



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 18, 2026 – 12:17 AM UTC

PDB ID : 5FDU / pdb_00005fd
Title : Crystal structure of the Metalnikowin I antimicrobial peptide bound to the Thermus thermophilus 70S ribosome
Authors : Seefeldt, A.C.; Graf, M.; Perebaskine, N.; Nguyen, F.; Arenz, S.; Mardirossian, M.; Scocchi, M.; Wilson, D.N.; Innis, C.A.
Deposited on : 2015-12-16
Resolution : 2.90 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity : 4-5-2 with Phenix2.0
Mogul : 2022.3.0, CSD as543be (2022)
Xtriage (Phenix) : 2.0
EDS : 3.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4 : 9.0.010 (Gargrove)
Density-Fitness : 1.0.12
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

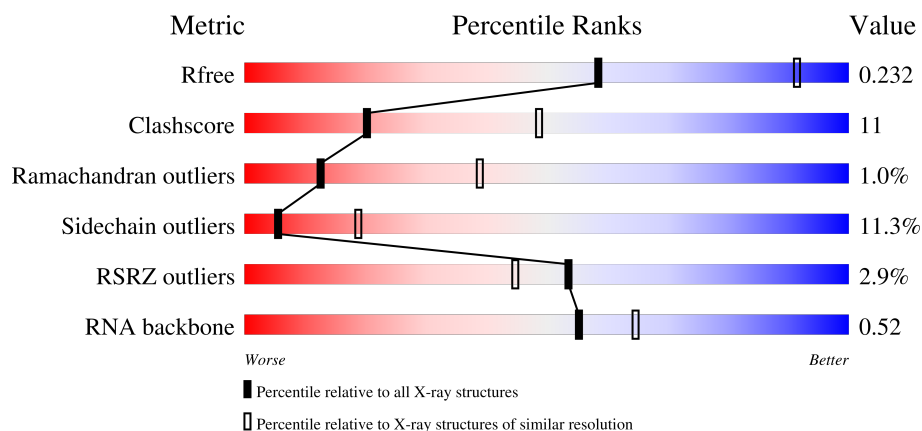
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.90 Å.

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



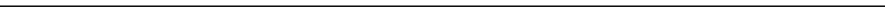
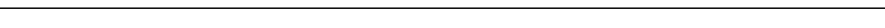
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	2481 (2.90-2.90)
Clashscore	190562	2690 (2.90-2.90)
Ramachandran outliers	187476	2623 (2.90-2.90)
Sidechain outliers	187428	2625 (2.90-2.90)
RSRZ outliers	180081	2481 (2.90-2.90)
RNA backbone	3983	1120 (3.10-2.70)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for ≥ 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	1A	2915	3% 63% 29% 6% .
1	2A	2915	4% 59% 33% 6% .
2	1B	120	73% 23% .
2	2B	120	% 53% 42% .

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Mol	Chain	Length	Quality of chain
3	1D	275	
3	2D	275	
4	1E	204	
4	2E	204	
5	1F	203	
5	2F	203	
6	1G	181	
6	2G	181	
7	1H	174	
7	2H	174	
8	1I	147	
8	2I	147	
9	1N	140	
9	2N	140	
10	1O	122	
10	2O	122	
11	1P	149	
11	2P	149	
12	1Q	141	
12	2Q	141	
13	1R	118	
13	2R	118	
14	1S	110	
14	2S	110	
15	1T	131	

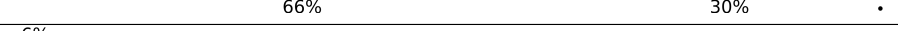
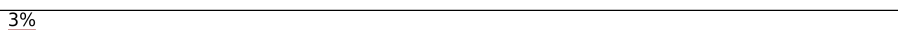
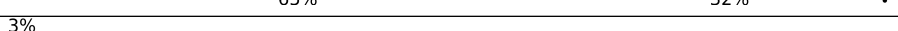
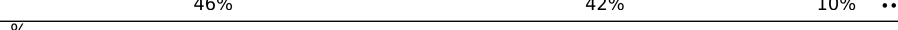
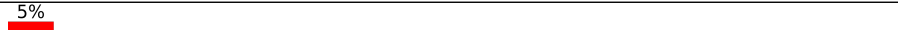
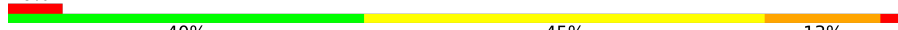
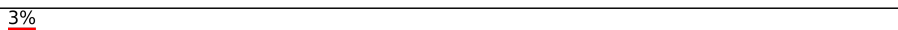
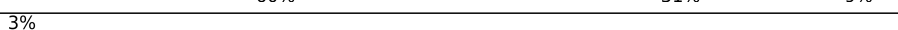
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Mol	Chain	Length	Quality of chain
15	2T	131	
16	1U	116	
16	2U	116	
17	1V	101	
17	2V	101	
18	1W	112	
18	2W	112	
19	1X	95	
19	2X	95	
20	1Y	107	
20	2Y	107	
21	1Z	203	
21	2Z	203	
22	10	77	
22	20	77	
23	11	97	
23	21	97	
24	12	70	
24	22	70	
25	13	59	
25	23	59	
26	14	69	
26	24	69	
27	15	59	
27	25	59	

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Mol	Chain	Length	Quality of chain
28	16	53	
28	26	53	
29	17	48	
29	27	48	
30	18	64	
30	28	64	
31	19	37	
31	29	37	
32	1a	1521	
32	2a	1521	
33	1b	231	
33	2b	231	
34	1c	206	
34	2c	206	
35	1d	208	
35	2d	208	
36	1e	148	
36	2e	148	
37	1f	100	
37	2f	100	
38	1g	155	
38	2g	155	
39	1h	137	
39	2h	137	
40	1i	127	

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Mol	Chain	Length	Quality of chain
40	2i	127	
41	1j	97	
41	2j	97	
42	1k	114	
42	2k	114	
43	1l	122	
43	2l	122	
44	1m	116	
44	2m	116	
45	1n	60	
45	2n	60	
46	1o	88	
46	2o	88	
47	1p	82	
47	2p	82	
48	1q	99	
48	2q	99	
49	1r	68	
49	2r	68	
50	1s	83	
50	2s	83	
51	1t	98	
51	2t	98	
52	1u	23	
52	2u	23	

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Mol	Chain	Length	Quality of chain
53	1x	97	
53	2x	97	
54	1y	10	
54	2y	10	

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
43	OTD	1l	92	-	X	-	-
55	MG	1l	101	-	-	-	X
55	MG	1A	3165	-	-	-	X
55	MG	1A	3573	-	-	-	X
55	MG	1a	3049	-	-	-	X
55	MG	1a	3058	-	-	-	X
55	MG	1a	3063	-	-	-	X
55	MG	1a	3161	-	-	-	X
55	MG	25	103	-	-	-	X
55	MG	2A	3026	-	-	-	X
55	MG	2A	3047	-	-	-	X
55	MG	2A	3257	-	-	-	X
55	MG	2A	3624	-	-	-	X
55	MG	2A	3643	-	-	-	X
55	MG	2A	3756	-	-	-	X
55	MG	2A	3792	-	-	-	X
55	MG	2D	305	-	-	-	X
55	MG	2E	303	-	-	-	X
55	MG	2a	1606	-	-	-	X
55	MG	2a	1614	-	-	-	X
55	MG	2a	1631	-	-	-	X
55	MG	2e	3002	-	-	-	X

2 Entry composition [i](#)

There are 59 unique types of molecules in this entry. The entry contains 293484 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 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	1A	2872	Total	C	N	O	P	0	0	0
			61862	27535	11569	19886	2872			
1	2A	2867	Total	C	N	O	P	0	0	0
			61751	27486	11547	19852	2866			

- Molecule 2 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	1B	120	Total	C	N	O	P	0	0	0
			2575	1145	476	834	120			
2	2B	120	Total	C	N	O	P	0	0	0
			2571	1146	476	831	118			

- Molecule 3 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	1D	275	Total	C	N	O	S	0	0	0
			2131	1346	422	360	3			
3	2D	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			

- Molecule 4 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	1E	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			
4	2E	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			

- Molecule 5 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	1F	203	Total	C	N	O	S	0	0	1
			1584	1009	298	275	2			
5	2F	203	Total	C	N	O	S	0	0	1
			1574	1004	294	274	2			

- Molecule 6 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	1G	181	Total	C	N	O	S	0	0	0
			1426	916	253	253	4			
6	2G	181	Total	C	N	O	S	0	0	0
			1424	912	259	249	4			

- Molecule 7 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	1H	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			
7	2H	173	Total	C	N	O	S	0	0	0
			1324	842	247	234	1			

- Molecule 8 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	1I	147	Total	C	N	O	S	0	0	0
			1094	699	191	203	1			
8	2I	146	Total	C	N	O	S	0	0	0
			1076	687	186	202	1			

- Molecule 9 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	1N	140	Total	C	N	O	S	0	0	0
			1121	722	208	187	4			
9	2N	140	Total	C	N	O	S	0	0	0
			1117	719	207	187	4			

- Molecule 10 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1O	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	2O	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 11 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	1P	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			
11	2P	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			

- Molecule 12 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	1Q	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
12	2Q	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 13 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	1R	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
13	2R	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			

- Molecule 14 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
14	1S	110	Total	C	N	O	0	0	0
			877	553	175	149			
14	2S	110	Total	C	N	O	0	0	0
			870	549	173	148			

- Molecule 15 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	1T	131	Total	C	N	O	S	0	0	0
			1091	680	225	185	1			
15	2T	131	Total	C	N	O	S	0	0	0
			1083	675	224	183	1			

- Molecule 16 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	1U	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			
16	2U	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

- Molecule 17 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	1V	101	Total	C	N	O	S	0	0	0
			775	498	141	135	1			
17	2V	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			

- Molecule 18 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	1W	112	Total	C	N	O	S	0	0	0
			880	554	171	153	2			
18	2W	112	Total	C	N	O	S	0	0	0
			877	553	171	151	2			

- Molecule 19 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	1X	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			
19	2X	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			

- Molecule 20 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	1Y	107	Total	C	N	O	S	0	0	0
			810	520	153	131	6			
20	2Y	107	Total	C	N	O	S	0	0	0
			810	519	153	132	6			

- Molecule 21 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	1Z	203	Total	C	N	O	S	0	0	0
			1587	1011	282	292	2			
21	2Z	201	Total	C	N	O	S	0	0	0
			1557	995	274	286	2			

- Molecule 22 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	10	77	Total	C	N	O	S	0	0	0
			608	375	129	103	1			
22	20	77	Total	C	N	O	S	0	0	0
			608	375	129	103	1			

- Molecule 23 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	11	97	Total	C	N	O	S	0	0	0
			754	475	148	130	1			
23	21	97	Total	C	N	O	S	0	0	0
			759	478	149	131	1			

- Molecule 24 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	12	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			
24	22	70	Total	C	N	O	S	0	0	0
			592	368	119	103	2			

- Molecule 25 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
25	13	59	Total	C	N	O	0	0	0
			469	298	90	81			
25	23	59	Total	C	N	O	0	0	0
			464	296	90	78			

- Molecule 26 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	14	69	Total	C	N	O	S	0	0	0
			546	346	96	99	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	24	69	Total	C	N	O	S	0	0	0
			536	342	98	91	5			

- Molecule 27 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	15	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			
27	25	59	Total	C	N	O	S	0	0	0
			455	285	89	76	5			

- Molecule 28 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	16	53	Total	C	N	O	S	0	0	0
			453	281	91	77	4			
28	26	53	Total	C	N	O	S	0	0	0
			449	279	91	75	4			

- Molecule 29 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	17	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			
29	27	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			

- Molecule 30 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	18	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			
30	28	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			

- Molecule 31 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	19	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			
31	29	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			

- Molecule 32 is a RNA chain called 16S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	1a	1500	Total	C	N	O	P	0	0	0
			32246	14358	5975	10413	1500			
32	2a	1504	Total	C	N	O	P	0	0	0
			32331	14396	5990	10441	1504			

- Molecule 33 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	1b	231	Total	C	N	O	S	0	0	0
			1842	1175	330	332	5			
33	2b	231	Total	C	N	O	S	0	0	0
			1825	1167	326	327	5			

- Molecule 34 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	1c	206	Total	C	N	O	S	0	0	0
			1558	979	305	273	1			
34	2c	206	Total	C	N	O	S	0	0	0
			1542	968	300	273	1			

- Molecule 35 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	1d	208	Total	C	N	O	S	0	0	0
			1665	1043	329	286	7			
35	2d	208	Total	C	N	O	S	0	0	0
			1668	1047	330	284	7			

- Molecule 36 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	1e	148	Total	C	N	O	S	0	0	0
			1133	716	214	199	4			
36	2e	148	Total	C	N	O	S	0	0	0
			1133	716	214	199	4			

- Molecule 37 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	1f	100	Total	C	N	O	S	0	0	0
			814	516	144	151	3			
37	2f	100	Total	C	N	O	S	0	0	0
			816	516	146	151	3			

- Molecule 38 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	1g	155	Total	C	N	O	S	0	0	0
			1235	769	244	216	6			
38	2g	155	Total	C	N	O	S	0	0	0
			1229	766	241	216	6			

- Molecule 39 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	1h	137	Total	C	N	O	S	0	0	0
			1098	694	210	192	2			
39	2h	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			

- Molecule 40 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
40	1i	127	Total	C	N	O	0	0	0
			986	625	193	168			
40	2i	126	Total	C	N	O	0	0	0
			966	613	186	167			

- Molecule 41 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
41	1j	97	Total	C	N	O	0	0	0
			719	446	142	131			
41	2j	96	Total	C	N	O	0	0	0
			710	442	137	131			

- Molecule 42 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	1k	114	Total	C	N	O	S	0	0	0
			834	520	156	155	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	2k	114	Total	C	N	O	S	0	0	0
			833	519	156	155	3			

- Molecule 43 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	1l	122	Total	C	N	O	S	0	0	0
			932	586	185	159	2			
43	2l	122	Total	C	N	O	S	0	0	0
			932	586	185	159	2			

- Molecule 44 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	1m	116	Total	C	N	O	S	0	0	0
			914	564	189	159	2			
44	2m	114	Total	C	N	O	S	0	0	0
			895	550	186	157	2			

- Molecule 45 is a protein called 30S ribosomal protein S14 type Z.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	1n	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
45	2n	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 46 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	1o	88	Total	C	N	O	S	0	0	0
			728	456	144	126	2			
46	2o	88	Total	C	N	O	S	0	0	0
			728	456	144	126	2			

- Molecule 47 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	1p	82	Total	C	N	O	S	0	0	0
			681	433	134	113	1			
47	2p	82	Total	C	N	O	S	0	0	0
			677	430	133	113	1			

- Molecule 48 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	1q	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			
48	2q	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			

- Molecule 49 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	1r	68	Total	C	N	O		0	0	0
			555	355	108	92				
49	2r	68	Total	C	N	O		0	0	0
			555	355	108	92				

- Molecule 50 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	1s	83	Total	C	N	O	S	0	0	0
			648	415	120	111	2			
50	2s	83	Total	C	N	O	S	0	0	0
			645	410	118	115	2			

- Molecule 51 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	1t	96	Total	C	N	O	S	0	0	0
			732	449	157	124	2			
51	2t	98	Total	C	N	O	S	0	0	0
			733	451	154	126	2			

- Molecule 52 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	1u	23	Total	C	N	O		0	0	0
			199	122	48	29				
52	2u	23	Total	C	N	O		0	0	0
			199	122	48	29				

- Molecule 53 is a protein called Ribosome-associated inhibitor A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	1x	97	Total	C	N	O	S	0	0	0
			764	478	144	139	3			
53	2x	96	Total	C	N	O	S	0	0	0
			749	468	141	137	3			

- Molecule 54 is a protein called Metalnikowin I.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
54	1y	10	Total	C	N	O	0	0	0
			87	55	17	15			
54	2y	10	Total	C	N	O	0	0	0
			87	55	17	15			

- Molecule 55 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	1A	917	Total	Mg	0	0
			917	917		
55	1B	24	Total	Mg	0	0
			24	24		
55	1D	18	Total	Mg	0	0
			18	18		
55	1E	8	Total	Mg	0	0
			8	8		
55	1F	16	Total	Mg	0	0
			16	16		
55	1G	3	Total	Mg	0	0
			3	3		
55	1H	2	Total	Mg	0	0
			2	2		
55	1N	3	Total	Mg	0	0
			3	3		
55	1P	4	Total	Mg	0	0
			4	4		
55	1Q	5	Total	Mg	0	0
			5	5		
55	1R	5	Total	Mg	0	0
			5	5		
55	1S	1	Total	Mg	0	0
			1	1		
55	1T	1	Total	Mg	0	0
			1	1		
55	1U	7	Total	Mg	0	0
			7	7		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	1V	3	Total 3	Mg 3	0	0
55	1W	3	Total 3	Mg 3	0	0
55	1X	1	Total 1	Mg 1	0	0
55	1Y	1	Total 1	Mg 1	0	0
55	10	8	Total 8	Mg 8	0	0
55	11	3	Total 3	Mg 3	0	0
55	13	2	Total 2	Mg 2	0	0
55	15	6	Total 6	Mg 6	0	0
55	17	5	Total 5	Mg 5	0	0
55	18	3	Total 3	Mg 3	0	0
55	19	2	Total 2	Mg 2	0	0
55	1a	223	Total 223	Mg 223	0	0
55	1b	1	Total 1	Mg 1	0	0
55	1d	5	Total 5	Mg 5	0	0
55	1e	2	Total 2	Mg 2	0	0
55	1f	1	Total 1	Mg 1	0	0
55	1g	1	Total 1	Mg 1	0	0
55	1h	2	Total 2	Mg 2	0	0
55	1k	1	Total 1	Mg 1	0	0
55	1l	1	Total 1	Mg 1	0	0
55	1m	1	Total 1	Mg 1	0	0

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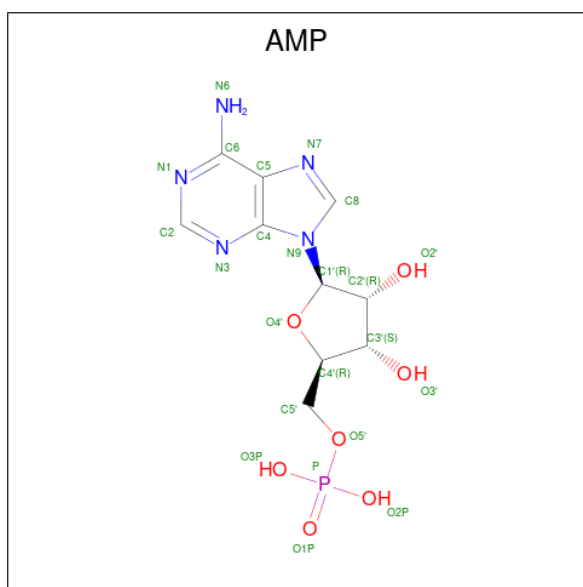
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	1n	1	Total 1	Mg 1	0	0
55	1o	1	Total 1	Mg 1	0	0
55	1t	1	Total 1	Mg 1	0	0
55	2A	821	Total 821	Mg 821	0	0
55	2B	18	Total 18	Mg 18	0	0
55	2D	11	Total 11	Mg 11	0	0
55	2E	7	Total 7	Mg 7	0	0
55	2F	10	Total 10	Mg 10	0	0
55	2G	3	Total 3	Mg 3	0	0
55	2H	1	Total 1	Mg 1	0	0
55	2N	1	Total 1	Mg 1	0	0
55	2P	2	Total 2	Mg 2	0	0
55	2Q	5	Total 5	Mg 5	0	0
55	2R	3	Total 3	Mg 3	0	0
55	2S	1	Total 1	Mg 1	0	0
55	2T	1	Total 1	Mg 1	0	0
55	2U	4	Total 4	Mg 4	0	0
55	2V	5	Total 5	Mg 5	0	0
55	2W	1	Total 1	Mg 1	0	0
55	2X	3	Total 3	Mg 3	0	0
55	20	6	Total 6	Mg 6	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	21	2	Total 2	Mg 2	0	0
55	23	1	Total 1	Mg 1	0	0
55	25	3	Total 3	Mg 3	0	0
55	27	4	Total 4	Mg 4	0	0
55	28	3	Total 3	Mg 3	0	0
55	2a	196	Total 196	Mg 196	0	0
55	2b	1	Total 1	Mg 1	0	0
55	2d	4	Total 4	Mg 4	0	0
55	2e	2	Total 2	Mg 2	0	0
55	2f	1	Total 1	Mg 1	0	0
55	2g	1	Total 1	Mg 1	0	0
55	2h	1	Total 1	Mg 1	0	0
55	2l	1	Total 1	Mg 1	0	0
55	2m	1	Total 1	Mg 1	0	0
55	2n	2	Total 2	Mg 2	0	0
55	2o	1	Total 1	Mg 1	0	0

- Molecule 56 is ADENOSINE MONOPHOSPHATE (CCD ID: AMP) (formula: $C_{10}H_{14}N_5O_7P$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	1B	1	Total C 1 1	0	0
56	2A	1	Total P 1 1	0	0

- Molecule 57 is ZINC ION (CCD ID: ZN) (formula: Zn).

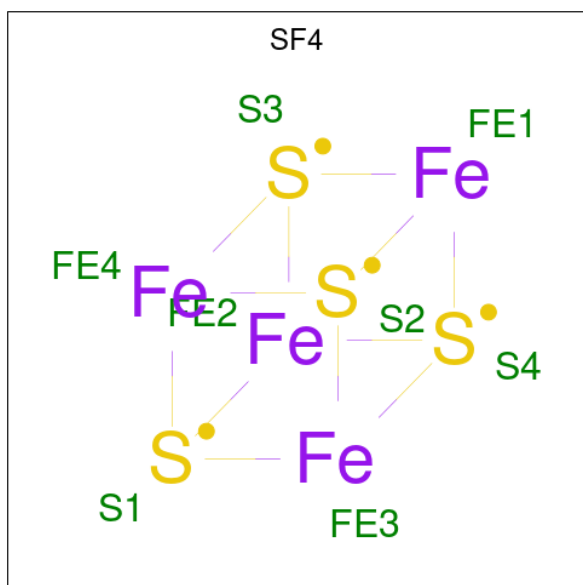
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	1Y	1	Total Zn 1 1	0	0
57	14	1	Total Zn 1 1	0	0
57	15	1	Total Zn 1 1	0	0
57	16	1	Total Zn 1 1	0	0
57	19	1	Total Zn 1 1	0	0
57	1n	1	Total Zn 1 1	0	0
57	2Y	1	Total Zn 1 1	0	0
57	24	1	Total Zn 1 1	0	0
57	25	1	Total Zn 1 1	0	0
57	26	1	Total Zn 1 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	29	1	Total	Zn	0	0
			1	1		
57	2n	1	Total	Zn	0	0
			1	1		

- Molecule 58 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
58	1d	1	Total	Fe	S	0	0
			8	4	4		
58	2d	1	Total	Fe	S	0	0
			8	4	4		

- Molecule 59 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	1A	1740	Total	O	0	0
			1740	1740		
59	1B	42	Total	O	0	0
			42	42		
59	1D	14	Total	O	0	0
			14	14		
59	1E	18	Total	O	0	0
			18	18		
59	1F	11	Total	O	0	0
			11	11		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	1G	2	Total	O	0	0
			2	2		
59	1H	3	Total	O	0	0
			3	3		
59	1N	9	Total	O	0	0
			9	9		
59	1P	13	Total	O	0	0
			13	13		
59	1Q	5	Total	O	0	0
			5	5		
59	1R	3	Total	O	0	0
			3	3		
59	1T	5	Total	O	0	0
			5	5		
59	1U	6	Total	O	0	0
			6	6		
59	1V	4	Total	O	0	0
			4	4		
59	1W	2	Total	O	0	0
			2	2		
59	1X	1	Total	O	0	0
			1	1		
59	1Y	5	Total	O	0	0
			5	5		
59	10	4	Total	O	0	0
			4	4		
59	11	2	Total	O	0	0
			2	2		
59	13	1	Total	O	0	0
			1	1		
59	15	2	Total	O	0	0
			2	2		
59	16	3	Total	O	0	0
			3	3		
59	17	1	Total	O	0	0
			1	1		
59	18	7	Total	O	0	0
			7	7		
59	19	2	Total	O	0	0
			2	2		
59	1a	393	Total	O	0	0
			393	393		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	1d	10	Total 10	O 10	0	0
59	1e	3	Total 3	O 3	0	0
59	1f	1	Total 1	O 1	0	0
59	1h	1	Total 1	O 1	0	0
59	1j	1	Total 1	O 1	0	0
59	1l	3	Total 3	O 3	0	0
59	1m	2	Total 2	O 2	0	0
59	1n	1	Total 1	O 1	0	0
59	1o	1	Total 1	O 1	0	0
59	1t	2	Total 2	O 2	0	0
59	2A	1666	Total 1666	O 1666	0	0
59	2B	35	Total 35	O 35	0	0
59	2D	12	Total 12	O 12	0	0
59	2E	17	Total 17	O 17	0	0
59	2F	11	Total 11	O 11	0	0
59	2G	2	Total 2	O 2	0	0
59	2H	3	Total 3	O 3	0	0
59	2N	1	Total 1	O 1	0	0
59	2P	9	Total 9	O 9	0	0
59	2Q	5	Total 5	O 5	0	0
59	2R	3	Total 3	O 3	0	0

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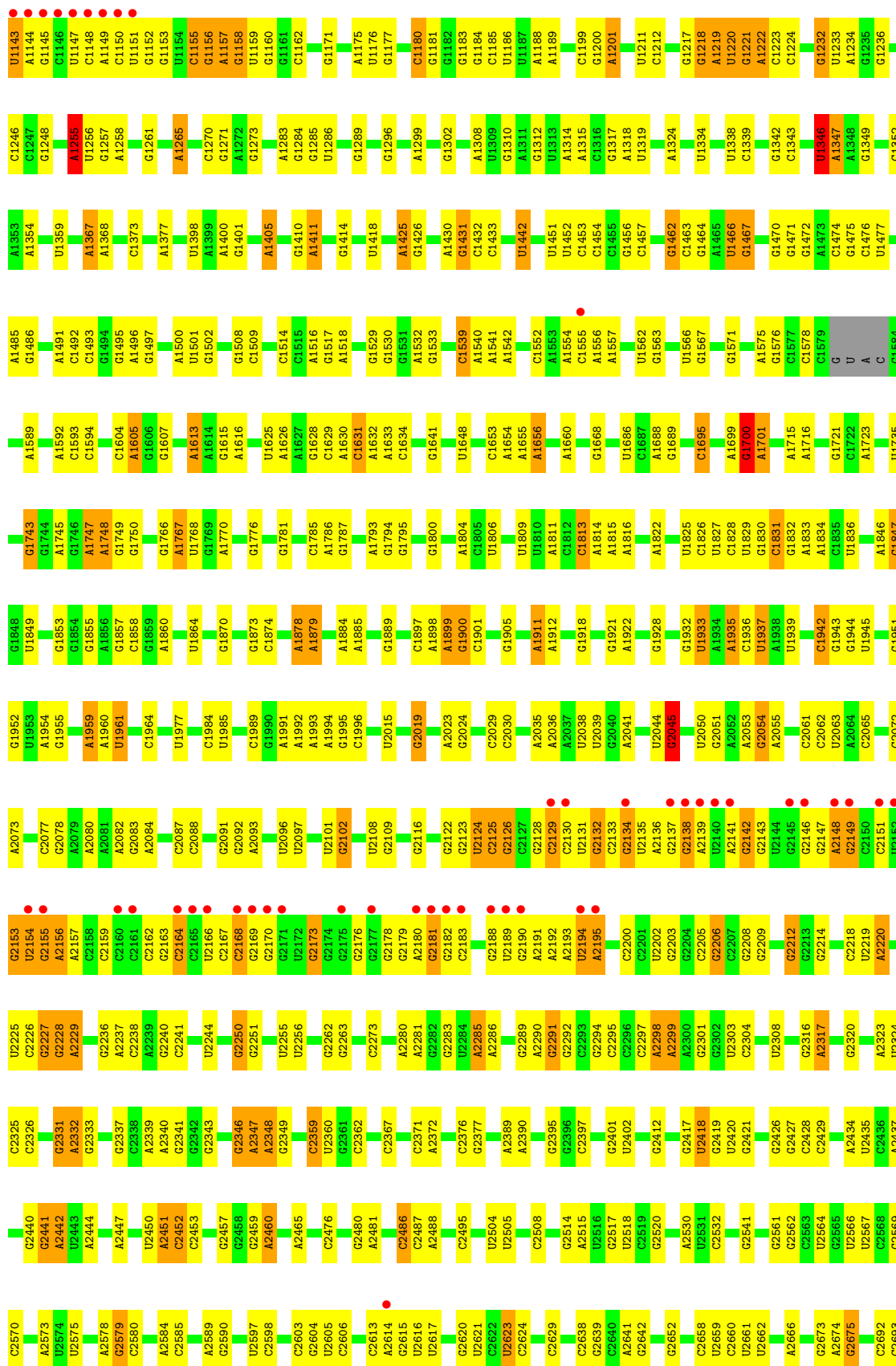
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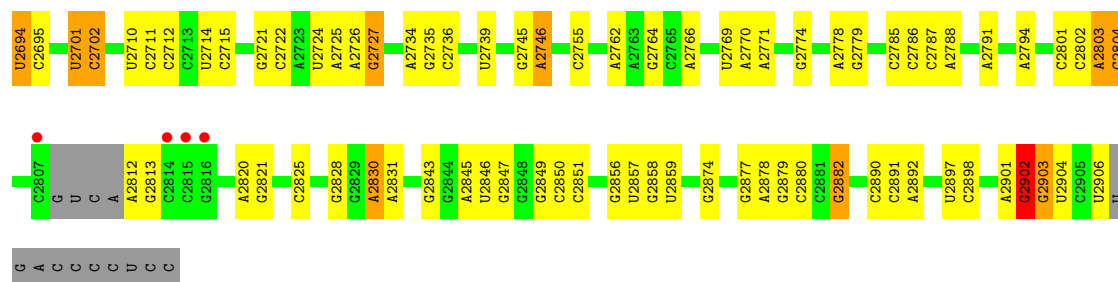
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
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59	2W	2	Total 2	O 2	0	0
59	2X	6	Total 6	O 6	0	0
59	2Y	3	Total 3	O 3	0	0
59	20	6	Total 6	O 6	0	0
59	21	3	Total 3	O 3	0	0
59	23	1	Total 1	O 1	0	0
59	25	2	Total 2	O 2	0	0
59	26	2	Total 2	O 2	0	0
59	27	1	Total 1	O 1	0	0
59	28	5	Total 5	O 5	0	0
59	29	1	Total 1	O 1	0	0
59	2a	384	Total 384	O 384	0	0
59	2c	1	Total 1	O 1	0	0
59	2d	7	Total 7	O 7	0	0
59	2e	4	Total 4	O 4	0	0
59	2f	1	Total 1	O 1	0	0
59	2h	1	Total 1	O 1	0	0
59	2j	1	Total 1	O 1	0	0

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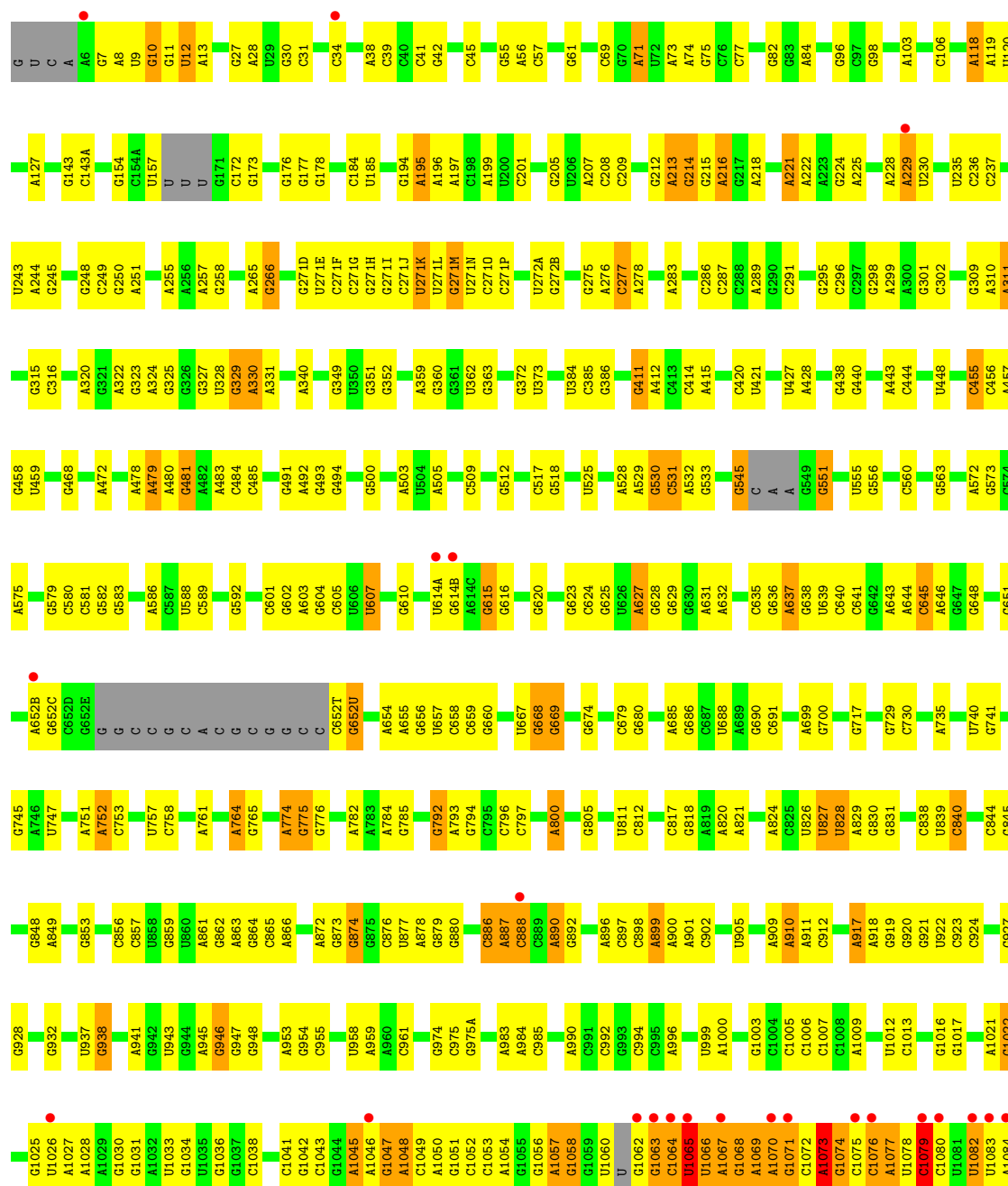
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
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59	2m	3	Total 3	O 3	0	0
59	2o	1	Total 1	O 1	0	0
59	2p	1	Total 1	O 1	0	0
59	2t	1	Total 1	O 1	0	0

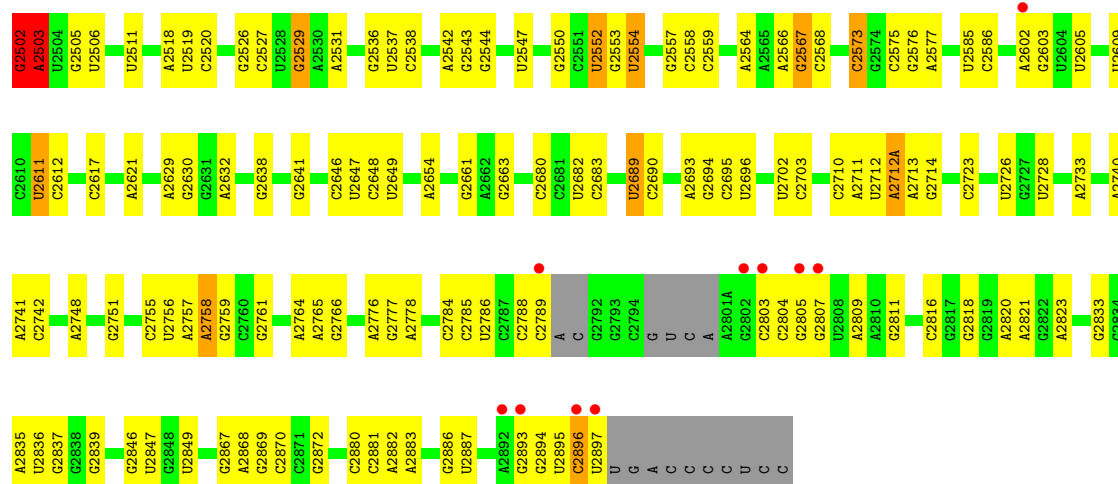




• Molecule 1: 23S ribosomal RNA

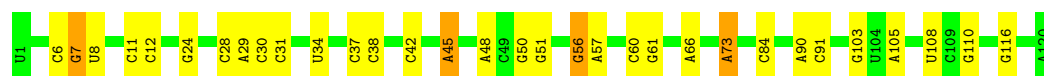


C2395	U2312	U2203	C2137	G2056	A1919	C1804	A1698	A1566	G1466	G1356	G1259	G1164	A1085
C2313	C2313	C2205	C2138	A2057	C1920	U1805	G1699	A1566	G1466	G1356	G1259	G1164	A1086
C2314	C2314	G2206	C2139	A2058	G1921	A1810	A1700	A1569	C1467	U1357	G1260	U1165	A1087
G2406	G2315	G2207	C2140	A2059	A1701	G1811	A1702	A1570	A1470	A1359	C1261	G1168	A1088
G2410	C2316	G2208	C2141	G2060	G1702	G1817	G1703	A1570	A1471	G1364	U1263	G1170	A1089
A2411	C2317	U2218	C2143	G2061	U1931	G1816	G1707	G1573	G1482	A1365	U1264	G1171	U1090
G2414	G2318	A2225	U2144	A2062	A1932	G1817	G1708	U1578	G1482	G1368	U1267	G	U1091
G2415	A2320	G2226	C2145	C2063	A1933	U1818	C1708	A1579	G1482	U1267	U1267	A	G1093
C2416	G2321	U2232	C2146	G2067	A1937	G1826	G1719	A1580	G1491	G1369	A1268	U	A1094
A2422	A2322	G2233	G2147	U2068	A1938	G1827	G1720	A1580	G1492	G1370	A1269	G	A1095
U2423	G2323	G2234	G2148	U2069	U1939	G1828	G1721	C1582	C1493	G1371	U1270	A	U1096
C2424	C2324	G2234	G2149	G2070	A1722	A1829	A1722	A1583	A1495	U1372	G1271	U1097	U1097
A2425	G2325	G2238	U2150	G2070	C1942	U1833	U1739	C1584	A1496	A1379	A1272	C1178	U1098
G2428	A2326	G2239	G2151	U2074	U1943	U1834	G1740	A1586	U1497	G1380	U1273	C1179	U1101
G2429	G2327	U2243	G2152	U2075	U1943	G1835	G1746	A1608	G1500	A1384	A1278	C1180	C1102
A2430	G2330	U2244	G2153	U2075	U1943	G1835	G1746	A1609	G1500	G1385	G1279	A1182	A1103
U2431	G2331	G2250	G2154	U2079	U1955	G1835	G1746	A1610	G1500	A1386	U1282	G1184	C1104
A2432	G2334	G2251	A2158	G2080	C1962	C1838	G1754	A1614	U1503	A1392	G1283	G1191	U1105
A2435	A2335	G2251	G2159	U2086	U1963	G1839	G1754	A1614	U1503	A1392	G1283	G1191	U1106
U2438	A2336	A2268	G2160	G2087	C1967	G1842	C1754	A1614	U1503	A1392	G1283	G1191	U1107
A2439	A2337	A2269	C2161	G2101	G1968	C1843	U1756	A1616	U1509A	A1393	U1288	U1198	C1109
C2440	G2347	A2273	G2162	U2102	A1970	A1847	G1758	A1617	A1509B	A1393	U1288	U1199	G1110
C2441	A2348	A2274	C2163	C2103	A1971	A1848	G1758	G1626	G1510	A1393	U1288	U1199	G1111
C2442	C2350	C2275	G2165	G2104	A1972	G1857	G1764	G1633	G1511	A1393	U1288	U1199	G1112
C2445	G2351	G2276	G2166	C2105	U1991	G1858	G1764	G1633	G1511	A1393	U1288	U1199	G1113
G2448	C2356	G2277	U2167	C2106	G1992	G1858	G1764	A1637	G1514	A1393	U1288	U1199	G1114
A2448	U2357	A2278	C2168	C2108	U1993	C1866	G1769	A1638	G1515	A1393	U1288	U1199	G1115
U2449	C2358	G2279	A2169	U2109	C1996	A1876	G1769	U1639	C1516	A1393	U1288	U1199	G1116
A2450	C2359	C2283	A2170	G2110	G1997	G1877	G1774	C1640	G1517	A1393	U1288	U1199	G1117
C2464	A2360	C2284	U2172	G2112	G1998	G1878	U1775	G1647	G1518	A1393	U1288	U1199	G1118
C2467	A2361	C2285	A2173	U2113	C1998	A1884	U1775	G1648	G1519	A1393	U1288	U1199	G1119
A2468	C2364	A2286	G2174	A2114	C2006	A1885	U1778	G1651	G1525	A1393	U1288	U1199	G1120
A2469	G2365	A2287	C2175	G2115	C2007	A1889	U1779	A1652	A1528	A1393	U1288	U1199	G1121
G2470	A2369	G2288	A2176	G2116	C2007	A1889	U1779	A1653	A1528A	A1393	U1288	U1199	G1122
C2471	G2370	G2289	C2177	A2117	G2012	G1896	C1781	A1654	G1529	A1393	U1288	U1199	G1123
G2472	C2371	U2291	C2178	U2118	A2013	G1897	C1782	A1654	G1530	A1393	U1288	U1199	G1124
U2473	G2372	C2292	U2180	G2120	A2014	U1898	A1784	C1657	C1531	A1393	U1288	U1199	G1125
C2474	A2376	C2293	G2181	G2121	A2019	G1899	A1786	C1658	C1532	A1393	U1288	U1199	G1126
C2475	A2377	U2296	C2182	U2122	A2020	A1900	A1786	A1665	C1533	A1393	U1288	U1199	G1127
A2476	A2378	G2297	C2183	G2123	C2021	G1903	C1790	A1668	U	A1393	U1288	U1199	G1128
G2482	C2381	G2299	C2184	G2124	U2022	C1905	A1791	A1669	C1536	A1393	U1288	U1199	G1129
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C2498	U2387	G2307	G2192	U2133	C2043	U1915	C1800	U1688	C1547	A1393	U1288	U1199	G1135
C2499	U2390	G2308	C2196	G2134	C2043	A1916	A1801	G1695	C1548	A1393	U1288	U1199	G1136
C2499	U2390	G2308	C2197	A2135	C2055	U1917	A1802	G1696	C1557	A1393	U1288	U1199	G1137
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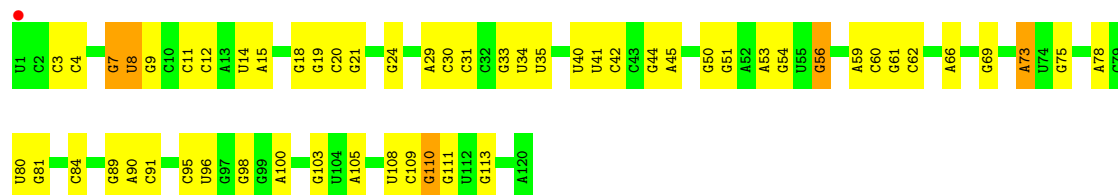
• Molecule 2: 5S ribosomal RNA

Chain 1B: 73% 23%



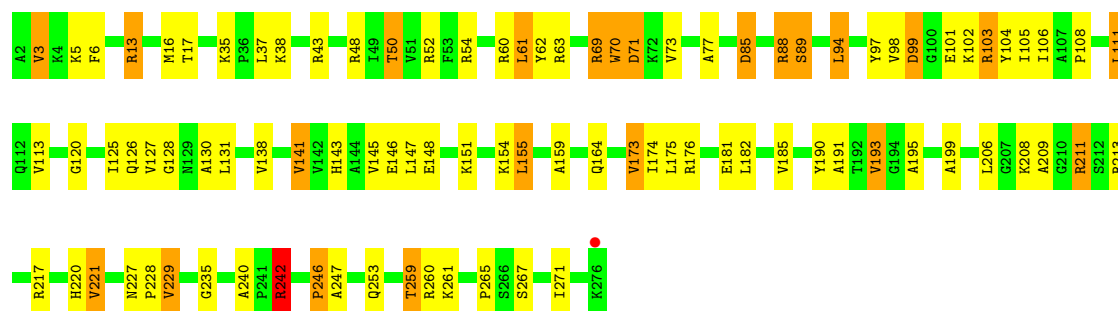
• Molecule 2: 5S ribosomal RNA

Chain 2B: 53% 42%



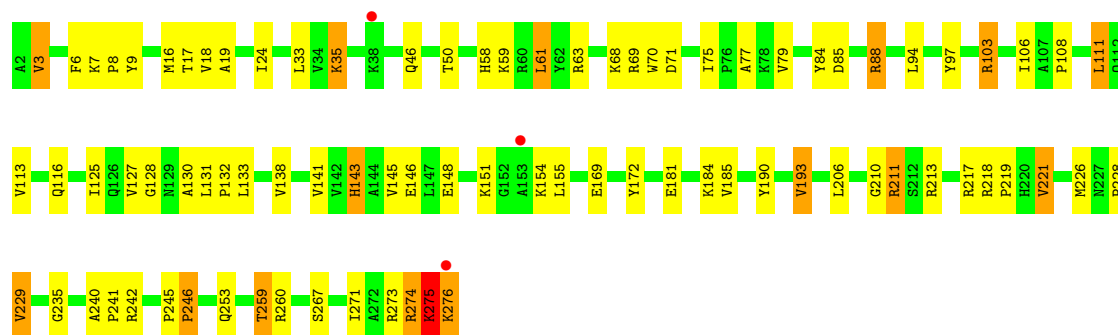
• Molecule 3: 50S ribosomal protein L2

Chain 1D: 66% 25% 8%



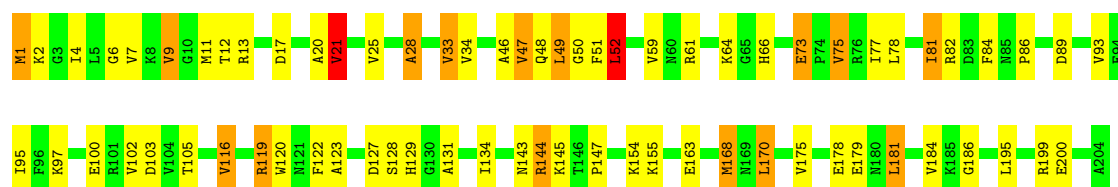
• Molecule 3: 50S ribosomal protein L2

Chain 2D: 69% 25% 5%



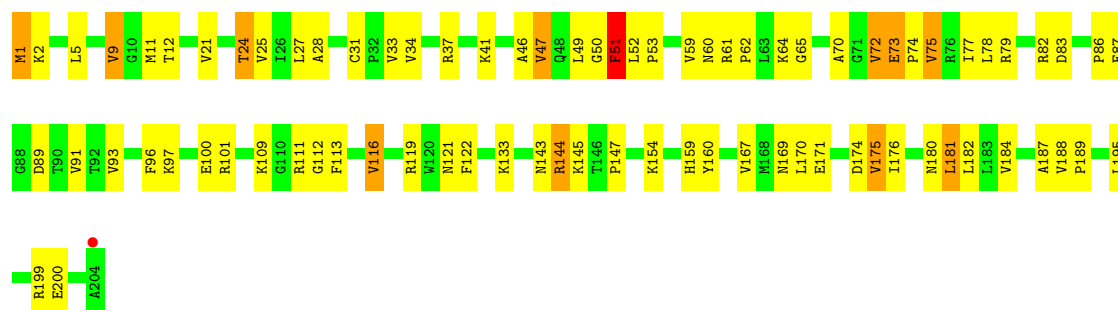
• Molecule 4: 50S ribosomal protein L3

Chain 1E: 65% 26% 7% .



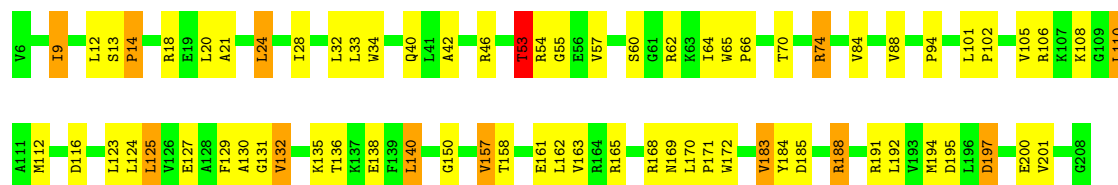
• Molecule 4: 50S ribosomal protein L3

Chain 2E: 60% 34% 5%



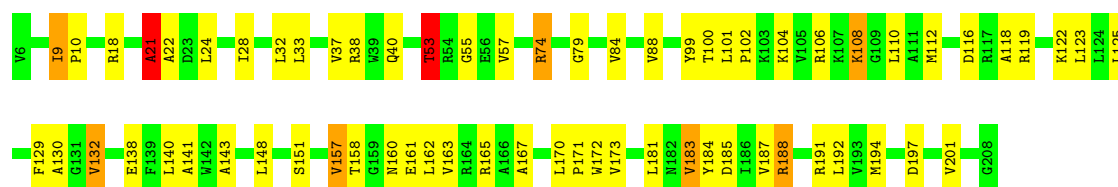
• Molecule 5: 50S ribosomal protein L4

Chain 1F: 65% 29% 6%

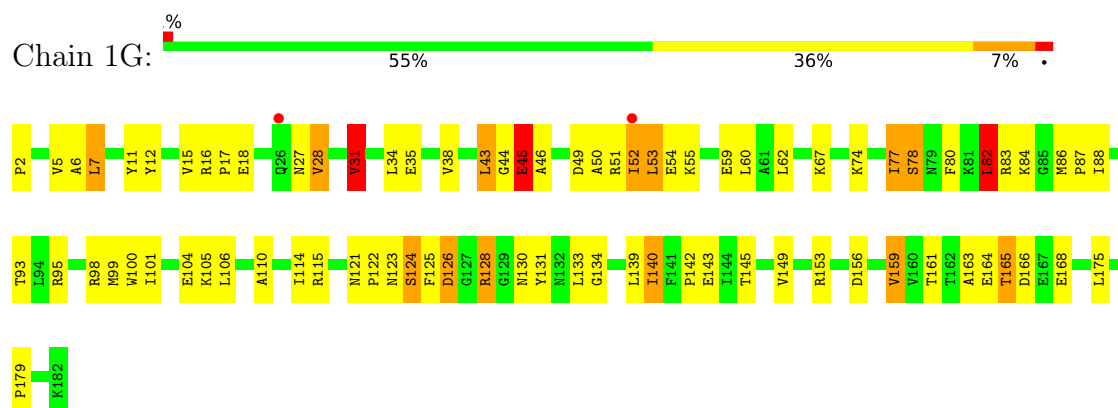


• Molecule 5: 50S ribosomal protein L4

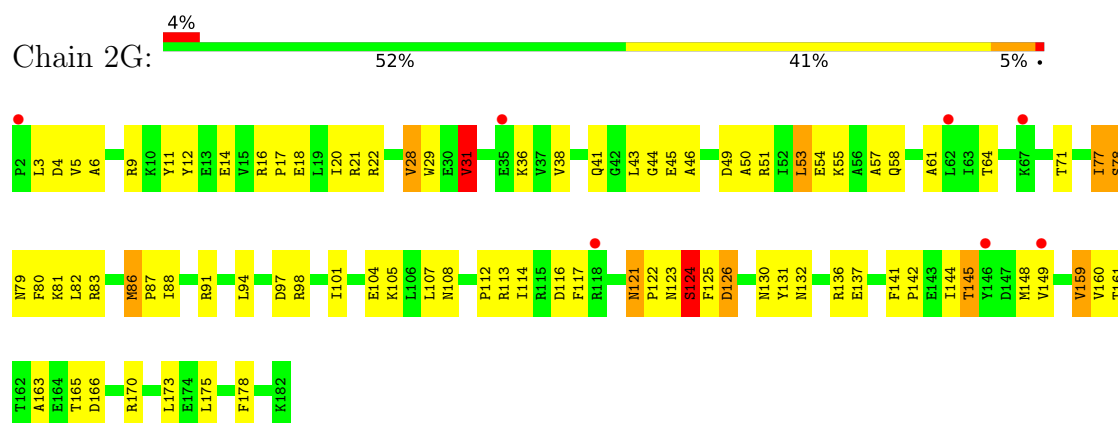
Chain 2F: 67% 28% . .



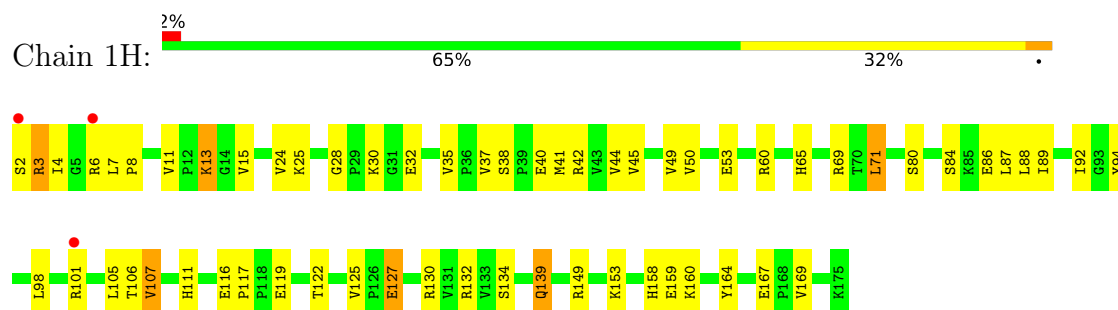
• Molecule 6: 50S ribosomal protein L5



• Molecule 6: 50S ribosomal protein L5

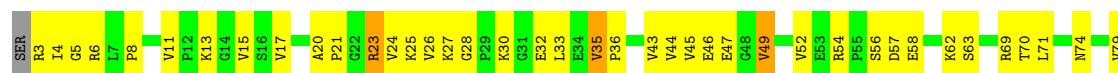


• Molecule 7: 50S ribosomal protein L6



• Molecule 7: 50S ribosomal protein L6





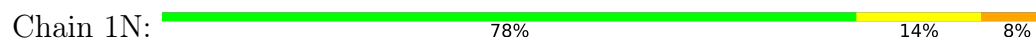
• Molecule 8: 50S ribosomal protein L9



• Molecule 8: 50S ribosomal protein L9



• Molecule 9: 50S ribosomal protein L13

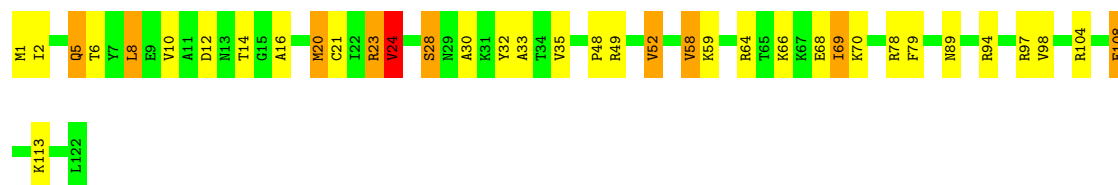


• Molecule 9: 50S ribosomal protein L13



• Molecule 10: 50S ribosomal protein L14

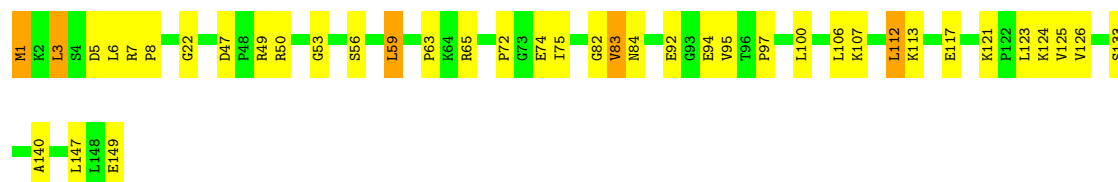




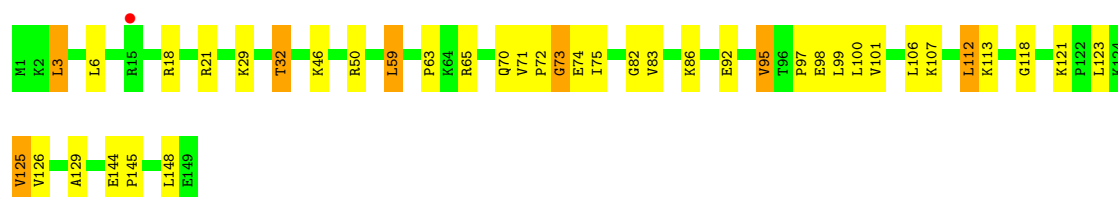
- Molecule 10: 50S ribosomal protein L14



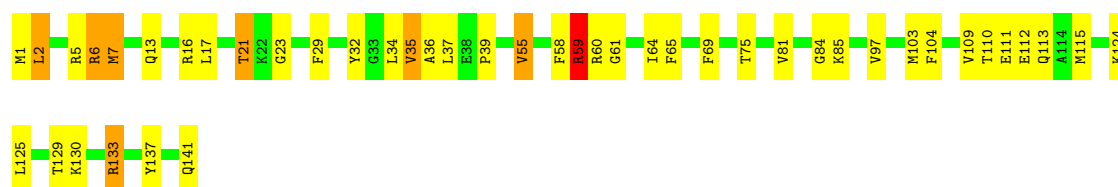
- Molecule 11: 50S ribosomal protein L15



- Molecule 11: 50S ribosomal protein L15

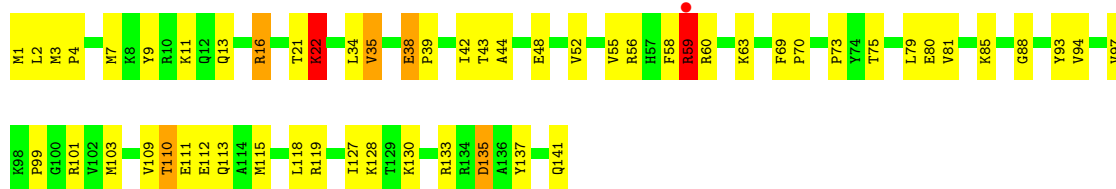


- Molecule 12: 50S ribosomal protein L16



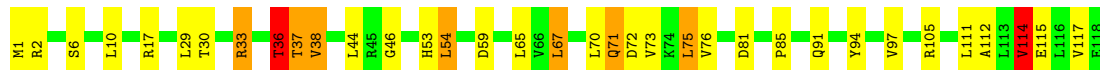
- Molecule 12: 50S ribosomal protein L16





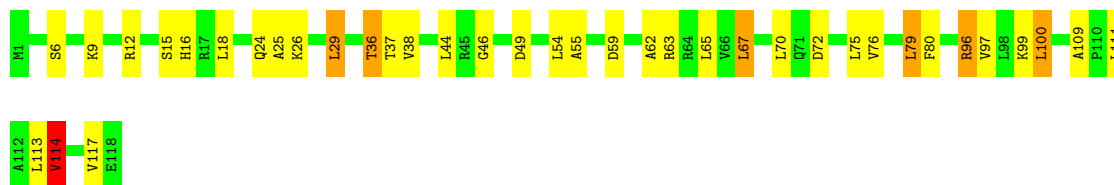
- Molecule 13: 50S ribosomal protein L17

Chain 1R: 70% 22% 6%



- Molecule 13: 50S ribosomal protein L17

Chain 2R: 68% 26% 5%



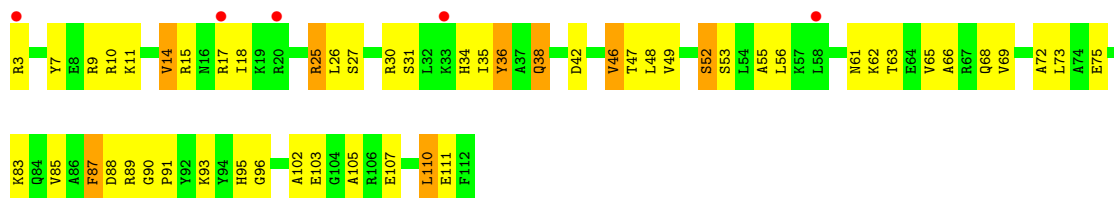
- Molecule 14: 50S ribosomal protein L18

Chain 1S: 71% 22% 6%



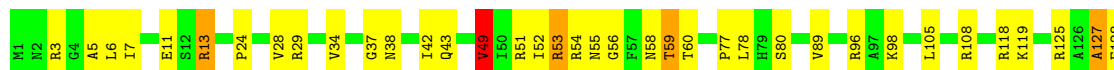
- Molecule 14: 50S ribosomal protein L18

Chain 2S: 5% 52% 41% 7%



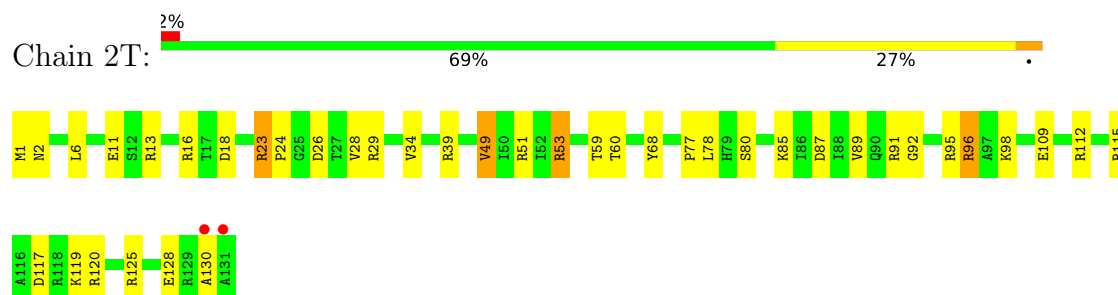
- Molecule 15: 50S ribosomal protein L19

Chain 1T: 2% 72% 24% 2%

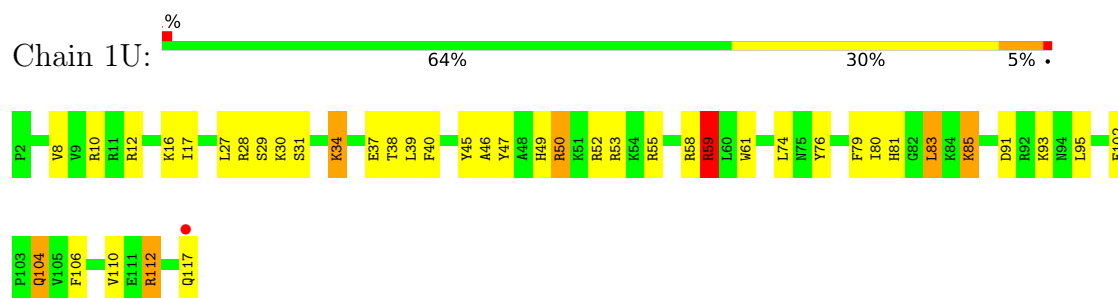




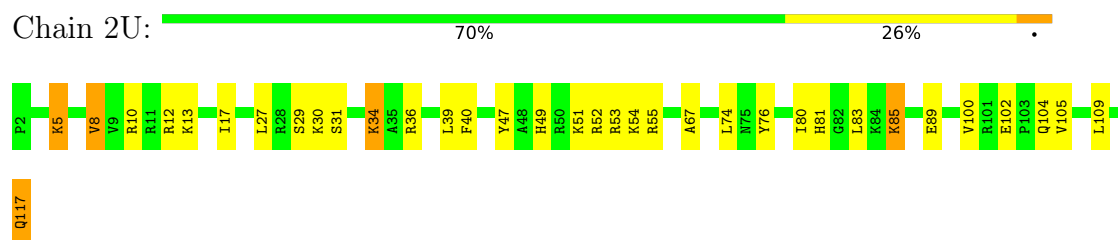
- Molecule 15: 50S ribosomal protein L19



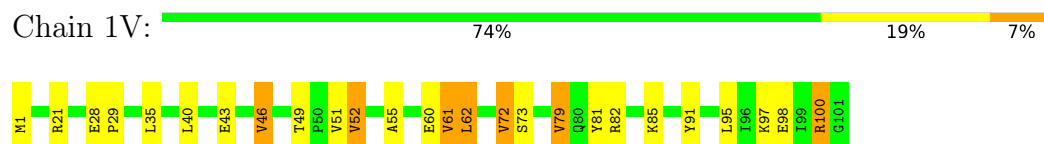
- Molecule 16: 50S ribosomal protein L20



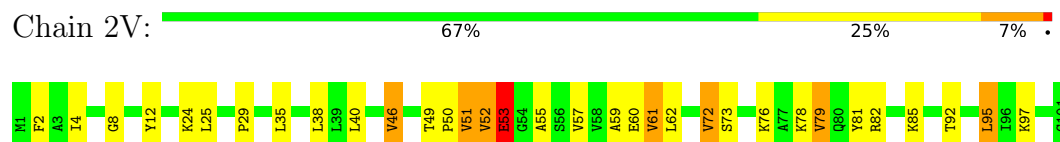
- Molecule 16: 50S ribosomal protein L20



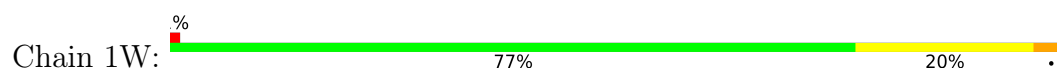
- Molecule 17: 50S ribosomal protein L21



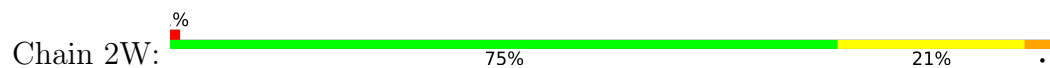
- Molecule 17: 50S ribosomal protein L21



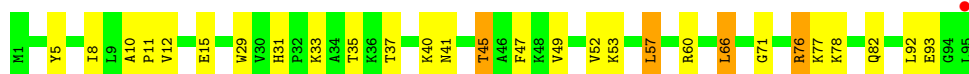
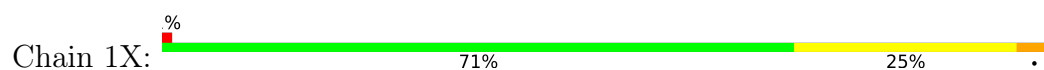
- Molecule 18: 50S ribosomal protein L22



- Molecule 18: 50S ribosomal protein L22



- Molecule 19: 50S ribosomal protein L23



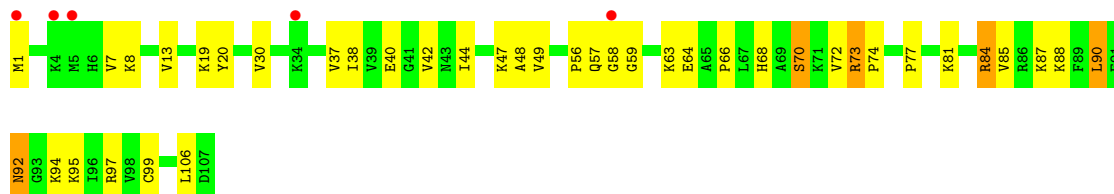
- Molecule 19: 50S ribosomal protein L23



- Molecule 20: 50S ribosomal protein L24

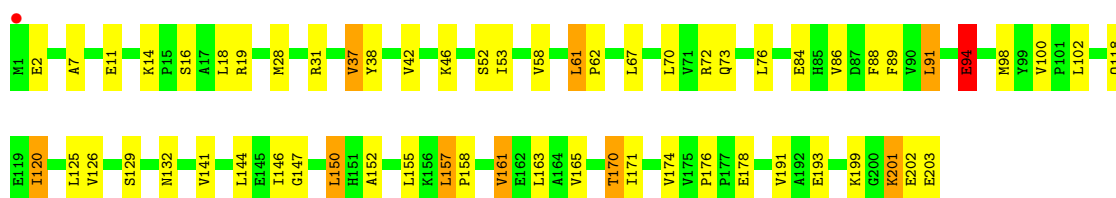


- Molecule 20: 50S ribosomal protein L24



- Molecule 21: 50S ribosomal protein L25





- Molecule 21: 50S ribosomal protein L25



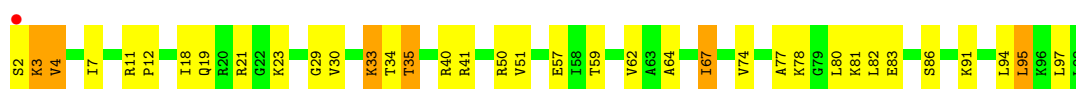
- Molecule 22: 50S ribosomal protein L27



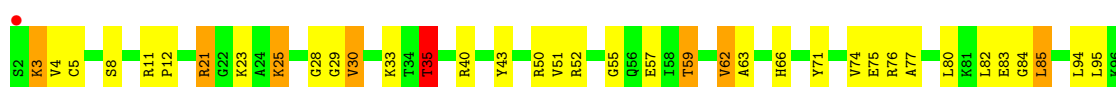
- Molecule 22: 50S ribosomal protein L27



- Molecule 23: 50S ribosomal protein L28



- Molecule 23: 50S ribosomal protein L28

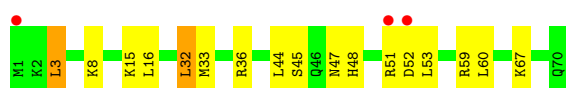
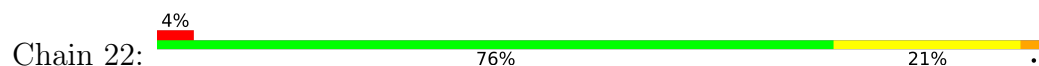




- Molecule 24: 50S ribosomal protein L29



- Molecule 24: 50S ribosomal protein L29



- Molecule 25: 50S ribosomal protein L30



- Molecule 25: 50S ribosomal protein L30



- Molecule 26: 50S ribosomal protein L31



- Molecule 26: 50S ribosomal protein L31

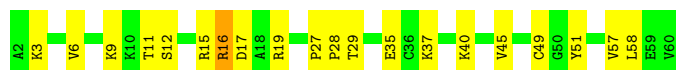


- Molecule 27: 50S ribosomal protein L32

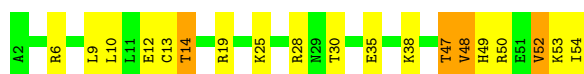




- Molecule 27: 50S ribosomal protein L32



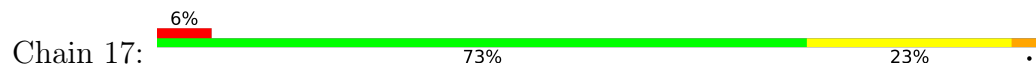
- Molecule 28: 50S ribosomal protein L33



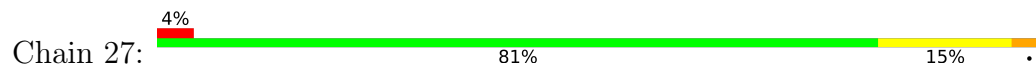
- Molecule 28: 50S ribosomal protein L33



- Molecule 29: 50S ribosomal protein L34



- Molecule 29: 50S ribosomal protein L34

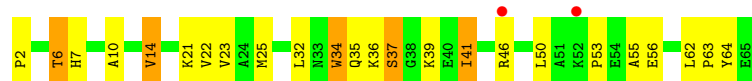


- Molecule 30: 50S ribosomal protein L35



- Molecule 30: 50S ribosomal protein L35





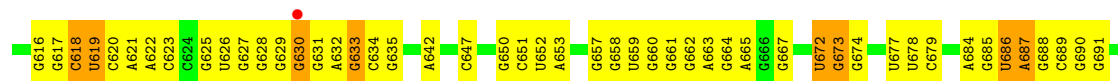
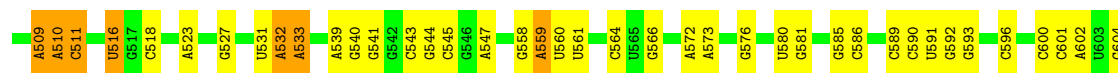
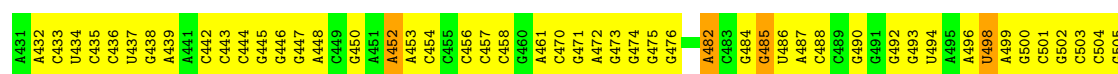
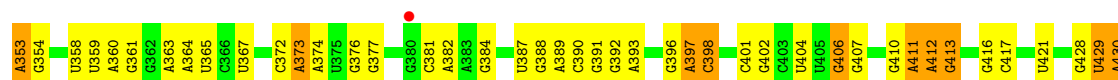
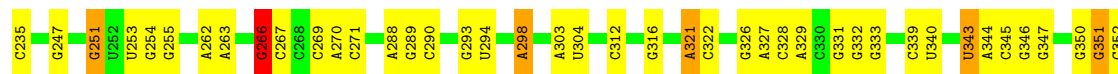
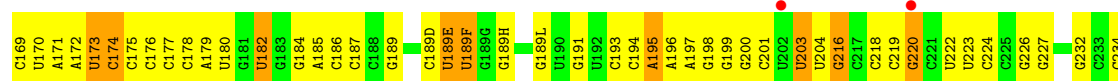
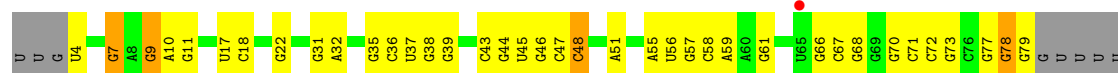
- Molecule 31: 50S ribosomal protein L36

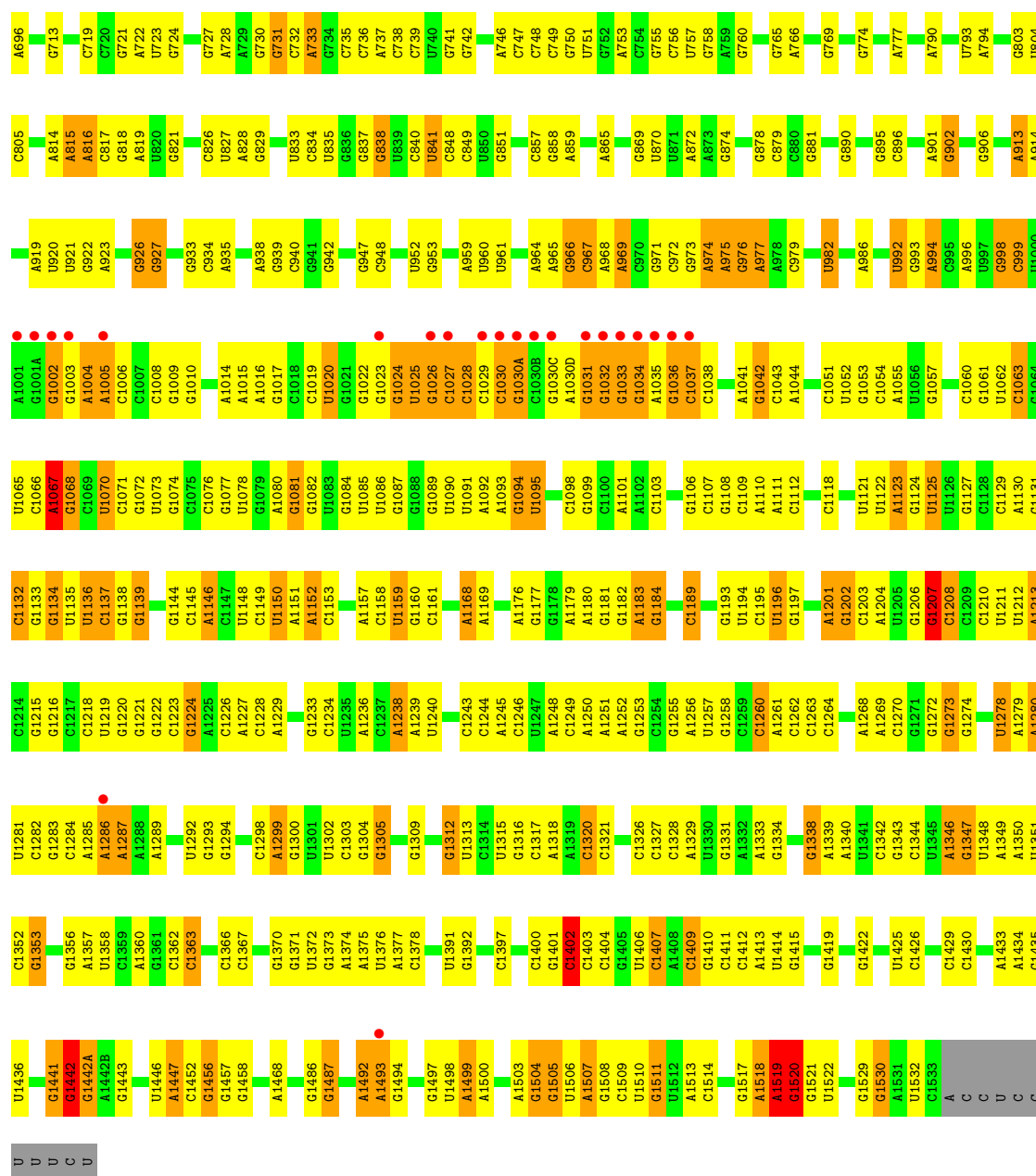


- Molecule 31: 50S ribosomal protein L36

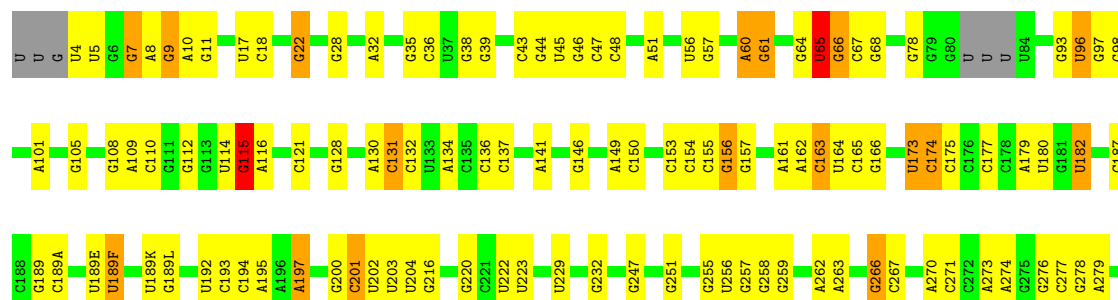
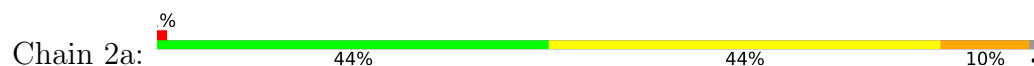


- Molecule 32: 16S ribosomal RNA





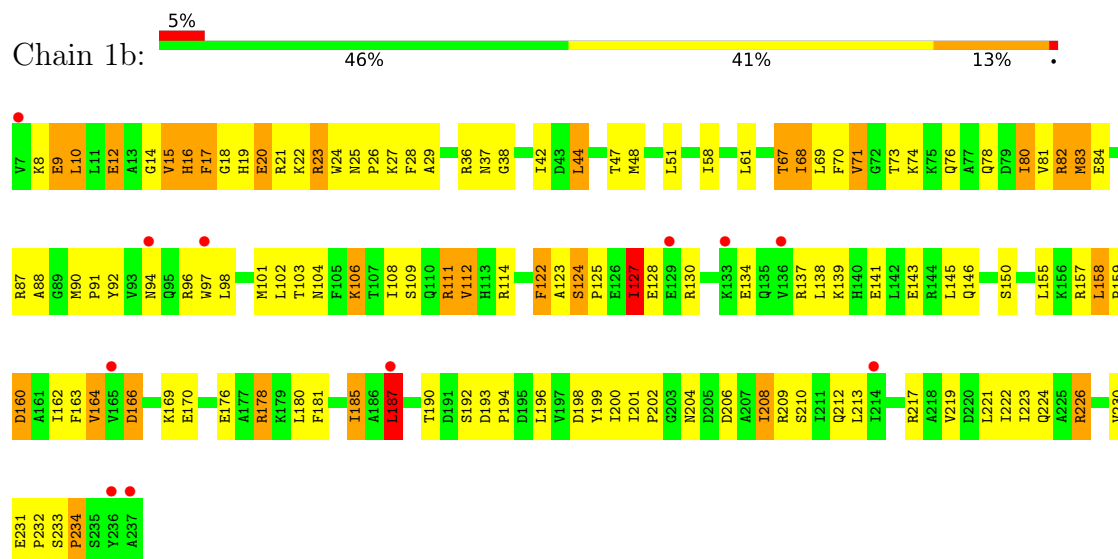
• Molecule 32: 16S ribosomal RNA



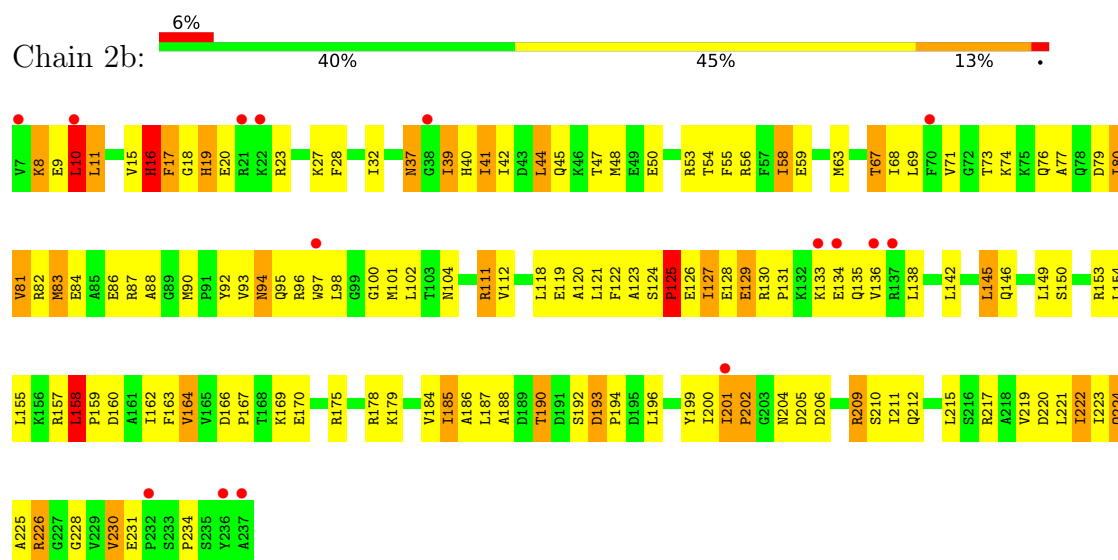
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C1400	G1185	G1255	G1185	A1123	U991	G928	U820	G724	G628	G548	G475	C398
G1401	G1186	A1256	G1186	G1124	U992	G929	G821	G725	G629	C401	G476	C289
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C1404	C1328	C1259	G1189	G1259	G995	C932	A828	G730	A632	A553	U480	G097
C1407	U1330	A1260	G1190	C1128	U996	C933	G829	G731	G633	C554	G481	A298
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C1381	A1238	U1308	A1238	C1103	U1034	A972	G892	A816	C530	C530	G390	G390
C1382	U1240	G1310	U1240	C1106	G1035	A973	A913	A817	C531	C531	G391	G391
C1383	C1243	G1311	C1243	C1107	U1036	A974	A914	A818	C532	C532	G392	G392
C1384	A1244	U1312	A1244	C1112	C1037	A975	A915	A819	C533	C533	G393	G393
C1385	U1245	C1314	U1245	C1113	C1038	A976	A916	A820	C534	C534	A394	A394
C1386	C1246	G1315	C1246	C1116	U1039	A977	A917	A821	C535	C535	G395	G395
C1387	U1247	A1318	U1247	C1117	U1040	A978	A918	A822	C536	C536	G396	G396
C1388	A1250	C1319	A1250	C1118	A1041	A979	A919	A823	C537	C537	G397	G397
C1389	U1251	G1320	U1251	C1119	U1042	A980	A920	A824	C538	C538	G398	G398
C1390	A1252	C1321	A1252	C1120	C1043	A981	A921	A825	C539	C539	G399	G399
C1391	C1322	A1422	C1322	C1121	A1044	A982	A922	A826	C540	C540	G400	G400
C1392	G1323	A1423	G1323	C1122	U1045	A983	A923	A827	C541	C541	G401	G401
C1393	A1324	C1424	A1324	C1123	U1046	A984	A924	A828	C542	C542	G402	G402
C1394	C1325	A1425	C1325	C1124	U1047	A985	A925	A829	C543	C543	G403	G403
C1395	G1326	A1426	G1326	C1125	U1048	A986	A926	A830	C544	C544	G404	G404
C1396	A1327	C1426	A1327	C1126	U1049	A987	A927	A831	C545	C545	G405	G405
C1397	C1328	A1427	C1328	C1127	U1050	A988	A928	A832	C546	C546	G406	G406
C1398	G1329	A1428	G1329	C1128	U1051	A989	A929	A833	C547	C547	G407	G407
C1399	A1330	C1429	A1330	C1129	U1052	A990	A930	A834	C548	C548	G408	G408
C1400	U1331	U1430	U1331	C1130	U1053	A991	A931	A835	C549	C549	G409	G409
C1401	A1332	A1431	A1332	C1131	U1054	A992	A932	A836	C550	C550	G410	G410
C1402	C1333	C1432	C1333	C1132	U1055	A993	A933	A837	C551	C551	G411	G411
C1403	U1334	A1433	U1334	C1133	U1056	A994	A934	A838	C552	C552	G412	G412
C1404	G1335	A1434	G1335	C1134	U1057	A995	A935	A839	C553	C553	G413	G413
C1405	A1336	C1435	A1336	C1135	U1058	A996	A936	A840	C554	C554	G414	G414
C1406	C1337	U1436	C1337	C1136	U1059	A997	A937	A841	C555	C555	G415	G415
C1407	U1338	A1437	U1338	C1137	U1060	A998	A938	A842	C556	C556	G416	G416
C1408	A1339	C1438	A1339	C1138	U1061	A999	A939	A843	C557	C557	G417	G417
C1409	G1340	A1439	G1340	C1139	U1062	A1000	A940	A844	C558	C558	G418	G418
C1410	C1341	U1440	C1341	C1140	U1063	U1001	A941	A845	C559	C559	G419	G419
C1411	A1342	C1441	A1342	C1141	U1064	G1002	A942	A846	C560	C560	G420	G420
C1412	U1343	A1442	U1343	C1142	U1065	G1003	A943	A847	C561	C561	G421	G421
C1413	C1344	U1443	C1344	C1143	U1066	U1004	A944	A848	C562	C562	G422	G422
C1414	U1345	A1444	U1345	C1144	U1067	A1005	A945	A849	C563	C563	G423	G423
C1415	G1346	C1445	G1346	C1145	U1068	U1006	A946	A850	C564	C564	G424	G424
C1416	A1347	U1446	A1347	C1146	U1069	G1007	A947	A851	C565	C565	G425	G425
C1417	C1348	A1447	C1348	C1147	U1070	C1008	A948	A852	C566	C566	G426	G426
C1418	U1349	C1448	U1349	C1148	U1071	G1009	A949	A853	C567	C567	G427	G427
C1419	G1350	A1449	G1350	C1149	U1072	G1010	A950	A854	C568	C568	G428	G428
C1420	C1351	U1450	C1351	C1150	U1073	G1011	U951	A855	C569	C569	G429	G429
C1421	U1352	A1451	U1352	C1151	U1074	G1012	U952	A856	C570	C570	G430	G430
C1422	A1353	C1452	A1353	C1152	U1075	U1013	U953	A857	C571	C571	G431	G431
C1423	G1354	U1453	G1354	C1153	U1076	G1014	U954	A858	C572	C572	G432	G432
C1424	C1355	A1454	C1355	C1154	U1077	A1015	U955	A859	C573	C573	G433	G433
C1425	U1356	C1455	U1356	C1155	U1078	A1016	U956	A860	C574	C574	G434	G434
C1426	A1357	A1456	A1357	C1156	U1079	G1017	U957	A861	C575	C575	G435	G435
C1427	C1358	U1457	C1358	C1157	U1080	G1018	U958	A862	C576	C576	G436	G436
C1428	G1359	A1458	G1359	C1158	U1081	C1019	A959	A863	C577	C577	G437	G437
C1429	A1360	C1459	A1360	C1159	U1082	C1020	A960	A864	C578	C578	G438	G438
C1430	U1361	U1460	U1361	C1160	U1083	U1021	A961	A865	C579	C579	G439	G439
C1431	C1362	A1461	C1362	C1161	U1084	U1022	A962	A866	C580	C580	G440	G440
C1432	G1363	U1462	G1363	C1162	U1085	U1023	A963	A867	C581	C581	G441	G441
C1433	A1364	C1463	A1364	C1163	U1086	U1024	A964	A868	C582	C582	G442	G442
C1434	U1365	A1464	U1365	C1164	U1087	G1025	A965	A869	C583	C583	G443	G443
C1435	C1366	U1465	C1366	C1165	U1088	C1026	A966	A870	C584	C584	G444	G444
C1436	A1367	A1466	A1367	C1166	U1089	C1027	A967	A871	C585	C585	G445	G445
C1437	U1368	C1467	U1368	C1167	U1090	C1028	A968	A872	C586	C586	G446	G446
C1438	G1369	U1468	G1369	C1168	U1091	C1029	A969	A873	C587	C587	G447	G447
C1439	C1370	A1469	C1370	C1169	U1092	C1030	A970	A874	C588	C588	G448	G448
C1440	U1371	C1470	U1371	C1170	U1093	G1031	A971	A875	C589	C589	G449	G449
C1441	G1372	A1471	G1372	C1171	U10							



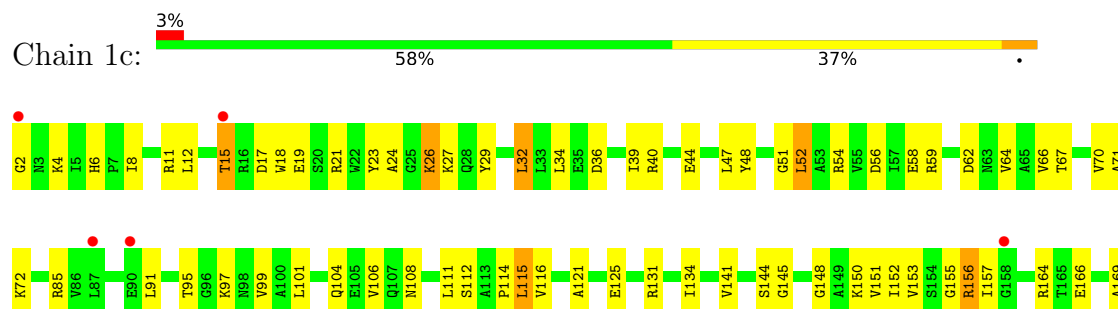
• Molecule 33: 30S ribosomal protein S2

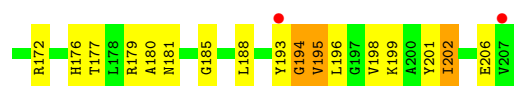


• Molecule 33: 30S ribosomal protein S2

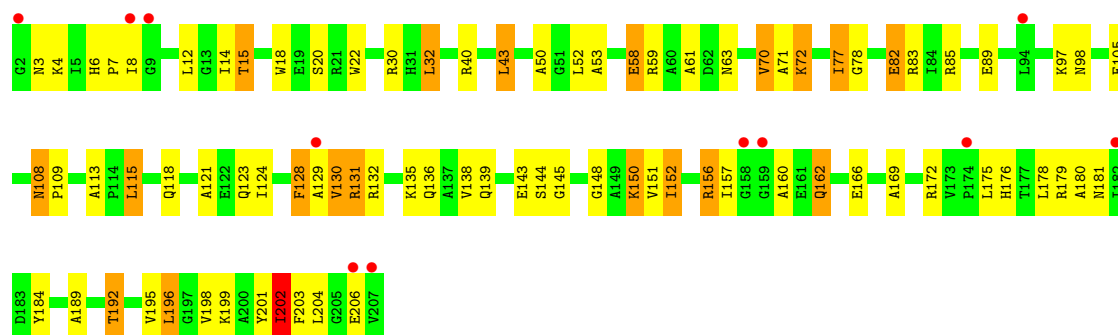


• Molecule 34: 30S ribosomal protein S3

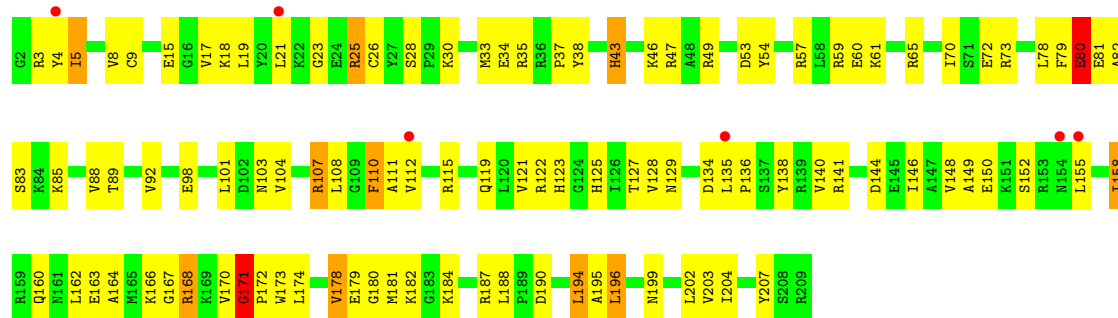




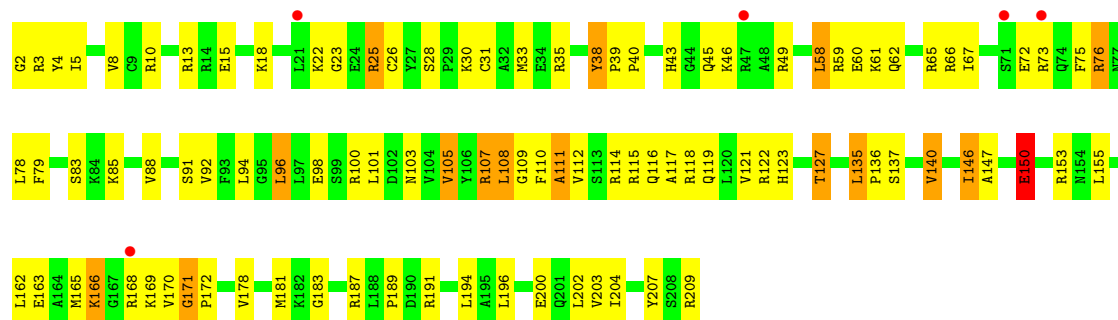
• Molecule 34: 30S ribosomal protein S3



• Molecule 35: 30S ribosomal protein S4

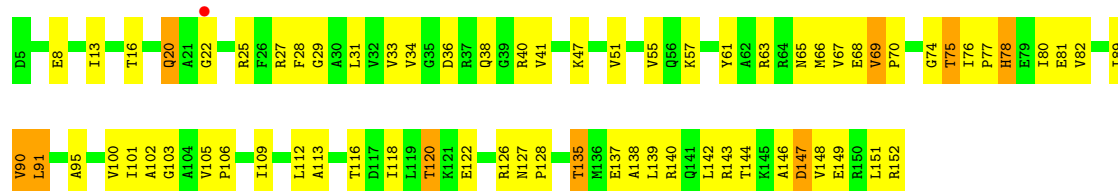


• Molecule 35: 30S ribosomal protein S4

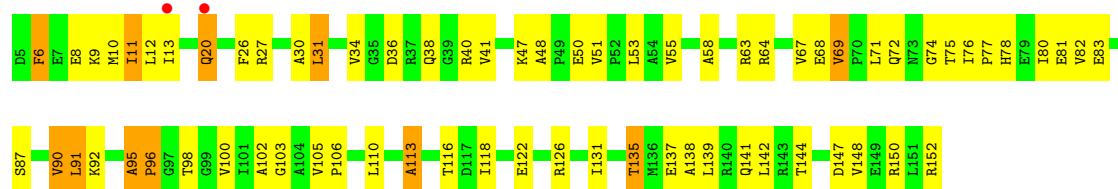


• Molecule 36: 30S ribosomal protein S5

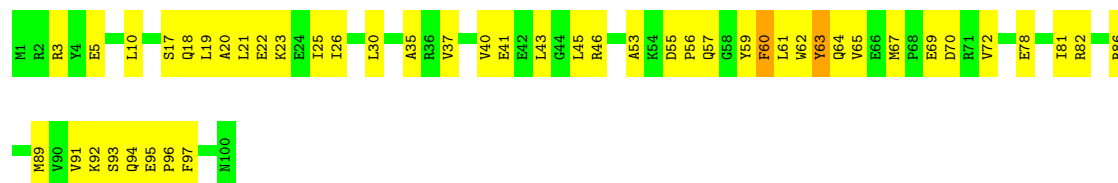




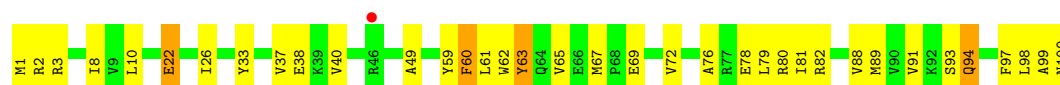
• Molecule 36: 30S ribosomal protein S5



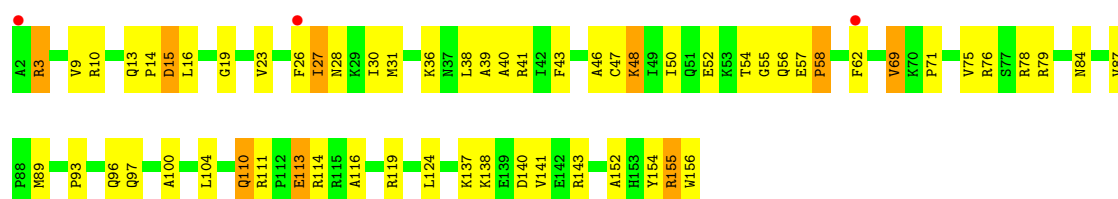
• Molecule 37: 30S ribosomal protein S6



• Molecule 37: 30S ribosomal protein S6

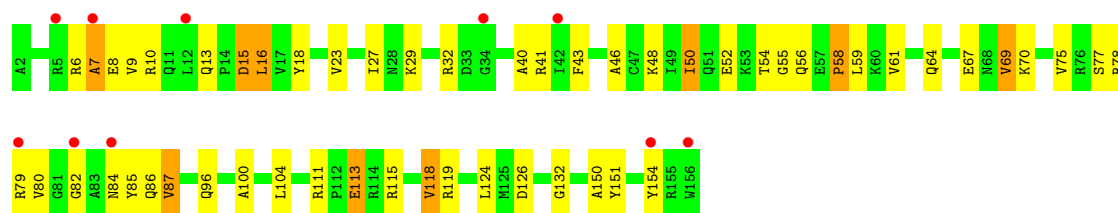


• Molecule 38: 30S ribosomal protein S7

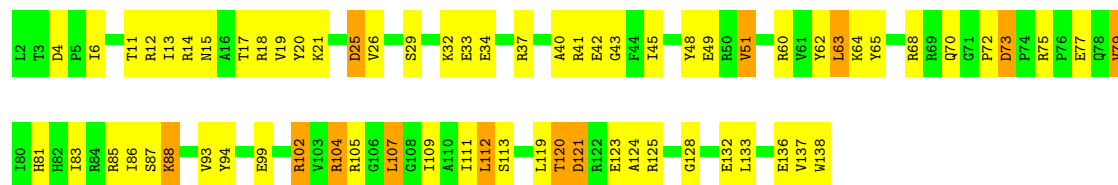


• Molecule 38: 30S ribosomal protein S7

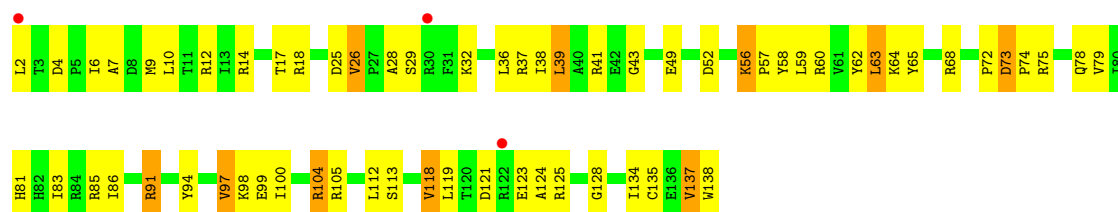




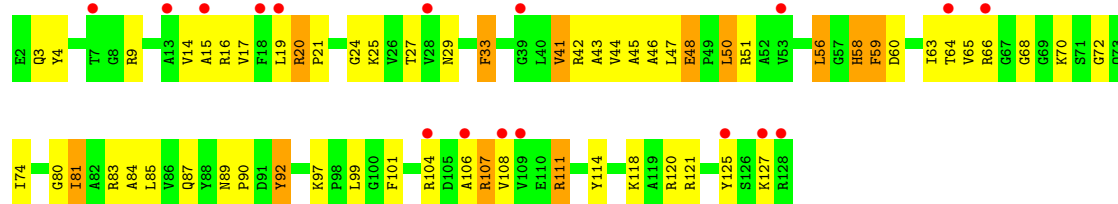
• Molecule 39: 30S ribosomal protein S8



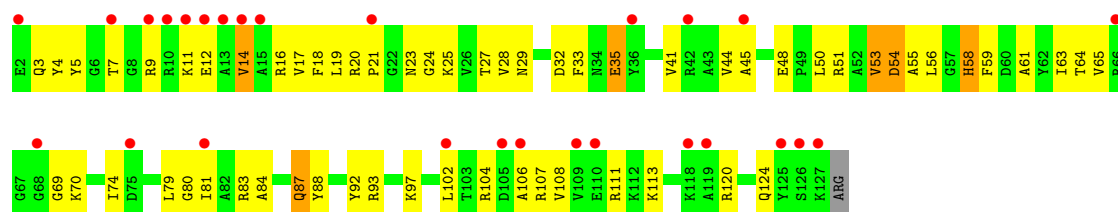
• Molecule 39: 30S ribosomal protein S8



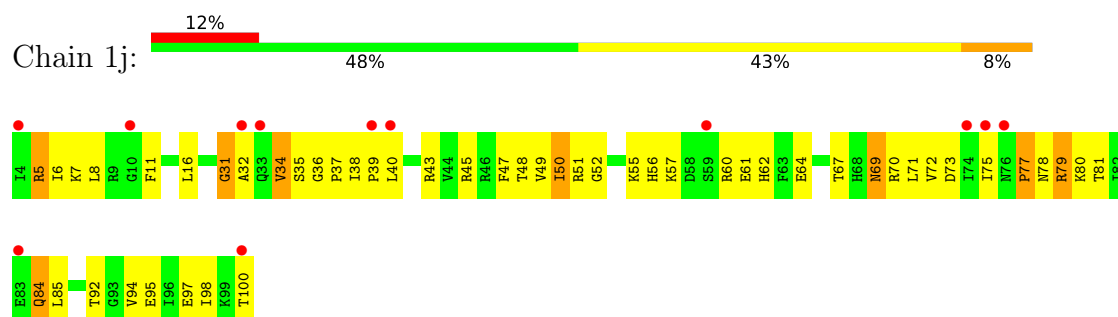
• Molecule 40: 30S ribosomal protein S9



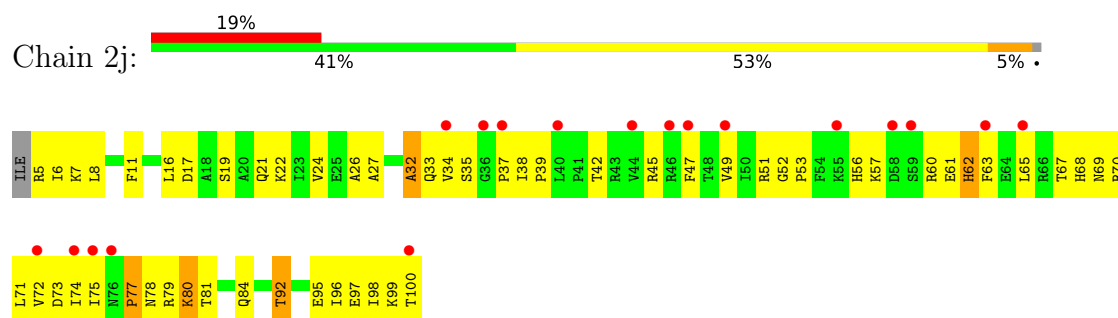
• Molecule 40: 30S ribosomal protein S9



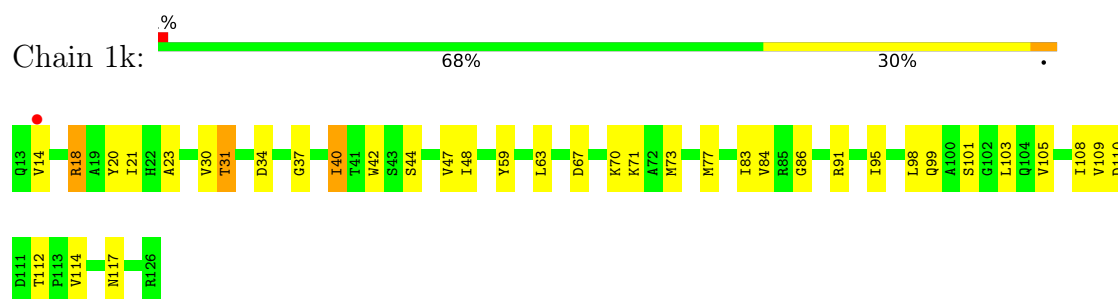
- Molecule 41: 30S ribosomal protein S10



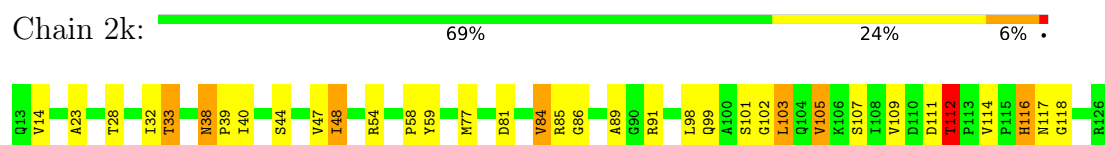
- Molecule 41: 30S ribosomal protein S10



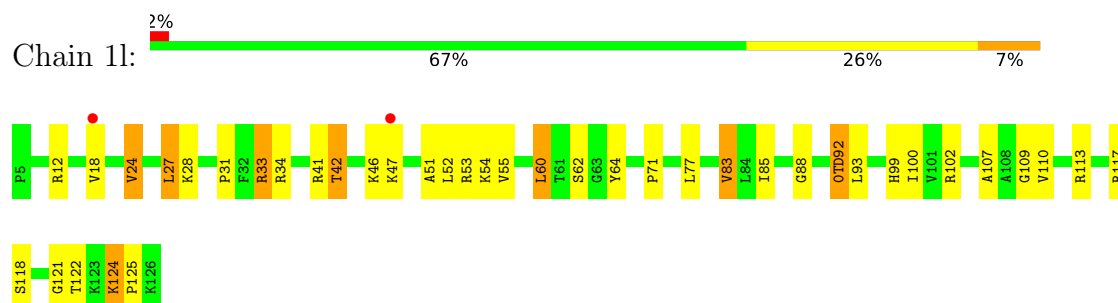
- Molecule 42: 30S ribosomal protein S11



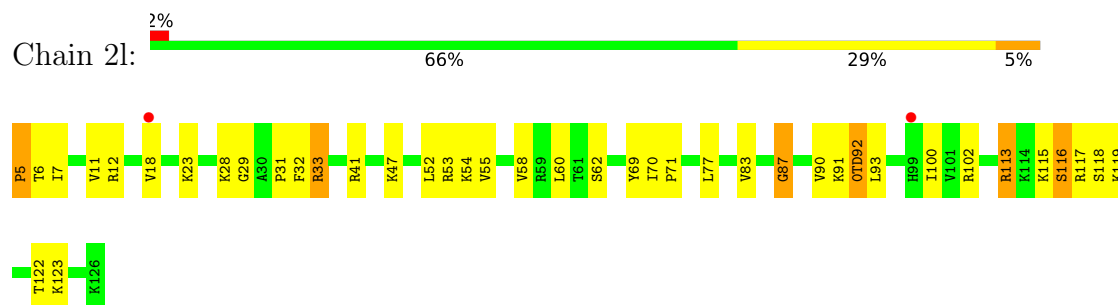
- Molecule 42: 30S ribosomal protein S11



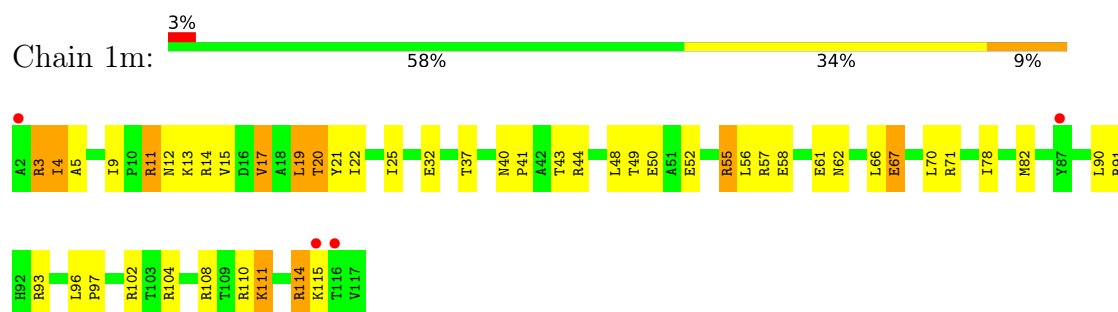
- Molecule 43: 30S ribosomal protein S12



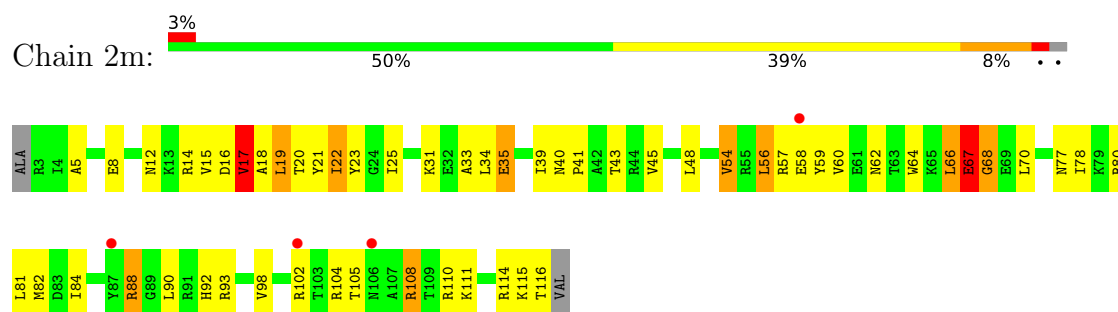
- Molecule 43: 30S ribosomal protein S12



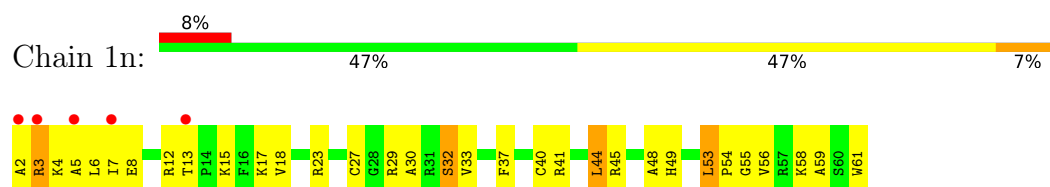
- Molecule 44: 30S ribosomal protein S13



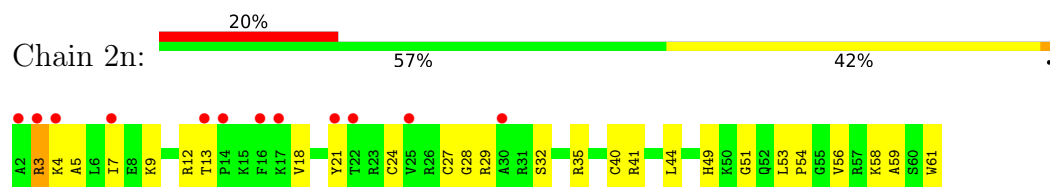
- Molecule 44: 30S ribosomal protein S13



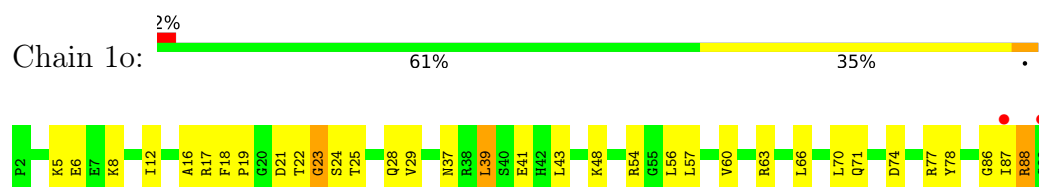
- Molecule 45: 30S ribosomal protein S14 type Z



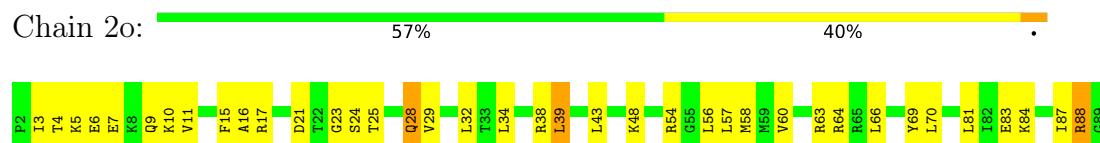
- Molecule 45: 30S ribosomal protein S14 type Z



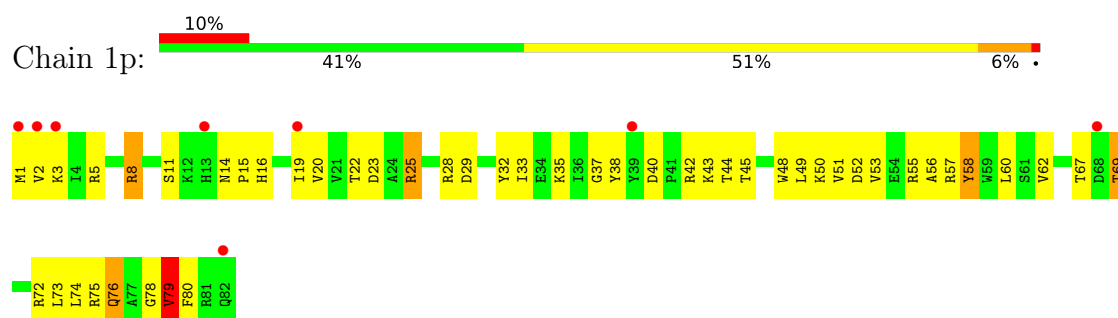
- Molecule 46: 30S ribosomal protein S15



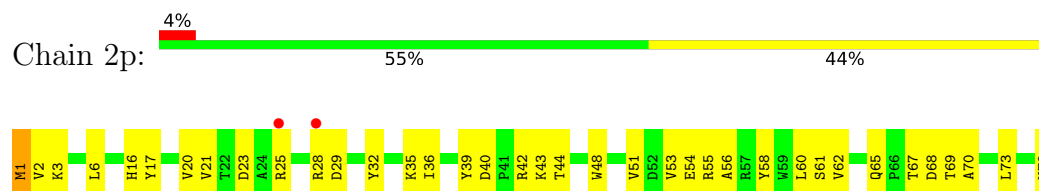
- Molecule 46: 30S ribosomal protein S15



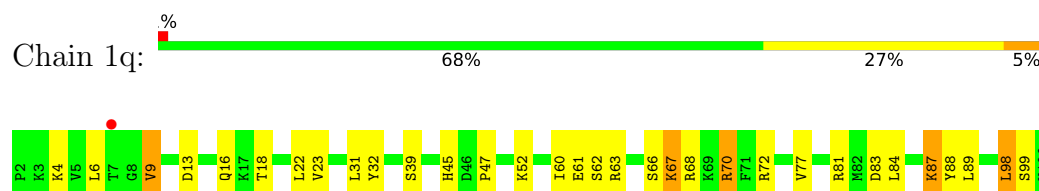
- Molecule 47: 30S ribosomal protein S16



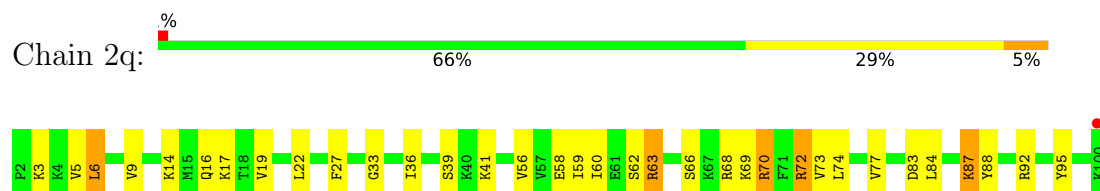
- Molecule 47: 30S ribosomal protein S16



- Molecule 48: 30S ribosomal protein S17



- Molecule 48: 30S ribosomal protein S17

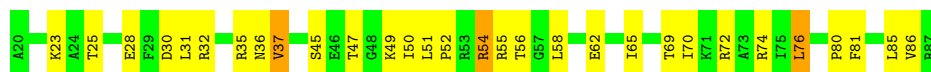


- Molecule 49: 30S ribosomal protein S18

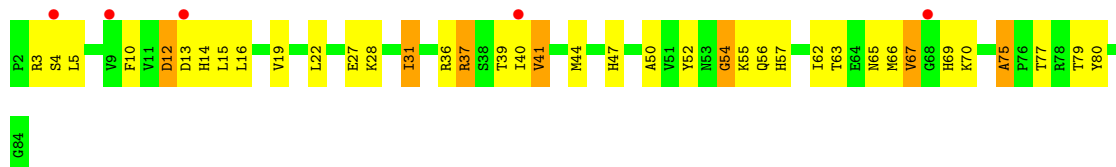




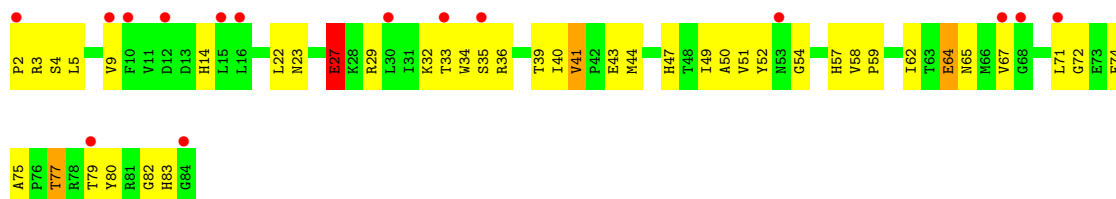
- Molecule 49: 30S ribosomal protein S18



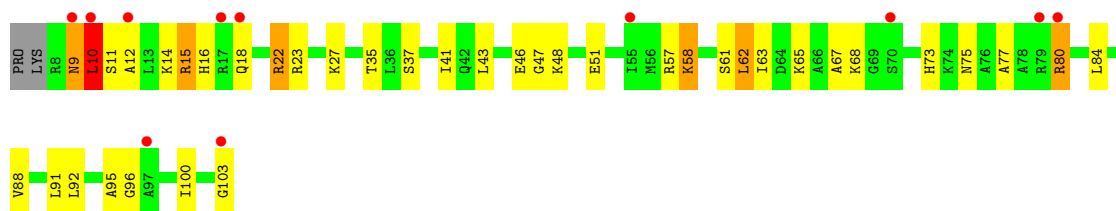
- Molecule 50: 30S ribosomal protein S19



- Molecule 50: 30S ribosomal protein S19

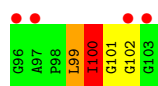


- Molecule 51: 30S ribosomal protein S20

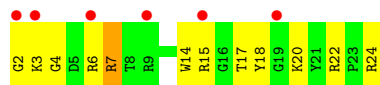


- Molecule 51: 30S ribosomal protein S20





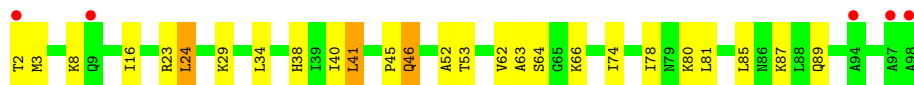
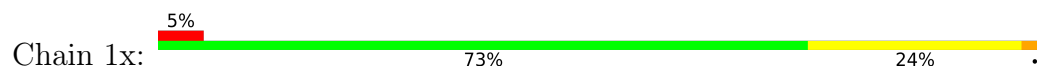
- Molecule 52: 30S ribosomal protein Thx



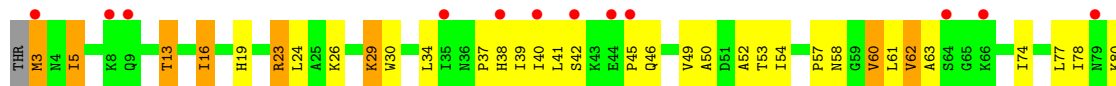
- Molecule 52: 30S ribosomal protein Thx



- Molecule 53: Ribosome-associated inhibitor A



- Molecule 53: Ribosome-associated inhibitor A



- Molecule 54: Metalnikowin I



- Molecule 54: Metalnikowin I



There are no outlier residues recorded for this chain.

