



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 7, 2026 – 01:25 AM UTC

PDB ID : 8T8B / pdb_00008t8b
Title : Crystal structure of the *Thermus thermophilus* 70S ribosome in complex with protein Y, A-site aminoacyl-tRNA analog ACC-PMN, and P-site formyl-MAI-tripeptidyl-tRNA analog ACCA-IAMf at 2.65Å resolution
Authors : Thaler, J.; Syroegin, E.A.; Breuker, K.; Polikanov, Y.S.; Micura, R.
Deposited on : 2023-06-22
Resolution : 2.65 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

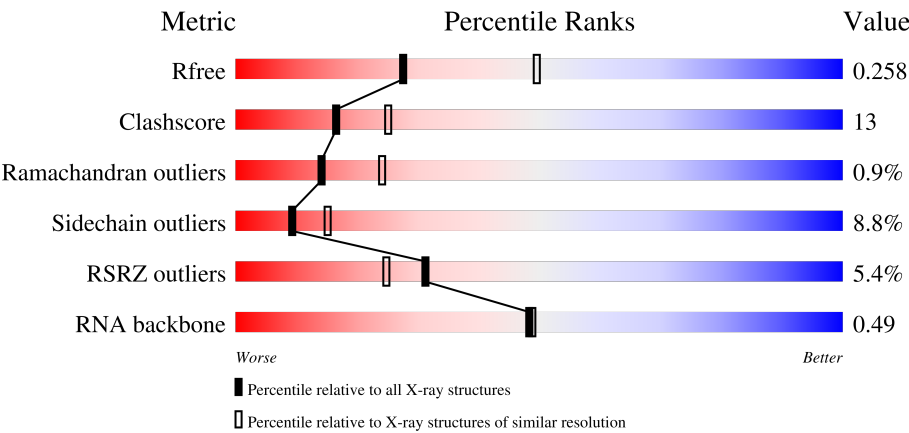
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.65 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.



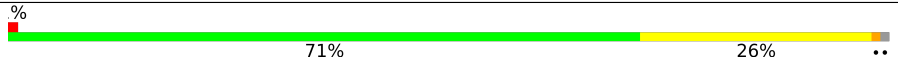
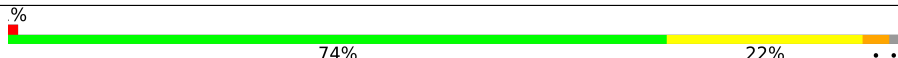
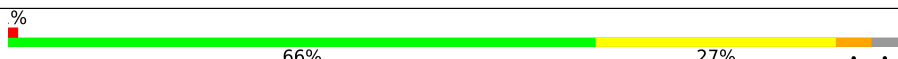
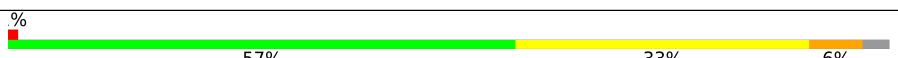
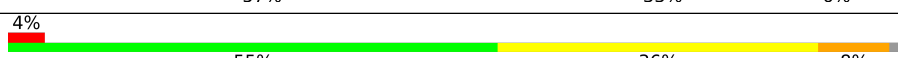
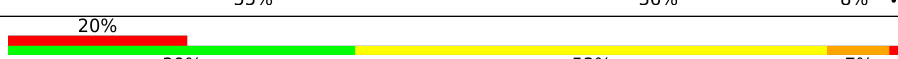
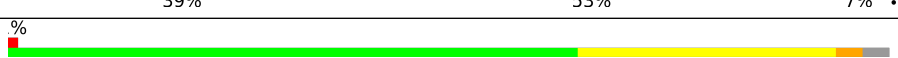
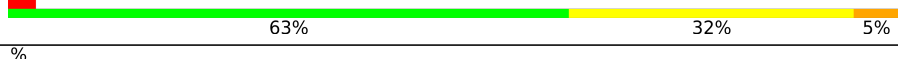
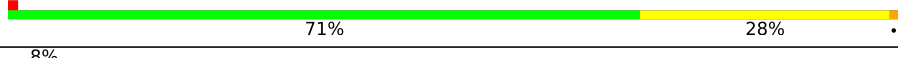
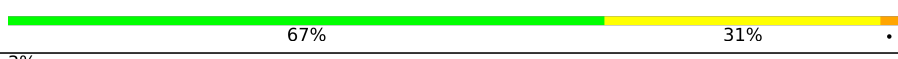
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R _{free}	180053	1110 (2.66-2.66)
Clashscore	190562	1141 (2.66-2.66)
Ramachandran outliers	187476	1126 (2.66-2.66)
Sidechain outliers	187428	1126 (2.66-2.66)
RSRZ outliers	180081	1110 (2.66-2.66)
RNA backbone	3983	1090 (2.90-2.42)

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	2% 52% 39% 8%
1	2A	2915	3% 47% 42% 9%
2	1B	121	% 60% 31% 8%
2	2B	121	7% 42% 48% 9%

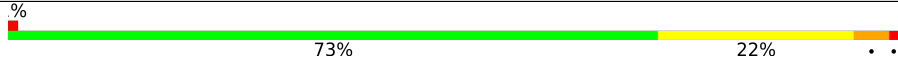
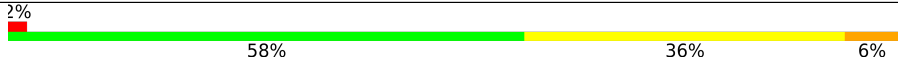
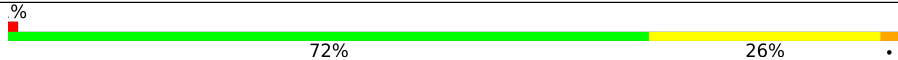
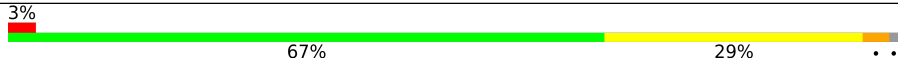
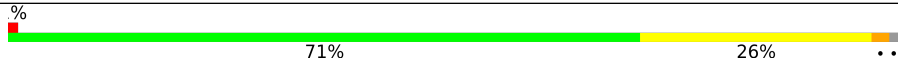
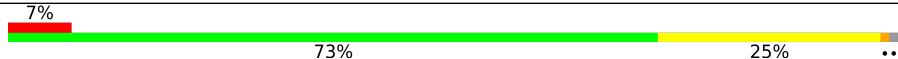
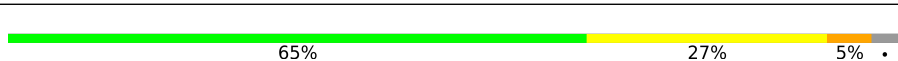
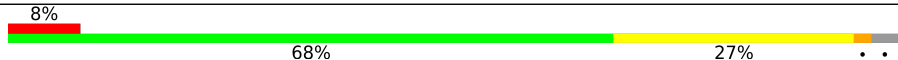
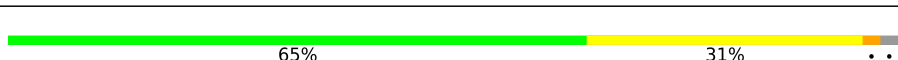
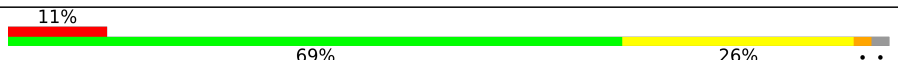
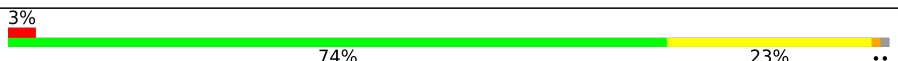
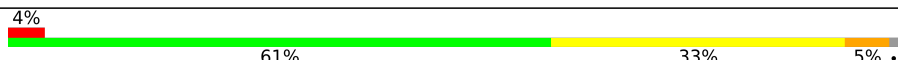
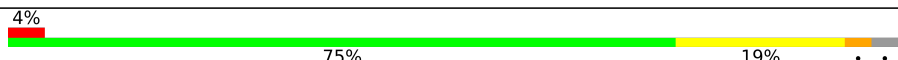
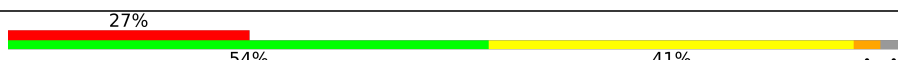
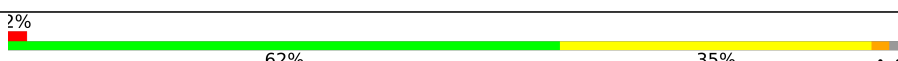
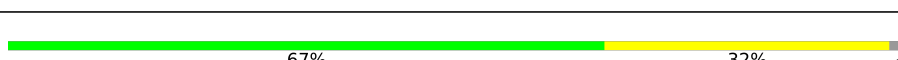
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Mol	Chain	Length	Quality of chain
3	1D	276	
3	2D	276	
4	1E	206	
4	2E	206	
5	1F	210	
5	2F	210	
6	1G	182	
6	2G	182	
7	1H	180	
7	2H	180	
8	1I	148	
8	2I	148	
9	1N	140	
9	2N	140	
10	1O	122	
10	2O	122	
11	1P	150	
11	2P	150	
12	1Q	141	
12	2Q	141	
13	1R	118	
13	2R	118	
14	1S	112	
14	2S	112	
15	1T	146	

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Mol	Chain	Length	Quality of chain
15	2T	146	
16	1U	118	
16	2U	118	
17	1V	101	
17	2V	101	
18	1W	113	
18	2W	113	
19	1X	96	
19	2X	96	
20	1Y	110	
20	2Y	110	
21	1Z	206	
21	2Z	206	
22	10	85	
22	20	85	
23	11	98	
23	21	98	
24	12	72	
24	22	72	
25	13	60	
25	23	60	
26	14	71	
26	24	71	
27	15	60	
27	25	60	

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Mol	Chain	Length	Quality of chain
28	16	54	
28	26	54	
29	17	49	
29	27	49	
30	18	65	
30	28	65	
31	19	37	
31	29	37	
32	1a	1521	
32	2a	1521	
33	1b	256	
33	2b	256	
34	1c	239	
34	2c	239	
35	1d	209	
35	2d	209	
36	1e	162	
36	2e	162	
37	1f	101	
37	2f	101	
38	1g	156	
38	2g	156	
39	1h	138	
39	2h	138	
40	1i	128	

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Mol	Chain	Length	Quality of chain
40	2i	128	
41	1j	105	
41	2j	105	
42	1k	129	
42	2k	129	
43	1l	132	
43	2l	132	
44	1m	126	
44	2m	126	
45	1n	61	
45	2n	61	
46	1o	89	
46	2o	89	
47	1p	88	
47	2p	88	
48	1q	105	
48	2q	105	
49	1r	88	
49	2r	88	
50	1s	93	
50	2s	93	
51	1t	106	
51	2t	106	
52	1u	27	
52	2u	27	

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Mol	Chain	Length	Quality of chain
53	1y	113	
53	2y	113	
54	1w	4	
54	2w	4	
55	1x	4	
55	2x	4	
56	1v	3	
56	2v	3	

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
57	MG	1A	3854	-	-	-	X
57	MG	2A	3177	-	-	-	X
57	MG	2A	3310	-	-	-	X
57	MG	2B	201	-	-	-	X
57	MG	2G	202	-	-	-	X
57	MG	2a	3058	-	-	-	X
57	MG	2a	3069	-	-	-	X

2 Entry composition

There are 62 unique types of molecules in this entry. The entry contains 295092 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
			61869	27540	11574	19884	2871			
1	2A	2867	Total	C	N	O	P	0	0	0
			61758	27491	11552	19850	2865			

- 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
			2572	1145	476	832	119			
2	2B	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			

- 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
			1580	1007	297	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
			886	557	174	153	2			
18	2W	112	Total	C	N	O	S	0	0	0
			886	557	174	153	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	83	Total	C	N	O	S	0	0	0
			653	404	139	109	1			
22	20	83	Total	C	N	O	S	0	0	0
			650	401	139	109	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	1y	97	Total	C	N	O	S	0	0	0
			764	478	144	139	3			
53	2y	96	Total	C	N	O	S	0	0	0
			749	468	141	137	3			

- Molecule 54 is a RNA chain called A-site Aminoacyl-tRNA Analog.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	1w	4	Total	C	N	O	P	0	0	1
			78	40	13	22	3			
54	2w	4	Total	C	N	O	P	0	0	1
			78	40	13	22	3			

- Molecule 55 is a RNA chain called P-site Peptidyl-tRNA Analog RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	1x	4	Total	C	N	O	P	0	0	1
			63	28	12	20	3			
55	2x	4	Total	C	N	O	P	0	0	1
			63	28	12	20	3			

- Molecule 56 is a protein called P-site Peptidyl-tRNA Analog Peptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	1v	3	Total	C	N	O	S	0	0	0
			23	15	3	4	1			
56	2v	3	Total	C	N	O	S	0	0	0
			23	15	3	4	1			

- Molecule 57 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	1A	1004	Total	Mg	0	0
			1004	1004		
57	1B	30	Total	Mg	0	0
			30	30		
57	1D	17	Total	Mg	0	0
			17	17		
57	1E	9	Total	Mg	0	0
			9	9		
57	1F	15	Total	Mg	0	0
			15	15		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	1G	4	Total 4	Mg 4	0	0
57	1H	2	Total 2	Mg 2	0	0
57	1N	4	Total 4	Mg 4	0	0
57	1O	1	Total 1	Mg 1	0	0
57	1P	5	Total 5	Mg 5	0	0
57	1Q	9	Total 9	Mg 9	0	0
57	1R	5	Total 5	Mg 5	0	0
57	1S	1	Total 1	Mg 1	0	0
57	1T	6	Total 6	Mg 6	0	0
57	1U	5	Total 5	Mg 5	0	0
57	1V	7	Total 7	Mg 7	0	0
57	1W	4	Total 4	Mg 4	0	0
57	1Z	1	Total 1	Mg 1	0	0
57	10	7	Total 7	Mg 7	0	0
57	11	5	Total 5	Mg 5	0	0
57	13	4	Total 4	Mg 4	0	0
57	15	7	Total 7	Mg 7	0	0
57	17	4	Total 4	Mg 4	0	0
57	18	3	Total 3	Mg 3	0	0
57	19	2	Total 2	Mg 2	0	0
57	1a	257	Total 257	Mg 257	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	1b	1	Total 1	Mg 1	0	0
57	1d	5	Total 5	Mg 5	0	0
57	1e	4	Total 4	Mg 4	0	0
57	1f	1	Total 1	Mg 1	0	0
57	1g	2	Total 2	Mg 2	0	0
57	1h	2	Total 2	Mg 2	0	0
57	1i	1	Total 1	Mg 1	0	0
57	1l	2	Total 2	Mg 2	0	0
57	1m	2	Total 2	Mg 2	0	0
57	1n	2	Total 2	Mg 2	0	0
57	1o	3	Total 3	Mg 3	0	0
57	1r	1	Total 1	Mg 1	0	0
57	1t	2	Total 2	Mg 2	0	0
57	1y	2	Total 2	Mg 2	0	0
57	1x	1	Total 1	Mg 1	0	0
57	2A	716	Total 716	Mg 716	0	0
57	2B	17	Total 17	Mg 17	0	0
57	2D	9	Total 9	Mg 9	0	0
57	2E	8	Total 8	Mg 8	0	0
57	2F	5	Total 5	Mg 5	0	0
57	2G	2	Total 2	Mg 2	0	0

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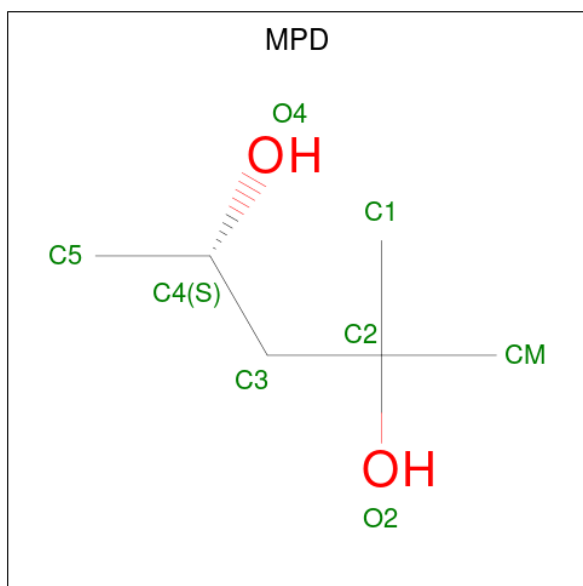
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	2O	1	Total 1	Mg 1	0	0
57	2Q	3	Total 3	Mg 3	0	0
57	2R	2	Total 2	Mg 2	0	0
57	2T	4	Total 4	Mg 4	0	0
57	2U	1	Total 1	Mg 1	0	0
57	2V	3	Total 3	Mg 3	0	0
57	2W	2	Total 2	Mg 2	0	0
57	2X	1	Total 1	Mg 1	0	0
57	2Y	1	Total 1	Mg 1	0	0
57	20	3	Total 3	Mg 3	0	0
57	21	2	Total 2	Mg 2	0	0
57	23	3	Total 3	Mg 3	0	0
57	25	1	Total 1	Mg 1	0	0
57	26	1	Total 1	Mg 1	0	0
57	27	2	Total 2	Mg 2	0	0
57	28	2	Total 2	Mg 2	0	0
57	2a	178	Total 178	Mg 178	0	0
57	2e	1	Total 1	Mg 1	0	0
57	2f	1	Total 1	Mg 1	0	0
57	2j	1	Total 1	Mg 1	0	0
57	2k	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	2l	1	Total	Mg	0	0
			1	1		
57	2n	1	Total	Mg	0	0
			1	1		
57	2p	1	Total	Mg	0	0
			1	1		
57	2r	2	Total	Mg	0	0
			2	2		
57	2t	1	Total	Mg	0	0
			1	1		
57	2y	1	Total	Mg	0	0
			1	1		
57	2x	1	Total	Mg	0	0
			1	1		

- Molecule 58 is (4S)-2-METHYL-2,4-PENTANEDIOL (CCD ID: MPD) (formula: C₆H₁₄O₂).



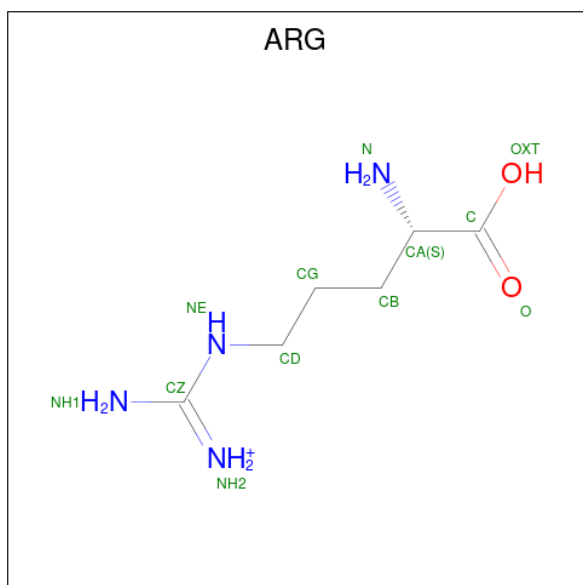
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
58	1A	1	Total	C	O	0	0
			8	6	2		
58	1T	1	Total	C	O	0	0
			8	6	2		
58	18	1	Total	C	O	0	0
			8	6	2		
58	1a	1	Total	C	O	0	0
			8	6	2		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
58	2A	1	Total	C	O	0	0
			8	6	2		
58	2A	1	Total	C	O	0	0
			8	6	2		

- Molecule 59 is ARGinine (CCD ID: ARG) (formula: $C_6H_{15}N_4O_2$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
59	1B	1	Total	C	N	O	0	0
			12	6	4	2		
59	1F	1	Total	C	N	O	0	0
			12	6	4	2		

- Molecule 60 is ZINC ION (CCD ID: ZN) (formula: Zn).

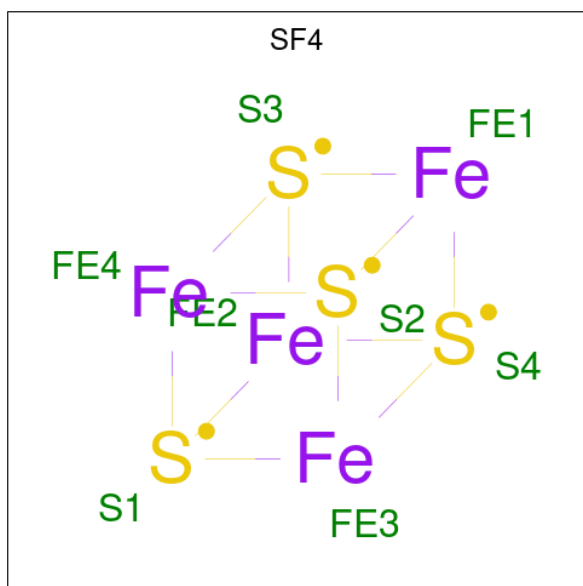
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	1Y	1	Total	Zn	0	0
			1	1		
60	14	1	Total	Zn	0	0
			1	1		
60	15	1	Total	Zn	0	0
			1	1		
60	16	1	Total	Zn	0	0
			1	1		
60	19	1	Total	Zn	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	1n	1	Total	Zn	0	0
			1	1		
60	2Y	1	Total	Zn	0	0
			1	1		
60	24	1	Total	Zn	0	0
			1	1		
60	25	1	Total	Zn	0	0
			1	1		
60	26	1	Total	Zn	0	0
			1	1		
60	29	1	Total	Zn	0	0
			1	1		
60	2n	1	Total	Zn	0	0
			1	1		

- Molecule 61 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
61	1d	1	Total	Fe	S	0	0
			8	4	4		
61	2d	1	Total	Fe	S	0	0
			8	4	4		

- Molecule 62 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
62	1A	3076	Total 3076	O 3076	0	0
62	1B	63	Total 63	O 63	0	0
62	1D	79	Total 79	O 79	0	0
62	1E	51	Total 51	O 51	0	0
62	1F	34	Total 34	O 34	0	0
62	1G	9	Total 9	O 9	0	0
62	1H	5	Total 5	O 5	0	0
62	1I	4	Total 4	O 4	0	0
62	1N	33	Total 33	O 33	0	0
62	1O	8	Total 8	O 8	0	0
62	1P	45	Total 45	O 45	0	0
62	1Q	21	Total 21	O 21	0	0
62	1R	19	Total 19	O 19	0	0
62	1S	7	Total 7	O 7	0	0
62	1T	24	Total 24	O 24	0	0
62	1U	35	Total 35	O 35	0	0
62	1V	24	Total 24	O 24	0	0
62	1W	19	Total 19	O 19	0	0
62	1X	20	Total 20	O 20	0	0
62	1Y	5	Total 5	O 5	0	0
62	1Z	3	Total 3	O 3	0	0
62	10	18	Total 18	O 18	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
62	11	19	Total 19	O 19	0	0
62	12	6	Total 6	O 6	0	0
62	13	13	Total 13	O 13	0	0
62	14	2	Total 2	O 2	0	0
62	15	18	Total 18	O 18	0	0
62	16	13	Total 13	O 13	0	0
62	17	9	Total 9	O 9	0	0
62	18	19	Total 19	O 19	0	0
62	19	4	Total 4	O 4	0	0
62	1a	316	Total 316	O 316	0	0
62	1b	1	Total 1	O 1	0	0
62	1d	5	Total 5	O 5	0	0
62	1e	1	Total 1	O 1	0	0
62	1f	1	Total 1	O 1	0	0
62	1h	1	Total 1	O 1	0	0
62	1l	3	Total 3	O 3	0	0
62	1m	1	Total 1	O 1	0	0
62	1p	2	Total 2	O 2	0	0
62	1y	1	Total 1	O 1	0	0
62	1w	4	Total 4	O 4	0	0
62	1x	4	Total 4	O 4	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
62	2A	1380	Total 1380	O 1380	0	0
62	2B	18	Total 18	O 18	0	0
62	2D	25	Total 25	O 25	0	0
62	2E	14	Total 14	O 14	0	0
62	2F	18	Total 18	O 18	0	0
62	2G	1	Total 1	O 1	0	0
62	2H	1	Total 1	O 1	0	0
62	2I	1	Total 1	O 1	0	0
62	2N	1	Total 1	O 1	0	0
62	2O	5	Total 5	O 5	0	0
62	2P	9	Total 9	O 9	0	0
62	2Q	6	Total 6	O 6	0	0
62	2R	11	Total 11	O 11	0	0
62	2S	1	Total 1	O 1	0	0
62	2T	4	Total 4	O 4	0	0
62	2U	2	Total 2	O 2	0	0
62	2V	2	Total 2	O 2	0	0
62	2W	7	Total 7	O 7	0	0
62	2X	3	Total 3	O 3	0	0
62	2Z	4	Total 4	O 4	0	0
62	20	3	Total 3	O 3	0	0

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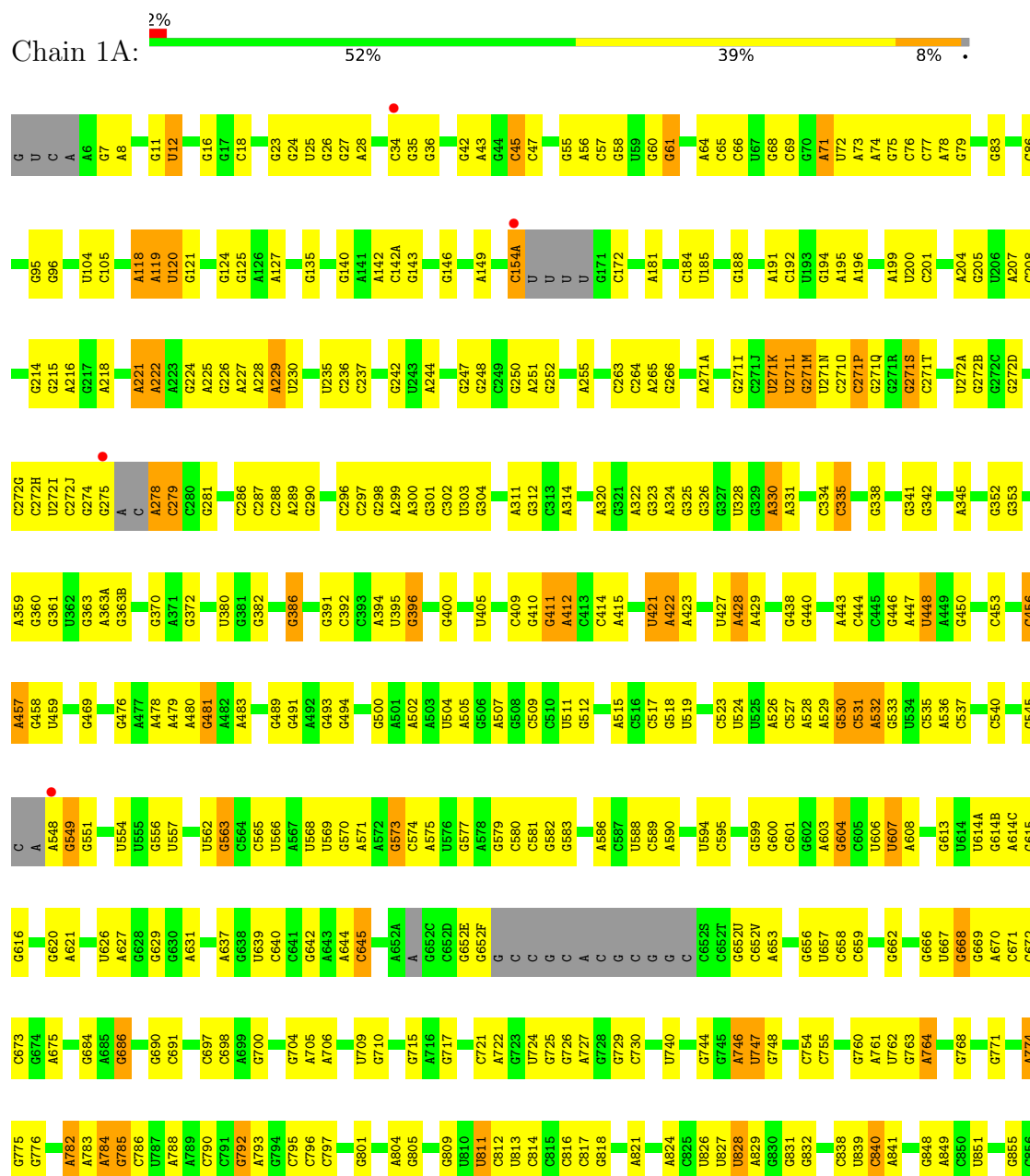
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
62	21	10	Total 10	O 10	0	0
62	23	3	Total 3	O 3	0	0
62	25	6	Total 6	O 6	0	0
62	26	1	Total 1	O 1	0	0
62	27	5	Total 5	O 5	0	0
62	28	8	Total 8	O 8	0	0
62	2a	179	Total 179	O 179	0	0
62	2d	2	Total 2	O 2	0	0
62	2e	2	Total 2	O 2	0	0
62	2l	2	Total 2	O 2	0	0
62	2m	1	Total 1	O 1	0	0
62	2o	2	Total 2	O 2	0	0
62	2r	1	Total 1	O 1	0	0
62	2t	1	Total 1	O 1	0	0
62	2w	2	Total 2	O 2	0	0
62	2x	2	Total 2	O 2	0	0

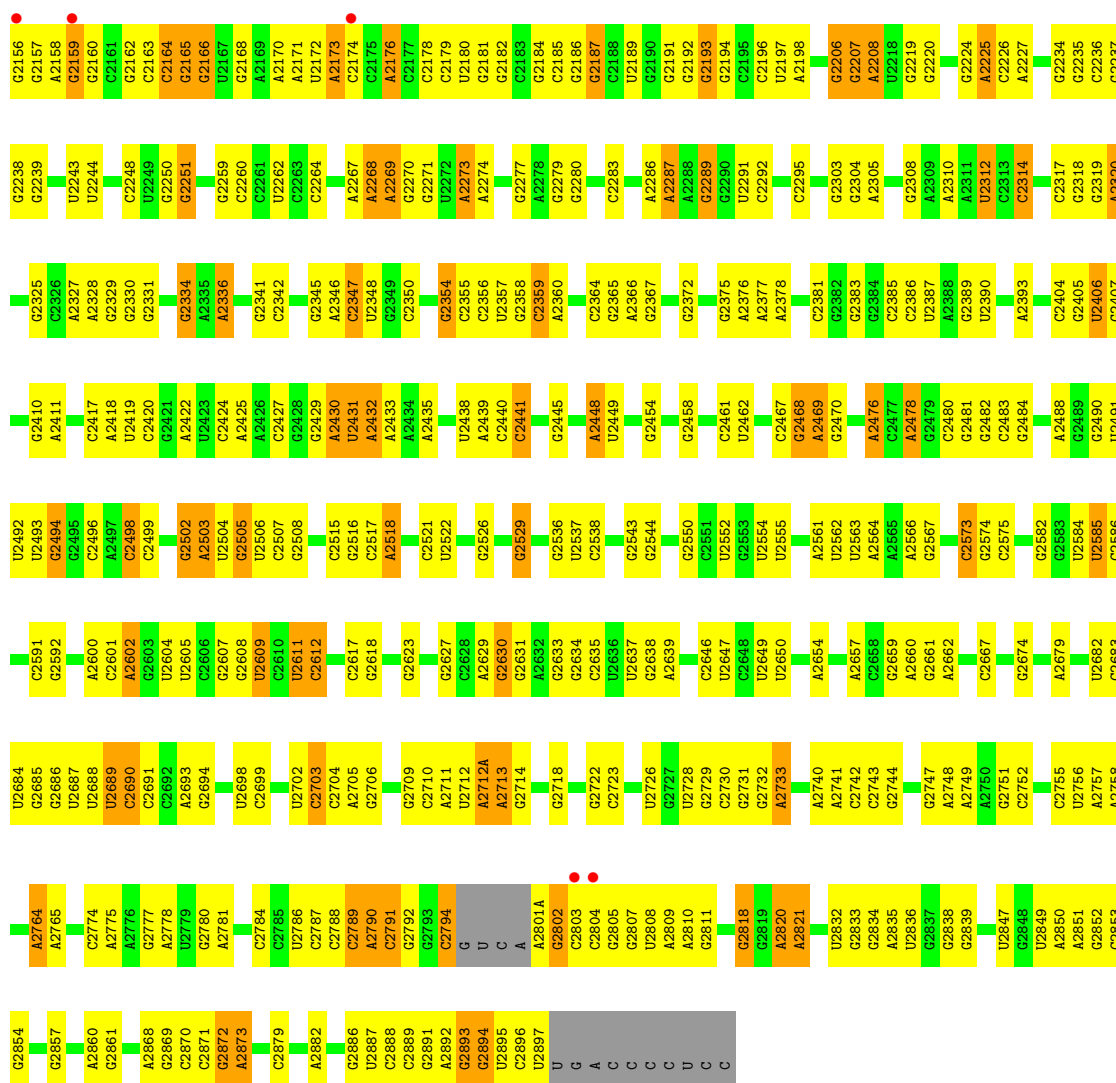
3 Residue-property plots [i](#)

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

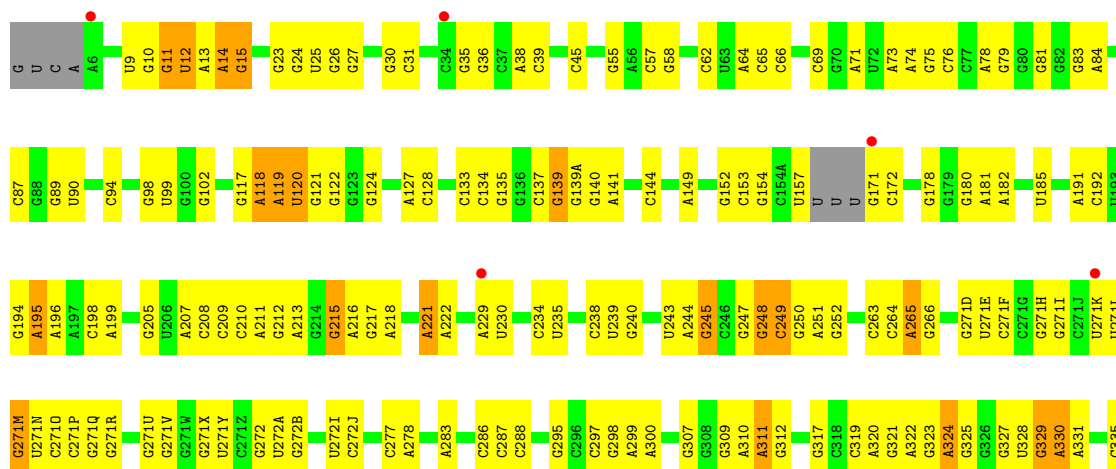
• Molecule 1: 23S Ribosomal RNA

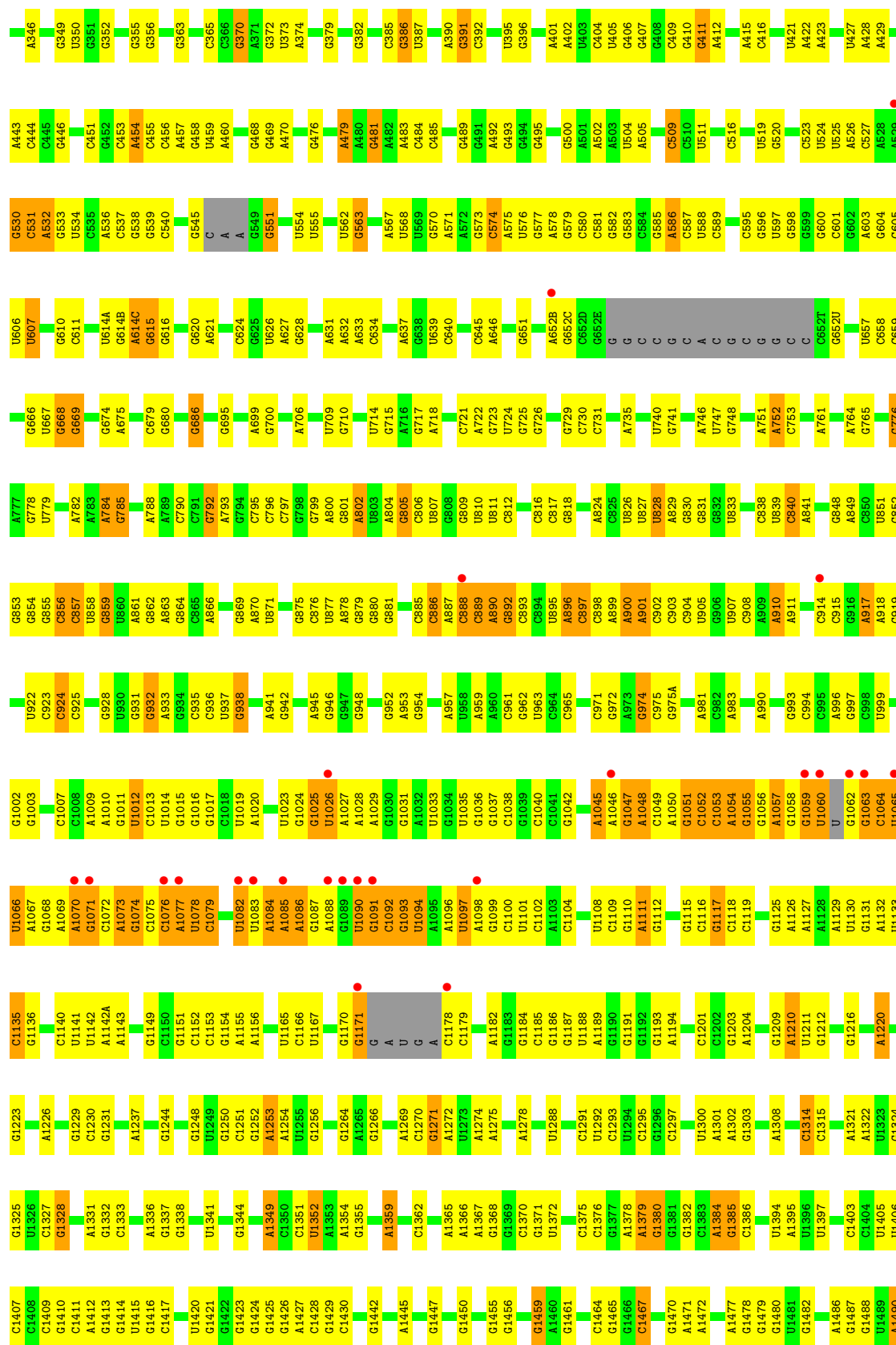


G2093	G1998	G1906	G1793	G1693	A1494	U1406	U1300	U1205	A1111	A1046	U958	C857
G2096	C1999	U1911	U1794	A1700	A1495	C1407	A1301	U1205	G1112	G1047	A959	U888
C2097	G2000	A1912	C1795	A1701	A1496	A1412	G1302	A1210	U1113	A1048	A960	U859
U2098	A2001	A1913	U1796	G1702	G1501	G1413	C1303	U1211	G1114		C961	U860
U2099	G2002	C1914	U1797	G1703	G1502	G1416	C1304	G1212	G1115	C1053	G962	A861
G2100	U2011	U1915	G1799	G1707	U1503	C1417	G1310	C1218	C1116	A1054	C965	G862
U2101	G2012	A1916	C1800		C1504		G1311	G1219	C1124	G1055		A863
A2102	A2013	U1917	G1801			U1420	C1314	A1220	G1125	G1056	U969	G864
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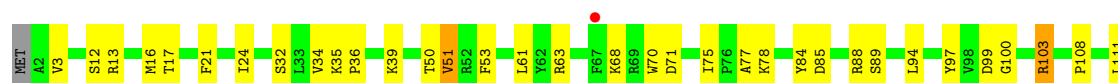


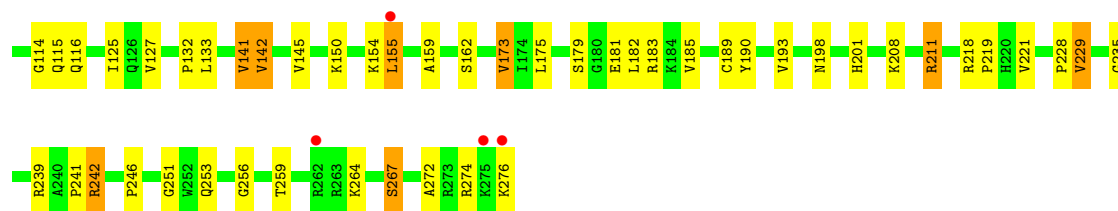
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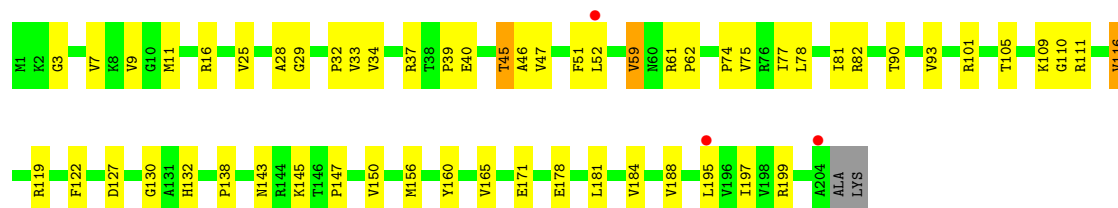
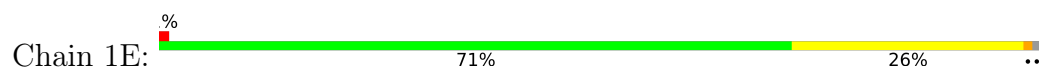


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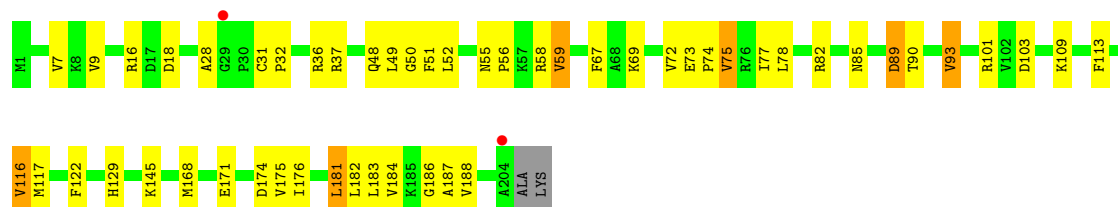
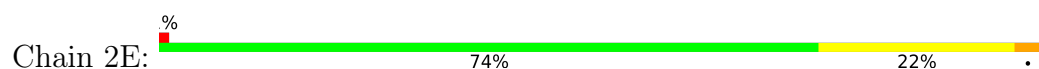




