80
1	13	449	C	C2-N1-C1'	7.74	127.32	118.80
26	1H	1123	C	C2-N3-C4	-7.74	116.03	119.90
26	1H	1378	A	C8-N9-C4	-7.74	102.70	105.80
26	1H	1788	C	C4-C5-C6	7.74	121.27	117.40
23	2L	42	C	O5'-P-OP2	-7.74	98.73	105.70
26	14	556	G	C4-N9-C1'	7.74	136.57	126.50
26	1H	180	G	N1-C2-N2	-7.74	109.23	116.20
26	1H	206	U	N3-C4-C5	7.74	119.25	114.60
26	1H	462	C	O5'-P-OP2	-7.74	98.73	105.70
26	1H	2380	C	C2-N3-C4	-7.74	116.03	119.90
26	14	632	A	C8-N9-C4	-7.74	102.70	105.80
26	1H	562	U	N3-C2-O2	-7.74	116.78	122.20
26	14	1317	A	OP1-P-O3'	7.74	122.22	105.20
26	1H	197	A	OP2-P-O3'	7.74	122.22	105.20
26	1H	1671	U	C5-C4-O4	-7.74	121.26	125.90
26	14	1471	A	C8-N9-C4	-7.74	102.71	105.80
26	1H	945	A	N9-C4-C5	-7.73	102.71	105.80
1	13	1382	C	N1-C2-O2	7.73	123.54	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	655	A	N7-C8-N9	7.73	117.67	113.80
26	14	1727	U	C5-C4-O4	7.73	130.54	125.90
26	1H	2271	G	C6-C5-N7	-7.73	125.76	130.40
25	4K	18	G	C5-C6-O6	7.73	133.24	128.60
26	1H	717	G	C6-C5-N7	-7.73	125.76	130.40
26	14	1800	C	N1-C2-O2	-7.73	114.26	118.90
26	14	676	A	C5-N7-C8	-7.72	100.04	103.90
26	14	1566	A	C4-C5-N7	7.72	114.56	110.70
26	1H	2258	C	N3-C4-N4	7.72	123.40	118.00
26	14	704	G	N1-C6-O6	7.72	124.53	119.90
26	14	2503	A	N3-C4-N9	7.72	133.57	127.40
1	13	181	G	N3-C4-C5	-7.72	124.74	128.60
26	1H	2700	C	N3-C2-O2	7.72	127.30	121.90
1	13	542	G	O5'-P-OP1	-7.72	98.75	105.70
26	1H	2713	A	C8-N9-C4	-7.72	102.71	105.80
1	1G	690	G	N7-C8-N9	7.72	116.96	113.10
1	1G	950	U	O5'-P-OP2	7.72	119.96	110.70
26	14	34	C	C6-N1-C1'	-7.72	111.54	120.80
26	14	2080	G	O5'-P-OP2	-7.72	98.75	105.70
26	1H	576	U	C2-N3-C4	-7.71	122.37	127.00
26	14	1204	A	O5'-P-OP2	-7.71	98.76	105.70
26	1H	736	C	O5'-P-OP1	-7.71	98.76	105.70
1	1G	670	G	O5'-P-OP1	-7.71	98.76	105.70
26	1H	2084	C	C6-N1-C2	7.71	123.39	120.30
27	16	15	A	O4'-C1'-N9	7.71	114.37	108.20
26	14	2382	G	N3-C4-C5	-7.71	124.74	128.60
26	1H	2448	A	C5-C6-N1	7.71	121.55	117.70
1	1G	1314	C	C6-N1-C2	-7.71	117.22	120.30
26	14	933	A	N1-C6-N6	7.71	123.22	118.60
26	1H	1362	C	O5'-P-OP2	-7.71	98.77	105.70
26	1H	71	A	C5-C6-N6	-7.71	117.54	123.70
26	1H	1201	C	N1-C2-O2	-7.71	114.28	118.90
26	14	621	A	C4-C5-N7	7.71	114.55	110.70
26	1H	241	A	O5'-P-OP2	-7.70	98.77	105.70
26	1H	2377	A	C2-N3-C4	-7.70	106.75	110.60
1	13	221	C	C6-N1-C2	-7.70	117.22	120.30
26	1H	2239	G	N3-C2-N2	7.70	125.29	119.90
26	14	855	G	N7-C8-N9	7.70	116.95	113.10
27	1J	100	G	N1-C6-O6	-7.70	115.28	119.90
26	1H	617	G	C8-N9-C4	7.70	109.48	106.40
26	14	471	A	N1-C2-N3	7.70	133.15	129.30
26	1H	501	A	OP1-P-OP2	7.70	131.14	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1698	A	C5-C6-N1	-7.70	113.85	117.70
26	14	1366	A	N1-C6-N6	7.69	123.22	118.60
26	14	1964	G	C5-C6-O6	7.69	133.22	128.60
26	1H	254	G	N1-C6-O6	7.69	124.52	119.90
26	1H	1271	G	N1-C2-N2	-7.69	109.28	116.20
26	1H	2743	C	N1-C2-O2	-7.69	114.28	118.90
12	3I	33	ARG	NE-CZ-NH1	7.69	124.14	120.30
26	14	2078	C	O5'-P-OP1	-7.69	98.78	105.70
26	1H	180	G	C4-C5-N7	7.69	113.87	110.80
26	1H	2585	U	N3-C4-C5	7.69	119.21	114.60
26	14	1785	A	C4-C5-C6	7.69	120.84	117.00
26	1H	35	G	O5'-P-OP2	-7.68	98.78	105.70
26	1H	380	U	N3-C2-O2	-7.68	116.82	122.20
26	1H	698	C	OP1-P-OP2	7.68	131.13	119.60
26	14	2387	U	C5-C6-N1	-7.68	118.86	122.70
26	1H	1192	G	C2-N3-C4	-7.68	108.06	111.90
26	14	2779	U	C2-N3-C4	-7.68	122.39	127.00
26	1H	1340	U	C5-C4-O4	-7.68	121.29	125.90
26	14	597	U	O5'-P-OP2	-7.68	98.79	105.70
26	14	1840	G	N3-C2-N2	-7.68	114.53	119.90
26	1H	535	C	O5'-P-OP2	-7.68	98.79	105.70
26	1H	766	C	N1-C2-O2	-7.68	114.29	118.90
26	1H	2311	A	N1-C6-N6	7.68	123.21	118.60
26	1H	2497	A	C6-N1-C2	-7.68	114.00	118.60
27	1J	103	U	C5-C6-N1	-7.68	118.86	122.70
1	13	1496	C	C4-C5-C6	7.67	121.24	117.40
26	14	784	A	OP1-P-O3'	7.67	122.08	105.20
26	1H	1241	A	C6-N1-C2	7.67	123.20	118.60
26	1H	2427	C	O5'-P-OP2	7.67	119.91	110.70
26	1H	717	G	N1-C6-O6	7.67	124.50	119.90
26	1H	29	U	OP1-P-OP2	-7.67	108.10	119.60
26	1H	1593	G	OP1-P-O3'	7.67	122.07	105.20
26	1H	2236	C	O5'-P-OP1	-7.67	98.80	105.70
26	14	2755	C	C2-N1-C1'	7.67	127.23	118.80
26	14	602	G	C6-C5-N7	-7.67	125.80	130.40
26	14	2700	C	N3-C4-C5	7.67	124.97	121.90
1	13	963	G	N1-C2-N2	-7.66	109.30	116.20
26	1H	2001	A	C2-N3-C4	7.66	114.43	110.60
26	14	1786	A	N1-C2-N3	7.66	133.13	129.30
26	1H	127	A	N1-C6-N6	7.66	123.20	118.60
26	1H	470	A	N7-C8-N9	7.66	117.63	113.80
26	1H	778	G	N1-C2-N2	-7.66	109.31	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2504	U	O5'-P-OP2	-7.66	98.81	105.70
26	1H	736	C	N1-C2-O2	-7.66	114.30	118.90
26	14	867	C	O5'-P-OP1	-7.66	98.81	105.70
26	1H	1562	A	C2-N3-C4	-7.66	106.77	110.60
26	1H	1368	G	C5-C6-N1	7.66	115.33	111.50
26	1H	1573	G	C5-C6-O6	-7.66	124.01	128.60
26	1H	2387	U	C5-C6-N1	-7.66	118.87	122.70
26	1H	2503	A	N1-C2-N3	-7.66	125.47	129.30
26	14	1332	G	N1-C2-N2	-7.66	109.31	116.20
26	14	2233	U	N1-C2-N3	7.66	119.49	114.90
26	1H	754	C	N3-C4-N4	7.65	123.36	118.00
1	13	799	G	N1-C6-O6	-7.65	115.31	119.90
26	1H	141(A)	C	C2-N3-C4	-7.65	116.07	119.90
26	1H	2392	A	N3-C4-C5	7.65	132.16	126.80
1	1G	812	C	N3-C4-C5	-7.65	118.84	121.90
26	14	1399	C	OP2-P-O3'	7.65	122.03	105.20
26	14	1558	A	C2-N3-C4	-7.65	106.78	110.60
26	14	2871	C	O5'-P-OP2	-7.65	98.82	105.70
1	1G	413	G	C4-C5-N7	-7.65	107.74	110.80
1	1G	812	C	C6-N1-C2	-7.65	117.24	120.30
26	1H	789	A	C2-N3-C4	-7.64	106.78	110.60
26	1H	2665	A	C8-N9-C4	-7.64	102.74	105.80
26	14	2329	G	C6-C5-N7	-7.64	125.81	130.40
26	1H	2389	G	C8-N9-C4	-7.64	103.34	106.40
26	14	1557	C	O5'-P-OP2	-7.64	98.82	105.70
26	1H	2717	G	N3-C4-C5	-7.64	124.78	128.60
26	14	1367	A	N1-C6-N6	7.64	123.18	118.60
26	14	866	A	N9-C4-C5	-7.64	102.75	105.80
26	14	1279	G	N1-C6-O6	-7.64	115.32	119.90
1	13	569	C	O5'-P-OP1	-7.63	98.83	105.70
1	13	1336	C	P-O3'-C3'	7.63	128.86	119.70
26	14	1673	U	O5'-P-OP1	-7.63	98.83	105.70
26	1H	2298	A	O5'-P-OP1	7.63	119.86	110.70
26	1H	2379	G	N1-C6-O6	7.63	124.48	119.90
26	14	1276	A	N9-C4-C5	-7.63	102.75	105.80
27	16	30	C	C6-N1-C2	-7.63	117.25	120.30
26	14	1698	A	C5-C6-N6	-7.63	117.60	123.70
26	1H	947	G	C8-N9-C4	-7.62	103.35	106.40
26	1H	1831	G	OP2-P-O3'	7.62	121.97	105.20
22	1L	74	C	N3-C2-O2	-7.62	116.56	121.90
26	14	36	G	OP2-P-O3'	7.62	121.97	105.20
26	1H	1625	C	N3-C4-N4	-7.62	112.67	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	943	U	O5'-P-OP2	7.62	119.84	110.70
26	14	1563	G	O5'-P-OP1	-7.62	98.84	105.70
26	14	575	A	N1-C6-N6	7.62	123.17	118.60
26	14	1950	G	N3-C2-N2	-7.62	114.57	119.90
26	14	2599	G	N1-C6-O6	-7.61	115.33	119.90
26	1H	2346	A	C8-N9-C1'	-7.61	114.00	127.70
1	1G	150	C	C6-N1-C2	-7.61	117.25	120.30
26	14	2334	G	C8-N9-C4	7.61	109.44	106.40
26	1H	1844	C	C5-C4-N4	-7.61	114.87	120.20
26	1H	659	C	C2-N3-C4	-7.61	116.10	119.90
26	1H	1731	G	O5'-P-OP2	-7.61	98.85	105.70
26	1H	1790	C	N3-C4-C5	7.61	124.94	121.90
26	14	803	U	O5'-P-OP1	7.61	119.83	110.70
26	14	786	C	OP1-P-OP2	7.60	131.01	119.60
26	1H	265	A	N3-C4-N9	-7.60	121.32	127.40
26	1H	2609	U	C4-C5-C6	7.60	124.26	119.70
1	1G	266	G	P-O3'-C3'	7.60	128.82	119.70
26	14	2726	U	N3-C4-O4	-7.60	114.08	119.40
26	1H	982	C	C6-N1-C2	-7.60	117.26	120.30
26	1H	1009	A	N7-C8-N9	-7.60	110.00	113.80
26	1H	1267	U	O5'-P-OP2	-7.60	98.86	105.70
26	14	1141	U	P-O3'-C3'	7.60	128.82	119.70
26	1H	2438	U	C5-C6-N1	-7.60	118.90	122.70
26	14	2328	A	C4-C5-C6	7.60	120.80	117.00
1	13	330	C	N1-C2-O2	7.59	123.46	118.90
26	14	1931	U	OP1-P-OP2	-7.59	108.21	119.60
26	14	834	C	N1-C2-O2	-7.59	114.34	118.90
1	13	961	U	C2-N3-C4	-7.59	122.44	127.00
26	1H	1009	A	C8-N9-C4	7.59	108.84	105.80
26	1H	1939	U	C4-C5-C6	-7.59	115.14	119.70
26	1H	2600	A	C5-C6-N1	7.59	121.50	117.70
26	14	1608	A	N1-C6-N6	-7.59	114.05	118.60
26	1H	2387	U	OP2-P-O3'	7.59	121.90	105.20
26	14	1566	A	N1-C2-N3	-7.59	125.50	129.30
26	14	1835	G	C5-C6-O6	7.59	133.15	128.60
26	1H	766	C	C6-N1-C2	7.59	123.33	120.30
26	1H	1446	C	C6-N1-C2	-7.59	117.27	120.30
26	1H	2278	A	N1-C2-N3	7.59	133.09	129.30
26	14	2046	G	C5-C6-N1	7.59	115.29	111.50
1	13	264	U	C5-C4-O4	-7.58	121.35	125.90
26	1H	740	U	C5-C4-O4	7.58	130.45	125.90
26	1H	113	G	O5'-P-OP1	-7.58	98.88	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	138	G	O4'-C1'-N9	7.58	114.27	108.20
26	1H	1625	C	C5-C4-N4	7.58	125.50	120.20
26	1H	2577	A	C5-N7-C8	7.58	107.69	103.90
1	1G	518	C	O5'-P-OP1	7.58	119.79	110.70
1	13	1524	C	O5'-P-OP2	-7.58	98.88	105.70
26	1H	844	C	N1-C2-O2	-7.58	114.35	118.90
26	1H	1616	A	C5-C6-N6	-7.58	117.64	123.70
1	13	1203	C	C6-N1-C2	-7.57	117.27	120.30
26	1H	1300	U	N1-C2-O2	-7.57	117.50	122.80
26	1H	2277	G	C5-C6-O6	7.57	133.14	128.60
26	14	774	A	C4-C5-C6	-7.57	113.21	117.00
26	14	2256	G	N1-C2-N2	-7.57	109.38	116.20
26	14	876	C	N3-C2-O2	-7.57	116.60	121.90
22	1K	49	G	C4-N9-C1'	-7.57	116.66	126.50
1	13	522	C	O5'-P-OP2	-7.57	98.89	105.70
26	1H	910	A	O5'-P-OP2	-7.57	98.89	105.70
26	1H	611	C	C6-N1-C2	7.56	123.33	120.30
26	1H	1379	A	N1-C6-N6	7.56	123.14	118.60
26	1H	193	U	N1-C2-N3	7.56	119.44	114.90
26	1H	833	U	O5'-P-OP2	7.56	119.78	110.70
1	13	354	G	O5'-P-OP2	-7.56	98.90	105.70
26	1H	141(A)	C	N3-C4-C5	7.56	124.92	121.90
26	1H	796	C	C2-N3-C4	-7.56	116.12	119.90
26	1H	1394	U	C2-N3-C4	7.56	131.53	127.00
26	1H	2419	U	OP1-P-OP2	-7.56	108.26	119.60
26	14	2258	C	OP1-P-O3'	7.56	121.83	105.20
25	4K	18	G	N9-C4-C5	7.56	108.42	105.40
26	1H	66	C	C5-C6-N1	7.55	124.78	121.00
26	1H	1786	A	O5'-P-OP2	-7.55	98.90	105.70
26	1H	126	A	OP2-P-O3'	7.55	121.81	105.20
26	1H	2616	C	N1-C2-O2	-7.55	114.37	118.90
26	1H	120	U	N3-C2-O2	-7.55	116.92	122.20
26	1H	1819	A	O5'-P-OP1	-7.55	98.91	105.70
1	13	1199	U	N3-C2-O2	-7.55	116.92	122.20
22	1K	49	G	C8-N9-C1'	7.55	136.81	127.00
26	1H	222	A	P-O3'-C3'	7.54	128.75	119.70
26	1H	1129	A	OP1-P-OP2	7.54	130.92	119.60
26	1H	1303	G	N3-C2-N2	7.54	125.18	119.90
26	1H	1300	U	C6-N1-C2	-7.54	116.47	121.00
26	1H	1806	C	O5'-P-OP2	-7.54	98.91	105.70
26	1H	2213	U	O4'-C1'-N1	7.54	114.24	108.20
26	14	828	U	N3-C4-O4	-7.54	114.12	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	2K	40	C	O5'-P-OP1	-7.54	98.91	105.70
26	14	139	G	N9-C4-C5	7.54	108.42	105.40
26	1H	1366	A	N1-C6-N6	7.54	123.12	118.60
26	1H	1639	U	N1-C2-O2	7.54	128.07	122.80
26	1H	1816	G	O5'-P-OP1	-7.54	98.92	105.70
26	1H	1962	C	C5-C6-N1	7.53	124.77	121.00
26	1H	2490	G	O4'-C1'-N9	7.53	114.23	108.20
46	G8	81	LYS	C-N-CA	7.53	153.64	122.00
26	14	400	G	C5-C6-O6	-7.53	124.08	128.60
26	14	621	A	N1-C6-N6	7.53	123.12	118.60
26	14	715	G	C5-C6-O6	-7.53	124.08	128.60
1	13	50	A	N3-C4-C5	-7.52	121.53	126.80
26	14	252	G	O5'-P-OP2	-7.52	98.93	105.70
26	14	2211	G	O5'-P-OP2	-7.52	98.93	105.70
26	14	1758	G	O5'-P-OP1	-7.52	98.93	105.70
26	14	2249	U	C2-N3-C4	7.52	131.51	127.00
26	14	2597	G	O5'-P-OP1	7.52	119.72	110.70
24	3K	71	C	C6-N1-C2	-7.52	117.29	120.30
26	1H	1967	C	O5'-P-OP2	-7.52	98.94	105.70
26	1H	1344	G	OP1-P-OP2	-7.52	108.33	119.60
26	1H	2575	C	C5-C6-N1	-7.52	117.24	121.00
26	1H	1404	C	OP1-P-OP2	7.51	130.87	119.60
1	13	1062	U	O5'-P-OP2	-7.51	98.94	105.70
26	14	1899	G	N1-C2-N3	7.51	128.41	123.90
1	13	656	C	C5-C6-N1	7.51	124.75	121.00
8	7E	112	LEU	CA-CB-CG	7.51	132.57	115.30
26	1H	688	U	O5'-P-OP2	-7.51	98.94	105.70
1	13	1432	G	C4-C5-C6	7.50	123.30	118.80
26	1H	1617	C	O5'-P-OP1	-7.50	98.95	105.70
26	1H	1955	U	C2-N3-C4	-7.50	122.50	127.00
27	16	81	G	O4'-C1'-N9	7.50	114.20	108.20
26	14	1379	A	N7-C8-N9	7.50	117.55	113.80
26	14	2366	A	O5'-P-OP2	-7.50	98.95	105.70
26	1H	1514	U	O5'-P-OP1	-7.50	98.95	105.70
1	1G	1502	A	C4-C5-N7	7.50	114.45	110.70
26	14	744	G	C8-N9-C4	7.50	109.40	106.40
26	14	2385	C	C5-C4-N4	-7.50	114.95	120.20
27	1J	81	G	C5-N7-C8	-7.50	100.55	104.30
26	1H	202	U	N1-C2-N3	-7.50	110.40	114.90
26	1H	1204	A	N1-C6-N6	7.50	123.10	118.60
26	14	1204	A	O4'-C1'-N9	7.50	114.20	108.20
26	14	2616	C	O5'-P-OP1	-7.50	98.95	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1838	C	O5'-P-OP1	-7.50	98.95	105.70
26	1H	859	G	C8-N9-C4	7.49	109.40	106.40
26	1H	827	U	OP2-P-O3'	7.49	121.67	105.20
26	1H	2409	G	O5'-P-OP2	-7.49	98.96	105.70
1	13	827	U	C2-N1-C1'	7.49	126.68	117.70
26	1H	127	A	C5-C6-N6	-7.49	117.71	123.70
1	13	897	C	C5-C6-N1	-7.48	117.26	121.00
26	1H	1158	C	C2-N3-C4	-7.48	116.16	119.90
26	1H	2447	G	C5-C6-O6	-7.48	124.11	128.60
26	14	955	C	C6-N1-C2	-7.48	117.31	120.30
26	1H	446	G	N9-C4-C5	-7.48	102.41	105.40
26	1H	1429	G	C5-C6-O6	7.48	133.09	128.60
26	1H	2308	G	C5-C6-N1	-7.48	107.76	111.50
26	1H	2331	G	N1-C6-O6	7.48	124.39	119.90
26	14	307	G	N3-C4-N9	7.48	130.49	126.00
27	1J	6	C	C6-N1-C2	7.48	123.29	120.30
26	1H	2553	G	O5'-P-OP1	-7.48	98.97	105.70
26	1H	1306	C	C2-N3-C4	-7.47	116.16	119.90
26	1H	1648	C	C2-N1-C1'	-7.47	110.58	118.80
26	1H	1758	G	N1-C2-N2	7.47	122.92	116.20
26	14	676	A	O4'-C1'-N9	7.47	114.18	108.20
26	14	1323	U	OP1-P-OP2	-7.47	108.39	119.60
26	14	1333	C	C5-C4-N4	-7.47	114.97	120.20
1	13	537	G	O5'-P-OP1	-7.47	98.98	105.70
26	1H	1426	G	C6-N1-C2	-7.47	120.62	125.10
1	1G	1301	U	C2-N1-C1'	7.47	126.66	117.70
26	14	1762	A	C4-C5-N7	7.47	114.43	110.70
26	14	1844	C	OP1-P-OP2	-7.47	108.40	119.60
26	14	2374	C	N3-C4-C5	7.47	124.89	121.90
26	14	2453	A	N1-C6-N6	7.47	123.08	118.60
26	14	1570	A	N1-C6-N6	7.46	123.08	118.60
26	1H	946	G	OP1-P-OP2	-7.46	108.41	119.60
26	1H	1955	U	N1-C2-N3	7.46	119.38	114.90
26	1H	2346	A	C5-C6-N1	-7.46	113.97	117.70
26	1H	2401	U	C5-C6-N1	7.46	126.43	122.70
1	1G	576	G	C8-N9-C1'	-7.46	117.30	127.00
1	1G	534	U	N3-C2-O2	-7.46	116.98	122.20
26	14	228	A	N1-C6-N6	7.46	123.08	118.60
26	14	675	A	C8-N9-C4	7.46	108.78	105.80
26	1H	113	G	N1-C6-O6	7.46	124.37	119.90
26	1H	1563	G	C5-C6-O6	7.46	133.07	128.60
26	1H	871	U	N3-C4-O4	7.45	124.62	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	194	G	N3-C2-N2	-7.45	114.68	119.90
26	14	602	G	N1-C6-O6	7.45	124.37	119.90
26	14	737	C	N3-C2-O2	7.45	127.12	121.90
26	14	2712	U	N1-C2-N3	7.45	119.37	114.90
26	1H	275	G	C8-N9-C4	7.45	109.38	106.40
26	1H	1349	A	C2-N3-C4	-7.45	106.88	110.60
26	1H	1775	U	OP1-P-O3'	7.45	121.59	105.20
1	1G	337	C	C5-C6-N1	7.45	124.72	121.00
26	1H	196	A	C5-N7-C8	-7.45	100.18	103.90
26	1H	865	C	OP1-P-OP2	-7.45	108.43	119.60
26	14	79	G	C5-C6-O6	-7.45	124.13	128.60
26	14	2249	U	N3-C4-C5	-7.45	110.13	114.60
26	1H	446	G	N1-C6-O6	7.45	124.37	119.90
26	1H	661	C	C5-C6-N1	-7.45	117.28	121.00
1	13	523	A	C4-C5-N7	7.45	114.42	110.70
26	1H	2338	G	O5'-P-OP1	-7.45	99.00	105.70
26	14	48	G	OP2-P-O3'	7.45	121.58	105.20
26	14	2092	U	N3-C2-O2	-7.45	116.99	122.20
26	14	2056	G	C5-N7-C8	-7.44	100.58	104.30
26	1H	1306	C	N3-C4-C5	7.44	124.88	121.90
26	1H	482	A	C8-N9-C4	-7.44	102.83	105.80
26	1H	139	G	N3-C4-C5	-7.44	124.88	128.60
26	1H	139	G	C2-N3-C4	7.44	115.62	111.90
33	51	153	LYS	C-N-CD	-7.44	104.24	120.60
26	14	200	U	O5'-P-OP1	-7.44	99.01	105.70
26	14	2339	G	O5'-P-OP2	-7.44	99.01	105.70
26	1H	1197	G	C8-N9-C4	7.43	109.37	106.40
26	1H	148	C	N3-C4-C5	7.43	124.87	121.90
26	14	1949	G	C5-N7-C8	7.43	108.02	104.30
26	14	2392	A	O5'-P-OP2	7.43	119.62	110.70
26	1H	514	A	N1-C2-N3	7.43	133.01	129.30
26	14	2473	U	C2-N1-C1'	7.43	126.61	117.70
26	1H	2550	G	O5'-P-OP2	-7.43	99.02	105.70
26	14	2296	U	C6-N1-C1'	-7.43	110.80	121.20
26	14	129	C	N3-C4-N4	7.42	123.20	118.00
26	14	495	G	N3-C2-N2	-7.42	114.70	119.90
26	14	558	G	N7-C8-N9	-7.42	109.39	113.10
26	1H	1210	A	C4-C5-N7	7.42	114.41	110.70
26	1H	2055	C	C6-N1-C2	-7.42	117.33	120.30
26	14	1363	C	N3-C4-C5	7.42	124.87	121.90
26	1H	940	G	OP2-P-O3'	7.42	121.52	105.20
26	1H	2259	G	OP1-P-OP2	-7.42	108.47	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	826	U	O5'-P-OP2	-7.42	99.03	105.70
26	14	2345	G	N1-C6-O6	7.42	124.35	119.90
1	13	1227	A	C2-N3-C4	-7.41	106.89	110.60
26	1H	2248	C	C5-C4-N4	7.41	125.39	120.20
26	14	2375	G	C8-N9-C4	7.41	109.37	106.40
27	1J	47	C	OP1-P-O3'	7.41	121.51	105.20
1	13	523	A	C5-N7-C8	-7.41	100.19	103.90
26	1H	1379	A	C4-C5-N7	7.41	114.41	110.70
26	1H	1844	C	N3-C4-N4	7.41	123.19	118.00
26	14	1614	A	C6-C5-N7	-7.41	127.11	132.30
26	1H	1351	C	N3-C4-C5	7.41	124.86	121.90
26	1H	246	C	N3-C4-N4	-7.41	112.81	118.00
1	13	1422	G	O5'-P-OP2	-7.41	99.04	105.70
26	1H	2065	C	N3-C2-O2	-7.40	116.72	121.90
26	1H	945	A	C8-N9-C1'	-7.40	114.38	127.70
26	1H	1556	C	O5'-P-OP1	-7.40	99.04	105.70
26	14	1779	U	C5-C6-N1	-7.40	119.00	122.70
26	1H	1544	C	N1-C2-O2	7.40	123.34	118.90
27	16	5	C	C2-N3-C4	-7.40	116.20	119.90
26	1H	797	C	C4-C5-C6	7.40	121.10	117.40
25	4K	18	G	N1-C6-O6	-7.40	115.46	119.90
26	1H	186	G	C5-C6-N1	7.40	115.20	111.50
26	1H	776	G	C5-C6-O6	-7.40	124.16	128.60
26	1H	866	A	C4-N9-C1'	7.39	139.61	126.30
26	1H	2269	A	C2-N3-C4	-7.39	106.90	110.60
27	16	98	G	C6-C5-N7	-7.39	125.96	130.40
26	14	1827	C	N3-C2-O2	-7.39	116.72	121.90
26	1H	596	G	C5-C6-O6	-7.39	124.17	128.60
26	1H	641	C	O5'-P-OP2	7.39	119.57	110.70
26	1H	1193	G	O5'-P-OP2	-7.39	99.05	105.70
26	1H	1246	A	N1-C2-N3	7.39	133.00	129.30
1	13	807	A	C8-N9-C4	-7.39	102.84	105.80
26	14	990	A	C8-N9-C4	-7.39	102.84	105.80
26	14	1902	C	N3-C4-C5	7.39	124.86	121.90
27	1J	103	U	O5'-P-OP2	-7.39	99.05	105.70
26	1H	1602	U	C2-N3-C4	-7.39	122.57	127.00
26	14	2287	A	C5-C6-N1	-7.39	114.01	117.70
26	1H	2507	C	C6-N1-C2	-7.39	117.34	120.30
26	14	733	G	C5-N7-C8	7.39	107.99	104.30
26	14	734	A	O5'-P-OP2	-7.39	99.05	105.70
26	1H	1157	G	C4-N9-C1'	7.38	136.10	126.50
26	14	1251	C	C5-C4-N4	-7.38	115.03	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2275	C	C6-N1-C2	-7.38	117.35	120.30
1	13	897	C	C2-N3-C4	-7.38	116.21	119.90
26	1H	2598	A	O5'-P-OP1	-7.38	99.06	105.70
26	14	1426	G	N1-C6-O6	7.38	124.33	119.90
26	1H	2330	G	C4-C5-C6	7.38	123.23	118.80
26	14	970	C	N1-C2-O2	-7.38	114.47	118.90
26	14	2275	C	P-O3'-C3'	7.38	128.56	119.70
26	1H	114	U	OP1-P-O3'	7.38	121.43	105.20
26	14	2275	C	C5'-C4'-O4'	-7.38	100.25	109.10
1	13	974	A	N1-C6-N6	7.38	123.03	118.60
26	1H	823	G	C5-N7-C8	7.38	107.99	104.30
1	1G	784	C	C6-N1-C2	7.38	123.25	120.30
1	1G	1528	U	C6-N1-C2	7.38	125.43	121.00
26	14	1984	G	O5'-P-OP2	-7.38	99.06	105.70
26	1H	1156	A	O5'-P-OP1	7.37	119.55	110.70
26	1H	1568	G	OP1-P-OP2	-7.37	108.54	119.60
26	1H	1777	U	C4-C5-C6	7.37	124.12	119.70
26	1H	1966	A	N3-C4-N9	-7.37	121.50	127.40
1	1G	11	G	O5'-P-OP1	-7.37	99.07	105.70
26	1H	1621	U	N3-C4-O4	7.37	124.56	119.40
26	1H	1728	G	N3-C4-N9	7.37	130.42	126.00
26	1H	1559	G	N1-C6-O6	7.37	124.32	119.90
26	1H	141	A	C4-C5-N7	7.37	114.38	110.70
26	1H	807	U	C5-C4-O4	-7.37	121.48	125.90
1	13	1327	C	N3-C4-C5	7.36	124.85	121.90
26	1H	451	C	N3-C2-O2	7.36	127.05	121.90
26	1H	1489	U	N3-C2-O2	-7.36	117.05	122.20
26	14	765	G	C8-N9-C4	-7.36	103.45	106.40
26	14	2005	A	O5'-P-OP2	-7.36	99.07	105.70
26	1H	1949	G	N1-C6-O6	-7.36	115.48	119.90
26	14	1742	C	C6-N1-C2	-7.36	117.36	120.30
26	14	148	C	N3-C4-C5	7.36	124.84	121.90
26	14	1348	G	O5'-P-OP2	7.36	119.53	110.70
26	1H	208	C	C2-N3-C4	-7.36	116.22	119.90
26	1H	484	C	N1-C2-O2	7.36	123.31	118.90
26	1H	2301	C	C6-N1-C2	-7.36	117.36	120.30
26	14	676	A	OP1-P-OP2	7.36	130.64	119.60
26	1H	1636	C	N1-C2-O2	-7.36	114.49	118.90
26	14	1835	G	N1-C6-O6	-7.36	115.49	119.90
26	14	2577	A	N1-C6-N6	7.36	123.01	118.60
26	1H	138	G	C4-C5-C6	-7.35	114.39	118.80
26	1H	530	G	C4-N9-C1'	-7.35	116.94	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1812	A	O5'-P-OP2	-7.35	99.08	105.70
26	14	797	C	N3-C2-O2	7.35	127.05	121.90
26	14	2710	C	N1-C2-O2	-7.35	114.49	118.90
26	14	129	C	C5-C4-N4	-7.35	115.06	120.20
1	13	768	A	N1-C2-N3	7.35	132.97	129.30
26	1H	195	A	C6-C5-N7	-7.35	127.16	132.30
26	1H	1328	G	O5'-P-OP1	7.35	119.52	110.70
26	14	1966	A	N1-C6-N6	-7.35	114.19	118.60
26	1H	1308	A	N7-C8-N9	7.35	117.47	113.80
26	1H	2585	U	N3-C4-O4	-7.35	114.26	119.40
1	13	415	A	O5'-P-OP1	-7.34	99.09	105.70
29	11	111	LEU	CA-CB-CG	7.34	132.19	115.30
26	14	515	A	C8-N9-C4	-7.34	102.86	105.80
26	1H	778	G	N3-C2-N2	7.34	125.04	119.90
26	14	137(A)	G	C5-C6-O6	-7.34	124.19	128.60
26	14	672	C	C5-C4-N4	7.34	125.34	120.20
13	4I	108	ARG	NE-CZ-NH1	7.34	123.97	120.30
1	1G	1487	G	O5'-P-OP2	-7.34	99.09	105.70
26	1H	402	A	N1-C2-N3	7.34	132.97	129.30
26	1H	2618	G	N9-C4-C5	7.34	108.33	105.40
26	1H	46	C	C2-N3-C4	-7.34	116.23	119.90
26	1H	847	U	C2-N3-C4	-7.34	122.60	127.00
26	1H	869	G	C6-N1-C2	-7.34	120.70	125.10
26	14	1779	U	O5'-P-OP2	-7.34	99.10	105.70
26	14	531	C	C5-C6-N1	-7.33	117.33	121.00
26	1H	135	G	C5-C6-O6	-7.33	124.20	128.60
26	1H	2713	A	N3-C4-N9	-7.33	121.53	127.40
26	1H	831	G	C8-N9-C4	7.33	109.33	106.40
26	1H	2066	C	OP1-P-OP2	-7.33	108.60	119.60
26	1H	2256	G	C4-C5-N7	7.33	113.73	110.80
26	1H	2406	U	O4'-C1'-N1	-7.33	102.33	108.20
26	1H	1489	U	C5-C4-O4	7.33	130.30	125.90
26	14	1308	A	N1-C2-N3	7.33	132.96	129.30
26	14	1812	A	OP1-P-OP2	7.33	130.59	119.60
26	1H	1784	A	O4'-C1'-N9	-7.33	102.34	108.20
1	13	740	U	O5'-P-OP2	-7.33	99.11	105.70
26	1H	2347	C	OP2-P-O3'	7.32	121.31	105.20
26	14	68	G	N1-C6-O6	7.32	124.29	119.90
26	14	1840	G	N1-C6-O6	7.32	124.29	119.90
26	14	2371	G	C5-C6-N1	7.32	115.16	111.50
26	14	465	G	O5'-P-OP2	7.32	119.49	110.70
26	1H	2446	G	C5-N7-C8	-7.32	100.64	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	16	44	G	C8-N9-C1'	7.32	136.52	127.00
26	1H	2601	C	C6-N1-C2	-7.32	117.37	120.30
26	14	1253	A	N1-C6-N6	7.32	122.99	118.60
1	13	687	A	P-O3'-C3'	7.32	128.48	119.70
26	1H	825	C	N3-C2-O2	7.32	127.02	121.90
26	14	1807	G	O5'-P-OP2	-7.32	99.11	105.70
26	14	2518	A	N1-C2-N3	7.32	132.96	129.30
26	1H	737	C	C6-N1-C2	7.32	123.23	120.30
26	1H	2251	G	C5-C6-O6	7.32	132.99	128.60
26	1H	2261	C	OP2-P-O3'	7.32	121.30	105.20
1	1G	6	G	N1-C6-O6	7.32	124.29	119.90
26	1H	973	A	C5-C6-N1	-7.31	114.04	117.70
26	1H	1021	A	N3-C4-N9	-7.31	121.55	127.40
29	19	111	LEU	CA-CB-CG	7.31	132.12	115.30
26	1H	784	A	C5-C6-N6	7.31	129.55	123.70
26	1H	1931	U	N3-C4-O4	-7.31	114.28	119.40
26	14	1300	U	O5'-P-OP1	7.31	119.48	110.70
26	1H	179	G	C2-N3-C4	-7.31	108.25	111.90
26	1H	429	A	O5'-P-OP1	-7.31	99.12	105.70
27	16	9	G	OP2-P-O3'	7.31	121.28	105.20
26	14	774	A	O5'-P-OP2	-7.31	99.12	105.70
26	14	916	G	O5'-P-OP1	-7.31	99.12	105.70
26	14	2821	A	N1-C6-N6	7.31	122.98	118.60
1	13	1279	A	C8-N9-C4	-7.31	102.88	105.80
26	14	961	C	C6-N1-C2	7.31	123.22	120.30
26	14	1616	A	O4'-C1'-N9	7.31	114.05	108.20
26	1H	1202	C	N1-C2-O2	-7.30	114.52	118.90
26	1H	1823	G	C4-C5-N7	-7.30	107.88	110.80
26	14	733	G	N1-C2-N2	-7.30	109.63	116.20
26	1H	321	G	N3-C4-N9	7.30	130.38	126.00
27	16	81	G	C6-C5-N7	-7.30	126.02	130.40
26	14	1314	C	C2-N1-C1'	7.30	126.83	118.80
26	14	2867	G	N1-C6-O6	-7.30	115.52	119.90
26	1H	617	G	N7-C8-N9	-7.30	109.45	113.10
1	1G	534	U	N1-C2-O2	7.29	127.90	122.80
26	14	664	C	OP1-P-OP2	7.29	130.54	119.60
26	14	2060	A	C5-C6-N6	7.29	129.53	123.70
26	1H	2330	G	C2-N3-C4	-7.29	108.26	111.90
26	14	383	U	O5'-P-OP2	7.29	119.45	110.70
1	13	726	C	OP1-P-O3'	7.29	121.23	105.20
26	1H	1799	G	N3-C2-N2	7.29	125.00	119.90
53	J5	16	ARG	NE-CZ-NH1	7.29	123.94	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2440	C	N3-C4-C5	-7.29	118.99	121.90
26	14	396	G	O5'-P-OP1	-7.29	99.14	105.70
26	14	2385	C	N3-C4-N4	7.29	123.10	118.00
1	13	652	U	O5'-P-OP1	-7.28	99.15	105.70
1	13	1279	A	C5-N7-C8	-7.28	100.26	103.90
26	1H	825	C	N3-C4-N4	7.28	123.10	118.00
26	1H	992	C	OP1-P-O3'	7.28	121.23	105.20
1	1G	664	G	N3-C4-N9	-7.28	121.63	126.00
26	1H	838	C	C4-C5-C6	7.28	121.04	117.40
26	1H	2318	G	N7-C8-N9	7.28	116.74	113.10
26	14	1304	C	C5-C4-N4	7.28	125.30	120.20
26	1H	1574	C	OP1-P-O3'	-7.28	89.18	105.20
26	1H	1950	G	O5'-P-OP1	-7.28	99.15	105.70
39	98	75	LEU	CA-CB-CG	7.28	132.04	115.30
26	14	97	C	OP1-P-OP2	7.28	130.52	119.60
1	13	730	G	OP1-P-O3'	7.28	121.21	105.20
26	1H	2266	A	N1-C2-N3	7.28	132.94	129.30
1	1G	690	G	C2-N3-C4	-7.28	108.26	111.90
26	14	90	U	N3-C2-O2	-7.28	117.11	122.20
26	14	1251	C	C4-C5-C6	7.28	121.04	117.40
26	14	1815	A	OP1-P-O3'	7.28	121.21	105.20
26	14	2597	G	C6-C5-N7	-7.28	126.03	130.40
37	78	16	ARG	N-CA-C	7.28	130.64	111.00
26	14	1933	G	O5'-P-OP2	-7.28	99.15	105.70
26	1H	972	G	N7-C8-N9	-7.27	109.46	113.10
26	1H	2509	G	N1-C6-O6	-7.27	115.54	119.90
26	14	385	C	OP1-P-OP2	7.27	130.51	119.60
26	14	1572	A	O5'-P-OP2	-7.27	99.16	105.70
26	14	140	A	C2-N3-C4	-7.27	106.97	110.60
26	14	528	A	N3-C4-C5	7.27	131.89	126.80
26	1H	847	U	C4-C5-C6	7.27	124.06	119.70
26	1H	383	U	O4'-C1'-N1	7.27	114.01	108.20
26	1H	237	C	N1-C2-O2	-7.26	114.54	118.90
26	1H	1627	G	C8-N9-C4	7.26	109.31	106.40
26	14	559	G	C5-C6-N1	-7.26	107.87	111.50
26	14	2382	G	C4-N9-C1'	7.26	135.94	126.50
26	14	2644	G	O5'-P-OP1	-7.26	99.16	105.70
26	14	1404	C	N3-C2-O2	-7.26	116.82	121.90
26	14	2496	C	OP1-P-OP2	-7.26	108.71	119.60
27	16	6	C	C6-N1-C2	7.26	123.20	120.30
26	14	2347	C	N1-C2-O2	7.26	123.26	118.90
26	1H	586	A	OP1-P-O3'	7.26	121.17	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	800	A	O5'-P-OP2	7.26	119.41	110.70
26	1H	950	G	O5'-P-OP1	7.26	119.41	110.70
26	1H	640	C	C6-N1-C2	-7.26	117.40	120.30
26	1H	1225	C	C6-N1-C2	7.26	123.20	120.30
26	1H	420	C	C6-N1-C2	7.25	123.20	120.30
26	14	1790	C	OP1-P-O3'	7.25	121.16	105.20
27	16	82	G	C5-N7-C8	7.25	107.92	104.30
26	14	2598	A	OP2-P-O3'	7.25	121.15	105.20
26	14	864	G	C2-N3-C4	7.25	115.53	111.90
1	13	726	C	N1-C2-O2	7.25	123.25	118.90
26	14	796	C	N3-C4-C5	7.25	124.80	121.90
26	1H	265	A	C8-N9-C4	-7.25	102.90	105.80
26	1H	739	G	N1-C2-N2	7.25	122.72	116.20
26	1H	1387	C	O5'-P-OP1	-7.25	99.18	105.70
26	1H	2751	G	C4-C5-C6	7.25	123.15	118.80
26	14	866	A	O4'-C1'-N9	-7.25	102.40	108.20
26	1H	2264	C	OP1-P-O3'	7.25	121.14	105.20
1	1G	690	G	O4'-C1'-N9	7.25	114.00	108.20
1	13	529	G	C4-C5-N7	7.24	113.70	110.80
24	3L	76	A	C2-N3-C4	-7.24	106.98	110.60
26	14	1021	A	C2-N3-C4	-7.24	106.98	110.60
26	14	2596	U	OP1-P-OP2	7.24	130.47	119.60
26	1H	1249	U	N1-C2-O2	-7.24	117.73	122.80
26	1H	1428	C	C6-N1-C1'	7.24	129.49	120.80
26	1H	2271	G	C4-C5-N7	7.24	113.70	110.80
26	14	2726	U	N3-C2-O2	-7.24	117.13	122.20
1	1G	1281	U	N1-C2-O2	7.23	127.86	122.80
1	13	852	G	O5'-P-OP2	-7.23	99.19	105.70
26	1H	2367	G	N7-C8-N9	7.23	116.72	113.10
26	1H	2666	C	N3-C4-N4	7.23	123.06	118.00
26	14	723	G	C8-N9-C4	7.23	109.29	106.40
26	14	1684	C	N1-C2-O2	-7.23	114.56	118.90
26	1H	265	A	N7-C8-N9	7.23	117.42	113.80
26	1H	321	G	N9-C4-C5	-7.23	102.51	105.40
26	1H	1890	A	N1-C6-N6	-7.23	114.26	118.60
26	14	1210	A	C5-N7-C8	-7.23	100.28	103.90
26	14	2042	A	O5'-P-OP2	-7.23	99.19	105.70
26	1H	587	C	C2-N3-C4	-7.23	116.28	119.90
26	1H	449	A	OP1-P-O3'	7.23	121.10	105.20
26	14	2544	G	C4-C5-N7	7.23	113.69	110.80
26	1H	747	U	OP1-P-OP2	7.22	130.44	119.60
26	1H	1620	G	C4-C5-N7	-7.22	107.91	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	845	G	N3-C2-N2	-7.22	114.84	119.90
26	14	1308	A	C8-N9-C4	-7.22	102.91	105.80
26	14	2001	A	C8-N9-C4	7.22	108.69	105.80
26	1H	1602	U	N1-C2-N3	7.22	119.23	114.90
26	1H	1814	G	N1-C2-N2	-7.22	109.70	116.20
26	14	2062	A	O4'-C1'-N9	7.22	113.97	108.20
26	14	2307	G	N7-C8-N9	7.22	116.71	113.10
26	14	2307	G	C4-N9-C1'	7.22	135.88	126.50
26	14	2542	A	C5-N7-C8	7.22	107.51	103.90
26	14	2591	C	N3-C2-O2	7.22	126.95	121.90
26	14	1616	A	C5-C6-N6	-7.21	117.93	123.70
26	1H	2251	G	C5-N7-C8	7.21	107.91	104.30
26	14	602	G	C4-N9-C1'	7.21	135.88	126.50
26	14	1605	C	C2-N3-C4	-7.21	116.29	119.90
26	1H	1204	A	C5-N7-C8	-7.21	100.30	103.90
26	1H	371	A	O5'-P-OP2	-7.21	99.21	105.70
26	1H	617	G	O5'-P-OP1	7.21	119.35	110.70
26	1H	1379	A	N9-C1'-C2'	7.21	123.37	114.00
26	1H	1387	C	OP1-P-OP2	7.21	130.41	119.60
26	1H	1966	A	C5-C6-N6	7.21	129.47	123.70
26	14	2056	G	OP1-P-O3'	7.21	121.06	105.20
29	19	44	ASN	C-N-CA	7.21	139.72	121.70
1	13	266	G	C6-C5-N7	-7.21	126.08	130.40
26	1H	1261	C	C2-N3-C4	-7.21	116.30	119.90
26	1H	2048	G	C4-C5-C6	7.21	123.12	118.80
1	1G	449	C	C6-N1-C2	-7.21	117.42	120.30
26	14	197	A	OP1-P-OP2	-7.21	108.79	119.60
26	1H	1257	C	N1-C2-O2	-7.21	114.58	118.90
26	14	774	A	C4-N9-C1'	-7.21	113.33	126.30
26	1H	410	G	C5-C6-O6	-7.20	124.28	128.60
26	1H	473	G	O5'-P-OP2	-7.20	99.22	105.70
26	1H	583	G	O5'-P-OP2	-7.20	99.22	105.70
26	1H	2260	C	N3-C4-C5	7.20	124.78	121.90
27	16	38	C	C6-N1-C2	7.20	123.18	120.30
1	1G	945	G	C5-C6-O6	-7.20	124.28	128.60
26	1H	1204	A	C4-C5-C6	7.20	120.60	117.00
26	14	2699	C	N3-C4-C5	7.20	124.78	121.90
26	14	574	C	C5-C4-N4	7.20	125.24	120.20
26	14	398	G	N1-C6-O6	-7.20	115.58	119.90
26	1H	112	U	N3-C2-O2	7.20	127.24	122.20
26	1H	330	A	N7-C8-N9	7.20	117.40	113.80
26	14	1241	A	N1-C6-N6	7.20	122.92	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1801	G	N1-C6-O6	7.20	124.22	119.90
26	1H	1210	A	C6-C5-N7	-7.19	127.26	132.30
26	1H	783	A	N9-C1'-C2'	-7.19	104.09	112.00
26	1H	951	C	N1-C2-O2	7.19	123.22	118.90
26	1H	2708	G	N1-C2-N2	-7.19	109.73	116.20
1	1G	1499	A	C8-N9-C4	7.19	108.68	105.80
1	13	964	A	C8-N9-C4	7.19	108.68	105.80
26	1H	1677	A	OP1-P-OP2	-7.19	108.81	119.60
26	1H	2230	G	N3-C4-N9	-7.19	121.69	126.00
26	14	1303	G	O5'-P-OP2	-7.19	99.23	105.70
26	14	1742	C	C5-C6-N1	7.19	124.59	121.00
26	14	2371	G	C4-C5-N7	7.19	113.68	110.80
30	29	78	LEU	CA-CB-CG	7.19	131.84	115.30
26	1H	664	C	N3-C2-O2	-7.19	116.87	121.90
26	1H	1321	A	N7-C8-N9	-7.19	110.21	113.80
26	14	2426	A	N7-C8-N9	7.19	117.39	113.80
1	13	892	A	C6-C5-N7	-7.19	127.27	132.30
26	1H	150	C	C5-C4-N4	7.19	125.23	120.20
26	1H	202	U	C4-C5-C6	-7.19	115.39	119.70
26	1H	484	C	OP1-P-O3'	7.19	121.01	105.20
26	1H	1408	C	N3-C4-N4	7.19	123.03	118.00
26	1H	1800	C	C6-N1-C2	-7.19	117.42	120.30
26	1H	2765	A	OP1-P-OP2	7.19	130.38	119.60
1	1G	402	G	C8-N9-C4	7.19	109.28	106.40
26	14	480	A	C8-N9-C4	-7.19	102.92	105.80
26	14	801	G	N9-C4-C5	7.19	108.28	105.40
26	1H	2827	C	N1-C2-O2	-7.19	114.59	118.90
25	4L	23	A	OP1-P-O3'	7.19	121.01	105.20
26	1H	209	C	N3-C4-C5	7.18	124.77	121.90
26	1H	1426	G	N1-C2-N3	7.18	128.21	123.90
1	1G	894	G	C5-C6-O6	-7.18	124.29	128.60
26	14	556	G	N3-C4-N9	7.18	130.31	126.00
26	14	1383	C	N3-C2-O2	7.18	126.93	121.90
27	1J	44	G	C4-N9-C1'	-7.18	117.16	126.50
1	13	1496	C	C5-C6-N1	-7.18	117.41	121.00
26	1H	655	A	C8-N9-C4	-7.18	102.93	105.80
26	1H	837	C	N3-C4-N4	7.18	123.03	118.00
26	1H	1021	A	N1-C6-N6	7.18	122.91	118.60
26	14	503	A	N1-C6-N6	-7.18	114.29	118.60
26	14	1796	U	O5'-P-OP1	-7.18	99.24	105.70
26	1H	2287	A	C6-N1-C2	7.18	122.91	118.60
26	1H	2447	G	C6-N1-C2	-7.18	120.79	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	16	80	U	N3-C2-O2	-7.18	117.17	122.20
26	14	1939	U	O5'-P-OP1	-7.18	99.24	105.70
26	14	2092	U	N3-C4-O4	-7.18	114.37	119.40
26	1H	552	G	O5'-P-OP1	7.18	119.31	110.70
1	1G	894	G	N1-C6-O6	7.18	124.20	119.90
26	14	140	A	C6-C5-N7	-7.18	127.28	132.30
26	14	2213	U	C2-N1-C1'	7.18	126.31	117.70
26	1H	72	U	O5'-P-OP1	-7.17	99.24	105.70
45	F8	70	LEU	CA-CB-CG	7.17	131.80	115.30
26	14	248	G	C6-N1-C2	-7.17	120.80	125.10
26	14	673	C	N1-C2-O2	-7.17	114.59	118.90
26	14	1341	U	O5'-P-OP1	-7.17	99.24	105.70
1	1G	1487	G	O5'-P-OP1	7.17	119.31	110.70
1	13	266	G	C5-N7-C8	-7.17	100.71	104.30
26	1H	530	G	N9-C4-C5	7.17	108.27	105.40
26	1H	2351	G	OP1-P-OP2	7.17	130.36	119.60
1	1G	449	C	C5-C4-N4	7.17	125.22	120.20
1	13	703	G	C4-N9-C1'	7.17	135.82	126.50
26	14	2287	A	N9-C4-C5	-7.17	102.93	105.80
26	14	737	C	C5-C4-N4	-7.17	115.18	120.20
26	14	982	C	N1-C2-O2	-7.17	114.60	118.90
26	14	1673	U	N1-C2-O2	-7.17	117.78	122.80
26	14	1918	A	N9-C4-C5	-7.17	102.93	105.80
26	1H	51	G	OP2-P-O3'	7.16	120.96	105.20
26	1H	1394	U	O5'-P-OP1	-7.16	99.25	105.70
26	1H	1814	G	OP1-P-OP2	7.16	130.34	119.60
26	1H	2626	C	N3-C4-C5	7.16	124.77	121.90
1	1G	1358	U	C5-C6-N1	7.16	126.28	122.70
26	14	2594	C	C5-C4-N4	-7.16	115.19	120.20
26	14	2595	G	O5'-P-OP1	-7.16	99.25	105.70
1	13	890	G	N9-C4-C5	-7.16	102.53	105.40
24	3K	72	C	C6-N1-C2	-7.16	117.44	120.30
26	1H	2030	A	C5-C6-N6	-7.16	117.97	123.70
26	14	1838	C	O5'-P-OP2	7.16	119.29	110.70
1	13	585	G	O5'-P-OP2	-7.16	99.26	105.70
1	13	1250	A	O5'-P-OP1	-7.16	99.26	105.70
26	1H	205	G	N3-C2-N2	7.16	124.91	119.90
26	1H	1673	U	C2-N1-C1'	-7.16	109.11	117.70
26	1H	1198	U	N1-C2-O2	7.16	127.81	122.80
26	1H	1603	A	C8-N9-C4	-7.16	102.94	105.80
26	14	1820	U	O5'-P-OP1	-7.16	99.26	105.70
26	1H	2709	G	C5-C6-O6	7.16	132.89	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1142(A)	A	C5-N7-C8	-7.15	100.32	103.90
26	1H	1785	A	OP2-P-O3'	7.15	120.94	105.20
26	14	1281	G	O5'-P-OP1	-7.15	99.26	105.70
1	13	5	U	C2-N1-C1'	7.15	126.28	117.70
26	1H	123	G	O5'-P-OP2	-7.15	99.26	105.70
26	1H	859	G	N3-C4-C5	7.15	132.18	128.60
26	1H	1223	C	N1-C2-O2	-7.15	114.61	118.90
26	14	1356	G	O5'-P-OP1	-7.15	99.26	105.70
1	13	767	A	N1-C2-N3	7.15	132.88	129.30
26	1H	2074	U	C5-C6-N1	-7.15	119.13	122.70
1	1G	1358	U	N3-C2-O2	-7.15	117.20	122.20
26	14	794	G	C4-C5-N7	-7.15	107.94	110.80
26	14	872	A	O5'-P-OP1	-7.15	99.27	105.70
26	14	2613	U	C5-C6-N1	-7.15	119.12	122.70
1	13	1412	C	C5-C6-N1	-7.15	117.43	121.00
1	13	690	G	C5-C6-O6	-7.14	124.31	128.60
1	13	796	C	C6-N1-C2	-7.14	117.44	120.30
26	1H	1624	G	N1-C6-O6	-7.14	115.61	119.90
26	1H	1792	G	N1-C6-O6	-7.14	115.61	119.90
26	1H	2248	C	N1-C2-O2	7.14	123.19	118.90
26	14	872	A	O5'-P-OP2	7.14	119.27	110.70
26	14	1844	C	C5-C4-N4	-7.14	115.20	120.20
26	14	2499	C	OP1-P-OP2	-7.14	108.88	119.60
26	14	984	A	O5'-P-OP2	-7.14	99.27	105.70
26	1H	1307	A	N9-C4-C5	-7.14	102.94	105.80
26	1H	1456	G	N1-C6-O6	7.14	124.19	119.90
26	14	944	G	OP1-P-OP2	7.14	130.31	119.60
26	14	2518	A	N9-C4-C5	-7.14	102.94	105.80
26	1H	738	G	N7-C8-N9	7.14	116.67	113.10
26	1H	1968	G	N9-C1'-C2'	-7.14	104.15	112.00
26	1H	1970	A	OP1-P-O3'	-7.14	89.49	105.20
26	14	1598	C	OP1-P-OP2	-7.14	108.89	119.60
26	1H	930	U	C5-C6-N1	-7.14	119.13	122.70
26	1H	1026	U	C2-N1-C1'	-7.14	109.14	117.70
26	14	1377	G	C8-N9-C4	-7.14	103.55	106.40
26	1H	1325	G	N3-C4-N9	7.13	130.28	126.00
26	1H	1996	C	C6-N1-C2	7.13	123.15	120.30
1	1G	449	C	N3-C4-N4	-7.13	113.01	118.00
26	1H	1623	G	C5-C6-O6	7.13	132.88	128.60
26	1H	2591	C	C2-N3-C4	-7.13	116.33	119.90
1	13	1426	C	N3-C4-N4	7.13	122.99	118.00
26	1H	908	C	OP2-P-O3'	7.13	120.89	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2405	G	N9-C4-C5	7.13	108.25	105.40
26	14	2056	G	C4-C5-N7	7.13	113.65	110.80
26	14	1619	G	C5-C6-O6	-7.13	124.32	128.60
1	13	900	A	OP1-P-OP2	-7.13	108.91	119.60
26	1H	246	C	C5-C4-N4	7.13	125.19	120.20
24	3K	3	G	C8-N9-C4	-7.12	103.55	106.40
26	1H	657	U	O5'-P-OP2	-7.12	99.29	105.70
26	1H	1681	G	N3-C4-N9	-7.12	121.73	126.00
26	14	1253	A	N9-C4-C5	-7.12	102.95	105.80
26	14	2473	U	N1-C2-O2	7.12	127.78	122.80
26	1H	1528	A	N1-C2-N3	7.12	132.86	129.30
26	1H	1646	C	C2-N1-C1'	-7.12	110.97	118.80
32	41	94	LEU	CA-CB-CG	7.12	131.67	115.30
26	14	1496	A	N1-C6-N6	7.12	122.87	118.60
26	1H	2690	C	C4-C5-C6	7.12	120.96	117.40
26	14	952	G	OP1-P-OP2	-7.12	108.92	119.60
1	13	948	C	O5'-P-OP2	-7.12	99.30	105.70
26	1H	831	G	N3-C2-N2	7.12	124.88	119.90
26	1H	1305	C	C5-C6-N1	-7.12	117.44	121.00
1	1G	1526	G	N1-C6-O6	7.12	124.17	119.90
26	14	699	A	N1-C6-N6	-7.12	114.33	118.60
27	1J	114	G	C4-N9-C1'	-7.12	117.25	126.50
26	1H	113	G	N3-C4-N9	-7.11	121.73	126.00
26	1H	847	U	N1-C2-N3	7.11	119.17	114.90
26	14	2392	A	N3-C4-C5	7.11	131.78	126.80
26	14	2461	C	N3-C4-N4	-7.11	113.02	118.00
26	14	1254	A	C6-N1-C2	-7.11	114.33	118.60
26	1H	1594	G	OP1-P-O3'	7.11	120.84	105.20
26	1H	1802	A	C2-N3-C4	-7.11	107.05	110.60
26	1H	2524	G	C4-C5-N7	-7.11	107.96	110.80
1	1G	413	G	C6-C5-N7	7.11	134.66	130.40
26	1H	1245	G	O5'-P-OP1	-7.11	99.31	105.70
26	1H	130	C	C2-N3-C4	-7.10	116.35	119.90
26	1H	1579	A	C8-N9-C4	-7.10	102.96	105.80
26	1H	2490	G	N1-C2-N2	-7.10	109.81	116.20
26	1H	138	G	N9-C1'-C2'	7.10	123.23	114.00
26	14	459	U	N1-C2-N3	7.10	119.16	114.90
26	1H	188	G	C6-C5-N7	-7.10	126.14	130.40
26	1H	1217	C	N1-C2-O2	-7.10	114.64	118.90
26	1H	1607	C	C5-C4-N4	-7.10	115.23	120.20
26	14	1641	A	O5'-P-OP2	7.10	119.22	110.70
26	14	2029	G	N7-C8-N9	7.10	116.65	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1228	G	N1-C2-N3	7.10	128.16	123.90
26	14	681	G	C5-N7-C8	-7.10	100.75	104.30
26	14	1128	A	C5-C6-N1	7.10	121.25	117.70
26	14	1784	A	OP1-P-OP2	7.10	130.25	119.60
26	1H	199	A	C2-N3-C4	7.09	114.15	110.60
26	1H	2256	G	O5'-P-OP1	7.09	119.21	110.70
26	1H	2329	G	C5-C6-O6	7.09	132.86	128.60
26	14	1441	G	C8-N9-C4	7.09	109.24	106.40
26	14	2387	U	N3-C4-C5	7.09	118.86	114.60
1	13	890	G	C8-N9-C4	7.09	109.24	106.40
1	13	1403	C	O5'-P-OP2	-7.09	99.32	105.70
26	1H	195	A	C5-C6-N6	-7.09	118.03	123.70
26	1H	2827	C	C5-C4-N4	-7.09	115.23	120.20
26	14	2447	G	N3-C2-N2	-7.09	114.94	119.90
24	3K	76	A	C5-C6-N6	-7.09	118.03	123.70
26	14	2389	G	C8-N9-C4	-7.09	103.56	106.40
26	14	2873	A	C8-N9-C1'	-7.09	114.94	127.70
1	13	1200	C	C2-N3-C4	7.09	123.44	119.90
26	1H	2436	G	C5-C6-O6	-7.09	124.35	128.60
26	1H	2574	G	C5-C6-N1	7.09	115.04	111.50
26	14	470	A	C4-C5-N7	7.08	114.24	110.70
26	14	1992	G	N1-C6-O6	-7.08	115.65	119.90
26	1H	808	G	C5-N7-C8	7.08	107.84	104.30
26	14	733	G	C6-C5-N7	-7.08	126.15	130.40
26	14	2502	G	OP2-P-O3'	7.08	120.78	105.20
26	1H	930	U	N1-C2-N3	7.08	119.15	114.90
26	14	2498	C	N1-C2-O2	-7.08	114.65	118.90
26	1H	997	G	O5'-P-OP1	7.08	119.19	110.70
26	1H	1035	U	C5-C6-N1	-7.08	119.16	122.70
26	1H	1817	G	N1-C6-O6	-7.08	115.65	119.90
26	1H	2552	U	N1-C2-N3	7.08	119.15	114.90
23	2L	35	C	OP1-P-O3'	7.08	120.78	105.20
26	1H	680	G	C6-C5-N7	-7.08	126.16	130.40
26	14	2029	G	O5'-P-OP1	-7.08	99.33	105.70
26	1H	928	G	C5-N7-C8	-7.07	100.76	104.30
26	1H	2254	C	OP1-P-OP2	-7.07	108.99	119.60
26	1H	2829	C	N1-C2-O2	-7.07	114.66	118.90
26	14	2443	C	C5-C4-N4	-7.07	115.25	120.20
26	14	2388	A	O4'-C1'-N9	7.07	113.86	108.20
1	13	1227	A	N3-C4-C5	7.07	131.75	126.80
26	14	2431	U	N1-C2-O2	-7.07	117.85	122.80
26	1H	1813	G	C8-N9-C4	7.07	109.23	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	568	U	C5-C4-O4	-7.07	121.66	125.90
26	14	2252	G	N7-C8-N9	-7.07	109.56	113.10
26	1H	195	A	N9-C4-C5	-7.07	102.97	105.80
26	1H	530	G	C5-C6-O6	7.07	132.84	128.60
26	1H	2461	C	C5-C6-N1	-7.07	117.47	121.00
22	1L	73	A	C2-N3-C4	7.07	114.13	110.60
26	14	1379	A	C5-N7-C8	-7.07	100.37	103.90
1	13	1266	G	C2-N3-C4	-7.07	108.37	111.90
26	1H	148	C	C6-N1-C2	7.07	123.13	120.30
26	1H	1824	G	N9-C4-C5	7.07	108.23	105.40
26	1H	2033	A	O5'-P-OP1	-7.07	99.34	105.70
26	1H	2550	G	C8-N9-C4	-7.07	103.57	106.40
26	1H	2592	G	C5-C6-N1	-7.07	107.97	111.50
26	14	2307	G	C8-N9-C4	-7.07	103.57	106.40
26	14	2689	U	P-O3'-C3'	7.07	128.18	119.70
26	1H	952	G	O5'-P-OP1	-7.06	99.34	105.70
26	1H	1249	U	C5-C4-O4	-7.06	121.66	125.90
1	1G	402	G	N9-C4-C5	-7.06	102.58	105.40
26	1H	563	G	C5-C6-O6	7.06	132.84	128.60
26	1H	1249	U	N3-C2-O2	7.06	127.14	122.20
1	1G	1128	C	N1-C2-O2	7.06	123.14	118.90
26	14	747	U	O5'-P-OP2	-7.06	99.35	105.70
26	14	1313	U	C6-N1-C2	-7.06	116.77	121.00
26	1H	1777	U	N1-C2-N3	7.06	119.13	114.90
26	14	860	U	N3-C2-O2	-7.06	117.26	122.20
26	1H	1603	A	O5'-P-OP2	7.05	119.17	110.70
26	14	1938	A	O5'-P-OP2	7.05	119.17	110.70
26	14	2612	C	N3-C4-N4	7.05	122.94	118.00
26	1H	2853	C	O5'-P-OP2	-7.05	99.35	105.70
26	14	729	G	N3-C2-N2	-7.05	114.96	119.90
26	14	1589	C	O5'-P-OP2	7.05	119.16	110.70
26	14	2337	G	O5'-P-OP2	7.05	119.16	110.70
26	14	2598	A	N9-C4-C5	-7.05	102.98	105.80
26	14	1597	A	O5'-P-OP2	-7.05	99.35	105.70
26	14	2375	G	N9-C1'-C2'	-7.05	104.24	112.00
26	1H	1822	G	N3-C2-N2	-7.05	114.97	119.90
26	1H	2439	A	C4-C5-N7	7.05	114.22	110.70
26	14	1411	C	O5'-P-OP2	-7.05	99.36	105.70
26	14	1992	G	P-O3'-C3'	7.05	128.16	119.70
26	14	2058	A	N9-C4-C5	7.05	108.62	105.80
26	14	2346	A	C4-C5-C6	7.05	120.52	117.00
26	1H	842	G	C4-C5-N7	7.05	113.62	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	580	C	C4-C5-C6	7.05	120.92	117.40
26	1H	627	A	N7-C8-N9	-7.05	110.28	113.80
26	14	954	G	C6-C5-N7	7.05	134.63	130.40
26	1H	696	G	C5-C6-N1	7.04	115.02	111.50
26	14	2554	U	O5'-P-OP2	7.04	119.15	110.70
26	1H	1444(A)	A	O5'-P-OP1	-7.04	99.36	105.70
26	1H	2057	A	C5-C6-N6	-7.04	118.07	123.70
43	D8	82	ARG	NE-CZ-NH1	-7.04	116.78	120.30
26	14	733	G	C4-N9-C1'	7.04	135.65	126.50
26	1H	2518	A	O5'-P-OP2	7.04	119.14	110.70
27	1J	89(A)	A	C8-N9-C4	-7.04	102.98	105.80
3	2E	196	LEU	CA-CB-CG	7.04	131.49	115.30
26	1H	126	A	OP1-P-O3'	-7.04	89.72	105.20
26	14	2236	C	OP1-P-OP2	7.04	130.16	119.60
26	1H	1818	U	OP1-P-OP2	7.03	130.15	119.60
1	1G	971	G	O5'-P-OP2	-7.03	99.37	105.70
26	14	2726	U	C5-C4-O4	7.03	130.12	125.90
1	13	1450	U	N3-C2-O2	-7.03	117.28	122.20
26	14	2331	G	C6-N1-C2	-7.03	120.88	125.10
26	14	2676	C	N3-C4-C5	7.03	124.71	121.90
26	1H	217	G	N9-C4-C5	7.03	108.21	105.40
37	35	65	ARG	C-N-CA	-7.03	107.54	122.30
26	1H	688	U	N3-C2-O2	-7.03	117.28	122.20
1	1G	1519	A	C8-N9-C4	-7.03	102.99	105.80
26	14	72	U	O5'-P-OP1	-7.03	99.38	105.70
1	13	819	A	O5'-P-OP1	-7.03	99.38	105.70
26	1H	772	C	N1-C2-O2	-7.03	114.69	118.90
26	14	845	G	C6-C5-N7	-7.03	126.18	130.40
26	14	1681	G	N7-C8-N9	7.03	116.61	113.10
26	14	1528	A	N1-C6-N6	7.02	122.81	118.60
26	1H	1199	U	C5-C6-N1	-7.02	119.19	122.70
26	1H	1382	G	N9-C4-C5	-7.02	102.59	105.40
26	1H	2374	C	C5-C6-N1	-7.02	117.49	121.00
26	1H	2443	C	N3-C4-N4	7.02	122.92	118.00
26	14	1142(A)	A	N1-C2-N3	7.02	132.81	129.30
26	14	1559	G	C4-C5-N7	7.02	113.61	110.80
26	1H	738	G	C5-C6-N1	7.02	115.01	111.50
1	13	769	G	N1-C6-O6	7.02	124.11	119.90
26	1H	1936	A	C5-C6-N6	-7.02	118.08	123.70
26	14	791	C	N3-C4-C5	7.02	124.71	121.90
26	14	1283	G	OP1-P-OP2	7.02	130.13	119.60
26	14	2592	G	O5'-P-OP1	7.02	119.12	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1227	A	C5-N7-C8	-7.02	100.39	103.90
26	14	1393	A	O5'-P-OP2	-7.02	99.38	105.70
26	14	1614	A	C4-C5-C6	7.02	120.51	117.00
26	14	2452	C	N3-C2-O2	7.02	126.81	121.90
1	13	892	A	C5-C6-N6	-7.02	118.09	123.70
26	1H	661	C	C2-N3-C4	-7.02	116.39	119.90
26	1H	2048	G	C4-C5-N7	-7.01	108.00	110.80
26	14	121	G	C6-N1-C2	-7.01	120.89	125.10
26	14	871	U	O5'-P-OP1	-7.01	99.39	105.70
26	1H	1644	C	C6-N1-C2	-7.01	117.50	120.30
26	1H	1778	U	O5'-P-OP1	-7.01	99.39	105.70
26	1H	1259	G	OP2-P-O3'	7.01	120.63	105.20
26	14	459	U	N3-C2-O2	-7.01	117.29	122.20
26	14	2431	U	N3-C2-O2	7.01	127.11	122.20
26	1H	2594	C	C4-C5-C6	7.01	120.90	117.40
37	78	35	HIS	N-CA-C	7.01	129.92	111.00
26	14	2347	C	N3-C2-O2	-7.01	116.99	121.90
1	1G	913	A	P-O3'-C3'	7.01	128.11	119.70
26	14	767	U	N3-C4-O4	-7.01	114.50	119.40
26	14	769	G	O5'-P-OP2	-7.01	99.39	105.70
26	14	1611	C	O5'-P-OP2	7.01	119.11	110.70
26	1H	2587	A	N1-C6-N6	-7.00	114.40	118.60
1	1G	690	G	C4-C5-N7	7.00	113.60	110.80
31	31	44	ARG	NE-CZ-NH1	-7.00	116.80	120.30
37	78	50	ARG	NE-CZ-NH1	-7.00	116.80	120.30
26	14	1352	U	O5'-P-OP1	-7.00	99.40	105.70
26	14	1605	C	OP1-P-OP2	7.00	130.10	119.60
26	1H	271(B)	G	C4-N9-C1'	7.00	135.60	126.50
27	16	42	C	C6-N1-C2	7.00	123.10	120.30
26	14	803	U	O5'-P-OP2	-7.00	99.40	105.70
26	1H	1510	A	C2-N3-C4	7.00	114.10	110.60
26	1H	1966	A	N1-C6-N6	-7.00	114.40	118.60
26	1H	2259	G	O5'-P-OP2	7.00	119.09	110.70
26	1H	1573	G	OP2-P-O3'	6.99	120.58	105.20
26	1H	2554	U	C5-C4-O4	-6.99	121.70	125.90
26	14	1204	A	C5-C6-N1	-6.99	114.20	117.70
26	1H	989	G	C5-C6-N1	6.99	115.00	111.50
26	14	621	A	N3-C4-C5	6.99	131.69	126.80
26	1H	984	A	O5'-P-OP1	6.99	119.09	110.70
27	16	80	U	N1-C2-O2	6.99	127.69	122.80
26	14	1258	C	C5-C4-N4	-6.99	115.31	120.20
26	14	1950	G	C5-C6-N1	-6.99	108.00	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	1J	7	G	N1-C6-O6	6.99	124.09	119.90
26	14	1332	G	N9-C4-C5	-6.99	102.61	105.40
26	14	1351	C	C2-N3-C4	-6.99	116.41	119.90
26	1H	735	A	O5'-P-OP2	-6.99	99.41	105.70
26	14	2854	G	OP1-P-OP2	-6.99	109.12	119.60
36	25	8	LEU	CA-CB-CG	6.99	131.37	115.30
1	13	401	C	C5-C6-N1	-6.99	117.51	121.00
26	1H	74	A	N7-C8-N9	6.99	117.29	113.80
26	14	731	C	C5-C6-N1	-6.99	117.51	121.00
26	14	801	G	O5'-P-OP2	-6.99	99.41	105.70
23	2K	5	G	C8-N9-C4	6.98	109.19	106.40
26	1H	247	G	OP1-P-OP2	-6.98	109.13	119.60
26	14	787	U	N3-C4-O4	-6.98	114.51	119.40
26	14	2388	A	O5'-P-OP1	6.98	119.08	110.70
26	14	2577	A	O5'-P-OP2	-6.98	99.42	105.70
1	13	108	G	C5-N7-C8	-6.98	100.81	104.30
1	13	529	G	C6-C5-N7	-6.98	126.21	130.40
26	14	2520	C	O5'-P-OP1	6.98	119.08	110.70
1	13	1284	C	C6-N1-C2	6.98	123.09	120.30
26	14	47	C	N3-C4-C5	6.98	124.69	121.90
1	13	798	G	OP2-P-O3'	6.98	120.55	105.20
26	14	701	G	C8-N9-C4	-6.98	103.61	106.40
26	14	1241	A	C5-C6-N1	-6.98	114.21	117.70
26	1H	1002	G	O5'-P-OP2	-6.98	99.42	105.70
26	1H	180	G	N3-C2-N2	6.97	124.78	119.90
26	14	2267	A	OP1-P-OP2	6.97	130.06	119.60
1	13	1490	C	OP2-P-O3'	6.97	120.54	105.20
26	1H	631	A	C8-N9-C4	6.97	108.59	105.80
26	1H	1521	G	C8-N9-C4	-6.97	103.61	106.40
26	1H	2627	G	C5-C6-O6	-6.97	124.42	128.60
26	14	747	U	N1-C2-N3	-6.97	110.72	114.90
26	14	2377	A	C8-N9-C4	6.97	108.59	105.80
26	14	2430	A	N7-C8-N9	6.97	117.29	113.80
26	1H	940	G	C6-N1-C2	-6.97	120.92	125.10
26	1H	459	U	O5'-P-OP1	6.97	119.06	110.70
26	14	2441	C	O5'-P-OP2	6.97	119.06	110.70
26	1H	994	C	C6-N1-C2	-6.97	117.51	120.30
26	14	678	C	C6-N1-C2	6.97	123.09	120.30
26	14	1844	C	O5'-P-OP2	6.97	119.06	110.70
26	14	2031	A	N1-C6-N6	6.97	122.78	118.60
26	1H	1758	G	N3-C2-N2	-6.97	115.02	119.90
26	1H	2258	C	C4-C5-C6	6.97	120.88	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2525	G	OP2-P-O3'	6.97	120.53	105.20
26	1H	2638	G	N3-C4-N9	6.97	130.18	126.00
1	13	422	C	P-O3'-C3'	6.96	128.06	119.70
26	1H	417	C	N3-C2-O2	6.96	126.78	121.90
1	1G	518	C	N3-C2-O2	-6.96	117.02	121.90
26	14	1965	C	N3-C4-C5	6.96	124.69	121.90
26	14	2245	U	N3-C4-C5	6.96	118.78	114.60
26	14	2601	C	C6-N1-C2	-6.96	117.51	120.30
26	1H	1395	A	OP1-P-OP2	-6.96	109.16	119.60
26	1H	2444	G	N3-C2-N2	-6.96	115.03	119.90
26	1H	105	C	C6-N1-C2	-6.96	117.52	120.30
26	1H	1314	C	C2-N1-C1'	6.96	126.46	118.80
22	1L	76	A	N7-C8-N9	6.96	117.28	113.80
26	14	1994	C	C5-C6-N1	-6.96	117.52	121.00
26	1H	1971	A	C2-N3-C4	6.96	114.08	110.60
26	1H	2228	G	C8-N9-C4	-6.96	103.62	106.40
26	1H	1518	C	O5'-P-OP2	6.96	119.05	110.70
26	14	453	C	C6-N1-C2	6.96	123.08	120.30
26	14	530	G	C5-C6-N1	-6.96	108.02	111.50
26	14	1989	G	N3-C2-N2	-6.96	115.03	119.90
34	69	131	LYS	C-N-CD	-6.96	105.29	120.60
26	1H	828	U	N3-C4-O4	-6.96	114.53	119.40
26	1H	2059	A	N1-C6-N6	6.96	122.77	118.60
26	1H	2089	U	N3-C4-O4	6.96	124.27	119.40
26	14	2032	G	C8-N9-C4	6.96	109.18	106.40
26	1H	746	A	O4'-C1'-N9	6.95	113.76	108.20
26	14	954	G	C5-C6-O6	6.95	132.77	128.60
26	14	2406	U	O4'-C1'-N1	-6.95	102.64	108.20
26	1H	945	A	O4'-C1'-N9	6.95	113.76	108.20
26	1H	2053	G	C5-C6-O6	-6.95	124.43	128.60
26	1H	989	G	C8-N9-C4	-6.95	103.62	106.40
26	1H	1156	A	O5'-P-OP2	-6.95	99.44	105.70
26	1H	1328	G	N3-C4-N9	6.95	130.17	126.00
26	14	1969	A	OP1-P-OP2	-6.95	109.17	119.60
26	1H	1401	G	N7-C8-N9	6.95	116.57	113.10
26	1H	1812	A	C8-N9-C4	6.95	108.58	105.80
27	16	61	G	C8-N9-C4	-6.95	103.62	106.40
1	13	760	G	C4-C5-N7	6.95	113.58	110.80
26	14	530	G	C5-C6-O6	-6.95	124.43	128.60
26	14	2281	C	N3-C4-N4	6.95	122.86	118.00
26	14	1251	C	N1-C2-O2	-6.94	114.73	118.90
26	14	1630(A)	C	N1-C2-O2	-6.94	114.73	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1391	U	C2-N1-C1'	6.94	126.03	117.70
26	1H	1957	C	N3-C2-O2	-6.94	117.04	121.90
26	14	621	A	C6-C5-N7	-6.94	127.44	132.30
26	1H	1594	G	N3-C2-N2	-6.94	115.04	119.90
26	14	209	C	C2-N3-C4	-6.94	116.43	119.90
26	14	1276	A	C2-N3-C4	-6.94	107.13	110.60
26	1H	1366	A	C4-C5-N7	6.94	114.17	110.70
26	1H	1959	G	C4-C5-N7	-6.94	108.03	110.80
26	1H	2032	G	N7-C8-N9	-6.94	109.63	113.10
26	1H	2430	A	C6-N1-C2	6.94	122.76	118.60
26	1H	778	G	O5'-P-OP1	6.93	119.02	110.70
26	1H	2422	A	O5'-P-OP2	-6.93	99.46	105.70
26	14	265	A	N1-C6-N6	6.93	122.76	118.60
1	13	545	C	N3-C4-N4	-6.93	113.15	118.00
1	13	768	A	O5'-P-OP2	-6.93	99.46	105.70
26	14	791	C	C2-N1-C1'	-6.93	111.17	118.80
26	14	1142	U	C2-N1-C1'	6.93	126.02	117.70
26	14	2315	G	OP1-P-O3'	6.93	120.45	105.20
1	13	1374	A	C2-N3-C4	-6.93	107.13	110.60
26	1H	202	U	C5-C4-O4	-6.93	121.74	125.90
26	1H	528	A	C8-N9-C1'	6.93	140.18	127.70
26	1H	869	G	N3-C2-N2	6.93	124.75	119.90
26	1H	2392	A	O4'-C1'-N9	6.93	113.74	108.20
26	1H	417	C	N3-C4-C5	6.93	124.67	121.90
1	13	1359	C	O5'-P-OP1	-6.92	99.47	105.70
26	1H	1940	U	N3-C4-O4	6.92	124.25	119.40
26	14	510	C	C6-N1-C2	-6.92	117.53	120.30
26	1H	211	A	C8-N9-C4	6.92	108.57	105.80
26	14	776	G	N3-C2-N2	-6.92	115.05	119.90
26	1H	2572	A	N7-C8-N9	-6.92	110.34	113.80
1	1G	1139	G	N3-C4-C5	6.92	132.06	128.60
26	14	2296	U	C5-C6-N1	6.92	126.16	122.70
27	1J	103	U	C6-N1-C2	6.92	125.15	121.00
1	1G	731	G	O5'-P-OP2	-6.92	99.47	105.70
1	13	575	G	O4'-C1'-N9	-6.92	102.67	108.20
26	1H	1123	C	C5-C6-N1	-6.92	117.54	121.00
26	1H	1201	C	C5-C4-N4	-6.92	115.36	120.20
1	1G	576	G	N3-C4-N9	6.92	130.15	126.00
26	14	134	C	C5-C6-N1	-6.92	117.54	121.00
26	14	1326	U	N3-C4-O4	-6.92	114.56	119.40
26	1H	1021	A	C6-C5-N7	-6.92	127.46	132.30
26	1H	1122	G	C8-N9-C4	6.91	109.17	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1241	A	N3-C4-C5	6.91	131.64	126.80
26	1H	1612	C	N3-C4-N4	6.91	122.84	118.00
1	13	738	C	C6-N1-C2	-6.91	117.54	120.30
26	1H	146	G	C4-C5-N7	6.91	113.56	110.80
26	1H	2273	A	N1-C2-N3	-6.91	125.84	129.30
26	1H	2375	G	N9-C1'-C2'	-6.91	104.40	112.00
26	1H	2377	A	N9-C4-C5	-6.91	103.04	105.80
26	1H	1618	A	O5'-P-OP2	6.91	118.99	110.70
23	2L	58	A	O5'-P-OP2	6.91	118.99	110.70
26	14	372	G	O4'-C1'-N9	6.91	113.73	108.20
26	14	1022	G	N9-C4-C5	6.91	108.16	105.40
26	1H	258	G	N3-C2-N2	6.91	124.73	119.90
26	1H	445	C	OP2-P-O3'	-6.91	90.00	105.20
26	1H	906	G	N3-C4-N9	-6.91	121.86	126.00
26	1H	966	G	N1-C2-N2	-6.91	109.98	116.20
26	1H	1385	G	N3-C4-N9	-6.91	121.86	126.00
27	16	115	G	C5-N7-C8	-6.91	100.85	104.30
40	65	110	LEU	CA-CB-CG	6.91	131.19	115.30
26	1H	400	G	N1-C6-O6	6.90	124.04	119.90
26	1H	1520	U	N3-C2-O2	-6.90	117.37	122.20
26	1H	1624	G	N7-C8-N9	-6.90	109.65	113.10
26	14	2087	G	O5'-P-OP1	6.90	118.98	110.70
26	1H	141(A)	C	OP1-P-O3'	-6.90	90.02	105.20
26	1H	1902	C	C4-C5-C6	6.90	120.85	117.40
26	1H	2188	C	C6-N1-C2	-6.90	117.54	120.30
26	14	2378	A	C8-N9-C4	6.90	108.56	105.80
26	1H	2712	U	C4-C5-C6	6.90	123.84	119.70
26	1H	1613	G	C5-C6-O6	6.90	132.74	128.60
26	1H	2385	C	C2-N3-C4	-6.90	116.45	119.90
26	1H	2761	G	N1-C2-N3	6.90	128.04	123.90
43	D8	40	LEU	CA-CB-CG	6.90	131.16	115.30
1	1G	525	C	C5-C6-N1	6.90	124.45	121.00
27	1J	84	C	C6-N1-C2	6.90	123.06	120.30
26	1H	836	G	N9-C4-C5	6.90	108.16	105.40
1	1G	576	G	C4-C5-C6	6.90	122.94	118.80
26	14	2022	U	OP1-P-O3'	6.90	120.37	105.20
26	14	2427	C	N3-C2-O2	6.90	126.73	121.90
26	14	2544	G	N9-C4-C5	-6.90	102.64	105.40
26	14	2551	C	O5'-P-OP2	-6.90	99.49	105.70
1	13	67	C	C6-N1-C2	-6.89	117.54	120.30
26	1H	719	C	C6-N1-C2	-6.89	117.54	120.30
26	1H	773	U	C2-N3-C4	-6.89	122.86	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2355	C	O5'-P-OP2	6.89	118.97	110.70
27	1J	7	G	N3-C4-C5	6.89	132.05	128.60
26	1H	145	G	C6-N1-C2	-6.89	120.96	125.10
26	1H	994	C	N1-C2-O2	-6.89	114.77	118.90
26	1H	1758	G	O5'-P-OP1	-6.89	99.50	105.70
26	1H	1836	C	C6-N1-C2	-6.89	117.54	120.30
26	1H	2048	G	C5-N7-C8	6.89	107.75	104.30
26	1H	2763	G	C6-C5-N7	-6.89	126.26	130.40
26	1H	2378	A	N1-C6-N6	6.89	122.73	118.60
1	13	504	C	N1-C2-O2	-6.89	114.77	118.90
26	1H	1415	U	O5'-P-OP2	-6.89	99.50	105.70
26	1H	2420	C	C5-C6-N1	-6.89	117.56	121.00
26	1H	2708	G	C8-N9-C4	6.89	109.16	106.40
26	14	1316	U	N1-C2-O2	6.89	127.62	122.80
1	13	578	C	O5'-P-OP1	-6.89	99.50	105.70
26	1H	1332	G	C8-N9-C4	-6.89	103.64	106.40
26	1H	1340	U	C2-N3-C4	-6.89	122.87	127.00
26	1H	2394	C	OP2-P-O3'	6.89	120.35	105.20
26	14	2277	G	O5'-P-OP2	-6.89	99.50	105.70
26	14	1349	A	N1-C6-N6	6.88	122.73	118.60
26	14	1543	A	O5'-P-OP1	6.88	118.96	110.70
26	1H	2380	C	C5-C6-N1	-6.88	117.56	121.00
26	1H	874	G	O5'-P-OP2	-6.88	99.51	105.70
26	1H	1440	G	OP1-P-O3'	6.88	120.34	105.20
26	1H	398	G	O5'-P-OP2	-6.88	99.51	105.70
26	1H	135	G	C5-C6-N1	6.88	114.94	111.50
26	1H	275	G	N7-C8-N9	-6.88	109.66	113.10
26	1H	620	G	O5'-P-OP2	-6.88	99.51	105.70
26	1H	1678	G	C4-C5-C6	-6.88	114.67	118.80
26	14	2250	G	O5'-P-OP1	-6.88	99.51	105.70
25	4K	12	A	O4'-C1'-N9	6.88	113.70	108.20
26	1H	2586	C	OP1-P-O3'	6.88	120.33	105.20
26	1H	410	G	N1-C6-O6	6.88	124.03	119.90
26	1H	2286	A	C6-C5-N7	-6.87	127.49	132.30
26	1H	598	G	N3-C2-N2	-6.87	115.09	119.90
26	1H	730	C	OP2-P-O3'	6.87	120.31	105.20
26	14	1998	G	C2-N3-C4	-6.87	108.46	111.90
26	1H	2587	A	C8-N9-C4	-6.87	103.05	105.80
26	1H	2708	G	C6-N1-C2	-6.87	120.98	125.10
26	1H	251	A	C4-C5-C6	6.87	120.43	117.00
26	1H	2888	C	C6-N1-C2	-6.87	117.55	120.30
55	Q8	62	LEU	C-N-CD	6.87	142.82	128.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	860	U	C6-N1-C1'	-6.87	111.59	121.20
26	1H	2288	A	N1-C6-N6	6.87	122.72	118.60
26	14	2382	G	C8-N9-C1'	-6.87	118.07	127.00
1	13	1224	G	O5'-P-OP1	6.87	118.94	110.70
26	1H	2072	G	N3-C2-N2	6.87	124.70	119.90
1	1G	542	G	O5'-P-OP2	6.87	118.94	110.70
26	1H	794	G	N1-C2-N3	6.86	128.02	123.90
26	14	471	A	C5-N7-C8	-6.86	100.47	103.90
26	14	2236	C	C2-N3-C4	-6.86	116.47	119.90
1	13	1126	U	C6-N1-C2	-6.86	116.88	121.00
26	14	519	U	N3-C2-O2	-6.86	117.40	122.20
26	14	2072	G	OP1-P-O3'	6.86	120.30	105.20
26	1H	2779	U	C2-N3-C4	-6.86	122.88	127.00
26	14	1528	A	C4-C5-N7	6.86	114.13	110.70
26	14	2035	G	O4'-C1'-N9	6.86	113.69	108.20
1	13	883	C	C6-N1-C2	-6.86	117.56	120.30
1	13	1290	G	C8-N9-C4	-6.86	103.66	106.40
26	1H	651	G	OP1-P-OP2	-6.86	109.31	119.60
26	1H	2763	G	C4-C5-N7	6.86	113.54	110.80
1	13	976	G	N1-C6-O6	6.86	124.01	119.90
26	1H	453	C	C2-N1-C1'	-6.86	111.26	118.80
26	1H	1600	C	O5'-P-OP1	6.86	118.93	110.70
26	1H	1627	G	N7-C8-N9	-6.86	109.67	113.10
26	1H	2252	G	O5'-P-OP2	-6.86	99.53	105.70
27	1J	114	G	N7-C8-N9	-6.86	109.67	113.10
26	1H	864	G	C2-N3-C4	6.85	115.33	111.90
26	14	948	G	C5-C6-O6	-6.85	124.49	128.60
26	1H	991	C	C6-N1-C2	-6.85	117.56	120.30
26	1H	1337	G	C5-C6-O6	6.85	132.71	128.60
26	1H	2205	C	O5'-P-OP2	-6.85	99.53	105.70
26	14	1796	U	O5'-P-OP2	6.85	118.92	110.70
26	14	2252	G	C2-N3-C4	-6.85	108.47	111.90
26	1H	2594	C	C6-N1-C2	-6.85	117.56	120.30
26	14	933	A	N7-C8-N9	6.85	117.22	113.80
26	1H	2469	A	N7-C8-N9	6.85	117.22	113.80
26	14	1894	C	N3-C2-O2	-6.85	117.11	121.90
26	14	2392	A	C8-N9-C4	-6.85	103.06	105.80
26	14	2427	C	N1-C2-O2	-6.85	114.79	118.90
26	1H	1775	U	O5'-P-OP2	-6.85	99.54	105.70
26	14	1552	G	C2-N3-C4	6.85	115.32	111.90
26	1H	2682	U	OP1-P-OP2	6.84	129.87	119.60
26	14	122	G	OP1-P-OP2	6.84	129.87	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	136	G	C5-C6-O6	-6.84	124.49	128.60
1	1G	856	C	N1-C2-O2	-6.84	114.79	118.90
26	14	681	G	N9-C4-C5	-6.84	102.66	105.40
1	13	880	C	C6-N1-C2	6.84	123.04	120.30
26	1H	216	A	C8-N9-C4	6.84	108.54	105.80
26	14	2394	C	O5'-P-OP2	-6.84	99.54	105.70
26	14	2597	G	O5'-P-OP2	-6.84	99.54	105.70
1	13	187	C	C6-N1-C2	-6.84	117.56	120.30
1	13	1198	G	OP2-P-O3'	6.84	120.25	105.20
26	1H	1331	A	OP1-P-O3'	6.84	120.25	105.20
26	1H	1784	A	OP1-P-O3'	6.84	120.25	105.20
26	14	852	G	O5'-P-OP2	-6.84	99.54	105.70
1	13	901	A	C5-N7-C8	-6.84	100.48	103.90
26	1H	2597	G	OP1-P-O3'	-6.84	90.16	105.20
1	13	913	A	P-O3'-C3'	6.84	127.90	119.70
26	14	585	G	N1-C6-O6	6.84	124.00	119.90
26	14	2822	G	N3-C4-N9	6.84	130.10	126.00
26	1H	1462	C	C6-N1-C2	-6.83	117.57	120.30
26	1H	2260	C	OP2-P-O3'	6.83	120.24	105.20
1	1G	528	C	O4'-C1'-N1	6.83	113.67	108.20
26	14	1614	A	C5-C6-N1	-6.83	114.28	117.70
26	14	2489	G	OP2-P-O3'	6.83	120.23	105.20
26	1H	2463	C	O5'-P-OP2	-6.83	99.55	105.70
27	16	13	A	O5'-P-OP2	-6.83	99.55	105.70
26	14	1253	A	C8-N9-C4	6.83	108.53	105.80
26	14	1820	U	O5'-P-OP2	6.83	118.90	110.70
1	13	1177	G	N1-C6-O6	-6.83	115.80	119.90
26	1H	1771	C	N1-C2-O2	-6.83	114.80	118.90
26	1H	1781	C	N3-C2-O2	6.83	126.68	121.90
26	1H	2500	U	C2-N3-C4	-6.83	122.90	127.00
26	14	117	G	C5-C6-N1	6.83	114.91	111.50
26	14	1293	C	C5-C4-N4	-6.83	115.42	120.20
26	14	1673	U	C2-N1-C1'	-6.83	109.51	117.70
26	1H	2248	C	N3-C2-O2	-6.83	117.12	121.90
26	1H	2507	C	N3-C2-O2	-6.83	117.12	121.90
1	1G	687	A	P-O3'-C3'	6.83	127.89	119.70
26	14	854	G	N3-C4-N9	-6.83	121.90	126.00
26	14	1992	G	C2'-C3'-O3'	6.83	124.62	113.70
26	1H	25	U	N3-C4-O4	6.82	124.18	119.40
26	1H	1644	C	N1-C2-O2	6.82	122.99	118.90
26	1H	1678	G	C4-N9-C1'	-6.82	117.63	126.50
1	1G	428	G	N9-C4-C5	6.82	108.13	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	2L	6	G	C8-N9-C4	6.82	109.13	106.40
23	2K	73	A	O5'-P-OP2	-6.82	99.56	105.70
26	1H	2484	G	OP1-P-OP2	6.82	129.83	119.60
26	1H	635	C	O5'-P-OP1	6.82	118.88	110.70
26	1H	1303	G	C5-C6-O6	6.82	132.69	128.60
26	1H	1337	G	N1-C6-O6	-6.82	115.81	119.90
26	14	205	G	OP1-P-OP2	6.82	129.83	119.60
26	14	208	C	N3-C4-C5	6.82	124.63	121.90
26	14	817	C	C5-C6-N1	6.82	124.41	121.00
26	14	2337	G	OP1-P-OP2	-6.82	109.37	119.60
26	1H	238	C	C2-N3-C4	-6.82	116.49	119.90
26	1H	906	G	C8-N9-C1'	6.82	135.86	127.00
26	1H	2439	A	N9-C4-C5	-6.82	103.07	105.80
26	1H	2688	U	N3-C4-O4	-6.82	114.63	119.40
27	16	44	G	C4-N9-C1'	-6.82	117.64	126.50
26	14	586	A	OP1-P-O3'	6.82	120.20	105.20
26	14	2380	C	C6-N1-C2	6.82	123.03	120.30
1	13	1491	G	OP2-P-O3'	6.82	120.20	105.20
26	1H	802	A	O5'-P-OP2	-6.82	99.57	105.70
26	14	2451	A	N7-C8-N9	6.82	117.21	113.80
26	14	2586	C	N3-C4-N4	6.82	122.77	118.00
1	13	508	C	O5'-P-OP1	-6.81	99.57	105.70
26	1H	255	A	C5-C6-N1	6.81	121.11	117.70
26	1H	808	G	N1-C2-N3	6.81	127.99	123.90
26	1H	839	U	OP1-P-OP2	6.81	129.82	119.60
1	13	946	A	O5'-P-OP1	-6.81	99.57	105.70
1	13	975	A	O4'-C1'-N9	-6.81	102.75	108.20
26	1H	2444	G	N7-C8-N9	6.81	116.51	113.10
1	1G	1449	C	C6-N1-C1'	-6.81	112.62	120.80
26	14	2598	A	C5-C6-N6	-6.81	118.25	123.70
1	13	11	G	OP1-P-O3'	6.81	120.18	105.20
26	1H	409	C	C6-N1-C2	6.81	123.02	120.30
26	14	939	G	N1-C6-O6	6.81	123.99	119.90
26	14	1024	G	N1-C6-O6	6.81	123.99	119.90
25	4K	22	A	O5'-P-OP2	-6.81	99.57	105.70
26	1H	2581	G	C5-C6-O6	6.81	132.69	128.60
26	1H	2665	A	O4'-C1'-N9	6.81	113.65	108.20
1	1G	666	G	C8-N9-C4	-6.81	103.68	106.40
1	13	570	G	C8-N9-C4	-6.81	103.68	106.40
26	1H	195	A	OP1-P-OP2	-6.81	109.39	119.60
26	1H	46	C	N1-C2-N3	6.80	123.96	119.20
26	1H	1518	C	O5'-P-OP1	-6.80	99.58	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1550	C	N1-C2-O2	-6.80	114.82	118.90
26	1H	1825	A	C5-N7-C8	6.80	107.30	103.90
26	1H	1858	G	P-O3'-C3'	6.80	127.87	119.70
26	1H	2275	C	C6-N1-C2	-6.80	117.58	120.30
1	1G	1356	G	C8-N9-C4	-6.80	103.68	106.40
26	14	2286	A	N1-C6-N6	6.80	122.68	118.60
26	14	2297	C	OP1-P-OP2	6.80	129.81	119.60
1	13	1202	G	C5-C6-O6	6.80	132.68	128.60
1	13	1266	G	C5-C6-N1	-6.80	108.10	111.50
26	1H	1770	G	OP1-P-O3'	6.80	120.17	105.20
26	1H	1776	G	OP1-P-O3'	6.80	120.17	105.20
26	1H	2708	G	O5'-P-OP2	-6.80	99.58	105.70
26	14	1780	A	O5'-P-OP2	-6.80	99.58	105.70
1	13	186	C	C6-N1-C2	-6.80	117.58	120.30
26	1H	1957	C	C4-C5-C6	6.80	120.80	117.40
26	1H	2352	A	O5'-P-OP1	-6.80	99.58	105.70
26	1H	596	G	N1-C6-O6	6.80	123.98	119.90
26	14	1784	A	N1-C6-N6	6.80	122.68	118.60
26	1H	2688	U	C6-N1-C2	-6.80	116.92	121.00
27	16	69	G	OP2-P-O3'	6.80	120.15	105.20
26	14	974(A)	C	C2-N1-C1'	6.80	126.28	118.80
26	14	2346	A	C4-N9-C1'	6.80	138.53	126.30
26	14	2356	C	N1-C2-O2	-6.80	114.82	118.90
1	13	320	C	C6-N1-C2	6.79	123.02	120.30
26	1H	766	C	C5-C4-N4	-6.79	115.44	120.20
26	1H	1830	C	OP1-P-OP2	-6.79	109.41	119.60
26	1H	624	C	N3-C2-O2	6.79	126.66	121.90
26	1H	1516	U	O5'-P-OP2	-6.79	99.59	105.70
1	1G	894	G	C6-C5-N7	-6.79	126.32	130.40
1	1G	1354	C	C6-N1-C2	-6.79	117.58	120.30
26	14	192	C	OP1-P-OP2	6.79	129.79	119.60
26	1H	1410	G	OP2-P-O3'	6.79	120.14	105.20
26	14	854	G	N9-C4-C5	6.79	108.12	105.40
26	14	932	G	N3-C4-C5	6.79	132.00	128.60
26	14	1657	C	C6-N1-C2	-6.79	117.58	120.30
26	1H	335	C	C2-N3-C4	6.79	123.30	119.90
26	14	110	G	N1-C6-O6	6.79	123.97	119.90
26	14	949	C	N3-C4-C5	6.79	124.62	121.90
26	1H	1693	U	O5'-P-OP1	-6.79	99.59	105.70
26	1H	1785	A	C4-C5-C6	6.79	120.39	117.00
26	14	1372	U	N1-C2-O2	-6.79	118.05	122.80
1	13	30	U	N3-C2-O2	6.79	126.95	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	565	U	N3-C2-O2	-6.79	117.45	122.20
26	1H	987	G	N3-C4-N9	-6.78	121.93	126.00
26	1H	1506	C	C5-C6-N1	6.78	124.39	121.00
26	1H	2665	A	N7-C8-N9	6.78	117.19	113.80
26	1H	2762	G	N9-C4-C5	-6.78	102.69	105.40
26	14	721	C	C6-N1-C2	6.78	123.01	120.30
26	14	1930	G	O5'-P-OP1	-6.78	99.59	105.70
27	1J	6	C	C5-C6-N1	-6.78	117.61	121.00
1	13	1513	A	C8-N9-C4	6.78	108.51	105.80
26	1H	62	C	C6-N1-C2	6.78	123.01	120.30
1	13	1195	C	C5-C6-N1	6.78	124.39	121.00
26	1H	445	C	OP1-P-O3'	6.78	120.12	105.20
26	1H	2050	C	C2-N3-C4	-6.78	116.51	119.90
1	1G	690	G	C8-N9-C4	-6.78	103.69	106.40
26	14	1496	A	O4'-C1'-N9	6.78	113.62	108.20
26	1H	2258	C	C5-C4-N4	-6.78	115.45	120.20
26	14	2331	G	C8-N9-C4	6.78	109.11	106.40
1	13	583	A	O5'-P-OP2	6.78	118.83	110.70
26	1H	400	G	C5-C6-O6	-6.78	124.53	128.60
26	1H	1314	C	N3-C2-O2	-6.78	117.16	121.90
26	1H	1695	G	C6-C5-N7	-6.78	126.33	130.40
27	1J	116	G	O5'-P-OP1	6.78	118.83	110.70
26	1H	1391	U	C5-C4-O4	-6.78	121.83	125.90
26	1H	1445	C	C6-N1-C2	-6.78	117.59	120.30
26	1H	2558	C	OP2-P-O3'	6.78	120.11	105.20
33	51	166	GLY	N-CA-C	-6.77	96.17	113.10
26	14	2068	U	OP1-P-O3'	6.77	120.10	105.20
1	1G	108	G	N3-C2-N2	6.77	124.64	119.90
26	14	79	G	N1-C6-O6	6.77	123.96	119.90
26	14	1899	G	C4-C5-C6	6.77	122.86	118.80
49	J8	80	LEU	CA-CB-CG	6.77	130.87	115.30
1	13	1498	U	P-O3'-C3'	6.77	127.82	119.70
26	1H	832	G	O5'-P-OP1	-6.77	99.61	105.70
26	1H	1348	G	C2-N3-C4	6.77	115.28	111.90
26	14	788	A	C6-C5-N7	-6.77	127.56	132.30
26	14	1282	U	C2-N3-C4	-6.77	122.94	127.00
26	14	2451	A	C8-N9-C4	-6.77	103.09	105.80
26	1H	1978	A	C8-N9-C4	-6.76	103.09	105.80
26	14	1647	G	O4'-C1'-N9	-6.76	102.79	108.20
26	14	2873	A	O5'-P-OP1	-6.76	99.61	105.70
26	1H	1698	A	O4'-C1'-N9	6.76	113.61	108.20
26	14	795	C	O5'-P-OP2	-6.76	99.61	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	381	G	O5'-P-OP2	-6.76	99.61	105.70
26	1H	599	G	N7-C8-N9	-6.76	109.72	113.10
26	1H	2594	C	N3-C2-O2	-6.76	117.17	121.90
26	14	1992	G	N3-C4-C5	-6.76	125.22	128.60
26	14	2755	C	C5-C6-N1	6.76	124.38	121.00
26	1H	1307	A	C8-N9-C4	6.76	108.50	105.80
26	14	1258	C	OP2-P-O3'	6.76	120.07	105.20
26	14	1779	U	C5-C4-O4	-6.76	121.84	125.90
26	1H	1958	C	OP1-P-O3'	6.76	120.07	105.20
1	1G	1056	U	C6-N1-C2	-6.76	116.94	121.00
26	1H	1986	A	N7-C8-N9	6.76	117.18	113.80
26	14	2510	C	N3-C4-N4	-6.76	113.27	118.00
26	14	2068	U	C5-C6-N1	-6.75	119.32	122.70
26	1H	1559	G	N3-C4-C5	6.75	131.98	128.60
1	13	768	A	C6-N1-C2	-6.75	114.55	118.60
26	1H	263	C	N1-C2-O2	6.75	122.95	118.90
26	14	1349	A	N7-C8-N9	6.75	117.17	113.80
26	14	1516	U	N3-C2-O2	-6.75	117.47	122.20
1	13	973	G	C6-C5-N7	-6.75	126.35	130.40
1	13	1262	C	O5'-P-OP2	-6.75	99.62	105.70
26	1H	120	U	C2-N3-C4	-6.75	122.95	127.00
26	1H	1274	A	OP1-P-OP2	6.75	129.72	119.60
26	1H	691	C	C2-N3-C4	-6.75	116.53	119.90
26	14	1777	U	N1-C2-N3	6.75	118.95	114.90
26	14	2597	G	N1-C6-O6	6.75	123.95	119.90
26	1H	576	U	C5-C6-N1	-6.75	119.33	122.70
26	1H	788	A	C5-C6-N1	-6.75	114.33	117.70
26	1H	1621	U	C5-C4-O4	-6.75	121.85	125.90
26	1H	1915	U	N3-C4-C5	6.75	118.65	114.60
26	1H	2469	A	C6-C5-N7	-6.75	127.58	132.30
1	1G	442	C	C6-N1-C2	-6.75	117.60	120.30
1	1G	525	C	C6-N1-C2	-6.75	117.60	120.30
1	1G	1390	U	C5-C4-O4	6.75	129.95	125.90
26	1H	2474	C	N1-C2-O2	6.75	122.95	118.90
26	14	801	G	C5-C6-O6	6.75	132.65	128.60
26	14	2511	U	N3-C2-O2	-6.75	117.48	122.20
26	1H	465	G	C5-C6-N1	-6.74	108.13	111.50
26	1H	1642	G	O5'-P-OP1	-6.74	99.63	105.70
1	1G	923	A	O5'-P-OP1	-6.74	99.63	105.70
1	1G	1432	G	C4-N9-C1'	6.74	135.27	126.50
26	14	1519	G	C5-C6-O6	6.74	132.65	128.60
26	1H	667	U	N1-C2-O2	-6.74	118.08	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1797	C	C5-C4-N4	-6.74	115.48	120.20
26	1H	364	C	C6-N1-C2	-6.74	117.60	120.30
1	13	956	U	C6-N1-C2	-6.74	116.96	121.00
26	1H	117	G	O5'-P-OP1	6.74	118.79	110.70
26	1H	632	A	O5'-P-OP2	6.74	118.79	110.70
27	16	5	C	C5-C4-N4	-6.74	115.48	120.20
1	1G	271	C	C6-N1-C2	-6.74	117.61	120.30
26	14	2446	G	OP2-P-O3'	6.74	120.03	105.20
26	1H	698	C	O5'-P-OP2	-6.74	99.64	105.70
26	1H	2286	A	N1-C6-N6	6.74	122.64	118.60
1	13	858	G	C8-N9-C4	-6.74	103.71	106.40
26	1H	2590	A	C2-N3-C4	-6.74	107.23	110.60
26	14	2261	C	O5'-P-OP2	-6.74	99.64	105.70
26	1H	2258	C	OP1-P-O3'	6.73	120.02	105.20
1	1G	1200	C	N1-C2-O2	6.73	122.94	118.90
26	1H	1197	G	N7-C8-N9	-6.73	109.73	113.10
26	14	2046	G	N1-C6-O6	-6.73	115.86	119.90
26	14	2512	C	N3-C4-C5	6.73	124.59	121.90
26	1H	2032	G	N1-C2-N3	6.73	127.94	123.90
27	1J	98	G	O5'-P-OP2	-6.73	99.64	105.70
1	13	276	G	O5'-P-OP1	-6.73	99.65	105.70
1	13	906	G	C6-N1-C2	-6.73	121.06	125.10
26	1H	1639	U	N3-C4-O4	-6.73	114.69	119.40
26	1H	2681	C	N3-C4-C5	6.73	124.59	121.90
26	14	1616	A	OP1-P-OP2	6.73	129.69	119.60
26	14	2496	C	C6-N1-C2	-6.73	117.61	120.30
26	1H	1948	G	O5'-P-OP1	-6.72	99.65	105.70
26	14	1367	A	C5-C6-N6	-6.72	118.32	123.70
26	1H	404	C	P-O3'-C3'	6.72	127.77	119.70
26	1H	129	C	C5-C6-N1	-6.72	117.64	121.00
26	1H	1800	C	N1-C2-N3	6.72	123.91	119.20
26	14	512	G	C5-C6-O6	6.72	132.63	128.60
26	14	2698	U	C6-N1-C1'	-6.72	111.79	121.20
1	13	903	G	N3-C4-N9	6.72	130.03	126.00
26	1H	684	G	N7-C8-N9	6.72	116.46	113.10
26	1H	1879	C	C6-N1-C2	-6.72	117.61	120.30
26	1H	2465	C	C6-N1-C2	6.72	122.99	120.30
26	14	265	A	C5-N7-C8	-6.72	100.54	103.90
23	2K	27	G	C5-C6-O6	-6.72	124.57	128.60
26	14	774	A	N1-C6-N6	6.72	122.63	118.60
26	1H	271(B)	G	C6-N1-C2	-6.72	121.07	125.10
26	1H	2452	C	N1-C2-O2	-6.72	114.87	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2819	G	C5-C6-O6	-6.72	124.57	128.60
26	1H	1210	A	N1-C6-N6	6.71	122.63	118.60
26	14	2637	U	O5'-P-OP2	-6.71	99.66	105.70
26	1H	672	C	OP2-P-O3'	6.71	119.97	105.20
1	1G	1519	A	N9-C4-C5	6.71	108.48	105.80
26	14	2237	G	N1-C6-O6	-6.71	115.87	119.90
26	1H	1776	G	N3-C4-N9	6.71	130.03	126.00
26	1H	2286	A	C4-N9-C1'	6.71	138.38	126.30
26	1H	2494	G	C5-C6-O6	6.71	132.63	128.60
26	1H	2585	U	N1-C2-O2	6.71	127.50	122.80
26	14	1142(A)	A	C5-C6-N1	-6.71	114.34	117.70
26	14	2430	A	C6-N1-C2	6.71	122.63	118.60
26	1H	1981	A	C5-C6-N6	-6.71	118.33	123.70
12	3A	27	LEU	CA-CB-CG	6.71	130.73	115.30
26	14	845	G	N1-C6-O6	6.71	123.93	119.90
26	1H	978	G	OP1-P-O3'	6.71	119.96	105.20
1	13	690	G	C8-N9-C4	-6.71	103.72	106.40
1	13	883	C	N3-C2-O2	-6.71	117.20	121.90
1	13	1517	G	C5-C6-O6	-6.71	124.58	128.60
26	14	730	C	N3-C2-O2	-6.71	117.20	121.90
26	14	1762	A	N1-C6-N6	6.71	122.62	118.60
26	1H	2506	U	N3-C2-O2	-6.71	117.51	122.20
26	14	1939	U	N3-C4-O4	-6.71	114.71	119.40
1	13	814	A	O5'-P-OP2	6.70	118.75	110.70
26	1H	1820	U	C5-C6-N1	-6.70	119.35	122.70
26	1H	2743	C	N1-C2-N3	6.70	123.89	119.20
1	13	763	G	OP1-P-O3'	6.70	119.94	105.20
27	16	51	G	OP2-P-O3'	6.70	119.94	105.20
1	13	942	G	OP1-P-O3'	6.70	119.94	105.20
26	1H	668	G	O4'-C1'-N9	6.70	113.56	108.20
26	1H	2045	C	C6-N1-C2	6.70	122.98	120.30
26	1H	2358	G	OP1-P-OP2	-6.70	109.55	119.60
26	14	476	G	O5'-P-OP2	-6.70	99.67	105.70
26	14	935	C	N3-C4-N4	-6.70	113.31	118.00
26	1H	109	G	C5-C6-O6	6.70	132.62	128.60
26	1H	951	C	C5-C4-N4	6.70	124.89	120.20
26	1H	2751	G	N7-C8-N9	-6.70	109.75	113.10
26	1H	209	C	C2-N3-C4	-6.70	116.55	119.90
1	13	912	C	O5'-P-OP1	-6.70	99.67	105.70
26	1H	2465	C	C5-C6-N1	-6.70	117.65	121.00
1	1G	495	A	N1-C6-N6	-6.70	114.58	118.60
26	14	1315	C	N3-C4-N4	-6.69	113.31	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	498	G	C5-C6-O6	-6.69	124.58	128.60
1	13	510	A	N7-C8-N9	6.69	117.14	113.80
26	1H	961	C	C5-C4-N4	-6.69	115.52	120.20
26	1H	2311	A	N3-C4-N9	-6.69	122.05	127.40
26	1H	2469	A	C5-C6-N6	-6.69	118.35	123.70
26	1H	2578	G	N3-C2-N2	6.69	124.58	119.90
26	1H	2252	G	OP1-P-OP2	6.69	129.63	119.60
26	1H	1281	G	O5'-P-OP2	6.69	118.73	110.70
26	1H	1931	U	C6-N1-C2	-6.69	116.99	121.00
1	1G	250	A	N9-C4-C5	6.69	108.47	105.80
26	14	28	A	OP1-P-OP2	-6.69	109.57	119.60
26	14	2713	A	C8-N9-C4	-6.69	103.12	105.80
26	1H	1279	G	O5'-P-OP2	-6.69	99.68	105.70
26	14	655	A	C2-N3-C4	-6.69	107.26	110.60
26	1H	1187	G	P-O3'-C3'	6.68	127.72	119.70
26	14	199	A	N1-C6-N6	-6.68	114.59	118.60
26	14	2253	G	C6-C5-N7	-6.68	126.39	130.40
49	F5	84	GLY	N-CA-C	6.68	129.81	113.10
26	1H	386	G	C5-C6-O6	-6.68	124.59	128.60
26	1H	541	C	N3-C2-O2	-6.68	117.22	121.90
26	1H	622	G	O5'-P-OP2	-6.68	99.69	105.70
26	1H	1274	A	C8-N9-C4	-6.68	103.13	105.80
26	14	585	G	C6-C5-N7	-6.68	126.39	130.40
26	14	1282	U	O5'-P-OP1	-6.68	99.69	105.70
26	1H	383	U	C6-N1-C1'	6.68	130.55	121.20
26	14	265	A	C6-C5-N7	-6.68	127.62	132.30
26	14	1604	C	N3-C4-C5	6.68	124.57	121.90
1	13	134	A	N1-C6-N6	6.68	122.61	118.60
26	14	834	C	OP2-P-O3'	6.68	119.89	105.20
26	14	1900	A	C2-N3-C4	6.68	113.94	110.60
1	13	263	A	O5'-P-OP2	6.68	118.71	110.70
26	1H	866	A	C8-N9-C1'	-6.68	115.68	127.70
26	1H	1202	C	C4-C5-C6	6.68	120.74	117.40
26	1H	1728	G	C5-C6-O6	-6.68	124.59	128.60
27	16	94	C	N3-C4-C5	-6.68	119.23	121.90
26	14	2581	G	N1-C6-O6	-6.68	115.89	119.90
26	1H	224	G	C8-N9-C4	6.67	109.07	106.40
26	1H	1144	G	OP1-P-O3'	6.67	119.88	105.20
26	1H	1815	A	OP1-P-O3'	6.67	119.88	105.20
26	1H	2413	G	C5-C6-O6	-6.67	124.59	128.60
26	14	1968	G	C5-N7-C8	-6.67	100.96	104.30
29	19	60	ARG	NE-CZ-NH1	-6.67	116.96	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	736	C	O5'-P-OP1	-6.67	99.70	105.70
26	14	804	A	C8-N9-C4	6.67	108.47	105.80
26	1H	1351	C	C2-N3-C4	-6.67	116.56	119.90
26	1H	1973	G	C5-C6-O6	6.67	132.60	128.60
26	14	201	C	C5-C6-N1	-6.67	117.67	121.00
26	1H	2611	U	N3-C4-O4	-6.67	114.73	119.40
26	1H	2686	G	N3-C4-N9	6.67	130.00	126.00
44	E8	18	ARG	NE-CZ-NH1	6.67	123.64	120.30
26	1H	271	G	N9-C4-C5	-6.67	102.73	105.40
26	1H	863	A	O5'-P-OP2	-6.67	99.70	105.70
26	1H	917	A	C6-C5-N7	-6.67	127.63	132.30
26	1H	1610	A	N1-C6-N6	6.67	122.60	118.60
27	16	73	A	O5'-P-OP2	-6.67	99.70	105.70
26	14	1933	G	C6-C5-N7	-6.67	126.40	130.40
26	1H	1596	A	OP2-P-O3'	6.67	119.86	105.20
26	1H	324	A	OP1-P-OP2	-6.66	109.61	119.60
26	1H	1282	U	C2-N3-C4	-6.66	123.00	127.00
26	1H	2395	C	O5'-P-OP2	-6.66	99.70	105.70
26	14	1432	C	C5-C4-N4	-6.66	115.54	120.20
1	13	857	C	C4-C5-C6	6.66	120.73	117.40
26	1H	175	G	N1-C6-O6	-6.66	115.90	119.90
26	1H	1645	G	N1-C6-O6	-6.66	115.90	119.90
23	2L	71	G	N1-C6-O6	6.66	123.90	119.90
26	14	1808	U	OP1-P-OP2	6.66	129.59	119.60
26	1H	1430	C	OP1-P-O3'	6.66	119.85	105.20
26	14	795	C	OP1-P-OP2	6.66	129.59	119.60
26	14	912	C	OP2-P-O3'	6.66	119.85	105.20
26	14	2328	A	N1-C6-N6	6.66	122.59	118.60
26	1H	534	U	OP1-P-OP2	6.66	129.58	119.60
26	1H	826	U	N1-C2-O2	-6.66	118.14	122.80
26	14	117	G	C5-C6-O6	-6.66	124.61	128.60
26	14	138	G	C4-C5-N7	6.66	113.46	110.80
26	14	2075	U	C5-C6-N1	-6.66	119.37	122.70
42	85	10	ARG	NE-CZ-NH1	-6.66	116.97	120.30
26	1H	930	U	O5'-P-OP2	-6.65	99.71	105.70
1	1G	841	U	C5-C6-N1	6.65	126.03	122.70
26	14	762	U	C2-N1-C1'	6.65	125.69	117.70
26	1H	458	G	O4'-C1'-N9	6.65	113.52	108.20
26	1H	1034	G	C5-C6-N1	6.65	114.83	111.50
1	1G	413	G	C4-N9-C1'	-6.65	117.85	126.50
1	1G	700	G	N3-C2-N2	-6.65	115.24	119.90
26	1H	1194	A	O5'-P-OP1	6.65	118.68	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2262	U	C6-N1-C2	-6.65	117.01	121.00
26	1H	186	G	O5'-P-OP1	-6.65	99.72	105.70
26	1H	575	A	N7-C8-N9	-6.65	110.48	113.80
26	1H	1685	C	OP1-P-O3'	6.65	119.83	105.20
26	14	488	G	N3-C4-N9	6.65	129.99	126.00
26	1H	2543	G	C8-N9-C4	6.65	109.06	106.40
26	1H	2596	U	OP2-P-O3'	6.65	119.83	105.20
26	14	1671	U	OP1-P-OP2	6.65	129.57	119.60
26	14	2283	C	N1-C2-O2	-6.65	114.91	118.90
26	1H	422	A	N1-C6-N6	6.65	122.59	118.60
26	1H	673	C	OP1-P-OP2	-6.65	109.63	119.60
26	1H	1357	U	C4-C5-C6	6.65	123.69	119.70
1	13	516	U	O5'-P-OP2	-6.64	99.72	105.70
26	1H	467	G	C5-N7-C8	6.64	107.62	104.30
26	14	430	G	O5'-P-OP1	-6.64	99.72	105.70
26	14	794	G	C5-C6-O6	6.64	132.59	128.60
26	1H	2436	G	N1-C2-N2	6.64	122.18	116.20
26	14	1316	U	N3-C2-O2	-6.64	117.55	122.20
26	14	2707	G	O4'-C1'-N9	6.64	113.52	108.20
26	14	2239	G	N1-C2-N2	-6.64	110.22	116.20
1	13	1301	U	P-O3'-C3'	6.64	127.67	119.70
26	1H	734	A	O5'-P-OP2	-6.64	99.72	105.70
26	1H	1436	G	OP2-P-O3'	6.64	119.80	105.20
1	13	973	G	C5-C6-O6	-6.64	124.62	128.60
26	1H	381	G	OP1-P-O3'	6.64	119.80	105.20
26	1H	766	C	N3-C2-O2	6.64	126.55	121.90
27	16	44	G	P-O3'-C3'	6.64	127.66	119.70
26	14	1367	A	N9-C4-C5	-6.64	103.15	105.80
1	13	253	U	OP2-P-O3'	6.63	119.80	105.20
26	1H	1764	G	N1-C6-O6	-6.63	115.92	119.90
26	1H	2638	G	C5-C6-O6	-6.63	124.62	128.60
26	1H	2689	U	C2-N1-C1'	-6.63	109.74	117.70
26	14	2390	U	N3-C2-O2	-6.63	117.56	122.20
26	1H	124	G	C6-C5-N7	-6.63	126.42	130.40
26	1H	2700	C	N3-C4-N4	6.63	122.64	118.00
1	1G	1192	C	C6-N1-C2	-6.63	117.65	120.30
26	14	456	C	OP2-P-O3'	6.63	119.79	105.20
26	1H	668	G	OP1-P-O3'	6.63	119.79	105.20
1	1G	1062	U	O5'-P-OP2	-6.63	99.73	105.70
26	14	49	A	OP2-P-O3'	6.63	119.79	105.20
26	14	2067	G	N9-C4-C5	6.63	108.05	105.40
26	14	2433	A	N1-C6-N6	6.63	122.58	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2575	C	N3-C4-C5	-6.63	119.25	121.90
26	1H	130	C	N3-C4-C5	6.63	124.55	121.90
26	1H	2072	G	N1-C2-N3	-6.63	119.92	123.90
26	1H	214	G	C2-N3-C4	6.63	115.21	111.90
26	1H	1613	G	N3-C2-N2	6.63	124.54	119.90
26	14	1394	U	OP1-P-OP2	-6.63	109.66	119.60
26	1H	37	C	N3-C4-C5	-6.63	119.25	121.90
26	1H	1938	A	N1-C2-N3	6.63	132.61	129.30
26	14	1142	U	N1-C2-O2	6.63	127.44	122.80
26	1H	191	A	O5'-P-OP1	6.62	118.65	110.70
26	1H	380	U	C5-C6-N1	-6.62	119.39	122.70
26	1H	137(A)	G	N1-C6-O6	6.62	123.87	119.90
26	1H	1623	G	OP2-P-O3'	6.62	119.77	105.20
26	14	71	A	P-O3'-C3'	6.62	127.65	119.70
26	14	2072	G	N3-C4-N9	6.62	129.97	126.00
26	1H	141	A	N7-C8-N9	6.62	117.11	113.80
26	1H	575	A	C6-N1-C2	-6.62	114.63	118.60
26	1H	1423	G	N9-C4-C5	-6.62	102.75	105.40
41	B8	13	ARG	N-CA-C	6.62	128.88	111.00
26	14	834	C	N1-C2-N3	6.62	123.83	119.20
26	1H	1548	C	OP1-P-O3'	6.62	119.76	105.20
26	14	307	G	N3-C4-C5	-6.62	125.29	128.60
1	13	352	C	OP1-P-OP2	6.62	129.53	119.60
26	1H	436	C	C2-N3-C4	6.62	123.21	119.90
26	1H	1382	G	OP2-P-O3'	6.62	119.76	105.20
26	1H	1586	A	N7-C8-N9	6.62	117.11	113.80
26	14	1258	C	N3-C4-N4	6.62	122.63	118.00
33	59	153	LYS	C-N-CD	6.62	142.30	128.40
1	13	560	U	P-O3'-C3'	6.62	127.64	119.70
1	13	760	G	C6-C5-N7	-6.62	126.43	130.40
1	13	892	A	N9-C4-C5	-6.62	103.15	105.80
23	2K	76	C	N3-C4-N4	6.62	122.63	118.00
26	1H	138	G	OP1-P-O3'	6.62	119.75	105.20
26	1H	734	A	C6-N1-C2	6.62	122.57	118.60
26	1H	866	A	N7-C8-N9	6.62	117.11	113.80
26	1H	1558	A	P-O3'-C3'	6.62	127.64	119.70
26	1H	2439	A	C5-N7-C8	-6.62	100.59	103.90
26	14	785	G	OP2-P-O3'	6.62	119.76	105.20
26	1H	62	C	OP2-P-O3'	6.61	119.75	105.20
26	1H	1966	A	N9-C4-C5	6.61	108.44	105.80
26	14	2635	C	C6-N1-C2	6.61	122.94	120.30
26	1H	845	G	C5-N7-C8	-6.61	101.00	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2267	A	OP1-P-O3'	6.61	119.74	105.20
26	14	508	G	OP1-P-OP2	6.61	129.52	119.60
26	14	1349	A	C4-C5-N7	6.61	114.00	110.70
26	14	2612	C	C6-N1-C2	6.61	122.94	120.30
26	1H	1782	C	OP2-P-O3'	-6.61	90.66	105.20
26	1H	2286	A	C8-N9-C4	-6.61	103.16	105.80
26	14	845	G	C4-C5-N7	6.61	113.44	110.80
26	14	757	U	N1-C2-N3	6.61	118.86	114.90
26	14	2303	G	OP1-P-O3'	6.61	119.73	105.20
1	13	1511	G	C6-C5-N7	-6.61	126.44	130.40
26	1H	848	G	C8-N9-C1'	-6.61	118.41	127.00
26	1H	2581	G	O5'-P-OP1	-6.61	99.75	105.70
26	14	2597	G	C5-C6-O6	-6.60	124.64	128.60
1	13	703	G	C8-N9-C1'	-6.60	118.42	127.00
26	1H	1573	G	N9-C4-C5	-6.60	102.76	105.40
26	1H	2324	C	C2-N3-C4	-6.60	116.60	119.90
26	14	1266	G	N7-C8-N9	-6.60	109.80	113.10
26	14	1570	A	C5-N7-C8	-6.60	100.60	103.90
1	13	1432	G	C8-N9-C1'	-6.60	118.42	127.00
26	1H	1257	C	N1-C2-N3	6.60	123.82	119.20
26	1H	1382	G	N3-C4-C5	6.60	131.90	128.60
37	78	18	ARG	NE-CZ-NH2	6.60	123.60	120.30
26	14	2440	C	C6-N1-C2	6.60	122.94	120.30
26	14	2572	A	O5'-P-OP1	-6.60	99.76	105.70
26	1H	123	G	C5-C6-O6	-6.60	124.64	128.60
26	1H	284	U	O5'-P-OP2	6.60	118.62	110.70
26	14	797	C	C6-N1-C2	6.60	122.94	120.30
26	14	1315	C	C5-C4-N4	6.60	124.82	120.20
26	14	2031	A	C5-C6-N6	-6.60	118.42	123.70
26	1H	144	C	C5-C6-N1	-6.60	117.70	121.00
26	1H	2586	C	C2-N3-C4	-6.60	116.60	119.90
26	14	196	A	OP2-P-O3'	6.60	119.71	105.20
26	14	1608	A	N9-C4-C5	6.60	108.44	105.80
26	1H	1241	A	N3-C4-N9	-6.59	122.12	127.40
26	1H	2240	C	OP1-P-O3'	6.59	119.71	105.20
1	1G	317	G	O5'-P-OP1	-6.59	99.77	105.70
26	14	1613	G	OP1-P-O3'	6.59	119.71	105.20
26	1H	195	A	C4-C5-N7	6.59	114.00	110.70
26	1H	1566	A	N1-C2-N3	-6.59	126.00	129.30
26	14	1475	G	N7-C8-N9	6.59	116.39	113.10
1	13	583	A	C8-N9-C4	6.59	108.44	105.80
26	1H	1306	C	C5-C6-N1	-6.59	117.70	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2506	U	P-O3'-C3'	6.59	127.61	119.70
26	14	2406	U	OP1-P-OP2	-6.59	109.72	119.60
26	1H	2412	A	C5-C6-N6	-6.59	118.43	123.70
26	1H	764	A	O5'-P-OP1	6.59	118.60	110.70
26	1H	2591	C	N3-C4-N4	6.58	122.61	118.00
1	1G	1465	C	N1-C2-O2	6.58	122.85	118.90
26	1H	113	G	C2-N3-C4	-6.58	108.61	111.90
26	14	2870	C	N1-C2-O2	-6.58	114.95	118.90
26	1H	197	A	N1-C2-N3	6.58	132.59	129.30
26	1H	680	G	N1-C6-O6	6.58	123.85	119.90
26	1H	2258	C	O5'-P-OP1	-6.58	99.78	105.70
26	14	1779	U	C2-N3-C4	-6.58	123.05	127.00
26	14	2822	G	N7-C8-N9	-6.58	109.81	113.10
23	2K	10	G	C8-N9-C4	6.58	109.03	106.40
26	1H	944	G	OP1-P-OP2	6.58	129.47	119.60
26	1H	1430	C	N3-C4-C5	-6.58	119.27	121.90
1	1G	966	G	N9-C4-C5	-6.58	102.77	105.40
26	14	946	G	C8-N9-C4	6.58	109.03	106.40
26	14	1835	G	O5'-P-OP2	6.58	118.59	110.70
26	14	915	C	N3-C2-O2	-6.58	117.30	121.90
26	14	2226	C	OP1-P-OP2	-6.58	109.73	119.60
1	13	770	C	O5'-P-OP2	6.58	118.59	110.70
26	1H	48	G	OP2-P-O3'	6.58	119.67	105.20
26	1H	1213	A	O5'-P-OP2	6.58	118.59	110.70
1	1G	968	A	N1-C6-N6	6.58	122.55	118.60
26	14	471	A	N7-C8-N9	6.58	117.09	113.80
1	13	581	G	C8-N9-C1'	-6.57	118.45	127.00
24	3K	3	G	N7-C8-N9	6.57	116.39	113.10
26	1H	71	A	C6-C5-N7	-6.57	127.70	132.30
26	14	1686	C	C5-C4-N4	-6.57	115.60	120.20
26	1H	1443	G	N3-C2-N2	-6.57	115.30	119.90
1	1G	1059	C	C6-N1-C2	-6.57	117.67	120.30
1	13	41	G	O5'-P-OP2	-6.57	99.79	105.70
26	1H	668	G	N1-C2-N2	-6.57	110.29	116.20
26	1H	745	G	C6-N1-C2	-6.57	121.16	125.10
26	1H	864	G	N3-C4-N9	6.57	129.94	126.00
26	1H	867	C	N3-C2-O2	6.57	126.50	121.90
26	1H	1413	G	O5'-P-OP2	6.57	118.59	110.70
26	1H	1607	C	OP1-P-O3'	6.57	119.66	105.20
26	1H	2070	G	N1-C6-O6	-6.57	115.96	119.90
1	1G	664	G	N3-C4-C5	6.57	131.89	128.60
26	14	2331	G	C5-C6-N1	6.57	114.79	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2417	C	O5'-P-OP2	-6.57	99.79	105.70
26	14	2492	U	O5'-P-OP2	6.57	118.58	110.70
26	14	2675	A	C2-N3-C4	-6.57	107.31	110.60
26	1H	693	C	OP1-P-OP2	6.57	129.45	119.60
26	14	1216	G	OP1-P-O3'	6.57	119.65	105.20
26	14	2429	G	OP2-P-O3'	6.57	119.65	105.20
26	1H	194	G	C8-N9-C4	6.57	109.03	106.40
1	1G	690	G	N3-C2-N2	-6.57	115.30	119.90
1	1G	1489	G	N7-C8-N9	-6.57	109.82	113.10
26	14	972	G	OP1-P-O3'	6.57	119.65	105.20
1	13	1432	G	C4-N9-C1'	6.57	135.03	126.50
26	1H	1272	A	O4'-C1'-N9	6.57	113.45	108.20
26	1H	1790	C	OP1-P-O3'	6.57	119.64	105.20
26	14	2092	U	N1-C2-N3	6.57	118.84	114.90
26	1H	146	G	C5-C6-O6	-6.56	124.66	128.60
26	1H	205	G	N9-C4-C5	-6.56	102.77	105.40
26	1H	747	U	O5'-P-OP1	-6.56	99.79	105.70
26	14	691	C	C6-N1-C2	6.56	122.93	120.30
26	1H	265	A	N3-C4-C5	6.56	131.39	126.80
26	1H	928	G	N3-C2-N2	-6.56	115.31	119.90
26	1H	1936	A	N9-C4-C5	-6.56	103.18	105.80
1	1G	1286	A	C8-N9-C4	-6.56	103.18	105.80
26	14	510	C	OP1-P-OP2	6.56	129.44	119.60
26	1H	448	U	N1-C2-N3	6.56	118.84	114.90
26	1H	1203	G	O5'-P-OP2	-6.56	99.80	105.70
26	14	196	A	O4'-C1'-N9	6.56	113.45	108.20
26	14	1128	A	C5-C6-N6	-6.56	118.45	123.70
26	14	2240	C	C6-N1-C2	-6.56	117.68	120.30
26	1H	1191	G	OP1-P-OP2	6.56	129.44	119.60
26	14	1274	A	OP1-P-OP2	6.56	129.44	119.60
26	1H	2518	A	N1-C6-N6	6.55	122.53	118.60
1	13	1455	G	C8-N9-C4	6.55	109.02	106.40
23	2L	40	C	C6-N1-C2	-6.55	117.68	120.30
26	1H	813	U	OP1-P-OP2	6.55	129.43	119.60
26	1H	2439	A	C5-C6-N6	-6.55	118.46	123.70
26	1H	2755	C	C6-N1-C2	-6.55	117.68	120.30
26	1H	664	C	C2-N3-C4	-6.55	116.63	119.90
26	1H	1380	G	O5'-P-OP2	-6.55	99.81	105.70
1	1G	401	C	C2-N3-C4	-6.55	116.62	119.90
25	4L	16	A	C8-N9-C4	6.55	108.42	105.80
26	14	1248	G	OP1-P-O3'	6.55	119.61	105.20
1	13	975	A	C5-N7-C8	-6.55	100.63	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	180	G	N9-C4-C5	-6.55	102.78	105.40
26	1H	2761	G	N3-C2-N2	-6.55	115.32	119.90
26	1H	868	U	N3-C2-O2	-6.55	117.62	122.20
26	14	197	A	C5-N7-C8	-6.55	100.63	103.90
26	14	743	G	C8-N9-C4	6.55	109.02	106.40
26	14	767	U	C5-C4-O4	6.55	129.83	125.90
26	14	1787	A	O5'-P-OP2	6.55	118.56	110.70
26	1H	29	U	OP1-P-O3'	6.54	119.60	105.20
26	1H	792	G	C6-C5-N7	-6.54	126.47	130.40
26	1H	2042	A	O5'-P-OP1	6.54	118.55	110.70
26	1H	1298	C	OP1-P-O3'	6.54	119.59	105.20
26	1H	2412	A	C6-N1-C2	-6.54	114.67	118.60
26	1H	2554	U	N1-C2-O2	-6.54	118.22	122.80
1	1G	815	A	OP2-P-O3'	6.54	119.60	105.20
26	1H	821	A	C4-C5-C6	6.54	120.27	117.00
26	1H	285	C	OP2-P-O3'	6.54	119.59	105.20
26	1H	410	G	N3-C2-N2	-6.54	115.32	119.90
26	1H	1416	G	O4'-C1'-N9	6.54	113.43	108.20
26	14	822	U	N3-C4-O4	-6.54	114.82	119.40
26	1H	34	C	O5'-P-OP2	6.54	118.55	110.70
26	1H	1786	A	N9-C1'-C2'	6.54	122.50	114.00
26	14	1663	C	C2-N3-C4	-6.54	116.63	119.90
26	1H	2743	C	C4-C5-C6	6.54	120.67	117.40
26	14	2346	A	N7-C8-N9	6.54	117.07	113.80
37	78	23	PRO	C-N-CA	-6.53	108.58	122.30
26	14	2346	A	C8-N9-C4	-6.53	103.19	105.80
26	1H	46	C	C6-N1-C2	-6.53	117.69	120.30
26	14	203	C	N1-C2-O2	-6.53	114.98	118.90
1	13	740	U	OP1-P-OP2	6.53	129.39	119.60
26	1H	2726	U	N3-C2-O2	-6.53	117.63	122.20
1	13	581	G	C5-C6-O6	-6.53	124.68	128.60
26	1H	782	A	C6-N1-C2	-6.53	114.68	118.60
26	1H	906	G	C5-C6-O6	6.53	132.52	128.60
26	14	797	C	N1-C2-O2	-6.53	114.98	118.90
1	13	1230	C	N3-C4-N4	6.53	122.57	118.00
1	13	1266	G	C4-C5-N7	6.53	113.41	110.80
26	1H	237	C	C2-N3-C4	-6.53	116.64	119.90
26	1H	1189	A	N1-C6-N6	6.53	122.52	118.60
26	1H	1436	G	C2-N3-C4	6.53	115.16	111.90
26	14	1300	U	N3-C2-O2	-6.53	117.63	122.20
26	14	2053	G	C5-C6-O6	-6.53	124.68	128.60
26	1H	32	C	C6-N1-C2	-6.52	117.69	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	941	A	C4-C5-N7	6.52	113.96	110.70
26	1H	2249	U	N3-C4-O4	-6.52	114.83	119.40
26	14	849	A	OP1-P-O3'	6.52	119.55	105.20
26	14	2062	A	N1-C6-N6	-6.52	114.69	118.60
26	14	2335	A	N9-C4-C5	6.52	108.41	105.80
26	14	2517	C	O4'-C1'-N1	6.52	113.42	108.20
26	1H	1592	C	N1-C2-O2	6.52	122.81	118.90
26	1H	2056	G	N3-C4-N9	6.52	129.91	126.00
26	1H	2402	C	N3-C2-O2	-6.52	117.33	121.90
26	14	198	C	C6-N1-C2	-6.52	117.69	120.30
29	19	273	ARG	NE-CZ-NH1	6.52	123.56	120.30
1	13	1374	A	N1-C6-N6	6.52	122.51	118.60
25	4K	18	G	C4-C5-N7	-6.52	108.19	110.80
26	1H	245	G	C8-N9-C1'	-6.52	118.52	127.00
26	14	1633	G	C8-N9-C4	-6.52	103.79	106.40
26	1H	1305	C	C2-N3-C4	-6.52	116.64	119.90
1	13	670	G	O5'-P-OP2	-6.52	99.84	105.70
26	1H	240	G	N7-C8-N9	-6.52	109.84	113.10
26	1H	956	G	C5-C6-N1	-6.52	108.24	111.50
1	1G	945	G	C6-C5-N7	-6.51	126.49	130.40
26	14	744	G	C2-N3-C4	-6.51	108.64	111.90
26	14	1564	C	N3-C2-O2	-6.51	117.34	121.90
26	1H	189	G	OP1-P-OP2	-6.51	109.83	119.60
26	1H	658	C	O5'-P-OP1	6.51	118.52	110.70
26	1H	121	G	N3-C4-C5	-6.51	125.34	128.60
26	1H	657	U	C5-C6-N1	-6.51	119.44	122.70
26	14	194	G	C5-C6-O6	-6.51	124.69	128.60
26	14	956	G	N1-C6-O6	6.51	123.81	119.90
1	13	1497	G	O5'-P-OP2	-6.51	99.84	105.70
26	1H	808	G	OP1-P-OP2	6.51	129.36	119.60
26	1H	1984	G	O5'-P-OP2	-6.51	99.84	105.70
26	14	1783	A	C5-C6-N6	6.51	128.91	123.70
26	1H	141(A)	C	OP2-P-O3'	6.51	119.52	105.20
26	1H	1800	C	N3-C2-O2	-6.51	117.34	121.90
1	13	346	G	N7-C8-N9	6.51	116.35	113.10
22	1K	35	U	N3-C2-O2	-6.51	117.65	122.20
26	1H	109	G	N1-C6-O6	-6.51	116.00	119.90
26	14	2451	A	N1-C2-N3	6.51	132.55	129.30
26	14	2867	G	C5-C6-O6	6.51	132.50	128.60
26	14	1259	G	OP2-P-O3'	6.50	119.51	105.20
1	13	769	G	OP1-P-OP2	-6.50	109.84	119.60
26	1H	869	G	C5-C6-N1	6.50	114.75	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2324	C	N3-C4-N4	6.50	122.55	118.00
26	14	88	G	O5'-P-OP1	-6.50	99.85	105.70
26	14	907	U	OP2-P-O3'	6.50	119.51	105.20
26	14	1918	A	N1-C6-N6	6.50	122.50	118.60
26	14	2024	G	N1-C6-O6	6.50	123.80	119.90
26	14	2332	U	N3-C4-O4	-6.50	114.85	119.40
1	13	956	U	C5-C6-N1	6.50	125.95	122.70
26	14	461	C	N3-C4-C5	-6.50	119.30	121.90
1	13	1404	C	N3-C4-N4	-6.50	113.45	118.00
26	1H	129	C	N3-C4-C5	6.50	124.50	121.90
26	1H	621	A	C5-C6-N6	-6.50	118.50	123.70
26	1H	2717	G	C5-N7-C8	6.50	107.55	104.30
26	1H	2762	G	C2-N3-C4	-6.50	108.65	111.90
27	16	100	G	N3-C4-N9	6.50	129.90	126.00
27	16	116	G	OP2-P-O3'	6.50	119.50	105.20
26	14	1783	A	N9-C4-C5	6.50	108.40	105.80
26	14	1944	U	N3-C4-O4	6.50	123.95	119.40
1	13	1279	A	C6-C5-N7	-6.50	127.75	132.30
26	1H	784	A	OP2-P-O3'	-6.50	90.91	105.20
26	1H	1374	G	O5'-P-OP2	6.50	118.50	110.70
26	1H	2602	A	O5'-P-OP1	-6.50	99.85	105.70
1	1G	889	A	O5'-P-OP1	-6.50	99.85	105.70
26	14	302	C	O5'-P-OP2	-6.50	99.85	105.70
26	1H	1022	G	C4-C5-N7	-6.50	108.20	110.80
26	1H	2881	C	O5'-P-OP1	-6.50	99.86	105.70
1	13	1437	C	C5-C4-N4	-6.49	115.65	120.20
26	14	583	G	C8-N9-C4	-6.49	103.80	106.40
26	14	1762	A	O5'-P-OP1	-6.49	99.86	105.70
26	14	2442	C	N1-C2-O2	-6.49	115.00	118.90
1	13	74	C	N1-C2-O2	6.49	122.80	118.90
1	13	1226	C	N1-C2-O2	-6.49	115.00	118.90
26	1H	955	C	OP1-P-OP2	6.49	129.34	119.60
26	1H	1915	U	C2-N3-C4	-6.49	123.11	127.00
26	1H	2072	G	N9-C4-C5	-6.49	102.80	105.40
1	1G	60	A	N7-C8-N9	-6.49	110.55	113.80
1	13	776	G	O5'-P-OP1	-6.49	99.86	105.70
1	13	960	U	C5-C6-N1	6.49	125.94	122.70
1	13	1519	A	C5-C6-N1	-6.49	114.45	117.70
26	1H	86	C	C5-C6-N1	-6.49	117.75	121.00
26	1H	2244	U	C4-C5-C6	6.49	123.59	119.70
27	16	79	C	C6-N1-C2	-6.49	117.70	120.30
1	1G	1469	G	N1-C6-O6	6.49	123.79	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	489	G	C4-C5-N7	6.49	113.40	110.80
1	13	235	C	C6-N1-C2	6.49	122.89	120.30
1	13	1432	G	C6-C5-N7	-6.49	126.51	130.40
26	1H	531	C	N1-C2-O2	-6.49	115.01	118.90
26	1H	815	C	N3-C4-N4	-6.49	113.46	118.00
26	14	1987	G	N3-C2-N2	-6.49	115.36	119.90
26	14	113	G	C5-C6-O6	-6.48	124.71	128.60
26	14	2501	C	C6-N1-C1'	6.48	128.58	120.80
26	1H	916	G	O5'-P-OP2	6.48	118.48	110.70
26	1H	1352	U	O5'-P-OP2	-6.48	99.87	105.70
26	1H	2554	U	O5'-P-OP1	-6.48	99.86	105.70
26	1H	2666	C	C6-N1-C2	-6.48	117.71	120.30
26	14	2332	U	C5-C4-O4	6.48	129.79	125.90
1	13	555	C	C6-N1-C2	-6.48	117.71	120.30
26	1H	1157	G	C8-N9-C1'	-6.48	118.58	127.00
26	14	205	G	C4-C5-N7	6.48	113.39	110.80
26	1H	520	G	C5-C6-O6	6.48	132.49	128.60
26	1H	1157	G	C6-C5-N7	-6.48	126.51	130.40
26	1H	1373	A	O5'-P-OP1	6.48	118.47	110.70
26	14	707	G	C5-C6-N1	-6.48	108.26	111.50
26	14	935	C	C6-N1-C2	6.48	122.89	120.30
26	14	2672	G	C5-C6-N1	6.48	114.74	111.50
27	1J	14	U	OP1-P-OP2	6.48	129.31	119.60
23	2L	15	G	C5-C6-O6	6.48	132.49	128.60
26	14	827	U	O5'-P-OP2	-6.48	99.87	105.70
1	13	799	G	C5-C6-O6	6.47	132.49	128.60
26	1H	567	A	N1-C2-N3	-6.47	126.06	129.30
26	1H	2552	U	C2-N3-C4	-6.47	123.11	127.00
26	14	2062	A	C4-N9-C1'	-6.47	114.65	126.30
26	14	2542	A	N9-C4-C5	-6.47	103.21	105.80
26	14	2596	U	O5'-P-OP2	-6.47	99.87	105.70
26	1H	1625	C	N1-C2-O2	6.47	122.78	118.90
26	1H	2244	U	C2-N3-C4	-6.47	123.12	127.00
26	14	2447	G	OP1-P-OP2	-6.47	109.89	119.60
26	1H	446	G	C2-N3-C4	-6.47	108.67	111.90
26	1H	665	C	C5-C6-N1	-6.47	117.77	121.00
26	14	12	U	C2-N1-C1'	6.47	125.46	117.70
26	14	218	A	N1-C6-N6	6.47	122.48	118.60
26	14	495	G	C4-C5-N7	-6.47	108.21	110.80
26	14	1011	G	C8-N9-C1'	6.47	135.41	127.00
26	14	1994	C	C4-C5-C6	6.47	120.64	117.40
26	14	2258	C	C5-C4-N4	-6.47	115.67	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	813	U	C5-C4-O4	6.47	129.78	125.90
26	1H	786	C	N3-C4-N4	-6.47	113.47	118.00
1	13	59	A	O5'-P-OP1	-6.47	99.88	105.70
1	13	238	G	N1-C6-O6	-6.47	116.02	119.90
1	1G	1157	A	P-O3'-C3'	6.47	127.46	119.70
26	14	1382	G	OP2-P-O3'	6.47	119.43	105.20
26	14	2873	A	N9-C1'-C2'	6.47	122.41	114.00
1	13	1266	G	C5-C6-O6	-6.46	124.72	128.60
26	1H	613	U	C5-C4-O4	-6.46	122.02	125.90
26	1H	1636	C	OP1-P-O3'	6.46	119.42	105.20
26	1H	141	A	N3-C4-C5	6.46	131.32	126.80
26	1H	671	C	C2-N3-C4	-6.46	116.67	119.90
29	11	157	ARG	NE-CZ-NH1	-6.46	117.07	120.30
26	14	1969	A	O5'-P-OP2	6.46	118.45	110.70
1	13	888	G	N3-C4-C5	6.46	131.83	128.60
26	1H	2302	G	C5-C6-O6	6.46	132.48	128.60
26	14	486	C	N3-C4-N4	6.46	122.52	118.00
26	14	2512	C	C6-N1-C2	6.46	122.88	120.30
1	13	532	A	C2-N3-C4	-6.46	107.37	110.60
1	13	817	C	N3-C4-N4	6.46	122.52	118.00
1	13	912	C	C6-N1-C2	6.46	122.88	120.30
22	1K	33	U	O5'-P-OP2	-6.46	99.89	105.70
26	1H	1610	A	C5-N7-C8	-6.46	100.67	103.90
26	14	784	A	O5'-P-OP2	-6.46	99.89	105.70
26	14	1241	A	C4-C5-N7	6.46	113.93	110.70
26	1H	577	G	N3-C4-N9	6.46	129.87	126.00
26	1H	622	G	N3-C2-N2	6.46	124.42	119.90
26	1H	774	A	O5'-P-OP2	-6.46	99.89	105.70
26	1H	2068	U	C5-C6-N1	-6.46	119.47	122.70
26	14	113	G	N3-C4-C5	6.46	131.83	128.60
26	14	562	U	N1-C2-O2	6.46	127.32	122.80
26	14	1528	A	C6-C5-N7	-6.46	127.78	132.30
26	14	2060	A	OP1-P-OP2	-6.46	109.92	119.60
26	1H	72	U	N3-C4-O4	6.46	123.92	119.40
26	14	211	A	N1-C6-N6	6.46	122.47	118.60
26	14	992	C	OP1-P-O3'	6.46	119.40	105.20
1	13	690	G	C4-N9-C1'	6.45	134.89	126.50
1	13	816	A	C8-N9-C4	-6.45	103.22	105.80
26	1H	459	U	C2-N3-C4	-6.45	123.13	127.00
1	1G	812	C	N1-C2-O2	-6.45	115.03	118.90
26	1H	1521	G	N7-C8-N9	6.45	116.33	113.10
26	1H	104	U	C2-N3-C4	-6.45	123.13	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	694	U	C2-N3-C4	-6.45	123.13	127.00
26	1H	2394	C	N1-C2-O2	-6.45	115.03	118.90
26	1H	186	G	C6-N1-C2	-6.45	121.23	125.10
26	1H	1271	G	N9-C4-C5	-6.45	102.82	105.40
26	1H	1430	C	C6-N1-C2	-6.45	117.72	120.30
26	1H	2070	G	C8-N9-C4	6.45	108.98	106.40
26	1H	2276	G	C4-C5-N7	-6.45	108.22	110.80
26	14	1204	A	N1-C6-N6	6.45	122.47	118.60
26	14	2433	A	C2-N3-C4	-6.45	107.38	110.60
26	14	2491	U	OP1-P-O3'	6.45	119.38	105.20
1	13	899	C	N3-C2-O2	6.45	126.41	121.90
26	1H	1776	G	C4-C5-N7	6.45	113.38	110.80
26	14	1912	A	O5'-P-OP1	-6.45	99.90	105.70
43	95	21	ARG	NE-CZ-NH2	6.45	123.52	120.30
1	13	23	C	C6-N1-C2	-6.44	117.72	120.30
26	1H	131	G	C5-C6-O6	-6.44	124.73	128.60
26	1H	498	G	C8-N9-C4	6.44	108.98	106.40
26	1H	2053	G	N3-C2-N2	-6.44	115.39	119.90
26	14	1307	A	C2-N3-C4	-6.44	107.38	110.60
26	14	1779	U	C6-N1-C2	6.44	124.87	121.00
1	13	50	A	C2-N3-C4	6.44	113.82	110.60
1	13	643	C	O5'-P-OP2	-6.44	99.90	105.70
1	13	904	C	N3-C4-N4	-6.44	113.49	118.00
26	1H	82	G	C4-C5-N7	-6.44	108.22	110.80
26	1H	826	U	C5-C6-N1	-6.44	119.48	122.70
26	1H	2228	G	N9-C4-C5	6.44	107.98	105.40
26	14	847	U	C2-N1-C1'	-6.44	109.97	117.70
1	13	584	G	OP1-P-OP2	6.44	129.25	119.60
1	13	1513	A	C5-C6-N6	-6.44	118.55	123.70
26	1H	917	A	C4-C5-N7	6.44	113.92	110.70
26	1H	1372	U	C5-C6-N1	-6.44	119.48	122.70
26	1H	2412	A	C5-C6-N1	6.44	120.92	117.70
26	1H	2603	G	O5'-P-OP2	6.44	118.42	110.70
1	13	948	C	O5'-P-OP1	6.43	118.42	110.70
1	13	990	C	C6-N1-C2	-6.43	117.73	120.30
26	1H	598	G	C8-N9-C4	-6.43	103.83	106.40
26	1H	659	C	O5'-P-OP2	-6.43	99.91	105.70
26	1H	820	A	N1-C2-N3	6.43	132.52	129.30
26	1H	1928	A	N1-C6-N6	-6.43	114.74	118.60
1	1G	150	C	C5-C6-N1	6.43	124.22	121.00
26	14	911	A	OP1-P-O3'	6.43	119.36	105.20
26	14	1786	A	N3-C4-N9	-6.43	122.25	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	675	A	C4-C5-C6	-6.43	113.78	117.00
26	1H	1785	A	C8-N9-C4	-6.43	103.23	105.80
26	1H	2510	C	O5'-P-OP2	-6.43	99.91	105.70
26	14	1964	G	O5'-P-OP2	-6.43	99.91	105.70
26	14	2609	U	C2-N3-C4	-6.43	123.14	127.00
26	1H	2417	C	O5'-P-OP2	-6.43	99.91	105.70
26	1H	2525	G	C4-C5-N7	6.43	113.37	110.80
26	14	197	A	OP2-P-O3'	6.43	119.35	105.20
1	13	966	G	N1-C6-O6	6.43	123.76	119.90
26	1H	36	G	O5'-P-OP2	-6.43	99.91	105.70
26	1H	777	A	C2-N3-C4	-6.43	107.39	110.60
26	1H	1140	C	O5'-P-OP1	6.43	118.42	110.70
26	1H	1214	A	OP2-P-O3'	6.43	119.34	105.20
26	1H	2032	G	C5-N7-C8	6.43	107.51	104.30
26	14	741	G	N3-C2-N2	-6.43	115.40	119.90
1	13	1279	A	N1-C6-N6	6.43	122.46	118.60
26	1H	1291	C	O5'-P-OP2	-6.43	99.92	105.70
26	14	1276	A	O5'-P-OP1	-6.43	99.92	105.70
26	14	1570	A	O5'-P-OP2	6.43	118.41	110.70
26	1H	1018	C	C2-N1-C1'	6.42	125.87	118.80
26	1H	1602	U	O5'-P-OP1	-6.42	99.92	105.70
1	13	52	G	N3-C2-N2	6.42	124.40	119.90
26	1H	37	C	C2-N3-C4	6.42	123.11	119.90
26	1H	1559	G	C5-N7-C8	-6.42	101.09	104.30
26	1H	2697	G	N3-C2-N2	6.42	124.40	119.90
26	14	113	G	N1-C6-O6	6.42	123.75	119.90
26	1H	1357	U	N1-C2-N3	6.42	118.75	114.90
26	1H	1701	A	OP1-P-O3'	6.42	119.33	105.20
1	1G	535	A	O5'-P-OP2	-6.42	99.92	105.70
26	1H	446	G	C5-C6-N1	-6.42	108.29	111.50
26	1H	1803	A	C8-N9-C4	-6.42	103.23	105.80
26	1H	2375	G	OP2-P-O3'	6.42	119.32	105.20
26	1H	2581	G	O5'-P-OP2	-6.42	99.92	105.70
26	14	953	A	OP1-P-O3'	6.42	119.33	105.20
26	1H	566	U	C6-N1-C2	6.42	124.85	121.00
26	1H	1938	A	O4'-C1'-N9	6.42	113.33	108.20
26	14	76	C	C6-N1-C2	-6.42	117.73	120.30
1	13	328	C	N3-C2-O2	-6.42	117.41	121.90
26	1H	239	U	O5'-P-OP2	-6.42	99.92	105.70
26	14	2082	A	C6-N1-C2	-6.42	114.75	118.60
1	13	328	C	N1-C2-O2	6.42	122.75	118.90
26	1H	1787	A	OP1-P-O3'	6.42	119.31	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2376	A	C6-N1-C2	-6.42	114.75	118.60
26	14	2360	A	C2-N3-C4	-6.42	107.39	110.60
1	13	418	C	N1-C2-O2	6.41	122.75	118.90
26	1H	2302	G	N1-C6-O6	-6.41	116.05	119.90
26	14	449	A	C6-N1-C2	-6.41	114.75	118.60
26	14	2520	C	C2-N3-C4	-6.41	116.69	119.90
26	1H	391	G	C2-N3-C4	-6.41	108.69	111.90
26	1H	1288	U	C2-N1-C1'	6.41	125.39	117.70
26	1H	2577	A	C4-C5-N7	-6.41	107.49	110.70
26	1H	772	C	N3-C4-N4	6.41	122.49	118.00
26	1H	941	A	C5-C6-N6	-6.41	118.57	123.70
26	1H	1561	G	C8-N9-C4	-6.41	103.84	106.40
26	1H	2544	G	N1-C6-O6	6.41	123.75	119.90
1	13	792	A	C5-C6-N6	-6.41	118.57	123.70
26	1H	121	G	C8-N9-C1'	-6.41	118.67	127.00
26	1H	1620	G	C5-N7-C8	6.41	107.50	104.30
26	14	278	A	OP1-P-O3'	6.41	119.30	105.20
26	14	1914	C	N3-C2-O2	-6.41	117.41	121.90
26	1H	1163	G	C8-N9-C4	-6.41	103.84	106.40
26	1H	1901	A	O5'-P-OP2	-6.41	99.93	105.70
26	1H	2413	G	N1-C6-O6	6.41	123.74	119.90
26	1H	919	G	OP1-P-OP2	6.41	129.21	119.60
26	1H	941	A	N9-C4-C5	-6.41	103.24	105.80
26	1H	1255	U	C6-N1-C2	-6.41	117.16	121.00
26	1H	2449	U	OP2-P-O3'	6.41	119.29	105.20
26	14	1649	G	N1-C6-O6	-6.41	116.06	119.90
26	14	1964	G	N1-C6-O6	-6.41	116.06	119.90
26	14	2873	A	C5-C6-N1	-6.41	114.50	117.70
26	14	2213	U	N1-C2-O2	6.40	127.28	122.80
26	14	2598	A	P-O3'-C3'	6.40	127.39	119.70
26	14	2249	U	C5-C4-O4	6.40	129.74	125.90
26	14	2459	A	N7-C8-N9	6.40	117.00	113.80
26	1H	2689	U	C5-C4-O4	6.40	129.74	125.90
26	14	448	U	N3-C2-O2	-6.40	117.72	122.20
26	14	1257	C	C4-C5-C6	6.40	120.60	117.40
26	1H	576	U	C4-C5-C6	6.40	123.54	119.70
26	1H	1218	C	N3-C2-O2	6.40	126.38	121.90
27	16	27	C	C6-N1-C2	6.40	122.86	120.30
26	1H	452	G	N9-C4-C5	6.40	107.96	105.40
26	1H	1349	A	N1-C6-N6	6.40	122.44	118.60
26	1H	2285	C	C5-C4-N4	6.40	124.68	120.20
26	14	1775	U	C5-C6-N1	-6.40	119.50	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2028	U	N1-C2-O2	-6.40	118.32	122.80
1	1G	770	C	O5'-P-OP2	-6.40	99.94	105.70
26	1H	929	G	C5-C6-N1	6.39	114.70	111.50
26	14	579	G	N3-C2-N2	-6.39	115.43	119.90
1	13	1331	G	P-O3'-C3'	6.39	127.37	119.70
26	1H	645	C	N1-C2-O2	6.39	122.73	118.90
26	1H	2516	G	OP2-P-O3'	6.39	119.26	105.20
26	14	197	A	C6-C5-N7	-6.39	127.83	132.30
26	14	1011	G	C6-C5-N7	6.39	134.23	130.40
26	14	1835	G	C8-N9-C4	-6.39	103.84	106.40
26	1H	232	G	N1-C6-O6	6.39	123.73	119.90
26	1H	1253	A	OP1-P-OP2	6.39	129.18	119.60
1	13	723	U	C5-C6-N1	6.39	125.89	122.70
26	1H	245	G	N9-C4-C5	-6.39	102.84	105.40
26	14	2426	A	N9-C4-C5	-6.39	103.25	105.80
12	3I	12	ARG	NE-CZ-NH1	-6.38	117.11	120.30
26	1H	203	C	O5'-P-OP1	-6.38	99.95	105.70
26	1H	629	G	N3-C2-N2	6.38	124.37	119.90
26	1H	705	A	N9-C4-C5	-6.38	103.25	105.80
26	1H	1782	C	OP1-P-O3'	6.38	119.25	105.20
1	1G	399	G	N1-C6-O6	6.38	123.73	119.90
26	14	1021	A	C8-N9-C4	-6.38	103.25	105.80
26	14	1813	G	O5'-P-OP2	6.38	118.36	110.70
26	14	2258	C	N3-C4-N4	6.38	122.47	118.00
26	1H	245	G	C4-C5-C6	6.38	122.63	118.80
26	1H	1648	C	C6-N1-C1'	6.38	128.46	120.80
26	1H	2496	C	OP1-P-OP2	-6.38	110.03	119.60
26	1H	2697	G	O5'-P-OP1	-6.38	99.95	105.70
1	1G	1432	G	C4-C5-C6	6.38	122.63	118.80
1	1G	1515	C	N1-C2-O2	-6.38	115.07	118.90
26	1H	206	U	C2-N3-C4	-6.38	123.17	127.00
26	14	1367	A	C8-N9-C4	6.38	108.35	105.80
26	14	1783	A	C5-C6-N1	-6.38	114.51	117.70
26	1H	203	C	O5'-P-OP2	6.38	118.36	110.70
26	1H	271(B)	G	N3-C4-N9	6.38	129.83	126.00
26	1H	2257	U	C2-N3-C4	-6.38	123.17	127.00
26	1H	2530	A	O5'-P-OP2	-6.38	99.96	105.70
26	14	1784	A	C4-C5-N7	6.38	113.89	110.70
1	13	577	G	N1-C6-O6	6.38	123.73	119.90
1	13	792	A	C8-N9-C4	-6.38	103.25	105.80
26	14	945	A	N9-C4-C5	-6.38	103.25	105.80
26	1H	199	A	N1-C2-N3	-6.38	126.11	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1249	U	O5'-P-OP1	-6.38	99.96	105.70
26	1H	1496	A	C2-N3-C4	-6.38	107.41	110.60
26	1H	2709	G	N1-C2-N2	-6.38	110.46	116.20
1	13	891	U	N3-C2-O2	-6.38	117.74	122.20
26	1H	1543	A	C6-N1-C2	6.38	122.42	118.60
26	1H	2065	C	N1-C2-O2	6.38	122.72	118.90
1	13	780	A	N3-C4-C5	6.37	131.26	126.80
26	1H	778	G	C5-C6-O6	6.37	132.42	128.60
26	1H	793	A	C2-N3-C4	6.37	113.79	110.60
26	1H	1591	G	C5-C6-O6	6.37	132.42	128.60
26	14	768	G	O5'-P-OP2	-6.37	99.97	105.70
1	13	858	G	N3-C4-C5	-6.37	125.42	128.60
26	1H	80	G	O5'-P-OP1	-6.37	99.97	105.70
26	14	2078	C	C4-C5-C6	6.37	120.58	117.40
26	1H	1026	U	N1-C2-O2	-6.37	118.34	122.80
26	1H	837	C	N1-C2-O2	-6.37	115.08	118.90
29	11	41	GLY	N-CA-C	6.37	129.01	113.10
26	14	574	C	C2-N1-C1'	-6.37	111.80	118.80
26	14	681	G	N1-C2-N2	-6.37	110.47	116.20
26	14	1606	G	N3-C4-N9	6.37	129.82	126.00
26	14	1776	G	O5'-P-OP1	6.37	118.34	110.70
26	14	1800	C	C2-N3-C4	-6.37	116.72	119.90
26	14	2318	G	C8-N9-C4	-6.37	103.85	106.40
26	1H	577	G	OP1-P-OP2	-6.36	110.05	119.60
26	1H	698	C	C5-C6-N1	-6.36	117.82	121.00
26	1H	762	U	C2-N1-C1'	6.36	125.34	117.70
26	1H	2311	A	C5-C6-N1	-6.36	114.52	117.70
1	1G	576	G	C6-C5-N7	-6.36	126.58	130.40
1	1G	1523	G	O5'-P-OP2	-6.36	99.97	105.70
23	2L	40	C	O5'-P-OP1	-6.36	99.97	105.70
26	14	139	G	N1-C6-O6	-6.36	116.08	119.90
1	13	62	U	O5'-P-OP2	-6.36	99.97	105.70
26	1H	2355	C	C6-N1-C2	-6.36	117.75	120.30
1	1G	428	G	C4-C5-N7	-6.36	108.25	110.80
26	14	1552	G	C6-C5-N7	6.36	134.22	130.40
26	14	1652	A	O5'-P-OP1	-6.36	99.97	105.70
1	1G	452	A	O5'-P-OP1	-6.36	99.98	105.70
26	14	848	G	N3-C4-C5	-6.36	125.42	128.60
26	14	949	C	C6-N1-C2	6.36	122.84	120.30
26	14	1929	G	OP1-P-OP2	6.36	129.14	119.60
26	14	2072	G	C5-N7-C8	6.36	107.48	104.30
1	13	1450	U	N1-C2-O2	6.36	127.25	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	16	105	G	N3-C4-C5	-6.36	125.42	128.60
26	14	609	A	C5-C6-N6	-6.36	118.61	123.70
1	13	115	G	P-O3'-C3'	6.36	127.33	119.70
26	1H	1983	C	OP2-P-O3'	6.36	119.19	105.20
26	1H	2261	C	OP1-P-O3'	-6.36	91.22	105.20
26	1H	2350	C	N3-C2-O2	-6.36	117.45	121.90
26	1H	2494	G	C5-C6-N1	-6.36	108.32	111.50
26	14	674	G	O5'-P-OP2	6.36	118.33	110.70
26	1H	2211	G	O5'-P-OP2	-6.36	99.98	105.70
26	1H	2594	C	C5-C4-N4	-6.36	115.75	120.20
26	14	472	A	N1-C6-N6	-6.36	114.79	118.60
26	14	1011	G	N3-C4-N9	-6.36	122.19	126.00
26	14	2519	U	O5'-P-OP2	-6.36	99.98	105.70
26	1H	2751	G	N3-C4-C5	-6.35	125.42	128.60
1	13	437	U	C6-N1-C2	-6.35	117.19	121.00
1	13	1290	G	N7-C8-N9	6.35	116.28	113.10
26	1H	655	A	C5-N7-C8	-6.35	100.72	103.90
26	1H	1026	U	C6-N1-C1'	6.35	130.09	121.20
26	1H	1417	C	C5-C6-N1	-6.35	117.82	121.00
26	1H	2688	U	C5-C6-N1	-6.35	119.52	122.70
1	1G	945	G	C4-N9-C1'	6.35	134.76	126.50
26	1H	1239	G	C8-N9-C4	6.35	108.94	106.40
26	1H	842	G	C5-N7-C8	-6.35	101.12	104.30
26	1H	938	G	O5'-P-OP2	-6.35	99.99	105.70
26	1H	2062	A	N3-C4-N9	6.35	132.48	127.40
1	1G	332	G	C8-N9-C4	6.35	108.94	106.40
1	1G	1184	G	N1-C6-O6	6.35	123.71	119.90
26	14	470	A	N1-C6-N6	6.35	122.41	118.60
26	14	2264	C	O5'-P-OP2	6.35	118.32	110.70
26	14	2501	C	C5-C6-N1	-6.35	117.83	121.00
27	1J	44	G	N7-C8-N9	-6.35	109.92	113.10
26	1H	906	G	C4-C5-N7	-6.35	108.26	110.80
1	1G	1358	U	C2-N1-C1'	6.35	125.32	117.70
26	14	1563	G	OP2-P-O3'	6.35	119.17	105.20
26	14	2020	A	C5-C6-N6	-6.35	118.62	123.70
26	14	2032	G	N9-C4-C5	-6.35	102.86	105.40
26	14	2277	G	C5-C6-O6	6.35	132.41	128.60
26	14	2509	G	OP1-P-OP2	6.35	129.12	119.60
1	13	581	G	C6-C5-N7	-6.35	126.59	130.40
26	1H	1350	C	O5'-P-OP2	6.35	118.31	110.70
1	13	865	A	N1-C6-N6	6.34	122.41	118.60
1	13	1259	C	C5-C6-N1	6.34	124.17	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2278	A	C4-C5-C6	6.34	120.17	117.00
26	1H	2451	A	C5-C6-N6	6.34	128.78	123.70
1	1G	900	A	O5'-P-OP2	6.34	118.31	110.70
26	14	1185	C	O5'-P-OP2	-6.34	99.99	105.70
26	14	2387	U	N3-C4-O4	-6.34	114.96	119.40
26	1H	51	G	O4'-C1'-N9	-6.34	103.13	108.20
26	1H	141	A	O5'-P-OP2	-6.34	99.99	105.70
26	1H	255	A	C6-N1-C2	-6.34	114.79	118.60
26	1H	141(A)	C	N1-C2-O2	-6.34	115.09	118.90
26	1H	1303	G	O5'-P-OP2	-6.34	99.99	105.70
26	1H	2449	U	N1-C2-N3	6.34	118.70	114.90
26	1H	688	U	OP1-P-OP2	6.34	129.11	119.60
26	1H	1239	G	OP2-P-O3'	6.34	119.14	105.20
26	1H	1279	G	O5'-P-OP1	6.34	118.31	110.70
26	1H	1566	A	N9-C4-C5	6.34	108.34	105.80
26	1H	2090	G	N3-C2-N2	-6.34	115.46	119.90
26	1H	2521	C	OP1-P-OP2	6.34	129.11	119.60
26	14	802	A	N1-C6-N6	-6.34	114.80	118.60
26	1H	321	G	C5-C6-O6	-6.34	124.80	128.60
26	14	2331	G	N1-C6-O6	6.34	123.70	119.90
46	C5	90	LEU	CA-CB-CG	6.34	129.88	115.30
1	13	582	U	N3-C4-O4	-6.34	114.97	119.40
1	13	960	U	C2-N1-C1'	6.34	125.30	117.70
26	1H	2419	U	OP1-P-O3'	6.34	119.14	105.20
26	1H	2497	A	C4-C5-C6	6.34	120.17	117.00
26	14	2380	C	N3-C4-C5	6.34	124.43	121.90
27	1J	74	U	N1-C2-N3	6.34	118.70	114.90
26	1H	1280	G	OP1-P-OP2	-6.33	110.10	119.60
26	1H	1586	A	C4-C5-C6	6.33	120.17	117.00
26	1H	1645	G	P-O3'-C3'	6.33	127.30	119.70
26	1H	2709	G	C8-N9-C4	-6.33	103.87	106.40
26	14	1558	A	N1-C2-N3	6.33	132.47	129.30
26	1H	1374	G	C5-C6-N1	-6.33	108.33	111.50
26	14	824	A	C8-N9-C4	6.33	108.33	105.80
26	14	1899	G	C4-N9-C1'	6.33	134.73	126.50
54	L5	34	ARG	NE-CZ-NH1	-6.33	117.13	120.30
1	13	1412	C	C6-N1-C2	6.33	122.83	120.30
26	1H	500	G	O5'-P-OP1	-6.33	100.00	105.70
26	1H	729	G	N9-C4-C5	6.33	107.93	105.40
26	1H	1796	U	C6-N1-C2	6.33	124.80	121.00
26	1H	1916	A	C8-N9-C4	-6.33	103.27	105.80
26	14	822	U	O5'-P-OP2	-6.33	100.00	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2026	C	O5'-P-OP2	-6.33	100.00	105.70
1	13	1519	A	N9-C4-C5	6.33	108.33	105.80
1	13	108	G	N9-C4-C5	-6.33	102.87	105.40
26	14	2853	C	O5'-P-OP1	6.33	118.29	110.70
26	1H	1010	A	C8-N9-C4	6.33	108.33	105.80
26	1H	2234	G	N7-C8-N9	-6.33	109.94	113.10
26	14	500	G	O5'-P-OP2	-6.33	100.01	105.70
26	14	668	G	N3-C4-C5	6.33	131.76	128.60
26	14	705	A	C2-N3-C4	-6.33	107.44	110.60
26	14	952	G	O5'-P-OP2	6.33	118.29	110.70
26	1H	679	C	N3-C2-O2	6.32	126.33	121.90
26	1H	796	C	N3-C4-N4	-6.32	113.57	118.00
26	1H	1271	G	C6-C5-N7	-6.32	126.61	130.40
26	1H	1835	G	N3-C4-C5	-6.32	125.44	128.60
26	14	1482	U	C5-C4-O4	6.32	129.69	125.90
26	1H	194	G	C5-C6-O6	-6.32	124.81	128.60
26	1H	975	G	O5'-P-OP1	-6.32	100.01	105.70
26	14	141	A	C6-N1-C2	6.32	122.39	118.60
54	L5	34	ARG	NE-CZ-NH2	6.32	123.46	120.30
1	13	971	G	O5'-P-OP1	6.32	118.28	110.70
26	1H	1022	G	P-O3'-C3'	6.32	127.29	119.70
26	1H	1566	A	C2-N3-C4	6.32	113.76	110.60
1	1G	345	C	P-O3'-C3'	6.32	127.28	119.70
26	1H	380	U	C5-C4-O4	6.32	129.69	125.90
1	13	562	C	O5'-P-OP2	-6.32	100.01	105.70
24	3K	71	C	N3-C2-O2	-6.32	117.48	121.90
26	1H	57	C	N1-C2-O2	6.32	122.69	118.90
26	1H	122	G	OP1-P-OP2	6.32	129.08	119.60
26	1H	2366	A	OP2-P-O3'	6.32	119.10	105.20
26	14	615	G	O4'-C1'-N9	6.32	113.25	108.20
26	14	1625	C	N3-C4-N4	-6.32	113.58	118.00
26	14	1869	G	N3-C4-N9	-6.32	122.21	126.00
1	13	1511	G	N1-C2-N2	-6.32	110.52	116.20
27	16	116	G	C5-C6-O6	-6.32	124.81	128.60
26	14	1673	U	N3-C2-O2	6.32	126.62	122.20
26	14	2346	A	C5-C6-N1	-6.32	114.54	117.70
26	14	1968	G	N1-C6-O6	6.31	123.69	119.90
1	13	1482	G	N3-C2-N2	-6.31	115.48	119.90
26	1H	468	G	N9-C4-C5	-6.31	102.88	105.40
26	1H	826	U	O5'-P-OP2	-6.31	100.02	105.70
26	1H	1414	G	O5'-P-OP1	-6.31	100.02	105.70
26	1H	2079	U	N1-C2-N3	6.31	118.69	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2473	U	C2-N1-C1'	6.31	125.27	117.70
26	1H	2473	U	N1-C2-O2	6.31	127.22	122.80
26	1H	2674	G	C6-N1-C2	-6.31	121.31	125.10
50	K8	59	ARG	NE-CZ-NH2	6.31	123.46	120.30
1	1G	692	U	C5-C4-O4	-6.31	122.11	125.90
26	14	503	A	N9-C4-C5	6.31	108.33	105.80
26	14	2029	G	C8-N9-C4	-6.31	103.88	106.40
42	85	95	LEU	CA-CB-CG	-6.31	100.78	115.30
26	14	729	G	N1-C2-N2	6.31	121.88	116.20
1	13	630	G	O5'-P-OP2	-6.31	100.02	105.70
26	1H	869	G	OP1-P-O3'	6.31	119.08	105.20
26	1H	1683	C	N1-C2-O2	-6.31	115.11	118.90
26	14	121	G	C4-C5-N7	6.31	113.32	110.80
26	14	502	A	C8-N9-C4	-6.31	103.28	105.80
26	14	1516	U	N1-C2-O2	6.31	127.22	122.80
26	14	2246	G	N7-C8-N9	6.31	116.25	113.10
1	13	110	C	N1-C2-O2	-6.31	115.11	118.90
26	1H	808	G	N1-C2-N2	-6.31	110.52	116.20
26	1H	825	C	OP1-P-OP2	6.31	129.06	119.60
26	14	90	U	N1-C2-O2	6.31	127.22	122.80
23	2K	49	C	C6-N1-C2	-6.31	117.78	120.30
26	14	2426	A	C5-N7-C8	-6.31	100.75	103.90
1	13	843	U	C2-N1-C1'	6.30	125.27	117.70
26	1H	190	A	N1-C6-N6	6.30	122.38	118.60
26	1H	140	A	C2-N3-C4	-6.30	107.45	110.60
26	1H	2078	C	O5'-P-OP2	6.30	118.26	110.70
26	1H	2771	C	O5'-P-OP2	6.30	118.26	110.70
26	14	1011	G	N3-C4-C5	6.30	131.75	128.60
26	14	2586	C	C5-C4-N4	-6.30	115.79	120.20
26	1H	2257	U	OP1-P-OP2	-6.30	110.15	119.60
26	1H	2271	G	N3-C4-N9	6.30	129.78	126.00
26	14	1385	G	O4'-C1'-N9	6.30	113.24	108.20
26	14	1606	G	C5-C6-O6	-6.30	124.82	128.60
26	14	1928	A	OP1-P-OP2	6.30	129.05	119.60
26	14	2330	G	C6-C5-N7	-6.30	126.62	130.40
26	14	47	C	C5-C6-N1	-6.30	117.85	121.00
26	14	563	G	C8-N9-C4	-6.30	103.88	106.40
26	14	2571	C	N3-C4-C5	6.30	124.42	121.90
1	13	795	C	C6-N1-C2	6.30	122.82	120.30
26	1H	728	G	OP2-P-O3'	6.30	119.05	105.20
1	1G	1200	C	C2-N1-C1'	6.30	125.73	118.80
26	1H	1967	C	N3-C2-O2	-6.29	117.49	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	241	A	N1-C2-N3	6.29	132.45	129.30
26	1H	845	G	OP2-P-O3'	-6.29	91.35	105.20
26	1H	1137	G	OP1-P-O3'	6.29	119.05	105.20
26	14	18	C	O5'-P-OP1	-6.29	100.04	105.70
26	14	647	G	C8-N9-C4	-6.29	103.88	106.40
26	1H	128	C	C2-N3-C4	-6.29	116.75	119.90
26	1H	1528	A	C6-C5-N7	-6.29	127.90	132.30
34	61	110	ASP	C-N-CD	-6.29	106.76	120.60
26	1H	138	G	N3-C4-N9	-6.29	122.23	126.00
26	1H	512	G	N1-C6-O6	-6.29	116.13	119.90
26	1H	2438	U	C4-C5-C6	6.29	123.47	119.70
26	1H	2763	G	N3-C4-N9	6.29	129.77	126.00
26	14	1646	C	C6-N1-C2	6.29	122.82	120.30
26	14	1756	G	N9-C4-C5	6.29	107.92	105.40
26	1H	82	G	C5-N7-C8	6.29	107.44	104.30
26	1H	797	C	C5-C6-N1	-6.29	117.86	121.00
26	1H	929	G	C4-C5-N7	6.29	113.31	110.80
26	1H	2646	C	C2-N3-C4	-6.29	116.75	119.90
26	14	384	U	C5-C6-N1	-6.29	119.56	122.70
26	1H	1968	G	N3-C4-N9	6.29	129.77	126.00
26	1H	1973	G	C8-N9-C4	-6.29	103.89	106.40
26	14	1777	U	O5'-P-OP2	6.29	118.25	110.70
1	13	961	U	N3-C4-C5	6.29	118.37	114.60
26	1H	256	A	N9-C4-C5	-6.29	103.29	105.80
26	1H	2245	U	OP1-P-O3'	6.29	119.03	105.20
1	1G	576	G	N3-C4-C5	-6.29	125.46	128.60
1	1G	1518	A	O5'-P-OP1	-6.29	100.04	105.70
26	1H	1893	C	N3-C4-N4	-6.28	113.60	118.00
26	1H	677	A	C8-N9-C4	-6.28	103.29	105.80
26	1H	2603	G	OP1-P-O3'	6.28	119.02	105.20
26	14	2331	G	C4-C5-N7	6.28	113.31	110.80
1	13	623	C	C5-C6-N1	6.28	124.14	121.00
26	1H	826	U	C2-N3-C4	-6.28	123.23	127.00
26	1H	2048	G	C5-C6-N1	-6.28	108.36	111.50
26	1H	2439	A	C2-N3-C4	-6.28	107.46	110.60
27	16	33	G	O5'-P-OP1	6.28	118.24	110.70
29	11	37	LEU	CB-CG-CD1	6.28	121.68	111.00
49	J8	82	LEU	CA-CB-CG	6.28	129.75	115.30
26	14	469	G	N1-C6-O6	6.28	123.67	119.90
26	14	2502	G	N3-C2-N2	6.28	124.30	119.90
26	1H	60	G	OP2-P-O3'	6.28	119.01	105.20
26	1H	2708	G	OP1-P-OP2	6.28	129.02	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	328	C	O5'-P-OP2	-6.28	100.05	105.70
26	14	774	A	C4-C5-N7	6.28	113.84	110.70
26	14	951	C	OP1-P-O3'	6.28	119.01	105.20
26	14	2066	C	O5'-P-OP2	6.28	118.23	110.70
26	1H	958	U	C6-N1-C2	-6.28	117.23	121.00
26	1H	1758	G	N1-C6-O6	6.28	123.67	119.90
26	1H	2076	U	O5'-P-OP2	-6.28	100.05	105.70
26	1H	2526	G	OP2-P-O3'	6.28	119.01	105.20
26	1H	2598	A	C8-N9-C4	6.28	108.31	105.80
26	1H	2609	U	C2-N3-C4	-6.28	123.23	127.00
1	1G	630	G	O4'-C1'-N9	6.28	113.22	108.20
26	14	2206	C	O5'-P-OP2	-6.28	100.05	105.70
26	1H	2067	G	N1-C6-O6	-6.27	116.14	119.90
26	1H	2466	C	C2-N3-C4	-6.27	116.76	119.90
26	1H	2708	G	N1-C2-N3	6.27	127.66	123.90
1	1G	264	U	C5-C4-O4	-6.27	122.14	125.90
1	13	219	C	C6-N1-C2	-6.27	117.79	120.30
1	13	901	A	N1-C6-N6	6.27	122.36	118.60
26	1H	686	G	C8-N9-C4	6.27	108.91	106.40
26	1H	1812	A	OP1-P-OP2	6.27	129.01	119.60
26	14	2364	C	N3-C2-O2	-6.27	117.51	121.90
26	14	447	A	O4'-C1'-N9	-6.27	103.18	108.20
26	1H	117	G	O5'-P-OP2	-6.27	100.06	105.70
26	1H	239	U	C5-C6-N1	-6.27	119.56	122.70
26	1H	246	C	C5-C6-N1	-6.27	117.86	121.00
26	1H	1223	C	N3-C4-N4	6.27	122.39	118.00
26	1H	2447	G	N9-C4-C5	6.27	107.91	105.40
26	14	197	A	C4-C5-N7	6.27	113.83	110.70
26	14	802	A	C5-C6-N1	6.27	120.83	117.70
26	14	2253	G	N9-C4-C5	-6.27	102.89	105.40
26	1H	1601	G	N1-C6-O6	-6.27	116.14	119.90
26	14	229	A	O4'-C1'-N9	6.27	113.21	108.20
26	14	1673	U	O5'-P-OP2	6.27	118.22	110.70
26	14	1613	G	N3-C2-N2	6.27	124.29	119.90
26	1H	802	A	OP2-P-O3'	6.26	118.98	105.20
26	1H	1269	A	C5-N7-C8	-6.26	100.77	103.90
23	2K	13	C	C2-N3-C4	6.26	123.03	119.90
1	1G	889	A	OP1-P-OP2	6.26	128.99	119.60
26	14	695	G	OP1-P-OP2	-6.26	110.20	119.60
26	1H	396	G	C5-C6-O6	-6.26	124.84	128.60
26	1H	975	G	O4'-C1'-N9	-6.26	103.19	108.20
26	1H	1953	A	C5-C6-N6	-6.26	118.69	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2591	C	N1-C2-N3	6.26	123.58	119.20
1	1G	15	G	N3-C4-N9	6.26	129.76	126.00
1	1G	111	G	O5'-P-OP2	-6.26	100.06	105.70
26	14	1955	U	N3-C4-O4	-6.26	115.02	119.40
26	1H	33	U	OP1-P-O3'	6.26	118.97	105.20
26	1H	428	A	OP1-P-O3'	6.26	118.97	105.20
26	1H	636	G	O5'-P-OP2	6.26	118.21	110.70
26	1H	908	C	O5'-P-OP1	6.26	118.21	110.70
26	14	1661	G	C8-N9-C4	6.26	108.90	106.40
26	14	1676	A	N7-C8-N9	-6.26	110.67	113.80
1	13	238	G	C8-N9-C4	6.26	108.90	106.40
1	13	564	C	N3-C4-C5	-6.26	119.40	121.90
26	1H	1270	C	C4-C5-C6	6.26	120.53	117.40
26	1H	1435	G	OP2-P-O3'	6.26	118.97	105.20
26	1H	1831	G	O5'-P-OP2	6.26	118.21	110.70
26	1H	2591	C	C5-C4-N4	-6.26	115.82	120.20
26	1H	2665	A	C6-C5-N7	-6.26	127.92	132.30
1	1G	1228	C	N1-C2-O2	6.26	122.65	118.90
26	14	307	G	C6-C5-N7	-6.26	126.65	130.40
26	14	837	C	O5'-P-OP1	-6.26	100.07	105.70
26	14	2211	G	C4-N9-C1'	6.26	134.63	126.50
26	1H	30	G	OP1-P-O3'	6.25	118.96	105.20
26	1H	972	G	C8-N9-C4	6.25	108.90	106.40
26	14	2821	A	C8-N9-C4	6.25	108.30	105.80
26	1H	1363	C	C5-C6-N1	-6.25	117.87	121.00
26	1H	1993	U	C5-C6-N1	-6.25	119.57	122.70
26	14	1022	G	C8-N9-C4	-6.25	103.90	106.40
26	14	2641	G	C8-N9-C4	6.25	108.90	106.40
26	14	2712	U	O4'-C1'-N1	6.25	113.20	108.20
26	1H	389	G	N1-C2-N2	-6.25	110.57	116.20
26	1H	484	C	N3-C2-O2	-6.25	117.52	121.90
26	1H	857	C	OP1-P-OP2	6.25	128.98	119.60
26	14	1574	C	C5-C4-N4	-6.25	115.82	120.20
26	14	1926	U	O5'-P-OP2	-6.25	100.07	105.70
4	3E	157	LEU	CA-CB-CG	6.25	129.67	115.30
26	1H	1325	G	N9-C4-C5	-6.25	102.90	105.40
26	1H	2256	G	C5-N7-C8	-6.25	101.18	104.30
26	1H	2618	G	C8-N9-C4	-6.25	103.90	106.40
26	14	681	G	C5-C6-O6	-6.25	124.85	128.60
26	14	1762	A	C5-N7-C8	-6.25	100.78	103.90
1	13	871	U	N3-C2-O2	-6.25	117.83	122.20
26	1H	805	G	O5'-P-OP2	6.25	118.20	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2070	G	N7-C8-N9	-6.25	109.98	113.10
26	1H	2419	U	O5'-P-OP2	6.25	118.19	110.70
26	14	967	C	O5'-P-OP2	-6.25	100.08	105.70
26	1H	1804	C	OP1-P-OP2	-6.25	110.23	119.60
26	14	2071	A	C8-N9-C4	-6.25	103.30	105.80
26	1H	1143	A	OP1-P-OP2	6.24	128.97	119.60
26	1H	1422	G	C8-N9-C4	-6.24	103.90	106.40
26	1H	2035	G	O4'-C1'-N9	6.24	113.20	108.20
1	1G	1286	A	N7-C8-N9	6.24	116.92	113.80
26	14	948	G	N1-C6-O6	6.24	123.65	119.90
26	14	1342	A	C6-C5-N7	-6.24	127.93	132.30
26	14	1817	G	N3-C2-N2	6.24	124.27	119.90
26	14	2335	A	C5-C6-N6	6.24	128.69	123.70
26	14	2374	C	C2-N3-C4	-6.24	116.78	119.90
26	14	2428	G	C8-N9-C4	-6.24	103.90	106.40
26	1H	2311	A	C4-C5-N7	6.24	113.82	110.70
1	13	583	A	O5'-P-OP1	-6.24	100.08	105.70
26	1H	1610	A	C4-C5-N7	6.24	113.82	110.70
26	1H	1786	A	N1-C2-N3	6.24	132.42	129.30
26	1H	2427	C	O5'-P-OP1	-6.24	100.08	105.70
1	13	520	A	C4-C5-C6	6.24	120.12	117.00
1	13	807	A	N9-C4-C5	6.24	108.30	105.80
26	14	915	C	N1-C2-O2	6.24	122.64	118.90
26	14	1950	G	N9-C4-C5	6.24	107.89	105.40
26	1H	77	C	OP1-P-OP2	-6.24	110.25	119.60
30	21	186	GLY	N-CA-C	6.24	128.69	113.10
26	14	50	U	C6-N1-C2	6.23	124.74	121.00
26	14	1786	A	C4-N9-C1'	6.23	137.52	126.30
26	14	1950	G	C4-C5-N7	6.23	113.29	110.80
1	13	52	G	N9-C4-C5	-6.23	102.91	105.40
26	1H	245	G	C4-N9-C1'	6.23	134.60	126.50
26	1H	825	C	C5-C6-N1	-6.23	117.88	121.00
26	1H	2555	U	N3-C2-O2	6.23	126.56	122.20
26	1H	2824	C	N3-C4-C5	6.23	124.39	121.90
26	14	485	C	C5-C4-N4	-6.23	115.84	120.20
27	1J	60	C	C5-C6-N1	6.23	124.12	121.00
1	13	703	G	N3-C4-N9	6.23	129.74	126.00
26	1H	2548	G	C5-C6-N1	6.23	114.61	111.50
26	14	828	U	C4-C5-C6	6.23	123.44	119.70
26	1H	1558	A	C6-C5-N7	-6.23	127.94	132.30
26	1H	2230	G	N1-C2-N2	6.23	121.81	116.20
26	14	668	G	N7-C8-N9	-6.23	109.99	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	894	G	C4-N9-C1'	-6.23	118.40	126.50
26	1H	783	A	C5-C6-N6	-6.23	118.72	123.70
26	1H	815	C	O5'-P-OP1	6.23	118.17	110.70
26	1H	942	G	C4-C5-C6	-6.23	115.06	118.80
26	1H	2600	A	N3-C4-C5	-6.23	122.44	126.80
36	68	8	LEU	CA-CB-CG	6.23	129.62	115.30
26	14	801	G	N3-C4-N9	-6.23	122.26	126.00
26	14	939	G	N3-C2-N2	-6.23	115.54	119.90
26	14	2346	A	C6-C5-N7	-6.23	127.94	132.30
26	14	2424	C	OP1-P-OP2	6.23	128.94	119.60
26	1H	121	G	C4-C5-N7	6.23	113.29	110.80
26	1H	1184	G	N3-C2-N2	-6.22	115.54	119.90
26	14	24	G	C2-N3-C4	-6.22	108.79	111.90
26	14	826	U	C6-N1-C2	-6.22	117.27	121.00
26	14	1209	G	OP1-P-OP2	6.22	128.94	119.60
26	1H	663	G	C4-N9-C1'	6.22	134.59	126.50
26	1H	1929	G	O5'-P-OP2	-6.22	100.10	105.70
26	1H	1968	G	N3-C4-C5	-6.22	125.49	128.60
26	14	1408	C	O5'-P-OP1	-6.22	100.10	105.70
26	14	2049	G	C5-N7-C8	-6.22	101.19	104.30
1	13	741	G	OP1-P-OP2	6.22	128.93	119.60
26	1H	121	G	N9-C4-C5	-6.22	102.91	105.40
26	1H	2829	C	N3-C2-O2	6.22	126.25	121.90
1	1G	315	A	N1-C6-N6	6.22	122.33	118.60
1	13	1289	A	O5'-P-OP2	-6.22	100.10	105.70
26	1H	2503	A	N3-C4-N9	6.22	132.38	127.40
26	14	84	A	C8-N9-C4	6.22	108.29	105.80
26	14	735	A	OP1-P-O3'	6.22	118.88	105.20
26	14	1618	A	O5'-P-OP2	6.22	118.16	110.70
26	14	2370	G	C5-C6-N1	6.22	114.61	111.50
26	14	2575	C	C5-C4-N4	6.22	124.55	120.20
26	1H	1607	C	C6-N1-C1'	-6.22	113.34	120.80
26	1H	810	U	N3-C4-C5	-6.22	110.87	114.60
26	1H	2020	A	N9-C4-C5	-6.22	103.31	105.80
1	13	52	G	N3-C4-N9	6.21	129.73	126.00
26	1H	133	C	OP1-P-O3'	-6.21	91.53	105.20
26	1H	470	A	C4-C5-N7	6.21	113.81	110.70
26	1H	508	G	C5-N7-C8	-6.21	101.19	104.30
26	1H	1246	A	OP1-P-OP2	6.21	128.92	119.60
26	14	1475	G	C8-N9-C4	-6.21	103.92	106.40
1	13	51	A	OP1-P-OP2	-6.21	110.28	119.60
1	13	853	G	O5'-P-OP2	-6.21	100.11	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1346	G	N1-C6-O6	-6.21	116.17	119.90
26	1H	2578	G	N1-C6-O6	-6.21	116.17	119.90
1	1G	1190	G	C4-C5-N7	-6.21	108.31	110.80
26	14	939	G	C5-C6-O6	-6.21	124.87	128.60
26	14	2415	G	N3-C2-N2	-6.21	115.55	119.90
1	13	975	A	C4-C5-N7	6.21	113.81	110.70
26	1H	309	G	C5-C6-O6	6.21	132.33	128.60
26	1H	2578	G	C5-C6-N1	6.21	114.61	111.50
26	14	783	A	N9-C1'-C2'	-6.21	105.17	112.00
1	13	525	C	C5-C6-N1	6.21	124.11	121.00
1	13	1409	C	N3-C4-C5	6.21	124.38	121.90
26	1H	376	C	N3-C2-O2	-6.21	117.55	121.90
26	1H	664	C	C5-C6-N1	-6.21	117.89	121.00
26	1H	1920	C	C5-C4-N4	6.21	124.55	120.20
26	1H	2257	U	C5-C6-N1	-6.21	119.60	122.70
26	14	1562	A	N9-C4-C5	-6.21	103.32	105.80
1	1G	197	A	N7-C8-N9	6.21	116.90	113.80
25	4L	24	A	C8-N9-C4	-6.21	103.32	105.80
26	14	2447	G	C8-N9-C1'	6.21	135.07	127.00
26	14	980	A	N1-C2-N3	6.21	132.40	129.30
26	1H	663	G	C8-N9-C4	-6.20	103.92	106.40
26	1H	1673	U	C6-N1-C2	6.20	124.72	121.00
26	14	252	G	N1-C6-O6	-6.20	116.18	119.90
26	14	1021	A	N7-C8-N9	6.20	116.90	113.80
26	1H	144	C	N3-C2-O2	-6.20	117.56	121.90
26	1H	1525	G	O5'-P-OP2	-6.20	100.12	105.70
27	1J	84	C	C2-N1-C1'	-6.20	111.98	118.80
41	B8	1	MET	C-N-CA	6.20	137.20	121.70
26	14	750	A	N7-C8-N9	6.20	116.90	113.80
26	14	933	A	C6-C5-N7	-6.20	127.96	132.30
26	14	1351	C	C5-C6-N1	-6.20	117.90	121.00
26	14	1616	A	N1-C2-N3	6.20	132.40	129.30
26	14	2821	A	C2-N3-C4	-6.20	107.50	110.60
1	13	883	C	OP2-P-O3'	6.20	118.83	105.20
23	2K	60	A	OP1-P-OP2	6.20	128.90	119.60
26	1H	270(L)	U	C5-C6-N1	6.20	125.80	122.70
26	1H	599	G	N3-C4-N9	6.20	129.72	126.00
26	1H	917	A	C5-N7-C8	-6.20	100.80	103.90
26	1H	954	G	N1-C2-N2	6.20	121.78	116.20
26	1H	2238	G	OP1-P-OP2	6.20	128.90	119.60
26	1H	2524	G	C5-N7-C8	6.20	107.40	104.30
27	16	99	A	OP1-P-OP2	6.20	128.90	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2352	A	O5'-P-OP1	-6.20	100.12	105.70
26	1H	971	C	C6-N1-C2	-6.20	117.82	120.30
26	1H	1204	A	C4-N9-C1'	6.20	137.45	126.30
26	1H	2286	A	C4-C5-C6	6.20	120.10	117.00
26	14	2445	G	N1-C6-O6	-6.20	116.18	119.90
27	1J	55	U	O5'-P-OP1	-6.20	100.12	105.70
26	1H	1693	U	N3-C2-O2	-6.20	117.86	122.20
26	14	134	C	N3-C4-C5	6.20	124.38	121.90
26	14	141	A	N3-C4-C5	6.20	131.14	126.80
26	14	974(A)	C	C6-N1-C1'	-6.20	113.36	120.80
26	14	1900	A	N7-C8-N9	6.20	116.90	113.80
26	1H	452	G	C6-C5-N7	6.19	134.12	130.40
26	1H	2036	C	N3-C4-C5	-6.19	119.42	121.90
1	13	346	G	C8-N9-C4	-6.19	103.92	106.40
26	1H	831	G	N9-C4-C5	-6.19	102.92	105.40
26	1H	848	G	N1-C2-N2	-6.19	110.63	116.20
26	1H	1623	G	C4-C5-N7	-6.19	108.32	110.80
26	1H	2072	G	N3-C4-N9	6.19	129.72	126.00
26	1H	2579	C	C5-C6-N1	-6.19	117.90	121.00
1	1G	1501	C	C6-N1-C2	6.19	122.78	120.30
26	1H	663	G	C4-C5-C6	6.19	122.51	118.80
26	1H	2070	G	N1-C2-N2	-6.19	110.63	116.20
27	16	6	C	C2-N3-C4	-6.19	116.81	119.90
26	14	201	C	N1-C2-O2	-6.19	115.19	118.90
26	14	1164	G	O5'-P-OP2	-6.19	100.13	105.70
26	14	2392	A	O5'-P-OP1	-6.19	100.13	105.70
26	1H	116	C	OP2-P-O3'	6.19	118.82	105.20
26	1H	1344	G	N3-C2-N2	-6.19	115.57	119.90
26	1H	2244	U	N1-C2-N3	6.19	118.61	114.90
26	1H	2354	G	OP1-P-O3'	6.19	118.81	105.20
26	1H	125	G	N1-C6-O6	6.19	123.61	119.90
26	1H	562	U	N1-C2-N3	6.19	118.61	114.90
26	1H	2074	U	C2-N3-C4	-6.19	123.29	127.00
27	16	115	G	N1-C2-N2	-6.19	110.63	116.20
26	14	102	G	O4'-C1'-N9	6.19	113.15	108.20
26	14	864	G	N3-C4-C5	-6.19	125.51	128.60
26	1H	917	A	N3-C4-C5	6.19	131.13	126.80
26	14	2073	C	N3-C2-O2	6.19	126.23	121.90
26	1H	828	U	N3-C2-O2	-6.18	117.87	122.20
26	1H	1363	C	O5'-P-OP2	-6.18	100.13	105.70
26	1H	1572	A	N1-C6-N6	6.18	122.31	118.60
26	1H	2297	C	N3-C2-O2	-6.18	117.57	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	870	U	N1-C2-O2	6.18	127.13	122.80
26	14	729	G	N1-C6-O6	6.18	123.61	119.90
1	13	703	G	C6-C5-N7	-6.18	126.69	130.40
26	1H	1027	A	N1-C2-N3	6.18	132.39	129.30
26	1H	1396	U	C4-C5-C6	6.18	123.41	119.70
26	14	2373	G	OP1-P-OP2	6.18	128.87	119.60
26	14	2456	C	N3-C4-N4	6.18	122.33	118.00
26	14	1676	A	C8-N9-C4	6.18	108.27	105.80
26	1H	869	G	N1-C2-N3	6.18	127.61	123.90
26	1H	1787	A	N1-C2-N3	6.18	132.39	129.30
26	1H	1958	C	N3-C4-C5	-6.18	119.43	121.90
26	1H	2579	C	C4-C5-C6	6.18	120.49	117.40
26	1H	1790	C	N3-C4-N4	-6.18	113.68	118.00
26	1H	102	G	OP1-P-O3'	6.17	118.78	105.20
26	1H	528	A	O4'-C1'-N9	-6.17	103.26	108.20
26	1H	977	G	N3-C4-N9	-6.17	122.30	126.00
26	1H	2388	A	O4'-C1'-N9	6.17	113.14	108.20
27	16	52	A	O5'-P-OP2	-6.17	100.14	105.70
1	1G	924	C	OP1-P-OP2	6.17	128.86	119.60
26	14	1279	G	C5-C6-N1	6.17	114.59	111.50
34	69	102	SER	N-CA-C	-6.17	94.33	111.00
1	13	1335	C	C2-N1-C1'	-6.17	112.01	118.80
26	1H	238	C	C6-N1-C2	6.17	122.77	120.30
26	1H	2568	C	OP2-P-O3'	6.17	118.78	105.20
26	14	210	C	C5-C6-N1	-6.17	117.91	121.00
1	13	108	G	C5-C6-O6	-6.17	124.90	128.60
26	1H	180	G	C5-C6-N1	6.17	114.59	111.50
26	1H	791	C	P-O3'-C3'	6.17	127.11	119.70
26	1H	1931	U	C5-C6-N1	-6.17	119.61	122.70
26	14	995	C	C5-C4-N4	6.17	124.52	120.20
26	14	1783	A	N3-C4-N9	-6.17	122.46	127.40
26	1H	1757	U	C5-C6-N1	-6.17	119.61	122.70
26	1H	2517	C	C2-N3-C4	-6.17	116.81	119.90
26	1H	2726	U	C5-C4-O4	6.17	129.60	125.90
26	1H	1271	G	N3-C4-N9	6.17	129.70	126.00
26	1H	1384	A	OP1-P-OP2	6.17	128.85	119.60
26	14	2358	G	N3-C2-N2	-6.17	115.58	119.90
1	13	277	C	OP2-P-O3'	6.17	118.77	105.20
1	13	582	U	N3-C4-C5	6.17	118.30	114.60
26	1H	411	G	OP1-P-OP2	6.17	128.85	119.60
26	1H	2271	G	N9-C4-C5	-6.17	102.93	105.40
26	14	974	G	C8-N9-C4	-6.17	103.93	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	747	U	C5-C6-N1	6.17	125.78	122.70
26	1H	793	A	C6-N1-C2	-6.17	114.90	118.60
26	1H	835	A	OP2-P-O3'	6.16	118.76	105.20
26	1H	847	U	OP1-P-OP2	6.16	128.84	119.60
1	1G	790	A	C2-N3-C4	-6.16	107.52	110.60
26	14	148	C	C5-C4-N4	-6.16	115.89	120.20
26	14	1617	C	N3-C4-C5	-6.16	119.44	121.90
26	14	1842	G	N1-C6-O6	-6.16	116.20	119.90
1	13	266	G	C5-C6-O6	-6.16	124.90	128.60
26	1H	690	G	N7-C8-N9	-6.16	110.02	113.10
26	1H	245	G	C4-C5-N7	6.16	113.26	110.80
26	1H	599	G	N3-C2-N2	6.16	124.21	119.90
26	1H	1192	G	N1-C2-N2	-6.16	110.66	116.20
26	1H	1210	A	N3-C4-C5	6.16	131.11	126.80
26	14	446	G	N1-C6-O6	6.16	123.60	119.90
26	14	744	G	OP1-P-OP2	6.16	128.84	119.60
26	14	1633	G	C5-C6-O6	-6.16	124.90	128.60
26	1H	245	G	O5'-P-OP1	-6.16	100.16	105.70
26	1H	1768	U	C4-C5-C6	-6.16	116.00	119.70
26	1H	2387	U	C2-N3-C4	-6.16	123.31	127.00
26	14	1963	U	N1-C2-O2	6.16	127.11	122.80
26	14	2520	C	C5-C6-N1	-6.16	117.92	121.00
27	16	8	U	N3-C4-O4	-6.16	115.09	119.40
25	4L	23	A	P-O3'-C3'	6.16	127.09	119.70
1	13	1488	G	C6-C5-N7	-6.16	126.71	130.40
26	1H	124	G	C2-N3-C4	-6.16	108.82	111.90
26	1H	838	C	C2-N3-C4	-6.16	116.82	119.90
26	1H	1980	G	N3-C2-N2	-6.16	115.59	119.90
26	1H	2250	G	O5'-P-OP2	-6.16	100.16	105.70
1	1G	1529	G	N3-C4-C5	-6.16	125.52	128.60
26	14	1612	C	C5-C4-N4	-6.16	115.89	120.20
1	13	890	G	O4'-C1'-N9	6.15	113.12	108.20
23	2K	24	C	C2-N3-C4	-6.15	116.82	119.90
26	14	399	G	C8-N9-C4	6.15	108.86	106.40
26	14	1552	G	N1-C2-N2	6.15	121.74	116.20
26	14	2076	U	C5-C4-O4	6.15	129.59	125.90
26	1H	618(A)	C	C5-C4-N4	-6.15	115.89	120.20
26	1H	783	A	O5'-P-OP2	-6.15	100.16	105.70
26	1H	859	G	C5-C6-O6	-6.15	124.91	128.60
26	1H	1471	A	O5'-P-OP1	-6.15	100.17	105.70
26	1H	1600	C	OP1-P-OP2	-6.15	110.37	119.60
1	1G	1441	G	O5'-P-OP1	-6.15	100.17	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	330	A	N9-C4-C5	-6.15	103.34	105.80
26	14	1798	U	O5'-P-OP2	-6.15	100.17	105.70
26	1H	67	U	OP1-P-OP2	-6.15	110.38	119.60
26	1H	919	G	N3-C2-N2	-6.15	115.60	119.90
26	14	2506	U	O4'-C1'-N1	6.15	113.12	108.20
26	14	2707	G	C5-C6-N1	6.15	114.58	111.50
1	13	778	G	O5'-P-OP2	-6.15	100.17	105.70
1	13	1329	A	N1-C6-N6	6.15	122.29	118.60
26	1H	686	G	N9-C4-C5	-6.15	102.94	105.40
26	1H	695	G	O5'-P-OP2	6.15	118.08	110.70
26	1H	1644	C	C2-N1-C1'	6.15	125.56	118.80
26	1H	2211	G	OP1-P-O3'	6.15	118.72	105.20
27	16	6	C	C5-C6-N1	-6.15	117.93	121.00
26	14	1419	A	O5'-P-OP1	-6.15	100.17	105.70
26	14	2032	G	N7-C8-N9	-6.15	110.03	113.10
26	14	2599	G	OP2-P-O3'	6.15	118.72	105.20
26	1H	662	G	C4-C5-N7	-6.15	108.34	110.80
26	1H	726	G	C8-N9-C4	6.15	108.86	106.40
26	1H	2726	U	C4-C5-C6	6.15	123.39	119.70
27	16	58	A	OP2-P-O3'	6.15	118.72	105.20
26	14	1824	G	C8-N9-C4	-6.15	103.94	106.40
1	13	525	C	N3-C4-N4	6.14	122.30	118.00
1	13	888	G	N1-C6-O6	6.14	123.59	119.90
26	1H	1198	U	N3-C4-O4	-6.14	115.10	119.40
26	1H	1616	A	N3-C4-C5	6.14	131.10	126.80
26	1H	2036	C	C6-N1-C2	-6.14	117.84	120.30
26	14	197	A	C5-C6-N1	6.14	120.77	117.70
26	14	2378	A	N9-C4-C5	-6.14	103.34	105.80
26	14	2613	U	C2-N3-C4	-6.14	123.31	127.00
26	1H	49	A	N9-C4-C5	-6.14	103.34	105.80
26	1H	321	G	C8-N9-C1'	-6.14	119.02	127.00
26	1H	1246	A	C6-N1-C2	-6.14	114.92	118.60
26	1H	1382	G	C8-N9-C4	6.14	108.86	106.40
26	1H	1597	A	C5-N7-C8	6.14	106.97	103.90
26	14	200	U	N3-C2-O2	-6.14	117.90	122.20
26	14	747	U	C6-N1-C2	6.14	124.69	121.00
26	14	783	A	C4-C5-C6	6.14	120.07	117.00
26	1H	129	C	C4-C5-C6	6.14	120.47	117.40
31	31	95	ARG	NE-CZ-NH1	-6.14	117.23	120.30
1	1G	545	C	O5'-P-OP2	-6.14	100.17	105.70
26	1H	335	C	C5-C6-N1	6.14	124.07	121.00
26	1H	680	G	C5-C6-O6	-6.14	124.92	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	683	C	N3-C4-N4	6.14	122.30	118.00
26	14	199	A	N9-C4-C5	6.14	108.26	105.80
26	14	1309	G	O5'-P-OP1	6.14	118.07	110.70
26	14	1950	G	N1-C2-N2	6.14	121.73	116.20
26	14	2068	U	OP2-P-O3'	-6.14	91.69	105.20
26	1H	1925	C	N1-C2-O2	-6.14	115.22	118.90
39	98	9	LYS	N-CA-C	-6.14	94.43	111.00
26	14	531	C	C6-N1-C2	6.14	122.75	120.30
26	14	1378	A	C6-N1-C2	6.14	122.28	118.60
26	14	2430	A	C8-N9-C1'	6.14	138.75	127.70
1	13	906	G	C5-C6-O6	-6.14	124.92	128.60
1	13	1065	U	P-O3'-C3'	6.14	127.06	119.70
26	1H	1204	A	N7-C8-N9	6.14	116.87	113.80
26	1H	1817	G	N1-C2-N2	-6.14	110.68	116.20
26	1H	2013	A	O5'-P-OP1	6.14	118.06	110.70
26	14	918	A	O5'-P-OP2	6.14	118.06	110.70
26	14	1145	C	C6-N1-C2	-6.14	117.84	120.30
1	13	943	U	N3-C2-O2	6.13	126.49	122.20
1	13	968	A	C5-C6-N6	-6.13	118.79	123.70
26	1H	705	A	C4-C5-N7	6.13	113.77	110.70
26	1H	1030	G	N1-C6-O6	-6.13	116.22	119.90
26	1H	2436	G	C2-N3-C4	6.13	114.97	111.90
1	1G	953	G	N1-C6-O6	-6.13	116.22	119.90
26	14	1384	A	N9-C4-C5	6.13	108.25	105.80
1	13	1201	A	N1-C6-N6	6.13	122.28	118.60
26	1H	179	G	N7-C8-N9	-6.13	110.03	113.10
26	1H	1417	C	C4-C5-C6	6.13	120.47	117.40
27	16	7	G	C4-C5-N7	6.13	113.25	110.80
49	F5	36	GLY	N-CA-C	6.13	128.43	113.10
26	1H	534	U	OP2-P-O3'	6.13	118.69	105.20
26	1H	1639	U	O5'-P-OP1	6.13	118.06	110.70
23	2L	21	U	C6-N1-C2	-6.13	117.32	121.00
1	13	857	C	N3-C4-C5	-6.13	119.45	121.90
1	13	1504	G	N1-C6-O6	6.13	123.58	119.90
26	1H	1698	A	C6-C5-N7	-6.13	128.01	132.30
26	1H	2304	G	OP1-P-O3'	6.13	118.68	105.20
26	1H	2690	C	C5-C6-N1	-6.13	117.94	121.00
43	D8	49	THR	C-N-CD	6.13	141.27	128.40
26	14	416	C	N3-C4-C5	6.13	124.35	121.90
1	13	1052	U	N1-C2-O2	6.13	127.09	122.80
26	1H	515	A	O4'-C1'-N9	6.13	113.10	108.20
26	1H	1567	A	OP1-P-O3'	6.13	118.68	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2011	U	O5'-P-OP2	6.13	118.05	110.70
42	C8	92	ARG	NE-CZ-NH1	6.13	123.36	120.30
26	14	141(A)	C	OP2-P-O3'	6.13	118.68	105.20
26	14	2377	A	N3-C4-C5	6.13	131.09	126.80
26	14	2382	G	C6-C5-N7	-6.13	126.72	130.40
26	1H	2530	A	N1-C6-N6	6.12	122.28	118.60
26	14	2328	A	C6-C5-N7	-6.12	128.01	132.30
26	1H	846	C	OP2-P-O3'	-6.12	91.73	105.20
26	1H	947	G	N1-C6-O6	-6.12	116.23	119.90
26	1H	1818	U	C4-C5-C6	-6.12	116.03	119.70
26	1H	1904	G	OP2-P-O3'	6.12	118.67	105.20
26	14	703	U	C6-N1-C2	-6.12	117.33	121.00
26	14	1248	G	OP1-P-OP2	-6.12	110.41	119.60
26	14	2301	C	C5-C6-N1	6.12	124.06	121.00
26	14	2430	A	OP1-P-OP2	-6.12	110.42	119.60
26	14	2713	A	OP1-P-OP2	6.12	128.78	119.60
1	13	264	U	N3-C4-O4	6.12	123.69	119.40
1	13	970	C	OP2-P-O3'	6.12	118.67	105.20
26	1H	681	G	N7-C8-N9	-6.12	110.04	113.10
26	14	307	G	C4-C5-C6	6.12	122.47	118.80
26	14	1277	G	OP1-P-OP2	6.12	128.78	119.60
26	1H	1348	G	O5'-P-OP2	6.12	118.04	110.70
26	1H	2060	A	C4-C5-C6	-6.12	113.94	117.00
27	16	19	G	N3-C4-C5	6.12	131.66	128.60
27	16	105	G	N3-C4-N9	6.12	129.67	126.00
26	14	624	C	N1-C2-O2	-6.12	115.23	118.90
26	14	2581	G	N3-C2-N2	6.12	124.18	119.90
26	1H	103	A	N7-C8-N9	-6.12	110.74	113.80
26	1H	1369	G	N3-C4-N9	6.12	129.67	126.00
26	14	1902	C	O5'-P-OP2	6.12	118.04	110.70
26	1H	1776	G	C6-C5-N7	-6.12	126.73	130.40
26	1H	1799	G	P-O3'-C3'	6.12	127.04	119.70
26	14	871	U	OP1-P-O3'	6.12	118.66	105.20
1	13	510	A	C8-N9-C4	-6.12	103.35	105.80
1	13	548	G	O5'-P-OP2	-6.12	100.20	105.70
26	1H	178	G	C8-N9-C4	6.12	108.85	106.40
26	1H	734	A	C5-C6-N6	6.12	128.59	123.70
26	1H	990	A	N7-C8-N9	6.12	116.86	113.80
26	1H	1326	U	N1-C2-O2	6.12	127.08	122.80
26	1H	1398	C	OP2-P-O3'	6.12	118.65	105.20
1	1G	320	C	C6-N1-C2	6.12	122.75	120.30
1	13	47	C	C4-C5-C6	6.11	120.46	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2286	A	N7-C8-N9	6.11	116.86	113.80
27	16	44	G	N9-C4-C5	6.11	107.85	105.40
26	14	144	C	C2-N3-C4	-6.11	116.84	119.90
26	14	864	G	OP1-P-OP2	-6.11	110.43	119.60
26	14	916	G	O5'-P-OP2	6.11	118.04	110.70
27	1J	27	C	C2-N3-C4	6.11	122.96	119.90
1	13	668	G	O5'-P-OP1	-6.11	100.20	105.70
26	1H	972	G	O5'-P-OP1	6.11	118.03	110.70
26	1H	2064	C	C5-C4-N4	6.11	124.48	120.20
1	1G	532	A	O4'-C1'-N9	6.11	113.09	108.20
1	13	566	G	N3-C4-N9	6.11	129.67	126.00
26	1H	116	C	N3-C2-O2	6.11	126.18	121.90
26	1H	197	A	C2-N3-C4	-6.11	107.55	110.60
26	1H	2447	G	N1-C2-N2	6.11	121.70	116.20
26	1H	2596	U	C2-N3-C4	-6.11	123.33	127.00
27	16	44	G	N1-C6-O6	-6.11	116.23	119.90
26	14	2005	A	N7-C8-N9	-6.11	110.75	113.80
26	1H	1466	G	OP2-P-O3'	6.11	118.64	105.20
26	14	704	G	C5-C6-O6	-6.11	124.93	128.60
1	13	1487	G	C5-C6-O6	6.11	132.26	128.60
26	1H	2316	C	O5'-P-OP2	6.11	118.03	110.70
27	1J	22	U	C6-N1-C2	-6.11	117.33	121.00
26	1H	1337	G	OP1-P-O3'	6.11	118.63	105.20
26	1H	1369	G	C5-N7-C8	6.11	107.35	104.30
26	1H	1401	G	N9-C4-C5	6.11	107.84	105.40
26	1H	1817	G	C5-C6-O6	6.11	132.26	128.60
26	1H	2426	A	N9-C4-C5	-6.11	103.36	105.80
1	1G	355	C	N3-C4-N4	-6.11	113.73	118.00
26	14	115	C	O5'-P-OP1	-6.11	100.21	105.70
26	14	1011	G	C8-N9-C4	6.11	108.84	106.40
26	14	2726	U	N1-C2-O2	6.11	127.07	122.80
26	1H	1624	G	N3-C2-N2	6.10	124.17	119.90
26	1H	2402	C	N1-C2-O2	6.10	122.56	118.90
26	1H	2746	U	OP2-P-O3'	6.10	118.63	105.20
26	1H	2763	G	C8-N9-C4	6.10	108.84	106.40
27	16	47	C	N3-C4-C5	6.10	124.34	121.90
26	14	1678	G	N1-C6-O6	6.10	123.56	119.90
26	14	2777	G	C6-C5-N7	-6.10	126.74	130.40
26	1H	104	U	C5-C6-N1	-6.10	119.65	122.70
26	1H	2525	G	N9-C4-C5	-6.10	102.96	105.40
26	14	866	A	C8-N9-C1'	-6.10	116.72	127.70
26	14	988	A	O5'-P-OP1	-6.10	100.21	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1011	G	N7-C8-N9	-6.10	110.05	113.10
4	3E	11	LEU	CA-CB-CG	6.10	129.33	115.30
1	1G	1432	G	C6-C5-N7	-6.10	126.74	130.40
33	59	171	LEU	N-CA-C	6.10	127.47	111.00
1	13	346	G	C4-C5-N7	6.10	113.24	110.80
1	13	1455	G	N3-C4-C5	6.10	131.65	128.60
26	1H	1771	C	C2-N3-C4	-6.10	116.85	119.90
26	1H	2822	G	C4-C5-N7	6.10	113.24	110.80
26	14	1409	C	OP1-P-OP2	6.10	128.75	119.60
26	14	1548	C	OP1-P-O3'	6.10	118.62	105.20
26	14	2594	C	N3-C4-N4	6.10	122.27	118.00
26	14	481	G	O4'-C1'-N9	6.10	113.08	108.20
26	14	922	U	OP1-P-O3'	6.10	118.61	105.20
26	14	1691	C	O5'-P-OP1	-6.10	100.21	105.70
26	1H	701	G	N3-C2-N2	-6.10	115.63	119.90
26	1H	996	A	C8-N9-C4	6.10	108.24	105.80
26	1H	1022	G	N3-C2-N2	-6.10	115.63	119.90
26	1H	1998	G	N7-C8-N9	-6.10	110.05	113.10
26	1H	242	G	N9-C4-C5	6.09	107.84	105.40
26	1H	308	G	C4-N9-C1'	6.09	134.42	126.50
26	1H	389	G	C8-N9-C4	6.09	108.84	106.40
26	1H	1622	G	N3-C2-N2	-6.09	115.63	119.90
26	1H	2638	G	C6-C5-N7	-6.09	126.74	130.40
26	14	465	G	OP1-P-OP2	-6.09	110.46	119.60
26	14	2731	G	C6-C5-N7	-6.09	126.74	130.40
26	1H	1166	C	O5'-P-OP2	6.09	118.01	110.70
26	1H	1259	G	OP1-P-OP2	-6.09	110.46	119.60
26	1H	1769	G	O5'-P-OP2	-6.09	100.22	105.70
26	1H	2296	U	N3-C4-O4	6.09	123.67	119.40
26	14	646	A	C8-N9-C4	-6.09	103.36	105.80
26	14	1972	A	OP2-P-O3'	6.09	118.60	105.20
26	14	666	G	C2-N3-C4	-6.09	108.85	111.90
26	14	1606	G	C5-C6-N1	6.09	114.55	111.50
26	14	1625	C	C5-C4-N4	6.09	124.46	120.20
1	13	1468	A	C5-C6-N1	6.09	120.75	117.70
24	3K	35	U	C5-C6-N1	6.09	125.75	122.70
26	1H	423	A	C8-N9-C4	6.09	108.24	105.80
26	1H	1936	A	N1-C6-N6	6.09	122.25	118.60
26	1H	2445	G	C5-C6-O6	6.09	132.25	128.60
26	14	552	G	C8-N9-C4	6.09	108.84	106.40
26	14	1138	G	C6-C5-N7	-6.09	126.75	130.40
1	13	903	G	N3-C4-C5	-6.09	125.56	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1519	A	C5-C6-N6	6.09	128.57	123.70
26	1H	532	A	N1-C2-N3	6.09	132.34	129.30
26	1H	688	U	O5'-P-OP1	-6.09	100.22	105.70
26	1H	1231	G	C5-C6-O6	-6.09	124.95	128.60
26	1H	2318	G	C6-C5-N7	-6.09	126.75	130.40
26	1H	2430	A	C4-C5-C6	-6.09	113.96	117.00
26	1H	2574	G	C5-C6-O6	-6.09	124.95	128.60
26	14	139	G	C4-C5-N7	-6.09	108.36	110.80
26	14	310	A	O5'-P-OP1	-6.09	100.22	105.70
26	14	1241	A	C5-N7-C8	-6.09	100.86	103.90
26	14	2057	A	C5-C6-N6	-6.09	118.83	123.70
1	13	802	A	C5-N7-C8	-6.09	100.86	103.90
1	13	1260	C	C6-N1-C2	-6.09	117.86	120.30
26	1H	396	G	N1-C6-O6	6.09	123.55	119.90
26	1H	2689	U	N3-C4-C5	6.09	118.25	114.60
27	16	108	C	C4-C5-C6	6.09	120.44	117.40
26	14	134	C	C6-N1-C2	6.09	122.73	120.30
26	14	574	C	C5-C6-N1	-6.09	117.96	121.00
1	13	538	G	N3-C4-N9	6.08	129.65	126.00
26	1H	1954	G	C5-C6-N1	-6.08	108.46	111.50
26	14	306	U	N1-C2-O2	-6.08	118.54	122.80
26	14	462	C	O5'-P-OP2	-6.08	100.22	105.70
26	14	809	G	O5'-P-OP2	-6.08	100.23	105.70
26	14	1272	A	O5'-P-OP2	-6.08	100.22	105.70
26	14	1824	G	N9-C4-C5	6.08	107.83	105.40
26	14	2282	G	N3-C2-N2	-6.08	115.64	119.90
26	1H	834	C	N1-C2-O2	-6.08	115.25	118.90
26	1H	1604	C	N3-C2-O2	6.08	126.16	121.90
26	1H	1767	C	N3-C4-N4	-6.08	113.74	118.00
26	1H	2461	C	C2-N3-C4	-6.08	116.86	119.90
26	1H	2516	G	O5'-P-OP2	-6.08	100.23	105.70
4	32	135	LEU	CA-CB-CG	6.08	129.29	115.30
26	14	1725	G	C4-N9-C1'	6.08	134.41	126.50
26	14	1789	A	O5'-P-OP2	-6.08	100.23	105.70
26	14	2375	G	N7-C8-N9	-6.08	110.06	113.10
1	13	248	C	O5'-P-OP1	-6.08	100.23	105.70
26	1H	1899	G	OP2-P-O3'	6.08	118.58	105.20
26	14	2331	G	N9-C4-C5	-6.08	102.97	105.40
26	14	2585	U	N3-C4-C5	6.08	118.25	114.60
26	1H	684	G	C8-N9-C4	-6.08	103.97	106.40
26	1H	869	G	N3-C4-C5	-6.08	125.56	128.60
26	1H	1597	A	C2-N3-C4	-6.08	107.56	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1824	G	O5'-P-OP2	-6.08	100.23	105.70
26	1H	1932	A	N9-C4-C5	-6.08	103.37	105.80
27	16	12	C	N3-C2-O2	-6.08	117.64	121.90
26	14	2822	G	C8-N9-C1'	-6.08	119.10	127.00
26	14	762	U	N1-C2-O2	6.08	127.05	122.80
26	14	2870	C	C6-N1-C2	-6.08	117.87	120.30
26	1H	528	A	N1-C6-N6	6.08	122.25	118.60
26	1H	930	U	N3-C2-O2	-6.08	117.95	122.20
26	1H	1684	C	OP1-P-O3'	6.08	118.56	105.20
27	16	98	G	OP1-P-OP2	6.08	128.71	119.60
26	14	2278	A	N9-C4-C5	6.08	108.23	105.80
26	14	2523	G	N9-C4-C5	-6.08	102.97	105.40
1	13	1523	G	C5-C6-N1	6.07	114.54	111.50
26	14	1642	G	OP2-P-O3'	6.07	118.56	105.20
26	14	1646	C	OP1-P-O3'	6.07	118.56	105.20
26	1H	109	G	C4-C5-N7	-6.07	108.37	110.80
26	14	1950	G	O4'-C1'-N9	6.07	113.06	108.20
26	14	2584	U	N3-C2-O2	-6.07	117.95	122.20
1	13	1502	A	OP1-P-OP2	6.07	128.71	119.60
26	1H	840	C	C5-C6-N1	-6.07	117.96	121.00
26	1H	1360	A	N1-C6-N6	6.07	122.24	118.60
26	1H	1591	G	N1-C6-O6	-6.07	116.26	119.90
26	1H	1920	C	C2-N3-C4	6.07	122.94	119.90
26	1H	2518	A	N7-C8-N9	6.07	116.84	113.80
26	1H	122	G	C5-C6-O6	-6.07	124.96	128.60
26	1H	1764	G	C4-C5-N7	-6.07	108.37	110.80
26	1H	2303	G	OP1-P-O3'	6.07	118.55	105.20
27	16	80	U	C5-C4-O4	6.07	129.54	125.90
26	1H	179	G	C4-C5-C6	6.07	122.44	118.80
26	1H	1634	A	C4-C5-C6	6.07	120.03	117.00
26	1H	1969	A	OP1-P-O3'	6.07	118.55	105.20
26	14	1964	G	N3-C2-N2	6.07	124.15	119.90
26	1H	197	A	C5-N7-C8	-6.07	100.87	103.90
26	1H	1241	A	N7-C8-N9	6.07	116.83	113.80
26	1H	1487	G	OP1-P-O3'	6.07	118.54	105.20
26	1H	2231	C	N1-C2-O2	-6.07	115.26	118.90
26	14	788	A	O5'-P-OP1	-6.07	100.24	105.70
26	14	878	A	O4'-C1'-N9	6.07	113.05	108.20
26	14	1647	G	O5'-P-OP1	-6.07	100.24	105.70
1	13	1068	G	O5'-P-OP2	-6.06	100.24	105.70
26	1H	256	A	C6-C5-N7	-6.06	128.06	132.30
26	1H	1555	G	O5'-P-OP1	-6.06	100.24	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1663	C	C6-N1-C2	6.06	122.72	120.30
26	1H	256	A	C4-C5-N7	6.06	113.73	110.70
26	1H	513	A	C4-N9-C1'	6.06	137.21	126.30
26	1H	2267	A	O5'-P-OP1	-6.06	100.24	105.70
26	1H	2393	A	C2-N3-C4	-6.06	107.57	110.60
26	14	1788	C	O5'-P-OP1	-6.06	100.24	105.70
26	14	2030	A	C5-C6-N6	-6.06	118.85	123.70
26	1H	420	C	C5-C4-N4	-6.06	115.96	120.20
26	1H	1228	G	C2-N3-C4	-6.06	108.87	111.90
26	14	1276	A	C4-C5-N7	6.06	113.73	110.70
26	1H	348	G	N1-C6-O6	6.06	123.53	119.90
26	1H	849	A	O5'-P-OP2	-6.06	100.25	105.70
26	1H	1210	A	N3-C4-N9	-6.06	122.55	127.40
26	1H	1968	G	C2-N3-C4	6.06	114.93	111.90
26	14	56	A	C2-N3-C4	-6.06	107.57	110.60
1	13	770	C	OP1-P-OP2	-6.06	110.51	119.60
26	1H	929	G	C8-N9-C4	6.06	108.82	106.40
26	1H	1270	C	C5-C6-N1	-6.06	117.97	121.00
26	14	74	A	N1-C6-N6	6.06	122.23	118.60
26	14	1432	C	N1-C2-O2	-6.06	115.27	118.90
1	13	268	C	O5'-P-OP2	6.06	117.97	110.70
1	13	538	G	OP1-P-OP2	6.06	128.68	119.60
26	1H	845	G	O4'-C1'-N9	6.06	113.04	108.20
26	1H	1606	G	N1-C6-O6	6.06	123.53	119.90
26	14	1863	G	O5'-P-OP2	-6.06	100.25	105.70
1	13	585	G	C8-N9-C4	6.05	108.82	106.40
1	13	1227	A	O5'-P-OP2	-6.05	100.25	105.70
26	1H	779	U	OP1-P-OP2	-6.05	110.52	119.60
26	1H	997	G	O5'-P-OP2	-6.05	100.25	105.70
26	1H	2069	G	N7-C8-N9	-6.05	110.07	113.10
26	1H	2278	A	C5-N7-C8	6.05	106.93	103.90
27	16	109	G	O5'-P-OP1	-6.05	100.25	105.70
26	14	1313	U	C2-N1-C1'	6.05	124.97	117.70
26	14	1617	C	C4-C5-C6	6.05	120.43	117.40
40	65	101	LEU	CA-CB-CG	6.05	129.22	115.30
26	14	1519	G	C4-C5-N7	-6.05	108.38	110.80
1	13	536	C	OP1-P-O3'	6.05	118.52	105.20
1	13	580	U	N1-C2-N3	6.05	118.53	114.90
26	1H	96	G	N1-C6-O6	6.05	123.53	119.90
26	1H	1192	G	O5'-P-OP2	-6.05	100.25	105.70
26	1H	1382	G	C5-N7-C8	-6.05	101.27	104.30
26	1H	1632	A	OP1-P-OP2	-6.05	110.52	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2881	C	N1-C2-O2	-6.05	115.27	118.90
1	13	1348	U	C5-C4-O4	6.05	129.53	125.90
26	1H	832	G	N7-C8-N9	6.05	116.12	113.10
26	1H	1495	A	OP1-P-O3'	6.05	118.51	105.20
26	1H	2439	A	OP1-P-O3'	6.05	118.51	105.20
26	14	1999	C	C5-C4-N4	-6.05	115.97	120.20
26	1H	1031	G	C6-N1-C2	-6.05	121.47	125.10
1	1G	361	G	N1-C6-O6	6.05	123.53	119.90
1	13	365	U	C2-N1-C1'	6.05	124.96	117.70
26	1H	584	C	N1-C2-O2	-6.05	115.27	118.90
26	1H	2057	A	N1-C6-N6	6.05	122.23	118.60
26	14	1984	G	C8-N9-C4	6.05	108.82	106.40
26	14	2375	G	C5-C6-O6	-6.05	124.97	128.60
1	13	563	A	OP1-P-OP2	-6.04	110.53	119.60
26	1H	1282	U	C6-N1-C2	6.04	124.63	121.00
1	1G	799	G	OP2-P-O3'	6.04	118.50	105.20
1	1G	904	C	N1-C2-O2	-6.04	115.27	118.90
26	14	1270	C	C6-N1-C2	-6.04	117.88	120.30
26	14	1784	A	OP1-P-O3'	6.04	118.50	105.20
26	14	1968	G	N7-C8-N9	6.04	116.12	113.10
1	13	130	A	N1-C6-N6	6.04	122.23	118.60
1	13	751	U	O5'-P-OP1	-6.04	100.26	105.70
26	1H	684	G	C5-N7-C8	-6.04	101.28	104.30
26	1H	1526	G	N7-C8-N9	6.04	116.12	113.10
39	98	105	ARG	NE-CZ-NH2	6.04	123.32	120.30
1	1G	622	A	N1-C6-N6	-6.04	114.97	118.60
26	14	788	A	N1-C6-N6	6.04	122.23	118.60
26	14	1500	G	O5'-P-OP2	-6.04	100.26	105.70
26	1H	2577	A	C4-C5-C6	6.04	120.02	117.00
26	1H	2770	G	C5-C6-O6	-6.04	124.97	128.60
26	1H	2779	U	C5-C6-N1	-6.04	119.68	122.70
26	14	1363	C	N3-C4-N4	-6.04	113.77	118.00
26	14	2714	G	OP1-P-OP2	6.04	128.66	119.60
1	13	752	G	OP1-P-OP2	6.04	128.66	119.60
1	13	903	G	N1-C2-N2	-6.04	110.77	116.20
26	1H	1284	A	OP1-P-OP2	6.04	128.66	119.60
1	1G	969	A	O5'-P-OP2	-6.04	100.27	105.70
26	14	613	U	N3-C2-O2	-6.04	117.97	122.20
26	14	740	U	C2-N3-C4	6.04	130.62	127.00
26	14	1482	U	C6-N1-C1'	6.04	129.65	121.20
26	14	1933	G	OP1-P-OP2	6.04	128.66	119.60
26	14	2252	G	N3-C2-N2	6.04	124.13	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2834	G	C6-C5-N7	-6.04	126.78	130.40
26	1H	575	A	N1-C2-N3	6.04	132.32	129.30
26	1H	2218	G	N1-C6-O6	6.04	123.52	119.90
26	1H	2554	U	N3-C4-O4	6.04	123.63	119.40
26	1H	2724	C	N3-C4-C5	-6.04	119.48	121.90
31	31	38	ARG	NE-CZ-NH2	-6.04	117.28	120.30
26	14	2777	G	C4-C5-N7	6.04	113.22	110.80
26	1H	2003	G	O5'-P-OP2	6.04	117.94	110.70
26	1H	2596	U	N1-C2-O2	-6.04	118.58	122.80
26	1H	1373	A	OP1-P-OP2	-6.03	110.55	119.60
26	1H	2827	C	N3-C4-N4	6.03	122.22	118.00
26	14	836	G	OP1-P-OP2	-6.03	110.55	119.60
26	1H	34	C	OP2-P-O3'	6.03	118.47	105.20
26	1H	2442	C	OP1-P-OP2	-6.03	110.55	119.60
26	1H	2597	G	OP2-P-O3'	6.03	118.47	105.20
23	2L	41	C	C6-N1-C2	-6.03	117.89	120.30
26	14	113	G	OP1-P-O3'	6.03	118.47	105.20
26	14	342	G	N1-C6-O6	6.03	123.52	119.90
26	14	826	U	N1-C2-N3	6.03	118.52	114.90
26	14	1321	A	N1-C6-N6	6.03	122.22	118.60
26	14	2430	A	O5'-P-OP1	-6.03	100.27	105.70
1	1G	307	C	O5'-P-OP1	-6.03	100.27	105.70
1	13	833	U	C2-N1-C1'	-6.03	110.47	117.70
27	16	7	G	C5-N7-C8	-6.03	101.29	104.30
1	13	1503	A	C8-N9-C4	6.03	108.21	105.80
26	1H	693	C	OP2-P-O3'	6.03	118.45	105.20
26	1H	1691	C	OP1-P-O3'	6.03	118.46	105.20
26	1H	1806	C	C6-N1-C2	6.03	122.71	120.30
26	14	252	G	C4-C5-N7	-6.03	108.39	110.80
26	14	2473	U	N3-C2-O2	-6.03	117.98	122.20
26	1H	2621	A	C2-N3-C4	-6.02	107.59	110.60
1	1G	230	G	N3-C4-N9	-6.02	122.39	126.00
26	14	2031	A	C5-N7-C8	-6.02	100.89	103.90
26	1H	864	G	N3-C2-N2	6.02	124.11	119.90
26	1H	1839	G	O5'-P-OP2	-6.02	100.28	105.70
29	11	37	LEU	CB-CG-CD2	-6.02	100.76	111.00
26	14	201	C	OP1-P-OP2	6.02	128.63	119.60
26	14	2422	A	O5'-P-OP2	-6.02	100.28	105.70
26	14	2501	C	N1-C2-O2	-6.02	115.29	118.90
26	14	2698	U	C2-N1-C1'	6.02	124.93	117.70
1	13	1508	G	O5'-P-OP1	6.02	117.92	110.70
26	1H	1811	G	N9-C4-C5	6.02	107.81	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1882	C	C6-N1-C2	-6.02	117.89	120.30
26	1H	2548	G	N3-C2-N2	6.02	124.11	119.90
26	14	761	A	C8-N9-C4	6.02	108.21	105.80
26	14	2329	G	C8-N9-C1'	-6.02	119.17	127.00
26	14	2330	G	C5-C6-O6	-6.02	124.99	128.60
26	14	2359	C	O5'-P-OP2	-6.02	100.28	105.70
26	1H	391	G	C6-C5-N7	-6.02	126.79	130.40
26	1H	866	A	C6-C5-N7	-6.02	128.09	132.30
26	1H	1928	A	C5-C6-N1	6.02	120.71	117.70
26	14	1290	C	OP1-P-OP2	6.02	128.63	119.60
26	14	2509	G	O5'-P-OP1	-6.02	100.28	105.70
1	13	574	A	O5'-P-OP2	6.02	117.92	110.70
26	1H	302	C	O5'-P-OP2	-6.02	100.28	105.70
26	1H	416	C	N3-C4-N4	-6.02	113.79	118.00
26	1H	1357	U	O5'-P-OP1	-6.02	100.29	105.70
1	1G	791	G	OP2-P-O3'	6.02	118.44	105.20
26	14	2060	A	N9-C4-C5	6.02	108.21	105.80
26	1H	784	A	O5'-P-OP2	6.01	117.92	110.70
26	1H	1378	A	N7-C8-N9	6.01	116.81	113.80
26	1H	2307	G	N1-C6-O6	6.01	123.51	119.90
27	1J	90	C	OP1-P-OP2	-6.01	110.58	119.60
1	1G	11	G	O5'-P-OP2	6.01	117.92	110.70
26	14	1970	A	O5'-P-OP2	-6.01	100.29	105.70
26	1H	187	G	N1-C2-N2	-6.01	110.79	116.20
26	1H	1457	A	C8-N9-C4	6.01	108.20	105.80
26	1H	1670	C	N1-C2-O2	-6.01	115.29	118.90
50	K8	35	LEU	CA-CB-CG	6.01	129.13	115.30
26	14	1237	A	C8-N9-C4	-6.01	103.39	105.80
26	14	2439	A	C5'-C4'-O4'	-6.01	101.89	109.10
26	1H	307	G	C2-N3-C4	6.01	114.90	111.90
26	1H	489	G	N3-C4-C5	6.01	131.60	128.60
26	1H	1939	U	C2-N3-C4	-6.01	123.39	127.00
26	1H	2012	G	N1-C2-N3	6.01	127.51	123.90
26	14	819	A	OP2-P-O3'	6.01	118.42	105.20
26	14	1619	G	OP1-P-OP2	6.01	128.61	119.60
26	14	1633	G	N7-C8-N9	6.01	116.10	113.10
26	14	2340	G	C8-N9-C4	6.01	108.80	106.40
26	1H	2256	G	N3-C2-N2	6.01	124.11	119.90
26	14	137	C	N3-C4-N4	6.01	122.21	118.00
23	2L	76	C	N1-C2-O2	-6.01	115.30	118.90
26	1H	832	G	OP1-P-O3'	6.00	118.41	105.20
1	1G	1357	A	N7-C8-N9	6.00	116.80	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1210	A	N7-C8-N9	6.00	116.80	113.80
1	13	423	G	C2-N3-C4	6.00	114.90	111.90
26	14	1646	C	C5-C6-N1	-6.00	118.00	121.00
1	13	832	C	C4-C5-C6	6.00	120.40	117.40
23	2K	15	G	C5-C6-N1	-6.00	108.50	111.50
26	1H	1380	G	C8-N9-C4	6.00	108.80	106.40
26	1H	1408	C	C5-C4-N4	-6.00	116.00	120.20
26	1H	2323	G	O4'-C1'-N9	-6.00	103.40	108.20
26	14	327	G	C5-C6-O6	-6.00	125.00	128.60
26	14	766	C	C4-C5-C6	6.00	120.40	117.40
26	14	808	G	N3-C4-N9	6.00	129.60	126.00
26	14	1210	A	N1-C6-N6	6.00	122.20	118.60
26	14	1378	A	N1-C2-N3	-6.00	126.30	129.30
26	14	2065	C	N3-C2-O2	-6.00	117.70	121.90
1	13	1498	U	C2-N1-C1'	6.00	124.90	117.70
26	1H	188	G	OP1-P-OP2	6.00	128.60	119.60
26	1H	331	A	N1-C2-N3	6.00	132.30	129.30
26	1H	551	G	C8-N9-C4	6.00	108.80	106.40
26	1H	1780	A	C2-N3-C4	-6.00	107.60	110.60
26	14	2569	G	C5-C6-N1	6.00	114.50	111.50
26	14	2741	A	C8-N9-C4	6.00	108.20	105.80
1	13	1475	G	N7-C8-N9	6.00	116.10	113.10
26	1H	439	G	OP1-P-O3'	6.00	118.39	105.20
26	1H	832	G	C5-N7-C8	-6.00	101.30	104.30
26	14	228	A	C4-C5-N7	6.00	113.70	110.70
26	14	681	G	N3-C4-N9	6.00	129.60	126.00
26	14	801	G	C8-N9-C1'	6.00	134.80	127.00
26	14	1193	G	C8-N9-C4	6.00	108.80	106.40
26	14	1233	C	C6-N1-C2	-6.00	117.90	120.30
26	14	1520	U	O5'-P-OP2	-6.00	100.30	105.70
26	14	1558	A	P-O3'-C3'	6.00	126.89	119.70
26	14	2607	G	N1-C2-N2	-6.00	110.80	116.20
1	13	699	C	C2-N3-C4	-6.00	116.90	119.90
26	1H	1035	U	N3-C4-O4	-6.00	115.20	119.40
1	13	353	A	C8-N9-C4	-5.99	103.40	105.80
26	1H	179	G	N1-C2-N3	5.99	127.50	123.90
26	1H	1374	G	OP1-P-OP2	-5.99	110.61	119.60
14	5A	28	GLY	N-CA-C	5.99	128.08	113.10
26	14	925	C	O5'-P-OP2	-5.99	100.31	105.70
26	14	2379	G	C6-C5-N7	-5.99	126.80	130.40
26	1H	836	G	OP1-P-OP2	-5.99	110.61	119.60
26	1H	1499	C	OP1-P-OP2	5.99	128.59	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	814	A	N1-C6-N6	5.99	122.19	118.60
26	14	2430	A	C6-C5-N7	-5.99	128.11	132.30
26	1H	837	C	O5'-P-OP1	-5.99	100.31	105.70
26	1H	1396	U	OP1-P-OP2	5.99	128.59	119.60
26	1H	2443	C	N1-C2-N3	5.99	123.39	119.20
34	61	131	LYS	C-N-CD	-5.99	107.42	120.60
26	14	817	C	C2-N3-C4	5.99	122.90	119.90
1	13	677	U	N1-C2-O2	-5.99	118.61	122.80
1	13	1354	C	N3-C2-O2	-5.99	117.71	121.90
2	1E	187	LEU	CA-CB-CG	5.99	129.07	115.30
26	1H	1142(A)	A	C5-C6-N1	-5.99	114.71	117.70
26	1H	1641	A	OP1-P-OP2	-5.99	110.62	119.60
26	14	1251	C	N3-C4-C5	-5.99	119.50	121.90
26	14	1427	A	C6-N1-C2	-5.99	115.01	118.60
26	14	2456	C	N3-C4-C5	-5.99	119.50	121.90
1	13	806	C	N1-C2-O2	5.99	122.49	118.90
1	13	1530	G	N3-C4-N9	-5.99	122.41	126.00
26	1H	38	A	C2-N3-C4	5.99	113.59	110.60
26	1H	444	C	O5'-P-OP1	5.99	117.89	110.70
33	51	10	PRO	N-CA-C	5.99	127.67	112.10
1	13	1335	C	C5-C6-N1	-5.99	118.01	121.00
26	1H	122	G	C6-C5-N7	-5.99	126.81	130.40
26	1H	557	U	C5-C6-N1	-5.99	119.71	122.70
26	1H	848	G	O5'-P-OP1	5.99	117.88	110.70
26	1H	1520	U	C6-N1-C2	-5.99	117.41	121.00
26	1H	1919	A	O4'-C1'-N9	-5.99	103.41	108.20
26	14	1029	A	N1-C6-N6	5.99	122.19	118.60
26	14	1208	C	O5'-P-OP1	-5.99	100.31	105.70
26	14	1376	C	O5'-P-OP1	-5.99	100.31	105.70
26	14	1506	C	C6-N1-C2	-5.99	117.91	120.30
26	14	1817	G	N1-C6-O6	-5.99	116.31	119.90
26	14	2578	G	O5'-P-OP1	-5.99	100.31	105.70
26	14	137(A)	G	N1-C6-O6	5.98	123.49	119.90
26	1H	2618	G	C4-C5-N7	-5.98	108.41	110.80
1	1G	1301	U	N1-C2-O2	5.98	126.99	122.80
23	2L	17	C	N1-C2-O2	5.98	122.49	118.90
26	14	226	G	O4'-C1'-N9	5.98	112.99	108.20
26	14	575	A	O5'-P-OP1	-5.98	100.32	105.70
26	14	609	A	N1-C6-N6	5.98	122.19	118.60
1	13	1158	C	C6-N1-C2	-5.98	117.91	120.30
26	14	2394	C	OP1-P-O3'	5.98	118.36	105.20
26	14	2521	C	OP1-P-OP2	5.98	128.57	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	976	C	N3-C4-C5	-5.98	119.51	121.90
27	16	33	G	N1-C6-O6	-5.98	116.31	119.90
26	14	179	G	N7-C8-N9	-5.98	110.11	113.10
26	14	1021	A	C5-N7-C8	-5.98	100.91	103.90
1	13	1412	C	N1-C2-O2	-5.98	115.31	118.90
26	1H	231	C	N1-C2-O2	-5.98	115.31	118.90
26	1H	940	G	C5-C6-O6	-5.98	125.01	128.60
26	14	1216	G	OP2-P-O3'	-5.98	92.05	105.20
26	14	1835	G	OP2-P-O3'	5.98	118.35	105.20
26	14	2896	C	C6-N1-C2	-5.98	117.91	120.30
26	1H	970	C	N3-C4-N4	5.98	122.18	118.00
27	1J	71	C	C2-N1-C1'	5.98	125.37	118.80
1	13	886	G	C5-C6-O6	5.97	132.18	128.60
26	1H	190	A	C4-C5-N7	5.97	113.69	110.70
26	1H	250	G	C8-N9-C4	-5.97	104.01	106.40
26	1H	2244	U	C5-C6-N1	-5.97	119.71	122.70
26	1H	2284	C	N1-C2-O2	-5.97	115.31	118.90
26	1H	2368	C	N1-C2-O2	5.97	122.48	118.90
26	14	1353	A	N1-C6-N6	-5.97	115.02	118.60
26	14	1519	G	O5'-P-OP1	-5.97	100.32	105.70
30	29	61	ARG	C-N-CD	-5.97	107.46	120.60
50	G5	42	GLY	N-CA-C	-5.97	98.17	113.10
1	13	1221	G	OP2-P-O3'	5.97	118.34	105.20
26	1H	199	A	C6-C5-N7	5.97	136.48	132.30
26	1H	928	G	C5-C6-O6	-5.97	125.02	128.60
26	1H	1195	G	O4'-C1'-N9	-5.97	103.42	108.20
26	14	2286	A	N7-C8-N9	5.97	116.79	113.80
27	1J	61	G	C8-N9-C4	-5.97	104.01	106.40
1	13	47	C	C5-C6-N1	-5.97	118.01	121.00
26	14	1923	U	C6-N1-C2	-5.97	117.42	121.00
26	1H	528	A	C4-C5-N7	5.97	113.69	110.70
26	1H	921	G	C2-N3-C4	5.97	114.89	111.90
26	1H	1562	A	N9-C4-C5	-5.97	103.41	105.80
26	1H	2402	C	C2-N1-C1'	5.97	125.37	118.80
26	14	502	A	C2-N3-C4	-5.97	107.61	110.60
26	14	1644	C	C2-N1-C1'	5.97	125.37	118.80
26	1H	1355	G	N7-C8-N9	5.97	116.08	113.10
26	1H	1815	A	C6-N1-C2	-5.97	115.02	118.60
26	1H	2503	A	O5'-P-OP1	5.97	117.86	110.70
1	1G	1499	A	N7-C8-N9	-5.97	110.82	113.80
1	13	1402	C	C5-C4-N4	5.97	124.38	120.20
26	1H	500	G	OP1-P-OP2	5.97	128.55	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	702	G	C5-C6-N1	-5.97	108.52	111.50
26	1H	786	C	N3-C4-C5	5.97	124.29	121.90
26	1H	826	U	N1-C2-N3	5.97	118.48	114.90
26	1H	1369	G	N3-C4-C5	-5.97	125.62	128.60
1	1G	1358	U	O4'-C1'-N1	5.97	112.97	108.20
26	14	1992	G	N9-C4-C5	5.97	107.79	105.40
26	14	2560	C	OP1-P-OP2	5.97	128.55	119.60
26	1H	145	G	O5'-P-OP2	-5.96	100.33	105.70
26	1H	820	A	C2-N3-C4	-5.96	107.62	110.60
26	1H	1495	A	N1-C6-N6	-5.96	115.02	118.60
26	1H	2436	G	C5-C6-N1	5.96	114.48	111.50
26	1H	2510	C	C5-C6-N1	-5.96	118.02	121.00
26	1H	2598	A	OP2-P-O3'	5.96	118.32	105.20
26	14	2326	C	O5'-P-OP1	-5.96	100.33	105.70
26	1H	936	C	N3-C4-C5	5.96	124.28	121.90
1	1G	1453	G	O4'-C1'-N9	5.96	112.97	108.20
26	14	506	G	C5-C6-O6	-5.96	125.02	128.60
26	14	2363	C	C5-C4-N4	-5.96	116.03	120.20
26	1H	474	G	C8-N9-C4	-5.96	104.02	106.40
26	1H	1365	A	C5-C6-N1	-5.96	114.72	117.70
26	1H	2330	G	N1-C2-N3	5.96	127.48	123.90
26	1H	2587	A	N9-C4-C5	5.96	108.19	105.80
26	14	1308	A	C4-C5-C6	5.96	119.98	117.00
26	14	2755	C	C6-N1-C2	-5.96	117.92	120.30
26	14	2776	A	N7-C8-N9	5.96	116.78	113.80
26	14	133	C	C6-N1-C2	5.96	122.68	120.30
26	1H	2817	G	N3-C4-C5	-5.96	125.62	128.60
26	14	210	C	C2-N3-C4	-5.96	116.92	119.90
26	14	914	C	OP1-P-O3'	5.96	118.31	105.20
26	14	1322	A	OP2-P-O3'	5.96	118.31	105.20
1	13	523	A	OP1-P-O3'	5.96	118.30	105.20
1	13	888	G	C8-N9-C4	5.96	108.78	106.40
26	1H	1904	G	C5-C6-O6	-5.96	125.03	128.60
26	1H	1955	U	O5'-P-OP2	-5.96	100.34	105.70
26	1H	2007	C	C2-N3-C4	-5.96	116.92	119.90
26	1H	2525	G	N1-C6-O6	5.96	123.47	119.90
26	1H	2682	U	O5'-P-OP2	-5.96	100.34	105.70
26	14	205	G	N3-C4-N9	5.96	129.57	126.00
26	14	620	G	O5'-P-OP2	-5.96	100.34	105.70
26	14	955	C	C6-N1-C1'	5.96	127.95	120.80
26	14	1204	A	N1-C2-N3	5.96	132.28	129.30
26	14	2489	G	C4-C5-N7	5.96	113.18	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2854	G	O5'-P-OP2	5.96	117.85	110.70
26	1H	415	A	O5'-P-OP2	-5.96	100.34	105.70
39	98	10	LEU	CA-CB-CG	5.96	129.00	115.30
26	14	184	C	N3-C4-C5	5.96	124.28	121.90
26	14	2502	G	N3-C4-C5	-5.96	125.62	128.60
26	1H	1133	U	O4'-C1'-N1	5.95	112.96	108.20
26	1H	1407	C	OP1-P-O3'	5.95	118.30	105.20
26	1H	1698	A	N1-C6-N6	5.95	122.17	118.60
26	1H	1888	G	N3-C4-N9	5.95	129.57	126.00
26	1H	2416	C	OP2-P-O3'	5.95	118.30	105.20
26	1H	2699	C	C5-C4-N4	-5.95	116.03	120.20
1	1G	971	G	O5'-P-OP1	5.95	117.84	110.70
26	14	195	A	C2-N3-C4	-5.95	107.62	110.60
26	1H	1403	C	O5'-P-OP1	-5.95	100.34	105.70
26	1H	1917	U	N3-C4-O4	-5.95	115.23	119.40
26	14	2255	G	O5'-P-OP2	-5.95	100.34	105.70
26	14	2496	C	OP1-P-O3'	5.95	118.29	105.20
26	14	2585	U	N1-C2-O2	5.95	126.97	122.80
1	13	974	A	C4-C5-C6	5.95	119.97	117.00
26	1H	1950	G	N1-C2-N3	5.95	127.47	123.90
22	1L	3	G	P-O3'-C3'	5.95	126.84	119.70
26	14	784	A	O4'-C1'-N9	5.95	112.96	108.20
26	1H	72	U	C5-C4-O4	-5.95	122.33	125.90
26	1H	1630(A)	C	O5'-P-OP1	-5.95	100.35	105.70
26	14	2064	C	O5'-P-OP2	-5.95	100.35	105.70
26	14	2822	G	C4-C5-C6	5.95	122.37	118.80
1	13	943	U	O5'-P-OP1	-5.95	100.35	105.70
26	1H	149	A	C8-N9-C4	-5.95	103.42	105.80
26	1H	2593	U	N3-C4-C5	5.95	118.17	114.60
1	13	720	C	C6-N1-C2	-5.95	117.92	120.30
19	AI	41	VAL	C-N-CA	5.95	146.97	122.00
26	1H	372	G	O4'-C1'-N9	5.95	112.96	108.20
26	1H	691	C	C5-C4-N4	-5.95	116.04	120.20
26	1H	1764	G	C5-C6-O6	5.95	132.17	128.60
26	1H	2458	G	N1-C2-N2	5.95	121.55	116.20
26	14	833	U	N3-C2-O2	5.95	126.36	122.20
26	14	1528	A	C8-N9-C4	-5.95	103.42	105.80
26	14	2064	C	OP1-P-OP2	5.95	128.52	119.60
18	9A	31	LEU	CA-CB-CG	5.94	128.97	115.30
26	1H	1845	G	O5'-P-OP2	5.94	117.83	110.70
1	1G	537	G	C5-C6-O6	-5.94	125.03	128.60
1	1G	699	C	C6-N1-C2	-5.94	117.92	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1976	U	C6-N1-C2	-5.94	117.44	121.00
26	1H	2312	U	O5'-P-OP1	-5.94	100.35	105.70
26	1H	2326	C	OP1-P-OP2	5.94	128.51	119.60
1	1G	108	G	N9-C4-C5	-5.94	103.02	105.40
26	14	733	G	N3-C2-N2	5.94	124.06	119.90
26	14	1517	G	OP1-P-O3'	5.94	118.27	105.20
27	1J	27	C	C5-C6-N1	5.94	123.97	121.00
26	1H	2594	C	N3-C4-N4	5.94	122.16	118.00
26	14	2066	C	C5-C4-N4	-5.94	116.04	120.20
26	1H	915	C	OP1-P-OP2	-5.94	110.69	119.60
26	1H	1229(A)	G	C2-N3-C4	-5.94	108.93	111.90
26	1H	2083	G	N1-C6-O6	5.94	123.46	119.90
26	1H	2508	G	C8-N9-C1'	5.94	134.72	127.00
26	1H	2770	G	N1-C6-O6	5.94	123.46	119.90
27	16	101	A	C2-N3-C4	-5.94	107.63	110.60
26	14	1254	A	C5-C6-N6	-5.94	118.95	123.70
26	14	2575	C	C2-N3-C4	5.94	122.87	119.90
1	13	1299	A	N7-C8-N9	5.94	116.77	113.80
26	1H	598	G	C5-C6-O6	-5.93	125.04	128.60
26	1H	880	G	C8-N9-C4	-5.93	104.03	106.40
26	1H	1932	A	C5-C6-N6	-5.93	118.95	123.70
1	1G	45	U	C5-C6-N1	-5.93	119.73	122.70
26	14	1676	A	OP1-P-OP2	-5.93	110.70	119.60
1	13	310	G	N3-C4-C5	5.93	131.57	128.60
26	1H	974(A)	C	N3-C4-N4	-5.93	113.85	118.00
26	1H	1357	U	OP1-P-OP2	5.93	128.50	119.60
26	1H	2490	G	N3-C2-N2	5.93	124.05	119.90
1	1G	1511	G	N1-C6-O6	5.93	123.46	119.90
26	14	1269	A	C5-C6-N1	-5.93	114.73	117.70
41	75	6	LEU	CA-CB-CG	5.93	128.94	115.30
26	1H	2441	C	C5-C6-N1	-5.93	118.03	121.00
26	14	129	C	C4-C5-C6	5.93	120.37	117.40
26	14	184	C	C2-N3-C4	-5.93	116.94	119.90
1	13	640	A	O5'-P-OP1	-5.93	100.36	105.70
1	13	1505	G	C8-N9-C1'	5.93	134.71	127.00
26	1H	1282	U	C5-C4-O4	-5.93	122.34	125.90
26	1H	1534	G	C4-N9-C1'	5.93	134.21	126.50
26	1H	1825	A	C4-C5-N7	-5.93	107.73	110.70
37	78	15	ARG	CA-C-N	-5.93	104.16	117.20
26	14	1241	A	N3-C4-C5	5.93	130.95	126.80
26	14	1816	G	O5'-P-OP2	5.93	117.82	110.70
26	14	2053	G	C8-N9-C4	5.93	108.77	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1281	G	C5-C6-O6	-5.93	125.04	128.60
26	1H	1625	C	C6-N1-C2	-5.93	117.93	120.30
26	1H	1986	A	N9-C4-C5	5.93	108.17	105.80
26	14	2648	C	N3-C4-C5	5.93	124.27	121.90
1	13	1299	A	C6-C5-N7	-5.93	128.15	132.30
26	1H	302	C	C6-N1-C2	-5.93	117.93	120.30
26	1H	977	G	N9-C4-C5	5.93	107.77	105.40
26	1H	1916	A	N1-C2-N3	5.93	132.26	129.30
26	1H	2716	U	N1-C2-N3	5.93	118.46	114.90
26	14	463	G	OP1-P-O3'	5.93	118.24	105.20
26	14	2318	G	N7-C8-N9	5.93	116.06	113.10
26	1H	1574	C	C2-N3-C4	-5.92	116.94	119.90
26	1H	2571	C	C4-C5-C6	5.92	120.36	117.40
1	1G	26	A	O5'-P-OP2	-5.92	100.37	105.70
26	14	663	G	OP1-P-OP2	5.92	128.49	119.60
26	1H	2596	U	OP1-P-O3'	-5.92	92.17	105.20
26	1H	141(A)	C	C6-N1-C2	5.92	122.67	120.30
26	1H	1157	G	N1-C2-N3	5.92	127.45	123.90
26	1H	1560	G	OP1-P-OP2	5.92	128.48	119.60
26	14	1372	U	N1-C2-N3	5.92	118.45	114.90
26	14	2872	G	N3-C4-C5	-5.92	125.64	128.60
1	13	757	U	C5-C6-N1	-5.92	119.74	122.70
26	1H	596	G	N3-C2-N2	-5.92	115.76	119.90
26	1H	1846	G	N3-C2-N2	-5.92	115.76	119.90
26	1H	2459	A	N1-C6-N6	-5.92	115.05	118.60
26	1H	2740	A	N1-C6-N6	5.92	122.15	118.60
39	98	12	ARG	NE-CZ-NH1	-5.92	117.34	120.30
1	13	974	A	C8-N9-C4	-5.92	103.43	105.80
26	1H	110	G	O5'-P-OP2	-5.92	100.37	105.70
26	1H	730	C	N3-C4-N4	-5.92	113.86	118.00
26	1H	1578	U	C5-C4-O4	5.92	129.45	125.90
26	1H	1962	C	C6-N1-C2	-5.92	117.93	120.30
26	14	197	A	P-O3'-C3'	5.92	126.80	119.70
26	14	2520	C	O5'-P-OP2	-5.92	100.37	105.70
26	1H	838	C	N3-C4-N4	5.92	122.14	118.00
1	13	282	A	OP1-P-O3'	5.92	118.21	105.20
1	13	1107	C	C6-N1-C2	-5.92	117.93	120.30
26	1H	1364	G	O5'-P-OP1	5.92	117.80	110.70
1	1G	250	A	C5-C6-N6	5.92	128.43	123.70
26	14	668	G	C4-N9-C1'	-5.92	118.81	126.50
23	2K	6	G	C8-N9-C4	5.91	108.77	106.40
26	1H	646	A	O5'-P-OP1	-5.91	100.38	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	690	G	C8-N9-C4	5.91	108.77	106.40
26	1H	726	G	O5'-P-OP2	-5.91	100.38	105.70
26	1H	1597	A	N7-C8-N9	-5.91	110.84	113.80
26	1H	1626	G	N3-C4-N9	-5.91	122.45	126.00
26	1H	2708	G	N7-C8-N9	-5.91	110.14	113.10
27	16	56	G	OP1-P-OP2	5.91	128.47	119.60
27	16	79	C	C2-N3-C4	-5.91	116.94	119.90
26	14	470	A	C5-N7-C8	-5.91	100.94	103.90
26	14	821	A	P-O3'-C3'	5.91	126.80	119.70
26	14	1342	A	P-O3'-C3'	5.91	126.80	119.70
1	13	786	G	C8-N9-C4	5.91	108.77	106.40
26	1H	574	C	OP1-P-O3'	5.91	118.21	105.20
26	14	449	A	C5-C6-N6	-5.91	118.97	123.70
1	13	192	U	O5'-P-OP1	-5.91	100.38	105.70
26	1H	821	A	C8-N9-C4	-5.91	103.44	105.80
26	1H	947	G	C2-N3-C4	5.91	114.86	111.90
26	1H	1022	G	N3-C4-N9	-5.91	122.45	126.00
26	1H	2275	C	N1-C2-O2	5.91	122.45	118.90
26	1H	2310	A	N1-C6-N6	-5.91	115.05	118.60
26	1H	2442	C	O5'-P-OP2	5.91	117.79	110.70
26	1H	2761	G	C2-N3-C4	-5.91	108.94	111.90
26	14	241	A	O5'-P-OP2	-5.91	100.38	105.70
26	14	1797	C	N1-C2-O2	-5.91	115.35	118.90
26	14	2424	C	N3-C4-C5	5.91	124.26	121.90
1	13	500	G	OP2-P-O3'	5.91	118.20	105.20
1	13	1475	G	C5-N7-C8	-5.91	101.35	104.30
26	1H	688	U	OP2-P-O3'	5.91	118.20	105.20
26	1H	694	U	N1-C2-N3	5.91	118.44	114.90
26	1H	734	A	C2-N3-C4	-5.91	107.64	110.60
26	1H	736	C	C2-N3-C4	-5.91	116.95	119.90
27	16	81	G	C8-N9-C4	-5.91	104.04	106.40
26	14	135	G	N3-C2-N2	-5.91	115.76	119.90
26	14	731	C	C4-C5-C6	5.91	120.35	117.40
26	14	1187	G	O5'-P-OP2	-5.91	100.38	105.70
26	14	1936	A	O4'-C1'-N9	5.91	112.93	108.20
27	1J	44	G	C6-C5-N7	5.91	133.94	130.40
26	1H	398	G	C6-C5-N7	-5.91	126.86	130.40
29	11	271	ILE	N-CA-C	5.91	126.95	111.00
31	31	32	LEU	CA-CB-CG	5.91	128.88	115.30
1	1G	731	G	O5'-P-OP1	5.91	117.79	110.70
26	14	2124	G	N3-C4-C5	-5.91	125.65	128.60
26	14	2211	G	C8-N9-C1'	-5.91	119.32	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1498	U	C5-C4-O4	-5.91	122.36	125.90
26	1H	196	A	C6-C5-N7	-5.91	128.17	132.30
26	1H	2074	U	C4-C5-C6	5.91	123.24	119.70
26	14	603	A	C5-N7-C8	-5.90	100.95	103.90
26	14	2440	C	OP1-P-O3'	5.90	118.19	105.20
26	1H	1327	C	N1-C2-O2	-5.90	115.36	118.90
26	1H	1626	G	N1-C2-N2	5.90	121.51	116.20
26	1H	1692	U	C5-C4-O4	-5.90	122.36	125.90
26	1H	1922	G	O5'-P-OP2	-5.90	100.39	105.70
26	1H	1950	G	OP1-P-OP2	5.90	128.46	119.60
26	1H	1959	G	N9-C4-C5	5.90	107.76	105.40
26	14	1441	G	N1-C6-O6	5.90	123.44	119.90
1	13	971	G	C4-C5-N7	-5.90	108.44	110.80
26	1H	452	G	C2-N3-C4	5.90	114.85	111.90
26	1H	551	G	N7-C8-N9	-5.90	110.15	113.10
26	1H	1607	C	C2-N1-C1'	5.90	125.29	118.80
1	1G	942	G	OP1-P-O3'	5.90	118.18	105.20
26	14	463	G	O5'-P-OP1	5.90	117.78	110.70
26	14	1843	C	OP1-P-OP2	-5.90	110.75	119.60
26	1H	837	C	C5-C4-N4	-5.90	116.07	120.20
26	14	1776	G	N3-C4-N9	5.90	129.54	126.00
26	14	1949	G	OP1-P-OP2	5.90	128.45	119.60
26	14	2042	A	C8-N9-C4	5.90	108.16	105.80
26	1H	194	G	N9-C4-C5	-5.90	103.04	105.40
26	1H	774	A	N1-C2-N3	-5.90	126.35	129.30
26	1H	2066	C	OP1-P-O3'	5.90	118.17	105.20
26	14	1698	A	N7-C8-N9	5.90	116.75	113.80
26	14	2013	A	C2-N3-C4	-5.90	107.65	110.60
26	14	2296	U	OP1-P-OP2	5.90	128.45	119.60
27	1J	103	U	C2-N3-C4	-5.90	123.46	127.00
26	1H	1191	G	C8-N9-C4	5.90	108.76	106.40
26	14	456	C	N1-C2-O2	-5.90	115.36	118.90
26	14	1404	C	N1-C2-O2	5.90	122.44	118.90
1	13	974	A	C4-C5-N7	5.89	113.65	110.70
26	1H	808	G	C6-N1-C2	-5.89	121.56	125.10
26	1H	2346	A	N9-C1'-C2'	5.89	121.66	114.00
1	13	130	A	C5-C6-N6	-5.89	118.99	123.70
1	13	786	G	C5-C6-N1	5.89	114.45	111.50
26	1H	569	U	C2-N3-C4	-5.89	123.47	127.00
26	1H	1409	C	OP2-P-O3'	5.89	118.16	105.20
26	1H	2585	U	N3-C2-O2	-5.89	118.08	122.20
1	1G	665	A	O5'-P-OP2	-5.89	100.40	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	621	A	N3-C4-N9	-5.89	122.69	127.40
26	14	2066	C	N3-C4-N4	5.89	122.12	118.00
26	1H	1605	C	C4-C5-C6	5.89	120.35	117.40
26	1H	2278	A	C4-C5-N7	-5.89	107.75	110.70
26	1H	2819	G	N1-C6-O6	5.89	123.44	119.90
26	14	1575	C	N1-C2-O2	5.89	122.43	118.90
26	14	2283	C	N3-C4-C5	-5.89	119.54	121.90
1	13	888	G	C2-N3-C4	-5.89	108.95	111.90
26	1H	552	G	N3-C4-C5	5.89	131.54	128.60
26	1H	658	C	N1-C2-O2	5.89	122.43	118.90
26	1H	1835	G	C8-N9-C4	-5.89	104.04	106.40
26	1H	1982	C	N3-C4-C5	-5.89	119.54	121.90
26	1H	2075	U	C4-C5-C6	5.89	123.23	119.70
26	1H	2226	C	C6-N1-C2	5.89	122.66	120.30
42	C8	74	LEU	CA-CB-CG	5.89	128.85	115.30
1	1G	392	G	C8-N9-C4	5.89	108.76	106.40
23	2L	21	U	C2-N1-C1'	5.89	124.77	117.70
26	1H	999	U	OP1-P-OP2	-5.89	110.77	119.60
26	1H	1614	A	N1-C2-N3	-5.89	126.36	129.30
26	1H	2210	G	OP2-P-O3'	5.89	118.15	105.20
26	1H	2267	A	OP1-P-OP2	5.89	128.43	119.60
1	13	138	G	N1-C6-O6	5.89	123.43	119.90
26	1H	179	G	C8-N9-C4	5.89	108.75	106.40
26	1H	265	A	C5-C6-N1	-5.89	114.76	117.70
26	1H	563	G	C6-C5-N7	5.89	133.93	130.40
26	1H	2609	U	C6-N1-C2	5.89	124.53	121.00
26	14	216	A	O5'-P-OP1	-5.89	100.40	105.70
26	14	1349	A	C2-N3-C4	-5.89	107.66	110.60
26	14	1353	A	N9-C4-C5	5.89	108.15	105.80
26	14	1982	C	OP2-P-O3'	5.89	118.15	105.20
23	2K	48	U	OP2-P-O3'	5.88	118.15	105.20
26	1H	130	C	C6-N1-C2	5.88	122.65	120.30
26	1H	1334	G	N7-C8-N9	5.88	116.04	113.10
26	1H	1355	G	C8-N9-C4	-5.88	104.05	106.40
26	1H	1758	G	N3-C4-C5	5.88	131.54	128.60
26	1H	2230	G	N9-C4-C5	5.88	107.75	105.40
25	4L	21	G	C8-N9-C4	-5.88	104.05	106.40
26	14	667	U	N1-C2-O2	-5.88	118.68	122.80
26	14	1742	C	C2-N1-C1'	5.88	125.27	118.80
26	14	766	C	C2-N3-C4	-5.88	116.96	119.90
26	14	781	A	C5-N7-C8	-5.88	100.96	103.90
26	14	2051	A	C8-N9-C4	-5.88	103.45	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2272	U	OP1-P-OP2	-5.88	110.78	119.60
26	1H	134	C	N3-C4-C5	5.88	124.25	121.90
26	1H	662	G	N7-C8-N9	-5.88	110.16	113.10
26	1H	2858	C	OP1-P-OP2	5.88	128.42	119.60
23	2L	27	G	C8-N9-C4	5.88	108.75	106.40
26	14	1659	U	OP1-P-OP2	5.88	128.42	119.60
26	1H	583	G	C4-C5-N7	-5.88	108.45	110.80
26	1H	1931	U	N1-C2-O2	5.88	126.92	122.80
27	16	96	G	C2-N3-C4	5.88	114.84	111.90
1	1G	191(B)	G	O5'-P-OP2	-5.88	100.41	105.70
26	14	189	G	C4-C5-N7	5.88	113.15	110.80
1	13	21	G	OP2-P-O3'	5.88	118.13	105.20
26	1H	2469	A	C2-N3-C4	-5.88	107.66	110.60
26	1H	2777	G	O4'-C1'-N9	-5.88	103.50	108.20
26	14	821	A	N1-C6-N6	5.88	122.13	118.60
26	14	876	C	C2-N1-C1'	5.88	125.27	118.80
26	14	2596	U	N1-C2-N3	5.88	118.43	114.90
1	13	1058	G	O5'-P-OP1	5.88	117.75	110.70
23	2K	17	C	N3-C4-C5	-5.88	119.55	121.90
26	1H	142	G	C4-N9-C1'	-5.88	118.86	126.50
26	1H	1218	C	C5-C4-N4	-5.88	116.09	120.20
26	1H	2267	A	O4'-C1'-N9	-5.88	103.50	108.20
26	1H	2296	U	O5'-P-OP2	-5.88	100.41	105.70
26	14	707	G	N1-C6-O6	5.88	123.43	119.90
26	1H	816	C	N3-C4-C5	-5.88	119.55	121.90
1	13	52	G	N1-C2-N2	-5.87	110.91	116.20
26	1H	783	A	OP2-P-O3'	5.87	118.12	105.20
26	1H	1380	G	N7-C8-N9	-5.87	110.16	113.10
26	1H	1688	U	C2-N3-C4	-5.87	123.48	127.00
26	1H	2777	G	N1-C6-O6	5.87	123.42	119.90
26	14	330	A	C6-C5-N7	-5.87	128.19	132.30
26	14	952	G	C8-N9-C4	-5.87	104.05	106.40
1	13	773	G	N3-C2-N2	5.87	124.01	119.90
26	1H	680	G	C4-C5-C6	5.87	122.32	118.80
26	1H	769	G	C5-C6-N1	5.87	114.44	111.50
26	1H	1391	U	C6-N1-C1'	-5.87	112.98	121.20
26	1H	1758	G	C5-C6-O6	-5.87	125.08	128.60
26	1H	2062	A	N3-C4-C5	-5.87	122.69	126.80
26	1H	2385	C	N1-C2-O2	-5.87	115.38	118.90
1	1G	1358	U	C6-N1-C2	-5.87	117.48	121.00
26	14	1623	G	C8-N9-C1'	5.87	134.63	127.00
26	14	2463	C	C6-N1-C2	5.87	122.65	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	117	G	C5-C6-N1	5.87	114.44	111.50
26	1H	374	A	N1-C6-N6	5.87	122.12	118.60
26	1H	2401	U	C2-N1-C1'	5.87	124.74	117.70
41	75	13	ARG	N-CA-C	-5.87	95.15	111.00
26	1H	1695	G	N9-C4-C5	-5.87	103.05	105.40
26	1H	2390	U	O5'-P-OP2	5.87	117.74	110.70
26	1H	528	A	C4-N9-C1'	-5.87	115.74	126.30
26	1H	1573	G	C4-C5-N7	5.87	113.15	110.80
26	14	468	G	O5'-P-OP2	5.87	117.74	110.70
26	14	507	A	N1-C2-N3	-5.87	126.37	129.30
26	14	2034	U	N3-C2-O2	-5.87	118.09	122.20
26	14	2417	C	O5'-P-OP1	5.87	117.74	110.70
26	1H	2761	G	N1-C6-O6	5.87	123.42	119.90
31	31	74	ARG	NE-CZ-NH2	-5.87	117.37	120.30
1	1G	1354	C	C5-C6-N1	5.87	123.93	121.00
26	14	664	C	C6-N1-C2	5.87	122.65	120.30
26	1H	456	C	O5'-P-OP2	-5.86	100.42	105.70
26	1H	854	G	O5'-P-OP2	5.86	117.73	110.70
26	1H	987	G	OP1-P-OP2	-5.86	110.81	119.60
26	1H	1274	A	N7-C8-N9	5.86	116.73	113.80
26	1H	1782	C	C5-C4-N4	-5.86	116.10	120.20
26	1H	2715	C	C2-N3-C4	-5.86	116.97	119.90
1	1G	819	A	N1-C6-N6	5.86	122.12	118.60
26	14	1660	C	N3-C4-C5	5.86	124.25	121.90
26	14	2324	C	C6-N1-C2	5.86	122.64	120.30
29	19	44	ASN	N-CA-C	5.86	126.83	111.00
26	1H	474	G	N9-C4-C5	5.86	107.75	105.40
26	1H	2517	C	C5-C6-N1	-5.86	118.07	121.00
26	14	640	C	OP1-P-O3'	5.86	118.10	105.20
26	14	2283	C	N3-C4-N4	5.86	122.10	118.00
26	1H	2573	C	N1-C2-O2	-5.86	115.38	118.90
26	14	2087	G	C8-N9-C4	5.86	108.74	106.40
26	14	2196	C	N1-C2-O2	-5.86	115.38	118.90
26	14	2252	G	N1-C2-N2	-5.86	110.92	116.20
26	1H	196	A	OP2-P-O3'	5.86	118.09	105.20
26	1H	791	C	OP2-P-O3'	5.86	118.09	105.20
26	1H	1728	G	C6-C5-N7	-5.86	126.89	130.40
26	1H	1790	C	P-O3'-C3'	5.86	126.73	119.70
26	1H	1965	C	O5'-P-OP2	5.86	117.73	110.70
26	1H	36	G	C4-C5-N7	-5.86	108.46	110.80
26	1H	2503	A	N9-C4-C5	-5.86	103.46	105.80
1	1G	990	C	C6-N1-C2	-5.86	117.96	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1314	C	C6-N1-C1'	-5.86	113.77	120.80
26	14	1608	A	C5-C6-N6	5.86	128.38	123.70
26	14	1618	A	N7-C8-N9	5.86	116.73	113.80
26	14	1930	G	C5-N7-C8	5.86	107.23	104.30
26	14	2425	A	C5'-C4'-O4'	5.86	116.13	109.10
1	13	901	A	OP2-P-O3'	5.86	118.08	105.20
1	13	1381	U	O4'-C1'-N1	5.86	112.89	108.20
26	1H	1927	A	O5'-P-OP2	-5.86	100.43	105.70
26	1H	2032	G	C8-N9-C4	5.86	108.74	106.40
26	1H	2352	A	N9-C4-C5	-5.86	103.46	105.80
26	14	1280	G	OP1-P-OP2	-5.86	110.82	119.60
26	14	1366	A	C5-N7-C8	-5.86	100.97	103.90
26	14	1602	U	C4-C5-C6	5.86	123.21	119.70
26	14	1616	A	N3-C4-C5	5.86	130.90	126.80
26	14	1978	A	N1-C6-N6	-5.86	115.09	118.60
1	13	1426	C	OP2-P-O3'	5.85	118.08	105.20
26	1H	1673	U	C2-N3-C4	-5.85	123.49	127.00
26	14	188	G	C5-C6-O6	-5.85	125.09	128.60
26	14	1390	U	OP1-P-O3'	5.85	118.08	105.20
26	14	1575	C	OP1-P-OP2	-5.85	110.82	119.60
1	13	988	G	C8-N9-C4	-5.85	104.06	106.40
23	2K	17	C	OP1-P-OP2	5.85	128.38	119.60
26	1H	1220	A	O5'-P-OP1	-5.85	100.43	105.70
26	1H	1259	G	N3-C2-N2	5.85	124.00	119.90
26	1H	1643	G	OP2-P-O3'	5.85	118.08	105.20
26	1H	2050	C	N1-C2-O2	-5.85	115.39	118.90
26	1H	2537	U	C5-C4-O4	5.85	129.41	125.90
26	1H	2749	A	OP1-P-OP2	5.85	128.38	119.60
26	1H	2764	A	C5-C6-N1	-5.85	114.77	117.70
1	1G	910	C	C6-N1-C2	5.85	122.64	120.30
26	14	68	G	C5-C6-O6	-5.85	125.09	128.60
26	14	1254	A	N1-C2-N3	5.85	132.23	129.30
26	14	1267	U	O5'-P-OP2	-5.85	100.43	105.70
26	1H	1013	C	N1-C2-O2	-5.85	115.39	118.90
27	16	74	U	OP1-P-OP2	5.85	128.38	119.60
26	1H	99	U	C2-N1-C1'	5.85	124.72	117.70
26	1H	739	G	C5-C6-O6	-5.85	125.09	128.60
26	14	1192	G	N1-C6-O6	-5.85	116.39	119.90
26	1H	1209	G	OP1-P-OP2	5.85	128.37	119.60
26	14	1618	A	OP1-P-OP2	-5.85	110.83	119.60
26	14	2296	U	N1-C2-O2	5.85	126.89	122.80
26	14	2376	A	N1-C6-N6	5.85	122.11	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1408	A	N7-C8-N9	5.85	116.72	113.80
26	1H	299	A	C8-N9-C4	-5.85	103.46	105.80
26	1H	961	C	C2-N3-C4	-5.85	116.98	119.90
26	14	1695	G	C6-C5-N7	-5.85	126.89	130.40
1	13	1199	U	C5-C4-O4	5.84	129.41	125.90
1	1G	428	G	C6-C5-N7	5.84	133.91	130.40
26	14	74	A	N3-C4-N9	-5.84	122.72	127.40
26	14	1950	G	N1-C6-O6	5.84	123.41	119.90
26	14	1708	C	C2-N1-C1'	-5.84	112.37	118.80
26	1H	985	C	N3-C4-N4	-5.84	113.91	118.00
26	1H	2053	G	C2-N3-C4	5.84	114.82	111.90
50	K8	4	SER	N-CA-C	5.84	126.77	111.00
26	14	982	C	N3-C2-O2	5.84	125.99	121.90
26	1H	605	C	C4-C5-C6	5.84	120.32	117.40
26	1H	957	A	N7-C8-N9	-5.84	110.88	113.80
26	1H	1300	U	C2-N3-C4	-5.84	123.50	127.00
26	1H	1430	C	C2-N3-C4	5.84	122.82	119.90
26	1H	1839	G	O4'-C1'-N9	-5.84	103.53	108.20
23	2L	10	G	O5'-P-OP1	-5.84	100.44	105.70
26	14	2352	A	N1-C2-N3	5.84	132.22	129.30
27	1J	43	C	C6-N1-C2	-5.84	117.96	120.30
1	13	221	C	C5-C6-N1	5.84	123.92	121.00
1	13	699	C	N3-C4-C5	5.84	124.23	121.90
26	1H	484	C	C2-N1-C1'	5.84	125.22	118.80
26	1H	1833	U	C5-C4-O4	5.84	129.40	125.90
26	14	1801	G	C6-C5-N7	-5.84	126.90	130.40
1	13	420	U	O5'-P-OP1	-5.84	100.45	105.70
26	1H	942	G	N1-C6-O6	-5.84	116.40	119.90
26	1H	947	G	C5-C6-N1	5.84	114.42	111.50
26	1H	1363	C	C2-N3-C4	-5.84	116.98	119.90
27	16	71	C	C6-N1-C2	-5.84	117.97	120.30
26	14	207	A	O5'-P-OP1	-5.84	100.45	105.70
26	14	1351	C	N3-C4-C5	5.84	124.23	121.90
26	14	1663	C	N1-C2-O2	-5.84	115.40	118.90
26	14	1903	G	OP2-P-O3'	5.84	118.04	105.20
26	14	2441	C	N3-C4-N4	-5.84	113.91	118.00
26	1H	474	G	N3-C4-N9	-5.83	122.50	126.00
26	1H	1246	A	O5'-P-OP2	-5.83	100.45	105.70
26	1H	2594	C	N1-C2-N3	5.83	123.28	119.20
26	14	1342	A	C6-N1-C2	-5.83	115.10	118.60
26	14	1429	G	C4-N9-C1'	5.83	134.08	126.50
26	14	2404	C	O5'-P-OP1	-5.83	100.45	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2872	G	C8-N9-C4	-5.83	104.07	106.40
26	1H	776	G	C8-N9-C4	-5.83	104.07	106.40
26	1H	1625	C	C5-C6-N1	5.83	123.92	121.00
26	1H	2461	C	N3-C4-C5	5.83	124.23	121.90
1	1G	669	U	O5'-P-OP2	-5.83	100.45	105.70
26	14	841	A	N1-C6-N6	5.83	122.10	118.60
26	14	2387	U	C6-N1-C2	5.83	124.50	121.00
1	13	37	U	N3-C4-O4	5.83	123.48	119.40
27	16	47	C	O5'-P-OP2	-5.83	100.45	105.70
26	14	1267	U	OP2-P-O3'	5.83	118.03	105.20
26	14	1493	C	N1-C2-O2	-5.83	115.40	118.90
26	14	2729	G	C6-C5-N7	-5.83	126.90	130.40
27	1J	92	G	OP2-P-O3'	5.83	118.03	105.20
23	2K	29	C	OP2-P-O3'	5.83	118.02	105.20
26	1H	716	A	OP1-P-OP2	-5.83	110.86	119.60
26	1H	1501	C	OP1-P-O3'	5.83	118.02	105.20
26	1H	2571	C	N1-C2-O2	-5.83	115.40	118.90
55	Q8	46	ARG	C-N-CA	5.83	136.27	121.70
26	1H	639	U	C5-C4-O4	5.83	129.40	125.90
26	1H	1695	G	C4-C5-N7	5.83	113.13	110.80
33	51	153	LYS	C-N-CA	5.83	146.47	122.00
26	14	502	A	N1-C2-N3	5.83	132.21	129.30
26	14	2498	C	O5'-P-OP1	5.83	117.69	110.70
26	14	2717	G	C8-N9-C4	-5.83	104.07	106.40
1	13	723	U	C2-N1-C1'	5.83	124.69	117.70
1	13	761	G	C5-C6-O6	5.83	132.09	128.60
1	13	980	C	C6-N1-C2	5.83	122.63	120.30
26	1H	817	C	OP1-P-OP2	-5.83	110.86	119.60
26	1H	1624	G	C8-N9-C4	5.83	108.73	106.40
26	1H	2673	G	N1-C6-O6	-5.83	116.41	119.90
1	1G	865	A	C8-N9-C4	-5.83	103.47	105.80
26	14	676	A	C4-C5-N7	5.83	113.61	110.70
26	14	2514	U	O5'-P-OP2	5.83	117.69	110.70
1	13	1219	U	C6-N1-C2	-5.82	117.51	121.00
1	13	1416	G	OP1-P-OP2	-5.82	110.86	119.60
26	1H	60	G	OP1-P-O3'	-5.82	92.39	105.20
26	1H	235	U	OP1-P-OP2	5.82	128.34	119.60
26	1H	941	A	C8-N9-C4	5.82	108.13	105.80
26	1H	1248	G	N3-C2-N2	-5.82	115.82	119.90
26	1H	1613	G	N1-C2-N2	-5.82	110.96	116.20
26	1H	2621	A	OP2-P-O3'	5.82	118.01	105.20
1	1G	5	U	N1-C2-O2	5.82	126.88	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	536	C	C6-N1-C2	-5.82	117.97	120.30
26	14	1288	U	OP1-P-O3'	5.82	118.01	105.20
26	14	2059	A	OP1-P-O3'	5.82	118.01	105.20
26	14	2375	G	N1-C6-O6	5.82	123.39	119.90
26	14	2870	C	N1-C2-N3	5.82	123.28	119.20
27	1J	14	U	N3-C2-O2	-5.82	118.12	122.20
1	13	827	U	N3-C2-O2	-5.82	118.12	122.20
26	1H	618(A)	C	N3-C4-N4	5.82	122.08	118.00
26	1H	1699	G	N1-C2-N2	-5.82	110.96	116.20
26	1H	2572	A	N9-C4-C5	-5.82	103.47	105.80
26	1H	2586	C	C5-C4-N4	-5.82	116.12	120.20
27	16	37	C	N3-C2-O2	5.82	125.97	121.90
26	14	930	U	N3-C2-O2	5.82	126.28	122.20
26	14	2390	U	C6-N1-C2	-5.82	117.51	121.00
1	13	376	G	OP1-P-OP2	5.82	128.33	119.60
23	2K	20	G	N1-C6-O6	-5.82	116.41	119.90
26	1H	99	U	N1-C2-O2	5.82	126.88	122.80
26	1H	1981	A	O5'-P-OP1	5.82	117.69	110.70
46	G8	85	VAL	N-CA-C	-5.82	95.28	111.00
26	14	2556	C	OP2-P-O3'	5.82	118.01	105.20
32	49	2	PRO	N-CA-CB	5.82	110.28	103.30
26	1H	807	U	N3-C2-O2	5.82	126.27	122.20
52	M8	45	GLY	N-CA-C	-5.82	98.55	113.10
1	1G	401	C	N3-C4-C5	5.82	124.23	121.90
22	1L	74	C	N3-C4-N4	-5.82	113.93	118.00
26	14	2074	U	N1-C2-O2	-5.82	118.73	122.80
26	14	2503	A	C6-C5-N7	-5.82	128.23	132.30
26	1H	1575	C	O5'-P-OP2	-5.82	100.47	105.70
26	1H	2502	G	C6-N1-C2	-5.82	121.61	125.10
26	14	210	C	C6-N1-C2	5.82	122.63	120.30
26	14	1645	G	N3-C4-N9	5.82	129.49	126.00
26	14	1998	G	N3-C4-C5	5.82	131.51	128.60
1	1G	1442	G	N3-C4-N9	-5.82	122.51	126.00
26	14	1021	A	N1-C2-N3	5.82	132.21	129.30
26	14	1619	G	OP1-P-O3'	5.82	117.99	105.20
26	14	1672	C	OP1-P-O3'	5.82	117.99	105.20
26	14	1817	G	C5-C6-O6	5.82	132.09	128.60
26	1H	473	G	OP1-P-OP2	5.81	128.32	119.60
25	4L	16	A	N9-C4-C5	-5.81	103.47	105.80
26	1H	777	A	N1-C2-N3	5.81	132.21	129.30
26	1H	1610	A	O5'-P-OP1	-5.81	100.47	105.70
26	1H	2270	G	C8-N9-C4	5.81	108.72	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	25	U	N3-C2-O2	5.81	126.27	122.20
26	14	1342	A	N9-C1'-C2'	5.81	121.56	114.00
26	14	1366	A	C4-C5-N7	5.81	113.61	110.70
26	1H	1310	G	O5'-P-OP2	5.81	117.67	110.70
26	1H	1817	G	C5-N7-C8	5.81	107.20	104.30
26	14	1801	G	N9-C4-C5	-5.81	103.08	105.40
26	14	2230	G	C8-N9-C4	-5.81	104.08	106.40
40	65	73	LEU	CA-CB-CG	5.81	128.66	115.30
26	1H	638	G	OP1-P-OP2	5.81	128.31	119.60
26	1H	1428	C	C5-C4-N4	5.81	124.27	120.20
26	1H	1992	G	C2'-C3'-O3'	5.81	123.00	113.70