4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	209.65Å 448.09Å 623.38Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.72 – 2.90 49.72 – 2.90	Depositor EDS
% Data completeness (in resolution range)	99.6 (49.72-2.90) 99.6 (49.72-2.90)	Depositor EDS
R_{merge}	0.16	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.04 (at 2.77Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.183 , 0.234 0.184 , 0.232	Depositor DCC
R_{free} test set	69999 reflections (4.91%)	wwPDB-VP
Wilson B-factor (Å ²)	67.9	Xtriage
Anisotropy	0.112	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.29 , 53.6	EDS
L-test for twinning ²	$\langle L \rangle = 0.48$, $\langle L^2 \rangle = 0.31$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.95	EDS
Total number of atoms	293484	wwPDB-VP
Average B, all atoms (Å ²)	60.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.56% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: MG, MA6, 2MG, 5MU, SF4, UR3, M2G, 7MG, ZN, OMG, 2MA, 0TD, 5MC, OMU, 4OC, PSU, AMP

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	1A	0.85	1/69021 (0.0%)	0.94	43/107735 (0.0%)
1	2A	0.65	1/68892 (0.0%)	0.82	34/107529 (0.0%)
2	1B	0.66	0/2879	0.90	1/4490 (0.0%)
2	2B	0.53	0/2874	0.78	1/4482 (0.0%)
3	1D	1.23	6/2181 (0.3%)	1.40	27/2940 (0.9%)
3	2D	1.02	2/2186 (0.1%)	1.28	12/2944 (0.4%)
4	1E	1.29	7/1592 (0.4%)	1.35	7/2149 (0.3%)
4	2E	0.99	0/1592	1.26	5/2149 (0.2%)
5	1F	1.22	2/1619 (0.1%)	1.38	13/2193 (0.6%)
5	2F	0.90	0/1609	1.24	8/2181 (0.4%)
6	1G	0.85	0/1451	1.24	11/1961 (0.6%)
6	2G	0.82	0/1449	1.25	15/1957 (0.8%)
7	1H	1.06	1/1356 (0.1%)	1.31	10/1834 (0.5%)
7	2H	0.87	0/1350	1.29	10/1826 (0.5%)
8	1I	0.93	0/1109	1.29	11/1512 (0.7%)
8	2I	0.86	0/1091	1.20	5/1490 (0.3%)
9	1N	1.21	2/1148 (0.2%)	1.27	3/1547 (0.2%)
9	2N	0.81	1/1144 (0.1%)	1.23	9/1543 (0.6%)
10	1O	1.27	2/943 (0.2%)	1.36	7/1269 (0.6%)
10	2O	0.96	0/943	1.21	0/1269
11	1P	1.09	1/1152 (0.1%)	1.31	2/1533 (0.1%)
11	2P	0.84	0/1152	1.16	2/1533 (0.1%)
12	1Q	1.19	2/1143 (0.2%)	1.26	2/1527 (0.1%)
12	2Q	0.86	0/1143	1.13	3/1527 (0.2%)
13	1R	1.25	1/982 (0.1%)	1.30	9/1312 (0.7%)
13	2R	0.96	0/982	1.18	4/1312 (0.3%)
14	1S	0.94	0/887	1.24	2/1180 (0.2%)
14	2S	0.74	0/880	1.14	3/1172 (0.3%)
15	1T	1.14	2/1105 (0.2%)	1.29	5/1477 (0.3%)
15	2T	0.90	0/1097	1.25	6/1468 (0.4%)
16	1U	1.34	1/977 (0.1%)	1.28	4/1301 (0.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
16	2U	0.92	1/977 (0.1%)	1.14	0/1301
17	1V	1.13	0/786	1.28	0/1053
17	2V	0.81	0/782	1.12	1/1049 (0.1%)
18	1W	1.36	1/891 (0.1%)	1.33	2/1198 (0.2%)
18	2W	1.09	1/888 (0.1%)	1.17	3/1194 (0.3%)
19	1X	1.21	1/764 (0.1%)	1.33	3/1025 (0.3%)
19	2X	0.92	0/764	1.18	3/1025 (0.3%)
20	1Y	1.16	2/823 (0.2%)	1.40	4/1099 (0.4%)
20	2Y	0.95	0/823	1.28	2/1100 (0.2%)
21	1Z	0.97	2/1620 (0.1%)	1.28	10/2200 (0.5%)
21	2Z	0.82	0/1590	1.25	12/2162 (0.6%)
22	10	1.12	1/616 (0.2%)	1.20	0/821
22	20	0.82	1/616 (0.2%)	1.21	7/821 (0.9%)
23	11	1.23	3/761 (0.4%)	1.35	6/1013 (0.6%)
23	21	1.01	0/766	1.21	2/1018 (0.2%)
24	12	1.09	1/590 (0.2%)	1.20	0/781
24	22	0.83	0/594	1.20	1/785 (0.1%)
25	13	1.17	0/474	1.37	2/635 (0.3%)
25	23	0.80	0/469	1.11	0/630
26	14	1.02	2/559 (0.4%)	1.33	4/754 (0.5%)
26	24	1.08	1/549 (0.2%)	1.34	5/741 (0.7%)
27	15	1.31	3/473 (0.6%)	1.47	6/639 (0.9%)
27	25	0.99	1/469 (0.2%)	1.19	3/635 (0.5%)
28	16	1.14	0/460	1.21	1/613 (0.2%)
28	26	0.90	0/456	1.12	1/608 (0.2%)
29	17	1.31	0/426	1.30	1/561 (0.2%)
29	27	1.05	0/426	1.20	2/561 (0.4%)
30	18	1.26	0/525	1.27	1/691 (0.1%)
30	28	0.91	0/525	1.17	4/691 (0.6%)
31	19	1.11	0/310	1.33	0/407
31	29	0.71	0/310	1.09	0/407
32	1a	0.59	0/35795	0.80	16/55864 (0.0%)
32	2a	0.56	1/35890 (0.0%)	0.78	20/56012 (0.0%)
33	1b	0.85	0/1876	1.31	16/2533 (0.6%)
33	2b	0.88	1/1860 (0.1%)	1.28	17/2518 (0.7%)
34	1c	0.83	0/1582	1.20	9/2137 (0.4%)
34	2c	0.93	0/1566	1.26	11/2119 (0.5%)
35	1d	0.85	0/1695	1.21	15/2274 (0.7%)
35	2d	0.87	2/1698 (0.1%)	1.26	10/2277 (0.4%)
36	1e	0.81	0/1149	1.21	5/1548 (0.3%)
36	2e	0.84	0/1149	1.30	13/1548 (0.8%)
37	1f	0.83	0/827	1.17	3/1120 (0.3%)
37	2f	0.85	1/829 (0.1%)	1.18	4/1123 (0.4%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	1g	0.75	0/1254	1.15	4/1683 (0.2%)
38	2g	0.78	0/1248	1.20	6/1676 (0.4%)
39	1h	0.81	0/1118	1.20	5/1506 (0.3%)
39	2h	0.76	0/1108	1.26	7/1494 (0.5%)
40	1i	0.84	0/1005	1.16	6/1351 (0.4%)
40	2i	0.93	0/985	1.19	1/1329 (0.1%)
41	1j	1.01	0/732	1.28	8/993 (0.8%)
41	2j	1.03	0/723	1.25	6/984 (0.6%)
42	1k	0.86	0/849	1.20	4/1150 (0.3%)
42	2k	0.84	1/848 (0.1%)	1.27	11/1149 (1.0%)
43	1l	0.86	0/937	1.25	5/1260 (0.4%)
43	2l	0.83	0/937	1.24	7/1260 (0.6%)
44	1m	0.76	0/924	1.16	3/1242 (0.2%)
44	2m	0.86	1/905 (0.1%)	1.22	5/1217 (0.4%)
45	1n	0.77	0/501	1.23	2/664 (0.3%)
45	2n	0.73	0/501	1.06	0/664
46	1o	0.86	0/739	1.24	5/985 (0.5%)
46	2o	0.77	0/739	1.06	0/985
47	1p	0.81	0/697	1.16	1/939 (0.1%)
47	2p	0.84	0/693	1.19	0/935
48	1q	0.85	0/836	1.19	3/1117 (0.3%)
48	2q	0.78	0/836	1.11	2/1117 (0.2%)
49	1r	0.83	0/560	1.14	0/746
49	2r	0.82	0/560	1.06	0/746
50	1s	0.77	0/663	1.20	5/895 (0.6%)
50	2s	0.90	0/660	1.20	6/893 (0.7%)
51	1t	0.79	0/734	1.31	5/969 (0.5%)
51	2t	0.84	0/736	1.22	3/976 (0.3%)
52	1u	0.69	0/203	1.00	0/266
52	2u	0.73	0/203	1.24	0/266
53	1x	0.87	0/776	1.15	3/1048 (0.3%)
53	2x	0.86	0/761	1.17	1/1030 (0.1%)
54	1y	1.11	0/90	1.20	0/122
54	2y	0.93	0/90	1.17	0/122
All	All	0.79	60/310078 (0.0%)	0.98	613/463412 (0.1%)

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
19	1X	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
19	2X	0	1
33	1b	0	1
All	All	0	3

All (60) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	1E	123	ALA	CA-CB	-8.68	1.39	1.53
13	1R	38	VAL	CA-CB	-8.61	1.49	1.54
9	1N	85	ILE	CA-CB	-7.42	1.48	1.54
3	2D	240	ALA	CA-CB	-6.91	1.43	1.54
3	1D	199	ALA	CA-CB	-6.87	1.41	1.53
4	1E	20	ALA	CA-CB	-6.70	1.44	1.53
22	10	33	ALA	CA-CB	-6.67	1.43	1.53
9	2N	85	ILE	CA-CB	-6.66	1.48	1.54
4	1E	28	ALA	CA-CB	-6.47	1.43	1.53
27	15	24	ALA	CA-CB	-6.42	1.42	1.53
1	1A	2564	OMU	O3'-P	6.21	1.62	1.56
42	2k	105	VAL	CA-CB	6.16	1.62	1.54
4	1E	186	GLY	C-O	-6.15	1.20	1.24
21	1Z	176	PRO	CA-C	-5.97	1.48	1.51
23	11	67	ILE	CA-CB	-5.96	1.49	1.53
35	2d	146	ILE	CA-CB	5.92	1.60	1.53
18	2W	94	ASP	CA-C	5.91	1.61	1.53
15	1T	5	ALA	CA-CB	-5.88	1.44	1.53
10	1O	24	VAL	CA-CB	5.85	1.61	1.54
3	1D	191	ALA	CA-CB	-5.84	1.44	1.53
16	1U	46	ALA	CA-CB	-5.80	1.44	1.53
16	2U	8	VAL	CA-CB	-5.77	1.47	1.54
21	1Z	100	VAL	CA-C	-5.77	1.48	1.52
27	15	41	PRO	C-O	-5.70	1.18	1.24
37	2f	38	GLU	CA-C	-5.62	1.49	1.52
20	1Y	72	VAL	CA-CB	-5.62	1.47	1.54
35	2d	39	PRO	CA-C	5.62	1.54	1.51
27	25	37	LYS	CA-C	5.61	1.60	1.52
20	1Y	39	VAL	CA-CB	-5.57	1.47	1.54
3	1D	195	ALA	CA-CB	-5.56	1.44	1.53
3	1D	240	ALA	C-O	-5.50	1.18	1.24
4	1E	127	ASP	C-O	-5.48	1.16	1.24
9	1N	27	ALA	CA-CB	-5.43	1.45	1.53
33	2b	124	SER	CA-C	5.40	1.59	1.52
19	1X	10	ALA	CA-CB	-5.34	1.46	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	11	18	ILE	CA-CB	-5.32	1.48	1.54
5	1F	84	VAL	CA-CB	-5.30	1.48	1.54
3	2D	19	ALA	CA-CB	-5.29	1.44	1.53
26	24	44	THR	CA-CB	5.27	1.59	1.52
27	15	41	PRO	CA-C	-5.27	1.47	1.52
3	1D	247	ALA	CA-CB	-5.26	1.45	1.54
26	14	55	ARG	CA-C	5.26	1.59	1.52
22	20	18	ALA	CA-CB	-5.23	1.45	1.53
3	1D	6	PHE	CA-C	-5.20	1.46	1.52
4	1E	21	VAL	N-CA	-5.20	1.42	1.46
26	14	52	THR	CA-CB	5.20	1.60	1.53
1	2A	2552	OMU	O3'-P	5.19	1.61	1.56
12	1Q	36	ALA	CA-CB	-5.19	1.45	1.53
15	1T	42	ILE	CA-CB	-5.16	1.48	1.54
24	12	58	ALA	CA-CB	-5.16	1.45	1.53
7	1H	89	ILE	CA-CB	-5.16	1.47	1.54
10	1O	58	VAL	CA-CB	-5.15	1.46	1.54
12	1Q	21	THR	CA-C	-5.12	1.46	1.52
4	1E	17	ASP	CA-C	-5.06	1.47	1.53
5	1F	42	ALA	CA-CB	-5.03	1.45	1.53
18	1W	76	VAL	C-O	-5.03	1.18	1.24
23	11	34	THR	C-O	-5.01	1.18	1.24
32	2a	1498	UR3	O3'-P	5.01	1.61	1.56
11	1P	56	SER	C-O	-5.00	1.17	1.23
44	2m	54	VAL	CA-CB	5.00	1.60	1.54

All (613) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1208	C	O5'-P-OP1	-13.15	68.56	108.00
32	2a	1208	C	OP1-P-OP2	-12.36	82.53	119.60
32	1a	1520	G	O5'-P-OP2	12.06	144.18	108.00
32	1a	1520	G	OP1-P-OP2	-11.88	83.94	119.60
32	1a	1520	G	O5'-P-OP1	-11.48	73.56	108.00
1	2A	1992	G	C2'-C3'-O3'	10.72	125.59	109.50
32	2a	1207	2MG	OP2-P-O3'	-10.39	76.82	108.00
43	1l	124	LYS	CA-C-N	10.18	130.60	120.52
43	1l	124	LYS	C-N-CA	10.18	130.60	120.52
34	1c	99	VAL	N-CA-C	10.09	117.00	106.21
35	2d	58	LEU	N-CA-C	-10.04	100.33	111.07
39	2h	73	ASP	CA-C-N	10.04	131.59	120.45
39	2h	73	ASP	C-N-CA	10.04	131.59	120.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	1b	23	ARG	N-CA-C	-9.99	98.72	112.30
46	1o	87	ILE	N-CA-C	9.93	120.81	111.48
32	2a	1207	2MG	OP1-P-O3'	9.79	137.37	108.00
35	2d	38	TYR	CA-C-N	9.72	126.75	119.66
35	2d	38	TYR	C-N-CA	9.72	126.75	119.66
50	1s	67	VAL	N-CA-C	9.71	119.58	110.74
18	1W	111	HIS	N-CA-C	9.64	124.96	107.99
21	1Z	157	LEU	CA-C-N	9.45	130.11	120.38
21	1Z	157	LEU	C-N-CA	9.45	130.11	120.38
5	2F	9	ILE	N-CA-C	9.42	118.47	107.73
15	1T	96	ARG	CG-CD-NE	-9.31	91.52	112.00
26	14	53	GLU	N-CA-C	8.97	120.67	111.07
50	2s	67	VAL	N-CA-C	8.90	119.46	110.82
7	2H	35	VAL	N-CA-C	8.90	116.36	107.55
21	2Z	94	GLU	CA-C-N	-8.89	110.71	120.14
21	2Z	94	GLU	C-N-CA	-8.89	110.71	120.14
6	1G	126	ASP	N-CA-C	8.78	120.47	111.07
33	2b	129	GLU	N-CA-C	-8.73	102.18	112.92
1	1A	1346	U	C4'-C3'-O3'	8.71	122.46	109.40
42	2k	118	GLY	N-CA-C	8.70	127.19	111.02
1	2A	752	A	C2'-C3'-O3'	8.62	122.43	109.50
33	1b	160	ASP	N-CA-C	-8.54	102.88	113.38
7	2H	8	PRO	CA-C-N	-8.39	116.89	122.60
7	2H	8	PRO	C-N-CA	-8.39	116.89	122.60
32	2a	266	G	C2'-C3'-O3'	8.33	121.99	109.50
1	1A	1700	G	C2'-C3'-O3'	8.32	121.99	109.50
7	1H	127	GLU	CA-C-N	-8.31	111.58	120.47
7	1H	127	GLU	C-N-CA	-8.31	111.58	120.47
33	2b	23	ARG	N-CA-C	-8.29	100.60	111.71
3	1D	35	LYS	CA-C-N	-8.21	111.56	119.85
3	1D	35	LYS	C-N-CA	-8.21	111.56	119.85
23	11	67	ILE	CA-C-N	-8.09	111.39	119.56
23	11	67	ILE	C-N-CA	-8.09	111.39	119.56
42	1k	40	ILE	N-CA-C	-8.06	105.37	111.90
3	1D	70	TRP	CA-C-N	8.01	131.82	120.28
3	1D	70	TRP	C-N-CA	8.01	131.82	120.28
6	1G	45	GLU	N-CA-C	-8.01	103.51	113.20
1	1A	786	G	OP2-P-O3'	-7.89	84.33	108.00
51	2t	101	GLY	N-CA-C	7.89	124.99	111.19
34	2c	43	LEU	N-CA-C	7.85	119.61	111.14
20	1Y	8	LYS	N-CA-C	7.84	120.81	109.14
4	2E	72	VAL	N-CA-C	7.78	119.33	108.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	1G	54	GLU	N-CA-C	-7.77	102.81	111.82
3	2D	275	LYS	N-CA-C	-7.74	94.32	110.80
34	2c	108	ASN	CA-C-N	7.74	127.45	119.56
34	2c	108	ASN	C-N-CA	7.74	127.45	119.56
36	2e	69	VAL	CA-C-N	7.74	129.51	119.84
36	2e	69	VAL	C-N-CA	7.74	129.51	119.84
3	1D	105	ILE	CA-C-N	-7.63	110.27	121.71
3	1D	105	ILE	C-N-CA	-7.63	110.27	121.71
23	11	7	ILE	CB-CA-C	-7.62	104.20	111.44
25	13	40	THR	CA-C-N	-7.61	111.12	119.19
25	13	40	THR	C-N-CA	-7.61	111.12	119.19
36	2e	92	LYS	CA-C-N	7.61	128.07	119.93
36	2e	92	LYS	C-N-CA	7.61	128.07	119.93
5	1F	65	TRP	CA-C-N	-7.58	112.52	120.03
5	1F	65	TRP	C-N-CA	-7.58	112.52	120.03
36	1e	105	VAL	CA-C-N	-7.54	112.03	119.87
36	1e	105	VAL	C-N-CA	-7.54	112.03	119.87
11	2P	71	VAL	N-CA-C	-7.54	100.66	108.96
1	1A	1346	U	P-O3'-C3'	7.51	131.47	120.20
1	1A	2902	G	C4'-C3'-O3'	7.51	120.66	109.40
43	2l	119	LYS	N-CA-C	-7.50	100.15	110.35
32	2a	1208	C	O5'-P-OP2	7.49	130.47	108.00
9	2N	10	GLU	CA-C-N	7.48	128.58	120.13
9	2N	10	GLU	C-N-CA	7.48	128.58	120.13
36	2e	113	ALA	N-CA-C	-7.46	103.77	113.17
1	2A	2502	G	C4'-C3'-O3'	7.43	124.15	113.00
36	2e	98	THR	N-CA-C	7.41	119.36	111.28
1	1A	1255	A	C4'-C3'-O3'	7.41	120.51	109.40
10	1O	94	ARG	N-CA-C	-7.39	104.27	113.28
41	2j	52	GLY	CA-C-N	7.38	127.01	119.19
41	2j	52	GLY	C-N-CA	7.38	127.01	119.19
10	1O	21	CYS	CA-C-N	-7.31	114.02	122.14
10	1O	21	CYS	C-N-CA	-7.31	114.02	122.14
21	1Z	94	GLU	CA-C-N	-7.29	113.16	120.31
21	1Z	94	GLU	C-N-CA	-7.29	113.16	120.31
1	1A	1377	A	OP1-P-O3'	-7.27	86.18	108.00
7	2H	28	GLY	CA-C-N	7.26	126.94	119.82
7	2H	28	GLY	C-N-CA	7.26	126.94	119.82
44	2m	111	LYS	N-CA-C	7.23	119.24	111.36
48	1q	67	LYS	N-CA-C	-7.22	99.75	110.23
43	2l	87	GLY	N-CA-C	7.22	121.92	112.25
3	2D	35	LYS	CA-C-N	-7.18	112.58	119.76

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	2D	35	LYS	C-N-CA	-7.18	112.58	119.76
8	2I	124	GLY	N-CA-C	7.16	120.70	110.46
1	2A	1210	A	C4'-C3'-O3'	7.14	120.12	109.40
14	1S	59	LYS	N-CA-C	7.14	126.01	110.80
3	2D	46	GLN	N-CA-C	-7.14	104.60	113.38
5	1F	84	VAL	N-CA-C	-7.08	100.44	109.58
1	2A	1091	G	O3'-P-O5'	7.07	114.61	104.00
21	1Z	146	ILE	N-CA-C	-7.07	99.51	108.84
33	1b	166	ASP	CA-C-N	7.04	126.53	118.85
33	1b	166	ASP	C-N-CA	7.04	126.53	118.85
34	1c	4	LYS	N-CA-C	7.04	120.70	110.28
37	2f	98	LEU	N-CA-C	7.04	120.71	109.24
45	1n	53	LEU	CA-C-N	7.03	127.45	119.93
45	1n	53	LEU	C-N-CA	7.03	127.45	119.93
41	1j	52	GLY	CA-C-N	7.03	126.64	119.19
41	1j	52	GLY	C-N-CA	7.03	126.64	119.19
43	2l	28	LYS	N-CA-C	7.00	120.91	111.24
9	2N	134	ARG	CA-C-N	6.99	126.75	119.76
9	2N	134	ARG	C-N-CA	6.99	126.75	119.76
5	1F	53	THR	N-CA-CB	-6.96	99.33	110.46
21	1Z	100	VAL	CA-C-N	6.95	127.37	119.93
21	1Z	100	VAL	C-N-CA	6.95	127.37	119.93
15	1T	53	ARG	CB-CA-C	-6.95	98.89	110.29
33	1b	12	GLU	N-CA-C	-6.95	104.78	113.18
27	15	4	HIS	CA-C-N	-6.93	113.52	120.31
27	15	4	HIS	C-N-CA	-6.93	113.52	120.31
32	1a	266	G	C2'-C3'-O3'	6.92	119.88	109.50
51	1t	11	SER	N-CA-C	-6.83	104.56	113.17
1	1A	1255	A	P-O3'-C3'	6.83	130.44	120.20
46	1o	22	THR	N-CA-C	-6.83	99.03	109.41
1	1A	2902	G	P-O3'-C3'	6.80	130.40	120.20
33	2b	41	ILE	N-CA-C	6.80	117.66	107.80
33	1b	8	LYS	N-CA-C	6.79	120.78	112.23
35	1d	188	LEU	CA-C-N	6.78	127.85	119.98
35	1d	188	LEU	C-N-CA	6.78	127.85	119.98
26	24	19	GLY	N-CA-C	-6.77	105.76	115.64
19	1X	8	ILE	CB-CA-C	-6.76	101.71	110.98
22	20	82	ARG	CA-C-N	6.76	128.29	119.84
22	20	82	ARG	C-N-CA	6.76	128.29	119.84
35	1d	38	TYR	CA-C-N	6.75	124.59	119.66
35	1d	38	TYR	C-N-CA	6.75	124.59	119.66
3	1D	98	VAL	CA-C-N	6.75	130.23	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	1D	98	VAL	C-N-CA	6.75	130.23	120.38
5	1F	64	ILE	N-CA-C	6.72	119.45	111.05
1	1A	1045	U	O5'-P-OP2	-6.72	87.84	108.00
33	1b	128	GLU	N-CA-C	-6.71	103.02	113.02
34	2c	130	VAL	N-CA-C	6.70	117.48	110.72
32	2a	60	A	P-O3'-C3'	6.69	130.24	120.20
44	1m	66	LEU	N-CA-C	6.66	118.25	108.86
4	1E	47	VAL	CB-CA-C	-6.65	102.34	110.99
17	2V	53	GLU	N-CA-C	6.65	118.32	111.14
38	1g	3	ARG	N-CA-C	6.64	119.53	111.82
1	2A	1210	A	P-O3'-C3'	6.63	130.15	120.20
4	1E	52	LEU	CA-C-N	6.59	126.35	119.76
4	1E	52	LEU	C-N-CA	6.59	126.35	119.76
1	2A	752	A	P-O3'-C3'	6.58	130.08	120.20
19	2X	31	HIS	CA-C-N	6.58	126.28	119.56
19	2X	31	HIS	C-N-CA	6.58	126.28	119.56
33	2b	158	LEU	CA-C-N	6.57	128.05	119.84
33	2b	158	LEU	C-N-CA	6.57	128.05	119.84
8	1I	118	LYS	CA-C-N	6.56	126.59	119.90
8	1I	118	LYS	C-N-CA	6.56	126.59	119.90
33	2b	86	GLU	N-CA-C	-6.53	103.28	111.11
6	2G	86	MET	CA-C-N	6.52	127.98	119.84
6	2G	86	MET	C-N-CA	6.52	127.98	119.84
9	2N	78	TYR	CA-C-N	-6.52	113.24	119.76
9	2N	78	TYR	C-N-CA	-6.52	113.24	119.76
36	2e	11	ILE	CB-CA-C	-6.51	103.51	112.04
22	20	40	GLN	N-CA-C	6.50	118.43	108.42
6	2G	45	GLU	N-CA-C	-6.50	105.34	113.20
26	14	40	HIS	CA-C-N	6.49	127.95	119.84
26	14	40	HIS	C-N-CA	6.49	127.95	119.84
33	2b	160	ASP	N-CA-C	-6.49	105.00	113.17
51	1t	27	LYS	N-CA-C	-6.47	103.34	111.11
6	1G	53	LEU	N-CA-C	-6.47	103.72	112.26
42	2k	40	ILE	N-CA-C	-6.45	106.67	111.90
26	24	18	CYS	CB-CA-C	-6.45	98.70	110.63
1	2A	421	U	OP2-P-O3'	-6.44	88.68	108.00
39	1h	79	VAL	N-CA-C	-6.44	106.27	111.81
44	1m	114	ARG	N-CA-C	6.43	119.68	110.10
37	2f	60	PHE	N-CA-C	6.41	119.17	108.73
42	2k	116	HIS	CA-C-N	6.41	133.23	121.70
42	2k	116	HIS	C-N-CA	6.41	133.23	121.70
5	2F	84	VAL	N-CA-C	-6.37	100.77	109.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	454	U	O3'-P-O5'	-6.37	94.45	104.00
39	2h	56	LYS	CA-C-N	6.36	126.70	119.83
39	2h	56	LYS	C-N-CA	6.36	126.70	119.83
39	2h	134	ILE	N-CA-C	6.36	116.53	110.42
8	1I	43	ASN	N-CA-CB	6.36	119.90	110.49
32	2a	913	A	P-O3'-C3'	6.35	129.72	120.20
4	1E	168	MET	N-CA-C	6.34	119.87	109.72
7	2H	43	VAL	N-CA-C	6.34	117.04	108.17
40	1i	59	PHE	N-CA-C	6.33	119.72	109.40
18	2W	17	VAL	CB-CA-C	-6.33	103.49	112.22
5	2F	79	GLY	N-CA-C	-6.31	106.84	114.66
21	1Z	120	ILE	N-CA-C	6.29	116.96	110.36
37	1f	60	PHE	N-CA-C	6.28	118.95	108.96
42	1k	40	ILE	CB-CA-C	-6.28	105.27	111.30
26	24	63	TYR	N-CA-C	-6.28	103.56	110.91
33	1b	123	ALA	N-CA-C	-6.28	104.88	112.54
26	14	59	PHE	N-CA-C	-6.26	103.38	111.02
7	1H	92	ILE	N-CA-C	6.26	116.74	110.23
1	2A	1790	C	O3'-P-O5'	-6.25	94.62	104.00
12	2Q	22	LYS	N-CA-C	-6.24	104.56	111.36
38	2g	132	GLY	N-CA-C	6.22	122.02	112.81
13	1R	114	VAL	CB-CA-C	-6.21	101.26	110.33
50	1s	75	ALA	CA-C-N	6.21	126.23	119.90
50	1s	75	ALA	C-N-CA	6.21	126.23	119.90
1	1A	537	G	O4'-C1'-N9	6.20	117.50	108.20
32	1a	115	G	C2'-C3'-O3'	6.20	118.80	109.50
41	1j	8	LEU	N-CA-C	6.19	118.60	108.52
44	2m	108	ARG	N-CA-C	6.18	118.10	111.36
34	1c	48	TYR	N-CA-C	-6.17	104.46	111.07
42	2k	40	ILE	CB-CA-C	-6.17	105.38	111.30
9	2N	50	ASP	N-CA-C	-6.16	100.53	110.32
42	2k	112	THR	CA-C-N	6.15	126.35	119.90
42	2k	112	THR	C-N-CA	6.15	126.35	119.90
27	15	16	ARG	N-CA-C	-6.14	104.66	111.36
3	1D	221	VAL	N-CA-C	6.14	116.76	108.17
1	2A	752	A	C4'-C3'-O3'	6.14	118.61	109.40
4	2E	51	PHE	N-CA-C	-6.13	97.74	110.80
15	2T	96	ARG	CG-CD-NE	-6.13	98.52	112.00
7	1H	111	HIS	CA-C-N	-6.12	113.99	120.66
7	1H	111	HIS	C-N-CA	-6.12	113.99	120.66
5	1F	183	VAL	N-CA-C	6.12	118.74	111.09
35	1d	80	GLU	N-CA-C	-6.11	104.54	111.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	1079	C	O4'-C1'-N1	6.11	117.66	108.50
35	2d	166	LYS	N-CA-C	6.10	117.60	111.07
1	1A	180	A	OP1-P-O3'	-6.10	89.70	108.00
29	17	34	ARG	N-CA-C	-6.08	104.73	111.36
6	2G	77	ILE	N-CA-C	6.08	116.62	108.11
33	2b	226	ARG	N-CA-C	-6.08	105.35	112.89
6	2G	141	PHE	CA-C-N	6.08	125.76	119.56
6	2G	141	PHE	C-N-CA	6.08	125.76	119.56
3	1D	71	ASP	N-CA-CB	-6.08	100.86	110.22
34	1c	15	THR	N-CA-C	-6.08	106.47	114.31
1	1A	2561	G	OP1-P-O3'	-6.07	89.80	108.00
6	2G	141	PHE	N-CA-C	6.06	119.09	110.24
6	1G	31	VAL	N-CA-CB	6.06	115.71	110.08
20	1Y	92	ASN	N-CA-C	6.05	118.37	111.11
6	2G	31	VAL	CA-C-N	6.05	127.41	119.84
6	2G	31	VAL	C-N-CA	6.05	127.41	119.84
13	1R	37	THR	CA-C-N	-6.05	115.49	120.33
13	1R	37	THR	C-N-CA	-6.05	115.49	120.33
6	2G	144	ILE	N-CA-C	6.05	116.32	107.37
1	2A	1082	U	N1-C1'-C2'	-6.05	102.93	112.00
1	2A	221	A	C5'-C4'-C3'	-6.04	106.14	115.20
13	2R	114	VAL	CB-CA-C	-6.03	101.52	110.33
1	1A	1700	G	P-O3'-C3'	6.03	129.24	120.20
42	1k	114	VAL	CA-C-N	6.03	125.94	119.85
42	1k	114	VAL	C-N-CA	6.03	125.94	119.85
5	1F	9	ILE	N-CA-C	6.02	114.60	107.73
37	2f	94	GLN	N-CA-C	6.01	118.55	109.23
33	1b	193	ASP	CA-C-N	6.01	125.22	118.97
33	1b	193	ASP	C-N-CA	6.01	125.22	118.97
37	2f	88	VAL	N-CA-C	-6.01	99.07	108.86
43	2l	23	LYS	N-CA-C	-6.01	105.13	112.88
26	24	68	ARG	N-CA-C	6.00	119.07	111.69
38	2g	69	VAL	N-CA-C	-6.00	107.41	113.47
32	2a	60	A	C4'-C3'-O3'	5.99	118.38	109.40
1	1A	2701	U	C4'-C3'-O3'	5.97	118.36	109.40
12	1Q	5	ARG	N-CA-C	-5.97	105.49	112.89
1	1A	200	A	OP1-P-O3'	-5.96	90.11	108.00
13	1R	105	ARG	N-CA-C	5.96	117.44	111.07
35	1d	43	HIS	N-CA-C	5.96	120.68	113.17
32	1a	913	A	C4'-C3'-O3'	5.95	118.33	109.40
3	2D	75	ILE	CA-C-N	-5.95	114.64	120.52
3	2D	75	ILE	C-N-CA	-5.95	114.64	120.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	1073	A	N9-C1'-C2'	-5.94	103.08	112.00
32	1a	1067	A	P-O3'-C3'	5.94	129.10	120.20
36	2e	95	ALA	CA-C-N	5.93	127.25	119.84
36	2e	95	ALA	C-N-CA	5.93	127.25	119.84
43	1l	41	ARG	N-CA-C	5.92	116.06	108.24
9	1N	66	LYS	N-CA-C	5.92	118.52	111.71
23	2l	25	LYS	N-CA-C	-5.91	104.92	111.36
41	2j	69	ASN	N-CA-C	5.90	119.14	108.69
32	2a	343	U	C2-N1-C1'	-5.90	100.01	117.70
3	2D	246	PRO	CA-C-O	-5.88	114.94	121.23
8	2I	110	ASP	CA-C-N	5.88	125.35	119.24
8	2I	110	ASP	C-N-CA	5.88	125.35	119.24
21	2Z	157	LEU	CA-C-N	5.88	126.43	120.38
21	2Z	157	LEU	C-N-CA	5.88	126.43	120.38
24	22	51	ARG	N-CA-C	-5.87	104.22	111.33
1	1A	184	A	P-O3'-C3'	5.86	129.00	120.20
1	1A	354	A	N9-C1'-C2'	-5.86	105.21	114.00
34	1c	145	GLY	N-CA-C	5.86	123.14	115.47
35	2d	39	PRO	N-CA-C	5.85	116.09	110.47
35	1d	171	GLY	CA-C-N	5.85	127.15	119.84
35	1d	171	GLY	C-N-CA	5.85	127.15	119.84
41	1j	34	VAL	N-CA-C	5.85	116.29	107.75
15	2T	53	ARG	CB-CA-C	-5.85	100.70	110.29
5	2F	188	ARG	CB-CA-C	-5.84	101.09	110.79
16	1U	93	LYS	N-CA-C	-5.84	104.10	111.11
27	25	27	PRO	O-C-N	5.84	124.00	121.31
5	1F	195	ASP	CB-CA-C	-5.83	97.58	109.65
4	1E	47	VAL	N-CA-C	5.83	116.55	107.28
33	2b	124	SER	CA-C-N	5.83	127.13	119.84
33	2b	124	SER	C-N-CA	5.83	127.13	119.84
41	1j	5	ARG	N-CA-C	5.83	119.75	109.96
32	1a	687	A	C2'-C3'-O3'	5.82	118.23	109.50
53	2x	49	VAL	N-CA-C	5.82	116.67	108.17
1	1A	1442	U	O5'-P-OP1	-5.82	90.55	108.00
13	1R	71	GLN	N-CA-C	5.81	123.18	110.80
32	2a	687	A	C2'-C3'-O3'	5.81	118.22	109.50
1	2A	2689	U	C2'-C3'-O3'	5.81	118.21	109.50
40	1i	111	ARG	N-CA-C	5.80	118.65	110.23
43	2l	41	ARG	N-CA-C	5.79	115.88	108.24
41	1j	79	ARG	N-CA-C	5.78	123.12	110.80
51	1t	9	ASN	N-CA-C	5.78	118.65	109.81
1	1A	598	A	O5'-P-OP2	5.78	125.33	108.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	2Z	179	ASP	N-CA-C	5.78	117.85	108.26
7	2H	45	VAL	N-CA-C	5.76	116.16	107.80
36	2e	48	ALA	N-CA-C	5.76	113.31	108.13
2	1B	7	G	C5'-C4'-C3'	-5.75	107.37	116.00
33	1b	14	GLY	N-CA-C	-5.75	107.53	114.66
32	1a	913	A	P-O3'-C3'	5.75	128.82	120.20
33	2b	125	PRO	N-CA-C	5.75	124.31	112.47
33	1b	94	ASN	N-CA-C	-5.74	105.94	113.12
51	2t	99	LEU	N-CA-C	5.74	118.75	111.69
35	2d	111	ALA	N-CA-C	5.74	117.69	109.14
35	1d	19	LEU	CA-C-N	-5.74	113.56	122.05
35	1d	19	LEU	C-N-CA	-5.74	113.56	122.05
12	2Q	135	ASP	CB-CA-C	-5.74	100.52	111.48
6	2G	121	ASN	CA-C-N	5.73	125.59	119.28
6	2G	121	ASN	C-N-CA	5.73	125.59	119.28
7	1H	38	SER	N-CA-C	5.73	116.19	109.60
29	27	47	ARG	N-CA-C	5.73	119.24	110.36
1	1A	455	A	C5'-C4'-C3'	-5.72	107.42	116.00
8	1I	69	LYS	N-CA-C	-5.72	105.13	111.36
15	2T	128	GLU	N-CA-C	-5.71	104.93	112.24
8	1I	13	GLY	N-CA-C	5.71	118.85	110.80
19	1X	77	LYS	CA-C-N	-5.70	114.39	122.94
19	1X	77	LYS	C-N-CA	-5.70	114.39	122.94
38	2g	7	ALA	CA-C-N	-5.69	115.15	123.00
38	2g	7	ALA	C-N-CA	-5.69	115.15	123.00
36	2e	6	PHE	N-CA-C	5.67	117.81	109.24
16	1U	50	ARG	CB-CA-C	5.66	121.93	110.38
15	2T	130	ALA	N-CA-C	5.66	117.89	108.20
1	2A	271(M)	G	OP1-P-O3'	5.66	117.65	105.20
4	2E	51	PHE	CA-C-N	5.66	131.89	121.70
4	2E	51	PHE	C-N-CA	5.66	131.89	121.70
1	1A	2858	G	O4'-C1'-N9	5.66	116.69	108.20
32	1a	343	U	C2-N1-C1'	-5.66	100.73	117.70
33	1b	234	PRO	N-CA-C	5.65	119.96	111.14
40	2i	61	ALA	N-CA-C	5.65	117.59	108.32
7	1H	3	ARG	N-CA-C	5.65	122.83	110.80
39	1h	88	LYS	CA-C-N	-5.65	113.20	119.19
39	1h	88	LYS	C-N-CA	-5.65	113.20	119.19
35	1d	4	TYR	N-CA-C	5.65	117.11	111.07
13	1R	91	GLN	CA-CB-CG	-5.64	102.81	114.10
33	1b	187	LEU	N-CA-C	-5.64	101.29	110.20
30	28	41	ILE	CB-CA-C	-5.64	104.53	112.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
44	2m	68	GLY	N-CA-C	-5.64	105.85	113.24
20	1Y	84	ARG	CA-C-N	-5.63	115.84	123.10
20	1Y	84	ARG	C-N-CA	-5.63	115.84	123.10
37	1f	20	ALA	N-CA-C	-5.62	105.23	111.36
23	1l	4	VAL	N-CA-C	5.62	115.98	108.11
43	2l	29	GLY	N-CA-C	-5.62	96.99	113.30
32	2a	1183	A	P-O3'-C3'	5.62	128.63	120.20
35	2d	171	GLY	CA-C-N	5.62	126.86	119.84
35	2d	171	GLY	C-N-CA	5.62	126.86	119.84
3	2D	229	VAL	CB-CA-C	-5.61	103.17	112.26
32	2a	266	G	P-O3'-C3'	5.61	128.61	120.20
3	1D	246	PRO	CA-C-O	-5.61	115.23	121.23
9	2N	7	LYS	N-CA-C	-5.60	102.99	110.55
32	2a	65	U	P-O3'-C3'	5.60	128.59	120.20
33	2b	193	ASP	CA-C-N	5.59	124.79	118.97
33	2b	193	ASP	C-N-CA	5.59	124.79	118.97
30	28	39	LYS	N-CA-C	-5.59	105.19	111.28
1	2A	2689	U	P-O3'-C3'	5.58	128.58	120.20
1	1A	1700	G	O3'-P-O5'	5.58	112.38	104.00
22	20	60	PHE	N-CA-C	5.58	117.55	109.07
7	1H	84	SER	N-CA-C	5.57	117.54	109.07
1	1A	991	G	O5'-P-OP1	-5.57	91.29	108.00
50	1s	54	GLY	N-CA-C	-5.56	107.86	114.48
27	25	40	LYS	CA-C-N	-5.56	114.65	120.38
27	25	40	LYS	C-N-CA	-5.56	114.65	120.38
21	1Z	193	GLU	CA-C-N	5.56	125.88	119.93
21	1Z	193	GLU	C-N-CA	5.56	125.88	119.93
37	1f	94	GLN	N-CA-C	5.55	117.70	108.99
50	2s	82	GLY	N-CA-C	5.53	118.78	111.70
46	1o	86	GLY	CA-C-N	-5.51	117.57	122.97
46	1o	86	GLY	C-N-CA	-5.51	117.57	122.97
13	2R	109	ALA	CA-C-N	-5.51	114.25	119.76
13	2R	109	ALA	C-N-CA	-5.51	114.25	119.76
36	1e	95	ALA	CA-C-N	5.51	126.72	119.84
36	1e	95	ALA	C-N-CA	5.51	126.72	119.84
21	2Z	86	VAL	N-CA-C	5.51	116.41	108.48
3	1D	85	ASP	CA-C-N	5.50	126.23	120.12
3	1D	85	ASP	C-N-CA	5.50	126.23	120.12
6	1G	82	LEU	N-CA-C	5.50	118.74	107.69
5	2F	21	ALA	CA-C-N	5.50	131.59	121.70
5	2F	21	ALA	C-N-CA	5.50	131.59	121.70
5	2F	151	SER	N-CA-C	-5.50	106.55	113.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	2701	U	C2'-C3'-O3'	5.50	117.74	109.50
36	1e	113	ALA	N-CA-C	-5.50	106.62	113.38
43	1l	24	VAL	CA-C-N	5.49	125.58	119.32
43	1l	24	VAL	C-N-CA	5.49	125.58	119.32
51	1t	22	ARG	N-CA-C	-5.48	105.38	111.36
42	2k	116	HIS	N-CA-C	5.48	122.48	110.80
43	2l	6	THR	N-CA-C	-5.48	103.67	110.41
1	2A	800	A	O5'-P-OP1	-5.48	91.56	108.00
10	1O	23	ARG	CA-C-N	-5.47	115.89	122.90
10	1O	23	ARG	C-N-CA	-5.47	115.89	122.90
1	1A	1743	G	O5'-P-OP2	-5.47	91.59	108.00
1	1A	2331	G	O4'-C1'-N9	5.47	116.40	108.20
23	2l	35	THR	N-CA-C	-5.46	106.29	113.17
3	1D	227	ASN	CA-C-N	-5.46	113.27	119.28
3	1D	227	ASN	C-N-CA	-5.46	113.27	119.28
32	2a	438	G	O5'-P-OP2	-5.46	91.62	108.00
1	1A	876	A	O5'-P-OP2	-5.46	91.63	108.00
33	1b	127	ILE	CA-C-N	5.46	130.76	122.08
33	1b	127	ILE	C-N-CA	5.46	130.76	122.08
1	2A	2318	G	O4'-C1'-N9	5.46	116.69	108.50
35	2d	4	TYR	N-CA-C	5.46	116.91	111.07
18	2W	94	ASP	CB-CA-C	5.46	120.82	110.51
47	1p	79	VAL	N-CA-C	-5.46	105.65	113.07
44	2m	17	VAL	N-CA-C	-5.45	105.22	110.72
40	1i	48	GLU	CA-C-N	-5.44	113.42	119.19
40	1i	48	GLU	C-N-CA	-5.44	113.42	119.19
38	2g	61	VAL	CB-CA-C	-5.44	105.01	111.97
3	1D	242	ARG	N-CA-C	5.43	117.20	111.28
14	1S	34	HIS	N-CA-C	5.43	117.51	109.69
7	2H	52	VAL	CB-CA-C	-5.43	102.53	110.62
21	2Z	107	THR	CB-CA-C	5.43	115.55	110.17
46	1o	23	GLY	N-CA-C	5.43	126.05	113.18
6	2G	53	LEU	N-CA-C	-5.42	103.46	111.81
1	2A	1073	A	C4'-C3'-O3'	5.42	121.13	113.00
36	2e	69	VAL	N-CA-C	5.42	113.23	107.76
3	2D	271	ILE	CB-CA-C	-5.41	105.12	111.94
34	2c	15	THR	N-CA-C	-5.40	107.34	114.31
1	1A	1232	G	O5'-P-OP1	5.40	124.20	108.00
1	1A	2045	G	O5'-P-OP1	-5.40	91.80	108.00
38	1g	27	ILE	N-CA-C	-5.40	105.06	110.30
53	1x	63	ALA	N-CA-C	5.40	117.00	108.96
5	1F	24	LEU	N-CA-C	-5.40	101.84	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	1T	49	VAL	N-CA-CB	5.39	116.60	110.72
19	2X	8	ILE	CB-CA-C	-5.39	103.59	110.98
8	2I	142	VAL	N-CA-C	5.39	116.29	107.24
6	1G	31	VAL	CA-C-N	5.39	126.57	119.84
6	1G	31	VAL	C-N-CA	5.39	126.57	119.84
1	2A	1097	U	N1-C1'-C2'	5.38	120.07	112.00
40	1i	20	ARG	CA-C-N	-5.38	114.42	119.85
40	1i	20	ARG	C-N-CA	-5.38	114.42	119.85
53	1x	16	ILE	CB-CA-C	-5.38	105.00	112.04
1	1A	2080	A	O5'-P-OP2	-5.37	91.88	108.00
23	11	86	SER	CA-C-N	-5.37	113.50	119.19
23	11	86	SER	C-N-CA	-5.37	113.50	119.19
41	2j	80	LYS	N-CA-C	-5.37	105.50	111.36
11	1P	22	GLY	CA-C-N	5.37	124.70	118.85
11	1P	22	GLY	C-N-CA	5.37	124.70	118.85
13	2R	38	VAL	N-CA-CB	5.37	114.64	110.45
10	1O	23	ARG	CA-CB-CG	5.37	124.84	114.10
48	2q	19	VAL	N-CA-C	5.37	117.12	108.85
41	2j	99	LYS	N-CA-C	5.36	116.95	108.96
30	18	30	ARG	N-CA-C	-5.35	105.49	112.23
34	1c	194	GLY	N-CA-C	5.34	118.55	110.97
22	20	78	TYR	CA-C-N	-5.33	116.58	123.19
22	20	78	TYR	C-N-CA	-5.33	116.58	123.19
35	1d	190	ASP	N-CA-C	-5.33	103.45	110.43
48	2q	72	ARG	CB-CG-CD	5.33	123.56	111.30
8	1I	110	ASP	CA-C-N	5.32	124.78	119.24
8	1I	110	ASP	C-N-CA	5.32	124.78	119.24
1	2A	1092	C	O5'-C5'-C4'	5.32	119.48	111.50
33	2b	130	ARG	CA-C-N	5.32	125.26	119.78
33	2b	130	ARG	C-N-CA	5.32	125.26	119.78
34	2c	150	LYS	N-CA-C	5.32	117.05	108.32
9	2N	139	GLU	N-CA-C	-5.32	101.02	109.96
29	27	30	VAL	CB-CA-C	-5.32	105.16	111.97
5	1F	131	GLY	CA-C-N	-5.32	115.73	122.43
5	1F	131	GLY	C-N-CA	-5.32	115.73	122.43
18	1W	31	GLU	N-CA-C	-5.30	105.58	111.36
34	2c	72	LYS	CA-C-N	5.30	125.11	119.28
34	2c	72	LYS	C-N-CA	5.30	125.11	119.28
3	1D	50	THR	N-CA-C	-5.30	106.76	114.12
13	1R	36	THR	CB-CA-C	-5.30	102.23	114.41
32	1a	558	G	O5'-P-OP1	-5.30	92.11	108.00
2	2B	41	U	N1-C1'-C2'	5.29	119.94	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	2c	97	LYS	N-CA-C	5.29	116.05	108.74
21	2Z	75	ASN	N-CA-C	5.29	117.38	108.96
34	2c	202	ILE	N-CA-C	5.29	115.52	108.11
4	2E	46	ALA	N-CA-C	5.29	116.18	108.14
1	1A	1462	G	O4'-C1'-N9	5.29	116.13	108.20
28	26	4	GLU	N-CA-C	-5.29	105.69	111.82
1	2A	2689	U	C4'-C3'-O3'	5.28	117.32	109.40
26	24	31	ILE	N-CA-C	5.27	115.71	108.12
50	2s	29	ARG	CA-C-N	5.27	128.34	120.90
50	2s	29	ARG	C-N-CA	5.27	128.34	120.90
16	1U	59	ARG	N-CA-C	-5.27	105.70	111.82
3	1D	267	SER	N-CA-C	-5.27	105.71	111.82
44	2m	66	LEU	N-CA-C	5.27	122.02	110.80
42	2k	102	GLY	N-CA-C	-5.27	107.37	116.01
6	2G	126	ASP	N-CA-C	5.27	116.70	111.07
7	2H	115	VAL	N-CA-C	5.26	115.54	108.17
3	1D	99	ASP	CB-CA-C	-5.26	100.26	110.46
1	1A	1695	C	O5'-P-OP1	-5.26	92.23	108.00
7	1H	28	GLY	CA-C-N	5.25	124.92	119.56
7	1H	28	GLY	C-N-CA	5.25	124.92	119.56
44	1m	32	GLU	N-CA-C	5.25	117.08	111.36
27	15	27	PRO	O-C-N	5.24	123.72	121.31
3	2D	70	TRP	CA-C-N	5.24	127.83	120.28
3	2D	70	TRP	C-N-CA	5.24	127.83	120.28
9	1N	35	ARG	CA-CB-CG	5.24	124.58	114.10
41	1j	50	ILE	CB-CA-C	-5.24	103.52	111.69
48	1q	99	SER	N-CA-C	5.24	118.17	109.94
32	2a	1498	UR3	OP2-P-O3'	5.23	116.72	105.20
32	1a	686	U	C4'-C3'-O3'	-5.23	101.55	109.40
1	1A	2459	G	OP1-P-O3'	-5.23	92.31	108.00
32	1a	1511	G	OP1-P-O3'	-5.23	92.31	108.00
13	1R	17	ARG	NE-CZ-NH1	-5.23	116.27	121.50
32	1a	1415	G	OP1-P-O3'	5.22	123.67	108.00
12	1Q	23	GLY	N-CA-C	-5.22	101.69	111.66
42	2k	38	ASN	CA-C-N	5.22	125.14	119.76
42	2k	38	ASN	C-N-CA	5.22	125.14	119.76
5	1F	188	ARG	CB-CA-C	-5.22	100.98	110.63
53	1x	64	SER	N-CA-C	5.21	117.87	108.48
15	2T	92	GLY	CA-C-N	-5.21	116.06	122.84
15	2T	92	GLY	C-N-CA	-5.21	116.06	122.84
32	1a	288	A	OP2-P-O3'	-5.21	92.37	108.00
35	1d	111	ALA	N-CA-C	5.21	117.11	109.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	751	A	O5'-P-OP1	-5.21	92.37	108.00
32	2a	1491	G	C4'-C3'-O3'	5.21	120.81	113.00
35	2d	150	GLU	N-CA-C	-5.20	104.87	111.11
50	2s	27	GLU	N-CA-C	5.20	117.42	110.35
1	1A	2019	G	O5'-P-OP1	5.20	123.60	108.00
1	1A	1021	G	O5'-P-OP2	-5.20	92.41	108.00
1	1A	2173	G	N9-C1'-C2'	-5.20	104.20	112.00
3	1D	220	HIS	CA-C-N	-5.20	116.75	123.19
3	1D	220	HIS	C-N-CA	-5.20	116.75	123.19
13	1R	71	GLN	CA-CB-CG	-5.19	103.72	114.10
6	2G	22	ARG	N-CA-C	5.19	118.39	111.75
6	1G	128	ARG	N-CA-C	-5.18	105.25	112.30
32	1a	1442	G	P-O3'-C3'	5.18	125.92	119.70
1	1A	1648	U	O5'-P-OP2	5.18	123.55	108.00
10	1O	49	ARG	N-CA-C	5.18	118.87	112.24
15	1T	127	ALA	N-CA-C	-5.18	101.70	109.79
18	2W	95	ILE	CB-CA-C	-5.18	105.05	111.32
3	1D	209	ALA	N-CA-C	-5.18	105.64	111.28
5	1F	54	ARG	NE-CZ-NH2	-5.18	114.54	119.20
50	2s	29	ARG	N-CA-C	5.18	121.82	110.80
51	2t	12	ALA	N-CA-C	-5.18	105.72	111.36
38	2g	118	VAL	CB-CA-C	-5.16	105.26	112.02
39	1h	73	ASP	CA-C-N	5.16	125.85	120.12
39	1h	73	ASP	C-N-CA	5.16	125.85	120.12
34	1c	26	LYS	N-CA-C	5.16	118.35	111.75
50	1s	31	ILE	N-CA-C	5.16	114.17	106.85
1	2A	1834	U	O3'-P-O5'	-5.15	96.27	104.00
14	2S	34	HIS	N-CA-C	5.15	117.11	109.69
32	2a	115	G	C2'-C3'-O3'	5.14	117.22	109.50
35	1d	141	ARG	CA-C-N	5.14	125.14	119.90
35	1d	141	ARG	C-N-CA	5.14	125.14	119.90
3	1D	271	ILE	N-CA-C	-5.14	107.39	111.81
41	2j	62	HIS	N-CA-C	5.14	117.10	108.73
34	1c	195	VAL	N-CA-C	5.13	115.36	108.17
32	2a	343	U	C6-N1-C1'	5.13	136.60	121.20
8	1I	44	LEU	N-CA-C	-5.13	105.38	111.69
38	1g	69	VAL	N-CA-C	-5.12	108.29	113.47
51	1t	10	LEU	N-CA-C	5.12	116.08	108.60
8	2I	31	LEU	N-CA-C	5.12	119.71	112.75
14	2S	53	SER	N-CA-C	-5.12	105.78	111.36
1	2A	1065	U	P-O3'-C3'	5.12	127.88	120.20
34	1c	66	VAL	CB-CA-C	-5.11	105.28	111.88

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	1g	48	LYS	N-CA-C	-5.11	104.97	111.11
1	1A	2459	G	OP2-P-O3'	5.11	123.32	108.00
6	1G	77	ILE	N-CA-C	5.10	115.47	108.12
6	1G	164	GLU	N-CA-C	-5.10	107.19	113.41
11	2P	73	GLY	N-CA-C	5.09	120.89	112.84
8	1I	27	ARG	N-CA-C	5.09	116.91	111.36
3	1D	229	VAL	CB-CA-C	-5.09	104.27	112.16
41	1j	69	ASN	N-CA-C	5.08	117.69	108.69
39	2h	12	ARG	N-CA-C	-5.08	105.63	111.07
39	2h	52	ASP	N-CA-C	5.08	117.68	108.69
1	1A	553	A	N9-C1'-C2'	5.08	119.62	112.00
32	2a	65	U	C4'-C3'-O3'	5.08	117.02	109.40
34	2c	77	ILE	N-CA-C	5.08	115.29	110.42
48	1q	9	VAL	CB-CA-C	-5.07	103.83	110.98
21	2Z	124	ILE	N-CA-C	5.07	114.55	108.06
8	1I	115	ALA	N-CA-C	5.07	117.45	109.39
27	15	26	THR	CA-C-N	5.07	123.36	119.66
27	15	26	THR	C-N-CA	5.07	123.36	119.66
5	2F	53	THR	N-CA-CB	-5.07	102.35	110.46
3	2D	143	HIS	N-CA-C	5.07	114.98	108.34
1	2A	271(M)	G	P-O3'-C3'	5.06	125.77	119.70
1	2A	2178	C	C4'-C3'-O3'	5.06	120.59	113.00
21	2Z	80	ARG	N-CA-C	5.06	119.61	113.38
16	1U	40	PHE	N-CA-C	-5.06	105.66	111.07
21	2Z	195	GLU	CA-C-N	-5.06	116.42	122.90
21	2Z	195	GLU	C-N-CA	-5.06	116.42	122.90
1	2A	512	G	O4'-C1'-N9	5.06	115.79	108.20
1	2A	1790	C	P-O3'-C3'	5.06	127.78	120.20
1	2A	2115	G	C5'-C4'-C3'	-5.05	108.42	116.00
14	2S	87	PHE	N-CA-C	5.05	116.50	108.67
30	28	21	LYS	CA-C-N	-5.05	116.52	123.14
30	28	21	LYS	C-N-CA	-5.05	116.52	123.14
1	2A	1460	A	N9-C1'-C2'	5.05	121.57	114.00
3	1D	242	ARG	CG-CD-NE	5.04	123.10	112.00
15	1T	118	ARG	N-CA-C	-5.04	105.78	111.28
33	2b	201	ILE	CA-C-N	5.04	126.14	119.84
33	2b	201	ILE	C-N-CA	5.04	126.14	119.84
7	2H	111	HIS	N-CA-C	-5.04	100.69	108.55
1	1A	1135	G	N9-C1'-C2'	5.04	121.55	114.00
1	2A	1835	G	C5'-C4'-C3'	-5.03	108.46	116.00
36	2e	26	PHE	N-CA-C	5.03	118.21	110.42
1	1A	598	A	O5'-P-OP1	-5.02	92.95	108.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	1D	104	TYR	CA-C-N	-5.02	115.69	122.92
3	1D	104	TYR	C-N-CA	-5.02	115.69	122.92
20	2Y	84	ARG	CA-C-N	-5.02	116.63	123.10
20	2Y	84	ARG	C-N-CA	-5.02	116.63	123.10
8	1I	79	ILE	N-CA-C	5.01	113.11	108.15
12	2Q	38	GLU	N-CA-C	5.01	114.06	108.25
28	16	53	LYS	N-CA-C	5.01	117.56	110.10
22	20	15	ASP	N-CA-C	-5.01	100.53	108.14
1	2A	1420	U	P-O3'-C3'	5.01	127.71	120.20
4	1E	102	VAL	N-CA-C	5.00	116.11	108.80
4	1E	81	ILE	CB-CA-C	-5.00	103.38	110.83
9	1N	122	VAL	N-CA-C	5.00	115.17	108.17

There are no chirality outliers.

All (3) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
19	1X	93	GLU	Peptide
33	1b	124	SER	Peptide
19	2X	93	GLU	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	1A	61862	0	31140	668	0
1	2A	61751	0	31143	770	0
2	1B	2575	0	1304	29	0
2	2B	2571	0	1308	40	0
3	1D	2131	0	2207	61	0
3	2D	2136	0	2218	62	0
4	1E	1559	0	1618	47	0
4	2E	1559	0	1618	54	0
5	1F	1584	0	1625	40	0
5	2F	1574	0	1608	41	0
6	1G	1426	0	1445	63	0
6	2G	1424	0	1441	65	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	1H	1330	0	1407	30	0
7	2H	1324	0	1402	36	0
8	1I	1094	0	1127	44	0
8	2I	1076	0	1094	53	0
9	1N	1121	0	1195	22	0
9	2N	1117	0	1184	25	0
10	1O	933	0	996	21	0
10	2O	933	0	996	22	0
11	1P	1135	0	1212	34	0
11	2P	1135	0	1212	30	0
12	1Q	1122	0	1179	31	0
12	2Q	1122	0	1179	43	0
13	1R	968	0	1033	16	0
13	2R	968	0	1033	22	0
14	1S	877	0	938	30	0
14	2S	870	0	923	38	0
15	1T	1091	0	1151	25	0
15	2T	1083	0	1136	32	0
16	1U	959	0	1019	29	0
16	2U	959	0	1019	32	0
17	1V	775	0	841	15	0
17	2V	771	0	830	20	0
18	1W	880	0	929	12	0
18	2W	877	0	927	17	0
19	1X	750	0	814	27	0
19	2X	750	0	814	24	0
20	1Y	810	0	892	24	0
20	2Y	810	0	887	24	0
21	1Z	1587	0	1598	31	0
21	2Z	1557	0	1564	47	0
22	10	608	0	622	24	0
22	20	608	0	622	15	0
23	11	754	0	823	25	0
23	21	759	0	837	31	0
24	12	588	0	643	13	0
24	22	592	0	654	10	0
25	13	469	0	518	10	0
25	23	464	0	514	11	0
26	14	546	0	522	21	0
26	24	536	0	514	36	0
27	15	459	0	476	18	0
27	25	455	0	465	16	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
28	16	453	0	473	10	0
28	26	449	0	469	11	0
29	17	418	0	467	15	0
29	27	418	0	467	9	0
30	18	517	0	582	11	0
30	28	517	0	582	17	0
31	19	307	0	335	11	0
31	29	307	0	335	9	0
32	1a	32246	0	16296	659	0
32	2a	32331	0	16339	724	0
33	1b	1842	0	1862	101	0
33	2b	1825	0	1828	100	0
34	1c	1558	0	1557	60	0
34	2c	1542	0	1517	59	0
35	1d	1665	0	1687	86	0
35	2d	1668	0	1703	82	0
36	1e	1133	0	1191	49	0
36	2e	1133	0	1191	49	0
37	1f	814	0	808	36	0
37	2f	816	0	808	32	0
38	1g	1235	0	1249	41	0
38	2g	1229	0	1238	33	0
39	1h	1098	0	1143	55	0
39	2h	1088	0	1126	50	0
40	1i	986	0	990	47	0
40	2i	966	0	953	59	0
41	1j	719	0	672	48	0
41	2j	710	0	661	39	0
42	1k	834	0	838	27	0
42	2k	833	0	836	21	0
43	1l	932	0	981	27	0
43	2l	932	0	981	26	0
44	1m	914	0	954	32	0
44	2m	895	0	920	46	0
45	1n	492	0	529	28	0
45	2n	492	0	529	21	0
46	1o	728	0	760	22	0
46	2o	728	0	760	25	0
47	1p	681	0	697	43	0
47	2p	677	0	686	33	0
48	1q	823	0	891	25	0
48	2q	823	0	891	26	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
49	1r	555	0	618	21	0
49	2r	555	0	618	26	0
50	1s	648	0	658	30	0
50	2s	645	0	635	33	0
51	1t	732	0	809	31	0
51	2t	733	0	795	28	0
52	1u	199	0	208	8	0
52	2u	199	0	208	8	0
53	1x	764	0	786	20	0
53	2x	749	0	757	31	0
54	1y	87	0	88	1	0
54	2y	87	0	88	0	0
55	10	8	0	0	0	0
55	11	3	0	0	0	0
55	13	2	0	0	0	0
55	15	6	0	0	0	0
55	17	5	0	0	0	0
55	18	3	0	0	0	0
55	19	2	0	0	0	0
55	1A	917	0	0	0	0
55	1B	24	0	0	0	0
55	1D	18	0	0	0	0
55	1E	8	0	0	0	0
55	1F	16	0	0	0	0
55	1G	3	0	0	0	0
55	1H	2	0	0	0	0
55	1N	3	0	0	0	0
55	1P	4	0	0	0	0
55	1Q	5	0	0	0	0
55	1R	5	0	0	0	0
55	1S	1	0	0	0	0
55	1T	1	0	0	0	0
55	1U	7	0	0	0	0
55	1V	3	0	0	0	0
55	1W	3	0	0	0	0
55	1X	1	0	0	0	0
55	1Y	1	0	0	0	0
55	1a	223	0	0	0	0
55	1b	1	0	0	0	0
55	1d	5	0	0	0	0
55	1e	2	0	0	0	0
55	1f	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	1g	1	0	0	0	0
55	1h	2	0	0	0	0
55	1k	1	0	0	0	0
55	1l	1	0	0	0	0
55	1m	1	0	0	0	0
55	1n	1	0	0	0	0
55	1o	1	0	0	0	0
55	1t	1	0	0	0	0
55	20	6	0	0	0	0
55	21	2	0	0	0	0
55	23	1	0	0	0	0
55	25	3	0	0	0	0
55	27	4	0	0	0	0
55	28	3	0	0	0	0
55	2A	821	0	0	0	0
55	2B	18	0	0	0	0
55	2D	11	0	0	0	0
55	2E	7	0	0	0	0
55	2F	10	0	0	0	0
55	2G	3	0	0	0	0
55	2H	1	0	0	0	0
55	2N	1	0	0	0	0
55	2P	2	0	0	0	0
55	2Q	5	0	0	0	0
55	2R	3	0	0	0	0
55	2S	1	0	0	0	0
55	2T	1	0	0	0	0
55	2U	4	0	0	0	0
55	2V	5	0	0	0	0
55	2W	1	0	0	0	0
55	2X	3	0	0	0	0
55	2a	196	0	0	0	0
55	2b	1	0	0	0	0
55	2d	4	0	0	0	0
55	2e	2	0	0	0	0
55	2f	1	0	0	0	0
55	2g	1	0	0	0	0
55	2h	1	0	0	0	0
55	2l	1	0	0	0	0
55	2m	1	0	0	0	0
55	2n	2	0	0	0	0
55	2o	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	1B	1	0	0	6	0
56	2A	1	0	0	0	0
57	14	1	0	0	0	0
57	15	1	0	0	0	0
57	16	1	0	0	0	0
57	19	1	0	0	0	0
57	1Y	1	0	0	0	0
57	1n	1	0	0	0	0
57	24	1	0	0	0	0
57	25	1	0	0	0	0
57	26	1	0	0	0	0
57	29	1	0	0	0	0
57	2Y	1	0	0	0	0
57	2n	1	0	0	0	0
58	1d	8	0	0	0	0
58	2d	8	0	0	0	0
59	10	4	0	0	0	0
59	11	2	0	0	0	0
59	13	1	0	0	0	0
59	15	2	0	0	0	0
59	16	3	0	0	0	0
59	17	1	0	0	0	0
59	18	7	0	0	0	0
59	19	2	0	0	0	0
59	1A	1740	0	0	5	0
59	1B	42	0	0	0	0
59	1D	14	0	0	0	0
59	1E	18	0	0	0	0
59	1F	11	0	0	0	0
59	1G	2	0	0	0	0
59	1H	3	0	0	0	0
59	1N	9	0	0	0	0
59	1P	13	0	0	0	0
59	1Q	5	0	0	0	0
59	1R	3	0	0	0	0
59	1T	5	0	0	0	0
59	1U	6	0	0	1	0
59	1V	4	0	0	0	0
59	1W	2	0	0	0	0
59	1X	1	0	0	0	0
59	1Y	5	0	0	1	0
59	1a	393	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	1d	10	0	0	1	0
59	1e	3	0	0	0	0
59	1f	1	0	0	0	0
59	1h	1	0	0	0	0
59	1j	1	0	0	0	0
59	1l	3	0	0	0	0
59	1m	2	0	0	1	0
59	1n	1	0	0	0	0
59	1o	1	0	0	0	0
59	1t	2	0	0	0	0
59	20	6	0	0	0	0
59	21	3	0	0	0	0
59	23	1	0	0	0	0
59	25	2	0	0	0	0
59	26	2	0	0	0	0
59	27	1	0	0	0	0
59	28	5	0	0	0	0
59	29	1	0	0	0	0
59	2A	1666	0	0	8	0
59	2B	35	0	0	1	0
59	2D	12	0	0	0	0
59	2E	17	0	0	1	0
59	2F	11	0	0	0	0
59	2G	2	0	0	0	0
59	2H	3	0	0	2	0
59	2N	1	0	0	0	0
59	2P	9	0	0	0	0
59	2Q	5	0	0	0	0
59	2R	3	0	0	0	0
59	2T	3	0	0	0	0
59	2U	2	0	0	1	0
59	2V	2	0	0	0	0
59	2W	2	0	0	0	0
59	2X	6	0	0	0	0
59	2Y	3	0	0	0	0
59	2a	384	0	0	1	0
59	2c	1	0	0	0	0
59	2d	7	0	0	0	0
59	2e	4	0	0	0	0
59	2f	1	0	0	0	0
59	2h	1	0	0	0	0
59	2j	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	2l	3	0	0	0	0
59	2m	3	0	0	1	0
59	2o	1	0	0	0	0
59	2p	1	0	0	0	0
59	2t	1	0	0	0	0
All	All	293484	0	194466	5387	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 11.