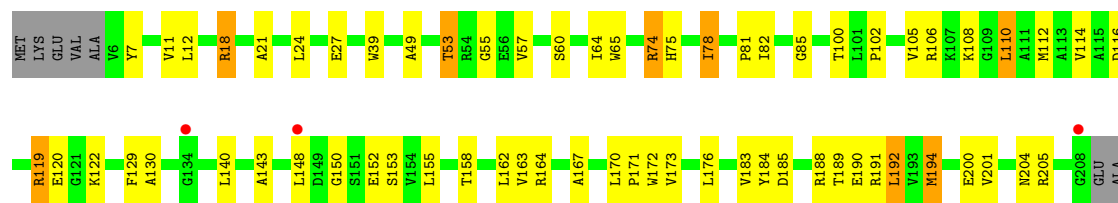
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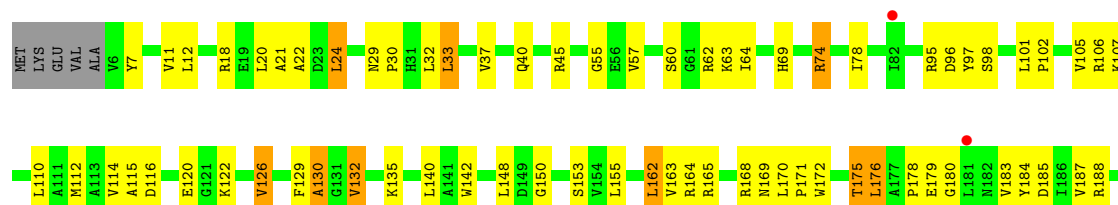
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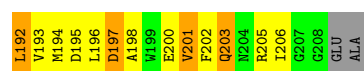


• Molecule 5: 50S ribosomal protein L4

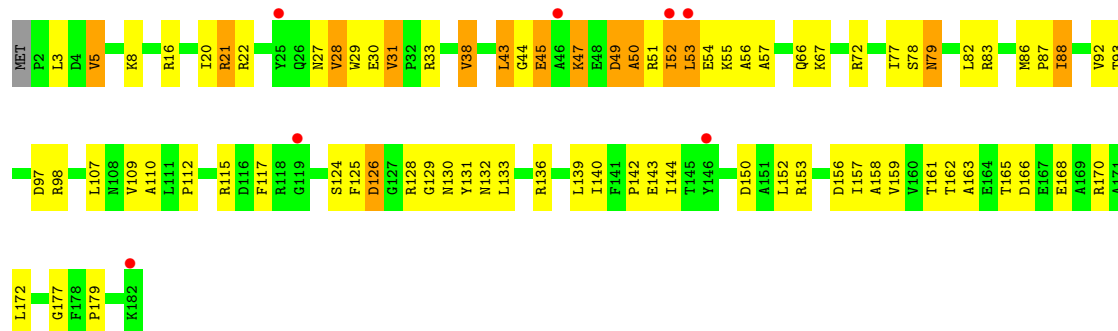


• Molecule 5: 50S ribosomal protein L4

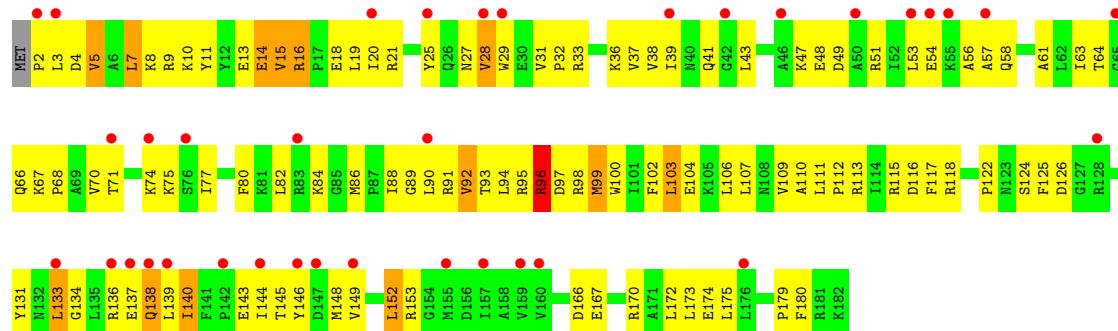




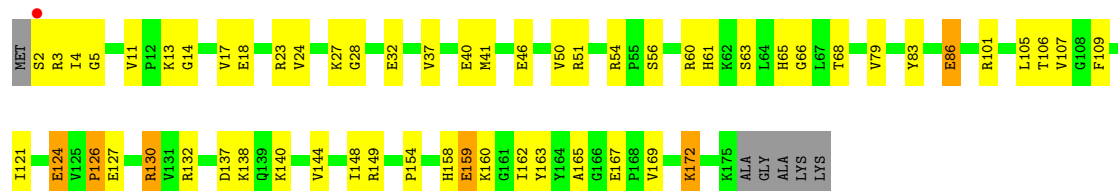
• Molecule 6: 50S ribosomal protein L5



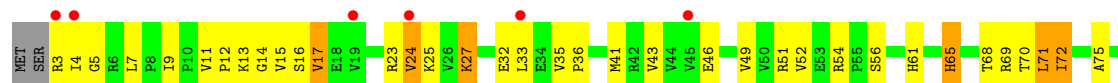
• Molecule 6: 50S ribosomal protein L5

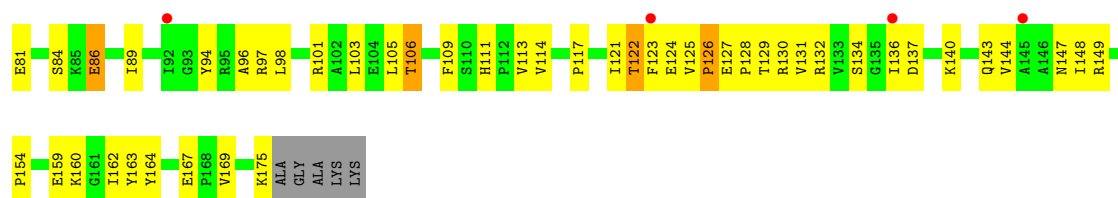


• Molecule 7: 50S ribosomal protein L6

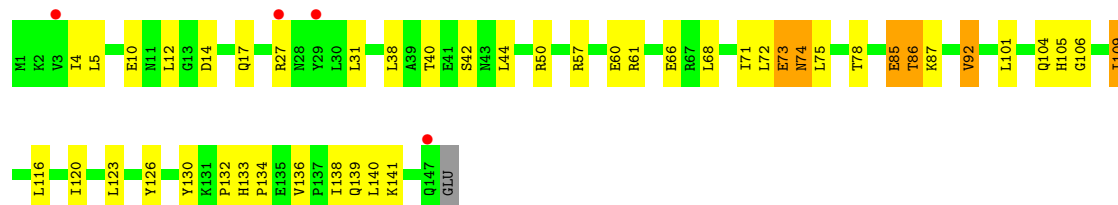


• Molecule 7: 50S ribosomal protein L6

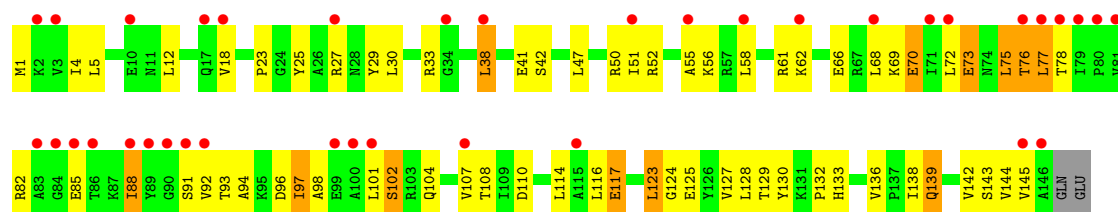




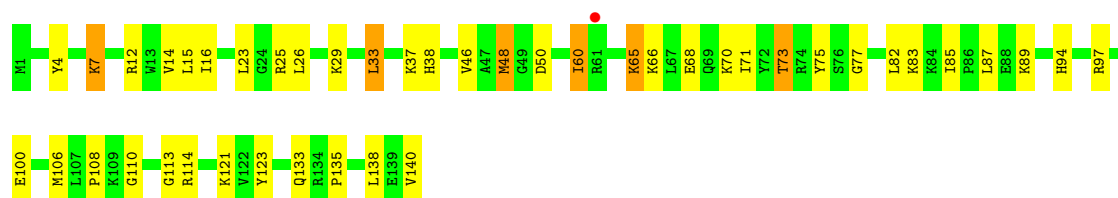
• Molecule 8: 50S ribosomal protein L9



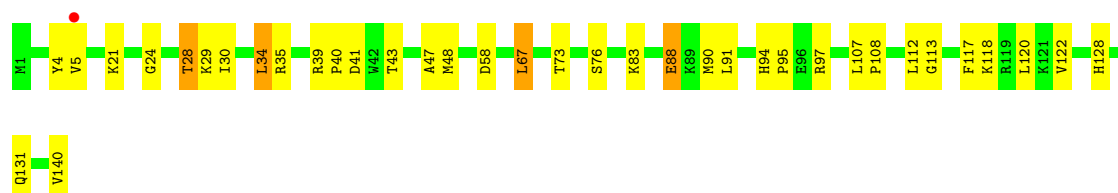
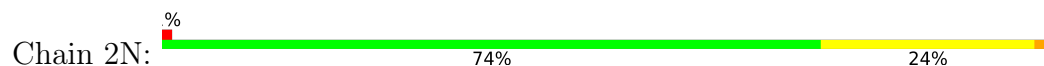
• Molecule 8: 50S ribosomal protein L9



• Molecule 9: 50S ribosomal protein L13



• Molecule 9: 50S ribosomal protein L13



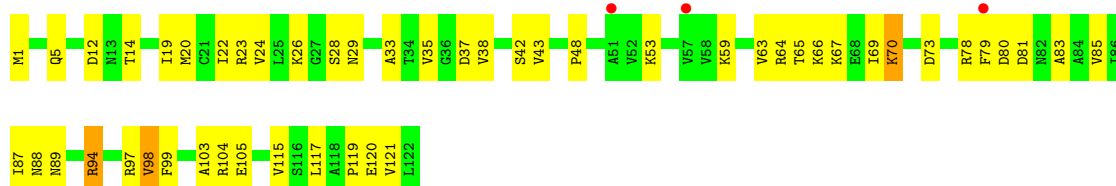
- Molecule 10: 50S ribosomal protein L14

Chain 1O:  64% 33% .



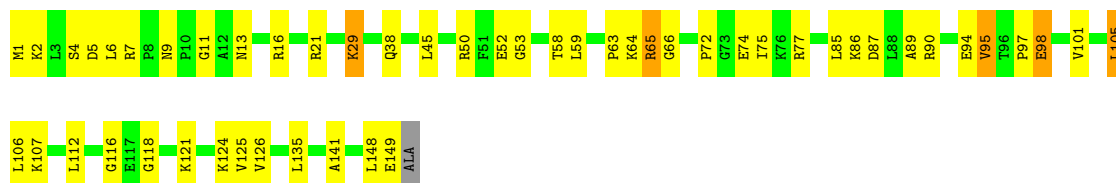
- Molecule 10: 50S ribosomal protein L14

Chain 2O:  2% 59% 39% .



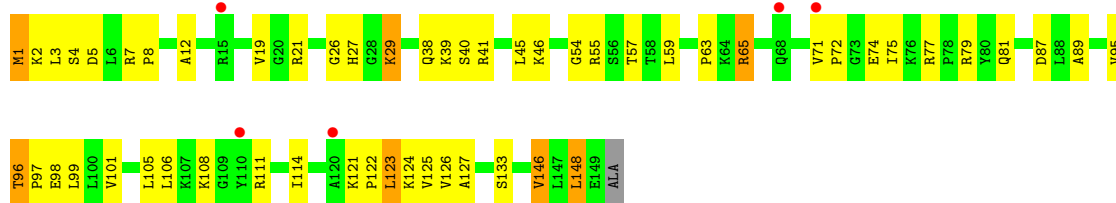
- Molecule 11: 50S ribosomal protein L15

Chain 1P:  65% 31% ..



- Molecule 11: 50S ribosomal protein L15

Chain 2P:  3% 63% 32% 5% .



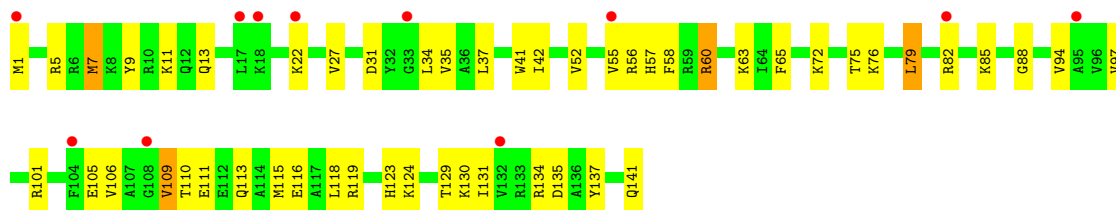
- Molecule 12: 50S ribosomal protein L16

Chain 1Q:  % 71% 28% .

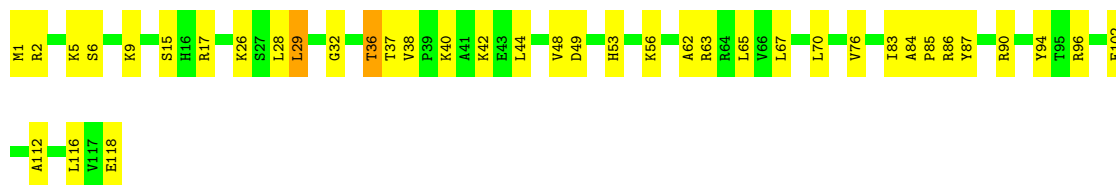




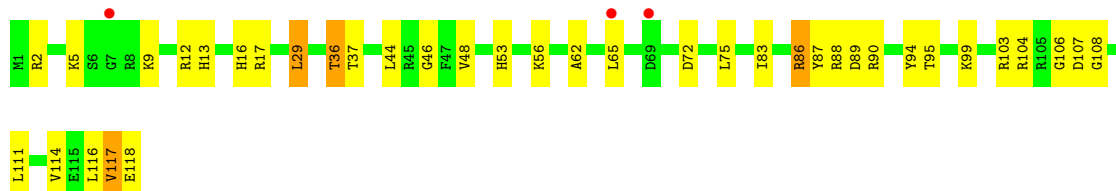
- Molecule 12: 50S ribosomal protein L16



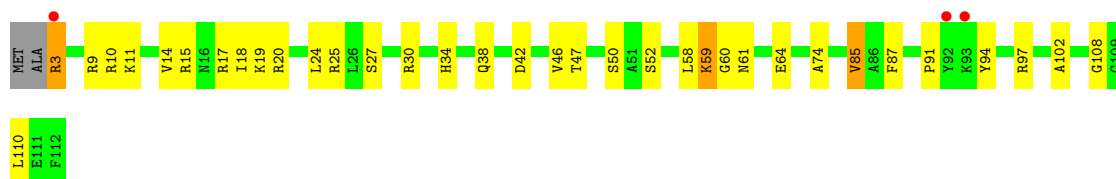
- Molecule 13: 50S ribosomal protein L17



- Molecule 13: 50S ribosomal protein L17

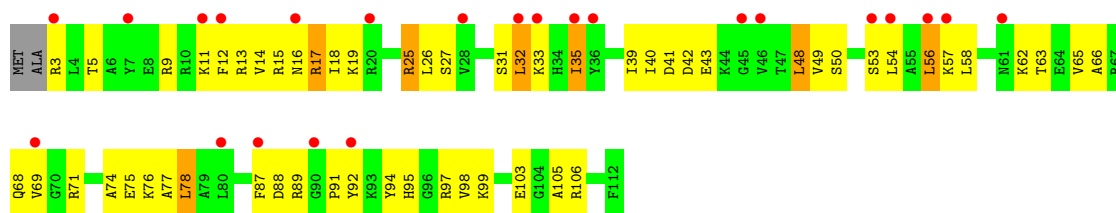


- Molecule 14: 50S ribosomal protein L18



- Molecule 14: 50S ribosomal protein L18

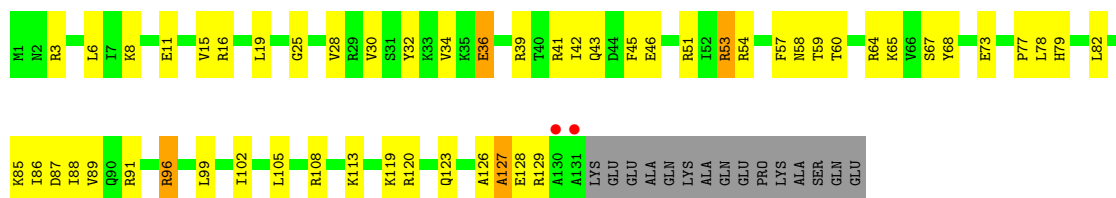




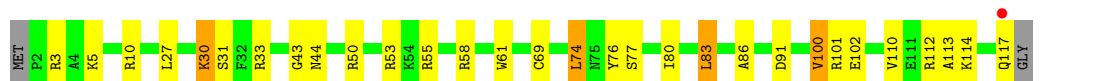
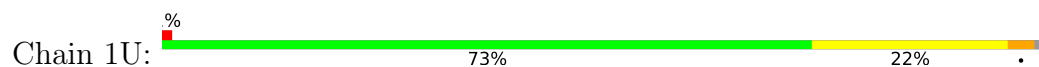
• Molecule 15: 50S ribosomal protein L19



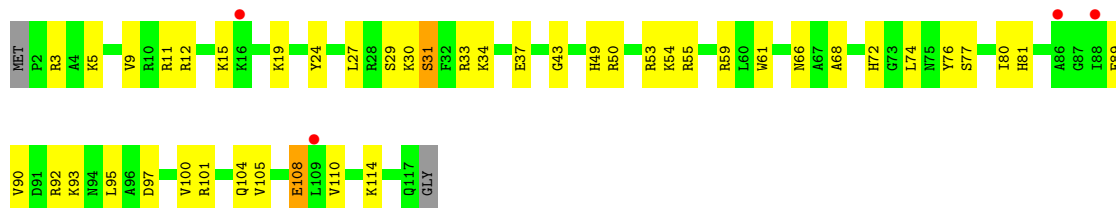
• Molecule 15: 50S ribosomal protein L19



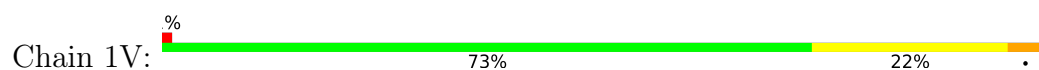
• Molecule 16: 50S ribosomal protein L20



• Molecule 16: 50S ribosomal protein L20

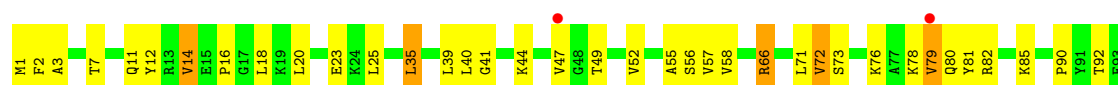


• Molecule 17: 50S ribosomal protein L21





- Molecule 17: 50S ribosomal protein L21



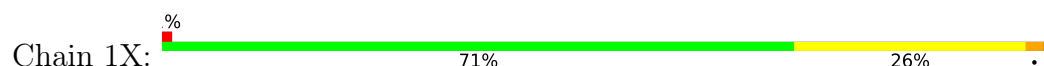
- Molecule 18: 50S ribosomal protein L22



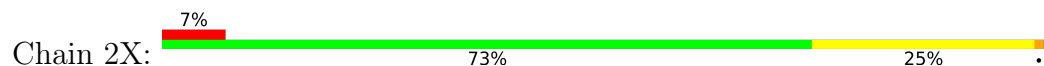
- Molecule 18: 50S ribosomal protein L22



- Molecule 19: 50S ribosomal protein L23



- Molecule 19: 50S ribosomal protein L23

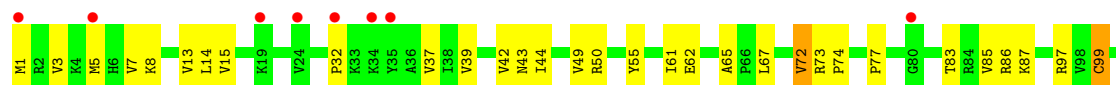


- Molecule 20: 50S ribosomal protein L24

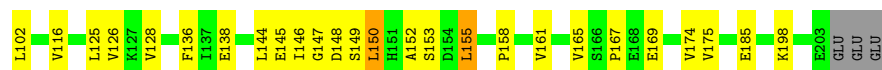
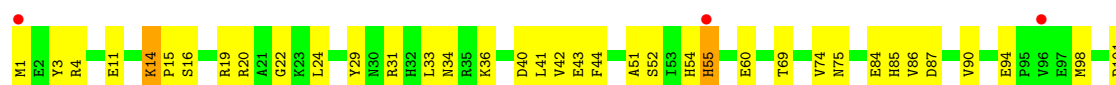




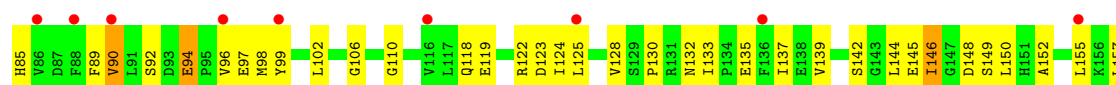
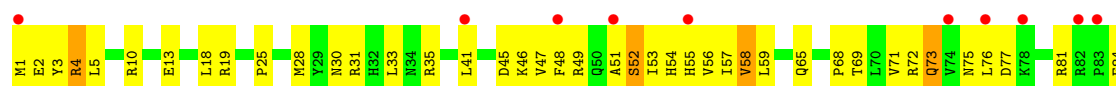
- Molecule 20: 50S ribosomal protein L24



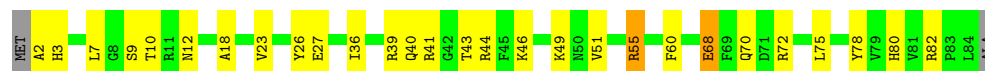
- Molecule 21: 50S ribosomal protein L25



- Molecule 21: 50S ribosomal protein L25

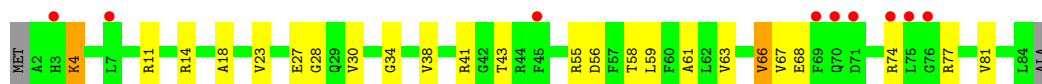


- Molecule 22: 50S ribosomal protein L27

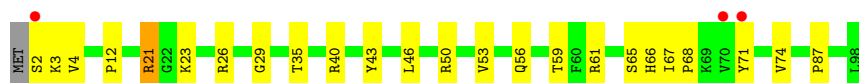
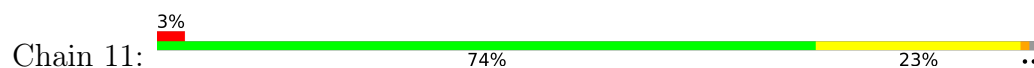


- Molecule 22: 50S ribosomal protein L27

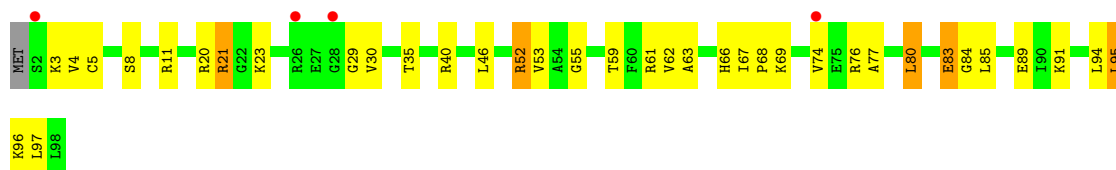




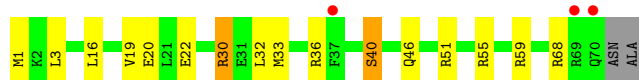
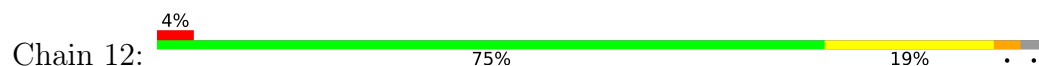
- Molecule 23: 50S ribosomal protein L28



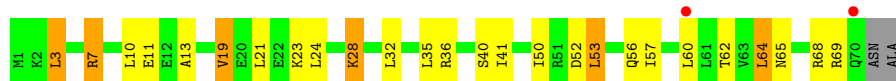
- Molecule 23: 50S ribosomal protein L28



- Molecule 24: 50S ribosomal protein L29



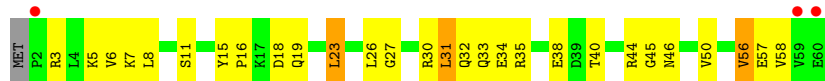
- Molecule 24: 50S ribosomal protein L29



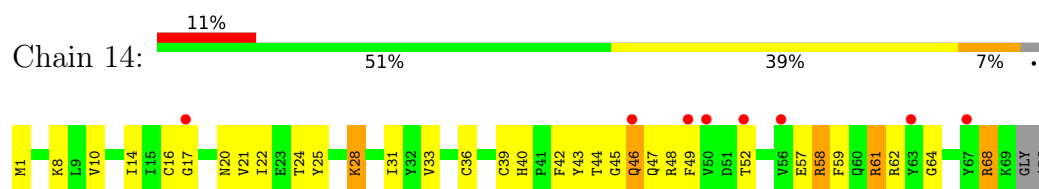
- Molecule 25: 50S ribosomal protein L30



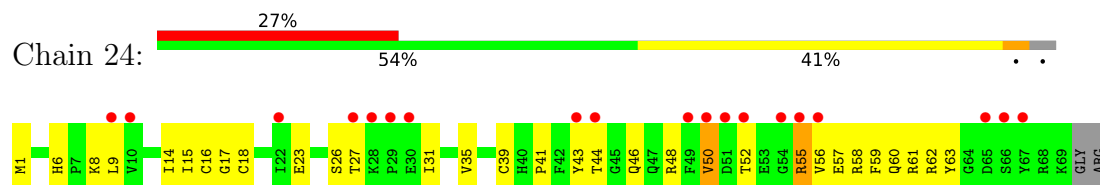
- Molecule 25: 50S ribosomal protein L30



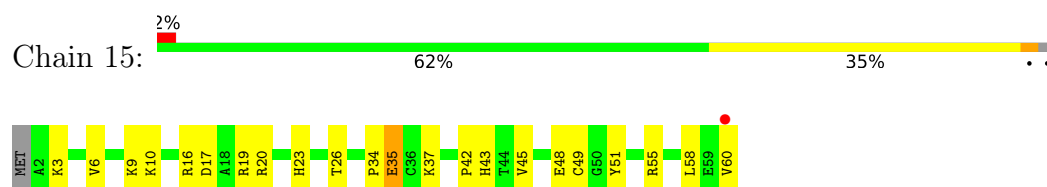
- Molecule 26: 50S ribosomal protein L31



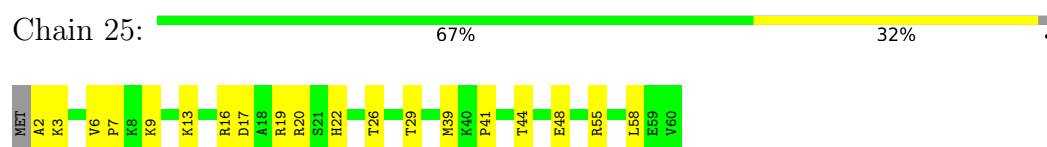
- Molecule 26: 50S ribosomal protein L31



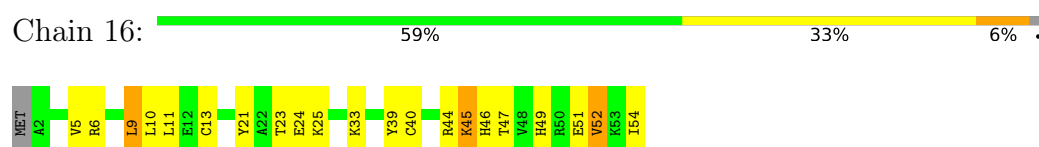
- Molecule 27: 50S ribosomal protein L32



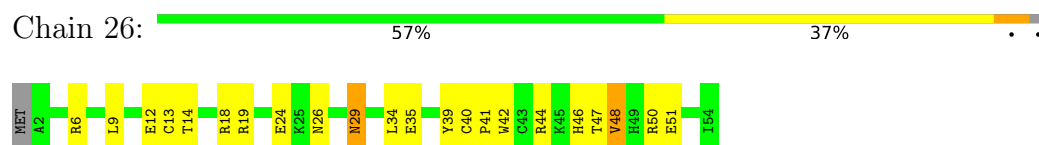
- Molecule 27: 50S ribosomal protein L32



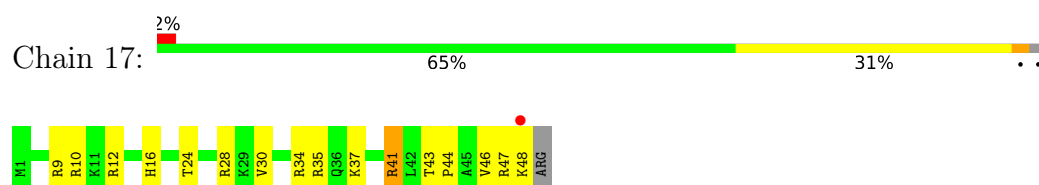
- Molecule 28: 50S ribosomal protein L33



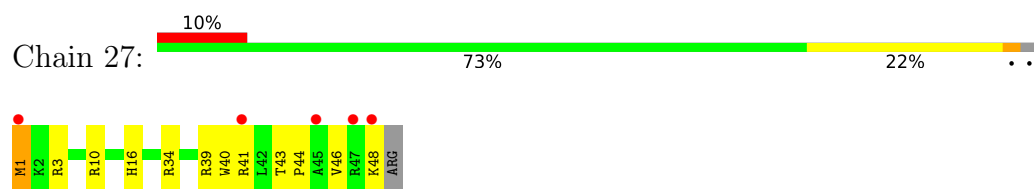
- Molecule 28: 50S ribosomal protein L33



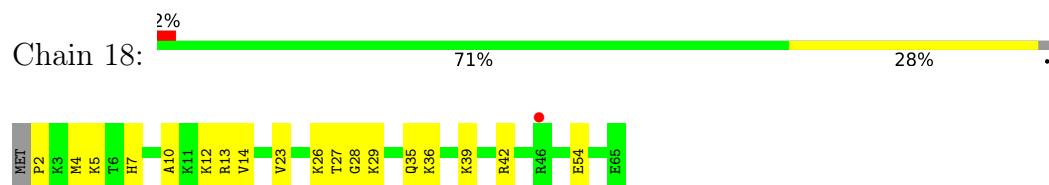
- Molecule 29: 50S ribosomal protein L34



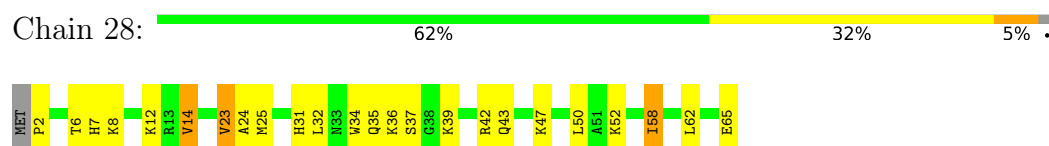
- Molecule 29: 50S ribosomal protein L34



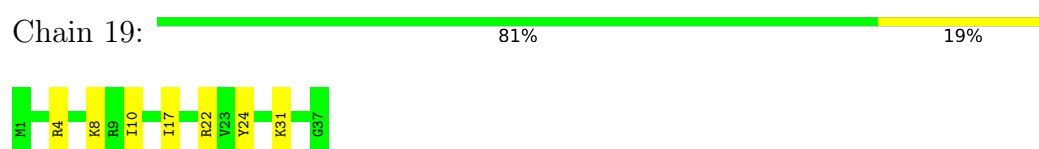
- Molecule 30: 50S ribosomal protein L35



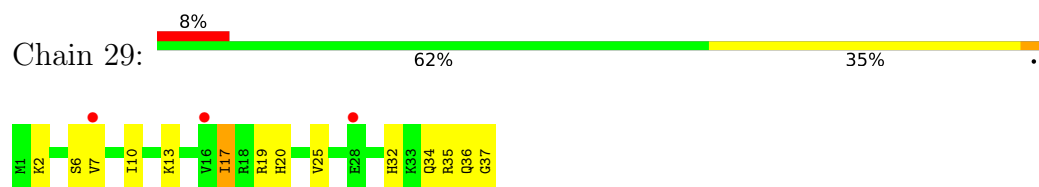
- Molecule 30: 50S ribosomal protein L35



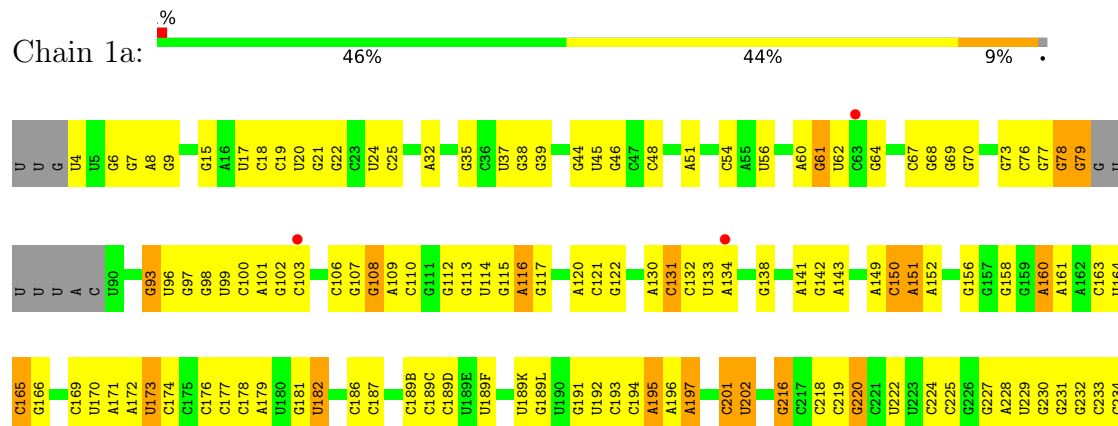
- Molecule 31: 50S ribosomal protein L36



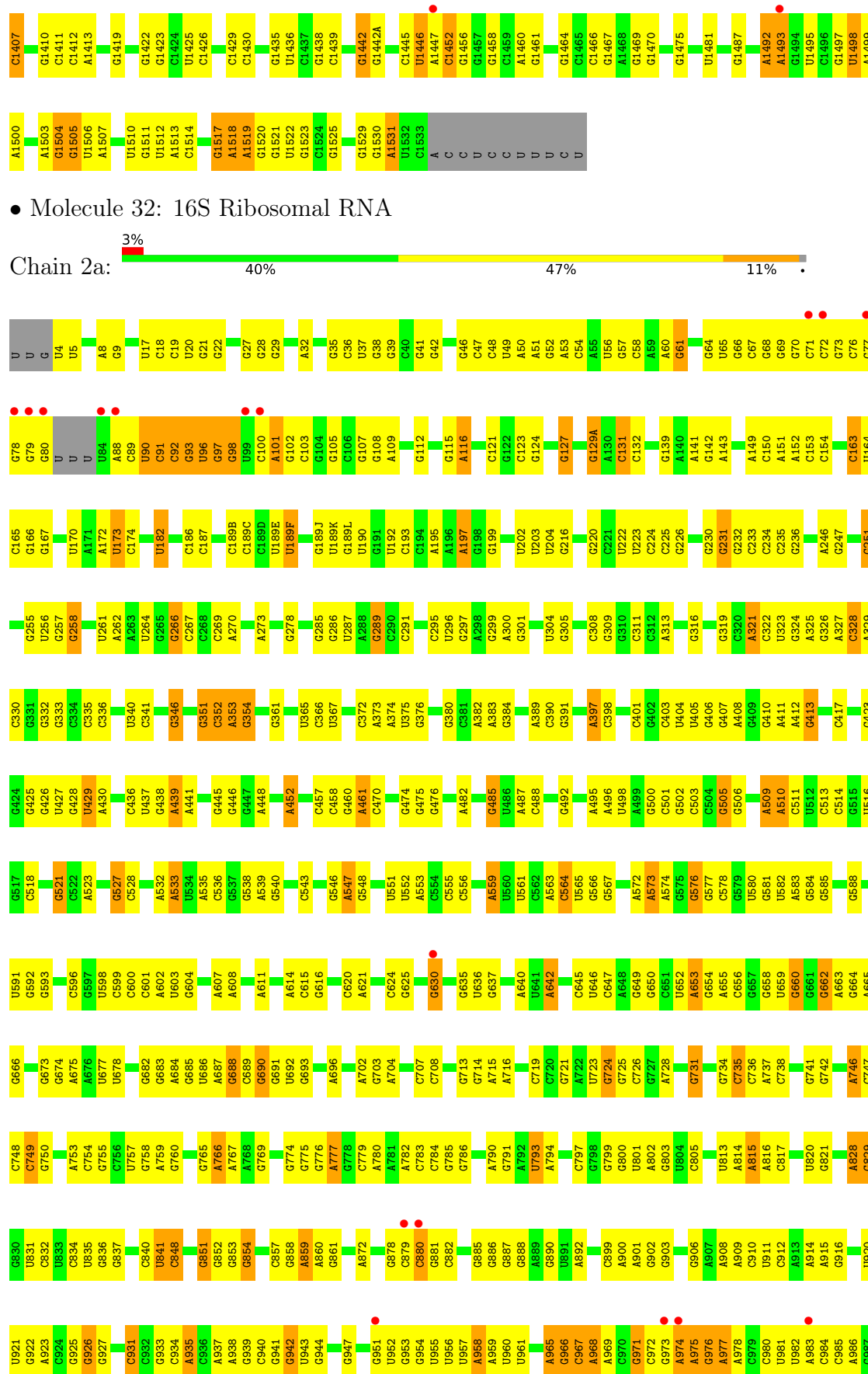
- Molecule 31: 50S ribosomal protein L36

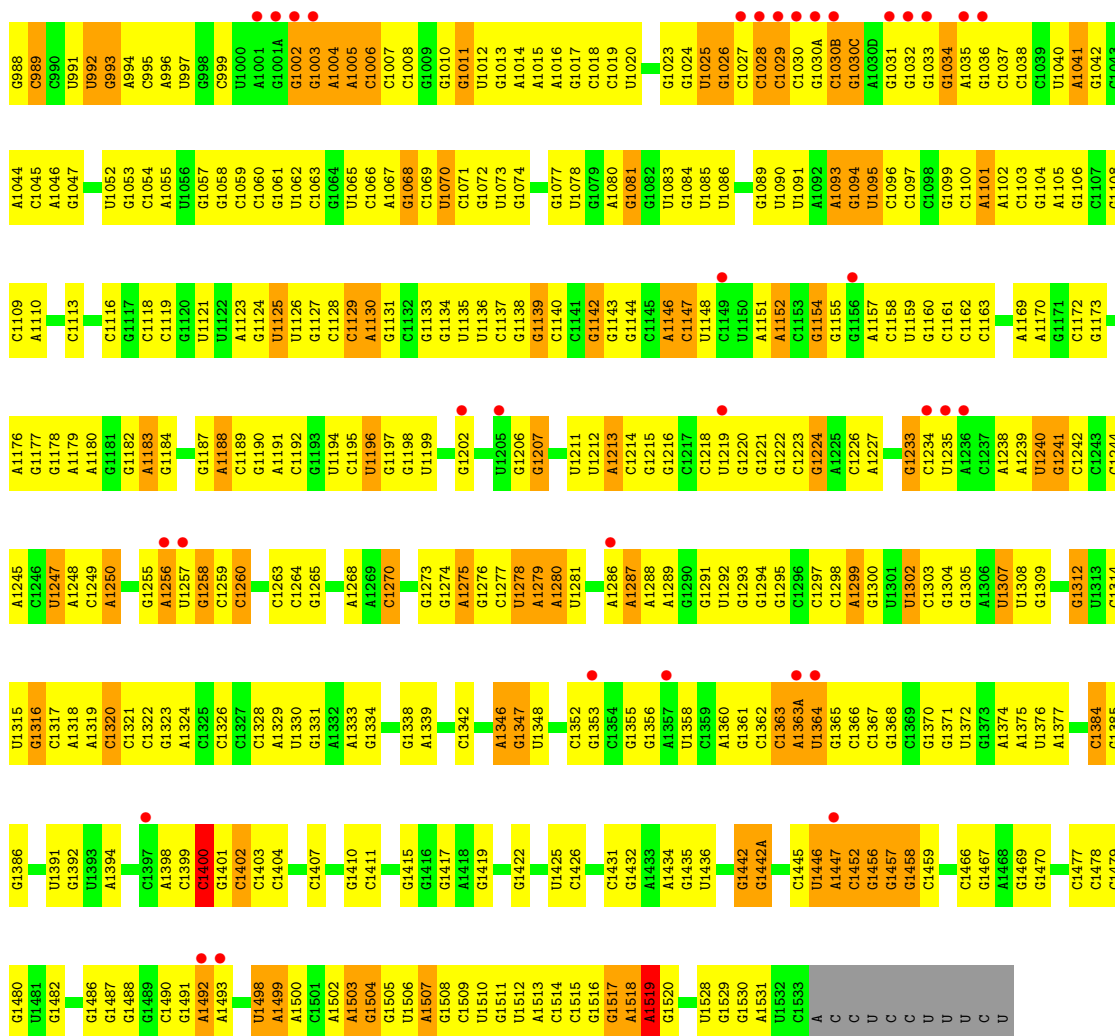


- Molecule 32: 16S Ribosomal RNA

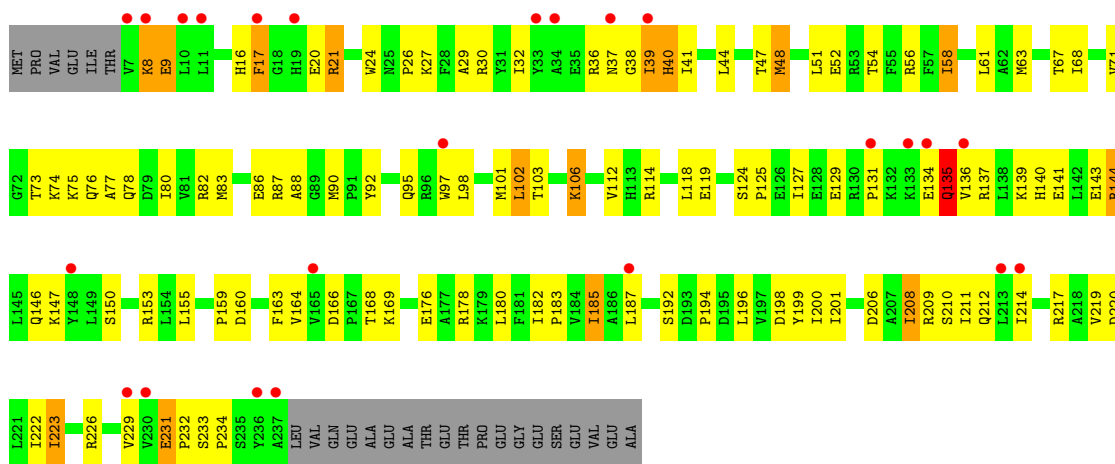


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A1332	U1257	G1178	U1095	A938	U834	C739	A642	U561	C490	C398	A325	A246
A1333	G1258	A1179	C1096	G939	U835	U740	G741	C562	C491	G399	G326	G247
G1336	C1263	A1180	C1097	G942	U836	G744	A648	A563	C492	C401	A327	A250
G1337	C1264	G1181	U1098	G943	G837	C745	G649	U565	A495	U404	C328	G251
A1340	G1265	G1182	U1099	U943	G838	C747	U652	A572	A496	U405	A329	U252
C1344	C1270	A1183	C1100	G944	U839	C748	A653	A574	U498	G406	G332	U253
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G1347	G1277	A1186	C1103	G947	C948	U751	U659	G575	G502	A413	G341	G258
C1352	C1278	C1187	G1104	G951	U850	G752	G660	G577	G503	G414	C342	G259
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A1357	G1283	U1196	U1030A	A959	A859	A759	G673	A583	A510	G424	G346	U264
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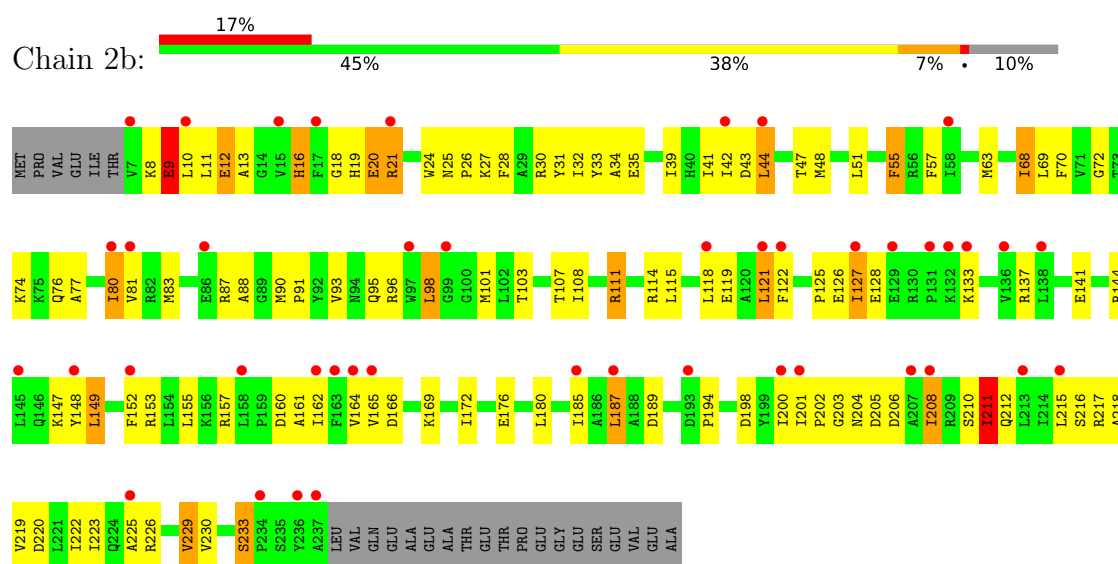