26	1H	2026	C	O5'-P-OP2	-5.81	100.47	105.70
46	G8	84	ARG	N-CA-C	-5.81	95.31	111.00
26	14	121	G	C6-C5-N7	-5.81	126.91	130.40
26	14	205	G	C6-C5-N7	-5.81	126.91	130.40
26	14	315	G	O5'-P-OP1	5.81	117.67	110.70
26	1H	1307	A	N1-C2-N3	5.81	132.20	129.30
26	1H	1671	U	C2-N3-C4	-5.81	123.52	127.00
26	1H	2383	G	N3-C2-N2	5.81	123.97	119.90
1	1G	253	U	O5'-P-OP2	5.81	117.67	110.70
26	14	129	C	C2-N3-C4	-5.81	117.00	119.90
26	14	1942	C	C6-N1-C2	-5.81	117.98	120.30
26	14	2324	C	N3-C4-C5	5.81	124.22	121.90
1	13	767	A	OP1-P-OP2	5.81	128.31	119.60
26	1H	866	A	N9-C4-C5	-5.81	103.48	105.80
26	1H	1031	G	C5-C6-N1	5.81	114.40	111.50
26	1H	1200	C	N1-C2-O2	-5.81	115.42	118.90
26	1H	1728	G	N3-C2-N2	5.81	123.96	119.90
26	1H	1771	C	C5-C4-N4	-5.81	116.14	120.20
26	14	489	G	C5-N7-C8	-5.81	101.40	104.30
1	13	966	G	C5-C6-N1	5.80	114.40	111.50
26	1H	563	G	N1-C6-O6	-5.80	116.42	119.90
26	1H	1899	G	C6-N1-C2	5.80	128.58	125.10
26	1H	2497	A	O4'-C1'-N9	5.80	112.84	108.20
26	14	699	A	N9-C4-C5	5.80	108.12	105.80
26	14	1432	C	N3-C4-N4	5.80	122.06	118.00
26	14	1617	C	N1-C2-O2	-5.80	115.42	118.90
1	13	114	U	O5'-P-OP2	-5.80	100.48	105.70
26	1H	949	C	OP2-P-O3'	5.80	117.96	105.20
26	1H	1187	G	N1-C6-O6	-5.80	116.42	119.90
26	1H	1313	U	C2-N1-C1'	5.80	124.66	117.70
26	14	472	A	C5-C6-N6	5.80	128.34	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	700	G	N3-C4-N9	-5.80	122.52	126.00
26	14	939	G	OP2-P-O3'	5.80	117.96	105.20
26	14	1570	A	O5'-P-OP1	-5.80	100.48	105.70
1	13	1355	G	C8-N9-C4	-5.80	104.08	106.40
26	14	2036	C	O5'-P-OP2	-5.80	100.48	105.70
26	1H	122	G	C4-C5-C6	5.80	122.28	118.80
26	1H	238	C	N1-C2-O2	-5.80	115.42	118.90
26	14	798	G	O5'-P-OP1	5.80	117.66	110.70
1	13	402	G	O5'-P-OP1	5.80	117.66	110.70
27	16	30	C	O5'-P-OP2	5.80	117.66	110.70
26	14	409	C	C6-N1-C2	5.80	122.62	120.30
26	14	1296	G	C5-N7-C8	5.80	107.20	104.30
26	14	1892	C	C2-N1-C1'	-5.80	112.42	118.80
26	14	2607	G	N1-C2-N3	5.80	127.38	123.90
26	1H	150	C	N3-C4-N4	-5.79	113.94	118.00
26	1H	1559	G	C4-C5-N7	5.79	113.12	110.80
26	1H	2678	C	N1-C2-O2	-5.79	115.42	118.90
1	1G	666	G	N9-C4-C5	5.79	107.72	105.40
1	1G	1533	C	N1-C2-O2	5.79	122.38	118.90
26	1H	92	G	N3-C4-N9	5.79	129.48	126.00
26	1H	1920	C	O5'-P-OP2	-5.79	100.49	105.70
26	1H	2500	U	C4-C5-C6	5.79	123.18	119.70
30	21	49	LEU	CA-CB-CG	-5.79	101.97	115.30
26	14	602	G	N3-C4-N9	5.79	129.48	126.00
26	14	1836	C	C6-N1-C2	-5.79	117.98	120.30
26	14	2380	C	N1-C2-O2	-5.79	115.42	118.90
26	14	2590	A	O5'-P-OP2	5.79	117.65	110.70
1	13	520	A	N1-C6-N6	5.79	122.08	118.60
1	13	981	U	C5-C4-O4	-5.79	122.42	125.90
26	1H	132	G	N1-C6-O6	-5.79	116.42	119.90
26	1H	1597	A	O4'-C1'-N9	5.79	112.83	108.20
26	1H	1675	C	C6-N1-C1'	5.79	127.75	120.80
26	1H	2598	A	O5'-P-OP2	5.79	117.65	110.70
1	1G	73	G	C8-N9-C4	-5.79	104.08	106.40
26	14	1154	G	C5-C6-O6	-5.79	125.12	128.60
26	14	2087	G	O5'-P-OP2	-5.79	100.49	105.70
26	14	2567	G	C8-N9-C4	5.79	108.72	106.40
2	1E	111	ARG	NE-CZ-NH1	5.79	123.19	120.30
26	14	186	G	C6-N1-C2	-5.79	121.63	125.10
1	13	865	A	N7-C8-N9	5.79	116.69	113.80
26	1H	330	A	C6-C5-N7	-5.79	128.25	132.30
26	1H	738	G	OP1-P-O3'	5.79	117.94	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2062	A	O4'-C1'-N9	5.79	112.83	108.20
26	1H	2393	A	C5-C6-N1	-5.79	114.81	117.70
26	14	496	G	C8-N9-C4	-5.79	104.08	106.40
1	13	330	C	N3-C2-O2	-5.79	117.85	121.90
26	1H	1428	C	C4-C5-C6	5.79	120.29	117.40
26	1H	2649	U	N3-C4-O4	5.79	123.45	119.40
1	1G	400	C	N1-C2-O2	-5.79	115.43	118.90
1	1G	1056	U	C2-N1-C1'	5.79	124.64	117.70
26	1H	2004	G	C2-N3-C4	-5.79	109.01	111.90
26	1H	2345	G	C5-C6-O6	-5.79	125.13	128.60
27	16	25	A	OP1-P-O3'	5.79	117.93	105.20
26	14	494	G	C5-N7-C8	-5.79	101.41	104.30
26	14	1956	U	N3-C2-O2	-5.79	118.15	122.20
26	1H	124	G	C4-C5-N7	5.78	113.11	110.80
26	1H	698	C	C4-C5-C6	5.78	120.29	117.40
26	1H	766	C	C5-C6-N1	-5.78	118.11	121.00
26	14	954	G	C8-N9-C4	-5.78	104.09	106.40
26	14	1597	A	OP2-P-O3'	5.78	117.92	105.20
1	13	581	G	N9-C4-C5	-5.78	103.09	105.40
26	1H	826	U	OP1-P-OP2	5.78	128.27	119.60
26	1H	1904	G	C5-C6-N1	5.78	114.39	111.50
26	1H	2430	A	C4-C5-N7	5.78	113.59	110.70
26	1H	9	U	C5-C6-N1	5.78	125.59	122.70
26	1H	629	G	O5'-P-OP2	-5.78	100.50	105.70
26	1H	1199	U	C4-C5-C6	5.78	123.17	119.70
26	1H	1497	U	C5-C4-O4	-5.78	122.43	125.90
26	1H	1959	G	OP1-P-OP2	-5.78	110.93	119.60
26	14	673	C	C5-C4-N4	-5.78	116.15	120.20
26	14	2430	A	C4-N9-C1'	-5.78	115.89	126.30
26	1H	628	G	N1-C6-O6	-5.78	116.43	119.90
26	1H	2727	G	OP2-P-O3'	5.78	117.91	105.20
26	14	823	G	N7-C8-N9	-5.78	110.21	113.10
26	14	1828	G	OP1-P-OP2	-5.78	110.93	119.60
1	13	584	G	N1-C6-O6	-5.78	116.43	119.90
26	1H	150	C	C4-C5-C6	5.78	120.29	117.40
26	1H	848	G	N3-C4-N9	5.78	129.47	126.00
26	1H	1617	C	N1-C2-O2	-5.78	115.43	118.90
26	1H	2639	A	C5-C6-N1	-5.78	114.81	117.70
33	51	6	ARG	N-CA-C	-5.78	95.40	111.00
50	K8	3	LEU	CB-CG-CD2	5.78	120.82	111.00
1	1G	894	G	C5-N7-C8	-5.78	101.41	104.30
26	14	2243	U	OP2-P-O3'	5.78	117.91	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	449	A	N1-C6-N6	-5.78	115.13	118.60
26	1H	1378	A	N9-C4-C5	5.78	108.11	105.80
26	1H	2317	C	N3-C4-N4	5.78	122.04	118.00
26	1H	2302	G	O5'-P-OP2	-5.77	100.50	105.70
26	1H	2374	C	O5'-P-OP2	-5.77	100.50	105.70
1	1G	1502	A	C8-N9-C4	-5.77	103.49	105.80
26	14	1764	G	C8-N9-C4	-5.77	104.09	106.40
26	14	2380	C	C2-N3-C4	-5.77	117.01	119.90
1	13	977	A	O5'-P-OP1	5.77	117.63	110.70
26	1H	397	G	N1-C6-O6	-5.77	116.44	119.90
26	1H	675	A	N1-C6-N6	-5.77	115.14	118.60
26	1H	2250	G	C5-N7-C8	-5.77	101.41	104.30
26	1H	2484	G	C8-N9-C4	5.77	108.71	106.40
26	14	1941	C	O5'-P-OP1	-5.77	100.50	105.70
26	14	2014	A	C6-N1-C2	-5.77	115.14	118.60
26	14	2498	C	N3-C2-O2	5.77	125.94	121.90
26	14	2502	G	N1-C2-N2	-5.77	111.00	116.20
26	14	2597	G	C4-C5-N7	5.77	113.11	110.80
30	29	80	GLU	N-CA-C	5.77	126.59	111.00
26	1H	1430	C	O5'-P-OP2	-5.77	100.51	105.70
37	78	61	ARG	NE-CZ-NH2	-5.77	117.42	120.30
47	H8	6	LYS	N-CA-C	-5.77	95.42	111.00
26	14	1598	C	O5'-P-OP2	5.77	117.62	110.70
49	F5	83	GLU	N-CA-C	-5.77	95.42	111.00
26	1H	56	A	N9-C4-C5	-5.77	103.49	105.80
26	1H	418	G	N1-C6-O6	-5.77	116.44	119.90
26	1H	1609	A	O5'-P-OP2	-5.77	100.51	105.70
26	1H	1920	C	N3-C4-N4	-5.77	113.96	118.00
26	1H	2383	G	N1-C2-N2	-5.77	111.01	116.20
26	14	199	A	C5-N7-C8	5.77	106.78	103.90
26	14	672	C	C6-N1-C1'	5.77	127.72	120.80
26	14	765	G	C4-C5-N7	-5.77	108.49	110.80
1	13	520	A	N1-C2-N3	5.77	132.18	129.30
26	1H	1436	G	P-O3'-C3'	5.77	126.62	119.70
26	1H	1658	C	C6-N1-C2	-5.77	117.99	120.30
26	1H	2434	A	OP2-P-O3'	5.77	117.89	105.20
26	1H	2717	G	C4-C5-N7	-5.77	108.49	110.80
1	13	276	G	N3-C2-N2	-5.77	115.86	119.90
1	13	1228	C	C6-N1-C2	-5.77	117.99	120.30
1	13	1465	C	N1-C2-O2	-5.77	115.44	118.90
26	14	1668	A	C2-N3-C4	5.77	113.48	110.60
1	13	904	C	N1-C2-O2	5.76	122.36	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1489	G	N9-C4-C5	-5.76	103.09	105.40
26	1H	1354	A	C2-N3-C4	-5.76	107.72	110.60
1	1G	5	U	N3-C2-O2	-5.76	118.17	122.20
26	14	62	C	N1-C2-O2	-5.76	115.44	118.90
26	14	684	G	N7-C8-N9	5.76	115.98	113.10
26	14	1613	G	O5'-P-OP1	5.76	117.62	110.70
26	14	2020	A	OP2-P-O3'	5.76	117.88	105.20
26	1H	509	C	OP2-P-O3'	5.76	117.88	105.20
29	11	85	ASP	C-N-CD	5.76	140.50	128.40
1	13	266	G	C2-N3-C4	-5.76	109.02	111.90
1	13	1266	G	C5-N7-C8	-5.76	101.42	104.30
26	1H	856	C	N1-C2-O2	-5.76	115.44	118.90
26	1H	2068	U	C5-C4-O4	5.76	129.36	125.90
26	14	1943	U	N3-C2-O2	-5.76	118.17	122.20
26	1H	1942	C	N3-C4-C5	5.76	124.20	121.90
26	1H	2465	C	C2-N3-C4	-5.76	117.02	119.90
1	1G	1428	A	N1-C6-N6	5.76	122.06	118.60
26	14	778	G	C5-N7-C8	5.76	107.18	104.30
26	14	1627	G	C6-C5-N7	-5.76	126.94	130.40
26	14	2428	G	N1-C6-O6	-5.76	116.44	119.90
26	14	2701	C	N3-C4-C5	5.76	124.20	121.90
1	13	387	U	OP1-P-O3'	5.76	117.87	105.20
26	1H	418	G	N1-C2-N2	-5.76	111.02	116.20
26	1H	1636	C	N3-C4-N4	5.76	122.03	118.00
26	1H	1669	A	N7-C8-N9	5.76	116.68	113.80
26	1H	2436	G	O5'-P-OP1	-5.76	100.52	105.70
26	14	472	A	C8-N9-C4	-5.76	103.50	105.80
1	13	985	C	O5'-P-OP2	5.76	117.61	110.70
26	1H	30	G	N3-C4-C5	-5.76	125.72	128.60
26	1H	607	U	N3-C4-O4	-5.76	115.37	119.40
26	1H	1379	A	C5-C6-N6	-5.76	119.09	123.70
26	1H	1815	A	N1-C6-N6	5.76	122.05	118.60
1	1G	388	G	C5-C6-O6	5.76	132.05	128.60
26	14	729	G	C5-C6-O6	-5.76	125.15	128.60
26	14	1784	A	C5-N7-C8	-5.76	101.02	103.90
26	14	2009	G	O5'-P-OP1	5.76	117.61	110.70
26	14	2057	A	N1-C6-N6	5.76	122.05	118.60
26	14	2498	C	C6-N1-C2	5.76	122.60	120.30
26	1H	566	U	OP1-P-O3'	5.75	117.86	105.20
26	1H	1589	C	OP1-P-OP2	-5.75	110.97	119.60
30	21	129	HIS	C-N-CA	-5.75	110.22	122.30
26	14	1142	U	C6-N1-C1'	-5.75	113.14	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1142(A)	A	N3-C4-N9	-5.75	122.80	127.40
26	14	2058	A	C8-N9-C4	-5.75	103.50	105.80
26	14	2505	G	OP2-P-O3'	5.75	117.86	105.20
20	BI	99	LEU	CA-CB-CG	5.75	128.53	115.30
26	1H	1034	G	C5-C6-O6	-5.75	125.15	128.60
26	1H	1370	C	N1-C2-O2	-5.75	115.45	118.90
26	1H	2522	U	C2-N3-C4	-5.75	123.55	127.00
1	1G	1409	C	O5'-P-OP2	-5.75	100.52	105.70
26	14	2544	G	C6-C5-N7	-5.75	126.95	130.40
27	1J	98	G	C5-C6-O6	-5.75	125.15	128.60
26	1H	108	U	O5'-P-OP1	-5.75	100.52	105.70
26	14	1156	A	N9-C4-C5	-5.75	103.50	105.80
26	14	1681	G	C4-C5-N7	5.75	113.10	110.80
1	13	630	G	C4-N9-C1'	-5.75	119.02	126.50
26	1H	707	G	O5'-P-OP2	-5.75	100.53	105.70
26	1H	1954	G	C4-C5-N7	-5.75	108.50	110.80
26	14	2583	G	C5-C6-N1	5.75	114.38	111.50
26	1H	1658	C	N3-C4-C5	-5.75	119.60	121.90
26	1H	1982	C	N1-C2-O2	-5.75	115.45	118.90
26	1H	2555	U	N1-C2-N3	5.75	118.35	114.90
26	1H	2606	C	O5'-P-OP1	-5.75	100.53	105.70
26	1H	2691	C	C6-N1-C2	5.75	122.60	120.30
31	31	117	ARG	NE-CZ-NH1	-5.75	117.43	120.30
26	14	737	C	C4-C5-C6	5.75	120.27	117.40
26	14	2713	A	C5-C6-N6	-5.75	119.10	123.70
26	1H	621	A	C5-C6-N1	-5.75	114.83	117.70
26	1H	797	C	N1-C2-O2	-5.75	115.45	118.90
26	1H	1197	G	N1-C6-O6	-5.75	116.45	119.90
26	1H	1779	U	OP1-P-OP2	5.75	128.22	119.60
26	1H	1827	C	OP2-P-O3'	5.75	117.84	105.20
26	1H	2030	A	N1-C6-N6	5.75	122.05	118.60
23	2L	46	G	C5-C6-O6	5.75	132.05	128.60
26	14	832	G	N1-C6-O6	5.75	123.35	119.90
26	1H	2440	C	O5'-P-OP2	-5.75	100.53	105.70
1	1G	1432	G	N3-C4-C5	-5.75	125.73	128.60
26	14	2499	C	N1-C2-O2	-5.75	115.45	118.90
1	13	1426	C	C5-C4-N4	-5.74	116.18	120.20
24	3K	70	C	C6-N1-C2	-5.74	118.00	120.30
27	16	81	G	N3-C4-N9	-5.74	122.55	126.00
1	1G	46	G	C8-N9-C4	5.74	108.70	106.40
26	14	382	G	OP1-P-O3'	5.74	117.83	105.20
26	14	1678	G	C5-C6-N1	-5.74	108.63	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1004	C	N3-C4-C5	-5.74	119.60	121.90
1	13	1149	C	C6-N1-C2	-5.74	118.00	120.30
26	1H	721	C	O5'-P-OP1	-5.74	100.53	105.70
26	1H	2093	G	OP2-P-O3'	5.74	117.83	105.20
26	1H	2297	C	N3-C4-N4	-5.74	113.98	118.00
26	1H	2376	A	N1-C2-N3	5.74	132.17	129.30
26	1H	2401	U	O5'-P-OP1	-5.74	100.53	105.70
27	16	61	G	N7-C8-N9	5.74	115.97	113.10
1	1G	413	G	C8-N9-C1'	5.74	134.46	127.00
26	14	460	A	OP1-P-OP2	-5.74	110.99	119.60
26	14	628	G	C5-C6-O6	-5.74	125.16	128.60
26	14	1635	G	OP1-P-O3'	5.74	117.83	105.20
26	14	2330	G	N1-C6-O6	5.74	123.34	119.90
23	2K	57	C	OP1-P-O3'	5.74	117.83	105.20
26	1H	236	C	C4-C5-C6	5.74	120.27	117.40
26	1H	512	G	C5-C6-O6	5.74	132.04	128.60
26	1H	646	A	N7-C8-N9	5.74	116.67	113.80
26	1H	749	C	N3-C4-C5	-5.74	119.60	121.90
26	1H	852	G	N3-C2-N2	5.74	123.92	119.90
26	1H	1590	U	O5'-P-OP1	-5.74	100.53	105.70
26	1H	2246	G	C4-C5-N7	-5.74	108.50	110.80
26	1H	2360	A	C2-N3-C4	-5.74	107.73	110.60
1	1G	296	U	N3-C2-O2	-5.74	118.18	122.20
26	14	583	G	N7-C8-N9	5.74	115.97	113.10
26	14	1825	A	N1-C6-N6	-5.74	115.16	118.60
1	13	449	C	N3-C2-O2	-5.74	117.88	121.90
1	13	1216	G	O5'-P-OP2	-5.74	100.54	105.70
26	1H	562	U	O5'-P-OP1	-5.74	100.54	105.70
26	1H	585	G	N1-C6-O6	5.74	123.34	119.90
26	1H	1558	A	O5'-P-OP2	5.74	117.58	110.70
26	1H	1675	C	N1-C2-O2	-5.74	115.46	118.90
26	1H	2003	G	C5-C6-O6	-5.74	125.16	128.60
26	1H	2592	G	N1-C6-O6	5.74	123.34	119.90
24	3L	76	A	N9-C4-C5	-5.74	103.50	105.80
26	14	1283	G	N3-C4-N9	5.74	129.44	126.00
26	14	1919	A	N9-C4-C5	-5.74	103.50	105.80
26	14	2866	U	N1-C2-N3	5.74	118.34	114.90
26	1H	246	C	OP1-P-O3'	5.74	117.82	105.20
26	1H	775	G	N3-C2-N2	5.74	123.91	119.90
26	1H	2751	G	C6-C5-N7	-5.74	126.96	130.40
26	14	802	A	C6-N1-C2	-5.74	115.16	118.60
26	14	2712	U	N3-C4-O4	-5.74	115.39	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	826	U	C4-C5-C6	5.73	123.14	119.70
1	13	1158	C	C2-N1-C1'	5.73	125.11	118.80
26	1H	1340	U	C5-C6-N1	-5.73	119.83	122.70
26	1H	1364	G	N3-C2-N2	5.73	123.91	119.90
26	1H	1627	G	N3-C2-N2	5.73	123.91	119.90
26	1H	1900	A	C5'-C4'-O4'	-5.73	102.22	109.10
26	14	391	G	N1-C6-O6	5.73	123.34	119.90
1	13	910	C	O5'-P-OP1	5.73	117.58	110.70
1	13	1097	C	N1-C2-O2	5.73	122.34	118.90
26	1H	215	G	OP1-P-O3'	5.73	117.81	105.20
26	1H	414	C	OP1-P-OP2	5.73	128.20	119.60
26	1H	588	U	OP2-P-O3'	5.73	117.81	105.20
26	1H	1936	A	O4'-C1'-N9	5.73	112.78	108.20
26	14	1698	A	C4-N9-C1'	5.73	136.61	126.30
26	14	1894	C	N1-C2-O2	5.73	122.34	118.90
26	14	2446	G	N1-C6-O6	-5.73	116.46	119.90
26	14	2572	A	C5-C6-N1	5.73	120.56	117.70
26	14	2682	U	O5'-P-OP2	-5.73	100.54	105.70
34	69	77	LEU	CA-CB-CG	5.73	128.48	115.30
26	1H	270	A	O5'-P-OP2	-5.73	100.54	105.70
26	1H	2574	G	C8-N9-C4	5.73	108.69	106.40
1	1G	1517	G	O5'-P-OP1	5.73	117.58	110.70
26	14	1416	G	O4'-C1'-N9	5.73	112.78	108.20
26	14	2523	G	N1-C6-O6	5.73	123.34	119.90
26	14	2701	C	OP2-P-O3'	5.73	117.80	105.20
1	13	1222	G	O5'-P-OP2	-5.73	100.55	105.70
1	13	1477	C	N3-C4-N4	5.73	122.01	118.00
26	1H	85	G	O5'-P-OP2	-5.73	100.55	105.70
26	1H	832	G	C8-N9-C4	-5.73	104.11	106.40
1	1G	1529	G	C4-N9-C1'	5.73	133.95	126.50
26	1H	1800	C	O5'-P-OP2	5.73	117.57	110.70
26	1H	2073	C	OP2-P-O3'	5.73	117.80	105.20
26	1H	2313	C	OP2-P-O3'	5.73	117.80	105.20
27	16	44	G	OP2-P-O3'	5.73	117.80	105.20
26	14	507	A	C2-N3-C4	5.73	113.46	110.60
26	14	2490	G	C4-N9-C1'	5.73	133.94	126.50
26	1H	512	G	N7-C8-N9	-5.72	110.24	113.10
26	1H	987	G	N3-C2-N2	-5.72	115.89	119.90
26	1H	2253	G	C8-N9-C4	5.72	108.69	106.40
26	14	834	C	C6-N1-C2	-5.72	118.01	120.30
1	13	1199	U	O5'-P-OP1	-5.72	100.55	105.70
1	13	1403	C	C4-C5-C6	-5.72	114.54	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	150	C	C5-C6-N1	-5.72	118.14	121.00
26	1H	615	G	C2-N3-C4	5.72	114.76	111.90
26	1H	664	C	N1-C2-N3	5.72	123.20	119.20
26	1H	1382	G	C6-C5-N7	-5.72	126.97	130.40
26	1H	1626	G	P-O3'-C3'	5.72	126.57	119.70
26	1H	1863	G	O5'-P-OP1	-5.72	100.55	105.70
26	1H	2817	G	N3-C4-N9	5.72	129.43	126.00
27	16	72	G	C5-C6-O6	-5.72	125.17	128.60
26	14	447	A	O5'-P-OP2	5.72	117.57	110.70
26	14	484	C	C6-N1-C2	-5.72	118.01	120.30
26	14	2607	G	O5'-P-OP2	-5.72	100.55	105.70
26	14	2676	C	C6-N1-C2	5.72	122.59	120.30
27	1J	47	C	C6-N1-C2	5.72	122.59	120.30
1	13	197	A	C8-N9-C4	-5.72	103.51	105.80
1	13	1200	C	N3-C4-C5	-5.72	119.61	121.90
1	13	1242	C	C6-N1-C2	5.72	122.59	120.30
26	1H	241	A	C2-N3-C4	-5.72	107.74	110.60
26	1H	670	A	C5-C6-N1	5.72	120.56	117.70
26	1H	790	C	C6-N1-C2	5.72	122.59	120.30
26	14	1450	C	O5'-P-OP2	-5.72	100.55	105.70
26	1H	296	C	C6-N1-C2	5.72	122.59	120.30
26	1H	1141	U	OP1-P-OP2	-5.72	111.02	119.60
26	1H	1363	C	N3-C4-C5	5.72	124.19	121.90
26	1H	2515	C	O5'-P-OP1	5.72	117.56	110.70
26	1H	299	A	OP2-P-O3'	5.72	117.78	105.20
26	1H	811	U	C4-C5-C6	5.72	123.13	119.70
26	1H	1241	A	C4-C5-N7	5.72	113.56	110.70
26	14	615	G	C8-N9-C1'	5.72	134.43	127.00
26	14	724	U	O5'-P-OP1	-5.72	100.55	105.70
26	1H	1262	A	O5'-P-OP1	-5.72	100.56	105.70
26	1H	1373	A	C8-N9-C4	5.72	108.09	105.80
26	1H	2271	G	N3-C2-N2	5.72	123.90	119.90
1	13	1323	G	N1-C6-O6	5.71	123.33	119.90
1	1G	541	G	C5-C6-O6	-5.71	125.17	128.60
26	14	133	C	C5-C6-N1	-5.71	118.14	121.00
26	14	451	C	N3-C4-C5	5.71	124.19	121.90
26	14	2649	U	N3-C4-O4	5.71	123.40	119.40
26	1H	138	G	N3-C4-C5	5.71	131.46	128.60
26	1H	821	A	OP1-P-O3'	5.71	117.77	105.20
26	1H	915	C	O4'-C1'-N1	5.71	112.77	108.20
26	1H	2811	G	N1-C6-O6	5.71	123.33	119.90
27	16	73	A	O5'-P-OP1	5.71	117.55	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	24	G	N3-C4-C5	5.71	131.46	128.60
26	14	639	U	C5-C4-O4	5.71	129.33	125.90
26	14	757	U	C2-N3-C4	-5.71	123.57	127.00
26	14	2252	G	O5'-P-OP2	-5.71	100.56	105.70
26	1H	239	U	C5-C4-O4	5.71	129.33	125.90
27	1J	114	G	C2-N3-C4	-5.71	109.05	111.90
1	13	310	G	O5'-P-OP1	-5.71	100.56	105.70
1	13	538	G	C6-C5-N7	-5.71	126.97	130.40
1	13	1177	G	C6-C5-N7	5.71	133.82	130.40
26	1H	831	G	N1-C2-N2	-5.71	111.06	116.20
26	1H	1612	C	N3-C2-O2	5.71	125.90	121.90
26	1H	2293	C	N3-C4-C5	5.71	124.18	121.90
26	1H	2331	G	C4-C5-N7	5.71	113.08	110.80
26	1H	2389	G	OP1-P-O3'	5.71	117.76	105.20
1	1G	1406	U	OP1-P-OP2	-5.71	111.04	119.60
26	14	2604	U	C2-N1-C1'	5.71	124.55	117.70
26	14	2698	U	N1-C2-O2	5.71	126.80	122.80
1	13	43	C	C5-C6-N1	5.71	123.85	121.00
1	13	1158	C	N1-C2-O2	5.71	122.32	118.90
26	1H	745	G	N3-C4-C5	-5.71	125.75	128.60
26	1H	2057	A	C6-N1-C2	-5.71	115.18	118.60
26	1H	2385	C	N1-C2-N3	5.71	123.19	119.20
1	1G	120	A	N1-C6-N6	5.71	122.02	118.60
26	14	2134	A	C2-N3-C4	5.71	113.45	110.60
26	14	803	U	N3-C2-O2	-5.71	118.21	122.20
1	13	858	G	C4-N9-C1'	5.70	133.91	126.50
1	13	1233	G	N1-C6-O6	-5.70	116.48	119.90
26	1H	470	A	C2-N3-C4	-5.70	107.75	110.60
26	1H	514	A	C5-N7-C8	5.70	106.75	103.90
26	14	1124	C	C2-N3-C4	-5.70	117.05	119.90
1	13	401	C	C2-N3-C4	-5.70	117.05	119.90
26	1H	69	C	C6-N1-C2	-5.70	118.02	120.30
26	1H	462	C	C6-N1-C2	-5.70	118.02	120.30
26	14	2325	G	N7-C8-N9	5.70	115.95	113.10
1	13	767	A	C2-N3-C4	-5.70	107.75	110.60
1	13	798	G	C5-N7-C8	-5.70	101.45	104.30
26	1H	966	G	C8-N9-C4	5.70	108.68	106.40
26	1H	2281	C	N3-C4-N4	5.70	121.99	118.00
26	1H	2334	G	OP2-P-O3'	5.70	117.74	105.20
1	1G	579	G	C8-N9-C4	-5.70	104.12	106.40
26	14	531	C	C4-C5-C6	5.70	120.25	117.40
26	14	1772	G	C8-N9-C4	5.70	108.68	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	195	A	OP1-P-O3'	-5.70	92.66	105.20
26	1H	275	G	C4-N9-C1'	-5.70	119.09	126.50
26	1H	2816	C	N3-C4-C5	-5.70	119.62	121.90
26	14	969	U	OP1-P-O3'	5.70	117.74	105.20
26	14	1569	A	N9-C4-C5	5.70	108.08	105.80
26	14	2775	A	C2-N3-C4	-5.70	107.75	110.60
1	1G	428	G	C8-N9-C1'	5.70	134.41	127.00
26	14	1121	C	C6-N1-C2	5.70	122.58	120.30
26	14	1977	A	N1-C2-N3	5.70	132.15	129.30
26	14	2495	G	C5-C6-N1	-5.70	108.65	111.50
1	13	1513	A	N1-C6-N6	5.70	122.02	118.60
26	1H	131	G	C4-C5-N7	5.70	113.08	110.80
26	1H	466	A	C5-C6-N6	-5.70	119.14	123.70
26	1H	776	G	C6-N1-C2	-5.70	121.68	125.10
26	1H	1336	A	C5-C6-N1	5.70	120.55	117.70
26	1H	2331	G	C8-N9-C4	5.70	108.68	106.40
26	1H	2431	U	OP2-P-O3'	-5.70	92.67	105.20
26	1H	2598	A	C5-C6-N6	-5.70	119.14	123.70
26	14	2866	U	C6-N1-C2	-5.70	117.58	121.00
26	1H	1586	A	C5-N7-C8	-5.69	101.05	103.90
26	14	1586	A	C8-N9-C4	-5.69	103.52	105.80
1	13	798	G	N7-C8-N9	5.69	115.95	113.10
1	13	1514	C	C6-N1-C2	-5.69	118.02	120.30
26	1H	722	A	C2-N3-C4	-5.69	107.75	110.60
26	1H	2469	A	O4'-C1'-N9	5.69	112.75	108.20
26	14	1241	A	O4'-C1'-N9	5.69	112.75	108.20
26	1H	682	G	C4-C5-N7	5.69	113.08	110.80
26	1H	713	G	N1-C6-O6	5.69	123.31	119.90
26	1H	789	A	O5'-P-OP1	-5.69	100.58	105.70
26	1H	2761	G	C6-N1-C2	-5.69	121.69	125.10
26	14	606	U	N3-C4-O4	-5.69	115.42	119.40
26	14	1433	U	C5-C6-N1	-5.69	119.86	122.70
26	14	2567	G	N7-C8-N9	-5.69	110.25	113.10
26	14	2822	G	C8-N9-C4	5.69	108.68	106.40
26	1H	1422	G	N3-C2-N2	-5.69	115.92	119.90
26	1H	1775	U	OP2-P-O3'	-5.69	92.69	105.20
26	1H	2040	C	N3-C4-N4	5.69	121.98	118.00
26	14	1585	C	N3-C2-O2	-5.69	117.92	121.90
1	13	697	U	C5-C4-O4	-5.69	122.49	125.90
26	1H	733	G	C2-N3-C4	-5.69	109.06	111.90
26	1H	1891	G	N1-C6-O6	5.69	123.31	119.90
26	1H	2697	G	C5-C6-O6	5.69	132.01	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	16	101	A	N1-C2-N3	5.69	132.14	129.30
26	14	1233	C	N1-C2-O2	-5.69	115.49	118.90
26	14	1770	G	C8-N9-C4	-5.69	104.12	106.40
26	14	2820	A	OP1-P-O3'	5.69	117.71	105.20
26	1H	142	G	OP1-P-O3'	-5.69	92.69	105.20
26	1H	1312	U	OP2-P-O3'	5.69	117.71	105.20
1	1G	1113	C	C5-C6-N1	5.69	123.84	121.00
26	14	563	G	N9-C4-C5	5.69	107.67	105.40
26	14	1497	U	C2-N1-C1'	-5.69	110.88	117.70
1	13	382	A	C8-N9-C4	5.68	108.07	105.80
26	1H	250	G	N7-C8-N9	5.68	115.94	113.10
26	1H	827	U	N1-C2-O2	-5.68	118.82	122.80
26	1H	1571	A	N9-C4-C5	-5.68	103.53	105.80
1	1G	33	A	C8-N9-C4	-5.68	103.53	105.80
1	1G	1335	C	C6-N1-C2	5.68	122.57	120.30
26	14	879	G	N3-C4-C5	-5.68	125.76	128.60
26	14	1394	U	C2-N3-C4	5.68	130.41	127.00
26	14	1570	A	C8-N9-C4	-5.68	103.53	105.80
26	14	1830	C	N3-C4-N4	5.68	121.98	118.00
26	14	2776	A	N9-C4-C5	5.68	108.07	105.80
1	13	577	G	C2-N3-C4	-5.68	109.06	111.90
26	1H	272	G	C2-N3-C4	-5.68	109.06	111.90
26	1H	755	C	OP2-P-O3'	5.68	117.70	105.20
26	1H	1349	A	C5-C6-N1	-5.68	114.86	117.70
26	14	847	U	C5-C4-O4	5.68	129.31	125.90
26	14	1770	G	N7-C8-N9	5.68	115.94	113.10
1	13	738	C	C5-C6-N1	5.68	123.84	121.00
26	1H	2828	C	C2-N3-C4	-5.68	117.06	119.90
1	13	968	A	C6-C5-N7	-5.68	128.32	132.30
26	1H	104	U	N1-C2-N3	5.68	118.31	114.90
26	1H	974	G	OP1-P-OP2	5.68	128.12	119.60
26	1H	2592	G	C6-C5-N7	-5.68	126.99	130.40
1	1G	1259	C	C6-N1-C2	-5.68	118.03	120.30
26	14	1586	A	N7-C8-N9	5.68	116.64	113.80
26	14	2500	U	N3-C4-O4	-5.68	115.42	119.40
1	13	660	G	O5'-P-OP2	5.68	117.51	110.70
1	13	1303	C	N1-C2-O2	5.68	122.31	118.90
26	1H	520	G	OP1-P-O3'	5.68	117.69	105.20
26	1H	2395	C	O5'-P-OP1	5.68	117.51	110.70
26	1H	2468	G	O4'-C1'-N9	5.68	112.74	108.20
1	1G	562	C	N3-C4-C5	5.68	124.17	121.90
26	14	1890	A	N1-C2-N3	-5.68	126.46	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2191	G	C4-N9-C1'	5.68	133.88	126.50
1	13	250	A	C8-N9-C4	-5.68	103.53	105.80
1	13	1505	G	C4-N9-C1'	-5.68	119.12	126.50
23	2K	20	G	C4-C5-N7	-5.68	108.53	110.80
25	4K	18	G	C8-N9-C4	-5.68	104.13	106.40
26	1H	1373	A	N7-C8-N9	-5.68	110.96	113.80
26	1H	1624	G	C5-C6-N1	5.68	114.34	111.50
26	14	458	G	O5'-P-OP2	-5.68	100.59	105.70
26	14	1921	G	N3-C2-N2	5.68	123.87	119.90
26	14	2443	C	C2-N3-C4	-5.68	117.06	119.90
26	1H	942	G	C6-C5-N7	5.67	133.81	130.40
26	1H	1606	G	O5'-P-OP2	-5.67	100.59	105.70
26	1H	2498	C	C4-C5-C6	-5.67	114.56	117.40
26	1H	2518	A	C2-N3-C4	-5.67	107.76	110.60
1	1G	117	G	C5-C6-O6	-5.67	125.19	128.60
26	14	2513	G	C5-C6-O6	-5.67	125.19	128.60
27	1J	54	G	C8-N9-C4	-5.67	104.13	106.40
26	1H	682	G	N9-C4-C5	-5.67	103.13	105.40
26	1H	1953	A	OP1-P-O3'	5.67	117.68	105.20
26	1H	2599	G	N1-C6-O6	-5.67	116.50	119.90
1	1G	904	C	O5'-P-OP1	-5.67	100.59	105.70
26	14	686	G	C5-C6-N1	5.67	114.34	111.50
26	14	854	G	N3-C2-N2	-5.67	115.93	119.90
1	13	1207	G	O5'-P-OP2	-5.67	100.59	105.70
26	1H	859	G	C4-N9-C1'	-5.67	119.13	126.50
26	1H	1599	C	C2-N3-C4	-5.67	117.06	119.90
26	1H	2378	A	C5-N7-C8	-5.67	101.06	103.90
26	1H	2393	A	N1-C2-N3	5.67	132.14	129.30
1	1G	189	U	C5-C4-O4	-5.67	122.50	125.90
1	1G	266	G	O4'-C1'-N9	-5.67	103.66	108.20
26	14	495	G	N9-C4-C5	5.67	107.67	105.40
26	14	1204	A	C5-N7-C8	-5.67	101.06	103.90
26	14	2329	G	N7-C8-N9	-5.67	110.26	113.10
26	14	2401	U	C2-N1-C1'	5.67	124.51	117.70
1	13	238	G	N1-C2-N2	-5.67	111.10	116.20
1	13	960	U	C6-N1-C2	-5.67	117.60	121.00
1	13	1502	A	N9-C1'-C2'	5.67	121.37	114.00
26	1H	2239	G	N1-C2-N2	-5.67	111.10	116.20
26	14	1127	A	O4'-C1'-N9	5.67	112.74	108.20
26	14	1528	A	C2-N3-C4	-5.67	107.77	110.60
26	14	1651	G	N7-C8-N9	5.67	115.94	113.10
26	14	2580	U	C2-N1-C1'	5.67	124.50	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	1J	7	G	C2-N3-C4	-5.67	109.06	111.90
24	3K	27	G	N3-C4-C5	-5.67	125.77	128.60
26	1H	769	G	N3-C4-N9	5.67	129.40	126.00
26	1H	1800	C	OP1-P-O3'	5.67	117.67	105.20
26	14	121	G	C5-C6-N1	5.67	114.33	111.50
26	14	445	C	N1-C2-O2	-5.67	115.50	118.90
26	14	1594	G	O5'-P-OP2	5.67	117.50	110.70
1	13	970	C	O5'-P-OP2	5.67	117.50	110.70
26	1H	602	G	C6-C5-N7	-5.67	127.00	130.40
26	1H	2395	C	N3-C4-C5	5.67	124.17	121.90
26	1H	2501	C	O4'-C1'-N1	5.67	112.73	108.20
26	1H	2712	U	P-O3'-C3'	5.67	126.50	119.70
22	1L	76	A	C8-N9-C4	-5.67	103.53	105.80
26	14	68	G	N9-C4-C5	-5.67	103.13	105.40
26	14	601	C	N1-C2-O2	-5.67	115.50	118.90
26	14	1639	U	C5-C6-N1	-5.67	119.87	122.70
27	1J	89	G	C4-N9-C1'	5.67	133.87	126.50
26	1H	577	G	C5-C6-O6	-5.67	125.20	128.60
26	1H	1282	U	N1-C2-O2	-5.67	118.83	122.80
26	1H	2418	A	C8-N9-C4	-5.67	103.53	105.80
26	14	998	C	N1-C2-O2	5.67	122.30	118.90
26	1H	139	G	C6-N1-C2	-5.66	121.70	125.10
26	1H	1184	G	OP2-P-O3'	5.66	117.66	105.20
38	88	84	GLY	N-CA-C	-5.66	98.94	113.10
26	14	1005	C	O5'-P-OP2	-5.66	100.60	105.70
26	14	1128	A	OP2-P-O3'	5.66	117.66	105.20
26	14	2044	C	OP1-P-OP2	5.66	128.10	119.60
26	14	2271	G	OP2-P-O3'	5.66	117.66	105.20
26	1H	422	A	N9-C4-C5	-5.66	103.53	105.80
26	1H	984	A	N9-C4-C5	-5.66	103.53	105.80
26	14	2084	C	C4-C5-C6	5.66	120.23	117.40
26	1H	245	G	N3-C4-N9	5.66	129.40	126.00
26	1H	271	G	C5-C6-O6	-5.66	125.20	128.60
26	1H	294	A	O4'-C1'-N9	5.66	112.73	108.20
26	1H	695	G	O4'-C1'-N9	5.66	112.73	108.20
26	1H	749	C	N1-C2-O2	5.66	122.30	118.90
26	1H	2589	A	C8-N9-C4	5.66	108.06	105.80
26	14	194	G	OP2-P-O3'	5.66	117.65	105.20
26	14	1386	C	N3-C4-C5	-5.66	119.64	121.90
26	14	2583	G	C5-C6-O6	-5.66	125.20	128.60
26	14	2713	A	N1-C2-N3	5.66	132.13	129.30
1	13	872	A	O4'-C1'-N9	5.66	112.73	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	890	G	N7-C8-N9	-5.66	110.27	113.10
26	1H	598	G	O5'-P-OP2	-5.66	100.61	105.70
26	1H	2337	G	C5-C6-O6	-5.66	125.20	128.60
26	1H	2763	G	C8-N9-C1'	-5.66	119.64	127.00
1	1G	28	G	C8-N9-C4	-5.66	104.14	106.40
1	1G	1519	A	N1-C2-N3	5.66	132.13	129.30
22	1K	35	U	N1-C2-O2	5.66	126.76	122.80
26	1H	781	A	OP1-P-OP2	5.66	128.09	119.60
26	1H	1661	G	N7-C8-N9	-5.66	110.27	113.10
1	13	134	A	N9-C4-C5	-5.66	103.54	105.80
1	13	901	A	C5-C6-N6	-5.66	119.18	123.70
26	1H	738	G	C8-N9-C4	-5.66	104.14	106.40
26	1H	769	G	C6-N1-C2	-5.66	121.71	125.10
26	1H	1822	G	N1-C2-N3	5.66	127.29	123.90
26	1H	2056	G	C8-N9-C1'	-5.66	119.65	127.00
27	16	57	A	N1-C6-N6	-5.66	115.21	118.60
26	14	327	G	N1-C6-O6	5.66	123.29	119.90
26	14	603	A	O4'-C1'-N9	5.66	112.72	108.20
26	14	824	A	N7-C8-N9	-5.66	110.97	113.80
26	14	1698	A	C8-N9-C1'	-5.66	117.52	127.70
26	14	1760	A	C6-N1-C2	-5.66	115.21	118.60
1	13	583	A	N3-C4-C5	5.65	130.76	126.80
42	C8	12	ARG	NE-CZ-NH2	-5.65	117.47	120.30
26	14	503	A	C5-C6-N6	5.65	128.22	123.70
26	14	681	G	N1-C6-O6	5.65	123.29	119.90
26	14	773	U	N1-C2-O2	-5.65	118.84	122.80
26	14	795	C	O5'-P-OP1	-5.65	100.61	105.70
1	13	429	U	O4'-C1'-N1	5.65	112.72	108.20
1	13	1464	G	C5-C6-O6	-5.65	125.21	128.60
2	1E	158	LEU	CA-CB-CG	5.65	128.30	115.30
26	1H	135	G	C6-N1-C2	-5.65	121.71	125.10
26	1H	2424	C	C4-C5-C6	-5.65	114.58	117.40
26	14	587	C	C6-N1-C2	5.65	122.56	120.30
26	14	1410	G	O5'-P-OP2	-5.65	100.61	105.70
27	1J	22	U	C5-C6-N1	5.65	125.53	122.70
27	16	28	C	OP1-P-OP2	-5.65	111.13	119.60
26	14	1840	G	C5-C6-N1	-5.65	108.67	111.50
26	14	2096	U	C5-C6-N1	5.65	125.52	122.70
26	14	2449	U	OP2-P-O3'	5.65	117.63	105.20
1	13	601	C	O5'-P-OP2	-5.65	100.62	105.70
23	2K	62	C	C6-N1-C2	-5.65	118.04	120.30
26	1H	470	A	N1-C2-N3	5.65	132.12	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1199	U	C2-N3-C4	-5.65	123.61	127.00
26	1H	1261	C	N3-C4-C5	5.65	124.16	121.90
26	1H	2318	G	C8-N9-C4	-5.65	104.14	106.40
26	1H	2594	C	C2-N1-C1'	5.65	125.01	118.80
1	1G	630	G	C5-N7-C8	5.65	107.12	104.30
26	14	1899	G	N9-C4-C5	-5.65	103.14	105.40
27	1J	113	C	OP1-P-OP2	5.65	128.07	119.60
26	1H	314	A	N1-C6-N6	5.65	121.99	118.60
26	1H	1954	G	O5'-P-OP2	5.65	117.47	110.70
26	1H	2048	G	N1-C6-O6	5.65	123.29	119.90
26	1H	2366	A	OP1-P-O3'	-5.65	92.78	105.20
23	2L	48	U	P-O3'-C3'	5.65	126.47	119.70
1	13	503	C	C2-N1-C1'	5.64	125.01	118.80
26	1H	1142	U	C5-C4-O4	-5.64	122.51	125.90
26	1H	1634	A	OP2-P-O3'	5.64	117.62	105.20
26	1H	1791	A	N1-C2-N3	-5.64	126.48	129.30
26	1H	2006	C	C6-N1-C2	5.64	122.56	120.30
26	1H	2053	G	N1-C2-N2	5.64	121.28	116.20
26	1H	2311	A	N7-C8-N9	5.64	116.62	113.80
26	1H	2330	G	C4-C5-N7	5.64	113.06	110.80
1	1G	1127	G	O5'-P-OP1	-5.64	100.62	105.70
26	14	771	G	O5'-P-OP1	5.64	117.47	110.70
26	14	821	A	OP1-P-OP2	5.64	128.06	119.60
26	14	2013	A	N1-C2-N3	5.64	132.12	129.30
26	14	2555	U	N1-C2-O2	-5.64	118.85	122.80
1	13	312	C	OP2-P-O3'	5.64	117.61	105.20
1	13	434	U	C5-C6-N1	5.64	125.52	122.70
26	1H	142	G	C2-N3-C4	-5.64	109.08	111.90
26	1H	758	C	O5'-P-OP2	-5.64	100.62	105.70
26	1H	860	U	C2-N3-C4	-5.64	123.61	127.00
26	1H	996	A	N7-C8-N9	-5.64	110.98	113.80
26	1H	2391	G	C5-C6-O6	5.64	131.99	128.60
1	1G	966	G	C8-N9-C4	5.64	108.66	106.40
26	14	1630	G	C2-N3-C4	5.64	114.72	111.90
1	13	328	C	C2-N1-C1'	5.64	125.00	118.80
1	13	762	C	C5-C6-N1	-5.64	118.18	121.00
23	2K	61	U	OP1-P-OP2	5.64	128.06	119.60
26	1H	113	G	N1-C2-N2	5.64	121.28	116.20
26	1H	391	G	C5-C6-N1	-5.64	108.68	111.50
26	1H	1627	G	C5-N7-C8	5.64	107.12	104.30
26	1H	1699	G	N3-C2-N2	5.64	123.85	119.90
26	1H	1768	U	N3-C4-O4	-5.64	115.45	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2074	U	N1-C2-N3	5.64	118.28	114.90
27	16	77	U	C2-N3-C4	-5.64	123.62	127.00
23	2L	35	C	C2-N1-C1'	5.64	125.00	118.80
26	14	935	C	C5-C6-N1	-5.64	118.18	121.00
26	14	1953	A	O5'-P-OP2	5.64	117.47	110.70
26	14	2866	U	C6-N1-C1'	5.64	129.09	121.20
26	1H	1009	A	C5-N7-C8	5.64	106.72	103.90
26	14	2031	A	C4-C5-N7	5.64	113.52	110.70
1	13	1232	U	N1-C2-O2	-5.64	118.85	122.80
23	2K	45	A	N1-C6-N6	5.64	121.98	118.60
26	1H	314	A	C4-C5-N7	5.64	113.52	110.70
26	1H	1249	U	C2-N3-C4	-5.64	123.62	127.00
26	1H	2392	A	OP2-P-O3'	5.64	117.60	105.20
26	1H	2500	U	OP2-P-O3'	5.64	117.60	105.20
26	14	579	G	N1-C2-N2	5.64	121.27	116.20
26	14	615	G	C4-N9-C1'	-5.64	119.17	126.50
26	14	1637	A	C5-C6-N1	-5.64	114.88	117.70
26	14	2364	C	O5'-P-OP1	5.64	117.46	110.70
1	13	15	G	N3-C4-N9	5.63	129.38	126.00
1	13	1442	G	C6-C5-N7	-5.63	127.02	130.40
26	1H	1670	C	C4-C5-C6	5.63	120.22	117.40
26	1H	2454	G	N3-C2-N2	5.63	123.84	119.90
26	1H	2509	G	C5-C6-N1	5.63	114.32	111.50
26	14	796	C	C2-N3-C4	-5.63	117.08	119.90
26	14	961	C	OP1-P-OP2	5.63	128.05	119.60
26	14	1627	G	C8-N9-C1'	-5.63	119.67	127.00
26	14	1653	G	O5'-P-OP2	-5.63	100.63	105.70
26	14	2006	C	N3-C4-C5	5.63	124.15	121.90
37	78	49	ARG	NE-CZ-NH1	5.63	123.12	120.30
1	1G	501	C	OP2-P-O3'	5.63	117.59	105.20
26	14	1543	A	N1-C2-N3	5.63	132.12	129.30
1	13	760	G	N9-C4-C5	-5.63	103.15	105.40
26	1H	73	A	N1-C2-N3	-5.63	126.48	129.30
26	1H	528	A	N7-C8-N9	5.63	116.62	113.80
26	1H	823	G	N7-C8-N9	-5.63	110.28	113.10
26	1H	930	U	OP1-P-O3'	5.63	117.59	105.20
30	21	152	LYS	C-N-CA	-5.63	110.47	122.30
26	14	808	G	N9-C4-C5	-5.63	103.15	105.40
26	14	954	G	N3-C2-N2	-5.63	115.96	119.90
26	14	1379	A	P-O3'-C3'	5.63	126.46	119.70
26	1H	2069	G	N9-C4-C5	-5.63	103.15	105.40
26	14	950	G	O5'-P-OP1	5.63	117.46	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1559	G	C8-N9-C1'	-5.63	119.68	127.00
26	14	2350	C	O5'-P-OP2	-5.63	100.63	105.70
23	2K	32	G	N7-C8-N9	5.63	115.91	113.10
26	1H	128	C	N3-C4-C5	5.63	124.15	121.90
26	1H	983	A	N1-C6-N6	-5.63	115.22	118.60
26	1H	1190	G	OP1-P-OP2	5.63	128.04	119.60
26	1H	1566	A	OP1-P-O3'	5.63	117.58	105.20
26	1H	1616	A	OP1-P-OP2	5.63	128.04	119.60
26	1H	1998	G	C8-N9-C4	5.63	108.65	106.40
1	1G	944	G	N3-C4-N9	5.63	129.38	126.00
22	1L	3	G	OP1-P-O3'	5.63	117.58	105.20
26	14	704	G	N3-C2-N2	-5.63	115.96	119.90
26	14	1223	C	N1-C2-O2	-5.63	115.52	118.90
26	14	1695	G	N9-C4-C5	-5.63	103.15	105.40
26	14	2490	G	O4'-C1'-N9	5.63	112.70	108.20
26	1H	197	A	P-O3'-C3'	5.63	126.45	119.70
26	1H	207	A	C6-C5-N7	-5.63	128.36	132.30
26	1H	1256	G	N1-C6-O6	-5.63	116.52	119.90
26	1H	1347	G	OP2-P-O3'	-5.63	92.82	105.20
26	1H	1728	G	N9-C4-C5	-5.63	103.15	105.40
26	1H	2408	U	OP2-P-O3'	5.63	117.58	105.20
1	1G	754	C	C2-N1-C1'	5.63	124.99	118.80
26	14	1791	A	OP1-P-OP2	-5.63	111.16	119.60
26	14	2506	U	OP2-P-O3'	5.63	117.58	105.20
1	13	520	A	C2-N3-C4	-5.62	107.79	110.60
26	1H	906	G	C4-N9-C1'	-5.62	119.19	126.50
26	1H	37	C	C5-C4-N4	5.62	124.14	120.20
26	1H	46	C	N1-C2-O2	-5.62	115.53	118.90
26	1H	141	A	O4'-C1'-N9	5.62	112.70	108.20
26	1H	631	A	N7-C8-N9	-5.62	110.99	113.80
26	1H	2239	G	C5-N7-C8	-5.62	101.49	104.30
26	1H	2469	A	N9-C4-C5	-5.62	103.55	105.80
26	14	528	A	C5-C6-N6	-5.62	119.20	123.70
26	14	941	A	OP1-P-OP2	-5.62	111.17	119.60
26	14	1425	G	OP1-P-O3'	5.62	117.57	105.20
26	14	1426	G	N3-C2-N2	-5.62	115.96	119.90
26	14	1569	A	O4'-C1'-N9	5.62	112.70	108.20
1	13	352	C	O5'-P-OP2	-5.62	100.64	105.70
1	13	988	G	N3-C4-C5	-5.62	125.79	128.60
26	1H	217	G	OP1-P-O3'	5.62	117.57	105.20
26	1H	721	C	C5-C6-N1	-5.62	118.19	121.00
26	1H	1306	C	C6-N1-C2	5.62	122.55	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1326	U	N3-C2-O2	-5.62	118.27	122.20
26	1H	1570	A	N1-C6-N6	5.62	121.97	118.60
26	1H	2494	G	C4-C5-N7	-5.62	108.55	110.80
26	1H	2674	G	N9-C4-C5	5.62	107.65	105.40
1	1G	108	G	N1-C2-N3	-5.62	120.53	123.90
26	14	1992	G	C5-C6-O6	5.62	131.97	128.60
26	1H	2274	A	N1-C2-N3	5.62	132.11	129.30
1	1G	60	A	N9-C4-C5	-5.62	103.55	105.80
24	3L	58	A	P-O3'-C3'	5.62	126.44	119.70
23	2K	2	G	C2-N3-C4	5.62	114.71	111.90
26	1H	1315	C	C6-N1-C2	-5.62	118.05	120.30
26	14	823	G	C5-N7-C8	5.62	107.11	104.30
26	14	956	G	OP1-P-O3'	5.62	117.56	105.20
26	14	2386	C	N3-C4-C5	5.62	124.15	121.90
43	95	88	ARG	NE-CZ-NH1	-5.62	117.49	120.30
53	J5	16	ARG	CD-NE-CZ	5.62	131.47	123.60
26	14	922	U	C6-N1-C2	-5.62	117.63	121.00
1	13	617	G	N1-C6-O6	5.62	123.27	119.90
1	13	656	C	C6-N1-C2	-5.62	118.05	120.30
25	4K	16	A	C8-N9-C4	5.62	108.05	105.80
27	16	29	A	N7-C8-N9	5.62	116.61	113.80
27	16	47	C	C5-C4-N4	-5.62	116.27	120.20
1	1G	960	U	N3-C2-O2	-5.62	118.27	122.20
26	14	997	G	N1-C6-O6	-5.62	116.53	119.90
26	14	1969	A	N1-C6-N6	5.62	121.97	118.60
24	3K	34	U	P-O3'-C3'	5.61	126.44	119.70
26	1H	1497	U	N3-C4-O4	5.61	123.33	119.40
26	1H	1500	G	O5'-P-OP1	5.61	117.44	110.70
26	14	135	G	C5-C6-O6	-5.61	125.23	128.60
26	14	1307	A	OP1-P-OP2	5.61	128.02	119.60
26	14	2241	A	C2-N3-C4	-5.61	107.79	110.60
1	13	1108	G	N9-C4-C5	-5.61	103.16	105.40
1	13	1299	A	C5-N7-C8	-5.61	101.09	103.90
26	1H	1382	G	C4-N9-C1'	-5.61	119.20	126.50
26	1H	2277	G	C4-C5-N7	-5.61	108.56	110.80
26	1H	2379	G	C6-C5-N7	-5.61	127.03	130.40
1	1G	1305	G	O5'-P-OP1	-5.61	100.65	105.70
1	1G	1404	C	OP2-P-O3'	5.61	117.55	105.20
26	14	2703	C	N3-C2-O2	-5.61	117.97	121.90
26	14	2827	C	N3-C4-C5	5.61	124.14	121.90
26	1H	781	A	O5'-P-OP1	-5.61	100.65	105.70
26	1H	848	G	C4-N9-C1'	5.61	133.79	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1669	A	C5-N7-C8	-5.61	101.09	103.90
26	1H	1944	U	O5'-P-OP1	-5.61	100.65	105.70
26	1H	2418	A	C2-N3-C4	5.61	113.41	110.60
26	1H	2447	G	C2-N3-C4	5.61	114.70	111.90
26	1H	2609	U	OP1-P-O3'	5.61	117.54	105.20
1	1G	525	C	N3-C4-C5	-5.61	119.66	121.90
26	14	1286	A	OP2-P-O3'	5.61	117.54	105.20
26	14	1762	A	C2-N3-C4	-5.61	107.80	110.60
26	14	1903	G	C5-C6-N1	-5.61	108.69	111.50
26	1H	139	G	C5-C6-N1	5.61	114.30	111.50
26	1H	468	G	N7-C8-N9	-5.61	110.30	113.10
26	1H	1426	G	C5-C6-O6	-5.61	125.23	128.60
26	1H	2491	U	C4-C5-C6	-5.61	116.33	119.70
26	1H	686	G	N7-C8-N9	-5.61	110.30	113.10
26	1H	2007	C	N3-C2-O2	-5.61	117.97	121.90
26	1H	2353	G	OP1-P-OP2	5.61	128.01	119.60
26	14	117	G	C4-C5-N7	5.61	113.04	110.80
26	14	128	C	N3-C2-O2	-5.61	117.97	121.90
26	1H	121	G	C4-N9-C1'	5.61	133.79	126.50
26	1H	178	G	N7-C8-N9	-5.61	110.30	113.10
26	1H	389	G	N3-C2-N2	5.61	123.82	119.90
26	1H	1491	G	OP1-P-O3'	5.61	117.53	105.20
26	1H	1863	G	OP1-P-OP2	5.61	128.01	119.60
26	1H	2399	G	C8-N9-C4	5.61	108.64	106.40
26	1H	2701	C	OP2-P-O3'	5.61	117.53	105.20
26	14	858	U	O5'-P-OP2	-5.61	100.66	105.70
26	14	1527	G	N3-C4-C5	5.61	131.40	128.60
26	14	2326	C	C6-N1-C2	-5.61	118.06	120.30
26	1H	1786	A	C6-N1-C2	5.60	121.96	118.60
26	1H	1872	A	C8-N9-C4	5.60	108.04	105.80
26	1H	2067	G	N9-C4-C5	5.60	107.64	105.40
1	13	792	A	C5-C6-N1	-5.60	114.90	117.70
1	13	814	A	N7-C8-N9	-5.60	111.00	113.80
26	1H	186	G	N3-C4-N9	5.60	129.36	126.00
26	1H	788	A	OP2-P-O3'	5.60	117.52	105.20
26	1H	814	C	C5-C6-N1	-5.60	118.20	121.00
26	1H	2335	A	O4'-C1'-N9	5.60	112.68	108.20
26	1H	2405	G	OP1-P-O3'	5.60	117.52	105.20
1	1G	1432	G	C8-N9-C1'	-5.60	119.72	127.00
26	14	1321	A	N9-C4-C5	-5.60	103.56	105.80
22	1K	75	C	N3-C2-O2	-5.60	117.98	121.90
26	1H	411	G	N3-C4-C5	-5.60	125.80	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1625	C	C2-N3-C4	5.60	122.70	119.90
26	1H	2059	A	N1-C2-N3	5.60	132.10	129.30
26	1H	2248	C	C4-C5-C6	-5.60	114.60	117.40
26	1H	2449	U	C6-N1-C2	-5.60	117.64	121.00
1	13	240	C	C5-C6-N1	-5.60	118.20	121.00
1	13	966	G	C8-N9-C4	5.60	108.64	106.40
26	1H	1610	A	C6-C5-N7	-5.60	128.38	132.30
27	16	100	G	N9-C4-C5	-5.60	103.16	105.40
1	1G	120	A	C5-C6-N6	-5.60	119.22	123.70
1	1G	1246	C	C6-N1-C2	-5.60	118.06	120.30
26	14	398	G	C5-C6-O6	5.60	131.96	128.60
26	1H	465	G	C4-C5-N7	-5.60	108.56	110.80
26	1H	2727	G	OP1-P-OP2	5.60	128.00	119.60
26	14	2374	C	C5-C6-N1	-5.60	118.20	121.00
26	14	2778	A	O5'-P-OP2	-5.60	100.66	105.70
1	13	522	C	OP1-P-OP2	5.60	128.00	119.60
1	13	971	G	N9-C4-C5	5.60	107.64	105.40
23	2K	3	C	OP1-P-OP2	5.60	128.00	119.60
26	1H	481	G	N3-C2-N2	-5.60	115.98	119.90
26	1H	941	A	OP1-P-OP2	-5.60	111.21	119.60
26	1H	1210	A	C5-C6-N1	-5.60	114.90	117.70
26	1H	2070	G	OP1-P-OP2	-5.60	111.21	119.60
26	1H	2752	C	C5-C6-N1	5.60	123.80	121.00
26	1H	2826	A	C8-N9-C4	5.60	108.04	105.80
1	1G	1509	C	N1-C2-O2	-5.60	115.54	118.90
1	13	1355	G	N7-C8-N9	5.59	115.90	113.10
26	1H	334	C	O5'-P-OP1	-5.59	100.67	105.70
26	1H	394	A	C8-N9-C4	-5.59	103.56	105.80
26	1H	536	A	N9-C4-C5	5.59	108.04	105.80
26	1H	830	G	N7-C8-N9	5.59	115.90	113.10
26	1H	2067	G	C5-C6-O6	5.59	131.96	128.60
26	1H	2188	C	C5-C6-N1	5.59	123.80	121.00
26	1H	2830	G	N7-C8-N9	5.59	115.90	113.10
26	14	1602	U	C5-C6-N1	-5.59	119.90	122.70
27	1J	89	G	N3-C4-N9	5.59	129.36	126.00
1	13	963	G	N3-C2-N2	5.59	123.81	119.90
1	13	1045	C	C6-N1-C2	-5.59	118.06	120.30
26	1H	2019	A	P-O3'-C3'	5.59	126.41	119.70
26	1H	2331	G	C6-N1-C2	-5.59	121.74	125.10
1	1G	1498	U	O4'-C1'-N1	-5.59	103.73	108.20
26	14	1396	U	N1-C2-N3	5.59	118.26	114.90
26	14	2853	C	O5'-P-OP2	-5.59	100.67	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1286	A	N7-C8-N9	5.59	116.60	113.80
26	1H	658	C	N3-C2-O2	-5.59	117.99	121.90
26	1H	717	G	C4-C5-N7	5.59	113.04	110.80
26	1H	1376	C	N1-C2-N3	5.59	123.11	119.20
26	1H	1548	C	C6-N1-C2	-5.59	118.06	120.30
27	16	14	U	OP1-P-OP2	5.59	127.99	119.60
1	1G	1068	G	N3-C4-C5	-5.59	125.80	128.60
26	14	2510	C	O5'-P-OP2	-5.59	100.67	105.70
26	1H	827	U	C2-N1-C1'	-5.59	110.99	117.70
26	1H	942	G	OP2-P-O3'	-5.59	92.90	105.20
26	1H	1954	G	OP2-P-O3'	5.59	117.50	105.20
26	1H	2600	A	N9-C4-C5	5.59	108.04	105.80
26	1H	2717	G	N1-C6-O6	-5.59	116.55	119.90
27	16	74	U	OP1-P-O3'	5.59	117.50	105.20
26	14	860	U	N1-C2-O2	5.59	126.71	122.80
26	14	1489	U	C6-N1-C1'	5.59	129.02	121.20
26	1H	471	A	C6-N1-C2	5.59	121.95	118.60
1	1G	450	G	N3-C4-C5	5.59	131.39	128.60
26	14	1255	U	C6-N1-C2	-5.59	117.65	121.00
26	14	2427	C	C5-C6-N1	-5.59	118.21	121.00
31	39	68	LYS	C-N-CA	-5.59	107.73	121.70
25	4K	19	A	N1-C6-N6	5.59	121.95	118.60
26	1H	674	G	OP1-P-OP2	-5.59	111.22	119.60
26	1H	970	C	C4-C5-C6	5.59	120.19	117.40
26	1H	1036	G	C6-N1-C2	-5.59	121.75	125.10
26	1H	1975	G	N1-C6-O6	5.59	123.25	119.90
26	14	468	G	OP1-P-OP2	-5.59	111.22	119.60
26	14	1783	A	C8-N9-C4	-5.59	103.57	105.80
26	1H	2546	U	O5'-P-OP2	-5.58	100.67	105.70
26	14	1202	C	C6-N1-C2	5.58	122.53	120.30
27	1J	9	G	OP2-P-O3'	5.58	117.49	105.20
26	1H	142	G	N3-C4-C5	5.58	131.39	128.60
26	1H	197	A	OP1-P-OP2	-5.58	111.22	119.60
26	1H	564	C	OP1-P-O3'	5.58	117.48	105.20
26	1H	621	A	C8-N9-C4	-5.58	103.57	105.80
26	1H	1006	C	N1-C2-O2	-5.58	115.55	118.90
26	1H	1814	G	N1-C2-N3	5.58	127.25	123.90
26	1H	2011	U	C2-N1-C1'	-5.58	111.00	117.70
26	1H	2315	G	C4-C5-N7	5.58	113.03	110.80
26	1H	2520	C	O5'-P-OP1	5.58	117.40	110.70
26	1H	2524	G	N1-C6-O6	-5.58	116.55	119.90
22	1L	69	A	P-O3'-C3'	5.58	126.40	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	127	A	OP1-P-O3'	5.58	117.48	105.20
26	1H	452	G	C5-C6-O6	5.58	131.95	128.60
26	1H	503	A	N1-C6-N6	-5.58	115.25	118.60
26	1H	1362	C	OP1-P-OP2	5.58	127.97	119.60
26	14	37	C	OP2-P-O3'	5.58	117.48	105.20
26	14	791	C	N1-C2-O2	-5.58	115.55	118.90
26	14	1005	C	N3-C2-O2	-5.58	117.99	121.90
26	14	1954	G	N1-C6-O6	5.58	123.25	119.90
26	1H	1372	U	C4-C5-C6	5.58	123.05	119.70
26	14	527	C	O5'-P-OP1	-5.58	100.68	105.70
1	13	1496	C	O5'-P-OP2	-5.58	100.68	105.70
26	1H	299	A	C2-N3-C4	5.58	113.39	110.60
26	1H	454	A	OP2-P-O3'	5.58	117.47	105.20
26	14	1527	G	N3-C2-N2	-5.58	116.00	119.90
26	14	2258	C	C4-C5-C6	5.58	120.19	117.40
26	1H	446	G	C8-N9-C4	5.58	108.63	106.40
26	1H	1750	G	C4-N9-C1'	5.58	133.75	126.50
26	1H	2260	C	O5'-P-OP1	5.58	117.39	110.70
26	14	1366	A	C5-C6-N6	-5.58	119.24	123.70
26	1H	459	U	C5-C6-N1	-5.58	119.91	122.70
26	1H	825	C	O5'-P-OP1	-5.58	100.68	105.70
26	1H	832	G	O5'-P-OP2	5.58	117.39	110.70
26	14	114	U	C2-N1-C1'	5.58	124.39	117.70
26	14	471	A	C8-N9-C4	-5.58	103.57	105.80
26	14	665	C	C6-N1-C2	5.58	122.53	120.30
26	14	1407	C	N3-C2-O2	5.58	125.80	121.90
26	14	1949	G	N7-C8-N9	-5.58	110.31	113.10
26	14	2447	G	C4-N9-C1'	-5.58	119.25	126.50
26	1H	681	G	OP2-P-O3'	5.57	117.46	105.20
26	1H	728	G	OP1-P-O3'	-5.57	92.94	105.20
26	1H	788	A	C4-C5-N7	5.57	113.49	110.70
26	1H	864	G	N3-C4-C5	-5.57	125.81	128.60
26	1H	1218	C	N1-C2-O2	-5.57	115.56	118.90
26	1H	1676	A	O5'-P-OP1	5.57	117.39	110.70
26	1H	1979	C	N3-C2-O2	-5.57	118.00	121.90
27	16	100	G	C8-N9-C4	5.57	108.63	106.40
26	14	1914	C	C6-N1-C2	-5.57	118.07	120.30
26	14	1915	U	N3-C2-O2	-5.57	118.30	122.20
1	13	516	U	OP1-P-OP2	5.57	127.95	119.60
1	13	721	G	C6-C5-N7	-5.57	127.06	130.40
19	AI	40	ILE	C-N-CA	5.57	135.63	121.70
26	14	1823	G	N9-C4-C5	5.57	107.63	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2301	C	N3-C4-C5	-5.57	119.67	121.90
26	14	2741	A	N1-C2-N3	-5.57	126.52	129.30
1	13	11	G	C8-N9-C4	-5.57	104.17	106.40
26	1H	574	C	O5'-P-OP2	-5.57	100.69	105.70
26	14	2024	G	C4-C5-N7	5.57	113.03	110.80
27	1J	74	U	C5-C4-O4	5.57	129.24	125.90
1	13	965	A	O5'-P-OP2	-5.57	100.69	105.70
26	1H	2429	G	OP2-P-O3'	5.57	117.45	105.20
26	1H	2586	C	C4-C5-C6	5.57	120.18	117.40
1	1G	402	G	C5-C6-O6	-5.57	125.26	128.60
1	1G	1498	U	N3-C2-O2	-5.57	118.30	122.20
26	14	933	A	C4-C5-N7	5.57	113.48	110.70
26	14	1830	C	N1-C2-O2	-5.57	115.56	118.90
26	14	2525	G	OP2-P-O3'	5.57	117.45	105.20
26	14	2581	G	N3-C4-N9	5.57	129.34	126.00
26	1H	88	G	N1-C6-O6	-5.57	116.56	119.90
26	1H	1415	U	C5-C4-O4	5.57	129.24	125.90
26	1H	1674	G	C6-C5-N7	-5.57	127.06	130.40
26	1H	2278	A	OP1-P-OP2	-5.57	111.25	119.60
26	1H	2776	A	C2-N3-C4	-5.57	107.82	110.60
1	1G	1057	G	C8-N9-C4	5.57	108.63	106.40
26	14	1005	C	N1-C2-O2	5.57	122.24	118.90
26	14	2067	G	N1-C6-O6	-5.57	116.56	119.90
26	14	2547	U	O5'-P-OP1	5.57	117.38	110.70
26	1H	1309	G	N1-C6-O6	5.56	123.24	119.90
26	14	693	C	OP2-P-O3'	5.56	117.44	105.20
26	1H	231	C	N1-C2-N3	5.56	123.09	119.20
26	1H	422	A	O4'-C1'-N9	-5.56	103.75	108.20
26	1H	532	A	C6-C5-N7	-5.56	128.41	132.30
26	1H	1032	A	N1-C6-N6	5.56	121.94	118.60
26	1H	1204	A	C4-C5-N7	5.56	113.48	110.70
26	1H	2490	G	O5'-P-OP2	-5.56	100.69	105.70
26	14	307	G	N1-C6-O6	5.56	123.24	119.90
26	1H	2299	G	N1-C6-O6	5.56	123.24	119.90
1	1G	413	G	O4'-C1'-N9	5.56	112.65	108.20
1	13	792	A	C3'-C2'-C1'	-5.56	97.05	101.50
1	13	1362	C	N1-C2-O2	5.56	122.24	118.90
26	1H	811	U	C5-C6-N1	-5.56	119.92	122.70
26	1H	1313	U	C6-N1-C2	-5.56	117.67	121.00
26	1H	2272	U	OP1-P-OP2	-5.56	111.26	119.60
26	1H	2611	U	OP2-P-O3'	5.56	117.43	105.20
1	1G	869	G	C8-N9-C4	-5.56	104.18	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2523	G	C8-N9-C4	5.56	108.62	106.40
26	14	2547	U	C5-C6-N1	-5.56	119.92	122.70
1	13	422	C	C6-N1-C2	-5.56	118.08	120.30
1	13	449	C	N1-C2-O2	5.56	122.23	118.90
1	13	566	G	N3-C4-C5	-5.56	125.82	128.60
26	1H	1018	C	C6-N1-C1'	-5.56	114.13	120.80
26	1H	1601	G	C8-N9-C4	-5.56	104.18	106.40
1	1G	316	G	O5'-P-OP2	-5.56	100.70	105.70
26	14	396	G	N3-C2-N2	-5.56	116.01	119.90
26	14	1226	G	N1-C6-O6	-5.56	116.56	119.90
26	14	1910	G	N1-C6-O6	-5.56	116.57	119.90
26	14	1809	A	O5'-P-OP2	5.56	117.37	110.70
26	14	2056	G	C5-C6-O6	-5.56	125.27	128.60
1	13	181	G	C8-N9-C4	-5.55	104.18	106.40
1	13	254	G	O5'-P-OP1	-5.55	100.70	105.70
26	1H	766	C	C2-N3-C4	-5.55	117.12	119.90
26	1H	1133	U	C5-C4-O4	-5.55	122.57	125.90
26	1H	1992	G	C5-C6-N1	5.55	114.28	111.50
26	1H	2054	A	OP2-P-O3'	5.55	117.42	105.20
26	1H	2540	C	N3-C4-N4	-5.55	114.11	118.00
26	1H	2621	A	O5'-P-OP1	-5.55	100.70	105.70
26	1H	2628	C	C5-C6-N1	-5.55	118.22	121.00
1	1G	328	C	N1-C2-O2	5.55	122.23	118.90
1	1G	972	C	O5'-P-OP2	-5.55	100.70	105.70
26	14	429	A	N1-C6-N6	5.55	121.93	118.60
26	14	2074	U	N1-C2-N3	5.55	118.23	114.90
26	1H	2506	U	C2-N1-C1'	5.55	124.36	117.70
24	3L	1	G	C2-N3-C4	5.55	114.68	111.90
26	14	307	G	C5-C6-O6	-5.55	125.27	128.60
1	13	317	G	O5'-P-OP1	-5.55	100.70	105.70
26	1H	1157	G	C4-C5-C6	5.55	122.13	118.80
26	1H	1605	C	N1-C2-N3	5.55	123.09	119.20
26	14	2324	C	C2-N3-C4	-5.55	117.12	119.90
26	1H	673	C	N3-C2-O2	5.55	125.78	121.90
26	1H	1474	C	O5'-P-OP2	5.55	117.36	110.70
26	1H	1777	U	N3-C4-C5	-5.55	111.27	114.60
26	1H	2280	G	C2-N3-C4	5.55	114.67	111.90
26	1H	2517	C	N3-C4-C5	5.55	124.12	121.90
1	1G	505	G	C8-N9-C4	-5.55	104.18	106.40
1	1G	521	G	OP1-P-OP2	5.55	127.92	119.60
26	14	783	A	O5'-P-OP2	-5.55	100.70	105.70
26	14	794	G	C5-C6-N1	-5.55	108.73	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1801	G	C5-N7-C8	-5.55	101.53	104.30
26	14	2075	U	N3-C4-C5	5.55	117.93	114.60
26	14	2578	G	OP1-P-OP2	5.55	127.92	119.60
26	1H	125	G	O4'-C1'-N9	-5.55	103.76	108.20
43	D8	94	LEU	CA-CB-CG	5.55	128.06	115.30
1	1G	1436	U	C2-N1-C1'	5.55	124.36	117.70
1	1G	1502	A	N1-C6-N6	5.55	121.93	118.60
26	14	393	C	C6-N1-C2	-5.55	118.08	120.30
1	13	266	G	O4'-C1'-N9	-5.55	103.76	108.20
1	13	1302	U	N3-C2-O2	-5.55	118.32	122.20
26	1H	463	G	C5-C6-N1	5.55	114.27	111.50
26	1H	859	G	N1-C6-O6	5.55	123.23	119.90
26	1H	1905	C	OP1-P-O3'	5.55	117.40	105.20
26	1H	2324	C	N3-C4-C5	5.55	124.12	121.90
26	14	80	G	OP1-P-OP2	5.55	127.92	119.60
26	14	1762	A	N9-C1'-C2'	5.55	121.21	114.00
26	14	2710	C	N3-C2-O2	5.55	125.78	121.90
27	1J	44	G	C8-N9-C1'	5.55	134.21	127.00
26	1H	162	U	C2-N1-C1'	5.54	124.35	117.70
26	1H	238	C	C4-C5-C6	5.54	120.17	117.40
26	1H	436	C	N3-C4-C5	-5.54	119.68	121.90
27	16	98	G	C4-C5-N7	5.54	113.02	110.80
26	14	2779	U	C4-C5-C6	5.54	123.03	119.70
1	13	31	G	C2-N3-C4	5.54	114.67	111.90
1	13	769	G	C6-C5-N7	-5.54	127.07	130.40
1	13	1403	C	C5-C6-N1	5.54	123.77	121.00
26	1H	52	A	O5'-P-OP1	-5.54	100.71	105.70
26	1H	1565	C	OP2-P-O3'	5.54	117.40	105.20
26	14	685	A	O4'-C1'-N9	5.54	112.64	108.20
26	14	930	U	C6-N1-C2	5.54	124.33	121.00
26	14	2006	C	O5'-P-OP2	5.54	117.35	110.70
26	14	2393	A	C6-N1-C2	5.54	121.93	118.60
26	1H	1224	G	C4-C5-N7	5.54	113.02	110.80
26	1H	1246	A	C4-C5-C6	5.54	119.77	117.00
26	14	506	G	C5-N7-C8	-5.54	101.53	104.30
26	14	1142(A)	A	O4'-C1'-N9	-5.54	103.77	108.20
26	14	2210	G	C4-N9-C1'	5.54	133.70	126.50
26	1H	682	G	N1-C2-N3	-5.54	120.58	123.90
26	1H	836	G	N7-C8-N9	5.54	115.87	113.10
26	1H	1777	U	N3-C4-O4	5.54	123.28	119.40
27	1J	81	G	O4'-C1'-N9	5.54	112.63	108.20
1	13	523	A	C5-C6-N6	-5.54	119.27	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	681	C	C6-N1-C2	-5.54	118.08	120.30
26	1H	740	U	OP1-P-OP2	5.54	127.91	119.60
26	1H	829	A	OP2-P-O3'	5.54	117.39	105.20
26	1H	863	A	OP2-P-O3'	5.54	117.39	105.20
26	1H	1195	G	N3-C2-N2	-5.54	116.02	119.90
26	1H	2458	G	N3-C2-N2	-5.54	116.02	119.90
1	1G	330	C	N1-C2-O2	5.54	122.22	118.90
26	14	155	C	N1-C2-O2	5.54	122.22	118.90
26	14	562	U	N3-C4-O4	-5.54	115.52	119.40
26	14	791	C	N3-C2-O2	5.54	125.78	121.90
26	14	1386	C	O5'-P-OP1	-5.54	100.72	105.70
26	14	1892	C	N3-C4-N4	-5.54	114.12	118.00
26	14	1936	A	OP1-P-OP2	-5.54	111.29	119.60
26	14	2032	G	C6-N1-C2	-5.54	121.78	125.10
26	14	2237	G	C5-C6-O6	5.54	131.92	128.60
26	14	2700	C	C5-C4-N4	-5.54	116.32	120.20
27	1J	65	C	O4'-C1'-N1	5.54	112.63	108.20
26	1H	674	G	O5'-P-OP2	5.54	117.34	110.70
26	1H	1925	C	O5'-P-OP1	-5.54	100.72	105.70
26	1H	2374	C	C6-N1-C2	5.54	122.52	120.30
26	1H	2501	C	C2-N1-C1'	-5.54	112.71	118.80
26	14	1569	A	C8-N9-C4	-5.54	103.58	105.80
26	14	1899	G	C5-C6-N1	-5.54	108.73	111.50
26	14	1900	A	N3-C4-C5	-5.54	122.92	126.80
1	13	259	G	O5'-P-OP1	-5.54	100.72	105.70
1	13	1525	G	N3-C2-N2	5.54	123.78	119.90
23	2K	11	A	O5'-P-OP2	-5.54	100.72	105.70
26	1H	146	G	C5-C6-N1	5.54	114.27	111.50
26	1H	398	G	OP1-P-OP2	5.54	127.90	119.60
26	1H	454	A	C6-N1-C2	5.54	121.92	118.60
26	1H	754	C	N3-C2-O2	5.54	125.78	121.90
26	1H	1728	G	N7-C8-N9	5.54	115.87	113.10
26	1H	1954	G	C4-C5-C6	5.54	122.12	118.80
26	1H	2286	A	C8-N9-C1'	-5.54	117.74	127.70
26	14	2239	G	N3-C2-N2	5.54	123.78	119.90
1	13	355	C	O5'-P-OP2	-5.53	100.72	105.70
26	1H	2072	G	C2-N3-C4	5.53	114.67	111.90
26	1H	2262	U	N1-C2-N3	5.53	118.22	114.90
26	1H	2282	G	C8-N9-C4	-5.53	104.19	106.40
26	1H	2646	C	C6-N1-C2	5.53	122.51	120.30
26	14	2305	A	C8-N9-C4	5.53	108.01	105.80
26	14	2582	G	O5'-P-OP1	5.53	117.34	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	795	C	N3-C4-C5	-5.53	119.69	121.90
26	14	2373	G	C6-N1-C2	-5.53	121.78	125.10
22	1K	33	U	C5-C4-O4	5.53	129.22	125.90
26	1H	77	C	C5-C4-N4	-5.53	116.33	120.20
26	1H	533	G	O5'-P-OP1	-5.53	100.72	105.70
26	1H	592	G	N3-C2-N2	5.53	123.77	119.90
26	1H	1365	A	C2-N3-C4	-5.53	107.83	110.60
26	1H	1942	C	C4-C5-C6	-5.53	114.64	117.40
1	1G	1056	U	C5-C6-N1	5.53	125.47	122.70
26	14	195	A	C5-C6-N1	-5.53	114.94	117.70
26	14	754	C	N3-C4-N4	5.53	121.87	118.00
1	13	1327	C	C6-N1-C2	5.53	122.51	120.30
26	1H	467	G	N7-C8-N9	-5.53	110.34	113.10
1	1G	852	G	C8-N9-C4	5.53	108.61	106.40
1	1G	1465	C	C2-N1-C1'	5.53	124.88	118.80
26	14	1372	U	C4-C5-C6	5.53	123.02	119.70
26	14	1400	G	O5'-P-OP1	5.53	117.33	110.70
26	14	1599	C	OP2-P-O3'	5.53	117.36	105.20
26	1H	668	G	C5-C6-N1	5.53	114.26	111.50
26	1H	2381	C	OP2-P-O3'	5.53	117.36	105.20
1	1G	525	C	C2-N3-C4	5.53	122.66	119.90
26	14	128	C	N3-C4-C5	5.53	124.11	121.90
26	14	593	G	O5'-P-OP1	5.53	117.33	110.70
26	14	2610	C	C6-N1-C2	5.53	122.51	120.30
1	13	651	C	OP1-P-O3'	5.53	117.36	105.20
19	AI	25	LYS	N-CA-C	-5.53	96.08	111.00
26	1H	528	A	N1-C2-N3	-5.53	126.54	129.30
26	1H	784	A	C4-C5-N7	-5.53	107.94	110.70
26	1H	1252	G	C5-N7-C8	5.53	107.06	104.30
26	1H	1802	A	N1-C2-N3	5.53	132.06	129.30
26	1H	2019	A	C8-N9-C4	-5.53	103.59	105.80
26	1H	2387	U	C6-N1-C2	5.53	124.32	121.00
26	14	509	C	C4-C5-C6	5.53	120.16	117.40
26	14	617	G	C8-N9-C4	5.53	108.61	106.40
26	14	1639	U	C5-C4-O4	5.53	129.22	125.90
26	14	2205	C	O5'-P-OP2	-5.53	100.73	105.70
26	14	2555	U	N3-C2-O2	5.53	126.07	122.20
26	1H	1158	C	N3-C4-C5	5.52	124.11	121.90
24	3K	70	C	N1-C2-O2	5.52	122.21	118.90
26	1H	482	A	N7-C8-N9	5.52	116.56	113.80
26	1H	2271	G	OP1-P-OP2	5.52	127.89	119.60
26	14	2281	C	C5-C4-N4	-5.52	116.33	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2518	A	C4-N9-C1'	5.52	136.24	126.30
26	1H	86	C	OP2-P-O3'	5.52	117.35	105.20
26	1H	90	U	C5-C6-N1	5.52	125.46	122.70
26	1H	283	A	N1-C2-N3	5.52	132.06	129.30
26	1H	2048	G	N3-C2-N2	-5.52	116.04	119.90
1	13	235	C	N3-C2-O2	5.52	125.76	121.90
1	13	1336	C	C5-C6-N1	5.52	123.76	121.00
1	13	1531	A	C8-N9-C4	-5.52	103.59	105.80
26	1H	757	U	C4-C5-C6	5.52	123.01	119.70
26	1H	956	G	O5'-P-OP1	5.52	117.32	110.70
26	1H	1307	A	C2-N3-C4	-5.52	107.84	110.60
26	1H	1368	G	N3-C4-C5	-5.52	125.84	128.60
26	1H	1998	G	C5-N7-C8	5.52	107.06	104.30
26	1H	2256	G	N1-C2-N2	-5.52	111.23	116.20
1	1G	322	C	N3-C4-N4	5.52	121.86	118.00
1	1G	1469	G	N7-C8-N9	5.52	115.86	113.10
26	14	2320	A	P-O3'-C3'	5.52	126.32	119.70
26	1H	46	C	OP2-P-O3'	5.52	117.34	105.20
26	1H	1824	G	C2-N3-C4	5.52	114.66	111.90
26	1H	2436	G	N3-C2-N2	-5.52	116.04	119.90
26	1H	2726	U	N1-C2-N3	5.52	118.21	114.90
1	1G	1442	G	N3-C4-C5	5.52	131.36	128.60
26	14	199	A	C4-C5-N7	-5.52	107.94	110.70
26	14	527	C	N1-C2-O2	-5.52	115.59	118.90
26	14	726	G	O4'-C1'-N9	5.52	112.61	108.20
26	14	1208	C	N1-C2-O2	-5.52	115.59	118.90
26	14	1725	G	C6-C5-N7	-5.52	127.09	130.40
1	1G	1414	U	N3-C4-C5	-5.52	111.29	114.60
1	13	1079	G	N3-C2-N2	-5.51	116.04	119.90
26	1H	1007	C	N1-C2-O2	-5.51	115.59	118.90
26	1H	1186	G	C4-C5-N7	-5.51	108.59	110.80
26	1H	1313	U	OP1-P-OP2	-5.51	111.33	119.60
26	14	906	G	C8-N9-C4	-5.51	104.19	106.40
26	14	1342	A	C4-C5-C6	5.51	119.76	117.00
26	14	2593	U	N3-C2-O2	-5.51	118.34	122.20
26	1H	2352	A	C8-N9-C4	5.51	108.00	105.80
26	1H	2872	G	O5'-P-OP2	-5.51	100.74	105.70
26	14	358	U	C5-C6-N1	5.51	125.46	122.70
26	1H	599	G	N3-C4-C5	-5.51	125.84	128.60
26	1H	793	A	N3-C4-C5	-5.51	122.94	126.80
26	1H	802	A	OP1-P-O3'	-5.51	93.07	105.20
26	1H	1127	A	OP1-P-OP2	5.51	127.87	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1302	A	O5'-P-OP1	-5.51	100.74	105.70
26	1H	1305	C	C4-C5-C6	5.51	120.16	117.40
26	1H	1686	C	OP1-P-OP2	-5.51	111.33	119.60
26	1H	2331	G	C6-C5-N7	-5.51	127.09	130.40
26	1H	2717	G	N3-C4-N9	5.51	129.31	126.00
26	1H	2718	G	N1-C6-O6	5.51	123.21	119.90
26	14	1492	G	N3-C2-N2	-5.51	116.04	119.90
26	14	1601	G	N3-C2-N2	5.51	123.76	119.90
26	14	2582	G	C6-C5-N7	-5.51	127.09	130.40
1	13	1492	A	O5'-P-OP1	5.51	117.31	110.70
26	1H	1128	A	C5-C6-N1	5.51	120.45	117.70
26	1H	1790	C	O5'-P-OP1	5.51	117.31	110.70
26	1H	1940	U	C5-C4-O4	-5.51	122.59	125.90
1	1G	887	G	N1-C6-O6	5.51	123.20	119.90
26	14	569	U	N1-C2-O2	-5.51	118.94	122.80
26	14	2217	G	C8-N9-C4	-5.51	104.20	106.40
26	14	2256	G	O5'-P-OP1	5.51	117.31	110.70
22	1K	17	U	O4'-C1'-N1	5.51	112.61	108.20
26	1H	417	C	O5'-P-OP2	5.51	117.31	110.70
26	1H	727	A	O5'-P-OP2	5.51	117.31	110.70
27	16	96	G	C6-C5-N7	5.51	133.71	130.40
1	1G	108	G	C5-C6-N1	5.51	114.25	111.50
1	1G	879	C	N1-C2-O2	5.51	122.20	118.90
26	14	1806	C	OP2-P-O3'	5.51	117.32	105.20
26	14	2387	U	OP2-P-O3'	5.51	117.32	105.20
26	1H	1265	A	O5'-P-OP2	-5.51	100.74	105.70
26	1H	2446	G	N7-C8-N9	5.51	115.85	113.10
1	1G	887	G	C5-C6-O6	-5.51	125.30	128.60
26	14	446	G	C5-C6-O6	-5.51	125.30	128.60
26	14	1378	A	OP1-P-OP2	5.51	127.86	119.60
26	14	1482	U	C2-N1-C1'	-5.51	111.09	117.70
1	1G	631	G	N3-C4-N9	5.50	129.30	126.00
26	14	949	C	C5-C6-N1	-5.50	118.25	121.00
26	14	2005	A	C8-N9-C4	5.50	108.00	105.80
1	13	219	C	C5-C6-N1	5.50	123.75	121.00
1	13	797	C	C5-C4-N4	-5.50	116.35	120.20
26	1H	569	U	N1-C2-O2	-5.50	118.95	122.80
26	1H	1601	G	C5-C6-O6	5.50	131.90	128.60
26	1H	2441	C	OP1-P-O3'	5.50	117.31	105.20
26	14	46	C	N3-C4-C5	5.50	124.10	121.90
26	14	1994	C	O5'-P-OP2	-5.50	100.75	105.70
26	14	2029	G	C5-N7-C8	-5.50	101.55	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2463	C	N1-C2-O2	-5.50	115.60	118.90
26	14	204	A	O5'-P-OP1	-5.50	100.75	105.70
26	14	1416	G	C4-N9-C1'	-5.50	119.35	126.50
26	14	2287	A	N9-C1'-C2'	-5.50	105.95	112.00
30	29	23	VAL	N-CA-C	5.50	125.85	111.00
1	13	963	G	N1-C6-O6	-5.50	116.60	119.90
26	1H	2703	C	N1-C2-N3	5.50	123.05	119.20
1	1G	1392	G	O5'-P-OP2	-5.50	100.75	105.70
26	14	776	G	C8-N9-C4	-5.50	104.20	106.40
26	14	1379	A	C6-C5-N7	-5.50	128.45	132.30
26	14	1489	U	N1-C2-N3	5.50	118.20	114.90
26	14	2451	A	C5-N7-C8	-5.50	101.15	103.90
26	1H	30	G	N3-C4-N9	5.50	129.30	126.00
26	1H	1051	G	N1-C6-O6	5.50	123.20	119.90
26	14	740	U	N1-C2-O2	5.50	126.65	122.80
26	14	1257	C	C2-N3-C4	-5.50	117.15	119.90
26	14	1403	C	O5'-P-OP1	-5.50	100.75	105.70
26	14	2564	A	C2-N3-C4	5.50	113.35	110.60
27	1J	6	C	C4-C5-C6	5.50	120.15	117.40
1	13	1301	U	OP1-P-O3'	5.50	117.29	105.20
26	1H	53	A	OP1-P-O3'	5.50	117.29	105.20
27	16	92	G	OP2-P-O3'	5.50	117.29	105.20
26	1H	377	C	O5'-P-OP2	5.50	117.29	110.70
26	1H	1783	A	OP1-P-O3'	5.50	117.29	105.20
1	13	235	C	C5-C4-N4	-5.49	116.35	120.20
1	13	550	G	N1-C6-O6	-5.49	116.60	119.90
26	1H	112	U	C5-C4-O4	-5.49	122.60	125.90
26	1H	848	G	N3-C2-N2	5.49	123.75	119.90
26	1H	1186	G	C5-N7-C8	5.49	107.05	104.30
26	1H	2317	C	C5-C4-N4	-5.49	116.36	120.20
26	1H	2416	C	C5-C4-N4	5.49	124.05	120.20
27	16	100	G	OP1-P-OP2	5.49	127.84	119.60
1	1G	1495	U	N3-C4-C5	-5.49	111.30	114.60
26	14	560	C	N1-C2-O2	-5.49	115.60	118.90
26	14	673	C	N3-C2-O2	5.49	125.75	121.90
26	14	1686	C	C6-N1-C2	5.49	122.50	120.30
26	14	2513	G	N1-C6-O6	5.49	123.20	119.90
47	D5	101	PRO	C-N-CA	5.49	135.43	121.70
1	13	574	A	O5'-P-OP1	-5.49	100.76	105.70
1	13	991	U	O5'-P-OP1	-5.49	100.76	105.70
23	2K	25	U	N3-C2-O2	-5.49	118.36	122.20
26	1H	130	C	N1-C2-O2	-5.49	115.61	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	224	G	N7-C8-N9	-5.49	110.35	113.10
26	1H	866	A	O4'-C1'-N9	-5.49	103.81	108.20
26	1H	866	A	C5-C6-N1	-5.49	114.95	117.70
26	1H	977	G	N1-C6-O6	-5.49	116.61	119.90
26	14	499	U	N3-C2-O2	-5.49	118.36	122.20
26	14	746	A	N9-C4-C5	5.49	108.00	105.80
26	14	752	A	P-O3'-C3'	5.49	126.29	119.70
1	13	19	C	C6-N1-C2	-5.49	118.10	120.30
26	1H	199	A	N7-C8-N9	-5.49	111.06	113.80
26	1H	757	U	O5'-P-OP2	-5.49	100.76	105.70
26	1H	784	A	C8-N9-C4	-5.49	103.61	105.80
26	1H	1339	G	N3-C4-C5	-5.49	125.86	128.60
26	1H	1405	U	C5-C6-N1	-5.49	119.96	122.70
26	1H	2039	C	C5-C6-N1	5.49	123.74	121.00
26	1H	2375	G	C5-C6-O6	-5.49	125.31	128.60
27	16	24	G	C8-N9-C4	-5.49	104.20	106.40
49	J8	2	SER	N-CA-C	5.49	125.82	111.00
26	14	265	A	C4-C5-N7	5.49	113.44	110.70
26	14	666	G	C8-N9-C4	5.49	108.59	106.40
26	14	1343	G	OP1-P-OP2	5.49	127.83	119.60
26	14	2055	C	C2-N1-C1'	-5.49	112.76	118.80
26	1H	2827	C	C2-N3-C4	-5.49	117.16	119.90
1	1G	1301	U	N3-C2-O2	-5.49	118.36	122.20
1	13	578	C	N3-C4-N4	5.49	121.84	118.00
26	1H	144	C	C2-N3-C4	-5.49	117.16	119.90
26	1H	407	G	C6-N1-C2	-5.49	121.81	125.10
26	1H	1671	U	O5'-P-OP2	-5.49	100.76	105.70
36	68	22	ILE	CG1-CB-CG2	-5.49	99.33	111.40
1	1G	41	G	C5-C6-O6	-5.49	125.31	128.60
26	14	1819	A	P-O3'-C3'	5.49	126.28	119.70
26	14	2075	U	N3-C4-O4	-5.49	115.56	119.40
23	2K	31	G	OP1-P-OP2	-5.48	111.37	119.60
26	1H	730	C	N3-C4-C5	5.48	124.09	121.90
26	1H	789	A	N1-C2-N3	5.48	132.04	129.30
26	1H	928	G	C4-C5-N7	5.48	112.99	110.80
26	1H	2714	G	O5'-P-OP1	5.48	117.28	110.70
1	1G	754	C	N1-C2-O2	5.48	122.19	118.90
26	14	571	A	C4-C5-N7	5.48	113.44	110.70
1	13	377	G	O5'-P-OP2	-5.48	100.77	105.70
26	1H	613	U	N3-C4-O4	5.48	123.24	119.40
26	1H	982	C	N1-C2-O2	-5.48	115.61	118.90
26	1H	2026	C	C4-C5-C6	5.48	120.14	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2036	C	OP2-P-O3'	5.48	117.26	105.20
1	1G	630	G	C4-C5-N7	-5.48	108.61	110.80
1	1G	1301	U	OP1-P-O3'	5.48	117.26	105.20
26	14	519	U	N1-C2-N3	5.48	118.19	114.90
26	14	766	C	N1-C2-N3	5.48	123.04	119.20
26	14	964	C	O5'-P-OP1	-5.48	100.77	105.70
26	14	1366	A	C6-C5-N7	-5.48	128.46	132.30
26	14	1559	G	C5-N7-C8	-5.48	101.56	104.30
34	69	75	LEU	CA-CB-CG	5.48	127.91	115.30
1	13	758	G	N3-C4-C5	5.48	131.34	128.60
26	1H	2715	C	C5-C4-N4	-5.48	116.36	120.20
26	1H	2830	G	N3-C2-N2	-5.48	116.06	119.90
26	14	2080	G	C4-C5-N7	-5.48	108.61	110.80
26	1H	1228	G	OP1-P-OP2	-5.48	111.38	119.60
26	1H	2697	G	N1-C2-N2	-5.48	111.27	116.20
26	1H	579	G	N3-C2-N2	-5.48	116.07	119.90
26	1H	729	G	C4-N9-C1'	5.48	133.62	126.50
1	1G	895	G	C5-C6-O6	-5.48	125.31	128.60
1	1G	932	C	N1-C2-O2	5.48	122.19	118.90
26	14	74	A	C5-N7-C8	-5.48	101.16	103.90
26	14	569	U	N1-C2-N3	5.48	118.19	114.90
26	14	765	G	N3-C2-N2	-5.48	116.07	119.90
1	13	346	G	N1-C6-O6	5.48	123.19	119.90
26	1H	1366	A	N3-C4-C5	5.48	130.63	126.80
26	1H	1409	C	C2-N1-C1'	-5.48	112.78	118.80
52	M8	4	GLY	N-CA-C	-5.48	99.41	113.10
1	1G	547	A	N7-C8-N9	-5.48	111.06	113.80
26	14	808	G	N1-C2-N3	5.48	127.19	123.90
26	14	2707	G	O5'-P-OP2	-5.48	100.77	105.70
1	13	231	G	C4-C5-N7	-5.47	108.61	110.80
1	13	231	G	N9-C4-C5	5.47	107.59	105.40
26	1H	145	G	N7-C8-N9	-5.47	110.36	113.10
26	1H	258	G	C5-C6-O6	5.47	131.88	128.60
26	1H	1571	A	N3-C4-N9	5.47	131.78	127.40
26	1H	2323	G	N1-C6-O6	5.47	123.18	119.90
1	1G	413	G	N3-C4-N9	-5.47	122.72	126.00
26	14	731	C	OP1-P-OP2	-5.47	111.39	119.60
26	14	1501	C	OP1-P-O3'	5.47	117.24	105.20
26	14	1599	C	N3-C4-C5	-5.47	119.71	121.90
1	13	1442	G	C8-N9-C4	-5.47	104.21	106.40
26	1H	103	A	N9-C4-C5	-5.47	103.61	105.80
26	1H	270(K)	C	C6-N1-C2	-5.47	118.11	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1482	U	C2-N1-C1'	-5.47	111.13	117.70
26	1H	1599	C	N3-C4-N4	-5.47	114.17	118.00
26	1H	2211	G	O4'-C1'-N9	-5.47	103.82	108.20
26	1H	2443	C	C6-N1-C2	-5.47	118.11	120.30
1	1G	819	A	C5-C6-N6	-5.47	119.32	123.70
26	14	961	C	O4'-C1'-N1	5.47	112.58	108.20
26	14	1797	C	O5'-P-OP1	-5.47	100.78	105.70
26	14	1881	C	C6-N1-C2	-5.47	118.11	120.30
26	14	2020	A	N1-C6-N6	5.47	121.88	118.60
26	14	2382	G	C4-C5-C6	5.47	122.08	118.80
26	14	2599	G	C5-C6-O6	5.47	131.88	128.60
27	1J	61	G	N7-C8-N9	5.47	115.84	113.10
26	1H	270(C)	C	OP2-P-O3'	5.47	117.24	105.20
26	1H	420	C	N3-C4-C5	5.47	124.09	121.90
26	1H	683	C	C5-C6-N1	-5.47	118.26	121.00
1	1G	700	G	N1-C2-N2	5.47	121.12	116.20
26	14	265	A	N1-C2-N3	5.47	132.04	129.30
26	14	1305	C	N3-C2-O2	-5.47	118.07	121.90
26	14	1571	A	C6-N1-C2	-5.47	115.32	118.60
26	1H	127	A	C4-C5-N7	5.47	113.44	110.70
26	1H	1228	G	N3-C2-N2	-5.47	116.07	119.90
26	1H	1328	G	N3-C4-C5	-5.47	125.86	128.60
27	16	115	G	C6-C5-N7	-5.47	127.12	130.40
1	1G	271	C	O5'-P-OP2	5.47	117.26	110.70
26	14	2370	G	C5-C6-O6	-5.47	125.32	128.60
1	13	1405	G	OP1-P-OP2	-5.47	111.40	119.60
26	1H	34	C	OP1-P-OP2	-5.47	111.40	119.60
26	1H	523	C	OP2-P-O3'	5.47	117.23	105.20
26	14	1790	C	C2-N3-C4	-5.47	117.17	119.90
26	14	2726	U	C5-C6-N1	-5.47	119.97	122.70
47	D5	101	PRO	CA-C-N	5.47	129.23	117.20
26	1H	744	G	O5'-P-OP2	-5.47	100.78	105.70
26	1H	1626	G	OP1-P-O3'	5.47	117.22	105.20
26	1H	2068	U	O5'-P-OP1	-5.47	100.78	105.70
26	1H	2392	A	N3-C4-N9	-5.47	123.03	127.40
26	1H	2441	C	C2-N1-C1'	-5.47	112.79	118.80
1	1G	275	G	C4-C5-N7	5.47	112.99	110.80
26	14	150	C	N3-C4-N4	-5.47	114.17	118.00
26	14	585	G	C5-C6-O6	-5.47	125.32	128.60
26	14	945	A	N9-C1'-C2'	5.47	121.11	114.00
26	1H	226	G	O5'-P-OP2	-5.46	100.78	105.70
26	1H	1271	G	N1-C2-N3	5.46	127.18	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1423	G	O5'-P-OP2	-5.46	100.78	105.70
26	1H	2008	C	C2-N3-C4	-5.46	117.17	119.90
26	1H	2010	G	OP1-P-O3'	5.46	117.22	105.20
26	1H	2374	C	C2-N3-C4	-5.46	117.17	119.90
26	1H	2385	C	O5'-P-OP2	-5.46	100.78	105.70
26	14	1329	U	N1-C2-N3	5.46	118.18	114.90
1	1G	250	A	C8-N9-C4	-5.46	103.61	105.80
26	14	1772	G	N9-C1'-C2'	-5.46	105.99	112.00
26	14	2364	C	O5'-P-OP2	-5.46	100.78	105.70
1	13	1488	G	C5-C6-O6	-5.46	125.32	128.60
26	1H	602	G	C2-N3-C4	-5.46	109.17	111.90
26	1H	809	G	C5-C6-N1	5.46	114.23	111.50
26	1H	1376	C	C6-N1-C2	-5.46	118.11	120.30
26	1H	1772	G	N9-C1'-C2'	-5.46	105.99	112.00
26	1H	1814	G	C6-N1-C2	-5.46	121.82	125.10
26	1H	2858	C	O5'-P-OP2	-5.46	100.78	105.70
1	1G	812	C	N1-C2-N3	5.46	123.02	119.20
1	1G	1467	G	N3-C4-C5	5.46	131.33	128.60
25	4L	23	A	N9-C1'-C2'	5.46	121.10	114.00
26	14	847	U	C6-N1-C1'	5.46	128.85	121.20
26	14	932	G	C8-N9-C4	5.46	108.58	106.40
26	14	945	A	O4'-C1'-N9	5.46	112.57	108.20
26	14	1633	G	N1-C6-O6	5.46	123.18	119.90
26	14	2867	G	O4'-C1'-N9	5.46	112.57	108.20
26	1H	611	C	C4-C5-C6	5.46	120.13	117.40
26	1H	2251	G	N1-C6-O6	-5.46	116.62	119.90
26	1H	2638	G	C4-C5-N7	5.46	112.98	110.80
27	16	82	G	C8-N9-C4	5.46	108.58	106.40
1	1G	1410	G	C2-N3-C4	-5.46	109.17	111.90
26	14	453	C	N3-C4-C5	5.46	124.08	121.90
26	14	688	U	O5'-P-OP2	-5.46	100.79	105.70
26	14	2023	G	C5-C6-N1	-5.46	108.77	111.50
1	13	346	G	C6-C5-N7	-5.46	127.12	130.40
26	1H	1257	C	OP2-P-O3'	5.46	117.21	105.20
26	1H	1858	G	C8-N9-C1'	-5.46	119.90	127.00
26	1H	2265	U	O5'-P-OP2	5.46	117.25	110.70
26	1H	2850	A	OP1-P-O3'	5.46	117.21	105.20
1	1G	197	A	C5-N7-C8	-5.46	101.17	103.90
1	13	1199	U	N3-C4-C5	-5.46	111.33	114.60
1	13	1469	G	C4-C5-N7	5.46	112.98	110.80
26	1H	828	U	N1-C2-N3	5.46	118.17	114.90
26	1H	984	A	O5'-P-OP2	-5.46	100.79	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1760	A	C4-C5-C6	5.46	119.73	117.00
26	1H	1988	C	O5'-P-OP1	-5.46	100.79	105.70
26	1H	2198	A	C8-N9-C4	5.46	107.98	105.80
26	1H	2218	G	C5-C6-O6	-5.46	125.33	128.60
1	1G	1489	G	N3-C4-C5	5.46	131.33	128.60
26	14	211	A	C5-C6-N6	-5.46	119.33	123.70
26	14	1346	G	C5-N7-C8	5.46	107.03	104.30
26	14	2541	A	N1-C6-N6	5.46	121.87	118.60
26	1H	773	U	C4-C5-C6	5.46	122.97	119.70
26	1H	1367	A	N3-C4-C5	5.46	130.62	126.80
26	1H	1661	G	C8-N9-C4	5.46	108.58	106.40
26	1H	2034	U	N1-C2-N3	5.46	118.17	114.90
27	16	7	G	C5-C6-O6	-5.46	125.33	128.60
27	16	79	C	C5-C4-N4	-5.46	116.38	120.20
26	14	391	G	C4-C5-N7	5.46	112.98	110.80
26	14	2598	A	C8-N9-C4	5.46	107.98	105.80
41	75	107	ASP	CB-CG-OD1	5.46	123.21	118.30
1	13	1519	A	C4-C5-C6	5.45	119.73	117.00
26	1H	740	U	N1-C2-O2	5.45	126.62	122.80
26	1H	2555	U	C2-N3-C4	-5.45	123.73	127.00
27	16	27	C	OP2-P-O3'	5.45	117.20	105.20
1	1G	219	C	C6-N1-C2	-5.45	118.12	120.30
26	14	970	C	N3-C2-O2	5.45	125.72	121.90
26	14	1684	C	C4-C5-C6	5.45	120.13	117.40
26	14	2024	G	N9-C4-C5	-5.45	103.22	105.40
1	13	250	A	OP1-P-OP2	5.45	127.78	119.60
26	1H	825	C	N3-C4-C5	-5.45	119.72	121.90
26	1H	2217	G	C8-N9-C4	-5.45	104.22	106.40
27	16	31	C	N3-C4-N4	-5.45	114.18	118.00
26	14	918	A	C8-N9-C4	-5.45	103.62	105.80
26	1H	138	G	N1-C2-N3	-5.45	120.63	123.90
26	1H	1571	A	C5-C6-N1	5.45	120.43	117.70
26	1H	1791	A	C2-N3-C4	5.45	113.33	110.60
26	1H	1825	A	C5-C6-N6	5.45	128.06	123.70
26	1H	1958	C	C6-N1-C2	-5.45	118.12	120.30
26	1H	2325	G	OP1-P-OP2	5.45	127.78	119.60
26	14	288	C	N1-C2-O2	5.45	122.17	118.90
26	14	1332	G	O4'-C1'-N9	-5.45	103.84	108.20
26	14	2352	A	C2-N3-C4	-5.45	107.87	110.60
26	14	2459	A	C8-N9-C4	-5.45	103.62	105.80
26	1H	785	G	N9-C4-C5	5.45	107.58	105.40
1	1G	748	C	P-O3'-C3'	5.45	126.24	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	32	35	ARG	NE-CZ-NH1	-5.45	117.58	120.30
26	14	982	C	C5-C6-N1	5.45	123.72	121.00
26	14	1396	U	OP1-P-OP2	5.45	127.77	119.60
26	14	1519	G	N9-C4-C5	5.45	107.58	105.40
26	14	2009	G	N7-C8-N9	-5.45	110.38	113.10
26	1H	1143	A	C8-N9-C4	-5.45	103.62	105.80
31	31	32	LEU	CB-CG-CD1	5.45	120.26	111.00
1	1G	808	C	N3-C4-N4	-5.45	114.19	118.00
1	13	267	C	OP2-P-O3'	5.45	117.18	105.20
26	1H	1800	C	C4-C5-C6	5.45	120.12	117.40
26	1H	2075	U	C5-C6-N1	-5.45	119.98	122.70
26	1H	2246	G	C5-N7-C8	5.45	107.02	104.30
26	1H	2280	G	OP1-P-O3'	5.45	117.18	105.20
26	1H	2382	G	N3-C4-N9	5.45	129.27	126.00
26	1H	2445	G	N3-C2-N2	5.45	123.71	119.90
1	1G	1407	C	C5-C6-N1	5.45	123.72	121.00
1	13	74	C	C2-N1-C1'	5.44	124.79	118.80
26	1H	835	A	P-O3'-C3'	5.44	126.23	119.70
26	1H	2443	C	OP1-P-O3'	5.44	117.18	105.20
26	14	618(A)	C	C6-N1-C2	5.44	122.48	120.30
26	14	2328	A	C5-C6-N6	-5.44	119.34	123.70
1	13	1416	G	N1-C6-O6	-5.44	116.64	119.90
26	1H	1495	A	C8-N9-C4	-5.44	103.62	105.80
26	1H	1823	G	N3-C2-N2	-5.44	116.09	119.90
26	1H	2258	C	C2-N3-C4	-5.44	117.18	119.90
26	1H	2443	C	C5-C4-N4	-5.44	116.39	120.20
26	1H	2763	G	C5-C6-O6	-5.44	125.33	128.60
26	1H	2830	G	N9-C4-C5	5.44	107.58	105.40
26	14	1783	A	C2-N3-C4	-5.44	107.88	110.60
1	13	1411	C	N1-C2-O2	-5.44	115.64	118.90
26	1H	194	G	N7-C8-N9	-5.44	110.38	113.10
26	1H	271(B)	G	C8-N9-C1'	-5.44	119.93	127.00
26	1H	331	A	C6-N1-C2	-5.44	115.34	118.60
26	1H	730	C	N3-C2-O2	-5.44	118.09	121.90
26	1H	1288	U	N3-C4-O4	5.44	123.21	119.40
26	1H	1332	G	C5-C6-N1	-5.44	108.78	111.50
1	1G	951	G	O5'-P-OP1	-5.44	100.80	105.70
26	14	498	G	N1-C6-O6	5.44	123.16	119.90
26	14	1192	G	C5-C6-O6	5.44	131.87	128.60
26	14	1241	A	C6-N1-C2	5.44	121.86	118.60
26	14	1282	U	OP2-P-O3'	5.44	117.17	105.20
26	14	1339	G	O5'-P-OP1	-5.44	100.80	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1772	G	N3-C2-N2	5.44	123.71	119.90
26	14	2199	A	OP2-P-O3'	5.44	117.17	105.20
26	14	2420	C	C2-N1-C1'	5.44	124.79	118.80
26	14	866	A	C4-N9-C1'	5.44	136.09	126.30
1	13	814	A	C8-N9-C4	5.44	107.97	105.80
26	1H	46	C	C4-C5-C6	5.44	120.12	117.40
26	1H	1950	G	N9-C4-C5	5.44	107.58	105.40
26	1H	2073	C	C4-C5-C6	5.44	120.12	117.40
26	1H	2445	G	N1-C6-O6	-5.44	116.64	119.90
26	14	141	A	C5-N7-C8	-5.44	101.18	103.90
26	14	500	G	C8-N9-C4	5.44	108.58	106.40
26	14	780	G	C6-N1-C2	-5.44	121.84	125.10
26	14	1312	U	OP1-P-OP2	5.44	127.76	119.60
26	14	2370	G	C8-N9-C4	5.44	108.58	106.40
1	13	190	G	P-O3'-C3'	5.44	126.22	119.70
26	14	701	G	N7-C8-N9	5.44	115.82	113.10
1	13	882	C	OP1-P-OP2	-5.43	111.45	119.60
26	1H	192	C	C2-N1-C1'	-5.43	112.82	118.80
26	1H	2329	G	N7-C8-N9	-5.43	110.38	113.10
26	1H	2522	U	C5-C6-N1	-5.43	119.98	122.70
26	14	1564	C	N1-C2-O2	5.43	122.16	118.90
26	14	1887	C	N1-C2-O2	-5.43	115.64	118.90
26	14	2518	A	C8-N9-C1'	-5.43	117.92	127.70
26	1H	86	C	C2-N3-C4	-5.43	117.18	119.90
26	1H	2018	G	C4-C5-N7	5.43	112.97	110.80
26	1H	2324	C	C5-C6-N1	-5.43	118.28	121.00
26	1H	2346	A	C4-C5-N7	5.43	113.42	110.70
1	1G	1487	G	C8-N9-C4	5.43	108.57	106.40
26	14	1463	C	N3-C4-C5	-5.43	119.73	121.90
26	14	1688	U	C2-N1-C1'	-5.43	111.18	117.70
26	14	1769	G	C5-C6-O6	-5.43	125.34	128.60
26	14	2535	G	O5'-P-OP2	-5.43	100.81	105.70
1	13	1151	A	O5'-P-OP2	-5.43	100.81	105.70
26	1H	2242	G	OP2-P-O3'	5.43	117.15	105.20
1	1G	193	C	C5-C6-N1	5.43	123.72	121.00
26	14	243	U	OP2-P-O3'	5.43	117.15	105.20
26	1H	138	G	C8-N9-C1'	5.43	134.06	127.00
26	1H	713	G	N9-C4-C5	-5.43	103.23	105.40
26	1H	1558	A	C4-C5-N7	5.43	113.42	110.70
26	1H	2307	G	C2-N3-C4	-5.43	109.19	111.90
26	1H	2819	G	C8-N9-C4	5.43	108.57	106.40
33	51	105	LEU	CA-CB-CG	5.43	127.79	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	1374	A	N1-C2-N3	5.43	132.01	129.30
26	14	656	G	C5-C6-O6	-5.43	125.34	128.60
26	14	2763	G	N3-C4-C5	-5.43	125.89	128.60
1	13	169	C	C6-N1-C2	-5.43	118.13	120.30
45	F8	3	THR	CA-C-N	5.43	129.14	117.20
1	1G	6	G	C5-C6-O6	-5.43	125.34	128.60
26	14	2594	C	N1-C2-O2	-5.43	115.64	118.90
26	14	2616	C	O5'-P-OP2	5.43	117.21	110.70
26	1H	376	C	C2-N3-C4	-5.43	117.19	119.90
26	1H	634	C	OP2-P-O3'	5.43	117.14	105.20
1	1G	322	C	C5-C4-N4	-5.43	116.40	120.20
26	14	988	A	N1-C6-N6	5.43	121.86	118.60
26	14	1480	G	C5-C6-N1	-5.43	108.79	111.50
26	14	1914	C	O4'-C1'-N1	5.43	112.54	108.20
1	13	1488	G	C4-C5-N7	5.42	112.97	110.80
26	1H	902	C	N3-C4-N4	-5.42	114.20	118.00
26	1H	965	C	C6-N1-C2	-5.42	118.13	120.30
26	1H	1308	A	C6-N1-C2	-5.42	115.34	118.60
1	1G	197	A	C6-C5-N7	-5.42	128.50	132.30
26	14	240	G	C4-C5-N7	5.42	112.97	110.80
26	14	672	C	C2-N1-C1'	-5.42	112.83	118.80
26	14	2365	G	N3-C4-N9	5.42	129.25	126.00
1	13	584	G	N3-C4-C5	-5.42	125.89	128.60
23	2K	15	G	C5-C6-O6	5.42	131.85	128.60
26	1H	149	A	N7-C8-N9	5.42	116.51	113.80
26	1H	188	G	C5'-C4'-O4'	5.42	115.61	109.10
26	1H	2286	A	P-O3'-C3'	5.42	126.21	119.70
26	1H	697	C	C6-N1-C2	5.42	122.47	120.30
26	1H	861	A	N9-C4-C5	-5.42	103.63	105.80
26	1H	974	G	O5'-P-OP2	-5.42	100.82	105.70
26	1H	998	C	N3-C4-N4	5.42	121.79	118.00
26	1H	1252	G	N7-C8-N9	-5.42	110.39	113.10
26	1H	1642	G	N3-C2-N2	-5.42	116.10	119.90
26	1H	1676	A	N3-C4-N9	-5.42	123.06	127.40
1	1G	108	G	C5-N7-C8	-5.42	101.59	104.30
1	1G	653	A	O4'-C1'-N9	5.42	112.54	108.20
1	1G	769	G	OP1-P-O3'	5.42	117.13	105.20
1	1G	1357	A	C8-N9-C4	-5.42	103.63	105.80
26	14	703	U	N3-C4-O4	-5.42	115.61	119.40
26	14	1313	U	O5'-P-OP1	-5.42	100.82	105.70
26	1H	184	C	OP2-P-O3'	5.42	117.12	105.20
26	1H	231	C	C4-C5-C6	5.42	120.11	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2331	G	N9-C4-C5	-5.42	103.23	105.40
26	1H	2386	C	N1-C2-O2	-5.42	115.65	118.90
26	14	2029	G	N1-C6-O6	5.42	123.15	119.90
19	AI	41	VAL	N-CA-CB	-5.42	99.58	111.50
26	1H	56	A	N1-C2-N3	5.42	132.01	129.30
26	1H	213	A	C5-N7-C8	-5.42	101.19	103.90
26	1H	1663	C	C5-C4-N4	-5.42	116.41	120.20
26	1H	2292	C	OP2-P-O3'	5.42	117.12	105.20
26	1H	2451	A	C2-N3-C4	-5.42	107.89	110.60
26	14	1570	A	C6-C5-N7	-5.42	128.51	132.30
26	14	2092	U	C6-N1-C2	-5.42	117.75	121.00
26	14	2094	G	O5'-P-OP2	-5.42	100.82	105.70
1	13	881	G	OP1-P-OP2	-5.42	111.48	119.60
26	1H	1698	A	C8-N9-C4	-5.42	103.63	105.80
26	1H	1760	A	O5'-P-OP2	-5.42	100.83	105.70
26	1H	2395	C	C2-N3-C4	-5.42	117.19	119.90
26	1H	2676	C	N3-C4-C5	5.42	124.07	121.90
26	14	247	G	C8-N9-C4	5.42	108.57	106.40
26	14	1379	A	C6-N1-C2	-5.42	115.35	118.60
26	14	1382	G	C5-C6-O6	-5.42	125.35	128.60
26	14	1805	U	C5-C6-N1	-5.42	119.99	122.70
26	14	1906	G	C5-N7-C8	-5.42	101.59	104.30
26	14	1936	A	N9-C4-C5	-5.42	103.63	105.80
26	14	2007	C	C4-C5-C6	5.42	120.11	117.40
26	14	2325	G	OP1-P-OP2	5.42	127.72	119.60
26	14	2872	G	O5'-P-OP1	-5.42	100.83	105.70
34	69	131	LYS	C-N-CA	5.42	144.75	122.00
1	13	726	C	OP2-P-O3'	-5.42	93.29	105.20
26	1H	1006	C	N3-C2-O2	5.42	125.69	121.90
26	1H	1947	C	OP1-P-OP2	-5.42	111.48	119.60
26	14	1923	U	C5-C6-N1	5.42	125.41	122.70
1	13	449	C	C6-N1-C1'	-5.41	114.30	120.80
1	13	1374	A	N1-C2-N3	5.41	132.01	129.30
26	1H	2036	C	C5-C4-N4	5.41	123.99	120.20
1	1G	509	A	C8-N9-C4	-5.41	103.64	105.80
26	14	680	G	O5'-P-OP1	-5.41	100.83	105.70
26	14	932	G	N3-C4-N9	-5.41	122.75	126.00
26	14	1489	U	N1-C2-O2	-5.41	119.01	122.80
1	1G	1418	A	C8-N9-C4	5.41	107.97	105.80
1	1G	1533	C	C2-N1-C1'	5.41	124.75	118.80
26	14	1606	G	N9-C4-C5	-5.41	103.23	105.40
30	29	117	MET	CA-CB-CG	5.41	122.50	113.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	690	G	C4-C5-C6	5.41	122.05	118.80
26	1H	651	G	C8-N9-C4	-5.41	104.24	106.40
26	1H	2386	C	N3-C2-O2	5.41	125.69	121.90
26	1H	543	C	O5'-P-OP2	-5.41	100.83	105.70
26	1H	861	A	O5'-P-OP2	5.41	117.19	110.70
26	1H	1379	A	N7-C8-N9	5.41	116.50	113.80
26	1H	1393	A	C8-N9-C4	-5.41	103.64	105.80
26	1H	1858	G	C4-N9-C1'	5.41	133.53	126.50
26	1H	2441	C	N3-C2-O2	-5.41	118.11	121.90
26	1H	2681	C	C5-C4-N4	-5.41	116.41	120.20
1	1G	46	G	N1-C6-O6	5.41	123.15	119.90
26	1H	928	G	C2-N3-C4	-5.41	109.20	111.90
26	1H	929	G	C5-C6-O6	-5.41	125.36	128.60
26	1H	2637	U	N3-C4-O4	5.41	123.19	119.40
1	1G	674	G	N1-C6-O6	5.41	123.14	119.90
26	14	1914	C	C2-N1-C1'	5.41	124.75	118.80
1	13	630	G	N3-C4-C5	5.41	131.30	128.60
1	13	956	U	N3-C4-C5	-5.41	111.36	114.60
26	1H	808	G	C4-C5-N7	-5.41	108.64	110.80
26	1H	928	G	N7-C8-N9	5.41	115.80	113.10
26	1H	1314	C	C6-N1-C1'	-5.41	114.31	120.80
26	1H	1924	C	N3-C4-C5	5.41	124.06	121.90
27	16	79	C	OP2-P-O3'	5.41	117.09	105.20
1	1G	355	C	C5-C4-N4	5.41	123.98	120.20
26	14	621	A	C6-N1-C2	5.41	121.84	118.60
26	14	808	G	N3-C2-N2	5.41	123.68	119.90
26	14	1255	U	N3-C2-O2	-5.41	118.42	122.20
26	14	1588	C	N3-C2-O2	-5.41	118.12	121.90
26	14	1702	G	C8-N9-C4	5.41	108.56	106.40
32	49	152	LEU	CA-CB-CG	5.41	127.73	115.30
1	13	514	C	N1-C2-O2	-5.40	115.66	118.90
26	1H	1792	G	C5-C6-O6	5.40	131.84	128.60
26	14	43	G	C4-C5-N7	5.40	112.96	110.80
1	13	514	C	C5-C4-N4	-5.40	116.42	120.20
26	1H	676	A	OP1-P-OP2	5.40	127.70	119.60
26	1H	676	A	C4-C5-C6	-5.40	114.30	117.00
26	1H	691	C	OP1-P-OP2	-5.40	111.50	119.60
26	14	968	G	N1-C6-O6	-5.40	116.66	119.90
26	14	1029	A	C5-C6-N6	-5.40	119.38	123.70
26	14	1570	A	C5-C6-N6	-5.40	119.38	123.70
26	14	1696	G	O5'-P-OP2	-5.40	100.84	105.70
26	14	1725	G	C8-N9-C1'	-5.40	119.98	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	758	G	C2-N3-C4	-5.40	109.20	111.90
26	1H	663	G	O5'-P-OP1	-5.40	100.84	105.70
26	1H	745	G	N3-C2-N2	-5.40	116.12	119.90
26	1H	1605	C	OP1-P-OP2	5.40	127.70	119.60
26	1H	1787	A	O5'-P-OP1	-5.40	100.84	105.70
26	1H	2822	G	C5-C6-O6	-5.40	125.36	128.60
1	1G	1184	G	C6-C5-N7	-5.40	127.16	130.40
1	1G	1356	G	N7-C8-N9	5.40	115.80	113.10
26	14	786	C	N3-C4-C5	5.40	124.06	121.90
26	14	1949	G	O5'-P-OP2	-5.40	100.84	105.70
28	79	169	GLY	N-CA-C	5.40	126.60	113.10
1	13	1514	C	N3-C4-N4	5.40	121.78	118.00
26	1H	797	C	N3-C2-O2	5.40	125.68	121.90
1	1G	375	U	O5'-P-OP1	-5.40	100.84	105.70
26	14	487	C	N1-C2-O2	-5.40	115.66	118.90
1	13	753	A	C5-C6-N6	5.40	128.02	123.70
26	1H	371	A	C6-C5-N7	-5.40	128.52	132.30
26	1H	405	U	C2-N1-C1'	5.40	124.18	117.70
26	1H	1223	C	N3-C2-O2	5.40	125.68	121.90
26	1H	1683	C	C5-C6-N1	-5.40	118.30	121.00
26	1H	1822	G	O5'-P-OP2	5.40	117.18	110.70
26	1H	1844	C	N1-C2-O2	-5.40	115.66	118.90
26	1H	1962	C	C4-C5-C6	-5.40	114.70	117.40
26	1H	2073	C	N3-C4-N4	5.40	121.78	118.00
26	14	122	G	C6-N1-C2	-5.40	121.86	125.10
26	14	139	G	C5-C6-O6	5.40	131.84	128.60
26	14	652	C	C5-C6-N1	5.40	123.70	121.00
26	14	1623	G	N3-C4-N9	-5.40	122.76	126.00
26	14	2452	C	N3-C4-N4	5.40	121.78	118.00
26	14	2731	G	N1-C6-O6	5.40	123.14	119.90
27	1J	27	C	N1-C2-O2	5.40	122.14	118.90
26	1H	1285	G	OP2-P-O3'	5.40	117.07	105.20
26	1H	2568	C	N3-C4-C5	5.40	124.06	121.90
1	1G	1414	U	C6-N1-C1'	5.40	128.75	121.20
1	13	538	G	C8-N9-C1'	-5.39	119.99	127.00
26	1H	303	U	C6-N1-C2	-5.39	117.76	121.00
26	1H	383	U	N1-C2-N3	5.39	118.14	114.90
26	1H	1437	C	OP1-P-OP2	-5.39	111.51	119.60
26	1H	1446	C	N3-C2-O2	-5.39	118.12	121.90
26	1H	2174	C	C6-N1-C2	-5.39	118.14	120.30
26	1H	2360	A	O5'-P-OP2	-5.39	100.84	105.70
34	61	110	ASP	C-N-CA	5.39	144.65	122.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	651	G	O5'-P-OP2	5.39	117.17	110.70
26	14	2062	A	N7-C8-N9	-5.39	111.10	113.80
26	14	2406	U	OP1-P-O3'	5.39	117.07	105.20
26	1H	307	G	N3-C4-N9	5.39	129.24	126.00
26	1H	2329	G	N1-C2-N2	-5.39	111.35	116.20
26	1H	2607	G	C6-C5-N7	-5.39	127.16	130.40
2	12	23	ARG	N-CA-C	-5.39	96.44	111.00
26	14	1285	G	OP1-P-OP2	5.39	127.69	119.60
26	14	1920	C	O5'-P-OP2	-5.39	100.85	105.70
26	1H	137	C	N1-C2-O2	-5.39	115.67	118.90
26	1H	1031	G	N3-C4-C5	-5.39	125.91	128.60
26	1H	2060	A	P-O3'-C3'	5.39	126.17	119.70
26	1H	2456	C	O5'-P-OP2	5.39	117.17	110.70
23	2L	30	G	N1-C2-N2	-5.39	111.35	116.20
26	14	2320	A	O5'-P-OP1	-5.39	100.85	105.70
26	14	2563	U	O5'-P-OP1	-5.39	100.85	105.70
26	1H	383	U	N1-C2-O2	-5.39	119.03	122.80
26	1H	414	C	C2-N3-C4	-5.39	117.20	119.90
26	1H	599	G	C4-C5-N7	-5.39	108.64	110.80
26	1H	863	A	C5-N7-C8	5.39	106.59	103.90
26	1H	2271	G	C8-N9-C1'	-5.39	119.99	127.00
26	14	506	G	O5'-P-OP2	5.39	117.17	110.70
1	13	860	A	N1-C6-N6	5.39	121.83	118.60
26	1H	186	G	N7-C8-N9	-5.39	110.41	113.10
26	1H	587	C	N3-C2-O2	-5.39	118.13	121.90
26	1H	794	G	O5'-P-OP1	-5.39	100.85	105.70
26	1H	1273	U	N3-C4-O4	-5.39	115.63	119.40
26	14	400	G	N3-C4-N9	5.39	129.23	126.00
26	14	932	G	OP2-P-O3'	5.39	117.05	105.20
26	14	1390	U	N3-C2-O2	-5.39	118.43	122.20
26	14	1634	A	O5'-P-OP1	-5.39	100.85	105.70
26	14	2818	G	C8-N9-C4	5.39	108.56	106.40
26	1H	70	G	C5-C6-O6	5.39	131.83	128.60
26	1H	1212	G	N1-C6-O6	5.39	123.13	119.90
26	1H	1797	C	N3-C4-N4	5.39	121.77	118.00
26	1H	2520	C	C5-C4-N4	5.39	123.97	120.20
16	7A	82	GLN	CA-CB-CG	5.39	125.25	113.40
26	14	57	C	OP2-P-O3'	5.39	117.05	105.20
26	14	1436	G	N3-C4-N9	5.39	129.23	126.00
26	14	1955	U	N1-C2-N3	5.39	118.13	114.90
26	14	1978	A	N9-C4-C5	5.39	107.95	105.80
26	1H	415	A	N1-C6-N6	5.38	121.83	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	775	G	OP1-P-OP2	5.38	127.67	119.60
26	1H	1299	G	O5'-P-OP2	5.38	117.16	110.70
26	1H	1817	G	C8-N9-C4	5.38	108.55	106.40
1	1G	1338	G	N3-C4-C5	-5.38	125.91	128.60
26	14	750	A	C5-N7-C8	-5.38	101.21	103.90
26	14	1011	G	O4'-C1'-N9	5.38	112.51	108.20
26	14	2056	G	N7-C8-N9	5.38	115.79	113.10
27	1J	14	U	O5'-P-OP2	-5.38	100.85	105.70
30	29	137	HIS	C-N-CD	5.38	139.71	128.40
1	13	770	C	C4-C5-C6	5.38	120.09	117.40
26	1H	575	A	O5'-P-OP2	5.38	117.16	110.70
26	1H	746	A	N1-C2-N3	5.38	131.99	129.30
46	G8	79	CYS	N-CA-C	5.38	125.53	111.00
26	14	55	G	N3-C2-N2	-5.38	116.13	119.90
26	14	2413	G	C5-C6-O6	-5.38	125.37	128.60
1	13	423	G	N3-C4-N9	5.38	129.23	126.00
1	13	1402	C	N3-C4-C5	-5.38	119.75	121.90
26	1H	28	A	OP1-P-OP2	-5.38	111.53	119.60
26	1H	1605	C	N1-C2-O2	-5.38	115.67	118.90
26	1H	2252	G	C5-N7-C8	5.38	106.99	104.30
26	1H	2275	C	N3-C2-O2	-5.38	118.13	121.90
26	14	1383	C	C5-C4-N4	-5.38	116.43	120.20
26	14	2043	C	N1-C2-O2	-5.38	115.67	118.90
26	14	2406	U	P-O3'-C3'	5.38	126.16	119.70
1	13	512	U	C5-C6-N1	5.38	125.39	122.70
26	1H	566	U	N3-C4-C5	5.38	117.83	114.60
26	14	1869	G	C8-N9-C1'	5.38	133.99	127.00
26	14	2690	C	O5'-P-OP2	-5.38	100.86	105.70
1	13	419	C	C5-C6-N1	5.38	123.69	121.00
26	1H	473	G	N1-C2-N2	-5.38	111.36	116.20
26	1H	794	G	N3-C4-C5	-5.38	125.91	128.60
26	1H	984	A	P-O3'-C3'	5.38	126.15	119.70
1	1G	115	G	C4-C5-N7	-5.38	108.65	110.80
1	1G	1227	A	C5-N7-C8	-5.38	101.21	103.90
26	14	591	C	N1-C2-O2	-5.38	115.67	118.90
1	13	363	A	C8-N9-C4	5.38	107.95	105.80
1	13	911	U	C5-C6-N1	-5.38	120.01	122.70
26	1H	26	G	N3-C4-N9	5.38	129.23	126.00
26	1H	575	A	O4'-C1'-N9	5.38	112.50	108.20
26	1H	695	G	N3-C4-C5	-5.38	125.91	128.60
26	1H	757	U	N3-C2-O2	-5.38	118.44	122.20
26	1H	840	C	C2-N3-C4	-5.38	117.21	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1224	G	N1-C2-N3	-5.38	120.67	123.90
26	1H	1381	G	N3-C4-N9	-5.38	122.77	126.00
1	1G	495	A	C5-C6-N6	5.38	128.00	123.70
1	1G	573	A	N9-C4-C5	5.38	107.95	105.80
26	14	265	A	N7-C8-N9	5.38	116.49	113.80
26	14	2452	C	C5-C4-N4	-5.38	116.44	120.20
1	13	331	G	C5-C6-O6	-5.38	125.38	128.60
1	13	912	C	N1-C2-O2	-5.38	115.67	118.90
26	1H	1244	G	C5-C6-O6	-5.38	125.38	128.60
26	1H	2315	G	O5'-P-OP2	-5.38	100.86	105.70
26	1H	2357	U	OP2-P-O3'	5.38	117.03	105.20
26	1H	2713	A	OP2-P-O3'	5.38	117.02	105.20
1	13	430	A	OP1-P-O3'	5.37	117.02	105.20
1	13	1306	A	O5'-P-OP2	-5.37	100.86	105.70
26	1H	397	G	C5-C6-O6	5.37	131.82	128.60
26	1H	755	C	N3-C4-C5	-5.37	119.75	121.90
26	1H	2018	G	C8-N9-C4	-5.37	104.25	106.40
26	1H	2078	C	N3-C4-N4	5.37	121.76	118.00
26	1H	2489	G	C5-C6-O6	-5.37	125.38	128.60
26	1H	2821	A	N1-C6-N6	5.37	121.82	118.60
26	14	1326	U	N3-C2-O2	-5.37	118.44	122.20
26	14	2386	C	N1-C2-O2	-5.37	115.68	118.90
1	13	315	A	O5'-P-OP1	-5.37	100.86	105.70
1	13	757	U	O5'-P-OP1	5.37	117.14	110.70
26	14	583	G	N1-C6-O6	5.37	123.12	119.90
26	14	910	A	OP2-P-O3'	5.37	117.02	105.20
26	14	1437	C	C6-N1-C2	-5.37	118.15	120.30
26	14	1494	A	C8-N9-C4	-5.37	103.65	105.80
26	14	2732	G	C8-N9-C4	-5.37	104.25	106.40
26	1H	807	U	O5'-P-OP2	-5.37	100.87	105.70
26	1H	1750	G	C8-N9-C1'	-5.37	120.02	127.00
26	1H	2503	A	C4-C5-N7	5.37	113.39	110.70
1	1G	353	A	OP2-P-O3'	5.37	117.01	105.20
26	14	1918	A	C4-C5-N7	5.37	113.39	110.70
26	14	2346	A	C8-N9-C1'	-5.37	118.03	127.70
26	1H	581	C	N1-C2-O2	-5.37	115.68	118.90
26	1H	1799	G	N1-C6-O6	-5.37	116.68	119.90
26	1H	1882	C	C2-N1-C1'	5.37	124.70	118.80
26	14	2696	U	C5-C4-O4	5.37	129.12	125.90
1	13	803	G	C5-C6-O6	5.37	131.82	128.60
26	1H	941	A	C6-C5-N7	-5.37	128.54	132.30
1	13	52	G	C6-C5-N7	-5.37	127.18	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	197	A	N9-C4-C5	5.37	107.95	105.80
1	13	584	G	C5-C6-O6	5.37	131.82	128.60
13	4I	48	LEU	CA-CB-CG	5.37	127.64	115.30
26	1H	36	G	C5-C6-O6	5.37	131.82	128.60
26	1H	1048	A	OP2-P-O3'	5.37	117.00	105.20
26	1H	2485	G	N1-C2-N3	5.37	127.12	123.90
26	14	129	C	C2-N1-C1'	5.37	124.70	118.80
26	14	1638	C	OP2-P-O3'	5.37	117.01	105.20
26	14	1787	A	N7-C8-N9	5.37	116.48	113.80
26	14	1787	A	OP1-P-OP2	-5.37	111.55	119.60
26	14	2873	A	C6-N1-C2	-5.37	115.38	118.60
1	13	808	C	C5-C6-N1	-5.36	118.32	121.00
1	13	917	G	OP1-P-O3'	5.36	117.00	105.20
26	1H	527	C	C4-C5-C6	5.36	120.08	117.40
26	1H	661	C	C4-C5-C6	5.36	120.08	117.40
26	1H	945	A	OP1-P-O3'	5.36	117.00	105.20
26	1H	1160	G	N1-C6-O6	5.36	123.12	119.90
26	1H	1423	G	C5-N7-C8	5.36	106.98	104.30
26	1H	1521	G	N1-C6-O6	5.36	123.12	119.90
26	1H	2405	G	N1-C6-O6	-5.36	116.68	119.90
26	1H	2516	G	O5'-P-OP1	5.36	117.14	110.70
26	1H	2709	G	C4-C5-C6	5.36	122.02	118.80
48	I8	10	THR	N-CA-CB	5.36	120.49	110.30
26	14	125	G	O4'-C1'-N9	-5.36	103.91	108.20
26	14	751	A	O5'-P-OP1	-5.36	100.87	105.70
26	14	1821	A	C8-N9-C4	-5.36	103.66	105.80
26	14	2385	C	C2-N3-C4	-5.36	117.22	119.90
26	14	2665	A	O4'-C1'-N9	5.36	112.49	108.20
26	14	2883	A	O5'-P-OP2	-5.36	100.87	105.70
1	13	329	A	OP2-P-O3'	5.36	117.00	105.20
1	13	423	G	N3-C4-C5	-5.36	125.92	128.60
26	1H	395	U	C5-C4-O4	-5.36	122.68	125.90
26	1H	1257	C	C6-N1-C2	-5.36	118.16	120.30
26	1H	1801	G	N3-C4-C5	-5.36	125.92	128.60
26	1H	1829	A	N1-C6-N6	-5.36	115.38	118.60
1	1G	1219	U	C5-C6-N1	5.36	125.38	122.70
27	1J	89(A)	A	O4'-C1'-N9	5.36	112.49	108.20
26	1H	852	G	O5'-P-OP2	-5.36	100.88	105.70
26	1H	2497	A	N7-C8-N9	-5.36	111.12	113.80
1	1G	1500	A	N1-C6-N6	5.36	121.82	118.60
26	14	766	C	C5-C6-N1	-5.36	118.32	121.00
26	14	1643	G	OP2-P-O3'	5.36	116.99	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2678	C	N1-C2-O2	-5.36	115.68	118.90
26	1H	1625	C	C4-C5-C6	-5.36	114.72	117.40
26	1H	1934	C	C4-C5-C6	5.36	120.08	117.40
26	1H	2249	U	C5-C4-O4	5.36	129.12	125.90
26	1H	2779	U	N3-C4-O4	-5.36	115.65	119.40
26	14	1778	U	N3-C4-C5	-5.36	111.38	114.60
1	13	943	U	C5-C4-O4	-5.36	122.69	125.90
26	1H	211	A	OP2-P-O3'	5.36	116.99	105.20
26	1H	239	U	N3-C2-O2	-5.36	118.45	122.20
26	1H	1424	G	C4-C5-C6	5.36	122.01	118.80
26	1H	1678	G	N3-C2-N2	-5.36	116.15	119.90
26	1H	2373	G	C6-N1-C2	-5.36	121.89	125.10
33	51	12	PRO	CA-C-N	-5.36	105.41	117.20
37	78	22	GLY	N-CA-C	5.36	126.49	113.10
26	14	1324	G	N3-C2-N2	-5.36	116.15	119.90
26	14	1776	G	O5'-P-OP2	-5.36	100.88	105.70
1	13	108	G	C8-N9-C1'	-5.36	120.04	127.00
26	1H	138	G	C5-C6-O6	-5.36	125.39	128.60
26	1H	739	G	N7-C8-N9	-5.36	110.42	113.10
26	1H	1348	G	OP1-P-O3'	5.36	116.98	105.20
26	1H	1694	C	C6-N1-C2	5.36	122.44	120.30
26	1H	2713	A	OP1-P-OP2	5.36	127.63	119.60
24	3L	4	U	C5-C6-N1	5.36	125.38	122.70
26	14	1846	G	C5-C6-O6	-5.36	125.39	128.60
26	14	2419	U	OP1-P-O3'	5.36	116.98	105.20
26	14	2591	C	N3-C4-N4	5.36	121.75	118.00
22	1K	52	G	N1-C6-O6	5.35	123.11	119.90
26	1H	145	G	C5-C6-O6	-5.35	125.39	128.60
26	1H	389	G	N9-C4-C5	-5.35	103.26	105.40
26	1H	584	C	N3-C2-O2	5.35	125.65	121.90
26	1H	2553	G	C5-C6-N1	5.35	114.18	111.50
26	1H	2623	G	N3-C4-C5	-5.35	125.92	128.60
26	14	1963	U	OP2-P-O3'	5.35	116.98	105.20
26	14	2557	G	N1-C6-O6	-5.35	116.69	119.90
26	1H	681	G	N9-C4-C5	-5.35	103.26	105.40
26	1H	795	C	C5-C6-N1	-5.35	118.32	121.00
1	1G	226	G	O5'-P-OP2	-5.35	100.88	105.70
1	1G	1446	A	O4'-C1'-N9	5.35	112.48	108.20
26	14	2553	G	O5'-P-OP1	-5.35	100.88	105.70
1	13	900	A	C5-C6-N1	5.35	120.38	117.70
26	1H	1269	A	N7-C8-N9	5.35	116.47	113.80
26	1H	1619	G	O5'-P-OP2	-5.35	100.89	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2518	A	C8-N9-C4	-5.35	103.66	105.80
26	1H	2763	G	N3-C2-N2	5.35	123.64	119.90
26	14	196	A	O5'-P-OP1	-5.35	100.89	105.70
26	1H	599	G	N1-C2-N2	-5.35	111.39	116.20
26	1H	1016	G	OP1-P-OP2	-5.35	111.58	119.60
26	14	866	A	OP1-P-O3'	5.35	116.97	105.20
26	14	954	G	O5'-P-OP2	5.35	117.12	110.70
26	14	1996	C	C6-N1-C2	5.35	122.44	120.30
26	14	2609	U	C5-C6-N1	-5.35	120.03	122.70
27	1J	44	G	C4-C5-N7	-5.35	108.66	110.80
27	1J	81	G	C2-N3-C4	-5.35	109.23	111.90
1	13	552	U	O5'-P-OP1	5.35	117.11	110.70
1	13	584	G	N1-C2-N2	-5.35	111.39	116.20
26	14	2039	C	N3-C4-N4	5.35	121.74	118.00
26	14	2284	C	N1-C2-O2	-5.35	115.69	118.90
1	13	962	C	C6-N1-C2	5.34	122.44	120.30
1	13	1498	U	C2'-C3'-O3'	5.34	122.25	113.70
26	1H	126	A	O5'-P-OP2	-5.34	100.89	105.70
26	1H	143	C	N3-C4-N4	5.34	121.74	118.00
26	1H	705	A	C5-C6-N6	-5.34	119.42	123.70
26	1H	1971	A	N7-C8-N9	-5.34	111.13	113.80
1	1G	267	C	N1-C2-O2	5.34	122.11	118.90
26	14	71	A	C6-N1-C2	-5.34	115.39	118.60
26	14	911	A	OP2-P-O3'	-5.34	93.44	105.20
26	14	1567	A	OP1-P-O3'	5.34	116.96	105.20
26	14	1836	C	OP1-P-O3'	5.34	116.96	105.20
26	14	2038	G	N3-C2-N2	5.34	123.64	119.90
1	13	525	C	C5-C4-N4	-5.34	116.46	120.20
22	1K	35	U	O5'-P-OP2	5.34	117.11	110.70
26	1H	483	A	N1-C2-N3	5.34	131.97	129.30
26	1H	523	C	C5-C6-N1	5.34	123.67	121.00
26	14	77	C	O5'-P-OP1	-5.34	100.89	105.70
26	14	1653	G	OP1-P-OP2	5.34	127.61	119.60
26	14	2278	A	N1-C2-N3	5.34	131.97	129.30
26	14	2612	C	C5-C4-N4	-5.34	116.46	120.20
26	14	2681	C	C5-C6-N1	-5.34	118.33	121.00
1	13	413	G	O4'-C1'-N9	5.34	112.47	108.20
1	13	419	C	C6-N1-C2	-5.34	118.16	120.30
26	1H	376	C	N1-C2-N3	5.34	122.94	119.20
26	1H	663	G	N3-C4-C5	-5.34	125.93	128.60
26	1H	793	A	N3-C4-N9	5.34	131.67	127.40
26	1H	1832	C	N1-C2-O2	5.34	122.11	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1900	A	OP1-P-OP2	-5.34	111.59	119.60
26	1H	1981	A	C5-C6-N1	5.34	120.37	117.70
26	14	784	A	C5-C6-N6	5.34	127.97	123.70
26	1H	141(A)	C	N3-C2-O2	5.34	125.64	121.90
26	1H	1765	C	C5-C4-N4	5.34	123.94	120.20
26	1H	2378	A	C5-C6-N1	-5.34	115.03	117.70
26	1H	2448	A	C4-C5-N7	5.34	113.37	110.70
26	1H	2485	G	C8-N9-C4	5.34	108.54	106.40
26	1H	2639	A	C2-N3-C4	-5.34	107.93	110.60
26	14	728	G	N3-C4-N9	5.34	129.20	126.00
26	14	1383	C	N1-C2-O2	-5.34	115.70	118.90
26	14	1981	A	N1-C2-N3	-5.34	126.63	129.30
26	14	2597	G	N9-C4-C5	-5.34	103.27	105.40
26	1H	130	C	N3-C4-N4	5.34	121.74	118.00
26	1H	649	G	O5'-P-OP2	-5.34	100.90	105.70
26	1H	2295	C	O5'-P-OP2	5.34	117.11	110.70
26	1H	2762	G	N7-C8-N9	-5.34	110.43	113.10
26	14	339	U	N3-C2-O2	5.34	125.94	122.20
26	14	2207	C	O5'-P-OP1	5.34	117.11	110.70
1	13	538	G	N9-C4-C5	-5.34	103.27	105.40
1	13	570	G	O5'-P-OP1	5.34	117.11	110.70
26	1H	1257	C	C5-C6-N1	-5.34	118.33	121.00
26	14	1232	G	C2-N3-C4	-5.34	109.23	111.90
26	14	1527	G	N1-C2-N2	5.34	121.00	116.20
26	14	1605	C	N1-C2-O2	-5.34	115.70	118.90
26	1H	2709	G	C4-N9-C1'	5.33	133.44	126.50
1	1G	115	G	P-O3'-C3'	5.33	126.10	119.70
1	1G	1491	G	O5'-P-OP1	5.33	117.10	110.70
26	14	762	U	C6-N1-C1'	-5.33	113.73	121.20
26	14	1559	G	C4-C5-C6	5.33	122.00	118.80
26	14	2669	G	C8-N9-C4	5.33	108.53	106.40
1	13	328	C	C6-N1-C1'	-5.33	114.40	120.80
1	13	581	G	C8-N9-C4	5.33	108.53	106.40
1	13	1498	U	C2-N3-C4	-5.33	123.80	127.00
23	2K	40	C	C5-C6-N1	5.33	123.67	121.00
26	1H	128	C	OP1-P-O3'	-5.33	93.47	105.20
26	1H	1765	C	N3-C4-N4	-5.33	114.27	118.00
1	1G	913	A	OP2-P-O3'	5.33	116.94	105.20
26	14	715	G	C4-C5-N7	5.33	112.93	110.80
1	13	1312	G	O5'-P-OP2	5.33	117.10	110.70
26	1H	423	A	N7-C8-N9	-5.33	111.13	113.80
26	1H	1300	U	OP1-P-O3'	5.33	116.93	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1365	A	C4-C5-C6	5.33	119.67	117.00
26	1H	1948	G	N3-C2-N2	5.33	123.63	119.90
1	1G	927	G	N3-C4-C5	5.33	131.27	128.60
1	1G	1235	U	C5-C6-N1	5.33	125.37	122.70
26	14	47	C	OP2-P-O3'	5.33	116.93	105.20
26	14	1408	C	N3-C4-N4	5.33	121.73	118.00
26	14	2067	G	C4-C5-N7	-5.33	108.67	110.80
26	14	2245	U	OP1-P-O3'	5.33	116.93	105.20
26	1H	330	A	N1-C6-N6	5.33	121.80	118.60
26	1H	1396	U	C5-C6-N1	-5.33	120.03	122.70
29	11	40	THR	N-CA-C	5.33	125.39	111.00
1	13	507	C	C6-N1-C2	-5.33	118.17	120.30
26	1H	133	C	OP2-P-O3'	5.33	116.92	105.20
26	1H	945	A	OP1-P-OP2	-5.33	111.61	119.60
26	1H	958	U	O5'-P-OP1	5.33	117.09	110.70
26	1H	2782	G	C5-C6-O6	-5.33	125.40	128.60
27	16	35	U	N3-C4-O4	-5.33	115.67	119.40
1	1G	37	U	C5-C6-N1	5.33	125.36	122.70
1	1G	422	C	O4'-C1'-N1	5.33	112.46	108.20
1	1G	1495	U	O5'-P-OP1	-5.33	100.90	105.70
26	14	34	C	P-O3'-C3'	5.33	126.09	119.70
26	14	1569	A	N3-C4-N9	-5.33	123.14	127.40
26	14	1804	C	C5-C4-N4	-5.33	116.47	120.20
26	14	2313	C	N3-C4-C5	-5.33	119.77	121.90
26	14	2504	U	O5'-P-OP1	5.33	117.09	110.70
26	1H	541	C	N1-C2-O2	5.33	122.10	118.90
26	1H	2713	A	N1-C2-N3	5.33	131.96	129.30
1	1G	197	A	N1-C6-N6	5.33	121.80	118.60
26	14	775	G	C5-C6-N1	5.33	114.16	111.50
26	14	784	A	N9-C4-C5	5.33	107.93	105.80
26	14	1393	A	P-O3'-C3'	5.33	126.09	119.70
1	13	410	G	OP2-P-O3'	5.33	116.92	105.20
26	1H	113	G	OP1-P-O3'	5.33	116.91	105.20
26	1H	667	U	N3-C2-O2	5.33	125.93	122.20
26	1H	1921	G	C8-N9-C4	5.33	108.53	106.40
26	1H	2447	G	C4-C5-N7	-5.33	108.67	110.80
27	16	82	G	C4-C5-N7	-5.33	108.67	110.80
1	1G	519	C	C6-N1-C2	5.33	122.43	120.30
1	1G	1400	C	N1-C2-O2	5.33	122.09	118.90
26	14	570	G	N3-C4-N9	5.33	129.19	126.00
26	14	1585	C	C2-N1-C1'	5.33	124.66	118.80
26	14	1831	G	C2-N3-C4	-5.33	109.24	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2359	C	OP1-P-OP2	5.33	127.59	119.60
26	14	2473	U	C6-N1-C1'	-5.33	113.75	121.20
24	3K	71	C	N1-C2-O2	5.32	122.09	118.90
26	1H	746	A	C8-N9-C4	-5.32	103.67	105.80
26	1H	815	C	C4-C5-C6	-5.32	114.74	117.40
26	1H	834	C	C5-C4-N4	-5.32	116.47	120.20
26	1H	1128	A	C5-C6-N6	-5.32	119.44	123.70
26	1H	1622	G	O5'-P-OP2	5.32	117.09	110.70
26	1H	2064	C	N3-C4-N4	-5.32	114.27	118.00
26	1H	2392	A	C6-N1-C2	5.32	121.79	118.60
1	1G	1506	U	O5'-P-OP1	5.32	117.09	110.70
26	14	220	G	C8-N9-C4	-5.32	104.27	106.40
26	14	667	U	N3-C2-O2	5.32	125.93	122.20
26	14	777	A	N9-C4-C5	5.32	107.93	105.80
26	14	2319	G	N1-C6-O6	-5.32	116.70	119.90
26	14	2574	G	C5-C6-N1	5.32	114.16	111.50
26	14	2598	A	N1-C6-N6	5.32	121.79	118.60
44	E8	11	ARG	NE-CZ-NH2	-5.32	117.64	120.30
1	1G	428	G	N3-C2-N2	-5.32	116.17	119.90
26	1H	162	U	N1-C2-O2	5.32	126.53	122.80
26	1H	231	C	OP2-P-O3'	5.32	116.90	105.20
26	1H	1835	G	N3-C4-N9	5.32	129.19	126.00
26	1H	2406	U	O5'-P-OP2	5.32	117.08	110.70
37	78	65	ARG	NE-CZ-NH2	-5.32	117.64	120.30
50	K8	17	SER	C-N-CD	-5.32	108.90	120.60
1	1G	972	C	OP2-P-O3'	5.32	116.91	105.20
26	14	515	A	N9-C4-C5	5.32	107.93	105.80
26	14	777	A	N1-C6-N6	-5.32	115.41	118.60
26	14	1359	A	N1-C6-N6	5.32	121.79	118.60
26	14	2595	G	N3-C4-C5	5.32	131.26	128.60
26	1H	594	U	C5-C6-N1	-5.32	120.04	122.70
26	1H	755	C	C6-N1-C2	-5.32	118.17	120.30
26	1H	771	G	O5'-P-OP1	-5.32	100.91	105.70
26	1H	960	A	C2-N3-C4	-5.32	107.94	110.60
26	1H	1186	G	N3-C4-C5	-5.32	125.94	128.60
23	2K	46	G	O5'-P-OP1	-5.32	100.92	105.70
26	1H	180	G	C5-C6-O6	-5.32	125.41	128.60
26	1H	1396	U	OP2-P-O3'	5.32	116.90	105.20
1	1G	245	C	N1-C2-O2	-5.32	115.71	118.90
1	1G	1519	A	N1-C6-N6	-5.32	115.41	118.60
26	14	445	C	N3-C2-O2	5.32	125.62	121.90
26	14	801	G	C6-C5-N7	5.32	133.59	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2062	A	C8-N9-C1'	5.32	137.27	127.70
26	14	2296	U	N1-C2-N3	-5.32	111.71	114.90
26	14	2375	G	N9-C4-C5	-5.32	103.27	105.40
1	13	570	G	N7-C8-N9	5.32	115.76	113.10
24	3K	71	C	O4'-C1'-N1	5.32	112.45	108.20
26	1H	94	G	N3-C4-C5	5.32	131.26	128.60
26	1H	739	G	C2-N3-C4	5.32	114.56	111.90
26	1H	742	G	C4-C5-N7	-5.32	108.67	110.80
26	1H	793	A	C5-C6-N1	5.32	120.36	117.70
26	1H	913	U	OP1-P-OP2	5.32	127.57	119.60
1	1G	892	A	N1-C6-N6	5.32	121.79	118.60
26	14	1496	A	OP1-P-O3'	5.32	116.89	105.20
26	14	1798	U	C5-C6-N1	-5.32	120.04	122.70
1	13	135	C	N1-C2-O2	-5.31	115.71	118.90
26	1H	773	U	N1-C2-N3	5.31	118.09	114.90
26	1H	1192	G	N9-C4-C5	-5.31	103.27	105.40
26	1H	2553	G	C6-N1-C2	-5.31	121.91	125.10
1	1G	1227	A	N1-C6-N6	5.31	121.79	118.60
26	14	1223	C	OP2-P-O3'	5.31	116.89	105.20
26	14	1569	A	C5-C6-N1	-5.31	115.04	117.70
26	14	1836	C	N3-C4-C5	-5.31	119.77	121.90
1	13	43	C	O5'-P-OP2	5.31	117.07	110.70
1	13	904	C	N3-C2-O2	-5.31	118.18	121.90
1	13	1279	A	C4-C5-N7	5.31	113.36	110.70
26	1H	947	G	N9-C4-C5	5.31	107.53	105.40
26	1H	1653	G	N3-C4-N9	5.31	129.19	126.00
26	1H	1823	G	N9-C4-C5	5.31	107.53	105.40
26	14	248	G	N3-C4-C5	-5.31	125.94	128.60
26	14	477	A	N1-C6-N6	-5.31	115.41	118.60
26	14	952	G	N7-C8-N9	5.31	115.76	113.10
26	14	1373	A	C6-N1-C2	-5.31	115.41	118.60
26	14	1559	G	C5-C6-O6	-5.31	125.41	128.60
26	14	1961	C	O5'-P-OP1	5.31	117.07	110.70
1	13	23	C	C5-C6-N1	5.31	123.66	121.00
26	1H	948	G	O5'-P-OP2	5.31	117.07	110.70
1	1G	1285	A	P-O3'-C3'	5.31	126.07	119.70
26	14	516	C	N3-C4-C5	5.31	124.02	121.90
26	14	1270	C	OP2-P-O3'	5.31	116.88	105.20
26	1H	404	C	OP2-P-O3'	5.31	116.88	105.20
26	1H	1959	G	C5-C6-O6	5.31	131.79	128.60
26	14	228	A	C5-N7-C8	-5.31	101.25	103.90
26	14	1314	C	C5-C6-N1	5.31	123.66	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2074	U	OP1-P-OP2	5.31	127.56	119.60
26	14	2620	C	N3-C2-O2	5.31	125.62	121.90
1	13	892	A	C4-C5-N7	5.31	113.35	110.70
26	1H	579	G	N1-C2-N3	-5.31	120.72	123.90
26	1H	1579	A	O5'-P-OP2	-5.31	100.92	105.70
26	1H	1882	C	C5-C6-N1	5.31	123.65	121.00
26	1H	2646	C	C5-C6-N1	-5.31	118.35	121.00
26	14	863	A	OP2-P-O3'	5.31	116.88	105.20
26	14	2239	G	N9-C4-C5	-5.31	103.28	105.40
26	14	2674	G	C6-N1-C2	-5.31	121.92	125.10
26	1H	803	U	N1-C2-N3	5.31	118.08	114.90
26	14	688	U	OP2-P-O3'	5.31	116.87	105.20
26	14	1377	G	N7-C8-N9	5.31	115.75	113.10
1	13	332	G	O5'-P-OP1	-5.30	100.93	105.70
1	13	1477	C	C5-C4-N4	-5.30	116.49	120.20
26	1H	51	G	C5-C6-O6	5.30	131.78	128.60
26	1H	1201	C	N3-C2-O2	5.30	125.61	121.90
30	21	195	LEU	CA-CB-CG	5.30	127.50	115.30
1	1G	1322	C	N3-C4-N4	-5.30	114.29	118.00
1	1G	1474	G	O5'-P-OP2	5.30	117.07	110.70
26	14	601	C	C2-N3-C4	-5.30	117.25	119.90
26	14	1210	A	C4-C5-N7	5.30	113.35	110.70
26	14	1618	A	C8-N9-C4	-5.30	103.68	105.80
26	14	2230	G	N9-C4-C5	5.30	107.52	105.40
1	13	1235	U	C5-C6-N1	5.30	125.35	122.70
26	1H	328	U	O5'-P-OP2	-5.30	100.93	105.70
27	16	8	U	O5'-P-OP1	5.30	117.06	110.70
26	14	1934	C	C2-N3-C4	5.30	122.55	119.90
1	13	449	C	O4'-C1'-N1	5.30	112.44	108.20
1	13	899	C	O4'-C1'-N1	-5.30	103.96	108.20
26	1H	17	G	N3-C4-N9	5.30	129.18	126.00
26	1H	120	U	C5-C4-O4	5.30	129.08	125.90
26	1H	2011	U	OP1-P-OP2	-5.30	111.65	119.60
26	1H	2447	G	O4'-C1'-N9	5.30	112.44	108.20
26	1H	2590	A	C5-C6-N6	5.30	127.94	123.70
26	1H	2866	U	C5-C4-O4	5.30	129.08	125.90
1	1G	528	C	C2-N1-C1'	-5.30	112.97	118.80
26	14	674	G	OP1-P-OP2	-5.30	111.65	119.60
1	13	560	U	C6-N1-C2	-5.30	117.82	121.00
1	13	894	G	C5-C6-N1	5.30	114.15	111.50
1	13	1327	C	N3-C4-N4	-5.30	114.29	118.00
26	1H	129	C	N1-C2-O2	-5.30	115.72	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	459	U	N1-C2-N3	5.30	118.08	114.90
26	1H	483	A	C8-N9-C4	-5.30	103.68	105.80
26	1H	963	U	N1-C2-O2	-5.30	119.09	122.80
26	1H	1979	C	C6-N1-C2	-5.30	118.18	120.30
26	1H	1992	G	P-O3'-C3'	5.30	126.06	119.70
26	1H	2329	G	OP1-P-OP2	5.30	127.55	119.60
26	1H	2377	A	N7-C8-N9	-5.30	111.15	113.80
26	1H	2854	G	C8-N9-C4	-5.30	104.28	106.40
27	16	77	U	C6-N1-C2	5.30	124.18	121.00
26	14	201	C	N3-C4-C5	5.30	124.02	121.90
26	14	1649	G	C5-C6-O6	5.30	131.78	128.60
26	14	2075	U	OP2-P-O3'	5.30	116.86	105.20
26	14	1254	A	O5'-P-OP2	-5.30	100.93	105.70
26	1H	820	A	O5'-P-OP1	-5.30	100.93	105.70
26	1H	971	C	OP2-P-O3'	5.30	116.85	105.20
26	1H	1397	U	C5-C4-O4	5.30	129.08	125.90
26	1H	1471	A	N7-C8-N9	5.30	116.45	113.80
23	2L	77	A	N3-C4-C5	5.30	130.51	126.80
26	14	127	A	O5'-P-OP2	-5.30	100.93	105.70
26	14	1272	A	O4'-C1'-N9	5.30	112.44	108.20
26	14	1681	G	C8-N9-C4	-5.30	104.28	106.40
26	14	2592	G	N3-C4-C5	-5.30	125.95	128.60
1	13	805	C	OP1-P-OP2	-5.29	111.66	119.60
26	1H	1323	U	OP1-P-OP2	-5.29	111.66	119.60
26	1H	1950	G	C5-C6-O6	5.29	131.78	128.60
26	1H	2043	C	N1-C2-O2	-5.29	115.72	118.90
1	1G	413	G	C5-C6-O6	5.29	131.78	128.60
26	14	810	U	N1-C2-O2	-5.29	119.09	122.80
1	13	903	G	C6-N1-C2	-5.29	121.92	125.10
26	1H	2434	A	N1-C2-N3	5.29	131.95	129.30
26	1H	2596	U	N3-C4-C5	5.29	117.78	114.60
1	1G	117	G	C6-C5-N7	-5.29	127.22	130.40
1	1G	353	A	C5-N7-C8	-5.29	101.25	103.90
26	14	223	A	C8-N9-C4	-5.29	103.68	105.80
26	14	1805	U	C2-N3-C4	-5.29	123.82	127.00
26	14	2443	C	N3-C4-N4	5.29	121.71	118.00
26	14	2588	G	O5'-P-OP2	-5.29	100.94	105.70
1	13	952	U	N3-C2-O2	-5.29	118.50	122.20
26	1H	621	A	O4'-C1'-N9	5.29	112.43	108.20
26	1H	1257	C	N3-C4-C5	-5.29	119.78	121.90
26	1H	1825	A	N7-C8-N9	-5.29	111.15	113.80
27	16	13	A	N1-C6-N6	-5.29	115.42	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	338	G	N3-C4-N9	5.29	129.18	126.00
26	14	409	C	N3-C2-O2	5.29	125.60	121.90
26	14	517	C	C6-N1-C2	-5.29	118.18	120.30
26	14	602	G	C4-C5-N7	5.29	112.92	110.80
26	14	1776	G	OP1-P-O3'	5.29	116.84	105.20
26	14	1804	C	OP1-P-OP2	-5.29	111.66	119.60
26	14	2282	G	C5-C6-O6	-5.29	125.42	128.60
26	1H	201	C	OP1-P-OP2	5.29	127.53	119.60
26	1H	1160	G	OP1-P-OP2	-5.29	111.67	119.60
26	1H	1471	A	C5-N7-C8	-5.29	101.25	103.90
26	14	978	G	OP1-P-O3'	5.29	116.84	105.20
26	14	2879	C	N1-C2-O2	5.29	122.07	118.90
1	13	360	A	C5-C6-N1	5.29	120.34	117.70
1	13	575	G	N9-C4-C5	5.29	107.52	105.40
26	1H	735	A	N7-C8-N9	-5.29	111.16	113.80
26	1H	1506	C	N1-C2-O2	5.29	122.07	118.90
26	1H	1768	U	N3-C4-C5	5.29	117.77	114.60
4	32	180	GLY	N-CA-C	-5.29	99.88	113.10
26	14	177	G	N1-C6-O6	-5.29	116.73	119.90
26	14	854	G	C8-N9-C4	-5.29	104.28	106.40
27	1J	11	C	N1-C2-O2	5.29	122.07	118.90
49	F5	35	THR	C-N-CA	-5.29	111.19	122.30
1	13	887	G	C6-C5-N7	-5.29	127.23	130.40
26	1H	1791	A	N1-C6-N6	-5.29	115.43	118.60
1	1G	977	A	C2-N3-C4	5.29	113.24	110.60
26	14	669	G	N3-C2-N2	-5.29	116.20	119.90
26	14	1189	A	OP1-P-OP2	-5.29	111.67	119.60
26	14	1657	C	C2-N3-C4	-5.29	117.26	119.90
1	13	667	G	N3-C2-N2	-5.29	116.20	119.90
1	13	811	C	C5-C6-N1	-5.29	118.36	121.00
26	1H	783	A	C4-C5-C6	5.29	119.64	117.00
26	1H	983	A	OP2-P-O3'	5.29	116.83	105.20
26	1H	1916	A	C4-C5-C6	5.29	119.64	117.00
27	16	44	G	C6-C5-N7	5.29	133.57	130.40
1	1G	1499	A	O5'-P-OP1	-5.29	100.94	105.70
26	14	609	A	C4-C5-N7	5.29	113.34	110.70
26	14	845	G	C5-C6-O6	-5.29	125.43	128.60
26	14	1210	A	C6-C5-N7	-5.29	128.60	132.30
26	14	1552	G	N9-C4-C5	5.29	107.51	105.40
26	14	1782	C	OP1-P-O3'	5.29	116.83	105.20
26	14	2361	A	C5-N7-C8	-5.29	101.26	103.90
1	13	703	G	C4-C5-N7	5.28	112.91	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	3K	2	G	N3-C4-N9	5.28	129.17	126.00
26	1H	148	C	C5-C6-N1	-5.28	118.36	121.00
26	1H	2253	G	C4-N9-C1'	-5.28	119.63	126.50
26	1H	2600	A	C8-N9-C4	-5.28	103.69	105.80
26	14	50	U	C5-C6-N1	-5.28	120.06	122.70
26	14	469	G	C4-C5-N7	5.28	112.91	110.80
26	14	2078	C	OP1-P-OP2	-5.28	111.68	119.60
1	13	311	C	O5'-P-OP2	5.28	117.04	110.70
1	13	1158	C	N3-C2-O2	-5.28	118.20	121.90
26	1H	1361	G	N1-C6-O6	-5.28	116.73	119.90
26	14	193	U	N3-C2-O2	5.28	125.90	122.20
26	14	1678	G	C6-C5-N7	-5.28	127.23	130.40
26	14	2289	G	C8-N9-C4	-5.28	104.29	106.40
49	F5	35	THR	N-CA-C	-5.28	96.74	111.00
1	13	527	G	N1-C6-O6	-5.28	116.73	119.90
26	1H	188	G	N3-C2-N2	5.28	123.60	119.90
26	1H	1227	A	OP2-P-O3'	5.28	116.82	105.20
26	1H	2246	G	N3-C2-N2	-5.28	116.20	119.90
26	14	188	G	C5-C6-N1	5.28	114.14	111.50
26	14	530	G	C6-N1-C2	5.28	128.27	125.10
26	14	605	C	C6-N1-C2	5.28	122.41	120.30
26	14	1613	G	N1-C2-N2	-5.28	111.45	116.20
26	14	2274	A	OP2-P-O3'	5.28	116.82	105.20
1	13	1097	C	N3-C2-O2	-5.28	118.20	121.90
1	13	1493	A	O5'-P-OP1	-5.28	100.95	105.70
26	1H	1215	G	N3-C4-C5	-5.28	125.96	128.60
26	1H	1779	U	O5'-P-OP2	-5.28	100.95	105.70
26	1H	1780	A	OP1-P-OP2	-5.28	111.68	119.60
1	13	865	A	C5-N7-C8	-5.28	101.26	103.90
26	1H	175	G	C5-C6-O6	5.28	131.77	128.60
26	1H	321	G	C4-C5-C6	5.28	121.97	118.80
26	1H	422	A	C8-N9-C4	5.28	107.91	105.80
26	1H	512	G	OP2-P-O3'	5.28	116.81	105.20
26	1H	1298	C	OP2-P-O3'	-5.28	93.59	105.20
26	1H	2761	G	C5-C6-O6	-5.28	125.43	128.60
29	11	4	LYS	CD-CE-NZ	5.28	123.84	111.70
26	14	1318	C	O5'-P-OP2	5.28	117.03	110.70
26	14	1333	C	C6-N1-C1'	-5.28	114.47	120.80
26	14	1630	G	N9-C4-C5	5.28	107.51	105.40
26	14	2415	G	OP1-P-O3'	5.28	116.81	105.20
26	14	2438	U	C5-C6-N1	-5.28	120.06	122.70
26	14	2866	U	OP1-P-O3'	5.28	116.81	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	181	G	N3-C4-N9	5.28	129.16	126.00
1	13	1405	G	C5-C6-N1	5.28	114.14	111.50
1	13	1517	G	OP1-P-OP2	5.28	127.51	119.60
26	1H	576	U	O5'-P-OP2	5.28	117.03	110.70
26	1H	2262	U	OP1-P-OP2	-5.28	111.69	119.60
26	1H	2440	C	C5-C4-N4	5.28	123.89	120.20
27	16	94	C	C6-N1-C2	-5.28	118.19	120.30
1	1G	1449	C	N1-C2-O2	5.28	122.06	118.90
26	14	928	G	N3-C4-N9	-5.28	122.83	126.00
26	14	2224	G	N1-C6-O6	5.28	123.07	119.90
29	19	272	ALA	N-CA-C	5.28	125.24	111.00
30	29	44	TYR	CA-CB-CG	5.28	123.42	113.40
26	1H	186	G	N3-C4-C5	-5.27	125.96	128.60
26	1H	665	C	C4-C5-C6	5.27	120.04	117.40
26	1H	1422	G	C5-C6-O6	-5.27	125.44	128.60
1	1G	242	C	N3-C2-O2	5.27	125.59	121.90
26	14	797	C	C2-N1-C1'	-5.27	113.00	118.80
1	13	263	A	O5'-P-OP1	-5.27	100.95	105.70
22	1K	49	G	N9-C1'-C2'	5.27	120.85	114.00
26	1H	199	A	C4-C5-C6	-5.27	114.36	117.00
48	I8	11	ARG	N-CA-C	-5.27	96.77	111.00
24	3L	76	A	C5-C6-N6	-5.27	119.48	123.70
26	14	130	C	C6-N1-C2	5.27	122.41	120.30
26	14	697	C	N1-C2-O2	-5.27	115.74	118.90
26	14	2066	C	C6-N1-C2	-5.27	118.19	120.30
26	14	2386	C	N3-C2-O2	5.27	125.59	121.90
26	1H	141	A	N1-C6-N6	5.27	121.76	118.60
26	1H	1497	U	OP1-P-O3'	5.27	116.80	105.20
26	1H	1839	G	C8-N9-C1'	-5.27	120.15	127.00
26	1H	2079	U	C4-C5-C6	5.27	122.86	119.70
26	14	120	U	OP1-P-OP2	-5.27	111.69	119.60
26	14	2446	G	P-O3'-C3'	5.27	126.03	119.70
1	13	191(F)	U	C6-N1-C2	-5.27	117.84	121.00
1	13	551	U	C5-C6-N1	-5.27	120.06	122.70
1	13	1221	G	N3-C2-N2	-5.27	116.21	119.90
23	2K	13	C	OP1-P-OP2	-5.27	111.69	119.60
26	1H	324	A	N9-C1'-C2'	-5.27	106.20	112.00
26	1H	609(A)	G	N3-C2-N2	-5.27	116.21	119.90
26	1H	647	G	C8-N9-C4	-5.27	104.29	106.40
26	1H	969	U	N3-C2-O2	5.27	125.89	122.20
26	1H	1394	U	C4-C5-C6	-5.27	116.54	119.70
26	1H	1614	A	OP1-P-OP2	5.27	127.50	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1627	G	N9-C4-C5	-5.27	103.29	105.40
26	1H	1938	A	C2-N3-C4	-5.27	107.97	110.60
26	14	664	C	C2-N3-C4	-5.27	117.27	119.90
26	14	715	G	N3-C4-N9	5.27	129.16	126.00
26	14	845	G	C5-N7-C8	-5.27	101.67	104.30
26	14	1633	G	C5-N7-C8	-5.27	101.67	104.30
26	14	1983	C	O5'-P-OP2	-5.27	100.96	105.70
26	14	1991	U	C5-C4-O4	5.27	129.06	125.90
26	14	2032	G	C5-C6-N1	5.27	114.14	111.50
26	14	2495	G	OP1-P-O3'	5.27	116.79	105.20
26	14	2604	U	C4-C5-C6	5.27	122.86	119.70
1	13	1051	C	O5'-P-OP2	-5.27	100.96	105.70
1	13	1233	G	N3-C2-N2	5.27	123.59	119.90
23	2K	5	G	N7-C8-N9	-5.27	110.47	113.10
26	1H	138	G	C5-C6-N1	5.27	114.13	111.50
26	1H	141	A	N3-C4-N9	-5.27	123.19	127.40
26	1H	830	G	C8-N9-C4	-5.27	104.29	106.40
26	1H	1526	G	C5-N7-C8	-5.27	101.67	104.30
26	1H	1624	G	N1-C2-N2	-5.27	111.46	116.20
26	1H	1634	A	N1-C6-N6	5.27	121.76	118.60
27	16	47	C	N3-C2-O2	5.27	125.59	121.90
26	14	2245	U	P-O3'-C3'	5.27	126.02	119.70
27	1J	52	A	C8-N9-C4	5.27	107.91	105.80
26	1H	62	C	C5-C6-N1	-5.27	118.37	121.00
26	1H	1308	A	N1-C6-N6	-5.27	115.44	118.60
26	1H	1701	A	OP1-P-OP2	5.27	127.50	119.60
1	1G	970	C	O5'-P-OP2	5.27	117.02	110.70
26	14	1349	A	C8-N9-C4	-5.27	103.69	105.80
26	14	2428	G	P-O3'-C3'	5.27	126.02	119.70
1	13	115	G	C8-N9-C4	-5.26	104.29	106.40
1	13	315	A	C8-N9-C4	5.26	107.91	105.80
1	13	346	G	C5-N7-C8	-5.26	101.67	104.30
26	1H	196	A	C4-C5-C6	5.26	119.63	117.00
26	1H	455	C	C4-C5-C6	-5.26	114.77	117.40
26	1H	677	A	N9-C4-C5	5.26	107.91	105.80
1	1G	1519	A	C4-C5-N7	-5.26	108.07	110.70
26	14	575	A	C6-N1-C2	-5.26	115.44	118.60
26	14	1621	U	O5'-P-OP1	-5.26	100.96	105.70
26	14	1910	G	C5-C6-O6	5.26	131.76	128.60
26	1H	20	C	C2-N3-C4	-5.26	117.27	119.90
26	1H	92	G	N3-C4-C5	-5.26	125.97	128.60
26	1H	256	A	C5-N7-C8	-5.26	101.27	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1560	G	OP1-P-O3'	5.26	116.78	105.20
1	1G	777	A	O5'-P-OP2	-5.26	100.96	105.70
1	13	706	A	N1-C6-N6	5.26	121.76	118.60
22	1K	65	C	C6-N1-C2	-5.26	118.19	120.30
23	2K	27	G	N1-C6-O6	5.26	123.06	119.90
26	1H	232	G	C5-C6-O6	-5.26	125.44	128.60
26	1H	803	U	OP2-P-O3'	5.26	116.77	105.20
26	1H	1387	C	O5'-P-OP2	-5.26	100.97	105.70
1	1G	264	U	N3-C4-O4	5.26	123.08	119.40
1	13	538	G	N1-C2-N2	-5.26	111.47	116.20
1	13	798	G	C8-N9-C4	-5.26	104.30	106.40
1	13	815	A	C6-N1-C2	-5.26	115.44	118.60
22	1K	76	A	C5-N7-C8	-5.26	101.27	103.90
26	1H	518	G	N1-C2-N2	-5.26	111.47	116.20
26	1H	639	U	OP1-P-O3'	5.26	116.77	105.20
26	1H	942	G	OP1-P-O3'	5.26	116.77	105.20
26	1H	967	C	C5-C6-N1	-5.26	118.37	121.00
26	1H	1198	U	N3-C4-C5	5.26	117.76	114.60
26	1H	1286	A	O4'-C1'-N9	5.26	112.41	108.20
26	1H	2679	A	OP2-P-O3'	5.26	116.77	105.20
26	1H	2762	G	N1-C6-O6	5.26	123.06	119.90
26	1H	2775	A	C8-N9-C4	5.26	107.90	105.80
30	21	66	HIS	CA-C-N	-5.26	105.63	117.20
26	14	529	A	N7-C8-N9	5.26	116.43	113.80
26	14	1612	C	N3-C2-O2	5.26	125.58	121.90
26	14	1908	C	C6-N1-C2	-5.26	118.20	120.30
26	14	2032	G	N3-C4-N9	5.26	129.16	126.00
26	14	2066	C	C2-N1-C1'	5.26	124.58	118.80
26	14	2595	G	C4-C5-N7	5.26	112.90	110.80
26	14	2621	A	N1-C2-N3	5.26	131.93	129.30
1	13	501	C	C6-N1-C2	-5.26	118.20	120.30
1	1G	1276	G	C8-N9-C4	-5.26	104.30	106.40
26	14	191	A	OP1-P-O3'	-5.26	93.63	105.20
26	14	2074	U	O5'-P-OP1	-5.26	100.97	105.70
26	1H	2058	A	C8-N9-C4	-5.26	103.70	105.80
26	1H	2067	G	C4-C5-N7	-5.26	108.70	110.80
26	1H	2454	G	OP1-P-OP2	5.26	127.48	119.60
26	1H	2686	G	C5-C6-N1	5.26	114.13	111.50
26	14	378	C	N1-C2-O2	-5.26	115.75	118.90
26	14	833	U	C6-N1-C2	5.26	124.15	121.00
26	14	2059	A	C8-N9-C4	5.26	107.90	105.80
26	14	1244	G	N9-C4-C5	-5.25	103.30	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2244	U	OP2-P-O3'	5.25	116.76	105.20
1	13	974	A	C4-N9-C1'	5.25	135.76	126.30
1	13	1227	A	C4-C5-N7	5.25	113.33	110.70
26	1H	1328	G	C8-N9-C1'	-5.25	120.17	127.00
26	1H	1557	C	O5'-P-OP2	-5.25	100.97	105.70
1	1G	865	A	N7-C8-N9	5.25	116.43	113.80
1	1G	913	A	N1-C6-N6	-5.25	115.45	118.60
23	2L	76	C	N3-C2-O2	5.25	125.58	121.90
26	14	1026	U	C5-C6-N1	5.25	125.33	122.70
26	14	1304	C	N3-C4-C5	5.25	124.00	121.90
26	14	1559	G	C4-N9-C1'	5.25	133.33	126.50
26	14	1627	G	N3-C2-N2	5.25	123.58	119.90
26	14	2427	C	C5-C4-N4	-5.25	116.52	120.20
1	13	352	C	N3-C2-O2	5.25	125.58	121.90
1	13	1227	A	N3-C4-N9	-5.25	123.20	127.40
26	1H	190	A	C5-C6-N1	5.25	120.33	117.70
26	1H	439	G	OP1-P-OP2	-5.25	111.72	119.60
26	1H	1334	G	C6-C5-N7	-5.25	127.25	130.40
26	1H	1506	C	C2-N1-C1'	5.25	124.58	118.80
26	1H	1518	C	N3-C2-O2	5.25	125.58	121.90
26	14	1229(A)	G	C2-N3-C4	-5.25	109.27	111.90
26	14	2049	G	C4-C5-N7	5.25	112.90	110.80
26	14	2635	C	C5-C4-N4	-5.25	116.53	120.20
27	1J	98	G	N9-C4-C5	-5.25	103.30	105.40
26	1H	741	G	C8-N9-C4	-5.25	104.30	106.40
26	1H	2665	A	C4-C5-C6	5.25	119.62	117.00
26	14	79	G	C4-C5-N7	5.25	112.90	110.80
26	14	1497	U	N3-C2-O2	5.25	125.88	122.20
1	13	523	A	C6-C5-N7	-5.25	128.63	132.30
26	1H	1425	G	C4-C5-N7	5.25	112.90	110.80
26	1H	1504	C	C6-N1-C2	-5.25	118.20	120.30
26	1H	2444	G	N9-C4-C5	5.25	107.50	105.40
26	1H	2698	U	C5-C6-N1	-5.25	120.08	122.70
32	41	44	GLY	N-CA-C	-5.25	99.98	113.10
26	14	1578	U	C5-C4-O4	5.25	129.05	125.90
26	14	2875	C	C6-N1-C2	5.25	122.40	120.30
26	1H	371	A	N1-C6-N6	5.25	121.75	118.60
26	1H	739	G	N1-C2-N3	-5.25	120.75	123.90
26	1H	1603	A	OP1-P-O3'	5.25	116.74	105.20
27	16	79	C	O5'-P-OP2	5.25	117.00	110.70
26	14	117	G	C2-N3-C4	5.25	114.52	111.90
26	14	2594	C	N3-C2-O2	5.25	125.57	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1518	A	C5-C6-N1	-5.25	115.08	117.70
26	14	788	A	C5-N7-C8	-5.25	101.28	103.90
1	13	962	C	C5-C6-N1	-5.24	118.38	121.00
26	1H	956	G	C6-C5-N7	-5.24	127.25	130.40
54	P8	12	ARG	NE-CZ-NH1	-5.24	117.68	120.30
1	1G	615	C	C6-N1-C2	-5.24	118.20	120.30
26	14	80	G	O5'-P-OP1	-5.24	100.98	105.70
26	14	398	G	C4-C5-N7	-5.24	108.70	110.80
26	14	840	C	N3-C4-C5	5.24	124.00	121.90
26	14	932	G	C2-N3-C4	-5.24	109.28	111.90
26	14	1854	A	N1-C6-N6	-5.24	115.45	118.60
26	14	2425	A	OP2-P-O3'	5.24	116.74	105.20
26	14	2769	C	O5'-P-OP1	5.24	116.99	110.70
26	14	2878	U	N1-C2-O2	5.24	126.47	122.80
53	J5	51	TYR	CA-CB-CG	5.24	123.36	113.40
1	13	753	A	N1-C2-N3	5.24	131.92	129.30
26	1H	845	G	N9-C4-C5	5.24	107.50	105.40
26	1H	1497	U	C5-C6-N1	5.24	125.32	122.70
31	31	197	ASP	N-CA-C	-5.24	96.85	111.00
23	2L	72	C	OP2-P-O3'	5.24	116.73	105.20
26	14	1268	A	O5'-P-OP1	-5.24	100.98	105.70
26	14	1395	A	O4'-C1'-N9	5.24	112.39	108.20
26	14	2376	A	C5-C6-N6	-5.24	119.51	123.70
1	13	1056	U	N3-C4-C5	-5.24	111.46	114.60
1	13	1230	C	C5-C4-N4	-5.24	116.53	120.20
26	1H	929	G	N9-C4-C5	-5.24	103.30	105.40
26	1H	1391	U	N3-C4-O4	5.24	123.07	119.40
26	1H	1695	G	C4-N9-C1'	5.24	133.31	126.50
26	1H	2314	C	N3-C4-N4	-5.24	114.33	118.00
26	1H	2848	G	O4'-C1'-N9	5.24	112.39	108.20
1	1G	536	C	N1-C2-O2	5.24	122.05	118.90
26	14	2011	U	N3-C2-O2	5.24	125.87	122.20
26	14	2456	C	C2-N3-C4	5.24	122.52	119.90
1	13	723	U	C5-C4-O4	-5.24	122.76	125.90
1	13	971	G	C8-N9-C1'	5.24	133.81	127.00
26	1H	104	U	OP2-P-O3'	5.24	116.72	105.20
26	1H	128	C	C5-C6-N1	-5.24	118.38	121.00
26	1H	730	C	N1-C2-O2	5.24	122.04	118.90
26	1H	801	G	C5-C6-O6	5.24	131.74	128.60
1	1G	1469	G	C6-C5-N7	-5.24	127.26	130.40
26	14	97	C	O5'-P-OP2	-5.24	100.99	105.70
26	14	470	A	C5-C6-N6	-5.24	119.51	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1520	U	C6-N1-C1'	5.24	128.53	121.20
27	1J	30	C	C5-C6-N1	5.24	123.62	121.00
1	13	956	U	N3-C4-O4	5.24	123.07	119.40
26	1H	575	A	N9-C4-C5	-5.24	103.70	105.80
26	1H	1300	U	C6-N1-C1'	5.24	128.53	121.20
1	1G	110	C	C5-C6-N1	-5.24	118.38	121.00
26	14	34	C	N3-C4-N4	5.24	121.67	118.00
26	14	556	G	N3-C4-C5	-5.24	125.98	128.60
26	14	2520	C	N1-C2-O2	-5.24	115.76	118.90
1	13	405	U	C5-C6-N1	5.24	125.32	122.70
23	2K	72	C	OP2-P-O3'	5.24	116.72	105.20
26	1H	1489	U	N3-C4-O4	-5.24	115.73	119.40
1	1G	1342	C	OP2-P-O3'	5.24	116.72	105.20
26	14	380	U	N3-C2-O2	-5.24	118.54	122.20
26	14	503	A	C4-C5-N7	-5.24	108.08	110.70
26	14	2276	G	N3-C2-N2	-5.24	116.23	119.90
1	13	865	A	C6-C5-N7	-5.23	128.64	132.30
1	13	1052	U	N3-C2-O2	-5.23	118.54	122.20
26	1H	1382	G	OP1-P-O3'	-5.23	93.68	105.20
26	1H	2073	C	N3-C2-O2	5.23	125.56	121.90
26	1H	2320	A	O5'-P-OP2	-5.23	100.99	105.70
26	1H	38	A	C5-C6-N1	5.23	120.32	117.70
26	1H	213	A	C4-C5-C6	-5.23	114.38	117.00
26	1H	1216	G	C8-N9-C4	-5.23	104.31	106.40
26	1H	2273	A	OP2-P-O3'	5.23	116.71	105.20
26	1H	2372	G	C5-C6-O6	-5.23	125.46	128.60
26	1H	2484	G	N7-C8-N9	-5.23	110.48	113.10
1	1G	46	G	C5-C6-O6	-5.23	125.46	128.60
26	14	475	U	C4-C5-C6	5.23	122.84	119.70
26	14	1635	G	N3-C4-N9	5.23	129.14	126.00
26	14	1663	C	N3-C4-N4	5.23	121.66	118.00
26	14	1702	G	N9-C4-C5	-5.23	103.31	105.40
26	14	2001	A	OP1-P-OP2	-5.23	111.75	119.60
26	14	2689	U	OP2-P-O3'	5.23	116.71	105.20
27	1J	88	C	C6-N1-C2	5.23	122.39	120.30
46	C5	41	GLY	N-CA-C	-5.23	100.02	113.10
1	13	899	C	C5-C6-N1	-5.23	118.39	121.00
26	1H	55	G	O5'-P-OP2	5.23	116.98	110.70
26	1H	764	A	OP1-P-OP2	-5.23	111.75	119.60
26	1H	769	G	C5-C6-O6	-5.23	125.46	128.60
26	1H	1931	U	OP1-P-OP2	-5.23	111.75	119.60
26	1H	1984	G	N7-C8-N9	-5.23	110.48	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2044	C	C2-N1-C1'	5.23	124.55	118.80
27	16	106	G	C8-N9-C4	5.23	108.49	106.40
1	1G	1519	A	C5-C6-N6	5.23	127.89	123.70
26	14	141	A	C2-N3-C4	-5.23	107.98	110.60
26	14	1281	G	O5'-P-OP2	5.23	116.98	110.70
26	14	1787	A	OP1-P-O3'	5.23	116.71	105.20
1	13	578	C	N3-C4-C5	-5.23	119.81	121.90
23	2K	9	G	N9-C4-C5	5.23	107.49	105.40
26	1H	1271	G	C2-N3-C4	-5.23	109.28	111.90
26	14	946	G	C2-N3-C4	-5.23	109.28	111.90
1	13	976	G	N3-C2-N2	-5.23	116.24	119.90
26	1H	687	C	C6-N1-C2	-5.23	118.21	120.30
26	1H	1390	U	OP1-P-OP2	-5.23	111.76	119.60
26	1H	1606	G	C2-N3-C4	5.23	114.51	111.90
26	1H	1857	G	N9-C4-C5	-5.23	103.31	105.40
26	1H	2446	G	N3-C2-N2	5.23	123.56	119.90
26	14	104	U	O5'-P-OP1	5.23	116.97	110.70
26	14	781	A	C5-C6-N1	5.23	120.31	117.70
26	14	1463	C	C6-N1-C2	-5.23	118.21	120.30
26	14	1831	G	N1-C6-O6	5.23	123.04	119.90
26	14	2372	G	C5-C6-N1	5.23	114.11	111.50
26	14	2620	C	C6-N1-C2	5.23	122.39	120.30
27	1J	56	G	N3-C4-N9	5.23	129.14	126.00
26	1H	271	G	C8-N9-C4	5.23	108.49	106.40
26	1H	691	C	N1-C2-O2	-5.23	115.76	118.90
27	16	6	C	C4-C5-C6	5.23	120.01	117.40
26	14	2392	A	N3-C4-N9	-5.23	123.22	127.40
26	14	2789	C	O4'-C1'-N1	5.23	112.38	108.20
26	14	2848	G	C5-N7-C8	5.23	106.91	104.30
1	13	186(A)	C	C6-N1-C2	-5.22	118.21	120.30
1	13	576	G	C8-N9-C1'	-5.22	120.21	127.00
1	13	623	C	N3-C4-N4	5.22	121.66	118.00
1	13	1220	G	C5-C6-O6	5.22	131.74	128.60
26	1H	379	G	OP1-P-OP2	5.22	127.44	119.60
26	1H	2546	U	OP1-P-OP2	5.22	127.44	119.60
26	1H	2757	A	O5'-P-OP2	-5.22	101.00	105.70
26	14	586	A	C4-C5-N7	5.22	113.31	110.70
26	14	1279	G	O5'-P-OP1	5.22	116.97	110.70
26	1H	1654	A	N1-C6-N6	-5.22	115.47	118.60
27	16	24	G	N7-C8-N9	5.22	115.71	113.10
26	14	2050	C	C6-N1-C2	-5.22	118.21	120.30
26	14	2597	G	N3-C4-N9	5.22	129.13	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1912	A	O4'-C1'-N9	5.22	112.38	108.20
26	14	1594	G	N7-C8-N9	5.22	115.71	113.10
26	14	1767	C	C5-C6-N1	-5.22	118.39	121.00
26	14	2330	G	C6-N1-C2	-5.22	121.97	125.10
1	13	326	G	C5-C6-O6	5.22	131.73	128.60
1	13	891	U	OP1-P-OP2	5.22	127.43	119.60
1	13	1511	G	N1-C2-N3	5.22	127.03	123.90
26	1H	1209	G	N1-C6-O6	5.22	123.03	119.90
26	1H	1410	G	N3-C4-C5	5.22	131.21	128.60
26	1H	1955	U	C4-C5-C6	5.22	122.83	119.70
27	16	49	C	C5-C4-N4	-5.22	116.55	120.20
26	14	806	C	C5-C4-N4	-5.22	116.55	120.20
26	14	2014	A	C4-C5-C6	5.22	119.61	117.00
26	14	2345	G	C5-C6-O6	-5.22	125.47	128.60
1	13	533	A	C6-N1-C2	5.22	121.73	118.60
26	1H	1563	G	N1-C6-O6	-5.22	116.77	119.90
26	1H	2592	G	C4-C5-C6	5.22	121.93	118.80
1	1G	1128	C	N3-C2-O2	-5.22	118.25	121.90
1	1G	1298	C	P-O3'-C3'	5.22	125.96	119.70
1	1G	1322	C	C2-N1-C1'	5.22	124.54	118.80
1	13	31	G	C5-C6-O6	-5.22	125.47	128.60
1	13	903	G	C6-C5-N7	-5.22	127.27	130.40
1	13	973	G	N1-C6-O6	5.22	123.03	119.90
26	1H	1025	G	C8-N9-C4	-5.22	104.31	106.40
26	14	488	G	C8-N9-C1'	-5.22	120.22	127.00
26	14	1244	G	C8-N9-C4	5.22	108.49	106.40
26	14	1659	U	C5-C6-N1	-5.22	120.09	122.70
26	14	77	C	OP2-P-O3'	5.21	116.67	105.20
26	14	121	G	C8-N9-C1'	-5.21	120.22	127.00
26	14	603	A	N1-C6-N6	5.21	121.73	118.60
26	14	1433	U	C2-N3-C4	-5.21	123.87	127.00
26	14	2585	U	N3-C2-O2	-5.21	118.55	122.20
1	13	899	C	N3-C4-C5	-5.21	119.81	121.90
22	1K	38	A	N1-C6-N6	5.21	121.73	118.60
26	1H	1463	C	C6-N1-C2	-5.21	118.22	120.30
26	1H	1563	G	C4-C5-N7	-5.21	108.72	110.80
26	14	1396	U	OP2-P-O3'	5.21	116.67	105.20
26	1H	1310	G	C2-N3-C4	5.21	114.50	111.90
26	1H	2275	C	O4'-C1'-N1	-5.21	104.03	108.20
26	1H	2584	U	N1-C2-O2	5.21	126.45	122.80
1	1G	1511	G	C5-C6-N1	-5.21	108.89	111.50
26	14	676	A	N7-C8-N9	5.21	116.41	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	1436	G	N9-C1'-C2'	-5.21	106.27	112.00
26	14	2071	A	C6-N1-C2	-5.21	115.47	118.60
27	1J	56	G	N3-C4-C5	-5.21	125.99	128.60
1	13	51	A	C8-N9-C4	5.21	107.88	105.80
26	1H	2321	G	OP2-P-O3'	5.21	116.66	105.20
26	1H	2604	U	OP1-P-OP2	-5.21	111.79	119.60
1	1G	579	G	N7-C8-N9	5.21	115.70	113.10
1	13	290	C	O5'-P-OP1	-5.21	101.01	105.70
1	13	970	C	C6-N1-C2	-5.21	118.22	120.30
26	1H	145	G	C8-N9-C4	5.21	108.48	106.40
26	1H	262	A	OP2-P-O3'	5.21	116.66	105.20
26	1H	308	G	N3-C4-C5	-5.21	126.00	128.60
26	1H	647	G	OP1-P-OP2	-5.21	111.79	119.60
26	1H	1184	G	N1-C6-O6	5.21	123.03	119.90
1	1G	948	C	O5'-P-OP2	-5.21	101.01	105.70
26	14	946	G	N9-C4-C5	-5.21	103.32	105.40
26	14	1636	C	N3-C4-N4	5.21	121.65	118.00
26	14	1915	U	C6-N1-C2	-5.21	117.88	121.00
26	14	2877	G	C5-C6-O6	5.21	131.72	128.60
1	13	1317	C	N3-C4-C5	-5.21	119.82	121.90
22	1K	74	C	C5-C4-N4	-5.21	116.56	120.20
26	1H	187	G	N3-C2-N2	5.21	123.55	119.90
26	1H	686	G	N1-C2-N3	5.21	127.02	123.90
26	1H	752	A	C2-N3-C4	-5.21	108.00	110.60
26	1H	1790	C	N1-C2-O2	5.21	122.02	118.90
26	1H	2881	C	C6-N1-C2	-5.21	118.22	120.30
1	1G	1228	C	N3-C2-O2	-5.21	118.25	121.90
26	14	940	G	O5'-P-OP1	5.21	116.95	110.70
26	14	966	G	N1-C6-O6	-5.21	116.78	119.90
26	14	1280	G	N9-C1'-C2'	-5.21	106.27	112.00
26	14	2870	C	O5'-P-OP1	-5.21	101.01	105.70
1	13	827	U	C6-N1-C1'	-5.21	113.91	121.20
1	13	975	A	N9-C4-C5	-5.21	103.72	105.80
23	2K	27	G	C4-C5-N7	5.21	112.88	110.80
1	1G	645	C	C6-N1-C2	-5.21	118.22	120.30
1	1G	1301	U	C6-N1-C1'	-5.21	113.91	121.20
26	14	1296	G	N7-C8-N9	-5.21	110.50	113.10
22	1K	48	C	P-O3'-C3'	5.20	125.94	119.70
26	1H	117	G	OP1-P-OP2	-5.20	111.79	119.60
26	1H	1271	G	N3-C2-N2	5.20	123.54	119.90
26	1H	2307	G	C6-C5-N7	-5.20	127.28	130.40
26	1H	2433	A	O5'-P-OP2	5.20	116.94	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	78	18	ARG	CG-CD-NE	5.20	122.73	111.80
24	3L	76	A	C5-C6-N1	-5.20	115.10	117.70
26	14	813	U	N3-C4-C5	-5.20	111.48	114.60
26	14	2244	U	N1-C2-O2	-5.20	119.16	122.80
26	14	2576	G	N9-C4-C5	-5.20	103.32	105.40
26	1H	1441	G	OP1-P-O3'	5.20	116.64	105.20
26	1H	2399	G	N7-C8-N9	-5.20	110.50	113.10
1	1G	1484	C	C5-C4-N4	-5.20	116.56	120.20
26	14	1407	C	OP1-P-O3'	5.20	116.64	105.20
26	14	1626	G	N3-C2-N2	-5.20	116.26	119.90
1	13	888	G	N7-C8-N9	-5.20	110.50	113.10
1	13	889	A	C8-N9-C4	-5.20	103.72	105.80
26	1H	16	G	N3-C2-N2	-5.20	116.26	119.90
26	1H	448	U	C4-C5-C6	5.20	122.82	119.70
26	1H	630	G	N3-C4-C5	5.20	131.20	128.60
26	1H	1245	G	C8-N9-C4	5.20	108.48	106.40
26	1H	1953	A	N1-C6-N6	5.20	121.72	118.60
26	1H	2401	U	N3-C4-O4	5.20	123.04	119.40
26	14	495	G	N1-C2-N2	5.20	120.88	116.20
26	14	528	A	O4'-C1'-N9	-5.20	104.04	108.20
26	14	961	C	OP1-P-O3'	5.20	116.64	105.20
26	14	1239	G	N3-C4-C5	5.20	131.20	128.60
26	14	1313	U	N3-C4-O4	5.20	123.04	119.40
26	14	1458	C	C6-N1-C1'	-5.20	114.56	120.80
26	14	2277	G	N1-C6-O6	-5.20	116.78	119.90
26	14	2507	C	N3-C2-O2	-5.20	118.26	121.90
1	13	566	G	C2-N3-C4	5.20	114.50	111.90
1	13	766	A	O5'-P-OP1	-5.20	101.02	105.70
26	1H	207	A	N1-C2-N3	5.20	131.90	129.30
26	1H	1323	U	N1-C2-N3	5.20	118.02	114.90
26	1H	1833	U	N3-C4-O4	-5.20	115.76	119.40
26	1H	2070	G	C5-N7-C8	5.20	106.90	104.30
26	1H	2468	G	C8-N9-C4	5.20	108.48	106.40
1	1G	428	G	C4-N9-C1'	-5.20	119.74	126.50
26	14	679	C	N1-C2-O2	-5.20	115.78	118.90
26	14	861	A	OP1-P-O3'	5.20	116.64	105.20
26	14	2072	G	N7-C8-N9	-5.20	110.50	113.10
26	14	2263	C	OP1-P-O3'	5.20	116.64	105.20
26	14	2495	G	C6-N1-C2	5.20	128.22	125.10
27	1J	89(A)	A	OP1-P-OP2	-5.20	111.80	119.60
1	13	294	U	OP2-P-O3'	5.20	116.63	105.20
1	13	1205	U	N1-C2-N3	5.20	118.02	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	308	G	C8-N9-C1'	-5.20	120.24	127.00
26	1H	689	A	N1-C6-N6	-5.20	115.48	118.60
26	1H	706	A	N1-C6-N6	5.20	121.72	118.60
26	1H	1159	U	O5'-P-OP1	5.20	116.94	110.70
26	1H	1559	G	C5-C6-O6	-5.20	125.48	128.60
26	14	668	G	C2-N3-C4	-5.20	109.30	111.90
26	14	1562	A	N1-C6-N6	5.20	121.72	118.60
26	14	1642	G	C5-C6-N1	5.20	114.10	111.50
1	13	250	A	N7-C8-N9	5.20	116.40	113.80
1	13	1245	A	O5'-P-OP2	-5.20	101.03	105.70
26	1H	46	C	N3-C4-N4	5.20	121.64	118.00
26	1H	804	A	O5'-P-OP1	5.20	116.94	110.70
26	1H	829	A	C2-N3-C4	-5.20	108.00	110.60
26	1H	1060	U	P-O3'-C3'	5.20	125.93	119.70
26	1H	1256	G	C5-C6-N1	5.20	114.10	111.50
26	1H	1625	C	N3-C2-O2	-5.20	118.26	121.90
26	14	101	G	C6-C5-N7	-5.20	127.28	130.40
26	14	338	G	N9-C4-C5	-5.20	103.32	105.40
26	14	847	U	N1-C2-O2	-5.20	119.16	122.80
26	14	1315	C	N1-C2-O2	5.20	122.02	118.90
26	1H	777	A	C4-C5-N7	-5.19	108.10	110.70
26	1H	973	A	C5-N7-C8	-5.19	101.30	103.90
26	1H	1571	A	C8-N9-C4	5.19	107.88	105.80
26	1H	2275	C	C5-C6-N1	5.19	123.60	121.00
26	14	393	C	C5-C4-N4	5.19	123.84	120.20
26	1H	610	C	C5-C4-N4	5.19	123.83	120.20
26	1H	664	C	N3-C4-N4	-5.19	114.36	118.00
26	1H	708	C	OP2-P-O3'	5.19	116.62	105.20
26	1H	845	G	C8-N9-C4	-5.19	104.32	106.40
26	1H	2068	U	OP1-P-O3'	5.19	116.62	105.20
26	1H	2785	C	O5'-P-OP1	-5.19	101.03	105.70
44	E8	19	LEU	CB-CG-CD2	-5.19	102.17	111.00
1	1G	135	C	C6-N1-C2	5.19	122.38	120.30
26	14	2593	U	O5'-P-OP1	5.19	116.93	110.70
29	19	43	ARG	NE-CZ-NH1	5.19	122.90	120.30
26	1H	214	G	O5'-P-OP1	5.19	116.93	110.70
26	1H	561	G	OP1-P-OP2	5.19	127.39	119.60
26	1H	668	G	N1-C6-O6	-5.19	116.79	119.90
26	1H	1349	A	N1-C2-N3	5.19	131.90	129.30
12	3A	92	ASP	CB-CG-OD2	-5.19	113.63	118.30
25	4L	18	G	OP1-P-OP2	-5.19	111.81	119.60
26	14	400	G	N3-C4-C5	-5.19	126.00	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	815	C	O5'-P-OP1	5.19	116.93	110.70
26	14	1614	A	N1-C6-N6	5.19	121.72	118.60
26	14	1813	G	C8-N9-C4	5.19	108.48	106.40
26	14	2124	G	N3-C4-N9	5.19	129.11	126.00
26	14	2386	C	C2-N3-C4	-5.19	117.31	119.90
1	13	275	G	C5-C6-O6	-5.19	125.49	128.60
1	13	1374	A	C6-C5-N7	-5.19	128.67	132.30
1	1G	250	A	C4-C5-N7	-5.19	108.11	110.70
26	14	121	G	N3-C4-N9	5.19	129.11	126.00
1	13	647	C	C6-N1-C2	-5.19	118.22	120.30
1	13	1172	C	C6-N1-C2	-5.19	118.22	120.30
23	2K	48	U	P-O3'-C3'	5.19	125.93	119.70
26	1H	514	A	OP1-P-O3'	5.19	116.61	105.20
26	1H	803	U	N3-C2-O2	-5.19	118.57	122.20
26	1H	1905	C	N3-C4-N4	5.19	121.63	118.00
26	1H	1930	G	C5-C6-O6	5.19	131.71	128.60
26	1H	2446	G	N3-C4-N9	5.19	129.11	126.00
1	1G	565	U	N1-C2-O2	5.19	126.43	122.80
23	2L	32	G	C8-N9-C4	-5.19	104.33	106.40
26	14	37	C	O5'-P-OP2	-5.19	101.03	105.70
26	14	1426	G	C6-N1-C2	-5.19	121.99	125.10
26	1H	2294	C	OP2-P-O3'	5.19	116.61	105.20
26	1H	2540	C	C6-N1-C2	5.19	122.37	120.30
26	14	906	G	N9-C4-C5	5.19	107.47	105.40
26	14	1276	A	C8-N9-C4	5.19	107.87	105.80
26	14	1780	A	C8-N9-C4	-5.19	103.73	105.80
1	13	748	C	P-O3'-C3'	5.18	125.92	119.70
17	8I	80	GLY	N-CA-C	5.18	126.06	113.10
26	1H	680	G	C8-N9-C1'	-5.18	120.26	127.00
26	1H	1381	G	O5'-P-OP2	5.18	116.92	110.70
26	1H	1607	C	OP1-P-OP2	5.18	127.38	119.60
1	1G	209	U	N3-C2-O2	-5.18	118.57	122.20
26	14	817	C	N3-C4-C5	-5.18	119.83	121.90
26	14	913	U	N1-C2-N3	-5.18	111.79	114.90
26	14	1933	G	N1-C6-O6	5.18	123.01	119.90
26	14	2247	A	OP1-P-O3'	5.18	116.61	105.20
26	14	2453	A	C5-C6-N6	-5.18	119.55	123.70
26	14	2571	C	OP1-P-OP2	5.18	127.38	119.60
22	1K	71	C	C6-N1-C2	-5.18	118.23	120.30
26	1H	207	A	C4-C5-N7	5.18	113.29	110.70
26	1H	407	G	N1-C2-N3	5.18	127.01	123.90
26	1H	632	A	C5-N7-C8	-5.18	101.31	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1295	C	OP2-P-O3'	5.18	116.60	105.20
26	1H	2086	U	C6-N1-C2	5.18	124.11	121.00
26	1H	2375	G	N9-C4-C5	-5.18	103.33	105.40
26	1H	2508	G	N3-C2-N2	-5.18	116.27	119.90
26	1H	2595	G	C8-N9-C4	5.18	108.47	106.40
1	1G	87	A	P-O3'-C3'	5.18	125.92	119.70
26	14	848	G	O5'-P-OP2	-5.18	101.04	105.70
26	14	849	A	OP2-P-O3'	-5.18	93.80	105.20
26	14	2045	C	C5-C6-N1	-5.18	118.41	121.00
26	1H	47	C	C5-C4-N4	-5.18	116.57	120.20
26	1H	52	A	OP2-P-O3'	5.18	116.60	105.20
26	1H	668	G	OP1-P-OP2	5.18	127.37	119.60
26	1H	1630	G	N3-C2-N2	-5.18	116.27	119.90
28	71	64	LEU	CA-CB-CG	5.18	127.22	115.30
26	14	577	G	OP1-P-OP2	-5.18	111.83	119.60
27	1J	100	G	C5-C6-O6	5.18	131.71	128.60
1	13	583	A	C6-N1-C2	5.18	121.71	118.60
1	13	1049	U	C2-N1-C1'	-5.18	111.48	117.70
26	1H	665	C	C6-N1-C2	5.18	122.37	120.30
26	1H	2597	G	P-O3'-C3'	5.18	125.92	119.70
26	1H	2628	C	C6-N1-C2	5.18	122.37	120.30
26	14	363(E)	U	C2-N1-C1'	5.18	123.92	117.70
26	14	1296	G	OP2-P-O3'	5.18	116.59	105.20
26	14	1734	C	C6-N1-C2	-5.18	118.23	120.30
26	1H	1413	G	O5'-P-OP1	-5.18	101.04	105.70
26	1H	1814	G	O5'-P-OP2	-5.18	101.04	105.70
26	1H	2062	A	C5-N7-C8	5.18	106.49	103.90
26	1H	2442	C	N3-C4-N4	5.18	121.62	118.00
26	14	2244	U	C4-C5-C6	5.18	122.81	119.70
26	14	2518	A	C5'-C4'-O4'	5.18	115.31	109.10
26	1H	104	U	N1-C2-O2	-5.18	119.18	122.80
26	1H	130	C	OP1-P-OP2	-5.18	111.84	119.60
26	1H	609	A	N1-C6-N6	5.18	121.71	118.60
26	1H	774	A	C8-N9-C4	-5.18	103.73	105.80
26	1H	1193	G	O5'-P-OP1	5.18	116.91	110.70
26	1H	1618	A	OP1-P-O3'	5.18	116.59	105.20
26	1H	2375	G	C5-C6-N1	5.18	114.09	111.50
26	1H	2509	G	N7-C8-N9	-5.18	110.51	113.10
26	1H	2729	G	N1-C6-O6	5.18	123.01	119.90
26	1H	2743	C	C5-C6-N1	-5.18	118.41	121.00
1	1G	1200	C	C6-N1-C1'	-5.18	114.59	120.80
25	4L	24	A	N7-C8-N9	5.18	116.39	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	199	A	OP1-P-OP2	5.18	127.36	119.60
26	14	1458	C	C2-N1-C1'	5.18	124.49	118.80
26	14	1769	G	N3-C4-N9	5.18	129.10	126.00
26	14	1799	G	OP2-P-O3'	5.18	116.59	105.20
26	14	1969	A	C5-C6-N6	-5.18	119.56	123.70
26	14	2082	A	N1-C2-N3	5.18	131.89	129.30
26	14	2463	C	C5-C6-N1	-5.18	118.41	121.00
1	13	238	G	N7-C8-N9	-5.17	110.51	113.10
26	1H	1376	C	C4-C5-C6	5.17	119.99	117.40
26	1H	2379	G	N3-C4-N9	5.17	129.10	126.00
26	1H	2484	G	C5-C6-N1	5.17	114.09	111.50
26	14	571	A	N1-C2-N3	-5.17	126.71	129.30
26	14	701	G	N9-C4-C5	5.17	107.47	105.40
26	14	1783	A	C6-N1-C2	5.17	121.70	118.60
26	14	1965	C	N3-C4-N4	-5.17	114.38	118.00
26	14	2074	U	C5-C4-O4	-5.17	122.80	125.90
1	13	1128	C	C2'-C3'-O3'	5.17	121.98	113.70
1	13	1387	G	C5-C6-O6	-5.17	125.50	128.60
26	1H	103	A	OP1-P-OP2	-5.17	111.84	119.60
26	1H	455	C	N3-C4-N4	-5.17	114.38	118.00
26	1H	1773	A	N9-C1'-C2'	-5.17	106.31	112.00
26	14	955	C	C5-C4-N4	5.17	123.82	120.20
1	13	1513	A	N9-C4-C5	-5.17	103.73	105.80
26	1H	935	C	O5'-P-OP1	-5.17	101.05	105.70
26	1H	945	A	N9-C1'-C2'	5.17	120.72	114.00
26	1H	1203	G	C8-N9-C4	-5.17	104.33	106.40
26	1H	1553	A	N1-C2-N3	-5.17	126.71	129.30
26	1H	1832	C	O5'-P-OP2	-5.17	101.05	105.70
26	1H	2254	C	N1-C2-O2	-5.17	115.80	118.90
26	1H	2468	G	N3-C4-C5	5.17	131.19	128.60
26	1H	2532	G	C5-C6-O6	-5.17	125.50	128.60
26	14	251	A	N7-C8-N9	-5.17	111.22	113.80
26	14	652	C	O5'-P-OP2	5.17	116.91	110.70
26	14	858	U	C6-N1-C2	-5.17	117.90	121.00
26	14	2710	C	C5-C4-N4	-5.17	116.58	120.20
26	14	2725	A	C2-N3-C4	-5.17	108.02	110.60
26	14	2876	G	C2-N3-C4	-5.17	109.31	111.90
27	1J	55	U	N3-C4-C5	-5.17	111.50	114.60
1	13	423	G	C5-C6-N1	5.17	114.08	111.50
26	1H	1285	G	C5-C6-O6	-5.17	125.50	128.60
26	14	1771	C	C2-N3-C4	-5.17	117.31	119.90
26	14	2569	G	C6-N1-C2	-5.17	122.00	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	2K	20	G	C2-N3-C4	5.17	114.48	111.90
26	1H	260	G	N7-C8-N9	-5.17	110.52	113.10
26	1H	1577	C	O5'-P-OP1	-5.17	101.05	105.70
26	1H	1809	A	C6-N1-C2	-5.17	115.50	118.60
26	1H	2389	G	O5'-P-OP2	5.17	116.90	110.70
27	16	19	G	N3-C4-N9	-5.17	122.90	126.00
27	16	111	U	C5-C4-O4	5.17	129.00	125.90
26	14	1429	G	C8-N9-C1'	-5.17	120.28	127.00
26	14	1869	G	N9-C4-C5	5.17	107.47	105.40
26	14	2380	C	C5-C6-N1	-5.17	118.42	121.00
26	14	2504	U	OP1-P-O3'	5.17	116.57	105.20
1	13	121	C	N1-C2-O2	5.17	122.00	118.90
1	13	1511	G	C8-N9-C1'	-5.17	120.28	127.00
22	1K	69	A	P-O3'-C3'	5.17	125.90	119.70
26	1H	1358	G	C6-C5-N7	-5.17	127.30	130.40
26	1H	2287	A	N9-C4-C5	-5.17	103.73	105.80
26	1H	2755	C	O5'-P-OP2	-5.17	101.05	105.70
26	1H	2758	A	C4-C5-C6	-5.17	114.42	117.00
26	14	781	A	C4-C5-N7	5.17	113.28	110.70
31	39	125	LEU	CA-CB-CG	5.17	127.18	115.30
26	1H	1355	G	C2-N3-C4	5.17	114.48	111.90
26	14	828	U	N1-C2-O2	5.17	126.42	122.80
26	14	860	U	C5-C4-O4	5.17	129.00	125.90
26	14	1444(A)	A	O4'-C1'-N9	5.17	112.33	108.20
26	14	2447	G	O4'-C1'-N9	5.17	112.33	108.20
26	1H	752	A	N1-C6-N6	5.16	121.70	118.60
26	1H	1272	A	N7-C8-N9	5.16	116.38	113.80
26	1H	1597	A	OP2-P-O3'	5.16	116.56	105.20
26	1H	2449	U	N3-C2-O2	-5.16	118.58	122.20
29	11	63	ARG	NE-CZ-NH2	-5.16	117.72	120.30
26	14	789	A	N1-C6-N6	-5.16	115.50	118.60
26	14	1138	G	C8-N9-C4	-5.16	104.33	106.40
26	14	2072	G	C8-N9-C4	5.16	108.47	106.40
26	14	2395	C	OP1-P-OP2	-5.16	111.85	119.60
1	13	1373	G	N9-C1'-C2'	-5.16	106.32	112.00
26	1H	180	G	C6-C5-N7	-5.16	127.30	130.40
26	14	812	C	OP1-P-O3'	5.16	116.56	105.20
26	14	1379	A	C5-C6-N6	-5.16	119.57	123.70
26	14	1646	C	C2-N3-C4	-5.16	117.32	119.90
1	13	247	G	O5'-P-OP2	-5.16	101.06	105.70
26	1H	1335	U	C6-N1-C2	-5.16	117.90	121.00
26	1H	1600	C	OP1-P-O3'	5.16	116.56	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1683	C	C4-C5-C6	5.16	119.98	117.40
26	1H	2376	A	OP1-P-OP2	-5.16	111.86	119.60
26	1H	2433	A	OP2-P-O3'	5.16	116.55	105.20
26	1H	2473	U	N3-C2-O2	-5.16	118.59	122.20
26	1H	2779	U	O4'-C1'-N1	5.16	112.33	108.20
1	1G	966	G	C5-C6-O6	-5.16	125.50	128.60
26	14	2071	A	C5-C6-N1	5.16	120.28	117.70
26	14	2428	G	N9-C4-C5	5.16	107.47	105.40
26	14	2624	G	N7-C8-N9	-5.16	110.52	113.10
1	13	532	A	C5-N7-C8	-5.16	101.32	103.90
26	1H	815	C	C2-N3-C4	-5.16	117.32	119.90
26	1H	1137	G	N1-C6-O6	5.16	123.00	119.90
26	1H	2431	U	OP1-P-O3'	5.16	116.55	105.20
26	14	116	C	C6-N1-C2	-5.16	118.24	120.30
26	14	834	C	O5'-P-OP2	-5.16	101.06	105.70
26	14	1253	A	C5-C6-N1	5.16	120.28	117.70
26	14	1561	G	N7-C8-N9	5.16	115.68	113.10
26	14	1830	C	N3-C2-O2	5.16	125.51	121.90
26	14	1939	U	C5-C4-O4	5.16	129.00	125.90
29	19	235	GLY	N-CA-C	5.16	126.00	113.10
1	13	1502	A	C4-N9-C1'	5.16	135.58	126.30
26	1H	1923	U	OP1-P-OP2	-5.16	111.86	119.60
26	14	1905	C	P-O3'-C3'	5.16	125.89	119.70
1	13	544	G	C8-N9-C4	-5.16	104.34	106.40
1	13	795	C	C5-C6-N1	-5.16	118.42	121.00
1	13	1464	G	N1-C6-O6	5.16	122.99	119.90
23	2K	45	A	N9-C4-C5	-5.16	103.74	105.80
26	1H	119	A	C4-C5-N7	-5.16	108.12	110.70
26	1H	386	G	O5'-P-OP2	-5.16	101.06	105.70
26	1H	595	C	C2-N3-C4	-5.16	117.32	119.90
26	1H	962	G	OP1-P-OP2	-5.16	111.87	119.60
26	1H	1454	U	O4'-C1'-N1	5.16	112.33	108.20
26	1H	2686	G	C5-C6-O6	-5.16	125.51	128.60
44	E8	11	ARG	NE-CZ-NH1	5.16	122.88	120.30
1	1G	17	U	N1-C2-O2	5.16	126.41	122.80
1	1G	770	C	O5'-P-OP1	5.16	116.89	110.70
1	1G	1113	C	C6-N1-C2	-5.16	118.24	120.30
26	14	787	U	O5'-P-OP1	-5.16	101.06	105.70
26	14	843	G	O5'-P-OP2	-5.16	101.06	105.70
26	14	1384	A	N3-C4-N9	-5.16	123.28	127.40
26	14	1859	A	C8-N9-C4	-5.16	103.74	105.80
26	14	2286	A	OP1-P-O3'	5.16	116.54	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	1J	81	G	N7-C8-N9	5.16	115.68	113.10
27	1J	118	G	N1-C6-O6	5.16	122.99	119.90
1	13	1079	G	C5-C6-N1	-5.15	108.92	111.50
1	13	1096	C	C6-N1-C2	-5.15	118.24	120.30
26	1H	74	A	C6-N1-C2	5.15	121.69	118.60
26	1H	1236	G	N1-C6-O6	5.15	122.99	119.90
26	1H	1885	A	N7-C8-N9	-5.15	111.22	113.80
26	1H	2051	A	C8-N9-C4	-5.15	103.74	105.80
26	1H	2439	A	C6-C5-N7	-5.15	128.69	132.30
37	78	20	GLY	N-CA-C	-5.15	100.22	113.10
26	14	515	A	N7-C8-N9	5.15	116.38	113.80
26	14	1562	A	C2-N3-C4	-5.15	108.02	110.60
1	13	610	G	O5'-P-OP2	-5.15	101.06	105.70
1	13	990	C	O5'-P-OP2	5.15	116.88	110.70
24	3K	70	C	N3-C2-O2	-5.15	118.29	121.90
26	1H	127	A	C5-N7-C8	-5.15	101.32	103.90
26	1H	193	U	C2-N3-C4	-5.15	123.91	127.00
26	1H	407	G	N1-C2-N2	-5.15	111.56	116.20
26	1H	760	G	C5-C6-O6	-5.15	125.51	128.60
27	16	31	C	C5-C4-N4	5.15	123.81	120.20
37	78	26	GLY	N-CA-C	-5.15	100.22	113.10
1	1G	1417	G	O4'-C1'-N9	-5.15	104.08	108.20
26	14	1232	G	N3-C4-C5	5.15	131.18	128.60
26	14	1335	U	N3-C4-C5	-5.15	111.51	114.60
26	14	1943	U	C6-N1-C2	-5.15	117.91	121.00
26	1H	87	C	OP1-P-O3'	5.15	116.53	105.20
26	1H	1622	G	OP2-P-O3'	5.15	116.53	105.20
1	1G	1252	A	O5'-P-OP2	-5.15	101.06	105.70
26	14	1436	G	OP2-P-O3'	5.15	116.53	105.20
26	14	1687	G	OP2-P-O3'	5.15	116.53	105.20
26	14	1968	G	C4-C5-N7	5.15	112.86	110.80
49	F5	82	LEU	C-N-CA	5.15	134.57	121.70
26	1H	1964	G	N1-C6-O6	-5.15	116.81	119.90
26	1H	2299	G	C5-C6-O6	-5.15	125.51	128.60
26	14	72	U	C5-C6-N1	-5.15	120.13	122.70
1	13	742	G	OP1-P-OP2	5.15	127.32	119.60
1	13	1513	A	N7-C8-N9	-5.15	111.23	113.80
26	1H	138	G	O4'-C1'-N9	5.15	112.32	108.20
26	1H	481	G	O5'-P-OP2	-5.15	101.07	105.70
26	1H	1276	A	N7-C8-N9	5.15	116.37	113.80
26	1H	1830	C	N3-C4-N4	5.15	121.60	118.00
26	1H	2243	U	O5'-P-OP2	-5.15	101.07	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	1115	C	C6-N1-C2	-5.15	118.24	120.30
1	1G	1516	G	OP1-P-OP2	5.15	127.32	119.60
26	14	2461	C	C5-C4-N4	5.15	123.80	120.20
26	1H	56	A	C2-N3-C4	-5.15	108.03	110.60
1	1G	1096	C	C6-N1-C2	-5.15	118.24	120.30
1	13	1061	G	N1-C6-O6	5.14	122.99	119.90
1	13	1310	G	N3-C4-N9	5.14	129.09	126.00
22	1K	74	C	C2-N1-C1'	5.14	124.46	118.80
26	1H	65	C	N1-C2-O2	5.14	121.99	118.90
26	1H	330	A	N3-C4-C5	5.14	130.40	126.80
26	1H	1293	C	OP1-P-O3'	5.14	116.52	105.20
26	1H	1615	C	N1-C2-O2	5.14	121.99	118.90
26	1H	1758	G	P-O3'-C3'	5.14	125.87	119.70
26	1H	2255	G	C5-C6-O6	5.14	131.69	128.60
26	1H	2518	A	N3-C4-C5	5.14	130.40	126.80
26	1H	2580	U	N3-C2-O2	-5.14	118.60	122.20
1	1G	297	G	C8-N9-C4	5.14	108.46	106.40
23	2L	60	A	OP2-P-O3'	5.14	116.52	105.20
26	14	122	G	O5'-P-OP2	-5.14	101.07	105.70
26	14	566	U	C5-C6-N1	-5.14	120.13	122.70
26	14	664	C	N3-C4-N4	-5.14	114.40	118.00
26	14	821	A	O5'-P-OP2	-5.14	101.07	105.70
26	14	1570	A	C4-C5-N7	5.14	113.27	110.70
1	13	587	G	N1-C6-O6	5.14	122.98	119.90
26	1H	140	A	P-O3'-C3'	5.14	125.87	119.70
26	1H	1546	C	O5'-P-OP2	-5.14	101.07	105.70
26	1H	2484	G	C6-N1-C2	-5.14	122.01	125.10
26	1H	2518	A	C5-C6-N6	-5.14	119.59	123.70
1	1G	882	C	O5'-P-OP1	-5.14	101.07	105.70
26	14	1276	A	C5-N7-C8	-5.14	101.33	103.90
26	14	2538	C	N1-C2-O2	-5.14	115.81	118.90
1	13	633	G	N1-C6-O6	5.14	122.98	119.90
26	1H	68	G	C8-N9-C4	-5.14	104.34	106.40
1	13	1084	G	N3-C4-C5	-5.14	126.03	128.60
26	1H	453	C	C6-N1-C1'	5.14	126.97	120.80
26	1H	785	G	O5'-P-OP1	-5.14	101.07	105.70
26	1H	1183	G	N1-C6-O6	5.14	122.98	119.90
26	1H	1646	C	N1-C2-O2	-5.14	115.82	118.90
1	1G	180	U	C5-C6-N1	5.14	125.27	122.70
26	14	121	G	N9-C4-C5	-5.14	103.34	105.40
26	14	498	G	N3-C2-N2	-5.14	116.30	119.90
26	14	710	G	N1-C6-O6	5.14	122.98	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	810	U	N3-C2-O2	5.14	125.80	122.20
26	14	1313	U	N1-C2-O2	-5.14	119.20	122.80
27	1J	102	G	C5-C6-N1	-5.14	108.93	111.50
1	13	289	G	O5'-P-OP2	-5.14	101.08	105.70
26	1H	771	G	C5-N7-C8	-5.14	101.73	104.30
26	1H	1698	A	N9-C1'-C2'	5.14	120.68	114.00
1	13	404	U	OP1-P-OP2	-5.14	111.90	119.60
26	1H	69	C	O5'-P-OP2	-5.14	101.08	105.70
26	1H	249	C	OP1-P-OP2	5.14	127.30	119.60
26	1H	600	G	N1-C6-O6	5.14	122.98	119.90
26	1H	721	C	N1-C2-O2	-5.14	115.82	118.90
26	1H	805	G	C8-N9-C4	5.14	108.45	106.40
26	1H	858	U	O5'-P-OP1	5.14	116.86	110.70
26	1H	1365	A	C5-C6-N6	5.14	127.81	123.70
26	1H	1666	G	OP1-P-O3'	5.14	116.50	105.20
26	1H	1695	G	C8-N9-C1'	-5.14	120.32	127.00
26	1H	1823	G	N1-C2-N3	5.14	126.98	123.90
26	1H	1955	U	N3-C2-O2	-5.14	118.60	122.20
1	1G	18	C	O5'-P-OP1	-5.14	101.08	105.70
1	1G	730	G	O5'-P-OP1	-5.14	101.08	105.70
26	14	828	U	OP2-P-O3'	5.14	116.50	105.20
26	14	1339	G	N7-C8-N9	5.14	115.67	113.10
26	14	2168	G	N3-C4-C5	-5.14	126.03	128.60
26	14	2445	G	N3-C2-N2	5.14	123.50	119.90
27	1J	104	A	OP2-P-O3'	5.14	116.50	105.20
26	1H	510	C	OP1-P-O3'	5.13	116.50	105.20
26	1H	579	G	C2-N3-C4	5.13	114.47	111.90
26	1H	692	C	N1-C2-O2	-5.13	115.82	118.90
26	1H	792	G	N1-C6-O6	5.13	122.98	119.90
26	1H	1349	A	N7-C8-N9	5.13	116.37	113.80
26	1H	1379	A	C2-N3-C4	-5.13	108.03	110.60
26	1H	1522	G	N1-C6-O6	-5.13	116.82	119.90
26	1H	2070	G	N3-C2-N2	5.13	123.49	119.90
26	1H	2420	C	O5'-P-OP1	-5.13	101.08	105.70
26	1H	2454	G	N1-C2-N2	-5.13	111.58	116.20
26	1H	2511	U	C5-C4-O4	5.13	128.98	125.90
1	1G	698	G	C5-C6-O6	-5.13	125.52	128.60
26	14	933	A	C5-C6-N1	-5.13	115.13	117.70
26	14	2058	A	OP2-P-O3'	5.13	116.50	105.20
26	14	2073	C	OP1-P-OP2	-5.13	111.90	119.60
26	14	2331	G	C6-C5-N7	-5.13	127.32	130.40
26	14	193	U	C5-C4-O4	-5.13	122.82	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2380	C	N3-C2-O2	5.13	125.49	121.90
1	13	108	G	C4-N9-C1'	5.13	133.17	126.50
1	13	484	G	P-O3'-C3'	5.13	125.86	119.70
26	1H	1649	G	N9-C4-C5	5.13	107.45	105.40
26	1H	2645	G	O5'-P-OP1	-5.13	101.08	105.70
26	14	597	U	OP1-P-OP2	5.13	127.30	119.60
26	14	743	G	N7-C8-N9	-5.13	110.53	113.10
27	1J	98	G	OP1-P-OP2	5.13	127.30	119.60
26	1H	636	G	OP1-P-OP2	-5.13	111.91	119.60
26	1H	2079	U	N1-C2-O2	-5.13	119.21	122.80
26	14	1602	U	N3-C4-C5	-5.13	111.52	114.60
1	13	1307	U	C5-C6-N1	5.13	125.26	122.70
26	1H	137(A)	G	OP1-P-OP2	5.13	127.29	119.60
26	1H	513	A	C8-N9-C1'	-5.13	118.47	127.70
26	1H	909	A	O5'-P-OP2	-5.13	101.08	105.70
20	BA	12	ALA	N-CA-C	-5.13	97.15	111.00
26	14	1785	A	N1-C6-N6	5.13	121.68	118.60
26	14	1954	G	C5-C6-O6	-5.13	125.52	128.60
26	14	2589	A	C6-N1-C2	-5.13	115.52	118.60
1	13	1530	G	C5-N7-C8	-5.13	101.74	104.30
26	1H	119	A	N1-C2-N3	5.13	131.86	129.30
26	1H	733	G	OP1-P-OP2	5.13	127.29	119.60
26	1H	1784	A	C4-C5-C6	-5.13	114.44	117.00
26	1H	1787	A	N7-C8-N9	5.13	116.36	113.80
26	1H	2676	C	C6-N1-C2	5.13	122.35	120.30
1	1G	511	C	P-O3'-C3'	5.13	125.85	119.70
26	14	90	U	N3-C4-O4	-5.13	115.81	119.40
26	14	1955	U	N3-C4-C5	5.13	117.68	114.60
26	14	2062	A	C8-N9-C4	5.13	107.85	105.80
26	14	2278	A	C5-C6-N6	5.13	127.80	123.70
1	13	1525	G	OP1-P-OP2	-5.12	111.91	119.60
26	1H	1183	G	N7-C8-N9	5.12	115.66	113.10
26	14	1855	G	N3-C4-N9	5.12	129.07	126.00
26	14	1964	G	C5-N7-C8	5.12	106.86	104.30
1	13	534	U	C5-C4-O4	5.12	128.97	125.90
1	13	814	A	C2-N3-C4	-5.12	108.04	110.60
26	1H	265	A	N9-C1'-C2'	5.12	120.66	114.00
47	H8	61	LEU	CA-CB-CG	5.12	127.09	115.30
1	1G	770	C	N3-C2-O2	5.12	125.49	121.90
26	14	847	U	C5-C6-N1	-5.12	120.14	122.70
26	14	974(A)	C	N3-C2-O2	-5.12	118.31	121.90
26	14	1520	U	N3-C4-C5	-5.12	111.53	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2325	G	C8-N9-C4	-5.12	104.35	106.40
1	13	509	A	C2'-C3'-O3'	5.12	121.90	113.70
25	4K	19	A	C4-C5-N7	5.12	113.26	110.70
26	1H	139	G	C5-C6-O6	-5.12	125.53	128.60
26	1H	395	U	N1-C2-O2	5.12	126.39	122.80
26	1H	728	G	C8-N9-C4	5.12	108.45	106.40
26	1H	954	G	C5-C6-O6	-5.12	125.53	128.60
26	1H	958	U	O5'-P-OP2	-5.12	101.09	105.70
26	1H	1662	C	C2-N3-C4	-5.12	117.34	119.90
26	1H	1818	U	N3-C4-C5	5.12	117.67	114.60
26	1H	2607	G	N1-C2-N2	-5.12	111.59	116.20
26	14	496	G	N7-C8-N9	5.12	115.66	113.10
26	14	672	C	O5'-P-OP1	5.12	116.85	110.70
26	14	2292	C	OP2-P-O3'	5.12	116.47	105.20
26	14	2401	U	C6-N1-C2	-5.12	117.93	121.00
26	14	2612	C	N3-C2-O2	5.12	125.48	121.90
26	1H	1899	G	O4'-C1'-N9	5.12	112.30	108.20
26	1H	2349	G	C5-C6-N1	5.12	114.06	111.50
26	1H	2405	G	C5-C6-O6	5.12	131.67	128.60
39	98	79	LEU	CA-CB-CG	5.12	127.08	115.30
26	14	454	A	O5'-P-OP2	-5.12	101.09	105.70
1	13	1362	C	N3-C2-O2	-5.12	118.32	121.90
26	1H	282	A	OP1-P-O3'	5.12	116.46	105.20
26	1H	523	C	C6-N1-C2	-5.12	118.25	120.30
26	1H	1691	C	O5'-P-OP1	-5.12	101.09	105.70
26	1H	2329	G	C5-N7-C8	5.12	106.86	104.30
26	1H	2660	A	O5'-P-OP2	-5.12	101.09	105.70
26	1H	2785	C	O5'-P-OP2	5.12	116.84	110.70
29	11	272	ALA	C-N-CA	5.12	134.50	121.70
26	14	101	G	N3-C4-N9	5.12	129.07	126.00
26	14	502	A	C5-C6-N1	-5.12	115.14	117.70
26	14	754	C	C5-C4-N4	-5.12	116.62	120.20
26	14	787	U	N3-C4-C5	5.12	117.67	114.60
26	14	1165	U	C6-N1-C2	-5.12	117.93	121.00
26	14	1359	A	N1-C2-N3	-5.12	126.74	129.30
26	14	1728	G	N3-C4-N9	5.12	129.07	126.00
26	14	2563	U	C5-C6-N1	-5.12	120.14	122.70
26	14	2826	A	N1-C6-N6	-5.12	115.53	118.60
1	13	431	A	O5'-P-OP2	5.12	116.84	110.70
26	1H	136	G	C2-N3-C4	5.12	114.46	111.90
26	1H	943	U	C6-N1-C2	5.12	124.07	121.00
26	1H	1279	G	N1-C6-O6	-5.12	116.83	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2089	U	N3-C2-O2	5.12	125.78	122.20
26	1H	2234	G	N9-C4-C5	-5.12	103.35	105.40
1	1G	851	G	C6-C5-N7	-5.12	127.33	130.40
26	14	403	U	C5-C6-N1	-5.12	120.14	122.70
26	14	1342	A	OP2-P-O3'	5.12	116.46	105.20
26	14	1684	C	C2-N3-C4	-5.12	117.34	119.90
26	1H	447	A	O5'-P-OP2	5.12	116.84	110.70
26	1H	1611	C	C4-C5-C6	5.12	119.96	117.40
26	1H	2405	G	O4'-C1'-N9	5.12	112.29	108.20
26	1H	2518	A	C6-C5-N7	-5.12	128.72	132.30
26	1H	2819	G	N7-C8-N9	-5.12	110.54	113.10
29	11	211	ARG	NE-CZ-NH2	-5.12	117.74	120.30
43	D8	18	LEU	CA-CB-CG	5.12	127.06	115.30
1	1G	698	G	C4-C5-N7	5.12	112.85	110.80
1	1G	1489	G	C2-N3-C4	-5.12	109.34	111.90
1	1G	1489	G	OP1-P-OP2	5.12	127.27	119.60
26	14	103	A	C2-N3-C4	-5.12	108.04	110.60
26	14	1611	C	OP1-P-OP2	-5.12	111.93	119.60
1	13	232	G	OP2-P-O3'	5.11	116.45	105.20
1	13	1511	G	N3-C4-N9	5.11	129.07	126.00
26	1H	222	A	OP1-P-O3'	5.11	116.45	105.20
26	1H	258	G	N1-C2-N2	-5.11	111.60	116.20
26	1H	471	A	C5-N7-C8	-5.11	101.34	103.90
26	1H	1688	U	C5-C6-N1	-5.11	120.14	122.70
26	1H	1900	A	O5'-P-OP2	-5.11	101.10	105.70
26	1H	2250	G	C4-C5-N7	5.11	112.85	110.80
26	1H	2346	A	C1'-O4'-C4'	-5.11	105.81	109.90
26	1H	2466	C	N3-C4-C5	5.11	123.94	121.90
26	1H	2532	G	C8-N9-C1'	-5.11	120.35	127.00
1	1G	108	G	N3-C4-N9	5.11	129.07	126.00
1	1G	1475	G	OP1-P-OP2	5.11	127.27	119.60
26	14	867	C	O5'-P-OP2	5.11	116.83	110.70
26	14	959	A	N1-C6-N6	-5.11	115.53	118.60
26	14	1630	G	N3-C4-C5	-5.11	126.04	128.60
26	14	2425	A	N9-C4-C5	5.11	107.84	105.80
26	14	2600	A	C5-N7-C8	5.11	106.46	103.90
27	1J	84	C	N3-C4-N4	-5.11	114.42	118.00
1	13	910	C	C6-N1-C2	5.11	122.34	120.30
20	BI	24	LEU	CA-CB-CG	5.11	127.06	115.30
23	2K	45	A	C5-C6-N6	-5.11	119.61	123.70
26	1H	395	U	C2-N1-C1'	5.11	123.83	117.70
26	1H	411	G	C4-C5-N7	-5.11	108.75	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	936	C	C6-N1-C2	5.11	122.34	120.30
1	1G	370	C	O5'-P-OP2	-5.11	101.10	105.70
26	14	1121	C	N1-C2-O2	5.11	121.97	118.90
1	13	16	A	OP1-P-O3'	5.11	116.44	105.20
1	13	236	G	C4-C5-N7	-5.11	108.76	110.80
26	1H	682	G	O5'-P-OP1	5.11	116.83	110.70
26	1H	1244	G	C6-N1-C2	-5.11	122.03	125.10
23	2L	73	A	OP2-P-O3'	5.11	116.44	105.20
26	14	421	U	N3-C2-O2	-5.11	118.62	122.20
26	14	594	U	OP2-P-O3'	5.11	116.44	105.20
26	14	780	G	N1-C2-N3	5.11	126.97	123.90
26	14	1294	U	O5'-P-OP1	-5.11	101.10	105.70
26	1H	1357	U	N1-C2-O2	-5.11	119.22	122.80
26	1H	1669	A	C6-N1-C2	-5.11	115.53	118.60
26	1H	2012	G	C6-N1-C2	-5.11	122.03	125.10
26	14	1686	C	N3-C4-N4	5.11	121.58	118.00
26	1H	66	C	N3-C2-O2	-5.11	118.33	121.90
26	1H	435	C	OP1-P-OP2	5.11	127.26	119.60
26	1H	649	G	C5-C6-O6	-5.11	125.54	128.60
26	1H	755	C	N1-C2-N3	5.11	122.78	119.20
26	1H	867	C	N1-C2-O2	-5.11	115.83	118.90
26	1H	2424	C	C2-N3-C4	5.11	122.45	119.90
31	31	46	ARG	NE-CZ-NH1	-5.11	117.75	120.30
26	14	1138	G	N7-C8-N9	5.11	115.65	113.10
26	14	2418	A	OP1-P-O3'	5.11	116.43	105.20
29	19	45	ASN	N-CA-C	5.11	124.79	111.00
1	13	812	C	O5'-P-OP2	5.11	116.83	110.70
1	13	1099	G	C5-C6-O6	5.11	131.66	128.60
26	1H	629	G	N1-C2-N2	-5.11	111.61	116.20
26	1H	1657	C	N1-C2-O2	-5.11	115.84	118.90
26	1H	2044	C	N3-C4-N4	5.11	121.57	118.00
26	1H	2050	C	C5-C4-N4	-5.11	116.63	120.20
26	14	48	G	O5'-P-OP2	-5.11	101.11	105.70
26	14	429	A	C5-C6-N6	-5.11	119.61	123.70
26	14	800	A	C6-N1-C2	-5.11	115.54	118.60
26	14	1552	G	N3-C2-N2	-5.11	116.33	119.90
26	14	2082	A	C5-C6-N6	-5.11	119.61	123.70
26	14	2730	C	C6-N1-C2	-5.11	118.26	120.30
1	13	570	G	N1-C2-N2	5.10	120.79	116.20
26	1H	1394	U	N1-C2-N3	-5.10	111.84	114.90
26	1H	1632	A	C5-N7-C8	-5.10	101.35	103.90
26	1H	1678	G	N9-C4-C5	5.10	107.44	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2081	C	OP2-P-O3'	5.10	116.43	105.20
1	1G	932	C	C2-N1-C1'	5.10	124.41	118.80
1	1G	1270	C	C5-C6-N1	5.10	123.55	121.00
26	14	249	C	C6-N1-C2	-5.10	118.26	120.30
26	14	1601	G	C5-C6-N1	5.10	114.05	111.50
26	14	1779	U	O4'-C1'-N1	5.10	112.28	108.20
26	14	2601	C	N3-C2-O2	-5.10	118.33	121.90
26	1H	74	A	C4-C5-N7	5.10	113.25	110.70
26	1H	633	A	OP2-P-O3'	5.10	116.43	105.20
26	1H	1815	A	C5-C6-N6	-5.10	119.62	123.70
1	1G	242	C	N3-C4-N4	5.10	121.57	118.00
26	14	17	G	C5-C6-O6	-5.10	125.54	128.60
26	14	1262	A	N9-C4-C5	-5.10	103.76	105.80
26	14	1595	G	N7-C8-N9	5.10	115.65	113.10
26	14	1820	U	C5-C6-N1	-5.10	120.15	122.70
26	14	1906	G	C8-N9-C4	-5.10	104.36	106.40
26	14	1925	C	OP2-P-O3'	5.10	116.43	105.20
26	14	2251	G	C8-N9-C4	5.10	108.44	106.40
26	14	2294	C	OP2-P-O3'	5.10	116.43	105.20
26	1H	31	C	C4-C5-C6	5.10	119.95	117.40
26	1H	1757	U	C2-N3-C4	-5.10	123.94	127.00
26	1H	2707	G	C8-N9-C1'	5.10	133.63	127.00
1	1G	1403	C	OP2-P-O3'	5.10	116.42	105.20
26	14	847	U	N1-C2-N3	5.10	117.96	114.90
26	14	1390	U	OP1-P-OP2	-5.10	111.95	119.60
26	14	2444	G	C5-C6-O6	5.10	131.66	128.60
1	13	542	G	O5'-P-OP2	5.10	116.82	110.70
26	1H	974(A)	C	C2-N3-C4	-5.10	117.35	119.90
26	1H	1305	C	O5'-P-OP1	5.10	116.82	110.70
26	1H	1830	C	N3-C4-C5	5.10	123.94	121.90
26	1H	1836	C	N3-C4-C5	-5.10	119.86	121.90
26	1H	2008	C	N3-C4-N4	-5.10	114.43	118.00
55	Q8	47	LYS	N-CA-C	-5.10	97.23	111.00
1	1G	620	C	C5-C4-N4	-5.10	116.63	120.20
26	14	993	G	OP1-P-OP2	-5.10	111.95	119.60
26	14	1269	A	C6-N1-C2	5.10	121.66	118.60
26	14	1840	G	N1-C2-N2	5.10	120.79	116.20
1	13	759	A	OP2-P-O3'	5.10	116.42	105.20
1	13	972	C	OP2-P-O3'	5.10	116.41	105.20
26	1H	28	A	C5-C6-N6	-5.10	119.62	123.70
26	1H	473	G	N1-C2-N3	5.10	126.96	123.90
26	1H	1283	G	N3-C2-N2	5.10	123.47	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1446	C	OP2-P-O3'	5.10	116.41	105.20
26	1H	2373	G	N1-C2-N3	5.10	126.96	123.90
26	14	129	C	C6-N1-C1'	-5.10	114.68	120.80
26	14	131	G	C5-C6-N1	5.10	114.05	111.50
26	14	603	A	C6-C5-N7	-5.10	128.73	132.30
26	14	946	G	N3-C4-C5	5.10	131.15	128.60
26	14	2345	G	C6-C5-N7	-5.10	127.34	130.40
26	14	2442	C	C2-N3-C4	-5.10	117.35	119.90
27	1J	89(A)	A	C2-N3-C4	5.10	113.15	110.60
26	1H	532	A	N1-C6-N6	5.10	121.66	118.60
26	1H	842	G	N1-C6-O6	5.10	122.96	119.90
26	1H	951	C	N3-C4-C5	5.10	123.94	121.90
26	1H	970	C	N1-C2-O2	-5.10	115.84	118.90
26	14	1837	C	N3-C4-N4	5.10	121.57	118.00
1	13	560	U	C5-C6-N1	5.09	125.25	122.70
1	13	625	G	OP2-P-O3'	5.09	116.41	105.20
26	1H	977	G	C5-C6-O6	5.09	131.66	128.60
26	1H	1620	G	C5-C6-O6	5.09	131.66	128.60
26	1H	1929	G	C5-C6-O6	5.09	131.66	128.60
26	1H	2017	U	C6-N1-C2	-5.09	117.94	121.00
26	1H	2359	C	N3-C4-N4	-5.09	114.43	118.00
1	1G	561	U	OP1-P-O3'	5.09	116.41	105.20
26	14	129	C	OP2-P-O3'	5.09	116.41	105.20
26	14	2248	C	N3-C2-O2	-5.09	118.33	121.90
40	65	19	LYS	N-CA-C	-5.09	97.24	111.00
26	1H	2440	C	C2-N3-C4	5.09	122.45	119.90
27	16	77	U	N3-C4-C5	5.09	117.66	114.60
26	14	1254	A	C6-C5-N7	-5.09	128.74	132.30
1	13	338	A	OP2-P-O3'	5.09	116.40	105.20
1	13	765	G	C8-N9-C4	5.09	108.44	106.40
1	13	771	G	C5-C6-O6	5.09	131.65	128.60
23	2K	31	G	C8-N9-C4	-5.09	104.36	106.40
26	1H	508	G	C4'-C3'-C2'	-5.09	97.51	102.60
26	1H	635	C	O5'-P-OP2	-5.09	101.12	105.70
26	1H	1640	C	O5'-P-OP1	5.09	116.81	110.70
26	1H	1647	G	O5'-P-OP1	-5.09	101.12	105.70
26	1H	1665	A	O5'-P-OP1	-5.09	101.12	105.70
26	1H	1698	A	OP1-P-O3'	5.09	116.40	105.20
26	1H	1776	G	C8-N9-C1'	-5.09	120.38	127.00
26	1H	2594	C	OP1-P-OP2	-5.09	111.96	119.60
26	14	1342	A	N1-C6-N6	5.09	121.65	118.60
26	14	1663	C	N3-C2-O2	5.09	125.47	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2776	A	P-O3'-C3'	5.09	125.81	119.70
1	13	781	A	C6-N1-C2	-5.09	115.55	118.60
1	13	1198	G	O5'-P-OP2	5.09	116.81	110.70
26	1H	204	A	C6-N1-C2	-5.09	115.55	118.60
26	1H	660	G	C5-N7-C8	-5.09	101.76	104.30
26	1H	958	U	N3-C2-O2	-5.09	118.64	122.20
26	1H	986	C	N3-C2-O2	-5.09	118.34	121.90
26	1H	1996	C	C5-C6-N1	-5.09	118.46	121.00
1	1G	355	C	C2-N1-C1'	-5.09	113.20	118.80
26	14	212	G	OP2-P-O3'	5.09	116.39	105.20
26	14	514	A	N7-C8-N9	-5.09	111.25	113.80
26	14	787	U	OP1-P-O3'	5.09	116.40	105.20
26	14	1315	C	N3-C2-O2	-5.09	118.34	121.90
26	14	2437	U	OP1-P-OP2	5.09	127.24	119.60
26	14	2466	C	OP2-P-O3'	5.09	116.39	105.20
26	1H	1757	U	OP1-P-O3'	5.09	116.39	105.20
1	1G	301	G	N1-C6-O6	5.09	122.95	119.90
26	14	1658	C	C4-C5-C6	5.09	119.94	117.40
26	14	2213	U	N3-C2-O2	-5.09	118.64	122.20
1	13	770	C	C5-C6-N1	-5.09	118.46	121.00
1	13	966	G	N9-C4-C5	-5.09	103.36	105.40
1	13	1495	U	N3-C2-O2	-5.09	118.64	122.20
26	1H	135	G	C4-N9-C1'	-5.09	119.89	126.50
26	1H	178	G	O5'-P-OP2	5.09	116.80	110.70
26	1H	530	G	N3-C2-N2	-5.09	116.34	119.90
26	1H	857	C	O5'-P-OP1	-5.09	101.12	105.70
26	1H	1612	C	C5-C4-N4	-5.09	116.64	120.20
26	1H	2638	G	N1-C6-O6	5.09	122.95	119.90
26	1H	2710	C	OP2-P-O3'	5.09	116.39	105.20
26	1H	2871	C	N3-C4-N4	-5.09	114.44	118.00
1	1G	945	G	C8-N9-C1'	-5.09	120.39	127.00
1	13	332	G	OP1-P-OP2	5.08	127.23	119.60
23	2K	19	G	C8-N9-C4	5.08	108.43	106.40
26	1H	989	G	C5-C6-O6	-5.08	125.55	128.60
26	1H	1578	U	N3-C2-O2	-5.08	118.64	122.20
26	14	670	A	N7-C8-N9	-5.08	111.26	113.80
26	14	752	A	N7-C8-N9	5.08	116.34	113.80
26	14	983	A	OP1-P-OP2	-5.08	111.97	119.60
26	14	2055	C	N1-C2-O2	-5.08	115.85	118.90
26	14	2569	G	C8-N9-C4	5.08	108.43	106.40
1	13	359	U	OP2-P-O3'	5.08	116.38	105.20
1	13	801	U	N3-C4-O4	-5.08	115.84	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1475	G	C8-N9-C4	-5.08	104.37	106.40
26	1H	987	G	C8-N9-C1'	5.08	133.61	127.00
26	1H	1204	A	C8-N9-C1'	-5.08	118.55	127.70
26	1H	1689	A	O5'-P-OP2	-5.08	101.12	105.70
1	1G	573	A	N1-C6-N6	-5.08	115.55	118.60
26	14	682	G	N9-C4-C5	-5.08	103.37	105.40
27	1J	36	C	N3-C4-C5	5.08	123.93	121.90
26	1H	110	G	OP1-P-OP2	5.08	127.22	119.60
26	1H	667	U	C5-C4-O4	-5.08	122.85	125.90
26	1H	717	G	N7-C8-N9	5.08	115.64	113.10
26	1H	1496	A	O4'-C1'-N9	5.08	112.27	108.20
26	1H	1778	U	N3-C4-O4	-5.08	115.84	119.40
26	1H	2297	C	N1-C2-O2	5.08	121.95	118.90
1	1G	772	U	O5'-P-OP2	-5.08	101.13	105.70
26	14	1257	C	N1-C2-O2	-5.08	115.85	118.90
26	14	1446	C	C6-N1-C2	-5.08	118.27	120.30
26	14	2440	C	C2-N1-C1'	-5.08	113.21	118.80
1	13	1224	G	N1-C6-O6	-5.08	116.85	119.90
26	1H	2239	G	C5-C6-O6	5.08	131.65	128.60
26	1H	2359	C	N3-C4-C5	5.08	123.93	121.90
26	1H	2434	A	C2-N3-C4	-5.08	108.06	110.60
26	14	788	A	C4-C5-C6	5.08	119.54	117.00
1	13	796	C	C5-C6-N1	5.08	123.54	121.00
26	1H	633	A	C2-N3-C4	-5.08	108.06	110.60
26	1H	794	G	C8-N9-C4	-5.08	104.37	106.40
26	1H	1621	U	OP1-P-OP2	5.08	127.22	119.60
26	1H	2250	G	N7-C8-N9	5.08	115.64	113.10
26	1H	2377	A	C5-C6-N6	-5.08	119.64	123.70
26	1H	2446	G	C6-C5-N7	-5.08	127.35	130.40
26	14	2712	U	C4-C5-C6	5.08	122.75	119.70
26	1H	1903	G	C5-C6-O6	5.08	131.65	128.60
26	1H	2502	G	C5-C6-N1	5.08	114.04	111.50
26	1H	2712	U	C5-C6-N1	-5.08	120.16	122.70
1	1G	361	G	N3-C4-C5	5.08	131.14	128.60
26	14	1369	G	C5-C6-N1	5.08	114.04	111.50
26	14	2338	G	N1-C6-O6	5.08	122.95	119.90
29	19	263	ARG	NE-CZ-NH2	-5.08	117.76	120.30
26	1H	1241	A	C8-N9-C4	-5.08	103.77	105.80
26	1H	1365	A	N9-C4-C5	5.08	107.83	105.80
26	1H	2301	C	N3-C4-C5	-5.08	119.87	121.90
26	1H	2418	A	C5-C6-N1	5.08	120.24	117.70
26	1H	2590	A	N3-C4-N9	-5.08	123.34	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	793	U	N3-C4-C5	-5.08	111.55	114.60
1	1G	823	G	C8-N9-C4	5.08	108.43	106.40
1	1G	1344	C	O5'-P-OP2	-5.08	101.13	105.70
26	14	612	G	N3-C4-N9	5.08	129.05	126.00
26	14	1346	G	N7-C8-N9	-5.08	110.56	113.10
26	14	1668	A	N1-C2-N3	-5.08	126.76	129.30
26	14	2477	C	C6-N1-C1'	-5.08	114.71	120.80
1	13	74	C	C6-N1-C1'	-5.07	114.71	120.80
1	13	1268	A	OP1-P-OP2	5.07	127.21	119.60
23	2K	9	G	C2-N3-C4	5.07	114.44	111.90
26	1H	666	G	N1-C6-O6	5.07	122.94	119.90
26	1H	1161	C	OP1-P-OP2	-5.07	111.99	119.60
26	1H	1572	A	C6-C5-N7	-5.07	128.75	132.30
26	1H	2046	G	N3-C4-C5	-5.07	126.06	128.60
26	1H	2425	A	C6-N1-C2	-5.07	115.56	118.60
1	1G	1473	A	C8-N9-C4	5.07	107.83	105.80
26	14	787	U	C4-C5-C6	-5.07	116.66	119.70
26	14	2250	G	OP1-P-OP2	5.07	127.21	119.60
26	1H	692	C	C2-N3-C4	-5.07	117.36	119.90
26	14	1289	C	O5'-P-OP1	-5.07	101.14	105.70
26	14	1627	G	C4-N9-C1'	5.07	133.09	126.50
1	13	1304	G	N3-C4-C5	-5.07	126.06	128.60
4	3E	135	LEU	CA-CB-CG	5.07	126.96	115.30
24	3K	3	G	C4-N9-C1'	5.07	133.09	126.50
26	1H	141	A	C6-N1-C2	5.07	121.64	118.60
26	1H	602	G	N9-C4-C5	-5.07	103.37	105.40
26	1H	1013	C	C2-N1-C1'	-5.07	113.22	118.80
26	1H	1186	G	C2-N3-C4	5.07	114.44	111.90
26	1H	1693	U	N1-C2-O2	5.07	126.35	122.80
26	1H	1766	U	C5-C6-N1	-5.07	120.17	122.70
26	1H	2307	G	C4-C5-N7	5.07	112.83	110.80
26	1H	2377	A	N3-C4-C5	5.07	130.35	126.80
26	1H	2502	G	OP2-P-O3'	5.07	116.36	105.20
26	1H	2760	C	C2-N3-C4	-5.07	117.36	119.90
27	16	104	A	N1-C6-N6	5.07	121.64	118.60
26	14	529	A	C8-N9-C4	-5.07	103.77	105.80
26	14	1830	C	N3-C4-C5	5.07	123.93	121.90
26	14	1933	G	C4-C5-N7	5.07	112.83	110.80
27	1J	102	G	N3-C4-N9	-5.07	122.96	126.00
26	1H	2544	G	C4-C5-N7	5.07	112.83	110.80
1	1G	767	A	N1-C6-N6	5.07	121.64	118.60
26	14	972	G	P-O3'-C3'	5.07	125.78	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	1222	G	O5'-P-OP1	5.07	116.78	110.70
26	1H	693	C	N3-C4-N4	-5.07	114.45	118.00
26	1H	951	C	N3-C2-O2	-5.07	118.35	121.90
26	1H	1166	C	O5'-P-OP1	-5.07	101.14	105.70
26	1H	1305	C	N3-C2-O2	-5.07	118.35	121.90
26	1H	2448	A	O5'-P-OP1	-5.07	101.14	105.70
1	1G	831	U	C6-N1-C2	-5.07	117.96	121.00
1	1G	1394	A	OP1-P-O3'	5.07	116.35	105.20
26	14	252	G	C5-C6-O6	5.07	131.64	128.60
26	14	2629	A	C2-N3-C4	5.07	113.13	110.60
26	1H	142	G	OP2-P-O3'	5.07	116.34	105.20
26	1H	412	A	OP1-P-OP2	-5.07	112.00	119.60
26	1H	428	A	N1-C6-N6	5.07	121.64	118.60
26	1H	609(A)	G	C2-N3-C4	-5.07	109.37	111.90
27	16	115	G	N3-C2-N2	5.07	123.45	119.90
1	1G	1205	U	C6-N1-C2	-5.07	117.96	121.00
26	14	827	U	OP1-P-O3'	5.07	116.35	105.20
26	14	870	A	OP1-P-O3'	5.07	116.34	105.20
26	14	2400	G	N1-C6-O6	-5.07	116.86	119.90
26	14	2723	C	N3-C4-N4	-5.07	114.45	118.00
1	13	689	C	C5-C6-N1	5.06	123.53	121.00
23	2K	6	G	C5-C6-O6	-5.06	125.56	128.60
26	1H	1621	U	O5'-P-OP1	-5.06	101.14	105.70
26	14	1797	C	C5-C4-N4	-5.06	116.66	120.20
26	14	2376	A	C4-C5-N7	5.06	113.23	110.70
26	14	2720	U	C5-C4-O4	5.06	128.94	125.90
26	14	2821	A	N9-C4-C5	-5.06	103.77	105.80
1	13	238	G	N3-C2-N2	5.06	123.44	119.90
26	1H	631	A	N9-C4-C5	-5.06	103.78	105.80
26	1H	793	A	OP1-P-OP2	5.06	127.19	119.60
26	1H	1421	G	OP2-P-O3'	5.06	116.34	105.20
26	1H	1917	U	C5-C4-O4	5.06	128.94	125.90
26	1H	2050	C	OP2-P-O3'	5.06	116.34	105.20
1	1G	73	G	C5-C6-N1	-5.06	108.97	111.50
1	1G	906	G	C5-C6-O6	-5.06	125.56	128.60
1	1G	1466	C	O5'-P-OP1	-5.06	101.14	105.70
26	14	25	U	N1-C2-O2	-5.06	119.26	122.80
26	14	580	C	C5-C6-N1	-5.06	118.47	121.00
26	14	1127	A	O5'-P-OP1	-5.06	101.14	105.70
26	14	1626	G	O5'-P-OP2	5.06	116.78	110.70
26	14	2302	G	C8-N9-C4	-5.06	104.38	106.40
26	14	2510	C	C4-C5-C6	5.06	119.93	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2591	C	C5-C4-N4	-5.06	116.66	120.20
1	13	900	A	C4-C5-C6	-5.06	114.47	117.00
26	1H	1924	C	C5-C4-N4	-5.06	116.66	120.20
26	1H	2709	G	N1-C6-O6	-5.06	116.86	119.90
45	F8	3	THR	N-CA-C	-5.06	97.34	111.00
1	1G	1378	C	C6-N1-C2	-5.06	118.28	120.30
26	14	735	A	C5-N7-C8	5.06	106.43	103.90
26	14	2516	G	OP1-P-O3'	-5.06	94.07	105.20
27	1J	70	C	N1-C2-O2	5.06	121.94	118.90
1	13	292	G	C5-C6-O6	5.06	131.64	128.60
1	13	968	A	N9-C4-C5	-5.06	103.78	105.80
22	1K	33	U	N3-C4-C5	-5.06	111.56	114.60
26	1H	134	C	C6-N1-C2	5.06	122.32	120.30
26	1H	762	U	C6-N1-C1'	-5.06	114.12	121.20
26	1H	1122	G	N9-C4-C5	-5.06	103.38	105.40
26	1H	1209	G	C5-C6-O6	-5.06	125.56	128.60
26	1H	2018	G	C5-N7-C8	-5.06	101.77	104.30
26	1H	2048	G	C4-N9-C1'	5.06	133.08	126.50
26	1H	2232	U	N3-C2-O2	-5.06	118.66	122.20
26	1H	2520	C	C6-N1-C2	-5.06	118.28	120.30
1	1G	332	G	N9-C4-C5	-5.06	103.38	105.40
26	14	744	G	N9-C4-C5	-5.06	103.38	105.40
26	14	1943	U	N3-C4-C5	-5.06	111.56	114.60
26	14	1949	G	N3-C4-N9	5.06	129.04	126.00
26	14	1959	G	N9-C4-C5	5.06	107.42	105.40
26	1H	195	A	C2-N3-C4	-5.06	108.07	110.60
26	1H	449	A	C8-N9-C4	5.06	107.82	105.80
26	1H	662	G	C5-N7-C8	5.06	106.83	104.30
26	1H	1288	U	C5-C4-O4	-5.06	122.86	125.90
26	1H	2365	G	C5-C6-N1	5.06	114.03	111.50
26	14	879	G	C8-N9-C4	-5.06	104.38	106.40
26	14	2000	G	OP2-P-O3'	5.06	116.33	105.20
26	14	2256	G	N3-C4-N9	5.06	129.03	126.00
26	14	2523	G	C5-C6-O6	-5.06	125.57	128.60
1	13	720	C	N3-C2-O2	-5.06	118.36	121.90
26	14	320	A	N1-C2-N3	5.06	131.83	129.30
26	14	2557	G	C5-N7-C8	5.06	106.83	104.30
1	13	1103	C	O5'-P-OP2	-5.05	101.15	105.70
1	13	1128	C	P-O3'-C3'	5.05	125.77	119.70
26	1H	59	U	OP2-P-O3'	5.05	116.32	105.20
26	1H	515	A	N9-C4-C5	5.05	107.82	105.80
26	1H	804	A	C6-N1-C2	-5.05	115.57	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1402	C	OP1-P-O3'	5.05	116.32	105.20
26	1H	2444	G	N1-C2-N2	5.05	120.75	116.20
26	1H	2580	U	C2-N1-C1'	5.05	123.77	117.70
26	14	1787	A	C2-N3-C4	-5.05	108.07	110.60
26	14	2258	C	C5-C6-N1	-5.05	118.47	121.00
26	14	2612	C	O5'-P-OP1	5.05	116.77	110.70
26	14	2712	U	N3-C2-O2	-5.05	118.66	122.20
26	1H	500	G	C5-N7-C8	5.05	106.83	104.30
1	1G	360	A	C8-N9-C4	5.05	107.82	105.80
26	14	1527	G	N3-C4-N9	-5.05	122.97	126.00
1	13	1472	U	N3-C2-O2	-5.05	118.66	122.20
26	1H	77	C	N3-C4-N4	5.05	121.54	118.00
26	1H	325	G	C6-C5-N7	5.05	133.43	130.40
26	1H	1143	A	OP1-P-O3'	5.05	116.31	105.20
26	1H	1426	G	C5-C6-N1	5.05	114.03	111.50
26	1H	1693	U	C2-N1-C1'	5.05	123.76	117.70
26	1H	1950	G	C6-C5-N7	-5.05	127.37	130.40
26	14	459	U	C2-N3-C4	-5.05	123.97	127.00
26	14	747	U	OP1-P-O3'	5.05	116.31	105.20
26	14	1594	G	C8-N9-C4	-5.05	104.38	106.40
26	1H	82	G	N7-C8-N9	-5.05	110.58	113.10
26	1H	1423	G	N1-C2-N2	-5.05	111.66	116.20
26	1H	1545(A)	A	OP1-P-O3'	5.05	116.31	105.20
26	1H	1603	A	N7-C8-N9	5.05	116.33	113.80
26	1H	1883	G	N3-C4-N9	5.05	129.03	126.00
26	1H	2450	A	O5'-P-OP1	5.05	116.76	110.70
26	1H	2564	A	C4-C5-C6	5.05	119.53	117.00
26	1H	2706	G	C5-C6-N1	5.05	114.03	111.50
26	14	720	C	C6-N1-C2	5.05	122.32	120.30
26	14	1823	G	N1-C6-O6	-5.05	116.87	119.90
26	14	2255	G	OP2-P-O3'	5.05	116.31	105.20
1	13	972	C	O5'-P-OP1	5.05	116.76	110.70
23	2K	5	G	OP1-P-OP2	5.05	127.17	119.60
26	1H	1567	A	N1-C2-N3	-5.05	126.78	129.30
26	1H	1929	G	N1-C6-O6	-5.05	116.87	119.90
26	1H	2822	G	N1-C6-O6	5.05	122.93	119.90
26	14	131	G	O5'-P-OP2	-5.05	101.16	105.70
26	14	865	C	C6-N1-C2	5.05	122.32	120.30
26	14	1906	G	N7-C8-N9	5.05	115.62	113.10
54	L5	10	ARG	NE-CZ-NH2	-5.05	117.78	120.30
1	13	197	A	N1-C6-N6	-5.05	115.57	118.60
1	13	551	U	C6-N1-C2	5.05	124.03	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	13	971	G	C6-C5-N7	5.05	133.43	130.40
2	1E	14	GLY	N-CA-C	5.05	125.71	113.10
23	2K	25	U	C5-C4-O4	5.05	128.93	125.90
26	1H	749	C	C4-C5-C6	5.05	119.92	117.40
26	1H	1446	C	N1-C2-O2	5.05	121.93	118.90
26	1H	1477	A	OP2-P-O3'	5.05	116.30	105.20
26	1H	1653	G	OP1-P-OP2	5.05	127.17	119.60
26	1H	2342	C	C6-N1-C2	-5.05	118.28	120.30
26	1H	2503	A	OP2-P-O3'	5.05	116.30	105.20
27	16	47	C	OP1-P-O3'	5.05	116.30	105.20
27	16	96	G	C4-N9-C1'	-5.05	119.94	126.50
29	11	40	THR	C-N-CA	5.05	132.90	122.30
1	1G	1205	U	C5-C6-N1	5.05	125.22	122.70
1	1G	1300	G	P-O3'-C3'	5.05	125.75	119.70
26	14	141(A)	C	OP1-P-O3'	-5.05	94.10	105.20
26	14	241	A	OP1-P-OP2	5.05	127.17	119.60
26	14	483	A	O5'-P-OP2	-5.05	101.16	105.70
26	14	1296	G	O5'-P-OP1	5.05	116.75	110.70
26	14	1935	G	OP1-P-OP2	-5.05	112.03	119.60
26	14	2211	G	C6-C5-N7	-5.05	127.37	130.40
26	14	2674	G	O5'-P-OP2	-5.05	101.16	105.70
29	19	29	PRO	N-CA-C	-5.05	98.98	112.10
1	13	330	C	N3-C4-C5	5.04	123.92	121.90
26	1H	9	U	C6-N1-C2	-5.04	117.97	121.00
26	1H	785	G	C8-N9-C4	-5.04	104.38	106.40
26	1H	984	A	C5-C6-N6	-5.04	119.66	123.70
26	1H	1334	G	C8-N9-C4	-5.04	104.38	106.40
26	1H	2593	U	OP2-P-O3'	5.04	116.30	105.20
1	1G	23	C	C5-C6-N1	5.04	123.52	121.00
26	14	928	G	N3-C2-N2	-5.04	116.37	119.90
1	13	1327	C	C5-C6-N1	-5.04	118.48	121.00
26	1H	209	C	O5'-P-OP1	5.04	116.75	110.70
26	1H	1618	A	C5-N7-C8	-5.04	101.38	103.90
26	1H	2497	A	N1-C2-N3	5.04	131.82	129.30
26	1H	2749	A	C8-N9-C4	5.04	107.82	105.80
42	C8	28	ARG	NE-CZ-NH2	-5.04	117.78	120.30
1	13	802	A	C4-C5-N7	5.04	113.22	110.70
1	13	960	U	O4'-C1'-N1	-5.04	104.17	108.20
26	1H	576	U	OP1-P-OP2	-5.04	112.04	119.60
26	1H	1183	G	N3-C4-N9	-5.04	122.97	126.00
26	1H	1425	G	OP1-P-O3'	5.04	116.29	105.20
26	1H	1987	G	N3-C2-N2	-5.04	116.37	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2030	A	O4'-C1'-N9	-5.04	104.17	108.20
26	1H	2230	G	C6-C5-N7	5.04	133.43	130.40
26	1H	2464	C	C5-C4-N4	-5.04	116.67	120.20
26	1H	2574	G	N7-C8-N9	-5.04	110.58	113.10
26	14	575	A	C6-C5-N7	-5.04	128.77	132.30
26	14	1612	C	OP2-P-O3'	5.04	116.29	105.20
55	M5	50	LEU	CA-CB-CG	-5.04	103.70	115.30
26	1H	807	U	N1-C2-O2	-5.04	119.27	122.80
26	1H	1516	U	OP1-P-O3'	5.04	116.29	105.20
26	1H	1569	A	C2-N3-C4	-5.04	108.08	110.60
26	1H	2616	C	C6-N1-C2	-5.04	118.28	120.30
26	1H	2682	U	N1-C2-O2	5.04	126.33	122.80
1	1G	1486	G	C8-N9-C4	5.04	108.42	106.40
1	1G	1490	C	O5'-P-OP1	5.04	116.75	110.70
26	14	200	U	C2-N3-C4	-5.04	123.98	127.00
26	14	949	C	C2-N3-C4	-5.04	117.38	119.90
26	14	1204	A	N3-C4-C5	5.04	130.33	126.80
26	14	1396	U	C4-C5-C6	5.04	122.72	119.70
1	13	567	G	O5'-P-OP1	-5.04	101.17	105.70
26	1H	47	C	C2-N3-C4	-5.04	117.38	119.90
26	1H	265	A	O4'-C1'-N9	5.04	112.23	108.20
26	1H	704	G	N9-C4-C5	5.04	107.42	105.40
26	1H	757	U	N1-C2-N3	5.04	117.92	114.90
26	1H	807	U	OP1-P-OP2	5.04	127.16	119.60
26	1H	1359	A	O5'-P-OP2	-5.04	101.17	105.70
26	1H	1378	A	C5-N7-C8	-5.04	101.38	103.90
26	1H	1996	C	OP1-P-O3'	5.04	116.28	105.20
26	1H	2611	U	O5'-P-OP1	-5.04	101.17	105.70
26	14	12	U	C6-N1-C2	-5.04	117.98	121.00
26	14	782	A	C6-N1-C2	-5.04	115.58	118.60
26	14	1494	A	C4-C5-C6	5.04	119.52	117.00
26	14	1519	G	N3-C4-C5	-5.04	126.08	128.60
26	14	1975	G	O5'-P-OP1	5.04	116.75	110.70
26	14	2359	C	C5-C4-N4	5.04	123.73	120.20
26	14	2073	C	N3-C4-N4	5.04	121.53	118.00
1	13	50	A	N7-C8-N9	5.04	116.32	113.80
1	13	1299	A	C2-N3-C4	-5.04	108.08	110.60
26	1H	133	C	C2-N3-C4	-5.04	117.38	119.90
26	1H	217	G	N1-C2-N2	5.04	120.73	116.20
26	1H	1305	C	OP1-P-OP2	-5.04	112.05	119.60
26	1H	1542	G	C5-C6-O6	5.04	131.62	128.60
26	1H	1813	G	N7-C8-N9	-5.04	110.58	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	2274	A	OP2-P-O3'	5.04	116.28	105.20
26	14	507	A	OP1-P-OP2	-5.04	112.05	119.60
26	14	2267	A	C4-N9-C1'	5.04	135.37	126.30
1	13	255	G	N1-C2-N2	-5.03	111.67	116.20
26	1H	378	C	N3-C2-O2	5.03	125.42	121.90
26	1H	469	G	O5'-P-OP2	5.03	116.74	110.70
26	1H	726	G	O5'-P-OP1	-5.03	101.17	105.70
26	1H	752	A	C8-N9-C4	5.03	107.81	105.80
26	1H	863	A	N7-C8-N9	-5.03	111.28	113.80
26	1H	1346	G	N3-C2-N2	5.03	123.42	119.90
26	1H	1365	A	N1-C2-N3	5.03	131.82	129.30
30	21	132	HIS	N-CA-C	5.03	124.59	111.00
26	14	332	A	N1-C2-N3	5.03	131.82	129.30
26	14	1133	U	O4'-C1'-N1	5.03	112.23	108.20
26	14	1552	G	C4-C5-N7	-5.03	108.79	110.80
26	14	1832	C	N1-C2-O2	-5.03	115.88	118.90
26	14	2057	A	C8-N9-C4	5.03	107.81	105.80
26	14	2082	A	C5-C6-N1	5.03	120.22	117.70
26	14	2688	U	C2-N3-C4	-5.03	123.98	127.00
27	1J	86	G	N1-C6-O6	5.03	122.92	119.90
26	1H	35	G	C5-C6-O6	5.03	131.62	128.60
26	1H	575	A	C5-C6-N6	-5.03	119.67	123.70
26	1H	731	C	OP1-P-OP2	-5.03	112.05	119.60
26	1H	2040	C	C6-N1-C2	5.03	122.31	120.30
26	14	1627	G	N3-C4-N9	5.03	129.02	126.00
26	1H	1677	A	OP1-P-O3'	-5.03	94.13	105.20
26	1H	1784	A	C6-N1-C2	5.03	121.62	118.60
26	1H	1827	C	C4-C5-C6	5.03	119.92	117.40
26	1H	2390	U	N1-C2-N3	5.03	117.92	114.90
26	1H	2424	C	N1-C2-N3	-5.03	115.68	119.20
1	1G	906	G	N1-C6-O6	5.03	122.92	119.90
1	1G	1199	U	C5-C4-O4	5.03	128.92	125.90
27	1J	7	G	N9-C4-C5	-5.03	103.39	105.40
1	13	769	G	OP1-P-O3'	5.03	116.26	105.20
1	13	894	G	C8-N9-C1'	5.03	133.54	127.00
1	13	1286	A	C8-N9-C4	-5.03	103.79	105.80
1	13	1363	A	C8-N9-C4	5.03	107.81	105.80
26	1H	203	C	C2-N3-C4	-5.03	117.39	119.90
26	1H	498	G	O5'-P-OP1	-5.03	101.17	105.70
26	1H	1302	A	N7-C8-N9	-5.03	111.29	113.80
26	1H	1363	C	OP2-P-O3'	5.03	116.26	105.20
26	1H	1597	A	N9-C1'-C2'	-5.03	106.47	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1620	G	N7-C8-N9	-5.03	110.59	113.10
26	1H	1790	C	N3-C2-O2	-5.03	118.38	121.90
26	1H	2689	U	N1-C2-N3	5.03	117.92	114.90
1	1G	697	U	O5'-P-OP2	-5.03	101.17	105.70
1	1G	884	U	O5'-P-OP2	-5.03	101.18	105.70
26	14	1751	C	N1-C2-O2	-5.03	115.88	118.90
26	14	2334	G	N7-C8-N9	-5.03	110.59	113.10
26	14	2346	A	C5-N7-C8	-5.03	101.39	103.90
1	13	892	A	C2-N3-C4	-5.03	108.09	110.60
1	13	1414	U	OP2-P-O3'	5.03	116.25	105.20
26	1H	686	G	C8-N9-C1'	-5.03	120.47	127.00
26	1H	1413	G	C8-N9-C4	-5.03	104.39	106.40
26	1H	2056	G	N3-C4-C5	-5.03	126.09	128.60
1	1G	1312	G	C8-N9-C4	-5.03	104.39	106.40
26	14	503	A	N1-C2-N3	5.03	131.81	129.30
26	14	1892	C	C6-N1-C1'	5.03	126.83	120.80
26	14	2191	G	C6-C5-N7	-5.03	127.38	130.40
26	14	2867	G	C6-C5-N7	5.03	133.41	130.40
1	13	1093	A	OP1-P-O3'	5.02	116.25	105.20
26	1H	760	G	C2-N3-C4	-5.02	109.39	111.90
1	1G	893	C	N1-C2-O2	5.02	121.91	118.90
26	14	601	C	C4-C5-C6	5.02	119.91	117.40
1	13	1511	G	C4-N9-C1'	5.02	133.03	126.50
26	1H	26	G	N3-C2-N2	5.02	123.42	119.90
26	1H	394	A	OP1-P-OP2	-5.02	112.07	119.60
26	1H	597	U	C4-C5-C6	5.02	122.71	119.70
26	1H	691	C	C4-C5-C6	5.02	119.91	117.40
26	1H	861	A	N1-C6-N6	5.02	121.61	118.60
26	1H	1265	A	OP1-P-O3'	5.02	116.25	105.20
26	1H	2084	C	C2-N3-C4	-5.02	117.39	119.90
26	1H	2709	G	O5'-P-OP1	5.02	116.73	110.70
49	J8	41	ARG	NE-CZ-NH1	5.02	122.81	120.30
1	1G	560	U	C5-C6-N1	5.02	125.21	122.70
23	2L	12	G	O4'-C1'-N9	5.02	112.22	108.20
26	14	127	A	OP2-P-O3'	-5.02	94.15	105.20
1	13	552	U	O5'-P-OP2	-5.02	101.18	105.70
1	13	1461	G	C5-C6-O6	-5.02	125.59	128.60
26	1H	1111	A	C8-N9-C4	-5.02	103.79	105.80
26	1H	1282	U	N3-C2-O2	5.02	125.71	122.20
26	1H	1978	A	N1-C2-N3	-5.02	126.79	129.30
26	1H	119	A	C4-C5-C6	5.02	119.51	117.00
26	1H	786	C	C2-N3-C4	-5.02	117.39	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1861	G	C8-N9-C4	5.02	108.41	106.40
26	1H	2373	G	C2-N3-C4	-5.02	109.39	111.90
26	1H	2450	A	N7-C8-N9	5.02	116.31	113.80
26	1H	2698	U	OP1-P-OP2	5.02	127.13	119.60
1	1G	117	G	C5-C6-N1	-5.02	108.99	111.50
1	1G	128	G	N3-C2-N2	-5.02	116.39	119.90
1	1G	992	U	P-O3'-C3'	5.02	125.72	119.70
26	14	415	A	OP2-P-O3'	5.02	116.24	105.20
26	14	479	A	N1-C6-N6	-5.02	115.59	118.60
26	14	1494	A	N1-C2-N3	5.02	131.81	129.30
26	14	1855	G	N3-C4-C5	-5.02	126.09	128.60
26	14	2335	A	C4-C5-N7	-5.02	108.19	110.70
26	14	2755	C	C6-N1-C1'	-5.02	114.78	120.80
26	1H	324	A	C8-N9-C4	-5.02	103.79	105.80
26	1H	1814	G	C6-C5-N7	-5.02	127.39	130.40
26	1H	1945	G	O5'-P-OP1	-5.02	101.19	105.70
26	14	1785	A	C6-C5-N7	-5.02	128.79	132.30
26	14	2596	U	C2-N3-C4	-5.02	123.99	127.00
26	1H	1361	G	C2-N3-C4	5.02	114.41	111.90
26	1H	1626	G	C2-N3-C4	-5.02	109.39	111.90
26	1H	2417	C	N1-C2-O2	-5.02	115.89	118.90
26	1H	2418	A	OP1-P-O3'	5.02	116.24	105.20
1	1G	1523	G	OP1-P-OP2	5.02	127.12	119.60
26	14	551	G	C5-C6-O6	-5.02	125.59	128.60
26	14	2578	G	N1-C2-N2	-5.02	111.69	116.20
27	1J	28	C	O4'-C1'-N1	5.02	112.21	108.20
1	13	183	G	N3-C4-N9	5.01	129.01	126.00
1	13	373	A	C2-N3-C4	5.01	113.11	110.60
26	1H	633	A	N3-C4-C5	5.01	130.31	126.80
26	1H	1361	G	C5-C6-N1	5.01	114.01	111.50
26	1H	1914	C	N3-C4-N4	-5.01	114.49	118.00
26	1H	2495	G	O5'-P-OP2	-5.01	101.19	105.70
26	1H	2546	U	C4-C5-C6	5.01	122.71	119.70
26	14	204	A	N1-C6-N6	5.01	121.61	118.60
26	14	690	G	O5'-P-OP1	-5.01	101.19	105.70
26	14	1966	A	N9-C4-C5	5.01	107.81	105.80
26	14	2678	C	N3-C2-O2	5.01	125.41	121.90
26	14	2713	A	OP2-P-O3'	5.01	116.23	105.20
1	13	700	G	N3-C2-N2	-5.01	116.39	119.90
26	1H	12	U	N3-C2-O2	-5.01	118.69	122.20
26	1H	113	G	C5-C6-O6	-5.01	125.59	128.60
26	1H	382	G	C8-N9-C4	5.01	108.41	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	1H	1367	A	C8-N9-C4	5.01	107.81	105.80
26	1H	1791	A	OP1-P-OP2	-5.01	112.08	119.60
26	14	149	A	OP1-P-OP2	-5.01	112.08	119.60
26	14	2441	C	C5-C4-N4	5.01	123.71	120.20
26	14	2485	G	N1-C6-O6	5.01	122.91	119.90
1	13	1329	A	C5-C6-N6	-5.01	119.69	123.70
26	1H	1700	A	C6-N1-C2	5.01	121.61	118.60
1	1G	32	A	C8-N9-C4	-5.01	103.80	105.80
1	1G	848	C	C5-C6-N1	5.01	123.50	121.00
26	14	575	A	P-O3'-C3'	-5.01	113.69	119.70
26	14	1935	G	N1-C2-N2	5.01	120.71	116.20
26	14	2287	A	C6-C5-N7	-5.01	128.79	132.30
26	14	2607	G	N3-C4-N9	5.01	129.01	126.00
1	13	1246	C	C6-N1-C2	-5.01	118.30	120.30
26	1H	120	U	O5'-P-OP1	5.01	116.71	110.70
26	1H	686	G	N1-C2-N2	-5.01	111.69	116.20
26	1H	760	G	C8-N9-C4	5.01	108.40	106.40
26	1H	1571	A	C6-N1-C2	-5.01	115.59	118.60
26	1H	1912	A	OP2-P-O3'	5.01	116.22	105.20
26	1H	2386	C	N3-C4-C5	5.01	123.90	121.90
23	2L	30	G	N3-C2-N2	5.01	123.41	119.90
26	14	141	A	C4-C5-N7	5.01	113.20	110.70
26	14	728	G	O5'-P-OP2	-5.01	101.19	105.70
26	14	1759	A	OP1-P-OP2	5.01	127.11	119.60
1	13	570	G	N3-C2-N2	-5.01	116.39	119.90
26	1H	277	C	O4'-C1'-N1	5.01	112.21	108.20
26	1H	2438	U	C2-N3-C4	-5.01	124.00	127.00
26	14	598	G	C5-C6-N1	5.01	114.00	111.50
26	14	1758	G	C8-N9-C4	5.01	108.40	106.40
26	14	2568	C	C6-N1-C2	-5.01	118.30	120.30
1	13	622	A	O5'-P-OP2	-5.01	101.19	105.70
12	3I	86	ARG	NE-CZ-NH1	-5.01	117.80	120.30
26	1H	115	C	C5-C6-N1	-5.01	118.50	121.00
26	1H	207	A	C5-C6-N6	-5.01	119.69	123.70
26	1H	835	A	O5'-P-OP2	-5.01	101.19	105.70
26	1H	921	G	C8-N9-C4	-5.01	104.40	106.40
26	1H	1117	G	N3-C4-N9	5.01	129.00	126.00
26	1H	1203	G	OP1-P-O3'	5.01	116.21	105.20
26	1H	2378	A	C2-N3-C4	-5.01	108.10	110.60
26	1H	2425	A	O5'-P-OP1	5.01	116.71	110.70
26	1H	2715	C	C5-C6-N1	-5.01	118.50	121.00
1	1G	541	G	C6-C5-N7	-5.01	127.40	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1G	912	C	OP2-P-O3'	5.01	116.21	105.20
1	1G	1314	C	N3-C4-C5	-5.01	119.90	121.90
26	14	1633	G	C6-C5-N7	-5.01	127.40	130.40
26	14	2238	G	OP1-P-OP2	5.01	127.11	119.60
26	14	2820	A	P-O3'-C3'	5.01	125.71	119.70
1	13	581	G	C4-N9-C1'	5.00	133.01	126.50
26	1H	250	G	C2-N3-C4	5.00	114.40	111.90
26	1H	335	C	N3-C4-C5	-5.00	119.90	121.90
26	1H	435	C	N1-C2-O2	-5.00	115.90	118.90
26	1H	2277	G	C5-N7-C8	5.00	106.80	104.30
26	1H	2640	G	C5-C6-N1	-5.00	109.00	111.50
39	98	54	LEU	CB-CG-CD2	-5.00	102.49	111.00
26	14	606	U	OP2-P-O3'	5.00	116.21	105.20
26	14	755	C	N3-C4-N4	5.00	121.50	118.00
26	14	2008	C	OP2-P-O3'	5.00	116.21	105.20
26	14	2751	G	N3-C4-C5	-5.00	126.10	128.60
27	1J	90	C	OP2-P-O3'	5.00	116.21	105.20
1	13	47	C	O5'-P-OP1	-5.00	101.20	105.70
26	1H	145	G	N1-C2-N3	5.00	126.90	123.90
26	1H	1163	G	O5'-P-OP1	-5.00	101.20	105.70
26	1H	1346	G	C5-C6-O6	5.00	131.60	128.60
26	1H	2243	U	OP2-P-O3'	5.00	116.21	105.20
26	1H	2336	A	O5'-P-OP1	-5.00	101.20	105.70
26	1H	2690	C	C2-N3-C4	-5.00	117.40	119.90
29	11	63	ARG	NE-CZ-NH1	5.00	122.80	120.30
1	1G	27	G	N1-C6-O6	5.00	122.90	119.90
1	1G	399	G	C5-C6-O6	-5.00	125.60	128.60
1	1G	495	A	C4-C5-N7	-5.00	108.20	110.70
26	14	2490	G	N1-C2-N2	-5.00	111.70	116.20
26	14	2595	G	C4-C5-C6	-5.00	115.80	118.80
1	13	955	U	C6-N1-C2	-5.00	118.00	121.00
1	13	975	A	N7-C8-N9	5.00	116.30	113.80
1	13	1224	G	OP1-P-OP2	-5.00	112.10	119.60
26	1H	270(G)	C	C6-N1-C2	-5.00	118.30	120.30
26	1H	500	G	C4-C5-N7	-5.00	108.80	110.80
26	1H	766	C	N3-C4-N4	5.00	121.50	118.00
26	1H	1573	G	N7-C8-N9	-5.00	110.60	113.10
26	14	804	A	N7-C8-N9	-5.00	111.30	113.80
26	14	1254	A	N1-C6-N6	5.00	121.60	118.60
26	14	1635	G	C5-C6-O6	-5.00	125.60	128.60
26	14	1799	G	C5-C6-N1	-5.00	109.00	111.50
26	14	2308	G	N1-C6-O6	-5.00	116.90	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	14	2416	C	OP1-P-OP2	-5.00	112.10	119.60