All (5387) 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)
1:2A:2552:OMU:C5	1:2A:2552:OMU:C4	1.75	1.57
1:1A:1405:A:N6	1:1A:1418:U:H3	1.21	1.38
1:1A:9:U:N3	1:1A:2641:A:H2	1.35	1.19
1:1A:2331:G:H22	14:1S:3:ARG:HD3	1.05	1.12
1:1A:1405:A:N1	1:1A:1418:U:O4	1.84	1.10
1:2A:1038:C:N4	1:2A:1117:G:H1	1.48	1.09
1:2A:11:G:H2'	1:2A:12:U:H5''	1.38	1.03
29:17:24:THR:HG22	29:17:27:GLY:H	1.19	1.02
1:1A:2159:C:H42	1:1A:2176:G:H1	1.06	1.01
12:1Q:111:GLU:OE2	12:1Q:133:ARG:NH2	1.94	1.00
1:2A:1264:G:OP1	27:25:19:ARG:NH2	1.95	0.99
1:2A:2807:G:N1	1:2A:2893:G:O6	1.95	0.99
1:2A:1798:U:H5'	3:2D:259:THR:HG22	1.45	0.98
1:1A:9:U:N3	1:1A:2641:A:C2	2.16	0.98
20:1Y:92:ASN:HB2	20:1Y:94:LYS:H	1.26	0.98
32:1a:1158:C:H5	32:1a:1181:G:H1	1.00	0.97
1:2A:1065:U:H3	1:2A:1073:A:H61	0.99	0.96
1:2A:2552:OMU:C4	1:2A:2552:OMU:C6	2.42	0.96
1:2A:2319:G:H22	14:2S:3:ARG:HD3	1.30	0.95
32:2a:1182:G:H4'	32:2a:1183:A:H3'	1.48	0.95
1:1A:11:G:H2'	1:1A:12:U:H5''	1.46	0.95
1:1A:1110:C:H3'	1:1A:1111:U:H5''	1.48	0.95
35:2d:165:MET:SD	35:2d:168:ARG:NH1	2.39	0.94
43:1l:46:LYS:HE3	43:1l:92:OTD:H8	1.49	0.94
32:2a:1318:A:H5''	50:2s:3:ARG:HH22	1.32	0.93
1:1A:1071:G:O2'	59:1A:4001:HOH:O	1.82	0.93
49:2r:54:ARG:HB2	49:2r:54:ARG:HH11	1.32	0.93
35:1d:107:ARG:HH21	35:1d:194:LEU:HD21	1.33	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.34	0.93
4:1E:12:THR:HG21	15:1T:11:GLU:OE2	1.70	0.92
1:2A:2131:G:H5''	1:2A:2132:U:H5'	1.50	0.92
33:2b:166:ASP:HB3	33:2b:169:LYS:HB3	1.51	0.92
7:2H:20:ALA:HB3	7:2H:23:ARG:HB3	1.51	0.91
40:2i:51:ARG:HG2	40:2i:56:LEU:HD21	1.51	0.91
1:1A:1100:A:H61	1:1A:1151:U:H3	1.18	0.91
1:2A:7:G:H1	1:2A:2896:C:H42	0.94	0.91
1:1A:1106:U:H4'	1:1A:1107:U:H5'	1.51	0.91
38:1g:111:ARG:NH1	38:1g:113:GLU:OE2	2.04	0.91
32:2a:673:G:H2'	32:2a:674:G:C8	2.05	0.90
1:2A:1278:A:OP1	13:2R:36:THR:HG23	1.72	0.90
40:2i:53:VAL:O	40:2i:55:ALA:N	2.04	0.90
1:2A:323:G:HO2'	1:2A:1205:U:H3	1.19	0.89
1:1A:272:U:H4'	8:1I:50:ARG:HH22	1.36	0.89
1:2A:7:G:H1	1:2A:2896:C:N4	1.69	0.89
34:2c:179:ARG:NH1	34:2c:206:GLU:OE1	2.05	0.89
40:2i:3:GLN:HE21	40:2i:20:ARG:HH21	1.19	0.89
51:1t:57:ARG:HH12	51:1t:100:ILE:HD12	1.37	0.89
1:1A:1829:U:H5'	3:1D:259:THR:HG22	1.56	0.88
44:1m:37:THR:O	44:1m:55:ARG:NH1	2.06	0.88
1:1A:1102:G:N1	1:1A:1148:C:OP2	2.07	0.87
21:2Z:10:ARG:NH1	21:2Z:26:GLY:O	2.07	0.87
1:1A:2188:G:O6	1:1A:2194:U:C5	2.28	0.87
35:1d:167:GLY:H	35:1d:168:ARG:NH1	1.73	0.87
1:1A:325:G:OP2	20:1Y:84:ARG:NH2	2.08	0.86
32:2a:1003:G:H2'	32:2a:1004:A:H4'	1.55	0.86
39:1h:64:LYS:HG2	39:1h:79:VAL:HG21	1.54	0.86
1:1A:1101:G:N2	1:1A:1150:C:O2	2.08	0.86
32:1a:255:G:H1'	48:1q:16:GLN:HE21	1.37	0.86
39:2h:64:LYS:HG2	39:2h:79:VAL:HG21	1.57	0.86
32:2a:390:C:O3'	47:2p:28:ARG:NH2	2.08	0.85
41:1j:49:VAL:HG23	45:1n:41:ARG:HB2	1.56	0.85
44:1m:11:ARG:O	44:1m:13:LYS:N	2.09	0.85
1:1A:1151:U:H2'	1:1A:1152:G:H8	1.39	0.85
1:1A:272:U:H5'	8:1I:50:ARG:HH12	1.41	0.85
41:2j:11:PHE:HE1	41:2j:67:THR:HG22	1.41	0.85
1:1A:2367:C:H1'	22:10:39:ARG:HH21	1.42	0.84
19:1X:31:HIS:HD2	19:1X:33:LYS:H	1.24	0.84
32:1a:142:G:H2'	32:1a:143:A:H8	1.43	0.84
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.12	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2188:G:O6	1:1A:2194:U:H5	1.58	0.84
43:2I:117:ARG:HG2	43:2I:122:THR:HB	1.57	0.84
1:1A:2159:C:N3	1:1A:2176:G:N2	2.26	0.84
48:1q:6:LEU:HD23	48:1q:23:VAL:HG11	1.60	0.84
32:1a:201:C:H42	32:1a:216:G:H1	1.23	0.83
1:1A:2331:G:N2	14:1S:3:ARG:HD3	1.90	0.83
1:1A:1310:G:OP1	27:15:19:ARG:NH2	2.10	0.83
32:1a:1003:G:H2'	32:1a:1004:A:H4'	1.60	0.83
1:2A:2079:U:OP1	23:21:21:ARG:NH2	2.11	0.82
32:1a:559:A:OP1	36:1e:126:ARG:NH2	2.12	0.82
33:1b:9:GLU:HG3	33:1b:217:ARG:HH12	1.42	0.82
1:1A:2151:C:N3	1:1A:2181:G:O6	2.12	0.82
41:1j:35:SER:HB3	41:1j:73:ASP:HB2	1.60	0.82
32:2a:406:G:H21	35:2d:119:GLN:HE22	1.28	0.82
32:2a:975:A:H4'	32:2a:976:G:H5''	1.61	0.82
10:1O:48:PRO:HB3	32:1a:1422:G:H5''	1.62	0.81
36:2e:122:GLU:O	36:2e:126:ARG:NH1	2.13	0.81
1:2A:1065:U:H3	1:2A:1073:A:N6	1.78	0.81
51:2t:80:ARG:HH11	51:2t:80:ARG:HG3	1.45	0.81
26:14:61:ARG:HG3	26:14:62:ARG:H	1.45	0.81
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.15	0.81
25:13:8:LEU:HD13	25:13:31:LEU:HD23	1.60	0.81
36:2e:137:GLU:OE1	36:2e:141:GLN:NE2	2.13	0.81
10:1O:16:ALA:HB2	10:1O:52:VAL:HG21	1.64	0.80
6:2G:114:ILE:HB	6:2G:117:PHE:HB2	1.62	0.80
8:2I:72:LEU:HD21	8:2I:107:VAL:HG11	1.62	0.80
33:2b:19:HIS:CE1	33:2b:206:ASP:HB2	2.16	0.80
1:2A:2611:U:C4	27:25:3:LYS:HG2	2.15	0.80
32:2a:1314:C:OP2	50:2s:4:SER:OG	1.98	0.80
15:1T:54:ARG:HA	15:1T:59:THR:HB	1.62	0.80
23:11:51:VAL:HG11	23:11:74:VAL:HG21	1.63	0.80
1:1A:2159:C:N4	1:1A:2176:G:H1	1.79	0.80
2:1B:103:G:H21	21:1Z:73:GLN:HE22	1.30	0.80
1:1A:2149:G:H21	1:1A:2195:A:H1'	1.46	0.79
1:2A:1064:C:H3'	1:2A:1065:U:C5'	2.11	0.79
6:1G:161:THR:HG22	6:1G:163:ALA:H	1.45	0.79
15:1T:55:ASN:H	15:1T:59:THR:HG22	1.47	0.79
1:2A:9:U:N3	1:2A:2629:A:C2	2.50	0.79
41:2j:35:SER:HB3	41:2j:73:ASP:H	1.46	0.79
50:2s:36:ARG:HH12	50:2s:75:ALA:HB3	1.47	0.79
35:1d:194:LEU:HD12	35:1d:195:ALA:H	1.47	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:63:MET:HG3	33:2b:225:ALA:HB1	1.63	0.79
5:1F:53:THR:HG22	5:1F:55:GLY:H	1.48	0.79
44:1m:58:GLU:O	44:1m:62:ASN:ND2	2.14	0.79
5:2F:185:ASP:HA	5:2F:188:ARG:HD3	1.63	0.78
32:2a:1003:G:H2'	32:2a:1004:A:C4'	2.13	0.78
1:1A:1131:A:HO2'	1:1A:1150:C:HO2'	1.23	0.78
1:1A:1143:U:H2'	1:1A:1144:A:O4'	1.83	0.78
32:2a:407:G:H5''	35:2d:115:ARG:HG2	1.64	0.78
32:1a:1030(A):G:N2	32:1a:1031:G:O6	2.15	0.78
33:1b:162:ILE:O	33:1b:185:ILE:HG12	1.84	0.78
10:2O:68:GLU:OE1	10:2O:78:ARG:NH1	2.17	0.78
1:2A:2788:C:OP1	4:2E:61:ARG:NH2	2.16	0.78
33:2b:16:HIS:HB2	33:2b:204:ASN:HB3	1.65	0.78
33:2b:59:GLU:HG3	33:2b:221:LEU:HD11	1.65	0.78
1:2A:9:U:N3	1:2A:2629:A:H2	1.81	0.78
1:1A:1324:A:OP1	13:1R:36:THR:HG23	1.84	0.78
44:1m:3:ARG:HG2	44:1m:4:ILE:HG23	1.64	0.78
49:1r:47:THR:HG23	49:1r:49:LYS:HG3	1.65	0.78
33:2b:37:ASN:HD22	33:2b:39:ILE:HD12	1.48	0.78
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.64	0.77
32:2a:1034:G:H2'	32:2a:1035:A:O4'	1.84	0.77
32:2a:1310:G:H1	32:2a:1327:C:H42	1.32	0.77
32:1a:1158:C:H5	32:1a:1181:G:N1	1.82	0.77
3:1D:17:THR:O	3:1D:211:ARG:NH2	2.17	0.77
22:10:11:ARG:O	22:10:14:ARG:NH2	2.16	0.77
1:2A:1041:C:N3	1:2A:1114:G:N2	2.28	0.77
14:1S:25:ARG:NH1	14:1S:42:ASP:OD1	2.17	0.77
1:1A:542:C:OP1	27:15:16:ARG:NH2	2.17	0.77
13:1R:67:LEU:HD13	13:1R:76:VAL:HG21	1.65	0.77
10:2O:48:PRO:HB3	32:2a:1422:G:H5''	1.65	0.77
32:2a:1086:U:H3	32:2a:1099:G:H22	1.29	0.77
36:2e:144:THR:H	36:2e:147:ASP:HB2	1.48	0.77
1:1A:1410:G:OP2	23:11:3:LYS:HD2	1.84	0.77
1:2A:1041:C:H42	1:2A:1114:G:H1	1.33	0.77
1:2A:1798:U:OP2	3:2D:274:ARG:NH2	2.18	0.77
40:2i:17:VAL:HG23	40:2i:63:ILE:HG12	1.67	0.77
12:1Q:59:ARG:HH11	12:1Q:59:ARG:HG2	1.48	0.77
1:2A:1038:C:N3	1:2A:1117:G:N2	2.32	0.77
31:29:29:ASN:HD22	31:29:32:HIS:CE1	2.02	0.77
32:2a:1005:A:C5	32:2a:1024:G:N2	2.53	0.77
32:1a:664:G:H22	32:1a:741:G:H1	1.32	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:11:ARG:NH2	34:1c:177:THR:O	2.18	0.76
46:1o:16:ALA:HB1	46:1o:21:ASP:HB3	1.64	0.76
1:1A:1101:G:O2'	1:1A:1130:A:N6	2.17	0.76
32:1a:17:U:H2'	32:1a:18:C:C6	2.20	0.76
32:2a:474:G:H2'	32:2a:475:G:H8	1.48	0.76
32:2a:677:U:H3	32:2a:713:G:H22	1.31	0.76
32:1a:737:A:H2'	32:1a:738:C:C6	2.20	0.76
3:1D:69:ARG:NH2	3:1D:128:GLY:O	2.18	0.76
32:1a:737:A:H2'	32:1a:738:C:H6	1.48	0.76
12:2Q:60:ARG:NH2	21:2Z:181:GLU:OE2	2.19	0.76
38:1g:110:GLN:HA	38:1g:110:GLN:HE21	1.49	0.76
1:1A:1556:A:H2'	1:1A:1557:A:O4'	1.84	0.76
33:1b:15:VAL:HG22	33:1b:209:ARG:HG3	1.65	0.76
32:1a:1103:C:OP1	33:1b:96:ARG:NH2	2.19	0.76
7:2H:17:VAL:HG22	7:2H:26:VAL:HG22	1.66	0.76
1:1A:656:A:OP1	11:1P:65:ARG:NH1	2.19	0.76
32:1a:149:A:H61	32:1a:172:A:H62	1.33	0.76
1:1A:2801:C:OP1	4:1E:61:ARG:NH2	2.18	0.75
35:1d:60:GLU:HG3	35:1d:202:LEU:HD12	1.68	0.75
40:1i:45:ALA:HA	40:1i:48:GLU:HB2	1.67	0.75
1:2A:1495:A:H2'	1:2A:1496:A:C8	2.21	0.75
1:2A:2805:G:H2'	1:2A:2807:G:H8	1.51	0.75
10:2O:107:ARG:HG2	10:2O:115:VAL:HG21	1.67	0.75
23:21:21:ARG:HG2	23:21:21:ARG:HH11	1.51	0.75
11:1P:140:ALA:O	25:23:38:GLU:HG2	1.87	0.75
1:2A:1063:G:N2	1:2A:1076:C:O2'	2.17	0.75
32:2a:38:G:H22	32:2a:397:A:H5''	1.51	0.75
6:2G:41:GLN:HB3	6:2G:43:LEU:HD13	1.68	0.75
46:2o:56:LEU:O	46:2o:60:VAL:HG23	1.86	0.75
32:1a:881:G:P	43:1l:12:ARG:HH22	2.09	0.75
1:2A:1047:G:H2'	1:2A:1110:G:H22	1.52	0.75
35:1d:61:LYS:NZ	35:1d:72:GLU:OE1	2.20	0.74
44:1m:17:VAL:O	44:1m:20:THR:OG1	2.04	0.74
1:2A:2112:G:H2'	1:2A:2113:U:H6	1.52	0.74
32:2a:1074:G:OP1	36:2e:64:ARG:NH1	2.20	0.74
23:21:51:VAL:HG11	23:21:74:VAL:HG21	1.69	0.74
32:2a:1346:A:H5''	40:2i:120:ARG:HH12	1.52	0.74
1:2A:1045:A:H8	1:2A:1047:G:C4	2.04	0.74
1:2A:2103:C:O2	1:2A:2186:G:N2	2.17	0.74
13:2R:97:VAL:HG22	13:2R:114:VAL:HG13	1.69	0.74
1:2A:994:C:OP2	16:2U:54:LYS:NZ	2.20	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:920:U:H2'	32:1a:921:U:C6	2.23	0.74
1:2A:2144:U:O2'	1:2A:2147:G:N2	2.19	0.74
3:2D:108:PRO:HB3	3:2D:143:HIS:HE1	1.51	0.74
1:1A:2148:A:H4'	1:1A:2149:G:O5'	1.86	0.74
1:2A:2134:A:N6	1:2A:2156:G:O2'	2.13	0.74
32:2a:1285:A:H4'	32:2a:1286:A:H5'	1.70	0.74
4:1E:105:THR:OG1	4:1E:199:ARG:NH2	2.21	0.73
17:1V:40:LEU:HB2	17:1V:46:VAL:HG13	1.69	0.73
32:1a:501:C:OP1	43:1l:117:ARG:NH2	2.21	0.73
1:2A:2849:U:O4	15:2T:23:ARG:NH2	2.20	0.73
3:2D:17:THR:O	3:2D:211:ARG:NH2	2.21	0.73
51:2t:57:ARG:HH22	51:2t:100:ILE:HD12	1.53	0.73
2:2B:7:G:N3	14:2S:38:GLN:NE2	2.32	0.73
13:2R:67:LEU:HD13	13:2R:76:VAL:HG21	1.69	0.73
17:2V:40:LEU:HB2	17:2V:46:VAL:HG13	1.70	0.73
17:2V:62:LEU:HD11	17:2V:95:LEU:HB2	1.69	0.73
21:2Z:93:ASP:HB3	21:2Z:131:ARG:HH22	1.50	0.73
22:20:11:ARG:O	22:20:14:ARG:NH2	2.20	0.73
50:2s:49:ILE:HG12	50:2s:62:ILE:HD11	1.70	0.73
1:1A:1093:G:H2'	1:1A:1156:G:N2	2.02	0.73
5:1F:185:ASP:OD1	5:1F:188:ARG:NH1	2.22	0.73
32:2a:1151:A:HO2'	32:2a:1152:A:H8	1.33	0.73
1:1A:1219:A:H1'	1:1A:1220:U:H5'	1.70	0.73
21:2Z:69:THR:HG22	21:2Z:90:VAL:HA	1.70	0.73
32:2a:501:C:H2'	32:2a:502:G:H8	1.53	0.73
32:1a:1003:G:N2	32:1a:1004:A:N3	2.37	0.73
32:2a:353:A:H5'	32:2a:353:A:H8	1.51	0.73
32:2a:1492:A:H2'	32:2a:1493:A:O4'	1.89	0.73
33:2b:67:THR:HA	33:2b:90:MET:HE2	1.71	0.73
1:1A:1091:A:H5'	1:1A:1092:A:H5''	1.71	0.73
1:1A:1151:U:H2'	1:1A:1152:G:C8	2.22	0.73
40:1i:50:LEU:HD13	40:1i:56:LEU:HA	1.70	0.73
1:2A:2547:U:O2	10:2O:23:ARG:NH2	2.22	0.73
19:2X:40:LYS:HG3	19:2X:51:VAL:HB	1.71	0.73
32:1a:627:G:H2'	32:1a:628:G:H8	1.54	0.73
10:2O:35:VAL:HG11	10:2O:103:ALA:HB3	1.70	0.73
35:1d:164:ALA:O	35:1d:168:ARG:NE	2.20	0.72
33:2b:47:THR:HA	33:2b:202:PRO:HG2	1.70	0.72
33:2b:77:ALA:HB2	33:2b:211:ILE:HD13	1.70	0.72
32:1a:450:G:OP1	47:1p:43:LYS:NZ	2.22	0.72
32:1a:642:A:N3	39:1h:113:SER:OG	2.22	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:166:ASP:HB3	33:1b:169:LYS:HB3	1.70	0.72
32:1a:881:G:OP2	43:1l:12:ARG:NH2	2.22	0.72
32:2a:1192:C:OP2	34:2c:4:LYS:NZ	2.22	0.72
46:2o:16:ALA:HB1	46:2o:21:ASP:HB3	1.70	0.72
33:1b:219:VAL:HA	33:1b:222:ILE:HD12	1.71	0.72
4:2E:12:THR:HG21	15:2T:11:GLU:OE2	1.89	0.72
34:2c:150:LYS:HG3	34:2c:169:ALA:HB2	1.72	0.72
34:1c:15:THR:HG21	34:1c:181:ASN:HA	1.72	0.72
39:1h:14:ARG:NH1	39:1h:83:ILE:O	2.22	0.72
4:1E:28:ALA:HB3	4:1E:93:VAL:HG12	1.71	0.72
32:1a:975:A:H4'	32:1a:976:G:H5''	1.71	0.72
35:2d:13:ARG:HB3	35:2d:40:PRO:HD3	1.72	0.72
41:2j:7:LYS:HB3	41:2j:97:GLU:HB2	1.72	0.72
1:1A:1766:G:H8	1:1A:1770:A:H62	1.37	0.72
32:1a:142:G:H2'	32:1a:143:A:C8	2.23	0.72
34:2c:22:TRP:CH2	34:2c:32:LEU:HB3	2.23	0.72
1:1A:2695:C:O2	10:1O:70:LYS:NZ	2.20	0.72
33:1b:231:GLU:HB3	33:1b:232:PRO:HD2	1.72	0.72
32:2a:1129:C:H2'	32:2a:1139:G:N7	2.04	0.72
41:1j:11:PHE:HE1	41:1j:67:THR:HG22	1.53	0.72
26:24:48:ARG:HB3	26:24:52:THR:HA	1.70	0.72
32:2a:1015:A:H2'	32:2a:1016:A:C8	2.25	0.72
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.25	0.72
1:1A:1091:A:H1'	1:1A:1093:G:N3	2.05	0.71
1:1A:2156:A:O2'	1:1A:2181:G:N3	2.23	0.71
7:1H:42:ARG:NH1	7:1H:53:GLU:OE1	2.23	0.71
14:1S:25:ARG:HG2	14:1S:25:ARG:HH11	1.55	0.71
32:1a:186:C:H2'	32:1a:187:C:C6	2.25	0.71
32:1a:1008:C:H2'	32:1a:1009:G:O4'	1.89	0.71
32:2a:1318:A:OP1	50:2s:3:ARG:NH1	2.23	0.71
6:1G:126:ASP:HB2	6:1G:130:ASN:H	1.54	0.71
19:1X:60:ARG:HH22	29:17:47:ARG:HH12	1.39	0.71
32:1a:1003:G:C2'	32:1a:1004:A:H4'	2.20	0.71
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.23	0.71
1:2A:1064:C:H3'	1:2A:1065:U:H5'	1.72	0.71
36:2e:80:ILE:HD12	39:2h:104:ARG:HH22	1.54	0.71
41:2j:42:THR:HG23	41:2j:68:HIS:HA	1.71	0.71
1:2A:1202:C:H42	1:2A:1243:G:H1	1.35	0.71
26:24:59:PHE:HA	26:24:61:ARG:N	2.04	0.71
32:2a:503:C:OP2	43:2l:116:SER:HB3	1.90	0.71
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.26	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:70:VAL:HG22	34:2c:72:LYS:H	1.55	0.71
6:2G:161:THR:HG22	6:2G:163:ALA:H	1.56	0.71
40:2i:3:GLN:NE2	40:2i:20:ARG:HH21	1.88	0.71
48:2q:62:SER:OG	48:2q:72:ARG:HG3	1.90	0.71
32:1a:1054:C:H41	53:1x:46:GLN:HG3	1.53	0.71
44:2m:58:GLU:O	44:2m:62:ASN:ND2	2.20	0.71
51:2t:64:ASP:OD2	51:2t:81:LYS:NZ	2.18	0.71
1:1A:1093:G:H2'	1:1A:1156:G:H22	1.56	0.71
32:2a:735:C:H2'	32:2a:736:C:H6	1.56	0.71
33:2b:83:MET:SD	33:2b:234:PRO:HB2	2.31	0.71
47:2p:53:VAL:HG13	47:2p:79:VAL:HG22	1.71	0.71
32:1a:501:C:H2'	32:1a:502:G:H8	1.55	0.70
1:2A:2464:C:O2'	59:2A:3901:HOH:O	2.09	0.70
42:2k:99:GLN:HG2	42:2k:105:VAL:HG21	1.73	0.70
32:1a:1030:C:H3'	32:1a:1030(A):G:H4'	1.72	0.70
12:2Q:59:ARG:HH22	12:2Q:60:ARG:HH21	1.38	0.70
47:2p:42:ARG:HB3	47:2p:44:THR:HG23	1.71	0.70
19:1X:31:HIS:CD2	19:1X:33:LYS:H	2.07	0.70
8:2I:77:LEU:HD22	8:2I:101:LEU:HD12	1.73	0.70
15:2T:85:LYS:NZ	15:2T:87:ASP:OD2	2.25	0.70
2:1B:56:G:H4'	56:1B:3025:AMP:C5'	2.21	0.70
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.26	0.70
1:2A:1842:G:O2'	3:2D:253:GLN:NE2	2.25	0.70
3:2D:125:ILE:HB	37:2f:81:ILE:HD11	1.73	0.70
35:2d:191:ARG:NH2	35:2d:200:GLU:OE1	2.24	0.70
49:2r:32:ARG:HA	49:2r:69:THR:HG21	1.74	0.70
1:1A:1716:A:H5''	1:1A:2562:G:OP1	1.91	0.70
1:1A:2155:G:C2	1:1A:2179:G:H2'	2.26	0.70
23:11:23:LYS:HB3	23:11:29:GLY:HA3	1.74	0.70
1:2A:1266:G:O5'	18:2W:15:ARG:NH2	2.25	0.70
51:2t:16:HIS:O	51:2t:19:SER:OG	2.09	0.70
1:1A:2133:C:H42	1:1A:2169:G:H22	1.39	0.70
1:2A:1092:C:H2'	1:2A:1092:C:O2	1.91	0.70
33:2b:178:ARG:HH12	39:2h:68:ARG:NH2	1.90	0.70
1:1A:1100:A:N6	1:1A:1151:U:H3	1.87	0.69
44:1m:78:ILE:HG22	44:1m:82:MET:HE2	1.74	0.69
26:24:62:ARG:HH11	26:24:62:ARG:H	1.38	0.69
43:2l:70:ILE:HG12	43:2l:100:ILE:HD12	1.73	0.69
38:2g:50:ILE:HD11	38:2g:58:PRO:HA	1.72	0.69
1:1A:2101:U:OP1	23:11:21:ARG:NH2	2.24	0.69
33:1b:178:ARG:HH11	33:1b:178:ARG:HG3	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:2Y:30:VAL:HG22	20:2Y:37:VAL:HG12	1.73	0.69
32:2a:532:A:O2'	32:2a:533:A:OP1	2.10	0.69
32:2a:1187:G:OP1	40:2i:113:LYS:NZ	2.25	0.69
32:1a:77:G:H1	32:1a:92:C:H42	1.40	0.69
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.27	0.69
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.74	0.69
32:2a:1348:U:H4'	40:2i:120:ARG:HD2	1.72	0.69
36:2e:12:LEU:HB3	36:2e:31:LEU:HB2	1.75	0.69
1:1A:2304:C:OP1	14:1S:17:ARG:NH2	2.25	0.69
1:2A:1056:G:H4'	1:2A:1086:A:H8	1.56	0.69
32:2a:448:A:OP2	32:2a:485:G:N2	2.20	0.69
8:1I:72:LEU:HD12	8:1I:138:ILE:HG21	1.73	0.69
39:2h:119:LEU:HB3	39:2h:123:GLU:HB2	1.74	0.69
1:1A:9:U:C4	1:1A:2641:A:H2	2.09	0.69
17:1V:21:ARG:HG2	17:1V:91:TYR:CD1	2.28	0.69
31:19:13:LYS:HD2	31:19:28:GLU:OE2	1.91	0.69
32:1a:401:C:OP1	35:1d:73:ARG:NH2	2.26	0.69
1:2A:1065:U:H4'	1:2A:1066:U:H5'	1.75	0.69
7:2H:98:LEU:HD22	7:2H:125:VAL:HG23	1.73	0.69
8:2I:110:ASP:N	8:2I:130:TYR:OH	2.24	0.69
19:2X:31:HIS:HD2	19:2X:33:LYS:H	1.39	0.69
32:2a:406:G:N2	35:2d:119:GLN:HE22	1.90	0.69
32:1a:269:C:H2'	32:1a:270:A:H8	1.58	0.69
32:1a:1015:A:H2'	32:1a:1016:A:C8	2.28	0.69
32:2a:559:A:OP1	36:2e:126:ARG:NH2	2.26	0.69
49:2r:54:ARG:HB2	49:2r:54:ARG:NH1	2.08	0.69
46:1o:56:LEU:O	46:1o:60:VAL:HG23	1.93	0.68
36:2e:8:GLU:HB3	36:2e:34:VAL:HG23	1.75	0.68
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.25	0.68
36:2e:152:ARG:HB2	39:2h:43:GLY:O	1.93	0.68
40:2i:7:THR:OG1	40:2i:83:ARG:NH1	2.26	0.68
40:1i:46:ALA:HB2	40:1i:74:ILE:HG23	1.76	0.68
52:1u:17:THR:O	52:1u:22:ARG:NH1	2.26	0.68
41:2j:49:VAL:HG23	45:2n:41:ARG:HB2	1.75	0.68
1:1A:1219:A:H4'	1:1A:1220:U:OP1	1.93	0.68
7:1H:41:MET:HE2	7:1H:65:HIS:HA	1.76	0.68
1:2A:2468:G:OP1	12:2Q:119:ARG:NH2	2.24	0.68
32:2a:64:G:H4'	32:2a:65:U:H3'	1.75	0.68
32:2a:1004:A:N7	32:2a:1037:C:H2'	2.08	0.68
40:2i:3:GLN:HE21	40:2i:20:ARG:NH2	1.91	0.68
44:2m:82:MET:HE2	44:2m:92:HIS:HB3	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1G:110:ALA:HB1	6:1G:140:ILE:HG23	1.75	0.68
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.29	0.68
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.28	0.68
8:2I:92:VAL:HG23	8:2I:120:ILE:HB	1.76	0.68
32:2a:501:C:H2'	32:2a:502:G:C8	2.28	0.68
7:1H:4:ILE:O	7:1H:69:ARG:HD2	1.94	0.68
3:1D:242:ARG:HG3	3:1D:242:ARG:HH11	1.58	0.68
32:1a:198:G:H2'	32:1a:199:G:H8	1.58	0.68
32:1a:437:U:O2	35:1d:119:GLN:NE2	2.27	0.68
40:2i:106:ALA:O	40:2i:108:VAL:HG23	1.94	0.68
34:2c:121:ALA:HB2	34:2c:198:VAL:HG21	1.76	0.68
1:1A:2205:C:H2'	1:1A:2206:G:C8	2.29	0.67
3:1D:71:ASP:OD2	3:1D:103:ARG:NH2	2.26	0.67
28:16:13:CYS:SG	28:16:47:THR:HG21	2.34	0.67
33:1b:134:GLU:HG3	33:1b:137:ARG:HH21	1.59	0.67
1:1A:1141:A:H2'	1:1A:1142:A:C8	2.28	0.67
32:1a:343:U:H3	32:1a:346:G:H1	1.42	0.67
32:1a:790:A:C2	53:1x:29:LYS:HD3	2.30	0.67
43:1l:53:ARG:HG3	43:1l:93:LEU:HD21	1.77	0.67
1:2A:1007:C:OP1	9:2N:35:ARG:NH1	2.27	0.67
2:2B:50:G:OP1	14:2S:63:THR:OG1	2.11	0.67
33:2b:119:GLU:HG3	33:2b:153:ARG:HH22	1.60	0.67
37:2f:89:MET:HE1	49:2r:72:ARG:HB3	1.76	0.67
1:1A:1809:U:H2'	1:1A:1815:A:N6	2.08	0.67
10:2O:2:ILE:HB	10:2O:33:ALA:HB3	1.76	0.67
2:1B:57:A:N7	56:1B:3025:AMP:C5'	2.57	0.67
32:1a:448:A:OP2	32:1a:485:G:N1	2.25	0.67
3:2D:69:ARG:NH2	3:2D:128:GLY:O	2.27	0.67
5:2F:161:GLU:O	5:2F:165:ARG:HG3	1.93	0.67
5:2F:167:ALA:HB1	5:2F:173:VAL:HG11	1.77	0.67
36:2e:102:ALA:HB1	36:2e:106:PRO:HG2	1.77	0.67
1:1A:1040:C:OP1	16:1U:53:ARG:NH2	2.27	0.67
29:17:24:THR:HG22	29:17:27:GLY:N	2.02	0.67
32:2a:1071:C:H2'	32:2a:1072:G:H8	1.59	0.67
35:2d:140:VAL:HG11	35:2d:146:ILE:HD11	1.75	0.67
12:2Q:111:GLU:OE2	12:2Q:133:ARG:NH2	2.28	0.67
40:2i:9:ARG:HG2	40:2i:14:VAL:HG12	1.76	0.67
4:1E:120:TRP:CE3	4:1E:155:LYS:HD3	2.29	0.67
8:1I:133:HIS:ND1	8:1I:134:PRO:O	2.27	0.67
34:1c:70:VAL:HG22	34:1c:72:LYS:H	1.58	0.67
1:2A:517:C:OP1	27:25:16:ARG:NH2	2.26	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:2N:33:LEU:HD12	9:2N:38:HIS:CE1	2.30	0.67
32:2a:1073:U:H2'	32:2a:1074:G:H8	1.58	0.67
1:1A:1541:A:H2'	1:1A:1542:A:C8	2.30	0.67
32:1a:67:C:H2'	32:1a:68:G:C8	2.29	0.67
34:2c:78:GLY:HA3	34:2c:83:ARG:H	1.59	0.67
46:2o:25:THR:HG21	46:2o:70:LEU:HB2	1.77	0.67
1:1A:2255:U:H2'	1:1A:2256:U:C6	2.29	0.67
1:2A:1041:C:N4	1:2A:1114:G:H1	1.93	0.67
20:2Y:38:ILE:HD11	20:2Y:66:PRO:HG3	1.76	0.67
36:2e:40:ARG:NH1	36:2e:68:GLU:HB3	2.10	0.67
1:1A:641:G:OP1	5:1F:40:GLN:NE2	2.26	0.67
32:1a:974:A:OP2	45:1n:29:ARG:NH2	2.28	0.67
32:1a:353:A:H5'	32:1a:353:A:H8	1.59	0.66
32:1a:407:G:OP1	35:1d:115:ARG:NH2	2.28	0.66
32:2a:437:U:H5'	35:2d:155:LEU:HD21	1.77	0.66
1:2A:848:G:H2'	1:2A:849:A:C8	2.31	0.66
32:2a:1279:A:O2'	32:2a:1281:U:OP2	2.13	0.66
33:2b:8:LYS:HD2	33:2b:48:MET:HG3	1.76	0.66
25:13:3:ARG:NH1	25:13:60:GLU:OE2	2.17	0.66
40:1i:106:ALA:O	40:1i:108:VAL:HG23	1.95	0.66
1:2A:468:G:N7	29:27:39:ARG:NH2	2.43	0.66
4:2E:47:VAL:HG11	4:2E:86:PRO:HD2	1.77	0.66
8:2I:63:ALA:HA	8:2I:66:GLU:HB2	1.78	0.66
27:25:16:ARG:HG3	27:25:17:ASP:N	2.11	0.66
36:2e:36:ASP:OD1	36:2e:38:GLN:N	2.25	0.66
44:2m:33:ALA:HA	44:2m:59:TYR:CE2	2.30	0.66
37:2f:61:LEU:HB3	37:2f:63:TYR:HE2	1.61	0.66
1:1A:1150:C:H2'	1:1A:1151:U:C5	2.31	0.66
6:1G:7:LEU:HD13	6:1G:100:TRP:HE3	1.60	0.66
33:1b:88:ALA:HB2	33:1b:219:VAL:HG13	1.77	0.66
32:1a:659:U:H2'	32:1a:660:G:H8	1.60	0.66
1:2A:1038:C:H42	1:2A:1117:G:H1	0.71	0.66
32:1a:169:C:H2'	32:1a:170:U:H6	1.61	0.66
32:1a:747:C:OP2	32:1a:748:C:N4	2.27	0.66
32:1a:1313:U:OP1	50:1s:5:LEU:HB2	1.96	0.66
37:1f:61:LEU:HD23	37:1f:63:TYR:OH	1.96	0.66
1:2A:827:U:O2'	59:2A:3902:HOH:O	2.13	0.66
43:2l:33:ARG:HD3	43:2l:62:SER:HB3	1.78	0.66
53:2x:63:ALA:HB2	53:2x:84:GLN:HE22	1.61	0.66
45:1n:4:LYS:HG3	45:1n:7:ILE:HD11	1.75	0.66
19:2X:65:ARG:HB3	19:2X:70:LEU:HD23	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1040:U:H2'	32:2a:1041:A:H5''	1.78	0.66
40:2i:32:ASP:N	40:2i:35:GLU:OE1	2.28	0.66
41:2j:57:LYS:HD2	41:2j:60:ARG:HH21	1.61	0.66
32:1a:56:U:H2'	32:1a:57:G:C8	2.31	0.66
4:2E:5:LEU:HD11	4:2E:79:ARG:HB2	1.78	0.66
21:2Z:54:HIS:CD2	21:2Z:101:PRO:HG3	2.31	0.66
32:2a:222:U:H2'	32:2a:223:U:C6	2.31	0.66
32:1a:501:C:H2'	32:1a:502:G:C8	2.30	0.65
1:2A:271(K):U:O2	8:2I:50:ARG:HD3	1.96	0.65
1:2A:479:A:N3	1:2A:481:G:H5''	2.11	0.65
1:2A:1371:G:HO2'	1:2A:1372:U:H5	1.45	0.65
41:2j:37:PRO:HA	41:2j:72:VAL:HG12	1.79	0.65
1:1A:1067:A:OP2	9:1N:65:LYS:NZ	2.28	0.65
1:1A:2102:G:OP1	23:11:35:THR:HG21	1.96	0.65
19:1X:60:ARG:NH1	29:17:47:ARG:HH22	1.94	0.65
32:1a:1504:G:OP1	32:1a:1507:A:H4'	1.96	0.65
32:2a:1289:A:OP1	52:2u:9:ARG:NH2	2.29	0.65
21:2Z:54:HIS:HD2	21:2Z:101:PRO:HG3	1.60	0.65
34:2c:108:ASN:HD21	34:2c:144:SER:HB3	1.61	0.65
7:1H:11:VAL:HG21	7:1H:50:VAL:HG23	1.78	0.65
28:16:14:THR:HB	28:16:48:VAL:O	1.96	0.65
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.10	0.65
35:1d:98:GLU:OE1	35:1d:103:ASN:ND2	2.21	0.65
51:1t:92:LEU:O	51:1t:96:GLY:N	2.24	0.65
1:2A:764:A:N3	3:2D:213:ARG:NH1	2.44	0.65
26:24:64:GLY:C	26:24:66:SER:H	2.03	0.65
40:2i:17:VAL:HG11	40:2i:80:GLY:C	2.22	0.65
1:1A:1566:U:H2'	1:1A:1567:G:O4'	1.97	0.65
1:2A:1067:A:O4'	1:2A:1068:G:N2	2.30	0.65
1:2A:2285:C:OP2	28:26:6:ARG:NH1	2.29	0.65
8:2I:4:ILE:HD11	8:2I:44:LEU:HD13	1.79	0.65
32:2a:1132:C:H2'	32:2a:1133:G:H8	1.61	0.65
21:1Z:52:SER:OG	21:1Z:53:ILE:N	2.23	0.65
1:2A:323:G:O2'	1:2A:1205:U:N3	2.23	0.65
21:2Z:157:LEU:HD11	21:2Z:163:LEU:HD13	1.77	0.65
1:1A:1289:G:O2'	11:1P:7:ARG:NH2	2.30	0.65
1:1A:2133:C:OP2	1:1A:2167:C:N4	2.24	0.65
34:1c:179:ARG:NH1	34:1c:206:GLU:OE1	2.30	0.65
1:2A:1754:C:OP1	15:2T:96:ARG:NH1	2.30	0.65
1:2A:2356:C:O3'	22:20:20:ARG:HD3	1.96	0.65
21:2Z:40:ASP:HB3	21:2Z:43:GLU:HB2	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:111:ALA:HB1	35:2d:116:GLN:HE21	1.62	0.65
1:1A:1121:C:OP1	12:1Q:59:ARG:HB3	1.97	0.65
24:12:22:GLU:OE2	24:12:68:ARG:NH2	2.30	0.65
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.11	0.65
33:1b:16:HIS:HB3	33:1b:210:SER:HB2	1.79	0.65
1:2A:1843:C:H5'	3:2D:253:GLN:NE2	2.12	0.65
8:2I:29:TYR:HD2	8:2I:30:LEU:HD23	1.62	0.65
1:2A:588:U:H2'	1:2A:589:C:C6	2.31	0.65
1:2A:674:G:O2'	5:2F:74:ARG:HD3	1.96	0.65
1:2A:2130:U:H2'	1:2A:2158:A:N1	2.12	0.65
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.31	0.65
32:2a:962:C:O2'	59:2a:1801:HOH:O	2.14	0.65
32:2a:1092:A:N3	32:2a:1183:A:N6	2.45	0.65
1:1A:7:G:H2'	1:1A:8:A:O4'	1.97	0.65
32:1a:269:C:H2'	32:1a:270:A:C8	2.32	0.65
1:2A:1069:A:H5'	1:2A:1096:A:H5'	1.79	0.65
53:2x:53:THR:HG22	53:2x:62:VAL:HG12	1.78	0.65
4:1E:2:LYS:HB2	4:1E:95:ILE:HD12	1.79	0.64
47:1p:20:VAL:HG23	47:1p:35:LYS:HA	1.79	0.64
32:1a:1177:G:OP2	40:1i:97:LYS:NZ	2.24	0.64
37:1f:61:LEU:HB3	37:1f:63:TYR:HE2	1.62	0.64
1:2A:1036:G:H1	1:2A:1119:C:H42	1.46	0.64
20:2Y:87:LYS:HB3	20:2Y:95:LYS:HD2	1.80	0.64
33:2b:178:ARG:HH12	39:2h:68:ARG:HH22	1.45	0.64
1:1A:2228:G:O2'	1:1A:2229:A:OP1	2.16	0.64
35:1d:155:LEU:HB3	35:1d:158:ILE:HG23	1.79	0.64
37:1f:69:GLU:O	37:1f:72:VAL:HG12	1.96	0.64
40:1i:24:GLY:HA2	40:1i:59:PHE:O	1.98	0.64
1:2A:1495:A:H2'	1:2A:1496:A:H8	1.58	0.64
32:2a:1008:C:H2'	32:2a:1009:G:C8	2.31	0.64
34:1c:32:LEU:HD13	34:1c:59:ARG:HD3	1.80	0.64
34:1c:70:VAL:O	34:1c:106:VAL:N	2.31	0.64
1:2A:1803:A:O2'	3:2D:259:THR:HG21	1.98	0.64
32:2a:279:A:OP2	48:2q:95:TYR:OH	2.15	0.64
32:2a:568:G:O6	43:2l:5:PRO:HD3	1.98	0.64
32:1a:1189:C:OP1	41:1j:51:ARG:NH2	2.30	0.64
1:2A:2641:G:P	9:2N:74:ARG:HH21	2.19	0.64
32:2a:719:C:O2'	49:2r:50:ILE:O	2.14	0.64
1:1A:2156:A:H1'	1:1A:2181:G:H1'	1.77	0.64
1:2A:2320:A:N3	1:2A:2320:A:H2'	2.13	0.64
9:2N:20:GLY:HA2	9:2N:61:ARG:HG3	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1106:G:H5''	34:2c:172:ARG:HG2	1.79	0.64
39:2h:14:ARG:NH1	39:2h:83:ILE:O	2.31	0.64
1:1A:1068:G:N7	9:1N:66:LYS:HE2	2.12	0.64
1:1A:1475:G:H2'	1:1A:1476:C:C6	2.33	0.64
1:1A:2674:A:H2'	1:1A:2675:G:O4'	1.98	0.64
39:1h:51:VAL:HG21	39:1h:60:ARG:HH11	1.61	0.64
33:2b:53:ARG:HA	33:2b:56:ARG:HH21	1.63	0.64
33:1b:18:GLY:HA2	33:1b:204:ASN:HB2	1.80	0.64
1:2A:1289:C:H2'	1:2A:1290:C:H6	1.62	0.64
32:2a:512:U:H2'	32:2a:513:C:C6	2.33	0.64
31:19:32:HIS:O	31:19:34:GLN:HG3	1.98	0.64
32:1a:70:G:H1	32:1a:99:U:H3	1.44	0.64
32:2a:1132:C:H2'	32:2a:1133:G:C8	2.33	0.64
34:2c:6:HIS:HD2	34:2c:8:ILE:H	1.45	0.64
43:2l:53:ARG:HH21	43:2l:92:OTD:CG	2.11	0.64
1:1A:1346:U:H4'	1:1A:1347:A:H5''	1.79	0.64
19:1X:35:THR:HG22	19:1X:37:THR:H	1.61	0.64
32:1a:171:A:H2'	32:1a:172:A:C8	2.33	0.64
32:1a:1086:U:H3	32:1a:1099:G:H22	1.46	0.64
39:1h:121:ASP:HB2	39:1h:125:ARG:NH2	2.13	0.64
32:2a:1305:G:N2	32:2a:1331:G:H1'	2.13	0.64
38:2g:27:ILE:HD12	38:2g:40:ALA:HA	1.79	0.64
37:1f:65:VAL:HG21	37:1f:67:MET:HE2	1.78	0.63
10:2O:2:ILE:HD12	10:2O:6:THR:HG21	1.80	0.63
26:24:64:GLY:O	26:24:66:SER:N	2.30	0.63
45:1n:48:ALA:HB2	45:1n:53:LEU:HD12	1.79	0.63
4:2E:9:VAL:HG13	4:2E:25:VAL:O	1.97	0.63
38:2g:115:ARG:HG2	38:2g:118:VAL:HG23	1.79	0.63
1:1A:714:U:O2	30:18:2:PRO:HD2	1.98	0.63
32:1a:976:G:H5'	32:1a:1358:U:O2'	1.98	0.63
33:1b:67:THR:HA	33:1b:90:MET:HE2	1.79	0.63
3:2D:221:VAL:HG22	3:2D:226:MET:HE2	1.80	0.63
32:2a:1504:G:OP1	32:2a:1507:A:H4'	1.98	0.63
51:2t:42:GLN:O	51:2t:45:GLN:HB3	1.97	0.63
32:1a:473:G:H2'	32:1a:474:G:H8	1.63	0.63
32:1a:1030(C):G:H2'	32:1a:1030(D):A:C8	2.33	0.63
40:1i:89:ASN:O	40:1i:92:TYR:HB2	1.98	0.63
4:2E:77:ILE:HD13	4:2E:195:LEU:HD13	1.80	0.63
12:2Q:137:TYR:O	12:2Q:141:GLN:HG2	1.97	0.63
38:2g:48:LYS:O	38:2g:52:GLU:HG2	1.98	0.63
1:1A:1218:G:O2'	1:1A:1219:A:O4'	2.17	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1219:A:C1'	1:1A:1220:U:H5'	2.29	0.63
47:2p:58:TYR:O	47:2p:61:SER:OG	2.16	0.63
1:1A:1451:U:H2'	1:1A:1452:U:C6	2.34	0.63
26:14:16:CYS:SG	26:14:17:GLY:N	2.71	0.63
32:2a:1441:G:H5''	32:2a:1442:G:H5'	1.80	0.63
13:1R:97:VAL:HG22	13:1R:114:VAL:HG13	1.80	0.63
32:1a:673:G:H2'	32:1a:674:G:C8	2.32	0.63
32:1a:677:U:H3	32:1a:713:G:H22	1.45	0.63
35:1d:43:HIS:ND1	35:1d:46:LYS:HE3	2.14	0.63
41:1j:11:PHE:CE1	41:1j:67:THR:HG22	2.33	0.63
40:2i:29:ASN:ND2	40:2i:65:VAL:O	2.32	0.63
19:1X:60:ARG:HH12	29:17:47:ARG:HH22	1.46	0.63
32:2a:141:A:H1'	32:2a:182:U:O2	1.99	0.63
1:1A:2575:U:H4'	10:1O:28:SER:HA	1.81	0.63
31:19:15:LYS:HG2	31:19:17:ILE:HD13	1.81	0.63
32:1a:1402:4OC:HM22	32:1a:1403:C:H5'	1.81	0.63
32:1a:1456:G:N1	51:1t:51:GLU:OE2	2.29	0.63
35:1d:101:LEU:HD23	35:1d:121:VAL:HG11	1.81	0.63
1:2A:2469:A:H4'	12:2Q:56:ARG:HG2	1.81	0.63
4:2E:11:MET:HG2	4:2E:24:THR:HB	1.81	0.63
32:1a:198:G:H2'	32:1a:199:G:C8	2.34	0.62
32:1a:1010:G:N2	32:1a:1020:U:H1'	2.13	0.62
33:1b:222:ILE:O	33:1b:226:ARG:HB2	1.99	0.62
47:1p:74:LEU:HD23	47:1p:79:VAL:HG21	1.80	0.62
8:2I:14:ASP:N	8:2I:17:GLN:OE1	2.27	0.62
14:2S:14:VAL:O	14:2S:18:ILE:HG12	1.98	0.62
24:12:16:LEU:O	24:12:67:LYS:NZ	2.32	0.62
32:1a:616:G:O2'	32:1a:617:G:H5'	1.99	0.62
1:2A:817:C:O2'	1:2A:839:U:H5''	2.00	0.62
4:2E:143:ASN:HD22	4:2E:147:PRO:HD3	1.64	0.62
27:15:16:ARG:HG2	27:15:16:ARG:HH11	1.64	0.62
32:1a:201:C:N4	32:1a:216:G:H1	1.93	0.62
32:1a:1005:A:H5'	32:1a:1038:C:H1'	1.81	0.62
32:1a:1352:C:H2'	32:1a:1353:G:C8	2.34	0.62
1:2A:2882:A:OP1	13:2R:96:ARG:NH1	2.32	0.62
8:2I:65:ALA:O	8:2I:69:LYS:N	2.32	0.62
32:2a:1352:C:H2'	32:2a:1353:G:C8	2.33	0.62
44:2m:17:VAL:O	44:2m:20:THR:OG1	2.17	0.62
6:1G:18:GLU:HG3	6:1G:175:LEU:HD21	1.81	0.62
21:1Z:70:LEU:HG	21:1Z:91:LEU:HD21	1.81	0.62
1:2A:301:G:OP2	20:2Y:84:ARG:NH2	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1073:A:C2	1:2A:1074:G:C5	2.88	0.62
32:2a:1015:A:H2'	32:2a:1016:A:H8	1.63	0.62
47:2p:20:VAL:HG21	47:2p:32:TYR:CG	2.34	0.62
5:1F:161:GLU:O	5:1F:165:ARG:HG3	1.99	0.62
32:1a:544:G:OP1	35:1d:59:ARG:NH2	2.32	0.62
34:1c:150:LYS:HG3	34:1c:169:ALA:HB2	1.81	0.62
33:2b:155:LEU:HD11	33:2b:159:PRO:HG3	1.81	0.62
1:1A:354:A:H2	1:1A:1255:A:HO2'	1.47	0.62
8:1I:109:ILE:HG13	8:1I:130:TYR:CZ	2.34	0.62
21:1Z:19:ARG:NH1	21:1Z:84:GLU:O	2.33	0.62
32:1a:1137:C:H4'	32:1a:1138:G:C2	2.35	0.62
1:2A:1721:G:H2'	1:2A:1740:G:O6	2.00	0.62
2:2B:24:G:N7	2:2B:56:G:H2'	2.15	0.62
8:2I:104:GLN:HE21	8:2I:105:HIS:CE1	2.18	0.62
32:2a:736:C:H2'	32:2a:737:A:C8	2.34	0.62
32:2a:1493:A:H5'	32:2a:1494:G:OP2	1.99	0.62
43:2I:53:ARG:NH2	43:2I:92:OTD:OD1	2.30	0.62
8:1I:72:LEU:C	8:1I:74:ASN:H	2.07	0.62
32:1a:174:C:H2'	32:1a:175:C:C6	2.34	0.62
1:2A:1062:G:O2'	1:2A:1063:G:H5'	2.00	0.62
12:2Q:59:ARG:NH2	12:2Q:60:ARG:HH21	1.96	0.62
20:2Y:90:LEU:HD12	20:2Y:92:ASN:HB3	1.81	0.62
32:2a:1278:U:H5''	32:2a:1279:A:H5'	1.81	0.62
1:1A:1220:U:O2'	1:1A:1221:G:O5'	2.17	0.62
6:1G:38:VAL:HG22	6:1G:93:THR:HG23	1.81	0.62
32:1a:982:U:H5''	45:1n:6:LEU:HD21	1.81	0.62
33:1b:127:ILE:HG22	33:1b:130:ARG:HG2	1.81	0.62
4:2E:27:LEU:HD22	15:2T:1:MET:HE3	1.80	0.62
32:2a:353:A:H5'	32:2a:353:A:C8	2.33	0.62
32:2a:737:A:H2'	32:2a:738:C:H6	1.65	0.62
32:2a:920:U:H2'	32:2a:921:U:C6	2.35	0.62
32:2a:1125:U:H2'	32:2a:1127:G:N7	2.15	0.62
1:1A:295:C:H6	1:1A:295:C:H5''	1.65	0.62
1:1A:1700:G:H3'	13:1R:2:ARG:HD3	1.82	0.62
38:1g:48:LYS:O	38:1g:52:GLU:HG2	1.99	0.62
44:1m:13:LYS:HA	44:1m:44:ARG:HH11	1.64	0.62
1:2A:1025:G:C4	1:2A:1135:C:H1'	2.34	0.62
1:2A:1070:A:H2'	1:2A:1071:G:C8	2.34	0.62
20:2Y:77:PRO:HD2	20:2Y:106:LEU:HD22	1.82	0.62
26:24:16:CYS:SG	26:24:17:GLY:N	2.73	0.62
32:2a:520:A:N1	32:2a:536:C:H1'	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:737:A:H2'	32:2a:738:C:C6	2.34	0.62
39:2h:37:ARG:HH12	39:2h:41:ARG:HH21	1.47	0.62
32:1a:540:G:H2'	32:1a:541:G:O4'	2.00	0.62
32:1a:1024:G:H2'	32:1a:1025:U:H5''	1.82	0.62
32:1a:1132:C:H2'	32:1a:1133:G:C8	2.34	0.62
1:2A:631:A:OP1	11:2P:65:ARG:NH1	2.30	0.62
21:2Z:52:SER:OG	21:2Z:53:ILE:N	2.31	0.62
38:2g:54:THR:O	38:2g:56:GLN:N	2.31	0.62
39:2h:28:ALA:HB3	39:2h:57:PRO:HB2	1.81	0.62
32:1a:186:C:H2'	32:1a:187:C:C5	2.34	0.61
41:1j:37:PRO:HA	41:1j:72:VAL:HG12	1.80	0.61
32:2a:1251:A:H2'	32:2a:1252:A:C8	2.34	0.61
32:1a:1333:A:H2'	32:1a:1334:G:O4'	2.00	0.61
1:2A:11:G:C2'	1:2A:12:U:H5''	2.24	0.61
32:2a:108:G:C6	51:2t:15:ARG:HG2	2.34	0.61
35:2d:79:PHE:HE1	35:2d:204:ILE:HD13	1.65	0.61
33:1b:69:LEU:HB3	33:1b:162:ILE:HG22	1.83	0.61
40:2i:4:TYR:CE1	40:2i:88:TYR:HA	2.35	0.61
1:1A:1113:A:H2'	1:1A:1113:A:N3	2.14	0.61
21:1Z:152:ALA:HB1	21:1Z:163:LEU:HD21	1.82	0.61
1:2A:1991:U:H2'	1:2A:1992:G:H5''	1.81	0.61
1:2A:2567:G:H2'	1:2A:2568:C:C6	2.36	0.61
32:2a:500:G:N2	32:2a:546:G:H1'	2.15	0.61
35:2d:25:ARG:NH1	35:2d:30:LYS:O	2.32	0.61
35:2d:61:LYS:NZ	35:2d:72:GLU:OE1	2.32	0.61
49:2r:47:THR:HG23	49:2r:49:LYS:HG3	1.82	0.61
20:1Y:92:ASN:HB2	20:1Y:94:LYS:N	2.08	0.61
50:1s:55:LYS:HG2	50:1s:56:GLN:HG2	1.82	0.61
8:2I:92:VAL:CG2	8:2I:120:ILE:HB	2.31	0.61
35:2d:38:TYR:HE1	35:2d:45:GLN:HG2	1.64	0.61
41:2j:27:ALA:HB3	41:2j:34:VAL:HG12	1.82	0.61
1:1A:1961:5MU:OP1	1:1A:2616:U:O2'	2.16	0.61
17:1V:98:GLU:OE2	17:1V:100:ARG:NH1	2.33	0.61
32:1a:175:C:H2'	32:1a:176:C:C6	2.35	0.61
5:2F:170:LEU:HD12	5:2F:172:TRP:NE1	2.16	0.61
6:2G:46:ALA:HB2	6:2G:53:LEU:HD12	1.82	0.61
7:2H:149:ARG:NH1	7:2H:167:GLU:OE2	2.32	0.61
32:2a:620:C:C2	35:2d:135:LEU:HG	2.36	0.61
32:2a:1289:A:N1	32:2a:1371:G:O2'	2.31	0.61
34:2c:131:ARG:NH2	36:2e:50:GLU:HG3	2.15	0.61
44:2m:88:ARG:HG2	44:2m:98:VAL:HG13	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1827:U:H2'	1:1A:1828:C:C6	2.36	0.61
32:1a:1034:G:H2'	32:1a:1035:A:O4'	2.01	0.61
32:1a:1037:C:H2'	32:1a:1038:C:C6	2.36	0.61
35:1d:88:VAL:O	35:1d:92:VAL:HG23	2.01	0.61
1:2A:2206:G:H5''	1:2A:2207:G:N7	2.16	0.61
35:2d:65:ARG:HG3	35:2d:75:PHE:CD1	2.35	0.61
38:2g:111:ARG:NH2	38:2g:126:ASP:OD2	2.34	0.61
32:1a:70:G:H2'	32:1a:71:C:C6	2.35	0.61
34:1c:44:GLU:HA	34:1c:52:LEU:HD23	1.83	0.61
35:1d:178:VAL:O	35:1d:180:GLY:N	2.34	0.61
1:2A:1810:A:H2'	1:2A:1811:G:O4'	2.01	0.61
32:2a:1301:U:O2'	32:2a:1302:U:H5'	2.00	0.61
35:2d:38:TYR:CE1	35:2d:45:GLN:HG2	2.36	0.61
7:1H:3:ARG:HH11	7:1H:4:ILE:H	1.49	0.61
17:2V:60:GLU:OE1	17:2V:97:LYS:HE2	2.01	0.61
19:2X:35:THR:HG22	19:2X:37:THR:H	1.66	0.61
32:2a:60:A:H4'	32:2a:61:G:O5'	2.01	0.61
32:2a:382:A:H2'	32:2a:383:A:C8	2.36	0.61
32:2a:1073:U:H2'	32:2a:1074:G:C8	2.35	0.61
44:2m:81:LEU:HD21	44:2m:88:ARG:NH2	2.15	0.61
44:2m:114:ARG:NH1	59:2m:301:HOH:O	2.33	0.61
1:1A:1834:A:O2'	3:1D:259:THR:HG21	2.00	0.61
32:1a:353:A:H5'	32:1a:353:A:C8	2.36	0.61
32:1a:760:G:O2'	48:1q:98:LEU:HD12	2.00	0.61
1:2A:919:G:N2	1:2A:2269:A:OP2	2.33	0.61
1:2A:2661:G:O6	7:2H:175:LYS:NZ	2.34	0.61
26:24:46:GLN:O	26:24:48:ARG:N	2.32	0.61
32:2a:189:G:H2'	32:2a:189(A):C:C6	2.36	0.61
32:2a:1005:A:H4'	32:2a:1037:C:O2'	2.00	0.61
34:2c:113:ALA:HB2	34:2c:202:ILE:HG13	1.82	0.61
1:1A:839:G:H5''	1:1A:840:A:H5'	1.83	0.60
1:1A:2291:G:N7	22:10:14:ARG:NH1	2.49	0.60
32:1a:1005:A:C6	32:1a:1024:G:N2	2.69	0.60
32:1a:1521:G:H2'	32:1a:1522:U:C6	2.36	0.60
39:1h:73:ASP:OD1	39:1h:75:ARG:HG3	2.01	0.60
42:1k:98:LEU:O	42:1k:101:SER:OG	2.10	0.60
1:2A:322:A:H5'	1:2A:340:A:H1'	1.83	0.60
32:2a:1118:C:H1'	32:2a:1179:A:C4	2.35	0.60
32:2a:1151:A:O2'	32:2a:1152:A:H8	1.84	0.60
32:2a:1323:G:H2'	32:2a:1324:A:C8	2.35	0.60
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:108:LEU:HD21	35:2d:183:GLY:HA3	1.83	0.60
1:1A:1261:G:OP2	16:1U:12:ARG:NH2	2.33	0.60
9:1N:67:LEU:HD12	9:1N:87:LEU:HD13	1.81	0.60
32:1a:532:A:H2	32:1a:1206:G:H21	1.48	0.60
32:1a:977:A:O2'	32:1a:979:C:OP2	2.16	0.60
32:1a:1272:G:H2'	32:1a:1273:G:O4'	2.01	0.60
39:1h:121:ASP:HB2	39:1h:125:ARG:HH21	1.65	0.60
40:1i:16:ARG:HB2	40:1i:64:THR:HG22	1.83	0.60
53:1x:53:THR:HG22	53:1x:62:VAL:HG22	1.82	0.60
1:2A:2319:G:N2	14:2S:3:ARG:HD3	2.09	0.60
32:2a:839:U:H3'	32:2a:840:C:C5	2.37	0.60
32:2a:1263:C:H2'	32:2a:1264:C:H6	1.66	0.60
46:2o:17:ARG:HH11	46:2o:17:ARG:HG3	1.64	0.60
32:1a:373:A:H2'	32:1a:374:A:H8	1.66	0.60
32:1a:390:C:O2'	47:1p:28:ARG:NH2	2.33	0.60
32:1a:391:G:O3'	47:1p:8:ARG:NH2	2.33	0.60
36:1e:122:GLU:O	36:1e:126:ARG:NH1	2.34	0.60
11:2P:121:LYS:O	11:2P:123:LEU:N	2.34	0.60
14:2S:83:LYS:HG2	14:2S:111:GLU:HG3	1.82	0.60
15:2T:39:ARG:NH2	32:2a:345:C:OP2	2.32	0.60
32:2a:1532:U:H6	32:2a:1532:U:O5'	1.84	0.60
32:1a:222:U:H2'	32:1a:223:U:C6	2.35	0.60
39:1h:25:ASP:N	39:1h:25:ASP:OD1	2.33	0.60
14:2S:105:ALA:O	14:2S:110:LEU:HB2	2.01	0.60
23:21:23:LYS:HB3	23:21:29:GLY:HA3	1.84	0.60
33:2b:76:GLN:HG3	33:2b:206:ASP:O	2.00	0.60
44:2m:33:ALA:HA	44:2m:59:TYR:HE2	1.66	0.60
1:1A:1039:G:OP1	16:1U:50:ARG:NH2	2.34	0.60
4:1E:2:LYS:NZ	4:1E:95:ILE:O	2.31	0.60
32:1a:1071:C:H2'	32:1a:1072:G:C8	2.36	0.60
38:1g:69:VAL:HG12	38:1g:100:ALA:HA	1.83	0.60
6:2G:126:ASP:HB3	6:2G:130:ASN:H	1.67	0.60
14:2S:27:SER:HA	14:2S:88:ASP:HB3	1.82	0.60
21:2Z:19:ARG:NH1	21:2Z:84:GLU:O	2.35	0.60
25:23:39:ASP:OD1	25:23:44:ARG:HD2	2.02	0.60
32:2a:1031:G:H2'	32:2a:1032:G:C8	2.36	0.60
40:2i:21:PRO:HA	40:2i:59:PHE:HD1	1.67	0.60
3:1D:141:VAL:HG12	3:1D:164:GLN:HG3	1.83	0.60
8:1I:65:ALA:O	8:1I:68:LEU:N	2.34	0.60
35:1d:79:PHE:HE1	35:1d:204:ILE:HD13	1.66	0.60
1:2A:271(E):U:H2'	1:2A:271(F):C:C6	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1359:A:N1	1:2A:1372:U:O4	2.34	0.60
1:2A:2439:A:H5'	1:2A:2439:A:C8	2.36	0.60
1:2A:2577:A:H5'	27:25:3:LYS:HD2	1.84	0.60
32:2a:404:U:OP1	35:2d:118:ARG:NH2	2.35	0.60
32:2a:411:A:OP1	35:2d:30:LYS:NZ	2.25	0.60
32:2a:947:G:H2'	32:2a:948:C:O4'	2.01	0.60
33:2b:11:LEU:HD12	33:2b:217:ARG:HH22	1.67	0.60
47:2p:23:ASP:OD1	47:2p:25:ARG:HG2	2.02	0.60
1:2A:2102:U:O2	1:2A:2187:G:O6	2.20	0.60
32:2a:564:C:O2'	39:2h:91:ARG:NH2	2.34	0.60
32:2a:656:C:O2'	46:2o:28:GLN:NE2	2.35	0.60
51:2t:57:ARG:HH12	51:2t:100:ILE:HB	1.66	0.60
33:1b:18:GLY:HA3	33:1b:42:ILE:HG13	1.84	0.60
10:2O:68:GLU:HB3	10:2O:78:ARG:HB2	1.84	0.60
44:2m:80:ARG:O	44:2m:84:ILE:HG23	2.01	0.60
48:2q:41:LYS:NZ	48:2q:92:ARG:HH21	1.98	0.60
1:1A:2250:G:N3	1:1A:2250:G:H2'	2.15	0.60
1:1A:2339:A:H2'	1:1A:2340:A:C8	2.36	0.60
7:1H:149:ARG:NH1	7:1H:167:GLU:OE2	2.34	0.60
23:11:64:ALA:HA	23:11:67:ILE:HG13	1.84	0.60
32:1a:434:U:H2'	32:1a:435:C:C6	2.36	0.60
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.37	0.60
51:1t:37:SER:O	51:1t:41:ILE:HG13	2.02	0.60
1:2A:236:C:H2'	1:2A:237:C:H6	1.65	0.60
18:2W:11:ARG:NH1	18:2W:99:ARG:O	2.35	0.60
36:2e:74:GLY:HA3	36:2e:116:THR:HG22	1.83	0.60
41:2j:57:LYS:HD2	41:2j:60:ARG:NH2	2.17	0.60
50:2s:22:LEU:HD22	50:2s:27:GLU:HA	1.83	0.60
1:1A:664:U:H2'	1:1A:665:C:C6	2.36	0.60
1:1A:1220:U:H1'	1:1A:1221:G:OP1	2.01	0.60
1:1A:1604:C:H5''	1:1A:1605:A:OP2	2.02	0.60
1:1A:2167:C:H5''	1:1A:2168:C:C5	2.37	0.60
23:11:2:SER:O	23:11:3:LYS:HB2	2.02	0.60
32:1a:757:U:O2'	32:1a:879:C:O2	2.19	0.60
32:1a:1346:A:H5''	40:1i:120:ARG:HH12	1.67	0.60
34:1c:62:ASP:O	34:1c:97:LYS:HB2	2.01	0.60
1:2A:1202:C:N4	1:2A:1243:G:H1	2.00	0.60
1:2A:1289:C:H2'	1:2A:1290:C:C6	2.36	0.60
1:2A:1639:U:H2'	1:2A:1640:C:H5''	1.82	0.60
1:2A:1657:C:H2'	1:2A:1658:C:H6	1.67	0.60
1:2A:2074:U:H2'	1:2A:2075:U:C6	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:64:THR:HB	6:2G:94:LEU:HD11	1.84	0.60
32:2a:404:U:O2	32:2a:498:U:O4	2.20	0.60
1:1A:1114:G:O2'	1:1A:1142:A:O2'	1.98	0.59
2:1B:103:G:N2	21:1Z:73:GLN:HE22	1.99	0.59
3:1D:242:ARG:HD2	3:1D:246:PRO:HG3	1.84	0.59
32:1a:1279:A:O2'	32:1a:1281:U:OP2	2.16	0.59
33:1b:141:GLU:O	33:1b:145:LEU:HD12	2.01	0.59
1:2A:792:G:H5''	1:2A:793:A:H5'	1.84	0.59
5:2F:21:ALA:CB	5:2F:22:ALA:HA	2.32	0.59
11:2P:86:LYS:HB3	11:2P:118:GLY:HA3	1.84	0.59
15:2T:119:LYS:HB2	32:2a:1442(A):G:N2	2.16	0.59
1:1A:9:U:O2	1:1A:2641:A:N1	2.35	0.59
1:1A:1539:C:H5''	1:1A:1539:C:O2	2.01	0.59
1:1A:2291:G:O6	22:10:14:ARG:HG3	2.02	0.59
32:1a:191:G:H1'	51:1t:103:GLY:HA3	1.84	0.59
46:1o:39:LEU:HD13	46:1o:56:LEU:HB2	1.83	0.59
1:2A:635:C:O2'	1:2A:639:U:OP1	2.19	0.59
1:2A:1430:C:H2'	1:2A:1431:U:C6	2.37	0.59
1:2A:2119:A:C6	1:2A:2170:A:C5	2.90	0.59
19:2X:60:ARG:HH22	29:27:47:ARG:HH22	1.50	0.59
32:2a:343:U:O2	32:2a:346:G:O6	2.21	0.59
32:2a:664:G:H22	32:2a:741:G:H1	1.49	0.59
16:1U:59:ARG:CB	16:1U:59:ARG:HH11	2.14	0.59
19:1X:76:ARG:HH11	19:1X:76:ARG:HG3	1.67	0.59
24:12:32:LEU:HD11	24:12:54:LYS:HG3	1.81	0.59
28:16:12:GLU:OE1	28:16:52:VAL:HG21	2.02	0.59
32:1a:376:G:H4'	47:1p:5:ARG:HH11	1.67	0.59
32:1a:443:C:H2'	32:1a:444:C:H6	1.67	0.59
32:1a:818:G:O2'	32:1a:819:A:H5'	2.03	0.59
44:1m:19:LEU:O	44:1m:22:ILE:HD12	2.02	0.59
44:1m:67:GLU:OE1	44:1m:71:ARG:NH2	2.35	0.59
1:2A:560:C:H5'	16:2U:52:ARG:HH21	1.66	0.59
1:2A:1379:A:H4'	1:2A:1380:G:OP2	2.03	0.59
1:2A:1429:G:H2'	1:2A:1430:C:C6	2.37	0.59
1:2A:1518:U:H2'	1:2A:1519:G:O4'	2.01	0.59
1:2A:1805:U:O2	3:2D:50:THR:HB	2.02	0.59
11:2P:97:PRO:HD3	11:2P:126:VAL:O	2.03	0.59
33:2b:9:GLU:HB3	33:2b:11:LEU:HD23	1.85	0.59
32:1a:1286:A:N3	52:1u:18:TYR:OH	2.36	0.59
35:1d:149:ALA:HB3	35:1d:152:SER:HB2	1.83	0.59
47:1p:22:THR:HA	47:1p:33:ILE:HG13	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2303:G:O2'	6:2G:132:ASN:HB2	2.03	0.59
16:2U:49:HIS:HA	16:2U:52:ARG:HB3	1.84	0.59
32:2a:434:U:H2'	32:2a:435:C:C6	2.37	0.59
33:2b:88:ALA:HB2	33:2b:219:VAL:HG13	1.84	0.59
1:1A:630:U:OP1	5:1F:102:PRO:HA	2.03	0.59
1:1A:2402:U:P	30:18:35:GLN:HE22	2.26	0.59
3:1D:145:VAL:HG12	3:1D:146:GLU:O	2.02	0.59
5:1F:116:ASP:OD2	11:1P:1:MET:HB3	2.01	0.59
14:1S:15:ARG:O	14:1S:19:LYS:HG2	2.02	0.59
32:1a:947:G:H2'	32:1a:948:C:O4'	2.03	0.59
32:1a:1071:C:H2'	32:1a:1072:G:H8	1.64	0.59
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.37	0.59
44:1m:15:VAL:HG13	44:1m:43:THR:O	2.02	0.59
4:2E:28:ALA:HB3	4:2E:93:VAL:HG12	1.85	0.59
32:2a:35:G:O2'	43:2l:118:SER:O	2.19	0.59
40:2i:45:ALA:HA	40:2i:48:GLU:HB2	1.83	0.59
32:1a:1125:U:H4'	41:1j:5:ARG:NH2	2.18	0.59
34:1c:47:LEU:HB2	34:1c:52:LEU:HD22	1.83	0.59
38:1g:62:PHE:HA	38:1g:124:LEU:HD22	1.84	0.59
47:1p:42:ARG:HB3	47:1p:44:THR:HG23	1.84	0.59
1:2A:27:G:O2'	1:2A:28:A:OP2	2.20	0.59
1:2A:2126:A:H4'	1:2A:2127:G:O5'	2.03	0.59
6:2G:28:VAL:O	6:2G:31:VAL:HG13	2.02	0.59
25:23:18:ASP:OD1	25:23:18:ASP:N	2.33	0.59
33:2b:16:HIS:HB2	33:2b:204:ASN:CB	2.30	0.59
1:1A:2219:U:H1'	1:1A:2220:A:C8	2.38	0.59
35:1d:196:LEU:HD12	35:1d:196:LEU:H	1.66	0.59
47:1p:75:ARG:O	47:1p:78:GLY:N	2.29	0.59
50:1s:12:ASP:O	50:1s:14:HIS:N	2.34	0.59
51:1t:14:LYS:O	51:1t:18:GLN:HG3	2.02	0.59
1:2A:214:G:O2'	1:2A:216:A:O2'	2.18	0.59
1:2A:1653:G:C4	13:2R:9:LYS:HD2	2.37	0.59
6:2G:80:PHE:O	6:2G:82:LEU:N	2.35	0.59
12:2Q:38:GLU:HA	12:2Q:99:PRO:HG3	1.85	0.59
41:2j:32:ALA:HB1	41:2j:33:GLN:HA	1.85	0.59
51:2t:33:ILE:O	51:2t:37:SER:OG	2.17	0.59
1:1A:268:G:H5'	23:11:81:LYS:HE3	1.84	0.59
1:1A:348:A:H5''	59:1A:4258:HOH:O	2.02	0.59
1:1A:886:U:H1'	1:1A:1236:G:H1'	1.85	0.59
1:1A:1836:U:O2	3:1D:50:THR:HB	2.02	0.59
12:1Q:32:TYR:CZ	12:1Q:111:GLU:HG3	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:1m:49:THR:HB	44:1m:52:GLU:H	1.67	0.59
1:2A:1063:G:H1	1:2A:1075:C:H42	1.49	0.59
1:2A:1843:C:H5'	3:2D:253:GLN:HE22	1.67	0.59
2:2B:66:A:H61	2:2B:109:C:H5'	1.66	0.59
3:2D:71:ASP:OD2	3:2D:103:ARG:NH2	2.32	0.59
32:2a:834:C:H2'	32:2a:835:U:H6	1.67	0.59
32:2a:1286:A:H2'	32:2a:1287:A:H4'	1.85	0.59
1:1A:2102:G:H5'	23:11:35:THR:HG23	1.84	0.59
21:1Z:144:LEU:HD21	21:1Z:150:LEU:HD13	1.84	0.59
32:1a:169:C:H2'	32:1a:170:U:C6	2.37	0.59
32:1a:437:U:H5'	35:1d:155:LEU:HD21	1.83	0.59
6:2G:11:TYR:CZ	6:2G:16:ARG:HD3	2.38	0.59
32:2a:300:A:O2'	32:2a:564:C:N3	2.27	0.59
32:2a:976:G:H5'	32:2a:1358:U:O2'	2.03	0.59
32:2a:1190:G:H5'	34:2c:176:HIS:CE1	2.36	0.59
32:2a:1269:A:N1	32:2a:1312:G:O2'	2.30	0.59
33:2b:19:HIS:HE1	33:2b:206:ASP:HB2	1.65	0.59
1:1A:642:G:OP2	5:1F:106:ARG:NH1	2.35	0.59
1:1A:1221:G:H1'	1:1A:1222:A:H5'	1.84	0.59
1:1A:1873:G:O2'	3:1D:253:GLN:NE2	2.36	0.59
15:1T:56:GLY:O	15:1T:59:THR:HG23	2.02	0.59
32:1a:149:A:N6	32:1a:172:A:H62	2.00	0.59
32:1a:1014:A:C2	32:1a:1219:U:H1'	2.38	0.59
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.37	0.59
1:2A:1080:C:C5	1:2A:1088:A:H2	2.21	0.59
1:2A:2693:A:H2'	1:2A:2694:G:H8	1.67	0.59
7:2H:11:VAL:HG11	59:2H:301:HOH:O	2.02	0.59
39:2h:6:ILE:HB	39:2h:85:ARG:NH1	2.18	0.59
3:1D:13:ARG:NH1	3:1D:16:MET:SD	2.75	0.58
7:1H:41:MET:CE	7:1H:65:HIS:HA	2.32	0.58
32:1a:406:G:N2	35:1d:119:GLN:HE22	2.01	0.58
32:1a:1095:U:OP1	32:1a:1108:G:N2	2.31	0.58
42:1k:34:ASP:HB3	42:1k:40:ILE:HD11	1.85	0.58
48:1q:22:LEU:HD11	48:1q:39:SER:HB2	1.83	0.58
1:2A:644:A:H4'	1:2A:645:C:H5	1.67	0.58
15:2T:125:ARG:NH1	32:2a:1443:G:H5'	2.18	0.58
32:2a:601:C:H2'	32:2a:602:A:H8	1.68	0.58
33:2b:71:VAL:HG23	33:2b:164:VAL:HG13	1.85	0.58
1:1A:53:G:O2'	29:17:35:ARG:HD3	2.04	0.58
1:1A:2023:A:H2'	1:1A:2024:G:C8	2.37	0.58
16:1U:81:HIS:CE1	16:1U:85:LYS:HD3	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:53:ASP:HB3	35:1d:57:ARG:HH12	1.68	0.58
1:2A:602:G:O2'	1:2A:655:A:N6	2.36	0.58
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.18	0.58
32:2a:1205:U:O2'	34:2c:195:VAL:HG23	2.04	0.58
37:2f:69:GLU:O	37:2f:72:VAL:HG12	2.03	0.58
43:2l:53:ARG:HG3	43:2l:93:LEU:HD21	1.85	0.58
1:1A:1405:A:N1	1:1A:1418:U:C4	2.69	0.58
32:1a:396:G:O2'	32:1a:398:C:OP1	2.21	0.58
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.38	0.58
1:2A:1266:G:O2'	1:2A:2012:G:O6	2.16	0.58
26:24:44:THR:O	26:24:46:GLN:N	2.37	0.58
32:2a:56:U:H2'	32:2a:57:G:C8	2.39	0.58
32:2a:1118:C:OP1	40:2i:9:ARG:HD2	2.03	0.58
34:2c:6:HIS:HB3	45:2n:49:HIS:ND1	2.18	0.58
18:1W:18:ARG:NH1	18:1W:76:VAL:O	2.36	0.58
32:1a:973:G:OP1	41:1j:57:LYS:NZ	2.28	0.58
32:1a:1073:U:O2'	33:1b:104:ASN:OD1	2.21	0.58
38:1g:79:ARG:HA	38:1g:84:ASN:HA	1.86	0.58
39:1h:11:THR:HG22	39:1h:15:ASN:ND2	2.19	0.58
41:1j:38:ILE:HD11	41:1j:71:LEU:HB3	1.85	0.58
1:2A:1637:A:H4'	1:2A:2711:A:O2'	2.04	0.58
7:2H:3:ARG:HE	7:2H:54:ARG:HH12	1.52	0.58
12:2Q:110:THR:HG23	12:2Q:113:GLN:OE1	2.03	0.58
30:28:63:PRO:HG2	30:28:64:TYR:CE2	2.38	0.58
34:2c:121:ALA:HB1	34:2c:189:ALA:HB2	1.85	0.58
40:2i:53:VAL:HG11	40:2i:92:TYR:CE1	2.38	0.58
1:1A:2136:A:H1'	1:1A:2190:G:H5'	1.85	0.58
42:1k:44:SER:OG	42:1k:47:VAL:HG23	2.03	0.58
1:2A:839:U:H1'	1:2A:1191:G:H1'	1.84	0.58
1:2A:1653:G:C6	13:2R:9:LYS:HB2	2.39	0.58
15:2T:117:ASP:OD2	15:2T:120:ARG:NE	2.29	0.58
19:2X:31:HIS:CD2	19:2X:33:LYS:H	2.19	0.58
32:2a:627:G:H2'	32:2a:628:G:H8	1.66	0.58
33:2b:145:LEU:HD23	33:2b:149:LEU:HD12	1.84	0.58
32:2a:273:A:H1'	48:2q:16:GLN:NE2	2.18	0.58
32:2a:273:A:H1'	48:2q:16:GLN:HE21	1.68	0.58
35:2d:119:GLN:HG3	35:2d:123:HIS:CD2	2.39	0.58
1:1A:1112:U:C2	1:1A:1113:A:N1	2.71	0.58
1:1A:1831:C:OP1	3:1D:260:ARG:NH2	2.37	0.58
19:1X:57:LEU:CD1	19:1X:78:LYS:HG2	2.34	0.58
32:1a:321:A:C2	32:1a:333:G:C2	2.91	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1019:C:H2'	32:1a:1020:U:O4'	2.03	0.58
33:1b:36:ARG:O	33:1b:38:GLY:N	2.32	0.58
39:1h:49:GLU:HG2	39:1h:62:TYR:HE2	1.69	0.58
1:2A:71:A:N7	19:2X:31:HIS:HE1	2.01	0.58
1:2A:900:A:H2'	1:2A:901:A:H8	1.69	0.58
1:2A:2112:G:H2'	1:2A:2113:U:C6	2.38	0.58
34:2c:58:GLU:HB3	41:2j:92:THR:HG21	1.86	0.58
53:2x:63:ALA:HB2	53:2x:84:GLN:NE2	2.19	0.58
1:1A:2149:G:N2	1:1A:2195:A:H1'	2.16	0.58
1:1A:2451:A:C8	1:1A:2451:A:H5'	2.38	0.58
1:1A:2605:U:H2'	1:1A:2606:C:C6	2.39	0.58
8:1I:72:LEU:O	8:1I:74:ASN:N	2.30	0.58
32:1a:262:A:H2'	32:1a:263:A:C8	2.38	0.58
32:1a:456:C:H2'	32:1a:457:C:H6	1.69	0.58
1:2A:1062:G:C2'	1:2A:1063:G:H5'	2.34	0.58
1:2A:1557:C:H5''	1:2A:1558:A:OP2	2.04	0.58
1:2A:2168:G:O2'	1:2A:2170:A:N6	2.31	0.58
2:2B:75:G:H22	21:2Z:73:GLN:NE2	2.02	0.58
32:2a:402:G:O2'	32:2a:620:C:N3	2.36	0.58
32:2a:728:A:H2'	32:2a:729:A:C8	2.39	0.58
36:2e:139:LEU:HA	36:2e:142:LEU:HD12	1.86	0.58
1:1A:611:U:H2'	1:1A:612:C:C6	2.38	0.58
1:1A:2324:U:H5'	6:1G:88:ILE:HD11	1.86	0.58
6:1G:50:ALA:O	6:1G:52:ILE:N	2.37	0.58
6:1G:139:LEU:HD21	6:1G:149:VAL:HG11	1.85	0.58
32:1a:1346:A:H5''	40:1i:120:ARG:NH1	2.18	0.58
1:2A:1076:C:H4'	1:2A:1077:A:OP1	2.03	0.58
1:2A:1784:A:H4'	1:2A:1785:A:O5'	2.04	0.58
4:2E:116:VAL:HG13	4:2E:122:PHE:HB2	1.86	0.58
32:2a:988:G:H8	32:2a:988:G:O5'	1.85	0.58
1:1A:233:A:C2	1:1A:244:A:C4	2.92	0.57
1:1A:1701:A:OP1	13:1R:1:MET:N	2.35	0.57
1:1A:2457:G:OP1	5:1F:74:ARG:NH2	2.36	0.57
1:1A:2623:U:C4	27:15:3:LYS:HG2	2.39	0.57
32:1a:493:G:N2	32:1a:494:U:O4	2.37	0.57
32:1a:965:A:OP2	53:1x:8:LYS:NZ	2.37	0.57
32:1a:1157:A:H4'	32:1a:1158:C:O5'	2.04	0.57
40:1i:9:ARG:HB2	40:1i:104:ARG:HE	1.69	0.57
16:2U:89:GLU:HG2	17:2V:50:PRO:HB3	1.86	0.57
38:2g:111:ARG:NH1	38:2g:113:GLU:OE2	2.33	0.57
3:1D:102:LYS:C	3:1D:103:ARG:HG2	2.28	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:1H:30:LYS:HD2	7:1H:80:SER:O	2.03	0.57
8:1I:40:THR:O	8:1I:44:LEU:HB2	2.03	0.57
21:1Z:152:ALA:O	21:1Z:155:LEU:HB2	2.03	0.57
32:1a:826:C:H4'	39:1h:12:ARG:HG2	1.86	0.57
32:1a:969:A:OP1	41:1j:55:LYS:NZ	2.32	0.57
34:1c:157:ILE:HG22	34:1c:164:ARG:HH21	1.68	0.57
43:1l:83:VAL:HG13	43:1l:100:ILE:HG23	1.86	0.57
1:2A:2502:G:H5''	1:2A:2503:2MA:H5'	1.85	0.57
3:2D:71:ASP:HB3	3:2D:103:ARG:NH2	2.19	0.57
13:2R:55:ALA:HB2	13:2R:79:LEU:HD13	1.85	0.57
21:2Z:2:GLU:HG2	21:2Z:56:VAL:HB	1.86	0.57
32:2a:255:G:H2'	32:2a:256:U:H6	1.69	0.57
32:2a:474:G:H2'	32:2a:475:G:C8	2.34	0.57
32:2a:1125:U:H5	32:2a:1280:A:C8	2.22	0.57
33:2b:111:ARG:HH11	33:2b:111:ARG:HA	1.68	0.57
35:2d:88:VAL:O	35:2d:92:VAL:HG23	2.05	0.57
41:2j:33:GLN:HB2	41:2j:75:ILE:CB	2.34	0.57
47:2p:28:ARG:NH1	47:2p:29:ASP:OD2	2.37	0.57
6:1G:77:ILE:N	6:1G:82:LEU:O	2.37	0.57
36:1e:77:PRO:HD2	36:1e:142:LEU:HD22	1.86	0.57
38:1g:27:ILE:HD12	38:1g:40:ALA:HA	1.86	0.57
46:1o:25:THR:HG21	46:1o:70:LEU:HB2	1.85	0.57
47:1p:19:ILE:HG22	47:1p:37:GLY:C	2.30	0.57
1:2A:478:A:N1	1:2A:500:G:H4'	2.19	0.57
3:2D:85:ASP:OD2	3:2D:88:ARG:HD2	2.04	0.57
7:2H:20:ALA:HB1	7:2H:21:PRO:HD2	1.87	0.57
15:2T:51:ARG:HG3	15:2T:98:LYS:HD2	1.87	0.57
17:2V:25:LEU:H	17:2V:92:THR:HG1	1.53	0.57
21:2Z:108:PRO:HA	21:2Z:142:SER:HA	1.87	0.57
32:2a:410:G:H5''	32:2a:411:A:OP1	2.03	0.57
32:2a:1125:U:C5	32:2a:1280:A:N7	2.72	0.57
32:2a:1356:G:H2'	32:2a:1357:A:C8	2.39	0.57
32:2a:1391:U:H2'	32:2a:1392:G:C8	2.39	0.57
34:2c:50:ALA:HB1	34:2c:70:VAL:HG21	1.86	0.57
34:2c:58:GLU:HG2	41:2j:92:THR:OG1	2.04	0.57
36:2e:77:PRO:HD2	36:2e:142:LEU:HD22	1.84	0.57
40:2i:19:LEU:HD12	40:2i:84:ALA:HB3	1.84	0.57
50:2s:41:VAL:HB	50:2s:44:MET:HE3	1.86	0.57
1:1A:1102:G:H1'	1:1A:1149:A:N6	2.19	0.57
4:1E:143:ASN:HD22	4:1E:147:PRO:HD3	1.69	0.57
32:1a:973:G:H3'	32:1a:974:A:H5''	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1q:31:LEU:HD23	48:1q:32:TYR:CZ	2.39	0.57
49:1r:73:ALA:HB3	49:1r:79:LEU:HD12	1.87	0.57
1:2A:2147:G:H2'	1:2A:2148:G:O4'	2.05	0.57
11:2P:126:VAL:HG12	11:2P:148:LEU:HD23	1.87	0.57
32:2a:390:C:H2'	32:2a:391:G:C8	2.39	0.57
32:2a:1003:G:N3	32:2a:1004:A:O4'	2.37	0.57
32:1a:7:G:H5'	32:1a:298:A:O4'	2.05	0.57
1:2A:1030:G:OP2	12:2Q:128:LYS:NZ	2.29	0.57
1:2A:2390:U:P	30:28:35:GLN:HE22	2.27	0.57
6:2G:122:PRO:HB3	6:2G:170:ARG:NH1	2.20	0.57
32:2a:1218:C:OP2	45:2n:9:LYS:NZ	2.28	0.57
1:1A:1110:C:H3'	1:1A:1111:U:C5'	2.29	0.57
1:1A:1935:A:N1	32:1a:1492:A:N3	2.52	0.57
1:1A:2304:C:P	14:1S:17:ARG:HH21	2.27	0.57
6:1G:126:ASP:HB3	6:1G:128:ARG:H	1.68	0.57
11:1P:63:PRO:HG2	30:18:25:MET:HB2	1.86	0.57
1:2A:309:G:N3	1:2A:329:G:O2'	2.38	0.57
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.70	0.57
32:2a:38:G:H22	32:2a:397:A:C5'	2.16	0.57
32:2a:1278:U:H5'	32:2a:1279:A:O4'	2.05	0.57
51:2t:80:ARG:HG3	51:2t:80:ARG:NH1	2.12	0.57
1:1A:1132:A:H4'	1:1A:1149:A:C2	2.39	0.57
7:1H:3:ARG:NH1	7:1H:4:ILE:H	2.02	0.57
10:1O:64:ARG:HB2	10:1O:79:PHE:CD2	2.40	0.57
16:1U:59:ARG:HH11	16:1U:59:ARG:HB3	1.69	0.57
24:12:9:GLN:HE22	24:12:56:GLN:HB3	1.69	0.57
27:15:11:THR:HG23	27:15:15:ARG:HB3	1.86	0.57
32:1a:376:G:H5''	47:1p:5:ARG:HD2	1.86	0.57
32:1a:472:A:H4'	47:1p:80:PHE:O	2.05	0.57
32:1a:986:A:H1'	50:1s:54:GLY:O	2.04	0.57
32:1a:1513:A:H2'	32:1a:1514:C:C6	2.39	0.57
33:1b:187:LEU:HA	33:1b:201:ILE:HB	1.87	0.57
1:2A:2113:U:O4	1:2A:2168:G:H4'	2.03	0.57
23:21:77:ALA:HB2	23:21:94:LEU:HD21	1.86	0.57
32:2a:657:G:H4'	46:2o:28:GLN:HG3	1.87	0.57
32:2a:659:U:H2'	32:2a:660:G:H8	1.69	0.57
1:1A:310:C:H2'	1:1A:311:C:C6	2.40	0.57
1:1A:2348:A:H61	22:10:43:THR:CG2	2.18	0.57
1:2A:531:C:H5'	59:2A:4566:HOH:O	2.04	0.57
14:2S:52:SER:HB2	14:2S:55:ALA:H	1.68	0.57
22:20:24:LYS:O	22:20:25:ARG:HD3	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:417:C:H42	32:2a:426:G:H1	1.53	0.57
35:2d:91:SER:O	35:2d:94:LEU:N	2.38	0.57
32:1a:193:C:H2'	32:1a:194:C:C6	2.39	0.57
32:1a:1305:G:H22	32:1a:1331:G:H1'	1.69	0.57
28:26:13:CYS:SG	28:26:47:THR:HG21	2.45	0.57
32:2a:1286:A:C8	32:2a:1287:A:H4'	2.40	0.57
46:2o:54:ARG:HG2	46:2o:58:MET:HE2	1.86	0.57
3:1D:130:ALA:C	3:1D:131:LEU:HD12	2.29	0.57
9:1N:71:ILE:HG21	9:1N:84:LYS:HB3	1.86	0.57
17:1V:1:MET:HE2	17:1V:43:GLU:H	1.70	0.57
18:1W:2:GLU:OE2	18:1W:72:LYS:NZ	2.19	0.57
27:15:57:VAL:HG12	27:15:58:LEU:HB3	1.87	0.57
32:1a:1292:U:P	38:1g:41:ARG:HH22	2.28	0.57
35:1d:108:LEU:HB3	35:1d:110:PHE:CE1	2.39	0.57
41:1j:50:ILE:HA	41:1j:60:ARG:HD3	1.87	0.57
46:1o:17:ARG:HH11	46:1o:17:ARG:HG3	1.69	0.57
1:2A:1079:C:C5	1:2A:1080:C:H1'	2.40	0.57
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.40	0.57
47:2p:6:LEU:HD23	47:2p:17:TYR:CG	2.40	0.57
7:1H:86:GLU:OE2	7:1H:132:ARG:NH2	2.37	0.56
10:1O:64:ARG:HB2	10:1O:79:PHE:CG	2.40	0.56
39:1h:119:LEU:HB3	39:1h:123:GLU:HB2	1.87	0.56
1:2A:1184:G:OP1	25:23:30:ARG:NH1	2.36	0.56
1:2A:2103:C:N3	1:2A:2186:G:N1	2.53	0.56
26:24:41:PRO:HG3	26:24:49:PHE:CE2	2.40	0.56
32:2a:744:C:O2'	32:2a:851:G:N2	2.37	0.56
32:2a:1387:G:H2'	32:2a:1388:C:C6	2.40	0.56
33:2b:146:GLN:O	33:2b:150:SER:HB3	2.05	0.56
35:2d:15:GLU:OE2	35:2d:66:ARG:NH1	2.38	0.56
41:2j:38:ILE:HD11	41:2j:71:LEU:HD22	1.85	0.56
3:1D:85:ASP:OD2	3:1D:88:ARG:HD2	2.06	0.56
14:1S:17:ARG:CG	14:1S:17:ARG:HH11	2.18	0.56
32:1a:443:C:H2'	32:1a:444:C:C6	2.40	0.56
32:1a:1343:G:H2'	32:1a:1344:C:C6	2.40	0.56
33:1b:192:SER:O	33:1b:194:PRO:HD3	2.04	0.56
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.87	0.56
1:2A:1065:U:H4'	1:2A:1066:U:C5'	2.34	0.56
1:2A:2134:A:N7	1:2A:2156:G:H2'	2.19	0.56
32:2a:404:U:H2'	32:2a:405:U:C6	2.40	0.56
1:1A:2589:A:H5'	27:15:3:LYS:HD2	1.87	0.56
1:1A:2803:A:H5'	1:1A:2804:C:H5''	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:1P:100:LEU:HD12	11:1P:112:LEU:HD11	1.87	0.56
32:1a:134:A:H61	47:1p:25:ARG:NH1	2.04	0.56
32:1a:452:A:H4'	47:1p:72:ARG:NH1	2.19	0.56
32:1a:966:M2G:H1'	53:1x:53:THR:HG21	1.86	0.56
32:1a:1004:A:H3'	32:1a:1005:A:O4'	2.06	0.56
32:1a:1347:G:N2	32:1a:1373:G:H2'	2.20	0.56
36:1e:74:GLY:HA3	36:1e:116:THR:HG22	1.86	0.56
1:2A:98:G:H5'	24:22:3:LEU:HD23	1.86	0.56
1:2A:455:C:N3	1:2A:472:A:H2'	2.20	0.56
1:2A:579:G:H2'	1:2A:580:C:C6	2.40	0.56
1:2A:2529:G:O6	31:29:31:LYS:NZ	2.38	0.56
2:2B:7:G:H3'	2:2B:8:U:H5''	1.88	0.56
3:2D:71:ASP:CG	3:2D:103:ARG:HH22	2.13	0.56
6:2G:16:ARG:O	6:2G:20:ILE:HG13	2.06	0.56
7:2H:124:GLU:OE1	7:2H:132:ARG:HD2	2.05	0.56
32:2a:108:G:N1	51:2t:15:ARG:HG2	2.20	0.56
32:2a:509:A:C8	32:2a:509:A:H3'	2.40	0.56
32:2a:874:G:H2'	32:2a:875:C:H6	1.69	0.56
33:2b:10:LEU:HD13	33:2b:48:MET:HE1	1.87	0.56
41:2j:22:LYS:O	41:2j:26:ALA:N	2.29	0.56
42:2k:23:ALA:O	42:2k:86:GLY:HA3	2.05	0.56
44:2m:16:ASP:HB3	44:2m:34:LEU:HD11	1.87	0.56
50:2s:39:THR:HG22	50:2s:40:ILE:O	2.05	0.56
1:1A:272:U:H4'	8:1I:50:ARG:NH2	2.16	0.56
1:1A:2146:G:H2'	1:1A:2147:G:H5'	1.87	0.56
5:1F:184:TYR:CE2	5:1F:188:ARG:HD2	2.41	0.56
24:12:32:LEU:HD22	24:12:36:ARG:NH1	2.20	0.56
32:1a:1262:C:H2'	32:1a:1263:C:C6	2.40	0.56
1:2A:55:G:O2'	1:2A:127:A:N1	2.35	0.56
1:2A:243:U:OP1	30:28:6:THR:OG1	2.22	0.56
8:2I:29:TYR:CD2	8:2I:30:LEU:HD23	2.40	0.56
48:2q:41:LYS:HZ3	48:2q:92:ARG:HH21	1.53	0.56
1:1A:1813:C:H1'	1:1A:2621:U:H5''	1.86	0.56
1:1A:2054:G:H1'	4:1E:145:LYS:HD3	1.88	0.56
1:2A:2683:C:OP1	15:2T:53:ARG:NH2	2.38	0.56
3:2D:71:ASP:HB3	3:2D:103:ARG:HH22	1.70	0.56
7:2H:3:ARG:NH1	7:2H:4:ILE:H	2.04	0.56
16:2U:85:LYS:HZ2	16:2U:117:GLN:HA	1.70	0.56
53:2x:61:LEU:HB3	53:2x:81:LEU:HD22	1.88	0.56
1:1A:721:G:H1'	5:1F:74:ARG:HD3	1.87	0.56
1:1A:1131:A:O2'	1:1A:1150:C:O2'	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:98:LEU:HB2	33:1b:101:MET:HE3	1.88	0.56
21:2Z:19:ARG:NH1	21:2Z:84:GLU:HB2	2.21	0.56
32:2a:1253:G:H2'	32:2a:1254:C:C6	2.41	0.56
33:2b:74:LYS:HE3	33:2b:166:ASP:HB2	1.88	0.56
35:2d:191:ARG:HH21	35:2d:200:GLU:CD	2.14	0.56
37:2f:97:PHE:HB2	49:2r:32:ARG:NH1	2.21	0.56
46:2o:6:GLU:OE1	46:2o:6:GLU:N	2.36	0.56
50:2s:32:LYS:HA	50:2s:50:ALA:HB3	1.86	0.56
1:1A:2417:G:O2'	1:1A:2418:U:OP1	2.15	0.56
13:1R:38:VAL:HG22	13:1R:112:ALA:HB2	1.88	0.56
42:1k:48:ILE:HD13	42:1k:63:LEU:HD12	1.87	0.56
1:2A:438:G:H2'	1:2A:440:G:H8	1.71	0.56
1:2A:644:A:H4'	1:2A:645:C:C5	2.40	0.56
1:2A:1688:U:O2	1:2A:1700:A:H5'	2.06	0.56
8:2I:104:GLN:HG3	8:2I:105:HIS:H	1.70	0.56
32:2a:1207:2MG:H2'	32:2a:1208:C:C6	2.41	0.56
1:1A:1107:U:H1'	1:1A:1116:A:H1'	1.87	0.56
1:1A:2044:U:O2'	1:1A:2629:C:H5'	2.05	0.56
1:1A:2762:A:OP1	7:1H:3:ARG:NH1	2.39	0.56
32:1a:1002:G:O6	32:1a:1003:G:N2	2.38	0.56
35:1d:128:VAL:HG12	35:1d:129:ASN:HD22	1.71	0.56
48:1q:62:SER:OG	48:1q:72:ARG:HG3	2.05	0.56
1:2A:236:C:H2'	1:2A:237:C:C6	2.41	0.56
1:2A:555:U:O2'	1:2A:556:G:N7	2.33	0.56
1:2A:1048:A:C2	1:2A:1112:G:N3	2.74	0.56
1:2A:1170:G:H5''	1:2A:1170:G:H8	1.70	0.56
1:2A:2315:G:H2'	1:2A:2316:C:C6	2.41	0.56
1:2A:2867:G:OP2	15:2T:119:LYS:NZ	2.38	0.56
13:2R:36:THR:HG22	13:2R:37:THR:H	1.70	0.56
14:2S:95:HIS:CG	14:2S:96:GLY:N	2.73	0.56
32:2a:1002:G:C4	32:2a:1003:G:H8	2.24	0.56
32:2a:1129:C:H4'	40:2i:16:ARG:HH22	1.71	0.56
32:2a:1323:G:H4'	32:2a:1363:C:N3	2.20	0.56
36:2e:100:VAL:HG22	36:2e:118:ILE:HG22	1.88	0.56
1:1A:1338:U:H2'	1:1A:1339:C:C6	2.41	0.56
5:1F:129:PHE:HB3	5:1F:132:VAL:HG13	1.88	0.56
41:1j:38:ILE:HG12	41:1j:71:LEU:O	2.05	0.56
1:2A:1057:A:N7	1:2A:1086:A:H2'	2.21	0.56
1:2A:1359:A:H61	1:2A:1372:U:H3	1.53	0.56
21:2Z:179:ASP:O	21:2Z:182:LYS:HG2	2.05	0.56
26:24:59:PHE:HA	26:24:60:GLN:C	2.30	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1005:A:C6	32:2a:1024:G:N2	2.73	0.56
32:2a:1005:A:O5'	32:2a:1005:A:H8	1.89	0.56
32:2a:1333:A:H2'	32:2a:1334:G:O4'	2.05	0.56
1:1A:943:C:H2'	1:1A:944:C:H6	1.69	0.56
1:1A:1874:C:H5'	3:1D:253:GLN:NE2	2.21	0.56
4:1E:47:VAL:HG23	4:1E:84:PHE:O	2.06	0.56
4:1E:73:GLU:N	4:1E:73:GLU:OE2	2.39	0.56
12:1Q:59:ARG:HG2	12:1Q:59:ARG:NH1	2.18	0.56
32:1a:406:G:H21	35:1d:119:GLN:HE22	1.53	0.56
35:1d:108:LEU:HB3	35:1d:110:PHE:HE1	1.69	0.56
40:1i:114:TYR:H	40:1i:114:TYR:HD2	1.53	0.56
51:1t:61:SER:O	51:1t:65:LYS:HG3	2.06	0.56
1:2A:1064:C:H1'	1:2A:1076:C:C5	2.41	0.56
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.41	0.56
7:2H:3:ARG:HH11	7:2H:4:ILE:H	1.54	0.56
32:2a:450:G:OP1	47:2p:43:LYS:NZ	2.39	0.56
32:2a:1071:C:H2'	32:2a:1072:G:C8	2.39	0.56
1:1A:116:A:C8	1:1A:117:A:C8	2.94	0.55
1:1A:509:A:H5''	20:1Y:50:ARG:HD3	1.87	0.55
32:1a:184:G:H2'	32:1a:185:A:H8	1.71	0.55
32:1a:437:U:O2'	35:1d:125:HIS:HE1	1.89	0.55
32:1a:456:C:H2'	32:1a:457:C:C6	2.40	0.55
32:1a:719:C:O2'	49:1r:50:ILE:O	2.24	0.55
32:1a:1149:C:H2'	32:1a:1150:U:C6	2.40	0.55
32:1a:1329:A:OP2	52:1u:7:ARG:NH2	2.39	0.55
33:1b:24:TRP:CZ3	33:1b:26:PRO:HA	2.41	0.55
33:1b:158:LEU:HD21	33:1b:180:LEU:HD13	1.88	0.55
1:2A:1016:G:H2'	1:2A:1017:G:H8	1.71	0.55
1:2A:1669:A:H5''	1:2A:2550:G:OP1	2.06	0.55
8:2I:69:LYS:HE3	8:2I:73:GLU:OE2	2.06	0.55
14:2S:105:ALA:HB1	14:2S:110:LEU:HD23	1.88	0.55
32:2a:546:G:OP1	35:2d:73:ARG:HG2	2.06	0.55
32:2a:627:G:H2'	32:2a:628:G:C8	2.41	0.55
8:1I:129:THR:HA	8:1I:138:ILE:O	2.06	0.55
32:1a:189:G:C6	32:1a:189(L):G:N1	2.74	0.55
32:1a:1239:A:H62	32:1a:1299:A:N6	2.03	0.55
33:1b:80:ILE:HG13	33:1b:80:ILE:O	2.06	0.55
1:2A:2166:G:H22	1:2A:2172:U:H5	1.52	0.55
1:2A:2847:U:OP1	15:2T:98:LYS:NZ	2.35	0.55
12:2Q:111:GLU:O	12:2Q:115:MET:HG2	2.06	0.55
32:2a:642:A:N3	39:2h:113:SER:OG	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:678:U:H2'	32:2a:679:C:C6	2.42	0.55
32:2a:1216:G:H5''	45:2n:5:ALA:HB2	1.88	0.55
33:2b:18:GLY:HA2	33:2b:42:ILE:HG13	1.87	0.55
37:2f:61:LEU:HD23	37:2f:63:TYR:OH	2.05	0.55
39:2h:73:ASP:OD1	39:2h:75:ARG:HG3	2.05	0.55
1:1A:2343:G:O2'	22:10:43:THR:HG22	2.05	0.55
3:1D:108:PRO:HG3	3:1D:143:HIS:CE1	2.42	0.55
32:1a:343:U:O2	32:1a:346:G:O6	2.25	0.55
32:1a:1010:G:H22	32:1a:1020:U:H1'	1.71	0.55
32:1a:1286:A:H2'	32:1a:1287:A:H4'	1.89	0.55
35:1d:107:ARG:NH2	35:1d:194:LEU:HD21	2.12	0.55
44:1m:5:ALA:HB2	44:1m:61:GLU:HG2	1.87	0.55
33:2b:77:ALA:O	33:2b:81:VAL:HG12	2.05	0.55
46:2o:83:GLU:HG3	46:2o:84:LYS:N	2.20	0.55
1:1A:1261:G:P	16:1U:12:ARG:HH21	2.29	0.55
1:1A:1410:G:C8	23:11:3:LYS:HE2	2.41	0.55
35:1d:170:VAL:HG12	35:1d:174:LEU:HB2	1.89	0.55
44:1m:114:ARG:NH1	59:1m:301:HOH:O	2.40	0.55
1:2A:667:U:O2	30:28:2:PRO:HD2	2.06	0.55
1:2A:873:G:H2'	1:2A:874:G:H5''	1.87	0.55
1:2A:1847:A:H3'	1:2A:1848:A:H5'	1.87	0.55
1:1A:1093:G:HO2'	1:1A:1094:A:H8	1.52	0.55
1:1A:2133:C:H42	1:1A:2169:G:N2	2.04	0.55
1:1A:2156:A:H62	1:1A:2178:G:H2'	1.71	0.55
6:1G:7:LEU:HD13	6:1G:100:TRP:CE3	2.40	0.55
8:1I:130:TYR:HB3	8:1I:138:ILE:HB	1.88	0.55
32:1a:1070:U:OP1	36:1e:25:ARG:NH1	2.38	0.55
33:1b:17:PHE:HB3	33:1b:44:LEU:HD21	1.88	0.55
33:1b:134:GLU:OE2	33:1b:138:LEU:HD11	2.06	0.55
34:1c:6:HIS:HD2	34:1c:8:ILE:H	1.54	0.55
41:1j:61:GLU:OE2	45:1n:58:LYS:NZ	2.33	0.55
42:1k:91:ARG:NH1	42:1k:110:ASP:OD2	2.40	0.55
1:2A:1034:G:H5'	31:29:18:ARG:HD3	1.89	0.55
1:2A:1101:U:H2'	1:2A:1102:C:C6	2.41	0.55
1:2A:1816:G:O6	3:2D:35:LYS:NZ	2.35	0.55
32:2a:943:U:H1'	40:2i:124:GLN:HE22	1.72	0.55
44:2m:81:LEU:HD21	44:2m:88:ARG:HH21	1.71	0.55
1:1A:142:G:H4'	19:1X:35:THR:HG21	1.87	0.55
1:1A:659:C:H2'	1:1A:660:C:C6	2.41	0.55
32:1a:161:A:H2'	32:1a:162:A:C8	2.41	0.55
32:1a:402:G:O2'	32:1a:620:C:N3	2.35	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1124:G:N7	32:1a:1145:C:O2'	2.40	0.55
37:1f:41:GLU:HG2	37:1f:43:LEU:HD11	1.89	0.55
37:1f:60:PHE:C	37:1f:61:LEU:HD12	2.31	0.55
41:1j:64:GLU:HB3	45:1n:59:ALA:HB2	1.88	0.55
47:1p:74:LEU:O	47:1p:79:VAL:HG13	2.06	0.55
48:1q:67:LYS:O	48:1q:68:ARG:HB3	2.06	0.55
1:2A:1101:U:H2'	1:2A:1102:C:H6	1.72	0.55
1:2A:1364:G:P	23:21:3:LYS:HG3	2.47	0.55
1:2A:1889:A:N1	1:2A:2234:G:H1'	2.22	0.55
1:2A:2019:A:N7	27:25:9:LYS:HE2	2.20	0.55
1:2A:2119:A:C5	1:2A:2170:A:C6	2.95	0.55
18:2W:71:VAL:HA	18:2W:107:LEU:HD12	1.88	0.55
14:1S:11:LYS:HD3	14:1S:15:ARG:NH1	2.21	0.55
32:1a:193:C:H2'	32:1a:194:C:H6	1.71	0.55
32:1a:198:G:C6	32:1a:220:G:C2	2.94	0.55
35:1d:167:GLY:H	35:1d:168:ARG:HH12	1.55	0.55
41:1j:7:LYS:HB3	41:1j:97:GLU:HB2	1.88	0.55
1:2A:898:C:H2'	1:2A:899:A:O4'	2.07	0.55
1:2A:1069:A:C2	1:2A:1073:A:H5'	2.42	0.55
1:2A:2218:U:O4'	23:21:52:ARG:NH2	2.40	0.55
6:2G:125:PHE:HB3	6:2G:166:ASP:OD1	2.07	0.55
32:2a:255:G:H2'	32:2a:256:U:C6	2.42	0.55
32:2a:417:C:N4	32:2a:426:G:H1	2.05	0.55
33:2b:187:LEU:HA	33:2b:201:ILE:HB	1.89	0.55
1:1A:265:U:H2'	1:1A:266:C:C6	2.41	0.55
1:1A:302:A:O2'	1:1A:303:C:OP1	2.25	0.55
20:1Y:67:LEU:HD22	20:1Y:71:LYS:HD3	1.87	0.55
32:1a:659:U:H2'	32:1a:660:G:C8	2.41	0.55
33:1b:178:ARG:HG2	39:1h:72:PRO:HA	1.89	0.55
37:1f:5:GLU:HG3	37:1f:93:SER:OG	2.05	0.55
38:1g:14:PRO:HB3	38:1g:19:GLY:O	2.07	0.55
42:1k:31:THR:HA	42:1k:42:TRP:HA	1.87	0.55
1:2A:1365:A:O2'	23:21:11:ARG:NH1	2.40	0.55
1:2A:2557:G:H2'	1:2A:2558:C:C6	2.42	0.55
5:2F:53:THR:CG2	5:2F:55:GLY:H	2.20	0.55
14:2S:87:PHE:CZ	14:2S:102:ALA:HB2	2.42	0.55
32:2a:516:PSU:O2	32:2a:533:A:N7	2.40	0.55
33:2b:185:ILE:HA	33:2b:199:TYR:O	2.06	0.55
34:2c:71:ALA:CB	34:2c:109:PRO:HG3	2.37	0.55
40:2i:9:ARG:H	40:2i:79:LEU:HD23	1.72	0.55
49:2r:52:PRO:HB2	49:2r:54:ARG:HG3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:173:C:H2'	1:1A:174:U:C6	2.42	0.55
1:1A:1189:A:OP1	9:1N:25:ARG:NH2	2.40	0.55
1:1A:1425:A:H4'	1:1A:1426:G:OP2	2.06	0.55
32:1a:109:A:H2'	32:1a:326:G:N2	2.22	0.55
32:1a:1255:G:N7	41:1j:43:ARG:NH2	2.55	0.55
36:1e:102:ALA:HB1	36:1e:106:PRO:HG2	1.89	0.55
53:1x:74:ILE:O	53:1x:78:ILE:HG12	2.07	0.55
1:2A:607:U:OP1	5:2F:102:PRO:HA	2.07	0.55
1:2A:1085:A:H2'	1:2A:1086:A:C2	2.42	0.55
1:2A:1416:G:HO2'	1:2A:1417:C:H5	1.54	0.55
1:2A:2277:G:OP2	22:20:10:THR:HG21	2.07	0.55
11:2P:95:VAL:HG22	11:2P:125:VAL:HB	1.88	0.55
32:2a:977:A:O2'	32:2a:979:C:OP2	2.19	0.55
35:2d:43:HIS:ND1	35:2d:46:LYS:HD2	2.21	0.55
1:1A:354:A:H2	1:1A:1255:A:O2'	1.89	0.55
1:1A:1343:C:OP1	1:1A:2722:C:H4'	2.06	0.55
2:1B:103:G:H21	21:1Z:73:GLN:NE2	2.02	0.55
32:1a:922:G:C6	32:1a:923:A:C6	2.95	0.55
32:1a:1014:A:H4'	50:1s:14:HIS:CE1	2.42	0.55
32:1a:1317:C:OP2	45:1n:17:LYS:HE3	2.06	0.55
37:1f:60:PHE:CE2	49:1r:78:LEU:HD21	2.42	0.55
40:1i:29:ASN:N	40:1i:63:ILE:O	2.39	0.55
1:2A:897:C:H6	1:2A:897:C:O5'	1.90	0.55
1:2A:1056:G:H4'	1:2A:1086:A:C8	2.39	0.55
17:2V:24:LYS:HA	17:2V:92:THR:OG1	2.06	0.55
20:2Y:8:LYS:HD3	20:2Y:97:ARG:NH2	2.23	0.55
32:2a:36:C:OP1	43:2l:123:LYS:HE3	2.07	0.55
32:2a:417:C:H2'	32:2a:418:C:H6	1.72	0.55
32:2a:512:U:H2'	32:2a:513:C:H6	1.71	0.55
32:2a:673:G:H2'	32:2a:674:G:H8	1.68	0.55
32:2a:1103:C:OP1	33:2b:96:ARG:NH2	2.40	0.55
1:1A:264:G:C6	1:1A:265:U:C4	2.95	0.54
1:2A:1170:G:H5''	1:2A:1170:G:C8	2.42	0.54
1:2A:2291:U:H2'	1:2A:2292:C:C6	2.42	0.54
11:2P:63:PRO:HG2	30:28:25:MET:HB2	1.89	0.54
18:2W:18:ARG:NH1	18:2W:76:VAL:O	2.40	0.54
32:2a:1401:G:O6	53:2x:83:ARG:NH2	2.41	0.54
39:2h:121:ASP:HB2	39:2h:125:ARG:NH2	2.22	0.54
1:1A:97:G:P	24:12:2:LYS:HG2	2.48	0.54
1:1A:801:C:H2'	1:1A:802:C:C6	2.42	0.54
1:1A:1093:G:O2'	1:1A:1094:A:H8	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1539:C:H5	1:1A:2227:G:HO2'	1.54	0.54
1:1A:2096:U:H2'	1:1A:2097:U:C6	2.41	0.54
1:1A:2108:U:H2'	1:1A:2109:G:C8	2.43	0.54
4:1E:73:GLU:H	4:1E:73:GLU:CD	2.13	0.54
15:1T:51:ARG:HG3	15:1T:98:LYS:HD2	1.89	0.54
32:1a:195:A:C6	32:1a:196:A:N1	2.76	0.54
47:1p:53:VAL:HG13	47:1p:79:VAL:HG12	1.88	0.54
23:21:62:VAL:HG22	23:21:63:ALA:O	2.06	0.54
32:2a:1072:G:H2'	32:2a:1073:U:C6	2.42	0.54
48:2q:27:PHE:CZ	48:2q:36:ILE:HD11	2.42	0.54
1:1A:662:A:H2'	11:1P:117:GLU:OE1	2.07	0.54
1:1A:2240:G:OP1	3:1D:261:LYS:NZ	2.39	0.54
2:1B:8:U:O3'	14:1S:25:ARG:NH2	2.40	0.54
18:1W:65:LEU:HD12	18:1W:68:ARG:HE	1.71	0.54
20:1Y:30:VAL:HG22	20:1Y:37:VAL:HG12	1.89	0.54
32:1a:189:G:C4	32:1a:189(L):G:N2	2.75	0.54
32:1a:922:G:H4'	36:1e:20:GLN:HA	1.90	0.54
33:1b:146:GLN:O	33:1b:150:SER:HB3	2.07	0.54
39:1h:21:LYS:O	39:1h:65:TYR:OH	2.20	0.54
50:1s:39:THR:HG22	50:1s:40:ILE:O	2.07	0.54
1:2A:2163:C:OP2	1:2A:2164:C:N4	2.28	0.54
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.42	0.54
3:2D:221:VAL:HG22	3:2D:226:MET:CE	2.37	0.54
10:2O:119:PRO:HB2	15:2T:68:TYR:CE2	2.41	0.54
17:2V:29:PRO:HA	17:2V:61:VAL:HG23	1.90	0.54
32:2a:1157:A:H5'	32:2a:1158:C:C6	2.41	0.54
32:2a:1286:A:H8	32:2a:1287:A:H4'	1.73	0.54
41:2j:78:ASN:O	41:2j:80:LYS:N	2.40	0.54
43:2l:70:ILE:HD13	43:2l:77:LEU:HD12	1.88	0.54
1:1A:1071:G:C4	1:1A:1180:C:H1'	2.42	0.54
1:1A:1185:C:O3'	9:1N:25:ARG:NH1	2.39	0.54
1:1A:1630:A:H5'	1:1A:1631:C:OP1	2.06	0.54
18:1W:78:GLU:OE2	18:1W:99:ARG:HD3	2.07	0.54
32:1a:1024:G:N2	32:1a:1025:U:O4'	2.37	0.54
43:1l:117:ARG:HG2	43:1l:122:THR:HB	1.89	0.54
1:2A:861:A:C2	1:2A:917:A:C4	2.96	0.54
1:2A:1932:A:H2'	1:2A:1933:G:O4'	2.07	0.54
19:2X:11:PRO:HG2	19:2X:13:LEU:HD21	1.88	0.54
32:2a:543:C:O2'	32:2a:544:G:H5'	2.06	0.54
1:1A:331:G:H21	1:1A:354:A:H62	1.55	0.54
1:1A:2134:G:H2'	1:1A:2135:U:C6	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2444:A:C4	23:11:33:LYS:HG3	2.43	0.54
1:1A:2897:U:H2'	1:1A:2898:C:C6	2.43	0.54
7:1H:88:LEU:HD23	7:1H:130:ARG:HG3	1.88	0.54
9:1N:33:LEU:HD12	9:1N:38:HIS:CE1	2.43	0.54
38:1g:78:ARG:NH1	38:1g:154:TYR:O	2.41	0.54
42:1k:20:TYR:CZ	42:1k:83:ILE:HD12	2.43	0.54
1:2A:30:G:H2'	1:2A:31:C:C6	2.43	0.54
1:2A:2119:A:N6	1:2A:2168:G:H1'	2.22	0.54
9:2N:51:PHE:CZ	9:2N:119:ARG:HD3	2.42	0.54
32:2a:134:A:N1	47:2p:25:ARG:NH2	2.55	0.54
32:2a:1187:G:H4'	40:2i:111:ARG:HH11	1.72	0.54
32:2a:1187:G:H5'	40:2i:113:LYS:HE2	1.90	0.54
32:2a:1291:G:H2'	32:2a:1292:U:C6	2.43	0.54
32:2a:1320:C:C2	50:2s:72:GLY:HA3	2.42	0.54
37:2f:91:VAL:HG11	49:2r:72:ARG:NH1	2.23	0.54
1:1A:1099:C:N3	1:1A:1153:G:C6	2.75	0.54
1:1A:2766:A:N3	31:19:15:LYS:NZ	2.49	0.54
32:1a:815:A:N7	32:1a:1509:C:O2'	2.41	0.54
34:1c:155:GLY:O	34:1c:157:ILE:N	2.37	0.54
38:1g:93:PRO:HA	38:1g:96:GLN:HG3	1.90	0.54
47:1p:23:ASP:OD1	47:1p:25:ARG:HG3	2.08	0.54
1:2A:2128:C:H3'	1:2A:2129:C:H5''	1.88	0.54
27:25:35:GLU:HG3	27:25:51:TYR:CD1	2.43	0.54
32:2a:487:A:H2'	32:2a:488:C:O4'	2.08	0.54
32:2a:1401:G:OP1	53:2x:80:LYS:HE2	2.07	0.54
34:2c:53:ALA:HB2	34:2c:115:LEU:HD21	1.88	0.54
51:2t:80:ARG:HH11	51:2t:80:ARG:CG	2.20	0.54
1:1A:1159:U:H2'	1:1A:1160:G:C8	2.42	0.54
3:1D:206:LEU:HD22	3:1D:211:ARG:HG2	1.89	0.54
32:1a:333:G:H4'	51:1t:16:HIS:CE1	2.42	0.54
53:1x:38:HIS:CD2	53:1x:40:ILE:HD11	2.43	0.54
1:2A:821:A:O2'	1:2A:946:G:OP2	2.18	0.54
1:2A:2155:G:H2'	1:2A:2156:G:O4'	2.08	0.54
32:2a:1310:G:H1	32:2a:1327:C:N4	2.02	0.54
1:1A:2038:U:H1'	27:15:6:VAL:HG13	1.90	0.54
3:1D:108:PRO:HD2	3:1D:111:LEU:HG	1.90	0.54
4:1E:33:VAL:HG13	4:1E:89:ASP:C	2.33	0.54
6:1G:131:TYR:HB3	6:1G:159:VAL:HG13	1.89	0.54
32:1a:149:A:O2'	32:1a:150:C:H5'	2.07	0.54
32:1a:1519:MA6:H8	32:1a:1519:MA6:O5'	2.08	0.54
40:1i:125:TYR:CE1	40:1i:127:LYS:HG2	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:652(T):C:H2'	1:2A:652(U):G:C8	2.43	0.54
6:2G:116:ASP:OD2	44:2m:68:GLY:HA3	2.08	0.54
32:2a:458:C:H2'	32:2a:460:G:O4'	2.08	0.54
32:2a:491:G:H2'	32:2a:492:G:H8	1.72	0.54
41:2j:77:PRO:O	41:2j:81:THR:OG1	2.22	0.54
1:1A:272:U:H5'	8:1I:50:ARG:NH1	2.19	0.54
1:1A:1021:G:H1'	1:1A:1036:A:C2	2.43	0.54
1:1A:1766:G:H5'	1:1A:1767:A:OP2	2.08	0.54
1:1A:2710:U:H2'	1:1A:2711:C:C6	2.43	0.54
1:1A:2734:A:H5''	59:1A:4188:HOH:O	2.08	0.54
19:1X:57:LEU:HD12	19:1X:57:LEU:N	2.23	0.54
32:1a:926:G:C6	53:1x:87:LYS:HG3	2.41	0.54
42:1k:21:ILE:HG12	42:1k:30:VAL:HG22	1.89	0.54
32:2a:163:C:H2'	32:2a:164:U:O4'	2.08	0.54
32:2a:539:A:H2'	32:2a:540:G:C8	2.43	0.54
37:2f:61:LEU:HB3	37:2f:63:TYR:CE2	2.42	0.54
49:2r:56:THR:HB	49:2r:58:LEU:HD13	1.89	0.54
50:2s:23:ASN:ND2	50:2s:43:GLU:HB3	2.23	0.54
1:1A:123:G:C6	29:17:10:ARG:HG3	2.42	0.54
1:1A:240:A:C5	1:1A:241:G:H1'	2.42	0.54
32:1a:1031:G:H2'	32:1a:1032:G:H8	1.73	0.54
33:1b:9:GLU:HB2	33:1b:217:ARG:HH22	1.73	0.54
43:1l:24:VAL:HB	43:1l:27:LEU:HD23	1.88	0.54
46:1o:71:GLN:HG3	46:1o:78:TYR:CD2	2.43	0.54
1:2A:2134:A:C8	1:2A:2157:G:H4'	2.43	0.54
32:2a:407:G:OP1	35:2d:115:ARG:HD3	2.07	0.54
32:2a:538:G:OP2	43:2l:115:LYS:HB2	2.08	0.54
34:2c:148:GLY:HA3	34:2c:172:ARG:O	2.07	0.54
44:2m:60:VAL:HG23	44:2m:64:TRP:HE3	1.73	0.54
53:2x:54:ILE:HB	53:2x:61:LEU:HD12	1.90	0.54
5:1F:132:VAL:HG22	5:1F:163:VAL:HG22	1.90	0.53
26:14:15:ILE:HD12	26:14:21:VAL:HG22	1.89	0.53
29:17:24:THR:O	29:17:28:ARG:HG3	2.07	0.53
32:1a:1108:G:H5'	34:1c:176:HIS:CD2	2.43	0.53
36:1e:146:ALA:O	36:1e:149:GLU:N	2.40	0.53
42:1k:99:GLN:HG2	42:1k:105:VAL:HG21	1.89	0.53
45:1n:23:ARG:NH1	45:1n:30:ALA:HB2	2.23	0.53
1:2A:641:C:O2'	1:2A:2350:C:OP1	2.10	0.53
10:2O:120:GLU:HB2	15:2T:68:TYR:HE2	1.73	0.53
32:2a:841:U:OP1	32:2a:841:U:H6	1.90	0.53
32:2a:973:G:H3'	32:2a:974:A:H5''	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1327:C:H2'	32:2a:1328:C:C6	2.43	0.53
37:2f:100:ASN:HD21	49:2r:23:LYS:HG2	1.73	0.53
1:1A:843:C:H2'	1:1A:844:C:C6	2.42	0.53
33:1b:83:MET:SD	33:1b:234:PRO:HB2	2.47	0.53
41:1j:47:PHE:CZ	45:1n:37:PHE:HE2	2.26	0.53
1:2A:184:C:H2'	1:2A:185:U:C6	2.43	0.53
1:2A:276:A:H5''	1:2A:277:C:H5'	1.90	0.53
1:2A:911:A:H2'	12:2Q:9:TYR:OH	2.09	0.53
1:2A:1359:A:N6	1:2A:1372:U:H3	2.06	0.53
7:2H:30:LYS:HG3	7:2H:80:SER:O	2.09	0.53
21:2Z:10:ARG:NH1	21:2Z:26:GLY:H	2.06	0.53
32:2a:377:G:OP1	47:2p:3:LYS:HD3	2.08	0.53
32:2a:1004:A:H2'	32:2a:1038:C:H1'	1.88	0.53
32:2a:1263:C:H2'	32:2a:1264:C:C6	2.43	0.53
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.23	0.53
44:2m:77:ASN:O	44:2m:81:LEU:HD12	2.09	0.53
47:2p:3:LYS:NZ	47:2p:65:GLN:HB2	2.24	0.53
51:2t:57:ARG:NH2	51:2t:100:ILE:HD12	2.21	0.53
1:1A:330:U:H2'	1:1A:331:G:O4'	2.08	0.53
1:1A:1959:A:H1'	1:1A:1961:5MU:H72	1.91	0.53
1:1A:2159:C:C2	1:1A:2176:G:N2	2.71	0.53
4:1E:97:LYS:O	4:1E:100:GLU:HG3	2.08	0.53
11:1P:83:VAL:HG13	11:1P:112:LEU:HD21	1.90	0.53
16:1U:112:ARG:HH11	16:1U:112:ARG:CG	2.21	0.53
32:1a:35:G:O2'	43:1l:118:SER:O	2.25	0.53
32:1a:834:C:H2'	32:1a:835:U:H6	1.74	0.53
32:1a:1016:A:H2'	32:1a:1017:G:O4'	2.08	0.53
32:1a:1316:G:OP1	45:1n:17:LYS:NZ	2.40	0.53
32:1a:1414:U:H3	32:1a:1486:G:H1	1.56	0.53
48:1q:4:LYS:N	48:1q:61:GLU:HG2	2.24	0.53
49:1r:29:PHE:HE1	49:1r:31:LEU:HD13	1.74	0.53
1:2A:2196:C:O2'	1:2A:2197:U:H5'	2.08	0.53
33:2b:80:ILE:HD11	33:2b:212:GLN:CA	2.39	0.53
1:1A:915:U:C4	1:1A:916:G:N7	2.76	0.53
1:1A:2225:U:O4'	3:1D:151:LYS:HE2	2.09	0.53
1:1A:2316:G:H22	1:1A:2324:U:H3	1.56	0.53
6:1G:83:ARG:H	6:1G:86:MET:HE3	1.74	0.53
7:1H:40:GLU:OE2	7:1H:60:ARG:NH1	2.41	0.53
32:1a:685:G:O2'	32:1a:686:U:H5'	2.07	0.53
32:1a:834:C:H2'	32:1a:835:U:C6	2.42	0.53
32:1a:1149:C:P	40:1i:9:ARG:HH21	2.31	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:1j:16:LEU:HD23	41:1j:70:ARG:HG2	1.90	0.53
42:1k:84:VAL:HG11	42:1k:91:ARG:HD2	1.89	0.53
1:2A:484:C:H2'	1:2A:485:C:C6	2.43	0.53
1:2A:863:A:OP1	12:2Q:22:LYS:HG3	2.08	0.53
1:2A:1782:C:H1'	1:2A:2609:U:H5''	1.89	0.53
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.44	0.53
32:2a:601:C:H2'	32:2a:602:A:C8	2.44	0.53
32:2a:653:A:OP1	39:2h:56:LYS:NZ	2.32	0.53
32:2a:1029:C:N4	32:2a:1030:C:H41	2.07	0.53
1:1A:70:A:N7	19:1X:31:HIS:HE1	2.06	0.53
1:1A:860:U:H2'	1:1A:861:C:C6	2.43	0.53
1:1A:2297:C:OP2	28:16:6:ARG:NH1	2.38	0.53
32:1a:509:A:C8	32:1a:509:A:H3'	2.44	0.53
32:1a:625:G:H2'	32:1a:626:U:C6	2.44	0.53
32:1a:1279:A:H4'	32:1a:1281:U:H5	1.74	0.53
37:1f:89:MET:HE1	49:1r:72:ARG:HB3	1.90	0.53
1:2A:2371:G:N3	28:26:46:HIS:HE1	2.06	0.53
4:2E:27:LEU:HD22	15:2T:1:MET:CE	2.38	0.53
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.91	0.53
8:2I:104:GLN:HG3	8:2I:105:HIS:CD2	2.43	0.53
32:2a:441:A:H3'	32:2a:442:C:H6	1.72	0.53
1:1A:599:U:H2'	1:1A:600:G:C8	2.44	0.53
1:1A:602:G:H2'	1:1A:603:C:C6	2.44	0.53
1:1A:1218:G:OP2	1:1A:1218:G:H2'	2.08	0.53
32:1a:56:U:H2'	32:1a:57:G:H8	1.73	0.53
32:1a:184:G:N2	32:1a:194:C:C2	2.77	0.53
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.44	0.53
39:1h:94:TYR:CE1	39:1h:132:GLU:HB2	2.43	0.53
43:1l:88:GLY:O	43:1l:99:HIS:HD2	1.92	0.53
1:2A:1069:A:O2'	1:2A:1073:A:N7	2.35	0.53
1:2A:1914:C:H2'	1:2A:1915:5MU:O4'	2.09	0.53
5:2F:32:LEU:HD22	5:2F:112:MET:HE2	1.91	0.53
6:2G:112:PRO:HG3	26:24:43:TYR:HE2	1.74	0.53
19:2X:57:LEU:HD21	19:2X:78:LYS:HE2	1.90	0.53
32:2a:952:U:H4'	32:2a:964:A:N1	2.23	0.53
33:2b:162:ILE:HD11	33:2b:184:VAL:HG22	1.91	0.53
36:2e:10:MET:HB3	36:2e:13:ILE:HD11	1.90	0.53
37:2f:63:TYR:O	37:2f:65:VAL:HG13	2.09	0.53
1:1A:2303:U:H2'	1:1A:2304:C:C6	2.43	0.53
1:1A:2787:C:H2'	1:1A:2788:A:O4'	2.08	0.53
1:1A:2901:A:N6	1:1A:2902:G:N1	2.57	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:147:LEU:HD13	3:1D:155:LEU:HD21	1.90	0.53
12:1Q:111:GLU:O	12:1Q:115:MET:HG2	2.09	0.53
20:1Y:15:VAL:HG21	20:1Y:42:VAL:HG11	1.90	0.53
21:1Z:141:VAL:HB	21:1Z:144:LEU:HD12	1.89	0.53
21:1Z:147:GLY:HA2	21:1Z:174:VAL:O	2.09	0.53
25:13:18:ASP:OD1	25:13:18:ASP:N	2.38	0.53
32:1a:45:U:H2'	32:1a:46:G:C8	2.43	0.53
42:1k:18:ARG:HH11	42:1k:18:ARG:HG3	1.74	0.53
1:2A:289:A:N6	1:2A:351:G:O2'	2.41	0.53
1:2A:992:C:OP1	16:2U:47:TYR:OH	2.15	0.53
1:2A:1045:A:C8	1:2A:1047:G:C4	2.93	0.53
6:2G:12:TYR:HA	6:2G:16:ARG:CG	2.38	0.53
27:25:45:VAL:HG11	27:25:58:LEU:HD22	1.90	0.53
32:2a:540:G:H2'	32:2a:541:G:O4'	2.09	0.53
32:2a:624:C:H2'	32:2a:625:G:H8	1.74	0.53
32:2a:1347:G:N2	32:2a:1373:G:H2'	2.23	0.53
33:2b:55:PHE:HA	33:2b:58:ILE:HG12	1.91	0.53
34:2c:131:ARG:HG2	34:2c:166:GLU:HG2	1.90	0.53
34:2c:181:ASN:ND2	34:2c:204:LEU:HD12	2.23	0.53
35:2d:60:GLU:HG3	35:2d:202:LEU:HD12	1.90	0.53
1:1A:517:A:H2'	1:1A:518:G:O4'	2.08	0.53
1:1A:1107:U:H1'	1:1A:1116:A:C1'	2.38	0.53
1:1A:2294:G:H4'	1:1A:2401:G:O2'	2.09	0.53
1:1A:2830:A:OP2	13:1R:2:ARG:NH2	2.42	0.53
5:1F:53:THR:CG2	5:1F:55:GLY:H	2.19	0.53
19:1X:47:PHE:O	19:1X:49:VAL:HG13	2.09	0.53
23:11:19:GLN:HB2	23:11:35:THR:HG22	1.91	0.53
32:1a:232:G:H1'	32:1a:262:A:N1	2.24	0.53
41:1j:39:PRO:HA	41:1j:70:ARG:HD3	1.90	0.53
1:2A:528:A:O2'	1:2A:529:A:H5'	2.08	0.53
1:2A:1316:U:H2'	1:2A:1317:A:C8	2.44	0.53
1:2A:1876:A:H2'	1:2A:1877:A:C8	2.43	0.53
1:2A:2328:A:H2'	1:2A:2329:G:C8	2.44	0.53
1:2A:2784:C:H1'	4:2E:37:ARG:HH12	1.73	0.53
19:2X:60:ARG:HH12	29:27:47:ARG:HH12	1.57	0.53
23:21:50:ARG:HD2	23:21:57:GLU:OE2	2.09	0.53
32:2a:834:C:H2'	32:2a:835:U:C6	2.43	0.53
32:2a:881:G:P	43:2l:12:ARG:HH22	2.32	0.53
32:2a:1014:A:C2	32:2a:1219:U:H1'	2.43	0.53
35:2d:163:GLU:O	35:2d:166:LYS:HG2	2.09	0.53
51:2t:18:GLN:O	51:2t:22:ARG:HG3	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:555:G:H4'	1:1A:556:C:OP1	2.09	0.53
1:1A:2116:G:OP1	8:1I:22:LYS:HD2	2.09	0.53
10:1O:35:VAL:HG21	10:1O:69:ILE:HD12	1.91	0.53
14:1S:52:SER:HB2	14:1S:55:ALA:H	1.74	0.53
17:1V:49:THR:HG22	17:1V:49:THR:O	2.08	0.53
32:1a:392:G:H2'	32:1a:393:A:H8	1.74	0.53
32:1a:741:G:H2'	32:1a:742:G:O4'	2.09	0.53
32:1a:1298:C:H4'	32:1a:1299:A:C4	2.44	0.53
33:1b:71:VAL:HG23	33:1b:164:VAL:HG13	1.91	0.53
36:1e:78:HIS:CE1	36:1e:142:LEU:HD23	2.44	0.53
41:1j:35:SER:CB	41:1j:73:ASP:HB2	2.37	0.53
42:1k:73:MET:HG2	42:1k:103:LEU:HD21	1.90	0.53
1:2A:1262:A:OP1	18:2W:99:ARG:NH1	2.39	0.53
1:2A:1754:C:H5	15:2T:96:ARG:NH2	2.07	0.53
2:2B:60:C:N4	59:2B:3102:HOH:O	2.41	0.53
8:2I:1:MET:HE2	8:2I:38:LEU:HD21	1.91	0.53
32:2a:222:U:H2'	32:2a:223:U:H6	1.74	0.53
32:2a:542:G:H2'	32:2a:543:C:H6	1.73	0.53
32:2a:1090:U:H2'	32:2a:1091:U:C6	2.44	0.53
32:2a:1188:A:H2'	32:2a:1189:C:O4'	2.09	0.53
32:2a:1330:U:H4'	44:2m:23:TYR:CE1	2.44	0.53
44:2m:16:ASP:HB3	44:2m:34:LEU:CD1	2.39	0.53
1:1A:956:A:N1	1:1A:2289:G:H1'	2.24	0.53
1:1A:2332:A:H2'	1:1A:2332:A:N3	2.24	0.53
5:1F:53:THR:HG22	5:1F:55:GLY:N	2.22	0.53
7:1H:35:VAL:HG12	7:1H:37:VAL:HG23	1.89	0.53
32:1a:195:A:C5	32:1a:196:A:N1	2.77	0.53
32:1a:735:C:H2'	32:1a:736:C:H6	1.74	0.53
32:1a:1136:U:H5''	32:1a:1137:C:O2	2.09	0.53
32:1a:1183:A:O2'	32:1a:1184:G:OP1	2.24	0.53
32:1a:1248:A:H61	32:1a:1289:A:H62	1.57	0.53
33:1b:178:ARG:HH11	33:1b:178:ARG:CG	2.21	0.53
1:2A:1354:A:H2'	1:2A:1355:G:O4'	2.09	0.53
30:28:32:LEU:O	30:28:36:LYS:HE3	2.09	0.53
32:2a:685:G:O2'	32:2a:686:U:H5'	2.09	0.53
42:2k:101:SER:OG	42:2k:103:LEU:HB2	2.08	0.53
32:1a:161:A:H2'	32:1a:162:A:H8	1.74	0.52
32:1a:185:A:H2'	32:1a:186:C:C6	2.45	0.52
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.44	0.52
32:1a:1530:G:H4'	32:1a:1530:G:OP1	2.10	0.52
38:1g:113:GLU:HG2	38:1g:119:ARG:HG2	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:1m:11:ARG:C	44:1m:13:LYS:H	2.15	0.52
1:2A:2377:A:H2'	1:2A:2378:A:C8	2.44	0.52
8:2I:14:ASP:O	8:2I:17:GLN:HB3	2.09	0.52
18:2W:35:ILE:HG23	27:25:28:PRO:HD2	1.91	0.52
19:2X:11:PRO:HB3	19:2X:92:LEU:HD11	1.91	0.52
32:2a:1218:C:H2'	32:2a:1219:U:C6	2.44	0.52
45:2n:32:SER:O	45:2n:40:CYS:HA	2.08	0.52
53:2x:3:MET:HA	53:2x:37:PRO:HG2	1.91	0.52
1:1A:1223:C:H2'	1:1A:1224:C:H6	1.74	0.52
5:1F:9:ILE:HG21	5:1F:125:LEU:HD22	1.91	0.52
32:1a:1212:U:H5''	32:1a:1213:A:H5'	1.91	0.52
33:1b:185:ILE:HG23	33:1b:199:TYR:HB2	1.90	0.52
38:1g:23:VAL:O	38:1g:27:ILE:HG12	2.08	0.52
43:1l:28:LYS:HE2	43:1l:64:TYR:HE2	1.74	0.52
51:1t:46:GLU:HG3	51:1t:48:LYS:HD2	1.92	0.52
1:2A:1022:G:N7	9:2N:66:LYS:HE2	2.24	0.52
2:2B:90:A:N7	2:2B:91:C:H1'	2.24	0.52
6:2G:108:ASN:HA	26:24:37:SER:HB3	1.91	0.52
7:2H:26:VAL:O	7:2H:79:VAL:HG11	2.09	0.52
8:2I:69:LYS:HG3	8:2I:73:GLU:OE1	2.08	0.52
32:2a:406:G:H5'	35:2d:5:ILE:HD11	1.89	0.52
32:2a:1024:G:H2'	32:2a:1024:G:N3	2.23	0.52
41:2j:47:PHE:N	41:2j:63:PHE:O	2.26	0.52
41:2j:49:VAL:CG2	45:2n:41:ARG:HB2	2.39	0.52
50:2s:44:MET:O	50:2s:47:HIS:HB2	2.09	0.52
11:1P:82:GLY:HA2	11:1P:113:LYS:O	2.09	0.52
32:1a:92:C:H2'	32:1a:93:G:C8	2.44	0.52
32:1a:411:A:O2'	32:1a:413:G:H5'	2.09	0.52
32:1a:1251:A:H2'	32:1a:1252:A:C8	2.45	0.52
32:1a:1349:A:P	40:1i:118:LYS:HE2	2.49	0.52
33:1b:223:ILE:HG22	33:1b:226:ARG:HH21	1.75	0.52
40:1i:111:ARG:HD2	45:1n:61:TRP:NE1	2.24	0.52
2:2B:9:G:P	14:2S:25:ARG:HH22	2.32	0.52
12:2Q:3:MET:HE3	21:2Z:191:VAL:HG11	1.91	0.52
21:2Z:5:LEU:HD13	21:2Z:47:VAL:CG2	2.39	0.52
33:2b:118:LEU:HB3	33:2b:142:LEU:HD12	1.90	0.52
47:2p:55:ARG:O	47:2p:58:TYR:N	2.41	0.52
1:1A:2188:G:O6	1:1A:2194:U:C4	2.62	0.52
1:2A:1221(A):C:C2	1:2A:1229:G:C2	2.96	0.52
5:2F:157:VAL:HB	5:2F:194:MET:HG2	1.92	0.52
30:28:6:THR:HG22	30:28:62:LEU:HA	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1346:A:H61	32:2a:1374:A:H3'	1.75	0.52
33:2b:9:GLU:C	33:2b:11:LEU:H	2.16	0.52
35:2d:30:LYS:HG2	35:2d:35:ARG:HH21	1.74	0.52
35:2d:31:CYS:O	35:2d:35:ARG:HG3	2.09	0.52
1:1A:1186:U:OP1	9:1N:25:ARG:NH1	2.42	0.52
4:1E:28:ALA:HB3	4:1E:93:VAL:CG1	2.40	0.52
32:1a:270:A:H2'	32:1a:271:C:C6	2.44	0.52
32:1a:376:G:H4'	47:1p:5:ARG:NH1	2.24	0.52
32:1a:437:U:C5'	35:1d:155:LEU:HD11	2.40	0.52
36:1e:57:LYS:HG2	36:1e:61:TYR:CE2	2.45	0.52
42:1k:20:TYR:CE1	42:1k:83:ILE:HD12	2.45	0.52
1:2A:384:U:H2'	1:2A:385:C:H6	1.74	0.52
1:2A:1105:U:H2'	1:2A:1106:G:H8	1.74	0.52
1:2A:1665:A:OP2	59:2A:3903:HOH:O	2.19	0.52
1:2A:2278:A:O2'	21:2Z:199:LYS:HD3	2.10	0.52
10:2O:115:VAL:HG13	10:2O:121:VAL:HG21	1.92	0.52
14:2S:61:ASN:O	14:2S:65:VAL:HG23	2.09	0.52
23:21:83:GLU:OE1	23:21:83:GLU:N	2.39	0.52
33:2b:28:PHE:O	33:2b:32:ILE:HG13	2.10	0.52
33:2b:230:VAL:HG13	33:2b:231:GLU:O	2.10	0.52
40:2i:23:ASN:ND2	40:2i:25:LYS:HG2	2.23	0.52
1:1A:1615:G:H5''	3:1D:61:LEU:HD22	1.91	0.52
1:1A:2661:U:H2'	1:1A:2662:U:C6	2.45	0.52
6:1G:179:PRO:HG3	26:14:43:TYR:OH	2.10	0.52
10:1O:59:LYS:NZ	10:1O:89:ASN:OD1	2.38	0.52
15:1T:78:LEU:HD23	15:1T:78:LEU:O	2.08	0.52
33:1b:122:PHE:HE2	33:1b:139:LYS:HB2	1.75	0.52
1:2A:1250:G:N7	11:2P:18:ARG:NH2	2.57	0.52
26:24:61:ARG:HH22	50:2s:9:VAL:HG11	1.75	0.52
32:2a:1360:A:H8	32:2a:1360:A:OP1	1.93	0.52
33:2b:121:LEU:O	33:2b:127:ILE:HG23	2.10	0.52
51:2t:57:ARG:NH1	51:2t:100:ILE:HB	2.23	0.52
53:2x:74:ILE:O	53:2x:78:ILE:HG12	2.10	0.52
1:1A:354:A:HO2'	1:1A:355:A:H8	1.55	0.52
1:1A:1532:A:H2'	1:1A:1533:G:H8	1.75	0.52
1:1A:1825:U:O2'	1:1A:1826:C:H5'	2.10	0.52
1:1A:2122:G:C6	1:1A:2212:G:C6	2.98	0.52
3:1D:89:SER:HB2	3:1D:159:ALA:HB2	1.92	0.52
31:19:11:CYS:HB3	31:19:32:HIS:CE1	2.45	0.52
32:1a:838:G:N2	32:1a:849:C:C2	2.77	0.52
32:1a:1367:C:H5'	41:1j:60:ARG:HH12	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1493:A:H5'	32:1a:1494:G:OP2	2.09	0.52
35:1d:110:PHE:H	35:1d:110:PHE:HD1	1.56	0.52
1:2A:271(P):C:O3'	8:2I:42:SER:HB2	2.09	0.52
1:2A:625:G:N7	11:2P:107:LYS:NZ	2.52	0.52
1:2A:2364:C:H2'	1:2A:2365:G:O4'	2.10	0.52
7:2H:27:LYS:HD3	7:2H:32:GLU:HB3	1.91	0.52
30:28:53:PRO:O	30:28:56:GLU:HG2	2.10	0.52
32:2a:1387:G:H2'	32:2a:1388:C:H6	1.74	0.52
36:2e:40:ARG:CZ	36:2e:68:GLU:HB3	2.40	0.52
44:2m:102:ARG:HH12	44:2m:105:THR:HG23	1.75	0.52
1:1A:831:A:H3'	59:1A:4697:HOH:O	2.10	0.52
4:1E:51:PHE:CD2	4:1E:52:LEU:HG	2.44	0.52
33:1b:102:LEU:HB3	33:1b:180:LEU:HD12	1.91	0.52
1:2A:143:G:H1'	19:2X:37:THR:HG21	1.92	0.52
1:2A:2785:C:OP1	4:2E:41:LYS:NZ	2.38	0.52
11:2P:59:LEU:HD11	30:28:10:ALA:HB2	1.92	0.52
15:2T:53:ARG:O	15:2T:59:THR:HG23	2.10	0.52
22:20:68:GLU:OE1	22:20:82:ARG:HD3	2.10	0.52
39:2h:81:HIS:ND1	39:2h:138:TRP:OXT	2.42	0.52
44:2m:84:ILE:HD12	50:2s:74:PHE:HZ	1.75	0.52
32:1a:625:G:H2'	32:1a:626:U:H6	1.75	0.52
32:1a:1220:G:N2	50:1s:54:GLY:O	2.38	0.52
32:1a:1226:C:N4	44:1m:104:ARG:HG3	2.25	0.52
32:1a:1278:U:H5''	32:1a:1279:A:H5'	1.92	0.52
1:2A:735:A:N7	1:2A:761:A:H2	2.07	0.52
1:2A:2111:C:H2'	1:2A:2145:C:O2	2.09	0.52
6:2G:173:LEU:HB3	6:2G:178:PHE:CG	2.45	0.52
8:2I:27:ARG:HD2	23:21:71:TYR:CE2	2.45	0.52
8:2I:57:ARG:O	8:2I:61:ARG:HG2	2.09	0.52
14:2S:49:VAL:HG12	14:2S:73:LEU:HD12	1.91	0.52
32:2a:1004:A:H5''	32:2a:1025:U:O4	2.10	0.52
32:2a:1010:G:N2	32:2a:1020:U:H1'	2.25	0.52
46:2o:87:ILE:HG22	46:2o:88:ARG:N	2.24	0.52
48:2q:22:LEU:HD11	48:2q:39:SER:HB2	1.91	0.52
1:1A:1221:G:H1'	1:1A:1222:A:C5'	2.39	0.52
1:1A:1884:A:N1	1:1A:2109:G:H1'	2.23	0.52
31:19:11:CYS:HB3	31:19:32:HIS:HE1	1.75	0.52
32:1a:38:G:H22	32:1a:397:A:H5''	1.75	0.52
33:1b:10:LEU:HD13	33:1b:48:MET:HE3	1.91	0.52
37:1f:22:GLU:O	37:1f:26:ILE:HG13	2.09	0.52
50:1s:41:VAL:HB	50:1s:44:MET:HE3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1430:C:H2'	1:2A:1431:U:H6	1.73	0.52
1:2A:1786:A:H1'	1:2A:1938:A:N6	2.24	0.52
2:2B:75:G:H22	21:2Z:73:GLN:HE21	1.58	0.52
32:2a:343:U:H3	32:2a:346:G:H1	1.58	0.52
40:2i:9:ARG:O	40:2i:104:ARG:HG3	2.09	0.52
53:2x:53:THR:HA	53:2x:61:LEU:O	2.10	0.52
1:1A:1220:U:HO2'	1:1A:1221:G:P	2.33	0.51
1:1A:1476:C:H2'	1:1A:1477:U:C6	2.45	0.51
1:1A:1864:U:O2'	1:1A:1991:A:N1	2.38	0.51
1:1A:2218:C:O2'	1:1A:2219:U:H5'	2.10	0.51
19:1X:41:ASN:O	19:1X:45:THR:HG23	2.10	0.51
32:1a:177:C:P	51:1t:65:LYS:NZ	2.84	0.51
32:1a:406:G:H5'	35:1d:5:ILE:HD11	1.91	0.51
33:1b:181:PHE:HD1	39:1h:70:GLN:HB3	1.76	0.51
46:1o:74:ASP:OD2	46:1o:77:ARG:HD3	2.10	0.51
1:2A:1021:A:OP2	9:2N:65:LYS:NZ	2.42	0.51
1:2A:1049:C:H1'	1:2A:1113:U:H4'	1.91	0.51
1:2A:1359:A:C6	1:2A:1372:U:O4	2.63	0.51
6:2G:83:ARG:H	6:2G:86:MET:CE	2.23	0.51
8:2I:9:LEU:O	8:2I:11:ASN:N	2.43	0.51
25:23:43:ILE:O	25:23:47:VAL:HG23	2.09	0.51
26:24:14:ILE:HB	26:24:22:ILE:HB	1.92	0.51
30:28:37:SER:O	30:28:41:ILE:HG12	2.10	0.51
32:2a:187:C:O2'	51:2t:89:ARG:HD3	2.10	0.51
32:2a:192:U:H2'	32:2a:193:C:H6	1.75	0.51
32:2a:662:G:H2'	32:2a:663:A:C8	2.45	0.51
32:2a:1240:U:C2	38:2g:32:ARG:HG3	2.45	0.51
32:2a:1458:G:H5''	51:2t:31:SER:HB2	1.92	0.51
33:2b:134:GLU:O	33:2b:138:LEU:HG	2.10	0.51
34:2c:162:GLN:HE21	34:2c:162:GLN:HA	1.74	0.51
52:2u:6:ARG:O	52:2u:8:THR:N	2.42	0.51
1:1A:762:G:C2	46:1o:56:LEU:HD21	2.45	0.51
1:1A:1849:U:O4	3:1D:154:LYS:HD3	2.10	0.51
12:1Q:55:VAL:HG12	12:1Q:64:ILE:HD12	1.92	0.51
14:1S:59:LYS:HD2	14:1S:60:GLY:H	1.75	0.51
32:1a:316:G:OP2	32:1a:351:G:O2'	2.27	0.51
34:1c:95:THR:O	34:1c:97:LYS:HG2	2.10	0.51
36:1e:36:ASP:OD1	36:1e:38:GLN:N	2.39	0.51
39:1h:51:VAL:HG21	39:1h:60:ARG:NH1	2.24	0.51
47:1p:72:ARG:HG2	47:1p:73:LEU:HD23	1.92	0.51
48:1q:88:TYR:CD2	48:1q:89:LEU:HD23	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:154:G:H1	1:2A:172:C:H42	1.57	0.51
1:2A:628:G:HO2'	1:2A:651:G:HO2'	1.56	0.51
1:2A:657:U:H2'	1:2A:658:C:C6	2.45	0.51
1:2A:1063:G:H2'	1:2A:1064:C:C5	2.45	0.51
1:2A:2206:G:C3'	1:2A:2207:G:C8	2.88	0.51
1:2A:2243:U:H2'	1:2A:2244:U:C6	2.45	0.51
23:21:5:CYS:SG	23:21:8:SER:OG	2.61	0.51
23:21:25:LYS:O	23:21:28:GLY:N	2.33	0.51
32:2a:427:U:OP1	35:2d:13:ARG:NH2	2.40	0.51
32:2a:1176:A:H2'	32:2a:1177:G:O4'	2.10	0.51
32:2a:1292:U:OP2	38:2g:41:ARG:NH2	2.43	0.51
1:1A:469:A:H1'	1:1A:1246:C:O4'	2.10	0.51
1:1A:2658:C:H2'	1:1A:2659:U:O4'	2.11	0.51
3:1D:101:GLU:OE2	3:1D:103:ARG:HD3	2.11	0.51
6:1G:16:ARG:HB2	6:1G:17:PRO:HD3	1.93	0.51
20:1Y:92:ASN:ND2	20:1Y:92:ASN:H	2.08	0.51
32:1a:664:G:N2	32:1a:741:G:H1	2.05	0.51
32:1a:1244:C:H42	32:1a:1293:G:H1	1.58	0.51
36:1e:75:THR:HG23	36:1e:76:ILE:O	2.10	0.51
51:1t:9:ASN:O	51:1t:10:LEU:HD23	2.11	0.51
1:2A:2189:U:H2'	1:2A:2190:G:H8	1.74	0.51
3:2D:132:PRO:HD3	3:2D:190:TYR:CZ	2.45	0.51
5:2F:184:TYR:CE2	5:2F:188:ARG:HD2	2.45	0.51
7:2H:4:ILE:O	7:2H:69:ARG:HD2	2.10	0.51
16:2U:29:SER:C	16:2U:30:LYS:HD2	2.36	0.51
26:24:64:GLY:C	26:24:66:SER:N	2.69	0.51
32:2a:444:C:C2	32:2a:445:G:C8	2.99	0.51
32:2a:1302:U:OP2	44:2m:21:TYR:OH	2.26	0.51
32:2a:1410:G:H2'	32:2a:1411:C:C6	2.45	0.51
33:2b:79:ASP:O	33:2b:82:ARG:N	2.44	0.51
33:2b:92:TYR:HH	33:2b:150:SER:HG	1.55	0.51
33:2b:187:LEU:HD21	33:2b:205:ASP:HA	1.92	0.51
53:2x:29:LYS:HE3	53:2x:30:TRP:CZ3	2.45	0.51
1:1A:1091:A:O2'	1:1A:1093:G:C5	2.63	0.51
1:1A:1183:G:N3	9:1N:106:MET:HE2	2.24	0.51
1:1A:1221:G:N3	1:1A:1222:A:H5'	2.25	0.51
9:1N:48:MET:O	9:1N:48:MET:HE3	2.11	0.51
10:1O:68:GLU:OE1	10:1O:78:ARG:NH1	2.40	0.51
17:1V:72:VAL:HG13	17:1V:85:LYS:HB3	1.93	0.51
21:1Z:61:LEU:HD12	21:1Z:62:PRO:HD2	1.92	0.51
32:1a:1366:C:H2'	32:1a:1367:C:H6	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1458:G:OP1	51:1t:35:THR:OG1	2.18	0.51
1:2A:438:G:H2'	1:2A:440:G:C8	2.46	0.51
1:2A:1210:A:H5''	1:2A:1212:G:O4'	2.10	0.51
1:2A:1698:A:C8	1:2A:1700:A:O4'	2.63	0.51
1:2A:2292:C:OP1	14:2S:17:ARG:NH2	2.36	0.51
7:2H:3:ARG:NH1	7:2H:5:GLY:H	2.08	0.51
13:2R:59:ASP:OD1	13:2R:62:ALA:N	2.26	0.51
22:20:50:ASN:C	22:20:62:LEU:HD12	2.35	0.51
25:23:8:LEU:HD23	25:23:30:ARG:O	2.09	0.51
32:2a:433:C:H2'	32:2a:434:U:H6	1.74	0.51
32:2a:600:C:H2'	32:2a:601:C:C6	2.44	0.51
48:2q:88:TYR:HE1	48:2q:92:ARG:CZ	2.24	0.51
1:1A:2092:G:H2'	1:1A:2093:A:O4'	2.10	0.51
11:1P:106:LEU:HD22	11:1P:112:LEU:HG	1.92	0.51
32:1a:1151:A:O2'	32:1a:1152:A:H8	1.94	0.51
32:1a:1360:A:H8	32:1a:1360:A:OP1	1.94	0.51
33:1b:69:LEU:HD12	33:1b:70:PHE:H	1.75	0.51
39:1h:94:TYR:HE1	39:1h:132:GLU:HB2	1.74	0.51
3:2D:71:ASP:CB	3:2D:103:ARG:HH22	2.23	0.51
6:2G:6:ALA:HB3	6:2G:104:GLU:OE2	2.10	0.51
32:2a:392:G:H2'	32:2a:393:A:H8	1.75	0.51
34:2c:123:GLN:O	34:2c:128:PHE:HB2	2.11	0.51
35:2d:101:LEU:HD23	35:2d:121:VAL:HG11	1.93	0.51
36:2e:6:PHE:HB2	36:2e:63:ARG:HH12	1.76	0.51
1:1A:1452:U:H2'	1:1A:1453:C:C6	2.45	0.51
1:1A:2289:G:OP2	22:10:10:THR:HG21	2.10	0.51
1:1A:2874:G:OP1	15:1T:119:LYS:HD2	2.10	0.51
2:1B:90:A:N7	2:1B:91:C:H1'	2.25	0.51
32:1a:66:G:C6	32:1a:67:C:C5	2.98	0.51
32:1a:434:U:H2'	32:1a:435:C:H6	1.74	0.51
32:1a:475:G:O2'	32:1a:476:G:H5'	2.11	0.51
32:1a:1433:A:C4	32:1a:1468:A:C2	2.99	0.51
36:1e:33:VAL:HG13	36:1e:112:LEU:HD12	1.92	0.51
37:1f:97:PHE:HD2	49:1r:31:LEU:HD23	1.76	0.51
38:1g:15:ASP:O	38:1g:19:GLY:N	2.39	0.51
39:1h:11:THR:HG23	39:1h:14:ARG:HH21	1.76	0.51
39:1h:20:TYR:HE2	39:1h:75:ARG:HD2	1.76	0.51
41:1j:55:LYS:HE3	41:1j:56:HIS:CE1	2.45	0.51
47:1p:43:LYS:HA	47:1p:48:TRP:CG	2.46	0.51
1:2A:910:A:N1	1:2A:2277:G:H1'	2.26	0.51
1:2A:1075:C:H2'	1:2A:1076:C:H5'	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2445:G:OP1	5:2F:74:ARG:NH2	2.43	0.51
1:2A:2611:U:H6	1:2A:2611:U:H5'	1.76	0.51
1:2A:2695:C:H2'	1:2A:2696:U:C6	2.45	0.51
8:2I:26:ALA:HA	8:2I:30:LEU:HB2	1.92	0.51
10:2O:87:ILE:HD12	10:2O:91:LEU:HA	1.93	0.51
14:2S:36:TYR:CD1	14:2S:52:SER:HB3	2.45	0.51
21:2Z:72:ARG:NH2	21:2Z:97:GLU:O	2.40	0.51
29:27:26:GLY:O	29:27:30:VAL:HG23	2.11	0.51
32:2a:97:G:H2'	32:2a:98:G:O4'	2.10	0.51
33:2b:80:ILE:HD11	33:2b:212:GLN:HA	1.92	0.51
1:1A:1223:C:H2'	1:1A:1224:C:C6	2.46	0.51
6:1G:83:ARG:H	6:1G:86:MET:CE	2.24	0.51
12:1Q:7:MET:HE2	12:1Q:7:MET:N	2.26	0.51
32:1a:438:G:O2'	32:1a:493:G:C2	2.64	0.51
32:1a:630:G:H2'	32:1a:631:G:O4'	2.10	0.51
32:1a:1124:G:OP1	41:1j:36:GLY:N	2.41	0.51
32:1a:1367:C:H5'	41:1j:60:ARG:NH1	2.26	0.51
33:1b:163:PHE:CD1	33:1b:185:ILE:HB	2.46	0.51
37:1f:61:LEU:HB3	37:1f:63:TYR:CE2	2.45	0.51
1:2A:271(D):G:H2'	1:2A:271(E):U:C6	2.45	0.51
1:2A:668:G:H5'	1:2A:669:G:OP2	2.11	0.51
14:2S:11:LYS:HD3	14:2S:15:ARG:NH1	2.26	0.51
32:2a:475:G:O2'	32:2a:476:G:H5'	2.11	0.51
32:2a:926:G:O2'	53:2x:94:ALA:HB1	2.11	0.51
34:2c:6:HIS:CD2	34:2c:8:ILE:H	2.28	0.51
35:2d:78:LEU:HD22	35:2d:96:LEU:HB3	1.91	0.51
35:2d:98:GLU:HG3	35:2d:194:LEU:HD21	1.92	0.51
1:1A:574:G:O2'	1:1A:1265:A:N3	2.39	0.51
1:1A:982:U:H2'	1:1A:983:G:O4'	2.11	0.51
1:1A:1501:U:O2'	1:1A:1502:G:N7	2.36	0.51
14:1S:17:ARG:HH11	14:1S:17:ARG:HG3	1.76	0.51
22:10:10:THR:HG22	22:10:12:ASN:H	1.75	0.51
26:14:56:VAL:O	26:14:60:GLN:HB3	2.10	0.51
32:1a:545:C:H5'	35:1d:72:GLU:CB	2.41	0.51
32:1a:1252:A:H2'	32:1a:1253:G:O4'	2.11	0.51
32:1a:1434:A:H2'	32:1a:1435:G:O4'	2.11	0.51
37:1f:3:ARG:HD3	37:1f:64:GLN:NE2	2.26	0.51
41:1j:81:THR:O	41:1j:85:LEU:HG	2.11	0.51
46:1o:6:GLU:OE1	46:1o:6:GLU:N	2.41	0.51
1:2A:9:U:C4	1:2A:2629:A:H2	2.29	0.51
1:2A:2180:U:H6	1:2A:2180:U:O5'	1.94	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2250:G:O2'	1:2A:2496:C:OP1	2.23	0.51
6:2G:11:TYR:CE2	6:2G:16:ARG:HD3	2.45	0.51
8:2I:130:TYR:HD2	8:2I:138:ILE:HD12	1.76	0.51
16:2U:102:GLU:HG3	17:2V:2:PHE:CZ	2.46	0.51
19:2X:60:ARG:NH1	29:27:47:ARG:HH12	2.09	0.51
32:2a:45:U:H2'	32:2a:46:G:C8	2.46	0.51
32:2a:598:U:H4'	39:2h:94:TYR:CG	2.45	0.51
1:1A:1126:C:H2'	1:1A:1127:U:H6	1.75	0.51
56:1B:3025:AMP:C5'	6:1G:27:ASN:ND2	2.73	0.51
4:1E:116:VAL:HG13	4:1E:122:PHE:HB2	1.91	0.51
14:1S:27:SER:HA	14:1S:88:ASP:HB3	1.92	0.51
34:1c:111:LEU:HD21	34:1c:144:SER:O	2.10	0.51
1:2A:856:C:O4'	22:20:27:GLU:HB3	2.10	0.51
1:2A:1278:A:H2'	1:2A:1279:G:C8	2.46	0.51
1:2A:1493:C:H5'	1:2A:1493:C:O2	2.11	0.51
1:2A:1794:U:H2'	1:2A:1795:C:H6	1.75	0.51
1:2A:2564:A:C2	1:2A:2647:U:H4'	2.46	0.51
5:2F:110:LEU:HD11	5:2F:181:LEU:HG	1.93	0.51
16:2U:36:ARG:HD3	16:2U:40:PHE:CZ	2.45	0.51
24:22:44:LEU:HD23	24:22:47:ASN:HA	1.93	0.51
1:1A:2163:G:H2'	1:1A:2164:C:C6	2.45	0.51
2:1B:48:A:H4'	14:1S:95:HIS:HD2	1.76	0.51
20:1Y:6:HIS:H	20:1Y:6:HIS:CD2	2.28	0.51
23:11:80:LEU:HB3	23:11:82:LEU:HG	1.93	0.51
32:1a:1216:G:H5''	45:1n:5:ALA:HB2	1.93	0.51
32:1a:1316:G:N2	32:1a:1318:A:H3'	2.26	0.51
47:1p:28:ARG:HG2	47:1p:29:ASP:OD1	2.11	0.51
1:2A:244:A:C2	1:2A:255:A:C4	2.99	0.51
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.46	0.51
8:2I:72:LEU:HD22	8:2I:101:LEU:HD21	1.93	0.51
31:29:17:ILE:HG22	31:29:24:TYR:HB2	1.93	0.51
33:2b:27:LYS:HD3	33:2b:193:ASP:OD1	2.11	0.51
53:2x:34:LEU:HD22	53:2x:54:ILE:HG21	1.93	0.51
1:1A:154:G:C6	1:1A:155:C:N4	2.79	0.50
1:1A:1735:U:O2	1:1A:1747:A:H5'	2.11	0.50
1:1A:2605:U:H2'	1:1A:2606:C:H6	1.75	0.50
6:1G:142:PRO:HB2	26:14:31:ILE:HG21	1.93	0.50
32:1a:523:A:H61	43:1l:92:OTD:CG	2.25	0.50
32:1a:1206:G:O2'	34:1c:193:TYR:HA	2.11	0.50
34:1c:157:ILE:CG2	34:1c:164:ARG:HH21	2.24	0.50
47:1p:43:LYS:HG2	47:1p:48:TRP:CD2	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:2S:25:ARG:NH1	14:2S:42:ASP:OD1	2.44	0.50
26:24:57:GLU:CB	26:24:58:ARG:HD2	2.40	0.50
32:2a:1324:A:O4'	32:2a:1362:C:H4'	2.11	0.50
40:2i:5:TYR:N	40:2i:87:GLN:OE1	2.26	0.50
47:2p:28:ARG:HH11	47:2p:29:ASP:CG	2.19	0.50
4:1E:103:ASP:OD2	4:1E:168:MET:HE3	2.11	0.50
6:1G:74:LYS:O	6:1G:84:LYS:NZ	2.40	0.50
32:1a:234:C:H2'	32:1a:235:C:H6	1.76	0.50
32:1a:1004:A:C5	32:1a:1037:C:C2	2.99	0.50
32:1a:1179:A:H2'	32:1a:1180:A:O4'	2.11	0.50
39:1h:11:THR:HG22	39:1h:15:ASN:HD21	1.76	0.50
47:1p:20:VAL:HG21	47:1p:32:TYR:CD2	2.46	0.50
50:1s:36:ARG:HH12	50:1s:75:ALA:HB3	1.76	0.50
1:2A:2543:G:H2'	1:2A:2544:G:C8	2.45	0.50
1:2A:2647:U:H2'	1:2A:2648:C:C6	2.46	0.50
6:2G:125:PHE:CZ	6:2G:170:ARG:HA	2.45	0.50
7:2H:3:ARG:HH21	7:2H:54:ARG:NH1	2.08	0.50
32:2a:964:A:N3	32:2a:969:A:O2'	2.44	0.50
32:2a:1216:G:O2'	32:2a:1217:C:H5'	2.11	0.50
32:2a:1375:A:H4'	38:2g:29:LYS:HD3	1.94	0.50
35:2d:153:ARG:HG2	35:2d:181:MET:SD	2.51	0.50
1:1A:1232:G:H5''	17:1V:81:TYR:CE1	2.46	0.50
1:1A:1889:G:N2	1:1A:1905:G:H2'	2.26	0.50
7:1H:87:LEU:HD23	7:1H:164:TYR:HA	1.92	0.50
32:1a:454:C:OP1	47:1p:75:ARG:NH2	2.44	0.50
32:1a:814:A:N7	32:1a:816:A:C4	2.79	0.50
32:1a:1026:G:H5''	32:1a:1027:C:H5	1.76	0.50
34:1c:29:TYR:OH	45:1n:54:PRO:O	2.26	0.50
34:1c:114:PRO:HA	34:1c:185:GLY:HA3	1.93	0.50
40:1i:17:VAL:HG11	40:1i:80:GLY:C	2.36	0.50
41:1j:78:ASN:O	41:1j:80:LYS:N	2.44	0.50
1:2A:2189:U:H2'	1:2A:2190:G:C8	2.47	0.50
32:2a:976:G:N2	32:2a:1363:C:OP2	2.30	0.50
34:2c:150:LYS:HE2	34:2c:201:TYR:CD2	2.46	0.50
40:2i:97:LYS:HA	40:2i:102:LEU:HD23	1.93	0.50
44:2m:60:VAL:HG23	44:2m:64:TRP:CE3	2.46	0.50
1:1A:1218:G:C2	1:1A:1220:U:H5''	2.46	0.50
1:1A:1898:A:H2'	1:1A:1899:A:C8	2.47	0.50
14:1S:10:ARG:O	14:1S:14:VAL:HG13	2.10	0.50
29:17:5:TRP:HA	29:17:5:TRP:CE3	2.46	0.50
32:1a:293:G:C6	32:1a:294:U:C4	2.99	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:503:C:H2'	32:1a:504:C:H6	1.76	0.50
32:1a:1441:G:H5''	32:1a:1442:G:H5'	1.92	0.50
33:1b:19:HIS:O	33:1b:20:GLU:HB2	2.11	0.50
5:2F:37:VAL:HG21	11:2P:6:LEU:CD1	2.41	0.50
18:2W:54:ALA:HB1	18:2W:107:LEU:HD22	1.93	0.50
25:23:40:THR:O	25:23:44:ARG:HB2	2.12	0.50
32:2a:391:G:P	47:2p:28:ARG:HH22	2.35	0.50
32:2a:939:G:C6	32:2a:940:C:N4	2.80	0.50
32:2a:1212:U:H5''	32:2a:1213:A:H5'	1.92	0.50
33:2b:84:GLU:HB3	33:2b:219:VAL:HG21	1.93	0.50
38:2g:85:TYR:CE2	38:2g:154:TYR:HE2	2.30	0.50
51:2t:14:LYS:O	51:2t:18:GLN:HG3	2.12	0.50
1:1A:2244:U:P	23:11:40:ARG:HH12	2.35	0.50
1:1A:2262:G:O2'	1:1A:2508:C:OP1	2.22	0.50
17:1V:52:VAL:HG22	17:1V:55:ALA:HB3	1.92	0.50
32:1a:201:C:N3	32:1a:216:G:N2	2.42	0.50
34:1c:58:GLU:HB3	41:1j:92:THR:HG21	1.94	0.50
34:1c:131:ARG:HH11	34:1c:166:GLU:HG3	1.75	0.50
35:1d:101:LEU:HD23	35:1d:121:VAL:CG1	2.42	0.50
37:1f:19:LEU:HD23	37:1f:23:LYS:HD3	1.94	0.50
1:2A:1074:G:C2	1:2A:1075:C:H1'	2.46	0.50
1:2A:2136:C:H42	1:2A:2156:G:N2	2.09	0.50
1:2A:2469:A:H4'	12:2Q:56:ARG:CG	2.41	0.50
7:2H:57:ASP:O	7:2H:62:LYS:HD2	2.12	0.50
18:2W:78:GLU:OE2	18:2W:99:ARG:HD3	2.11	0.50
28:26:10:LEU:HG	28:26:54:ILE:HG13	1.93	0.50
32:2a:565:U:OP2	32:2a:566:G:O2'	2.27	0.50
32:2a:1054:C:C2	53:2x:45:PRO:HG2	2.47	0.50
32:2a:1155:G:H2'	32:2a:1156:G:C8	2.47	0.50
34:2c:7:PRO:HG2	34:2c:184:TYR:HB2	1.93	0.50
39:2h:91:ARG:NH1	48:2q:33:GLY:HA3	2.27	0.50
44:2m:15:VAL:HG11	44:2m:48:LEU:HD21	1.94	0.50
44:2m:19:LEU:O	44:2m:22:ILE:HG13	2.12	0.50
49:2r:35:ARG:O	49:2r:37:VAL:HG12	2.11	0.50
4:1E:77:ILE:HD13	4:1E:195:LEU:HD13	1.93	0.50
5:1F:150:GLY:HA2	5:1F:172:TRP:CD2	2.46	0.50
7:1H:98:LEU:HD13	7:1H:125:VAL:HG23	1.92	0.50
10:1O:104:ARG:NH2	15:1T:43:GLN:OE1	2.45	0.50
16:1U:102:GLU:HA	16:1U:104:GLN:HE22	1.77	0.50
32:1a:673:G:N2	32:1a:674:G:C2	2.80	0.50
32:1a:719:C:H1'	49:1r:49:LYS:HB3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1095:U:P	32:1a:1108:G:H1	2.33	0.50
32:1a:1132:C:H2'	32:1a:1133:G:H8	1.77	0.50
32:1a:1446:U:O2'	32:1a:1447:A:O5'	2.30	0.50
40:1i:4:TYR:HB2	40:1i:19:LEU:HB2	1.94	0.50
47:1p:75:ARG:HG3	47:1p:80:PHE:CD2	2.45	0.50
14:2S:66:ALA:HA	14:2S:69:VAL:HG12	1.92	0.50
20:2Y:77:PRO:HD2	20:2Y:106:LEU:CD2	2.40	0.50
32:2a:1129:C:H1'	32:2a:1130:A:N7	2.26	0.50
44:2m:92:HIS:HA	44:2m:110:ARG:NH2	2.27	0.50
49:2r:55:ARG:HG2	49:2r:55:ARG:HH11	1.77	0.50
1:1A:1312:G:O5'	18:1W:15:ARG:NH2	2.45	0.50
2:1B:57:A:O5'	56:1B:3025:AMP:C5'	2.60	0.50
6:1G:43:LEU:HD11	6:1G:153:ARG:HD3	1.92	0.50
32:1a:539:A:H2'	32:1a:540:G:C8	2.47	0.50
1:2A:922:U:H2'	1:2A:923:C:C6	2.46	0.50
21:2Z:104:PHE:HB3	21:2Z:141:VAL:HG11	1.92	0.50
32:2a:114:U:O2'	32:2a:115:G:H5'	2.12	0.50
32:2a:1146:A:H3'	32:2a:1147:C:H5''	1.93	0.50
32:2a:1296:C:H4'	32:2a:1302:U:C5	2.47	0.50
33:2b:16:HIS:HB3	33:2b:210:SER:HB3	1.94	0.50
33:2b:122:PHE:HD2	33:2b:123:ALA:H	1.59	0.50
48:2q:63:ARG:O	48:2q:63:ARG:HG3	2.12	0.50
51:2t:11:SER:O	51:2t:15:ARG:HB2	2.11	0.50
1:1A:9:U:C2	1:1A:2641:A:N1	2.79	0.50
1:1A:271:U:O2	8:1I:50:ARG:HG3	2.12	0.50
1:1A:2255:U:H2'	1:1A:2256:U:H6	1.76	0.50
5:1F:102:PRO:HB2	5:1F:105:VAL:HG23	1.93	0.50
5:1F:185:ASP:HA	5:1F:188:ARG:HD3	1.94	0.50
32:1a:255:G:H1'	48:1q:16:GLN:NE2	2.17	0.50
32:1a:358:U:H2'	32:1a:359:U:H6	1.77	0.50
32:1a:833:U:H2'	32:1a:834:C:H6	1.76	0.50
34:1c:71:ALA:HB2	34:1c:106:VAL:HB	1.93	0.50
37:1f:41:GLU:HG2	37:1f:43:LEU:CD1	2.41	0.50
1:2A:1686:C:H2'	1:2A:1687:G:O4'	2.11	0.50
1:2A:2232:U:P	23:21:40:ARG:HH12	2.35	0.50
6:2G:101:ILE:HG22	6:2G:105:LYS:HE2	1.94	0.50
19:2X:50:LYS:HB3	19:2X:84:ALA:HB2	1.94	0.50
32:2a:149:A:H2'	32:2a:150:C:C6	2.46	0.50
33:2b:73:THR:HB	33:2b:95:GLN:O	2.12	0.50
34:2c:135:LYS:HE2	36:2e:53:LEU:HD11	1.93	0.50
37:2f:1:MET:HA	37:2f:67:MET:O	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2f:22:GLU:OE2	37:2f:82:ARG:NE	2.43	0.50
1:1A:310:C:H2'	1:1A:311:C:H6	1.76	0.50
1:1A:1095:C:H1'	1:1A:1159:U:H4'	1.94	0.50
6:1G:143:GLU:O	26:14:28:LYS:HE2	2.11	0.50
32:1a:4:U:O4	39:1h:105:ARG:HD3	2.11	0.50
32:1a:532:A:N6	32:1a:1206:G:O2'	2.45	0.50
32:1a:895:G:H2'	32:1a:896:C:C6	2.47	0.50
32:1a:1068:G:N7	32:1a:1094:G:H2'	2.27	0.50
32:1a:1136:U:H5''	32:1a:1137:C:C2	2.47	0.50
33:1b:61:LEU:HD11	33:1b:160:ASP:HB2	1.94	0.50
42:1k:84:VAL:CG1	42:1k:91:ARG:HD2	2.41	0.50
44:1m:14:ARG:HB2	44:1m:17:VAL:HG23	1.93	0.50
1:2A:1495:A:O2'	1:2A:1496:A:H5'	2.11	0.50
1:2A:2184:G:C2	1:2A:2185:C:H1'	2.47	0.50
32:2a:393:A:C2	32:2a:394:G:C8	3.00	0.50
32:2a:411:A:O2'	32:2a:413:G:H5'	2.12	0.50
32:2a:958:A:N6	50:2s:77:THR:O	2.45	0.50
32:2a:1517:G:H3'	32:2a:1518:MA6:H8	1.94	0.50
39:2h:29:SER:HB3	39:2h:32:LYS:HD2	1.94	0.50
1:1A:540:A:H1'	1:1A:604:C:H1'	1.94	0.49
1:1A:1147:U:H2'	1:1A:1148:C:H6	1.77	0.49
4:1E:134:ILE:C	4:1E:134:ILE:HD12	2.36	0.49
6:1G:50:ALA:C	6:1G:52:ILE:H	2.20	0.49
32:1a:161:A:H8	32:1a:161:A:O5'	1.94	0.49
32:1a:437:U:H5''	35:1d:155:LEU:HD11	1.93	0.49
32:1a:474:G:H2'	32:1a:475:G:H8	1.76	0.49
33:1b:134:GLU:HG2	33:1b:138:LEU:HG	1.93	0.49
1:2A:1316:U:H2'	1:2A:1317:A:H8	1.76	0.49
1:2A:2021:C:OP1	27:25:12:SER:OG	2.17	0.49
1:2A:2207:G:O2'	1:2A:2208:A:OP1	2.30	0.49
4:2E:31:CYS:HB2	4:2E:91:VAL:HB	1.93	0.49
20:2Y:73:ARG:HG2	20:2Y:73:ARG:HH11	1.77	0.49
28:26:44:ARG:HG2	28:26:44:ARG:HH11	1.77	0.49
32:2a:576:G:N1	32:2a:759:A:OP1	2.41	0.49
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.94	0.49
52:2u:5:ASP:O	52:2u:11:GLY:HA3	2.11	0.49
1:1A:866:A:C4	1:1A:1234:A:C2	3.00	0.49
1:1A:1201:A:OP1	16:1U:55:ARG:HD3	2.13	0.49
1:1A:2157:A:N6	1:1A:2178:G:H1'	2.27	0.49
1:1A:2371:C:H2'	1:1A:2372:A:O4'	2.12	0.49
2:1B:7:G:H5''	2:1B:7:G:H8	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:14:PRO:HD2	5:1F:127:GLU:OE1	2.12	0.49
16:1U:104:GLN:NE2	16:1U:104:GLN:H	2.10	0.49
17:1V:21:ARG:HG2	17:1V:91:TYR:CE1	2.46	0.49
23:11:51:VAL:HG11	23:11:74:VAL:CG2	2.40	0.49
32:1a:657:G:C2	32:1a:658:G:C8	3.00	0.49
32:1a:736:C:H2'	32:1a:737:A:C8	2.48	0.49
32:1a:1121:U:H2'	32:1a:1122:U:H6	1.77	0.49
33:1b:134:GLU:O	33:1b:138:LEU:HG	2.12	0.49
53:1x:41:LEU:HD21	53:1x:74:ILE:HD11	1.94	0.49
1:2A:821:A:H2'	1:2A:946:G:H5''	1.92	0.49
1:2A:2886:G:H2'	1:2A:2887:U:H6	1.77	0.49
6:2G:4:ASP:OD1	6:2G:9:ARG:NH2	2.45	0.49
11:2P:92:GLU:OE2	11:2P:121:LYS:NZ	2.44	0.49
15:2T:78:LEU:O	15:2T:78:LEU:HD23	2.11	0.49
21:2Z:182:LYS:HG3	21:2Z:186:GLU:CD	2.36	0.49
32:2a:136:C:H2'	32:2a:137:C:H6	1.77	0.49
32:2a:404:U:O2	32:2a:498:U:C4	2.65	0.49
32:2a:874:G:H2'	32:2a:875:C:C6	2.46	0.49
32:2a:1125:U:H5	32:2a:1280:A:N7	2.10	0.49
37:2f:8:ILE:HD11	37:2f:79:LEU:HD13	1.93	0.49
45:2n:4:LYS:O	45:2n:7:ILE:HG12	2.11	0.49
46:2o:39:LEU:HD13	46:2o:56:LEU:HB2	1.92	0.49
1:1A:1541:A:H2'	1:1A:1542:A:H8	1.74	0.49
1:1A:2859:U:H4'	1:1A:2878:A:C2	2.47	0.49
5:1F:101:LEU:HD12	5:1F:102:PRO:HD2	1.95	0.49
8:1I:46:ALA:O	8:1I:50:ARG:HG2	2.12	0.49
19:1X:60:ARG:HH12	29:17:47:ARG:NH2	2.09	0.49
32:1a:193:C:C2	32:1a:194:C:C5	3.00	0.49
32:1a:1026:G:H3'	32:1a:1027:C:H6	1.77	0.49
32:1a:1278:U:H3'	32:1a:1278:U:C6	2.48	0.49
32:1a:1376:U:H2'	32:1a:1377:A:C8	2.46	0.49
39:1h:34:GLU:OE1	39:1h:37:ARG:NH2	2.44	0.49
7:2H:113:VAL:HG11	7:2H:151:ILE:HD13	1.94	0.49
8:2I:105:HIS:C	8:2I:107:VAL:H	2.21	0.49
8:2I:123:LEU:HD21	8:2I:145:VAL:HA	1.94	0.49
11:2P:121:LYS:HB3	11:2P:123:LEU:HD12	1.94	0.49
13:2R:72:ASP:O	13:2R:76:VAL:HG23	2.12	0.49
32:2a:406:G:H21	35:2d:119:GLN:NE2	2.01	0.49
32:2a:407:G:N2	32:2a:436:C:C2	2.80	0.49
32:2a:1411:C:H2'	32:2a:1412:C:C6	2.47	0.49
33:2b:100:GLY:O	33:2b:104:ASN:N	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:24:GLY:HA2	40:2i:59:PHE:O	2.12	0.49
42:2k:44:SER:OG	42:2k:47:VAL:HG23	2.12	0.49
1:1A:1141:A:C2	1:1A:1142:A:C5	3.00	0.49
1:1A:1476:C:H2'	1:1A:1477:U:H6	1.77	0.49
5:1F:123:LEU:HD12	5:1F:124:LEU:N	2.27	0.49
6:1G:6:ALA:HB3	6:1G:104:GLU:OE2	2.12	0.49
32:1a:175:C:H2'	32:1a:176:C:H6	1.75	0.49
32:1a:487:A:H2'	32:1a:488:C:O4'	2.13	0.49
32:1a:1137:C:H3'	32:1a:1137:C:H6	1.78	0.49
34:1c:6:HIS:CD2	34:1c:8:ILE:HB	2.46	0.49
1:2A:143:G:H4'	19:2X:35:THR:HG21	1.94	0.49
1:2A:1654:A:C2	4:2E:113:PHE:CD1	3.00	0.49
1:2A:2106:G:C2	1:2A:2184:G:C2	3.00	0.49
1:2A:2273:A:H2'	1:2A:2274:A:C8	2.48	0.49
1:2A:2576:G:H1'	59:2A:4205:HOH:O	2.11	0.49
2:2B:29:A:OP2	14:2S:31:SER:HB2	2.12	0.49
9:2N:67:LEU:HD13	9:2N:87:LEU:HD13	1.94	0.49
14:2S:10:ARG:O	14:2S:14:VAL:HG13	2.13	0.49
32:2a:179:A:H2'	32:2a:180:U:C6	2.48	0.49
32:2a:501:C:OP1	43:2l:117:ARG:NH2	2.46	0.49
32:2a:510:A:H5''	32:2a:511:C:P	2.52	0.49
32:2a:972:C:OP2	41:2j:57:LYS:HE3	2.12	0.49
32:2a:1203:C:OP1	45:2n:3:ARG:HD3	2.11	0.49
37:2f:3:ARG:HB3	37:2f:93:SER:HB2	1.93	0.49
1:1A:1109:G:N2	1:1A:1123:A:H2	2.11	0.49
7:1H:101:ARG:HG2	7:1H:117:PRO:HG2	1.95	0.49
32:1a:814:A:H2'	32:1a:816:A:H5''	1.94	0.49
32:1a:1144:G:N2	32:1a:1146:A:H62	2.11	0.49
32:1a:1442:G:O2'	32:1a:1442(A):G:O5'	2.30	0.49
37:1f:78:GLU:O	37:1f:81:ILE:HG22	2.13	0.49
38:1g:54:THR:O	38:1g:56:GLN:N	2.42	0.49
38:1g:152:ALA:O	38:1g:155:ARG:HB3	2.13	0.49
41:1j:11:PHE:HB3	45:1n:55:GLY:HA3	1.95	0.49
45:1n:3:ARG:CB	45:1n:3:ARG:HH11	2.26	0.49
1:2A:873:G:N2	1:2A:905:U:C2	2.81	0.49
1:2A:2086:U:H2'	1:2A:2087:G:C8	2.48	0.49
1:2A:2180:U:H2'	1:2A:2181:G:C8	2.47	0.49
1:2A:2748:A:H5'	7:2H:4:ILE:HD12	1.94	0.49
20:2Y:73:ARG:HH11	20:2Y:73:ARG:CG	2.25	0.49
32:2a:554:C:H2'	32:2a:555:C:C6	2.48	0.49
32:2a:1023:G:H8	32:2a:1023:G:O5'	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:77:ILE:O	34:2c:83:ARG:N	2.46	0.49
40:2i:17:VAL:HG21	40:2i:81:ILE:HG13	1.94	0.49
43:2l:31:PRO:HB2	43:2l:32:PHE:CD2	2.48	0.49
1:1A:196:A:H2'	1:1A:197:C:O4'	2.11	0.49
1:1A:1660:A:C2	18:1W:93:ALA:HB2	2.48	0.49
1:1A:1935:A:N3	32:1a:1493:A:H8	2.09	0.49
12:1Q:109:VAL:HG22	12:1Q:113:GLN:OE1	2.11	0.49
27:15:16:ARG:HD2	27:15:20:ARG:NH1	2.28	0.49
32:1a:171:A:H2'	32:1a:172:A:H8	1.76	0.49
32:1a:416:G:C6	32:1a:417:C:N3	2.80	0.49
32:1a:509:A:O2'	32:1a:510:A:OP1	2.24	0.49
32:1a:1532:U:O5'	32:1a:1532:U:H6	1.96	0.49
34:1c:91:LEU:HD22	34:1c:101:LEU:HD22	1.95	0.49
36:1e:139:LEU:HA	36:1e:142:LEU:HD12	1.94	0.49
1:2A:2273:A:O2'	1:2A:2274:A:H5'	2.12	0.49
4:2E:101:ARG:CZ	4:2E:171:GLU:HB2	2.43	0.49
6:2G:78:SER:OG	6:2G:79:ASN:N	2.44	0.49
32:2a:547:A:H4'	32:2a:548:G:O5'	2.12	0.49
32:2a:1003:G:N2	32:2a:1035:A:N1	2.59	0.49
32:2a:1130:A:H5'	40:2i:18:PHE:CE2	2.46	0.49
32:2a:1269:A:H2	32:2a:1312:G:N3	2.10	0.49
32:2a:1272:G:H2'	32:2a:1273:G:O4'	2.13	0.49
33:2b:120:ALA:O	33:2b:125:PRO:HG2	2.13	0.49
34:2c:152:ILE:HG13	34:2c:199:LYS:HB2	1.94	0.49
53:2x:87:LYS:O	53:2x:91:LYS:HB2	2.13	0.49
1:1A:943:C:H2'	1:1A:944:C:C6	2.47	0.49
1:1A:1334:U:C2	1:1A:1373:C:O2	2.66	0.49
1:1A:2623:U:H6	1:1A:2623:U:H5'	1.77	0.49
10:1O:2:ILE:HD12	10:1O:6:THR:HG21	1.94	0.49
19:1X:76:ARG:HG3	19:1X:76:ARG:NH1	2.27	0.49
32:1a:516:PSU:HN3	32:1a:533:A:H62	1.60	0.49
33:1b:12:GLU:OE2	33:1b:48:MET:HE2	2.13	0.49
1:2A:581:C:H2'	1:2A:582:G:C8	2.47	0.49
1:2A:2023:G:H5'	1:2A:2617:C:H4'	1.93	0.49
2:2B:42:C:N3	6:2G:91:ARG:NH1	2.60	0.49
2:2B:73:A:C4	2:2B:105:A:C2	3.01	0.49
6:2G:136:ARG:HG3	6:2G:137:GLU:HG3	1.95	0.49
9:2N:4:TYR:CE2	16:2U:100:VAL:HG11	2.48	0.49
9:2N:34:LEU:O	9:2N:49:GLY:HA3	2.12	0.49
32:2a:232:G:H1'	32:2a:262:A:N1	2.28	0.49
32:2a:1072:G:C6	32:2a:1073:U:C4	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1148:U:H2'	32:2a:1149:C:O4'	2.12	0.49
32:2a:1505:G:H4'	32:2a:1506:U:H5''	1.94	0.49
33:2b:133:LYS:O	33:2b:136:VAL:HG12	2.13	0.49
38:2g:75:VAL:HA	38:2g:87:VAL:O	2.13	0.49
52:2u:6:ARG:C	52:2u:8:THR:H	2.21	0.49
1:1A:324:A:OP2	20:1Y:86:ARG:NH2	2.46	0.49
1:1A:388:A:C2	1:1A:389:G:C5	3.01	0.49
1:1A:2495:C:N3	12:1Q:124:LYS:NZ	2.57	0.49
21:1Z:7:ALA:O	21:1Z:62:PRO:HD3	2.13	0.49
26:14:58:ARG:HD3	50:1s:67:VAL:HB	1.94	0.49
32:1a:186:C:H2'	32:1a:187:C:H6	1.77	0.49
32:1a:270:A:H2'	32:1a:271:C:H6	1.77	0.49
32:1a:757:U:H2'	32:1a:758:G:O4'	2.13	0.49
32:1a:1347:G:C5	40:1i:107:ARG:NH1	2.81	0.49
33:1b:223:ILE:HD12	33:1b:224:GLN:N	2.28	0.49
34:1c:148:GLY:HA3	34:1c:172:ARG:O	2.12	0.49
35:1d:138:TYR:HE2	35:1d:140:VAL:HA	1.78	0.49
40:1i:33:PHE:CE1	40:1i:47:LEU:HD21	2.48	0.49
42:1k:18:ARG:HH12	42:1k:37:GLY:HA2	1.77	0.49
44:1m:90:LEU:HA	44:1m:93:ARG:HG3	1.95	0.49
1:2A:7:G:N2	1:2A:2896:C:N3	2.54	0.49
1:2A:143:G:H2'	1:2A:143(A):C:C6	2.48	0.49
1:2A:830:G:H4'	1:2A:831:G:OP2	2.11	0.49
3:2D:275:LYS:CE	3:2D:276:LYS:HA	2.43	0.49
14:2S:7:TYR:CZ	14:2S:91:PRO:HG3	2.47	0.49
32:2a:540:G:C4	32:2a:541:G:C8	3.01	0.49
32:2a:551:U:H2'	32:2a:552:U:C6	2.46	0.49
32:2a:859:A:H2'	32:2a:860:A:O4'	2.13	0.49
32:2a:1054:C:N4	53:2x:46:GLN:OE1	2.45	0.49
32:2a:1465:C:H2'	32:2a:1466:C:O4'	2.13	0.49
1:1A:236:G:H4'	1:1A:413:G:C5	2.48	0.49
1:1A:2136:A:O2'	1:1A:2190:G:H5'	2.13	0.49
1:1A:2660:C:H2'	1:1A:2661:U:C6	2.48	0.49
15:1T:24:PRO:HA	15:1T:49:VAL:HG22	1.93	0.49
32:1a:994:A:O2'	45:1n:8:GLU:HG2	2.13	0.49
32:1a:1486:G:H2'	32:1a:1487:G:O4'	2.12	0.49
37:1f:19:LEU:HD11	37:1f:59:TYR:CE1	2.48	0.49
37:1f:46:ARG:HH21	49:1r:37:VAL:CG1	2.25	0.49
39:1h:6:ILE:HB	39:1h:85:ARG:NH1	2.27	0.49
40:1i:16:ARG:O	40:1i:63:ILE:HG23	2.13	0.49
1:2A:483:A:O2'	20:2Y:49:VAL:O	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:1:MET:HE1	4:2E:199:ARG:HD3	1.94	0.49
4:2E:96:PHE:O	4:2E:175:VAL:HG11	2.13	0.49
6:2G:105:LYS:NZ	26:24:25:TYR:O	2.39	0.49
14:2S:26:LEU:HD22	14:2S:87:PHE:CD1	2.48	0.49
32:2a:374:A:C6	32:2a:375:U:C4	3.00	0.49
32:2a:540:G:C6	32:2a:541:G:C5	3.00	0.49
38:2g:18:TYR:CE1	38:2g:59:LEU:HB2	2.48	0.49
38:2g:77:SER:OG	38:2g:86:GLN:NE2	2.46	0.49
44:2m:39:ILE:HD12	44:2m:56:LEU:HD22	1.95	0.49
1:1A:1855:G:OP1	3:1D:52:ARG:NH1	2.46	0.49
1:1A:2316:G:N2	6:1G:156:ASP:OD2	2.35	0.49
32:1a:360:A:H2'	32:1a:361:G:O4'	2.13	0.49
32:1a:1327:C:H5''	52:1u:20:LYS:HB3	1.93	0.49
51:1t:88:VAL:O	51:1t:92:LEU:HG	2.12	0.49
1:2A:1239:G:H2'	1:2A:1240:U:O4'	2.12	0.49
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.77	0.49
9:2N:58:ASP:OD1	9:2N:58:ASP:N	2.44	0.49
11:2P:92:GLU:HA	11:2P:123:LEU:HD21	1.95	0.49
12:2Q:35:VAL:HA	12:2Q:101:ARG:O	2.13	0.49
30:28:22:VAL:HB	30:28:55:ALA:HB1	1.94	0.49
32:2a:947:G:H1	32:2a:1234:C:H42	1.58	0.49
32:2a:1012:U:H2'	32:2a:1013:G:C8	2.48	0.49
32:2a:1116:C:O2'	40:2i:108:VAL:HG21	2.13	0.49
33:2b:74:LYS:NZ	33:2b:205:ASP:O	2.45	0.49
35:2d:163:GLU:HA	35:2d:166:LYS:HD3	1.94	0.49
37:2f:99:ALA:HB2	49:2r:31:LEU:HD11	1.94	0.49
51:2t:37:SER:O	51:2t:41:ILE:HG12	2.13	0.49
1:1A:116:A:H3'	1:1A:117:A:C5'	2.42	0.48
1:1A:385:G:C6	1:1A:386:U:O4	2.66	0.48
1:1A:1068:G:N2	1:1A:1069:U:O4	2.35	0.48
1:1A:1314:A:H2'	1:1A:1315:A:O4'	2.13	0.48
1:1A:1432:C:H2'	1:1A:1433:C:C6	2.48	0.48
1:1A:1688:A:H2'	1:1A:1689:G:O4'	2.12	0.48
1:1A:2476:C:H1'	59:1A:5088:HOH:O	2.13	0.48
1:1A:2573:A:O2'	10:1O:23:ARG:HG2	2.13	0.48
2:1B:66:A:H61	2:1B:108:U:H2'	1.78	0.48
32:1a:1072:G:H2'	32:1a:1073:U:C6	2.47	0.48
35:1d:172:PRO:HB2	35:1d:187:ARG:HH22	1.78	0.48
48:1q:88:TYR:HD2	48:1q:89:LEU:HD23	1.77	0.48
53:1x:85:LEU:O	53:1x:89:GLN:HG2	2.12	0.48
1:2A:828:U:H2'	1:2A:829:A:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1423:G:OP1	1:2A:1492:G:O2'	2.30	0.48
1:2A:1857:G:C6	1:2A:1858:G:C6	3.01	0.48
7:2H:98:LEU:HD12	7:2H:98:LEU:HA	1.66	0.48
17:2V:52:VAL:HG22	17:2V:55:ALA:HB3	1.94	0.48
21:2Z:5:LEU:HD13	21:2Z:47:VAL:HG21	1.95	0.48
32:2a:434:U:H2'	32:2a:435:C:H6	1.76	0.48
32:2a:1186:G:H21	45:2n:61:TRP:C	2.20	0.48
36:2e:6:PHE:HB3	36:2e:34:VAL:HG22	1.94	0.48
38:2g:15:ASP:OD1	38:2g:18:TYR:HB2	2.13	0.48
38:2g:16:LEU:HD12	40:2i:41:VAL:O	2.13	0.48
40:2i:4:TYR:O	40:2i:19:LEU:N	2.46	0.48
1:1A:1485:A:H2'	1:1A:1486:G:O4'	2.13	0.48
1:1A:1539:C:H5	1:1A:2227:G:O2'	1.97	0.48
4:1E:6:GLY:HA2	4:1E:51:PHE:CZ	2.48	0.48
32:1a:189(D):C:O2	32:1a:189(H):G:C6	2.66	0.48
32:1a:397:A:H3'	32:1a:397:A:N3	2.28	0.48
32:1a:1309:G:C6	32:1a:1329:A:C2	3.01	0.48
36:1e:78:HIS:HA	39:1h:105:ARG:HG3	1.95	0.48
1:2A:660:G:H5'	5:2F:99:TYR:CE1	2.48	0.48
1:2A:872:A:H2'	1:2A:873:G:O4'	2.14	0.48
1:2A:1707:G:H2'	1:2A:1708:C:C6	2.48	0.48
2:2B:7:G:C3'	2:2B:8:U:H5''	2.42	0.48
2:2B:59:A:H2'	2:2B:60:C:O4'	2.13	0.48
12:2Q:34:LEU:HB2	12:2Q:118:LEU:HD22	1.94	0.48
32:2a:164:U:H2'	32:2a:165:C:C6	2.47	0.48
32:2a:1305:G:O2'	32:2a:1331:G:N2	2.46	0.48
32:2a:1411:C:H2'	32:2a:1412:C:H6	1.78	0.48
32:2a:1492:A:H8	32:2a:1492:A:H3'	1.77	0.48
43:2l:71:PRO:O	43:2l:102:ARG:HD3	2.13	0.48
1:1A:755:C:H2'	1:1A:756:U:H6	1.77	0.48
1:1A:1633:A:H2'	1:1A:1634:C:C6	2.48	0.48
1:1A:2125:C:H2'	1:1A:2126:G:H5'	1.95	0.48
1:1A:2802:C:O2	1:1A:2903:G:N1	2.40	0.48
8:1I:77:LEU:HB3	8:1I:142:VAL:HG22	1.95	0.48
13:1R:54:LEU:HA	13:1R:54:LEU:HD12	1.34	0.48
20:1Y:81:LYS:HE2	20:1Y:81:LYS:HB3	1.69	0.48
21:1Z:118:GLN:O	21:1Z:120:ILE:N	2.45	0.48
32:1a:406:G:H21	35:1d:119:GLN:NE2	2.11	0.48
33:1b:163:PHE:HA	33:1b:185:ILE:O	2.12	0.48
37:1f:91:VAL:HG12	37:1f:92:LYS:O	2.13	0.48
1:2A:659:C:H4'	5:2F:100:THR:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:975(A):G:C2	1:2A:990:A:C8	3.01	0.48
1:2A:1047:G:H2'	1:2A:1110:G:N2	2.25	0.48
1:2A:1448:G:H1'	1:2A:1528:A:N1	2.28	0.48
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	1.94	0.48
3:2D:210:GLY:O	3:2D:213:ARG:HB2	2.13	0.48
5:2F:118:ALA:HA	5:2F:123:LEU:HB3	1.94	0.48
6:2G:21:ARG:HH11	6:2G:21:ARG:HG2	1.77	0.48
6:2G:123:ASN:C	6:2G:125:PHE:H	2.21	0.48
32:2a:622:A:C8	32:2a:623:C:C5	3.02	0.48
1:1A:898:U:O2'	25:13:42:ALA:O	2.30	0.48
1:1A:2658:C:O5'	1:1A:2658:C:H6	1.96	0.48
1:1A:2846:U:H2'	1:1A:2847:G:C8	2.48	0.48
4:1E:50:GLY:HA3	4:1E:75:VAL:HG11	1.96	0.48
8:1I:25:TYR:CE1	8:1I:29:TYR:CD2	3.02	0.48
16:1U:17:ILE:HG23	16:1U:39:LEU:HD12	1.95	0.48
20:1Y:92:ASN:N	20:1Y:93:GLY:HA2	2.29	0.48
32:1a:1134:G:N3	32:1a:1134:G:H2'	2.29	0.48
36:1e:51:VAL:O	36:1e:55:VAL:HG23	2.14	0.48
38:1g:47:CYS:HA	38:1g:50:ILE:HG12	1.95	0.48
39:1h:13:ILE:O	39:1h:17:THR:HG23	2.14	0.48
49:1r:26:LEU:CD2	49:1r:39:VAL:HG13	2.44	0.48
49:1r:45:SER:C	49:1r:47:THR:H	2.20	0.48
50:1s:22:LEU:HD22	50:1s:27:GLU:HA	1.95	0.48
1:2A:298:G:H5''	1:2A:299:A:OP1	2.12	0.48
1:2A:1062:G:N7	1:2A:1070:A:H1'	2.29	0.48
1:2A:1668:A:H4'	1:2A:1669:A:O5'	2.12	0.48
2:2B:14:U:O2	2:2B:108:U:H4'	2.13	0.48
4:2E:97:LYS:O	4:2E:100:GLU:HG3	2.13	0.48
6:2G:131:TYR:HB3	6:2G:159:VAL:HG13	1.95	0.48
12:2Q:38:GLU:HG3	12:2Q:127:ILE:HG22	1.95	0.48
32:2a:134:A:N6	47:2p:25:ARG:HH22	2.11	0.48
32:2a:276:G:O3'	48:2q:68:ARG:NH1	2.46	0.48
32:2a:380:G:C2	32:2a:384:G:C6	3.01	0.48
32:2a:410:G:C2	32:2a:429:U:C2	3.01	0.48
32:2a:500:G:C6	32:2a:501:C:N4	2.81	0.48
32:2a:531:U:O3'	32:2a:532:A:H4'	2.14	0.48
32:2a:722:A:H2'	32:2a:724:G:C8	2.48	0.48
32:2a:841:U:C5	32:2a:848:C:H1'	2.48	0.48
32:2a:949:A:H2'	32:2a:950:U:O4'	2.13	0.48
32:2a:1154:G:C2	32:2a:1155:G:C8	3.01	0.48
32:2a:1190:G:O2'	34:2c:3:ASN:HB2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:223:ILE:HD12	33:2b:224:GLN:N	2.29	0.48
36:2e:80:ILE:HG22	36:2e:91:LEU:HB2	1.94	0.48
1:1A:161:C:H2'	1:1A:162:G:H8	1.78	0.48
1:1A:755:C:H2'	1:1A:756:U:C6	2.48	0.48
1:1A:1785:C:H2'	1:1A:1786:A:O4'	2.13	0.48
1:1A:2073:A:H5'	1:1A:2590:G:O4'	2.14	0.48
2:1B:34:U:OP1	6:1G:2:PRO:HD3	2.12	0.48
32:1a:890:G:O2'	32:1a:906:G:O6	2.22	0.48
35:1d:25:ARG:NH1	35:1d:30:LYS:O	2.46	0.48
44:1m:97:PRO:HA	44:1m:110:ARG:HG3	1.95	0.48
1:2A:1110:G:H8	1:2A:1110:G:OP2	1.96	0.48
1:2A:1406:U:H2'	1:2A:1407:C:C6	2.48	0.48
1:2A:2331:G:O2'	22:20:43:THR:HG22	2.13	0.48
1:2A:2740:A:C6	1:2A:2764:A:C8	3.01	0.48
1:2A:2741:A:H2'	1:2A:2742:C:O4'	2.13	0.48
8:2I:104:GLN:CG	8:2I:105:HIS:H	2.26	0.48
11:2P:59:LEU:HD21	30:28:10:ALA:HA	1.96	0.48
32:2a:735:C:H2'	32:2a:736:C:C6	2.43	0.48
32:2a:1061:G:O4'	41:2j:56:HIS:ND1	2.46	0.48
32:2a:1400:5MC:N3	53:2x:63:ALA:HA	2.28	0.48
33:2b:131:PRO:O	33:2b:135:GLN:HG3	2.14	0.48
38:2g:46:ALA:O	38:2g:50:ILE:HG23	2.14	0.48
1:1A:1815:A:H4'	1:1A:1816:A:O5'	2.14	0.48
1:1A:2202:U:H2'	1:1A:2203:G:O4'	2.14	0.48
4:1E:4:ILE:HD13	4:1E:28:ALA:HB1	1.96	0.48
32:1a:438:G:O2'	32:1a:494:U:O4	2.31	0.48
32:1a:1055:A:H2'	34:1c:156:ARG:HD2	1.95	0.48
35:1d:162:LEU:CD1	35:1d:181:MET:HE2	2.43	0.48
39:1h:20:TYR:CE2	39:1h:75:ARG:HD2	2.49	0.48
1:2A:493:G:H2'	1:2A:494:G:O4'	2.13	0.48
1:2A:2648:C:H2'	1:2A:2649:U:C6	2.48	0.48
3:2D:108:PRO:HD2	3:2D:111:LEU:HG	1.95	0.48
32:2a:503:C:H2'	32:2a:504:C:H6	1.79	0.48
32:2a:538:G:C2	32:2a:539:A:C4	3.02	0.48
32:2a:547:A:OP2	35:2d:2:GLY:HA2	2.13	0.48
32:2a:1340:A:OP1	53:2x:57:PRO:HB3	2.14	0.48
46:2o:15:PHE:CE1	46:2o:84:LYS:HD3	2.49	0.48
53:2x:38:HIS:O	53:2x:52:ALA:HA	2.14	0.48
1:1A:76:C:OP1	24:12:59:ARG:HD3	2.14	0.48
6:1G:44:GLY:C	6:1G:46:ALA:H	2.19	0.48
28:16:38:LYS:HB2	28:16:49:HIS:CE1	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1103:C:H5'	33:1b:98:LEU:HD13	1.96	0.48
34:1c:19:GLU:O	34:1c:40:ARG:NH2	2.46	0.48
1:2A:1005:C:O2'	9:2N:28:THR:HG21	2.13	0.48
1:2A:2101:G:C2	1:2A:2102:U:H1'	2.48	0.48
1:2A:2136:C:N4	1:2A:2155:G:H1	2.11	0.48
1:2A:2161:C:O2'	1:2A:2173:A:H4'	2.14	0.48
14:2S:46:VAL:HG12	14:2S:48:LEU:HD12	1.95	0.48
19:2X:35:THR:HG22	19:2X:37:THR:N	2.27	0.48
26:24:18:CYS:HB2	26:24:20:ASN:H	1.78	0.48
32:2a:397:A:H3'	32:2a:397:A:N3	2.29	0.48
32:2a:500:G:C6	32:2a:546:G:C2	3.02	0.48
32:2a:632:A:H5'	32:2a:633:G:OP2	2.13	0.48
34:2c:7:PRO:HG3	34:2c:201:TYR:HE1	1.77	0.48
40:2i:4:TYR:N	40:2i:19:LEU:O	2.42	0.48
42:2k:86:GLY:N	42:2k:112:THR:OG1	2.40	0.48
46:2o:29:VAL:HG11	46:2o:81:LEU:HD21	1.96	0.48
53:2x:13:THR:HG23	53:2x:16:ILE:CG2	2.43	0.48
1:1A:606:G:OP2	16:1U:10:ARG:HD2	2.12	0.48
1:1A:1248:G:H5'	11:1P:3:LEU:HD23	1.94	0.48
1:1A:1921:G:N3	1:1A:1921:G:H2'	2.28	0.48
2:1B:24:G:N7	2:1B:56:G:H2'	2.29	0.48
6:1G:28:VAL:O	6:1G:31:VAL:HG13	2.14	0.48
9:1N:42:TRP:CH2	9:1N:44:PRO:HB3	2.48	0.48
10:1O:24:VAL:HG22	10:1O:30:ALA:HB3	1.95	0.48
14:1S:95:HIS:CG	14:1S:96:GLY:N	2.81	0.48
32:1a:1343:G:O2'	40:1i:121:ARG:HD2	2.13	0.48
32:1a:1348:U:H4'	40:1i:120:ARG:HD2	1.96	0.48
32:1a:1409:C:H2'	32:1a:1410:G:H8	1.78	0.48
39:1h:86:ILE:HG13	39:1h:133:LEU:HD22	1.95	0.48
42:1k:108:ILE:O	49:1r:87:ARG:HG3	2.14	0.48
47:1p:20:VAL:HG21	47:1p:32:TYR:CG	2.49	0.48
48:1q:45:HIS:NE2	48:1q:47:PRO:HG3	2.29	0.48
1:2A:530:G:H4'	1:2A:531:C:OP1	2.13	0.48
1:2A:1325:G:OP1	1:2A:1647:G:O2'	2.30	0.48
2:2B:31:C:H4'	6:2G:29:TRP:CH2	2.48	0.48
6:2G:125:PHE:HB3	6:2G:166:ASP:CG	2.38	0.48
9:2N:14:VAL:HG11	9:2N:138:LEU:HD12	1.96	0.48
11:2P:101:VAL:HA	11:2P:106:LEU:O	2.14	0.48
21:2Z:3:TYR:O	21:2Z:58:VAL:N	2.38	0.48
32:2a:947:G:N2	32:2a:1234:C:N3	2.58	0.48
32:2a:1135:U:H2'	32:2a:1137:C:C4	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:23:GLY:O	35:2d:26:CYS:HB2	2.14	0.48
36:2e:11:ILE:HG21	36:2e:105:VAL:HG22	1.96	0.48
44:2m:84:ILE:HG22	50:2s:65:ASN:HD22	1.79	0.48
1:1A:63:A:O3'	19:1X:71:GLY:HA3	2.14	0.48
1:1A:142:G:H2'	1:1A:143:C:C6	2.48	0.48
1:1A:1102:G:H4'	1:1A:1132:A:C8	2.49	0.48
1:1A:2151:C:O2	1:1A:2181:G:N1	2.27	0.48
1:1A:2440:G:H5''	1:1A:2441:G:OP1	2.14	0.48
9:1N:48:MET:HE3	9:1N:48:MET:C	2.38	0.48
11:1P:47:ASP:OD2	11:1P:49:ARG:NH2	2.46	0.48
14:1S:14:VAL:O	14:1S:18:ILE:HG12	2.13	0.48
32:1a:177:C:P	51:1t:65:LYS:HZ3	2.37	0.48
32:1a:600:C:H2'	32:1a:601:C:C6	2.49	0.48
32:1a:1160:G:C6	32:1a:1161:C:C4	3.02	0.48
32:1a:1206:G:C6	32:1a:1207:2MG:C5	3.01	0.48
32:1a:1298:C:P	38:1g:114:ARG:HH22	2.35	0.48
32:1a:1412:C:H2'	32:1a:1413:A:H8	1.77	0.48
35:1d:25:ARG:O	35:1d:25:ARG:HG2	2.13	0.48
38:1g:113:GLU:CG	38:1g:119:ARG:HG2	2.44	0.48
40:1i:19:LEU:HD12	40:1i:84:ALA:HB3	1.96	0.48
47:1p:15:PRO:O	47:1p:16:HIS:ND1	2.47	0.48
1:2A:699:A:C2	1:2A:1633:G:N3	2.82	0.48
1:2A:1073:A:C8	1:2A:1073:A:H3'	2.49	0.48
1:2A:2102:U:H2'	1:2A:2103:C:C6	2.48	0.48
1:2A:2360:A:C2	1:2A:2361:A:H1'	2.48	0.48
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.49	0.48
2:2B:11:C:H3'	2:2B:12:C:C6	2.48	0.48
10:2O:70:LYS:HB3	10:2O:70:LYS:HE2	1.53	0.48
32:2a:938:A:C6	32:2a:939:G:C5	3.02	0.48
32:2a:1010:G:C2	32:2a:1020:U:H1'	2.49	0.48
34:2c:175:LEU:H	34:2c:175:LEU:HD12	1.79	0.48
40:2i:53:VAL:C	40:2i:55:ALA:H	2.13	0.48
44:2m:15:VAL:HG12	44:2m:45:VAL:HG22	1.96	0.48
1:1A:1144:A:C5	1:1A:1145:G:C8	3.01	0.48
1:1A:1218:G:N3	1:1A:1220:U:H5''	2.29	0.48
1:1A:1255:A:H5''	1:1A:1257:G:O4'	2.14	0.48
1:1A:1285:G:H2'	1:1A:1286:U:O4'	2.14	0.48
1:1A:2825:C:H5'	27:15:29:THR:HG21	1.96	0.48
8:1I:115:ALA:HB2	8:1I:131:LYS:HE2	1.95	0.48
31:19:9:ARG:HB3	31:19:14:CYS:HB2	1.96	0.48
32:1a:262:A:C6	32:1a:263:A:C6	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:447:G:O6	32:1a:485:G:O2'	2.25	0.48
32:1a:1003:G:O2'	32:1a:1004:A:H4'	2.14	0.48
32:1a:1176:A:C6	32:1a:1177:G:C6	3.02	0.48
32:1a:1320:C:OP1	50:1s:70:LYS:NZ	2.40	0.48
1:2A:96:G:H4'	24:22:48:HIS:CD2	2.48	0.48
1:2A:322:A:H5'	1:2A:340:A:C1'	2.44	0.48
1:2A:1065:U:H1'	1:2A:1066:U:C6	2.49	0.48
10:2O:7:TYR:CE1	10:2O:20:MET:HB2	2.49	0.48
32:2a:189(K):U:H2'	32:2a:189(L):G:C8	2.48	0.48
32:2a:499:A:H4'	32:2a:500:G:H5'	1.96	0.48
32:2a:625:G:H4'	47:2p:16:HIS:CD2	2.48	0.48
32:2a:1008:C:H2'	32:2a:1009:G:H8	1.76	0.48
32:2a:1027:C:H2'	32:2a:1028:C:C5	2.47	0.48
32:2a:1062:U:H2'	32:2a:1063:C:C5	2.48	0.48
32:2a:1164:G:C6	32:2a:1165:C:C4	3.02	0.48
32:2a:1262:C:H2'	32:2a:1263:C:H6	1.78	0.48
32:2a:1273:G:H3'	32:2a:1274:G:H8	1.79	0.48
35:2d:30:LYS:HG2	35:2d:35:ARG:NH2	2.29	0.48
36:2e:6:PHE:HE1	36:2e:36:ASP:HB3	1.78	0.48
1:1A:1825:U:H2'	1:1A:1826:C:C6	2.48	0.47
1:1A:1833:A:N1	1:1A:1853:G:H1'	2.29	0.47
1:1A:1878:A:H3'	1:1A:1879:A:H5'	1.96	0.47
3:1D:145:VAL:HB	3:1D:155:LEU:HB2	1.95	0.47
5:1F:32:LEU:HD23	5:1F:32:LEU:C	2.39	0.47
37:1f:63:TYR:O	37:1f:65:VAL:HG13	2.12	0.47
40:1i:9:ARG:HG2	40:1i:14:VAL:HG22	1.96	0.47
41:1j:38:ILE:CG1	41:1j:71:LEU:HB3	2.44	0.47
50:1s:22:LEU:HD22	50:1s:28:LYS:HA	1.96	0.47
1:2A:443:A:H1'	1:2A:1201:C:O4'	2.14	0.47
1:2A:581:C:H2'	1:2A:582:G:H8	1.79	0.47
3:2D:213:ARG:HA	3:2D:213:ARG:HD2	1.64	0.47
32:2a:67:C:H2'	32:2a:68:G:C8	2.49	0.47
32:2a:587:G:N2	32:2a:754:C:OP2	2.44	0.47
32:2a:598:U:H4'	39:2h:94:TYR:CD2	2.49	0.47
33:2b:219:VAL:O	33:2b:222:ILE:HG12	2.14	0.47
1:1A:910:A:H2'	1:1A:911:G:C8	2.48	0.47
2:1B:60:C:C2	2:1B:61:G:C8	3.02	0.47
8:1I:132:PRO:HD2	8:1I:136:VAL:O	2.14	0.47
13:1R:72:ASP:HB3	13:1R:75:LEU:HB2	1.96	0.47
32:1a:404:U:O2	32:1a:498:U:O4	2.32	0.47
32:1a:486:U:H2'	32:1a:487:A:H8	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:857:C:H2'	32:1a:858:G:O4'	2.14	0.47
44:1m:9:ILE:HG21	44:1m:22:ILE:HD11	1.95	0.47
1:2A:1754:C:C5	15:2T:96:ARG:NH2	2.82	0.47
5:2F:160:ASN:CG	5:2F:163:VAL:HG23	2.39	0.47
7:2H:17:VAL:HG23	59:2H:301:HOH:O	2.15	0.47
15:2T:26:ASP:O	15:2T:49:VAL:HG13	2.13	0.47
32:2a:757:U:H2'	32:2a:758:G:O4'	2.13	0.47
32:2a:1305:G:H5'	52:2u:4:GLY:C	2.39	0.47
34:2c:180:ALA:HB1	34:2c:203:PHE:CE1	2.49	0.47
2:1B:11:C:OP2	2:1B:12:C:H5	1.97	0.47
5:1F:34:TRP:CH2	11:1P:8:PRO:HB3	2.48	0.47
12:1Q:110:THR:HG23	12:1Q:113:GLN:OE1	2.14	0.47
19:1X:53:LYS:HB3	19:1X:82:GLN:HB3	1.95	0.47
28:16:10:LEU:HG	28:16:54:ILE:HG13	1.96	0.47
32:1a:1374:A:OP1	38:1g:36:LYS:HE3	2.15	0.47
36:1e:89:ILE:HG12	36:1e:135:THR:HG23	1.96	0.47
37:1f:91:VAL:HG11	49:1r:72:ARG:NH1	2.29	0.47
43:1l:77:LEU:HD21	43:1l:107:ALA:HA	1.96	0.47
1:2A:208:C:H2'	1:2A:209:C:C6	2.50	0.47
1:2A:275:G:O5'	1:2A:275:G:H8	1.97	0.47
1:2A:729:G:H2'	1:2A:1775:U:O2	2.13	0.47
1:2A:888:C:OP1	44:2m:93:ARG:NH1	2.47	0.47
1:2A:2869:G:H2'	1:2A:2870:C:O4'	2.13	0.47
17:2V:49:THR:O	17:2V:49:THR:HG22	2.13	0.47
23:21:94:LEU:HA	23:21:94:LEU:HD23	1.50	0.47
32:2a:392:G:H2'	32:2a:393:A:C8	2.49	0.47
32:2a:865:A:H5'	32:2a:1078:U:O4	2.14	0.47
32:2a:996:A:H2'	32:2a:997:U:C6	2.49	0.47
32:2a:1141:C:C2	32:2a:1142:G:C8	3.02	0.47
32:2a:1277:C:HO2'	32:2a:1279:A:H8	1.58	0.47
36:2e:78:HIS:CD2	36:2e:142:LEU:HD23	2.49	0.47
39:2h:56:LYS:O	39:2h:58:TYR:HD2	1.97	0.47
41:2j:6:ILE:CD1	41:2j:98:ILE:HG12	2.44	0.47
1:1A:1592:A:H2'	1:1A:1593:C:O4'	2.15	0.47
1:1A:1653:C:N4	1:1A:1668:G:OP2	2.41	0.47
1:1A:1995:G:H2'	1:1A:1996:C:C6	2.48	0.47
10:1O:2:ILE:HB	10:1O:33:ALA:HB3	1.95	0.47
32:1a:1124:G:N2	32:1a:1125:U:O4	2.47	0.47
39:1h:29:SER:HB3	39:1h:32:LYS:HG3	1.96	0.47
47:1p:49:LEU:HG	47:1p:50:LYS:N	2.30	0.47
1:2A:984:A:H5''	1:2A:985:C:H5	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1093:G:O6	1:2A:1094:U:N3	2.47	0.47
1:2A:2022:U:O2'	1:2A:2617:C:H5'	2.14	0.47
8:2I:38:LEU:HB3	8:2I:40:THR:HG23	1.95	0.47
13:2R:70:LEU:O	13:2R:72:ASP:N	2.41	0.47
18:2W:84:ARG:HG3	18:2W:98:LYS:HD2	1.96	0.47
32:2a:415:A:H2'	32:2a:416:G:O4'	2.14	0.47
32:2a:417:C:H2'	32:2a:418:C:C6	2.49	0.47
32:2a:473:G:H2'	32:2a:474:G:H8	1.79	0.47
33:2b:9:GLU:O	33:2b:11:LEU:N	2.32	0.47
35:2d:112:VAL:HG22	35:2d:116:GLN:NE2	2.29	0.47
37:2f:10:LEU:HD13	37:2f:61:LEU:HD13	1.96	0.47
39:2h:49:GLU:HG2	39:2h:62:TYR:HE2	1.80	0.47
49:2r:45:SER:OG	49:2r:47:THR:HG22	2.14	0.47
1:1A:1094:A:OP2	1:1A:1155:C:N4	2.47	0.47
1:1A:1159:U:H2'	1:1A:1160:G:H8	1.80	0.47
1:1A:1935:A:N3	32:1a:1493:A:C8	2.83	0.47
5:1F:135:LYS:HB2	5:1F:138:GLU:CD	2.39	0.47
6:1G:67:LYS:H	26:14:6:HIS:CE1	2.32	0.47
15:1T:105:LEU:HD23	15:1T:105:LEU:HA	1.57	0.47
27:15:42:PRO:HB2	27:15:43:HIS:ND1	2.30	0.47
32:1a:1260:C:O5'	32:1a:1284:C:H4'	2.14	0.47
40:1i:9:ARG:HB3	40:1i:104:ARG:HH21	1.79	0.47
48:1q:4:LYS:HG3	48:1q:6:LEU:CD1	2.45	0.47
1:2A:656:G:H2'	1:2A:657:U:O4'	2.14	0.47
1:2A:1721:G:H5'	1:2A:1722:A:OP2	2.15	0.47
1:2A:2274:A:C5	1:2A:2276:G:C8	3.02	0.47
1:2A:2335:A:C8	1:2A:2337:G:C5	3.02	0.47
2:2B:9:G:C2	2:2B:113:G:C4	3.03	0.47
2:2B:30:C:H2'	2:2B:31:C:H5'	1.96	0.47
8:2I:6:LEU:HG	8:2I:36:ALA:HA	1.97	0.47
15:2T:2:ASN:O	15:2T:6:LEU:HD13	2.15	0.47
32:2a:583:A:H2'	32:2a:584:G:O4'	2.15	0.47
32:2a:946:A:H2'	32:2a:947:G:C8	2.49	0.47
32:2a:1004:A:H3'	32:2a:1005:A:C5'	2.45	0.47
32:2a:1084:G:H5'	32:2a:1102:A:OP2	2.15	0.47
32:2a:1142:G:H2'	32:2a:1143:G:O4'	2.15	0.47
32:2a:1209:C:O2'	32:2a:1214:C:N4	2.44	0.47
34:2c:30:ARG:NH1	45:2n:35:ARG:O	2.47	0.47
37:2f:2:ARG:NE	37:2f:69:GLU:HG2	2.29	0.47
1:1A:1400:A:H2'	1:1A:1401:G:O4'	2.14	0.47
32:1a:952:U:O2'	32:1a:953:G:H5'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1262:C:H2'	32:1a:1263:C:H6	1.79	0.47
36:1e:100:VAL:HG22	36:1e:118:ILE:HG22	1.97	0.47
36:1e:144:THR:H	36:1e:147:ASP:HB2	1.79	0.47
1:2A:1261:C:OP2	18:2W:83:LYS:NZ	2.43	0.47
1:2A:1268:A:C2	1:2A:2013:A:C4	3.03	0.47
1:2A:2386:C:H2'	1:2A:2387:U:C6	2.49	0.47
3:2D:24:ILE:HD13	3:2D:84:TYR:HB2	1.96	0.47
3:2D:77:ALA:HA	3:2D:97:TYR:HA	1.96	0.47
4:2E:121:ASN:ND2	59:2E:401:HOH:O	2.48	0.47
5:2F:132:VAL:CG2	5:2F:163:VAL:HG22	2.45	0.47
32:2a:730:G:C5	32:2a:731:G:H1'	2.50	0.47
32:2a:1255:G:OP1	41:2j:45:ARG:NH2	2.46	0.47
32:2a:1305:G:H22	32:2a:1331:G:H1'	1.77	0.47
41:2j:24:VAL:O	41:2j:34:VAL:HG11	2.13	0.47
1:1A:559:U:H2'	1:1A:560:C:C6	2.50	0.47
1:1A:561:A:H2'	1:1A:562:C:C6	2.50	0.47
1:1A:922:G:H2'	1:1A:923:C:O4'	2.14	0.47
1:1A:1110:C:OP2	1:1A:1111:U:H5'	2.14	0.47