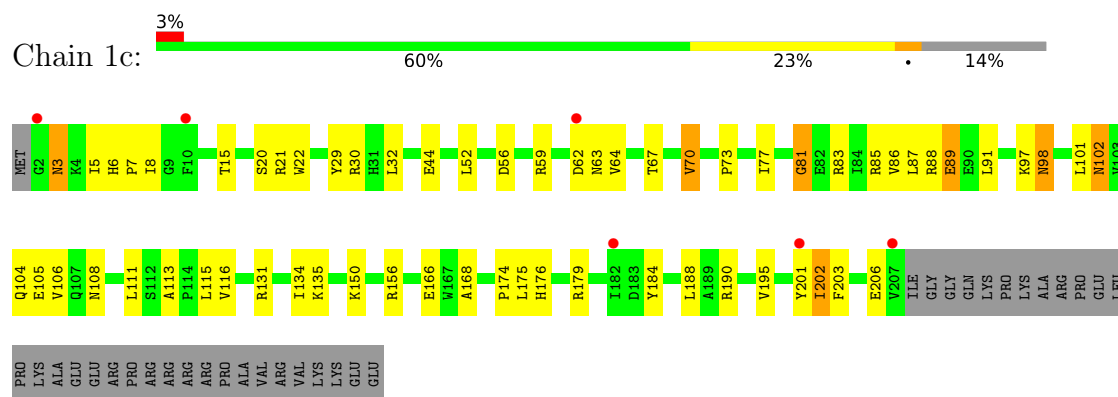
• Molecule 33: 30S ribosomal protein S2



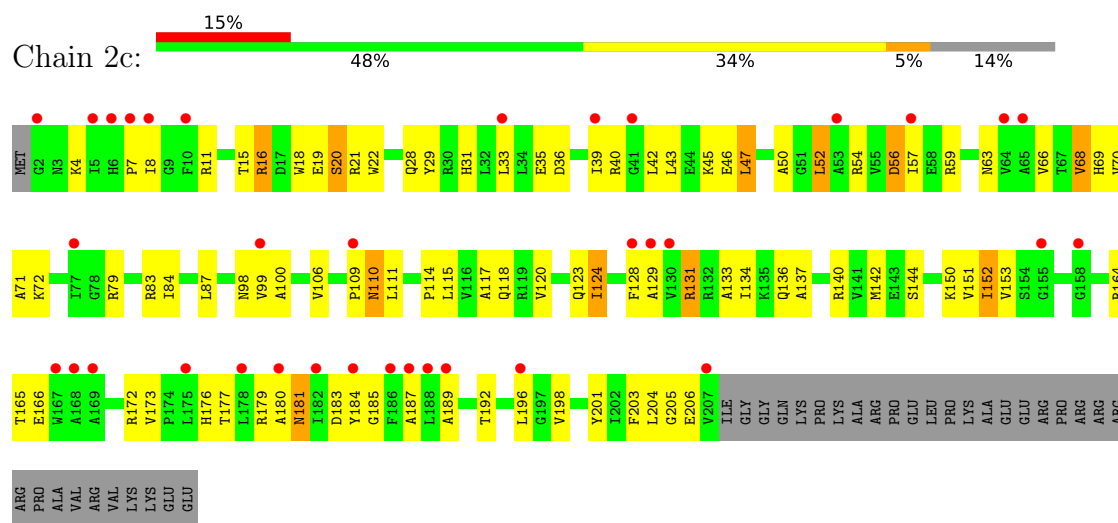
• Molecule 33: 30S ribosomal protein S2



- Molecule 34: 30S ribosomal protein S3

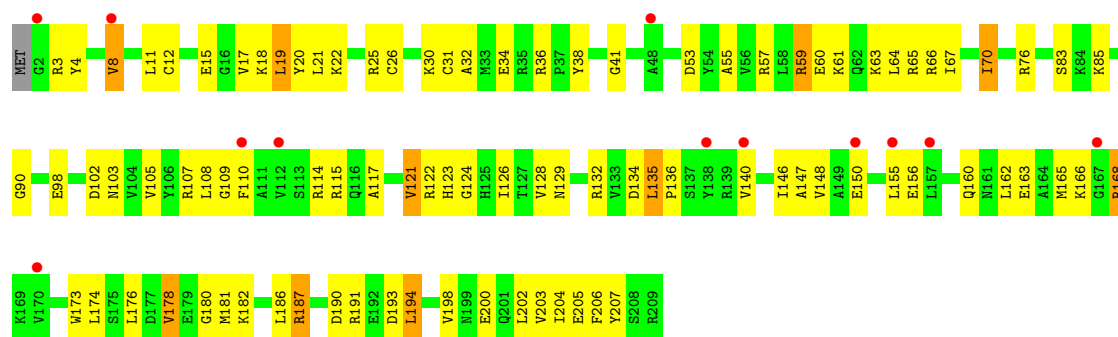


- Molecule 34: 30S ribosomal protein S3

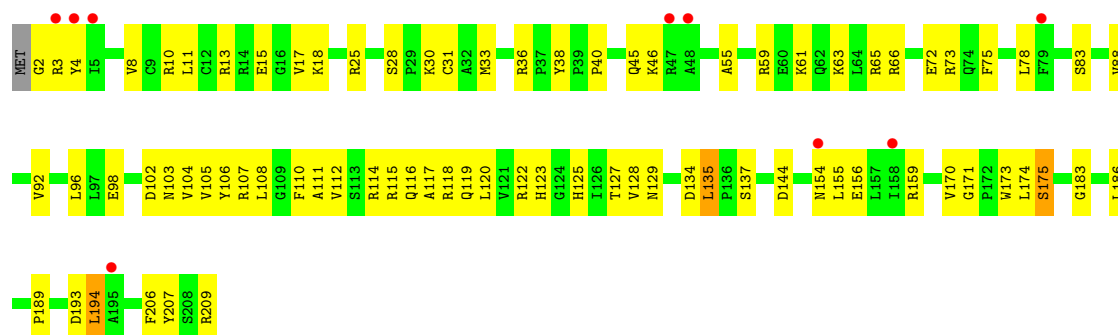


- Molecule 35: 30S ribosomal protein S4

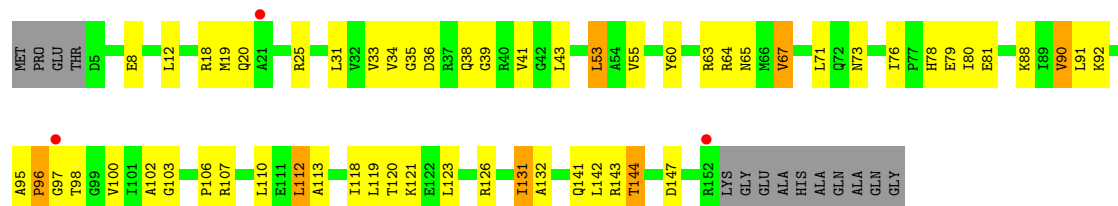




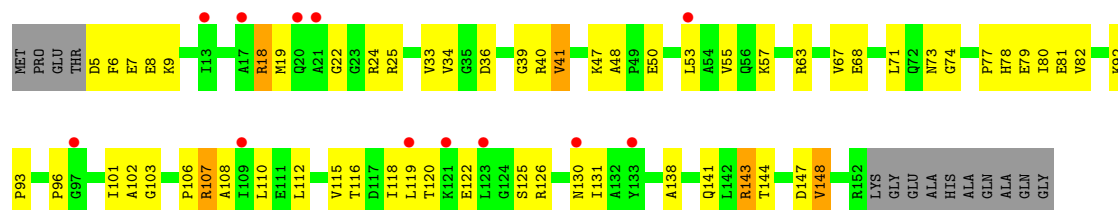
• Molecule 35: 30S ribosomal protein S4



• Molecule 36: 30S ribosomal protein S5



• Molecule 36: 30S ribosomal protein S5



• Molecule 37: 30S ribosomal protein S6

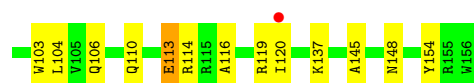




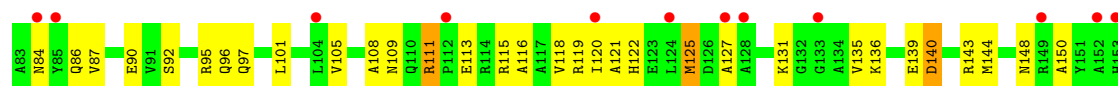
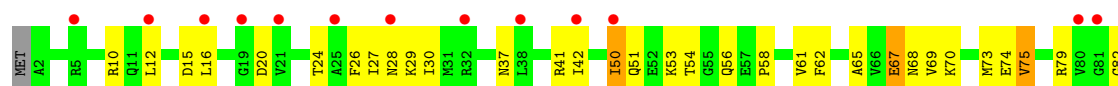
- Molecule 37: 30S ribosomal protein S6



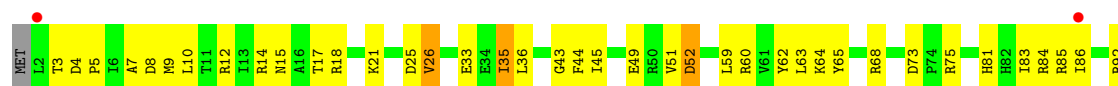
- Molecule 38: 30S ribosomal protein S7



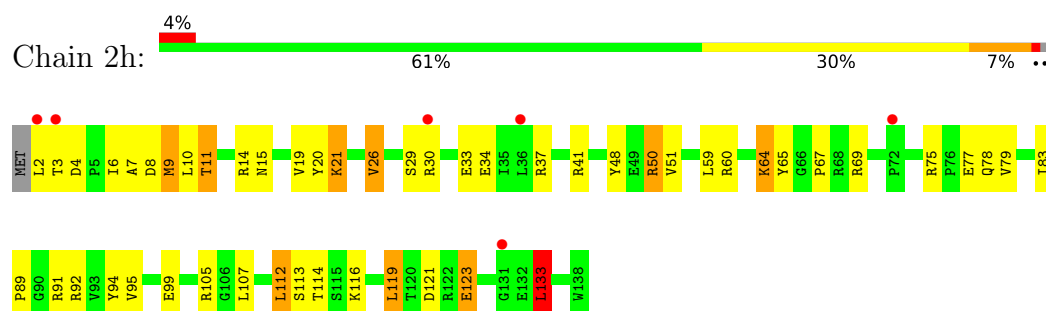
- Molecule 38: 30S ribosomal protein S7



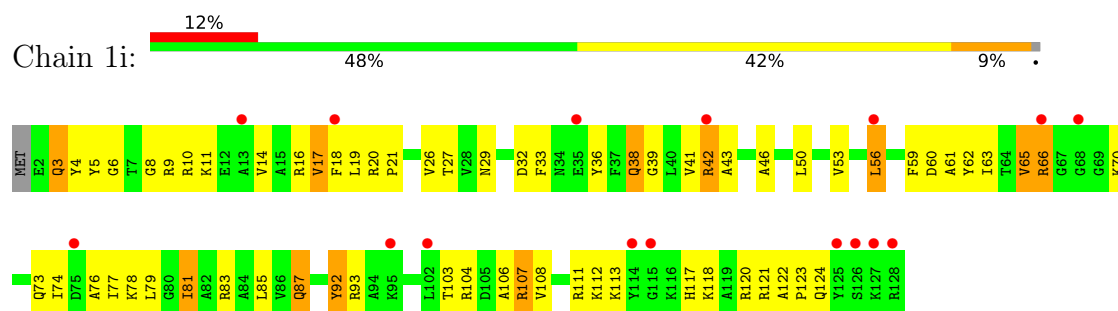
- Molecule 39: 30S ribosomal protein S8



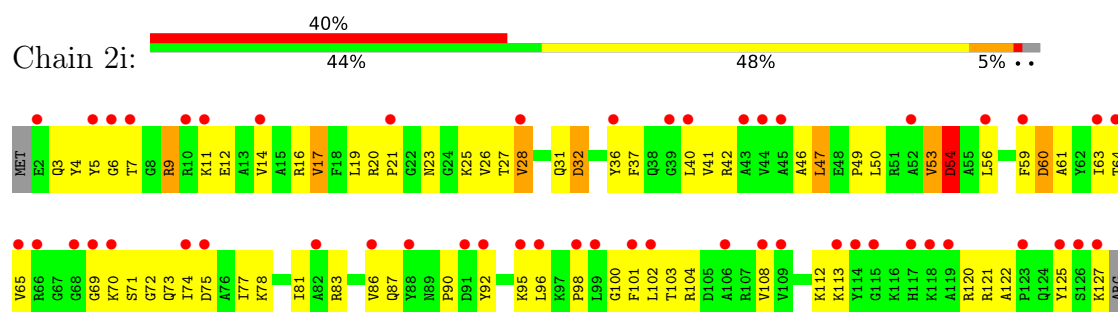
- Molecule 39: 30S ribosomal protein S8



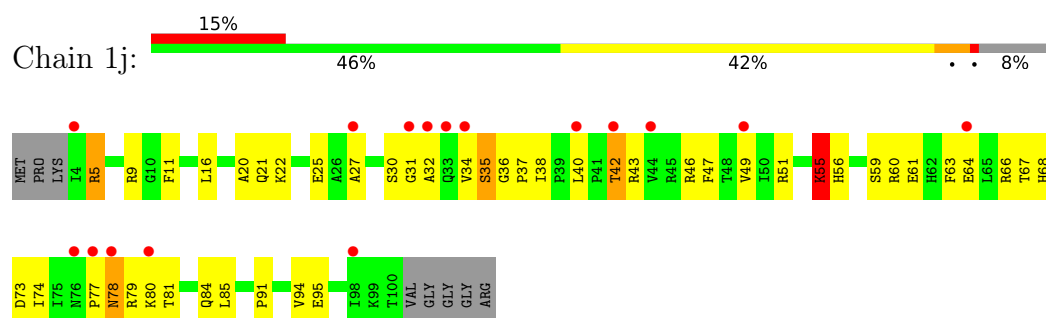
- Molecule 40: 30S ribosomal protein S9



- Molecule 40: 30S ribosomal protein S9

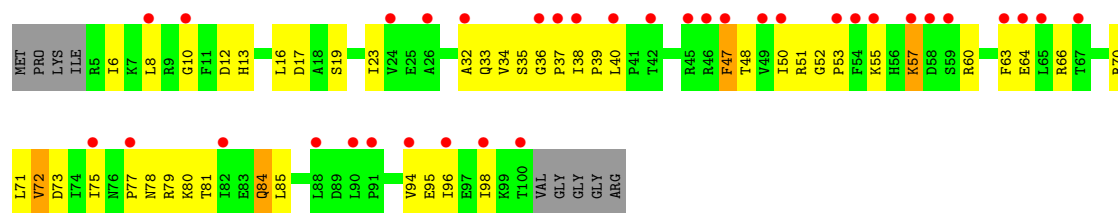


- Molecule 41: 30S ribosomal protein S10

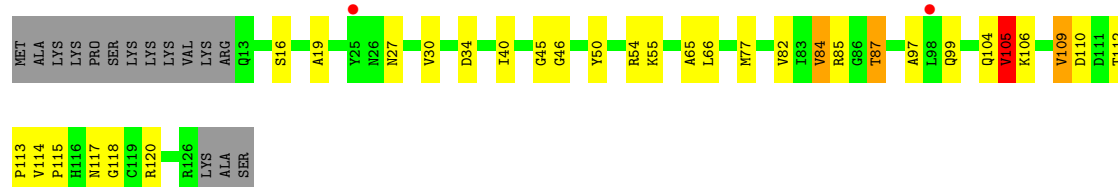


- Molecule 41: 30S ribosomal protein S10

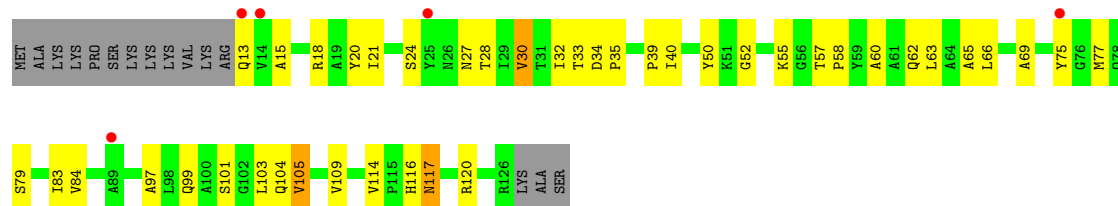




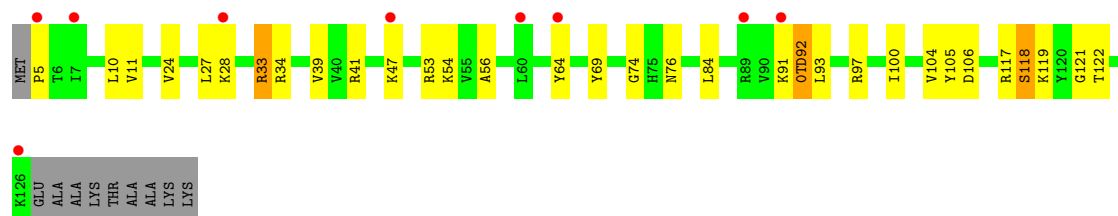
- Molecule 42: 30S ribosomal protein S11



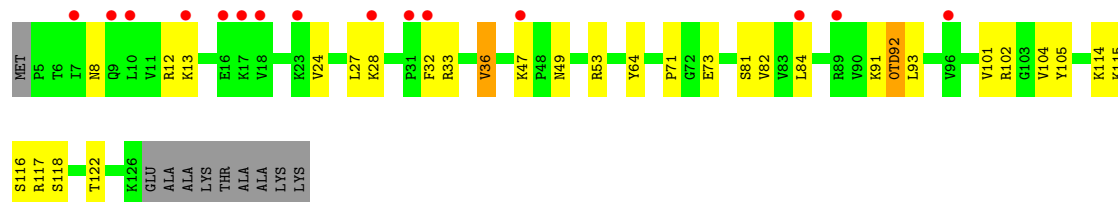
- Molecule 42: 30S ribosomal protein S11



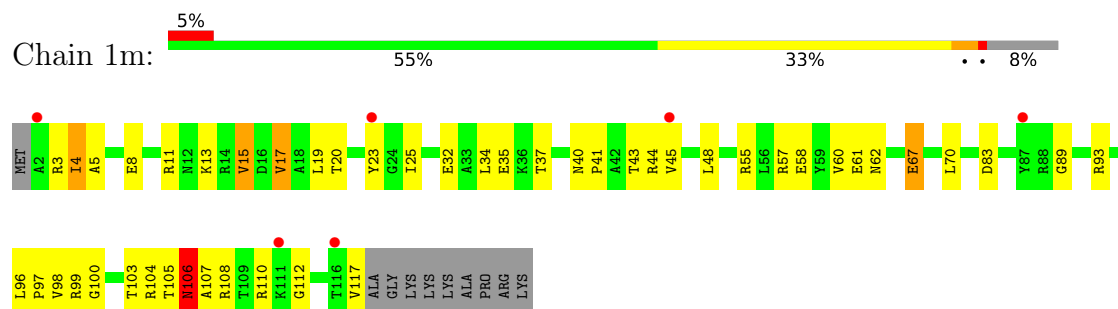
- Molecule 43: 30S ribosomal protein S12



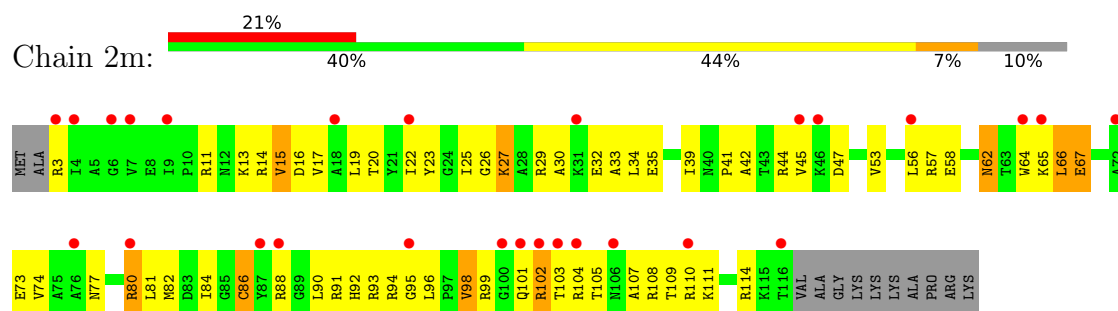
- Molecule 43: 30S ribosomal protein S12



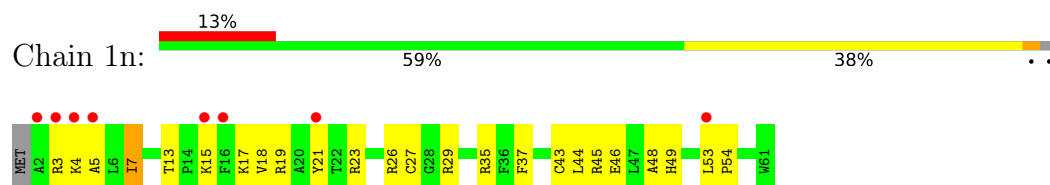
- Molecule 44: 30S ribosomal protein S13



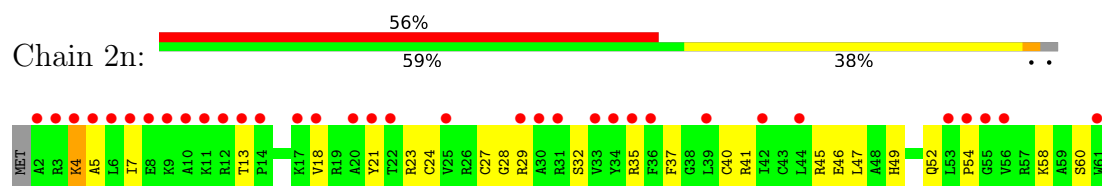
- Molecule 44: 30S ribosomal protein S13



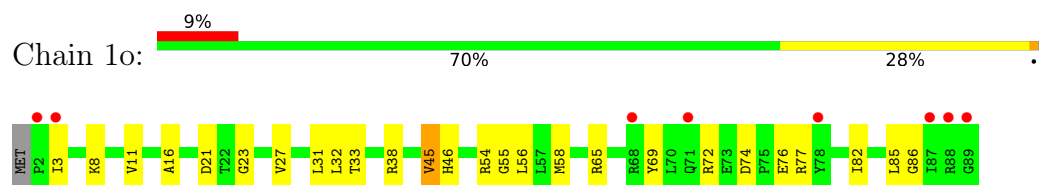
- Molecule 45: 30S ribosomal protein S14 type Z



- Molecule 45: 30S ribosomal protein S14 type Z

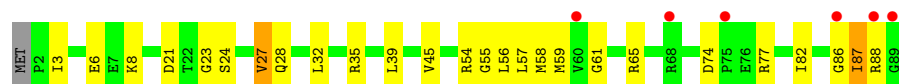


- Molecule 46: 30S ribosomal protein S15

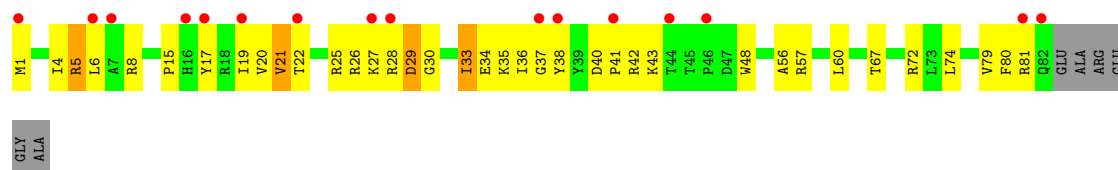


- Molecule 46: 30S ribosomal protein S15





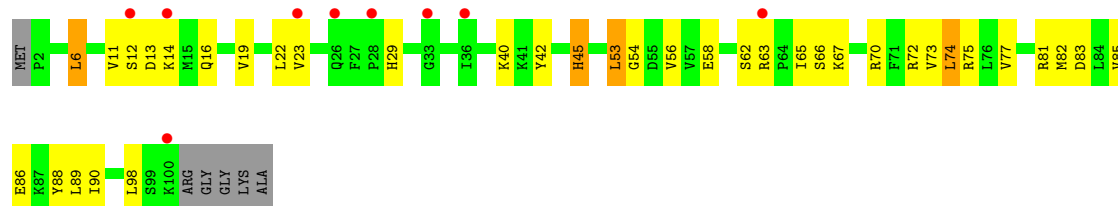
- Molecule 47: 30S ribosomal protein S16



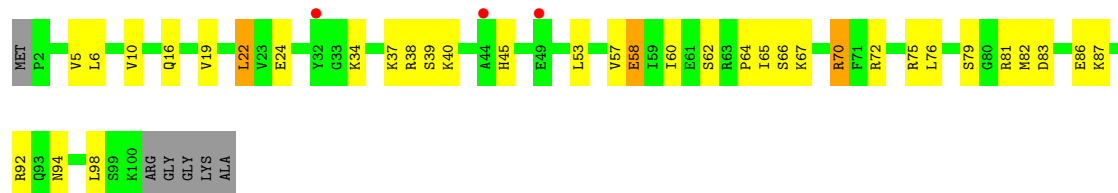
- Molecule 47: 30S ribosomal protein S16



- Molecule 48: 30S ribosomal protein S17



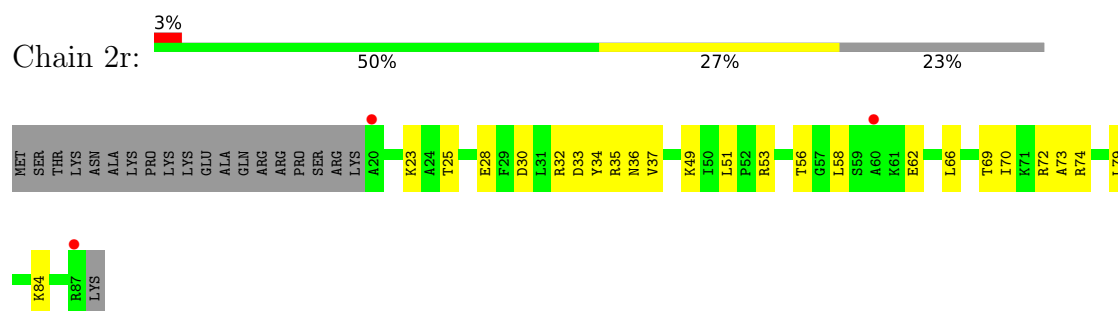
- Molecule 48: 30S ribosomal protein S17



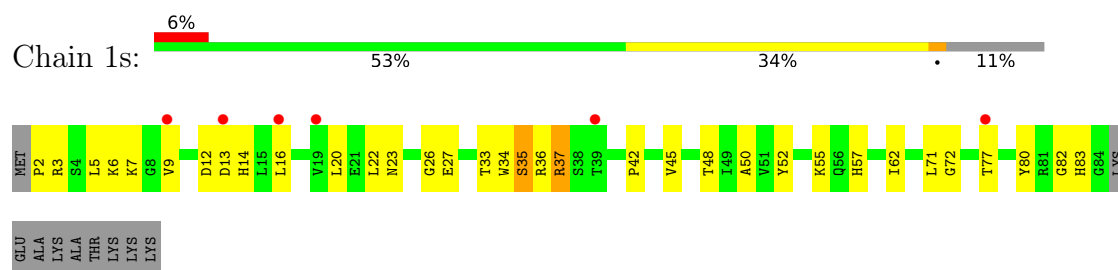
- Molecule 49: 30S ribosomal protein S18



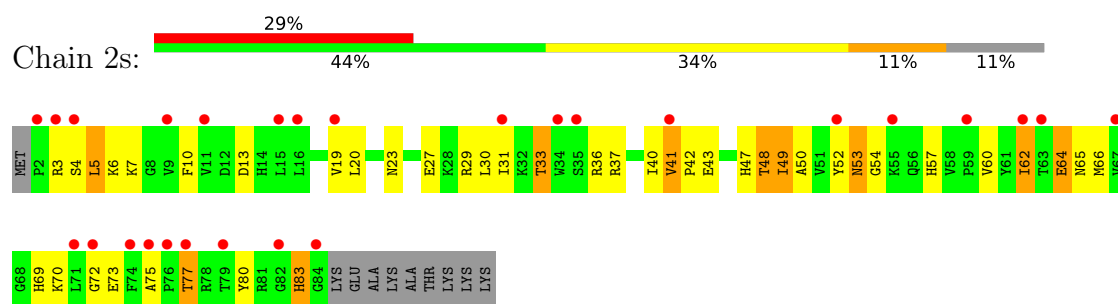
- Molecule 49: 30S ribosomal protein S18



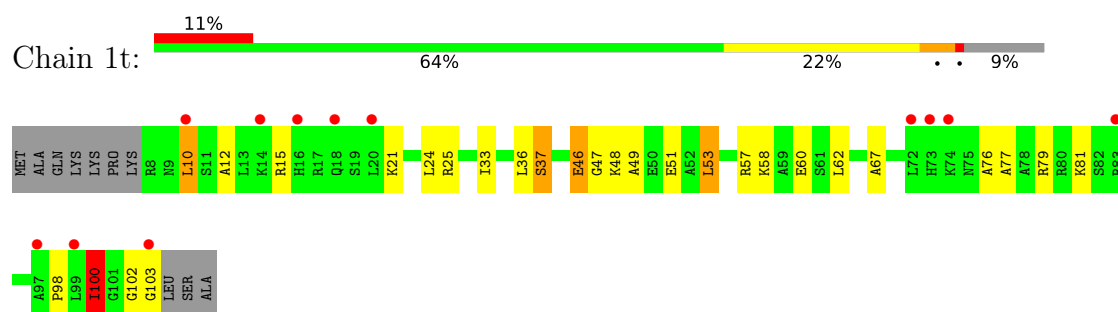
- Molecule 50: 30S ribosomal protein S19



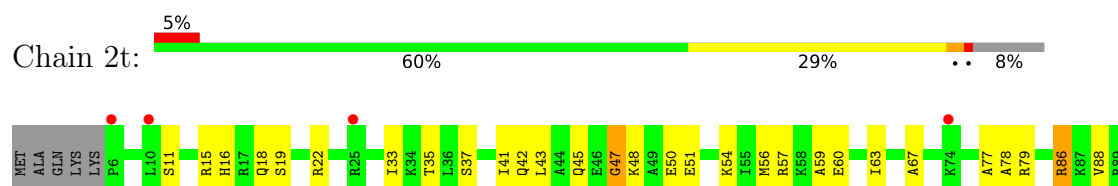
- Molecule 50: 30S ribosomal protein S19

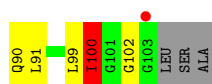


- Molecule 51: 30S ribosomal protein S20

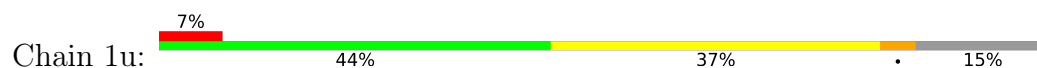


- Molecule 51: 30S ribosomal protein S20

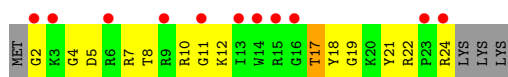




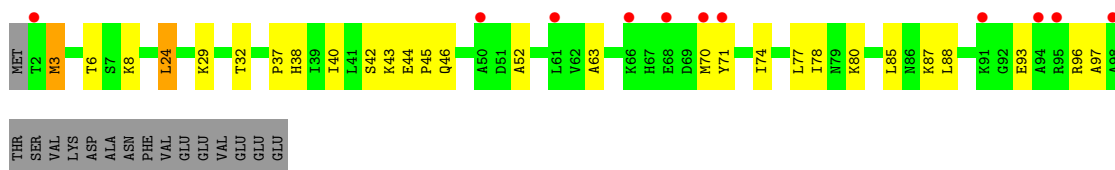
- Molecule 52: 30S ribosomal protein Thx



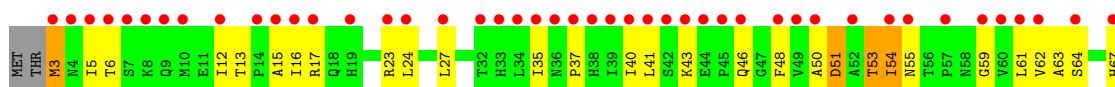
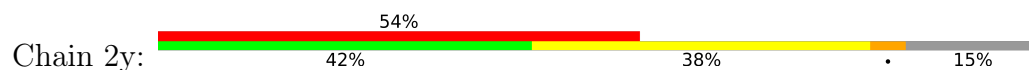
- Molecule 52: 30S ribosomal protein Thx



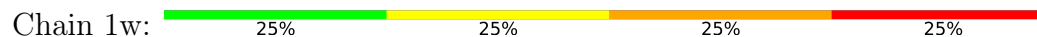
- Molecule 53: Ribosome-associated inhibitor A



- Molecule 53: Ribosome-associated inhibitor A



- Molecule 54: A-site Aminoacyl-tRNA Analog



- Molecule 54: A-site Aminoacyl-tRNA Analog

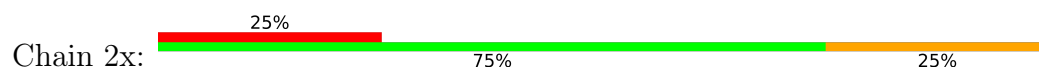




- Molecule 55: P-site Peptidyl-tRNA Analog RNA



- Molecule 55: P-site Peptidyl-tRNA Analog RNA



- Molecule 56: P-site Peptidyl-tRNA Analog Peptide



- Molecule 56: P-site Peptidyl-tRNA Analog Peptide



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	207.11Å 441.13Å 612.49Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	119.32 – 2.65 119.32 – 2.65	Depositor EDS
% Data completeness (in resolution range)	99.0 (119.32-2.65) 99.0 (119.32-2.65)	Depositor EDS
R_{merge}	0.19	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.29 (at 2.65Å)	Xtriage
Refinement program	PHENIX 1.8.2	Depositor
R, R_{free}	0.211 , 0.257 0.214 , 0.258	Depositor DCC
R_{free} test set	79582 reflections (4.97%)	wwPDB-VP
Wilson B-factor (Å ²)	65.4	Xtriage
Anisotropy	0.172	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.30 , 47.1	EDS
L-test for twinning ²	$\langle L \rangle = 0.40$, $\langle L^2 \rangle = 0.22$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.94	EDS
Total number of atoms	295092	wwPDB-VP
Average B, all atoms (Å ²)	73.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.72% 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: PPU, 2MG, SF4, PSU, 2MU, 8AN, 5MC, MPD, OMC, 4OC, ZN, OMG, UR3, 0TD, FME, MG, G7M, 2MA, 5MU, M2G, MA6

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	0.31	0/69030	0.47	0/107750
1	2A	0.24	0/68902	0.42	1/107548 (0.0%)
2	1B	0.25	0/2876	0.42	0/4486
2	2B	0.20	0/2878	0.39	0/4490
3	1D	0.30	0/2181	0.53	0/2940
3	2D	0.25	0/2186	0.49	0/2944
4	1E	0.27	0/1592	0.49	0/2149
4	2E	0.25	0/1592	0.46	0/2149
5	1F	0.27	0/1619	0.47	0/2193
5	2F	0.21	0/1615	0.46	0/2188
6	1G	0.21	0/1451	0.45	0/1961
6	2G	0.23	0/1449	0.48	0/1957
7	1H	0.23	0/1356	0.44	0/1834
7	2H	0.19	0/1350	0.41	0/1826
8	1I	0.19	0/1109	0.44	0/1512
8	2I	0.22	0/1091	0.48	0/1490
9	1N	0.28	0/1148	0.48	0/1547
9	2N	0.21	0/1144	0.39	0/1543
10	1O	0.28	0/943	0.49	0/1269
10	2O	0.22	0/943	0.45	0/1269
11	1P	0.27	0/1152	0.53	0/1533
11	2P	0.22	0/1152	0.51	1/1533 (0.1%)
12	1Q	0.30	0/1143	0.49	0/1527
12	2Q	0.21	0/1143	0.43	0/1527
13	1R	0.29	0/982	0.50	0/1312
13	2R	0.24	0/982	0.46	0/1312
14	1S	0.23	0/887	0.49	0/1180
14	2S	0.21	0/880	0.45	0/1172
15	1T	0.26	0/1105	0.46	0/1477
15	2T	0.23	0/1097	0.46	0/1468
16	1U	0.28	0/977	0.47	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
16	2U	0.19	0/977	0.40	0/1301
17	1V	0.27	0/786	0.46	0/1053
17	2V	0.19	0/782	0.39	0/1049
18	1W	0.30	0/897	0.49	0/1205
18	2W	0.23	0/897	0.41	0/1205
19	1X	0.28	0/764	0.47	0/1025
19	2X	0.22	0/764	0.41	0/1025
20	1Y	0.25	0/823	0.52	0/1099
20	2Y	0.21	0/823	0.41	0/1100
21	1Z	0.24	0/1620	0.46	0/2200
21	2Z	0.21	0/1590	0.45	0/2162
22	10	0.28	0/662	0.51	0/881
22	20	0.22	0/659	0.48	0/877
23	11	0.27	0/761	0.45	0/1013
23	21	0.25	0/766	0.46	0/1018
24	12	0.25	0/590	0.46	0/781
24	22	0.21	0/594	0.37	0/785
25	13	0.27	0/474	0.49	0/635
25	23	0.20	0/469	0.44	0/630
26	14	0.22	0/559	0.56	0/754
26	24	0.27	0/549	0.56	0/741
27	15	0.30	0/473	0.49	0/639
27	25	0.24	0/469	0.44	0/635
28	16	0.27	0/460	0.48	0/613
28	26	0.23	0/456	0.46	0/608
29	17	0.32	0/426	0.56	0/561
29	27	0.26	0/426	0.51	0/561
30	18	0.30	0/525	0.51	0/691
30	28	0.22	0/525	0.42	0/691
31	19	0.29	0/310	0.50	0/407
31	29	0.20	0/310	0.41	0/407
32	1a	0.22	0/35795	0.40	0/55864
32	2a	0.21	0/35890	0.39	0/56012
33	1b	0.21	0/1876	0.46	0/2533
33	2b	0.22	0/1860	0.49	0/2518
34	1c	0.19	0/1582	0.39	0/2137
34	2c	0.20	0/1566	0.40	0/2119
35	1d	0.20	0/1695	0.42	0/2274
35	2d	0.20	0/1698	0.44	0/2277
36	1e	0.22	0/1149	0.44	0/1548
36	2e	0.20	0/1149	0.41	0/1548
37	1f	0.23	0/827	0.41	0/1120
37	2f	0.18	0/829	0.44	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	1g	0.18	0/1254	0.39	0/1683
38	2g	0.20	0/1248	0.39	0/1676
39	1h	0.21	0/1118	0.43	0/1506
39	2h	0.19	0/1108	0.44	0/1494
40	1i	0.19	0/1005	0.42	0/1351
40	2i	0.21	0/985	0.46	0/1329
41	1j	0.22	0/732	0.43	0/993
41	2j	0.22	0/723	0.44	0/984
42	1k	0.21	0/849	0.40	0/1150
42	2k	0.20	0/848	0.44	0/1149
43	1l	0.21	0/937	0.44	0/1260
43	2l	0.20	0/937	0.44	0/1260
44	1m	0.21	0/924	0.45	0/1242
44	2m	0.22	0/905	0.46	0/1217
45	1n	0.22	0/501	0.45	0/664
45	2n	0.19	0/501	0.40	0/664
46	1o	0.21	0/739	0.38	0/985
46	2o	0.18	0/739	0.37	0/985
47	1p	0.24	0/697	0.50	0/939
47	2p	0.24	0/693	0.49	0/935
48	1q	0.20	0/836	0.43	0/1117
48	2q	0.21	0/836	0.44	0/1117
49	1r	0.22	0/560	0.45	0/746
49	2r	0.18	0/560	0.38	0/746
50	1s	0.19	0/663	0.48	0/895
50	2s	0.21	0/660	0.45	0/893
51	1t	0.19	0/734	0.43	0/969
51	2t	0.20	0/736	0.47	0/976
52	1u	0.21	0/203	0.45	0/266
52	2u	0.23	0/203	0.47	0/266
53	1y	0.20	0/776	0.45	0/1048
53	2y	0.25	0/761	0.48	0/1030
54	1w	1.70	1/44 (2.3%)	1.60	2/67 (3.0%)
54	2w	1.56	1/44 (2.3%)	1.28	1/67 (1.5%)
55	1x	0.27	0/44	0.50	0/67
55	2x	0.31	0/44	0.49	0/67
56	1v	0.41	0/12	0.45	0/15
56	2v	0.26	0/12	0.40	0/15
All	All	0.25	2/310228 (0.0%)	0.44	5/463645 (0.0%)

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

sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
14	1S	0	1
33	2b	0	1
All	All	0	2

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	1w	74	C	O3'-P	-6.67	1.51	1.61
54	2w	74	C	O3'-P	-5.95	1.52	1.61

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	1w	75	C	C3'-C2'-O2'	-6.98	100.22	110.70
54	1w	75	C	C2'-C3'-O3'	-6.85	103.43	113.70
54	2w	75	C	C4'-C3'-O3'	-6.76	102.86	113.00
11	2P	26	GLY	N-CA-C	-5.44	108.34	115.47
1	2A	1992	G	C2'-C3'-O3'	5.17	117.26	109.50

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
14	1S	58	LEU	Peptide
33	2b	127	ILE	Peptide