There are no chirality outliers.

All (158) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
29	11	113	VAL	Peptide
29	11	114	GLY	Peptide
29	11	122	ASP	Peptide
29	11	233	HIS	Mainchain
29	11	29	PRO	Peptide
29	11	38	LYS	Peptide
2	12	15	VAL	Peptide
2	12	19	HIS	Peptide
2	12	219	VAL	Peptide
2	12	22	LYS	Peptide
2	12	44	LEU	Peptide
35	15	124	ALA	Peptide
35	15	41	ASP	Peptide
29	19	197	GLY	Peptide
29	19	237	GLU	Peptide
29	19	27	THR	Peptide
29	19	28	GLU	Peptide
29	19	45	ASN	Mainchain
2	1E	15	VAL	Peptide
10	1I	88	LEU	Peptide
30	21	153	GLY	Peptide
30	21	186	GLY	Peptide
30	21	56	PRO	Peptide
30	21	64	LYS	Peptide
30	21	65	GLY	Peptide
30	21	66	HIS	Peptide
30	21	77	ILE	Peptide
30	21	78	LEU	Peptide
30	21	82	ARG	Peptide
30	29	115	GLY	Peptide
30	29	201	THR	Peptide
30	29	53	PRO	Peptide
30	29	61	ARG	Peptide
30	29	73	GLU	Peptide
11	2A	49	GLY	Peptide
11	2I	102	GLY	Peptide

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Mol	Chain	Res	Type	Group
4	32	152	SER	Peptide
37	35	110	TYR	Peptide
37	35	65	ARG	Peptide
37	35	70	GLN	Peptide
31	39	12	LEU	Peptide
31	39	127	GLU	Peptide
31	39	146	ALA	Peptide
31	39	166	ALA	Peptide
31	39	20	LEU	Peptide
31	39	24	LEU	Peptide
31	39	25	PRO	Peptide
31	39	26	ALA	Peptide
31	39	69	HIS	Mainchain
31	39	89	VAL	Peptide
12	3I	118	SER	Peptide
12	3I	47	LYS	Peptide
12	3I	87	GLY	Peptide
32	41	95	ARG	Peptide
38	45	135	ASP	Peptide
38	45	27	VAL	Peptide
38	45	58	PHE	Peptide
32	49	13	GLU	Peptide
32	49	36	LYS	Peptide
32	49	82	LEU	Peptide
13	4A	9	ILE	Peptide
13	4A	94	ARG	Peptide
13	4I	105	THR	Peptide
13	4I	4	ILE	Peptide
13	4I	66	LEU	Peptide
33	51	152	ARG	Peptide
33	51	156	ALA	Peptide
33	51	170	ARG	Peptide
33	51	174	GLY	Peptide
33	51	7	LEU	Peptide
39	55	106	GLY	Peptide
35	58	136	GLU	Peptide
35	58	49	GLY	Peptide
33	59	155	SER	Peptide
33	59	170	ARG	Peptide
33	59	7	LEU	Peptide
14	5A	29	ARG	Peptide
34	61	11	ASN	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
34	61	134	PRO	Peptide
34	61	82	ARG	Peptide
40	65	53	SER	Peptide
34	69	101	LEU	Peptide
34	69	112	LYS	Peptide
34	69	142	VAL	Peptide
34	69	143	SER	Peptide
34	69	77	LEU	Peptide
28	71	178	ALA	Peptide
28	71	36	LYS	Peptide
28	71	37	PHE	Peptide
41	75	10	VAL	Peptide
37	78	11	GLY	Peptide
37	78	115	LEU	Peptide
37	78	24	GLY	Peptide
37	78	36	LYS	Peptide
37	78	70	GLN	Peptide
9	82	117	HIS	Peptide
42	85	72	HIS	Peptide
42	85	90	VAL	Peptide
42	85	98	LEU	Peptide
38	88	23	GLY	Peptide
38	88	6	ARG	Peptide
9	8E	110	GLU	Peptide
43	95	87	HIS	Peptide
39	98	44	LEU	Peptide
44	A5	43	GLY	Peptide
45	B5	24	GLY	Peptide
45	B5	61	GLY	Peptide
41	B8	12	SER	Peptide
41	B8	133	GLU	Peptide
41	B8	58	ASN	Peptide
20	BA	101	GLY	Peptide
20	BA	13	LEU	Peptide
20	BA	72	LEU	Peptide
46	C5	82	PRO	Peptide
46	C5	91	GLU	Peptide
42	C8	90	VAL	Peptide
42	C8	92	ARG	Peptide
47	D5	4	ARG	Peptide
47	D5	5	LEU	Peptide
47	D5	60	GLU	Peptide

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Mol	Chain	Res	Type	Group
47	D5	61	LEU	Peptide
47	D5	93	ASP	Peptide
43	D8	36	PRO	Peptide
43	D8	44	LYS	Peptide
43	D8	45	THR	Peptide
43	D8	48	GLY	Peptide
49	F5	82	LEU	Peptide
49	F5	89	GLU	Peptide
45	F8	2	LYS	Peptide
45	F8	3	THR	Peptide
50	G5	15	LYS	Peptide
50	G5	17	SER	Peptide
50	G5	43	GLN	Peptide
46	G8	53	PRO	Peptide
46	G8	54	LYS	Peptide
46	G8	80	GLY	Peptide
46	G8	84	ARG	Peptide
46	G8	93	GLY	Peptide
46	G8	99	CYS	Peptide
47	H8	158	PRO	Peptide
47	H8	165	VAL	Peptide
47	H8	63	ASP	Peptide
49	J8	75	GLU	Peptide
49	J8	77	ALA	Peptide
49	J8	85	LEU	Peptide
50	K8	17	SER	Peptide
50	K8	3	LEU	Peptide
50	K8	4	SER	Peptide
50	K8	46	GLN	Peptide
55	M5	40	GLU	Peptide
55	M5	51	ALA	Peptide
52	M8	37	SER	Peptide
52	M8	40	HIS	Peptide
52	M8	41	PRO	Peptide
52	M8	42	PHE	Peptide
54	P8	45	ALA	Peptide
55	Q8	30	ARG	Peptide
55	Q8	49	VAL	Peptide

## 5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	13	32157	0	16234	821	0
1	1G	32371	0	16342	804	0
2	12	1696	0	1730	97	0
2	1E	1874	0	1926	111	0
3	22	1537	0	1603	75	0
3	2E	1605	0	1668	50	0
4	32	1702	0	1764	122	0
4	3E	1698	0	1759	98	0
5	42	1139	0	1202	51	0
5	4E	1142	0	1204	54	0
6	52	842	0	857	30	0
6	5E	837	0	852	34	0
7	62	1120	0	1167	57	0
7	6E	1242	0	1286	39	0
8	72	1107	0	1165	55	0
8	7E	1115	0	1177	60	0
9	82	953	0	983	81	0
9	8E	1000	0	1031	56	0
10	1A	646	0	662	36	0
10	1I	754	0	769	42	0
11	2A	835	0	847	32	0
11	2I	823	0	833	32	0
12	3A	956	0	1046	42	0
12	3I	956	0	1046	40	0
13	4A	893	0	946	55	0
13	4I	942	0	997	59	0
14	5A	486	0	525	38	0
14	5I	491	0	529	25	0
15	6A	729	0	768	17	0
15	6I	729	0	768	32	0
16	7A	705	0	725	23	0
16	7I	700	0	720	48	0
17	8A	823	0	891	28	0
17	8I	834	0	904	46	0
18	9A	544	0	605	31	0
18	9I	549	0	607	17	0
19	AA	481	0	468	30	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	AI	661	0	683	64	0
20	BA	762	0	861	35	0
20	BI	746	0	843	44	0
21	1B	188	0	195	10	0
21	1F	199	0	208	14	0
22	1K	1542	0	790	46	0
22	1L	1477	0	758	27	0
23	2K	1646	0	844	24	0
23	2L	1646	0	844	38	0
24	3K	1483	0	756	64	0
24	3L	1528	0	778	49	0
25	4K	464	0	231	20	0
25	4L	419	0	208	11	0
26	14	61505	0	30997	1435	0
26	1H	62204	0	31336	1594	0
27	16	2617	0	1328	73	0
27	1J	2617	0	1328	68	0
28	71	1033	0	1048	73	0
28	79	456	0	460	25	0
29	11	2120	0	2197	133	0
29	19	2125	0	2199	126	0
30	21	1558	0	1624	102	0
30	29	1563	0	1629	99	0
31	31	1585	0	1632	75	0
31	39	1602	0	1649	109	0
32	41	1457	0	1514	89	0
32	49	1468	0	1520	84	0
33	51	1328	0	1396	101	0
33	59	543	0	566	30	0
34	61	1136	0	1223	53	0
34	69	1131	0	1218	54	0
35	15	1104	0	1180	40	0
35	58	1096	0	1169	75	0
36	25	932	0	996	46	0
36	68	932	0	996	29	0
37	35	1122	0	1206	68	0
37	78	1122	0	1206	88	0
38	45	1104	0	1159	91	0
38	88	1117	0	1168	55	0
39	55	967	0	1033	56	0
39	98	967	0	1033	51	0
40	65	876	0	938	73	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
40	A8	881	0	943	60	0
41	75	1109	0	1170	75	0
41	B8	1124	0	1179	74	0
42	85	959	0	1019	56	0
42	C8	950	0	1011	53	0
43	95	770	0	838	44	0
43	D8	774	0	849	35	0
44	A5	886	0	948	37	0
44	E8	876	0	941	26	0
45	B5	735	0	785	37	0
45	F8	743	0	794	35	0
46	C5	794	0	886	63	0
46	G8	783	0	869	57	0
47	D5	1079	0	1088	62	0
47	H8	1365	0	1391	76	0
48	E5	603	0	620	36	0
48	I8	611	0	631	33	0
49	F5	737	0	813	41	0
49	J8	737	0	813	41	0
50	G5	576	0	625	31	0
50	K8	575	0	634	48	0
51	H5	459	0	512	9	0
51	L8	459	0	512	12	0
52	M8	376	0	374	53	0
53	J5	434	0	454	20	0
53	N8	369	0	388	19	0
54	L5	401	0	436	14	0
54	P8	401	0	436	19	0
55	M5	516	0	581	26	0
55	Q8	516	0	582	40	0
56	11	3	0	0	0	0
56	13	161	0	0	0	0
56	14	471	0	0	0	0
56	16	13	0	0	0	0
56	1G	126	0	0	0	0
56	1H	572	0	0	0	0
56	1J	11	0	0	0	0
56	1K	1	0	0	0	0
56	21	3	0	0	0	0
56	25	2	0	0	0	0
56	29	1	0	0	0	0
56	2A	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	2K	3	0	0	0	0
56	2L	3	0	0	0	0
56	32	1	0	0	0	0
56	35	3	0	0	0	0
56	39	2	0	0	0	0
56	41	2	0	0	0	0
56	42	2	0	0	0	0
56	45	2	0	0	0	0
56	4K	1	0	0	0	0
56	52	1	0	0	0	0
56	5E	1	0	0	0	0
56	5I	1	0	0	0	0
56	78	2	0	0	0	0
56	88	3	0	0	0	0
56	98	1	0	0	0	0
56	B5	1	0	0	0	0
56	E5	3	0	0	0	0
56	F8	1	0	0	0	0
56	I8	1	0	0	0	0
56	L8	1	0	0	0	0
56	M5	1	0	0	0	0
56	P8	1	0	0	0	0
56	Q8	1	0	0	0	0
57	32	8	0	0	3	0
57	3E	8	0	0	0	0
58	5A	1	0	0	0	0
58	5I	1	0	0	0	0
58	C5	1	0	0	0	0
58	G8	1	0	0	0	0
59	11	16	0	0	6	0
59	13	389	0	0	54	0
59	14	1225	0	0	216	0
59	16	35	0	0	7	0
59	19	11	0	0	3	0
59	1E	1	0	0	0	0
59	1F	2	0	0	0	0
59	1G	297	0	0	46	0
59	1H	1539	0	0	287	0
59	1I	2	0	0	0	0
59	1J	12	0	0	2	0
59	1K	8	0	0	1	0
59	1L	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	21	7	0	0	1	0
59	25	6	0	0	0	0
59	29	5	0	0	0	0
59	2A	3	0	0	0	0
59	2K	6	0	0	0	0
59	2L	6	0	0	0	0
59	31	6	0	0	0	0
59	32	2	0	0	1	0
59	35	8	0	0	1	0
59	39	7	0	0	0	0
59	3A	1	0	0	0	0
59	3E	2	0	0	0	0
59	3I	2	0	0	0	0
59	3K	1	0	0	0	0
59	41	1	0	0	0	0
59	42	1	0	0	0	0
59	45	4	0	0	0	0
59	4E	1	0	0	0	0
59	4I	2	0	0	0	0
59	4K	5	0	0	0	0
59	4L	5	0	0	0	0
59	52	4	0	0	0	0
59	55	3	0	0	4	0
59	58	2	0	0	0	0
59	5I	2	0	0	0	0
59	62	3	0	0	0	0
59	68	2	0	0	0	0
59	6A	1	0	0	0	0
59	6I	3	0	0	0	0
59	78	8	0	0	1	0
59	7A	6	0	0	0	0
59	7I	1	0	0	0	0
59	85	1	0	0	0	0
59	88	8	0	0	0	0
59	8E	3	0	0	0	0
59	95	1	0	0	0	0
59	9A	2	0	0	1	0
59	A5	1	0	0	0	0
59	B5	1	0	0	0	0
59	BA	5	0	0	0	0
59	C5	3	0	0	0	0
59	C8	4	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	D8	2	0	0	0	0
59	F5	1	0	0	0	0
59	F8	2	0	0	0	0
59	G8	1	0	0	0	0
59	H5	2	0	0	0	0
59	I8	7	0	0	1	0
59	J8	2	0	0	1	0
59	K8	1	0	0	0	0
59	L5	3	0	0	0	0
59	L8	3	0	0	0	0
59	M5	6	0	0	1	0
59	P8	1	0	0	0	0
59	Q8	8	0	0	1	0
All	All	297904	0	196675	8933	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 19.