1:1A:1492:C:H2'	1:1A:1493:C:H6	1.79	0.47
1:1A:2029:C:H2'	1:1A:2030:C:C6	2.50	0.47
1:1A:2579:G:H2'	1:1A:2580:C:C6	2.49	0.47
1:1A:2879:G:H2'	1:1A:2880:C:O4'	2.15	0.47
3:1D:127:VAL:HA	3:1D:193:VAL:HG22	1.97	0.47
3:1D:213:ARG:HD2	3:1D:213:ARG:HA	1.63	0.47
4:1E:9:VAL:HB	15:1T:3:ARG:HG2	1.97	0.47
7:1H:7:LEU:HA	7:1H:8:PRO:HD3	1.63	0.47
8:1I:81:VAL:HG21	8:1I:88:ILE:HD13	1.97	0.47
11:1P:1:MET:HE2	11:1P:6:LEU:HD23	1.97	0.47
21:1Z:67:LEU:HD23	21:1Z:67:LEU:HA	1.68	0.47
28:16:25:LYS:HE3	28:16:30:THR:O	2.14	0.47
32:1a:130:A:O2'	32:1a:131:C:O5'	2.22	0.47
32:1a:343:U:C2	32:1a:347:G:C2	3.02	0.47
32:1a:377:G:C2	32:1a:387:U:O2	2.67	0.47
32:1a:410:G:H5''	35:1d:30:LYS:HZ2	1.79	0.47
32:1a:445:G:C6	32:1a:490:G:C6	3.02	0.47
32:1a:627:G:H2'	32:1a:628:G:C8	2.43	0.47
32:1a:721:G:H4'	32:1a:722:A:O4'	2.14	0.47
32:1a:727:G:N2	32:1a:730:G:OP2	2.42	0.47
32:1a:964:A:N3	32:1a:969:A:O2'	2.43	0.47
32:1a:1057:G:C5	32:1a:1204:A:C2	3.02	0.47
32:1a:1085:U:C2	32:1a:1094:G:O6	2.68	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1118:C:O5'	32:1a:1118:C:H6	1.97	0.47
32:1a:1255:G:C2	32:1a:1283:G:C2	3.03	0.47
32:1a:1402:4OC:O5'	32:1a:1402:4OC:H6	2.15	0.47
33:1b:134:GLU:HG3	33:1b:137:ARG:NH2	2.28	0.47
44:1m:4:ILE:HG22	44:1m:57:ARG:HE	1.78	0.47
48:1q:81:ARG:NH2	48:1q:83:ASP:OD2	2.47	0.47
1:2A:458:G:O2'	29:27:39:ARG:HD3	2.15	0.47
1:2A:583:G:OP2	16:2U:10:ARG:HD2	2.15	0.47
1:2A:1005:C:O2	1:2A:1143:A:C6	2.68	0.47
1:2A:1048:A:H2	1:2A:1112:G:N3	2.13	0.47
1:2A:1063:G:OP2	1:2A:1065:U:H6	1.97	0.47
1:2A:1653:G:C5	13:2R:9:LYS:HD2	2.49	0.47
1:2A:1722:A:O2'	1:2A:1740:G:N7	2.47	0.47
1:2A:1999:C:H4'	1:2A:2723:C:O2	2.14	0.47
1:2A:2145:C:O2'	1:2A:2147:G:N2	2.48	0.47
1:2A:2187:G:C6	1:2A:2188:C:C2	3.03	0.47
1:2A:2474:C:H5''	1:2A:2475:C:OP2	2.15	0.47
1:2A:2647:U:H2'	1:2A:2648:C:H6	1.80	0.47
12:2Q:7:MET:HE3	21:2Z:194:PRO:HB3	1.95	0.47
12:2Q:73:PRO:HB3	12:2Q:93:TYR:CE1	2.50	0.47
21:2Z:28:MET:HA	21:2Z:88:PHE:O	2.14	0.47
21:2Z:53:ILE:HG13	21:2Z:54:HIS:ND1	2.29	0.47
32:2a:146:G:C2	32:2a:177:C:N3	2.83	0.47
32:2a:157:G:C2	32:2a:165:C:C2	3.03	0.47
32:2a:1017:G:H2'	32:2a:1018:C:C6	2.50	0.47
32:2a:1215:G:C6	32:2a:1216:G:C5	3.03	0.47
32:2a:1243:C:H2'	32:2a:1244:C:H6	1.80	0.47
32:2a:1492:A:H3'	32:2a:1492:A:C8	2.49	0.47
35:2d:18:LYS:NZ	35:2d:31:CYS:SG	2.87	0.47
36:2e:30:ALA:HB3	36:2e:58:ALA:HB2	1.95	0.47
1:1A:1236:G:H8	1:1A:1236:G:O5'	1.98	0.47
1:1A:2138:G:OP2	1:1A:2188:G:N2	2.43	0.47
5:1F:129:PHE:CD2	5:1F:163:VAL:HG21	2.49	0.47
12:1Q:37:LEU:HD23	12:1Q:37:LEU:HA	1.76	0.47
15:1T:125:ARG:NH1	32:1a:1443:G:H5'	2.29	0.47
20:1Y:92:ASN:H	20:1Y:92:ASN:HD22	1.61	0.47
32:1a:601:C:H2'	32:1a:602:A:C8	2.50	0.47
32:1a:1194:U:H4'	36:1e:22:GLY:O	2.14	0.47
32:1a:1372:U:OP1	40:1i:72:GLY:N	2.43	0.47
35:1d:17:VAL:HG12	35:1d:18:LYS:O	2.15	0.47
42:1k:18:ARG:HG3	42:1k:18:ARG:NH1	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:1t:47:GLY:HA2	51:1t:48:LYS:HB2	1.95	0.47
1:2A:757:U:H2'	1:2A:758:C:O4'	2.15	0.47
1:2A:2197:U:H1'	1:2A:2198:A:C8	2.49	0.47
3:2D:169:GLU:OE1	3:2D:184:LYS:HE2	2.14	0.47
13:2R:100:LEU:HD11	13:2R:113:LEU:HD23	1.96	0.47
32:2a:818:G:O2'	32:2a:819:A:H5'	2.14	0.47
34:2c:43:LEU:HD23	34:2c:43:LEU:HA	1.63	0.47
44:2m:15:VAL:HA	44:2m:18:ALA:HB3	1.96	0.47
49:2r:54:ARG:HH11	49:2r:54:ARG:CB	2.15	0.47
51:2t:82:SER:O	51:2t:86:ARG:HG3	2.15	0.47
1:1A:63:A:C5	19:1X:66:LEU:HD12	2.50	0.47
1:1A:762:G:H2'	1:1A:763:A:O4'	2.14	0.47
1:1A:794:U:O2	1:1A:2036:A:H1'	2.14	0.47
2:1B:28:C:OP1	14:1S:36:TYR:OH	2.29	0.47
4:1E:9:VAL:HG22	4:1E:25:VAL:HB	1.97	0.47
7:1H:7:LEU:HD12	7:1H:8:PRO:HD2	1.96	0.47
9:1N:58:ASP:OD1	9:1N:58:ASP:N	2.48	0.47
24:12:32:LEU:HD22	24:12:36:ARG:HH11	1.80	0.47
32:1a:129(A):G:C6	32:1a:189(E):U:H4'	2.50	0.47
32:1a:322:C:O2'	51:1t:23:ARG:HD2	2.14	0.47
32:1a:590:C:O2'	32:1a:591:U:H5'	2.15	0.47
32:1a:872:A:C4	32:1a:874:G:N7	2.82	0.47
32:1a:1228:C:P	44:1m:108:ARG:HH22	2.38	0.47
35:1d:65:ARG:NH1	35:1d:70:ILE:O	2.48	0.47
38:1g:16:LEU:HD12	40:1i:41:VAL:O	2.15	0.47
39:1h:120:THR:HG23	39:1h:123:GLU:HG3	1.95	0.47
40:1i:99:LEU:HB3	40:1i:101:PHE:CE2	2.50	0.47
41:1j:40:LEU:HB2	41:1j:69:ASN:HB3	1.97	0.47
1:2A:1074:G:C5	1:2A:1075:C:C6	3.03	0.47
1:2A:1274:A:N3	1:2A:1297:C:H1'	2.29	0.47
1:2A:2287:A:O2'	1:2A:2289:G:N7	2.34	0.47
1:2A:2680:C:H1'	4:2E:187:ALA:HB1	1.95	0.47
6:2G:122:PRO:HB3	6:2G:170:ARG:HH12	1.79	0.47
21:2Z:163:LEU:HA	21:2Z:163:LEU:HD12	1.56	0.47
23:21:83:GLU:HA	23:21:84:GLY:HA2	1.74	0.47
32:2a:192:U:H2'	32:2a:193:C:C6	2.49	0.47
32:2a:401:C:H1'	32:2a:622:A:H1'	1.96	0.47
32:2a:414:A:C5	32:2a:431:A:C2	3.03	0.47
32:2a:1125:U:C4	32:2a:1280:A:N7	2.83	0.47
32:2a:1158:C:C2	32:2a:1160:G:C8	3.02	0.47
33:2b:209:ARG:HD3	33:2b:209:ARG:HA	1.59	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2e:40:ARG:HH12	36:2e:68:GLU:HB3	1.80	0.47
36:2e:51:VAL:O	36:2e:55:VAL:HG23	2.15	0.47
44:2m:90:LEU:HD23	44:2m:93:ARG:HE	1.80	0.47
1:1A:225:C:H2'	1:1A:226:C:C6	2.50	0.47
1:1A:903:C:O4'	22:10:27:GLU:HB3	2.15	0.47
1:1A:1218:G:O2'	1:1A:1219:A:O5'	2.31	0.47
1:1A:2045:G:H5'	1:1A:2629:C:H4'	1.97	0.47
1:1A:2240:G:C5	1:1A:2241:C:C4	3.03	0.47
31:19:15:LYS:HE2	31:19:17:ILE:HD11	1.97	0.47
32:1a:392:G:H2'	32:1a:393:A:C8	2.49	0.47
32:1a:413:G:N2	32:1a:428:G:H1'	2.29	0.47
32:1a:499:A:H4'	32:1a:500:G:OP1	2.14	0.47
32:1a:620:C:H2'	32:1a:621:A:O4'	2.15	0.47
32:1a:735:C:H2'	32:1a:736:C:C6	2.50	0.47
33:1b:80:ILE:CD1	33:1b:212:GLN:HA	2.45	0.47
33:1b:106:LYS:H	33:1b:106:LYS:NZ	2.12	0.47
34:1c:27:LYS:HD3	34:1c:27:LYS:HA	1.73	0.47
40:1i:81:ILE:O	40:1i:85:LEU:HG	2.15	0.47
41:1j:55:LYS:HE3	41:1j:56:HIS:HE1	1.80	0.47
47:1p:5:ARG:HH12	47:1p:28:ARG:HA	1.80	0.47
50:1s:40:ILE:HD12	50:1s:69:HIS:O	2.13	0.47
51:1t:67:ALA:HB2	51:1t:77:ALA:HB2	1.96	0.47
1:2A:775:G:C4	1:2A:794:G:C8	3.03	0.47
1:2A:1071:G:C8	1:2A:1071:G:H3'	2.50	0.47
1:2A:2115:G:H1'	1:2A:2171:A:N6	2.29	0.47
1:2A:2157:G:H5''	1:2A:2158:A:C5'	2.44	0.47
1:2A:2846:G:H2'	1:2A:2847:U:O4'	2.15	0.47
4:2E:73:GLU:HG3	4:2E:74:PRO:HD2	1.96	0.47
4:2E:181:LEU:HD12	4:2E:181:LEU:HA	1.56	0.47
5:2F:9:ILE:CG2	5:2F:125:LEU:HD12	2.45	0.47
5:2F:170:LEU:HD12	5:2F:172:TRP:HE1	1.80	0.47
5:2F:188:ARG:HA	11:2P:3:LEU:HD22	1.97	0.47
14:2S:62:LYS:O	14:2S:65:VAL:HB	2.15	0.47
32:2a:189:G:H2'	32:2a:189(A):C:H6	1.80	0.47
32:2a:189(F):U:C4	48:2q:72:ARG:NH1	2.83	0.47
32:2a:683:G:H2'	32:2a:684:A:C8	2.50	0.47
32:2a:1402:4OC:O2	32:2a:1500:A:N1	2.48	0.47
32:2a:1509:C:H2'	32:2a:1510:U:O4'	2.15	0.47
34:2c:63:ASN:HB2	34:2c:98:ASN:HB2	1.96	0.47
36:2e:135:THR:O	36:2e:138:ALA:HB3	2.15	0.47
41:2j:8:LEU:HD23	41:2j:96:ILE:HG23	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:955:A:H2'	1:1A:958:C:C5	2.51	0.46
1:1A:1471:G:H2'	1:1A:1472:G:O4'	2.15	0.46
1:1A:1899:A:H5'	1:1A:1900:G:OP2	2.15	0.46
1:1A:2138:G:C5	1:1A:2188:G:N2	2.83	0.46
6:1G:101:ILE:HG22	6:1G:105:LYS:HE2	1.97	0.46
21:1Z:98:MET:O	21:1Z:125:LEU:HA	2.14	0.46
30:18:32:LEU:O	30:18:36:LYS:HE3	2.15	0.46
32:1a:141:A:H1'	32:1a:182:U:O2	2.14	0.46
32:1a:1213:A:C8	32:1a:1215:G:C5	3.03	0.46
38:1g:14:PRO:HB3	38:1g:19:GLY:C	2.40	0.46
40:1i:43:ALA:O	40:1i:45:ALA:N	2.48	0.46
1:2A:551:G:N3	1:2A:1220:A:H2	2.13	0.46
1:2A:1003:G:N2	1:2A:1153:C:C2	2.83	0.46
1:2A:1105:U:H2'	1:2A:1106:G:C8	2.49	0.46
1:2A:1364:G:OP2	23:21:3:LYS:HG3	2.15	0.46
1:2A:2711:A:OP1	1:2A:2712(A):A:OP2	2.32	0.46
1:2A:2849:U:H4'	1:2A:2868:A:C2	2.50	0.46
3:2D:127:VAL:HA	3:2D:193:VAL:HG22	1.97	0.46
8:2I:3:VAL:HG12	8:2I:38:LEU:HA	1.96	0.46
16:2U:81:HIS:CE1	16:2U:85:LYS:NZ	2.83	0.46
23:21:76:ARG:HH22	23:21:97:LEU:HD22	1.79	0.46
32:2a:625:G:H4'	47:2p:16:HIS:CG	2.50	0.46
32:2a:1178:G:N2	32:2a:1180:A:H3'	2.30	0.46
32:2a:1178:G:OP1	40:2i:93:ARG:HD3	2.15	0.46
32:2a:1288:A:N1	32:2a:1371:G:H1'	2.31	0.46
36:2e:131:ILE:O	36:2e:135:THR:OG1	2.31	0.46
37:2f:63:TYR:N	37:2f:63:TYR:CD2	2.83	0.46
40:2i:59:PHE:HZ	40:2i:88:TYR:CE1	2.32	0.46
1:1A:383:A:H2'	1:1A:384:G:O4'	2.15	0.46
1:1A:801:C:H2'	1:1A:802:C:H6	1.80	0.46
1:1A:1105:G:H2'	1:1A:1106:U:C5	2.51	0.46
1:1A:1112:U:C2	1:1A:1113:A:C2	3.03	0.46
23:11:91:LYS:HG2	23:11:95:LEU:HD22	1.97	0.46
32:1a:901:A:C5	32:1a:902:G:H1'	2.51	0.46
32:1a:942:G:C2	32:1a:1342:C:C2	3.03	0.46
32:1a:1092:A:H8	32:1a:1092:A:O5'	1.98	0.46
32:1a:1093:A:N3	32:1a:1109:C:O2'	2.45	0.46
32:1a:1250:A:H4'	40:1i:68:GLY:N	2.31	0.46
33:1b:84:GLU:HB3	33:1b:219:VAL:HG21	1.96	0.46
35:1d:149:ALA:HB3	35:1d:152:SER:CB	2.45	0.46
1:2A:228:A:H8	1:2A:229:A:H5'	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:483:A:O4'	20:2Y:48:ALA:HB1	2.15	0.46
1:2A:1297:C:OP1	1:2A:2710:C:H4'	2.15	0.46
1:2A:1328:G:H2'	1:2A:1330:C:C5	2.50	0.46
1:2A:1826:G:H2'	1:2A:1827:C:O4'	2.15	0.46
6:2G:54:GLU:O	6:2G:57:ALA:HB3	2.16	0.46
8:2I:104:GLN:O	8:2I:106:GLY:N	2.48	0.46
21:2Z:93:ASP:CB	21:2Z:131:ARG:HH22	2.23	0.46
31:29:32:HIS:O	31:29:34:GLN:HG3	2.15	0.46
32:2a:542:G:P	35:2d:10:ARG:HH22	2.37	0.46
51:2t:65:LYS:HA	51:2t:68:LYS:HD3	1.97	0.46
1:1A:599:U:H6	1:1A:599:U:O5'	1.98	0.46
1:1A:1101:G:HO2'	1:1A:1130:A:N6	2.13	0.46
1:1A:1102:G:H5'	1:1A:1131:A:N1	2.30	0.46
1:1A:1150:C:H2'	1:1A:1151:U:C6	2.51	0.46
1:1A:1466:U:HO2'	1:1A:1467:G:P	2.39	0.46
1:1A:2162:C:H2'	1:1A:2163:G:H8	1.80	0.46
1:1A:2205:C:H2'	1:1A:2206:G:H8	1.76	0.46
1:1A:2724:U:OP1	1:1A:2727:G:H4'	2.15	0.46
8:1I:29:TYR:C	8:1I:32:PRO:HD2	2.41	0.46
8:1I:79:ILE:HA	8:1I:80:PRO:HD2	1.75	0.46
20:1Y:43:ASN:HD22	20:1Y:43:ASN:HA	1.56	0.46
30:18:23:VAL:CG1	30:18:47:LYS:HD3	2.45	0.46
32:1a:198:G:C5	32:1a:220:G:C2	3.04	0.46
32:1a:933:G:O6	38:1g:3:ARG:NH2	2.47	0.46
32:1a:1023:G:H2'	32:1a:1024:G:C8	2.50	0.46
32:1a:1054:C:C6	53:1x:45:PRO:HG2	2.50	0.46
33:1b:16:HIS:HB2	33:1b:204:ASN:HB3	1.97	0.46
37:1f:62:TRP:C	37:1f:63:TYR:CD2	2.93	0.46
42:1k:18:ARG:NH1	42:1k:37:GLY:HA2	2.30	0.46
47:1p:56:ALA:HB1	47:1p:74:LEU:HD21	1.97	0.46
1:2A:143:G:H1'	19:2X:37:THR:CG2	2.45	0.46
1:2A:1079:C:C6	1:2A:1080:C:H1'	2.51	0.46
1:2A:2166:G:N2	1:2A:2172:U:C4	2.81	0.46
1:2A:2238:G:H2'	1:2A:2238:G:N3	2.31	0.46
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.16	0.46
5:2F:101:LEU:HD12	5:2F:102:PRO:HD2	1.98	0.46
6:2G:50:ALA:O	6:2G:53:LEU:HG	2.16	0.46
6:2G:173:LEU:HB3	6:2G:178:PHE:CD1	2.49	0.46
12:2Q:58:PHE:O	12:2Q:60:ARG:N	2.48	0.46
21:2Z:53:ILE:HG22	21:2Z:71:VAL:O	2.15	0.46
28:26:25:LYS:NZ	28:26:51:GLU:OE1	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:154:C:H2'	32:2a:155:C:H6	1.81	0.46
32:2a:456:C:H2'	32:2a:457:C:C6	2.50	0.46
32:2a:826:C:H2'	32:2a:827:U:C6	2.50	0.46
42:2k:32:ILE:HG22	42:2k:77:MET:HE3	1.98	0.46
46:2o:6:GLU:O	46:2o:9:GLN:HB2	2.16	0.46
1:1A:100:G:OP1	24:12:7:ARG:NH2	2.47	0.46
1:1A:645:G:H5'	1:1A:645:G:N3	2.29	0.46
1:1A:1814:A:H5'	1:1A:2620:G:H4'	1.98	0.46
1:1A:2569:G:H2'	1:1A:2570:C:C6	2.50	0.46
4:1E:119:ARG:HD2	4:1E:120:TRP:CE2	2.50	0.46
5:1F:136:THR:O	5:1F:140:LEU:HB2	2.15	0.46
6:1G:106:LEU:HA	6:1G:110:ALA:HB3	1.98	0.46
10:1O:5:GLN:HA	10:1O:20:MET:HE2	1.98	0.46
10:1O:12:ASP:CG	10:1O:14:THR:HG23	2.40	0.46
23:11:50:ARG:HD2	23:11:57:GLU:OE2	2.15	0.46
32:1a:1406:U:H3'	32:1a:1407:5MC:HM53	1.98	0.46
33:1b:185:ILE:HA	33:1b:199:TYR:O	2.15	0.46
34:1c:116:VAL:HG21	34:1c:202:ILE:HD11	1.98	0.46
35:1d:110:PHE:HD1	35:1d:110:PHE:N	2.13	0.46
37:1f:10:LEU:HD13	37:1f:61:LEU:HD13	1.97	0.46
39:1h:124:ALA:O	39:1h:128:GLY:N	2.47	0.46
40:1i:17:VAL:HG23	40:1i:63:ILE:HG12	1.96	0.46
43:1l:27:LEU:HD12	43:1l:33:ARG:HB2	1.98	0.46
44:1m:57:ARG:O	44:1m:61:GLU:HG3	2.15	0.46
47:1p:57:ARG:HH21	47:1p:79:VAL:C	2.23	0.46
47:1p:58:TYR:C	47:1p:58:TYR:CD2	2.93	0.46
1:2A:1359:A:N3	1:2A:1359:A:H5'	2.30	0.46
1:2A:1919:A:O3'	32:2a:1517:G:H1'	2.16	0.46
1:2A:2621:A:OP1	4:2E:119:ARG:NH2	2.49	0.46
3:2D:145:VAL:HG12	3:2D:146:GLU:O	2.15	0.46
5:2F:110:LEU:HD12	5:2F:110:LEU:HA	1.66	0.46
17:2V:76:LYS:HB2	17:2V:81:TYR:HB3	1.98	0.46
21:2Z:31:ARG:HD2	21:2Z:94:GLU:OE2	2.15	0.46
22:20:53:MET:HG3	22:20:59:LEU:HD23	1.98	0.46
23:21:8:SER:HB3	23:21:66:HIS:CD2	2.49	0.46
32:2a:448:A:C4	32:2a:487:A:C2	3.03	0.46
32:2a:630:G:H2'	32:2a:631:G:O4'	2.15	0.46
32:2a:753:A:OP1	46:2o:69:TYR:OH	2.33	0.46
32:2a:1063:C:H2'	32:2a:1064:G:C8	2.50	0.46
32:2a:1116:C:H2'	32:2a:1117:G:H5''	1.98	0.46
32:2a:1220:G:H2'	32:2a:1221:G:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:218:A:C8	1:1A:218:A:H3'	2.51	0.46
1:1A:934:A:H2	1:1A:936:C:H2'	1.79	0.46
1:1A:1091:A:H1'	1:1A:1093:G:C2	2.50	0.46
1:1A:1127:U:H2'	1:1A:1128:U:O4'	2.15	0.46
1:1A:1826:C:H2'	1:1A:1827:U:C6	2.51	0.46
1:1A:2331:G:N2	14:1S:3:ARG:HA	2.31	0.46
1:1A:2891:C:H2'	1:1A:2892:A:O4'	2.16	0.46
10:1O:70:LYS:HB3	10:1O:70:LYS:HE2	1.80	0.46
23:11:3:LYS:HG2	23:11:4:VAL:HG23	1.97	0.46
26:14:47:GLN:NE2	26:14:49:PHE:HD1	2.13	0.46
29:17:47:ARG:O	29:17:48:LYS:HB2	2.14	0.46
32:1a:1245:A:C2	32:1a:1293:G:C2	3.04	0.46
32:1a:1304:G:C6	32:1a:1305:G:N1	2.84	0.46
34:1c:131:ARG:HD3	34:1c:166:GLU:OE2	2.16	0.46
39:1h:107:LEU:N	39:1h:107:LEU:HD23	2.29	0.46
1:2A:38:A:H2'	1:2A:39:C:C6	2.50	0.46
1:2A:118:A:H1'	1:2A:178:G:O4'	2.16	0.46
1:2A:878:A:H2'	1:2A:879:G:H5'	1.98	0.46
1:2A:1031:G:H4'	31:29:6:SER:OG	2.15	0.46
1:2A:1996:C:H4'	1:2A:1997:G:OP1	2.16	0.46
1:2A:2315:G:H2'	1:2A:2316:C:H6	1.81	0.46
1:2A:2557:G:H2'	1:2A:2558:C:H6	1.80	0.46
3:2D:130:ALA:C	3:2D:131:LEU:HD12	2.40	0.46
4:2E:82:ARG:HG3	4:2E:83:ASP:N	2.30	0.46
9:2N:4:TYR:CD2	16:2U:100:VAL:HG11	2.51	0.46
11:2P:121:LYS:HD3	11:2P:123:LEU:HD11	1.96	0.46
18:2W:65:LEU:HD12	18:2W:68:ARG:HE	1.80	0.46
32:2a:93:G:H2'	32:2a:96:U:O4'	2.15	0.46
32:2a:502:G:C2	32:2a:503:C:C2	3.03	0.46
32:2a:790:A:H61	32:2a:1498:UR3:P	2.38	0.46
32:2a:922:G:C6	32:2a:923:A:C6	3.03	0.46
32:2a:942:G:C2	32:2a:1342:C:C2	3.04	0.46
32:2a:1157:A:H5'	32:2a:1158:C:C5	2.50	0.46
36:2e:31:LEU:HD23	36:2e:31:LEU:HA	1.69	0.46
39:2h:26:VAL:HG22	39:2h:59:LEU:HB2	1.98	0.46
40:2i:53:VAL:HG11	40:2i:92:TYR:CZ	2.50	0.46
48:2q:56:VAL:O	48:2q:77:VAL:HB	2.16	0.46
1:1A:1825:U:H2'	1:1A:1826:C:H6	1.81	0.46
1:1A:2702:C:H5''	1:1A:2882:G:H21	1.81	0.46
1:1A:2820:A:H2'	1:1A:2821:G:O4'	2.16	0.46
1:1A:2902:G:H4'	1:1A:2903:G:O5'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:14:ASP:OD1	8:1I:15:VAL:N	2.49	0.46
9:1N:69:GLN:O	9:1N:71:ILE:HD12	2.15	0.46
14:1S:24:LEU:HB2	14:1S:85:VAL:HG23	1.98	0.46
23:11:3:LYS:O	23:11:12:PRO:HD3	2.16	0.46
32:1a:38:G:H22	32:1a:397:A:C5'	2.28	0.46
32:1a:1250:A:H2'	32:1a:1251:A:C8	2.50	0.46
39:1h:81:HIS:ND1	39:1h:138:TRP:OXT	2.46	0.46
43:1l:34:ARG:O	43:1l:60:LEU:HD12	2.16	0.46
1:2A:212:G:H2'	1:2A:213:A:O4'	2.16	0.46
1:2A:224:G:N7	1:2A:420:C:H4'	2.31	0.46
1:2A:844:C:C5	1:2A:845:G:C6	3.03	0.46
1:2A:1058:G:H1	1:2A:1080:C:H42	1.63	0.46
1:2A:1268:A:H2'	1:2A:1269:A:O4'	2.14	0.46
1:2A:1509(B):A:H2'	1:2A:1510:G:C8	2.50	0.46
1:2A:2816:C:O3'	13:2R:99:LYS:NZ	2.44	0.46
6:2G:55:LYS:O	6:2G:58:GLN:HB3	2.15	0.46
12:2Q:42:ILE:HD13	12:2Q:97:VAL:CG2	2.45	0.46
12:2Q:97:VAL:HG11	12:2Q:103:MET:HE3	1.97	0.46
15:2T:24:PRO:HA	15:2T:49:VAL:HG22	1.98	0.46
30:28:34:TRP:CG	30:28:35:GLN:N	2.84	0.46
32:2a:28:G:O2'	32:2a:296:U:OP1	2.33	0.46
32:2a:1030(C):G:N7	32:2a:1031:G:N1	2.64	0.46
32:2a:1149:C:O2'	32:2a:1280:A:N1	2.47	0.46
35:2d:117:ALA:O	35:2d:121:VAL:HG23	2.16	0.46
41:2j:5:ARG:HA	41:2j:72:VAL:O	2.16	0.46
43:2l:69:TYR:HB2	43:2l:90:VAL:HG21	1.97	0.46
44:2m:90:LEU:CD2	44:2m:93:ARG:HH21	2.28	0.46
53:2x:5:ILE:HG23	53:2x:39:ILE:HB	1.97	0.46
1:1A:997:G:OP1	12:1Q:16:ARG:NH2	2.49	0.46
1:1A:2376:C:H2'	1:1A:2377:G:O4'	2.15	0.46
6:1G:60:LEU:HD23	6:1G:60:LEU:HA	1.70	0.46
15:1T:125:ARG:O	15:1T:127:ALA:O	2.33	0.46
21:1Z:157:LEU:HD11	21:1Z:163:LEU:HD13	1.97	0.46
21:1Z:158:PRO:HB2	21:1Z:161:VAL:HG11	1.96	0.46
27:15:9:LYS:HA	27:15:9:LYS:HD2	1.77	0.46
32:1a:123:C:O2'	32:1a:290:C:O2	2.29	0.46
32:1a:1326:C:H2'	32:1a:1327:C:C6	2.51	0.46
32:1a:1338:G:H2'	32:1a:1339:A:C8	2.51	0.46
35:1d:78:LEU:O	35:1d:81:GLU:HB3	2.16	0.46
35:1d:110:PHE:N	35:1d:110:PHE:CD1	2.83	0.46
41:1j:5:ARG:O	41:1j:98:ILE:HA	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:1k:23:ALA:O	42:1k:86:GLY:HA3	2.15	0.46
1:2A:414:C:H2'	1:2A:415:A:C8	2.51	0.46
1:2A:740:U:H2'	1:2A:741:G:C8	2.51	0.46
1:2A:857:C:H1'	22:20:26:TYR:CE1	2.51	0.46
1:2A:1288:U:O2'	1:2A:1327:C:O2	2.33	0.46
1:2A:2336:A:H61	22:20:43:THR:HG21	1.79	0.46
3:2D:58:HIS:HD1	3:2D:59:LYS:N	2.13	0.46
4:2E:182:LEU:HA	4:2E:182:LEU:HD12	1.69	0.46
17:2V:72:VAL:HG13	17:2V:85:LYS:HB3	1.98	0.46
19:2X:53:LYS:HB3	19:2X:82:GLN:HB3	1.98	0.46
20:2Y:56:PRO:O	20:2Y:57:GLN:HB2	2.14	0.46
32:2a:1036:G:OP2	32:2a:1037:C:H5	1.98	0.46
32:2a:1135:U:H4'	32:2a:1136:U:H5	1.80	0.46
32:2a:1251:A:H5''	40:2i:12:GLU:OE1	2.15	0.46
36:2e:80:ILE:HD12	39:2h:104:ARG:NH2	2.25	0.46
39:2h:138:TRP:C	39:2h:138:TRP:CD1	2.92	0.46
41:2j:61:GLU:OE2	45:2n:58:LYS:NZ	2.48	0.46
1:1A:865:G:H4'	1:1A:885:C:O3'	2.15	0.46
1:1A:1541:A:O2'	1:1A:1542:A:H5'	2.16	0.46
4:1E:168:MET:HB3	4:1E:168:MET:HE2	1.52	0.46
6:1G:11:TYR:CZ	6:1G:16:ARG:HD3	2.51	0.46
6:1G:110:ALA:HB1	6:1G:140:ILE:CG2	2.46	0.46
16:1U:49:HIS:HA	16:1U:52:ARG:HG2	1.98	0.46
19:1X:60:ARG:NH2	29:17:47:ARG:HH12	2.09	0.46
32:1a:435:C:H2'	32:1a:436:C:H6	1.81	0.46
32:1a:437:U:O2'	35:1d:123:HIS:HD2	1.98	0.46
32:1a:1245:A:H2'	32:1a:1246:C:C6	2.51	0.46
33:1b:231:GLU:CB	33:1b:232:PRO:HD2	2.44	0.46
41:1j:6:ILE:HA	41:1j:98:ILE:HG12	1.96	0.46
44:1m:91:ARG:NH1	44:1m:96:LEU:HD13	2.30	0.46
49:1r:44:LEU:HD21	49:1r:70:ILE:HD13	1.96	0.46
1:2A:620:G:N3	1:2A:620:G:H5'	2.31	0.46
1:2A:2119:A:C6	1:2A:2171:A:C5	3.03	0.46
1:2A:2526:G:H5'	1:2A:2742:C:O2'	2.15	0.46
1:2A:2567:G:H2'	1:2A:2568:C:H6	1.80	0.46
1:2A:2816:C:O2	1:2A:2883:A:O2'	2.33	0.46
6:2G:83:ARG:H	6:2G:86:MET:HE3	1.80	0.46
11:2P:70:GLN:O	11:2P:73:GLY:N	2.38	0.46
32:2a:109:A:H2'	32:2a:326:G:N2	2.31	0.46
32:2a:174:C:H2'	32:2a:175:C:H6	1.81	0.46
32:2a:1074:G:O2'	32:2a:1101:A:N1	2.39	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1075:C:H5''	33:2b:179:LYS:HE2	1.98	0.46
32:2a:1102:A:H8	32:2a:1102:A:H5''	1.80	0.46
32:2a:1112:C:C4	34:2c:178:LEU:HD12	2.51	0.46
38:2g:79:ARG:HA	38:2g:84:ASN:HA	1.96	0.46
47:2p:42:ARG:HB3	47:2p:44:THR:CG2	2.43	0.46
1:1A:705:C:H2'	1:1A:706:C:C6	2.51	0.46
1:1A:2123:G:C2	1:1A:2124:U:H1'	2.51	0.46
1:1A:2346:G:O6	22:10:74:ARG:NH1	2.44	0.46
8:1I:93:THR:OG1	8:1I:96:ASP:N	2.43	0.46
11:1P:1:MET:HE3	11:1P:5:ASP:CB	2.46	0.46
11:1P:1:MET:HE3	11:1P:5:ASP:HB2	1.97	0.46
12:1Q:55:VAL:HG12	12:1Q:64:ILE:CD1	2.45	0.46
18:1W:71:VAL:HA	18:1W:107:LEU:HD12	1.97	0.46
26:14:49:PHE:HB3	26:14:50:VAL:H	1.47	0.46
32:1a:58:C:O2'	32:1a:388:G:N7	2.40	0.46
32:1a:445:G:C5	32:1a:490:G:C6	3.04	0.46
32:1a:765:G:H5''	32:1a:766:A:OP1	2.15	0.46
32:1a:826:C:H2'	32:1a:827:U:H6	1.81	0.46
32:1a:992:U:H2'	32:1a:1043:C:H41	1.80	0.46
35:1d:61:LYS:HD2	35:1d:207:TYR:OH	2.16	0.46
47:1p:76:GLN:HG3	47:1p:76:GLN:O	2.14	0.46
1:2A:1250:G:H5''	59:2U:302:HOH:O	2.15	0.46
1:2A:1450:G:H2'	1:2A:1450(A):C:H6	1.79	0.46
1:2A:1920:4OC:HM22	1:2A:1921:G:O4'	2.16	0.46
2:2B:66:A:N6	2:2B:109:C:H5'	2.30	0.46
8:2I:76:THR:HG22	8:2I:141:LYS:CB	2.46	0.46
20:2Y:92:ASN:ND2	20:2Y:94:LYS:HG2	2.31	0.46
21:2Z:19:ARG:HH11	21:2Z:84:GLU:HB2	1.81	0.46
21:2Z:102:LEU:HD23	21:2Z:137:ILE:HB	1.97	0.46
32:2a:200:G:H2'	32:2a:201:C:C6	2.51	0.46
32:2a:1206:G:C6	32:2a:1207:2MG:C5	3.04	0.46
33:2b:16:HIS:CG	33:2b:17:PHE:N	2.83	0.46
34:2c:58:GLU:O	34:2c:59:ARG:HG3	2.16	0.46
35:2d:3:ARG:HH12	35:2d:5:ILE:HG13	1.80	0.46
40:2i:9:ARG:HB3	40:2i:104:ARG:HH21	1.81	0.46
46:2o:4:THR:HG22	46:2o:7:GLU:OE1	2.16	0.46
48:2q:83:ASP:OD1	48:2q:83:ASP:N	2.48	0.46
49:2r:58:LEU:HB3	49:2r:62:GLU:HG3	1.98	0.46
1:1A:9:U:C2	1:1A:2641:A:C2	3.02	0.46
1:1A:1456:G:H2'	1:1A:1457:C:C6	2.51	0.46
2:1B:45:A:O4'	6:1G:95:ARG:NH1	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:114:LEU:HD12	8:1I:129:THR:O	2.15	0.46
28:16:35:GLU:OE2	28:16:50:ARG:NH1	2.45	0.46
32:1a:364:A:H2'	32:1a:365:U:O2	2.16	0.46
32:1a:1041:A:C3'	32:1a:1042:G:H5''	2.46	0.46
32:1a:1168:A:H2'	32:1a:1169:A:C8	2.51	0.46
33:1b:68:ILE:O	33:1b:91:PRO:HD2	2.16	0.46
34:1c:18:TRP:NE1	45:1n:53:LEU:O	2.47	0.46
36:1e:68:GLU:O	36:1e:70:PRO:HD3	2.15	0.46
43:1l:124:LYS:HA	43:1l:125:PRO:HD3	1.56	0.46
49:1r:24:ALA:O	49:1r:26:LEU:N	2.49	0.46
50:1s:62:ILE:HA	50:1s:66:MET:SD	2.56	0.46
51:1t:73:HIS:HE1	51:1t:75:ASN:OD1	1.99	0.46
1:2A:688:U:H5'	1:2A:1780:A:C2	2.51	0.46
1:2A:1657:C:H2'	1:2A:1658:C:C6	2.48	0.46
1:2A:2064:C:H1'	1:2A:2450:A:C2	2.51	0.46
1:2A:2130:U:H2'	1:2A:2158:A:H61	1.81	0.46
1:2A:2171:A:H1'	1:2A:2172:U:C5	2.51	0.46
1:2A:2206:G:H5''	1:2A:2207:G:C8	2.50	0.46
1:2A:2350:C:H2'	1:2A:2351:G:O4'	2.16	0.46
7:2H:98:LEU:HD12	7:2H:103:LEU:HA	1.98	0.46
16:2U:104:GLN:NE2	16:2U:105:VAL:HG23	2.31	0.46
32:2a:1170:A:H2'	32:2a:1171:G:O4'	2.16	0.46
32:2a:1236:A:O2'	32:2a:1304:G:H4'	2.15	0.46
33:2b:98:LEU:HG	33:2b:101:MET:HE3	1.98	0.46
33:2b:127:ILE:C	33:2b:129:GLU:H	2.24	0.46
33:2b:196:LEU:HD12	33:2b:196:LEU:HA	1.70	0.46
35:2d:8:VAL:CG1	35:2d:22:LYS:HE2	2.46	0.46
35:2d:67:ILE:HD13	35:2d:196:LEU:HD23	1.97	0.46
37:2f:63:TYR:N	37:2f:63:TYR:HD2	2.14	0.46
49:2r:70:ILE:HG22	49:2r:74:ARG:HD2	1.96	0.46
1:1A:217:A:H2'	1:1A:218:A:H5''	1.98	0.45
1:1A:354:A:H2	1:1A:1255:A:C2'	2.29	0.45
1:1A:480:A:H4'	1:1A:481:C:OP2	2.17	0.45
1:1A:592:U:C4	1:1A:593:G:C6	3.05	0.45
1:1A:779:C:H2'	1:1A:780:G:O4'	2.16	0.45
1:1A:1273:G:OP2	16:1U:16:LYS:NZ	2.49	0.45
1:1A:2465:A:OP1	54:1y:3:LYS:NZ	2.47	0.45
21:1Z:144:LEU:HD11	21:1Z:150:LEU:HD22	1.98	0.45
25:13:26:LEU:HD23	25:13:26:LEU:HA	1.63	0.45
32:1a:601:C:H2'	32:1a:602:A:H8	1.80	0.45
32:1a:625:G:H4'	47:1p:16:HIS:CD2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1226:C:O2'	44:1m:111:LYS:NZ	2.49	0.45
32:1a:1499:A:O2'	32:1a:1520:G:H5'	2.16	0.45
33:1b:16:HIS:CB	33:1b:210:SER:HB2	2.46	0.45
33:1b:44:LEU:HA	33:1b:47:THR:OG1	2.17	0.45
36:1e:151:LEU:HD11	39:1h:77:GLU:CD	2.41	0.45
38:1g:89:MET:HE2	38:1g:156:TRP:CE2	2.51	0.45
40:1i:15:ALA:HB2	40:1i:65:VAL:HG23	1.97	0.45
1:2A:824:A:H1'	1:2A:2358:G:N7	2.32	0.45
1:2A:1420:U:HO2'	1:2A:1421:G:P	2.39	0.45
1:2A:1638:C:H4'	1:2A:2710:C:O2	2.16	0.45
1:2A:2251:OMG:HM23	1:2A:2251:OMG:H1'	1.63	0.45
1:2A:2632:A:O2'	1:2A:2811:G:O2'	2.17	0.45
4:2E:144:ARG:HB3	4:2E:145:LYS:H	1.35	0.45
11:2P:144:GLU:HA	11:2P:145:PRO:HD2	1.84	0.45
16:2U:30:LYS:HD2	16:2U:30:LYS:N	2.31	0.45
32:2a:295:C:H2'	32:2a:296:U:O4'	2.16	0.45
32:2a:316:G:OP2	32:2a:351:G:O2'	2.34	0.45
32:2a:839:U:H5''	32:2a:840:C:H5	1.81	0.45
35:2d:76:ARG:HD2	35:2d:207:TYR:CZ	2.50	0.45
40:2i:23:ASN:HD21	40:2i:25:LYS:HG2	1.81	0.45
1:1A:950:C:H2'	1:1A:951:U:C6	2.50	0.45
2:1B:30:C:H2'	2:1B:31:C:H5'	1.98	0.45
3:1D:173:VAL:HG23	3:1D:174:ILE:N	2.31	0.45
6:1G:125:PHE:HB3	6:1G:166:ASP:OD1	2.16	0.45
7:1H:71:LEU:HD12	7:1H:71:LEU:HA	1.81	0.45
9:1N:62:VAL:HG13	9:1N:66:LYS:HB2	1.97	0.45
32:1a:194:C:O3'	51:1t:68:LYS:HD2	2.16	0.45
32:1a:1026:G:C5'	32:1a:1027:C:H5	2.30	0.45
34:1c:23:TYR:CD2	34:1c:24:ALA:N	2.85	0.45
51:1t:63:ILE:HD13	51:1t:80:ARG:HB3	1.98	0.45
1:2A:176:G:O2'	1:2A:177:G:H5'	2.17	0.45
1:2A:311:A:C6	1:2A:328:U:C4	3.05	0.45
1:2A:320:A:H4'	1:2A:322:A:C8	2.51	0.45
1:2A:359:A:H2'	1:2A:360:G:O4'	2.16	0.45
1:2A:690:G:H2'	1:2A:691:C:C6	2.51	0.45
1:2A:1721:G:C2	1:2A:1739:U:OP2	2.69	0.45
1:2A:2497:A:H5''	59:2A:4804:HOH:O	2.16	0.45
3:2D:61:LEU:O	3:2D:63:ARG:NH1	2.49	0.45
7:2H:164:TYR:HB2	7:2H:167:GLU:HB2	1.98	0.45
20:2Y:13:VAL:HG12	20:2Y:74:PRO:HA	1.97	0.45
32:2a:622:A:C8	32:2a:623:C:C6	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1014:A:H2	32:2a:1219:U:H1'	1.80	0.45
33:2b:80:ILE:HD11	33:2b:212:GLN:N	2.31	0.45
33:2b:185:ILE:HG23	33:2b:199:TYR:HB2	1.97	0.45
35:2d:30:LYS:HA	35:2d:35:ARG:HE	1.81	0.45
37:2f:76:ALA:HB1	37:2f:80:ARG:HH22	1.80	0.45
38:2g:23:VAL:O	38:2g:27:ILE:HG12	2.16	0.45
40:2i:9:ARG:HB2	40:2i:104:ARG:HE	1.82	0.45
43:2l:83:VAL:HG13	43:2l:100:ILE:HG23	1.97	0.45
1:1A:848:G:N7	5:1F:53:THR:HG23	2.32	0.45
1:1A:1270:C:O2'	17:1V:85:LYS:HA	2.16	0.45
1:1A:2298:A:H4'	1:1A:2299:A:O4'	2.17	0.45
4:1E:179:GLU:O	4:1E:181:LEU:HD13	2.16	0.45
5:1F:20:LEU:HD23	5:1F:21:ALA:N	2.32	0.45
16:1U:29:SER:C	16:1U:30:LYS:HD2	2.41	0.45
21:1Z:28:MET:HA	21:1Z:88:PHE:O	2.17	0.45
26:14:15:ILE:HB	26:14:32:TYR:CD1	2.52	0.45
32:1a:101:A:C6	32:1a:102:G:C5	3.05	0.45
32:1a:203:U:P	32:1a:203:U:H3'	2.57	0.45
32:1a:327:A:C4	32:1a:329:A:C8	3.04	0.45
32:1a:833:U:H2'	32:1a:834:C:C6	2.51	0.45
34:1c:150:LYS:HB3	34:1c:201:TYR:HB2	1.98	0.45
35:1d:148:VAL:HG21	35:1d:158:ILE:HD13	1.96	0.45
35:1d:171:GLY:HA2	35:1d:172:PRO:HD3	1.75	0.45
40:1i:17:VAL:HG21	40:1i:81:ILE:HG22	1.99	0.45
42:1k:59:TYR:CZ	42:1k:63:LEU:HD21	2.51	0.45
1:2A:7:G:H2'	1:2A:8:A:O4'	2.16	0.45
1:2A:890:A:H2'	1:2A:892:G:H8	1.81	0.45
1:2A:1259:G:H2'	1:2A:1260:G:C8	2.52	0.45
1:2A:1491:G:C6	1:2A:1500:G:C2	3.04	0.45
1:2A:1916:A:H2'	1:2A:1917:PSU:O4'	2.17	0.45
2:2B:44:G:OP1	6:2G:98:ARG:NH2	2.47	0.45
6:2G:121:ASN:O	6:2G:124:SER:HB2	2.15	0.45
32:2a:443:C:H2'	32:2a:444:C:H6	1.81	0.45
32:2a:1004:A:N7	32:2a:1037:C:C2	2.85	0.45
38:2g:78:ARG:HE	38:2g:80:VAL:CG2	2.29	0.45
44:2m:67:GLU:HB3	44:2m:68:GLY:H	1.55	0.45
1:1A:656:A:N3	1:1A:2427:G:O2'	2.43	0.45
1:1A:2062:C:H2'	1:1A:2063:U:O4'	2.17	0.45
1:1A:2359:C:H2'	1:1A:2360:U:C6	2.51	0.45
1:1A:2901:A:N6	1:1A:2902:G:C6	2.85	0.45
3:1D:43:ARG:HA	3:1D:48:ARG:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:110:C:H2'	32:1a:111:G:O4'	2.16	0.45
32:1a:160:A:N6	32:1a:346:G:C6	2.84	0.45
32:1a:1194:U:H2'	32:1a:1195:C:C6	2.51	0.45
32:1a:1221:G:OP1	32:1a:1320:C:N4	2.45	0.45
32:1a:1500:A:OP2	32:1a:1505:G:OP1	2.33	0.45
33:1b:74:LYS:HE3	33:1b:166:ASP:HB2	1.98	0.45
33:1b:109:SER:HA	33:1b:112:VAL:HG13	1.97	0.45
44:1m:15:VAL:O	44:1m:19:LEU:HD22	2.16	0.45
49:1r:45:SER:OG	49:1r:47:THR:HG22	2.17	0.45
1:2A:1688:U:H1'	1:2A:1701:A:C6	2.51	0.45
1:2A:1796:U:H2'	1:2A:1797:C:H6	1.79	0.45
1:2A:2410:G:C2	1:2A:2411:A:H1'	2.52	0.45
5:2F:143:ALA:HB1	5:2F:148:LEU:HB2	1.99	0.45
12:2Q:1:MET:HG3	12:2Q:44:ALA:HB1	1.98	0.45
32:2a:4:U:C4	39:2h:105:ARG:HD3	2.51	0.45
32:2a:1058:G:H2'	32:2a:1059:C:O4'	2.17	0.45
32:2a:1144:G:N2	32:2a:1146:A:H62	2.15	0.45
32:2a:1216:G:H5''	45:2n:5:ALA:CB	2.46	0.45
32:2a:1279:A:O2'	32:2a:1282:C:N4	2.49	0.45
49:2r:35:ARG:O	49:2r:37:VAL:N	2.47	0.45
13:1R:53:HIS:ND1	13:1R:94:TYR:OH	2.37	0.45
32:1a:998:G:H2'	32:1a:999:C:C6	2.52	0.45
32:1a:1060:C:O2'	41:1j:56:HIS:HD2	2.00	0.45
32:1a:1137:C:H5'	32:1a:1138:G:C5	2.52	0.45
32:1a:1243:C:H42	32:1a:1294:G:H1	1.64	0.45
35:1d:15:GLU:OE2	35:1d:59:ARG:NH1	2.49	0.45
1:2A:12:U:O2	1:2A:12:U:H2'	2.17	0.45
1:2A:484:C:H2'	1:2A:485:C:H6	1.82	0.45
1:2A:601:C:O2	1:2A:605:C:H4'	2.16	0.45
1:2A:615:G:OP1	5:2F:40:GLN:NE2	2.44	0.45
1:2A:2165:G:H2'	1:2A:2166:G:C8	2.51	0.45
1:2A:2723:C:OP2	4:2E:109:LYS:NZ	2.49	0.45
5:2F:104:LYS:O	5:2F:108:LYS:HG3	2.16	0.45
8:2I:80:PRO:HA	8:2I:145:VAL:HG23	1.99	0.45
11:2P:100:LEU:HD12	11:2P:112:LEU:HD11	1.98	0.45
18:2W:54:ALA:CB	18:2W:107:LEU:HD22	2.47	0.45
32:2a:17:U:H2'	32:2a:18:C:C6	2.52	0.45
32:2a:944:G:N1	32:2a:1338:G:OP2	2.42	0.45
32:2a:1106:G:H2'	32:2a:1107:C:H6	1.81	0.45
32:2a:1125:U:O4	32:2a:1280:A:N7	2.50	0.45
32:2a:1243:C:H2'	32:2a:1244:C:C6	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:2s:27:GLU:OE1	50:2s:47:HIS:NE2	2.49	0.45
50:2s:50:ALA:HB1	50:2s:57:HIS:HB3	1.99	0.45
1:1A:509:A:OP1	20:1Y:50:ARG:NH1	2.50	0.45
1:1A:2285:A:H2'	1:1A:2286:A:C8	2.51	0.45
2:1B:73:A:C4	2:1B:105:A:C2	3.04	0.45
8:1I:14:ASP:O	8:1I:17:GLN:HB3	2.17	0.45
11:1P:49:ARG:NH1	30:18:61:LEU:HD23	2.31	0.45
13:1R:81:ASP:O	13:1R:85:PRO:HG2	2.17	0.45
32:1a:92:C:H2'	32:1a:93:G:H8	1.81	0.45
32:1a:586:C:O2'	32:1a:878:G:H4'	2.17	0.45
32:1a:684:A:C6	32:1a:685:G:C6	3.04	0.45
32:1a:1152:A:C6	32:1a:1153:C:C4	3.04	0.45
37:1f:45:LEU:HD12	37:1f:59:TYR:HD1	1.81	0.45
40:1i:80:GLY:O	40:1i:83:ARG:HB2	2.16	0.45
41:1j:57:LYS:HD2	41:1j:60:ARG:HH21	1.82	0.45
42:1k:67:ASP:OD1	42:1k:71:LYS:HE3	2.17	0.45
43:1l:60:LEU:HB3	43:1l:62:SER:H	1.82	0.45
1:2A:372:G:O2'	1:2A:373:U:OP2	2.35	0.45
1:2A:2286:A:H4'	1:2A:2287:A:O4'	2.17	0.45
1:2A:2823:A:OP1	4:2E:113:PHE:HB2	2.17	0.45
5:2F:184:TYR:CD2	5:2F:188:ARG:HD2	2.52	0.45
25:23:7:LYS:HE3	25:23:32:GLN:HE21	1.80	0.45
32:2a:633:G:H2'	32:2a:634:C:C6	2.52	0.45
32:2a:690:G:H2'	32:2a:691:G:O4'	2.16	0.45
32:2a:1076:C:C2	32:2a:1082:G:N2	2.85	0.45
32:2a:1122:U:C4	32:2a:1123:A:N7	2.84	0.45
32:2a:1153:C:C2	32:2a:1154:G:C8	3.05	0.45
38:2g:43:PHE:O	38:2g:46:ALA:HB3	2.17	0.45
41:2j:32:ALA:HB1	41:2j:33:GLN:OE1	2.15	0.45
1:1A:207:A:C2	1:1A:224:U:H4'	2.52	0.45
1:1A:1830:G:O2'	3:1D:181:GLU:OE2	2.34	0.45
26:14:35:VAL:HG22	26:14:36:CYS:N	2.32	0.45
26:14:57:GLU:HA	26:14:58:ARG:HA	1.82	0.45
32:1a:160:A:H1'	32:1a:344:A:C5	2.52	0.45
32:1a:721:G:N2	32:1a:733:A:C5	2.84	0.45
33:1b:166:ASP:O	33:1b:170:GLU:N	2.48	0.45
33:1b:212:GLN:O	33:1b:213:LEU:C	2.58	0.45
36:1e:75:THR:HG23	36:1e:76:ILE:N	2.32	0.45
36:1e:152:ARG:HB2	39:1h:43:GLY:O	2.17	0.45
39:1h:111:ILE:C	39:1h:112:LEU:HD23	2.41	0.45
43:1l:28:LYS:HE2	43:1l:64:TYR:CE2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2839:G:O2'	13:2R:49:ASP:OD2	2.24	0.45
6:2G:107:LEU:HD21	6:2G:178:PHE:CD1	2.51	0.45
26:24:20:ASN:ND2	26:24:38:LYS:HG2	2.31	0.45
32:2a:932:C:H2'	32:2a:933:G:H8	1.82	0.45
32:2a:1133:G:H2'	32:2a:1134:G:C8	2.51	0.45
32:2a:1152:A:C6	32:2a:1153:C:C4	3.05	0.45
32:2a:1198:G:H2'	32:2a:1199:U:C6	2.52	0.45
32:2a:1508:G:H2'	32:2a:1509:C:O4'	2.17	0.45
35:2d:62:GLN:OE1	35:2d:65:ARG:NH1	2.49	0.45
35:2d:107:ARG:HD2	35:2d:107:ARG:HA	1.81	0.45
42:2k:48:ILE:HA	42:2k:48:ILE:HD12	1.69	0.45
51:2t:50:GLU:HB2	51:2t:99:LEU:CD2	2.47	0.45
1:1A:82:G:N2	1:1A:101:A:OP2	2.50	0.45
1:1A:274:U:O5'	1:1A:274:U:H6	1.98	0.45
1:1A:555:G:N1	1:1A:2045:G:OP1	2.43	0.45
1:1A:1116:A:H2	1:1A:1142:A:O2'	1.99	0.45
1:1A:1874:C:H5'	3:1D:253:GLN:HE22	1.81	0.45
1:1A:2137:G:H4'	1:1A:2189:U:H4'	1.99	0.45
4:1E:1:MET:SD	4:1E:1:MET:C	3.00	0.45
6:1G:77:ILE:HG21	6:1G:80:PHE:CD2	2.52	0.45
14:1S:25:ARG:HH11	14:1S:25:ARG:CG	2.23	0.45
27:15:19:ARG:HH11	27:15:19:ARG:HD3	1.60	0.45
32:1a:412:A:C8	35:1d:35:ARG:NH1	2.85	0.45
32:1a:1238:A:N7	32:1a:1303:C:H1'	2.32	0.45
33:1b:196:LEU:HA	33:1b:196:LEU:HD12	1.85	0.45
35:1d:78:LEU:HA	35:1d:78:LEU:HD23	1.73	0.45
1:2A:1164:G:H2'	1:2A:1165:U:C6	2.52	0.45
8:2I:110:ASP:H	8:2I:130:TYR:HH	1.58	0.45
19:2X:94:GLY:HA3	19:2X:95:LEU:O	2.17	0.45
26:24:46:GLN:HB3	26:24:48:ARG:NH1	2.32	0.45
26:24:59:PHE:CE2	50:2s:64:GLU:HB2	2.52	0.45
32:2a:153:C:H2'	32:2a:154:C:C6	2.52	0.45
32:2a:262:A:H2'	32:2a:263:A:C8	2.51	0.45
32:2a:373:A:C2	32:2a:374:A:C8	3.04	0.45
32:2a:659:U:H2'	32:2a:660:G:C8	2.49	0.45
32:2a:865:A:H5'	32:2a:1078:U:C4	2.52	0.45
33:2b:11:LEU:CD1	33:2b:217:ARG:HH22	2.29	0.45
34:2c:70:VAL:HG22	34:2c:72:LYS:N	2.26	0.45
40:2i:58:HIS:CD2	40:2i:58:HIS:N	2.85	0.45
40:2i:70:LYS:O	40:2i:74:ILE:HG13	2.16	0.45
48:2q:66:SER:O	48:2q:70:ARG:NH1	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:2s:36:ARG:NH1	50:2s:75:ALA:HB3	2.23	0.45
1:1A:2290:A:O2'	21:1Z:199:LYS:HD3	2.16	0.45
1:1A:2367:C:H1'	22:10:39:ARG:NH2	2.22	0.45
1:1A:2584:A:N7	4:1E:144:ARG:HD2	2.31	0.45
2:1B:29:A:H2'	2:1B:30:C:O4'	2.17	0.45
6:1G:43:LEU:HB3	6:1G:44:GLY:H	1.70	0.45
6:1G:82:LEU:HD23	6:1G:82:LEU:HA	1.80	0.45
14:1S:36:TYR:N	14:1S:36:TYR:CD2	2.85	0.45
15:1T:60:THR:HG22	15:1T:77:PRO:HA	1.99	0.45
32:1a:165:C:H2'	32:1a:166:G:C8	2.52	0.45
32:1a:198:G:C6	32:1a:220:G:N3	2.85	0.45
32:1a:254:G:O2'	48:1q:16:GLN:O	2.32	0.45
32:1a:618:C:H3'	32:1a:619:U:H5''	1.99	0.45
32:1a:691:G:H1'	32:1a:696:A:N6	2.32	0.45
32:1a:959:A:C2	32:1a:1222:G:O4'	2.70	0.45
32:1a:1233:G:H2'	32:1a:1234:C:H6	1.82	0.45
33:1b:122:PHE:HD1	33:1b:122:PHE:HA	1.59	0.45
1:2A:271(I):G:H2'	1:2A:271(J):C:C6	2.52	0.45
1:2A:1058:G:H1	1:2A:1080:C:N4	2.14	0.45
1:2A:1063:G:N2	1:2A:1075:C:N3	2.64	0.45
1:2A:2823:A:OP1	4:2E:159:HIS:NE2	2.45	0.45
4:2E:47:VAL:HG11	4:2E:86:PRO:CD	2.47	0.45
12:2Q:38:GLU:HG3	12:2Q:127:ILE:CG2	2.47	0.45
12:2Q:39:PRO:HA	12:2Q:97:VAL:O	2.17	0.45
14:2S:69:VAL:O	14:2S:72:ALA:HB3	2.17	0.45
21:2Z:144:LEU:HD11	21:2Z:150:LEU:HD13	1.98	0.45
32:2a:683:G:C6	32:2a:684:A:C5	3.05	0.45
32:2a:1002:G:N2	32:2a:1004:A:H1'	2.32	0.45
32:2a:1269:A:H5''	32:2a:1270:C:OP2	2.17	0.45
33:2b:87:ARG:NH2	33:2b:220:ASP:OD1	2.40	0.45
34:2c:18:TRP:HE3	34:2c:18:TRP:H	1.65	0.45
39:2h:39:LEU:HD21	39:2h:137:VAL:HG21	1.99	0.45
40:2i:19:LEU:HD12	40:2i:84:ALA:CB	2.46	0.45
42:2k:33:THR:HA	42:2k:39:PRO:HA	1.98	0.45
44:2m:31:LYS:O	44:2m:35:GLU:HG2	2.17	0.45
51:2t:43:LEU:HD23	51:2t:43:LEU:HA	1.73	0.45
1:1A:210:A:O4'	1:1A:222:A:H1'	2.17	0.45
1:1A:2711:C:H2'	1:1A:2712:C:O4'	2.16	0.45
7:1H:3:ARG:HG3	7:1H:4:ILE:N	2.31	0.45
8:1I:60:GLU:HG3	8:1I:61:ARG:HH11	1.82	0.45
8:1I:101:LEU:HD22	8:1I:107:VAL:HB	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:82:ARG:HG2	33:1b:92:TYR:CZ	2.52	0.45
33:1b:84:GLU:O	33:1b:219:VAL:HG21	2.17	0.45
36:1e:82:VAL:HG21	36:1e:138:ALA:HA	1.99	0.45
41:1j:7:LYS:HG3	41:1j:71:LEU:HD13	1.99	0.45
1:2A:1301:A:H2	1:2A:1626:G:N3	2.15	0.45
1:2A:1425:G:N2	1:2A:1573:G:N7	2.65	0.45
1:2A:1818:U:O4	3:2D:154:LYS:HD2	2.17	0.45
1:2A:2206:G:OP2	1:2A:2206:G:H4'	2.17	0.45
1:2A:2290:G:O2'	1:2A:2381:C:H1'	2.17	0.45
1:2A:2314:C:H5'	6:2G:38:VAL:HG11	1.98	0.45
6:2G:83:ARG:O	6:2G:86:MET:HB2	2.17	0.45
24:22:16:LEU:O	24:22:67:LYS:NZ	2.50	0.45
32:2a:130:A:O2'	32:2a:131:C:O5'	2.31	0.45
32:2a:448:A:P	32:2a:485:G:H22	2.34	0.45
32:2a:616:G:N2	32:2a:625:G:C4	2.85	0.45
32:2a:750:G:N3	46:2o:23:GLY:HA3	2.32	0.45
32:2a:1036:G:H2'	32:2a:1037:C:O4'	2.17	0.45
32:2a:1275:A:H2'	32:2a:1276:G:O4'	2.17	0.45
53:2x:60:VAL:HG13	53:2x:62:VAL:HG22	1.99	0.45
1:1A:187:C:H5'	1:1A:2256:U:OP1	2.17	0.44
1:1A:504:A:N1	1:1A:525:G:H4'	2.31	0.44
1:1A:776:G:C5	3:1D:208:LYS:HB2	2.52	0.44
1:1A:968:U:H2'	1:1A:969:C:C6	2.52	0.44
1:1A:1157:A:N3	1:1A:1158:G:H1'	2.32	0.44
1:1A:2134:G:H2'	1:1A:2135:U:H6	1.78	0.44
1:1A:2283:G:OP1	22:10:18:ALA:HB1	2.17	0.44
1:1A:2856:G:H2'	1:1A:2857:U:O4'	2.16	0.44
8:1I:105:HIS:CD2	8:1I:105:HIS:N	2.85	0.44
12:1Q:32:TYR:OH	12:1Q:111:GLU:HG3	2.18	0.44
14:1S:58:LEU:HA	14:1S:58:LEU:HD23	1.67	0.44
17:1V:29:PRO:HA	17:1V:61:VAL:HG23	1.99	0.44
26:14:18:CYS:HB3	26:14:39:CYS:HB3	1.99	0.44
32:1a:10:A:H2'	32:1a:11:G:H8	1.82	0.44
32:1a:114:U:O2'	32:1a:115:G:H5'	2.17	0.44
33:1b:27:LYS:HB2	33:1b:194:PRO:HD2	1.99	0.44
35:1d:173:TRP:CZ3	35:1d:174:LEU:HD11	2.52	0.44
36:1e:127:ASN:HA	36:1e:128:PRO:HD3	1.87	0.44
44:1m:40:ASN:HA	44:1m:41:PRO:HD2	1.83	0.44
50:1s:63:THR:H	50:1s:66:MET:CG	2.31	0.44
1:2A:628:G:H2'	1:2A:629:G:C8	2.53	0.44
1:2A:1050:A:N1	1:2A:2751:G:C2	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1838:C:N4	1:2A:1898:U:H2'	2.32	0.44
1:2A:2122:U:H2'	1:2A:2123:G:H8	1.83	0.44
1:2A:2302:G:C6	1:2A:2315:G:C6	3.05	0.44
3:2D:148:GLU:CB	3:2D:151:LYS:HD2	2.48	0.44
4:2E:52:LEU:O	4:2E:75:VAL:HG22	2.17	0.44
7:2H:148:ILE:HA	7:2H:151:ILE:HD12	1.99	0.44
10:2O:15:GLY:O	10:2O:47:ILE:HG12	2.16	0.44
14:2S:66:ALA:O	14:2S:69:VAL:HG12	2.17	0.44
28:26:14:THR:OG1	28:26:48:VAL:O	2.21	0.44
32:2a:408:A:H4'	35:2d:112:VAL:HG21	1.99	0.44
32:2a:800:G:H2'	32:2a:801:U:C6	2.52	0.44
32:2a:945:G:H2'	32:2a:945:G:N3	2.32	0.44
32:2a:976:G:C8	32:2a:1358:U:C2	3.05	0.44
32:2a:1052:U:O4	32:2a:1200:C:C2	2.70	0.44
32:2a:1206:G:H4'	34:2c:192:THR:O	2.17	0.44
33:2b:17:PHE:HA	33:2b:44:LEU:HD21	1.99	0.44
39:2h:9:MET:SD	39:2h:32:LYS:HB3	2.57	0.44
40:2i:9:ARG:HG2	40:2i:14:VAL:CG1	2.45	0.44
1:1A:514:G:H4'	18:1W:49:LYS:HE3	1.98	0.44
1:1A:943:C:O5'	1:1A:943:C:H6	2.01	0.44
1:1A:1308:A:H2	27:15:10:LYS:HD2	1.83	0.44
1:1A:1826:C:H2'	1:1A:1827:U:H6	1.82	0.44
1:1A:1942:4OC:HM22	1:1A:1943:G:O4'	2.17	0.44
1:1A:1944:G:H2'	1:1A:1945:U:C6	2.52	0.44
1:1A:2240:G:H2'	1:1A:2241:C:C6	2.52	0.44
3:1D:148:GLU:CB	3:1D:151:LYS:HD2	2.47	0.44
7:1H:139:GLN:O	7:1H:139:GLN:HG2	2.17	0.44
12:1Q:34:LEU:HD11	12:1Q:129:THR:HB	1.98	0.44
12:1Q:58:PHE:O	12:1Q:60:ARG:N	2.50	0.44
13:1R:33:ARG:NH1	13:1R:115:GLU:OE1	2.41	0.44
28:16:9:LEU:HD21	28:16:25:LYS:HB3	1.99	0.44
32:1a:66:G:O4'	32:1a:173:U:C4	2.70	0.44
32:1a:678:U:H2'	32:1a:679:C:C6	2.52	0.44
32:1a:858:G:O6	32:1a:869:G:H3'	2.16	0.44
32:1a:1076:C:C2	32:1a:1082:G:C2	3.05	0.44
32:1a:1223:C:H2'	59:1a:3374:HOH:O	2.16	0.44
34:1c:155:GLY:O	34:1c:157:ILE:HG13	2.16	0.44
36:1e:101:ILE:O	36:1e:120:THR:HG23	2.17	0.44
43:1l:110:VAL:HB	43:1l:113:ARG:HG2	1.99	0.44
1:2A:56:A:H2'	1:2A:57:C:O4'	2.17	0.44
1:2A:207:A:H2'	1:2A:208:C:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:839:U:H2'	1:2A:840:C:C6	2.51	0.44
1:2A:1141:U:OP2	9:2N:63:THR:OG1	2.27	0.44
3:2D:16:MET:HG3	3:2D:206:LEU:O	2.17	0.44
3:2D:206:LEU:HD22	3:2D:211:ARG:HG2	1.99	0.44
7:2H:56:SER:OG	7:2H:58:GLU:HG2	2.17	0.44
8:2I:83:ALA:HA	8:2I:89:TYR:CD2	2.52	0.44
8:2I:101:LEU:CD1	8:2I:140:LEU:HD11	2.47	0.44
8:2I:130:TYR:HB3	8:2I:138:ILE:HB	1.99	0.44
18:2W:24:ILE:HA	18:2W:27:LYS:HG3	1.99	0.44
32:2a:441:A:H3'	32:2a:442:C:C6	2.51	0.44
37:2f:49:ALA:HB1	49:2r:80:PRO:HB3	1.99	0.44
46:2o:48:LYS:HA	46:2o:48:LYS:HD2	1.80	0.44
1:1A:200:A:H2'	1:1A:201:G:O4'	2.18	0.44
1:1A:261:A:N1	1:1A:291:G:O2'	2.46	0.44
1:1A:2225:U:H4'	3:1D:151:LYS:HG2	1.98	0.44
1:1A:2850:C:H2'	1:1A:2851:C:H6	1.82	0.44
2:1B:12:C:H2'	22:10:73:GLY:HA3	2.00	0.44
6:1G:50:ALA:C	6:1G:52:ILE:N	2.75	0.44
7:1H:94:TYR:CD2	7:1H:107:VAL:HG12	2.52	0.44
32:1a:1249:C:O4'	40:1i:70:LYS:HE3	2.17	0.44
32:1a:1409:C:H2'	32:1a:1410:G:C8	2.52	0.44
33:1b:69:LEU:HD22	33:1b:155:LEU:HD22	1.99	0.44
33:1b:76:GLN:OE1	33:1b:76:GLN:N	2.42	0.44
33:1b:80:ILE:HD12	33:1b:212:GLN:HA	1.99	0.44
33:1b:185:ILE:CG2	33:1b:199:TYR:HB2	2.47	0.44
35:1d:162:LEU:HD12	35:1d:181:MET:HE2	1.99	0.44
41:1j:84:GLN:H	41:1j:84:GLN:HG3	1.67	0.44
1:2A:861:A:H2'	1:2A:862:G:O4'	2.17	0.44
1:2A:1096:A:C5	1:2A:1097:U:C5	3.06	0.44
1:2A:1144:G:C6	1:2A:1145:C:C4	3.05	0.44
1:2A:1203:G:C6	1:2A:1204:A:N6	2.86	0.44
1:2A:1422:G:H4'	1:2A:1493:C:OP1	2.18	0.44
1:2A:1578:U:C2'	1:2A:1579:A:H5'	2.47	0.44
1:2A:1665:A:H4'	10:2O:67:LYS:HB2	1.98	0.44
1:2A:2185:C:N4	1:2A:2186:G:O6	2.50	0.44
1:2A:2307:G:H4'	1:2A:2308:G:O5'	2.17	0.44
1:2A:2786:U:O2'	4:2E:65:GLY:HA3	2.17	0.44
6:2G:121:ASN:HA	6:2G:122:PRO:HD2	1.71	0.44
12:2Q:7:MET:CE	21:2Z:194:PRO:HB3	2.48	0.44
12:2Q:42:ILE:HD13	12:2Q:97:VAL:HG21	1.99	0.44
12:2Q:109:VAL:HG22	12:2Q:113:GLN:OE1	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:2S:30:ARG:HG3	14:2S:35:ILE:HD12	1.99	0.44
18:2W:60:ASN:HD22	18:2W:60:ASN:N	2.15	0.44
23:21:50:ARG:HG2	23:21:59:THR:HB	1.98	0.44
32:2a:255:G:O3'	48:2q:17:LYS:HD2	2.17	0.44
32:2a:376:G:H2'	32:2a:377:G:H8	1.82	0.44
32:2a:542:G:H2'	32:2a:543:C:C6	2.52	0.44
32:2a:586:C:O2'	32:2a:878:G:H4'	2.16	0.44
32:2a:1277:C:O2'	32:2a:1279:A:H8	1.99	0.44
32:2a:1314:C:N4	50:2s:2:PRO:O	2.45	0.44
32:2a:1338:G:H2'	32:2a:1339:A:C8	2.52	0.44
32:2a:1428:A:H2'	32:2a:1429:C:O4'	2.16	0.44
33:2b:81:VAL:HG13	33:2b:94:ASN:ND2	2.31	0.44
35:2d:61:LYS:HD2	35:2d:207:TYR:OH	2.17	0.44
38:2g:111:ARG:HB3	38:2g:113:GLU:OE2	2.18	0.44
39:2h:58:TYR:O	39:2h:59:LEU:HD23	2.18	0.44
1:1A:163:C:H2'	1:1A:164:G:O4'	2.18	0.44
1:1A:244:A:H1'	1:1A:411:U:C6	2.52	0.44
1:1A:662:A:OP1	11:1P:133:SER:OG	2.35	0.44
1:1A:1935:A:C2	32:1a:1493:A:C8	3.06	0.44
1:1A:2227:G:OP2	1:1A:2227:G:H4'	2.18	0.44
12:1Q:35:VAL:HG13	12:1Q:130:LYS:HG2	1.99	0.44
24:12:21:LEU:HA	24:12:21:LEU:HD23	1.61	0.44
24:12:51:ARG:HD3	24:12:55:ARG:NH1	2.32	0.44
26:14:62:ARG:HD3	26:14:62:ARG:HA	1.65	0.44
32:1a:96:U:H2'	32:1a:97:G:H8	1.81	0.44
32:1a:129(A):G:N2	32:1a:189(F):U:H5''	2.32	0.44
32:1a:345:C:H5'	32:1a:346:G:C5	2.53	0.44
32:1a:404:U:O2	32:1a:498:U:C5	2.70	0.44
32:1a:410:G:H5''	35:1d:30:LYS:NZ	2.33	0.44
32:1a:689:C:H2'	32:1a:690:G:O4'	2.18	0.44
32:1a:1014:A:N3	32:1a:1219:U:H1'	2.33	0.44
32:1a:1030(C):G:H2'	32:1a:1030(D):A:N7	2.32	0.44
32:1a:1226:C:O3'	44:1m:111:LYS:NZ	2.50	0.44
32:1a:1233:G:H2'	32:1a:1234:C:C6	2.53	0.44
32:1a:1362:C:H2'	32:1a:1363:C:H5''	1.99	0.44
34:1c:177:THR:HG22	34:1c:180:ALA:H	1.83	0.44
37:1f:30:LEU:O	37:1f:35:ALA:HB3	2.18	0.44
43:1l:71:PRO:O	43:1l:102:ARG:HD3	2.18	0.44
48:1q:66:SER:O	48:1q:70:ARG:NH1	2.51	0.44
1:2A:69:C:O2	1:2A:73:A:O2'	2.30	0.44
1:2A:244:A:H2'	1:2A:245:G:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1097:U:H2'	1:2A:1098:A:O4'	2.16	0.44
1:2A:1996:C:OP1	10:2O:31:LYS:HE3	2.18	0.44
1:2A:2319:G:C2	14:2S:3:ARG:HA	2.53	0.44
2:2B:89:G:C6	2:2B:90:A:C6	3.06	0.44
3:2D:16:MET:HE3	3:2D:16:MET:HB2	1.86	0.44
3:2D:68:LYS:O	3:2D:69:ARG:HB2	2.18	0.44
5:2F:183:VAL:O	5:2F:187:VAL:HG23	2.18	0.44
14:2S:25:ARG:HG3	14:2S:88:ASP:HB2	2.00	0.44
28:26:6:ARG:NH1	28:26:26:ASN:HB2	2.32	0.44
32:2a:404:U:H2'	32:2a:405:U:H6	1.83	0.44
32:2a:458:C:C4	32:2a:460:G:C5	3.05	0.44
32:2a:552:U:O3'	43:2l:87:GLY:HA3	2.17	0.44
32:2a:960:U:H2'	32:2a:960:U:O2	2.17	0.44
32:2a:1144:G:H22	32:2a:1146:A:H62	1.65	0.44
32:2a:1226:C:H4'	50:2s:80:TYR:CZ	2.53	0.44
32:2a:1531:A:H8	32:2a:1531:A:O5'	2.01	0.44
33:2b:211:ILE:O	33:2b:215:LEU:HB2	2.17	0.44
44:2m:108:ARG:HA	44:2m:108:ARG:HD3	1.82	0.44
1:1A:137:G:O2'	1:1A:138:G:H5'	2.17	0.44
1:1A:756:U:H2'	1:1A:757:G:C8	2.53	0.44
1:1A:1884:A:H2'	1:1A:1885:A:C8	2.53	0.44
3:1D:71:ASP:HB3	3:1D:103:ARG:HH22	1.81	0.44
6:1G:98:ARG:CZ	26:14:1:MET:HE3	2.48	0.44
7:1H:25:LYS:HE2	7:1H:32:GLU:OE1	2.18	0.44
7:1H:158:HIS:O	7:1H:160:LYS:N	2.51	0.44
11:1P:84:ASN:HB3	11:1P:117:GLU:O	2.17	0.44
16:1U:79:PHE:CZ	16:1U:83:LEU:HD21	2.53	0.44
19:1X:12:VAL:HG22	19:1X:29:TRP:CE2	2.53	0.44
20:1Y:38:ILE:HD11	20:1Y:66:PRO:HG3	1.98	0.44
25:13:3:ARG:HD3	25:13:60:GLU:OE2	2.18	0.44
32:1a:77:G:H1	32:1a:92:C:N4	2.11	0.44
32:1a:411:A:C5	32:1a:429:U:C5	3.06	0.44
32:1a:1148:U:H2'	32:1a:1149:C:O4'	2.17	0.44
33:1b:17:PHE:CB	33:1b:44:LEU:HD21	2.47	0.44
33:1b:21:ARG:O	33:1b:23:ARG:N	2.48	0.44
34:1c:51:GLY:O	34:1c:70:VAL:HG23	2.17	0.44
34:1c:58:GLU:O	34:1c:59:ARG:HG3	2.17	0.44
34:1c:152:ILE:HB	34:1c:199:LYS:HB2	2.00	0.44
37:1f:19:LEU:O	37:1f:23:LYS:HD3	2.17	0.44
50:1s:15:LEU:O	50:1s:19:VAL:HG23	2.17	0.44
1:2A:271(G):C:H2'	1:2A:271(H):G:H8	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:800:A:H8	1:2A:800:A:OP1	2.00	0.44
1:2A:820:A:N3	1:2A:943:U:H4'	2.33	0.44
1:2A:886:C:H3'	1:2A:887:A:H5''	1.98	0.44
1:2A:1155:A:OP1	16:2U:55:ARG:HD3	2.18	0.44
1:2A:2372:G:H1'	28:26:46:HIS:CE1	2.53	0.44
1:2A:2472:G:H2'	1:2A:2475:C:H42	1.82	0.44
1:2A:2641:G:OP2	9:2N:74:ARG:NH2	2.44	0.44
7:2H:70:THR:HG22	7:2H:74:ASN:ND2	2.33	0.44
21:2Z:59:LEU:O	21:2Z:61:LEU:HD22	2.17	0.44
32:2a:262:A:C6	32:2a:263:A:C6	3.06	0.44
32:2a:375:U:C4	32:2a:376:G:N7	2.86	0.44
32:2a:841:U:H6	32:2a:841:U:P	2.40	0.44
32:2a:1323:G:H2'	32:2a:1324:A:H8	1.79	0.44
32:2a:1327:C:H2'	32:2a:1328:C:H6	1.83	0.44
33:2b:175:ARG:HB3	33:2b:175:ARG:NH1	2.33	0.44
34:2c:138:VAL:HG23	34:2c:151:VAL:HG23	1.98	0.44
37:2f:89:MET:CE	49:2r:72:ARG:HB3	2.46	0.44
42:2k:85:ARG:HG2	42:2k:111:ASP:O	2.18	0.44
1:1A:346:A:H5'	1:1A:364:A:H1'	1.98	0.44
1:1A:514:G:O2'	18:1W:49:LYS:HE2	2.18	0.44
1:1A:1314:A:C2	1:1A:2035:A:C4	3.06	0.44
1:1A:1342:G:OP1	1:1A:2721:G:O2'	2.27	0.44
1:1A:1431:G:O2'	1:1A:1442:U:O2	2.27	0.44
1:1A:2128:G:C6	1:1A:2129:C:C2	3.06	0.44
1:1A:2376:C:OP1	22:10:55:ARG:NH1	2.51	0.44
4:1E:116:VAL:HG13	4:1E:122:PHE:CD2	2.53	0.44
8:1I:69:LYS:HG3	8:1I:138:ILE:HG12	2.00	0.44
16:1U:28:ARG:HD3	16:1U:38:THR:OG1	2.18	0.44
17:1V:60:GLU:OE1	17:1V:97:LYS:NZ	2.49	0.44
20:1Y:35:TYR:CE2	20:1Y:69:ALA:HB3	2.52	0.44
25:13:43:ILE:O	25:13:47:VAL:HG23	2.18	0.44
32:1a:96:U:H2'	32:1a:97:G:C8	2.52	0.44
32:1a:184:G:O4'	32:1a:224:C:H4'	2.18	0.44
32:1a:411:A:C6	32:1a:429:U:C4	3.05	0.44
32:1a:1003:G:H2'	32:1a:1004:A:C4'	2.37	0.44
32:1a:1060:C:N4	34:1c:2:GLY:HA3	2.33	0.44
32:1a:1067:A:H1'	32:1a:1068:G:O4'	2.18	0.44
32:1a:1350:A:C6	32:1a:1351:U:C4	3.06	0.44
33:1b:69:LEU:HD12	33:1b:70:PHE:N	2.32	0.44
35:1d:65:ARG:HD2	35:1d:72:GLU:HA	2.00	0.44
42:1k:105:VAL:HG23	42:1k:105:VAL:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:1l:109:GLY:HA3	43:1l:121:GLY:O	2.18	0.44
4:2E:101:ARG:NH1	4:2E:169:ASN:O	2.48	0.44
5:2F:9:ILE:HG21	5:2F:125:LEU:HD12	2.00	0.44
6:2G:145:THR:HG23	6:2G:148:MET:SD	2.57	0.44
8:2I:105:HIS:O	8:2I:107:VAL:HG23	2.18	0.44
20:2Y:56:PRO:C	20:2Y:58:GLY:H	2.25	0.44
22:20:52:GLY:O	22:20:59:LEU:HA	2.18	0.44
32:2a:389:A:C6	32:2a:390:C:H1'	2.53	0.44
32:2a:1202:G:H2'	32:2a:1203:C:O4'	2.18	0.44
32:2a:1304:G:OP1	52:2u:2:GLY:N	2.50	0.44
32:2a:1349:A:H2'	32:2a:1350:A:H8	1.82	0.44
32:2a:1362:C:H2'	32:2a:1363:C:H5''	2.00	0.44
32:2a:1371:G:O3'	40:2i:69:GLY:HA3	2.18	0.44
38:2g:113:GLU:HG2	38:2g:119:ARG:HG2	1.99	0.44
41:2j:32:ALA:HB1	41:2j:33:GLN:CD	2.43	0.44
47:2p:51:VAL:O	47:2p:53:VAL:HG23	2.18	0.44
53:2x:50:ALA:O	53:2x:77:LEU:HD13	2.17	0.44
1:1A:1258:A:N3	1:1A:1284:G:O2'	2.49	0.44
1:1A:2331:G:C2	14:1S:3:ARG:HA	2.52	0.44
1:1A:2486:C:H5''	1:1A:2487:C:OP2	2.16	0.44
4:1E:119:ARG:HB3	4:1E:120:TRP:CD1	2.53	0.44
7:1H:116:GLU:HA	7:1H:117:PRO:HD3	1.88	0.44
11:1P:63:PRO:HD3	30:18:27:THR:HG22	1.99	0.44
13:1R:36:THR:HG22	13:1R:37:THR:H	1.82	0.44
32:1a:373:A:C2	32:1a:482:A:C6	3.05	0.44
32:1a:391:G:C6	32:1a:392:G:C5	3.06	0.44
32:1a:1060:C:H41	34:1c:2:GLY:HA3	1.83	0.44
32:1a:1127:G:OP1	32:1a:1281:U:H4'	2.17	0.44
32:1a:1137:C:O5'	32:1a:1137:C:C6	2.71	0.44
32:1a:1320:C:H2'	32:1a:1321:C:O4'	2.18	0.44
32:1a:1508:G:H2'	32:1a:1509:C:O4'	2.17	0.44
39:1h:4:ASP:OD2	39:1h:85:ARG:NH1	2.51	0.44
39:1h:40:ALA:HA	39:1h:45:ILE:HG13	1.98	0.44
45:1n:6:LEU:C	45:1n:8:GLU:N	2.74	0.44
46:1o:39:LEU:HD23	46:1o:39:LEU:HA	1.74	0.44
1:2A:1131:G:C2	1:2A:1132:A:C4	3.06	0.44
1:2A:1503:U:H2'	1:2A:1504:C:C6	2.53	0.44
1:2A:2063:C:O2	1:2A:2450:A:N1	2.51	0.44
1:2A:2167:U:O2	1:2A:2171:A:C8	2.70	0.44
6:2G:77:ILE:N	6:2G:82:LEU:O	2.34	0.44
6:2G:173:LEU:HD22	6:2G:178:PHE:CE1	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:14:ASP:OD1	8:2I:15:VAL:N	2.51	0.44
15:2T:16:ARG:HG2	15:2T:18:ASP:OD1	2.18	0.44
17:2V:4:ILE:HA	17:2V:12:TYR:O	2.18	0.44
26:24:50:VAL:HG11	44:2m:64:TRP:C	2.42	0.44
32:2a:273:A:N6	32:2a:274:A:N6	2.66	0.44
32:2a:404:U:O2	32:2a:498:U:C5	2.70	0.44
32:2a:623:C:C4	32:2a:624:C:C5	3.06	0.44
32:2a:909:A:H2'	32:2a:910:C:O4'	2.17	0.44
32:2a:938:A:N6	32:2a:939:G:C6	2.86	0.44
33:2b:163:PHE:HA	33:2b:185:ILE:O	2.18	0.44
37:2f:62:TRP:C	37:2f:63:TYR:HD2	2.25	0.44
39:2h:124:ALA:O	39:2h:128:GLY:N	2.50	0.44
41:2j:8:LEU:HB2	41:2j:70:ARG:HB2	2.00	0.44
45:2n:53:LEU:HB3	45:2n:56:VAL:HB	1.99	0.44
46:2o:32:LEU:HD13	46:2o:63:ARG:HB2	2.00	0.44
47:2p:3:LYS:O	47:2p:21:VAL:HA	2.18	0.44
1:1A:1090:G:H1'	1:1A:1094:A:H1'	1.99	0.44
1:1A:1613:A:OP1	3:1D:211:ARG:NH1	2.47	0.44
1:1A:2785:C:H2'	1:1A:2786:C:C6	2.53	0.44
12:1Q:17:LEU:HA	12:1Q:17:LEU:HD23	1.71	0.44
15:1T:127:ALA:O	15:1T:128:GLU:HB3	2.18	0.44
32:1a:220:G:H5''	32:1a:220:G:H8	1.82	0.44
32:1a:651:C:O2'	32:1a:652:U:H5'	2.18	0.44
32:1a:738:C:H2'	32:1a:739:C:H6	1.83	0.44
32:1a:996:A:H8	32:1a:996:A:O5'	2.01	0.44
32:1a:1051:C:H2'	32:1a:1052:U:C6	2.53	0.44
32:1a:1086:U:H2'	32:1a:1087:G:O4'	2.18	0.44
32:1a:1095:U:OP2	32:1a:1108:G:N1	2.44	0.44
32:1a:1131:G:H8	32:1a:1131:G:O5'	2.01	0.44
32:1a:1287:A:H2	32:1a:1353:G:N3	2.16	0.44
34:1c:141:VAL:HG11	34:1c:202:ILE:HD13	2.00	0.44
35:1d:80:GLU:O	35:1d:83:SER:N	2.51	0.44
36:1e:90:VAL:O	36:1e:91:LEU:HD13	2.18	0.44
40:1i:90:PRO:C	40:1i:92:TYR:H	2.25	0.44
48:1q:4:LYS:HG3	48:1q:6:LEU:HD11	1.99	0.44
50:1s:22:LEU:CD2	50:1s:27:GLU:HA	2.48	0.44
1:2A:82:G:N1	1:2A:103:A:OP2	2.43	0.44
1:2A:627:A:C6	1:2A:637:A:C8	3.05	0.44
1:2A:1016:G:H2'	1:2A:1017:G:C8	2.52	0.44
1:2A:1022:G:C5	1:2A:1140:C:C4	3.06	0.44
1:2A:1069:A:H5'	1:2A:1096:A:C5'	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1170:G:N2	1:2A:1180:C:C2	2.86	0.44
1:2A:2203:U:O2'	1:2A:2205:C:H5'	2.17	0.44
1:2A:2359:C:H2'	1:2A:2360:A:O4'	2.17	0.44
1:2A:2370:G:C6	1:2A:2371:G:C6	3.05	0.44
5:2F:9:ILE:HA	5:2F:10:PRO:HD2	1.88	0.44
7:2H:88:LEU:HD23	7:2H:165:ALA:HA	2.00	0.44
23:21:82:LEU:O	23:21:85:LEU:HD22	2.17	0.44
32:2a:155:C:H2'	32:2a:156:G:O4'	2.17	0.44
32:2a:161:A:H2'	32:2a:162:A:C8	2.53	0.44
32:2a:432:A:N7	32:2a:433:C:C4	2.86	0.44
32:2a:937:A:H1'	32:2a:1379:G:N2	2.33	0.44
32:2a:1187:G:H4'	40:2i:111:ARG:NH1	2.33	0.44
33:2b:77:ALA:CB	33:2b:211:ILE:HD13	2.42	0.44
34:2c:150:LYS:HB3	34:2c:201:TYR:HB2	1.99	0.44
41:2j:6:ILE:N	41:2j:72:VAL:O	2.50	0.44
1:1A:116:A:H3'	1:1A:117:A:H5''	1.98	0.44
1:1A:231:G:N2	1:1A:243:G:H2'	2.32	0.44
1:1A:1024:G:C2	1:1A:1032:C:C2	3.06	0.44
1:1A:1686:U:H4'	1:1A:2711:C:H4'	2.00	0.44
1:1A:2142:G:C2	1:1A:2143:G:C8	3.06	0.44
3:1D:94:LEU:HD23	3:1D:94:LEU:HA	1.56	0.44
7:1H:125:VAL:HG12	7:1H:127:GLU:O	2.18	0.44
11:1P:59:LEU:HD11	30:18:10:ALA:HB2	2.00	0.44
13:1R:70:LEU:HA	13:1R:70:LEU:HD23	1.69	0.44
32:1a:143:A:H2	32:1a:220:G:H22	1.66	0.44
32:1a:303:A:H2'	32:1a:304:U:O4'	2.18	0.44
32:1a:445:G:C2	32:1a:446:G:C4	3.06	0.44
32:1a:453:A:C6	32:1a:454:C:C4	3.06	0.44
32:1a:492:G:H2'	32:1a:493:G:H8	1.82	0.44
32:1a:976:G:OP1	45:1n:32:SER:N	2.50	0.44
32:1a:1093:A:N3	32:1a:1095:U:H5'	2.32	0.44
32:1a:1122:U:H2'	32:1a:1123:A:O4'	2.17	0.44
32:1a:1273:G:H3'	32:1a:1274:G:H8	1.82	0.44
32:1a:1347:G:H22	32:1a:1373:G:H2'	1.81	0.44
41:1j:48:THR:OG1	41:1j:62:HIS:CE1	2.71	0.44
49:1r:24:ALA:C	49:1r:26:LEU:H	2.25	0.44
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	1.99	0.44
1:2A:853:G:H1	1:2A:924:C:H42	1.66	0.44
1:2A:1168:G:C2	1:2A:1182:A:C2	3.06	0.44
1:2A:1282:U:H2'	1:2A:1283:G:O4'	2.18	0.44
1:2A:1512:U:H2'	1:2A:1513:C:H6	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2335:A:N7	1:2A:2337:G:C5	2.86	0.44
1:2A:2336:A:H61	22:20:43:THR:CG2	2.30	0.44
4:2E:50:GLY:O	4:2E:51:PHE:HB2	2.18	0.44
11:2P:113:LYS:HA	11:2P:129:ALA:O	2.18	0.44
14:2S:88:ASP:C	14:2S:90:GLY:H	2.26	0.44
27:25:35:GLU:HG3	27:25:51:TYR:CG	2.53	0.44
32:2a:490:G:H2'	32:2a:491:G:H8	1.83	0.44
33:2b:178:ARG:NH1	39:2h:68:ARG:HH22	2.14	0.44
35:2d:92:VAL:HG12	35:2d:96:LEU:HD22	1.99	0.44
36:2e:78:HIS:NE2	36:2e:142:LEU:HD23	2.32	0.44
36:2e:83:GLU:HA	36:2e:87:SER:O	2.18	0.44
47:2p:20:VAL:HG23	47:2p:35:LYS:HA	1.98	0.44
50:2s:58:VAL:HA	50:2s:59:PRO:HD2	1.89	0.44
1:1A:990:A:C2	1:1A:2460:A:C4	3.06	0.43
1:1A:1411:A:O4'	23:11:41:ARG:NH2	2.51	0.43
1:1A:1846:A:P	3:1D:54:ARG:HH22	2.41	0.43
1:1A:2029:C:H2'	1:1A:2030:C:H6	1.81	0.43
1:1A:2603:C:H2'	1:1A:2604:G:C8	2.53	0.43
3:1D:77:ALA:HB2	3:1D:97:TYR:CD1	2.53	0.43
8:1I:72:LEU:HD21	8:1I:107:VAL:HG11	2.00	0.43
11:1P:112:LEU:HA	11:1P:112:LEU:HD23	1.79	0.43
12:1Q:61:GLY:O	21:1Z:178:GLU:HB2	2.18	0.43
14:1S:66:ALA:O	14:1S:69:VAL:HG13	2.18	0.43
18:1W:12:ILE:HD13	18:1W:12:ILE:HG21	1.69	0.43
32:1a:9:G:OP1	36:1e:122:GLU:HG3	2.17	0.43
32:1a:109:A:H2'	32:1a:326:G:H21	1.82	0.43
32:1a:1286:A:C2	52:1u:18:TYR:OH	2.71	0.43
32:1a:1401:G:OP1	53:1x:80:LYS:HE2	2.17	0.43
33:1b:155:LEU:HD12	33:1b:155:LEU:HA	1.75	0.43
34:1c:18:TRP:H	34:1c:18:TRP:HE3	1.66	0.43
39:1h:111:ILE:O	39:1h:112:LEU:HD23	2.19	0.43
46:1o:29:VAL:HG13	46:1o:63:ARG:HG3	2.00	0.43
46:1o:37:ASN:O	46:1o:41:GLU:HG2	2.18	0.43
1:2A:301:G:C4	1:2A:302:C:C5	3.06	0.43
1:2A:839:U:O2'	1:2A:1191:G:N3	2.49	0.43
1:2A:2104:G:N3	1:2A:2104:G:H5''	2.33	0.43
1:2A:2119:A:O2'	1:2A:2120:G:H5''	2.18	0.43
6:2G:97:ASP:O	6:2G:101:ILE:HG13	2.18	0.43
8:2I:25:TYR:CE1	8:2I:29:TYR:CD2	3.06	0.43
16:2U:76:TYR:O	16:2U:80:ILE:HG12	2.17	0.43
21:2Z:70:LEU:HD23	21:2Z:70:LEU:HA	1.69	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:125:LEU:HG	21:2Z:164:ALA:HB3	2.00	0.43
32:2a:922:G:H2'	32:2a:923:A:C8	2.53	0.43
32:2a:1127:G:O2'	32:2a:1128:C:H5'	2.18	0.43
33:2b:96:ARG:HG2	33:2b:98:LEU:HD23	2.00	0.43
41:2j:35:SER:CB	41:2j:73:ASP:HB2	2.47	0.43
44:2m:40:ASN:HA	44:2m:41:PRO:HD2	1.85	0.43
45:2n:24:CYS:HB3	45:2n:28:GLY:H	1.83	0.43
1:1A:194:G:O2'	1:1A:195:U:P	2.76	0.43
1:1A:956:A:C5	12:1Q:13:GLN:HG3	2.53	0.43
1:1A:1183:G:C2	9:1N:106:MET:HE2	2.52	0.43
1:1A:1911:A:H2'	1:1A:1912:A:C8	2.52	0.43
1:1A:2420:U:H2'	1:1A:2421:G:C8	2.53	0.43
1:1A:2442:A:H2'	1:1A:2442:A:N3	2.33	0.43
1:1A:2877:G:HO2'	1:1A:2878:A:P	2.40	0.43
5:1F:197:ASP:OD1	5:1F:197:ASP:N	2.47	0.43
6:1G:124:SER:HB2	6:1G:131:TYR:CE1	2.52	0.43
32:1a:67:C:H4'	32:1a:172:A:O4'	2.18	0.43
32:1a:177:C:H2'	32:1a:178:C:C6	2.53	0.43
32:1a:540:G:C6	32:1a:541:G:C5	3.06	0.43
32:1a:769:G:H4'	32:1a:1513:A:H4'	1.99	0.43
32:1a:1273:G:H5'	32:1a:1274:G:OP2	2.17	0.43
33:1b:78:GLN:O	33:1b:81:VAL:HG22	2.18	0.43
35:1d:30:LYS:HA	35:1d:35:ARG:HE	1.84	0.43
35:1d:30:LYS:HG2	35:1d:35:ARG:HH21	1.83	0.43
36:1e:137:GLU:HA	36:1e:140:ARG:HH11	1.82	0.43
40:1i:58:HIS:N	40:1i:58:HIS:CD2	2.85	0.43
50:1s:31:ILE:HD11	50:1s:47:HIS:CD2	2.53	0.43
1:2A:1006:C:C2	1:2A:1138:G:N2	2.85	0.43
1:2A:1027:A:C2	1:2A:2488:A:H5'	2.52	0.43
1:2A:1425:G:H2'	1:2A:1426:G:O4'	2.18	0.43
1:2A:2638:G:P	4:2E:82:ARG:HH12	2.40	0.43
9:2N:38:HIS:O	16:2U:67:ALA:HB1	2.18	0.43
16:2U:76:TYR:CE2	16:2U:80:ILE:HG13	2.53	0.43
32:2a:7:G:H5'	32:2a:298:A:O4'	2.19	0.43
32:2a:515:G:C6	32:2a:516:PSU:C2	3.06	0.43
32:2a:920:U:H2'	32:2a:921:U:H6	1.81	0.43
32:2a:1090:U:H2'	32:2a:1091:U:H6	1.82	0.43
32:2a:1237:C:O2'	32:2a:1300:G:N2	2.42	0.43
32:2a:1436:U:H2'	32:2a:1437:C:O4'	2.18	0.43
34:2c:20:SER:HB2	34:2c:40:ARG:HH21	1.82	0.43
38:2g:69:VAL:HG12	38:2g:100:ALA:HA	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:2q:27:PHE:CE1	48:2q:36:ILE:HD11	2.53	0.43
52:2u:12:LYS:HB3	52:2u:17:THR:O	2.18	0.43
53:2x:54:ILE:HB	53:2x:61:LEU:HB2	1.99	0.43
1:1A:2347:A:C8	1:1A:2349:G:C5	3.06	0.43
1:1A:2755:C:OP1	31:19:35:ARG:HD3	2.18	0.43
1:1A:2812:A:N3	1:1A:2904:U:H1'	2.33	0.43
5:1F:157:VAL:HB	5:1F:194:MET:HG2	1.99	0.43
11:1P:97:PRO:HD3	11:1P:126:VAL:O	2.18	0.43
19:1X:5:TYR:CE1	24:12:30:ARG:HG3	2.53	0.43
32:1a:474:G:H2'	32:1a:475:G:C8	2.52	0.43
32:1a:1263:C:H2'	32:1a:1264:C:H6	1.82	0.43
32:1a:1350:A:C5	32:1a:1351:U:C4	3.06	0.43
35:1d:23:GLY:HA2	35:1d:112:VAL:O	2.18	0.43
36:1e:8:GLU:HG3	36:1e:34:VAL:HG23	2.00	0.43
36:1e:28:PHE:O	36:1e:47:LYS:HA	2.18	0.43
37:1f:63:TYR:CD2	37:1f:63:TYR:N	2.86	0.43
45:1n:45:ARG:O	45:1n:49:HIS:HD2	2.02	0.43
46:1o:18:PHE:HB2	46:1o:19:PRO:CD	2.48	0.43
46:1o:48:LYS:HD2	46:1o:48:LYS:HA	1.76	0.43
1:2A:41:C:H2'	1:2A:42:G:H8	1.84	0.43
1:2A:275:G:H2'	1:2A:276:A:O4'	2.18	0.43
1:2A:315:G:H2'	1:2A:316:C:O4'	2.17	0.43
1:2A:818:G:H4'	1:2A:838:C:O3'	2.18	0.43
1:2A:937:U:H2'	1:2A:938:G:O4'	2.18	0.43
1:2A:954:G:C5	1:2A:955:C:C5	3.06	0.43
1:2A:1491:G:C5	1:2A:1500:G:N2	2.86	0.43
1:2A:2728:U:H5'	10:2O:70:LYS:NZ	2.33	0.43
4:2E:52:LEU:HB3	4:2E:53:PRO:HD2	1.99	0.43
9:2N:42:TRP:CH2	9:2N:44:PRO:HB3	2.53	0.43
9:2N:48:MET:O	9:2N:48:MET:HE3	2.19	0.43
9:2N:67:LEU:O	9:2N:88:GLU:HG3	2.18	0.43
12:2Q:59:ARG:NH1	12:2Q:60:ARG:HE	2.15	0.43
19:2X:18:TYR:C	19:2X:20:GLY:H	2.26	0.43
19:2X:18:TYR:C	19:2X:20:GLY:N	2.75	0.43
25:23:3:ARG:HG2	25:23:38:GLU:HA	2.01	0.43
26:24:16:CYS:HB3	26:24:20:ASN:HB3	1.98	0.43
32:2a:1092:A:H8	32:2a:1092:A:O5'	2.02	0.43
33:2b:42:ILE:HG21	33:2b:202:PRO:O	2.18	0.43
39:2h:17:THR:O	39:2h:78:GLN:NE2	2.43	0.43
1:1A:272:U:C5'	8:1I:50:ARG:HH12	2.19	0.43
1:1A:1104:G:C6	1:1A:1105:G:C5	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1367:A:H2'	1:1A:1368:A:O4'	2.18	0.43
1:1A:2136:A:H1'	1:1A:2190:G:C5'	2.48	0.43
1:1A:2652:G:OP1	9:1N:97:ARG:NH2	2.51	0.43
1:1A:2735:G:H2'	1:1A:2736:C:O4'	2.18	0.43
4:1E:59:VAL:HG12	4:1E:64:LYS:HG3	2.00	0.43
6:1G:99:MET:HE2	6:1G:99:MET:HB3	1.80	0.43
8:1I:101:LEU:O	8:1I:101:LEU:HD23	2.19	0.43
22:10:43:THR:O	22:10:43:THR:HG23	2.18	0.43
32:1a:123:C:OP1	32:1a:312:C:H5'	2.19	0.43
32:1a:200:G:C2	32:1a:218:C:N3	2.86	0.43
32:1a:841:U:C5	32:1a:848:C:H1'	2.53	0.43
33:1b:70:PHE:CD1	33:1b:163:PHE:HB3	2.53	0.43
35:1d:83:SER:HA	59:1d:603:HOH:O	2.18	0.43
43:1l:54:LYS:HD2	43:1l:54:LYS:N	2.33	0.43
48:1q:45:HIS:CD2	48:1q:47:PRO:HG3	2.53	0.43
52:1u:2:GLY:O	52:1u:4:GLY:N	2.51	0.43
1:2A:30:G:OP2	16:2U:5:LYS:HE2	2.17	0.43
1:2A:330:A:HO2'	1:2A:331:A:H8	1.62	0.43
1:2A:491:G:H2'	1:2A:492:A:C8	2.53	0.43
1:2A:643:A:N1	1:2A:2369:A:O2'	2.44	0.43
1:2A:1547:C:H2'	1:2A:1548:C:C6	2.54	0.43
1:2A:2104:G:O6	1:2A:2185:C:H2'	2.19	0.43
6:2G:16:ARG:HD2	6:2G:16:ARG:HA	1.79	0.43
24:22:3:LEU:HD13	24:22:3:LEU:HA	1.67	0.43
26:24:56:VAL:O	26:24:60:GLN:HB3	2.17	0.43
32:2a:277:C:P	48:2q:68:ARG:HH12	2.41	0.43
32:2a:673:G:C2	32:2a:674:G:C6	3.06	0.43
32:2a:833:U:H2'	32:2a:834:C:H6	1.84	0.43
32:2a:918:A:H2'	32:2a:919:A:C8	2.53	0.43
32:2a:1250:A:C6	32:2a:1251:A:C6	3.06	0.43
33:2b:179:LYS:HA	39:2h:72:PRO:HG3	2.01	0.43
34:2c:115:LEU:O	34:2c:118:GLN:N	2.51	0.43
34:2c:143:GLU:C	34:2c:145:GLY:H	2.25	0.43
37:2f:22:GLU:O	37:2f:26:ILE:HG13	2.18	0.43
39:2h:121:ASP:HB2	39:2h:125:ARG:HH21	1.82	0.43
1:1A:733:G:H1	29:17:16:HIS:CD2	2.37	0.43
1:1A:1629:C:C2	1:1A:1630:A:C8	3.07	0.43
1:1A:1745:A:C8	1:1A:1747:A:O4'	2.72	0.43
1:1A:1900:G:H2'	1:1A:1901:C:C6	2.54	0.43
1:1A:2135:U:C5	1:1A:2136:A:C8	3.06	0.43
3:1D:70:TRP:HB3	3:1D:190:TYR:CE2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:125:ILE:HG23	3:1D:125:ILE:HD12	1.81	0.43
4:1E:128:SER:OG	4:1E:129:HIS:N	2.49	0.43
6:1G:115:ARG:CZ	6:1G:115:ARG:HB2	2.49	0.43
11:1P:83:VAL:CG1	11:1P:112:LEU:HD21	2.49	0.43
12:1Q:2:LEU:HG	12:1Q:69:PHE:CE1	2.53	0.43
17:1V:62:LEU:HD12	17:1V:62:LEU:HA	1.79	0.43
20:1Y:56:PRO:C	20:1Y:58:GLY:H	2.25	0.43
22:10:24:LYS:O	22:10:25:ARG:HD3	2.18	0.43
32:1a:108:G:N1	51:1t:15:ARG:HG2	2.34	0.43
32:1a:430:A:OP1	35:1d:9:CYS:HB2	2.19	0.43
32:1a:626:U:C2	32:1a:627:G:C8	3.07	0.43
32:1a:858:G:N1	32:1a:870:U:OP2	2.46	0.43
32:1a:926:G:H5''	32:1a:927:G:O5'	2.18	0.43
32:1a:1518:MA6:H93	32:1a:1519:MA6:H92	2.00	0.43
38:1g:137:LYS:O	38:1g:141:VAL:HG23	2.18	0.43
39:1h:104:ARG:O	39:1h:105:ARG:HB2	2.18	0.43
1:2A:154:G:H1	1:2A:172:C:N4	2.16	0.43
1:2A:184:C:H2'	1:2A:185:U:H6	1.84	0.43
1:2A:265:A:C2	1:2A:283:A:C6	3.06	0.43
1:2A:636:G:H4'	1:2A:638:G:O3'	2.18	0.43
1:2A:639:U:H2'	1:2A:640:C:C6	2.54	0.43
1:2A:1243:G:H2'	1:2A:1244:G:O4'	2.18	0.43
1:2A:1510:G:H2'	1:2A:1511:C:C6	2.53	0.43
1:2A:1517:G:C6	1:2A:1518:U:N3	2.87	0.43
1:2A:2144:U:H2'	1:2A:2147:G:H1	1.84	0.43
1:2A:2186:G:C2	1:2A:2187:G:C5	3.07	0.43
1:2A:2287:A:O2'	1:2A:2288:A:H3'	2.18	0.43
1:2A:2694:G:C6	1:2A:2695:C:C4	3.07	0.43
1:2A:2755:C:C4	31:29:19:ARG:NH1	2.87	0.43
14:2S:38:GLN:HB3	14:2S:47:THR:HG21	2.01	0.43
32:2a:321:A:C2	32:2a:333:G:C2	3.06	0.43
32:2a:620:C:H2'	32:2a:621:A:O4'	2.18	0.43
32:2a:693:G:H1'	38:2g:82:GLY:HA3	2.00	0.43
32:2a:1003:G:C5	32:2a:1004:A:N3	2.86	0.43
32:2a:1028:C:C2	32:2a:1033:G:N2	2.87	0.43
32:2a:1121:U:H2'	32:2a:1122:U:C6	2.54	0.43
32:2a:1347:G:H5''	40:2i:107:ARG:HB3	2.00	0.43
33:2b:112:VAL:HG22	33:2b:149:LEU:HD13	2.00	0.43
42:2k:98:LEU:HD23	42:2k:98:LEU:HA	1.78	0.43
44:2m:60:VAL:HG22	44:2m:66:LEU:HD11	1.99	0.43
45:2n:27:CYS:SG	45:2n:29:ARG:HB2	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:2p:36:ILE:HD12	47:2p:56:ALA:HB2	2.00	0.43
47:2p:40:ASP:HB3	47:2p:48:TRP:CB	2.49	0.43
51:2t:43:LEU:O	51:2t:47:GLY:N	2.51	0.43
1:1A:701:A:H2	1:1A:702:A:C2	2.37	0.43
6:1G:110:ALA:HA	6:1G:140:ILE:O	2.19	0.43
12:1Q:1:MET:HE2	12:1Q:1:MET:HB3	1.88	0.43
23:11:77:ALA:O	23:11:80:LEU:HB2	2.18	0.43
32:1a:66:G:N2	32:1a:172:A:N3	2.66	0.43
32:1a:77:G:H2'	32:1a:78:G:H5'	2.00	0.43
32:1a:235:C:C5'	48:1q:70:ARG:HG3	2.49	0.43
32:1a:363:A:C5	43:1l:31:PRO:HD2	2.54	0.43
32:1a:1061:G:O4'	41:1j:56:HIS:CD2	2.72	0.43
32:1a:1077:G:N1	32:1a:1081:G:C6	2.87	0.43
34:1c:17:ASP:OD1	34:1c:18:TRP:N	2.51	0.43
36:1e:102:ALA:HB2	36:1e:120:THR:CG2	2.49	0.43
38:1g:28:ASN:HD21	38:1g:36:LYS:NZ	2.17	0.43
1:2A:1444:G:N2	1:2A:1548:C:C2	2.86	0.43
1:2A:1900:A:N1	1:2A:1970:A:C6	2.86	0.43
1:2A:2788:C:O2	1:2A:2809:A:H2	2.02	0.43
6:2G:142:PRO:O	26:24:31:ILE:HD13	2.18	0.43
8:2I:78:THR:HA	8:2I:143:SER:OG	2.18	0.43
8:2I:101:LEU:HD23	8:2I:107:VAL:HB	2.01	0.43
12:2Q:48:GLU:O	12:2Q:52:VAL:HG23	2.19	0.43
12:2Q:69:PHE:CD1	12:2Q:70:PRO:HD2	2.54	0.43
14:2S:103:GLU:O	14:2S:107:GLU:HG3	2.18	0.43
16:2U:109:LEU:HA	16:2U:109:LEU:HD23	1.72	0.43
19:2X:31:HIS:HA	19:2X:32:PRO:HD3	1.75	0.43
29:27:27:GLY:O	29:27:30:VAL:HB	2.19	0.43
32:2a:560:U:H5'	32:2a:566:G:N2	2.33	0.43
32:2a:1040:U:C4	32:2a:1041:A:N7	2.87	0.43
32:2a:1154:G:C4	32:2a:1155:G:C8	3.07	0.43
32:2a:1323:G:H4'	32:2a:1363:C:C2	2.54	0.43
33:2b:40:HIS:HB3	33:2b:190:THR:HG21	2.01	0.43
44:2m:15:VAL:HG13	44:2m:43:THR:O	2.19	0.43
46:2o:57:LEU:HD23	46:2o:57:LEU:HA	1.87	0.43
51:2t:30:LYS:HE3	51:2t:30:LYS:HB2	1.78	0.43
1:1A:324:A:OP1	20:1Y:86:ARG:NH2	2.51	0.43
1:1A:868:A:H2'	1:1A:991:G:H5''	2.00	0.43
1:1A:969:C:H2'	1:1A:970:C:C6	2.53	0.43
1:1A:1053:C:OP1	9:1N:35:ARG:NH1	2.52	0.43
1:1A:1116:A:H61	1:1A:1142:A:H2	1.65	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2308:U:OP2	14:1S:9:ARG:NH2	2.49	0.43
1:1A:2638:C:H2'	1:1A:2639:G:O4'	2.18	0.43
8:1I:104:GLN:HG3	8:1I:105:HIS:CD2	2.54	0.43
32:1a:179:A:C4	32:1a:180:U:C5	3.07	0.43
32:1a:251:G:N2	32:1a:253:U:C5	2.87	0.43
32:1a:585:G:N3	32:1a:879:C:H4'	2.32	0.43
32:1a:1168:A:C6	32:1a:1169:A:C6	3.07	0.43
32:1a:1456:G:H8	32:1a:1456:G:OP1	2.02	0.43
33:1b:76:GLN:HG2	33:1b:206:ASP:O	2.18	0.43
33:1b:96:ARG:HG2	33:1b:98:LEU:HD23	2.00	0.43
35:1d:194:LEU:HD13	35:1d:194:LEU:HA	1.78	0.43
39:1h:86:ILE:HG23	39:1h:86:ILE:HD12	1.79	0.43
39:1h:86:ILE:O	39:1h:88:LYS:HG3	2.19	0.43
47:1p:40:ASP:HB3	47:1p:48:TRP:HB2	2.00	0.43
47:1p:43:LYS:HA	47:1p:48:TRP:CB	2.49	0.43
1:2A:77:C:OP1	24:22:59:ARG:HD3	2.17	0.43
1:2A:840:C:H6	1:2A:840:C:O5'	2.02	0.43
1:2A:1991:U:C2'	1:2A:1992:G:H5''	2.46	0.43
1:2A:2019:A:H4'	16:2U:34:LYS:HD2	2.01	0.43
1:2A:2322:A:H2'	1:2A:2323:G:O4'	2.19	0.43
15:2T:125:ARG:HH12	32:2a:1443:G:H5'	1.83	0.43
21:2Z:63:ASP:OD1	21:2Z:65:GLN:HG3	2.18	0.43
32:2a:4:U:N3	39:2h:105:ARG:HD3	2.33	0.43
32:2a:229:U:O2'	47:2p:23:ASP:OD2	2.32	0.43
32:2a:736:C:H2'	32:2a:737:A:H8	1.77	0.43
32:2a:881:G:P	43:2l:12:ARG:NH2	2.92	0.43
32:2a:1080:A:OP1	36:2e:47:LYS:HD3	2.19	0.43
42:2k:84:VAL:HG13	42:2k:91:ARG:HD2	2.01	0.43
44:2m:102:ARG:HH12	44:2m:105:THR:CG2	2.31	0.43
47:2p:55:ARG:O	47:2p:58:TYR:HB3	2.19	0.43
53:2x:23:ARG:HD3	53:2x:23:ARG:HA	1.60	0.43
1:1A:275:C:O5'	1:1A:275:C:H6	2.02	0.43
1:1A:418:G:H1'	1:1A:438:G:O4'	2.18	0.43
1:1A:504:A:C6	1:1A:506:A:C6	3.06	0.43
1:1A:878:G:N2	11:1P:53:GLY:O	2.51	0.43
1:1A:2660:C:H2'	1:1A:2661:U:H6	1.84	0.43
2:1B:50:G:H5''	14:1S:61:ASN:ND2	2.34	0.43
8:1I:110:ASP:HA	8:1I:111:PRO:HD3	1.89	0.43
11:1P:121:LYS:O	11:1P:123:LEU:N	2.51	0.43
19:1X:11:PRO:HB3	19:1X:92:LEU:HD11	2.01	0.43
28:16:30:THR:O	28:16:30:THR:HG22	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:189(D):C:C2	32:1a:189(H):G:C6	3.07	0.43
36:1e:81:GLU:HG2	36:1e:90:VAL:HG13	2.01	0.43
42:1k:84:VAL:HG21	42:1k:95:ILE:HD11	2.01	0.43
50:1s:27:GLU:CB	50:1s:28:LYS:HB3	2.49	0.43
1:2A:774:A:H2'	1:2A:774:A:N3	2.34	0.43
1:2A:2335:A:C8	1:2A:2337:G:N7	2.87	0.43
1:2A:2511:U:O4	1:2A:2575:C:N3	2.52	0.43
6:2G:12:TYR:HA	6:2G:16:ARG:HG3	1.99	0.43
16:2U:27:LEU:HA	16:2U:30:LYS:HB2	1.99	0.43
18:2W:2:GLU:OE2	18:2W:72:LYS:NZ	2.35	0.43
32:2a:357:G:O2'	32:2a:358:U:H5'	2.18	0.43
32:2a:765:G:H5''	32:2a:766:A:OP1	2.19	0.43
32:2a:1002:G:N2	32:2a:1004:A:O2'	2.52	0.43
35:2d:59:ARG:HA	35:2d:59:ARG:HD3	1.79	0.43
40:2i:9:ARG:HB3	40:2i:104:ARG:NH2	2.33	0.43
53:2x:58:ASN:O	53:2x:88:LEU:HD22	2.18	0.43
1:1A:142:G:H1'	19:1X:37:THR:HG21	2.00	0.43
1:1A:213:G:H2'	1:1A:214:A:O4'	2.18	0.43
1:1A:1530:G:N2	1:1A:1552:C:C2	2.87	0.43
1:1A:1766:G:C2	1:1A:1768:U:OP2	2.72	0.43
1:1A:1932:G:O2'	1:1A:1933:PSU:H5''	2.19	0.43
1:1A:2694:U:O2'	15:1T:58:ASN:ND2	2.51	0.43
4:1E:46:ALA:HB2	4:1E:82:ARG:HA	2.01	0.43
8:1I:29:TYR:O	8:1I:32:PRO:HD2	2.18	0.43
18:1W:25:ARG:NH2	18:1W:74:ALA:O	2.47	0.43
32:1a:1226:C:H4'	50:1s:80:TYR:OH	2.18	0.43
32:1a:1429:C:H2'	32:1a:1430:C:C6	2.54	0.43
34:1c:6:HIS:CD2	34:1c:8:ILE:H	2.36	0.43
34:1c:54:ARG:HD3	34:1c:56:ASP:CG	2.44	0.43
35:1d:163:GLU:O	35:1d:166:LYS:HG2	2.18	0.43
43:1l:33:ARG:O	43:1l:85:ILE:HG12	2.18	0.43
53:1x:81:LEU:HD23	53:1x:81:LEU:HA	1.92	0.43
1:2A:257:A:H2'	1:2A:258:G:O4'	2.19	0.43
1:2A:897:C:H2'	1:2A:898:C:C6	2.54	0.43
1:2A:927:G:H2'	1:2A:928:G:O4'	2.19	0.43
1:2A:1062:G:C8	1:2A:1070:A:O4'	2.72	0.43
1:2A:1344:G:O2'	1:2A:1385:G:H2'	2.17	0.43
1:2A:1569:A:H2'	1:2A:1570:A:O4'	2.19	0.43
1:2A:2275:C:H6	1:2A:2275:C:H5'	1.84	0.43
1:2A:2527:C:H5''	31:29:30:PRO:HB3	2.01	0.43
2:2B:95:C:H2'	2:2B:96:U:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2D:275:LYS:HA	3:2D:275:LYS:HD2	1.33	0.43
6:2G:145:THR:O	6:2G:149:VAL:HG12	2.18	0.43
12:2Q:43:THR:HG22	12:2Q:94:VAL:HG12	2.00	0.43
21:2Z:110:GLY:HA3	21:2Z:174:VAL:HG11	2.00	0.43
21:2Z:144:LEU:HD21	21:2Z:150:LEU:HD13	2.01	0.43
32:2a:405:U:O4	35:2d:2:GLY:N	2.52	0.43
32:2a:451:A:N6	32:2a:480:U:H2'	2.34	0.43
32:2a:826:C:H2'	32:2a:827:U:H6	1.84	0.43
32:2a:900:A:H2'	32:2a:901:A:C8	2.54	0.43
32:2a:929:G:C6	32:2a:930:C:C4	3.07	0.43
32:2a:1030(C):G:H2'	32:2a:1030(D):A:C8	2.54	0.43
32:2a:1055:A:C6	32:2a:1206:G:C5	3.07	0.43
32:2a:1281:U:H2'	32:2a:1282:C:C6	2.54	0.43
32:2a:1304:G:O2'	32:2a:1333:A:N6	2.39	0.43
32:2a:1347:G:O2'	32:2a:1373:G:O6	2.17	0.43
34:2c:196:LEU:N	34:2c:196:LEU:HD23	2.34	0.43
35:2d:100:ARG:NH1	35:2d:137:SER:OG	2.50	0.43
36:2e:76:ILE:HD11	36:2e:91:LEU:HB3	2.01	0.43
37:2f:89:MET:HE2	49:2r:76:LEU:HD22	2.00	0.43
1:1A:174:U:H4'	1:1A:207:A:H4'	2.01	0.43
1:1A:864:C:H4'	1:1A:977:G:C5	2.54	0.43
1:1A:1042:A:H4'	16:1U:91:ASP:OD2	2.18	0.43
1:1A:1055:A:O4'	16:1U:59:ARG:HG2	2.19	0.43
1:1A:1121:C:H42	1:1A:1123:A:H61	1.67	0.43
1:1A:1129:U:H1'	1:1A:1132:A:H61	1.84	0.43
1:1A:1177:G:H21	9:1N:73:THR:CG2	2.31	0.43
1:1A:2153:G:OP1	1:1A:2154:U:H3'	2.19	0.43
1:1A:2236:G:H4'	1:1A:2238:C:C2	2.54	0.43
1:1A:2427:G:C5	1:1A:2428:C:C4	3.06	0.43
3:1D:5:LYS:HB3	3:1D:5:LYS:HE3	1.75	0.43
3:1D:108:PRO:HG3	3:1D:143:HIS:HE1	1.81	0.43
6:1G:45:GLU:H	6:1G:45:GLU:HG2	1.62	0.43
32:1a:36:C:C4	32:1a:37:U:C5	3.07	0.43
32:1a:146:G:N2	32:1a:147:G:H1'	2.34	0.43
32:1a:939:G:C6	32:1a:940:C:C4	3.06	0.43
32:1a:1129:C:H2'	32:1a:1139:G:N7	2.33	0.43
32:1a:1350:A:C2	32:1a:1351:U:C2	3.07	0.43
38:1g:57:GLU:O	38:1g:58:PRO:C	2.62	0.43
40:1i:114:TYR:CD2	40:1i:114:TYR:N	2.85	0.43
1:2A:291:C:H42	1:2A:349:G:H1	1.67	0.43
1:2A:654:A:H2	1:2A:655:A:C2	2.37	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:876:C:H2'	1:2A:877:U:O4'	2.19	0.43
1:2A:2079:U:O3'	23:21:35:THR:OG1	2.32	0.43
1:2A:2274:A:C6	1:2A:2276:G:C8	3.06	0.43
7:2H:27:LYS:HZ2	7:2H:32:GLU:CD	2.26	0.43
9:2N:138:LEU:HD23	9:2N:138:LEU:HA	1.74	0.43
11:2P:50:ARG:HD3	30:28:7:HIS:CD2	2.53	0.43
11:2P:98:GLU:OE1	11:2P:98:GLU:N	2.33	0.43
12:2Q:34:LEU:HD12	12:2Q:34:LEU:HA	1.85	0.43
16:2U:85:LYS:HZ2	16:2U:117:GLN:CA	2.32	0.43
31:29:17:ILE:HA	31:29:17:ILE:HD13	1.63	0.43
32:2a:149:A:O2'	32:2a:150:C:H5'	2.19	0.43
32:2a:165:C:H2'	32:2a:166:G:H8	1.83	0.43
32:2a:300:A:H1'	32:2a:565:U:O2	2.19	0.43
32:2a:653:A:C8	39:2h:56:LYS:HG2	2.54	0.43
32:2a:784:C:H2'	32:2a:785:G:O4'	2.19	0.43
32:2a:1058:G:N2	41:2j:53:PRO:HG3	2.34	0.43
32:2a:1077:G:N1	32:2a:1081:G:C6	2.87	0.43
32:2a:1468:A:H2'	32:2a:1469:G:O4'	2.18	0.43
36:2e:144:THR:N	36:2e:147:ASP:HB2	2.24	0.43
40:2i:14:VAL:O	40:2i:65:VAL:HA	2.19	0.43
41:2j:16:LEU:HD23	41:2j:16:LEU:HA	1.83	0.43
44:2m:22:ILE:HB	44:2m:25:ILE:HD12	2.01	0.43
1:1A:290:G:H2'	1:1A:291:G:O4'	2.18	0.42
1:1A:505:A:N3	1:1A:507:G:H5''	2.34	0.42
1:1A:1067:A:H3'	1:1A:1067:A:N3	2.33	0.42
1:1A:1136:U:H2'	1:1A:1137:G:O4'	2.19	0.42
1:1A:1495:G:O2'	1:1A:1575:A:N1	2.46	0.42
1:1A:1857:G:H2'	1:1A:1858:C:O4'	2.19	0.42
1:1A:2317:A:H5''	6:1G:134:GLY:HA3	2.00	0.42
1:1A:2325:C:H2'	1:1A:2326:C:H6	1.84	0.42
1:1A:2504:U:H2'	1:1A:2505:U:C6	2.54	0.42
3:1D:73:VAL:HG13	3:1D:120:GLY:HA3	2.01	0.42
4:1E:49:LEU:HD22	4:1E:81:ILE:HG12	2.01	0.42
15:1T:7:ILE:O	15:1T:11:GLU:HG3	2.19	0.42
15:1T:13:ARG:HB3	15:1T:13:ARG:HH11	1.83	0.42
15:1T:24:PRO:HD3	15:1T:52:ILE:HD12	2.01	0.42
21:1Z:94:GLU:H	21:1Z:94:GLU:HG2	1.44	0.42
23:11:94:LEU:O	23:11:97:LEU:HB2	2.19	0.42
32:1a:72:C:H2'	32:1a:73:G:O4'	2.19	0.42
32:1a:339:C:H2'	32:1a:340:U:C6	2.54	0.42
32:1a:413:G:H21	32:1a:428:G:H1'	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:421:U:O2	32:1a:421:U:H2'	2.19	0.42
32:1a:604:G:N2	32:1a:635:G:C4	2.87	0.42
32:1a:622:A:H2'	32:1a:623:C:H5'	2.00	0.42
32:1a:1151:A:C2	32:1a:1152:A:C5	3.06	0.42
32:1a:1352:C:O2	32:1a:1371:G:C2	2.71	0.42
33:1b:87:ARG:HD2	33:1b:233:SER:HB2	2.00	0.42
34:1c:59:ARG:H	41:1j:92:THR:CG2	2.32	0.42
35:1d:138:TYR:C	35:1d:138:TYR:CD2	2.96	0.42
40:1i:16:ARG:HD3	40:1i:64:THR:CG2	2.49	0.42
41:1j:48:THR:HG1	41:1j:62:HIS:CE1	2.36	0.42
47:1p:51:VAL:HG12	47:1p:52:ASP:C	2.44	0.42
1:2A:224:G:H2'	1:2A:225:A:O4'	2.18	0.42
1:2A:616:G:OP2	5:2F:106:ARG:NH1	2.45	0.42
1:2A:999:U:C5	1:2A:1154:G:C5	3.07	0.42
1:2A:1198:U:H2'	1:2A:1199:U:C6	2.54	0.42
1:2A:1418:G:H8	1:2A:1418:G:O5'	2.02	0.42
1:2A:2131:G:H5'	1:2A:2133:G:O5'	2.19	0.42
2:2B:15:A:OP2	2:2B:69:G:N2	2.52	0.42
2:2B:80:U:H2'	2:2B:81:G:C8	2.54	0.42
3:2D:133:LEU:HA	3:2D:133:LEU:HD23	1.83	0.42
8:2I:105:HIS:CD2	8:2I:105:HIS:N	2.87	0.42
11:2P:46:LYS:HE3	11:2P:46:LYS:HB3	1.85	0.42
32:2a:8:A:N6	35:2d:209:ARG:HB2	2.34	0.42
32:2a:161:A:H2'	32:2a:162:A:H8	1.83	0.42
32:2a:853:G:C6	32:2a:854:G:N7	2.87	0.42
32:2a:947:G:O2'	32:2a:1306:A:H4'	2.18	0.42
32:2a:1009:G:C2	32:2a:1010:G:C8	3.07	0.42
32:2a:1125:U:O2'	32:2a:1126:U:H2'	2.19	0.42
32:2a:1338:G:C6	32:2a:1339:A:C6	3.07	0.42
35:2d:101:LEU:HA	35:2d:101:LEU:HD12	1.74	0.42
35:2d:110:PHE:N	35:2d:110:PHE:CD1	2.87	0.42
35:2d:122:ARG:HD2	35:2d:122:ARG:HA	1.77	0.42
46:2o:5:LYS:O	46:2o:9:GLN:HG2	2.18	0.42
1:1A:650:G:N7	11:1P:107:LYS:NZ	2.59	0.42
1:1A:908:A:H2'	1:1A:909:G:O4'	2.19	0.42
1:1A:1091:A:H1'	1:1A:1093:G:C4	2.53	0.42
1:1A:1346:U:H4'	1:1A:1347:A:C5'	2.47	0.42
1:1A:2133:C:N4	1:1A:2169:G:H22	2.13	0.42
9:1N:138:LEU:HD23	9:1N:138:LEU:HA	1.84	0.42
10:1O:1:MET:HE3	10:1O:32:TYR:CE2	2.54	0.42
15:1T:53:ARG:O	15:1T:59:THR:HB	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:10:63:VAL:HG23	22:10:64:ASP:O	2.19	0.42
24:12:63:VAL:O	24:12:66:GLU:HB2	2.18	0.42
32:1a:144:G:C2'	32:1a:145:G:H5'	2.49	0.42
32:1a:626:U:H5''	47:1p:38:TYR:CD2	2.53	0.42
33:1b:178:ARG:CG	33:1b:178:ARG:NH1	2.82	0.42
51:1t:58:LYS:HD2	51:1t:58:LYS:HA	1.45	0.42
1:2A:796:C:H2'	1:2A:797:C:C6	2.53	0.42
1:2A:1051:G:C6	1:2A:1052:C:C4	3.08	0.42
1:2A:1102:C:H2'	1:2A:1103:A:C8	2.55	0.42
1:2A:1416:G:O2'	1:2A:1417:C:H5	2.02	0.42
1:2A:2298:A:H2'	1:2A:2299:G:O4'	2.18	0.42
2:2B:3:C:H2'	2:2B:4:C:C6	2.54	0.42
2:2B:20:C:H2'	2:2B:21:G:O4'	2.19	0.42
3:2D:3:VAL:HG13	3:2D:17:THR:HB	2.01	0.42
5:2F:116:ASP:OD1	5:2F:119:ARG:NH2	2.50	0.42
20:2Y:44:ILE:HA	20:2Y:63:LYS:O	2.19	0.42
23:21:50:ARG:HE	23:21:50:ARG:HB2	1.63	0.42
32:2a:9:G:C2	32:2a:10:A:C4	3.07	0.42
32:2a:376:G:N3	32:2a:389:A:C2	2.86	0.42
32:2a:458:C:C2	32:2a:460:G:C8	3.08	0.42
32:2a:557:G:N1	32:2a:558:G:C2	2.86	0.42
32:2a:671:G:H2'	32:2a:672:U:O4'	2.19	0.42
32:2a:966:M2G:H1'	53:2x:53:THR:HG21	2.01	0.42
32:2a:986:A:N3	50:2s:52:TYR:OH	2.48	0.42
32:2a:1002:G:C2	32:2a:1003:G:C8	3.08	0.42
32:2a:1127:G:H2'	32:2a:1128:C:C6	2.54	0.42
32:2a:1401:G:C2	32:2a:1402:4OC:H1'	2.54	0.42
32:2a:1512:U:H2'	32:2a:1513:A:C8	2.54	0.42
33:2b:50:GLU:O	33:2b:54:THR:N	2.41	0.42
35:2d:31:CYS:SG	35:2d:33:MET:N	2.92	0.42
35:2d:162:LEU:HA	35:2d:162:LEU:HD23	1.67	0.42
44:2m:15:VAL:HG11	44:2m:48:LEU:HD11	2.00	0.42
1:1A:804:U:H2'	1:1A:805:C:O4'	2.19	0.42
1:1A:1111:U:O2	1:1A:1119:A:N6	2.52	0.42
1:1A:1149:A:OP2	1:1A:1150:C:H5	2.02	0.42
1:1A:2123:G:C6	1:1A:2124:U:C2	3.07	0.42
15:1T:37:GLY:HA2	15:1T:38:ASN:HA	1.61	0.42
16:1U:112:ARG:HH11	16:1U:112:ARG:HG3	1.83	0.42
19:1X:35:THR:HG22	19:1X:37:THR:N	2.31	0.42
19:1X:60:ARG:HH22	29:17:47:ARG:NH1	2.10	0.42
20:1Y:72:VAL:C	20:1Y:73:ARG:HG3	2.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:358:U:C2	32:1a:359:U:C6	3.07	0.42
32:1a:751:U:H4'	46:1o:24:SER:HA	2.00	0.42
32:1a:756:C:H2'	32:1a:757:U:O4'	2.19	0.42
32:1a:966:M2G:C1'	53:1x:53:THR:HG21	2.50	0.42
32:1a:1024:G:H2'	32:1a:1024:G:N3	2.34	0.42
32:1a:1207:2MG:H2'	32:1a:1208:C:C6	2.55	0.42
32:1a:1280:A:O2'	32:1a:1281:U:H5'	2.19	0.42
32:1a:1357:A:N7	32:1a:1358:U:C5	2.88	0.42
33:1b:111:ARG:O	33:1b:114:ARG:HB3	2.19	0.42
34:1c:26:LYS:HE2	34:1c:26:LYS:HB3	1.50	0.42
38:1g:31:MET:SD	38:1g:36:LYS:HB2	2.59	0.42
53:1x:24:LEU:HD23	53:1x:78:ILE:HD12	2.01	0.42
1:2A:7:G:H4'	9:2N:13:TRP:CH2	2.54	0.42
1:2A:27:G:HO2'	1:2A:28:A:P	2.41	0.42
1:2A:459:U:OP2	29:27:39:ARG:NH1	2.51	0.42
1:2A:1005:C:C2	1:2A:1143:A:C5	3.07	0.42
1:2A:2531:A:H5''	7:2H:157:TYR:CZ	2.54	0.42
3:2D:275:LYS:HD2	3:2D:276:LYS:HA	2.01	0.42
4:2E:174:ASP:OD1	4:2E:175:VAL:N	2.53	0.42
14:2S:56:LEU:HD23	14:2S:56:LEU:HA	1.82	0.42
27:25:16:ARG:HH11	27:25:16:ARG:CG	2.32	0.42
32:2a:454:C:N4	32:2a:479:C:N3	2.67	0.42
32:2a:814:A:N7	32:2a:816:A:C4	2.87	0.42
32:2a:1307:U:H2'	32:2a:1308:U:C6	2.54	0.42
35:2d:22:LYS:HB2	35:2d:26:CYS:SG	2.59	0.42
36:2e:71:LEU:HD11	36:2e:113:ALA:O	2.20	0.42
39:2h:4:ASP:OD2	39:2h:7:ALA:HB2	2.19	0.42
40:2i:28:VAL:HA	40:2i:63:ILE:O	2.19	0.42
50:2s:49:ILE:HG12	50:2s:62:ILE:CD1	2.41	0.42
51:2t:71:THR:O	51:2t:72:LEU:HD23	2.17	0.42
51:2t:84:LEU:HD23	51:2t:84:LEU:HA	1.66	0.42
52:2u:6:ARG:HE	52:2u:15:ARG:HH12	1.67	0.42
1:1A:26:G:C6	1:1A:27:G:N1	2.87	0.42
1:1A:346:A:OP2	5:1F:169:ASN:HB2	2.19	0.42
1:1A:486:A:H2'	1:1A:487:C:O4'	2.20	0.42
1:1A:1043:G:OP2	16:1U:58:ARG:HD2	2.19	0.42
1:1A:1516:A:H2'	1:1A:1517:G:O4'	2.19	0.42
1:1A:1699:A:O2'	1:1A:1700:G:H5'	2.19	0.42
1:1A:1847:G:H8	3:1D:62:TYR:CZ	2.37	0.42
4:1E:47:VAL:HG21	4:1E:86:PRO:CD	2.49	0.42
7:1H:13:LYS:HE2	7:1H:13:LYS:HB3	1.78	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:1T:29:ARG:HH11	15:1T:29:ARG:HD2	1.72	0.42
31:19:29:ASN:HA	31:19:30:PRO:HD3	1.90	0.42
32:1a:226:G:N2	32:1a:227:G:H1'	2.34	0.42
32:1a:401:C:H1'	32:1a:622:A:H1'	2.01	0.42
32:1a:457:C:H2'	32:1a:458:C:C6	2.55	0.42
32:1a:994:A:C5	32:1a:1216:G:H4'	2.54	0.42
32:1a:1135:U:H4'	32:1a:1136:U:H5	1.83	0.42
32:1a:1518:MA6:H102	32:1a:1519:MA6:H103	2.00	0.42
36:1e:151:LEU:HD11	39:1h:77:GLU:OE2	2.18	0.42
37:1f:91:VAL:HG11	49:1r:72:ARG:HH12	1.84	0.42
39:1h:17:THR:HG22	39:1h:63:LEU:HG	2.00	0.42
41:1j:31:GLY:HA2	41:1j:32:ALA:HA	1.59	0.42
42:1k:70:LYS:HB2	42:1k:70:LYS:HE2	1.85	0.42
1:2A:918:A:H5''	2:2B:98:G:O2'	2.19	0.42
1:2A:1324:G:O2'	1:2A:1326:U:OP2	2.31	0.42
1:2A:1529:G:C5	1:2A:1530:C:C4	3.07	0.42
1:2A:1866:C:H2'	1:2A:1876:A:O4'	2.20	0.42
1:2A:1942:5MC:OP2	1:2A:1943:U:O2'	2.18	0.42
1:2A:2164:C:H2'	1:2A:2165:G:C8	2.55	0.42
1:2A:2536:G:C5	1:2A:2537:U:C5	3.07	0.42
1:2A:2803:C:H2'	1:2A:2804:C:H6	1.82	0.42
2:2B:61:G:C6	2:2B:62:C:C4	3.07	0.42
5:2F:108:LYS:HE3	5:2F:108:LYS:HB3	1.64	0.42
5:2F:138:GLU:O	5:2F:141:ALA:HB3	2.18	0.42
6:2G:12:TYR:HA	6:2G:16:ARG:HG2	2.01	0.42
9:2N:8:GLN:HE21	9:2N:8:GLN:HB2	1.67	0.42
15:2T:29:ARG:HB3	15:2T:87:ASP:HB2	2.01	0.42
25:23:6:VAL:HG13	25:23:56:VAL:HG22	2.01	0.42
32:2a:109:A:C6	32:2a:326:G:C6	3.07	0.42
32:2a:110:C:O2'	47:2p:25:ARG:HB2	2.20	0.42
32:2a:503:C:H2'	32:2a:504:C:C6	2.53	0.42
32:2a:576:G:O6	32:2a:880:C:O2'	2.36	0.42
32:2a:680:C:C2	32:2a:711:G:N2	2.87	0.42
32:2a:792:A:H4'	32:2a:793:U:O5'	2.19	0.42
32:2a:814:A:H2'	32:2a:816:A:H5''	2.00	0.42
32:2a:869:G:H4'	32:2a:872:A:C8	2.54	0.42
32:2a:1002:G:C4	32:2a:1003:G:C8	3.06	0.42
32:2a:1003:G:C2'	32:2a:1004:A:H4'	2.38	0.42
32:2a:1118:C:H1'	32:2a:1179:A:C5	2.54	0.42
32:2a:1118:C:C1'	32:2a:1179:A:C4	3.00	0.42
33:2b:97:TRP:HZ2	33:2b:102:LEU:HD13	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:135:LEU:C	35:2d:137:SER:H	2.26	0.42
36:2e:95:ALA:HB1	36:2e:96:PRO:HD2	2.01	0.42
37:2f:76:ALA:HB1	37:2f:80:ARG:NH2	2.34	0.42
38:2g:115:ARG:HH11	38:2g:118:VAL:HG21	1.84	0.42
40:2i:17:VAL:HG21	40:2i:81:ILE:CG1	2.49	0.42
44:2m:54:VAL:HG12	44:2m:57:ARG:HH12	1.83	0.42
49:2r:76:LEU:HD12	49:2r:76:LEU:HA	1.76	0.42
53:2x:74:ILE:O	53:2x:77:LEU:HB3	2.20	0.42
1:1A:1018:A:O4'	1:1A:1233:U:C6	2.73	0.42
1:1A:1177:G:O6	1:1A:2062:C:H1'	2.20	0.42
1:1A:1454:C:C2	1:1A:1641:G:N2	2.88	0.42
1:1A:1615:G:H5'	3:1D:60:ARG:HA	2.02	0.42
1:1A:2348:A:H61	22:10:43:THR:HG22	1.82	0.42
1:1A:2897:U:H2'	1:1A:2898:C:H6	1.84	0.42
56:1B:3025:AMP:C5'	6:1G:27:ASN:HD21	2.32	0.42
3:1D:52:ARG:HH11	3:1D:52:ARG:HD3	1.67	0.42
5:1F:108:LYS:HE2	5:1F:112:MET:HE3	2.01	0.42
8:1I:104:GLN:HE21	8:1I:105:HIS:CE1	2.37	0.42
14:1S:41:ASP:CG	14:1S:44:LYS:HG3	2.45	0.42
16:1U:58:ARG:HA	16:1U:61:TRP:CE3	2.55	0.42
32:1a:1159:U:C2	32:1a:1182:G:C2	3.07	0.42
32:1a:1201:A:H1'	32:1a:1202:G:OP2	2.19	0.42
32:1a:1202:G:H2'	32:1a:1203:C:O4'	2.19	0.42
32:1a:1346:A:H2'	38:1g:10:ARG:HH22	1.85	0.42
32:1a:1410:G:H2'	32:1a:1411:C:C6	2.55	0.42
33:1b:25:ASN:HA	33:1b:26:PRO:HD3	1.78	0.42
33:1b:91:PRO:HG3	33:1b:155:LEU:HD13	2.01	0.42
36:1e:139:LEU:HA	36:1e:142:LEU:CD1	2.50	0.42
43:1l:113:ARG:HD2	43:1l:113:ARG:HA	1.81	0.42
46:1o:43:LEU:HD23	46:1o:43:LEU:HA	1.63	0.42
50:1s:37:ARG:O	50:1s:70:LYS:HD2	2.19	0.42
1:2A:901:A:H2'	1:2A:902:C:C6	2.55	0.42
1:2A:947:G:H2'	1:2A:948:G:C8	2.54	0.42
1:2A:1833:U:O2'	1:2A:1969:A:N1	2.50	0.42
1:2A:2432:A:C6	23:21:33:LYS:HB3	2.54	0.42
8:2I:14:ASP:OD1	8:2I:15:VAL:HG12	2.19	0.42
16:2U:8:VAL:HG11	16:2U:12:ARG:CZ	2.49	0.42
16:2U:85:LYS:HE3	16:2U:85:LYS:HB2	1.69	0.42
19:2X:5:TYR:HB3	24:22:33:MET:HB2	2.01	0.42
32:2a:130:A:H5'	48:2q:63:ARG:HE	1.84	0.42
32:2a:332:G:C2	32:2a:333:G:C8	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:336:C:H2'	32:2a:337:C:H6	1.84	0.42
32:2a:437:U:H5''	35:2d:155:LEU:HD11	2.00	0.42
32:2a:585:G:N3	32:2a:879:C:H4'	2.35	0.42
32:2a:981:U:H5'	45:2n:21:TYR:CE2	2.54	0.42
32:2a:1005:A:N7	32:2a:1006:C:C2	2.87	0.42
32:2a:1054:C:H4'	32:2a:1055:A:O5'	2.19	0.42
32:2a:1057:G:C5	32:2a:1204:A:C2	3.08	0.42
32:2a:1365:G:C2	32:2a:1366:C:C2	3.08	0.42
32:2a:1369:C:H2'	32:2a:1370:G:C8	2.55	0.42
32:2a:1530:G:OP1	32:2a:1530:G:H4'	2.19	0.42
34:2c:12:LEU:O	34:2c:14:ILE:HD12	2.20	0.42
39:2h:38:ILE:HD11	39:2h:118:VAL:O	2.19	0.42
46:2o:43:LEU:HA	46:2o:43:LEU:HD23	1.76	0.42
47:2p:3:LYS:HZ2	47:2p:65:GLN:HB2	1.84	0.42
49:2r:74:ARG:HB3	49:2r:81:PHE:CE1	2.55	0.42
1:1A:1199:C:H2'	1:1A:1200:G:O4'	2.20	0.42
1:1A:1222:A:O2'	1:1A:1223:C:O4'	2.26	0.42
1:1A:1562:U:H2'	1:1A:1563:G:H8	1.85	0.42
1:1A:2340:A:H2'	1:1A:2341:G:C8	2.55	0.42
1:1A:2785:C:H2'	1:1A:2786:C:H6	1.85	0.42
4:1E:170:LEU:HB3	4:1E:184:VAL:HG22	2.01	0.42
5:1F:13:SER:OG	5:1F:127:GLU:OE1	2.19	0.42
6:1G:15:VAL:O	6:1G:16:ARG:C	2.62	0.42
21:1Z:72:ARG:HB2	21:1Z:89:PHE:HB2	2.01	0.42
29:17:31:LEU:HA	29:17:31:LEU:HD23	1.85	0.42
32:1a:404:U:O2	32:1a:498:U:C4	2.73	0.42
32:1a:1223:C:H3'	32:1a:1224:G:H5''	2.02	0.42
35:1d:18:LYS:NZ	35:1d:26:CYS:O	2.37	0.42
35:1d:178:VAL:HG12	35:1d:179:GLU:H	1.85	0.42
36:1e:13:ILE:HA	36:1e:29:GLY:O	2.20	0.42
39:1h:83:ILE:HA	39:1h:136:GLU:O	2.19	0.42
40:1i:3:GLN:HE21	40:1i:20:ARG:NE	2.17	0.42
1:2A:106:C:H1'	20:2Y:1:MET:HG3	2.02	0.42
1:2A:910:A:C5	12:2Q:13:GLN:HG3	2.54	0.42
1:2A:1321:A:H2'	1:2A:1322:A:O4'	2.20	0.42
1:2A:1392:A:N6	1:2A:1393:A:N6	2.68	0.42
1:2A:1461:G:O2'	1:2A:1462:C:H5'	2.18	0.42
1:2A:1778:U:H2'	1:2A:1784:A:N6	2.34	0.42
1:2A:2438:U:O2'	1:2A:2440:C:OP1	2.30	0.42
1:2A:2519:U:C6	1:2A:2542:A:N6	2.88	0.42
1:2A:2895:U:H2'	1:2A:2896:C:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:33:G:O2'	2:2B:34:U:H5'	2.19	0.42
5:2F:122:LYS:HB3	5:2F:191:ARG:HD2	2.02	0.42
20:2Y:19:LYS:HE2	20:2Y:20:TYR:HE2	1.84	0.42
24:22:32:LEU:HD13	24:22:36:ARG:HH12	1.84	0.42
26:24:28:LYS:HA	26:24:29:PRO:HD3	1.90	0.42
26:24:59:PHE:CZ	50:2s:64:GLU:HB2	2.55	0.42
27:25:16:ARG:NH1	27:25:16:ARG:HG2	2.34	0.42
32:2a:131:C:H2'	32:2a:132:C:C6	2.54	0.42
32:2a:255:G:OP1	48:2q:69:LYS:NZ	2.52	0.42
32:2a:491:G:C2	32:2a:492:G:C8	3.08	0.42
32:2a:683:G:C6	32:2a:684:A:C6	3.07	0.42
32:2a:1103:C:H5''	33:2b:98:LEU:HD13	2.01	0.42
32:2a:1324:A:H4'	32:2a:1362:C:O3'	2.20	0.42
33:2b:69:LEU:HD12	33:2b:69:LEU:HA	1.78	0.42
33:2b:166:ASP:O	33:2b:170:GLU:N	2.51	0.42
35:2d:103:ASN:OD1	35:2d:114:ARG:NE	2.45	0.42
39:2h:73:ASP:HA	39:2h:74:PRO:HD2	1.72	0.42
43:2l:7:ILE:O	43:2l:11:VAL:HG23	2.20	0.42
43:2l:33:ARG:HD3	43:2l:62:SER:CB	2.46	0.42
46:2o:87:ILE:CG2	46:2o:88:ARG:N	2.81	0.42
50:2s:14:HIS:HE1	50:2s:35:SER:OG	2.03	0.42
1:1A:569:G:H4'	1:1A:569:G:OP1	2.20	0.42
1:1A:737:G:H2'	1:1A:738:C:C6	2.55	0.42
1:1A:2692:C:O2'	1:1A:2693:C:H5'	2.20	0.42
6:1G:165:THR:HG23	6:1G:168:GLU:OE2	2.20	0.42
11:1P:94:GLU:HG3	11:1P:124:LYS:HB3	2.02	0.42
12:1Q:39:PRO:HA	12:1Q:97:VAL:O	2.19	0.42
19:1X:66:LEU:HD23	19:1X:66:LEU:HA	1.82	0.42
21:1Z:129:SER:HB3	21:1Z:132:ASN:HB2	2.00	0.42
25:13:17:LYS:H	25:13:17:LYS:HG2	1.69	0.42
27:15:48:GLU:O	27:15:60:VAL:HG11	2.19	0.42
30:18:34:TRP:CG	30:18:35:GLN:N	2.88	0.42
32:1a:159:G:H2'	32:1a:161:A:OP2	2.20	0.42
32:1a:254:G:OP1	48:1q:67:LYS:O	2.38	0.42
32:1a:604:G:C2	32:1a:635:G:C5	3.08	0.42
32:1a:658:G:C2	32:1a:749:C:N3	2.87	0.42
32:1a:1090:U:H2'	32:1a:1091:U:C6	2.54	0.42
32:1a:1284:C:H3'	32:1a:1285:A:H8	1.85	0.42
33:1b:108:ILE:HD13	33:1b:108:ILE:HA	1.84	0.42
34:1c:58:GLU:CB	41:1j:92:THR:HG21	2.50	0.42
35:1d:148:VAL:HG12	35:1d:149:ALA:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:50:ILE:HD11	38:1g:58:PRO:HA	2.01	0.42
41:1j:49:VAL:CG2	45:1n:41:ARG:HB2	2.39	0.42
45:1n:54:PRO:C	45:1n:56:VAL:H	2.27	0.42
50:1s:40:ILE:HG21	50:1s:62:ILE:HG21	2.01	0.42
51:1t:43:LEU:HD23	51:1t:43:LEU:HA	1.82	0.42
1:2A:271(D):G:H2'	1:2A:271(E):U:H6	1.85	0.42
1:2A:628:G:H2'	1:2A:629:G:H8	1.83	0.42
1:2A:1050:A:H2'	1:2A:1051:G:O4'	2.20	0.42
1:2A:2155:G:O5'	1:2A:2155:G:H8	2.03	0.42
2:2B:40:U:H2'	26:24:2:LYS:HE3	2.01	0.42
3:2D:260:ARG:NH1	3:2D:267:SER:OG	2.53	0.42
4:2E:59:VAL:HG12	4:2E:64:LYS:HG3	2.00	0.42
4:2E:101:ARG:HD3	4:2E:101:ARG:HA	1.91	0.42
12:2Q:3:MET:SD	21:2Z:194:PRO:HG3	2.59	0.42
13:2R:29:LEU:HD12	13:2R:29:LEU:HA	1.83	0.42
15:2T:60:THR:HG22	15:2T:77:PRO:HA	2.01	0.42
17:2V:53:GLU:H	17:2V:53:GLU:HG2	1.60	0.42
32:2a:10:A:H2'	32:2a:11:G:H8	1.84	0.42
32:2a:128:G:O2'	48:2q:3:LYS:HE2	2.19	0.42
32:2a:278:G:O4'	32:2a:282:A:H1'	2.19	0.42
32:2a:447:G:O6	32:2a:485:G:O2'	2.32	0.42
32:2a:674:G:H21	42:2k:116:HIS:HB2	1.85	0.42
32:2a:839:U:H3'	32:2a:840:C:H5	1.82	0.42
32:2a:990:C:N3	32:2a:1215:G:O6	2.53	0.42
32:2a:1026:G:C8	32:2a:1027:C:O2	2.73	0.42
32:2a:1350:A:H2'	32:2a:1351:U:O4'	2.20	0.42
35:2d:105:VAL:HG12	35:2d:117:ALA:HB1	2.00	0.42
35:2d:150:GLU:HA	35:2d:153:ARG:HE	1.85	0.42
37:2f:60:PHE:C	37:2f:61:LEU:HD12	2.44	0.42
1:1A:9:U:H3	1:1A:2641:A:H2	0.60	0.42
1:1A:438:G:C5	11:1P:72:PRO:HB3	2.54	0.42
1:1A:922:G:O4'	21:1Z:170:THR:HG21	2.20	0.42
1:1A:1131:A:C2	1:1A:1132:A:C8	3.08	0.42
1:1A:1145:G:H2'	1:1A:1145:G:N3	2.35	0.42
1:1A:1270:C:H2'	1:1A:1271:G:O4'	2.20	0.42
1:1A:2292:G:OP1	21:1Z:201:LYS:HG3	2.20	0.42
1:1A:2575:U:O2'	10:1O:28:SER:HB2	2.19	0.42
5:1F:34:TRP:CZ2	11:1P:8:PRO:HB3	2.55	0.42
5:1F:46:ARG:HH11	5:1F:46:ARG:HD2	1.63	0.42
10:1O:6:THR:HG22	10:1O:8:LEU:HD22	2.02	0.42
12:1Q:84:GLY:O	12:1Q:85:LYS:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:1V:1:MET:HE2	17:1V:43:GLU:OE1	2.20	0.42
20:1Y:90:LEU:HB3	20:1Y:92:ASN:HD22	1.85	0.42
32:1a:67:C:O2'	32:1a:171:A:H1'	2.20	0.42
32:1a:865:A:H5'	32:1a:1078:U:O4	2.19	0.42
32:1a:939:G:C5	32:1a:940:C:C5	3.07	0.42
32:1a:1041:A:H3'	32:1a:1042:G:H5''	2.02	0.42
32:1a:1269:A:N1	32:1a:1312:G:O2'	2.43	0.42
32:1a:1425:U:H2'	32:1a:1426:C:H6	1.84	0.42
34:1c:188:LEU:HD11	34:1c:195:VAL:HG11	2.02	0.42
38:1g:36:LYS:O	38:1g:39:ALA:HB3	2.20	0.42
38:1g:111:ARG:HB2	38:1g:119:ARG:HD2	2.02	0.42
39:1h:41:ARG:NH1	39:1h:123:GLU:OE2	2.53	0.42
41:1j:75:ILE:O	41:1j:77:PRO:HD3	2.19	0.42
51:1t:58:LYS:HE2	51:1t:62:LEU:HD12	2.00	0.42
1:2A:909:A:H2'	1:2A:912:C:H5	1.85	0.42
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.34	0.42
1:2A:1702:G:H2'	1:2A:1703:G:O4'	2.20	0.42
1:2A:2573:C:H3'	59:2A:4402:HOH:O	2.19	0.42
1:2A:2712:U:H1'	1:2A:2712(A):A:C8	2.54	0.42
10:2O:119:PRO:HB2	15:2T:68:TYR:CD2	2.55	0.42
32:2a:590:C:O2'	32:2a:591:U:H5'	2.19	0.42
32:2a:1306:A:N6	32:2a:1331:G:O4'	2.53	0.42
32:2a:1346:A:C4	38:2g:10:ARG:NH2	2.88	0.42
33:2b:11:LEU:HD12	33:2b:217:ARG:NH2	2.32	0.42
35:2d:8:VAL:HG12	35:2d:22:LYS:HE2	2.02	0.42
36:2e:106:PRO:O	36:2e:110:LEU:HG	2.20	0.42
37:2f:76:ALA:O	37:2f:80:ARG:HG3	2.20	0.42
47:2p:68:ASP:C	47:2p:70:ALA:H	2.26	0.42
1:1A:386:U:H6	1:1A:386:U:H2'	1.66	0.42
1:1A:1605:A:C2	1:1A:1607:G:C8	3.08	0.42
1:1A:2673:G:H2'	1:1A:2674:A:C8	2.55	0.42
3:1D:176:ARG:HA	3:1D:182:LEU:HD23	2.02	0.42
4:1E:144:ARG:HB3	4:1E:145:LYS:H	1.30	0.42
6:1G:114:ILE:HG12	6:1G:140:ILE:HD11	2.01	0.42
21:1Z:157:LEU:HA	21:1Z:158:PRO:HD2	1.69	0.42
22:10:38:VAL:HB	22:10:59:LEU:HB2	2.02	0.42
26:14:53:GLU:H	26:14:53:GLU:HG3	1.25	0.42
27:15:15:ARG:HH11	27:15:15:ARG:HD3	1.59	0.42
32:1a:179:A:C5	32:1a:180:U:C5	3.08	0.42
32:1a:803:G:H2'	32:1a:804:U:O4'	2.19	0.42
32:1a:1032:G:H2'	32:1a:1033:G:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:103:THR:HG23	33:1b:176:GLU:OE1	2.20	0.42
33:1b:180:LEU:HA	33:1b:180:LEU:HD23	1.77	0.42
34:1c:36:ASP:HA	34:1c:39:ILE:HD12	2.00	0.42
34:1c:134:ILE:HG23	34:1c:151:VAL:HB	2.02	0.42
35:1d:33:MET:SD	35:1d:37:PRO:HA	2.59	0.42
35:1d:122:ARG:HA	35:1d:122:ARG:HD2	1.80	0.42
39:1h:14:ARG:O	39:1h:18:ARG:HG3	2.19	0.42
41:1j:38:ILE:CD1	41:1j:71:LEU:HB3	2.49	0.42
48:1q:84:LEU:O	48:1q:87:LYS:HB2	2.19	0.42
49:1r:45:SER:C	49:1r:47:THR:N	2.78	0.42
1:2A:1009:A:H8	1:2A:1009:A:O5'	2.01	0.42
1:2A:1364:G:C8	23:21:3:LYS:HD2	2.55	0.42
1:2A:1903:G:OP1	3:2D:241:PRO:HB2	2.19	0.42
1:2A:2169:A:H3'	1:2A:2170:A:C8	2.55	0.42
1:2A:2292:C:H2'	1:2A:2293:C:C6	2.54	0.42
1:2A:2469:A:C6	1:2A:2470:G:C4	3.08	0.42
6:2G:20:ILE:HG13	6:2G:20:ILE:H	1.72	0.42
18:2W:38:TYR:O	27:25:28:PRO:HB3	2.19	0.42
26:24:41:PRO:HG3	26:24:49:PHE:CD2	2.55	0.42
32:2a:56:U:H2'	32:2a:57:G:H8	1.83	0.42
32:2a:66:G:H4'	32:2a:173:U:C5	2.54	0.42
32:2a:557:G:C6	32:2a:558:G:C6	3.08	0.42
32:2a:722:A:C8	32:2a:724:G:H1'	2.55	0.42
32:2a:1028:C:C4	32:2a:1033:G:N1	2.87	0.42
32:2a:1030:C:N4	32:2a:1032:G:H1	2.18	0.42
33:2b:97:TRP:CZ2	33:2b:102:LEU:HD13	2.55	0.42
34:2c:18:TRP:CD1	45:2n:54:PRO:HA	2.55	0.42
36:2e:11:ILE:CG2	36:2e:105:VAL:HG22	2.50	0.42
39:2h:4:ASP:OD2	39:2h:85:ARG:NH1	2.53	0.42
42:2k:81:ASP:OD1	42:2k:107:SER:OG	2.27	0.42
42:2k:86:GLY:H	42:2k:112:THR:HG1	1.66	0.42
49:2r:51:LEU:HA	49:2r:52:PRO:HD3	1.84	0.42
50:2s:23:ASN:HA	50:2s:27:GLU:OE2	2.20	0.42
1:1A:664:U:H2'	1:1A:665:C:H6	1.82	0.42
1:1A:969:C:H2'	1:1A:970:C:H6	1.85	0.42
1:1A:992:G:H2'	1:1A:993:G:C8	2.55	0.42
1:1A:1142:A:H2'	1:1A:1142:A:N3	2.35	0.42
1:1A:1749:G:H2'	1:1A:1750:G:O4'	2.19	0.42
1:1A:2087:C:H2'	1:1A:2088:C:C6	2.54	0.42
1:1A:2178:G:O6	1:1A:2179:G:N2	2.52	0.42
1:1A:2225:U:O2'	1:1A:2226:C:H5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2228:G:H2'	1:1A:2229:A:C2	2.55	0.42
2:1B:6:C:C2	2:1B:116:G:N2	2.88	0.42
4:1E:116:VAL:HG13	4:1E:122:PHE:CB	2.49	0.42
6:1G:50:ALA:O	6:1G:52:ILE:HG13	2.20	0.42
15:1T:128:GLU:HG2	15:1T:128:GLU:O	2.20	0.42
31:19:15:LYS:HG2	31:19:17:ILE:CD1	2.47	0.42
32:1a:153:C:H2'	32:1a:154:C:C6	2.55	0.42
32:1a:219:C:H3'	32:1a:219:C:C6	2.55	0.42
32:1a:381:C:H2'	32:1a:382:A:O4'	2.20	0.42
32:1a:746:A:H4'	32:1a:837:G:O2'	2.20	0.42
32:1a:1073:U:H2'	32:1a:1074:G:H8	1.85	0.42
32:1a:1084:G:C5	32:1a:1085:U:C4	3.08	0.42
39:1h:33:GLU:HG2	39:1h:48:TYR:CE1	2.54	0.42
46:1o:8:LYS:O	46:1o:12:ILE:HG13	2.20	0.42
47:1p:14:ASN:N	47:1p:15:PRO:HD3	2.35	0.42
1:2A:699:A:H2'	1:2A:700:G:O4'	2.20	0.42
1:2A:864:G:C6	1:2A:865:C:N4	2.88	0.42
1:2A:1539:G:H2'	1:2A:1540:U:C6	2.55	0.42
2:2B:8:U:C5'	2:2B:8:U:H6	2.33	0.42
4:2E:176:ILE:HB	4:2E:181:LEU:HB2	2.01	0.42
6:2G:18:GLU:HG3	6:2G:175:LEU:HD21	2.02	0.42
16:2U:104:GLN:HG2	16:2U:105:VAL:N	2.34	0.42
20:2Y:68:HIS:CE1	20:2Y:70:SER:HB3	2.55	0.42
32:2a:560:U:H4'	32:2a:561:U:O5'	2.19	0.42
32:2a:618:C:H3'	32:2a:619:U:H5''	2.02	0.42
32:2a:833:U:H2'	32:2a:834:C:C6	2.55	0.42
32:2a:1066:C:H2'	32:2a:1067:A:C8	2.55	0.42
32:2a:1118:C:O5'	32:2a:1118:C:H6	2.03	0.42
32:2a:1320:C:H2'	32:2a:1321:C:O4'	2.20	0.42
32:2a:1442:G:O2'	32:2a:1442(A):G:O5'	2.35	0.42
37:2f:33:TYR:HE2	37:2f:78:GLU:HG2	1.84	0.42
42:2k:99:GLN:HG3	42:2k:105:VAL:HG11	2.00	0.42
43:2l:58:VAL:HG12	43:2l:60:LEU:HD12	2.02	0.42
6:1G:62:LEU:HD23	6:1G:62:LEU:HA	1.84	0.41
8:1I:14:ASP:OD1	8:1I:15:VAL:HG12	2.20	0.41
16:1U:34:LYS:NZ	16:1U:37:GLU:OE1	2.35	0.41
32:1a:560:U:H5'	32:1a:566:G:N2	2.35	0.41
32:1a:1002:G:C6	32:1a:1003:G:C2	3.08	0.41
32:1a:1111:A:H2'	32:1a:1112:C:C6	2.55	0.41
32:1a:1210:C:C2'	32:1a:1211:U:H5'	2.49	0.41
36:1e:146:ALA:O	36:1e:147:ASP:C	2.63	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:1i:50:LEU:HD12	40:1i:51:ARG:N	2.34	0.41
43:1l:51:ALA:O	43:1l:52:LEU:HD23	2.20	0.41
47:1p:55:ARG:O	47:1p:58:TYR:N	2.51	0.41
1:2A:811:U:H2'	11:2P:21:ARG:HA	2.02	0.41
1:2A:1615:C:C5	1:2A:1617:C:C4	3.08	0.41
1:2A:1639:U:C2'	1:2A:1640:C:H5''	2.48	0.41
6:2G:14:GLU:O	6:2G:17:PRO:HD2	2.20	0.41
7:2H:46:GLU:HG3	7:2H:49:VAL:HG12	2.02	0.41
7:2H:89:ILE:HD11	7:2H:96:ALA:HB2	2.02	0.41
12:2Q:11:LYS:NZ	12:2Q:88:GLY:O	2.41	0.41
12:2Q:16:ARG:HG3	12:2Q:16:ARG:HH11	1.85	0.41
13:2R:55:ALA:HA	13:2R:80:PHE:CZ	2.55	0.41
26:24:13:ARG:CZ	26:24:13:ARG:HB3	2.49	0.41
26:24:48:ARG:O	26:24:51:ASP:N	2.53	0.41
32:2a:986:A:H1'	50:2s:54:GLY:O	2.20	0.41
32:2a:1015:A:C6	32:2a:1016:A:C6	3.08	0.41
32:2a:1035:A:O2'	32:2a:1036:G:C8	2.72	0.41
32:2a:1084:G:C5	32:2a:1085:U:C4	3.08	0.41
32:2a:1129:C:OP1	40:2i:16:ARG:NH1	2.53	0.41
33:2b:9:GLU:HB3	33:2b:11:LEU:CD2	2.49	0.41
1:1A:831:A:C8	1:1A:839:G:C5	3.08	0.41
1:1A:1257:G:H1'	1:1A:1283:A:N6	2.34	0.41
1:1A:1954:A:H2'	1:1A:1955:G:O4'	2.19	0.41
1:1A:2039:U:O2	27:15:10:LYS:HB2	2.20	0.41
1:1A:2639:G:N3	1:1A:2794:A:H2	2.18	0.41
2:1B:29:A:H2'	2:1B:30:C:C6	2.54	0.41
6:1G:43:LEU:HD12	6:1G:43:LEU:HA	1.87	0.41
8:1I:140:LEU:HD23	8:1I:140:LEU:HA	1.91	0.41
16:1U:30:LYS:HD2	16:1U:30:LYS:N	2.35	0.41
22:10:21:LEU:HD23	22:10:21:LEU:HA	1.84	0.41
32:1a:174:C:H2'	32:1a:175:C:H6	1.82	0.41
32:1a:234:C:H2'	32:1a:235:C:C6	2.55	0.41
32:1a:1005:A:C2	32:1a:1025:U:H1'	2.54	0.41
32:1a:1080:A:OP1	36:1e:47:LYS:HD3	2.20	0.41
32:1a:1315:U:H2'	32:1a:1316:G:O4'	2.19	0.41
35:1d:82:ALA:C	35:1d:89:THR:HG23	2.45	0.41
38:1g:97:GLN:O	38:1g:100:ALA:HB3	2.20	0.41
41:1j:45:ARG:HG2	41:1j:47:PHE:CE2	2.55	0.41
46:1o:18:PHE:C	46:1o:18:PHE:CD1	2.98	0.41
50:1s:37:ARG:H	50:1s:37:ARG:HG3	1.54	0.41
1:2A:411:G:C5	11:2P:72:PRO:HB3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1104:C:H2'	1:2A:1105:U:C6	2.55	0.41
1:2A:1514:U:H2'	1:2A:1515:G:C8	2.55	0.41
1:2A:1719:G:C5	1:2A:1720:U:C5	3.09	0.41
1:2A:1877:A:H5'	1:2A:1878:G:OP2	2.20	0.41
1:2A:2182:G:H2'	1:2A:2183:C:C6	2.54	0.41
1:2A:2695:C:H2'	1:2A:2696:U:H6	1.83	0.41
1:2A:2758:A:C2	1:2A:2759:G:H1'	2.55	0.41
2:2B:35:U:O4	2:2B:50:G:H1'	2.19	0.41
3:2D:79:VAL:HG21	3:2D:111:LEU:HD11	2.02	0.41
3:2D:245:PRO:HA	3:2D:246:PRO:HD3	1.95	0.41
4:2E:112:GLY:O	4:2E:159:HIS:HA	2.21	0.41
6:2G:44:GLY:HA2	6:2G:88:ILE:HG22	2.03	0.41
8:2I:44:LEU:HD12	8:2I:44:LEU:HA	1.82	0.41
16:2U:17:ILE:HG23	16:2U:39:LEU:HD12	2.00	0.41
29:27:21:ARG:HH11	29:27:21:ARG:HD3	1.63	0.41
32:2a:22:G:O2'	32:2a:913:A:N1	2.46	0.41
32:2a:258:G:H2'	32:2a:259:G:H8	1.85	0.41
32:2a:448:A:C2	32:2a:449:C:C4	3.08	0.41
32:2a:791:G:C6	32:2a:792:A:N7	2.89	0.41
32:2a:815:A:N7	32:2a:1509:C:O2'	2.48	0.41
32:2a:1388:C:H2'	32:2a:1389:C:C6	2.55	0.41
33:2b:192:SER:O	33:2b:194:PRO:HD3	2.19	0.41
37:2f:62:TRP:C	37:2f:63:TYR:CD2	2.98	0.41
41:2j:17:ASP:O	41:2j:21:GLN:HB2	2.20	0.41
47:2p:20:VAL:HG21	47:2p:32:TYR:CD2	2.54	0.41
1:1A:1093:G:H2'	1:1A:1156:G:C2	2.55	0.41
3:1D:175:LEU:HD12	3:1D:185:VAL:HG21	2.01	0.41
6:1G:12:TYR:HA	6:1G:16:ARG:CG	2.50	0.41
19:1X:31:HIS:CD2	19:1X:33:LYS:HB2	2.55	0.41
30:18:50:LEU:HD23	30:18:50:LEU:HA	1.84	0.41
32:1a:510:A:H5''	32:1a:511:C:P	2.60	0.41
32:1a:580:U:H2'	32:1a:581:G:O4'	2.20	0.41
32:1a:667:G:OP1	32:1a:732:C:O2'	2.24	0.41
32:1a:728:A:C5	46:1o:54:ARG:HD2	2.55	0.41
32:1a:1090:U:H2'	32:1a:1091:U:H6	1.85	0.41
35:1d:8:VAL:HG22	35:1d:21:LEU:HD13	2.02	0.41
35:1d:172:PRO:HB2	35:1d:187:ARG:NH2	2.35	0.41
36:1e:40:ARG:HG2	36:1e:68:GLU:OE1	2.20	0.41
37:1f:55:ASP:HA	37:1f:56:PRO:HD2	1.83	0.41
37:1f:61:LEU:HD12	37:1f:61:LEU:N	2.34	0.41
39:1h:87:SER:HA	39:1h:93:VAL:HG23	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:1i:21:PRO:HA	40:1i:59:PHE:HA	2.02	0.41
42:1k:18:ARG:HH12	42:1k:37:GLY:CA	2.33	0.41
44:1m:82:MET:HG2	44:1m:93:ARG:HG2	2.01	0.41
52:1u:6:ARG:HH21	52:1u:15:ARG:HH12	1.67	0.41
1:2A:620:G:N3	1:2A:620:G:H2'	2.35	0.41
1:2A:1224:C:O2'	17:2V:85:LYS:HA	2.20	0.41
1:2A:1392:A:C6	1:2A:1393:A:C6	3.08	0.41
1:2A:1651:G:N2	1:2A:2007:C:C2	2.89	0.41
1:2A:1803:A:H4'	3:2D:259:THR:HG23	2.02	0.41
1:2A:2467:C:H2'	1:2A:2468:G:O4'	2.20	0.41
2:2B:53:A:H2'	2:2B:54:G:O4'	2.20	0.41
3:2D:7:LYS:O	3:2D:9:TYR:N	2.53	0.41
4:2E:5:LEU:CD1	4:2E:79:ARG:HB2	2.49	0.41
10:2O:13:ASN:ND2	10:2O:97:ARG:HG2	2.35	0.41
19:2X:79:ALA:C	19:2X:80:ILE:HG13	2.45	0.41
20:2Y:40:GLU:O	20:2Y:42:VAL:HG23	2.20	0.41
22:20:43:THR:HG23	22:20:43:THR:O	2.20	0.41
32:2a:416:G:C5	32:2a:417:C:C4	3.07	0.41
32:2a:665:A:H2'	32:2a:732:C:O2	2.21	0.41
32:2a:680:C:C2	32:2a:711:G:C2	3.08	0.41
32:2a:1053:G:O5'	32:2a:1054:C:H3'	2.20	0.41
32:2a:1153:C:N3	32:2a:1154:G:N7	2.68	0.41
32:2a:1346:A:C5'	40:2i:120:ARG:HH12	2.24	0.41
32:2a:1376:U:H2'	32:2a:1377:A:C8	2.55	0.41
35:2d:107:ARG:C	35:2d:109:GLY:H	2.27	0.41
35:2d:196:LEU:H	35:2d:196:LEU:HD12	1.85	0.41
39:2h:14:ARG:O	39:2h:18:ARG:HG3	2.19	0.41
39:2h:25:ASP:OD1	39:2h:60:ARG:HG3	2.20	0.41
39:2h:36:LEU:HD12	39:2h:59:LEU:HD13	2.03	0.41
48:2q:84:LEU:O	48:2q:87:LYS:HG3	2.20	0.41
1:1A:1003:U:O2	2:1B:90:A:O2'	2.30	0.41
1:1A:2072:C:H2'	1:1A:2073:A:O4'	2.21	0.41
1:1A:2289:G:OP2	22:10:10:THR:CG2	2.68	0.41
1:1A:2520:G:O3'	1:1A:2567:U:H5'	2.21	0.41
3:1D:71:ASP:HB3	3:1D:103:ARG:NH2	2.34	0.41
3:1D:102:LYS:O	3:1D:103:ARG:HG2	2.21	0.41
11:1P:6:LEU:HD23	11:1P:6:LEU:HA	1.87	0.41
17:1V:29:PRO:HA	17:1V:61:VAL:CG2	2.50	0.41
21:1Z:141:VAL:HG12	21:1Z:150:LEU:CD2	2.50	0.41
26:14:58:ARG:HD2	50:1s:65:ASN:O	2.20	0.41
32:1a:1036:G:N3	32:1a:1036:G:H2'	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1216:G:OP1	45:1n:2:ALA:HA	2.19	0.41
32:1a:1240:U:P	38:1g:116:ALA:H	2.38	0.41
32:1a:1411:C:H2'	32:1a:1412:C:H6	1.84	0.41
34:1c:121:ALA:O	34:1c:125:GLU:HG3	2.20	0.41
36:1e:69:VAL:HA	36:1e:70:PRO:HD3	1.72	0.41
37:1f:43:LEU:HD12	37:1f:43:LEU:N	2.36	0.41
38:1g:38:LEU:O	38:1g:41:ARG:HB2	2.20	0.41
38:1g:43:PHE:O	38:1g:46:ALA:HB3	2.20	0.41
39:1h:102:ARG:HE	39:1h:102:ARG:HB2	1.74	0.41
40:1i:125:TYR:HE1	40:1i:127:LYS:HG2	1.85	0.41
41:1j:5:ARG:HE	41:1j:73:ASP:CG	2.28	0.41
42:1k:77:MET:HB2	42:1k:77:MET:HE2	1.81	0.41
45:1n:32:SER:O	45:1n:40:CYS:HA	2.20	0.41
1:2A:271(H):G:O2'	1:2A:271(I):G:H5'	2.20	0.41
1:2A:1073:A:H2'	1:2A:1074:G:C8	2.56	0.41
1:2A:1080:C:C5	1:2A:1088:A:C2	3.05	0.41
1:2A:2776:A:H4'	1:2A:2777:G:H5''	2.02	0.41
3:2D:33:LEU:HD23	3:2D:33:LEU:HA	1.78	0.41
3:2D:228:PRO:HD3	3:2D:235:GLY:CA	2.49	0.41
6:2G:86:MET:HA	6:2G:87:PRO:HD3	1.73	0.41
9:2N:15:LEU:HD23	9:2N:16:ILE:N	2.35	0.41
12:2Q:4:PRO:HB2	12:2Q:7:MET:HE2	2.02	0.41
15:2T:26:ASP:OD1	15:2T:91:ARG:HA	2.20	0.41
30:28:14:VAL:HG13	30:28:22:VAL:HG13	2.02	0.41
32:2a:257:G:H2'	32:2a:258:G:O4'	2.20	0.41
32:2a:684:A:H1'	42:2k:38:ASN:HB3	2.02	0.41
32:2a:932:C:H2'	32:2a:933:G:C8	2.56	0.41
32:2a:991:U:O2'	32:2a:1212:U:O4	2.34	0.41
32:2a:999:C:H42	32:2a:1042:G:H1	1.68	0.41
32:2a:1128:C:H1'	32:2a:1147:C:H42	1.85	0.41
32:2a:1425:U:H2'	32:2a:1426:C:C6	2.56	0.41
33:2b:158:LEU:HA	33:2b:159:PRO:HD3	1.88	0.41
36:2e:103:GLY:O	36:2e:106:PRO:HD2	2.20	0.41
38:2g:70:LYS:HD3	38:2g:96:GLN:OE1	2.20	0.41
48:2q:6:LEU:O	48:2q:58:GLU:HA	2.19	0.41
1:1A:225:C:H2'	1:1A:226:C:H6	1.83	0.41
1:1A:324:A:P	20:1Y:86:ARG:NH2	2.93	0.41
1:1A:932:C:H6	1:1A:932:C:O5'	2.04	0.41
1:1A:1014:U:O3'	25:13:14:GLY:HA2	2.20	0.41
1:1A:1211:U:H2'	1:1A:1212:C:C6	2.55	0.41
1:1A:1470:G:H2'	1:1A:1471:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2191:A:C6	1:1A:2192:A:C6	3.09	0.41
2:1B:42:C:N3	6:1G:93:THR:OG1	2.48	0.41
4:1E:33:VAL:HG13	4:1E:89:ASP:O	2.20	0.41
18:1W:79:GLY:HA3	18:1W:100:THR:HG22	2.02	0.41
32:1a:59:A:H3'	32:1a:331:G:H22	1.86	0.41
32:1a:432:A:H3'	32:1a:433:C:C6	2.56	0.41
32:1a:438:G:H5'	35:1d:123:HIS:CD2	2.55	0.41
32:1a:492:G:C4	32:1a:493:G:C8	3.09	0.41
32:1a:658:G:C6	32:1a:659:U:C4	3.08	0.41
32:1a:672:U:O2'	32:1a:673:G:O5'	2.35	0.41
32:1a:1127:G:H5'	32:1a:1280:A:O2'	2.21	0.41
36:1e:63:ARG:C	36:1e:65:ASN:H	2.29	0.41
36:1e:66:MET:HE3	36:1e:66:MET:HB3	1.78	0.41
36:1e:103:GLY:O	36:1e:106:PRO:HD2	2.20	0.41
38:1g:69:VAL:O	38:1g:71:PRO:HD3	2.20	0.41
48:1q:87:LYS:HD2	48:1q:87:LYS:HA	1.68	0.41
51:1t:57:ARG:HH12	51:1t:100:ILE:CD1	2.20	0.41
1:2A:218:A:C2	1:2A:235:U:H4'	2.54	0.41
1:2A:826:U:OP1	1:2A:2428:G:H3'	2.21	0.41
1:2A:827:U:O2'	1:2A:2068:U:C2	2.63	0.41
1:2A:1884:A:O2'	1:2A:1885:A:H5'	2.21	0.41
1:2A:2080:G:OP1	23:21:35:THR:OG1	2.37	0.41
1:2A:2119:A:H62	1:2A:2168:G:H1'	1.85	0.41
1:2A:2410:G:H2'	1:2A:2411:A:O4'	2.20	0.41
6:2G:107:LEU:HD21	6:2G:178:PHE:CE1	2.55	0.41
7:2H:96:ALA:N	7:2H:128:PRO:O	2.44	0.41
7:2H:149:ARG:HD3	7:2H:164:TYR:CE1	2.55	0.41
8:2I:48:GLU:OE2	8:2I:52:ARG:HD3	2.21	0.41
14:2S:38:GLN:HB3	14:2S:47:THR:CG2	2.51	0.41
15:2T:119:LYS:HB2	32:2a:1442(A):G:H22	1.82	0.41
23:21:12:PRO:HG3	23:21:43:TYR:HD1	1.85	0.41
26:24:20:ASN:OD1	26:24:21:VAL:N	2.54	0.41
26:24:34:GLU:HB2	44:2m:57:ARG:CZ	2.51	0.41
32:2a:193:C:H2'	32:2a:194:C:C6	2.56	0.41
32:2a:401:C:OP2	35:2d:73:ARG:NH2	2.54	0.41
32:2a:499:A:O2'	32:2a:546:G:N2	2.54	0.41
32:2a:580:U:H2'	32:2a:581:G:O4'	2.21	0.41
32:2a:682:G:N2	32:2a:709:G:C4	2.89	0.41
32:2a:963:G:O2'	32:2a:1199:U:H5''	2.19	0.41
32:2a:1158:C:N3	32:2a:1160:G:C8	2.89	0.41
32:2a:1189:C:OP1	41:2j:51:ARG:NH2	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1355:G:O2'	32:2a:1356:G:H5'	2.21	0.41
32:2a:1375:A:C6	32:2a:1376:U:C4	3.09	0.41
33:2b:221:LEU:O	33:2b:221:LEU:HD12	2.19	0.41
35:2d:127:THR:HG23	35:2d:147:ALA:HB3	2.02	0.41
38:2g:151:TYR:OH	42:2k:54:ARG:HG2	2.21	0.41
39:2h:39:LEU:HD22	39:2h:39:LEU:HA	1.87	0.41
41:2j:62:HIS:HB3	45:2n:59:ALA:HB3	2.03	0.41
43:2l:54:LYS:N	43:2l:54:LYS:HD2	2.36	0.41
46:2o:11:VAL:HG21	46:2o:34:LEU:HD22	2.03	0.41
1:1A:831:A:H5'	1:1A:832:G:OP1	2.21	0.41
1:1A:1735:U:H1'	1:1A:1748:A:C6	2.56	0.41
1:1A:2050:U:H2'	1:1A:2051:G:O4'	2.20	0.41
1:1A:2450:U:O2'	1:1A:2452:C:OP1	2.37	0.41
1:1A:2803:A:H5'	1:1A:2804:C:C5'	2.49	0.41
4:1E:11:MET:O	4:1E:12:THR:HG23	2.21	0.41
6:1G:44:GLY:C	6:1G:46:ALA:N	2.78	0.41
15:1T:77:PRO:HB2	15:1T:80:SER:HB2	2.02	0.41
16:1U:76:TYR:CE2	16:1U:80:ILE:HG13	2.56	0.41
32:1a:266:G:H2'	32:1a:266:G:N3	2.34	0.41
32:1a:437:U:O3'	35:1d:125:HIS:CE1	2.73	0.41
32:1a:593:G:C2	32:1a:647:C:O2	2.73	0.41
32:1a:938:A:C6	32:1a:939:G:C5	3.09	0.41
32:1a:1054:C:N4	53:1x:46:GLN:HG3	2.30	0.41
32:1a:1106:G:C6	32:1a:1107:C:C4	3.08	0.41
33:1b:9:GLU:HG3	33:1b:217:ARG:NH1	2.23	0.41
33:1b:15:VAL:HG21	33:1b:213:LEU:HD12	2.01	0.41
33:1b:27:LYS:C	33:1b:29:ALA:H	2.29	0.41
34:1c:112:SER:O	34:1c:115:LEU:HB2	2.20	0.41
34:1c:153:VAL:HG22	34:1c:198:VAL:HG13	2.02	0.41
44:1m:4:ILE:HA	44:1m:5:ALA:HA	1.80	0.41
53:1x:34:LEU:HD23	53:1x:34:LEU:HA	1.87	0.41
1:2A:10:G:H2'	1:2A:11:G:C8	2.55	0.41
1:2A:286:C:H2'	1:2A:287:C:C6	2.55	0.41
1:2A:322:A:C5	1:2A:340:A:C2	3.08	0.41
1:2A:679:C:H2'	1:2A:680:G:C8	2.55	0.41
1:2A:1512:U:H2'	1:2A:1513:C:C6	2.56	0.41
1:2A:1580:A:OP2	1:2A:1580:A:H8	2.03	0.41
1:2A:1754:C:H2'	1:2A:1755:A:O4'	2.21	0.41
1:2A:2006:C:O5'	1:2A:2006:C:H6	2.04	0.41
1:2A:2070:G:C2	1:2A:2442:C:C2	3.08	0.41
1:2A:2469:A:C2	1:2A:2482:G:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2543:G:H21	1:2A:2646:C:H5''	1.86	0.41
3:2D:172:TYR:HD1	3:2D:185:VAL:C	2.28	0.41
4:2E:60:ASN:CG	4:2E:62:PRO:HD2	2.45	0.41
16:2U:85:LYS:NZ	16:2U:117:GLN:HB3	2.36	0.41
17:2V:59:ALA:HA	17:2V:95:LEU:O	2.21	0.41
23:21:77:ALA:O	23:21:80:LEU:HB2	2.20	0.41
28:26:40:CYS:HA	28:26:41:PRO:HD3	1.96	0.41
32:2a:945:G:C2	32:2a:946:A:C8	3.08	0.41
32:2a:1027:C:C2	32:2a:1034:G:O6	2.74	0.41
32:2a:1273:G:C6	32:2a:1274:G:C4	3.08	0.41
32:2a:1288:A:N3	32:2a:1352:C:O2'	2.48	0.41
32:2a:1349:A:C4	32:2a:1350:A:C8	3.09	0.41
32:2a:1434:A:H2'	32:2a:1435:G:O4'	2.21	0.41
33:2b:164:VAL:HB	33:2b:186:ALA:HB2	2.03	0.41
34:2c:156:ARG:NE	34:2c:160:ALA:O	2.43	0.41
38:2g:64:GLN:O	38:2g:67:GLU:N	2.52	0.41
38:2g:150:ALA:HA	42:2k:59:TYR:HB3	2.02	0.41
1:1A:11:G:C2'	1:1A:12:U:H5''	2.33	0.41
1:1A:201:G:H2'	1:1A:202:A:O4'	2.21	0.41
1:1A:218:A:H3'	1:1A:218:A:H8	1.85	0.41
1:1A:553:A:OP2	9:1N:114:ARG:NH1	2.53	0.41
1:1A:585:U:O2'	1:1A:586:G:OP2	2.28	0.41
1:1A:776:G:C6	3:1D:208:LYS:HB2	2.55	0.41
1:1A:1056:A:N3	1:1A:1199:C:H1'	2.35	0.41
1:1A:1464:G:O5'	1:1A:1464:G:H8	2.03	0.41
1:1A:1475:G:H2'	1:1A:1476:C:H6	1.82	0.41
1:1A:1857:G:H4'	3:1D:242:ARG:CZ	2.51	0.41
1:1A:2367:C:O3'	22:10:24:LYS:HE3	2.20	0.41
1:1A:2745:G:H3'	1:1A:2746:A:O4'	2.21	0.41
2:1B:37:C:C5	2:1B:38:C:C5	3.09	0.41
4:1E:48:GLN:NE2	4:1E:66:HIS:NE2	2.68	0.41
5:1F:101:LEU:HD12	5:1F:101:LEU:HA	1.83	0.41
6:1G:86:MET:HA	6:1G:87:PRO:HD3	1.94	0.41
15:1T:7:ILE:HD13	15:1T:7:ILE:HA	1.93	0.41
16:1U:106:PHE:O	16:1U:110:VAL:HG23	2.21	0.41
32:1a:543:C:O2'	32:1a:544:G:H5'	2.20	0.41
32:1a:1070:U:H2'	32:1a:1071:C:H6	1.84	0.41
32:1a:1206:G:O4'	34:1c:194:GLY:HA2	2.21	0.41
34:1c:12:LEU:HD23	34:1c:12:LEU:HA	1.81	0.41
35:1d:146:ILE:HD12	35:1d:146:ILE:N	2.36	0.41
37:1f:10:LEU:CD1	37:1f:61:LEU:HD13	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:1n:44:LEU:HD12	45:1n:44:LEU:O	2.20	0.41
48:1q:13:ASP:N	48:1q:13:ASP:OD1	2.53	0.41
50:1s:52:TYR:HB2	50:1s:57:HIS:CE1	2.56	0.41
51:1t:73:HIS:CE1	51:1t:75:ASN:OD1	2.74	0.41
53:1x:2:THR:HB	53:1x:3:MET:H	1.71	0.41
1:2A:201:C:O2'	1:2A:251:A:N1	2.50	0.41
1:2A:286:C:H2'	1:2A:287:C:H6	1.86	0.41
1:2A:324:A:H2'	1:2A:325:G:O4'	2.20	0.41
1:2A:1072:C:N4	1:2A:1093:G:H1	2.19	0.41
1:2A:1154:G:O5'	1:2A:1154:G:H8	2.03	0.41
1:2A:1221(A):C:C2	1:2A:1229:G:N2	2.88	0.41
1:2A:1494:A:H2'	1:2A:1495:A:C8	2.55	0.41
1:2A:1614:A:C2	18:2W:93:ALA:HB2	2.56	0.41
1:2A:2101:G:H2'	1:2A:2102:U:O4'	2.20	0.41
1:2A:2558:C:H2'	1:2A:2559:C:O4'	2.20	0.41
2:2B:110:G:N1	2:2B:111:G:C5	2.89	0.41
3:2D:6:PHE:HE2	3:2D:18:VAL:HG13	1.85	0.41
4:2E:2:LYS:HG3	4:2E:200:GLU:HB2	2.02	0.41
8:2I:79:ILE:HA	8:2I:80:PRO:HD2	1.81	0.41
12:2Q:79:LEU:HD23	12:2Q:79:LEU:HA	1.85	0.41
22:20:63:VAL:HG23	22:20:64:ASP:O	2.19	0.41
28:26:14:THR:O	28:26:17:LYS:HE2	2.21	0.41
32:2a:146:G:C2	32:2a:177:C:C2	3.09	0.41
32:2a:373:A:N3	32:2a:374:A:C8	2.89	0.41
32:2a:473:G:H2'	32:2a:474:G:C8	2.56	0.41
32:2a:707:C:H2'	32:2a:708:C:H6	1.85	0.41
32:2a:1067:A:N3	32:2a:1068:G:H1'	2.36	0.41
32:2a:1076:C:C2	32:2a:1082:G:C2	3.09	0.41
32:2a:1153:C:C4	32:2a:1154:G:N7	2.89	0.41
32:2a:1226:C:N4	44:2m:104:ARG:HG3	2.36	0.41
32:2a:1410:G:H2'	32:2a:1411:C:H6	1.84	0.41
33:2b:41:ILE:HD13	33:2b:41:ILE:HA	1.82	0.41
33:2b:178:ARG:HH22	39:2h:68:ARG:HH22	1.67	0.41
34:2c:124:ILE:HG22	34:2c:130:VAL:HG22	2.03	0.41
35:2d:5:ILE:O	35:2d:5:ILE:HG23	2.20	0.41
36:2e:27:ARG:HE	36:2e:27:ARG:HB2	1.55	0.41
45:2n:51:GLY:C	45:2n:53:LEU:H	2.29	0.41
1:1A:821:A:H2'	1:1A:821:A:N3	2.34	0.41
1:1A:1496:A:N3	1:1A:1576:G:H1'	2.36	0.41
1:1A:2125:C:C2'	1:1A:2126:G:H5'	2.50	0.41
1:1A:2131:U:C4	1:1A:2132:G:O6	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2138:G:H8	1:1A:2138:G:H2'	1.70	0.41
1:1A:2849:G:H5'	13:1R:46:GLY:HA2	2.01	0.41
3:1D:3:VAL:HG13	3:1D:17:THR:HB	2.03	0.41
4:1E:1:MET:HE1	4:1E:200:GLU:O	2.21	0.41
14:1S:56:LEU:HD23	14:1S:56:LEU:HA	1.84	0.41
16:1U:47:TYR:CD2	16:1U:47:TYR:C	2.99	0.41
25:13:39:ASP:OD2	25:13:44:ARG:NH2	2.51	0.41
26:14:61:ARG:HG3	26:14:62:ARG:N	2.25	0.41
32:1a:486:U:H2'	32:1a:487:A:C8	2.56	0.41
32:1a:1176:A:H2'	32:1a:1177:G:O4'	2.20	0.41
32:1a:1268:A:H2'	32:1a:1269:A:C8	2.55	0.41
36:1e:80:ILE:HG22	36:1e:91:LEU:HB2	2.03	0.41
37:1f:22:GLU:CD	37:1f:82:ARG:HH21	2.28	0.41
38:1g:75:VAL:HA	38:1g:87:VAL:O	2.20	0.41
40:1i:84:ALA:O	40:1i:87:GLN:HG2	2.20	0.41
45:1n:4:LYS:HA	45:1n:7:ILE:HG12	2.02	0.41
47:1p:49:LEU:HD12	47:1p:49:LEU:HA	1.86	0.41
48:1q:62:SER:CB	48:1q:72:ARG:HG3	2.51	0.41
50:1s:52:TYR:HA	50:1s:56:GLN:O	2.20	0.41
51:1t:43:LEU:HD22	51:1t:48:LYS:HD3	2.03	0.41
52:1u:14:TRP:HZ3	52:1u:15:ARG:HE	1.68	0.41
1:2A:41:C:H2'	1:2A:42:G:C8	2.56	0.41
1:2A:1000:A:C6	1:2A:1155:A:C8	3.09	0.41
1:2A:1328:G:H2'	1:2A:1330:C:C4	2.56	0.41
1:2A:1450:G:H2'	1:2A:1450(A):C:C6	2.56	0.41
1:2A:1695:G:H1'	3:2D:8:PRO:O	2.21	0.41
1:2A:2067:G:O2'	1:2A:2069:G:H5'	2.21	0.41
1:2A:2114:A:H2'	1:2A:2115:G:O4'	2.20	0.41
1:2A:2293:C:O2'	14:2S:93:LYS:HE2	2.21	0.41
3:2D:218:ARG:HB3	3:2D:219:PRO:HD2	2.02	0.41
4:2E:27:LEU:HD12	4:2E:180:ASN:O	2.20	0.41
5:2F:129:PHE:CD2	5:2F:163:VAL:HG21	2.56	0.41
6:2G:36:LYS:HG2	6:2G:160:VAL:HB	2.03	0.41
6:2G:53:LEU:HD23	6:2G:53:LEU:HA	1.82	0.41
7:2H:35:VAL:HA	7:2H:36:PRO:HD2	1.83	0.41
8:2I:72:LEU:HA	8:2I:75:LEU:HD22	2.02	0.41
8:2I:132:PRO:HD2	8:2I:136:VAL:O	2.20	0.41
11:2P:32:THR:O	11:2P:32:THR:OG1	2.35	0.41
32:2a:270:A:H2'	32:2a:271:C:C6	2.56	0.41
32:2a:955:U:O2'	50:2s:83:HIS:CD2	2.74	0.41
32:2a:1162:C:C2	32:2a:1175:G:C2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1220:G:H5'	50:2s:34:TRP:O	2.21	0.41
33:2b:98:LEU:HD23	33:2b:98:LEU:N	2.36	0.41
35:2d:172:PRO:HB2	35:2d:187:ARG:HH22	1.86	0.41
36:2e:118:ILE:HA	36:2e:118:ILE:HD12	1.75	0.41
38:2g:124:LEU:HD23	38:2g:124:LEU:HA	1.92	0.41
39:2h:86:ILE:HG12	39:2h:135:CYS:HA	2.02	0.41
1:1A:32:C:O2'	1:1A:33:U:H5'	2.21	0.41
1:1A:171:A:H2'	1:1A:172:C:O4'	2.21	0.41
1:1A:296:U:O5'	1:1A:296:U:H6	2.03	0.41
1:1A:347:G:C8	5:1F:171:PRO:HG3	2.56	0.41
1:1A:557:A:N3	1:1A:557:A:H2'	2.36	0.41
1:1A:670:C:H5'	1:1A:671:A:OP2	2.21	0.41
1:1A:1045:U:O2'	1:1A:1046:A:H5'	2.21	0.41
1:1A:1074:A:N6	1:1A:1171:G:H2'	2.35	0.41
1:1A:1091:A:O2'	1:1A:1093:G:C6	2.73	0.41
1:1A:1140:U:O2'	1:1A:1142:A:N7	2.44	0.41
1:1A:1296:G:H5''	59:1U:301:HOH:O	2.21	0.41
1:1A:1715:A:H4'	1:1A:1716:A:O5'	2.20	0.41
1:1A:1747:A:H2'	1:1A:1748:A:H5'	2.03	0.41
1:1A:2674:A:O5'	1:1A:2674:A:H8	2.03	0.41
2:1B:91:C:OP1	12:1Q:16:ARG:HD2	2.21	0.41
4:1E:59:VAL:CG1	4:1E:64:LYS:HG3	2.50	0.41
4:1E:131:ALA:HB1	4:1E:134:ILE:HD11	2.03	0.41
5:1F:125:LEU:HD12	5:1F:125:LEU:HA	1.92	0.41
6:1G:34:LEU:HD23	6:1G:34:LEU:HA	1.90	0.41
7:1H:159:GLU:HG3	7:1H:169:VAL:HG11	2.03	0.41
12:1Q:6:ARG:HH11	12:1Q:6:ARG:HD2	1.70	0.41
12:1Q:29:PHE:HB3	12:1Q:65:PHE:CE1	2.55	0.41
16:1U:45:TYR:O	16:1U:49:HIS:N	2.53	0.41
22:10:51:VAL:N	22:10:62:LEU:HD12	2.36	0.41
26:14:28:LYS:HA	26:14:29:PRO:HD3	1.93	0.41
32:1a:377:G:OP1	47:1p:3:LYS:HD3	2.19	0.41
32:1a:589:C:H42	32:1a:650:G:H1	1.69	0.41
32:1a:848:C:O5'	32:1a:848:C:H6	2.04	0.41
32:1a:1207:2MG:H2'	32:1a:1208:C:H6	1.85	0.41
32:1a:1328:C:H2'	32:1a:1329:A:O4'	2.21	0.41
32:1a:1375:A:C6	32:1a:1376:U:C4	3.08	0.41
33:1b:16:HIS:ND1	33:1b:18:GLY:N	2.68	0.41
34:1c:47:LEU:HD23	34:1c:47:LEU:HA	1.83	0.41
35:1d:122:ARG:NH1	35:1d:134:ASP:O	2.50	0.41
35:1d:194:LEU:HD12	35:1d:195:ALA:N	2.26	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:1f:53:ALA:HB3	37:1f:86:ARG:CZ	2.51	0.41
46:1o:39:LEU:CD1	46:1o:56:LEU:HB2	2.50	0.41
49:1r:86:VAL:HG12	49:1r:87:ARG:N	2.36	0.41
51:1t:10:LEU:HB3	51:1t:12:ALA:H	1.85	0.41
51:1t:47:GLY:HA2	51:1t:48:LYS:CB	2.51	0.41
51:1t:91:LEU:HD23	51:1t:91:LEU:HA	1.80	0.41
1:2A:13:A:N1	1:2A:525:U:H2'	2.36	0.41
1:2A:1179:C:O2'	1:2A:1180:C:H5'	2.21	0.41
1:2A:1209:G:O2'	1:2A:1237:A:N1	2.51	0.41
1:2A:1357:U:H2'	1:2A:1358:G:O4'	2.21	0.41
1:2A:1470:G:H5''	1:2A:1471:A:OP1	2.21	0.41
1:2A:2102:U:H2'	1:2A:2103:C:N1	2.36	0.41
1:2A:2136:C:OP2	1:2A:2136:C:C6	2.74	0.41
1:2A:2302:G:O2'	6:2G:126:ASP:O	2.35	0.41
59:2A:4575:HOH:O	13:2R:15:SER:HB3	2.21	0.41
2:2B:66:A:H61	2:2B:109:C:C5'	2.33	0.41
2:2B:78:A:C2	2:2B:100:A:C4	3.09	0.41
2:2B:103:G:H21	21:2Z:73:GLN:HE22	1.69	0.41
3:2D:77:ALA:HB2	3:2D:97:TYR:CD1	2.55	0.41
4:2E:70:ALA:O	4:2E:72:VAL:N	2.54	0.41
4:2E:143:ASN:HD22	4:2E:147:PRO:CD	2.30	0.41
4:2E:188:VAL:HA	4:2E:189:PRO:HD3	1.97	0.41
7:2H:148:ILE:H	7:2H:148:ILE:HG12	1.73	0.41
9:2N:97:ARG:HA	9:2N:100:GLU:HB2	2.03	0.41
12:2Q:118:LEU:HD23	12:2Q:118:LEU:HA	1.88	0.41
15:2T:109:GLU:HG2	15:2T:112:ARG:NH2	2.36	0.41
17:2V:38:LEU:HA	17:2V:38:LEU:HD23	1.86	0.41
21:2Z:14:LYS:HA	21:2Z:15:PRO:HD3	1.93	0.41
21:2Z:61:LEU:HB3	21:2Z:62:PRO:HD2	2.03	0.41
25:23:28:LEU:HD23	25:23:28:LEU:HA	1.80	0.41
27:25:49:CYS:SG	27:25:51:TYR:HB2	2.61	0.41
30:28:50:LEU:HD23	30:28:50:LEU:HA	1.57	0.41
30:28:63:PRO:HG2	30:28:64:TYR:CD2	2.56	0.41
32:2a:35:G:C5	32:2a:36:C:C4	3.09	0.41
32:2a:43:C:H2'	32:2a:44:G:O4'	2.21	0.41
32:2a:112:G:H4'	32:2a:389:A:H4'	2.02	0.41
32:2a:173:U:C2	32:2a:197:A:N1	2.89	0.41
32:2a:375:U:C2	32:2a:376:G:C8	3.08	0.41
32:2a:504:C:C2	32:2a:542:G:C2	3.08	0.41
32:2a:526:C:OP2	43:2l:91:LYS:HE3	2.21	0.41
32:2a:619:U:C2	35:2d:135:LEU:HD22	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:721:G:H4'	32:2a:722:A:O4'	2.20	0.41
32:2a:722:A:H2'	32:2a:724:G:H8	1.86	0.41
32:2a:930:C:H2'	32:2a:931:C:O4'	2.21	0.41
32:2a:935:A:O2'	32:2a:1383:C:N3	2.54	0.41
32:2a:1018:C:H2'	32:2a:1019:C:O4'	2.21	0.41
32:2a:1170:A:O5'	32:2a:1170:A:H8	2.04	0.41
32:2a:1171:G:C2	32:2a:1172:C:C2	3.09	0.41
32:2a:1496:C:OP2	53:2x:26:LYS:HE3	2.21	0.41
33:2b:167:PRO:HG3	33:2b:188:ALA:HB2	2.03	0.41
33:2b:210:SER:O	33:2b:211:ILE:C	2.64	0.41
33:2b:230:VAL:HG22	33:2b:231:GLU:H	1.85	0.41
36:2e:81:GLU:HG2	36:2e:90:VAL:HG13	2.02	0.41
37:2f:59:TYR:HE2	37:2f:61:LEU:HD11	1.86	0.41
39:2h:6:ILE:O	39:2h:10:LEU:HG	2.21	0.41
53:2x:53:THR:HG22	53:2x:62:VAL:CG1	2.46	0.41
1:1A:332:G:C8	1:1A:526:A:O4'	2.73	0.41
1:1A:441:C:H2'	1:1A:442:A:C8	2.56	0.41
1:1A:910:A:H2'	1:1A:911:G:H8	1.86	0.41
1:1A:1508:G:O2'	1:1A:1509:C:H5'	2.21	0.41
5:1F:110:LEU:HD23	5:1F:110:LEU:HA	1.85	0.41
6:1G:123:ASN:C	6:1G:125:PHE:H	2.29	0.41
8:1I:93:THR:O	8:1I:97:ILE:HG13	2.21	0.41
10:1O:108:GLU:H	10:1O:108:GLU:HG3	1.49	0.41
11:1P:100:LEU:HA	11:1P:100:LEU:HD23	1.72	0.41
12:1Q:103:MET:HE1	12:1Q:125:LEU:HD13	2.03	0.41
12:1Q:137:TYR:O	12:1Q:141:GLN:HG2	2.21	0.41
20:1Y:7:VAL:HG23	20:1Y:74:PRO:HD3	2.03	0.41
22:10:56:ASP:O	22:10:57:PHE:HB2	2.21	0.41
23:11:78:LYS:C	23:11:80:LEU:H	2.29	0.41
32:1a:411:A:C6	32:1a:429:U:C5	3.09	0.41
32:1a:1028:C:H3'	32:1a:1028:C:H6	1.87	0.41
32:1a:1098:C:C2	32:1a:1099:G:C8	3.09	0.41
33:1b:12:GLU:C	33:1b:15:VAL:H	2.29	0.41
33:1b:141:GLU:HG2	33:1b:145:LEU:HD11	2.03	0.41
36:1e:27:ARG:HE	36:1e:27:ARG:HB2	1.41	0.41
44:1m:15:VAL:HG11	44:1m:48:LEU:HD21	2.02	0.41
44:1m:22:ILE:HB	44:1m:25:ILE:HD12	2.02	0.41
1:2A:919:G:C4	1:2A:920:G:C8	3.08	0.41
1:2A:1799:G:O2'	3:2D:181:GLU:OE2	2.37	0.41
1:2A:1913:A:C2	32:2a:1491:G:N2	2.90	0.41
1:2A:2031:A:C6	1:2A:2498:C:H1'	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2836:U:C4	1:2A:2883:A:N6	2.89	0.41
1:2A:2881:C:H2'	1:2A:2882:A:O4'	2.21	0.41
24:22:60:LEU:HD23	24:22:60:LEU:HA	1.96	0.41
32:2a:153:C:H2'	32:2a:154:C:H6	1.86	0.41
32:2a:418:C:H1'	32:2a:540:G:O2'	2.20	0.41
32:2a:426:G:OP1	35:2d:38:TYR:OH	2.32	0.41
32:2a:570:G:H2'	32:2a:571:U:C6	2.56	0.41
32:2a:1206:G:C6	32:2a:1207:2MG:C6	3.08	0.41
32:2a:1246:C:O2'	32:2a:1247:U:H5'	2.21	0.41
34:2c:157:ILE:HD11	34:2c:166:GLU:HB2	2.03	0.41
36:2e:91:LEU:HD11	36:2e:110:LEU:HD11	2.03	0.41
42:2k:58:PRO:HG3	42:2k:89:ALA:O	2.20	0.41
44:2m:90:LEU:HD21	44:2m:93:ARG:HH21	1.86	0.41
45:2n:53:LEU:HA	45:2n:54:PRO:HD2	1.85	0.41
48:2q:5:VAL:HA	48:2q:59:ILE:O	2.21	0.41
1:1A:274:U:O2'	1:1A:275:C:H5'	2.20	0.40
1:1A:1359:U:H2'	1:1A:1656:A:C2	2.56	0.40
1:1A:2133:C:N4	1:1A:2169:G:N2	2.68	0.40
2:1B:57:A:N9	56:1B:3025:AMP:C5'	2.84	0.40
9:1N:99:LEU:HD23	9:1N:99:LEU:HA	1.88	0.40
23:11:3:LYS:HB3	23:11:4:VAL:H	1.65	0.40
23:11:35:THR:HG23	23:11:35:THR:O	2.20	0.40
32:1a:185:A:H2'	32:1a:186:C:H6	1.84	0.40
32:1a:731:G:OP1	32:1a:766:A:H1'	2.20	0.40
32:1a:986:A:C2	32:1a:1220:G:C2	3.09	0.40
32:1a:1014:A:H3'	32:1a:1015:A:C8	2.56	0.40
33:1b:82:ARG:HG2	33:1b:92:TYR:OH	2.21	0.40
34:1c:111:LEU:HD23	34:1c:111:LEU:HA	1.93	0.40
38:1g:26:PHE:CE2	38:1g:30:ILE:HD11	2.56	0.40
48:1q:81:ARG:HE	48:1q:81:ARG:HB3	1.63	0.40
51:1t:18:GLN:O	51:1t:22:ARG:HG3	2.21	0.40
1:2A:572:A:OP2	17:2V:78:LYS:NZ	2.54	0.40
1:2A:631:A:H2'	1:2A:632:A:O4'	2.19	0.40
1:2A:660:G:H5'	5:2F:99:TYR:CD1	2.56	0.40
1:2A:1428:C:C5	1:2A:1569:A:H5''	2.55	0.40
1:2A:2313:C:OP1	6:2G:71:THR:HG21	2.22	0.40
1:2A:2376:A:H2'	1:2A:2377:A:O4'	2.21	0.40
3:2D:228:PRO:HD3	3:2D:235:GLY:HA3	2.02	0.40
32:2a:1072:G:C5	32:2a:1073:U:C4	3.08	0.40
35:2d:189:PRO:HB2	35:2d:194:LEU:HD11	2.02	0.40
36:2e:137:GLU:O	36:2e:141:GLN:HG3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2f:97:PHE:N	49:2r:30:ASP:OD1	2.53	0.40
40:2i:28:VAL:O	40:2i:29:ASN:C	2.64	0.40
1:1A:233:A:H2'	1:1A:234:G:O4'	2.21	0.40
1:1A:387:G:H2'	1:1A:388:A:H8	1.86	0.40
1:1A:830:A:H2'	1:1A:830:A:N3	2.36	0.40
6:1G:55:LYS:O	6:1G:59:GLU:HG3	2.21	0.40
20:1Y:94:LYS:HE2	59:1Y:603:HOH:O	2.21	0.40
32:1a:43:C:H2'	32:1a:44:G:O4'	2.22	0.40
32:1a:389:A:C6	32:1a:390:C:H1'	2.56	0.40
32:1a:509:A:C8	32:1a:509:A:C3'	3.04	0.40
32:1a:749:C:H2'	32:1a:750:G:H8	1.86	0.40
32:1a:977:A:H1'	32:1a:982:U:O4	2.20	0.40
36:1e:152:ARG:NH2	39:1h:107:LEU:O	2.48	0.40
38:1g:140:ASP:O	38:1g:143:ARG:HG2	2.21	0.40
50:1s:12:ASP:OD1	50:1s:37:ARG:NH1	2.54	0.40
1:2A:194:G:H2'	1:2A:195:A:O4'	2.21	0.40
1:2A:266:G:N2	1:2A:427:U:H1'	2.36	0.40
1:2A:328:U:H4'	20:2Y:68:HIS:CE1	2.56	0.40
1:2A:479:A:H4'	1:2A:480:A:OP1	2.20	0.40
1:2A:545:G:OP1	1:2A:545:G:H4'	2.21	0.40
1:2A:747:U:O2	1:2A:2014:A:H1'	2.21	0.40
1:2A:953:A:O2'	1:2A:954:G:H5'	2.21	0.40
1:2A:1161:C:O2'	17:2V:8:GLY:HA2	2.21	0.40
1:2A:1202:C:N3	1:2A:1243:G:N2	2.56	0.40
1:2A:2019:A:C4'	16:2U:34:LYS:HD2	2.51	0.40
1:2A:2119:A:N7	1:2A:2170:A:C6	2.90	0.40
1:2A:2184:G:H2'	1:2A:2185:C:O4'	2.22	0.40
1:2A:2494:G:O2'	12:2Q:80:GLU:HA	2.21	0.40
4:2E:41:LYS:HD2	4:2E:41:LYS:HA	1.90	0.40
4:2E:111:ARG:HB2	4:2E:160:TYR:O	2.21	0.40
11:2P:6:LEU:HA	11:2P:6:LEU:HD23	1.78	0.40
13:2R:25:ALA:O	13:2R:26:LYS:C	2.65	0.40
16:2U:51:LYS:HD3	16:2U:51:LYS:HA	1.92	0.40
26:24:15:ILE:HD13	26:24:21:VAL:HG22	2.04	0.40
32:2a:10:A:O2'	32:2a:11:G:H5'	2.21	0.40
32:2a:509:A:C8	32:2a:509:A:C3'	3.03	0.40
32:2a:560:U:O2'	32:2a:561:U:OP2	2.35	0.40
32:2a:1070:U:H2'	32:2a:1071:C:H6	1.85	0.40
32:2a:1121:U:C4	32:2a:1122:U:C4	3.09	0.40
32:2a:1415:G:C4	32:2a:1486:G:C2	3.10	0.40
32:2a:1496:C:H2'	32:2a:1497:G:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:16:HIS:O	33:2b:18:GLY:N	2.55	0.40
34:2c:7:PRO:HG2	34:2c:184:TYR:CB	2.51	0.40
35:2d:58:LEU:HD23	35:2d:62:GLN:HG2	2.02	0.40
38:2g:56:GLN:O	38:2g:58:PRO:HD3	2.21	0.40
39:2h:63:LEU:HD23	39:2h:65:TYR:OH	2.21	0.40
39:2h:97:VAL:HA	39:2h:100:ILE:HG13	2.03	0.40
47:2p:1:MET:HE2	47:2p:1:MET:N	2.36	0.40
50:2s:64:GLU:H	50:2s:64:GLU:HG3	1.44	0.40
1:1A:789:G:H4'	1:1A:1723:A:H5'	2.04	0.40
1:1A:939:C:O2'	1:1A:940:C:H5'	2.21	0.40
1:1A:2764:G:C4	7:1H:2:SER:HA	2.57	0.40
8:1I:101:LEU:CD2	8:1I:107:VAL:HB	2.51	0.40
13:1R:10:LEU:HD23	13:1R:10:LEU:HA	1.87	0.40
21:1Z:37:VAL:HG23	21:1Z:38:TYR:N	2.35	0.40
21:1Z:163:LEU:HA	21:1Z:163:LEU:HD12	1.72	0.40
32:1a:31:G:O2'	32:1a:48:C:N4	2.53	0.40
32:1a:509:A:H5'	35:1d:54:TYR:HD2	1.86	0.40
32:1a:545:C:H5'	35:1d:72:GLU:HB3	2.02	0.40
32:1a:628:G:N2	32:1a:629:G:N3	2.69	0.40
32:1a:633:G:H2'	32:1a:634:C:C6	2.57	0.40
32:1a:919:A:O2'	32:1a:920:U:H5'	2.21	0.40
32:1a:1220:G:H2'	32:1a:1221:G:O4'	2.21	0.40
32:1a:1229:A:H4'	53:1x:2:THR:OG1	2.21	0.40
32:1a:1342:C:O2'	32:1a:1343:G:H5'	2.20	0.40
35:1d:129:ASN:HD21	35:1d:144:ASP:HA	1.86	0.40
36:1e:33:VAL:HG21	36:1e:109:ILE:HA	2.03	0.40
37:1f:95:GLU:HA	37:1f:96:PRO:HD3	1.93	0.40
39:1h:40:ALA:CA	39:1h:45:ILE:HG13	2.52	0.40
39:1h:104:ARG:HD3	39:1h:104:ARG:HA	1.68	0.40
42:1k:31:THR:HB	42:1k:42:TRP:HB3	2.02	0.40
44:1m:108:ARG:HA	44:1m:108:ARG:HD3	1.75	0.40
45:1n:27:CYS:SG	45:1n:29:ARG:HB2	2.61	0.40
46:1o:57:LEU:HD23	46:1o:57:LEU:HA	1.85	0.40
53:1x:38:HIS:O	53:1x:52:ALA:HA	2.20	0.40
1:2A:323:G:C8	5:2F:171:PRO:HG3	2.56	0.40
1:2A:483:A:O2'	20:2Y:59:GLY:N	2.53	0.40
1:2A:1297:C:H2'	1:2A:1298:C:H6	1.87	0.40
1:2A:2057:A:H2'	1:2A:2058:A:O4'	2.20	0.40
1:2A:2415:G:C6	1:2A:2416:C:C4	3.09	0.40
2:2B:18:G:H2'	2:2B:19:G:C8	2.57	0.40
8:2I:29:TYR:C	8:2I:32:PRO:HD2	2.46	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:73:GLU:HG3	8:2I:138:ILE:HG23	2.03	0.40
10:2O:107:ARG:HE	10:2O:107:ARG:HB3	1.64	0.40
10:2O:122:LEU:HD23	10:2O:122:LEU:HA	1.83	0.40
13:2R:12:ARG:HG2	13:2R:16:HIS:CE1	2.57	0.40
23:21:52:ARG:NH1	23:21:55:GLY:O	2.54	0.40
24:22:48:HIS:O	24:22:52:ASP:HB2	2.22	0.40
32:2a:686:U:O4	32:2a:703:G:H1'	2.22	0.40
32:2a:1210:C:H2'	32:2a:1211:U:H5''	2.03	0.40
39:2h:98:LYS:H	39:2h:98:LYS:HG2	1.71	0.40
42:2k:98:LEU:O	42:2k:101:SER:OG	2.27	0.40
47:2p:29:ASP:OD1	47:2p:29:ASP:N	2.55	0.40
50:2s:36:ARG:HH12	50:2s:75:ALA:CB	2.24	0.40
51:2t:53:LEU:O	51:2t:57:ARG:HG3	2.21	0.40
53:2x:19:HIS:CE1	53:2x:23:ARG:HG2	2.57	0.40
1:1A:776:G:H2'	1:1A:1806:U:H1'	2.02	0.40
1:1A:787:U:H2'	1:1A:788:G:C8	2.57	0.40
1:1A:811:A:N3	3:1D:213:ARG:NH1	2.69	0.40
1:1A:933:C:H3'	1:1A:934:A:H5''	2.04	0.40
1:1A:1897:C:H2'	1:1A:1898:A:O4'	2.21	0.40
1:1A:2041:A:N7	27:15:9:LYS:HE2	2.36	0.40
1:1A:2273:C:C2	1:1A:2292:G:C2	3.10	0.40
1:1A:2429:C:OP1	11:1P:65:ARG:NH2	2.54	0.40
4:1E:13:ARG:HA	4:1E:21:VAL:O	2.21	0.40
5:1F:66:PRO:HD2	5:1F:70:THR:HG21	2.04	0.40
32:1a:472:A:H5''	47:1p:80:PHE:HB3	2.03	0.40
32:1a:662:G:H2'	32:1a:663:A:C8	2.56	0.40
32:1a:804:U:H5''	32:1a:805:C:OP2	2.21	0.40
32:1a:1089:G:C5	32:1a:1090:U:C5	3.09	0.40
32:1a:1109:C:H2'	32:1a:1110:A:O4'	2.22	0.40
32:1a:1299:A:H5''	32:1a:1299:A:N3	2.37	0.40
33:1b:97:TRP:HH2	33:1b:176:GLU:CD	2.29	0.40
33:1b:155:LEU:HD21	33:1b:159:PRO:HD3	2.03	0.40
34:1c:34:LEU:O	34:1c:34:LEU:HD12	2.22	0.40
35:1d:60:GLU:OE1	35:1d:199:ASN:N	2.52	0.40
38:1g:124:LEU:HD23	38:1g:124:LEU:HA	1.87	0.40
39:1h:42:GLU:HG3	39:1h:109:ILE:HD13	2.03	0.40
43:1l:42:THR:HA	43:1l:53:ARG:O	2.21	0.40
1:2A:623:G:H2'	1:2A:624:C:C6	2.57	0.40
1:2A:900:A:H2'	1:2A:901:A:C8	2.53	0.40
1:2A:921:G:H4'	1:2A:2269:A:C5	2.56	0.40
1:2A:1756:G:H4'	1:2A:1758:G:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1802:A:C6	1:2A:1817:G:N2	2.90	0.40
1:2A:2119:A:N7	1:2A:2171:A:C6	2.90	0.40
1:2A:2185:C:H5'	1:2A:2186:G:OP2	2.21	0.40
1:2A:2553:G:H2'	1:2A:2554:U:O4'	2.22	0.40
1:2A:2646:C:O5'	1:2A:2646:C:H6	2.04	0.40
4:2E:59:VAL:HB	4:2E:64:LYS:HE3	2.04	0.40
6:2G:61:ALA:O	26:24:7:PRO:HG2	2.21	0.40
11:2P:82:GLY:HA2	11:2P:113:LYS:O	2.21	0.40
17:2V:50:PRO:HG2	17:2V:51:VAL:HG12	2.03	0.40
20:2Y:38:ILE:HD13	20:2Y:66:PRO:HA	2.04	0.40
21:2Z:104:PHE:HE1	21:2Z:171:ILE:HD12	1.87	0.40
26:24:47:GLN:O	26:24:48:ARG:HB2	2.22	0.40
32:2a:380:G:N1	32:2a:384:G:C6	2.90	0.40
32:2a:751:U:H4'	46:2o:24:SER:HA	2.04	0.40
32:2a:1330:U:H4'	44:2m:23:TYR:CZ	2.56	0.40
34:2c:108:ASN:ND2	34:2c:144:SER:HB3	2.31	0.40
41:2j:65:LEU:HD13	45:2n:56:VAL:HG23	2.03	0.40
47:2p:39:TYR:CD1	47:2p:73:LEU:HD13	2.56	0.40
48:2q:59:ILE:HG22	48:2q:73:VAL:HA	2.03	0.40
1:1A:543:G:H2'	1:1A:544:U:C6	2.56	0.40
1:1A:895:G:H2'	1:1A:896:A:C8	2.56	0.40
1:1A:1140:U:O2	1:1A:1143:U:H5''	2.21	0.40
1:1A:1152:G:N3	1:1A:1152:G:H2'	2.35	0.40
1:1A:2193:A:N3	1:1A:2194:U:N3	2.70	0.40
1:1A:2389:A:H2'	1:1A:2390:A:C8	2.56	0.40
1:1A:2412:G:N2	1:1A:2429:C:C2	2.90	0.40
3:1D:63:ARG:HH11	3:1D:63:ARG:HD2	1.75	0.40
3:1D:228:PRO:HD3	3:1D:235:GLY:HA3	2.03	0.40
6:1G:121:ASN:HA	6:1G:122:PRO:HD3	1.87	0.40
6:1G:165:THR:OG1	6:1G:168:GLU:HG3	2.22	0.40
8:1I:44:LEU:HD12	8:1I:44:LEU:HA	1.97	0.40
11:1P:50:ARG:HD3	30:18:7:HIS:CD2	2.56	0.40
12:1Q:104:PHE:HE2	12:1Q:125:LEU:HD11	1.87	0.40
32:1a:55:A:C5	32:1a:56:U:C5	3.09	0.40
32:1a:176:C:H2'	32:1a:177:C:C6	2.57	0.40
32:1a:627:G:O2'	32:1a:628:G:H5'	2.22	0.40
32:1a:1057:G:C4	32:1a:1204:A:C2	3.10	0.40
32:1a:1196:U:H6	32:1a:1196:U:H2'	1.62	0.40
33:1b:87:ARG:HD2	33:1b:233:SER:CB	2.51	0.40
33:1b:198:ASP:OD1	39:1h:68:ARG:NH2	2.51	0.40
33:1b:208:ILE:H	33:1b:208:ILE:HG13	1.45	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:102:ALA:HB2	36:1e:120:THR:HG21	2.03	0.40
37:1f:18:GLN:O	37:1f:21:LEU:HB3	2.22	0.40
46:1o:88:ARG:HE	46:1o:88:ARG:HB3	1.64	0.40
50:1s:3:ARG:NH1	50:1s:10:PHE:HB2	2.37	0.40
1:2A:11:G:O5'	1:2A:11:G:H8	2.05	0.40
1:2A:295:G:C6	1:2A:296:C:C5	3.10	0.40
1:2A:483:A:H3'	1:2A:484:C:C6	2.57	0.40
1:2A:745:G:OP1	4:2E:133:LYS:HE3	2.20	0.40
1:2A:818:G:H5'	1:2A:839:U:OP1	2.21	0.40
1:2A:1324:G:C2	1:2A:1331:A:C2	3.10	0.40
1:2A:1466:G:H2'	1:2A:1547:C:N4	2.37	0.40
1:2A:1583:A:H5'	1:2A:1584:C:OP1	2.22	0.40
1:2A:1817:G:OP1	3:2D:88:ARG:NH2	2.46	0.40
1:2A:2395:C:O2'	23:21:30:VAL:HG22	2.21	0.40
3:2D:273:ARG:HG2	3:2D:274:ARG:N	2.37	0.40
12:2Q:135:ASP:HB3	12:2Q:137:TYR:H	1.87	0.40
13:2R:63:ARG:O	13:2R:67:LEU:HB2	2.22	0.40
15:2T:77:PRO:HB2	15:2T:80:SER:HB2	2.03	0.40
27:25:11:THR:HG23	27:25:15:ARG:HB3	2.04	0.40
32:2a:537:G:OP1	43:2l:113:ARG:NH1	2.47	0.40
32:2a:554:C:H2'	32:2a:555:C:H6	1.85	0.40
32:2a:857:C:H2'	32:2a:858:G:O4'	2.21	0.40
32:2a:947:G:H1	32:2a:1234:C:N4	2.18	0.40
32:2a:1151:A:O4'	41:2j:39:PRO:HB2	2.22	0.40
32:2a:1480:G:H2'	32:2a:1481:U:O4'	2.22	0.40
34:2c:82:GLU:HA	34:2c:85:ARG:NH2	2.37	0.40
34:2c:139:GLN:OE1	34:2c:139:GLN:HA	2.21	0.40
42:2k:85:ARG:HG2	42:2k:112:THR:HA	2.02	0.40
44:2m:78:ILE:HD13	44:2m:92:HIS:CD2	2.56	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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	
3	1D	273/275 (99%)	258 (94%)	15 (6%)	0	100	100
3	2D	273/275 (99%)	256 (94%)	17 (6%)	0	100	100
4	1E	202/204 (99%)	192 (95%)	9 (4%)	1 (0%)	24	54
4	2E	202/204 (99%)	191 (95%)	10 (5%)	1 (0%)	24	54
5	1F	201/203 (99%)	193 (96%)	7 (4%)	1 (0%)	24	54
5	2F	201/203 (99%)	192 (96%)	7 (4%)	2 (1%)	12	39
6	1G	179/181 (99%)	163 (91%)	12 (7%)	4 (2%)	5	20
6	2G	179/181 (99%)	163 (91%)	13 (7%)	3 (2%)	7	26
7	1H	172/174 (99%)	163 (95%)	9 (5%)	0	100	100
7	2H	171/174 (98%)	164 (96%)	7 (4%)	0	100	100
8	1I	145/147 (99%)	127 (88%)	15 (10%)	3 (2%)	5	21
8	2I	144/147 (98%)	125 (87%)	16 (11%)	3 (2%)	5	21
9	1N	138/140 (99%)	132 (96%)	6 (4%)	0	100	100
9	2N	138/140 (99%)	129 (94%)	9 (6%)	0	100	100
10	1O	120/122 (98%)	114 (95%)	5 (4%)	1 (1%)	16	44
10	2O	120/122 (98%)	113 (94%)	6 (5%)	1 (1%)	16	44
11	1P	147/149 (99%)	139 (95%)	8 (5%)	0	100	100
11	2P	147/149 (99%)	137 (93%)	9 (6%)	1 (1%)	18	48
12	1Q	139/141 (99%)	133 (96%)	5 (4%)	1 (1%)	18	48
12	2Q	139/141 (99%)	133 (96%)	5 (4%)	1 (1%)	18	48
13	1R	116/118 (98%)	107 (92%)	9 (8%)	0	100	100
13	2R	116/118 (98%)	107 (92%)	9 (8%)	0	100	100
14	1S	108/110 (98%)	100 (93%)	7 (6%)	1 (1%)	14	41
14	2S	108/110 (98%)	100 (93%)	7 (6%)	1 (1%)	14	41
15	1T	129/131 (98%)	125 (97%)	4 (3%)	0	100	100
15	2T	129/131 (98%)	125 (97%)	4 (3%)	0	100	100
16	1U	114/116 (98%)	113 (99%)	1 (1%)	0	100	100
16	2U	114/116 (98%)	114 (100%)	0	0	100	100
17	1V	99/101 (98%)	94 (95%)	4 (4%)	1 (1%)	12	39
17	2V	99/101 (98%)	95 (96%)	3 (3%)	1 (1%)	12	39
18	1W	110/112 (98%)	109 (99%)	1 (1%)	0	100	100
18	2W	110/112 (98%)	109 (99%)	1 (1%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
19	1X	93/95 (98%)	90 (97%)	3 (3%)	0	100	100
19	2X	93/95 (98%)	88 (95%)	5 (5%)	0	100	100
20	1Y	105/107 (98%)	95 (90%)	10 (10%)	0	100	100
20	2Y	105/107 (98%)	98 (93%)	7 (7%)	0	100	100
21	1Z	201/203 (99%)	187 (93%)	14 (7%)	0	100	100
21	2Z	199/203 (98%)	189 (95%)	10 (5%)	0	100	100
22	10	75/77 (97%)	70 (93%)	5 (7%)	0	100	100
22	20	75/77 (97%)	70 (93%)	5 (7%)	0	100	100
23	11	95/97 (98%)	94 (99%)	0	1 (1%)	11	36
23	21	95/97 (98%)	93 (98%)	1 (1%)	1 (1%)	11	36
24	12	68/70 (97%)	66 (97%)	2 (3%)	0	100	100
24	22	68/70 (97%)	66 (97%)	2 (3%)	0	100	100
25	13	57/59 (97%)	55 (96%)	2 (4%)	0	100	100
25	23	57/59 (97%)	54 (95%)	3 (5%)	0	100	100
26	14	67/69 (97%)	52 (78%)	11 (16%)	4 (6%)	1	4
26	24	67/69 (97%)	52 (78%)	10 (15%)	5 (8%)	1	2
27	15	57/59 (97%)	57 (100%)	0	0	100	100
27	25	57/59 (97%)	57 (100%)	0	0	100	100
28	16	51/53 (96%)	50 (98%)	1 (2%)	0	100	100
28	26	51/53 (96%)	50 (98%)	1 (2%)	0	100	100
29	17	46/48 (96%)	45 (98%)	1 (2%)	0	100	100
29	27	46/48 (96%)	45 (98%)	1 (2%)	0	100	100
30	18	62/64 (97%)	61 (98%)	1 (2%)	0	100	100
30	28	62/64 (97%)	60 (97%)	2 (3%)	0	100	100
31	19	35/37 (95%)	35 (100%)	0	0	100	100
31	29	35/37 (95%)	35 (100%)	0	0	100	100
33	1b	229/231 (99%)	190 (83%)	27 (12%)	12 (5%)	1	5
33	2b	229/231 (99%)	192 (84%)	27 (12%)	10 (4%)	2	8
34	1c	204/206 (99%)	171 (84%)	31 (15%)	2 (1%)	12	39
34	2c	204/206 (99%)	176 (86%)	25 (12%)	3 (2%)	8	28
35	1d	206/208 (99%)	183 (89%)	19 (9%)	4 (2%)	6	23