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1A	61869	0	31201	1038	0
1	2A	61758	0	31148	1129	0
2	1B	2572	0	1305	38	0
2	2B	2573	0	1306	67	0
3	1D	2131	0	2207	53	0
3	2D	2136	0	2218	67	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	1E	1559	0	1618	47	0
4	2E	1559	0	1618	38	0
5	1F	1584	0	1625	42	0
5	2F	1580	0	1619	65	0
6	1G	1426	0	1445	63	0
6	2G	1424	0	1441	83	0
7	1H	1330	0	1407	40	0
7	2H	1324	0	1402	59	0
8	1I	1094	0	1127	30	0
8	2I	1076	0	1094	48	0
9	1N	1121	0	1195	29	0
9	2N	1117	0	1184	24	0
10	1O	933	0	996	35	0
10	2O	933	0	996	35	0
11	1P	1135	0	1212	42	0
11	2P	1135	0	1212	41	0
12	1Q	1122	0	1177	27	0
12	2Q	1122	0	1177	39	0
13	1R	968	0	1033	26	0
13	2R	968	0	1033	29	0
14	1S	877	0	938	24	0
14	2S	870	0	923	49	0
15	1T	1091	0	1151	25	0
15	2T	1083	0	1136	40	0
16	1U	959	0	1019	26	0
16	2U	959	0	1019	43	0
17	1V	775	0	841	22	0
17	2V	771	0	830	29	0
18	1W	886	0	940	22	0
18	2W	886	0	940	22	0
19	1X	750	0	814	21	0
19	2X	750	0	814	15	0
20	1Y	810	0	892	21	0
20	2Y	810	0	887	22	0
21	1Z	1587	0	1598	43	0
21	2Z	1557	0	1564	68	0
22	10	653	0	674	27	0
22	20	650	0	665	17	0
23	11	754	0	823	15	0
23	21	759	0	837	27	0
24	12	588	0	643	13	0
24	22	592	0	654	15	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
25	13	469	0	518	13	0
25	23	464	0	514	18	0
26	14	546	0	522	25	0
26	24	536	0	514	19	0
27	15	459	0	476	13	0
27	25	455	0	465	14	0
28	16	453	0	473	13	0
28	26	449	0	469	14	0
29	17	418	0	467	17	0
29	27	418	0	467	8	0
30	18	517	0	582	13	0
30	28	517	0	582	21	0
31	19	307	0	335	3	0
31	29	307	0	335	12	0
32	1a	32246	0	16294	605	0
32	2a	32331	0	16338	717	0
33	1b	1842	0	1862	72	0
33	2b	1825	0	1828	85	0
34	1c	1558	0	1557	40	0
34	2c	1542	0	1517	69	0
35	1d	1665	0	1687	71	0
35	2d	1668	0	1703	61	0
36	1e	1133	0	1191	43	0
36	2e	1133	0	1191	41	0
37	1f	814	0	808	15	0
37	2f	816	0	808	32	0
38	1g	1235	0	1249	27	0
38	2g	1229	0	1238	46	0
39	1h	1098	0	1143	46	0
39	2h	1088	0	1126	41	0
40	1i	986	0	990	64	0
40	2i	966	0	953	59	0
41	1j	719	0	672	39	0
41	2j	710	0	661	35	0
42	1k	834	0	838	22	0
42	2k	833	0	836	25	0
43	1l	932	0	981	21	0
43	2l	932	0	981	24	0
44	1m	914	0	954	34	0
44	2m	895	0	920	55	0
45	1n	492	0	528	17	0
45	2n	492	0	529	24	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
46	1o	728	0	760	15	0
46	2o	728	0	760	19	0
47	1p	681	0	697	29	0
47	2p	677	0	686	17	0
48	1q	823	0	891	26	0
48	2q	823	0	891	23	0
49	1r	555	0	618	14	0
49	2r	555	0	618	17	0
50	1s	648	0	658	27	0
50	2s	645	0	635	36	0
51	1t	732	0	809	20	0
51	2t	733	0	795	23	0
52	1u	199	0	208	8	0
52	2u	199	0	208	12	0
53	1y	764	0	786	23	0
53	2y	749	0	757	38	0
54	1w	78	0	50	9	0
54	2w	78	0	50	9	0
55	1x	63	0	33	3	0
55	2x	63	0	33	1	0
56	1v	23	0	26	0	0
56	2v	23	0	26	1	0
57	10	7	0	0	0	0
57	11	5	0	0	0	0
57	13	4	0	0	0	0
57	15	7	0	0	0	0
57	17	4	0	0	0	0
57	18	3	0	0	0	0
57	19	2	0	0	0	0
57	1A	1004	0	0	0	0
57	1B	30	0	0	0	0
57	1D	17	0	0	0	0
57	1E	9	0	0	0	0
57	1F	15	0	0	0	0
57	1G	4	0	0	0	0
57	1H	2	0	0	0	0
57	1N	4	0	0	0	0
57	1O	1	0	0	0	0
57	1P	5	0	0	0	0
57	1Q	9	0	0	0	0
57	1R	5	0	0	0	0
57	1S	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	1T	6	0	0	0	0
57	1U	5	0	0	0	0
57	1V	7	0	0	0	0
57	1W	4	0	0	0	0
57	1Z	1	0	0	0	0
57	1a	257	0	0	0	0
57	1b	1	0	0	0	0
57	1d	5	0	0	0	0
57	1e	4	0	0	0	0
57	1f	1	0	0	0	0
57	1g	2	0	0	0	0
57	1h	2	0	0	0	0
57	1i	1	0	0	0	0
57	1l	2	0	0	0	0
57	1m	2	0	0	0	0
57	1n	2	0	0	0	0
57	1o	3	0	0	0	0
57	1r	1	0	0	0	0
57	1t	2	0	0	0	0
57	1x	1	0	0	0	0
57	1y	2	0	0	0	0
57	20	3	0	0	0	0
57	21	2	0	0	0	0
57	23	3	0	0	0	0
57	25	1	0	0	0	0
57	26	1	0	0	0	0
57	27	2	0	0	0	0
57	28	2	0	0	0	0
57	2A	716	0	0	0	0
57	2B	17	0	0	0	0
57	2D	9	0	0	0	0
57	2E	8	0	0	0	0
57	2F	5	0	0	0	0
57	2G	2	0	0	0	0
57	2O	1	0	0	0	0
57	2Q	3	0	0	0	0
57	2R	2	0	0	0	0
57	2T	4	0	0	0	0
57	2U	1	0	0	0	0
57	2V	3	0	0	0	0
57	2W	2	0	0	0	0
57	2X	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	2Y	1	0	0	0	0
57	2a	178	0	0	0	0
57	2e	1	0	0	0	0
57	2f	1	0	0	0	0
57	2j	1	0	0	0	0
57	2k	1	0	0	0	0
57	2l	1	0	0	0	0
57	2n	1	0	0	0	0
57	2p	1	0	0	0	0
57	2r	2	0	0	0	0
57	2t	1	0	0	0	0
57	2x	1	0	0	0	0
57	2y	1	0	0	0	0
58	18	8	0	14	1	0
58	1A	8	0	14	0	0
58	1T	8	0	14	0	0
58	1a	8	0	11	5	0
58	2A	16	0	28	1	0
59	1B	12	0	12	1	0
59	1F	12	0	12	2	0
60	14	1	0	0	0	0
60	15	1	0	0	0	0
60	16	1	0	0	0	0
60	19	1	0	0	0	0
60	1Y	1	0	0	0	0
60	1n	1	0	0	0	0
60	24	1	0	0	0	0
60	25	1	0	0	0	0
60	26	1	0	0	0	0
60	29	1	0	0	0	0
60	2Y	1	0	0	0	0
60	2n	1	0	0	0	0
61	1d	8	0	0	0	0
61	2d	8	0	0	0	0
62	10	18	0	0	3	0
62	11	19	0	0	1	0
62	12	6	0	0	2	0
62	13	13	0	0	1	0
62	14	2	0	0	0	0
62	15	18	0	0	2	0
62	16	13	0	0	0	0
62	17	9	0	0	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
62	18	19	0	0	0	0
62	19	4	0	0	0	0
62	1A	3076	0	0	150	0
62	1B	63	0	0	4	0
62	1D	79	0	0	3	0
62	1E	51	0	0	3	0
62	1F	34	0	0	1	0
62	1G	9	0	0	1	0
62	1H	5	0	0	0	0
62	1I	4	0	0	0	0
62	1N	33	0	0	1	0
62	1O	8	0	0	1	0
62	1P	45	0	0	1	0
62	1Q	21	0	0	3	0
62	1R	19	0	0	4	0
62	1S	7	0	0	0	0
62	1T	24	0	0	1	0
62	1U	35	0	0	5	0
62	1V	24	0	0	0	0
62	1W	19	0	0	0	0
62	1X	20	0	0	1	0
62	1Y	5	0	0	0	0
62	1Z	3	0	0	0	0
62	1a	316	0	0	26	0
62	1b	1	0	0	0	0
62	1d	5	0	0	1	0
62	1e	1	0	0	0	0
62	1f	1	0	0	0	0
62	1h	1	0	0	0	0
62	1l	3	0	0	1	0
62	1m	1	0	0	0	0
62	1p	2	0	0	0	0
62	1w	4	0	0	1	0
62	1x	4	0	0	1	0
62	1y	1	0	0	0	0
62	20	3	0	0	0	0
62	21	10	0	0	1	0
62	23	3	0	0	0	0
62	25	6	0	0	0	0
62	26	1	0	0	0	0
62	27	5	0	0	0	0
62	28	8	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
62	2A	1380	0	0	112	0
62	2B	18	0	0	1	0
62	2D	25	0	0	0	0
62	2E	14	0	0	0	0
62	2F	18	0	0	0	0
62	2G	1	0	0	0	0
62	2H	1	0	0	0	0
62	2I	1	0	0	0	0
62	2N	1	0	0	0	0
62	2O	5	0	0	0	0
62	2P	9	0	0	1	0
62	2Q	6	0	0	0	0
62	2R	11	0	0	0	0
62	2S	1	0	0	0	0
62	2T	4	0	0	0	0
62	2U	2	0	0	0	0
62	2V	2	0	0	1	0
62	2W	7	0	0	1	0
62	2X	3	0	0	0	0
62	2Z	4	0	0	0	0
62	2a	179	0	0	23	0
62	2d	2	0	0	0	0
62	2e	2	0	0	0	0
62	2l	2	0	0	0	0
62	2m	1	0	0	0	0
62	2o	2	0	0	0	0
62	2r	1	0	0	0	0
62	2t	1	0	0	0	0
62	2w	2	0	0	0	0
62	2x	2	0	0	2	0
All	All	295092	0	194800	5930	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 13.