All (8933) 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)
39:55:3:HIS:NE2	59:55:201:HOH:O	1.77	1.14
49:J8:93:GLU:HG3	49:J8:94:LEU:H	1.01	1.12
26:14:730:C:OP2	59:14:3501:HOH:O	1.68	1.11
19:AI:3:ARG:HE	19:AI:9:VAL:HG11	1.10	1.10
26:14:2822:G:N7	59:14:3506:HOH:O	1.84	1.10
26:14:761:A:N7	59:14:3507:HOH:O	1.85	1.09
26:1H:810:U:OP1	59:1H:3601:HOH:O	1.69	1.09
26:1H:576:U:OP1	59:1H:3602:HOH:O	1.71	1.09
19:AI:41:VAL:HG13	19:AI:44:MET:H	1.10	1.08
26:1H:1968:G:OP1	59:1H:3603:HOH:O	1.73	1.06
19:AI:40:ILE:HG12	19:AI:41:VAL:HG23	1.36	1.05
29:11:26:LYS:HD2	29:11:29:PRO:HG3	1.37	1.05
30:21:135:HIS:NE2	59:21:401:HOH:O	1.88	1.05
26:1H:1597:A:N7	59:1H:3618:HOH:O	1.87	1.05
38:45:27:VAL:HB	38:45:28:ALA:HA	1.39	1.04
26:1H:1622:G:OP2	59:1H:3606:HOH:O	1.76	1.03
38:45:26:TYR:HD1	38:45:27:VAL:HG22	1.24	1.03
26:1H:2711:A:OP2	59:1H:3604:HOH:O	1.75	1.02
26:14:784:A:OP2	59:14:3502:HOH:O	1.77	1.02
26:1H:733:G:OP2	59:1H:3605:HOH:O	1.76	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2032:G:H21	30:29:146:THR:HG23	1.21	1.01
26:1H:2056:G:N7	59:1H:3623:HOH:O	1.91	1.01
26:14:733:G:N7	59:14:3507:HOH:O	1.91	1.01
26:14:1632:A:N7	59:14:3525:HOH:O	1.93	1.01
26:1H:862:G:OP2	59:1H:3607:HOH:O	1.78	1.01
26:14:599:G:N7	59:14:3527:HOH:O	1.94	1.01
1:13:362:G:O2'	12:3I:33:ARG:NH2	1.93	1.01
49:J8:91:LYS:HA	49:J8:91:LYS:HZ3	1.26	1.00
29:11:37:LEU:HD12	29:11:37:LEU:H	1.23	1.00
26:14:2292:C:OP1	40:65:17:ARG:NH2	1.95	1.00
34:69:130:TYR:HB3	34:69:136:VAL:HG23	1.42	1.00
12:3A:47:LYS:HG3	12:3A:48:PRO:HD2	1.44	0.99
26:1H:620:G:H4'	26:1H:621:A:H5''	1.44	0.98
32:41:112:PRO:HB3	52:M8:37:SER:H	1.25	0.98
1:13:541:G:N7	59:13:1806:HOH:O	1.96	0.98
26:1H:1359:A:N1	26:1H:1372:U:N3	2.12	0.98
38:45:138:ASP:N	38:45:139:GLU:HA	1.74	0.98
33:51:2:SER:HB2	33:51:3:ARG:HD3	1.45	0.98
26:14:763:G:OP1	59:14:3503:HOH:O	1.82	0.97
49:J8:93:GLU:HG3	49:J8:94:LEU:N	1.76	0.97
26:1H:913:U:O4	59:1H:3608:HOH:O	1.81	0.97
26:14:1359:A:H62	26:14:1372:U:H3	1.04	0.97
26:14:2589:A:OP1	59:14:3502:HOH:O	1.81	0.97
26:1H:1959:G:N7	59:1H:3648:HOH:O	1.98	0.96
38:45:26:TYR:CD1	38:45:27:VAL:HG22	2.00	0.96
36:68:68:GLU:OE2	36:68:78:ARG:NH1	1.99	0.96
26:14:141:A:H8	26:14:1595:G:H21	1.13	0.96
26:1H:784:A:OP1	59:1H:3611:HOH:O	1.83	0.96
27:16:82:G:N7	59:16:302:HOH:O	1.99	0.96
17:8I:100:LYS:HG2	17:8I:101:ARG:HE	1.30	0.96
2:1E:16:HIS:HE1	2:1E:213:LEU:HD12	1.29	0.95
29:11:31:LYS:HB3	29:11:34:VAL:HG23	1.44	0.95
26:14:67:U:H3	26:14:74:A:H2	1.09	0.95
49:J8:93:GLU:CG	49:J8:94:LEU:H	1.75	0.95
26:1H:2048:G:N7	59:1H:3649:HOH:O	1.99	0.95
26:1H:2503:A:OP1	59:1H:3602:HOH:O	1.85	0.95
26:14:409:C:OP1	59:14:3504:HOH:O	1.84	0.95
26:1H:574:C:OP1	59:1H:3613:HOH:O	1.85	0.95
26:1H:1939:U:O2	59:1H:3612:HOH:O	1.85	0.94
38:45:27:VAL:CB	38:45:28:ALA:HA	1.97	0.94
26:1H:592:G:O6	59:1H:3609:HOH:O	1.82	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2592:G:OP1	59:1H:3610:HOH:O	1.82	0.94
26:14:913:U:O4	59:14:3508:HOH:O	1.85	0.94
1:13:533:A:OP1	59:13:1801:HOH:O	1.86	0.93
26:1H:731:C:OP2	59:1H:3617:HOH:O	1.87	0.93
26:1H:1253:A:N7	59:1H:3601:HOH:O	2.01	0.93
26:14:54:G:O6	59:14:3509:HOH:O	1.87	0.93
34:61:144:VAL:HG23	34:61:145:VAL:HG23	1.50	0.93
9:82:112:LYS:HA	9:82:119:ALA:HB2	1.51	0.93
48:I8:11:ARG:O	48:I8:14:ARG:NH2	2.02	0.93
26:14:194:G:OP2	59:14:3505:HOH:O	1.84	0.93
26:1H:947:G:O6	59:1H:3615:HOH:O	1.86	0.93
26:14:900:A:H2'	26:14:901:A:H8	1.34	0.92
11:2A:29:ILE:HG22	11:2A:44:SER:HB2	1.51	0.92
34:69:81:VAL:H	34:69:143:SER:HB3	1.33	0.92
29:11:35:LYS:HZ2	29:11:35:LYS:H	1.17	0.92
26:14:1771:C:HO2'	26:14:1786:A:H8	0.96	0.92
24:3L:3:G:N2	24:3L:70:C:N3	2.17	0.92
1:13:975:A:H4'	1:13:976:G:H5''	1.51	0.92
26:14:2712(A):A:OP1	59:14:3512:HOH:O	1.88	0.92
26:1H:1428:C:N3	59:1H:3657:HOH:O	2.01	0.91
26:14:1762:A:N6	59:14:3549:HOH:O	2.03	0.91
26:1H:702:G:OP2	59:1H:3619:HOH:O	1.88	0.91
33:51:170:ARG:HA	33:51:171:LEU:HB2	1.52	0.91
26:14:802:A:OP1	59:14:3511:HOH:O	1.88	0.91
19:AI:41:VAL:HG13	19:AI:44:MET:N	1.84	0.91
26:14:2821:A:OP2	59:14:3510:HOH:O	1.87	0.91
26:1H:1665:A:OP2	59:1H:3614:HOH:O	1.86	0.91
26:1H:2656:U:H3	26:1H:2665:A:H2	1.16	0.91
32:49:130:ASN:HB3	32:49:160:VAL:HA	1.52	0.91
26:1H:761:A:N7	59:1H:3666:HOH:O	2.04	0.91
1:1G:1502:A:H2	1:1G:1505:G:H1	1.17	0.91
26:1H:1689:A:H62	26:1H:1698:A:H2	1.15	0.91
26:1H:2781:A:H5''	26:1H:2782:G:H5'	1.53	0.91
37:35:39:LYS:HD2	37:35:45:LEU:HD21	1.51	0.91
26:1H:2074:U:OP1	59:1H:3616:HOH:O	1.86	0.91
26:14:2342:C:N4	59:14:3546:HOH:O	2.03	0.91
19:AI:41:VAL:HG12	19:AI:42:PRO:C	1.90	0.91
26:14:1372:U:OP2	59:14:3513:HOH:O	1.88	0.90
26:14:1774:C:OP1	59:14:3514:HOH:O	1.89	0.90
26:14:879:G:O2'	26:14:898:C:N4	2.03	0.90
26:1H:2310:A:H62	32:41:79:ASN:HD22	1.15	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:80:U:H2'	27:1J:81:G:H21	1.36	0.90
1:13:750:G:OP2	59:13:1802:HOH:O	1.88	0.90
32:41:161:THR:HG22	32:41:163:ALA:H	1.36	0.90
31:39:25:PRO:HB2	31:39:27:GLU:H	1.35	0.90
26:1H:574:C:OP2	59:1H:3621:HOH:O	1.89	0.90
22:1K:34:U8U:HN3	25:4K:21:G:H22	1.19	0.90
37:78:47:ASP:OD2	37:78:50:ARG:NH2	2.05	0.90
1:1G:1191:A:OP1	3:22:3:ASN:ND2	2.05	0.90
26:1H:2705:A:OP2	59:1H:3620:HOH:O	1.89	0.90
27:1J:15:A:H3'	27:1J:16:G:H5'	1.53	0.90
22:1L:9:A:N6	22:1L:22:G:N7	2.19	0.90
32:49:7:LEU:HD12	32:49:104:GLU:HB2	1.54	0.90
26:1H:1185:C:OP2	59:1H:3622:HOH:O	1.90	0.90
47:H8:93:ASP:HB3	47:H8:131:ARG:HH21	1.35	0.90
26:1H:49:A:N7	26:1H:120:U:H5	1.70	0.90
22:1K:51:A:N1	22:1K:64:G:N2	2.19	0.90
26:1H:1525:G:H2'	26:1H:1526:G:H8	1.34	0.89
29:11:182:LEU:H	29:11:272:ALA:HB3	1.36	0.89
26:14:2608:G:N7	59:14:3560:HOH:O	2.05	0.89
4:32:33:MET:O	4:32:35:ARG:NH1	2.05	0.89
45:B5:63:LYS:H	45:B5:63:LYS:HE3	1.38	0.89
26:1H:1899:G:H1	26:1H:1902:C:H41	1.20	0.89
2:1E:84:GLU:HB3	2:1E:219:VAL:HG21	1.55	0.89
1:1G:972:C:O2'	10:1A:55:LYS:NZ	2.06	0.88
26:14:662:G:OP1	59:14:3516:HOH:O	1.90	0.88
26:14:734:A:OP2	59:14:3515:HOH:O	1.90	0.88
26:1H:2308:G:H1	26:1H:2311:A:H2	1.17	0.88
26:1H:2598:A:OP1	59:1H:3624:HOH:O	1.91	0.88
1:13:1129:C:H1'	1:13:1146:A:H61	1.37	0.88
1:13:768:A:OP2	59:13:1803:HOH:O	1.91	0.88
26:14:2697:G:N7	59:14:3561:HOH:O	2.05	0.88
26:1H:2747:G:N7	59:1H:3676:HOH:O	2.05	0.88
26:1H:592:G:H21	55:Q8:4:MET:HE1	1.37	0.88
1:13:1502:A:H2	1:13:1505:G:H1	1.19	0.88
1:13:581:G:N7	59:13:1815:HOH:O	2.06	0.88
29:19:182:LEU:H	29:19:272:ALA:HB3	1.37	0.88
26:1H:1771:C:HO2'	26:1H:1786:A:H8	0.91	0.88
26:14:674:G:OP2	59:14:3517:HOH:O	1.90	0.88
1:1G:1028:C:N3	1:1G:1033:G:N2	2.22	0.88
19:AI:3:ARG:NE	19:AI:9:VAL:HG11	1.88	0.88
41:B8:4:GLY:HA2	41:B8:7:ILE:HG12	1.56	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:226:G:H21	26:1H:228:A:H2	1.17	0.88
33:51:4:ILE:HG23	33:51:6:ARG:CZ	2.04	0.88
1:13:1422:G:H5''	36:68:48:PRO:HB3	1.54	0.88
1:1G:1127:G:H1'	1:1G:1148:U:H3	1.39	0.88
26:1H:442:G:H1'	31:31:48:THR:HG21	1.55	0.88
1:13:1305:G:N2	1:13:1331:G:H2'	1.88	0.87
27:1J:101:A:N7	59:1J:301:HOH:O	2.06	0.87
4:3E:157:LEU:O	4:3E:161:ASN:ND2	2.07	0.87
8:7E:87:SER:HB2	8:7E:93:VAL:HB	1.56	0.87
26:14:2255:G:OP2	59:14:3518:HOH:O	1.91	0.87
17:8I:67:LYS:HA	17:8I:70:ARG:HH12	1.39	0.87
26:1H:1899:G:H22	26:1H:1902:C:H5	1.20	0.87
26:14:2392:A:H2	26:14:2424:C:H42	1.18	0.87
24:3L:3:G:H1	24:3L:70:C:H42	1.22	0.87
1:13:608:A:OP2	59:13:1804:HOH:O	1.93	0.87
26:14:1676:A:OP2	59:14:3519:HOH:O	1.91	0.87
26:1H:2312:U:H5'	32:41:88:ILE:HD12	1.57	0.87
1:1G:1248:A:N3	9:82:70:LYS:NZ	2.22	0.87
26:14:690:G:OP1	59:14:3524:HOH:O	1.93	0.87
1:1G:78:G:H1	1:1G:91:C:H42	1.18	0.87
26:14:1622:G:OP2	59:14:3523:HOH:O	1.93	0.86
26:1H:1023:U:OP2	59:1H:3627:HOH:O	1.93	0.86
26:1H:800:A:OP1	59:1H:3625:HOH:O	1.91	0.86
14:5A:29:ARG:HB3	14:5A:31:ARG:H	1.39	0.86
26:14:1899:G:H21	26:14:1902:C:N4	1.73	0.86
26:1H:1021:A:H62	26:1H:1141:U:H3	1.21	0.86
26:1H:1653:G:H3'	39:98:2:ARG:HG3	1.58	0.86
29:11:37:LEU:CD1	29:11:37:LEU:H	1.85	0.86
26:14:1891:G:O6	59:14:3522:HOH:O	1.93	0.86
26:14:198:C:OP2	59:14:3526:HOH:O	1.94	0.86
26:14:205:G:OP2	59:14:3521:HOH:O	1.92	0.86
26:14:2822:G:OP2	59:14:3510:HOH:O	1.93	0.86
26:14:330:A:H2	26:14:1210:A:HO2'	1.23	0.86
26:1H:2392:A:H2	26:1H:2424:C:H42	1.22	0.86
26:1H:805:G:OP1	59:1H:3628:HOH:O	1.93	0.86
36:68:75:SER:OG	41:B8:74:ARG:NH2	2.08	0.86
26:14:1890:A:OP2	59:14:3520:HOH:O	1.92	0.86
26:14:1141:U:OP2	35:15:63:THR:OG1	1.95	0.85
1:13:362:G:N7	59:13:1817:HOH:O	2.09	0.85
1:1G:426:G:OP1	4:32:36:ARG:NH2	2.07	0.85
26:1H:847:U:OP2	59:1H:3629:HOH:O	1.93	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:664:G:H22	1:13:741:G:H1	1.24	0.85
26:14:71:A:H2	45:B5:31:HIS:HE2	1.21	0.85
26:1H:607:U:H3	26:1H:621:A:H2	1.23	0.85
27:16:81:G:OP2	59:16:301:HOH:O	1.94	0.85
19:AI:8:GLY:HA3	19:AI:9:VAL:HG13	1.56	0.85
26:1H:1639:U:OP1	59:1H:3626:HOH:O	1.92	0.85
26:14:676:A:H8	26:14:2069:G:H21	1.24	0.85
18:9I:59:SER:HB3	18:9I:62:GLU:HB2	1.59	0.85
26:1H:1676:A:OP2	59:1H:3633:HOH:O	1.95	0.85
26:14:1418:G:N7	59:14:3583:HOH:O	2.10	0.84
7:62:23:VAL:HG13	7:62:43:PHE:HE2	1.42	0.84
2:12:40:HIS:HD2	2:12:190:THR:HG21	1.42	0.84
26:14:397:G:N7	59:14:3580:HOH:O	2.09	0.84
2:1E:185:ILE:HB	2:1E:199:TYR:HB2	1.59	0.84
26:1H:929:G:O6	59:1H:3629:HOH:O	1.95	0.84
32:49:161:THR:HG22	32:49:163:ALA:H	1.42	0.84
33:51:168:PRO:HB2	33:51:170:ARG:CZ	2.07	0.84
29:11:237:GLU:OE2	59:11:401:HOH:O	1.94	0.84
26:1H:566:U:OP1	37:78:29:LYS:NZ	2.09	0.84
42:C8:92:ARG:O	42:C8:94:ASN:N	2.10	0.84
26:14:2782:G:OP2	59:14:3529:HOH:O	1.95	0.84
37:35:79:ARG:HG2	37:35:110:TYR:HB2	1.59	0.84
26:14:929:G:O6	59:14:3528:HOH:O	1.94	0.84
38:45:135:ASP:HB2	38:45:137:TYR:H	1.43	0.84
24:3K:76:A:H8	26:1H:2394:C:H42	1.24	0.84
33:51:153:LYS:HB2	33:51:155:SER:H	1.43	0.84
30:29:81:ILE:HG22	30:29:82:ARG:H	1.43	0.84
26:14:1729:A:H2'	26:14:1731:G:H22	1.41	0.84
26:1H:453:C:OP1	59:1H:3632:HOH:O	1.95	0.84
41:75:2:ASN:HB3	41:75:4:GLY:HA2	1.59	0.84
26:1H:592:G:H21	55:Q8:4:MET:CE	1.90	0.84
26:14:761:A:OP1	59:14:3532:HOH:O	1.96	0.83
2:1E:111:ARG:HG2	2:1E:111:ARG:HH11	1.43	0.83
14:5A:27:CYS:O	14:5A:29:ARG:NH2	2.11	0.83
26:14:1020:A:N6	26:14:1141:U:HO2'	1.74	0.83
26:1H:732:C:OP2	59:1H:3636:HOH:O	1.96	0.83
24:3L:76:A:H8	26:14:2394:C:H42	1.26	0.83
28:71:64:LEU:HD21	28:71:188:ASN:HD21	1.41	0.83
26:1H:1434:A:H61	26:1H:1558:A:H61	1.23	0.83
26:1H:2588:G:OP1	59:1H:3611:HOH:O	1.96	0.83
46:G8:100:ALA:HB1	46:G8:101:LYS:HG3	1.60	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1757:U:H3	26:14:1762:A:H2	1.25	0.83
27:1J:86:G:N2	27:1J:90:C:O2	2.10	0.83
40:A8:59:LYS:HG2	40:A8:60:GLY:H	1.43	0.83
26:1H:865:C:O2	59:1H:3630:HOH:O	1.94	0.83
26:14:113:G:OP1	59:14:3530:HOH:O	1.95	0.83
26:14:1680:U:O4	59:14:3533:HOH:O	1.97	0.83
26:14:733:G:OP2	59:14:3531:HOH:O	1.96	0.83
26:1H:1509:C:O2'	26:1H:1510:A:OP1	1.97	0.83
30:21:65:GLY:HA2	30:21:66:HIS:HB2	1.58	0.83
26:1H:674:G:H1'	31:31:74:ARG:HD3	1.59	0.83
51:L8:35:ARG:HB3	51:L8:37:LEU:HD21	1.60	0.83
1:1G:475:G:N7	59:1G:1816:HOH:O	2.12	0.83
8:7E:41:ARG:NH2	8:7E:123:GLU:OE1	2.12	0.83
26:14:607:U:H3	26:14:621:A:H2	1.27	0.83
26:1H:1026:U:H1'	26:1H:1027:A:O5'	1.79	0.83
26:1H:2487:G:O6	59:1H:3634:HOH:O	1.95	0.83
4:32:157:LEU:O	4:32:161:ASN:ND2	2.12	0.82
38:88:79:LEU:HD12	38:88:80:GLU:HG3	1.59	0.82
1:13:588:G:OP2	59:13:1805:HOH:O	1.94	0.82
26:14:2837:G:N7	59:14:3585:HOH:O	2.10	0.82
26:14:450:G:OP2	59:14:3536:HOH:O	1.97	0.82
26:1H:2611:U:H2'	53:N8:3:LYS:HG2	1.59	0.82
50:K8:4:SER:OG	50:K8:7:ARG:N	2.12	0.82
26:14:990:A:H8	26:14:990:A:H5'	1.44	0.82
27:16:80:U:H2'	27:16:81:G:H21	1.42	0.82
41:75:50:ILE:HD11	41:75:102:ILE:HD11	1.61	0.82
47:H8:19:ARG:NH1	47:H8:84:GLU:O	2.13	0.82
26:1H:2706:G:O6	59:1H:3631:HOH:O	1.94	0.82
26:1H:1939:U:H1'	59:1H:3612:HOH:O	1.79	0.82
26:1H:1678:G:H22	26:1H:1989:G:H22	1.28	0.82
26:1H:2501:C:OP1	59:1H:3640:HOH:O	1.97	0.82
31:31:66:PRO:O	31:31:67:GLN:HB3	1.79	0.82
26:1H:1007:C:OP2	59:1H:3638:HOH:O	1.97	0.82
26:14:2296:U:OP2	40:65:9:ARG:NH1	2.12	0.82
26:14:1364:G:OP2	49:F5:2:SER:N	2.13	0.82
26:14:2287:A:N6	26:14:2344:U:H3	1.78	0.82
1:1G:1441:G:O6	59:1G:1801:HOH:O	1.97	0.82
26:1H:1627:G:OP1	59:1H:3635:HOH:O	1.96	0.82
1:1G:542:G:OP1	4:32:10:ARG:NH2	2.12	0.82
26:1H:512:G:N7	59:1H:3719:HOH:O	2.13	0.82
26:1H:1049:C:N3	33:51:3:ARG:NH1	2.28	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:H8:165:VAL:HB	47:H8:166:SER:HA	1.62	0.82
26:1H:67:U:H3	26:1H:74:A:H2	1.27	0.82
26:1H:761:A:OP1	59:1H:3639:HOH:O	1.97	0.82
26:1H:778:G:O6	59:1H:3642:HOH:O	1.97	0.82
26:14:2024:G:O6	59:14:3534:HOH:O	1.97	0.82
26:14:78:A:N7	59:14:3596:HOH:O	2.13	0.82
30:21:101:ARG:HG2	30:21:169:ASN:OD1	1.80	0.82
31:39:123:LEU:O	31:39:125:LEU:N	2.13	0.82
26:14:907:U:O2'	38:45:101:ARG:NH2	2.12	0.82
26:1H:780:G:H21	26:1H:783:A:H62	1.26	0.81
26:1H:1453:A:OP2	59:1H:3641:HOH:O	1.97	0.81
26:1H:2593:U:O4	59:1H:3644:HOH:O	1.98	0.81
19:AI:41:VAL:HG22	19:AI:44:MET:HB2	1.61	0.81
1:1G:105:G:O6	59:1G:1802:HOH:O	1.98	0.81
26:14:879:G:N2	26:14:880:G:N7	2.29	0.81
30:29:54:GLN:HA	30:29:74:PRO:HA	1.63	0.81
9:82:5:TYR:O	9:82:87:GLN:NE2	2.13	0.81
26:1H:731:C:H5''	59:1H:3856:HOH:O	1.80	0.81
26:1H:818:G:OP2	59:1H:3637:HOH:O	1.97	0.81
44:A5:65:LEU:HD13	44:A5:68:ARG:HD3	1.63	0.81
29:11:35:LYS:HG2	29:11:35:LYS:O	1.79	0.81
26:14:2583:G:OP2	59:14:3535:HOH:O	1.97	0.81
26:1H:2762:G:N7	59:1H:3714:HOH:O	2.12	0.81
1:1G:411:A:H62	1:1G:413:G:H21	1.29	0.81
11:2I:98:LEU:O	11:2I:101:SER:OG	1.97	0.81
26:14:1314:C:OP1	59:14:3537:HOH:O	1.98	0.81
26:1H:410:G:OP2	59:1H:3651:HOH:O	1.99	0.81
12:3A:41:ARG:HB3	12:3A:41:ARG:HH11	1.43	0.81
4:3E:107:ARG:HH22	4:3E:194:LEU:HD22	1.45	0.81
35:15:73:THR:HG22	35:15:84:LYS:HB3	1.63	0.80
26:1H:1021:A:H8	26:1H:1022:G:H5''	1.46	0.80
26:1H:2503:A:OP1	59:1H:3643:HOH:O	1.98	0.80
38:45:27:VAL:HB	38:45:28:ALA:CA	2.11	0.80
26:14:2857:G:N7	59:14:3602:HOH:O	2.14	0.80
1:1G:617:G:N7	59:1G:1817:HOH:O	2.13	0.80
47:D5:30:ASN:HD22	47:D5:90:VAL:HB	1.46	0.80
1:1G:975:A:H4'	1:1G:976:G:H5''	1.62	0.80
31:39:66:PRO:O	31:39:67:GLN:HB3	1.79	0.80
26:14:1464:C:HO2'	26:14:1528:A:H8	1.26	0.80
26:14:2022:U:OP1	59:14:3539:HOH:O	1.99	0.80
26:14:2375:G:N7	59:14:3605:HOH:O	2.14	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:260:ARG:HH12	29:19:267:SER:HB3	1.46	0.80
26:1H:193:U:OP1	59:1H:3645:HOH:O	1.98	0.80
26:1H:2022:U:OP1	59:1H:3647:HOH:O	1.98	0.80
26:14:958:U:OP2	38:45:14:ARG:NH1	2.13	0.80
26:1H:1382:G:O6	59:1H:3646:HOH:O	1.98	0.80
26:1H:259:G:H21	26:1H:621:A:H8	1.29	0.80
26:1H:270(X):G:O6	59:1H:3650:HOH:O	1.99	0.80
1:13:8:A:H62	4:3E:208:SER:HB3	1.47	0.80
26:1H:1245:G:OP1	37:78:13:ASN:ND2	2.15	0.80
43:D8:65:GLY:HA3	43:D8:91:TYR:CZ	2.16	0.80
26:14:1581:G:OP2	59:14:3540:HOH:O	1.99	0.80
1:1G:500:G:N2	1:1G:545:C:O2	2.14	0.80
26:1H:2502:G:N7	59:1H:3722:HOH:O	2.13	0.80
5:4E:83:GLU:HG2	5:4E:88:LYS:HG3	1.63	0.80
33:51:4:ILE:O	33:51:6:ARG:NE	2.14	0.80
1:13:1454:G:OP1	20:BI:39:LYS:NZ	2.15	0.80
30:21:105:THR:OG1	30:21:199:ARG:NH2	2.14	0.80
26:1H:2315:G:OP1	32:41:36:LYS:NZ	2.14	0.80
26:1H:1495:A:OP2	59:1H:3652:HOH:O	2.00	0.80
26:1H:1228:G:OP2	42:C8:16:LYS:NZ	2.15	0.80
20:BI:73:HIS:HB3	20:BI:74:LYS:HG2	1.64	0.80
2:12:75:LYS:HA	2:12:78:GLN:HB2	1.62	0.80
21:1B:8:THR:HG23	21:1B:11:GLY:H	1.46	0.80
20:BI:71:THR:HG22	20:BI:72:LEU:H	1.45	0.80
1:13:542:G:OP1	4:3E:10:ARG:NH2	2.15	0.79
27:16:8:U:N3	27:16:112:G:O6	2.09	0.79
1:1G:533:A:OP1	59:1G:1805:HOH:O	2.00	0.79
26:1H:1827:C:C2'	26:1H:1828:G:H5'	2.11	0.79
41:75:64:ARG:HB2	41:75:73:GLU:HG2	1.65	0.79
41:B8:24:PRO:HD3	41:B8:52:ILE:HD12	1.63	0.79
26:14:1729:A:H2'	26:14:1731:G:N2	1.97	0.79
50:G5:47:ASN:O	50:G5:49:LYS:N	2.14	0.79
1:13:1292:U:OP1	7:6E:41:ARG:NH2	2.14	0.79
26:14:780:G:H21	26:14:783:A:H62	1.31	0.79
26:1H:991:C:OP2	59:1H:3656:HOH:O	2.01	0.79
50:K8:3:LEU:HB3	50:K8:5:GLU:H	1.47	0.79
29:11:35:LYS:HZ2	29:11:35:LYS:N	1.79	0.79
26:1H:2032:G:H21	30:21:146:THR:HG23	1.45	0.79
26:1H:2600:A:N6	59:1H:3644:HOH:O	2.14	0.79
26:1H:2751:G:OP2	33:51:4:ILE:HD13	1.80	0.79
26:1H:1456:G:OP2	59:1H:3658:HOH:O	2.01	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:576:G:OP1	59:13:1807:HOH:O	2.00	0.79
26:14:1022:G:H22	26:14:1142(A):A:H2	1.30	0.79
26:14:1970:A:OP2	59:14:3538:HOH:O	1.99	0.79
22:1K:48:C:H1'	22:1K:49:G:C8	2.17	0.79
26:14:1021:A:N6	26:14:1141:U:O2	2.16	0.79
1:1G:607:A:OP1	59:1G:1804:HOH:O	2.00	0.79
29:11:242:ARG:O	59:11:402:HOH:O	2.00	0.79
1:13:366:C:N3	59:13:1824:HOH:O	2.15	0.79
26:14:530:G:N2	59:14:3611:HOH:O	2.16	0.79
26:1H:1016:G:N7	59:1H:3723:HOH:O	2.13	0.79
26:1H:71:A:H2	45:F8:31:HIS:HE2	1.29	0.79
2:12:22:LYS:HB3	2:12:40:HIS:HE1	1.48	0.79
1:13:601:C:H2'	1:13:602:A:H8	1.47	0.79
26:14:392:C:OP1	59:14:3504:HOH:O	2.01	0.79
10:1A:51:ARG:HB2	10:1A:60:ARG:HA	1.64	0.79
1:1G:1534:A:N6	25:4L:10:G:O6	2.16	0.79
26:14:1970:A:OP1	59:14:3541:HOH:O	2.00	0.79
32:49:125:PHE:HB3	32:49:166:ASP:HB2	1.64	0.79
1:13:235:C:H5'	17:8I:70:ARG:HG2	1.65	0.79
1:1G:780:A:OP2	59:1G:1803:HOH:O	1.99	0.78
26:1H:2035:G:OP1	59:1H:3654:HOH:O	2.00	0.78
52:M8:13:ARG:HH12	52:M8:22:ILE:HG23	1.48	0.78
1:1G:1321:C:H41	1:1G:1322:C:H41	1.32	0.78
26:1H:2354:G:N7	59:1H:3730:HOH:O	2.14	0.78
1:1G:1349:A:OP2	9:82:118:LYS:NZ	2.16	0.78
27:16:42:C:O2'	32:41:67:LYS:HE3	1.84	0.78
29:11:235:GLY:O	59:11:403:HOH:O	2.01	0.78
26:14:2439:A:OP2	59:14:3542:HOH:O	2.01	0.78
26:1H:780:G:H21	26:1H:783:A:N6	1.79	0.78
5:42:142:LEU:O	5:42:143:ARG:NH1	2.16	0.78
1:1G:192:U:H2'	1:1G:193:C:H6	1.47	0.78
4:32:31:CYS:HB3	57:32:302:SF4:S2	2.23	0.78
41:B8:57:PHE:O	41:B8:58:ASN:ND2	2.17	0.78
49:F5:91:LYS:HB2	49:F5:91:LYS:NZ	1.97	0.78
26:1H:730:C:OP2	59:1H:3639:HOH:O	2.00	0.78
24:3K:53:G:N2	24:3K:61:C:N3	2.32	0.78
32:41:67:LYS:HE2	52:M8:6:HIS:CE1	2.19	0.78
1:13:837:G:OP2	1:13:842:C:N4	2.17	0.78
26:1H:2588:G:OP2	59:1H:3655:HOH:O	2.01	0.78
38:45:27:VAL:CG2	38:45:28:ALA:HA	2.13	0.78
13:4I:23:TYR:HB3	13:4I:67:GLU:HB2	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1435:G:H2'	1:1G:1436:U:C6	2.19	0.78
26:1H:676:A:H8	26:1H:2069:G:H21	1.28	0.78
1:13:673:G:H2'	1:13:674:G:C8	2.19	0.78
26:14:2035:G:OP1	59:14:3544:HOH:O	2.02	0.78
1:1G:54:C:N4	1:1G:353:A:OP2	2.17	0.78
26:1H:2392:A:H8	37:78:61:ARG:HB3	1.48	0.78
50:K8:41:ILE:HD13	50:K8:44:LEU:HG	1.66	0.78
31:31:6:VAL:N	31:31:24:LEU:O	2.17	0.78
40:65:30:ARG:HG3	40:65:35:ILE:HD12	1.66	0.77
47:D5:53:ILE:HG22	47:D5:71:VAL:HG23	1.65	0.77
26:14:730:C:H3'	59:14:4275:HOH:O	1.83	0.77
26:1H:2314:C:H2'	26:1H:2315:G:H8	1.49	0.77
26:1H:2400:G:H2'	26:1H:2401:U:H6	1.50	0.77
30:21:105:THR:HG22	30:21:106:GLY:H	1.49	0.77
4:32:23:GLY:N	4:32:26:CYS:SG	2.53	0.77
26:14:993:G:OP1	42:85:50:ARG:NH2	2.17	0.77
1:1G:1298:C:O2'	1:1G:1299:A:OP2	2.01	0.77
26:1H:1164:G:H2'	26:1H:1165:U:C6	2.19	0.77
50:K8:42:GLY:O	50:K8:44:LEU:N	2.17	0.77
1:13:1304:G:OP2	59:13:1808:HOH:O	2.02	0.77
26:14:2295:C:OP1	40:65:10:ARG:NH1	2.16	0.77
26:1H:1815:A:O2'	59:1H:3653:HOH:O	2.00	0.77
26:1H:2074:U:P	59:1H:3616:HOH:O	2.42	0.77
8:7E:120:THR:H	8:7E:123:GLU:HG3	1.48	0.77
2:1E:198:ASP:N	2:1E:198:ASP:OD1	2.18	0.77
33:51:149:ARG:NH1	33:51:167:GLU:OE2	2.15	0.77
19:AI:41:VAL:HG11	19:AI:45:VAL:HG23	1.66	0.77
2:12:223:ILE:HA	2:12:224:GLN:HG3	1.67	0.77
1:13:1306:A:H61	1:13:1331:G:H1'	1.49	0.77
26:14:602:G:HO2'	26:14:604:G:HO2'	1.26	0.77
26:1H:450:G:OP2	59:1H:3659:HOH:O	2.01	0.77
27:1J:44:G:O2'	27:1J:47:C:N4	2.18	0.77
11:2I:79:SER:HB2	11:2I:106:LYS:HD2	1.65	0.77
41:75:24:PRO:HD3	41:75:52:ILE:HD12	1.65	0.77
1:13:812:C:N3	59:13:1828:HOH:O	2.17	0.77
26:14:2228:G:OP1	29:19:261:LYS:NZ	2.18	0.77
26:1H:1525:G:H2'	26:1H:1526:G:C8	2.20	0.77
26:1H:974(A):C:OP1	59:1H:3660:HOH:O	2.02	0.77
26:1H:2310:A:H62	32:41:79:ASN:ND2	1.83	0.77
33:51:10:PRO:HD2	33:51:50:VAL:O	1.85	0.77
37:78:45:LEU:HD12	37:78:46:LYS:H	1.49	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2402:C:H1'	26:1H:2403:C:H5	1.48	0.77
26:14:2822:G:OP2	59:14:3550:HOH:O	2.03	0.77
1:1G:176:C:OP1	20:BA:29:LYS:NZ	2.17	0.77
10:1I:61:GLU:OE1	14:5I:58:LYS:NZ	2.17	0.77
9:82:28:VAL:HG22	9:82:63:ILE:HB	1.67	0.77
1:13:1314:C:OP2	19:AI:4:SER:OG	2.02	0.77
47:H8:165:VAL:HB	47:H8:167:PRO:HD3	1.66	0.77
26:14:2063:C:OP1	59:14:3552:HOH:O	2.03	0.77
26:14:2789:C:O2	26:14:2894:G:N2	2.18	0.77
26:1H:1899:G:H1	26:1H:1902:C:N4	1.83	0.77
26:1H:326:G:N7	59:1H:3750:HOH:O	2.17	0.77
12:3A:70:ILE:HD13	12:3A:77:LEU:HD12	1.64	0.77
38:45:28:ALA:HB3	38:45:105:GLU:CD	2.05	0.77
7:6E:15:ASP:HB3	7:6E:20:ASP:H	1.49	0.77
1:13:191(F):U:H2'	1:13:191:G:H8	1.48	0.76
1:13:515:G:O6	59:13:1811:HOH:O	2.03	0.76
26:14:1689:A:H62	26:14:1698:A:H2	1.33	0.76
26:1H:2753:A:OP2	59:1H:3665:HOH:O	2.03	0.76
26:14:2304:G:N7	59:14:3620:HOH:O	2.18	0.76
26:14:1138:G:H21	35:15:106:MET:HE3	1.50	0.76
26:1H:1633:G:OP2	59:1H:3662:HOH:O	2.03	0.76
1:13:1297:C:OP1	13:4I:13:LYS:NZ	2.18	0.76
8:7E:82:HIS:NE2	8:7E:136:GLU:OE2	2.16	0.76
50:K8:4:SER:HB3	50:K8:7:ARG:HG2	1.66	0.76
26:14:1332:G:OP1	59:14:3537:HOH:O	2.01	0.76
26:14:329:G:H1	46:C5:19:LYS:HZ3	1.31	0.76
36:25:2:ILE:HD12	36:25:6:THR:HG21	1.66	0.76
24:3K:22:G:N7	24:3K:46:G:N1	2.33	0.76
1:1G:1204:A:OP1	14:5A:3:ARG:NH1	2.18	0.76
26:1H:2129:C:OP2	28:7I:36:LYS:NZ	2.18	0.76
52:M8:45:GLY:O	52:M8:47:GLN:NE2	2.18	0.76
35:15:56:ASN:H	35:15:125:GLY:HA3	1.49	0.76
1:1G:620:C:OP1	59:1G:1806:HOH:O	2.01	0.76
42:85:91:ASP:OD1	42:85:96:ALA:HB2	1.86	0.76
41:B8:11:GLU:HG2	41:B8:57:PHE:HD2	1.48	0.76
50:K8:3:LEU:HB3	50:K8:5:GLU:N	2.00	0.76
1:13:1305:G:H22	1:13:1331:G:H2'	1.51	0.76
26:1H:945:A:N3	59:1H:3757:HOH:O	2.18	0.76
33:59:54:ARG:NH2	33:59:57:ASP:OD1	2.18	0.76
26:14:459:U:H5''	54:L5:40:TRP:CD2	2.19	0.76
1:13:550:G:OP1	59:13:1809:HOH:O	2.03	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1495:A:OP2	59:14:3545:HOH:O	2.02	0.76
49:J8:17:SER:OG	59:J8:101:HOH:O	2.04	0.76
1:13:1500:A:OP1	59:13:1812:HOH:O	2.04	0.76
26:14:530:G:N1	59:14:3539:HOH:O	2.18	0.76
26:14:762:U:OP1	59:14:3554:HOH:O	2.04	0.76
1:1G:599:C:O2	1:1G:639:G:N2	2.18	0.76
26:1H:2001:A:H2'	26:1H:2002:G:C8	2.21	0.76
41:75:77:PRO:HG2	41:75:80:SER:HB3	1.66	0.76
26:14:948:G:O6	59:14:3547:HOH:O	2.03	0.76
2:1E:16:HIS:CD2	2:1E:214:ILE:HD11	2.21	0.76
1:1G:1198:G:OP2	59:1G:1807:HOH:O	2.02	0.76
26:1H:1346:G:OP2	59:1H:3664:HOH:O	2.03	0.76
26:1H:2111:C:N4	26:1H:2147:G:O6	2.18	0.76
34:61:110:ASP:OD1	34:61:110:ASP:N	2.19	0.76
20:BA:12:ALA:O	20:BA:15:ARG:N	2.12	0.76
26:1H:2502:G:OP2	59:1H:3661:HOH:O	2.03	0.76
32:41:77:ILE:HG22	32:41:82:LEU:HD12	1.66	0.76
1:13:345:C:H41	36:68:116:SER:HB2	1.51	0.76
9:82:112:LYS:HE3	9:82:118:LYS:H	1.51	0.76
1:13:1130:A:O2'	9:8E:3:GLN:NE2	2.18	0.76
26:14:731:C:OP2	59:14:3501:HOH:O	2.04	0.76
1:13:963:G:N2	10:1I:55:LYS:HZ1	1.84	0.76
1:1G:1238:A:H62	1:1G:1301:U:H3	1.33	0.75
11:2A:98:LEU:O	11:2A:101:SER:OG	2.05	0.75
11:2I:121:PRO:HG2	11:2I:126:ARG:HG2	1.68	0.75
31:31:29:ASN:H	31:31:112:MET:CE	2.00	0.75
7:62:64:GLN:O	7:62:68:ASN:ND2	2.18	0.75
29:19:227:ASN:OD1	59:19:301:HOH:O	2.01	0.75
29:19:31:LYS:NZ	29:19:33:LEU:HB3	2.01	0.75
26:1H:375:C:OP1	59:1H:3672:HOH:O	2.04	0.75
31:39:103:LYS:HA	31:39:106:ARG:HG3	1.68	0.75
47:H8:128:VAL:HB	47:H8:161:VAL:HG12	1.66	0.75
37:78:63:PRO:HB2	55:Q8:30:ARG:HH21	1.49	0.75
26:1H:2287:A:C2	26:1H:2346:A:H2	2.04	0.75
27:1J:15:A:H1'	27:1J:109:G:C8	2.21	0.75
39:55:20:LEU:HD21	39:55:40:LYS:HD3	1.67	0.75
26:14:2588:G:OP1	59:14:3551:HOH:O	2.03	0.75
1:1G:1497:G:H2'	1:1G:1498:U:H5'	1.65	0.75
26:1H:1951:U:O4	59:1H:3673:HOH:O	2.04	0.75
30:21:36:ARG:NH1	30:21:85:ASN:OD1	2.19	0.75
30:29:55:ASN:O	30:29:57:LYS:N	2.16	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:157:VAL:HB	31:39:194:MET:HG3	1.68	0.75
5:4E:11:ILE:HD11	5:4E:31:LEU:HD13	1.66	0.75
1:13:974:A:OP2	14:5I:41:ARG:NH1	2.19	0.75
1:1G:581:G:N7	59:1G:1827:HOH:O	2.18	0.75
26:1H:2352:A:OP2	59:1H:3668:HOH:O	2.04	0.75
23:2L:24:C:H2'	23:2L:25:U:H6	1.51	0.75
26:14:1614:A:OP2	59:14:3555:HOH:O	2.04	0.75
26:14:376:C:OP1	59:14:3559:HOH:O	2.04	0.75
26:1H:1827:C:H2'	26:1H:1828:G:H5'	1.67	0.75
26:14:2148:G:H2'	26:14:2149:G:H8	1.50	0.75
26:14:495:G:N7	59:14:3633:HOH:O	2.20	0.75
1:1G:1008:C:H42	1:1G:1021:G:H1	1.35	0.75
37:35:98:GLU:HA	37:35:101:VAL:HG12	1.69	0.75
34:69:98:ALA:HA	34:69:109:ILE:HD11	1.67	0.75
50:K8:14:ARG:HB3	50:K8:15:LYS:HZ3	1.52	0.75
13:4I:49:THR:HG22	13:4I:51:ALA:H	1.51	0.75
1:13:509:A:OP2	59:13:1810:HOH:O	2.03	0.75
26:14:1678:G:H22	26:14:1989:G:H22	1.32	0.75
26:1H:249:C:O2	55:Q8:12:LYS:NZ	2.20	0.75
26:1H:270(E):G:H1	26:1H:270(U):C:H42	1.33	0.75
26:1H:2729:G:H1'	30:21:187:ALA:HB2	1.69	0.75
26:1H:543:C:N4	26:1H:550:G:O6	2.17	0.75
30:29:60:ASN:HB2	30:29:62:PRO:HD2	1.68	0.75
23:2K:62:C:H2'	23:2K:63:C:H6	1.51	0.75
1:13:509:A:N1	59:13:1837:HOH:O	2.21	0.74
26:14:1434:A:H61	26:14:1558:A:H62	1.34	0.74
26:14:2267:A:OP2	59:14:3563:HOH:O	2.05	0.74
26:1H:1010:A:OP2	59:1H:3670:HOH:O	2.04	0.74
26:1H:1359:A:H2	26:1H:1372:U:O4	1.69	0.74
26:1H:1406:U:H2'	26:1H:1407:C:C6	2.22	0.74
29:11:35:LYS:NZ	29:11:35:LYS:H	1.85	0.74
1:13:1126:U:C4	1:13:1127:G:C5	2.76	0.74
1:13:454:C:OP1	16:7I:75:ARG:NH2	2.20	0.74
47:D5:101:PRO:HB2	47:D5:102:LEU:HB2	1.68	0.74
55:M5:40:GLU:HA	55:M5:43:GLN:HB3	1.69	0.74
26:14:784:A:OP1	59:14:3556:HOH:O	2.04	0.74
26:1H:1607:C:H4'	26:1H:1608:A:O5'	1.87	0.74
24:3L:15:G:H22	24:3L:48:C:H41	1.33	0.74
2:12:40:HIS:CD2	2:12:190:THR:HG21	2.23	0.74
1:13:780:A:OP2	59:13:1814:HOH:O	2.05	0.74
1:13:939:G:N7	59:13:1834:HOH:O	2.20	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1162:C:H42	1:1G:1174:G:H1	1.34	0.74
12:3A:52:LEU:O	12:3A:54:LYS:NZ	2.21	0.74
33:51:98:LEU:HD13	33:51:125:VAL:HG23	1.69	0.74
26:14:1653:G:H3'	39:55:2:ARG:HG2	1.70	0.74
15:6I:26:GLU:OE2	15:6I:77:ARG:NH1	2.20	0.74
26:14:450:G:O6	59:14:3548:HOH:O	2.03	0.74
27:16:25:A:OP1	59:16:303:HOH:O	2.05	0.74
10:1A:28:ARG:NH2	10:1A:34:VAL:O	2.21	0.74
26:1H:802:A:OP1	59:1H:3669:HOH:O	2.04	0.74
19:AI:41:VAL:HG12	19:AI:42:PRO:CA	2.16	0.74
1:13:601:C:H2'	1:13:602:A:C8	2.21	0.74
1:1G:1300:G:O2'	1:1G:1301:U:O5'	2.06	0.74
26:1H:365:C:OP2	59:1H:3667:HOH:O	2.04	0.74
1:13:438:G:H4'	4:3E:123:HIS:CD2	2.22	0.74
13:4I:15:VAL:O	13:4I:19:LEU:HD23	1.88	0.74
1:13:153:C:H42	1:13:168:G:H1	1.32	0.74
26:1H:2233:U:H2'	26:1H:2234:G:C8	2.22	0.74
26:1H:2789:C:O2	26:1H:2894:G:N2	2.17	0.74
5:42:102:ALA:HB1	5:42:106:PRO:HG2	1.69	0.74
8:7E:121:ASP:HB2	8:7E:125:ARG:NH2	2.02	0.74
26:14:1357:U:O4	59:14:3543:HOH:O	2.01	0.74
26:14:2685:G:O6	59:14:3565:HOH:O	2.05	0.74
26:14:2791:C:N4	26:14:2802:G:O6	2.20	0.74
26:14:94:G:H21	50:G5:47:ASN:HD22	1.35	0.74
26:1H:409:C:OP1	59:1H:3671:HOH:O	2.04	0.74
32:41:66:GLN:OE1	32:41:98:ARG:NH1	2.21	0.74
1:13:376:G:H5''	16:7I:5:ARG:HD2	1.70	0.74
19:AA:66:MET:SD	19:AA:66:MET:N	2.60	0.74
51:L8:8:LEU:HB2	51:L8:28:LEU:HD22	1.69	0.74
1:13:353:A:H5'	1:13:353:A:H8	1.53	0.74
1:1G:1206:G:OP1	3:22:190:ARG:NH2	2.19	0.74
26:1H:879:G:N2	26:1H:880:G:N3	2.35	0.74
26:1H:1800:C:OP2	29:11:183:ARG:NH2	2.21	0.74
26:1H:1164:G:H2'	26:1H:1165:U:H6	1.53	0.74
26:1H:1899:G:N2	26:1H:1902:C:H5	1.85	0.74
31:31:160:ASN:HD22	31:31:163:VAL:HG23	1.51	0.74
26:14:2012:G:OP1	44:A5:11:ARG:NH2	2.21	0.74
43:D8:24:LYS:HA	43:D8:92:THR:HG23	1.70	0.74
1:13:1367:C:H5'	10:1I:60:ARG:HH11	1.51	0.73
26:14:463:G:OP2	59:14:3558:HOH:O	2.04	0.73
26:14:792:G:OP2	59:14:3566:HOH:O	2.05	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1064:C:N4	26:1H:1070:A:OP1	2.21	0.73
26:1H:942:G:O6	59:1H:3677:HOH:O	2.06	0.73
30:21:60:ASN:ND2	30:21:63:LEU:HB2	2.03	0.73
24:3L:9:A:H5'	24:3L:11:C:H41	1.52	0.73
1:13:590:C:O3'	8:7E:30:ARG:NH1	2.20	0.73
42:85:34:LYS:NZ	42:85:37:GLU:OE1	2.20	0.73
39:98:107:ASP:HB3	39:98:109:ALA:H	1.52	0.73
19:AA:7:LYS:HB2	19:AA:8:GLY:HA2	1.70	0.73
19:AI:11:VAL:HG11	19:AI:16:LEU:HD22	1.68	0.73
26:14:1268:A:OP1	59:14:3553:HOH:O	2.04	0.73
26:14:900:A:H2'	26:14:901:A:C8	2.21	0.73
1:1G:976:G:N2	1:1G:1362(A):C:OP2	2.14	0.73
26:1H:1297:C:OP1	26:1H:2710:C:H4'	1.88	0.73
15:6I:39:LEU:HB3	15:6I:56:LEU:HD12	1.68	0.73
1:13:1348:U:H3	1:13:1374:A:H2	1.35	0.73
2:1E:19:HIS:HE2	2:1E:206:ASP:HB2	1.54	0.73
26:1H:142:G:H1'	45:F8:37:THR:HG21	1.71	0.73
26:1H:1557:C:OP2	26:1H:1558:A:O2'	2.05	0.73
26:1H:270(L):U:C2	34:61:50:ARG:HG2	2.22	0.73
5:42:91:LEU:HD23	5:42:120:THR:HG22	1.70	0.73
5:42:122:GLU:O	5:42:126:ARG:NH1	2.22	0.73
41:75:54:ARG:HA	41:75:59:THR:HB	1.70	0.73
37:78:18:ARG:HG3	37:78:18:ARG:HH21	1.53	0.73
1:13:659:U:H2'	1:13:660:G:C8	2.23	0.73
26:14:1997:G:OP2	59:14:3562:HOH:O	2.05	0.73
26:14:2582:G:OP2	59:14:3564:HOH:O	2.05	0.73
26:1H:393:C:OP2	59:1H:3682:HOH:O	2.07	0.73
13:4I:23:TYR:CE2	13:4I:71:ARG:HG3	2.23	0.73
9:82:10:ARG:HD3	9:82:11:LYS:HB2	1.70	0.73
52:M8:39:CYS:HB3	52:M8:41:PRO:HD2	1.71	0.73
2:12:22:LYS:HB3	2:12:40:HIS:CE1	2.23	0.73
1:13:1347:G:H5''	9:8E:107:ARG:HB3	1.70	0.73
1:1G:278:G:OP2	17:8A:92:ARG:NH2	2.17	0.73
26:1H:704:G:O6	59:1H:3681:HOH:O	2.07	0.73
27:1J:80:U:H2'	27:1J:81:G:N2	2.03	0.73
26:14:1952:A:C6	36:25:22:ILE:HD11	2.22	0.73
39:55:57:ARG:NE	39:55:59:ASP:OD1	2.17	0.73
35:58:96:GLU:O	35:58:98:VAL:N	2.20	0.73
46:C5:97:ARG:NH1	46:C5:104:GLY:O	2.22	0.73
43:D8:16:PRO:HA	43:D8:96:ILE:HG22	1.69	0.73
48:E5:12:ASN:HA	48:E5:14:ARG:HH21	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:37:LEU:HD12	29:19:37:LEU:H	1.53	0.73
31:31:185:ASP:OD1	31:31:188:ARG:NH1	2.21	0.73
26:14:517:C:OP1	53:J5:16:ARG:NH2	2.20	0.73
1:13:1125:U:HO2'	1:13:1126:U:H6	1.34	0.73
1:13:652:U:O2'	1:13:653:A:O5'	2.06	0.73
26:1H:1006:C:OP2	59:1H:3675:HOH:O	2.05	0.73
26:1H:135:G:O6	59:1H:3663:HOH:O	2.03	0.73
26:1H:2698:U:N3	26:1H:2709:G:O6	2.19	0.73
22:1L:76:A:H2'	26:14:2584:U:HI1'	1.71	0.73
4:32:173:TRP:HB3	4:32:187:ARG:HH11	1.52	0.73
38:88:66:ILE:O	38:88:104:PHE:N	2.21	0.73
2:12:91:PRO:HG2	2:12:155:LEU:HG	1.71	0.73
1:13:1292:U:H2'	1:13:1293:G:H8	1.52	0.73
26:14:1434:A:H61	26:14:1558:A:N6	1.87	0.73
26:14:1778:U:H2'	26:14:1784:A:N6	2.03	0.73
26:1H:1380:G:O6	59:1H:3683:HOH:O	2.07	0.73
26:1H:176:G:O2'	26:1H:177:G:H5'	1.89	0.73
26:1H:733:G:N7	59:1H:3766:HOH:O	2.19	0.73
24:3K:6:G:N2	24:3K:67:C:O2	2.16	0.73
1:13:1391:U:H2'	1:13:1392:G:C8	2.24	0.73
1:1G:1266:G:N2	1:1G:1270:C:N3	2.36	0.73
26:1H:2469:A:H2	26:1H:2481:G:H21	1.37	0.73
26:1H:286:C:H2'	26:1H:287:C:H6	1.54	0.73
36:25:68:GLU:OE2	36:25:78:ARG:NH1	2.22	0.73
12:3A:49:ASN:ND2	12:3A:92:ASP:OD2	2.22	0.73
42:85:28:ARG:NH1	42:85:38:THR:OG1	2.21	0.73
1:13:1239:A:H62	1:13:1299:A:H62	1.34	0.73
26:14:1229:G:O6	59:14:3567:HOH:O	2.05	0.73
1:1G:316:G:OP2	1:1G:351:G:O2'	2.05	0.73
26:1H:1629:U:O4	59:1H:3685:HOH:O	2.07	0.73
26:1H:973:A:OP2	59:1H:3674:HOH:O	2.05	0.73
30:21:171:GLU:HG2	30:21:185:LYS:HE3	1.71	0.73
47:H8:108:PRO:HB2	47:H8:112:ARG:HA	1.71	0.73
50:K8:15:LYS:HZ2	50:K8:15:LYS:H	1.35	0.73
29:11:146:GLU:HB2	29:11:189:CYS:HB3	1.71	0.72
1:13:767:A:H3'	59:13:1803:HOH:O	1.87	0.72
1:13:964:A:OP1	59:13:1813:HOH:O	2.05	0.72
3:22:87:LEU:HD12	3:22:88:ARG:HH21	1.54	0.72
26:1H:2310:A:N6	32:41:79:ASN:HD22	1.87	0.72
42:C8:88:ILE:O	42:C8:90:VAL:N	2.22	0.72
46:G8:87:LYS:HB2	46:G8:96:ILE:HD11	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:89:G:H3'	26:14:90:U:H5'	1.68	0.72
26:1H:2275:C:H5'	26:1H:2275:C:H6	1.54	0.72
26:1H:2445:G:N7	59:1H:3787:HOH:O	2.22	0.72
26:1H:773:U:OP1	59:1H:3680:HOH:O	2.07	0.72
26:14:2277:G:OP2	48:E5:12:ASN:ND2	2.22	0.72
26:14:2713:A:OP2	59:14:3570:HOH:O	2.07	0.72
26:14:259:G:H21	26:14:621:A:H8	1.36	0.72
26:1H:1900:A:H5'	26:1H:1900:A:H8	1.54	0.72
26:1H:607:U:OP1	31:31:102:PRO:HA	1.89	0.72
26:1H:800:A:P	59:1H:3625:HOH:O	2.47	0.72
13:4I:34:LEU:HD13	13:4I:41:PRO:HA	1.69	0.72
19:AI:3:ARG:HE	19:AI:9:VAL:CG1	1.98	0.72
1:13:1348:U:H4'	9:8E:120:ARG:HD2	1.71	0.72
26:14:876:C:H42	26:14:899:A:H62	1.33	0.72
29:19:31:LYS:HZ3	29:19:33:LEU:HB3	1.55	0.72
1:1G:62:U:O4	59:1G:1808:HOH:O	2.04	0.72
26:1H:1022:G:N2	26:1H:1023:U:O4	2.21	0.72
30:29:54:GLN:NE2	30:29:55:ASN:O	2.23	0.72
26:14:1796:U:H2'	26:14:1797:C:C6	2.24	0.72
26:1H:1061:U:H4'	26:1H:1070:A:H1'	1.71	0.72
26:1H:1138:G:H21	35:58:106:MET:HE3	1.54	0.72
26:1H:1535:U:OP2	26:1H:1538:G:N2	2.22	0.72
26:1H:2210:G:H3'	26:1H:2211:G:C5	2.23	0.72
26:1H:424:G:N7	59:1H:3773:HOH:O	2.20	0.72
3:22:152:ILE:HG12	3:22:167:TRP:HB2	1.70	0.72
1:1G:448:A:P	1:1G:485:G:H22	2.13	0.72
1:1G:8:A:C6	4:32:209:ARG:HB2	2.25	0.72
26:1H:731:C:OP1	59:1H:3684:HOH:O	2.07	0.72
4:32:96:LEU:HD13	4:32:139:ARG:HH12	1.55	0.72
12:3A:39:VAL:HG23	12:3A:57:LYS:HD3	1.70	0.72
8:72:120:THR:HG22	8:72:123:GLU:H	1.54	0.72
4:32:168:ARG:NH1	4:32:169:LYS:O	2.23	0.72
8:72:12:ARG:HH21	8:72:27:PRO:HD3	1.53	0.72
47:H8:7:ALA:HB2	47:H8:59:LEU:HD22	1.72	0.72
26:14:731:C:OP2	59:14:3569:HOH:O	2.07	0.72
3:22:18:TRP:HE3	3:22:18:TRP:H	1.37	0.72
38:45:27:VAL:HG23	38:45:28:ALA:HA	1.70	0.72
32:49:39:ILE:HG12	32:49:157:ILE:HG23	1.72	0.72
16:7I:47:ASP:N	16:7I:47:ASP:OD1	2.20	0.72
26:1H:2879:C:OP2	59:1H:3686:HOH:O	2.07	0.72
24:3L:52:G:H22	28:79:53:ARG:HH12	1.38	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8I:22:LEU:HD11	17:8I:39:SER:HB3	1.71	0.72
32:41:112:PRO:CB	52:M8:37:SER:H	2.02	0.72
2:12:56:ARG:O	2:12:56:ARG:NH1	2.23	0.72
1:13:1003:G:H1	1:13:1037:C:H42	1.38	0.72
1:1G:1345:U:OP2	59:1G:1809:HOH:O	2.06	0.72
2:12:91:PRO:HG3	2:12:154:LEU:HB2	1.72	0.71
26:14:1022:G:O2'	26:14:1023:U:OP2	2.08	0.71
26:1H:1055:G:O2'	26:1H:1086:A:N6	2.23	0.71
26:1H:1320:C:O2'	59:1H:3679:HOH:O	2.06	0.71
26:14:2572:A:C8	30:29:144:ARG:HD2	2.23	0.71
10:1I:49:VAL:HG23	14:5I:41:ARG:HB2	1.71	0.71
15:6A:16:ALA:HB1	15:6A:21:ASP:HB3	1.71	0.71
26:14:2698:U:O4	59:14:3577:HOH:O	2.08	0.71
38:88:109:VAL:HG13	38:88:113:GLN:HB3	1.71	0.71
1:13:976:G:N2	1:13:1362(A):C:OP2	2.21	0.71
26:14:2256:G:N7	59:14:3653:HOH:O	2.22	0.71
1:1G:557:G:OP1	59:1G:1810:HOH:O	2.06	0.71
26:1H:2061:G:H5'	59:1H:3661:HOH:O	1.89	0.71
41:B8:12:SER:HA	41:B8:14:TYR:H	1.53	0.71
26:14:529:A:H4'	26:14:530:G:H5'	1.71	0.71
29:19:133:LEU:HD13	29:19:173:VAL:HG11	1.72	0.71
2:1E:16:HIS:CE1	2:1E:213:LEU:HD12	2.19	0.71
26:1H:76:C:O2'	50:K8:62:THR:HG21	1.89	0.71
10:1I:86:MET:SD	10:1I:86:MET:N	2.63	0.71
33:59:159:GLU:O	33:59:163:TYR:OH	2.09	0.71
26:14:2294:C:P	40:65:89:ARG:HH22	2.12	0.71
1:1G:1095:U:P	1:1G:1108:G:H1	2.12	0.71
1:1G:1154:G:H2'	1:1G:1155:G:H8	1.54	0.71
26:1H:868:U:O4	59:1H:3630:HOH:O	2.08	0.71
10:1I:40:LEU:HB2	10:1I:69:ASN:HB2	1.70	0.71
31:39:24:LEU:HD21	31:39:119:ARG:HB3	1.73	0.71
1:13:129(A):G:H4'	1:13:130:A:H5''	1.71	0.71
1:1G:826:C:O2	1:1G:874:G:N2	2.17	0.71
26:1H:1328:G:N7	59:1H:3785:HOH:O	2.22	0.71
26:1H:2130:U:P	28:71:6:ARG:HH22	2.13	0.71
26:1H:2712(A):A:OP2	59:1H:3604:HOH:O	2.08	0.71
26:1H:2751:G:N7	33:51:3:ARG:CZ	2.53	0.71
26:1H:275:G:N2	26:1H:276:A:N7	2.38	0.71
26:1H:963:U:OP1	59:1H:3689:HOH:O	2.08	0.71
26:1H:2636:U:P	30:21:79:ARG:HG2	2.31	0.71
30:29:116:VAL:O	30:29:117:MET:HB3	1.88	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:19:ALA:HA	11:2I:32:ILE:HG22	1.72	0.71
8:72:121:ASP:OD1	8:72:125:ARG:NH2	2.23	0.71
29:19:273:ARG:O	29:19:273:ARG:HG2	1.91	0.71
1:1G:448:A:OP2	1:1G:485:G:N2	2.22	0.71
1:1G:490:G:P	4:32:132:ARG:HH22	2.13	0.71
4:32:15:GLU:OE1	4:32:66:ARG:NH1	2.24	0.71
4:3E:83:SER:HA	4:3E:85:LYS:HZ3	1.55	0.71
4:3E:98:GLU:O	4:3E:103:ASN:ND2	2.23	0.71
13:4I:23:TYR:HD2	13:4I:67:GLU:HA	1.55	0.71
22:1K:74:C:H42	26:1H:2508:G:H5'	1.56	0.71
13:4I:107:ALA:HB3	13:4I:111:LYS:HD3	1.71	0.71
35:58:56:ASN:N	35:58:125:GLY:O	2.16	0.71
41:B8:11:GLU:HG2	41:B8:57:PHE:CD2	2.25	0.71
26:14:1246:A:OP2	59:14:3571:HOH:O	2.07	0.71
26:14:761:A:OP2	59:14:3574:HOH:O	2.08	0.71
27:16:7:G:H4'	40:A8:29:PHE:CD2	2.25	0.71
26:1H:1632:A:OP2	59:1H:3688:HOH:O	2.07	0.71
45:F8:11:PRO:HB3	45:F8:92:LEU:HD21	1.73	0.71
26:14:1020:A:N6	26:14:1141:U:O2'	2.22	0.71
26:14:1633:G:O6	59:14:3578:HOH:O	2.09	0.71
1:1G:854:G:O6	59:1G:1812:HOH:O	2.08	0.71
26:1H:422:A:OP2	59:1H:3695:HOH:O	2.09	0.71
23:2L:24:C:H2'	23:2L:25:U:C6	2.25	0.71
32:49:6:ALA:O	32:49:9:ARG:N	2.24	0.71
50:G5:4:SER:H	50:G5:6:VAL:HG13	1.55	0.71
26:14:452:G:OP2	59:14:3568:HOH:O	2.07	0.70
26:1H:1332:G:H21	26:1H:1610:A:H8	1.38	0.70
14:5I:23:ARG:HD2	14:5I:28:GLY:O	1.91	0.70
26:1H:958:U:OP2	38:88:14:ARG:NH1	2.24	0.70
20:BA:51:GLU:HA	20:BA:54:LYS:HE3	1.72	0.70
26:1H:1903:G:OP1	29:11:241:PRO:HB2	1.91	0.70
2:12:19:HIS:CE1	2:12:204:ASN:HB3	2.26	0.70
26:1H:1678:G:H22	26:1H:1989:G:N2	1.88	0.70
26:1H:631:A:OP2	55:Q8:47:LYS:NZ	2.24	0.70
4:32:20:TYR:HD1	4:32:26:CYS:HB3	1.56	0.70
40:65:84:GLN:HG3	40:65:110:LEU:H	1.55	0.70
42:85:50:ARG:HH12	43:95:72:VAL:HG23	1.53	0.70
26:14:1830:C:OP2	59:14:3576:HOH:O	2.08	0.70
26:1H:2787:C:O3'	30:21:61:ARG:NH2	2.25	0.70
33:51:56:SER:OG	33:51:57:ASP:N	2.23	0.70
29:11:17:THR:HG22	29:11:205:VAL:H	1.57	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1003:G:N2	1:1G:1005:A:OP1	2.23	0.70
26:1H:141:A:H8	26:1H:1595:G:H21	1.40	0.70
26:1H:2504:U:OP2	59:1H:3690:HOH:O	2.08	0.70
40:65:106:ARG:HA	40:65:110:LEU:HD11	1.72	0.70
9:8E:121:ARG:NH1	9:8E:122:ALA:O	2.24	0.70
1:13:200:G:N2	1:13:218:C:N3	2.39	0.70
26:14:161:U:H5'	26:14:171:G:H21	1.55	0.70
2:1E:82:ARG:NE	2:1E:92:TYR:OH	2.24	0.70
1:1G:186(B):C:O4'	20:BA:89:ARG:NH2	2.24	0.70
26:1H:568:U:O4	59:1H:3674:HOH:O	2.09	0.70
26:1H:2572:A:C8	30:21:144:ARG:HD3	2.27	0.70
3:2E:40:ARG:O	3:2E:44:GLU:HG2	1.91	0.70
24:3L:72:C:H3'	24:3L:73:A:H5''	1.73	0.70
46:C5:88:LYS:HG3	46:C5:89:PHE:H	1.56	0.70
26:14:1019:U:OP1	26:14:1035:U:O2'	2.07	0.70
26:14:202:U:OP1	59:14:3582:HOH:O	2.09	0.70
26:1H:1449:A:H5'	26:1H:1449(A):G:OP2	1.91	0.70
26:1H:1493:C:H6	26:1H:1493:C:H5''	1.56	0.70
26:1H:2024:G:O6	59:1H:3691:HOH:O	2.09	0.70
32:41:112:PRO:HB3	52:M8:37:SER:N	2.03	0.70
8:72:87:SER:HA	8:72:93:VAL:HG23	1.74	0.70
45:B5:11:PRO:HB3	45:B5:92:LEU:HD11	1.73	0.70
49:J8:91:LYS:NZ	49:J8:91:LYS:HA	2.04	0.70
1:13:458:C:H42	1:13:474:G:H1	1.39	0.70
29:19:44:ASN:ND2	29:19:48:ARG:O	2.24	0.70
1:1G:1316:G:N2	1:1G:1319:A:O5'	2.25	0.70
1:1G:353:A:H8	1:1G:353:A:H5'	1.56	0.70
26:1H:273:G:O6	26:1H:364:C:N4	2.19	0.70
26:1H:2830:G:N7	59:1H:3793:HOH:O	2.23	0.70
34:61:110:ASP:HB2	34:61:112:LYS:HG2	1.73	0.70
42:85:97:ASP:OD1	42:85:98:LEU:N	2.23	0.70
20:BI:75:ASN:N	20:BI:75:ASN:OD1	2.24	0.70
47:D5:30:ASN:HA	47:D5:89:PHE:HE1	1.57	0.70
26:14:1309:G:N7	59:14:3667:HOH:O	2.25	0.70
26:14:1614:A:H2	59:14:4026:HOH:O	1.73	0.70
26:14:588:U:H2'	26:14:589:C:C6	2.26	0.70
26:14:71:A:H3'	26:14:71:A:OP2	1.92	0.70
2:1E:209:ARG:HH11	2:1E:239:VAL:HG13	1.57	0.70
1:1G:1053:G:O2'	1:1G:1199:U:OP2	2.10	0.70
1:1G:1251:A:H2'	1:1G:1252:A:C8	2.26	0.70
26:1H:2105:C:H2'	26:1H:2106:G:H8	1.55	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:22:36:ASP:HA	3:22:39:ILE:HD12	1.73	0.70
4:32:148:VAL:O	4:32:152:SER:OG	2.09	0.70
35:58:96:GLU:O	35:58:98:VAL:HG12	1.90	0.70
41:75:5:ALA:HB1	41:75:8:LYS:HB2	1.73	0.70
37:78:100:LEU:HD12	37:78:105:LEU:HD12	1.74	0.70
1:1G:971:G:N2	1:1G:1363:A:OP2	2.25	0.70
26:1H:1047:G:O2'	26:1H:1110:G:N2	2.24	0.70
26:1H:1456:G:OP2	59:1H:3700:HOH:O	2.10	0.70
26:1H:1728:G:H8	26:1H:1732:A:H62	1.38	0.70
26:1H:2500:U:O2'	59:1H:3696:HOH:O	2.09	0.70
26:1H:2775:A:N7	59:1H:3791:HOH:O	2.23	0.70
26:1H:376:C:OP2	59:1H:3693:HOH:O	2.09	0.70
26:14:2313:C:H4'	32:49:91:ARG:HG3	1.73	0.70
20:BA:41:ILE:HD13	20:BA:87:LYS:HD2	1.74	0.70
27:16:12:C:N3	48:I8:74:ARG:NH1	2.39	0.70
26:14:1782:C:OP1	59:14:3581:HOH:O	2.09	0.70
1:1G:1178:G:H5''	9:82:93:ARG:NH2	2.07	0.70
1:1G:1521:G:N3	59:1G:1835:HOH:O	2.23	0.70
26:1H:1535:U:H5''	26:1H:1537:C:N4	2.07	0.70
26:1H:1778:U:H2'	26:1H:1784:A:N6	2.06	0.70
34:61:39:ALA:HB1	34:61:44:LEU:HD13	1.74	0.70
38:88:138:ASP:OD1	38:88:138:ASP:N	2.24	0.70
46:C5:17:SER:HB2	46:C5:71:LYS:HE2	1.73	0.70
26:1H:993:G:OP1	42:C8:50:ARG:NH2	2.24	0.70
2:12:19:HIS:HE1	2:12:207:ALA:H	1.39	0.69
26:14:1633:G:O6	59:14:3575:HOH:O	2.08	0.69
26:14:1679:U:O4	59:14:3572:HOH:O	2.07	0.69
26:14:275:G:N2	26:14:276:A:N7	2.40	0.69
1:1G:258:G:N7	59:1G:1837:HOH:O	2.24	0.69
1:1G:609:A:N7	59:1G:1839:HOH:O	2.25	0.69
26:1H:1385:G:HO2'	26:1H:1396:U:H6	1.40	0.69
26:1H:869:G:O6	59:1H:3698:HOH:O	2.10	0.69
36:25:115:VAL:HG13	36:25:121:VAL:HG21	1.73	0.69
31:39:178:PRO:HB2	31:39:201:VAL:HG11	1.72	0.69
1:13:1202:G:N2	14:5I:46:GLU:OE1	2.21	0.69
1:1G:826:C:H5'	8:72:12:ARG:NH1	2.07	0.69
41:B8:26:ASP:HB2	41:B8:91:ARG:HA	1.74	0.69
53:J5:41:PRO:O	53:J5:44:THR:OG1	2.10	0.69
26:14:1582:C:HO2'	26:14:1586:A:H8	1.38	0.69
1:1G:1124:G:O2'	1:1G:1145:C:N4	2.25	0.69
26:1H:1970:A:O5'	59:1H:3692:HOH:O	2.09	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2835:A:N3	59:1H:3809:HOH:O	2.25	0.69
31:39:46:ARG:HG2	31:39:46:ARG:HH11	1.57	0.69
7:62:93:PRO:HG2	7:62:94:ARG:HD3	1.74	0.69
51:H5:39:ASP:O	51:H5:44:ARG:NH1	2.25	0.69
1:13:871:U:OP1	59:13:1820:HOH:O	2.11	0.69
29:19:30:GLU:HB2	29:19:35:LYS:HE2	1.74	0.69
1:1G:980:C:N3	1:1G:1359:C:N4	2.40	0.69
1:1G:625:G:H2'	1:1G:626:U:H6	1.56	0.69
26:1H:273(F):C:H3'	26:1H:274:G:H5''	1.73	0.69
26:1H:548:A:H2'	26:1H:549:G:H5'	1.73	0.69
4:32:148:VAL:HG12	4:32:152:SER:HB2	1.74	0.69
13:4A:13:LYS:HD3	13:4A:14:ARG:H	1.55	0.69
6:5E:26:ILE:O	6:5E:30:LEU:HD12	1.93	0.69
7:62:62:PHE:HA	7:62:124:LEU:HD22	1.72	0.69
27:1J:95:U:OP2	47:D5:14:LYS:NZ	2.25	0.69
1:13:1446:A:OP1	1:13:1446:A:H4'	1.91	0.69
26:14:2269:A:OP1	59:14:3579:HOH:O	2.09	0.69
26:14:2445:G:N7	59:14:3673:HOH:O	2.26	0.69
26:1H:1380:G:N7	59:1H:3810:HOH:O	2.26	0.69
33:51:6:ARG:HH21	33:51:7:LEU:HD11	1.56	0.69
7:62:148:ASN:ND2	7:62:148:ASN:O	2.26	0.69
9:82:43:ALA:HA	9:82:74:ILE:HD13	1.75	0.69
42:85:100:VAL:O	42:85:101:ARG:HG2	1.93	0.69
53:N8:41:PRO:O	53:N8:44:THR:OG1	2.10	0.69
29:11:10:THR:OG1	29:11:13:ARG:HB2	1.92	0.69
36:25:25:LEU:HD12	36:25:38:VAL:HG23	1.72	0.69
31:31:160:ASN:ND2	31:31:163:VAL:HG23	2.07	0.69
24:3K:11:C:H42	24:3K:24:G:H1	1.41	0.69
40:65:43:GLU:HB2	48:E5:49:LYS:NZ	2.08	0.69
1:13:859:A:H2'	1:13:860:A:H8	1.56	0.69
26:14:1797:C:O2'	29:19:259:THR:OG1	2.10	0.69
26:14:2378:A:H4'	40:65:23:ARG:HH11	1.58	0.69
26:14:784:A:OP2	59:19:301:HOH:O	2.09	0.69
26:1H:1833:U:OP1	59:1H:3703:HOH:O	2.10	0.69
30:21:77:ILE:O	30:21:79:ARG:N	2.24	0.69
24:3K:33:U:H2'	24:3K:34:U:H2'	1.75	0.69
38:45:57:HIS:NE2	38:45:116:GLU:HG2	2.07	0.69
5:4E:126:ARG:HG3	5:4E:126:ARG:HH11	1.57	0.69
29:11:182:LEU:N	29:11:272:ALA:HB3	2.07	0.69
1:13:262:A:H2'	1:13:263:A:C8	2.28	0.69
1:13:377:G:OP1	16:7I:3:LYS:NZ	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1E:192:SER:OG	2:1E:193:ASP:N	2.25	0.69
1:1G:492:G:O6	59:1G:1811:HOH:O	2.06	0.69
26:1H:1314:C:OP1	59:1H:3708:HOH:O	2.11	0.69
26:1H:2588:G:OP2	59:1H:3699:HOH:O	2.10	0.69
1:13:1124:G:H5''	10:1I:35:SER:HB2	1.73	0.69
1:13:67:C:H2'	1:13:68:G:C8	2.28	0.69
26:14:2592:G:N7	59:14:3670:HOH:O	2.25	0.69
26:1H:1479:G:O6	26:1H:1510:A:N6	2.26	0.69
34:61:73:GLU:HG3	34:61:136:VAL:HG23	1.75	0.69
39:98:78:LYS:O	39:98:83:ILE:HG13	1.92	0.69
26:1H:2379:G:O2'	40:A8:17:ARG:NH1	2.26	0.69
49:F5:89:GLU:N	49:F5:89:GLU:OE1	2.26	0.69
50:K8:47:ASN:O	50:K8:49:LYS:N	2.25	0.69
53:N8:40:LYS:HD3	53:N8:46:CYS:HA	1.75	0.69
1:13:417:C:H2'	1:13:418:C:H6	1.58	0.69
26:14:2273:A:H2'	26:14:2274:A:C8	2.28	0.69
1:1G:1110:A:OP2	59:1G:1813:HOH:O	2.10	0.69
26:1H:1534:G:H21	26:1H:1538:G:N2	1.90	0.69
26:1H:1496:A:H8	26:1H:1577:C:HO2'	1.39	0.69
31:31:129:PHE:HA	31:31:142:TRP:NE1	2.08	0.69
32:49:101:ILE:HB	32:49:105:LYS:HE3	1.75	0.69
5:4E:142:LEU:O	5:4E:143:ARG:NH1	2.24	0.69
39:55:33:ARG:HB2	39:55:115:GLU:HB3	1.75	0.69
1:1G:235:C:H5'	17:8A:70:ARG:HG2	1.74	0.69
1:13:1286:A:C8	1:13:1287:A:H4'	2.28	0.69
1:13:362:G:OP2	59:13:1819:HOH:O	2.10	0.69
1:13:510:A:OP2	4:3E:49:ARG:NH2	2.21	0.69
1:1G:1288:A:O2'	21:1B:10:ARG:NH2	2.26	0.69
26:1H:1316:U:H2'	26:1H:1317:A:H8	1.57	0.69
31:39:49:ALA:O	31:39:92:PRO:HB2	1.92	0.69
16:7I:53:VAL:HG13	16:7I:79:VAL:HG22	1.75	0.69
26:14:491:G:H2'	26:14:492:A:C8	2.28	0.69
1:1G:842:C:O2'	1:1G:848:C:N3	2.25	0.69
26:1H:1190:G:N7	59:1H:3812:HOH:O	2.26	0.69
26:1H:2749:A:OP2	33:51:4:ILE:HD11	1.93	0.69
39:55:32:GLY:HA2	39:55:116:LEU:HD12	1.75	0.69
27:1J:51:G:OP2	40:65:59:LYS:NZ	2.26	0.69
34:69:81:VAL:H	34:69:143:SER:CB	2.05	0.69
37:78:39:LYS:HG3	37:78:45:LEU:HD23	1.73	0.69
38:88:58:PHE:O	38:88:61:GLY:N	2.25	0.69
1:13:392:G:H5'	16:7I:12:LYS:HE3	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1L:73:A:H3'	22:1L:73:A:N3	2.08	0.68
26:14:1957:C:OP1	59:14:3588:HOH:O	2.11	0.68
2:1E:60:ASP:O	2:1E:64:ARG:NE	2.27	0.68
1:1G:983:A:N1	1:1G:1222:G:N2	2.41	0.68
1:1G:1321:C:H41	1:1G:1322:C:N4	1.89	0.68
26:1H:1019:U:HO2'	26:1H:1021:A:H2	1.40	0.68
26:1H:734:A:OP2	59:1H:3711:HOH:O	2.11	0.68
11:2A:86:GLY:N	11:2A:112:THR:OG1	2.23	0.68
40:A8:32:LEU:O	40:A8:62:LYS:NZ	2.24	0.68
26:1H:131:G:OP1	59:1H:3697:HOH:O	2.09	0.68
34:69:104:GLN:OE1	34:69:105:HIS:ND1	2.26	0.68
48:E5:32:ARG:O	48:E5:34:GLY:N	2.23	0.68
26:1H:1113:U:OP1	33:51:2:SER:N	2.26	0.68
13:4I:3:ARG:HD2	52:M8:34:GLU:OE2	1.93	0.68
34:69:101:LEU:HB2	34:69:105:HIS:HB2	1.73	0.68
34:69:59:ALA:HA	34:69:62:LYS:HG2	1.74	0.68
19:AI:41:VAL:HG11	19:AI:45:VAL:H	1.58	0.68
1:13:1223:C:P	19:AI:78:ARG:HH12	2.16	0.68
1:13:980:C:O2	59:13:1816:HOH:O	2.08	0.68
26:14:1056:G:H1'	26:14:1103:A:H61	1.58	0.68
26:14:1533:C:H3'	26:14:1534:G:H4'	1.75	0.68
26:14:275:G:O2'	26:14:276:A:O4'	2.09	0.68
26:14:2720:U:H3	26:14:2873:A:H2	1.41	0.68
26:1H:131:G:OP1	59:1H:3701:HOH:O	2.10	0.68
26:1H:2629:A:OP1	26:1H:2629:A:H4'	1.94	0.68
26:1H:952:G:H5''	26:1H:953:A:OP2	1.94	0.68
13:4A:96:LEU:HD22	13:4A:97:PRO:HD2	1.75	0.68
27:1J:52:A:H62	40:65:33:LYS:HG3	1.56	0.68
26:1H:871:U:P	38:88:5:ARG:HE	2.16	0.68
30:21:9:VAL:HG13	41:B8:3:ARG:HG3	1.76	0.68
52:M8:16:CYS:SG	52:M8:36:CYS:HB3	2.34	0.68
1:13:1118:C:H1'	1:13:1179:A:C4	2.29	0.68
26:14:249:C:OP1	59:14:3584:HOH:O	2.10	0.68
26:14:2588:G:OP2	59:14:3589:HOH:O	2.12	0.68
26:14:783:A:OP2	59:14:3587:HOH:O	2.11	0.68
26:1H:1174:A:H1'	26:1H:1178:C:N4	2.08	0.68
26:1H:1535:U:O4	26:1H:1538:G:O2'	2.11	0.68
26:1H:1816:G:OP2	59:1H:3715:HOH:O	2.12	0.68
26:1H:2058:A:OP1	59:1H:3712:HOH:O	2.11	0.68
26:1H:2362:G:OP1	55:Q8:44:LYS:NZ	2.25	0.68
26:1H:2801:A:H2'	26:1H:2802:G:O4'	1.92	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:133:ASN:HA	31:39:162:LEU:HD23	1.75	0.68
12:3A:47:LYS:HG3	12:3A:48:PRO:CD	2.22	0.68
13:4I:58:GLU:O	13:4I:62:ASN:ND2	2.21	0.68
34:61:72:LEU:HD11	34:61:107:VAL:HG11	1.76	0.68
37:78:13:ASN:O	37:78:15:ARG:N	2.27	0.68
19:AI:40:ILE:HG12	19:AI:41:VAL:CG2	2.19	0.68
1:13:1279:A:O2'	1:13:1281:U:OP2	2.11	0.68
1:13:524:G:H2'	1:13:525:C:C6	2.28	0.68
26:1H:1156:A:OP2	59:1H:3702:HOH:O	2.10	0.68
30:29:167:VAL:HG22	30:29:170:LEU:HD11	1.76	0.68
1:13:5:U:H3	4:3E:85:LYS:HB3	1.58	0.68
25:4K:23:A:O2'	25:4K:24:A:N7	2.24	0.68
26:1H:2751:G:H5'	33:51:4:ILE:CD1	2.24	0.68
7:62:113:GLU:HB2	7:62:119:ARG:HG2	1.76	0.68
9:8E:43:ALA:HA	9:8E:74:ILE:HD13	1.75	0.68
26:14:1332:G:H5'	26:14:1332:G:C8	2.29	0.68
26:14:1382:G:N7	59:14:3677:HOH:O	2.26	0.68
26:14:1794:U:H2'	26:14:1795:C:H6	1.59	0.68
1:1G:1238:A:N3	1:1G:1241:G:O2'	2.22	0.68
26:1H:1332:G:OP1	59:1H:3708:HOH:O	2.12	0.68
26:1H:2419:U:O4	59:1H:3704:HOH:O	2.10	0.68
22:1L:22:G:OP1	22:1L:48:C:N4	2.26	0.68
24:3K:9:A:H3'	24:3K:10:G:C8	2.29	0.68
26:14:2124:G:H2'	28:79:42:GLU:HG2	1.75	0.68
1:13:1263:C:H2'	1:13:1264:C:H6	1.57	0.68
26:14:1817:G:OP1	29:19:88:ARG:NH2	2.27	0.68
26:14:2370:G:O6	59:14:3573:HOH:O	2.08	0.68
1:1G:976:G:OP1	14:5A:32:SER:N	2.24	0.68
26:1H:860:U:H5	26:1H:917:A:C2	2.12	0.68
26:1H:674:G:C1'	31:31:74:ARG:HD3	2.24	0.68
31:39:122:LYS:HD2	31:39:191:ARG:HE	1.58	0.68
13:4I:82:MET:O	13:4I:84:ILE:N	2.26	0.68
1:13:624:C:O3'	16:7I:10:GLY:HA2	1.93	0.68
2:12:121:LEU:HD23	2:12:126:GLU:HG2	1.75	0.68
26:14:1359:A:N6	26:14:1372:U:H3	1.86	0.68
26:14:195:A:N7	59:14:3526:HOH:O	2.26	0.68
27:16:101:A:OP2	59:16:304:HOH:O	2.11	0.68
26:1H:322:A:H5'	26:1H:340:A:H1'	1.76	0.68
26:1H:587:C:OP2	37:78:21:ARG:NH2	2.27	0.68
13:4A:66:LEU:HA	13:4A:70:LEU:HB2	1.75	0.68
25:4K:24:A:H2'	25:4K:25:A:C8	2.28	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:28:VAL:HG22	9:8E:63:ILE:HB	1.74	0.68
26:14:1412:A:H2'	26:14:1413:G:C8	2.28	0.67
26:14:273(F):C:H3'	26:14:274:G:H5''	1.75	0.67
26:14:736:C:OP1	59:14:3586:HOH:O	2.11	0.67
29:19:238:GLY:O	59:19:302:HOH:O	2.10	0.67
10:1A:80:LYS:O	10:1A:84:GLN:NE2	2.27	0.67
26:1H:1324:G:O6	59:1H:3678:HOH:O	2.06	0.67
26:1H:1980:G:O2'	26:1H:1982:C:OP2	2.12	0.67
26:1H:2137:C:O2	26:1H:2155:G:N1	2.27	0.67
26:1H:2548:G:O6	59:1H:3705:HOH:O	2.11	0.67
26:1H:2836:U:H2'	26:1H:2837:G:C8	2.30	0.67
26:1H:731:C:OP2	59:1H:3639:HOH:O	2.12	0.67
30:29:91:VAL:HB	30:29:95:ILE:HD11	1.76	0.67
32:41:16:ARG:O	32:41:20:ILE:HG13	1.94	0.67
34:61:110:ASP:HB2	34:61:112:LYS:H	1.57	0.67
38:88:6:ARG:HG3	38:88:7:MET:H	1.59	0.67
55:M5:22:VAL:O	55:M5:50:LEU:HB3	1.94	0.67
2:12:178:ARG:HH12	8:72:68:ARG:HH22	1.41	0.67
10:1A:44:VAL:HG13	10:1A:66:ARG:HB3	1.76	0.67
26:1H:83:G:N7	59:1H:3805:HOH:O	2.25	0.67
26:1H:915:C:O3'	59:1H:3706:HOH:O	2.11	0.67
1:13:407:G:O4'	4:3E:119:GLN:NE2	2.27	0.67
33:51:86:GLU:CD	33:51:86:GLU:H	1.93	0.67
7:6E:27:ILE:HA	7:6E:30:ILE:HD12	1.76	0.67
1:1G:192:U:O4'	20:BA:103:GLY:HA2	1.94	0.67
1:13:1149:C:H2'	1:13:1150:U:C6	2.30	0.67
1:1G:1348:U:H3	1:1G:1374:A:H2	1.38	0.67
26:1H:1823:G:N7	59:1H:3819:HOH:O	2.27	0.67
26:1H:2469:A:N6	26:1H:2481:G:O2'	2.27	0.67
26:1H:848:G:H2'	26:1H:849:A:C8	2.29	0.67
4:32:18:LYS:NZ	4:32:31:CYS:HB2	2.08	0.67
46:C5:42:VAL:HG13	46:C5:65:ALA:HB3	1.74	0.67
1:13:737:A:H2'	1:13:738:C:C6	2.29	0.67
26:14:1681:G:N3	59:14:3684:HOH:O	2.27	0.67
26:14:2032:G:H21	30:29:146:THR:CG2	2.04	0.67
10:1A:26:ALA:HB1	10:1A:84:GLN:HG2	1.75	0.67
26:1H:1813:G:OP1	59:1H:3710:HOH:O	2.11	0.67
26:1H:2070:G:OP1	59:1H:3707:HOH:O	2.11	0.67
1:13:1292:U:H2'	1:13:1293:G:C8	2.29	0.67
29:19:69:ARG:NH2	29:19:128:GLY:O	2.27	0.67
2:1E:43:ASP:HB3	2:1E:46:LYS:HD2	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1174:G:H2'	1:1G:1175:G:H8	1.58	0.67
26:1H:867:C:N4	59:1H:3630:HOH:O	2.16	0.67
31:39:192:LEU:HD13	31:39:194:MET:HE1	1.74	0.67
24:3K:35:U:H3	25:4K:14:A:N6	1.92	0.67
8:7E:21:LYS:O	8:7E:65:TYR:OH	2.11	0.67
26:14:2238:G:N7	59:14:3679:HOH:O	2.27	0.67
26:14:486:C:O2'	44:A5:60:ASN:OD1	2.12	0.67
1:1G:766:A:OP2	59:1G:1815:HOH:O	2.12	0.67
33:59:72:ILE:HA	33:59:75:ALA:HB3	1.77	0.67
1:13:453:A:H4'	16:7I:72:ARG:HB2	1.74	0.67
46:G8:85:VAL:HG23	46:G8:96:ILE:HB	1.77	0.67
27:16:75:G:H21	47:H8:85:HIS:CE1	2.13	0.67
1:1G:617:G:OP2	59:1G:1814:HOH:O	2.11	0.67
26:1H:1639:U:O2'	26:1H:1640:C:H5''	1.95	0.67
26:1H:220:G:O6	59:1H:3709:HOH:O	2.11	0.67
26:1H:2588:G:OP1	59:1H:3717:HOH:O	2.12	0.67
26:1H:760:G:OP2	59:1H:3720:HOH:O	2.13	0.67
22:1K:6:G:N2	22:1K:67:C:O2'	2.28	0.67
5:4E:45:PHE:CE2	5:4E:47:LYS:HD2	2.30	0.67
37:78:63:PRO:HG2	55:Q8:25:MET:HB2	1.77	0.67
28:79:57:ASN:OD1	28:79:165:ASN:ND2	2.28	0.67
1:13:163:C:O2'	1:13:164:U:O4'	2.12	0.67
26:1H:1633:G:O6	59:1H:3687:HOH:O	2.07	0.67
43:95:5:VAL:HG11	43:95:57:VAL:HG11	1.76	0.67
37:78:59:LEU:HB2	55:Q8:58:ILE:HD11	1.76	0.67
1:13:875:C:O2'	8:7E:14:ARG:NH1	2.28	0.67
26:14:2057:A:OP2	59:14:3595:HOH:O	2.13	0.67
26:14:2287:A:C2	26:14:2346:A:H2	2.13	0.67
26:14:2444:G:OP2	31:39:68:LYS:NZ	2.21	0.67
30:21:82:ARG:O	30:21:84:PHE:N	2.27	0.67
37:35:105:LEU:O	37:35:106:LEU:HB3	1.95	0.67
37:35:122:PRO:HB3	37:35:141:ALA:HB1	1.75	0.67
31:39:102:PRO:HB2	31:39:105:VAL:HG23	1.77	0.67
13:4A:13:LYS:HD3	13:4A:14:ARG:N	2.10	0.67
39:55:81:ASP:O	39:55:82:GLU:HB3	1.93	0.67
7:62:87:VAL:HG23	7:62:148:ASN:HA	1.77	0.67
26:1H:1569:A:O2'	29:11:37:LEU:HD23	1.95	0.67
3:22:20:SER:HB2	3:22:40:ARG:HH22	1.60	0.67
26:14:2880:C:H1'	39:55:92:GLY:HA3	1.77	0.67
17:8A:6:LEU:HD22	17:8A:23:VAL:HG11	1.77	0.67
39:98:50:HIS:CE1	39:98:54:LEU:HD21	2.30	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:C5:74:PRO:HG2	46:C5:82:PRO:HG2	1.77	0.67
26:1H:1165:U:H2'	26:1H:1166:C:C6	2.30	0.66
26:1H:1174:A:H1'	26:1H:1178:C:H42	1.60	0.66
31:31:184:TYR:O	31:31:188:ARG:HG3	1.95	0.66
26:14:2392:A:H2	26:14:2424:C:N4	1.91	0.66
1:1G:673:G:H2'	1:1G:674:G:C8	2.30	0.66
26:1H:2131:G:H1'	26:1H:2158:A:C6	2.31	0.66
26:1H:2308:G:N1	26:1H:2311:A:H2	1.91	0.66
26:1H:968:G:O6	59:1H:3713:HOH:O	2.11	0.66
5:4E:91:LEU:HD12	5:4E:120:THR:HG22	1.78	0.66
1:13:1290:G:O3'	7:6E:37:ASN:ND2	2.28	0.66
38:88:24:GLY:O	38:88:25:ASP:HB3	1.96	0.66
32:41:67:LYS:HE2	52:M8:6:HIS:HE1	1.60	0.66
26:14:270(Y):G:N7	59:14:3682:HOH:O	2.27	0.66
23:2K:9:G:N2	23:2K:47:G7M:OP2	2.27	0.66
4:3E:141:ARG:HB2	4:3E:141:ARG:HH11	1.58	0.66
16:7A:21:VAL:HG22	16:7A:33:ILE:HB	1.77	0.66
40:A8:38:GLN:HG2	40:A8:47:THR:HG21	1.77	0.66
26:14:1019:U:H2'	26:14:1020:A:H8	1.60	0.66
2:1E:212:GLN:NE2	2:1E:216:SER:OG	2.26	0.66
26:1H:1021:A:C8	26:1H:1022:G:H5''	2.29	0.66
26:1H:320:A:OP1	31:31:135:LYS:NZ	2.29	0.66
24:3L:8:U:O2'	24:3L:48:C:O2	2.13	0.66
26:14:953:A:OP2	38:45:16:ARG:HD3	1.96	0.66
16:7I:4:ILE:HD12	16:7I:66:PRO:HD3	1.77	0.66
26:1H:2815:C:H5'	53:N8:29:THR:HG21	1.77	0.66
2:12:130:ARG:HG2	2:12:135:GLN:HG3	1.77	0.66
1:13:1304:G:OP2	59:13:1823:HOH:O	2.14	0.66
1:13:545:C:O2'	1:13:549:C:OP1	2.14	0.66
1:13:870:U:O2'	59:13:1822:HOH:O	2.13	0.66
26:14:2432:A:H2'	26:14:2433:A:C8	2.31	0.66
1:1G:1028(B):C:H42	1:1G:1032(A):G:H1	1.42	0.66
1:1G:1235:U:O2'	1:1G:1305:G:O5'	2.12	0.66
26:1H:1785:A:OP2	59:1H:3721:HOH:O	2.13	0.66
26:1H:880:G:H1	26:1H:897:C:H42	1.43	0.66
4:32:28:SER:HB2	4:32:29:PRO:HA	1.77	0.66
6:5E:89:MET:HE3	18:9I:76:LEU:HD22	1.78	0.66
42:C8:69:CYS:SG	42:C8:79:PHE:HD2	2.19	0.66
1:13:1127:G:H2'	1:13:1128:C:H5'	1.75	0.66
1:13:411:A:C4	1:13:413:G:H1'	2.29	0.66
26:14:1354:A:OP2	59:14:3594:HOH:O	2.13	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2409:G:N7	59:14:3683:HOH:O	2.27	0.66
39:55:67:LEU:HG	39:55:76:VAL:HG21	1.76	0.66
1:1G:1218:C:OP2	14:5A:9:LYS:NZ	2.26	0.66
26:14:2474:C:OP1	59:14:3597:HOH:O	2.13	0.66
26:14:463:G:OP2	59:14:3599:HOH:O	2.14	0.66
1:1G:1028(B):C:O2	1:1G:1030:C:N4	2.28	0.66
30:21:128:SER:OG	30:21:129:HIS:N	2.29	0.66
39:98:104:ARG:NH1	39:98:107:ASP:OD2	2.29	0.66
47:H8:5:LEU:HD21	47:H8:44:PHE:HA	1.77	0.66
29:11:35:LYS:NZ	29:11:35:LYS:N	2.43	0.66
1:13:1278:U:H5'	1:13:1279:A:O4'	1.95	0.66
1:13:1504:G:OP1	1:13:1507:A:H4'	1.96	0.66
1:1G:652:U:OP2	59:1G:1818:HOH:O	2.13	0.66
26:1H:1510:A:O2'	26:1H:1511:A:N7	2.27	0.66
26:1H:1982:C:O4'	59:1H:3721:HOH:O	2.13	0.66
26:1H:270(E):G:N2	26:1H:270(U):C:N3	2.38	0.66
26:1H:527:C:OP1	59:1H:3716:HOH:O	2.12	0.66
5:4E:137:GLU:OE1	5:4E:141:GLN:NE2	2.28	0.66
33:59:6:ARG:HH22	33:59:54:ARG:HH12	1.42	0.66
14:5I:3:ARG:HA	14:5I:3:ARG:NH1	2.10	0.66
40:A8:93:LYS:HG2	40:A8:95:HIS:HB2	1.76	0.66
1:13:1226:C:H4'	19:AI:80:TYR:OH	1.96	0.66
1:13:559:A:OP1	5:4E:126:ARG:NH2	2.29	0.66
1:13:804:U:H5''	1:13:805:C:OP2	1.96	0.66
26:14:1678:G:H22	26:14:1989:G:N2	1.93	0.66
1:1G:183:G:O5'	1:1G:183:G:H8	1.79	0.66
37:35:71:VAL:HG13	37:35:72:PRO:HD3	1.76	0.66
6:52:23:LYS:O	6:52:27:GLN:HG3	1.95	0.66
36:68:63:VAL:HG12	36:68:106:LEU:HD11	1.76	0.66
42:C8:6:THR:OG1	59:C8:201:HOH:O	2.12	0.66
1:13:793:U:H5'	1:13:794:A:H5''	1.78	0.66
26:14:395:U:H2'	26:14:396:G:N7	2.11	0.66
1:1G:114:U:H2'	1:1G:115:G:C8	2.31	0.66
11:2A:121:PRO:HG2	11:2A:126:ARG:HG3	1.77	0.66
4:32:70:ILE:HD11	4:32:75:PHE:HD1	1.61	0.66
13:4A:13:LYS:HA	13:4A:44:ARG:HH11	1.60	0.66
13:4I:49:THR:HB	13:4I:52:GLU:HG2	1.76	0.66
25:4K:12:A:O2'	25:4K:13:A:O5'	2.05	0.66
42:C8:92:ARG:NH1	42:C8:94:ASN:OD1	2.28	0.66
50:G5:32:LEU:HD21	50:G5:54:LYS:HG2	1.78	0.66
26:14:1794:U:H2'	26:14:1795:C:C6	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1864:U:OP1	26:14:2410:G:O2'	2.14	0.65
29:19:267:SER:HA	29:19:270:ILE:HD12	1.77	0.65
21:1F:8:THR:HG23	21:1F:11:GLY:H	1.61	0.65
26:1H:1588:C:H2'	26:1H:1589:C:H6	1.60	0.65
26:1H:2441:C:OP1	59:1H:3724:HOH:O	2.13	0.65
3:2E:15:THR:HG21	3:2E:181:ASN:HA	1.77	0.65
33:51:169:VAL:O	33:51:170:ARG:NE	2.16	0.65
34:61:31:LEU:HD21	34:61:38:LEU:HG	1.77	0.65
19:AI:50:ALA:HB1	19:AI:57:HIS:HB3	1.77	0.65
1:13:1366:C:H2'	1:13:1367:C:H6	1.60	0.65
26:14:1044:G:HO2'	26:14:1047:G:HO2'	1.39	0.65
26:14:2270:G:OP2	59:14:3593:HOH:O	2.13	0.65
1:1G:864:A:OP2	59:1G:1820:HOH:O	2.14	0.65
26:1H:1388:G:O2'	26:1H:1389:G:H5'	1.95	0.65
26:1H:1814:G:OP2	59:1H:3653:HOH:O	2.14	0.65
23:2L:48:U:O2'	23:2L:49:C:OP2	2.13	0.65
14:5A:22:THR:HB	14:5A:33:VAL:HG21	1.78	0.65
1:1G:247:G:OP2	17:8A:100:LYS:HG3	1.97	0.65
1:13:266:G:OP2	1:13:267:C:N4	2.24	0.65
26:14:1420:U:O2'	26:14:1421:G:OP1	2.14	0.65
26:14:2066:C:OP1	59:14:3604:HOH:O	2.14	0.65
26:14:2776:A:OP1	26:14:2776:A:H3'	1.96	0.65
29:19:96:HIS:CE1	29:19:102:LYS:HE2	2.30	0.65
1:1G:315:A:OP1	59:1G:1821:HOH:O	2.14	0.65
26:1H:1981:A:OP1	59:1H:3726:HOH:O	2.14	0.65
26:1H:530:G:N1	59:1H:3647:HOH:O	2.29	0.65
11:2A:67:ASP:OD2	11:2A:71:LYS:NZ	2.26	0.65
26:1H:1022:G:N7	35:58:66:LYS:NZ	2.44	0.65
40:A8:34:HIS:HB2	40:A8:36:TYR:CE1	2.31	0.65
45:B5:49:VAL:HB	45:B5:83:VAL:HG21	1.78	0.65
1:13:934:C:O5'	59:13:1826:HOH:O	2.15	0.65
10:1A:34:VAL:HG22	10:1A:74:ILE:HG22	1.77	0.65
26:1H:65:C:H2'	26:1H:66:C:H6	1.59	0.65
26:1H:900:A:H3'	26:1H:901:A:H8	1.61	0.65
6:52:33:TYR:CE1	6:52:78:GLU:HG3	2.32	0.65
14:5A:29:ARG:HB3	14:5A:31:ARG:N	2.10	0.65
40:65:88:ASP:O	40:65:89:ARG:HB3	1.97	0.65
41:B8:12:SER:HB2	41:B8:15:VAL:H	1.60	0.65
49:J8:90:ILE:HA	49:J8:93:GLU:OE1	1.97	0.65
1:13:345:C:H4'	1:13:346:G:C5	2.31	0.65
1:13:859:A:H2'	1:13:860:A:C8	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1828:G:OP2	59:14:3608:HOH:O	2.15	0.65
26:14:2582:G:OP2	59:14:3603:HOH:O	2.14	0.65
1:1G:345:C:OP2	41:75:39:ARG:NH2	2.30	0.65
26:1H:2069:G:O3'	59:1H:3718:HOH:O	2.12	0.65
4:32:76:ARG:NH2	4:32:80:GLU:OE1	2.27	0.65
24:3K:3:G:H1	24:3K:70:C:H42	1.42	0.65
13:4A:8:GLU:OE1	32:49:115:ARG:NH2	2.29	0.65
33:59:149:ARG:HA	33:59:162:ILE:HG21	1.77	0.65
26:14:329:G:H1	46:C5:19:LYS:NZ	1.95	0.65
1:13:1386:G:N7	59:13:1852:HOH:O	2.29	0.65
26:14:305:U:H2'	26:14:306:U:C6	2.32	0.65
26:1H:1316:U:H2'	26:1H:1317:A:C8	2.31	0.65
26:1H:1644:C:H2'	26:1H:1645:G:H5'	1.79	0.65
26:1H:2573:C:H3'	59:1H:3939:HOH:O	1.96	0.65
26:1H:259:G:N2	26:1H:621:A:H8	1.94	0.65
26:1H:2751:G:N7	33:51:3:ARG:NE	2.44	0.65
30:21:38:THR:HG23	30:21:40:GLU:HG2	1.78	0.65
3:2E:16:ARG:HB2	3:2E:16:ARG:HH11	1.59	0.65
12:3A:47:LYS:CG	12:3A:48:PRO:HD2	2.24	0.65
34:69:99:GLU:O	34:69:103:ARG:NH1	2.30	0.65
20:BA:25:ARG:O	20:BA:29:LYS:HG3	1.96	0.65
44:E8:86:LEU:HD12	44:E8:87:PRO:HD2	1.79	0.65
49:F5:80:LEU:HD12	49:F5:82:LEU:HD13	1.78	0.65
26:1H:1253:A:C8	59:1H:3601:HOH:O	2.45	0.65
26:1H:946:G:OP1	59:1H:3727:HOH:O	2.14	0.65
31:31:185:ASP:HA	31:31:188:ARG:HD3	1.78	0.65
24:3K:52:G:H2'	24:3K:53:G:H8	1.61	0.65
41:75:2:ASN:CB	41:75:4:GLY:HA2	2.26	0.65
29:19:141:VAL:HG23	29:19:162:SER:HB2	1.79	0.65
26:1H:270(I):G:H1	26:1H:270(Q):C:H42	1.45	0.65
26:1H:2867:G:OP2	41:B8:119:LYS:NZ	2.23	0.65
26:1H:336:C:OP1	46:G8:83:THR:HG23	1.95	0.65
30:21:65:GLY:HA2	30:21:66:HIS:CB	2.27	0.65
31:39:53:THR:HG22	31:39:56:GLU:HG3	1.79	0.65
40:A8:84:GLN:HA	40:A8:111:GLU:OE2	1.96	0.65
45:B5:63:LYS:HE3	45:B5:63:LYS:N	2.10	0.65
46:G8:9:LYS:HA	46:G8:27:VAL:HG22	1.79	0.65
52:M8:43:TYR:O	52:M8:46:GLN:HA	1.96	0.65
26:14:1278:A:OP1	39:55:36:THR:HG22	1.96	0.65
26:14:1776:G:OP2	59:14:3606:HOH:O	2.14	0.65
26:14:198:C:H5'	26:14:2244:U:OP1	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2302:G:N2	26:14:2314:C:O2	2.28	0.65
1:1G:547:A:OP1	59:1G:1819:HOH:O	2.14	0.65
26:1H:443:A:H1'	26:1H:1201:C:O4'	1.96	0.65
24:3K:34:U:O2'	24:3K:35:U:O5'	2.14	0.65
13:4A:79:LYS:HA	13:4A:82:MET:HG2	1.77	0.65
9:8E:3:GLN:HB3	9:8E:20:ARG:HD3	1.79	0.65
46:G8:76:CYS:SG	46:G8:97:ARG:HG3	2.36	0.65
26:14:2019:A:OP2	53:J5:9:LYS:NZ	2.30	0.65
26:14:1537:C:H2'	26:14:1538:G:C8	2.31	0.65
1:1G:1502:A:H2	1:1G:1505:G:N1	1.93	0.65
26:1H:1210:A:H8	26:1H:1210:A:H5'	1.61	0.65
26:1H:1405:U:H2'	26:1H:1406:U:C6	2.32	0.65
26:1H:2593:U:O2'	26:1H:2594:C:H5'	1.97	0.65
31:39:11:VAL:HG13	31:39:13:SER:HB3	1.78	0.65
4:3E:15:GLU:OE1	4:3E:66:ARG:NH1	2.27	0.65
5:4E:100:VAL:O	5:4E:107:ARG:NH2	2.30	0.65
1:13:1368:G:H5''	9:8E:112:LYS:HB3	1.79	0.65
40:A8:26:LEU:HD12	40:A8:39:ILE:HD11	1.79	0.65
20:BI:57:ARG:HH11	20:BI:102:GLY:HA2	1.61	0.65
26:14:124:G:N7	59:14:3692:HOH:O	2.29	0.64
26:14:270(M):U:H5''	26:14:270(N):G:OP1	1.97	0.64
1:1G:1500:A:OP1	59:1G:1822:HOH:O	2.15	0.64
1:1G:758:G:N7	59:1G:1850:HOH:O	2.29	0.64
26:1H:2375:G:N7	59:1H:3842:HOH:O	2.30	0.64
4:32:33:MET:O	4:32:34:GLU:HB2	1.96	0.64
5:42:104:ALA:HA	5:42:107:ARG:HH21	1.61	0.64
42:C8:90:VAL:HG22	43:D8:39:LEU:HB3	1.78	0.64
50:K8:15:LYS:H	50:K8:15:LYS:NZ	1.94	0.64
1:13:504:C:OP1	59:13:1825:HOH:O	2.15	0.64
1:13:800:G:O6	59:13:1821:HOH:O	2.11	0.64
26:14:2357:U:OP1	48:E5:20:ARG:NH1	2.29	0.64
26:14:2681:C:H5	26:14:2725:A:H62	1.45	0.64
1:1G:920:U:H2'	1:1G:921:U:C6	2.32	0.64
26:1H:1025:G:O2'	59:1H:3627:HOH:O	2.15	0.64
26:1H:2280:G:H2'	26:1H:2281:C:H5'	1.78	0.64
26:1H:330:A:HO2'	26:1H:331:A:H8	1.43	0.64
5:4E:8:GLU:HG2	5:4E:34:VAL:HG22	1.79	0.64
26:14:2818:G:OP2	39:55:42:LYS:NZ	2.30	0.64
8:7E:34:GLU:OE1	8:7E:37:ARG:NH1	2.30	0.64
42:85:49:HIS:HA	42:85:52:ARG:HB2	1.79	0.64
17:8I:31:LEU:HD23	17:8I:32:TYR:CZ	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2317:C:H2'	26:14:2318:G:O4'	1.97	0.64
26:14:2509:G:O6	59:14:3592:HOH:O	2.13	0.64
10:1A:11:PHE:HE1	10:1A:67:THR:HG22	1.62	0.64
26:1H:1569:A:N7	59:1H:3847:HOH:O	2.30	0.64
26:1H:2139:C:N4	26:1H:2152:G:H1	1.95	0.64
26:1H:509:C:O3'	59:1H:3729:HOH:O	2.14	0.64
36:25:63:VAL:HG12	36:25:106:LEU:HD11	1.79	0.64
13:4A:91:ARG:NH1	13:4A:97:PRO:O	2.30	0.64
13:4I:108:ARG:HG3	13:4I:108:ARG:HH11	1.61	0.64
41:75:24:PRO:HA	41:75:49:VAL:HG23	1.77	0.64
48:E5:27:GLU:HG3	48:E5:68:GLU:HA	1.78	0.64
48:I8:53:MET:HG3	48:I8:59:LEU:HD23	1.79	0.64
49:J8:92:LYS:HA	49:J8:95:LEU:HD12	1.79	0.64
1:13:659:U:H2'	1:13:660:G:H8	1.62	0.64
26:14:1049:C:O2'	26:14:1113:U:O2'	2.15	0.64
1:1G:377:G:OP1	16:7A:3:LYS:NZ	2.27	0.64
1:1G:973:G:H3'	1:1G:974:A:H5''	1.80	0.64
1:1G:991:U:O4	1:1G:1212:U:O2'	2.11	0.64
26:1H:1063:G:N2	26:1H:1076:C:O2	2.31	0.64
30:21:174:ASP:OD1	30:21:175:VAL:N	2.30	0.64
7:62:111:ARG:NH2	7:62:122:HIS:HB3	2.12	0.64
34:69:69:LYS:HA	34:69:136:VAL:HG11	1.80	0.64
1:1G:1249:C:O2'	9:82:73:GLN:OE1	2.16	0.64
45:B5:27:THR:HG22	45:B5:80:ILE:HB	1.80	0.64
26:1H:2334:G:O6	48:I8:74:ARG:NH2	2.29	0.64
26:14:468:G:N7	54:L5:39:ARG:NH2	2.43	0.64
55:Q8:52:LYS:H	55:Q8:53:PRO:HD2	1.63	0.64
26:14:1292:U:H2'	26:14:1293:C:C6	2.32	0.64
26:1H:2128:C:H2'	26:1H:2129:C:C6	2.32	0.64
26:1H:319:C:OP1	31:31:137:LYS:NZ	2.23	0.64
30:29:110:GLY:O	59:55:201:HOH:O	2.13	0.64
24:3L:5:C:H2'	24:3L:6:G:C8	2.33	0.64
5:42:100:VAL:HG23	5:42:118:ILE:HG22	1.80	0.64
35:58:39:ARG:NH2	35:58:41:ASP:OD2	2.30	0.64
28:71:215:THR:OG1	28:71:219:GLY:O	2.15	0.64
2:12:80:ILE:HD11	2:12:215:LEU:HD12	1.79	0.64
1:13:130:A:O2'	1:13:131:C:O5'	2.14	0.64
1:13:191(F):U:H2'	1:13:191:G:C8	2.31	0.64
26:14:1331:A:O3'	59:14:3609:HOH:O	2.15	0.64
1:1G:407:G:OP1	4:32:115:ARG:NH2	2.29	0.64
37:35:55:ARG:HG2	37:35:56:SER:N	2.11	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:4I:108:ARG:NH1	13:4I:112:GLY:O	2.31	0.64
6:5E:69:GLU:O	6:5E:72:VAL:HG12	1.97	0.64
42:85:75:ASN:OD1	42:85:78:THR:OG1	2.16	0.64
18:9A:30:ASP:OD2	59:9A:101:HOH:O	2.14	0.64
40:A8:48:LEU:HD23	40:A8:82:ILE:HD11	1.80	0.64
29:11:35:LYS:HG3	29:11:61:LEU:HB3	1.78	0.64
1:13:843:U:OP1	1:13:848:C:N4	2.30	0.64
26:14:1266:G:O5'	44:A5:15:ARG:NH2	2.30	0.64
26:14:528:A:C2	26:14:2042:A:H2'	2.32	0.64
26:14:289:A:H3'	26:14:290:G:H8	1.63	0.64
26:1H:1141:U:H6	35:58:63:THR:HG1	1.45	0.64
26:1H:2311:A:H1'	32:41:88:ILE:HD13	1.78	0.64
26:1H:2321:G:H5''	26:1H:2322:A:OP2	1.97	0.64
3:2E:19:GLU:O	3:2E:40:ARG:NH2	2.30	0.64
38:45:38:GLU:HG3	38:45:127:ILE:HG22	1.80	0.64
35:58:57:ALA:C	35:58:59:LYS:H	2.01	0.64
42:85:92:ARG:CZ	43:95:11:GLN:H	2.11	0.64
9:8E:10:ARG:HG3	9:8E:75:ASP:HB3	1.80	0.64
40:A8:29:PHE:HD1	40:A8:30:ARG:N	1.94	0.64
41:B8:58:ASN:C	41:B8:58:ASN:HD22	2.00	0.64
44:E8:35:ILE:HG23	53:N8:28:PRO:HD2	1.79	0.64
26:14:1044:G:O2'	26:14:1047:G:O2'	2.14	0.64
26:14:1048:A:N6	26:14:1112:G:O2'	2.30	0.64
1:1G:403:C:N4	59:1G:1819:HOH:O	2.30	0.64
26:1H:1858:G:O2'	26:1H:1859:A:OP2	2.15	0.64
26:1H:72:U:OP1	59:1H:3732:HOH:O	2.15	0.64
31:31:29:ASN:H	31:31:112:MET:HE1	1.61	0.64
15:6I:47:LYS:NZ	15:6I:47:LYS:HB3	2.11	0.64
44:A5:68:ARG:NH2	44:A5:111:HIS:O	2.31	0.64
43:D8:65:GLY:HA3	43:D8:91:TYR:CE2	2.33	0.64
47:H8:4:ARG:HB3	47:H8:58:VAL:HG22	1.78	0.64
29:11:29:PRO:O	29:11:30:GLU:HG3	1.98	0.64
1:13:628:G:H2'	1:13:629:G:C8	2.31	0.64
26:14:1598:C:O2	59:14:3590:HOH:O	2.12	0.64
26:14:1774:C:OP1	59:14:3607:HOH:O	2.15	0.64
4:3E:167:GLY:HA2	29:19:135:PHE:CZ	2.33	0.64
26:1H:1078:U:O2'	26:1H:1088:A:OP1	2.15	0.64
34:69:76:THR:HG21	34:69:140:LEU:HA	1.80	0.64
51:H5:7:LYS:HG3	51:H5:34:GLU:HG2	1.80	0.64
26:14:1623:G:O6	59:14:3591:HOH:O	2.12	0.64
26:14:1858:G:O2'	26:14:1884:A:N6	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2318:G:H5'	26:14:2319:G:OP2	1.98	0.64
26:14:2379:G:O2'	40:65:17:ARG:NH1	2.31	0.64
26:1H:1794:U:H2'	26:1H:1795:C:H6	1.63	0.64
28:71:7:TYR:HA	28:71:10:LEU:HB2	1.80	0.64
40:A8:106:ARG:HA	40:A8:110:LEU:H	1.63	0.64
43:D8:37:VAL:HG12	43:D8:55:ALA:O	1.98	0.64
49:F5:82:LEU:HB3	49:F5:83:GLU:HB2	1.80	0.64
2:12:160:ASP:N	2:12:160:ASP:OD1	2.31	0.63
26:14:1425:G:N2	26:14:1573:G:N7	2.46	0.63
26:14:1534:G:H3'	26:14:1535:U:H5''	1.79	0.63
26:14:2688:U:H1'	26:14:2721:A:N6	2.13	0.63
2:1E:17:PHE:HB3	2:1E:44:LEU:HG	1.79	0.63
26:1H:2588:G:H5''	59:1H:3611:HOH:O	1.97	0.63
4:3E:95:GLY:O	4:3E:99:SER:OG	2.17	0.63
5:42:51:VAL:HG23	5:42:52:PRO:HD3	1.80	0.63
38:45:135:ASP:HB2	38:45:137:TYR:N	2.13	0.63
5:4E:100:VAL:HG22	5:4E:118:ILE:HG22	1.80	0.63
33:51:169:VAL:HG13	33:51:170:ARG:H	1.63	0.63
7:6E:65:ALA:HB1	7:6E:127:ALA:HB3	1.80	0.63
43:D8:59:ALA:HB2	43:D8:96:ILE:HD13	1.81	0.63
1:13:1533:C:O2'	1:13:1534:A:OP1	2.14	0.63
26:14:1019:U:H2'	26:14:1020:A:C8	2.33	0.63
26:14:1570:A:H5'	29:19:37:LEU:HG	1.80	0.63
1:1G:1129:C:N4	1:1G:1139:G:H22	1.95	0.63
26:1H:1057:A:O2'	26:1H:1058:U:O4'	2.16	0.63
23:2K:62:C:H2'	23:2K:63:C:C6	2.33	0.63
32:41:124:SER:HB2	32:41:131:TYR:CE1	2.33	0.63
41:75:45:PHE:CE2	41:75:74:ARG:HG3	2.33	0.63
26:14:1188:U:O2'	26:14:1189:A:H5'	1.98	0.63
26:14:161:U:H5'	26:14:171:G:N2	2.13	0.63
26:14:2542:A:H5''	26:14:2542:A:N3	2.14	0.63
1:1G:1081:G:N7	5:42:47:LYS:NZ	2.45	0.63
1:1G:1124:G:HO2'	1:1G:1145:C:N4	1.96	0.63
26:1H:2329:G:N7	59:1H:3846:HOH:O	2.30	0.63
26:1H:2683:C:OP1	41:B8:53:ARG:NH2	2.31	0.63
26:1H:404:C:O2'	26:1H:405:U:OP2	2.16	0.63
26:1H:72:U:OP1	59:1H:3728:HOH:O	2.14	0.63
11:2A:48:ILE:HD11	11:2A:64:ALA:HA	1.80	0.63
32:41:47:LYS:HD2	32:41:81:LYS:HB2	1.79	0.63
26:1H:486:C:O2'	44:E8:60:ASN:ND2	2.31	0.63
45:F8:57:LEU:CD2	45:F8:78:LYS:HB2	2.28	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:G8:82:PRO:HG3	46:G8:97:ARG:HD2	1.80	0.63
26:14:2245:U:H5''	26:14:2246:G:H5'	1.80	0.63
35:15:42:TRP:O	42:85:64:ARG:NH2	2.31	0.63
27:16:44:G:H1'	27:16:47:C:N4	2.13	0.63
26:1H:1681:G:N2	26:1H:1763[B]:G:OP2	2.29	0.63
33:51:164:TYR:O	33:51:167:GLU:HB3	1.98	0.63
43:95:62:LEU:HD23	43:95:93:GLU:HG2	1.81	0.63
45:B5:36:LYS:HG2	45:B5:54:VAL:HB	1.80	0.63
49:F5:84:GLY:HA2	49:F5:85:LEU:HB3	1.80	0.63
50:G5:4:SER:HB3	50:G5:7:ARG:HB2	1.80	0.63
29:19:30:GLU:H	29:19:35:LYS:HZ1	1.47	0.63
26:1H:1009:A:OP2	35:58:37:LYS:NZ	2.31	0.63
26:1H:1081:U:O2'	26:1H:1082:U:OP1	2.15	0.63
26:1H:2287:A:H62	26:1H:2344:U:H3	1.44	0.63
26:1H:49:A:N7	26:1H:120:U:C5	2.60	0.63
26:1H:582:G:H2'	26:1H:583:G:C8	2.33	0.63
26:1H:847:U:O5'	59:1H:3733:HOH:O	2.15	0.63
4:3E:141:ARG:HB2	4:3E:141:ARG:NH1	2.14	0.63
14:5A:45:ARG:O	14:5A:49:HIS:ND1	2.29	0.63
1:13:1423:G:OP1	36:68:49:ARG:NH2	2.32	0.63
9:82:85:LEU:HD11	9:82:96:LEU:HD22	1.80	0.63
46:C5:14:LEU:HB2	46:C5:75:ILE:HD11	1.79	0.63
1:1G:1157:A:H2	1:1G:1180:A:C6	2.17	0.63
1:1G:1305:G:N2	1:1G:1331:G:O2'	2.32	0.63
26:1H:2751:G:OP1	33:51:3:ARG:NH2	2.30	0.63
4:32:60:GLU:OE2	4:32:199:ASN:N	2.24	0.63
32:49:93:THR:HG21	32:49:95:ARG:HH21	1.63	0.63
5:4E:33:VAL:HG11	5:4E:109:ILE:HA	1.81	0.63
37:78:114:ILE:HD13	37:78:125:VAL:HG11	1.80	0.63
1:1G:376:G:H5''	16:7A:5:ARG:HD2	1.80	0.63
38:88:104:PHE:HE2	38:88:125:LEU:HD11	1.64	0.63
26:14:1593:G:H2'	26:14:1594:G:C8	2.33	0.63
26:1H:1024:G:OP2	59:1H:3731:HOH:O	2.15	0.63
30:21:2:LYS:HD2	30:21:95:ILE:HG13	1.81	0.63
30:21:51:PHE:CE2	30:21:52:LEU:HD23	2.33	0.63
30:29:54:GLN:HB2	30:29:72:VAL:HA	1.81	0.63
3:2E:123:GLN:O	3:2E:128:PHE:HB2	1.98	0.63
26:1H:2749:A:P	33:51:4:ILE:HD11	2.38	0.63
6:5E:94:GLN:NE2	18:9I:33:ASP:OD1	2.29	0.63
34:69:76:THR:CG2	34:69:140:LEU:HA	2.29	0.63
38:88:66:ILE:HG13	38:88:67:ARG:H	1.64	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:G8:28:LYS:NZ	46:G8:64:GLU:OE2	2.29	0.63
29:11:238:GLY:N	59:11:406:HOH:O	2.32	0.63
1:13:153:C:N4	1:13:168:G:H1	1.97	0.63
26:14:253:C:O2'	59:14:3557:HOH:O	2.04	0.63
2:1E:21:ARG:CZ	2:1E:22:LYS:HB2	2.29	0.63
1:1G:19:C:OP1	5:42:125:SER:OG	2.13	0.63
26:1H:1412:A:H2'	26:1H:1413:G:C8	2.34	0.63
26:1H:370:G:H4'	26:1H:371:A:OP2	1.97	0.63
1:1G:1192:C:OP2	3:22:4:LYS:NZ	2.31	0.63
35:58:133:GLN:C	35:58:134:ARG:HE	2.02	0.63
35:58:76:SER:O	35:58:78:TYR:N	2.32	0.63
28:71:166:ASP:N	28:71:166:ASP:OD1	2.31	0.63
26:14:2331:G:O3'	48:E5:43:THR:HG22	1.98	0.63
1:13:581:G:O2'	1:13:582:U:H5'	1.99	0.63
1:13:758:G:N7	59:13:1855:HOH:O	2.31	0.63
26:14:2275:C:H5'	26:14:2275:C:C6	2.34	0.63
1:1G:1281:U:OP2	1:1G:1282:C:N4	2.28	0.63
26:1H:1162:G:O6	59:1H:3725:HOH:O	2.14	0.63
26:1H:1264:G:H5'	53:N8:11:THR:HG21	1.81	0.63
26:1H:2392:A:H2	26:1H:2424:C:N4	1.96	0.63
4:32:22:LYS:HD2	57:32:302:SF4:S2	2.39	0.63
31:39:129:PHE:HA	31:39:142:TRP:CD1	2.34	0.63
28:71:57:ASN:OD1	28:71:165:ASN:ND2	2.29	0.63
9:82:118:LYS:HB3	9:82:121:ARG:HB3	1.80	0.63
18:9A:36:ASN:O	18:9A:36:ASN:ND2	2.31	0.63
18:9I:59:SER:OG	18:9I:60:ALA:N	2.31	0.63
19:AA:17:GLU:HA	19:AA:20:LEU:HD22	1.81	0.63
19:AI:41:VAL:HG11	19:AI:45:VAL:N	2.14	0.63
42:C8:92:ARG:NE	43:D8:11:GLN:H	1.97	0.63
26:14:1340:U:H4'	26:14:1394:U:O2'	1.99	0.62
26:14:2306:C:H3'	26:14:2307:G:H5''	1.79	0.62
29:19:30:GLU:HB2	29:19:35:LYS:CE	2.28	0.62
2:1E:100:GLY:O	2:1E:104:ASN:N	2.30	0.62
1:1G:1305:G:H22	1:1G:1331:G:C2'	2.12	0.62
26:1H:270(M):U:OP2	34:61:57:ARG:NH2	2.26	0.62
4:32:100:ARG:HB3	4:32:100:ARG:HH11	1.64	0.62
4:32:162:LEU:HD13	4:32:181:MET:HG2	1.81	0.62
9:82:5:TYR:HA	9:82:17:VAL:O	1.98	0.62
29:11:33:LEU:HG	29:11:34:VAL:HG22	1.81	0.62
26:14:570:G:H5''	59:14:4114:HOH:O	1.99	0.62
2:1E:60:ASP:HB3	2:1E:64:ARG:HH21	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1042:G:H1	26:1H:1113:U:H3	1.47	0.62
26:1H:422:A:P	59:1H:3761:HOH:O	2.56	0.62
31:39:5:ALA:HB1	31:39:125:LEU:HD21	1.79	0.62
13:4A:22:ILE:HB	13:4A:25:ILE:HG12	1.80	0.62
39:55:38:VAL:HG12	39:55:42:LYS:HD2	1.80	0.62
28:79:17:ASN:HB2	28:79:18:LYS:HE3	1.81	0.62
49:F5:29:GLY:O	49:F5:30:VAL:HG22	1.99	0.62
2:12:71:VAL:HG11	2:12:164:VAL:HA	1.79	0.62
1:13:1336:C:H6	1:13:1336:C:H5''	1.64	0.62
26:14:1060:U:H4'	26:14:1061:U:H5''	1.79	0.62
26:14:2287:A:H61	26:14:2344:U:H3	1.43	0.62
26:14:531:C:OP1	26:14:561:G:N1	2.32	0.62
29:19:44:ASN:HB3	29:19:46:GLN:N	2.15	0.62
26:1H:2402:C:O2	26:1H:2403:C:N4	2.31	0.62
26:1H:2592:G:O2'	59:1H:3735:HOH:O	2.16	0.62
26:1H:270(K):C:O2'	26:1H:270(N):G:N2	2.30	0.62
26:1H:2845:G:H2'	26:1H:2846:G:H8	1.61	0.62
10:1I:78:ASN:OD1	10:1I:78:ASN:N	2.31	0.62
27:1J:44:G:H1'	27:1J:47:C:H42	1.64	0.62
3:2E:7:PRO:O	3:2E:11:ARG:HG2	1.99	0.62
32:49:62:LEU:HD13	32:49:143:GLU:HB3	1.80	0.62
36:68:2:ILE:HD12	36:68:6:THR:HG21	1.80	0.62
1:13:310:G:OP2	16:7I:27:LYS:NZ	2.32	0.62
17:8A:81:ARG:HB3	17:8A:84:LEU:HD12	1.82	0.62
19:AA:13:ASP:O	19:AA:16:LEU:N	2.32	0.62
1:13:963:G:H21	10:1I:55:LYS:HZ1	1.44	0.62
26:14:2541:A:N7	59:14:3705:HOH:O	2.31	0.62
1:1G:736:C:H2'	1:1G:737:A:C8	2.33	0.62
26:1H:1339:G:H21	26:1H:1603:A:H1'	1.65	0.62
26:1H:286:C:H2'	26:1H:287:C:C6	2.33	0.62
3:22:7:PRO:O	3:22:11:ARG:NH1	2.32	0.62
26:14:2467:C:H4'	38:45:123:HIS:CD2	2.34	0.62
35:58:96:GLU:C	35:58:98:VAL:H	2.01	0.62
14:5A:26:ARG:HH12	14:5A:47:LEU:HD21	1.64	0.62
8:72:25:ASP:N	8:72:25:ASP:OD1	2.32	0.62
41:75:56:GLY:O	41:75:59:THR:HG23	1.98	0.62
28:79:166:ASP:OD1	28:79:169:GLY:N	2.32	0.62
38:88:65:PHE:O	38:88:66:ILE:HG13	2.00	0.62
39:98:55:ALA:HA	39:98:80:PHE:CE1	2.34	0.62
47:H8:93:ASP:HB3	47:H8:131:ARG:NH2	2.12	0.62
26:14:1927:A:H2'	26:14:1928:A:C8	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2415:G:H4'	37:35:67:MET:N	2.14	0.62
1:1G:371:G:O2'	1:1G:373:A:N7	2.32	0.62
26:1H:1542:G:OP2	59:1H:3738:HOH:O	2.16	0.62
30:21:116:VAL:HG11	30:21:138:PRO:HB3	1.80	0.62
30:29:60:ASN:OD1	30:29:61:ARG:N	2.32	0.62
4:3E:207:TYR:O	4:3E:209:ARG:HD3	1.99	0.62
13:4A:37:THR:O	13:4A:55:ARG:NH2	2.33	0.62
1:1G:750:G:N3	15:6A:23:GLY:HA3	2.14	0.62
28:71:29:VAL:HG11	28:71:185:LEU:HD13	1.82	0.62
9:82:26:VAL:HG13	9:82:61:ALA:O	2.00	0.62
26:14:1323:U:OP1	44:A5:84:ARG:HD2	1.98	0.62
46:C5:62:GLU:CD	46:C5:63:LYS:H	2.03	0.62
26:14:1971:A:OP1	59:14:3610:HOH:O	2.16	0.62
1:1G:280:C:H3'	1:1G:281:G:H5'	1.80	0.62
26:1H:1593:G:H2'	26:1H:1594:G:C8	2.35	0.62
13:4A:11:ARG:HG3	13:4A:12:ASN:N	2.14	0.62
26:14:850:C:O3'	51:H5:49:LYS:HE2	1.99	0.62
1:13:1286:A:H8	1:13:1287:A:H4'	1.64	0.62
1:13:393:A:OP2	16:7I:12:LYS:NZ	2.24	0.62
1:13:618:C:H5''	1:13:619:U:H5''	1.82	0.62
10:1A:55:LYS:HZ1	10:1A:57:LYS:HB2	1.63	0.62
1:1G:986:A:H1'	19:AA:54:GLY:O	1.99	0.62
26:1H:1329:U:H5''	26:1H:1330:C:H5	1.63	0.62
26:1H:2164:C:OP2	26:1H:2166:G:N2	2.33	0.62
33:51:169:VAL:HG13	33:51:170:ARG:N	2.14	0.62
35:58:73:THR:HB	35:58:82:LEU:HD11	1.81	0.62
37:78:50:ARG:HH21	37:78:50:ARG:HG3	1.65	0.62
44:E8:58:ALA:HB1	44:E8:64:MET:HE2	1.81	0.62
2:12:71:VAL:HG11	2:12:164:VAL:HG13	1.81	0.62
26:1H:1047:G:HO2'	26:1H:1110:G:N2	1.98	0.62
36:25:64:ARG:HG3	36:25:83:ALA:HB3	1.82	0.62
4:3E:102:ASP:OD1	4:3E:103:ASN:N	2.33	0.62
24:3K:3:G:N2	24:3K:70:C:N3	2.48	0.62
39:55:24:GLN:OE1	39:55:36:THR:HG21	2.00	0.62
40:65:34:HIS:CE1	40:65:54:LEU:HD12	2.35	0.62
41:75:5:ALA:HB3	41:75:9:LEU:H	1.65	0.62
37:78:59:LEU:O	55:Q8:13:ARG:HD2	2.00	0.62
42:85:98:LEU:HA	42:85:100:VAL:O	2.00	0.62
40:A8:106:ARG:HE	40:A8:106:ARG:H	1.47	0.62
1:13:1406:U:H2'	1:13:1407:C:H5'	1.81	0.62
1:1G:934:C:OP1	59:1G:1823:HOH:O	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:5A:24:CYS:HB3	14:5A:29:ARG:HH21	1.65	0.62
34:61:124:GLY:H	34:61:142:VAL:HG23	1.63	0.62
34:61:40:THR:O	34:61:44:LEU:HB2	1.98	0.62
7:62:76:ARG:HD3	7:62:89:MET:HG3	1.82	0.62
34:69:72:LEU:HD21	34:69:107:VAL:HG11	1.81	0.62
1:13:750:G:N3	15:61:23:GLY:HA3	2.15	0.62
27:16:75:G:H21	47:H8:85:HIS:HE1	1.46	0.62
26:14:2303:G:O4'	32:49:126:ASP:HB3	1.99	0.62
26:14:528:A:OP2	35:15:114:ARG:NH1	2.32	0.62
26:14:831:G:H5''	26:14:832:G:OP2	2.00	0.62
26:1H:1430:C:H2'	26:1H:1431:U:C6	2.35	0.62
26:1H:1689:A:N6	26:1H:1698:A:H2	1.93	0.62
26:1H:1871:A:H2'	26:1H:1872:A:C8	2.35	0.62
26:1H:2400:G:H2'	26:1H:2401:U:C6	2.34	0.62
26:1H:2845:G:H2'	26:1H:2846:G:C8	2.35	0.62
10:1I:22:LYS:HD2	10:1I:90:LEU:HD22	1.81	0.62
36:25:98:VAL:HG12	36:25:117:LEU:HB3	1.81	0.62
37:78:18:ARG:O	37:78:19:VAL:HB	1.98	0.62
44:A5:59:VAL:HG12	44:A5:60:ASN:HD22	1.63	0.62
52:M8:12:ALA:HB3	52:M8:24:THR:HB	1.81	0.62
52:M8:24:THR:OG1	52:M8:25:TYR:N	2.32	0.62
1:13:1149:C:H2'	1:13:1150:U:H6	1.65	0.61
26:14:1260:G:H2'	26:14:1261:C:C6	2.35	0.61
26:14:1349:A:H8	59:14:3748:HOH:O	1.82	0.61
26:1H:1049:C:H2'	26:1H:1050:A:H5'	1.82	0.61
26:1H:2052:G:H4'	30:21:143:ASN:O	1.99	0.61
26:1H:2383:G:C2'	26:1H:2384:G:H5'	2.30	0.61
26:1H:376:C:P	59:1H:3693:HOH:O	2.56	0.61
26:1H:631:A:H5''	59:1H:4638:HOH:O	2.00	0.61
10:1I:26:ALA:O	10:1I:30:SER:OG	2.15	0.61
32:49:60:LEU:HD22	32:49:68:PRO:HB3	1.82	0.61
34:61:113:ARG:HH21	34:61:132:PRO:HB3	1.65	0.61
1:13:376:G:O3'	16:7I:5:ARG:NH1	2.33	0.61
37:78:49:ARG:HD2	55:Q8:60:LEU:HB3	1.80	0.61
2:12:126:GLU:O	2:12:130:ARG:NH1	2.33	0.61
2:12:71:VAL:HB	2:12:165:VAL:HG22	1.80	0.61
1:13:184:G:H2'	1:13:185:A:H8	1.65	0.61
29:19:145:VAL:HG13	29:19:191:ALA:HB2	1.82	0.61
1:1G:572:A:H5'	1:1G:573:A:OP2	2.00	0.61
26:1H:1900:A:C8	26:1H:1900:A:H5'	2.33	0.61
26:1H:2176:A:OP1	28:7I:7:TYR:OH	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1367:C:H5'	10:1I:60:ARG:NH1	2.15	0.61
27:1J:52:A:N6	40:65:33:LYS:HG3	2.15	0.61
31:39:170:LEU:HD22	31:39:172:TRP:HE1	1.65	0.61
4:3E:62:GLN:O	4:3E:66:ARG:HB2	2.00	0.61
12:3I:111:LYS:HD3	12:3I:112:ASP:H	1.65	0.61
33:51:9:ILE:HD13	33:51:51:ARG:HH21	1.65	0.61
34:61:98:ALA:HB2	34:61:111:PRO:HB3	1.80	0.61
34:69:65:ALA:O	34:69:69:LYS:N	2.33	0.61
35:58:38:HIS:O	42:C8:67:ALA:HB1	1.99	0.61
47:H8:28:MET:HG3	47:H8:37:VAL:HG11	1.82	0.61
52:M8:39:CYS:H	52:M8:42:PHE:HE2	1.49	0.61
26:14:57:C:H2'	26:14:58:G:O4'	2.01	0.61
2:1E:178:ARG:HG3	8:7E:72:PRO:HA	1.82	0.61
26:1H:1533:C:H3'	26:1H:1534:G:H5''	1.82	0.61
26:1H:2105:C:H2'	26:1H:2106:G:C8	2.36	0.61
26:1H:2287:A:N1	26:1H:2346:A:H2	1.98	0.61
26:1H:737:C:H5''	59:1H:4530:HOH:O	2.01	0.61
12:3I:47:LYS:HA	12:3I:49:ASN:H	1.65	0.61
38:45:10:ARG:HA	38:45:10:ARG:CZ	2.30	0.61
5:42:93:PRO:HG2	8:72:105:ARG:NE	2.16	0.61
26:14:2801:A:H2'	26:14:2802:G:O4'	2.00	0.61
26:14:330:A:H2	26:14:1210:A:O2'	1.82	0.61
26:1H:1204:A:H2	26:1H:1241:A:N1	1.97	0.61
23:2L:50:G:H1	23:2L:66:C:H42	1.48	0.61
32:49:114:ILE:HD13	32:49:140:ILE:HG21	1.82	0.61
36:25:122:LEU:HD23	41:75:43:GLN:HE22	1.66	0.61
45:B5:67:GLY:O	45:B5:69:TYR:N	2.32	0.61
42:C8:95:LEU:HD22	43:D8:4:ILE:HD13	1.82	0.61
29:11:146:GLU:HG3	29:11:190:TYR:H	1.65	0.61
26:14:1496:A:H8	26:14:1577:C:HO2'	1.48	0.61
26:1H:1412:A:H2'	26:1H:1413:G:H8	1.64	0.61
26:1H:1991:U:H2'	26:1H:1992:G:H5''	1.82	0.61
26:1H:2309:A:H2'	26:1H:2310:A:O4'	2.00	0.61
30:29:116:VAL:HG11	30:29:138:PRO:HB3	1.82	0.61
4:3E:11:LEU:HD12	4:3E:21:LEU:HD13	1.83	0.61
13:4I:13:LYS:O	13:4I:44:ARG:NH1	2.33	0.61
33:51:7:LEU:HD12	33:51:7:LEU:H	1.64	0.61
59:14:4508:HOH:O	39:55:15:SER:HB3	1.98	0.61
8:72:40:ALA:HA	8:72:45:ILE:HG13	1.83	0.61
37:78:82:GLY:HA2	37:78:113:LYS:O	2.01	0.61
1:13:877:C:H5''	8:7E:88:LYS:HD3	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:82:65:VAL:HG21	9:82:73:GLN:HB3	1.83	0.61
1:13:1145:C:H4'	1:13:1146:A:H5'	1.82	0.61
26:14:2128:C:N3	26:14:2160:G:N2	2.49	0.61
26:1H:2262:U:H4'	26:1H:2328:A:C2	2.35	0.61
26:1H:754:C:H2'	26:1H:755:C:H6	1.66	0.61
27:1J:3:C:H2'	27:1J:4:C:C6	2.36	0.61
30:21:174:ASP:HB3	30:21:183:LEU:HD13	1.83	0.61
32:49:120:LEU:HG	32:49:179:PRO:O	2.00	0.61
33:59:60:ARG:O	33:59:63:SER:OG	2.18	0.61
8:72:103:VAL:HG21	8:72:110:ALA:HB2	1.81	0.61
8:72:12:ARG:NH2	8:72:27:PRO:HD3	2.15	0.61
9:8E:26:VAL:HG13	9:8E:61:ALA:HB3	1.82	0.61
47:D5:23:LYS:HD3	47:D5:40:ASP:HA	1.83	0.61
26:1H:1187:G:H5''	43:D8:81:TYR:CE1	2.35	0.61
50:G5:53:LEU:O	50:G5:57:ILE:HG13	1.99	0.61
50:G5:4:SER:HA	50:G5:7:ARG:H	1.63	0.61
26:14:639:U:H2'	26:14:640:C:C6	2.35	0.61
10:1A:49:VAL:O	10:1A:60:ARG:HB2	2.01	0.61
1:1G:1343:G:H2'	1:1G:1344:C:C6	2.34	0.61
26:1H:1113:U:H5'	33:51:2:SER:OG	2.01	0.61
22:1K:7:U:O2'	22:1K:49:G:N2	2.28	0.61
4:3E:64:LEU:HD22	4:3E:198:VAL:HG11	1.81	0.61
38:45:66:ILE:HD12	38:45:67:ARG:H	1.65	0.61
5:4E:81:GLU:HG2	5:4E:90:VAL:HG23	1.82	0.61
41:75:105:LEU:HD12	41:75:110:ILE:HG12	1.82	0.61
18:9A:22:VAL:HG22	18:9A:23:LYS:H	1.64	0.61
44:A5:13:SER:HB3	44:A5:16:LYS:HD2	1.82	0.61
41:B8:108:ARG:HA	41:B8:111:ARG:NE	2.15	0.61
48:E5:38:VAL:HG13	48:E5:59:LEU:HB2	1.81	0.61
48:I8:72:ARG:HH11	48:I8:75:LEU:HD12	1.66	0.61
1:13:143:A:H2	1:13:220:G:H1	1.46	0.61
26:14:1009:A:OP1	35:15:37:LYS:NZ	2.28	0.61
26:14:2425:A:H5'	26:14:2426:A:H3'	1.81	0.61
2:1E:8:LYS:HG2	2:1E:9:GLU:H	1.65	0.61
23:2K:54:G:H2'	23:2K:55:5MU:H6	1.66	0.61
34:69:102:SER:O	34:69:106:GLY:N	2.33	0.61
1:1G:1187:G:OP1	9:82:113:LYS:NZ	2.33	0.61
1:13:1256:A:OP2	3:2E:26:LYS:NZ	2.33	0.61
27:16:13:A:N6	27:16:70:C:H5'	2.15	0.61
1:1G:1352:C:O3'	21:1B:10:ARG:NH2	2.33	0.61
1:1G:576:G:N2	1:1G:759:A:OP1	2.32	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2656:U:N3	26:1H:2665:A:H2	1.95	0.61
26:1H:2688:U:H5	26:1H:2720:U:OP2	1.84	0.61
26:1H:573:G:O2'	26:1H:574:C:H3'	2.00	0.61
26:1H:618:G:H2'	26:1H:618(A):C:H6	1.65	0.61
26:1H:646:A:H2'	26:1H:647:G:O4'	2.01	0.61
31:39:28:ILE:HA	31:39:112:MET:HG2	1.82	0.61
5:4E:110:LEU:HD13	5:4E:118:ILE:HD13	1.83	0.61
7:6E:69:VAL:HG12	7:6E:100:ALA:HA	1.81	0.61
39:98:72:ASP:O	39:98:76:VAL:HG23	2.00	0.61
40:A8:28:VAL:HG11	40:A8:98:VAL:HG13	1.82	0.61
27:16:7:G:H4'	40:A8:29:PHE:HD2	1.66	0.61
19:AI:9:VAL:HB	19:AI:10:PHE:HB2	1.83	0.61
41:B8:56:GLY:O	41:B8:59:THR:HG23	2.00	0.61
20:BA:33:ILE:O	20:BA:37:SER:OG	2.11	0.61
47:D5:101:PRO:CB	47:D5:102:LEU:HB2	2.30	0.61
26:14:1416:G:H21	26:14:1586:A:H62	1.49	0.61
26:14:7:G:H2'	26:14:8:A:C8	2.35	0.61
1:1G:1023:G:C5	1:1G:1024:G:H1'	2.36	0.61
1:1G:1154:G:H2'	1:1G:1155:G:C8	2.36	0.61
26:1H:730:C:H3'	59:1H:3770:HOH:O	2.00	0.61
22:1L:76:A:O2'	26:14:2583:G:N2	2.34	0.61
38:45:34:LEU:HB2	38:45:118:LEU:HD13	1.82	0.61
32:49:75:LYS:HA	32:49:84:LYS:HG3	1.82	0.61
7:62:16:LEU:HD12	9:82:42:ARG:HA	1.82	0.61
26:1H:2864:G:OP1	41:B8:119:LYS:HD2	2.01	0.61
29:11:68:LYS:HB3	29:11:70:TRP:CZ3	2.35	0.60
26:14:1091:G:N2	26:14:1100:C:O2'	2.34	0.60
1:1G:438:G:H4'	4:32:123:HIS:ND1	2.15	0.60
26:1H:2100:G:O6	26:1H:2189:U:N3	2.33	0.60
26:1H:2784:C:O2'	30:21:37:ARG:NH1	2.33	0.60
23:2L:16:C:O2'	23:2L:62:C:OP1	2.19	0.60
31:31:6:VAL:HG12	31:31:7:TYR:H	1.66	0.60
39:55:87:TYR:HD1	39:55:90:ARG:HD2	1.66	0.60
7:6E:68:ASN:O	7:6E:138:LYS:NZ	2.34	0.60
43:95:67:GLY:O	43:95:88:ARG:HD2	2.01	0.60
44:E8:88:ARG:HB2	44:E8:92:ARG:HB3	1.81	0.60
1:13:1002:G:O6	1:13:1038:C:N4	2.33	0.60
26:14:84:A:N6	26:14:102:G:O2'	2.28	0.60
26:14:29:U:O4	59:14:3598:HOH:O	2.13	0.60
26:14:833:U:O2	37:35:55:ARG:NH1	2.32	0.60
27:16:44:G:H1'	27:16:47:C:H42	1.65	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1497:G:OP2	59:1G:1824:HOH:O	2.16	0.60
1:1G:501:C:H2'	1:1G:502:G:H8	1.66	0.60
1:1G:624:C:H2'	1:1G:625:G:H8	1.65	0.60
1:1G:67:C:H2'	1:1G:68:G:C8	2.36	0.60
26:1H:783:A:C8	26:1H:783:A:H3'	2.35	0.60
30:21:116:VAL:O	30:21:117:MET:HB3	2.01	0.60
24:3L:76:A:H8	26:14:2394:C:N4	1.97	0.60
32:49:122:PRO:HG3	32:49:182:LYS:HA	1.82	0.60
5:4E:68:GLU:O	5:4E:70:PRO:HD3	2.01	0.60
33:51:2:SER:O	33:51:3:ARG:NE	2.34	0.60
37:78:83:VAL:HG12	37:78:112:LEU:HD21	1.82	0.60
45:F8:57:LEU:HD21	45:F8:78:LYS:HB2	1.83	0.60
26:1H:666:G:H1'	55:Q8:4:MET:HE2	1.83	0.60
2:12:19:HIS:CE1	2:12:207:ALA:H	2.19	0.60
1:13:1034:G:N2	1:13:1035:A:N7	2.49	0.60
1:13:1256:A:N6	1:13:1278:U:OP2	2.34	0.60
1:13:417:C:H2'	1:13:418:C:C6	2.35	0.60
26:14:1664:A:OP1	59:14:3616:HOH:O	2.16	0.60
35:15:111:PRO:HA	35:15:114:ARG:NH1	2.16	0.60
4:3E:167:GLY:HA2	29:19:135:PHE:CE1	2.35	0.60
1:1G:1368:G:H5'	9:82:112:LYS:HB3	1.83	0.60
26:1H:2789:C:H1'	26:1H:2892:A:H2	1.66	0.60
26:1H:671:C:OP1	37:78:42:SER:O	2.18	0.60
26:1H:2636:U:OP1	30:21:79:ARG:HA	2.01	0.60
30:29:25:VAL:HG12	30:29:26:ILE:H	1.65	0.60
22:1L:55:PSU:OP1	38:45:55:VAL:HG11	2.01	0.60
42:85:98:LEU:HB2	42:85:102:GLU:HB2	1.83	0.60
46:C5:88:LYS:O	46:C5:89:PHE:HB3	1.99	0.60
45:F8:3:THR:OG1	45:F8:5:TYR:N	2.25	0.60
47:H8:163:LEU:HB3	47:H8:165:VAL:H	1.67	0.60
26:1H:922:U:O2'	48:18:29:GLN:NE2	2.34	0.60
51:L8:50:VAL:HG23	51:L8:54:VAL:HB	1.82	0.60
55:M5:14:VAL:HG11	55:M5:58:ILE:HD11	1.82	0.60
26:14:1180:C:H2'	26:14:1181:C:C6	2.37	0.60
26:14:2156:G:N7	26:14:2157:G:N2	2.49	0.60
26:14:2165:G:H3'	26:14:2166:G:H5'	1.82	0.60
2:1E:47:THR:HA	2:1E:202:PRO:HG2	1.82	0.60
26:1H:1282:U:OP2	59:1H:3736:HOH:O	2.16	0.60
26:1H:243:U:OP1	55:Q8:6:THR:OG1	2.18	0.60
3:22:44:GLU:HG3	3:22:52:LEU:HD11	1.83	0.60
4:32:24:GLU:OE2	4:32:24:GLU:N	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:170:ARG:CA	33:51:171:LEU:HB2	2.29	0.60
34:69:76:THR:HG22	34:69:139:GLN:O	2.02	0.60
37:78:13:ASN:O	37:78:15:ARG:HD3	2.00	0.60
8:7E:85:ARG:HD3	8:7E:88:LYS:HG2	1.82	0.60
1:13:1336:C:C6	1:13:1336:C:H5''	2.37	0.60
26:14:1412:A:H2'	26:14:1413:G:H8	1.66	0.60
26:14:1324:G:H4'	26:14:1616:A:C2	2.36	0.60
26:14:1805:U:O2'	26:14:1806:C:H5'	2.02	0.60
26:14:2352:A:OP2	59:14:3617:HOH:O	2.17	0.60
26:14:2404:C:O3'	37:35:77:ARG:NH2	2.34	0.60
26:1H:2032:G:H21	30:21:146:THR:CG2	2.13	0.60
3:22:152:ILE:HB	3:22:199:LYS:HB2	1.84	0.60
12:3A:41:ARG:HD2	12:3A:42:THR:H	1.67	0.60
12:3I:42:THR:HG22	12:3I:54:LYS:HD2	1.83	0.60
35:58:96:GLU:HB2	35:58:122:VAL:HG12	1.83	0.60
33:59:11:VAL:HG13	33:59:69:ARG:HH12	1.65	0.60
6:5E:94:GLN:OE1	6:5E:94:GLN:N	2.33	0.60
37:78:39:LYS:CG	37:78:45:LEU:HD23	2.31	0.60
1:13:1346:A:H5''	9:8E:120:ARG:NH1	2.16	0.60
17:8I:100:LYS:HG2	17:8I:101:ARG:NE	2.11	0.60
17:8I:45:HIS:HB2	17:8I:65:ILE:HD13	1.83	0.60
46:G8:42:VAL:HG23	46:G8:43:ASN:N	2.17	0.60
49:J8:93:GLU:OE2	49:J8:94:LEU:HG	2.01	0.60
26:14:270(L):U:O2'	26:14:270(N):G:N2	2.34	0.60
26:14:528:A:C2	26:14:2043:C:H4'	2.37	0.60
1:13:1270:C:OP2	21:1F:24:ARG:NH2	2.35	0.60
26:1H:1023:U:OP1	59:1H:3731:HOH:O	2.15	0.60
26:1H:1455:G:O5'	59:1H:3700:HOH:O	2.16	0.60
26:1H:1496:A:H8	26:1H:1577:C:O2'	1.85	0.60
26:1H:1970:A:H4'	26:1H:1971:A:OP1	2.01	0.60
26:1H:805:G:P	59:1H:3628:HOH:O	2.59	0.60
4:32:20:TYR:CD1	4:32:26:CYS:HB3	2.37	0.60
12:3A:71:PRO:O	12:3A:102:ARG:NH1	2.32	0.60
4:3E:22:LYS:HB2	4:3E:26:CYS:SG	2.41	0.60
33:51:97:ARG:NH2	33:51:104:GLU:OE2	2.33	0.60
26:14:296:C:OP2	46:C5:4:LYS:NZ	2.35	0.60
26:14:2657:A:O3'	33:59:160:LYS:NZ	2.34	0.60
26:14:34:C:H1'	26:14:35:G:OP1	2.02	0.60
27:16:3:C:H2'	27:16:4:C:H6	1.65	0.60
26:1H:1385:G:O2'	26:1H:1396:U:H6	1.84	0.60
26:1H:1434:A:H61	26:1H:1558:A:N6	1.98	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:387:U:O4	59:1H:3737:HOH:O	2.16	0.60
32:49:11:TYR:OH	32:49:16:ARG:NH2	2.34	0.60
1:13:1536:C:N4	25:4K:10:G:O2'	2.35	0.60
10:1I:49:VAL:CG2	14:5I:41:ARG:HB2	2.31	0.60
1:13:1187:G:O5'	9:8E:113:LYS:NZ	2.35	0.60
26:1H:2016:U:O2	53:N8:7:PRO:HG2	2.02	0.60
26:14:1430:C:H2'	26:14:1431:U:C6	2.37	0.60
26:14:2291:U:O4	59:14:3601:HOH:O	2.14	0.60
26:14:2567:G:H2'	26:14:2568:C:C6	2.37	0.60
26:14:273(C):C:H5'	26:14:273(D):C:OP2	2.01	0.60
26:14:780:G:H21	26:14:783:A:N6	1.97	0.60
29:19:44:ASN:HB3	29:19:45:ASN:CA	2.31	0.60
1:1G:1256:A:N6	1:1G:1277:C:H3'	2.17	0.60
1:1G:324:G:N7	59:1G:1852:HOH:O	2.31	0.60
26:1H:1681:G:HO2'	26:1H:1762[B]:A:H8	1.45	0.60
26:1H:265:A:C8	26:1H:266:G:H1'	2.37	0.60
26:1H:825:C:H5''	59:1H:4490:HOH:O	2.01	0.60
4:32:4:TYR:CE2	4:32:11:LEU:HD11	2.37	0.60
4:3E:165:MET:SD	4:3E:168:ARG:NH1	2.74	0.60
24:3K:35:U:H3	25:4K:14:A:H61	1.48	0.60
18:9I:66:LEU:O	18:9I:70:ILE:HG13	2.01	0.60
29:11:70:TRP:CD1	29:11:70:TRP:C	2.74	0.60
1:13:813:U:OP2	1:13:816:A:N6	2.34	0.60
26:14:176:G:O2'	26:14:177:G:H5'	2.01	0.60
1:1G:991:U:O2	1:1G:993:G:H8	1.84	0.60
26:1H:1364:G:OP2	49:J8:2:SER:OG	2.17	0.60
31:39:63:LYS:NZ	31:39:67:GLN:HB2	2.17	0.60
7:6E:79:ARG:HH21	24:3K:33:U:H4'	1.67	0.60
32:41:109:VAL:HG13	52:M8:33:VAL:HG21	1.82	0.60
33:51:158:HIS:O	33:51:171:LEU:HD11	2.02	0.60
41:75:5:ALA:HB3	41:75:9:LEU:N	2.16	0.60
9:8E:7:THR:O	9:8E:83:ARG:NH1	2.34	0.60
1:13:280:C:O2	17:8I:38:ARG:HG3	2.01	0.60
46:G8:94:LYS:HE3	46:G8:95:LYS:H	1.66	0.60
52:M8:38:LYS:HA	52:M8:42:PHE:HZ	1.66	0.60
1:13:1363:A:H1'	1:13:1365:G:N7	2.17	0.60
26:14:648:G:O2'	26:14:2351:G:OP1	2.14	0.60
26:14:2475:C:H3'	26:14:2476:A:H5''	1.83	0.60
29:19:6:PHE:HE1	29:19:18:VAL:HG23	1.66	0.60
1:1G:1305:G:H22	1:1G:1331:G:H2'	1.67	0.60
1:1G:222:U:H2'	1:1G:223:U:C6	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1429:G:H2'	26:1H:1430:C:C6	2.37	0.60
26:1H:2210:G:H3'	26:1H:2211:G:N7	2.16	0.60
26:1H:526:A:OP1	59:1H:3745:HOH:O	2.17	0.60
22:1K:26:A:H3'	22:1K:27:G:H8	1.67	0.60
32:41:129:GLY:O	32:41:161:THR:HB	2.02	0.60
26:14:2839:G:H5'	39:55:46:GLY:HA2	1.84	0.60
7:62:87:VAL:HG22	7:62:88:PRO:O	2.02	0.60
46:G8:82:PRO:HB3	46:G8:99:CYS:HB2	1.83	0.60
55:Q8:51:ALA:HB1	55:Q8:52:LYS:HA	1.84	0.60
26:14:1784:A:H4'	26:14:1785:A:O5'	2.02	0.59
26:14:2126:A:N6	26:14:2163:C:O2	2.20	0.59
26:14:2498:C:P	59:14:3628:HOH:O	2.60	0.59
26:14:731:C:H5''	59:14:3660:HOH:O	2.00	0.59
2:1E:15:VAL:HG11	2:1E:210:SER:HB3	1.83	0.59
2:1E:208:ILE:HG22	2:1E:211:ILE:HD11	1.83	0.59
1:1G:1126:U:H4'	1:1G:1127:G:C8	2.37	0.59
1:1G:1287:A:H2'	1:1G:1288:A:C8	2.37	0.59
26:1H:1315:C:OP2	59:1H:3708:HOH:O	2.16	0.59
26:1H:1509:C:H2'	26:1H:1511:A:C8	2.37	0.59
26:1H:2405:G:OP1	37:78:77:ARG:NH2	2.34	0.59
26:1H:2883:A:H5'	26:1H:2884:U:H5'	1.84	0.59
11:2A:100:ALA:O	11:2A:102:GLY:N	2.35	0.59
37:35:59:LEU:O	37:35:59:LEU:HD22	2.02	0.59
31:39:53:THR:HG23	31:39:55:GLY:H	1.66	0.59
24:3K:76:A:H8	26:1H:2394:C:N4	1.97	0.59
32:49:124:SER:HB2	32:49:131:TYR:CE2	2.36	0.59
33:51:83:TYR:HB2	33:51:134:SER:HA	1.83	0.59
42:85:92:ARG:HH22	43:95:10:LYS:HA	1.66	0.59
20:BI:33:ILE:HD13	20:BI:63:ILE:HG12	1.83	0.59
26:14:1581:G:H2'	26:14:1582:C:O4'	2.02	0.59
26:14:2387:U:OP1	48:E5:55:ARG:NH1	2.34	0.59
26:14:2762:G:OP2	59:14:3612:HOH:O	2.16	0.59
2:1E:93:VAL:HG11	2:1E:97:TRP:HD1	1.67	0.59
26:1H:1777:U:O2'	26:1H:1778:U:H5'	2.02	0.59
22:1K:63:U:H3'	22:1K:64:G:C8	2.37	0.59
30:21:29:GLY:H	30:21:51:PHE:HE1	1.48	0.59
30:29:54:GLN:HE21	30:29:57:LYS:HD3	1.67	0.59
32:49:44:GLY:HA2	32:49:88:ILE:HD11	1.83	0.59
6:5E:82:ARG:HB2	6:5E:85:VAL:HG23	1.84	0.59
16:7A:22:THR:HA	16:7A:33:ILE:HG13	1.84	0.59
17:8I:83:ASP:OD1	17:8I:83:ASP:N	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:M5:40:GLU:CA	55:M5:43:GLN:HB3	2.33	0.59
1:13:516:U:O4	59:13:1811:HOH:O	2.14	0.59
26:14:1316:U:H2'	26:14:1317:A:C8	2.38	0.59
26:14:140:A:H8	26:14:1408:C:HO2'	1.47	0.59
26:14:1297:C:OP1	26:14:2710:C:H4'	2.02	0.59
26:14:2689:U:OP2	26:14:2719:G:N2	2.35	0.59
2:1E:17:PHE:HD1	2:1E:44:LEU:HD11	1.67	0.59
26:1H:1086:A:H1'	26:1H:1103:A:N1	2.17	0.59
26:1H:1441:G:O6	59:1H:3734:HOH:O	2.15	0.59
26:1H:1434:A:N6	26:1H:1558:A:H61	1.98	0.59
26:1H:2327:A:H2'	26:1H:2328:A:C8	2.38	0.59
26:1H:2401:U:H2'	26:1H:2402:C:O4'	2.02	0.59
26:1H:270(K):C:H1'	26:1H:270(N):G:H1	1.67	0.59
27:1J:40:U:O2	27:1J:43:C:H5''	2.01	0.59
23:2K:24:C:H2'	23:2K:25:U:C6	2.37	0.59
4:32:112:VAL:HG12	4:32:116:GLN:OE1	2.01	0.59
26:14:2429:G:O6	37:35:61:ARG:NH2	2.34	0.59
24:3K:51:A:H2'	24:3K:52:G:H8	1.66	0.59
24:3L:50:C:H2'	24:3L:51:A:H8	1.67	0.59
35:58:35:ARG:O	35:58:42:TRP:HZ3	1.85	0.59
42:85:66:ASN:HB2	42:85:76:TYR:HB2	1.84	0.59
18:9A:21:LYS:HZ3	18:9A:22:VAL:H	1.50	0.59
1:13:346:G:OP1	41:B8:41:ARG:NH2	2.36	0.59
37:78:63:PRO:CB	55:Q8:30:ARG:HH21	2.16	0.59
1:13:963:G:H21	10:1I:55:LYS:NZ	2.00	0.59
29:19:39:LYS:O	29:19:40:THR:HG23	2.01	0.59
2:1E:28:PHE:CD2	2:1E:190:THR:HA	2.37	0.59
1:1G:624:C:H2'	1:1G:625:G:C8	2.37	0.59
26:1H:1094:U:O2'	26:1H:1096:A:OP1	2.20	0.59
26:1H:1337:G:H2'	26:1H:1338:G:H8	1.66	0.59
26:1H:404:C:OP2	59:1H:3744:HOH:O	2.17	0.59
3:22:119:ARG:NH2	3:22:140:ARG:HD2	2.17	0.59
11:2A:82:VAL:HB	11:2A:108:ILE:HG12	1.83	0.59
38:45:90:VAL:O	38:45:91:GLU:HB2	2.02	0.59
32:49:53:LEU:HD13	32:49:90:LEU:HD21	1.84	0.59
7:62:37:ASN:HA	7:62:40:ALA:HB3	1.83	0.59
41:75:4:GLY:N	41:75:5:ALA:C	2.56	0.59
42:C8:69:CYS:HG	42:C8:79:PHE:HD2	1.51	0.59
43:D8:44:LYS:O	43:D8:46:VAL:N	2.34	0.59
2:12:98:LEU:O	2:12:101:MET:HG2	2.02	0.59
1:13:1412:C:H2'	1:13:1413:A:C8	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:157:G:H1	1:13:164:U:H3	1.50	0.59
26:14:996:A:N6	26:14:1160:G:C6	2.71	0.59
26:14:1607:C:H4'	26:14:1608:A:O5'	2.02	0.59
26:14:67:U:H2'	26:14:68:G:H8	1.67	0.59
35:15:43:THR:N	35:15:48:MET:HE3	2.16	0.59
2:1E:111:ARG:NH1	2:1E:111:ARG:HG2	2.15	0.59
1:1G:1347:G:O2'	1:1G:1373:G:O6	2.14	0.59
26:1H:2484:G:O6	59:1H:3739:HOH:O	2.16	0.59
30:29:9:VAL:HA	41:75:3:ARG:HD2	1.83	0.59
26:14:1342:A:C2	26:14:1397:U:C2	2.90	0.59
26:14:2197:U:H1'	26:14:2198:A:C8	2.38	0.59
26:14:2261:C:O2'	26:14:2262:U:H5'	2.02	0.59
35:15:43:THR:H	35:15:48:MET:HE3	1.65	0.59
1:1G:547:A:OP2	4:32:2:GLY:N	2.35	0.59
26:1H:1517:G:H5''	26:1H:1518:C:OP2	2.02	0.59
26:1H:1603:A:OP1	26:1H:1604:C:OP2	2.20	0.59
26:1H:2636:U:OP2	30:21:79:ARG:HG2	2.03	0.59
26:1H:860:U:C5	26:1H:917:A:C2	2.89	0.59
31:31:167:ALA:HB1	31:31:173:VAL:HG11	1.85	0.59
4:3E:65:ARG:NH1	4:3E:70:ILE:O	2.34	0.59
37:78:63:PRO:HB2	55:Q8:30:ARG:NH2	2.16	0.59
26:14:1536:A:C8	26:14:1537:C:H1'	2.37	0.59
26:14:197:A:OP1	59:14:3526:HOH:O	2.16	0.59
1:1G:1396:A:H4'	1:1G:1397:C:H5''	1.84	0.59
26:1H:534:U:H5'	42:C8:42:ALA:HB1	1.84	0.59
26:1H:724:U:O4	59:1H:3740:HOH:O	2.16	0.59
22:1L:3:G:H4'	22:1L:4:U:OP1	2.02	0.59
26:14:2823:A:OP1	30:29:159:HIS:NE2	2.33	0.59
37:35:65:ARG:HB3	59:35:308:HOH:O	2.02	0.59
14:5I:6:LEU:HB3	14:5I:23:ARG:NH2	2.18	0.59
44:A5:59:VAL:HG12	44:A5:60:ASN:ND2	2.18	0.59
29:11:84:TYR:HE1	29:11:86:PRO:HB3	1.66	0.59
2:12:189:ASP:HB3	2:12:203:GLY:O	2.02	0.59
26:14:2126:A:H2	26:14:2162:G:H22	1.49	0.59
26:14:631:A:O2'	37:35:67:MET:HB3	2.03	0.59
27:16:11:C:H3'	27:16:12:C:H6	1.67	0.59
1:13:1329:A:N7	21:1F:7:ARG:NH2	2.50	0.59
26:1H:1332:G:N2	26:1H:1610:A:C8	2.69	0.59
26:1H:2175:C:OP2	28:71:3:HIS:ND1	2.35	0.59
26:1H:511:U:H5''	26:1H:512:G:OP2	2.02	0.59
14:5A:21:TYR:HE1	14:5A:23:ARG:HE	1.50	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1J:116:G:H5'	40:65:55:ALA:HB2	1.84	0.59
41:75:5:ALA:N	41:75:6:LEU:HA	2.18	0.59
17:8A:59:ILE:HG22	17:8A:71:PHE:CD2	2.38	0.59
17:8I:76:LEU:HD12	17:8I:77:VAL:H	1.67	0.59
39:98:86:ARG:HH21	39:98:118:GLU:HG2	1.67	0.59
40:A8:34:HIS:HB2	40:A8:36:TYR:HE1	1.67	0.59
20:BA:50:GLU:HA	20:BA:100:ILE:HG21	1.84	0.59
55:Q8:52:LYS:N	55:Q8:53:PRO:HD2	2.17	0.59
1:13:1238:A:N3	1:13:1241:G:O2'	2.33	0.59
1:13:611:A:H61	1:13:629:G:H1	1.49	0.59
10:1A:37:PRO:HA	10:1A:72:VAL:HG12	1.83	0.59
1:1G:1343:G:H2'	1:1G:1344:C:H6	1.67	0.59
1:1G:164:U:H2'	1:1G:165:C:C6	2.38	0.59
26:1H:1364:G:N7	49:J8:2:SER:HB3	2.17	0.59
26:1H:2308:G:N1	26:1H:2311:A:C2	2.65	0.59
30:21:50:GLY:HA2	30:21:77:ILE:HA	1.85	0.59
30:29:1:MET:SD	30:29:200:GLU:HG3	2.43	0.59
42:85:61:TRP:CH2	42:85:94:ASN:HB2	2.37	0.59
42:C8:92:ARG:CZ	43:D8:11:GLN:H	2.16	0.59
1:13:1406:U:C2'	1:13:1407:C:H5'	2.32	0.59
1:13:394:G:O6	59:13:1818:HOH:O	2.10	0.59
26:14:2572:A:OP1	26:14:2574:G:O2'	2.21	0.59
26:14:2830:G:O6	59:14:3614:HOH:O	2.16	0.59
26:14:620:G:H4'	26:14:621:A:H5''	1.85	0.59
35:15:96:GLU:H	35:15:96:GLU:CD	2.06	0.59
1:1G:142:G:H2'	1:1G:143:A:H8	1.66	0.59
1:1G:538:G:H5''	12:3A:114:LYS:HB2	1.85	0.59
1:1G:957:U:H1'	1:1G:960:U:C5	2.37	0.59
26:1H:1087:G:C5	26:1H:1089:G:H1'	2.36	0.59
30:29:51:PHE:CG	30:29:52:LEU:N	2.71	0.59
3:2E:36:ASP:O	3:2E:40:ARG:HG3	2.03	0.59
4:32:13:ARG:C	4:32:15:GLU:H	2.06	0.59
31:39:116:ASP:OD2	37:35:1:MET:N	2.35	0.59
24:3K:11:C:N4	24:3K:24:G:H1	2.01	0.59
14:5A:7:ILE:HB	14:5A:23:ARG:HD3	1.83	0.59
40:A8:111:GLU:HB2	40:A8:112:PHE:CE2	2.38	0.59
50:G5:58:ALA:O	50:G5:62:THR:OG1	2.19	0.59
1:13:1031:G:H2'	1:13:1032:A:H5'	1.84	0.58
26:14:1171:G:O2'	26:14:1173:G:OP2	2.19	0.58
26:14:2185:C:H2'	26:14:2186:G:C8	2.38	0.58
26:14:2553:G:H5''	26:14:2554:U:OP2	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:581:C:H2'	26:14:582:G:H8	1.69	0.58
2:1E:18:GLY:H	2:1E:42:ILE:HB	1.68	0.58
1:1G:1273:G:H3'	1:1G:1274:G:H8	1.68	0.58
1:1G:1286:A:C8	1:1G:1287:A:H4'	2.37	0.58
1:1G:411:A:H62	1:1G:413:G:N2	2.01	0.58
26:1H:1062:G:N1	26:1H:1076:C:N3	2.48	0.58
26:1H:1520:U:OP2	59:1H:3746:HOH:O	2.17	0.58
26:1H:1970:A:P	59:1H:3692:HOH:O	2.60	0.58
26:1H:2126:A:H1'	26:1H:2162:G:H21	1.67	0.58
26:1H:445:C:O2'	26:1H:446:G:H5'	2.03	0.58
1:1G:407:G:O2'	4:32:116:GLN:HG3	2.02	0.58
31:39:11:VAL:HG22	31:39:12:LEU:H	1.68	0.58
27:16:43:C:OP1	32:41:67:LYS:NZ	2.36	0.58
13:4A:62:ASN:O	13:4A:65:LYS:NZ	2.36	0.58
14:5A:12:ARG:HB2	14:5A:14:PRO:HD3	1.84	0.58
7:62:97:GLN:HG3	7:62:98:SER:N	2.18	0.58
40:65:43:GLU:HB2	48:E5:49:LYS:HZ3	1.68	0.58
55:Q8:15:LYS:HB2	59:Q8:205:HOH:O	2.02	0.58
26:14:2292:C:P	40:65:17:ARG:HH21	2.26	0.58
26:1H:1448:G:H1'	26:1H:1528:A:H62	1.68	0.58
26:1H:2328:A:H4'	59:1H:4243:HOH:O	2.02	0.58
26:1H:2788:C:O2'	26:1H:2809:A:N3	2.36	0.58
26:1H:907:U:OP1	59:1H:3741:HOH:O	2.16	0.58
23:2K:52:C:H2'	23:2K:53:G:O4'	2.03	0.58
40:65:89:ARG:HG3	40:65:92:TYR:O	2.03	0.58
38:88:32:TYR:CE1	38:88:133:ARG:HG3	2.38	0.58
9:8E:40:LEU:HD11	9:8E:70:LYS:HD3	1.85	0.58
18:9A:56:THR:HB	18:9A:58:LEU:HD12	1.85	0.58
20:BI:26:ASN:HB2	20:BI:71:THR:HG23	1.83	0.58
49:F5:82:LEU:HA	49:F5:83:GLU:HG3	1.85	0.58
2:12:126:GLU:HB3	2:12:130:ARG:HH12	1.68	0.58
26:14:2010:G:O6	59:14:3613:HOH:O	2.16	0.58
26:14:602:G:N2	26:14:655:A:C8	2.70	0.58
26:14:71:A:C8	26:14:71:A:H5'	2.38	0.58
1:1G:535:A:H5''	59:1G:1865:HOH:O	2.03	0.58
26:1H:1103:A:H3'	26:1H:1104:C:C6	2.38	0.58
26:1H:1204:A:C2	26:1H:1241:A:N1	2.71	0.58
26:1H:2061:G:OP2	26:1H:2502:G:H5'	2.03	0.58
26:1H:754:C:H2'	26:1H:755:C:C6	2.39	0.58
11:2A:22:HIS:HB3	11:2A:29:ILE:HG12	1.85	0.58
39:55:3:HIS:CD2	59:55:203:HOH:O	2.56	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:58:75:TYR:CZ	35:58:77:GLY:HA2	2.38	0.58
35:58:96:GLU:HG2	35:58:97:ARG:N	2.18	0.58
34:69:143:SER:OG	34:69:144:VAL:N	2.36	0.58
28:71:29:VAL:HG13	28:71:30:LYS:HG2	1.85	0.58
9:82:60:ASP:OD1	9:82:60:ASP:N	2.36	0.58
26:1H:535:C:O3'	42:C8:53:ARG:NH1	2.35	0.58
47:D5:97:GLU:HB3	47:D5:125:LEU:HD11	1.85	0.58
34:69:27:ARG:HB2	49:F5:71:TYR:CZ	2.38	0.58
1:13:324:G:N1	1:13:327:A:OP2	2.36	0.58
1:13:652:U:HO2'	1:13:653:A:P	2.25	0.58
26:1H:125:G:H5'	26:1H:125:G:H8	1.69	0.58
30:29:52:LEU:O	30:29:74:PRO:HB2	2.04	0.58
32:41:97:ASP:O	32:41:100:TRP:N	2.37	0.58
32:41:135:LEU:HD13	32:41:140:ILE:HD11	1.86	0.58
41:75:133:GLU:N	41:75:133:GLU:OE2	2.37	0.58
8:7E:87:SER:HB2	8:7E:93:VAL:CB	2.29	0.58
17:8A:44:ALA:HB1	17:8A:73:VAL:HG12	1.85	0.58
48:I8:63:VAL:HG23	48:I8:64:ASP:O	2.03	0.58
29:11:31:LYS:O	29:11:35:LYS:NZ	2.36	0.58
29:11:75:ILE:HG21	29:11:99:ASP:OD2	2.03	0.58
1:13:504:C:OP1	59:13:1829:HOH:O	2.17	0.58
26:14:1244:G:O6	59:14:3600:HOH:O	2.14	0.58
26:14:1416:G:H21	26:14:1586:A:N6	2.02	0.58
26:14:1774:C:H5''	59:14:3514:HOH:O	2.03	0.58
26:14:2749:A:H2'	33:59:59:ARG:HH11	1.67	0.58
26:14:2820:A:H4'	59:55:203:HOH:O	2.03	0.58
26:14:879:G:H2'	26:14:897:C:H41	1.67	0.58
26:14:910:A:H62	38:45:12:GLN:HA	1.69	0.58
1:1G:1106:G:H5''	3:22:172:ARG:HD2	1.86	0.58
24:3K:22:G:N2	24:3K:23:A:N7	2.52	0.58
13:4I:23:TYR:CD2	13:4I:67:GLU:HA	2.39	0.58
33:59:6:ARG:HH12	33:59:54:ARG:NH1	2.00	0.58
6:5E:75:LEU:HD22	6:5E:79:LEU:HG	1.85	0.58
1:1G:581:G:OP1	15:6A:61:GLY:HA3	2.03	0.58
28:71:64:LEU:HD21	28:71:188:ASN:ND2	2.17	0.58
20:BI:57:ARG:NH1	20:BI:102:GLY:HA2	2.19	0.58
48:E5:37:LEU:HG	48:E5:60:PHE:HA	1.84	0.58
46:G8:30:VAL:HG22	46:G8:37:VAL:HG12	1.86	0.58
52:M8:37:SER:O	52:M8:38:LYS:HD2	2.04	0.58
2:12:210:SER:O	2:12:214:ILE:HG12	2.03	0.58
1:13:1062:U:H2'	1:13:1063:C:C6	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1464:C:O2'	26:14:1528:A:H8	1.86	0.58
26:14:1665:A:OP2	59:14:3615:HOH:O	2.16	0.58
26:14:491:G:O6	44:A5:49:LYS:HE2	2.03	0.58
26:14:635:C:O2'	26:14:639:U:OP1	2.21	0.58
26:14:796:C:H2'	26:14:797:C:C6	2.39	0.58
26:14:853:G:C2'	26:14:854:G:H5'	2.33	0.58
26:14:821:A:O2'	26:14:946:G:OP2	2.21	0.58
1:1G:1052:U:H5''	1:1G:1053:G:OP2	2.03	0.58
1:1G:1348:U:H4'	9:82:120:ARG:HD2	1.86	0.58
26:1H:1520:U:H2'	26:1H:1521:G:O4'	2.04	0.58
26:1H:1776:G:OP2	59:1H:3749:HOH:O	2.17	0.58
26:1H:392:C:OP1	59:1H:3671:HOH:O	2.17	0.58
30:29:111:ARG:HD2	30:29:160:TYR:CE2	2.38	0.58
5:42:60:TYR:HB3	5:42:64:ARG:CZ	2.34	0.58
33:51:64:LEU:O	33:51:68:THR:OG1	2.18	0.58
1:13:1015:A:H2'	1:13:1016:A:C8	2.38	0.58
1:13:686:U:O4	1:13:703:G:H1'	2.04	0.58
26:14:1379:A:H1'	26:14:1380:G:OP1	2.04	0.58
26:14:2147:G:C5	26:14:2148:G:H1'	2.39	0.58
26:1H:1178:C:H4'	26:1H:1179:C:OP1	2.02	0.58
26:1H:1339:G:N2	26:1H:1603:A:H1'	2.18	0.58
26:1H:1636:C:H2'	26:1H:1637:A:C8	2.37	0.58
26:1H:1796:U:H2'	26:1H:1797:C:C6	2.38	0.58
26:1H:2210:G:H3'	26:1H:2211:G:C8	2.38	0.58
26:1H:399:G:OP2	59:1H:3748:HOH:O	2.17	0.58
26:1H:818:G:H4'	26:1H:838:C:O3'	2.04	0.58
33:51:164:TYR:HB2	33:51:167:GLU:HB2	1.86	0.58
35:58:53:VAL:HG11	35:58:128:HIS:HD2	1.69	0.58
7:6E:16:LEU:HD12	9:8E:42:ARG:HA	1.84	0.58
16:7I:21:VAL:O	16:7I:33:ILE:N	2.27	0.58
29:11:96:HIS:CD2	29:11:102:LYS:HE2	2.39	0.58
1:13:1171:G:H2'	1:13:1172:C:C6	2.38	0.58
1:13:244:U:H4'	1:13:245:C:O5'	2.02	0.58
1:13:454:C:OP2	1:13:455:C:N4	2.33	0.58
1:13:397:A:C6	1:13:548:G:N7	2.72	0.58
1:13:953:G:H2'	1:13:954:G:O4'	2.02	0.58
26:14:1114:G:H2'	26:14:1115:G:C8	2.39	0.58
26:14:1499:C:H2'	26:14:1500:G:C8	2.38	0.58
26:14:2058:A:N6	59:14:3627:HOH:O	2.19	0.58
26:14:2864:G:OP1	41:75:119:LYS:HD2	2.03	0.58
26:14:646:A:H2'	26:14:647:G:O4'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:115:G:H1'	1:1G:116:A:N7	2.19	0.58
26:1H:1111:A:N3	26:1H:1112:G:H1'	2.17	0.58
26:1H:125:G:H5'	26:1H:125:G:C8	2.39	0.58
26:1H:1266:G:O2'	26:1H:2012:G:O6	2.15	0.58
26:1H:2135:A:N6	26:1H:2156:G:O2'	2.37	0.58
26:1H:65:C:H2'	26:1H:66:C:C6	2.38	0.58
26:1H:934:G:H2'	26:1H:935:C:H6	1.68	0.58
27:1J:116:G:C5'	40:65:55:ALA:HB2	2.34	0.58
3:22:42:LEU:HA	3:22:45:LYS:HD3	1.85	0.58
23:2K:16:C:O2'	23:2K:62:C:OP1	2.22	0.58
37:35:97:PRO:HG3	37:35:112:LEU:HD12	1.85	0.58
4:3E:98:GLU:HG2	4:3E:189:PRO:HG2	1.84	0.58
24:3K:52:G:H2'	24:3K:53:G:C8	2.39	0.58
5:4E:10:MET:HB3	5:4E:32:VAL:HG22	1.86	0.58
14:5I:3:ARG:CZ	14:5I:3:ARG:HA	2.34	0.58
46:C5:76:CYS:SG	46:C5:97:ARG:HG3	2.44	0.58
47:D5:10:ARG:HB3	47:D5:36:LYS:HG3	1.85	0.58
49:F5:62:VAL:HG21	49:F5:70:VAL:HG21	1.85	0.58
26:14:77:C:O3'	50:G5:14:ARG:NH2	2.35	0.58
52:M8:42:PHE:CG	52:M8:42:PHE:O	2.57	0.58
26:14:1323:U:H2'	26:14:1324:G:H5'	1.86	0.58
26:14:2329:G:H2'	26:14:2330:G:O4'	2.04	0.58
26:1H:582:G:H2'	26:1H:583:G:H8	1.69	0.58
30:29:60:ASN:ND2	30:29:62:PRO:O	2.37	0.58
50:G5:63:VAL:HA	50:G5:66:GLU:HG2	1.86	0.58
47:H8:76:LEU:CD2	47:H8:76:LEU:H	2.17	0.58
29:11:239:ARG:N	59:11:406:HOH:O	2.36	0.58
1:13:1122:U:O4	1:13:1123:A:N6	2.37	0.58
1:13:664:G:N2	1:13:741:G:H1	1.98	0.58
26:14:1639:U:O2'	26:14:1640:C:H5'	2.03	0.58
26:14:491:G:H2'	26:14:492:A:H8	1.69	0.58
26:14:71:A:C2	45:B5:31:HIS:NE2	2.68	0.58
26:14:67:U:N3	26:14:74:A:H2	1.91	0.58
26:14:760:G:OP1	59:14:3618:HOH:O	2.17	0.58
27:16:15:A:H3'	27:16:16:G:H5'	1.84	0.58
1:1G:1324:A:H2'	1:1G:1325:C:C6	2.39	0.58
26:1H:792:G:H5''	26:1H:793:A:H5'	1.86	0.58
27:1J:88:C:H1'	27:1J:89:G:OP1	2.04	0.58
22:1L:9:A:H3'	22:1L:10:G:C8	2.39	0.58
31:39:101:LEU:O	31:39:106:ARG:NH1	2.37	0.58
6:52:74:ASP:N	6:52:74:ASP:OD1	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5E:100:ASN:C	18:9I:28:GLU:HB2	2.24	0.58
7:62:65:ALA:HB3	7:62:124:LEU:HD23	1.85	0.58
49:F5:84:GLY:CA	49:F5:85:LEU:HB3	2.34	0.58
47:H8:154:ASP:OD1	47:H8:154:ASP:N	2.35	0.58
1:13:1391:U:H2'	1:13:1392:G:H8	1.69	0.57
1:13:342:C:O2	1:13:347:G:N2	2.27	0.57
26:14:1486:A:H2'	26:14:1487:G:C8	2.39	0.57
29:19:49:ILE:HD11	29:19:52:ARG:HA	1.86	0.57
26:1H:274:G:N2	26:1H:276:A:H61	2.01	0.57
4:32:31:CYS:H	4:32:35:ARG:CZ	2.16	0.57
32:41:110:ALA:HA	32:41:140:ILE:O	2.04	0.57
13:4I:114:ARG:HG3	13:4I:114:ARG:HH11	1.69	0.57
33:51:56:SER:HB3	33:51:61:HIS:ND1	2.18	0.57
27:1J:9:G:P	40:65:25:ARG:HH22	2.26	0.57
40:65:62:LYS:HA	40:65:65:VAL:HG12	1.85	0.57
40:65:93:LYS:HG2	40:65:95:HIS:HB3	1.85	0.57
8:72:51:VAL:HG11	8:72:60:ARG:HE	1.68	0.57
20:BA:49:ALA:HA	20:BA:52:ALA:HB3	1.86	0.57
43:D8:37:VAL:O	43:D8:38:LEU:HG	2.03	0.57
53:N8:36:CYS:HB2	53:N8:49:CYS:SG	2.44	0.57
29:11:36:PRO:HB2	29:11:37:LEU:HD12	1.86	0.57
1:13:1497:G:H2'	1:13:1498:U:H5'	1.85	0.57
1:13:835:U:H3	1:13:851:G:H1	1.51	0.57
1:1G:1213:A:N6	1:1G:1215:G:N3	2.53	0.57
1:1G:1321:C:N4	1:1G:1322:C:H41	2.01	0.57
26:1H:2503:A:H4'	26:1H:2504:U:OP1	2.03	0.57
31:31:197:ASP:N	31:31:197:ASP:OD1	2.37	0.57
28:71:19:ILE:HG12	28:71:223:ARG:HD3	1.86	0.57
1:1G:1342:C:H4'	9:82:125:TYR:HB3	1.86	0.57
45:B5:51:VAL:HG13	45:B5:81:VAL:HG23	1.84	0.57
20:BI:49:ALA:HA	20:BI:92:LEU:HD11	1.85	0.57
46:G8:85:VAL:O	46:G8:86:ARG:HD3	2.04	0.57
47:H8:10:ARG:HG3	47:H8:36:LYS:HB3	1.86	0.57
2:12:118:LEU:HB3	2:12:142:LEU:HD12	1.86	0.57
26:14:733:G:C5	59:14:3507:HOH:O	2.49	0.57
26:14:861:A:H5''	26:14:862:G:OP2	2.04	0.57
1:1G:45:U:H2'	1:1G:46:G:C8	2.40	0.57
1:1G:520:A:N1	1:1G:536:C:H1'	2.19	0.57
12:3I:47:LYS:HE3	25:4K:21:G:OP1	2.04	0.57
32:41:67:LYS:HE2	32:41:67:LYS:H	1.69	0.57
6:52:30:LEU:HB3	6:52:35:ALA:HB3	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:58:132:ALA:O	35:58:134:ARG:NH2	2.38	0.57
6:5E:22:GLU:O	6:5E:26:ILE:HG13	2.03	0.57
15:6I:36:ILE:HD12	15:6I:63:ARG:HD3	1.86	0.57
42:85:66:ASN:O	42:85:70:ARG:HB2	2.04	0.57
38:88:66:ILE:O	38:88:67:ARG:HB2	2.05	0.57
41:B8:24:PRO:CD	41:B8:52:ILE:HD12	2.33	0.57
47:H8:61:LEU:O	47:H8:64:GLY:HA2	2.04	0.57
50:K8:23:LYS:NZ	50:K8:27:GLU:OE2	2.37	0.57
1:13:976:G:OP1	14:5I:32:SER:N	2.31	0.57
26:14:1463:C:H2'	26:14:1464:C:H6	1.69	0.57
26:14:2065:C:H2'	26:14:2066:C:C6	2.38	0.57
26:14:247:G:H4'	26:14:386:G:C5	2.39	0.57
26:14:673:C:H5''	31:39:81:PRO:HD2	1.85	0.57
26:14:706:A:H2'	26:14:707:G:O4'	2.05	0.57
27:16:50:G:OP1	40:A8:63:THR:OG1	2.20	0.57
27:16:90:C:P	38:88:16:ARG:HH21	2.28	0.57
10:1A:28:ARG:HH21	10:1A:34:VAL:HB	1.69	0.57
26:1H:1021:A:C8	26:1H:1021:A:H3'	2.39	0.57
26:1H:2580:U:H4'	30:21:130:GLY:HA3	1.87	0.57
32:41:11:TYR:HA	32:41:15:VAL:HB	1.86	0.57
32:49:56:ALA:HB2	32:49:153:ARG:CZ	2.35	0.57
13:4A:13:LYS:HA	13:4A:44:ARG:NH1	2.19	0.57
41:75:2:ASN:OD1	41:75:4:GLY:N	2.36	0.57
42:C8:8:VAL:HG23	42:C8:11:ARG:HH21	1.68	0.57
49:F5:92:LYS:O	49:F5:94:LEU:N	2.37	0.57
46:G8:97:ARG:NH2	46:G8:104:GLY:HA3	2.20	0.57
1:13:1064:G:H4'	1:13:1065:U:OP1	2.04	0.57
1:13:1103:C:OP1	59:13:1830:HOH:O	2.17	0.57
1:13:491:G:H2'	1:13:492:G:O4'	2.04	0.57
26:14:1341:U:OP2	26:14:1394:U:O2'	2.14	0.57
26:14:1444(A):A:O2'	26:14:1445:C:OP1	2.23	0.57
1:1G:554:C:H2'	1:1G:555:C:C6	2.39	0.57
26:1H:1221:C:H2'	26:1H:1222:C:H6	1.69	0.57
26:1H:1593:G:H2'	26:1H:1594:G:H8	1.68	0.57
26:1H:1639:U:OP1	59:1H:3752:HOH:O	2.18	0.57
26:1H:1794:U:H2'	26:1H:1795:C:C6	2.39	0.57
26:1H:2001:A:H2'	26:1H:2002:G:H8	1.70	0.57
26:1H:565:C:H4'	59:1H:3996:HOH:O	2.04	0.57
24:3L:72:C:C3'	24:3L:73:A:H5''	2.35	0.57
5:42:33:VAL:HG12	5:42:112:LEU:HD12	1.87	0.57
34:69:76:THR:HG21	34:69:140:LEU:CD1	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:75:3:ARG:N	41:75:4:GLY:HA3	2.20	0.57
38:88:78:PRO:HB2	38:88:81:VAL:HG11	1.86	0.57
17:8I:81:ARG:NH2	17:8I:83:ASP:OD2	2.37	0.57
39:98:32:GLY:HA2	39:98:116:LEU:HD12	1.86	0.57
6:52:7:ASN:HD21	18:9A:34:TYR:HE1	1.52	0.57
19:AA:66:MET:N	19:AA:67:VAL:HB	2.19	0.57
19:AA:38:SER:HB2	19:AA:71:LEU:HD23	1.85	0.57
42:C8:88:ILE:O	42:C8:88:ILE:HG22	2.04	0.57
1:13:736:C:H2'	1:13:737:A:C8	2.39	0.57
26:14:1499:C:H2'	26:14:1500:G:H8	1.70	0.57
26:14:2064:C:H2'	26:14:2065:C:C6	2.39	0.57
26:14:962:G:H2'	26:14:963:U:C6	2.39	0.57
26:14:1138:G:H21	35:15:106:MET:CE	2.16	0.57
2:1E:163:PHE:HA	2:1E:185:ILE:O	2.05	0.57
1:1G:1072:G:H2'	1:1G:1073:U:O4'	2.05	0.57
1:1G:1157:A:H61	1:1G:1177:G:H1	1.51	0.57
1:1G:364:A:O2'	1:1G:365:U:H5'	2.04	0.57
1:1G:554:C:H2'	1:1G:555:C:H6	1.70	0.57
1:1G:828:A:H2'	1:1G:829:G:O4'	2.04	0.57
26:1H:1026:U:H4'	26:1H:1027:A:OP1	2.04	0.57
22:1K:45:G:H2'	22:1K:47:U:OP2	2.05	0.57
22:1K:49:G:H4'	22:1K:50:C:OP2	2.04	0.57
3:22:84:ILE:HG23	3:22:85:ARG:HD2	1.85	0.57
6:52:87:ARG:HH11	6:52:87:ARG:HG2	1.69	0.57
40:65:61:ASN:HB3	40:65:64:GLU:HB3	1.86	0.57
26:14:1154:G:OP2	42:85:58:ARG:NH1	2.37	0.57
45:B5:65:ARG:HB2	45:B5:70:LEU:HB3	1.86	0.57
1:13:1298:C:H2'	7:6E:114:ARG:HH21	1.69	0.57
1:13:67:C:O2'	1:13:171:A:N3	2.28	0.57
26:1H:1359:A:C2	26:1H:1372:U:O4	2.57	0.57
26:1H:1545(A):A:H2'	26:1H:1546:C:O4'	2.04	0.57
26:1H:2210:G:H4'	26:1H:2211:G:OP2	2.04	0.57
26:1H:2801:A:OP2	26:1H:2895:U:O2'	2.19	0.57
36:25:93:PRO:HD3	36:25:113:LYS:HD3	1.87	0.57
5:4E:10:MET:HA	5:4E:32:VAL:HA	1.86	0.57
35:58:76:SER:O	35:58:76:SER:OG	2.21	0.57
26:1H:831:G:N2	37:78:53:GLY:O	2.38	0.57
42:85:92:ARG:HD3	42:85:94:ASN:HB3	1.86	0.57
48:E5:51:VAL:N	48:E5:62:LEU:HD12	2.20	0.57
26:14:1942:C:OP2	26:14:1943:U:O2'	2.12	0.57
26:14:2017:U:P	59:14:3790:HOH:O	2.63	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:38:A:H2'	26:14:39:C:C6	2.39	0.57
26:14:821:A:O2'	26:14:946:G:H5''	2.05	0.57
29:19:10:THR:OG1	29:19:13:ARG:HB2	2.05	0.57
10:1A:33:GLN:HB3	10:1A:75:ILE:HD11	1.87	0.57
1:1G:1279:A:O2'	1:1G:1282:C:N4	2.37	0.57
1:1G:146:G:H2'	1:1G:147:G:H8	1.70	0.57
1:1G:451:A:N6	1:1G:480:U:H2'	2.20	0.57
26:1H:1639:U:C2'	26:1H:1640:C:H5''	2.35	0.57
26:1H:786:C:C2'	26:1H:787:U:H5'	2.35	0.57
30:21:52:LEU:HD13	30:21:53:PRO:HD2	1.87	0.57
30:21:51:PHE:O	30:21:74:PRO:HB2	2.04	0.57
4:3E:107:ARG:NH2	4:3E:194:LEU:HD22	2.16	0.57
4:3E:18:LYS:HD3	4:3E:31:CYS:SG	2.44	0.57
24:3L:15:G:H22	24:3L:48:C:N4	2.01	0.57
38:45:77:LYS:HE3	38:45:84:GLY:HA3	1.86	0.57
39:55:10:LEU:O	39:55:12:ARG:HG3	2.04	0.57
14:5I:15:LYS:HG3	14:5I:16:PHE:CD2	2.39	0.57
40:65:33:LYS:HB3	40:65:34:HIS:HD2	1.68	0.57
45:B5:5:TYR:CZ	50:G5:30:ARG:HG3	2.39	0.57
41:B8:12:SER:CA	41:B8:14:TYR:H	2.18	0.57
44:E8:14:PRO:HG2	44:E8:78:GLU:HB2	1.87	0.57
50:G5:50:ILE:HD12	50:G5:51:ARG:H	1.69	0.57
26:14:1819:A:H4'	26:14:1820:U:O5'	2.05	0.57
26:14:2339:G:H2'	26:14:2340:G:H8	1.70	0.57
26:14:2415:G:H4'	37:35:67:MET:H	1.69	0.57
1:1G:1327:C:OP2	21:1B:12:LYS:NZ	2.37	0.57
1:1G:1435:G:H2'	1:1G:1436:U:C5	2.40	0.57
1:1G:324:G:N1	1:1G:327:A:OP2	2.38	0.57
26:1H:1110:G:O2'	26:1H:1111:A:O5'	2.21	0.57
26:1H:1296:G:O2'	26:1H:1297:C:H5'	2.05	0.57
26:1H:1595:G:O6	59:1H:3742:HOH:O	2.17	0.57
22:1L:9:A:H3'	22:1L:10:G:N7	2.19	0.57
3:22:37:GLN:O	3:22:41:GLY:N	2.35	0.57
11:2I:85:ARG:HG2	11:2I:112:THR:H	1.70	0.57
31:39:78:ILE:HA	31:39:83:PHE:CD2	2.39	0.57
1:13:553:A:H5''	12:3I:24:VAL:HG21	1.87	0.57
6:5E:100:ASN:HB2	18:9I:28:GLU:HA	1.87	0.57
7:62:113:GLU:O	7:62:119:ARG:HD3	2.04	0.57
40:65:62:LYS:O	40:65:66:ALA:N	2.38	0.57
15:6A:25:THR:HG21	15:6A:70:LEU:HB2	1.87	0.57
43:95:21:ARG:HH21	43:95:21:ARG:CG	2.17	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:B8:36:GLU:OE1	41:B8:41:ARG:NH2	2.31	0.57
26:1H:142:G:O2'	45:F8:35:THR:HG21	2.05	0.57
26:14:1204:A:H2	26:14:1241:A:N1	2.02	0.57
1:1G:1053:G:H5''	1:1G:1054:C:H3'	1.86	0.57
1:1G:1314:C:H2'	1:1G:1315:U:C6	2.39	0.57
1:1G:1316:G:H4'	14:5A:18:VAL:HG11	1.87	0.57
26:1H:1731:G:H2'	26:1H:1732:A:H8	1.70	0.57
26:1H:2132:U:H3	28:71:5:LYS:HB3	1.68	0.57
26:1H:2139:C:H42	26:1H:2152:G:H1	1.51	0.57
26:1H:459:U:H5''	54:P8:40:TRP:CD2	2.40	0.57
26:1H:847:U:C5	26:1H:933:A:N1	2.73	0.57
26:1H:997:G:OP1	42:C8:93:LYS:HD2	2.05	0.57
4:3E:97:LEU:O	4:3E:100:ARG:HG3	2.04	0.57
39:55:97:VAL:HG12	39:55:114:VAL:HG22	1.86	0.57
40:65:106:ARG:NH1	40:65:107:GLU:OE2	2.38	0.57
34:69:14:ASP:N	34:69:17:GLN:OE1	2.34	0.57
34:69:78:THR:C	34:69:80:PRO:HD3	2.25	0.57
26:1H:856:C:H5'	48:I8:27:GLU:OE2	2.04	0.57
26:14:1688:U:O2	26:14:1700:A:H5'	2.05	0.56
26:14:2656:U:H3	26:14:2665:A:H2	1.50	0.56
26:14:2689:U:P	26:14:2719:G:H22	2.28	0.56
29:19:30:GLU:HG3	29:19:63:ARG:NH2	2.20	0.56
26:1H:1386:C:H2'	26:1H:1387:C:C6	2.38	0.56
26:1H:50:U:H3'	26:1H:51:G:H5'	1.87	0.56
26:1H:588:U:O4	26:1H:670:A:H1'	2.05	0.56
36:25:64:ARG:NH1	36:25:81:ASP:OD1	2.38	0.56
31:39:124:LEU:HG	31:39:126:VAL:HG12	1.85	0.56
1:1G:1015:A:O2'	14:5A:15:LYS:HE2	2.05	0.56
40:65:11:LYS:HG3	40:65:91:PRO:HD3	1.86	0.56
28:71:45:ALA:H	28:71:171:ILE:HG22	1.70	0.56
1:1G:1147:C:O2	9:82:16:ARG:NH1	2.38	0.56
38:88:21:THR:HG21	38:88:25:ASP:HB2	1.87	0.56
44:A5:58:ALA:HB1	44:A5:64:MET:HB2	1.86	0.56
47:D5:102:LEU:HD23	47:D5:103:ARG:H	1.70	0.56
47:D5:3:TYR:O	47:D5:58:VAL:N	2.29	0.56
26:1H:1188:U:H4'	43:D8:79:VAL:HG22	1.86	0.56
55:M5:8:LYS:HB3	55:M5:12:LYS:HE3	1.86	0.56
26:14:1063:G:O6	26:14:1075:C:O2'	2.17	0.56
26:14:1871:A:H2'	26:14:1872:A:C8	2.40	0.56
2:1E:48:MET:HA	2:1E:51:LEU:HB2	1.85	0.56
1:1G:134:A:H61	16:7A:25:ARG:NH1	2.02	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:15:G:H2'	1:1G:16:A:H8	1.71	0.56
1:1G:362:G:O2'	12:3A:33:ARG:NH2	2.38	0.56
1:1G:407:G:H2'	1:1G:408:A:C8	2.40	0.56
1:1G:45:U:H2'	1:1G:46:G:H8	1.69	0.56
26:1H:1140:C:OP1	35:58:23:LEU:HB3	2.05	0.56
26:1H:2314:C:H2'	26:1H:2315:G:C8	2.35	0.56
26:1H:2592:G:H4'	59:1H:3612:HOH:O	2.05	0.56
26:1H:312:G:H5'	26:1H:331:A:O2'	2.04	0.56
4:32:98:GLU:OE2	4:32:103:ASN:ND2	2.38	0.56
26:14:617:G:OP1	31:39:40:GLN:HG3	2.05	0.56
35:58:10:GLU:HG3	35:58:11:PRO:HD2	1.86	0.56
26:1H:6:A:H4'	35:58:129:PRO:HB3	1.88	0.56
33:59:72:ILE:HG13	33:59:76:VAL:HG23	1.87	0.56
8:72:14:ARG:O	8:72:18:ARG:HG2	2.05	0.56
1:1G:564:C:O2'	8:72:91:ARG:NH2	2.38	0.56
41:75:10:VAL:O	41:75:12:SER:N	2.39	0.56
37:78:65:ARG:HB3	59:78:305:HOH:O	2.05	0.56
1:1G:376:G:O3'	16:7A:5:ARG:NH1	2.35	0.56
17:8A:59:ILE:HG22	17:8A:71:PHE:HD2	1.68	0.56
26:14:1655:A:OP1	59:14:3619:HOH:O	2.18	0.56
26:14:2611:U:H5'	26:14:2611:U:H6	1.70	0.56
29:19:182:LEU:N	29:19:272:ALA:HB3	2.15	0.56
26:1H:1454:U:OP1	39:98:77:ARG:NH1	2.35	0.56
26:1H:2849:U:H4'	26:1H:2868:A:C2	2.40	0.56
26:1H:365:C:OP2	59:1H:3743:HOH:O	2.17	0.56
26:14:1952:A:C5	36:25:22:ILE:HD11	2.40	0.56
31:39:129:PHE:HA	31:39:142:TRP:NE1	2.20	0.56
38:45:138:ASP:N	38:45:139:GLU:CA	2.61	0.56
26:14:960:A:H61	38:45:83:MET:HE1	1.70	0.56
35:58:18:ALA:HA	35:58:21:LYS:HG3	1.86	0.56
7:6E:74:GLU:OE1	7:6E:95:ARG:NH2	2.38	0.56
8:72:19:VAL:HG23	8:72:21:LYS:HB3	1.86	0.56
8:7E:9:MET:SD	8:7E:32:LYS:HG2	2.45	0.56
19:AI:41:VAL:CG2	19:AI:44:MET:HB2	2.31	0.56
1:13:1460:A:OP1	20:BI:27:LYS:NZ	2.39	0.56
20:BI:50:GLU:HA	20:BI:100:ILE:HG22	1.87	0.56
49:J8:23:LYS:HB3	49:J8:29:GLY:HA3	1.87	0.56
1:13:323:U:H2'	1:13:324:G:O4'	2.06	0.56
26:14:140:A:C8	26:14:1408:C:O2'	2.57	0.56
1:1G:841:U:H3'	1:1G:841:U:H6	1.70	0.56
30:29:16:ARG:NH2	30:29:171:GLU:OE1	2.33	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:31:29:ASN:H	31:31:112:MET:HE3	1.68	0.56
32:49:41:GLN:NE2	32:49:154:GLY:O	2.27	0.56
1:1G:1535:C:H42	25:4L:9:G:H22	1.53	0.56
39:55:106:GLY:O	39:55:107:ASP:HB3	2.05	0.56
15:6I:53:HIS:ND1	15:6I:53:HIS:O	2.38	0.56
41:75:7:ILE:O	41:75:11:GLU:HB2	2.05	0.56
8:7E:25:ASP:OD1	8:7E:60:ARG:HG3	2.06	0.56
16:7I:21:VAL:HG23	16:7I:34:GLU:H	1.69	0.56
16:7I:5:ARG:NE	16:7I:22:THR:HG21	2.21	0.56
1:1G:1178:G:H5''	9:82:93:ARG:HH22	1.70	0.56
39:98:100:LEU:HD11	39:98:113:LEU:HD13	1.88	0.56
47:D5:94:GLU:HB3	47:D5:96:VAL:HG23	1.87	0.56
26:1H:1188:U:C4'	43:D8:79:VAL:HG22	2.36	0.56
47:H8:139:VAL:HG13	47:H8:155:LEU:HD21	1.87	0.56
53:J5:16:ARG:HG2	53:J5:16:ARG:HH11	1.70	0.56
26:1H:98:G:OP1	50:K8:3:LEU:HA	2.04	0.56
1:13:554:C:H2'	1:13:555:C:H6	1.70	0.56
1:13:645:C:P	59:13:1848:HOH:O	2.62	0.56
1:13:827:U:C5	1:13:870:U:C4	2.94	0.56
26:14:1035:U:H2'	26:14:1036:G:C8	2.40	0.56
26:14:1437:C:H6	26:14:1437:C:H5''	1.70	0.56
26:14:2065:C:H2'	26:14:2066:C:H6	1.68	0.56
29:19:44:ASN:HB3	29:19:45:ASN:CB	2.35	0.56
10:1A:22:LYS:O	10:1A:26:ALA:N	2.36	0.56
2:1E:111:ARG:HD3	2:1E:145:LEU:HD21	1.86	0.56
26:1H:2308:G:N3	26:1H:2308:G:H2'	2.21	0.56
26:1H:2776:A:H4'	26:1H:2777:G:H5''	1.87	0.56
26:1H:2855:C:H2'	26:1H:2856:C:H6	1.71	0.56
26:1H:330:A:O2'	26:1H:331:A:H8	1.89	0.56
26:1H:818:G:H5'	26:1H:839:U:OP1	2.05	0.56
26:1H:85:G:OP2	46:G8:9:LYS:HB2	2.05	0.56
10:1I:54:PHE:CZ	10:1I:55:LYS:NZ	2.72	0.56
31:31:197:ASP:O	31:31:199:TRP:N	2.38	0.56
31:39:63:LYS:HZ1	31:39:67:GLN:HB2	1.69	0.56
39:55:13:HIS:HD2	39:55:15:SER:H	1.53	0.56
6:5E:23:LYS:HD3	6:5E:61:LEU:HD21	1.86	0.56
34:61:113:ARG:HB3	34:61:131:LYS:HD3	1.88	0.56
15:6I:25:THR:HG21	15:6I:70:LEU:HB2	1.87	0.56
26:1H:625:G:N7	37:78:107:LYS:NZ	2.52	0.56
16:7I:19:ILE:HD12	16:7I:36:ILE:O	2.06	0.56
9:82:51:ARG:HG2	9:82:56:LEU:HD13	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:8I:65:ILE:HG21	17:8I:69:LYS:HE2	1.86	0.56
26:14:2360:A:H2'	26:14:2361:A:O4'	2.05	0.56
26:14:90:U:HO2'	26:14:91:A:H8	1.53	0.56
27:16:15:A:H1'	27:16:109:G:C8	2.41	0.56
26:1H:1021:A:H8	26:1H:1021:A:H3'	1.70	0.56
26:1H:1050:A:H2'	26:1H:1051:G:C8	2.40	0.56
26:1H:2373:G:H1	26:1H:2380:C:H42	1.53	0.56
36:25:4:PRO:O	36:25:5:GLN:HB2	2.04	0.56
5:42:7:GLU:OE1	5:42:37:ARG:NH2	2.38	0.56
38:45:38:GLU:HG3	38:45:127:ILE:CG2	2.35	0.56
40:65:48:LEU:HD23	40:65:82:ILE:HD11	1.88	0.56
42:85:95:LEU:HD13	43:95:4:ILE:HG23	1.87	0.56
40:A8:59:LYS:HG2	40:A8:60:GLY:N	2.19	0.56
1:13:1366:C:H2'	1:13:1367:C:C6	2.39	0.56
26:14:1060:U:H5''	26:14:1061:U:C5	2.41	0.56
26:14:443:A:H1'	26:14:1201:C:O4'	2.05	0.56
26:14:848:G:H2'	26:14:849:A:C8	2.40	0.56
26:14:863:A:H2'	26:14:864:G:C8	2.41	0.56
35:15:34:LEU:HD21	35:15:120:LEU:HD13	1.86	0.56
2:1E:237:ALA:O	2:1E:239:VAL:N	2.39	0.56
1:1G:1315:U:H2'	1:1G:1316:G:O4'	2.05	0.56
1:1G:142:G:H1	1:1G:221:C:H42	1.53	0.56
10:1I:81:THR:HA	10:1I:84:GLN:HG2	1.86	0.56
27:1J:94:C:H2'	27:1J:95:U:C6	2.41	0.56
4:32:53:ASP:HB3	4:32:57:ARG:HH12	1.69	0.56
4:3E:104:VAL:O	4:3E:107:ARG:N	2.39	0.56
38:45:66:ILE:HD12	38:45:67:ARG:N	2.21	0.56
6:5E:96:PRO:HB3	18:9I:30:ASP:CG	2.25	0.56
15:6A:26:GLU:OE2	15:6A:77:ARG:NH1	2.38	0.56
47:H8:4:ARG:HD3	47:H8:60:GLU:OE2	2.04	0.56
1:13:1060:C:HO2'	10:1I:56:HIS:HD1	1.50	0.56
1:13:1164:G:N2	1:13:1172:C:O2	2.38	0.56
1:13:1234:C:H2'	1:13:1235:U:C6	2.41	0.56
26:14:2880:C:O2	39:55:93:GLY:N	2.34	0.56
26:14:754:C:H2'	26:14:755:C:C6	2.41	0.56
29:19:146:GLU:HB2	29:19:189:CYS:HB3	1.86	0.56
2:1E:7:VAL:HG21	2:1E:217:ARG:HH11	1.70	0.56
1:1G:1002:G:H1	1:1G:1038:C:H42	1.54	0.56
26:1H:1155:A:OP1	42:C8:55:ARG:HD3	2.06	0.56
26:1H:127:A:H5''	26:1H:128:C:C6	2.40	0.56
26:1H:620:G:H4'	26:1H:621:A:C5'	2.26	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:23:VAL:O	30:29:24:THR:HB	2.05	0.56
23:2L:9:G:O2'	23:2L:10:G:N7	2.33	0.56
4:32:61:LYS:HD2	4:32:206:PHE:CE2	2.41	0.56
6:52:68:PRO:HG2	6:52:71:ARG:HG3	1.87	0.56
18:9I:85:LEU:HD12	18:9I:87:ARG:H	1.70	0.56
36:68:107:ARG:NH1	41:B8:36:GLU:OE2	2.39	0.56
20:BI:40:ALA:HB2	20:BI:55:ILE:HG22	1.87	0.56
1:13:186:C:O4'	20:BI:81:LYS:NZ	2.39	0.56
38:45:139:GLU:HG3	47:D5:76:LEU:HD21	1.88	0.56
1:13:1178:G:OP2	9:8E:93:ARG:NH2	2.33	0.56
1:13:1510:U:H2'	1:13:1511:G:C8	2.41	0.56
1:13:501:C:H2'	1:13:502:G:H8	1.71	0.56
26:14:1154:G:OP1	42:85:58:ARG:HD3	2.06	0.56
26:14:718:A:H3'	26:14:719:C:H6	1.70	0.56
1:1G:1262:C:H42	1:1G:1273:G:H1	1.52	0.56
1:1G:1322:C:O2	1:1G:1322:C:H2'	2.06	0.56
26:1H:1019:U:O2'	26:1H:1021:A:H2	1.88	0.56
26:1H:2444:G:OP2	31:31:68:LYS:HE3	2.06	0.56
26:1H:33:U:H4'	26:1H:34:C:OP1	2.05	0.56
3:22:125:GLU:HG2	3:22:190:ARG:O	2.06	0.56
3:2E:60:ALA:N	3:2E:63:ASN:OD1	2.39	0.56
4:32:32:ALA:H	4:32:35:ARG:HD3	1.69	0.56
4:3E:86:LYS:HD3	4:3E:87:GLY:H	1.70	0.56
38:45:75:THR:HG22	38:45:90:VAL:H	1.70	0.56
26:1H:2531:A:H5'	33:51:157:TYR:CZ	2.41	0.56
7:62:146:GLU:OE1	11:2A:54:ARG:NE	2.36	0.56
26:1H:2562:U:H1'	36:68:23:ARG:NH1	2.21	0.56
36:68:34:THR:OG1	36:68:35:VAL:N	2.37	0.56
36:68:64:ARG:HB2	36:68:79:PHE:CG	2.41	0.56
34:69:130:TYR:C	34:69:131:LYS:HD2	2.26	0.56
34:69:93:THR:H	34:69:96:ASP:HB2	1.69	0.56
20:BI:26:ASN:O	20:BI:30:LYS:HB2	2.05	0.56
1:13:224:C:H2'	1:13:225:C:C6	2.41	0.56
26:14:2275:C:H5'	26:14:2275:C:H6	1.69	0.56
26:14:323:G:H2'	31:39:169:ASN:ND2	2.21	0.56
26:14:273(C):C:H42	26:14:363(C):G:H1	1.54	0.56
26:14:363(E):U:H5'	26:14:363(F):A:OP2	2.06	0.56
26:1H:1264:G:H5'	53:N8:11:THR:CG2	2.36	0.56
26:1H:1705:G:C2'	26:1H:1706:U:H5'	2.36	0.56
36:25:88:ASN:HB3	36:25:94:ARG:HD3	1.88	0.56
26:14:2572:A:N7	30:29:144:ARG:HD2	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:31:CYS:HB2	4:32:35:ARG:NH1	2.21	0.56
12:3I:24:VAL:HB	12:3I:27:LEU:HD12	1.87	0.56
33:51:60:ARG:HG2	33:51:60:ARG:HH11	1.71	0.56
33:51:6:ARG:NH1	33:51:54:ARG:HH12	2.04	0.56
36:25:122:LEU:HD23	41:75:43:GLN:NE2	2.20	0.56
1:13:1117:G:H5''	9:8E:104:ARG:NH1	2.21	0.56
19:AA:56:GLN:HG2	19:AA:57:HIS:H	1.71	0.56
42:C8:110:VAL:O	42:C8:113:ALA:HB3	2.06	0.56
44:E8:37:ARG:HD3	44:E8:38:TYR:CE2	2.41	0.56
46:G8:94:LYS:CE	46:G8:95:LYS:H	2.19	0.56
47:H8:132:ASN:ND2	47:H8:132:ASN:H	2.04	0.56
29:11:124:PRO:HG2	29:11:129:ASN:ND2	2.21	0.56
1:13:1263:C:H2'	1:13:1264:C:C6	2.41	0.56
1:13:186(E):C:H2'	1:13:186(F):C:O4'	2.06	0.56
26:14:2113:U:H3'	26:14:2114:A:H4'	1.88	0.56
26:14:602:G:OP2	26:14:602:G:H8	1.89	0.56
26:14:824:A:H1'	26:14:2358:G:N7	2.21	0.56
26:14:959:A:N6	26:14:960:A:N1	2.53	0.56
29:19:69:ARG:HD3	29:19:105:ILE:HD11	1.87	0.56
2:1E:215:LEU:O	2:1E:219:VAL:HG23	2.05	0.56
1:1G:1446:A:H4'	1:1G:1446:A:OP1	2.06	0.56
1:1G:269:C:H2'	1:1G:270:A:H8	1.71	0.56
1:13:1190:G:H5''	3:2E:176:HIS:CE1	2.41	0.56
4:32:65:ARG:HD2	4:32:72:GLU:HA	1.88	0.56
26:14:637:A:H2'	37:35:117:GLU:OE2	2.05	0.56
12:3I:111:LYS:HD3	12:3I:112:ASP:N	2.21	0.56
24:3K:5:C:H2'	24:3K:6:G:C8	2.41	0.56
24:3K:9:A:O2'	24:3K:46:G:O4'	2.21	0.56
32:41:35:GLU:OE1	32:41:36:LYS:N	2.38	0.56
25:4K:13:A:H61	25:4K:14:A:N6	2.04	0.56
33:59:74:ASN:HA	33:59:77:LYS:HB2	1.88	0.56
1:13:323:U:H5'	20:BI:23:ARG:HB2	1.86	0.56
47:D5:157:LEU:HD12	47:D5:161:VAL:HA	1.88	0.56
47:D5:71:VAL:HG12	47:D5:88:PHE:CD1	2.41	0.56
29:11:26:LYS:HE3	29:11:83:GLU:OE2	2.06	0.55
1:13:191(C):G:H2'	1:13:191(D):U:O4'	2.06	0.55
1:13:339:C:OP2	36:68:97:ARG:NH1	2.38	0.55
1:13:475:G:H2'	1:13:476:G:C8	2.40	0.55
26:14:2262:U:H4'	26:14:2328:A:C2	2.41	0.55
26:14:2861:G:O2'	26:14:2862:G:H5'	2.06	0.55
2:1E:189:ASP:OD1	2:1E:205:ASP:HB3	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1F:2:GLY:O	21:1F:4:GLY:N	2.38	0.55
26:1H:1349:A:H8	59:1H:3697:HOH:O	1.88	0.55
26:1H:1470:G:H5'	26:1H:1471:A:OP1	2.06	0.55
26:1H:1653:G:N2	59:1H:3928:HOH:O	2.39	0.55
26:1H:2150:U:H2'	26:1H:2151:G:C8	2.41	0.55
26:1H:7:G:H1	26:1H:2896:C:H42	1.55	0.55
26:1H:860:U:H5	26:1H:917:A:N1	2.03	0.55
30:29:56:PRO:HD2	30:29:58:ARG:NH2	2.21	0.55
31:39:130:ALA:H	31:39:142:TRP:HD1	1.54	0.55
31:39:53:THR:HB	31:39:56:GLU:OE2	2.06	0.55
33:51:92:ILE:H	33:51:92:ILE:HD12	1.70	0.55
6:52:61:LEU:HD23	6:52:63:TYR:OH	2.07	0.55
1:1G:1298:C:N4	7:62:114:ARG:HB3	2.21	0.55
16:7I:20:VAL:HG21	16:7I:32:TYR:CD2	2.42	0.55
9:82:48:GLU:HA	9:82:51:ARG:HD2	1.88	0.55
38:88:77:LYS:HE3	38:88:84:GLY:O	2.05	0.55
38:88:39:PRO:HA	38:88:97:VAL:O	2.06	0.55
17:8I:45:HIS:O	17:8I:73:VAL:HG23	2.05	0.55
48:18:36:ILE:HD13	48:18:36:ILE:O	2.05	0.55
53:J5:16:ARG:NH1	53:J5:17:ASP:OD1	2.39	0.55
26:14:254:G:O6	55:M5:5:LYS:HG2	2.06	0.55
52:M8:42:PHE:CD1	52:M8:43:TYR:HB3	2.40	0.55
29:11:110:GLY:O	29:11:112:GLN:NE2	2.39	0.55
29:11:39:LYS:HB3	29:11:40:THR:HA	1.88	0.55
26:1H:1025:G:O2'	59:1H:3751:HOH:O	2.18	0.55
26:1H:1334:G:OP2	59:1H:3755:HOH:O	2.18	0.55
26:1H:1830:C:C2'	26:1H:1831:G:H5'	2.36	0.55
3:22:94:LEU:HD12	3:22:95:THR:HG23	1.88	0.55
3:2E:119:ARG:O	3:2E:123:GLN:HG3	2.06	0.55
4:32:60:GLU:HG2	4:32:202:LEU:HB2	1.88	0.55
4:32:61:LYS:HA	4:32:203:VAL:HG22	1.88	0.55
30:21:111:ARG:HA	39:98:1:MET:HE3	1.89	0.55
20:BI:71:THR:HG22	20:BI:72:LEU:N	2.19	0.55
26:14:498:G:H21	46:C5:47:LYS:NZ	2.05	0.55
1:13:1075:C:OP1	2:1E:179:LYS:NZ	2.31	0.55
1:13:22:G:H2'	1:13:23:C:C6	2.41	0.55
26:14:919:G:N2	26:14:2269:A:OP2	2.40	0.55
26:14:966:G:O2'	26:14:967:C:H5'	2.07	0.55
2:1E:87:ARG:HH21	2:1E:232:PRO:HB3	1.71	0.55
26:1H:2261:C:H1'	26:1H:2388:A:N3	2.20	0.55
26:1H:2292:C:P	40:A8:17:ARG:HH22	2.29	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1059:C:O3'	14:5I:45:ARG:NH2	2.39	0.55
41:75:36:GLU:OE2	41:75:41:ARG:HD3	2.07	0.55
47:H8:92:SER:O	47:H8:130:PRO:HG2	2.06	0.55
37:35:50:ARG:HD3	55:M5:7:HIS:CD2	2.42	0.55
55:Q8:33:ASN:HA	55:Q8:36:LYS:HD2	1.87	0.55
1:13:1129:C:O2'	1:13:1146:A:N1	2.40	0.55
26:14:218:A:H2	26:14:235:U:H4'	1.70	0.55
26:14:2495:G:O6	59:14:3622:HOH:O	2.18	0.55
10:1A:63:PHE:HD1	14:5A:58:LYS:HA	1.72	0.55
1:1G:1143:G:H2'	1:1G:1144:G:C8	2.41	0.55
26:1H:1292:U:H2'	26:1H:1293:C:C6	2.42	0.55
26:1H:1394:U:P	59:1H:3971:HOH:O	2.63	0.55
26:1H:1442:G:C2	26:1H:1550:C:O2	2.59	0.55
26:1H:869:G:C6	59:1H:3698:HOH:O	2.59	0.55
27:1J:57:A:H2'	27:1J:58:A:O4'	2.06	0.55
27:1J:6:C:H2'	27:1J:7:G:H5"	1.87	0.55
36:25:10:VAL:HG13	36:25:17:ARG:O	2.06	0.55
4:32:18:LYS:HZ2	4:32:33:MET:HB2	1.70	0.55
24:3K:15:G:H1	24:3K:48:C:H42	1.54	0.55
35:58:120:LEU:HD22	35:58:122:VAL:HG23	1.88	0.55
15:6I:82:ILE:O	15:6I:86:GLY:N	2.39	0.55
26:1H:2404:C:O3'	37:78:77:ARG:NH2	2.39	0.55
26:1H:2251:G:OP1	38:88:82:ARG:NH1	2.39	0.55
41:B8:26:ASP:HB3	41:B8:92:GLY:H	1.71	0.55
46:C5:91:GLU:HG3	46:C5:92:ASN:N	2.22	0.55
42:C8:68:ALA:O	42:C8:71:GLN:HB2	2.06	0.55
26:14:1569:A:O2'	29:19:37:LEU:HD23	2.07	0.55
26:14:962:G:H2'	26:14:963:U:H6	1.70	0.55
35:15:58:ASP:N	35:15:58:ASP:OD1	2.33	0.55
29:19:158:ALA:O	29:19:161:THR:HG23	2.07	0.55
30:21:78:LEU:HD23	30:21:78:LEU:O	2.07	0.55
3:22:141:VAL:HA	3:22:144:SER:HB3	1.89	0.55
30:29:31:CYS:SG	30:29:51:PHE:HB2	2.46	0.55
5:42:81:GLU:HB3	5:42:90:VAL:HG13	1.88	0.55
38:45:19:GLY:O	38:45:99:PRO:HD2	2.06	0.55
32:49:15:VAL:HG13	32:49:175:LEU:HB3	1.88	0.55
13:4I:45:VAL:HA	13:4I:48:LEU:HD22	1.89	0.55
34:69:76:THR:HG21	34:69:140:LEU:HD12	1.87	0.55
37:78:83:VAL:CG1	37:78:112:LEU:HD21	2.36	0.55
40:A8:100:ALA:HA	40:A8:103:GLU:HG2	1.89	0.55
1:13:1396:A:H4'	1:13:1397:C:H5"	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:877:C:OP1	8:7E:88:LYS:NZ	2.29	0.55
26:14:1329:U:H5''	26:14:1330:C:H5	1.72	0.55
26:14:1796:U:H2'	26:14:1797:C:H6	1.70	0.55
26:14:2413:G:H21	37:35:70:GLN:HE22	1.55	0.55
1:1G:1305:G:O2'	1:1G:1306:A:H8	1.90	0.55
1:1G:142:G:H2'	1:1G:143:A:C8	2.42	0.55
1:1G:562:C:H1'	12:3A:15:ARG:HD2	1.88	0.55
1:1G:683:G:O6	59:1G:1826:HOH:O	2.18	0.55
26:1H:1516:U:H2'	26:1H:1517:G:H8	1.72	0.55
26:1H:2324:C:H5''	26:1H:2325:G:H5'	1.89	0.55
26:1H:2593:U:H2'	26:1H:2594:C:C6	2.42	0.55
26:1H:507:A:H5''	26:1H:508:G:H3'	1.88	0.55
27:1J:46:A:H2'	27:1J:47:C:C6	2.42	0.55
22:1K:74:C:H2'	22:1K:75:C:H5'	1.88	0.55
35:58:67:LEU:HA	35:58:87:LEU:HD12	1.88	0.55
8:7E:64:LYS:HG2	8:7E:79:VAL:HG21	1.87	0.55
18:9A:32:ARG:HD2	18:9A:65:ILE:HD11	1.89	0.55
45:F8:84:ALA:HB3	45:F8:87:GLN:OE1	2.07	0.55
46:G8:29:GLU:HB3	46:G8:38:ILE:HG23	1.89	0.55
52:M8:39:CYS:N	52:M8:42:PHE:HE2	2.04	0.55
26:14:2298:A:H1'	26:14:2321:G:N2	2.21	0.55
26:14:2611:U:C4	53:J5:3:LYS:HG3	2.42	0.55
26:14:317:G:H1	26:14:334:C:H42	1.55	0.55
1:1G:991:U:C5	1:1G:1212:U:H1'	2.41	0.55
26:1H:1101:U:H2'	26:1H:1102:C:C6	2.41	0.55
26:1H:309:G:N3	26:1H:329:G:O2'	2.39	0.55
1:13:406:G:H5'	4:3E:5:ILE:HD13	1.87	0.55
13:4A:14:ARG:HA	13:4A:43:THR:O	2.07	0.55
13:4I:90:LEU:HA	13:4I:93:ARG:HB2	1.89	0.55
33:51:116:GLU:HG3	33:51:117:PRO:HD2	1.87	0.55
7:62:16:LEU:HD11	9:82:45:ALA:HB2	1.88	0.55
40:A8:36:TYR:N	40:A8:36:TYR:CD1	2.75	0.55
19:AI:51:VAL:O	19:AI:57:HIS:HA	2.07	0.55
45:B5:88:LYS:HD3	45:B5:93:GLU:HG3	1.88	0.55
41:B8:2:ASN:OD1	41:B8:3:ARG:N	2.39	0.55
48:E5:34:GLY:HA2	48:E5:61:ALA:O	2.07	0.55
26:14:2577:A:O4'	53:J5:3:LYS:HB2	2.06	0.55
49:J8:53:VAL:HG11	49:J8:90:ILE:HD11	1.86	0.55
49:J8:83:GLU:HG3	49:J8:85:LEU:H	1.72	0.55
1:13:158:G:H2'	1:13:159:G:H8	1.72	0.55
26:14:1970:A:P	59:14:3538:HOH:O	2.63	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2105:C:H2'	26:14:2106:G:O4'	2.05	0.55
26:14:2468:G:H3'	26:14:2476:A:C2	2.42	0.55
27:16:3:C:H2'	27:16:4:C:C6	2.41	0.55
2:1E:11:LEU:HD23	2:1E:213:LEU:HD22	1.89	0.55
1:1G:1256:A:N6	1:1G:1278:U:OP2	2.39	0.55
1:1G:407:G:P	4:32:115:ARG:HH21	2.29	0.55
1:1G:620:C:H2'	1:1G:621:A:O4'	2.07	0.55
26:1H:1126:A:H4'	26:1H:1127:A:O5'	2.06	0.55
26:1H:2345:G:H4'	26:1H:2346:A:O5'	2.05	0.55
26:1H:2595:G:N7	59:1H:3874:HOH:O	2.33	0.55
26:1H:2795:G:H2'	26:1H:2798:C:H5''	1.89	0.55
30:21:120:TRP:CE3	30:21:155:LYS:HD3	2.42	0.55
26:14:2823:A:OP1	30:29:113:PHE:HB2	2.07	0.55
11:2I:41:THR:HG21	11:2I:71:LYS:HG3	1.89	0.55
26:1H:1257:C:H4'	31:31:83:PHE:CD1	2.42	0.55
4:32:59:ARG:HH21	4:32:66:ARG:NH1	2.04	0.55
39:55:86:ARG:HB3	39:55:118:GLU:OE1	2.05	0.55
35:58:75:TYR:CE2	35:58:77:GLY:HA2	2.42	0.55
15:6I:39:LEU:HD13	15:6I:56:LEU:HB2	1.88	0.55
28:71:214:VAL:HG23	28:71:224:ILE:HG12	1.88	0.55
40:A8:105:ALA:O	40:A8:109:GLY:HA3	2.07	0.55
46:C5:17:SER:OG	46:C5:18:GLY:O	2.23	0.55
46:C5:48:ALA:O	46:C5:59:GLY:HA2	2.06	0.55
45:F8:80:ILE:O	45:F8:80:ILE:HG12	2.04	0.55
48:I8:14:ARG:NH1	59:I8:201:HOH:O	2.26	0.55
26:14:2016:U:O2	53:J5:7:PRO:HG2	2.06	0.55
49:J8:91:LYS:O	49:J8:93:GLU:HG2	2.07	0.55
29:11:145:VAL:HG12	29:11:146:GLU:O	2.07	0.55
1:13:1049:U:OP1	14:5I:3:ARG:HB2	2.07	0.55
1:13:1126:U:O4	1:13:1127:G:C6	2.60	0.55
1:13:598:U:H4'	8:7E:94:TYR:CD2	2.42	0.55
35:15:133:GLN:O	35:15:134:ARG:HG3	2.06	0.55
29:19:30:GLU:HB3	29:19:83:GLU:OE1	2.07	0.55
1:1G:1028(A):C:H42	1:1G:1032(B):G:H1	1.55	0.55
1:1G:1281:U:P	1:1G:1282:C:H41	2.30	0.55
1:1G:957:U:O2'	1:1G:959:A:N7	2.30	0.55
26:1H:2584:U:H2'	26:1H:2585:U:H2'	1.89	0.55
26:1H:2774:C:H2'	26:1H:2775:A:O4'	2.06	0.55
22:1K:55:PSU:H6	22:1K:55:PSU:O5'	1.90	0.55
30:21:102:VAL:HG12	30:21:200:GLU:HA	1.89	0.55
30:21:120:TRP:CD2	30:21:155:LYS:HD3	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3A:60:LEU:HD21	12:3A:66:VAL:HG22	1.88	0.55
4:3E:157:LEU:HD12	4:3E:161:ASN:ND2	2.22	0.55
12:3I:79:GLU:OE1	12:3I:80:HIS:NE2	2.40	0.55
13:4A:49:THR:HB	13:4A:52:GLU:HG3	1.89	0.55
34:61:120:ILE:HG12	34:61:126:TYR:CE2	2.42	0.55
42:85:86:ALA:HB2	42:85:116:ALA:HB2	1.89	0.55
26:14:1620:G:O4'	54:L5:1:MET:N	2.40	0.55
1:13:451:A:N6	1:13:480:U:H2'	2.22	0.55
26:14:1041:C:H42	26:14:1114:G:H1	1.55	0.55
26:14:2115:G:N1	26:14:2117:A:N7	2.55	0.55
26:14:2287:A:C2	26:14:2346:A:C2	2.95	0.55
1:1G:413:G:O2'	1:1G:428:G:N2	2.40	0.55
1:1G:625:G:H2'	1:1G:626:U:C6	2.41	0.55
26:1H:1110:G:O2'	26:1H:1111:A:H8	1.88	0.55
26:1H:1221:C:H2'	26:1H:1222:C:C6	2.42	0.55
26:1H:1406:U:H2'	26:1H:1407:C:H6	1.69	0.55
26:1H:2395:C:H5''	26:1H:2396:G:OP2	2.07	0.55
27:1J:104:A:H2'	27:1J:105:G:O4'	2.07	0.55
3:22:175:LEU:H	3:22:175:LEU:HD12	1.71	0.55
4:3E:31:CYS:SG	4:3E:33:MET:HB2	2.47	0.55
12:3I:77:LEU:HD21	12:3I:107:ALA:HB2	1.87	0.55
24:3K:58:A:O2'	24:3K:60:U:OP2	2.24	0.55
17:8A:10:VAL:HG22	17:8A:53:LEU:HA	1.87	0.55
46:C5:50:ARG:HG2	46:C5:53:PRO:HG2	1.88	0.55
45:F8:36:LYS:HG2	45:F8:54:VAL:HB	1.89	0.55
26:1H:142:G:H1'	45:F8:37:THR:CG2	2.35	0.55
50:K8:47:ASN:C	50:K8:49:LYS:H	2.10	0.55
2:12:19:HIS:ND1	2:12:204:ASN:HB3	2.22	0.54
2:12:19:HIS:CE1	2:12:206:ASP:HB2	2.41	0.54
26:14:1057:A:H5''	26:14:1086:A:O2'	2.08	0.54
26:14:1486:A:H2'	26:14:1487:G:H8	1.72	0.54
26:14:53:A:OP2	59:14:3625:HOH:O	2.18	0.54
26:14:6:A:N3	26:14:6:A:H2'	2.21	0.54
35:15:13:TRP:O	35:15:135:PRO:HD2	2.06	0.54
26:14:1901:A:OP2	29:19:255:LYS:HE2	2.06	0.54
1:1G:1137:C:H1'	1:1G:1138:G:C2	2.42	0.54
26:1H:1839:G:H5''	26:1H:1839:G:C8	2.41	0.54
26:1H:413:C:OP1	59:1H:3753:HOH:O	2.18	0.54
30:21:197:ILE:HD11	30:21:199:ARG:HE	1.72	0.54
30:21:47:VAL:O	30:21:80:GLU:HA	2.07	0.54
36:25:98:VAL:HG12	36:25:117:LEU:CB	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:4:ILE:HD13	30:29:28:ALA:HB1	1.88	0.54
30:29:61:ARG:HA	30:29:63:LEU:HD22	1.88	0.54
24:3L:67:C:H2'	24:3L:68:G:C8	2.42	0.54
32:49:76:SER:OG	32:49:84:LYS:N	2.40	0.54
9:82:99:LEU:HB3	9:82:101:PHE:CE1	2.42	0.54
9:82:96:LEU:HG	9:82:101:PHE:HB2	1.89	0.54
17:8A:66:SER:OG	17:8A:69:LYS:HB2	2.07	0.54
41:B8:78:LEU:HD12	41:B8:79:HIS:CD2	2.42	0.54
47:H8:19:ARG:NH1	47:H8:84:GLU:HB2	2.22	0.54
49:J8:64:ALA:HA	49:J8:67:ILE:HG13	1.89	0.54
26:1H:1826:G:H4'	29:11:242:ARG:CZ	2.38	0.54
1:13:924:C:O2'	1:13:1502:A:N6	2.40	0.54
26:14:171:G:H2'	26:14:172:C:C6	2.42	0.54
26:14:2129:C:H5''	26:14:2130:U:C5	2.42	0.54
1:1G:957:U:H1'	1:1G:960:U:H5	1.71	0.54
1:1G:999:U:H2'	1:1G:1000:A:C8	2.42	0.54
26:1H:2023:G:H5'	26:1H:2617:C:H4'	1.89	0.54
26:1H:214:G:H4'	26:1H:214:G:OP1	2.07	0.54
26:1H:34:C:O2'	26:1H:35:G:OP2	2.21	0.54
26:1H:530:G:O4'	26:1H:530:G:N3	2.35	0.54
37:35:132:LYS:HE2	37:35:136:GLU:HG3	1.88	0.54
4:3E:173:TRP:CD1	4:3E:174:LEU:HG	2.42	0.54
24:3L:4:U:H3	24:3L:69:A:H61	1.54	0.54
35:58:17:ASP:O	35:58:56:ASN:HB2	2.06	0.54
34:61:113:ARG:NH2	34:61:132:PRO:HB3	2.23	0.54
1:13:607:A:C2	16:7I:31:LYS:HE3	2.41	0.54
39:98:2:ARG:O	39:98:5:LYS:HB2	2.06	0.54
39:98:51:LEU:HD22	39:98:66:VAL:HG13	1.89	0.54
40:A8:10:ARG:O	40:A8:14:VAL:HG13	2.07	0.54
20:BA:37:SER:O	20:BA:41:ILE:HG13	2.08	0.54
2:12:73:THR:HG21	2:12:97:TRP:H	1.71	0.54
26:14:1260:G:H2'	26:14:1261:C:H6	1.72	0.54
26:14:142:G:H2'	26:14:143:C:C6	2.42	0.54
26:1H:1478:G:O6	26:1H:1510:A:N6	2.41	0.54
26:1H:1534:G:N1	26:1H:1539:G:N3	2.53	0.54
23:2L:57:C:O2	32:49:78:SER:OG	2.24	0.54
38:45:25:ASP:HA	38:45:102:VAL:HG23	1.90	0.54
37:78:121:LYS:O	37:78:123:LEU:N	2.40	0.54
16:7I:17:TYR:HE2	16:7I:41:PRO:HG3	1.72	0.54
42:85:88:ILE:HG23	42:85:90:VAL:HG23	1.89	0.54
26:14:993:G:N3	43:95:89:GLN:NE2	2.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:98:26:LYS:HE2	39:98:70:LEU:O	2.07	0.54
47:D5:76:LEU:HD23	47:D5:76:LEU:H	1.72	0.54
44:E8:30:GLU:O	44:E8:34:ASN:ND2	2.39	0.54
46:G8:96:ILE:HA	46:G8:102:CYS:O	2.08	0.54
49:J8:92:LYS:O	49:J8:95:LEU:N	2.39	0.54
1:13:1015:A:H2'	1:13:1016:A:H8	1.72	0.54
1:13:1147:C:O2	9:8E:16:ARG:NH1	2.40	0.54
1:13:1435:G:H2'	1:13:1436:U:C6	2.42	0.54
1:13:626:U:C2	1:13:627:G:C8	2.95	0.54
26:14:2176:A:N1	28:79:172:HIS:NE2	2.53	0.54
26:14:2766:G:H5''	26:14:2767:C:OP2	2.06	0.54
26:14:67:U:H2'	26:14:68:G:C8	2.42	0.54
26:14:975:G:OP2	59:14:3624:HOH:O	2.18	0.54
26:1H:930:U:H4'	26:1H:931:G:O5'	2.08	0.54
26:1H:991:C:H2'	26:1H:992:C:H6	1.72	0.54
26:1H:2619:C:OP1	30:21:152:LYS:HE3	2.07	0.54
4:32:18:LYS:HZ3	4:32:31:CYS:HB2	1.70	0.54
4:32:18:LYS:HG3	57:32:302:SF4:S1	2.48	0.54
31:39:181:LEU:HD23	31:39:186:ILE:HD11	1.89	0.54
12:3I:8:ASN:HA	12:3I:11:VAL:HG23	1.89	0.54
32:49:27:ASN:HD22	32:49:28:VAL:H	1.53	0.54
5:4E:35:GLY:HA3	5:4E:112:LEU:O	2.07	0.54
39:55:82:GLU:H	39:55:85:PRO:HG2	1.72	0.54
40:65:15:ARG:HD2	40:65:25:ARG:HH21	1.72	0.54
26:1H:2177:C:H5''	28:71:213:TYR:HB2	1.89	0.54
37:78:71:VAL:HG12	37:78:72:PRO:HD3	1.88	0.54
9:82:119:ALA:O	9:82:120:ARG:HB2	2.07	0.54
41:B8:23:ARG:HG3	41:B8:120:ARG:NH1	2.22	0.54
46:G8:100:ALA:HB1	46:G8:101:LYS:CG	2.36	0.54
46:G8:97:ARG:NH2	46:G8:103:GLY:O	2.40	0.54
1:13:353:A:C8	1:13:353:A:H5'	2.40	0.54
1:13:872:A:C4	1:13:874:G:N7	2.76	0.54
26:14:1251:C:H5	59:14:3908:HOH:O	1.89	0.54
26:14:1644:C:C2'	26:14:1645:G:H5'	2.37	0.54
1:1G:1418:A:H2	26:14:1948:G:N3	2.05	0.54
26:14:2319:G:N2	26:14:2334:G:OP1	2.21	0.54
26:14:259:G:HO2'	26:14:621:A:HO2'	1.55	0.54
26:14:2749:A:N1	26:14:2750:A:N6	2.56	0.54
29:19:242:ARG:N	29:19:242:ARG:HD3	2.22	0.54
1:1G:1229:A:OP1	13:4A:116:THR:HG23	2.08	0.54
1:1G:1466:C:H2'	1:1G:1467:G:O4'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:590:C:H2'	1:1G:591:U:H6	1.73	0.54
1:1G:631:G:H1'	1:1G:632:A:C8	2.42	0.54
1:1G:653:A:C8	8:72:56:LYS:HE3	2.42	0.54
26:1H:139:G:N3	26:1H:141:A:N1	2.55	0.54
26:1H:1432:C:H2'	26:1H:1433:U:O4'	2.08	0.54
26:1H:1983:C:O2'	26:1H:1984:G:H5'	2.07	0.54
26:1H:2849:U:H5'	26:1H:2867:G:N2	2.22	0.54
26:1H:308:G:H5''	26:1H:309:G:OP2	2.07	0.54
26:1H:618:G:H2'	26:1H:618(A):C:C6	2.43	0.54
26:14:2052:G:O4'	30:29:142:GLY:HA3	2.07	0.54
11:2A:41:THR:OG1	11:2A:42:TRP:N	2.40	0.54
31:39:143:ALA:O	31:39:148:LEU:HB2	2.08	0.54
12:3I:60:LEU:HD12	12:3I:62:SER:OG	2.08	0.54
5:42:102:ALA:HB3	5:42:107:ARG:HB2	1.89	0.54
38:45:28:ALA:HB3	38:45:105:GLU:OE2	2.06	0.54
34:61:69:LYS:HG3	34:61:136:VAL:HB	1.89	0.54
34:61:77:LEU:CD1	34:61:140:LEU:HB3	2.38	0.54
7:62:115:ARG:O	7:62:118:VAL:HG22	2.07	0.54
7:6E:62:PHE:HA	7:6E:124:LEU:HD22	1.89	0.54
28:79:16:PRO:HA	28:79:223:ARG:HG2	1.88	0.54
38:88:48:GLU:O	38:88:48:GLU:HG3	2.07	0.54
17:8A:5:VAL:HG22	17:8A:60:ILE:HG12	1.89	0.54
40:A8:106:ARG:NE	40:A8:106:ARG:H	2.04	0.54
29:11:124:PRO:HG2	29:11:129:ASN:HD21	1.72	0.54
27:16:55:U:OP2	59:16:305:HOH:O	2.17	0.54
1:1G:1014:A:H2'	1:1G:1015:A:C8	2.42	0.54
1:1G:1025:U:H5'	1:1G:1026:G:H5'	1.89	0.54
1:1G:1442:G:O2'	1:1G:1443:G:OP1	2.25	0.54
26:1H:1110:G:HO2'	26:1H:1111:A:P	2.29	0.54
26:1H:1932:A:H2'	26:1H:1933:G:O4'	2.08	0.54
26:1H:2169:A:N7	26:1H:2170:A:N6	2.54	0.54
26:1H:1889:A:N1	26:1H:2234:G:H1'	2.21	0.54
26:1H:483:A:C8	26:1H:484:C:C5	2.95	0.54
23:2L:21:U:O2	23:2L:21:U:H2'	2.06	0.54
31:31:130:ALA:H	31:31:132:VAL:HG13	1.73	0.54
26:1H:323:G:C8	31:31:171:PRO:HG3	2.43	0.54
4:3E:156:GLU:O	4:3E:160:GLN:HB3	2.07	0.54
24:3L:21:A:N3	24:3L:21:A:H2'	2.23	0.54
13:4I:16:ASP:N	13:4I:16:ASP:OD1	2.39	0.54
8:72:109:ILE:HG22	8:72:137:VAL:HB	1.90	0.54
39:98:38:VAL:HB	39:98:39:PRO:HD3	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:38:LYS:HZ3	29:11:38:LYS:C	2.10	0.54
29:11:38:LYS:HA	29:11:39:LYS:HD2	1.89	0.54
1:13:1301:U:O2'	1:13:1302:U:H3'	2.07	0.54
1:13:814:A:N7	1:13:816:A:C4	2.75	0.54
26:14:1159:U:H2'	26:14:1160:G:H8	1.71	0.54
26:14:1678:G:N3	26:14:1678:G:H2'	2.22	0.54
26:14:994:C:OP1	42:85:53:ARG:NH2	2.39	0.54
27:16:11:C:H3'	27:16:12:C:C6	2.43	0.54
27:16:73:A:C4	27:16:104:A:C2	2.95	0.54
27:16:78:A:C2	27:16:99:A:C4	2.96	0.54
1:1G:1513:A:H2'	1:1G:1514:C:C6	2.42	0.54
1:1G:464:G:H1'	1:1G:468:A:H61	1.71	0.54
26:1H:1588:C:H2'	26:1H:1589:C:C6	2.40	0.54
26:1H:2772:C:H2'	26:1H:2773:C:C6	2.43	0.54
36:25:59:LYS:HB3	36:25:87:ILE:HG22	1.89	0.54
24:3K:72:C:H2'	24:3K:73:A:H5''	1.90	0.54
13:4I:3:ARG:HH11	13:4I:7:VAL:HG22	1.73	0.54
6:5E:44:GLY:HA2	6:5E:59:TYR:CZ	2.43	0.54
41:75:50:ILE:HD11	41:75:102:ILE:CD1	2.35	0.54
41:B8:77:PRO:HG2	41:B8:80:SER:HB2	1.90	0.54
20:BA:53:LEU:HD12	20:BA:100:ILE:HG22	1.89	0.54
47:D5:29:TYR:CE1	47:D5:87:ASP:HB3	2.43	0.54
46:G8:89:PHE:HD1	46:G8:90:LEU:H	1.54	0.54
47:H8:125:LEU:HG	47:H8:164:ALA:HB3	1.90	0.54
2:12:16:HIS:CE1	2:12:213:LEU:HD22	2.43	0.54
1:13:688:G:H2'	1:13:689:C:H6	1.73	0.54
1:13:953:G:H5'	1:13:965:A:H61	1.73	0.54
26:14:142:G:H2'	26:14:143:C:H6	1.71	0.54
26:14:1456:G:OP2	59:14:3621:HOH:O	2.18	0.54
26:14:322:A:H3'	31:39:169:ASN:OD1	2.07	0.54
26:14:573:G:O2'	26:14:574:C:H3'	2.08	0.54
26:14:839:U:H2'	26:14:840:C:C6	2.43	0.54
2:1E:6:THR:OG1	2:1E:7:VAL:N	2.41	0.54
1:1G:1320:C:N3	19:AA:36:ARG:NH2	2.55	0.54
26:1H:1103:A:H3'	26:1H:1104:C:H6	1.73	0.54
26:1H:1336:A:OP2	45:F8:64:LYS:NZ	2.36	0.54
26:1H:1831:G:H2'	26:1H:1832:C:C6	2.42	0.54
26:1H:2887:U:H2'	26:1H:2888:C:C6	2.43	0.54
26:1H:638:G:C5	26:1H:651:G:C2	2.95	0.54
32:49:107:LEU:HD11	32:49:178:PHE:CE1	2.42	0.54
13:4A:37:THR:HG22	13:4A:55:ARG:HE	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:10:PRO:O	33:51:11:VAL:HG13	2.08	0.54
33:51:170:ARG:HA	33:51:171:LEU:CB	2.34	0.54
40:65:106:ARG:O	40:65:106:ARG:NH1	2.33	0.54
1:1G:750:G:H1'	15:6A:22:THR:OG1	2.08	0.54
15:6I:4:THR:OG1	15:6I:7:GLU:HG3	2.08	0.54
41:75:16:ARG:NH2	41:75:19:LEU:HD21	2.23	0.54
41:75:6:LEU:O	41:75:10:VAL:HG23	2.08	0.54
52:M8:36:CYS:SG	52:M8:38:LYS:N	2.80	0.54
29:11:263:ARG:HH11	29:11:263:ARG:HG3	1.73	0.54
1:13:1244:C:H2'	1:13:1245:A:C8	2.43	0.54
1:13:1497:G:C2'	1:13:1498:U:H5'	2.38	0.54
1:13:763:G:H2'	1:13:764:C:H6	1.73	0.54
26:14:2645:G:H3'	26:14:2646:C:H5'	1.90	0.54
26:14:2859:G:H3'	26:14:2859:G:C8	2.43	0.54
35:15:16:ILE:HB	35:15:54:VAL:HG22	1.88	0.54
10:1A:11:PHE:CE1	10:1A:67:THR:HG22	2.42	0.54
2:1E:79:ASP:N	2:1E:81:VAL:HG22	2.23	0.54
1:1G:1174:G:H2'	1:1G:1175:G:C8	2.41	0.54
1:1G:1259:C:N4	1:1G:1260:C:O2	2.41	0.54
1:1G:1386:G:C2	1:1G:1387:G:C8	2.95	0.54
1:1G:179:A:H2'	1:1G:180:U:C6	2.42	0.54
1:1G:411:A:OP1	4:32:30:LYS:NZ	2.32	0.54
1:1G:539:A:H2'	1:1G:540:G:C8	2.43	0.54
26:1H:1142(A):A:C4	26:1H:1144:G:C8	2.95	0.54
26:1H:1598:C:O2'	26:1H:1599:C:H5'	2.07	0.54
26:1H:2830:G:H8	26:1H:2830:G:H5''	1.73	0.54
32:41:49:ASP:OD1	32:41:51:ARG:HG3	2.08	0.54
26:14:871:U:OP1	38:45:5:ARG:HG2	2.08	0.54
13:4A:91:ARG:NH1	13:4A:96:LEU:HB3	2.23	0.54
38:45:135:ASP:HA	47:D5:81:ARG:HH22	1.72	0.54
49:J8:78:LYS:HD3	49:J8:78:LYS:N	2.23	0.54
29:11:41:GLY:C	29:11:43:ARG:H	2.11	0.54
1:13:1157:A:N6	1:13:1178:G:H21	2.06	0.54
1:13:234:C:H2'	1:13:235:C:H6	1.73	0.54
26:14:1708:C:O2'	26:14:1709:U:H5'	2.07	0.54
26:14:1754:C:H2'	26:14:1755:A:C8	2.43	0.54
1:1G:1129:C:N4	1:1G:1142:G:N7	2.56	0.54
1:1G:1321:C:H3'	1:1G:1322:C:H5''	1.90	0.54
1:1G:78:G:H1	1:1G:91:C:N4	1.97	0.54
26:1H:1598:C:H2'	26:1H:1599:C:H6	1.73	0.54
26:1H:1914:C:H2'	26:1H:1915:U:O4'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:592:G:O2'	55:Q8:4:MET:HB2	2.08	0.54
23:2L:62:C:H2'	23:2L:63:C:H6	1.73	0.54
4:3E:153:ARG:HH11	4:3E:181:MET:HB2	1.72	0.54
32:41:107:LEU:HD21	32:41:178:PHE:CD1	2.43	0.54
1:13:693:G:C8	25:4K:13:A:H1'	2.43	0.54
25:4L:14:A:O2'	25:4L:15:A:O4'	2.26	0.54
7:62:65:ALA:HB1	7:62:127:ALA:HB3	1.89	0.54
42:85:76:TYR:CZ	42:85:80:ILE:HG13	2.43	0.54
39:98:55:ALA:HB2	39:98:79:LEU:HD13	1.89	0.54
43:D8:76:LYS:HB2	43:D8:81:TYR:HB3	1.88	0.54
1:1G:1134:G:C2	1:1G:1135:U:H1'	2.44	0.53
1:1G:560:U:O2'	1:1G:561:U:OP2	2.23	0.53
26:1H:2334:G:H5'	40:A8:9:ARG:HG2	1.89	0.53
26:1H:536:A:H2'	26:1H:537:C:C6	2.43	0.53
26:1H:607:U:N3	26:1H:621:A:C2	2.71	0.53
26:1H:71:A:H2	45:F8:31:HIS:NE2	2.03	0.53
22:1L:50:C:H42	22:1L:64:G:H1	1.55	0.53
3:22:45:LYS:O	3:22:48:TYR:HB2	2.07	0.53
30:29:47:VAL:HG21	30:29:86:PRO:HD2	1.89	0.53
13:4A:34:LEU:HD13	13:4A:41:PRO:HB3	1.89	0.53
13:4A:62:ASN:N	13:4A:62:ASN:OD1	2.41	0.53
14:5I:4:LYS:HA	14:5I:7:ILE:HG23	1.90	0.53
40:65:78:LEU:HD11	40:65:107:GLU:HB3	1.90	0.53
26:1H:2128:C:OP1	28:71:37:PHE:HD2	1.90	0.53
37:78:125:VAL:O	37:78:144:GLU:HB2	2.08	0.53
28:79:43:VAL:HG11	28:79:222:VAL:HG11	1.90	0.53
6:5E:97:PHE:N	18:9I:30:ASP:OD1	2.39	0.53
46:C5:75:ILE:HA	46:C5:80:GLY:HA2	1.90	0.53
50:K8:53:LEU:O	50:K8:57:ILE:HG13	2.08	0.53
55:M5:52:LYS:N	55:M5:53:PRO:HD2	2.22	0.53
1:13:1110:A:OP2	59:13:1832:HOH:O	2.19	0.53
1:13:1125:U:O2'	1:13:1126:U:H6	1.90	0.53
1:13:292:G:N7	1:13:293:G:H1'	2.23	0.53
26:14:2468:G:H3'	26:14:2476:A:N1	2.23	0.53
1:1G:853:G:H2'	1:1G:854:G:H8	1.73	0.53
26:1H:2817:G:OP1	39:98:99:LYS:NZ	2.23	0.53
31:31:23:ASP:OD1	31:31:24:LEU:N	2.40	0.53
4:32:18:LYS:NZ	4:32:33:MET:HB2	2.23	0.53
4:32:9:CYS:SG	4:32:22:LYS:HE3	2.49	0.53
1:13:363:A:OP1	12:3I:33:ARG:HG3	2.07	0.53
27:16:42:C:H4'	32:41:67:LYS:HD2	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:106:LEU:HD12	32:49:110:ALA:HB3	1.90	0.53
39:55:63:ARG:O	39:55:67:LEU:HD12	2.08	0.53
35:58:96:GLU:HB2	35:58:122:VAL:CG1	2.39	0.53
8:7E:10:LEU:HD23	8:7E:10:LEU:N	2.23	0.53
48:I8:36:ILE:C	48:I8:36:ILE:HD13	2.29	0.53
50:K8:15:LYS:HZ2	50:K8:15:LYS:N	2.05	0.53
50:K8:41:ILE:O	50:K8:41:ILE:HG12	2.08	0.53
1:13:114:U:H2'	1:13:115:G:C8	2.44	0.53
1:13:1239:A:H62	1:13:1299:A:N6	2.04	0.53
26:14:1142(A):A:N7	26:14:1144:G:C6	2.77	0.53
26:14:1417:C:H42	26:14:1581:G:H1	1.55	0.53
26:14:2037:G:H2'	26:14:2038:G:C8	2.43	0.53
26:14:2567:G:H2'	26:14:2568:C:H6	1.71	0.53
26:14:259:G:N2	26:14:621:A:H8	2.03	0.53
26:14:527:C:H4'	26:14:528:A:O5'	2.08	0.53
27:16:102:G:N7	59:16:308:HOH:O	2.33	0.53
1:1G:1028(A):C:N3	1:1G:1032(B):G:N2	2.48	0.53
30:29:72:VAL:HB	30:29:74:PRO:HG3	1.90	0.53
24:3K:45:G:H4'	24:3K:46:G:OP1	2.08	0.53
24:3L:50:C:H2'	24:3L:51:A:C8	2.43	0.53
40:65:23:ARG:NH2	40:65:84:GLN:OE1	2.40	0.53
8:72:97:VAL:HA	8:72:100:ILE:HD11	1.89	0.53
40:A8:36:TYR:N	40:A8:36:TYR:HD1	2.06	0.53
19:AI:8:GLY:HA3	19:AI:9:VAL:CG1	2.33	0.53
41:B8:58:ASN:O	41:B8:58:ASN:ND2	2.40	0.53
47:H8:60:GLU:O	47:H8:61:LEU:HB3	2.08	0.53
2:12:50:GLU:N	2:12:50:GLU:OE1	2.40	0.53
1:13:592:G:H2'	1:13:593:G:H8	1.73	0.53
26:14:13:A:N1	26:14:525:U:H2'	2.23	0.53
29:19:108:PRO:HB3	29:19:143:HIS:HE1	1.72	0.53
29:19:260:ARG:NH1	29:19:267:SER:HB3	2.22	0.53
2:1E:166:ASP:HB3	2:1E:169:LYS:HB2	1.90	0.53
2:1E:71:VAL:HG23	2:1E:164:VAL:HA	1.90	0.53
26:1H:1423:G:N7	59:1H:3873:HOH:O	2.33	0.53
26:1H:1433:U:O2	26:1H:1561:G:C2	2.62	0.53
26:1H:1528:A:C2	26:1H:1543:A:N1	2.77	0.53
26:1H:287:C:H2'	26:1H:288:C:H6	1.73	0.53
30:21:101:ARG:CZ	30:21:171:GLU:HB3	2.39	0.53
24:3L:62:C:H2'	28:79:53:ARG:HH21	1.72	0.53
39:55:51:LEU:HD22	39:55:66:VAL:HG22	1.91	0.53
15:6I:78:TYR:OH	15:6I:88:ARG:HG3	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1149:C:OP1	9:8E:9:ARG:NH2	2.41	0.53
26:1H:2723:C:H5''	39:98:1:MET:HE2	1.90	0.53
44:A5:71:VAL:HA	44:A5:107:LEU:HD12	1.90	0.53
46:C5:17:SER:HB2	46:C5:71:LYS:CE	2.39	0.53
44:E8:17:VAL:HG13	44:E8:76:VAL:HG11	1.90	0.53
1:13:591:U:H2'	1:13:592:G:C8	2.44	0.53
1:13:843:U:H5''	1:13:848:C:C5	2.43	0.53
26:14:1204:A:C2	26:14:1241:A:N1	2.77	0.53
26:14:2646:C:H2'	26:14:2647:U:O4'	2.07	0.53
26:14:270(E):G:H2'	26:14:270(F):U:C6	2.43	0.53
27:16:80:U:H2'	27:16:81:G:N2	2.17	0.53
2:1E:54:THR:HG21	2:1E:201:ILE:HD11	1.91	0.53
1:1G:1268:A:H2'	1:1G:1269:A:C8	2.43	0.53
1:1G:1359:C:O2'	1:1G:1361:G:O6	2.22	0.53
26:1H:1337:G:H2'	26:1H:1338:G:C8	2.42	0.53
26:1H:1799:G:H5'	26:1H:1819:A:N6	2.23	0.53
3:2E:18:TRP:H	3:2E:18:TRP:HE3	1.54	0.53
23:2K:62:C:O2'	23:2K:63:C:H5'	2.09	0.53
31:31:6:VAL:HG11	31:31:119:ARG:HA	1.90	0.53
37:35:85:LEU:HA	37:35:88:LEU:HD13	1.90	0.53
4:3E:85:LYS:HD2	4:3E:89:THR:N	2.23	0.53
38:45:33:GLY:HA2	38:45:105:GLU:HB2	1.90	0.53
35:58:130:HIS:C	35:58:134:ARG:HH22	2.09	0.53
18:9I:38:GLU:OE1	18:9I:41:LYS:NZ	2.24	0.53
46:C5:86:ARG:HG3	46:C5:87:LYS:N	2.23	0.53
38:88:139:GLU:H	47:H8:122:ARG:HH22	1.57	0.53
47:H8:116:VAL:H	47:H8:146:ILE:HD11	1.74	0.53
2:12:71:VAL:HG21	2:12:164:VAL:HA	1.89	0.53
2:12:165:VAL:HG23	2:12:166:ASP:H	1.73	0.53
1:13:1221:G:O3'	19:AI:77:THR:HG21	2.08	0.53
26:14:1278:A:H2'	26:14:1279:G:C8	2.44	0.53
26:14:1316:U:H2'	26:14:1317:A:H8	1.73	0.53
26:14:1946:U:H2'	26:14:1947:C:C6	2.44	0.53
26:14:244:A:C2	26:14:255:A:C4	2.96	0.53
10:1I:32:ALA:HB3	10:1I:76:ASN:O	2.08	0.53
22:1L:26:A:H61	22:1L:44:U:H3	1.57	0.53
36:25:63:VAL:HG23	36:25:64:ARG:HG2	1.90	0.53
26:14:910:A:C5	38:45:13:GLN:HG3	2.44	0.53
33:51:2:SER:HB2	33:51:3:ARG:CD	2.27	0.53
6:52:96:PRO:HB3	18:9A:30:ASP:CG	2.28	0.53
28:71:5:LYS:HA	28:71:8:ARG:HB3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:177:C:P	20:BI:65:LYS:HZ1	2.31	0.53
46:C5:19:LYS:HD2	46:C5:20:TYR:HE1	1.73	0.53
50:K8:4:SER:CB	50:K8:7:ARG:H	2.21	0.53
26:1H:2422:A:N7	55:Q8:31:HIS:HE1	2.06	0.53
29:11:228:PRO:O	59:11:404:HOH:O	2.18	0.53
1:13:813:U:H5'	1:13:903:G:O3'	2.09	0.53
26:14:2162:G:O2'	26:14:2173:A:OP1	2.26	0.53
26:14:91:A:C2'	26:14:92:G:H5'	2.39	0.53
1:1G:1137:C:O2	1:1G:1138:G:N2	2.41	0.53
1:1G:1316:G:N2	1:1G:1318:A:H3'	2.24	0.53
1:1G:457:C:H2'	1:1G:458:C:C6	2.43	0.53
26:1H:1046:A:H4'	26:1H:1047:G:OP2	2.09	0.53
26:1H:1580:A:OP2	26:1H:1580:A:H8	1.91	0.53
26:1H:639:U:H2'	26:1H:640:C:C6	2.43	0.53
3:22:118:GLN:HG3	3:22:187:ALA:HB2	1.91	0.53
3:22:32:LEU:HD22	3:22:59:ARG:HH22	1.73	0.53
30:29:117:MET:HA	30:29:122:PHE:N	2.24	0.53
11:2I:17:GLY:O	11:2I:80:VAL:HA	2.09	0.53
24:3K:51:A:H2'	24:3K:52:G:C8	2.44	0.53
1:13:1228:C:OP1	13:4I:115:LYS:NZ	2.41	0.53
6:52:24:GLU:OE1	6:52:28:ARG:NH1	2.42	0.53
34:61:110:ASP:OD1	34:61:111:PRO:HA	2.08	0.53
28:71:14:VAL:HG13	28:71:222:VAL:HG13	1.90	0.53
9:82:105:ASP:OD1	9:82:107:ARG:HD3	2.08	0.53
1:1G:261:U:OP2	20:BA:79:ARG:NH2	2.42	0.53
50:K8:42:GLY:C	50:K8:44:LEU:H	2.12	0.53
53:N8:33:CYS:HB2	53:N8:40:LYS:HD2	1.91	0.53
1:13:1030:C:H2'	1:13:1031:G:C8	2.44	0.53
1:13:1233:G:H2'	1:13:1234:C:C6	2.43	0.53
26:14:2537:U:H2'	26:14:2538:C:C6	2.44	0.53
26:14:547:A:H2'	26:14:548:A:C8	2.44	0.53
2:1E:97:TRP:CZ3	2:1E:172:ILE:HB	2.44	0.53
1:1G:1281:U:H3'	1:1G:1282:C:C5	2.44	0.53
1:1G:1324:A:H2'	1:1G:1325:C:H6	1.72	0.53
1:1G:390:C:O2'	16:7A:28:ARG:NH1	2.42	0.53
26:1H:1045:A:H4'	26:1H:1045:A:OP1	2.08	0.53
26:1H:1332:G:N2	26:1H:1609:A:O2'	2.42	0.53
26:1H:804:A:P	59:1H:3628:HOH:O	2.67	0.53
1:1G:777:A:H2	11:2A:119:CYS:HB3	1.73	0.53
11:2I:66:LEU:HD23	11:2I:101:SER:HB3	1.90	0.53
4:32:17:VAL:HG12	4:32:18:LYS:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:22:LYS:HB2	4:32:26:CYS:SG	2.49	0.53
24:3L:62:C:H2'	28:79:53:ARG:NH2	2.23	0.53
35:58:20:GLY:HA2	35:58:61:ARG:HD3	1.90	0.53
1:1G:1048:G:OP1	14:5A:4:LYS:HB2	2.09	0.53
8:7E:103:VAL:HG21	8:7E:110:ALA:HB2	1.91	0.53
9:82:42:ARG:NH1	9:82:75:ASP:OD1	2.31	0.53
1:13:1108:G:O6	59:13:1827:HOH:O	2.16	0.53
1:13:625:G:H2'	1:13:626:U:H6	1.74	0.53
1:13:636:U:H2'	1:13:637:G:H8	1.74	0.53
1:13:696:A:N1	1:13:797:C:O2'	2.35	0.53
1:13:8:A:N6	4:3E:205:GLU:O	2.42	0.53
26:14:142:G:H5''	26:14:1598:C:O2'	2.08	0.53
26:14:1436:G:O2'	26:14:1477:A:H4'	2.09	0.53
26:14:1786:A:H2	26:14:2606:C:H1'	1.74	0.53
26:14:800:A:H8	26:14:800:A:OP1	1.91	0.53
1:1G:947:G:H2'	1:1G:948:C:C6	2.44	0.53
26:1H:1026:U:H1'	26:1H:1027:A:C5'	2.39	0.53
26:1H:1107:G:H2'	26:1H:1108:U:C6	2.44	0.53
26:1H:442:G:C4	26:1H:444:C:C5	2.96	0.53
26:1H:657:U:H2'	26:1H:658:C:H6	1.73	0.53
26:1H:779:U:O4	59:1H:3756:HOH:O	2.18	0.53
26:1H:860:U:C5	26:1H:917:A:H2	2.25	0.53
27:1J:8:U:O3'	40:65:25:ARG:NH2	2.37	0.53
22:1K:27:G:N2	22:1K:43:U:O2	2.39	0.53
30:21:59:VAL:HG13	30:21:60:ASN:H	1.72	0.53
1:1G:778:G:O2'	11:2A:119:CYS:HB2	2.08	0.53
39:55:72:ASP:O	39:55:76:VAL:HG23	2.09	0.53
33:59:11:VAL:HG11	33:59:69:ARG:HH22	1.74	0.53
34:61:38:LEU:H	34:61:38:LEU:HD12	1.74	0.53
16:7A:70:ALA:O	16:7A:74:LEU:HB2	2.09	0.53
9:82:117:HIS:O	9:82:118:LYS:HB2	2.08	0.53
48:E5:53:MET:HG3	48:E5:59:LEU:HD23	1.91	0.53
49:F5:85:LEU:O	49:F5:88:LYS:N	2.25	0.53
47:H8:116:VAL:HG22	47:H8:146:ILE:HG12	1.91	0.53
48:I8:51:VAL:N	48:I8:62:LEU:HD12	2.24	0.53
1:13:170:U:H2'	1:13:171:A:H8	1.74	0.53
1:13:363:A:N7	12:3I:33:ARG:CZ	2.72	0.53
1:13:807:A:H2'	1:13:808:C:C6	2.44	0.53
26:14:273(F):C:H3'	26:14:274:G:C5'	2.39	0.53
35:15:91:LEU:O	35:15:95:PRO:HB3	2.09	0.53
1:1G:164:U:H2'	1:1G:165:C:H6	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2306:C:H3'	26:1H:2307:G:H5'	1.91	0.53
26:1H:528:A:C2	26:1H:2043:C:H4'	2.44	0.53
26:1H:910:A:N1	26:1H:2277:G:H1'	2.23	0.53
3:22:190:ARG:HH11	3:22:190:ARG:HG2	1.74	0.53
3:22:50:ALA:HB2	3:22:75:VAL:HB	1.90	0.53
4:32:199:ASN:HB3	4:32:202:LEU:HG	1.90	0.53
37:35:69:GLY:C	37:35:70:GLN:HG3	2.28	0.53
4:3E:43:HIS:ND1	4:3E:46:LYS:HE3	2.24	0.53
32:41:7:LEU:N	32:41:104:GLU:OE1	2.41	0.53
33:51:94:TYR:HA	33:51:106:THR:O	2.09	0.53
33:59:146:ALA:O	33:59:149:ARG:N	2.31	0.53
14:5I:9:LYS:HA	14:5I:12:ARG:HG2	1.90	0.53
40:65:42:ASP:N	40:65:42:ASP:OD1	2.42	0.53
17:8I:65:ILE:HB	17:8I:69:LYS:HB3	1.91	0.53
41:B8:60:THR:HG22	41:B8:77:PRO:HA	1.91	0.53
49:J8:15:ALA:O	49:J8:40:ARG:HG2	2.09	0.53
51:L8:31:LEU:O	51:L8:32:GLN:HB2	2.08	0.53
1:13:1534:A:P	1:13:1534:A:H8	2.32	0.52
1:13:919:A:O2'	1:13:920:U:H5'	2.08	0.52
26:14:1780:A:OP1	59:14:3581:HOH:O	2.19	0.52
26:14:2105:C:N4	26:14:2184:G:H1	2.06	0.52
2:1E:46:LYS:HA	2:1E:49:GLU:CD	2.29	0.52
2:1E:68:ILE:HG13	2:1E:161:ALA:HB3	1.91	0.52
26:1H:1045:A:H1'	26:1H:1047:G:C4	2.44	0.52
26:1H:1063:G:H22	26:1H:1076:C:H1'	1.73	0.52
26:1H:1945:G:H2'	26:1H:1946:U:C6	2.44	0.52
26:1H:2373:G:H1	26:1H:2380:C:N4	2.07	0.52
26:1H:518:G:H2'	26:1H:519:U:C6	2.43	0.52
10:1I:85:LEU:HA	10:1I:88:LEU:HD23	1.91	0.52
27:1J:93:C:H2'	27:1J:94:C:H6	1.74	0.52
36:25:60:ALA:HB1	36:25:84:ALA:HB1	1.91	0.52
3:2E:32:LEU:HD13	3:2E:59:ARG:HD3	1.91	0.52
33:51:52:VAL:O	33:51:65:HIS:NE2	2.30	0.52
26:14:2882:A:H5'	39:55:96:ARG:HG3	1.92	0.52
41:75:106:SER:HA	41:75:110:ILE:HG13	1.89	0.52
1:1G:235:C:C5'	17:8A:70:ARG:HG2	2.39	0.52
45:B5:40:LYS:HA	45:B5:51:VAL:HG11	1.90	0.52
26:1H:2849:U:OP2	41:B8:95:ARG:NH1	2.42	0.52
42:C8:58:ARG:HA	42:C8:61:TRP:CE3	2.44	0.52
44:E8:12:ILE:HD13	44:E8:17:VAL:HB	1.91	0.52
29:11:8:PRO:HB3	29:11:14:ARG:HB2	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:187:C:O2	1:13:191(A):G:N1	2.42	0.52
26:14:1224:G:N2	26:14:1227:A:OP2	2.36	0.52
26:14:2836:U:H2'	26:14:2837:G:C8	2.44	0.52
26:14:868:U:C4	26:14:869:G:N7	2.77	0.52
29:19:85:ASP:OD2	29:19:88:ARG:NH1	2.34	0.52
1:1G:1197:G:OP1	59:1G:1807:HOH:O	2.19	0.52
1:1G:458:C:H2'	1:1G:464:G:H8	1.73	0.52
1:1G:87:A:H4'	1:1G:88:C:OP1	2.08	0.52
26:1H:1494:A:H2'	26:1H:1495:A:C8	2.44	0.52
26:1H:2275:C:H5'	26:1H:2275:C:C6	2.40	0.52
26:1H:2331:G:O3'	48:I8:43:THR:HG22	2.09	0.52
26:1H:270(G):C:H2'	26:1H:270(H):C:O4'	2.09	0.52
36:25:31:LYS:HB3	36:25:32:TYR:CD2	2.45	0.52
30:29:171:GLU:O	30:29:184:VAL:HA	2.09	0.52
1:13:881:G:OP2	12:3I:12:ARG:NH2	2.42	0.52
16:7I:58:TYR:O	16:7I:62:VAL:HG22	2.09	0.52
17:8I:67:LYS:O	17:8I:68:ARG:HB3	2.09	0.52
20:BI:10:LEU:HG	20:BI:12:ALA:H	1.74	0.52
52:M8:42:PHE:HD1	52:M8:43:TYR:HB3	1.74	0.52
1:13:232:G:H2'	1:13:233:C:H6	1.73	0.52
1:13:413:G:N2	1:13:428:G:H1'	2.25	0.52
1:13:671:G:H2'	1:13:672:U:H6	1.74	0.52
26:14:1542:G:O6	26:14:1543:A:N6	2.42	0.52
27:16:116:G:H2'	27:16:117:G:O4'	2.09	0.52
29:19:30:GLU:HG3	29:19:63:ARG:CZ	2.40	0.52
26:1H:1441:G:H2'	26:1H:1442:G:C8	2.44	0.52
26:1H:1614:A:H8	26:1H:1614:A:P	2.33	0.52
26:1H:2138:C:O2	26:1H:2154:G:N2	2.43	0.52
26:1H:331:A:H1'	59:1H:4721:HOH:O	2.09	0.52
26:1H:508:G:N3	26:1H:508:G:H5''	2.24	0.52
26:1H:600:G:N2	26:1H:605:C:O3'	2.42	0.52
26:1H:637:A:H2'	37:78:117:GLU:OE1	2.09	0.52
24:3L:4:U:H2'	24:3L:5:C:O4'	2.08	0.52
5:4E:147:ASP:OD1	5:4E:147:ASP:N	2.42	0.52
25:4K:12:A:HO2'	25:4K:13:A:P	2.30	0.52
35:58:12:ARG:HD3	35:58:14:VAL:HG22	1.91	0.52
41:75:27:THR:OG1	41:75:89:VAL:HG22	2.09	0.52
8:7E:94:TYR:HE1	8:7E:132:GLU:HB2	1.73	0.52
8:7E:39:LEU:HB3	8:7E:45:ILE:HG12	1.91	0.52
43:95:1:MET:HB3	43:95:42:GLY:H	1.74	0.52
26:14:2271:G:H5''	48:E5:20:ARG:NE	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:34:VAL:O	29:11:64:ILE:HG23	2.09	0.52
1:13:1336:C:H4'	1:13:1337:G:O5'	2.09	0.52
1:13:255:G:P	17:8I:69:LYS:HZ3	2.32	0.52
1:13:448:A:OP2	1:13:485:G:N2	2.22	0.52
26:14:1963:U:H5''	26:14:1963:U:O2	2.10	0.52
26:14:2068:U:H3	26:14:2430:A:H2	1.51	0.52
26:14:2331:G:H4'	48:E5:43:THR:H	1.75	0.52
26:14:792:G:H5''	26:14:793:A:H5'	1.91	0.52
29:19:166:GLN:HB3	29:19:174:ILE:HG22	1.92	0.52
10:1A:32:ALA:HA	10:1A:76:ASN:HD21	1.74	0.52
2:1E:21:ARG:NE	2:1E:21:ARG:O	2.42	0.52
1:1G:1127:G:N2	1:1G:1145:C:N3	2.56	0.52
1:1G:1312:G:H2'	1:1G:1313:U:O4'	2.09	0.52
1:1G:6:G:H4'	1:1G:298:A:H4'	1.90	0.52
1:1G:560:U:H5'	1:1G:566:G:N2	2.24	0.52
1:1G:596:C:H2'	1:1G:597:G:H8	1.74	0.52
26:1H:1062:G:H1'	26:1H:1088:A:C5	2.44	0.52
26:1H:1420:U:O2'	26:1H:1421:G:OP1	2.25	0.52
26:1H:2751:G:O6	33:51:3:ARG:HD2	2.10	0.52
26:1H:574:C:P	59:1H:3613:HOH:O	2.61	0.52
26:1H:719:C:H2'	26:1H:720:C:H6	1.72	0.52
31:31:127:GLU:HA	31:31:127:GLU:OE2	2.05	0.52
24:3K:75:C:HO2'	24:3K:76:A:H2	1.56	0.52
13:4A:8:GLU:CG	13:4A:9:ILE:H	2.22	0.52
6:52:67:MET:HB2	6:52:68:PRO:HD2	1.92	0.52
39:55:1:MET:HG3	39:55:1:MET:O	2.08	0.52
41:75:22:PHE:CE2	41:75:86:ILE:HD11	2.45	0.52
1:13:377:G:H5'	16:7I:5:ARG:HH12	1.74	0.52
9:82:9:ARG:O	9:82:104:ARG:HD2	2.10	0.52
42:85:91:ASP:O	42:85:93:LYS:N	2.42	0.52
18:9A:38:GLU:OE2	18:9A:38:GLU:N	2.38	0.52
40:A8:27:SER:HA	40:A8:88:ASP:HB2	1.92	0.52
47:D5:62:PRO:O	47:D5:63:ASP:HB3	2.10	0.52
55:Q8:16:ILE:HD13	55:Q8:59:LYS:HG3	1.91	0.52
1:13:1226:C:N4	13:4I:104:ARG:HG3	2.23	0.52
1:13:145:G:H1	1:13:177:C:H42	1.55	0.52
1:13:407:G:H2'	1:13:408:A:C8	2.43	0.52
26:14:1149:G:H2'	26:14:1150:C:C6	2.44	0.52
26:14:1227:A:OP1	43:95:84:LYS:HE2	2.09	0.52
26:14:1793:C:H2'	26:14:1794:U:C6	2.44	0.52
26:14:195:A:H4'	26:14:251:A:O2'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2343:C:O2'	26:14:2373:G:O2'	2.28	0.52
26:14:2520:C:H41	26:14:2542:A:N6	2.08	0.52
26:14:2773:C:OP1	30:29:166:THR:OG1	2.22	0.52
26:14:2791:C:HO2'	26:14:2792:G:P	2.33	0.52
1:1G:194:C:H2'	1:1G:195:A:H5''	1.91	0.52
26:1H:1105:U:H2'	26:1H:1106:G:C8	2.44	0.52
26:1H:1290:C:H2'	26:1H:1291:C:C6	2.45	0.52
26:1H:1728:G:H2'	26:1H:1731:G:O6	2.09	0.52
26:1H:1729:A:H2'	26:1H:1731:G:N7	2.24	0.52
26:1H:1731:G:H2'	26:1H:1732:A:C8	2.44	0.52
26:1H:2320:A:N3	26:1H:2320:A:H2'	2.24	0.52
30:21:60:ASN:HD21	30:21:63:LEU:HB2	1.72	0.52
30:29:3:GLY:HA3	30:29:81:ILE:HD12	1.91	0.52
3:2E:177:THR:O	3:2E:180:ALA:HB2	2.09	0.52
32:49:37:VAL:HG22	32:49:159:VAL:HB	1.92	0.52
36:68:64:ARG:O	36:68:82:ASN:HA	2.10	0.52
26:14:495:G:N3	44:A5:61:ASN:ND2	2.55	0.52
47:H8:98:MET:O	47:H8:125:LEU:HA	2.09	0.52
1:13:150:C:H2'	1:13:151:A:H8	1.75	0.52
1:13:725:G:O2'	1:13:726:C:H5'	2.10	0.52
1:13:808:C:OP2	15:6I:48:LYS:HE2	2.10	0.52
26:14:1000:A:C6	26:14:1001:A:N1	2.78	0.52
26:14:1392:A:N6	26:14:1393:A:N6	2.57	0.52
26:14:1900:A:OP2	59:14:3631:HOH:O	2.19	0.52
26:14:1936:A:C8	26:14:1940:U:O2	2.62	0.52
26:14:2058:A:H5''	26:14:2059:A:OP2	2.09	0.52
26:14:2152:G:N3	26:14:2152:G:H2'	2.24	0.52
26:14:2849:U:H4'	26:14:2868:A:C2	2.45	0.52
26:14:2897:U:H3'	26:14:2898:U:C6	2.44	0.52
29:19:49:ILE:CD1	29:19:52:ARG:HA	2.40	0.52
1:1G:512:U:H2'	1:1G:513:C:C6	2.45	0.52
26:1H:1049:C:H1'	26:1H:1113:U:O2'	2.10	0.52
26:1H:1482:U:O4	26:1H:1510:A:H1'	2.09	0.52
26:1H:1785:A:H5'	59:1H:3721:HOH:O	2.09	0.52
26:1H:934:G:H2'	26:1H:935:C:C6	2.45	0.52
36:25:13:ASN:HD21	36:25:97:ARG:H	1.57	0.52
31:31:155:LEU:HB2	31:31:189:THR:HG21	1.91	0.52
12:3I:58:VAL:O	12:3I:65:GLU:HA	2.09	0.52
24:3L:37:A:H2'	24:3L:38:A:O4'	2.09	0.52
32:41:124:SER:HB3	32:41:132:ASN:O	2.10	0.52
9:8E:34:ASN:O	9:8E:38:GLN:HB2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:9A:53:ARG:HA	18:9A:56:THR:OG1	2.09	0.52
40:A8:87:PHE:CE1	40:A8:102:ALA:HB2	2.44	0.52
19:AI:41:VAL:HG12	19:AI:43:GLU:N	2.23	0.52
20:BI:26:ASN:HB3	20:BI:71:THR:OG1	2.10	0.52
48:E5:12:ASN:HA	48:E5:14:ARG:NH2	2.22	0.52
47:H8:126:VAL:HG12	47:H8:162:GLU:O	2.10	0.52
32:41:6:ALA:H	52:M8:23:GLU:HG3	1.74	0.52
1:13:626:U:N3	1:13:627:G:N7	2.58	0.52
26:14:1793:C:H2'	26:14:1794:U:H6	1.75	0.52
26:14:270(F):U:H3	26:14:270(T):G:H1	1.57	0.52
26:14:729:G:O5'	29:19:208:LYS:NZ	2.41	0.52
29:19:273:ARG:O	29:19:275:LYS:N	2.42	0.52
1:1G:1123:A:H4'	10:1A:37:PRO:HD2	1.92	0.52
1:1G:1163:C:N3	1:1G:1174:G:N2	2.58	0.52
1:1G:1320:C:H2'	1:1G:1321:C:C6	2.44	0.52
1:1G:589:C:H42	1:1G:650:G:H1	1.57	0.52
26:1H:2074:U:H2'	26:1H:2075:U:C6	2.45	0.52
26:1H:2257:U:O2'	26:1H:2258:C:H5'	2.09	0.52
26:1H:2636:U:P	30:21:79:ARG:HA	2.50	0.52
26:1H:606:U:H4'	26:1H:658:C:H4'	1.90	0.52
27:1J:13:A:H2'	27:1J:70:C:O2'	2.10	0.52
30:21:37:ARG:HA	30:21:42:ASP:OD2	2.09	0.52
26:14:2032:G:N2	30:29:146:THR:HG23	2.06	0.52
24:3K:49:G:N2	24:3K:65:C:O2'	2.41	0.52
15:6I:27:VAL:O	15:6I:31:LEU:HB2	2.09	0.52
26:14:2124:G:N2	28:79:42:GLU:OE2	2.43	0.52
8:7E:6:ILE:HB	8:7E:85:ARG:HH12	1.74	0.52
9:8E:114:TYR:HE2	10:1I:59:SER:HA	1.75	0.52
17:8I:70:ARG:C	17:8I:71:PHE:HD1	2.13	0.52
43:95:48:GLY:HA3	43:95:52:VAL:N	2.25	0.52
51:L8:26:LEU:HB2	51:L8:28:LEU:HD12	1.90	0.52
1:13:1028:C:H41	1:13:1033:G:H1	1.56	0.52
1:13:1392:G:O2'	1:13:1393:U:H5'	2.09	0.52
1:13:501:C:H2'	1:13:502:G:C8	2.45	0.52
26:14:1178:C:H2'	26:14:1179:C:C6	2.45	0.52
26:14:2388:A:C2'	26:14:2389:G:H5'	2.39	0.52
26:14:2494:G:O2'	26:14:2495:G:H5'	2.10	0.52
26:14:587:C:OP2	37:35:21:ARG:NH2	2.42	0.52
26:14:634:C:H2'	26:14:635:C:C6	2.45	0.52
26:1H:1843:C:H5'	29:11:253:GLN:OE1	2.08	0.52
26:1H:185:U:H4'	26:1H:218:A:H4'	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:5:A:N6	26:1H:2898:U:O4	2.42	0.52
26:1H:302:C:H2'	26:1H:303:U:C6	2.44	0.52
26:1H:531:C:OP2	59:1H:3762:HOH:O	2.19	0.52
26:1H:801:G:OP2	59:1H:3758:HOH:O	2.18	0.52
22:1K:48:C:H4'	22:1K:49:G:O5'	2.10	0.52
30:29:182:LEU:O	30:29:183:LEU:HD12	2.09	0.52
13:4I:3:ARG:HB3	13:4I:9:ILE:HG12	1.92	0.52
33:51:68:THR:O	33:51:72:ILE:HG13	2.10	0.52
40:65:10:ARG:O	40:65:14:VAL:HG12	2.09	0.52
41:B8:26:ASP:CB	41:B8:92:GLY:H	2.22	0.52
47:H8:76:LEU:HD23	47:H8:76:LEU:H	1.75	0.52
26:14:459:U:H4'	54:L5:40:TRP:CZ3	2.44	0.52
26:1H:1568:G:P	29:11:63:ARG:HH12	2.33	0.52
1:13:486:U:H2'	1:13:487:A:H8	1.75	0.52
1:13:535:A:H5''	59:13:1898:HOH:O	2.09	0.52
1:13:770:C:OP1	59:13:1831:HOH:O	2.19	0.52
1:13:939:G:H2'	1:13:940:C:C6	2.45	0.52
26:14:2386:C:OP2	59:14:3629:HOH:O	2.19	0.52
26:14:330:A:HO2'	26:14:331:A:H8	1.56	0.52
2:1E:112:VAL:O	2:1E:115:LEU:HB3	2.09	0.52
1:1G:160:A:H1'	1:1G:344:A:N7	2.25	0.52
1:1G:15:G:H2'	1:1G:16:A:C8	2.45	0.52
1:1G:518:C:H5''	1:1G:519:C:C6	2.45	0.52
1:1G:607:A:H2'	1:1G:608:A:O4'	2.10	0.52
1:1G:712:A:H2'	1:1G:713:G:C8	2.45	0.52
26:1H:1354:A:H2'	26:1H:1355:G:O4'	2.10	0.52
26:1H:1386:C:H2'	26:1H:1387:C:H6	1.74	0.52
26:1H:2592:G:C6	26:1H:2593:U:C4	2.98	0.52
26:1H:2751:G:C5	33:51:3:ARG:HG3	2.45	0.52
26:1H:602:G:N2	26:1H:655:A:C8	2.68	0.52
26:1H:900:A:H5'	26:1H:901:A:OP2	2.10	0.52
31:31:127:GLU:HG2	31:31:196:LEU:HD23	1.92	0.52
31:39:68:LYS:HB3	31:39:69:HIS:CD2	2.45	0.52
24:3K:9:A:H3'	24:3K:10:G:H8	1.74	0.52
32:41:96:ARG:O	32:41:97:ASP:HB2	2.09	0.52
5:42:51:VAL:O	5:42:55:VAL:HG23	2.09	0.52
26:1H:558:G:P	35:58:111:PRO:HD2	2.50	0.52
35:58:48:MET:SD	35:58:48:MET:O	2.68	0.52
10:1A:63:PHE:CD1	14:5A:58:LYS:HA	2.45	0.52
26:14:2378:A:O2'	40:65:21:THR:HG21	2.10	0.52
16:7I:71:ARG:O	16:7I:75:ARG:N	2.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1149:C:P	9:8E:9:ARG:HH21	2.33	0.52
41:B8:12:SER:CB	41:B8:15:VAL:H	2.21	0.52
41:B8:99:LEU:HB3	41:B8:101:PHE:CE1	2.45	0.52
46:C5:40:GLU:OE2	46:C5:40:GLU:N	2.43	0.52
49:F5:64:ALA:HA	49:F5:67:ILE:HG12	1.92	0.52
47:H8:152:ALA:HB3	47:H8:167:PRO:O	2.10	0.52
26:1H:1368:G:OP1	54:P8:28:ARG:NH2	2.43	0.52
2:12:22:LYS:C	2:12:23:ARG:HE	2.12	0.52
1:13:1170:A:H2'	1:13:1171:G:O4'	2.10	0.52
26:14:1056:G:H1'	26:14:1103:A:N6	2.25	0.52
26:14:139:G:H5'	26:14:139:G:C8	2.45	0.52
26:14:2134:A:H2'	26:14:2134:A:N3	2.25	0.52
26:14:2298:A:N6	26:14:2318:G:C8	2.77	0.52
2:1E:234:PRO:HB3	2:1E:236:TYR:CD2	2.45	0.52
1:1G:837:G:N2	1:1G:850:U:O2	2.43	0.52
26:1H:1533:C:C6	26:1H:1534:G:H5''	2.45	0.52
26:1H:1590:U:H2'	26:1H:1591:G:H8	1.74	0.52
26:1H:1833:U:P	59:1H:3703:HOH:O	2.68	0.52
26:1H:1127:A:O2'	26:1H:2518:A:OP1	2.25	0.52
26:1H:44:A:O2'	26:1H:45:G:H5'	2.09	0.52
26:1H:719:C:H2'	26:1H:720:C:C6	2.45	0.52
11:2A:81:ASP:OD1	11:2A:81:ASP:N	2.43	0.52
23:2L:55:5MU:H2'	23:2L:56:PSU:O4'	2.10	0.52
23:2L:15:G:H2'	23:2L:60:A:N1	2.25	0.52
4:3E:39:PRO:O	4:3E:44:GLY:HA3	2.10	0.52
32:49:14:GLU:O	32:49:17:PRO:HG2	2.10	0.52
13:4A:78:ILE:HG23	13:4A:92:HIS:ND1	2.24	0.52
13:4I:79:LYS:O	13:4I:83:ASP:HB2	2.10	0.52
1:1G:1240:U:OP2	7:62:116:ALA:N	2.43	0.52
37:78:124:LYS:HA	37:78:143:GLY:O	2.09	0.52
24:3L:52:G:N2	28:79:53:ARG:HH12	2.06	0.52
1:13:468:A:H5''	16:7I:80:PHE:HB3	1.92	0.52
40:A8:85:VAL:H	40:A8:111:GLU:HG2	1.74	0.52
19:AI:40:ILE:HG21	19:AI:66:MET:O	2.10	0.52
1:13:1125:U:O2'	1:13:1126:U:C6	2.58	0.51
1:13:342:C:C2	1:13:348:G:C2	2.98	0.51
1:1G:260:G:H2'	1:1G:261:U:C6	2.45	0.51
1:1G:371:G:H1	1:1G:390:C:H42	1.57	0.51
1:1G:629:G:H2'	1:1G:630:G:H4'	1.91	0.51
26:1H:191:A:H2'	26:1H:192:C:C6	2.45	0.51
26:1H:761:A:OP1	59:1H:3764:HOH:O	2.19	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:25:3:GLN:HB2	36:25:4:PRO:HD2	1.92	0.51
30:29:50:GLY:HA2	30:29:78:LEU:HB2	1.92	0.51
23:2K:48:U:O2'	23:2K:49:C:OP2	2.27	0.51
31:31:185:ASP:HA	31:31:188:ARG:CD	2.40	0.51
5:4E:122:GLU:HG2	5:4E:131:ILE:HD12	1.92	0.51
13:4I:10:PRO:HB2	13:4I:18:ALA:HB1	1.91	0.51
33:51:137:ASP:OD1	33:51:138:LYS:N	2.42	0.51
7:62:88:PRO:O	7:62:89:MET:HG2	2.10	0.51
1:13:626:U:H5''	16:7I:38:TYR:CD2	2.45	0.51
20:BI:33:ILE:O	20:BI:37:SER:OG	2.22	0.51
47:D5:52:SER:O	47:D5:53:ILE:HG12	2.11	0.51
47:D5:60:GLU:HA	47:D5:66:SER:HA	1.91	0.51
47:D5:77:ASP:HB2	47:D5:84:GLU:HG2	1.91	0.51
48:E5:68:GLU:OE1	48:E5:82:ARG:HG3	2.10	0.51
45:F8:84:ALA:HB1	45:F8:85:PRO:HD2	1.93	0.51
29:11:228:PRO:HD3	29:11:235:GLY:HA3	1.92	0.51
29:11:3:VAL:HG13	29:11:17:THR:HG23	1.93	0.51
1:13:1126:U:C5	1:13:1127:G:N7	2.78	0.51
26:14:1425:G:H2'	26:14:1426:G:O4'	2.11	0.51
26:14:2127:G:H2'	26:14:2128:C:O4'	2.10	0.51
26:14:2849:U:O4	41:75:23:ARG:NH2	2.37	0.51
26:14:761:A:H5''	59:14:3532:HOH:O	2.10	0.51
26:14:1568:G:H5''	29:19:61:LEU:HD22	1.92	0.51
26:1H:1491:G:O4'	29:11:99:ASP:HB3	2.10	0.51
26:1H:2127:G:H1'	26:1H:2162:G:H1'	1.92	0.51
26:1H:2154:G:H2'	26:1H:2155:G:H8	1.76	0.51
26:1H:2648:C:H2'	26:1H:2649:U:C6	2.45	0.51
26:1H:2698:U:H2'	26:1H:2699:C:C6	2.45	0.51
26:1H:270(K):C:C2'	26:1H:270(N):G:H22	2.23	0.51
26:1H:528:A:N1	26:1H:2042:A:H2'	2.25	0.51
26:1H:860:U:H1'	26:1H:2268:A:H5'	1.91	0.51
4:32:173:TRP:CD1	4:32:174:LEU:HG	2.45	0.51
5:4E:126:ARG:HG3	5:4E:126:ARG:NH1	2.24	0.51
39:55:33:ARG:NH2	39:55:115:GLU:OE2	2.43	0.51
40:65:89:ARG:O	40:65:92:TYR:N	2.43	0.51
38:88:110:THR:HG23	38:88:113:GLN:OE1	2.11	0.51
19:AI:3:ARG:CD	19:AI:9:VAL:HG21	2.39	0.51
20:BA:64:ASP:OD2	20:BA:81:LYS:NZ	2.42	0.51
42:C8:49:HIS:HA	42:C8:52:ARG:HG2	1.93	0.51
1:13:1053:G:O5'	1:13:1054:C:H3'	2.10	0.51
1:13:1210:C:C2'	1:13:1211:U:H5'	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:145:G:H1	1:13:177:C:N4	2.09	0.51
26:14:226:G:H21	26:14:228:A:H62	1.58	0.51
26:14:2497:A:O3'	59:14:3628:HOH:O	2.19	0.51
26:14:618:G:H2'	26:14:618(A):C:O4'	2.10	0.51
26:14:770:G:H5''	26:14:771:G:OP2	2.11	0.51
2:1E:11:LEU:HD21	2:1E:209:ARG:HH21	1.75	0.51
2:1E:18:GLY:HA2	2:1E:42:ILE:HG13	1.93	0.51
1:1G:1118:C:H1'	1:1G:1179:A:C4	2.45	0.51
1:1G:690:G:H2'	1:1G:691:G:O4'	2.10	0.51
1:1G:978:A:H5'	1:1G:979:C:OP2	2.10	0.51
26:1H:1170:G:N2	26:1H:1180:C:C2	2.79	0.51
26:1H:1831:G:H2'	26:1H:1832:C:H6	1.74	0.51
26:1H:1869:G:H5''	26:1H:1869:G:H8	1.75	0.51
26:1H:2356:C:C5	26:1H:2357:U:C4	2.98	0.51
1:13:1060:C:O2'	10:1I:56:HIS:ND1	2.41	0.51
3:22:150:LYS:HG3	3:22:169:ALA:HB2	1.92	0.51
4:32:173:TRP:HZ3	4:32:193:ASP:HB3	1.75	0.51
12:3A:79:GLU:HG2	12:3A:80:HIS:CD2	2.46	0.51
13:4A:91:ARG:HB2	13:4A:98:VAL:HG12	1.91	0.51
41:75:91:ARG:HD2	41:75:124:ASP:OD2	2.11	0.51
8:7E:8:ASP:O	8:7E:12:ARG:HB2	2.10	0.51
9:82:16:ARG:O	9:82:63:ILE:HG23	2.09	0.51
43:95:34:GLU:OE1	43:95:56:SER:HB2	2.10	0.51
42:85:50:ARG:NH1	43:95:72:VAL:HG23	2.24	0.51
42:C8:69:CYS:HB2	42:C8:74:LEU:HD13	1.92	0.51
50:K8:2:LYS:HB3	50:K8:5:GLU:HG3	1.91	0.51
29:11:245:PRO:CG	29:11:253:GLN:HE21	2.23	0.51
2:12:145:LEU:O	2:12:149:LEU:HB2	2.11	0.51
2:12:22:LYS:HE2	2:12:40:HIS:HE1	1.76	0.51
2:12:54:THR:HA	2:12:57:PHE:HB2	1.91	0.51
1:13:157:G:H2'	1:13:158:G:C8	2.46	0.51
1:13:1:U:O2'	1:13:2:U:H5''	2.11	0.51
1:13:631:G:O2'	1:13:632:A:O5'	2.28	0.51
1:13:67:C:H2'	1:13:68:G:H8	1.75	0.51
1:13:872:A:C2	1:13:874:G:C6	2.99	0.51
1:13:883:C:C2'	1:13:884:U:H5'	2.41	0.51
26:14:1630:G:N2	26:14:1636:C:O2	2.38	0.51
26:14:19:C:H2'	26:14:20:C:C6	2.46	0.51
26:14:2150:U:H2'	26:14:2151:G:H8	1.75	0.51
1:1G:1140:C:H2'	1:1G:1141:C:C6	2.45	0.51
1:1G:309:G:O2'	1:1G:607:A:N1	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:804:U:H5''	1:1G:805:C:OP2	2.10	0.51
1:1G:984:C:H2'	1:1G:985:C:H6	1.75	0.51
26:1H:1025:G:C4	26:1H:1135:C:H1'	2.45	0.51
26:1H:2127:G:C8	26:1H:2162:G:C4	2.98	0.51
26:1H:2124:G:N2	26:1H:2175:C:N3	2.53	0.51
26:1H:270(E):G:H1	26:1H:270(U):C:N4	2.04	0.51
26:1H:731:C:P	59:1H:3639:HOH:O	2.68	0.51
30:21:111:ARG:HG3	30:21:160:TYR:CD2	2.46	0.51
33:51:20:ALA:HB3	33:51:23:ARG:HG3	1.92	0.51
33:51:6:ARG:HA	33:51:66:GLY:HA2	1.91	0.51
6:52:19:LEU:O	6:52:23:LYS:HG3	2.09	0.51
34:69:90:GLY:O	34:69:121:LYS:HE2	2.10	0.51
37:78:38:GLN:O	37:78:41:ARG:HB2	2.10	0.51
43:95:28:GLU:O	43:95:61:VAL:HG11	2.10	0.51
40:A8:49:VAL:HG22	40:A8:80:LEU:HD13	1.91	0.51
55:M5:14:VAL:CG1	55:M5:22:VAL:HG13	2.40	0.51
52:M8:13:ARG:HD2	52:M8:20:ASN:HD22	1.74	0.51
1:13:439:A:H3'	1:13:440:A:H8	1.76	0.51
1:13:652:U:O4	1:13:752:G:O2'	2.15	0.51
26:14:1104:C:H2'	26:14:1105:U:C6	2.46	0.51
26:14:307:G:N2	26:14:310:A:O5'	2.34	0.51
1:1G:1151:A:O2'	1:1G:1152:A:O5'	2.29	0.51
1:1G:1429:C:H2'	1:1G:1430:C:H6	1.76	0.51
1:1G:328:C:H4'	1:1G:329:A:H5''	1.91	0.51
26:1H:1324:G:C5	26:1H:1328:G:O6	2.64	0.51
26:1H:1604:C:H5''	59:1H:3935:HOH:O	2.10	0.51
26:1H:1633:G:N7	59:1H:3881:HOH:O	2.34	0.51
26:1H:1664:A:OP1	59:1H:3765:HOH:O	2.19	0.51
26:1H:1690:A:H2'	26:1H:1691:C:O4'	2.10	0.51
26:1H:910:A:N7	38:88:13:GLN:HG3	2.24	0.51
30:21:63:LEU:O	30:21:64:LYS:HG3	2.10	0.51
30:29:199:ARG:HB3	30:29:200:GLU:OE1	2.11	0.51
31:39:11:VAL:CG1	31:39:13:SER:HB3	2.41	0.51
31:39:158:THR:HB	31:39:195:ASP:HB2	1.92	0.51
4:3E:117:ALA:O	4:3E:120:LEU:HB2	2.10	0.51
32:41:17:PRO:HA	32:41:20:ILE:HD12	1.91	0.51
6:52:99:ALA:HB3	18:9A:29:PHE:CE1	2.44	0.51
40:65:27:SER:HA	40:65:88:ASP:HB2	1.93	0.51
26:14:2876:G:H4'	41:75:2:ASN:HD22	1.75	0.51
41:75:55:ASN:N	41:75:59:THR:HG22	2.25	0.51
31:31:34:TRP:HB2	37:78:6:LEU:HG	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:109:ILE:HD11	8:7E:120:THR:HG22	1.92	0.51
42:85:92:ARG:C	42:85:94:ASN:H	2.14	0.51
43:95:71:LEU:O	43:95:85:LYS:O	2.28	0.51
19:AA:65:ASN:HB2	19:AA:66:MET:SD	2.51	0.51
19:AI:51:VAL:O	19:AI:58:VAL:N	2.34	0.51
20:BA:72:LEU:O	20:BA:73:HIS:HB2	2.09	0.51
49:F5:50:ARG:HD2	49:F5:57:GLU:OE1	2.10	0.51
49:J8:7:ILE:HD12	49:J8:62:VAL:HG11	1.92	0.51
26:14:1620:G:C4'	54:L5:1:MET:H2	2.23	0.51
2:12:105:PHE:CE1	2:12:109:SER:HB3	2.45	0.51
1:13:114:U:O2'	1:13:115:G:H5'	2.10	0.51
1:13:1308:U:H5''	13:4I:98:VAL:HG22	1.92	0.51
26:14:1759:A:H4'	26:14:2715:C:O4'	2.11	0.51
26:14:1945:G:H2'	26:14:1946:U:C6	2.45	0.51
26:14:2239:G:P	59:14:3822:HOH:O	2.69	0.51
26:14:2340:G:O2'	26:14:2341:G:H5'	2.11	0.51
26:14:2660:A:OP1	26:14:2660:A:H8	1.94	0.51
26:14:433:C:C4	26:14:434:U:O4	2.64	0.51
27:16:63:G:H2'	27:16:64:C:C6	2.45	0.51
2:1E:125:PRO:HA	2:1E:127:ILE:HG13	1.93	0.51
1:1G:1105:A:H2'	1:1G:1106:G:H8	1.75	0.51
26:1H:1323:U:H2'	26:1H:1324:G:H5'	1.91	0.51
26:1H:2123:G:H22	26:1H:2176:A:H2	1.59	0.51
26:1H:721:C:H2'	26:1H:722:A:H8	1.75	0.51
22:1L:53:G:C5	22:1L:54:5MU:H72	2.45	0.51
30:21:38:THR:HG22	30:21:41:LYS:N	2.25	0.51
23:2K:24:C:H2'	23:2K:25:U:H6	1.74	0.51
12:3A:28:LYS:HD2	12:3A:33:ARG:HH12	1.76	0.51
11:2A:54:ARG:NH2	24:3L:40:C:OP1	2.43	0.51
32:41:76:SER:OG	32:41:84:LYS:N	2.44	0.51
26:1H:2313:C:H4'	32:41:91:ARG:HG3	1.93	0.51
5:4E:89:ILE:HG21	5:4E:135:THR:HA	1.93	0.51
1:1G:976:G:P	14:5A:32:SER:H	2.30	0.51
42:85:29:SER:C	42:85:30:LYS:HD3	2.31	0.51
42:85:91:ASP:C	42:85:93:LYS:H	2.13	0.51
1:13:1249:C:O2'	9:8E:73:GLN:OE1	2.28	0.51
44:A5:46:PHE:O	44:A5:50:VAL:HG12	2.11	0.51
1:1G:1014:A:H4'	19:AA:14:HIS:CE1	2.46	0.51
51:L8:28:LEU:HA	51:L8:33:GLN:HE21	1.75	0.51
2:12:132:LYS:HG3	2:12:136:VAL:HG23	1.93	0.51
1:13:1127:G:C2'	1:13:1128:C:H5'	2.39	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:116:A:H61	1:13:313:A:H1'	1.75	0.51
1:13:1453:G:H4'	1:13:1453:G:OP2	2.11	0.51
26:14:1342:A:H2	26:14:1602:U:H3	1.58	0.51
26:14:2129:C:H5''	26:14:2130:U:H5	1.75	0.51
26:14:2160:G:N2	26:14:2161:C:N3	2.58	0.51
26:14:2324:C:H5''	26:14:2325:G:H5'	1.91	0.51
26:14:2339:G:H2'	26:14:2340:G:C8	2.46	0.51
26:14:2734:A:H2'	26:14:2735:G:O4'	2.09	0.51
29:19:66:ASP:HB3	29:19:105:ILE:CD1	2.41	0.51
1:1G:1118:C:OP1	9:82:104:ARG:NE	2.35	0.51
1:1G:17:U:H2'	1:1G:18:C:C6	2.45	0.51
1:1G:826:C:H2'	1:1G:827:U:C6	2.45	0.51
1:1G:920:U:H2'	1:1G:921:U:H6	1.73	0.51
26:1H:128:C:H2'	26:1H:129:C:H6	1.76	0.51
26:1H:527:C:OP2	26:1H:2779:U:H5	1.94	0.51
26:1H:863:A:H2'	26:1H:864:G:H8	1.74	0.51
30:29:81:ILE:HG22	30:29:82:ARG:N	2.19	0.51
3:2E:58:GLU:H	3:2E:65:ALA:HB3	1.76	0.51
31:31:17:ARG:HD3	31:31:17:ARG:O	2.11	0.51
4:3E:111:ALA:HB2	4:3E:120:LEU:CD1	2.41	0.51
4:3E:173:TRP:CZ3	4:3E:193:ASP:HB3	2.46	0.51
32:49:120:LEU:HB2	32:49:180:PHE:CD1	2.45	0.51
26:1H:558:G:OP1	35:58:111:PRO:HD2	2.09	0.51
37:78:19:VAL:HA	37:78:27:HIS:HB3	1.92	0.51
38:88:116:GLU:OE2	38:88:119:ARG:NH2	2.36	0.51
27:16:90:C:H5'	38:88:18:LYS:HA	1.91	0.51
9:8E:118:LYS:O	9:8E:119:ALA:HB3	2.11	0.51
39:98:118:GLU:OE1	39:98:118:GLU:HA	2.11	0.51
20:BI:75:ASN:O	20:BI:79:ARG:HB2	2.11	0.51
50:G5:4:SER:CB	50:G5:7:ARG:HB2	2.41	0.51
49:J8:93:GLU:CG	49:J8:94:LEU:N	2.51	0.51
51:L8:43:ILE:O	51:L8:47:VAL:HG23	2.10	0.51
29:11:84:TYR:CE1	29:11:86:PRO:HB3	2.46	0.51
1:13:1322:C:H5''	13:4I:100:GLY:HA2	1.93	0.51
1:13:321:A:H62	1:13:328:C:H1'	1.76	0.51
26:14:569:U:C4	26:14:570:G:C6	2.98	0.51
26:14:847:U:H5	26:14:933:A:H62	1.58	0.51
26:14:996:A:C2	26:14:997:G:C8	2.99	0.51
29:19:12:SER:HB2	29:19:208:LYS:HB3	1.91	0.51
1:1G:1206:G:C6	1:1G:1207:G:C6	2.98	0.51
1:1G:1413:A:H2'	1:1G:1414:U:O4'	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:596:C:H2'	1:1G:597:G:C8	2.46	0.51
1:1G:642:A:N3	8:72:113:SER:OG	2.41	0.51
1:1G:689:C:C2'	1:1G:690:G:H5'	2.41	0.51
26:1H:1337:G:C4	26:1H:1338:G:C8	2.99	0.51
26:1H:1420:U:HO2'	26:1H:1421:G:P	2.33	0.51
26:1H:2232:U:P	49:J8:40:ARG:HH12	2.34	0.51
26:1H:2518:A:C8	26:1H:2518:A:H5'	2.46	0.51
22:1K:17:U:HO2'	22:1K:57:G:N2	2.08	0.51
22:1K:14:A:C5	22:1K:22:G:C2	2.98	0.51
22:1K:21:A:O2'	22:1K:22:G:OP1	2.27	0.51
3:2E:8:ILE:HG23	3:2E:16:ARG:HG2	1.92	0.51
31:39:4:VAL:HG13	31:39:19:GLU:OE2	2.10	0.51
24:3K:5:C:H1'	24:3K:68:G:H22	1.76	0.51
32:41:173:LEU:HD12	32:41:178:PHE:CD2	2.46	0.51
32:49:118:ARG:HB2	32:49:181:ARG:HD3	1.93	0.51
5:4E:102:ALA:HB1	5:4E:106:PRO:HG2	1.92	0.51
13:4I:91:ARG:HB2	13:4I:98:VAL:HG12	1.93	0.51
35:58:12:ARG:HG2	35:58:13:TRP:H	1.76	0.51
8:7E:49:GLU:HG2	8:7E:62:TYR:HE2	1.75	0.51
1:1G:1119:C:OP2	9:82:9:ARG:NH2	2.44	0.51
41:B8:111:ARG:H	41:B8:111:ARG:HD3	1.76	0.51
47:D5:76:LEU:HA	47:D5:83:PRO:HA	1.92	0.51
45:F8:55:ASN:O	45:F8:79:ALA:HA	2.11	0.51
26:14:125:G:H5''	54:L5:19:ARG:HD3	1.92	0.51
1:13:1000:A:H2'	1:13:1001:G:C8	2.46	0.51
1:13:1171:G:O2'	1:13:1172:C:H5'	2.11	0.51
1:13:1347:G:C8	9:8E:107:ARG:HB2	2.46	0.51
26:14:1013:C:H2'	26:14:1014:U:C6	2.46	0.51
26:14:235:U:H2'	26:14:236:C:C6	2.45	0.51
26:14:2688:U:H5	26:14:2720:U:OP2	1.93	0.51
26:14:2788:C:O2'	26:14:2809:A:N3	2.41	0.51
2:1E:46:LYS:HA	2:1E:49:GLU:OE2	2.11	0.51
1:1G:1157:A:N6	1:1G:1177:G:H1	2.08	0.51
1:1G:127:G:OP1	1:1G:635:G:H1'	2.10	0.51
1:1G:567:G:H1'	59:1G:1950:HOH:O	2.10	0.51
1:1G:827:U:H3	1:1G:872:A:H62	1.58	0.51
26:1H:185:U:H2'	26:1H:186:G:H8	1.76	0.51
26:1H:2577:A:N7	59:1H:3886:HOH:O	2.34	0.51
26:1H:476:G:N1	26:1H:479:A:OP2	2.43	0.51
27:1J:17:C:H2'	27:1J:18:G:O4'	2.11	0.51
30:21:64:LYS:HB3	30:21:66:HIS:CG	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:2:LYS:HA	30:21:84:PHE:CD1	2.46	0.51
30:29:13:ARG:NH2	41:75:77:PRO:HB3	2.26	0.51
30:29:54:GLN:HB2	30:29:72:VAL:CA	2.40	0.51
23:2L:32:G:C5	23:2L:33:OMC:C5	2.99	0.51
38:45:36:ALA:HB2	38:45:103:MET:SD	2.51	0.51
38:45:68:ILE:HD13	38:45:103:MET:HB3	1.93	0.51
32:49:42:GLY:O	32:49:43:LEU:HD13	2.11	0.51
33:51:101:ARG:NH2	33:51:122:THR:OG1	2.44	0.51
33:51:168:PRO:HB2	33:51:170:ARG:NH2	2.25	0.51
33:59:7:LEU:HA	33:59:65:HIS:NE2	2.25	0.51
8:72:20:TYR:CE2	8:72:75:ARG:HB3	2.46	0.51
9:82:19:LEU:HA	9:82:61:ALA:HA	1.93	0.51
50:G5:5:GLU:O	50:G5:8:LYS:HB3	2.10	0.51
2:12:24:TRP:HE1	2:12:26:PRO:HG3	1.76	0.51
1:13:1262:C:H2'	1:13:1263:C:C6	2.46	0.51
1:13:1349:A:H2'	1:13:1350:A:C8	2.45	0.51
1:13:49:U:C2	1:13:361:G:N2	2.79	0.51
26:14:1040:C:H2'	26:14:1041:C:C6	2.46	0.51
26:14:1786:A:C2	26:14:2606:C:H1'	2.45	0.51
26:14:1812:A:O2'	29:19:45:ASN:HB2	2.11	0.51
26:14:2016:U:H1'	53:J5:6:VAL:HG13	1.93	0.51
26:14:582:G:H2'	26:14:583:G:C8	2.46	0.51
10:1A:48:THR:HA	10:1A:62:HIS:HB3	1.93	0.51
21:1B:2:GLY:O	21:1B:4:GLY:N	2.43	0.51
1:1G:1051:C:H2'	1:1G:1052:U:C6	2.46	0.51
1:1G:689:C:H3'	1:1G:690:G:H21	1.74	0.51
26:1H:184:C:H2'	26:1H:185:U:C6	2.46	0.51
26:1H:1951:U:H5''	26:1H:1952:A:OP2	2.11	0.51
26:1H:847:U:H5	26:1H:933:A:N1	2.08	0.51
1:13:963:G:H21	10:1I:55:LYS:CE	2.24	0.51
22:1L:8:U:H3'	22:1L:13:C:N4	2.25	0.51
30:21:66:HIS:NE2	30:21:73:GLU:OE1	2.44	0.51
3:22:44:GLU:HA	3:22:52:LEU:HD11	1.93	0.51
26:14:2724:C:OP1	30:29:118:LYS:HE3	2.11	0.51
4:32:148:VAL:HG12	4:32:152:SER:CB	2.40	0.51
24:3K:1:G:N3	24:3K:1:G:H2'	2.26	0.51
5:4E:28:PHE:HE2	25:4K:26:A:H4'	1.75	0.51
26:1H:2749:A:H4'	33:51:62:LYS:HB3	1.93	0.51
26:1H:2121:G:H4'	28:71:167:LYS:NZ	2.26	0.51
42:85:92:ARG:NH2	43:95:11:GLN:H	2.09	0.51
39:98:84:ALA:HB3	39:98:85:PRO:HD3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:719:C:O2'	18:9I:49:LYS:HB3	2.10	0.51
53:J5:38:ALA:HB3	53:J5:48:GLU:HG3	1.92	0.51
50:K8:4:SER:OG	50:K8:6:VAL:HB	2.11	0.51
55:Q8:46:ARG:HB2	55:Q8:47:LYS:HB2	1.92	0.51
29:11:35:LYS:HB2	29:11:62:TYR:O	2.11	0.50
1:13:254:G:O3'	17:8I:69:LYS:NZ	2.37	0.50
26:14:1681:G:C4	59:14:3684:HOH:O	2.63	0.50
26:14:1788:C:C2	26:14:1789:A:C8	2.99	0.50
26:14:2296:U:O2'	26:14:2297:C:OP2	2.23	0.50
26:14:2749:A:H2'	33:59:59:ARG:NH1	2.26	0.50
26:14:95:G:H4'	50:G5:46:GLN:HB2	1.92	0.50
29:19:264:LYS:HE2	29:19:266:SER:HB3	1.93	0.50
29:19:70:TRP:C	29:19:70:TRP:CD1	2.84	0.50
1:1G:979:C:OP1	1:1G:1223:C:N4	2.44	0.50
1:1G:1321:C:O2	19:AA:77:THR:OG1	2.26	0.50
1:1G:1363:A:C8	1:1G:1365:G:C4	3.00	0.50
26:1H:1427:A:H4'	26:1H:1428:C:O5'	2.10	0.50
36:25:103:ALA:HB1	36:25:105:GLU:OE1	2.11	0.50
23:2K:17:C:H5'	23:2K:62:C:OP1	2.11	0.50
37:35:39:LYS:HD2	37:35:45:LEU:CD2	2.32	0.50
31:39:18:ARG:NH1	31:39:20:LEU:HG	2.27	0.50
24:3K:63:U:O4'	28:71:53:ARG:NH2	2.39	0.50
32:41:111:LEU:HD23	32:41:114:ILE:HD12	1.93	0.50
13:4A:23:TYR:HB3	13:4A:67:GLU:HA	1.92	0.50
33:59:56:SER:OG	33:59:57:ASP:N	2.44	0.50
37:78:78:PRO:HB3	37:78:111:ARG:NH2	2.26	0.50
48:I8:53:MET:HG3	48:I8:59:LEU:CD2	2.41	0.50
49:J8:92:LYS:HA	49:J8:95:LEU:HB2	1.93	0.50
29:11:66:ASP:HB3	29:11:105:ILE:CD1	2.42	0.50
2:12:116:GLU:OE2	2:12:156:LYS:NZ	2.43	0.50
1:13:1226:C:H2'	13:4I:103:THR:HB	1.92	0.50
1:13:1369:C:H2'	1:13:1370:G:C8	2.46	0.50
1:13:56:U:H4'	34:69:82:ARG:HH21	1.75	0.50
26:14:1401:G:H2'	26:14:1402:C:O4'	2.11	0.50
26:14:1448:G:H1'	26:14:1528:A:H62	1.76	0.50
26:14:2067:G:O2'	26:14:2069:G:H5''	2.10	0.50
26:14:2270:G:OP2	59:14:3632:HOH:O	2.20	0.50
26:14:2273:A:H2'	26:14:2274:A:H8	1.74	0.50
26:14:2394:C:H1'	59:14:4200:HOH:O	2.11	0.50
26:14:276:A:H5'	26:14:277:C:OP2	2.11	0.50
26:14:522:G:H2'	26:14:523:C:C6	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:72:U:OP1	59:14:3623:HOH:O	2.18	0.50
29:19:159:ALA:HB1	29:19:198:ASN:O	2.11	0.50
1:1G:1023:G:H5''	1:1G:1024:G:H21	1.74	0.50
1:1G:1274:G:H21	1:1G:1275:A:H62	1.59	0.50
1:1G:1316:G:H22	1:1G:1319:A:P	2.35	0.50
1:1G:269:C:H2'	1:1G:270:A:C8	2.45	0.50
26:1H:2306:C:H3'	26:1H:2307:G:C5'	2.40	0.50
26:1H:839:U:H2'	26:1H:840:C:C6	2.46	0.50
3:22:8:ILE:HG23	3:22:16:ARG:HG2	1.93	0.50
30:29:25:VAL:O	30:29:26:ILE:HG12	2.11	0.50
26:14:587:C:O2	37:35:33:ARG:NH1	2.44	0.50
1:13:407:G:P	4:3E:115:ARG:HH21	2.34	0.50
24:3K:58:A:O2'	24:3K:59:A:O5'	2.30	0.50
13:4I:82:MET:C	13:4I:84:ILE:H	2.13	0.50
33:59:55:PRO:HG2	33:59:61:HIS:CD2	2.46	0.50
34:61:29:TYR:HD2	34:61:30:LEU:HD23	1.75	0.50
34:61:95:LYS:O	34:61:98:ALA:HB3	2.10	0.50
7:62:116:ALA:O	7:62:120:ILE:HG12	2.11	0.50
7:62:22:LEU:HD23	7:62:62:PHE:HE2	1.76	0.50
9:82:10:ARG:HA	9:82:104:ARG:NH1	2.26	0.50
41:B8:107:ASP:O	41:B8:110:ILE:HG23	2.12	0.50
26:1H:581:C:OP1	42:C8:33:ARG:HG3	2.10	0.50
44:E8:29:LEU:O	44:E8:29:LEU:HD12	2.12	0.50
45:F8:36:LYS:HA	45:F8:39:ILE:HD12	1.93	0.50
50:K8:47:ASN:O	50:K8:49:LYS:HG3	2.12	0.50
2:12:22:LYS:HE2	2:12:40:HIS:CE1	2.46	0.50
1:13:1417:G:N2	1:13:1482:G:H2'	2.27	0.50
26:14:1188:U:C2'	26:14:1189:A:H5'	2.41	0.50
26:14:2400:G:H2'	26:14:2401:U:C6	2.46	0.50
26:14:2563:U:H4'	36:25:28:SER:HA	1.94	0.50
29:19:49:ILE:HG13	29:19:51:VAL:O	2.10	0.50
1:1G:1356:G:H2'	1:1G:1357:A:O4'	2.11	0.50
1:1G:1503:A:O2'	25:4L:12:A:N6	2.44	0.50
26:1H:2262:U:H4'	26:1H:2328:A:H2	1.75	0.50
26:1H:2068:U:N3	26:1H:2430:A:C2	2.78	0.50
26:1H:479:A:N3	26:1H:481:G:H5''	2.26	0.50
26:1H:871:U:OP2	38:88:5:ARG:NH2	2.42	0.50
26:1H:928:G:N7	59:1H:3888:HOH:O	2.34	0.50
30:21:38:THR:HG22	30:21:41:LYS:H	1.76	0.50
31:31:165:ARG:HA	31:31:168:ARG:HD3	1.93	0.50
4:32:43:HIS:HA	4:32:46:LYS:HE3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:3:GLU:O	31:39:19:GLU:HB2	2.10	0.50
31:39:41:LEU:O	31:39:44:ARG:HG2	2.12	0.50
38:45:31:ASP:O	38:45:134:ARG:HB2	2.11	0.50
1:13:112:G:OP1	16:7I:27:LYS:HD2	2.11	0.50
1:13:1171:G:H2'	1:13:1172:C:H6	1.76	0.50
1:13:838:G:O6	1:13:848:C:N4	2.44	0.50
26:14:191:A:O2'	26:14:678:C:O2'	2.30	0.50
26:14:2126:A:O2'	26:14:2127:G:H5''	2.12	0.50
26:14:754:C:H2'	26:14:755:C:H6	1.76	0.50
2:1E:187:LEU:HA	2:1E:201:ILE:O	2.10	0.50
1:1G:1132:C:H2'	1:1G:1133:G:C8	2.46	0.50
1:1G:408:A:H2'	1:1G:409:G:O4'	2.10	0.50
26:1H:1278:A:OP1	39:98:36:THR:HG22	2.11	0.50
26:1H:2238:G:H4'	26:1H:2239:G:OP1	2.11	0.50
26:1H:2262:U:O2'	26:1H:2263:C:H5'	2.11	0.50
26:1H:2335:A:C8	26:1H:2337:G:C5	2.99	0.50
26:1H:271(B):G:H4'	26:1H:271(C):U:O5'	2.11	0.50
26:1H:492:A:H2'	26:1H:493:G:O4'	2.12	0.50
26:1H:747:U:O2	26:1H:2014:A:H1'	2.11	0.50
26:1H:813:U:H2'	26:1H:814:C:C6	2.47	0.50
23:2K:20:G:C2	23:2K:58:A:N3	2.79	0.50
38:45:35:VAL:HG12	38:45:36:ALA:H	1.77	0.50
32:49:125:PHE:CB	32:49:166:ASP:HB2	2.39	0.50
13:4A:39:ILE:HG21	13:4A:52:GLU:HB3	1.93	0.50
13:4A:86:CYS:SG	13:4A:88:ARG:HG3	2.52	0.50
25:4L:23:A:O2'	25:4L:24:A:H5''	2.12	0.50
26:14:2839:G:C5'	39:55:46:GLY:HA2	2.41	0.50
35:58:12:ARG:HG2	35:58:13:TRP:N	2.26	0.50
14:5I:27:CYS:SG	14:5I:29:ARG:HB2	2.51	0.50
34:61:123:LEU:HD23	34:61:143:SER:HA	1.92	0.50
34:61:79:ILE:O	34:61:142:VAL:HA	2.11	0.50
40:65:67:ARG:NH1	40:65:67:ARG:HB2	2.26	0.50
34:69:130:TYR:HB3	34:69:136:VAL:CG2	2.28	0.50
28:71:208:PHE:HD1	28:71:209:LEU:HD23	1.76	0.50
28:79:14:VAL:HG11	28:79:222:VAL:HA	1.94	0.50
9:82:28:VAL:CG2	9:82:63:ILE:HB	2.39	0.50
26:1H:2250:G:C5	38:88:83:MET:HB3	2.47	0.50
9:8E:70:LYS:O	9:8E:74:ILE:HG13	2.11	0.50
39:98:101:ALA:HA	53:N8:44:THR:HG21	1.93	0.50
20:BA:87:LYS:O	20:BA:91:LEU:HG	2.11	0.50
1:13:1016:A:H2'	1:13:1017:G:O4'	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1130:A:H5'	1:13:1131:G:OP2	2.11	0.50
1:13:1240:U:O2'	7:6E:38:LEU:HG	2.12	0.50
1:13:1438:G:H2'	1:13:1439:C:C6	2.47	0.50
1:13:591:U:H2'	1:13:592:G:H8	1.77	0.50
26:14:184:C:H2'	26:14:185:U:C6	2.47	0.50
26:14:198:C:O2'	26:14:199:A:H5'	2.10	0.50
26:14:2014:A:H2'	26:14:2015:A:C8	2.47	0.50
26:14:2659:G:N2	26:14:2662:A:OP2	2.45	0.50
26:14:654(B):C:H2'	26:14:654(C):G:C8	2.47	0.50
35:15:132:ALA:HB1	35:15:133:GLN:HG2	1.94	0.50
1:1G:41:G:H2'	1:1G:42:G:C8	2.47	0.50
1:1G:652:U:H1'	1:1G:653:A:C2	2.47	0.50
26:1H:1288:U:H4'	26:1H:1289:C:OP2	2.10	0.50
26:1H:1441:G:H2'	26:1H:1442:G:H8	1.77	0.50
26:1H:2062:A:OP1	59:1H:3763:HOH:O	2.19	0.50
26:1H:2209:C:O2	26:1H:2216:G:C2	2.64	0.50
26:1H:2836:U:H2'	26:1H:2837:G:H8	1.74	0.50
26:1H:301:G:C4	26:1H:302:C:C5	2.99	0.50
26:1H:796:C:H2'	26:1H:797:C:C6	2.45	0.50
26:1H:817:C:H4'	26:1H:932:G:C5	2.47	0.50
4:32:149:ALA:O	4:32:153:ARG:NE	2.45	0.50
31:39:53:THR:CG2	31:39:55:GLY:H	2.25	0.50
12:3A:110:VAL:HG23	12:3A:120:TYR:HB3	1.94	0.50
1:13:404:U:H5'	4:3E:122:ARG:HD2	1.93	0.50
24:3K:48:C:OP2	24:3K:59:A:O2'	2.26	0.50
24:3K:9:A:O2'	24:3K:46:G:O5'	2.30	0.50
1:1G:9:G:OP1	5:42:122:GLU:HB2	2.12	0.50
5:4E:51:VAL:O	5:4E:55:VAL:HG23	2.12	0.50
26:14:2839:G:H21	39:55:92:GLY:HA2	1.76	0.50
7:62:148:ASN:O	7:62:149:ARG:HD3	2.12	0.50
40:65:67:ARG:HH11	40:65:67:ARG:HB2	1.77	0.50
19:AI:8:GLY:C	19:AI:9:VAL:HG22	2.32	0.50
50:G5:17:SER:N	50:G5:20:GLU:OE2	2.42	0.50
51:L8:28:LEU:HA	51:L8:33:GLN:NE2	2.27	0.50
54:P8:24:THR:HG23	54:P8:27:GLY:H	1.76	0.50
29:11:17:THR:CG2	29:11:204:ILE:HA	2.42	0.50
2:12:33:TYR:HB3	2:12:41:ILE:HG23	1.92	0.50
1:13:256:U:H2'	1:13:257:G:C8	2.47	0.50
1:13:973:G:H3'	1:13:974:A:H5''	1.94	0.50
26:14:2261:C:H1'	26:14:2388:A:N3	2.27	0.50
26:14:279:C:H42	26:14:361:G:H1	1.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:106:ILE:O	29:19:108:PRO:HD3	2.11	0.50
29:19:30:GLU:HG3	29:19:35:LYS:HZ3	1.77	0.50
26:14:1570:A:H4'	29:19:37:LEU:HD21	1.94	0.50
1:1G:1322:C:O2'	1:1G:1323:G:H5'	2.12	0.50
26:1H:2524:G:N7	59:1H:3889:HOH:O	2.35	0.50
26:1H:300:A:N6	59:1H:3870:HOH:O	2.43	0.50
26:1H:741:G:O2'	26:1H:742:G:H5'	2.12	0.50
27:1J:70:C:H2'	27:1J:71:C:H6	1.77	0.50
4:32:126:ILE:HG22	4:32:127:THR:N	2.27	0.50
37:35:107:LYS:O	37:35:109:GLY:N	2.38	0.50
31:39:67:GLN:HG3	31:39:67:GLN:O	2.10	0.50
4:3E:173:TRP:CE3	4:3E:193:ASP:HB3	2.47	0.50
32:41:16:ARG:NH1	32:41:31:VAL:HG22	2.27	0.50
32:49:27:ASN:ND2	32:49:28:VAL:H	2.09	0.50
13:4A:50:GLU:O	13:4A:54:VAL:HG23	2.11	0.50
5:4E:35:GLY:H	5:4E:112:LEU:HD13	1.77	0.50
1:13:530:G:O6	25:4K:21:G:H1'	2.12	0.50
39:55:97:VAL:HA	39:55:113:LEU:O	2.12	0.50
9:82:27:THR:OG1	9:82:31:GLN:O	2.18	0.50
46:G8:28:LYS:NZ	46:G8:40:GLU:HG3	2.27	0.50
52:M8:13:ARG:NH1	52:M8:22:ILE:HG23	2.24	0.50
29:11:26:LYS:HD2	29:11:29:PRO:CG	2.26	0.50
26:1H:1805:U:O2	29:11:50:THR:HB	2.12	0.50
1:13:165:C:H2'	1:13:166:G:H8	1.76	0.50
1:13:262:A:C6	1:13:263:A:C6	3.00	0.50
1:13:667:G:H4'	15:6I:51:HIS:ND1	2.27	0.50
1:13:982:U:H4'	1:13:983:A:O5'	2.12	0.50
26:14:1386:C:H2'	26:14:1387:C:C6	2.47	0.50
26:14:2233:U:H2'	26:14:2234:G:C8	2.46	0.50
26:14:2304:G:H22	26:14:2312:U:H3	1.60	0.50
1:1G:1423:G:H2'	1:1G:1424:C:C6	2.46	0.50
26:1H:1429:G:H2'	26:1H:1430:C:H6	1.77	0.50
26:1H:1971:A:C4	29:11:241:PRO:HD3	2.47	0.50
26:1H:1678:G:N2	26:1H:1989:G:N2	2.59	0.50
26:1H:2729:G:H2'	26:1H:2730:C:C6	2.46	0.50
26:1H:637:A:O5'	37:78:116:GLY:HA3	2.12	0.50
26:1H:744:G:OP1	30:21:132:HIS:ND1	2.42	0.50
59:1H:3758:HOH:O	31:31:55:GLY:HA2	2.12	0.50
12:3I:8:ASN:OD1	17:8I:34:LYS:NZ	2.45	0.50
34:61:9:LEU:HD21	34:61:35:LEU:HD23	1.94	0.50
7:62:101:LEU:O	7:62:105:VAL:HG23	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6E:115:ARG:O	7:6E:118:VAL:HG12	2.12	0.50
28:71:23:ASP:HB2	28:71:190:ARG:HH22	1.76	0.50
37:78:68:GLN:OE1	37:78:68:GLN:HA	2.12	0.50
16:7A:72:ARG:HE	16:7A:73:LEU:HD23	1.77	0.50
16:7I:13:HIS:C	16:7I:15:PRO:HD3	2.32	0.50
9:82:26:VAL:HG22	9:82:61:ALA:N	2.27	0.50
48:E5:26:TYR:O	48:E5:29:GLN:HB2	2.11	0.50
45:F8:41:ASN:O	45:F8:45:THR:HG23	2.11	0.50
55:M5:15:LYS:NZ	59:M5:202:HOH:O	2.45	0.50
1:13:1063:C:H3'	1:13:1064:G:H2'	1.93	0.50
1:13:604:G:H2'	1:13:605:U:O4'	2.12	0.50
26:14:1006:C:H1'	35:15:106:MET:HE3	1.93	0.50
26:14:1109:C:H2'	26:14:1110:G:H1'	1.93	0.50
26:14:11:G:H2'	26:14:12:U:H5'	1.94	0.50
26:14:1239:G:H5''	59:14:3979:HOH:O	2.11	0.50
26:14:1358:G:N2	26:14:1372:U:C5	2.80	0.50
26:14:1404:C:O2'	26:14:1405:U:H5'	2.11	0.50
26:14:198:C:P	59:14:3717:HOH:O	2.70	0.50
26:14:239:U:H2'	26:14:240:G:O4'	2.12	0.50
26:14:2520:C:H41	26:14:2542:A:H62	1.60	0.50
26:14:265:A:C8	26:14:266:G:H1'	2.47	0.50
26:14:925:C:H2'	26:14:926:A:H8	1.76	0.50
26:14:1971:A:P	29:19:242:ARG:HH22	2.35	0.50
2:1E:178:ARG:HD2	8:7E:71:GLY:O	2.12	0.50
21:1F:6:ARG:HH11	21:1F:15:ARG:NE	2.10	0.50
1:1G:1142:G:C5	1:1G:1143:G:H1'	2.46	0.50
1:1G:1279:A:O2'	1:1G:1281:U:OP2	2.19	0.50
1:1G:1533:C:O2'	1:1G:1534:A:OP1	2.29	0.50
1:1G:373:A:N3	1:1G:374:A:C8	2.80	0.50
1:1G:540:G:H2'	1:1G:541:G:O4'	2.11	0.50
1:1G:606:G:N2	1:1G:631:G:O2'	2.45	0.50
26:1H:1816:G:P	59:1H:3715:HOH:O	2.70	0.50
26:1H:302:C:H2'	26:1H:303:U:H6	1.77	0.50
26:1H:306:U:H2'	26:1H:307:G:O4'	2.11	0.50
26:1H:633:A:H2'	26:1H:634:C:H5'	1.94	0.50
3:2E:121:ALA:O	3:2E:125:GLU:HG3	2.12	0.50
31:39:89:VAL:HG12	31:39:90:PHE:H	1.77	0.50
32:41:67:LYS:CE	52:M8:6:HIS:CE1	2.92	0.50
5:42:99:GLY:O	5:42:117:ASP:HA	2.12	0.50
1:13:10:A:OP2	5:4E:126:ARG:HD3	2.11	0.50
25:4K:13:A:N3	25:4K:13:A:H2'	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:58:95:PRO:O	35:58:96:GLU:CD	2.50	0.50
8:72:17:THR:HG22	8:72:78:GLN:OE1	2.11	0.50
17:8A:17:LYS:HG2	17:8A:47:PRO:HA	1.93	0.50
9:8E:112:LYS:HA	9:8E:119:ALA:HB2	1.94	0.50
40:A8:48:LEU:CD2	40:A8:82:ILE:HD11	2.41	0.50
49:F5:89:GLU:O	49:F5:93:GLU:HB2	2.11	0.50
52:M8:14:ILE:HG23	52:M8:21:VAL:HB	1.93	0.50
37:78:50:ARG:HD3	55:Q8:7:HIS:CD2	2.46	0.50
1:13:1291:G:H2'	1:13:1292:U:C6	2.46	0.50
1:13:1298:C:P	7:6E:114:ARG:HH22	2.35	0.50
1:13:232:G:C5	1:13:233:C:C5	3.00	0.50
1:13:507:C:OP2	1:13:508:C:O2'	2.20	0.50
26:14:1337:G:H2'	26:14:1338:G:H8	1.77	0.50
26:14:1443:G:N7	59:14:3732:HOH:O	2.34	0.50
26:14:1827:C:C2'	26:14:1828:G:H5'	2.42	0.50
26:14:955:C:OP1	38:45:87:LYS:HE2	2.12	0.50
35:15:41:ASP:O	42:85:64:ARG:NH2	2.44	0.50
2:1E:67:THR:HG21	2:1E:155:LEU:HG	1.93	0.50
1:1G:1095:U:H2'	1:1G:1096:C:O4'	2.11	0.50
1:1G:1140:C:H2'	1:1G:1141:C:H6	1.76	0.50
1:1G:825:G:O2'	8:72:12:ARG:NH1	2.45	0.50
26:1H:1585:C:OP1	26:1H:1585:C:H6	1.94	0.50
26:1H:2564:A:C2	26:1H:2647:U:H4'	2.47	0.50
26:1H:770:G:OP1	59:1H:3759:HOH:O	2.19	0.50
27:1J:44:G:OP1	32:49:98:ARG:NH2	2.41	0.50
22:1K:12:U:OP2	59:1K:201:HOH:O	2.20	0.50
22:1L:74:C:H2'	22:1L:75:C:H5'	1.92	0.50
30:21:38:THR:O	30:21:42:ASP:N	2.43	0.50
30:29:44:TYR:HE2	30:29:80:GLU:OE1	1.94	0.50
31:31:12:LEU:O	31:31:127:GLU:N	2.41	0.50
33:59:9:ILE:O	33:59:69:ARG:NH1	2.44	0.50
34:69:143:SER:O	34:69:144:VAL:HG22	2.12	0.50
37:78:49:ARG:HG3	37:78:49:ARG:HH11	1.77	0.50
26:14:2010:G:H5''	44:A5:42:ARG:HB2	1.93	0.50
26:14:495:G:H21	44:A5:61:ASN:HD21	1.60	0.50
48:I8:72:ARG:HB3	48:I8:75:LEU:HB2	1.94	0.50
29:11:146:GLU:HG3	29:11:190:TYR:N	2.27	0.49
2:12:219:VAL:HA	2:12:220:ASP:HB3	1.94	0.49
1:13:1126:U:H2'	1:13:1127:G:O4'	2.12	0.49
1:13:1125:U:O2'	1:13:1126:U:OP2	2.30	0.49
1:13:113:G:H2'	1:13:114:U:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1234:C:O2'	1:13:1235:U:H5'	2.12	0.49
26:14:1444(A):A:N3	26:14:1444(A):A:H2'	2.27	0.49
26:14:197:A:P	59:14:3526:HOH:O	2.70	0.49
26:14:2238:G:N3	26:14:2238:G:H2'	2.27	0.49
26:14:2629:A:N3	26:14:2629:A:H2'	2.26	0.49
26:14:191:A:HO2'	26:14:678:C:HO2'	1.54	0.49
27:16:15:A:H5'	27:16:16:G:C8	2.47	0.49
27:16:54:G:H2'	27:16:55:U:H6	1.77	0.49
1:1G:1305:G:HO2'	1:1G:1306:A:H8	1.58	0.49
1:1G:1396:A:H4'	1:1G:1397:C:C5'	2.42	0.49
1:1G:998:G:H2'	1:1G:998(A):C:C6	2.47	0.49
26:1H:1381:G:N7	59:1H:3877:HOH:O	2.34	0.49
26:1H:1464:C:HO2'	26:1H:1528:A:H8	1.56	0.49
26:1H:1468:C:O2'	26:1H:1469:A:H5'	2.12	0.49
26:1H:1583:A:OP1	26:1H:1585:C:N4	2.40	0.49
26:1H:1590:U:H2'	26:1H:1591:G:C8	2.47	0.49
26:1H:1786:A:C2	26:1H:2606:C:H1'	2.48	0.49
26:1H:2352:A:C4	26:1H:2366:A:C2	3.00	0.49
22:1K:34:U8U:HN3	25:4K:21:G:N2	1.99	0.49
4:32:8:VAL:HA	4:32:11:LEU:HD12	1.93	0.49
12:3A:27:LEU:HB3	12:3A:33:ARG:HG2	1.94	0.49
1:1G:363:A:OP1	12:3A:33:ARG:HG3	2.12	0.49
26:1H:2310:A:N1	32:41:80:PHE:HE1	2.10	0.49
5:42:75:THR:OG1	5:42:117:ASP:O	2.12	0.49
35:58:133:GLN:O	35:58:134:ARG:HB2	2.10	0.49
33:59:149:ARG:NH1	33:59:154:PRO:HB2	2.27	0.49
14:5I:13:THR:HG23	14:5I:20:ALA:HB2	1.94	0.49
7:62:31:MET:HG3	7:62:36:LYS:HA	1.94	0.49
28:71:10:LEU:HD12	28:71:32:LEU:HD12	1.93	0.49
8:72:120:THR:CG2	8:72:123:GLU:H	2.22	0.49
1:1G:377:G:P	16:7A:5:ARG:HH11	2.35	0.49
42:85:92:ARG:NH2	43:95:10:LYS:HA	2.27	0.49
19:AI:41:VAL:CG1	19:AI:44:MET:N	2.67	0.49
41:B8:12:SER:HA	41:B8:14:TYR:N	2.23	0.49
47:H8:51:ALA:O	47:H8:54:HIS:HB2	2.12	0.49
48:I8:72:ARG:NH1	48:I8:75:LEU:HD12	2.27	0.49
53:N8:16:ARG:HG3	53:N8:17:ASP:N	2.26	0.49
29:11:65:ILE:HD12	29:11:66:ASP:N	2.27	0.49
2:12:47:THR:HA	2:12:50:GLU:OE2	2.12	0.49
1:13:1219:U:H2'	1:13:1220:G:O4'	2.11	0.49
1:13:1:U:C2	1:13:630:G:H1'	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1420:U:HO2'	26:14:1421:G:P	2.36	0.49
26:14:1430:C:H2'	26:14:1431:U:H6	1.76	0.49
26:14:2207:C:O2'	29:19:151:LYS:NZ	2.45	0.49
26:14:2271:G:O6	59:14:3630:HOH:O	2.19	0.49
26:14:2377:A:H2'	26:14:2378:A:C8	2.48	0.49
26:14:2584:U:H2'	26:14:2585:U:H2'	1.93	0.49
26:14:718:A:H3'	26:14:719:C:C6	2.47	0.49
27:16:87:G:N2	27:16:89(A):A:OP2	2.39	0.49
29:19:30:GLU:N	29:19:35:LYS:HZ1	2.08	0.49
2:1E:100:GLY:O	2:1E:102:LEU:N	2.44	0.49
1:1G:1129:C:H5	1:1G:1141:C:H42	1.60	0.49
1:1G:502:G:O2'	59:1G:1829:HOH:O	2.20	0.49
26:1H:2050:C:H2'	26:1H:2051:A:C8	2.47	0.49
26:1H:2542:A:H4'	26:1H:2543:G:C8	2.47	0.49
30:21:16:ARG:O	30:21:16:ARG:HG3	2.11	0.49
3:22:69:HIS:HA	3:22:104:GLN:HB2	1.94	0.49
32:41:18:GLU:O	32:41:22:ARG:HB2	2.12	0.49
5:42:16:THR:HG23	5:42:17:ALA:N	2.26	0.49
32:49:172:LEU:O	32:49:176:LEU:HB2	2.12	0.49
34:69:45:LYS:HA	34:69:48:GLU:HB3	1.95	0.49
8:72:86:ILE:HG13	8:72:133:LEU:HD22	1.93	0.49
37:78:130:PHE:HE1	37:78:146:VAL:HG23	1.77	0.49
19:AA:56:GLN:HG2	19:AA:57:HIS:N	2.26	0.49
46:C5:83:THR:HG22	46:C5:84:ARG:H	1.76	0.49
46:G8:68:HIS:ND1	46:G8:70:SER:HB2	2.27	0.49
29:11:108:PRO:HD2	29:11:111:LEU:HG	1.94	0.49
1:13:1438:G:H2'	1:13:1439:C:H6	1.77	0.49
1:13:160:A:N1	1:13:343:U:O2'	2.46	0.49
1:13:427:U:H5'	4:3E:41:GLY:HA2	1.95	0.49
26:14:492:A:H2'	26:14:493:G:O4'	2.11	0.49
26:14:819:A:H2'	26:14:820:A:H5'	1.94	0.49
26:14:864:G:C6	26:14:865:C:N4	2.80	0.49
1:1G:1274:G:N2	1:1G:1275:A:H62	2.10	0.49
1:1G:1392:G:N2	1:1G:1502:A:H8	2.10	0.49
1:1G:176:C:H2'	1:1G:177:C:C6	2.47	0.49
1:1G:555:C:H2'	1:1G:556:C:C6	2.47	0.49
26:1H:1430:C:H2'	26:1H:1431:U:H6	1.78	0.49
26:1H:163:U:H1'	49:J8:82:LEU:HD13	1.93	0.49
26:1H:2751:G:H5'	33:51:4:ILE:HD13	1.93	0.49
26:1H:315:G:C6	26:1H:316:C:C4	3.00	0.49
26:1H:805:G:H4'	26:1H:806:C:OP2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:60:ASN:C	30:21:60:ASN:HD22	2.15	0.49
11:2I:21:ILE:HG13	11:2I:30:VAL:HG12	1.94	0.49
31:31:136:THR:HG22	31:31:166:ALA:O	2.12	0.49
4:32:96:LEU:HD22	4:32:139:ARG:NH1	2.27	0.49
35:58:130:HIS:HA	35:58:134:ARG:HH12	1.77	0.49
8:7E:85:ARG:CD	8:7E:88:LYS:HG2	2.43	0.49
41:B8:108:ARG:HG3	41:B8:109:GLU:N	2.27	0.49
47:H8:132:ASN:HD22	47:H8:132:ASN:N	2.11	0.49
29:11:113:VAL:HG22	29:11:113:VAL:O	2.12	0.49
1:13:1113:C:H2'	1:13:1114:C:H6	1.77	0.49
1:13:1126:U:H4'	1:13:1281:U:O2	2.11	0.49
1:13:157:G:N2	1:13:164:U:O2	2.43	0.49
1:13:538:G:OP2	12:3I:115:LYS:HB2	2.11	0.49
26:14:2542:A:H4'	26:14:2542:A:OP1	2.10	0.49
26:14:760:G:C2'	26:14:761:A:H5'	2.43	0.49
35:15:96:GLU:O	35:15:100:GLU:HB2	2.12	0.49
26:14:1007:C:OP1	35:15:35:ARG:NH1	2.46	0.49
1:1G:1441:G:H5''	1:1G:1442:G:H5'	1.94	0.49
26:1H:1608:A:O2'	26:1H:1610:A:OP2	2.23	0.49
26:1H:2313:C:C2'	26:1H:2314:C:H5'	2.42	0.49
26:1H:2648:C:H2'	26:1H:2649:U:H6	1.77	0.49
26:1H:855:G:H5''	26:1H:856:C:OP2	2.12	0.49
3:22:182:ILE:HG23	3:22:203:PHE:HD1	1.78	0.49
31:39:110:LEU:HD21	31:39:181:LEU:HD22	1.94	0.49
31:39:146:ALA:CB	31:39:148:LEU:HG	2.42	0.49
26:14:2820:A:C6	39:55:4:LEU:HD11	2.46	0.49
6:5E:15:ASP:OD1	6:5E:18:GLN:HG3	2.12	0.49
42:85:98:LEU:HA	42:85:100:VAL:H	1.78	0.49
44:A5:27:LYS:O	44:A5:71:VAL:HG23	2.11	0.49
40:A8:106:ARG:N	40:A8:106:ARG:HE	2.10	0.49
19:AI:40:ILE:HB	19:AI:69:HIS:O	2.13	0.49
43:D8:17:GLY:N	43:D8:96:ILE:O	2.25	0.49
26:14:1144:G:C6	26:14:1145:C:N3	2.81	0.49
26:14:270(P):C:H2'	26:14:270(Q):C:C6	2.47	0.49
26:14:307:G:N2	26:14:309:G:H3'	2.27	0.49
26:14:311:A:C6	26:14:328:U:C4	3.01	0.49
26:14:510:C:H2'	26:14:511:U:O4'	2.12	0.49
26:14:847:U:OP2	59:14:3528:HOH:O	2.18	0.49
21:1F:5:ASP:HB3	21:1F:8:THR:HG22	1.95	0.49
26:1H:86:C:H4'	26:1H:104:U:H1'	1.94	0.49
26:1H:143:C:H2'	26:1H:144:C:C6	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2761:G:N7	59:1H:3887:HOH:O	2.34	0.49
26:1H:919:G:H4'	27:16:81:G:H4'	1.94	0.49
27:1J:5:C:H42	27:1J:115:G:H1	1.60	0.49
3:22:8:ILE:O	3:22:11:ARG:N	2.44	0.49
11:2A:73:MET:SD	11:2A:103:LEU:HD13	2.52	0.49
4:32:3:ARG:HD2	4:32:118:ARG:NE	2.27	0.49
4:32:45:GLN:O	4:32:46:LYS:HG2	2.12	0.49
37:35:82:GLY:HA2	37:35:113:LYS:O	2.13	0.49
7:6E:94:ARG:O	7:6E:97:GLN:HB3	2.12	0.49
8:72:84:ARG:O	8:72:135:CYS:HB2	2.12	0.49
41:75:106:SER:N	41:75:107:ASP:OD1	2.46	0.49
26:14:17:G:H4'	42:85:25:TRP:CH2	2.48	0.49
42:85:61:TRP:CZ3	42:85:94:ASN:HB2	2.47	0.49
38:88:140:ALA:C	38:88:141:GLN:HG2	2.31	0.49
41:B8:12:SER:OG	41:B8:13:ARG:N	2.44	0.49
47:D5:6:LYS:HG2	47:D5:7:ALA:N	2.28	0.49
1:13:1356:G:H2'	1:13:1357:A:C8	2.48	0.49
1:13:160:A:H2'	1:13:160:A:N3	2.28	0.49
1:13:129(A):G:C2	1:13:188:U:O2'	2.66	0.49
1:13:725:G:H2'	1:13:726:C:H6	1.77	0.49
1:13:721:G:C6	1:13:733:A:C2	3.00	0.49
26:14:2557:G:H2'	26:14:2558:C:C6	2.48	0.49
26:14:2749:A:O4'	33:59:63:SER:HA	2.13	0.49
26:14:1050:A:C2	26:14:2751:G:H2'	2.47	0.49
26:14:2772:C:H2'	26:14:2773:C:H6	1.77	0.49
26:14:557:U:H2'	26:14:558:G:C8	2.48	0.49
27:16:75:G:N2	47:H8:85:HIS:CE1	2.79	0.49
1:1G:1008:C:N4	1:1G:1021:G:H1	2.08	0.49
1:1G:1024:G:OP1	1:1G:1024:G:H4'	2.13	0.49
1:1G:999:U:H3	1:1G:1041:A:H61	1.61	0.49
1:1G:468:A:C1'	16:7A:82:GLN:HE22	2.25	0.49
26:1H:1509:C:H2'	26:1H:1511:A:H8	1.78	0.49
26:1H:1820:U:H4'	26:1H:1821:A:OP2	2.11	0.49
26:1H:1965:C:H3'	26:1H:1966:A:H2'	1.95	0.49
22:1K:76:A:H1'	26:1H:2583:G:H21	1.78	0.49
26:1H:2887:U:H2'	26:1H:2888:C:H6	1.77	0.49
26:1H:569:U:C4	26:1H:570:G:C6	3.01	0.49
26:1H:863:A:H2'	26:1H:864:G:C8	2.48	0.49
30:21:69:LYS:HG3	30:21:70:ALA:H	1.77	0.49
31:31:67:GLN:HG3	31:31:67:GLN:O	2.10	0.49
31:39:25:PRO:C	31:39:27:GLU:N	2.66	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3I:66:VAL:HG21	12:3I:98:TYR:HE1	1.77	0.49
24:3K:48:C:H5	24:3K:59:A:N3	2.11	0.49
13:4A:16:ASP:HB3	13:4A:34:LEU:HD11	1.95	0.49
13:4I:23:TYR:HE2	13:4I:71:ARG:HG3	1.76	0.49
13:4I:70:LEU:O	13:4I:74:VAL:HG23	2.12	0.49
35:58:53:VAL:HG11	35:58:128:HIS:CD2	2.47	0.49
6:5E:41:GLU:HG3	6:5E:62:TRP:CE3	2.48	0.49
7:62:20:ASP:HB3	7:62:23:VAL:HB	1.93	0.49
7:62:27:ILE:HA	7:62:30:ILE:HD12	1.95	0.49
36:68:98:VAL:HG11	36:68:114:ILE:HG23	1.95	0.49
34:69:77:LEU:HB3	34:69:78:THR:OG1	2.12	0.49
15:6A:8:LYS:O	15:6A:12:ILE:HG13	2.12	0.49
15:6I:69:TYR:CE1	15:6I:73:GLU:HG3	2.48	0.49
15:6I:74:ASP:OD2	15:6I:77:ARG:HB2	2.12	0.49
28:71:15:ASP:HB3	28:71:18:LYS:H	1.77	0.49
26:1H:805:G:P	37:78:41:ARG:HG2	2.53	0.49
46:C5:8:LYS:HZ3	46:C5:95:LYS:HD3	1.77	0.49
45:F8:57:LEU:HD23	45:F8:57:LEU:N	2.27	0.49
55:M5:58:ILE:O	55:M5:58:ILE:HD12	2.12	0.49
1:13:1342:C:H4'	9:8E:125:TYR:HB3	1.94	0.49
1:13:276:G:O3'	17:8I:68:ARG:NH1	2.46	0.49
1:13:778:G:O5'	1:13:778:G:H8	1.95	0.49
26:14:1021:A:H62	26:14:1141:U:H3	1.61	0.49
26:14:1028:A:N6	26:14:1125:G:H2'	2.27	0.49
26:14:128:C:H2'	26:14:129:C:O4'	2.13	0.49
26:14:1338:G:N3	26:14:1393:A:H2	2.10	0.49
26:14:1359:A:N7	26:14:1372:U:O4	2.45	0.49
26:14:571:A:H5'	26:14:2030:A:N7	2.27	0.49
26:14:2388:A:H2'	26:14:2389:G:H5'	1.93	0.49
26:14:2766:G:N3	26:14:2766:G:H2'	2.28	0.49
26:14:557:U:H2'	26:14:558:G:H8	1.78	0.49
26:14:959:A:C6	26:14:960:A:N1	2.80	0.49
26:14:1568:G:P	29:19:63:ARG:HH12	2.35	0.49
2:1E:124:SER:O	2:1E:127:ILE:HG12	2.13	0.49
1:1G:1077:G:N1	1:1G:1081:G:C6	2.81	0.49
1:1G:1095:U:OP1	1:1G:1108:G:N2	2.46	0.49
1:1G:457:C:H2'	1:1G:458:C:H6	1.77	0.49
1:1G:918:A:H2'	1:1G:919:A:O4'	2.12	0.49
1:1G:927:G:N2	1:1G:1391:U:H1'	2.27	0.49
26:1H:2118:U:O2	26:1H:2148:G:O2'	2.29	0.49
26:1H:2172:U:H5'	26:1H:2173:A:OP2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2854:G:H2'	26:1H:2855:C:C6	2.48	0.49
27:1J:88:C:H4'	27:1J:89:G:OP2	2.12	0.49
30:29:111:ARG:HB2	30:29:160:TYR:O	2.12	0.49
3:2E:3:ASN:OD1	3:2E:3:ASN:N	2.46	0.49
12:3I:43:VAL:HG13	12:3I:55:VAL:HG21	1.94	0.49
24:3K:48:C:H5	24:3K:59:A:C4	2.30	0.49
13:4I:84:ILE:HD12	13:4I:84:ILE:HA	1.66	0.49
33:51:3:ARG:HG2	33:51:3:ARG:O	2.13	0.49
33:51:9:ILE:HG23	33:51:51:ARG:HB3	1.94	0.49
26:1H:6:A:H1'	35:58:131:GLN:HG2	1.93	0.49
46:G8:63:LYS:NZ	46:G8:64:GLU:HG3	2.28	0.49
50:K8:64:LEU:HD22	50:K8:68:ARG:HD2	1.93	0.49
26:1H:1158:C:H4'	51:L8:32:GLN:HB2	1.94	0.49
52:M8:42:PHE:CD1	52:M8:42:PHE:O	2.66	0.49
1:13:1098:C:C2	1:13:1099:G:C8	3.00	0.49
1:13:678:U:H2'	1:13:679:C:C6	2.48	0.49
26:14:2689:U:H5''	26:14:2713:A:C2	2.47	0.49
26:14:303:U:H2'	26:14:304:G:O4'	2.13	0.49
26:14:998:C:OP2	42:85:58:ARG:NH2	2.40	0.49
2:1E:163:PHE:CD1	2:1E:185:ILE:HG12	2.48	0.49
1:1G:1277:C:H1'	1:1G:1282:C:O2	2.12	0.49
1:1G:518:C:H5''	1:1G:519:C:H6	1.76	0.49
26:1H:1210:A:C8	26:1H:1210:A:H5'	2.46	0.49
26:1H:1332:G:H5'	26:1H:1332:G:C8	2.48	0.49
26:1H:1550:C:H2'	26:1H:1551:C:H6	1.77	0.49
26:1H:2121:G:H1	26:1H:2177:C:H42	1.61	0.49
32:41:33:ARG:O	32:41:162:THR:HG23	2.13	0.49
38:45:19:GLY:O	38:45:98:LYS:HB3	2.13	0.49
26:1H:2749:A:OP1	33:51:4:ILE:HG13	2.13	0.49
7:62:23:VAL:HG13	7:62:43:PHE:CE2	2.33	0.49
28:71:45:ALA:HB2	28:71:212:VAL:HG22	1.95	0.49
8:72:20:TYR:HA	8:72:65:TYR:CE2	2.48	0.49
46:G8:68:HIS:CE1	46:G8:70:SER:HB2	2.48	0.49
47:H8:113:ALA:N	47:H8:114:GLY:HA2	2.27	0.49
50:K8:15:LYS:NZ	50:K8:15:LYS:N	2.61	0.49
1:13:1130:A:C2	1:13:1146:A:C4	3.01	0.49
1:13:1280:A:H3'	1:13:1281:U:H5'	1.94	0.49
1:13:1429:C:H2'	1:13:1430:C:C6	2.47	0.49
26:14:1204:A:N1	26:14:1241:A:C2	2.80	0.49
26:14:2178:C:H4'	28:79:46:LYS:NZ	2.27	0.49
26:14:2303:G:O2'	26:14:2304:G:H5'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2400:G:H2'	26:14:2401:U:H6	1.77	0.49
26:14:863:A:H2'	26:14:864:G:H8	1.76	0.49
1:1G:1137:C:H4'	1:1G:1138:G:O5'	2.13	0.49
1:1G:1279:A:H5''	1:1G:1280:A:OP2	2.13	0.49
1:1G:1325:C:OP2	21:1B:15:ARG:NH2	2.46	0.49
1:1G:683:G:C6	1:1G:684:A:C6	3.01	0.49
26:1H:1213:A:H1'	26:1H:1238:G:N3	2.28	0.49
26:1H:1494:A:O2'	26:1H:1495:A:H5'	2.13	0.49
26:1H:2228:G:OP2	29:11:263:ARG:NH2	2.46	0.49
26:1H:243:U:OP2	55:Q8:8:LYS:NZ	2.44	0.49
26:1H:484:C:H2'	26:1H:485:C:C6	2.48	0.49
26:1H:960:A:C8	26:1H:962:G:C8	2.99	0.49
30:21:50:GLY:HA2	30:21:76:ARG:O	2.13	0.49
1:1G:1422:G:OP1	36:25:48:PRO:HA	2.13	0.49
31:31:101:LEU:HD22	31:31:102:PRO:HD2	1.93	0.49
4:32:100:ARG:NH1	4:32:136:PRO:O	2.45	0.49
24:3K:13:C:N4	24:3K:14:A:H62	2.11	0.49
24:3L:44:U:H2'	24:3L:45:G:O4'	2.13	0.49
32:49:125:PHE:HB3	32:49:166:ASP:CB	2.40	0.49
6:52:15:ASP:O	6:52:19:LEU:HB2	2.13	0.49
6:52:99:ALA:HB3	18:9A:29:PHE:HE1	1.76	0.49
34:61:131:LYS:HB3	34:61:132:PRO:HA	1.94	0.49
1:13:55:A:H2	34:69:82:ARG:HD3	1.77	0.49
8:72:38:ILE:HD12	8:72:118:VAL:HG12	1.95	0.49
9:82:46:ALA:HB2	9:82:74:ILE:HG23	1.94	0.49
45:B5:67:GLY:C	45:B5:69:TYR:H	2.13	0.49
43:D8:43:GLU:HA	43:D8:43:GLU:OE2	2.13	0.49
53:J5:18:ALA:O	53:J5:21:SER:HB3	2.13	0.49
2:12:159:PRO:HB2	2:12:161:ALA:O	2.12	0.49
2:12:164:VAL:HB	2:12:186:ALA:HB2	1.94	0.49
1:13:1176:A:H2'	1:13:1177:G:H1'	1.95	0.49
1:13:484:G:O2'	1:13:485:G:OP2	2.29	0.49
26:14:2720:U:N3	26:14:2873:A:H2	2.07	0.49
26:14:9:U:H6	26:14:9:U:OP2	1.95	0.49
29:19:30:GLU:HB2	29:19:35:LYS:NZ	2.28	0.49
26:14:1805:U:O2	29:19:50:THR:HB	2.13	0.49
2:1E:28:PHE:CE2	2:1E:190:THR:HA	2.48	0.49
1:1G:683:G:N2	1:1G:707:C:O2	2.43	0.49
1:1G:762:C:H2'	1:1G:763:G:H8	1.77	0.49
26:1H:1280:G:N2	26:1H:1291:C:C2	2.81	0.49
26:1H:1358:G:N2	26:1H:1372:U:C5	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1658:C:H2'	26:1H:1659:U:C6	2.47	0.49
26:1H:1728:G:C2	26:1H:1730:U:OP2	2.66	0.49
26:1H:2000:G:C2'	26:1H:2001:A:H5'	2.43	0.49
26:1H:2056:G:C2	26:1H:2057:A:C8	3.01	0.49
26:1H:910:A:C4	38:88:13:GLN:NE2	2.81	0.49
1:1G:676:A:H1'	11:2A:115:PRO:HB3	1.95	0.49
31:31:68:LYS:O	31:31:69:HIS:HB2	2.13	0.49
32:41:4:ASP:OD1	32:41:9:ARG:NH1	2.46	0.49
5:42:43:LEU:HD22	5:42:136:MET:HG3	1.94	0.49
38:45:57:HIS:CE1	38:45:116:GLU:HG2	2.48	0.49
38:45:42:ILE:HD13	38:45:97:VAL:HB	1.95	0.49
7:62:38:LEU:O	7:62:42:ILE:HG13	2.12	0.49
28:71:218:MET:N	28:71:218:MET:SD	2.86	0.49
8:7E:49:GLU:O	8:7E:51:VAL:HG13	2.12	0.49
1:1G:1232:U:OP1	9:82:124:GLN:HG2	2.13	0.49
38:88:35:VAL:HG13	38:88:130:LYS:HB3	1.94	0.49
47:D5:99:TYR:HB3	47:D5:123:ASP:OD1	2.13	0.49
44:E8:9:TYR:HA	44:E8:100:THR:HG23	1.95	0.49
49:F5:84:GLY:HA3	49:F5:86:SER:N	2.28	0.49
48:I8:23:VAL:HG22	48:I8:38:VAL:HG22	1.94	0.49
1:13:468:A:H3'	1:13:474:G:H8	1.78	0.48
1:13:539:A:H2'	1:13:540:G:C8	2.48	0.48
1:13:730:G:C5	1:13:731:G:H1'	2.48	0.48
26:14:819:A:C4	26:14:1189:A:C2	3.00	0.48
26:14:1406:U:H2'	26:14:1407:C:C6	2.48	0.48
26:14:2054:A:H5''	26:14:2055:C:O5'	2.12	0.48
26:14:590:A:H2'	26:14:591:C:C6	2.48	0.48
26:14:761:A:C8	59:14:3574:HOH:O	2.55	0.48
26:14:901:A:H2'	26:14:901:A:N3	2.28	0.48
26:14:848:G:C4	26:14:933:A:H8	2.31	0.48
1:1G:1055:A:C6	1:1G:1056:U:C6	3.01	0.48
1:1G:1151:A:HO2'	1:1G:1152:A:C5'	2.26	0.48
26:1H:1205:U:H4'	26:1H:1206:G:OP2	2.13	0.48
26:1H:1516:U:H2'	26:1H:1517:G:C8	2.48	0.48
26:1H:2272:U:H5''	26:1H:2273:A:OP1	2.13	0.48
26:1H:588:U:H2'	26:1H:589:C:C6	2.48	0.48
27:1J:42:C:O2	32:49:93:THR:N	2.34	0.48
27:1J:73:A:C4	27:1J:104:A:C2	3.01	0.48
36:25:10:VAL:HG12	36:25:19:ILE:HG12	1.94	0.48
31:39:155:LEU:HD23	31:39:186:ILE:HD13	1.94	0.48
12:3A:60:LEU:HD23	12:3A:64:TYR:HB3	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:42:C:O3'	32:41:67:LYS:NZ	2.45	0.48
5:4E:36:ASP:OD2	5:4E:40:ARG:NH1	2.46	0.48
13:4I:22:ILE:HB	13:4I:25:ILE:HD12	1.95	0.48
34:69:93:THR:N	34:69:96:ASP:HB2	2.27	0.48
41:75:61:PHE:CE1	41:75:76:PHE:HB2	2.48	0.48
37:78:63:PRO:HD3	55:Q8:27:THR:HG22	1.95	0.48
17:8A:10:VAL:CG2	17:8A:53:LEU:HA	2.43	0.48
9:8E:10:ARG:HE	9:8E:105:ASP:CG	2.16	0.48
44:A5:20:VAL:HG21	44:A5:44:ALA:H	1.78	0.48
26:1H:2319:G:N7	40:A8:3:ARG:HG2	2.27	0.48
43:D8:45:THR:O	43:D8:47:VAL:HG23	2.12	0.48
46:G8:35:TYR:CD2	46:G8:69:ALA:HB3	2.48	0.48
29:11:126:GLN:HG2	29:11:127:VAL:N	2.28	0.48
2:12:223:ILE:HA	2:12:224:GLN:CG	2.41	0.48
2:12:49:GLU:O	2:12:52:GLU:HG3	2.13	0.48
1:13:164:U:H2'	1:13:165:C:C6	2.47	0.48
1:13:413:G:H22	1:13:428:G:H1'	1.79	0.48
1:13:60:A:H4'	1:13:61:G:H5'	1.95	0.48
26:14:1784:A:H4'	26:14:1785:A:C5'	2.43	0.48
26:14:2226:C:OP2	59:14:3640:HOH:O	2.20	0.48
26:14:1049:C:N4	26:14:2751:G:O6	2.44	0.48
26:14:2898:U:H2'	26:14:2899:G:H5''	1.96	0.48
26:14:315:G:H2'	26:14:316:C:C6	2.47	0.48
26:14:481:G:OP2	46:C5:47:LYS:HB2	2.13	0.48
26:14:745:G:H5''	26:14:746:A:OP2	2.13	0.48
26:14:819:A:C2'	26:14:820:A:H5'	2.43	0.48
1:1G:1014:A:P	1:1G:1014:A:H8	2.35	0.48
1:1G:1126:U:H1'	1:1G:1127:G:OP1	2.13	0.48
1:1G:198:G:H2'	1:1G:199:G:H8	1.79	0.48
26:1H:2033:A:H4'	26:1H:2034:U:OP1	2.13	0.48
26:1H:2665:A:H2'	26:1H:2666:C:O5'	2.13	0.48
22:1K:72:C:H2'	22:1K:73:A:H5''	1.95	0.48
3:22:85:ARG:C	3:22:87:LEU:H	2.16	0.48
23:2L:24:C:C2	23:2L:25:U:C5	3.01	0.48
12:3A:6:THR:HG23	12:3A:9:GLN:OE1	2.13	0.48
39:55:2:ARG:HB2	39:55:5:LYS:HB2	1.95	0.48
6:5E:97:PHE:HD1	18:9I:31:LEU:HD11	1.78	0.48
7:62:141:VAL:O	7:62:143:ARG:HG3	2.13	0.48
7:62:36:LYS:O	7:62:40:ALA:N	2.45	0.48
37:78:19:VAL:HG13	37:78:31:ALA:HB1	1.95	0.48