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
35	2d	206/208 (99%)	186 (90%)	17 (8%)	3 (2%)	8	28
36	1e	146/148 (99%)	126 (86%)	19 (13%)	1 (1%)	18	48
36	2e	146/148 (99%)	129 (88%)	16 (11%)	1 (1%)	18	48
37	1f	98/100 (98%)	89 (91%)	9 (9%)	0	100	100
37	2f	98/100 (98%)	92 (94%)	6 (6%)	0	100	100
38	1g	153/155 (99%)	143 (94%)	9 (6%)	1 (1%)	18	48
38	2g	153/155 (99%)	142 (93%)	8 (5%)	3 (2%)	6	22
39	1h	135/137 (98%)	123 (91%)	12 (9%)	0	100	100
39	2h	135/137 (98%)	129 (96%)	6 (4%)	0	100	100
40	1i	125/127 (98%)	107 (86%)	15 (12%)	3 (2%)	4	18
40	2i	124/127 (98%)	105 (85%)	15 (12%)	4 (3%)	3	13
41	1j	95/97 (98%)	79 (83%)	13 (14%)	3 (3%)	3	13
41	2j	94/97 (97%)	79 (84%)	12 (13%)	3 (3%)	3	13
42	1k	112/114 (98%)	100 (89%)	11 (10%)	1 (1%)	14	41
42	2k	112/114 (98%)	102 (91%)	10 (9%)	0	100	100
43	1l	119/122 (98%)	112 (94%)	7 (6%)	0	100	100
43	2l	119/122 (98%)	113 (95%)	6 (5%)	0	100	100
44	1m	114/116 (98%)	104 (91%)	5 (4%)	5 (4%)	2	8
44	2m	112/116 (97%)	103 (92%)	7 (6%)	2 (2%)	6	25
45	1n	58/60 (97%)	53 (91%)	5 (9%)	0	100	100
45	2n	58/60 (97%)	52 (90%)	6 (10%)	0	100	100
46	1o	86/88 (98%)	82 (95%)	3 (4%)	1 (1%)	10	34
46	2o	86/88 (98%)	82 (95%)	3 (4%)	1 (1%)	10	34
47	1p	80/82 (98%)	67 (84%)	12 (15%)	1 (1%)	9	32
47	2p	80/82 (98%)	65 (81%)	15 (19%)	0	100	100
48	1q	97/99 (98%)	90 (93%)	7 (7%)	0	100	100
48	2q	97/99 (98%)	92 (95%)	5 (5%)	0	100	100
49	1r	66/68 (97%)	61 (92%)	4 (6%)	1 (2%)	8	28
49	2r	66/68 (97%)	62 (94%)	3 (4%)	1 (2%)	8	28
50	1s	81/83 (98%)	73 (90%)	6 (7%)	2 (2%)	4	17
50	2s	81/83 (98%)	74 (91%)	7 (9%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
51	1t	94/98 (96%)	87 (93%)	6 (6%)	1 (1%)	11	36
51	2t	96/98 (98%)	85 (88%)	8 (8%)	3 (3%)	3	14
52	1u	21/23 (91%)	19 (90%)	0	2 (10%)	0	1
52	2u	21/23 (91%)	17 (81%)	3 (14%)	1 (5%)	2	7
53	1x	95/97 (98%)	91 (96%)	4 (4%)	0	100	100
53	2x	94/97 (97%)	90 (96%)	4 (4%)	0	100	100
54	1y	8/10 (80%)	8 (100%)	0	0	100	100
54	2y	8/10 (80%)	8 (100%)	0	0	100	100
All	All	11645/11862 (98%)	10762 (92%)	770 (7%)	113 (1%)	12	39