All (5930) 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)
54:2w:76:PPU:H8	54:2w:76:PPU:H5''	1.12	1.10
1:2A:2122:U:H3	1:2A:2176:A:N6	1.50	1.09
32:1a:1003:G:H2'	32:1a:1004:A:H4'	1.36	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1082:U:H3	1:1A:1086:A:N6	1.57	1.03
54:1w:76:PPU:H5''	54:1w:76:PPU:H8	1.38	1.03
32:2a:72:C:N4	32:2a:97:G:H1	1.58	1.01
1:1A:2096:U:H3	1:1A:2193:G:H1	1.13	0.96
1:2A:2139:C:H42	1:2A:2152:G:H1	1.09	0.95
22:10:10:THR:HG22	22:10:12:ASN:H	1.29	0.94
54:2w:76:PPU:H5''	54:2w:76:PPU:C8	1.98	0.93
1:2A:2111:C:N3	1:2A:2147:G:N2	2.16	0.93
33:2b:91:PRO:HG3	33:2b:155:LEU:HD13	1.51	0.92
32:1a:70:G:H1	32:1a:99:U:H3	1.11	0.91
1:2A:2427:C:OP1	62:2A:3803:HOH:O	1.88	0.91
1:1A:1082:U:H3	1:1A:1086:A:H61	1.01	0.90
1:1A:2137:C:N4	1:1A:2154:G:H1	1.70	0.90
1:2A:2131:G:H5''	1:2A:2132:U:H5'	1.53	0.89
1:1A:1082:U:O4	1:1A:1086:A:N1	2.04	0.89
1:1A:1264:G:OP1	27:15:19:ARG:NH2	2.06	0.89
21:1Z:1:MET:O	21:1Z:55:HIS:ND1	2.06	0.89
32:2a:1142:G:H3'	32:2a:1143:G:H8	1.38	0.88
50:2s:50:ALA:HB1	50:2s:57:HIS:HB3	1.55	0.88
40:1i:17:VAL:HG21	40:1i:81:ILE:HG22	1.56	0.88
38:2g:50:ILE:HD11	38:2g:58:PRO:HA	1.53	0.88
25:23:5:LYS:HB3	25:23:57:GLU:HB3	1.54	0.87
26:14:68:ARG:HE	26:14:68:ARG:H	1.19	0.87
1:1A:1057:A:N1	1:1A:1081:U:O4	2.07	0.87
32:2a:664:G:H22	32:2a:741:G:H1	1.23	0.87
1:2A:2139:C:N4	1:2A:2152:G:H1	1.72	0.86
1:1A:2469:A:H4'	12:1Q:56:ARG:HG2	1.55	0.86
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.09	0.86
54:2w:76:PPU:H8	54:2w:76:PPU:C5'	2.04	0.86
32:1a:1025:U:O2	32:1a:1036:G:O6	1.93	0.86
40:2i:28:VAL:HB	40:2i:63:ILE:HG13	1.58	0.85
1:1A:1315:C:OP2	62:1A:4103:HOH:O	1.95	0.85
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.59	0.85
27:25:16:ARG:NH1	27:25:17:ASP:OD1	2.10	0.85
1:1A:2499:C:OP1	62:1A:4102:HOH:O	1.92	0.84
1:2A:1047:G:H21	1:2A:1111:A:H62	1.24	0.84
10:2O:48:PRO:HB3	32:2a:1422:G:H5''	1.59	0.84
44:2m:91:ARG:HB2	44:2m:98:VAL:HG13	1.60	0.84
40:2i:4:TYR:HB2	40:2i:19:LEU:HB2	1.58	0.84
1:1A:2427:C:OP1	62:1A:4104:HOH:O	1.95	0.83
26:14:16:CYS:SG	26:14:17:GLY:N	2.51	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1040:C:O2	1:2A:1115:G:N2	2.10	0.83
35:1d:18:LYS:NZ	35:1d:31:CYS:SG	2.51	0.83
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.11	0.83
1:2A:2141:G:O6	1:2A:2150:U:O2	1.97	0.83
32:1a:664:G:H22	32:1a:741:G:H1	1.27	0.83
1:2A:2104:G:N2	1:2A:2185:C:N3	2.27	0.83
32:2a:1189:C:OP1	41:2j:51:ARG:NH2	2.12	0.83
23:11:50:ARG:HG2	23:11:59:THR:HG22	1.61	0.82
1:2A:1332:G:OP1	62:2A:3805:HOH:O	1.98	0.82
46:1o:54:ARG:HG2	46:1o:58:MET:HE2	1.62	0.82
1:1A:326:G:OP2	62:1A:4105:HOH:O	1.97	0.82
35:1d:15:GLU:OE2	35:1d:66:ARG:NH1	2.13	0.82
1:1A:2137:C:N3	1:1A:2154:G:N2	2.28	0.82
1:1A:975:C:O2	62:1A:4106:HOH:O	1.98	0.81
2:1B:87:G:N2	2:1B:90:A:OP2	2.13	0.81
1:1A:882:G:H1	1:1A:894:C:H42	1.25	0.81
1:2A:2100:G:H1	1:2A:2189:U:H3	1.28	0.81
1:2A:2379:G:O2'	14:2S:17:ARG:NH1	2.12	0.81
1:2A:1783:A:OP2	62:2A:3804:HOH:O	1.97	0.81
8:2I:101:LEU:HG	8:2I:107:VAL:HB	1.61	0.81
1:2A:1648:C:OP1	62:2A:3806:HOH:O	1.98	0.81
32:1a:376:G:H5''	47:1p:5:ARG:HB2	1.63	0.81
1:1A:1039:G:O6	1:1A:1116:C:N4	2.15	0.80
46:2o:54:ARG:HG2	46:2o:58:MET:HE2	1.62	0.80
43:2l:84:LEU:HB3	43:2l:104:VAL:HG21	1.62	0.80
37:1f:95:GLU:O	49:1r:32:ARG:NH1	2.15	0.80
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.62	0.80
39:2h:10:LEU:HD22	39:2h:83:ILE:HD11	1.64	0.80
1:2A:2036:C:OP1	62:2A:3807:HOH:O	1.99	0.79
12:2Q:55:VAL:HG21	21:2Z:183:LEU:HD21	1.64	0.79
1:2A:2683:C:OP1	15:2T:53:ARG:NH2	2.15	0.79
26:24:14:ILE:HG13	26:24:31:ILE:HB	1.64	0.79
1:2A:2122:U:O2	1:2A:2176:A:N1	2.16	0.79
32:2a:536:C:OP2	62:2a:3202:HOH:O	2.02	0.78
35:2d:175:SER:HB3	35:2d:186:LEU:HD21	1.65	0.78
1:2A:300:A:OP1	20:2Y:86:ARG:NH2	2.17	0.78
32:2a:405:U:O4	35:2d:2:GLY:N	2.16	0.78
40:2i:21:PRO:HA	40:2i:59:PHE:HD2	1.48	0.78
1:2A:2099:U:H3	1:2A:2190:G:H1	1.27	0.78
1:1A:1299:G:N7	62:1A:4154:HOH:O	2.16	0.78
32:1a:201:C:H42	32:1a:216:G:H1	1.32	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2255:G:OP2	62:2A:3808:HOH:O	2.00	0.78
32:1a:8:A:N6	35:1d:205:GLU:O	2.17	0.78
1:1A:2372:G:O6	62:1A:4109:HOH:O	2.02	0.78
1:2A:1816:G:O6	3:2D:35:LYS:NZ	2.16	0.78
32:2a:1182:G:H4'	32:2a:1183:A:H3'	1.65	0.78
1:1A:1671:U:O4	62:1A:4107:HOH:O	2.01	0.78
1:2A:1070:A:OP2	1:2A:1073:A:N6	2.17	0.78
1:2A:2139:C:N3	1:2A:2152:G:N2	2.32	0.78
1:1A:1603:A:OP1	62:1A:4108:HOH:O	2.01	0.78
1:1A:2145:C:O2'	1:1A:2147:G:N2	2.16	0.78
4:1E:28:ALA:HB3	4:1E:93:VAL:HG12	1.64	0.78
32:2a:1244:C:H42	32:2a:1293:G:H1	1.28	0.78
32:2a:1348:U:H4'	40:2i:120:ARG:HD2	1.66	0.78
36:2e:144:THR:H	36:2e:147:ASP:HB2	1.49	0.78
32:1a:1518:MA6:H93	32:1a:1519:MA6:H92	1.66	0.78
39:2h:119:LEU:HB3	39:2h:123:GLU:HB2	1.63	0.78
7:1H:159:GLU:HG2	7:1H:169:VAL:HG11	1.65	0.78
39:1h:51:VAL:HG21	39:1h:60:ARG:HD2	1.64	0.78
1:2A:2079:U:OP1	23:21:21:ARG:NH2	2.17	0.78
1:1A:1604:C:OP2	62:1A:4108:HOH:O	2.03	0.77
1:1A:2886:G:N7	62:1A:4166:HOH:O	2.17	0.77
34:2c:43:LEU:HD22	34:2c:47:LEU:HD12	1.64	0.77
19:1X:54:VAL:HG22	19:1X:81:VAL:HG12	1.65	0.77
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.16	0.77
32:1a:38:G:H22	32:1a:397:A:H5'	1.50	0.77
32:1a:975:A:H4'	32:1a:976:G:H5''	1.67	0.77
1:2A:1053:C:H2'	1:2A:1054:A:H8	1.48	0.77
33:2b:98:LEU:H	33:2b:101:MET:HE2	1.48	0.77
1:1A:1300:U:H4'	1:1A:1301:A:H5'	1.67	0.77
1:2A:2499:C:OP1	62:2A:3811:HOH:O	2.03	0.77
1:1A:530:G:N1	1:1A:2023:G:OP1	2.17	0.77
1:2A:2706:G:N7	62:2A:3854:HOH:O	2.17	0.77
12:2Q:65:PHE:HB2	12:2Q:105:GLU:HB2	1.65	0.77
7:1H:124:GLU:HG3	7:1H:132:ARG:HB3	1.67	0.77
33:1b:134:GLU:HG3	33:1b:137:ARG:HH21	1.49	0.77
32:2a:72:C:H42	32:2a:97:G:H1	0.81	0.77
1:1A:1186:G:OP2	62:1A:4110:HOH:O	2.03	0.76
1:2A:2660:A:N7	7:2H:175:LYS:NZ	2.32	0.76
46:2o:82:ILE:HD12	46:2o:88:ARG:HB2	1.65	0.76
1:1A:1176:G:H1'	1:1A:1177:A:H5''	1.67	0.76
32:1a:626:U:H2'	32:1a:627:G:H8	1.49	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1063:G:N2	1:2A:1076:C:O2'	2.18	0.76
1:2A:963:U:OP2	62:2A:3809:HOH:O	2.03	0.76
3:2D:78:LYS:HE2	3:2D:114:GLY:HA2	1.68	0.76
1:1A:2137:C:N4	1:1A:2154:G:N1	2.32	0.76
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.65	0.76
32:2a:96:U:H2'	32:2a:97:G:C8	2.20	0.76
32:1a:965:A:OP2	53:1y:8:LYS:NZ	2.18	0.76
53:1y:71:TYR:HA	53:1y:74:ILE:HD12	1.67	0.76
1:2A:2122:U:H3	1:2A:2176:A:H61	0.79	0.76
35:2d:18:LYS:NZ	35:2d:31:CYS:SG	2.57	0.76
1:2A:1378:A:OP1	29:27:10:ARG:NH2	2.18	0.76
1:1A:2550:G:OP1	62:1A:4107:HOH:O	2.03	0.76
1:2A:1602:U:O4	62:2A:3812:HOH:O	2.04	0.76
33:2b:80:ILE:HD11	33:2b:212:GLN:HB2	1.67	0.76
1:2A:531:C:OP2	62:2A:3807:HOH:O	2.02	0.75
32:2a:285:G:N7	62:2a:3215:HOH:O	2.18	0.75
1:1A:2143:C:N3	1:1A:2148:G:O6	2.18	0.75
1:2A:2104:G:N1	1:2A:2185:C:N4	2.34	0.75
42:2k:99:GLN:HG2	42:2k:105:VAL:HG21	1.66	0.75
1:2A:2637:U:OP1	4:2E:82:ARG:NH1	2.19	0.75
2:2B:103:G:H21	21:2Z:73:GLN:HE22	1.35	0.75
6:2G:122:PRO:HD3	6:2G:180:PHE:HB3	1.67	0.75
1:2A:404:C:OP1	62:2A:3813:HOH:O	2.04	0.75
32:2a:1507:A:N6	32:2a:1528:U:O4	2.16	0.75
32:1a:289:G:OP2	62:1a:1904:HOH:O	2.04	0.75
1:2A:2250:G:OP1	12:2Q:85:LYS:NZ	2.19	0.75
32:2a:92:C:H2'	32:2a:93:G:C8	2.21	0.75
34:2c:20:SER:HB3	45:2n:54:PRO:HG3	1.69	0.75
8:2I:1:MET:HE2	8:2I:38:LEU:HD21	1.68	0.75
1:2A:1071:G:N1	1:2A:1098:A:OP1	2.15	0.75
32:2a:1142:G:H3'	32:2a:1143:G:C8	2.21	0.75
32:2a:1376:U:H2'	32:2a:1377:A:C8	2.22	0.75
1:1A:2110:G:OP1	1:1A:2118:U:N3	2.19	0.75
1:2A:2028:U:O4	62:2A:3810:HOH:O	2.03	0.75
32:1a:677:U:H3	32:1a:713:G:H22	1.34	0.74
1:2A:1647:G:OP1	62:2A:3806:HOH:O	2.05	0.74
1:1A:1611:C:OP1	62:1A:4111:HOH:O	2.04	0.74
32:1a:583:A:OP2	62:1a:1906:HOH:O	2.05	0.74
32:1a:1500:A:OP1	62:1a:1905:HOH:O	2.05	0.74
1:2A:859:G:N2	1:2A:917:A:OP2	2.17	0.74
1:2A:1447:G:N2	1:2A:1464:C:O2	2.16	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:922:G:H4'	36:1e:20:GLN:HA	1.68	0.74
38:2g:79:ARG:HA	38:2g:84:ASN:HA	1.70	0.74
1:1A:1085:A:HO2'	1:1A:1104:C:HO2'	1.35	0.74
32:2a:1376:U:O4	38:2g:10:ARG:NH1	2.21	0.74
25:13:7:LYS:HE3	25:13:32:GLN:HE21	1.51	0.74
1:2A:468:G:O2'	5:2F:62:ARG:NH2	2.21	0.74
1:2A:2137:C:N3	1:2A:2154:G:O6	2.20	0.74
32:2a:72:C:N3	32:2a:97:G:N2	2.34	0.74
32:2a:1106:G:H5''	34:2c:172:ARG:HG2	1.70	0.74
1:1A:860:U:OP2	62:1A:4115:HOH:O	2.06	0.74
1:2A:1073:A:H2'	1:2A:1074:G:C8	2.23	0.74
7:2H:41:MET:HG3	7:2H:68:THR:HG21	1.68	0.74
1:1A:826:U:OP1	62:1A:4104:HOH:O	2.04	0.74
1:1A:1858:G:O6	62:1A:4114:HOH:O	2.06	0.74
32:1a:574:A:OP2	62:1a:1907:HOH:O	2.06	0.74
1:2A:2469:A:H4'	12:2Q:56:ARG:HG2	1.68	0.74
1:1A:1332:G:OP1	62:1A:4103:HOH:O	2.05	0.74
1:2A:631:A:OP1	11:2P:65:ARG:NH1	2.18	0.74
32:2a:677:U:H3	32:2a:713:G:H22	1.33	0.74
1:2A:826:U:OP1	62:2A:3803:HOH:O	2.04	0.73
32:2a:38:G:H22	32:2a:397:A:H5''	1.52	0.73
1:1A:2879:C:OP2	62:1A:4116:HOH:O	2.06	0.73
1:2A:468:G:N7	29:27:39:ARG:NH2	2.36	0.73
6:1G:79:ASN:OD1	6:1G:79:ASN:N	2.21	0.73
21:2Z:157:LEU:HD11	21:2Z:163:LEU:HB2	1.70	0.73
1:1A:326:G:N7	62:1A:4209:HOH:O	2.22	0.73
1:1A:1890:A:OP2	62:1A:4113:HOH:O	2.06	0.73
1:1A:2683:C:O2	10:1O:70:LYS:NZ	2.17	0.73
40:1i:121:ARG:NH1	40:1i:122:ALA:O	2.21	0.73
1:2A:62:C:OP1	62:2A:3815:HOH:O	2.06	0.73
1:2A:624:C:OP1	62:2A:3814:HOH:O	2.06	0.73
1:2A:1607:C:N4	1:2A:1622:G:OP2	2.18	0.73
1:2A:2659:G:N2	1:2A:2662:A:OP2	2.21	0.73
1:1A:987:G:O2'	1:1A:1000:A:N3	2.20	0.73
1:1A:2260:C:OP2	62:1A:4112:HOH:O	2.05	0.73
1:1A:2810:A:N6	1:1A:2891:G:O2'	2.21	0.73
13:1R:32:GLY:HA2	13:1R:116:LEU:HD12	1.68	0.73
1:2A:2162:G:H1'	1:2A:2173:A:H1'	1.69	0.73
11:2P:39:LYS:HD2	11:2P:45:LEU:HD11	1.69	0.73
1:1A:301:G:OP2	20:1Y:84:ARG:NH2	2.21	0.73
27:15:45:VAL:O	62:15:201:HOH:O	2.07	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:87:ARG:NH2	33:1b:220:ASP:OD1	2.22	0.73
1:1A:1060:U:H4'	1:1A:1061:U:H5'	1.69	0.72
4:1E:39:PRO:HD3	4:1E:45:THR:HG23	1.70	0.72
10:1O:48:PRO:HB3	32:1a:1422:G:H5''	1.68	0.72
32:1a:632:A:OP1	39:1h:98:LYS:NZ	2.19	0.72
32:2a:1239:A:H62	32:2a:1299:A:H62	1.37	0.72
32:2a:1277:C:O2'	32:2a:1279:A:N7	2.20	0.72
38:2g:51:GLN:HB2	38:2g:58:PRO:HG3	1.70	0.72
32:1a:1254:C:H41	41:1j:43:ARG:HH12	1.36	0.72
33:2b:80:ILE:HD12	33:2b:208:ILE:HG22	1.71	0.72
1:1A:1023:U:OP2	62:1A:4120:HOH:O	2.08	0.72
6:1G:33:ARG:O	6:1G:161:THR:OG1	2.07	0.72
32:2a:407:G:OP1	35:2d:115:ARG:NH2	2.23	0.72
48:2q:81:ARG:NH1	48:2q:83:ASP:OD1	2.23	0.72
1:1A:2143:C:O2	1:1A:2148:G:N1	2.20	0.72
10:1O:64:ARG:HG2	10:1O:83:ALA:HB3	1.70	0.72
46:1o:82:ILE:O	46:1o:86:GLY:N	2.21	0.72
1:2A:265:A:N1	1:2A:427:U:O2'	2.22	0.72
14:2S:27:SER:HA	14:2S:88:ASP:HB3	1.72	0.72
32:2a:1403:C:O2	32:2a:1499:A:N6	2.19	0.72
7:1H:56:SER:OG	7:1H:61:HIS:ND1	2.22	0.72
7:1H:56:SER:HG	7:1H:61:HIS:HD1	1.37	0.72
6:2G:106:LEU:HA	6:2G:110:ALA:HB3	1.71	0.72
41:2j:63:PHE:HE1	45:2n:58:LYS:HG2	1.55	0.72
36:1e:8:GLU:HG2	36:1e:34:VAL:HG12	1.70	0.72
1:2A:2115:G:H21	1:2A:2171:A:H61	1.37	0.72
1:1A:631:A:OP1	11:1P:65:ARG:NH1	2.22	0.72
5:1F:185:ASP:OD1	5:1F:188:ARG:NH1	2.23	0.72
1:2A:2292:C:OP1	14:2S:17:ARG:NH2	2.15	0.72
32:2a:815:A:N7	32:2a:1509:C:O2'	2.21	0.72
1:1A:1774:C:OP2	62:1A:4121:HOH:O	2.08	0.72
1:2A:2006:C:OP2	62:2A:3817:HOH:O	2.07	0.72
32:1a:181:G:H4'	32:1a:182:U:H5'	1.72	0.72
48:1q:66:SER:O	48:1q:70:ARG:NH1	2.21	0.72
1:2A:2550:G:OP1	62:2A:3816:HOH:O	2.07	0.72
17:2V:78:LYS:O	62:2V:301:HOH:O	2.08	0.71
33:2b:166:ASP:HB3	33:2b:169:LYS:HB3	1.70	0.71
38:2g:111:ARG:NH1	38:2g:113:GLU:OE2	2.22	0.71
6:2G:5:VAL:HG23	6:2G:8:LYS:HE3	1.72	0.71
50:2s:36:ARG:HH12	50:2s:75:ALA:HB3	1.53	0.71
1:1A:667:U:O4	62:1A:4118:HOH:O	2.07	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2623:G:OP1	62:1A:4124:HOH:O	2.08	0.71
1:1A:2788:C:OP1	4:1E:61:ARG:NH2	2.24	0.71
35:1d:187:ARG:NH2	35:1d:193:ASP:OD2	2.24	0.71
24:22:65:ASN:OD1	24:22:69:ARG:NH1	2.23	0.71
40:1i:50:LEU:HD13	40:1i:56:LEU:HA	1.72	0.71
1:2A:2879:C:OP2	62:2A:3821:HOH:O	2.09	0.71
48:2q:58:GLU:OE1	48:2q:75:ARG:NE	2.23	0.71
53:2y:54:ILE:HG23	53:2y:61:LEU:HB2	1.71	0.71
1:1A:72:U:OP1	62:1A:4122:HOH:O	2.08	0.71
1:1A:120:U:OP2	62:1A:4123:HOH:O	2.08	0.71
19:1X:60:ARG:HH12	29:17:47:ARG:HH22	1.39	0.71
32:1a:35:G:H21	43:1l:118:SER:HB2	1.55	0.71
7:2H:98:LEU:HD11	7:2H:125:VAL:H	1.53	0.71
1:1A:2483:C:N3	12:1Q:124:LYS:NZ	2.39	0.71
18:1W:18:ARG:NH1	18:1W:76:VAL:O	2.24	0.71
34:2c:115:LEU:HA	34:2c:118:GLN:HB2	1.72	0.71
52:2u:17:THR:O	52:2u:22:ARG:NH2	2.23	0.71
1:1A:2079:U:OP1	23:11:21:ARG:NH2	2.24	0.71
35:2d:122:ARG:NH1	35:2d:134:ASP:O	2.23	0.71
10:1O:116:SER:HA	58:1a:1858:MPD:HM2	1.71	0.71
1:2A:1807:G:OP1	62:2A:3818:HOH:O	2.07	0.71
1:2A:2489:G:N7	62:2A:3891:HOH:O	2.23	0.71
32:2a:881:G:OP2	43:2l:12:ARG:NH2	2.21	0.71
32:1a:1226:C:H2'	44:1m:103:THR:HB	1.73	0.71
44:1m:58:GLU:O	44:1m:62:ASN:ND2	2.14	0.71
2:1B:13:A:OP1	62:1B:301:HOH:O	2.08	0.70
32:1a:501:C:OP1	43:1l:117:ARG:NH2	2.24	0.70
1:2A:2218:U:O4'	23:21:52:ARG:NH2	2.24	0.70
32:2a:1445:C:O2	32:2a:1457:G:N2	2.18	0.70
33:2b:47:THR:HG22	33:2b:202:PRO:HG2	1.73	0.70
1:1A:2832:U:OP2	62:1A:4128:HOH:O	2.09	0.70
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.27	0.70
1:1A:11:G:N7	62:1A:4227:HOH:O	2.23	0.70
1:1A:1007:C:OP2	62:1A:4125:HOH:O	2.08	0.70
1:1A:1669:A:OP2	62:1A:4107:HOH:O	2.09	0.70
15:1T:39:ARG:HH21	32:1a:345:C:H5''	1.55	0.70
1:2A:365:C:OP2	62:2A:3823:HOH:O	2.09	0.70
32:2a:289:G:OP2	62:2a:3203:HOH:O	2.08	0.70
35:2d:15:GLU:OE2	35:2d:66:ARG:NH1	2.24	0.70
1:1A:2061:G:O6	54:1w:76:PPU:HM3	1.90	0.70
1:2A:1818:U:O2'	3:2D:154:LYS:O	2.10	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2822:G:OP2	62:2A:3820:HOH:O	2.08	0.70
32:1a:73:G:H1	32:1a:96:U:H3	1.38	0.70
32:1a:626:U:H2'	32:1a:627:G:C8	2.26	0.70
5:1F:85:GLY:O	62:1F:401:HOH:O	2.08	0.70
24:12:1:MET:N	62:12:101:HOH:O	2.22	0.70
1:2A:509:C:OP1	62:2A:3824:HOH:O	2.09	0.70
21:2Z:19:ARG:NH1	21:2Z:84:GLU:O	2.24	0.70
1:1A:271(M):G:H21	8:1I:50:ARG:HD3	1.57	0.70
1:1A:2334:G:H5'	14:1S:9:ARG:HG2	1.74	0.70
32:2a:1278:U:H5''	32:2a:1279:A:H5'	1.74	0.70
32:1a:1003:G:C2	32:1a:1004:A:H1'	2.26	0.70
51:1t:33:ILE:O	51:1t:37:SER:OG	2.10	0.70
3:2D:17:THR:O	3:2D:211:ARG:NH2	2.25	0.70
51:2t:45:GLN:HA	51:2t:91:LEU:HD22	1.73	0.70
1:1A:1175:U:OP1	1:1A:1177:A:N6	2.24	0.70
20:1Y:92:ASN:HB2	20:1Y:94:LYS:H	1.55	0.70
1:2A:1093:G:N2	1:2A:1098:A:OP2	2.25	0.70
22:20:11:ARG:O	22:20:14:ARG:NH2	2.25	0.70
32:2a:426:G:OP1	35:2d:38:TYR:OH	2.06	0.70
1:1A:2404:C:OP2	62:1A:4126:HOH:O	2.09	0.69
11:1P:63:PRO:HD3	30:18:27:THR:HG22	1.74	0.69
1:2A:1338:G:N7	19:2X:62:LYS:NZ	2.39	0.69
1:2A:1783:A:OP1	62:2A:3819:HOH:O	2.08	0.69
32:2a:330:C:O2	62:2a:3204:HOH:O	2.09	0.69
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.27	0.69
33:2b:101:MET:HG2	33:2b:108:ILE:HG21	1.74	0.69
3:1D:85:ASP:OD2	3:1D:88:ARG:NH1	2.19	0.69
1:2A:409:C:OP1	62:2A:3826:HOH:O	2.10	0.69
8:2I:77:LEU:HB2	8:2I:142:VAL:HG12	1.73	0.69
32:2a:882:C:OP2	43:2I:13:LYS:NZ	2.26	0.69
34:2c:181:ASN:HD21	34:2c:205:GLY:N	1.90	0.69
1:1A:1024:G:OP2	62:1A:4120:HOH:O	2.10	0.69
1:1A:1026:U:OP1	62:1A:4120:HOH:O	2.10	0.69
1:2A:2302:G:N2	6:2G:126:ASP:OD1	2.18	0.69
7:2H:25:LYS:HB3	7:2H:27:LYS:HZ3	1.58	0.69
15:2T:34:VAL:HG21	15:2T:43:GLN:HB3	1.75	0.69
26:24:16:CYS:SG	26:24:17:GLY:N	2.64	0.69
33:1b:77:ALA:HB2	33:1b:211:ILE:HD13	1.73	0.69
19:1X:31:HIS:CD2	19:1X:33:LYS:H	2.10	0.69
32:1a:744:C:O2'	32:1a:851:G:N2	2.23	0.69
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.07	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:2Y:39:VAL:HG23	20:2Y:42:VAL:HB	1.73	0.69
32:2a:1360:A:OP2	45:2n:35:ARG:NH2	2.26	0.69
41:2j:51:ARG:O	45:2n:45:ARG:NH1	2.25	0.69
1:1A:60:G:OP1	62:1A:4127:HOH:O	2.09	0.69
1:1A:265:A:N1	1:1A:427:U:O2'	2.23	0.69
1:1A:1267:U:OP1	62:1A:4130:HOH:O	2.10	0.69
1:1A:2128:C:H42	1:1A:2160:G:H1	1.39	0.69
1:1A:2407:G:N7	62:1A:4243:HOH:O	2.25	0.69
6:1G:161:THR:HG23	6:1G:163:ALA:H	1.57	0.69
32:1a:946:A:H2'	32:1a:947:G:C8	2.28	0.69
32:2a:390:C:O3'	47:2p:28:ARG:NH2	2.25	0.69
1:1A:1378:A:OP1	29:17:10:ARG:NH2	2.25	0.69
12:1Q:31:ASP:OD2	62:1Q:301:HOH:O	2.10	0.69
11:2P:95:VAL:HA	11:2P:99:LEU:HD22	1.74	0.69
32:2a:977:A:O3'	32:2a:980:C:N4	2.24	0.69
34:2c:180:ALA:HB1	34:2c:203:PHE:CE1	2.28	0.69
1:1A:668:G:N7	62:1A:4257:HOH:O	2.26	0.69
1:1A:910:A:OP2	62:1A:4131:HOH:O	2.11	0.69
1:1A:1637:A:OP1	62:1A:4132:HOH:O	2.11	0.69
14:1S:59:LYS:HD2	14:1S:60:GLY:H	1.57	0.69
1:2A:2162:G:HO2'	1:2A:2172:U:HO2'	1.38	0.69
17:2V:76:LYS:HB2	17:2V:81:TYR:HB3	1.75	0.69
32:2a:673:G:H2'	32:2a:674:G:C8	2.28	0.69
51:2t:50:GLU:HG3	51:2t:100:ILE:HD11	1.74	0.69
1:1A:2055:C:O2	62:1A:4119:HOH:O	2.07	0.69
1:2A:2042:A:OP1	62:2A:3829:HOH:O	2.11	0.69
12:2Q:11:LYS:NZ	12:2Q:88:GLY:O	2.22	0.69
21:2Z:1:MET:O	21:2Z:55:HIS:ND1	2.25	0.69
32:2a:97:G:H2'	32:2a:98:G:C8	2.26	0.69
46:2o:55:GLY:HA2	46:2o:58:MET:HE3	1.74	0.69
32:1a:60:A:H4'	32:1a:61:G:H5'	1.73	0.69
32:1a:812:C:N3	62:1a:1930:HOH:O	2.26	0.69
1:2A:1220:A:OP2	16:2U:19:LYS:NZ	2.19	0.69
32:2a:656:C:O2'	46:2o:28:GLN:OE1	2.09	0.69
34:2c:57:ILE:HG12	34:2c:66:VAL:HG13	1.75	0.69
55:2x:76:8AN:O2P	62:2x:201:HOH:O	2.11	0.69
1:1A:483:A:O2'	20:1Y:49:VAL:O	2.10	0.68
1:1A:2126:A:N3	1:1A:2162:G:N2	2.37	0.68
1:1A:2448:A:OP1	62:1A:4102:HOH:O	2.11	0.68
1:2A:2140:C:H2'	1:2A:2141:G:H8	1.57	0.68
1:2A:2621:A:OP2	62:2A:3828:HOH:O	2.11	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:29:TRP:O	6:2G:33:ARG:NH1	2.26	0.68
32:2a:1244:C:H2'	32:2a:1245:A:H8	1.57	0.68
51:2t:86:ARG:HH21	51:2t:90:GLN:HE22	1.38	0.68
1:2A:2453:A:OP1	62:2A:3825:HOH:O	2.10	0.68
1:1A:2529:G:OP1	7:1H:172:LYS:NZ	2.27	0.68
6:1G:115:ARG:HB3	6:1G:136:ARG:HH22	1.59	0.68
1:2A:1070:A:O2'	1:2A:1077:A:N1	2.25	0.68
1:2A:1076:C:H4'	1:2A:1077:A:OP1	1.93	0.68
32:2a:115:G:OP1	62:2a:3206:HOH:O	2.11	0.68
32:2a:573:A:OP2	62:2a:3207:HOH:O	2.12	0.68
1:1A:1064:C:N3	1:1A:1074:G:O6	2.25	0.68
1:2A:919:G:N2	1:2A:2269:A:OP2	2.27	0.68
1:2A:2448:A:OP1	62:2A:3811:HOH:O	2.11	0.68
16:1U:101:ARG:NH2	62:1U:302:HOH:O	2.27	0.68
32:1a:1264:C:H2'	32:1a:1265:G:H8	1.56	0.68
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	1.74	0.68
6:2G:146:TYR:HB3	44:2m:11:ARG:HH22	1.58	0.68
40:2i:42:ARG:NH2	40:2i:71:SER:OG	2.26	0.68
42:2k:21:ILE:HB	42:2k:84:VAL:HG23	1.74	0.68
1:1A:105:C:OP1	62:1A:4135:HOH:O	2.12	0.68
1:1A:1084:A:HO2'	1:1A:1105:U:HO2'	1.36	0.68
1:1A:1330:C:OP1	62:1A:4129:HOH:O	2.10	0.68
1:1A:2404:C:O3'	11:1P:77:ARG:NH2	2.27	0.68
22:10:27:GLU:HG3	22:10:68:GLU:HA	1.75	0.68
33:1b:71:VAL:HB	33:1b:164:VAL:HG22	1.75	0.68
1:2A:1048:A:OP2	1:2A:1109:C:N4	2.26	0.68
1:2A:2497:A:O2'	62:2A:3827:HOH:O	2.10	0.68
1:2A:2807:G:H22	1:2A:2892:A:N6	1.92	0.68
2:2B:22:U:H3	2:2B:61:G:H1	1.40	0.68
1:1A:1786:A:H1'	1:1A:1938:A:N6	2.07	0.68
32:1a:674:G:H2'	32:1a:675:A:H8	1.59	0.68
6:2G:107:LEU:HA	6:2G:111:LEU:HD12	1.74	0.68
11:2P:54:GLY:O	62:2P:201:HOH:O	2.11	0.68
14:2S:15:ARG:HB3	14:2S:19:LYS:HE3	1.76	0.68
32:2a:76:C:H2'	32:2a:77:G:C8	2.28	0.68
1:2A:933:A:N7	62:2A:3919:HOH:O	2.27	0.68
1:2A:1315:C:OP2	62:2A:3805:HOH:O	2.11	0.68
1:1A:2364:C:OP1	22:10:55:ARG:NH1	2.27	0.68
32:1a:450:G:OP1	47:1p:43:LYS:NZ	2.27	0.68
1:2A:2365:G:N7	30:28:39:LYS:NZ	2.42	0.68
32:2a:92:C:H2'	32:2a:93:G:H8	1.57	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1083:U:OP2	62:2a:3209:HOH:O	2.12	0.68
19:1X:31:HIS:HD2	19:1X:33:LYS:H	1.41	0.68
1:2A:577:G:O2'	1:2A:1254:A:OP1	2.10	0.68
1:2A:1784:A:OP2	62:2A:3819:HOH:O	2.11	0.68
1:2A:1842:G:O2'	3:2D:253:GLN:NE2	2.27	0.68
32:2a:164:U:H2'	32:2a:165:C:C6	2.28	0.68
1:1A:529:A:N1	62:1A:4270:HOH:O	2.27	0.67
1:1A:1971:A:OP1	62:1A:4133:HOH:O	2.12	0.67
47:1p:22:THR:HA	47:1p:33:ILE:HG13	1.76	0.67
1:2A:307:G:N7	62:2A:3912:HOH:O	2.26	0.67
44:2m:34:LEU:HD23	44:2m:39:ILE:HB	1.77	0.67
1:2A:1271:G:OP2	62:2A:3806:HOH:O	2.11	0.67
1:2A:2102:U:O2	1:2A:2187:G:O6	2.12	0.67
1:2A:2410:G:N7	62:2A:3922:HOH:O	2.27	0.67
7:2H:33:LEU:HD11	7:2H:136:ILE:HB	1.75	0.67
40:2i:26:VAL:HG12	40:2i:61:ALA:HB3	1.76	0.67
1:1A:278:A:O2'	1:1A:279:C:OP1	2.11	0.67
1:1A:2821:A:OP2	62:1R:301:HOH:O	2.11	0.67
6:1G:49:ASP:O	6:1G:51:ARG:N	2.28	0.67
28:16:10:LEU:HG	28:16:54:ILE:HG13	1.76	0.67
32:1a:1525:G:OP1	42:1k:120:ARG:NH2	2.27	0.67
1:2A:585:G:OP2	62:2A:3830:HOH:O	2.11	0.67
8:2I:88:ILE:HD11	8:2I:91:SER:HA	1.76	0.67
20:2Y:83:THR:HG21	20:2Y:99:CYS:HB2	1.77	0.67
32:2a:286:G:N7	62:2a:3223:HOH:O	2.27	0.67
1:1A:1541:G:O6	62:1A:4137:HOH:O	2.12	0.67
32:1a:1189:C:OP1	41:1j:51:ARG:NH2	2.26	0.67
40:1i:46:ALA:HB2	40:1i:74:ILE:HG23	1.75	0.67
1:2A:1648:C:O2	1:2A:2009:G:N2	2.19	0.67
21:2Z:33:LEU:HD21	21:2Z:90:VAL:HG21	1.76	0.67
32:1a:1240:U:OP2	38:1g:116:ALA:N	2.28	0.67
1:2A:962:G:OP1	62:2A:3809:HOH:O	2.12	0.67
32:2a:1110:A:N7	62:2a:3224:HOH:O	2.28	0.67
2:2B:39:A:O2'	2:2B:46:A:N1	2.26	0.67
1:1A:994:C:OP1	16:1U:53:ARG:NH2	2.28	0.67
1:1A:1815:A:OP2	3:1D:54:ARG:NH2	2.27	0.67
20:1Y:92:ASN:N	20:1Y:93:GLY:HA2	2.09	0.67
33:1b:78:GLN:HE22	33:1b:95:GLN:HA	1.60	0.67
32:2a:683:G:O6	62:2a:3205:HOH:O	2.13	0.67
1:1A:1653:G:H3'	13:1R:2:ARG:HD3	1.76	0.67
4:1E:105:THR:OG1	4:1E:199:ARG:NH2	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2137:C:O2	1:2A:2154:G:N1	2.26	0.67
32:2a:944:G:N1	32:2a:1338:G:OP2	2.24	0.67
33:2b:63:MET:HG3	33:2b:225:ALA:HB1	1.76	0.67
6:1G:38:VAL:HG23	6:1G:158:ALA:HB3	1.76	0.67
19:1X:53:LYS:HB3	19:1X:82:GLN:HB3	1.77	0.67
1:2A:752:A:H3'	29:27:1:MET:HE1	1.77	0.67
1:2A:1456:G:OP2	62:2A:3832:HOH:O	2.13	0.67
1:2A:2061:G:OP2	62:2A:3836:HOH:O	2.13	0.67
6:2G:11:TYR:HA	6:2G:15:VAL:HG22	1.77	0.67
32:2a:1004:A:OP1	32:2a:1024:G:N2	2.27	0.67
33:2b:69:LEU:HB3	33:2b:162:ILE:HG22	1.76	0.67
49:2r:30:ASP:HB3	49:2r:33:ASP:HB2	1.77	0.67
33:1b:27:LYS:HB2	33:1b:194:PRO:HD2	1.76	0.67
1:2A:981:A:OP1	62:2A:3831:HOH:O	2.12	0.67
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.75	0.67
32:2a:1314:C:OP2	50:2s:4:SER:OG	2.07	0.67
36:2e:92:LYS:HB3	36:2e:119:LEU:HB2	1.77	0.67
1:1A:1300:U:OP1	62:1A:4138:HOH:O	2.13	0.66
1:2A:1035:U:H2'	1:2A:1036:G:C8	2.30	0.66
1:2A:2627:G:N2	1:2A:2777:G:OP2	2.27	0.66
1:1A:1937:A:H1'	1:1A:1939:5MU:H72	1.77	0.66
1:2A:2407:G:OP1	62:2A:3834:HOH:O	2.13	0.66
32:1a:1028:C:H2'	32:1a:1029:C:H4'	1.75	0.66
17:2V:52:VAL:HG21	17:2V:55:ALA:HB3	1.77	0.66
33:2b:21:ARG:HA	33:2b:39:ILE:HA	1.77	0.66
1:1A:2791:C:H2'	1:1A:2792:G:H8	1.60	0.66
40:1i:17:VAL:HG23	40:1i:63:ILE:HG12	1.78	0.66
1:2A:1020:A:N1	1:2A:1141:U:O2'	2.24	0.66
1:2A:1798:U:H5'	3:2D:259:THR:HG22	1.76	0.66
1:2A:2364:C:OP1	22:20:55:ARG:NH1	2.28	0.66
2:1B:81:G:N7	59:1B:231:ARG:NH1	2.42	0.66
3:1D:71:ASP:OD1	3:1D:71:ASP:N	2.27	0.66
32:1a:1187:G:H5'	40:1i:113:LYS:HZ2	1.60	0.66
1:2A:857:C:OP2	22:20:77:ARG:NH2	2.29	0.66
1:2A:948:G:OP1	62:2A:3809:HOH:O	2.14	0.66
1:2A:1322:A:OP2	62:2A:3841:HOH:O	2.14	0.66
7:2H:127:GLU:O	7:2H:129:THR:N	2.26	0.66
17:2V:98:GLU:OE1	17:2V:100:ARG:NH1	2.27	0.66
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.31	0.66
18:1W:18:ARG:HG3	18:1W:76:VAL:HB	1.78	0.66
1:2A:1023:U:OP2	62:2A:3837:HOH:O	2.14	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:975:A:H4'	32:2a:976:G:H5''	1.78	0.66
1:1A:796:C:H2'	1:1A:797:C:C6	2.31	0.66
1:1A:1314:C:OP1	62:1A:4103:HOH:O	2.13	0.66
32:1a:588:G:OP2	62:1a:1908:HOH:O	2.13	0.66
32:1a:1086:U:H3	32:1a:1099:G:H22	1.44	0.66
35:1d:83:SER:O	62:1d:401:HOH:O	2.13	0.66
6:2G:7:LEU:HD23	6:2G:100:TRP:HE3	1.61	0.66
32:2a:682:G:O6	62:2a:3205:HOH:O	2.11	0.66
33:2b:16:HIS:HB2	33:2b:204:ASN:HB3	1.77	0.66
34:2c:70:VAL:HG12	34:2c:72:LYS:H	1.59	0.66
35:2d:10:ARG:HB2	35:2d:40:PRO:HG3	1.77	0.66
1:1A:1798:U:H5'	3:1D:259:THR:HG22	1.76	0.66
2:1B:106:G:H5'	21:1Z:31:ARG:HG2	1.76	0.66
18:1W:1:MET:HE3	18:1W:2:GLU:H	1.61	0.66
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.31	0.66
39:1h:14:ARG:NH1	39:1h:83:ILE:O	2.28	0.66
50:1s:33:THR:HG1	50:1s:35:SER:HG	1.44	0.66
1:2A:212:G:H2'	1:2A:213:A:O4'	1.94	0.66
7:2H:52:VAL:HG11	7:2H:69:ARG:HB2	1.78	0.66
25:23:7:LYS:HD2	25:23:34:GLU:HG2	1.78	0.66
30:28:62:LEU:HB3	30:28:65:GLU:HG2	1.76	0.66
45:2n:4:LYS:HA	45:2n:7:ILE:HG22	1.78	0.66
1:1A:1670:C:OP2	62:1A:4107:HOH:O	2.14	0.66
1:1A:2122:U:H3	1:1A:2176:A:H61	1.43	0.66
1:2A:731:C:OP1	62:2A:3840:HOH:O	2.14	0.66
3:2D:85:ASP:OD2	3:2D:88:ARG:NH1	2.25	0.66
14:2S:41:ASP:HB2	14:2S:48:LEU:HD21	1.77	0.66
1:1A:1187:G:OP1	62:1A:4146:HOH:O	2.14	0.66
1:1A:1637:A:N7	62:1A:4266:HOH:O	2.27	0.66
1:1A:2646:C:OP2	1:1A:2732:G:O2'	2.14	0.66
32:1a:64:G:N1	32:1a:68:G:O6	2.18	0.66
32:2a:427:U:OP1	35:2d:13:ARG:NH2	2.29	0.66
32:2a:803:G:OP1	62:2a:3210:HOH:O	2.14	0.66
36:2e:8:GLU:HG2	36:2e:34:VAL:HG12	1.77	0.66
37:2f:13:ASN:ND2	37:2f:55:ASP:OD2	2.28	0.66
40:2i:3:GLN:HE21	40:2i:20:ARG:HH21	1.43	0.66
1:1A:1187:G:H5''	17:1V:81:TYR:CE1	2.31	0.65
4:1E:130:GLY:O	62:1E:401:HOH:O	2.14	0.65
7:1H:137:ASP:HB3	7:1H:140:LYS:HB3	1.78	0.65
36:1e:96:PRO:O	36:1e:98:THR:N	2.26	0.65
1:2A:1011:G:OP2	16:2U:66:ASN:ND2	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2575:C:OP2	62:2A:3839:HOH:O	2.14	0.65
21:2Z:106:GLY:HA3	21:2Z:142:SER:HB3	1.77	0.65
32:2a:222:U:H2'	32:2a:223:U:C6	2.30	0.65
32:2a:588:G:H4'	39:2h:2:LEU:HD23	1.78	0.65
1:1A:1245:G:OP1	11:1P:13:ASN:ND2	2.24	0.65
1:2A:1189:A:OP2	62:2A:3843:HOH:O	2.14	0.65
5:2F:188:ARG:HA	11:2P:3:LEU:HD11	1.77	0.65
32:2a:1312:G:H5''	50:2s:5:LEU:HD21	1.79	0.65
32:1a:536:C:OP2	62:1a:1911:HOH:O	2.15	0.65
32:1a:780:A:OP2	62:1a:1909:HOH:O	2.14	0.65
1:2A:2206:G:H5''	1:2A:2207:G:C8	2.31	0.65
1:2A:2821:A:OP2	62:2A:3820:HOH:O	2.12	0.65
6:2G:15:VAL:HB	6:2G:175:LEU:HB3	1.78	0.65
32:2a:452:A:N3	47:2p:72:ARG:NH2	2.44	0.65
1:2A:2682:U:O2'	15:2T:58:ASN:ND2	2.30	0.65
32:2a:1078:U:H1'	36:2e:130:ASN:HD21	1.62	0.65
32:2a:1129:C:H2'	32:2a:1139:G:N7	2.11	0.65
34:2c:181:ASN:ND2	34:2c:205:GLY:O	2.30	0.65
1:2A:320:A:H4'	1:2A:322:A:C8	2.32	0.65
1:2A:1359:A:H61	1:2A:1372:U:H3	1.45	0.65
1:1A:410:G:OP2	62:1A:4145:HOH:O	2.14	0.65
32:1a:54:C:N4	32:1a:353:A:OP2	2.28	0.65
32:1a:457:C:H2'	32:1a:458:C:H6	1.61	0.65
1:2A:382:G:OP2	62:2A:3845:HOH:O	2.15	0.65
2:2B:8:U:OP1	14:2S:15:ARG:NH2	2.30	0.65
32:2a:1402:4OC:HM22	32:2a:1403:C:H5'	1.79	0.65
1:1A:588:U:H2'	1:1A:589:C:C6	2.31	0.65
1:2A:249:C:O2	30:28:12:LYS:NZ	2.27	0.65
53:2y:35:ILE:HD12	53:2y:55:ASN:HD22	1.60	0.65
1:2A:729:G:C6	3:2D:208:LYS:HB2	2.32	0.65
1:2A:1053:C:H2'	1:2A:1054:A:C8	2.32	0.65
3:2D:12:SER:HB3	3:2D:208:LYS:HB3	1.79	0.65
6:2G:145:THR:H	6:2G:148:MET:HE2	1.62	0.65
1:1A:1770:G:OP1	62:1A:4149:HOH:O	2.15	0.65
1:1A:2424:C:O2'	62:1A:4140:HOH:O	2.13	0.65
40:1i:29:ASN:OD1	40:1i:65:VAL:N	2.30	0.65
54:1w:76:PPU:H5'	54:1w:76:PPU:O	1.96	0.65
1:2A:993:G:OP1	16:2U:50:ARG:NH2	2.29	0.65
2:2B:5:C:OP1	2:2B:61:G:O2'	2.15	0.65
35:2d:129:ASN:HD21	35:2d:144:ASP:HA	1.61	0.65
1:1A:990:A:OP2	62:1A:4110:HOH:O	2.13	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:1P:141:ALA:HA	25:23:38:GLU:HG2	1.77	0.65
32:1a:1291:G:OP1	38:1g:37:ASN:ND2	2.30	0.65
1:2A:530:G:O6	62:2A:3822:HOH:O	2.09	0.65
5:2F:116:ASP:OD2	11:2P:1:MET:N	2.24	0.65
33:2b:44:LEU:O	33:2b:47:THR:OG1	2.15	0.65
32:1a:17:U:H2'	32:1a:18:C:C6	2.32	0.64
32:1a:407:G:H5''	35:1d:115:ARG:HB3	1.80	0.64
37:1f:27:GLN:HA	37:1f:30:LEU:HD12	1.79	0.64
1:2A:2430:A:OP2	62:2A:3838:HOH:O	2.14	0.64
4:2E:36:ARG:NH1	4:2E:85:ASN:OD1	2.30	0.64
6:2G:145:THR:HG22	6:2G:148:MET:HE2	1.80	0.64
21:2Z:52:SER:HB3	21:2Z:54:HIS:HD1	1.61	0.64
1:1A:1981:A:OP1	62:1A:4148:HOH:O	2.15	0.64
6:1G:8:LYS:NZ	6:1G:97:ASP:OD1	2.31	0.64
32:1a:1077:G:N2	32:1a:1080:A:OP2	2.29	0.64
1:2A:250:G:OP1	62:2A:3847:HOH:O	2.15	0.64
1:2A:785:G:OP2	62:2A:3846:HOH:O	2.15	0.64
32:2a:1295:G:O2'	44:2m:14:ARG:NH1	2.30	0.64
35:2d:108:LEU:HD21	35:2d:174:LEU:HB3	1.78	0.64
1:1A:1188:U:H4'	17:1V:79:VAL:HG22	1.79	0.64
1:1A:1344:G:O6	62:1A:4142:HOH:O	2.14	0.64
1:1A:1470:G:N7	62:1A:4300:HOH:O	2.30	0.64
10:1O:2:ILE:HD12	10:1O:6:THR:HG21	1.80	0.64
34:1c:131:ARG:HH11	34:1c:166:GLU:HG3	1.62	0.64
33:2b:187:LEU:HA	33:2b:201:ILE:HB	1.78	0.64
1:1A:816:C:OP2	62:1A:4143:HOH:O	2.14	0.64
1:1A:1143:A:OP1	9:1N:25:ARG:NH2	2.31	0.64
1:1A:2518:A:O2'	62:1A:4144:HOH:O	2.14	0.64
1:2A:1889:A:H2'	1:2A:1890:A:C8	2.33	0.64
1:2A:2035:G:OP1	62:2A:3842:HOH:O	2.14	0.64
1:2A:2350:C:OP2	62:2A:3844:HOH:O	2.15	0.64