26:1H:2470:G:H5'	38:88:56:ARG:HH12	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:8E:50:LEU:HD12	9:8E:51:ARG:N	2.27	0.48
9:8E:86:VAL:HG11	9:8E:93:ARG:HG3	1.94	0.48
44:A5:96:ILE:O	44:A5:96:ILE:HG13	2.12	0.48
40:A8:42:ASP:O	40:A8:43:GLU:CB	2.60	0.48
40:A8:89:ARG:HG3	40:A8:92:TYR:O	2.12	0.48
19:AA:66:MET:HB3	19:AA:69:HIS:ND1	2.28	0.48
20:BI:45:GLN:HB2	20:BI:91:LEU:HD13	1.95	0.48
46:C5:23:ARG:NH1	46:C5:23:ARG:HB2	2.28	0.48
51:H5:5:LYS:HD2	51:H5:34:GLU:HB3	1.95	0.48
29:11:39:LYS:HD2	29:11:39:LYS:HA	1.53	0.48
2:12:130:ARG:HE	2:12:135:GLN:HG2	1.78	0.48
2:12:178:ARG:HD2	2:12:196:LEU:O	2.14	0.48
1:13:1164:G:C6	1:13:1165:C:C4	3.01	0.48
1:13:1177:G:O6	1:13:1181:G:N7	2.46	0.48
1:13:1317:C:OP2	14:5I:17:LYS:HE2	2.13	0.48
1:13:192:U:O4'	20:BI:103:GLY:HA2	2.13	0.48
1:13:954:G:H2'	1:13:955:U:C6	2.48	0.48
26:14:1034:G:H2'	26:14:1035:U:O4'	2.13	0.48
26:14:1204:A:N1	26:14:1241:A:H2	2.10	0.48
26:14:1358:G:N1	59:14:3513:HOH:O	2.34	0.48
26:14:1570:A:H2'	26:14:1571:A:C8	2.48	0.48
26:14:2404:C:OP2	59:14:3636:HOH:O	2.20	0.48
26:14:2461:C:H2'	26:14:2462:U:C6	2.49	0.48
26:14:276:A:H2'	26:14:277:C:C5	2.48	0.48
26:14:271(B):G:N7	26:14:421:U:H2'	2.27	0.48
26:14:921:G:C6	26:14:922:U:C4	3.02	0.48
1:1G:1133:G:N2	1:1G:1141:C:O2	2.46	0.48
1:1G:1177:G:OP2	1:1G:1177:G:H8	1.96	0.48
1:1G:974:A:OP2	14:5A:41:ARG:NH1	2.47	0.48
26:1H:1566:A:O2'	26:1H:1567:A:H5'	2.13	0.48
26:1H:1581:G:H2'	26:1H:1582:C:O4'	2.13	0.48
26:1H:2235:G:H2'	26:1H:2236:C:C6	2.48	0.48
26:1H:2533:A:H2'	26:1H:2534:A:O4'	2.12	0.48
26:1H:511:U:C5	26:1H:512:G:C5	3.01	0.48
22:1L:18:G:OP1	22:1L:60:U:N3	2.41	0.48
30:21:46:ALA:HB1	30:21:80:GLU:HB3	1.94	0.48
3:22:91:LEU:HD21	3:22:101:LEU:HD21	1.94	0.48
1:13:1057:G:H4'	3:2E:197:GLY:H	1.78	0.48
3:2E:43:LEU:HB3	3:2E:47:LEU:HD22	1.96	0.48
23:2L:56:PSU:N3	23:2L:59:A:OP2	2.37	0.48
31:39:160:ASN:HB3	31:39:163:VAL:HB	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3L:76:A:C8	26:14:2394:C:N4	2.75	0.48
32:41:7:LEU:HD11	32:41:176:LEU:HD22	1.95	0.48
33:51:118:PRO:HD2	33:51:121:ILE:HB	1.96	0.48
34:61:42:SER:O	34:61:45:LYS:N	2.45	0.48
15:6I:70:LEU:HD11	15:6I:77:ARG:HG2	1.95	0.48
26:1H:2129:C:H5''	28:71:6:ARG:CZ	2.43	0.48
38:88:21:THR:HB	38:88:99:PRO:O	2.14	0.48
17:8A:21:VAL:HG21	17:8A:59:ILE:HD11	1.95	0.48
48:E5:50:ASN:O	48:E5:62:LEU:HB2	2.12	0.48
49:J8:83:GLU:HG3	49:J8:85:LEU:HB2	1.94	0.48
1:13:1409:C:H2'	1:13:1410:G:H8	1.79	0.48
1:13:474:G:H5''	16:7I:81:ARG:HE	1.79	0.48
1:13:727:G:N2	1:13:730:G:OP2	2.43	0.48
26:14:185:U:H4'	26:14:218:A:H4'	1.96	0.48
26:14:2337:G:H2'	26:14:2337:G:N3	2.29	0.48
26:14:527:C:OP2	26:14:2779:U:H5	1.97	0.48
2:1E:206:ASP:O	2:1E:210:SER:OG	2.29	0.48
1:1G:1076:C:H42	1:1G:1081:G:H1	1.61	0.48
26:1H:1065:U:H1'	26:1H:1074:G:N2	2.28	0.48
26:1H:1084:A:O2'	26:1H:1085:A:OP1	2.29	0.48
26:1H:1512:G:H2'	26:1H:1513:C:C6	2.48	0.48
26:1H:1784:A:H5''	59:1H:4403:HOH:O	2.13	0.48
26:1H:2138:C:C2	26:1H:2154:G:N2	2.82	0.48
26:1H:730:C:OP2	59:1H:3770:HOH:O	2.20	0.48
26:1H:7:G:H2'	26:1H:8:A:O4'	2.12	0.48
27:1J:33:G:C2	27:1J:50:G:C2	3.02	0.48
27:1J:99:A:H3'	59:1J:303:HOH:O	2.12	0.48
30:29:147:PRO:HB2	30:29:149:ARG:HD3	1.95	0.48
31:39:3:GLU:N	31:39:3:GLU:OE1	2.46	0.48
24:3L:13:C:H2'	24:3L:14:A:H8	1.78	0.48
32:41:35:GLU:OE1	32:41:35:GLU:HA	2.14	0.48
5:42:143:ARG:HA	5:42:143:ARG:HD3	1.59	0.48
28:71:212:VAL:HG21	28:71:226:PRO:HG3	1.95	0.48
8:7E:41:ARG:NH1	8:7E:123:GLU:OE1	2.47	0.48
17:8I:56:VAL:HB	17:8I:78:GLU:HB2	1.96	0.48
26:14:26:G:OP1	44:A5:80:PRO:HB3	2.13	0.48
19:AA:48:THR:HG22	19:AA:61:TYR:HA	1.94	0.48
41:B8:42:ILE:HD12	41:B8:42:ILE:H	1.78	0.48
44:E8:57:ASN:O	44:E8:62:HIS:HD2	1.95	0.48
50:K8:24:LEU:O	50:K8:28:LYS:HG3	2.13	0.48
29:11:37:LEU:HD12	29:11:37:LEU:N	2.07	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1346:A:H5''	9:8E:120:ARG:HH12	1.78	0.48
1:13:1455:G:H8	1:13:1455:G:O5'	1.96	0.48
1:13:428:G:C5	1:13:430:A:C6	3.01	0.48
1:13:476:G:N2	1:13:477:G:H1'	2.29	0.48
1:13:636:U:H2'	1:13:637:G:C8	2.47	0.48
26:14:1057:A:H2'	26:14:1058:U:O4'	2.13	0.48
26:14:1388:G:O2'	26:14:1389:G:H5'	2.13	0.48
26:14:2143:C:H42	26:14:2148:G:H1	1.61	0.48
26:14:2432:A:H2	49:F5:35:THR:HG22	1.78	0.48
26:14:288:C:H2'	26:14:289:A:C8	2.48	0.48
26:14:853:G:O2'	26:14:854:G:H5'	2.12	0.48
26:14:947:G:O6	59:14:3634:HOH:O	2.20	0.48
29:19:218:ARG:HB3	29:19:219:PRO:HD2	1.95	0.48
2:1E:80:ILE:HG21	2:1E:212:GLN:HA	1.95	0.48
1:1G:498:A:H4'	1:1G:500:G:OP1	2.13	0.48
1:1G:509:A:C8	1:1G:509:A:H3'	2.48	0.48
26:1H:1093:G:H1'	26:1H:1099:G:N2	2.28	0.48
26:1H:2376:A:H2'	26:1H:2377:A:O4'	2.14	0.48
26:1H:2432:A:C4	49:J8:33:LYS:HG2	2.48	0.48
26:1H:403:U:H3'	59:1H:4635:HOH:O	2.13	0.48
26:1H:995:C:OP2	42:C8:54:LYS:NZ	2.46	0.48
23:2K:2:G:N3	23:2K:2:G:H2'	2.28	0.48
23:2L:10:G:N2	23:2L:27:G:H1'	2.28	0.48
26:14:39:C:O2	31:39:46:ARG:NH2	2.46	0.48
27:16:43:C:P	32:41:67:LYS:HZ2	2.36	0.48
38:45:32:TYR:HA	38:45:133:ARG:O	2.13	0.48
32:49:114:ILE:HD11	32:49:140:ILE:HD13	1.95	0.48
13:4I:39:ILE:HG12	13:4I:52:GLU:OE2	2.12	0.48
35:58:38:HIS:NE2	35:58:50:ASP:OD2	2.46	0.48
6:5E:61:LEU:HD23	6:5E:63:TYR:HE1	1.78	0.48
40:65:87:PHE:CZ	40:65:102:ALA:HB2	2.48	0.48
40:65:43:GLU:HB2	48:E5:49:LYS:HZ1	1.76	0.48
15:6I:18:PHE:CE1	15:6I:21:ASP:HB2	2.48	0.48
1:13:377:G:H5'	16:7I:5:ARG:NH1	2.29	0.48
40:A8:29:PHE:CD1	40:A8:30:ARG:N	2.80	0.48
49:F5:86:SER:HA	49:F5:89:GLU:OE2	2.13	0.48
52:M8:39:CYS:HB3	52:M8:41:PRO:CD	2.43	0.48
29:11:31:LYS:O	29:11:33:LEU:N	2.47	0.48
1:13:1053:G:N7	1:13:1199:U:H3'	2.28	0.48
1:13:1277:C:O2'	1:13:1279:A:H8	1.96	0.48
1:13:329:A:C4	1:13:332:G:C5	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:648:A:N6	1:13:649:G:O6	2.46	0.48
26:14:1670:C:O2	30:29:129:HIS:NE2	2.42	0.48
26:14:152:G:H1	26:14:174:C:H42	1.59	0.48
26:14:860:U:C2	26:14:2268:A:C8	3.02	0.48
26:14:273(C):C:N4	26:14:363(C):G:H1	2.12	0.48
29:19:71:ASP:OD1	29:19:71:ASP:N	2.45	0.48
2:1E:100:GLY:N	2:1E:176:GLU:OE2	2.46	0.48
2:1E:168:THR:OG1	2:1E:192:SER:HB2	2.14	0.48
1:1G:1423:G:H2'	1:1G:1424:C:H6	1.78	0.48
1:1G:746:A:H2'	1:1G:747:C:C6	2.49	0.48
1:1G:980:C:H3'	1:1G:981:U:H6	1.78	0.48
26:1H:2031:A:C6	26:1H:2498:C:H1'	2.48	0.48
26:1H:2503:A:OP2	26:1H:2503:A:H3'	2.13	0.48
26:1H:324:A:H2'	26:1H:325:G:H5'	1.94	0.48
26:1H:574:C:P	59:1H:3621:HOH:O	2.64	0.48
1:13:1125:U:C6	10:1I:38:ILE:HD12	2.49	0.48
30:21:38:THR:HG23	30:21:40:GLU:H	1.78	0.48
37:35:120:ALA:O	37:35:121:LYS:HD2	2.13	0.48
4:32:88:VAL:HG13	5:42:97:GLY:HA2	1.96	0.48
34:61:57:ARG:O	34:61:61:ARG:HG2	2.13	0.48
1:13:580:U:OP1	15:6I:54:ARG:NH2	2.47	0.48
28:71:49:ILE:HG22	28:71:204:ALA:HB1	1.95	0.48
26:1H:2176:A:H1'	28:71:215:THR:HG21	1.94	0.48
41:75:124:ASP:O	41:75:128:GLU:HB2	2.13	0.48
8:7E:114:THR:HG22	8:7E:131:GLY:HA3	1.96	0.48
1:1G:1179:A:H4'	9:82:103:THR:HA	1.94	0.48
19:AI:51:VAL:HG12	19:AI:52:TYR:H	1.78	0.48
41:B8:94:ALA:HB1	41:B8:99:LEU:HD21	1.95	0.48
42:C8:75:ASN:HB3	42:C8:77:SER:N	2.29	0.48
42:C8:75:ASN:HB3	42:C8:77:SER:H	1.79	0.48
47:H8:68:PRO:O	47:H8:91:LEU:HD22	2.14	0.48
39:55:101:ALA:HA	53:J5:44:THR:HG21	1.96	0.48
26:1H:2239:G:H5'	29:11:251:GLY:HA3	1.95	0.48
1:13:917:G:H2'	1:13:918:A:C8	2.48	0.48
26:14:2311:A:H62	32:49:44:GLY:HA3	1.78	0.48
26:14:2320:A:N6	26:14:2333:A:H2'	2.29	0.48
26:14:2883:A:H5'	26:14:2884:U:H5'	1.96	0.48
26:14:579:G:H2'	26:14:580:C:C6	2.49	0.48
26:14:670:A:H4'	26:14:671:C:O5'	2.14	0.48
29:19:176:ARG:HH11	29:19:176:ARG:HG2	1.78	0.48
2:1E:136:VAL:O	2:1E:140:HIS:N	2.37	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1008:C:H42	1:1G:1021:G:H22	1.62	0.48
1:1G:501:C:H2'	1:1G:502:G:C8	2.47	0.48
26:1H:1376:C:H2'	26:1H:1377:G:O4'	2.14	0.48
26:1H:1742:C:H2'	26:1H:1743:G:O4'	2.13	0.48
26:1H:2303:G:O2'	32:41:132:ASN:HB2	2.14	0.48
26:1H:2517:C:C2	26:1H:2542:A:N6	2.81	0.48
26:1H:447:A:N1	26:1H:454:A:O2'	2.33	0.48
26:1H:459:U:H2'	26:1H:460:A:C8	2.48	0.48
26:1H:459:U:H2'	26:1H:460:A:H8	1.79	0.48
26:1H:690:G:H2'	26:1H:691:C:C6	2.49	0.48
26:1H:865:C:H1'	59:1H:4072:HOH:O	2.13	0.48
23:2L:60:A:H2'	23:2L:61:U:H5'	1.95	0.48
31:31:181:LEU:O	31:31:205:ARG:NH2	2.43	0.48
32:41:80:PHE:O	32:41:82:LEU:HB2	2.13	0.48
5:42:93:PRO:HG2	8:72:105:ARG:HE	1.78	0.48
13:4I:44:ARG:O	13:4I:47:ASP:N	2.46	0.48
13:4I:98:VAL:HG23	13:4I:99:ARG:HG2	1.95	0.48
14:5A:24:CYS:HB2	14:5A:33:VAL:HG12	1.95	0.48
7:62:72:ARG:HE	7:62:138:LYS:HE3	1.79	0.48
7:62:22:LEU:HD22	7:62:63:LYS:HE3	1.96	0.48
15:6I:24:SER:HB3	15:6I:27:VAL:HG23	1.94	0.48
41:75:123:GLN:HA	41:75:126:ALA:HB3	1.96	0.48
38:88:17:LEU:HA	38:88:17:LEU:HD23	1.55	0.48
20:BA:67:ALA:O	20:BA:73:HIS:CE1	2.67	0.48
46:C5:89:PHE:O	46:C5:90:LEU:HB3	2.14	0.48
26:14:84:A:H5''	46:C5:8:LYS:HG2	1.94	0.48
46:C5:85:VAL:HG21	46:C5:98:VAL:HG23	1.95	0.48
50:K8:58:ALA:O	50:K8:62:THR:HG22	2.14	0.48
29:11:64:ILE:HD12	29:11:65:ILE:N	2.28	0.48
1:13:1324:A:O4'	1:13:1362:C:H4'	2.14	0.48
1:13:13:U:OP1	59:13:1835:HOH:O	2.20	0.48
1:13:692:U:O2'	1:13:694:A:N7	2.36	0.48
1:13:872:A:C5	1:13:874:G:C8	3.02	0.48
26:14:1322:A:O3'	44:A5:84:ARG:NH1	2.46	0.48
26:14:1334:G:OP2	59:14:3641:HOH:O	2.20	0.48
26:14:251:A:C5	26:14:252:G:H1'	2.48	0.48
26:14:2615:U:C2	53:J5:7:PRO:HA	2.48	0.48
26:14:270(Q):C:H5''	34:69:45:LYS:HE3	1.95	0.48
26:14:990:A:C8	26:14:990:A:H5'	2.34	0.48
27:16:6:C:O3'	40:A8:29:PHE:HE2	1.97	0.48
29:19:11:PRO:O	29:19:12:SER:OG	2.25	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:93:ALA:HB3	29:19:105:ILE:HG22	1.95	0.48
1:1G:162:A:H5''	1:1G:163:C:OP2	2.14	0.48
1:1G:428:G:C5	1:1G:430:A:C6	3.01	0.48
1:1G:843:U:H3'	1:1G:848:C:O4'	2.14	0.48
26:1H:1255:U:O2	59:1H:3767:HOH:O	2.19	0.48
26:1H:1271:G:N2	26:1H:1617:C:O4'	2.47	0.48
26:1H:1480:G:C6	26:1H:1482:U:N3	2.81	0.48
26:1H:1994:C:O2'	26:1H:1995:U:H5'	2.14	0.48
26:1H:634:C:H2'	26:1H:635:C:C6	2.47	0.48
26:1H:821:A:O2'	26:1H:946:G:OP2	2.31	0.48
22:1L:39:PSU:H2'	22:1L:40:C:H6	1.78	0.48
30:29:119:ARG:HD2	30:29:120:TRP:CE2	2.48	0.48
38:45:18:LYS:H	38:45:98:LYS:NZ	2.12	0.48
13:4A:92:HIS:NE2	13:4A:98:VAL:HG11	2.28	0.48
1:13:1307:U:OP1	13:4I:101:GLN:NE2	2.46	0.48
7:6E:6:ARG:O	7:6E:6:ARG:HG3	2.14	0.48
8:72:36:LEU:HA	8:72:39:LEU:HB2	1.95	0.48
9:8E:10:ARG:NE	9:8E:105:ASP:OD2	2.47	0.48
26:14:2387:U:O2'	48:E5:41:ARG:NH1	2.47	0.48
26:1H:189:G:OP2	49:J8:39:LYS:HE3	2.14	0.48
2:12:77:ALA:O	2:12:81:VAL:HG23	2.14	0.48
1:13:452:A:H2'	1:13:453:A:C8	2.49	0.48
26:14:1449(A):G:H2'	26:14:1450:C:H6	1.79	0.48
26:14:1507:A:C2	26:14:1508:A:H1'	2.49	0.48
26:14:97:C:H5''	50:G5:2:LYS:HA	1.94	0.48
2:1E:8:LYS:NZ	2:1E:8:LYS:H	2.12	0.48
1:1G:1277:C:O2'	1:1G:1279:A:H1'	2.14	0.48
1:1G:1298:C:O2'	1:1G:1299:A:P	2.72	0.48
26:1H:1400:G:H2'	26:1H:1401:G:C8	2.49	0.48
26:1H:1570:A:H2'	26:1H:1571:A:C8	2.49	0.48
26:1H:172:C:H2'	26:1H:173:G:C8	2.49	0.48
26:1H:197:A:N6	26:1H:2430:A:H2'	2.29	0.48
26:1H:234:C:H2'	26:1H:235:U:H6	1.79	0.48
26:1H:2364:C:H2'	26:1H:2365:G:O4'	2.13	0.48
26:1H:270(S):G:H5''	49:J8:94:LEU:HD13	1.94	0.48
26:1H:2849:U:H1'	26:1H:2866:U:O2	2.13	0.48
26:1H:363:G:O2'	26:1H:363(A):A:H5'	2.13	0.48
26:1H:576:U:O2	26:1H:576:U:O5'	2.32	0.48
26:1H:962:G:H2'	26:1H:963:U:C6	2.48	0.48
11:2A:27:ASN:OD1	11:2A:28:THR:N	2.44	0.48
4:32:128:VAL:HG12	4:32:129:ASN:ND2	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:190:ASP:OD1	4:32:192:GLU:HG2	2.14	0.48
32:41:13:GLU:O	32:41:14:GLU:HB3	2.14	0.48
5:4E:67:VAL:O	5:4E:69:VAL:HG23	2.14	0.48
39:55:21:TYR:OH	39:55:43:GLU:HG2	2.14	0.48
26:1H:1006:C:H1'	35:58:106:MET:HE3	1.96	0.48
35:58:94:HIS:C	35:58:95:PRO:O	2.50	0.48
14:5A:3:ARG:O	14:5A:6:LEU:HD12	2.14	0.48
6:5E:67:MET:HB2	6:5E:68:PRO:HD2	1.96	0.48
26:1H:2562:U:H1'	36:68:23:ARG:HH11	1.79	0.48
36:68:93:PRO:HG3	36:68:114:ILE:HG12	1.96	0.48
9:82:102:LEU:O	9:82:103:THR:OG1	2.27	0.48
39:98:24:GLN:OE1	39:98:36:THR:HG21	2.13	0.48
39:98:44:LEU:O	39:98:47:PHE:N	2.47	0.48
19:AA:63:THR:OG1	19:AA:65:ASN:O	2.31	0.48
42:C8:79:PHE:O	42:C8:79:PHE:HD1	1.97	0.48
46:G8:27:VAL:HG21	46:G8:30:VAL:HG23	1.95	0.48
46:G8:89:PHE:HD1	46:G8:90:LEU:N	2.12	0.48
26:1H:729:G:C6	29:11:208:LYS:HB2	2.49	0.48
1:13:567:G:H2'	1:13:568:G:O4'	2.14	0.48
26:14:1666:G:OP1	36:25:66:LYS:HD3	2.14	0.48
26:14:2541:A:H5''	26:14:2542:A:OP2	2.13	0.48
26:14:442:G:C6	26:14:444:C:N4	2.82	0.48
26:14:720:C:H2'	26:14:721:C:C6	2.49	0.48
29:19:137:PRO:O	29:19:140:THR:OG1	2.29	0.48
26:14:692:C:H4'	29:19:40:THR:OG1	2.14	0.48
1:1G:1512:U:H2'	1:1G:1513:A:H8	1.79	0.48
1:1G:162:A:O5'	1:1G:162:A:H8	1.97	0.48
1:1G:619:U:N3	4:32:134:ASP:OD1	2.44	0.48
1:1G:909:A:H2'	1:1G:910:C:O4'	2.12	0.48
1:1G:977:A:N3	1:1G:977:A:H3'	2.29	0.48
26:1H:1181:C:O2'	26:1H:1182:A:H5'	2.13	0.48
26:1H:32:C:O2'	26:1H:33:U:H5'	2.14	0.48
26:1H:516:C:OP1	53:N8:13:LYS:NZ	2.41	0.48
26:1H:761:A:OP2	59:1H:3760:HOH:O	2.19	0.48
22:1L:69:A:H1'	22:1L:70:C:O5'	2.13	0.48
30:21:60:ASN:ND2	30:21:63:LEU:H	2.12	0.48
11:2I:46:GLY:HA2	11:2I:50:TYR:O	2.13	0.48
4:32:32:ALA:H	4:32:35:ARG:CD	2.27	0.48
12:3I:117:ARG:HB3	12:3I:122:THR:HB	1.96	0.48
38:45:35:VAL:HG12	38:45:36:ALA:N	2.29	0.48
13:4A:67:GLU:HG3	13:4A:68:GLY:H	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:113:VAL:HG11	33:51:151:ILE:HD13	1.96	0.48
33:51:126:PRO:O	33:51:127:GLU:HB3	2.13	0.48
28:71:45:ALA:HA	28:71:211:SER:O	2.14	0.48
37:78:50:ARG:NH2	37:78:50:ARG:HG3	2.29	0.48
16:7A:45:THR:O	16:7A:48:TRP:HD1	1.96	0.48
39:98:103:ARG:NH1	39:98:108:GLY:O	2.47	0.48
19:AA:69:HIS:HB3	19:AA:73:GLU:OE1	2.13	0.48
19:AI:36:ARG:HD2	19:AI:52:TYR:O	2.14	0.48
41:B8:1:MET:HA	41:B8:2:ASN:OD1	2.14	0.48
46:C5:3:VAL:HG11	46:C5:32:PRO:O	2.14	0.48
47:D5:29:TYR:HE1	47:D5:87:ASP:HB3	1.79	0.48
49:F5:86:SER:HA	49:F5:89:GLU:CD	2.34	0.48
52:M8:37:SER:HB3	52:M8:42:PHE:CE1	2.49	0.48
1:13:1014:A:H4'	19:AI:14:HIS:CD2	2.49	0.47
1:13:1034:G:H2'	1:13:1034:G:N3	2.29	0.47
1:13:1213:A:C8	1:13:1215:G:C6	3.03	0.47
1:13:1314:C:N4	19:AI:2:PRO:O	2.45	0.47
1:13:1305:G:H21	1:13:1331:G:H2'	1.78	0.47
1:13:1410:G:H2'	1:13:1411:C:C6	2.48	0.47
1:13:163:C:H2'	1:13:164:U:C6	2.49	0.47
1:13:717:C:H5"	1:13:717:C:H6	1.79	0.47
26:14:1142(A):A:N7	26:14:1144:G:C5	2.82	0.47
26:14:1165:U:H2'	26:14:1166:C:C6	2.48	0.47
26:14:1247:A:C2	26:14:1249:U:C6	3.03	0.47
26:14:1485:G:H2'	26:14:1486:A:C8	2.49	0.47
26:14:1775:U:OP1	59:14:3638:HOH:O	2.20	0.47
26:14:270(K):C:H2'	26:14:270(L):U:H2'	1.95	0.47
26:14:273(D):C:H42	26:14:363(B):G:H1	1.60	0.47
26:14:731:C:P	59:14:3501:HOH:O	2.71	0.47
27:16:61:G:C6	27:16:62:C:C4	3.02	0.47
1:1G:192:U:H2'	1:1G:193:C:C6	2.36	0.47
26:1H:1542:G:H2'	26:1H:1543:A:H2	1.79	0.47
26:1H:2135:A:H5'	26:1H:2160:G:H1'	1.96	0.47
26:1H:2394:C:H2'	26:1H:2395:C:H6	1.79	0.47
26:1H:527:C:H4'	26:1H:528:A:H5'	1.95	0.47
26:1H:552:G:H2'	26:1H:553:U:O4'	2.14	0.47
26:1H:631:A:N3	26:1H:2415:G:O2'	2.43	0.47
30:21:147:PRO:HB2	30:21:149:ARG:HG2	1.95	0.47
30:21:181:LEU:HD12	30:21:181:LEU:HA	1.61	0.47
30:21:26:ILE:HD11	30:21:198:VAL:HG21	1.96	0.47
36:25:63:VAL:HG11	36:25:85:VAL:HG23	1.94	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:3A:109:GLY:HA3	12:3A:121:GLY:O	2.14	0.47
24:3K:4:U:H2'	24:3K:5:C:C2	2.48	0.47
38:45:138:ASP:H	38:45:139:GLU:HA	1.70	0.47
5:4E:41:VAL:HG22	5:4E:113:ALA:CB	2.44	0.47
33:51:74:ASN:HA	33:51:77:LYS:HD3	1.96	0.47
1:13:667:G:H4'	15:6I:51:HIS:CE1	2.49	0.47
28:71:217:THR:HB	28:71:218:MET:SD	2.53	0.47
8:7E:129:VAL:HG23	8:7E:130:GLY:H	1.79	0.47
16:7I:12:LYS:O	16:7I:13:HIS:HB2	2.12	0.47
16:7I:5:ARG:HE	16:7I:22:THR:HG21	1.79	0.47
17:8A:86:GLU:O	17:8A:90:ILE:HB	2.13	0.47
43:95:21:ARG:HH21	43:95:21:ARG:HG3	1.78	0.47
26:1H:583:G:OP2	42:C8:10:ARG:HD2	2.13	0.47
29:11:105:ILE:HA	29:11:105:ILE:HD12	1.44	0.47
2:12:168:THR:HA	2:12:171:ALA:HB2	1.95	0.47
1:13:1095:U:OP2	59:13:1827:HOH:O	2.20	0.47
1:13:434:U:H2'	1:13:435:C:C6	2.49	0.47
1:13:737:A:H2'	1:13:738:C:H6	1.74	0.47
26:14:1520:U:OP2	59:14:3642:HOH:O	2.20	0.47
26:14:2118:U:O2'	26:14:2145:C:O2	2.32	0.47
26:14:2306:C:H2'	26:14:2307:G:H21	1.79	0.47
26:14:2327:A:H2'	26:14:2328:A:C8	2.49	0.47
26:14:2441:C:O2'	26:14:2442:C:H5'	2.14	0.47
26:14:286:C:H2'	26:14:287:C:C6	2.50	0.47
26:14:89:G:H3'	26:14:90:U:C5'	2.41	0.47
27:16:94:C:H2'	27:16:95:U:C6	2.49	0.47
6:52:81:ILE:HD11	29:19:125:ILE:HG12	1.96	0.47
1:1G:1127:G:O2'	1:1G:1128:C:H5'	2.14	0.47
1:1G:1422:G:H5''	36:25:48:PRO:HB3	1.95	0.47
1:1G:967:C:H2'	1:1G:968:A:N7	2.30	0.47
26:1H:1301:A:H2	26:1H:1626:G:H21	1.61	0.47
26:1H:1727:U:H2'	26:1H:1728:G:O4'	2.14	0.47
26:1H:2148:G:H8	26:1H:2148:G:O5'	1.97	0.47
3:22:62:ASP:HA	3:22:97:LYS:HE2	1.96	0.47
11:2I:48:ILE:HA	11:2I:48:ILE:HD12	1.67	0.47
4:32:150:GLU:C	4:32:152:SER:H	2.16	0.47
4:32:170:VAL:HG21	4:32:176:LEU:HD23	1.97	0.47
4:3E:108:LEU:HB3	4:3E:110:PHE:HE1	1.79	0.47
13:4A:30:ALA:O	13:4A:34:LEU:HG	2.14	0.47
36:68:22:ILE:HG21	36:68:22:ILE:HD13	1.48	0.47
8:72:86:ILE:HG21	8:72:133:LEU:HD22	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:72:17:THR:HB	8:72:18:ARG:NH1	2.29	0.47
37:78:59:LEU:HB2	55:Q8:58:ILE:CD1	2.43	0.47
38:88:58:PHE:O	38:88:60:ARG:N	2.47	0.47
17:8A:67:LYS:HA	17:8A:70:ARG:HH12	1.79	0.47
9:8E:92:TYR:O	9:8E:96:LEU:HB2	2.14	0.47
43:95:70:ILE:O	43:95:70:ILE:HG22	2.14	0.47
43:95:72:VAL:HG13	43:95:72:VAL:O	2.14	0.47
26:14:1161:C:H1'	43:95:8:GLY:O	2.14	0.47
44:A5:50:VAL:HG22	44:A5:105:VAL:HG23	1.96	0.47
40:A8:103:GLU:HA	40:A8:106:ARG:HD3	1.97	0.47
47:D5:48:PHE:O	47:D5:52:SER:HB3	2.14	0.47
45:F8:29:TRP:CZ3	45:F8:78:LYS:HG2	2.48	0.47
52:M8:42:PHE:CD1	52:M8:42:PHE:C	2.87	0.47
1:13:1060:C:P	14:5I:45:ARG:HH22	2.36	0.47
1:13:160:A:N6	1:13:343:U:O2'	2.46	0.47
1:13:558:G:H5''	1:13:559:A:OP2	2.14	0.47
26:14:1007:C:OP1	35:15:37:LYS:NZ	2.43	0.47
26:14:2740:A:C6	26:14:2764:A:C8	3.02	0.47
26:14:307:G:H21	26:14:330:A:H62	1.61	0.47
26:14:620:G:H5'	26:14:620:G:N3	2.30	0.47
26:14:869:G:N2	26:14:870:A:H1'	2.28	0.47
27:16:60:C:C2	27:16:61:G:C8	3.02	0.47
29:19:79:VAL:HG12	29:19:113:VAL:HA	1.97	0.47
1:1G:1306:A:C6	1:1G:1307:U:C2	3.02	0.47
1:1G:300:A:H1'	1:1G:565:U:O2	2.14	0.47
1:1G:26:A:N6	1:1G:558:G:O2'	2.45	0.47
1:1G:652:U:H1'	1:1G:653:A:H2	1.79	0.47
1:1G:684:A:N6	59:1G:1872:HOH:O	2.46	0.47
1:1G:922:G:C2	1:1G:923:A:C4	3.02	0.47
26:1H:135:G:N7	59:1H:3893:HOH:O	2.35	0.47
26:1H:1479:G:O2'	26:1H:1558:A:H5'	2.13	0.47
26:1H:1799:G:H5'	26:1H:1819:A:H61	1.79	0.47
26:1H:1869:G:H5'	26:1H:1870:C:OP2	2.15	0.47
26:1H:1968:G:H5'	59:1H:4257:HOH:O	2.13	0.47
26:1H:2072:G:H2'	26:1H:2073:C:O4'	2.14	0.47
26:1H:2130:U:H2'	26:1H:2131:G:N7	2.29	0.47
26:1H:2291:U:H2'	26:1H:2292:C:C6	2.48	0.47
26:1H:270(E):G:C6	26:1H:270(F):U:C4	3.03	0.47
26:1H:2830:G:H5''	26:1H:2830:G:C8	2.48	0.47
26:1H:524:U:H2'	26:1H:525:U:C6	2.50	0.47
26:1H:803:U:C4	26:1H:804:A:N7	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:1K:53:G:H1	22:1K:61:C:H42	1.61	0.47
30:21:59:VAL:HG13	30:21:60:ASN:N	2.29	0.47
3:22:56:ASP:O	3:22:57:ILE:HG13	2.14	0.47
30:29:54:GLN:CG	30:29:55:ASN:N	2.78	0.47
30:29:58:ARG:HD2	30:29:58:ARG:H	1.79	0.47
4:3E:161:ASN:O	4:3E:165:MET:HB2	2.14	0.47
4:3E:9:CYS:O	4:3E:13:ARG:HG3	2.15	0.47
1:1G:1227:A:O3'	13:4A:115:LYS:HD2	2.15	0.47
26:14:30:G:OP2	42:85:5:LYS:HE2	2.15	0.47
26:1H:910:A:C5	38:88:13:GLN:HG3	2.50	0.47
45:B5:3:THR:O	45:B5:6:ASP:HB2	2.15	0.47
1:13:103:C:OP2	20:BI:14:LYS:HD2	2.13	0.47
48:E5:72:ARG:HB3	48:E5:75:LEU:HB2	1.97	0.47
44:E8:64:MET:O	44:E8:65:LEU:HB2	2.14	0.47
45:F8:31:HIS:CE1	45:F8:33:LYS:HB2	2.49	0.47
47:H8:103:ARG:HD3	47:H8:136:PHE:CD2	2.49	0.47
1:13:1148:U:H2'	1:13:1149:C:O4'	2.15	0.47
1:13:1269:A:H2	1:13:1312:G:N3	2.12	0.47
1:13:1429:C:H2'	1:13:1430:C:H6	1.80	0.47
1:13:222:U:H2'	1:13:223:U:C6	2.50	0.47
1:13:38:G:C2	1:13:397:A:C2	3.02	0.47
1:13:763:G:H2'	1:13:764:C:C6	2.49	0.47
26:14:1653:G:C6	39:55:9:LYS:HB3	2.50	0.47
26:14:1965:C:H3'	26:14:1966:A:H2'	1.96	0.47
26:14:1981:A:P	59:14:3672:HOH:O	2.73	0.47
26:14:2591:C:P	29:19:239:ARG:HG3	2.54	0.47
26:14:2693:A:H2'	26:14:2694:G:H8	1.79	0.47
35:15:28:THR:HG22	35:15:29:LYS:HG2	1.96	0.47
1:1G:1084:G:H5'	1:1G:1102:A:OP2	2.14	0.47
1:1G:1228:C:H2'	1:1G:1229:A:H8	1.78	0.47
1:1G:630:G:H3'	1:1G:631:G:H5'	1.96	0.47
1:1G:588:G:H1	1:1G:651:C:H42	1.61	0.47
26:1H:1508:A:O2'	26:1H:1509:C:O5'	2.32	0.47
26:1H:1568:G:H5''	29:11:61:LEU:CD2	2.45	0.47
26:1H:1591:G:H2'	26:1H:1592:C:H6	1.78	0.47
26:1H:2608:G:H5''	26:1H:2609:U:OP1	2.14	0.47
26:1H:658:C:H2'	26:1H:659:C:C6	2.49	0.47
26:1H:937:U:H2'	26:1H:938:G:O4'	2.15	0.47
27:1J:83:G:H5'	51:H5:52:HIS:CE1	2.49	0.47
3:22:151:VAL:HA	3:22:199:LYS:O	2.14	0.47
3:22:35:GLU:HG3	3:22:95:THR:HG21	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:29:52:LEU:HA	30:29:52:LEU:HD12	1.71	0.47
37:35:85:LEU:O	37:35:88:LEU:HB2	2.14	0.47
4:3E:111:ALA:HB2	4:3E:120:LEU:HD12	1.96	0.47
33:51:11:VAL:HG12	33:51:12:PRO:HD2	1.96	0.47
33:51:130:ARG:HH11	33:51:130:ARG:HB3	1.79	0.47
35:58:120:LEU:CD2	35:58:122:VAL:HG23	2.44	0.47
34:61:33:ARG:HB3	34:61:35:LEU:HD13	1.96	0.47
34:69:109:ILE:HB	34:69:130:TYR:CZ	2.49	0.47
34:69:74:ASN:O	34:69:75:LEU:HB2	2.14	0.47
8:72:44:PHE:HA	8:72:79:VAL:HG11	1.96	0.47
1:1G:878:G:H5'	8:72:89:PRO:HG2	1.96	0.47
37:78:118:GLY:O	37:78:137:LYS:NZ	2.46	0.47
8:7E:86:ILE:HG22	8:7E:87:SER:H	1.79	0.47
9:82:70:LYS:O	9:82:74:ILE:HG13	2.13	0.47
39:98:91:GLN:HG2	39:98:91:GLN:H	1.51	0.47
41:B8:74:ARG:HD3	41:B8:76:PHE:CZ	2.50	0.47
47:D5:3:TYR:O	47:D5:58:VAL:HG23	2.14	0.47
55:Q8:37:SER:O	55:Q8:40:GLU:N	2.46	0.47
1:13:1395:C:C4'	1:13:1401:G:H21	2.28	0.47
1:13:165:C:H2'	1:13:166:G:C8	2.49	0.47
26:14:1776:G:P	59:14:3749:HOH:O	2.72	0.47
26:14:2074:U:H2'	26:14:2075:U:C6	2.50	0.47
26:14:2259:G:H1'	26:14:2427:C:C2	2.49	0.47
26:14:784:A:H5'	26:14:785:G:OP1	2.15	0.47
26:14:861:A:N3	27:1J:79:C:O2'	2.45	0.47
29:19:44:ASN:HB2	29:19:47:GLY:H	1.79	0.47
1:1G:1352:C:H2'	1:1G:1353:G:H8	1.78	0.47
1:1G:1479:C:H2'	1:1G:1480:G:H8	1.79	0.47
1:1G:8:A:C5	4:32:209:ARG:HB2	2.50	0.47
26:1H:143:C:H2'	26:1H:144:C:H6	1.79	0.47
26:1H:1465:G:C4	26:1H:1466:G:C8	3.02	0.47
26:1H:1668:A:H4'	26:1H:1669:A:O5'	2.15	0.47
26:1H:1903:G:C2'	26:1H:1904:G:H5'	2.45	0.47
26:1H:2801:A:H5'	26:1H:2895:U:O2'	2.14	0.47
26:1H:845:G:C2'	26:1H:845:G:N3	2.75	0.47
26:1H:916:G:C2'	26:1H:917:A:H5''	2.45	0.47
10:1I:57:LYS:HD2	10:1I:60:ARG:NH2	2.29	0.47
30:21:69:LYS:O	30:21:71:GLY:N	2.48	0.47
23:2L:48:U:H1'	23:2L:49:C:O5'	2.15	0.47
37:35:57:THR:O	37:35:61:ARG:HG3	2.15	0.47
31:39:110:LEU:O	31:39:114:VAL:HG23	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:57:VAL:HG13	31:39:59:TYR:CD2	2.49	0.47
12:3I:93:LEU:O	12:3I:96:VAL:HG13	2.15	0.47
24:3L:52:G:O6	24:3L:62:C:N4	2.47	0.47
38:45:33:GLY:CA	38:45:105:GLU:HB2	2.43	0.47
13:4A:53:VAL:O	13:4A:57:ARG:N	2.27	0.47
34:61:50:ARG:HA	34:61:50:ARG:HD3	1.55	0.47
34:69:101:LEU:H	34:69:101:LEU:HD23	1.79	0.47
8:7E:65:TYR:HA	8:7E:79:VAL:HG23	1.95	0.47
45:B5:41:ASN:O	45:B5:41:ASN:ND2	2.47	0.47
1:13:1125:U:C4	1:13:1126:U:C4	3.03	0.47
26:14:162:U:H4'	26:14:171:G:C4	2.50	0.47
26:14:1805:U:H2'	26:14:1806:C:H6	1.78	0.47
26:14:1858:G:H2'	26:14:1883:G:H22	1.80	0.47
26:14:2137:C:H2'	26:14:2138:C:C6	2.49	0.47
26:14:221:A:N1	26:14:265:A:O2'	2.44	0.47
26:14:2652:C:H2'	26:14:2653:U:O4'	2.15	0.47
26:14:2663:G:C6	26:14:2664:G:C4	3.03	0.47
29:19:27:THR:HG22	29:19:29:PRO:O	2.14	0.47
29:19:30:GLU:CD	29:19:63:ARG:HH21	2.18	0.47
1:1G:109:A:H2'	1:1G:326:G:N2	2.29	0.47
1:1G:411:A:C5	1:1G:413:G:H1'	2.49	0.47
1:1G:519:C:H2'	1:1G:520:A:O4'	2.15	0.47
26:1H:1455:G:P	59:1H:3700:HOH:O	2.73	0.47
26:1H:2383:G:O2'	26:1H:2384:G:H5'	2.14	0.47
26:1H:298:G:H5''	26:1H:299:A:OP1	2.15	0.47
26:1H:518:G:H2'	26:1H:519:U:H6	1.79	0.47
26:1H:592:G:H21	55:Q8:4:MET:HE3	1.74	0.47
26:1H:91:A:H2'	26:1H:92:G:O4'	2.15	0.47
27:1J:51:G:C6	27:1J:52:A:C2	3.03	0.47
27:1J:8:U:H5'	40:65:15:ARG:HH12	1.80	0.47
22:1K:26:A:H5'	22:1K:27:G:OP2	2.15	0.47
3:2E:73:PRO:O	3:2E:77:ILE:HG13	2.13	0.47
32:49:145:THR:O	32:49:146:TYR:HB3	2.15	0.47
5:4E:6:PHE:HD2	5:4E:63:ARG:NH1	2.12	0.47
14:5A:24:CYS:SG	14:5A:29:ARG:NH2	2.88	0.47
34:61:117:GLU:OE1	34:61:117:GLU:N	2.48	0.47
7:62:131:LYS:NZ	7:62:131:LYS:HB3	2.30	0.47
7:6E:45:ASP:O	7:6E:49:ILE:HG13	2.14	0.47
41:75:19:LEU:HD22	41:75:86:ILE:CG2	2.44	0.47
41:75:26:ASP:O	41:75:49:VAL:HG22	2.14	0.47
17:8A:87:LYS:O	17:8A:91:ARG:HG3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:A8:110:LEU:O	40:A8:111:GLU:HB2	2.14	0.47
20:BI:87:LYS:HA	20:BI:87:LYS:HD2	1.59	0.47
46:C5:28:LYS:NZ	46:C5:64:GLU:OE2	2.22	0.47
51:H5:5:LYS:HB3	51:H5:5:LYS:HE3	1.51	0.47
47:H8:58:VAL:O	47:H8:60:GLU:N	2.48	0.47
48:I8:10:THR:O	48:I8:11:ARG:CB	2.62	0.47
2:12:111:ARG:HA	2:12:111:ARG:HH11	1.79	0.47
1:13:1144:G:N2	1:13:1146:A:H62	2.12	0.47
1:13:1191:A:H5''	1:13:1192:C:OP2	2.15	0.47
1:13:313:A:H2'	1:13:314:C:C6	2.49	0.47
1:13:674:G:H2'	1:13:675:A:C8	2.49	0.47
26:14:1011:G:H2'	26:14:1013:C:H5''	1.97	0.47
26:14:1751:C:H2'	26:14:1752:C:C6	2.50	0.47
26:14:196:A:H2'	26:14:196:A:N3	2.29	0.47
26:14:2272:U:H5''	26:14:2273:A:OP1	2.14	0.47
26:14:2436:G:C6	26:14:2437:U:C4	3.03	0.47
26:14:2250:G:O2'	26:14:2496:C:OP1	2.20	0.47
26:14:666:G:H5''	37:35:47:ASP:O	2.14	0.47
1:1G:680:C:H2'	1:1G:681:C:C6	2.50	0.47
26:1H:1050:A:C8	26:1H:2751:G:C5	3.03	0.47
26:1H:2345:G:N3	26:1H:2381:C:H2'	2.30	0.47
26:1H:654(A):A:H61	26:1H:654(T):A:H61	1.62	0.47
30:21:101:ARG:O	30:21:201:THR:OG1	2.33	0.47
26:14:2051:A:H4'	30:29:141:ILE:HG12	1.96	0.47
30:29:96:PHE:O	30:29:175:VAL:HG11	2.15	0.47
23:2L:20:G:C2	23:2L:58:A:N3	2.83	0.47
1:13:1296:C:OP1	13:4I:44:ARG:NH2	2.48	0.47
33:51:80:SER:C	33:51:81:GLU:HG3	2.35	0.47
35:58:10:GLU:HG3	35:58:11:PRO:CD	2.45	0.47
40:65:26:LEU:HD13	40:65:87:PHE:CD1	2.49	0.47
40:65:61:ASN:CG	40:65:62:LYS:H	2.18	0.47
37:78:119:GLU:OE2	37:78:119:GLU:HA	2.13	0.47
8:7E:88:LYS:HB3	8:7E:89:PRO:HD2	1.97	0.47
16:7I:49:LEU:HD12	16:7I:50:LYS:N	2.30	0.47
9:8E:8:GLY:HA3	9:8E:79:LEU:HB3	1.97	0.47
43:95:79:VAL:HG23	43:95:81:TYR:H	1.77	0.47
47:D5:69:THR:HG22	47:D5:90:VAL:HG22	1.95	0.47
46:G8:43:ASN:OD1	46:G8:65:ALA:HB3	2.15	0.47
46:G8:81:LYS:HB2	46:G8:99:CYS:SG	2.54	0.47
52:M8:15:ILE:HG22	52:M8:16:CYS:N	2.29	0.47
53:N8:40:LYS:CG	53:N8:47:PRO:HD2	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:150:SER:O	2:12:153:ARG:HG2	2.14	0.47
2:12:178:ARG:HE	2:12:178:ARG:HB3	1.55	0.47
1:13:519:C:H2'	1:13:520:A:C8	2.49	0.47
1:13:864:A:H3'	1:13:865:A:C8	2.50	0.47
1:13:887:G:H1	1:13:910:C:H42	1.62	0.47
26:14:1160:G:C6	26:14:1161:C:C4	3.03	0.47
26:14:1399:C:H2'	26:14:1400:G:H8	1.80	0.47
26:14:1533:C:H5'	26:14:1534:G:OP2	2.15	0.47
26:14:566:U:OP1	37:35:29:LYS:HD2	2.14	0.47
35:15:15:LEU:HB3	35:15:136:GLU:HA	1.97	0.47
1:1G:1367:C:H4'	10:1A:48:THR:HG21	1.97	0.47
2:1E:54:THR:HG23	2:1E:199:TYR:HB3	1.95	0.47
21:1F:2:GLY:C	21:1F:4:GLY:H	2.16	0.47
1:1G:486:U:OP2	59:1G:1830:HOH:O	2.20	0.47
26:1H:1779:U:H2'	59:1H:4153:HOH:O	2.15	0.47
26:1H:1786:A:H2	26:1H:2606:C:H1'	1.80	0.47
26:1H:2208:U:O2'	26:1H:2209:C:H5'	2.15	0.47
26:1H:2298:A:H62	26:1H:2318:G:H8	1.60	0.47
26:1H:2542:A:H4'	26:1H:2543:G:H8	1.80	0.47
26:1H:2711:A:P	59:1H:3604:HOH:O	2.62	0.47
26:1H:275:G:N7	26:1H:363:G:C6	2.83	0.47
26:1H:617:G:OP2	31:31:43:LYS:HE3	2.15	0.47
26:1H:657:U:H2'	26:1H:658:C:C6	2.49	0.47
30:21:55:ASN:HB3	30:21:58:ARG:H	1.80	0.47
30:29:116:VAL:O	30:29:117:MET:CB	2.62	0.47
11:2I:30:VAL:HG21	11:2I:65:ALA:HA	1.97	0.47
4:32:104:VAL:O	4:32:108:LEU:HB2	2.14	0.47
31:39:57:VAL:HG13	31:39:59:TYR:HD2	1.80	0.47
32:41:28:VAL:O	32:41:31:VAL:HG13	2.15	0.47
26:14:2873:A:H8	39:55:6:SER:N	2.11	0.47
33:59:166:GLY:O	33:59:167:GLU:HG2	2.15	0.47
7:62:114:ARG:H	7:62:114:ARG:HG2	1.51	0.47
36:68:7:TYR:CZ	36:68:44:LYS:HG3	2.50	0.47
41:75:85:LYS:NZ	41:75:87:ASP:OD2	2.43	0.47
9:82:50:LEU:HB3	9:82:56:LEU:HA	1.97	0.47
9:8E:112:LYS:CA	9:8E:119:ALA:HB2	2.44	0.47
17:8I:81:ARG:HB3	17:8I:83:ASP:OD1	2.15	0.47
18:9A:22:VAL:HG12	18:9A:55:ARG:O	2.14	0.47
40:A8:25:ARG:NH1	40:A8:42:ASP:OD2	2.40	0.47
20:BA:24:LEU:HA	20:BA:24:LEU:HD12	1.63	0.47
43:D8:34:GLU:HG2	43:D8:56:SER:OG	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:309:G:H4'	46:G8:18:GLY:HA2	1.97	0.47
49:J8:87:PRO:O	49:J8:91:LYS:N	2.48	0.47
29:11:85:ASP:OD2	29:11:88:ARG:HD2	2.15	0.47
1:13:1036:G:N7	1:13:1037:C:C4	2.83	0.47
1:13:1449:C:H42	1:13:1454:G:H1	1.63	0.47
1:13:390:C:O3'	16:7I:28:ARG:NH2	2.48	0.47
26:14:1015:G:O2'	26:14:1016:G:H5'	2.15	0.47
26:14:1410:G:N2	26:14:1593:G:C4	2.83	0.47
26:14:184:C:H2'	26:14:185:U:H6	1.79	0.47
26:14:1921:G:H2'	26:14:1922:G:H8	1.79	0.47
26:14:249:C:OP1	59:14:3639:HOH:O	2.20	0.47
26:14:270(Y):G:O6	59:14:3626:HOH:O	2.18	0.47
26:14:29:U:H2'	26:14:30:G:C8	2.49	0.47
26:14:662:G:H5''	37:35:16:ARG:HG2	1.97	0.47
26:14:860:U:O4'	26:14:2268:A:H5'	2.14	0.47
26:14:994:C:O2'	26:14:996:A:OP1	2.32	0.47
29:19:108:PRO:HG2	29:19:111:LEU:HB2	1.96	0.47
1:1G:1191:A:OP1	3:22:4:LYS:NZ	2.39	0.47
1:1G:1273:G:H3'	1:1G:1274:G:C8	2.48	0.47
1:1G:1224:G:O2'	1:1G:1322:C:OP2	2.30	0.47
1:1G:841:U:C6	1:1G:841:U:H3'	2.49	0.47
1:1G:922:G:C6	1:1G:923:A:C6	3.03	0.47
26:1H:11:G:H2'	26:1H:12:U:H5'	1.97	0.47
26:1H:1644:C:C2'	26:1H:1645:G:H5'	2.43	0.47
26:1H:2357:U:O2	59:1H:3769:HOH:O	2.20	0.47
26:1H:2863:C:O2'	26:1H:2864:G:H5'	2.15	0.47
22:1K:45:G:O2'	22:1K:47:U:H5'	2.15	0.47
26:1H:2572:A:N7	30:21:145:LYS:HB2	2.30	0.47
3:22:32:LEU:HD22	3:22:59:ARG:HH12	1.80	0.47
11:2I:33:THR:HG22	11:2I:39:PRO:HA	1.97	0.47
31:31:134:GLY:HA2	31:31:166:ALA:HB2	1.96	0.47
31:31:7:TYR:O	31:31:21:ALA:HA	2.15	0.47
1:1G:523:A:H61	12:3A:92:ASP:HB2	1.80	0.47
33:59:146:ALA:O	33:59:149:ARG:HB3	2.14	0.47
34:61:5:LEU:HA	34:61:5:LEU:HD23	1.74	0.47
34:61:77:LEU:HD13	34:61:140:LEU:HB3	1.97	0.47
42:85:58:ARG:HA	42:85:61:TRP:CE3	2.50	0.47
43:95:37:VAL:HG23	43:95:56:SER:HA	1.97	0.47
19:AI:40:ILE:HG23	19:AI:41:VAL:N	2.30	0.47
41:B8:100:TYR:HB3	41:B8:103:ARG:NH1	2.29	0.47
41:B8:105:LEU:O	41:B8:107:ASP:OD1	2.33	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BA:97:ALA:HB1	20:BA:98:PRO:HD2	1.96	0.47
47:D5:94:GLU:O	47:D5:129:SER:HA	2.14	0.47
26:1H:686:G:O5'	54:P8:11:LYS:NZ	2.48	0.47
26:1H:764:A:H2	29:11:219:PRO:HG3	1.80	0.47
1:13:1092:A:N3	1:13:1183:A:N6	2.62	0.47
1:13:1092:A:C6	1:13:1093:A:C6	3.03	0.47
1:13:1246:C:H2'	1:13:1247:U:H6	1.79	0.47
1:13:413:G:O2'	1:13:428:G:N2	2.48	0.47
1:13:706:A:H1'	11:2I:29:ILE:HD11	1.95	0.47
1:13:947:G:H2'	1:13:948:C:O4'	2.14	0.47
26:14:1148:A:C6	26:14:1149:G:C6	3.03	0.47
26:14:2168:G:H3'	26:14:2168:G:N3	2.29	0.47
26:14:228:A:H2'	26:14:230:U:O4'	2.14	0.47
26:14:2287:A:H2	26:14:2346:A:H2	1.59	0.47
26:14:966:G:C2'	26:14:967:C:H5'	2.45	0.47
2:1E:7:VAL:HB	2:1E:217:ARG:HD2	1.97	0.47
1:1G:1161:C:O2'	1:1G:1162:C:H5'	2.15	0.47
1:1G:1389:C:H2'	1:1G:1390:U:O4'	2.14	0.47
1:1G:57:G:H2'	1:1G:58:C:C6	2.50	0.47
26:1H:1087:G:N7	26:1H:1089:G:H1'	2.30	0.47
26:1H:1331:A:O2'	26:1H:1332:G:H8	1.98	0.47
26:1H:1900:A:N1	26:1H:1970:A:C6	2.83	0.47
26:1H:2108:C:H2'	26:1H:2109:U:O4'	2.15	0.47
22:1K:76:A:O2'	26:1H:2585:U:O4	2.20	0.47
26:1H:2689:U:H5''	26:1H:2713:A:C2	2.50	0.47
27:1J:13:A:H5''	27:1J:15:A:C6	2.50	0.47
30:21:39:PRO:HD3	30:21:45:THR:HG22	1.96	0.47
30:29:37:ARG:NE	30:29:42:ASP:OD2	2.42	0.47
3:2E:16:ARG:HB2	3:2E:16:ARG:NH1	2.28	0.47
3:2E:27:LYS:HA	3:2E:27:LYS:HD2	1.58	0.47
11:2I:91:ARG:O	11:2I:94:ALA:HB3	2.15	0.47
23:2L:14:A:C4	23:2L:23:G:C2	3.03	0.47
4:32:173:TRP:CZ3	4:32:193:ASP:HB3	2.50	0.47
12:3A:113:ARG:HH21	12:3A:116:SER:HB2	1.79	0.47
35:58:87:LEU:HD22	35:58:87:LEU:O	2.15	0.47
14:5A:4:LYS:O	14:5A:7:ILE:HG12	2.15	0.47
40:65:106:ARG:O	40:65:106:ARG:HD2	2.15	0.47
36:68:25:LEU:HD12	36:68:38:VAL:HG22	1.97	0.47
28:71:185:LEU:O	28:71:189:ILE:N	2.48	0.47
17:8I:66:SER:O	17:8I:70:ARG:NH1	2.48	0.47
43:95:24:LYS:HA	43:95:92:THR:OG1	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:B8:39:ARG:HH11	41:B8:39:ARG:HB2	1.78	0.47
42:C8:25:TRP:O	42:C8:28:ARG:HB2	2.14	0.47
46:G8:87:LYS:CB	46:G8:96:ILE:HD11	2.41	0.47
47:H8:132:ASN:ND2	47:H8:132:ASN:N	2.62	0.47
47:H8:125:LEU:HG	47:H8:164:ALA:CB	2.45	0.47
52:M8:39:CYS:N	52:M8:42:PHE:CE2	2.81	0.47
26:1H:666:G:H1'	55:Q8:4:MET:CE	2.44	0.47
29:11:26:LYS:C	29:11:29:PRO:HG2	2.35	0.47
1:13:1349:A:H2'	1:13:1350:A:H8	1.80	0.47
26:14:1069:A:H5''	26:14:1070:A:OP1	2.14	0.47
26:14:1176:G:H8	26:14:1177:A:H2	1.63	0.47
26:14:2129:C:H3'	26:14:2130:U:C6	2.50	0.47
26:14:2791:C:O2'	26:14:2792:G:O5'	2.30	0.47
26:14:761:A:OP1	59:14:3501:HOH:O	2.20	0.47
26:14:839:U:H2'	26:14:840:C:H6	1.80	0.47
26:14:848:G:H2'	26:14:849:A:H8	1.80	0.47
35:15:13:TRP:HB2	35:15:133:GLN:HB2	1.97	0.47
27:16:31:C:H2'	27:16:32:C:C6	2.50	0.47
29:19:12:SER:O	29:19:16:MET:HB2	2.15	0.47
29:19:236:GLY:O	29:19:237:GLU:O	2.33	0.47
1:1G:1004:A:H1'	1:1G:1026:G:N7	2.30	0.47
1:1G:1260:C:H6	1:1G:1260:C:H3'	1.80	0.47
1:1G:1275:A:H2'	1:1G:1276:G:O4'	2.15	0.47
1:1G:1512:U:H2'	1:1G:1513:A:C8	2.50	0.47
1:1G:392:G:N7	59:1G:1857:HOH:O	2.35	0.47
26:1H:1340:U:H4'	26:1H:1341:U:OP2	2.14	0.47
26:1H:1533:C:H2'	26:1H:1534:G:O4'	2.15	0.47
26:1H:1607:C:C4'	26:1H:1608:A:O5'	2.62	0.47
26:1H:1639:U:H4'	26:1H:2699:C:H4'	1.96	0.47
26:1H:614:U:H6	26:1H:614:U:OP2	1.98	0.47
26:1H:638:G:C8	26:1H:651:G:N2	2.83	0.47
27:1J:15:A:C5'	27:1J:16:G:H8	2.27	0.47
23:2K:63:C:O2	23:2K:64:G:C8	2.68	0.47
4:3E:148:VAL:HG12	4:3E:149:ALA:O	2.15	0.47
5:42:104:ALA:HA	5:42:107:ARG:NH2	2.30	0.47
38:45:42:ILE:O	38:45:95:ALA:N	2.43	0.47
33:51:20:ALA:HB1	33:51:21:PRO:HD2	1.95	0.47
39:55:86:ARG:NH2	39:55:87:TYR:OH	2.48	0.47
33:59:157:TYR:CD1	33:59:172:LYS:HA	2.49	0.47
40:65:80:LEU:HD23	40:65:80:LEU:HA	1.75	0.47
37:78:47:ASP:HA	37:78:48:PRO:HD3	1.58	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1368:G:C5'	9:82:112:LYS:HB3	2.44	0.47
9:82:42:ARG:HB2	9:82:42:ARG:HE	1.32	0.47
38:88:18:LYS:HB2	38:88:18:LYS:HE3	1.56	0.47
19:AI:5:LEU:O	19:AI:6:LYS:HB3	2.14	0.47
41:B8:22:PHE:HD2	41:B8:49:VAL:HG11	1.80	0.47
46:C5:75:ILE:HG22	46:C5:76:CYS:N	2.29	0.47
44:E8:84:ARG:HB2	44:E8:96:ILE:HD11	1.97	0.47
46:G8:29:GLU:HB3	46:G8:38:ILE:CG2	2.45	0.47
50:K8:15:LYS:H	50:K8:67:LYS:HZ1	1.62	0.47
52:M8:6:HIS:HA	52:M8:7:PRO:HD3	1.80	0.47
55:Q8:29:LYS:O	55:Q8:30:ARG:HB2	2.15	0.47
2:12:167:PRO:HD3	2:12:187:LEU:O	2.15	0.46
1:13:1216:G:OP1	14:5I:2:ALA:HB1	2.15	0.46
1:13:1410:G:H2'	1:13:1411:C:H6	1.80	0.46
1:13:191:G:H1'	20:BI:105:SER:HA	1.97	0.46
1:13:243:A:H4'	1:13:244:U:H5''	1.96	0.46
1:13:381:C:H2'	1:13:382:A:O4'	2.14	0.46
26:14:1022:G:C6	26:14:1140:C:C4	3.02	0.46
26:14:1156:A:O4'	42:85:51:LYS:HE2	2.15	0.46
26:14:1259:G:H2'	26:14:1260:G:C8	2.50	0.46
26:14:1366:A:H2'	26:14:1367:A:O4'	2.15	0.46
26:14:1665:A:H2'	26:14:1666:G:O4'	2.14	0.46
26:14:764:A:N1	26:14:1789:A:O2'	2.43	0.46
26:14:998:C:H2'	26:14:999:U:O5'	2.15	0.46
29:19:149:PRO:O	29:19:150:LYS:HB2	2.15	0.46
1:1G:1169:A:C6	1:1G:1170:A:C6	3.03	0.46
1:1G:1291:G:H2'	1:1G:1292:U:C6	2.50	0.46
1:1G:1465:C:OP2	41:75:108:ARG:NH1	2.48	0.46
1:1G:147:G:N2	1:1G:148:G:C4	2.83	0.46
1:1G:262:A:C6	1:1G:263:A:C6	3.03	0.46
1:1G:353:A:H5'	1:1G:353:A:C8	2.45	0.46
1:1G:711:G:O2'	1:1G:712:A:H5'	2.16	0.46
1:1G:919:A:C2'	1:1G:920:U:H5'	2.45	0.46
1:1G:9:G:H5'	5:42:122:GLU:OE2	2.16	0.46
26:1H:2210:G:H5'	26:1H:2211:G:N7	2.30	0.46
26:1H:2354:G:N2	26:1H:2355:C:C2	2.83	0.46
3:2E:134:ILE:HG22	3:2E:168:ALA:HB3	1.97	0.46
11:2I:59:TYR:O	11:2I:63:LEU:HD12	2.15	0.46
4:32:61:LYS:HD2	4:32:206:PHE:CD2	2.50	0.46
31:39:107:LYS:HD3	31:39:107:LYS:N	2.31	0.46
5:42:103:GLY:C	5:42:106:PRO:HD2	2.36	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:15:G:H4'	5:42:24:ARG:NH1	2.29	0.46
38:45:75:THR:OG1	38:45:87:LYS:NZ	2.48	0.46
40:65:36:TYR:HE2	40:65:54:LEU:HD22	1.80	0.46
36:68:118:ALA:HA	36:68:119:PRO:HD2	1.81	0.46
41:75:5:ALA:HB1	41:75:8:LYS:CB	2.44	0.46
16:7I:55:ARG:HH21	16:7I:58:TYR:HD2	1.64	0.46
9:8E:86:VAL:CG1	9:8E:93:ARG:HG3	2.45	0.46
17:8I:70:ARG:O	17:8I:71:PHE:HD1	1.98	0.46
17:8I:9:VAL:CG2	17:8I:84:LEU:HD12	2.46	0.46
17:8I:9:VAL:HG21	17:8I:84:LEU:HD12	1.97	0.46
43:95:30:GLY:H	43:95:61:VAL:HG12	1.79	0.46
39:98:52:ILE:O	39:98:55:ALA:HB3	2.15	0.46
45:B5:1:MET:HA	45:B5:2:LYS:HA	1.46	0.46
46:C5:88:LYS:CG	46:C5:89:PHE:H	2.25	0.46
47:H8:124:ILE:HD12	47:H8:125:LEU:H	1.81	0.46
50:K8:28:LYS:HB3	50:K8:53:LEU:CD2	2.45	0.46
55:M5:52:LYS:H	55:M5:53:PRO:HD2	1.80	0.46
26:1H:1798:U:H5'	29:11:259:THR:OG1	2.15	0.46
29:11:68:LYS:HB3	29:11:70:TRP:CE3	2.51	0.46
1:13:179:A:H2'	1:13:180:U:H6	1.80	0.46
1:13:337:C:H2'	1:13:338:A:C8	2.50	0.46
1:13:453:A:C6	1:13:454:C:C4	3.04	0.46
1:13:972:C:OP1	59:13:1838:HOH:O	2.21	0.46
26:14:1074:G:N3	26:14:1074:G:H2'	2.30	0.46
26:14:1268:A:H2'	26:14:1269:A:O4'	2.15	0.46
26:14:1999:C:H4'	26:14:2723:C:O2	2.16	0.46
26:14:2563:U:O2	26:14:2565:A:H8	1.98	0.46
26:14:389:G:N1	37:35:71:VAL:HG12	2.29	0.46
1:1G:1077:G:N2	1:1G:1080:A:OP2	2.47	0.46
26:1H:1069:A:O2'	26:1H:1072:C:OP1	2.23	0.46
26:1H:1505:C:H2'	26:1H:1506:C:C6	2.50	0.46
26:1H:2364:C:O2'	26:1H:2365:G:H5'	2.15	0.46
26:1H:2695:C:H2'	26:1H:2696:U:H6	1.79	0.46
26:1H:2783:G:H2'	26:1H:2784:C:C6	2.50	0.46
26:1H:301:G:H4'	26:1H:301:G:OP1	2.16	0.46
26:1H:34:C:N1	26:1H:34:C:OP2	2.48	0.46
26:1H:783:A:C3'	26:1H:783:A:C8	2.93	0.46
26:1H:994:C:OP1	42:C8:53:ARG:NH2	2.47	0.46
22:1K:63:U:H3'	22:1K:64:G:H8	1.78	0.46
3:22:18:TRP:HE1	14:5A:56:VAL:H	1.64	0.46
30:29:54:GLN:HG2	30:29:55:ASN:N	2.29	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:31:175:THR:O	31:31:176:LEU:HD12	2.15	0.46
4:32:153:ARG:NH1	4:32:181:MET:HB2	2.30	0.46
4:32:29:PRO:HA	4:32:35:ARG:HH21	1.80	0.46
38:45:97:VAL:HG11	38:45:103:MET:HE3	1.98	0.46
26:14:2469:A:H8	38:45:56:ARG:HH21	1.63	0.46
32:49:8:LYS:O	32:49:11:TYR:HB3	2.15	0.46
5:4E:36:ASP:OD2	5:4E:38:GLN:HB2	2.15	0.46
25:4L:9:G:H2'	25:4L:10:G:C8	2.50	0.46
35:58:48:MET:HG3	35:58:48:MET:H	1.53	0.46
6:5E:33:TYR:HB2	6:5E:75:LEU:HG	1.98	0.46
15:6A:76:GLU:O	15:6A:80:ALA:N	2.48	0.46
9:82:77:ILE:O	9:82:81:ILE:HG12	2.15	0.46
17:8I:8:GLY:O	17:8I:21:VAL:HG13	2.15	0.46
43:95:1:MET:HG2	43:95:43:GLU:HG2	1.96	0.46
19:AA:40:ILE:HA	19:AA:44:MET:SD	2.54	0.46
19:AI:15:LEU:O	19:AI:19:VAL:HG23	2.15	0.46
1:13:1226:C:H4'	19:AI:80:TYR:CZ	2.49	0.46
20:BA:99:LEU:H	20:BA:99:LEU:HG	1.43	0.46
47:D5:76:LEU:N	47:D5:76:LEU:HD23	2.30	0.46
49:F5:49:VAL:CG2	49:F5:67:ILE:HD12	2.46	0.46
49:F5:49:VAL:HG11	49:F5:70:VAL:HG11	1.97	0.46
32:41:112:PRO:HB3	52:M8:37:SER:HB2	1.97	0.46
29:11:27:THR:O	29:11:29:PRO:N	2.48	0.46
1:13:1034:G:O2'	1:13:1035:A:H5'	2.14	0.46
1:13:109:A:C6	1:13:326:G:C6	3.03	0.46
1:13:1399:C:C2	1:13:1401:G:C5	3.04	0.46
1:13:160:A:C5	1:13:344:A:H8	2.33	0.46
1:13:712:A:O2'	1:13:713:G:H5'	2.16	0.46
1:13:958:A:C6	1:13:959:A:N1	2.83	0.46
26:14:1449(A):G:H2'	26:14:1450:C:C6	2.51	0.46
26:14:1754:C:OP1	41:75:96:ARG:NH1	2.46	0.46
26:14:2299:G:C2	26:14:2318:G:H8	2.34	0.46
26:14:287:C:H2'	26:14:288:C:H6	1.79	0.46
29:19:260:ARG:NH2	29:19:264:LYS:HD3	2.31	0.46
29:19:2:ALA:HB3	29:19:20:ASP:HB2	1.97	0.46
1:1G:1063:C:H3'	1:1G:1064:G:H2'	1.97	0.46
1:1G:596:C:OP2	59:1G:1831:HOH:O	2.20	0.46
1:1G:713:G:H2'	1:1G:714:G:C8	2.51	0.46
1:1G:756:C:H2'	1:1G:757:U:O4'	2.15	0.46
1:1G:829:G:H1	1:1G:857:C:H42	1.62	0.46
1:1G:955:U:H2'	1:1G:956:U:H6	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1533:C:H3'	26:1H:1534:G:C5'	2.46	0.46
26:1H:1466:G:N2	26:1H:1547:C:N3	2.63	0.46
26:1H:1942:C:OP2	26:1H:1943:U:O2'	2.28	0.46
26:1H:2692:C:OP1	26:1H:2871:C:H5'	2.15	0.46
26:1H:59:U:O2'	26:1H:73:A:H2'	2.15	0.46
22:1K:53:G:H2'	22:1K:54:5MU:H6	1.81	0.46
30:21:105:THR:HG21	30:21:164:ARG:NH1	2.29	0.46
4:32:108:LEU:HD21	4:32:183:GLY:HA3	1.97	0.46
4:3E:108:LEU:HB3	4:3E:110:PHE:CE1	2.50	0.46
4:3E:166:LYS:HB2	4:3E:178:VAL:HG11	1.97	0.46
1:13:429:U:OP2	4:3E:36:ARG:NH2	2.47	0.46
7:62:26:PHE:CD2	7:62:30:ILE:HD11	2.50	0.46
36:68:21:CYS:HB2	36:68:39:ILE:HD12	1.98	0.46
8:72:44:PHE:HA	8:72:79:VAL:CG1	2.46	0.46
46:C5:50:ARG:HB2	46:C5:58:GLY:O	2.15	0.46
46:C5:87:LYS:HD3	46:C5:87:LYS:HA	1.51	0.46
46:C5:8:LYS:NZ	46:C5:95:LYS:HD3	2.30	0.46
49:F5:79:GLY:O	49:F5:80:LEU:HD13	2.15	0.46
45:F8:24:GLY:HA3	45:F8:82:GLN:NE2	2.30	0.46
45:F8:4:ALA:H	45:F8:7:VAL:HG23	1.81	0.46
50:G5:18:PRO:O	50:G5:21:LEU:HB2	2.14	0.46
46:G8:35:TYR:CE2	46:G8:69:ALA:HB3	2.50	0.46
50:K8:15:LYS:HZ2	50:K8:67:LYS:HZ3	1.63	0.46
2:12:127:ILE:HD13	2:12:130:ARG:HH21	1.79	0.46
2:12:180:LEU:HB2	2:12:182:ILE:HD13	1.97	0.46
1:13:1084:G:C5	1:13:1085:U:C4	3.04	0.46
1:13:1271:G:H2'	1:13:1272:G:H5''	1.96	0.46
1:13:1292:U:C2	1:13:1293:G:C8	3.04	0.46
1:13:1455:G:OP1	20:BI:35:THR:OG1	2.12	0.46
1:13:760:G:H2'	1:13:761:G:H5'	1.97	0.46
26:14:1173:G:C2	26:14:1175:U:H1'	2.51	0.46
26:14:1750:G:O2'	26:14:1751:C:H5'	2.15	0.46
26:14:265:A:H1'	26:14:266:G:O4'	2.16	0.46
1:1G:1006:C:H2'	1:1G:1007:C:C6	2.50	0.46
1:1G:1015:A:N6	1:1G:1016:A:C6	2.83	0.46
1:1G:1256:A:H62	1:1G:1277:C:H3'	1.78	0.46
1:1G:1307:U:H2'	1:1G:1308:U:C6	2.51	0.46
1:1G:407:G:H2'	1:1G:408:A:H8	1.79	0.46
1:1G:604:G:H2'	1:1G:605:U:O4'	2.15	0.46
26:1H:1022:G:H4'	26:1H:1023:U:O5'	2.16	0.46
26:1H:1321:A:H2'	26:1H:1322:A:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1419:A:C8	26:1H:1421:G:C6	3.03	0.46
26:1H:2053:G:OP1	30:21:144:ARG:HG3	2.15	0.46
26:1H:265:A:H1'	26:1H:266:G:O4'	2.15	0.46
26:1H:2751:G:C5	33:51:3:ARG:CG	2.99	0.46
26:1H:26:G:C6	26:1H:27:G:N1	2.82	0.46
26:1H:918:A:N3	27:16:80:U:O2'	2.42	0.46
10:1I:55:LYS:HG3	10:1I:55:LYS:O	2.16	0.46
10:1I:48:THR:HG1	10:1I:62:HIS:CE1	2.32	0.46
22:1K:14:A:C6	22:1K:22:G:C4	3.03	0.46
30:29:12:THR:HB	30:29:13:ARG:H	1.63	0.46
3:2E:173:VAL:HG12	3:2E:175:LEU:CD1	2.45	0.46
23:2L:2:G:H2'	23:2L:3:C:C6	2.50	0.46
31:31:196:LEU:C	31:31:197:ASP:O	2.53	0.46
26:1H:443:A:N7	31:31:45:ARG:HG2	2.30	0.46
4:32:13:ARG:HG2	4:32:13:ARG:H	1.47	0.46
4:3E:138:TYR:CD1	4:3E:138:TYR:C	2.87	0.46
12:3I:69:TYR:CG	12:3I:90:VAL:HG21	2.50	0.46
38:45:78:PRO:O	38:45:81:VAL:HG13	2.16	0.46
38:45:98:LYS:HB3	38:45:99:PRO:HD2	1.98	0.46
34:61:81:VAL:HG11	34:61:88:ILE:HD12	1.97	0.46
30:29:12:THR:HG21	41:75:11:GLU:OE1	2.15	0.46
41:75:5:ALA:N	41:75:6:LEU:CA	2.78	0.46
18:9A:45:SER:OG	18:9A:47:THR:OG1	2.30	0.46
47:D5:168:GLU:H	47:D5:168:GLU:HG3	1.52	0.46
26:14:2352:A:C2	48:E5:33:ALA:O	2.69	0.46
50:G5:15:LYS:H	50:G5:67:LYS:NZ	2.13	0.46
51:H5:44:ARG:HH11	51:H5:44:ARG:HB2	1.81	0.46
29:11:35:LYS:HB3	29:11:35:LYS:HE3	1.36	0.46
1:13:1007:C:C2	1:13:1023:G:C2	3.03	0.46
1:13:1206:G:C6	1:13:1207:G:C5	3.04	0.46
1:13:452:A:H2'	1:13:453:A:H8	1.81	0.46
1:13:452:A:O2'	1:13:453:A:O4'	2.32	0.46
1:13:511:C:OP2	4:3E:49:ARG:NH1	2.48	0.46
26:14:1167:U:C2	26:14:1183:G:N2	2.83	0.46
26:14:1288:U:C2	26:14:1327:C:O2	2.69	0.46
26:14:2391:G:O6	26:14:2425:A:H8	1.99	0.46
26:14:2807:G:H1	26:14:2892:A:H62	1.63	0.46
26:14:309:G:O3'	46:C5:18:GLY:HA3	2.15	0.46
27:16:40:U:H1'	27:16:45:A:N6	2.31	0.46
27:16:13:A:C6	27:16:70:C:H5'	2.50	0.46
29:19:68:LYS:HD3	29:19:70:TRP:CZ2	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1260:C:H3'	1:1G:1260:C:C6	2.51	0.46
1:1G:1472:U:H2'	1:1G:1473:A:O4'	2.16	0.46
1:1G:262:A:N6	1:1G:263:A:N6	2.63	0.46
1:1G:360:A:H2'	1:1G:361:G:C8	2.51	0.46
1:1G:428:G:O4'	1:1G:430:A:C8	2.69	0.46
1:1G:800:G:O6	59:1G:1828:HOH:O	2.20	0.46
26:1H:1550:C:H2'	26:1H:1551:C:C6	2.51	0.46
26:1H:2246:G:H2'	26:1H:2247:A:C8	2.50	0.46
26:1H:2287:A:C2	26:1H:2289:G:C8	3.03	0.46
26:1H:433:C:H2'	26:1H:434:U:C6	2.50	0.46
1:13:1367:C:C5'	10:1I:60:ARG:HH11	2.22	0.46
3:22:112:SER:HB3	3:22:115:LEU:HB2	1.98	0.46
3:2E:43:LEU:O	3:2E:47:LEU:HB2	2.14	0.46
4:32:53:ASP:HB3	4:32:57:ARG:NH1	2.30	0.46
31:39:122:LYS:HB3	31:39:191:ARG:HB2	1.96	0.46
5:42:8:GLU:HA	5:42:34:VAL:HA	1.98	0.46
13:4A:92:HIS:HE2	13:4A:98:VAL:HG11	1.81	0.46
3:22:6:HIS:CG	14:5A:49:HIS:HB3	2.51	0.46
6:5E:16:GLN:HG2	6:5E:17:SER:N	2.29	0.46
15:6I:55:GLY:HA2	15:6I:58:MET:HG3	1.95	0.46
28:71:64:LEU:HG	28:71:65:PRO:HD2	1.97	0.46
37:78:36:LYS:O	37:78:40:SER:HB3	2.16	0.46
28:79:207:THR:O	28:79:210:ARG:NH1	2.48	0.46
16:7A:3:LYS:N	16:7A:22:THR:O	2.40	0.46
1:13:375:U:OP1	16:7I:69:THR:HG21	2.16	0.46
44:A5:25:ARG:NH2	44:A5:74:ALA:O	2.38	0.46
19:AI:41:VAL:HG22	19:AI:44:MET:CB	2.41	0.46
19:AI:41:VAL:CG1	19:AI:45:VAL:HG23	2.40	0.46
46:C5:19:LYS:HD2	46:C5:20:TYR:CE1	2.50	0.46
46:C5:81:LYS:HG3	46:C5:99:CYS:SG	2.56	0.46
42:C8:85:LYS:HD2	42:C8:85:LYS:HA	1.42	0.46
47:D5:124:ILE:HG13	47:D5:125:LEU:N	2.30	0.46
38:45:140:ALA:HB1	47:D5:73:GLN:HB2	1.96	0.46
50:G5:15:LYS:HE2	50:G5:67:LYS:HZ1	1.80	0.46
47:H8:150:LEU:HD23	47:H8:151:HIS:N	2.30	0.46
47:H8:69:THR:HA	47:H8:89:PHE:O	2.15	0.46
48:I8:23:VAL:HG22	48:I8:38:VAL:CG2	2.45	0.46
49:J8:87:PRO:O	49:J8:91:LYS:HB2	2.16	0.46
2:12:126:GLU:C	2:12:130:ARG:HH12	2.18	0.46
1:13:140:A:C6	1:13:141:A:C5	3.04	0.46
1:13:1427:U:H2'	1:13:1428:A:C8	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:416:G:C6	1:13:417:C:C4	3.03	0.46
1:13:51:A:OP2	1:13:52:G:H8	1.98	0.46
26:14:1181:C:H2'	26:14:1182:A:C8	2.51	0.46
26:14:2563:U:O2	26:14:2565:A:C8	2.68	0.46
26:14:270(T):G:C6	26:14:270(U):C:C4	3.04	0.46
26:14:332:A:O2'	26:14:334:C:OP2	2.30	0.46
27:16:71:C:C2	27:16:72:G:C8	3.04	0.46
21:1F:5:ASP:O	21:1F:11:GLY:HA3	2.15	0.46
1:1G:1309:G:OP2	13:4A:99:ARG:NH2	2.41	0.46
1:1G:537:G:H2'	1:1G:538:G:C8	2.50	0.46
26:1H:1126:A:H8	26:1H:1126:A:O5'	1.98	0.46
26:1H:1204:A:N1	26:1H:1241:A:C2	2.84	0.46
26:1H:1324:G:C4	26:1H:1328:G:O6	2.69	0.46
26:1H:1681:G:O2'	26:1H:1762[B]:A:H8	1.98	0.46
26:1H:2102:U:O2	26:1H:2187:G:N2	2.37	0.46
26:1H:2377:A:H2'	26:1H:2378:A:C8	2.51	0.46
26:1H:547:A:H2'	26:1H:548:A:H8	1.81	0.46
26:1H:848:G:H2'	26:1H:849:A:H8	1.79	0.46
26:1H:950:G:H2'	26:1H:951:C:C6	2.50	0.46
26:1H:2787:C:O4'	30:21:62:PRO:HA	2.16	0.46
11:2I:31:THR:HG22	11:2I:42:TRP:HB2	1.96	0.46
26:14:2394:C:OP1	37:35:64:LYS:HB2	2.15	0.46
31:39:24:LEU:HB3	31:39:25:PRO:HD3	1.97	0.46
4:3E:25:ARG:NH1	4:3E:30:LYS:HB3	2.29	0.46
5:42:127:ASN:HA	5:42:128:PRO:HD3	1.89	0.46
33:59:72:ILE:HD12	33:59:75:ALA:HB3	1.97	0.46
36:68:9:GLU:OE1	36:68:18:LYS:HE3	2.15	0.46
7:6E:15:ASP:HB3	7:6E:20:ASP:N	2.25	0.46
26:1H:2175:C:O2'	28:71:219:GLY:N	2.48	0.46
28:71:37:PHE:HB3	28:71:38:ASP:HB2	1.96	0.46
37:78:106:LEU:O	37:78:107:LYS:C	2.53	0.46
17:8I:22:LEU:HD12	17:8I:40:LYS:O	2.15	0.46
18:9A:71:LYS:HA	18:9A:74:ARG:HD2	1.97	0.46
44:A5:28:SER:OG	44:A5:31:GLU:HG3	2.15	0.46
19:AI:80:TYR:CZ	19:AI:82:GLY:HA2	2.51	0.46
46:C5:47:LYS:HG2	46:C5:60:PHE:CZ	2.51	0.46
44:E8:48:ALA:O	44:E8:52:GLU:HB2	2.15	0.46
47:H8:6:LYS:HE3	47:H8:8:TYR:OH	2.15	0.46
1:13:266:G:N2	1:13:269:C:C5	2.84	0.46
1:13:658:G:H2'	1:13:659:U:H6	1.81	0.46
26:14:1142:U:O2	26:14:1142:U:H2'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1257:C:H4'	31:39:83:PHE:CE1	2.51	0.46
26:14:1520:U:H2'	26:14:1521:G:O4'	2.16	0.46
26:14:2716:U:H2'	26:14:2717:G:C8	2.51	0.46
26:14:31:C:C2'	26:14:32:C:H5'	2.45	0.46
26:14:960:A:C8	26:14:962:G:C8	3.04	0.46
35:15:102:ALA:O	35:15:106:MET:HG3	2.16	0.46
2:1E:21:ARG:O	2:1E:23:ARG:N	2.49	0.46
2:1E:61:LEU:HD23	2:1E:68:ILE:HD11	1.97	0.46
1:1G:1256:A:OP2	3:22:26:LYS:NZ	2.33	0.46
1:1G:1296:C:O3'	13:4A:13:LYS:NZ	2.30	0.46
1:1G:798:G:O6	59:1G:1825:HOH:O	2.17	0.46
26:1H:1168:G:C2	26:1H:1182:A:C2	3.03	0.46
26:1H:1508:A:OP2	26:1H:1508:A:H8	1.99	0.46
26:1H:1705:G:O2'	26:1H:1706:U:H5'	2.16	0.46
26:1H:2280:G:C2'	26:1H:2281:C:H5'	2.43	0.46
27:1J:65:C:N4	27:1J:108:C:C2	2.83	0.46
36:25:1:MET:HB3	36:25:32:TYR:HB3	1.98	0.46
3:2E:58:GLU:HB2	3:2E:65:ALA:CB	2.45	0.46
23:2K:57:C:O2'	32:41:78:SER:HB2	2.15	0.46
23:2L:47:G7M:H3'	23:2L:48:U:C5	2.50	0.46
37:35:126:VAL:HG12	37:35:147:LEU:HD22	1.98	0.46
12:3A:41:ARG:HH11	12:3A:41:ARG:CB	2.21	0.46
1:1G:552:U:O2'	12:3A:86:ARG:O	2.29	0.46
24:3L:1:G:N3	24:3L:1:G:H2'	2.31	0.46
25:4L:9:G:H2'	25:4L:10:G:H8	1.80	0.46
34:69:61:ARG:NH1	34:69:64:GLU:HG2	2.30	0.46
34:69:69:LYS:O	34:69:73:GLU:HB2	2.15	0.46
28:79:5:LYS:HE2	28:79:5:LYS:HB3	1.80	0.46
38:88:6:ARG:CG	38:88:7:MET:H	2.25	0.46
9:8E:50:LEU:HD12	9:8E:51:ARG:H	1.79	0.46
39:98:87:TYR:CE1	39:98:117:VAL:HG12	2.51	0.46
40:A8:42:ASP:O	40:A8:43:GLU:HB3	2.16	0.46
20:BI:53:LEU:O	20:BI:57:ARG:HB2	2.16	0.46
46:C5:88:LYS:HG3	46:C5:89:PHE:N	2.29	0.46
42:C8:91:ASP:O	42:C8:92:ARG:C	2.54	0.46
48:E5:46:LYS:HA	48:E5:47:PRO:HD3	1.77	0.46
45:F8:26:TYR:O	45:F8:81:VAL:HG12	2.16	0.46
46:G8:95:LYS:O	46:G8:103:GLY:HA2	2.16	0.46
52:M8:43:TYR:CD1	52:M8:44:THR:N	2.83	0.46
54:P8:15:THR:HG22	54:P8:16:HIS:CE1	2.51	0.46
1:13:948:C:O2'	1:13:949:A:H5'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1198:U:H5''	26:14:1199:U:OP2	2.16	0.46
26:14:49:A:H4'	26:14:50:U:H5''	1.97	0.46
27:16:15:A:O2'	27:16:109:G:C8	2.61	0.46
2:1E:162:ILE:O	2:1E:185:ILE:HG23	2.16	0.46
1:1G:373:A:C2	1:1G:374:A:C8	3.03	0.46
1:1G:685:G:C2	1:1G:686:U:C4	3.04	0.46
26:1H:524:U:H4'	26:1H:554:U:H4'	1.98	0.46
26:1H:699:A:H2'	26:1H:700:G:O4'	2.16	0.46
30:21:57:LYS:HG3	30:21:59:VAL:HG12	1.98	0.46
4:3E:60:GLU:OE2	4:3E:199:ASN:N	2.32	0.46
33:59:157:TYR:HD1	33:59:172:LYS:HA	1.80	0.46
6:5E:24:GLU:HG3	6:5E:28:ARG:NE	2.31	0.46
40:65:61:ASN:O	40:65:65:VAL:HB	2.15	0.46
34:69:76:THR:HG23	34:69:77:LEU:N	2.31	0.46
34:69:92:VAL:HB	34:69:120:ILE:HB	1.97	0.46
7:6E:102:ARG:HG2	7:6E:106:GLN:OE1	2.16	0.46
45:B5:24:GLY:HA3	45:B5:82:GLN:OE1	2.16	0.46
20:BI:53:LEU:HG	20:BI:102:GLY:HA3	1.98	0.46
43:D8:62:LEU:HD12	43:D8:62:LEU:HA	1.58	0.46
46:G8:30:VAL:O	46:G8:32:PRO:HD3	2.16	0.46
29:11:26:LYS:HG3	29:11:81:ALA:CB	2.46	0.46
2:12:54:THR:HA	2:12:57:PHE:CD2	2.51	0.46
1:13:1226:C:OP2	13:4I:103:THR:OG1	2.19	0.46
1:13:1346:A:C4	7:6E:10:ARG:NH2	2.84	0.46
1:13:547:A:H4'	1:13:548:G:O5'	2.15	0.46
26:14:1059:G:H2'	26:14:1060:U:C4	2.51	0.46
26:14:19:C:H2'	26:14:20:C:H6	1.81	0.46
26:14:656:G:H2'	26:14:657:U:O4'	2.16	0.46
27:16:31:C:H2'	27:16:32:C:H6	1.81	0.46
29:19:71:ASP:CG	29:19:103:ARG:HH22	2.18	0.46
29:19:133:LEU:HD13	29:19:173:VAL:CG1	2.44	0.46
1:1G:1015:A:C6	1:1G:1016:A:C5	3.04	0.46
1:1G:1122:U:C4	1:1G:1123:A:N7	2.84	0.46
1:1G:1129:C:H5	1:1G:1141:C:N4	2.14	0.46
1:1G:1182:G:H5'	1:1G:1183:A:H5''	1.98	0.46
1:1G:1298:C:HO2'	1:1G:1299:A:P	2.39	0.46
1:1G:324:G:C8	59:1G:1858:HOH:O	2.69	0.46
1:1G:646:U:H2'	1:1G:647:C:C6	2.50	0.46
26:1H:248:G:H5'	26:1H:250:G:N7	2.30	0.46
26:1H:822:U:O2'	26:1H:823:G:H5'	2.15	0.46
27:1J:2:C:H2'	27:1J:3:C:H6	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:21:48:GLN:OE1	30:21:77:ILE:HD13	2.15	0.46
3:22:16:ARG:NH2	3:22:181:ASN:HD22	2.14	0.46
3:2E:58:GLU:HB2	3:2E:65:ALA:HB3	1.98	0.46
4:32:24:GLU:HG2	4:32:25:ARG:H	1.81	0.46
31:39:65:TRP:CZ3	31:39:72:ARG:HB3	2.50	0.46
12:3I:113:ARG:HH21	12:3I:116:SER:HB2	1.80	0.46
38:45:2:LEU:O	38:45:70:PRO:HG2	2.16	0.46
32:49:96:ARG:O	32:49:97:ASP:HB2	2.16	0.46
13:4A:8:GLU:OE2	13:4A:10:PRO:HD3	2.16	0.46
33:51:10:PRO:C	33:51:11:VAL:HG22	2.37	0.46
6:52:7:ASN:OD1	6:52:7:ASN:N	2.47	0.46
7:62:27:ILE:HD12	7:62:40:ALA:HA	1.97	0.46
34:69:93:THR:HB	34:69:96:ASP:H	1.81	0.46
28:71:194:ARG:NH2	28:71:226:PRO:O	2.39	0.46
41:75:57:PHE:HA	41:75:79:HIS:CD2	2.51	0.46
1:1G:1371:G:OP2	9:82:11:LYS:HG2	2.16	0.46
26:1H:910:A:H62	38:88:12:GLN:HA	1.81	0.46
17:8A:40:LYS:HD3	17:8A:42:TYR:CZ	2.50	0.46
39:98:27:SER:HB3	39:98:34:ILE:CD1	2.45	0.46
18:9A:37:VAL:O	18:9A:41:LYS:N	2.31	0.46
19:AI:5:LEU:HD13	19:AI:5:LEU:HA	1.55	0.46
26:1H:1161:C:H1'	43:D8:8:GLY:O	2.16	0.46
2:12:56:ARG:NH2	2:12:60:ASP:OD2	2.49	0.46
1:13:651:C:H2'	1:13:652:U:C6	2.51	0.46
26:14:1098:A:H3'	26:14:1099:G:C8	2.50	0.46
26:14:1644:C:H2'	26:14:1645:G:H5'	1.97	0.46
26:14:1830:C:O5'	26:14:1830:C:H6	1.98	0.46
26:14:2346:A:H5'	26:14:2383:G:H1'	1.98	0.46
26:14:255:A:C6	26:14:256:A:C5	3.04	0.46
26:14:483:A:H4'	46:C5:49:VAL:HA	1.97	0.46
26:14:690:G:P	59:14:3524:HOH:O	2.71	0.46
26:14:729:G:P	29:19:208:LYS:HZ3	2.38	0.46
1:1G:108:G:O6	20:BA:15:ARG:HD2	2.16	0.46
1:1G:131:C:H2'	1:1G:132:C:C6	2.51	0.46
1:1G:601:C:H2'	1:1G:602:A:C8	2.51	0.46
1:1G:996:A:H8	1:1G:996:A:OP2	1.99	0.46
26:1H:1705:G:C6	26:1H:1706:U:N3	2.84	0.46
26:1H:2056:G:C8	59:1H:3623:HOH:O	2.53	0.46
26:1H:2504:U:P	59:1H:3690:HOH:O	2.74	0.46
26:1H:329:G:H4'	26:1H:330:A:OP2	2.14	0.46
26:1H:724:U:H2'	26:1H:725:G:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:761:A:P	59:1H:4055:HOH:O	2.74	0.46
26:1H:989:G:OP1	26:1H:1157:G:O2'	2.31	0.46
11:2I:78:GLN:O	11:2I:103:LEU:HA	2.16	0.46
24:3K:53:G:H1	24:3K:61:C:N4	2.14	0.46
5:42:105:VAL:HG21	5:42:128:PRO:HB3	1.97	0.46
22:1L:53:G:O3'	38:45:56:ARG:NH1	2.49	0.46
32:49:91:ARG:HB3	32:49:91:ARG:HE	1.35	0.46
13:4A:8:GLU:HG2	13:4A:9:ILE:H	1.80	0.46
14:5A:29:ARG:HE	14:5A:29:ARG:HB2	1.37	0.46
6:5E:61:LEU:HD23	6:5E:63:TYR:CE1	2.50	0.46
37:78:76:LYS:HA	37:78:76:LYS:HD2	1.63	0.46
37:78:84:ASN:ND2	37:78:117:GLU:HB3	2.30	0.46
26:14:2177:C:H4'	28:79:44:HIS:HB2	1.97	0.46
24:3L:62:C:O4'	28:79:52:ARG:NH2	2.49	0.46
16:7A:14:ASN:OD1	16:7A:42:ARG:NH2	2.49	0.46
9:82:5:TYR:OH	9:82:16:ARG:HG2	2.16	0.46
1:1G:1372:U:OP1	9:82:72:GLY:N	2.49	0.46
46:C5:82:PRO:HA	46:C5:99:CYS:HB2	1.97	0.46
27:1J:103:U:O2'	47:D5:72:ARG:HG3	2.16	0.46
46:G8:97:ARG:HH22	46:G8:104:GLY:HA3	1.80	0.46
47:H8:44:PHE:CE2	47:H8:86:VAL:HG11	2.51	0.46
50:K8:55:ARG:O	50:K8:58:ALA:HB3	2.15	0.46
55:M5:6:THR:HG22	55:M5:64:TYR:HD2	1.81	0.46
2:12:91:PRO:CG	2:12:155:LEU:HG	2.45	0.45
2:12:71:VAL:HG23	2:12:165:VAL:HG13	1.98	0.45
1:13:191:G:C6	1:13:192:U:C4	3.03	0.45
1:13:645:C:H2'	1:13:646:U:O4'	2.16	0.45
1:13:724:G:C2	1:13:725:G:C8	3.04	0.45
26:14:1210:A:H8	26:14:1210:A:H5'	1.80	0.45
26:14:2121:G:H1	26:14:2177:C:H42	1.65	0.45
26:14:2287:A:H2	26:14:2346:A:C2	2.34	0.45
26:14:631:A:H5''	26:14:632:A:OP2	2.15	0.45
26:14:92:G:H2'	26:14:93:C:H6	1.81	0.45
26:14:942:G:P	59:14:3648:HOH:O	2.74	0.45
29:19:85:ASP:HB2	29:19:92:ILE:HD13	1.98	0.45
21:1F:5:ASP:O	21:1F:8:THR:HG22	2.16	0.45
1:1G:1053:G:C2	1:1G:1199:U:N3	2.84	0.45
1:1G:231:G:C2	1:1G:232:G:C8	3.03	0.45
1:1G:464:G:C6	1:1G:466:C:H5'	2.50	0.45
26:1H:1093:G:H1'	26:1H:1099:G:H22	1.81	0.45
26:1H:1597:A:H5''	26:1H:1598:C:OP1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2224:G:H4'	26:1H:2226:C:C2	2.51	0.45
26:1H:847:U:P	59:1H:3629:HOH:O	2.70	0.45
22:1K:69:A:O2'	22:1K:70:C:O5'	2.27	0.45
3:22:164:ARG:HB2	25:4L:25:A:C2	2.51	0.45
30:29:1:MET:HG3	30:29:200:GLU:OE2	2.16	0.45
1:1G:777:A:C2	11:2A:119:CYS:HB3	2.50	0.45
4:3E:107:ARG:HH22	4:3E:194:LEU:CD2	2.22	0.45
38:45:21:THR:HG21	38:45:101:ARG:HD3	1.98	0.45
26:14:911:A:H2'	38:45:9:TYR:OH	2.16	0.45
32:49:107:LEU:HA	32:49:111:LEU:HD13	1.99	0.45
32:49:125:PHE:CE1	32:49:131:TYR:HB2	2.51	0.45
13:4A:33:ALA:O	13:4A:37:THR:OG1	2.18	0.45
13:4I:80:ARG:NH1	19:AI:65:ASN:O	2.49	0.45
14:5A:23:ARG:HH11	14:5A:28:GLY:HA2	1.82	0.45
14:5A:37:PHE:CE1	14:5A:53:LEU:HD13	2.50	0.45
40:65:88:ASP:HB3	40:65:89:ARG:H	1.49	0.45
28:71:212:VAL:CG2	28:71:226:PRO:HG3	2.46	0.45
16:7I:37:GLY:HA3	16:7I:50:LYS:O	2.15	0.45
9:8E:28:VAL:HA	9:8E:63:ILE:O	2.15	0.45
17:8I:67:LYS:CA	17:8I:70:ARG:HH12	2.18	0.45
39:98:9:LYS:HA	39:98:17:ARG:NE	2.31	0.45
41:B8:24:PRO:HA	41:B8:49:VAL:HG22	1.97	0.45
42:C8:19:LYS:O	42:C8:22:LYS:HB2	2.17	0.45
44:E8:27:LYS:HB3	44:E8:31:GLU:HG3	1.98	0.45
50:K8:14:ARG:CB	50:K8:15:LYS:HZ3	2.27	0.45
50:K8:64:LEU:HD21	50:K8:68:ARG:NH1	2.31	0.45
55:M5:14:VAL:HG13	55:M5:22:VAL:HG13	1.98	0.45
52:M8:38:LYS:HA	52:M8:42:PHE:CZ	2.50	0.45
1:13:1072:G:C5	1:13:1073:U:C4	3.05	0.45
1:13:1499:A:O2'	1:13:1520:G:H5'	2.15	0.45
1:13:631:G:O2'	1:13:632:A:H8	1.98	0.45
1:13:838:G:H1	1:13:848:C:N4	2.14	0.45
26:14:1059:G:H2'	26:14:1060:U:C5	2.52	0.45
26:14:323:G:O2'	26:14:1205:U:N3	2.21	0.45
26:14:2150:U:H2'	26:14:2151:G:C8	2.51	0.45
26:14:2291:U:H5''	26:14:2380:C:O2'	2.17	0.45
26:14:2632:A:O2'	26:14:2811:G:O2'	2.14	0.45
26:14:817:C:C5	26:14:818:G:N7	2.85	0.45
26:14:94:G:N3	50:G5:47:ASN:ND2	2.65	0.45
29:19:70:TRP:CH2	29:19:150:LYS:HA	2.51	0.45
2:1E:114:ARG:O	2:1E:118:LEU:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:114:U:H2'	1:1G:115:G:H8	1.80	0.45
1:1G:1164:G:O6	1:1G:1172:C:N4	2.49	0.45
26:1H:111:A:H4'	50:K8:69:ARG:NH2	2.31	0.45
26:1H:1260:G:C6	26:1H:1261:C:C4	3.05	0.45
26:1H:1493:C:C6	26:1H:1493:C:H5''	2.45	0.45
26:1H:2065:C:H2'	26:1H:2066:C:C6	2.51	0.45
26:1H:2243:U:H2'	26:1H:2244:U:C6	2.51	0.45
26:1H:859:G:H5'	26:1H:2268:A:O2'	2.16	0.45
26:1H:2453:A:H2'	26:1H:2454:G:O4'	2.17	0.45
26:1H:270(R):G:H2'	26:1H:270(S):G:C8	2.52	0.45
26:1H:651:G:OP1	55:Q8:19:SER:OG	2.20	0.45
26:1H:72:U:P	59:1H:3732:HOH:O	2.72	0.45
26:1H:76:C:O2'	26:1H:77:C:H5'	2.16	0.45
26:1H:928:G:C8	59:1H:3888:HOH:O	2.69	0.45
22:1L:10:G:H8	22:1L:10:G:O5'	1.98	0.45
30:29:52:LEU:HA	30:29:53:PRO:HD2	1.78	0.45
30:29:66:HIS:CG	30:29:67:PHE:N	2.84	0.45
4:32:31:CYS:O	4:32:32:ALA:HB3	2.16	0.45
31:39:170:LEU:HD22	31:39:172:TRP:NE1	2.29	0.45
31:39:21:ALA:C	31:39:23:ASP:H	2.19	0.45
24:3L:58:A:O2'	24:3L:59:A:O5'	2.29	0.45
32:41:83:ARG:H	32:41:86:MET:CE	2.29	0.45
38:45:30:GLY:HA2	38:45:107:ALA:HB2	1.97	0.45
32:49:151:ALA:HB3	32:49:153:ARG:NH1	2.31	0.45
32:49:47:LYS:HD2	32:49:81:LYS:HB2	1.98	0.45
22:1L:34:U8U:HN3	25:4L:21:G:H22	1.64	0.45
14:5I:44:LEU:HD12	14:5I:44:LEU:O	2.16	0.45
40:65:23:ARG:HH22	40:65:84:GLN:CD	2.20	0.45
7:6E:149:ARG:HG2	11:2I:59:TYR:CZ	2.51	0.45
7:6E:92:SER:O	7:6E:96:GLN:HG3	2.16	0.45
41:75:36:GLU:O	41:75:36:GLU:HG2	2.17	0.45
40:A8:27:SER:HA	40:A8:88:ASP:CB	2.46	0.45
41:B8:13:ARG:HB2	41:B8:13:ARG:NH1	2.30	0.45
20:BA:41:ILE:HG21	20:BA:87:LYS:HD2	1.98	0.45
46:C5:104:GLY:HA2	46:C5:105:ALA:HA	1.64	0.45
44:E8:88:ARG:NH1	44:E8:94:ASP:OD2	2.49	0.45
46:G8:42:VAL:HG23	46:G8:43:ASN:H	1.79	0.45
47:H8:128:VAL:HG12	47:H8:161:VAL:HB	1.98	0.45
47:H8:105:VAL:O	47:H8:140:ASP:HA	2.16	0.45
48:I8:42:GLY:C	48:I8:57:PHE:HD2	2.19	0.45
29:11:28:GLU:HA	29:11:28:GLU:OE1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:12:190:THR:O	2:12:191:ASP:HB3	2.16	0.45
1:13:105:G:H2'	1:13:106:C:C6	2.51	0.45
1:13:1312:G:H5'	19:AI:5:LEU:HD23	1.97	0.45
1:13:123:C:OP1	1:13:312:C:H5'	2.16	0.45
1:13:438:G:O6	59:13:1836:HOH:O	2.20	0.45
26:14:1021:A:H3'	26:14:1021:A:C8	2.51	0.45
26:14:1021:A:H8	26:14:1021:A:H3'	1.80	0.45
26:14:1181:C:H2'	26:14:1182:A:H8	1.82	0.45
26:14:1259:G:H2'	26:14:1260:G:H8	1.82	0.45
26:14:1593:G:H2'	26:14:1594:G:H8	1.79	0.45
26:14:2115:G:N2	26:14:2116:G:N7	2.64	0.45
26:14:214:G:OP1	26:14:214:G:H4'	2.16	0.45
26:14:2345:G:N3	26:14:2381:C:H2'	2.31	0.45
26:14:599:G:H5''	26:14:599:G:H8	1.80	0.45
26:14:996:A:N3	26:14:997:G:C8	2.84	0.45
1:1G:1129:C:C4	1:1G:1139:G:N1	2.84	0.45
1:1G:1176:A:C6	1:1G:1177:G:C6	3.04	0.45
1:1G:1198:G:H2'	1:1G:1199:U:H6	1.81	0.45
1:1G:719:C:N4	18:9A:71:LYS:HE2	2.31	0.45
26:1H:1001:A:H2'	26:1H:1002:G:O4'	2.16	0.45
26:1H:1156:A:C8	42:C8:51:LYS:HG2	2.51	0.45
26:1H:1277:G:O2'	39:98:24:GLN:NE2	2.42	0.45
26:1H:155:C:H5'	26:1H:161:U:OP2	2.16	0.45
26:1H:1635:G:N2	59:1H:4023:HOH:O	2.49	0.45
26:1H:442:G:C6	26:1H:444:C:N4	2.84	0.45
26:1H:744:G:OP1	59:1H:3777:HOH:O	2.21	0.45
27:1J:29:A:H5''	27:1J:30:C:OP2	2.15	0.45
27:1J:93:C:H2'	27:1J:94:C:C6	2.52	0.45
22:1L:1:G:H2'	22:1L:1:G:N3	2.32	0.45
3:22:94:LEU:H	3:22:94:LEU:HG	1.50	0.45
36:25:31:LYS:HB3	36:25:32:TYR:CE2	2.51	0.45
30:29:50:GLY:HA2	30:29:78:LEU:CB	2.46	0.45
4:32:117:ALA:O	4:32:121:VAL:HG23	2.15	0.45
31:39:34:TRP:CZ3	37:35:8:PRO:HB3	2.52	0.45
12:3I:123:LYS:H	12:3I:123:LYS:HG2	1.45	0.45
24:3L:3:G:H2'	24:3L:4:U:O4'	2.17	0.45
5:42:122:GLU:HG2	5:42:131:ILE:HD12	1.97	0.45
33:51:105:LEU:HD23	33:51:105:LEU:H	1.81	0.45
34:61:10:GLU:O	34:61:10:GLU:HG3	2.16	0.45
7:6E:101:LEU:O	7:6E:105:VAL:HG23	2.16	0.45
7:6E:120:ILE:O	7:6E:124:LEU:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:78:80:TYR:CE1	37:78:111:ARG:HD3	2.52	0.45
38:88:21:THR:OG1	38:88:101:ARG:HB2	2.17	0.45
1:13:1443:G:N7	41:B8:118:ARG:HG3	2.31	0.45
41:B8:11:GLU:OE1	41:B8:57:PHE:HB3	2.17	0.45
26:1H:2845:G:H5''	41:B8:55:ASN:HA	1.97	0.45
47:D5:69:THR:HB	47:D5:88:PHE:HB3	1.98	0.45
26:14:2432:A:C2	49:F5:35:THR:HG22	2.51	0.45
47:H8:40:ASP:OD2	47:H8:43:GLU:HG3	2.16	0.45
49:J8:81:LYS:HD2	49:J8:81:LYS:N	2.31	0.45
29:11:26:LYS:HG3	29:11:81:ALA:HB1	1.97	0.45
29:11:28:GLU:N	29:11:29:PRO:HD2	2.31	0.45
2:12:166:ASP:CG	2:12:169:LYS:HB2	2.36	0.45
1:13:1023:G:H3'	1:13:1024:G:H5''	1.98	0.45
1:13:976:G:H5'	1:13:1358:U:O2'	2.17	0.45
1:13:264:U:O2'	17:8I:64:PRO:HD2	2.17	0.45
1:13:558:G:H2'	1:13:559:A:H2	1.81	0.45
1:13:606:G:H2'	1:13:630:G:O6	2.16	0.45
1:13:749:C:H2'	1:13:750:G:H8	1.82	0.45
26:14:323:G:HO2'	26:14:1205:U:H3	0.63	0.45
26:14:2147:G:H2'	26:14:2148:G:H4'	1.99	0.45
26:14:2310:A:C8	32:49:77:ILE:HD13	2.51	0.45
29:19:64:ILE:HD13	29:19:64:ILE:HG21	1.75	0.45
1:1G:1072:G:C6	1:1G:1073:U:N3	2.84	0.45
1:1G:1160:G:H2'	1:1G:1161:C:H6	1.82	0.45
1:1G:348:G:N2	1:1G:349:A:H1'	2.31	0.45
1:1G:404:U:OP1	4:32:118:ARG:NH1	2.24	0.45
26:1H:1066:U:H2'	26:1H:1068:G:OP2	2.16	0.45
26:1H:1388:G:H2'	26:1H:1389:G:H8	1.81	0.45
26:1H:139:G:N2	26:1H:141:A:N1	2.63	0.45
26:1H:1380:G:N2	26:1H:1570:A:C2	2.83	0.45
26:1H:2432:A:C5	49:J8:33:LYS:HG2	2.51	0.45
26:1H:44:A:C2'	26:1H:45:G:H5'	2.47	0.45
26:1H:910:A:H2'	26:1H:911:A:C8	2.51	0.45
3:22:15:THR:OG1	3:22:16:ARG:N	2.47	0.45
36:25:76:ALA:HB3	41:75:75:ILE:HB	1.99	0.45
4:32:189:PRO:HB2	4:32:194:LEU:HD21	1.98	0.45
4:3E:124:GLY:HA3	4:3E:132:ARG:CZ	2.47	0.45
26:1H:2751:G:C6	33:51:3:ARG:HD2	2.51	0.45
33:59:68:THR:HA	33:59:71:LEU:HD22	1.98	0.45
34:61:69:LYS:O	34:61:73:GLU:HB2	2.17	0.45
8:7E:14:ARG:O	8:7E:18:ARG:HD2	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:95:4:ILE:O	43:95:37:VAL:O	2.33	0.45
18:9A:36:ASN:HB2	18:9A:38:GLU:OE1	2.16	0.45
26:1H:2292:C:P	40:A8:17:ARG:NH2	2.90	0.45
19:AA:7:LYS:HG3	19:AA:7:LYS:H	1.55	0.45
43:D8:6:LYS:O	43:D8:6:LYS:HG3	2.16	0.45
46:G8:28:LYS:HZ1	46:G8:40:GLU:HG3	1.81	0.45
48:I8:10:THR:O	48:I8:11:ARG:HB2	2.16	0.45
54:L5:19:ARG:HG2	54:L5:19:ARG:HH11	1.81	0.45
26:14:459:U:H5''	54:L5:40:TRP:CG	2.51	0.45
55:M5:8:LYS:HD3	55:M5:8:LYS:HA	1.67	0.45
53:N8:20:ARG:HG2	53:N8:23:HIS:ND1	2.31	0.45
26:1H:2361:A:O5'	55:Q8:27:THR:OG1	2.35	0.45
2:12:127:ILE:HD13	2:12:130:ARG:NH2	2.31	0.45
1:13:232:G:H2'	1:13:233:C:C6	2.51	0.45
1:13:418:C:O2'	1:13:540:G:H1'	2.16	0.45
1:13:587:G:H3'	59:13:1805:HOH:O	2.16	0.45
1:13:658:G:H2'	1:13:659:U:C6	2.52	0.45
26:14:2835:A:N7	59:14:3744:HOH:O	2.36	0.45
26:14:2850:A:C2	26:14:2851:A:C4	3.04	0.45
26:14:674:G:O2'	31:39:74:ARG:HG3	2.17	0.45
35:15:127:ASP:HB2	35:15:128:HIS:H	1.49	0.45
35:15:30:ILE:HG22	35:15:34:LEU:HD22	1.98	0.45
29:19:147:LEU:HD22	29:19:147:LEU:HA	1.81	0.45
29:19:244:ARG:HB2	29:19:245:PRO:CD	2.46	0.45
2:1E:109:SER:HB3	2:1E:156:LYS:NZ	2.32	0.45
2:1E:134:GLU:OE1	2:1E:137:ARG:NH1	2.50	0.45
2:1E:209:ARG:HD2	2:1E:239:VAL:HG13	1.99	0.45
1:1G:1324:A:H4'	1:1G:1362:C:H4'	1.99	0.45
1:1G:818:G:O2'	1:1G:819:A:H5'	2.17	0.45
1:1G:998(A):C:H2'	1:1G:999:U:C6	2.52	0.45
26:1H:1455:G:OP2	59:1H:3700:HOH:O	2.21	0.45
26:1H:1443:G:C2	26:1H:1549:C:N3	2.85	0.45
26:1H:1684:C:N3	26:1H:1705:G:C2	2.85	0.45
26:1H:2473:U:O2'	26:1H:2474:C:H5'	2.16	0.45
26:1H:355:G:H2'	26:1H:356:G:H8	1.82	0.45
26:1H:644:A:C2	26:1H:646:A:C4	3.05	0.45
26:1H:845:G:H2'	26:1H:845:G:N3	2.31	0.45
27:1J:3:C:H2'	27:1J:4:C:H6	1.79	0.45
30:21:111:ARG:HG2	30:21:111:ARG:H	1.65	0.45
31:31:199:TRP:NE1	31:31:203:GLN:NE2	2.65	0.45
4:32:18:LYS:HZ3	4:32:31:CYS:CB	2.29	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:158:THR:OG1	31:39:159:GLY:N	2.50	0.45
31:39:192:LEU:O	31:39:193:VAL:HG23	2.17	0.45
4:3E:162:LEU:O	4:3E:165:MET:N	2.48	0.45
12:3I:60:LEU:HD13	12:3I:61:THR:H	1.82	0.45
24:3L:26:A:N6	24:3L:27:G:C6	2.85	0.45
5:42:48:ALA:HB2	5:42:57:LYS:HD3	1.99	0.45
39:55:24:GLN:HB3	39:55:44:LEU:HD11	1.99	0.45
26:1H:1006:C:H1'	35:58:106:MET:CE	2.47	0.45
34:61:95:LYS:HA	34:61:111:PRO:HG3	1.97	0.45
18:9A:29:PHE:HD1	18:9A:29:PHE:N	2.15	0.45
40:A8:30:ARG:HG3	40:A8:30:ARG:O	2.16	0.45
41:B8:12:SER:HB2	41:B8:15:VAL:N	2.30	0.45
41:B8:97:ALA:HB1	41:B8:98:LYS:HE2	1.99	0.45
44:E8:57:ASN:O	44:E8:61:ASN:HB2	2.17	0.45
45:F8:41:ASN:OD1	45:F8:41:ASN:N	2.49	0.45
45:F8:5:TYR:O	50:K8:36:ARG:NH2	2.49	0.45
47:H8:109:ALA:H	47:H8:112:ARG:HG3	1.80	0.45
50:K8:15:LYS:NZ	50:K8:67:LYS:HZ3	2.14	0.45
50:K8:32:LEU:HD11	50:K8:54:LYS:HG3	1.99	0.45
55:Q8:51:ALA:HB1	55:Q8:52:LYS:CA	2.46	0.45
2:12:82:ARG:NE	2:12:92:TYR:OH	2.49	0.45
1:13:1030:C:H2'	1:13:1031:G:H8	1.82	0.45
1:13:1189:C:O2	59:13:1839:HOH:O	2.21	0.45
1:13:1203:C:H2'	1:13:1204:A:O4'	2.16	0.45
1:13:1210:C:H2'	1:13:1211:U:H5'	1.99	0.45
26:14:1190:G:H2'	26:14:1191:G:H8	1.81	0.45
26:14:1309:G:H4'	54:L5:7:PRO:HB2	1.99	0.45
26:14:2124:G:H2'	26:14:2124:G:N3	2.32	0.45
26:14:2488:A:H2'	26:14:2489:G:O4'	2.16	0.45
26:14:2552:U:O5'	26:14:2552:U:H6	2.00	0.45
26:14:2686:G:H5''	59:14:3779:HOH:O	2.16	0.45
26:14:607:U:OP1	31:39:102:PRO:HA	2.16	0.45
26:14:699:A:H2'	26:14:700:G:O4'	2.16	0.45
26:14:916:G:C2'	26:14:917:A:H5''	2.46	0.45
35:15:67:LEU:O	35:15:88:GLU:HG3	2.16	0.45
29:19:147:LEU:HD23	29:19:155:LEU:HD13	1.99	0.45
1:1G:1326:C:H2'	1:1G:1327:C:C6	2.52	0.45
1:1G:1534:A:H2'	1:1G:1534:A:N3	2.32	0.45
1:1G:179:A:H2'	1:1G:180:U:H6	1.80	0.45
1:1G:345:C:H4'	1:1G:346:G:O5'	2.16	0.45
1:1G:35:G:C2	1:1G:550:G:N3	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1336:A:H2'	26:1H:1337:G:C8	2.51	0.45
26:1H:1387:C:C2	26:1H:1388:G:C8	3.04	0.45
26:1H:1509:C:HO2'	26:1H:1510:A:P	2.32	0.45
26:1H:2018:G:H2'	26:1H:2019:A:C8	2.51	0.45
26:1H:2122:U:H2'	26:1H:2123:G:C8	2.52	0.45
26:1H:2154:G:H2'	26:1H:2155:G:C8	2.52	0.45
26:1H:2162:G:H2'	26:1H:2163:C:C6	2.52	0.45
26:1H:2862:G:C5	26:1H:2863:C:C5	3.05	0.45
26:1H:311:A:C6	26:1H:328:U:C4	3.05	0.45
26:1H:811:U:O2'	37:78:21:ARG:HG3	2.17	0.45
30:21:105:THR:HG22	30:21:106:GLY:N	2.23	0.45
3:22:39:ILE:HG21	3:22:57:ILE:HD11	1.97	0.45
26:14:2574:G:O2'	30:29:143:ASN:HB3	2.16	0.45
31:31:130:ALA:C	31:31:132:VAL:H	2.20	0.45
4:32:173:TRP:HB3	4:32:187:ARG:NH1	2.27	0.45
12:3A:93:LEU:HB3	12:3A:96:VAL:HG21	1.98	0.45
1:13:406:G:N2	4:3E:119:GLN:OE1	2.49	0.45
38:45:7:MET:HE2	38:45:9:TYR:O	2.17	0.45
13:4I:4:ILE:HG23	13:4I:57:ARG:HA	1.99	0.45
3:2E:6:HIS:CD2	14:5I:49:HIS:HB3	2.51	0.45
7:62:108:ALA:O	7:62:111:ARG:HG3	2.16	0.45
40:65:106:ARG:HG3	40:65:106:ARG:H	1.51	0.45
8:72:120:THR:HG23	8:72:122:ARG:N	2.32	0.45
8:7E:75:ARG:HA	8:7E:76:PRO:HD2	1.76	0.45
9:82:16:ARG:HH21	9:82:64:THR:HG21	1.82	0.45
9:8E:79:LEU:HD21	9:8E:103:THR:O	2.16	0.45
44:A5:95:ILE:HD12	44:A5:95:ILE:O	2.16	0.45
19:AI:3:ARG:CZ	19:AI:9:VAL:HG11	2.46	0.45
46:C5:36:ALA:HA	46:C5:67:LEU:O	2.17	0.45
47:D5:40:ASP:OD1	47:D5:43:GLU:N	2.38	0.45
48:E5:47:PRO:HG3	48:E5:53:MET:HB2	1.98	0.45
55:M5:40:GLU:H	55:M5:43:GLN:HB3	1.82	0.45
26:1H:1570:A:H5'	29:11:37:LEU:HD21	1.99	0.45
26:1H:1568:G:H5''	29:11:61:LEU:HD22	1.96	0.45
29:11:75:ILE:HD13	29:11:99:ASP:OD2	2.16	0.45
1:13:13:U:O2	1:13:914:A:H3'	2.17	0.45
1:13:428:G:C8	1:13:430:A:C4	3.04	0.45
26:14:1048:A:H8	26:14:1110:G:H22	1.65	0.45
26:14:1807:G:N2	26:14:1810:A:OP2	2.45	0.45
26:14:2439:A:H5'	26:14:2439:A:C8	2.52	0.45
26:14:2557:G:H2'	26:14:2558:C:H6	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:395:U:H2'	26:14:396:G:C8	2.51	0.45
26:14:438:G:H2'	26:14:439:G:H8	1.81	0.45
26:14:602:G:OP2	26:14:602:G:C8	2.70	0.45
26:14:990:A:H8	26:14:990:A:C5'	2.24	0.45
27:16:15:A:C5'	27:16:16:G:C8	3.00	0.45
26:14:1826:G:H4'	29:19:242:ARG:CZ	2.47	0.45
29:19:45:ASN:HB3	29:19:46:GLN:H	1.41	0.45
2:1E:16:HIS:NE2	2:1E:214:ILE:HD11	2.32	0.45
1:1G:1162:C:N4	1:1G:1174:G:H1	2.08	0.45
1:1G:1304:G:N1	1:1G:1332:A:OP2	2.44	0.45
1:1G:942:G:C2	1:1G:1342:C:C2	3.04	0.45
1:1G:176:C:O2'	1:1G:177:C:H5'	2.16	0.45
1:1G:560:U:H4'	1:1G:561:U:O5'	2.16	0.45
1:1G:641:U:O3'	1:1G:642:A:H8	1.99	0.45
1:1G:984:C:H2'	1:1G:985:C:C6	2.52	0.45
26:1H:1045:A:C8	26:1H:1047:G:C2	3.05	0.45
26:1H:1171:G:C5	26:1H:1174:A:N6	2.85	0.45
26:1H:1268:A:C2	26:1H:2013:A:C4	3.04	0.45
26:1H:2101:G:H2'	26:1H:2102:U:O4'	2.16	0.45
26:1H:2414:G:H21	37:78:67:MET:HE3	1.82	0.45
26:1H:2595:G:H5''	26:1H:2596:U:OP2	2.17	0.45
26:1H:684:G:OP1	54:P8:16:HIS:ND1	2.45	0.45
27:1J:118:G:C5	27:1J:119:A:N7	2.85	0.45
22:1K:7:U:H3	22:1K:66:A:H61	1.65	0.45
30:21:31:CYS:HA	30:21:32:PRO:HD3	1.59	0.45
36:25:91:LEU:HD13	36:25:91:LEU:HA	1.78	0.45
30:29:12:THR:HG22	41:75:58:ASN:OD1	2.17	0.45
12:3I:102:ARG:HE	12:3I:102:ARG:HB3	1.46	0.45
24:3K:26:A:H2'	24:3K:27:G:H5'	1.98	0.45
32:41:45:GLU:H	32:41:45:GLU:HG2	1.47	0.45
13:4I:13:LYS:HA	13:4I:13:LYS:NZ	2.32	0.45
33:51:153:LYS:HB2	33:51:155:SER:N	2.21	0.45
33:59:54:ARG:NE	33:59:56:SER:O	2.47	0.45
34:61:133:HIS:HB2	34:61:134:PRO:HD2	1.99	0.45
15:6I:53:HIS:HE1	15:6I:57:LEU:HD11	1.82	0.45
8:72:68:ARG:NH1	8:72:69:ARG:O	2.47	0.45
16:7A:74:LEU:HD12	16:7A:79:VAL:HG21	1.98	0.45
1:1G:1118:C:P	9:82:104:ARG:HE	2.40	0.45
40:A8:72:ALA:O	40:A8:76:LYS:HG3	2.16	0.45
1:13:1014:A:H4'	19:AI:14:HIS:NE2	2.32	0.45
1:13:1223:C:OP1	19:AI:78:ARG:NH1	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:B8:20:PRO:HG2	41:B8:86:ILE:O	2.16	0.45
41:B8:65:LYS:HE2	41:B8:67:SER:HB2	1.98	0.45
20:BA:64:ASP:OD1	20:BA:81:LYS:HD2	2.16	0.45
47:H8:45:ASP:OD2	47:H8:49:ARG:NH1	2.33	0.45
26:1H:2079:U:O3'	49:J8:35:THR:HB	2.17	0.45
29:11:70:TRP:CE2	29:11:150:LYS:HD2	2.52	0.45
1:13:1058:G:C6	1:13:1059:C:N3	2.85	0.45
1:13:1348:U:H2'	1:13:1349:A:H8	1.80	0.45
1:13:1389:C:H2'	1:13:1390:U:O4'	2.17	0.45
1:13:509:A:C8	1:13:509:A:H3'	2.52	0.45
1:13:864:A:H5''	1:13:865:A:OP2	2.16	0.45
26:14:1011:G:C2	26:14:1151:G:C2	3.05	0.45
26:14:1342:A:OP1	45:B5:36:LYS:NZ	2.46	0.45
26:14:1939:U:OP1	26:14:2604:U:O2'	2.23	0.45
26:14:1945:G:H2'	26:14:1946:U:H6	1.80	0.45
26:14:2600:A:H2'	26:14:2601:C:C6	2.52	0.45
26:14:336:C:OP1	46:C5:83:THR:HG23	2.17	0.45
26:14:649:G:C5	26:14:650:C:C4	3.05	0.45
26:14:903:C:H2'	26:14:904:C:C6	2.52	0.45
26:14:941:A:O3'	59:14:3648:HOH:O	2.21	0.45
29:19:272:ALA:HB1	29:19:273:ARG:H	1.43	0.45
21:1B:5:ASP:O	21:1B:8:THR:HG22	2.17	0.45
1:1G:1022:G:H2'	1:1G:1023:G:O4'	2.17	0.45
1:1G:1300:G:O2'	1:1G:1301:U:P	2.75	0.45
1:1G:532:A:N6	1:1G:1206:G:O2'	2.50	0.45
1:1G:625:G:C4	1:1G:626:U:C5	3.05	0.45
1:1G:80:G:O2'	1:1G:81:G:OP1	2.33	0.45
26:1H:1431:U:C2	26:1H:1563:G:N2	2.84	0.45
26:1H:2182:G:H2'	26:1H:2183:C:C6	2.52	0.45
26:1H:2787:C:H1'	30:21:62:PRO:HB3	1.99	0.45
26:1H:324:A:C2'	26:1H:325:G:H5'	2.46	0.45
26:1H:957:A:N1	26:1H:2458:G:H4'	2.31	0.45
27:1J:23:G:C2	27:1J:24:G:O6	2.69	0.45
22:1K:72:C:H6	22:1K:72:C:OP2	2.00	0.45
36:25:87:ILE:HA	36:25:87:ILE:HD12	1.82	0.45
1:1G:707:C:OP1	11:2A:85:ARG:NH1	2.50	0.45
11:2I:34:ASP:HB3	11:2I:40:ILE:HD11	1.99	0.45
11:2I:59:TYR:O	11:2I:62:GLN:HB3	2.17	0.45
4:32:172:PRO:HD2	4:32:173:TRP:CE3	2.50	0.45
31:39:7:TYR:O	31:39:15:SER:HA	2.16	0.45
31:39:20:LEU:HB2	31:39:199:TRP:HH2	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:39:20:LEU:HD12	31:39:199:TRP:CH2	2.52	0.45
24:3K:36:U:H3'	24:3K:37:A:C5'	2.46	0.45
5:42:70:PRO:HB3	5:42:144:THR:HG22	1.98	0.45
38:45:22:LYS:HB2	38:45:22:LYS:HE2	1.69	0.45
32:49:119:GLY:N	32:49:181:ARG:HB2	2.30	0.45
39:55:44:LEU:HD23	39:55:44:LEU:HA	1.78	0.45
35:58:40:PRO:O	42:C8:64:ARG:HG2	2.17	0.45
6:5E:14:LEU:HD23	6:5E:14:LEU:HA	1.75	0.45
34:69:79:ILE:HG13	34:69:140:LEU:HD11	1.98	0.45
26:1H:2123:G:H1'	28:71:172:HIS:HB3	1.99	0.45
36:25:104:ARG:NH2	41:75:43:GLN:OE1	2.49	0.45
31:31:34:TRP:CH2	37:78:8:PRO:HB3	2.51	0.45
16:7A:58:TYR:O	16:7A:62:VAL:HG23	2.17	0.45
39:98:18:LEU:HD23	39:98:18:LEU:HA	1.72	0.45
39:98:67:LEU:HD22	39:98:76:VAL:HG21	1.99	0.45
18:9A:29:PHE:CD1	18:9A:29:PHE:N	2.85	0.45
45:B5:47:PHE:HB3	45:B5:89:ILE:HG12	1.98	0.45
20:BI:65:LYS:O	20:BI:68:LYS:HB2	2.17	0.45
43:D8:35:LEU:HB2	43:D8:57:VAL:HG12	1.99	0.45
49:F5:2:SER:O	49:F5:4:VAL:HG13	2.17	0.45
48:I8:83:PRO:O	48:I8:84:LEU:HB2	2.16	0.45
2:12:195:ASP:HB3	8:72:74:PRO:HG3	1.99	0.45
1:13:1194:U:H2'	1:13:1195:C:C6	2.52	0.45
1:13:1404:C:H2'	1:13:1405:G:C8	2.52	0.45
1:13:186(E):C:C2	1:13:191(C):G:N2	2.85	0.45
1:13:201:C:H42	1:13:216:G:H1	1.64	0.45
1:13:209:U:H5''	1:13:210:U:OP2	2.17	0.45
1:13:66:G:C2	1:13:67:C:C6	3.05	0.45
1:13:711:G:O2'	1:13:712:A:H5'	2.17	0.45
26:14:1374:G:H2'	26:14:1375:C:O4'	2.17	0.45
26:14:140:A:H8	26:14:1408:C:O2'	1.96	0.45
26:14:2065:C:H1'	26:14:2449:U:H3	1.81	0.45
26:14:2652:C:H42	26:14:2668:G:H1	1.64	0.45
26:14:2772:C:H2'	26:14:2773:C:C6	2.52	0.45
26:14:70:G:H21	26:14:71:A:H62	1.65	0.45
26:14:686:G:N2	26:14:788:A:H61	2.15	0.45
29:19:108:PRO:HB3	29:19:143:HIS:CE1	2.52	0.45
2:1E:187:LEU:HD11	2:1E:204:ASN:O	2.17	0.45
1:1G:134:A:H61	16:7A:25:ARG:HH12	1.65	0.45
1:1G:458:C:H2'	1:1G:464:G:C8	2.50	0.45
26:1H:1109:C:O2'	26:1H:1110:G:O4'	2.35	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1263:U:H2'	26:1H:1264:G:C8	2.52	0.45
26:1H:1263:U:O2'	53:N8:11:THR:HG23	2.16	0.45
26:1H:155:C:H42	26:1H:171:G:H1	1.62	0.45
26:1H:2273:A:H2'	26:1H:2274:A:C8	2.52	0.45
26:1H:265:A:C2	26:1H:428:A:C2	3.05	0.45
26:1H:527:C:H4'	26:1H:528:A:C5'	2.47	0.45
26:1H:732:C:OP1	59:1H:3775:HOH:O	2.21	0.45
26:1H:774:A:HO2'	26:1H:775:G:H8	1.62	0.45
26:1H:900:A:N3	26:1H:900:A:H2'	2.32	0.45
22:1K:21:A:C5	22:1K:47:U:C4	3.04	0.45
22:1K:48:C:H4'	22:1K:49:G:C5'	2.46	0.45
30:21:4:ILE:HD13	30:21:28:ALA:HB1	1.98	0.45
23:2L:41:C:H2'	23:2L:42:C:H6	1.82	0.45
23:2L:50:G:H1	23:2L:66:C:N4	2.13	0.45
26:14:323:G:H5'	31:39:169:ASN:HD21	1.81	0.45
38:45:4:PRO:HD3	38:45:70:PRO:O	2.16	0.45
32:49:49:ASP:O	32:49:52:ILE:HG22	2.17	0.45
5:4E:110:LEU:CD1	5:4E:118:ILE:HD13	2.46	0.45
13:4I:15:VAL:HG23	13:4I:43:THR:O	2.17	0.45
39:55:84:ALA:N	39:55:85:PRO:HD2	2.32	0.45
6:5E:67:MET:SD	6:5E:75:LEU:HD12	2.57	0.45
40:65:87:PHE:CE1	40:65:102:ALA:HB2	2.52	0.45
26:1H:2129:C:H5''	28:71:6:ARG:NH2	2.32	0.45
8:72:123:GLU:O	8:72:127:LEU:HB2	2.16	0.45
37:78:59:LEU:HA	37:78:62:LEU:HD12	1.98	0.45
42:85:91:ASP:C	42:85:93:LYS:N	2.69	0.45
9:8E:21:PRO:HA	9:8E:59:PHE:HA	1.98	0.45
17:8I:43:LEU:HD12	17:8I:68:ARG:HG2	1.98	0.45
47:D5:92:SER:O	47:D5:94:GLU:HB2	2.17	0.45
29:11:12:SER:HB2	29:11:208:LYS:HB3	1.99	0.45
2:12:147:LYS:HD2	2:12:148:TYR:CE1	2.52	0.45
2:12:189:ASP:H	2:12:192:SER:HB2	1.82	0.45
1:13:104:G:C6	1:13:105:G:N7	2.85	0.45
1:13:128:G:O2'	17:8I:3:LYS:HE2	2.16	0.45
1:13:158:G:C4	1:13:159:G:C8	3.05	0.45
1:13:198:G:N7	1:13:220:G:N2	2.65	0.45
1:13:509:A:H3'	59:13:1912:HOH:O	2.17	0.45
1:13:741:G:H2'	1:13:742:G:O4'	2.17	0.45
26:14:1054:A:N1	26:14:1104:C:N3	2.65	0.45
26:14:1257:C:H4'	31:39:83:PHE:CD1	2.51	0.45
26:14:1519:G:C6	26:14:1520:U:C4	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1851:U:H2'	26:14:1852:C:O4'	2.16	0.45
26:14:829:A:N7	26:14:2248:C:H5'	2.32	0.45
26:14:858:U:O2	26:14:2268:A:H2'	2.17	0.45
26:14:2308:G:O2'	26:14:2309:A:OP1	2.30	0.45
26:14:35:G:H2'	26:14:36:G:O4'	2.16	0.45
26:14:619:G:H5''	26:14:620:G:OP2	2.17	0.45
27:16:24:G:N7	27:16:56:G:H2'	2.31	0.45
29:19:44:ASN:HB3	29:19:45:ASN:C	2.36	0.45
10:1A:55:LYS:HZ1	10:1A:57:LYS:CB	2.29	0.45
2:1E:219:VAL:HA	2:1E:222:ILE:HD11	1.99	0.45
1:1G:191(F):U:N3	20:BA:105:SER:OG	2.48	0.45
26:1H:1020:A:H4'	26:1H:1021:A:O5'	2.17	0.45
26:1H:2134:A:H62	26:1H:2157:G:H4'	1.82	0.45
26:1H:587:C:H4'	26:1H:588:U:OP2	2.16	0.45
30:21:28:ALA:O	30:21:93:VAL:HG22	2.17	0.45
36:25:24:VAL:HB	36:25:33:ALA:HB2	1.98	0.45
30:29:54:GLN:HG2	30:29:55:ASN:OD1	2.17	0.45
23:2L:41:C:H2'	23:2L:42:C:C6	2.52	0.45
4:32:100:ARG:NH1	4:32:102:ASP:OD1	2.50	0.45
4:32:151:LYS:NZ	59:32:401:HOH:O	2.48	0.45
37:35:85:LEU:HB3	37:35:114:ILE:CD1	2.47	0.45
24:3L:2:G:H2'	24:3L:3:G:C8	2.52	0.45
7:62:102:ARG:O	7:62:106:GLN:HG3	2.16	0.45
7:62:37:ASN:N	7:62:37:ASN:OD1	2.48	0.45
40:65:26:LEU:O	40:65:88:ASP:HB2	2.17	0.45
1:13:1375:A:P	7:6E:28:ASN:HD22	2.40	0.45
26:1H:2124:G:H4'	28:71:174:PRO:HG2	1.99	0.45
28:71:43:VAL:HG22	28:71:214:VAL:HA	1.98	0.45
28:71:53:ARG:HA	28:71:53:ARG:HD3	1.79	0.45
16:7A:36:ILE:HG13	16:7A:36:ILE:O	2.17	0.45
1:13:825:G:O4'	8:7E:2:LEU:HD21	2.17	0.45
9:82:112:LYS:HE3	9:82:118:LYS:N	2.27	0.45
9:82:20:ARG:O	9:82:20:ARG:HG3	2.17	0.45
42:85:102:GLU:HB3	42:85:105:VAL:HG13	1.99	0.45
42:85:90:VAL:O	43:95:11:GLN:NE2	2.39	0.45
19:AA:58:VAL:HG23	19:AA:59:PRO:O	2.16	0.45
19:AI:3:ARG:HH11	19:AI:9:VAL:HG11	1.82	0.45
45:B5:49:VAL:HB	45:B5:83:VAL:CG2	2.45	0.45
43:D8:48:GLY:O	43:D8:49:THR:O	2.34	0.45
26:14:2396:G:H4'	49:F5:30:VAL:H	1.82	0.45
49:F5:82:LEU:CB	49:F5:83:GLU:HB2	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:J5:47:PRO:HA	53:J5:56:LYS:NZ	2.32	0.45
50:K8:3:LEU:HB3	50:K8:4:SER:C	2.38	0.45
32:41:67:LYS:HG3	52:M8:6:HIS:CE1	2.52	0.45
2:12:142:LEU:HD23	2:12:142:LEU:O	2.17	0.44
1:13:1103:C:H2'	1:13:1104:G:O4'	2.17	0.44
1:13:1402:C:H2'	1:13:1403:C:O4'	2.16	0.44
1:13:360:A:H2'	1:13:361:G:C8	2.52	0.44
26:14:1005:C:H2'	26:14:1006:C:C6	2.51	0.44
26:14:1423:G:OP1	26:14:1492:G:O2'	2.35	0.44
26:14:1510:A:H2'	26:14:1511:A:C8	2.53	0.44
26:14:1342:A:H2	26:14:1602:U:N3	2.15	0.44
26:14:1681:G:C2	59:14:3684:HOH:O	2.69	0.44
26:14:975:G:H1'	26:14:990:A:C2	2.52	0.44
10:1A:21:GLN:O	10:1A:24:VAL:HB	2.17	0.44
1:1G:1357:A:H2'	1:1G:1358:U:H5'	1.99	0.44
1:1G:1375:A:H2'	1:1G:1376:U:O4'	2.17	0.44
1:1G:512:U:H2'	1:1G:513:C:H6	1.82	0.44
1:1G:616:G:C2	1:1G:617:G:C5	3.06	0.44
1:1G:852:G:C6	1:1G:853:G:N7	2.85	0.44
1:1G:872:A:C4	1:1G:874:G:N7	2.85	0.44
26:1H:1050:A:N7	26:1H:2751:G:C5	2.85	0.44
26:1H:1311:G:N7	54:P8:9:ARG:NH2	2.57	0.44
26:1H:37:C:H2'	26:1H:38:A:C8	2.52	0.44
26:1H:527:C:OP2	26:1H:2779:U:C5	2.70	0.44
26:1H:880:G:H8	26:1H:880:G:O5'	1.99	0.44
9:8E:114:TYR:CD2	10:1I:60:ARG:HG2	2.52	0.44
27:1J:78:A:C2	27:1J:99:A:C4	3.05	0.44
30:29:54:GLN:CG	30:29:55:ASN:H	2.31	0.44
11:2I:32:ILE:HD13	11:2I:68:ALA:HB1	1.99	0.44
23:2K:65:G:C2	23:2K:66:C:C2	3.05	0.44
31:31:129:PHE:HA	31:31:142:TRP:CD1	2.51	0.44
31:31:178:PRO:O	31:31:181:LEU:HB2	2.18	0.44
31:39:29:ASN:HA	31:39:30:PRO:HD3	1.67	0.44
26:14:588:U:H1'	31:39:90:PHE:CG	2.52	0.44
4:3E:151:LYS:HE2	4:3E:151:LYS:HB3	1.81	0.44
5:42:92:LYS:HB3	5:42:119:LEU:HB2	1.98	0.44
13:4I:81:LEU:O	13:4I:86:CYS:HB3	2.17	0.44
33:51:149:ARG:HA	33:51:162:ILE:HG21	1.98	0.44
35:58:104:LYS:HB2	35:58:117:PHE:CE1	2.51	0.44
35:58:96:GLU:C	35:58:98:VAL:N	2.69	0.44
34:61:1:MET:O	34:61:20:ASP:HA	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:61:64:GLU:HG2	34:61:67:ARG:HH21	1.83	0.44
8:72:73:ASP:HB2	8:72:75:ARG:HG3	1.99	0.44
9:82:17:VAL:HG22	9:82:63:ILE:HG12	1.99	0.44
39:98:21:TYR:OH	39:98:43:GLU:HG2	2.17	0.44
46:C5:29:GLU:CG	46:C5:30:VAL:H	2.30	0.44
44:E8:24:ILE:HD12	44:E8:24:ILE:O	2.16	0.44
49:F5:49:VAL:HG21	49:F5:67:ILE:HD12	1.99	0.44
50:G5:43:GLN:HB2	50:G5:45:SER:N	2.32	0.44
47:H8:52:SER:O	47:H8:52:SER:OG	2.26	0.44
50:K8:59:ARG:O	50:K8:62:THR:HG23	2.16	0.44
1:13:266:G:H5''	1:13:267:C:C5	2.53	0.44
1:13:401:C:OP2	4:3E:73:ARG:HD3	2.16	0.44
26:14:1106:G:C8	26:14:1107:G:C8	3.05	0.44
26:14:1019:U:C2	26:14:1144:G:N2	2.85	0.44
26:14:1223:C:OP2	43:95:88:ARG:NH2	2.51	0.44
26:14:2392:A:O2'	55:M5:27:THR:HG21	2.17	0.44
26:14:2716:U:O2'	26:14:2717:G:H5'	2.18	0.44
26:14:464:U:O2'	26:14:465:G:H5'	2.18	0.44
26:14:664:C:H2'	26:14:665:C:H6	1.83	0.44
26:14:779:U:O4	59:14:3637:HOH:O	2.20	0.44
29:19:130:ALA:HA	29:19:192:THR:HA	1.99	0.44
1:1G:1291:G:H2'	1:1G:1292:U:H6	1.82	0.44
1:1G:149:A:H2'	1:1G:150:C:C6	2.52	0.44
26:1H:1154:G:O5'	26:1H:1154:G:H8	2.01	0.44
26:1H:1163:G:C2	26:1H:1164:G:N7	2.85	0.44
26:1H:1417:C:O3'	26:1H:1588:C:H1'	2.18	0.44
26:1H:1790:C:H2'	26:1H:1791:A:C5	2.52	0.44
26:1H:2142:C:H2'	26:1H:2143:C:C6	2.53	0.44
26:1H:2436:G:C6	26:1H:2437:U:C4	3.05	0.44
26:1H:365:C:H2'	26:1H:366:C:O4'	2.18	0.44
26:1H:882:G:H1	26:1H:894:C:N4	2.15	0.44
3:22:122:GLU:HA	3:22:125:GLU:OE1	2.18	0.44
3:2E:135:LYS:O	3:2E:138:VAL:HG12	2.17	0.44
1:1G:437:U:H5''	4:32:155:LEU:HD11	1.99	0.44
37:35:55:ARG:HG2	37:35:56:SER:H	1.79	0.44
31:39:12:LEU:HD23	31:39:13:SER:H	1.82	0.44
12:3I:53:ARG:HH12	12:3I:92:ASP:CG	2.21	0.44
24:3L:62:C:H4'	28:79:52:ARG:HH12	1.82	0.44
5:42:11:ILE:HG21	5:42:105:VAL:HG22	1.99	0.44
32:49:167:GLU:O	32:49:170:ARG:HB3	2.16	0.44
33:51:25:LYS:HE3	33:51:34:GLU:OE1	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:51:95:ARG:HB3	33:51:95:ARG:HE	1.37	0.44
39:55:53:HIS:HE1	39:55:91:GLN:HE22	1.64	0.44
7:62:42:ILE:HG23	7:62:117:ALA:HB2	1.99	0.44
34:69:75:LEU:HG	34:69:76:THR:H	1.82	0.44
8:7E:121:ASP:OD1	8:7E:121:ASP:N	2.49	0.44
18:9A:74:ARG:NH1	18:9A:81:PHE:HA	2.32	0.44
19:AI:15:LEU:HD12	19:AI:31:ILE:HD11	1.99	0.44
19:AI:3:ARG:HD2	19:AI:9:VAL:HG21	1.98	0.44
26:14:64:A:C4	45:B5:66:LEU:HD12	2.53	0.44
42:C8:79:PHE:C	42:C8:79:PHE:CD1	2.91	0.44
45:F8:27:THR:HB	45:F8:80:ILE:HB	1.99	0.44
1:13:1235:U:O2'	1:13:1305:G:OP1	2.29	0.44
1:13:57:G:H2'	1:13:58:C:C6	2.52	0.44
1:13:625:G:H4'	16:7I:16:HIS:ND1	2.32	0.44
1:13:826:C:H2'	1:13:827:U:O2	2.17	0.44
26:14:1197:G:H2'	26:14:1198:U:H6	1.82	0.44
26:14:1291:C:H2'	26:14:1292:U:C6	2.53	0.44
26:14:1771:C:H1'	26:14:1786:A:C8	2.52	0.44
26:14:194:G:H2'	26:14:195:A:O4'	2.17	0.44
26:14:1991:U:H2'	26:14:1992:G:H5''	2.00	0.44
26:14:2335:A:C8	26:14:2337:G:N7	2.86	0.44
26:14:2366:A:H2'	26:14:2367:G:O4'	2.17	0.44
26:14:2290:G:O2'	26:14:2381:C:H1'	2.17	0.44
26:14:2383:G:O2'	26:14:2384:G:H5'	2.18	0.44
26:14:2409:G:H2'	26:14:2410:G:O4'	2.18	0.44
26:14:2649:U:H2'	26:14:2650:U:C6	2.52	0.44
26:14:26:G:C6	26:14:27:G:N1	2.85	0.44
26:14:2862:G:H2'	26:14:2863:C:H6	1.82	0.44
26:14:310:A:OP1	46:C5:17:SER:O	2.36	0.44
26:14:478:A:N1	26:14:500:G:H4'	2.32	0.44
26:14:675:A:C4	26:14:804:A:C2	3.05	0.44
1:1G:973:G:H5'	10:1A:55:LYS:HD3	1.99	0.44
1:1G:1067:A:H4'	1:1G:1068:G:O5'	2.18	0.44
1:1G:1160:G:H2'	1:1G:1161:C:C6	2.52	0.44
1:1G:1207:G:C6	1:1G:1208:C:C4	3.05	0.44
1:1G:35:G:N2	1:1G:550:G:H1'	2.32	0.44
1:1G:626:U:C2	1:1G:627:G:C8	3.05	0.44
26:1H:1813:G:O2'	29:11:42:GLY:O	2.35	0.44
26:1H:2588:G:P	59:1H:3717:HOH:O	2.73	0.44
26:1H:783:A:C8	26:1H:784:A:H4'	2.53	0.44
27:1J:60:C:H2'	27:1J:61:G:C8	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:2K:26:C:H2'	23:2K:27:G:O4'	2.18	0.44
26:1H:444:C:H4'	31:31:49:ALA:HB2	1.99	0.44
4:32:31:CYS:HB2	4:32:35:ARG:HH12	1.82	0.44
4:32:31:CYS:CB	4:32:35:ARG:NH1	2.80	0.44
4:32:53:ASP:O	4:32:57:ARG:HG3	2.16	0.44
37:35:93:GLY:O	37:35:123:LEU:HD22	2.17	0.44
37:35:144:GLU:N	37:35:144:GLU:CD	2.71	0.44
4:3E:30:LYS:HA	4:3E:35:ARG:HE	1.82	0.44
38:45:32:TYR:O	38:45:105:GLU:HB2	2.18	0.44
32:49:81:LYS:HB3	32:49:82:LEU:H	1.46	0.44
33:51:60:ARG:HG2	33:51:60:ARG:NH1	2.32	0.44
33:51:77:LYS:NZ	33:51:82:GLY:O	2.50	0.44
35:58:4:TYR:CE2	42:C8:100:VAL:HG11	2.53	0.44
15:6I:66:LEU:HD12	15:6I:66:LEU:HA	1.70	0.44
9:8E:77:ILE:O	9:8E:81:ILE:HG12	2.17	0.44
43:95:29:PRO:HA	43:95:61:VAL:HG11	1.99	0.44
44:A5:78:GLU:OE1	44:A5:99:ARG:HD2	2.17	0.44
26:1H:1754:C:H5	41:B8:96:ARG:NH2	2.15	0.44
47:D5:71:VAL:HG12	47:D5:88:PHE:HD1	1.81	0.44
47:D5:72:ARG:HD3	47:D5:72:ARG:HA	1.68	0.44
47:D5:30:ASN:ND2	47:D5:90:VAL:HB	2.23	0.44
47:H8:30:ASN:ND2	47:H8:90:VAL:HB	2.31	0.44
49:J8:85:LEU:HA	49:J8:85:LEU:HD13	1.61	0.44
55:M5:40:GLU:N	55:M5:43:GLN:HB3	2.33	0.44
29:11:141:VAL:HG12	29:11:164:GLN:HG3	1.99	0.44
29:11:213:ARG:HA	29:11:213:ARG:HD2	1.71	0.44
1:13:1134:G:N1	1:13:1135:U:H1'	2.31	0.44
1:13:416:G:C5	1:13:417:C:C4	3.05	0.44
1:13:517:G:N3	1:13:531:U:H5'	2.33	0.44
26:14:1027:A:C2	26:14:2488:A:H5'	2.53	0.44
26:14:1935:G:H1'	26:14:1964:G:N2	2.33	0.44
26:14:528:A:H2	26:14:2043:C:C5'	2.31	0.44
26:14:2081:C:O2'	26:14:2082:A:H5'	2.17	0.44
26:14:212:G:H2'	26:14:213:A:O4'	2.17	0.44
26:14:2286:A:H8	26:14:2287:A:N6	2.16	0.44
26:14:2345:G:H4'	26:14:2346:A:O5'	2.17	0.44
26:14:2464:C:H2'	26:14:2465:C:O4'	2.18	0.44
26:14:2477:C:O2	26:14:2477:C:H2'	2.17	0.44
26:14:2506:U:C2	26:14:2585:U:O4	2.71	0.44
26:14:2862:G:H2'	26:14:2863:C:C6	2.52	0.44
26:14:90:U:O2'	26:14:91:A:H8	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1826:G:H4'	29:19:242:ARG:NH1	2.33	0.44
29:19:39:LYS:O	29:19:40:THR:CG2	2.64	0.44
29:19:73:VAL:HG13	29:19:120:GLY:HA3	1.99	0.44
2:1E:35:GLU:OE1	2:1E:38:GLY:HA2	2.17	0.44
1:1G:1149:C:OP2	9:82:9:ARG:NH1	2.50	0.44
1:1G:536:C:H2'	1:1G:537:G:C8	2.52	0.44
26:1H:1404:C:O2'	26:1H:1405:U:H5'	2.18	0.44
26:1H:1528:A:H2	26:1H:1543:A:N1	2.15	0.44
26:1H:155:C:N4	26:1H:171:G:H1	2.15	0.44
26:1H:2164:C:H5	26:1H:2165:G:C6	2.35	0.44
26:1H:2170:A:OP2	26:1H:2170:A:H3'	2.17	0.44
26:1H:2775:A:N6	59:1H:3791:HOH:O	2.34	0.44
26:1H:70:G:H21	26:1H:71:A:N6	2.16	0.44
26:1H:71:A:H5'	26:1H:71:A:C8	2.53	0.44
26:1H:907:U:P	59:1H:3741:HOH:O	2.74	0.44
10:1I:38:ILE:O	10:1I:38:ILE:HG12	2.17	0.44
27:1J:117:G:H8	27:1J:117:G:O5'	2.00	0.44
30:21:66:HIS:CE1	30:21:73:GLU:OE1	2.71	0.44
31:31:136:THR:O	31:31:140:LEU:HB2	2.17	0.44
26:14:385:C:O2	37:35:71:VAL:HG21	2.18	0.44
24:3K:9:A:HO2'	24:3K:46:G:H8	1.65	0.44
5:42:79:GLU:OE1	8:72:104:ARG:HA	2.17	0.44
32:49:173:LEU:HB3	32:49:178:PHE:CG	2.53	0.44
13:4A:29:ARG:HD3	13:4A:64:TRP:CE2	2.53	0.44
39:55:101:ALA:HB2	53:J5:44:THR:HB	1.99	0.44
34:61:77:LEU:H	34:61:77:LEU:HD12	1.82	0.44
15:6I:26:GLU:HB3	15:6I:81:LEU:HD22	2.00	0.44
8:7E:23:SER:HA	8:7E:63:LEU:HD22	1.98	0.44
9:82:104:ARG:O	9:82:104:ARG:HG3	2.17	0.44
9:82:82:ALA:HB1	9:82:96:LEU:HD21	1.99	0.44
17:8I:87:LYS:HA	17:8I:87:LYS:HD2	1.75	0.44
39:98:45:ARG:HB3	39:98:46:GLY:H	1.64	0.44
18:9A:44:LEU:HD21	18:9A:70:ILE:HG21	2.00	0.44
19:AI:67:VAL:HG23	19:AI:68:GLY:H	1.83	0.44
1:13:1446:A:O2'	41:B8:125:ARG:NH2	2.51	0.44
20:BI:63:ILE:HG22	20:BI:77:ALA:HB1	1.99	0.44
47:D5:53:ILE:CG2	47:D5:71:VAL:HG23	2.41	0.44
26:1H:142:G:C1'	45:F8:37:THR:HG21	2.44	0.44
49:J8:91:LYS:HA	49:J8:91:LYS:CE	2.48	0.44
51:L8:7:LYS:HE2	51:L8:34:GLU:CG	2.47	0.44
54:P8:35:ARG:NH1	54:P8:42:LEU:HD11	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:651:G:H4'	55:Q8:18:ALA:HB3	1.99	0.44
29:11:245:PRO:HG2	29:11:253:GLN:HE21	1.83	0.44
1:13:1376:U:H2'	1:13:1377:A:C8	2.52	0.44
1:13:1399:C:C2	1:13:1502:A:N6	2.86	0.44
1:13:241:C:C2	1:13:286:G:C2	3.06	0.44
1:13:329:A:C5	1:13:332:G:C6	3.06	0.44
1:13:430:A:OP2	4:3E:8:VAL:HG23	2.18	0.44
1:13:539:A:N7	12:3I:115:LYS:HE3	2.33	0.44
1:13:64:G:N2	1:13:68:G:O6	2.36	0.44
1:13:952:U:O4	13:4I:104:ARG:HD3	2.17	0.44
26:14:1101:U:H2'	26:14:1102:C:O4'	2.18	0.44
26:14:151:C:H2'	26:14:152:G:C8	2.52	0.44
26:14:1636:C:H2'	26:14:1637:A:C8	2.52	0.44
26:14:1856:G:H2'	26:14:1857:G:H5'	2.00	0.44
26:14:2092:U:H5	26:14:2226:C:OP2	2.00	0.44
26:14:2168:G:N2	26:14:2170:A:OP2	2.51	0.44
26:14:581:C:H2'	26:14:582:G:C8	2.51	0.44
26:14:848:G:C4	26:14:933:A:C8	3.05	0.44
26:14:9:U:C5	26:14:2629:A:N6	2.86	0.44
1:1G:1142:G:H3'	1:1G:1143:G:C8	2.53	0.44
1:1G:476:G:H2'	1:1G:477:G:O4'	2.18	0.44
1:1G:567:G:C2	1:1G:568:G:H1'	2.52	0.44
1:1G:890:G:O2'	1:1G:906:G:O6	2.24	0.44
26:1H:1359:A:C2	26:1H:1372:U:C4	3.05	0.44
26:1H:1486:A:H2'	26:1H:1487:G:H8	1.82	0.44
26:1H:1931:U:H5	26:1H:1969:A:N7	2.15	0.44
26:1H:1935:G:H1'	26:1H:1964:G:N2	2.32	0.44
26:1H:2130:U:OP2	28:7I:6:ARG:NH1	2.38	0.44
26:1H:325:G:H2'	26:1H:326:G:H8	1.82	0.44
26:1H:451:C:N4	26:1H:454:A:OP2	2.32	0.44
26:1H:654(A):A:N1	26:1H:654(T):A:N1	2.65	0.44
26:1H:992:C:H2'	26:1H:993:G:H8	1.83	0.44
30:21:7:VAL:HG13	30:21:51:PHE:HE2	1.82	0.44
30:29:119:ARG:CG	30:29:160:TYR:HB2	2.48	0.44
23:2L:20:G:C2	23:2L:58:A:C2	3.06	0.44
4:32:10:ARG:HG3	4:32:10:ARG:HH11	1.82	0.44
37:35:125:VAL:O	37:35:144:GLU:HB3	2.17	0.44
37:35:132:LYS:HD2	37:35:132:LYS:HA	1.77	0.44
4:3E:107:ARG:HH12	4:3E:194:LEU:HD22	1.83	0.44
4:3E:61:LYS:HG3	4:3E:203:VAL:HG13	2.00	0.44
24:3K:59:A:H3'	24:3K:60:U:H5'	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:3L:65:C:H2'	24:3L:66:A:H8	1.83	0.44
14:5A:25:VAL:HG12	14:5A:38:GLY:O	2.17	0.44
7:62:120:ILE:HG22	7:62:124:LEU:HD12	1.99	0.44
7:6E:73:MET:HE2	7:6E:90:GLU:HA	1.98	0.44
37:78:14:LYS:HD3	37:78:14:LYS:HA	1.79	0.44
26:1H:249:C:O2'	37:78:64:LYS:HE2	2.17	0.44
28:79:200:LYS:HD2	28:79:208:PHE:HB2	2.00	0.44
43:95:1:MET:HB3	43:95:42:GLY:N	2.32	0.44
43:95:98:GLU:OE2	43:95:100:ARG:NH1	2.49	0.44
51:H5:4:LEU:O	51:H5:36:VAL:HA	2.17	0.44
29:11:67:PHE:HB3	29:11:153:ALA:H	1.83	0.44
1:13:143:A:H2	1:13:220:G:N1	2.13	0.44
1:13:1454:G:H8	1:13:1454:G:O5'	2.00	0.44
1:13:256:U:H2'	1:13:257:G:H8	1.81	0.44
26:14:1787:A:O4'	26:14:2589:A:H4'	2.17	0.44
26:14:1889:A:O2'	26:14:2087:G:H5'	2.18	0.44
26:14:2820:A:C5	39:55:4:LEU:HD11	2.53	0.44
26:14:539:G:H2'	26:14:540:G:H8	1.83	0.44
27:16:101:A:OP2	59:16:306:HOH:O	2.21	0.44
1:1G:1250:A:H2'	1:1G:1251:A:C8	2.53	0.44
1:1G:1299:A:C6	1:1G:1301:U:C2	3.05	0.44
1:1G:411:A:N7	1:1G:413:G:N3	2.65	0.44
1:1G:87:A:O2'	1:1G:88:C:H5''	2.18	0.44
26:1H:1076:C:H2'	26:1H:1077:A:H5''	1.99	0.44
26:1H:1357:U:H2'	26:1H:1358:G:O4'	2.18	0.44
26:1H:1609:A:O2'	26:1H:1610:A:H5'	2.17	0.44
26:1H:164:U:H5'	26:1H:165:U:OP2	2.18	0.44
26:1H:2092:U:H4'	26:1H:2093:G:O5'	2.18	0.44
26:1H:2119:A:H5''	26:1H:2120:G:OP2	2.18	0.44
26:1H:2695:C:H2'	26:1H:2696:U:C6	2.52	0.44
26:1H:527:C:N4	26:1H:2777:G:O2'	2.51	0.44
26:1H:958:U:OP1	38:88:74:TYR:OH	2.19	0.44
30:29:60:ASN:CB	30:29:62:PRO:HD2	2.41	0.44
23:2K:64:G:H2'	23:2K:65:G:H8	1.82	0.44
31:39:130:ALA:O	31:39:132:VAL:HG12	2.17	0.44
1:13:438:G:H4'	4:3E:123:HIS:NE2	2.32	0.44
12:3I:84:LEU:HB2	12:3I:105:TYR:CE2	2.53	0.44
5:42:142:LEU:HA	5:42:142:LEU:HD23	1.73	0.44
38:45:27:VAL:HG13	38:45:138:ASP:HA	1.99	0.44
38:45:16:ARG:HE	38:45:16:ARG:HB3	1.38	0.44
38:45:58:PHE:O	38:45:58:PHE:HD1	2.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1073:U:OP2	5:4E:57:LYS:NZ	2.50	0.44
33:51:15:VAL:HG13	33:51:28:GLY:HA3	1.98	0.44
33:51:84:SER:O	33:51:85:LYS:HB2	2.18	0.44
40:65:23:ARG:HB2	40:65:86:ALA:HB2	1.99	0.44
40:65:64:GLU:O	40:65:68:GLN:HG3	2.17	0.44
36:68:113:LYS:O	36:68:116:SER:OG	2.35	0.44
41:75:58:ASN:HA	41:75:58:ASN:HD22	1.59	0.44
8:7E:33:GLU:HA	8:7E:36:LEU:HD12	1.99	0.44
16:7I:68:ASP:O	16:7I:71:ARG:HG2	2.17	0.44
39:98:56:LYS:HE3	39:98:88:ARG:HA	2.00	0.44
41:B8:120:ARG:HA	41:B8:123:GLN:HG2	1.98	0.44
49:F5:95:LEU:HD12	49:F5:95:LEU:HA	1.80	0.44
50:G5:4:SER:HB3	50:G5:7:ARG:HD2	1.99	0.44
50:K8:60:LEU:HA	50:K8:60:LEU:HD23	1.73	0.44
29:11:31:LYS:HB3	29:11:34:VAL:CG2	2.32	0.44
1:13:403:C:OP1	4:3E:137:SER:OG	2.22	0.44
1:13:611:A:N6	1:13:629:G:H1	2.14	0.44
1:13:68:G:C2	1:13:69:G:C8	3.06	0.44
1:13:753:A:H4'	1:13:754:C:H5''	2.00	0.44
1:13:929:G:C6	1:13:930:C:C4	3.06	0.44
1:13:953:G:C5'	1:13:965:A:H61	2.30	0.44
26:14:1055:G:H2'	26:14:1055:G:N3	2.33	0.44
26:14:1262:A:H2	53:J5:10:LYS:HD2	1.83	0.44
26:14:1369:G:H5''	26:14:1370:C:OP2	2.17	0.44
26:14:1630(A):C:H2'	59:14:3800:HOH:O	2.17	0.44
26:14:1832:C:N4	26:14:1833:U:C4	2.86	0.44
26:14:1849:G:H2'	26:14:1850:G:H8	1.83	0.44
26:14:2023:G:OP2	26:14:2617:C:H4'	2.17	0.44
26:14:2124:G:H1'	26:14:2176:A:H2	1.83	0.44
26:14:2241:A:H2'	26:14:2242:G:C8	2.53	0.44
26:14:2459:A:C5	26:14:2460:U:C5	3.06	0.44
26:14:2722:G:O2'	39:55:3:HIS:HB2	2.18	0.44
26:14:495:G:N2	44:A5:61:ASN:HD21	2.16	0.44
26:14:848:G:C2	26:14:849:A:C5	3.05	0.44
26:14:875:G:H2'	26:14:876:C:H5'	2.00	0.44
26:14:944:G:H5''	26:14:945:A:O5'	2.18	0.44
27:16:41:U:C5	32:41:70:VAL:HG13	2.53	0.44
21:1B:5:ASP:O	21:1B:11:GLY:HA3	2.18	0.44
1:1G:1105:A:H2'	1:1G:1106:G:C8	2.53	0.44
1:1G:1352:C:H2'	1:1G:1353:G:C8	2.53	0.44
1:1G:189:U:H6	1:1G:189:U:H5''	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:539:A:H2'	1:1G:540:G:H8	1.82	0.44
26:1H:1359:A:N3	26:1H:1359:A:O4'	2.49	0.44
26:1H:1388:G:C2'	26:1H:1389:G:H5'	2.47	0.44
26:1H:1547:C:H2'	26:1H:1548:C:C6	2.53	0.44
26:1H:1408:C:C2	26:1H:1595:G:N2	2.86	0.44
26:1H:530:G:C5	26:1H:2022:U:H5''	2.52	0.44
26:1H:1493:C:N3	26:1H:2210:G:H1'	2.33	0.44
26:1H:2811:G:H2'	26:1H:2812:G:O4'	2.18	0.44
26:1H:425:G:H2'	26:1H:426:C:H6	1.83	0.44
26:1H:852:G:O2'	26:1H:853:G:H5'	2.18	0.44
27:1J:48:A:H4'	40:65:95:HIS:CD2	2.53	0.44
37:35:101:VAL:HG21	37:35:108:LYS:HB2	2.00	0.44
31:39:17:ARG:O	31:39:17:ARG:HG2	2.18	0.44
12:3I:54:LYS:N	12:3I:54:LYS:HD3	2.33	0.44
32:49:47:LYS:HD2	32:49:81:LYS:CB	2.48	0.44
33:59:8:PRO:HG2	33:59:69:ARG:CZ	2.48	0.44
7:62:132:GLY:HA3	7:62:135:VAL:HG23	1.99	0.44
7:62:46:ALA:O	7:62:50:ILE:HG13	2.17	0.44
15:6A:70:LEU:HD21	15:6A:77:ARG:O	2.18	0.44
7:6E:104:LEU:HD13	7:6E:104:LEU:HA	1.89	0.44
15:6I:74:ASP:HB3	15:6I:77:ARG:HB3	2.00	0.44
16:7A:53:VAL:HG13	16:7A:79:VAL:HG22	1.99	0.44
17:8A:99:SER:OG	17:8A:100:LYS:N	2.51	0.44
17:8I:24:GLU:HG3	17:8I:25:ARG:N	2.33	0.44
40:A8:106:ARG:NH2	40:A8:107:GLU:HG2	2.33	0.44
20:BI:30:LYS:HE3	20:BI:80:ARG:HH22	1.83	0.44
46:G8:87:LYS:HD3	46:G8:88:LYS:N	2.33	0.44
26:14:686:G:N7	54:L5:5:TRP:CH2	2.85	0.44
55:M5:16:ILE:CD1	55:M5:22:VAL:HG22	2.47	0.44
29:11:37:LEU:C	29:11:38:LYS:HG3	2.36	0.44
1:13:12:U:O2'	1:13:526:C:H4'	2.18	0.44
1:13:1346:A:O3'	1:13:1347:G:H4'	2.18	0.44
1:13:1:U:N3	1:13:630:G:H1'	2.33	0.44
1:13:663:A:H5'	1:13:836:G:OP1	2.18	0.44
26:14:1288:U:H4'	26:14:1289:C:OP2	2.18	0.44
26:14:1434:A:H2'	26:14:1435:G:C8	2.53	0.44
26:14:1582:C:O2'	26:14:1586:A:H8	1.99	0.44
26:14:1805:U:H2'	26:14:1806:C:C6	2.53	0.44
26:14:2472:G:C4	26:14:2475:C:N4	2.86	0.44
26:14:28:A:C2	26:14:513:A:C8	3.06	0.44
26:14:717:G:H2'	26:14:718:A:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:71:A:H2	45:B5:31:HIS:NE2	2.01	0.44
26:14:848:G:N9	26:14:933:A:H8	2.16	0.44
26:14:864:G:C2'	26:14:865:C:H5'	2.47	0.44
26:14:1971:A:OP2	29:19:242:ARG:NH2	2.51	0.44
1:1G:1053:G:C6	1:1G:1199:U:H2'	2.52	0.44
1:1G:1158:C:N3	1:1G:1160:G:C8	2.85	0.44
1:1G:270:A:C6	1:1G:271:C:C4	3.06	0.44
1:1G:683:G:H2'	1:1G:684:A:C8	2.52	0.44
1:1G:949:A:H2'	1:1G:950:U:C6	2.53	0.44
26:1H:1121:C:H5''	26:1H:1122:G:OP2	2.18	0.44
26:1H:1300:U:H4'	26:1H:1301:A:H5'	2.00	0.44
26:1H:1576:U:C2	26:1H:1577:C:C5	3.06	0.44
26:1H:374:A:C2	26:1H:401:A:C4	3.06	0.44
26:1H:527:C:O2	59:1H:3776:HOH:O	2.21	0.44
22:1K:9:A:H4'	22:1K:10:G:OP2	2.16	0.44
30:29:120:TRP:CE3	30:29:155:LYS:HD3	2.53	0.44
23:2L:51:U:H2'	23:2L:52:C:C6	2.53	0.44
23:2L:8:4SU:H6	23:2L:8:4SU:O5'	2.17	0.44
26:1H:1257:C:OP1	31:31:75:HIS:HE1	2.00	0.44
24:3K:8:U:H5'	24:3K:49:G:OP2	2.17	0.44
26:1H:2310:A:C8	32:41:77:ILE:HD11	2.52	0.44
5:4E:84:PHE:HB3	5:4E:134:ALA:HB2	1.99	0.44
13:4I:32:GLU:OE2	13:4I:33:ALA:N	2.51	0.44
24:3K:35:U:N3	25:4K:14:A:N6	2.62	0.44
26:1H:1006:C:O2	35:58:106:MET:HG2	2.17	0.44
40:65:77:ALA:O	40:65:80:LEU:N	2.50	0.44
34:69:109:ILE:H	34:69:109:ILE:HD13	1.82	0.44
26:1H:2132:U:N3	28:71:5:LYS:HB3	2.33	0.44
1:1G:4:U:O4	8:72:105:ARG:HD3	2.18	0.44
41:75:4:GLY:O	41:75:6:LEU:HD13	2.18	0.44
36:25:80:ASP:OD2	41:75:71:GLY:HA3	2.18	0.44
37:78:45:LEU:HD13	37:78:45:LEU:HA	1.72	0.44
42:85:110:VAL:O	42:85:113:ALA:HB3	2.18	0.44
9:8E:59:PHE:HZ	9:8E:88:TYR:CE1	2.35	0.44
45:B5:66:LEU:HA	45:B5:66:LEU:HD23	1.82	0.44
41:B8:128:GLU:O	41:B8:132:LYS:HB2	2.17	0.44
42:C8:105:VAL:O	42:C8:109:LEU:HD12	2.18	0.44
42:C8:108:GLU:O	42:C8:112:ARG:HG2	2.17	0.44
42:C8:112:ARG:HH12	43:D8:45:THR:HG23	1.83	0.44
45:F8:92:LEU:HA	45:F8:92:LEU:HD23	1.70	0.44
50:G5:47:ASN:N	50:G5:47:ASN:OD1	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:764:A:N3	29:11:213:ARG:NH1	2.65	0.44
29:11:73:VAL:HG13	29:11:120:GLY:HA3	1.98	0.44
1:13:1021:G:H8	1:13:1021:G:O5'	2.01	0.44
1:13:1120:G:H2'	1:13:1121:U:H6	1.83	0.44
1:13:1347:G:N2	1:13:1373:G:H2'	2.33	0.44
1:13:186(C):G:C5	1:13:191(E):G:C2	3.06	0.44
1:13:322:C:H41	1:13:328:C:H6	1.64	0.44
1:13:342:C:C2'	1:13:343:U:H5'	2.47	0.44
26:14:1021:A:C6	26:14:1023:U:C5	3.06	0.44
26:14:107:C:H2'	26:14:108:U:H6	1.83	0.44
26:14:1127:A:N1	26:14:2463:C:O2'	2.51	0.44
26:14:1716:U:H2'	26:14:1717:G:H8	1.82	0.44
26:14:1894:C:C2'	26:14:1895:C:H5'	2.48	0.44
26:14:2299:G:N1	26:14:2318:G:C8	2.86	0.44
26:14:270(P):C:H6	26:14:270(P):C:O5'	2.01	0.44
26:14:997:G:C2	26:14:998:C:C6	3.05	0.44
27:16:76:G:O3'	47:H8:19:ARG:NH2	2.45	0.44
1:1G:631:G:H1'	1:1G:632:A:N7	2.32	0.44
1:1G:707:C:H2'	1:1G:708:C:C6	2.53	0.44
1:1G:784:C:H2'	1:1G:785:G:O4'	2.18	0.44
26:1H:1646:C:O3'	59:1H:3778:HOH:O	2.21	0.44
26:1H:1728:G:C6	26:1H:1730:U:H5''	2.53	0.44
26:1H:2058:A:H5''	26:1H:2059:A:OP2	2.18	0.44
26:1H:2577:A:H5''	26:1H:2578:G:H5'	2.00	0.44
26:1H:389:G:H8	26:1H:389:G:O5'	2.01	0.44
26:1H:654(D):G:H2'	26:1H:654(D):G:N3	2.33	0.44
26:1H:844:C:H3'	26:1H:845:G:H8	1.82	0.44
27:1J:15:A:H1'	27:1J:109:G:N7	2.33	0.44
22:1K:49:G:H1'	22:1K:50:C:OP1	2.17	0.44
3:22:60:ALA:H	3:22:63:ASN:HD21	1.66	0.44
30:29:23:VAL:HA	30:29:184:VAL:O	2.18	0.44
12:3A:26:ALA:HA	12:3A:98:TYR:HE2	1.83	0.44
4:3E:107:ARG:HA	4:3E:107:ARG:HD2	1.51	0.44
4:3E:153:ARG:HB3	4:3E:181:MET:SD	2.58	0.44
13:4I:7:VAL:HB	32:4I:115:ARG:HH22	1.82	0.44
25:4K:20:A:H2'	25:4K:21:G:C8	2.52	0.44
33:51:75:ALA:O	33:51:79:VAL:HG22	2.17	0.44
35:58:110:GLY:O	35:58:114:ARG:HB2	2.18	0.44
35:58:22:THR:OG1	35:58:23:LEU:N	2.50	0.44
35:58:4:TYR:OH	35:58:7:LYS:NZ	2.50	0.44
34:69:121:LYS:C	34:69:122:GLU:HG2	2.38	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7E:94:TYR:CE1	8:7E:132:GLU:HB2	2.52	0.44
9:82:26:VAL:HG22	9:82:61:ALA:H	1.81	0.44
1:13:1179:A:H4'	9:8E:103:THR:HA	1.99	0.44
18:9A:50:ILE:HG13	18:9A:74:ARG:HH21	1.83	0.44
26:14:1614:A:N6	44:A5:87:PRO:HA	2.32	0.44
45:B5:25:LYS:HD3	45:B5:80:ILE:HD11	1.99	0.44
20:BI:55:ILE:HD13	20:BI:55:ILE:HA	1.86	0.44
26:14:498:G:H21	46:C5:47:LYS:HZ1	1.64	0.44
26:1H:64:A:N9	45:F8:66:LEU:HD23	2.32	0.44
46:G8:40:GLU:HA	46:G8:41:GLY:HA2	1.73	0.44
47:H8:164:ALA:O	47:H8:165:VAL:HG22	2.18	0.44
50:K8:46:GLN:OE1	50:K8:46:GLN:N	2.51	0.44
26:1H:1500:G:O2'	29:11:100:GLY:O	2.30	0.43
29:11:9:TYR:CZ	29:11:13:ARG:HG2	2.53	0.43
2:12:218:ALA:O	2:12:219:VAL:HG22	2.18	0.43
2:12:32:ILE:HD11	2:12:40:HIS:CD2	2.52	0.43
1:13:1113:C:H2'	1:13:1114:C:C6	2.53	0.43
1:13:234:C:H2'	1:13:235:C:C6	2.53	0.43
1:13:805:C:C2'	1:13:806:C:H5'	2.48	0.43
26:14:1509:C:H5'	26:14:1510:A:O4'	2.18	0.43
26:14:1757:U:N3	26:14:1762:A:H2	2.04	0.43
26:14:1820:U:C4	29:19:160:GLY:HA3	2.53	0.43
26:14:966:G:O4'	26:14:2267:A:N6	2.51	0.43
26:14:412:A:H5''	26:14:413:C:OP2	2.18	0.43
21:1B:9:ARG:HA	21:1B:22:ARG:HB2	1.99	0.43
1:1G:1124:G:H1'	10:1A:38:ILE:HD11	2.00	0.43
1:1G:1452:C:H4'	1:1G:1453:G:H5'	1.99	0.43
1:1G:803:G:C5	1:1G:804:U:C4	3.06	0.43
26:1H:1510:A:N3	26:1H:1510:A:H2'	2.33	0.43
26:1H:2115:G:OP1	26:1H:2166:G:O2'	2.31	0.43
26:1H:2129:C:OP1	28:71:6:ARG:NE	2.51	0.43
26:1H:2271:G:N7	59:1H:3779:HOH:O	2.36	0.43
26:1H:2473:U:C2'	26:1H:2474:C:H5'	2.48	0.43
26:1H:250:G:H5'	37:78:60:MET:SD	2.58	0.43
26:1H:298:G:OP2	46:G8:84:ARG:HD2	2.18	0.43
26:1H:349:G:H2'	26:1H:350:U:O4'	2.18	0.43
26:1H:471:A:P	59:1H:3863:HOH:O	2.76	0.43
26:1H:882:G:N2	26:1H:894:C:N3	2.66	0.43
27:1J:21:G:H2'	27:1J:22:U:O4'	2.17	0.43
30:29:173:VAL:N	30:29:183:LEU:O	2.40	0.43
30:29:195:LEU:HA	30:29:195:LEU:HD12	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:112:THR:O	11:2I:114:VAL:HG12	2.18	0.43
23:2L:54:G:C5	23:2L:55:5MU:H72	2.53	0.43
31:39:3:GLU:HA	31:39:24:LEU:HD12	1.99	0.43
12:3A:110:VAL:HA	12:3A:111:LYS:HE2	2.00	0.43
1:1G:909:A:OP1	12:3A:21:LYS:HE2	2.18	0.43
12:3A:27:LEU:HB3	12:3A:33:ARG:CG	2.48	0.43
5:42:15:ARG:NH1	25:4L:25:A:H5''	2.33	0.43
32:49:6:ALA:O	32:49:8:LYS:N	2.51	0.43
5:4E:147:ASP:O	5:4E:151:LEU:HB2	2.18	0.43
13:4I:37:THR:HB	13:4I:55:ARG:HD2	2.00	0.43
13:4I:7:VAL:HG12	13:4I:8:GLU:N	2.33	0.43
33:51:58:GLU:O	33:51:61:HIS:N	2.51	0.43
6:52:39:LYS:HB2	6:52:64:GLN:HB3	2.00	0.43
1:1G:1216:G:H5''	14:5A:5:ALA:HB3	2.00	0.43
6:5E:36:ARG:CZ	6:5E:36:ARG:HB3	2.48	0.43
7:62:59:LEU:O	7:62:63:LYS:HG3	2.18	0.43
40:65:33:LYS:HB3	40:65:34:HIS:CD2	2.52	0.43
7:6E:24:THR:O	7:6E:27:ILE:HB	2.18	0.43
28:71:180:PHE:HA	28:71:181:PRO:HD3	1.62	0.43
41:75:18:ASP:OD1	41:75:18:ASP:N	2.49	0.43
37:78:61:ARG:HG2	37:78:61:ARG:H	1.59	0.43
8:7E:25:ASP:C	8:7E:26:VAL:HG12	2.38	0.43
39:98:55:ALA:HB1	39:98:84:ALA:HB2	2.00	0.43
41:B8:6:LEU:HD12	41:B8:6:LEU:HA	1.74	0.43
47:D5:59:LEU:HB3	47:D5:60:GLU:H	1.40	0.43
48:E5:29:GLN:O	48:E5:67:VAL:HG23	2.17	0.43
50:G5:4:SER:HA	50:G5:5:GLU:C	2.39	0.43
49:J8:2:SER:O	49:J8:2:SER:OG	2.33	0.43
50:K8:15:LYS:N	50:K8:67:LYS:HZ1	2.16	0.43
1:13:1071:C:H2'	1:13:1072:G:C8	2.54	0.43
1:13:110:C:H2'	1:13:111:G:O4'	2.17	0.43
1:13:191(D):U:H2'	1:13:191(E):G:C8	2.53	0.43
1:13:300:A:H1'	1:13:565:U:O2	2.18	0.43
1:13:575:G:H4'	1:13:576:G:O5'	2.18	0.43
26:14:1149:G:C6	26:14:1150:C:N4	2.86	0.43
26:14:1475:G:C4	26:14:1519:G:N2	2.87	0.43
26:14:2784:C:O2	30:29:37:ARG:NH2	2.51	0.43
26:14:34:C:HO2'	26:14:35:G:H8	1.65	0.43
26:14:375:C:H2'	26:14:376:C:C6	2.53	0.43
26:14:547:A:C6	26:14:548:A:N6	2.87	0.43
26:14:959:A:C6	26:14:960:A:C2	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:96:G:H4'	50:G5:48:HIS:CD2	2.54	0.43
27:16:41:U:H5	32:41:70:VAL:O	2.00	0.43
29:19:30:GLU:CB	29:19:35:LYS:NZ	2.80	0.43
2:1E:236:TYR:N	2:1E:236:TYR:CD1	2.85	0.43
1:1G:1056:U:H2'	1:1G:1056:U:O2	2.17	0.43
1:1G:1228:C:H2'	1:1G:1229:A:C8	2.54	0.43
1:1G:1280:A:H5''	10:1A:40:LEU:HG	2.00	0.43
1:1G:1402:C:H2'	1:1G:1403:C:O4'	2.18	0.43
1:1G:145:G:H2'	1:1G:146:G:O4'	2.19	0.43
1:1G:537:G:H2'	1:1G:538:G:H8	1.83	0.43
1:1G:927:G:H2'	1:1G:928:G:H8	1.83	0.43
26:1H:1257:C:H4'	31:31:83:PHE:CE1	2.53	0.43
26:1H:1684:C:C2	26:1H:1705:G:N2	2.87	0.43
26:1H:1756:G:H4'	26:1H:1758:G:O4'	2.18	0.43
26:1H:2286:A:H4'	26:1H:2287:A:O5'	2.18	0.43
26:1H:270(F):U:H2'	26:1H:270(G):C:C6	2.52	0.43
26:1H:1709:U:H1'	26:1H:2860:A:N3	2.33	0.43
10:1I:34:VAL:HG12	10:1I:74:ILE:HG23	2.00	0.43
3:22:11:ARG:NH2	3:22:177:THR:O	2.48	0.43
11:2A:21:ILE:HD12	11:2A:95:ILE:HD13	2.00	0.43
31:31:134:GLY:CA	31:31:166:ALA:HB2	2.47	0.43
37:35:29:LYS:HG2	37:35:30:THR:N	2.33	0.43
12:3I:126:LYS:HA	12:3I:126:LYS:HD3	1.78	0.43
38:45:30:GLY:CA	38:45:107:ALA:HB2	2.48	0.43
32:49:61:ALA:O	32:49:65:GLY:N	2.46	0.43
32:49:88:ILE:HD12	32:49:88:ILE:HA	1.78	0.43
5:4E:6:PHE:CE1	5:4E:36:ASP:HB3	2.54	0.43
13:4I:3:ARG:NH2	13:4I:9:ILE:HD11	2.33	0.43
33:51:149:ARG:HG3	33:51:162:ILE:HG22	1.99	0.43
6:52:87:ARG:NH1	6:52:87:ARG:HG2	2.31	0.43
35:58:57:ALA:O	35:58:59:LYS:N	2.51	0.43
6:5E:86:ARG:O	6:5E:87:ARG:HG2	2.18	0.43
34:61:130:TYR:C	34:61:131:LYS:HD2	2.38	0.43
40:65:54:LEU:O	40:65:56:LEU:N	2.47	0.43
40:65:26:LEU:HD13	40:65:87:PHE:HD1	1.83	0.43
28:71:20:TYR:O	28:71:225:ASN:N	2.51	0.43
41:75:3:ARG:N	41:75:4:GLY:CA	2.81	0.43
30:29:13:ARG:HH21	41:75:77:PRO:HB3	1.83	0.43
37:78:91:PHE:O	37:78:123:LEU:HD11	2.18	0.43
26:1H:196:A:C8	37:78:46:LYS:HG3	2.54	0.43
16:7I:28:ARG:HG3	16:7I:29:ASP:N	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1200:C:H1'	42:85:2:PRO:HG3	2.00	0.43
9:8E:18:PHE:HD2	9:8E:62:TYR:HD2	1.65	0.43
40:A8:78:LEU:HA	40:A8:82:ILE:O	2.18	0.43
46:C5:59:GLY:O	46:C5:61:ILE:HG12	2.17	0.43
42:C8:91:ASP:OD1	42:C8:95:LEU:O	2.36	0.43
50:K8:8:LYS:HA	50:K8:8:LYS:HD2	1.74	0.43
55:M5:33:ASN:HA	55:M5:36:LYS:HD2	2.00	0.43
54:P8:10:ARG:HG2	54:P8:10:ARG:O	2.17	0.43
29:11:30:GLU:CG	29:11:35:LYS:HE2	2.48	0.43
1:13:1125:U:C5	1:13:1126:U:C4	3.07	0.43
1:13:243:A:H4'	1:13:244:U:C5'	2.48	0.43
1:13:343:U:H2'	1:13:345:C:O2	2.18	0.43
1:13:410:G:O6	59:13:1833:HOH:O	2.19	0.43
26:14:1628:G:H2'	26:14:1629:U:C6	2.53	0.43
26:14:2420:C:O2'	26:14:2421:G:H5'	2.19	0.43
26:14:932:G:N2	59:14:3686:HOH:O	2.28	0.43
26:14:947:G:H2'	26:14:948:G:C8	2.53	0.43
29:19:118:VAL:HG22	29:19:119:ALA:H	1.84	0.43
2:1E:71:VAL:O	2:1E:165:VAL:HG22	2.18	0.43
1:1G:109:A:H5'	1:1G:110:C:C5	2.52	0.43
1:1G:1173:G:H2'	1:1G:1174:G:O4'	2.18	0.43
1:1G:129(A):G:C2	1:1G:191(A):G:C8	3.06	0.43
1:1G:736:C:H2'	1:1G:737:A:H8	1.79	0.43
26:1H:1088:A:N3	26:1H:1088:A:H3'	2.34	0.43
26:1H:120:U:P	59:1H:4056:HOH:O	2.76	0.43
26:1H:2461:C:H2'	26:1H:2462:U:C6	2.54	0.43
26:1H:2518:A:H8	26:1H:2518:A:H5'	1.81	0.43
26:1H:2646:C:H2'	26:1H:2647:U:O4'	2.17	0.43
26:1H:2801:A:H8	26:1H:2802:G:C8	2.36	0.43
30:21:117:MET:O	30:21:118:LYS:HB3	2.18	0.43
30:21:59:VAL:HG22	30:21:60:ASN:H	1.84	0.43
36:25:22:ILE:HB	36:25:41:ALA:HA	2.00	0.43
30:29:63:LEU:HD12	30:29:73:GLU:OE2	2.18	0.43
4:32:135:LEU:HA	4:32:136:PRO:HD2	1.91	0.43
31:39:169:ASN:O	31:39:169:ASN:ND2	2.51	0.43
4:3E:12:CYS:SG	4:3E:19:LEU:N	2.81	0.43
4:3E:138:TYR:HD1	4:3E:138:TYR:C	2.22	0.43
12:3I:53:ARG:NH1	12:3I:92:ASP:OD1	2.51	0.43
24:3L:3:G:O5'	24:3L:3:G:H8	2.02	0.43
32:41:107:LEU:HD11	32:41:178:PHE:CD1	2.54	0.43
32:41:16:ARG:N	32:41:17:PRO:HD2	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:45:58:PHE:O	38:45:58:PHE:CD1	2.71	0.43
13:4A:22:ILE:HB	13:4A:25:ILE:CG1	2.46	0.43
5:4E:147:ASP:HA	5:4E:150:ARG:HH21	1.83	0.43
6:52:33:TYR:CZ	6:52:78:GLU:HG3	2.53	0.43
6:52:33:TYR:HE1	6:52:78:GLU:HG3	1.80	0.43
7:62:126:ASP:HB3	7:62:131:LYS:O	2.18	0.43
15:6I:36:ILE:CD1	15:6I:63:ARG:HD3	2.48	0.43
37:78:47:ASP:OD1	37:78:49:ARG:NH1	2.50	0.43
38:88:21:THR:CG2	38:88:25:ASP:HB2	2.47	0.43
48:E5:36:ILE:HD11	48:E5:39:ARG:HG2	1.99	0.43
49:F5:84:GLY:HA3	49:F5:87:PRO:HD2	1.99	0.43
49:F5:93:GLU:HB3	49:F5:94:LEU:H	1.37	0.43
46:G8:89:PHE:CD1	46:G8:90:LEU:N	2.86	0.43
47:H8:103:ARG:HE	47:H8:103:ARG:HB3	1.50	0.43
48:I8:10:THR:O	48:I8:12:ASN:N	2.51	0.43
48:I8:49:LYS:O	48:I8:50:ASN:HB2	2.18	0.43
55:Q8:44:LYS:C	55:Q8:45:GLY:O	2.56	0.43
1:13:1055:A:C5	1:13:1206:G:C2	3.06	0.43
1:13:956:U:O2	1:13:1225:A:C2	2.71	0.43
1:13:1251:A:H2'	1:13:1252:A:C8	2.52	0.43
1:13:222:U:C2	1:13:223:U:C5	3.06	0.43
1:13:228:A:H2'	1:13:229:U:O4'	2.18	0.43
1:13:417:C:C2	1:13:418:C:C5	3.06	0.43
1:13:50:A:H1'	1:13:52:G:C8	2.54	0.43
1:13:544:G:C6	1:13:545:C:C4	3.07	0.43
1:13:828:A:H2'	1:13:829:G:O4'	2.18	0.43
1:13:972:C:OP1	59:13:1840:HOH:O	2.21	0.43
26:14:1759:A:C8	26:14:2696:U:O2	2.71	0.43
26:14:1991:U:C2'	26:14:1992:G:H5''	2.49	0.43
26:14:2057:A:P	59:14:3693:HOH:O	2.76	0.43
26:14:2309:A:C6	26:14:2310:A:C6	3.06	0.43
26:14:632:A:O2'	26:14:633:A:H5'	2.18	0.43
27:16:68:C:C2'	27:16:69:G:H5'	2.49	0.43
1:1G:104:G:C2	1:1G:105:G:C8	3.06	0.43
1:1G:1157:A:N6	1:1G:1181:G:C8	2.87	0.43
1:1G:1359:C:H4'	1:1G:1360:A:OP2	2.17	0.43
1:1G:1442:G:HO2'	1:1G:1443:G:P	2.38	0.43
1:1G:198:G:C6	1:1G:220:G:C2	3.06	0.43
1:1G:266:G:O3'	17:8A:67:LYS:HB2	2.18	0.43
1:1G:109:A:C6	1:1G:326:G:C6	3.06	0.43
1:1G:58:C:O2'	1:1G:388:G:N7	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:688:G:H2'	1:1G:689:C:H6	1.83	0.43
1:1G:837:G:H2'	1:1G:838:G:O4'	2.19	0.43
1:1G:919:A:H2'	1:1G:920:U:H5'	1.99	0.43
1:1G:951:G:HO2'	1:1G:972:C:H5	1.61	0.43
26:1H:1163:G:C2	26:1H:1164:G:C8	3.07	0.43
26:1H:1799:G:O2'	26:1H:1800:C:OP2	2.22	0.43
26:1H:2370:G:C6	26:1H:2371:G:C6	3.06	0.43
26:1H:270(E):G:C5	26:1H:270(F):U:C4	3.07	0.43
26:1H:548:A:H2'	26:1H:549:G:C5'	2.44	0.43
26:1H:844:C:H3'	26:1H:845:G:C8	2.54	0.43
27:1J:109:G:C6	27:1J:110:G:C5	3.06	0.43
30:29:9:VAL:HA	41:75:3:ARG:CD	2.48	0.43
11:2A:116:HIS:O	11:2A:117:ASN:HB2	2.18	0.43
11:2I:27:ASN:OD1	11:2I:28:THR:N	2.52	0.43
23:2L:38:A:H2'	23:2L:39:A:O4'	2.19	0.43
23:2L:38:A:O2'	23:2L:39:A:H5'	2.18	0.43
31:39:9:ILE:HG12	31:39:14:PRO:HA	2.00	0.43
4:3E:162:LEU:HD12	4:3E:181:MET:HE3	1.99	0.43
12:3I:53:ARG:HG3	12:3I:53:ARG:HH11	1.83	0.43
24:3K:75:C:O2'	24:3K:76:A:H2	2.01	0.43
32:41:88:ILE:HG22	32:41:88:ILE:O	2.18	0.43
32:49:39:ILE:HD11	32:49:102:PHE:CZ	2.53	0.43
33:51:6:ARG:HB3	33:51:65:HIS:CG	2.53	0.43
7:62:111:ARG:H	7:62:111:ARG:HG3	1.60	0.43
15:6A:54:ARG:O	15:6A:58:MET:HG3	2.18	0.43
42:85:106:PHE:O	42:85:109:LEU:HB2	2.18	0.43
42:85:39:LEU:HD23	42:85:39:LEU:HA	1.72	0.43
26:14:996:A:H4'	42:85:92:ARG:CZ	2.48	0.43
39:98:27:SER:HB3	39:98:34:ILE:HD11	1.99	0.43
18:9A:58:LEU:HD22	18:9A:62:GLU:HB3	1.99	0.43
42:C8:92:ARG:HH21	43:D8:10:LYS:CB	2.31	0.43
26:1H:2599:G:N7	29:11:237:GLU:HB2	2.34	0.43
1:13:195:A:C5	1:13:196:A:N1	2.86	0.43
1:13:377:G:P	16:7I:5:ARG:HH11	2.41	0.43
1:13:468:A:H3'	1:13:474:G:C8	2.54	0.43
1:13:475:G:H2'	1:13:476:G:H8	1.83	0.43
1:13:652:U:C4	1:13:752:G:N3	2.86	0.43
1:13:671:G:H2'	1:13:672:U:C6	2.51	0.43
1:13:7:G:H5'	1:13:298:A:O4'	2.17	0.43
1:13:820:U:H4'	1:13:821:G:OP2	2.18	0.43
1:13:868:C:H2'	1:13:869:G:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1111:A:O3'	26:14:1112:G:H4'	2.19	0.43
26:14:1163:G:H2'	26:14:1164:G:H8	1.84	0.43
26:14:2291:U:O2'	26:14:2374:C:O2	2.36	0.43
26:14:2462:U:H2'	26:14:2463:C:C6	2.53	0.43
26:14:2475:C:H3'	26:14:2476:A:C5'	2.48	0.43
26:14:270(X):G:OP2	59:14:3645:HOH:O	2.21	0.43
26:14:2774:C:H2'	26:14:2775:A:O4'	2.19	0.43
26:14:2849:U:H1'	26:14:2866:U:O2	2.18	0.43
26:14:442:G:C4	26:14:444:C:C5	3.06	0.43
10:1A:55:LYS:HA	10:1A:55:LYS:HD2	1.59	0.43
21:1F:10:ARG:HH11	21:1F:10:ARG:HB3	1.80	0.43
1:1G:1246:C:H2'	1:1G:1247:U:H6	1.83	0.43
1:1G:265:G:H5'	17:8A:64:PRO:O	2.18	0.43
1:1G:590:C:H2'	1:1G:591:U:C6	2.52	0.43
1:1G:654:G:C2	1:1G:753:A:C4	3.06	0.43
26:1H:1142(A):A:C5	26:1H:1144:G:C5	3.07	0.43
26:1H:1491:G:N2	26:1H:1500:G:H1'	2.34	0.43
26:1H:2134:A:N6	26:1H:2157:G:H4'	2.33	0.43
22:1K:76:A:H8	26:1H:2583:G:H21	1.60	0.43
26:1H:2592:G:C6	26:1H:2593:U:N3	2.87	0.43
26:1H:869:G:C5	59:1H:3698:HOH:O	2.70	0.43
26:1H:997:G:C2'	26:1H:998:C:H5'	2.48	0.43
30:21:49:LEU:HD12	30:21:49:LEU:HA	1.58	0.43
3:22:72:LYS:HG3	3:22:75:VAL:HG23	2.00	0.43
30:29:181:LEU:HA	30:29:181:LEU:HD12	1.80	0.43
1:13:1190:G:OP1	3:2E:5:ILE:HG23	2.18	0.43
11:2I:21:ILE:HG12	11:2I:94:ALA:HB1	2.00	0.43
23:2L:9:G:N3	23:2L:46:G:H2'	2.34	0.43
37:35:60:MET:HB3	37:35:60:MET:HE2	1.81	0.43
31:39:134:GLY:HA2	31:39:166:ALA:HB2	2.00	0.43
4:3E:7:PRO:HB2	4:3E:10:ARG:HD2	2.00	0.43
24:3L:21:A:H2	24:3L:46:G:H22	1.66	0.43
32:49:120:LEU:HB2	32:49:180:PHE:HD1	1.82	0.43
32:49:16:ARG:N	32:49:17:PRO:HD2	2.34	0.43
13:4A:78:ILE:O	13:4A:81:LEU:N	2.50	0.43
33:51:83:TYR:HB2	33:51:84:SER:H	1.52	0.43
26:1H:2780:G:OP1	35:58:118:LYS:HE3	2.18	0.43
35:58:7:LYS:H	35:58:7:LYS:HD2	1.83	0.43
34:69:44:LEU:HD23	34:69:44:LEU:HA	1.74	0.43
7:6E:113:GLU:HG3	7:6E:119:ARG:HG2	2.00	0.43
15:6I:67:LEU:O	15:6I:71:GLN:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:71:7:TYR:HA	28:71:10:LEU:HD22	2.00	0.43
28:71:7:TYR:HD1	28:71:10:LEU:HD23	1.83	0.43
9:82:25:LYS:NZ	9:82:33:PHE:HB3	2.33	0.43
42:85:8:VAL:O	42:85:12:ARG:HG3	2.17	0.43
38:88:30:GLY:HA2	38:88:107:ALA:HB2	1.99	0.43
1:13:1116:C:O2'	9:8E:108:VAL:HG21	2.19	0.43
18:9A:22:VAL:C	18:9A:24:ALA:H	2.21	0.43
44:A5:63:ASP:CG	44:A5:63:ASP:O	2.57	0.43
42:C8:88:ILE:C	42:C8:90:VAL:H	2.22	0.43
48:E5:50:ASN:HB3	48:E5:63:VAL:HG22	2.00	0.43
46:G8:34:LYS:HD3	46:G8:36:ALA:HB2	1.99	0.43
46:G8:94:LYS:HD2	46:G8:94:LYS:HA	1.49	0.43
49:J8:75:GLU:O	49:J8:77:ALA:N	2.51	0.43
52:M8:42:PHE:O	52:M8:43:TYR:C	2.57	0.43
52:M8:6:HIS:HD1	52:M8:7:PRO:HD2	1.82	0.43
54:P8:31:LEU:O	54:P8:35:ARG:HB2	2.19	0.43
1:13:134:A:H1'	1:13:325:A:C5	2.54	0.43
1:13:390:C:H2'	1:13:391:G:C8	2.54	0.43
1:13:509:A:H5'	4:3E:54:TYR:HD2	1.83	0.43
26:14:1057:A:H8	26:14:1086:A:O2'	2.01	0.43
26:14:1071:G:O6	26:14:1072:C:N4	2.52	0.43
26:14:12:U:O2	26:14:12:U:H2'	2.18	0.43
26:14:1386:C:OP2	26:14:1396:U:H5	2.01	0.43
26:14:139:G:H5'	26:14:139:G:H8	1.84	0.43
26:14:1557:C:H5''	26:14:1558:A:OP2	2.19	0.43
26:14:2196:C:O2'	26:14:2197:U:H5'	2.18	0.43
26:14:2335:A:C8	26:14:2337:G:C5	3.07	0.43
26:14:2287:A:N1	26:14:2346:A:H2	2.16	0.43
26:14:246:C:H41	55:M5:8:LYS:HG3	1.83	0.43
26:14:2076:U:H5	26:14:2596:U:O2	2.01	0.43
26:14:2647:U:H2'	26:14:2648:C:C6	2.54	0.43
26:14:2854:G:C2	26:14:2864:G:C2	3.07	0.43
26:14:806:C:C2	26:14:807:U:C5	3.05	0.43
26:14:838:C:O2'	26:14:839:U:H5'	2.19	0.43
26:14:879:G:C2'	26:14:897:C:H41	2.31	0.43
27:16:19:G:H2'	27:16:20:C:O4'	2.19	0.43
10:1A:46:ARG:NH2	14:5A:61:TRP:CZ2	2.87	0.43
2:1E:58:ILE:O	2:1E:62:ALA:N	2.41	0.43
1:1G:1004:A:H8	1:1G:1026:G:C8	2.36	0.43
1:1G:1286:A:H2'	1:1G:1287:A:H4'	2.00	0.43
1:1G:266:G:H2'	1:1G:266:G:N3	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:376:G:H5''	16:7A:5:ARG:HB2	2.00	0.43
26:1H:1142(A):A:C4	26:1H:1144:G:N7	2.87	0.43
26:1H:1270:C:H5''	26:1H:1271:G:O5'	2.18	0.43
26:1H:141(A):C:H2'	26:1H:142:G:O4'	2.19	0.43
26:1H:2098:U:H2'	26:1H:2099:U:O4'	2.18	0.43
26:1H:2284:C:C2'	26:1H:2285:C:H5'	2.49	0.43
26:1H:2378:A:H4'	40:A8:23:ARG:NH1	2.33	0.43
26:1H:2751:G:C6	33:51:3:ARG:HG3	2.53	0.43
26:1H:2744:G:C8	26:1H:2755:C:C6	3.06	0.43
26:1H:287:C:H2'	26:1H:288:C:C6	2.53	0.43
10:1I:48:THR:OG1	10:1I:62:HIS:CE1	2.71	0.43
3:22:11:ARG:NH2	3:22:182:ILE:HD11	2.33	0.43
3:22:73:PRO:O	3:22:76:VAL:HG22	2.18	0.43
26:14:2579:C:O2'	30:29:134:ILE:HD11	2.18	0.43
3:2E:11:ARG:HE	3:2E:180:ALA:HB3	1.84	0.43
23:2K:19:G:C2	23:2K:59:A:C5	3.07	0.43
4:32:13:ARG:C	4:32:15:GLU:N	2.72	0.43
24:3L:61:C:O2'	28:79:52:ARG:NH2	2.52	0.43
5:4E:76:ILE:HB	5:4E:77:PRO:HD2	2.01	0.43
7:62:121:ALA:O	7:62:125:MET:HG3	2.19	0.43
15:6A:81:LEU:HD12	15:6A:81:LEU:HA	1.83	0.43
28:71:6:ARG:O	28:71:10:LEU:HD13	2.18	0.43
38:88:112:GLU:CD	38:88:112:GLU:H	2.21	0.43
43:95:37:VAL:HG11	43:95:40:LEU:HD23	2.00	0.43
44:A5:6:ILE:HG23	44:A5:104:THR:OG1	2.19	0.43
27:16:7:G:O5'	40:A8:29:PHE:CE2	2.72	0.43
19:AA:17:GLU:O	19:AA:20:LEU:HB2	2.18	0.43
19:AA:7:LYS:HD2	19:AA:7:LYS:C	2.39	0.43
19:AI:41:VAL:HG12	19:AI:42:PRO:HA	1.99	0.43
41:B8:16:ARG:HE	41:B8:19:LEU:HD21	1.83	0.43
47:D5:61:LEU:HB3	47:D5:62:PRO:O	2.18	0.43
47:D5:98:MET:O	47:D5:125:LEU:HD12	2.18	0.43
49:F5:92:LYS:CA	49:F5:95:LEU:HB2	2.48	0.43
51:L8:3:ARG:HG3	51:L8:59:VAL:HG13	2.00	0.43
52:M8:14:ILE:HG22	52:M8:24:THR:HG22	1.99	0.43
26:1H:1310:G:OP2	54:P8:9:ARG:NH1	2.51	0.43
29:11:65:ILE:HD12	29:11:66:ASP:H	1.83	0.43
2:12:22:LYS:O	2:12:22:LYS:HG3	2.18	0.43
1:13:1291:G:OP1	7:6E:37:ASN:ND2	2.52	0.43
1:13:20:U:C2'	1:13:21:G:H5'	2.49	0.43
1:13:953:G:C2	1:13:954:G:HI'	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:987:G:O2'	26:14:1000:A:N3	2.44	0.43
26:14:1005:C:C2	26:14:1143:A:C5	3.07	0.43
26:14:1380:G:N2	26:14:1570:A:C2	2.86	0.43
26:14:1534:G:H3'	26:14:1535:U:C5'	2.46	0.43
26:14:1629:U:H2'	26:14:1630:G:C8	2.54	0.43
26:14:1945:G:C4	26:14:1946:U:C5	3.07	0.43
26:14:278:A:H2'	26:14:278:A:OP2	2.18	0.43
26:14:2849:U:OP1	41:75:95:ARG:NH1	2.52	0.43
26:14:43:G:H2'	26:14:44:A:O4'	2.19	0.43
26:14:636:G:N7	37:35:113:LYS:NZ	2.55	0.43
26:14:649:G:H2'	26:14:650:C:C6	2.54	0.43
26:14:873:G:C2	26:14:905:U:O2	2.71	0.43
35:15:35:ARG:HB3	35:15:42:TRP:HZ3	1.84	0.43
35:15:39:ARG:NH1	35:15:41:ASP:HB2	2.33	0.43
1:1G:1008:C:C2	1:1G:1022:G:N2	2.87	0.43
1:1G:1021:G:H2'	1:1G:1022:G:C8	2.53	0.43
1:1G:1086:U:O5'	1:1G:1086:U:H6	2.02	0.43
1:1G:1327:C:H2'	1:1G:1328:C:C6	2.54	0.43
1:1G:1392:G:H21	1:1G:1502:A:H8	1.67	0.43
1:1G:562:C:H4'	1:1G:563:A:O5'	2.18	0.43
1:1G:949:A:H1'	1:1G:1364:U:O2	2.18	0.43
26:1H:1106:G:H2'	26:1H:1107:G:O4'	2.19	0.43
26:1H:1108:U:O4	26:1H:1109:C:N4	2.52	0.43
26:1H:11:G:C2'	26:1H:12:U:H5'	2.48	0.43
26:1H:1405:U:H2'	26:1H:1406:U:H6	1.79	0.43
26:1H:1532:C:H2'	26:1H:1533:C:O4'	2.18	0.43
26:1H:1664:A:N6	26:1H:1665:A:N6	2.67	0.43
26:1H:172:C:H2'	26:1H:173:G:H8	1.83	0.43
26:1H:2292:C:OP2	40:A8:17:ARG:NH2	2.52	0.43
22:1K:76:A:C1'	26:1H:2583:G:H21	2.32	0.43
26:1H:827:U:H5'	26:1H:828:U:O5'	2.18	0.43
26:1H:90:U:H6	26:1H:90:U:OP1	2.01	0.43
26:1H:95:G:O2'	50:K8:48:HIS:HB3	2.19	0.43
9:8E:115:GLY:HA2	10:1I:58:ASP:OD2	2.19	0.43
22:1L:9:A:N7	22:1L:45:G:C6	2.87	0.43
3:22:65:ALA:HA	3:22:100:ALA:CB	2.49	0.43
3:22:148:GLY:HA3	3:22:172:ARG:H	1.84	0.43
3:22:47:LEU:HG	3:22:68:VAL:HG11	1.99	0.43
3:22:76:VAL:O	3:22:84:ILE:HA	2.19	0.43
30:29:54:GLN:CD	30:29:55:ASN:H	2.21	0.43
11:2I:40:ILE:HG22	11:2I:75:TYR:HD2	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:25:ARG:NH1	4:32:30:LYS:O	2.51	0.43
1:13:406:G:H21	4:3E:119:GLN:HE22	1.66	0.43
5:4E:71:LEU:C	5:4E:72:GLN:HE21	2.21	0.43
33:51:38:SER:HA	33:51:39:PRO:HD3	1.89	0.43
7:62:143:ARG:H	7:62:143:ARG:CD	2.32	0.43
36:68:67:LYS:HE3	36:68:68:GLU:OE1	2.18	0.43
1:13:1374:A:O2'	7:6E:28:ASN:HB3	2.19	0.43
15:6I:7:GLU:O	15:6I:11:VAL:HG23	2.17	0.43
1:1G:1291:G:O3'	9:82:39:GLY:HA3	2.19	0.43
38:88:66:ILE:CG1	38:88:67:ARG:H	2.30	0.43
17:8I:7:THR:OG1	17:8I:58:GLU:HG2	2.18	0.43
19:AA:12:ASP:HB3	19:AA:38:SER:OG	2.18	0.43
19:AA:66:MET:HB3	19:AA:69:HIS:CE1	2.54	0.43
19:AI:5:LEU:O	19:AI:6:LYS:CB	2.66	0.43
45:B5:53:LYS:HB3	45:B5:82:GLN:HB3	1.98	0.43
47:D5:4:ARG:HB3	47:D5:58:VAL:HB	2.00	0.43
51:H5:6:VAL:HG12	51:H5:56:VAL:HB	2.00	0.43
47:H8:59:LEU:HA	47:H8:59:LEU:HD23	1.65	0.43
50:K8:15:LYS:HZ2	50:K8:67:LYS:NZ	2.17	0.43
29:11:85:ASP:OD2	29:11:88:ARG:NH1	2.39	0.43
2:12:201:ILE:HA	2:12:202:PRO:HD2	1.92	0.43
1:13:955:U:H1'	1:13:1227:A:N6	2.34	0.43
1:13:942:G:C2	1:13:1342:C:C2	3.07	0.43
1:13:141:A:C2	1:13:142:G:C5	3.07	0.43
1:13:21:G:OP1	59:13:1841:HOH:O	2.22	0.43
1:13:295:C:H2'	1:13:296:U:O4'	2.18	0.43
1:13:516:U:C4	1:13:517:G:C6	3.07	0.43
1:13:943:U:C1'	9:8E:124:GLN:HE22	2.32	0.43
26:14:1115:G:C6	26:14:1116:C:C4	3.07	0.43
26:14:1260:G:C6	26:14:1261:C:C4	3.06	0.43
26:14:138:G:C2'	26:14:139:G:H5"	2.49	0.43
26:14:1751:C:O2'	26:14:1752:C:H5'	2.19	0.43
26:14:1932:A:H2'	26:14:1933:G:O4'	2.18	0.43
26:14:2001:A:H2'	26:14:2002:G:C8	2.53	0.43
26:14:2472:G:N2	26:14:2477:C:OP1	2.38	0.43
26:14:2687:U:C4	26:14:2688:U:C5	3.07	0.43
26:14:229:A:H2	26:14:418:G:H4'	1.84	0.43
26:14:957:A:N6	26:14:2459:A:C8	2.87	0.43
27:16:32:C:C2	27:16:51:G:N2	2.86	0.43
29:19:228:PRO:HD3	29:19:235:GLY:HA3	1.99	0.43
29:19:30:GLU:CG	29:19:35:LYS:HZ3	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1F:6:ARG:HH11	21:1F:15:ARG:CD	2.32	0.43
1:1G:1148:U:C4	1:1G:1149:C:C2	3.07	0.43
1:1G:1206:G:O5'	1:1G:1206:G:H8	2.02	0.43
1:1G:1224:G:C2	1:1G:1322:C:H4'	2.54	0.43
1:1G:652:U:O2'	1:1G:653:A:N3	2.42	0.43
1:1G:867:G:O2'	1:1G:868:C:H5'	2.19	0.43
26:1H:1506:C:H5'	26:1H:1507:A:OP2	2.19	0.43
26:1H:151:C:H2'	26:1H:152:G:C8	2.54	0.43
26:1H:182:A:H2'	26:1H:183:C:C6	2.53	0.43
22:1K:76:A:C8	26:1H:2507:C:H1'	2.54	0.43
26:1H:2597:G:H2'	26:1H:2598:A:C8	2.54	0.43
26:1H:330:A:O2'	26:1H:331:A:C8	2.66	0.43
27:1J:2:C:H2'	27:1J:3:C:C6	2.54	0.43
27:1J:60:C:H2'	27:1J:61:G:H8	1.84	0.43
22:1K:17:U:O4	22:1K:55:PSU:H1'	2.19	0.43
22:1L:8:U:H3'	22:1L:13:C:H42	1.84	0.43
11:2I:69:ALA:HB1	11:2I:73:MET:HE3	2.01	0.43
11:2I:92:GLU:O	11:2I:96:ARG:HB2	2.19	0.43
31:31:29:ASN:HB3	31:31:112:MET:HE1	2.00	0.43
31:31:53:THR:HG23	31:31:56:GLU:OE2	2.19	0.43
24:3L:29:U:H2'	24:3L:30:G:C8	2.54	0.43
24:3L:31:A:H5'	24:3L:32:C:OP2	2.18	0.43
5:42:69:VAL:O	5:42:71:LEU:N	2.51	0.43
5:4E:122:GLU:OE1	5:4E:131:ILE:HG13	2.19	0.43
13:4I:54:VAL:O	13:4I:58:GLU:HG2	2.18	0.43
39:55:29:LEU:HD12	39:55:29:LEU:HA	1.75	0.43
36:68:98:VAL:HG13	36:68:117:LEU:HB3	2.01	0.43
41:75:21:GLU:OE2	41:75:21:GLU:N	2.51	0.43
41:75:80:SER:OG	41:75:83:ILE:HG13	2.19	0.43
37:78:130:PHE:CE1	37:78:146:VAL:HG23	2.54	0.43
8:7E:82:HIS:O	8:7E:137:VAL:HA	2.18	0.43
43:95:20:LEU:O	43:95:94:LEU:N	2.49	0.43
44:A5:110:LYS:HG3	44:A5:111:HIS:ND1	2.34	0.43
40:A8:67:ARG:HB2	40:A8:67:ARG:NH1	2.34	0.43
19:AI:41:VAL:CG1	19:AI:45:VAL:H	2.30	0.43
46:C5:20:TYR:CZ	46:C5:42:VAL:HA	2.53	0.43
47:D5:33:LEU:HA	47:D5:33:LEU:HD12	1.76	0.43
46:G8:76:CYS:HB2	46:G8:82:PRO:HD3	2.00	0.43
29:11:27:THR:OG1	29:11:28:GLU:N	2.51	0.43
29:11:70:TRP:O	29:11:73:VAL:HG23	2.18	0.43
1:13:1127:G:H2'	1:13:1128:C:C5'	2.46	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1284:C:H2'	1:13:1285:A:N7	2.34	0.43
1:13:1310:G:H1	1:13:1327:C:H42	1.64	0.43
1:13:146:G:N2	1:13:147:G:C4	2.87	0.43
1:13:1517:G:H1'	26:1H:1919:A:O3'	2.19	0.43
1:13:266:G:H8	1:13:266:G:H2'	1.74	0.43
1:13:332:G:C2	1:13:333:G:C8	3.07	0.43
1:13:37:U:O2'	1:13:500:G:H4'	2.19	0.43
1:13:703:G:H8	1:13:703:G:O5'	2.01	0.43
1:13:943:U:H1'	9:8E:124:GLN:HE22	1.82	0.43
26:14:1204:A:O2'	26:14:1205:U:OP2	2.36	0.43
26:14:1321:A:H2'	26:14:1322:A:O4'	2.19	0.43
26:14:1519:G:C6	26:14:1520:U:N3	2.87	0.43
26:14:1952:A:C6	36:25:22:ILE:CD1	2.98	0.43
26:14:2269:A:OP1	59:14:3646:HOH:O	2.21	0.43
26:14:2262:U:H4'	26:14:2328:A:H2	1.81	0.43
26:14:2693:A:H2'	26:14:2694:G:C8	2.54	0.43
26:14:380:U:OP1	59:14:3650:HOH:O	2.21	0.43
26:14:669:G:N3	26:14:669:G:H2'	2.33	0.43
26:14:818:G:H5'	26:14:839:U:OP1	2.18	0.43
26:14:867:C:N4	26:14:868:U:O4	2.52	0.43
1:1G:1176:A:C2'	1:1G:1177:G:H5'	2.49	0.43
1:1G:1363:A:H1'	1:1G:1365:G:N7	2.34	0.43
1:1G:1459:C:OP1	20:BA:31:SER:OG	2.31	0.43
1:1G:273:A:C2'	1:1G:274:A:H5'	2.49	0.43
1:1G:616:G:C2	1:1G:617:G:N7	2.86	0.43
1:1G:570:G:H1'	1:1G:820:U:C4	2.54	0.43
1:1G:998(A):C:H2'	1:1G:999:U:H6	1.84	0.43
26:1H:1110:G:O2'	26:1H:1111:A:C8	2.70	0.43
26:1H:1402:C:N3	26:1H:1403:C:C5	2.86	0.43
26:1H:1705:G:C6	26:1H:1706:U:C4	3.06	0.43
26:1H:1784:A:H4'	26:1H:1785:A:C5'	2.48	0.43
26:1H:2110:G:C5	26:1H:2120:G:C8	3.07	0.43
26:1H:753:C:O2'	26:1H:754:C:H5'	2.19	0.43
30:21:32:PRO:HD2	30:21:50:GLY:O	2.18	0.43
26:1H:2638:G:P	30:21:82:ARG:NH2	2.92	0.43
36:25:106:LEU:HD13	36:25:114:ILE:HG21	2.01	0.43
36:25:7:TYR:CE1	36:25:20:MET:HB2	2.53	0.43
3:2E:113:ALA:N	3:2E:183:ASP:OD2	2.45	0.43
4:32:13:ARG:HB2	4:32:39:PRO:HA	2.00	0.43
38:45:21:THR:HG21	38:45:101:ARG:CD	2.48	0.43
38:45:3:MET:HG3	38:45:3:MET:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:49:113:ARG:HD3	32:49:140:ILE:O	2.19	0.43
13:4A:11:ARG:HG2	13:4A:12:ASN:HB2	2.01	0.43
13:4I:30:ALA:O	13:4I:33:ALA:N	2.51	0.43
13:4I:40:ASN:HB3	13:4I:43:THR:HG23	2.01	0.43
26:14:2873:A:C8	39:55:6:SER:HB2	2.54	0.43
7:62:122:HIS:HA	7:62:125:MET:HE2	2.01	0.43
40:65:21:THR:H	40:65:21:THR:HG22	1.53	0.43
40:65:7:TYR:CE1	40:65:91:PRO:HG3	2.54	0.43
34:69:6:LEU:HB2	34:69:36:ALA:HA	2.01	0.43
34:69:84:GLY:O	34:69:85:GLU:HB3	2.18	0.43
9:82:18:PHE:C	9:82:19:LEU:HD12	2.39	0.43
38:88:6:ARG:CG	38:88:7:MET:N	2.82	0.43
17:8A:3:LYS:HD3	17:8A:61:GLU:O	2.19	0.43
18:9I:73:ALA:HB3	18:9I:79:LEU:HD12	2.01	0.43
45:B5:35:THR:HG23	45:B5:38:GLU:HB2	2.01	0.43
20:BA:25:ARG:HG3	20:BA:29:LYS:HE3	1.99	0.43
20:BA:29:LYS:O	20:BA:33:ILE:HG13	2.18	0.43
26:14:2336:A:H61	48:E5:43:THR:HB	1.83	0.43
49:J8:73:LEU:HD23	49:J8:73:LEU:HA	1.80	0.43
2:12:87:ARG:HH22	2:12:216:SER:HA	1.83	0.43
2:12:49:GLU:O	2:12:53:ARG:NH1	2.52	0.43
1:13:1125:U:C5	10:1I:38:ILE:HD12	2.54	0.43
1:13:113:G:H2'	1:13:114:U:H6	1.84	0.43
1:13:179:A:C4	1:13:180:U:C5	3.07	0.43
1:13:244:U:H4'	1:13:245:C:C5'	2.48	0.43
1:13:258:G:H2'	1:13:259:G:H8	1.83	0.43
1:13:768:A:H2'	1:13:769:G:O4'	2.19	0.43
1:13:984:C:H2'	1:13:985:C:C6	2.54	0.43
26:14:1003:G:O2'	26:14:1010:A:N1	2.49	0.43
26:14:1374:G:H2'	26:14:1375:C:C6	2.54	0.43
26:14:1810:A:H2'	26:14:1811:G:O4'	2.19	0.43
26:14:1858:G:H8	26:14:1858:G:OP2	2.01	0.43
26:14:1833:U:O2'	26:14:1969:A:N1	2.36	0.43
26:14:2212:A:H1'	26:14:2215:G:C5	2.54	0.43
26:14:2327:A:H2'	26:14:2328:A:O4'	2.19	0.43
26:14:2068:U:N3	26:14:2430:A:C2	2.75	0.43
26:14:31:C:O2'	26:14:32:C:H5'	2.19	0.43
26:14:560:C:H2'	26:14:561:G:O4'	2.19	0.43
26:14:836:G:C5	26:14:837:C:C4	3.07	0.43
26:14:91:A:O2'	26:14:92:G:H5'	2.19	0.43
1:1G:1371:G:P	9:82:11:LYS:HG2	2.59	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:1382:C:O2	24:3L:34:U:H5'	2.19	0.43
1:1G:1386:G:N3	1:1G:1387:G:C8	2.87	0.43
1:1G:1497:G:C2'	1:1G:1498:U:H5'	2.41	0.43
1:1G:51:A:C2	1:1G:353:A:N1	2.87	0.43
1:1G:922:G:N3	1:1G:1398:A:H2	2.17	0.43
1:1G:985:C:H2'	1:1G:986:A:C8	2.54	0.43
26:1H:997:G:C2	26:1H:1159:U:C2	3.07	0.43
26:1H:1344:G:C6	26:1H:1385:G:N7	2.86	0.43
26:1H:1401:G:H2'	26:1H:1402:C:C6	2.54	0.43
26:1H:1535:U:H6	26:1H:1538:G:H21	1.67	0.43
26:1H:1830:C:O2'	26:1H:1831:G:H5'	2.19	0.43
26:1H:2154:G:C2	26:1H:2155:G:C5	3.06	0.43
26:1H:2383:G:H2'	26:1H:2384:G:H5'	1.99	0.43
26:1H:315:G:C6	26:1H:316:C:N4	2.87	0.43
26:1H:635:C:O2'	26:1H:639:U:OP1	2.32	0.43
27:1J:15:A:H1'	27:1J:109:G:C5	2.54	0.43
22:1L:68:G:H2'	22:1L:69:A:C8	2.54	0.43
30:29:15:PHE:CD2	41:75:81:PRO:HD3	2.53	0.43
4:32:177:ASP:OD2	4:32:180:GLY:HA3	2.19	0.43
37:35:75:ILE:HD13	37:35:75:ILE:H	1.84	0.43
31:39:46:ARG:HG2	31:39:46:ARG:NH1	2.31	0.43
12:3A:27:LEU:HG	12:3A:33:ARG:HG2	2.00	0.43
5:42:101:ILE:HG12	5:42:101:ILE:H	1.61	0.43
5:42:90:VAL:O	5:42:120:THR:HA	2.19	0.43
5:42:60:TYR:HB3	5:42:64:ARG:NH2	2.33	0.43
38:45:10:ARG:NH1	38:45:10:ARG:HA	2.33	0.43
38:45:27:VAL:HB	38:45:28:ALA:O	2.18	0.43
38:45:31:ASP:O	38:45:133:ARG:O	2.36	0.43
1:13:1507:A:OP2	25:4K:12:A:C2	2.72	0.43
40:65:107:GLU:H	40:65:110:LEU:HD11	1.84	0.43
40:65:62:LYS:HA	40:65:65:VAL:CG1	2.49	0.43
34:69:128:LEU:O	34:69:137:PRO:HA	2.19	0.43
28:71:215:THR:OG1	28:71:220:PRO:O	2.36	0.43
8:7E:90:GLY:O	17:8I:34:LYS:HG3	2.18	0.43
42:85:110:VAL:O	42:85:114:LYS:HG2	2.18	0.43
17:8A:27:PHE:CZ	17:8A:36:ILE:HD11	2.53	0.43
1:13:1118:C:P	9:8E:104:ARG:HH11	2.42	0.43
43:95:21:ARG:HG2	43:95:91:TYR:CE2	2.53	0.43
39:98:2:ARG:CZ	39:98:2:ARG:HB3	2.49	0.43
1:13:1313:U:OP2	19:AI:5:LEU:HB2	2.18	0.43
45:B5:5:TYR:CE1	50:G5:30:ARG:HG3	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:G8:40:GLU:HA	46:G8:64:GLU:OE1	2.18	0.43
48:I8:49:LYS:HB2	48:I8:80:HIS:HB3	2.01	0.43
2:12:127:ILE:HG23	2:12:135:GLN:HE22	1.83	0.42
1:13:1009:G:C2	1:13:1010:G:C8	3.06	0.42
1:13:46:G:H2'	1:13:366:C:C5	2.54	0.42
1:13:498:A:H4'	1:13:500:G:OP1	2.18	0.42
1:13:691:G:H1'	1:13:696:A:N6	2.34	0.42
26:14:1187:G:H5''	43:95:81:TYR:CE1	2.54	0.42
26:14:1444(A):A:HO2'	26:14:1445:C:P	2.42	0.42
26:14:2256:G:C5	26:14:2257:U:C5	3.07	0.42
26:14:199:A:N6	26:14:2434:A:C5	2.87	0.42
26:14:2784:C:H2'	26:14:2785:C:C6	2.54	0.42
26:14:2819:G:H2'	26:14:2821:A:N7	2.34	0.42
26:14:322:A:C5	26:14:340:A:C2	3.06	0.42
26:14:761:A:P	59:14:3532:HOH:O	2.74	0.42
26:14:933:A:C5	26:14:934:G:C8	3.07	0.42
2:1E:21:ARG:C	2:1E:23:ARG:H	2.22	0.42
2:1E:86:GLU:HG3	2:1E:86:GLU:H	1.55	0.42
1:1G:1023:G:C6	1:1G:1024:G:H1'	2.54	0.42
1:1G:1148:U:H2'	1:1G:1149:C:O4'	2.19	0.42
1:1G:278:G:O4'	1:1G:282:A:H1'	2.19	0.42
1:1G:658:G:C6	1:1G:659:U:C4	3.06	0.42
1:1G:976:G:N7	1:1G:1358:U:H1'	2.33	0.42
26:1H:1021:A:C3'	26:1H:1021:A:C8	3.01	0.42
26:1H:1061:U:H3'	26:1H:1062:G:C5'	2.49	0.42
26:1H:128:C:H2'	26:1H:129:C:C6	2.52	0.42
26:1H:1591:G:O2'	26:1H:1592:C:H5'	2.19	0.42
26:1H:118:A:N3	26:1H:178:G:H1'	2.34	0.42
26:1H:1982:C:H5''	26:1H:1983:C:OP2	2.18	0.42
26:1H:515:A:H1'	26:1H:581:C:H1'	2.00	0.42
26:1H:674:G:OP2	59:1H:3774:HOH:O	2.21	0.42
26:1H:805:G:O5'	37:78:41:ARG:HG2	2.19	0.42
22:1K:17:U:HO2'	22:1K:57:G:H1	1.62	0.42
30:21:201:THR:HB	30:21:203:LYS:HA	2.01	0.42
3:22:113:ALA:HA	3:22:202:ILE:HD11	2.01	0.42
3:22:37:GLN:O	3:22:40:ARG:N	2.52	0.42
3:22:97:LYS:HB3	3:22:97:LYS:HE2	1.85	0.42
30:29:134:ILE:O	30:29:134:ILE:HD12	2.18	0.42
30:29:8:LYS:HB3	30:29:192:ASN:HA	2.00	0.42
23:2K:48:U:OP2	23:2K:48:U:C6	2.71	0.42
37:35:99:LEU:HD12	37:35:102:ARG:HH11	1.82	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:35:101:VAL:HA	37:35:105:LEU:O	2.19	0.42
37:35:79:ARG:HD3	37:35:110:TYR:CD2	2.53	0.42
12:3A:46:LYS:HD2	12:3A:47:LYS:HB2	2.01	0.42
24:3K:56:C:H2'	24:3K:57:G:O4'	2.19	0.42
32:41:6:ALA:O	32:41:9:ARG:HB3	2.19	0.42
38:45:29:PHE:HB3	38:45:65:PHE:CZ	2.54	0.42
38:45:85:LYS:HD3	38:45:85:LYS:HA	1.93	0.42
32:49:50:ALA:HA	32:49:53:LEU:HD23	2.01	0.42
13:4A:67:GLU:HG3	13:4A:68:GLY:N	2.34	0.42
5:4E:150:ARG:HE	5:4E:150:ARG:HB3	1.69	0.42
25:4K:14:A:OP2	25:4K:14:A:H3'	2.19	0.42
28:71:9:ALA:O	28:71:13:LYS:HD3	2.18	0.42
37:78:79:ARG:HD2	37:78:110:TYR:CE1	2.54	0.42
37:78:96:THR:C	37:78:98:GLU:H	2.23	0.42
26:1H:2839:G:H5''	39:98:46:GLY:HA2	1.99	0.42
19:AI:39:THR:HG22	19:AI:40:ILE:N	2.34	0.42
41:B8:108:ARG:HA	41:B8:111:ARG:HE	1.83	0.42
46:C5:29:GLU:CD	46:C5:30:VAL:H	2.23	0.42
47:D5:15:PRO:HB2	47:D5:19:ARG:NH2	2.34	0.42
48:E5:49:LYS:HB2	48:E5:82:ARG:NH2	2.35	0.42
2:12:100:GLY:HA2	2:12:103:THR:OG1	2.19	0.42
1:13:1051:C:H2'	1:13:1052:U:C6	2.54	0.42
1:13:1127:G:N7	1:13:1128:C:C5	2.87	0.42
1:13:692:U:H2'	1:13:694:A:OP2	2.19	0.42
1:13:858:G:O6	1:13:869:G:H3'	2.19	0.42
1:13:965:A:C2	1:13:969:A:C2	3.07	0.42
26:14:1392:A:C6	26:14:1393:A:C6	3.08	0.42
26:14:1451:C:H6	26:14:1451:C:C5'	2.32	0.42
26:14:2461:C:H2'	26:14:2462:U:H6	1.83	0.42
26:14:774:A:HO2'	26:14:775:G:P	2.41	0.42
26:14:811:U:H2'	37:35:21:ARG:HA	2.01	0.42
29:19:55:GLY:O	29:19:216:GLY:HA2	2.18	0.42
1:1G:1145:C:H4'	1:1G:1146:A:O5'	2.19	0.42
1:1G:21:G:H2'	1:1G:22:G:C8	2.53	0.42
1:1G:685:G:N2	1:1G:686:U:C4	2.86	0.42
26:1H:1063:G:H1'	26:1H:1077:A:N7	2.34	0.42
26:1H:1918:A:N3	26:1H:1919:A:N6	2.65	0.42
26:1H:1950:G:N2	59:1H:3694:HOH:O	2.09	0.42
26:1H:2256:G:O2'	48:I8:10:THR:HB	2.20	0.42
26:1H:2299:G:N2	26:1H:2318:G:H1'	2.34	0.42
26:1H:2447:G:OP2	59:1H:3780:HOH:O	2.21	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2492:U:H2'	26:1H:2493:U:C6	2.54	0.42
26:1H:799:G:H2'	59:1H:3625:HOH:O	2.19	0.42
10:1I:16:LEU:HA	10:1I:16:LEU:HD23	1.78	0.42
10:1I:50:ILE:CG1	10:1I:60:ARG:HH21	2.32	0.42
27:1J:15:A:H5''	27:1J:16:G:H8	1.84	0.42
22:1K:76:A:H1'	26:1H:2583:G:N2	2.34	0.42
22:1L:6:G:H1	22:1L:66:A:H61	1.67	0.42
3:22:35:GLU:HG2	3:22:39:ILE:HD11	2.01	0.42
23:2K:33:OMC:HM23	23:2K:33:OMC:H1'	1.54	0.42
31:31:155:LEU:HD11	31:31:176:LEU:HD13	2.01	0.42
4:32:78:LEU:HA	4:32:78:LEU:HD23	1.65	0.42
37:35:6:LEU:HA	37:35:6:LEU:HD12	1.49	0.42
32:49:140:ILE:HG13	32:49:141:PHE:N	2.33	0.42
33:51:169:VAL:CG1	33:51:170:ARG:N	2.82	0.42
14:5I:6:LEU:CD1	14:5I:23:ARG:HH22	2.32	0.42
34:61:75:LEU:HD23	34:61:105:HIS:ND1	2.34	0.42
34:61:40:THR:OG1	34:61:42:SER:N	2.50	0.42
26:1H:2128:C:O5'	28:71:36:LYS:HE2	2.19	0.42
41:75:21:GLU:O	41:75:91:ARG:NH2	2.52	0.42
31:31:34:TRP:CZ3	37:78:8:PRO:HB3	2.54	0.42
16:7A:9:PHE:HB2	16:7A:16:HIS:O	2.19	0.42
8:7E:80:ILE:H	8:7E:80:ILE:HG12	1.77	0.42
9:82:14:VAL:O	9:82:65:VAL:HG23	2.19	0.42
9:8E:29:ASN:OD1	9:8E:65:VAL:N	2.51	0.42
17:8I:31:LEU:HD23	17:8I:32:TYR:CE1	2.53	0.42
26:1H:2820:A:O5'	39:98:4:LEU:HD23	2.18	0.42
1:1G:663:A:H5''	18:9A:61:LYS:HE3	2.02	0.42
18:9A:53:ARG:HG3	18:9A:63:GLN:NE2	2.34	0.42
18:9I:25:THR:HG21	18:9I:42:ARG:HH21	1.81	0.42
45:B5:26:TYR:CD2	45:B5:89:ILE:HD12	2.54	0.42
43:D8:37:VAL:HG23	43:D8:51:VAL:HG21	1.99	0.42
43:D8:76:LYS:HD2	43:D8:81:TYR:CD2	2.54	0.42
46:G8:87:LYS:N	46:G8:96:ILE:HD11	2.34	0.42
29:11:146:GLU:HB2	29:11:189:CYS:CB	2.46	0.42
2:12:221:LEU:HD22	2:12:221:LEU:HA	1.96	0.42
1:13:1000:A:H2'	1:13:1001:G:H8	1.82	0.42
1:13:1213:A:C8	1:13:1215:G:C5	3.07	0.42
1:13:1325:C:O2'	1:13:1326:C:H5'	2.18	0.42
1:13:146:G:C2	1:13:177:C:N3	2.87	0.42
1:13:324:G:N2	1:13:326:G:H3'	2.34	0.42
1:13:492:G:C6	1:13:493:G:C4	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:711:G:H2'	1:13:712:A:H8	1.83	0.42
26:14:1059:G:C8	26:14:1060:U:C2	3.08	0.42
26:14:1950:G:OP2	26:14:1950:G:N2	2.52	0.42
26:14:2151:G:H2'	26:14:2152:G:O4'	2.20	0.42
26:14:2130:U:H1'	26:14:2159:G:O6	2.19	0.42
26:14:2210:G:H3'	26:14:2211:G:C8	2.55	0.42
26:14:2637:U:C4	26:14:2638:G:C6	3.07	0.42
27:16:79:C:H6	27:16:79:C:O5'	2.03	0.42
29:19:124:PRO:HG2	29:19:129:ASN:HD21	1.84	0.42
2:1E:109:SER:O	2:1E:112:VAL:N	2.53	0.42
21:1F:2:GLY:C	21:1F:4:GLY:N	2.73	0.42
1:1G:110:C:H2'	1:1G:111:G:O4'	2.19	0.42
1:1G:1258:G:H2'	1:1G:1259:C:H6	1.83	0.42
1:1G:11:G:C5	1:1G:12:U:C5	3.07	0.42
1:1G:1356:G:N2	1:1G:1367:C:C2	2.87	0.42
1:1G:160:A:H1'	1:1G:344:A:C5	2.55	0.42
1:1G:324:G:N7	59:1G:1858:HOH:O	2.37	0.42
1:1G:567:G:N2	59:1G:1860:HOH:O	2.37	0.42
1:1G:639:G:O2'	1:1G:640:A:H5'	2.19	0.42
1:1G:693:G:H2'	1:1G:694:A:C8	2.54	0.42
1:1G:674:G:N2	1:1G:717:C:O2	2.53	0.42
1:1G:983:A:H2	1:1G:984:C:C6	2.37	0.42
1:1G:983:A:H61	1:1G:1222:G:H22	1.67	0.42
26:1H:2287:A:C2	26:1H:2346:A:C2	2.95	0.42
26:1H:2439:A:C8	26:1H:2439:A:H5'	2.54	0.42
26:1H:2801:A:C8	26:1H:2802:G:C8	3.07	0.42
26:1H:855:G:C6	26:1H:856:C:C4	3.07	0.42
31:31:6:VAL:HG12	31:31:7:TYR:N	2.34	0.42
4:32:27:TYR:O	4:32:28:SER:OG	2.36	0.42
26:14:631:A:HO2'	37:35:67:MET:HB3	1.84	0.42
4:3E:112:VAL:HG12	4:3E:116:GLN:OE1	2.18	0.42
38:45:137:TYR:CD1	38:45:137:TYR:N	2.87	0.42
32:49:103:LEU:O	32:49:106:LEU:HB3	2.19	0.42
32:49:117:PHE:CG	32:49:117:PHE:O	2.72	0.42
13:4I:25:ILE:HD11	13:4I:66:LEU:HD11	2.00	0.42
33:51:4:ILE:HG23	33:51:6:ARG:NH2	2.33	0.42
39:55:34:ILE:HD12	39:55:34:ILE:HA	1.67	0.42
35:58:128:HIS:HB2	35:58:129:PRO:HD2	2.01	0.42
15:6I:78:TYR:CZ	15:6I:82:ILE:HD11	2.53	0.42
28:71:45:ALA:H	28:71:171:ILE:CG2	2.32	0.42
8:72:18:ARG:HD3	8:72:18:ARG:HA	1.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:88:37:LEU:HA	38:88:37:LEU:HD23	1.71	0.42
41:B8:110:ILE:O	41:B8:114:LEU:HB2	2.19	0.42
1:13:176:C:OP1	20:BI:29:LYS:HE2	2.18	0.42
47:D5:44:PHE:C	47:D5:44:PHE:CD1	2.93	0.42
48:E5:17:GLN:O	48:E5:19:LYS:NZ	2.48	0.42
44:E8:18:ARG:HD3	44:E8:76:VAL:HG13	2.01	0.42
45:F8:3:THR:HG21	50:K8:29:LYS:HG3	2.00	0.42
45:F8:57:LEU:HD21	45:F8:78:LYS:NZ	2.34	0.42
50:G5:25:VAL:HG12	50:G5:60:LEU:HD23	2.00	0.42
29:11:17:THR:HG22	29:11:204:ILE:HA	2.02	0.42
1:13:1014:A:H2'	1:13:1015:A:C8	2.55	0.42
1:13:265:G:N2	1:13:267:C:H5'	2.34	0.42
1:13:406:G:H21	4:3E:119:GLN:NE2	2.17	0.42
1:13:495:A:H4'	1:13:496:A:OP1	2.18	0.42
1:13:57:G:C5	1:13:58:C:C4	3.07	0.42
1:13:690:G:H2'	1:13:691:G:O4'	2.19	0.42
26:14:1594:G:H2'	26:14:1595:G:H8	1.84	0.42
26:14:1734:C:H6	26:14:1734:C:O5'	2.02	0.42
26:14:1268:A:C2	26:14:2013:A:C4	3.08	0.42
26:14:2032:G:O6	59:14:3649:HOH:O	2.21	0.42
26:14:2232:U:P	49:F5:40:ARG:HH22	2.42	0.42
26:14:226:G:H21	26:14:228:A:N6	2.16	0.42
26:14:2275:C:O2	38:45:85:LYS:HD3	2.19	0.42
26:14:2420:C:OP2	55:M5:33:ASN:HB2	2.19	0.42
26:14:2795:G:HO2'	26:14:2798:C:H5	1.65	0.42
26:14:273(D):C:N4	26:14:363(B):G:H1	2.17	0.42
26:14:775:G:C4	26:14:794:G:C8	3.07	0.42
26:14:912:C:C2	26:14:913:U:C5	3.08	0.42
26:14:973:A:H5'	26:14:1188:U:H1'	2.02	0.42
2:1E:178:ARG:HD3	2:1E:178:ARG:HA	1.73	0.42
2:1E:209:ARG:HB3	2:1E:209:ARG:HE	1.63	0.42
1:1G:1152:A:H5'	10:1A:13:HIS:ND1	2.34	0.42
1:1G:1278:U:H5'	1:1G:1279:A:H5'	2.01	0.42
1:1G:1293:G:H2'	1:1G:1294:G:C8	2.54	0.42
1:1G:1316:G:H2'	1:1G:1317:C:H5''	2.01	0.42
1:1G:338:A:H2'	1:1G:339:C:O4'	2.20	0.42
1:1G:468:A:H2'	1:1G:474:G:O4'	2.20	0.42
26:1H:1494:A:H2'	26:1H:1495:A:H8	1.84	0.42
26:1H:2145:C:H5	26:1H:2148:G:H21	1.66	0.42
26:1H:2303:G:O2'	26:1H:2304:G:H5'	2.19	0.42
26:1H:2388:A:C2'	26:1H:2389:G:H5'	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:382:G:H5''	26:1H:383:U:OP2	2.18	0.42
26:1H:671:C:O2'	26:1H:672:C:H5'	2.19	0.42
26:1H:721:C:H2'	26:1H:722:A:C8	2.53	0.42
26:1H:878:A:N1	26:1H:900:A:C8	2.87	0.42
36:25:106:LEU:HA	36:25:106:LEU:HD23	1.78	0.42
11:2A:85:ARG:HA	11:2A:112:THR:OG1	2.19	0.42
32:41:109:VAL:O	32:41:113:ARG:HG3	2.19	0.42
13:4I:40:ASN:HB3	13:4I:43:THR:CG2	2.50	0.42
33:51:157:TYR:O	33:51:158:HIS:CG	2.71	0.42
39:55:33:ARG:HD3	39:55:113:LEU:HG	2.01	0.42
35:58:7:LYS:H	35:58:7:LYS:CD	2.32	0.42
15:6A:56:LEU:O	15:6A:60:VAL:HG23	2.19	0.42
15:6A:61:GLY:O	15:6A:65:ARG:HD2	2.19	0.42
15:6A:87:ILE:HG22	15:6A:88:ARG:N	2.34	0.42
28:71:36:LYS:HB3	28:71:37:PHE:HB2	2.01	0.42
28:71:39:GLU:HG3	28:71:178:ALA:HB2	2.02	0.42
38:88:5:ARG:HB2	38:88:5:ARG:CZ	2.49	0.42
1:1G:254:G:OP1	17:8A:67:LYS:O	2.37	0.42
39:98:117:VAL:O	39:98:118:GLU:HB2	2.19	0.42
40:A8:32:LEU:N	40:A8:32:LEU:HD23	2.34	0.42
20:BI:30:LYS:HZ3	20:BI:33:ILE:HB	1.83	0.42
47:D5:14:LYS:HA	47:D5:15:PRO:HD2	1.82	0.42
47:H8:91:LEU:HD12	47:H8:96:VAL:HG21	2.01	0.42
54:P8:8:ASN:C	54:P8:8:ASN:OD1	2.58	0.42
2:12:189:ASP:OD1	2:12:189:ASP:N	2.53	0.42
2:12:187:LEU:HD11	2:12:204:ASN:N	2.34	0.42
2:12:46:LYS:O	2:12:49:GLU:HB2	2.19	0.42
1:13:1240:U:C5	7:6E:32:ARG:HD2	2.54	0.42
1:13:1423:G:P	36:68:49:ARG:HH22	2.42	0.42
1:13:167:G:C6	1:13:168:G:C5	3.07	0.42
1:13:998:G:H2'	1:13:998(A):C:C6	2.55	0.42
26:14:1475:G:H5'	26:14:1476:C:OP2	2.18	0.42
26:14:2274:A:C5	26:14:2276:G:C8	3.07	0.42
26:14:2319:G:H4'	26:14:2320:A:O4'	2.18	0.42
26:14:2356:C:H4'	48:E5:20:ARG:HG3	2.01	0.42
23:2L:77:A:O2'	26:14:2602:A:N7	2.49	0.42
26:14:451:C:H41	26:14:454:A:H5'	1.83	0.42
26:14:470:A:C5'	26:14:470:A:H8	2.32	0.42
26:14:631:A:H5'	59:14:4268:HOH:O	2.20	0.42
26:14:654(C):G:H2'	26:14:654(D):G:H5'	2.01	0.42
26:14:803:U:O2'	26:14:804:A:H5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:16:59:A:H2'	27:16:60:C:H6	1.84	0.42
10:1A:46:ARG:NH2	14:5A:61:TRP:HZ2	2.17	0.42
2:1E:121:LEU:HA	2:1E:124:SER:HB2	2.00	0.42
1:1G:1417:G:O5'	1:1G:1417:G:H8	2.02	0.42
1:1G:1432:G:OP1	41:75:107:ASP:HB2	2.19	0.42
1:1G:149:A:O2'	1:1G:150:C:H5'	2.20	0.42
1:1G:316:G:N3	1:1G:316:G:H2'	2.35	0.42
1:1G:32:A:H2'	1:1G:33:A:C8	2.54	0.42
1:1G:746:A:H2'	1:1G:747:C:H6	1.85	0.42
26:1H:1060:U:H1'	26:1H:1061:U:OP2	2.19	0.42
26:1H:1163:G:O2'	26:1H:1164:G:H5'	2.19	0.42
26:1H:1416:G:O2'	26:1H:1417:C:OP2	2.26	0.42
26:1H:1676:A:P	59:1H:3633:HOH:O	2.71	0.42
26:1H:1680:U:O2	26:1H:1763[A]:G:H3'	2.19	0.42
26:1H:207:A:H2'	26:1H:208:C:O4'	2.19	0.42
26:1H:2436:G:C5	26:1H:2437:U:C5	3.08	0.42
26:1H:945:A:C4	26:1H:2448:A:C2	3.07	0.42
26:1H:2480:C:H5'	26:1H:2481:G:OP2	2.20	0.42
26:1H:2579:C:H2'	26:1H:2580:U:O4'	2.19	0.42
26:1H:2702:U:H4'	26:1H:2703:C:OP1	2.19	0.42
26:1H:273(F):C:H3'	26:1H:274:G:C5'	2.46	0.42
26:1H:2749:A:H1'	33:51:63:SER:OG	2.19	0.42
26:1H:2777:G:OP2	26:1H:2781:A:O2'	2.30	0.42
26:1H:2784:C:H1'	30:21:37:ARG:NH1	2.35	0.42
26:1H:320:A:H2'	31:31:136:THR:HG21	2.01	0.42
26:1H:34:C:C6	26:1H:34:C:OP2	2.73	0.42
26:1H:280:C:C2	26:1H:361:G:N2	2.87	0.42
26:1H:36:G:C5	26:1H:37:C:C5	3.07	0.42
26:1H:427:U:H5''	26:1H:428:A:OP1	2.19	0.42
26:1H:733:G:P	59:1H:3858:HOH:O	2.76	0.42
30:29:36:ARG:NH1	30:29:85:ASN:OD1	2.52	0.42
3:2E:167:TRP:CD1	3:2E:168:ALA:N	2.87	0.42
31:39:83:PHE:O	31:39:84:VAL:HB	2.19	0.42
24:3L:30:G:C4	24:3L:31:A:C8	3.07	0.42
13:4I:37:THR:OG1	13:4I:39:ILE:HD12	2.19	0.42
33:51:159:GLU:HG2	33:51:169:VAL:HG21	2.02	0.42
35:58:10:GLU:HA	35:58:11:PRO:HD3	1.83	0.42
40:65:89:ARG:O	40:65:90:GLY:C	2.58	0.42
36:68:106:LEU:HD23	36:68:106:LEU:HA	1.70	0.42
34:69:29:TYR:C	34:69:32:PRO:HD2	2.40	0.42
7:6E:77:SER:OG	24:3K:32:C:H4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:71:182:PRO:HA	28:71:185:LEU:HD12	2.01	0.42
41:75:29:ARG:HD3	41:75:44:ASP:OD2	2.19	0.42
28:79:14:VAL:HG13	28:79:20:TYR:CE2	2.55	0.42
8:7E:12:ARG:NH1	8:7E:27:PRO:HD2	2.35	0.42
8:7E:51:VAL:HG11	8:7E:60:ARG:HB2	2.02	0.42
43:95:38:LEU:O	43:95:39:LEU:HB2	2.19	0.42
19:AA:61:TYR:CE2	19:AA:63:THR:HA	2.54	0.42
41:B8:109:GLU:O	41:B8:113:LYS:HB2	2.19	0.42
26:14:483:A:H5'	46:C5:49:VAL:HG22	2.01	0.42
47:D5:59:LEU:HD23	47:D5:59:LEU:HA	1.85	0.42
43:D8:35:LEU:HD23	43:D8:35:LEU:HA	1.83	0.42
49:F5:92:LYS:O	49:F5:93:GLU:C	2.57	0.42
45:F8:3:THR:H	45:F8:3:THR:HG23	1.46	0.42
46:G8:55:TYR:N	46:G8:56:PRO:HD3	2.34	0.42
47:H8:109:ALA:N	47:H8:112:ARG:HG3	2.33	0.42
47:H8:133:ILE:HA	47:H8:134:PRO:HD2	1.82	0.42
52:M8:14:ILE:HG12	52:M8:15:ILE:H	1.85	0.42
32:41:67:LYS:NZ	52:M8:6:HIS:NE2	2.57	0.42
29:11:69:ARG:HG3	29:11:69:ARG:NH1	2.34	0.42
26:14:1019:U:H3	26:14:1142(A):A:H62	1.68	0.42
26:14:1197:G:H2'	26:14:1198:U:C6	2.55	0.42
26:14:1204:A:H61	26:14:1240:U:H2'	1.85	0.42
26:14:1416:G:HO2'	26:14:1417:C:H6	1.67	0.42
26:14:2139:C:C2	26:14:2153:G:N2	2.87	0.42
26:14:480:A:N3	26:14:480:A:H2'	2.34	0.42
27:16:54:G:O2'	27:16:55:U:H5'	2.20	0.42
27:16:66:A:H61	27:16:107:U:H2'	1.84	0.42
2:1E:209:ARG:NH1	2:1E:239:VAL:HG13	2.29	0.42
1:1G:1128:C:H2'	1:1G:1128:C:O2	2.19	0.42
1:1G:176:C:H2'	1:1G:177:C:H6	1.84	0.42
1:1G:243:A:H4'	1:1G:244:U:H5''	2.02	0.42
1:1G:271:C:H2'	1:1G:272:C:H6	1.83	0.42
1:1G:352:C:O2'	1:1G:354:G:OP1	2.32	0.42
1:1G:406:G:C2	1:1G:407:G:C8	3.08	0.42
1:1G:892:A:C2	1:1G:907:A:C4	3.08	0.42
26:1H:1144:G:C6	26:1H:1145:C:N4	2.87	0.42
26:1H:1198:U:H2'	26:1H:1199:U:C6	2.55	0.42
26:1H:1344:G:C2	26:1H:1385:G:C8	3.08	0.42
26:1H:1808:U:H2'	26:1H:1809:A:O4'	2.19	0.42
26:1H:185:U:H2'	26:1H:186:G:C8	2.53	0.42
26:1H:2688:U:H1'	26:1H:2721:A:N6	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2729:G:H2'	26:1H:2730:C:H6	1.85	0.42
26:1H:620:G:C4'	26:1H:621:A:H5''	2.33	0.42
26:1H:799:G:C2'	59:1H:3625:HOH:O	2.68	0.42
30:21:116:VAL:O	30:21:117:MET:CB	2.67	0.42
30:29:31:CYS:O	30:29:90:THR:HA	2.20	0.42
3:2E:142:MET:SD	3:2E:148:GLY:HA2	2.59	0.42
31:39:163:VAL:O	31:39:167:ALA:HB2	2.18	0.42
4:3E:31:CYS:O	4:3E:32:ALA:HB3	2.20	0.42
13:4A:23:TYR:CZ	13:4A:71:ARG:HG3	2.54	0.42
13:4A:66:LEU:O	13:4A:69:GLU:HB3	2.19	0.42
6:52:73:ASN:N	6:52:73:ASN:OD1	2.53	0.42
7:6E:105:VAL:O	7:6E:108:ALA:HB3	2.19	0.42
28:71:164:ARG:HG2	28:71:165:ASN:N	2.35	0.42
26:1H:2178:C:C5'	28:71:46:LYS:HD3	2.50	0.42
8:7E:87:SER:HB3	8:7E:133:LEU:O	2.20	0.42
1:1G:1179:A:H5'	9:82:102:LEU:HD22	2.01	0.42
9:82:25:LYS:O	9:82:60:ASP:HB3	2.19	0.42
17:8I:89:LEU:HD13	17:8I:89:LEU:HA	1.84	0.42
43:95:71:LEU:O	43:95:72:VAL:HG12	2.19	0.42
39:98:79:LEU:HA	39:98:83:ILE:HD12	2.02	0.42
19:AA:53:ASN:HA	19:AA:77:THR:HG22	2.01	0.42
1:13:1318:A:H4'	19:AI:10:PHE:CZ	2.54	0.42
45:B5:57:LEU:N	45:B5:57:LEU:HD23	2.34	0.42
20:BA:43:LEU:HD23	20:BA:43:LEU:HA	1.87	0.42
20:BA:73:HIS:HB3	20:BA:74:LYS:HG2	2.01	0.42
20:BI:69:GLY:O	20:BI:73:HIS:NE2	2.52	0.42
47:D5:7:ALA:O	47:D5:8:TYR:CG	2.72	0.42
48:E5:50:ASN:C	48:E5:62:LEU:HB2	2.40	0.42
47:H8:111:VAL:HG11	47:H8:146:ILE:HG13	2.00	0.42
53:J5:45:VAL:HG22	53:J5:51:TYR:CD2	2.54	0.42
50:K8:2:LYS:HB3	50:K8:5:GLU:CG	2.50	0.42
54:P8:5:TRP:NE1	54:P8:7:PRO:HG3	2.34	0.42
29:11:145:VAL:HB	29:11:155:LEU:HB2	2.01	0.42
26:1H:2591:C:P	29:11:239:ARG:HG3	2.60	0.42
1:13:1002:G:H2'	1:13:1003:G:O4'	2.19	0.42
1:13:1290:G:C4	1:13:1291:G:C8	3.07	0.42
1:13:397:A:N3	1:13:397:A:H3'	2.35	0.42
1:13:419:C:H5'	1:13:513:C:H1'	2.01	0.42
1:13:524:G:C6	1:13:525:C:N4	2.88	0.42
1:13:615:C:C2	1:13:616:G:C8	3.08	0.42
1:13:619:U:H3	4:3E:134:ASP:HB2	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:660:G:C2	1:13:746:A:C2	3.07	0.42
1:13:827:U:H6	1:13:859:A:H61	1.68	0.42
1:13:939:G:C2	1:13:940:C:C2	3.08	0.42
26:14:1014:U:N3	26:14:1015:G:N7	2.67	0.42
26:14:1676:A:P	59:14:3519:HOH:O	2.70	0.42
26:14:2029:G:H2'	26:14:2031:A:OP1	2.19	0.42
26:14:2117:A:C4	26:14:2118:U:H5	2.37	0.42
26:14:2178:C:H4'	28:79:46:LYS:HZ2	1.84	0.42
26:14:2031:A:C6	26:14:2498:C:H1'	2.54	0.42
26:14:2808:U:C2	26:14:2809:A:C8	3.07	0.42
26:14:757:U:H2'	26:14:758:C:O4'	2.20	0.42
1:1G:113:G:O4'	1:1G:354:G:H4'	2.19	0.42
1:1G:547:A:H5'	59:1G:1819:HOH:O	2.20	0.42
1:1G:722:A:H5''	1:1G:723:U:OP2	2.19	0.42
26:1H:1005:C:H5''	26:1H:1006:C:OP2	2.19	0.42
26:1H:106:C:H2'	26:1H:107:C:C6	2.55	0.42
26:1H:1389:G:C2	26:1H:1390:U:C2	3.08	0.42
26:1H:2536:G:C6	26:1H:2537:U:C4	3.08	0.42
26:1H:2712:U:O2'	26:1H:2713:A:H5'	2.20	0.42
26:1H:2847:U:C2'	26:1H:2848:G:H5'	2.49	0.42
26:1H:247:G:H4'	26:1H:386:G:C5	2.55	0.42
26:1H:723:G:H2'	26:1H:724:U:O4'	2.19	0.42
27:1J:41:U:H5	32:49:70:VAL:H	1.67	0.42
12:3A:41:ARG:HD2	12:3A:42:THR:N	2.32	0.42
12:3I:66:VAL:HG21	12:3I:98:TYR:CE1	2.54	0.42
24:3K:65:C:H2'	24:3K:66:A:H8	1.85	0.42
32:41:51:ARG:H	32:41:51:ARG:HG3	1.69	0.42
5:4E:122:GLU:HG2	5:4E:131:ILE:CD1	2.49	0.42
33:51:12:PRO:HG2	33:51:13:LYS:HG2	2.02	0.42
6:52:96:PRO:HB3	18:9A:30:ASP:OD2	2.20	0.42
33:59:8:PRO:HG2	33:59:69:ARG:NE	2.34	0.42
14:5A:53:LEU:HD23	14:5A:53:LEU:HA	1.78	0.42
34:61:102:SER:HA	34:61:107:VAL:O	2.20	0.42
7:6E:51:GLN:HB2	7:6E:58:PRO:HD3	2.01	0.42
28:71:213:TYR:CD2	28:71:221:SER:HB2	2.53	0.42
37:78:15:ARG:HA	37:78:15:ARG:HD2	1.75	0.42
1:1G:1148:U:OP1	9:82:7:THR:HG21	2.19	0.42
42:85:61:TRP:O	42:85:65:ILE:HG12	2.20	0.42
26:14:25:U:H5'	44:A5:79:GLY:HA2	2.01	0.42
26:14:1262:A:P	44:A5:99:ARG:HH12	2.43	0.42
26:1H:486:C:H4'	44:E8:60:ASN:HD22	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:F5:92:LYS:HA	49:F5:95:LEU:HB2	2.00	0.42
47:H8:76:LEU:HA	47:H8:83:PRO:HA	2.02	0.42
49:J8:92:LYS:O	49:J8:93:GLU:C	2.58	0.42
52:M8:10:VAL:HG22	52:M8:11:PRO:HD2	2.01	0.42
2:12:42:ILE:H	2:12:42:ILE:HD12	1.85	0.42
1:13:1159:U:O4'	1:13:1182:G:N2	2.53	0.42
1:13:232:G:H1'	1:13:262:A:N1	2.34	0.42
1:13:576:G:P	59:13:1873:HOH:O	2.77	0.42
26:14:1399:C:H2'	26:14:1400:G:C8	2.54	0.42
26:14:1838:C:N4	26:14:1898:U:H2'	2.34	0.42
26:14:1900:A:N1	26:14:1970:A:C6	2.88	0.42
26:14:2393:A:H2'	26:14:2394:C:O4'	2.19	0.42
26:14:2543:G:H2'	26:14:2544:G:C8	2.55	0.42
26:14:904:C:H2'	26:14:905:U:O4'	2.20	0.42
27:16:82:G:H2'	27:16:83:G:O4'	2.19	0.42
29:19:102:LYS:C	29:19:103:ARG:HG2	2.39	0.42
29:19:8:PRO:HB3	29:19:14:ARG:HB2	2.02	0.42
2:1E:88:ALA:HB2	2:1E:219:VAL:HG13	2.00	0.42
1:1G:1028(A):C:N4	1:1G:1032(B):G:H1	2.18	0.42
1:1G:677:U:H3	1:1G:713:G:H22	1.66	0.42
1:1G:801:U:H2'	1:1G:802:A:C8	2.54	0.42
1:1G:842:C:O2'	1:1G:848:C:C4	2.73	0.42
1:1G:980:C:H3'	1:1G:981:U:C6	2.54	0.42
26:1H:991:C:C4	26:1H:1185:C:N4	2.88	0.42
26:1H:1218:C:H5''	26:1H:1218:C:H6	1.85	0.42
26:1H:1818:U:O4	29:11:154:LYS:HE3	2.20	0.42
26:1H:2272:U:O4	59:1H:3779:HOH:O	2.21	0.42
26:1H:2303:G:N2	26:1H:2313:C:O2	2.39	0.42
26:1H:2592:G:C5	26:1H:2593:U:C4	3.07	0.42
26:1H:2666:C:H5''	26:1H:2667:C:OP2	2.20	0.42
26:1H:270(N):G:H4'	26:1H:270(O):U:C4	2.55	0.42
26:1H:2756:U:H4'	26:1H:2757:A:OP1	2.19	0.42
26:1H:2766:G:H2'	26:1H:2766:G:N3	2.35	0.42
26:1H:991:C:N4	26:1H:992:C:H41	2.18	0.42
3:22:76:VAL:C	3:22:84:ILE:HG13	2.40	0.42
30:29:51:PHE:O	30:29:74:PRO:HB2	2.20	0.42
11:2A:85:ARG:HE	11:2A:111:ASP:HB3	1.85	0.42
3:2E:124:ILE:HG12	3:2E:130:VAL:HG22	2.02	0.42
3:2E:132:ARG:O	3:2E:136:GLN:HG2	2.19	0.42
31:31:28:ILE:HG12	31:31:119:ARG:HH21	1.85	0.42
31:31:114:VAL:HG21	31:31:202:PHE:CZ	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:32:12:CYS:SG	4:32:18:LYS:HA	2.60	0.42
4:32:18:LYS:HE3	4:32:33:MET:HB2	2.02	0.42
31:39:120:GLU:HG3	31:39:122:LYS:NZ	2.35	0.42
26:14:615:G:N2	31:39:44:ARG:O	2.50	0.42
12:3A:117:ARG:HB3	12:3A:122:THR:HB	2.01	0.42
1:13:619:U:O2	4:3E:135:LEU:HD22	2.20	0.42
24:3K:36:U:H3'	24:3K:37:A:H5''	2.02	0.42
32:41:53:LEU:HD12	32:41:53:LEU:HA	1.73	0.42
38:45:39:PRO:HA	38:45:97:VAL:O	2.19	0.42
32:49:104:GLU:HG3	32:49:105:LYS:N	2.35	0.42
5:4E:131:ILE:HA	5:4E:131:ILE:HD13	1.89	0.42
5:4E:26:PHE:CD1	5:4E:26:PHE:N	2.87	0.42
33:51:58:GLU:O	33:51:60:ARG:N	2.53	0.42
40:65:110:LEU:HD13	40:65:112:PHE:CZ	2.55	0.42
40:65:77:ALA:HA	40:65:80:LEU:HB2	2.02	0.42
41:75:132:LYS:HB3	41:75:133:GLU:OE2	2.20	0.42
8:7E:87:SER:CB	8:7E:93:VAL:H	2.33	0.42
1:13:137:C:O2'	16:7I:61:SER:O	2.38	0.42
38:88:11:LYS:HE2	38:88:88:GLY:O	2.20	0.42
38:88:52:VAL:O	38:88:56:ARG:HB2	2.20	0.42
1:13:277:C:P	17:8I:68:ARG:HH12	2.42	0.42
43:95:51:VAL:HG12	43:95:52:VAL:O	2.20	0.42
39:98:105:ARG:O	39:98:105:ARG:HG3	2.20	0.42
40:A8:37:ALA:HB2	40:A8:101:LEU:HD21	2.02	0.42
19:AI:37:ARG:H	19:AI:37:ARG:HG3	1.49	0.42
41:B8:22:PHE:CD1	41:B8:22:PHE:N	2.88	0.42
20:BI:30:LYS:CE	20:BI:80:ARG:HH12	2.31	0.42
46:C5:4:LYS:HG2	46:C5:4:LYS:H	1.64	0.42
42:C8:79:PHE:C	42:C8:79:PHE:HD1	2.22	0.42
45:F8:63:LYS:O	45:F8:64:LYS:HG2	2.20	0.42
48:I8:19:LYS:HD3	48:I8:19:LYS:HA	1.66	0.42
52:M8:13:ARG:HD2	52:M8:20:ASN:ND2	2.35	0.42
53:N8:40:LYS:HD3	53:N8:46:CYS:CA	2.46	0.42
2:12:50:GLU:CD	2:12:50:GLU:H	2.19	0.42
1:13:1303:C:H3'	59:13:1808:HOH:O	2.20	0.42
1:13:1442:G:C6	1:13:1446:A:C6	3.08	0.42
1:13:129(A):G:N1	1:13:191(A):G:C4	2.88	0.42
1:13:559:A:H4'	1:13:560:U:H5''	2.01	0.42
1:13:59:A:N1	59:13:1867:HOH:O	2.37	0.42
1:13:922:G:C6	1:13:923:A:C6	3.07	0.42
26:14:1051:G:C8	26:14:1052:C:H5	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2293:C:H5''	40:65:89:ARG:HH21	1.83	0.42
26:14:2688:U:C5	26:14:2720:U:OP2	2.73	0.42
26:14:34:C:O2'	26:14:35:G:H8	2.03	0.42
26:14:479:A:N3	26:14:481:G:H5''	2.35	0.42
26:14:794:G:H2'	26:14:795:C:C6	2.55	0.42
26:14:928:G:H2'	26:14:929:G:O4'	2.19	0.42
27:16:15:A:C5'	27:16:16:G:H8	2.33	0.42
2:1E:96:ARG:HB2	2:1E:148:TYR:HE1	1.84	0.42
1:1G:1167:A:C6	1:1G:1169:A:C6	3.08	0.42
1:1G:1177:G:O2'	1:1G:1178:G:O5'	2.38	0.42
1:1G:1239:A:H4'	1:1G:1240:U:H5''	2.02	0.42
26:1H:1447:G:N7	59:1H:3904:HOH:O	2.37	0.42
26:1H:1921:G:O2'	26:1H:1922:G:H5'	2.19	0.42
26:1H:2004:G:C6	26:1H:2005:A:C4	3.08	0.42
26:1H:2235:G:H2'	26:1H:2236:C:H6	1.84	0.42
26:1H:548:A:H2	43:D8:21:ARG:NH2	2.18	0.42
26:1H:638:G:H2'	26:1H:639:U:C6	2.54	0.42
26:1H:759:G:OP1	59:1H:3771:HOH:O	2.20	0.42
11:2I:19:ALA:O	11:2I:82:VAL:HA	2.19	0.42
23:2K:54:G:H2'	23:2K:55:5MU:C6	2.52	0.42
37:35:124:LYS:HA	37:35:143:GLY:O	2.20	0.42
4:3E:173:TRP:CD2	4:3E:189:PRO:HG3	2.55	0.42
4:3E:61:LYS:HD2	4:3E:207:TYR:OH	2.20	0.42
12:3I:60:LEU:HD13	12:3I:61:THR:N	2.35	0.42
5:4E:142:LEU:HA	5:4E:142:LEU:HD23	1.92	0.42
25:4K:14:A:P	25:4K:14:A:H3'	2.60	0.42
35:58:28:THR:HA	35:58:106:MET:HE2	2.01	0.42
34:69:6:LEU:HD13	34:69:37:VAL:HG22	2.02	0.42
7:6E:75:VAL:HG23	7:6E:86:GLN:HB2	2.02	0.42
28:79:171:ILE:HG12	28:79:172:HIS:H	1.85	0.42
16:7I:18:ARG:HH11	16:7I:35:LYS:NZ	2.18	0.42
16:7I:74:LEU:HA	16:7I:77:ALA:HB2	2.00	0.42
1:1G:1347:G:C5	9:82:107:ARG:NH2	2.88	0.42
9:8E:127:LYS:HG2	9:8E:127:LYS:O	2.20	0.42
43:95:21:ARG:CZ	43:95:91:TYR:HE2	2.33	0.42
43:95:87:HIS:NE2	43:95:89:GLN:HB2	2.35	0.42
40:A8:76:LYS:O	40:A8:80:LEU:HD12	2.20	0.42
45:B5:44:GLU:OE1	45:B5:50:LYS:O	2.36	0.42
45:B5:63:LYS:H	45:B5:63:LYS:CE	2.18	0.42
45:B5:84:ALA:O	45:B5:87:GLN:HG3	2.19	0.42
45:B5:8:ILE:HD12	45:B5:8:ILE:H	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:B8:125:ARG:O	41:B8:129:ARG:N	2.48	0.42
41:B8:21:GLU:H	41:B8:21:GLU:HG3	1.61	0.42
42:C8:90:VAL:O	42:C8:92:ARG:N	2.53	0.42
44:E8:11:ARG:CZ	44:E8:98:LYS:HB3	2.49	0.42
45:F8:57:LEU:HD23	45:F8:78:LYS:HB2	1.99	0.42
29:11:120:GLY:O	29:11:123:ALA:HB2	2.19	0.42
29:11:122:ASP:CG	29:11:123:ALA:H	2.23	0.42
29:11:150:LYS:HD3	29:11:150:LYS:HA	1.83	0.42
29:11:36:PRO:HD3	29:11:64:ILE:HG22	2.01	0.42
1:13:142:G:H2'	1:13:143:A:C8	2.54	0.42
1:13:453:A:C5	1:13:454:C:C5	3.08	0.42
1:13:515:G:N2	1:13:537:G:C4	2.88	0.42
1:13:725:G:C4	1:13:726:C:C5	3.08	0.42
1:13:941:G:H1	1:13:1342:C:H42	1.68	0.42
26:14:1132:A:N6	26:14:2025:C:O2	2.53	0.42
26:14:2056:G:C2	26:14:2057:A:C8	3.07	0.42
26:14:2319:G:C2	26:14:2320:A:N6	2.88	0.42
26:14:2542:A:N7	26:14:2544:G:O6	2.52	0.42
26:14:2558:C:H2'	26:14:2559:C:O4'	2.20	0.42
26:14:2839:G:H21	39:55:92:GLY:CA	2.32	0.42
26:14:597:U:H2'	26:14:598:G:C8	2.55	0.42
26:14:70:G:H21	26:14:71:A:N6	2.17	0.42
26:14:801:G:OP2	31:39:55:GLY:HA2	2.20	0.42
26:14:192:C:O2'	26:14:802:A:N3	2.45	0.42
26:14:918:A:O2'	27:1J:96:G:N2	2.49	0.42
26:14:956:G:H5''	26:14:957:A:OP2	2.19	0.42
26:14:994:C:OP2	42:85:54:LYS:NZ	2.40	0.42
35:15:4:TYR:CD1	42:85:100:VAL:HG11	2.55	0.42
2:1E:115:LEU:HD13	2:1E:145:LEU:HB3	2.00	0.42
2:1E:20:GLU:HG3	2:1E:191:ASP:N	2.35	0.42
2:1E:31:TYR:HA	2:1E:46:LYS:HD3	2.01	0.42
1:1G:1002:G:H1	1:1G:1038:C:N4	2.17	0.42
1:1G:103:C:C4	1:1G:104:G:N7	2.88	0.42
1:1G:1191:A:O5'	1:1G:1191:A:H8	2.02	0.42
1:1G:1321:C:C5	1:1G:1322:C:C5	3.08	0.42
1:1G:1406:U:O2	1:1G:1517:G:N2	2.52	0.42
1:1G:44:G:H2'	1:1G:45:U:O4'	2.20	0.42
1:1G:558:G:C4	1:1G:559:A:C2	3.08	0.42
26:1H:1209:G:H21	26:1H:1210:A:H62	1.68	0.42
26:1H:1575:C:H2'	26:1H:1576:U:C6	2.55	0.42
26:1H:1675:C:H2'	26:1H:1676:A:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1914:C:C2'	26:1H:1915:U:H5'	2.50	0.42
26:1H:2135:A:C6	26:1H:2136:C:C2	3.07	0.42
26:1H:2287:A:N6	26:1H:2344:U:H3	2.13	0.42
26:1H:29:U:H2'	26:1H:30:G:C8	2.55	0.42
26:1H:881:G:N3	26:1H:881:G:H3'	2.35	0.42
26:1H:986:C:C2'	26:1H:987:G:H5'	2.50	0.42
1:13:1123:A:O2'	10:1I:38:ILE:HG22	2.20	0.42
3:2E:113:ALA:HB3	3:2E:114:PRO:HD3	2.01	0.42
3:2E:42:LEU:O	3:2E:46:GLU:HG2	2.19	0.42
23:2L:52:C:C2	23:2L:53:G:C8	3.07	0.42
4:32:103:ASN:OD1	4:32:114:ARG:NH2	2.51	0.42
4:32:108:LEU:HD23	4:32:110:PHE:HE1	1.84	0.42
4:32:17:VAL:HG11	4:32:197:PRO:HG3	2.01	0.42
31:39:107:LYS:HZ3	31:39:205:ARG:HG3	1.85	0.42
31:39:182:ASN:O	31:39:186:ILE:HG12	2.19	0.42
12:3A:98:TYR:N	12:3A:98:TYR:CD1	2.87	0.42
4:3E:10:ARG:HB2	4:3E:10:ARG:NH1	2.35	0.42
12:3I:122:THR:HG22	12:3I:123:LYS:O	2.20	0.42
5:42:82:VAL:HG21	5:42:138:ALA:HA	2.02	0.42
38:45:57:HIS:CG	38:45:117:ALA:HB2	2.54	0.42
1:1G:951:G:OP2	13:4A:102:ARG:NH2	2.53	0.42
13:4A:37:THR:HG22	13:4A:55:ARG:NE	2.35	0.42
6:52:15:ASP:OD1	6:52:17:SER:N	2.53	0.42
6:52:86:ARG:O	6:52:87:ARG:HG2	2.20	0.42
34:61:125:GLU:OE1	34:61:141:LYS:HG2	2.19	0.42
37:78:100:LEU:HD13	37:78:100:LEU:HA	1.70	0.42
37:78:113:LYS:HA	37:78:129:ALA:O	2.20	0.42
16:7A:40:ASP:HB3	16:7A:48:TRP:HB2	2.01	0.42
8:7E:41:ARG:CZ	8:7E:123:GLU:OE1	2.65	0.42
38:88:79:LEU:HD12	38:88:80:GLU:CG	2.41	0.42
19:AA:19:VAL:HG11	19:AA:44:MET:HA	2.02	0.42
19:AA:53:ASN:OD1	19:AA:54:GLY:N	2.52	0.42
20:BI:25:ARG:O	20:BI:29:LYS:HG3	2.19	0.42
46:C5:36:ALA:HB1	46:C5:66:PRO:HB3	2.02	0.42
46:C5:40:GLU:HG3	46:C5:64:GLU:OE1	2.20	0.42
46:C5:52:SER:CB	46:C5:56:PRO:HA	2.49	0.42
42:C8:39:LEU:HA	42:C8:39:LEU:HD23	1.77	0.42
47:H8:101:PRO:O	47:H8:102:LEU:HD23	2.20	0.42
47:H8:30:ASN:O	47:H8:32:HIS:N	2.53	0.42
48:I8:60:PHE:CD1	48:I8:60:PHE:N	2.88	0.42
54:L5:12:ARG:NH2	54:L5:44:PRO:HB3	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:11:79:VAL:HG12	29:11:113:VAL:HA	2.01	0.41
1:13:1010:G:H2'	1:13:1011:G:O4'	2.20	0.41
1:13:1091:U:O2	1:13:1093:A:C8	2.73	0.41
1:13:112:G:P	16:7I:27:LYS:HD2	2.60	0.41
1:13:958:A:C6	1:13:959:A:C6	3.08	0.41
26:14:1421:G:C2	26:14:1422:G:C8	3.08	0.41
26:14:2271:G:C6	26:14:2272:U:C4	3.08	0.41
26:14:2461:C:C2	26:14:2462:U:C5	3.07	0.41
26:14:300:A:H2'	26:14:334:C:O2'	2.19	0.41
26:14:332:A:C5	26:14:335:C:C4	3.08	0.41
26:14:450:G:O6	59:14:3644:HOH:O	2.21	0.41
26:14:615:G:C8	31:39:44:ARG:NH1	2.88	0.41
26:14:82:G:H5'	26:14:296:C:H5'	2.02	0.41
26:14:997:G:O2'	26:14:998:C:H5'	2.19	0.41
27:16:24:G:C2	27:16:56:G:C2	3.08	0.41
1:1G:1101:A:H4'	1:1G:1102:A:O5'	2.19	0.41
1:1G:675:A:H1'	11:2A:116:HIS:CG	2.54	0.41
1:1G:964:A:N3	1:1G:969:A:O2'	2.49	0.41
26:1H:1443:G:N2	26:1H:1549:C:C2	2.88	0.41
26:1H:1444:G:C2	26:1H:1548:C:N3	2.88	0.41
26:1H:1551:C:C2'	26:1H:1552:G:H5'	2.50	0.41
26:1H:685:A:H1'	26:1H:688:U:O4	2.19	0.41
26:1H:713:G:H2'	26:1H:714:U:C6	2.55	0.41
26:1H:775:G:N2	26:1H:794:G:H5'	2.35	0.41
26:1H:781:A:C8	29:11:219:PRO:HG2	2.55	0.41
26:1H:830:G:H3'	59:1H:4275:HOH:O	2.20	0.41
30:29:107:THR:O	30:29:190:GLY:HA2	2.20	0.41
3:2E:84:ILE:HD11	3:2E:101:LEU:HD22	2.02	0.41
4:32:93:PHE:O	4:32:96:LEU:HB2	2.20	0.41
4:3E:155:LEU:HD23	4:3E:155:LEU:HA	1.84	0.41
12:3I:85:ILE:HG23	12:3I:85:ILE:HD12	1.73	0.41
24:3K:63:U:C5'	28:71:53:ARG:HH22	2.32	0.41
24:3L:31:A:H61	24:3L:39:U:H3	1.67	0.41
24:3L:51:A:H61	24:3L:63:U:H3	1.67	0.41
38:45:18:LYS:HA	38:45:18:LYS:HD2	1.83	0.41
32:49:37:VAL:HG23	32:49:99:MET:HE3	2.02	0.41
6:52:24:GLU:HB3	6:52:28:ARG:NH1	2.34	0.41
6:5E:23:LYS:HZ3	6:5E:23:LYS:HB2	1.84	0.41
34:61:93:THR:O	34:61:97:ILE:HG13	2.20	0.41
7:6E:50:ILE:HD13	7:6E:125:MET:HG3	2.01	0.41
8:72:120:THR:HG23	8:72:122:ARG:H	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:75:54:ARG:HG3	41:75:59:THR:HG21	2.02	0.41
41:75:7:ILE:HG13	41:75:8:LYS:N	2.35	0.41
9:82:79:LEU:HD22	9:82:82:ALA:HB3	2.02	0.41
41:B8:42:ILE:HG21	41:B8:84:GLN:NE2	2.34	0.41
20:BA:100:ILE:HG23	20:BA:101:GLY:N	2.35	0.41
20:BI:50:GLU:HG2	20:BI:100:ILE:HB	2.01	0.41
46:C5:30:VAL:O	46:C5:36:ALA:O	2.37	0.41
54:L5:12:ARG:HH21	54:L5:44:PRO:HB3	1.85	0.41
55:M5:33:ASN:O	55:M5:34:TRP:C	2.58	0.41
1:13:1064:G:H1'	1:13:1190:G:N2	2.35	0.41
1:13:1266:G:N2	1:13:1270:C:C4	2.88	0.41
1:13:1272:G:H2'	1:13:1273:G:O4'	2.20	0.41
1:13:237:C:H5''	17:8I:25:ARG:NH1	2.36	0.41
1:13:345:C:H4'	1:13:346:G:C4	2.55	0.41
1:13:677:U:H3	1:13:713:G:H22	1.67	0.41
26:14:1337:G:H2'	26:14:1338:G:C8	2.53	0.41
26:14:1585:C:O2	26:14:1585:C:H2'	2.19	0.41
26:14:2130:U:O2'	26:14:2134:A:H1'	2.20	0.41
26:14:2148:G:H2'	26:14:2149:G:C8	2.42	0.41
26:14:2228:G:C6	26:14:2229:C:C4	3.08	0.41
26:14:2780:G:OP1	35:15:118:LYS:HE2	2.21	0.41
26:14:308:G:H5''	26:14:309:G:OP2	2.20	0.41
26:14:513:A:C2	26:14:514:A:C4	3.08	0.41
26:14:605:C:O2	26:14:657:U:O2'	2.37	0.41
26:14:71:A:H5'	26:14:71:A:H8	1.84	0.41
27:16:40:U:H1'	27:16:45:A:H61	1.85	0.41
2:1E:19:HIS:NE2	2:1E:206:ASP:HB2	2.29	0.41
2:1E:80:ILE:HD13	2:1E:212:GLN:HB2	2.00	0.41
1:1G:1127:G:HO2'	1:1G:1148:U:H3	1.67	0.41
1:1G:1055:A:C5	1:1G:1206:G:C2	3.08	0.41
1:1G:1216:G:H2'	1:1G:1217:C:C6	2.56	0.41
1:1G:1429:C:H2'	1:1G:1430:C:C6	2.54	0.41
1:1G:509:A:O4'	4:32:58:LEU:HD12	2.20	0.41
1:1G:631:G:O5'	8:72:98:LYS:NZ	2.47	0.41
1:1G:244:U:C6	1:1G:894:G:N2	2.88	0.41
1:1G:957:U:H2'	1:1G:959:A:OP2	2.20	0.41
26:1H:1598:C:H2'	26:1H:1599:C:C6	2.54	0.41
26:1H:1666:G:C2'	26:1H:1667:G:H5'	2.51	0.41
26:1H:1785:A:H2'	26:1H:1787:A:N7	2.34	0.41
26:1H:2062:A:N3	26:1H:2062:A:H2'	2.36	0.41
26:1H:2187:G:C2	26:1H:2188:C:C2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2298:A:H2'	26:1H:2299:G:O4'	2.20	0.41
26:1H:2456:C:O5'	26:1H:2456:C:H6	2.03	0.41
26:1H:2619:C:O2'	26:1H:2620:C:H5'	2.19	0.41
26:1H:2722:G:H2'	26:1H:2723:C:C6	2.54	0.41
26:1H:969:U:OP1	51:L8:17:LYS:HG2	2.19	0.41
22:1L:2:G:N2	22:1L:71:C:O2	2.53	0.41
30:21:75:VAL:C	30:21:76:ARG:HD2	2.40	0.41
30:29:79:ARG:H	30:29:79:ARG:HG2	1.57	0.41
4:32:108:LEU:CD2	4:32:183:GLY:HA3	2.50	0.41
37:35:111:ARG:HG2	37:35:128:HIS:CG	2.55	0.41
31:39:127:GLU:HA	31:39:127:GLU:OE1	2.19	0.41
24:3K:48:C:C5	24:3K:59:A:C4	3.08	0.41
24:3K:15:G:C6	24:3K:48:C:N4	2.88	0.41
24:3L:70:C:H2'	24:3L:71:C:C6	2.56	0.41
38:45:43:THR:HG22	38:45:94:VAL:HG12	2.02	0.41
13:4A:81:LEU:HA	13:4A:81:LEU:HD13	1.61	0.41
5:4E:71:LEU:HG	5:4E:71:LEU:H	1.74	0.41
5:4E:74:GLY:O	5:4E:115:VAL:HA	2.20	0.41
13:4I:3:ARG:CZ	13:4I:9:ILE:HD11	2.50	0.41
35:58:2:LYS:HA	35:58:2:LYS:HD3	1.75	0.41
35:58:59:LYS:O	35:58:61:ARG:HD2	2.20	0.41
14:5A:32:SER:OG	14:5A:32:SER:O	2.29	0.41
34:61:92:VAL:HG13	34:61:120:ILE:HG23	2.02	0.41
34:61:44:LEU:HD12	34:61:44:LEU:HA	1.88	0.41
15:6I:82:ILE:HD13	15:6I:88:ARG:HB2	2.01	0.41
28:71:42:GLU:O	28:71:215:THR:HG22	2.20	0.41
28:71:5:LYS:HA	28:71:8:ARG:CB	2.50	0.41
8:72:73:ASP:HA	8:72:74:PRO:HD2	1.69	0.41
8:72:44:PHE:HD1	8:72:80:ILE:HG12	1.85	0.41
20:BA:86:ARG:CZ	20:BA:86:ARG:HB2	2.49	0.41
46:C5:6:HIS:CD2	46:C5:7:VAL:HG13	2.55	0.41
47:D5:28:MET:HG3	47:D5:37:VAL:HG11	2.02	0.41
47:D5:67:LEU:HA	47:D5:68:PRO:HD3	1.87	0.41
44:E8:11:ARG:HH21	44:E8:99:ARG:N	2.17	0.41
46:G8:81:LYS:HD2	46:G8:99:CYS:SG	2.60	0.41
47:H8:48:PHE:CZ	47:H8:74:VAL:HG21	2.55	0.41
29:11:228:PRO:HD3	29:11:235:GLY:CA	2.50	0.41
2:12:171:ALA:HA	2:12:174:VAL:HG23	2.01	0.41
1:13:1176:A:H2'	1:13:1177:G:C1'	2.50	0.41
1:13:1182:G:H4'	1:13:1183:A:H5''	2.01	0.41
1:13:1310:G:N2	1:13:1328:C:C2	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1309:G:C5	1:13:1329:A:C2	3.07	0.41
1:13:464:G:C6	1:13:466:C:H5'	2.56	0.41
1:13:588:G:H5''	8:7E:5:PRO:HG3	2.01	0.41
1:13:628:G:H2'	1:13:629:G:H8	1.84	0.41
1:13:646:U:H2'	1:13:647:C:C6	2.54	0.41
1:13:657:G:C2	1:13:750:G:C5	3.08	0.41
1:13:942:G:C2	1:13:943:U:C6	3.08	0.41
26:14:1088:A:H2'	26:14:1088:A:N3	2.35	0.41
26:14:1155:A:H3'	59:14:3742:HOH:O	2.20	0.41
26:14:1317:A:H2'	26:14:1318:C:C6	2.55	0.41
26:14:139:G:N3	26:14:141:A:N1	2.67	0.41
26:14:1451:C:H5''	26:14:1451:C:H6	1.85	0.41
26:14:1664:A:OP1	59:14:3635:HOH:O	2.20	0.41
26:14:2086:U:H2'	26:14:2087:G:C8	2.54	0.41
26:14:2147:G:H2'	26:14:2148:G:C4'	2.50	0.41
26:14:2286:A:H4'	26:14:2287:A:O4'	2.20	0.41
26:14:218:A:C2	26:14:235:U:H4'	2.51	0.41
26:14:2500:U:H5''	26:14:2501:C:OP2	2.21	0.41
26:14:2821:A:H3'	59:14:3510:HOH:O	2.19	0.41
26:14:376:C:OP2	59:14:3647:HOH:O	2.21	0.41
26:14:636:G:O2'	26:14:638:G:O2'	2.25	0.41
10:1A:55:LYS:NZ	10:1A:57:LYS:N	2.69	0.41
1:1G:1095:U:H5''	1:1G:1109:C:O2	2.20	0.41
1:1G:1132:C:H2'	1:1G:1133:G:H8	1.84	0.41
1:1G:1145:C:H5''	1:1G:1146:A:OP1	2.20	0.41
1:1G:1347:G:N2	1:1G:1373:G:H2'	2.34	0.41
1:1G:1525:G:OP1	11:2A:120:ARG:NH2	2.54	0.41
1:1G:664:G:H22	1:1G:741:G:H1	1.69	0.41
1:1G:960:U:O2'	1:1G:960:U:O2	2.27	0.41
26:1H:2311:A:O2'	32:4I:88:ILE:HG21	2.20	0.41
26:1H:2528:U:H2'	26:1H:2530:A:O5'	2.19	0.41
26:1H:2590:A:H2'	26:1H:2591:C:C6	2.55	0.41
26:1H:2710:C:P	59:1H:4014:HOH:O	2.78	0.41
26:1H:2729:G:H2'	26:1H:2730:C:O4'	2.21	0.41
26:1H:322:A:H5'	26:1H:340:A:C1'	2.49	0.41
26:1H:365:C:P	59:1H:3743:HOH:O	2.79	0.41
26:1H:603:A:O4'	26:1H:655:A:N6	2.54	0.41
26:1H:902:C:O2'	26:1H:903:C:H5'	2.20	0.41
26:1H:990:A:H1'	26:1H:1156:A:N3	2.35	0.41
27:1J:33:G:O2'	27:1J:34:U:H5'	2.20	0.41
1:1G:1112:C:C2	3:22:178:LEU:HB2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:2727:G:O2'	36:25:70:LYS:HE2	2.19	0.41
30:29:200:GLU:N	30:29:200:GLU:OE1	2.51	0.41
1:13:684:A:O2'	11:2I:38:ASN:HB3	2.20	0.41
23:2K:53:G:C6	23:2K:54:G:N7	2.88	0.41
31:31:82:ILE:HG21	31:31:82:ILE:HD13	1.80	0.41
31:39:178:PRO:HB3	31:39:198:ALA:HA	2.03	0.41
24:3L:22:G:C2	24:3L:23:A:C5	3.08	0.41
32:41:101:ILE:HD13	32:41:102:PHE:N	2.35	0.41
32:41:115:ARG:HB3	32:41:115:ARG:NH1	2.35	0.41
32:41:67:LYS:O	32:41:67:LYS:HD2	2.20	0.41
5:42:10:MET:HE2	5:42:10:MET:HB3	1.88	0.41
32:49:165:THR:OG1	32:49:168:GLU:HG3	2.20	0.41
5:4E:43:LEU:HD13	5:4E:109:ILE:HD11	2.03	0.41
14:5I:23:ARG:NH1	14:5I:30:ALA:HB2	2.34	0.41
8:72:11:THR:HG23	8:72:14:ARG:NH1	2.35	0.41
8:72:125:ARG:HE	8:72:125:ARG:HB2	1.57	0.41
8:72:75:ARG:HA	8:72:76:PRO:HD2	1.86	0.41
38:88:118:LEU:HD23	38:88:118:LEU:HA	1.81	0.41
17:8A:31:LEU:HD23	17:8A:32:TYR:CE1	2.55	0.41
17:8I:52:LYS:O	17:8I:55:ASP:HB2	2.19	0.41
44:A5:110:LYS:HA	44:A5:110:LYS:HD2	1.88	0.41
19:AI:8:GLY:CA	19:AI:9:VAL:HG13	2.39	0.41
41:B8:12:SER:OG	41:B8:15:VAL:HG12	2.19	0.41
20:BA:48:LYS:O	20:BA:50:GLU:N	2.54	0.41
46:C5:87:LYS:H	46:C5:94:LYS:HG2	1.85	0.41
42:C8:28:ARG:HD3	42:C8:38:THR:OG1	2.20	0.41
44:E8:28:SER:OG	44:E8:31:GLU:HG2	2.20	0.41
46:G8:96:ILE:HG22	46:G8:101:LYS:HG2	2.02	0.41
47:H8:19:ARG:HH11	47:H8:84:GLU:HB2	1.86	0.41
55:M5:34:TRP:CE3	55:M5:34:TRP:HA	2.54	0.41
54:P8:26:GLY:O	54:P8:30:VAL:HG23	2.20	0.41
29:11:36:PRO:CD	29:11:64:ILE:HG22	2.50	0.41
1:13:1151:A:C2	1:13:1152:A:C5	3.08	0.41
1:13:1223:C:P	19:AI:78:ARG:NH1	2.90	0.41
1:13:1466:C:H2'	1:13:1467:G:O4'	2.21	0.41
1:13:179:A:O2'	1:13:180:U:H5'	2.20	0.41
1:13:191(F):U:O2	20:BI:105:SER:HB2	2.19	0.41
1:13:199:G:H2'	1:13:200:G:O4'	2.20	0.41
1:13:44:G:C2	1:13:45:U:H1'	2.56	0.41
1:13:625:G:H4'	16:7I:16:HIS:CG	2.54	0.41
1:13:663:A:H5"	18:9I:61:LYS:HE2	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1142(A):A:H5'	26:14:1142(A):A:C8	2.56	0.41
26:14:1464:C:C2	26:14:1465:G:C8	3.09	0.41
26:14:1727:U:H3	26:14:1733:G:H1	1.66	0.41
26:14:1967:C:H2'	26:14:1968:G:H5'	2.02	0.41
26:14:228:A:H8	26:14:228:A:H3'	1.86	0.41
26:14:2695:C:H2'	26:14:2696:U:C6	2.55	0.41
26:14:354:G:H2'	26:14:355:G:O4'	2.20	0.41
26:14:960:A:H61	38:45:83:MET:CE	2.33	0.41
26:14:975:G:C2	26:14:990:A:C8	3.07	0.41
35:15:59:LYS:HE3	35:15:60:ILE:N	2.35	0.41
1:1G:1307:U:OP1	13:4A:101:GLN:NE2	2.53	0.41
1:1G:146:G:H2'	1:1G:147:G:C8	2.54	0.41
1:1G:1494:G:C2	1:1G:1495:U:C6	3.09	0.41
1:1G:410:G:O6	1:1G:429:U:O2'	2.35	0.41
26:1H:106:C:H2'	26:1H:107:C:H6	1.85	0.41
26:1H:1141:U:H4'	26:1H:1142(A):A:O4'	2.20	0.41
26:1H:1206:G:C6	26:1H:1207:C:C4	3.09	0.41
26:1H:1556:C:H2'	26:1H:1557:C:C6	2.55	0.41
26:1H:1963:U:H6	26:1H:1963:U:OP1	2.03	0.41
26:1H:205:G:O2'	26:1H:206:U:P	2.78	0.41
26:1H:234:C:H2'	26:1H:235:U:C6	2.55	0.41
26:1H:2367:G:H2'	26:1H:2368:C:H6	1.85	0.41
26:1H:2387:U:H1'	48:I8:41:ARG:NH2	2.35	0.41
26:1H:2597:G:O2'	26:1H:2598:A:H5'	2.19	0.41
26:1H:2721:A:OP1	59:1H:3783:HOH:O	2.22	0.41
26:1H:435:C:C2'	26:1H:436:C:H5'	2.51	0.41
26:1H:709:U:H2'	26:1H:710:G:C8	2.56	0.41
1:13:972:C:O5'	10:1I:57:LYS:HG2	2.20	0.41
3:22:113:ALA:HB3	3:22:114:PRO:HD3	2.02	0.41
30:29:103:ASP:OD1	30:29:201:THR:HG23	2.21	0.41
3:2E:110:ASN:O	3:2E:141:VAL:HG22	2.20	0.41
4:32:172:PRO:HD2	4:32:173:TRP:CZ3	2.55	0.41
26:14:2392:A:C8	37:35:61:ARG:HD2	2.56	0.41
31:39:63:LYS:HG2	31:39:65:TRP:O	2.20	0.41
31:39:79:GLY:HA2	31:39:86:GLY:HA2	2.00	0.41
31:39:7:TYR:HD1	31:39:18:ARG:H	1.69	0.41
4:3E:148:VAL:HG21	4:3E:158:ILE:HG21	2.02	0.41
5:42:69:VAL:O	5:42:71:LEU:HG	2.21	0.41
5:4E:27:ARG:HE	5:4E:27:ARG:HB2	1.50	0.41
25:4L:23:A:H1'	25:4L:24:A:P	2.60	0.41
6:5E:15:ASP:CG	6:5E:18:GLN:HG3	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:62:32:ARG:O	7:62:34:GLY:N	2.53	0.41
1:1G:751:U:H4'	15:6A:24:SER:HA	2.03	0.41
42:85:69:CYS:HG	42:85:79:PHE:HD2	1.64	0.41
1:1G:719:C:H42	18:9A:71:LYS:HE2	1.85	0.41
20:BI:85:MET:C	20:BI:87:LYS:H	2.23	0.41
48:E5:11:ARG:O	48:E5:14:ARG:NH2	2.53	0.41
47:H8:4:ARG:HB3	47:H8:58:VAL:CG2	2.46	0.41
48:I8:70:GLN:OE1	48:I8:72:ARG:HG3	2.19	0.41
48:I8:75:LEU:HA	48:I8:75:LEU:HD23	1.78	0.41
2:12:17:PHE:HA	2:12:204:ASN:OD1	2.19	0.41
2:12:55:PHE:CD1	2:12:221:LEU:HG	2.56	0.41
1:13:703:G:O2'	1:13:704:A:OP2	2.30	0.41
1:13:774:G:H5''	1:13:775:G:OP2	2.21	0.41
1:13:838:G:H1	1:13:848:C:H42	1.67	0.41
1:13:973:G:OP1	10:1I:57:LYS:HD3	2.20	0.41
26:14:1346:G:C2'	26:14:1347:G:H5'	2.50	0.41
26:14:1621:U:H3'	59:14:3523:HOH:O	2.20	0.41
26:14:1833:U:H2'	26:14:1834:U:H6	1.83	0.41
26:14:1945:G:O2'	26:14:1946:U:H5'	2.19	0.41
26:14:2274:A:O3'	26:14:2275:C:H3'	2.20	0.41
26:14:2365:G:H4'	48:E5:60:PHE:CZ	2.55	0.41
26:14:2600:A:C6	26:14:2601:C:N4	2.88	0.41
26:14:2795:G:N3	26:14:2795:G:H2'	2.35	0.41
26:14:603:A:H8	26:14:604:G:H1'	1.85	0.41
26:14:92:G:H2'	26:14:93:C:C6	2.55	0.41
29:19:70:TRP:O	29:19:73:VAL:HG23	2.20	0.41
2:1E:216:SER:HG	2:1E:216:SER:H	1.66	0.41
1:1G:1037:C:H2'	1:1G:1038:C:C6	2.55	0.41
1:1G:1221:G:OP1	1:1G:1321:C:N4	2.51	0.41
1:1G:1328:C:H2'	1:1G:1329:A:O4'	2.20	0.41
1:1G:1374:A:H2'	1:1G:1375:A:H5'	2.03	0.41
1:1G:15:G:C5	1:1G:1396:A:C2	3.09	0.41
1:1G:243:A:H62	1:1G:281:G:H1'	1.86	0.41
1:1G:297:G:N2	1:1G:300:A:OP2	2.51	0.41
1:1G:487:A:H2'	1:1G:488:C:O4'	2.21	0.41
1:1G:500:G:H2'	1:1G:501:C:C6	2.56	0.41
1:1G:930:C:C4	1:1G:931:C:C5	3.08	0.41
26:1H:1665:A:H2'	26:1H:1666:G:O4'	2.20	0.41
26:1H:1791:A:C8	26:1H:1792:G:C8	3.08	0.41
26:1H:1952:A:H5''	26:1H:1953:A:OP2	2.20	0.41
26:1H:198:C:H5'	26:1H:2244:U:OP1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2315:G:H2'	26:1H:2316:C:C6	2.55	0.41
26:1H:249:C:H4'	26:1H:250:G:O5'	2.20	0.41
26:1H:2545:G:H2'	26:1H:2546:U:O4'	2.21	0.41
26:1H:2599:G:O2'	26:1H:2600:A:H5'	2.20	0.41
26:1H:2852:G:H2'	26:1H:2853:C:O4'	2.21	0.41
3:22:180:ALA:O	3:22:181:ASN:HB3	2.21	0.41
3:22:47:LEU:HB3	3:22:52:LEU:HD13	2.03	0.41
3:2E:79:ARG:NH2	11:2A:105:VAL:O	2.54	0.41
3:2E:47:LEU:HG	3:2E:76:VAL:HG12	2.03	0.41
23:2L:28:U:O2	23:2L:45:A:C2	2.73	0.41
4:32:4:TYR:HE2	4:32:11:LEU:HD21	1.85	0.41
12:3A:56:ALA:O	12:3A:67:THR:HA	2.21	0.41
4:3E:90:GLY:N	4:3E:204:ILE:HD11	2.36	0.41
24:3L:15:G:C4	24:3L:59:A:C2	3.08	0.41
32:49:59:GLU:CD	32:49:153:ARG:HH21	2.23	0.41
13:4A:19:LEU:HB3	13:4A:25:ILE:HG21	2.02	0.41
33:51:33:LEU:HD21	33:51:136:ILE:HG22	2.03	0.41
39:55:59:ASP:OD2	39:55:61:HIS:HB3	2.20	0.41
7:62:15:ASP:O	7:62:19:GLY:HA2	2.20	0.41
41:75:60:THR:HG22	41:75:77:PRO:HA	2.03	0.41
37:78:81:GLN:OE1	37:78:106:LEU:HA	2.20	0.41
8:7E:10:LEU:HD23	8:7E:10:LEU:H	1.85	0.41
1:1G:1180:A:OP1	9:82:103:THR:OG1	2.38	0.41
42:85:98:LEU:CA	42:85:100:VAL:H	2.34	0.41
26:1H:2483:C:O2	38:88:124:LYS:HE3	2.20	0.41
43:95:89:GLN:HA	43:95:90:PRO:HD3	1.91	0.41
44:A5:107:LEU:HA	44:A5:107:LEU:HD12	1.81	0.41
47:D5:157:LEU:HA	47:D5:158:PRO:HD3	1.72	0.41
47:H8:141:VAL:O	47:H8:144:LEU:HG	2.20	0.41
47:H8:44:PHE:CD1	47:H8:44:PHE:C	2.94	0.41
53:J5:36:CYS:SG	53:J5:49:CYS:SG	3.16	0.41
53:N8:48:GLU:O	53:N8:49:CYS:SG	2.79	0.41
26:1H:1693:U:O2'	29:11:14:ARG:NH2	2.53	0.41
29:11:260:ARG:HH11	29:11:260:ARG:HD3	1.57	0.41
1:13:1072:G:C6	1:13:1073:U:C4	3.09	0.41
1:13:1092:A:N6	1:13:1093:A:N6	2.68	0.41
1:13:1296:C:H4'	1:13:1302:U:C5	2.56	0.41
1:13:1304:G:P	59:13:1808:HOH:O	2.77	0.41
1:13:1401:G:C2	1:13:1402:C:H1'	2.55	0.41
1:13:1409:C:H2'	1:13:1410:G:C8	2.56	0.41
1:13:34:C:H2'	1:13:35:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:502:G:C6	1:13:503:C:C4	3.09	0.41
1:13:534:U:H5''	1:13:535:A:OP2	2.21	0.41
1:13:616:G:C2	1:13:617:G:N7	2.89	0.41
26:14:1480:G:C6	26:14:1482:U:C4	3.08	0.41
26:14:1572:A:H2'	26:14:1573:G:O4'	2.21	0.41
26:14:1692:U:H2'	26:14:1694:C:C5	2.56	0.41
26:14:176:G:C2'	26:14:177:G:H5'	2.50	0.41
26:14:1963:U:H2'	26:14:1963:U:O2	2.21	0.41
26:14:205:G:P	59:14:3521:HOH:O	2.72	0.41
26:14:2257:U:O2'	26:14:2258:C:H5'	2.20	0.41
26:14:2401:U:H2'	26:14:2402:C:H6	1.86	0.41
26:14:2642:G:OP1	35:15:76:SER:OG	2.34	0.41
26:14:2872:G:C4	26:14:2873:A:C2	3.09	0.41
26:14:374:A:C2	26:14:401:A:C4	3.08	0.41
29:19:6:PHE:CE1	29:19:18:VAL:HG23	2.52	0.41
2:1E:166:ASP:C	2:1E:168:THR:H	2.24	0.41
2:1E:48:MET:O	2:1E:51:LEU:N	2.53	0.41
1:1G:1122:U:O4	1:1G:1123:A:N6	2.52	0.41
1:1G:1151:A:H5'	10:1A:41:PRO:HA	2.02	0.41
1:1G:1256:A:H3'	3:22:27:LYS:NZ	2.35	0.41
1:1G:1331:G:OP1	1:1G:1331:G:H4'	2.21	0.41
1:1G:1348:U:N3	1:1G:1374:A:H2	2.12	0.41
1:1G:516:U:C4	1:1G:517:G:C6	3.08	0.41
1:1G:543:C:C2'	1:1G:544:G:H5'	2.51	0.41
1:1G:811:C:H4'	1:1G:900:A:N6	2.35	0.41
26:1H:1138:G:H21	35:58:106:MET:CE	2.29	0.41
26:1H:1444:G:N2	26:1H:1548:C:C2	2.89	0.41
26:1H:1478:G:HO2'	26:1H:1558:A:H2	1.68	0.41
26:1H:1695:G:H2'	26:1H:1696:G:O4'	2.20	0.41
26:1H:1813:G:H1'	29:11:50:THR:OG1	2.20	0.41
26:1H:184:C:H2'	26:1H:185:U:H6	1.84	0.41
26:1H:2060:A:O3'	31:31:68:LYS:NZ	2.49	0.41
26:1H:2287:A:N1	26:1H:2346:A:C2	2.83	0.41
26:1H:2334:G:C2	40:A8:12:PHE:CD1	3.08	0.41
26:1H:2557:G:H2'	26:1H:2558:C:C6	2.55	0.41
26:1H:780:G:O5'	26:1H:780:G:H8	2.02	0.41
26:1H:794:G:H2'	26:1H:795:C:C6	2.55	0.41
26:1H:806:C:C2	26:1H:807:U:C5	3.08	0.41
26:1H:832:G:H4'	37:78:45:LEU:HD11	2.01	0.41
3:22:4:LYS:HE2	3:22:4:LYS:HB2	1.83	0.41
3:2E:164:ARG:HD2	3:2E:166:GLU:OE1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2I:87:THR:HA	11:2I:91:ARG:HD2	2.03	0.41
37:35:29:LYS:HG2	37:35:30:THR:HG23	2.03	0.41
31:39:6:VAL:HB	31:39:124:LEU:HA	2.02	0.41
26:14:673:C:H4'	31:39:82:ILE:CG1	2.50	0.41
12:3A:84:LEU:HG	12:3A:105:TYR:HE2	1.85	0.41
4:3E:120:LEU:HA	4:3E:120:LEU:HD23	1.84	0.41
4:3E:126:ILE:HG22	4:3E:127:THR:N	2.35	0.41
4:3E:12:CYS:SG	4:3E:18:LYS:HA	2.61	0.41
24:3K:31:A:OP2	24:3K:31:A:H8	2.04	0.41
24:3K:58:A:H4'	24:3K:59:A:OP1	2.20	0.41
32:41:114:ILE:HG22	32:41:115:ARG:O	2.20	0.41
32:41:39:ILE:HD11	32:41:102:PHE:CZ	2.56	0.41
32:41:43:LEU:HA	32:41:45:GLU:HG2	2.03	0.41
32:49:7:LEU:HA	32:49:10:LYS:HB2	2.03	0.41
6:52:11:ASN:O	6:52:14:LEU:HD22	2.20	0.41
1:1G:673:G:H5''	6:52:87:ARG:NH1	2.35	0.41
7:62:15:ASP:OD1	7:62:16:LEU:N	2.54	0.41
27:1J:8:U:O2'	40:65:40:ILE:HD13	2.20	0.41
34:69:113:ARG:HA	34:69:113:ARG:HD3	1.91	0.41
34:69:133:HIS:CE1	34:69:134:PRO:HD3	2.55	0.41
28:71:44:HIS:O	28:71:212:VAL:HA	2.21	0.41
16:7A:18:ARG:HA	16:7A:38:TYR:HA	2.02	0.41
9:82:25:LYS:HZ1	9:82:33:PHE:HB3	1.86	0.41
9:8E:48:GLU:HB3	9:8E:101:PHE:CZ	2.55	0.41
39:98:57:ARG:HB3	39:98:59:ASP:OD1	2.20	0.41
18:9A:79:LEU:HB3	18:9A:80:PRO:HD2	2.03	0.41
19:AI:40:ILE:CG1	19:AI:41:VAL:HG23	2.27	0.41
41:B8:24:PRO:HA	41:B8:49:VAL:O	2.19	0.41
20:BI:74:LYS:HB3	20:BI:75:ASN:OD1	2.20	0.41
42:C8:97:ASP:OD1	42:C8:101:ARG:NH1	2.53	0.41
49:F5:4:VAL:HG11	49:F5:11:ARG:NH1	2.35	0.41
50:G5:35:LEU:HD13	50:G5:35:LEU:HA	1.89	0.41
48:I8:84:LEU:HD12	48:I8:84:LEU:HA	1.83	0.41
52:M8:14:ILE:HG12	52:M8:15:ILE:N	2.36	0.41
52:M8:37:SER:HB3	52:M8:42:PHE:CD1	2.55	0.41
54:P8:10:ARG:O	54:P8:14:LYS:HB2	2.20	0.41
26:1H:1309:G:H4'	54:P8:7:PRO:HB2	2.02	0.41
29:11:30:GLU:HB2	29:11:35:LYS:CE	2.51	0.41
29:11:48:ARG:O	29:11:50:THR:HG23	2.21	0.41
2:12:18:GLY:O	2:12:19:HIS:CD2	2.74	0.41
2:12:24:TRP:NE1	2:12:26:PRO:HG3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:13:1083:U:C5	1:13:1084:G:C6	3.09	0.41
1:13:1233:G:H2'	1:13:1234:C:H6	1.86	0.41
1:13:1326:C:H2'	1:13:1327:C:H6	1.84	0.41
1:13:624:C:H4'	16:7I:11:SER:N	2.35	0.41
26:14:1048:A:H5'	26:14:1108:U:O4	2.21	0.41
26:14:2320:A:C6	26:14:2333:A:C8	3.08	0.41
26:14:2340:G:HO2'	26:14:2341:G:H5'	1.85	0.41
26:14:2432:A:H2'	26:14:2433:A:H8	1.80	0.41
26:14:2569:G:C2	26:14:2570:G:C8	3.09	0.41
26:14:522:G:H2'	26:14:523:C:H6	1.85	0.41
26:14:732:C:H3'	59:14:3531:HOH:O	2.20	0.41
26:14:813:U:C2	26:14:1195:G:N2	2.89	0.41
21:1B:6:ARG:HD3	21:1B:15:ARG:NH1	2.36	0.41
2:1E:17:PHE:CD1	2:1E:44:LEU:HD11	2.53	0.41
1:1G:1019:C:H2'	1:1G:1020:U:C6	2.55	0.41
1:1G:1272:G:H2'	1:1G:1273:G:O4'	2.20	0.41
1:1G:322:C:H5	1:1G:328:C:H5	1.68	0.41
1:1G:105:G:N2	1:1G:379:C:O3'	2.54	0.41
1:1G:397:A:N3	1:1G:397:A:H3'	2.35	0.41
1:1G:675:A:H2'	1:1G:676:A:O4'	2.21	0.41
26:1H:1055:G:H1'	26:1H:1085:A:H2	1.84	0.41
26:1H:1164:G:C4	26:1H:1165:U:C5	3.09	0.41
26:1H:1179:C:H2'	26:1H:1180:C:C6	2.55	0.41
26:1H:1389:G:H2'	26:1H:1390:U:C6	2.55	0.41
26:1H:1478:G:H1'	26:1H:1557:C:O2'	2.19	0.41
26:1H:1680:U:H2'	26:1H:1681:G:O4'	2.20	0.41
26:1H:2154:G:O5'	26:1H:2154:G:H8	2.04	0.41
26:1H:2563:U:H1'	26:1H:2566:A:N6	2.36	0.41
26:1H:2820:A:O2'	26:1H:2821:A:OP1	2.37	0.41
26:1H:340:A:H2'	26:1H:341:G:O4'	2.21	0.41
26:1H:576:U:H2'	26:1H:577:G:C8	2.56	0.41
26:1H:60:G:C8	26:1H:63:U:C5	3.09	0.41
10:1I:31:GLY:HA3	10:1I:81:THR:HG21	2.03	0.41
27:1J:36:C:N3	27:1J:49:C:O2'	2.48	0.41
30:21:116:VAL:HG13	30:21:122:PHE:CG	2.55	0.41
3:2E:22:TRP:CD1	3:2E:59:ARG:HD2	2.55	0.41
23:2L:73:A:C6	23:2L:74:A:C6	3.09	0.41
4:32:151:LYS:O	4:32:151:LYS:HD3	2.19	0.41
31:39:25:PRO:O	31:39:27:GLU:HB2	2.20	0.41
24:3K:62:C:H2'	28:71:53:ARG:HH21	1.85	0.41
32:41:107:LEU:HA	32:41:107:LEU:HD23	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:41:121:ASN:OD1	32:41:123:ASN:N	2.40	0.41
38:45:33:GLY:O	38:45:132:VAL:N	2.40	0.41
32:49:15:VAL:HG13	32:49:175:LEU:CB	2.49	0.41
32:49:181:ARG:HB3	32:49:181:ARG:HE	1.45	0.41
33:51:13:LYS:HD3	33:51:13:LYS:HA	1.78	0.41
26:14:2723:C:O3'	39:55:1:MET:HE3	2.21	0.41
35:58:28:THR:HG22	35:58:29:LYS:N	2.35	0.41
1:1G:994:A:C2	14:5A:5:ALA:HB2	2.56	0.41
6:5E:63:TYR:HB3	6:5E:65:VAL:CG1	2.50	0.41
27:1J:116:G:H5''	40:65:55:ALA:HB2	2.02	0.41
28:71:46:LYS:HE3	28:71:210:ARG:HE	1.86	0.41
8:7E:58:TYR:O	8:7E:59:LEU:HD23	2.19	0.41
17:8A:29:HIS:HB3	17:8A:33:GLY:N	2.36	0.41
17:8I:48:GLU:O	17:8I:50:LYS:N	2.53	0.41
44:A5:62:HIS:HB2	44:A5:64:MET:HG3	2.02	0.41
45:B5:31:HIS:HA	45:B5:32:PRO:HD3	1.80	0.41
41:B8:29:ARG:HB2	41:B8:46:GLU:HG3	2.03	0.41
47:D5:39:VAL:HG21	47:D5:44:PHE:HB2	2.02	0.41
49:F5:91:LYS:O	49:F5:92:LYS:C	2.59	0.41
47:H8:14:LYS:HA	47:H8:15:PRO:HD2	1.72	0.41
29:11:209:ALA:O	29:11:212:SER:N	2.48	0.41
2:12:141:GLU:O	2:12:145:LEU:HB2	2.20	0.41
1:13:1124:G:N7	1:13:1145:C:O2'	2.53	0.41
1:13:179:A:H2'	1:13:180:U:C6	2.56	0.41
1:13:195:A:H2	1:13:223:U:H1'	1.85	0.41
1:13:254:G:H1'	17:8I:15:MET:HG2	2.03	0.41
1:13:266:G:O2'	17:8I:67:LYS:HD3	2.21	0.41
1:13:900:A:H2'	1:13:901:A:O4'	2.21	0.41
1:13:937:A:C5	1:13:938:A:N7	2.88	0.41
26:14:1477:A:H2'	26:14:1478:G:O4'	2.21	0.41
26:14:1429:G:C5	26:14:1568:G:C6	3.08	0.41
26:14:1615:C:C5	26:14:1617:C:C4	3.08	0.41
26:14:2104:G:C6	26:14:2105:C:N4	2.89	0.41
26:14:228:A:H3'	26:14:228:A:C8	2.56	0.41
26:14:2469:A:H8	38:45:56:ARG:NH2	2.19	0.41
26:14:23:G:O2'	26:14:24:G:H5'	2.20	0.41
26:14:529:A:H8	26:14:530:G:N1	2.18	0.41
26:14:548:A:H2'	26:14:549:G:H5'	2.03	0.41
26:14:835:A:N6	26:14:836:G:C6	2.89	0.41
26:14:99:U:H4'	26:14:102:G:H1'	2.03	0.41
27:16:89(A):A:N7	27:16:90:C:H1'	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:19:124:PRO:HG2	29:19:129:ASN:ND2	2.36	0.41
2:1E:93:VAL:HG21	2:1E:97:TRP:HB2	2.03	0.41
1:1G:1058:G:H2'	1:1G:1059:C:O4'	2.20	0.41
1:1G:60:A:N6	1:1G:110:C:N3	2.64	0.41
1:1G:1239:A:H4'	1:1G:1240:U:C5'	2.51	0.41
1:1G:1350:A:C2	1:1G:1351:U:C2	3.08	0.41
1:1G:937:A:C2	1:1G:1379:G:C6	3.09	0.41
1:1G:600:C:H2'	1:1G:601:C:C6	2.56	0.41
1:1G:730:G:C5	1:1G:731:G:H1'	2.56	0.41
26:1H:1062:G:H3'	26:1H:1063:G:C8	2.56	0.41
26:1H:1094:U:HO2'	26:1H:1096:A:P	2.44	0.41
26:1H:1417:C:H2'	26:1H:1418:G:O4'	2.21	0.41
26:1H:1512:G:H2'	26:1H:1513:C:H6	1.86	0.41
26:1H:1630(A):C:H2'	59:1H:3688:HOH:O	2.21	0.41
26:1H:1771:C:H1'	26:1H:1786:A:C8	2.56	0.41
26:1H:2136:C:H2'	26:1H:2137:C:O4'	2.21	0.41
26:1H:2287:A:C4	26:1H:2289:G:C8	3.08	0.41
26:1H:2327:A:H2'	26:1H:2328:A:H8	1.83	0.41
26:1H:273(E):U:C2'	26:1H:273(F):C:H5'	2.50	0.41
26:1H:330:A:H2	26:1H:1210:A:H2'	1.84	0.41
26:1H:455:C:N3	26:1H:473:G:H5'	2.35	0.41
26:1H:860:U:C4	26:1H:917:A:H2	2.38	0.41
30:21:105:THR:HG21	30:21:164:ARG:CZ	2.50	0.41
3:22:61:ALA:C	3:22:63:ASN:H	2.24	0.41
30:29:70:ALA:C	30:29:72:VAL:H	2.23	0.41
23:2K:56:PSU:O4	23:2K:58:A:C8	2.74	0.41
23:2L:59:A:H2	23:2L:61:U:HO2'	1.66	0.41
31:31:155:LEU:HD13	31:31:174:VAL:HG22	2.03	0.41
4:32:53:ASP:OD2	5:42:107:ARG:NH2	2.54	0.41
12:3A:100:ILE:HG22	12:3A:101:VAL:N	2.36	0.41
1:13:509:A:H5'	4:3E:54:TYR:CD2	2.56	0.41
24:3K:8:U:C6	24:3K:13:C:H5	2.39	0.41
13:4A:81:LEU:HB3	13:4A:89:GLY:HA3	2.02	0.41
7:62:141:VAL:HA	7:62:142:GLU:HB2	2.03	0.41
34:69:29:TYR:HD2	34:69:30:LEU:HD23	1.86	0.41
28:71:6:ARG:CZ	28:71:6:ARG:HB3	2.51	0.41
8:72:34:GLU:HB3	8:72:118:VAL:HG21	2.03	0.41
8:72:64:LYS:HG2	8:72:79:VAL:HG21	2.02	0.41
26:1H:598:G:H5'	37:78:11:GLY:HA3	2.02	0.41
17:8I:66:SER:OG	17:8I:69:LYS:HB2	2.20	0.41
39:98:29:LEU:HD12	39:98:29:LEU:HA	1.80	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BI:100:ILE:HG12	20:BI:101:GLY:H	1.86	0.41
46:C5:19:LYS:HB3	46:C5:20:TYR:H	1.67	0.41
44:E8:38:TYR:OH	53:N8:47:PRO:HG2	2.19	0.41
47:H8:48:PHE:HE1	47:H8:71:VAL:HG11	1.86	0.41
26:1H:76:C:O3'	50:K8:59:ARG:HD3	2.21	0.41
26:14:458:G:O2'	54:L5:39:ARG:HD3	2.21	0.41
1:13:1372:U:OP1	9:8E:72:GLY:N	2.49	0.41
1:13:271:C:H2'	1:13:272:C:H6	1.84	0.41
1:13:277:C:H2'	1:13:278:G:H8	1.85	0.41
1:13:46:G:H2'	1:13:366:C:H5	1.85	0.41
1:13:486:U:H2'	1:13:487:A:C8	2.54	0.41
1:13:558:G:C4	1:13:559:A:C2	3.08	0.41
1:13:586:C:O2'	1:13:878:G:H4'	2.19	0.41
1:13:711:G:H2'	1:13:712:A:C8	2.56	0.41
1:13:665:A:N3	1:13:732:C:H2'	2.36	0.41
1:13:22:G:H4'	1:13:885:G:C8	2.56	0.41
26:14:1203:G:H3'	26:14:1204:A:H5''	2.02	0.41
26:14:565:C:H4'	26:14:1253:A:C6	2.56	0.41
26:14:1463:C:H2'	26:14:1464:C:C6	2.54	0.41
26:14:198:C:H4'	26:14:2243:U:O2'	2.20	0.41
26:14:2599:G:C8	29:19:236:GLY:HA2	2.55	0.41
26:14:384:U:H2'	26:14:385:C:C6	2.56	0.41
26:14:515:A:N1	26:14:1260:G:O2'	2.40	0.41
26:14:723:G:H2'	26:14:724:U:O4'	2.21	0.41
26:14:902:C:H2'	26:14:903:C:C6	2.56	0.41
29:19:263:ARG:HE	29:19:263:ARG:HB2	1.38	0.41
29:19:33:LEU:HD23	29:19:34:VAL:HG13	2.01	0.41
2:1E:111:ARG:CG	2:1E:111:ARG:HH11	2.23	0.41
2:1E:189:ASP:OD1	2:1E:189:ASP:N	2.46	0.41
1:1G:1008:C:N4	1:1G:1021:G:H22	2.19	0.41
1:1G:1258:G:H2'	1:1G:1259:C:C6	2.56	0.41
1:1G:1276:G:H2'	1:1G:1277:C:H6	1.85	0.41
1:1G:1298:C:H4'	1:1G:1299:A:C4	2.56	0.41
1:1G:524:G:H2'	1:1G:525:C:C6	2.55	0.41
1:1G:583:A:H2'	1:1G:584:G:O4'	2.21	0.41
1:1G:902:G:O2'	1:1G:903:G:H5'	2.21	0.41
26:1H:1388:G:H2'	26:1H:1389:G:C8	2.55	0.41
26:1H:1591:G:H2'	26:1H:1592:C:C6	2.56	0.41
26:1H:1614:A:H8	26:1H:1614:A:O5'	2.03	0.41
26:1H:1642:G:C2'	26:1H:1643:G:H5'	2.51	0.41
26:1H:562:U:C4	26:1H:2036:C:O4'	2.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2064:C:H1'	26:1H:2450:A:C2	2.55	0.41
26:1H:2400:G:O2'	26:1H:2401:U:H5'	2.20	0.41
26:1H:2532:G:H2'	26:1H:2533:A:O4'	2.21	0.41
26:1H:225:A:O2'	26:1H:257:A:H4'	2.21	0.41
26:1H:2877:G:H2'	26:1H:2878:U:O4'	2.20	0.41
26:1H:448:U:C4	26:1H:583:G:H1'	2.56	0.41
26:1H:465:G:O5'	26:1H:465:G:H8	2.04	0.41
26:1H:604:G:C5	26:1H:625:G:C2	3.09	0.41
26:1H:732:C:H2'	26:1H:733:G:O4'	2.21	0.41
27:1J:55:U:O2'	27:1J:56:G:H5'	2.21	0.41
22:1K:5:C:O5'	22:1K:5:C:H6	2.04	0.41
30:21:97:LYS:O	30:21:100:GLU:HB2	2.20	0.41
3:22:21:ARG:O	3:22:58:GLU:HA	2.21	0.41
26:1H:588:U:C2	31:31:90:PHE:CE1	3.09	0.41
37:35:134:ALA:O	37:35:138:LEU:HB2	2.20	0.41
59:14:3516:HOH:O	37:35:16:ARG:HG3	2.20	0.41
37:35:57:THR:HG22	37:35:59:LEU:H	1.86	0.41
12:3I:78:GLN:HG3	12:3I:79:GLU:H	1.86	0.41
32:41:165:THR:OG1	32:41:168:GLU:HG3	2.20	0.41
32:41:62:LEU:HD12	32:41:62:LEU:HA	1.69	0.41
5:42:147:ASP:O	5:42:151:LEU:HD13	2.21	0.41
5:42:11:ILE:HD12	5:42:31:LEU:HD12	2.01	0.41
38:45:5:ARG:HG2	38:45:5:ARG:H	1.65	0.41
33:51:86:GLU:CD	33:51:86:GLU:N	2.67	0.41
14:5I:3:ARG:O	14:5I:6:LEU:HB2	2.20	0.41
7:62:149:ARG:HH22	11:2A:58:PRO:HD2	1.86	0.41
15:6A:70:LEU:HD11	15:6A:77:ARG:HG3	2.03	0.41
37:78:61:ARG:HG3	37:78:61:ARG:HH11	1.85	0.41
16:7I:74:LEU:O	16:7I:79:VAL:HB	2.20	0.41
42:85:76:TYR:CE1	42:85:80:ILE:HG13	2.56	0.41
38:88:24:GLY:O	38:88:25:ASP:CB	2.68	0.41
40:A8:36:TYR:HB3	40:A8:52:SER:HB3	2.03	0.41
19:AA:5:LEU:HA	19:AA:6:LYS:HA	1.74	0.41
41:B8:3:ARG:HA	41:B8:6:LEU:HB2	2.02	0.41
47:D5:52:SER:O	47:D5:52:SER:OG	2.33	0.41
45:F8:21:PHE:CE1	45:F8:92:LEU:HD13	2.56	0.41
52:M8:15:ILE:HG21	52:M8:32:TYR:CE2	2.56	0.41
26:1H:1309:G:H3'	54:P8:9:ARG:HH11	1.86	0.41
55:Q8:50:LEU:HD22	55:Q8:50:LEU:HA	1.78	0.41
55:Q8:60:LEU:HA	55:Q8:60:LEU:HD12	1.80	0.41
26:14:1000:A:C4	26:14:1155:A:C6	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1159:U:H2'	26:14:1160:G:C8	2.55	0.41
26:14:1411:C:H2'	26:14:1412:A:C8	2.56	0.41
26:14:1727:U:H2'	26:14:1728:G:O4'	2.21	0.41
26:14:1790:C:H2'	26:14:1791:A:C5	2.56	0.41
26:14:1914:C:H2'	26:14:1915:U:O4'	2.20	0.41
26:14:1678:G:N2	26:14:1989:G:N2	2.67	0.41
26:14:2115:G:C6	26:14:2117:A:C8	3.09	0.41
26:14:2441:C:OP2	26:14:2586:C:O2'	2.34	0.41
26:14:2524:G:C2	26:14:2540:C:C2	3.09	0.41
26:14:55:G:H2'	26:14:56:A:H8	1.86	0.41
26:14:908:C:O2'	26:14:909:A:H5'	2.21	0.41
27:16:44:G:C2	27:16:48:A:C2	3.08	0.41
26:14:1500:G:O2'	29:19:100:GLY:O	2.33	0.41
29:19:79:VAL:HG21	29:19:111:LEU:HD11	2.03	0.41
10:1A:81:THR:HA	10:1A:84:GLN:NE2	2.36	0.41
1:1G:1095:U:OP1	1:1G:1108:G:N1	2.54	0.41
1:1G:1232:U:H2'	1:1G:1233:G:O4'	2.20	0.41
1:1G:1254:C:OP1	10:1A:45:ARG:HG3	2.21	0.41
1:1G:186(A):C:O2	20:BA:105:SER:HB2	2.21	0.41
1:1G:272:C:H2'	1:1G:273:A:H8	1.86	0.41
1:1G:719:C:C5	1:1G:720:C:C4	3.09	0.41
26:1H:1013:C:O2'	26:1H:1014:U:H5'	2.21	0.41
26:1H:1382:G:H2'	26:1H:1383:C:C6	2.56	0.41
26:1H:1697:G:OP2	26:1H:1698:A:O2'	2.16	0.41
26:1H:1858:G:HO2'	26:1H:1859:A:P	2.42	0.41
26:1H:2239:G:P	59:1H:3943:HOH:O	2.78	0.41
26:1H:2292:C:OP1	40:A8:17:ARG:NH2	2.46	0.41
26:1H:53:A:H2'	26:1H:54:G:O4'	2.21	0.41
26:1H:780:G:N2	26:1H:783:A:N6	2.59	0.41
26:1H:828:U:H4'	26:1H:831:G:N1	2.36	0.41
26:1H:975:G:H1'	26:1H:990:A:C2	2.56	0.41
10:1I:55:LYS:O	10:1I:56:HIS:CG	2.74	0.41
30:29:64:LYS:C	30:29:66:HIS:N	2.75	0.41
23:2L:22:A:N6	23:2L:47:G7M:H2'	2.36	0.41
37:35:66:GLY:O	37:35:67:MET:HB3	2.20	0.41
32:41:107:LEU:HD11	32:41:178:PHE:CE1	2.55	0.41
32:49:173:LEU:HD22	32:49:178:PHE:CZ	2.55	0.41
32:49:40:ASN:HB2	32:49:91:ARG:HG3	2.03	0.41
32:49:43:LEU:HD12	32:49:45:GLU:OE2	2.21	0.41
5:4E:77:PRO:HD2	5:4E:142:LEU:HD13	2.03	0.41
5:4E:75:THR:OG1	5:4E:76:ILE:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:71:10:LEU:HA	28:71:10:LEU:HD12	1.84	0.41
28:71:171:ILE:HD12	28:71:171:ILE:HA	1.76	0.41
41:75:45:PHE:CZ	41:75:74:ARG:HG3	2.55	0.41
37:78:18:ARG:HH21	37:78:18:ARG:CG	2.28	0.41
9:82:95:LYS:NZ	9:82:95:LYS:HB3	2.36	0.41
40:A8:14:VAL:O	40:A8:18:ILE:HG13	2.20	0.41
19:AI:3:ARG:NH1	19:AI:9:VAL:HG11	2.36	0.41
45:B5:65:ARG:HG3	45:B5:67:GLY:H	1.86	0.41
47:D5:43:GLU:O	47:D5:47:VAL:HG23	2.21	0.41
46:G8:76:CYS:HG	46:G8:97:ARG:HG3	1.86	0.41
47:H8:104:PHE:HA	47:H8:139:VAL:HB	2.02	0.41
47:H8:7:ALA:HB3	47:H8:61:LEU:HB3	2.03	0.41
55:M5:32:LEU:HA	55:M5:32:LEU:HD12	1.62	0.41
26:1H:1816:G:H8	29:11:62:TYR:CZ	2.39	0.41
29:11:74:GLY:O	29:11:76:PRO:HD3	2.21	0.41
1:13:1162:C:O5'	1:13:1162:C:H6	2.03	0.41
1:13:1190:G:H5''	3:2E:176:HIS:NE2	2.36	0.41
1:13:1397:C:H4'	1:13:1398:A:OP2	2.17	0.41
1:13:1434:A:H2'	1:13:1435:G:O4'	2.21	0.41
1:13:32:A:C2	1:13:33:A:C4	3.09	0.41
1:13:757:U:H2'	1:13:758:G:O4'	2.20	0.41
26:14:117:G:C6	26:14:119:A:C6	3.09	0.41
26:14:1802:A:N1	26:14:1822:G:H1'	2.36	0.41
26:14:1992:G:N2	26:14:1996:C:O2	2.41	0.41
26:14:2129:C:H3'	26:14:2130:U:H6	1.85	0.41
26:14:2171:A:H8	26:14:2171:A:H3'	1.86	0.41
26:14:2199:A:C8	26:14:2205:C:C5	3.09	0.41
26:14:270(S):G:H2'	26:14:270(T):G:H8	1.86	0.41
26:14:2784:C:H2'	26:14:2785:C:H6	1.86	0.41
26:14:620:G:H4'	26:14:621:A:C5'	2.50	0.41
26:14:90:U:O2'	26:14:91:A:P	2.78	0.41
26:14:971:C:H2'	26:14:972:G:O4'	2.21	0.41
35:15:91:LEU:HA	35:15:91:LEU:HD23	1.88	0.41
29:19:72:LYS:HD3	29:19:97:TYR:CE2	2.56	0.41
2:1E:178:ARG:HB2	2:1E:178:ARG:HH11	1.86	0.41
1:1G:1129:C:OP1	1:1G:1130:A:H8	2.04	0.41
1:1G:195:A:C6	1:1G:196:A:N1	2.89	0.41
1:1G:411:A:H61	1:1G:430:A:H62	1.70	0.41
1:1G:580:U:H2'	1:1G:581:G:C8	2.56	0.41
1:1G:587:G:C2	1:1G:755:G:C5	3.09	0.41
26:1H:1162:G:H1'	43:D8:23:GLU:OE2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1241:A:N3	26:1H:1241:A:O4'	2.53	0.41
26:1H:1252:G:H5''	59:1H:4507:HOH:O	2.21	0.41
26:1H:1647:G:P	26:1H:1647:G:H3'	2.61	0.41
26:1H:1839:G:H5''	26:1H:1839:G:H8	1.85	0.41
26:1H:2084:C:H2'	26:1H:2085:C:H6	1.86	0.41
26:1H:2153:G:C6	26:1H:2154:G:C6	3.08	0.41
26:1H:2331:G:O2'	26:1H:2336:A:N1	2.44	0.41
26:1H:2543:G:H2'	26:1H:2544:G:C8	2.55	0.41
26:1H:384:U:H2'	26:1H:385:C:H6	1.85	0.41
26:1H:607:U:O2	26:1H:621:A:N1	2.54	0.41
26:1H:950:G:C6	26:1H:951:C:C4	3.08	0.41
22:1K:60:U:H5'	22:1K:61:C:H5	1.85	0.41
3:22:110:ASN:HB3	3:22:141:VAL:HG13	2.03	0.41
36:25:7:TYR:CD1	36:25:20:MET:HB2	2.55	0.41
36:25:6:THR:HG22	36:25:8:LEU:HD22	2.02	0.41
3:2E:27:LYS:O	3:2E:31:HIS:HE1	2.04	0.41
31:31:24:LEU:HA	31:31:25:PRO:HD2	1.89	0.41
4:32:173:TRP:O	4:32:186:LEU:HB2	2.21	0.41
4:32:61:LYS:HB2	4:32:203:VAL:HG22	2.02	0.41
37:35:76:LYS:HE3	37:35:76:LYS:HB3	1.91	0.41
31:39:181:LEU:CD2	31:39:186:ILE:HD11	2.51	0.41
31:39:148:LEU:HD11	31:39:193:VAL:HG21	2.03	0.41
12:3A:79:GLU:HG2	12:3A:80:HIS:NE2	2.36	0.41
13:4A:36:LYS:HE2	13:4A:36:LYS:HB3	1.88	0.41
33:51:84:SER:O	33:51:133:VAL:O	2.39	0.41
6:52:35:ALA:HA	6:52:67:MET:HB3	2.03	0.41
35:58:30:ILE:HG22	35:58:34:LEU:HD22	2.03	0.41
35:58:94:HIS:O	35:58:97:ARG:HB2	2.20	0.41
6:5E:44:GLY:O	6:5E:59:TYR:HA	2.20	0.41
7:6E:66:VAL:O	7:6E:70:LYS:HG3	2.20	0.41
8:7E:6:ILE:HD12	8:7E:6:ILE:N	2.36	0.41
9:82:103:THR:HG22	9:82:105:ASP:H	1.86	0.41
18:9I:56:THR:HB	18:9I:58:LEU:HD13	2.02	0.41
36:68:104:ARG:NH1	41:B8:36:GLU:OE1	2.52	0.41
47:D5:127:LYS:HE3	47:D5:162:GLU:HG2	2.02	0.41
47:D5:31:ARG:HB2	47:D5:31:ARG:HE	1.63	0.41
47:D5:79:ARG:HD2	47:D5:80:ARG:NH1	2.36	0.41
49:F5:62:VAL:HB	49:F5:67:ILE:HD13	2.03	0.41
50:G5:50:ILE:O	50:G5:54:LYS:HG3	2.20	0.41
47:H8:77:ASP:OD2	47:H8:80:ARG:HB2	2.20	0.41
55:M5:54:GLU:OE1	55:M5:54:GLU:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:M8:43:TYR:HD1	52:M8:44:THR:N	2.19	0.41
26:1H:2361:A:P	55:Q8:27:THR:HG1	2.43	0.41
29:11:29:PRO:HA	29:11:30:GLU:OE2	2.21	0.40
2:12:157:ARG:HG2	2:12:158:LEU:H	1.86	0.40
2:12:80:ILE:HD13	2:12:212:GLN:HA	2.02	0.40
2:12:219:VAL:HG23	2:12:221:LEU:H	1.86	0.40
1:13:1521:G:H2'	1:13:1522:U:C6	2.56	0.40
1:13:17:U:H2'	1:13:18:C:C6	2.56	0.40
1:13:74:C:O2	1:13:74:C:H2'	2.21	0.40
1:13:823:G:C6	1:13:878:G:C6	3.09	0.40
1:13:960:U:C2	1:13:1225:A:N7	2.89	0.40
26:14:1834:U:H4'	26:14:1969:A:C6	2.56	0.40
26:14:2748:A:C6	26:14:2749:A:C5	3.09	0.40
26:14:2836:U:C4	26:14:2883:A:N6	2.89	0.40
35:15:23:LEU:CD1	35:15:99:LEU:HD23	2.52	0.40
27:16:29:A:H2'	27:16:30:C:O4'	2.21	0.40
2:1E:213:LEU:HG	2:1E:213:LEU:H	1.49	0.40
1:1G:1016:A:H3'	1:1G:1017:G:C8	2.56	0.40
1:1G:1061:G:C4	1:1G:1197:G:N2	2.90	0.40
1:1G:1218:C:H2'	1:1G:1219:U:C6	2.56	0.40
1:1G:1237:C:O2'	1:1G:1300:G:N2	2.37	0.40
1:1G:1260:C:C3'	1:1G:1260:C:C6	3.04	0.40
1:1G:892:A:O2'	1:1G:1415:G:H4'	2.22	0.40
1:1G:689:C:O2'	1:1G:690:G:H5'	2.21	0.40
1:1G:942:G:H21	9:82:124:GLN:NE2	2.19	0.40
26:1H:1056:G:H4'	26:1H:1086:A:N7	2.36	0.40
26:1H:577:G:O2'	26:1H:1254:A:OP1	2.35	0.40
26:1H:1288:U:C2	26:1H:1327:C:O2	2.74	0.40
26:1H:1357:U:C4	26:1H:1358:G:C5	3.09	0.40
26:1H:1379:A:H4'	26:1H:1380:G:OP2	2.20	0.40
26:1H:1424:G:H2'	26:1H:1425:G:O4'	2.20	0.40
26:1H:1901:A:OP2	29:11:255:LYS:HE2	2.21	0.40
26:1H:1933:G:C6	26:1H:1934:C:C4	3.09	0.40
26:1H:1982:C:OP2	59:1H:3768:HOH:O	2.19	0.40
26:1H:2067:G:O2'	26:1H:2069:G:H5''	2.21	0.40
26:1H:2102:U:H2'	26:1H:2103:C:C6	2.56	0.40
26:1H:2136:C:H41	26:1H:2156:G:H21	1.68	0.40
26:1H:2159:G:H2'	26:1H:2160:G:O4'	2.21	0.40
26:1H:2165:G:N7	26:1H:2166:G:N2	2.69	0.40
26:1H:2566:A:H4'	26:1H:2567:G:O5'	2.21	0.40
26:1H:355:G:H2'	26:1H:356:G:C8	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:762:U:H4'	26:1H:763:G:O5'	2.21	0.40
26:1H:836:G:H5''	26:1H:837:C:OP2	2.20	0.40
10:1I:8:LEU:HD12	10:1I:20:ALA:HB2	2.02	0.40
10:1I:16:LEU:HD12	10:1I:68:HIS:HB2	2.03	0.40
22:1K:18:G:C4	22:1K:57:G:N2	2.89	0.40
11:2A:59:TYR:CE1	11:2A:63:LEU:HD21	2.56	0.40
3:2E:39:ILE:O	3:2E:43:LEU:HD12	2.21	0.40
4:32:22:LYS:O	4:32:113:SER:HB3	2.21	0.40
37:35:96:THR:HG23	37:35:99:LEU:HB2	2.03	0.40
31:39:128:ALA:O	31:39:129:PHE:C	2.60	0.40
4:3E:179:GLU:HA	4:3E:179:GLU:OE1	2.21	0.40
4:3E:52:SER:O	4:3E:55:ALA:HB3	2.21	0.40
24:3L:30:G:H2'	24:3L:31:A:C8	2.56	0.40
5:42:9:LYS:HB2	5:42:112:LEU:HD11	2.03	0.40
5:4E:41:VAL:HG22	5:4E:113:ALA:HB2	2.03	0.40
5:4E:71:LEU:O	5:4E:72:GLN:NE2	2.43	0.40
33:51:83:TYR:HB3	33:51:135:GLY:H	1.86	0.40
33:51:42:ARG:HG2	33:51:42:ARG:H	1.47	0.40
33:51:6:ARG:HG2	33:51:66:GLY:N	2.36	0.40
26:14:1327:C:O3'	39:55:105:ARG:NH2	2.54	0.40
34:61:118:LYS:N	34:61:118:LYS:HD2	2.35	0.40
34:61:3:VAL:HG12	34:61:38:LEU:HA	2.02	0.40
40:65:59:LYS:HZ3	40:65:61:ASN:HA	1.86	0.40
28:79:47:LEU:HD22	28:79:49:ILE:HG23	2.02	0.40
8:7E:42:GLU:OE2	8:7E:120:THR:HG21	2.22	0.40
40:A8:65:VAL:O	40:A8:69:VAL:HG12	2.21	0.40
46:C5:43:ASN:OD1	46:C5:43:ASN:N	2.52	0.40
47:D5:24:LEU:HA	47:D5:25:PRO:HD3	1.91	0.40
26:1H:1227:A:OP1	43:D8:84:LYS:HE2	2.21	0.40
49:F5:25:LYS:HA	49:F5:29:GLY:HA2	2.03	0.40
48:I8:23:VAL:HA	48:I8:38:VAL:HG22	2.04	0.40
54:L5:5:TRP:NE1	54:L5:7:PRO:HG3	2.36	0.40
26:1H:125:G:C6	54:P8:10:ARG:HG3	2.56	0.40
37:78:65:ARG:HD3	55:Q8:25:MET:SD	2.61	0.40
2:12:111:ARG:HA	2:12:111:ARG:HD3	1.73	0.40
1:13:1286:A:C2	21:1F:18:TYR:OH	2.74	0.40
1:13:160:A:N6	1:13:344:A:H2'	2.36	0.40
1:13:355:C:H2'	1:13:356:A:O4'	2.20	0.40
1:13:909:A:H2'	1:13:910:C:O4'	2.21	0.40
26:14:1405:U:H2'	26:14:1406:U:C6	2.56	0.40
26:14:1831:G:H1	26:14:1974:C:H42	1.68	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1856:G:N2	26:14:1887:C:C2	2.89	0.40
26:14:1856:G:C2	26:14:1887:C:C2	3.08	0.40
26:14:1952:A:C6	26:14:1953:A:N1	2.89	0.40
26:14:34:C:O2'	26:14:35:G:C8	2.72	0.40
26:14:64:A:H2'	26:14:65:C:O4'	2.21	0.40
27:16:2:C:H2'	27:16:3:C:C6	2.57	0.40
29:19:43:ARG:HB3	29:19:49:ILE:HA	2.03	0.40
2:1E:155:LEU:HD22	2:1E:155:LEU:HA	1.78	0.40
2:1E:174:VAL:O	2:1E:178:ARG:HB2	2.21	0.40
2:1E:97:TRP:HH2	2:1E:176:GLU:HG3	1.85	0.40
1:13:1243:C:OP1	21:1F:10:ARG:HG3	2.20	0.40
1:1G:1317:C:H5''	1:1G:1318:A:OP2	2.21	0.40
1:1G:1333:A:C8	1:1G:1334:G:C8	3.09	0.40
1:1G:1363:A:C8	1:1G:1365:G:C5	3.09	0.40
1:1G:1477:C:H2'	1:1G:1478:C:O4'	2.20	0.40
1:1G:46:G:O2'	1:1G:365:U:H1'	2.21	0.40
1:1G:433:C:H2'	1:1G:434:U:C6	2.56	0.40
1:1G:772:U:H2'	1:1G:773:G:O4'	2.21	0.40
26:1H:16:G:C2	26:1H:17:G:C8	3.09	0.40
26:1H:2592:G:N7	59:1H:3820:HOH:O	2.37	0.40
26:1H:35:G:H2'	26:1H:36:G:O4'	2.21	0.40
26:1H:450:G:O6	26:1H:453:C:OP1	2.39	0.40
26:1H:468:G:N7	54:P8:39:ARG:NH2	2.68	0.40
26:1H:483:A:O4'	46:G8:48:ALA:HB1	2.21	0.40
26:1H:700:G:H2'	26:1H:701:G:O4'	2.21	0.40
22:1L:50:C:N4	22:1L:64:G:H1	2.19	0.40
30:21:119:ARG:HD2	30:21:120:TRP:CE2	2.56	0.40
30:21:143:ASN:HD22	30:21:147:PRO:HD2	1.86	0.40
30:29:31:CYS:HB2	30:29:91:VAL:HG22	2.03	0.40
31:31:39:TRP:CH2	31:31:106:ARG:NE	2.90	0.40
31:39:27:GLU:O	31:39:28:ILE:HG12	2.21	0.40
4:3E:155:LEU:O	4:3E:157:LEU:N	2.54	0.40
24:3K:13:C:H42	24:3K:22:G:H1	1.66	0.40
24:3K:61:C:H6	24:3K:61:C:O5'	2.05	0.40
24:3K:69:A:H2'	24:3K:70:C:C6	2.56	0.40
24:3L:59:A:H2'	24:3L:60:U:H5'	2.03	0.40
32:41:113:ARG:HH21	52:M8:34:GLU:CG	2.34	0.40
32:49:109:VAL:O	32:49:113:ARG:HG3	2.21	0.40
32:49:127:GLY:HA2	32:49:166:ASP:CG	2.41	0.40
1:1G:1329:A:H5''	13:4A:25:ILE:O	2.21	0.40
39:55:70:LEU:O	39:55:72:ASP:N	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:58:127:ASP:O	35:58:128:HIS:HB3	2.20	0.40
35:58:38:HIS:CE1	35:58:50:ASP:OD2	2.74	0.40
6:5E:5:GLU:HB3	6:5E:62:TRP:NE1	2.36	0.40
6:5E:94:GLN:N	6:5E:94:GLN:CD	2.75	0.40
34:69:124:GLY:O	34:69:142:VAL:HG23	2.20	0.40
8:72:21:LYS:HB2	8:72:21:LYS:HE3	1.88	0.40
8:72:78:GLN:H	8:72:78:GLN:HG2	1.37	0.40
8:72:97:VAL:O	8:72:100:ILE:HG13	2.21	0.40
8:7E:39:LEU:HB3	8:7E:45:ILE:CG1	2.51	0.40
8:7E:6:ILE:HD12	8:7E:6:ILE:H	1.86	0.40
1:13:376:G:C5'	16:7I:5:ARG:HD2	2.47	0.40
38:88:6:ARG:HG3	38:88:7:MET:N	2.30	0.40
17:8A:4:LYS:H	17:8A:61:GLU:HB3	1.86	0.40
17:8I:88:TYR:C	17:8I:88:TYR:CD1	2.93	0.40
43:95:21:ARG:HG2	43:95:91:TYR:HE2	1.86	0.40
39:98:56:LYS:NZ	39:98:90:ARG:O	2.53	0.40
39:98:63:ARG:HG2	39:98:67:LEU:HD23	2.03	0.40
18:9A:74:ARG:HB3	18:9A:81:PHE:CE1	2.57	0.40
44:A5:23:LEU:HA	44:A5:23:LEU:HD12	1.80	0.40
19:AA:14:HIS:CE1	19:AA:15:LEU:HD23	2.56	0.40
19:AI:15:LEU:HD13	19:AI:33:THR:HB	2.03	0.40
41:B8:78:LEU:O	41:B8:78:LEU:HD13	2.22	0.40
26:1H:1161:C:O2'	43:D8:8:GLY:HA2	2.21	0.40
49:F5:90:ILE:HA	49:F5:93:GLU:CD	2.41	0.40
52:M8:15:ILE:CG2	52:M8:16:CYS:N	2.85	0.40
2:12:219:VAL:CG2	2:12:221:LEU:H	2.35	0.40
1:13:1241:G:H1	1:13:1296:C:H42	1.69	0.40
1:13:130:A:N3	1:13:263:A:O2'	2.43	0.40
26:14:1151:G:C2	26:14:1152:C:C2	3.09	0.40
26:14:1384:A:N3	26:14:1405:U:H1'	2.36	0.40
26:14:1649:G:C6	26:14:2009:G:C6	3.09	0.40
26:14:639:U:H2'	26:14:640:C:H6	1.82	0.40
26:14:872:A:C6	26:14:906:G:C2	3.10	0.40
2:1E:55:PHE:CD1	2:1E:58:ILE:HD12	2.56	0.40
1:1G:1015:A:N3	1:1G:1218:C:O2'	2.52	0.40
1:1G:1055:A:H2'	3:22:156:ARG:HD2	2.04	0.40
1:1G:339:C:H2'	1:1G:340:U:C6	2.56	0.40
1:1G:880:C:OP1	12:3A:8:ASN:ND2	2.50	0.40
26:1H:1029:A:H2'	26:1H:1030:G:O4'	2.21	0.40
26:1H:1108:U:C4	26:1H:1109:C:N4	2.90	0.40
26:1H:1542:G:C8	26:1H:1543:A:C2	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:1542:G:C5	26:1H:1543:A:N1	2.89	0.40
26:1H:2402:C:H1'	26:1H:2403:C:C5	2.39	0.40
26:1H:2594:C:C2'	26:1H:2595:G:O5'	2.70	0.40
26:1H:2685:G:P	41:B8:51:ARG:HH22	2.45	0.40
26:1H:412:A:H2'	26:1H:412:A:N3	2.36	0.40
26:1H:57:C:H2'	26:1H:58:G:O4'	2.21	0.40
22:1K:27:G:H1	22:1K:43:U:H3	1.68	0.40
30:21:182:LEU:HA	30:21:182:LEU:HD12	1.67	0.40
30:29:116:VAL:HG23	30:29:156:MET:C	2.42	0.40
30:29:80:GLU:O	30:29:81:ILE:C	2.57	0.40
1:1G:690:G:H22	11:2A:55:LYS:HE2	1.87	0.40
31:31:129:PHE:O	31:31:130:ALA:HB3	2.22	0.40
26:1H:451:C:H4'	31:31:52:LYS:HE3	2.03	0.40
4:32:108:LEU:CD1	4:32:174:LEU:HB3	2.52	0.40
4:32:154:ASN:OD1	4:32:154:ASN:N	2.54	0.40
4:32:32:ALA:HA	4:32:35:ARG:HB2	2.02	0.40
37:35:82:GLY:HA3	37:35:115:LEU:HD11	2.03	0.40
31:39:117:ARG:HA	31:39:117:ARG:HD3	1.87	0.40
4:3E:165:MET:HA	4:3E:168:ARG:HD3	2.03	0.40
12:3I:110:VAL:CG2	12:3I:120:TYR:HB3	2.51	0.40
32:41:174:GLU:O	32:41:177:GLY:N	2.44	0.40
32:41:52:ILE:HD13	32:41:52:ILE:HA	1.85	0.40
5:42:37:ARG:HG2	5:42:112:LEU:HA	2.02	0.40
27:1J:90:C:P	38:45:16:ARG:HH21	2.44	0.40
38:45:42:ILE:HG22	38:45:47:ILE:HG13	2.03	0.40
32:49:15:VAL:O	32:49:19:LEU:HD12	2.20	0.40
32:49:161:THR:HG22	32:49:162:THR:N	2.37	0.40
14:5A:3:ARG:HA	14:5A:4:LYS:HA	1.89	0.40
34:61:134:PRO:HA	34:61:135:GLU:HG3	2.03	0.40
37:78:134:ALA:O	37:78:138:LEU:HB2	2.21	0.40
37:78:13:ASN:O	37:78:14:LYS:C	2.59	0.40
8:7E:87:SER:HA	8:7E:93:VAL:HG23	2.03	0.40
9:82:25:LYS:HD2	9:82:25:LYS:HA	1.74	0.40
9:82:5:TYR:CE1	9:82:16:ARG:HG2	2.56	0.40
20:BA:67:ALA:HA	20:BA:73:HIS:HA	2.03	0.40
20:BI:49:ALA:O	20:BI:52:ALA:N	2.55	0.40
46:C5:87:LYS:HB2	46:C5:94:LYS:HA	2.03	0.40
42:C8:92:ARG:HD3	42:C8:94:ASN:HB3	2.02	0.40
49:F5:87:PRO:O	49:F5:90:ILE:HG22	2.22	0.40
46:G8:34:LYS:O	46:G8:34:LYS:HG2	2.21	0.40
46:G8:20:TYR:CE2	46:G8:43:ASN:HA	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:J8:7:ILE:CD1	49:J8:70:VAL:HG23	2.52	0.40
50:K8:5:GLU:HG2	50:K8:5:GLU:H	1.56	0.40
29:11:77:ALA:HB2	29:11:97:TYR:CD2	2.56	0.40
1:13:1054:C:C2	22:1K:34:U8U:H1'	2.56	0.40
1:13:1151:A:O2'	1:13:1152:A:H8	2.04	0.40
1:13:116:A:OP2	1:13:116:A:C8	2.74	0.40
1:13:142:G:C2	1:13:143:A:C4	3.09	0.40
1:13:447:G:C6	1:13:485:G:H1'	2.55	0.40
1:13:487:A:H5''	1:13:488:C:OP2	2.22	0.40
26:14:107:C:H2'	26:14:108:U:C6	2.57	0.40
26:14:1122:G:N3	26:14:1122:G:H2'	2.35	0.40
26:14:1131:G:O6	26:14:2040:C:H1'	2.21	0.40
26:14:940:G:N3	26:14:1191:G:H4'	2.36	0.40
26:14:1491:G:O2'	26:14:1492:G:H5'	2.21	0.40
26:14:2274:A:C6	26:14:2276:G:C8	3.09	0.40
26:14:255:A:N6	26:14:256:A:C6	2.90	0.40
26:14:2683:C:OP1	41:75:53:ARG:NH2	2.55	0.40
26:14:2787:C:O2'	26:14:2810:A:O2'	2.39	0.40
26:14:2876:G:O2'	26:14:2877:G:H5'	2.22	0.40
26:14:363(C):G:H2'	26:14:363(D):G:H8	1.85	0.40
26:14:483:A:H3'	26:14:484:C:H6	1.86	0.40
26:14:860:U:H2'	26:14:861:A:H8	1.85	0.40
26:14:942:G:H4'	26:14:1190:G:H5'	2.03	0.40
35:15:112:LEU:HD23	35:15:112:LEU:C	2.42	0.40
29:19:37:LEU:N	29:19:37:LEU:HD12	2.28	0.40
29:19:72:LYS:NZ	29:19:99:ASP:OD2	2.50	0.40
10:1A:75:ILE:HG13	10:1A:76:ASN:H	1.87	0.40
10:1A:94:VAL:HG12	10:1A:95:GLU:N	2.37	0.40
1:1G:1003:G:H21	1:1G:1005:A:P	2.42	0.40
1:1G:1068:G:N3	1:1G:1191:A:C2	2.90	0.40
1:1G:134:A:H1'	1:1G:325:A:C5	2.56	0.40
1:1G:22:G:H4'	1:1G:885:G:C8	2.56	0.40
1:1G:266:G:H5''	1:1G:267:C:C5	2.56	0.40
1:1G:40:C:H42	1:1G:402:G:H1	1.69	0.40
1:1G:976:G:C8	1:1G:1358:U:H1'	2.57	0.40
26:1H:1301:A:C8	26:1H:1303:G:C8	3.09	0.40
26:1H:1484:G:O6	59:1H:3781:HOH:O	2.22	0.40
26:1H:1515:C:H2'	26:1H:1516:U:H6	1.86	0.40
26:1H:2402:C:O2'	26:1H:2403:C:OP2	2.32	0.40
26:1H:2837:G:H21	39:98:45:ARG:HH21	1.70	0.40
26:1H:346:A:H2'	26:1H:346:A:N3	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:1H:2635:C:H5''	30:21:78:LEU:HA	2.03	0.40
1:1G:1106:G:H4'	3:22:171:GLY:O	2.22	0.40
3:22:20:SER:HB2	3:22:40:ARG:NH2	2.32	0.40
11:2A:95:ILE:H	11:2A:95:ILE:HG12	1.52	0.40
3:2E:16:ARG:HD2	3:2E:54:ARG:HH21	1.85	0.40
23:2L:62:C:H2'	23:2L:63:C:C6	2.55	0.40
4:32:8:VAL:HG13	4:32:21:LEU:HD23	2.03	0.40
37:35:126:VAL:HG13	37:35:145:PRO:HB2	2.04	0.40
31:39:123:LEU:HA	31:39:192:LEU:O	2.22	0.40
12:3A:51:ALA:O	12:3A:52:LEU:HD23	2.21	0.40
24:3K:22:G:H8	24:3K:22:G:OP2	2.04	0.40
24:3K:2:G:H3'	24:3K:3:G:C8	2.56	0.40
32:41:101:ILE:HG13	52:M8:25:TYR:O	2.22	0.40
38:45:37:LEU:HD23	38:45:37:LEU:N	2.37	0.40
32:49:36:LYS:HG2	32:49:38:VAL:HG23	2.02	0.40
33:51:88:LEU:HA	33:51:88:LEU:HD13	1.84	0.40
6:52:16:GLN:H	6:52:16:GLN:HG2	1.69	0.40
35:58:99:LEU:HA	35:58:99:LEU:HD23	1.90	0.40
6:5E:44:GLY:HA2	6:5E:59:TYR:CE1	2.56	0.40
1:13:580:U:P	15:6I:54:ARG:HH21	2.43	0.40
28:71:57:ASN:HA	28:71:165:ASN:HD21	1.85	0.40
37:78:121:LYS:HG2	37:78:122:PRO:HD2	2.03	0.40
39:98:44:LEU:O	39:98:45:ARG:C	2.59	0.40
26:1H:18:C:H4'	42:C8:23:GLY:O	2.20	0.40
42:C8:102:GLU:OE1	43:D8:13:ARG:NH2	2.54	0.40
46:G8:71:LYS:HB3	46:G8:71:LYS:HE3	1.75	0.40
49:J8:53:VAL:HB	49:J8:58:ILE:HD13	2.03	0.40
29:11:217:ARG:HG2	29:11:217:ARG:H	1.57	0.40
1:13:1237:C:H3'	1:13:1336:C:N4	2.37	0.40
1:13:1423:G:H2'	1:13:1424:C:O4'	2.22	0.40
1:13:1533:C:O3'	1:13:1534:A:H8	2.05	0.40
1:13:265:G:H2'	1:13:267:C:H5	1.87	0.40
1:13:267:C:H2'	1:13:268:C:C6	2.56	0.40
1:13:280:C:H4'	1:13:281:G:OP2	2.21	0.40
1:13:315:A:H4'	1:13:316:G:H5''	2.03	0.40
26:14:1035:U:H2'	26:14:1036:G:H8	1.85	0.40
26:14:30:G:O2'	26:14:1214:A:N3	2.40	0.40
26:14:1287:A:C5	26:14:1288:U:C4	3.09	0.40
26:14:1525:G:H2'	26:14:1526:G:C8	2.57	0.40
26:14:1306:C:H1'	26:14:1623:G:N2	2.36	0.40
26:14:175:G:N7	59:14:3751:HOH:O	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:1772:G:N2	59:14:3514:HOH:O	2.47	0.40
26:14:2244:U:H6	26:14:2244:U:O5'	2.04	0.40
26:14:2315:G:H2'	26:14:2316:C:C6	2.57	0.40
26:14:297:C:N4	26:14:298:G:C6	2.90	0.40
26:14:303:U:H2'	26:14:304:G:C8	2.56	0.40
26:14:342:G:C6	26:14:343:C:C4	3.09	0.40
26:14:932:G:H4'	26:14:933:A:O5'	2.21	0.40
26:14:945:A:C5	26:14:2448:A:C4	3.10	0.40
26:14:952:G:C6	26:14:966:G:C6	3.10	0.40
26:14:973:A:O4'	26:14:1188:U:C6	2.75	0.40
29:19:72:LYS:HG3	29:19:103:ARG:NH2	2.36	0.40
2:1E:17:PHE:HB3	2:1E:44:LEU:CG	2.49	0.40
2:1E:11:LEU:HD23	2:1E:213:LEU:HD13	2.03	0.40
1:1G:1142:G:H3'	1:1G:1143:G:H8	1.87	0.40
1:1G:1362:C:H2'	1:1G:1362(A):C:H5''	2.04	0.40
1:1G:167:G:C2'	1:1G:168:G:H5'	2.52	0.40
1:1G:296:U:H2'	1:1G:297:G:C8	2.56	0.40
1:1G:406:G:H5'	4:32:5:ILE:CG2	2.52	0.40
1:1G:707:C:H2'	1:1G:708:C:H6	1.86	0.40
1:1G:779:C:H2'	1:1G:780:A:O4'	2.22	0.40
26:1H:1319:G:C6	26:1H:1320:C:N4	2.90	0.40
26:1H:1471:A:C5	26:1H:1522:G:C6	3.10	0.40
26:1H:1511:A:H2'	26:1H:1512:G:O4'	2.22	0.40
26:1H:1647:G:OP2	26:1H:1647:G:H3'	2.21	0.40
26:1H:2014:A:H2'	26:1H:2015:A:C8	2.57	0.40
26:1H:2243:U:O2	26:1H:2434:A:C2	2.75	0.40
26:1H:448:U:O4	26:1H:583:G:H1'	2.20	0.40
11:2A:120:ARG:HA	11:2A:121:PRO:HD2	1.92	0.40
3:2E:77:ILE:HG22	3:2E:81:GLY:HA2	2.03	0.40
11:2I:59:TYR:CE2	11:2I:63:LEU:HD11	2.57	0.40
31:31:20:LEU:HD12	31:31:21:ALA:N	2.37	0.40
31:31:64:ILE:HG23	31:31:65:TRP:CD1	2.56	0.40
26:14:616:A:C8	31:39:176:LEU:HD11	2.56	0.40
31:39:25:PRO:HB3	31:39:28:ILE:HG23	2.02	0.40
31:39:27:GLU:HB3	31:39:28:ILE:H	1.72	0.40
24:3K:49:G:H1'	24:3K:66:A:C2	2.57	0.40
32:41:161:THR:HG22	32:41:163:ALA:N	2.19	0.40
32:41:63:ILE:HD12	32:41:141:PHE:CE1	2.56	0.40
1:1G:1226:C:N4	13:4A:104:ARG:HD2	2.36	0.40
14:5A:42:ILE:H	14:5A:42:ILE:HD12	1.87	0.40
36:68:16:ALA:HB2	36:68:52:VAL:HG21	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1G:808:C:OP1	15:6A:48:LYS:HE2	2.21	0.40
8:72:20:TYR:HA	8:72:65:TYR:CZ	2.57	0.40
37:78:121:LYS:HE2	37:78:121:LYS:HB3	1.83	0.40
8:7E:13:ILE:HG22	8:7E:14:ARG:N	2.37	0.40
16:7I:3:LYS:HG2	16:7I:24:ALA:HB2	2.03	0.40
9:82:112:LYS:CA	9:82:119:ALA:HB2	2.36	0.40
9:82:17:VAL:HG21	9:82:80:GLY:HA3	2.04	0.40
9:8E:89:ASN:OD1	9:8E:89:ASN:N	2.54	0.40
20:BA:11:SER:HA	20:BA:13:LEU:HD23	2.02	0.40
50:G5:15:LYS:H	50:G5:67:LYS:HZ1	1.69	0.40
46:G8:98:VAL:C	46:G8:100:ALA:HB2	2.41	0.40
47:H8:132:ASN:HD22	47:H8:132:ASN:H	1.65	0.40
47:H8:76:LEU:N	47:H8:76:LEU:CD2	2.83	0.40
53:J5:37:LYS:HD2	53:J5:37:LYS:HA	1.71	0.40
53:J5:48:GLU:HG2	53:J5:48:GLU:H	1.62	0.40
32:41:6:ALA:N	52:M8:23:GLU:HG3	2.36	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	12	203/256 (79%)	165 (81%)	33 (16%)	5 (2%)	5	25
2	1E	227/256 (89%)	187 (82%)	39 (17%)	1 (0%)	34	69
3	22	191/239 (80%)	165 (86%)	25 (13%)	1 (0%)	29	64
3	2E	203/239 (85%)	183 (90%)	20 (10%)	0	100	100
4	32	206/209 (99%)	181 (88%)	23 (11%)	2 (1%)	15	48
4	3E	205/209 (98%)	191 (93%)	13 (6%)	1 (0%)	29	64
5	42	147/162 (91%)	138 (94%)	9 (6%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
5	4E	147/162 (91%)	138 (94%)	8 (5%)	1 (1%)	22	56
6	52	99/101 (98%)	97 (98%)	2 (2%)	0	100	100
6	5E	98/101 (97%)	92 (94%)	6 (6%)	0	100	100
7	62	136/156 (87%)	123 (90%)	13 (10%)	0	100	100
7	6E	152/156 (97%)	144 (95%)	8 (5%)	0	100	100
8	72	135/138 (98%)	123 (91%)	9 (7%)	3 (2%)	6	28
8	7E	136/138 (99%)	124 (91%)	10 (7%)	2 (2%)	10	38
9	82	119/128 (93%)	110 (92%)	8 (7%)	1 (1%)	19	53
9	8E	124/128 (97%)	106 (86%)	18 (14%)	0	100	100
10	1A	76/105 (72%)	72 (95%)	4 (5%)	0	100	100
10	1I	93/105 (89%)	84 (90%)	9 (10%)	0	100	100
11	2A	111/129 (86%)	101 (91%)	8 (7%)	2 (2%)	8	33
11	2I	109/129 (84%)	98 (90%)	9 (8%)	2 (2%)	8	33
12	3A	120/132 (91%)	102 (85%)	14 (12%)	4 (3%)	4	18
12	3I	120/132 (91%)	106 (88%)	13 (11%)	1 (1%)	19	53
13	4A	109/126 (86%)	91 (84%)	15 (14%)	3 (3%)	5	22
13	4I	117/126 (93%)	97 (83%)	20 (17%)	0	100	100
14	5A	57/61 (93%)	47 (82%)	9 (16%)	1 (2%)	8	33
14	5I	58/61 (95%)	48 (83%)	8 (14%)	2 (3%)	3	17
15	6A	85/89 (96%)	81 (95%)	4 (5%)	0	100	100
15	6I	85/89 (96%)	77 (91%)	8 (9%)	0	100	100
16	7A	82/88 (93%)	74 (90%)	8 (10%)	0	100	100
16	7I	81/88 (92%)	77 (95%)	4 (5%)	0	100	100
17	8A	97/105 (92%)	90 (93%)	7 (7%)	0	100	100
17	8I	98/105 (93%)	92 (94%)	5 (5%)	1 (1%)	15	48
18	9A	65/88 (74%)	64 (98%)	1 (2%)	0	100	100
18	9I	66/88 (75%)	61 (92%)	4 (6%)	1 (2%)	10	38
19	AA	56/93 (60%)	48 (86%)	6 (11%)	2 (4%)	3	16
19	AI	80/93 (86%)	68 (85%)	8 (10%)	4 (5%)	2	10
20	BA	97/106 (92%)	79 (81%)	15 (16%)	3 (3%)	4	19
20	BI	95/106 (90%)	84 (88%)	11 (12%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
21	1B	20/27 (74%)	19 (95%)	1 (5%)	0	100	100
21	1F	21/27 (78%)	20 (95%)	1 (5%)	0	100	100
28	71	129/229 (56%)	122 (95%)	7 (5%)	0	100	100
28	79	45/229 (20%)	43 (96%)	2 (4%)	0	100	100
29	11	271/276 (98%)	237 (88%)	25 (9%)	9 (3%)	4	18
29	19	272/276 (99%)	240 (88%)	25 (9%)	7 (3%)	5	24
30	21	201/206 (98%)	155 (77%)	37 (18%)	9 (4%)	2	12
30	29	202/206 (98%)	152 (75%)	37 (18%)	13 (6%)	1	5
31	31	200/210 (95%)	181 (90%)	19 (10%)	0	100	100
31	39	202/210 (96%)	155 (77%)	40 (20%)	7 (4%)	3	17
32	41	177/182 (97%)	156 (88%)	19 (11%)	2 (1%)	14	46
32	49	179/182 (98%)	155 (87%)	22 (12%)	2 (1%)	14	46
33	51	172/180 (96%)	142 (83%)	20 (12%)	10 (6%)	1	7
33	59	64/180 (36%)	48 (75%)	13 (20%)	3 (5%)	2	11
34	61	144/148 (97%)	116 (81%)	25 (17%)	3 (2%)	7	29
34	69	143/148 (97%)	115 (80%)	24 (17%)	4 (3%)	5	22
35	15	136/140 (97%)	121 (89%)	14 (10%)	1 (1%)	22	56
35	58	135/140 (96%)	115 (85%)	15 (11%)	5 (4%)	3	15
36	25	120/122 (98%)	110 (92%)	9 (8%)	1 (1%)	19	53
36	68	120/122 (98%)	111 (92%)	9 (8%)	0	100	100
37	35	145/150 (97%)	118 (81%)	26 (18%)	1 (1%)	22	56
37	78	145/150 (97%)	114 (79%)	21 (14%)	10 (7%)	1	4
38	45	137/141 (97%)	111 (81%)	23 (17%)	3 (2%)	6	28
38	88	139/141 (99%)	116 (84%)	16 (12%)	7 (5%)	2	10
39	55	116/118 (98%)	110 (95%)	5 (4%)	1 (1%)	17	51
39	98	116/118 (98%)	99 (85%)	15 (13%)	2 (2%)	9	34
40	65	108/112 (96%)	89 (82%)	16 (15%)	3 (3%)	5	22
40	A8	109/112 (97%)	89 (82%)	20 (18%)	0	100	100
41	75	131/146 (90%)	118 (90%)	11 (8%)	2 (2%)	10	38
41	B8	134/146 (92%)	119 (89%)	14 (10%)	1 (1%)	22	56
42	85	114/118 (97%)	102 (90%)	9 (8%)	3 (3%)	5	24