All (113) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	1E	52	LEU
6	1G	49	ASP
6	1G	51	ARG
6	1G	78	SER
8	1I	73	GLU
14	1S	59	LYS
23	1I	3	LYS
26	14	49	PHE
26	14	60	GLN
33	1b	17	PHE
33	1b	20	GLU
33	1b	37	ASN
33	1b	124	SER
33	1b	125	PRO
34	1c	156	ARG
41	1j	79	ARG
44	1m	3	ARG
44	1m	11	ARG
44	1m	12	ASN
50	1s	12	ASP
5	2F	21	ALA
5	2F	130	ALA
6	2G	81	LYS
8	2I	105	HIS
26	24	45	GLY
26	24	65	ASP

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Mol	Chain	Res	Type
33	2b	10	LEU
33	2b	17	PHE
33	2b	125	PRO
38	2g	7	ALA
40	2i	44	VAL
40	2i	54	ASP
41	2j	32	ALA
41	2j	79	ARG
44	2m	67	GLU
5	1F	130	ALA
26	14	45	GLY
33	1b	127	ILE
33	1b	190	THR
35	1d	171	GLY
38	1g	55	GLY
41	1j	31	GLY
44	1m	67	GLU
46	1o	23	GLY
51	1t	95	ALA
6	2G	78	SER
8	2I	10	GLU
23	21	3	LYS
33	2b	16	HIS
33	2b	190	THR
34	2c	156	ARG
35	2d	171	GLY
38	2g	55	GLY
52	2u	7	ARG
6	1G	124	SER
10	1O	5	GLN
33	1b	28	PHE
49	1r	25	THR
4	2E	51	PHE
6	2G	124	SER
12	2Q	59	ARG
17	2V	79	VAL
26	24	47	GLN
33	2b	20	GLU
33	2b	228	GLY
34	2c	61	ALA
40	2i	11	LYS
46	2o	88	ARG

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Mol	Chain	Res	Type
12	1Q	59	ARG
26	14	55	ARG
33	1b	16	HIS
33	1b	22	LYS
33	1b	202	PRO
35	1d	3	ARG
52	1u	7	ARG
10	2O	5	GLN
26	24	49	PHE
35	2d	108	LEU
38	2g	6	ARG
44	2m	5	ALA
8	1I	85	GLU
8	1I	105	HIS
33	1b	83	MET
40	1i	33	PHE
40	1i	107	ARG
42	1k	117	ASN
50	1s	13	ASP
8	2I	85	GLU
14	2S	89	ARG
26	24	48	ARG
33	2b	8	LYS
41	2j	77	PRO
49	2r	36	ASN
51	2t	100	ILE
51	2t	102	GLY
36	1e	147	ASP
40	1i	44	VAL
44	1m	21	TYR
47	1p	69	THR
52	1u	3	LYS
11	2P	29	LYS
34	2c	129	ALA
40	2i	33	PHE
51	2t	10	LEU
17	1V	79	VAL
41	1j	77	PRO
33	2b	127	ILE
35	2d	136	PRO
34	1c	108	ASN
33	2b	202	PRO

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Mol	Chain	Res	Type
36	2e	96	PRO
35	1d	5	ILE
35	1d	136	PRO

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	
3	1D	214/217 (99%)	187 (87%)	27 (13%)	4	14
3	2D	215/217 (99%)	193 (90%)	22 (10%)	7	23
4	1E	164/165 (99%)	145 (88%)	19 (12%)	5	18
4	2E	164/165 (99%)	143 (87%)	21 (13%)	4	14
5	1F	160/161 (99%)	132 (82%)	28 (18%)	2	6
5	2F	158/161 (98%)	139 (88%)	19 (12%)	5	16
6	1G	144/155 (93%)	128 (89%)	16 (11%)	6	20
6	2G	142/155 (92%)	131 (92%)	11 (8%)	12	35
7	1H	144/145 (99%)	128 (89%)	16 (11%)	6	20
7	2H	143/145 (99%)	119 (83%)	24 (17%)	2	7
8	1I	111/123 (90%)	94 (85%)	17 (15%)	3	9
8	2I	108/123 (88%)	91 (84%)	17 (16%)	2	9
9	1N	119/119 (100%)	104 (87%)	15 (13%)	4	14
9	2N	118/119 (99%)	103 (87%)	15 (13%)	4	14
10	1O	100/100 (100%)	87 (87%)	13 (13%)	4	13
10	2O	100/100 (100%)	91 (91%)	9 (9%)	9	28
11	1P	115/116 (99%)	103 (90%)	12 (10%)	7	23
11	2P	115/116 (99%)	105 (91%)	10 (9%)	9	30
12	1Q	111/111 (100%)	100 (90%)	11 (10%)	7	24
12	2Q	111/111 (100%)	97 (87%)	14 (13%)	4	14
13	1R	101/101 (100%)	85 (84%)	16 (16%)	2	8

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
13	2R	101/101 (100%)	85 (84%)	16 (16%)	2	8
14	1S	87/87 (100%)	77 (88%)	10 (12%)	5	18
14	2S	85/87 (98%)	75 (88%)	10 (12%)	5	17
15	1T	115/115 (100%)	107 (93%)	8 (7%)	14	40
15	2T	113/115 (98%)	105 (93%)	8 (7%)	13	40
16	1U	93/93 (100%)	81 (87%)	12 (13%)	4	13
16	2U	93/93 (100%)	85 (91%)	8 (9%)	10	30
17	1V	81/82 (99%)	68 (84%)	13 (16%)	2	8
17	2V	80/82 (98%)	68 (85%)	12 (15%)	3	10
18	1W	89/91 (98%)	80 (90%)	9 (10%)	7	24
18	2W	88/91 (97%)	80 (91%)	8 (9%)	9	28
19	1X	77/77 (100%)	70 (91%)	7 (9%)	9	28
19	2X	77/77 (100%)	75 (97%)	2 (3%)	40	73
20	1Y	86/88 (98%)	75 (87%)	11 (13%)	4	14
20	2Y	86/88 (98%)	74 (86%)	12 (14%)	3	11
21	1Z	169/176 (96%)	143 (85%)	26 (15%)	2	9
21	2Z	165/176 (94%)	143 (87%)	22 (13%)	4	12
22	10	61/62 (98%)	54 (88%)	7 (12%)	5	18
22	20	61/62 (98%)	57 (93%)	4 (7%)	15	43
23	11	79/82 (96%)	71 (90%)	8 (10%)	7	24
23	21	81/82 (99%)	72 (89%)	9 (11%)	6	20
24	12	65/66 (98%)	61 (94%)	4 (6%)	16	46
24	22	66/66 (100%)	60 (91%)	6 (9%)	9	28
25	13	51/51 (100%)	46 (90%)	5 (10%)	7	25
25	23	50/51 (98%)	45 (90%)	5 (10%)	7	24
26	14	58/62 (94%)	48 (83%)	10 (17%)	2	7
26	24	54/62 (87%)	46 (85%)	8 (15%)	3	10
27	15	51/51 (100%)	45 (88%)	6 (12%)	5	17
27	25	50/51 (98%)	46 (92%)	4 (8%)	11	34
28	16	51/51 (100%)	45 (88%)	6 (12%)	5	17
28	26	50/51 (98%)	46 (92%)	4 (8%)	11	34

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
29	17	41/41 (100%)	37 (90%)	4 (10%)	7	25
29	27	41/41 (100%)	38 (93%)	3 (7%)	13	38
30	18	54/54 (100%)	50 (93%)	4 (7%)	13	38
30	28	54/54 (100%)	48 (89%)	6 (11%)	6	20
31	19	34/34 (100%)	32 (94%)	2 (6%)	18	48
31	29	34/34 (100%)	32 (94%)	2 (6%)	18	48
33	1b	191/199 (96%)	163 (85%)	28 (15%)	3	10
33	2b	187/199 (94%)	155 (83%)	32 (17%)	2	7
34	1c	144/160 (90%)	134 (93%)	10 (7%)	14	41
34	2c	140/160 (88%)	122 (87%)	18 (13%)	4	13
35	1d	171/180 (95%)	149 (87%)	22 (13%)	4	13
35	2d	172/180 (96%)	155 (90%)	17 (10%)	7	24
36	1e	114/114 (100%)	100 (88%)	14 (12%)	4	15
36	2e	114/114 (100%)	100 (88%)	14 (12%)	4	15
37	1f	85/90 (94%)	78 (92%)	7 (8%)	10	32
37	2f	85/90 (94%)	80 (94%)	5 (6%)	18	48
38	1g	120/126 (95%)	110 (92%)	10 (8%)	10	32
38	2g	119/126 (94%)	109 (92%)	10 (8%)	10	31
39	1h	116/118 (98%)	103 (89%)	13 (11%)	6	19
39	2h	114/118 (97%)	103 (90%)	11 (10%)	8	26
40	1i	91/98 (93%)	80 (88%)	11 (12%)	5	16
40	2i	88/98 (90%)	79 (90%)	9 (10%)	7	23
41	1j	68/87 (78%)	63 (93%)	5 (7%)	13	38
41	2j	68/87 (78%)	62 (91%)	6 (9%)	9	29
42	1k	83/86 (96%)	78 (94%)	5 (6%)	17	47
42	2k	83/86 (96%)	73 (88%)	10 (12%)	5	16
43	1l	96/102 (94%)	88 (92%)	8 (8%)	10	32
43	2l	96/102 (94%)	88 (92%)	8 (8%)	10	32
44	1m	90/94 (96%)	79 (88%)	11 (12%)	5	16
44	2m	87/94 (93%)	74 (85%)	13 (15%)	3	10
45	1n	49/49 (100%)	41 (84%)	8 (16%)	2	8

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
45	2n	49/49 (100%)	44 (90%)	5 (10%)	7	23
46	1o	78/79 (99%)	73 (94%)	5 (6%)	16	44
46	2o	78/79 (99%)	71 (91%)	7 (9%)	9	28
47	1p	69/71 (97%)	56 (81%)	13 (19%)	1	5
47	2p	68/71 (96%)	61 (90%)	7 (10%)	7	23
48	1q	94/94 (100%)	85 (90%)	9 (10%)	8	26
48	2q	94/94 (100%)	86 (92%)	8 (8%)	10	31
49	1r	59/59 (100%)	53 (90%)	6 (10%)	7	23
49	2r	59/59 (100%)	51 (86%)	8 (14%)	3	12
50	1s	68/72 (94%)	62 (91%)	6 (9%)	9	29
50	2s	67/72 (93%)	58 (87%)	9 (13%)	4	12
51	1t	71/76 (93%)	65 (92%)	6 (8%)	10	31
51	2t	70/76 (92%)	63 (90%)	7 (10%)	7	24
52	1u	18/18 (100%)	17 (94%)	1 (6%)	19	50
52	2u	18/18 (100%)	16 (89%)	2 (11%)	6	20
53	1x	82/83 (99%)	77 (94%)	5 (6%)	17	46
53	2x	79/83 (95%)	67 (85%)	12 (15%)	3	9
54	1y	10/10 (100%)	10 (100%)	0	100	100
54	2y	10/10 (100%)	10 (100%)	0	100	100
All	All	9540/9882 (96%)	8466 (89%)	1074 (11%)	5	19

All (1074) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	3	VAL
3	1D	13	ARG
3	1D	37	LEU
3	1D	38	LYS
3	1D	61	LEU
3	1D	69	ARG
3	1D	88	ARG
3	1D	89	SER
3	1D	94	LEU
3	1D	99	ASP
3	1D	103	ARG

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Mol	Chain	Res	Type
3	1D	106	ILE
3	1D	111	LEU
3	1D	113	VAL
3	1D	126	GLN
3	1D	138	VAL
3	1D	141	VAL
3	1D	155	LEU
3	1D	173	VAL
3	1D	193	VAL
3	1D	211	ARG
3	1D	217	ARG
3	1D	221	VAL
3	1D	229	VAL
3	1D	242	ARG
3	1D	259	THR
3	1D	265	PRO
4	1E	1	MET
4	1E	7	VAL
4	1E	9	VAL
4	1E	21	VAL
4	1E	33	VAL
4	1E	34	VAL
4	1E	49	LEU
4	1E	73	GLU
4	1E	75	VAL
4	1E	78	LEU
4	1E	116	VAL
4	1E	119	ARG
4	1E	144	ARG
4	1E	154	LYS
4	1E	163	GLU
4	1E	170	LEU
4	1E	175	VAL
4	1E	178	GLU
4	1E	181	LEU
5	1F	12	LEU
5	1F	14	PRO
5	1F	18	ARG
5	1F	24	LEU
5	1F	28	ILE
5	1F	33	LEU
5	1F	53	THR

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Mol	Chain	Res	Type
5	1F	57	VAL
5	1F	60	SER
5	1F	62	ARG
5	1F	74	ARG
5	1F	88	VAL
5	1F	94	PRO
5	1F	110	LEU
5	1F	125	LEU
5	1F	132	VAL
5	1F	140	LEU
5	1F	157	VAL
5	1F	158	THR
5	1F	162	LEU
5	1F	168	ARG
5	1F	170	LEU
5	1F	183	VAL
5	1F	191	ARG
5	1F	192	LEU
5	1F	197	ASP
5	1F	200	GLU
5	1F	201	VAL
6	1G	5	VAL
6	1G	7	LEU
6	1G	28	VAL
6	1G	31	VAL
6	1G	35	GLU
6	1G	43	LEU
6	1G	45	GLU
6	1G	52	ILE
6	1G	53	LEU
6	1G	78	SER
6	1G	82	LEU
6	1G	133	LEU
6	1G	140	ILE
6	1G	145	THR
6	1G	159	VAL
6	1G	165	THR
7	1H	6	ARG
7	1H	13	LYS
7	1H	15	VAL
7	1H	24	VAL
7	1H	44	VAL

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Mol	Chain	Res	Type
7	1H	45	VAL
7	1H	49	VAL
7	1H	71	LEU
7	1H	105	LEU
7	1H	106	THR
7	1H	107	VAL
7	1H	119	GLU
7	1H	122	THR
7	1H	134	SER
7	1H	139	GLN
7	1H	153	LYS
8	1I	3	VAL
8	1I	5	LEU
8	1I	9	LEU
8	1I	10	GLU
8	1I	12	LEU
8	1I	15	VAL
8	1I	38	LEU
8	1I	47	LEU
8	1I	52	ARG
8	1I	64	GLU
8	1I	85	GLU
8	1I	87	LYS
8	1I	92	VAL
8	1I	101	LEU
8	1I	105	HIS
8	1I	109	ILE
8	1I	140	LEU
9	1N	1	MET
9	1N	28	THR
9	1N	33	LEU
9	1N	34	LEU
9	1N	46	VAL
9	1N	48	MET
9	1N	62	VAL
9	1N	67	LEU
9	1N	73	THR
9	1N	87	LEU
9	1N	97	ARG
9	1N	99	LEU
9	1N	121	LYS
9	1N	138	LEU

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Mol	Chain	Res	Type
9	1N	140	VAL
10	1O	8	LEU
10	1O	10	VAL
10	1O	20	MET
10	1O	24	VAL
10	1O	28	SER
10	1O	52	VAL
10	1O	58	VAL
10	1O	66	LYS
10	1O	69	ILE
10	1O	97	ARG
10	1O	98	VAL
10	1O	108	GLU
10	1O	113	LYS
11	1P	1	MET
11	1P	3	LEU
11	1P	59	LEU
11	1P	74	GLU
11	1P	75	ILE
11	1P	83	VAL
11	1P	92	GLU
11	1P	95	VAL
11	1P	112	LEU
11	1P	125	VAL
11	1P	147	LEU
11	1P	149	GLU
12	1Q	2	LEU
12	1Q	6	ARG
12	1Q	7	MET
12	1Q	21	THR
12	1Q	35	VAL
12	1Q	55	VAL
12	1Q	59	ARG
12	1Q	75	THR
12	1Q	81	VAL
12	1Q	112	GLU
12	1Q	133	ARG
13	1R	6	SER
13	1R	29	LEU
13	1R	30	THR
13	1R	33	ARG
13	1R	36	THR

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Mol	Chain	Res	Type
13	1R	44	LEU
13	1R	54	LEU
13	1R	59	ASP
13	1R	65	LEU
13	1R	67	LEU
13	1R	71	GLN
13	1R	73	VAL
13	1R	75	LEU
13	1R	111	LEU
13	1R	114	VAL
13	1R	117	VAL
14	1S	14	VAL
14	1S	17	ARG
14	1S	25	ARG
14	1S	36	TYR
14	1S	46	VAL
14	1S	52	SER
14	1S	59	LYS
14	1S	69	VAL
14	1S	85	VAL
14	1S	110	LEU
15	1T	6	LEU
15	1T	13	ARG
15	1T	28	VAL
15	1T	34	VAL
15	1T	49	VAL
15	1T	59	THR
15	1T	89	VAL
15	1T	108	ARG
16	1U	8	VAL
16	1U	27	LEU
16	1U	31	SER
16	1U	34	LYS
16	1U	59	ARG
16	1U	74	LEU
16	1U	83	LEU
16	1U	85	LYS
16	1U	95	LEU
16	1U	104	GLN
16	1U	112	ARG
16	1U	117	GLN
17	1V	28	GLU

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Mol	Chain	Res	Type
17	1V	35	LEU
17	1V	46	VAL
17	1V	51	VAL
17	1V	52	VAL
17	1V	61	VAL
17	1V	62	LEU
17	1V	72	VAL
17	1V	73	SER
17	1V	79	VAL
17	1V	82	ARG
17	1V	95	LEU
17	1V	100	ARG
18	1W	11	ARG
18	1W	15	ARG
18	1W	17	VAL
18	1W	19	LEU
18	1W	23	LEU
18	1W	67	ASP
18	1W	96	ILE
18	1W	100	THR
18	1W	107	LEU
19	1X	15	GLU
19	1X	40	LYS
19	1X	45	THR
19	1X	52	VAL
19	1X	57	LEU
19	1X	66	LEU
19	1X	76	ARG
20	1Y	7	VAL
20	1Y	43	ASN
20	1Y	47	LYS
20	1Y	51	VAL
20	1Y	64	GLU
20	1Y	72	VAL
20	1Y	85	VAL
20	1Y	90	LEU
20	1Y	92	ASN
20	1Y	94	LYS
20	1Y	99	CYS
21	1Z	2	GLU
21	1Z	11	GLU
21	1Z	14	LYS

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Mol	Chain	Res	Type
21	1Z	16	SER
21	1Z	18	LEU
21	1Z	31	ARG
21	1Z	37	VAL
21	1Z	42	VAL
21	1Z	46	LYS
21	1Z	58	VAL
21	1Z	61	LEU
21	1Z	76	LEU
21	1Z	86	VAL
21	1Z	91	LEU
21	1Z	94	GLU
21	1Z	102	LEU
21	1Z	126	VAL
21	1Z	150	LEU
21	1Z	161	VAL
21	1Z	165	VAL
21	1Z	170	THR
21	1Z	171	ILE
21	1Z	191	VAL
21	1Z	201	LYS
21	1Z	202	GLU
21	1Z	203	GLU
22	10	10	THR
22	10	11	ARG
22	10	14	ARG
22	10	39	ARG
22	10	55	ARG
22	10	59	LEU
22	10	63	VAL
23	11	11	ARG
23	11	30	VAL
23	11	33	LYS
23	11	35	THR
23	11	59	THR
23	11	62	VAL
23	11	83	GLU
23	11	95	LEU
24	12	3	LEU
24	12	53	LEU
24	12	68	ARG
24	12	70	GLN

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Mol	Chain	Res	Type
25	13	6	VAL
25	13	8	LEU
25	13	23	LEU
25	13	54	VAL
25	13	56	VAL
26	14	15	ILE
26	14	23	GLU
26	14	30	GLU
26	14	49	PHE
26	14	52	THR
26	14	53	GLU
26	14	56	VAL
26	14	57	GLU
26	14	59	PHE
26	14	65	ASP
27	15	6	VAL
27	15	16	ARG
27	15	29	THR
27	15	57	VAL
27	15	58	LEU
27	15	60	VAL
28	16	14	THR
28	16	19	ARG
28	16	28	ARG
28	16	47	THR
28	16	48	VAL
28	16	52	VAL
29	17	1	MET
29	17	10	ARG
29	17	24	THR
29	17	43	THR
30	18	14	VAL
30	18	23	VAL
30	18	32	LEU
30	18	37	SER
31	19	4	ARG
31	19	17	ILE
33	1b	9	GLU
33	1b	10	LEU
33	1b	15	VAL
33	1b	44	LEU
33	1b	51	LEU

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Mol	Chain	Res	Type
33	1b	58	ILE
33	1b	67	THR
33	1b	68	ILE
33	1b	71	VAL
33	1b	73	THR
33	1b	80	ILE
33	1b	82	ARG
33	1b	106	LYS
33	1b	111	ARG
33	1b	112	VAL
33	1b	122	PHE
33	1b	143	GLU
33	1b	157	ARG
33	1b	158	LEU
33	1b	164	VAL
33	1b	178	ARG
33	1b	185	ILE
33	1b	187	LEU
33	1b	200	ILE
33	1b	208	ILE
33	1b	221	LEU
33	1b	226	ARG
33	1b	230	VAL
34	1c	21	ARG
34	1c	32	LEU
34	1c	52	LEU
34	1c	64	VAL
34	1c	67	THR
34	1c	85	ARG
34	1c	104	GLN
34	1c	115	LEU
34	1c	196	LEU
34	1c	202	ILE
35	1d	25	ARG
35	1d	28	SER
35	1d	34	GLU
35	1d	47	ARG
35	1d	49	ARG
35	1d	80	GLU
35	1d	85	LYS
35	1d	104	VAL
35	1d	107	ARG

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Mol	Chain	Res	Type
35	1d	110	PHE
35	1d	127	THR
35	1d	135	LEU
35	1d	150	GLU
35	1d	158	ILE
35	1d	160	GLN
35	1d	168	ARG
35	1d	178	VAL
35	1d	182	LYS
35	1d	184	LYS
35	1d	194	LEU
35	1d	196	LEU
35	1d	203	VAL
36	1e	16	THR
36	1e	20	GLN
36	1e	31	LEU
36	1e	41	VAL
36	1e	67	VAL
36	1e	69	VAL
36	1e	75	THR
36	1e	78	HIS
36	1e	90	VAL
36	1e	91	LEU
36	1e	120	THR
36	1e	135	THR
36	1e	143	ARG
36	1e	148	VAL
37	1f	17	SER
37	1f	25	ILE
37	1f	37	VAL
37	1f	40	VAL
37	1f	57	GLN
37	1f	63	TYR
37	1f	70	ASP
38	1g	9	VAL
38	1g	13	GLN
38	1g	15	ASP
38	1g	58	PRO
38	1g	76	ARG
38	1g	104	LEU
38	1g	110	GLN
38	1g	113	GLU

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Mol	Chain	Res	Type
38	1g	138	LYS
38	1g	155	ARG
39	1h	19	VAL
39	1h	25	ASP
39	1h	26	VAL
39	1h	51	VAL
39	1h	63	LEU
39	1h	99	GLU
39	1h	102	ARG
39	1h	104	ARG
39	1h	107	LEU
39	1h	112	LEU
39	1h	120	THR
39	1h	121	ASP
39	1h	137	VAL
40	1i	25	LYS
40	1i	27	THR
40	1i	41	VAL
40	1i	42	ARG
40	1i	50	LEU
40	1i	56	LEU
40	1i	58	HIS
40	1i	60	ASP
40	1i	66	ARG
40	1i	81	ILE
40	1i	92	TYR
41	1j	34	VAL
41	1j	84	GLN
41	1j	94	VAL
41	1j	95	GLU
41	1j	100	THR
42	1k	14	VAL
42	1k	18	ARG
42	1k	31	THR
42	1k	109	VAL
42	1k	112	THR
43	1l	18	VAL
43	1l	27	LEU
43	1l	33	ARG
43	1l	42	THR
43	1l	47	LYS
43	1l	55	VAL

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Mol	Chain	Res	Type
43	1l	60	LEU
43	1l	83	VAL
44	1m	4	ILE
44	1m	17	VAL
44	1m	19	LEU
44	1m	20	THR
44	1m	50	GLU
44	1m	55	ARG
44	1m	56	LEU
44	1m	70	LEU
44	1m	102	ARG
44	1m	111	LYS
44	1m	115	LYS
45	1n	3	ARG
45	1n	12	ARG
45	1n	13	THR
45	1n	15	LYS
45	1n	18	VAL
45	1n	32	SER
45	1n	33	VAL
45	1n	44	LEU
46	1o	5	LYS
46	1o	28	GLN
46	1o	39	LEU
46	1o	66	LEU
46	1o	88	ARG
47	1p	1	MET
47	1p	2	VAL
47	1p	8	ARG
47	1p	11	SER
47	1p	25	ARG
47	1p	45	THR
47	1p	58	TYR
47	1p	60	LEU
47	1p	62	VAL
47	1p	67	THR
47	1p	69	THR
47	1p	76	GLN
47	1p	79	VAL
48	1q	9	VAL
48	1q	18	THR
48	1q	52	LYS

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Mol	Chain	Res	Type
48	1q	60	ILE
48	1q	63	ARG
48	1q	70	ARG
48	1q	77	VAL
48	1q	87	LYS
48	1q	98	LEU
49	1r	21	LYS
49	1r	37	VAL
49	1r	42	ARG
49	1r	54	ARG
49	1r	65	ILE
49	1r	76	LEU
50	1s	4	SER
50	1s	16	LEU
50	1s	37	ARG
50	1s	41	VAL
50	1s	77	THR
50	1s	79	THR
51	1t	10	LEU
51	1t	15	ARG
51	1t	58	LYS
51	1t	62	LEU
51	1t	80	ARG
51	1t	84	LEU
52	1u	24	ARG
53	1x	23	ARG
53	1x	24	LEU
53	1x	41	LEU
53	1x	46	GLN
53	1x	66	LYS
3	2D	3	VAL
3	2D	61	LEU
3	2D	88	ARG
3	2D	94	LEU
3	2D	103	ARG
3	2D	106	ILE
3	2D	111	LEU
3	2D	113	VAL
3	2D	116	GLN
3	2D	138	VAL
3	2D	141	VAL
3	2D	155	LEU

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Mol	Chain	Res	Type
3	2D	193	VAL
3	2D	211	ARG
3	2D	217	ARG
3	2D	221	VAL
3	2D	229	VAL
3	2D	242	ARG
3	2D	259	THR
3	2D	274	ARG
3	2D	275	LYS
3	2D	276	LYS
4	2E	1	MET
4	2E	9	VAL
4	2E	21	VAL
4	2E	24	THR
4	2E	33	VAL
4	2E	34	VAL
4	2E	47	VAL
4	2E	49	LEU
4	2E	73	GLU
4	2E	75	VAL
4	2E	78	LEU
4	2E	87	GLU
4	2E	89	ASP
4	2E	116	VAL
4	2E	144	ARG
4	2E	154	LYS
4	2E	167	VAL
4	2E	170	LEU
4	2E	175	VAL
4	2E	181	LEU
4	2E	184	VAL
5	2F	18	ARG
5	2F	24	LEU
5	2F	28	ILE
5	2F	33	LEU
5	2F	38	ARG
5	2F	53	THR
5	2F	57	VAL
5	2F	74	ARG
5	2F	88	VAL
5	2F	108	LYS
5	2F	132	VAL

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Mol	Chain	Res	Type
5	2F	140	LEU
5	2F	157	VAL
5	2F	158	THR
5	2F	162	LEU
5	2F	183	VAL
5	2F	192	LEU
5	2F	197	ASP
5	2F	201	VAL
6	2G	3	LEU
6	2G	5	VAL
6	2G	28	VAL
6	2G	31	VAL
6	2G	49	ASP
6	2G	51	ARG
6	2G	113	ARG
6	2G	124	SER
6	2G	145	THR
6	2G	159	VAL
6	2G	165	THR
7	2H	6	ARG
7	2H	13	LYS
7	2H	15	VAL
7	2H	23	ARG
7	2H	24	VAL
7	2H	25	LYS
7	2H	33	LEU
7	2H	44	VAL
7	2H	47	GLU
7	2H	49	VAL
7	2H	63	SER
7	2H	71	LEU
7	2H	81	GLU
7	2H	88	LEU
7	2H	95	ARG
7	2H	105	LEU
7	2H	107	VAL
7	2H	122	THR
7	2H	136	ILE
7	2H	139	GLN
7	2H	148	ILE
7	2H	153	LYS
7	2H	172	LYS

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Mol	Chain	Res	Type
7	2H	175	LYS
8	2I	5	LEU
8	2I	9	LEU
8	2I	15	VAL
8	2I	38	LEU
8	2I	44	LEU
8	2I	52	ARG
8	2I	54	GLN
8	2I	58	LEU
8	2I	66	GLU
8	2I	75	LEU
8	2I	92	VAL
8	2I	99	GLU
8	2I	101	LEU
8	2I	116	LEU
8	2I	123	LEU
8	2I	140	LEU
8	2I	144	VAL
9	2N	5	VAL
9	2N	10	GLU
9	2N	28	THR
9	2N	33	LEU
9	2N	34	LEU
9	2N	46	VAL
9	2N	48	MET
9	2N	59	LYS
9	2N	62	VAL
9	2N	67	LEU
9	2N	71	ILE
9	2N	73	THR
9	2N	87	LEU
9	2N	99	LEU
9	2N	138	LEU
10	2O	10	VAL
10	2O	24	VAL
10	2O	28	SER
10	2O	58	VAL
10	2O	63	VAL
10	2O	69	ILE
10	2O	90	GLN
10	2O	98	VAL
10	2O	108	GLU

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Mol	Chain	Res	Type
11	2P	3	LEU
11	2P	32	THR
11	2P	59	LEU
11	2P	74	GLU
11	2P	75	ILE
11	2P	83	VAL
11	2P	95	VAL
11	2P	99	LEU
11	2P	112	LEU
11	2P	125	VAL
12	2Q	2	LEU
12	2Q	16	ARG
12	2Q	21	THR
12	2Q	22	LYS
12	2Q	35	VAL
12	2Q	55	VAL
12	2Q	59	ARG
12	2Q	63	LYS
12	2Q	75	THR
12	2Q	81	VAL
12	2Q	85	LYS
12	2Q	110	THR
12	2Q	112	GLU
12	2Q	130	LYS
13	2R	6	SER
13	2R	18	LEU
13	2R	24	GLN
13	2R	29	LEU
13	2R	36	THR
13	2R	44	LEU
13	2R	54	LEU
13	2R	65	LEU
13	2R	67	LEU
13	2R	75	LEU
13	2R	79	LEU
13	2R	96	ARG
13	2R	100	LEU
13	2R	111	LEU
13	2R	114	VAL
13	2R	117	VAL
14	2S	14	VAL
14	2S	25	ARG

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Mol	Chain	Res	Type
14	2S	36	TYR
14	2S	38	GLN
14	2S	46	VAL
14	2S	52	SER
14	2S	68	GLN
14	2S	75	GLU
14	2S	85	VAL
14	2S	110	LEU
15	2T	13	ARG
15	2T	23	ARG
15	2T	28	VAL
15	2T	34	VAL
15	2T	49	VAL
15	2T	89	VAL
15	2T	95	ARG
15	2T	115	ARG
16	2U	5	LYS
16	2U	13	LYS
16	2U	31	SER
16	2U	34	LYS
16	2U	74	LEU
16	2U	83	LEU
16	2U	85	LYS
16	2U	117	GLN
17	2V	35	LEU
17	2V	46	VAL
17	2V	51	VAL
17	2V	52	VAL
17	2V	53	GLU
17	2V	57	VAL
17	2V	61	VAL
17	2V	72	VAL
17	2V	73	SER
17	2V	79	VAL
17	2V	82	ARG
17	2V	95	LEU
18	2W	11	ARG
18	2W	17	VAL
18	2W	23	LEU
18	2W	27	LYS
18	2W	59	VAL
18	2W	60	ASN

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Mol	Chain	Res	Type
18	2W	100	THR
18	2W	107	LEU
19	2X	57	LEU
19	2X	68	ARG
20	2Y	7	VAL
20	2Y	47	LYS
20	2Y	64	GLU
20	2Y	70	SER
20	2Y	72	VAL
20	2Y	73	ARG
20	2Y	81	LYS
20	2Y	85	VAL
20	2Y	88	LYS
20	2Y	90	LEU
20	2Y	92	ASN
20	2Y	99	CYS
21	2Z	14	LYS
21	2Z	16	SER
21	2Z	18	LEU
21	2Z	28	MET
21	2Z	31	ARG
21	2Z	33	LEU
21	2Z	42	VAL
21	2Z	46	LYS
21	2Z	61	LEU
21	2Z	86	VAL
21	2Z	91	LEU
21	2Z	94	GLU
21	2Z	97	GLU
21	2Z	107	THR
21	2Z	126	VAL
21	2Z	150	LEU
21	2Z	155	LEU
21	2Z	161	VAL
21	2Z	165	VAL
21	2Z	171	ILE
21	2Z	182	LYS
21	2Z	191	VAL
22	20	10	THR
22	20	14	ARG
22	20	39	ARG
22	20	63	VAL

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Mol	Chain	Res	Type
23	21	4	VAL
23	21	21	ARG
23	21	30	VAL
23	21	35	THR
23	21	59	THR
23	21	62	VAL
23	21	75	GLU
23	21	85	LEU
23	21	95	LEU
24	22	3	LEU
24	22	8	LYS
24	22	15	LYS
24	22	32	LEU
24	22	45	SER
24	22	53	LEU
25	23	6	VAL
25	23	23	LEU
25	23	31	LEU
25	23	54	VAL
25	23	56	VAL
26	24	13	ARG
26	24	52	THR
26	24	53	GLU
26	24	56	VAL
26	24	60	GLN
26	24	62	ARG
26	24	63	TYR
26	24	69	LYS
27	25	6	VAL
27	25	16	ARG
27	25	29	THR
27	25	57	VAL
28	26	14	THR
28	26	19	ARG
28	26	48	VAL
28	26	52	VAL
29	27	1	MET
29	27	43	THR
29	27	46	VAL
30	28	6	THR
30	28	14	VAL
30	28	23	VAL

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Mol	Chain	Res	Type
30	28	34	TRP
30	28	37	SER
30	28	46	ARG
31	29	4	ARG
31	29	17	ILE
33	2b	10	LEU
33	2b	11	LEU
33	2b	15	VAL
33	2b	16	HIS
33	2b	19	HIS
33	2b	37	ASN
33	2b	39	ILE
33	2b	44	LEU
33	2b	45	GLN
33	2b	58	ILE
33	2b	67	THR
33	2b	68	ILE
33	2b	80	ILE
33	2b	81	VAL
33	2b	83	MET
33	2b	93	VAL
33	2b	94	ASN
33	2b	111	ARG
33	2b	126	GLU
33	2b	128	GLU
33	2b	145	LEU
33	2b	154	LEU
33	2b	157	ARG
33	2b	158	LEU
33	2b	164	VAL
33	2b	185	ILE
33	2b	200	ILE
33	2b	209	ARG
33	2b	222	ILE
33	2b	224	GLN
33	2b	226	ARG
33	2b	230	VAL
34	2c	15	THR
34	2c	32	LEU
34	2c	52	LEU
34	2c	58	GLU
34	2c	70	VAL

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Mol	Chain	Res	Type
34	2c	82	GLU
34	2c	89	GLU
34	2c	105	GLU
34	2c	115	LEU
34	2c	128	PHE
34	2c	131	ARG
34	2c	132	ARG
34	2c	136	GLN
34	2c	152	ILE
34	2c	162	GLN
34	2c	192	THR
34	2c	196	LEU
34	2c	202	ILE
35	2d	25	ARG
35	2d	28	SER
35	2d	49	ARG
35	2d	76	ARG
35	2d	83	SER
35	2d	85	LYS
35	2d	96	LEU
35	2d	105	VAL
35	2d	107	ARG
35	2d	127	THR
35	2d	135	LEU
35	2d	140	VAL
35	2d	150	GLU
35	2d	169	LYS
35	2d	170	VAL
35	2d	178	VAL
35	2d	203	VAL
36	2e	9	LYS
36	2e	20	GLN
36	2e	31	LEU
36	2e	41	VAL
36	2e	67	VAL
36	2e	69	VAL
36	2e	72	GLN
36	2e	75	THR
36	2e	82	VAL
36	2e	90	VAL
36	2e	91	LEU
36	2e	135	THR

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Mol	Chain	Res	Type
36	2e	148	VAL
36	2e	150	ARG
37	2f	22	GLU
37	2f	37	VAL
37	2f	40	VAL
37	2f	63	TYR
37	2f	94	GLN
38	2g	8	GLU
38	2g	9	VAL
38	2g	13	GLN
38	2g	15	ASP
38	2g	16	LEU
38	2g	50	ILE
38	2g	58	PRO
38	2g	87	VAL
38	2g	104	LEU
38	2g	113	GLU
39	2h	2	LEU
39	2h	26	VAL
39	2h	39	LEU
39	2h	63	LEU
39	2h	91	ARG
39	2h	97	VAL
39	2h	99	GLU
39	2h	104	ARG
39	2h	112	LEU
39	2h	118	VAL
39	2h	137	VAL
40	2i	14	VAL
40	2i	27	THR
40	2i	35	GLU
40	2i	50	LEU
40	2i	53	VAL
40	2i	54	ASP
40	2i	58	HIS
40	2i	64	THR
40	2i	87	GLN
41	2j	19	SER
41	2j	74	ILE
41	2j	84	GLN
41	2j	92	THR
41	2j	95	GLU

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Mol	Chain	Res	Type
41	2j	100	THR
42	2k	14	VAL
42	2k	28	THR
42	2k	33	THR
42	2k	48	ILE
42	2k	84	VAL
42	2k	103	LEU
42	2k	109	VAL
42	2k	112	THR
42	2k	114	VAL
42	2k	117	ASN
43	2l	5	PRO
43	2l	18	VAL
43	2l	33	ARG
43	2l	47	LYS
43	2l	52	LEU
43	2l	55	VAL
43	2l	113	ARG
43	2l	116	SER
44	2m	8	GLU
44	2m	12	ASN
44	2m	14	ARG
44	2m	17	VAL
44	2m	19	LEU
44	2m	22	ILE
44	2m	35	GLU
44	2m	56	LEU
44	2m	67	GLU
44	2m	70	LEU
44	2m	88	ARG
44	2m	115	LYS
44	2m	116	THR
45	2n	3	ARG
45	2n	12	ARG
45	2n	13	THR
45	2n	18	VAL
45	2n	44	LEU
46	2o	3	ILE
46	2o	10	LYS
46	2o	28	GLN
46	2o	38	ARG
46	2o	39	LEU

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Mol	Chain	Res	Type
46	2o	64	ARG
46	2o	66	LEU
47	2p	1	MET
47	2p	2	VAL
47	2p	54	GLU
47	2p	60	LEU
47	2p	62	VAL
47	2p	67	THR
47	2p	69	THR
48	2q	6	LEU
48	2q	9	VAL
48	2q	14	LYS
48	2q	60	ILE
48	2q	63	ARG
48	2q	70	ARG
48	2q	74	LEU
48	2q	87	LYS
49	2r	25	THR
49	2r	28	GLU
49	2r	37	VAL
49	2r	54	ARG
49	2r	65	ILE
49	2r	76	LEU
49	2r	85	LEU
49	2r	86	VAL
50	2s	5	LEU
50	2s	27	GLU
50	2s	33	THR
50	2s	41	VAL
50	2s	51	VAL
50	2s	64	GLU
50	2s	71	LEU
50	2s	77	THR
50	2s	79	THR
51	2t	10	LEU
51	2t	38	LYS
51	2t	58	LYS
51	2t	62	LEU
51	2t	80	ARG
51	2t	84	LEU
51	2t	100	ILE
52	2u	15	ARG

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Mol	Chain	Res	Type
52	2u	24	ARG
53	2x	3	MET
53	2x	5	ILE
53	2x	13	THR
53	2x	16	ILE
53	2x	23	ARG
53	2x	24	LEU
53	2x	29	LYS
53	2x	40	ILE
53	2x	41	LEU
53	2x	42	SER
53	2x	60	VAL
53	2x	62	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (146) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	87	ASN
3	1D	143	HIS
3	1D	253	GLN
4	1E	48	GLN
4	1E	121	ASN
5	1F	8	GLN
5	1F	75	HIS
6	1G	41	GLN
7	1H	139	GLN
8	1I	74	ASN
8	1I	104	GLN
8	1I	105	HIS
9	1N	133	GLN
10	1O	3	GLN
10	1O	5	GLN
13	1R	13	HIS
13	1R	71	GLN
14	1S	95	HIS
15	1T	58	ASN
16	1U	94	ASN
16	1U	104	GLN
17	1V	80	GLN
19	1X	31	HIS
19	1X	82	GLN
20	1Y	43	ASN

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Mol	Chain	Res	Type
20	1Y	92	ASN
21	1Z	55	HIS
21	1Z	73	GLN
21	1Z	151	HIS
22	10	35	ASN
22	10	50	ASN
24	12	9	GLN
24	12	46	GLN
24	12	70	GLN
25	13	32	GLN
26	14	47	GLN
26	14	60	GLN
34	1c	31	HIS
34	1c	98	ASN
34	1c	104	GLN
34	1c	110	ASN
34	1c	162	GLN
34	1c	176	HIS
35	1d	77	ASN
35	1d	119	GLN
35	1d	123	HIS
35	1d	125	HIS
35	1d	129	ASN
36	1e	65	ASN
36	1e	78	HIS
37	1f	73	ASN
37	1f	100	ASN
38	1g	28	ASN
38	1g	56	GLN
38	1g	86	GLN
38	1g	110	GLN
38	1g	148	ASN
40	1i	3	GLN
40	1i	58	HIS
41	1j	56	HIS
41	1j	84	GLN
43	1l	99	HIS
46	1o	62	GLN
47	1p	16	HIS
48	1q	16	GLN
50	1s	14	HIS
50	1s	23	ASN

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Mol	Chain	Res	Type
50	1s	47	HIS
50	1s	83	HIS
51	1t	18	GLN
51	1t	73	HIS
53	1x	38	HIS
53	1x	89	GLN
3	2D	87	ASN
3	2D	126	GLN
3	2D	143	HIS
3	2D	253	GLN
5	2F	69	HIS
5	2F	75	HIS
5	2F	133	ASN
6	2G	26	GLN
8	2I	43	ASN
8	2I	104	GLN
9	2N	8	GLN
9	2N	94	HIS
9	2N	133	GLN
10	2O	5	GLN
10	2O	90	GLN
15	2T	58	ASN
16	2U	81	HIS
16	2U	94	ASN
17	2V	64	HIS
18	2W	60	ASN
19	2X	31	HIS
19	2X	82	GLN
20	2Y	92	ASN
21	2Z	73	GLN
22	20	35	ASN
22	20	50	ASN
22	20	70	GLN
24	22	38	GLN
24	22	46	GLN
25	23	32	GLN
26	24	40	HIS
26	24	46	GLN
27	25	23	HIS
31	29	29	ASN
33	2b	19	HIS
33	2b	37	ASN

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Mol	Chain	Res	Type
33	2b	94	ASN
33	2b	135	GLN
34	2c	6	HIS
34	2c	108	ASN
34	2c	162	GLN
35	2d	77	ASN
35	2d	116	GLN
35	2d	119	GLN
35	2d	123	HIS
35	2d	161	ASN
36	2e	72	GLN
36	2e	73	ASN
37	2f	94	GLN
37	2f	100	ASN
38	2g	28	ASN
38	2g	86	GLN
38	2g	97	GLN
38	2g	122	HIS
40	2i	3	GLN
40	2i	58	HIS
41	2j	68	HIS
41	2j	69	ASN
42	2k	93	GLN
42	2k	104	GLN
42	2k	117	ASN
44	2m	77	ASN
46	2o	28	GLN
47	2p	13	HIS
48	2q	16	GLN
50	2s	14	HIS
50	2s	23	ASN
50	2s	47	HIS
50	2s	57	HIS
50	2s	65	ASN
50	2s	69	HIS
53	2x	19	HIS
53	2x	84	GLN

5.3.3 RNA ⓘ

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2866/2915 (98%)	414 (14%)	58 (2%)
1	2A	2857/2915 (98%)	426 (14%)	51 (1%)
2	1B	119/120 (99%)	6 (5%)	0
2	2B	118/120 (98%)	8 (6%)	0
32	1a	1497/1521 (98%)	255 (17%)	0
32	2a	1501/1521 (98%)	252 (16%)	0
All	All	8958/9112 (98%)	1361 (15%)	109 (1%)

All (1361) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	10	G
1	1A	12	U
1	1A	34	C
1	1A	45	C
1	1A	60	G
1	1A	70	A
1	1A	73	A
1	1A	74	G
1	1A	116	A
1	1A	117	A
1	1A	118	U
1	1A	155	C
1	1A	162	G
1	1A	170	A
1	1A	185	A
1	1A	186	A
1	1A	188	A
1	1A	189	U
1	1A	194	G
1	1A	202	A
1	1A	203	G
1	1A	204	G
1	1A	205	A
1	1A	211	A
1	1A	218	A
1	1A	219	U
1	1A	222	A
1	1A	237	G
1	1A	238	C
1	1A	239	G

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Mol	Chain	Res	Type
1	1A	271	U
1	1A	272	U
1	1A	273	G
1	1A	274	U
1	1A	288	U
1	1A	289	G
1	1A	303	C
1	1A	335	A
1	1A	351	G
1	1A	353	G
1	1A	354	A
1	1A	376	G
1	1A	386	U
1	1A	387	G
1	1A	413	G
1	1A	432	U
1	1A	438	G
1	1A	439	A
1	1A	448	U
1	1A	455	A
1	1A	474	U
1	1A	481	C
1	1A	482	C
1	1A	483	A
1	1A	505	A
1	1A	507	G
1	1A	530	A
1	1A	534	C
1	1A	543	G
1	1A	555	G
1	1A	556	C
1	1A	557	A
1	1A	558	G
1	1A	569	G
1	1A	573	G
1	1A	574	G
1	1A	586	G
1	1A	596	G
1	1A	598	A
1	1A	609	A
1	1A	615	G
1	1A	626	A

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Mol	Chain	Res	Type
1	1A	627	G
1	1A	630	U
1	1A	633	G
1	1A	638	U
1	1A	639	G
1	1A	641	G
1	1A	652	A
1	1A	662	A
1	1A	670	C
1	1A	671	A
1	1A	673	G
1	1A	697	C
1	1A	698	G
1	1A	716	G
1	1A	732	A
1	1A	733	G
1	1A	764	G
1	1A	777	C
1	1A	811	A
1	1A	812	G
1	1A	821	A
1	1A	822	G
1	1A	823	G
1	1A	824	A
1	1A	829	A
1	1A	831	A
1	1A	832	G
1	1A	839	G
1	1A	852	G
1	1A	859	C
1	1A	874	U
1	1A	875	U
1	1A	906	G
1	1A	913	A
1	1A	927	G
1	1A	933	C
1	1A	934	A
1	1A	936	C
1	1A	937	A
1	1A	938	G
1	1A	942	A
1	1A	956	A

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Mol	Chain	Res	Type
1	1A	977	G
1	1A	983	G
1	1A	990	A
1	1A	991	G
1	1A	1003	U
1	1A	1004	A
1	1A	1006	C
1	1A	1019	G
1	1A	1020	C
1	1A	1021	G
1	1A	1029	A
1	1A	1042	A
1	1A	1051	C
1	1A	1058	U
1	1A	1059	C
1	1A	1068	G
1	1A	1072	U
1	1A	1079	U
1	1A	1088	G
1	1A	1089	C
1	1A	1092	A
1	1A	1093	G
1	1A	1094	A
1	1A	1099	C
1	1A	1100	A
1	1A	1106	U
1	1A	1107	U
1	1A	1108	G
1	1A	1109	G
1	1A	1110	C
1	1A	1111	U
1	1A	1113	A
1	1A	1114	G
1	1A	1115	A
1	1A	1116	A
1	1A	1117	G
1	1A	1119	A
1	1A	1122	C
1	1A	1123	A
1	1A	1124	U
1	1A	1125	C
1	1A	1129	U

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Mol	Chain	Res	Type
1	1A	1131	A
1	1A	1134	A
1	1A	1136	U
1	1A	1139	G
1	1A	1142	A
1	1A	1143	U
1	1A	1155	C
1	1A	1156	G
1	1A	1157	A
1	1A	1158	G
1	1A	1162	C
1	1A	1175	A
1	1A	1176	U
1	1A	1180	C
1	1A	1181	G
1	1A	1184	G
1	1A	1217	G
1	1A	1218	G
1	1A	1219	A
1	1A	1220	U
1	1A	1221	G
1	1A	1222	A
1	1A	1255	A
1	1A	1256	U
1	1A	1265	A
1	1A	1299	A
1	1A	1302	G
1	1A	1317	G
1	1A	1318	A
1	1A	1319	U
1	1A	1346	U
1	1A	1347	A
1	1A	1349	G
1	1A	1352	C
1	1A	1354	A
1	1A	1367	A
1	1A	1398	U
1	1A	1405	A
1	1A	1411	A
1	1A	1414	G
1	1A	1430	A
1	1A	1431	G

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Mol	Chain	Res	Type
1	1A	1462	G
1	1A	1463	C
1	1A	1466	U
1	1A	1467	G
1	1A	1474	C
1	1A	1491	A
1	1A	1497	G
1	1A	1500	A
1	1A	1514	C
1	1A	1518	A
1	1A	1529	G
1	1A	1539	C
1	1A	1540	A
1	1A	1554	A
1	1A	1555	C
1	1A	1571	G
1	1A	1578	C
1	1A	1589	A
1	1A	1594	C
1	1A	1605	A
1	1A	1613	A
1	1A	1616	A
1	1A	1625	U
1	1A	1626	A
1	1A	1628	G
1	1A	1631	C
1	1A	1632	A
1	1A	1654	A
1	1A	1655	A
1	1A	1656	A
1	1A	1695	C
1	1A	1700	G
1	1A	1701	A
1	1A	1721	G
1	1A	1743	G
1	1A	1747	A
1	1A	1748	A
1	1A	1767	A
1	1A	1776	G
1	1A	1781	G
1	1A	1787	G
1	1A	1793	A

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Mol	Chain	Res	Type
1	1A	1794	G
1	1A	1795	G
1	1A	1800	G
1	1A	1804	A
1	1A	1811	A
1	1A	1813	C
1	1A	1822	A
1	1A	1831	C
1	1A	1832	G
1	1A	1847	G
1	1A	1860	A
1	1A	1870	G
1	1A	1878	A
1	1A	1879	A
1	1A	1899	A
1	1A	1900	G
1	1A	1911	A
1	1A	1918	G
1	1A	1922	A
1	1A	1928	G
1	1A	1935	A
1	1A	1936	C
1	1A	1937	5MU
1	1A	1951	G
1	1A	1952	G
1	1A	1959	A
1	1A	1960	A
1	1A	1977	U
1	1A	1985	U
1	1A	1989	C
1	1A	1992	A
1	1A	1993	A
1	1A	1994	A
1	1A	2015	U
1	1A	2019	G
1	1A	2045	G
1	1A	2053	A
1	1A	2054	G
1	1A	2055	A
1	1A	2061	C
1	1A	2065	C
1	1A	2077	C

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Mol	Chain	Res	Type
1	1A	2078	G
1	1A	2082	A
1	1A	2083	G
1	1A	2084	A
1	1A	2091	G
1	1A	2102	G
1	1A	2124	U
1	1A	2125	C
1	1A	2126	G
1	1A	2129	C
1	1A	2130	C
1	1A	2132	G
1	1A	2134	G
1	1A	2138	G
1	1A	2139	A
1	1A	2141	A
1	1A	2142	G
1	1A	2148	A
1	1A	2149	G
1	1A	2153	G
1	1A	2154	U
1	1A	2155	G
1	1A	2156	A
1	1A	2164	C
1	1A	2166	U
1	1A	2168	C
1	1A	2170	G
1	1A	2173	G
1	1A	2180	A
1	1A	2181	G
1	1A	2182	G
1	1A	2183	C
1	1A	2194	U
1	1A	2195	A
1	1A	2206	G
1	1A	2208	G
1	1A	2209	G
1	1A	2212	G
1	1A	2214	G
1	1A	2220	A
1	1A	2227	G
1	1A	2228	G

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Mol	Chain	Res	Type
1	1A	2229	A
1	1A	2237	A
1	1A	2250	G
1	1A	2251	G
1	1A	2280	A
1	1A	2281	A
1	1A	2285	A
1	1A	2291	G
1	1A	2295	C
1	1A	2298	A
1	1A	2299	A
1	1A	2301	G
1	1A	2317	A
1	1A	2320	G
1	1A	2323	A
1	1A	2332	A
1	1A	2333	G
1	1A	2337	G
1	1A	2346	G
1	1A	2347	A
1	1A	2348	A
1	1A	2359	C
1	1A	2362	C
1	1A	2395	G
1	1A	2397	C
1	1A	2418	U
1	1A	2419	G
1	1A	2426	G
1	1A	2434	A
1	1A	2435	U
1	1A	2437	A
1	1A	2441	G
1	1A	2442	A
1	1A	2447	A
1	1A	2451	A
1	1A	2452	C
1	1A	2453	C
1	1A	2460	A
1	1A	2480	G
1	1A	2481	A
1	1A	2486	C
1	1A	2488	A

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Mol	Chain	Res	Type
1	1A	2514	G
1	1A	2517	G
1	1A	2518	U
1	1A	2530	A
1	1A	2532	C
1	1A	2541	G
1	1A	2566	U
1	1A	2578	A
1	1A	2579	G
1	1A	2585	C
1	1A	2597	U
1	1A	2598	C
1	1A	2613	C
1	1A	2614	A
1	1A	2615	G
1	1A	2623	U
1	1A	2624	C
1	1A	2642	G
1	1A	2666	A
1	1A	2675	G
1	1A	2694	U
1	1A	2701	U
1	1A	2702	C
1	1A	2714	U
1	1A	2715	C
1	1A	2725	A
1	1A	2726	A
1	1A	2727	G
1	1A	2739	U
1	1A	2746	A
1	1A	2770	A
1	1A	2771	A
1	1A	2774	G
1	1A	2778	A
1	1A	2779	G
1	1A	2791	A
1	1A	2803	A
1	1A	2804	C
1	1A	2813	G
1	1A	2828	G
1	1A	2830	A
1	1A	2831	A

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Mol	Chain	Res	Type
1	1A	2843	G
1	1A	2845	A
1	1A	2882	G
1	1A	2890	C
1	1A	2903	G
1	1A	2906	U
2	1B	45	A
2	1B	51	G
2	1B	56	G
2	1B	73	A
2	1B	84	C
2	1B	110	G
32	1a	7	G
32	1a	9	G
32	1a	22	G
32	1a	32	A
32	1a	39	G
32	1a	47	C
32	1a	48	C
32	1a	51	A
32	1a	61	G
32	1a	78	G
32	1a	79	G
32	1a	101	A
32	1a	105	G
32	1a	115	G
32	1a	116	A
32	1a	121	C
32	1a	131	C
32	1a	156	G
32	1a	159	G
32	1a	163	C
32	1a	173	U
32	1a	174	C
32	1a	182	U
32	1a	189(E)	U
32	1a	189(F)	U
32	1a	195	A
32	1a	197	A
32	1a	203	U
32	1a	204	U
32	1a	216	G

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Mol	Chain	Res	Type
32	1a	220	G
32	1a	247	G
32	1a	251	G
32	1a	266	G
32	1a	267	C
32	1a	289	G
32	1a	298	A
32	1a	321	A
32	1a	328	C
32	1a	332	G
32	1a	350	G
32	1a	351	G
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	367	U
32	1a	372	C
32	1a	373	A
32	1a	384	G
32	1a	397	A
32	1a	398	C
32	1a	406	G
32	1a	411	A
32	1a	412	A
32	1a	413	G
32	1a	429	U
32	1a	430	A
32	1a	439	A
32	1a	442	C
32	1a	452	A
32	1a	461	A
32	1a	470	C
32	1a	471	G
32	1a	482	A
32	1a	484	G
32	1a	485	G
32	1a	496	A
32	1a	498	U
32	1a	505	G
32	1a	509	A
32	1a	510	A
32	1a	511	C

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Mol	Chain	Res	Type
32	1a	518	C
32	1a	531	U
32	1a	532	A
32	1a	533	A
32	1a	547	A
32	1a	559	A
32	1a	561	U
32	1a	564	C
32	1a	572	A
32	1a	573	A
32	1a	576	G
32	1a	592	G
32	1a	596	C
32	1a	618	C
32	1a	619	U
32	1a	630	G
32	1a	632	A
32	1a	633	G
32	1a	653	A
32	1a	661	G
32	1a	665	A
32	1a	672	U
32	1a	673	G
32	1a	687	A
32	1a	688	G
32	1a	723	U
32	1a	724	G
32	1a	731	G
32	1a	733	A
32	1a	753	A
32	1a	755	G
32	1a	774	G
32	1a	777	A
32	1a	793	U
32	1a	794	A
32	1a	815	A
32	1a	816	A
32	1a	817	C
32	1a	821	G
32	1a	828	A
32	1a	829	G
32	1a	838	G

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Mol	Chain	Res	Type
32	1a	840	C
32	1a	841	U
32	1a	851	G
32	1a	859	A
32	1a	902	G
32	1a	913	A
32	1a	914	A
32	1a	926	G
32	1a	927	G
32	1a	934	C
32	1a	935	A
32	1a	960	U
32	1a	961	U
32	1a	967	5MC
32	1a	968	A
32	1a	969	A
32	1a	971	G
32	1a	972	C
32	1a	974	A
32	1a	975	A
32	1a	976	G
32	1a	977	A
32	1a	982	U
32	1a	992	U
32	1a	993	G
32	1a	994	A
32	1a	998	G
32	1a	999	C
32	1a	1002	G
32	1a	1004	A
32	1a	1005	A
32	1a	1006	C
32	1a	1020	U
32	1a	1022	G
32	1a	1024	G
32	1a	1025	U
32	1a	1026	G
32	1a	1027	C
32	1a	1028	C
32	1a	1029	C
32	1a	1030	C
32	1a	1030(A)	G

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Mol	Chain	Res	Type
32	1a	1031	G
32	1a	1032	G
32	1a	1033	G
32	1a	1034	G
32	1a	1036	G
32	1a	1037	C
32	1a	1042	G
32	1a	1044	A
32	1a	1053	G
32	1a	1063	C
32	1a	1065	U
32	1a	1066	C
32	1a	1067	A
32	1a	1068	G
32	1a	1070	U
32	1a	1081	G
32	1a	1094	G
32	1a	1095	U
32	1a	1101	A
32	1a	1123	A
32	1a	1125	U
32	1a	1130	A
32	1a	1132	C
32	1a	1134	G
32	1a	1136	U
32	1a	1137	C
32	1a	1139	G
32	1a	1146	A
32	1a	1150	U
32	1a	1152	A
32	1a	1159	U
32	1a	1168	A
32	1a	1183	A
32	1a	1184	G
32	1a	1189	C
32	1a	1193	G
32	1a	1196	U
32	1a	1197	G
32	1a	1201	A
32	1a	1202	G
32	1a	1207	2MG
32	1a	1208	C

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Mol	Chain	Res	Type
32	1a	1213	A
32	1a	1224	G
32	1a	1227	A
32	1a	1236	A
32	1a	1238	A
32	1a	1256	A
32	1a	1257	U
32	1a	1258	G
32	1a	1260	C
32	1a	1261	A
32	1a	1270	C
32	1a	1273	G
32	1a	1278	U
32	1a	1280	A
32	1a	1282	C
32	1a	1286	A
32	1a	1287	A
32	1a	1299	A
32	1a	1300	G
32	1a	1302	U
32	1a	1305	G
32	1a	1312	G
32	1a	1320	C
32	1a	1338	G
32	1a	1340	A
32	1a	1346	A
32	1a	1347	G
32	1a	1353	G
32	1a	1363	C
32	1a	1370	G
32	1a	1378	C
32	1a	1397	C
32	1a	1402	4OC
32	1a	1409	C
32	1a	1419	G
32	1a	1441	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1447	A
32	1a	1452	C
32	1a	1456	G
32	1a	1457	G

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Mol	Chain	Res	Type
32	1a	1487	G
32	1a	1492	A
32	1a	1493	A
32	1a	1497	G
32	1a	1499	A
32	1a	1503	A
32	1a	1504	G
32	1a	1505	G
32	1a	1506	U
32	1a	1507	A
32	1a	1517	G
32	1a	1519	MA6
32	1a	1520	G
32	1a	1529	G
32	1a	1530	G
1	2A	10	G
1	2A	12	U
1	2A	34	C
1	2A	45	C
1	2A	61	G
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	84	A
1	2A	118	A
1	2A	119	A
1	2A	120	U
1	2A	157	U
1	2A	173	G
1	2A	196	A
1	2A	197	A
1	2A	199	A
1	2A	205	G
1	2A	213	A
1	2A	214	G
1	2A	215	G
1	2A	216	A
1	2A	221	A
1	2A	222	A
1	2A	229	A
1	2A	230	U
1	2A	248	G

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Mol	Chain	Res	Type
1	2A	249	C
1	2A	250	G
1	2A	271(K)	U
1	2A	271(L)	U
1	2A	271(M)	G
1	2A	271(N)	U
1	2A	271(O)	C
1	2A	272(A)	U
1	2A	272(B)	G
1	2A	277	C
1	2A	278	A
1	2A	310	A
1	2A	311	A
1	2A	327	G
1	2A	329	G
1	2A	330	A
1	2A	352	G
1	2A	362	U
1	2A	363	G
1	2A	386	G
1	2A	411	G
1	2A	412	A
1	2A	428	A
1	2A	444	C
1	2A	448	U
1	2A	455	C
1	2A	456	C
1	2A	457	A
1	2A	479	A
1	2A	481	G
1	2A	505	A
1	2A	509	C
1	2A	518	G
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	533	G
1	2A	545	G
1	2A	551	G
1	2A	563	G
1	2A	573	G
1	2A	575	A

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Mol	Chain	Res	Type
1	2A	586	A
1	2A	592	G
1	2A	603	A
1	2A	604	G
1	2A	607	U
1	2A	610	G
1	2A	614(A)	U
1	2A	614(B)	G
1	2A	615	G
1	2A	627	A
1	2A	637	A
1	2A	645	C
1	2A	646	A
1	2A	648	G
1	2A	652(B)	A
1	2A	652(C)	G
1	2A	652(U)	G
1	2A	668	G
1	2A	669	G
1	2A	686	G
1	2A	717	G
1	2A	730	C
1	2A	752	A
1	2A	753	C
1	2A	765	G
1	2A	774	A
1	2A	775	G
1	2A	776	G
1	2A	782	A
1	2A	784	A
1	2A	785	G
1	2A	792	G
1	2A	805	G
1	2A	812	C
1	2A	827	U
1	2A	828	U
1	2A	859	G
1	2A	866	A
1	2A	874	G
1	2A	880	G
1	2A	886	C
1	2A	887	A

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Mol	Chain	Res	Type
1	2A	888	C
1	2A	890	A
1	2A	896	A
1	2A	899	A
1	2A	910	A
1	2A	917	A
1	2A	932	G
1	2A	938	G
1	2A	941	A
1	2A	945	A
1	2A	946	G
1	2A	958	U
1	2A	959	A
1	2A	961	C
1	2A	974	G
1	2A	975	C
1	2A	983	A
1	2A	996	A
1	2A	1012	U
1	2A	1013	C
1	2A	1022	G
1	2A	1026	U
1	2A	1033	U
1	2A	1042	G
1	2A	1043	C
1	2A	1045	A
1	2A	1046	A
1	2A	1047	G
1	2A	1048	A
1	2A	1054	A
1	2A	1058	G
1	2A	1060	U
1	2A	1063	G
1	2A	1064	C
1	2A	1065	U
1	2A	1066	U
1	2A	1067	A
1	2A	1068	G
1	2A	1069	A
1	2A	1070	A
1	2A	1071	G
1	2A	1073	A

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Mol	Chain	Res	Type
1	2A	1074	G
1	2A	1076	C
1	2A	1077	A
1	2A	1078	U
1	2A	1079	C
1	2A	1082	U
1	2A	1083	U
1	2A	1084	A
1	2A	1085	A
1	2A	1086	A
1	2A	1088	A
1	2A	1090	U
1	2A	1091	G
1	2A	1092	C
1	2A	1093	G
1	2A	1094	U
1	2A	1095	A
1	2A	1096	A
1	2A	1097	U
1	2A	1109	C
1	2A	1110	G
1	2A	1111	A
1	2A	1112	G
1	2A	1116	C
1	2A	1129	A
1	2A	1130	U
1	2A	1135	C
1	2A	1136	G
1	2A	1171	G
1	2A	1210	A
1	2A	1211	U
1	2A	1218	C
1	2A	1220	A
1	2A	1253	A
1	2A	1256	G
1	2A	1271	G
1	2A	1272	A
1	2A	1273	U
1	2A	1300	U
1	2A	1301	A
1	2A	1303	G
1	2A	1306	C

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Mol	Chain	Res	Type
1	2A	1308	A
1	2A	1321	A
1	2A	1352	U
1	2A	1359	A
1	2A	1365	A
1	2A	1368	G
1	2A	1370	C
1	2A	1384	A
1	2A	1385	G
1	2A	1386	C
1	2A	1416	G
1	2A	1417	C
1	2A	1420	U
1	2A	1421	G
1	2A	1428	C
1	2A	1445	A
1	2A	1450	G
1	2A	1452	A
1	2A	1467	C
1	2A	1471	A
1	2A	1482	G
1	2A	1494	A
1	2A	1497	U
1	2A	1508	A
1	2A	1509	C
1	2A	1509(A)	A
1	2A	1525	G
1	2A	1531	C
1	2A	1533	G
1	2A	1542	A
1	2A	1547	C
1	2A	1558	A
1	2A	1566	A
1	2A	1569	A
1	2A	1578	U
1	2A	1579	A
1	2A	1581	G
1	2A	1584	C
1	2A	1586	A
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A

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Mol	Chain	Res	Type
1	2A	1640	C
1	2A	1648	C
1	2A	1654	A
1	2A	1674	G
1	2A	1696	G
1	2A	1700	A
1	2A	1701	A
1	2A	1722	A
1	2A	1746	G
1	2A	1750	G
1	2A	1756	G
1	2A	1762	A
1	2A	1763	G
1	2A	1764	G
1	2A	1769	G
1	2A	1773	A
1	2A	1780	A
1	2A	1782	C
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1816	G
1	2A	1829	A
1	2A	1835	G
1	2A	1839	G
1	2A	1847	A
1	2A	1848	A
1	2A	1877	A
1	2A	1878	G
1	2A	1889	A
1	2A	1896	G
1	2A	1900	A
1	2A	1905	C
1	2A	1906	G
1	2A	1914	C
1	2A	1915	5MU
1	2A	1920	4OC
1	2A	1929	G
1	2A	1930	G
1	2A	1937	A
1	2A	1938	A
1	2A	1955	U

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Mol	Chain	Res	Type
1	2A	1963	U
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1992	G
1	2A	1993	U
1	2A	1997	G
1	2A	2023	G
1	2A	2031	A
1	2A	2032	G
1	2A	2033	A
1	2A	2039	C
1	2A	2043	C
1	2A	2055	C
1	2A	2056	G
1	2A	2060	A
1	2A	2061	G
1	2A	2062	A
1	2A	2069	G
1	2A	2080	G
1	2A	2102	U
1	2A	2103	C
1	2A	2105	C
1	2A	2107	C
1	2A	2108	C
1	2A	2110	G
1	2A	2112	G
1	2A	2116	G
1	2A	2117	A
1	2A	2119	A
1	2A	2120	G
1	2A	2126	A
1	2A	2127	G
1	2A	2129	C
1	2A	2131	G
1	2A	2132	U
1	2A	2133	G
1	2A	2134	A
1	2A	2136	C
1	2A	2138	C
1	2A	2142	C

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Mol	Chain	Res	Type
1	2A	2145	C
1	2A	2146	C
1	2A	2148	G
1	2A	2158	A
1	2A	2159	G
1	2A	2160	G
1	2A	2172	U
1	2A	2173	A
1	2A	2178	C
1	2A	2184	G
1	2A	2186	G
1	2A	2187	G
1	2A	2189	U
1	2A	2190	G
1	2A	2192	G
1	2A	2198	A
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2225	A
1	2A	2239	G
1	2A	2268	A
1	2A	2269	A
1	2A	2273	A
1	2A	2275	C
1	2A	2279	G
1	2A	2283	C
1	2A	2286	A
1	2A	2287	A
1	2A	2289	G
1	2A	2305	A
1	2A	2308	G
1	2A	2311	A
1	2A	2320	A
1	2A	2321	G
1	2A	2325	G
1	2A	2334	G
1	2A	2335	A
1	2A	2336	A
1	2A	2347	C
1	2A	2350	C
1	2A	2383	G

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Mol	Chain	Res	Type
1	2A	2385	C
1	2A	2406	U
1	2A	2407	G
1	2A	2414	G
1	2A	2422	A
1	2A	2423	U
1	2A	2425	A
1	2A	2429	G
1	2A	2430	A
1	2A	2435	A
1	2A	2439	A
1	2A	2441	C
1	2A	2448	A
1	2A	2468	G
1	2A	2474	C
1	2A	2476	A
1	2A	2502	G
1	2A	2503	2MA
1	2A	2505	G
1	2A	2506	U
1	2A	2518	A
1	2A	2520	C
1	2A	2529	G
1	2A	2554	U
1	2A	2566	A
1	2A	2567	G
1	2A	2573	C
1	2A	2585	U
1	2A	2586	C
1	2A	2602	A
1	2A	2603	G
1	2A	2611	U
1	2A	2612	C
1	2A	2630	G
1	2A	2654	A
1	2A	2663	G
1	2A	2682	U
1	2A	2689	U
1	2A	2690	C
1	2A	2702	U
1	2A	2703	C
1	2A	2712(A)	A

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Mol	Chain	Res	Type
1	2A	2713	A
1	2A	2714	G
1	2A	2726	U
1	2A	2733	A
1	2A	2757	A
1	2A	2758	A
1	2A	2761	G
1	2A	2765	A
1	2A	2766	G
1	2A	2778	A
1	2A	2789	C
1	2A	2818	G
1	2A	2820	A
1	2A	2821	A
1	2A	2833	G
1	2A	2835	A
1	2A	2872	G
1	2A	2880	C
1	2A	2894	G
1	2A	2896	C
1	2A	2897	U
2	2B	7	G
2	2B	8	U
2	2B	45	A
2	2B	51	G
2	2B	56	G
2	2B	73	A
2	2B	84	C
2	2B	110	G
32	2a	5	U
32	2a	7	G
32	2a	9	G
32	2a	22	G
32	2a	32	A
32	2a	39	G
32	2a	47	C
32	2a	48	C
32	2a	51	A
32	2a	61	G
32	2a	65	U
32	2a	66	G
32	2a	78	G

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Mol	Chain	Res	Type
32	2a	96	U
32	2a	101	A
32	2a	105	G
32	2a	115	G
32	2a	116	A
32	2a	121	C
32	2a	131	C
32	2a	156	G
32	2a	163	C
32	2a	173	U
32	2a	174	C
32	2a	182	U
32	2a	189(E)	U
32	2a	189(F)	U
32	2a	195	A
32	2a	197	A
32	2a	201	C
32	2a	202	U
32	2a	203	U
32	2a	204	U
32	2a	216	G
32	2a	220	G
32	2a	247	G
32	2a	251	G
32	2a	266	G
32	2a	267	C
32	2a	289	G
32	2a	298	A
32	2a	321	A
32	2a	328	C
32	2a	332	G
32	2a	350	G
32	2a	351	G
32	2a	352	C
32	2a	353	A
32	2a	354	G
32	2a	367	U
32	2a	372	C
32	2a	373	A
32	2a	384	G
32	2a	397	A
32	2a	398	C

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Mol	Chain	Res	Type
32	2a	406	G
32	2a	411	A
32	2a	412	A
32	2a	413	G
32	2a	429	U
32	2a	430	A
32	2a	439	A
32	2a	442	C
32	2a	452	A
32	2a	461	A
32	2a	470	C
32	2a	471	G
32	2a	482	A
32	2a	484	G
32	2a	485	G
32	2a	496	A
32	2a	498	U
32	2a	505	G
32	2a	509	A
32	2a	510	A
32	2a	511	C
32	2a	518	C
32	2a	531	U
32	2a	532	A
32	2a	533	A
32	2a	547	A
32	2a	559	A
32	2a	561	U
32	2a	564	C
32	2a	572	A
32	2a	573	A
32	2a	576	G
32	2a	592	G
32	2a	596	C
32	2a	618	C
32	2a	619	U
32	2a	630	G
32	2a	632	A
32	2a	633	G
32	2a	653	A
32	2a	661	G
32	2a	665	A

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Mol	Chain	Res	Type
32	2a	673	G
32	2a	687	A
32	2a	688	G
32	2a	723	U
32	2a	724	G
32	2a	731	G
32	2a	733	A
32	2a	749	C
32	2a	753	A
32	2a	755	G
32	2a	774	G
32	2a	777	A
32	2a	793	U
32	2a	794	A
32	2a	806	C
32	2a	815	A
32	2a	816	A
32	2a	817	C
32	2a	821	G
32	2a	828	A
32	2a	829	G
32	2a	838	G
32	2a	840	C
32	2a	841	U
32	2a	851	G
32	2a	859	A
32	2a	873	A
32	2a	902	G
32	2a	913	A
32	2a	914	A
32	2a	926	G
32	2a	927	G
32	2a	934	C
32	2a	935	A
32	2a	960	U
32	2a	961	U
32	2a	966	M2G
32	2a	967	5MC
32	2a	968	A
32	2a	969	A
32	2a	971	G
32	2a	972	C

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Mol	Chain	Res	Type
32	2a	974	A
32	2a	975	A
32	2a	976	G
32	2a	977	A
32	2a	982	U
32	2a	989	C
32	2a	992	U
32	2a	993	G
32	2a	994	A
32	2a	999	C
32	2a	1002	G
32	2a	1004	A
32	2a	1005	A
32	2a	1006	C
32	2a	1009	G
32	2a	1020	U
32	2a	1024	G
32	2a	1025	U
32	2a	1026	G
32	2a	1027	C
32	2a	1028	C
32	2a	1029	C
32	2a	1030(A)	G
32	2a	1030(B)	C
32	2a	1031	G
32	2a	1032	G
32	2a	1041	A
32	2a	1044	A
32	2a	1065	U
32	2a	1066	C
32	2a	1067	A
32	2a	1068	G
32	2a	1081	G
32	2a	1094	G
32	2a	1095	U
32	2a	1101	A
32	2a	1113	C
32	2a	1117	G
32	2a	1123	A
32	2a	1125	U
32	2a	1129	C
32	2a	1130	A

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Mol	Chain	Res	Type
32	2a	1132	C
32	2a	1134	G
32	2a	1136	U
32	2a	1137	C
32	2a	1139	G
32	2a	1140	C
32	2a	1146	A
32	2a	1147	C
32	2a	1150	U
32	2a	1152	A
32	2a	1158	C
32	2a	1159	U
32	2a	1168	A
32	2a	1183	A
32	2a	1184	G
32	2a	1189	C
32	2a	1196	U
32	2a	1197	G
32	2a	1211	U
32	2a	1212	U
32	2a	1213	A
32	2a	1224	G
32	2a	1227	A
32	2a	1238	A
32	2a	1256	A
32	2a	1257	U
32	2a	1258	G
32	2a	1260	C
32	2a	1270	C
32	2a	1278	U
32	2a	1280	A
32	2a	1281	U
32	2a	1282	C
32	2a	1286	A
32	2a	1287	A
32	2a	1299	A
32	2a	1300	G
32	2a	1305	G
32	2a	1312	G
32	2a	1320	C
32	2a	1338	G
32	2a	1340	A

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Mol	Chain	Res	Type
32	2a	1346	A
32	2a	1347	G
32	2a	1353	G
32	2a	1363	C
32	2a	1370	G
32	2a	1378	C
32	2a	1397	C
32	2a	1419	G
32	2a	1441	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1447	A
32	2a	1452	C
32	2a	1456	G
32	2a	1457	G
32	2a	1487	G
32	2a	1492	A
32	2a	1493	A
32	2a	1497	G
32	2a	1499	A
32	2a	1503	A
32	2a	1504	G
32	2a	1505	G
32	2a	1506	U
32	2a	1507	A
32	2a	1517	G
32	2a	1520	G
32	2a	1529	G
32	2a	1530	G

All (109) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	115	G
1	1A	184	A
1	1A	185	A
1	1A	188	A
1	1A	238	C
1	1A	302	A
1	1A	334	A
1	1A	509	A
1	1A	572	A

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Mol	Chain	Res	Type
1	1A	596	G
1	1A	732	A
1	1A	795	G
1	1A	811	A
1	1A	821	A
1	1A	823	G
1	1A	874	U
1	1A	913	A
1	1A	934	A
1	1A	935	C
1	1A	1019	G
1	1A	1065	U
1	1A	1067	A
1	1A	1093	G
1	1A	1099	C
1	1A	1115	A
1	1A	1116	A
1	1A	1157	A
1	1A	1188	A
1	1A	1201	A
1	1A	1219	A
1	1A	1220	U
1	1A	1221	G
1	1A	1255	A
1	1A	1299	A
1	1A	1346	U
1	1A	1347	A
1	1A	1425	A
1	1A	1466	U
1	1A	1654	A
1	1A	1655	A
1	1A	1700	G
1	1A	1793	A
1	1A	2148	A
1	1A	2194	U
1	1A	2200	C
1	1A	2227	G
1	1A	2320	G
1	1A	2347	A
1	1A	2418	U
1	1A	2434	A
1	1A	2442	A

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Mol	Chain	Res	Type
1	1A	2451	A
1	1A	2597	U
1	1A	2613	C
1	1A	2623	U
1	1A	2701	U
1	1A	2769	U
1	1A	2902	G
1	2A	195	A
1	2A	196	A
1	2A	199	A
1	2A	249	C
1	2A	266	G
1	2A	271(M)	G
1	2A	277	C
1	2A	310	A
1	2A	503	A
1	2A	532	A
1	2A	573	G
1	2A	685	A
1	2A	752	A
1	2A	764	A
1	2A	774	A
1	2A	776	G
1	2A	827	U
1	2A	840	C
1	2A	887	A
1	2A	974	G
1	2A	1047	G
1	2A	1053	C
1	2A	1057	A
1	2A	1063	G
1	2A	1065	U
1	2A	1067	A
1	2A	1069	A
1	2A	1071	G
1	2A	1073	A
1	2A	1076	C
1	2A	1111	A
1	2A	1142(A)	A
1	2A	1210	A
1	2A	1379	A
1	2A	1420	U

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Mol	Chain	Res	Type
1	2A	1442	G
1	2A	1491	G
1	2A	1608	A
1	2A	1992	G
1	2A	2126	A
1	2A	2158	A
1	2A	2288	A
1	2A	2308	G
1	2A	2335	A
1	2A	2406	U
1	2A	2422	A
1	2A	2439	A
1	2A	2585	U
1	2A	2611	U
1	2A	2689	U
1	2A	2756	U

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

48 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$
1	PSU	2A	2605	1	18,21,22	1.55	1 (5%)	21,30,33	1.77	2 (9%)
32	5MC	2a	1404	32	19,22,23	0.96	1 (5%)	26,32,35	1.48	5 (19%)
32	7MG	2a	527	32	23,26,27	2.26	7 (30%)	27,39,42	2.01	7 (25%)
1	OMG	2A	2251	1,55	23,26,27	1.61	4 (17%)	32,38,41	2.41	14 (43%)
43	0TD	2l	92	43	8,9,10	2.74	2 (25%)	6,11,13	3.32	4 (66%)
32	PSU	1a	516	32,55	18,21,22	1.56	4 (22%)	21,30,33	2.36	6 (28%)
1	PSU	1A	2617	1	18,21,22	1.44	4 (22%)	21,30,33	1.61	5 (23%)
32	M2G	2a	966	32	24,27,28	2.11	5 (20%)	33,40,43	1.66	8 (24%)
1	5MC	2A	1962	1,55	19,22,23	1.45	2 (10%)	26,32,35	1.52	4 (15%)
32	MA6	2a	1518	32	23,26,27	1.11	2 (8%)	33,38,41	4.04	12 (36%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	MA6	2a	1519	32	23,26,27	1.12	2 (8%)	33,38,41	4.45	15 (45%)
32	PSU	2a	516	32	18,21,22	1.81	3 (16%)	21,30,33	2.39	5 (23%)
1	PSU	2A	1911	1	18,21,22	1.54	3 (16%)	21,30,33	1.56	5 (23%)
32	4OC	1a	1402	32	20,23,24	2.27	7 (35%)	25,32,35	1.03	2 (8%)
1	PSU	1A	1933	1	18,21,22	1.19	3 (16%)	21,30,33	1.66	7 (33%)
1	5MC	1A	1984	1,55	19,22,23	1.42	2 (10%)	26,32,35	1.58	5 (19%)
32	5MC	2a	1400	32	19,22,23	0.87	0	26,32,35	1.39	4 (15%)
1	5MC	1A	1964	1	19,22,23	1.56	3 (15%)	26,32,35	1.37	3 (11%)
1	PSU	1A	1939	1,55	18,21,22	1.23	1 (5%)	21,30,33	1.90	6 (28%)
1	5MU	2A	1939	1,55	19,22,23	1.02	1 (5%)	27,32,35	1.52	4 (14%)
32	5MC	2a	967	32	19,22,23	1.55	3 (15%)	26,32,35	1.71	7 (26%)
32	M2G	1a	966	32	24,27,28	1.96	4 (16%)	33,40,43	1.69	8 (24%)
1	4OC	2A	1920	1	19,22,24	2.37	6 (31%)	25,31,35	1.18	3 (12%)
1	5MC	2A	1942	1	19,22,23	1.75	1 (5%)	26,32,35	1.16	3 (11%)
32	5MC	1a	1407	32	19,22,23	1.04	2 (10%)	26,32,35	1.47	5 (19%)
1	4OC	1A	1942	1,55	19,22,24	2.11	5 (26%)	25,31,35	1.31	5 (20%)
1	OMG	1A	2263	1,55	23,26,27	1.73	6 (26%)	32,38,41	2.08	13 (40%)
1	PSU	2A	1917	1	18,21,22	1.13	1 (5%)	21,30,33	1.70	5 (23%)
32	2MG	2a	1207	32	23,26,27	2.27	6 (26%)	33,38,41	2.08	10 (30%)
1	OMU	2A	2552	1,55	19,22,23	6.77	10 (52%)	25,31,34	2.44	7 (28%)
32	MA6	1a	1519	32	23,26,27	1.27	3 (13%)	33,38,41	4.25	14 (42%)
32	5MC	2a	1407	32	19,22,23	1.64	2 (10%)	26,32,35	1.28	3 (11%)
32	UR3	2a	1498	32	19,22,23	1.73	3 (15%)	26,32,35	2.22	8 (30%)
43	0TD	1l	92	43	8,9,10	4.86	3 (37%)	6,11,13	4.40	4 (66%)
32	5MC	1a	967	32	19,22,23	0.95	2 (10%)	26,32,35	1.31	4 (15%)
32	5MC	1a	1400	32	19,22,23	0.93	1 (5%)	26,32,35	1.65	6 (23%)
1	2MA	2A	2503	1,55	22,25,26	2.49	9 (40%)	32,37,40	2.81	10 (31%)
32	UR3	1a	1498	32	19,22,23	1.78	4 (21%)	26,32,35	1.55	3 (11%)
32	MA6	1a	1518	32	23,26,27	1.15	3 (13%)	33,38,41	4.17	13 (39%)
32	5MC	1a	1404	32	19,22,23	1.45	2 (10%)	26,32,35	1.53	4 (15%)
1	2MA	1A	2515	1,55	22,25,26	2.52	8 (36%)	32,37,40	3.09	14 (43%)
1	5MU	2A	1915	1	19,22,23	1.85	2 (10%)	27,32,35	1.70	6 (22%)
1	5MU	1A	1937	1	19,22,23	1.56	3 (15%)	27,32,35	1.87	7 (25%)
1	5MU	1A	1961	1,55	19,22,23	1.02	2 (10%)	27,32,35	1.52	6 (22%)
32	7MG	1a	527	32,55	23,26,27	1.93	7 (30%)	27,39,42	1.81	8 (29%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	2MG	1a	1207	32,55	23,26,27	2.10	4 (17%)	33,38,41	2.82	18 (54%)
32	4OC	2a	1402	32	20,23,24	2.63	7 (35%)	25,32,35	1.42	4 (16%)
1	OMU	1A	2564	1,55	19,22,23	6.42	10 (52%)	25,31,34	2.78	9 (36%)

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
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
32	5MC	2a	1404	32	-	1/7/25/26	0/2/2/2
32	7MG	2a	527	32	-	2/7/37/38	0/3/3/3
1	OMG	2A	2251	1,55	-	0/9/27/28	0/3/3/3
43	0TD	2l	92	43	-	3/7/12/14	-
32	PSU	1a	516	32,55	-	1/7/25/26	0/2/2/2
1	PSU	1A	2617	1	-	0/7/25/26	0/2/2/2
32	M2G	2a	966	32	-	0/11/29/30	0/3/3/3
1	5MC	2A	1962	1,55	-	0/7/25/26	0/2/2/2
32	MA6	2a	1518	32	-	0/11/29/30	0/3/3/3
32	MA6	2a	1519	32	-	6/11/29/30	0/3/3/3
32	PSU	2a	516	32	-	1/7/25/26	0/2/2/2
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
32	4OC	1a	1402	32	-	2/9/29/30	0/2/2/2
1	PSU	1A	1933	1	-	0/7/25/26	0/2/2/2
1	5MC	1A	1984	1,55	-	0/7/25/26	0/2/2/2
32	5MC	2a	1400	32	-	0/7/25/26	0/2/2/2
1	5MC	1A	1964	1	-	0/7/25/26	0/2/2/2
1	PSU	1A	1939	1,55	-	0/7/25/26	0/2/2/2
1	5MU	2A	1939	1,55	-	0/7/25/26	0/2/2/2
32	5MC	2a	967	32	-	0/7/25/26	0/2/2/2
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
1	4OC	2A	1920	1	-	2/9/27/30	0/2/2/2
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
1	4OC	1A	1942	1,55	-	1/9/27/30	0/2/2/2
1	OMG	1A	2263	1,55	-	1/9/27/28	0/3/3/3
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
32	2MG	2a	1207	32	-	0/9/27/28	0/3/3/3
1	OMU	2A	2552	1,55	-	0/9/27/28	0/2/2/2
32	MA6	1a	1519	32	-	3/11/29/30	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
32	UR3	2a	1498	32	-	1/7/25/26	0/2/2/2
43	0TD	1l	92	43	-	6/7/12/14	-
32	5MC	1a	967	32	-	2/7/25/26	0/2/2/2
32	5MC	1a	1400	32	-	0/7/25/26	0/2/2/2
1	2MA	2A	2503	1,55	-	3/7/25/26	0/3/3/3
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
32	MA6	1a	1518	32	-	0/11/29/30	0/3/3/3
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
1	2MA	1A	2515	1,55	-	1/7/25/26	0/3/3/3
1	5MU	2A	1915	1	-	3/7/25/26	0/2/2/2
1	5MU	1A	1937	1	-	4/7/25/26	0/2/2/2
1	5MU	1A	1961	1,55	-	0/7/25/26	0/2/2/2
32	7MG	1a	527	32,55	-	1/7/37/38	0/3/3/3
32	2MG	1a	1207	32,55	-	2/9/27/28	0/3/3/3
32	4OC	2a	1402	32	-	2/9/29/30	0/2/2/2
1	OMU	1A	2564	1,55	-	0/9/27/28	0/2/2/2

All (176) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	2552	OMU	C4-N3	-16.29	1.10	1.38
1	1A	2564	OMU	C4-N3	-15.21	1.12	1.38
1	2A	2552	OMU	C5-C4	14.41	1.75	1.43
1	1A	2564	OMU	C5-C4	14.15	1.74	1.43
43	1l	92	0TD	CB-CA	-12.31	1.50	1.54
1	2A	2552	OMU	C6-C5	-10.40	1.11	1.35
1	1A	2564	OMU	C6-C5	-10.24	1.11	1.35
1	2A	2552	OMU	C3'-C2'	-8.84	1.33	1.53
1	2A	2552	OMU	C6-N1	8.20	1.57	1.38
1	1A	2564	OMU	C6-N1	8.16	1.57	1.38
1	1A	2564	OMU	C3'-C2'	-7.40	1.36	1.53
1	2A	2552	OMU	O4'-C4'	-7.06	1.29	1.45
1	2A	1942	5MC	C5-C4	-6.89	1.38	1.44
1	2A	1915	5MU	C2-N1	6.56	1.48	1.38
43	2l	92	0TD	CB-CA	-6.26	1.52	1.54
1	1A	2564	OMU	O4'-C1'	6.14	1.56	1.42
1	1A	2564	OMU	C1'-N1	-6.10	1.30	1.47
1	2A	2552	OMU	O4'-C1'	6.07	1.56	1.42
32	2a	1207	2MG	C2-N3	6.00	1.43	1.32
1	2A	2503	2MA	C4-N3	5.89	1.41	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	1402	4OC	C4-N4	5.85	1.48	1.36
32	2a	1407	5MC	C5-C4	-5.72	1.39	1.44
32	2a	1402	4OC	C2-N3	5.67	1.47	1.36
1	2A	1920	4OC	C4-N4	5.66	1.47	1.33
1	2A	2552	OMU	C1'-N1	-5.66	1.31	1.47
32	2a	527	7MG	C8-N9	5.60	1.49	1.45
1	1A	2515	2MA	C4-N3	5.56	1.41	1.34
1	1A	1937	5MU	C2-N1	5.55	1.47	1.38
32	2a	516	PSU	C2-N1	5.51	1.43	1.36
32	2a	966	M2G	C2-N2	5.45	1.45	1.35
32	2a	967	5MC	C5-C4	5.32	1.48	1.44
1	2A	2503	2MA	C2-N1	5.19	1.43	1.34
32	1a	1402	4OC	C4-N4	5.18	1.46	1.36
1	1A	2515	2MA	C2-N1	5.14	1.42	1.34
32	1a	527	7MG	C8-N9	5.06	1.49	1.45
32	1a	966	M2G	C2-N2	5.01	1.44	1.35
1	1A	2515	2MA	C6-N1	4.98	1.41	1.35
1	2A	2605	PSU	C2-N1	4.97	1.43	1.36
43	1l	92	0TD	CB-SB	-4.90	1.77	1.82
32	2a	527	7MG	C5-N7	4.85	1.41	1.35
1	1A	2564	OMU	O4'-C4'	-4.81	1.34	1.45
32	1a	1207	2MG	C2-N2	4.74	1.43	1.33
32	2a	966	M2G	C4-N3	4.74	1.45	1.34
32	2a	1207	2MG	C4-N3	4.74	1.45	1.34
1	2A	1920	4OC	C6-C5	4.69	1.45	1.35
32	1a	1404	5MC	C5-C4	-4.66	1.40	1.44
32	1a	1207	2MG	C2-N1	4.65	1.44	1.36
32	1a	1207	2MG	C2-N3	4.64	1.40	1.32
1	1A	1942	4OC	C2-N3	4.62	1.45	1.36
32	2a	1207	2MG	C2-N1	4.61	1.44	1.36
32	1a	1498	UR3	C6-C5	4.61	1.45	1.35
32	2a	1498	UR3	C6-C5	4.60	1.45	1.35
32	2a	1207	2MG	C2-N2	4.55	1.42	1.33
1	1A	1984	5MC	C5-C4	-4.53	1.40	1.44
32	1a	966	M2G	C2-N3	4.52	1.43	1.32
32	2a	966	M2G	C2-N3	4.52	1.43	1.32
1	1A	1964	5MC	C5-C4	-4.52	1.40	1.44
1	1A	1942	4OC	C4-N4	4.50	1.44	1.33
32	1a	1207	2MG	C4-N3	4.48	1.44	1.34
1	1A	2263	OMG	C4-N3	4.46	1.44	1.34
32	2a	1402	4OC	C6-C5	4.45	1.45	1.35
1	2A	1911	PSU	C2-N1	4.42	1.42	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	1a	966	M2G	C4-N3	4.42	1.44	1.34
32	2a	1402	4OC	C4-N3	4.40	1.40	1.32
1	1A	2564	OMU	C3'-C4'	4.36	1.64	1.53
32	1a	1498	UR3	C2-N1	4.33	1.44	1.38
32	2a	527	7MG	C4-N3	4.30	1.44	1.34
1	2A	2251	OMG	C4-N3	4.27	1.44	1.34
32	2a	1498	UR3	C2-N3	4.24	1.47	1.39
1	2A	1920	4OC	C2-N3	4.24	1.44	1.36
32	2a	527	7MG	C2-N3	4.10	1.43	1.33
1	2A	1962	5MC	C2-N3	4.09	1.44	1.36
32	1a	527	7MG	C4-N3	4.05	1.43	1.34
32	1a	1402	4OC	O2-C2	-4.02	1.16	1.23
32	1a	1402	4OC	C6-C5	4.00	1.44	1.35
1	2A	2503	2MA	C6-N1	3.86	1.40	1.35
1	1A	1942	4OC	C6-C5	3.82	1.43	1.35
1	1A	2515	2MA	C4-N9	-3.72	1.30	1.37
32	1a	516	PSU	C2-N1	3.70	1.41	1.36
32	1a	527	7MG	C2-N3	3.66	1.42	1.33
1	2A	1917	PSU	C2-N1	3.61	1.41	1.36
1	2A	2503	2MA	C2-N3	3.55	1.40	1.34
32	1a	527	7MG	C5-N7	3.48	1.40	1.35
32	2a	1402	4OC	O2-C2	-3.45	1.17	1.23
1	2A	2251	OMG	C2-N3	3.44	1.41	1.33
1	1A	1939	PSU	C2-N1	3.44	1.41	1.36
1	2A	2552	OMU	C3'-C4'	3.43	1.61	1.53
1	2A	1920	4OC	O2-C2	-3.42	1.17	1.23
32	1a	516	PSU	C6-N1	3.38	1.41	1.36
32	2a	966	M2G	C2-N1	3.37	1.44	1.36
1	1A	2515	2MA	C5-C4	-3.36	1.33	1.39
32	2a	1402	4OC	C5-C4	3.34	1.48	1.41
32	2a	1518	MA6	C6-N6	3.31	1.46	1.36
1	2A	2503	2MA	C4-N9	-3.28	1.30	1.37
32	1a	1402	4OC	C5-C4	3.28	1.48	1.41
32	1a	1402	4OC	C4-N3	3.28	1.38	1.32
1	2A	1920	4OC	C2-N1	3.27	1.46	1.40
1	1A	2263	OMG	O6-C6	-3.27	1.17	1.23
1	1A	1942	4OC	C2-N1	3.26	1.46	1.40
43	2l	92	0TD	CB-SB	-3.22	1.79	1.82
32	1a	1402	4OC	C2-N3	3.19	1.42	1.36
32	2a	516	PSU	C6-N1	3.14	1.41	1.36
32	2a	516	PSU	O4'-C1'	-3.09	1.39	1.43
1	1A	1942	4OC	O2-C2	-3.09	1.18	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	1911	PSU	C6-N1	3.07	1.41	1.36
1	2A	1915	5MU	C2-N3	3.05	1.43	1.38
1	2A	1962	5MC	CM5-C5	-2.99	1.43	1.50
1	1A	2263	OMG	C2-N3	2.98	1.40	1.33
32	1a	1498	UR3	C2-N3	2.97	1.44	1.39
1	2A	2503	2MA	C5-C4	-2.93	1.33	1.39
32	2a	527	7MG	C2-N2	2.89	1.40	1.34
32	1a	1518	MA6	C5-C6	-2.88	1.34	1.41
1	2A	2503	2MA	C8-N7	2.87	1.37	1.31
32	1a	1407	5MC	C2-N1	2.85	1.46	1.40
32	1a	1519	MA6	C6-N6	2.82	1.44	1.36
1	2A	1939	5MU	C5M-C5	-2.82	1.43	1.50
1	1A	1984	5MC	CM5-C5	-2.80	1.43	1.50
1	1A	2515	2MA	C8-N7	2.80	1.37	1.31
32	1a	966	M2G	C2-N1	2.79	1.43	1.36
32	2a	527	7MG	C5-C6	2.75	1.50	1.43
32	1a	1519	MA6	C5-C6	-2.75	1.34	1.41
1	1A	1933	PSU	C4-N3	2.75	1.44	1.38
32	2a	1519	MA6	C6-N6	2.73	1.44	1.36
32	2a	1207	2MG	CM2-N2	-2.69	1.40	1.45
32	1a	1518	MA6	C6-N6	2.67	1.44	1.36
1	2A	1911	PSU	C4-N3	2.65	1.43	1.38
32	1a	1400	5MC	C2-N1	2.64	1.45	1.40
1	1A	2515	2MA	C5-C6	2.63	1.48	1.41
1	2A	1920	4OC	C5-C4	2.58	1.48	1.42
1	1A	1964	5MC	C2-N1	-2.57	1.34	1.40
32	2a	1407	5MC	C2-N1	2.56	1.45	1.40
32	1a	1404	5MC	CM5-C5	-2.54	1.44	1.50
32	2a	1498	UR3	C2-N1	2.53	1.42	1.38
1	1A	1961	5MU	C4-C5	-2.52	1.40	1.44
1	1A	1937	5MU	C2-N3	2.48	1.42	1.38
32	2a	967	5MC	C6-C5	2.48	1.38	1.34
1	1A	1933	PSU	C2-N1	2.47	1.39	1.36
32	2a	1519	MA6	C5-C4	-2.46	1.34	1.39
32	1a	1402	4OC	CM4-N4	-2.45	1.41	1.45
1	2A	2503	2MA	C5-C6	2.43	1.47	1.41
1	1A	2617	PSU	C6-N1	2.41	1.40	1.36
32	2a	1402	4OC	C2-N1	2.40	1.45	1.40
32	1a	516	PSU	O4'-C1'	-2.38	1.40	1.43
32	1a	1518	MA6	C5-C4	-2.36	1.34	1.39
32	1a	1519	MA6	C5-C4	-2.36	1.34	1.39
1	1A	2263	OMG	C8-N9	-2.32	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	2617	PSU	C6-C5	-2.29	1.32	1.35
32	1a	1498	UR3	C3U-N3	-2.29	1.43	1.47
32	1a	1407	5MC	CM5-C5	-2.29	1.45	1.50
1	2A	2552	OMU	O2'-C2'	2.29	1.48	1.42
32	1a	527	7MG	C2-N2	2.27	1.39	1.34
32	2a	1404	5MC	C2-N3	2.27	1.40	1.36
1	1A	2564	OMU	O2'-C2'	2.27	1.48	1.42
32	2a	966	M2G	C5-C6	2.26	1.52	1.44
43	1l	92	0TD	CA-N	-2.22	1.41	1.47
1	1A	2263	OMG	C8-N7	2.19	1.38	1.32
1	1A	1937	5MU	C4-C5	2.19	1.48	1.44
1	1A	2617	PSU	O4'-C1'	-2.19	1.40	1.43
32	2a	527	7MG	C2-N1	2.16	1.42	1.37
1	1A	1933	PSU	C6-N1	2.16	1.39	1.36
32	1a	967	5MC	C2-N1	2.15	1.44	1.40
1	2A	2503	2MA	C5-N7	-2.15	1.35	1.39
32	2a	1207	2MG	C5-N7	-2.13	1.34	1.39
32	1a	527	7MG	C2-N1	2.10	1.42	1.37
1	2A	2251	OMG	C2-N1	2.10	1.42	1.37
1	1A	1961	5MU	C2-N3	2.09	1.41	1.38
1	1A	2617	PSU	O4-C4	-2.09	1.19	1.23
32	1a	516	PSU	O4-C4	-2.09	1.19	1.23
32	1a	967	5MC	C6-C5	2.08	1.38	1.34
1	1A	2263	OMG	C5-C4	-2.07	1.32	1.38
32	1a	527	7MG	C5-C6	2.07	1.48	1.43
1	1A	2515	2MA	C2-N3	2.06	1.37	1.34
1	1A	1964	5MC	C6-C5	2.06	1.38	1.34
32	2a	1518	MA6	C5-C6	-2.02	1.36	1.41
32	2a	967	5MC	C2-N3	2.01	1.40	1.36
1	2A	2251	OMG	C8-N7	2.01	1.38	1.32