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.33	0.64
39:1h:21:LYS:O	39:1h:65:TYR:OH	2.13	0.64
14:2S:56:LEU:HB3	14:2S:58:LEU:HG	1.79	0.64
1:1A:1163:G:O6	62:1A:4134:HOH:O	2.12	0.64
1:1A:2870:C:H2'	1:1A:2871:C:O4'	1.97	0.64
21:1Z:14:LYS:HD3	21:1Z:16:SER:H	1.62	0.64
32:1a:544:G:OP1	35:1d:59:ARG:NH2	2.30	0.64
32:1a:664:G:N2	32:1a:741:G:H1	1.95	0.64
32:1a:1158:C:H5	32:1a:1181:G:H1	1.45	0.64
40:1i:50:LEU:HA	40:1i:53:VAL:HG22	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:53:ILE:HG22	21:2Z:71:VAL:HG13	1.79	0.64
32:2a:1003:G:C6	32:2a:1004:A:H1'	2.33	0.64
8:1I:72:LEU:C	8:1I:74:ASN:H	2.06	0.64
1:2A:391:G:O2'	1:2A:410:G:OP1	2.11	0.64
13:2R:87:TYR:OH	13:2R:117:VAL:O	2.09	0.64
37:2f:95:GLU:O	49:2r:32:ARG:NH1	2.31	0.64
1:1A:204:A:N3	62:1A:4294:HOH:O	2.29	0.64
32:1a:619:U:N3	35:1d:134:ASP:OD1	2.19	0.64
1:2A:2630:G:H2'	1:2A:2631:G:C8	2.33	0.64
1:2A:2788:C:N3	1:2A:2789:C:N4	2.45	0.64
48:2q:37:LYS:O	48:2q:38:ARG:NH2	2.29	0.64
1:1A:517:C:OP1	27:15:16:ARG:NH1	2.25	0.64
1:1A:1095:A:H2'	1:1A:1096:A:O4'	1.97	0.64
1:1A:1634:A:OP2	62:1A:4147:HOH:O	2.14	0.64
1:2A:2400:G:H4'	28:26:18:ARG:HG2	1.80	0.64
53:2y:37:PRO:HA	53:2y:54:ILE:HB	1.80	0.64
13:1R:40:LYS:NZ	62:1R:303:HOH:O	2.30	0.64
39:1h:18:ARG:NH2	39:1h:81:HIS:O	2.30	0.64
14:2S:11:LYS:HG3	14:2S:91:PRO:HD3	1.79	0.64
16:2U:89:GLU:O	17:2V:11:GLN:NE2	2.28	0.64
34:2c:54:ARG:HB2	34:2c:69:HIS:HB2	1.80	0.64
6:1G:66:GLN:NE2	6:1G:93:THR:O	2.30	0.63
35:1d:59:ARG:HH22	35:1d:66:ARG:HH12	1.44	0.63
1:2A:1155:A:H5''	16:2U:55:ARG:HD3	1.80	0.63
32:2a:1052:U:O2'	32:2a:1055:A:OP2	2.16	0.63
1:1A:251:A:C5	1:1A:252:G:H1'	2.34	0.63
1:1A:2699:C:OP1	62:1A:4150:HOH:O	2.15	0.63
12:1Q:111:GLU:OE2	12:1Q:133:ARG:NH2	2.27	0.63
26:14:57:GLU:HB3	26:14:58:ARG:HA	1.80	0.63
28:16:13:CYS:SG	28:16:47:THR:HG21	2.38	0.63
32:1a:178:C:H2'	32:1a:179:A:H8	1.63	0.63
32:1a:356:A:N3	32:1a:368:U:O2'	2.30	0.63
33:1b:77:ALA:HA	33:1b:80:ILE:HG22	1.79	0.63
1:2A:2431:U:OP1	62:2A:3848:HOH:O	2.16	0.63
7:2H:164:TYR:HB2	7:2H:167:GLU:HB2	1.79	0.63
32:2a:1212:U:H5'	32:2a:1213:A:C8	2.33	0.63
32:2a:1510:U:H2'	32:2a:1511:G:C8	2.33	0.63
1:1A:1338:G:N7	19:1X:62:LYS:NZ	2.36	0.63
1:1A:1648:C:OP1	62:1A:4152:HOH:O	2.15	0.63
4:1E:143:ASN:HD22	4:1E:147:PRO:HD3	1.62	0.63
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:918:A:H5''	2:2B:98:G:O2'	1.98	0.63
34:2c:11:ARG:NH2	34:2c:177:THR:O	2.31	0.63
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.33	0.63
1:1A:2424:C:OP1	62:1A:4151:HOH:O	2.15	0.63
13:1R:63:ARG:NH1	62:1R:302:HOH:O	2.27	0.63
34:1c:108:ASN:HB3	34:1c:111:LEU:HD12	1.80	0.63
1:2A:857:C:H4'	22:20:23:VAL:HG21	1.80	0.63
40:2i:11:LYS:H	40:2i:104:ARG:HH12	1.45	0.63
35:1d:15:GLU:HB3	35:1d:63:LYS:HZ1	1.63	0.63
40:1i:9:ARG:HG2	40:1i:14:VAL:HG23	1.81	0.63
1:2A:299:A:N1	1:2A:322:A:O2'	2.29	0.63
1:2A:2103:C:H2'	1:2A:2104:G:H8	1.62	0.63
6:2G:37:VAL:HG23	6:2G:99:MET:HG3	1.81	0.63
32:2a:67:C:H2'	32:2a:68:G:C8	2.33	0.63
38:2g:116:ALA:HA	38:2g:119:ARG:HB2	1.80	0.63
1:2A:709:U:H2'	1:2A:710:G:C8	2.33	0.63
14:2S:25:ARG:NH1	14:2S:42:ASP:OD2	2.31	0.63
32:1a:191:G:N3	51:1t:102:GLY:HA3	2.13	0.63
1:2A:2717:G:O2'	62:2A:3850:HOH:O	2.16	0.63
2:2B:48:A:H4'	14:2S:95:HIS:HD2	1.61	0.63
6:2G:66:GLN:HB2	6:2G:98:ARG:HD2	1.81	0.63
18:2W:78:GLU:OE2	18:2W:99:ARG:NH1	2.31	0.63
1:1A:228:A:H8	1:1A:229:A:H5'	1.63	0.63
1:1A:1176:G:N2	1:1A:1178:C:O5'	2.30	0.63
1:1A:2079:U:O3'	23:11:35:THR:OG1	2.16	0.63
2:1B:30:C:OP1	62:1B:302:HOH:O	2.16	0.63
21:1Z:3:TYR:CD2	21:1Z:51:ALA:HB2	2.34	0.63
12:2Q:109:VAL:HG13	12:2Q:113:GLN:HB3	1.80	0.63
21:2Z:152:ALA:HA	21:2Z:155:LEU:HD13	1.80	0.63
32:2a:920:U:H2'	32:2a:921:U:C6	2.34	0.63
34:2c:183:ASP:OD1	34:2c:184:TYR:N	2.32	0.63
1:1A:2292:C:OP1	14:1S:17:ARG:NH2	2.32	0.63
32:1a:527:G7M:O2'	32:1a:535:A:N1	2.25	0.63
32:1a:769:G:H4'	32:1a:1513:A:H4'	1.80	0.63
1:2A:721:C:H2'	1:2A:722:A:C8	2.34	0.63
3:2D:61:LEU:O	3:2D:63:ARG:NH1	2.32	0.63
32:2a:79:G:H2'	32:2a:80:G:C8	2.34	0.63
1:1A:1041:C:H42	1:1A:1114:G:H1	1.46	0.62
1:1A:2794:C:N4	1:1A:2802:G:H1	1.96	0.62
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.34	0.62
33:1b:27:LYS:O	33:1b:30:ARG:NH1	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:26:35:GLU:HG3	28:26:50:ARG:HG2	1.79	0.62
50:2s:19:VAL:O	50:2s:23:ASN:ND2	2.31	0.62
46:1o:33:THR:HG21	46:1o:85:LEU:HD22	1.79	0.62
32:2a:1010:G:H2'	32:2a:1011:G:H8	1.64	0.62
38:2g:67:GLU:HA	38:2g:70:LYS:HD3	1.80	0.62
1:1A:2159:G:H2'	1:1A:2160:G:H8	1.62	0.62
1:1A:2430:A:N3	1:1A:2430:A:H2'	2.14	0.62
32:1a:1239:A:H62	32:1a:1299:A:H61	1.47	0.62
42:1k:99:GLN:HG2	42:1k:105:VAL:HG21	1.80	0.62
1:2A:1076:C:H1'	1:2A:1077:A:H5'	1.80	0.62
1:2A:2445:G:OP1	5:2F:74:ARG:NH2	2.33	0.62
6:2G:36:LYS:HE3	6:2G:95:ARG:HH22	1.64	0.62
16:2U:27:LEU:HB3	16:2U:31:SER:HB3	1.81	0.62
2:1B:77:U:OP1	21:1Z:19:ARG:NH2	2.32	0.62
15:1T:53:ARG:NH2	15:1T:58:ASN:O	2.33	0.62
39:1h:4:ASP:OD2	39:1h:85:ARG:NH1	2.31	0.62
1:2A:2645:G:N2	1:2A:2767:C:OP2	2.33	0.62
17:2V:16:PRO:HD3	17:2V:99:ILE:HD11	1.82	0.62
36:2e:78:HIS:HB3	39:2h:107:LEU:HD12	1.81	0.62
36:2e:143:ARG:NH1	39:2h:77:GLU:OE2	2.32	0.62
1:1A:2116:G:OP1	1:1A:2166:G:N2	2.32	0.62
3:1D:108:PRO:HD2	3:1D:111:LEU:HG	1.81	0.62
1:2A:621:A:OP2	11:2P:108:LYS:NZ	2.31	0.62
1:2A:889:C:O2'	1:2A:890:A:O5'	2.18	0.62
53:2y:59:GLY:HA3	53:2y:88:LEU:HD22	1.81	0.62
1:1A:570:G:O6	62:1A:4102:HOH:O	2.15	0.62
1:1A:911:A:H2'	12:1Q:9:TYR:OH	1.99	0.62
32:1a:1030(C):G:H2'	32:1a:1030(D):A:H8	1.65	0.62
35:1d:65:ARG:HG3	35:1d:70:ILE:HG22	1.82	0.62
43:1l:117:ARG:NH1	62:1l:301:HOH:O	2.32	0.62
1:2A:1090:U:H2'	1:2A:1091:G:C8	2.35	0.62
1:2A:2157:G:H5''	1:2A:2158:A:H5'	1.81	0.62
1:2A:2376:A:N3	14:2S:106:ARG:NH2	2.48	0.62
32:2a:1508:G:OP1	62:2a:3213:HOH:O	2.16	0.62
50:2s:53:ASN:OD1	50:2s:53:ASN:N	2.33	0.62
3:1D:25:THR:HG21	3:1D:113:VAL:HG21	1.80	0.62
32:1a:1151:A:HO2'	32:1a:1152:A:H8	1.45	0.62
33:1b:231:GLU:O	33:1b:233:SER:N	2.33	0.62
1:2A:800:A:H8	1:2A:800:A:OP1	1.83	0.62
32:2a:737:A:H1'	37:2f:73:ASN:HD21	1.63	0.62
32:1a:201:C:H2'	32:1a:202:U:H2'	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1129:C:H5''	40:1i:16:ARG:HH12	1.63	0.62
39:1h:44:PHE:HE2	39:1h:109:ILE:HG12	1.64	0.62
1:2A:792:G:O6	62:2A:3833:HOH:O	2.13	0.62
1:1A:2126:A:H4'	1:1A:2127:G:O5'	1.98	0.62
7:1H:3:ARG:HH21	7:1H:65:HIS:HB3	1.64	0.62
32:1a:1481:U:O4	62:1a:1910:HOH:O	2.14	0.62
44:1m:40:ASN:HB3	44:1m:43:THR:HG23	1.81	0.62
48:1q:45:HIS:HB2	48:1q:65:ILE:HD13	1.82	0.62
32:2a:923:A:O2'	32:2a:1399:C:OP2	2.18	0.62
49:2r:70:ILE:HG22	49:2r:74:ARG:HD2	1.81	0.62
1:1A:686:G:H21	1:1A:788:A:H61	1.48	0.61
26:14:46:GLN:O	26:14:48:ARG:N	2.33	0.61
1:2A:1014:U:H2'	1:2A:1015:G:H8	1.63	0.61
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.15	0.61
1:2A:2294:C:P	14:2S:89:ARG:HH22	2.22	0.61
35:2d:72:GLU:OE2	35:2d:207:TYR:OH	2.14	0.61
36:2e:110:LEU:HD13	36:2e:118:ILE:HG21	1.82	0.61
50:2s:31:ILE:HB	50:2s:49:ILE:HG13	1.82	0.61
1:1A:2504:U:O2	62:1A:4139:HOH:O	2.13	0.61
32:1a:1069:C:OP2	62:1a:1914:HOH:O	2.16	0.61
38:1g:27:ILE:HD12	38:1g:40:ALA:HA	1.82	0.61
53:1y:43:LYS:NZ	53:1y:44:GLU:O	2.31	0.61
1:2A:588:U:H2'	1:2A:589:C:C6	2.35	0.61
1:2A:1101:U:H2'	1:2A:1102:C:C6	2.35	0.61
1:2A:2417:C:OP1	11:2P:65:ARG:NH2	2.33	0.61
32:2a:1295:G:H21	32:2a:1302:U:H3	1.48	0.61
34:2c:189:ALA:HB3	34:2c:196:LEU:HB2	1.82	0.61
38:2g:111:ARG:HB2	38:2g:119:ARG:HG2	1.82	0.61
1:1A:264:C:O2	62:1A:4136:HOH:O	2.12	0.61
6:1G:133:LEU:HD11	6:1G:157:ILE:HD12	1.83	0.61
14:1S:14:VAL:O	14:1S:18:ILE:HG12	2.01	0.61
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.35	0.61
49:1r:37:VAL:HG22	49:1r:78:LEU:HB3	1.81	0.61
53:1y:52:ALA:HB2	53:1y:77:LEU:HD21	1.81	0.61
1:2A:1064:C:H42	1:2A:1074:G:H1	1.48	0.61
1:2A:2404:C:O3'	11:2P:77:ARG:NH2	2.32	0.61
5:2F:132:VAL:HG21	5:2F:163:VAL:HG22	1.82	0.61
19:2X:53:LYS:HB3	19:2X:82:GLN:HB3	1.83	0.61
32:2a:1338:G:H2'	32:2a:1339:A:C8	2.35	0.61
20:1Y:41:GLY:N	20:1Y:64:GLU:OE2	2.27	0.61
32:1a:1264:C:H2'	32:1a:1265:G:C8	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:1h:111:ILE:HG22	39:1h:134:ILE:HD12	1.80	0.61
46:1o:55:GLY:HA2	46:1o:58:MET:HE3	1.82	0.61
1:2A:218:A:C2	1:2A:235:U:H4'	2.35	0.61
7:2H:46:GLU:HB2	7:2H:49:VAL:HG12	1.83	0.61
8:2I:72:LEU:HD21	8:2I:107:VAL:HG11	1.82	0.61
38:2g:74:GLU:OE2	38:2g:95:ARG:NE	2.30	0.61
1:1A:586:A:N1	1:1A:809:G:O2'	2.34	0.61
1:1A:667:U:O2	30:18:2:PRO:HD2	2.01	0.61
1:1A:2689:U:H4'	1:1A:2690:C:H5'	1.81	0.61
32:1a:1015:A:H2'	32:1a:1016:A:C8	2.34	0.61
38:1g:75:VAL:HG13	38:1g:145:ALA:HA	1.83	0.61
32:2a:735:C:H2'	32:2a:736:C:H6	1.66	0.61
32:2a:1003:G:H3'	32:2a:1003:G:N3	2.16	0.61
37:2f:89:MET:HE1	49:2r:72:ARG:HB3	1.82	0.61
44:2m:107:ALA:HB3	44:2m:111:LYS:HD2	1.82	0.61
1:1A:1550:C:OP1	1:1A:1720:U:O2'	2.14	0.61
6:1G:38:VAL:HG13	6:1G:93:THR:HG23	1.83	0.61
10:1O:121:VAL:HG23	58:1a:1858:MPD:H13	1.83	0.61
32:1a:236:G:OP1	48:1q:40:LYS:NZ	2.26	0.61
37:1f:97:PHE:O	49:1r:31:LEU:N	2.31	0.61
39:1h:51:VAL:HG12	39:1h:52:ASP:H	1.65	0.61
1:2A:195:A:OP1	11:2P:46:LYS:NZ	2.30	0.61
1:2A:1803:A:O2'	3:2D:259:THR:HG21	2.00	0.61
1:2A:2379:G:HO2'	14:2S:17:ARG:HH12	1.44	0.61
5:2F:101:LEU:HD12	5:2F:102:PRO:HD2	1.81	0.61
13:2R:56:LYS:NZ	13:2R:90:ARG:O	2.33	0.61
14:2S:92:TYR:HB3	14:2S:98:VAL:HG21	1.83	0.61
1:1A:1047:G:H2'	1:1A:1110:G:H22	1.64	0.61
1:1A:1304:C:OP2	62:1A:4156:HOH:O	2.16	0.61
1:1A:2042:A:OP1	62:1A:4153:HOH:O	2.15	0.61
1:1A:2064:C:OP2	62:1A:4155:HOH:O	2.16	0.61
6:1G:33:ARG:H	6:1G:162:THR:HG1	1.47	0.61
2:2B:42:C:O2'	6:2G:67:LYS:O	2.14	0.61
32:2a:630:G:O6	62:2a:3208:HOH:O	2.12	0.61
32:2a:986:A:N3	50:2s:52:TYR:OH	2.31	0.61
32:2a:1244:C:N4	32:2a:1293:G:H1	1.96	0.61
44:2m:102:ARG:HB3	44:2m:102:ARG:HH11	1.66	0.61
10:1O:64:ARG:HB2	10:1O:79:PHE:CD2	2.35	0.61
32:1a:328:C:H4'	32:1a:329:A:H5''	1.82	0.61
1:2A:709:U:H2'	1:2A:710:G:H8	1.64	0.61
8:2I:102:SER:HA	8:2I:107:VAL:H	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1372:U:H5''	40:2i:71:SER:HB3	1.82	0.61
1:1A:1063:G:H5''	1:1A:1065:U:H5	1.65	0.61
1:1A:1268:A:H2'	1:1A:1269:A:O4'	2.01	0.61
5:1F:53:THR:HG22	5:1F:55:GLY:H	1.66	0.61
1:2A:2611:U:C4	27:25:3:LYS:HG2	2.36	0.61
24:22:19:VAL:O	24:22:23:LYS:NZ	2.33	0.61
32:2a:93:G:H2'	32:2a:96:U:O4'	2.01	0.61
1:1A:686:G:N2	1:1A:788:A:H61	1.99	0.61
7:1H:121:ILE:HG13	7:1H:144:VAL:HG21	1.81	0.61
18:1W:86:LEU:HB2	18:1W:96:ILE:HG13	1.83	0.61
1:2A:2552:2MU:H2'	1:2A:2554:U:OP2	2.01	0.61
32:2a:460:G:H2'	32:2a:461:A:H2'	1.82	0.61
32:2a:620:C:C2	35:2d:135:LEU:HG	2.36	0.61
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.83	0.61
50:2s:20:LEU:HA	50:2s:23:ASN:HB2	1.83	0.61
1:1A:1816:G:O6	3:1D:35:LYS:NZ	2.25	0.60
32:1a:300:A:O2'	32:1a:564:C:N3	2.29	0.60
44:1m:11:ARG:HA	44:1m:45:VAL:HB	1.83	0.60
1:2A:848:G:H2'	1:2A:849:A:C8	2.35	0.60
1:2A:2460:U:H4'	12:2Q:79:LEU:HD11	1.82	0.60
32:2a:56:U:H2'	32:2a:57:G:H8	1.66	0.60
32:2a:90:U:H2'	32:2a:91:C:C6	2.35	0.60
32:2a:492:G:OP2	62:2a:3212:HOH:O	2.15	0.60
32:2a:1077:G:N2	32:2a:1080:A:OP2	2.29	0.60
32:2a:1376:U:H2'	32:2a:1377:A:H8	1.66	0.60
34:2c:120:VAL:HG11	34:2c:137:ALA:HB2	1.82	0.60
35:2d:108:LEU:HD13	35:2d:183:GLY:HA3	1.82	0.60
1:1A:2308:G:O2'	1:1A:2310:A:N7	2.34	0.60
7:1H:107:VAL:HG11	7:1H:162:ILE:HD11	1.83	0.60
32:1a:117:G:OP2	62:1a:1904:HOH:O	2.17	0.60
1:2A:833:U:O2	11:2P:55:ARG:NH1	2.33	0.60
1:2A:1058:G:H1'	1:2A:1082:U:H3	1.66	0.60
1:2A:2150:U:H2'	1:2A:2151:G:C8	2.36	0.60
20:2Y:77:PRO:HD2	20:2Y:106:LEU:HD23	1.82	0.60
53:2y:12:ILE:HG23	53:2y:16:ILE:HG23	1.83	0.60
1:1A:2267:A:OP1	62:1A:4157:HOH:O	2.17	0.60
1:1A:2515:C:H2'	1:1A:2516:G:H8	1.66	0.60
4:1E:127:ASP:OD2	62:1E:402:HOH:O	2.16	0.60
32:1a:1069:C:OP2	62:1a:1913:HOH:O	2.16	0.60
32:1a:1182:G:H4'	32:1a:1183:A:H5'	1.83	0.60
32:1a:1304:G:OP2	62:1a:1912:HOH:O	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:586:A:N1	1:2A:809:G:O2'	2.32	0.60
32:2a:737:A:H5''	37:2f:92:LYS:HG3	1.82	0.60
32:2a:1010:G:H2'	32:2a:1011:G:C8	2.36	0.60
32:2a:1030(A):G:H1'	32:2a:1030(C):G:N7	2.16	0.60
34:2c:153:VAL:HG22	34:2c:198:VAL:HG12	1.83	0.60
39:2h:9:MET:HG3	39:2h:26:VAL:HG11	1.83	0.60
1:1A:1371:G:O6	62:1A:4141:HOH:O	2.13	0.60
40:1i:5:TYR:H	40:1i:87:GLN:HE21	1.46	0.60
1:2A:2119:A:H61	1:2A:2168:G:H21	1.48	0.60
6:2G:170:ARG:NH2	6:2G:174:GLU:OE1	2.33	0.60
13:2R:53:HIS:ND1	13:2R:94:TYR:OH	2.31	0.60
1:1A:330:A:H2	1:1A:1210:A:HO2'	1.49	0.60
6:1G:179:PRO:HG3	26:14:43:TYR:OH	2.01	0.60
32:1a:674:G:H2'	32:1a:675:A:C8	2.35	0.60
33:1b:82:ARG:NH1	33:1b:86:GLU:OE2	2.34	0.60
1:2A:2693:A:H2'	1:2A:2694:G:H8	1.66	0.60
32:2a:1222:G:OP2	32:2a:1322:C:N4	2.33	0.60
42:2k:18:ARG:NH1	42:2k:35:PRO:O	2.32	0.60
32:1a:67:C:O2'	32:1a:171:A:N3	2.35	0.60
1:2A:2109:U:H2'	1:2A:2110:G:H8	1.67	0.60
4:2E:116:VAL:HG13	4:2E:122:PHE:HB2	1.82	0.60
7:2H:9:ILE:HD11	7:2H:69:ARG:HG2	1.84	0.60
23:21:59:THR:O	23:21:91:LYS:NZ	2.30	0.60
32:2a:143:A:H2	32:2a:220:G:H1	1.48	0.60
32:2a:737:A:H2'	32:2a:738:C:C6	2.36	0.60
32:2a:901:A:O2'	32:2a:1513:A:OP1	2.10	0.60
39:2h:64:LYS:HG2	39:2h:79:VAL:HG21	1.83	0.60
40:2i:54:ASP:N	40:2i:54:ASP:OD1	2.26	0.60
44:2m:53:VAL:O	44:2m:57:ARG:N	2.34	0.60
1:1A:2405:G:O2'	1:1A:2411:A:N6	2.35	0.60
1:1A:2889:C:H2'	1:1A:2891:G:O4'	2.02	0.60
5:1F:184:TYR:CE2	5:1F:188:ARG:HD2	2.37	0.60
29:17:30:VAL:O	29:17:34:ARG:HG3	2.01	0.60
32:1a:355:C:O2'	32:1a:388:G:N3	2.30	0.60
32:1a:1054:C:N4	53:1y:46:GLN:OE1	2.35	0.60
32:1a:1300:G:N7	62:1a:1940:HOH:O	2.31	0.60
40:1i:3:GLN:HE21	40:1i:20:ARG:HH21	1.50	0.60
1:2A:534:U:O2'	16:2U:49:HIS:ND1	2.24	0.60
1:2A:1096:A:H2'	1:2A:1097:U:O4'	2.02	0.60
1:2A:1314:C:OP1	62:2A:3805:HOH:O	2.16	0.60
1:2A:1426:G:O2'	1:2A:1572:A:N6	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:2A:3717:MPD:O4	58:2A:3717:MPD:O2	2.14	0.60
32:2a:1244:C:H2'	32:2a:1245:A:C8	2.35	0.60
44:2m:14:ARG:HE	44:2m:42:ALA:HA	1.66	0.60
1:1A:548:A:N6	17:1V:19:LYS:H	1.99	0.60
1:1A:2022:U:O2'	1:1A:2617:C:H5'	2.02	0.60
1:2A:2291:U:O2'	1:2A:2374:C:O2	2.18	0.60
1:2A:2572:A:OP1	1:2A:2574:G:O2'	2.18	0.60
2:2B:29:A:H2'	2:2B:30:C:O4'	2.02	0.60
1:1A:2159:G:H2'	1:1A:2160:G:C8	2.36	0.60
5:1F:64:ILE:HG21	5:1F:78:ILE:HG23	1.83	0.60
7:1H:3:ARG:NH1	7:1H:5:GLY:H	2.00	0.60
33:1b:24:TRP:CZ3	33:1b:26:PRO:HA	2.37	0.60
1:2A:2585:U:H1'	56:2v:1:FME:HE2	1.84	0.60
6:2G:63:ILE:HD12	6:2G:143:GLU:HB2	1.83	0.60
7:2H:27:LYS:HZ2	7:2H:32:GLU:HB2	1.66	0.60
20:2Y:15:VAL:HG21	20:2Y:42:VAL:HG11	1.84	0.60
21:1Z:14:LYS:HZ3	21:1Z:16:SER:H	1.49	0.60
36:1e:81:GLU:HG2	36:1e:90:VAL:HG13	1.84	0.60
1:2A:1359:A:N6	1:2A:1372:U:H3	1.99	0.60
1:2A:1633:G:O6	62:2A:3835:HOH:O	2.13	0.60
1:2A:2253:G:N7	62:2A:3963:HOH:O	2.32	0.60
21:2Z:102:LEU:HD23	21:2Z:137:ILE:HB	1.84	0.60
40:2i:50:LEU:HB3	40:2i:56:LEU:HA	1.84	0.60
13:1R:53:HIS:ND1	13:1R:94:TYR:OH	2.29	0.59
42:1k:34:ASP:HB3	42:1k:40:ILE:HD11	1.84	0.59
14:2S:49:VAL:HG11	14:2S:77:ALA:HB2	1.84	0.59
32:2a:649:G:O6	62:2a:3211:HOH:O	2.14	0.59
32:2a:1503:A:OP1	32:2a:1531:A:O2'	2.15	0.59
32:1a:1186:G:O3'	40:1i:113:LYS:NZ	2.32	0.59
33:1b:166:ASP:HB3	33:1b:169:LYS:HB3	1.84	0.59
40:1i:17:VAL:HB	40:1i:63:ILE:HG23	1.84	0.59
54:1w:76:PPU:H8	54:1w:76:PPU:C5'	2.24	0.59
1:2A:1167:U:H3	1:2A:1182:A:H61	1.49	0.59
5:2F:120:GLU:HB2	5:2F:122:LYS:HG2	1.83	0.59
32:2a:142:G:H2'	32:2a:143:A:H8	1.66	0.59
32:2a:593:G:H1	32:2a:646:U:H3	1.49	0.59
12:1Q:109:VAL:HG13	12:1Q:113:GLN:HB2	1.84	0.59
32:1a:718:G:H5'	42:1k:117:ASN:HB2	1.84	0.59
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.37	0.59
51:1t:10:LEU:HB3	51:1t:12:ALA:H	1.68	0.59
1:2A:271(L):U:OP1	8:2I:50:ARG:NH1	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:2R:62:ALA:HA	13:2R:65:LEU:HD12	1.84	0.59
1:1A:135:G:N7	62:1A:4316:HOH:O	2.31	0.59
1:1A:548:A:O2'	1:1A:549:G:OP1	2.20	0.59
32:1a:266:G:H5'	32:1a:268:C:H41	1.66	0.59
39:1h:9:MET:HG3	39:1h:26:VAL:HG21	1.83	0.59
1:2A:2646:C:OP2	1:2A:2732:G:O2'	2.12	0.59
12:2Q:137:TYR:O	12:2Q:141:GLN:NE2	2.35	0.59
13:2R:12:ARG:O	13:2R:17:ARG:NH1	2.36	0.59
32:2a:390:C:H2'	32:2a:391:G:C8	2.37	0.59
32:2a:505:G:H2'	32:2a:506:G:H8	1.66	0.59
1:1A:456:C:O2'	19:1X:68:ARG:NH2	2.35	0.59
1:1A:1165:U:H2'	1:1A:1166:C:C6	2.37	0.59
1:1A:1335:U:OP1	19:1X:65:ARG:NH2	2.34	0.59
32:1a:750:G:N3	46:1o:23:GLY:HA3	2.17	0.59
32:1a:1030:C:N3	32:1a:1031:G:N2	2.51	0.59
32:1a:1129:C:O2'	32:1a:1139:G:N7	2.34	0.59
35:1d:15:GLU:HB3	35:1d:63:LYS:NZ	2.17	0.59
1:2A:871:U:OP1	12:2Q:5:ARG:NH1	2.36	0.59
7:2H:3:ARG:HH11	7:2H:4:ILE:H	1.50	0.59
21:2Z:110:GLY:HA3	21:2Z:174:VAL:HG11	1.82	0.59
23:21:4:VAL:HG12	23:21:11:ARG:HB3	1.83	0.59
32:2a:103:C:O2'	32:2a:172:A:N1	2.28	0.59
32:2a:931:C:H42	32:2a:1386:G:H1	1.51	0.59
1:1A:312:G:OP2	62:1A:4160:HOH:O	2.17	0.59
1:1A:1751:C:HO2'	1:1A:2861:G:HO2'	1.50	0.59
2:1B:66:A:H61	2:1B:108:U:H2'	1.67	0.59
32:1a:76:C:H2'	32:1a:77:G:C8	2.38	0.59
33:1b:106:LYS:H	33:1b:106:LYS:HD2	1.67	0.59
40:1i:10:ARG:HH22	40:1i:107:ARG:HH21	1.50	0.59
44:1m:4:ILE:HD11	44:1m:60:VAL:HG21	1.83	0.59
1:2A:1063:G:N7	1:2A:1070:A:H4'	2.18	0.59
1:2A:2140:C:H2'	1:2A:2141:G:C8	2.37	0.59
1:2A:2328:A:H2'	1:2A:2329:G:C8	2.38	0.59
1:2A:2602:A:OP1	62:2x:201:HOH:O	2.17	0.59
14:2S:94:TYR:OH	14:2S:106:ARG:NH1	2.24	0.59
32:2a:1118:C:H2'	32:2a:1119:C:C6	2.37	0.59
33:2b:74:LYS:HD2	33:2b:166:ASP:HB2	1.83	0.59
36:2e:48:ALA:HB2	36:2e:57:LYS:HE2	1.85	0.59
33:1b:9:GLU:OE2	33:1b:217:ARG:NH1	2.32	0.59
42:1k:84:VAL:HG13	42:1k:110:ASP:HA	1.85	0.59
1:2A:139(A):G:N7	62:2A:3965:HOH:O	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:171:G:H2'	1:2A:172:C:C6	2.37	0.59
1:2A:1771:C:OP1	62:2A:3855:HOH:O	2.17	0.59
6:2G:143:GLU:OE2	26:24:26:SER:OG	2.21	0.59
11:2P:19:VAL:HA	11:2P:27:HIS:HB3	1.84	0.59
14:2S:71:ARG:O	14:2S:75:GLU:HG2	2.02	0.59
32:2a:992:U:H4'	32:2a:993:G:O5'	2.02	0.59
32:2a:1028:C:C2	32:2a:1033:G:N1	2.70	0.59
33:2b:115:LEU:O	33:2b:119:GLU:HG2	2.01	0.59
32:1a:1053:G:N7	32:1a:1200:C:H5''	2.18	0.59
35:1d:57:ARG:HB3	35:1d:206:PHE:HB2	1.85	0.59
1:2A:810:U:OP1	62:2A:3852:HOH:O	2.16	0.59
1:2A:2104:G:C2	1:2A:2185:C:N3	2.71	0.59
32:2a:1144:G:N2	32:2a:1146:A:H62	2.01	0.59
32:1a:992:U:H4'	32:1a:993:G:H5'	1.84	0.59
32:1a:1070:U:H2'	32:1a:1071:C:C6	2.38	0.59
1:2A:802:A:O2'	62:2A:3851:HOH:O	2.16	0.59
1:2A:2473:U:OP1	1:2A:2475:C:N4	2.36	0.59
6:2G:47:LYS:HG3	6:2G:48:GLU:H	1.67	0.59
9:2N:128:HIS:O	9:2N:131:GLN:NE2	2.36	0.59
10:2O:64:ARG:HB2	10:2O:79:PHE:CG	2.38	0.59
1:1A:748:G:O2'	62:1A:4165:HOH:O	2.17	0.59
21:1Z:44:PHE:CZ	21:1Z:86:VAL:HG11	2.38	0.59
27:15:34:PRO:O	27:15:37:LYS:NZ	2.36	0.59
44:1m:97:PRO:HA	44:1m:110:ARG:HG3	1.85	0.59
1:2A:1086:A:OP1	1:2A:1104:C:O2'	2.14	0.59
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.38	0.59
32:2a:1367:C:H4'	41:2j:48:THR:HG21	1.85	0.59
32:1a:781:A:OP2	62:1a:1915:HOH:O	2.17	0.58
41:1j:47:PHE:N	41:1j:63:PHE:O	2.35	0.58
47:1p:27:LYS:HG3	47:1p:30:GLY:HA3	1.84	0.58
1:2A:686:G:N2	1:2A:788:A:H61	2.01	0.58
39:2h:95:VAL:HB	39:2h:99:GLU:HG3	1.83	0.58
44:2m:17:VAL:O	44:2m:20:THR:OG1	2.18	0.58
1:1A:1406:U:H2'	1:1A:1407:C:C6	2.38	0.58
32:1a:612:C:O2	32:1a:629:G:N2	2.35	0.58
36:1e:144:THR:H	36:1e:147:ASP:HB2	1.67	0.58
1:2A:600:G:N2	1:2A:605:C:O3'	2.36	0.58
21:2Z:72:ARG:NH2	21:2Z:97:GLU:O	2.35	0.58
32:2a:54:C:N4	32:2a:353:A:OP2	2.37	0.58
32:2a:1401:G:O6	53:2y:83:ARG:NH2	2.26	0.58
1:1A:771:G:N7	62:1A:4348:HOH:O	2.32	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1O:98:VAL:HG22	10:1O:118:ALA:HA	1.85	0.58
29:17:35:ARG:NH2	62:17:201:HOH:O	2.30	0.58
32:1a:575:G:O2'	32:1a:821:G:H5'	2.04	0.58
32:1a:840:C:H4'	32:1a:841:U:OP2	2.02	0.58
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.38	0.58
33:1b:178:ARG:HH12	39:1h:68:ARG:HH22	1.51	0.58
44:1m:37:THR:HB	44:1m:55:ARG:HD2	1.84	0.58
47:1p:15:PRO:HD2	47:1p:42:ARG:HD2	1.85	0.58
1:2A:1057:A:N6	1:2A:1087:G:OP1	2.35	0.58
1:2A:1186:G:OP2	62:2A:3853:HOH:O	2.17	0.58
10:2O:24:VAL:HG13	10:2O:33:ALA:HB2	1.85	0.58
16:2U:110:VAL:HG12	16:2U:114:LYS:HE2	1.85	0.58
32:2a:559:A:P	36:2e:126:ARG:HH22	2.26	0.58
32:2a:1235:U:O2'	32:2a:1305:G:OP1	2.22	0.58
38:2g:29:LYS:HD2	38:2g:101:LEU:HB2	1.84	0.58
1:1A:1252:G:N3	16:1U:33:ARG:HG2	2.17	0.58
1:1A:1256:G:H1'	5:1F:82:ILE:HD11	1.85	0.58
32:1a:911:U:OP2	43:1l:97:ARG:NH1	2.37	0.58
32:1a:1346:A:OP1	40:1i:120:ARG:NH1	2.32	0.58
1:2A:1379:A:H4'	1:2A:1380:G:OP2	2.01	0.58
1:2A:2657:A:O3'	7:2H:160:LYS:NZ	2.37	0.58
2:2B:49:C:H2'	2:2B:50:G:C8	2.38	0.58
16:2U:104:GLN:HE21	16:2U:105:VAL:HG23	1.68	0.58
1:1A:279:C:H42	1:1A:361:G:H1	1.51	0.58
1:1A:729:G:C6	3:1D:208:LYS:HB2	2.38	0.58
1:1A:801:G:OP2	62:1A:4159:HOH:O	2.17	0.58
32:1a:376:G:H5''	47:1p:5:ARG:HD3	1.85	0.58
1:2A:607:U:OP1	5:2F:102:PRO:HA	2.03	0.58
1:2A:990:A:OP2	62:2A:3853:HOH:O	2.17	0.58
1:2A:1371:G:HO2'	1:2A:1372:U:H5	1.50	0.58
3:2D:125:ILE:HB	37:2f:81:ILE:HD13	1.84	0.58
32:2a:505:G:H2'	32:2a:506:G:C8	2.39	0.58
32:2a:984:C:H2'	32:2a:985:C:C6	2.38	0.58
50:2s:41:VAL:HG13	50:2s:43:GLU:H	1.68	0.58
1:1A:604:G:OP2	11:1P:90:ARG:NH1	2.36	0.58
1:1A:1819:A:N1	62:1A:4337:HOH:O	2.32	0.58
1:2A:2324:C:H5''	1:2A:2325:G:H5'	1.86	0.58
1:2A:2584:U:H5'	54:2w:76:PPU:H103	1.85	0.58
15:2T:127:ALA:O	15:2T:129:ARG:N	2.37	0.58
32:2a:1047:G:H5''	45:2n:4:LYS:HD2	1.86	0.58
41:2j:10:GLY:HA3	41:2j:16:LEU:HD21	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:59:PHE:HE2	50:1s:42:PRO:HB3	1.68	0.58
32:1a:1096:C:H2'	32:1a:1097:C:H6	1.67	0.58
1:2A:668:G:H5'	1:2A:669:G:OP2	2.03	0.58
1:2A:2526:G:H5'	1:2A:2742:C:O2'	2.03	0.58
6:2G:64:THR:HG22	6:2G:94:LEU:HD11	1.85	0.58
8:2I:97:ILE:HG22	8:2I:101:LEU:HD13	1.86	0.58
26:24:59:PHE:HA	26:24:60:GLN:C	2.29	0.58
32:2a:691:G:H1'	32:2a:696:A:N6	2.19	0.58
32:2a:1004:A:H5''	32:2a:1025:U:C4	2.37	0.58
38:2g:30:ILE:HD13	38:2g:105:VAL:HG22	1.85	0.58
1:1A:876:C:H2'	1:1A:877:U:O4'	2.02	0.58
19:1X:60:ARG:NH1	29:17:47:ARG:HH12	2.02	0.58
32:1a:1005:A:H5'	32:1a:1038:C:H1'	1.86	0.58
32:1a:1292:U:OP2	38:1g:41:ARG:NH2	2.37	0.58
32:1a:1400:5MC:C2	53:1y:63:ALA:HA	2.38	0.58
35:1d:25:ARG:NH1	35:1d:30:LYS:O	2.36	0.58
43:1l:84:LEU:HB3	43:1l:104:VAL:HG21	1.85	0.58
1:2A:10:G:H2'	1:2A:11:G:H8	1.68	0.58
5:2F:129:PHE:CD2	5:2F:163:VAL:HG21	2.39	0.58
7:2H:149:ARG:NH1	7:2H:167:GLU:OE2	2.36	0.58
39:2h:51:VAL:HB	39:2h:60:ARG:HB2	1.85	0.58
1:1A:1788:C:OP1	62:1A:4158:HOH:O	2.17	0.58
1:1A:2834:G:OP2	62:1A:4167:HOH:O	2.17	0.58
22:10:3:HIS:HB3	62:10:218:HOH:O	2.04	0.58
32:1a:266:G:H5''	32:1a:267:C:C5	2.39	0.58
32:1a:271:C:H2'	32:1a:272:C:H6	1.69	0.58
1:2A:975(A):G:O2'	1:2A:1156:A:N1	2.36	0.58
1:2A:2134:A:N6	1:2A:2156:G:O2'	2.37	0.58
6:2G:43:LEU:HD12	6:2G:89:GLY:HA2	1.85	0.58
13:2R:72:ASP:HB3	13:2R:75:LEU:HB3	1.85	0.58
21:2Z:132:ASN:HD21	21:2Z:160:GLY:HA3	1.68	0.58
32:2a:1007:C:H2'	32:2a:1008:C:H6	1.69	0.58
32:2a:1118:C:H1'	32:2a:1179:A:C5	2.39	0.58
32:2a:1309:G:N7	44:2m:99:ARG:NH2	2.52	0.58
32:2a:1400:5MC:O2	53:2y:63:ALA:HA	2.04	0.58
35:2d:65:ARG:HG3	35:2d:75:PHE:CG	2.38	0.58
39:2h:4:ASP:OD1	39:2h:85:ARG:NH1	2.37	0.58
42:2k:27:ASN:OD1	42:2k:28:THR:N	2.36	0.58
1:1A:226:G:H21	1:1A:228:A:H62	1.52	0.58
1:1A:2164:C:H2'	1:1A:2165:G:H8	1.68	0.58
2:1B:43:C:H5''	26:14:1:MET:HG3	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:648:A:H2'	32:1a:649:G:H8	1.69	0.58
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.68	0.58
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.39	0.58
1:2A:2306:C:H3'	1:2A:2307:G:H2'	1.85	0.58
3:2D:133:LEU:HB3	3:2D:173:VAL:HG11	1.85	0.58
5:2F:165:ARG:HG2	5:2F:168:ARG:HH21	1.69	0.58
15:2T:57:PHE:HA	15:2T:79:HIS:HD2	1.69	0.58
18:2W:80:PRO:O	18:2W:100:THR:HB	2.04	0.58
32:2a:445:G:H2'	32:2a:446:G:O4'	2.04	0.58
32:2a:1289:A:OP1	52:2u:10:ARG:NH2	2.33	0.58
44:2m:92:HIS:CE1	44:2m:98:VAL:HG21	2.38	0.58
1:1A:1466:G:O2'	1:1A:1546:C:O2'	2.20	0.57
1:1A:2377:A:H2'	1:1A:2378:A:C8	2.39	0.57
32:1a:942:G:OP1	62:1a:1916:HOH:O	2.17	0.57
1:2A:959:A:N3	1:2A:2457:U:O2'	2.37	0.57
18:2W:18:ARG:HG3	18:2W:76:VAL:HB	1.86	0.57
32:2a:352:C:OP2	62:2a:3214:HOH:O	2.17	0.57
32:2a:1446:U:N3	32:2a:1452:C:O4'	2.36	0.57
1:1A:2787:C:H1'	4:1E:62:PRO:HG3	1.86	0.57
9:1N:73:THR:HG23	9:1N:82:LEU:HD11	1.86	0.57
32:1a:1054:C:H41	53:1y:46:GLN:CD	2.12	0.57
1:2A:1064:C:N4	1:2A:1074:G:H1	2.02	0.57
1:2A:1533:G:N2	1:2A:1536:C:N3	2.53	0.57
32:2a:1249:C:O2'	40:2i:73:GLN:NE2	2.36	0.57
35:2d:15:GLU:OE2	35:2d:59:ARG:NH1	2.37	0.57
35:2d:128:VAL:HG12	35:2d:129:ASN:HD22	1.67	0.57
51:2t:33:ILE:O	51:2t:37:SER:OG	2.18	0.57
1:1A:2002:G:OP2	13:1R:9:LYS:NZ	2.37	0.57
1:1A:2074:U:H2'	1:1A:2075:U:C6	2.38	0.57
1:1A:2393:A:H5'	11:1P:63:PRO:HB3	1.84	0.57
29:17:34:ARG:NH1	29:17:41:ARG:O	2.38	0.57
32:1a:309:G:O2'	32:1a:607:A:N1	2.33	0.57
32:1a:662:G:H2'	32:1a:663:A:C8	2.38	0.57
1:2A:1828:G:OP2	1:2A:1828:G:H8	1.87	0.57
10:2O:104:ARG:NH2	10:2O:121:VAL:O	2.37	0.57
32:2a:69:G:H2'	32:2a:70:G:H8	1.69	0.57
32:2a:736:C:H2'	32:2a:737:A:C8	2.39	0.57
44:2m:65:LYS:NZ	44:2m:73:GLU:OE1	2.36	0.57
1:1A:607:U:OP1	5:1F:102:PRO:HA	2.04	0.57
1:1A:2355:C:H1'	22:10:39:ARG:HH21	1.70	0.57
40:1i:9:ARG:H	40:1i:79:LEU:HD23	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1q:86:GLU:O	48:1q:90:ILE:HG13	2.04	0.57
1:2A:1754:C:OP1	15:2T:96:ARG:NH1	2.37	0.57
1:2A:2693:A:H2'	1:2A:2694:G:C8	2.39	0.57
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	1.86	0.57
32:2a:592:G:H2'	32:2a:593:G:H8	1.69	0.57
33:2b:119:GLU:OE2	33:2b:153:ARG:NH1	2.37	0.57
33:2b:122:PHE:HA	33:2b:127:ILE:HD11	1.87	0.57
34:2c:180:ALA:HB1	34:2c:203:PHE:HE1	1.68	0.57
40:2i:11:LYS:H	40:2i:104:ARG:NH1	2.02	0.57
1:1A:1124:C:OP1	62:1A:4170:HOH:O	2.18	0.57
3:1D:17:THR:O	3:1D:211:ARG:NH2	2.38	0.57
32:1a:461:A:O2'	32:1a:470:C:H5'	2.04	0.57
32:1a:596:C:OP2	62:1a:1917:HOH:O	2.18	0.57
35:1d:109:GLY:HA3	35:1d:165:MET:HG3	1.86	0.57
36:1e:91:LEU:HB3	36:1e:118:ILE:HD11	1.87	0.57
2:2B:45:A:O4'	6:2G:95:ARG:NH1	2.37	0.57
7:2H:101:ARG:NH2	7:2H:121:ILE:O	2.37	0.57
37:2f:68:PRO:HB2	37:2f:71:ARG:HG3	1.85	0.57
41:2j:38:ILE:HD13	41:2j:71:LEU:HD22	1.85	0.57
1:1A:453:C:O2	1:1A:457:A:O2'	2.20	0.57
1:1A:1096:A:H3'	1:1A:1097:U:H5''	1.85	0.57
1:1A:2390:U:OP2	62:1A:4164:HOH:O	2.17	0.57
1:1A:2515:C:H2'	1:1A:2516:G:C8	2.39	0.57
6:1G:53:LEU:O	6:1G:56:ALA:N	2.36	0.57
21:1Z:14:LYS:HE2	21:1Z:15:PRO:HD2	1.87	0.57
32:1a:1024:G:H2'	32:1a:1024:G:N3	2.19	0.57
36:1e:141:GLN:HA	36:1e:143:ARG:HH21	1.68	0.57
39:1h:116:LYS:HD3	39:1h:127:LEU:HD22	1.87	0.57
40:1i:56:LEU:HD23	40:1i:56:LEU:H	1.68	0.57
43:1l:56:ALA:HB3	43:1l:100:ILE:HD11	1.87	0.57
1:2A:2112:G:H2'	1:2A:2113:U:H6	1.69	0.57
1:2A:2291:U:OP1	1:2A:2380:C:O2'	2.22	0.57
7:2H:3:ARG:NH1	7:2H:4:ILE:H	2.02	0.57
32:2a:996:A:N1	32:2a:1045:C:O2'	2.37	0.57
1:1A:821:A:H2'	1:1A:946:G:H5''	1.86	0.57
1:1A:1647:G:OP1	62:1A:4152:HOH:O	2.17	0.57
1:1A:2584:U:H5'	54:1w:76:PPU:H103	1.87	0.57
32:1a:457:C:H2'	32:1a:458:C:C6	2.40	0.57
32:1a:1183:A:H3'	32:1a:1184:G:H5''	1.85	0.57
33:1b:198:ASP:OD1	39:1h:68:ARG:NH2	2.38	0.57
4:2E:28:ALA:HB3	4:2E:93:VAL:HG13	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:16:ARG:NH1	6:2G:31:VAL:HG21	2.19	0.57
32:2a:273:A:H1'	48:2q:16:GLN:HE21	1.70	0.57
32:2a:509:A:N3	32:2a:543:C:O2'	2.36	0.57
32:2a:1161:C:H2'	32:2a:1162:C:H6	1.70	0.57
32:2a:1320:C:H2'	32:2a:1321:C:O4'	2.04	0.57
32:2a:1456:G:N1	51:2t:51:GLU:OE2	2.38	0.57
35:2d:112:VAL:H	35:2d:116:GLN:NE2	2.03	0.57
38:2g:108:ALA:HA	38:2g:111:ARG:HD2	1.86	0.57
39:2h:7:ALA:O	39:2h:11:THR:OG1	2.14	0.57
1:1A:409:C:OP1	62:1A:4168:HOH:O	2.17	0.57
1:1A:644:A:H4'	1:1A:645:C:H5	1.70	0.57
1:1A:971:C:O2'	1:1A:983:A:N3	2.35	0.57
1:1A:1071:G:H1'	1:1A:1089:G:H2'	1.85	0.57
1:1A:2000:G:OP1	13:1R:5:LYS:NZ	2.37	0.57
32:1a:176:C:H2'	32:1a:177:C:C6	2.40	0.57
41:1j:5:ARG:NE	41:1j:73:ASP:OD1	2.25	0.57
1:2A:1035:U:H2'	1:2A:1036:G:H8	1.69	0.57
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.40	0.57
1:2A:1755:A:OP2	15:2T:113:LYS:NZ	2.37	0.57
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.39	0.57
1:2A:2305:A:H5''	6:2G:134:GLY:HA3	1.87	0.57
1:2A:2641:G:H5''	9:2N:76:SER:HB2	1.87	0.57
24:22:13:ALA:HB1	24:22:21:LEU:HD21	1.87	0.57
32:2a:1060:C:H2'	32:2a:1061:G:H8	1.69	0.57
32:2a:1090:U:H2'	32:2a:1091:U:C6	2.40	0.57