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
42	C8	113/118 (96%)	102 (90%)	8 (7%)	3 (3%)	5	23
43	95	98/101 (97%)	80 (82%)	15 (15%)	3 (3%)	4	19
43	D8	98/101 (97%)	87 (89%)	8 (8%)	3 (3%)	4	19
44	A5	109/113 (96%)	101 (93%)	7 (6%)	1 (1%)	17	51
44	E8	108/113 (96%)	100 (93%)	7 (6%)	1 (1%)	17	51
45	B5	92/96 (96%)	83 (90%)	6 (6%)	3 (3%)	4	18
45	F8	93/96 (97%)	85 (91%)	8 (9%)	0	100	100
46	C5	102/110 (93%)	75 (74%)	20 (20%)	7 (7%)	1	4
46	G8	101/110 (92%)	82 (81%)	13 (13%)	6 (6%)	1	7
47	D5	127/206 (62%)	98 (77%)	26 (20%)	3 (2%)	6	26
47	H8	168/206 (82%)	136 (81%)	26 (16%)	6 (4%)	3	16
48	E5	74/85 (87%)	65 (88%)	7 (10%)	2 (3%)	5	23
48	I8	75/85 (88%)	67 (89%)	7 (9%)	1 (1%)	12	41
49	F5	92/98 (94%)	78 (85%)	12 (13%)	2 (2%)	6	28
49	J8	92/98 (94%)	86 (94%)	5 (5%)	1 (1%)	14	46
50	G5	67/72 (93%)	61 (91%)	4 (6%)	2 (3%)	4	20
50	K8	66/72 (92%)	60 (91%)	3 (4%)	3 (4%)	2	12
51	H5	56/60 (93%)	52 (93%)	4 (7%)	0	100	100
51	L8	56/60 (93%)	53 (95%)	3 (5%)	0	100	100
52	M8	47/71 (66%)	28 (60%)	17 (36%)	2 (4%)	2	12
53	J5	54/60 (90%)	49 (91%)	5 (9%)	0	100	100
53	N8	46/60 (77%)	44 (96%)	2 (4%)	0	100	100
54	L5	45/49 (92%)	42 (93%)	3 (7%)	0	100	100
54	P8	45/49 (92%)	40 (89%)	4 (9%)	1 (2%)	6	28
55	M5	62/65 (95%)	51 (82%)	10 (16%)	1 (2%)	9	36
55	Q8	62/65 (95%)	53 (86%)	6 (10%)	3 (5%)	2	11
All	All	10980/12333 (89%)	9564 (87%)	1210 (11%)	206 (2%)	8	32