All (330) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1519	MA6	N1-C6-N6	-17.35	95.72	116.86
32	1a	1518	MA6	N1-C6-N6	-16.19	97.13	116.86
32	1a	1519	MA6	N1-C6-N6	-15.33	98.18	116.86
32	2a	1518	MA6	N1-C6-N6	-15.28	98.25	116.86
32	2a	1519	MA6	C5-C6-N6	12.01	144.34	125.33
32	1a	1518	MA6	C5-C6-N6	11.75	143.93	125.33
32	2a	1518	MA6	C5-C6-N6	11.74	143.91	125.33
32	1a	1519	MA6	C5-C6-N6	11.07	142.85	125.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	2503	2MA	C1'-N9-C8	-8.67	107.86	127.09
32	2a	516	PSU	C6-C5-C4	8.38	123.83	118.17
43	1l	92	0TD	CSB-SB-CB	8.03	116.81	102.36
32	1a	516	PSU	C6-C5-C4	8.03	123.59	118.17
1	1A	2515	2MA	CM2-C2-N1	7.99	129.09	117.13
32	1a	1519	MA6	C4-C5-C6	7.74	123.91	115.91
32	1a	1207	2MG	C2-N3-C4	7.69	121.62	112.00
1	1A	2564	OMU	C5-C4-N3	7.41	125.18	114.80
1	1A	2515	2MA	C1'-N9-C8	-7.32	110.85	127.09
32	2a	1519	MA6	C4-C5-C6	6.77	122.91	115.91
32	2a	1519	MA6	C5-C4-N3	-6.72	117.47	126.72
32	2a	1498	UR3	C4-N3-C2	-6.67	119.21	124.58
32	1a	1519	MA6	C5-C4-N3	-6.57	117.67	126.72
1	2A	2552	OMU	C5-C4-N3	6.34	123.68	114.80
1	2A	2503	2MA	C4-N9-C1'	6.25	141.26	126.63
1	2A	2605	PSU	C6-C5-C4	6.18	122.35	118.17
1	2A	2503	2MA	N9-C8-N7	-6.09	105.29	113.94
32	2a	1518	MA6	C4-C5-C6	5.86	121.97	115.91
43	2l	92	0TD	CSB-SB-CB	5.83	112.84	102.36
1	2A	2251	OMG	C1'-N9-C8	-5.75	110.40	126.73
1	1A	1939	PSU	C6-C5-C4	5.64	121.98	118.17
32	1a	1207	2MG	C5-C4-N3	-5.60	119.47	128.39
1	1A	2515	2MA	N6-C6-N1	5.58	124.56	117.03
1	1A	2515	2MA	N9-C8-N7	-5.54	106.08	113.94
32	1a	1207	2MG	N1-C2-N2	5.52	122.19	116.56
32	2a	1207	2MG	C2-N3-C4	5.50	118.89	112.00
1	1A	2515	2MA	C4-N9-C1'	5.45	139.39	126.63
1	1A	2515	2MA	CM2-C2-N3	-5.35	109.12	117.13
32	2a	1207	2MG	C5-C4-N3	-5.34	119.89	128.39
1	1A	2263	OMG	N9-C8-N7	-5.31	103.56	113.40
1	1A	2564	OMU	C4-N3-C2	-5.22	120.13	126.61
32	1a	966	M2G	C5-C4-N3	-5.13	120.23	128.39
43	1l	92	0TD	CB-CA-N	-5.11	98.74	109.10
1	2A	2251	OMG	N9-C8-N7	-4.94	104.23	113.40
32	1a	1518	MA6	N1-C2-N3	-4.94	121.10	128.58
1	1A	2564	OMU	O4-C4-C5	-4.91	116.69	125.16
32	2a	1518	MA6	C5-C4-N3	-4.90	119.97	126.72
1	2A	2503	2MA	C4-N9-C8	4.88	110.86	105.74
32	1a	1518	MA6	C4-C5-C6	4.88	120.95	115.91
32	1a	1519	MA6	N3-C4-N9	4.84	135.39	127.17
32	1a	1519	MA6	N1-C2-N3	-4.84	121.26	128.58
1	1A	2564	OMU	O2'-C2'-C1'	-4.83	99.81	108.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	527	7MG	C5-C6-N1	4.80	119.39	110.94
32	1a	1518	MA6	C4-N9-C1'	-4.78	115.45	126.63
32	2a	967	5MC	C5-C6-N1	-4.78	118.12	123.31
32	2a	1519	MA6	N3-C4-N9	4.77	135.28	127.17
1	2A	1962	5MC	C4-N3-C2	-4.51	114.55	120.81
1	2A	2503	2MA	N6-C6-N1	4.51	123.11	117.03
1	2A	1917	PSU	C6-C5-C4	4.40	121.14	118.17
32	2a	1402	4OC	C6-C5-C4	4.39	122.28	117.00
1	2A	2552	OMU	O2-C2-N1	-4.34	117.15	122.80
32	1a	1498	UR3	C4-N3-C2	-4.33	121.09	124.58
32	1a	527	7MG	C4-C5-N7	4.32	110.49	105.38
32	2a	1519	MA6	N1-C2-N3	-4.31	122.05	128.58
32	1a	527	7MG	C5-C6-N1	4.31	118.52	110.94
32	1a	1519	MA6	N9-C8-N7	-4.30	107.83	113.94
32	2a	1498	UR3	C5-C4-N3	4.29	120.69	115.04
1	2A	2552	OMU	N3-C2-N1	4.26	120.44	114.89
32	2a	1518	MA6	N1-C2-N3	-4.26	122.14	128.58
32	1a	1404	5MC	C5-C6-N1	-4.23	118.71	123.31
1	1A	1984	5MC	C5-C4-N3	4.22	126.08	121.75
1	2A	1911	PSU	C6-C5-C4	4.21	121.02	118.17
1	2A	1939	5MU	C4-N3-C2	-4.18	121.85	127.34
32	1a	1207	2MG	C1'-N9-C8	4.18	138.60	126.73
32	1a	1207	2MG	C1'-N9-C4	-4.12	114.31	126.49
1	2A	2251	OMG	C2-N3-C4	4.09	119.35	112.30
32	2a	527	7MG	C2-N3-C4	4.08	119.33	112.30
32	1a	516	PSU	C6-N1-C2	-4.06	118.92	122.69
32	1a	1518	MA6	C5-C4-N3	-4.06	121.12	126.72
1	2A	2552	OMU	C4-N3-C2	-4.06	121.57	126.61
32	2a	1498	UR3	O2-C2-N3	4.05	126.93	121.33
32	2a	1518	MA6	C4-N9-C1'	-4.04	117.18	126.63
32	1a	1518	MA6	N9-C8-N7	-4.03	108.22	113.94
1	1A	2564	OMU	N3-C2-N1	4.00	120.10	114.89
1	2A	2552	OMU	C6-C5-C4	-3.99	114.44	119.53
1	1A	2564	OMU	C6-C5-C4	-3.98	114.44	119.53
32	1a	1404	5MC	C4-N3-C2	-3.96	115.31	120.81
1	1A	1937	5MU	C1'-N1-C2	3.95	124.69	117.59
1	1A	1964	5MC	C5-C6-N1	-3.95	119.03	123.31
32	2a	966	M2G	C5-C4-N3	-3.94	122.11	128.39
1	1A	1961	5MU	C4-N3-C2	-3.92	122.19	127.34
1	2A	2251	OMG	C5-C4-N3	-3.92	122.15	128.39
1	1A	1933	PSU	C6-C5-C4	3.89	120.80	118.17
32	1a	1400	5MC	C5-C4-N3	3.89	125.74	121.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	1a	966	M2G	C2-N3-C4	3.87	119.67	112.51
32	2a	1400	5MC	C5-C6-N1	-3.86	119.12	123.31
32	1a	1407	5MC	C5-C4-N3	3.82	125.67	121.75
43	2l	92	0TD	OD2-CG-CB	3.80	121.36	113.15
32	2a	1519	MA6	N9-C8-N7	-3.80	108.54	113.94
43	1l	92	0TD	OD2-CG-CB	3.79	121.33	113.15
32	2a	527	7MG	C5-C4-N3	-3.78	121.03	128.13
1	1A	1961	5MU	C6-C5-C4	3.77	121.13	118.02
32	1a	1498	UR3	C5-C4-N3	3.77	120.00	115.04
1	2A	2251	OMG	C1'-N9-C4	3.76	137.60	126.49
32	1a	1518	MA6	C4-N9-C8	3.75	109.67	105.74
32	2a	1498	UR3	O2-C2-N1	-3.73	114.46	122.78
32	2a	966	M2G	C2-N3-C4	3.72	119.39	112.51
1	1A	1937	5MU	C1'-N1-C6	-3.71	115.04	121.15
1	1A	2617	PSU	C6-C5-C4	3.71	120.68	118.17
32	2a	1518	MA6	C1'-N9-C8	3.71	135.32	127.09
1	1A	2515	2MA	C4-N9-C8	3.70	109.62	105.74
1	2A	1915	5MU	C1'-N1-C2	3.69	124.22	117.59
32	2a	527	7MG	C4-C5-N7	3.69	109.73	105.38
32	2a	966	M2G	N9-C8-N7	-3.64	106.65	113.40
32	2a	527	7MG	C5-C4-N9	3.63	110.98	106.33
32	2a	1404	5MC	C5-C6-N1	-3.60	119.40	123.31
32	2a	1404	5MC	C5-C4-N3	3.59	125.43	121.75
32	1a	1400	5MC	C5-C6-N1	-3.59	119.42	123.31
32	1a	1518	MA6	C2-N1-C6	3.58	120.57	111.83
1	2A	2503	2MA	CM2-C2-N1	3.55	122.44	117.13
32	2a	1404	5MC	C4-N3-C2	-3.54	115.90	120.81
32	1a	1519	MA6	C5-N7-C8	3.53	109.00	103.45
32	1a	967	5MC	C5-C4-N3	3.53	125.37	121.75
32	1a	1519	MA6	C6-C5-N7	-3.51	127.83	133.43
32	1a	1518	MA6	C1'-N9-C8	3.50	134.87	127.09
32	2a	1207	2MG	N9-C4-N3	3.50	132.96	125.95
1	2A	1939	5MU	C6-C5-C4	3.50	120.90	118.02
32	2a	1407	5MC	C5-C4-N3	3.49	125.33	121.75
1	2A	2251	OMG	C2-N1-C6	-3.48	118.79	125.11
1	1A	1984	5MC	C5-C6-N1	-3.46	119.55	123.31
1	1A	2263	OMG	C1'-N9-C8	-3.44	116.97	126.73
1	2A	1939	5MU	C5-C4-N3	3.43	118.30	115.32
1	1A	2263	OMG	C8-N7-C5	3.42	110.36	104.26
32	2a	1518	MA6	C2-N1-C6	3.42	120.19	111.83
1	1A	1984	5MC	C4-N3-C2	-3.41	116.08	120.81
1	1A	1937	5MU	C4-N3-C2	-3.39	122.89	127.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	2515	2MA	C5-C6-N6	-3.39	114.89	123.29
32	1a	1518	MA6	N3-C4-N9	3.36	132.87	127.17
32	2a	1207	2MG	N2-C2-N3	3.32	124.73	120.51
1	1A	2263	OMG	C2-N3-C4	3.30	117.98	112.30
32	1a	516	PSU	N1-C2-N3	3.30	118.65	115.17
32	1a	1407	5MC	N4-C4-N3	-3.30	112.54	118.51
32	2a	1400	5MC	C5-C4-N3	3.29	125.12	121.75
32	2a	1518	MA6	N3-C4-N9	3.27	132.72	127.17
32	1a	967	5MC	C5-C6-N1	-3.25	119.78	123.31
32	1a	1498	UR3	C1'-N1-C2	3.25	122.36	117.04
32	2a	1519	MA6	C2-N3-C4	3.25	119.76	111.83
1	1A	2263	OMG	C6-C5-N7	3.23	136.16	130.29
32	2a	516	PSU	C6-N1-C2	-3.23	119.70	122.69
43	1l	92	0TD	OD2-CG-OD1	-3.22	116.78	124.08
1	1A	1939	PSU	O2-C2-N1	-3.22	119.47	122.79
1	2A	2251	OMG	C8-N9-C4	3.19	112.00	106.03
1	1A	1937	5MU	C5M-C5-C6	-3.17	118.56	122.85
1	2A	1962	5MC	C5-C6-N1	-3.16	119.89	123.31
32	2a	967	5MC	N4-C4-N3	-3.15	112.80	118.51
32	2a	967	5MC	C5-C4-N3	3.14	124.97	121.75
32	2a	967	5MC	C4-N3-C2	-3.13	116.47	120.81
1	2A	1915	5MU	C4-N3-C2	-3.12	123.25	127.34
32	1a	1404	5MC	C5-C4-N3	3.11	124.94	121.75
43	2l	92	0TD	CB-CA-N	-3.10	102.81	109.10
1	2A	1942	5MC	C5-C4-N3	3.10	124.93	121.75
32	1a	1207	2MG	C4-C5-N7	-3.09	105.77	110.67
1	1A	2617	PSU	O4-C4-N3	-3.09	114.31	120.11
1	2A	1920	4OC	O2-C2-N3	-3.09	117.47	122.33
1	2A	2251	OMG	C8-N7-C5	3.07	109.72	104.26
1	2A	1915	5MU	C1'-N1-C6	-3.07	116.10	121.15
1	2A	2251	OMG	CM2-O2'-C2'	-3.05	106.65	114.47
32	2a	1519	MA6	C5-N7-C8	3.05	108.24	103.45
1	1A	1933	PSU	O2-C2-N1	-3.04	119.65	122.79
1	1A	2263	OMG	C8-N9-C4	3.04	111.72	106.03
1	1A	2515	2MA	C5-C4-N9	3.04	109.12	105.81
32	1a	1519	MA6	C2-N1-C6	3.01	119.18	111.83
1	2A	2552	OMU	O4-C4-C5	-3.00	119.98	125.16
1	1A	1964	5MC	C4-N3-C2	-2.99	116.66	120.81
32	2a	1207	2MG	C1'-N9-C4	-2.97	117.72	126.49
32	1a	1207	2MG	C8-N7-C5	2.97	109.54	104.26
32	1a	1519	MA6	C2-N3-C4	2.97	119.07	111.83
1	2A	1942	5MC	C5-C6-N1	-2.96	120.10	123.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	1a	1207	2MG	O3'-C3'-C2'	2.95	121.28	111.82
32	2a	1518	MA6	N9-C8-N7	-2.95	109.75	113.94
1	2A	1917	PSU	O2-C2-N1	-2.95	119.75	122.79
1	2A	1915	5MU	C6-C5-C4	2.95	120.45	118.02
32	1a	1400	5MC	C1'-N1-C6	-2.95	116.30	121.15
32	1a	1207	2MG	N9-C8-N7	-2.94	107.94	113.40
32	2a	516	PSU	N1-C2-N3	2.93	118.26	115.17
32	1a	1207	2MG	O3'-C3'-C4'	2.92	119.47	111.08
32	1a	1207	2MG	C2-N1-C6	-2.92	121.02	124.55
32	1a	527	7MG	C5-C4-N9	2.91	110.06	106.33
32	2a	1518	MA6	C6-C5-N7	-2.90	128.81	133.43
1	1A	1961	5MU	O4-C4-C5	-2.87	121.63	124.92
32	1a	1400	5MC	C4-N3-C2	-2.86	116.83	120.81
32	2a	1207	2MG	C2-N1-C6	-2.81	121.15	124.55
32	1a	966	M2G	N9-C8-N7	-2.80	108.20	113.40
1	1A	2263	OMG	C4-C5-N7	-2.79	106.24	110.67
32	2a	1519	MA6	C6-C5-N7	-2.79	128.98	133.43
1	1A	2263	OMG	C5-C4-N3	-2.78	123.97	128.39
32	2a	1519	MA6	C4-N9-C1'	-2.77	120.15	126.63
1	2A	1939	5MU	C5-C6-N1	-2.75	120.33	123.31
1	1A	1933	PSU	N1-C2-N3	2.75	118.06	115.17
32	1a	1518	MA6	C6-C5-N7	-2.73	129.07	133.43
1	1A	1939	PSU	N1-C2-N3	2.72	118.04	115.17
32	2a	1402	4OC	C5-C4-N3	-2.72	118.34	122.60
1	1A	2263	OMG	C5-C6-N1	2.72	120.18	113.25
32	1a	967	5MC	C4-N3-C2	-2.71	117.05	120.81
1	1A	1942	4OC	CM2-O2'-C2'	-2.69	107.58	114.47
32	1a	1207	2MG	N1-C2-N3	-2.68	119.17	123.68
32	2a	1207	2MG	C1'-N9-C8	2.67	134.32	126.73
1	1A	1937	5MU	C5M-C5-C4	2.67	121.63	118.78
32	1a	527	7MG	C2-N3-C4	2.67	116.90	112.30
32	1a	966	M2G	C5-C6-N1	2.66	120.02	113.25
1	1A	2617	PSU	C6-N1-C2	-2.65	120.23	122.69
1	1A	2564	OMU	O2-C2-N1	-2.63	119.37	122.80
1	2A	2503	2MA	C5-C6-N6	-2.61	116.83	123.29
1	2A	2503	2MA	C5-N7-C8	2.58	107.51	103.45
32	2a	1402	4OC	O2-C2-N1	-2.58	113.83	118.90
32	1a	966	M2G	O6-C6-C5	-2.58	119.73	126.53
1	2A	1962	5MC	CM5-C5-C6	-2.58	119.36	122.85
32	2a	1207	2MG	N9-C8-N7	-2.56	108.65	113.40
1	2A	1962	5MC	C5-C4-N3	2.56	124.38	121.75
32	1a	516	PSU	O4'-C1'-C2'	2.55	108.68	105.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	2251	OMG	O6-C6-C5	-2.55	119.81	126.53
1	2A	2503	2MA	C5-C4-N3	-2.55	124.50	127.18
32	2a	516	PSU	C5-C6-N1	-2.54	118.61	122.14
32	1a	1519	MA6	C4-N9-C1'	-2.54	120.70	126.63
32	1a	1407	5MC	C5-C6-N1	-2.52	120.57	123.31
32	2a	1400	5MC	C4-N3-C2	-2.52	117.31	120.81
1	2A	2251	OMG	N9-C4-N3	2.51	130.96	125.95
32	1a	967	5MC	N4-C4-N3	-2.50	113.98	118.51
1	1A	2564	OMU	C3'-C2'-C1'	2.49	107.58	102.81
32	2a	1518	MA6	C2-N3-C4	2.49	117.91	111.83
32	1a	527	7MG	C5-C4-N3	-2.48	123.47	128.13
32	2a	1519	MA6	C2-N1-C6	2.48	117.89	111.83
1	1A	1964	5MC	C5-C4-N3	2.48	124.30	121.75
32	2a	516	PSU	O4'-C1'-C2'	2.48	108.58	105.15
32	1a	1207	2MG	C5-C4-N9	2.48	110.09	105.66
32	2a	1498	UR3	C5-C6-N1	-2.48	117.81	121.84
32	2a	1498	UR3	O4-C4-C5	-2.47	117.34	124.35
32	2a	966	M2G	C4-C5-N7	-2.47	106.76	110.67
32	1a	1407	5MC	C4-N3-C2	-2.47	117.38	120.81
1	1A	1961	5MU	C5-C4-N3	2.45	117.46	115.32
1	2A	2605	PSU	C4-N3-C2	-2.45	122.99	126.37
1	2A	2251	OMG	C5-C6-N1	2.44	119.47	113.25
43	2l	92	0TD	OD2-CG-OD1	-2.43	118.56	124.08
1	2A	1917	PSU	O4-C4-N3	-2.43	115.55	120.11
32	1a	527	7MG	O6-C6-C5	-2.42	121.67	127.62
32	1a	1402	4OC	CM4-N4-C4	-2.39	117.79	122.45
1	1A	1937	5MU	C5-C4-N3	2.38	117.39	115.32
1	1A	1984	5MC	CM5-C5-C6	-2.38	119.63	122.85
1	2A	1915	5MU	C5M-C5-C6	-2.36	119.66	122.85
32	2a	966	M2G	C8-N7-C5	2.35	108.45	104.26
32	1a	1402	4OC	CM2-O2'-C2'	2.35	120.51	114.47
32	2a	527	7MG	C2-N1-C6	-2.34	120.86	125.11
32	2a	1407	5MC	C5-C6-N1	-2.33	120.78	123.31
32	2a	1404	5MC	CM5-C5-C6	-2.32	119.72	122.85
32	1a	527	7MG	C6-C5-C4	-2.31	118.33	122.40
1	1A	1984	5MC	N4-C4-N3	-2.31	114.33	118.51
1	1A	1942	4OC	C2'-C1'-N1	-2.31	109.86	114.24
32	2a	1407	5MC	C4-N3-C2	-2.30	117.61	120.81
1	2A	1917	PSU	N1-C2-N3	2.30	117.59	115.17
32	1a	1400	5MC	N4-C4-N3	-2.30	114.34	118.51
32	1a	1400	5MC	CM5-C5-C6	-2.30	119.74	122.85
1	1A	2263	OMG	N1-C2-N3	-2.30	119.12	123.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	2251	OMG	N2-C2-N1	2.30	121.61	116.76
1	2A	1911	PSU	O2-C2-N1	-2.30	120.42	122.79
32	1a	1407	5MC	CM5-C5-C6	-2.30	119.74	122.85
32	1a	1518	MA6	C2-N3-C4	2.27	117.38	111.83
1	1A	2515	2MA	N3-C2-N1	-2.27	121.76	125.77
32	2a	527	7MG	O6-C6-C5	-2.27	122.06	127.62
32	2a	966	M2G	C5-C6-N1	2.27	119.02	113.25
32	2a	967	5MC	C1'-N1-C2	-2.26	113.45	118.44
32	2a	966	M2G	O6-C6-C5	-2.25	120.59	126.53
32	1a	1207	2MG	C3'-C2'-C1'	-2.25	97.21	101.46
1	1A	2515	2MA	C5-N7-C8	2.24	106.97	103.45
32	1a	966	M2G	CM2-N2-CM1	2.24	123.03	115.87
1	2A	1911	PSU	O4-C4-N3	-2.24	115.90	120.11
1	1A	1933	PSU	O4-C4-C5	2.24	129.56	124.01
32	1a	1207	2MG	C6-C5-N7	2.23	134.36	130.29
32	1a	1207	2MG	N9-C4-N3	2.23	130.42	125.95
1	2A	1911	PSU	N1-C2-N3	2.22	117.51	115.17
1	1A	2617	PSU	O2'-C2'-C1'	-2.22	105.95	111.21
1	2A	2251	OMG	C4-C5-N7	-2.22	107.16	110.67
1	2A	1917	PSU	C4-N3-C2	-2.21	123.32	126.37
32	1a	966	M2G	N9-C4-N3	2.21	130.37	125.95
32	2a	1498	UR3	C6-N1-C2	2.21	123.60	121.80
32	2a	1400	5MC	N4-C4-N3	-2.21	114.51	118.51
1	1A	2263	OMG	O6-C6-N1	-2.21	115.97	120.11
1	1A	1939	PSU	C6-N1-C2	-2.20	120.65	122.69
32	1a	1207	2MG	C5-C6-N1	2.20	118.85	113.25
32	2a	1402	4OC	N1-C2-N3	2.19	122.61	118.80
32	1a	1207	2MG	C2'-C1'-N9	-2.19	107.15	113.25
1	1A	1961	5MU	C5M-C5-C4	-2.18	116.46	118.78
1	1A	1942	4OC	C5-C4-N4	-2.18	116.83	120.63
1	1A	1937	5MU	C6-C5-C4	2.17	119.81	118.02
1	2A	1920	4OC	C6-C5-C4	2.17	121.09	117.53
1	1A	2263	OMG	C2-N1-C6	-2.17	121.19	125.11
32	2a	1207	2MG	N1-C2-N2	-2.16	114.35	116.56
32	2a	1519	MA6	C4-C5-N7	-2.16	108.11	110.58
1	1A	1933	PSU	O4'-C1'-C2'	2.14	108.12	105.15
1	2A	1911	PSU	O4'-C1'-C2'	2.14	108.11	105.15
1	1A	1933	PSU	O4-C4-N3	-2.14	116.09	120.11
32	2a	1519	MA6	C1'-N9-C8	2.14	131.84	127.09
1	1A	2617	PSU	O4-C4-C5	2.13	129.30	124.01
1	2A	1920	4OC	C2'-C1'-N1	-2.13	110.20	114.24
1	1A	1942	4OC	N4-C4-N3	2.13	121.71	117.91

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	1a	516	PSU	C4-N3-C2	-2.13	123.44	126.37
32	1a	1519	MA6	C4-N9-C8	2.12	107.96	105.74
1	1A	1961	5MU	C5-C6-N1	-2.12	121.02	123.31
1	1A	2515	2MA	C5-C4-N3	-2.11	124.96	127.18
1	1A	2515	2MA	C4-C5-N7	-2.11	108.17	110.58
1	1A	1933	PSU	C6-N1-C2	-2.10	120.74	122.69
32	2a	966	M2G	C6-C5-N7	2.10	134.11	130.29
32	1a	516	PSU	C5-C6-N1	-2.10	119.23	122.14
1	1A	2263	OMG	N2-C2-N1	2.09	121.17	116.76
32	1a	966	M2G	C5-C4-N9	2.09	109.39	105.66
1	1A	2564	OMU	CM2-O2'-C2'	-2.09	109.12	114.47
1	1A	1942	4OC	C1'-N1-C6	-2.08	116.33	120.78
32	2a	1207	2MG	C8-N7-C5	2.08	107.96	104.26
1	1A	1939	PSU	O4-C4-N3	-2.08	116.21	120.11
32	1a	527	7MG	C2-N1-C6	-2.08	121.35	125.11
1	2A	1915	5MU	O4'-C1'-N1	2.07	113.05	108.36
1	1A	2515	2MA	O4'-C1'-N9	-2.06	104.13	108.09
1	2A	2503	2MA	O4'-C1'-N9	-2.06	104.14	108.09
32	2a	967	5MC	C6-N1-C2	2.05	123.69	120.95
32	2a	967	5MC	CM5-C5-C6	-2.05	120.08	122.85
1	1A	1939	PSU	O4-C4-C5	2.04	129.08	124.01
1	2A	2552	OMU	O4-C4-N3	-2.03	116.33	119.27
32	1a	1519	MA6	C4-C5-N7	-2.03	108.26	110.58
32	2a	1404	5MC	N4-C4-N3	-2.03	114.83	118.51
32	1a	1404	5MC	CM5-C5-C6	-2.02	120.11	122.85
32	2a	1498	UR3	C3U-N3-C4	2.02	120.67	117.87
1	2A	1942	5MC	C4-N3-C2	-2.02	118.01	120.81
32	2a	1519	MA6	C4-N9-C8	2.01	107.85	105.74

There are no chirality outliers.

All (48) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	1A	1937	5MU	O4'-C1'-N1-C2
1	1A	1937	5MU	O4'-C1'-N1-C6
1	1A	1937	5MU	O4'-C4'-C5'-O5'
1	1A	2263	OMG	C1'-C2'-O2'-CM2
32	1a	1402	4OC	O4'-C4'-C5'-O5'
32	1a	1519	MA6	O4'-C4'-C5'-O5'
43	1l	92	0TD	SB-CB-CG-OD2
43	1l	92	0TD	SB-CB-CG-OD1
1	2A	1915	5MU	O4'-C1'-N1-C2

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Mol	Chain	Res	Type	Atoms
1	2A	1915	5MU	O4'-C1'-N1-C6
32	2a	1519	MA6	C5-C6-N6-C10
43	2l	92	0TD	SB-CB-CG-OD2
43	2l	92	0TD	SB-CB-CG-OD1
32	1a	967	5MC	O4'-C4'-C5'-O5'
32	2a	527	7MG	C3'-C4'-C5'-O5'
32	2a	1402	4OC	O4'-C4'-C5'-O5'
32	2a	1519	MA6	O4'-C4'-C5'-O5'
32	2a	1519	MA6	N1-C6-N6-C10
32	1a	1519	MA6	C3'-C4'-C5'-O5'
1	1A	1937	5MU	C3'-C4'-C5'-O5'
32	1a	1402	4OC	C3'-C4'-C5'-O5'
1	2A	2503	2MA	O4'-C4'-C5'-O5'
32	1a	1519	MA6	C5-C6-N6-C9
1	2A	1915	5MU	O4'-C4'-C5'-O5'
32	1a	967	5MC	C3'-C4'-C5'-O5'
32	1a	1207	2MG	O4'-C4'-C5'-O5'
32	2a	527	7MG	O4'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'
32	1a	1207	2MG	C3'-C4'-C5'-O5'
32	2a	1402	4OC	C3'-C4'-C5'-O5'
43	1l	92	0TD	CA-CB-CG-OD1
43	1l	92	0TD	CG-CB-SB-CSB
43	2l	92	0TD	CG-CB-SB-CSB
32	1a	516	PSU	O4'-C1'-C5-C4
32	2a	516	PSU	O4'-C1'-C5-C4
32	2a	1519	MA6	C5-C6-N6-C9
1	2A	2503	2MA	C4'-C5'-O5'-P
43	1l	92	0TD	CA-CB-SB-CSB
32	2a	1498	UR3	O4'-C4'-C5'-O5'
32	1a	527	7MG	C3'-C4'-C5'-O5'
43	1l	92	0TD	CA-CB-CG-OD2
32	2a	1519	MA6	C4'-C5'-O5'-P
32	2a	1404	5MC	C3'-C4'-C5'-O5'
1	1A	1942	4OC	C2'-C1'-N1-C2
1	2A	1920	4OC	C2'-C1'-N1-C2
1	2A	1920	4OC	C3'-C4'-C5'-O5'
1	2A	2503	2MA	C3'-C4'-C5'-O5'
1	1A	2515	2MA	O4'-C4'-C5'-O5'

There are no ring outliers.

26 monomers are involved in 39 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	2A	2251	OMG	1	0
43	2l	92	0TD	2	0
32	1a	516	PSU	1	0
32	2a	966	M2G	1	0
32	2a	1518	MA6	1	0
32	2a	516	PSU	2	0
32	1a	1402	4OC	2	0
1	1A	1933	PSU	1	0
32	2a	1400	5MC	1	0
32	1a	966	M2G	2	0
1	2A	1920	4OC	1	0
1	2A	1942	5MC	1	0
32	1a	1407	5MC	1	0
1	1A	1942	4OC	1	0
1	2A	1917	PSU	1	0
32	2a	1207	2MG	3	0
1	2A	2552	OMU	2	0
32	1a	1519	MA6	3	0
32	2a	1498	UR3	1	0
43	1l	92	0TD	2	0
1	2A	2503	2MA	1	0
32	1a	1518	MA6	2	0
1	2A	1915	5MU	1	0
1	1A	1961	5MU	2	0
32	1a	1207	2MG	3	0
32	2a	1402	4OC	2	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 2435 ligands modelled in this entry, 2431 are monoatomic and 2 are modelled with single atom - 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
58	SF4	2d	501	35	0,12,12	-	-	-		
58	SF4	1d	501	35	0,12,12	-	-	-		

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
58	SF4	2d	501	35	-	-	0/6/5/5
58	SF4	1d	501	35	-	-	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.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	2A	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	2A	2801(A):A	O3'	2802:G	P	3.50

6 Fit of model and data [i](#)

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

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	1A	2861/2915 (98%)	-0.79	92 (3%) 50 41	16, 34, 100, 113	0
1	2A	2856/2915 (97%)	-0.44	115 (4%) 42 34	31, 56, 101, 114	0
2	1B	120/120 (100%)	-0.78	0 100 100	27, 51, 64, 93	0
2	2B	120/120 (100%)	-0.10	1 (0%) 82 77	60, 79, 88, 96	0
3	1D	275/275 (100%)	-0.61	1 (0%) 88 85	17, 34, 49, 74	0
3	2D	275/275 (100%)	-0.26	3 (1%) 78 71	27, 49, 64, 83	0
4	1E	204/204 (100%)	-0.61	0 100 100	16, 37, 58, 73	0
4	2E	204/204 (100%)	-0.11	1 (0%) 87 83	31, 57, 73, 83	0
5	1F	203/203 (100%)	-0.47	0 100 100	16, 38, 68, 92	0
5	2F	203/203 (100%)	-0.05	0 100 100	33, 66, 82, 91	0
6	1G	181/181 (100%)	0.00	2 (1%) 78 71	47, 66, 83, 95	0
6	2G	181/181 (100%)	0.64	7 (3%) 43 35	76, 85, 92, 98	0
7	1H	174/174 (100%)	-0.30	3 (1%) 69 61	36, 51, 65, 70	0
7	2H	173/174 (99%)	0.66	3 (1%) 69 61	66, 85, 94, 98	0
8	1I	147/147 (100%)	0.12	2 (1%) 73 65	40, 71, 82, 87	0
8	2I	146/147 (99%)	0.41	3 (2%) 63 54	53, 80, 91, 97	0
9	1N	140/140 (100%)	-0.58	0 100 100	19, 33, 57, 73	0
9	2N	140/140 (100%)	-0.07	0 100 100	46, 64, 76, 88	0
10	1O	122/122 (100%)	-0.59	0 100 100	26, 38, 55, 65	0
10	2O	122/122 (100%)	-0.26	0 100 100	41, 54, 68, 76	0
11	1P	149/149 (100%)	-0.51	0 100 100	17, 43, 64, 79	0
11	2P	149/149 (100%)	-0.01	1 (0%) 84 79	38, 66, 83, 91	0
12	1Q	141/141 (100%)	-0.46	0 100 100	25, 38, 53, 68	0
12	2Q	141/141 (100%)	0.02	1 (0%) 84 79	46, 63, 76, 81	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	1R	118/118 (100%)	-0.64	0 100 100	21, 32, 51, 61	0
13	2R	118/118 (100%)	-0.22	0 100 100	39, 53, 63, 76	0
14	1S	110/110 (100%)	-0.36	0 100 100	37, 51, 66, 69	0
14	2S	110/110 (100%)	0.57	5 (4%) 38 30	63, 75, 84, 86	0
15	1T	131/131 (100%)	-0.37	2 (1%) 72 64	32, 43, 70, 84	0
15	2T	131/131 (100%)	-0.09	2 (1%) 72 64	48, 59, 79, 86	0
16	1U	116/116 (100%)	-0.80	1 (0%) 81 75	19, 27, 42, 62	0
16	2U	116/116 (100%)	-0.01	0 100 100	41, 61, 77, 86	0
17	1V	101/101 (100%)	-0.79	0 100 100	17, 36, 54, 69	0
17	2V	101/101 (100%)	-0.08	0 100 100	39, 72, 81, 89	0
18	1W	112/112 (100%)	-0.72	1 (0%) 81 75	19, 27, 50, 92	0
18	2W	112/112 (100%)	-0.15	1 (0%) 81 75	38, 48, 67, 87	0
19	1X	95/95 (100%)	-0.43	1 (1%) 78 71	22, 35, 62, 71	0
19	2X	95/95 (100%)	0.14	1 (1%) 78 71	45, 61, 74, 78	0
20	1Y	107/107 (100%)	-0.18	1 (0%) 81 75	32, 47, 68, 78	0
20	2Y	107/107 (100%)	0.53	5 (4%) 36 28	55, 72, 84, 94	0
21	1Z	203/203 (100%)	-0.11	1 (0%) 87 83	40, 58, 77, 88	0
21	2Z	201/203 (99%)	0.37	3 (1%) 72 64	64, 79, 88, 95	0
22	10	77/77 (100%)	-0.51	0 100 100	26, 35, 58, 65	0
22	20	77/77 (100%)	0.35	4 (5%) 33 26	53, 62, 74, 78	0
23	11	97/97 (100%)	-0.34	1 (1%) 79 73	25, 39, 67, 80	0
23	21	97/97 (100%)	-0.11	1 (1%) 79 73	40, 57, 79, 88	0
24	12	70/70 (100%)	-0.22	1 (1%) 73 65	33, 47, 62, 82	0
24	22	70/70 (100%)	0.38	3 (4%) 40 31	61, 71, 81, 83	0
25	13	59/59 (100%)	-0.60	0 100 100	21, 32, 58, 77	0
25	23	59/59 (100%)	-0.02	1 (1%) 69 61	48, 62, 77, 82	0
26	14	69/69 (100%)	0.47	9 (13%) 7 6	63, 82, 96, 98	0
26	24	69/69 (100%)	1.10	12 (17%) 4 3	80, 92, 99, 100	0
27	15	59/59 (100%)	-0.73	0 100 100	15, 32, 48, 62	0
27	25	59/59 (100%)	-0.35	0 100 100	35, 52, 70, 76	0
28	16	53/53 (100%)	-0.62	0 100 100	32, 40, 55, 62	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	26	53/53 (100%)	-0.12	1 (1%) 66 58	52, 62, 69, 76	0
29	17	48/48 (100%)	-0.54	3 (6%) 26 20	18, 24, 58, 65	0
29	27	48/48 (100%)	-0.10	2 (4%) 40 32	32, 40, 66, 79	0
30	18	64/64 (100%)	-0.71	0 100 100	23, 30, 39, 48	0
30	28	64/64 (100%)	-0.02	2 (3%) 51 42	41, 54, 64, 72	0
31	19	37/37 (100%)	-0.37	1 (2%) 56 47	30, 40, 59, 71	0
31	29	37/37 (100%)	0.59	1 (2%) 56 47	61, 68, 79, 82	0
32	1a	1488/1521 (97%)	-0.10	29 (1%) 66 58	31, 74, 100, 114	0
32	2a	1492/1521 (98%)	-0.09	18 (1%) 76 69	41, 76, 100, 112	0
33	1b	231/231 (100%)	0.59	11 (4%) 35 28	67, 82, 92, 101	0
33	2b	231/231 (100%)	0.70	15 (6%) 25 20	68, 85, 94, 98	0
34	1c	206/206 (100%)	0.59	7 (3%) 48 39	70, 83, 92, 97	0
34	2c	206/206 (100%)	0.80	11 (5%) 32 25	77, 86, 93, 99	0
35	1d	208/208 (100%)	0.60	6 (2%) 53 45	59, 76, 87, 91	0
35	2d	208/208 (100%)	0.56	5 (2%) 59 50	61, 73, 84, 88	0
36	1e	148/148 (100%)	0.05	1 (0%) 84 79	48, 69, 79, 96	0
36	2e	148/148 (100%)	0.21	2 (1%) 73 65	58, 71, 81, 89	0
37	1f	100/100 (100%)	0.21	0 100 100	53, 73, 80, 84	0
37	2f	100/100 (100%)	0.06	1 (1%) 79 73	57, 70, 82, 87	0
38	1g	155/155 (100%)	0.32	3 (1%) 66 58	67, 77, 86, 90	0
38	2g	155/155 (100%)	0.49	10 (6%) 25 20	73, 81, 89, 95	0
39	1h	137/137 (100%)	0.17	0 100 100	55, 69, 77, 89	0
39	2h	137/137 (100%)	0.23	3 (2%) 62 53	60, 72, 80, 87	0
40	1i	127/127 (100%)	1.09	17 (13%) 7 5	68, 86, 93, 97	0
40	2i	126/127 (99%)	1.29	27 (21%) 2 2	74, 88, 94, 97	0
41	1j	97/97 (100%)	1.19	12 (12%) 8 7	70, 87, 95, 98	0
41	2j	96/97 (98%)	1.30	18 (18%) 3 3	75, 89, 95, 97	0
42	1k	114/114 (100%)	-0.01	1 (0%) 81 75	40, 65, 81, 87	0
42	2k	114/114 (100%)	0.10	0 100 100	54, 71, 85, 91	0
43	1l	121/122 (99%)	0.13	2 (1%) 69 61	47, 63, 75, 78	0
43	2l	121/122 (99%)	0.27	2 (1%) 69 61	54, 66, 75, 80	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	1m	116/116 (100%)	0.40	4 (3%) 48 39	71, 81, 88, 91	0
44	2m	114/116 (98%)	0.78	4 (3%) 47 38	76, 88, 93, 95	0
45	1n	60/60 (100%)	0.91	5 (8%) 17 14	71, 80, 88, 89	0
45	2n	60/60 (100%)	1.28	12 (20%) 3 2	76, 88, 92, 95	0
46	1o	88/88 (100%)	0.12	2 (2%) 61 52	46, 68, 80, 84	0
46	2o	88/88 (100%)	0.06	0 100 100	55, 71, 83, 86	0
47	1p	82/82 (100%)	0.89	8 (9%) 13 11	64, 77, 86, 90	0
47	2p	82/82 (100%)	0.51	3 (3%) 45 37	58, 70, 79, 86	0
48	1q	99/99 (100%)	0.33	1 (1%) 79 73	53, 68, 80, 84	0
48	2q	99/99 (100%)	0.11	1 (1%) 79 73	57, 70, 79, 83	0
49	1r	68/68 (100%)	0.10	0 100 100	55, 67, 80, 86	0
49	2r	68/68 (100%)	-0.01	0 100 100	61, 71, 82, 86	0
50	1s	83/83 (100%)	0.93	5 (6%) 27 21	76, 84, 91, 94	0
50	2s	83/83 (100%)	1.27	15 (18%) 3 3	84, 90, 97, 99	0
51	1t	96/98 (97%)	0.74	11 (11%) 9 8	64, 75, 86, 92	0
51	2t	98/98 (100%)	0.45	6 (6%) 27 21	56, 69, 83, 85	0
52	1u	23/23 (100%)	1.22	6 (26%) 1 1	72, 77, 83, 85	0
52	2u	23/23 (100%)	1.50	4 (17%) 4 3	79, 86, 89, 90	0
53	1x	97/97 (100%)	0.26	5 (5%) 33 26	52, 67, 81, 86	0
53	2x	96/97 (98%)	0.98	14 (14%) 6 4	72, 82, 93, 96	0
54	1y	10/10 (100%)	-0.37	0 100 100	30, 33, 40, 40	0
54	2y	10/10 (100%)	0.38	0 100 100	43, 47, 58, 58	0
All	All	20786/20974 (99%)	-0.11	608 (2%) 53 45	15, 64, 93, 114	0

All (608) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	1A	1133	G	13.9
1	1A	1137	G	10.1
1	1A	1118	C	9.3
1	1A	1135	G	9.0
1	1A	1132	A	8.8
1	1A	1134	A	8.5
1	1A	1123	A	8.4

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Mol	Chain	Res	Type	RSRZ
1	1A	1149	A	8.2
1	1A	1121	C	8.0
1	1A	1127	U	7.8
1	1A	1109	G	7.3
1	1A	1138	C	7.3
1	1A	1126	C	7.1
1	1A	1124	U	7.0
1	1A	1125	C	7.0
1	1A	1136	U	7.0
1	1A	1122	C	6.8
1	1A	1117	G	6.8
1	1A	1150	C	6.7
1	1A	1139	G	6.5
1	1A	1120	G	6.4
1	1A	1148	C	6.4
23	11	2	SER	6.1
26	14	52	THR	6.0
23	21	2	SER	5.9
40	2i	126	SER	5.9
1	2A	2147	G	5.8
15	1T	131	ALA	5.8
1	1A	1113	A	5.8
1	1A	1112	U	5.7
45	1n	2	ALA	5.7
1	1A	1110	C	5.6
1	1A	1128	U	5.5
32	2a	1030(A)	G	5.4
53	1x	98	ALA	5.4
7	1H	2	SER	5.1
1	2A	1046	A	5.1
15	1T	130	ALA	5.1
32	2a	1030(B)	C	4.9
1	2A	2125	G	4.9
1	1A	1129	U	4.8
51	1t	10	LEU	4.7
1	2A	2169	A	4.6
1	2A	2118	U	4.6
1	1A	2139	A	4.6
44	2m	102	ARG	4.6
1	2A	2802	G	4.6
51	2t	6	PRO	4.6
50	1s	9	VAL	4.5

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Mol	Chain	Res	Type	RSRZ
45	2n	2	ALA	4.5
1	2A	2148	G	4.4
1	1A	1103	A	4.4
1	1A	1131	A	4.4
34	1c	2	GLY	4.4
53	2x	98	ALA	4.4
1	1A	1119	A	4.3
1	2A	2173	A	4.3
50	2s	2	PRO	4.3
51	1t	103	GLY	4.3
26	24	49	PHE	4.2
50	1s	13	ASP	4.2
1	1A	2138	G	4.2
44	2m	106	ASN	4.2
1	2A	2123	G	4.2
1	2A	2124	G	4.2
1	2A	1085	A	4.2
29	27	48	LYS	4.1
19	1X	95	LEU	4.1
40	2i	102	LEU	4.1
40	2i	14	VAL	4.0
1	2A	2168	G	4.0
1	2A	1091	G	4.0
1	2A	2174	C	4.0
50	2s	68	GLY	4.0
32	2a	1001(A)	G	4.0
53	1x	97	ALA	3.9
1	2A	2126	A	3.9
26	14	59	PHE	3.9
32	1a	1036	G	3.9
50	2s	16	LEU	3.8
40	1i	128	ARG	3.8
41	1j	74	ILE	3.8
1	1A	1108	G	3.8
1	2A	1536	C	3.8
26	24	56	VAL	3.8
53	2x	9	GLN	3.8
50	2s	33	THR	3.8
1	2A	2803	C	3.7
32	1a	1286	A	3.7
41	1j	4	ILE	3.7
20	2Y	1	MET	3.6

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Mol	Chain	Res	Type	RSRZ
1	1A	2195	A	3.6
40	2i	42	ARG	3.6
35	1d	112	VAL	3.6
1	2A	2162	G	3.6
40	2i	127	LYS	3.6
34	2c	2	GLY	3.6
1	2A	1095	A	3.6
26	24	67	TYR	3.6
33	1b	237	ALA	3.6
1	1A	1104	G	3.5
1	1A	1130	A	3.5
51	2t	103	GLY	3.5
1	1A	2145	G	3.5
44	1m	2	ALA	3.5
1	1A	2141	A	3.5
32	1a	1030(B)	C	3.5
33	1b	7	VAL	3.5
14	2S	20	ARG	3.5
1	2A	2154	G	3.5
34	2c	158	GLY	3.5
34	1c	207	VAL	3.5
1	1A	2166	U	3.5
1	2A	1083	U	3.5
3	1D	276	LYS	3.4
26	14	56	VAL	3.4
40	2i	11	LYS	3.4
1	2A	1082	U	3.4
40	1i	66	ARG	3.4
52	1u	19	GLY	3.4
40	1i	106	ALA	3.4
52	2u	6	ARG	3.4
1	2A	2117	A	3.4
34	1c	193	TYR	3.4
40	1i	127	LYS	3.4
15	2T	131	ALA	3.4
1	2A	2138	C	3.3
1	2A	2137	C	3.3
1	2A	2110	G	3.3
1	2A	2133	G	3.3
1	2A	2119	A	3.3
1	2A	2170	A	3.3
1	1A	1114	G	3.3

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Mol	Chain	Res	Type	RSRZ
33	1b	187	LEU	3.3
1	2A	2112	G	3.3
33	2b	97	TRP	3.3
1	1A	1147	U	3.2
1	2A	2139	C	3.2
40	2i	2	GLU	3.2
45	2n	7	ILE	3.2
1	1A	935	C	3.2
1	1A	1111	U	3.2
1	1A	2194	U	3.2
39	2h	2	LEU	3.2
1	2A	2116	G	3.2
40	2i	7	THR	3.2
41	2j	74	ILE	3.2
38	1g	2	ALA	3.2
41	2j	47	PHE	3.1
1	2A	2143	C	3.1
1	2A	2897	U	3.1
1	2A	614(B)	G	3.1
43	1l	18	VAL	3.1
1	2A	2144	U	3.1
32	1a	1037	C	3.1
46	1o	87	ILE	3.1
52	2u	24	ARG	3.1
41	1j	32	ALA	3.1
1	2A	2127	G	3.1
26	14	50	VAL	3.1
1	1A	2151	C	3.1
1	2A	2145	C	3.1
1	2A	2155	G	3.1
1	2A	34	C	3.1
41	1j	10	GLY	3.0
45	2n	30	ALA	3.0
53	2x	3	MET	3.0
1	2A	2111	C	3.0
53	2x	64	SER	3.0
14	2S	17	ARG	3.0
29	17	48	LYS	3.0
34	1c	90	GLU	3.0
1	2A	2113	U	3.0
1	2A	229	A	3.0
1	2A	1067	A	3.0

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Mol	Chain	Res	Type	RSRZ
1	2A	2602	A	3.0
32	1a	1001	A	3.0
50	2s	9	VAL	3.0
53	2x	38	HIS	3.0
1	1A	2169	G	3.0
1	1A	2182	G	3.0
32	1a	1030(A)	G	3.0
1	2A	2107	C	3.0
1	2A	2896	C	3.0
24	12	70	GLN	3.0
47	1p	19	ILE	3.0
43	2l	18	VAL	3.0
50	2s	67	VAL	3.0
50	1s	40	ILE	3.0
50	2s	84	GLY	3.0
32	1a	1030	C	3.0
41	2j	75	ILE	2.9
1	2A	1064	C	2.9
1	2A	1076	C	2.9
33	2b	70	PHE	2.9
53	2x	8	LYS	2.9
1	2A	1084	A	2.9
20	1Y	1	MET	2.9
6	2G	62	LEU	2.9
41	1j	40	LEU	2.9
1	1A	1141	A	2.9
33	2b	136	VAL	2.9
33	1b	214	ILE	2.9
1	2A	2128	C	2.9
1	1A	2137	G	2.9
32	1a	1030(C)	G	2.9
41	1j	33	GLN	2.9
35	1d	154	ASN	2.9
53	2x	42	SER	2.9
32	2a	1001	A	2.9
51	1t	55	ILE	2.9
29	27	45	ALA	2.8
32	1a	1034	G	2.8
33	2b	237	ALA	2.8
39	2h	122	ARG	2.8
47	1p	68	ASP	2.8
38	2g	156	TRP	2.8

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Mol	Chain	Res	Type	RSRZ
40	2i	118	LYS	2.8
45	2n	17	LYS	2.8
1	1A	1143	U	2.8
2	2B	1	U	2.8
1	2A	1079	C	2.8
1	1A	2188	G	2.8
1	2A	2152	G	2.8
1	2A	2153	G	2.8
1	1A	2180	A	2.8
47	2p	82	GLN	2.8
12	2Q	59	ARG	2.8
40	1i	15	ALA	2.8
50	2s	71	LEU	2.8
1	1A	2160	C	2.8
50	2s	12	ASP	2.8
1	2A	2120	G	2.8
6	2G	2	PRO	2.8
26	24	55	ARG	2.8
47	1p	39	TYR	2.8
1	1A	1151	U	2.8
1	1A	2189	U	2.8
33	2b	201	ILE	2.8
3	2D	38	LYS	2.8
1	1A	2814	C	2.8
51	1t	70	SER	2.8
16	1U	117	GLN	2.7
33	2b	134	GLU	2.7
1	2A	652(B)	A	2.7
1	2A	2157	G	2.7
32	1a	1031	G	2.7
1	2A	1026	U	2.7
41	2j	37	PRO	2.7
14	2S	3	ARG	2.7
39	2h	30	ARG	2.7
51	1t	79	ARG	2.7
1	1A	2161	C	2.7
1	2A	2136	C	2.7
40	1i	125	TYR	2.7
1	2A	1088	A	2.7
1	2A	2149	G	2.7
32	1a	630	G	2.7
40	1i	7	THR	2.7

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Mol	Chain	Res	Type	RSRZ
36	1e	22	GLY	2.7
41	2j	46	ARG	2.7
1	1A	34	C	2.7
14	2S	58	LEU	2.7
40	2i	15	ALA	2.7
20	2Y	5	MET	2.7
26	24	63	TYR	2.7
1	2A	2132	U	2.7
1	2A	2172	U	2.7
40	1i	64	THR	2.7
32	1a	1003	G	2.7
32	2a	1036	G	2.7
45	2n	25	VAL	2.7
43	2l	99	HIS	2.7
33	2b	236	TYR	2.7
33	2b	137	ARG	2.7
50	1s	68	GLY	2.7
50	2s	79	THR	2.7
1	2A	2176	A	2.7
26	24	65	ASP	2.7
6	2G	35	GLU	2.7
33	1b	129	GLU	2.7
33	2b	7	VAL	2.7
1	2A	2121	G	2.6
1	2A	2131	G	2.6
1	2A	1092	C	2.6
1	2A	2140	C	2.6
3	2D	276	LYS	2.6
8	2I	146	ALA	2.6
22	20	9	SER	2.6
45	2n	16	PHE	2.6
32	1a	1002	G	2.6
35	2d	73	ARG	2.6
40	2i	66	ARG	2.6
44	2m	87	TYR	2.6
44	1m	115	LYS	2.6
44	1m	116	THR	2.6
32	2a	1027	C	2.6
1	2A	2109	U	2.6
1	2A	2150	U	2.6
11	2P	15	ARG	2.6
52	1u	9	ARG	2.6

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Mol	Chain	Res	Type	RSRZ
35	1d	4	TYR	2.6
1	2A	2141	G	2.6
1	2A	2159	G	2.6
45	2n	13	THR	2.6
40	2i	110	GLU	2.6
41	1j	75	ILE	2.6
1	2A	2122	U	2.6
41	2j	59	SER	2.6
1	2A	1070	A	2.6
32	1a	1035	A	2.6
52	2u	14	TRP	2.6
7	2H	136	ILE	2.6
15	2T	130	ALA	2.6
1	1A	2134	G	2.5
32	1a	1001(A)	G	2.5
40	2i	105	ASP	2.6
1	2A	1090	U	2.5
1	2A	2171	A	2.5
34	2c	159	GLY	2.5
41	2j	65	LEU	2.5
51	2t	96	GLY	2.5
48	1q	7	THR	2.5
38	2g	5	ARG	2.5
43	1l	47	LYS	2.5
1	1A	2181	G	2.5
1	2A	1089	G	2.5
1	2A	2151	G	2.5
1	2A	1080	C	2.5
50	2s	30	LEU	2.5
6	2G	146	TYR	2.5
41	2j	49	VAL	2.5
1	2A	1086	A	2.5
34	1c	15	THR	2.5
24	22	51	ARG	2.5
1	2A	1065	U	2.5
32	1a	1029	C	2.5
1	2A	1533	G	2.5
1	2A	2807	G	2.5
34	2c	129	ALA	2.5
51	2t	97	ALA	2.5
26	24	61	ARG	2.5
1	2A	614(A)	U	2.5

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Mol	Chain	Res	Type	RSRZ
1	2A	2167	U	2.5
26	14	54	GLY	2.5
40	2i	109	VAL	2.5
40	2i	12	GLU	2.5
38	2g	7	ALA	2.5
1	2A	2146	C	2.5
1	2A	2175	C	2.5
1	2A	2179	C	2.5
1	1A	2175	G	2.5
1	2A	1063	G	2.5
32	1a	1026	G	2.5
1	1A	2614	A	2.5
25	23	26	LEU	2.4
26	24	54	GLY	2.4
26	14	68	ARG	2.4
51	1t	17	ARG	2.4
51	1t	18	GLN	2.4
32	2a	1030	C	2.4
32	2a	1031	G	2.4
41	2j	36	GLY	2.4
32	1a	202	U	2.4
41	2j	63	PHE	2.4
53	1x	94	ALA	2.4
33	1b	236	TYR	2.4
47	1p	13	HIS	2.4
1	1A	2130	C	2.4
1	2A	2142	C	2.4
1	2A	2114	A	2.4
47	1p	3	LYS	2.4
48	2q	100	LYS	2.4
52	1u	15	ARG	2.4
1	1A	2155	G	2.4
1	1A	2190	G	2.4
1	2A	2805	G	2.4
50	2s	35	SER	2.4
33	1b	97	TRP	2.4
36	2e	20	GLN	2.4
47	1p	82	GLN	2.4
26	14	63	TYR	2.4
22	20	84	LEU	2.4
34	1c	87	LEU	2.4
26	24	45	GLY	2.4

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Mol	Chain	Res	Type	RSRZ
38	2g	34	GLY	2.4
38	2g	82	GLY	2.4
42	1k	14	VAL	2.4
46	1o	89	GLY	2.4
7	1H	101	ARG	2.4
40	2i	9	ARG	2.4
45	2n	3	ARG	2.4
1	1A	2168	C	2.4
38	1g	62	PHE	2.4
38	2g	42	ILE	2.4
33	1b	165	VAL	2.3
37	2f	46	ARG	2.3
1	1A	2164	C	2.3
38	2g	154	TYR	2.3
32	2a	1257	U	2.3
53	2x	45	PRO	2.3
1	1A	2171	G	2.3
29	17	47	ARG	2.3
33	1b	136	VAL	2.3
31	29	37	GLY	2.3
40	1i	18	PHE	2.3
50	2s	10	PHE	2.3
40	1i	13	ALA	2.3
40	2i	13	ALA	2.3
53	2x	97	ALA	2.3
8	1I	147	GLN	2.3
1	1A	1146	C	2.3
1	1A	2183	C	2.3
1	2A	2161	C	2.3
1	2A	2134	A	2.3
1	2A	2892	A	2.3
34	2c	8	ILE	2.3
41	2j	100	THR	2.3
33	2b	133	LYS	2.3
41	2j	55	LYS	2.3
40	1i	104	ARG	2.3
7	2H	120	GLY	2.3
34	2c	9	GLY	2.3
51	1t	9	ASN	2.3
4	2E	204	ALA	2.3
40	1i	19	LEU	2.3
14	2S	33	LYS	2.3

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Mol	Chain	Res	Type	RSRZ
33	1b	133	LYS	2.3
7	1H	6	ARG	2.3
40	2i	21	PRO	2.3
1	1A	2129	C	2.3
1	2A	1104	C	2.3
1	1A	2152	U	2.3
32	1a	1005	A	2.3
32	2a	1037	C	2.3
53	2x	79	ASN	2.3
18	2W	94	ASP	2.3
53	1x	9	GLN	2.3
1	1A	1102	G	2.3
1	1A	1145	G	2.3
1	2A	2160	G	2.3
6	1G	52	ILE	2.3
45	2n	21	TYR	2.3
40	1i	108	VAL	2.3
40	1i	109	VAL	2.3
52	1u	2	GLY	2.3
1	1A	1555	C	2.2
1	2A	2164	C	2.2
38	1g	26	PHE	2.2
41	1j	76	ASN	2.2
45	1n	5	ALA	2.2
33	2b	10	LEU	2.2
6	1G	26	GLN	2.2
52	2u	3	LYS	2.2
40	2i	75	ASP	2.2
38	2g	79	ARG	2.2
21	2Z	166	SER	2.2
35	2d	71	SER	2.2
40	2i	125	TYR	2.2
44	1m	87	TYR	2.2
1	1A	2170	G	2.2
1	2A	2115	G	2.2
32	2a	1030(C)	G	2.2
32	2a	1034	G	2.2
21	2Z	168	GLU	2.2
40	2i	119	ALA	2.2
32	1a	1027	C	2.2
50	2s	53	ASN	2.2
24	22	52	ASP	2.2

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Mol	Chain	Res	Type	RSRZ
41	1j	39	PRO	2.2
20	2Y	58	GLY	2.2
33	2b	38	GLY	2.2
51	2t	102	GLY	2.2
1	1A	2816	G	2.2
1	2A	2165	G	2.2
34	2c	206	GLU	2.2
51	1t	97	ALA	2.2
47	2p	25	ARG	2.2
1	2A	2135	A	2.2
32	2a	1531	A	2.2
1	1A	1099	C	2.2
1	2A	1075	C	2.2
1	2A	2108	C	2.2
45	2n	14	PRO	2.2
35	1d	135	LEU	2.2
35	2d	21	LEU	2.2
34	2c	182	ILE	2.2
32	2a	1040	U	2.2
1	2A	2106	G	2.2
32	1a	220	G	2.2
1	1A	2165	C	2.2
32	2a	1029	C	2.2
8	1I	10	GLU	2.2
26	24	57	GLU	2.2
36	2e	13	ILE	2.1
45	1n	7	ILE	2.1
53	2x	40	ILE	2.1
1	1A	1072	U	2.1
1	1A	2154	U	2.1
41	2j	72	VAL	2.1
1	1A	1101	G	2.1
33	2b	22	LYS	2.1
1	1A	2148	A	2.1
1	1A	2149	G	2.1
1	1A	2177	G	2.1
1	2A	2166	G	2.1
32	1a	1493	A	2.1
32	2a	1032	G	2.1
32	2a	1033	G	2.1
41	1j	100	THR	2.1
45	1n	13	THR	2.1

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Mol	Chain	Res	Type	RSRZ
51	2t	74	LYS	2.1
41	1j	59	SER	2.1
51	1t	12	ALA	2.1
19	2X	68	ARG	2.1
35	2d	47	ARG	2.1
52	1u	6	ARG	2.1
38	2g	84	ASN	2.1
24	22	1	MET	2.1
33	2b	232	PRO	2.1
34	2c	207	VAL	2.1
47	1p	2	VAL	2.1
22	20	8	GLY	2.1
45	2n	22	THR	2.1
35	1d	155	LEU	2.1
1	2A	6	A	2.1
47	2p	28	ARG	2.1
32	1a	102	G	2.1
1	2A	888	C	2.1
1	2A	2129	C	2.1
21	1Z	1	MET	2.1
30	28	52	LYS	2.1
45	2n	4	LYS	2.1
53	2x	66	LYS	2.1
34	1c	158	GLY	2.1
34	2c	94	LEU	2.1
35	1d	21	LEU	2.1
38	2g	12	LEU	2.1
26	14	49	PHE	2.1
31	19	12	ASP	2.1
6	2G	118	ARG	2.1
45	1n	3	ARG	2.1
28	26	54	ILE	2.1
26	24	66	SER	2.1
50	1s	4	SER	2.1
1	1A	2807	C	2.1
1	1A	2815	C	2.1
1	2A	1087	G	2.1
32	1a	163	C	2.1
32	1a	1033	G	2.1
32	2a	1003	G	2.1
52	1u	3	LYS	2.1
41	2j	40	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
50	2s	15	LEU	2.1
18	1W	112	GLY	2.1
22	20	74	ARG	2.1
35	2d	168	ARG	2.1
41	2j	58	ASP	2.1
3	2D	153	ALA	2.1
40	2i	45	ALA	2.1
40	2i	81	ILE	2.1
40	2i	106	ALA	2.1
53	2x	35	ILE	2.1
6	2G	67	LYS	2.0
20	2Y	4	LYS	2.0
21	2Z	199	LYS	2.0
6	2G	149	VAL	2.0
7	2H	169	VAL	2.0
8	2I	3	VAL	2.0
8	2I	144	VAL	2.0
34	2c	174	PRO	2.0
1	2A	2177	C	2.0
1	1A	299	G	2.0
1	2A	1062	G	2.0
26	24	58	ARG	2.0
30	28	46	ARG	2.0
32	1a	380	G	2.0
40	1i	39	GLY	2.0
40	2i	10	ARG	2.0
40	2i	68	GLY	2.0
51	1t	80	ARG	2.0
32	1a	65	U	2.0
26	14	57	GLU	2.0
40	2i	36	TYR	2.0
40	1i	53	VAL	2.0
41	2j	44	VAL	2.0
1	1A	572	A	2.0
1	1A	1144	A	2.0
1	2A	1096	A	2.0
33	1b	94	ASN	2.0
33	2b	21	ARG	2.0
41	2j	76	ASN	2.0
1	2A	2789	C	2.0
29	17	45	ALA	2.0
53	1x	2	THR	2.0

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Mol	Chain	Res	Type	RSRZ
1	1A	2140	U	2.0
1	1A	2146	G	2.0
1	2A	1071	G	2.0
1	2A	2893	G	2.0
20	2Y	34	LYS	2.0
32	1a	1023	G	2.0
32	1a	1032	G	2.0
41	1j	83	GLU	2.0
44	2m	58	GLU	2.0
53	2x	44	GLU	2.0
47	1p	1	MET	2.0
40	1i	28	VAL	2.0
41	2j	34	VAL	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, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
1	5MU	1A	1937	21/22	0.84	0.11	79,86,100,113	0
32	2MG	2a	1207	24/25	0.86	0.10	81,90,95,99	0
32	PSU	2a	516	20/21	0.88	0.10	72,83,88,90	0
1	5MU	2A	1915	21/22	0.89	0.08	79,87,92,108	0
32	PSU	1a	516	20/21	0.91	0.09	66,74,77,77	0
1	PSU	1A	1939	20/21	0.91	0.10	62,78,87,88	0
32	7MG	2a	527	24/25	0.92	0.12	69,74,77,79	0
1	PSU	2A	1917	20/21	0.92	0.07	72,79,85,102	0
32	5MC	2a	967	21/22	0.93	0.10	67,73,82,90	0
1	PSU	1A	1933	20/21	0.93	0.08	57,70,74,76	0
43	0TD	2l	92	10/11	0.93	0.10	71,73,77,92	0
32	M2G	2a	966	25/26	0.94	0.11	67,71,86,94	0
43	0TD	1l	92	10/11	0.94	0.11	63,65,74,80	0
1	PSU	2A	1911	20/21	0.94	0.07	65,73,80,81	0
32	2MG	1a	1207	24/25	0.94	0.07	76,81,85,85	0
32	M2G	1a	966	25/26	0.95	0.09	52,62,74,77	0
32	4OC	2a	1402	22/23	0.95	0.08	52,60,65,67	0
32	7MG	1a	527	24/25	0.95	0.09	50,63,66,71	0
1	5MC	2A	1962	21/22	0.96	0.08	34,44,51,60	0
32	5MC	1a	1407	21/22	0.96	0.08	44,53,58,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
32	5MC	1a	967	21/22	0.96	0.08	57,65,75,83	0
1	4OC	1A	1942	21/23	0.96	0.08	47,59,64,65	0
32	5MC	1a	1400	21/22	0.96	0.09	54,59,64,67	0
32	5MC	1a	1404	21/22	0.96	0.08	44,48,55,59	0
32	5MC	2a	1400	21/22	0.96	0.10	65,74,78,83	0
1	4OC	2A	1920	21/23	0.96	0.08	54,65,70,72	0
32	5MC	2a	1404	21/22	0.96	0.07	49,53,60,64	0
32	5MC	2a	1407	21/22	0.96	0.08	50,59,63,65	0
32	UR3	2a	1498	21/22	0.96	0.07	47,56,64,66	0
1	5MC	2A	1942	21/22	0.96	0.07	46,53,57,61	0
1	2MA	2A	2503	23/24	0.97	0.09	30,35,40,48	0
32	UR3	1a	1498	21/22	0.97	0.08	41,50,56,59	0
32	MA6	1a	1518	24/25	0.97	0.08	38,49,52,57	0
32	4OC	1a	1402	22/23	0.97	0.07	45,52,58,61	0
1	PSU	2A	2605	20/21	0.98	0.07	33,35,41,41	0
1	2MA	1A	2515	23/24	0.98	0.06	16,20,24,25	0
1	OMU	1A	2564	21/22	0.98	0.05	21,26,29,32	0
1	PSU	1A	2617	20/21	0.98	0.06	20,24,30,33	0
1	5MU	1A	1961	21/22	0.98	0.06	20,26,29,33	0
1	5MC	1A	1964	21/22	0.98	0.05	25,36,39,42	0
1	5MU	2A	1939	21/22	0.98	0.06	30,36,42,44	0
1	5MC	1A	1984	21/22	0.98	0.06	30,32,36,41	0
1	OMG	1A	2263	24/25	0.98	0.05	16,22,25,27	0
1	OMG	2A	2251	24/25	0.98	0.06	35,39,44,46	0
32	MA6	1a	1519	24/25	0.98	0.08	41,50,55,58	0
32	MA6	2a	1518	24/25	0.98	0.07	50,59,65,66	0
32	MA6	2a	1519	24/25	0.98	0.08	52,58,64,69	0
1	OMU	2A	2552	21/22	0.98	0.05	30,36,40,42	0