35:2d:154:ASN:HA	35:2d:159:ARG:NH2	2.19	0.57
1:1A:792:G:O2'	62:1A:4171:HOH:O	2.18	0.57
1:1A:1466:G:HO2'	1:1A:1546:C:HO2'	1.52	0.57
1:1A:2273:A:H2'	1:1A:2274:A:C8	2.40	0.57
25:13:7:LYS:HE3	25:13:32:GLN:NE2	2.19	0.57
31:19:22:ARG:HB2	31:19:24:TYR:HE2	1.70	0.57
32:1a:260:G:H2'	32:1a:261:U:C6	2.39	0.57
32:1a:266:G:H2'	32:1a:266:G:N3	2.19	0.57
1:2A:2111:C:H42	1:2A:2147:G:H22	1.53	0.57
1:2A:2119:A:H61	1:2A:2168:G:N2	2.02	0.57
3:2D:75:ILE:HG21	3:2D:99:ASP:HB2	1.86	0.57
21:2Z:3:TYR:CG	21:2Z:51:ALA:HB2	2.39	0.57
32:2a:1500:A:OP1	62:2a:3213:HOH:O	2.17	0.57
33:2b:48:MET:HA	33:2b:51:LEU:HG	1.86	0.57
40:2i:17:VAL:HA	40:2i:63:ILE:HG22	1.87	0.57
1:1A:2638:G:P	4:1E:82:ARG:HH22	2.28	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:102:ALA:O	36:1e:107:ARG:NH1	2.38	0.57
1:2A:2317:C:N4	1:2A:2318:G:O6	2.38	0.57
7:2H:89:ILE:HD11	7:2H:131:VAL:HG23	1.86	0.57
20:2Y:13:VAL:HG12	20:2Y:74:PRO:HA	1.87	0.57
41:2j:38:ILE:HB	41:2j:71:LEU:HB3	1.87	0.57
1:1A:907:U:O2'	12:1Q:101:ARG:NH2	2.32	0.56
1:1A:1063:G:H5''	1:1A:1065:U:C5	2.40	0.56
1:1A:1174:A:H1'	1:1A:1175:U:H5'	1.87	0.56
1:1A:2674:G:H5''	10:1O:26:LYS:HE3	1.87	0.56
23:11:53:VAL:HG22	23:11:74:VAL:HG13	1.87	0.56
35:1d:8:VAL:HG22	35:1d:21:LEU:HD13	1.87	0.56
1:2A:1647:G:H3'	1:2A:1647:G:OP2	2.05	0.56
1:2A:2377:A:H2'	1:2A:2378:A:C8	2.39	0.56
6:2G:68:PRO:HA	6:2G:92:VAL:HB	1.85	0.56
10:2O:64:ARG:HG2	10:2O:83:ALA:HB3	1.86	0.56
14:2S:31:SER:O	14:2S:97:ARG:NH2	2.37	0.56
15:2T:120:ARG:HA	15:2T:123:GLN:HG2	1.87	0.56
28:26:14:THR:OG1	28:26:48:VAL:O	2.18	0.56
30:28:14:VAL:HG23	30:28:24:ALA:HB2	1.86	0.56
32:2a:1086:U:H3	32:2a:1099:G:H22	1.50	0.56
38:2g:26:PHE:O	38:2g:30:ILE:HG12	2.05	0.56
38:2g:69:VAL:HG22	38:2g:135:VAL:HG13	1.87	0.56
40:2i:3:GLN:NE2	40:2i:20:ARG:HH21	2.02	0.56
1:1A:1566:A:OP1	3:1D:211:ARG:NH1	2.37	0.56
1:1A:1792:G:O2'	1:1A:1830:C:OP1	2.21	0.56
1:1A:2646:C:H2'	1:1A:2647:U:O4'	2.05	0.56
3:1D:263:ARG:NH2	62:1D:406:HOH:O	2.37	0.56
39:1h:10:LEU:HD22	39:1h:83:ILE:HD11	1.87	0.56
1:2A:568:U:O2'	62:2A:3856:HOH:O	2.17	0.56
1:2A:1010:A:OP2	62:2A:3859:HOH:O	2.18	0.56
1:2A:1592:C:H2'	1:2A:1593:G:H8	1.70	0.56
1:2A:1786:A:H1'	1:2A:1938:A:N6	2.19	0.56
2:2B:31:C:H4'	6:2G:29:TRP:CZ2	2.40	0.56
32:2a:376:G:H5''	47:2p:5:ARG:HD3	1.87	0.56
32:2a:578:C:O2'	32:2a:728:A:N3	2.28	0.56
34:2c:120:VAL:HA	34:2c:123:GLN:HG3	1.86	0.56
6:1G:66:GLN:OE1	6:1G:98:ARG:NE	2.35	0.56
12:1Q:58:PHE:O	12:1Q:60:ARG:N	2.38	0.56
24:12:59:ARG:NH2	62:12:102:HOH:O	2.30	0.56
32:1a:100:C:H2'	32:1a:101:A:C8	2.40	0.56
32:1a:1394:A:N1	32:1a:1500:A:O2'	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1665:A:O2'	10:2O:1:MET:HB3	2.05	0.56
1:2A:2109:U:H2'	1:2A:2110:G:C8	2.40	0.56
1:2A:2130:U:H2'	1:2A:2158:A:H61	1.69	0.56
1:2A:2483:C:N3	12:2Q:124:LYS:NZ	2.50	0.56
1:2A:2805:G:H2'	1:2A:2807:G:H8	1.70	0.56
2:2B:117:G:N7	62:2B:303:HOH:O	2.32	0.56
6:2G:152:LEU:HD22	6:2G:152:LEU:H	1.70	0.56
8:2I:124:GLY:H	8:2I:144:VAL:HB	1.70	0.56
19:2X:43:VAL:HG21	19:2X:81:VAL:HG11	1.87	0.56
43:2I:28:LYS:HE2	43:2I:64:TYR:HE2	1.69	0.56
44:2m:23:TYR:HB3	44:2m:67:GLU:HA	1.88	0.56
48:2q:66:SER:O	48:2q:70:ARG:NH1	2.35	0.56
34:1c:3:ASN:OD1	34:1c:3:ASN:N	2.38	0.56
1:2A:1002:G:H2'	1:2A:1003:G:O4'	2.06	0.56
5:2F:162:LEU:H	5:2F:162:LEU:HD12	1.70	0.56
32:2a:1151:A:O2'	32:2a:1152:A:O5'	2.24	0.56
32:2a:1346:A:OP1	40:2i:120:ARG:NH1	2.37	0.56
1:1A:566:U:H5''	11:1P:29:LYS:HE3	1.88	0.56
32:1a:581:G:N1	32:1a:759:A:OP2	2.23	0.56
32:1a:1308:U:H2'	32:1a:1309:G:H8	1.70	0.56
1:2A:1784:A:N1	62:2A:3974:HOH:O	2.33	0.56
13:2R:104:ARG:HD3	13:2R:111:LEU:HD21	1.86	0.56
32:2a:600:C:H2'	32:2a:601:C:C6	2.41	0.56
41:2j:8:LEU:HB2	41:2j:70:ARG:HB2	1.87	0.56
9:1N:15:LEU:HB2	9:1N:135:PRO:HB2	1.87	0.56
32:1a:1151:A:O2'	32:1a:1152:A:H8	1.88	0.56
41:1j:34:VAL:HG12	41:1j:74:ILE:HA	1.87	0.56
1:2A:1069:A:H2'	1:2A:1073:A:C5	2.41	0.56
1:2A:1429:G:H2'	1:2A:1430:C:C6	2.41	0.56
1:2A:2400:G:H2'	1:2A:2401:U:C6	2.41	0.56
20:2Y:37:VAL:HG21	20:2Y:72:VAL:HG21	1.88	0.56
32:2a:56:U:H2'	32:2a:57:G:C8	2.41	0.56
32:2a:620:C:H2'	32:2a:621:A:O4'	2.06	0.56
32:2a:1118:C:OP1	40:2i:9:ARG:NH1	2.39	0.56
43:2I:36:VAL:HG23	43:2I:82:VAL:HG22	1.87	0.56
1:1A:1082:U:N3	1:1A:1086:A:N6	2.26	0.56
1:1A:1113:U:H2'	1:1A:1114:G:C8	2.41	0.56
1:1A:2031:A:C6	1:1A:2498:C:H1'	2.40	0.56
1:1A:2116:G:N2	1:1A:2165:G:H22	2.03	0.56
1:1A:2304:G:O6	62:1A:4173:HOH:O	2.18	0.56
1:1A:2607:G:H2'	1:1A:2608:G:O4'	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2786:U:O2'	4:1E:62:PRO:O	2.21	0.56
16:1U:86:ALA:O	17:1V:49:THR:HG23	2.06	0.56
21:1Z:158:PRO:HG2	21:1Z:161:VAL:HG11	1.87	0.56
32:1a:1125:U:H4'	41:1j:5:ARG:NH2	2.19	0.56
50:1s:33:THR:OG1	50:1s:35:SER:OG	2.22	0.56
5:2F:178:PRO:HB2	5:2F:201:VAL:HG21	1.86	0.56
8:2I:133:HIS:HD2	8:2I:136:VAL:HG22	1.70	0.56
15:2T:57:PHE:HA	15:2T:79:HIS:CD2	2.40	0.56
18:2W:12:ILE:O	18:2W:101:SER:OG	2.23	0.56
34:2c:114:PRO:HA	34:2c:185:GLY:HA3	1.88	0.56
40:2i:70:LYS:O	40:2i:74:ILE:HG13	2.05	0.56
1:1A:380:U:OP1	62:1A:4175:HOH:O	2.18	0.56
1:1A:476:G:H4'	1:1A:502:A:N1	2.21	0.56
1:1A:2820:A:C8	4:1E:109:LYS:HE2	2.41	0.56
6:1G:150:ASP:OD1	6:1G:150:ASP:N	2.37	0.56
38:1g:50:ILE:HD12	38:1g:61:VAL:HB	1.88	0.56
1:2A:1467:C:C5	1:2A:1546:C:H2'	2.40	0.56
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.71	0.56
7:2H:154:PRO:HB3	7:2H:163:TYR:CE1	2.41	0.56
44:2m:15:VAL:O	44:2m:19:LEU:HG	2.06	0.56
47:2p:40:ASP:HB3	47:2p:48:TRP:HB2	1.87	0.56
1:1A:1064:C:O2	1:1A:1074:G:N1	2.38	0.56
1:1A:2328:A:H2'	1:1A:2329:G:C8	2.41	0.56
4:1E:116:VAL:HG21	4:1E:138:PRO:HB3	1.88	0.56
10:1O:64:ARG:HD3	10:1O:79:PHE:CD1	2.41	0.56
33:1b:74:LYS:NZ	33:1b:206:ASP:OD1	2.35	0.56
33:1b:178:ARG:HH12	39:1h:68:ARG:NH2	2.03	0.56
50:1s:22:LEU:O	50:1s:27:GLU:N	2.39	0.56
1:2A:127:A:H5''	1:2A:128:C:C6	2.41	0.56
1:2A:1341:U:OP2	1:2A:1394:U:O2'	2.18	0.56
1:2A:2061:G:O6	54:2w:76:PPU:HM3	2.05	0.56
8:2I:133:HIS:CD2	8:2I:136:VAL:HG22	2.41	0.56
32:2a:971:G:N2	32:2a:1363(A):A:OP2	2.33	0.56
45:2n:27:CYS:SG	45:2n:28:GLY:N	2.79	0.56
1:1A:1637:A:N3	62:1A:4361:HOH:O	2.33	0.56
3:1D:83:GLU:OE1	3:1D:104:TYR:OH	2.20	0.56
32:1a:1504:G:OP1	32:1a:1507:A:H4'	2.05	0.56
33:1b:30:ARG:HH22	33:1b:194:PRO:HB2	1.71	0.56
33:1b:76:GLN:HB3	33:1b:208:ILE:HG23	1.87	0.56
1:2A:1375:C:OP1	62:2A:3858:HOH:O	2.18	0.56
1:2A:2144:U:O2'	1:2A:2147:G:N1	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2553:G:H1	54:2w:75:C:H42	1.54	0.56
33:2b:114:ARG:HH21	33:2b:118:LEU:HD21	1.71	0.56
37:2f:69:GLU:CD	37:2f:69:GLU:H	2.13	0.56
42:2k:117:ASN:N	42:2k:117:ASN:OD1	2.38	0.56
1:1A:1844:C:H2'	1:1A:1845:G:H8	1.71	0.55
16:1U:58:ARG:HA	16:1U:61:TRP:CE3	2.41	0.55
32:1a:38:G:N2	32:1a:397:A:H5'	2.20	0.55
32:1a:448:A:P	32:1a:485:G:H22	2.29	0.55
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.40	0.55
34:1c:175:LEU:HD21	34:1c:201:TYR:HE1	1.70	0.55
36:1e:60:TYR:CZ	36:1e:64:ARG:HD3	2.40	0.55
1:2A:2689:U:P	1:2A:2719:G:H22	2.28	0.55
17:2V:99:ILE:O	17:2V:101:GLY:N	2.37	0.55
32:2a:501:C:OP1	43:2l:117:ARG:NH2	2.36	0.55
32:2a:598:U:H2'	32:2a:599:C:C6	2.41	0.55
1:1A:2139:C:H42	1:1A:2152:G:H1	1.52	0.55
18:1W:2:GLU:OE2	18:1W:72:LYS:NZ	2.27	0.55
29:17:34:ARG:NH2	62:17:202:HOH:O	2.35	0.55
32:1a:1198:G:N7	62:1a:1944:HOH:O	2.33	0.55
42:1k:109:VAL:HG21	49:1r:84:LYS:HD3	1.88	0.55
1:2A:443:A:H1'	1:2A:1201:C:O4'	2.06	0.55
1:2A:2206:G:H8	1:2A:2207:G:N7	2.04	0.55
32:2a:35:G:O2'	43:2l:118:SER:O	2.25	0.55
32:2a:1505:G:OP1	62:2a:3213:HOH:O	2.18	0.55
33:2b:68:ILE:HG12	33:2b:161:ALA:HB3	1.87	0.55
34:2c:134:ILE:HG23	34:2c:151:VAL:HB	1.88	0.55
1:1A:2345:G:H4'	1:1A:2346:A:H5''	1.88	0.55
10:1O:68:GLU:HB3	10:1O:78:ARG:HB2	1.87	0.55
42:1k:45:GLY:HA3	42:1k:55:LYS:HB2	1.88	0.55
1:2A:121:G:H4'	1:2A:149:A:H5'	1.88	0.55
1:2A:321:G:OP1	5:2F:135:LYS:NZ	2.26	0.55
1:2A:322:A:P	5:2F:169:ASN:HB2	2.45	0.55
1:2A:1230:C:H2'	1:2A:1231:G:C8	2.41	0.55
1:2A:1798:U:H5'	3:2D:259:THR:CG2	2.36	0.55
1:2A:2870:C:H2'	1:2A:2871:C:O4'	2.07	0.55
4:2E:48:GLN:HE21	4:2E:78:LEU:HD22	1.71	0.55
32:2a:236:G:OP1	48:2q:40:LYS:NZ	2.34	0.55
32:2a:735:C:H2'	32:2a:736:C:C6	2.41	0.55
34:2c:136:GLN:HG3	34:2c:140:ARG:HE	1.71	0.55
53:2y:40:ILE:O	53:2y:50:ALA:HA	2.06	0.55
53:2y:61:LEU:HD22	53:2y:81:LEU:HD22	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:864:G:N7	12:1Q:22:LYS:NZ	2.54	0.55
1:1A:2277:G:OP2	22:10:10:THR:HG21	2.06	0.55
32:1a:108:G:C6	51:1t:15:ARG:HG2	2.41	0.55
43:1l:24:VAL:HB	43:1l:27:LEU:HD12	1.86	0.55
51:1t:60:GLU:HG3	51:1t:81:LYS:HE3	1.89	0.55
1:2A:120:U:H5''	1:2A:122:G:OP2	2.07	0.55
1:2A:1014:U:H2'	1:2A:1015:G:C8	2.40	0.55
1:2A:1065:U:O2'	1:2A:1066:U:OP2	2.21	0.55
3:2D:264:LYS:O	3:2D:267:SER:OG	2.24	0.55
14:2S:53:SER:O	14:2S:57:LYS:N	2.39	0.55
15:2T:65:LYS:HE2	15:2T:67:SER:HB2	1.88	0.55
21:2Z:72:ARG:HG2	21:2Z:89:PHE:HB2	1.87	0.55
32:2a:352:C:O2'	32:2a:354:G:OP1	2.22	0.55
32:2a:1014:A:C2	32:2a:1219:U:H1'	2.40	0.55
32:2a:1105:A:H2'	32:2a:1106:G:H8	1.71	0.55
33:2b:210:SER:O	33:2b:212:GLN:N	2.40	0.55
1:1A:11:G:H2'	1:1A:12:U:H5'	1.87	0.55
1:1A:670:A:O2'	62:1A:4176:HOH:O	2.18	0.55
1:1A:1239:G:H2'	1:1A:1240:U:O4'	2.06	0.55
1:1A:1823:G:OP1	3:1D:54:ARG:NH1	2.39	0.55
20:1Y:92:ASN:H	20:1Y:93:GLY:HA2	1.72	0.55
32:1a:309:G:H1'	32:1a:608:A:C2	2.41	0.55
32:1a:942:G:N2	40:1i:124:GLN:OE1	2.31	0.55
32:1a:1068:G:H8	32:1a:1068:G:OP2	1.89	0.55
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.42	0.55
42:1k:85:ARG:HD3	42:1k:113:PRO:HD3	1.88	0.55
1:2A:746:A:H2'	1:2A:2612:C:H5''	1.88	0.55
1:2A:2441:C:OP2	1:2A:2586:C:O2'	2.21	0.55
1:2A:2467:C:H4'	12:2Q:123:HIS:CD2	2.42	0.55
16:2U:34:LYS:NZ	16:2U:37:GLU:OE1	2.30	0.55
32:2a:689:C:OP1	42:2k:27:ASN:ND2	2.38	0.55
33:2b:121:LEU:HD22	33:2b:127:ILE:HG23	1.89	0.55
1:1A:222:A:H5''	1:1A:421:U:OP1	2.07	0.55
1:1A:228:A:C8	1:1A:229:A:H5'	2.40	0.55
1:1A:1179:C:H2'	1:1A:1180:C:H6	1.72	0.55
1:1A:2690:C:OP1	13:1R:17:ARG:NH2	2.40	0.55
32:1a:603:U:H2'	32:1a:604:G:C8	2.41	0.55
32:1a:1025:U:C2	32:1a:1036:G:O6	2.59	0.55
40:1i:20:ARG:O	40:1i:60:ASP:N	2.28	0.55
1:2A:2519:U:OP2	62:2A:3857:HOH:O	2.18	0.55
12:2Q:135:ASP:HB2	21:2Z:81:ARG:HH12	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:189(K):U:H2'	32:2a:189(L):G:C8	2.42	0.55
32:2a:538:G:H5''	43:2l:114:LYS:HB2	1.89	0.55
32:2a:1103:C:OP1	33:2b:96:ARG:NH2	2.38	0.55
1:1A:700:G:O2'	1:1A:1632:A:N3	2.37	0.55
32:1a:262:A:H2'	32:1a:263:A:C8	2.40	0.55
32:1a:1279:A:O2'	32:1a:1281:U:OP2	2.16	0.55
33:1b:119:GLU:OE1	33:1b:153:ARG:NH1	2.34	0.55
39:1h:86:ILE:HG13	39:1h:133:LEU:HD22	1.89	0.55
1:2A:2784:C:H2'	1:2A:2785:C:H6	1.72	0.55
15:2T:60:THR:HG22	15:2T:77:PRO:HA	1.89	0.55
19:2X:50:LYS:HB3	19:2X:84:ALA:HB2	1.87	0.55
23:21:8:SER:HB3	23:21:66:HIS:CD2	2.42	0.55
32:2a:309:G:O2'	32:2a:607:A:N1	2.39	0.55
33:2b:12:GLU:OE2	33:2b:13:ALA:N	2.39	0.55
33:2b:229:VAL:HG12	33:2b:230:VAL:H	1.72	0.55
40:2i:77:ILE:HG22	40:2i:81:ILE:HD13	1.89	0.55
1:1A:1063:G:H1	1:1A:1075:C:N4	2.05	0.55
1:1A:1176:G:H4'	1:1A:1177:A:OP1	2.05	0.55
1:1A:2023:G:H5'	1:1A:2617:C:H4'	1.89	0.55
1:1A:2137:C:C2	1:1A:2154:G:N2	2.75	0.55
32:1a:624:C:H2'	32:1a:625:G:C8	2.41	0.55
32:1a:1137:C:H5'	32:1a:1138:G:C4	2.41	0.55
32:1a:1305:G:H22	32:1a:1331:G:H1'	1.71	0.55
34:1c:56:ASP:HB2	34:1c:67:THR:HB	1.88	0.55
1:2A:954:G:H5''	12:2Q:13:GLN:HB3	1.87	0.55
6:2G:94:LEU:HD22	6:2G:98:ARG:HG2	1.87	0.55
32:2a:297:G:N2	32:2a:300:A:OP2	2.38	0.55
32:2a:1504:G:OP1	32:2a:1507:A:H4'	2.07	0.55
1:1A:1047:G:H2'	1:1A:1110:G:N2	2.20	0.55
1:1A:1266:G:O5'	18:1W:15:ARG:NH2	2.40	0.55
1:1A:1472:A:H2'	1:1A:1473:G:O4'	2.06	0.55
1:1A:2749:A:OP1	7:1H:3:ARG:NH1	2.39	0.55
1:1A:2784:C:H1'	4:1E:37:ARG:NH1	2.22	0.55
21:1Z:29:TYR:HB3	21:1Z:34:ASN:HD22	1.71	0.55
1:2A:244:A:H4'	11:2P:74:GLU:HB2	1.87	0.55
1:2A:483:A:H5''	20:2Y:50:ARG:HD3	1.88	0.55
1:2A:1037:G:O6	62:2A:3849:HOH:O	2.16	0.55
1:2A:1876:A:H2'	1:2A:1877:A:C8	2.41	0.55
1:2A:2123:G:O6	1:2A:2175:C:N3	2.40	0.55
1:2A:2224:G:H4'	1:2A:2226:C:C2	2.42	0.55
1:2A:2459:A:OP2	62:2A:3861:HOH:O	2.18	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2467:C:OP1	31:29:6:SER:OG	2.24	0.55
8:2I:69:LYS:HG2	8:2I:138:ILE:HG12	1.89	0.55
32:2a:17:U:H2'	32:2a:18:C:C6	2.41	0.55
32:2a:1305:G:O2'	32:2a:1331:G:N2	2.38	0.55
39:2h:89:PRO:HA	39:2h:92:ARG:HE	1.72	0.55
1:1A:2250:G:O2'	1:1A:2496:C:OP1	2.24	0.55
1:1A:2857:G:N2	1:1A:2860:A:OP2	2.32	0.55
2:2B:55:U:O3'	6:2G:27:ASN:ND2	2.40	0.55
8:2I:77:LEU:HD11	8:2I:101:LEU:HD12	1.90	0.55
18:2W:58:ALA:HB1	18:2W:64:MET:HB2	1.89	0.55
32:2a:976:G:H5'	32:2a:1358:U:O2'	2.06	0.55
32:2a:1029:C:N4	32:2a:1030:C:H41	2.05	0.55
34:2c:18:TRP:O	34:2c:54:ARG:NH2	2.38	0.55
1:1A:1266:G:H3'	62:1A:4837:HOH:O	2.07	0.54
2:1B:31:C:H4'	6:1G:29:TRP:CH2	2.42	0.54
6:2G:32:PRO:HB2	6:2G:172:LEU:HD22	1.89	0.54
1:1A:1141:U:OP1	9:1N:25:ARG:NH1	2.40	0.54
1:1A:2784:C:H1'	4:1E:37:ARG:HH12	1.71	0.54
38:1g:103:TRP:CE2	38:1g:137:LYS:HG2	2.43	0.54
39:1h:96:GLY:O	39:1h:100:ILE:HG13	2.07	0.54
44:1m:45:VAL:HA	44:1m:48:LEU:HD12	1.90	0.54
1:2A:76:C:O2'	24:22:62:THR:OG1	2.21	0.54
1:2A:1045:A:N7	1:2A:1111:A:N6	2.55	0.54
1:2A:2107:C:H42	1:2A:2182:G:H1	1.53	0.54
1:2A:2111:C:N4	1:2A:2144:U:H4'	2.22	0.54
1:2A:2304:G:H22	1:2A:2312:U:H3	1.53	0.54
3:2D:228:PRO:HD3	3:2D:235:GLY:HA3	1.88	0.54
5:2F:155:LEU:HD11	5:2F:176:LEU:HD12	1.89	0.54
6:2G:82:LEU:HA	6:2G:86:MET:SD	2.47	0.54
7:2H:7:LEU:HB3	7:2H:69:ARG:HH21	1.70	0.54
32:2a:76:C:H2'	32:2a:77:G:H8	1.72	0.54
32:2a:984:C:H2'	32:2a:985:C:H6	1.71	0.54
34:2c:47:LEU:HB3	34:2c:52:LEU:HG	1.88	0.54
34:2c:63:ASN:HB2	34:2c:98:ASN:HB2	1.89	0.54
41:2j:8:LEU:HD23	41:2j:96:ILE:HG23	1.89	0.54
1:1A:247:G:H4'	1:1A:386:G:C5	2.43	0.54
1:1A:1939:5MU:OP1	1:1A:2604:U:O2'	2.22	0.54
1:1A:2331:G:O2'	1:1A:2336:A:N1	2.35	0.54
1:1A:2627:G:N2	1:1A:2777:G:OP2	2.40	0.54
6:1G:126:ASP:HB2	6:1G:130:ASN:H	1.73	0.54
40:1i:77:ILE:O	40:1i:81:ILE:HG23	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:154:G:OP1	23:21:96:LYS:NZ	2.38	0.54
1:2A:924:C:H2'	1:2A:925:C:C6	2.42	0.54
2:2B:4:C:H2'	2:2B:5:C:C6	2.43	0.54
5:2F:192:LEU:HD13	5:2F:194:MET:HE2	1.89	0.54
7:2H:89:ILE:HG22	7:2H:94:TYR:HB3	1.89	0.54
30:28:34:TRP:O	62:28:201:HOH:O	2.18	0.54
34:2c:150:LYS:HB3	34:2c:201:TYR:HB2	1.88	0.54
48:2q:62:SER:HB3	48:2q:72:ARG:HH11	1.72	0.54
1:1A:272(J):C:H2'	1:1A:274:G:H8	1.72	0.54
1:1A:323:G:C8	5:1F:171:PRO:HG3	2.42	0.54
1:1A:1371:G:H2'	1:1A:1372:U:H5	1.72	0.54
14:1S:3:ARG:C	14:1S:3:ARG:HD3	2.32	0.54
32:1a:219:C:H2'	32:1a:220:G:O4'	2.08	0.54
1:2A:271(D):G:H2'	1:2A:271(E):U:C6	2.41	0.54
1:2A:1581:G:H2'	1:2A:1582:C:O4'	2.08	0.54
1:2A:2074:U:H2'	1:2A:2075:U:C6	2.43	0.54
26:24:41:PRO:O	26:24:46:GLN:HA	2.08	0.54
32:2a:528:C:N4	43:2l:49:ASN:OD1	2.38	0.54
34:2c:47:LEU:HD13	34:2c:68:VAL:HG11	1.89	0.54
1:1A:65:C:H2'	1:1A:66:C:H6	1.72	0.54
1:1A:184:C:H2'	1:1A:185:U:C6	2.42	0.54
1:1A:813:U:H2'	1:1A:814:C:C6	2.42	0.54
1:1A:882:G:N2	1:1A:894:C:N3	2.50	0.54
1:1A:1753:G:N1	1:1A:1756:G:OP2	2.39	0.54
1:1A:2227:A:OP2	62:1A:4161:HOH:O	2.17	0.54
8:1I:130:TYR:HB3	8:1I:138:ILE:HB	1.90	0.54
32:1a:384:G:H2'	32:1a:385:C:H6	1.73	0.54
32:1a:757:U:H2'	32:1a:758:G:O4'	2.06	0.54
1:2A:422:A:H2'	1:2A:423:A:C8	2.43	0.54
1:2A:2742:C:OP1	31:29:35:ARG:HD3	2.06	0.54
7:2H:144:VAL:O	7:2H:148:ILE:HG12	2.06	0.54
32:2a:749:C:H2'	32:2a:750:G:H8	1.73	0.54
32:2a:1400:5MC:H4'	53:2y:80:LYS:HB3	1.89	0.54
34:2c:179:ARG:NH2	34:2c:206:GLU:OE1	2.40	0.54
50:2s:30:LEU:HD23	50:2s:48:THR:HB	1.89	0.54
1:1A:1849:G:H2'	1:1A:1850:G:H8	1.72	0.54
4:1E:7:VAL:HG23	4:1E:51:PHE:CE2	2.43	0.54
32:1a:1148:U:H2'	32:1a:1149:C:O4'	2.08	0.54
32:1a:1291:G:OP1	38:1g:41:ARG:NH2	2.40	0.54
35:1d:147:ALA:HA	35:1d:182:LYS:HA	1.88	0.54
40:1i:112:LYS:NZ	40:1i:113:LYS:O	2.39	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:1m:3:ARG:NH1	44:1m:8:GLU:OE2	2.40	0.54
1:2A:322:A:H3'	5:2F:169:ASN:OD1	2.08	0.54
1:2A:1939:5MU:OP1	1:2A:2604:U:O2'	2.20	0.54
1:2A:2564:A:C2	1:2A:2647:U:H4'	2.42	0.54
1:2A:2784:C:H1'	4:2E:37:ARG:HH12	1.73	0.54
1:2A:2788:C:O2'	1:2A:2809:A:N3	2.37	0.54
8:2I:69:LYS:O	8:2I:73:GLU:N	2.22	0.54
32:2a:1133:G:H2'	32:2a:1134:G:C8	2.42	0.54
33:2b:95:GLN:HG3	33:2b:147:LYS:HG2	1.90	0.54
38:2g:12:LEU:H	38:2g:12:LEU:HD12	1.73	0.54
1:1A:1025:G:C4	1:1A:1135:C:H1'	2.43	0.54
8:1I:27:ARG:HD2	23:11:71:TYR:CE2	2.41	0.54
10:1O:73:ASP:HB2	15:1T:82:LEU:HD13	1.90	0.54
34:1c:8:ILE:HG12	34:1c:184:TYR:HB3	1.89	0.54
5:2F:148:LEU:HD11	5:2F:193:VAL:HG21	1.89	0.54
12:2Q:118:LEU:HD12	12:2Q:131:ILE:HG23	1.89	0.54
32:2a:448:A:P	32:2a:485:G:H22	2.30	0.54
32:2a:890:G:O2'	32:2a:906:G:O6	2.23	0.54
38:2g:30:ILE:HD12	38:2g:120:ILE:HD13	1.90	0.54
38:2g:54:THR:O	38:2g:56:GLN:NE2	2.41	0.54
1:1A:446:G:OP1	16:1U:3:ARG:NH1	2.40	0.54
1:1A:2023:G:H4'	1:1A:2617:C:O3'	2.07	0.54
9:1N:33:LEU:HD12	9:1N:38:HIS:CE1	2.42	0.54
9:1N:46:VAL:HG23	9:1N:48:MET:HG2	1.88	0.54
11:1P:2:LYS:HE2	11:1P:4:SER:OG	2.08	0.54
13:1R:67:LEU:HG	13:1R:76:VAL:HG21	1.90	0.54
32:1a:246:A:N1	32:1a:278:G:O2'	2.36	0.54
32:1a:1023:G:N1	32:1a:1024:G:O6	2.40	0.54
35:1d:148:VAL:HB	35:1d:181:MET:HB3	1.89	0.54
1:2A:271(L):U:H4'	1:2A:271(M):G:H5'	1.90	0.54
1:2A:523:C:H4'	1:2A:540:C:O2	2.08	0.54
1:2A:974:G:OP1	1:2A:1187:G:O2'	2.13	0.54
1:2A:1063:G:OP1	1:2A:1065:U:O2'	2.26	0.54
21:2Z:144:LEU:HD21	21:2Z:150:LEU:HG	1.90	0.54
32:2a:583:A:H2'	32:2a:584:G:O4'	2.08	0.54
34:2c:83:ARG:O	34:2c:87:LEU:HG	2.07	0.54
43:2l:101:VAL:O	43:2l:104:VAL:HG22	2.07	0.54
1:1A:2482:G:OP1	62:1A:4177:HOH:O	2.18	0.54
6:1G:43:LEU:O	6:1G:45:GLU:HG2	2.08	0.54
14:1S:15:ARG:HB3	14:1S:19:LYS:HE3	1.90	0.54
32:1a:1308:U:H2'	32:1a:1309:G:C8	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:208:ILE:HD12	33:1b:209:ARG:H	1.73	0.54
1:2A:807:U:OP2	11:2P:41:ARG:NH2	2.41	0.54
1:2A:1783:A:H5'	1:2A:2608:G:H4'	1.90	0.54
7:2H:24:VAL:HG11	7:2H:72:ILE:HD12	1.89	0.54
17:2V:57:VAL:HG12	17:2V:99:ILE:HG23	1.90	0.54
32:2a:533:A:O2'	32:2a:535:A:OP2	2.17	0.54
32:2a:978:A:OP1	32:2a:1361:G:N1	2.28	0.54
36:2e:102:ALA:HB1	36:2e:106:PRO:HG2	1.90	0.54
38:2g:73:MET:HG3	38:2g:90:GLU:HA	1.90	0.54
1:1A:229:A:H5''	1:1A:230:U:H5'	1.90	0.54
1:1A:531:C:H4'	1:1A:532:A:H5''	1.89	0.54
1:1A:548:A:H61	17:1V:19:LYS:H	1.55	0.54
1:1A:1085:A:O2'	1:1A:1104:C:O2'	2.14	0.54
1:1A:2853:C:H2'	1:1A:2854:G:H8	1.73	0.54
32:1a:131:C:H2'	32:1a:132:C:C6	2.43	0.54
32:1a:692:U:H1'	32:1a:695:A:N7	2.22	0.54
32:1a:1026:G:H5''	32:1a:1027:C:H5	1.73	0.54
32:1a:1070:U:H2'	32:1a:1071:C:H6	1.72	0.54
3:2D:242:ARG:HG2	3:2D:246:PRO:HG3	1.90	0.54
13:2R:13:HIS:CE1	13:2R:16:HIS:HB2	2.43	0.54
32:2a:328:C:H4'	32:2a:329:A:H5'	1.89	0.54
32:2a:1273:G:H3'	32:2a:1274:G:H8	1.73	0.54
37:2f:70:ASP:OD1	37:2f:70:ASP:N	2.37	0.54
42:2k:52:GLY:H	42:2k:55:LYS:HZ3	1.56	0.54
45:2n:27:CYS:SG	45:2n:29:ARG:HG3	2.48	0.54
51:2t:56:MET:SD	51:2t:88:VAL:HG21	2.47	0.54
1:1A:1800:C:OP1	3:1D:264:LYS:NZ	2.36	0.53
1:1A:1921:G:H2'	1:1A:1922:G:C8	2.43	0.53
1:1A:2019:A:N7	27:15:9:LYS:HE2	2.23	0.53
1:1A:2128:C:N4	1:1A:2160:G:H1	2.05	0.53
1:1A:2478:A:O2'	1:1A:2536:G:N2	2.41	0.53
1:1A:2537:U:H2'	1:1A:2538:C:C6	2.44	0.53
21:1Z:152:ALA:HA	21:1Z:155:LEU:HD22	1.89	0.53
40:1i:4:TYR:HB3	40:1i:87:GLN:HG2	1.89	0.53
1:2A:2687:U:H2'	1:2A:2688:U:O4'	2.08	0.53
7:2H:46:GLU:HG3	7:2H:51:ARG:HH21	1.73	0.53
7:2H:159:GLU:HG3	7:2H:169:VAL:HG11	1.89	0.53
32:2a:642:A:N3	39:2h:113:SER:OG	2.41	0.53
32:2a:1005:A:H1'	32:2a:1025:U:O2	2.08	0.53
32:2a:1304:G:H1'	32:2a:1333:A:H61	1.72	0.53
1:1A:222:A:H3'	1:1A:421:U:H5'	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2319:G:H22	14:1S:3:ARG:HG2	1.72	0.53
10:1O:49:ARG:NH1	32:1a:1422:G:O3'	2.40	0.53
35:1d:59:ARG:HH22	35:1d:66:ARG:NH1	2.06	0.53
38:1g:77:SER:OG	38:1g:86:GLN:NE2	2.41	0.53
39:1h:33:GLU:HG2	39:1h:59:LEU:HD11	1.89	0.53
47:1p:57:ARG:HE	47:1p:79:VAL:HA	1.72	0.53
1:2A:896:A:C4	21:2Z:146:ILE:HG21	2.43	0.53
4:2E:174:ASP:OD1	4:2E:175:VAL:N	2.38	0.53
10:2O:120:GLU:HB2	15:2T:68:TYR:HE2	1.73	0.53
32:2a:1005:A:OP2	32:2a:1024:G:N2	2.40	0.53
32:2a:1189:C:O2	62:2a:3216:HOH:O	2.18	0.53
33:2b:149:LEU:HD12	33:2b:152:PHE:HB3	1.89	0.53
49:2r:32:ARG:HA	49:2r:69:THR:HG21	1.90	0.53
1:1A:1688:U:O2	1:1A:1700:A:H5'	2.08	0.53
11:1P:50:ARG:HD3	30:18:7:HIS:CD2	2.43	0.53
32:1a:919:A:O2'	32:1a:1080:A:N1	2.34	0.53
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.24	0.53
48:1q:81:ARG:NH1	48:1q:83:ASP:OD2	2.42	0.53
50:1s:36:ARG:NH1	50:1s:52:TYR:O	2.39	0.53
1:2A:251:A:C5	1:2A:252:G:H1'	2.43	0.53
1:2A:1833:U:O2'	1:2A:1969:A:N1	2.31	0.53
1:2A:2327:A:H5'	21:2Z:201:LYS:HG2	1.89	0.53
2:2B:103:G:N2	21:2Z:73:GLN:HE22	2.03	0.53
5:2F:114:VAL:HG11	5:2F:202:PHE:CZ	2.42	0.53
17:2V:1:MET:HE1	17:2V:44:LYS:H	1.74	0.53
26:24:18:CYS:SG	26:24:39:CYS:HB3	2.48	0.53
32:2a:131:C:H2'	32:2a:132:C:C6	2.43	0.53
32:2a:658:G:OP1	46:2o:8:LYS:NZ	2.41	0.53
32:2a:1329:A:OP2	52:2u:7:ARG:NH1	2.41	0.53
48:2q:57:VAL:HG12	48:2q:76:LEU:HA	1.89	0.53
53:2y:43:LYS:HA	53:2y:48:PHE:HD1	1.72	0.53
1:1A:1084:A:H2'	1:1A:1085:A:C8	2.44	0.53
1:1A:1292:U:H2'	1:1A:1293:C:C6	2.44	0.53
1:1A:2110:G:OP2	1:1A:2110:G:H8	1.90	0.53
3:1D:8:PRO:HB3	3:1D:14:ARG:HG3	1.91	0.53
9:1N:29:LYS:HD2	9:1N:140:VAL:HB	1.90	0.53
39:1h:36:LEU:HD12	39:1h:59:LEU:HD13	1.91	0.53
46:1o:69:TYR:HD1	46:1o:72:ARG:HH22	1.54	0.53
48:1q:88:TYR:HD2	48:1q:89:LEU:HD12	1.74	0.53
1:2A:10:G:H2'	1:2A:11:G:C8	2.44	0.53
1:2A:411:G:C5	11:2P:72:PRO:HB3	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1349:A:OP1	62:2A:3865:HOH:O	2.19	0.53
2:2B:87:G:N2	2:2B:90:A:OP2	2.37	0.53
11:2P:124:LYS:HE2	11:2P:146:VAL:HG21	1.90	0.53
32:2a:688:G:O2'	32:2a:704:A:N1	2.39	0.53
32:2a:1458:G:OP1	51:2t:35:THR:OG1	2.21	0.53
36:2e:9:LYS:HG3	36:2e:112:LEU:HD11	1.91	0.53
1:1A:1028:A:N6	1:1A:1125:G:H2'	2.23	0.53
1:1A:1405:U:H2'	1:1A:1406:U:C6	2.44	0.53
1:1A:1509(A):A:H2'	1:1A:1509(B):A:O4'	2.08	0.53
1:1A:1803:A:O2'	3:1D:259:THR:HG21	2.08	0.53
32:1a:255:G:H1'	48:1q:16:GLN:OE1	2.08	0.53
32:1a:1318:A:H5''	50:1s:3:ARG:HH12	1.74	0.53
1:2A:715:G:C2	46:2o:56:LEU:HD21	2.44	0.53
1:2A:1244:G:O5'	11:2P:7:ARG:HG2	2.08	0.53
1:2A:2198:A:O5'	8:2I:33:ARG:NH2	2.42	0.53
1:2A:2823:A:OP1	4:2E:113:PHE:HB2	2.09	0.53
5:2F:30:PRO:HA	11:2P:1:MET:HE1	1.90	0.53
7:2H:126:PRO:HD2	7:2H:130:ARG:HB3	1.90	0.53
24:22:19:VAL:HG12	24:22:23:LYS:HZ1	1.73	0.53
32:2a:513:C:H2'	32:2a:514:C:C6	2.43	0.53
38:2g:150:ALA:HB1	42:2k:57:THR:HG21	1.90	0.53
43:2l:32:PHE:HB3	43:2l:84:LEU:HD11	1.90	0.53
1:1A:1935:G:H1'	1:1A:1964:G:N2	2.24	0.53
1:1A:2262:U:OP1	1:1A:2387:U:O2'	2.24	0.53
5:1F:116:ASP:OD2	11:1P:1:MET:HB3	2.09	0.53
32:1a:520:A:N1	32:1a:536:C:H1'	2.24	0.53
32:1a:1032:G:H2'	32:1a:1033:G:O4'	2.07	0.53
36:1e:76:ILE:HD12	36:1e:142:LEU:HD21	1.89	0.53
48:1q:62:SER:HB3	48:1q:72:ARG:HH11	1.72	0.53
1:2A:458:G:O2'	1:2A:469:G:O6	2.22	0.53
2:2B:117:G:H4'	14:2S:54:LEU:HG	1.90	0.53
7:2H:143:GLN:NE2	7:2H:147:ASN:OD1	2.42	0.53
16:2U:104:GLN:NE2	16:2U:105:VAL:HG23	2.24	0.53
32:2a:1004:A:H5''	32:2a:1025:U:C5	2.44	0.53
32:2a:1125:U:O2'	32:2a:1126:U:O5'	2.17	0.53
33:2b:144:ARG:NH1	33:2b:148:TYR:OH	2.37	0.53
1:1A:71:A:N7	19:1X:31:HIS:HE1	2.07	0.53
1:1A:861:A:H2'	1:1A:862:G:O4'	2.09	0.53
1:1A:1058:G:O6	1:1A:1080:C:N3	2.42	0.53
1:1A:1518:U:H2'	1:1A:1519:G:O4'	2.09	0.53
1:1A:2206:G:H5''	1:1A:2207:G:C6	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2441:C:OP2	1:1A:2586:C:O2'	2.19	0.53
1:1A:2882:A:H5'	13:1R:96:ARG:HB2	1.89	0.53
6:1G:83:ARG:H	6:1G:86:MET:HE2	1.73	0.53
7:1H:40:GLU:OE1	7:1H:61:HIS:NE2	2.42	0.53
32:1a:1237:C:H3'	32:1a:1336:C:H41	1.73	0.53
33:1b:44:LEU:HA	33:1b:47:THR:HG23	1.91	0.53
40:1i:32:ASP:OD1	40:1i:33:PHE:N	2.42	0.53
1:2A:2400:G:H2'	1:2A:2401:U:H6	1.72	0.53
1:2A:2690:C:OP1	13:2R:17:ARG:NH2	2.42	0.53
6:2G:16:ARG:HH21	6:2G:28:VAL:HG12	1.74	0.53
15:2T:102:ILE:HG22	15:2T:105:LEU:HD12	1.90	0.53
32:2a:585:G:O3'	48:2q:34:LYS:NZ	2.41	0.53
32:2a:1221:G:OP1	32:2a:1320:C:N4	2.29	0.53
33:2b:35:GLU:HA	33:2b:41:ILE:HG12	1.89	0.53
34:2c:164:ARG:NH1	34:2c:166:GLU:OE1	2.41	0.53
1:1A:1439:A:OP1	62:1A:4180:HOH:O	2.19	0.53
1:1A:2103:C:H1'	1:1A:2187:G:H22	1.74	0.53
3:1D:242:ARG:HG3	3:1D:242:ARG:HH11	1.74	0.53
4:1E:116:VAL:HG13	4:1E:122:PHE:HB2	1.91	0.53
32:1a:580:U:H2'	32:1a:581:G:O4'	2.09	0.53
32:1a:1147:C:O2'	40:1i:5:TYR:OH	2.23	0.53
2:2B:3:C:H2'	2:2B:4:C:C6	2.44	0.53
6:2G:38:VAL:HG13	6:2G:93:THR:HG22	1.91	0.53
6:2G:54:GLU:O	6:2G:58:GLN:N	2.37	0.53
32:2a:748:C:H4'	32:2a:749:C:O5'	2.07	0.53
32:2a:1255:G:O3'	32:2a:1258:G:H1'	2.09	0.53
34:2c:8:ILE:HB	34:2c:16:ARG:HD2	1.91	0.53
1:1A:286:C:H2'	1:1A:287:C:C6	2.44	0.53
1:1A:1352:U:OP1	62:1A:4178:HOH:O	2.18	0.53
9:1N:94:HIS:HB3	9:1N:97:ARG:HD3	1.91	0.53
23:11:3:LYS:HG3	23:11:4:VAL:H	1.73	0.53
32:1a:45:U:H2'	32:1a:46:G:C8	2.44	0.53
38:1g:54:THR:CB	38:1g:56:GLN:HE22	2.22	0.53
38:1g:78:ARG:NH1	38:1g:154:TYR:O	2.41	0.53
1:2A:997:G:OP1	16:2U:92:ARG:NH1	2.36	0.53
1:2A:1275:A:N1	1:2A:1295:C:O2'	2.37	0.53
1:2A:1669:A:OP2	62:2A:3816:HOH:O	2.19	0.53
14:2S:50:SER:O	14:2S:76:LYS:NZ	2.37	0.53
15:2T:119:LYS:HB2	32:2a:1442(A):G:N2	2.24	0.53
32:2a:164:U:H2'	32:2a:165:C:H6	1.72	0.53
32:2a:186:C:H5'	51:2t:78:ALA:HB1	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1125:U:O2'	32:2a:1126:U:H2'	2.09	0.53
41:2j:6:ILE:HB	41:2j:72:VAL:HG23	1.90	0.53
1:1A:577:G:OP1	1:1A:2502:G:O2'	2.26	0.53
1:1A:747:U:O2	1:1A:2014:A:H1'	2.08	0.53
1:1A:1094:U:N3	1:1A:1096:A:H5'	2.24	0.53
1:1A:2406:U:OP1	1:1A:2411:A:N6	2.42	0.53
3:1D:37:LEU:HD13	3:1D:87:ASN:ND2	2.24	0.53
4:1E:101:ARG:CZ	4:1E:171:GLU:HB2	2.39	0.53
32:1a:1319:A:O2'	32:1a:1323:G:N7	2.41	0.53
34:1c:113:ALA:HB2	34:1c:202:ILE:HG13	1.90	0.53
40:1i:63:ILE:HG21	40:1i:77:ILE:HG12	1.90	0.53
1:2A:69:C:O2	1:2A:73:A:O2'	2.22	0.53
1:2A:185:U:H4'	1:2A:218:A:H4'	1.90	0.53
1:2A:330:A:HO2'	1:2A:331:A:H8	1.57	0.53
1:2A:531:C:H4'	1:2A:532:A:H5''	1.91	0.53
1:2A:1074:G:H2'	1:2A:1075:C:O4'	2.09	0.53
1:2A:1826:G:H4'	3:2D:242:ARG:CZ	2.39	0.53
1:2A:2134:A:N6	1:2A:2156:G:HO2'	2.06	0.53
1:2A:2371:G:O2'	28:26:46:HIS:ND1	2.34	0.53
1:2A:2660:A:H2'	1:2A:2661:G:O4'	2.09	0.53
1:2A:2786:U:OP1	4:2E:69:LYS:NZ	2.36	0.53
10:2O:63:VAL:HG11	10:2O:85:VAL:HG23	1.89	0.53
15:2T:54:ARG:HA	15:2T:59:THR:HG23	1.90	0.53
21:2Z:3:TYR:CD2	21:2Z:51:ALA:HB2	2.44	0.53
26:24:46:GLN:C	26:24:48:ARG:H	2.17	0.53
32:2a:224:C:H2'	32:2a:225:C:C6	2.43	0.53
32:2a:1033:G:H2'	32:2a:1034:G:H8	1.73	0.53
40:2i:95:LYS:H	40:2i:98:PRO:HG2	1.74	0.53
1:1A:120:U:OP2	62:1A:4172:HOH:O	2.18	0.52
1:1A:910:A:N3	1:1A:2264:C:O2'	2.35	0.52
3:1D:232:PRO:HB3	3:1D:244:ARG:CZ	2.40	0.52
10:1O:64:ARG:HB2	10:1O:79:PHE:CG	2.45	0.52
32:1a:164:U:H2'	32:1a:165:C:C6	2.43	0.52
32:1a:171:A:H2'	32:1a:172:A:C8	2.44	0.52
32:1a:392:G:H2'	32:1a:393:A:C8	2.44	0.52
32:1a:392:G:H2'	32:1a:393:A:H8	1.74	0.52
41:1j:27:ALA:HB2	41:1j:85:LEU:HD11	1.91	0.52
1:2A:748:G:C8	18:2W:89:ALA:HB1	2.44	0.52
1:2A:811:U:H2'	11:2P:21:ARG:HA	1.91	0.52
5:2F:11:VAL:HB	5:2F:18:ARG:HB2	1.91	0.52
18:2W:12:ILE:HD12	18:2W:42:ARG:HG2	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:119:GLU:OE1	21:2Z:122:ARG:NH1	2.42	0.52
32:2a:61:G:N7	51:2t:11:SER:OG	2.38	0.52
32:2a:555:C:H2'	32:2a:556:C:C6	2.43	0.52
32:2a:1127:G:H5'	32:2a:1280:A:O2'	2.08	0.52
32:2a:1326:C:OP1	52:2u:17:THR:OG1	2.17	0.52
39:2h:121:ASP:N	39:2h:121:ASP:OD1	2.41	0.52
1:1A:764:A:H5'	3:1D:210:GLY:HA2	1.91	0.52
1:1A:2122:U:H3	1:1A:2176:A:N6	2.07	0.52
10:1O:15:GLY:O	10:1O:47:ILE:HG13	2.09	0.52
33:1b:21:ARG:HA	33:1b:39:ILE:HA	1.90	0.52
39:1h:110:ALA:HB3	39:1h:121:ASP:HB3	1.90	0.52
44:1m:17:VAL:O	44:1m:20:THR:OG1	2.26	0.52
1:2A:247:G:H4'	1:2A:386:G:C5	2.44	0.52
1:2A:330:A:N7	1:2A:1210:A:O2'	2.33	0.52
1:2A:776:G:N7	1:2A:793:A:O2'	2.34	0.52
1:2A:861:A:H2'	1:2A:862:G:O4'	2.09	0.52
1:2A:1091:G:N2	1:2A:1100:C:O2	2.43	0.52
1:2A:1633:G:OP2	62:2A:3864:HOH:O	2.19	0.52
2:2B:30:C:OP2	14:2S:32:LEU:HD11	2.09	0.52
14:2S:14:VAL:O	14:2S:18:ILE:HG12	2.09	0.52
18:2W:41:LYS:NZ	62:2W:301:HOH:O	2.40	0.52
32:2a:353:A:H5'	32:2a:353:A:H8	1.74	0.52
33:2b:119:GLU:HG3	33:2b:153:ARG:HH12	1.75	0.52
1:1A:330:A:H2	1:1A:1210:A:O2'	1.92	0.52
1:1A:551:G:O2'	1:1A:1220:A:N3	2.36	0.52