All (206) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
12	3I	48	PRO
14	5I	13	THR

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Mol	Chain	Res	Type
19	AI	9	VAL
19	AI	41	VAL
29	11	28	GLU
29	11	29	PRO
30	21	59	VAL
30	21	83	ASP
37	78	37	GLY
42	C8	89	GLU
47	H8	165	VAL
48	I8	10	THR
50	K8	48	HIS
2	12	219	VAL
9	82	118	LYS
20	BA	73	HIS
29	19	237	GLU
30	29	25	VAL
30	29	54	GLN
31	39	28	ILE
39	55	107	ASP
41	75	10	VAL
41	75	11	GLU
47	D5	53	ILE
47	D5	165	VAL
48	E5	33	ALA
49	F5	30	VAL
50	G5	48	HIS
18	9I	22	VAL
19	AI	67	VAL
29	11	273	ARG
30	21	60	ASN
30	21	78	LEU
33	51	10	PRO
33	51	157	TYR
35	58	77	GLY
35	58	97	ARG
37	78	25	SER
38	88	59	ARG
38	88	66	ILE
38	88	134	ARG
42	C8	93	LYS
43	D8	38	LEU
43	D8	49	THR

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Mol	Chain	Res	Type
46	G8	81	LYS
47	H8	6	LYS
47	H8	60	GLU
55	Q8	50	LEU
11	2A	48	ILE
11	2A	101	SER
12	3A	18	VAL
12	3A	26	ALA
19	AA	9	VAL
20	BA	49	ALA
29	19	273	ARG
30	29	9	VAL
30	29	51	PHE
30	29	59	VAL
30	29	81	ILE
31	39	25	PRO
31	39	84	VAL
32	49	5	VAL
34	69	113	ARG
40	65	87	PHE
40	65	89	ARG
46	C5	29	GLU
46	C5	92	ASN
48	E5	44	ARG
17	8I	79	SER
29	11	30	GLU
30	21	21	VAL
30	21	79	ARG
30	21	118	LYS
32	41	97	ASP
33	51	84	SER
33	51	138	LYS
33	51	169	VAL
35	58	128	HIS
37	78	6	LEU
37	78	35	HIS
38	88	7	MET
42	C8	90	VAL
46	G8	94	LYS
50	K8	43	GLN
52	M8	42	PHE
55	Q8	35	GLN

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Mol	Chain	Res	Type
2	12	220	ASP
13	4A	95	GLY
14	5A	29	ARG
20	BA	13	LEU
29	19	39	LYS
29	19	45	ASN
30	29	55	ASN
30	29	89	ASP
30	29	90	THR
31	39	124	LEU
31	39	167	ALA
32	49	7	LEU
33	59	170	ARG
38	45	90	VAL
44	A5	44	ALA
46	C5	17	SER
46	C5	63	LYS
47	D5	161	VAL
50	G5	47	ASN
4	3E	155	LEU
8	7E	86	ILE
8	7E	87	SER
14	5I	14	PRO
29	11	239	ARG
33	51	83	TYR
33	51	154	PRO
34	61	133	HIS
34	61	145	VAL
37	78	14	LYS
39	98	45	ARG
46	G8	54	LYS
49	J8	76	ARG
55	Q8	47	LYS
29	19	274	ARG
30	29	26	ILE
30	29	187	ALA
38	45	27	VAL
38	45	79	LEU
40	65	111	GLU
45	B5	68	ARG
46	C5	89	PHE
46	C5	99	CYS

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Mol	Chain	Res	Type
55	M5	34	TRP
11	2I	108	ILE
29	11	122	ASP
29	11	240	ALA
30	21	56	PRO
32	41	5	VAL
33	51	12	PRO
33	51	40	GLU
33	51	85	LYS
34	61	12	LEU
35	58	22	THR
35	58	127	ASP
37	78	19	VAL
37	78	42	SER
38	88	6	ARG
39	98	3	HIS
44	E8	66	GLU
50	K8	47	ASN
54	P8	46	VAL
2	12	45	GLN
3	22	86	VAL
8	72	22	GLU
8	72	73	ASP
12	3A	47	LYS
30	29	77	ILE
34	69	112	LYS
35	15	128	HIS
36	25	12	ASP
37	35	108	LYS
42	85	92	ARG
43	95	71	LEU
45	B5	40	LYS
49	F5	83	GLU
11	2I	82	VAL
29	11	3	VAL
30	21	55	ASN
37	78	34	GLY
37	78	95	VAL
38	88	79	LEU
41	B8	106	SER
46	G8	42	VAL
46	G8	53	PRO

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Mol	Chain	Res	Type
47	H8	59	LEU
4	32	28	SER
13	4A	32	GLU
29	19	240	ALA
30	29	62	PRO
31	39	24	LEU
42	85	93	LYS
46	G8	76	CYS
47	H8	61	LEU
29	19	3	VAL
33	59	169	VAL
42	85	65	ILE
2	1E	127	ILE
5	4E	115	VAL
52	M8	41	PRO
2	12	39	ILE
4	32	17	VAL
13	4A	84	ILE
19	AA	67	VAL
45	B5	51	VAL
46	C5	3	VAL
37	78	7	ARG
43	D8	47	VAL
47	H8	53	ILE
2	12	223	ILE
8	72	100	ILE
12	3A	96	VAL
31	39	132	VAL
34	69	111	PRO
43	95	72	VAL
43	95	99	ILE
29	11	123	ALA
38	88	27	VAL
34	69	144	VAL
19	AI	40	ILE
33	59	167	GLU

### 5.3.2 Protein sidechains ⓘ

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	179/220 (81%)	148 (83%)	31 (17%)	2	8
2	1E	200/220 (91%)	152 (76%)	48 (24%)	0	2
3	22	154/188 (82%)	122 (79%)	32 (21%)	1	4
3	2E	159/188 (85%)	123 (77%)	36 (23%)	1	3
4	32	180/181 (99%)	142 (79%)	38 (21%)	1	4
4	3E	180/181 (99%)	140 (78%)	40 (22%)	1	3
5	42	114/123 (93%)	91 (80%)	23 (20%)	1	5
5	4E	115/123 (94%)	94 (82%)	21 (18%)	1	7
6	52	90/90 (100%)	69 (77%)	21 (23%)	1	3
6	5E	90/90 (100%)	70 (78%)	20 (22%)	1	3
7	62	114/127 (90%)	91 (80%)	23 (20%)	1	5
7	6E	125/127 (98%)	107 (86%)	18 (14%)	3	13
8	72	118/119 (99%)	96 (81%)	22 (19%)	1	7
8	7E	119/119 (100%)	90 (76%)	29 (24%)	0	2
9	82	92/99 (93%)	74 (80%)	18 (20%)	1	6
9	8E	97/99 (98%)	76 (78%)	21 (22%)	1	4
10	1A	71/92 (77%)	59 (83%)	12 (17%)	2	9
10	1I	81/92 (88%)	69 (85%)	12 (15%)	3	12
11	2A	85/99 (86%)	70 (82%)	15 (18%)	2	8
11	2I	84/99 (85%)	65 (77%)	19 (23%)	1	3
12	3A	103/109 (94%)	77 (75%)	26 (25%)	0	2
12	3I	103/109 (94%)	83 (81%)	20 (19%)	1	6
13	4A	91/101 (90%)	66 (72%)	25 (28%)	0	1
13	4I	94/101 (93%)	74 (79%)	20 (21%)	1	4
14	5A	49/50 (98%)	38 (78%)	11 (22%)	1	3
14	5I	49/50 (98%)	39 (80%)	10 (20%)	1	5
15	6A	79/80 (99%)	67 (85%)	12 (15%)	3	12
15	6I	79/80 (99%)	65 (82%)	14 (18%)	2	8
16	7A	72/74 (97%)	56 (78%)	16 (22%)	1	3
16	7I	72/74 (97%)	57 (79%)	15 (21%)	1	4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
17	8A	94/97 (97%)	82 (87%)	12 (13%)	4	17
17	8I	95/97 (98%)	78 (82%)	17 (18%)	2	7
18	9A	58/77 (75%)	44 (76%)	14 (24%)	0	2
18	9I	58/77 (75%)	47 (81%)	11 (19%)	1	6
19	AA	52/80 (65%)	41 (79%)	11 (21%)	1	4
19	AI	72/80 (90%)	59 (82%)	13 (18%)	1	7
20	BA	76/82 (93%)	63 (83%)	13 (17%)	2	8
20	BI	75/82 (92%)	61 (81%)	14 (19%)	1	7
21	1B	17/22 (77%)	16 (94%)	1 (6%)	19	50
21	1F	18/22 (82%)	14 (78%)	4 (22%)	1	3
28	71	109/181 (60%)	87 (80%)	22 (20%)	1	5
28	79	48/181 (26%)	34 (71%)	14 (29%)	0	1
29	11	214/218 (98%)	165 (77%)	49 (23%)	1	3
29	19	214/218 (98%)	167 (78%)	47 (22%)	1	4
30	21	165/166 (99%)	131 (79%)	34 (21%)	1	4
30	29	165/166 (99%)	127 (77%)	38 (23%)	1	3
31	31	161/166 (97%)	127 (79%)	34 (21%)	1	4
31	39	163/166 (98%)	122 (75%)	41 (25%)	0	2
32	41	153/156 (98%)	118 (77%)	35 (23%)	1	3
32	49	153/156 (98%)	120 (78%)	33 (22%)	1	4
33	51	143/148 (97%)	107 (75%)	36 (25%)	0	2
33	59	56/148 (38%)	46 (82%)	10 (18%)	2	7
34	61	122/124 (98%)	87 (71%)	35 (29%)	0	1
34	69	122/124 (98%)	95 (78%)	27 (22%)	1	3
35	15	117/119 (98%)	87 (74%)	30 (26%)	0	2
35	58	116/119 (98%)	87 (75%)	29 (25%)	0	2
36	25	100/100 (100%)	78 (78%)	22 (22%)	1	4
36	68	100/100 (100%)	79 (79%)	21 (21%)	1	4
37	35	114/116 (98%)	83 (73%)	31 (27%)	0	1
37	78	114/116 (98%)	77 (68%)	37 (32%)	0	1
38	45	109/111 (98%)	84 (77%)	25 (23%)	1	3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
38	88	110/111 (99%)	91 (83%)	19 (17%)	2	8
39	55	101/101 (100%)	79 (78%)	22 (22%)	1	4
39	98	101/101 (100%)	73 (72%)	28 (28%)	0	1
40	65	87/88 (99%)	61 (70%)	26 (30%)	0	1
40	A8	87/88 (99%)	58 (67%)	29 (33%)	0	1
41	75	117/127 (92%)	83 (71%)	34 (29%)	0	1
41	B8	117/127 (92%)	86 (74%)	31 (26%)	0	2
42	85	93/94 (99%)	73 (78%)	20 (22%)	1	4
42	C8	92/94 (98%)	73 (79%)	19 (21%)	1	4
43	95	81/82 (99%)	62 (76%)	19 (24%)	1	3
43	D8	82/82 (100%)	61 (74%)	21 (26%)	0	2
44	A5	91/92 (99%)	70 (77%)	21 (23%)	1	3
44	E8	90/92 (98%)	73 (81%)	17 (19%)	1	7
45	B5	74/78 (95%)	58 (78%)	16 (22%)	1	4
45	F8	75/78 (96%)	62 (83%)	13 (17%)	2	8
46	C5	85/91 (93%)	57 (67%)	28 (33%)	0	1
46	G8	84/91 (92%)	63 (75%)	21 (25%)	0	2
47	D5	118/179 (66%)	92 (78%)	26 (22%)	1	4
47	H8	151/179 (84%)	122 (81%)	29 (19%)	1	6
48	E5	61/67 (91%)	55 (90%)	6 (10%)	8	27
48	I8	62/67 (92%)	49 (79%)	13 (21%)	1	4
49	F5	79/83 (95%)	59 (75%)	20 (25%)	0	2
49	J8	79/83 (95%)	65 (82%)	14 (18%)	2	8
50	G5	63/67 (94%)	45 (71%)	18 (29%)	0	1
50	K8	64/67 (96%)	45 (70%)	19 (30%)	0	1
51	H5	50/52 (96%)	38 (76%)	12 (24%)	0	2
51	L8	50/52 (96%)	36 (72%)	14 (28%)	0	1
52	M8	42/63 (67%)	33 (79%)	9 (21%)	1	4
53	J5	48/52 (92%)	36 (75%)	12 (25%)	0	2
53	N8	43/52 (83%)	34 (79%)	9 (21%)	1	4
54	L5	38/42 (90%)	33 (87%)	5 (13%)	4	16

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
54	P8	38/42 (90%)	31 (82%)	7 (18%)	1	7
55	M5	54/55 (98%)	41 (76%)	13 (24%)	0	2
55	Q8	54/55 (98%)	43 (80%)	11 (20%)	1	5
All	All	9272/10193 (91%)	7223 (78%)	2049 (22%)	1	3

All (2049) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1E	8	LYS
2	1E	10	LEU
2	1E	21	ARG
2	1E	24	TRP
2	1E	32	ILE
2	1E	33	TYR
2	1E	37	ASN
2	1E	45	GLN
2	1E	48	MET
2	1E	49	GLU
2	1E	59	GLU
2	1E	67	THR
2	1E	69	LEU
2	1E	71	VAL
2	1E	83	MET
2	1E	86	GLU
2	1E	87	ARG
2	1E	93	VAL
2	1E	95	GLN
2	1E	96	ARG
2	1E	108	ILE
2	1E	109	SER
2	1E	111	ARG
2	1E	117	GLU
2	1E	118	LEU
2	1E	121	LEU
2	1E	122	PHE
2	1E	144	ARG
2	1E	155	LEU
2	1E	163	PHE
2	1E	172	ILE
2	1E	178	ARG
2	1E	184	VAL

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Mol	Chain	Res	Type
2	1E	185	ILE
2	1E	189	ASP
2	1E	190	THR
2	1E	191	ASP
2	1E	198	ASP
2	1E	200	ILE
2	1E	205	ASP
2	1E	209	ARG
2	1E	210	SER
2	1E	211	ILE
2	1E	217	ARG
2	1E	222	ILE
2	1E	224	GLN
2	1E	230	VAL
2	1E	236	TYR
3	2E	5	ILE
3	2E	8	ILE
3	2E	16	ARG
3	2E	17	ASP
3	2E	21	ARG
3	2E	26	LYS
3	2E	29	TYR
3	2E	31	HIS
3	2E	32	LEU
3	2E	34	LEU
3	2E	38	ARG
3	2E	42	LEU
3	2E	47	LEU
3	2E	52	LEU
3	2E	56	ASP
3	2E	63	ASN
3	2E	64	VAL
3	2E	70	VAL
3	2E	98	ASN
3	2E	104	GLN
3	2E	105	GLU
3	2E	107	GLN
3	2E	111	LEU
3	2E	118	GLN
3	2E	128	PHE
3	2E	131	ARG
3	2E	132	ARG

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Mol	Chain	Res	Type
3	2E	138	VAL
3	2E	144	SER
3	2E	166	GLU
3	2E	167	TRP
3	2E	178	LEU
3	2E	190	ARG
3	2E	196	LEU
3	2E	202	ILE
3	2E	206	GLU
4	3E	3	ARG
4	3E	8	VAL
4	3E	10	ARG
4	3E	11	LEU
4	3E	12	CYS
4	3E	15	GLU
4	3E	19	LEU
4	3E	31	CYS
4	3E	38	TYR
4	3E	46	LYS
4	3E	47	ARG
4	3E	49	ARG
4	3E	58	LEU
4	3E	66	ARG
4	3E	84	LYS
4	3E	85	LYS
4	3E	86	LYS
4	3E	88	VAL
4	3E	89	THR
4	3E	96	LEU
4	3E	106	TYR
4	3E	107	ARG
4	3E	108	LEU
4	3E	115	ARG
4	3E	122	ARG
4	3E	127	THR
4	3E	135	LEU
4	3E	138	TYR
4	3E	151	LYS
4	3E	154	ASN
4	3E	168	ARG
4	3E	170	VAL
4	3E	184	LYS

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Mol	Chain	Res	Type
4	3E	187	ARG
4	3E	188	LEU
4	3E	190	ASP
4	3E	193	ASP
4	3E	200	GLU
4	3E	201	GLN
4	3E	209	ARG
5	4E	10	MET
5	4E	11	ILE
5	4E	12	LEU
5	4E	13	ILE
5	4E	15	ARG
5	4E	16	THR
5	4E	31	LEU
5	4E	33	VAL
5	4E	41	VAL
5	4E	43	LEU
5	4E	64	ARG
5	4E	68	GLU
5	4E	72	GLN
5	4E	79	GLU
5	4E	91	LEU
5	4E	112	LEU
5	4E	116	THR
5	4E	144	THR
5	4E	147	ASP
5	4E	151	LEU
5	4E	153	LYS
6	5E	16	GLN
6	5E	21	LEU
6	5E	23	LYS
6	5E	25	ILE
6	5E	30	LEU
6	5E	31	GLU
6	5E	36	ARG
6	5E	40	VAL
6	5E	43	LEU
6	5E	46	ARG
6	5E	55	ASP
6	5E	74	ASP
6	5E	75	LEU
6	5E	77	ARG

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Mol	Chain	Res	Type
6	5E	78	GLU
6	5E	86	ARG
6	5E	91	VAL
6	5E	94	GLN
6	5E	95	GLU
6	5E	96	PRO
7	6E	5	ARG
7	6E	8	GLU
7	6E	12	LEU
7	6E	32	ARG
7	6E	38	LEU
7	6E	54	THR
7	6E	59	LEU
7	6E	63	LYS
7	6E	73	MET
7	6E	75	VAL
7	6E	90	GLU
7	6E	95	ARG
7	6E	104	LEU
7	6E	113	GLU
7	6E	131	LYS
7	6E	137	LYS
7	6E	138	LYS
7	6E	149	ARG
8	7E	1	MET
8	7E	2	LEU
8	7E	10	LEU
8	7E	18	ARG
8	7E	19	VAL
8	7E	26	VAL
8	7E	32	LYS
8	7E	36	LEU
8	7E	37	ARG
8	7E	45	ILE
8	7E	52	ASP
8	7E	60	ARG
8	7E	63	LEU
8	7E	68	ARG
8	7E	75	ARG
8	7E	76	PRO
8	7E	80	ILE
8	7E	85	ARG

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Mol	Chain	Res	Type
8	7E	91	ARG
8	7E	95	VAL
8	7E	102	ARG
8	7E	104	ARG
8	7E	105	ARG
8	7E	107	LEU
8	7E	112	LEU
8	7E	122	ARG
8	7E	123	GLU
8	7E	127	LEU
8	7E	137	VAL
9	8E	9	ARG
9	8E	10	ARG
9	8E	35	GLU
9	8E	38	GLN
9	8E	42	ARG
9	8E	44	VAL
9	8E	47	LEU
9	8E	50	LEU
9	8E	51	ARG
9	8E	54	ASP
9	8E	70	LYS
9	8E	75	ASP
9	8E	79	LEU
9	8E	83	ARG
9	8E	88	TYR
9	8E	89	ASN
9	8E	91	ASP
9	8E	97	LYS
9	8E	99	LEU
9	8E	108	VAL
9	8E	121	ARG
10	1I	16	LEU
10	1I	25	GLU
10	1I	34	VAL
10	1I	38	ILE
10	1I	51	ARG
10	1I	58	ASP
10	1I	70	ARG
10	1I	75	ILE
10	1I	78	ASN
10	1I	86	MET

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Mol	Chain	Res	Type
10	1I	88	LEU
10	1I	89	ASP
11	2I	18	ARG
11	2I	29	ILE
11	2I	32	ILE
11	2I	48	ILE
11	2I	54	ARG
11	2I	63	LEU
11	2I	71	LYS
11	2I	84	VAL
11	2I	87	THR
11	2I	96	ARG
11	2I	99	GLN
11	2I	103	LEU
11	2I	105	VAL
11	2I	106	LYS
11	2I	108	ILE
11	2I	109	VAL
11	2I	114	VAL
11	2I	116	HIS
11	2I	124	LYS
12	3I	11	VAL
12	3I	21	LYS
12	3I	33	ARG
12	3I	50	SER
12	3I	54	LYS
12	3I	60	LEU
12	3I	62	SER
12	3I	65	GLU
12	3I	67	THR
12	3I	79	GLU
12	3I	83	VAL
12	3I	96	VAL
12	3I	100	ILE
12	3I	102	ARG
12	3I	111	LYS
12	3I	114	LYS
12	3I	115	LYS
12	3I	116	SER
12	3I	123	LYS
12	3I	126	LYS
13	4I	4	ILE

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Mol	Chain	Res	Type
13	4I	9	ILE
13	4I	13	LYS
13	4I	14	ARG
13	4I	16	ASP
13	4I	31	LYS
13	4I	44	ARG
13	4I	45	VAL
13	4I	48	LEU
13	4I	50	GLU
13	4I	56	LEU
13	4I	64	TRP
13	4I	67	GLU
13	4I	70	LEU
13	4I	83	ASP
13	4I	99	ARG
13	4I	102	ARG
13	4I	106	ASN
13	4I	108	ARG
13	4I	111	LYS
14	5I	3	ARG
14	5I	6	LEU
14	5I	7	ILE
14	5I	8	GLU
14	5I	18	VAL
14	5I	23	ARG
14	5I	33	VAL
14	5I	41	ARG
14	5I	44	LEU
14	5I	50	LYS
15	6I	10	LYS
15	6I	25	THR
15	6I	26	GLU
15	6I	31	LEU
15	6I	35	ARG
15	6I	38	ARG
15	6I	39	LEU
15	6I	41	GLU
15	6I	47	LYS
15	6I	59	MET
15	6I	66	LEU
15	6I	71	GLN
15	6I	79	ARG

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Mol	Chain	Res	Type
15	6I	84	LYS
16	7I	8	ARG
16	7I	11	SER
16	7I	18	ARG
16	7I	19	ILE
16	7I	20	VAL
16	7I	27	LYS
16	7I	47	ASP
16	7I	50	LYS
16	7I	55	ARG
16	7I	67	THR
16	7I	69	THR
16	7I	71	ARG
16	7I	72	ARG
16	7I	75	ARG
16	7I	76	GLN
17	8I	12	SER
17	8I	14	LYS
17	8I	19	VAL
17	8I	24	GLU
17	8I	25	ARG
17	8I	38	ARG
17	8I	45	HIS
17	8I	52	LYS
17	8I	60	ILE
17	8I	62	SER
17	8I	63	ARG
17	8I	68	ARG
17	8I	69	LYS
17	8I	87	LYS
17	8I	89	LEU
17	8I	100	LYS
17	8I	101	ARG
18	9I	26	LEU
18	9I	28	GLU
18	9I	31	LEU
18	9I	32	ARG
18	9I	33	ASP
18	9I	45	SER
18	9I	54	ARG
18	9I	76	LEU
18	9I	84	LYS

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Mol	Chain	Res	Type
18	9I	85	LEU
18	9I	86	VAL
19	AI	3	ARG
19	AI	5	LEU
19	AI	9	VAL
19	AI	21	GLU
19	AI	22	LEU
19	AI	27	GLU
19	AI	31	ILE
19	AI	36	ARG
19	AI	37	ARG
19	AI	43	GLU
19	AI	67	VAL
19	AI	71	LEU
19	AI	77	THR
20	BI	9	ASN
20	BI	10	LEU
20	BI	13	LEU
20	BI	19	SER
20	BI	24	LEU
20	BI	37	SER
20	BI	53	LEU
20	BI	56	MET
20	BI	72	LEU
20	BI	73	HIS
20	BI	75	ASN
20	BI	86	ARG
20	BI	90	GLN
20	BI	93	GLU
21	1F	9	ARG
21	1F	10	ARG
21	1F	12	LYS
21	1F	15	ARG
28	71	6	ARG
28	71	10	LEU
28	71	30	LYS
28	71	32	LEU
28	71	34	THR
28	71	37	PHE
28	71	52	ARG
28	71	55	ASP
28	71	59	ARG

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Mol	Chain	Res	Type
28	71	64	LEU
28	71	66	HIS
28	71	166	ASP
28	71	167	LYS
28	71	168	THR
28	71	171	ILE
28	71	179	SER
28	71	180	PHE
28	71	193	ILE
28	71	215	THR
28	71	218	MET
28	71	222	VAL
28	71	224	ILE
29	11	13	ARG
29	11	16	MET
29	11	17	THR
29	11	23	GLU
29	11	26	LYS
29	11	28	GLU
29	11	30	GLU
29	11	31	LYS
29	11	33	LEU
29	11	34	VAL
29	11	35	LYS
29	11	37	LEU
29	11	38	LYS
29	11	39	LYS
29	11	40	THR
29	11	43	ARG
29	11	64	ILE
29	11	65	ILE
29	11	78	LYS
29	11	83	GLU
29	11	88	ARG
29	11	94	LEU
29	11	103	ARG
29	11	105	ILE
29	11	106	ILE
29	11	111	LEU
29	11	113	VAL
29	11	116	GLN
29	11	126	GLN

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Mol	Chain	Res	Type
29	11	141	VAL
29	11	142	VAL
29	11	154	LYS
29	11	157	ARG
29	11	165	ILE
29	11	183	ARG
29	11	192	THR
29	11	200	ASP
29	11	211	ARG
29	11	212	SER
29	11	217	ARG
29	11	221	VAL
29	11	229	VAL
29	11	233	HIS
29	11	242	ARG
29	11	254	THR
29	11	255	LYS
29	11	257	LEU
29	11	260	ARG
29	11	271	ILE
30	21	5	LEU
30	21	14	ILE
30	21	23	VAL
30	21	25	VAL
30	21	26	ILE
30	21	38	THR
30	21	40	GLU
30	21	52	LEU
30	21	54	GLN
30	21	55	ASN
30	21	57	LYS
30	21	60	ASN
30	21	63	LEU
30	21	67	PHE
30	21	77	ILE
30	21	82	ARG
30	21	87	GLU
30	21	91	VAL
30	21	93	VAL
30	21	101	ARG
30	21	111	ARG
30	21	118	LYS

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Mol	Chain	Res	Type
30	21	119	ARG
30	21	138	PRO
30	21	146	THR
30	21	171	GLU
30	21	175	VAL
30	21	179	GLU
30	21	181	LEU
30	21	195	LEU
30	21	197	ILE
30	21	201	THR
30	21	202	LYS
30	21	203	LYS
31	31	7	TYR
31	31	15	SER
31	31	17	ARG
31	31	18	ARG
31	31	28	ILE
31	31	32	LEU
31	31	33	LEU
31	31	43	LYS
31	31	52	LYS
31	31	57	VAL
31	31	59	TYR
31	31	62	ARG
31	31	64	ILE
31	31	74	ARG
31	31	101	LEU
31	31	106	ARG
31	31	116	ASP
31	31	117	ARG
31	31	124	LEU
31	31	127	GLU
31	31	158	THR
31	31	164	ARG
31	31	170	LEU
31	31	174	VAL
31	31	175	THR
31	31	181	LEU
31	31	183	VAL
31	31	188	ARG
31	31	191	ARG
31	31	192	LEU

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Mol	Chain	Res	Type
31	31	196	LEU
31	31	197	ASP
31	31	203	GLN
31	31	205	ARG
32	41	3	LEU
32	41	14	GLU
32	41	28	VAL
32	41	32	PRO
32	41	33	ARG
32	41	35	GLU
32	41	43	LEU
32	41	45	GLU
32	41	48	GLU
32	41	51	ARG
32	41	53	LEU
32	41	54	GLU
32	41	60	LEU
32	41	62	LEU
32	41	63	ILE
32	41	66	GLN
32	41	67	LYS
32	41	70	VAL
32	41	77	ILE
32	41	79	ASN
32	41	80	PHE
32	41	82	LEU
32	41	90	LEU
32	41	94	LEU
32	41	101	ILE
32	41	103	LEU
32	41	115	ARG
32	41	118	ARG
32	41	126	ASP
32	41	133	LEU
32	41	139	LEU
32	41	145	THR
32	41	149	VAL
32	41	162	THR
32	41	165	THR
33	51	2	SER
33	51	3	ARG
33	51	7	LEU

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Mol	Chain	Res	Type
33	51	9	ILE
33	51	11	VAL
33	51	24	VAL
33	51	37	VAL
33	51	40	GLU
33	51	42	ARG
33	51	43	VAL
33	51	45	VAL
33	51	50	VAL
33	51	53	GLU
33	51	71	LEU
33	51	77	LYS
33	51	80	SER
33	51	81	GLU
33	51	83	TYR
33	51	86	GLU
33	51	88	LEU
33	51	95	ARG
33	51	97	ARG
33	51	98	LEU
33	51	104	GLU
33	51	105	LEU
33	51	107	VAL
33	51	122	THR
33	51	127	GLU
33	51	129	THR
33	51	131	VAL
33	51	134	SER
33	51	139	GLN
33	51	160	LYS
33	51	167	GLU
33	51	169	VAL
33	51	170	ARG
34	61	2	LYS
34	61	9	LEU
34	61	12	LEU
34	61	15	VAL
34	61	20	ASP
34	61	25	TYR
34	61	38	LEU
34	61	41	GLU
34	61	47	LEU

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Mol	Chain	Res	Type
34	61	50	ARG
34	61	60	GLU
34	61	70	GLU
34	61	77	LEU
34	61	78	THR
34	61	81	VAL
34	61	82	ARG
34	61	85	GLU
34	61	86	THR
34	61	88	ILE
34	61	92	VAL
34	61	95	LYS
34	61	101	LEU
34	61	102	SER
34	61	108	THR
34	61	110	ASP
34	61	111	PRO
34	61	113	ARG
34	61	117	GLU
34	61	122	GLU
34	61	131	LYS
34	61	135	GLU
34	61	136	VAL
34	61	140	LEU
34	61	142	VAL
34	61	144	VAL
35	58	2	LYS
35	58	5	VAL
35	58	7	LYS
35	58	12	ARG
35	58	15	LEU
35	58	28	THR
35	58	32	THR
35	58	33	LEU
35	58	34	LEU
35	58	43	THR
35	58	48	MET
35	58	58	ASP
35	58	60	ILE
35	58	61	ARG
35	58	62	VAL
35	58	65	LYS

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Mol	Chain	Res	Type
35	58	67	LEU
35	58	79	PRO
35	58	87	LEU
35	58	90	MET
35	58	96	GLU
35	58	97	ARG
35	58	99	LEU
35	58	120	LEU
35	58	127	ASP
35	58	128	HIS
35	58	130	HIS
35	58	134	ARG
35	58	137	LYS
36	68	3	GLN
36	68	8	LEU
36	68	21	CYS
36	68	23	ARG
36	68	24	VAL
36	68	28	SER
36	68	31	LYS
36	68	35	VAL
36	68	38	VAL
36	68	47	ILE
36	68	48	PRO
36	68	53	LYS
36	68	64	ARG
36	68	66	LYS
36	68	68	GLU
36	68	75	SER
36	68	94	ARG
36	68	96	THR
36	68	97	ARG
36	68	104	ARG
36	68	115	VAL
37	78	1	MET
37	78	5	ASP
37	78	7	ARG
37	78	10	PRO
37	78	14	LYS
37	78	15	ARG
37	78	16	ARG
37	78	18	ARG

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Mol	Chain	Res	Type
37	78	19	VAL
37	78	21	ARG
37	78	25	SER
37	78	41	ARG
37	78	45	LEU
37	78	46	LYS
37	78	50	ARG
37	78	56	SER
37	78	58	THR
37	78	61	ARG
37	78	68	GLN
37	78	71	VAL
37	78	76	LYS
37	78	77	ARG
37	78	83	VAL
37	78	90	ARG
37	78	96	THR
37	78	98	GLU
37	78	99	LEU
37	78	100	LEU
37	78	105	LEU
37	78	106	LEU
37	78	112	LEU
37	78	115	LEU
37	78	126	VAL
37	78	135	LEU
37	78	138	LEU
37	78	144	GLU
37	78	146	VAL
38	88	1	MET
38	88	5	ARG
38	88	7	MET
38	88	11	LYS
38	88	12	GLN
38	88	16	ARG
38	88	18	LYS
38	88	25	ASP
38	88	35	VAL
38	88	42	ILE
38	88	45	GLN
38	88	56	ARG
38	88	66	ILE

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Mol	Chain	Res	Type
38	88	79	LEU
38	88	81	VAL
38	88	83	MET
38	88	110	THR
38	88	129	THR
38	88	138	ASP
39	98	1	MET
39	98	2	ARG
39	98	9	LYS
39	98	10	LEU
39	98	18	LEU
39	98	27	SER
39	98	28	LEU
39	98	29	LEU
39	98	33	ARG
39	98	34	ILE
39	98	36	THR
39	98	44	LEU
39	98	45	ARG
39	98	48	VAL
39	98	54	LEU
39	98	57	ARG
39	98	59	ASP
39	98	65	LEU
39	98	79	LEU
39	98	91	GLN
39	98	98	LEU
39	98	100	LEU
39	98	105	ARG
39	98	107	ASP
39	98	111	LEU
39	98	113	LEU
39	98	117	VAL
39	98	118	GLU
40	A8	3	ARG
40	A8	8	GLU
40	A8	14	VAL
40	A8	17	ARG
40	A8	19	LYS
40	A8	21	THR
40	A8	24	LEU
40	A8	29	PHE

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Mol	Chain	Res	Type
40	A8	30	ARG
40	A8	32	LEU
40	A8	33	LYS
40	A8	36	TYR
40	A8	42	ASP
40	A8	46	VAL
40	A8	50	SER
40	A8	54	LEU
40	A8	56	LEU
40	A8	58	LEU
40	A8	69	VAL
40	A8	73	LEU
40	A8	78	LEU
40	A8	83	LYS
40	A8	89	ARG
40	A8	97	ARG
40	A8	101	LEU
40	A8	106	ARG
40	A8	107	GLU
40	A8	110	LEU
40	A8	111	GLU
41	B8	9	LEU
41	B8	10	VAL
41	B8	16	ARG
41	B8	19	LEU
41	B8	21	GLU
41	B8	27	THR
41	B8	30	VAL
41	B8	33	LYS
41	B8	39	ARG
41	B8	42	ILE
41	B8	49	VAL
41	B8	50	ILE
41	B8	58	ASN
41	B8	62	THR
41	B8	64	ARG
41	B8	86	ILE
41	B8	88	ILE
41	B8	89	VAL
41	B8	96	ARG
41	B8	98	LYS
41	B8	99	LEU

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Mol	Chain	Res	Type
41	B8	106	SER
41	B8	109	GLU
41	B8	110	ILE
41	B8	111	ARG
41	B8	112	ARG
41	B8	114	LEU
41	B8	115	ARG
41	B8	118	ARG
41	B8	128	GLU
41	B8	132	LYS
42	C8	5	LYS
42	C8	13	LYS
42	C8	17	ILE
42	C8	22	LYS
42	C8	27	LEU
42	C8	30	LYS
42	C8	51	LYS
42	C8	52	ARG
42	C8	59	ARG
42	C8	69	CYS
42	C8	74	LEU
42	C8	79	PHE
42	C8	85	LYS
42	C8	89	GLU
42	C8	92	ARG
42	C8	93	LYS
42	C8	94	ASN
42	C8	108	GLU
42	C8	112	ARG
43	D8	6	LYS
43	D8	7	THR
43	D8	12	TYR
43	D8	15	GLU
43	D8	18	LEU
43	D8	21	ARG
43	D8	25	LEU
43	D8	37	VAL
43	D8	40	LEU
43	D8	46	VAL
43	D8	49	THR
43	D8	51	VAL
43	D8	52	VAL

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Mol	Chain	Res	Type
43	D8	57	VAL
43	D8	58	VAL
43	D8	73	SER
43	D8	78	LYS
43	D8	79	VAL
43	D8	85	LYS
43	D8	88	ARG
43	D8	98	GLU
44	E8	11	ARG
44	E8	12	ILE
44	E8	13	SER
44	E8	23	LEU
44	E8	39	THR
44	E8	41	LYS
44	E8	51	LEU
44	E8	64	MET
44	E8	65	LEU
44	E8	66	GLU
44	E8	70	TYR
44	E8	76	VAL
44	E8	78	GLU
44	E8	84	ARG
44	E8	92	ARG
44	E8	96	ILE
44	E8	107	LEU
45	F8	3	THR
45	F8	12	VAL
45	F8	23	GLU
45	F8	35	THR
45	F8	45	THR
45	F8	52	VAL
45	F8	53	LYS
45	F8	65	ARG
45	F8	66	LEU
45	F8	68	ARG
45	F8	70	LEU
45	F8	72	LYS
45	F8	80	ILE
46	G8	3	VAL
46	G8	4	LYS
46	G8	6	HIS
46	G8	7	VAL

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Mol	Chain	Res	Type
46	G8	23	ARG
46	G8	31	LEU
46	G8	38	ILE
46	G8	50	ARG
46	G8	52	SER
46	G8	55	TYR
46	G8	57	GLN
46	G8	64	GLU
46	G8	67	LEU
46	G8	70	SER
46	G8	82	PRO
46	G8	84	ARG
46	G8	85	VAL
46	G8	86	ARG
46	G8	90	LEU
46	G8	94	LYS
46	G8	96	ILE
47	H8	1	MET
47	H8	11	GLU
47	H8	35	ARG
47	H8	37	VAL
47	H8	61	LEU
47	H8	71	VAL
47	H8	72	ARG
47	H8	73	GLN
47	H8	76	LEU
47	H8	77	ASP
47	H8	80	ARG
47	H8	82	ARG
47	H8	86	VAL
47	H8	91	LEU
47	H8	94	GLU
47	H8	96	VAL
47	H8	103	ARG
47	H8	105	VAL
47	H8	112	ARG
47	H8	121	HIS
47	H8	126	VAL
47	H8	128	VAL
47	H8	129	SER
47	H8	132	ASN
47	H8	135	GLU

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Mol	Chain	Res	Type
47	H8	145	GLU
47	H8	154	ASP
47	H8	169	GLU
47	H8	170	THR
48	I8	9	SER
48	I8	36	ILE
48	I8	41	ARG
48	I8	44	ARG
48	I8	46	LYS
48	I8	49	LYS
48	I8	55	ARG
48	I8	64	ASP
48	I8	66	VAL
48	I8	67	VAL
48	I8	68	GLU
48	I8	74	ARG
48	I8	82	ARG
49	J8	4	VAL
49	J8	19	GLN
49	J8	21	ARG
49	J8	25	LYS
49	J8	41	ARG
49	J8	52	ARG
49	J8	61	ARG
49	J8	74	VAL
49	J8	78	LYS
49	J8	80	LEU
49	J8	81	LYS
49	J8	82	LEU
49	J8	86	SER
49	J8	91	LYS
50	K8	3	LEU
50	K8	4	SER
50	K8	10	LEU
50	K8	16	LEU
50	K8	17	SER
50	K8	19	VAL
50	K8	24	LEU
50	K8	30	ARG
50	K8	32	LEU
50	K8	40	SER
50	K8	41	ILE

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Mol	Chain	Res	Type
50	K8	47	ASN
50	K8	48	HIS
50	K8	51	ARG
50	K8	53	LEU
50	K8	55	ARG
50	K8	62	THR
50	K8	64	LEU
50	K8	67	LYS
51	L8	3	ARG
51	L8	4	LEU
51	L8	6	VAL
51	L8	8	LEU
51	L8	9	VAL
51	L8	11	SER
51	L8	28	LEU
51	L8	31	LEU
51	L8	32	GLN
51	L8	37	LEU
51	L8	40	THR
51	L8	44	ARG
51	L8	54	VAL
51	L8	59	VAL
52	M8	31	ILE
52	M8	33	VAL
52	M8	34	GLU
52	M8	36	CYS
52	M8	37	SER
52	M8	38	LYS
52	M8	39	CYS
52	M8	42	PHE
52	M8	47	GLN
53	N8	3	LYS
53	N8	6	VAL
53	N8	11	THR
53	N8	16	ARG
53	N8	26	THR
53	N8	29	THR
53	N8	40	LYS
53	N8	44	THR
53	N8	46	CYS
54	P8	4	THR
54	P8	8	ASN

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Mol	Chain	Res	Type
54	P8	10	ARG
54	P8	14	LYS
54	P8	19	ARG
54	P8	41	ARG
54	P8	43	THR
55	Q8	4	MET
55	Q8	6	THR
55	Q8	8	LYS
55	Q8	14	VAL
55	Q8	26	LYS
55	Q8	35	GLN
55	Q8	46	ARG
55	Q8	49	VAL
55	Q8	58	ILE
55	Q8	59	LYS
55	Q8	60	LEU
2	12	19	HIS
2	12	23	ARG
2	12	24	TRP
2	12	31	TYR
2	12	32	ILE
2	12	36	ARG
2	12	40	HIS
2	12	52	GLU
2	12	53	ARG
2	12	55	PHE
2	12	61	LEU
2	12	80	ILE
2	12	87	ARG
2	12	96	ARG
2	12	107	THR
2	12	108	ILE
2	12	126	GLU
2	12	155	LEU
2	12	160	ASP
2	12	165	VAL
2	12	172	ILE
2	12	178	ARG
2	12	179	LYS
2	12	184	VAL
2	12	185	ILE
2	12	191	ASP

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Mol	Chain	Res	Type
2	12	193	ASP
2	12	196	LEU
2	12	212	GLN
2	12	220	ASP
2	12	221	LEU
3	22	4	LYS
3	22	11	ARG
3	22	16	ARG
3	22	18	TRP
3	22	29	TYR
3	22	34	LEU
3	22	40	ARG
3	22	43	LEU
3	22	47	LEU
3	22	48	TYR
3	22	55	VAL
3	22	58	GLU
3	22	76	VAL
3	22	86	VAL
3	22	89	GLU
3	22	90	GLU
3	22	91	LEU
3	22	94	LEU
3	22	97	LYS
3	22	127	ARG
3	22	128	PHE
3	22	131	ARG
3	22	166	GLU
3	22	167	TRP
3	22	179	ARG
3	22	182	ILE
3	22	192	THR
3	22	193	TYR
3	22	196	LEU
3	22	198	VAL
3	22	202	ILE
3	22	204	LEU
4	32	3	ARG
4	32	4	TYR
4	32	12	CYS
4	32	13	ARG
4	32	21	LEU

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Mol	Chain	Res	Type
4	32	25	ARG
4	32	34	GLU
4	32	35	ARG
4	32	36	ARG
4	32	58	LEU
4	32	61	LYS
4	32	66	ARG
4	32	71	SER
4	32	73	ARG
4	32	76	ARG
4	32	85	LYS
4	32	96	LEU
4	32	100	ARG
4	32	106	TYR
4	32	115	ARG
4	32	119	GLN
4	32	120	LEU
4	32	122	ARG
4	32	134	ASP
4	32	135	LEU
4	32	137	SER
4	32	155	LEU
4	32	157	LEU
4	32	162	LEU
4	32	168	ARG
4	32	176	LEU
4	32	184	LYS
4	32	186	LEU
4	32	187	ARG
4	32	191	ARG
4	32	196	LEU
4	32	200	GLU
4	32	204	ILE
5	42	6	PHE
5	42	10	MET
5	42	12	LEU
5	42	14	ARG
5	42	16	THR
5	42	26	PHE
5	42	40	ARG
5	42	47	LYS
5	42	51	VAL

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Mol	Chain	Res	Type
5	42	60	TYR
5	42	61	TYR
5	42	64	ARG
5	42	75	THR
5	42	78	HIS
5	42	79	GLU
5	42	83	GLU
5	42	87	SER
5	42	101	ILE
5	42	110	LEU
5	42	118	ILE
5	42	126	ARG
5	42	137	GLU
5	42	143	ARG
6	52	3	ARG
6	52	7	ASN
6	52	14	LEU
6	52	15	ASP
6	52	16	GLN
6	52	19	LEU
6	52	21	LEU
6	52	24	GLU
6	52	28	ARG
6	52	36	ARG
6	52	46	ARG
6	52	54	LYS
6	52	57	GLN
6	52	63	TYR
6	52	69	GLU
6	52	73	ASN
6	52	74	ASP
6	52	77	ARG
6	52	80	ARG
6	52	87	ARG
6	52	93	SER
7	62	9	VAL
7	62	11	GLN
7	62	13	GLN
7	62	22	LEU
7	62	32	ARG
7	62	38	LEU
7	62	45	ASP

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Mol	Chain	Res	Type
7	62	52	GLU
7	62	57	GLU
7	62	60	LYS
7	62	70	LYS
7	62	94	ARG
7	62	97	GLN
7	62	98	SER
7	62	104	LEU
7	62	114	ARG
7	62	115	ARG
7	62	131	LYS
7	62	137	LYS
7	62	138	LYS
7	62	142	GLU
7	62	143	ARG
7	62	144	MET
8	72	12	ARG
8	72	25	ASP
8	72	30	ARG
8	72	33	GLU
8	72	41	ARG
8	72	63	LEU
8	72	65	TYR
8	72	73	ASP
8	72	78	GLN
8	72	80	ILE
8	72	82	HIS
8	72	84	ARG
8	72	91	ARG
8	72	97	VAL
8	72	99	GLU
8	72	100	ILE
8	72	102	ARG
8	72	104	ARG
8	72	119	LEU
8	72	120	THR
8	72	125	ARG
8	72	138	TRP
9	82	7	THR
9	82	10	ARG
9	82	18	PHE
9	82	20	ARG

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Mol	Chain	Res	Type
9	82	27	THR
9	82	33	PHE
9	82	36	TYR
9	82	40	LEU
9	82	42	ARG
9	82	48	GLU
9	82	60	ASP
9	82	87	GLN
9	82	95	LYS
9	82	102	LEU
9	82	105	ASP
9	82	113	LYS
9	82	117	HIS
9	82	124	GLN
10	1A	13	HIS
10	1A	17	ASP
10	1A	48	THR
10	1A	55	LYS
10	1A	58	ASP
10	1A	59	SER
10	1A	62	HIS
10	1A	65	LEU
10	1A	70	ARG
10	1A	79	ARG
10	1A	84	GLN
10	1A	92	THR
11	2A	18	ARG
11	2A	29	ILE
11	2A	30	VAL
11	2A	31	THR
11	2A	75	TYR
11	2A	78	GLN
11	2A	81	ASP
11	2A	93	GLN
11	2A	95	ILE
11	2A	99	GLN
11	2A	103	LEU
11	2A	105	VAL
11	2A	109	VAL
11	2A	119	CYS
11	2A	126	ARG
12	3A	20	LYS

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Mol	Chain	Res	Type
12	3A	24	VAL
12	3A	27	LEU
12	3A	28	LYS
12	3A	33	ARG
12	3A	39	VAL
12	3A	41	ARG
12	3A	42	THR
12	3A	46	LYS
12	3A	54	LYS
12	3A	57	LYS
12	3A	60	LEU
12	3A	64	TYR
12	3A	70	ILE
12	3A	78	GLN
12	3A	79	GLU
12	3A	83	VAL
12	3A	84	LEU
12	3A	85	ILE
12	3A	89	ARG
12	3A	96	VAL
12	3A	100	ILE
12	3A	102	ARG
12	3A	104	VAL
12	3A	111	LYS
12	3A	117	ARG
13	4A	12	ASN
13	4A	13	LYS
13	4A	14	ARG
13	4A	20	THR
13	4A	32	GLU
13	4A	37	THR
13	4A	39	ILE
13	4A	47	ASP
13	4A	48	LEU
13	4A	56	LEU
13	4A	57	ARG
13	4A	62	ASN
13	4A	64	TRP
13	4A	66	LEU
13	4A	81	LEU
13	4A	86	CYS
13	4A	88	ARG

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Mol	Chain	Res	Type
13	4A	93	ARG
13	4A	96	LEU
13	4A	101	GLN
13	4A	103	THR
13	4A	108	ARG
13	4A	114	ARG
13	4A	115	LYS
13	4A	117	VAL
14	5A	7	ILE
14	5A	8	GLU
14	5A	16	PHE
14	5A	17	LYS
14	5A	22	THR
14	5A	24	CYS
14	5A	26	ARG
14	5A	29	ARG
14	5A	33	VAL
14	5A	41	ARG
14	5A	58	LYS
15	6A	3	ILE
15	6A	22	THR
15	6A	31	LEU
15	6A	39	LEU
15	6A	40	SER
15	6A	41	GLU
15	6A	47	LYS
15	6A	57	LEU
15	6A	65	ARG
15	6A	66	LEU
15	6A	84	LYS
15	6A	88	ARG
16	7A	6	LEU
16	7A	8	ARG
16	7A	21	VAL
16	7A	27	LYS
16	7A	35	LYS
16	7A	43	LYS
16	7A	49	LEU
16	7A	55	ARG
16	7A	57	ARG
16	7A	62	VAL
16	7A	65	GLN

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Mol	Chain	Res	Type
16	7A	67	THR
16	7A	74	LEU
16	7A	81	ARG
16	7A	82	GLN
16	7A	83	GLU
17	8A	24	GLU
17	8A	25	ARG
17	8A	26	GLN
17	8A	48	GLU
17	8A	60	ILE
17	8A	62	SER
17	8A	63	ARG
17	8A	68	ARG
17	8A	73	VAL
17	8A	74	LEU
17	8A	89	LEU
17	8A	90	ILE
18	9A	23	LYS
18	9A	26	LEU
18	9A	29	PHE
18	9A	32	ARG
18	9A	36	ASN
18	9A	42	ARG
18	9A	45	SER
18	9A	47	THR
18	9A	53	ARG
18	9A	69	THR
18	9A	72	ARG
18	9A	82	THR
18	9A	84	LYS
18	9A	86	VAL
19	AA	7	LYS
19	AA	12	ASP
19	AA	13	ASP
19	AA	15	LEU
19	AA	20	LEU
19	AA	21	GLU
19	AA	23	ASN
19	AA	33	THR
19	AA	35	SER
19	AA	57	HIS
19	AA	60	VAL

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Mol	Chain	Res	Type
20	BA	11	SER
20	BA	13	LEU
20	BA	19	SER
20	BA	24	LEU
20	BA	31	SER
20	BA	42	GLN
20	BA	58	LYS
20	BA	73	HIS
20	BA	74	LYS
20	BA	75	ASN
20	BA	84	LEU
20	BA	99	LEU
20	BA	105	SER
21	1B	10	ARG
28	79	15	ASP
28	79	18	LYS
28	79	42	GLU
28	79	47	LEU
28	79	49	ILE
28	79	50	ASP
28	79	168	THR
28	79	171	ILE
28	79	172	HIS
28	79	199	HIS
28	79	202	GLU
28	79	210	ARG
28	79	221	SER
28	79	223	ARG
29	19	13	ARG
29	19	23	GLU
29	19	24	ILE
29	19	26	LYS
29	19	27	THR
29	19	28	GLU
29	19	30	GLU
29	19	31	LYS
29	19	33	LEU
29	19	34	VAL
29	19	37	LEU
29	19	39	LYS
29	19	43	ARG
29	19	48	ARG

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Mol	Chain	Res	Type
29	19	49	ILE
29	19	61	LEU
29	19	64	ILE
29	19	68	LYS
29	19	69	ARG
29	19	72	LYS
29	19	88	ARG
29	19	89	SER
29	19	94	LEU
29	19	99	ASP
29	19	103	ARG
29	19	105	ILE
29	19	140	THR
29	19	141	VAL
29	19	145	VAL
29	19	147	LEU
29	19	169	GLU
29	19	182	LEU
29	19	192	THR
29	19	200	ASP
29	19	204	ILE
29	19	208	LYS
29	19	211	ARG
29	19	217	ARG
29	19	237	GLU
29	19	242	ARG
29	19	244	ARG
29	19	257	LEU
29	19	259	THR
29	19	260	ARG
29	19	263	ARG
29	19	268	ARG
29	19	271	ILE
30	29	1	MET
30	29	5	LEU
30	29	7	VAL
30	29	23	VAL
30	29	27	LEU
30	29	40	GLU
30	29	44	TYR
30	29	45	THR
30	29	48	GLN

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Mol	Chain	Res	Type
30	29	49	LEU
30	29	54	GLN
30	29	63	LEU
30	29	72	VAL
30	29	73	GLU
30	29	75	VAL
30	29	76	ARG
30	29	77	ILE
30	29	78	LEU
30	29	79	ARG
30	29	89	ASP
30	29	90	THR
30	29	100	GLU
30	29	111	ARG
30	29	117	MET
30	29	119	ARG
30	29	121	ASN
30	29	144	ARG
30	29	145	LYS
30	29	146	THR
30	29	149	ARG
30	29	154	LYS
30	29	164	ARG
30	29	175	VAL
30	29	178	GLU
30	29	181	LEU
30	29	182	LEU
30	29	197	ILE
30	29	201	THR
31	39	7	TYR
31	39	8	GLN
31	39	18	ARG
31	39	24	LEU
31	39	28	ILE
31	39	29	ASN
31	39	33	LEU
31	39	38	ARG
31	39	53	THR
31	39	57	VAL
31	39	68	LYS
31	39	72	ARG
31	39	82	ILE

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Mol	Chain	Res	Type
31	39	83	PHE
31	39	88	VAL
31	39	98	SER
31	39	105	VAL
31	39	110	LEU
31	39	112	MET
31	39	123	LEU
31	39	125	LEU
31	39	127	GLU
31	39	135	LYS
31	39	140	LEU
31	39	144	LYS
31	39	145	GLU
31	39	152	GLU
31	39	158	THR
31	39	161	GLU
31	39	165	ARG
31	39	169	ASN
31	39	181	LEU
31	39	190	GLU
31	39	191	ARG
31	39	193	VAL
31	39	194	MET
31	39	196	LEU
31	39	197	ASP
31	39	201	VAL
31	39	202	PHE
31	39	205	ARG
32	49	9	ARG
32	49	13	GLU
32	49	19	LEU
32	49	20	ILE
32	49	26	GLN
32	49	27	ASN
32	49	33	ARG
32	49	35	GLU
32	49	40	ASN
32	49	49	ASP
32	49	51	ARG
32	49	58	GLN
32	49	62	LEU
32	49	63	ILE

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Mol	Chain	Res	Type
32	49	75	LYS
32	49	76	SER
32	49	80	PHE
32	49	82	LEU
32	49	91	ARG
32	49	95	ARG
32	49	97	ASP
32	49	109	VAL
32	49	116	ASP
32	49	118	ARG
32	49	130	ASN
32	49	133	LEU
32	49	136	ARG
32	49	153	ARG
32	49	157	ILE
32	49	159	VAL
32	49	162	THR
32	49	165	THR
32	49	181	ARG
33	59	7	LEU
33	59	50	VAL
33	59	53	GLU
33	59	68	THR
33	59	71	LEU
33	59	77	LYS
33	59	148	ILE
33	59	157	TYR
33	59	164	TYR
33	59	171	LEU
34	69	1	MET
34	69	2	LYS
34	69	7	GLU
34	69	9	LEU
34	69	37	VAL
34	69	47	LEU
34	69	50	ARG
34	69	56	LYS
34	69	61	ARG
34	69	62	LYS
34	69	68	LEU
34	69	73	GLU
34	69	78	THR

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Mol	Chain	Res	Type
34	69	93	THR
34	69	105	HIS
34	69	109	ILE
34	69	114	LEU
34	69	117	GLU
34	69	118	LYS
34	69	125	GLU
34	69	127	VAL
34	69	131	LYS
34	69	135	GLU
34	69	136	VAL
34	69	141	LYS
34	69	142	VAL
34	69	145	VAL
35	15	4	TYR
35	15	5	VAL
35	15	9	VAL
35	15	12	ARG
35	15	15	LEU
35	15	28	THR
35	15	32	THR
35	15	33	LEU
35	15	34	LEU
35	15	41	ASP
35	15	42	TRP
35	15	43	THR
35	15	48	MET
35	15	58	ASP
35	15	59	LYS
35	15	61	ARG
35	15	63	THR
35	15	68	GLU
35	15	74	ARG
35	15	76	SER
35	15	85	ILE
35	15	87	LEU
35	15	90	MET
35	15	93	THR
35	15	94	HIS
35	15	99	LEU
35	15	104	LYS
35	15	127	ASP

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Mol	Chain	Res	Type
35	15	130	HIS
35	15	134	ARG
36	25	1	MET
36	25	5	GLN
36	25	8	LEU
36	25	9	GLU
36	25	10	VAL
36	25	14	THR
36	25	22	ILE
36	25	24	VAL
36	25	26	LYS
36	25	28	SER
36	25	49	ARG
36	25	52	VAL
36	25	64	ARG
36	25	78	ARG
36	25	86	ILE
36	25	87	ILE
36	25	94	ARG
36	25	97	ARG
36	25	104	ARG
36	25	107	ARG
36	25	113	LYS
36	25	117	LEU
37	35	6	LEU
37	35	7	ARG
37	35	15	ARG
37	35	19	VAL
37	35	21	ARG
37	35	41	ARG
37	35	45	LEU
37	35	55	ARG
37	35	59	LEU
37	35	64	LYS
37	35	67	MET
37	35	70	GLN
37	35	71	VAL
37	35	75	ILE
37	35	76	LYS
37	35	77	ARG
37	35	81	GLN
37	35	85	LEU

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Mol	Chain	Res	Type
37	35	91	PHE
37	35	98	GLU
37	35	105	LEU
37	35	110	TYR
37	35	112	LEU
37	35	114	ILE
37	35	121	LYS
37	35	132	LYS
37	35	133	SER
37	35	135	LEU
37	35	138	LEU
37	35	144	GLU
37	35	146	VAL
38	45	2	LEU
38	45	5	ARG
38	45	7	MET
38	45	10	ARG
38	45	11	LYS
38	45	14	ARG
38	45	16	ARG
38	45	18	LYS
38	45	21	THR
38	45	22	LYS
38	45	27	VAL
38	45	45	GLN
38	45	51	ARG
38	45	59	ARG
38	45	76	LYS
38	45	83	MET
38	45	103	MET
38	45	110	THR
38	45	118	LEU
38	45	132	VAL
38	45	134	ARG
38	45	135	ASP
38	45	137	TYR
38	45	138	ASP
38	45	139	GLU
39	55	2	ARG
39	55	6	SER
39	55	9	LYS
39	55	18	LEU

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Mol	Chain	Res	Type
39	55	28	LEU
39	55	29	LEU
39	55	33	ARG
39	55	44	LEU
39	55	54	LEU
39	55	57	ARG
39	55	63	ARG
39	55	64	ARG
39	55	65	LEU
39	55	66	VAL
39	55	67	LEU
39	55	74	LYS
39	55	79	LEU
39	55	81	ASP
39	55	88	ARG
39	55	105	ARG
39	55	107	ASP
39	55	117	VAL
40	65	3	ARG
40	65	8	GLU
40	65	12	PHE
40	65	17	ARG
40	65	19	LYS
40	65	20	ARG
40	65	21	THR
40	65	30	ARG
40	65	36	TYR
40	65	39	ILE
40	65	42	ASP
40	65	43	GLU
40	65	50	SER
40	65	52	SER
40	65	54	LEU
40	65	65	VAL
40	65	69	VAL
40	65	71	ARG
40	65	78	LEU
40	65	88	ASP
40	65	89	ARG
40	65	98	VAL
40	65	101	LEU
40	65	106	ARG

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Mol	Chain	Res	Type
40	65	107	GLU
40	65	111	GLU
41	75	6	LEU
41	75	8	LYS
41	75	13	ARG
41	75	15	VAL
41	75	17	THR
41	75	23	ARG
41	75	27	THR
41	75	28	VAL
41	75	30	VAL
41	75	36	GLU
41	75	40	THR
41	75	41	ARG
41	75	50	ILE
41	75	58	ASN
41	75	59	THR
41	75	62	THR
41	75	64	ARG
41	75	65	LYS
41	75	66	VAL
41	75	86	ILE
41	75	87	ASP
41	75	88	ILE
41	75	91	ARG
41	75	93	ARG
41	75	105	LEU
41	75	106	SER
41	75	107	ASP
41	75	110	ILE
41	75	111	ARG
41	75	112	ARG
41	75	115	ARG
41	75	128	GLU
41	75	129	ARG
41	75	133	GLU
42	85	3	ARG
42	85	5	LYS
42	85	17	ILE
42	85	20	LEU
42	85	27	LEU
42	85	34	LYS

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Mol	Chain	Res	Type
42	85	52	ARG
42	85	55	ARG
42	85	58	ARG
42	85	59	ARG
42	85	71	GLN
42	85	74	LEU
42	85	78	THR
42	85	85	LYS
42	85	92	ARG
42	85	94	ASN
42	85	97	ASP
42	85	109	LEU
42	85	112	ARG
42	85	114	LYS
43	95	7	THR
43	95	13	ARG
43	95	21	ARG
43	95	22	VAL
43	95	25	LEU
43	95	28	GLU
43	95	33	VAL
43	95	35	LEU
43	95	43	GLU
43	95	44	LYS
43	95	47	VAL
43	95	53	GLU
43	95	62	LEU
43	95	66	ARG
43	95	71	LEU
43	95	82	ARG
43	95	84	LYS
43	95	91	TYR
43	95	95	LEU
44	A5	6	ILE
44	A5	11	ARG
44	A5	15	ARG
44	A5	18	ARG
44	A5	20	VAL
44	A5	39	THR
44	A5	50	VAL
44	A5	51	LEU
44	A5	63	ASP

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Mol	Chain	Res	Type
44	A5	65	LEU
44	A5	70	TYR
44	A5	72	LYS
44	A5	76	VAL
44	A5	84	ARG
44	A5	92	ARG
44	A5	96	ILE
44	A5	100	THR
44	A5	106	ILE
44	A5	107	LEU
44	A5	110	LYS
44	A5	111	HIS
45	B5	23	GLU
45	B5	30	VAL
45	B5	36	LYS
45	B5	43	VAL
45	B5	52	VAL
45	B5	54	VAL
45	B5	56	THR
45	B5	63	LYS
45	B5	65	ARG
45	B5	69	TYR
45	B5	70	LEU
45	B5	73	ARG
45	B5	80	ILE
45	B5	81	VAL
45	B5	82	GLN
45	B5	90	GLU
46	C5	3	VAL
46	C5	6	HIS
46	C5	23	ARG
46	C5	24	VAL
46	C5	29	GLU
46	C5	31	LEU
46	C5	38	ILE
46	C5	40	GLU
46	C5	43	ASN
46	C5	55	TYR
46	C5	61	ILE
46	C5	62	GLU
46	C5	63	LYS
46	C5	67	LEU

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Mol	Chain	Res	Type
46	C5	71	LYS
46	C5	73	ARG
46	C5	76	CYS
46	C5	79	CYS
46	C5	84	ARG
46	C5	85	VAL
46	C5	86	ARG
46	C5	87	LYS
46	C5	89	PHE
46	C5	90	LEU
46	C5	94	LYS
46	C5	97	ARG
46	C5	98	VAL
46	C5	101	LYS
47	D5	5	LEU
47	D5	6	LYS
47	D5	16	SER
47	D5	18	LEU
47	D5	19	ARG
47	D5	24	LEU
47	D5	27	VAL
47	D5	33	LEU
47	D5	53	ILE
47	D5	56	VAL
47	D5	59	LEU
47	D5	70	LEU
47	D5	72	ARG
47	D5	73	GLN
47	D5	74	VAL
47	D5	76	LEU
47	D5	84	GLU
47	D5	87	ASP
47	D5	89	PHE
47	D5	93	ASP
47	D5	128	VAL
47	D5	129	SER
47	D5	161	VAL
47	D5	162	GLU
47	D5	165	VAL
47	D5	168	GLU
48	E5	12	ASN
48	E5	36	ILE

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Mol	Chain	Res	Type
48	E5	38	VAL
48	E5	43	THR
48	E5	46	LYS
48	E5	70	GLN
49	F5	2	SER
49	F5	3	LYS
49	F5	11	ARG
49	F5	17	SER
49	F5	27	GLU
49	F5	37	ILE
49	F5	38	SER
49	F5	40	ARG
49	F5	41	ARG
49	F5	52	ARG
49	F5	56	GLN
49	F5	57	GLU
49	F5	62	VAL
49	F5	72	GLU
49	F5	74	VAL
49	F5	76	ARG
49	F5	78	LYS
49	F5	90	ILE
49	F5	91	LYS
49	F5	95	LEU
50	G5	5	GLU
50	G5	10	LEU
50	G5	15	LYS
50	G5	16	LEU
50	G5	17	SER
50	G5	24	LEU
50	G5	26	ARG
50	G5	30	ARG
50	G5	34	GLU
50	G5	44	LEU
50	G5	46	GLN
50	G5	47	ASN
50	G5	48	HIS
50	G5	50	ILE
50	G5	53	LEU
50	G5	60	LEU
50	G5	62	THR
50	G5	64	LEU

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Mol	Chain	Res	Type
51	H5	5	LYS
51	H5	8	LEU
51	H5	17	LYS
51	H5	18	ASP
51	H5	24	LYS
51	H5	30	ARG
51	H5	35	ARG
51	H5	37	LEU
51	H5	44	ARG
51	H5	48	GLU
51	H5	54	VAL
51	H5	55	ARG
53	J5	6	VAL
53	J5	8	LYS
53	J5	9	LYS
53	J5	15	ARG
53	J5	16	ARG
53	J5	21	SER
53	J5	23	HIS
53	J5	25	LEU
53	J5	29	THR
53	J5	35	GLU
53	J5	44	THR
53	J5	55	ARG
54	L5	1	MET
54	L5	4	THR
54	L5	8	ASN
54	L5	36	GLN
54	L5	43	THR
55	M5	13	ARG
55	M5	15	LYS
55	M5	21	LYS
55	M5	29	LYS
55	M5	31	HIS
55	M5	32	LEU
55	M5	37	SER
55	M5	52	LYS
55	M5	57	ARG
55	M5	58	ILE
55	M5	59	LYS
55	M5	60	LEU
55	M5	62	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (30) such sidechains are listed below:

Mol	Chain	Res	Type
2	1E	16	HIS
2	1E	212	GLN
3	2E	6	HIS
4	3E	45	GLN
9	8E	3	GLN
29	11	112	GLN
29	11	227	ASN
29	11	253	GLN
30	21	60	ASN
31	31	160	ASN
32	41	79	ASN
35	58	128	HIS
38	88	13	GLN
44	E8	60	ASN
47	H8	85	HIS
47	H8	132	ASN
52	M8	47	GLN
2	12	19	HIS
2	12	40	HIS
4	32	123	HIS
9	82	23	ASN
9	82	124	GLN
10	1A	84	GLN
29	19	44	ASN
30	29	54	GLN
32	49	27	ASN
38	45	12	GLN
38	45	123	HIS
42	85	94	ASN
46	C5	6	HIS

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	13	1493/1519 (98%)	369 (24%)	38 (2%)
1	1G	1505/1519 (99%)	349 (23%)	37 (2%)
22	1K	68/76 (89%)	30 (44%)	5 (7%)
22	1L	64/76 (84%)	21 (32%)	4 (6%)
23	2K	76/77 (98%)	29 (38%)	1 (1%)
23	2L	76/77 (98%)	18 (23%)	2 (2%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
24	3K	67/76 (88%)	39 (58%)	4 (5%)
24	3L	69/76 (90%)	31 (44%)	2 (2%)
25	4K	19/27 (70%)	11 (57%)	2 (10%)
25	4L	18/27 (66%)	8 (44%)	2 (11%)
26	14	2847/2917 (97%)	762 (26%)	53 (1%)
26	1H	2878/2917 (98%)	709 (24%)	57 (1%)
27	16	121/122 (99%)	28 (23%)	2 (1%)
27	1J	121/122 (99%)	34 (28%)	2 (1%)
All	All	9422/9628 (97%)	2438 (25%)	211 (2%)

All (2438) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	13	2	U
1	13	5	U
1	13	6	G
1	13	9	G
1	13	15	G
1	13	16	A
1	13	21	G
1	13	28	G
1	13	32	A
1	13	39	G
1	13	44	G
1	13	48	C
1	13	49	U
1	13	50	A
1	13	51	A
1	13	54	C
1	13	61	G
1	13	65	U
1	13	66	G
1	13	74	C
1	13	75	C
1	13	76	G
1	13	95	G
1	13	96	G
1	13	97	U
1	13	99	C
1	13	101	A
1	13	116	A
1	13	117	G

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Mol	Chain	Res	Type
1	13	121	C
1	13	122	G
1	13	131	C
1	13	142	G
1	13	143	A
1	13	144	G
1	13	147	G
1	13	150	C
1	13	151	A
1	13	153	C
1	13	160	A
1	13	162	A
1	13	163	C
1	13	169	C
1	13	172	A
1	13	173	U
1	13	174	C
1	13	186(F)	C
1	13	189	U
1	13	191(A)	G
1	13	191(E)	G
1	13	195	A
1	13	197	A
1	13	199	G
1	13	201	C
1	13	208	U
1	13	209	U
1	13	210	U
1	13	217	C
1	13	222	U
1	13	227	G
1	13	233	C
1	13	243	A
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	273	A
1	13	274	A

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Mol	Chain	Res	Type
1	13	288	A
1	13	289	G
1	13	304	U
1	13	316	G
1	13	317	G
1	13	321	A
1	13	328	C
1	13	330	C
1	13	332	G
1	13	343	U
1	13	344	A
1	13	345	C
1	13	346	G
1	13	347	G
1	13	351	G
1	13	352	C
1	13	353	A
1	13	354	G
1	13	357	G
1	13	367	U
1	13	372	C
1	13	383	A
1	13	388	G
1	13	390	C
1	13	396	G
1	13	397	A
1	13	398	C
1	13	406	G
1	13	410	G
1	13	411	A
1	13	412	A
1	13	414	A
1	13	417	C
1	13	418	C
1	13	421	U
1	13	423	G
1	13	424	G
1	13	429	U
1	13	430	A
1	13	438	G
1	13	451	A
1	13	466	C

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Mol	Chain	Res	Type
1	13	467	G
1	13	485	G
1	13	487	A
1	13	496	A
1	13	497	U
1	13	505	G
1	13	509	A
1	13	510	A
1	13	511	C
1	13	513	C
1	13	518	C
1	13	521	G
1	13	524	G
1	13	527	G
1	13	531	U
1	13	532	A
1	13	533	A
1	13	534	U
1	13	536	C
1	13	547	A
1	13	559	A
1	13	561	U
1	13	562	C
1	13	564	C
1	13	572	A
1	13	573	A
1	13	576	G
1	13	577	G
1	13	582	U
1	13	596	C
1	13	607	A
1	13	618	C
1	13	619	U
1	13	620	C
1	13	630	G
1	13	631	G
1	13	632	A
1	13	633	G
1	13	639	G
1	13	653	A
1	13	661	G
1	13	665	A

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Mol	Chain	Res	Type
1	13	666	G
1	13	687	A
1	13	688	G
1	13	704	A
1	13	723	U
1	13	728	A
1	13	734	G
1	13	749	C
1	13	750	G
1	13	753	A
1	13	755	G
1	13	774	G
1	13	777	A
1	13	787	A
1	13	792	A
1	13	794	A
1	13	796	C
1	13	806	C
1	13	812	C
1	13	813	U
1	13	815	A
1	13	817	C
1	13	821	G
1	13	828	A
1	13	836	G
1	13	841	U
1	13	842	C
1	13	843	U
1	13	848	C
1	13	859	A
1	13	864	A
1	13	870	U
1	13	871	U
1	13	872	A
1	13	874	G
1	13	876	G
1	13	877	C
1	13	884	U
1	13	885	G
1	13	888	G
1	13	902	G
1	13	914	A

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Mol	Chain	Res	Type
1	13	916	G
1	13	922	G
1	13	926	G
1	13	927	G
1	13	934	C
1	13	935	A
1	13	936	C
1	13	960	U
1	13	965	A
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	979	C
1	13	983	A
1	13	993	G
1	13	998	G
1	13	999	U
1	13	1004	A
1	13	1006	C
1	13	1007	C
1	13	1008	C
1	13	1009	G
1	13	1012	U
1	13	1016	A
1	13	1017	G
1	13	1021	G
1	13	1024	G
1	13	1025	U
1	13	1026	G
1	13	1028	C
1	13	1028(A)	C
1	13	1028(B)	C
1	13	1029	G
1	13	1030	C
1	13	1031	G
1	13	1032	A
1	13	1032(A)	G
1	13	1032(B)	G

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Mol	Chain	Res	Type
1	13	1033	G
1	13	1035	A
1	13	1037	C
1	13	1039	C
1	13	1040	U
1	13	1042	G
1	13	1046	A
1	13	1051	C
1	13	1053	G
1	13	1054	C
1	13	1055	A
1	13	1058	G
1	13	1061	G
1	13	1065	U
1	13	1066	C
1	13	1081	G
1	13	1089	G
1	13	1094	G
1	13	1095	U
1	13	1101	A
1	13	1113	C
1	13	1120	G
1	13	1125	U
1	13	1126	U
1	13	1127	G
1	13	1129	C
1	13	1130	A
1	13	1131	G
1	13	1132	C
1	13	1136	U
1	13	1137	C
1	13	1138	G
1	13	1139	G
1	13	1146	A
1	13	1151	A
1	13	1152	A
1	13	1154	G
1	13	1155	G
1	13	1157	A
1	13	1158	C
1	13	1159	U
1	13	1160	G

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Mol	Chain	Res	Type
1	13	1171	G
1	13	1177	G
1	13	1181	G
1	13	1182	G
1	13	1184	G
1	13	1188	A
1	13	1189	C
1	13	1190	G
1	13	1191	A
1	13	1196	U
1	13	1197	G
1	13	1201	A
1	13	1202	G
1	13	1211	U
1	13	1212	U
1	13	1213	A
1	13	1225	A
1	13	1227	A
1	13	1230	C
1	13	1236	A
1	13	1238	A
1	13	1239	A
1	13	1240	U
1	13	1241	G
1	13	1250	A
1	13	1253	G
1	13	1256	A
1	13	1257	U
1	13	1258	G
1	13	1272	G
1	13	1275	A
1	13	1278	U
1	13	1279	A
1	13	1280	A
1	13	1281	U
1	13	1286	A
1	13	1287	A
1	13	1288	A
1	13	1290	G
1	13	1292	U
1	13	1299	A
1	13	1300	G

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Mol	Chain	Res	Type
1	13	1301	U
1	13	1302	U
1	13	1303	C
1	13	1307	U
1	13	1320	C
1	13	1323	G
1	13	1331	G
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	1362(A)	C
1	13	1363	A
1	13	1368	G
1	13	1370	G
1	13	1377	A
1	13	1378	C
1	13	1397	C
1	13	1398	A
1	13	1401	G
1	13	1406	U
1	13	1419	G
1	13	1442	G
1	13	1443	G
1	13	1446	A
1	13	1450	U
1	13	1451	A
1	13	1452	C
1	13	1453	G
1	13	1487	G
1	13	1492	A
1	13	1497	G
1	13	1499	A
1	13	1502	A
1	13	1504	G
1	13	1505	G
1	13	1506	U
1	13	1507	A

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Mol	Chain	Res	Type
1	13	1517	G
1	13	1529	G
1	13	1530	G
1	13	1534	A
22	1K	4	U
22	1K	6	G
22	1K	7	U
22	1K	9	A
22	1K	11	C
22	1K	13	C
22	1K	14	A
22	1K	15	G
22	1K	18	G
22	1K	22	G
22	1K	26	A
22	1K	29	U
22	1K	45	G
22	1K	48	C
22	1K	49	G
22	1K	50	C
22	1K	51	A
22	1K	56	C
22	1K	60	U
22	1K	61	C
22	1K	63	U
22	1K	68	G
22	1K	69	A
22	1K	70	C
22	1K	71	C
22	1K	72	C
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	14	A
23	2K	15	G
23	2K	16	C
23	2K	17	C

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Mol	Chain	Res	Type
23	2K	19	G
23	2K	20	G
23	2K	21	U
23	2K	22	A
23	2K	23	G
23	2K	30	G
23	2K	31	G
23	2K	32	G
23	2K	38	A
23	2K	44	A
23	2K	48	U
23	2K	49	C
23	2K	50	G
23	2K	51	U
23	2K	53	G
23	2K	55	5MU
23	2K	57	C
23	2K	61	U
23	2K	62	C
23	2K	73	A
23	2K	77	A
24	3K	2	G
24	3K	3	G
24	3K	4	U
24	3K	5	C
24	3K	7	U
24	3K	8	U
24	3K	9	A
24	3K	10	G
24	3K	11	C
24	3K	14	A
24	3K	15	G
24	3K	23	A
24	3K	24	G
24	3K	26	A
24	3K	27	G
24	3K	34	U
24	3K	35	U
24	3K	37	A
24	3K	39	U
24	3K	40	C
24	3K	44	U

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Mol	Chain	Res	Type
24	3K	45	G
24	3K	46	G
24	3K	49	G
24	3K	51	A
24	3K	52	G
24	3K	55	U
24	3K	56	C
24	3K	57	G
24	3K	59	A
24	3K	60	U
24	3K	62	C
24	3K	65	C
24	3K	66	A
24	3K	67	C
24	3K	71	C
24	3K	72	C
24	3K	73	A
24	3K	76	A
25	4K	7	G
25	4K	8	A
25	4K	9	G
25	4K	10	G
25	4K	12	A
25	4K	13	A
25	4K	14	A
25	4K	15	A
25	4K	23	A
25	4K	24	A
25	4K	25	A
26	1H	9	U
26	1H	11	G
26	1H	12	U
26	1H	14	A
26	1H	15	G
26	1H	34	C
26	1H	35	G
26	1H	36	G
26	1H	43	G
26	1H	46	C
26	1H	51	G
26	1H	63	U
26	1H	66	C

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Mol	Chain	Res	Type
26	1H	71	A
26	1H	72	U
26	1H	74	A
26	1H	75	G
26	1H	85	G
26	1H	118	A
26	1H	119	A
26	1H	120	U
26	1H	125	G
26	1H	126	A
26	1H	138	G
26	1H	140	A
26	1H	155	C
26	1H	163	U
26	1H	164	U
26	1H	171	G
26	1H	174	C
26	1H	181	A
26	1H	188	G
26	1H	196	A
26	1H	197	A
26	1H	199	A
26	1H	201	C
26	1H	213	A
26	1H	214	G
26	1H	215	G
26	1H	216	A
26	1H	217	G
26	1H	221	A
26	1H	222	A
26	1H	223	A
26	1H	224	G
26	1H	228	A
26	1H	229	A
26	1H	248	G
26	1H	250	G
26	1H	252	G
26	1H	266	G
26	1H	269	U
26	1H	270(E)	G
26	1H	270(K)	C
26	1H	270(L)	U

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Mol	Chain	Res	Type
26	1H	270(M)	U
26	1H	270(N)	G
26	1H	270(O)	U
26	1H	270(P)	C
26	1H	270(R)	G
26	1H	271(C)	U
26	1H	271	G
26	1H	274	G
26	1H	275	G
26	1H	277	C
26	1H	278	A
26	1H	295	G
26	1H	299	A
26	1H	308	G
26	1H	311	A
26	1H	323	G
26	1H	324	A
26	1H	326	G
26	1H	329	G
26	1H	330	A
26	1H	331	A
26	1H	335	C
26	1H	340	A
26	1H	346	A
26	1H	352	G
26	1H	353	G
26	1H	357	A
26	1H	363	G
26	1H	363(A)	A
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	389	G
26	1H	396	G
26	1H	405	U
26	1H	407	G
26	1H	411	G
26	1H	418	G
26	1H	427	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	428	A
26	1H	436	C
26	1H	443	A
26	1H	444	C
26	1H	448	U
26	1H	455	C
26	1H	470	A
26	1H	471	A
26	1H	481	G
26	1H	482	A
26	1H	485	C
26	1H	489	G
26	1H	494	G
26	1H	501	A
26	1H	505	A
26	1H	508	G
26	1H	509	C
26	1H	529	A
26	1H	530	G
26	1H	531	C
26	1H	532	A
26	1H	533	G
26	1H	546	C
26	1H	548	A
26	1H	549	G
26	1H	563	G
26	1H	567	A
26	1H	573	G
26	1H	575	A
26	1H	588	U
26	1H	603	A
26	1H	604	G
26	1H	607	U
26	1H	614	U
26	1H	615	G
26	1H	617	G
26	1H	621	A
26	1H	622	G
26	1H	627	A
26	1H	632	A
26	1H	637	A
26	1H	645	C

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Mol	Chain	Res	Type
26	1H	646	A
26	1H	647	G
26	1H	654	A
26	1H	654(A)	A
26	1H	654(D)	G
26	1H	654(O)	G
26	1H	654(Q)	C
26	1H	654(R)	C
26	1H	654(S)	G
26	1H	654(T)	A
26	1H	654(V)	A
26	1H	664	C
26	1H	669	G
26	1H	677	A
26	1H	678	C
26	1H	686	G
26	1H	689	A
26	1H	695	G
26	1H	699	A
26	1H	717	G
26	1H	730	C
26	1H	731	C
26	1H	745	G
26	1H	762	U
26	1H	764	A
26	1H	765	G
26	1H	776	G
26	1H	782	A
26	1H	784	A
26	1H	785	G
26	1H	787	U
26	1H	790	C
26	1H	792	G
26	1H	800	A
26	1H	805	G
26	1H	812	C
26	1H	824	A
26	1H	827	U
26	1H	828	U
26	1H	830	G
26	1H	832	G
26	1H	836	G

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Mol	Chain	Res	Type
26	1H	845	G
26	1H	846	C
26	1H	847	U
26	1H	853	G
26	1H	855	G
26	1H	858	U
26	1H	859	G
26	1H	860	U
26	1H	866	A
26	1H	879	G
26	1H	882	G
26	1H	894	C
26	1H	898	C
26	1H	899	A
26	1H	900	A
26	1H	901	A
26	1H	902	C
26	1H	904	C
26	1H	906	G
26	1H	907	U
26	1H	910	A
26	1H	917	A
26	1H	918	A
26	1H	925	C
26	1H	932	G
26	1H	938	G
26	1H	941	A
26	1H	945	A
26	1H	946	G
26	1H	947	G
26	1H	952	G
26	1H	953	A
26	1H	958	U
26	1H	959	A
26	1H	961	C
26	1H	968	G
26	1H	974	G
26	1H	974(A)	C
26	1H	980	A
26	1H	983	A
26	1H	995	C
26	1H	996	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	997	G
26	1H	998	C
26	1H	1003	G
26	1H	1005	C
26	1H	1011	G
26	1H	1012	U
26	1H	1013	C
26	1H	1018	C
26	1H	1020	A
26	1H	1022	G
26	1H	1023	U
26	1H	1025	G
26	1H	1026	U
26	1H	1027	A
26	1H	1032	A
26	1H	1033	U
26	1H	1045	A
26	1H	1046	A
26	1H	1047	G
26	1H	1054	A
26	1H	1057	A
26	1H	1058	U
26	1H	1060	U
26	1H	1061	U
26	1H	1062	G
26	1H	1066	U
26	1H	1067	A
26	1H	1068	G
26	1H	1070	A
26	1H	1071	G
26	1H	1072	C
26	1H	1076	C
26	1H	1077	A
26	1H	1082	U
26	1H	1085	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	1098	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	1104	C
26	1H	1106	G
26	1H	1111	A
26	1H	1112	G
26	1H	1117	G
26	1H	1121	C
26	1H	1122	G
26	1H	1126	A
26	1H	1129	A
26	1H	1130	U
26	1H	1135	C
26	1H	1136	G
26	1H	1139	G
26	1H	1142	U
26	1H	1142(A)	A
26	1H	1149	G
26	1H	1171	G
26	1H	1176	G
26	1H	1177	A
26	1H	1178	C
26	1H	1179	C
26	1H	1195	G
26	1H	1198	U
26	1H	1204	A
26	1H	1205	U
26	1H	1206	G
26	1H	1210	A
26	1H	1211	U
26	1H	1218	C
26	1H	1220	A
26	1H	1225	C
26	1H	1237	A
26	1H	1244	G
26	1H	1250	G
26	1H	1253	A
26	1H	1254	A
26	1H	1256	G
26	1H	1268	A
26	1H	1271	G
26	1H	1272	A
26	1H	1274	A
26	1H	1277	G

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Mol	Chain	Res	Type
26	1H	1280	G
26	1H	1292	U
26	1H	1297	C
26	1H	1300	U
26	1H	1301	A
26	1H	1305	C
26	1H	1310	G
26	1H	1329	U
26	1H	1332	G
26	1H	1338	G
26	1H	1342	A
26	1H	1344	G
26	1H	1345	C
26	1H	1348	G
26	1H	1349	A
26	1H	1359	A
26	1H	1360	A
26	1H	1365	A
26	1H	1369	G
26	1H	1370	C
26	1H	1379	A
26	1H	1384	A
26	1H	1385	G
26	1H	1386	C
26	1H	1388	G
26	1H	1389	G
26	1H	1390	U
26	1H	1391	U
26	1H	1397	U
26	1H	1407	C
26	1H	1416	G
26	1H	1417	C
26	1H	1420	U
26	1H	1421	G
26	1H	1422	G
26	1H	1428	C
26	1H	1444(A)	A
26	1H	1449	A
26	1H	1449(A)	G
26	1H	1453	A
26	1H	1454	U
26	1H	1456	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	1458	C
26	1H	1459	G
26	1H	1460	A
26	1H	1461	G
26	1H	1467	C
26	1H	1469	A
26	1H	1470	G
26	1H	1471	A
26	1H	1472	A
26	1H	1483	G
26	1H	1486	A
26	1H	1490	A
26	1H	1492	G
26	1H	1493	C
26	1H	1494	A
26	1H	1497	U
26	1H	1500	G
26	1H	1506	C
26	1H	1507	A
26	1H	1508	A
26	1H	1509	C
26	1H	1510	A
26	1H	1511	A
26	1H	1517	G
26	1H	1520	U
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	1539	G
26	1H	1540	G
26	1H	1543	A
26	1H	1545	A
26	1H	1547	C
26	1H	1548	C
26	1H	1552	G
26	1H	1554	A
26	1H	1558	A
26	1H	1559	G
26	1H	1560	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	1566	A
26	1H	1569	A
26	1H	1578	U
26	1H	1580	A
26	1H	1585	C
26	1H	1586	A
26	1H	1587	A
26	1H	1594	G
26	1H	1608	A
26	1H	1609	A
26	1H	1610	A
26	1H	1617	C
26	1H	1639	U
26	1H	1640	C
26	1H	1641	A
26	1H	1645	G
26	1H	1647	G
26	1H	1648	C
26	1H	1651	G
26	1H	1658	C
26	1H	1664	A
26	1H	1674	G
26	1H	1679	U
26	1H	1684	C
26	1H	1685	C
26	1H	1699	G
26	1H	1706	U
26	1H	1707	G
26	1H	1726	G
26	1H	1728	G
26	1H	1730	U
26	1H	1731	G
26	1H	1733	G
26	1H	1756	G
26	1H	1758	G
26	1H	1760	A
26	1H	1764	G
26	1H	1773	A
26	1H	1779	U
26	1H	1782	C
26	1H	1791	A
26	1H	1799	G

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Mol	Chain	Res	Type
26	1H	1800	C
26	1H	1801	G
26	1H	1802	A
26	1H	1816	G
26	1H	1819	A
26	1H	1828	G
26	1H	1829	A
26	1H	1831	G
26	1H	1835	G
26	1H	1836	C
26	1H	1840	G
26	1H	1847	A
26	1H	1859	A
26	1H	1869	G
26	1H	1870	C
26	1H	1878	G
26	1H	1887	C
26	1H	1889	A
26	1H	1899	G
26	1H	1900	A
26	1H	1901	A
26	1H	1904	G
26	1H	1906	G
26	1H	1910	G
26	1H	1913	A
26	1H	1914	C
26	1H	1918	A
26	1H	1919	A
26	1H	1926	U
26	1H	1929	G
26	1H	1930	G
26	1H	1931	U
26	1H	1938	A
26	1H	1951	U
26	1H	1952	A
26	1H	1955	U
26	1H	1963	U
26	1H	1965	C
26	1H	1967	C
26	1H	1968	G
26	1H	1969	A
26	1H	1970	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	1971	A
26	1H	1972	A
26	1H	1982	C
26	1H	1986	A
26	1H	1992	G
26	1H	1993	U
26	1H	2001	A
26	1H	2016	U
26	1H	2020	A
26	1H	2021	C
26	1H	2023	G
26	1H	2031	A
26	1H	2033	A
26	1H	2035	G
26	1H	2043	C
26	1H	2047	U
26	1H	2048	G
26	1H	2049	G
26	1H	2054	A
26	1H	2055	C
26	1H	2056	G
26	1H	2060	A
26	1H	2061	G
26	1H	2062	A
26	1H	2066	C
26	1H	2069	G
26	1H	2072	G
26	1H	2077	A
26	1H	2078	C
26	1H	2099	U
26	1H	2108	C
26	1H	2111	C
26	1H	2113	U
26	1H	2114	A
26	1H	2116	G
26	1H	2117	A
26	1H	2119	A
26	1H	2124	G
26	1H	2126	A
26	1H	2127	G
26	1H	2128	C
26	1H	2131	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	2132	U
26	1H	2133	G
26	1H	2134	A
26	1H	2135	A
26	1H	2136	C
26	1H	2138	C
26	1H	2139	C
26	1H	2144	U
26	1H	2145	C
26	1H	2147	G
26	1H	2148	G
26	1H	2156	G
26	1H	2157	G
26	1H	2158	A
26	1H	2161	C
26	1H	2162	G
26	1H	2165	G
26	1H	2166	G
26	1H	2168	G
26	1H	2170	A
26	1H	2171	A
26	1H	2173	A
26	1H	2175	C
26	1H	2176	A
26	1H	2177	C
26	1H	2181	G
26	1H	2189	U
26	1H	2190	G
26	1H	2192	G
26	1H	2198	A
26	1H	2210	G
26	1H	2211	G
26	1H	2212	A
26	1H	2215	G
26	1H	2225	A
26	1H	2226	C
26	1H	2236	C
26	1H	2238	G
26	1H	2239	G
26	1H	2240	C
26	1H	2267	A
26	1H	2273	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	2275	C
26	1H	2280	G
26	1H	2281	C
26	1H	2283	C
26	1H	2285	C
26	1H	2286	A
26	1H	2287	A
26	1H	2307	G
26	1H	2308	G
26	1H	2310	A
26	1H	2314	C
26	1H	2315	G
26	1H	2320	A
26	1H	2321	G
26	1H	2324	C
26	1H	2325	G
26	1H	2326	C
26	1H	2327	A
26	1H	2334	G
26	1H	2335	A
26	1H	2336	A
26	1H	2343	C
26	1H	2346	A
26	1H	2347	C
26	1H	2348	U
26	1H	2350	C
26	1H	2360	A
26	1H	2372	G
26	1H	2376	A
26	1H	2377	A
26	1H	2383	G
26	1H	2385	C
26	1H	2388	A
26	1H	2389	G
26	1H	2395	C
26	1H	2402	C
26	1H	2405	G
26	1H	2406	U
26	1H	2408	U
26	1H	2410	G
26	1H	2414	G
26	1H	2418	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	2422	A
26	1H	2423	U
26	1H	2425	A
26	1H	2428	G
26	1H	2429	G
26	1H	2430	A
26	1H	2434	A
26	1H	2435	A
26	1H	2439	A
26	1H	2440	C
26	1H	2441	C
26	1H	2448	A
26	1H	2449	U
26	1H	2464	C
26	1H	2468	G
26	1H	2469	A
26	1H	2476	A
26	1H	2477	C
26	1H	2478	A
26	1H	2482	G
26	1H	2484	G
26	1H	2496	C
26	1H	2502	G
26	1H	2505	G
26	1H	2506	U
26	1H	2518	A
26	1H	2525	G
26	1H	2529	G
26	1H	2531	A
26	1H	2553	G
26	1H	2554	U
26	1H	2563	U
26	1H	2566	A
26	1H	2567	G
26	1H	2582	G
26	1H	2593	U
26	1H	2594	C
26	1H	2595	G
26	1H	2600	A
26	1H	2602	A
26	1H	2608	G
26	1H	2609	U

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Mol	Chain	Res	Type
26	1H	2611	U
26	1H	2612	C
26	1H	2629	A
26	1H	2632	A
26	1H	2636	U
26	1H	2641	G
26	1H	2654	A
26	1H	2660	A
26	1H	2663	G
26	1H	2665	A
26	1H	2666	C
26	1H	2673	G
26	1H	2679	A
26	1H	2689	U
26	1H	2702	U
26	1H	2703	C
26	1H	2705	A
26	1H	2707	G
26	1H	2712(A)	A
26	1H	2713	A
26	1H	2714	G
26	1H	2719	G
26	1H	2721	A
26	1H	2726	U
26	1H	2733	A
26	1H	2742	C
26	1H	2744	G
26	1H	2749	A
26	1H	2757	A
26	1H	2764	A
26	1H	2765	A
26	1H	2766	G
26	1H	2777	G
26	1H	2778	A
26	1H	2779	U
26	1H	2780	G
26	1H	2781	A
26	1H	2789	C
26	1H	2790	A
26	1H	2791	C
26	1H	2793	G
26	1H	2795	G

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Mol	Chain	Res	Type
26	1H	2797	U
26	1H	2798	C
26	1H	2801	A
26	1H	2803	C
26	1H	2808	U
26	1H	2813	A
26	1H	2818	G
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	2848	G
26	1H	2849	U
26	1H	2872	G
26	1H	2875	C
26	1H	2884	U
26	1H	2885	C
26	1H	2886	G
26	1H	2891	G
26	1H	2892	A
26	1H	2894	G
26	1H	2895	U
27	16	0	A
27	16	3	C
27	16	5	C
27	16	7	G
27	16	12	C
27	16	13	A
27	16	15	A
27	16	16	G
27	16	25	A
27	16	33	G
27	16	38	C
27	16	42	C
27	16	44	G
27	16	45	A
27	16	47	C
27	16	48	A
27	16	56	G
27	16	65	C

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Mol	Chain	Res	Type
27	16	70	C
27	16	73	A
27	16	74	U
27	16	75	G
27	16	88	C
27	16	98	G
27	16	105	G
27	16	109	G
27	16	116	G
27	16	118	G
1	1G	5	U
1	1G	7	G
1	1G	9	G
1	1G	16	A
1	1G	26	A
1	1G	31	G
1	1G	32	A
1	1G	39	G
1	1G	44	G
1	1G	47	C
1	1G	48	C
1	1G	50	A
1	1G	51	A
1	1G	65	U
1	1G	81	G
1	1G	82	U
1	1G	88	C
1	1G	90	C
1	1G	91	C
1	1G	96	G
1	1G	101	A
1	1G	105	G
1	1G	115	G
1	1G	116	A
1	1G	121	C
1	1G	131	C
1	1G	162	A
1	1G	163	C
1	1G	174	C
1	1G	180	U
1	1G	182	U
1	1G	185	A

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Mol	Chain	Res	Type
1	1G	186(F)	C
1	1G	189	U
1	1G	190	G
1	1G	191(A)	G
1	1G	191(D)	U
1	1G	195	A
1	1G	197	A
1	1G	209	U
1	1G	210	U
1	1G	216	G
1	1G	227	G
1	1G	231	G
1	1G	240	C
1	1G	247	G
1	1G	251	G
1	1G	252	U
1	1G	266	G
1	1G	267	C
1	1G	274	A
1	1G	280	C
1	1G	281	G
1	1G	289	G
1	1G	298	A
1	1G	321	A
1	1G	328	C
1	1G	329	A
1	1G	332	G
1	1G	346	G
1	1G	347	G
1	1G	350	G
1	1G	351	G
1	1G	352	C
1	1G	353	A
1	1G	354	G
1	1G	356	A
1	1G	366	C
1	1G	367	U
1	1G	372	C
1	1G	388	G
1	1G	396	G
1	1G	397	A
1	1G	398	C

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Mol	Chain	Res	Type
1	1G	406	G
1	1G	412	A
1	1G	413	G
1	1G	414	A
1	1G	419	C
1	1G	422	C
1	1G	423	G
1	1G	424	G
1	1G	429	U
1	1G	430	A
1	1G	439	A
1	1G	442	C
1	1G	452	A
1	1G	465	A
1	1G	466	C
1	1G	467	G
1	1G	475	G
1	1G	482	A
1	1G	484	G
1	1G	485	G
1	1G	486	U
1	1G	496	A
1	1G	497	U
1	1G	498	A
1	1G	500	G
1	1G	505	G
1	1G	509	A
1	1G	510	A
1	1G	511	C
1	1G	518	C
1	1G	521	G
1	1G	527	G
1	1G	531	U
1	1G	532	A
1	1G	533	A
1	1G	536	C
1	1G	537	G
1	1G	544	G
1	1G	547	A
1	1G	559	A
1	1G	561	U
1	1G	562	C

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Mol	Chain	Res	Type
1	1G	564	C
1	1G	572	A
1	1G	573	A
1	1G	576	G
1	1G	577	G
1	1G	581	G
1	1G	587	G
1	1G	597	G
1	1G	607	A
1	1G	608	A
1	1G	614	A
1	1G	615	C
1	1G	630	G
1	1G	631	G
1	1G	632	A
1	1G	633	G
1	1G	653	A
1	1G	654	G
1	1G	665	A
1	1G	666	G
1	1G	687	A
1	1G	688	G
1	1G	723	U
1	1G	724	G
1	1G	728	A
1	1G	731	G
1	1G	746	A
1	1G	749	C
1	1G	750	G
1	1G	769	G
1	1G	770	C
1	1G	777	A
1	1G	778	G
1	1G	780	A
1	1G	792	A
1	1G	793	U
1	1G	794	A
1	1G	816	A
1	1G	817	C
1	1G	821	G
1	1G	828	A
1	1G	842	C

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Mol	Chain	Res	Type
1	1G	843	U
1	1G	848	C
1	1G	855	G
1	1G	857	C
1	1G	858	G
1	1G	859	A
1	1G	870	U
1	1G	873	A
1	1G	885	G
1	1G	913	A
1	1G	914	A
1	1G	916	G
1	1G	920	U
1	1G	926	G
1	1G	927	G
1	1G	934	C
1	1G	935	A
1	1G	936	C
1	1G	940	C
1	1G	941	G
1	1G	942	G
1	1G	953	G
1	1G	954	G
1	1G	960	U
1	1G	961	U
1	1G	964	A
1	1G	968	A
1	1G	969	A
1	1G	971	G
1	1G	972	C
1	1G	974	A
1	1G	975	A
1	1G	976	G
1	1G	977	A
1	1G	978	A
1	1G	980	C
1	1G	982	U
1	1G	984	C
1	1G	991	U
1	1G	992	U
1	1G	993	G
1	1G	996	A

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Mol	Chain	Res	Type
1	1G	1002	G
1	1G	1004	A
1	1G	1006	C
1	1G	1008	C
1	1G	1009	G
1	1G	1010	G
1	1G	1021	G
1	1G	1024	G
1	1G	1026	G
1	1G	1028	C
1	1G	1028(B)	C
1	1G	1029	G
1	1G	1030	C
1	1G	1031	G
1	1G	1032	A
1	1G	1032(A)	G
1	1G	1033	G
1	1G	1037	C
1	1G	1040	U
1	1G	1046	A
1	1G	1053	G
1	1G	1054	C
1	1G	1055	A
1	1G	1056	U
1	1G	1063	C
1	1G	1064	G
1	1G	1066	C
1	1G	1081	G
1	1G	1084	G
1	1G	1086	U
1	1G	1088	G
1	1G	1092	A
1	1G	1094	G
1	1G	1095	U
1	1G	1101	A
1	1G	1108	G
1	1G	1118	C
1	1G	1124	G
1	1G	1125	U
1	1G	1127	G
1	1G	1128	C
1	1G	1129	C

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Mol	Chain	Res	Type
1	1G	1133	G
1	1G	1137	C
1	1G	1138	G
1	1G	1139	G
1	1G	1140	C
1	1G	1144	G
1	1G	1146	A
1	1G	1147	C
1	1G	1154	G
1	1G	1157	A
1	1G	1158	C
1	1G	1159	U
1	1G	1160	G
1	1G	1177	G
1	1G	1178	G
1	1G	1181	G
1	1G	1183	A
1	1G	1184	G
1	1G	1185	G
1	1G	1188	A
1	1G	1189	C
1	1G	1193	G
1	1G	1196	U
1	1G	1197	G
1	1G	1201	A
1	1G	1202	G
1	1G	1203	C
1	1G	1204	A
1	1G	1211	U
1	1G	1212	U
1	1G	1213	A
1	1G	1225	A
1	1G	1227	A
1	1G	1232	U
1	1G	1235	U
1	1G	1238	A
1	1G	1240	U
1	1G	1241	G
1	1G	1255	G
1	1G	1256	A
1	1G	1257	U
1	1G	1258	G

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Mol	Chain	Res	Type
1	1G	1260	C
1	1G	1274	G
1	1G	1275	A
1	1G	1278	U
1	1G	1279	A
1	1G	1280	A
1	1G	1286	A
1	1G	1287	A
1	1G	1289	A
1	1G	1291	G
1	1G	1297	C
1	1G	1299	A
1	1G	1301	U
1	1G	1305	G
1	1G	1313	U
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	1338	G
1	1G	1340	A
1	1G	1346	A
1	1G	1347	G
1	1G	1352	C
1	1G	1353	G
1	1G	1358	U
1	1G	1359	C
1	1G	1360	A
1	1G	1362(A)	C
1	1G	1363	A
1	1G	1366	C
1	1G	1368	G
1	1G	1370	G
1	1G	1379	G
1	1G	1388	C
1	1G	1398	A
1	1G	1399	C
1	1G	1401	G

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Mol	Chain	Res	Type
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	1492	A
1	1G	1497	G
1	1G	1499	A
1	1G	1503	A
1	1G	1504	G
1	1G	1506	U
1	1G	1507	A
1	1G	1517	G
1	1G	1520	G
1	1G	1525	G
1	1G	1529	G
1	1G	1530	G
1	1G	1533	C
1	1G	1534	A
22	1L	2	G
22	1L	3	G
22	1L	4	U
22	1L	7	U
22	1L	9	A
22	1L	10	G
22	1L	18	G
22	1L	23	A
22	1L	24	G
22	1L	26	A
22	1L	27	G
22	1L	30	G
22	1L	45	G
22	1L	49	G
22	1L	55	PSU
22	1L	63	U
22	1L	64	G
22	1L	67	C
22	1L	70	C

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Mol	Chain	Res	Type
22	1L	73	A
22	1L	74	C
23	2L	2	G
23	2L	6	G
23	2L	8	4SU
23	2L	9	G
23	2L	13	C
23	2L	15	G
23	2L	16	C
23	2L	18	C
23	2L	19	G
23	2L	21	U
23	2L	22	A
23	2L	32	G
23	2L	39	A
23	2L	48	U
23	2L	49	C
23	2L	56	PSU
23	2L	69	C
23	2L	77	A
24	3L	2	G
24	3L	5	C
24	3L	7	U
24	3L	8	U
24	3L	9	A
24	3L	13	C
24	3L	15	G
24	3L	22	G
24	3L	24	G
24	3L	26	A
24	3L	31	A
24	3L	33	U
24	3L	34	U
24	3L	35	U
24	3L	37	A
24	3L	39	U
24	3L	44	U
24	3L	46	G
24	3L	47	U
24	3L	48	C
24	3L	53	G
24	3L	55	U

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Mol	Chain	Res	Type
24	3L	56	C
24	3L	57	G
24	3L	58	A
24	3L	59	A
24	3L	61	C
24	3L	62	C
24	3L	63	U
24	3L	65	C
24	3L	73	A
25	4L	8	A
25	4L	11	U
25	4L	12	A
25	4L	13	A
25	4L	14	A
25	4L	23	A
25	4L	24	A
25	4L	25	A
26	14	7	G
26	14	9	U
26	14	11	G
26	14	13	A
26	14	31	C
26	14	33	U
26	14	34	C
26	14	35	G
26	14	46	C
26	14	49	A
26	14	50	U
26	14	55	G
26	14	58	G
26	14	61	G
26	14	70	G
26	14	71	A
26	14	72	U
26	14	74	A
26	14	75	G
26	14	82	G
26	14	84	A
26	14	90	U
26	14	91	A
26	14	92	G
26	14	93	C

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Mol	Chain	Res	Type
26	14	95	G
26	14	101	G
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	140	A
26	14	153	C
26	14	154	G
26	14	155	C
26	14	161	U
26	14	162	U
26	14	171	G
26	14	173	G
26	14	174	C
26	14	175	G
26	14	181	A
26	14	188	G
26	14	196	A
26	14	197	A
26	14	199	A
26	14	200	U
26	14	205	G
26	14	212	G
26	14	214	G
26	14	215	G
26	14	216	A
26	14	217	G
26	14	221	A
26	14	222	A
26	14	229	A
26	14	232	G
26	14	233	A
26	14	234	C
26	14	248	G
26	14	249	C
26	14	250	G
26	14	252	G

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Mol	Chain	Res	Type
26	14	268	C
26	14	269	U
26	14	270(K)	C
26	14	270(L)	U
26	14	270(N)	G
26	14	270(O)	U
26	14	271(B)	G
26	14	271(C)	U
26	14	271	G
26	14	273(C)	C
26	14	273(D)	C
26	14	273(F)	C
26	14	274	G
26	14	275	G
26	14	276	A
26	14	277	C
26	14	278	A
26	14	279	C
26	14	283	A
26	14	289	A
26	14	290	G
26	14	308	G
26	14	311	A
26	14	319	C
26	14	325	G
26	14	329	G
26	14	330	A
26	14	331	A
26	14	342	G
26	14	352	G
26	14	354	G
26	14	362	U
26	14	363	G
26	14	363(E)	U
26	14	380	U
26	14	386	G
26	14	395	U
26	14	396	G
26	14	405	U
26	14	406	G
26	14	411	G
26	14	412	A

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Mol	Chain	Res	Type
26	14	415	A
26	14	428	A
26	14	443	A
26	14	444	C
26	14	447	A
26	14	454	A
26	14	455	C
26	14	456	C
26	14	457	A
26	14	459	U
26	14	460	A
26	14	463	G
26	14	470	A
26	14	471	A
26	14	481	G
26	14	493	G
26	14	496	G
26	14	504	U
26	14	505	A
26	14	509	C
26	14	528	A
26	14	529	A
26	14	530	G
26	14	531	C
26	14	532	A
26	14	533	G
26	14	537	C
26	14	543	C
26	14	549	G
26	14	556	G
26	14	563	G
26	14	564	C
26	14	573	G
26	14	575	A
26	14	599	G
26	14	603	A
26	14	607	U
26	14	615	G
26	14	617	G
26	14	619	G
26	14	621	A
26	14	622	G