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2a	1718	1/1	0.03	0.27	88,88,88,88	0
55	MG	1a	3154	1/1	0.26	0.30	100,100,100,100	0
55	MG	2A	3768	1/1	0.29	0.15	95,95,95,95	0
55	MG	1a	3146	1/1	0.32	0.20	80,80,80,80	0
55	MG	2A	3553	1/1	0.32	0.38	89,89,89,89	0
55	MG	2A	3533	1/1	0.34	0.21	99,99,99,99	0
55	MG	2A	3802	1/1	0.36	0.33	97,97,97,97	0
55	MG	1A	3516	1/1	0.37	0.32	35,35,35,35	0
55	MG	2A	3471	1/1	0.41	0.21	79,79,79,79	0
55	MG	1a	3143	1/1	0.42	0.24	87,87,87,87	0
55	MG	2B	3011	1/1	0.44	0.17	90,90,90,90	0
55	MG	2a	1747	1/1	0.45	0.30	94,94,94,94	0
55	MG	1a	3058	1/1	0.46	0.49	82,82,82,82	0
55	MG	2A	3511	1/1	0.47	0.19	90,90,90,90	0
55	MG	2n	502	1/1	0.48	0.26	82,82,82,82	0
55	MG	2A	3792	1/1	0.51	0.60	79,79,79,79	0
55	MG	1A	3608	1/1	0.51	0.20	74,74,74,74	0
55	MG	2e	3002	1/1	0.52	0.43	83,83,83,83	0
55	MG	2A	3252	1/1	0.55	0.28	69,69,69,69	0
55	MG	1a	3009	1/1	0.55	0.32	69,69,69,69	0
55	MG	2A	3171	1/1	0.55	0.29	74,74,74,74	0
55	MG	2G	3002	1/1	0.55	0.10	90,90,90,90	0
55	MG	2A	3585	1/1	0.56	0.15	68,68,68,68	0
55	MG	2A	3510	1/1	0.56	0.15	103,103,103,103	0
55	MG	1a	3077	1/1	0.56	0.31	81,81,81,81	0
55	MG	2a	1710	1/1	0.56	0.27	86,86,86,86	0
55	MG	2A	3634	1/1	0.57	0.17	83,83,83,83	0
55	MG	2a	1641	1/1	0.57	0.27	77,77,77,77	0
55	MG	2a	1719	1/1	0.57	0.32	75,75,75,75	0
55	MG	1a	3161	1/1	0.58	0.62	77,77,77,77	0
55	MG	1a	3169	1/1	0.58	0.25	95,95,95,95	0
55	MG	2A	3101	1/1	0.58	0.24	74,74,74,74	0
55	MG	1a	3048	1/1	0.58	0.22	66,66,66,66	0
55	MG	2A	3582	1/1	0.59	0.25	64,64,64,64	0
55	MG	2a	1770	1/1	0.60	0.14	75,75,75,75	0
55	MG	2A	3606	1/1	0.60	0.21	68,68,68,68	0
55	MG	1A	3778	1/1	0.60	0.21	83,83,83,83	0
55	MG	2A	3647	1/1	0.61	0.10	88,88,88,88	0
55	MG	1a	3064	1/1	0.61	0.26	78,78,78,78	0
55	MG	2G	3001	1/1	0.61	0.11	90,90,90,90	0
55	MG	2A	3563	1/1	0.61	0.32	77,77,77,77	0
55	MG	2A	3256	1/1	0.62	0.24	84,84,84,84	0
55	MG	2a	1670	1/1	0.62	0.13	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3702	1/1	0.62	0.40	55,55,55,55	0
55	MG	1a	3074	1/1	0.63	0.28	65,65,65,65	0
55	MG	2a	1708	1/1	0.63	0.17	83,83,83,83	0
55	MG	2a	1632	1/1	0.63	0.34	75,75,75,75	0
55	MG	2a	1772	1/1	0.63	0.15	92,92,92,92	0
55	MG	2a	1717	1/1	0.63	0.22	73,73,73,73	0
55	MG	2A	3642	1/1	0.63	0.16	82,82,82,82	0
55	MG	2A	3693	1/1	0.64	0.18	95,95,95,95	0
55	MG	2A	3712	1/1	0.64	0.15	63,63,63,63	0
55	MG	2a	1686	1/1	0.64	0.14	108,108,108,108	0
55	MG	1a	3170	1/1	0.64	0.13	82,82,82,82	0
55	MG	2a	1736	1/1	0.64	0.21	78,78,78,78	0
55	MG	2a	1636	1/1	0.65	0.30	83,83,83,83	0
55	MG	1a	3215	1/1	0.65	0.27	86,86,86,86	0
55	MG	1a	3134	1/1	0.65	0.24	78,78,78,78	0
55	MG	2a	1614	1/1	0.66	0.51	75,75,75,75	0
55	MG	1A	3578	1/1	0.66	0.17	86,86,86,86	0
55	MG	2A	3090	1/1	0.66	0.32	76,76,76,76	0
55	MG	2a	1727	1/1	0.66	0.21	91,91,91,91	0
55	MG	2A	3290	1/1	0.66	0.28	64,64,64,64	0
55	MG	2a	1649	1/1	0.66	0.21	83,83,83,83	0
55	MG	2A	3194	1/1	0.66	0.27	84,84,84,84	0
55	MG	2B	3018	1/1	0.66	0.19	92,92,92,92	0
55	MG	2A	3472	1/1	0.66	0.20	88,88,88,88	0
55	MG	2A	3215	1/1	0.66	0.29	80,80,80,80	0
55	MG	2H	201	1/1	0.67	0.22	108,108,108,108	0
55	MG	2A	3455	1/1	0.67	0.39	59,59,59,59	0
55	MG	2A	3303	1/1	0.67	0.16	88,88,88,88	0
55	MG	2B	3015	1/1	0.67	0.22	85,85,85,85	0
55	MG	1A	3456	1/1	0.68	0.20	59,59,59,59	0
55	MG	1a	3189	1/1	0.68	0.11	84,84,84,84	0
55	MG	1A	3790	1/1	0.68	0.22	84,84,84,84	0
55	MG	2A	3328	1/1	0.68	0.33	72,72,72,72	0
55	MG	2A	3027	1/1	0.68	0.29	70,70,70,70	0
55	MG	2A	3456	1/1	0.68	0.35	70,70,70,70	0
55	MG	1B	3024	1/1	0.68	0.14	62,62,62,62	0
55	MG	2A	3105	1/1	0.69	0.24	82,82,82,82	0
55	MG	1a	3175	1/1	0.69	0.34	85,85,85,85	0
55	MG	2A	3789	1/1	0.69	0.19	62,62,62,62	0
55	MG	2A	3575	1/1	0.69	0.18	48,48,48,48	0
55	MG	1a	3016	1/1	0.69	0.23	80,80,80,80	0
55	MG	2a	1704	1/1	0.69	0.17	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2B	3002	1/1	0.69	0.28	78,78,78,78	0
55	MG	2a	1620	1/1	0.69	0.21	77,77,77,77	0
55	MG	1a	3034	1/1	0.69	0.21	84,84,84,84	0
55	MG	2A	3040	1/1	0.70	0.21	63,63,63,63	0
55	MG	2a	1711	1/1	0.70	0.39	80,80,80,80	0
55	MG	2A	3162	1/1	0.70	0.13	82,82,82,82	0
55	MG	2a	1642	1/1	0.70	0.25	68,68,68,68	0
55	MG	2a	1647	1/1	0.70	0.26	81,81,81,81	0
55	MG	2A	3653	1/1	0.70	0.23	77,77,77,77	0
55	MG	1a	3078	1/1	0.70	0.40	78,78,78,78	0
55	MG	2a	1739	1/1	0.70	0.19	86,86,86,86	0
55	MG	2a	1674	1/1	0.70	0.13	89,89,89,89	0
55	MG	2a	1682	1/1	0.70	0.20	88,88,88,88	0
55	MG	2B	3006	1/1	0.70	0.26	80,80,80,80	0
55	MG	1A	3165	1/1	0.70	0.49	80,80,80,80	0
55	MG	2A	3210	1/1	0.70	0.16	95,95,95,95	0
55	MG	1F	314	1/1	0.71	0.13	53,53,53,53	0
55	MG	1a	3123	1/1	0.71	0.13	86,86,86,86	0
55	MG	1a	3005	1/1	0.71	0.10	81,81,81,81	0
55	MG	2A	3759	1/1	0.71	0.15	88,88,88,88	0
55	MG	2A	3631	1/1	0.71	0.20	86,86,86,86	0
55	MG	2A	3026	1/1	0.71	0.46	73,73,73,73	0
55	MG	2A	3196	1/1	0.71	0.21	77,77,77,77	0
55	MG	2G	3003	1/1	0.71	0.18	81,81,81,81	0
55	MG	2h	8001	1/1	0.71	0.12	77,77,77,77	0
55	MG	2A	3292	1/1	0.71	0.28	77,77,77,77	0
55	MG	2a	1769	1/1	0.72	0.28	76,76,76,76	0
55	MG	1a	3092	1/1	0.72	0.18	85,85,85,85	0
55	MG	2a	1602	1/1	0.72	0.26	55,55,55,55	0
55	MG	1A	3267	1/1	0.72	0.23	79,79,79,79	0
55	MG	2A	3752	1/1	0.72	0.19	77,77,77,77	0
55	MG	1a	3084	1/1	0.72	0.26	64,64,64,64	0
55	MG	1A	3058	1/1	0.73	0.28	65,65,65,65	0
55	MG	2B	3014	1/1	0.73	0.14	76,76,76,76	0
55	MG	2A	3072	1/1	0.73	0.23	57,57,57,57	0
55	MG	1a	3117	1/1	0.73	0.22	61,61,61,61	0
55	MG	2A	3610	1/1	0.73	0.13	81,81,81,81	0
55	MG	1A	3026	1/1	0.73	0.21	63,63,63,63	0
55	MG	2A	3546	1/1	0.73	0.15	87,87,87,87	0
55	MG	1A	3859	1/1	0.73	0.13	87,87,87,87	0
55	MG	28	101	1/1	0.73	0.22	64,64,64,64	0
55	MG	2A	3798	1/1	0.73	0.36	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2b	3001	1/1	0.73	0.22	85,85,85,85	0
55	MG	2A	3643	1/1	0.73	0.41	60,60,60,60	0
55	MG	2A	3125	1/1	0.73	0.38	58,58,58,58	0
55	MG	1A	3209	1/1	0.73	0.13	72,72,72,72	0
55	MG	1A	3725	1/1	0.74	0.32	44,44,44,44	0
55	MG	1a	3145	1/1	0.74	0.23	77,77,77,77	0
55	MG	2A	3386	1/1	0.74	0.15	102,102,102,102	0
55	MG	1A	3731	1/1	0.74	0.12	72,72,72,72	0
55	MG	1A	3760	1/1	0.74	0.12	65,65,65,65	0
55	MG	2E	303	1/1	0.74	0.44	71,71,71,71	0
55	MG	2A	3756	1/1	0.74	0.50	95,95,95,95	0
55	MG	2A	3047	1/1	0.74	0.53	63,63,63,63	0
55	MG	1A	3183	1/1	0.74	0.23	46,46,46,46	0
55	MG	1A	3610	1/1	0.74	0.15	70,70,70,70	0
55	MG	1A	3611	1/1	0.74	0.19	65,65,65,65	0
55	MG	2A	3641	1/1	0.74	0.26	77,77,77,77	0
55	MG	1B	3013	1/1	0.74	0.14	58,58,58,58	0
55	MG	1A	3592	1/1	0.74	0.18	70,70,70,70	0
55	MG	1A	3901	1/1	0.75	0.18	42,42,42,42	0
55	MG	1A	3246	1/1	0.75	0.17	78,78,78,78	0
55	MG	1a	3200	1/1	0.75	0.20	93,93,93,93	0
55	MG	2A	3624	1/1	0.75	0.64	62,62,62,62	0
55	MG	20	106	1/1	0.75	0.19	78,78,78,78	0
55	MG	1B	3015	1/1	0.75	0.15	66,66,66,66	0
55	MG	1A	3840	1/1	0.75	0.17	61,61,61,61	0
55	MG	2a	1610	1/1	0.75	0.08	74,74,74,74	0
55	MG	2A	3794	1/1	0.75	0.17	75,75,75,75	0
55	MG	1A	3371	1/1	0.75	0.20	63,63,63,63	0
55	MG	2A	3131	1/1	0.75	0.34	65,65,65,65	0
55	MG	2A	3141	1/1	0.75	0.23	51,51,51,51	0
55	MG	2A	3030	1/1	0.75	0.37	69,69,69,69	0
55	MG	1a	3083	1/1	0.75	0.22	67,67,67,67	0
55	MG	2A	3678	1/1	0.75	0.11	92,92,92,92	0
55	MG	2A	3180	1/1	0.75	0.33	63,63,63,63	0
55	MG	2A	3707	1/1	0.75	0.21	75,75,75,75	0
55	MG	2D	305	1/1	0.75	0.46	59,59,59,59	0
55	MG	2A	3446	1/1	0.75	0.26	62,62,62,62	0
55	MG	1A	3630	1/1	0.76	0.13	55,55,55,55	0
55	MG	2A	3554	1/1	0.76	0.17	58,58,58,58	0
55	MG	2A	3038	1/1	0.76	0.17	49,49,49,49	0
55	MG	2A	3331	1/1	0.76	0.15	61,61,61,61	0
55	MG	2a	1677	1/1	0.76	0.22	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3727	1/1	0.76	0.16	65,65,65,65	0
55	MG	1a	3041	1/1	0.76	0.21	72,72,72,72	0
55	MG	2a	1699	1/1	0.76	0.11	74,74,74,74	0
55	MG	2A	3437	1/1	0.76	0.19	78,78,78,78	0
55	MG	1A	3262	1/1	0.76	0.20	84,84,84,84	0
55	MG	2A	3195	1/1	0.76	0.22	55,55,55,55	0
55	MG	2X	102	1/1	0.76	0.19	82,82,82,82	0
55	MG	1a	3113	1/1	0.76	0.26	66,66,66,66	0
55	MG	1A	3703	1/1	0.76	0.33	30,30,30,30	0
55	MG	28	102	1/1	0.76	0.25	59,59,59,59	0
55	MG	2a	1726	1/1	0.76	0.16	78,78,78,78	0
55	MG	1a	3062	1/1	0.76	0.22	79,79,79,79	0
55	MG	2a	1606	1/1	0.76	0.47	69,69,69,69	0
55	MG	2A	3796	1/1	0.76	0.29	67,67,67,67	0
55	MG	2A	3476	1/1	0.76	0.27	78,78,78,78	0
55	MG	1P	203	1/1	0.76	0.07	90,90,90,90	0
55	MG	2a	1625	1/1	0.76	0.31	70,70,70,70	0
55	MG	2a	1629	1/1	0.76	0.19	90,90,90,90	0
55	MG	2a	1790	1/1	0.76	0.25	80,80,80,80	0
55	MG	1A	3348	1/1	0.76	0.21	71,71,71,71	0
55	MG	1A	3618	1/1	0.76	0.20	72,72,72,72	0
55	MG	2B	3007	1/1	0.76	0.26	81,81,81,81	0
55	MG	1A	3623	1/1	0.76	0.19	56,56,56,56	0
55	MG	2a	1635	1/1	0.77	0.24	77,77,77,77	0
55	MG	2A	3777	1/1	0.77	0.15	83,83,83,83	0
55	MG	2A	3064	1/1	0.77	0.26	72,72,72,72	0
55	MG	1A	3602	1/1	0.77	0.22	76,76,76,76	0
55	MG	1A	3446	1/1	0.77	0.15	49,49,49,49	0
55	MG	2A	3502	1/1	0.77	0.22	70,70,70,70	0
55	MG	2a	1656	1/1	0.77	0.38	72,72,72,72	0
55	MG	2A	3593	1/1	0.77	0.26	68,68,68,68	0
55	MG	2A	3414	1/1	0.77	0.24	72,72,72,72	0
55	MG	27	103	1/1	0.77	0.17	70,70,70,70	0
55	MG	2A	3809	1/1	0.77	0.20	75,75,75,75	0
55	MG	1A	3101	1/1	0.78	0.34	63,63,63,63	0
55	MG	2A	3612	1/1	0.78	0.16	38,38,38,38	0
55	MG	1a	3059	1/1	0.78	0.16	80,80,80,80	0
55	MG	2A	3629	1/1	0.78	0.16	74,74,74,74	0
55	MG	2A	3044	1/1	0.78	0.17	79,79,79,79	0
55	MG	2E	307	1/1	0.78	0.17	73,73,73,73	0
55	MG	1a	3138	1/1	0.78	0.18	58,58,58,58	0
55	MG	1a	3061	1/1	0.78	0.14	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1a	3144	1/1	0.78	0.33	75,75,75,75	0
55	MG	2a	1646	1/1	0.78	0.32	56,56,56,56	0
55	MG	1A	3829	1/1	0.78	0.17	60,60,60,60	0
55	MG	2A	3011	1/1	0.78	0.38	58,58,58,58	0
55	MG	2A	3024	1/1	0.78	0.21	58,58,58,58	0
55	MG	1l	101	1/1	0.78	0.49	54,54,54,54	0
55	MG	2A	3812	1/1	0.78	0.16	60,60,60,60	0
55	MG	1a	3049	1/1	0.78	0.44	69,69,69,69	0
55	MG	1a	3076	1/1	0.78	0.25	74,74,74,74	0
55	MG	2A	3599	1/1	0.78	0.18	75,75,75,75	0
55	MG	2a	1690	1/1	0.78	0.22	83,83,83,83	0
55	MG	2A	3497	1/1	0.78	0.16	89,89,89,89	0
55	MG	1A	3573	1/1	0.79	0.44	37,37,37,37	0
55	MG	1a	3063	1/1	0.79	0.44	64,64,64,64	0
55	MG	2A	3685	1/1	0.79	0.17	54,54,54,54	0
55	MG	1A	3258	1/1	0.79	0.26	44,44,44,44	0
55	MG	1A	3579	1/1	0.79	0.23	64,64,64,64	0
55	MG	2A	3535	1/1	0.79	0.22	86,86,86,86	0
55	MG	1A	3671	1/1	0.79	0.26	46,46,46,46	0
55	MG	1A	3011	1/1	0.79	0.25	41,41,41,41	0
55	MG	1A	3886	1/1	0.79	0.19	61,61,61,61	0
55	MG	1A	3190	1/1	0.79	0.20	72,72,72,72	0
55	MG	25	103	1/1	0.79	0.48	62,62,62,62	0
55	MG	2A	3320	1/1	0.79	0.17	79,79,79,79	0
55	MG	1a	3044	1/1	0.79	0.24	66,66,66,66	0
55	MG	1a	3184	1/1	0.79	0.14	73,73,73,73	0
55	MG	2A	3113	1/1	0.79	0.24	66,66,66,66	0
55	MG	1A	3247	1/1	0.79	0.15	86,86,86,86	0
55	MG	2A	3420	1/1	0.79	0.12	60,60,60,60	0
55	MG	1A	3552	1/1	0.79	0.28	45,45,45,45	0
55	MG	2A	3441	1/1	0.79	0.17	90,90,90,90	0
55	MG	1a	3054	1/1	0.79	0.21	82,82,82,82	0
55	MG	2A	3008	1/1	0.79	0.34	69,69,69,69	0
55	MG	2a	1631	1/1	0.79	0.52	85,85,85,85	0
55	MG	1a	3119	1/1	0.79	0.21	81,81,81,81	0
55	MG	1A	3742	1/1	0.79	0.32	71,71,71,71	0
55	MG	2A	3181	1/1	0.79	0.24	79,79,79,79	0
55	MG	1D	316	1/1	0.79	0.17	73,73,73,73	0
55	MG	2d	505	1/1	0.79	0.18	101,101,101,101	0
55	MG	2A	3478	1/1	0.79	0.25	94,94,94,94	0
55	MG	1A	3554	1/1	0.79	0.33	69,69,69,69	0
55	MG	2B	3016	1/1	0.79	0.14	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3457	1/1	0.80	0.29	90,90,90,90	0
55	MG	1a	3149	1/1	0.80	0.11	104,104,104,104	0
55	MG	1A	3574	1/1	0.80	0.29	64,64,64,64	0
55	MG	2A	3646	1/1	0.80	0.10	53,53,53,53	0
55	MG	1A	3359	1/1	0.80	0.13	64,64,64,64	0
55	MG	1a	3116	1/1	0.80	0.34	76,76,76,76	0
55	MG	1a	3027	1/1	0.80	0.39	70,70,70,70	0
55	MG	1A	3853	1/1	0.80	0.11	25,25,25,25	0
55	MG	2A	3250	1/1	0.80	0.08	31,31,31,31	0
55	MG	1a	3039	1/1	0.80	0.27	62,62,62,62	0
55	MG	1a	3132	1/1	0.80	0.16	91,91,91,91	0
55	MG	2A	3257	1/1	0.80	0.42	68,68,68,68	0
55	MG	2A	3538	1/1	0.80	0.26	62,62,62,62	0
55	MG	2A	3258	1/1	0.80	0.14	59,59,59,59	0
55	MG	1A	3124	1/1	0.80	0.21	63,63,63,63	0
55	MG	2A	3762	1/1	0.80	0.32	60,60,60,60	0
55	MG	2A	3096	1/1	0.80	0.18	46,46,46,46	0
55	MG	1a	3208	1/1	0.80	0.20	75,75,75,75	0
55	MG	1a	3210	1/1	0.80	0.15	78,78,78,78	0
55	MG	2A	3107	1/1	0.80	0.23	57,57,57,57	0
55	MG	2a	1737	1/1	0.80	0.23	69,69,69,69	0
55	MG	2a	1738	1/1	0.80	0.46	85,85,85,85	0
55	MG	2A	3108	1/1	0.80	0.38	84,84,84,84	0
55	MG	1N	8002	1/1	0.80	0.12	64,64,64,64	0
55	MG	1t	3001	1/1	0.80	0.33	76,76,76,76	0
55	MG	1A	3233	1/1	0.80	0.39	63,63,63,63	0
55	MG	2A	3426	1/1	0.80	0.29	70,70,70,70	0
55	MG	1A	3787	1/1	0.80	0.16	59,59,59,59	0
55	MG	2a	1795	1/1	0.80	0.20	57,57,57,57	0
55	MG	2A	3819	1/1	0.80	0.13	90,90,90,90	0
55	MG	2A	3019	1/1	0.80	0.14	45,45,45,45	0
55	MG	1a	3004	1/1	0.80	0.36	69,69,69,69	0
55	MG	2A	3172	1/1	0.80	0.15	69,69,69,69	0
55	MG	1A	3244	1/1	0.80	0.20	72,72,72,72	0
55	MG	1F	302	1/1	0.81	0.19	35,35,35,35	0
55	MG	1A	3878	1/1	0.81	0.22	46,46,46,46	0
55	MG	2U	201	1/1	0.81	0.20	64,64,64,64	0
55	MG	2A	3771	1/1	0.81	0.15	68,68,68,68	0
55	MG	1A	3631	1/1	0.81	0.14	59,59,59,59	0
55	MG	1A	3898	1/1	0.81	0.20	63,63,63,63	0
55	MG	1Q	204	1/1	0.81	0.16	52,52,52,52	0
55	MG	1A	3658	1/1	0.81	0.26	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3486	1/1	0.81	0.64	57,57,57,57	0
55	MG	1B	3006	1/1	0.81	0.26	59,59,59,59	0
55	MG	1a	3152	1/1	0.81	0.29	91,91,91,91	0
55	MG	2A	3507	1/1	0.81	0.20	69,69,69,69	0
55	MG	1a	3097	1/1	0.81	0.19	61,61,61,61	0
55	MG	2A	3149	1/1	0.81	0.14	63,63,63,63	0
55	MG	2a	1730	1/1	0.81	0.12	92,92,92,92	0
55	MG	2a	1734	1/1	0.81	0.23	57,57,57,57	0
55	MG	1A	3398	1/1	0.81	0.18	37,37,37,37	0
55	MG	2A	3163	1/1	0.81	0.41	78,78,78,78	0
55	MG	2A	3672	1/1	0.81	0.15	59,59,59,59	0
55	MG	1a	3163	1/1	0.81	0.25	74,74,74,74	0
55	MG	2a	1634	1/1	0.81	0.27	81,81,81,81	0
55	MG	1a	3165	1/1	0.81	0.33	75,75,75,75	0
55	MG	1A	3471	1/1	0.81	0.18	65,65,65,65	0
55	MG	2A	3700	1/1	0.81	0.21	87,87,87,87	0
55	MG	1a	3010	1/1	0.81	0.27	78,78,78,78	0
55	MG	2a	1791	1/1	0.81	0.16	71,71,71,71	0
55	MG	1A	3501	1/1	0.81	0.15	64,64,64,64	0
55	MG	2D	307	1/1	0.81	0.36	64,64,64,64	0
55	MG	1a	3122	1/1	0.81	0.27	71,71,71,71	0
55	MG	1A	3781	1/1	0.81	0.36	28,28,28,28	0
55	MG	2A	3449	1/1	0.81	0.14	84,84,84,84	0
55	MG	1a	3028	1/1	0.81	0.25	55,55,55,55	0
55	MG	2n	503	1/1	0.81	0.24	85,85,85,85	0
55	MG	2A	3475	1/1	0.82	0.11	76,76,76,76	0
55	MG	1a	3128	1/1	0.82	0.19	71,71,71,71	0
55	MG	2A	3477	1/1	0.82	0.13	68,68,68,68	0
55	MG	1A	3503	1/1	0.82	0.20	77,77,77,77	0
55	MG	2U	203	1/1	0.82	0.19	71,71,71,71	0
55	MG	2V	202	1/1	0.82	0.36	55,55,55,55	0
55	MG	2V	204	1/1	0.82	0.17	77,77,77,77	0
55	MG	1A	3236	1/1	0.82	0.23	79,79,79,79	0
55	MG	10	101	1/1	0.82	0.14	52,52,52,52	0
55	MG	2A	3633	1/1	0.82	0.22	82,82,82,82	0
55	MG	2A	3793	1/1	0.82	0.15	67,67,67,67	0
55	MG	2A	3342	1/1	0.82	0.32	76,76,76,76	0
55	MG	1A	3533	1/1	0.82	0.27	60,60,60,60	0
55	MG	2A	3509	1/1	0.82	0.75	53,53,53,53	0
55	MG	2A	3412	1/1	0.82	0.19	70,70,70,70	0
55	MG	1A	3862	1/1	0.82	0.19	59,59,59,59	0
55	MG	2A	3209	1/1	0.82	0.17	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3400	1/1	0.82	0.34	63,63,63,63	0
55	MG	2A	3660	1/1	0.82	0.12	71,71,71,71	0
55	MG	2B	3005	1/1	0.82	0.23	69,69,69,69	0
55	MG	2A	3671	1/1	0.82	0.28	73,73,73,73	0
55	MG	2A	3115	1/1	0.82	0.30	66,66,66,66	0
55	MG	1A	3500	1/1	0.82	0.26	65,65,65,65	0
55	MG	1A	3726	1/1	0.82	0.22	29,29,29,29	0
55	MG	1A	3021	1/1	0.82	0.07	42,42,42,42	0
55	MG	1a	3056	1/1	0.82	0.18	69,69,69,69	0
55	MG	1a	3218	1/1	0.82	0.12	72,72,72,72	0
55	MG	2D	304	1/1	0.82	0.12	55,55,55,55	0
55	MG	1a	3124	1/1	0.82	0.21	77,77,77,77	0
55	MG	2A	3459	1/1	0.82	0.17	71,71,71,71	0
55	MG	2A	3083	1/1	0.82	0.34	57,57,57,57	0
55	MG	2A	3753	1/1	0.82	0.07	71,71,71,71	0
55	MG	2A	3297	1/1	0.82	0.12	78,78,78,78	0
56	AMP	1B	3025	1/23	0.82	0.23	57,57,57,57	0
55	MG	1A	3076	1/1	0.83	0.20	63,63,63,63	0
55	MG	2a	1633	1/1	0.83	0.23	79,79,79,79	0
55	MG	1A	3838	1/1	0.83	0.21	45,45,45,45	0
55	MG	2A	3814	1/1	0.83	0.27	68,68,68,68	0
55	MG	2A	3815	1/1	0.83	0.27	67,67,67,67	0
55	MG	2A	3192	1/1	0.83	0.23	64,64,64,64	0
55	MG	2A	3041	1/1	0.83	0.21	73,73,73,73	0
55	MG	2B	3004	1/1	0.83	0.20	76,76,76,76	0
55	MG	1A	3313	1/1	0.83	0.19	55,55,55,55	0
55	MG	1a	3186	1/1	0.83	0.26	69,69,69,69	0
55	MG	2a	1652	1/1	0.83	0.32	90,90,90,90	0
55	MG	1A	3465	1/1	0.83	0.17	54,54,54,54	0
55	MG	2A	3068	1/1	0.83	0.11	56,56,56,56	0
55	MG	1A	3314	1/1	0.83	0.16	52,52,52,52	0
55	MG	2A	3222	1/1	0.83	0.38	62,62,62,62	0
55	MG	1A	3055	1/1	0.83	0.21	53,53,53,53	0
55	MG	1a	3081	1/1	0.83	0.21	69,69,69,69	0
55	MG	1a	3213	1/1	0.83	0.09	64,64,64,64	0
55	MG	1A	3877	1/1	0.83	0.13	63,63,63,63	0
55	MG	2A	3489	1/1	0.83	0.14	81,81,81,81	0
55	MG	1A	3034	1/1	0.83	0.14	57,57,57,57	0
55	MG	1h	3001	1/1	0.83	0.34	63,63,63,63	0
55	MG	2A	3506	1/1	0.83	0.30	47,47,47,47	0
55	MG	2a	1713	1/1	0.83	0.13	69,69,69,69	0
55	MG	1h	3002	1/1	0.83	0.12	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3195	1/1	0.83	0.17	46,46,46,46	0
55	MG	1A	3890	1/1	0.83	0.18	73,73,73,73	0
55	MG	2P	202	1/1	0.83	0.22	73,73,73,73	0
55	MG	2A	3121	1/1	0.83	0.15	81,81,81,81	0
55	MG	2A	3519	1/1	0.83	0.10	73,73,73,73	0
55	MG	2A	3009	1/1	0.83	0.27	59,59,59,59	0
55	MG	18	3302	1/1	0.83	0.33	40,40,40,40	0
55	MG	2X	101	1/1	0.83	0.15	61,61,61,61	0
55	MG	2A	3537	1/1	0.83	0.19	61,61,61,61	0
55	MG	20	104	1/1	0.83	0.09	81,81,81,81	0
55	MG	2A	3134	1/1	0.83	0.42	70,70,70,70	0
55	MG	2A	3013	1/1	0.83	0.31	60,60,60,60	0
55	MG	2A	3387	1/1	0.83	0.12	68,68,68,68	0
55	MG	2A	3398	1/1	0.83	0.15	81,81,81,81	0
55	MG	2A	3410	1/1	0.83	0.22	83,83,83,83	0
55	MG	1A	3664	1/1	0.83	0.14	59,59,59,59	0
55	MG	1A	3131	1/1	0.83	0.10	62,62,62,62	0
55	MG	1A	3157	1/1	0.83	0.19	57,57,57,57	0
55	MG	2A	3592	1/1	0.83	0.08	89,89,89,89	0
55	MG	1a	3121	1/1	0.83	0.31	62,62,62,62	0
55	MG	2a	1623	1/1	0.83	0.16	78,78,78,78	0
55	MG	2A	3598	1/1	0.83	0.21	62,62,62,62	0
55	MG	1A	3794	1/1	0.83	0.14	59,59,59,59	0
55	MG	2A	3605	1/1	0.83	0.26	63,63,63,63	0
55	MG	2A	3542	1/1	0.84	0.19	88,88,88,88	0
55	MG	1A	3792	1/1	0.84	0.13	55,55,55,55	0
55	MG	1a	3029	1/1	0.84	0.21	55,55,55,55	0
55	MG	1a	3031	1/1	0.84	0.17	61,61,61,61	0
55	MG	2A	3561	1/1	0.84	0.09	59,59,59,59	0
55	MG	1A	3161	1/1	0.84	0.31	55,55,55,55	0
55	MG	2A	3719	1/1	0.84	0.11	70,70,70,70	0
55	MG	2A	3720	1/1	0.84	0.21	58,58,58,58	0
55	MG	2A	3721	1/1	0.84	0.13	42,42,42,42	0
55	MG	1a	3166	1/1	0.84	0.22	80,80,80,80	0
55	MG	2A	3740	1/1	0.84	0.14	68,68,68,68	0
55	MG	2A	3117	1/1	0.84	0.18	58,58,58,58	0
55	MG	2a	1692	1/1	0.84	0.14	85,85,85,85	0
55	MG	1A	3214	1/1	0.84	0.16	40,40,40,40	0
55	MG	2A	3589	1/1	0.84	0.22	82,82,82,82	0
55	MG	1A	3208	1/1	0.84	0.17	37,37,37,37	0
55	MG	2A	3129	1/1	0.84	0.28	75,75,75,75	0
55	MG	1A	3912	1/1	0.84	0.12	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1a	3182	1/1	0.84	0.30	71,71,71,71	0
55	MG	2A	3299	1/1	0.84	0.14	75,75,75,75	0
55	MG	1A	3753	1/1	0.84	0.13	67,67,67,67	0
55	MG	1A	3841	1/1	0.84	0.17	64,64,64,64	0
55	MG	1A	3506	1/1	0.84	0.16	71,71,71,71	0
55	MG	1a	3139	1/1	0.84	0.26	69,69,69,69	0
55	MG	27	104	1/1	0.84	0.19	67,67,67,67	0
55	MG	1A	3507	1/1	0.84	0.23	48,48,48,48	0
55	MG	2A	3345	1/1	0.84	0.12	81,81,81,81	0
55	MG	1A	3614	1/1	0.84	0.18	70,70,70,70	0
55	MG	1a	3104	1/1	0.84	0.17	82,82,82,82	0
55	MG	1A	3486	1/1	0.84	0.17	63,63,63,63	0
55	MG	2a	1742	1/1	0.84	0.16	113,113,113,113	0
55	MG	2A	3813	1/1	0.84	0.19	57,57,57,57	0
55	MG	2a	1759	1/1	0.84	0.18	72,72,72,72	0
55	MG	2a	1618	1/1	0.84	0.19	81,81,81,81	0
55	MG	1a	3115	1/1	0.84	0.26	66,66,66,66	0
55	MG	2a	1622	1/1	0.84	0.31	50,50,50,50	0
55	MG	1b	3001	1/1	0.84	0.15	81,81,81,81	0
55	MG	2A	3816	1/1	0.84	0.18	51,51,51,51	0
55	MG	1a	3150	1/1	0.84	0.11	99,99,99,99	0
55	MG	2A	3521	1/1	0.84	0.16	68,68,68,68	0
55	MG	1A	3517	1/1	0.84	0.27	68,68,68,68	0
55	MG	2A	3657	1/1	0.84	0.12	66,66,66,66	0
55	MG	2A	3421	1/1	0.84	0.18	58,58,58,58	0
55	MG	2l	201	1/1	0.84	0.14	79,79,79,79	0
55	MG	2A	3668	1/1	0.84	0.15	66,66,66,66	0
55	MG	2A	3423	1/1	0.84	0.21	79,79,79,79	0
55	MG	1n	502	1/1	0.84	0.15	63,63,63,63	0
55	MG	1a	3068	1/1	0.85	0.16	73,73,73,73	0
55	MG	1A	3895	1/1	0.85	0.35	65,65,65,65	0
55	MG	2a	1609	1/1	0.85	0.37	77,77,77,77	0
55	MG	2A	3729	1/1	0.85	0.16	70,70,70,70	0
55	MG	2A	3732	1/1	0.85	0.32	61,61,61,61	0
55	MG	1a	3006	1/1	0.85	0.14	74,74,74,74	0
55	MG	1a	3008	1/1	0.85	0.30	60,60,60,60	0
55	MG	1A	3186	1/1	0.85	0.34	72,72,72,72	0
55	MG	1A	3038	1/1	0.85	0.46	66,66,66,66	0
55	MG	2A	3050	1/1	0.85	0.15	64,64,64,64	0
55	MG	1a	3013	1/1	0.85	0.18	72,72,72,72	0
55	MG	1A	3568	1/1	0.85	0.14	63,63,63,63	0
55	MG	1a	3087	1/1	0.85	0.11	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3078	1/1	0.85	0.19	51,51,51,51	0
55	MG	1a	3023	1/1	0.85	0.30	53,53,53,53	0
55	MG	1B	3003	1/1	0.85	0.17	64,64,64,64	0
55	MG	1A	3816	1/1	0.85	0.03	19,19,19,19	0
55	MG	2A	3543	1/1	0.85	0.18	82,82,82,82	0
55	MG	2A	3327	1/1	0.85	0.20	67,67,67,67	0
55	MG	2a	1644	1/1	0.85	0.17	67,67,67,67	0
55	MG	2a	1645	1/1	0.85	0.27	63,63,63,63	0
55	MG	2A	3099	1/1	0.85	0.12	52,52,52,52	0
55	MG	2A	3800	1/1	0.85	0.14	112,112,112,112	0
55	MG	2A	3329	1/1	0.85	0.12	88,88,88,88	0
55	MG	1a	3109	1/1	0.85	0.20	53,53,53,53	0
55	MG	2A	3340	1/1	0.85	0.13	52,52,52,52	0
55	MG	1a	3112	1/1	0.85	0.23	86,86,86,86	0
55	MG	2A	3344	1/1	0.85	0.10	55,55,55,55	0
55	MG	1A	3053	1/1	0.85	0.13	58,58,58,58	0
55	MG	1A	3831	1/1	0.85	0.15	51,51,51,51	0
55	MG	2A	3111	1/1	0.85	0.30	52,52,52,52	0
55	MG	2A	3112	1/1	0.85	0.40	77,77,77,77	0
55	MG	2A	3594	1/1	0.85	0.18	56,56,56,56	0
55	MG	2A	3406	1/1	0.85	0.41	62,62,62,62	0
55	MG	2A	3408	1/1	0.85	0.16	67,67,67,67	0
55	MG	1A	3730	1/1	0.85	0.12	65,65,65,65	0
55	MG	1A	3839	1/1	0.85	0.10	59,59,59,59	0
55	MG	1A	3136	1/1	0.85	0.14	68,68,68,68	0
55	MG	2A	3417	1/1	0.85	0.61	58,58,58,58	0
55	MG	2a	1715	1/1	0.85	0.15	82,82,82,82	0
55	MG	1a	3043	1/1	0.85	0.29	68,68,68,68	0
55	MG	1A	3173	1/1	0.85	0.22	63,63,63,63	0
55	MG	2D	302	1/1	0.85	0.21	58,58,58,58	0
55	MG	2a	1722	1/1	0.85	0.12	82,82,82,82	0
55	MG	1a	3221	1/1	0.85	0.19	71,71,71,71	0
55	MG	1G	3002	1/1	0.85	0.14	62,62,62,62	0
55	MG	2A	3432	1/1	0.85	0.14	74,74,74,74	0
55	MG	1d	504	1/1	0.85	0.20	75,75,75,75	0
55	MG	1A	3210	1/1	0.85	0.23	45,45,45,45	0
55	MG	1a	3127	1/1	0.85	0.17	53,53,53,53	0
55	MG	2A	3151	1/1	0.85	0.55	62,62,62,62	0
55	MG	2A	3453	1/1	0.85	0.18	81,81,81,81	0
55	MG	1A	3758	1/1	0.85	0.28	53,53,53,53	0
55	MG	2N	201	1/1	0.85	0.14	82,82,82,82	0
55	MG	2a	1758	1/1	0.85	0.23	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3655	1/1	0.85	0.16	60,60,60,60	0
55	MG	1A	3147	1/1	0.85	0.10	40,40,40,40	0
55	MG	2A	3007	1/1	0.85	0.21	61,61,61,61	0
55	MG	1a	3057	1/1	0.85	0.33	81,81,81,81	0
55	MG	2a	1782	1/1	0.85	0.18	70,70,70,70	0
55	MG	2a	1787	1/1	0.85	0.19	80,80,80,80	0
55	MG	2A	3468	1/1	0.85	0.17	80,80,80,80	0
55	MG	1A	3771	1/1	0.85	0.11	71,71,71,71	0
55	MG	10	105	1/1	0.85	0.15	57,57,57,57	0
55	MG	2A	3184	1/1	0.85	0.16	73,73,73,73	0
55	MG	1a	3141	1/1	0.85	0.17	75,75,75,75	0
55	MG	1A	3596	1/1	0.85	0.18	58,58,58,58	0
55	MG	27	102	1/1	0.85	0.21	49,49,49,49	0
55	MG	11	103	1/1	0.85	0.14	50,50,50,50	0
55	MG	2A	3480	1/1	0.85	0.10	81,81,81,81	0
55	MG	1A	3538	1/1	0.85	0.28	60,60,60,60	0
55	MG	1A	3604	1/1	0.85	0.14	52,52,52,52	0
55	MG	1a	3126	1/1	0.86	0.19	74,74,74,74	0
55	MG	2A	3487	1/1	0.86	0.15	68,68,68,68	0
55	MG	1P	201	1/1	0.86	0.39	30,30,30,30	0
55	MG	1A	3148	1/1	0.86	0.11	58,58,58,58	0
55	MG	2A	3167	1/1	0.86	0.14	56,56,56,56	0
55	MG	2A	3352	1/1	0.86	0.15	59,59,59,59	0
55	MG	2A	3379	1/1	0.86	0.09	61,61,61,61	0
55	MG	1A	3253	1/1	0.86	0.16	53,53,53,53	0
55	MG	1R	204	1/1	0.86	0.18	53,53,53,53	0
55	MG	1A	3013	1/1	0.86	0.18	51,51,51,51	0
55	MG	2A	3673	1/1	0.86	0.19	65,65,65,65	0
55	MG	2a	1673	1/1	0.86	0.18	63,63,63,63	0
55	MG	1A	3514	1/1	0.86	0.13	35,35,35,35	0
55	MG	1A	3216	1/1	0.86	0.17	52,52,52,52	0
55	MG	2A	3689	1/1	0.86	0.11	67,67,67,67	0
55	MG	2A	3690	1/1	0.86	0.20	84,84,84,84	0
55	MG	1A	3428	1/1	0.86	0.18	68,68,68,68	0
55	MG	1A	3014	1/1	0.86	0.27	41,41,41,41	0
55	MG	2a	1698	1/1	0.86	0.38	58,58,58,58	0
55	MG	2A	3086	1/1	0.86	0.28	56,56,56,56	0
55	MG	1a	3001	1/1	0.86	0.15	76,76,76,76	0
55	MG	2A	3540	1/1	0.86	0.16	64,64,64,64	0
55	MG	2A	3095	1/1	0.86	0.28	64,64,64,64	0
55	MG	2S	201	1/1	0.86	0.32	67,67,67,67	0
55	MG	1e	3001	1/1	0.86	0.27	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1a	3096	1/1	0.86	0.09	78,78,78,78	0
55	MG	2V	201	1/1	0.86	0.54	55,55,55,55	0
55	MG	2A	3425	1/1	0.86	0.18	71,71,71,71	0
55	MG	1a	3002	1/1	0.86	0.16	82,82,82,82	0
55	MG	2V	205	1/1	0.86	0.13	73,73,73,73	0
55	MG	1a	3003	1/1	0.86	0.19	65,65,65,65	0
55	MG	2A	3748	1/1	0.86	0.14	68,68,68,68	0
55	MG	2A	3435	1/1	0.86	0.12	76,76,76,76	0
55	MG	2A	3564	1/1	0.86	0.37	57,57,57,57	0
55	MG	2A	3251	1/1	0.86	0.16	79,79,79,79	0
55	MG	2A	3439	1/1	0.86	0.21	64,64,64,64	0
55	MG	1a	3053	1/1	0.86	0.26	82,82,82,82	0
55	MG	2A	3002	1/1	0.86	0.21	63,63,63,63	0
55	MG	1A	3269	1/1	0.86	0.11	62,62,62,62	0
55	MG	1a	3055	1/1	0.86	0.22	47,47,47,47	0
55	MG	2a	1756	1/1	0.86	0.11	69,69,69,69	0
55	MG	2A	3260	1/1	0.86	0.15	66,66,66,66	0
55	MG	2a	1603	1/1	0.86	0.18	69,69,69,69	0
55	MG	1A	3287	1/1	0.86	0.11	45,45,45,45	0
55	MG	1A	3146	1/1	0.86	0.20	54,54,54,54	0
55	MG	2A	3604	1/1	0.86	0.15	65,65,65,65	0
55	MG	2a	1773	1/1	0.86	0.09	89,89,89,89	0
55	MG	1A	3475	1/1	0.86	0.62	32,32,32,32	0
55	MG	2A	3464	1/1	0.86	0.19	90,90,90,90	0
55	MG	2A	3607	1/1	0.86	0.12	80,80,80,80	0
55	MG	1A	3172	1/1	0.86	0.18	50,50,50,50	0
55	MG	2A	3022	1/1	0.86	0.23	68,68,68,68	0
55	MG	1A	3499	1/1	0.86	0.19	59,59,59,59	0
55	MG	2a	1628	1/1	0.86	0.23	54,54,54,54	0
55	MG	2e	3001	1/1	0.86	0.32	67,67,67,67	0
55	MG	2A	3323	1/1	0.86	0.13	66,66,66,66	0
55	MG	1a	3173	1/1	0.86	0.19	71,71,71,71	0
55	MG	1A	3317	1/1	0.86	0.13	73,73,73,73	0
55	MG	1A	3039	1/1	0.86	0.36	55,55,55,55	0
55	MG	1a	3019	1/1	0.86	0.15	54,54,54,54	0
55	MG	2A	3483	1/1	0.86	0.40	55,55,55,55	0
56	AMP	2A	3821	1/23	0.86	0.12	79,79,79,79	0
55	MG	2A	3146	1/1	0.87	0.17	53,53,53,53	0
55	MG	2A	3782	1/1	0.87	0.17	82,82,82,82	0
55	MG	1B	3005	1/1	0.87	0.13	54,54,54,54	0
55	MG	1A	3640	1/1	0.87	0.21	34,34,34,34	0
55	MG	1A	3464	1/1	0.87	0.59	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3588	1/1	0.87	0.15	67,67,67,67	0
55	MG	1A	3660	1/1	0.87	0.16	56,56,56,56	0
55	MG	2A	3018	1/1	0.87	0.52	52,52,52,52	0
55	MG	1B	3023	1/1	0.87	0.14	63,63,63,63	0
55	MG	2A	3431	1/1	0.87	0.31	77,77,77,77	0
55	MG	2A	3805	1/1	0.87	0.11	74,74,74,74	0
55	MG	1A	3800	1/1	0.87	0.10	64,64,64,64	0
55	MG	1a	3022	1/1	0.87	0.44	66,66,66,66	0
55	MG	2A	3600	1/1	0.87	0.29	54,54,54,54	0
55	MG	1D	307	1/1	0.87	0.42	44,44,44,44	0
55	MG	1A	3577	1/1	0.87	0.34	40,40,40,40	0
55	MG	1A	3191	1/1	0.87	0.14	66,66,66,66	0
55	MG	1A	3691	1/1	0.87	0.09	26,26,26,26	0
55	MG	2a	1653	1/1	0.87	0.48	85,85,85,85	0
55	MG	1a	3030	1/1	0.87	0.33	61,61,61,61	0
55	MG	1F	316	1/1	0.87	0.13	69,69,69,69	0
55	MG	1A	3377	1/1	0.87	0.18	70,70,70,70	0
55	MG	2A	3627	1/1	0.87	0.17	66,66,66,66	0
55	MG	2A	3628	1/1	0.87	0.20	63,63,63,63	0
55	MG	2B	3008	1/1	0.87	0.08	83,83,83,83	0
55	MG	1a	3037	1/1	0.87	0.22	68,68,68,68	0
55	MG	1A	3515	1/1	0.87	0.17	54,54,54,54	0
55	MG	2A	3054	1/1	0.87	0.19	51,51,51,51	0
55	MG	2A	3463	1/1	0.87	0.28	76,76,76,76	0
55	MG	2A	3248	1/1	0.87	0.09	81,81,81,81	0
55	MG	2A	3059	1/1	0.87	0.33	64,64,64,64	0
55	MG	1a	3180	1/1	0.87	0.12	102,102,102,102	0
55	MG	1A	3472	1/1	0.87	0.19	58,58,58,58	0
55	MG	1A	3254	1/1	0.87	0.29	50,50,50,50	0
55	MG	2D	308	1/1	0.87	0.25	55,55,55,55	0
55	MG	2A	3650	1/1	0.87	0.18	55,55,55,55	0
55	MG	1a	3185	1/1	0.87	0.26	68,68,68,68	0
55	MG	1A	3519	1/1	0.87	0.11	46,46,46,46	0
55	MG	1A	3484	1/1	0.87	0.12	47,47,47,47	0
55	MG	2A	3264	1/1	0.87	0.17	65,65,65,65	0
55	MG	1A	3103	1/1	0.87	0.21	35,35,35,35	0
55	MG	1A	3551	1/1	0.87	0.17	60,60,60,60	0
55	MG	2A	3295	1/1	0.87	0.15	71,71,71,71	0
55	MG	2a	1733	1/1	0.87	0.10	67,67,67,67	0
55	MG	2Q	8004	1/1	0.87	0.28	66,66,66,66	0
55	MG	2R	202	1/1	0.87	0.22	74,74,74,74	0
55	MG	1A	3402	1/1	0.87	0.15	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3677	1/1	0.87	0.12	56,56,56,56	0
55	MG	1A	3230	1/1	0.87	0.14	50,50,50,50	0
55	MG	1a	3125	1/1	0.87	0.18	74,74,74,74	0
55	MG	2A	3103	1/1	0.87	0.10	65,65,65,65	0
55	MG	2a	1755	1/1	0.87	0.40	81,81,81,81	0
55	MG	15	102	1/1	0.87	0.54	43,43,43,43	0
55	MG	2A	3508	1/1	0.87	0.37	57,57,57,57	0
55	MG	1A	3889	1/1	0.87	0.23	46,46,46,46	0
55	MG	1a	3222	1/1	0.87	0.22	62,62,62,62	0
55	MG	1A	3764	1/1	0.87	0.15	67,67,67,67	0
55	MG	1d	502	1/1	0.87	0.15	80,80,80,80	0
55	MG	1a	3130	1/1	0.87	0.20	62,62,62,62	0
55	MG	1A	3563	1/1	0.87	0.18	59,59,59,59	0
55	MG	1f	8001	1/1	0.87	0.14	60,60,60,60	0
55	MG	2A	3118	1/1	0.87	0.24	52,52,52,52	0
55	MG	1A	3775	1/1	0.87	0.17	72,72,72,72	0
55	MG	2a	1792	1/1	0.87	0.13	52,52,52,52	0
55	MG	1a	3135	1/1	0.87	0.26	77,77,77,77	0
55	MG	2A	3128	1/1	0.87	0.25	61,61,61,61	0
55	MG	2d	504	1/1	0.87	0.15	90,90,90,90	0
55	MG	1a	3136	1/1	0.87	0.24	79,79,79,79	0
55	MG	1A	3204	1/1	0.87	0.64	39,39,39,39	0
55	MG	1A	3248	1/1	0.87	0.32	51,51,51,51	0
55	MG	2A	3758	1/1	0.87	0.17	77,77,77,77	0
55	MG	2A	3140	1/1	0.87	0.23	61,61,61,61	0
55	MG	2a	1617	1/1	0.87	0.35	65,65,65,65	0
55	MG	2A	3559	1/1	0.87	0.21	64,64,64,64	0
55	MG	1A	3638	1/1	0.87	0.33	31,31,31,31	0
55	MG	2A	3145	1/1	0.87	0.08	79,79,79,79	0
55	MG	2A	3085	1/1	0.88	0.24	62,62,62,62	0
55	MG	2A	3223	1/1	0.88	0.16	68,68,68,68	0
55	MG	1A	3098	1/1	0.88	0.13	38,38,38,38	0
55	MG	1A	3581	1/1	0.88	0.24	35,35,35,35	0
55	MG	2a	1637	1/1	0.88	0.49	71,71,71,71	0
55	MG	1A	3701	1/1	0.88	0.18	40,40,40,40	0
55	MG	2B	3001	1/1	0.88	0.13	64,64,64,64	0
55	MG	2a	1643	1/1	0.88	0.44	73,73,73,73	0
55	MG	1a	3047	1/1	0.88	0.16	68,68,68,68	0
55	MG	1A	3033	1/1	0.88	0.20	45,45,45,45	0
55	MG	1A	3470	1/1	0.88	0.10	28,28,28,28	0
55	MG	1A	3722	1/1	0.88	0.19	62,62,62,62	0
55	MG	2A	3104	1/1	0.88	0.09	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1W	3003	1/1	0.88	0.24	41,41,41,41	0
55	MG	1A	3855	1/1	0.88	0.13	48,48,48,48	0
55	MG	2B	3013	1/1	0.88	0.11	84,84,84,84	0
55	MG	1A	3723	1/1	0.88	0.08	47,47,47,47	0
55	MG	1A	3724	1/1	0.88	0.12	71,71,71,71	0
55	MG	1A	3863	1/1	0.88	0.17	58,58,58,58	0
55	MG	1A	3597	1/1	0.88	0.35	38,38,38,38	0
55	MG	2A	3481	1/1	0.88	0.16	67,67,67,67	0
55	MG	1A	3598	1/1	0.88	0.13	83,83,83,83	0
55	MG	1A	3320	1/1	0.88	0.19	62,62,62,62	0
55	MG	2A	3322	1/1	0.88	0.14	62,62,62,62	0
55	MG	1A	3887	1/1	0.88	0.15	44,44,44,44	0
55	MG	1A	3083	1/1	0.88	0.13	57,57,57,57	0
55	MG	1a	3066	1/1	0.88	0.27	68,68,68,68	0
55	MG	2a	1707	1/1	0.88	0.11	92,92,92,92	0
55	MG	1A	3605	1/1	0.88	0.21	38,38,38,38	0
55	MG	1a	3070	1/1	0.88	0.17	62,62,62,62	0
55	MG	2A	3337	1/1	0.88	0.11	79,79,79,79	0
55	MG	1A	3163	1/1	0.88	0.13	65,65,65,65	0
55	MG	1A	3537	1/1	0.88	0.15	38,38,38,38	0
55	MG	1A	3478	1/1	0.88	0.15	44,44,44,44	0
55	MG	1A	3223	1/1	0.88	0.09	42,42,42,42	0
55	MG	2A	3348	1/1	0.88	0.09	76,76,76,76	0
55	MG	2A	3531	1/1	0.88	0.14	83,83,83,83	0
55	MG	2A	3144	1/1	0.88	0.19	73,73,73,73	0
55	MG	1a	3157	1/1	0.88	0.08	82,82,82,82	0
55	MG	2A	3381	1/1	0.88	0.09	77,77,77,77	0
55	MG	1a	3159	1/1	0.88	0.13	65,65,65,65	0
55	MG	1A	3116	1/1	0.88	0.17	74,74,74,74	0
55	MG	2A	3394	1/1	0.88	0.10	65,65,65,65	0
55	MG	2W	3001	1/1	0.88	0.19	60,60,60,60	0
55	MG	1A	3622	1/1	0.88	0.16	76,76,76,76	0
55	MG	2A	3152	1/1	0.88	0.11	59,59,59,59	0
55	MG	1A	3492	1/1	0.88	0.20	50,50,50,50	0
55	MG	1A	3168	1/1	0.88	0.12	53,53,53,53	0
55	MG	2I	101	1/1	0.88	0.17	61,61,61,61	0
55	MG	1A	3202	1/1	0.88	0.23	63,63,63,63	0
55	MG	1B	3020	1/1	0.88	0.15	73,73,73,73	0
55	MG	2A	3416	1/1	0.88	0.21	56,56,56,56	0
55	MG	1B	3022	1/1	0.88	0.25	63,63,63,63	0
55	MG	2A	3569	1/1	0.88	0.31	48,48,48,48	0
55	MG	2A	3574	1/1	0.88	0.09	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3272	1/1	0.88	0.24	56,56,56,56	0
55	MG	2a	1781	1/1	0.88	0.11	76,76,76,76	0
55	MG	2A	3579	1/1	0.88	0.25	75,75,75,75	0
55	MG	2A	3775	1/1	0.88	0.09	57,57,57,57	0
55	MG	2A	3580	1/1	0.88	0.13	73,73,73,73	0
55	MG	2A	3048	1/1	0.88	0.12	56,56,56,56	0
55	MG	1A	3169	1/1	0.88	0.32	62,62,62,62	0
55	MG	2a	1616	1/1	0.88	0.21	68,68,68,68	0
55	MG	2A	3187	1/1	0.88	0.15	73,73,73,73	0
55	MG	1A	3576	1/1	0.88	0.27	47,47,47,47	0
55	MG	2a	1619	1/1	0.88	0.30	72,72,72,72	0
55	MG	2A	3427	1/1	0.88	0.12	61,61,61,61	0
55	MG	1A	3308	1/1	0.88	0.12	42,42,42,42	0
55	MG	1A	3118	1/1	0.88	0.29	63,63,63,63	0
55	MG	1A	3820	1/1	0.88	0.42	41,41,41,41	0
55	MG	2A	3197	1/1	0.88	0.23	48,48,48,48	0
55	MG	1a	3038	1/1	0.88	0.55	79,79,79,79	0
55	MG	1a	3197	1/1	0.88	0.14	82,82,82,82	0
55	MG	1A	3668	1/1	0.88	0.08	85,85,85,85	0
55	MG	2A	3403	1/1	0.89	0.08	79,79,79,79	0
55	MG	1a	3174	1/1	0.89	0.13	70,70,70,70	0
55	MG	1A	3087	1/1	0.89	0.34	33,33,33,33	0
55	MG	2A	3045	1/1	0.89	0.22	46,46,46,46	0
55	MG	2A	3179	1/1	0.89	0.47	48,48,48,48	0
55	MG	1a	3178	1/1	0.89	0.10	75,75,75,75	0
55	MG	1A	3848	1/1	0.89	0.35	68,68,68,68	0
55	MG	1A	3539	1/1	0.89	0.17	62,62,62,62	0
55	MG	2A	3418	1/1	0.89	0.10	55,55,55,55	0
55	MG	1A	3255	1/1	0.89	0.16	34,34,34,34	0
55	MG	1A	3856	1/1	0.89	0.12	46,46,46,46	0
55	MG	1a	3042	1/1	0.89	0.20	53,53,53,53	0
55	MG	1A	3734	1/1	0.89	0.22	45,45,45,45	0
55	MG	2A	3591	1/1	0.89	0.19	53,53,53,53	0
55	MG	1A	3741	1/1	0.89	0.08	56,56,56,56	0
55	MG	2A	3075	1/1	0.89	0.13	53,53,53,53	0
55	MG	2A	3428	1/1	0.89	0.20	71,71,71,71	0
55	MG	1a	3199	1/1	0.89	0.13	68,68,68,68	0
55	MG	2A	3080	1/1	0.89	0.11	69,69,69,69	0
55	MG	1A	3648	1/1	0.89	0.07	90,90,90,90	0
55	MG	1A	3865	1/1	0.89	0.13	75,75,75,75	0
55	MG	1A	3866	1/1	0.89	0.14	61,61,61,61	0
55	MG	2A	3225	1/1	0.89	0.12	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3246	1/1	0.89	0.07	92,92,92,92	0
55	MG	2a	1660	1/1	0.89	0.17	79,79,79,79	0
55	MG	2a	1664	1/1	0.89	0.21	69,69,69,69	0
55	MG	2a	1667	1/1	0.89	0.15	64,64,64,64	0
55	MG	2A	3089	1/1	0.89	0.13	56,56,56,56	0
55	MG	1a	3050	1/1	0.89	0.14	45,45,45,45	0
55	MG	2A	3454	1/1	0.89	0.15	81,81,81,81	0
55	MG	10	104	1/1	0.89	0.11	50,50,50,50	0
55	MG	2a	1678	1/1	0.89	0.29	65,65,65,65	0
55	MG	1A	3654	1/1	0.89	0.10	41,41,41,41	0
55	MG	2a	1683	1/1	0.89	0.27	67,67,67,67	0
55	MG	1A	3656	1/1	0.89	0.20	79,79,79,79	0
55	MG	2A	3100	1/1	0.89	0.10	58,58,58,58	0
55	MG	2A	3462	1/1	0.89	0.19	62,62,62,62	0
55	MG	2a	1694	1/1	0.89	0.35	78,78,78,78	0
55	MG	1A	3008	1/1	0.89	0.13	46,46,46,46	0
55	MG	1a	3223	1/1	0.89	0.19	54,54,54,54	0
55	MG	2a	1700	1/1	0.89	0.17	76,76,76,76	0
55	MG	2a	1703	1/1	0.89	0.10	61,61,61,61	0
55	MG	1A	3762	1/1	0.89	0.26	48,48,48,48	0
55	MG	2A	3267	1/1	0.89	0.20	61,61,61,61	0
55	MG	1A	3041	1/1	0.89	0.20	62,62,62,62	0
55	MG	1A	3353	1/1	0.89	0.18	67,67,67,67	0
55	MG	1A	3567	1/1	0.89	0.18	30,30,30,30	0
55	MG	2F	302	1/1	0.89	0.18	55,55,55,55	0
55	MG	1A	3243	1/1	0.89	0.36	44,44,44,44	0
55	MG	1A	3675	1/1	0.89	0.31	47,47,47,47	0
55	MG	1A	3684	1/1	0.89	0.11	49,49,49,49	0
55	MG	2A	3309	1/1	0.89	0.16	65,65,65,65	0
55	MG	2a	1720	1/1	0.89	0.12	73,73,73,73	0
55	MG	2A	3310	1/1	0.89	0.17	57,57,57,57	0
55	MG	1a	3065	1/1	0.89	0.31	65,65,65,65	0
55	MG	2Q	8002	1/1	0.89	0.09	62,62,62,62	0
55	MG	1A	3689	1/1	0.89	0.14	68,68,68,68	0
55	MG	1A	3361	1/1	0.89	0.13	75,75,75,75	0
55	MG	2A	3674	1/1	0.89	0.07	66,66,66,66	0
55	MG	2A	3676	1/1	0.89	0.17	73,73,73,73	0
55	MG	1A	3695	1/1	0.89	0.23	60,60,60,60	0
55	MG	1A	3187	1/1	0.89	0.08	52,52,52,52	0
55	MG	1A	3057	1/1	0.89	0.12	54,54,54,54	0
55	MG	2A	3330	1/1	0.89	0.12	57,57,57,57	0
55	MG	1B	3019	1/1	0.89	0.26	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2a	1752	1/1	0.89	0.10	86,86,86,86	0
55	MG	1a	3017	1/1	0.89	0.10	65,65,65,65	0
55	MG	1A	3817	1/1	0.89	0.27	72,72,72,72	0
55	MG	2a	1757	1/1	0.89	0.21	71,71,71,71	0
55	MG	1a	3082	1/1	0.89	0.19	62,62,62,62	0
55	MG	1A	3134	1/1	0.89	0.25	65,65,65,65	0
55	MG	2a	1761	1/1	0.89	0.18	67,67,67,67	0
55	MG	2A	3023	1/1	0.89	0.25	47,47,47,47	0
55	MG	2A	3523	1/1	0.89	0.10	61,61,61,61	0
55	MG	25	101	1/1	0.89	0.20	58,58,58,58	0
55	MG	25	102	1/1	0.89	0.08	62,62,62,62	0
55	MG	2a	1779	1/1	0.89	0.14	75,75,75,75	0
55	MG	2A	3530	1/1	0.89	0.35	52,52,52,52	0
55	MG	1A	3707	1/1	0.89	0.20	72,72,72,72	0
55	MG	1A	3160	1/1	0.89	0.49	40,40,40,40	0
55	MG	2A	3534	1/1	0.89	0.21	80,80,80,80	0
55	MG	1A	3201	1/1	0.89	0.16	41,41,41,41	0
55	MG	2A	3380	1/1	0.89	0.14	81,81,81,81	0
55	MG	2A	3750	1/1	0.89	0.12	63,63,63,63	0
55	MG	1A	3624	1/1	0.89	0.41	68,68,68,68	0
55	MG	2A	3031	1/1	0.89	0.34	59,59,59,59	0
55	MG	2a	1607	1/1	0.89	0.15	52,52,52,52	0
55	MG	1D	318	1/1	0.89	0.09	50,50,50,50	0
55	MG	1A	3406	1/1	0.89	0.09	46,46,46,46	0
55	MG	2f	8001	1/1	0.89	0.13	56,56,56,56	0
55	MG	2A	3396	1/1	0.89	0.10	71,71,71,71	0
55	MG	2a	1615	1/1	0.89	0.14	47,47,47,47	0
55	MG	2A	3164	1/1	0.89	0.10	56,56,56,56	0
55	MG	2A	3765	1/1	0.89	0.22	59,59,59,59	0
55	MG	2A	3400	1/1	0.89	0.11	43,43,43,43	0
55	MG	2A	3555	1/1	0.89	0.29	52,52,52,52	0
55	MG	15	107	1/1	0.90	0.10	52,52,52,52	0
55	MG	18	3301	1/1	0.90	0.39	70,70,70,70	0
55	MG	2a	1621	1/1	0.90	0.33	58,58,58,58	0
55	MG	1B	3002	1/1	0.90	0.31	69,69,69,69	0
55	MG	2A	3147	1/1	0.90	0.15	78,78,78,78	0
55	MG	1A	3488	1/1	0.90	0.24	43,43,43,43	0
55	MG	1a	3151	1/1	0.90	0.10	76,76,76,76	0
55	MG	1A	3736	1/1	0.90	0.19	55,55,55,55	0
55	MG	2A	3157	1/1	0.90	0.15	62,62,62,62	0
55	MG	2A	3786	1/1	0.90	0.07	49,49,49,49	0
55	MG	1A	3318	1/1	0.90	0.16	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3676	1/1	0.90	0.20	70,70,70,70	0
55	MG	1a	3069	1/1	0.90	0.30	62,62,62,62	0
55	MG	1a	3160	1/1	0.90	0.19	84,84,84,84	0
55	MG	1A	3680	1/1	0.90	0.09	59,59,59,59	0
55	MG	2a	1640	1/1	0.90	0.43	61,61,61,61	0
55	MG	2A	3039	1/1	0.90	0.35	60,60,60,60	0
55	MG	2A	3174	1/1	0.90	0.09	58,58,58,58	0
55	MG	2A	3413	1/1	0.90	0.09	70,70,70,70	0
55	MG	2A	3175	1/1	0.90	0.28	69,69,69,69	0
55	MG	2A	3806	1/1	0.90	0.15	73,73,73,73	0
55	MG	2A	3808	1/1	0.90	0.25	44,44,44,44	0
55	MG	1A	3529	1/1	0.90	0.21	58,58,58,58	0
55	MG	2a	1648	1/1	0.90	0.09	63,63,63,63	0
55	MG	1A	3532	1/1	0.90	0.13	69,69,69,69	0
55	MG	1A	3117	1/1	0.90	0.10	44,44,44,44	0
55	MG	2A	3182	1/1	0.90	0.31	72,72,72,72	0
55	MG	2a	1655	1/1	0.90	0.09	84,84,84,84	0
55	MG	1A	3854	1/1	0.90	0.12	72,72,72,72	0
55	MG	2a	1658	1/1	0.90	0.08	74,74,74,74	0
55	MG	2A	3590	1/1	0.90	0.32	65,65,65,65	0
55	MG	1A	3346	1/1	0.90	0.13	52,52,52,52	0
55	MG	2A	3190	1/1	0.90	0.17	68,68,68,68	0
55	MG	1A	3189	1/1	0.90	0.14	43,43,43,43	0
55	MG	1A	3774	1/1	0.90	0.19	45,45,45,45	0
55	MG	1A	3099	1/1	0.90	0.10	62,62,62,62	0
55	MG	2A	3430	1/1	0.90	0.16	74,74,74,74	0
55	MG	1a	3085	1/1	0.90	0.26	64,64,64,64	0
55	MG	1a	3021	1/1	0.90	0.10	63,63,63,63	0
55	MG	2B	3009	1/1	0.90	0.09	71,71,71,71	0
55	MG	1E	306	1/1	0.90	0.10	52,52,52,52	0
55	MG	2B	3012	1/1	0.90	0.09	87,87,87,87	0
55	MG	2A	3436	1/1	0.90	0.08	72,72,72,72	0
55	MG	1a	3183	1/1	0.90	0.16	84,84,84,84	0
55	MG	2A	3074	1/1	0.90	0.17	48,48,48,48	0
55	MG	2A	3221	1/1	0.90	0.32	52,52,52,52	0
55	MG	2A	3622	1/1	0.90	0.16	49,49,49,49	0
55	MG	2A	3623	1/1	0.90	0.10	66,66,66,66	0
55	MG	1A	3593	1/1	0.90	0.10	34,34,34,34	0
55	MG	2a	1705	1/1	0.90	0.08	69,69,69,69	0
55	MG	2a	1706	1/1	0.90	0.18	63,63,63,63	0
55	MG	1a	3026	1/1	0.90	0.30	58,58,58,58	0
55	MG	2A	3451	1/1	0.90	0.33	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1F	304	1/1	0.90	0.28	39,39,39,39	0
55	MG	2A	3235	1/1	0.90	0.09	69,69,69,69	0
55	MG	2E	304	1/1	0.90	0.32	46,46,46,46	0
55	MG	2a	1714	1/1	0.90	0.26	71,71,71,71	0
55	MG	2A	3245	1/1	0.90	0.20	78,78,78,78	0
55	MG	1a	3188	1/1	0.90	0.17	64,64,64,64	0
55	MG	2F	310	1/1	0.90	0.07	75,75,75,75	0
55	MG	1A	3474	1/1	0.90	0.14	69,69,69,69	0
55	MG	1a	3111	1/1	0.90	0.12	56,56,56,56	0
55	MG	2A	3088	1/1	0.90	0.12	81,81,81,81	0
55	MG	2a	1724	1/1	0.90	0.12	93,93,93,93	0
55	MG	2A	3644	1/1	0.90	0.17	63,63,63,63	0
55	MG	1F	315	1/1	0.90	0.29	43,43,43,43	0
55	MG	1A	3783	1/1	0.90	0.09	55,55,55,55	0
55	MG	2A	3094	1/1	0.90	0.47	59,59,59,59	0
55	MG	1G	3001	1/1	0.90	0.09	67,67,67,67	0
55	MG	2R	201	1/1	0.90	0.24	56,56,56,56	0
55	MG	1A	3869	1/1	0.90	0.10	39,39,39,39	0
55	MG	1a	3036	1/1	0.90	0.17	49,49,49,49	0
55	MG	1H	8001	1/1	0.90	0.15	76,76,76,76	0
55	MG	1A	3710	1/1	0.90	0.09	42,42,42,42	0
55	MG	2U	204	1/1	0.90	0.17	55,55,55,55	0
55	MG	1A	3408	1/1	0.90	0.13	43,43,43,43	0
55	MG	1A	3509	1/1	0.90	0.12	38,38,38,38	0
55	MG	1A	3112	1/1	0.90	0.19	42,42,42,42	0
55	MG	1R	201	1/1	0.90	0.33	46,46,46,46	0
55	MG	2A	3485	1/1	0.90	0.48	73,73,73,73	0
55	MG	1A	3194	1/1	0.90	0.22	34,34,34,34	0
55	MG	2A	3109	1/1	0.90	0.18	64,64,64,64	0
55	MG	2A	3488	1/1	0.90	0.21	58,58,58,58	0
55	MG	1T	201	1/1	0.90	0.14	54,54,54,54	0
55	MG	2A	3494	1/1	0.90	0.11	77,77,77,77	0
55	MG	1V	201	1/1	0.90	0.19	25,25,25,25	0
55	MG	2A	3697	1/1	0.90	0.10	57,57,57,57	0
55	MG	2A	3321	1/1	0.90	0.08	34,34,34,34	0
55	MG	1W	3002	1/1	0.90	0.20	49,49,49,49	0
55	MG	1A	3807	1/1	0.90	0.09	48,48,48,48	0
55	MG	2A	3717	1/1	0.90	0.13	92,92,92,92	0
55	MG	2A	3325	1/1	0.90	0.13	51,51,51,51	0
55	MG	1a	3052	1/1	0.90	0.32	51,51,51,51	0
55	MG	2a	1793	1/1	0.90	0.17	61,61,61,61	0
55	MG	1m	201	1/1	0.90	0.10	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2a	1796	1/1	0.90	0.14	60,60,60,60	0
55	MG	1A	3010	1/1	0.90	0.24	37,37,37,37	0
55	MG	2A	3512	1/1	0.90	0.11	61,61,61,61	0
55	MG	10	103	1/1	0.90	0.18	65,65,65,65	0
55	MG	2a	1608	1/1	0.90	0.18	51,51,51,51	0
55	MG	1A	3569	1/1	0.90	0.14	43,43,43,43	0
55	MG	2A	3005	1/1	0.90	0.18	44,44,44,44	0
55	MG	2a	1613	1/1	0.90	0.33	61,61,61,61	0
55	MG	1A	3899	1/1	0.90	0.25	51,51,51,51	0
55	MG	1A	3570	1/1	0.90	0.12	48,48,48,48	0
55	MG	2A	3135	1/1	0.90	0.33	71,71,71,71	0
55	MG	1A	3907	1/1	0.90	0.15	46,46,46,46	0
55	MG	1A	3828	1/1	0.90	0.11	61,61,61,61	0
55	MG	2A	3769	1/1	0.91	0.10	75,75,75,75	0
55	MG	2A	3010	1/1	0.91	0.18	63,63,63,63	0
55	MG	2a	1630	1/1	0.91	0.17	50,50,50,50	0
55	MG	2A	3338	1/1	0.91	0.51	70,70,70,70	0
55	MG	2A	3137	1/1	0.91	0.24	60,60,60,60	0
55	MG	1A	3095	1/1	0.91	0.18	61,61,61,61	0
55	MG	1A	3682	1/1	0.91	0.15	61,61,61,61	0
55	MG	1A	3188	1/1	0.91	0.22	34,34,34,34	0
55	MG	10	108	1/1	0.91	0.36	43,43,43,43	0
55	MG	2A	3351	1/1	0.91	0.11	68,68,68,68	0
55	MG	2A	3550	1/1	0.91	0.12	48,48,48,48	0
55	MG	1A	3905	1/1	0.91	0.35	45,45,45,45	0
55	MG	2A	3797	1/1	0.91	0.12	75,75,75,75	0
55	MG	2A	3377	1/1	0.91	0.07	94,94,94,94	0
55	MG	1A	3113	1/1	0.91	0.22	41,41,41,41	0
55	MG	1A	3690	1/1	0.91	0.14	67,67,67,67	0
55	MG	1B	3001	1/1	0.91	0.20	55,55,55,55	0
55	MG	1A	3468	1/1	0.91	0.11	49,49,49,49	0
55	MG	2A	3154	1/1	0.91	0.37	61,61,61,61	0
55	MG	2A	3567	1/1	0.91	0.31	51,51,51,51	0
55	MG	2a	1651	1/1	0.91	0.11	69,69,69,69	0
55	MG	2A	3388	1/1	0.91	0.15	60,60,60,60	0
55	MG	1A	3115	1/1	0.91	0.15	54,54,54,54	0
55	MG	1A	3808	1/1	0.91	0.20	38,38,38,38	0
55	MG	2A	3032	1/1	0.91	0.45	66,66,66,66	0
55	MG	1A	3078	1/1	0.91	0.33	39,39,39,39	0
55	MG	2a	1659	1/1	0.91	0.13	71,71,71,71	0
55	MG	1B	3007	1/1	0.91	0.11	51,51,51,51	0
55	MG	1a	3073	1/1	0.91	0.23	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3586	1/1	0.91	0.13	101,101,101,101	0
55	MG	1B	3009	1/1	0.91	0.09	60,60,60,60	0
55	MG	1A	3079	1/1	0.91	0.11	40,40,40,40	0
55	MG	1A	3232	1/1	0.91	0.74	35,35,35,35	0
55	MG	2A	3046	1/1	0.91	0.12	51,51,51,51	0
55	MG	1A	3007	1/1	0.91	0.07	38,38,38,38	0
55	MG	1A	3476	1/1	0.91	0.09	45,45,45,45	0
55	MG	2A	3049	1/1	0.91	0.16	38,38,38,38	0
55	MG	1A	3714	1/1	0.91	0.16	68,68,68,68	0
55	MG	1A	3834	1/1	0.91	0.07	61,61,61,61	0
55	MG	2A	3055	1/1	0.91	0.12	49,49,49,49	0
55	MG	2A	3057	1/1	0.91	0.45	49,49,49,49	0
55	MG	2A	3193	1/1	0.91	0.28	76,76,76,76	0
55	MG	1A	3368	1/1	0.91	0.09	29,29,29,29	0
55	MG	2A	3063	1/1	0.91	0.66	49,49,49,49	0
55	MG	2a	1701	1/1	0.91	0.15	90,90,90,90	0
55	MG	1a	3181	1/1	0.91	0.08	74,74,74,74	0
55	MG	2A	3065	1/1	0.91	0.25	56,56,56,56	0
55	MG	2A	3200	1/1	0.91	0.49	65,65,65,65	0
55	MG	2A	3203	1/1	0.91	0.35	63,63,63,63	0
55	MG	1D	305	1/1	0.91	0.22	42,42,42,42	0
55	MG	1A	3196	1/1	0.91	0.13	36,36,36,36	0
55	MG	2a	1709	1/1	0.91	0.16	82,82,82,82	0
55	MG	2A	3212	1/1	0.91	0.09	60,60,60,60	0
55	MG	1a	3088	1/1	0.91	0.18	63,63,63,63	0
55	MG	2A	3440	1/1	0.91	0.15	74,74,74,74	0
55	MG	1A	3286	1/1	0.91	0.12	64,64,64,64	0
55	MG	2A	3442	1/1	0.91	0.17	81,81,81,81	0
55	MG	2A	3640	1/1	0.91	0.14	78,78,78,78	0
55	MG	2A	3076	1/1	0.91	0.26	55,55,55,55	0
55	MG	1A	3381	1/1	0.91	0.12	62,62,62,62	0
55	MG	2A	3224	1/1	0.91	0.09	69,69,69,69	0
55	MG	1A	3395	1/1	0.91	0.10	44,44,44,44	0
55	MG	2A	3228	1/1	0.91	0.13	51,51,51,51	0
55	MG	2A	3229	1/1	0.91	0.15	82,82,82,82	0
55	MG	1A	3635	1/1	0.91	0.12	39,39,39,39	0
55	MG	2A	3652	1/1	0.91	0.18	53,53,53,53	0
55	MG	2a	1731	1/1	0.91	0.11	90,90,90,90	0
55	MG	2A	3242	1/1	0.91	0.17	40,40,40,40	0
55	MG	2A	3243	1/1	0.91	0.11	72,72,72,72	0
55	MG	1a	3193	1/1	0.91	0.18	74,74,74,74	0
55	MG	1a	3194	1/1	0.91	0.08	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3497	1/1	0.91	0.16	66,66,66,66	0
55	MG	1A	3156	1/1	0.91	0.29	54,54,54,54	0
55	MG	2a	1740	1/1	0.91	0.09	70,70,70,70	0
55	MG	2A	3470	1/1	0.91	0.11	63,63,63,63	0
55	MG	2a	1745	1/1	0.91	0.20	67,67,67,67	0
55	MG	1A	3642	1/1	0.91	0.24	36,36,36,36	0
55	MG	2a	1751	1/1	0.91	0.10	107,107,107,107	0
55	MG	1A	3646	1/1	0.91	0.10	31,31,31,31	0
55	MG	2a	1753	1/1	0.91	0.27	69,69,69,69	0
55	MG	2A	3255	1/1	0.91	0.12	62,62,62,62	0
55	MG	1A	3289	1/1	0.91	0.08	53,53,53,53	0
55	MG	1a	3033	1/1	0.91	0.12	50,50,50,50	0
55	MG	1A	3307	1/1	0.91	0.12	63,63,63,63	0
55	MG	23	101	1/1	0.91	0.23	64,64,64,64	0
55	MG	1A	3404	1/1	0.91	0.10	60,60,60,60	0
55	MG	2a	1768	1/1	0.91	0.08	80,80,80,80	0
55	MG	2A	3261	1/1	0.91	0.11	88,88,88,88	0
55	MG	1N	8001	1/1	0.91	0.19	51,51,51,51	0
55	MG	1A	3177	1/1	0.91	0.20	52,52,52,52	0
55	MG	1A	3077	1/1	0.91	0.27	47,47,47,47	0
55	MG	1a	3040	1/1	0.91	0.24	75,75,75,75	0
55	MG	2A	3708	1/1	0.91	0.15	66,66,66,66	0
55	MG	1A	3130	1/1	0.91	0.08	33,33,33,33	0
55	MG	1A	3666	1/1	0.91	0.14	45,45,45,45	0
55	MG	1A	3881	1/1	0.91	0.12	43,43,43,43	0
55	MG	2A	3301	1/1	0.91	0.09	49,49,49,49	0
55	MG	1A	3773	1/1	0.91	0.06	44,44,44,44	0
55	MG	1a	3129	1/1	0.91	0.10	66,66,66,66	0
55	MG	1a	3046	1/1	0.91	0.21	54,54,54,54	0
55	MG	2A	3315	1/1	0.91	0.11	67,67,67,67	0
55	MG	2A	3114	1/1	0.91	0.20	62,62,62,62	0
55	MG	2d	503	1/1	0.91	0.10	79,79,79,79	0
55	MG	2A	3742	1/1	0.91	0.26	70,70,70,70	0
55	MG	1A	3589	1/1	0.91	0.10	36,36,36,36	0
55	MG	1U	203	1/1	0.91	0.19	42,42,42,42	0
55	MG	1A	3444	1/1	0.91	0.15	75,75,75,75	0
55	MG	2A	3515	1/1	0.91	0.15	52,52,52,52	0
55	MG	1V	203	1/1	0.91	0.13	60,60,60,60	0
55	MG	1A	3315	1/1	0.91	0.18	45,45,45,45	0
55	MG	2A	3006	1/1	0.91	0.09	36,36,36,36	0
55	MG	1A	3892	1/1	0.91	0.14	62,62,62,62	0
55	MG	2o	3001	1/1	0.91	0.16	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3452	1/1	0.91	0.22	76,76,76,76	0
55	MG	10	102	1/1	0.91	0.13	52,52,52,52	0
55	MG	1A	3073	1/1	0.92	0.26	43,43,43,43	0
55	MG	1A	3743	1/1	0.92	0.07	45,45,45,45	0
55	MG	2A	3130	1/1	0.92	0.12	58,58,58,58	0
55	MG	2A	3445	1/1	0.92	0.09	48,48,48,48	0
55	MG	2A	3810	1/1	0.92	0.23	51,51,51,51	0
55	MG	1A	3220	1/1	0.92	0.31	77,77,77,77	0
55	MG	2A	3448	1/1	0.92	0.09	51,51,51,51	0
55	MG	2A	3132	1/1	0.92	0.15	63,63,63,63	0
55	MG	1a	3100	1/1	0.92	0.29	60,60,60,60	0
55	MG	2A	3262	1/1	0.92	0.14	74,74,74,74	0
55	MG	2A	3818	1/1	0.92	0.15	57,57,57,57	0
55	MG	2A	3036	1/1	0.92	0.17	48,48,48,48	0
55	MG	1A	3755	1/1	0.92	0.09	69,69,69,69	0
55	MG	1A	3560	1/1	0.92	0.07	72,72,72,72	0
55	MG	2a	1654	1/1	0.92	0.38	70,70,70,70	0
55	MG	2B	3003	1/1	0.92	0.07	73,73,73,73	0
55	MG	1A	3759	1/1	0.92	0.26	61,61,61,61	0
55	MG	2A	3142	1/1	0.92	0.34	60,60,60,60	0
55	MG	1A	3845	1/1	0.92	0.09	43,43,43,43	0
55	MG	1A	3457	1/1	0.92	0.06	24,24,24,24	0
55	MG	1a	3114	1/1	0.92	0.08	74,74,74,74	0
55	MG	2a	1665	1/1	0.92	0.10	74,74,74,74	0
55	MG	2a	1666	1/1	0.92	0.14	79,79,79,79	0
55	MG	1A	3459	1/1	0.92	0.22	50,50,50,50	0
55	MG	2A	3148	1/1	0.92	0.10	57,57,57,57	0
55	MG	1A	3763	1/1	0.92	0.12	22,22,22,22	0
55	MG	2A	3150	1/1	0.92	0.16	49,49,49,49	0
55	MG	2A	3639	1/1	0.92	0.10	76,76,76,76	0
55	MG	1A	3378	1/1	0.92	0.06	20,20,20,20	0
55	MG	1A	3316	1/1	0.92	0.12	58,58,58,58	0
55	MG	1A	3388	1/1	0.92	0.13	48,48,48,48	0
55	MG	2D	301	1/1	0.92	0.47	47,47,47,47	0
55	MG	1A	3861	1/1	0.92	0.08	82,82,82,82	0
55	MG	2D	303	1/1	0.92	0.16	50,50,50,50	0
55	MG	2A	3324	1/1	0.92	0.18	61,61,61,61	0
55	MG	2A	3158	1/1	0.92	0.16	72,72,72,72	0
55	MG	2D	306	1/1	0.92	0.17	57,57,57,57	0
55	MG	2A	3159	1/1	0.92	0.17	58,58,58,58	0
55	MG	2A	3649	1/1	0.92	0.17	49,49,49,49	0
55	MG	2A	3161	1/1	0.92	0.30	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1a	3051	1/1	0.92	0.21	57,57,57,57	0
55	MG	15	105	1/1	0.92	0.17	43,43,43,43	0
55	MG	2A	3654	1/1	0.92	0.09	34,34,34,34	0
55	MG	2F	309	1/1	0.92	0.17	60,60,60,60	0
55	MG	1A	3093	1/1	0.92	0.12	43,43,43,43	0
55	MG	2A	3165	1/1	0.92	0.30	58,58,58,58	0
55	MG	1A	3004	1/1	0.92	0.06	41,41,41,41	0
55	MG	1D	304	1/1	0.92	0.23	37,37,37,37	0
55	MG	2A	3501	1/1	0.92	0.16	76,76,76,76	0
55	MG	1A	3575	1/1	0.92	0.19	23,23,23,23	0
55	MG	1A	3193	1/1	0.92	0.14	42,42,42,42	0
55	MG	2A	3069	1/1	0.92	0.40	52,52,52,52	0
55	MG	2A	3675	1/1	0.92	0.06	70,70,70,70	0
55	MG	2Q	8005	1/1	0.92	0.12	62,62,62,62	0
55	MG	2A	3177	1/1	0.92	0.09	62,62,62,62	0
55	MG	2a	1721	1/1	0.92	0.06	84,84,84,84	0
55	MG	1D	308	1/1	0.92	0.08	58,58,58,58	0
55	MG	1a	3131	1/1	0.92	0.09	76,76,76,76	0
55	MG	2A	3370	1/1	0.92	0.15	76,76,76,76	0
55	MG	2A	3688	1/1	0.92	0.09	66,66,66,66	0
55	MG	1A	3111	1/1	0.92	0.10	42,42,42,42	0
55	MG	2A	3513	1/1	0.92	0.30	47,47,47,47	0
55	MG	1A	3870	1/1	0.92	0.18	54,54,54,54	0
55	MG	2A	3518	1/1	0.92	0.07	71,71,71,71	0
55	MG	2A	3183	1/1	0.92	0.10	75,75,75,75	0
55	MG	1A	3874	1/1	0.92	0.09	59,59,59,59	0
55	MG	2A	3186	1/1	0.92	0.22	61,61,61,61	0
55	MG	2A	3527	1/1	0.92	0.19	73,73,73,73	0
55	MG	1d	503	1/1	0.92	0.18	63,63,63,63	0
55	MG	1A	3293	1/1	0.92	0.12	75,75,75,75	0
55	MG	1F	303	1/1	0.92	0.26	43,43,43,43	0
55	MG	1e	3002	1/1	0.92	0.18	58,58,58,58	0
55	MG	2A	3087	1/1	0.92	0.19	62,62,62,62	0
55	MG	1A	3349	1/1	0.92	0.09	25,25,25,25	0
55	MG	2A	3401	1/1	0.92	0.15	66,66,66,66	0
55	MG	2a	1754	1/1	0.92	0.17	85,85,85,85	0
55	MG	1a	3140	1/1	0.92	0.12	84,84,84,84	0
55	MG	1a	3012	1/1	0.92	0.14	68,68,68,68	0
55	MG	2A	3407	1/1	0.92	0.36	74,74,74,74	0
55	MG	1A	3525	1/1	0.92	0.14	57,57,57,57	0
55	MG	1A	3885	1/1	0.92	0.11	37,37,37,37	0
55	MG	1o	3001	1/1	0.92	0.17	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2a	1765	1/1	0.92	0.17	71,71,71,71	0
55	MG	2a	1766	1/1	0.92	0.08	91,91,91,91	0
55	MG	1A	3306	1/1	0.92	0.08	14,14,14,14	0
55	MG	1a	3071	1/1	0.92	0.26	53,53,53,53	0
55	MG	2A	3556	1/1	0.92	0.31	57,57,57,57	0
55	MG	1A	3479	1/1	0.92	0.10	39,39,39,39	0
55	MG	2A	3763	1/1	0.92	0.07	41,41,41,41	0
55	MG	1A	3084	1/1	0.92	0.14	47,47,47,47	0
55	MG	1a	3075	1/1	0.92	0.16	48,48,48,48	0
55	MG	1A	3242	1/1	0.92	0.23	29,29,29,29	0
55	MG	2a	1784	1/1	0.92	0.10	80,80,80,80	0
55	MG	1A	3891	1/1	0.92	0.20	64,64,64,64	0
55	MG	2A	3773	1/1	0.92	0.10	85,85,85,85	0
55	MG	1A	3815	1/1	0.92	0.14	51,51,51,51	0
55	MG	2A	3776	1/1	0.92	0.09	43,43,43,43	0
55	MG	1a	3080	1/1	0.92	0.12	69,69,69,69	0
55	MG	2A	3778	1/1	0.92	0.09	50,50,50,50	0
55	MG	2A	3110	1/1	0.92	0.15	53,53,53,53	0
55	MG	1A	3445	1/1	0.92	0.13	65,65,65,65	0
55	MG	2A	3788	1/1	0.92	0.07	88,88,88,88	0
55	MG	2A	3014	1/1	0.92	0.21	66,66,66,66	0
55	MG	2a	1626	1/1	0.92	0.18	60,60,60,60	0
55	MG	2a	1627	1/1	0.92	0.17	84,84,84,84	0
55	MG	1A	3144	1/1	0.92	0.18	64,64,64,64	0
55	MG	2A	3583	1/1	0.92	0.17	72,72,72,72	0
55	MG	1A	3600	1/1	0.92	0.08	67,67,67,67	0
55	MG	2A	3021	1/1	0.92	0.12	43,43,43,43	0
55	MG	1A	3900	1/1	0.92	0.20	58,58,58,58	0
55	MG	1A	3549	1/1	0.92	0.22	31,31,31,31	0
55	MG	1A	3494	1/1	0.92	0.20	59,59,59,59	0
55	MG	1U	202	1/1	0.92	0.13	43,43,43,43	0
55	MG	2A	3803	1/1	0.92	0.44	69,69,69,69	0
55	MG	2A	3784	1/1	0.93	0.09	94,94,94,94	0
55	MG	1A	3440	1/1	0.93	0.13	47,47,47,47	0
55	MG	1A	3512	1/1	0.93	0.23	46,46,46,46	0
55	MG	2A	3189	1/1	0.93	0.10	43,43,43,43	0
55	MG	1A	3835	1/1	0.93	0.07	48,48,48,48	0
55	MG	1A	3135	1/1	0.93	0.07	37,37,37,37	0
55	MG	2a	1638	1/1	0.93	0.09	73,73,73,73	0
55	MG	2A	3572	1/1	0.93	0.13	55,55,55,55	0
55	MG	2A	3411	1/1	0.93	0.13	63,63,63,63	0
55	MG	1A	3072	1/1	0.93	0.07	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3576	1/1	0.93	0.22	52,52,52,52	0
55	MG	1D	302	1/1	0.93	0.69	35,35,35,35	0
55	MG	1A	3139	1/1	0.93	0.27	59,59,59,59	0
55	MG	1A	3049	1/1	0.93	0.22	45,45,45,45	0
55	MG	2A	3804	1/1	0.93	0.12	35,35,35,35	0
55	MG	1a	3107	1/1	0.93	0.13	67,67,67,67	0
55	MG	2A	3584	1/1	0.93	0.12	62,62,62,62	0
55	MG	2a	1650	1/1	0.93	0.44	55,55,55,55	0
55	MG	2A	3199	1/1	0.93	0.23	65,65,65,65	0
55	MG	1a	3211	1/1	0.93	0.22	59,59,59,59	0
55	MG	1a	3108	1/1	0.93	0.06	81,81,81,81	0
55	MG	1A	3051	1/1	0.93	0.38	30,30,30,30	0
55	MG	2A	3424	1/1	0.93	0.15	50,50,50,50	0
55	MG	1A	3524	1/1	0.93	0.11	52,52,52,52	0
55	MG	1D	314	1/1	0.93	0.13	34,34,34,34	0
55	MG	1a	3024	1/1	0.93	0.13	57,57,57,57	0
55	MG	2A	3092	1/1	0.93	0.35	49,49,49,49	0
55	MG	2a	1662	1/1	0.93	0.09	74,74,74,74	0
55	MG	2a	1663	1/1	0.93	0.21	63,63,63,63	0
55	MG	1A	3035	1/1	0.93	0.08	37,37,37,37	0
55	MG	1A	3528	1/1	0.93	0.13	57,57,57,57	0
55	MG	1A	3107	1/1	0.93	0.28	36,36,36,36	0
55	MG	2A	3602	1/1	0.93	0.06	73,73,73,73	0
55	MG	2A	3434	1/1	0.93	0.18	65,65,65,65	0
55	MG	1A	3031	1/1	0.93	0.10	22,22,22,22	0
55	MG	1A	3046	1/1	0.93	0.22	38,38,38,38	0
55	MG	1A	3860	1/1	0.93	0.10	53,53,53,53	0
55	MG	2A	3232	1/1	0.93	0.10	67,67,67,67	0
55	MG	1a	3032	1/1	0.93	0.12	45,45,45,45	0
55	MG	2A	3618	1/1	0.93	0.18	55,55,55,55	0
55	MG	2A	3619	1/1	0.93	0.08	50,50,50,50	0
55	MG	2a	1689	1/1	0.93	0.13	58,58,58,58	0
55	MG	1F	305	1/1	0.93	0.17	29,29,29,29	0
55	MG	1F	306	1/1	0.93	0.13	39,39,39,39	0
55	MG	2A	3106	1/1	0.93	0.14	60,60,60,60	0
55	MG	1A	3467	1/1	0.93	0.14	32,32,32,32	0
55	MG	1l	201	1/1	0.93	0.07	74,74,74,74	0
55	MG	1A	3082	1/1	0.93	0.46	37,37,37,37	0
55	MG	1A	3351	1/1	0.93	0.23	54,54,54,54	0
55	MG	1A	3541	1/1	0.93	0.33	34,34,34,34	0
55	MG	1A	3547	1/1	0.93	0.26	35,35,35,35	0
55	MG	2A	3001	1/1	0.93	0.14	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3868	1/1	0.93	0.08	29,29,29,29	0
55	MG	1H	8002	1/1	0.93	0.08	46,46,46,46	0
55	MG	1A	3048	1/1	0.93	0.33	33,33,33,33	0
55	MG	1A	3637	1/1	0.93	0.12	38,38,38,38	0
55	MG	1A	3060	1/1	0.93	0.07	36,36,36,36	0
55	MG	1A	3875	1/1	0.93	0.10	44,44,44,44	0
55	MG	2a	1712	1/1	0.93	0.24	69,69,69,69	0
55	MG	1A	3260	1/1	0.93	0.19	36,36,36,36	0
55	MG	2F	307	1/1	0.93	0.22	60,60,60,60	0
55	MG	2A	3268	1/1	0.93	0.13	69,69,69,69	0
55	MG	2a	1716	1/1	0.93	0.22	73,73,73,73	0
55	MG	2A	3281	1/1	0.93	0.07	61,61,61,61	0
55	MG	2A	3285	1/1	0.93	0.08	47,47,47,47	0
55	MG	1A	3062	1/1	0.93	0.13	37,37,37,37	0
55	MG	1A	3088	1/1	0.93	0.46	30,30,30,30	0
55	MG	2A	3294	1/1	0.93	0.09	55,55,55,55	0
55	MG	1A	3374	1/1	0.93	0.13	62,62,62,62	0
55	MG	2a	1723	1/1	0.93	0.11	110,110,110,110	0
55	MG	2A	3659	1/1	0.93	0.13	73,73,73,73	0
55	MG	2A	3015	1/1	0.93	0.32	50,50,50,50	0
55	MG	1A	3649	1/1	0.93	0.08	33,33,33,33	0
55	MG	2a	1728	1/1	0.93	0.07	86,86,86,86	0
55	MG	2a	1729	1/1	0.93	0.12	60,60,60,60	0
55	MG	2A	3482	1/1	0.93	0.23	54,54,54,54	0
55	MG	1A	3066	1/1	0.93	0.26	45,45,45,45	0
55	MG	1A	3094	1/1	0.93	0.34	30,30,30,30	0
55	MG	2R	203	1/1	0.93	0.14	39,39,39,39	0
55	MG	2A	3304	1/1	0.93	0.06	48,48,48,48	0
55	MG	2A	3305	1/1	0.93	0.08	84,84,84,84	0
55	MG	2A	3307	1/1	0.93	0.09	54,54,54,54	0
55	MG	1A	3485	1/1	0.93	0.24	47,47,47,47	0
55	MG	1a	3148	1/1	0.93	0.08	82,82,82,82	0
55	MG	1W	3001	1/1	0.93	0.23	38,38,38,38	0
55	MG	1A	3070	1/1	0.93	0.31	32,32,32,32	0
55	MG	1A	3572	1/1	0.93	0.10	41,41,41,41	0
55	MG	2A	3028	1/1	0.93	0.29	64,64,64,64	0
55	MG	2A	3029	1/1	0.93	0.14	61,61,61,61	0
55	MG	2A	3694	1/1	0.93	0.06	65,65,65,65	0
55	MG	20	101	1/1	0.93	0.24	64,64,64,64	0
55	MG	20	103	1/1	0.93	0.07	59,59,59,59	0
55	MG	1A	3665	1/1	0.93	0.23	51,51,51,51	0
55	MG	1A	3175	1/1	0.93	0.23	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3667	1/1	0.93	0.16	46,46,46,46	0
55	MG	1A	3132	1/1	0.93	0.10	35,35,35,35	0
55	MG	1A	3181	1/1	0.93	0.10	51,51,51,51	0
55	MG	1A	3299	1/1	0.93	0.17	28,28,28,28	0
55	MG	2A	3156	1/1	0.93	0.23	39,39,39,39	0
55	MG	1A	3226	1/1	0.93	0.27	31,31,31,31	0
55	MG	1A	3910	1/1	0.93	0.23	35,35,35,35	0
55	MG	2A	3520	1/1	0.93	0.14	65,65,65,65	0
55	MG	13	102	1/1	0.93	0.17	44,44,44,44	0
55	MG	1A	3677	1/1	0.93	0.10	56,56,56,56	0
55	MG	2a	1778	1/1	0.93	0.07	79,79,79,79	0
55	MG	2A	3526	1/1	0.93	0.15	73,73,73,73	0
55	MG	15	104	1/1	0.93	0.22	26,26,26,26	0
55	MG	2A	3743	1/1	0.93	0.14	59,59,59,59	0
55	MG	1A	3403	1/1	0.93	0.13	53,53,53,53	0
55	MG	1A	3182	1/1	0.93	0.39	46,46,46,46	0
55	MG	17	101	1/1	0.93	0.18	35,35,35,35	0
55	MG	1A	3683	1/1	0.93	0.14	51,51,51,51	0
55	MG	2A	3168	1/1	0.93	0.22	53,53,53,53	0
55	MG	2A	3051	1/1	0.93	0.20	61,61,61,61	0
55	MG	1A	3097	1/1	0.93	0.28	48,48,48,48	0
55	MG	1A	3687	1/1	0.93	0.14	56,56,56,56	0
55	MG	2A	3541	1/1	0.93	0.11	78,78,78,78	0
55	MG	2A	3764	1/1	0.93	0.07	72,72,72,72	0
55	MG	2A	3056	1/1	0.93	0.07	59,59,59,59	0
55	MG	1A	3582	1/1	0.93	0.14	69,69,69,69	0
55	MG	2A	3178	1/1	0.93	0.39	38,38,38,38	0
55	MG	1A	3824	1/1	0.93	0.13	47,47,47,47	0
55	MG	2A	3772	1/1	0.93	0.08	63,63,63,63	0
55	MG	2g	3001	1/1	0.93	0.27	72,72,72,72	0
55	MG	2A	3062	1/1	0.93	0.36	47,47,47,47	0
55	MG	2A	3774	1/1	0.93	0.13	79,79,79,79	0
55	MG	1A	3309	1/1	0.93	0.07	32,32,32,32	0
55	MG	1B	3014	1/1	0.93	0.08	41,41,41,41	0
55	MG	1A	3312	1/1	0.93	0.10	64,64,64,64	0
55	MG	2A	3557	1/1	0.93	0.10	67,67,67,67	0
55	MG	2A	3066	1/1	0.93	0.21	58,58,58,58	0
55	MG	1A	3609	1/1	0.94	0.07	62,62,62,62	0
55	MG	1A	3510	1/1	0.94	0.08	70,70,70,70	0
55	MG	1A	3159	1/1	0.94	0.14	30,30,30,30	0
55	MG	2A	3191	1/1	0.94	0.18	61,61,61,61	0
55	MG	2A	3664	1/1	0.94	0.07	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3035	1/1	0.94	0.20	32,32,32,32	0
55	MG	1A	3110	1/1	0.94	0.25	38,38,38,38	0
55	MG	1a	3011	1/1	0.94	0.16	32,32,32,32	0
55	MG	1A	3914	1/1	0.94	0.17	62,62,62,62	0
55	MG	1A	3047	1/1	0.94	0.13	24,24,24,24	0
55	MG	1a	3014	1/1	0.94	0.18	81,81,81,81	0
55	MG	2A	3043	1/1	0.94	0.08	72,72,72,72	0
55	MG	1a	3015	1/1	0.94	0.11	74,74,74,74	0
55	MG	1a	3133	1/1	0.94	0.06	74,74,74,74	0
55	MG	2a	1611	1/1	0.94	0.11	58,58,58,58	0
55	MG	2a	1612	1/1	0.94	0.07	51,51,51,51	0
55	MG	2A	3681	1/1	0.94	0.08	71,71,71,71	0
55	MG	2A	3204	1/1	0.94	0.08	54,54,54,54	0
55	MG	1A	3056	1/1	0.94	0.16	28,28,28,28	0
55	MG	1A	3164	1/1	0.94	0.17	59,59,59,59	0
55	MG	1a	3018	1/1	0.94	0.06	64,64,64,64	0
55	MG	2A	3691	1/1	0.94	0.07	70,70,70,70	0
55	MG	1A	3518	1/1	0.94	0.17	77,77,77,77	0
55	MG	2A	3465	1/1	0.94	0.10	71,71,71,71	0
55	MG	2A	3467	1/1	0.94	0.11	57,57,57,57	0
55	MG	1A	3767	1/1	0.94	0.07	51,51,51,51	0
55	MG	2A	3705	1/1	0.94	0.14	75,75,75,75	0
55	MG	2A	3706	1/1	0.94	0.08	90,90,90,90	0
55	MG	1A	3411	1/1	0.94	0.12	52,52,52,52	0
55	MG	2A	3053	1/1	0.94	0.10	57,57,57,57	0
55	MG	1A	3521	1/1	0.94	0.07	45,45,45,45	0
55	MG	2A	3474	1/1	0.94	0.08	70,70,70,70	0
55	MG	1A	3427	1/1	0.94	0.08	42,42,42,42	0
55	MG	1a	3025	1/1	0.94	0.06	55,55,55,55	0
55	MG	1A	3133	1/1	0.94	0.37	35,35,35,35	0
55	MG	2A	3058	1/1	0.94	0.34	53,53,53,53	0
55	MG	2A	3479	1/1	0.94	0.10	40,40,40,40	0
55	MG	2A	3233	1/1	0.94	0.10	73,73,73,73	0
55	MG	2A	3234	1/1	0.94	0.10	45,45,45,45	0
55	MG	1A	3433	1/1	0.94	0.30	51,51,51,51	0
55	MG	1B	3018	1/1	0.94	0.08	37,37,37,37	0
55	MG	2a	1639	1/1	0.94	0.38	50,50,50,50	0
55	MG	1A	3436	1/1	0.94	0.08	49,49,49,49	0
55	MG	1A	3437	1/1	0.94	0.06	34,34,34,34	0
55	MG	1A	3439	1/1	0.94	0.07	54,54,54,54	0
55	MG	2A	3247	1/1	0.94	0.09	35,35,35,35	0
55	MG	2A	3754	1/1	0.94	0.14	101,101,101,101	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3534	1/1	0.94	0.09	52,52,52,52	0
55	MG	1A	3535	1/1	0.94	0.07	38,38,38,38	0
55	MG	1a	3156	1/1	0.94	0.10	69,69,69,69	0
55	MG	2A	3760	1/1	0.94	0.09	40,40,40,40	0
55	MG	1A	3653	1/1	0.94	0.09	62,62,62,62	0
55	MG	1a	3035	1/1	0.94	0.45	64,64,64,64	0
55	MG	1A	3795	1/1	0.94	0.21	46,46,46,46	0
55	MG	1A	3536	1/1	0.94	0.08	44,44,44,44	0
55	MG	1A	3001	1/1	0.94	0.05	32,32,32,32	0
55	MG	1a	3164	1/1	0.94	0.10	61,61,61,61	0
55	MG	1A	3005	1/1	0.94	0.14	22,22,22,22	0
55	MG	1D	309	1/1	0.94	0.20	41,41,41,41	0
55	MG	1a	3168	1/1	0.94	0.09	79,79,79,79	0
55	MG	1A	3086	1/1	0.94	0.16	50,50,50,50	0
55	MG	2A	3514	1/1	0.94	0.22	53,53,53,53	0
55	MG	1A	3002	1/1	0.94	0.08	48,48,48,48	0
55	MG	2A	3273	1/1	0.94	0.08	60,60,60,60	0
55	MG	1A	3143	1/1	0.94	0.15	45,45,45,45	0
55	MG	1E	303	1/1	0.94	0.09	39,39,39,39	0
55	MG	1a	3045	1/1	0.94	0.25	57,57,57,57	0
55	MG	2A	3785	1/1	0.94	0.07	60,60,60,60	0
55	MG	1A	3321	1/1	0.94	0.09	55,55,55,55	0
55	MG	1a	3179	1/1	0.94	0.07	78,78,78,78	0
55	MG	1F	301	1/1	0.94	0.19	28,28,28,28	0
55	MG	2a	1676	1/1	0.94	0.09	55,55,55,55	0
55	MG	2A	3791	1/1	0.94	0.09	45,45,45,45	0
55	MG	2A	3529	1/1	0.94	0.07	75,75,75,75	0
55	MG	2A	3098	1/1	0.94	0.18	53,53,53,53	0
55	MG	1A	3322	1/1	0.94	0.13	48,48,48,48	0
55	MG	1A	3827	1/1	0.94	0.10	64,64,64,64	0
55	MG	2a	1687	1/1	0.94	0.18	55,55,55,55	0
55	MG	1A	3345	1/1	0.94	0.12	45,45,45,45	0
55	MG	1A	3669	1/1	0.94	0.18	56,56,56,56	0
55	MG	1A	3012	1/1	0.94	0.10	22,22,22,22	0
55	MG	1F	310	1/1	0.94	0.13	27,27,27,27	0
55	MG	1A	3672	1/1	0.94	0.07	49,49,49,49	0
55	MG	1A	3259	1/1	0.94	0.11	52,52,52,52	0
55	MG	1A	3179	1/1	0.94	0.23	38,38,38,38	0
55	MG	1A	3350	1/1	0.94	0.09	46,46,46,46	0
55	MG	1A	3678	1/1	0.94	0.13	37,37,37,37	0
55	MG	1A	3211	1/1	0.94	0.39	31,31,31,31	0
55	MG	2A	3551	1/1	0.94	0.06	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1a	3060	1/1	0.94	0.14	69,69,69,69	0
55	MG	1A	3843	1/1	0.94	0.06	49,49,49,49	0
55	MG	1A	3264	1/1	0.94	0.07	37,37,37,37	0
55	MG	1A	3355	1/1	0.94	0.08	53,53,53,53	0
55	MG	2A	3116	1/1	0.94	0.19	43,43,43,43	0
55	MG	2A	3817	1/1	0.94	0.09	65,65,65,65	0
55	MG	1N	8003	1/1	0.94	0.14	69,69,69,69	0
55	MG	1A	3571	1/1	0.94	0.13	54,54,54,54	0
55	MG	2A	3820	1/1	0.94	0.12	69,69,69,69	0
55	MG	2A	3822	1/1	0.94	0.23	53,53,53,53	0
55	MG	2A	3120	1/1	0.94	0.30	56,56,56,56	0
55	MG	1a	3216	1/1	0.94	0.08	100,100,100,100	0
55	MG	1A	3685	1/1	0.94	0.17	52,52,52,52	0
55	MG	2A	3568	1/1	0.94	0.18	68,68,68,68	0
55	MG	1Q	201	1/1	0.94	0.25	44,44,44,44	0
55	MG	2A	3570	1/1	0.94	0.07	57,57,57,57	0
55	MG	1A	3180	1/1	0.94	0.20	48,48,48,48	0
55	MG	1A	3121	1/1	0.94	0.08	43,43,43,43	0
55	MG	1A	3365	1/1	0.94	0.13	40,40,40,40	0
55	MG	2a	1725	1/1	0.94	0.08	86,86,86,86	0
55	MG	1a	3072	1/1	0.94	0.07	65,65,65,65	0
55	MG	2A	3578	1/1	0.94	0.07	61,61,61,61	0
55	MG	1S	201	1/1	0.94	0.23	55,55,55,55	0
55	MG	1A	3366	1/1	0.94	0.15	26,26,26,26	0
55	MG	2A	3356	1/1	0.94	0.10	43,43,43,43	0
55	MG	2A	3359	1/1	0.94	0.09	51,51,51,51	0
55	MG	2A	3369	1/1	0.94	0.09	58,58,58,58	0
55	MG	1d	506	1/1	0.94	0.07	91,91,91,91	0
55	MG	2A	3374	1/1	0.94	0.11	62,62,62,62	0
55	MG	1A	3217	1/1	0.94	0.14	45,45,45,45	0
55	MG	1A	3481	1/1	0.94	0.06	23,23,23,23	0
55	MG	1A	3276	1/1	0.94	0.14	3,3,3,3	0
55	MG	1g	3001	1/1	0.94	0.34	66,66,66,66	0
55	MG	2A	3383	1/1	0.94	0.10	57,57,57,57	0
55	MG	1A	3279	1/1	0.94	0.09	56,56,56,56	0
55	MG	2D	310	1/1	0.94	0.13	55,55,55,55	0
55	MG	2E	301	1/1	0.94	0.14	43,43,43,43	0
55	MG	1A	3705	1/1	0.94	0.12	48,48,48,48	0
55	MG	1k	3001	1/1	0.94	0.16	48,48,48,48	0
55	MG	1A	3376	1/1	0.94	0.07	72,72,72,72	0
55	MG	2F	301	1/1	0.94	0.35	47,47,47,47	0
55	MG	1A	3709	1/1	0.94	0.09	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2F	303	1/1	0.94	0.12	62,62,62,62	0
55	MG	2F	304	1/1	0.94	0.15	49,49,49,49	0
55	MG	2F	306	1/1	0.94	0.25	43,43,43,43	0
55	MG	1A	3123	1/1	0.94	0.32	27,27,27,27	0
55	MG	1A	3712	1/1	0.94	0.09	52,52,52,52	0
55	MG	1A	3583	1/1	0.94	0.11	37,37,37,37	0
55	MG	1A	3586	1/1	0.94	0.07	59,59,59,59	0
55	MG	1A	3221	1/1	0.94	0.21	56,56,56,56	0
55	MG	2A	3004	1/1	0.94	0.10	56,56,56,56	0
55	MG	2A	3611	1/1	0.94	0.12	83,83,83,83	0
55	MG	1A	3064	1/1	0.94	0.19	29,29,29,29	0
55	MG	1a	3095	1/1	0.94	0.15	62,62,62,62	0
55	MG	2A	3160	1/1	0.94	0.14	46,46,46,46	0
55	MG	1A	3882	1/1	0.94	0.14	62,62,62,62	0
55	MG	1A	3386	1/1	0.94	0.16	61,61,61,61	0
55	MG	1A	3387	1/1	0.94	0.11	70,70,70,70	0
55	MG	2A	3415	1/1	0.94	0.07	80,80,80,80	0
55	MG	1A	3727	1/1	0.94	0.14	40,40,40,40	0
55	MG	15	103	1/1	0.94	0.15	34,34,34,34	0
55	MG	2A	3630	1/1	0.94	0.21	58,58,58,58	0
55	MG	2A	3012	1/1	0.94	0.11	38,38,38,38	0
55	MG	1A	3149	1/1	0.94	0.23	43,43,43,43	0
55	MG	1A	3389	1/1	0.94	0.11	48,48,48,48	0
55	MG	1A	3733	1/1	0.94	0.26	27,27,27,27	0
55	MG	2V	203	1/1	0.94	0.06	59,59,59,59	0
55	MG	1A	3502	1/1	0.94	0.11	62,62,62,62	0
55	MG	17	102	1/1	0.94	0.22	36,36,36,36	0
55	MG	17	104	1/1	0.94	0.12	61,61,61,61	0
55	MG	1A	3894	1/1	0.94	0.26	38,38,38,38	0
55	MG	1A	3125	1/1	0.94	0.18	45,45,45,45	0
55	MG	1A	3737	1/1	0.94	0.07	14,14,14,14	0
55	MG	2A	3025	1/1	0.94	0.14	38,38,38,38	0
55	MG	1A	3396	1/1	0.94	0.43	66,66,66,66	0
55	MG	2m	201	1/1	0.94	0.08	79,79,79,79	0
55	MG	1A	3301	1/1	0.94	0.10	41,41,41,41	0
55	MG	1A	3129	1/1	0.94	0.10	36,36,36,36	0
55	MG	21	102	1/1	0.94	0.07	60,60,60,60	0
55	MG	2A	3185	1/1	0.94	0.38	62,62,62,62	0
55	MG	1A	3903	1/1	0.94	0.15	59,59,59,59	0
55	MG	2A	3686	1/1	0.95	0.06	95,95,95,95	0
55	MG	2A	3079	1/1	0.95	0.12	50,50,50,50	0
55	MG	1F	308	1/1	0.95	0.20	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3081	1/1	0.95	0.15	46,46,46,46	0
55	MG	1A	3218	1/1	0.95	0.22	35,35,35,35	0
55	MG	2A	3244	1/1	0.95	0.31	53,53,53,53	0
55	MG	1F	312	1/1	0.95	0.19	44,44,44,44	0
55	MG	1A	3686	1/1	0.95	0.09	35,35,35,35	0
55	MG	1A	3119	1/1	0.95	0.17	33,33,33,33	0
55	MG	2A	3703	1/1	0.95	0.10	93,93,93,93	0
55	MG	2A	3704	1/1	0.95	0.12	62,62,62,62	0
55	MG	1A	3120	1/1	0.95	0.28	34,34,34,34	0
55	MG	1A	3438	1/1	0.95	0.08	57,57,57,57	0
55	MG	1A	3588	1/1	0.95	0.18	62,62,62,62	0
55	MG	2A	3091	1/1	0.95	0.13	54,54,54,54	0
55	MG	2A	3253	1/1	0.95	0.07	56,56,56,56	0
55	MG	2A	3484	1/1	0.95	0.23	46,46,46,46	0
55	MG	1A	3278	1/1	0.95	0.25	37,37,37,37	0
55	MG	2A	3093	1/1	0.95	0.17	46,46,46,46	0
55	MG	1A	3699	1/1	0.95	0.07	38,38,38,38	0
55	MG	1A	3080	1/1	0.95	0.43	36,36,36,36	0
55	MG	1A	3441	1/1	0.95	0.09	40,40,40,40	0
55	MG	2A	3493	1/1	0.95	0.11	51,51,51,51	0
55	MG	2A	3738	1/1	0.95	0.10	86,86,86,86	0
55	MG	2A	3739	1/1	0.95	0.07	69,69,69,69	0
55	MG	1A	3857	1/1	0.95	0.14	71,71,71,71	0
55	MG	1A	3442	1/1	0.95	0.07	49,49,49,49	0
55	MG	2A	3500	1/1	0.95	0.17	41,41,41,41	0
55	MG	1A	3137	1/1	0.95	0.59	46,46,46,46	0
55	MG	2A	3265	1/1	0.95	0.09	59,59,59,59	0
55	MG	2A	3751	1/1	0.95	0.10	67,67,67,67	0
55	MG	2A	3266	1/1	0.95	0.09	65,65,65,65	0
55	MG	1A	3228	1/1	0.95	0.18	28,28,28,28	0
55	MG	1Q	202	1/1	0.95	0.06	39,39,39,39	0
55	MG	1A	3599	1/1	0.95	0.06	50,50,50,50	0
55	MG	2A	3757	1/1	0.95	0.12	53,53,53,53	0
55	MG	2A	3280	1/1	0.95	0.08	51,51,51,51	0
55	MG	1A	3138	1/1	0.95	0.18	52,52,52,52	0
55	MG	1a	3067	1/1	0.95	0.21	65,65,65,65	0
55	MG	2A	3289	1/1	0.95	0.13	46,46,46,46	0
55	MG	1A	3864	1/1	0.95	0.12	49,49,49,49	0
55	MG	1R	205	1/1	0.95	0.07	34,34,34,34	0
55	MG	1A	3711	1/1	0.95	0.16	39,39,39,39	0
55	MG	1A	3292	1/1	0.95	0.11	52,52,52,52	0
55	MG	1A	3867	1/1	0.95	0.29	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3713	1/1	0.95	0.08	98,98,98,98	0
55	MG	1U	207	1/1	0.95	0.09	47,47,47,47	0
55	MG	1A	3522	1/1	0.95	0.09	26,26,26,26	0
55	MG	1A	3718	1/1	0.95	0.16	67,67,67,67	0
55	MG	1A	3873	1/1	0.95	0.07	49,49,49,49	0
55	MG	1A	3721	1/1	0.95	0.09	50,50,50,50	0
55	MG	1A	3523	1/1	0.95	0.11	56,56,56,56	0
55	MG	1A	3607	1/1	0.95	0.06	60,60,60,60	0
55	MG	1A	3020	1/1	0.95	0.28	39,39,39,39	0
55	MG	2A	3783	1/1	0.95	0.13	78,78,78,78	0
55	MG	2A	3318	1/1	0.95	0.20	67,67,67,67	0
55	MG	2A	3122	1/1	0.95	0.15	46,46,46,46	0
55	MG	1A	3880	1/1	0.95	0.07	66,66,66,66	0
55	MG	2a	1661	1/1	0.95	0.20	63,63,63,63	0
55	MG	2A	3126	1/1	0.95	0.09	55,55,55,55	0
55	MG	2A	3127	1/1	0.95	0.25	60,60,60,60	0
55	MG	1A	3075	1/1	0.95	0.40	41,41,41,41	0
55	MG	1A	3372	1/1	0.95	0.10	29,29,29,29	0
55	MG	10	107	1/1	0.95	0.05	57,57,57,57	0
55	MG	1A	3883	1/1	0.95	0.06	58,58,58,58	0
55	MG	1a	3089	1/1	0.95	0.12	52,52,52,52	0
55	MG	2a	1671	1/1	0.95	0.06	80,80,80,80	0
55	MG	2A	3552	1/1	0.95	0.14	52,52,52,52	0
55	MG	1A	3461	1/1	0.95	0.10	63,63,63,63	0
55	MG	2a	1675	1/1	0.95	0.16	51,51,51,51	0
55	MG	2A	3799	1/1	0.95	0.17	83,83,83,83	0
55	MG	11	102	1/1	0.95	0.08	56,56,56,56	0
55	MG	2A	3801	1/1	0.95	0.12	21,21,21,21	0
55	MG	2A	3136	1/1	0.95	0.24	55,55,55,55	0
55	MG	1A	3531	1/1	0.95	0.10	46,46,46,46	0
55	MG	2a	1684	1/1	0.95	0.06	76,76,76,76	0
55	MG	2A	3138	1/1	0.95	0.32	48,48,48,48	0
55	MG	2A	3139	1/1	0.95	0.11	53,53,53,53	0
55	MG	2A	3560	1/1	0.95	0.09	53,53,53,53	0
55	MG	1A	3167	1/1	0.95	0.08	52,52,52,52	0
55	MG	2a	1691	1/1	0.95	0.14	56,56,56,56	0
55	MG	1A	3028	1/1	0.95	0.27	37,37,37,37	0
55	MG	2A	3346	1/1	0.95	0.06	77,77,77,77	0
55	MG	2a	1695	1/1	0.95	0.17	58,58,58,58	0
55	MG	2A	3811	1/1	0.95	0.08	67,67,67,67	0
55	MG	1A	3019	1/1	0.95	0.29	39,39,39,39	0
55	MG	1A	3170	1/1	0.95	0.31	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3627	1/1	0.95	0.24	44,44,44,44	0
55	MG	1A	3740	1/1	0.95	0.08	26,26,26,26	0
55	MG	1A	3380	1/1	0.95	0.08	52,52,52,52	0
55	MG	2A	3573	1/1	0.95	0.09	71,71,71,71	0
55	MG	2A	3366	1/1	0.95	0.08	92,92,92,92	0
55	MG	1A	3071	1/1	0.95	0.17	42,42,42,42	0
55	MG	17	103	1/1	0.95	0.40	43,43,43,43	0
55	MG	1A	3632	1/1	0.95	0.07	49,49,49,49	0
55	MG	1A	3746	1/1	0.95	0.12	31,31,31,31	0
55	MG	1A	3634	1/1	0.95	0.10	38,38,38,38	0
55	MG	2A	3581	1/1	0.95	0.09	72,72,72,72	0
55	MG	19	103	1/1	0.95	0.09	61,61,61,61	0
55	MG	1A	3385	1/1	0.95	0.12	57,57,57,57	0
55	MG	1A	3904	1/1	0.95	0.16	17,17,17,17	0
55	MG	1A	3756	1/1	0.95	0.12	40,40,40,40	0
55	MG	1A	3311	1/1	0.95	0.05	34,34,34,34	0
55	MG	2A	3587	1/1	0.95	0.05	68,68,68,68	0
55	MG	1A	3100	1/1	0.95	0.17	25,25,25,25	0
55	MG	1A	3911	1/1	0.95	0.10	39,39,39,39	0
55	MG	1A	3639	1/1	0.95	0.07	47,47,47,47	0
55	MG	1A	3913	1/1	0.95	0.37	63,63,63,63	0
55	MG	1A	3761	1/1	0.95	0.11	64,64,64,64	0
55	MG	1A	3544	1/1	0.95	0.18	34,34,34,34	0
55	MG	1A	3546	1/1	0.95	0.27	25,25,25,25	0
55	MG	1A	3643	1/1	0.95	0.06	34,34,34,34	0
55	MG	2A	3170	1/1	0.95	0.07	73,73,73,73	0
55	MG	1A	3044	1/1	0.95	0.14	33,33,33,33	0
55	MG	1A	3548	1/1	0.95	0.08	39,39,39,39	0
55	MG	2A	3173	1/1	0.95	0.28	42,42,42,42	0
55	MG	1A	3206	1/1	0.95	0.17	32,32,32,32	0
55	MG	2A	3034	1/1	0.95	0.13	54,54,54,54	0
55	MG	2A	3176	1/1	0.95	0.19	51,51,51,51	0
55	MG	2A	3608	1/1	0.95	0.09	62,62,62,62	0
55	MG	1B	3008	1/1	0.95	0.09	57,57,57,57	0
55	MG	1A	3652	1/1	0.95	0.12	34,34,34,34	0
55	MG	1a	3137	1/1	0.95	0.21	68,68,68,68	0
55	MG	2A	3615	1/1	0.95	0.11	56,56,56,56	0
55	MG	1A	3394	1/1	0.95	0.13	50,50,50,50	0
55	MG	2a	1744	1/1	0.95	0.09	76,76,76,76	0
55	MG	1a	3020	1/1	0.95	0.10	58,58,58,58	0
55	MG	2A	3621	1/1	0.95	0.15	54,54,54,54	0
55	MG	1A	3176	1/1	0.95	0.09	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3422	1/1	0.95	0.09	52,52,52,52	0
55	MG	2A	3042	1/1	0.95	0.12	27,27,27,27	0
55	MG	2A	3626	1/1	0.95	0.11	60,60,60,60	0
55	MG	1A	3150	1/1	0.95	0.10	39,39,39,39	0
55	MG	1A	3657	1/1	0.95	0.11	50,50,50,50	0
55	MG	1A	3555	1/1	0.95	0.12	61,61,61,61	0
55	MG	1A	3659	1/1	0.95	0.12	57,57,57,57	0
55	MG	1A	3256	1/1	0.95	0.07	41,41,41,41	0
55	MG	1a	3147	1/1	0.95	0.06	85,85,85,85	0
55	MG	2P	201	1/1	0.95	0.27	51,51,51,51	0
55	MG	1A	3178	1/1	0.95	0.18	39,39,39,39	0
55	MG	2A	3638	1/1	0.95	0.11	86,86,86,86	0
55	MG	1A	3564	1/1	0.95	0.09	43,43,43,43	0
55	MG	1A	3487	1/1	0.95	0.25	57,57,57,57	0
55	MG	1A	3319	1/1	0.95	0.06	34,34,34,34	0
55	MG	1A	3490	1/1	0.95	0.15	62,62,62,62	0
55	MG	2a	1774	1/1	0.95	0.07	91,91,91,91	0
55	MG	1A	3491	1/1	0.95	0.09	55,55,55,55	0
55	MG	1A	3670	1/1	0.95	0.24	53,53,53,53	0
55	MG	1A	3151	1/1	0.95	0.16	46,46,46,46	0
55	MG	2U	202	1/1	0.95	0.28	46,46,46,46	0
55	MG	1A	3213	1/1	0.95	0.60	32,32,32,32	0
55	MG	1A	3823	1/1	0.95	0.09	28,28,28,28	0
55	MG	2A	3060	1/1	0.95	0.27	52,52,52,52	0
55	MG	2A	3207	1/1	0.95	0.09	70,70,70,70	0
55	MG	2A	3447	1/1	0.95	0.08	73,73,73,73	0
55	MG	1A	3496	1/1	0.95	0.06	51,51,51,51	0
55	MG	1A	3153	1/1	0.95	0.09	49,49,49,49	0
55	MG	1A	3324	1/1	0.95	0.13	40,40,40,40	0
55	MG	1E	308	1/1	0.95	0.19	49,49,49,49	0
55	MG	2A	3216	1/1	0.95	0.11	41,41,41,41	0
55	MG	2A	3219	1/1	0.95	0.20	22,22,22,22	0
55	MG	20	102	1/1	0.95	0.12	75,75,75,75	0
55	MG	1A	3154	1/1	0.95	0.28	28,28,28,28	0
55	MG	1A	3266	1/1	0.95	0.14	70,70,70,70	0
55	MG	1A	3090	1/1	0.95	0.14	37,37,37,37	0
55	MG	2A	3460	1/1	0.95	0.09	55,55,55,55	0
55	MG	2A	3461	1/1	0.95	0.07	34,34,34,34	0
55	MG	1A	3432	1/1	0.95	0.07	49,49,49,49	0
55	MG	2A	3073	1/1	0.95	0.22	48,48,48,48	0
55	MG	1a	3172	1/1	0.95	0.09	77,77,77,77	0
55	MG	1A	3837	1/1	0.95	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
55	MG	27	101	1/1	0.95	0.20	55,55,55,55	0
55	MG	1A	3580	1/1	0.95	0.12	61,61,61,61	0
55	MG	1F	307	1/1	0.95	0.31	29,29,29,29	0
55	MG	2A	3692	1/1	0.96	0.06	54,54,54,54	0
55	MG	2A	3119	1/1	0.96	0.15	49,49,49,49	0
55	MG	2a	1601	1/1	0.96	0.20	79,79,79,79	0
55	MG	2A	3269	1/1	0.96	0.05	45,45,45,45	0
55	MG	2A	3270	1/1	0.96	0.07	58,58,58,58	0
55	MG	2a	1604	1/1	0.96	0.05	53,53,53,53	0
55	MG	2a	1605	1/1	0.96	0.31	56,56,56,56	0
55	MG	1a	3098	1/1	0.96	0.11	61,61,61,61	0
55	MG	1A	3796	1/1	0.96	0.08	43,43,43,43	0
55	MG	1A	3067	1/1	0.96	0.33	37,37,37,37	0
55	MG	2A	3123	1/1	0.96	0.08	43,43,43,43	0
55	MG	1a	3105	1/1	0.96	0.16	58,58,58,58	0
55	MG	1A	3102	1/1	0.96	0.15	42,42,42,42	0
55	MG	1A	3212	1/1	0.96	0.12	43,43,43,43	0
55	MG	1A	3809	1/1	0.96	0.07	13,13,13,13	0
55	MG	1A	3068	1/1	0.96	0.18	27,27,27,27	0
55	MG	1A	3595	1/1	0.96	0.09	67,67,67,67	0
55	MG	1A	3520	1/1	0.96	0.07	56,56,56,56	0
55	MG	1A	3069	1/1	0.96	0.06	38,38,38,38	0
55	MG	2A	3726	1/1	0.96	0.05	41,41,41,41	0
55	MG	2A	3504	1/1	0.96	0.05	55,55,55,55	0
55	MG	2A	3505	1/1	0.96	0.13	44,44,44,44	0
55	MG	2A	3133	1/1	0.96	0.12	60,60,60,60	0
55	MG	2A	3735	1/1	0.96	0.11	49,49,49,49	0
55	MG	1A	3108	1/1	0.96	0.13	24,24,24,24	0
55	MG	2a	1624	1/1	0.96	0.13	53,53,53,53	0
55	MG	1A	3109	1/1	0.96	0.04	30,30,30,30	0
55	MG	2A	3306	1/1	0.96	0.10	39,39,39,39	0
55	MG	1B	3016	1/1	0.96	0.05	51,51,51,51	0
55	MG	2A	3308	1/1	0.96	0.14	52,52,52,52	0
55	MG	2A	3746	1/1	0.96	0.11	69,69,69,69	0
55	MG	2A	3747	1/1	0.96	0.08	75,75,75,75	0
55	MG	1A	3363	1/1	0.96	0.06	26,26,26,26	0
55	MG	1A	3454	1/1	0.96	0.06	56,56,56,56	0
55	MG	2A	3313	1/1	0.96	0.05	40,40,40,40	0
55	MG	1A	3526	1/1	0.96	0.14	64,64,64,64	0
55	MG	2A	3317	1/1	0.96	0.12	55,55,55,55	0
55	MG	1A	3698	1/1	0.96	0.07	48,48,48,48	0
55	MG	2A	3755	1/1	0.96	0.06	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3319	1/1	0.96	0.04	78,78,78,78	0
55	MG	2A	3017	1/1	0.96	0.11	54,54,54,54	0
55	MG	1A	3833	1/1	0.96	0.10	69,69,69,69	0
55	MG	1A	3527	1/1	0.96	0.07	35,35,35,35	0
55	MG	2A	3020	1/1	0.96	0.05	42,42,42,42	0
55	MG	2A	3528	1/1	0.96	0.09	34,34,34,34	0
55	MG	1A	3606	1/1	0.96	0.10	56,56,56,56	0
55	MG	1A	3836	1/1	0.96	0.10	54,54,54,54	0
55	MG	1A	3045	1/1	0.96	0.11	12,12,12,12	0
55	MG	1A	3219	1/1	0.96	0.11	49,49,49,49	0
55	MG	1A	3036	1/1	0.96	0.09	28,28,28,28	0
55	MG	1A	3023	1/1	0.96	0.12	21,21,21,21	0
55	MG	1D	310	1/1	0.96	0.15	42,42,42,42	0
55	MG	2A	3335	1/1	0.96	0.06	71,71,71,71	0
55	MG	2A	3336	1/1	0.96	0.05	56,56,56,56	0
55	MG	1D	311	1/1	0.96	0.12	38,38,38,38	0
55	MG	2A	3155	1/1	0.96	0.45	50,50,50,50	0
55	MG	1D	313	1/1	0.96	0.16	51,51,51,51	0
55	MG	2A	3545	1/1	0.96	0.06	97,97,97,97	0
55	MG	2A	3779	1/1	0.96	0.06	72,72,72,72	0
55	MG	1A	3708	1/1	0.96	0.09	53,53,53,53	0
55	MG	2A	3547	1/1	0.96	0.11	41,41,41,41	0
55	MG	2A	3343	1/1	0.96	0.05	73,73,73,73	0
55	MG	1D	315	1/1	0.96	0.11	68,68,68,68	0
55	MG	1A	3281	1/1	0.96	0.07	54,54,54,54	0
55	MG	2A	3033	1/1	0.96	0.15	59,59,59,59	0
55	MG	1D	317	1/1	0.96	0.08	57,57,57,57	0
55	MG	2A	3790	1/1	0.96	0.06	71,71,71,71	0
55	MG	2A	3350	1/1	0.96	0.06	49,49,49,49	0
55	MG	1A	3844	1/1	0.96	0.07	27,27,27,27	0
55	MG	1E	302	1/1	0.96	0.39	39,39,39,39	0
55	MG	1A	3373	1/1	0.96	0.08	58,58,58,58	0
55	MG	1a	3142	1/1	0.96	0.04	85,85,85,85	0
55	MG	2A	3361	1/1	0.96	0.08	64,64,64,64	0
55	MG	2A	3362	1/1	0.96	0.11	61,61,61,61	0
55	MG	1E	304	1/1	0.96	0.09	46,46,46,46	0
55	MG	2A	3367	1/1	0.96	0.07	37,37,37,37	0
55	MG	2a	1681	1/1	0.96	0.06	84,84,84,84	0
55	MG	1A	3846	1/1	0.96	0.16	53,53,53,53	0
55	MG	1E	307	1/1	0.96	0.09	33,33,33,33	0
55	MG	2A	3373	1/1	0.96	0.06	48,48,48,48	0
55	MG	1A	3847	1/1	0.96	0.08	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3375	1/1	0.96	0.26	49,49,49,49	0
55	MG	1A	3162	1/1	0.96	0.33	37,37,37,37	0
55	MG	1A	3850	1/1	0.96	0.09	21,21,21,21	0
55	MG	1A	3619	1/1	0.96	0.12	44,44,44,44	0
55	MG	2A	3577	1/1	0.96	0.12	56,56,56,56	0
55	MG	1A	3224	1/1	0.96	0.04	73,73,73,73	0
55	MG	2A	3382	1/1	0.96	0.13	65,65,65,65	0
55	MG	2a	1697	1/1	0.96	0.06	80,80,80,80	0
55	MG	1A	3017	1/1	0.96	0.14	31,31,31,31	0
55	MG	1A	3291	1/1	0.96	0.07	30,30,30,30	0
55	MG	1A	3625	1/1	0.96	0.22	35,35,35,35	0
55	MG	1A	3626	1/1	0.96	0.08	44,44,44,44	0
55	MG	2A	3389	1/1	0.96	0.06	46,46,46,46	0
55	MG	1F	309	1/1	0.96	0.10	28,28,28,28	0
55	MG	1A	3227	1/1	0.96	0.21	34,34,34,34	0
55	MG	2A	3397	1/1	0.96	0.07	76,76,76,76	0
55	MG	1A	3629	1/1	0.96	0.11	42,42,42,42	0
55	MG	1A	3092	1/1	0.96	0.18	37,37,37,37	0
55	MG	1A	3543	1/1	0.96	0.20	63,63,63,63	0
55	MG	1A	3384	1/1	0.96	0.23	58,58,58,58	0
55	MG	1A	3633	1/1	0.96	0.14	79,79,79,79	0
55	MG	1A	3229	1/1	0.96	0.32	62,62,62,62	0
55	MG	2A	3188	1/1	0.96	0.07	45,45,45,45	0
55	MG	2A	3596	1/1	0.96	0.07	65,65,65,65	0
55	MG	2A	3597	1/1	0.96	0.05	51,51,51,51	0
55	MG	2A	3409	1/1	0.96	0.11	48,48,48,48	0
55	MG	1A	3074	1/1	0.96	0.36	29,29,29,29	0
55	MG	1A	3192	1/1	0.96	0.09	42,42,42,42	0
55	MG	1A	3166	1/1	0.96	0.22	46,46,46,46	0
55	MG	1A	3550	1/1	0.96	0.07	44,44,44,44	0
55	MG	1A	3482	1/1	0.96	0.17	43,43,43,43	0
55	MG	1A	3641	1/1	0.96	0.24	35,35,35,35	0
55	MG	1A	3234	1/1	0.96	0.07	48,48,48,48	0
55	MG	2A	3071	1/1	0.96	0.27	62,62,62,62	0
55	MG	1A	3040	1/1	0.96	0.16	37,37,37,37	0
55	MG	1A	3645	1/1	0.96	0.15	54,54,54,54	0
55	MG	1A	3310	1/1	0.96	0.14	41,41,41,41	0
55	MG	2A	3201	1/1	0.96	0.17	48,48,48,48	0
55	MG	1A	3237	1/1	0.96	0.07	53,53,53,53	0
55	MG	1A	3238	1/1	0.96	0.28	38,38,38,38	0
55	MG	1A	3239	1/1	0.96	0.05	35,35,35,35	0
55	MG	2a	1732	1/1	0.96	0.05	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2A	3208	1/1	0.96	0.11	60,60,60,60	0
55	MG	1A	3142	1/1	0.96	0.48	32,32,32,32	0
55	MG	1A	3061	1/1	0.96	0.31	47,47,47,47	0
55	MG	1U	201	1/1	0.96	0.18	34,34,34,34	0
55	MG	2A	3082	1/1	0.96	0.10	56,56,56,56	0
55	MG	1A	3199	1/1	0.96	0.18	34,34,34,34	0
55	MG	2A	3084	1/1	0.96	0.07	45,45,45,45	0
55	MG	1A	3200	1/1	0.96	0.31	37,37,37,37	0
55	MG	1a	3192	1/1	0.96	0.07	49,49,49,49	0
55	MG	2F	305	1/1	0.96	0.22	46,46,46,46	0
55	MG	2A	3632	1/1	0.96	0.12	97,97,97,97	0
55	MG	2a	1750	1/1	0.96	0.06	83,83,83,83	0
55	MG	1U	204	1/1	0.96	0.36	29,29,29,29	0
55	MG	2F	308	1/1	0.96	0.30	59,59,59,59	0
55	MG	2A	3438	1/1	0.96	0.07	81,81,81,81	0
55	MG	2A	3636	1/1	0.96	0.05	73,73,73,73	0
55	MG	1U	205	1/1	0.96	0.22	29,29,29,29	0
55	MG	1a	3196	1/1	0.96	0.07	77,77,77,77	0
55	MG	1A	3015	1/1	0.96	0.29	23,23,23,23	0
55	MG	1A	3410	1/1	0.96	0.13	42,42,42,42	0
55	MG	2A	3230	1/1	0.96	0.18	51,51,51,51	0
55	MG	1V	202	1/1	0.96	0.12	25,25,25,25	0
55	MG	2a	1762	1/1	0.96	0.10	74,74,74,74	0
55	MG	2a	1764	1/1	0.96	0.06	59,59,59,59	0
55	MG	1a	3201	1/1	0.96	0.09	92,92,92,92	0
55	MG	1A	3063	1/1	0.96	0.09	49,49,49,49	0
55	MG	2Q	8003	1/1	0.96	0.13	57,57,57,57	0
55	MG	1A	3768	1/1	0.96	0.09	46,46,46,46	0
55	MG	2A	3450	1/1	0.96	0.07	40,40,40,40	0
55	MG	2A	3237	1/1	0.96	0.10	67,67,67,67	0
55	MG	1A	3769	1/1	0.96	0.06	61,61,61,61	0
55	MG	1A	3896	1/1	0.96	0.29	37,37,37,37	0
55	MG	2a	1776	1/1	0.96	0.07	80,80,80,80	0
55	MG	2a	1777	1/1	0.96	0.06	77,77,77,77	0
55	MG	1A	3417	1/1	0.96	0.06	22,22,22,22	0
55	MG	1A	3424	1/1	0.96	0.06	62,62,62,62	0
55	MG	1A	3249	1/1	0.96	0.18	21,21,21,21	0
55	MG	2A	3658	1/1	0.96	0.19	76,76,76,76	0
55	MG	2A	3102	1/1	0.96	0.06	56,56,56,56	0
55	MG	1a	3079	1/1	0.96	0.13	55,55,55,55	0
55	MG	2A	3661	1/1	0.96	0.06	85,85,85,85	0
55	MG	2A	3249	1/1	0.96	0.08	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3251	1/1	0.96	0.32	34,34,34,34	0
55	MG	2A	3670	1/1	0.96	0.08	84,84,84,84	0
55	MG	1A	3902	1/1	0.96	0.07	56,56,56,56	0
55	MG	1A	3052	1/1	0.96	0.23	36,36,36,36	0
55	MG	1A	3779	1/1	0.96	0.06	24,24,24,24	0
55	MG	2A	3254	1/1	0.96	0.18	54,54,54,54	0
55	MG	1A	3205	1/1	0.96	0.20	44,44,44,44	0
55	MG	1A	3435	1/1	0.96	0.05	69,69,69,69	0
55	MG	1a	3086	1/1	0.96	0.18	68,68,68,68	0
55	MG	1A	3511	1/1	0.96	0.06	26,26,26,26	0
55	MG	2A	3679	1/1	0.96	0.06	52,52,52,52	0
55	MG	2A	3680	1/1	0.96	0.07	66,66,66,66	0
55	MG	1A	3174	1/1	0.96	0.08	44,44,44,44	0
55	MG	2A	3684	1/1	0.96	0.08	57,57,57,57	0
55	MG	1A	3122	1/1	0.96	0.26	30,30,30,30	0
55	MG	1A	3585	1/1	0.96	0.13	59,59,59,59	0
55	MG	1a	3094	1/1	0.96	0.06	46,46,46,46	0
55	MG	1A	3030	1/1	0.96	0.09	30,30,30,30	0
55	MG	1A	3915	1/1	0.96	0.12	60,60,60,60	0
55	MG	1A	3917	1/1	0.96	0.20	36,36,36,36	0
55	MG	1A	3469	1/1	0.97	0.11	39,39,39,39	0
55	MG	2A	3169	1/1	0.97	0.17	50,50,50,50	0
55	MG	2A	3722	1/1	0.97	0.04	67,67,67,67	0
55	MG	2A	3724	1/1	0.97	0.05	45,45,45,45	0
55	MG	1A	3621	1/1	0.97	0.10	40,40,40,40	0
55	MG	2A	3522	1/1	0.97	0.13	82,82,82,82	0
55	MG	1A	3032	1/1	0.97	0.22	45,45,45,45	0
55	MG	2A	3731	1/1	0.97	0.09	70,70,70,70	0
55	MG	1A	3252	1/1	0.97	0.25	36,36,36,36	0
55	MG	1A	3009	1/1	0.97	0.11	28,28,28,28	0
55	MG	1A	3849	1/1	0.97	0.16	89,89,89,89	0
55	MG	1A	3716	1/1	0.97	0.07	46,46,46,46	0
55	MG	1a	3153	1/1	0.97	0.07	57,57,57,57	0
55	MG	1A	3473	1/1	0.97	0.09	63,63,63,63	0
55	MG	2A	3532	1/1	0.97	0.05	84,84,84,84	0
55	MG	2A	3744	1/1	0.97	0.15	64,64,64,64	0
55	MG	1a	3155	1/1	0.97	0.04	78,78,78,78	0
55	MG	2A	3353	1/1	0.97	0.06	72,72,72,72	0
55	MG	2A	3052	1/1	0.97	0.21	42,42,42,42	0
55	MG	2A	3749	1/1	0.97	0.05	85,85,85,85	0
55	MG	2A	3536	1/1	0.97	0.07	64,64,64,64	0
55	MG	2A	3357	1/1	0.97	0.09	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3542	1/1	0.97	0.06	77,77,77,77	0
55	MG	2A	3360	1/1	0.97	0.05	64,64,64,64	0
55	MG	1A	3042	1/1	0.97	0.14	25,25,25,25	0
55	MG	1A	3392	1/1	0.97	0.13	35,35,35,35	0
55	MG	2A	3363	1/1	0.97	0.07	50,50,50,50	0
55	MG	2A	3544	1/1	0.97	0.05	90,90,90,90	0
55	MG	2A	3365	1/1	0.97	0.10	39,39,39,39	0
55	MG	1A	3545	1/1	0.97	0.31	36,36,36,36	0
55	MG	1A	3858	1/1	0.97	0.09	56,56,56,56	0
55	MG	1A	3393	1/1	0.97	0.05	53,53,53,53	0
55	MG	1A	3081	1/1	0.97	0.24	33,33,33,33	0
55	MG	1A	3054	1/1	0.97	0.12	49,49,49,49	0
55	MG	2A	3061	1/1	0.97	0.17	62,62,62,62	0
55	MG	2A	3766	1/1	0.97	0.11	81,81,81,81	0
55	MG	1F	313	1/1	0.97	0.07	32,32,32,32	0
55	MG	2A	3376	1/1	0.97	0.05	31,31,31,31	0
55	MG	2A	3770	1/1	0.97	0.04	79,79,79,79	0
55	MG	1a	3167	1/1	0.97	0.06	86,86,86,86	0
55	MG	1A	3728	1/1	0.97	0.08	54,54,54,54	0
55	MG	1A	3729	1/1	0.97	0.06	47,47,47,47	0
55	MG	1A	3257	1/1	0.97	0.11	40,40,40,40	0
55	MG	2A	3067	1/1	0.97	0.08	62,62,62,62	0
55	MG	2A	3562	1/1	0.97	0.13	74,74,74,74	0
55	MG	1A	3043	1/1	0.97	0.14	10,10,10,10	0
55	MG	1A	3636	1/1	0.97	0.06	38,38,38,38	0
55	MG	1A	3483	1/1	0.97	0.17	38,38,38,38	0
55	MG	1A	3145	1/1	0.97	0.18	29,29,29,29	0
55	MG	1a	3176	1/1	0.97	0.07	92,92,92,92	0
55	MG	2A	3391	1/1	0.97	0.04	43,43,43,43	0
55	MG	2A	3571	1/1	0.97	0.05	41,41,41,41	0
55	MG	2a	1657	1/1	0.97	0.10	65,65,65,65	0
55	MG	2A	3392	1/1	0.97	0.13	31,31,31,31	0
55	MG	2A	3787	1/1	0.97	0.08	61,61,61,61	0
55	MG	2A	3393	1/1	0.97	0.07	52,52,52,52	0
55	MG	1A	3553	1/1	0.97	0.10	37,37,37,37	0
55	MG	2A	3395	1/1	0.97	0.05	35,35,35,35	0
55	MG	2A	3202	1/1	0.97	0.07	56,56,56,56	0
55	MG	1A	3027	1/1	0.97	0.14	31,31,31,31	0
55	MG	1A	3261	1/1	0.97	0.16	28,28,28,28	0
55	MG	1A	3171	1/1	0.97	0.18	44,44,44,44	0
55	MG	2A	3795	1/1	0.97	0.07	72,72,72,72	0
55	MG	1P	202	1/1	0.97	0.28	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3561	1/1	0.97	0.08	47,47,47,47	0
55	MG	2a	1672	1/1	0.97	0.07	57,57,57,57	0
55	MG	1A	3745	1/1	0.97	0.10	54,54,54,54	0
55	MG	2A	3211	1/1	0.97	0.07	45,45,45,45	0
55	MG	1A	3003	1/1	0.97	0.07	20,20,20,20	0
55	MG	1Q	203	1/1	0.97	0.12	38,38,38,38	0
55	MG	1A	3747	1/1	0.97	0.05	45,45,45,45	0
55	MG	1Q	205	1/1	0.97	0.06	43,43,43,43	0
55	MG	2a	1679	1/1	0.97	0.05	63,63,63,63	0
55	MG	1A	3748	1/1	0.97	0.05	50,50,50,50	0
55	MG	1R	203	1/1	0.97	0.09	19,19,19,19	0
55	MG	1A	3750	1/1	0.97	0.06	52,52,52,52	0
55	MG	2A	3807	1/1	0.97	0.11	48,48,48,48	0
55	MG	1A	3323	1/1	0.97	0.11	46,46,46,46	0
55	MG	1A	3884	1/1	0.97	0.05	18,18,18,18	0
55	MG	1A	3409	1/1	0.97	0.05	49,49,49,49	0
55	MG	1A	3265	1/1	0.97	0.10	44,44,44,44	0
55	MG	2A	3595	1/1	0.97	0.05	52,52,52,52	0
55	MG	1A	3757	1/1	0.97	0.06	37,37,37,37	0
55	MG	1a	3207	1/1	0.97	0.10	76,76,76,76	0
55	MG	1A	3650	1/1	0.97	0.13	49,49,49,49	0
55	MG	2a	1696	1/1	0.97	0.05	77,77,77,77	0
55	MG	1A	3651	1/1	0.97	0.14	40,40,40,40	0
55	MG	1A	3331	1/1	0.97	0.06	22,22,22,22	0
55	MG	2A	3601	1/1	0.97	0.05	58,58,58,58	0
55	MG	2A	3236	1/1	0.97	0.09	80,80,80,80	0
55	MG	1a	3212	1/1	0.97	0.05	51,51,51,51	0
55	MG	2A	3239	1/1	0.97	0.05	38,38,38,38	0
55	MG	2A	3241	1/1	0.97	0.06	49,49,49,49	0
55	MG	1A	3495	1/1	0.97	0.09	49,49,49,49	0
55	MG	1A	3893	1/1	0.97	0.06	103,103,103,103	0
55	MG	2A	3609	1/1	0.97	0.06	38,38,38,38	0
55	MG	1A	3198	1/1	0.97	0.34	28,28,28,28	0
55	MG	2A	3433	1/1	0.97	0.04	66,66,66,66	0
55	MG	1a	3217	1/1	0.97	0.12	87,87,87,87	0
55	MG	1A	3655	1/1	0.97	0.18	41,41,41,41	0
55	MG	2A	3617	1/1	0.97	0.05	33,33,33,33	0
55	MG	1A	3419	1/1	0.97	0.07	37,37,37,37	0
55	MG	1A	3765	1/1	0.97	0.06	39,39,39,39	0
55	MG	2A	3620	1/1	0.97	0.06	45,45,45,45	0
55	MG	1A	3498	1/1	0.97	0.06	70,70,70,70	0
55	MG	1A	3423	1/1	0.97	0.04	20,20,20,20	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3105	1/1	0.97	0.07	46,46,46,46	0
55	MG	1A	3029	1/1	0.97	0.06	38,38,38,38	0
55	MG	2A	3625	1/1	0.97	0.08	74,74,74,74	0
55	MG	1A	3661	1/1	0.97	0.05	33,33,33,33	0
55	MG	1A	3231	1/1	0.97	0.61	31,31,31,31	0
55	MG	10	106	1/1	0.97	0.09	58,58,58,58	0
55	MG	1A	3273	1/1	0.97	0.07	19,19,19,19	0
55	MG	1A	3776	1/1	0.97	0.04	43,43,43,43	0
55	MG	1A	3908	1/1	0.97	0.20	33,33,33,33	0
55	MG	1A	3126	1/1	0.97	0.14	34,34,34,34	0
55	MG	1A	3128	1/1	0.97	0.08	31,31,31,31	0
55	MG	2D	311	1/1	0.97	0.09	53,53,53,53	0
55	MG	1A	3203	1/1	0.97	0.14	35,35,35,35	0
55	MG	2A	3635	1/1	0.97	0.05	92,92,92,92	0
55	MG	2A	3263	1/1	0.97	0.06	46,46,46,46	0
55	MG	2E	306	1/1	0.97	0.07	49,49,49,49	0
55	MG	2A	3637	1/1	0.97	0.06	61,61,61,61	0
55	MG	1A	3235	1/1	0.97	0.18	38,38,38,38	0
55	MG	1A	3282	1/1	0.97	0.05	26,26,26,26	0
55	MG	1a	3099	1/1	0.97	0.12	61,61,61,61	0
55	MG	2A	3458	1/1	0.97	0.08	78,78,78,78	0
55	MG	1A	3789	1/1	0.97	0.05	31,31,31,31	0
55	MG	2a	1741	1/1	0.97	0.05	75,75,75,75	0
55	MG	2A	3124	1/1	0.97	0.16	47,47,47,47	0
55	MG	1a	3103	1/1	0.97	0.07	72,72,72,72	0
55	MG	1A	3285	1/1	0.97	0.29	47,47,47,47	0
55	MG	2a	1746	1/1	0.97	0.08	69,69,69,69	0
55	MG	1A	3513	1/1	0.97	0.07	27,27,27,27	0
55	MG	2a	1748	1/1	0.97	0.05	79,79,79,79	0
55	MG	2a	1749	1/1	0.97	0.04	80,80,80,80	0
55	MG	1A	3059	1/1	0.97	0.13	35,35,35,35	0
55	MG	1A	3089	1/1	0.97	0.07	37,37,37,37	0
55	MG	2A	3651	1/1	0.97	0.12	56,56,56,56	0
55	MG	1A	3590	1/1	0.97	0.11	48,48,48,48	0
55	MG	2A	3287	1/1	0.97	0.06	39,39,39,39	0
55	MG	1A	3037	1/1	0.97	0.09	56,56,56,56	0
55	MG	1A	3802	1/1	0.97	0.06	39,39,39,39	0
55	MG	1A	3804	1/1	0.97	0.16	87,87,87,87	0
55	MG	2A	3473	1/1	0.97	0.06	61,61,61,61	0
55	MG	2A	3293	1/1	0.97	0.05	40,40,40,40	0
55	MG	2a	1760	1/1	0.97	0.04	90,90,90,90	0
55	MG	18	3303	1/1	0.97	0.06	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3806	1/1	0.97	0.12	65,65,65,65	0
55	MG	1A	3679	1/1	0.97	0.05	44,44,44,44	0
55	MG	2A	3666	1/1	0.97	0.07	70,70,70,70	0
55	MG	2A	3298	1/1	0.97	0.05	56,56,56,56	0
55	MG	1A	3370	1/1	0.97	0.06	41,41,41,41	0
55	MG	1A	3290	1/1	0.97	0.09	49,49,49,49	0
55	MG	1A	3091	1/1	0.97	0.15	16,16,16,16	0
55	MG	2A	3016	1/1	0.97	0.43	46,46,46,46	0
55	MG	1B	3017	1/1	0.97	0.06	39,39,39,39	0
55	MG	1A	3449	1/1	0.97	0.06	21,21,21,21	0
55	MG	2A	3143	1/1	0.97	0.11	53,53,53,53	0
55	MG	1a	3007	1/1	0.97	0.04	74,74,74,74	0
55	MG	1A	3451	1/1	0.97	0.06	43,43,43,43	0
55	MG	1A	3241	1/1	0.97	0.10	30,30,30,30	0
55	MG	2A	3312	1/1	0.97	0.08	53,53,53,53	0
55	MG	1A	3822	1/1	0.97	0.17	58,58,58,58	0
55	MG	2A	3682	1/1	0.97	0.07	67,67,67,67	0
55	MG	1A	3022	1/1	0.97	0.14	31,31,31,31	0
55	MG	2a	1789	1/1	0.97	0.10	86,86,86,86	0
55	MG	2A	3496	1/1	0.97	0.05	43,43,43,43	0
55	MG	1A	3601	1/1	0.97	0.15	37,37,37,37	0
55	MG	1A	3455	1/1	0.97	0.09	49,49,49,49	0
55	MG	20	105	1/1	0.97	0.08	81,81,81,81	0
55	MG	1A	3603	1/1	0.97	0.10	49,49,49,49	0
55	MG	1A	3006	1/1	0.97	0.06	21,21,21,21	0
55	MG	2A	3503	1/1	0.97	0.11	53,53,53,53	0
55	MG	1D	306	1/1	0.97	0.14	35,35,35,35	0
55	MG	1A	3696	1/1	0.97	0.08	29,29,29,29	0
55	MG	1A	3114	1/1	0.97	0.12	37,37,37,37	0
55	MG	1A	3458	1/1	0.97	0.09	46,46,46,46	0
55	MG	1A	3303	1/1	0.97	0.06	13,13,13,13	0
55	MG	1A	3184	1/1	0.97	0.17	37,37,37,37	0
55	MG	1A	3185	1/1	0.97	0.31	32,32,32,32	0
55	MG	1A	3382	1/1	0.97	0.15	52,52,52,52	0
55	MG	1A	3706	1/1	0.97	0.10	54,54,54,54	0
55	MG	1A	3466	1/1	0.97	0.05	46,46,46,46	0
55	MG	28	103	1/1	0.97	0.08	77,77,77,77	0
55	MG	1A	3050	1/1	0.97	0.23	29,29,29,29	0
55	MG	1A	3842	1/1	0.97	0.06	84,84,84,84	0
55	MG	2A	3517	1/1	0.97	0.11	64,64,64,64	0
55	MG	1A	3215	1/1	0.97	0.23	38,38,38,38	0
55	MG	2A	3278	1/1	0.98	0.04	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	17	105	1/1	0.98	0.06	52,52,52,52	0
55	MG	1A	3770	1/1	0.98	0.08	34,34,34,34	0
55	MG	1A	3127	1/1	0.98	0.14	14,14,14,14	0
55	MG	1A	3694	1/1	0.98	0.04	35,35,35,35	0
55	MG	1A	3065	1/1	0.98	0.08	32,32,32,32	0
55	MG	1A	3104	1/1	0.98	0.38	37,37,37,37	0
55	MG	1A	3327	1/1	0.98	0.04	18,18,18,18	0
55	MG	1A	3450	1/1	0.98	0.06	19,19,19,19	0
55	MG	2A	3443	1/1	0.98	0.11	63,63,63,63	0
55	MG	2A	3444	1/1	0.98	0.05	31,31,31,31	0
55	MG	1A	3700	1/1	0.98	0.04	24,24,24,24	0
55	MG	1E	305	1/1	0.98	0.05	26,26,26,26	0
55	MG	2A	3166	1/1	0.98	0.25	44,44,44,44	0
55	MG	1A	3876	1/1	0.98	0.06	64,64,64,64	0
55	MG	1A	3508	1/1	0.98	0.09	51,51,51,51	0
55	MG	1A	3329	1/1	0.98	0.04	40,40,40,40	0
55	MG	2A	3302	1/1	0.98	0.06	44,44,44,44	0
55	MG	1A	3879	1/1	0.98	0.04	41,41,41,41	0
55	MG	2A	3603	1/1	0.98	0.04	61,61,61,61	0
55	MG	1A	3784	1/1	0.98	0.04	42,42,42,42	0
55	MG	2A	3070	1/1	0.98	0.09	35,35,35,35	0
55	MG	1A	3222	1/1	0.98	0.37	36,36,36,36	0
55	MG	1A	3704	1/1	0.98	0.12	42,42,42,42	0
55	MG	1a	3106	1/1	0.98	0.04	60,60,60,60	0
55	MG	1A	3334	1/1	0.98	0.04	20,20,20,20	0
55	MG	1A	3336	1/1	0.98	0.05	21,21,21,21	0
55	MG	1A	3343	1/1	0.98	0.04	26,26,26,26	0
55	MG	2A	3077	1/1	0.98	0.08	56,56,56,56	0
55	MG	2A	3314	1/1	0.98	0.14	60,60,60,60	0
55	MG	1a	3110	1/1	0.98	0.04	52,52,52,52	0
55	MG	2A	3316	1/1	0.98	0.07	43,43,43,43	0
55	MG	2A	3466	1/1	0.98	0.09	37,37,37,37	0
55	MG	1a	3219	1/1	0.98	0.09	63,63,63,63	0
55	MG	1A	3240	1/1	0.98	0.08	58,58,58,58	0
55	MG	2A	3469	1/1	0.98	0.04	68,68,68,68	0
55	MG	1A	3207	1/1	0.98	0.07	45,45,45,45	0
55	MG	1A	3397	1/1	0.98	0.03	64,64,64,64	0
55	MG	1F	311	1/1	0.98	0.19	25,25,25,25	0
55	MG	1A	3801	1/1	0.98	0.06	56,56,56,56	0
55	MG	1A	3460	1/1	0.98	0.11	20,20,20,20	0
55	MG	1A	3018	1/1	0.98	0.30	23,23,23,23	0
55	MG	1A	3805	1/1	0.98	0.07	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1a	3120	1/1	0.98	0.05	65,65,65,65	0
55	MG	1A	3263	1/1	0.98	0.06	17,17,17,17	0
55	MG	1A	3401	1/1	0.98	0.05	62,62,62,62	0
55	MG	1A	3715	1/1	0.98	0.04	85,85,85,85	0
55	MG	1G	3003	1/1	0.98	0.11	47,47,47,47	0
55	MG	2A	3334	1/1	0.98	0.11	45,45,45,45	0
55	MG	1A	3897	1/1	0.98	0.11	11,11,11,11	0
55	MG	1A	3300	1/1	0.98	0.05	44,44,44,44	0
55	MG	1A	3225	1/1	0.98	0.06	34,34,34,34	0
55	MG	2A	3198	1/1	0.98	0.10	27,27,27,27	0
55	MG	2A	3339	1/1	0.98	0.04	71,71,71,71	0
55	MG	1A	3719	1/1	0.98	0.06	45,45,45,45	0
55	MG	2A	3341	1/1	0.98	0.05	34,34,34,34	0
55	MG	2A	3490	1/1	0.98	0.10	33,33,33,33	0
55	MG	2A	3491	1/1	0.98	0.05	51,51,51,51	0
55	MG	2a	1688	1/1	0.98	0.04	56,56,56,56	0
55	MG	2A	3645	1/1	0.98	0.06	62,62,62,62	0
55	MG	2B	3010	1/1	0.98	0.06	72,72,72,72	0
55	MG	2A	3097	1/1	0.98	0.14	35,35,35,35	0
55	MG	1A	3302	1/1	0.98	0.05	42,42,42,42	0
55	MG	2a	1693	1/1	0.98	0.10	54,54,54,54	0
55	MG	2A	3495	1/1	0.98	0.07	59,59,59,59	0
55	MG	1A	3584	1/1	0.98	0.10	37,37,37,37	0
55	MG	1A	3140	1/1	0.98	0.05	37,37,37,37	0
55	MG	2A	3498	1/1	0.98	0.03	39,39,39,39	0
55	MG	2B	3017	1/1	0.98	0.11	84,84,84,84	0
55	MG	2A	3499	1/1	0.98	0.04	65,65,65,65	0
55	MG	1A	3407	1/1	0.98	0.06	48,48,48,48	0
55	MG	2A	3205	1/1	0.98	0.21	52,52,52,52	0
55	MG	2a	1702	1/1	0.98	0.05	67,67,67,67	0
55	MG	2A	3206	1/1	0.98	0.04	39,39,39,39	0
55	MG	1A	3304	1/1	0.98	0.05	45,45,45,45	0
55	MG	2A	3003	1/1	0.98	0.04	31,31,31,31	0
55	MG	1A	3825	1/1	0.98	0.10	68,68,68,68	0
55	MG	2A	3355	1/1	0.98	0.05	76,76,76,76	0
55	MG	2A	3662	1/1	0.98	0.04	68,68,68,68	0
55	MG	2D	309	1/1	0.98	0.06	30,30,30,30	0
55	MG	2A	3663	1/1	0.98	0.09	50,50,50,50	0
55	MG	1A	3245	1/1	0.98	0.08	46,46,46,46	0
55	MG	2A	3665	1/1	0.98	0.07	59,59,59,59	0
55	MG	2E	302	1/1	0.98	0.04	35,35,35,35	0
55	MG	1A	3909	1/1	0.98	0.09	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3152	1/1	0.98	0.07	53,53,53,53	0
55	MG	2A	3213	1/1	0.98	0.07	33,33,33,33	0
55	MG	2A	3214	1/1	0.98	0.07	37,37,37,37	0
55	MG	1A	3591	1/1	0.98	0.04	30,30,30,30	0
55	MG	1R	202	1/1	0.98	0.06	46,46,46,46	0
55	MG	2A	3217	1/1	0.98	0.06	32,32,32,32	0
55	MG	2A	3218	1/1	0.98	0.05	52,52,52,52	0
55	MG	2A	3516	1/1	0.98	0.08	45,45,45,45	0
55	MG	1A	3268	1/1	0.98	0.08	35,35,35,35	0
55	MG	1A	3832	1/1	0.98	0.10	55,55,55,55	0
55	MG	1A	3141	1/1	0.98	0.12	37,37,37,37	0
55	MG	1A	3367	1/1	0.98	0.04	30,30,30,30	0
55	MG	1A	3477	1/1	0.98	0.11	20,20,20,20	0
55	MG	1A	3420	1/1	0.98	0.06	27,27,27,27	0
55	MG	2A	3683	1/1	0.98	0.05	60,60,60,60	0
55	MG	2A	3227	1/1	0.98	0.07	65,65,65,65	0
55	MG	2A	3524	1/1	0.98	0.09	67,67,67,67	0
55	MG	2A	3525	1/1	0.98	0.03	50,50,50,50	0
55	MG	1A	3271	1/1	0.98	0.05	22,22,22,22	0
55	MG	1A	3663	1/1	0.98	0.03	26,26,26,26	0
55	MG	1B	3004	1/1	0.98	0.04	44,44,44,44	0
55	MG	1A	3738	1/1	0.98	0.08	14,14,14,14	0
55	MG	1U	206	1/1	0.98	0.11	28,28,28,28	0
55	MG	1A	3480	1/1	0.98	0.15	34,34,34,34	0
55	MG	2A	3385	1/1	0.98	0.05	32,32,32,32	0
55	MG	2A	3695	1/1	0.98	0.05	97,97,97,97	0
55	MG	1A	3106	1/1	0.98	0.09	42,42,42,42	0
55	MG	2a	1743	1/1	0.98	0.05	55,55,55,55	0
55	MG	2A	3699	1/1	0.98	0.04	38,38,38,38	0
55	MG	2T	201	1/1	0.98	0.06	47,47,47,47	0
55	MG	1A	3425	1/1	0.98	0.08	20,20,20,20	0
55	MG	2A	3702	1/1	0.98	0.08	34,34,34,34	0
55	MG	1A	3155	1/1	0.98	0.34	27,27,27,27	0
55	MG	1A	3540	1/1	0.98	0.11	19,19,19,19	0
55	MG	2A	3240	1/1	0.98	0.04	34,34,34,34	0
55	MG	1A	3274	1/1	0.98	0.06	27,27,27,27	0
55	MG	2A	3539	1/1	0.98	0.09	74,74,74,74	0
55	MG	1A	3429	1/1	0.98	0.04	26,26,26,26	0
55	MG	1a	3158	1/1	0.98	0.04	88,88,88,88	0
55	MG	2A	3713	1/1	0.98	0.06	79,79,79,79	0
55	MG	2A	3716	1/1	0.98	0.15	92,92,92,92	0
55	MG	1A	3431	1/1	0.98	0.04	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	2X	103	1/1	0.98	0.07	58,58,58,58	0
55	MG	1A	3250	1/1	0.98	0.10	11,11,11,11	0
55	MG	1A	3674	1/1	0.98	0.04	26,26,26,26	0
55	MG	1a	3162	1/1	0.98	0.04	77,77,77,77	0
55	MG	2A	3399	1/1	0.98	0.06	45,45,45,45	0
55	MG	2A	3723	1/1	0.98	0.05	73,73,73,73	0
55	MG	1A	3277	1/1	0.98	0.05	30,30,30,30	0
55	MG	2A	3725	1/1	0.98	0.08	64,64,64,64	0
55	MG	2a	1767	1/1	0.98	0.16	79,79,79,79	0
55	MG	1A	3852	1/1	0.98	0.16	24,24,24,24	0
55	MG	2A	3402	1/1	0.98	0.05	37,37,37,37	0
55	MG	1B	3021	1/1	0.98	0.10	66,66,66,66	0
55	MG	1A	3434	1/1	0.98	0.06	16,16,16,16	0
55	MG	2A	3037	1/1	0.98	0.08	24,24,24,24	0
55	MG	1A	3375	1/1	0.98	0.15	51,51,51,51	0
55	MG	2A	3736	1/1	0.98	0.10	95,95,95,95	0
55	MG	1A	3024	1/1	0.98	0.18	30,30,30,30	0
55	MG	1A	3612	1/1	0.98	0.10	78,78,78,78	0
55	MG	2A	3558	1/1	0.98	0.08	59,59,59,59	0
55	MG	1D	303	1/1	0.98	0.21	52,52,52,52	0
55	MG	1a	3171	1/1	0.98	0.10	50,50,50,50	0
55	MG	13	101	1/1	0.98	0.19	32,32,32,32	0
55	MG	2a	1785	1/1	0.98	0.06	68,68,68,68	0
55	MG	2a	1786	1/1	0.98	0.07	90,90,90,90	0
55	MG	2A	3745	1/1	0.98	0.07	70,70,70,70	0
55	MG	2a	1788	1/1	0.98	0.04	86,86,86,86	0
55	MG	2A	3259	1/1	0.98	0.04	34,34,34,34	0
55	MG	1A	3613	1/1	0.98	0.05	82,82,82,82	0
55	MG	15	101	1/1	0.98	0.06	42,42,42,42	0
55	MG	2A	3565	1/1	0.98	0.05	56,56,56,56	0
55	MG	2A	3566	1/1	0.98	0.14	64,64,64,64	0
55	MG	2a	1794	1/1	0.98	0.05	70,70,70,70	0
55	MG	1A	3025	1/1	0.98	0.39	33,33,33,33	0
55	MG	1A	3280	1/1	0.98	0.06	29,29,29,29	0
55	MG	2A	3419	1/1	0.98	0.04	33,33,33,33	0
55	MG	2d	502	1/1	0.98	0.08	74,74,74,74	0
55	MG	1A	3379	1/1	0.98	0.06	43,43,43,43	0
55	MG	1A	3620	1/1	0.98	0.07	50,50,50,50	0
55	MG	1A	3158	1/1	0.98	0.04	37,37,37,37	0
55	MG	1A	3085	1/1	0.98	0.19	34,34,34,34	0
55	MG	1A	3096	1/1	0.98	0.50	34,34,34,34	0
55	MG	2A	3153	1/1	0.98	0.06	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1D	312	1/1	0.98	0.12	15,15,15,15	0
55	MG	2A	3271	1/1	0.98	0.05	36,36,36,36	0
55	MG	2A	3272	1/1	0.98	0.04	41,41,41,41	0
55	MG	2A	3429	1/1	0.98	0.05	64,64,64,64	0
55	MG	1A	3443	1/1	0.98	0.04	22,22,22,22	0
55	MG	2A	3275	1/1	0.98	0.04	47,47,47,47	0
55	MG	2A	3767	1/1	0.98	0.04	65,65,65,65	0
55	MG	2A	3276	1/1	0.98	0.04	48,48,48,48	0
55	MG	2A	3277	1/1	0.98	0.07	36,36,36,36	0
57	ZN	14	501	1/1	0.98	0.04	109,109,109,109	0
57	ZN	1n	501	1/1	0.98	0.04	88,88,88,88	0
57	ZN	2n	501	1/1	0.98	0.04	108,108,108,108	0
58	SF4	2d	501	8/8	0.98	0.04	65,69,77,88	0
55	MG	1B	3012	1/1	0.99	0.03	44,44,44,44	0
55	MG	1A	3735	1/1	0.99	0.17	27,27,27,27	0
55	MG	1A	3505	1/1	0.99	0.04	31,31,31,31	0
55	MG	2A	3613	1/1	0.99	0.03	55,55,55,55	0
55	MG	2A	3614	1/1	0.99	0.05	58,58,58,58	0
55	MG	1A	3352	1/1	0.99	0.03	22,22,22,22	0
55	MG	2A	3616	1/1	0.99	0.08	53,53,53,53	0
55	MG	1A	3462	1/1	0.99	0.04	40,40,40,40	0
55	MG	1a	3187	1/1	0.99	0.06	89,89,89,89	0
55	MG	1A	3421	1/1	0.99	0.04	28,28,28,28	0
55	MG	1A	3422	1/1	0.99	0.03	30,30,30,30	0
55	MG	1a	3190	1/1	0.99	0.03	79,79,79,79	0
55	MG	1a	3191	1/1	0.99	0.05	47,47,47,47	0
55	MG	1A	3326	1/1	0.99	0.04	24,24,24,24	0
55	MG	1A	3556	1/1	0.99	0.03	14,14,14,14	0
55	MG	2A	3326	1/1	0.99	0.03	35,35,35,35	0
55	MG	1A	3557	1/1	0.99	0.04	24,24,24,24	0
55	MG	1a	3195	1/1	0.99	0.09	62,62,62,62	0
55	MG	1A	3558	1/1	0.99	0.03	27,27,27,27	0
55	MG	1A	3559	1/1	0.99	0.05	26,26,26,26	0
55	MG	1a	3198	1/1	0.99	0.04	47,47,47,47	0
55	MG	2A	3332	1/1	0.99	0.04	46,46,46,46	0
55	MG	1A	3383	1/1	0.99	0.03	20,20,20,20	0
55	MG	1D	301	1/1	0.99	0.10	32,32,32,32	0
55	MG	1a	3090	1/1	0.99	0.03	40,40,40,40	0
55	MG	1a	3203	1/1	0.99	0.03	67,67,67,67	0
55	MG	1a	3204	1/1	0.99	0.05	72,72,72,72	0
55	MG	1a	3205	1/1	0.99	0.04	77,77,77,77	0
55	MG	1a	3206	1/1	0.99	0.03	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1a	3091	1/1	0.99	0.04	37,37,37,37	0
55	MG	2a	1668	1/1	0.99	0.04	51,51,51,51	0
55	MG	2a	1669	1/1	0.99	0.06	46,46,46,46	0
55	MG	1A	3615	1/1	0.99	0.07	19,19,19,19	0
55	MG	1a	3209	1/1	0.99	0.04	52,52,52,52	0
55	MG	1a	3093	1/1	0.99	0.04	73,73,73,73	0
55	MG	2A	3492	1/1	0.99	0.03	52,52,52,52	0
55	MG	1A	3751	1/1	0.99	0.07	39,39,39,39	0
55	MG	1A	3616	1/1	0.99	0.08	48,48,48,48	0
55	MG	2A	3347	1/1	0.99	0.04	80,80,80,80	0
55	MG	1A	3617	1/1	0.99	0.06	38,38,38,38	0
55	MG	2A	3648	1/1	0.99	0.03	34,34,34,34	0
55	MG	2A	3349	1/1	0.99	0.07	77,77,77,77	0
55	MG	2a	1680	1/1	0.99	0.05	55,55,55,55	0
55	MG	1a	3214	1/1	0.99	0.03	71,71,71,71	0
55	MG	1A	3354	1/1	0.99	0.03	36,36,36,36	0
55	MG	1A	3681	1/1	0.99	0.04	38,38,38,38	0
55	MG	1A	3562	1/1	0.99	0.08	20,20,20,20	0
55	MG	2a	1685	1/1	0.99	0.09	56,56,56,56	0
55	MG	2A	3354	1/1	0.99	0.04	26,26,26,26	0
55	MG	1A	3275	1/1	0.99	0.04	27,27,27,27	0
55	MG	2A	3656	1/1	0.99	0.03	42,42,42,42	0
55	MG	1a	3101	1/1	0.99	0.04	39,39,39,39	0
55	MG	1a	3220	1/1	0.99	0.03	65,65,65,65	0
55	MG	2A	3358	1/1	0.99	0.03	45,45,45,45	0
55	MG	1a	3102	1/1	0.99	0.03	48,48,48,48	0
55	MG	19	101	1/1	0.99	0.19	41,41,41,41	0
55	MG	2A	3220	1/1	0.99	0.04	66,66,66,66	0
55	MG	1A	3357	1/1	0.99	0.06	20,20,20,20	0
55	MG	1A	3565	1/1	0.99	0.03	20,20,20,20	0
55	MG	2A	3364	1/1	0.99	0.03	60,60,60,60	0
55	MG	1A	3566	1/1	0.99	0.04	23,23,23,23	0
55	MG	2A	3667	1/1	0.99	0.04	57,57,57,57	0
55	MG	1A	3358	1/1	0.99	0.05	19,19,19,19	0
55	MG	1A	3688	1/1	0.99	0.05	26,26,26,26	0
55	MG	2A	3368	1/1	0.99	0.04	42,42,42,42	0
55	MG	2A	3226	1/1	0.99	0.05	44,44,44,44	0
55	MG	1d	505	1/1	0.99	0.03	74,74,74,74	0
55	MG	2A	3371	1/1	0.99	0.05	36,36,36,36	0
55	MG	2A	3372	1/1	0.99	0.03	38,38,38,38	0
55	MG	1A	3430	1/1	0.99	0.03	16,16,16,16	0
55	MG	1A	3766	1/1	0.99	0.13	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3197	1/1	0.99	0.06	25,25,25,25	0
55	MG	1A	3360	1/1	0.99	0.02	21,21,21,21	0
55	MG	1E	301	1/1	0.99	0.04	15,15,15,15	0
55	MG	2A	3378	1/1	0.99	0.03	51,51,51,51	0
55	MG	2E	305	1/1	0.99	0.03	34,34,34,34	0
55	MG	1A	3692	1/1	0.99	0.04	43,43,43,43	0
55	MG	1A	3693	1/1	0.99	0.05	42,42,42,42	0
55	MG	1A	3628	1/1	0.99	0.07	50,50,50,50	0
55	MG	1A	3772	1/1	0.99	0.03	37,37,37,37	0
55	MG	2A	3238	1/1	0.99	0.03	38,38,38,38	0
55	MG	2A	3687	1/1	0.99	0.03	49,49,49,49	0
55	MG	2A	3384	1/1	0.99	0.04	68,68,68,68	0
55	MG	1a	3118	1/1	0.99	0.03	70,70,70,70	0
55	MG	1A	3305	1/1	0.99	0.03	16,16,16,16	0
55	MG	1A	3362	1/1	0.99	0.03	20,20,20,20	0
55	MG	1A	3697	1/1	0.99	0.04	19,19,19,19	0
55	MG	1A	3294	1/1	0.99	0.04	33,33,33,33	0
55	MG	1A	3872	1/1	0.99	0.04	29,29,29,29	0
55	MG	1A	3777	1/1	0.99	0.04	41,41,41,41	0
55	MG	2A	3696	1/1	0.99	0.04	62,62,62,62	0
55	MG	1A	3364	1/1	0.99	0.16	36,36,36,36	0
55	MG	2A	3698	1/1	0.99	0.06	42,42,42,42	0
55	MG	1A	3335	1/1	0.99	0.06	19,19,19,19	0
55	MG	1A	3295	1/1	0.99	0.03	13,13,13,13	0
55	MG	2Q	8001	1/1	0.99	0.08	79,79,79,79	0
55	MG	1A	3337	1/1	0.99	0.04	39,39,39,39	0
55	MG	2a	1735	1/1	0.99	0.03	81,81,81,81	0
55	MG	1A	3399	1/1	0.99	0.05	15,15,15,15	0
55	MG	1A	3786	1/1	0.99	0.03	23,23,23,23	0
55	MG	1A	3338	1/1	0.99	0.05	20,20,20,20	0
55	MG	1A	3788	1/1	0.99	0.04	48,48,48,48	0
55	MG	2A	3548	1/1	0.99	0.03	65,65,65,65	0
55	MG	2A	3549	1/1	0.99	0.07	74,74,74,74	0
55	MG	2A	3711	1/1	0.99	0.03	70,70,70,70	0
55	MG	1A	3369	1/1	0.99	0.03	14,14,14,14	0
55	MG	1A	3340	1/1	0.99	0.03	22,22,22,22	0
55	MG	2A	3714	1/1	0.99	0.03	49,49,49,49	0
55	MG	2A	3715	1/1	0.99	0.06	66,66,66,66	0
55	MG	1A	3791	1/1	0.99	0.10	33,33,33,33	0
55	MG	2A	3404	1/1	0.99	0.03	63,63,63,63	0
55	MG	2A	3718	1/1	0.99	0.07	83,83,83,83	0
55	MG	1A	3530	1/1	0.99	0.03	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3793	1/1	0.99	0.09	52,52,52,52	0
55	MG	1A	3341	1/1	0.99	0.05	20,20,20,20	0
55	MG	1A	3888	1/1	0.99	0.10	47,47,47,47	0
55	MG	1A	3342	1/1	0.99	0.03	21,21,21,21	0
55	MG	1A	3405	1/1	0.99	0.04	42,42,42,42	0
55	MG	1A	3798	1/1	0.99	0.04	48,48,48,48	0
55	MG	1A	3644	1/1	0.99	0.03	18,18,18,18	0
55	MG	1A	3489	1/1	0.99	0.03	33,33,33,33	0
55	MG	2A	3728	1/1	0.99	0.04	34,34,34,34	0
55	MG	1A	3587	1/1	0.99	0.06	50,50,50,50	0
55	MG	2A	3730	1/1	0.99	0.06	56,56,56,56	0
55	MG	1A	3803	1/1	0.99	0.07	39,39,39,39	0
55	MG	2a	1763	1/1	0.99	0.05	55,55,55,55	0
55	MG	1A	3647	1/1	0.99	0.03	39,39,39,39	0
55	MG	2A	3733	1/1	0.99	0.07	60,60,60,60	0
55	MG	1A	3447	1/1	0.99	0.02	17,17,17,17	0
55	MG	1P	204	1/1	0.99	0.04	35,35,35,35	0
55	MG	2A	3737	1/1	0.99	0.08	80,80,80,80	0
55	MG	1A	3296	1/1	0.99	0.04	20,20,20,20	0
55	MG	1A	3717	1/1	0.99	0.03	35,35,35,35	0
55	MG	2a	1771	1/1	0.99	0.02	55,55,55,55	0
55	MG	1A	3344	1/1	0.99	0.04	25,25,25,25	0
55	MG	2A	3741	1/1	0.99	0.03	70,70,70,70	0
55	MG	2A	3274	1/1	0.99	0.03	61,61,61,61	0
55	MG	2a	1775	1/1	0.99	0.05	63,63,63,63	0
55	MG	1A	3493	1/1	0.99	0.03	30,30,30,30	0
55	MG	1A	3810	1/1	0.99	0.02	27,27,27,27	0
55	MG	1A	3811	1/1	0.99	0.07	56,56,56,56	0
55	MG	1A	3812	1/1	0.99	0.04	28,28,28,28	0
55	MG	2a	1780	1/1	0.99	0.03	68,68,68,68	0
55	MG	2A	3279	1/1	0.99	0.04	45,45,45,45	0
55	MG	1A	3813	1/1	0.99	0.04	25,25,25,25	0
55	MG	2a	1783	1/1	0.99	0.07	53,53,53,53	0
55	MG	1A	3814	1/1	0.99	0.03	18,18,18,18	0
55	MG	2A	3282	1/1	0.99	0.04	34,34,34,34	0
55	MG	2A	3284	1/1	0.99	0.03	37,37,37,37	0
55	MG	1A	3298	1/1	0.99	0.04	27,27,27,27	0
55	MG	2A	3286	1/1	0.99	0.03	42,42,42,42	0
55	MG	1A	3270	1/1	0.99	0.07	18,18,18,18	0
55	MG	1A	3594	1/1	0.99	0.06	24,24,24,24	0
55	MG	1A	3818	1/1	0.99	0.11	24,24,24,24	0
55	MG	2A	3291	1/1	0.99	0.04	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3819	1/1	0.99	0.09	58,58,58,58	0
55	MG	1A	3453	1/1	0.99	0.05	19,19,19,19	0
55	MG	1A	3821	1/1	0.99	0.13	54,54,54,54	0
55	MG	2A	3761	1/1	0.99	0.04	38,38,38,38	0
55	MG	1A	3016	1/1	0.99	0.33	19,19,19,19	0
55	MG	2A	3296	1/1	0.99	0.04	42,42,42,42	0
55	MG	1A	3916	1/1	0.99	0.21	29,29,29,29	0
55	MG	1A	3283	1/1	0.99	0.03	25,25,25,25	0
55	MG	1A	3412	1/1	0.99	0.04	12,12,12,12	0
55	MG	2A	3300	1/1	0.99	0.03	36,36,36,36	0
55	MG	1A	3414	1/1	0.99	0.03	19,19,19,19	0
55	MG	1A	3826	1/1	0.99	0.11	59,59,59,59	0
55	MG	1A	3416	1/1	0.99	0.02	26,26,26,26	0
55	MG	1A	3284	1/1	0.99	0.06	43,43,43,43	0
55	MG	2A	3452	1/1	0.99	0.06	51,51,51,51	0
55	MG	1A	3662	1/1	0.99	0.10	52,52,52,52	0
55	MG	1Y	502	1/1	0.99	0.10	74,74,74,74	0
55	MG	1A	3830	1/1	0.99	0.04	47,47,47,47	0
55	MG	1a	3177	1/1	0.99	0.04	74,74,74,74	0
55	MG	1A	3325	1/1	0.99	0.05	28,28,28,28	0
55	MG	1A	3504	1/1	0.99	0.04	19,19,19,19	0
55	MG	2A	3311	1/1	0.99	0.04	42,42,42,42	0
57	ZN	16	101	1/1	0.99	0.03	44,44,44,44	0
55	MG	2A	3780	1/1	0.99	0.05	40,40,40,40	0
57	ZN	2Y	501	1/1	0.99	0.03	95,95,95,95	0
57	ZN	24	501	1/1	0.99	0.08	129,129,129,129	0
57	ZN	26	101	1/1	0.99	0.04	64,64,64,64	0
57	ZN	29	501	1/1	0.99	0.03	75,75,75,75	0
55	MG	1B	3010	1/1	0.99	0.03	59,59,59,59	0
58	SF4	1d	501	8/8	0.99	0.05	65,70,75,78	0
55	MG	1B	3011	1/1	0.99	0.04	48,48,48,48	0
55	MG	1A	3782	1/1	1.00	0.03	33,33,33,33	0
55	MG	1A	3330	1/1	1.00	0.03	37,37,37,37	0
55	MG	1A	3732	1/1	1.00	0.02	21,21,21,21	0
55	MG	1A	3785	1/1	1.00	0.02	25,25,25,25	0
55	MG	1A	3297	1/1	1.00	0.02	15,15,15,15	0
55	MG	2A	3390	1/1	1.00	0.01	49,49,49,49	0
55	MG	1A	3332	1/1	1.00	0.02	28,28,28,28	0
55	MG	1A	3426	1/1	1.00	0.02	18,18,18,18	0
55	MG	1A	3390	1/1	1.00	0.02	23,23,23,23	0
55	MG	1A	3413	1/1	1.00	0.02	43,43,43,43	0
55	MG	1a	3202	1/1	1.00	0.04	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MG	1A	3851	1/1	1.00	0.04	21,21,21,21	0
55	MG	1A	3391	1/1	1.00	0.01	18,18,18,18	0
55	MG	1A	3739	1/1	1.00	0.05	22,22,22,22	0
55	MG	1A	3415	1/1	1.00	0.04	20,20,20,20	0
55	MG	2A	3283	1/1	1.00	0.04	37,37,37,37	0
55	MG	2A	3734	1/1	1.00	0.06	67,67,67,67	0
55	MG	2A	3781	1/1	1.00	0.02	51,51,51,51	0
55	MG	1A	3720	1/1	1.00	0.10	65,65,65,65	0
55	MG	1A	3339	1/1	1.00	0.04	18,18,18,18	0
55	MG	1X	8001	1/1	1.00	0.03	31,31,31,31	0
55	MG	1A	3463	1/1	1.00	0.02	28,28,28,28	0
55	MG	2A	3405	1/1	1.00	0.02	43,43,43,43	0
55	MG	2A	3288	1/1	1.00	0.03	30,30,30,30	0
55	MG	1A	3797	1/1	1.00	0.04	28,28,28,28	0
55	MG	1A	3744	1/1	1.00	0.03	55,55,55,55	0
55	MG	1A	3799	1/1	1.00	0.02	49,49,49,49	0
55	MG	1A	3347	1/1	1.00	0.02	18,18,18,18	0
55	MG	1A	3448	1/1	1.00	0.01	23,23,23,23	0
55	MG	1A	3418	1/1	1.00	0.03	26,26,26,26	0
55	MG	2A	3701	1/1	1.00	0.01	60,60,60,60	0
55	MG	2A	3333	1/1	1.00	0.02	42,42,42,42	0
55	MG	1A	3356	1/1	1.00	0.02	25,25,25,25	0
55	MG	1A	3749	1/1	1.00	0.04	36,36,36,36	0
55	MG	1A	3333	1/1	1.00	0.03	17,17,17,17	0
55	MG	1A	3673	1/1	1.00	0.03	35,35,35,35	0
55	MG	1A	3752	1/1	1.00	0.04	22,22,22,22	0
57	ZN	1Y	501	1/1	1.00	0.04	61,61,61,61	0
55	MG	1A	3328	1/1	1.00	0.02	22,22,22,22	0
57	ZN	15	106	1/1	1.00	0.04	47,47,47,47	0
55	MG	2A	3709	1/1	1.00	0.01	45,45,45,45	0
57	ZN	19	102	1/1	1.00	0.01	43,43,43,43	0
55	MG	2A	3710	1/1	1.00	0.02	60,60,60,60	0
55	MG	1A	3754	1/1	1.00	0.10	39,39,39,39	0
55	MG	1A	3871	1/1	1.00	0.03	21,21,21,21	0
57	ZN	25	104	1/1	1.00	0.02	54,54,54,54	0
55	MG	1A	3780	1/1	1.00	0.07	58,58,58,58	0
55	MG	2A	3669	1/1	1.00	0.02	40,40,40,40	0
55	MG	1A	3288	1/1	1.00	0.04	26,26,26,26	0
55	MG	2A	3231	1/1	1.00	0.07	48,48,48,48	0
55	MG	1A	3906	1/1	1.00	0.04	59,59,59,59	0

6.5 Other polymers [i](#)

There are no such residues in this entry.