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Mol	Chain	Res	Type
26	14	627	A
26	14	631	A
26	14	636	G
26	14	637	A
26	14	645	C
26	14	646	A
26	14	649	G
26	14	650	C
26	14	651	G
26	14	654	A
26	14	654(A)	A
26	14	654(B)	C
26	14	654(C)	G
26	14	654(D)	G
26	14	654(S)	G
26	14	654(T)	A
26	14	656	G
26	14	669	G
26	14	686	G
26	14	690	G
26	14	701	G
26	14	717	G
26	14	722	A
26	14	730	C
26	14	731	C
26	14	738	G
26	14	745	G
26	14	748	G
26	14	749	C
26	14	750	A
26	14	752	A
26	14	753	C
26	14	764	A
26	14	770	G
26	14	771	G
26	14	775	G
26	14	776	G
26	14	779	U
26	14	782	A
26	14	784	A
26	14	785	G
26	14	791	C

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Mol	Chain	Res	Type
26	14	792	G
26	14	798	G
26	14	805	G
26	14	812	C
26	14	816	C
26	14	819	A
26	14	820	A
26	14	822	U
26	14	827	U
26	14	828	U
26	14	830	G
26	14	831	G
26	14	832	G
26	14	833	U
26	14	840	C
26	14	845	G
26	14	846	C
26	14	854	G
26	14	859	G
26	14	860	U
26	14	861	A
26	14	863	A
26	14	866	A
26	14	875	G
26	14	878	A
26	14	879	G
26	14	897	C
26	14	899	A
26	14	901	A
26	14	904	C
26	14	907	U
26	14	910	A
26	14	911	A
26	14	917	A
26	14	918	A
26	14	925	C
26	14	926	A
26	14	932	G
26	14	934	G
26	14	938	G
26	14	941	A
26	14	945	A

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Mol	Chain	Res	Type
26	14	946	G
26	14	957	A
26	14	958	U
26	14	959	A
26	14	961	C
26	14	967	C
26	14	974	G
26	14	974(A)	C
26	14	978	G
26	14	980	A
26	14	983	A
26	14	990	A
26	14	991	C
26	14	996	A
26	14	999	U
26	14	1005	C
26	14	1010	A
26	14	1012	U
26	14	1013	C
26	14	1015	G
26	14	1022	G
26	14	1023	U
26	14	1025	G
26	14	1026	U
26	14	1029	A
26	14	1034	G
26	14	1037	G
26	14	1041	C
26	14	1044	G
26	14	1048	A
26	14	1050	A
26	14	1054	A
26	14	1055	G
26	14	1056	G
26	14	1057	A
26	14	1060	U
26	14	1061	U
26	14	1062	G
26	14	1063	G
26	14	1070	A
26	14	1071	G
26	14	1072	C

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Mol	Chain	Res	Type
26	14	1073	A
26	14	1074	G
26	14	1075	C
26	14	1088	A
26	14	1089	G
26	14	1090	U
26	14	1091	G
26	14	1099	G
26	14	1101	U
26	14	1102	C
26	14	1105	U
26	14	1106	G
26	14	1107	G
26	14	1110	G
26	14	1111	A
26	14	1112	G
26	14	1113	U
26	14	1114	G
26	14	1118	C
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	1143	A
26	14	1151	G
26	14	1157	G
26	14	1170	G
26	14	1173	G
26	14	1174	A
26	14	1175	U
26	14	1176	G
26	14	1177	A
26	14	1178	C
26	14	1188	U
26	14	1198	U
26	14	1204	A
26	14	1205	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	1212	G
26	14	1213	A
26	14	1220	A
26	14	1236	G
26	14	1253	A
26	14	1256	G
26	14	1269	A
26	14	1271	G
26	14	1272	A
26	14	1273	U
26	14	1274	A
26	14	1275	A
26	14	1297	C
26	14	1300	U
26	14	1301	A
26	14	1303	G
26	14	1325	G
26	14	1329	U
26	14	1332	G
26	14	1338	G
26	14	1342	A
26	14	1343	G
26	14	1345	C
26	14	1347	G
26	14	1348	G
26	14	1349	A
26	14	1352	U
26	14	1359	A
26	14	1365	A
26	14	1368	G
26	14	1369	G
26	14	1370	C
26	14	1379	A
26	14	1380	G
26	14	1385	G
26	14	1386	C
26	14	1390	U
26	14	1391	U
26	14	1395	A
26	14	1396	U
26	14	1404	C
26	14	1407	C

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Mol	Chain	Res	Type
26	14	1411	C
26	14	1416	G
26	14	1418	G
26	14	1419	A
26	14	1421	G
26	14	1422	G
26	14	1424	G
26	14	1425	G
26	14	1427	A
26	14	1428	C
26	14	1436	G
26	14	1437	C
26	14	1444(A)	A
26	14	1445	C
26	14	1449	A
26	14	1449(A)	G
26	14	1453	A
26	14	1455	G
26	14	1460	A
26	14	1467	C
26	14	1471	A
26	14	1475	G
26	14	1483	G
26	14	1493	C
26	14	1495	A
26	14	1505	C
26	14	1506	C
26	14	1508	A
26	14	1509	C
26	14	1510	A
26	14	1515	C
26	14	1516	U
26	14	1522	G
26	14	1523	U
26	14	1526	G
26	14	1528	A
26	14	1534	G
26	14	1535	U
26	14	1537	C
26	14	1543	A
26	14	1544	C
26	14	1547	C

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Mol	Chain	Res	Type
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	1580	A
26	14	1582	C
26	14	1585	C
26	14	1586	A
26	14	1588	C
26	14	1589	C
26	14	1593	G
26	14	1598	C
26	14	1600	C
26	14	1608	A
26	14	1609	A
26	14	1610	A
26	14	1614	A
26	14	1617	C
26	14	1622	G
26	14	1625	C
26	14	1647	G
26	14	1648	C
26	14	1653	G
26	14	1669	A
26	14	1672	C
26	14	1674	G
26	14	1675	C
26	14	1678	G
26	14	1682	G
26	14	1697	G
26	14	1700	A
26	14	1701	A
26	14	1703	G
26	14	1725	G
26	14	1726	G
26	14	1728	G
26	14	1729	A
26	14	1730	U
26	14	1731	G
26	14	1742	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	1743	G
26	14	1756	G
26	14	1762	A
26	14	1763	G
26	14	1764	G
26	14	1773	A
26	14	1780	A
26	14	1782	C
26	14	1791	A
26	14	1800	C
26	14	1801	G
26	14	1811	G
26	14	1812	A
26	14	1816	G
26	14	1819	A
26	14	1820	U
26	14	1828	G
26	14	1829	A
26	14	1836	C
26	14	1837	C
26	14	1839	G
26	14	1847	A
26	14	1848	A
26	14	1858	G
26	14	1878	G
26	14	1885	A
26	14	1886	C
26	14	1888	G
26	14	1889	A
26	14	1891	G
26	14	1895	C
26	14	1899	G
26	14	1900	A
26	14	1906	G
26	14	1909	C
26	14	1913	A
26	14	1927	A
26	14	1929	G
26	14	1930	G
26	14	1934	C
26	14	1936	A
26	14	1937	A

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Mol	Chain	Res	Type
26	14	1938	A
26	14	1946	U
26	14	1947	C
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	1987	G
26	14	1993	U
26	14	2018	G
26	14	2020	A
26	14	2023	G
26	14	2031	A
26	14	2032	G
26	14	2033	A
26	14	2036	C
26	14	2039	C
26	14	2043	C
26	14	2048	G
26	14	2049	G
26	14	2055	C
26	14	2056	G
26	14	2058	A
26	14	2060	A
26	14	2061	G
26	14	2062	A
26	14	2066	C
26	14	2069	G
26	14	2082	A
26	14	2083	G
26	14	2100	G
26	14	2108	C
26	14	2114	A
26	14	2115	G
26	14	2117	A
26	14	2118	U
26	14	2120	G

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Mol	Chain	Res	Type
26	14	2122	U
26	14	2123	G
26	14	2124	G
26	14	2125	G
26	14	2126	A
26	14	2127	G
26	14	2128	C
26	14	2129	C
26	14	2130	U
26	14	2131	G
26	14	2132	U
26	14	2133	G
26	14	2134	A
26	14	2135	A
26	14	2136	C
26	14	2137	C
26	14	2139	C
26	14	2140	C
26	14	2144	U
26	14	2145	C
26	14	2146	C
26	14	2147	G
26	14	2148	G
26	14	2153	G
26	14	2157	G
26	14	2158	A
26	14	2161	C
26	14	2162	G
26	14	2164	C
26	14	2165	G
26	14	2166	G
26	14	2168	G
26	14	2171	A
26	14	2172	U
26	14	2173	A
26	14	2174	C
26	14	2175	C
26	14	2189	U
26	14	2190	G
26	14	2191	G
26	14	2192	G
26	14	2198	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	2210	G
26	14	2211	G
26	14	2212	A
26	14	2213	U
26	14	2215	G
26	14	2225	A
26	14	2238	G
26	14	2240	C
26	14	2245	U
26	14	2251	G
26	14	2253	G
26	14	2259	G
26	14	2267	A
26	14	2268	A
26	14	2269	A
26	14	2275	C
26	14	2276	G
26	14	2280	G
26	14	2283	C
26	14	2287	A
26	14	2288	A
26	14	2294	C
26	14	2297	C
26	14	2305	A
26	14	2307	G
26	14	2308	G
26	14	2309	A
26	14	2310	A
26	14	2311	A
26	14	2312	U
26	14	2318	G
26	14	2319	G
26	14	2320	A
26	14	2321	G
26	14	2325	G
26	14	2326	C
26	14	2336	A
26	14	2343	C
26	14	2346	A
26	14	2347	C
26	14	2350	C
26	14	2353	G

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Mol	Chain	Res	Type
26	14	2354	G
26	14	2360	A
26	14	2372	G
26	14	2383	G
26	14	2385	C
26	14	2389	G
26	14	2391	G
26	14	2392	A
26	14	2396	G
26	14	2402	C
26	14	2403	C
26	14	2406	U
26	14	2410	G
26	14	2414	G
26	14	2419	U
26	14	2422	A
26	14	2423	U
26	14	2425	A
26	14	2429	G
26	14	2430	A
26	14	2431	U
26	14	2432	A
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	2468	G
26	14	2469	A
26	14	2470	G
26	14	2475	C
26	14	2476	A
26	14	2477	C
26	14	2483	C
26	14	2487	G
26	14	2496	C
26	14	2497	A
26	14	2498	C
26	14	2501	C
26	14	2502	G
26	14	2505	G

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Mol	Chain	Res	Type
26	14	2506	U
26	14	2507	C
26	14	2518	A
26	14	2525	G
26	14	2529	G
26	14	2542	A
26	14	2543	G
26	14	2549	G
26	14	2553	G
26	14	2554	U
26	14	2563	U
26	14	2564	A
26	14	2566	A
26	14	2567	G
26	14	2569	G
26	14	2573	C
26	14	2578	G
26	14	2579	C
26	14	2581	G
26	14	2582	G
26	14	2585	U
26	14	2586	C
26	14	2589	A
26	14	2599	G
26	14	2602	A
26	14	2608	G
26	14	2609	U
26	14	2611	U
26	14	2612	C
26	14	2613	U
26	14	2630	G
26	14	2631	G
26	14	2634	G
26	14	2636	U
26	14	2646	C
26	14	2654	A
26	14	2665	A
26	14	2667	C
26	14	2682	U
26	14	2689	U
26	14	2690	C
26	14	2702	U

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Mol	Chain	Res	Type
26	14	2703	C
26	14	2707	G
26	14	2712(A)	A
26	14	2713	A
26	14	2714	G
26	14	2717	G
26	14	2726	U
26	14	2733	A
26	14	2742	C
26	14	2744	G
26	14	2747	G
26	14	2748	A
26	14	2750	A
26	14	2751	G
26	14	2752	C
26	14	2757	A
26	14	2758	A
26	14	2762	G
26	14	2764	A
26	14	2765	A
26	14	2766	G
26	14	2769	C
26	14	2777	G
26	14	2778	A
26	14	2779	U
26	14	2780	G
26	14	2789	C
26	14	2790	A
26	14	2791	C
26	14	2792	G
26	14	2793	G
26	14	2795	G
26	14	2797	U
26	14	2798	C
26	14	2799	A
26	14	2801	A
26	14	2802	G
26	14	2808	U
26	14	2810	A
26	14	2818	G
26	14	2820	A
26	14	2821	A

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Mol	Chain	Res	Type
26	14	2823	A
26	14	2833	G
26	14	2834	G
26	14	2835	A
26	14	2838	G
26	14	2848	G
26	14	2849	U
26	14	2860	A
26	14	2872	G
26	14	2873	A
26	14	2877	G
26	14	2880	C
26	14	2884	U
26	14	2885	C
26	14	2886	G
26	14	2892	A
26	14	2893	G
26	14	2894	G
26	14	2895	U
26	14	2896	C
26	14	2897	U
26	14	2899	G
26	14	2900	A
27	1J	0	A
27	1J	7	G
27	1J	8	U
27	1J	9	G
27	1J	12	C
27	1J	13	A
27	1J	15	A
27	1J	16	G
27	1J	25	A
27	1J	26	A
27	1J	27	C
27	1J	28	C
27	1J	29	A
27	1J	30	C
27	1J	33	G
27	1J	42	C
27	1J	44	G
27	1J	45	A
27	1J	53	A

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Mol	Chain	Res	Type
27	1J	58	A
27	1J	59	A
27	1J	71	C
27	1J	73	A
27	1J	74	U
27	1J	81	G
27	1J	88	C
27	1J	89	G
27	1J	89(A)	A
27	1J	90	C
27	1J	98	G
27	1J	108	C
27	1J	109	G
27	1J	115	G
27	1J	119	A

All (211) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	13	5	U
1	13	31	G
1	13	49	U
1	13	50	A
1	13	115	G
1	13	119	A
1	13	163	C
1	13	190	G
1	13	244	U
1	13	266	G
1	13	422	C
1	13	428	G
1	13	429	U
1	13	465	A
1	13	484	G
1	13	495	A
1	13	509	A
1	13	560	U
1	13	652	U
1	13	687	A
1	13	703	G
1	13	748	C
1	13	793	U

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Mol	Chain	Res	Type
1	13	871	U
1	13	913	A
1	13	1054	C
1	13	1064	G
1	13	1065	U
1	13	1128	C
1	13	1256	A
1	13	1285	A
1	13	1300	G
1	13	1301	U
1	13	1336	C
1	13	1397	C
1	13	1498	U
1	13	1503	A
1	13	1533	C
22	1K	6	G
22	1K	21	A
22	1K	48	C
22	1K	49	G
22	1K	69	A
23	2K	48	U
24	3K	2	G
24	3K	34	U
24	3K	45	G
24	3K	58	A
25	4K	13	A
25	4K	24	A
26	1H	34	C
26	1H	125	G
26	1H	196	A
26	1H	222	A
26	1H	242	G
26	1H	249	C
26	1H	271(B)	G
26	1H	404	C
26	1H	503	A
26	1H	508	G
26	1H	530	G
26	1H	587	C
26	1H	668	G
26	1H	685	A
26	1H	746	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	1H	764	A
26	1H	845	G
26	1H	859	G
26	1H	974	G
26	1H	1022	G
26	1H	1026	U
26	1H	1060	U
26	1H	1081	U
26	1H	1084	A
26	1H	1110	G
26	1H	1178	C
26	1H	1210	A
26	1H	1301	A
26	1H	1378	A
26	1H	1396	U
26	1H	1420	U
26	1H	1493	C
26	1H	1497	U
26	1H	1508	A
26	1H	1509	C
26	1H	1558	A
26	1H	1608	A
26	1H	1609	A
26	1H	1730	U
26	1H	1757	U
26	1H	1799	G
26	1H	1800	C
26	1H	1858	G
26	1H	1899	G
26	1H	1900	A
26	1H	1992	G
26	1H	2035	G
26	1H	2060	A
26	1H	2172	U
26	1H	2210	G
26	1H	2225	A
26	1H	2346	A
26	1H	2422	A
26	1H	2439	A
26	1H	2566	A
26	1H	2756	U
26	1H	2884	U

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Mol	Chain	Res	Type
27	16	44	G
27	16	108	C
1	1G	64	G
1	1G	80	G
1	1G	87	A
1	1G	89	U
1	1G	115	G
1	1G	250	A
1	1G	251	G
1	1G	266	G
1	1G	327	A
1	1G	345	C
1	1G	412	A
1	1G	429	U
1	1G	485	G
1	1G	509	A
1	1G	528	C
1	1G	560	U
1	1G	631	G
1	1G	687	A
1	1G	748	C
1	1G	793	U
1	1G	913	A
1	1G	972	C
1	1G	992	U
1	1G	1053	G
1	1G	1064	G
1	1G	1126	U
1	1G	1137	C
1	1G	1145	C
1	1G	1157	A
1	1G	1285	A
1	1G	1298	C
1	1G	1300	G
1	1G	1346	A
1	1G	1359	C
1	1G	1442	G
1	1G	1498	U
1	1G	1533	C
22	1L	3	G
22	1L	6	G
22	1L	9	A

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Mol	Chain	Res	Type
22	1L	69	A
23	2L	21	U
23	2L	48	U
24	3L	36	U
24	3L	58	A
25	4L	22	A
25	4L	23	A
26	14	34	C
26	14	49	A
26	14	71	A
26	14	90	U
26	14	101	G
26	14	128	C
26	14	139	G
26	14	197	A
26	14	278	A
26	14	310	A
26	14	685	A
26	14	752	A
26	14	764	A
26	14	774	A
26	14	974	G
26	14	990	A
26	14	998	C
26	14	1022	G
26	14	1069	A
26	14	1142(A)	A
26	14	1156	A
26	14	1342	A
26	14	1379	A
26	14	1396	U
26	14	1418	G
26	14	1420	U
26	14	1444(A)	A
26	14	1494	A
26	14	1534	G
26	14	1558	A
26	14	1608	A
26	14	1609	A
26	14	1819	A
26	14	1963	U
26	14	1980	G

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Mol	Chain	Res	Type
26	14	1992	G
26	14	2212	A
26	14	2275	C
26	14	2308	G
26	14	2319	G
26	14	2402	C
26	14	2406	U
26	14	2425	A
26	14	2432	A
26	14	2439	A
26	14	2448	A
26	14	2518	A
26	14	2629	A
26	14	2689	U
26	14	2756	U
26	14	2776	A
26	14	2791	C
26	14	2859	G
27	1J	88	C
27	1J	89	G

## 5.4 Non-standard residues in protein, DNA, RNA chains

20 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	5MU	1K	54	22	15,22,23	2.17	3 (20%)	16,32,35	2.10	2 (12%)
22	PSU	1K	55	22	17,21,22	1.13	1 (5%)	20,30,33	3.40	5 (25%)
23	PSU	2L	56	23	17,21,22	1.08	1 (5%)	20,30,33	3.52	6 (30%)
22	PSU	1L	55	22	17,21,22	1.08	1 (5%)	20,30,33	3.76	9 (45%)
22	U8U	1L	34	25,22	17,24,25	2.59	5 (29%)	19,34,37	1.92	3 (15%)
23	5MU	2K	55	23	15,22,23	2.20	3 (20%)	16,32,35	1.80	2 (12%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
23	G7M	2L	47	23	20,26,27	5.52	7 (35%)	20,39,42	1.98	6 (30%)
23	G7M	2K	47	23	20,26,27	5.46	7 (35%)	20,39,42	1.98	5 (25%)
23	OMC	2K	33	23	15,22,23	1.95	5 (33%)	17,31,34	1.38	3 (17%)
22	T6A	1L	37	22	24,34,35	2.54	4 (16%)	24,49,52	2.75	5 (20%)
22	U8U	1K	34	25,22	17,24,25	2.45	4 (23%)	19,34,37	1.79	3 (15%)
22	PSU	1K	39	22	17,21,22	1.07	1 (5%)	20,30,33	3.46	6 (30%)
23	4SU	2K	8	23	14,21,22	3.34	2 (14%)	15,30,33	1.01	1 (6%)
22	5MU	1L	54	22	15,22,23	2.14	3 (20%)	16,32,35	1.83	2 (12%)
22	PSU	1L	39	22	17,21,22	1.10	2 (11%)	20,30,33	3.49	4 (20%)
23	OMC	2L	33	23	15,22,23	2.01	6 (40%)	17,31,34	1.31	3 (17%)
23	PSU	2K	56	23	17,21,22	1.31	3 (17%)	20,30,33	2.69	5 (25%)
22	T6A	1K	37	22	24,34,35	2.52	5 (20%)	24,49,52	2.06	6 (25%)
23	5MU	2L	55	23	15,22,23	2.17	3 (20%)	16,32,35	1.92	2 (12%)
23	4SU	2L	8	23	14,21,22	3.46	2 (14%)	15,30,33	0.88	1 (6%)

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	5MU	1K	54	22	-	0/5/25/26	0/2/2/2
22	PSU	1K	55	22	-	0/7/25/26	0/2/2/2
23	PSU	2L	56	23	-	1/7/25/26	0/2/2/2
22	PSU	1L	55	22	-	1/7/25/26	0/2/2/2
22	U8U	1L	34	25,22	-	2/7/28/29	0/2/2/2
23	5MU	2K	55	23	-	0/5/25/26	0/2/2/2
23	G7M	2L	47	23	-	2/3/25/26	0/3/3/3
23	G7M	2K	47	23	-	0/3/25/26	0/3/3/3
23	OMC	2K	33	23	-	1/7/27/28	0/2/2/2
22	T6A	1L	37	22	-	2/15/41/42	0/3/3/3
22	U8U	1K	34	25,22	-	0/7/28/29	0/2/2/2
22	PSU	1K	39	22	-	0/7/25/26	0/2/2/2
23	4SU	2K	8	23	-	0/5/25/26	0/2/2/2
22	5MU	1L	54	22	-	0/5/25/26	0/2/2/2
22	PSU	1L	39	22	-	0/7/25/26	0/2/2/2
23	OMC	2L	33	23	-	1/7/27/28	0/2/2/2
23	PSU	2K	56	23	-	1/7/25/26	0/2/2/2
22	T6A	1K	37	22	-	2/15/41/42	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
23	5MU	2L	55	23	-	0/5/25/26	0/2/2/2
23	4SU	2L	8	23	-	0/5/25/26	0/2/2/2

All (68) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	2L	47	G7M	C8-N7	17.55	1.65	1.33
23	2K	47	G7M	C8-N7	17.13	1.64	1.33
23	2K	47	G7M	C5-C4	-11.84	1.23	1.39
23	2L	47	G7M	C5-C4	-11.51	1.23	1.39
23	2K	8	4SU	C5-C4	10.43	1.50	1.38
23	2L	8	4SU	C5-C4	10.03	1.49	1.38
23	2L	47	G7M	C4-N3	8.27	1.48	1.35
23	2K	47	G7M	C4-N3	8.27	1.48	1.35
23	2L	8	4SU	C6-N1	7.76	1.45	1.35
22	1L	37	T6A	C6-N6	7.62	1.49	1.36
22	1L	34	U8U	C4-N3	7.57	1.46	1.33
23	2L	47	G7M	C8-N9	7.56	1.47	1.33
23	2K	47	G7M	C8-N9	7.04	1.46	1.33
22	1K	34	U8U	C4-N3	6.81	1.44	1.33
22	1K	37	T6A	C6-N6	6.80	1.48	1.36
23	2K	8	4SU	C6-N1	6.52	1.43	1.35
22	1L	37	T6A	C10-N11	6.50	1.49	1.35
22	1K	37	T6A	C10-N11	6.16	1.48	1.35
22	1K	37	T6A	C10-N6	5.77	1.49	1.37
23	2K	55	5MU	C2-N3	5.66	1.49	1.38
22	1K	54	5MU	C2-N3	5.55	1.49	1.38
22	1L	37	T6A	C10-N6	5.48	1.48	1.37
23	2L	55	5MU	C4-C5	5.46	1.53	1.41
22	1L	34	U8U	C6-C5	5.33	1.49	1.37
22	1K	54	5MU	C4-C5	5.30	1.52	1.41
23	2K	55	5MU	C4-C5	5.23	1.52	1.41
22	1L	54	5MU	C2-N3	5.04	1.48	1.38
23	2L	55	5MU	C2-N3	4.90	1.47	1.38
22	1K	34	U8U	C6-C5	4.77	1.48	1.37
22	1L	54	5MU	C4-C5	4.69	1.51	1.41
23	2K	47	G7M	C2-N2	4.46	1.42	1.33
23	2L	33	OMC	C6-N1	4.39	1.41	1.35
23	2L	47	G7M	C6-C5	4.37	1.48	1.41
23	2K	33	OMC	C6-N1	4.10	1.40	1.35
22	1K	34	U8U	C4-C5	4.02	1.50	1.41
23	2K	47	G7M	C6-C5	3.80	1.47	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	1L	34	U8U	C4-C5	3.78	1.49	1.41
22	1L	39	PSU	C4-N3	3.70	1.39	1.33
22	1K	55	PSU	C4-N3	3.67	1.39	1.33
22	1L	55	PSU	C4-N3	3.62	1.39	1.33
23	2L	56	PSU	C4-N3	3.59	1.39	1.33
23	2L	33	OMC	C2-N3	3.58	1.45	1.38
23	2L	47	G7M	C2-N2	3.55	1.41	1.33
23	2K	33	OMC	C2-N3	3.45	1.45	1.38
23	2K	33	OMC	C5-C4	3.44	1.49	1.41
23	2L	33	OMC	C5-C4	3.41	1.49	1.41
22	1L	54	5MU	C4-N3	-3.33	1.27	1.33
23	2L	55	5MU	C4-N3	-3.27	1.27	1.33
23	2K	56	PSU	C5-C1'	-2.99	1.49	1.52
22	1K	39	PSU	C4-N3	2.85	1.38	1.33
22	1K	37	T6A	C5-C4	-2.84	1.33	1.40
23	2K	55	5MU	C4-N3	-2.65	1.28	1.33
23	2K	33	OMC	C4-N4	2.62	1.42	1.35
22	1K	37	T6A	C6-N1	-2.60	1.30	1.34
22	1L	34	U8U	C2-S2	-2.53	1.61	1.66
23	2L	33	OMC	C4-N4	2.51	1.42	1.35
22	1K	34	U8U	C2-S2	-2.48	1.61	1.66
23	2K	47	G7M	C2-N1	2.46	1.39	1.35
22	1K	54	5MU	C4-N3	-2.40	1.28	1.33
23	2K	56	PSU	C4-C5	-2.39	1.36	1.41
23	2L	47	G7M	C2-N1	2.33	1.39	1.35
22	1L	37	T6A	C5-C4	-2.29	1.34	1.40
23	2K	56	PSU	C4-N3	2.25	1.37	1.33
22	1L	34	U8U	O4-C4	-2.11	1.19	1.24
23	2L	33	OMC	C4-N3	-2.10	1.32	1.35
23	2K	33	OMC	C4-N3	-2.08	1.32	1.35
23	2L	33	OMC	C6-C5	-2.05	1.33	1.38
22	1L	39	PSU	O4'-C1'	-2.01	1.41	1.44

All (79) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	1L	55	PSU	N1-C2-N3	-12.56	118.44	128.43
22	1K	39	PSU	N1-C2-N3	-12.46	118.53	128.43
22	1L	39	PSU	N1-C2-N3	-12.44	118.54	128.43
23	2L	56	PSU	N1-C2-N3	-11.82	119.03	128.43
22	1K	55	PSU	N1-C2-N3	-11.07	119.63	128.43
23	2K	56	PSU	N1-C2-N3	-8.89	121.37	128.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	1L	37	T6A	C12-N11-C10	8.41	131.72	122.75
22	1K	54	5MU	C4-N3-C2	7.31	121.32	115.14
22	1L	39	PSU	C4-N3-C2	6.74	120.83	115.14
22	1K	55	PSU	C4-N3-C2	6.73	120.83	115.14
23	2L	56	PSU	C4-N3-C2	6.27	120.44	115.14
22	1L	34	U8U	C2-N3-C4	6.18	122.25	115.93
22	1L	55	PSU	C4-N3-C2	6.06	120.26	115.14
22	1L	37	T6A	C2-N1-C6	5.94	121.68	116.59
22	1L	37	T6A	N3-C2-N1	-5.86	119.52	128.68
23	2L	55	5MU	C5-C6-N1	-5.77	115.97	122.19
22	1K	39	PSU	C4-N3-C2	5.74	119.99	115.14
22	1K	34	U8U	C2-N3-C4	5.73	121.79	115.93
22	1L	55	PSU	O4'-C1'-C5	5.64	118.66	109.93
23	2K	47	G7M	N3-C2-N1	-5.36	120.07	127.22
22	1K	37	T6A	N3-C2-N1	-5.30	120.40	128.68
23	2K	55	5MU	C5-C6-N1	-4.98	116.83	122.19
23	2L	47	G7M	N3-C2-N1	-4.98	120.58	127.22
22	1K	55	PSU	C5-C4-N3	-4.91	119.04	125.36
22	1L	54	5MU	C4-N3-C2	4.79	119.19	115.14
23	2K	55	5MU	C4-N3-C2	4.71	119.12	115.14
23	2K	56	PSU	C4-N3-C2	4.57	119.00	115.14
22	1K	37	T6A	C2-N1-C6	4.54	120.48	116.59
22	1K	55	PSU	C5-C1'-C2'	-4.51	107.28	115.32
22	1K	37	T6A	N6-C10-N11	4.45	119.98	113.76
22	1L	34	U8U	C5-C4-N3	-4.39	118.81	125.25
22	1L	54	5MU	C5-C6-N1	-4.25	117.62	122.19
23	2L	56	PSU	C5-C4-N3	-4.17	119.99	125.36
22	1L	39	PSU	C5-C4-N3	-4.01	120.19	125.36
22	1K	34	U8U	C5-C4-N3	-3.96	119.45	125.25
23	2L	47	G7M	C1'-N9-C4	-3.89	119.80	126.64
22	1K	39	PSU	C6-N1-C2	3.89	121.77	115.36
23	2L	55	5MU	C4-N3-C2	3.83	118.37	115.14
22	1L	37	T6A	N6-C10-N11	3.78	119.05	113.76
22	1L	37	T6A	O10-C10-N6	-3.76	117.27	123.62
22	1K	39	PSU	C5-C6-N1	-3.69	119.90	124.44
23	2K	56	PSU	C5-C4-N3	-3.69	120.61	125.36
22	1L	55	PSU	C6-N1-C2	3.68	121.43	115.36
23	2K	33	OMC	C2-N3-C4	3.66	120.05	116.34
23	2L	56	PSU	C6-N1-C2	3.57	121.24	115.36
22	1L	55	PSU	C5-C4-N3	-3.52	120.82	125.36
22	1K	54	5MU	C5-C6-N1	-3.51	118.41	122.19
23	2K	47	G7M	C1'-N9-C4	-3.50	120.50	126.64

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	2L	56	PSU	O4'-C1'-C5	3.46	115.28	109.93
23	2L	47	G7M	C2-N3-C4	3.43	119.28	115.36
22	1L	39	PSU	C6-N1-C2	3.42	121.00	115.36
23	2K	47	G7M	C5-C6-N1	-3.32	118.89	123.43
23	2K	33	OMC	N4-C4-N3	3.24	121.60	116.49
23	2L	33	OMC	C2-N3-C4	3.21	119.60	116.34
23	2L	56	PSU	C5-C6-N1	-3.16	120.55	124.44
22	1L	55	PSU	C5-C6-N1	-3.12	120.61	124.44
22	1K	39	PSU	C5-C4-N3	-3.05	121.43	125.36
23	2K	47	G7M	C2-N3-C4	3.02	118.81	115.36
23	2K	56	PSU	O4'-C1'-C5	-2.98	105.31	109.93
23	2L	33	OMC	N4-C4-N3	2.90	121.07	116.49
22	1K	37	T6A	C14-C12-N11	-2.89	104.33	111.72
23	2L	47	G7M	C5-C6-N1	-2.82	119.58	123.43
22	1K	37	T6A	O10-C10-N6	-2.79	118.90	123.62
23	2K	47	G7M	C6-N1-C2	2.79	120.36	115.93
23	2K	56	PSU	C5-C6-N1	-2.71	121.10	124.44
22	1K	55	PSU	C6-N1-C2	2.62	119.69	115.36
23	2L	8	4SU	C2-N3-C4	2.61	118.94	115.15
23	2K	8	4SU	C2-N3-C4	2.41	118.65	115.15
23	2L	47	G7M	C6-N1-C2	2.26	119.51	115.93
23	2L	47	G7M	N2-C2-N1	2.25	120.74	117.25
22	1L	55	PSU	C5-C1'-C2'	-2.22	111.36	115.32
22	1L	34	U8U	C6-C5-C4	2.18	119.09	115.73
23	2K	33	OMC	C5-C4-N4	-2.14	117.43	121.14
22	1K	34	U8U	C6-C5-C4	2.14	119.03	115.73
23	2L	33	OMC	C5-C4-N4	-2.11	117.47	121.14
22	1L	55	PSU	C4-C5-C1'	-2.11	117.14	121.12
22	1L	55	PSU	O4'-C1'-C2'	2.08	108.04	104.66
22	1K	37	T6A	C15-C14-C12	-2.02	108.22	112.30
22	1K	39	PSU	C5-C1'-C2'	-2.00	111.75	115.32

There are no chirality outliers.

All (13) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
22	1L	34	U8U	O4'-C4'-C5'-O5'
23	2K	33	OMC	C1'-C2'-O2'-CM2
23	2L	33	OMC	C2'-C1'-N1-C6
22	1L	34	U8U	C3'-C4'-C5'-O5'
23	2L	47	G7M	O4'-C4'-C5'-O5'
22	1L	37	T6A	C14-C12-N11-C10

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Mol	Chain	Res	Type	Atoms
22	1K	37	T6A	O4'-C4'-C5'-O5'
22	1K	37	T6A	C3'-C4'-C5'-O5'
22	1L	37	T6A	C5-C6-N6-C10
23	2L	56	PSU	C4'-C5'-O5'-P
22	1L	55	PSU	C4'-C5'-O5'-P
23	2L	47	G7M	C3'-C4'-C5'-O5'
23	2K	56	PSU	O4'-C4'-C5'-O5'

There are no ring outliers.

16 monomers are involved in 22 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
22	1K	54	5MU	1	0
22	1K	55	PSU	2	0
23	2L	56	PSU	2	0
22	1L	55	PSU	1	0
22	1L	34	U8U	1	0
23	2K	55	5MU	2	0
23	2L	47	G7M	2	0
23	2K	47	G7M	1	0
23	2K	33	OMC	1	0
22	1K	34	U8U	3	0
22	1L	54	5MU	1	0
22	1L	39	PSU	1	0
23	2L	33	OMC	1	0
23	2K	56	PSU	1	0
23	2L	55	5MU	2	0
23	2L	8	4SU	1	0

## 5.5 Carbohydrates

There are no carbohydrates in this entry.

## 5.6 Ligand geometry

Of 1409 ligands modelled in this entry, 1407 are monoatomic - leaving 2 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond



length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 2$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
57	SF4	3E	301	4	0,12,12	0.00	-	-		
57	SF4	32	302	4	0,12,12	0.00	-	-		

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
57	SF4	3E	301	4	-	-	0/6/5/5
57	SF4	32	302	4	-	-	0/6/5/5

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

1 monomer is involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
57	32	302	SF4	3	0

## 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
25	4K	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	4K	25:A	O3'	26:A	P	3.07

## 6 Fit of model and data ⓘ

### 6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95<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(Å²)	Q<0.9
1	13	1496/1519 (98%)	-0.23	4 (0%)	94	87	52, 95, 168, 235	0
1	1G	1506/1519 (99%)	-0.26	8 (0%)	91	81	67, 112, 176, 243	0
2	12	207/256 (80%)	0.54	20 (9%)	7	4	128, 159, 178, 183	0
2	1E	231/256 (90%)	0.19	13 (5%)	24	15	108, 138, 168, 172	0
3	22	195/239 (81%)	0.92	39 (20%)	1	0	119, 140, 163, 172	0
3	2E	205/239 (85%)	0.51	13 (6%)	20	11	82, 105, 135, 142	0
4	32	208/209 (99%)	0.65	24 (11%)	4	3	92, 113, 135, 140	0
4	3E	207/209 (99%)	0.22	12 (5%)	23	14	77, 104, 125, 136	0
5	42	149/162 (91%)	0.33	6 (4%)	38	25	97, 118, 134, 142	0
5	4E	149/162 (91%)	0.15	3 (2%)	65	48	76, 96, 115, 122	0
6	52	101/101 (100%)	-0.06	0	100	100	81, 99, 115, 130	0
6	5E	100/101 (99%)	0.33	2 (2%)	65	48	76, 97, 116, 122	0
7	62	140/156 (89%)	0.94	24 (17%)	1	1	108, 126, 138, 140	0
7	6E	154/156 (98%)	1.33	38 (24%)	0	0	96, 114, 144, 165	0
8	72	137/138 (99%)	0.55	14 (10%)	6	4	95, 123, 136, 143	0
8	7E	138/138 (100%)	0.93	24 (17%)	1	1	84, 104, 116, 127	0
9	82	121/128 (94%)	1.98	51 (42%)	0	0	109, 156, 170, 181	0
9	8E	126/128 (98%)	0.36	10 (7%)	12	7	80, 133, 153, 158	0
10	1A	80/105 (76%)	0.97	21 (26%)	0	0	114, 151, 163, 163	0
10	1I	95/105 (90%)	1.18	25 (26%)	0	0	76, 120, 160, 164	0
11	2A	113/129 (87%)	1.32	30 (26%)	0	0	78, 106, 120, 129	0
11	2I	111/129 (86%)	1.39	31 (27%)	0	0	69, 102, 117, 129	0
12	3A	122/132 (92%)	1.40	36 (29%)	0	0	80, 96, 120, 140	0
12	3I	122/132 (92%)	0.40	9 (7%)	14	8	61, 72, 100, 126	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
13	4A	111/126 (88%)	0.71	25 (22%) 0 0	112, 142, 159, 167	0
13	4I	119/126 (94%)	0.50	9 (7%) 13 7	81, 108, 129, 137	0
14	5A	59/61 (96%)	3.29	40 (67%) 0 0	124, 137, 150, 154	0
14	5I	60/61 (98%)	0.88	7 (11%) 4 2	77, 93, 107, 120	0
15	6A	87/89 (97%)	0.07	1 (1%) 80 65	78, 106, 118, 120	0
15	6I	87/89 (97%)	0.28	4 (4%) 32 20	73, 92, 109, 116	0
16	7A	84/88 (95%)	0.14	1 (1%) 79 63	88, 101, 121, 145	0
16	7I	83/88 (94%)	1.26	17 (20%) 1 0	93, 106, 134, 154	0
17	8A	99/105 (94%)	0.96	17 (17%) 1 1	90, 105, 120, 124	0
17	8I	100/105 (95%)	0.73	11 (11%) 5 3	85, 101, 110, 115	0
18	9A	67/88 (76%)	0.08	1 (1%) 73 57	89, 107, 126, 130	0
18	9I	68/88 (77%)	0.11	2 (2%) 51 35	83, 102, 124, 127	0
19	AA	62/93 (66%)	0.45	5 (8%) 12 6	132, 153, 166, 171	0
19	AI	82/93 (88%)	0.25	8 (9%) 7 4	83, 106, 127, 139	0
20	BA	99/106 (93%)	1.05	20 (20%) 1 0	84, 104, 131, 142	0
20	BI	97/106 (91%)	1.45	27 (27%) 0 0	98, 116, 141, 150	0
21	1B	22/27 (81%)	1.57	8 (36%) 0 0	118, 127, 133, 141	0
21	1F	23/27 (85%)	0.65	1 (4%) 35 22	84, 95, 101, 111	0
22	1K	67/76 (88%)	0.15	4 (5%) 21 13	76, 147, 198, 203	0
22	1L	64/76 (84%)	1.01	10 (15%) 2 1	108, 196, 215, 219	0
23	2K	72/77 (93%)	-0.13	0 100 100	64, 86, 118, 128	0
23	2L	72/77 (93%)	-0.01	0 100 100	73, 105, 137, 148	0
24	3K	70/76 (92%)	0.90	13 (18%) 1 0	71, 198, 240, 244	0
24	3L	72/76 (94%)	0.08	2 (2%) 53 36	77, 194, 224, 230	0
25	4K	21/27 (77%)	1.35	8 (38%) 0 0	67, 124, 208, 209	0
25	4L	19/27 (70%)	0.91	3 (15%) 2 1	86, 143, 217, 218	0
26	14	2855/2917 (97%)	-0.08	22 (0%) 86 73	45, 78, 200, 265	0
26	1H	2885/2917 (98%)	-0.09	9 (0%) 94 87	36, 66, 193, 330	0
27	16	122/122 (100%)	-0.53	1 (0%) 86 73	57, 82, 103, 188	0
27	1J	122/122 (100%)	-0.55	0 100 100	78, 110, 130, 191	0
28	7I	133/229 (58%)	1.05	24 (18%) 1 1	146, 216, 237, 244	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
28	79	57/229 (24%)	1.79	21 (36%) 0 0	146, 199, 221, 227	0
29	11	273/276 (98%)	0.36	2 (0%) 87 76	37, 59, 76, 92	0
29	19	274/276 (99%)	0.45	7 (2%) 56 39	46, 69, 87, 106	0
30	21	203/206 (98%)	0.60	14 (6%) 16 10	46, 80, 123, 134	0
30	29	204/206 (99%)	0.77	29 (14%) 2 1	53, 88, 124, 134	0
31	31	202/210 (96%)	0.68	16 (7%) 12 7	43, 72, 107, 128	0
31	39	204/210 (97%)	0.40	9 (4%) 34 21	51, 98, 144, 167	0
32	41	179/182 (98%)	0.81	25 (13%) 2 1	72, 93, 130, 142	0
32	49	181/182 (99%)	1.07	39 (21%) 0 0	106, 125, 148, 166	0
33	51	174/180 (96%)	0.09	7 (4%) 38 25	75, 98, 112, 124	0
33	59	70/180 (38%)	0.85	13 (18%) 1 0	136, 156, 178, 182	0
34	61	146/148 (98%)	0.45	12 (8%) 11 6	73, 123, 144, 151	0
34	69	145/148 (97%)	0.52	18 (12%) 4 2	83, 118, 146, 155	0
35	15	138/140 (98%)	1.23	32 (23%) 0 0	73, 99, 128, 143	0
35	58	137/140 (97%)	0.79	13 (9%) 8 5	61, 83, 118, 132	0
36	25	122/122 (100%)	0.97	16 (13%) 3 2	64, 81, 99, 111	0
36	68	122/122 (100%)	0.43	1 (0%) 86 73	53, 68, 85, 93	0
37	35	147/150 (98%)	0.56	9 (6%) 21 12	52, 95, 126, 140	0
37	78	147/150 (98%)	0.37	6 (4%) 37 24	42, 74, 98, 107	0
38	45	139/141 (98%)	0.72	18 (12%) 3 2	64, 95, 114, 130	0
38	88	141/141 (100%)	0.32	8 (5%) 23 14	49, 70, 92, 112	0
39	55	118/118 (100%)	0.55	5 (4%) 36 23	59, 74, 88, 106	0
39	98	118/118 (100%)	1.04	20 (16%) 1 1	58, 76, 93, 107	0
40	65	110/112 (98%)	1.02	22 (20%) 1 0	82, 104, 124, 131	0
40	A8	111/112 (99%)	1.00	13 (11%) 4 2	66, 82, 103, 110	0
41	75	133/146 (91%)	0.59	9 (6%) 17 10	77, 91, 124, 144	0
41	B8	136/146 (93%)	0.21	5 (3%) 41 27	64, 83, 122, 132	0
42	85	116/118 (98%)	0.51	5 (4%) 35 22	60, 87, 118, 120	0
42	C8	115/118 (97%)	0.40	3 (2%) 56 39	50, 73, 102, 109	0
43	95	100/101 (99%)	0.84	16 (16%) 1 1	58, 109, 127, 135	0
43	D8	100/101 (99%)	0.92	14 (14%) 2 1	52, 96, 116, 127	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
44	A5	111/113 (98%)	0.67	6 (5%) 25 16	55, 70, 94, 135	0
44	E8	110/113 (97%)	0.50	6 (5%) 25 15	51, 67, 91, 104	0
45	B5	94/96 (97%)	0.81	11 (11%) 4 2	62, 78, 98, 110	0
45	F8	95/96 (98%)	0.09	1 (1%) 80 65	47, 63, 90, 97	0
46	C5	104/110 (94%)	1.83	32 (30%) 0 0	85, 113, 147, 155	0
46	G8	103/110 (93%)	0.34	5 (4%) 29 18	66, 88, 118, 129	0
47	D5	133/206 (64%)	0.96	22 (16%) 1 1	102, 130, 153, 163	0
47	H8	170/206 (82%)	1.10	31 (18%) 1 1	76, 111, 188, 193	0
48	E5	76/85 (89%)	0.95	11 (14%) 2 1	56, 83, 96, 104	0
48	I8	77/85 (90%)	0.59	6 (7%) 13 7	45, 65, 78, 93	0
49	F5	94/98 (95%)	1.05	18 (19%) 1 0	59, 76, 106, 129	0
49	J8	94/98 (95%)	0.66	6 (6%) 19 11	46, 67, 110, 116	0
50	G5	69/72 (95%)	0.36	4 (5%) 23 14	77, 96, 116, 124	0
50	K8	68/72 (94%)	-0.02	1 (1%) 73 57	54, 72, 92, 114	0
51	H5	58/60 (96%)	1.84	24 (41%) 0 0	70, 90, 116, 124	0
51	L8	58/60 (96%)	0.49	3 (5%) 27 17	55, 74, 99, 111	0
52	M8	49/71 (69%)	1.67	15 (30%) 0 0	94, 136, 150, 166	0
53	J5	56/60 (93%)	0.63	5 (8%) 9 5	52, 77, 126, 137	0
53	N8	48/60 (80%)	0.48	2 (4%) 36 23	44, 77, 124, 127	0
54	L5	47/49 (95%)	0.16	1 (2%) 63 46	44, 55, 77, 97	0
54	P8	47/49 (95%)	-0.00	0 100 100	40, 46, 68, 76	0
55	M5	64/65 (98%)	1.05	9 (14%) 2 1	62, 73, 88, 112	0
55	Q8	64/65 (98%)	0.42	3 (4%) 31 20	47, 60, 76, 88	0
All	All	20647/21961 (94%)	0.32	1406 (6%) 17 10	36, 93, 171, 330	0

All (1406) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
46	C5	58	GLY	12.3
26	14	2902	C	12.1
26	14	2901	C	11.2
43	D8	37	VAL	10.9
40	A8	110	LEU	10.1
26	14	2899	G	9.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
22	1L	76	A	9.6
14	5A	39	LEU	9.6
26	14	2900	A	9.3
14	5A	34	TYR	9.0
46	C5	47	LYS	9.0
46	C5	59	GLY	9.0
14	5A	38	GLY	8.7
46	C5	49	VAL	8.5
28	71	175	VAL	8.4
12	3A	28	LYS	8.4
14	5A	51	GLY	8.4
52	M8	40	HIS	8.3
12	3A	64	TYR	8.2
30	21	88	GLY	7.9
9	82	115	GLY	7.8
7	6E	82	GLY	7.8
37	35	110	TYR	7.7
7	6E	84	ASN	7.6
14	5A	25	VAL	7.4
28	79	47	LEU	7.4
22	1L	71	C	7.3
40	65	108	GLY	7.3
14	5A	37	PHE	7.1
25	4K	13	A	7.1
7	6E	81	GLY	7.1
46	C5	46	LYS	6.9
14	5A	41	ARG	6.9
49	J8	94	LEU	6.9
14	5A	26	ARG	6.9
30	29	77	ILE	6.9
22	1K	76	A	6.9
7	6E	85	TYR	6.8
12	3A	20	LYS	6.7
26	14	2795	G	6.6
46	C5	60	PHE	6.5
14	5A	53	LEU	6.5
32	49	39	ILE	6.4
14	5A	44	LEU	6.3
46	C5	53	PRO	6.2
13	4I	6	GLY	6.2
28	71	11	LEU	6.2
10	1A	54	PHE	6.0

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Mol	Chain	Res	Type	RSRZ
46	C5	44	ILE	6.0
32	49	139	LEU	6.0
46	C5	29	GLU	6.0
7	6E	79	ARG	6.0
24	3K	36	U	5.9
46	C5	50	ARG	5.8
52	M8	41	PRO	5.8
9	82	116	LYS	5.8
34	69	1	MET	5.7
46	C5	63	LYS	5.7
12	3A	19	ARG	5.7
13	4A	102	ARG	5.7
33	59	169	VAL	5.6
12	3A	27	LEU	5.6
10	1A	62	HIS	5.6
28	79	202	GLU	5.6
47	D5	9	TYR	5.6
22	1L	1	G	5.6
29	19	26	LYS	5.6
31	39	10	PRO	5.5
3	22	60	ALA	5.5
50	G5	44	LEU	5.5
10	1A	47	PHE	5.5
12	3A	21	LYS	5.5
3	22	155	GLY	5.5
9	82	109	VAL	5.5
10	1A	65	LEU	5.5
26	14	2897	U	5.4
45	B5	92	LEU	5.4
47	D5	68	PRO	5.3
10	1A	59	SER	5.3
7	6E	5	ARG	5.2
46	C5	61	ILE	5.2
46	C5	45	VAL	5.2
9	82	59	PHE	5.2
11	2A	75	TYR	5.2
7	6E	83	ALA	5.2
28	71	228	SER	5.1
14	5A	46	GLU	5.1
40	65	109	GLY	5.1
7	6E	78	ARG	5.1
39	55	101	ALA	5.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
8	7E	119	LEU	5.1
22	1L	74	C	5.1
40	65	20	ARG	5.1
52	M8	31	ILE	5.1
14	5A	31	ARG	5.1
28	79	19	ILE	5.0
49	F5	28	GLY	5.0
10	1A	49	VAL	4.9
26	14	2802	G	4.8
9	82	55	ALA	4.8
14	5A	36	PHE	4.8
45	B5	69	TYR	4.8
12	3I	64	TYR	4.8
34	61	107	VAL	4.8
9	82	52	ALA	4.8
28	71	27	HIS	4.8
48	E5	8	GLY	4.8
14	5A	35	ARG	4.8
2	12	62	ALA	4.8
12	3I	19	ARG	4.7
7	6E	154	TYR	4.7
43	D8	38	LEU	4.7
32	41	23	PHE	4.7
3	22	94	LEU	4.7
32	49	142	PRO	4.7
16	7I	32	TYR	4.7
39	98	114	VAL	4.6
14	5A	42	ILE	4.6
40	65	60	GLY	4.6
38	45	105	GLU	4.6
45	B5	89	ILE	4.6
26	14	2898	U	4.6
43	D8	1	MET	4.6
26	14	229	A	4.6
52	M8	22	ILE	4.5
10	1I	22	LYS	4.5
11	2I	25	TYR	4.5
33	59	170	ARG	4.5
9	82	53	VAL	4.5
12	3A	32	PHE	4.5
25	4K	14	A	4.5
32	41	80	PHE	4.5

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Mol	Chain	Res	Type	RSRZ
21	1B	2	GLY	4.5
51	H5	26	LEU	4.5
14	5A	23	ARG	4.5
47	H8	96	VAL	4.5
16	7I	7	ALA	4.5
10	1A	63	PHE	4.4
36	25	1	MET	4.4
55	M5	40	GLU	4.4
48	E5	9	SER	4.4
13	4I	96	LEU	4.4
47	H8	70	LEU	4.4
3	22	102	ASN	4.4
35	15	51	PHE	4.4
24	3K	34	U	4.4
3	2E	193	TYR	4.3
30	29	76	ARG	4.3
22	1L	75	C	4.3
35	58	72	TYR	4.3
47	H8	38	TYR	4.3
33	59	153	LYS	4.3
3	22	39	ILE	4.3
9	82	71	SER	4.3
13	4I	120	LYS	4.3
30	29	56	PRO	4.3
20	BI	55	ILE	4.3
46	C5	5	MET	4.3
13	4A	98	VAL	4.3
37	35	71	VAL	4.3
20	BA	104	LEU	4.2
22	1L	73	A	4.2
20	BI	44	ALA	4.2
51	H5	30	ARG	4.2
9	82	102	LEU	4.2
47	H8	147	GLY	4.2
13	4A	103	THR	4.2
14	5A	32	SER	4.2
30	29	151	TYR	4.2
32	49	182	LYS	4.2
28	71	193	ILE	4.2
47	D5	69	THR	4.2
35	15	84	LYS	4.1
31	31	133	ASN	4.1

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Mol	Chain	Res	Type	RSRZ
8	72	112	LEU	4.1
32	49	138	GLN	4.1
14	5A	56	VAL	4.1
28	79	7	TYR	4.1
40	65	112	PHE	4.1
17	8A	11	VAL	4.1
11	2I	50	TYR	4.0
46	C5	30	VAL	4.0
47	D5	57	ILE	4.0
12	3A	62	SER	4.0
14	5A	49	HIS	4.0
32	41	88	ILE	4.0
20	BI	43	LEU	4.0
52	M8	34	GLU	4.0
20	BI	101	GLY	4.0
9	82	79	LEU	4.0
12	3I	61	THR	4.0
43	95	1	MET	4.0
46	G8	89	PHE	4.0
2	12	164	VAL	4.0
20	BI	41	ILE	4.0
9	82	106	ALA	4.0
34	61	146	ALA	4.0
3	22	101	LEU	4.0
21	1B	14	TRP	4.0
51	H5	28	LEU	4.0
28	71	21	THR	4.0
47	H8	113	ALA	4.0
14	5A	47	LEU	4.0
11	2A	95	ILE	3.9
32	41	52	ILE	3.9
9	82	62	TYR	3.9
38	45	103	MET	3.9
6	5E	46	ARG	3.9
31	31	6	VAL	3.9
17	8A	9	VAL	3.9
45	B5	47	PHE	3.9
13	4A	94	ARG	3.9
21	1B	6	ARG	3.9
41	75	106	SER	3.9
9	82	36	TYR	3.9
10	1I	90	LEU	3.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
49	J8	92	LYS	3.9
28	71	12	GLU	3.9
28	71	176	GLY	3.9
20	BI	72	LEU	3.9
32	49	152	LEU	3.9
32	49	34	LEU	3.8
34	69	12	LEU	3.8
10	1A	57	LYS	3.8
14	5A	50	LYS	3.8
12	3A	84	LEU	3.8
34	69	20	ASP	3.8
53	J5	56	LYS	3.8
11	2A	25	TYR	3.8
12	3A	30	ALA	3.8
40	A8	68	GLN	3.8
34	69	3	VAL	3.8
40	65	57	LYS	3.8
13	4A	118	ALA	3.8
46	C5	65	ALA	3.8
16	7I	36	ILE	3.8
12	3A	69	TYR	3.8
5	42	109	ILE	3.8
51	H5	6	VAL	3.8
14	5I	13	THR	3.8
40	A8	48	LEU	3.8
11	2A	96	ARG	3.8
1	13	1536	C	3.8
20	BA	42	GLN	3.8
55	M5	12	LYS	3.7
38	88	104	PHE	3.7
8	72	133	LEU	3.7
10	1A	56	HIS	3.7
11	2A	92	GLU	3.7
28	71	31	GLU	3.7
13	4A	111	LYS	3.7
1	1G	82	U	3.7
28	71	25	ALA	3.7
2	12	102	LEU	3.7
9	82	54	ASP	3.7
14	5A	30	ALA	3.7
51	H5	2	PRO	3.7
7	6E	80	VAL	3.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
40	A8	49	VAL	3.7
9	82	87	GLN	3.7
33	59	171	LEU	3.7
12	3A	33	ARG	3.7
32	49	23	PHE	3.7
10	1I	72	VAL	3.7
49	J8	95	LEU	3.7
31	31	134	GLY	3.6
22	1K	73	A	3.6
52	M8	32	TYR	3.6
8	7E	112	LEU	3.6
33	59	162	ILE	3.6
10	1A	61	GLU	3.6
47	D5	11	GLU	3.6
12	3A	68	ALA	3.6
11	2A	21	ILE	3.6
38	45	104	PHE	3.6
28	79	209	LEU	3.6
47	D5	70	LEU	3.6
24	3L	34	U	3.6
2	1E	14	GLY	3.6
32	49	62	LEU	3.6
3	22	177	THR	3.6
2	12	165	VAL	3.6
3	22	198	VAL	3.6
7	62	17	VAL	3.6
17	8I	36	ILE	3.6
17	8A	22	LEU	3.6
7	62	37	ASN	3.6
8	7E	137	VAL	3.6
7	62	41	ARG	3.6
28	71	13	LYS	3.5
39	98	87	TYR	3.5
3	2E	91	LEU	3.5
17	8A	8	GLY	3.5
22	1L	3	G	3.5
40	A8	58	LEU	3.5
20	BA	9	ASN	3.5
3	2E	94	LEU	3.5
16	7I	6	LEU	3.5
46	C5	52	SER	3.5
11	2A	31	THR	3.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
4	3E	96	LEU	3.5
17	8A	23	VAL	3.5
38	45	102	VAL	3.5
24	3K	45	G	3.5
47	D5	28	MET	3.5
28	79	56	GLN	3.5
9	82	123	PRO	3.5
10	1A	46	ARG	3.5
11	2I	96	ARG	3.5
32	49	178	PHE	3.5
16	7I	19	ILE	3.5
7	6E	56	GLN	3.5
47	D5	12	GLY	3.5
54	L5	1	MET	3.5
40	65	58	LEU	3.5
32	49	82	LEU	3.5
10	1I	33	GLN	3.5
10	1I	94	VAL	3.5
9	82	32	ASP	3.5
8	7E	131	GLY	3.5
30	29	3	GLY	3.5
28	79	198	ALA	3.5
30	21	78	LEU	3.5
14	5A	52	GLN	3.5
11	2I	42	TRP	3.4
13	4I	56	LEU	3.4
52	M8	25	TYR	3.4
11	2I	82	VAL	3.4
26	1H	2799	A	3.4
9	82	56	LEU	3.4
4	32	68	TYR	3.4
47	H8	106	GLY	3.4
53	J5	55	ARG	3.4
11	2I	81	ASP	3.4
51	H5	58	VAL	3.4
14	5A	55	GLY	3.4
2	12	131	PRO	3.4
28	79	54	SER	3.4
43	95	4	ILE	3.4
11	2A	91	ARG	3.4
52	M8	5	ILE	3.4
52	M8	20	ASN	3.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
3	22	23	TYR	3.4
14	5A	6	LEU	3.3
46	C5	56	PRO	3.3
32	41	146	TYR	3.3
11	2I	98	LEU	3.3
32	49	179	PRO	3.3
2	12	152	PHE	3.3
42	C8	83	LEU	3.3
3	2E	60	ALA	3.3
41	B8	106	SER	3.3
35	15	8	GLN	3.3
4	32	70	ILE	3.3
11	2A	17	GLY	3.3
2	1E	96	ARG	3.3
28	79	9	ALA	3.3
20	BI	91	LEU	3.3
7	62	42	ILE	3.3
9	82	65	VAL	3.3
17	8A	21	VAL	3.3
30	21	89	ASP	3.3
7	6E	110	GLN	3.3
24	3K	65	C	3.3
49	F5	95	LEU	3.3
11	2I	71	LYS	3.3
50	G5	43	GLN	3.3
9	82	92	TYR	3.3
32	49	25	TYR	3.3
34	69	35	LEU	3.3
40	65	56	LEU	3.3
20	BA	41	ILE	3.3
34	69	83	ALA	3.3
2	12	133	LYS	3.3
55	M5	34	TRP	3.3
35	15	1	MET	3.3
2	12	33	TYR	3.2
55	M5	64	TYR	3.2
16	7I	35	LYS	3.2
26	1H	1536	A	3.2
2	1E	10	LEU	3.2
10	1I	65	LEU	3.2
10	1I	71	LEU	3.2
30	29	73	GLU	3.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
24	3K	33	U	3.2
4	32	186	LEU	3.2
43	D8	53	GLU	3.2
28	79	49	ILE	3.2
43	D8	99	ILE	3.2
3	22	7	PRO	3.2
35	15	73	THR	3.2
44	E8	107	LEU	3.2
47	D5	55	HIS	3.2
2	1E	188	ALA	3.2
9	82	110	GLU	3.2
11	2I	62	GLN	3.2
24	3L	1	G	3.2
31	39	14	PRO	3.2
9	82	19	LEU	3.2
51	H5	8	LEU	3.2
35	58	61	ARG	3.2
11	2A	109	VAL	3.2
20	BI	59	ALA	3.2
13	4A	101	GLN	3.2
10	1I	8	LEU	3.2
22	1K	74	C	3.2
32	49	150	ASP	3.2
35	15	12	ARG	3.2
35	15	87	LEU	3.2
38	45	68	ILE	3.2
9	82	114	TYR	3.2
46	C5	75	ILE	3.2
2	12	197	VAL	3.2
4	32	178	VAL	3.2
9	8E	126	SER	3.2
12	3A	23	LYS	3.2
32	41	139	LEU	3.2
43	95	44	LYS	3.2
4	32	110	PHE	3.2
4	32	168	ARG	3.2
4	32	169	LYS	3.2
29	11	111	LEU	3.2
39	98	118	GLU	3.2
7	6E	131	LYS	3.1
28	79	167	LYS	3.1
46	G8	92	ASN	3.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
16	7I	48	TRP	3.1
44	E8	92	ARG	3.1
35	15	9	VAL	3.1
32	49	161	THR	3.1
51	L8	57	GLU	3.1
3	22	64	VAL	3.1
3	22	100	ALA	3.1
12	3A	55	VAL	3.1
33	59	165	ALA	3.1
46	C5	48	ALA	3.1
8	72	2	LEU	3.1
47	H8	155	LEU	3.1
51	L8	53	LEU	3.1
14	5A	58	LYS	3.1
28	71	181	PRO	3.1
35	15	92	ALA	3.1
53	J5	45	VAL	3.1
32	49	83	ARG	3.1
46	C5	101	LYS	3.1
47	H8	107	THR	3.1
28	71	19	ILE	3.1
30	21	4	ILE	3.1
8	7E	47	GLY	3.1
49	F5	71	TYR	3.1
33	51	9	ILE	3.1
9	82	30	GLY	3.1
32	49	15	VAL	3.1
32	49	175	LEU	3.1
47	D5	91	LEU	3.1
12	3A	85	ILE	3.1
28	71	170	ALA	3.1
30	29	75	VAL	3.1
37	35	138	LEU	3.1
13	4I	102	ARG	3.1
8	7E	109	ILE	3.1
33	59	164	TYR	3.1
43	95	5	VAL	3.0
3	22	164	ARG	3.0
8	72	107	LEU	3.0
2	12	155	LEU	3.0
3	22	43	LEU	3.0
7	6E	149	ARG	3.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
30	21	67	PHE	3.0
12	3A	18	VAL	3.0
32	49	92	VAL	3.0
14	5I	29	ARG	3.0
28	71	35	ALA	3.0
32	49	94	LEU	3.0
39	98	98	LEU	3.0
2	12	19	HIS	3.0
16	7I	66	PRO	3.0
39	98	33	ARG	3.0
46	C5	86	ARG	3.0
51	H5	9	VAL	3.0
14	5A	48	ALA	3.0
19	AI	71	LEU	3.0
32	49	177	GLY	3.0
10	1A	58	ASP	3.0
9	82	20	ARG	3.0
9	82	17	VAL	3.0
13	4A	117	VAL	3.0
14	5I	25	VAL	3.0
17	8I	95	TYR	3.0
2	12	163	PHE	3.0
11	2I	66	LEU	3.0
24	3K	12	U	3.0
28	71	182	PRO	3.0
26	14	2797	U	3.0
32	49	133	LEU	3.0
10	1I	25	GLU	3.0
17	8I	10	VAL	3.0
11	2I	75	TYR	3.0
13	4A	97	PRO	3.0
10	1A	51	ARG	3.0
12	3A	29	GLY	3.0
17	8A	91	ARG	3.0
40	65	33	LYS	3.0
12	3A	65	GLU	3.0
17	8I	29	HIS	3.0
30	29	28	ALA	2.9
7	6E	72	ARG	2.9
12	3A	60	LEU	2.9
28	71	8	ARG	2.9
53	J5	54	GLY	2.9

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Mol	Chain	Res	Type	RSRZ
39	98	115	GLU	2.9
30	29	150	VAL	2.9
35	15	98	VAL	2.9
9	82	94	ALA	2.9
10	1I	79	ARG	2.9
16	7I	59	TRP	2.9
17	8A	7	THR	2.9
47	H8	149	SER	2.9
46	C5	54	LYS	2.9
7	6E	22	LEU	2.9
20	BI	40	ALA	2.9
13	4A	95	GLY	2.9
39	55	29	LEU	2.9
17	8A	95	TYR	2.9
46	G8	91	GLU	2.9
11	2I	48	ILE	2.9
47	H8	148	ASP	2.9
35	15	46	VAL	2.9
40	A8	105	ALA	2.9
49	F5	60	PHE	2.9
25	4L	25	A	2.9
26	14	2799	A	2.9
17	8A	32	TYR	2.9
11	2A	83	ILE	2.9
35	15	41	ASP	2.9
40	65	35	ILE	2.9
3	22	10	PHE	2.9
51	H5	4	LEU	2.9
20	BA	98	PRO	2.9
51	H5	44	ARG	2.9
7	62	30	ILE	2.9
4	3E	110	PHE	2.9
5	42	31	LEU	2.9
18	9I	78	LEU	2.9
38	88	136	ALA	2.9
12	3I	17	LYS	2.9
26	1H	163	U	2.9
51	H5	12	PRO	2.9
21	1B	22	ARG	2.9
35	15	72	TYR	2.9
45	B5	18	TYR	2.9
33	59	76	VAL	2.9

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Mol	Chain	Res	Type	RSRZ
34	61	70	GLU	2.9
51	H5	59	VAL	2.9
10	1A	48	THR	2.9
11	2I	63	LEU	2.9
20	BI	21	LYS	2.9
26	14	1509	C	2.9
32	49	135	LEU	2.9
20	BI	18	GLN	2.9
33	59	168	PRO	2.9
55	Q8	64	TYR	2.9
3	2E	76	VAL	2.9
55	M5	22	VAL	2.9
2	12	101	MET	2.9
11	2I	74	ALA	2.9
28	71	28	LEU	2.9
45	B5	68	ARG	2.9
18	9A	84	LYS	2.9
28	79	171	ILE	2.9
35	15	85	ILE	2.9
48	E5	26	TYR	2.9
7	62	146	GLU	2.9
7	62	101	LEU	2.9
25	4L	10	G	2.9
31	39	124	LEU	2.9
17	8A	59	ILE	2.8
28	71	49	ILE	2.8
45	B5	26	TYR	2.8
10	1I	60	ARG	2.8
47	D5	37	VAL	2.8
14	5A	10	ALA	2.8
31	39	22	ALA	2.8
3	22	8	ILE	2.8
26	14	2798	C	2.8
26	14	2896	C	2.8
40	A8	112	PHE	2.8
37	35	126	VAL	2.8
51	H5	10	LYS	2.8
47	D5	50	GLN	2.8
33	51	16	SER	2.8
14	5A	17	LYS	2.8
26	1H	2795	G	2.8
8	7E	53	VAL	2.8

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Mol	Chain	Res	Type	RSRZ
17	8A	98	LEU	2.8
7	6E	139	GLU	2.8
36	25	2	ILE	2.8
30	29	78	LEU	2.8
45	F8	92	LEU	2.8
31	39	128	ALA	2.8
30	29	141	ILE	2.8
49	F5	7	ILE	2.8
2	1E	148	TYR	2.8
20	BA	72	LEU	2.8
30	29	116	VAL	2.8
31	39	199	TRP	2.8
24	3K	15	G	2.8
35	58	51	PHE	2.8
41	75	50	ILE	2.8
48	I8	69	PHE	2.8
3	22	6	HIS	2.8
20	BI	46	GLU	2.8
9	8E	127	LYS	2.8
20	BI	92	LEU	2.8
43	95	74	LYS	2.8
35	15	13	TRP	2.8
8	72	83	ILE	2.8
16	7I	4	ILE	2.8
17	8A	36	ILE	2.8
3	22	190	ARG	2.8
34	61	113	ARG	2.8
38	45	65	PHE	2.8
52	M8	37	SER	2.8
4	32	176	LEU	2.8
13	4A	96	LEU	2.8
35	15	130	HIS	2.8
43	D8	40	LEU	2.8
27	16	1(M)	A	2.7
7	6E	76	ARG	2.7
11	2A	32	ILE	2.7
20	BI	86	ARG	2.7
40	65	40	ILE	2.7
22	1L	2	G	2.7
40	65	46	VAL	2.7
46	C5	42	VAL	2.7
21	1B	10	ARG	2.7

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Mol	Chain	Res	Type	RSRZ
7	62	26	PHE	2.7
7	62	16	LEU	2.7
8	7E	63	LEU	2.7
14	5A	29	ARG	2.7
16	7I	22	THR	2.7
19	AI	48	THR	2.7
46	C5	55	TYR	2.7
49	F5	10	LYS	2.7
5	42	45	PHE	2.7
11	2I	21	ILE	2.7
45	B5	28	PHE	2.7
7	62	12	LEU	2.7
11	2I	47	VAL	2.7
17	8A	10	VAL	2.7
34	61	77	LEU	2.7
3	22	154	SER	2.7
14	5A	59	ALA	2.7
46	C5	2	ARG	2.7
1	1G	1029	G	2.7
3	22	193	TYR	2.7
12	3A	16	GLU	2.7
33	51	83	TYR	2.7
28	79	165	ASN	2.7
19	AA	62	ILE	2.7
7	6E	103	TRP	2.7
2	1E	15	VAL	2.7
20	BA	13	LEU	2.7
3	22	89	GLU	2.7
32	41	137	GLU	2.7
38	45	93	TYR	2.7
9	82	7	THR	2.7
30	29	69	LYS	2.7
32	41	82	LEU	2.7
36	25	43	VAL	2.7
36	25	42	SER	2.7
43	D8	54	GLY	2.7
44	A5	38	TYR	2.7
47	H8	1	MET	2.7
40	A8	87	PHE	2.7
40	65	83	LYS	2.7
43	D8	44	LYS	2.7
46	C5	31	LEU	2.7

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Mol	Chain	Res	Type	RSRZ
11	2A	42	TRP	2.7
43	D8	3	ALA	2.7
49	F5	8	SER	2.7
4	32	185	PHE	2.7
32	49	140	ILE	2.7
35	15	43	THR	2.7
36	25	65	THR	2.7
51	H5	3	ARG	2.7
7	6E	12	LEU	2.7
12	3A	66	VAL	2.7
15	6I	60	VAL	2.7
20	BI	20	LEU	2.7
24	3K	27	G	2.7
25	4K	10	G	2.7
9	82	84	ALA	2.7
32	49	36	LYS	2.7
47	H8	153	SER	2.7
5	42	133	TYR	2.7
7	62	94	ARG	2.7
33	51	170	ARG	2.7
32	49	5	VAL	2.7
32	49	176	LEU	2.7
55	Q8	60	LEU	2.7
8	72	16	ALA	2.7
9	82	82	ALA	2.7
9	82	111	ARG	2.7
14	5A	60	SER	2.6
20	BI	70	SER	2.6
10	1I	96	ILE	2.6
14	5A	21	TYR	2.6
34	61	130	TYR	2.6
20	BI	45	GLN	2.6
44	E8	69	LEU	2.6
30	21	91	VAL	2.6
37	78	71	VAL	2.6
26	1H	2798	C	2.6
35	15	44	PRO	2.6
11	2I	65	ALA	2.6
2	12	92	TYR	2.6
20	BA	48	LYS	2.6
24	3K	6	G	2.6
25	4L	9	G	2.6

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Mol	Chain	Res	Type	RSRZ
42	C8	80	ILE	2.6
43	95	43	GLU	2.6
47	H8	156	LYS	2.6
5	42	12	LEU	2.6
40	65	73	LEU	2.6
43	D8	52	VAL	2.6
47	H8	164	ALA	2.6
2	12	134	GLU	2.6
9	82	50	LEU	2.6
34	61	116	LEU	2.6
34	61	140	LEU	2.6
47	D5	8	TYR	2.6
28	79	169	GLY	2.6
38	45	19	GLY	2.6
11	2A	108	ILE	2.6
14	5A	45	ARG	2.6
32	49	146	TYR	2.6
39	55	100	LEU	2.6
48	E5	75	LEU	2.6
20	BI	95	ALA	2.6
39	98	102	GLU	2.6
8	7E	13	ILE	2.6
17	8A	75	ARG	2.6
38	45	6	ARG	2.6
10	1I	85	LEU	2.6
47	D5	163	LEU	2.6
7	6E	60	LYS	2.6
11	2A	14	VAL	2.6
16	7I	53	VAL	2.6
28	79	20	TYR	2.6
9	82	76	ALA	2.6
10	1A	64	GLU	2.6
34	69	80	PRO	2.6
48	I8	82	ARG	2.6
3	22	93	LYS	2.6
8	7E	46	LYS	2.6
10	1A	55	LYS	2.6
43	95	39	LEU	2.6
30	29	175	VAL	2.6
37	78	110	TYR	2.6
43	95	12	TYR	2.6
53	N8	34	PRO	2.6

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Mol	Chain	Res	Type	RSRZ
1	13	344	A	2.6
10	1I	38	ILE	2.6
35	58	85	ILE	2.6
49	F5	91	LYS	2.6
1	1G	1226	C	2.6
13	4A	92	HIS	2.6
19	AA	44	MET	2.6
32	41	34	LEU	2.6
37	35	106	LEU	2.6
11	2A	20	TYR	2.6
43	95	15	GLU	2.6
4	3E	131	ARG	2.6
7	62	39	ALA	2.6
12	3A	31	PRO	2.6
47	H8	109	ALA	2.6
49	F5	62	VAL	2.6
4	3E	111	ALA	2.6
9	82	18	PHE	2.6
9	8E	19	LEU	2.5
24	3K	35	U	2.5
30	21	195	LEU	2.5
31	31	124	LEU	2.5
41	75	99	LEU	2.5
47	H8	5	LEU	2.5
30	29	198	VAL	2.5
32	49	10	LYS	2.5
1	1G	1202	G	2.5
8	7E	58	TYR	2.5
11	2A	50	TYR	2.5
9	8E	52	ALA	2.5
32	49	80	PHE	2.5
20	BA	55	ILE	2.5
34	61	109	ILE	2.5
3	22	15	THR	2.5
41	75	105	LEU	2.5
7	6E	153	HIS	2.5
20	BA	8	ARG	2.5
21	1F	6	ARG	2.5
45	B5	5	TYR	2.5
4	32	23	GLY	2.5
31	31	172	TRP	2.5
32	41	135	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
34	69	72	LEU	2.5
38	88	17	LEU	2.5
7	6E	62	PHE	2.5
19	AI	74	PHE	2.5
22	1K	71	C	2.5
28	71	33	ALA	2.5
48	I8	26	TYR	2.5
32	41	26	GLN	2.5
8	7E	134	ILE	2.5
10	1I	50	ILE	2.5
30	21	5	LEU	2.5
30	29	67	PHE	2.5
19	AA	75	ALA	2.5
22	1L	70	C	2.5
28	79	204	ALA	2.5
35	15	124	ALA	2.5
8	72	74	PRO	2.5
32	49	181	ARG	2.5
3	22	32	LEU	2.5
4	3E	176	LEU	2.5
7	6E	16	LEU	2.5
39	98	116	LEU	2.5
1	1G	1450	U	2.5
40	A8	85	VAL	2.5
40	65	85	VAL	2.5
35	58	73	THR	2.5
2	12	129	GLU	2.5
33	59	166	GLY	2.5
4	32	146	ILE	2.5
8	72	86	ILE	2.5
43	D8	36	PRO	2.5
3	22	196	LEU	2.5
32	41	103	LEU	2.5
34	69	114	LEU	2.5
16	7I	1	MET	2.5
4	32	34	GLU	2.5
47	H8	104	PHE	2.5
47	D5	79	ARG	2.5
2	1E	232	PRO	2.5
10	1I	88	LEU	2.5
34	69	140	LEU	2.5
44	A5	6	ILE	2.5

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Mol	Chain	Res	Type	RSRZ
7	62	32	ARG	2.5
10	1I	64	GLU	2.5
52	M8	13	ARG	2.5
30	21	90	THR	2.5
30	29	48	GLN	2.5
32	49	151	ALA	2.5
49	F5	66	HIS	2.5
8	7E	59	LEU	2.5
7	6E	144	MET	2.5
42	85	90	VAL	2.5
7	6E	140	ASP	2.5
9	82	37	PHE	2.5
28	71	5	LYS	2.5
29	11	112	GLN	2.5
38	45	92	GLY	2.5
19	AA	63	THR	2.5
28	79	21	THR	2.5
51	H5	5	LYS	2.5
2	1E	80	ILE	2.5
30	29	49	LEU	2.5
31	31	196	LEU	2.5
35	15	116	LEU	2.5
39	98	29	LEU	2.5
35	15	134	ARG	2.4
20	BA	14	LYS	2.4
51	H5	20	LYS	2.4
10	1I	46	ARG	2.4
13	4A	104	ARG	2.4
34	69	4	ILE	2.4
35	58	15	LEU	2.4
36	25	87	ILE	2.4
10	1I	91	PRO	2.4
5	42	121	LYS	2.4
11	2A	30	VAL	2.4
26	14	280	C	2.4
47	H8	88	PHE	2.4
1	1G	1451	A	2.4
4	3E	139	ARG	2.4
20	BI	16	HIS	2.4
10	1A	44	VAL	2.4
17	8I	71	PHE	2.4
43	95	14	VAL	2.4

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Mol	Chain	Res	Type	RSRZ
49	F5	4	VAL	2.4
11	2A	36	ASP	2.4
41	75	103	ARG	2.4
7	62	38	LEU	2.4
11	2I	103	LEU	2.4
20	BA	53	LEU	2.4
20	BA	62	LEU	2.4
26	1H	2476	A	2.4
30	29	181	LEU	2.4
31	31	9	ILE	2.4
31	31	181	LEU	2.4
49	F5	92	LYS	2.4
50	G5	41	ILE	2.4
7	62	18	TYR	2.4
16	7A	32	TYR	2.4
29	19	67	PHE	2.4
8	72	9	MET	2.4
38	88	33	GLY	2.4
45	B5	79	ALA	2.4
49	F5	69	LYS	2.4
8	7E	48	TYR	2.4
47	H8	165	VAL	2.4
13	4A	82	MET	2.4
28	79	203	GLY	2.4
44	E8	68	ARG	2.4
4	32	166	LYS	2.4
10	1I	21	GLN	2.4
14	5A	24	CYS	2.4
4	3E	97	LEU	2.4
8	7E	133	LEU	2.4
21	1B	13	ILE	2.4
26	14	1099	G	2.4
3	22	153	VAL	2.4
7	6E	43	PHE	2.4
7	62	85	TYR	2.4
13	4A	87	TYR	2.4
10	1I	93	GLY	2.4
13	4A	108	ARG	2.4
14	5A	22	THR	2.4
30	29	51	PHE	2.4
35	58	74	ARG	2.4
9	82	40	LEU	2.4

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Mol	Chain	Res	Type	RSRZ
34	69	38	LEU	2.4
40	A8	80	LEU	2.4
31	31	17	ARG	2.4
2	12	72	GLY	2.4
8	7E	65	TYR	2.4
28	71	14	VAL	2.4
39	98	93	GLY	2.4
39	98	94	TYR	2.4
47	H8	86	VAL	2.4
31	31	199	TRP	2.4
30	29	81	ILE	2.4
32	41	152	LEU	2.4
34	61	79	ILE	2.4
38	45	34	LEU	2.4
10	1A	34	VAL	2.4
46	C5	62	GLU	2.4
3	2E	101	LEU	2.4
8	7E	45	ILE	2.4
9	82	63	ILE	2.4
9	82	78	LYS	2.4
12	3I	20	LYS	2.4
13	4A	88	ARG	2.4
20	BI	87	LYS	2.4
40	65	24	LEU	2.4
46	C5	88	LYS	2.4
51	H5	35	ARG	2.4
2	12	122	PHE	2.3
42	85	72	HIS	2.3
3	22	37	GLN	2.3
14	5A	54	PRO	2.3
35	15	86	PRO	2.3
14	5I	22	THR	2.3
19	AI	75	ALA	2.3
38	45	10	ARG	2.3
45	B5	88	LYS	2.3
9	82	47	LEU	2.3
41	B8	104	ASN	2.3
49	F5	2	SER	2.3
26	14	2801	A	2.3
35	58	16	ILE	2.3
3	22	186	PHE	2.3
26	14	277	C	2.3

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Mol	Chain	Res	Type	RSRZ
35	15	80	GLY	2.3
40	65	87	PHE	2.3
2	1E	165	VAL	2.3
34	69	21	VAL	2.3
41	B8	34	VAL	2.3
7	6E	151	TYR	2.3
14	5A	11	LYS	2.3
40	A8	44	LYS	2.3
7	6E	32	ARG	2.3
10	1A	66	ARG	2.3
11	2I	73	MET	2.3
3	22	47	LEU	2.3
12	3I	27	LEU	2.3
17	8I	99	SER	2.3
43	D8	98	GLU	2.3
48	I8	68	GLU	2.3
30	21	184	VAL	2.3
35	58	46	VAL	2.3
36	25	58	VAL	2.3
42	C8	90	VAL	2.3
10	1A	60	ARG	2.3
28	79	51	PRO	2.3
39	98	86	ARG	2.3
33	59	157	TYR	2.3
3	2E	200	ALA	2.3
14	5I	2	ALA	2.3
43	95	27	ALA	2.3
3	22	5	ILE	2.3
4	32	162	LEU	2.3
8	7E	2	LEU	2.3
11	2I	83	ILE	2.3
34	61	108	THR	2.3
35	58	107	LEU	2.3
39	98	70	LEU	2.3
43	D8	35	LEU	2.3
8	7E	44	PHE	2.3
30	29	29	GLY	2.3
16	7I	18	ARG	2.3
30	21	72	VAL	2.3
42	85	71	GLN	2.3
50	K8	43	GLN	2.3
51	H5	19	GLN	2.3

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Mol	Chain	Res	Type	RSRZ
36	25	48	PRO	2.3
38	88	32	TYR	2.3
13	4A	90	LEU	2.3
19	AI	30	LEU	2.3
29	19	177	LEU	2.3
33	59	71	LEU	2.3
39	98	28	LEU	2.3
51	L8	8	LEU	2.3
3	22	96	GLY	2.3
48	E5	12	ASN	2.3
3	22	40	ARG	2.3
14	5A	33	VAL	2.3
10	1I	77	PRO	2.3
3	2E	39	ILE	2.3
11	2I	29	ILE	2.3
11	2A	66	LEU	2.3
28	71	32	LEU	2.3
47	D5	20	ARG	2.3
47	H8	85	HIS	2.3
13	4A	115	LYS	2.3
35	15	59	LYS	2.3
7	6E	152	ALA	2.3
9	8E	102	LEU	2.3
11	2I	19	ALA	2.3
38	45	37	LEU	2.3
41	B8	1	MET	2.3
51	H5	53	LEU	2.3
2	1E	152	PHE	2.3
3	22	194	GLY	2.3
29	19	262	ARG	2.3
32	49	141	PHE	2.3
29	19	27	THR	2.3
11	2I	30	VAL	2.3
36	25	102	VAL	2.3
44	E8	109	GLU	2.3
22	1L	44	U	2.3
11	2I	69	ALA	2.3
11	2A	18	ARG	2.3
38	45	7	MET	2.3
46	G8	86	ARG	2.3
47	H8	51	ALA	2.3
48	E5	39	ARG	2.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
49	F5	94	LEU	2.3
9	82	77	ILE	2.3
12	3I	7	ILE	2.3
26	1H	654(O)	G	2.3
7	62	61	VAL	2.3
13	4I	43	THR	2.3
32	41	138	GLN	2.3
37	35	108	LYS	2.3
12	3A	48	PRO	2.3
13	4I	114	ARG	2.3
28	79	199	HIS	2.3
4	3E	78	LEU	2.3
13	4I	34	LEU	2.3
3	22	184	TYR	2.3
8	72	134	ILE	2.3
30	29	1	MET	2.3
47	H8	8	TYR	2.3
30	29	203	LYS	2.3
41	75	45	PHE	2.3
43	95	93	GLU	2.3
32	49	159	VAL	2.2
34	69	11	ASN	2.2
9	8E	121	ARG	2.2
20	BA	17	ARG	2.2
4	32	16	GLY	2.2
8	72	111	ILE	2.2
16	7I	31	LYS	2.2
20	BA	10	LEU	2.2
35	15	33	LEU	2.2
37	78	59	LEU	2.2
38	88	130	LYS	2.2
47	D5	59	LEU	2.2
3	22	131	ARG	2.2
34	69	144	VAL	2.2
7	6E	20	ASP	2.2
33	51	27	LYS	2.2
36	25	41	ALA	2.2
49	J8	87	PRO	2.2
50	G5	64	LEU	2.2
41	75	1	MET	2.2
12	3A	98	TYR	2.2
13	4I	87	TYR	2.2

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Mol	Chain	Res	Type	RSRZ
17	8I	32	TYR	2.2
44	A5	30	GLU	2.2
3	22	28	GLN	2.2
35	58	133	GLN	2.2
38	88	132	VAL	2.2
11	2A	38	ASN	2.2
13	4A	105	THR	2.2
39	98	95	THR	2.2
4	32	19	LEU	2.2
21	1B	11	GLY	2.2
25	4K	9	G	2.2
7	62	62	PHE	2.2
9	8E	49	PRO	2.2
33	51	39	PRO	2.2
39	98	113	LEU	2.2
48	E5	59	LEU	2.2
9	82	81	ILE	2.2
19	AI	49	ILE	2.2
44	A5	103	ILE	2.2
3	2E	22	TRP	2.2
9	82	125	TYR	2.2
17	8I	101	ARG	2.2
20	BI	22	ARG	2.2
1	13	345	C	2.2
11	2A	71	LYS	2.2
20	BA	27	LYS	2.2
4	32	108	LEU	2.2
30	29	52	LEU	2.2
33	59	159	GLU	2.2
36	25	106	LEU	2.2
37	78	106	LEU	2.2
47	D5	5	LEU	2.2
16	7I	9	PHE	2.2
16	7I	33	ILE	2.2
55	M5	16	ILE	2.2
12	3A	15	ARG	2.2
47	H8	82	ARG	2.2
12	3A	13	LYS	2.2
32	41	25	TYR	2.2
7	62	22	LEU	2.2
12	3A	10	LEU	2.2
32	41	164	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
35	15	58	ASP	2.2
37	78	94	GLU	2.2
5	4E	152	ARG	2.2
7	62	5	ARG	2.2
7	62	40	ALA	2.2
24	3K	37	A	2.2
55	M5	50	LEU	2.2
32	41	178	PHE	2.2
47	H8	25	PRO	2.2
49	F5	61	ARG	2.2
20	BI	42	GLN	2.2
47	H8	99	TYR	2.2
3	2E	167	TRP	2.2
8	7E	93	VAL	2.2
9	82	44	VAL	2.2
30	29	188	VAL	2.2
26	14	2794	C	2.2
38	88	112	GLU	2.2
52	M8	17	GLY	2.2
18	9I	76	LEU	2.2
20	BA	20	LEU	2.2
35	15	37	LYS	2.2
38	45	17	LEU	2.2
48	I8	37	LEU	2.2
9	82	74	ILE	2.2
34	69	138	ILE	2.2
53	J5	57	VAL	2.2
4	32	141	ARG	2.2
5	4E	24	ARG	2.2
11	2A	86	GLY	2.2
12	3A	97	ARG	2.2
12	3A	126	LYS	2.2
20	BI	54	LYS	2.2
35	15	125	GLY	2.2
24	3K	71	C	2.2
20	BA	92	LEU	2.2
31	31	125	LEU	2.2
32	41	107	LEU	2.2
43	95	35	LEU	2.2
47	H8	59	LEU	2.2
49	J8	90	ILE	2.2
33	51	61	HIS	2.2

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Mol	Chain	Res	Type	RSRZ
9	8E	53	VAL	2.2
32	41	48	GLU	2.2
32	41	75	LYS	2.2
32	49	137	GLU	2.2
49	F5	6	GLU	2.2
9	8E	8	GLY	2.2
20	BA	23	ARG	2.2
48	E5	22	GLY	2.2
7	6E	101	LEU	2.2
7	62	104	LEU	2.2
39	98	100	LEU	2.2
11	2A	40	ILE	2.2
32	41	46	ALA	2.2
10	1I	37	PRO	2.2
12	3A	22	SER	2.2
12	3A	94	PRO	2.2
4	3E	145	GLU	2.2
4	32	20	TYR	2.2
11	2I	20	TYR	2.2
11	2A	82	VAL	2.2
51	H5	36	VAL	2.2
7	6E	104	LEU	2.1
39	55	4	LEU	2.1
31	31	206	ILE	2.1
11	2A	77	MET	2.1
19	AA	76	PRO	2.1
35	15	136	GLU	2.1
4	3E	23	GLY	2.1
39	98	97	VAL	2.1
48	E5	76	GLY	2.1
1	1G	1227	A	2.1
25	4K	12	A	2.1
6	5E	55	ASP	2.1
11	2I	125	PHE	2.1
2	12	39	ILE	2.1
12	3I	28	LYS	2.1
3	22	63	ASN	2.1
3	22	157	ILE	2.1
4	32	182	LYS	2.1
26	1H	2797	U	2.1
32	49	63	ILE	2.1
10	1I	97	GLU	2.1

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Mol	Chain	Res	Type	RSRZ
30	29	79	ARG	2.1
36	25	17	ARG	2.1
52	M8	3	GLU	2.1
11	2A	90	GLY	2.1
31	31	193	VAL	2.1
43	D8	46	VAL	2.1
7	6E	59	LEU	2.1
29	19	182	LEU	2.1
31	31	156	LEU	2.1
25	4K	26	A	2.1
2	1E	13	ALA	2.1
9	82	120	ARG	2.1
11	2I	60	ALA	2.1
12	3A	34	ARG	2.1
46	C5	64	GLU	2.1
48	I8	25	ARG	2.1
43	95	16	PRO	2.1
9	82	8	GLY	2.1
11	2I	107	SER	2.1
31	39	131	GLY	2.1
38	45	33	GLY	2.1
31	39	125	LEU	2.1
41	75	101	PHE	2.1
10	1A	50	ILE	2.1
11	2I	68	ALA	2.1
11	2I	95	ILE	2.1
40	A8	86	ALA	2.1
44	A5	5	ALA	2.1
7	6E	69	VAL	2.1
12	3A	17	LYS	2.1
13	4A	26	GLY	2.1
21	1B	23	PRO	2.1
17	8I	23	VAL	2.1
20	BA	16	HIS	2.1
40	A8	28	VAL	2.1
52	M8	10	VAL	2.1
4	3E	101	LEU	2.1
8	7E	10	LEU	2.1
9	82	42	ARG	2.1
12	3A	59	ARG	2.1
14	5I	41	ARG	2.1
17	8I	22	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
30	21	199	ARG	2.1
36	25	32	TYR	2.1
44	A5	92	ARG	2.1
9	82	75	ASP	2.1
14	5I	51	GLY	2.1
20	BI	96	GLY	2.1
49	F5	5	CYS	2.1
11	2A	84	VAL	2.1
24	3K	70	C	2.1
38	45	35	VAL	2.1
42	85	25	TRP	2.1
9	8E	85	LEU	2.1
13	4A	66	LEU	2.1
15	6I	70	LEU	2.1
17	8A	71	PHE	2.1
30	21	182	LEU	2.1
46	G8	40	GLU	2.1
52	M8	9	LEU	2.1
2	1E	31	TYR	2.1
36	25	81	ASP	2.1
30	29	134	ILE	2.1
43	95	99	ILE	2.1
11	2I	70	LYS	2.1
4	32	73	ARG	2.1
15	6I	79	ARG	2.1
32	49	113	ARG	2.1
37	35	95	VAL	2.1
37	35	125	VAL	2.1
4	32	188	LEU	2.1
48	E5	45	PHE	2.1
7	6E	24	THR	2.1
35	15	83	LYS	2.1
26	14	614	U	2.1
40	65	51	ALA	2.1
51	H5	27	GLY	2.1
7	62	31	MET	2.1
8	72	122	ARG	2.1
3	2E	166	GLU	2.1
42	85	89	GLU	2.1
47	H8	108	PRO	2.1
26	14	2126	A	2.1
31	31	123	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
40	65	19	LYS	2.1
43	95	64	HIS	2.1
47	D5	88	PHE	2.1
8	7E	83	ILE	2.1
13	4A	116	THR	2.1
15	6A	78	TYR	2.1
35	15	16	ILE	2.1
53	N8	38	ALA	2.1
14	5A	28	GLY	2.1
20	BI	80	ARG	2.1
32	41	118	ARG	2.1
41	B8	112	ARG	2.1
51	H5	29	ARG	2.1
4	3E	24	GLU	2.1
7	62	70	LYS	2.1
19	AI	76	PRO	2.1
34	69	2	LYS	2.1
48	E5	46	LYS	2.1
55	M5	4	MET	2.1
29	19	147	LEU	2.0
51	H5	23	LEU	2.0
1	13	1531	A	2.0
25	4K	15	A	2.0
51	H5	11	SER	2.0
4	32	187	ARG	2.0
8	72	48	TYR	2.0
11	2A	19	ALA	2.0
12	3I	33	ARG	2.0
13	4A	91	ARG	2.0
15	6I	88	ARG	2.0
32	41	114	ILE	2.0
41	75	48	ILE	2.0
47	D5	38	TYR	2.0
13	4A	100	GLY	2.0
12	3A	46	LYS	2.0
40	65	64	GLU	2.0
7	6E	141	VAL	2.0
19	AI	60	VAL	2.0
36	25	57	VAL	2.0
46	C5	51	VAL	2.0
28	79	17	ASN	2.0
40	65	61	ASN	2.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
31	39	192	LEU	2.0
47	D5	125	LEU	2.0
20	BI	17	ARG	2.0
1	1G	1225	A	2.0
20	BI	33	ILE	2.0
26	14	1536	A	2.0
32	41	140	ILE	2.0
44	E8	96	ILE	2.0
8	7E	130	GLY	2.0
25	4K	11	U	2.0
30	21	151	TYR	2.0
30	29	24	THR	2.0
36	68	120	GLU	2.0
55	M5	52	LYS	2.0
34	69	18	VAL	2.0
39	98	48	VAL	2.0
2	1E	187	LEU	2.0
8	7E	127	LEU	2.0
17	8I	98	LEU	2.0
35	15	91	LEU	2.0
37	78	99	LEU	2.0
3	22	88	ARG	2.0
9	82	10	ARG	2.0
37	35	65	ARG	2.0
39	55	68	ARG	2.0
32	41	116	ASP	2.0
7	6E	147	ALA	2.0
32	49	167	GLU	2.0
3	2E	201	TYR	2.0
26	1H	2126	A	2.0
31	31	184	TYR	2.0
40	65	49	VAL	2.0
47	H8	141	VAL	2.0
47	D5	47	VAL	2.0
32	49	136	ARG	2.0
35	58	87	LEU	2.0
35	58	116	LEU	2.0
49	J8	42	GLN	2.0
10	1I	55	LYS	2.0
8	72	131	GLY	2.0
34	61	120	ILE	2.0
39	98	49	ASP	2.0

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Mol	Chain	Res	Type	RSRZ
46	C5	69	ALA	2.0
38	45	32	TYR	2.0
9	82	121	ARG	2.0
17	8A	92	ARG	2.0
55	Q8	22	VAL	2.0
2	12	26	PRO	2.0
3	2E	188	LEU	2.0
4	32	64	LEU	2.0
5	4E	88	LYS	2.0
28	71	163	PHE	2.0
9	82	21	PRO	2.0
36	25	25	LEU	2.0
47	H8	41	LEU	2.0
47	H8	163	LEU	2.0

## 6.2 Non-standard residues in protein, DNA, RNA chains

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	1L	55	20/21	0.84	0.13	113,126,140,141	0
22	PSU	1K	55	20/21	0.89	0.12	95,109,120,124	0
22	PSU	1L	39	20/21	0.89	0.23	88,116,127,129	0
22	5MU	1L	54	21/22	0.90	0.12	113,125,134,142	0
22	5MU	1K	54	21/22	0.91	0.14	93,106,119,128	0
22	T6A	1L	37	32/33	0.93	0.21	91,110,116,118	0
23	PSU	2L	56	20/21	0.93	0.10	98,105,111,115	0
22	U8U	1L	34	23/24	0.93	0.18	102,117,122,124	0
23	PSU	2K	56	20/21	0.93	0.10	86,90,100,104	0
22	PSU	1K	39	20/21	0.94	0.15	74,91,100,100	0
23	G7M	2L	47	24/25	0.94	0.13	110,117,123,127	0
23	5MU	2L	55	21/22	0.94	0.12	99,108,115,124	0
23	4SU	2L	8	20/21	0.95	0.15	94,104,108,112	0
23	OMC	2L	33	21/22	0.96	0.13	88,93,99,103	0
23	G7M	2K	47	24/25	0.96	0.13	86,95,107,113	0
22	T6A	1K	37	32/33	0.96	0.16	58,79,98,99	0
23	5MU	2K	55	21/22	0.96	0.12	89,95,100,103	0
22	U8U	1K	34	23/24	0.96	0.15	76,81,86,100	0
23	4SU	2K	8	20/21	0.97	0.14	75,83,88,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
23	OMC	2K	33	21/22	0.97	0.21	67,74,78,82	0

## 6.3 Carbohydrates [i](#)

There are no carbohydrates 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
56	MG	1H	3345	1/1	0.19	0.12	91,91,91,91	0
56	MG	1H	3156	1/1	0.39	0.34	55,55,55,55	0
56	MG	1G	1661	1/1	0.42	0.68	92,92,92,92	0
56	MG	1H	3445	1/1	0.46	0.11	90,90,90,90	0
56	MG	14	3447	1/1	0.46	0.18	116,116,116,116	0
56	MG	14	3118	1/1	0.47	0.31	89,89,89,89	0
56	MG	1H	3557	1/1	0.47	0.12	84,84,84,84	0
56	MG	1H	3431	1/1	0.48	0.21	74,74,74,74	0
56	MG	13	1730	1/1	0.50	0.22	102,102,102,102	0
56	MG	13	1679	1/1	0.51	0.32	81,81,81,81	0
56	MG	13	1760	1/1	0.51	0.05	113,113,113,113	0
56	MG	1H	3219	1/1	0.51	0.18	79,79,79,79	0
56	MG	14	3465	1/1	0.52	0.13	85,85,85,85	0
56	MG	13	1744	1/1	0.52	0.10	111,111,111,111	0
56	MG	1G	1656	1/1	0.52	0.83	89,89,89,89	0
56	MG	1H	3479	1/1	0.53	0.16	99,99,99,99	0
56	MG	1H	3549	1/1	0.53	0.15	75,75,75,75	0
56	MG	14	3192	1/1	0.53	0.36	81,81,81,81	0
56	MG	35	203	1/1	0.54	0.16	83,83,83,83	0
56	MG	4K	101	1/1	0.54	0.68	96,96,96,96	0
56	MG	1H	3251	1/1	0.55	0.25	80,80,80,80	0
56	MG	13	1756	1/1	0.55	0.07	120,120,120,120	0
56	MG	13	1655	1/1	0.56	0.27	99,99,99,99	0
56	MG	13	1759	1/1	0.56	0.06	118,118,118,118	0
56	MG	1H	3524	1/1	0.58	0.12	96,96,96,96	0
56	MG	13	1752	1/1	0.59	0.14	108,108,108,108	0
56	MG	1H	3533	1/1	0.59	0.17	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3012	1/1	0.59	0.20	78,78,78,78	0
56	MG	1H	3211	1/1	0.59	0.17	90,90,90,90	0
56	MG	1J	206	1/1	0.61	0.14	86,86,86,86	0
56	MG	1G	1617	1/1	0.61	0.88	86,86,86,86	0
56	MG	14	3141	1/1	0.61	0.66	86,86,86,86	0
56	MG	14	3301	1/1	0.61	0.08	111,111,111,111	0
56	MG	13	1627	1/1	0.61	0.37	82,82,82,82	0
56	MG	1H	3257	1/1	0.61	0.27	83,83,83,83	0
56	MG	14	3157	1/1	0.61	0.18	76,76,76,76	0
56	MG	14	3298	1/1	0.62	0.21	105,105,105,105	0
56	MG	L8	101	1/1	0.62	0.39	80,80,80,80	0
56	MG	13	1758	1/1	0.62	0.06	137,137,137,137	0
56	MG	14	3200	1/1	0.62	0.47	94,94,94,94	0
56	MG	1H	3210	1/1	0.62	0.34	75,75,75,75	0
56	MG	1H	3473	1/1	0.62	0.15	88,88,88,88	0
56	MG	1H	3169	1/1	0.63	0.21	111,111,111,111	0
56	MG	1G	1645	1/1	0.63	0.13	113,113,113,113	0
56	MG	14	3190	1/1	0.63	0.27	81,81,81,81	0
56	MG	2K	101	1/1	0.64	0.22	91,91,91,91	0
56	MG	1H	3085	1/1	0.64	0.11	85,85,85,85	0
56	MG	13	1747	1/1	0.64	0.10	107,107,107,107	0
56	MG	1J	207	1/1	0.64	0.07	88,88,88,88	0
56	MG	16	203	1/1	0.64	0.10	78,78,78,78	0
56	MG	14	3454	1/1	0.65	0.22	78,78,78,78	0
56	MG	14	3177	1/1	0.65	0.21	91,91,91,91	0
56	MG	14	3111	1/1	0.66	0.33	73,73,73,73	0
56	MG	1G	1614	1/1	0.66	0.32	91,91,91,91	0
56	MG	1H	3239	1/1	0.66	0.39	69,69,69,69	0
56	MG	1H	3194	1/1	0.66	0.48	83,83,83,83	0
56	MG	14	3417	1/1	0.66	0.09	116,116,116,116	0
56	MG	14	3393	1/1	0.66	0.07	98,98,98,98	0
56	MG	1H	3411	1/1	0.66	0.12	65,65,65,65	0
56	MG	14	3440	1/1	0.66	0.10	95,95,95,95	0
56	MG	14	3214	1/1	0.66	0.32	113,113,113,113	0
56	MG	1H	3142	1/1	0.66	0.16	74,74,74,74	0
56	MG	14	3464	1/1	0.67	0.13	105,105,105,105	0
56	MG	1H	3547	1/1	0.67	0.11	91,91,91,91	0
56	MG	P8	101	1/1	0.67	0.51	66,66,66,66	0
56	MG	14	3176	1/1	0.67	0.38	72,72,72,72	0
56	MG	14	3299	1/1	0.67	0.06	99,99,99,99	0
56	MG	1H	3562	1/1	0.67	0.12	69,69,69,69	0
56	MG	1G	1698	1/1	0.68	0.06	102,102,102,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3158	1/1	0.68	0.32	91,91,91,91	0
56	MG	14	3179	1/1	0.68	0.26	92,92,92,92	0
56	MG	42	202	1/1	0.68	0.24	110,110,110,110	0
56	MG	1H	3270	1/1	0.68	0.46	78,78,78,78	0
56	MG	14	3128	1/1	0.68	0.27	49,49,49,49	0
56	MG	1H	3501	1/1	0.69	0.10	76,76,76,76	0
56	MG	1H	3099	1/1	0.69	0.39	80,80,80,80	0
56	MG	14	3199	1/1	0.69	0.31	89,89,89,89	0
56	MG	1G	1713	1/1	0.69	0.12	112,112,112,112	0
56	MG	1H	3076	1/1	0.69	0.81	60,60,60,60	0
56	MG	1G	1719	1/1	0.70	0.10	100,100,100,100	0
56	MG	14	3432	1/1	0.70	0.20	92,92,92,92	0
56	MG	1H	3137	1/1	0.70	0.35	70,70,70,70	0
56	MG	1G	1722	1/1	0.70	0.07	102,102,102,102	0
56	MG	1G	1641	1/1	0.70	0.72	91,91,91,91	0
56	MG	1H	3421	1/1	0.70	0.12	98,98,98,98	0
56	MG	1G	1631	1/1	0.70	0.12	99,99,99,99	0
56	MG	14	3400	1/1	0.70	0.11	90,90,90,90	0
56	MG	13	1684	1/1	0.70	0.36	71,71,71,71	0
56	MG	21	302	1/1	0.70	0.42	75,75,75,75	0
56	MG	1H	3262	1/1	0.71	0.31	86,86,86,86	0
56	MG	1H	3220	1/1	0.71	0.52	71,71,71,71	0
56	MG	1G	1708	1/1	0.71	0.07	84,84,84,84	0
56	MG	14	3171	1/1	0.71	0.22	84,84,84,84	0
56	MG	1G	1637	1/1	0.71	0.41	89,89,89,89	0
56	MG	14	3191	1/1	0.71	0.20	66,66,66,66	0
56	MG	1H	3254	1/1	0.71	0.33	69,69,69,69	0
56	MG	14	3028	1/1	0.72	0.72	83,83,83,83	0
56	MG	1H	3027	1/1	0.72	0.17	68,68,68,68	0
56	MG	1H	3096	1/1	0.72	0.42	77,77,77,77	0
56	MG	1H	3015	1/1	0.72	0.95	82,82,82,82	0
56	MG	13	1672	1/1	0.72	0.35	79,79,79,79	0
56	MG	1H	3231	1/1	0.72	0.14	106,106,106,106	0
56	MG	14	3161	1/1	0.72	1.21	86,86,86,86	0
56	MG	1H	3143	1/1	0.72	0.36	84,84,84,84	0
56	MG	14	3193	1/1	0.72	0.15	74,74,74,74	0
56	MG	1H	3468	1/1	0.72	0.11	68,68,68,68	0
56	MG	16	201	1/1	0.73	0.17	84,84,84,84	0
56	MG	14	3216	1/1	0.73	0.42	79,79,79,79	0
56	MG	14	3189	1/1	0.73	0.62	60,60,60,60	0
56	MG	1G	1668	1/1	0.73	0.69	96,96,96,96	0
56	MG	14	3181	1/1	0.73	0.42	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3270	1/1	0.73	0.12	80,80,80,80	0
56	MG	1G	1695	1/1	0.73	0.14	99,99,99,99	0
56	MG	1H	3188	1/1	0.73	0.23	69,69,69,69	0
56	MG	13	1734	1/1	0.74	0.13	105,105,105,105	0
56	MG	1H	3159	1/1	0.74	0.28	69,69,69,69	0
56	MG	1H	3279	1/1	0.74	0.28	67,67,67,67	0
56	MG	14	3244	1/1	0.74	0.31	71,71,71,71	0
56	MG	14	3140	1/1	0.74	0.30	78,78,78,78	0
56	MG	1H	3455	1/1	0.74	0.19	76,76,76,76	0
56	MG	13	1628	1/1	0.74	0.22	89,89,89,89	0
56	MG	13	1616	1/1	0.75	0.49	77,77,77,77	0
56	MG	1H	3168	1/1	0.75	0.54	75,75,75,75	0
56	MG	13	1663	1/1	0.75	0.22	90,90,90,90	0
56	MG	1G	1644	1/1	0.75	0.15	92,92,92,92	0
56	MG	14	3222	1/1	0.75	0.35	88,88,88,88	0
56	MG	1G	1652	1/1	0.75	0.31	76,76,76,76	0
56	MG	14	3293	1/1	0.75	0.12	94,94,94,94	0
56	MG	13	1645	1/1	0.75	0.15	84,84,84,84	0
56	MG	1H	3568	1/1	0.75	0.17	94,94,94,94	0
56	MG	14	3169	1/1	0.75	0.65	81,81,81,81	0
56	MG	1G	1655	1/1	0.75	0.27	106,106,106,106	0
56	MG	1H	3234	1/1	0.75	0.57	90,90,90,90	0
56	MG	1H	3375	1/1	0.76	0.16	85,85,85,85	0
56	MG	1H	3191	1/1	0.76	0.24	59,59,59,59	0
56	MG	14	3131	1/1	0.76	0.53	62,62,62,62	0
56	MG	1H	3068	1/1	0.76	0.31	50,50,50,50	0
56	MG	1G	1667	1/1	0.76	0.24	97,97,97,97	0
56	MG	14	3149	1/1	0.76	0.78	89,89,89,89	0
56	MG	1H	3418	1/1	0.76	0.15	68,68,68,68	0
56	MG	14	3462	1/1	0.76	0.17	99,99,99,99	0
56	MG	1H	3546	1/1	0.76	0.12	93,93,93,93	0
56	MG	1H	3440	1/1	0.76	0.13	72,72,72,72	0
56	MG	1G	1725	1/1	0.76	0.07	95,95,95,95	0
56	MG	1H	3451	1/1	0.76	0.10	78,78,78,78	0
56	MG	14	3110	1/1	0.76	0.35	51,51,51,51	0
56	MG	1H	3201	1/1	0.76	0.61	82,82,82,82	0
56	MG	1H	3448	1/1	0.76	0.11	74,74,74,74	0
56	MG	1H	3016	1/1	0.76	0.28	72,72,72,72	0
56	MG	14	3109	1/1	0.77	0.25	86,86,86,86	0
56	MG	13	1673	1/1	0.77	0.17	93,93,93,93	0
56	MG	1H	3240	1/1	0.77	0.18	75,75,75,75	0
56	MG	1H	3217	1/1	0.77	0.15	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1G	1694	1/1	0.77	0.12	103,103,103,103	0
56	MG	1H	3214	1/1	0.77	0.57	83,83,83,83	0
56	MG	13	1667	1/1	0.77	0.15	105,105,105,105	0
56	MG	14	3112	1/1	0.77	0.28	69,69,69,69	0
56	MG	14	3234	1/1	0.77	0.57	71,71,71,71	0
56	MG	14	3209	1/1	0.77	0.97	90,90,90,90	0
56	MG	13	1719	1/1	0.77	0.12	89,89,89,89	0
56	MG	1H	3409	1/1	0.77	0.19	65,65,65,65	0
56	MG	1H	3245	1/1	0.77	0.28	58,58,58,58	0
56	MG	1H	3164	1/1	0.77	0.12	53,53,53,53	0
56	MG	1H	3225	1/1	0.77	0.24	60,60,60,60	0
56	MG	13	1643	1/1	0.77	0.57	69,69,69,69	0
56	MG	1H	3555	1/1	0.77	0.22	70,70,70,70	0
56	MG	1H	3488	1/1	0.78	0.09	85,85,85,85	0
56	MG	1H	3405	1/1	0.78	0.12	91,91,91,91	0
56	MG	1J	210	1/1	0.78	0.12	91,91,91,91	0
56	MG	14	3115	1/1	0.78	0.35	64,64,64,64	0
56	MG	14	3405	1/1	0.78	0.07	106,106,106,106	0
56	MG	1H	3556	1/1	0.78	0.13	101,101,101,101	0
56	MG	14	3173	1/1	0.78	0.25	93,93,93,93	0
56	MG	13	1653	1/1	0.78	0.21	80,80,80,80	0
56	MG	1J	202	1/1	0.78	0.08	91,91,91,91	0
56	MG	13	1743	1/1	0.78	0.07	102,102,102,102	0
56	MG	14	3457	1/1	0.78	0.10	92,92,92,92	0
56	MG	13	1638	1/1	0.78	0.26	71,71,71,71	0
56	MG	1H	3209	1/1	0.78	0.21	65,65,65,65	0
56	MG	13	1661	1/1	0.78	0.51	73,73,73,73	0
56	MG	1H	3566	1/1	0.78	0.05	105,105,105,105	0
56	MG	14	3305	1/1	0.78	0.16	96,96,96,96	0
56	MG	14	3134	1/1	0.79	0.14	88,88,88,88	0
56	MG	14	3221	1/1	0.79	0.35	86,86,86,86	0
56	MG	1H	3467	1/1	0.79	0.05	95,95,95,95	0
56	MG	1H	3133	1/1	0.79	0.35	64,64,64,64	0
56	MG	13	1677	1/1	0.79	0.30	77,77,77,77	0
56	MG	1H	3081	1/1	0.79	0.44	76,76,76,76	0
56	MG	1H	3122	1/1	0.79	0.31	58,58,58,58	0
56	MG	1H	3198	1/1	0.79	0.24	65,65,65,65	0
56	MG	1H	3487	1/1	0.79	0.08	71,71,71,71	0
56	MG	1H	3205	1/1	0.79	0.33	73,73,73,73	0
56	MG	35	201	1/1	0.79	0.13	74,74,74,74	0
56	MG	13	1687	1/1	0.79	0.19	82,82,82,82	0
56	MG	1H	3456	1/1	0.79	0.21	102,102,102,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3437	1/1	0.79	0.06	115,115,115,115	0
56	MG	1H	3158	1/1	0.79	0.37	72,72,72,72	0
56	MG	14	3170	1/1	0.79	0.37	63,63,63,63	0
56	MG	1H	3153	1/1	0.79	0.28	88,88,88,88	0
56	MG	1H	3145	1/1	0.79	0.29	82,82,82,82	0
56	MG	1G	1696	1/1	0.79	0.10	107,107,107,107	0
56	MG	35	202	1/1	0.79	0.30	78,78,78,78	0
56	MG	1H	3208	1/1	0.79	0.17	141,141,141,141	0
56	MG	1H	3230	1/1	0.79	0.42	89,89,89,89	0
56	MG	1H	3190	1/1	0.80	0.11	60,60,60,60	0
56	MG	13	1631	1/1	0.80	0.26	89,89,89,89	0
56	MG	1G	1632	1/1	0.80	0.41	92,92,92,92	0
56	MG	14	3411	1/1	0.80	0.11	101,101,101,101	0
56	MG	1H	3471	1/1	0.80	0.15	91,91,91,91	0
56	MG	14	3379	1/1	0.80	0.08	94,94,94,94	0
56	MG	1H	3136	1/1	0.80	1.10	76,76,76,76	0
56	MG	1H	3047	1/1	0.80	0.44	76,76,76,76	0
56	MG	14	3194	1/1	0.80	0.47	79,79,79,79	0
56	MG	14	3148	1/1	0.80	0.34	78,78,78,78	0
56	MG	14	3321	1/1	0.80	0.04	88,88,88,88	0
56	MG	1H	3267	1/1	0.80	0.88	90,90,90,90	0
56	MG	13	1675	1/1	0.80	0.14	65,65,65,65	0
56	MG	1H	3071	1/1	0.80	0.17	57,57,57,57	0
56	MG	1H	3519	1/1	0.80	0.17	78,78,78,78	0
56	MG	1H	3253	1/1	0.80	0.38	62,62,62,62	0
56	MG	14	3378	1/1	0.80	0.05	96,96,96,96	0
56	MG	1H	3183	1/1	0.80	0.32	74,74,74,74	0
56	MG	14	3152	1/1	0.80	0.28	85,85,85,85	0
56	MG	16	202	1/1	0.80	0.12	66,66,66,66	0
56	MG	1G	1608	1/1	0.80	0.35	96,96,96,96	0
56	MG	14	3238	1/1	0.80	0.51	83,83,83,83	0
56	MG	14	3151	1/1	0.80	0.40	107,107,107,107	0
56	MG	13	1686	1/1	0.80	0.08	98,98,98,98	0
56	MG	14	3138	1/1	0.80	0.21	71,71,71,71	0
56	MG	1J	209	1/1	0.81	0.18	93,93,93,93	0
56	MG	14	3150	1/1	0.81	0.44	84,84,84,84	0
56	MG	1H	3090	1/1	0.81	0.28	50,50,50,50	0
56	MG	14	3203	1/1	0.81	0.10	69,69,69,69	0
56	MG	1G	1684	1/1	0.81	0.06	98,98,98,98	0
56	MG	1H	3100	1/1	0.81	0.60	59,59,59,59	0
56	MG	13	1748	1/1	0.81	0.21	102,102,102,102	0
56	MG	1H	3551	1/1	0.81	0.15	105,105,105,105	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3153	1/1	0.81	1.04	74,74,74,74	0
56	MG	13	1659	1/1	0.81	0.31	57,57,57,57	0
56	MG	13	1637	1/1	0.81	0.10	73,73,73,73	0
56	MG	13	1735	1/1	0.81	0.05	109,109,109,109	0
56	MG	1H	3539	1/1	0.81	0.05	90,90,90,90	0
56	MG	14	3459	1/1	0.81	0.07	97,97,97,97	0
56	MG	1H	3252	1/1	0.81	1.37	75,75,75,75	0
56	MG	1G	1626	1/1	0.81	0.23	78,78,78,78	0
56	MG	1H	3563	1/1	0.81	0.21	75,75,75,75	0
56	MG	1H	3503	1/1	0.81	0.08	75,75,75,75	0
56	MG	1H	3094	1/1	0.81	0.31	61,61,61,61	0
56	MG	1H	3249	1/1	0.81	0.44	67,67,67,67	0
56	MG	1H	3536	1/1	0.81	0.13	98,98,98,98	0
56	MG	14	3263	1/1	0.81	0.18	64,64,64,64	0
56	MG	14	3396	1/1	0.81	0.09	102,102,102,102	0
56	MG	14	3156	1/1	0.81	0.74	86,86,86,86	0
56	MG	1H	3495	1/1	0.81	0.15	100,100,100,100	0
56	MG	1H	3444	1/1	0.82	0.27	82,82,82,82	0
56	MG	1H	3428	1/1	0.82	0.09	64,64,64,64	0
56	MG	1H	3144	1/1	0.82	0.37	86,86,86,86	0
56	MG	14	3306	1/1	0.82	0.15	76,76,76,76	0
56	MG	1G	1687	1/1	0.82	0.13	75,75,75,75	0
56	MG	1H	3502	1/1	0.82	0.05	87,87,87,87	0
56	MG	13	1712	1/1	0.82	0.17	96,96,96,96	0
56	MG	1H	3157	1/1	0.82	0.19	96,96,96,96	0
56	MG	1H	3082	1/1	0.82	0.11	55,55,55,55	0
56	MG	21	301	1/1	0.82	0.28	62,62,62,62	0
56	MG	14	3195	1/1	0.82	0.36	71,71,71,71	0
56	MG	13	1602	1/1	0.82	0.50	61,61,61,61	0
56	MG	13	1682	1/1	0.82	0.13	91,91,91,91	0
56	MG	1H	3216	1/1	0.82	0.41	71,71,71,71	0
56	MG	14	3384	1/1	0.82	0.10	79,79,79,79	0
56	MG	14	3311	1/1	0.82	0.19	73,73,73,73	0
56	MG	14	3198	1/1	0.82	0.37	84,84,84,84	0
56	MG	1H	3001	1/1	0.82	0.22	61,61,61,61	0
56	MG	14	3282	1/1	0.82	0.07	92,92,92,92	0
56	MG	1H	3013	1/1	0.82	0.36	69,69,69,69	0
56	MG	1H	3452	1/1	0.82	0.12	72,72,72,72	0
56	MG	1H	3569	1/1	0.82	0.07	85,85,85,85	0
56	MG	14	3467	1/1	0.82	0.15	71,71,71,71	0
56	MG	16	210	1/1	0.82	0.10	89,89,89,89	0
56	MG	14	3087	1/1	0.82	0.35	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3341	1/1	0.82	0.12	76,76,76,76	0
56	MG	14	3186	1/1	0.82	0.36	80,80,80,80	0
56	MG	13	1732	1/1	0.82	0.06	113,113,113,113	0
56	MG	1H	3241	1/1	0.82	0.58	81,81,81,81	0
56	MG	14	3399	1/1	0.82	0.05	82,82,82,82	0
56	MG	14	3227	1/1	0.83	0.27	70,70,70,70	0
56	MG	13	1658	1/1	0.83	0.06	116,116,116,116	0
56	MG	E5	103	1/1	0.83	0.20	80,80,80,80	0
56	MG	1G	1619	1/1	0.83	0.21	103,103,103,103	0
56	MG	14	3034	1/1	0.83	0.56	72,72,72,72	0
56	MG	14	3461	1/1	0.83	0.10	80,80,80,80	0
56	MG	13	1640	1/1	0.83	0.34	99,99,99,99	0
56	MG	14	3053	1/1	0.83	0.40	53,53,53,53	0
56	MG	1H	3236	1/1	0.83	0.25	78,78,78,78	0
56	MG	14	3242	1/1	0.83	0.16	83,83,83,83	0
56	MG	1H	3221	1/1	0.83	0.18	65,65,65,65	0
56	MG	16	205	1/1	0.83	0.18	83,83,83,83	0
56	MG	13	1629	1/1	0.83	0.09	85,85,85,85	0
56	MG	14	3360	1/1	0.83	0.10	88,88,88,88	0
56	MG	1H	3247	1/1	0.83	0.48	62,62,62,62	0
56	MG	1H	3432	1/1	0.83	0.18	44,44,44,44	0
56	MG	16	204	1/1	0.83	0.08	57,57,57,57	0
56	MG	14	3446	1/1	0.83	0.10	98,98,98,98	0
56	MG	14	3217	1/1	0.83	0.65	94,94,94,94	0
56	MG	1H	3132	1/1	0.83	0.26	58,58,58,58	0
56	MG	13	1742	1/1	0.83	0.09	105,105,105,105	0
56	MG	1H	3363	1/1	0.83	0.29	78,78,78,78	0
56	MG	1H	3560	1/1	0.83	0.13	85,85,85,85	0
56	MG	1H	3176	1/1	0.84	0.65	51,51,51,51	0
56	MG	1K	101	1/1	0.84	0.06	119,119,119,119	0
56	MG	14	3302	1/1	0.84	0.12	96,96,96,96	0
56	MG	16	213	1/1	0.84	0.07	87,87,87,87	0
56	MG	14	3313	1/1	0.84	0.11	53,53,53,53	0
56	MG	14	3044	1/1	0.84	0.54	78,78,78,78	0
56	MG	1H	3497	1/1	0.84	0.10	75,75,75,75	0
56	MG	14	3124	1/1	0.84	0.18	62,62,62,62	0
56	MG	14	3241	1/1	0.84	0.53	77,77,77,77	0
56	MG	14	3064	1/1	0.84	0.28	62,62,62,62	0
56	MG	1H	3273	1/1	0.84	0.63	76,76,76,76	0
56	MG	1H	3102	1/1	0.84	0.33	63,63,63,63	0
56	MG	14	3205	1/1	0.84	0.36	87,87,87,87	0
56	MG	1H	3244	1/1	0.84	0.14	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3175	1/1	0.84	0.11	74,74,74,74	0
56	MG	1G	1677	1/1	0.84	0.11	93,93,93,93	0
56	MG	1H	3130	1/1	0.84	0.12	54,54,54,54	0
56	MG	14	3033	1/1	0.84	0.47	63,63,63,63	0
56	MG	1H	3098	1/1	0.84	0.17	58,58,58,58	0
56	MG	1H	3172	1/1	0.84	0.76	70,70,70,70	0
56	MG	88	201	1/1	0.84	0.23	73,73,73,73	0
56	MG	1G	1657	1/1	0.84	0.51	77,77,77,77	0
56	MG	1H	3203	1/1	0.84	0.27	68,68,68,68	0
56	MG	1H	3550	1/1	0.84	0.12	125,125,125,125	0
56	MG	1H	3441	1/1	0.84	0.11	76,76,76,76	0
56	MG	1H	3196	1/1	0.84	0.43	62,62,62,62	0
56	MG	14	3410	1/1	0.84	0.07	83,83,83,83	0
56	MG	14	3231	1/1	0.84	0.28	69,69,69,69	0
56	MG	14	3456	1/1	0.84	0.08	99,99,99,99	0
56	MG	14	3458	1/1	0.84	0.11	91,91,91,91	0
56	MG	16	206	1/1	0.84	0.10	81,81,81,81	0
56	MG	1H	3146	1/1	0.84	0.85	90,90,90,90	0
56	MG	14	3164	1/1	0.85	0.72	64,64,64,64	0
56	MG	14	3349	1/1	0.85	0.09	65,65,65,65	0
56	MG	1G	1654	1/1	0.85	0.37	99,99,99,99	0
56	MG	1H	3348	1/1	0.85	0.15	78,78,78,78	0
56	MG	1G	1693	1/1	0.85	0.05	114,114,114,114	0
56	MG	1H	3227	1/1	0.85	0.23	79,79,79,79	0
56	MG	14	3143	1/1	0.85	0.27	86,86,86,86	0
56	MG	1H	3540	1/1	0.85	0.15	78,78,78,78	0
56	MG	1H	3509	1/1	0.85	0.20	46,46,46,46	0
56	MG	14	3335	1/1	0.85	0.15	78,78,78,78	0
56	MG	1H	3054	1/1	0.85	0.83	70,70,70,70	0
56	MG	1H	3260	1/1	0.85	0.41	74,74,74,74	0
56	MG	1H	3141	1/1	0.85	0.25	53,53,53,53	0
56	MG	1G	1602	1/1	0.85	0.13	87,87,87,87	0
56	MG	1H	3192	1/1	0.85	0.50	61,61,61,61	0
56	MG	1H	3523	1/1	0.85	0.10	76,76,76,76	0
56	MG	14	3357	1/1	0.85	0.13	79,79,79,79	0
56	MG	14	3008	1/1	0.85	0.40	84,84,84,84	0
56	MG	1H	3067	1/1	0.85	0.57	75,75,75,75	0
56	MG	1H	3483	1/1	0.85	0.10	76,76,76,76	0
56	MG	14	3463	1/1	0.85	0.42	97,97,97,97	0
56	MG	13	1718	1/1	0.85	0.11	54,54,54,54	0
56	MG	1H	3151	1/1	0.85	0.20	52,52,52,52	0
56	MG	14	3295	1/1	0.85	0.12	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	4I	202	1/1	0.85	0.19	75,75,75,75	0
56	MG	1H	3088	1/1	0.85	0.41	74,74,74,74	0
56	MG	14	3162	1/1	0.85	0.18	50,50,50,50	0
56	MG	1H	3470	1/1	0.85	0.15	82,82,82,82	0
56	MG	1H	3195	1/1	0.85	0.29	69,69,69,69	0
56	MG	14	3084	1/1	0.85	0.39	77,77,77,77	0
56	MG	1H	3258	1/1	0.85	0.57	97,97,97,97	0
56	MG	5I	101	1/1	0.85	0.11	77,77,77,77	0
56	MG	14	3116	1/1	0.85	0.38	89,89,89,89	0
56	MG	14	3460	1/1	0.85	0.11	93,93,93,93	0
56	MG	14	3395	1/1	0.85	0.09	69,69,69,69	0
56	MG	1H	3353	1/1	0.86	0.11	68,68,68,68	0
56	MG	13	1642	1/1	0.86	0.29	78,78,78,78	0
56	MG	14	3146	1/1	0.86	0.36	72,72,72,72	0
56	MG	1H	3079	1/1	0.86	0.18	88,88,88,88	0
56	MG	1H	3332	1/1	0.86	0.18	50,50,50,50	0
56	MG	1G	1623	1/1	0.86	0.16	77,77,77,77	0
56	MG	14	3449	1/1	0.86	0.07	88,88,88,88	0
56	MG	14	3130	1/1	0.86	0.13	75,75,75,75	0
56	MG	1H	3511	1/1	0.86	0.08	78,78,78,78	0
56	MG	1H	3256	1/1	0.86	0.21	100,100,100,100	0
56	MG	14	3291	1/1	0.86	0.16	82,82,82,82	0
56	MG	1G	1672	1/1	0.86	0.11	109,109,109,109	0
56	MG	1H	3286	1/1	0.86	0.11	119,119,119,119	0
56	MG	1H	3167	1/1	0.86	0.19	45,45,45,45	0
56	MG	1G	1688	1/1	0.86	0.12	81,81,81,81	0
56	MG	14	3430	1/1	0.86	0.09	86,86,86,86	0
56	MG	1H	3559	1/1	0.86	0.07	73,73,73,73	0
56	MG	1H	3325	1/1	0.86	0.08	56,56,56,56	0
56	MG	14	3019	1/1	0.86	0.24	48,48,48,48	0
56	MG	14	3455	1/1	0.86	0.39	87,87,87,87	0
56	MG	1H	3104	1/1	0.86	0.16	65,65,65,65	0
56	MG	14	3068	1/1	0.86	0.53	59,59,59,59	0
56	MG	14	3310	1/1	0.86	0.11	98,98,98,98	0
56	MG	14	3024	1/1	0.86	0.16	65,65,65,65	0
56	MG	1G	1622	1/1	0.86	0.46	73,73,73,73	0
56	MG	13	1699	1/1	0.86	0.06	75,75,75,75	0
56	MG	14	3139	1/1	0.86	0.27	75,75,75,75	0
56	MG	1H	3009	1/1	0.86	0.23	74,74,74,74	0
56	MG	13	1614	1/1	0.86	0.57	73,73,73,73	0
56	MG	1H	3274	1/1	0.86	0.45	48,48,48,48	0
56	MG	1G	1629	1/1	0.86	0.59	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1G	1711	1/1	0.86	0.06	102,102,102,102	0
56	MG	14	3240	1/1	0.86	0.33	83,83,83,83	0
56	MG	1H	3077	1/1	0.86	0.21	70,70,70,70	0
56	MG	13	1630	1/1	0.86	0.40	81,81,81,81	0
56	MG	1H	3084	1/1	0.86	0.27	58,58,58,58	0
56	MG	98	201	1/1	0.86	0.49	67,67,67,67	0
56	MG	1H	3106	1/1	0.86	0.25	55,55,55,55	0
56	MG	14	3235	1/1	0.86	0.57	83,83,83,83	0
56	MG	14	3212	1/1	0.86	1.03	82,82,82,82	0
56	MG	16	211	1/1	0.86	0.25	92,92,92,92	0
56	MG	14	3166	1/1	0.86	0.30	85,85,85,85	0
56	MG	1G	1691	1/1	0.86	0.11	110,110,110,110	0
56	MG	14	3104	1/1	0.86	0.50	74,74,74,74	0
56	MG	1H	3218	1/1	0.86	0.20	65,65,65,65	0
56	MG	14	3093	1/1	0.86	0.15	71,71,71,71	0
56	MG	14	3421	1/1	0.86	0.08	84,84,84,84	0
56	MG	14	3288	1/1	0.86	0.06	76,76,76,76	0
56	MG	1H	3311	1/1	0.86	0.14	56,56,56,56	0
56	MG	E5	102	1/1	0.87	0.59	72,72,72,72	0
56	MG	14	3239	1/1	0.87	0.97	82,82,82,82	0
56	MG	13	1657	1/1	0.87	0.46	89,89,89,89	0
56	MG	14	3290	1/1	0.87	0.13	67,67,67,67	0
56	MG	14	3364	1/1	0.87	0.09	83,83,83,83	0
56	MG	14	3129	1/1	0.87	0.13	62,62,62,62	0
56	MG	1H	3091	1/1	0.87	0.16	65,65,65,65	0
56	MG	14	3078	1/1	0.87	0.23	80,80,80,80	0
56	MG	14	3375	1/1	0.87	0.09	87,87,87,87	0
56	MG	1H	3469	1/1	0.87	0.08	79,79,79,79	0
56	MG	1J	208	1/1	0.87	0.22	90,90,90,90	0
56	MG	1H	3161	1/1	0.87	0.17	82,82,82,82	0
56	MG	13	1674	1/1	0.87	0.67	67,67,67,67	0
56	MG	13	1706	1/1	0.87	0.09	92,92,92,92	0
56	MG	14	3383	1/1	0.87	0.06	102,102,102,102	0
56	MG	1H	3182	1/1	0.87	0.21	56,56,56,56	0
56	MG	88	202	1/1	0.87	0.29	67,67,67,67	0
56	MG	14	3296	1/1	0.87	0.11	70,70,70,70	0
56	MG	13	1724	1/1	0.87	0.10	94,94,94,94	0
56	MG	14	3442	1/1	0.87	0.08	96,96,96,96	0
56	MG	14	3159	1/1	0.87	0.24	70,70,70,70	0
56	MG	14	3368	1/1	0.87	0.08	75,75,75,75	0
56	MG	39	302	1/1	0.87	0.25	73,73,73,73	0
56	MG	14	3125	1/1	0.87	0.29	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3438	1/1	0.87	0.04	115,115,115,115	0
56	MG	1H	3165	1/1	0.87	0.17	63,63,63,63	0
56	MG	1H	3046	1/1	0.87	0.20	59,59,59,59	0
56	MG	13	1666	1/1	0.87	0.49	79,79,79,79	0
56	MG	14	3224	1/1	0.87	0.23	82,82,82,82	0
56	MG	14	3076	1/1	0.87	0.82	68,68,68,68	0
56	MG	1G	1665	1/1	0.87	0.09	104,104,104,104	0
56	MG	1H	3377	1/1	0.87	0.14	49,49,49,49	0
56	MG	1H	3543	1/1	0.87	0.10	81,81,81,81	0
56	MG	1H	3541	1/1	0.87	0.07	85,85,85,85	0
56	MG	14	3466	1/1	0.87	0.16	92,92,92,92	0
56	MG	13	1668	1/1	0.87	0.43	105,105,105,105	0
56	MG	1H	3199	1/1	0.87	0.23	74,74,74,74	0
56	MG	1G	1611	1/1	0.87	0.16	84,84,84,84	0
56	MG	14	3178	1/1	0.87	0.12	114,114,114,114	0
56	MG	13	1716	1/1	0.87	0.04	108,108,108,108	0
56	MG	1H	3522	1/1	0.87	0.07	98,98,98,98	0
56	MG	13	1618	1/1	0.87	0.23	45,45,45,45	0
56	MG	13	1711	1/1	0.88	0.12	101,101,101,101	0
56	MG	14	3342	1/1	0.88	0.11	75,75,75,75	0
56	MG	14	3439	1/1	0.88	0.10	86,86,86,86	0
56	MG	14	3219	1/1	0.88	0.36	86,86,86,86	0
56	MG	1G	1697	1/1	0.88	0.09	94,94,94,94	0
56	MG	1H	3288	1/1	0.88	0.14	38,38,38,38	0
56	MG	14	3006	1/1	0.88	0.25	67,67,67,67	0
56	MG	13	1737	1/1	0.88	0.06	83,83,83,83	0
56	MG	14	3353	1/1	0.88	0.08	91,91,91,91	0
56	MG	14	3254	1/1	0.88	0.10	92,92,92,92	0
56	MG	1H	3461	1/1	0.88	0.10	90,90,90,90	0
56	MG	1H	3123	1/1	0.88	0.29	65,65,65,65	0
56	MG	1H	3059	1/1	0.88	0.71	73,73,73,73	0
56	MG	2L	103	1/1	0.88	0.51	70,70,70,70	0
56	MG	14	3145	1/1	0.88	0.18	75,75,75,75	0
56	MG	14	3133	1/1	0.88	0.16	72,72,72,72	0
56	MG	13	1623	1/1	0.88	0.31	62,62,62,62	0
56	MG	14	3373	1/1	0.88	0.17	58,58,58,58	0
56	MG	14	3075	1/1	0.88	0.16	78,78,78,78	0
56	MG	1G	1647	1/1	0.88	0.10	82,82,82,82	0
56	MG	1H	3093	1/1	0.88	0.21	60,60,60,60	0
56	MG	1H	3037	1/1	0.88	0.59	63,63,63,63	0
56	MG	14	3105	1/1	0.88	0.08	72,72,72,72	0
56	MG	1H	3518	1/1	0.88	0.11	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3504	1/1	0.88	0.09	86,86,86,86	0
56	MG	14	3154	1/1	0.88	0.30	60,60,60,60	0
56	MG	14	3201	1/1	0.88	0.11	84,84,84,84	0
56	MG	1H	3426	1/1	0.88	0.17	77,77,77,77	0
56	MG	1H	3567	1/1	0.88	0.15	42,42,42,42	0
56	MG	14	3443	1/1	0.88	0.08	91,91,91,91	0
56	MG	1H	3498	1/1	0.88	0.17	85,85,85,85	0
56	MG	1H	3500	1/1	0.88	0.09	103,103,103,103	0
56	MG	1H	3454	1/1	0.88	0.23	67,67,67,67	0
56	MG	1G	1634	1/1	0.88	0.25	91,91,91,91	0
56	MG	13	1617	1/1	0.88	0.23	53,53,53,53	0
56	MG	1H	3018	1/1	0.88	0.42	51,51,51,51	0
56	MG	1H	3179	1/1	0.88	0.47	47,47,47,47	0
56	MG	13	1720	1/1	0.88	0.07	66,66,66,66	0
56	MG	1H	3272	1/1	0.88	0.74	67,67,67,67	0
56	MG	1H	3548	1/1	0.88	0.11	98,98,98,98	0
56	MG	14	3300	1/1	0.88	0.09	76,76,76,76	0
56	MG	16	208	1/1	0.88	0.22	80,80,80,80	0
56	MG	1H	3554	1/1	0.88	0.25	100,100,100,100	0
56	MG	13	1665	1/1	0.88	0.53	76,76,76,76	0
56	MG	1H	3050	1/1	0.88	0.31	49,49,49,49	0
56	MG	14	3079	1/1	0.89	0.32	75,75,75,75	0
56	MG	14	3083	1/1	0.89	0.15	74,74,74,74	0
56	MG	1H	3105	1/1	0.89	0.50	72,72,72,72	0
56	MG	1H	3139	1/1	0.89	0.14	52,52,52,52	0
56	MG	14	3401	1/1	0.89	0.07	75,75,75,75	0
56	MG	1H	3193	1/1	0.89	0.16	78,78,78,78	0
56	MG	1G	1630	1/1	0.89	0.16	97,97,97,97	0
56	MG	1H	3134	1/1	0.89	0.28	74,74,74,74	0
56	MG	1G	1682	1/1	0.89	0.16	117,117,117,117	0
56	MG	14	3337	1/1	0.89	0.17	70,70,70,70	0
56	MG	1G	1627	1/1	0.89	0.05	139,139,139,139	0
56	MG	13	1633	1/1	0.89	0.12	80,80,80,80	0
56	MG	1H	3011	1/1	0.89	0.20	119,119,119,119	0
56	MG	13	1681	1/1	0.89	0.20	83,83,83,83	0
56	MG	14	3187	1/1	0.89	0.82	81,81,81,81	0
56	MG	1H	3224	1/1	0.89	0.21	74,74,74,74	0
56	MG	13	1701	1/1	0.89	0.10	100,100,100,100	0
56	MG	1H	3166	1/1	0.89	0.18	52,52,52,52	0
56	MG	1H	3407	1/1	0.89	0.21	89,89,89,89	0
56	MG	1G	1710	1/1	0.89	0.05	95,95,95,95	0
56	MG	13	1678	1/1	0.89	0.40	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1G	1618	1/1	0.89	0.19	88,88,88,88	0
56	MG	1H	3459	1/1	0.89	0.07	69,69,69,69	0
56	MG	1H	3366	1/1	0.89	0.10	67,67,67,67	0
56	MG	14	3136	1/1	0.89	0.35	83,83,83,83	0
56	MG	1G	1650	1/1	0.89	0.13	89,89,89,89	0
56	MG	14	3363	1/1	0.89	0.13	54,54,54,54	0
56	MG	13	1625	1/1	0.89	0.21	78,78,78,78	0
56	MG	13	1691	1/1	0.89	0.13	76,76,76,76	0
56	MG	1H	3419	1/1	0.89	0.14	78,78,78,78	0
56	MG	14	3089	1/1	0.89	0.20	53,53,53,53	0
56	MG	13	1605	1/1	0.89	0.24	79,79,79,79	0
56	MG	14	3052	1/1	0.89	1.03	71,71,71,71	0
56	MG	14	3284	1/1	0.89	0.28	87,87,87,87	0
56	MG	14	3160	1/1	0.89	0.51	78,78,78,78	0
56	MG	1H	3263	1/1	0.89	0.63	91,91,91,91	0
56	MG	14	3229	1/1	0.89	0.26	66,66,66,66	0
56	MG	1G	1703	1/1	0.89	0.10	85,85,85,85	0
56	MG	1H	3281	1/1	0.89	0.16	82,82,82,82	0
56	MG	14	3441	1/1	0.89	0.05	95,95,95,95	0
56	MG	1H	3565	1/1	0.89	0.07	60,60,60,60	0
56	MG	13	1722	1/1	0.89	0.10	78,78,78,78	0
56	MG	14	3319	1/1	0.89	0.23	84,84,84,84	0
56	MG	13	1754	1/1	0.89	0.12	80,80,80,80	0
56	MG	1G	1715	1/1	0.89	0.05	116,116,116,116	0
56	MG	1H	3534	1/1	0.89	0.07	85,85,85,85	0
56	MG	1H	3310	1/1	0.89	0.21	43,43,43,43	0
56	MG	1H	3446	1/1	0.89	0.13	64,64,64,64	0
56	MG	14	3350	1/1	0.89	0.14	44,44,44,44	0
56	MG	13	1613	1/1	0.89	0.24	86,86,86,86	0
56	MG	1H	3437	1/1	0.89	0.15	62,62,62,62	0
56	MG	1H	3472	1/1	0.89	0.06	82,82,82,82	0
56	MG	1H	3048	1/1	0.89	0.22	45,45,45,45	0
56	MG	1H	3078	1/1	0.89	0.26	70,70,70,70	0
56	MG	42	201	1/1	0.89	0.27	111,111,111,111	0
56	MG	14	3356	1/1	0.89	0.11	60,60,60,60	0
56	MG	1H	3491	1/1	0.89	0.18	73,73,73,73	0
56	MG	1H	3065	1/1	0.89	0.10	61,61,61,61	0
56	MG	1H	3386	1/1	0.89	0.08	88,88,88,88	0
56	MG	14	3425	1/1	0.89	0.15	96,96,96,96	0
56	MG	14	3098	1/1	0.89	0.23	68,68,68,68	0
56	MG	1G	1681	1/1	0.89	0.07	99,99,99,99	0
56	MG	1H	3171	1/1	0.89	0.58	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3223	1/1	0.89	0.48	76,76,76,76	0
56	MG	1H	3319	1/1	0.89	0.13	51,51,51,51	0
56	MG	1H	3317	1/1	0.89	0.15	63,63,63,63	0
56	MG	1H	3496	1/1	0.89	0.08	76,76,76,76	0
56	MG	1G	1707	1/1	0.90	0.06	114,114,114,114	0
56	MG	13	1650	1/1	0.90	0.10	121,121,121,121	0
56	MG	14	3185	1/1	0.90	0.41	71,71,71,71	0
56	MG	1H	3160	1/1	0.90	0.40	70,70,70,70	0
56	MG	1H	3261	1/1	0.90	0.46	65,65,65,65	0
56	MG	14	3388	1/1	0.90	0.05	90,90,90,90	0
56	MG	13	1745	1/1	0.90	0.07	99,99,99,99	0
56	MG	1G	1701	1/1	0.90	0.10	106,106,106,106	0
56	MG	1H	3177	1/1	0.90	0.46	75,75,75,75	0
56	MG	14	3197	1/1	0.90	0.45	44,44,44,44	0
56	MG	1H	3112	1/1	0.90	0.11	53,53,53,53	0
56	MG	14	3346	1/1	0.90	0.11	74,74,74,74	0
56	MG	1J	205	1/1	0.90	0.18	90,90,90,90	0
56	MG	14	3102	1/1	0.90	0.25	60,60,60,60	0
56	MG	14	3413	1/1	0.90	0.14	64,64,64,64	0
56	MG	1G	1642	1/1	0.90	0.10	102,102,102,102	0
56	MG	14	3025	1/1	0.90	0.32	59,59,59,59	0
56	MG	14	3435	1/1	0.90	0.36	93,93,93,93	0
56	MG	14	3385	1/1	0.90	0.15	80,80,80,80	0
56	MG	1G	1621	1/1	0.90	0.19	76,76,76,76	0
56	MG	1H	3275	1/1	0.90	0.28	68,68,68,68	0
56	MG	1H	3316	1/1	0.90	0.12	60,60,60,60	0
56	MG	14	3289	1/1	0.90	0.16	64,64,64,64	0
56	MG	1H	3505	1/1	0.90	0.21	82,82,82,82	0
56	MG	1H	3513	1/1	0.90	0.14	64,64,64,64	0
56	MG	1H	3527	1/1	0.90	0.04	86,86,86,86	0
56	MG	1H	3062	1/1	0.90	0.14	29,29,29,29	0
56	MG	1G	1620	1/1	0.90	0.34	85,85,85,85	0
56	MG	14	3358	1/1	0.90	0.05	76,76,76,76	0
56	MG	1H	3280	1/1	0.90	0.20	76,76,76,76	0
56	MG	1H	3321	1/1	0.90	0.11	59,59,59,59	0
56	MG	1H	3163	1/1	0.90	0.64	83,83,83,83	0
56	MG	14	3252	1/1	0.90	0.17	52,52,52,52	0
56	MG	13	1634	1/1	0.90	0.15	68,68,68,68	0
56	MG	1H	3438	1/1	0.90	0.10	71,71,71,71	0
56	MG	88	203	1/1	0.90	0.32	87,87,87,87	0
56	MG	13	1733	1/1	0.90	0.19	102,102,102,102	0
56	MG	14	3431	1/1	0.90	0.10	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	13	1676	1/1	0.90	0.11	92,92,92,92	0
56	MG	1G	1625	1/1	0.90	0.17	81,81,81,81	0
56	MG	1H	3291	1/1	0.90	0.15	44,44,44,44	0
56	MG	1H	3064	1/1	0.90	0.61	76,76,76,76	0
56	MG	13	1622	1/1	0.90	0.16	104,104,104,104	0
56	MG	1H	3066	1/1	0.90	0.16	57,57,57,57	0
56	MG	1H	3538	1/1	0.90	0.18	78,78,78,78	0
56	MG	52	201	1/1	0.90	0.17	109,109,109,109	0
56	MG	1G	1714	1/1	0.90	0.06	101,101,101,101	0
56	MG	13	1746	1/1	0.90	0.08	102,102,102,102	0
56	MG	14	3369	1/1	0.90	0.06	93,93,93,93	0
56	MG	14	3107	1/1	0.90	0.31	61,61,61,61	0
56	MG	13	1727	1/1	0.90	0.08	87,87,87,87	0
56	MG	1H	3336	1/1	0.90	0.10	86,86,86,86	0
56	MG	1H	3525	1/1	0.90	0.14	71,71,71,71	0
56	MG	14	3085	1/1	0.90	0.25	64,64,64,64	0
56	MG	14	3354	1/1	0.90	0.11	63,63,63,63	0
56	MG	14	3066	1/1	0.90	0.34	49,49,49,49	0
56	MG	1H	3526	1/1	0.90	0.12	73,73,73,73	0
56	MG	14	3450	1/1	0.90	0.05	100,100,100,100	0
56	MG	14	3021	1/1	0.91	0.38	36,36,36,36	0
56	MG	1H	3174	1/1	0.91	0.22	50,50,50,50	0
56	MG	1H	3529	1/1	0.91	0.07	102,102,102,102	0
56	MG	14	3113	1/1	0.91	0.21	67,67,67,67	0
56	MG	13	1620	1/1	0.91	0.33	74,74,74,74	0
56	MG	1H	3092	1/1	0.91	0.58	55,55,55,55	0
56	MG	1H	3107	1/1	0.91	0.41	73,73,73,73	0
56	MG	14	3183	1/1	0.91	0.18	87,87,87,87	0
56	MG	1H	3212	1/1	0.91	0.07	90,90,90,90	0
56	MG	14	3330	1/1	0.91	0.14	77,77,77,77	0
56	MG	1H	3443	1/1	0.91	0.06	72,72,72,72	0
56	MG	14	3103	1/1	0.91	0.41	81,81,81,81	0
56	MG	14	3059	1/1	0.91	0.22	53,53,53,53	0
56	MG	1G	1712	1/1	0.91	0.11	122,122,122,122	0
56	MG	1H	3362	1/1	0.91	0.17	55,55,55,55	0
56	MG	14	3322	1/1	0.91	0.18	77,77,77,77	0
56	MG	1H	3005	1/1	0.91	0.40	83,83,83,83	0
56	MG	1H	3558	1/1	0.91	0.06	99,99,99,99	0
56	MG	13	1757	1/1	0.91	0.15	84,84,84,84	0
56	MG	1H	3430	1/1	0.91	0.21	46,46,46,46	0
56	MG	2L	102	1/1	0.91	0.05	88,88,88,88	0
56	MG	1H	3269	1/1	0.91	0.27	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3530	1/1	0.91	0.34	81,81,81,81	0
56	MG	13	1652	1/1	0.91	0.23	91,91,91,91	0
56	MG	1H	3378	1/1	0.91	0.10	83,83,83,83	0
56	MG	1H	3010	1/1	0.91	0.21	53,53,53,53	0
56	MG	14	3086	1/1	0.91	0.27	61,61,61,61	0
56	MG	14	3007	1/1	0.91	0.18	55,55,55,55	0
56	MG	14	3081	1/1	0.91	0.23	89,89,89,89	0
56	MG	1G	1705	1/1	0.91	0.09	116,116,116,116	0
56	MG	14	3215	1/1	0.91	0.12	79,79,79,79	0
56	MG	14	3381	1/1	0.91	0.11	101,101,101,101	0
56	MG	1H	3333	1/1	0.91	0.14	53,53,53,53	0
56	MG	1H	3400	1/1	0.91	0.11	48,48,48,48	0
56	MG	1H	3087	1/1	0.91	0.31	66,66,66,66	0
56	MG	1H	3382	1/1	0.91	0.06	70,70,70,70	0
56	MG	14	3253	1/1	0.91	0.14	57,57,57,57	0
56	MG	14	3370	1/1	0.91	0.15	83,83,83,83	0
56	MG	1G	1664	1/1	0.91	0.07	126,126,126,126	0
56	MG	14	3035	1/1	0.91	0.29	67,67,67,67	0
56	MG	14	3022	1/1	0.91	0.11	73,73,73,73	0
56	MG	25	201	1/1	0.91	0.25	93,93,93,93	0
56	MG	14	3374	1/1	0.91	0.08	68,68,68,68	0
56	MG	39	301	1/1	0.91	0.14	92,92,92,92	0
56	MG	1H	3264	1/1	0.91	0.57	80,80,80,80	0
56	MG	1H	3390	1/1	0.91	0.10	102,102,102,102	0
56	MG	1H	3008	1/1	0.91	0.36	61,61,61,61	0
56	MG	14	3027	1/1	0.91	0.33	86,86,86,86	0
56	MG	14	3132	1/1	0.91	0.61	56,56,56,56	0
56	MG	13	1624	1/1	0.91	0.25	80,80,80,80	0
56	MG	14	3279	1/1	0.91	0.28	45,45,45,45	0
56	MG	14	3286	1/1	0.91	0.12	68,68,68,68	0
56	MG	14	3180	1/1	0.91	0.60	74,74,74,74	0
56	MG	1H	3379	1/1	0.91	0.07	86,86,86,86	0
56	MG	14	3316	1/1	0.91	0.18	79,79,79,79	0
56	MG	14	3328	1/1	0.91	0.30	83,83,83,83	0
56	MG	1G	1649	1/1	0.91	0.09	83,83,83,83	0
56	MG	14	3106	1/1	0.91	0.34	75,75,75,75	0
56	MG	14	3451	1/1	0.91	0.07	88,88,88,88	0
56	MG	1G	1651	1/1	0.91	0.16	84,84,84,84	0
56	MG	1H	3162	1/1	0.91	0.26	66,66,66,66	0
56	MG	14	3247	1/1	0.91	0.14	58,58,58,58	0
56	MG	13	1741	1/1	0.91	0.09	110,110,110,110	0
56	MG	14	3004	1/1	0.91	0.45	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3414	1/1	0.91	0.07	68,68,68,68	0
56	MG	1G	1643	1/1	0.92	0.19	106,106,106,106	0
56	MG	1H	3069	1/1	0.92	0.27	45,45,45,45	0
56	MG	1H	3278	1/1	0.92	0.29	76,76,76,76	0
56	MG	1H	3189	1/1	0.92	0.45	53,53,53,53	0
56	MG	1H	3124	1/1	0.92	0.28	70,70,70,70	0
56	MG	13	1695	1/1	0.92	0.15	78,78,78,78	0
56	MG	1G	1692	1/1	0.92	0.06	106,106,106,106	0
56	MG	14	3070	1/1	0.92	0.13	49,49,49,49	0
56	MG	11	302	1/1	0.92	0.25	55,55,55,55	0
56	MG	32	301	1/1	0.92	0.08	112,112,112,112	0
56	MG	13	1685	1/1	0.92	0.18	100,100,100,100	0
56	MG	14	3023	1/1	0.92	0.09	69,69,69,69	0
56	MG	14	3228	1/1	0.92	0.41	63,63,63,63	0
56	MG	14	3172	1/1	0.92	0.30	82,82,82,82	0
56	MG	13	1755	1/1	0.92	0.06	101,101,101,101	0
56	MG	14	3404	1/1	0.92	0.10	77,77,77,77	0
56	MG	1H	3186	1/1	0.92	0.28	76,76,76,76	0
56	MG	1H	3360	1/1	0.92	0.13	59,59,59,59	0
56	MG	14	3074	1/1	0.92	0.45	76,76,76,76	0
56	MG	1H	3435	1/1	0.92	0.05	55,55,55,55	0
56	MG	1G	1700	1/1	0.92	0.18	87,87,87,87	0
56	MG	14	3318	1/1	0.92	0.17	65,65,65,65	0
56	MG	1H	3113	1/1	0.92	0.19	37,37,37,37	0
56	MG	1H	3155	1/1	0.92	0.31	80,80,80,80	0
56	MG	14	3412	1/1	0.92	0.11	76,76,76,76	0
56	MG	1H	3030	1/1	0.92	0.26	49,49,49,49	0
56	MG	13	1749	1/1	0.92	0.09	106,106,106,106	0
56	MG	14	3366	1/1	0.92	0.08	65,65,65,65	0
56	MG	1G	1685	1/1	0.92	0.14	63,63,63,63	0
56	MG	1H	3250	1/1	0.92	0.16	64,64,64,64	0
56	MG	41	201	1/1	0.92	0.08	62,62,62,62	0
56	MG	1H	3125	1/1	0.92	0.19	50,50,50,50	0
56	MG	14	3297	1/1	0.92	0.07	91,91,91,91	0
56	MG	14	3236	1/1	0.92	0.10	94,94,94,94	0
56	MG	14	3225	1/1	0.92	0.84	84,84,84,84	0
56	MG	14	3120	1/1	0.92	0.17	72,72,72,72	0
56	MG	1G	1624	1/1	0.92	0.19	87,87,87,87	0
56	MG	14	3468	1/1	0.92	0.39	58,58,58,58	0
56	MG	1G	1720	1/1	0.92	0.03	129,129,129,129	0
56	MG	1H	3232	1/1	0.92	0.82	77,77,77,77	0
56	MG	1H	3401	1/1	0.92	0.17	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	13	1612	1/1	0.92	0.20	78,78,78,78	0
56	MG	1H	3180	1/1	0.92	0.29	87,87,87,87	0
56	MG	1H	3075	1/1	0.92	0.36	80,80,80,80	0
56	MG	1H	3326	1/1	0.92	0.18	56,56,56,56	0
56	MG	13	1607	1/1	0.92	0.06	74,74,74,74	0
56	MG	14	3268	1/1	0.92	0.19	64,64,64,64	0
56	MG	1H	3127	1/1	0.92	0.24	44,44,44,44	0
56	MG	1H	3320	1/1	0.92	0.23	43,43,43,43	0
56	MG	1H	3283	1/1	0.92	0.16	58,58,58,58	0
56	MG	1H	3140	1/1	0.92	0.16	50,50,50,50	0
56	MG	14	3331	1/1	0.92	0.20	65,65,65,65	0
56	MG	1H	3049	1/1	0.92	0.15	50,50,50,50	0
56	MG	13	1647	1/1	0.92	0.13	73,73,73,73	0
56	MG	1G	1604	1/1	0.92	0.31	102,102,102,102	0
56	MG	13	1670	1/1	0.92	0.23	80,80,80,80	0
56	MG	13	1725	1/1	0.92	0.08	65,65,65,65	0
56	MG	14	3003	1/1	0.92	0.30	43,43,43,43	0
56	MG	1H	3073	1/1	0.93	0.23	39,39,39,39	0
56	MG	1G	1702	1/1	0.93	0.22	100,100,100,100	0
56	MG	14	3029	1/1	0.93	0.29	68,68,68,68	0
56	MG	1G	1721	1/1	0.93	0.09	84,84,84,84	0
56	MG	1H	3482	1/1	0.93	0.11	85,85,85,85	0
56	MG	14	3317	1/1	0.93	0.12	119,119,119,119	0
56	MG	14	3020	1/1	0.93	0.13	73,73,73,73	0
56	MG	1H	3148	1/1	0.93	0.19	56,56,56,56	0
56	MG	1H	3370	1/1	0.93	0.10	37,37,37,37	0
56	MG	14	3376	1/1	0.93	0.12	91,91,91,91	0
56	MG	1G	1675	1/1	0.93	0.15	101,101,101,101	0
56	MG	1G	1686	1/1	0.93	0.06	90,90,90,90	0
56	MG	14	3397	1/1	0.93	0.08	95,95,95,95	0
56	MG	14	3088	1/1	0.93	0.23	105,105,105,105	0
56	MG	1H	3152	1/1	0.93	0.14	87,87,87,87	0
56	MG	14	3345	1/1	0.93	0.13	66,66,66,66	0
56	MG	13	1694	1/1	0.93	0.17	79,79,79,79	0
56	MG	13	1750	1/1	0.93	0.21	101,101,101,101	0
56	MG	1H	3128	1/1	0.93	0.44	76,76,76,76	0
56	MG	1H	3089	1/1	0.93	0.40	82,82,82,82	0
56	MG	1H	3083	1/1	0.93	0.15	81,81,81,81	0
56	MG	1H	3544	1/1	0.93	0.08	81,81,81,81	0
56	MG	13	1649	1/1	0.93	0.17	87,87,87,87	0
56	MG	5E	201	1/1	0.93	0.17	71,71,71,71	0
56	MG	14	3163	1/1	0.93	1.04	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3276	1/1	0.93	0.25	78,78,78,78	0
56	MG	13	1639	1/1	0.93	0.29	91,91,91,91	0
56	MG	1J	203	1/1	0.93	0.21	70,70,70,70	0
56	MG	1G	1663	1/1	0.93	0.07	85,85,85,85	0
56	MG	1H	3150	1/1	0.93	0.30	51,51,51,51	0
56	MG	1H	3034	1/1	0.93	0.34	63,63,63,63	0
56	MG	1H	3460	1/1	0.93	0.08	75,75,75,75	0
58	ZN	G8	201	1/1	0.93	0.18	143,143,143,143	0
56	MG	1H	3561	1/1	0.93	0.05	87,87,87,87	0
56	MG	13	1632	1/1	0.93	0.19	69,69,69,69	0
56	MG	1H	3235	1/1	0.93	0.38	65,65,65,65	0
56	MG	1H	3312	1/1	0.93	0.10	49,49,49,49	0
56	MG	14	3452	1/1	0.93	0.06	90,90,90,90	0
56	MG	1H	3463	1/1	0.93	0.09	78,78,78,78	0
56	MG	1H	3178	1/1	0.93	0.47	69,69,69,69	0
56	MG	13	1689	1/1	0.93	0.17	65,65,65,65	0
56	MG	1H	3129	1/1	0.93	0.15	66,66,66,66	0
56	MG	25	202	1/1	0.93	0.08	108,108,108,108	0
56	MG	1H	3173	1/1	0.93	0.53	67,67,67,67	0
56	MG	1H	3528	1/1	0.93	0.05	72,72,72,72	0
56	MG	1H	3118	1/1	0.93	0.57	52,52,52,52	0
56	MG	1G	1646	1/1	0.93	0.11	119,119,119,119	0
56	MG	13	1717	1/1	0.93	0.10	51,51,51,51	0
56	MG	1G	1717	1/1	0.93	0.06	118,118,118,118	0
56	MG	14	3402	1/1	0.93	0.06	94,94,94,94	0
56	MG	E5	101	1/1	0.93	0.46	74,74,74,74	0
56	MG	14	3050	1/1	0.93	0.44	76,76,76,76	0
56	MG	14	3165	1/1	0.93	0.21	67,67,67,67	0
56	MG	14	3391	1/1	0.93	0.12	73,73,73,73	0
56	MG	1H	3442	1/1	0.93	0.22	64,64,64,64	0
56	MG	1H	3364	1/1	0.93	0.11	51,51,51,51	0
56	MG	1H	3052	1/1	0.93	0.26	59,59,59,59	0
56	MG	2A	201	1/1	0.93	0.17	103,103,103,103	0
56	MG	13	1708	1/1	0.93	0.06	80,80,80,80	0
56	MG	1H	3131	1/1	0.93	0.21	54,54,54,54	0
56	MG	1H	3545	1/1	0.93	0.07	88,88,88,88	0
56	MG	1H	3138	1/1	0.93	0.14	59,59,59,59	0
56	MG	1H	3111	1/1	0.93	0.19	57,57,57,57	0
56	MG	14	3333	1/1	0.93	0.12	64,64,64,64	0
56	MG	1H	3019	1/1	0.93	0.38	39,39,39,39	0
58	ZN	C5	201	1/1	0.93	0.05	156,156,156,156	0
56	MG	1G	1709	1/1	0.93	0.22	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3046	1/1	0.93	0.23	52,52,52,52	0
56	MG	1G	1638	1/1	0.93	0.39	92,92,92,92	0
56	MG	13	1707	1/1	0.93	0.10	63,63,63,63	0
56	MG	14	3137	1/1	0.93	0.77	61,61,61,61	0
56	MG	1G	1612	1/1	0.93	0.30	76,76,76,76	0
56	MG	1H	3476	1/1	0.93	0.04	91,91,91,91	0
56	MG	14	3041	1/1	0.93	0.24	44,44,44,44	0
56	MG	1H	3553	1/1	0.93	0.05	78,78,78,78	0
56	MG	1J	201	1/1	0.93	0.13	70,70,70,70	0
56	MG	1H	3318	1/1	0.93	0.07	72,72,72,72	0
56	MG	1G	1669	1/1	0.93	0.18	81,81,81,81	0
56	MG	14	3434	1/1	0.93	0.07	77,77,77,77	0
56	MG	1H	3120	1/1	0.93	0.31	39,39,39,39	0
56	MG	1H	3300	1/1	0.93	0.20	41,41,41,41	0
56	MG	11	301	1/1	0.93	0.15	77,77,77,77	0
56	MG	14	3182	1/1	0.93	0.17	66,66,66,66	0
56	MG	1H	3170	1/1	0.93	0.19	115,115,115,115	0
56	MG	1H	3383	1/1	0.93	0.08	61,61,61,61	0
56	MG	1G	1639	1/1	0.93	0.35	87,87,87,87	0
56	MG	16	207	1/1	0.93	0.09	60,60,60,60	0
56	MG	1H	3185	1/1	0.93	0.30	54,54,54,54	0
56	MG	1H	3485	1/1	0.93	0.06	97,97,97,97	0
56	MG	14	3056	1/1	0.93	0.65	69,69,69,69	0
56	MG	1H	3537	1/1	0.93	0.07	79,79,79,79	0
56	MG	1H	3412	1/1	0.93	0.08	39,39,39,39	0
56	MG	14	3211	1/1	0.93	0.36	70,70,70,70	0
56	MG	1H	3053	1/1	0.93	0.40	40,40,40,40	0
56	MG	14	3204	1/1	0.93	0.24	63,63,63,63	0
56	MG	1H	3207	1/1	0.94	0.29	119,119,119,119	0
56	MG	1H	3514	1/1	0.94	0.07	69,69,69,69	0
56	MG	1G	1724	1/1	0.94	0.15	102,102,102,102	0
56	MG	13	1697	1/1	0.94	0.03	91,91,91,91	0
56	MG	14	3427	1/1	0.94	0.16	69,69,69,69	0
56	MG	1H	3108	1/1	0.94	0.22	34,34,34,34	0
56	MG	1H	3117	1/1	0.94	0.20	61,61,61,61	0
56	MG	1H	3327	1/1	0.94	0.06	68,68,68,68	0
56	MG	1H	3552	1/1	0.94	0.15	73,73,73,73	0
56	MG	13	1710	1/1	0.94	0.07	85,85,85,85	0
56	MG	14	3315	1/1	0.94	0.12	56,56,56,56	0
56	MG	14	3420	1/1	0.94	0.07	66,66,66,66	0
56	MG	14	3117	1/1	0.94	0.36	79,79,79,79	0
56	MG	13	1615	1/1	0.94	0.17	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3222	1/1	0.94	0.29	72,72,72,72	0
56	MG	1G	1718	1/1	0.94	0.06	89,89,89,89	0
56	MG	1G	1635	1/1	0.94	0.07	101,101,101,101	0
56	MG	1H	3507	1/1	0.94	0.07	84,84,84,84	0
56	MG	1H	3029	1/1	0.94	0.17	48,48,48,48	0
56	MG	1H	3248	1/1	0.94	0.12	72,72,72,72	0
56	MG	14	3326	1/1	0.94	0.06	81,81,81,81	0
56	MG	1H	3032	1/1	0.94	0.32	68,68,68,68	0
56	MG	1H	3410	1/1	0.94	0.16	57,57,57,57	0
56	MG	14	3119	1/1	0.94	0.29	67,67,67,67	0
56	MG	14	3347	1/1	0.94	0.15	74,74,74,74	0
56	MG	13	1692	1/1	0.94	0.04	79,79,79,79	0
56	MG	1H	3517	1/1	0.94	0.07	84,84,84,84	0
56	MG	1H	3329	1/1	0.94	0.15	41,41,41,41	0
56	MG	14	3436	1/1	0.94	0.11	98,98,98,98	0
56	MG	1H	3228	1/1	0.94	0.40	79,79,79,79	0
56	MG	14	3433	1/1	0.94	0.05	143,143,143,143	0
56	MG	13	1740	1/1	0.94	0.11	96,96,96,96	0
56	MG	1H	3294	1/1	0.94	0.18	43,43,43,43	0
56	MG	14	3196	1/1	0.94	0.06	77,77,77,77	0
56	MG	1H	3229	1/1	0.94	0.22	59,59,59,59	0
56	MG	14	3407	1/1	0.94	0.13	79,79,79,79	0
56	MG	45	201	1/1	0.94	0.12	87,87,87,87	0
56	MG	14	3147	1/1	0.94	0.12	66,66,66,66	0
56	MG	14	3072	1/1	0.94	0.52	67,67,67,67	0
56	MG	13	1651	1/1	0.94	0.40	82,82,82,82	0
56	MG	1H	3215	1/1	0.94	0.61	83,83,83,83	0
56	MG	14	3392	1/1	0.94	0.06	85,85,85,85	0
56	MG	1H	3200	1/1	0.94	0.28	70,70,70,70	0
56	MG	1H	3413	1/1	0.94	0.11	59,59,59,59	0
56	MG	1H	3324	1/1	0.94	0.06	70,70,70,70	0
56	MG	13	1662	1/1	0.94	0.16	114,114,114,114	0
56	MG	13	1611	1/1	0.94	0.28	64,64,64,64	0
56	MG	1H	3213	1/1	0.94	0.27	96,96,96,96	0
56	MG	1H	3535	1/1	0.94	0.07	70,70,70,70	0
56	MG	1G	1615	1/1	0.94	0.20	93,93,93,93	0
56	MG	14	3099	1/1	0.94	0.33	51,51,51,51	0
56	MG	1G	1671	1/1	0.94	0.14	82,82,82,82	0
56	MG	M5	101	1/1	0.94	0.14	81,81,81,81	0
56	MG	1G	1659	1/1	0.94	0.23	85,85,85,85	0
56	MG	14	3389	1/1	0.94	0.10	82,82,82,82	0
56	MG	1H	3315	1/1	0.94	0.07	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3095	1/1	0.94	0.31	76,76,76,76	0
56	MG	1H	3429	1/1	0.94	0.19	49,49,49,49	0
56	MG	1H	3331	1/1	0.94	0.14	49,49,49,49	0
56	MG	14	3018	1/1	0.94	0.28	75,75,75,75	0
56	MG	13	1761	1/1	0.94	0.15	75,75,75,75	0
56	MG	1H	3057	1/1	0.94	0.32	63,63,63,63	0
56	MG	1H	3434	1/1	0.94	0.08	47,47,47,47	0
56	MG	1H	3086	1/1	0.94	0.54	65,65,65,65	0
56	MG	14	3243	1/1	0.94	0.41	60,60,60,60	0
56	MG	16	212	1/1	0.94	0.09	68,68,68,68	0
56	MG	1H	3420	1/1	0.94	0.22	55,55,55,55	0
56	MG	14	3144	1/1	0.94	0.40	60,60,60,60	0
56	MG	1H	3478	1/1	0.94	0.04	78,78,78,78	0
56	MG	1G	1653	1/1	0.94	0.25	82,82,82,82	0
56	MG	14	3362	1/1	0.94	0.08	65,65,65,65	0
56	MG	14	3045	1/1	0.94	0.22	67,67,67,67	0
56	MG	14	3390	1/1	0.94	0.16	72,72,72,72	0
56	MG	13	1709	1/1	0.94	0.06	68,68,68,68	0
56	MG	14	3097	1/1	0.94	0.27	70,70,70,70	0
56	MG	1H	3564	1/1	0.94	0.05	95,95,95,95	0
56	MG	14	3122	1/1	0.94	0.41	53,53,53,53	0
56	MG	14	3308	1/1	0.94	0.26	90,90,90,90	0
56	MG	1H	3115	1/1	0.94	0.27	59,59,59,59	0
56	MG	1H	3340	1/1	0.94	0.13	65,65,65,65	0
56	MG	14	3001	1/1	0.94	0.19	51,51,51,51	0
56	MG	1G	1673	1/1	0.94	0.08	86,86,86,86	0
56	MG	1G	1616	1/1	0.94	0.28	71,71,71,71	0
56	MG	1H	3035	1/1	0.94	0.27	64,64,64,64	0
56	MG	14	3155	1/1	0.94	0.27	73,73,73,73	0
56	MG	14	3257	1/1	0.94	0.13	42,42,42,42	0
56	MG	14	3408	1/1	0.94	0.06	94,94,94,94	0
56	MG	1J	204	1/1	0.94	0.20	90,90,90,90	0
56	MG	14	3444	1/1	0.94	0.12	90,90,90,90	0
56	MG	14	3352	1/1	0.94	0.12	66,66,66,66	0
56	MG	14	3063	1/1	0.94	0.23	82,82,82,82	0
56	MG	14	3005	1/1	0.94	0.29	73,73,73,73	0
56	MG	1H	3516	1/1	0.94	0.11	81,81,81,81	0
56	MG	14	3233	1/1	0.94	0.09	61,61,61,61	0
56	MG	14	3324	1/1	0.94	0.12	70,70,70,70	0
56	MG	14	3101	1/1	0.94	0.14	70,70,70,70	0
56	MG	1H	3014	1/1	0.94	0.21	75,75,75,75	0
56	MG	1H	3041	1/1	0.94	0.22	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3080	1/1	0.94	0.32	74,74,74,74	0
56	MG	1H	3474	1/1	0.94	0.05	79,79,79,79	0
56	MG	1H	3486	1/1	0.94	0.14	95,95,95,95	0
56	MG	1H	3415	1/1	0.94	0.16	73,73,73,73	0
56	MG	14	3382	1/1	0.94	0.12	47,47,47,47	0
56	MG	1H	3372	1/1	0.94	0.11	54,54,54,54	0
56	MG	1G	1660	1/1	0.94	0.04	92,92,92,92	0
56	MG	1H	3356	1/1	0.94	0.04	64,64,64,64	0
56	MG	13	1671	1/1	0.94	0.22	79,79,79,79	0
56	MG	1H	3271	1/1	0.94	0.33	63,63,63,63	0
56	MG	1H	3520	1/1	0.94	0.22	98,98,98,98	0
56	MG	13	1688	1/1	0.94	0.18	92,92,92,92	0
56	MG	1H	3388	1/1	0.94	0.09	97,97,97,97	0
56	MG	14	3251	1/1	0.94	0.12	48,48,48,48	0
56	MG	13	1648	1/1	0.94	0.10	105,105,105,105	0
56	MG	1H	3392	1/1	0.94	0.08	63,63,63,63	0
56	MG	1H	3477	1/1	0.94	0.05	91,91,91,91	0
56	MG	13	1696	1/1	0.94	0.17	72,72,72,72	0
56	MG	14	3207	1/1	0.94	0.84	63,63,63,63	0
56	MG	14	3380	1/1	0.94	0.08	95,95,95,95	0
56	MG	14	3323	1/1	0.94	0.10	57,57,57,57	0
56	MG	1H	3466	1/1	0.94	0.05	74,74,74,74	0
56	MG	14	3048	1/1	0.94	0.29	68,68,68,68	0
56	MG	1H	3119	1/1	0.94	0.18	46,46,46,46	0
56	MG	14	3096	1/1	0.94	0.29	48,48,48,48	0
56	MG	1H	3373	1/1	0.95	0.15	100,100,100,100	0
56	MG	78	201	1/1	0.95	0.29	70,70,70,70	0
56	MG	14	3419	1/1	0.95	0.11	97,97,97,97	0
56	MG	13	1683	1/1	0.95	0.17	92,92,92,92	0
56	MG	1G	1680	1/1	0.95	0.14	68,68,68,68	0
56	MG	1H	3351	1/1	0.95	0.17	50,50,50,50	0
56	MG	1H	3397	1/1	0.95	0.20	46,46,46,46	0
56	MG	1H	3492	1/1	0.95	0.05	74,74,74,74	0
56	MG	14	3174	1/1	0.95	0.30	64,64,64,64	0
56	MG	13	1751	1/1	0.95	0.09	76,76,76,76	0
56	MG	1G	1726	1/1	0.95	0.19	92,92,92,92	0
56	MG	14	3453	1/1	0.95	0.09	102,102,102,102	0
56	MG	14	3127	1/1	0.95	0.16	85,85,85,85	0
56	MG	1H	3510	1/1	0.95	0.09	92,92,92,92	0
56	MG	1H	3391	1/1	0.95	0.13	56,56,56,56	0
56	MG	14	3260	1/1	0.95	0.17	52,52,52,52	0
56	MG	1G	1605	1/1	0.95	0.29	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	16	209	1/1	0.95	0.08	67,67,67,67	0
56	MG	13	1608	1/1	0.95	0.20	71,71,71,71	0
56	MG	1H	3103	1/1	0.95	0.24	62,62,62,62	0
56	MG	1H	3287	1/1	0.95	0.19	121,121,121,121	0
56	MG	1H	3238	1/1	0.95	0.08	76,76,76,76	0
56	MG	1H	3293	1/1	0.95	0.15	41,41,41,41	0
56	MG	14	3037	1/1	0.95	0.30	61,61,61,61	0
56	MG	14	3338	1/1	0.95	0.09	83,83,83,83	0
56	MG	1H	3570	1/1	0.95	0.21	48,48,48,48	0
56	MG	14	3429	1/1	0.95	0.17	68,68,68,68	0
56	MG	1H	3314	1/1	0.95	0.10	74,74,74,74	0
56	MG	13	1646	1/1	0.95	0.17	89,89,89,89	0
56	MG	13	1690	1/1	0.95	0.17	56,56,56,56	0
56	MG	14	3218	1/1	0.95	0.23	74,74,74,74	0
56	MG	1H	3395	1/1	0.95	0.13	47,47,47,47	0
56	MG	1G	1609	1/1	0.95	0.24	70,70,70,70	0
56	MG	1H	3542	1/1	0.95	0.04	81,81,81,81	0
56	MG	14	3184	1/1	0.95	0.27	70,70,70,70	0
56	MG	14	3213	1/1	0.95	0.36	78,78,78,78	0
56	MG	1G	1674	1/1	0.95	0.05	97,97,97,97	0
56	MG	13	1644	1/1	0.95	0.16	94,94,94,94	0
56	MG	1H	3521	1/1	0.95	0.07	79,79,79,79	0
56	MG	14	3002	1/1	0.95	0.36	61,61,61,61	0
56	MG	1H	3184	1/1	0.95	0.40	57,57,57,57	0
56	MG	13	1704	1/1	0.95	0.17	73,73,73,73	0
56	MG	14	3287	1/1	0.95	0.05	71,71,71,71	0
56	MG	14	3090	1/1	0.95	0.35	55,55,55,55	0
56	MG	1H	3070	1/1	0.95	0.30	54,54,54,54	0
56	MG	14	3428	1/1	0.95	0.10	59,59,59,59	0
56	MG	13	1713	1/1	0.95	0.22	82,82,82,82	0
56	MG	1H	3006	1/1	0.95	0.27	43,43,43,43	0
56	MG	1H	3060	1/1	0.95	0.21	54,54,54,54	0
56	MG	1H	3204	1/1	0.95	0.32	74,74,74,74	0
56	MG	14	3210	1/1	0.95	0.35	74,74,74,74	0
56	MG	1H	3406	1/1	0.95	0.06	52,52,52,52	0
56	MG	13	1729	1/1	0.95	0.15	88,88,88,88	0
56	MG	14	3314	1/1	0.95	0.16	46,46,46,46	0
56	MG	13	1705	1/1	0.95	0.10	102,102,102,102	0
56	MG	14	3304	1/1	0.95	0.13	64,64,64,64	0
56	MG	14	3168	1/1	0.95	0.43	52,52,52,52	0
56	MG	14	3269	1/1	0.95	0.10	60,60,60,60	0
56	MG	F8	101	1/1	0.95	0.14	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3237	1/1	0.95	0.14	88,88,88,88	0
56	MG	1H	3458	1/1	0.95	0.08	56,56,56,56	0
56	MG	13	1680	1/1	0.95	0.19	73,73,73,73	0
56	MG	1H	3259	1/1	0.95	0.19	58,58,58,58	0
56	MG	1H	3305	1/1	0.95	0.14	48,48,48,48	0
56	MG	14	3091	1/1	0.95	0.34	44,44,44,44	0
56	MG	14	3406	1/1	0.95	0.25	86,86,86,86	0
56	MG	13	1654	1/1	0.95	0.16	91,91,91,91	0
56	MG	1H	3484	1/1	0.95	0.11	88,88,88,88	0
56	MG	13	1693	1/1	0.95	0.07	80,80,80,80	0
56	MG	1H	3439	1/1	0.95	0.14	55,55,55,55	0
56	MG	1H	3385	1/1	0.95	0.07	74,74,74,74	0
56	MG	1H	3376	1/1	0.95	0.11	50,50,50,50	0
56	MG	14	3062	1/1	0.95	0.30	80,80,80,80	0
56	MG	14	3372	1/1	0.95	0.14	45,45,45,45	0
56	MG	1H	3277	1/1	0.95	0.50	81,81,81,81	0
56	MG	1G	1678	1/1	0.95	0.14	93,93,93,93	0
56	MG	1H	3480	1/1	0.95	0.05	66,66,66,66	0
56	MG	1H	3571	1/1	0.95	0.17	39,39,39,39	0
56	MG	1G	1606	1/1	0.95	0.10	80,80,80,80	0
56	MG	14	3377	1/1	0.95	0.07	77,77,77,77	0
56	MG	14	3123	1/1	0.95	0.20	60,60,60,60	0
56	MG	1H	3135	1/1	0.95	0.23	54,54,54,54	0
56	MG	14	3422	1/1	0.95	0.10	70,70,70,70	0
56	MG	13	1601	1/1	0.95	0.23	102,102,102,102	0
56	MG	14	3030	1/1	0.95	0.32	38,38,38,38	0
56	MG	1H	3398	1/1	0.95	0.17	55,55,55,55	0
56	MG	1H	3417	1/1	0.96	0.14	71,71,71,71	0
56	MG	14	3206	1/1	0.96	0.58	72,72,72,72	0
56	MG	1H	3490	1/1	0.96	0.06	95,95,95,95	0
56	MG	13	1723	1/1	0.96	0.20	75,75,75,75	0
56	MG	1H	3424	1/1	0.96	0.14	44,44,44,44	0
56	MG	1G	1633	1/1	0.96	0.07	92,92,92,92	0
56	MG	14	3469	1/1	0.96	0.13	55,55,55,55	0
56	MG	13	1626	1/1	0.96	0.31	60,60,60,60	0
56	MG	14	3267	1/1	0.96	0.13	50,50,50,50	0
56	MG	1H	3063	1/1	0.96	0.16	43,43,43,43	0
56	MG	1H	3044	1/1	0.96	0.29	39,39,39,39	0
56	MG	14	3445	1/1	0.96	0.09	89,89,89,89	0
56	MG	1H	3354	1/1	0.96	0.19	45,45,45,45	0
56	MG	14	3142	1/1	0.96	0.11	83,83,83,83	0
56	MG	1H	3344	1/1	0.96	0.16	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3422	1/1	0.96	0.09	42,42,42,42	0
56	MG	1H	3031	1/1	0.96	0.32	74,74,74,74	0
56	MG	1H	3297	1/1	0.96	0.06	52,52,52,52	0
56	MG	1H	3403	1/1	0.96	0.07	71,71,71,71	0
56	MG	1H	3464	1/1	0.96	0.09	40,40,40,40	0
56	MG	1H	3347	1/1	0.96	0.12	72,72,72,72	0
56	MG	14	3424	1/1	0.96	0.08	81,81,81,81	0
56	MG	1H	3023	1/1	0.96	0.47	56,56,56,56	0
56	MG	1H	3308	1/1	0.96	0.10	49,49,49,49	0
56	MG	14	3220	1/1	0.96	0.39	74,74,74,74	0
56	MG	14	3423	1/1	0.96	0.07	52,52,52,52	0
56	MG	13	1636	1/1	0.96	0.54	70,70,70,70	0
56	MG	14	3049	1/1	0.96	0.47	79,79,79,79	0
56	MG	1H	3126	1/1	0.96	0.21	64,64,64,64	0
56	MG	1H	3056	1/1	0.96	0.33	28,28,28,28	0
56	MG	14	3256	1/1	0.96	0.05	65,65,65,65	0
56	MG	1H	3202	1/1	0.96	0.43	63,63,63,63	0
56	MG	1G	1689	1/1	0.96	0.06	79,79,79,79	0
56	MG	1H	3499	1/1	0.96	0.22	82,82,82,82	0
56	MG	1G	1723	1/1	0.96	0.14	106,106,106,106	0
56	MG	2K	103	1/1	0.96	0.38	56,56,56,56	0
56	MG	14	3135	1/1	0.96	0.13	59,59,59,59	0
56	MG	14	3329	1/1	0.96	0.24	54,54,54,54	0
56	MG	1H	3384	1/1	0.96	0.04	77,77,77,77	0
56	MG	2K	102	1/1	0.96	0.05	83,83,83,83	0
56	MG	1H	3453	1/1	0.96	0.09	81,81,81,81	0
56	MG	13	1731	1/1	0.96	0.09	83,83,83,83	0
56	MG	1H	3387	1/1	0.96	0.04	96,96,96,96	0
56	MG	1H	3116	1/1	0.96	0.06	64,64,64,64	0
56	MG	14	3012	1/1	0.96	0.37	56,56,56,56	0
56	MG	1J	211	1/1	0.96	0.05	85,85,85,85	0
56	MG	1H	3457	1/1	0.96	0.06	78,78,78,78	0
56	MG	14	3332	1/1	0.96	0.09	70,70,70,70	0
56	MG	1H	3043	1/1	0.96	0.27	47,47,47,47	0
56	MG	14	3261	1/1	0.96	0.15	57,57,57,57	0
56	MG	1H	3197	1/1	0.96	0.11	69,69,69,69	0
56	MG	14	3047	1/1	0.96	0.29	46,46,46,46	0
56	MG	14	3348	1/1	0.96	0.15	51,51,51,51	0
56	MG	1H	3335	1/1	0.96	0.08	77,77,77,77	0
56	MG	14	3359	1/1	0.96	0.09	57,57,57,57	0
56	MG	1H	3343	1/1	0.96	0.24	39,39,39,39	0
56	MG	1H	3226	1/1	0.96	0.28	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3100	1/1	0.96	0.21	77,77,77,77	0
56	MG	1H	3532	1/1	0.96	0.09	96,96,96,96	0
56	MG	1H	3147	1/1	0.96	0.29	43,43,43,43	0
56	MG	14	3061	1/1	0.96	0.30	47,47,47,47	0
56	MG	1H	3301	1/1	0.96	0.17	42,42,42,42	0
56	MG	14	3126	1/1	0.96	0.14	55,55,55,55	0
56	MG	14	3283	1/1	0.96	0.07	79,79,79,79	0
56	MG	1H	3489	1/1	0.96	0.08	87,87,87,87	0
56	MG	14	3248	1/1	0.96	0.20	47,47,47,47	0
56	MG	1H	3302	1/1	0.96	0.15	52,52,52,52	0
56	MG	1H	3028	1/1	0.96	0.24	49,49,49,49	0
56	MG	14	3013	1/1	0.96	0.32	60,60,60,60	0
56	MG	14	3274	1/1	0.96	0.15	50,50,50,50	0
56	MG	14	3188	1/1	0.96	0.12	61,61,61,61	0
56	MG	14	3067	1/1	0.96	0.24	85,85,85,85	0
56	MG	1H	3307	1/1	0.96	0.08	50,50,50,50	0
56	MG	1H	3033	1/1	0.96	0.36	67,67,67,67	0
56	MG	1H	3493	1/1	0.96	0.08	87,87,87,87	0
56	MG	14	3010	1/1	0.96	0.35	50,50,50,50	0
56	MG	14	3278	1/1	0.96	0.11	50,50,50,50	0
56	MG	1H	3114	1/1	0.96	0.26	66,66,66,66	0
56	MG	14	3327	1/1	0.96	0.23	60,60,60,60	0
56	MG	1H	3284	1/1	0.96	0.38	44,44,44,44	0
56	MG	1H	3361	1/1	0.96	0.16	56,56,56,56	0
56	MG	1H	3494	1/1	0.96	0.08	53,53,53,53	0
56	MG	1H	3447	1/1	0.96	0.15	59,59,59,59	0
56	MG	13	1702	1/1	0.96	0.14	64,64,64,64	0
56	MG	78	202	1/1	0.96	0.10	63,63,63,63	0
56	MG	29	301	1/1	0.96	0.29	49,49,49,49	0
56	MG	1H	3350	1/1	0.96	0.16	43,43,43,43	0
56	MG	1H	3369	1/1	0.96	0.18	57,57,57,57	0
56	MG	14	3271	1/1	0.96	0.14	60,60,60,60	0
56	MG	13	1664	1/1	0.96	0.48	69,69,69,69	0
56	MG	14	3026	1/1	0.96	0.21	70,70,70,70	0
56	MG	1G	1662	1/1	0.96	0.16	94,94,94,94	0
56	MG	1H	3074	1/1	0.96	0.07	52,52,52,52	0
56	MG	14	3448	1/1	0.96	0.23	72,72,72,72	0
56	MG	14	3336	1/1	0.96	0.09	75,75,75,75	0
56	MG	1G	1607	1/1	0.96	0.12	120,120,120,120	0
56	MG	14	3250	1/1	0.96	0.12	55,55,55,55	0
56	MG	1H	3181	1/1	0.96	0.29	88,88,88,88	0
56	MG	13	1656	1/1	0.96	0.12	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	Q8	101	1/1	0.96	0.14	71,71,71,71	0
56	MG	1H	3475	1/1	0.96	0.08	73,73,73,73	0
56	MG	14	3398	1/1	0.96	0.14	84,84,84,84	0
56	MG	1H	3061	1/1	0.97	0.36	41,41,41,41	0
56	MG	14	3058	1/1	0.97	0.10	93,93,93,93	0
56	MG	14	3418	1/1	0.97	0.11	75,75,75,75	0
56	MG	1H	3295	1/1	0.97	0.17	55,55,55,55	0
56	MG	14	3415	1/1	0.97	0.07	78,78,78,78	0
56	MG	1G	1610	1/1	0.97	0.19	70,70,70,70	0
56	MG	1H	3328	1/1	0.97	0.07	48,48,48,48	0
56	MG	13	1738	1/1	0.97	0.09	71,71,71,71	0
56	MG	13	1728	1/1	0.97	0.05	77,77,77,77	0
56	MG	1H	3265	1/1	0.97	0.13	69,69,69,69	0
56	MG	14	3361	1/1	0.97	0.12	41,41,41,41	0
56	MG	1H	3389	1/1	0.97	0.07	46,46,46,46	0
56	MG	14	3232	1/1	0.97	0.15	88,88,88,88	0
56	MG	1H	3110	1/1	0.97	0.16	44,44,44,44	0
56	MG	1H	3007	1/1	0.97	0.19	60,60,60,60	0
56	MG	1H	3508	1/1	0.97	0.04	37,37,37,37	0
56	MG	13	1736	1/1	0.97	0.16	99,99,99,99	0
56	MG	14	3272	1/1	0.97	0.03	68,68,68,68	0
56	MG	14	3036	1/1	0.97	0.40	39,39,39,39	0
56	MG	1H	3042	1/1	0.97	0.18	43,43,43,43	0
56	MG	14	3057	1/1	0.97	0.40	61,61,61,61	0
56	MG	1H	3097	1/1	0.97	0.55	53,53,53,53	0
56	MG	14	3285	1/1	0.97	0.09	55,55,55,55	0
56	MG	1H	3101	1/1	0.97	0.15	79,79,79,79	0
56	MG	1H	3149	1/1	0.97	0.23	54,54,54,54	0
56	MG	1H	3285	1/1	0.97	0.49	50,50,50,50	0
56	MG	1H	3038	1/1	0.97	0.05	70,70,70,70	0
56	MG	14	3094	1/1	0.97	0.28	73,73,73,73	0
56	MG	14	3414	1/1	0.97	0.10	78,78,78,78	0
56	MG	1H	3358	1/1	0.97	0.03	78,78,78,78	0
56	MG	1H	3427	1/1	0.97	0.20	60,60,60,60	0
56	MG	13	1635	1/1	0.97	0.23	72,72,72,72	0
56	MG	1H	3408	1/1	0.97	0.12	42,42,42,42	0
56	MG	1H	3306	1/1	0.97	0.12	38,38,38,38	0
56	MG	13	1610	1/1	0.97	0.13	77,77,77,77	0
56	MG	1G	1676	1/1	0.97	0.17	97,97,97,97	0
56	MG	13	1753	1/1	0.97	0.07	64,64,64,64	0
56	MG	13	1603	1/1	0.97	0.21	72,72,72,72	0
56	MG	1G	1679	1/1	0.97	0.10	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3042	1/1	0.97	0.58	85,85,85,85	0
56	MG	1H	3341	1/1	0.97	0.19	43,43,43,43	0
56	MG	14	3416	1/1	0.97	0.05	80,80,80,80	0
56	MG	14	3202	1/1	0.97	0.28	65,65,65,65	0
56	MG	13	1739	1/1	0.97	0.06	79,79,79,79	0
56	MG	1H	3072	1/1	0.97	0.21	33,33,33,33	0
56	MG	1H	3095	1/1	0.97	0.31	66,66,66,66	0
56	MG	14	3394	1/1	0.97	0.08	63,63,63,63	0
56	MG	14	3092	1/1	0.97	0.14	43,43,43,43	0
56	MG	1H	3025	1/1	0.97	0.32	32,32,32,32	0
56	MG	1G	1683	1/1	0.97	0.04	89,89,89,89	0
56	MG	1H	3338	1/1	0.97	0.07	45,45,45,45	0
56	MG	14	3065	1/1	0.97	0.27	58,58,58,58	0
56	MG	1H	3393	1/1	0.97	0.10	61,61,61,61	0
58	ZN	5A	101	1/1	0.97	0.07	130,130,130,130	0
56	MG	14	3312	1/1	0.97	0.10	47,47,47,47	0
56	MG	1H	3436	1/1	0.97	0.04	64,64,64,64	0
56	MG	13	1700	1/1	0.97	0.05	64,64,64,64	0
56	MG	14	3245	1/1	0.97	0.24	61,61,61,61	0
56	MG	14	3426	1/1	0.97	0.05	75,75,75,75	0
56	MG	1H	3515	1/1	0.97	0.12	57,57,57,57	0
56	MG	13	1641	1/1	0.97	0.07	78,78,78,78	0
56	MG	1G	1636	1/1	0.97	0.08	91,91,91,91	0
56	MG	14	3403	1/1	0.97	0.10	80,80,80,80	0
56	MG	1H	3380	1/1	0.97	0.14	69,69,69,69	0
56	MG	1H	3003	1/1	0.97	0.16	44,44,44,44	0
56	MG	1H	3303	1/1	0.97	0.14	57,57,57,57	0
56	MG	1H	3187	1/1	0.97	0.54	77,77,77,77	0
56	MG	1H	3154	1/1	0.97	0.26	60,60,60,60	0
56	MG	14	3292	1/1	0.97	0.06	63,63,63,63	0
56	MG	14	3082	1/1	0.97	0.08	73,73,73,73	0
56	MG	I8	101	1/1	0.97	0.04	55,55,55,55	0
56	MG	14	3108	1/1	0.97	0.09	67,67,67,67	0
56	MG	14	3223	1/1	0.97	0.16	78,78,78,78	0
56	MG	1H	3002	1/1	0.97	0.20	59,59,59,59	0
56	MG	1H	3039	1/1	0.97	0.42	74,74,74,74	0
56	MG	1H	3266	1/1	0.97	0.21	61,61,61,61	0
56	MG	1H	3355	1/1	0.97	0.11	40,40,40,40	0
56	MG	14	3259	1/1	0.97	0.09	57,57,57,57	0
56	MG	1H	3425	1/1	0.97	0.09	39,39,39,39	0
56	MG	14	3281	1/1	0.97	0.11	69,69,69,69	0
56	MG	14	3340	1/1	0.97	0.11	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3230	1/1	0.97	0.26	74,74,74,74	0
56	MG	14	3387	1/1	0.97	0.10	87,87,87,87	0
56	MG	13	1726	1/1	0.97	0.08	64,64,64,64	0
56	MG	14	3017	1/1	0.97	0.34	54,54,54,54	0
56	MG	1H	3352	1/1	0.97	0.11	57,57,57,57	0
56	MG	14	3303	1/1	0.97	0.12	68,68,68,68	0
56	MG	1H	3396	1/1	0.97	0.11	41,41,41,41	0
56	MG	1H	3246	1/1	0.97	0.31	71,71,71,71	0
56	MG	1H	3371	1/1	0.97	0.06	64,64,64,64	0
56	MG	1H	3365	1/1	0.97	0.18	50,50,50,50	0
56	MG	1G	1640	1/1	0.97	0.37	95,95,95,95	0
56	MG	1H	3449	1/1	0.97	0.12	53,53,53,53	0
56	MG	14	3339	1/1	0.97	0.04	73,73,73,73	0
56	MG	1H	3512	1/1	0.97	0.10	60,60,60,60	0
56	MG	1H	3051	1/1	0.97	0.37	46,46,46,46	0
56	MG	14	3071	1/1	0.97	0.60	52,52,52,52	0
56	MG	13	1621	1/1	0.97	0.08	84,84,84,84	0
56	MG	14	3009	1/1	0.97	0.23	41,41,41,41	0
56	MG	1H	3289	1/1	0.97	0.15	48,48,48,48	0
56	MG	1H	3296	1/1	0.97	0.18	43,43,43,43	0
56	MG	1H	3323	1/1	0.97	0.08	64,64,64,64	0
56	MG	1H	3381	1/1	0.97	0.04	74,74,74,74	0
56	MG	1H	3357	1/1	0.97	0.12	66,66,66,66	0
56	MG	1H	3292	1/1	0.97	0.12	38,38,38,38	0
56	MG	14	3032	1/1	0.97	0.43	50,50,50,50	0
56	MG	1H	3175	1/1	0.97	0.15	55,55,55,55	0
56	MG	14	3246	1/1	0.97	0.31	57,57,57,57	0
56	MG	14	3011	1/1	0.97	0.38	50,50,50,50	0
56	MG	14	3307	1/1	0.97	0.15	60,60,60,60	0
56	MG	14	3280	1/1	0.97	0.15	47,47,47,47	0
56	MG	14	3386	1/1	0.97	0.09	81,81,81,81	0
56	MG	14	3038	1/1	0.97	0.23	81,81,81,81	0
56	MG	14	3226	1/1	0.97	0.26	51,51,51,51	0
56	MG	14	3249	1/1	0.98	0.10	64,64,64,64	0
56	MG	14	3015	1/1	0.98	0.19	80,80,80,80	0
56	MG	1G	1690	1/1	0.98	0.03	90,90,90,90	0
56	MG	1H	3206	1/1	0.98	0.17	53,53,53,53	0
56	MG	14	3325	1/1	0.98	0.06	66,66,66,66	0
58	ZN	5I	102	1/1	0.98	0.13	87,87,87,87	0
56	MG	1H	3036	1/1	0.98	0.21	45,45,45,45	0
56	MG	13	1714	1/1	0.98	0.12	59,59,59,59	0
56	MG	1H	3233	1/1	0.98	0.66	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3399	1/1	0.98	0.08	52,52,52,52	0
56	MG	1H	3304	1/1	0.98	0.20	42,42,42,42	0
56	MG	1H	3040	1/1	0.98	0.31	71,71,71,71	0
56	MG	1H	3298	1/1	0.98	0.11	46,46,46,46	0
56	MG	1G	1613	1/1	0.98	0.18	85,85,85,85	0
56	MG	1H	3346	1/1	0.98	0.18	60,60,60,60	0
56	MG	1H	3433	1/1	0.98	0.18	37,37,37,37	0
56	MG	1G	1601	1/1	0.98	0.14	78,78,78,78	0
56	MG	1H	3237	1/1	0.98	0.20	41,41,41,41	0
56	MG	1H	3481	1/1	0.98	0.10	59,59,59,59	0
56	MG	1H	3465	1/1	0.98	0.06	58,58,58,58	0
56	MG	14	3365	1/1	0.98	0.13	44,44,44,44	0
56	MG	1H	3416	1/1	0.98	0.12	70,70,70,70	0
56	MG	14	3258	1/1	0.98	0.11	52,52,52,52	0
56	MG	14	3043	1/1	0.98	0.28	68,68,68,68	0
56	MG	13	1698	1/1	0.98	0.14	98,98,98,98	0
56	MG	1H	3121	1/1	0.98	0.60	64,64,64,64	0
56	MG	1G	1704	1/1	0.98	0.06	99,99,99,99	0
56	MG	13	1669	1/1	0.98	0.16	95,95,95,95	0
56	MG	1H	3349	1/1	0.98	0.17	42,42,42,42	0
56	MG	1H	3290	1/1	0.98	0.18	40,40,40,40	0
56	MG	13	1721	1/1	0.98	0.07	82,82,82,82	0
56	MG	1H	3055	1/1	0.98	0.36	43,43,43,43	0
56	MG	14	3073	1/1	0.98	0.47	65,65,65,65	0
56	MG	1H	3021	1/1	0.98	0.35	43,43,43,43	0
56	MG	1H	3506	1/1	0.98	0.11	58,58,58,58	0
56	MG	13	1606	1/1	0.98	0.20	71,71,71,71	0
56	MG	14	3275	1/1	0.98	0.18	47,47,47,47	0
56	MG	14	3334	1/1	0.98	0.13	69,69,69,69	0
56	MG	14	3344	1/1	0.98	0.09	56,56,56,56	0
56	MG	14	3320	1/1	0.98	0.09	79,79,79,79	0
56	MG	14	3273	1/1	0.98	0.09	55,55,55,55	0
56	MG	14	3016	1/1	0.98	0.32	55,55,55,55	0
56	MG	13	1609	1/1	0.98	0.24	64,64,64,64	0
56	MG	1H	3058	1/1	0.98	0.26	69,69,69,69	0
56	MG	1H	3368	1/1	0.98	0.08	49,49,49,49	0
56	MG	1H	3342	1/1	0.98	0.12	44,44,44,44	0
56	MG	1H	3572	1/1	0.98	0.28	54,54,54,54	0
56	MG	1H	3359	1/1	0.98	0.09	59,59,59,59	0
56	MG	1G	1648	1/1	0.98	0.09	94,94,94,94	0
56	MG	14	3470	1/1	0.98	0.27	79,79,79,79	0
56	MG	1G	1706	1/1	0.98	0.07	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	14	3055	1/1	0.98	0.38	50,50,50,50	0
56	MG	1H	3450	1/1	0.98	0.06	45,45,45,45	0
56	MG	13	1660	1/1	0.98	0.18	55,55,55,55	0
56	MG	13	1715	1/1	0.98	0.08	94,94,94,94	0
56	MG	1H	3255	1/1	0.98	0.10	75,75,75,75	0
56	MG	14	3262	1/1	0.98	0.20	54,54,54,54	0
56	MG	14	3367	1/1	0.98	0.09	75,75,75,75	0
56	MG	1H	3402	1/1	0.98	0.15	40,40,40,40	0
56	MG	14	3060	1/1	0.98	0.09	47,47,47,47	0
56	MG	1G	1603	1/1	0.98	0.19	85,85,85,85	0
56	MG	1G	1628	1/1	0.98	0.39	77,77,77,77	0
56	MG	14	3077	1/1	0.98	0.27	45,45,45,45	0
56	MG	1H	3330	1/1	0.98	0.11	46,46,46,46	0
56	MG	14	3351	1/1	0.98	0.12	54,54,54,54	0
56	MG	14	3265	1/1	0.98	0.24	51,51,51,51	0
56	MG	14	3409	1/1	0.98	0.08	73,73,73,73	0
56	MG	14	3031	1/1	0.98	0.32	48,48,48,48	0
56	MG	14	3255	1/1	0.98	0.20	42,42,42,42	0
56	MG	1H	3109	1/1	0.98	0.33	34,34,34,34	0
56	MG	1G	1666	1/1	0.98	0.07	100,100,100,100	0
56	MG	1H	3334	1/1	0.98	0.14	59,59,59,59	0
56	MG	1H	3374	1/1	0.98	0.11	68,68,68,68	0
56	MG	14	3167	1/1	0.98	0.17	54,54,54,54	0
56	MG	14	3277	1/1	0.98	0.14	57,57,57,57	0
56	MG	B5	101	1/1	0.98	0.09	76,76,76,76	0
56	MG	1H	3022	1/1	0.98	0.23	45,45,45,45	0
56	MG	14	3294	1/1	0.98	0.16	59,59,59,59	0
56	MG	14	3080	1/1	0.98	0.28	53,53,53,53	0
56	MG	14	3069	1/1	0.98	0.16	47,47,47,47	0
56	MG	14	3309	1/1	0.98	0.08	76,76,76,76	0
56	MG	1G	1699	1/1	0.98	0.04	86,86,86,86	0
56	MG	14	3343	1/1	0.98	0.14	42,42,42,42	0
56	MG	1H	3299	1/1	0.98	0.07	35,35,35,35	0
56	MG	14	3054	1/1	0.98	0.26	55,55,55,55	0
56	MG	1H	3322	1/1	0.98	0.07	67,67,67,67	0
56	MG	1H	3339	1/1	0.98	0.13	41,41,41,41	0
56	MG	13	1619	1/1	0.98	0.19	51,51,51,51	0
56	MG	14	3039	1/1	0.98	0.24	63,63,63,63	0
56	MG	1H	3026	1/1	0.98	0.17	71,71,71,71	0
56	MG	1G	1670	1/1	0.99	0.14	71,71,71,71	0
56	MG	1H	3045	1/1	0.99	0.30	42,42,42,42	0
56	MG	14	3114	1/1	0.99	0.23	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1H	3313	1/1	0.99	0.15	58,58,58,58	0
56	MG	1H	3309	1/1	0.99	0.13	47,47,47,47	0
56	MG	1H	3423	1/1	0.99	0.16	33,33,33,33	0
56	MG	1H	3367	1/1	0.99	0.15	40,40,40,40	0
56	MG	14	3266	1/1	0.99	0.24	43,43,43,43	0
56	MG	14	3264	1/1	0.99	0.15	59,59,59,59	0
56	MG	2L	101	1/1	0.99	0.53	71,71,71,71	0
56	MG	14	3121	1/1	0.99	0.37	45,45,45,45	0
56	MG	1H	3404	1/1	0.99	0.14	45,45,45,45	0
56	MG	14	3208	1/1	0.99	0.19	77,77,77,77	0
56	MG	1H	3531	1/1	0.99	0.10	56,56,56,56	0
56	MG	45	202	1/1	0.99	0.14	66,66,66,66	0
57	SF4	32	302	8/8	0.99	0.16	99,104,114,118	0
56	MG	1H	3017	1/1	0.99	0.45	55,55,55,55	0
56	MG	21	303	1/1	0.99	0.12	42,42,42,42	0
56	MG	14	3276	1/1	0.99	0.09	56,56,56,56	0
56	MG	11	303	1/1	0.99	0.13	49,49,49,49	0
56	MG	14	3471	1/1	0.99	0.17	68,68,68,68	0
56	MG	1H	3268	1/1	0.99	0.20	78,78,78,78	0
56	MG	1H	3242	1/1	0.99	0.33	70,70,70,70	0
56	MG	1H	3337	1/1	0.99	0.12	41,41,41,41	0
56	MG	1H	3282	1/1	0.99	0.14	66,66,66,66	0
56	MG	13	1604	1/1	0.99	0.22	66,66,66,66	0
56	MG	1H	3462	1/1	0.99	0.07	66,66,66,66	0
56	MG	1H	3243	1/1	0.99	0.28	54,54,54,54	0
56	MG	1H	3024	1/1	0.99	0.15	47,47,47,47	0
56	MG	14	3040	1/1	0.99	0.26	58,58,58,58	0
56	MG	1H	3004	1/1	0.99	0.21	46,46,46,46	0
56	MG	13	1703	1/1	0.99	0.11	75,75,75,75	0
56	MG	1G	1658	1/1	0.99	0.18	79,79,79,79	0
56	MG	1H	3394	1/1	0.99	0.14	40,40,40,40	0
56	MG	1H	3020	1/1	0.99	0.31	56,56,56,56	0
56	MG	14	3014	1/1	0.99	0.15	64,64,64,64	0
57	SF4	3E	301	8/8	0.99	0.19	75,82,92,93	0
56	MG	14	3051	1/1	0.99	0.35	62,62,62,62	0
56	MG	14	3371	1/1	0.99	0.15	75,75,75,75	0
56	MG	14	3355	1/1	0.99	0.10	52,52,52,52	0
56	MG	1G	1716	1/1	0.99	0.07	88,88,88,88	0

## 6.5 Other polymers ⓘ

There are no such residues in this entry.