1:1A:1142(A):A:C8	1:1A:1144:G:C8	2.97	0.52
9:1N:75:TYR:CE2	9:1N:77:GLY:HA2	2.43	0.52
18:1W:79:GLY:HA3	18:1W:100:THR:HG22	1.91	0.52
22:10:46:LYS:HB2	22:10:78:TYR:CE1	2.44	0.52
25:13:8:LEU:HG	25:13:31:LEU:HD23	1.90	0.52
25:13:26:LEU:O	25:13:35:ARG:NE	2.34	0.52
32:1a:517:G:N2	32:1a:533:A:OP2	2.35	0.52
32:1a:1368:G:OP1	40:1i:111:ARG:NH2	2.40	0.52
33:1b:92:TYR:HH	33:1b:150:SER:HG	1.56	0.52
35:1d:156:GLU:O	35:1d:160:GLN:HG2	2.08	0.52
35:1d:173:TRP:HB3	35:1d:187:ARG:HE	1.75	0.52
39:1h:120:THR:H	39:1h:123:GLU:HB2	1.75	0.52
44:1m:108:ARG:O	44:1m:112:GLY:N	2.30	0.52
1:2A:446:G:OP1	16:2U:3:ARG:NH1	2.42	0.52
1:2A:897:C:H2'	1:2A:898:C:C6	2.45	0.52
1:2A:1278:A:OP1	13:2R:36:THR:HG23	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:539:A:OP2	43:2l:115:LYS:NZ	2.42	0.52
32:2a:1323:G:H4'	32:2a:1363:C:N3	2.24	0.52
44:2m:95:GLY:O	44:2m:110:ARG:HG3	2.08	0.52
1:1A:957:A:N1	1:1A:2458:G:H4'	2.24	0.52
1:1A:2086:U:H2'	1:1A:2087:G:C8	2.45	0.52
21:1Z:40:ASP:HB3	21:1Z:43:GLU:HB2	1.91	0.52
32:1a:134:A:H61	47:1p:25:ARG:NH1	2.07	0.52
32:1a:261:U:OP2	51:1t:79:ARG:NH2	2.43	0.52
32:1a:295:C:H2'	32:1a:296:U:O4'	2.10	0.52
32:1a:620:C:C2	35:1d:135:LEU:HG	2.44	0.52
34:1c:83:ARG:O	34:1c:87:LEU:N	2.40	0.52
36:1e:92:LYS:HB3	36:1e:119:LEU:HB2	1.90	0.52
38:1g:74:GLU:O	38:1g:89:MET:N	2.36	0.52
41:1j:40:LEU:HB2	41:1j:69:ASN:HB2	1.90	0.52
1:2A:721:C:H2'	1:2A:722:A:H8	1.73	0.52
1:2A:828:U:H4'	1:2A:831:G:N1	2.25	0.52
1:2A:2820:A:OP2	1:2A:2821:A:N6	2.30	0.52
5:2F:203:GLN:HA	5:2F:206:ILE:HG12	1.91	0.52
7:2H:106:THR:O	7:2H:106:THR:OG1	2.25	0.52
32:2a:487:A:H2'	32:2a:488:C:O4'	2.09	0.52
32:2a:1161:C:H2'	32:2a:1162:C:C6	2.44	0.52
44:2m:84:ILE:HG13	44:2m:86:CYS:H	1.74	0.52
45:2n:47:LEU:HD22	45:2n:52:GLN:HB2	1.90	0.52
47:2p:22:THR:HA	47:2p:33:ILE:HG13	1.91	0.52
1:1A:652(V):C:H2'	1:1A:653:A:O4'	2.10	0.52
1:1A:2142:C:H2'	1:1A:2143:C:H6	1.73	0.52
1:1A:2345:G:N3	1:1A:2381:C:H2'	2.24	0.52
3:1D:39:LYS:NZ	3:1D:57:GLY:O	2.34	0.52
7:1H:149:ARG:NH1	7:1H:167:GLU:OE2	2.40	0.52
10:1O:63:VAL:HG12	10:1O:106:LEU:HD11	1.90	0.52
16:1U:110:VAL:O	16:1U:114:LYS:HG3	2.09	0.52
32:1a:1031:G:H2'	32:1a:1032:G:C8	2.44	0.52
32:1a:1239:A:H62	32:1a:1299:A:N6	2.07	0.52
34:1c:175:LEU:HD21	34:1c:201:TYR:CE1	2.44	0.52
1:2A:500:G:N2	1:2A:502:A:H3'	2.24	0.52
1:2A:903:C:H2'	1:2A:904:C:C6	2.45	0.52
32:2a:116:A:H61	32:2a:313:A:H1'	1.73	0.52
32:2a:173:U:H5''	32:2a:197:A:O4'	2.10	0.52
37:2f:69:GLU:O	37:2f:72:VAL:HG13	2.10	0.52
43:2l:27:LEU:O	43:2l:33:ARG:NH1	2.40	0.52
1:1A:1641:A:H2'	1:1A:1642:G:O4'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1B:12:C:O2'	2:1B:13:A:OP2	2.27	0.52
1:2A:2312:U:H4'	6:2G:71:THR:HB	1.90	0.52
2:2B:90:A:N7	2:2B:91:C:H1'	2.25	0.52
17:2V:25:LEU:H	17:2V:92:THR:HG1	1.57	0.52
32:2a:407:G:H2'	32:2a:408:A:C8	2.44	0.52
42:2k:65:ALA:HB3	42:2k:97:ALA:HB3	1.91	0.52
1:1A:1587:A:H2'	1:1A:1588:C:C6	2.45	0.52
1:1A:1812:A:O2'	3:1D:45:ASN:N	2.42	0.52
25:13:3:ARG:HD3	25:13:60:GLU:HG3	1.91	0.52
33:1b:163:PHE:HA	33:1b:185:ILE:HG12	1.92	0.52
50:1s:80:TYR:CZ	50:1s:82:GLY:HA2	2.45	0.52
1:2A:511:U:OP2	62:2A:3863:HOH:O	2.18	0.52
1:2A:567:A:OP2	11:2P:29:LYS:NZ	2.40	0.52
1:2A:806:C:O2	1:2A:2444:G:O2'	2.28	0.52
1:2A:2273:A:H2'	1:2A:2274:A:C8	2.45	0.52
1:2A:2330:G:O2'	22:20:41:ARG:O	2.23	0.52
2:2B:52:A:C5	14:2S:33:LYS:HE2	2.44	0.52
7:2H:121:ILE:HD11	7:2H:140:LYS:HG2	1.90	0.52
8:2I:52:ARG:HA	8:2I:55:ALA:HB3	1.92	0.52
12:2Q:42:ILE:HD13	12:2Q:97:VAL:HB	1.91	0.52
15:2T:123:GLN:HA	15:2T:126:ALA:HB3	1.92	0.52
17:2V:72:VAL:HG13	17:2V:85:LYS:HB3	1.92	0.52
32:2a:539:A:H2'	32:2a:540:G:C8	2.45	0.52
32:2a:1096:C:H2'	32:2a:1097:C:H6	1.75	0.52
33:2b:51:LEU:O	33:2b:55:PHE:HB2	2.09	0.52
35:2d:114:ARG:HA	35:2d:117:ALA:HB3	1.90	0.52
1:1A:2660:A:H2'	1:1A:2661:G:O4'	2.10	0.52
6:1G:166:ASP:OD2	62:1G:301:HOH:O	2.19	0.52
7:1H:28:GLY:HA3	7:1H:79:VAL:HB	1.92	0.52
9:1N:16:ILE:HG21	9:1N:26:LEU:HD11	1.91	0.52
28:16:10:LEU:HB2	28:16:52:VAL:HG12	1.92	0.52
32:1a:539:A:H2'	32:1a:540:G:C8	2.44	0.52
32:1a:1003:G:N2	32:1a:1004:A:H1'	2.25	0.52
32:1a:1031:G:H2'	32:1a:1032:G:H8	1.75	0.52
12:2Q:37:LEU:HD11	12:2Q:130:LYS:HB2	1.91	0.52
25:23:18:ASP:OD1	25:23:18:ASP:N	2.40	0.52
26:24:46:GLN:O	26:24:48:ARG:N	2.38	0.52
30:28:39:LYS:HE3	30:28:43:GLN:HE22	1.75	0.52
32:2a:611:A:H2	32:2a:630:G:H22	1.58	0.52
32:2a:664:G:N2	32:2a:741:G:H1	2.01	0.52
40:2i:46:ALA:O	40:2i:49:PRO:HD2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1557:C:H5''	1:1A:1558:A:OP2	2.10	0.52
20:1Y:44:ILE:H	20:1Y:44:ILE:HD12	1.74	0.52
28:16:9:LEU:HD13	28:16:51:GLU:HG3	1.92	0.52
32:1a:779:C:H2'	32:1a:780:A:O4'	2.10	0.52
43:1l:53:ARG:HB3	43:1l:69:TYR:HE1	1.75	0.52
1:2A:79:G:O2'	1:2A:346:A:N3	2.38	0.52
1:2A:271(Q):G:H2'	1:2A:271(R):G:C8	2.45	0.52
1:2A:407:G:OP2	62:2A:3868:HOH:O	2.19	0.52
1:2A:1078:U:H4'	1:2A:1079:C:OP1	2.10	0.52
1:2A:1094:U:O2'	1:2A:1096:A:H3'	2.10	0.52
1:2A:1514:U:H2'	1:2A:1515:G:C8	2.44	0.52
1:2A:2104:G:H1	1:2A:2185:C:N4	2.05	0.52
2:2B:55:U:H2'	2:2B:56:G:C8	2.44	0.52
21:2Z:30:ASN:HB3	21:2Z:90:VAL:HG23	1.91	0.52
32:2a:955:U:O2	50:2s:83:HIS:NE2	2.42	0.52
32:2a:1123:A:H4'	41:2j:37:PRO:HD2	1.92	0.52
32:2a:1329:A:N7	52:2u:7:ARG:NH2	2.58	0.52
36:2e:103:GLY:O	36:2e:107:ARG:HB3	2.10	0.52
40:2i:7:THR:O	40:2i:83:ARG:NH1	2.40	0.52
46:2o:74:ASP:HB3	46:2o:77:ARG:HB2	1.90	0.52
51:2t:16:HIS:O	51:2t:19:SER:OG	2.19	0.52
53:2y:62:VAL:H	53:2y:84:GLN:HE22	1.58	0.52
1:1A:11:G:C2'	1:1A:12:U:H5'	2.40	0.52
1:1A:639:U:H2'	1:1A:640:C:C6	2.44	0.52
1:1A:768:G:O2'	1:1A:1379:A:N1	2.38	0.52
1:1A:1080:C:H2'	1:1A:1081:U:C6	2.44	0.52
1:1A:1412:A:H2'	1:1A:1413:G:C8	2.45	0.52
1:1A:1495:A:H2'	1:1A:1496:A:C8	2.45	0.52
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.45	0.52
2:1B:11:C:H3'	2:1B:12:C:C6	2.45	0.52
3:1D:148:GLU:HB2	3:1D:151:LYS:HD2	1.92	0.52
8:1I:116:LEU:HD21	8:1I:120:ILE:HG13	1.91	0.52
26:14:40:HIS:HB3	26:14:43:TYR:HD2	1.74	0.52
32:1a:384:G:H2'	32:1a:385:C:C6	2.45	0.52
33:1b:9:GLU:HG3	33:1b:217:ARG:HH22	1.75	0.52
1:2A:23:G:OP1	1:2A:504:U:N3	2.29	0.52
1:2A:171:G:H2'	1:2A:172:C:H6	1.72	0.52
1:2A:2112:G:H2'	1:2A:2113:U:C6	2.45	0.52
32:2a:1259:C:N4	32:2a:1260:C:O2	2.43	0.52
35:2d:61:LYS:HD3	35:2d:206:PHE:CE2	2.45	0.52
1:1A:1066:U:H2'	1:1A:1067:A:C2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2206:G:H5''	1:1A:2207:G:C5	2.45	0.51
1:1A:2698:U:H2'	1:1A:2699:C:C6	2.46	0.51
16:1U:43:GLY:HA3	17:1V:73:SER:OG	2.10	0.51
32:1a:648:A:H2'	32:1a:649:G:C8	2.45	0.51
32:1a:1026:G:H3'	32:1a:1027:C:H6	1.75	0.51
33:1b:51:LEU:HG	33:1b:201:ILE:HG23	1.92	0.51
1:2A:595:C:H2'	1:2A:596:G:H8	1.75	0.51
1:2A:1425:G:H2'	1:2A:1426:G:O4'	2.09	0.51
1:2A:2327:A:H5'	21:2Z:201:LYS:HZ3	1.75	0.51
6:2G:113:ARG:HG2	6:2G:140:ILE:HA	1.91	0.51
8:2I:52:ARG:O	8:2I:56:LYS:N	2.38	0.51
14:2S:41:ASP:OD1	14:2S:43:GLU:HB3	2.10	0.51
32:2a:947:G:O3'	44:2m:109:THR:OG1	2.27	0.51
32:2a:966:M2G:HM13	32:2a:967:5MC:H1'	1.92	0.51
32:2a:986:A:H1'	50:2s:54:GLY:O	2.10	0.51
35:2d:102:ASP:OD1	35:2d:103:ASN:N	2.42	0.51
1:1A:1068:G:O2'	1:1A:1096:A:H1'	2.09	0.51
1:1A:1359:A:N6	1:1A:1372:U:H3	2.08	0.51
1:1A:2050:C:H5''	62:1A:5542:HOH:O	2.09	0.51
1:1A:2291:U:H2'	1:1A:2292:C:C6	2.46	0.51
6:1G:143:GLU:O	26:14:28:LYS:NZ	2.31	0.51
7:1H:3:ARG:NH2	7:1H:65:HIS:HB3	2.24	0.51
16:1U:69:CYS:HB3	16:1U:74:LEU:HD13	1.92	0.51
32:1a:559:A:P	36:1e:126:ARG:HH22	2.33	0.51
1:2A:390:A:H4'	1:2A:391:G:H5'	1.92	0.51
1:2A:1184:G:OP1	25:23:30:ARG:NH1	2.44	0.51
1:2A:2103:C:H2'	1:2A:2104:G:C8	2.44	0.51
1:2A:2286:A:P	28:26:29:ASN:HD22	2.33	0.51
1:2A:2647:U:H2'	1:2A:2648:C:C6	2.45	0.51
2:2B:43:C:H5''	26:24:1:MET:HG3	1.91	0.51
13:2R:103:ARG:NH1	13:2R:108:GLY:O	2.43	0.51
20:2Y:43:ASN:HD22	20:2Y:67:LEU:HG	1.76	0.51
32:2a:523:A:N1	43:2l:92:0TD:H6	2.25	0.51
32:2a:662:G:H2'	32:2a:663:A:C8	2.45	0.51
32:2a:1100:C:OP2	33:2b:96:ARG:HD2	2.10	0.51
32:2a:1194:U:H4'	36:2e:22:GLY:HA3	1.92	0.51
6:1G:50:ALA:C	6:1G:52:ILE:H	2.18	0.51
11:1P:11:GLY:O	62:1P:301:HOH:O	2.19	0.51
15:1T:24:PRO:HD3	15:1T:52:ILE:HD12	1.91	0.51
32:1a:194:C:H2'	32:1a:195:A:H5''	1.93	0.51
32:1a:1244:C:H2'	32:1a:1245:A:C8	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:41:VAL:HB	36:1e:113:ALA:HA	1.92	0.51
42:1k:50:TYR:HB3	42:1k:54:ARG:HB3	1.92	0.51
43:1l:76:ASN:ND2	43:1l:106:ASP:O	2.36	0.51
51:1t:57:ARG:HH12	51:1t:100:ILE:HB	1.75	0.51
1:2A:323:G:C8	5:2F:171:PRO:HG3	2.45	0.51
1:2A:858:U:O2	1:2A:2268:A:H2'	2.11	0.51
1:2A:1062:G:H2'	1:2A:1063:G:H8	1.76	0.51
1:2A:2385:C:OP2	62:2A:3869:HOH:O	2.19	0.51
6:2G:18:GLU:OE2	6:2G:21:ARG:NH2	2.42	0.51
7:2H:27:LYS:HA	7:2H:32:GLU:HA	1.91	0.51
12:2Q:135:ASP:OD1	21:2Z:49:ARG:NH1	2.43	0.51
18:2W:88:ARG:NH1	18:2W:94:ASP:OD2	2.43	0.51
32:2a:614:A:H2'	32:2a:615:C:C6	2.46	0.51
32:2a:1305:G:N2	32:2a:1331:G:H1'	2.25	0.51
33:2b:33:TYR:N	33:2b:41:ILE:O	2.39	0.51
1:1A:1712:C:H2'	1:1A:1713:U:O4'	2.11	0.51
1:1A:2107:C:N3	1:1A:2182:G:O6	2.43	0.51
1:1A:2133:G:H3'	1:1A:2157:G:H21	1.75	0.51
1:1A:2438:U:O2'	1:1A:2440:C:OP1	2.21	0.51
1:1A:2780:G:OP1	62:1A:4179:HOH:O	2.19	0.51
7:1H:3:ARG:HH22	7:1H:66:GLY:N	2.08	0.51
19:1X:13:LEU:HD11	24:12:40:SER:OG	2.10	0.51
32:1a:1298:C:P	38:1g:114:ARG:HH22	2.33	0.51
1:2A:606:U:H4'	1:2A:658:C:H4'	1.93	0.51
1:2A:2103:C:O2	1:2A:2187:G:N1	2.43	0.51
3:2D:141:VAL:HG13	3:2D:162:SER:HB2	1.91	0.51
23:21:53:VAL:HG22	23:21:74:VAL:HG13	1.92	0.51
32:2a:784:C:H2'	32:2a:785:G:O4'	2.11	0.51
32:2a:952:U:O4	44:2m:104:ARG:NE	2.40	0.51
34:2c:7:PRO:O	34:2c:11:ARG:NH1	2.43	0.51
47:2p:5:ARG:HH21	47:2p:24:ALA:HA	1.75	0.51
1:1A:839:U:H2'	1:1A:840:C:C6	2.46	0.51
1:1A:1105:U:H2'	1:1A:1106:G:H8	1.75	0.51
1:1A:1637:A:OP2	62:1A:4184:HOH:O	2.19	0.51
1:1A:2805:G:H2'	1:1A:2807:G:H8	1.75	0.51
2:1B:13:A:N1	2:1B:69:G:O2'	2.39	0.51
32:1a:691:G:H2'	32:1a:692:U:C6	2.45	0.51
34:1c:102:ASN:N	34:1c:102:ASN:OD1	2.44	0.51
41:1j:61:GLU:OE1	45:1n:45:ARG:NE	2.36	0.51
53:1y:24:LEU:HD23	53:1y:78:ILE:HD12	1.92	0.51
1:2A:1590:U:H2'	1:2A:1591:G:H8	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1721:G:H3'	1:2A:1722:A:H5''	1.93	0.51
8:2I:88:ILE:HG22	8:2I:123:LEU:HD12	1.92	0.51
12:2Q:72:LYS:HB3	12:2Q:94:VAL:HG23	1.91	0.51
32:2a:652:U:O2'	32:2a:653:A:OP2	2.23	0.51
32:2a:1362:C:H2'	32:2a:1363:C:H5''	1.93	0.51
1:1A:412:A:OP2	62:1A:4183:HOH:O	2.19	0.51
1:1A:848:G:H2'	1:1A:849:A:C8	2.45	0.51
1:1A:1266:G:O4'	18:1W:15:ARG:NH2	2.41	0.51
1:1A:2181:G:H2'	1:1A:2182:G:H8	1.73	0.51
4:1E:7:VAL:HG23	4:1E:51:PHE:HE2	1.75	0.51
4:1E:77:ILE:HD13	4:1E:195:LEU:HD13	1.93	0.51
10:1O:64:ARG:NH2	10:1O:99:PHE:O	2.43	0.51
11:1P:89:ALA:O	11:1P:121:LYS:NZ	2.31	0.51
27:15:35:GLU:HG2	27:15:51:TYR:CD1	2.46	0.51
32:1a:138:G:H1	32:1a:225:C:H42	1.57	0.51
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.45	0.51
33:1b:24:TRP:CD2	33:1b:40:HIS:HE1	2.29	0.51
1:2A:459:U:H5''	29:27:40:TRP:CD2	2.46	0.51
1:2A:579:G:H2'	1:2A:580:C:C6	2.45	0.51
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.25	0.51
1:2A:2816:C:H5''	13:2R:99:LYS:HE3	1.93	0.51
2:2B:33:G:C6	2:2B:34:U:C4	2.98	0.51
5:2F:29:ASN:HB3	5:2F:112:MET:HE1	1.92	0.51
6:2G:133:LEU:HD13	6:2G:134:GLY:H	1.76	0.51
10:2O:120:GLU:HB2	15:2T:68:TYR:CE2	2.46	0.51
12:2Q:58:PHE:C	12:2Q:60:ARG:H	2.19	0.51
21:2Z:1:MET:HA	21:2Z:55:HIS:CE1	2.46	0.51
25:23:6:VAL:HG22	25:23:56:VAL:HG13	1.92	0.51
32:2a:782:A:H2'	32:2a:783:C:O4'	2.11	0.51
1:1A:121:G:H4'	1:1A:149:A:H5'	1.93	0.51
1:1A:382:G:OP1	62:1A:4181:HOH:O	2.19	0.51
1:1A:857:C:H4'	22:10:23:VAL:HG21	1.91	0.51
1:1A:1921:G:H2'	1:1A:1922:G:H8	1.76	0.51
1:1A:2116:G:H22	1:1A:2165:G:H22	1.57	0.51
1:1A:2135:A:H4'	1:1A:2160:G:H4'	1.93	0.51
2:1B:74:U:H2'	2:1B:75:G:O4'	2.11	0.51
5:1F:53:THR:CG2	5:1F:55:GLY:H	2.23	0.51
26:14:46:GLN:CD	26:14:46:GLN:H	2.18	0.51
32:1a:7:G:H5'	32:1a:298:A:O4'	2.11	0.51
32:1a:1028:C:H2'	32:1a:1029:C:C4'	2.40	0.51
32:1a:1236:A:H2'	32:1a:1237:C:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1314:C:N4	50:1s:2:PRO:O	2.43	0.51
32:1a:1410:G:H2'	32:1a:1411:C:C6	2.45	0.51
1:2A:801:G:OP2	5:2F:55:GLY:HA2	2.11	0.51
1:2A:2802:G:H2'	1:2A:2803:C:O4'	2.10	0.51
1:2A:2869:G:H2'	1:2A:2870:C:O4'	2.09	0.51
7:2H:56:SER:HB2	7:2H:61:HIS:ND1	2.26	0.51
19:2X:29:TRP:CZ3	19:2X:78:LYS:HG3	2.45	0.51
32:2a:123:C:OP1	32:2a:311:C:O2'	2.28	0.51
32:2a:580:U:H2'	32:2a:581:G:O4'	2.11	0.51
39:2h:20:TYR:HA	39:2h:65:TYR:CZ	2.46	0.51
1:1A:1063:G:H2'	1:1A:1063:G:N3	2.25	0.51
1:1A:1066:U:O4	1:1A:1069:A:H2'	2.11	0.51
1:1A:2181:G:H2'	1:1A:2182:G:C8	2.46	0.51
17:1V:43:GLU:OE1	17:1V:43:GLU:N	2.43	0.51
32:1a:189(C):C:H2'	32:1a:189(D):C:O4'	2.11	0.51
35:1d:11:LEU:O	35:1d:15:GLU:HG2	2.11	0.51
49:1r:33:ASP:OD2	49:1r:36:ASN:N	2.44	0.51
1:2A:1590:U:H2'	1:2A:1591:G:C8	2.46	0.51
1:2A:2629:A:H1'	1:2A:2630:G:H5''	1.92	0.51
18:2W:10:VAL:HG12	18:2W:12:ILE:HG22	1.91	0.51
32:2a:1172:C:H2'	32:2a:1173:G:C8	2.46	0.51
33:2b:25:ASN:O	33:2b:27:LYS:N	2.44	0.51
39:2h:20:TYR:HE2	39:2h:75:ARG:HD2	1.75	0.51
40:2i:100:GLY:O	40:2i:103:THR:HG22	2.10	0.51
1:1A:1423:G:H2'	1:1A:1424:G:C8	2.46	0.51
1:1A:2893:G:H4'	1:1A:2894:G:O5'	2.11	0.51
26:14:62:ARG:O	26:14:64:GLY:HA2	2.10	0.51
39:1h:25:ASP:OD1	39:1h:60:ARG:HG3	2.10	0.51
47:1p:29:ASP:OD1	47:1p:29:ASP:N	2.42	0.51
52:1u:6:ARG:HG3	52:1u:15:ARG:HD2	1.93	0.51
1:2A:674:G:H2'	1:2A:804:A:H61	1.76	0.51
1:2A:862:G:O2'	2:2B:78:A:N3	2.43	0.51
1:2A:2627:G:O2'	1:2A:2781:A:N1	2.39	0.51
1:2A:2839:G:C5'	13:2R:46:GLY:HA2	2.39	0.51
15:2T:30:VAL:HG22	15:2T:86:ILE:HG12	1.92	0.51
32:2a:551:U:H2'	32:2a:552:U:C6	2.45	0.51
47:2p:17:TYR:HE2	47:2p:41:PRO:HG3	1.75	0.51
1:1A:684:G:OP1	29:17:16:HIS:ND1	2.42	0.51
1:1A:1178:C:H2'	1:1A:1179:C:C6	2.46	0.51
1:1A:2168:G:N2	1:1A:2171:A:H8	2.09	0.51
2:1B:90:A:C5	2:1B:91:C:H1'	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:12:SER:HB3	3:1D:208:LYS:HB3	1.93	0.51
6:1G:117:PHE:HZ	6:1G:179:PRO:HG2	1.76	0.51
11:1P:106:LEU:HD22	11:1P:112:LEU:HD13	1.92	0.51
22:10:46:LYS:HB2	22:10:78:TYR:CD1	2.45	0.51
32:1a:658:G:OP1	46:1o:8:LYS:NZ	2.34	0.51
32:1a:1112:C:H1'	34:1c:179:ARG:HE	1.76	0.51
32:1a:1216:G:OP2	62:1a:1919:HOH:O	2.19	0.51
1:2A:2689:U:H4'	1:2A:2690:C:H5'	1.93	0.51
2:2B:34:U:O4	2:2B:44:G:O2'	2.20	0.51
5:2F:24:LEU:HD23	5:2F:115:ALA:HA	1.91	0.51
15:2T:16:ARG:HH11	15:2T:19:LEU:HD21	1.76	0.51
16:2U:11:ARG:O	16:2U:15:LYS:HG3	2.11	0.51
24:22:35:LEU:HB3	24:22:50:ILE:HG12	1.93	0.51
32:2a:255:G:O6	32:2a:270:A:N6	2.44	0.51
32:2a:1097:C:O2'	32:2a:1169:A:N3	2.34	0.51
32:2a:1274:G:N2	32:2a:1275:A:N7	2.56	0.51
40:2i:23:ASN:HB2	40:2i:25:LYS:NZ	2.26	0.51
51:2t:18:GLN:O	51:2t:22:ARG:HG3	2.11	0.51
1:1A:27:G:O2'	1:1A:28:A:OP2	2.29	0.50
1:1A:526:A:OP1	62:1A:4174:HOH:O	2.18	0.50
1:1A:1300:U:H4'	1:1A:1301:A:C5'	2.40	0.50
1:1A:1310:G:OP2	29:17:9:ARG:NE	2.41	0.50
4:1E:59:VAL:HG11	4:1E:74:PRO:HB3	1.93	0.50
14:1S:25:ARG:HD3	14:1S:42:ASP:OD1	2.11	0.50
17:1V:74:LYS:HB2	17:1V:83:ARG:HB2	1.93	0.50
32:1a:279:A:C5	48:1q:98:LEU:HD23	2.45	0.50
47:1p:35:LYS:HG2	47:1p:37:GLY:H	1.76	0.50
1:2A:245:G:O6	30:28:8:LYS:NZ	2.39	0.50
1:2A:1165:U:H2'	1:2A:1166:C:C6	2.46	0.50
1:2A:1932:A:H2'	1:2A:1933:G:O4'	2.12	0.50
1:2A:2142:C:H2'	1:2A:2143:C:C6	2.46	0.50
1:2A:2158:A:H1'	1:2A:2159:G:C8	2.46	0.50
1:2A:2477:C:N4	31:29:10:ILE:HG23	2.26	0.50
1:2A:2772:C:H5'	4:2E:168:MET:SD	2.50	0.50
1:2A:2816:C:O2	1:2A:2883:A:O2'	2.26	0.50
2:2B:2:C:H2'	2:2B:3:C:H6	1.76	0.50
9:2N:58:ASP:N	9:2N:58:ASP:OD1	2.43	0.50
32:2a:899:C:H2'	32:2a:900:A:C8	2.46	0.50
32:2a:1003:G:H2'	32:2a:1004:A:H4'	1.92	0.50
34:2c:71:ALA:HB1	34:2c:109:PRO:HG3	1.92	0.50
1:1A:45:C:H2'	1:1A:47:C:C6	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:228:A:H2'	1:1A:230:U:O4'	2.11	0.50
1:1A:2818:G:OP2	13:1R:42:LYS:NZ	2.44	0.50
7:1H:11:VAL:HG21	7:1H:50:VAL:HG23	1.94	0.50
8:1I:68:LEU:HD21	8:1I:109:ILE:HD11	1.92	0.50
9:1N:65:LYS:N	62:1N:302:HOH:O	2.40	0.50
20:1Y:56:PRO:C	20:1Y:58:GLY:H	2.20	0.50
32:1a:141:A:H2'	32:1a:142:G:H8	1.76	0.50
40:1i:5:TYR:H	40:1i:87:GLN:NE2	2.09	0.50
1:2A:312:G:H4'	1:2A:331:A:N3	2.26	0.50
1:2A:538:G:H2'	1:2A:539:G:H8	1.76	0.50
1:2A:805:G:OP1	62:2A:3870:HOH:O	2.20	0.50
1:2A:817:C:H4'	1:2A:932:G:C5	2.46	0.50
1:2A:2131:G:N2	1:2A:2158:A:OP2	2.38	0.50
1:2A:2564:A:OP1	1:2A:2648:C:H4'	2.10	0.50
1:2A:2655:G:O2'	1:2A:2664:G:O6	2.29	0.50
5:2F:130:ALA:H	5:2F:142:TRP:CD1	2.29	0.50
5:2F:178:PRO:HB3	5:2F:198:ALA:HA	1.93	0.50
21:2Z:92:SER:HB2	21:2Z:94:GLU:CD	2.35	0.50
21:2Z:128:VAL:HG22	21:2Z:161:VAL:HA	1.91	0.50
24:22:64:LEU:O	24:22:68:ARG:HG2	2.11	0.50
26:24:1:MET:HE2	26:24:6:HIS:CG	2.46	0.50
32:2a:674:G:H22	32:2a:716:A:H2	1.59	0.50
32:2a:1162:C:H2'	32:2a:1163:C:H6	1.76	0.50
32:2a:1187:G:N2	45:2n:60:SER:OG	2.25	0.50
33:2b:57:PHE:HE2	33:2b:185:ILE:HD11	1.75	0.50
1:1A:314:A:N7	62:1A:4378:HOH:O	2.34	0.50
1:1A:918:A:H5''	2:1B:98:G:O2'	2.12	0.50
1:1A:1275:A:OP2	62:1A:4187:HOH:O	2.19	0.50
1:1A:1401:G:O6	62:1A:4169:HOH:O	2.17	0.50
1:1A:1638:C:O3'	1:1A:2709:G:N2	2.44	0.50
1:1A:2347:C:H2'	1:1A:2348:U:C6	2.46	0.50
62:1A:6049:HOH:O	18:1W:92:ARG:HD2	2.11	0.50
11:1P:59:LEU:HD11	30:18:10:ALA:HA	1.94	0.50
16:1U:27:LEU:HA	16:1U:30:LYS:HB2	1.93	0.50
32:1a:431:A:H2'	32:1a:432:A:O4'	2.11	0.50
35:1d:31:CYS:SG	35:1d:32:ALA:N	2.84	0.50
35:1d:102:ASP:HB3	35:1d:136:PRO:HB3	1.93	0.50
50:1s:13:ASP:HA	50:1s:16:LEU:HB3	1.93	0.50
1:2A:2251:OMG:OP2	62:2A:3867:HOH:O	2.19	0.50
9:2N:39:ARG:NH2	9:2N:41:ASP:OD2	2.43	0.50
21:2Z:45:ASP:HB3	21:2Z:46:LYS:HE2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:304:U:H2'	32:2a:305:G:C8	2.47	0.50
32:2a:881:G:P	43:2l:12:ARG:HH22	2.34	0.50
32:2a:1202:G:H1'	45:2n:29:ARG:HD2	1.94	0.50
32:2a:1346:A:H5''	40:2i:120:ARG:HH12	1.76	0.50
32:2a:1425:U:H2'	32:2a:1426:C:C6	2.47	0.50
34:2c:29:TYR:HE2	34:2c:33:LEU:HD22	1.77	0.50
1:1A:493:G:H2'	1:1A:494:G:O4'	2.11	0.50
1:1A:709:U:H2'	1:1A:710:G:C8	2.47	0.50
1:1A:1316:U:O2'	62:1A:4189:HOH:O	2.20	0.50
1:1A:2058:A:OP1	62:1A:4182:HOH:O	2.19	0.50
1:1A:2418:A:H2'	1:1A:2419:U:C6	2.46	0.50
8:1I:57:ARG:O	8:1I:61:ARG:HG2	2.11	0.50
32:1a:143:A:H2	32:1a:220:G:H1	1.60	0.50
32:1a:1094:G:OP1	62:1a:1918:HOH:O	2.19	0.50
36:1e:110:LEU:HD13	36:1e:118:ILE:HG21	1.94	0.50
39:1h:43:GLY:O	39:1h:64:LYS:HD2	2.11	0.50
41:1j:16:LEU:HD22	41:1j:68:HIS:HB2	1.93	0.50
1:2A:479:A:N3	1:2A:481:G:H5''	2.26	0.50
1:2A:747:U:O2	1:2A:2014:A:H1'	2.11	0.50
1:2A:840:C:H2'	1:2A:841:A:C8	2.46	0.50
1:2A:1090:U:H2'	1:2A:1091:G:H8	1.76	0.50
1:2A:2070:G:H2'	1:2A:2071:A:C8	2.45	0.50
5:2F:187:VAL:HG12	11:2P:3:LEU:HG	1.93	0.50
6:2G:4:ASP:HA	6:2G:8:LYS:NZ	2.26	0.50
7:2H:117:PRO:HG3	7:2H:123:PHE:CE2	2.46	0.50
7:2H:123:PHE:HA	7:2H:132:ARG:O	2.11	0.50
32:2a:677:U:H2'	32:2a:678:U:C6	2.46	0.50
32:2a:715:A:H2'	32:2a:716:A:C8	2.46	0.50
32:2a:1003:G:C5	32:2a:1004:A:H1'	2.46	0.50
32:2a:1054:C:O2	32:2a:1196:U:O2'	2.27	0.50
32:2a:1220:G:O3'	50:2s:36:ARG:HD3	2.11	0.50
35:2d:28:SER:HB3	35:2d:30:LYS:H	1.77	0.50
38:2g:122:HIS:HA	38:2g:125:MET:HB2	1.93	0.50
1:1A:644:A:H4'	1:1A:645:C:C5	2.46	0.50
1:1A:795:C:H2'	1:1A:796:C:C6	2.47	0.50
1:1A:1973:G:OP1	62:1A:4188:HOH:O	2.19	0.50
32:1a:1254:C:N4	41:1j:43:ARG:HH12	2.06	0.50
35:1d:61:LYS:HD2	35:1d:207:TYR:OH	2.11	0.50
38:1g:113:GLU:HG2	38:1g:119:ARG:HG2	1.93	0.50
47:1p:74:LEU:O	47:1p:79:VAL:HG22	2.11	0.50
1:2A:263:C:H2'	1:2A:264:C:O4'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:322:A:OP1	5:2F:168:ARG:NH1	2.45	0.50
32:2a:1434:A:H2'	32:2a:1435:G:O4'	2.12	0.50
34:2c:22:TRP:CE2	45:2n:54:PRO:HG2	2.47	0.50
35:2d:155:LEU:HD12	35:2d:156:GLU:H	1.76	0.50
36:2e:122:GLU:HB3	36:2e:126:ARG:HG2	1.93	0.50
38:2g:65:ALA:HB1	38:2g:127:ALA:HB3	1.93	0.50
52:2u:5:ASP:O	52:2u:11:GLY:HA3	2.11	0.50
1:1A:300:A:H2'	1:1A:334:C:H1'	1.92	0.50
1:1A:658:C:H2'	1:1A:659:C:C6	2.47	0.50
1:1A:878:A:H2'	1:1A:879:G:H5'	1.93	0.50
1:1A:2748:A:H5'	7:1H:4:ILE:HD13	1.93	0.50
1:1A:2853:C:H2'	1:1A:2854:G:C8	2.47	0.50
5:1F:122:LYS:HB3	5:1F:191:ARG:HG2	1.94	0.50
18:1W:80:PRO:O	18:1W:100:THR:HB	2.11	0.50
32:1a:102:G:O2'	32:1a:151:A:N3	2.35	0.50
32:1a:1492:A:H4'	32:1a:1493:A:N1	2.26	0.50
40:1i:118:LYS:HB2	40:1i:121:ARG:HB3	1.93	0.50
1:2A:335:C:H4'	20:2Y:73:ARG:HD2	1.93	0.50
1:2A:1882:C:H2'	1:2A:1883:G:O4'	2.12	0.50
1:2A:2364:C:H2'	1:2A:2365:G:O4'	2.12	0.50
1:2A:2850:A:N7	1:2A:2868:A:O2'	2.33	0.50
1:2A:2892:A:H2'	1:2A:2893:G:H5'	1.92	0.50
3:2D:108:PRO:HD2	3:2D:111:LEU:HD22	1.94	0.50
8:2I:94:ALA:HB2	8:2I:116:LEU:HD23	1.93	0.50
32:2a:501:C:H2'	32:2a:502:G:C8	2.47	0.50
33:2b:18:GLY:HA2	33:2b:42:ILE:HG13	1.93	0.50
38:2g:113:GLU:HG2	38:2g:119:ARG:HG3	1.93	0.50
41:2j:36:GLY:O	41:2j:38:ILE:HD12	2.12	0.50
41:2j:78:ASN:O	41:2j:80:LYS:N	2.44	0.50
44:2m:13:LYS:HA	44:2m:44:ARG:HH11	1.76	0.50
44:2m:73:GLU:OE2	44:2m:77:ASN:ND2	2.35	0.50
1:1A:42:G:OP2	62:1A:4186:HOH:O	2.19	0.50
1:1A:483:A:O4'	20:1Y:48:ALA:HB1	2.11	0.50
1:1A:1429:G:H2'	1:1A:1430:C:C6	2.46	0.50
1:1A:1936:A:OP1	1:1A:1937:A:H5'	2.12	0.50
1:1A:2600:A:H2'	1:1A:2601:C:C6	2.47	0.50
32:1a:738:C:H5''	37:1f:69:GLU:HB2	1.94	0.50
35:1d:107:ARG:HG3	35:1d:173:TRP:HH2	1.77	0.50
35:1d:128:VAL:HG12	35:1d:129:ASN:HD22	1.77	0.50
1:2A:526:A:OP1	62:2A:3862:HOH:O	2.18	0.50
1:2A:595:C:H2'	1:2A:596:G:C8	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1025:G:C4	1:2A:1135:C:H1'	2.45	0.50
1:2A:1028:A:N3	1:2A:2486:G:O2'	2.44	0.50
1:2A:1098:A:H3'	1:2A:1099:G:H8	1.77	0.50
1:2A:1359:A:OP2	1:2A:1371:G:N1	2.30	0.50
1:2A:1910:G:H2'	1:2A:1911:PSU:H6	1.76	0.50
1:2A:2171:A:H4'	1:2A:2172:U:OP1	2.09	0.50
1:2A:2312:U:H5'	6:2G:88:ILE:HD11	1.94	0.50
1:2A:2544:G:H1'	1:2A:2646:C:H4'	1.94	0.50
1:2A:2881:C:H2'	1:2A:2882:A:O4'	2.12	0.50
10:2O:12:ASP:OD1	10:2O:14:THR:OG1	2.28	0.50
32:2a:841:U:H3'	32:2a:848:C:O4'	2.12	0.50
32:2a:1328:C:OP1	52:2u:21:TYR:OH	2.26	0.50
40:2i:28:VAL:HB	40:2i:63:ILE:CG1	2.38	0.50
53:2y:87:LYS:O	53:2y:91:LYS:HB2	2.11	0.50
5:1F:11:VAL:HB	5:1F:18:ARG:HG3	1.94	0.50
18:1W:46:PHE:O	18:1W:50:VAL:HG23	2.12	0.50
32:1a:1030(C):G:N7	32:1a:1031:G:N2	2.59	0.50
33:1b:155:LEU:HD21	33:1b:159:PRO:HD3	1.93	0.50
37:1f:82:ARG:HB2	37:1f:85:VAL:HG23	1.94	0.50
37:1f:96:PRO:HB2	37:1f:98:LEU:HD21	1.94	0.50
1:2A:530:G:N1	1:2A:2023:G:OP1	2.36	0.50
1:2A:2507:C:H2'	1:2A:2508:G:O4'	2.12	0.50
1:2A:2578:G:OP1	62:2A:3872:HOH:O	2.20	0.50
5:2F:32:LEU:HD22	5:2F:112:MET:HE2	1.93	0.50
10:2O:64:ARG:HD2	10:2O:81:ASP:OD1	2.12	0.50
13:2R:9:LYS:O	13:2R:17:ARG:HD3	2.11	0.50
22:20:27:GLU:HG3	22:20:68:GLU:HA	1.93	0.50
40:2i:37:PHE:HA	40:2i:40:LEU:HD22	1.94	0.50
42:2k:97:ALA:O	42:2k:101:SER:HB3	2.12	0.50
1:1A:2639:A:OP2	62:1A:4163:HOH:O	2.17	0.50
4:1E:9:VAL:HG13	15:1T:3:ARG:HG2	1.93	0.50
32:1a:598:U:H4'	39:1h:94:TYR:CG	2.47	0.50
35:1d:61:LYS:HG3	35:1d:203:VAL:HG13	1.93	0.50
1:2A:180:G:N2	1:2A:215:G:O6	2.45	0.50
1:2A:667:U:O2	30:28:2:PRO:HD2	2.12	0.50
1:2A:1084:A:H3'	1:2A:1085:A:H4'	1.94	0.50
1:2A:1101:U:H2'	1:2A:1102:C:H6	1.77	0.50
1:2A:1153:C:H5'	16:2U:76:TYR:CE2	2.46	0.50
1:2A:1657:C:H2'	1:2A:1658:C:C6	2.47	0.50
1:2A:2104:G:C6	1:2A:2185:C:N4	2.78	0.50
1:2A:2114:A:O2'	1:2A:2167:U:H4'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1002:G:H2'	32:2a:1003:G:C5	2.47	0.50
32:2a:1218:C:H2'	32:2a:1219:U:C6	2.47	0.50
44:2m:91:ARG:HH22	44:2m:103:THR:HG21	1.77	0.50
1:1A:76:C:H2'	1:1A:77:C:H6	1.76	0.49
1:1A:568:U:O5'	1:1A:945:A:N6	2.45	0.49
1:1A:613:G:O2'	1:1A:614(C):A:N1	2.41	0.49
1:1A:862:G:O2'	2:1B:78:A:N3	2.42	0.49
1:1A:1231:G:H2'	1:1A:1232:G:C8	2.47	0.49
1:1A:1490:A:O2'	3:1D:99:ASP:OD1	2.30	0.49
6:1G:28:VAL:O	6:1G:31:VAL:HG13	2.11	0.49
25:13:49:LYS:O	62:13:201:HOH:O	2.20	0.49
32:1a:269:C:H2'	32:1a:270:A:C8	2.47	0.49
32:1a:313:A:H2'	32:1a:314:C:C6	2.47	0.49
32:1a:673:G:H2'	32:1a:674:G:C8	2.47	0.49
32:1a:932:C:H5''	38:1g:4:ARG:CZ	2.42	0.49
32:1a:1330:U:H2'	32:1a:1331:G:H5'	1.93	0.49
35:1d:140:VAL:HG11	35:1d:146:ILE:HD11	1.93	0.49
36:1e:39:GLY:HA2	36:1e:71:LEU:HD12	1.93	0.49
44:1m:32:GLU:O	44:1m:35:GLU:HG2	2.12	0.49
1:2A:271(U):G:H2'	1:2A:271(V):G:H8	1.77	0.49
1:2A:395:U:H1'	1:2A:396:G:N7	2.26	0.49
1:2A:443:A:N7	5:2F:45:ARG:HG2	2.27	0.49
1:2A:729:G:C5	3:2D:208:LYS:HB2	2.47	0.49
1:2A:1952:A:OP1	10:2O:42:SER:OG	2.26	0.49
1:2A:1991:U:H2'	1:2A:1992:G:H5''	1.94	0.49
32:2a:786:G:C2	32:2a:797:C:C2	2.99	0.49
32:2a:955:U:H2'	32:2a:956:U:O4'	2.12	0.49
32:2a:1007:C:H2'	32:2a:1008:C:C6	2.46	0.49
32:2a:1157:A:H4'	32:2a:1158:C:O5'	2.12	0.49
33:2b:137:ARG:O	33:2b:141:GLU:HG3	2.11	0.49
34:2c:47:LEU:HD23	34:2c:50:ALA:HB3	1.94	0.49
34:2c:128:PHE:HD1	34:2c:129:ALA:H	1.58	0.49
35:2d:111:ALA:HB2	35:2d:120:LEU:HD12	1.94	0.49
50:2s:49:ILE:O	50:2s:60:VAL:N	2.45	0.49
1:1A:458:G:O2'	1:1A:469:G:O6	2.29	0.49
1:1A:1058:G:N1	1:1A:1080:C:O2	2.43	0.49
32:1a:160:A:H2'	32:1a:161:A:O4'	2.12	0.49
40:1i:18:PHE:HB2	40:1i:62:TYR:HB3	1.94	0.49
1:2A:221:A:N1	1:2A:265:A:O2'	2.45	0.49
1:2A:492:A:H2'	1:2A:493:G:O4'	2.12	0.49
1:2A:1082:U:OP2	1:2A:1085:A:N6	2.44	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1913:A:H2	32:2a:1491:G:N2	2.10	0.49
2:2B:75:G:O3'	21:2Z:10:ARG:NH2	2.45	0.49
2:2B:77:U:OP1	21:2Z:19:ARG:NH2	2.45	0.49
10:2O:38:VAL:HG13	10:2O:87:ILE:HD11	1.94	0.49
10:2O:73:ASP:OD2	15:2T:32:TYR:OH	2.30	0.49
26:24:46:GLN:HB3	26:24:48:ARG:NH1	2.27	0.49
32:2a:1457:G:O2'	32:2a:1458:G:H5'	2.11	0.49
32:2a:1505:G:O2'	53:2y:94:ALA:HB2	2.12	0.49
47:2p:11:SER:OG	47:2p:12:LYS:N	2.44	0.49
50:2s:31:ILE:HG22	50:2s:33:THR:HG22	1.93	0.49
1:1A:328:U:H4'	20:1Y:68:HIS:CG	2.46	0.49
1:1A:690:G:H2'	1:1A:691:C:C6	2.48	0.49
1:1A:922:U:H2'	1:1A:923:C:C6	2.47	0.49
8:1I:109:ILE:HG13	8:1I:130:TYR:CZ	2.47	0.49
19:1X:41:ASN:O	19:1X:45:THR:HG23	2.13	0.49
32:1a:186:C:H2'	32:1a:187:C:C6	2.47	0.49
32:1a:597:G:N2	39:1h:94:TYR:OH	2.40	0.49
32:1a:789:U:O2'	32:1a:791:G:N7	2.43	0.49
32:1a:791:G:N2	32:1a:1497:G:O3'	2.45	0.49
32:1a:1302:U:C5	44:1m:17:VAL:HG11	2.46	0.49
35:1d:190:ASP:OD2	35:1d:191:ARG:N	2.45	0.49
43:1I:54:LYS:HD2	43:1I:54:LYS:N	2.28	0.49
1:2A:657:U:H2'	1:2A:658:C:C6	2.46	0.49
1:2A:1166:C:H2'	1:2A:1167:U:C6	2.48	0.49
7:2H:11:VAL:HG12	7:2H:15:VAL:HG23	1.93	0.49
32:2a:29:G:HO2'	32:2a:295:C:H4'	1.77	0.49
32:2a:926:G:O6	53:2y:87:LYS:HE2	2.13	0.49
34:2c:124:ILE:HG13	34:2c:189:ALA:HB1	1.94	0.49
53:2y:53:THR:HB	53:2y:62:VAL:HG12	1.94	0.49
1:1A:919:G:N2	1:1A:2269:A:OP2	2.44	0.49
1:1A:1693:U:H1'	3:1D:14:ARG:NH1	2.27	0.49
1:1A:1849:G:H2'	1:1A:1850:G:C8	2.47	0.49
1:1A:2134:A:N6	1:1A:2157:G:H4'	2.27	0.49
32:1a:149:A:H2'	32:1a:150:C:C6	2.48	0.49
32:1a:652:U:O4	32:1a:752:G:O2'	2.29	0.49
32:1a:792:A:H4'	32:1a:793:U:O5'	2.12	0.49
39:1h:35:ILE:HD11	39:1h:134:ILE:HG21	1.95	0.49
1:2A:89:G:OP2	1:2A:90:U:O2'	2.27	0.49
1:2A:1091:G:O6	1:2A:1101:U:N3	2.45	0.49
1:2A:1817:G:OP1	3:2D:88:ARG:NH2	2.45	0.49
2:2B:32:C:H2'	2:2B:33:G:O4'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:27:VAL:HA	12:2Q:105:GLU:OE2	2.13	0.49
32:2a:585:G:O2'	32:2a:879:C:H5''	2.13	0.49
32:2a:1368:G:OP2	40:2i:112:LYS:HG3	2.13	0.49
41:2j:63:PHE:HZ	45:2n:49:HIS:CE1	2.31	0.49
1:1A:1131:G:H21	9:1N:73:THR:CG2	2.25	0.49
1:1A:1488:G:O6	62:1A:4162:HOH:O	2.17	0.49
1:1A:2224:G:H4'	1:1A:2226:C:C2	2.47	0.49
2:1B:15:A:OP2	2:1B:69:G:N2	2.38	0.49
2:1B:24:G:N7	2:1B:56:G:H2'	2.28	0.49
32:1a:4:U:O4	39:1h:105:ARG:HD3	2.12	0.49
32:1a:1054:C:O2	32:1a:1196:U:O2'	2.30	0.49
32:1a:1192:C:O2	36:1e:25:ARG:NH2	2.33	0.49
32:1a:1277:C:H1'	32:1a:1282:C:O2	2.12	0.49
32:1a:1317:C:N3	50:1s:37:ARG:NH2	2.55	0.49
34:1c:73:PRO:O	34:1c:77:ILE:HG13	2.11	0.49
40:1i:3:GLN:HG3	40:1i:20:ARG:HE	1.77	0.49
41:1j:49:VAL:HG11	45:1n:44:LEU:HD23	1.94	0.49
1:2A:1153:C:H5'	16:2U:76:TYR:HE2	1.77	0.49
1:2A:1801:G:OP2	3:2D:154:LYS:NZ	2.41	0.49
1:2A:2239:G:H5'	3:2D:251:GLY:HA3	1.94	0.49
1:2A:2887:U:H2'	1:2A:2888:C:C6	2.46	0.49
3:2D:142:VAL:HG23	3:2D:193:VAL:HA	1.93	0.49
6:2G:36:LYS:HE3	6:2G:95:ARG:NH2	2.28	0.49
11:2P:121:LYS:O	11:2P:123:LEU:N	2.45	0.49
12:2Q:137:TYR:HB3	21:2Z:76:LEU:HD21	1.95	0.49
13:2R:36:THR:HG22	13:2R:37:THR:H	1.77	0.49
21:2Z:45:ASP:OD2	21:2Z:49:ARG:NE	2.42	0.49
21:2Z:99:TYR:HB3	21:2Z:123:ASP:HB2	1.94	0.49
21:2Z:124:ILE:HD11	21:2Z:163:LEU:HD11	1.95	0.49
32:2a:1187:G:H2'	32:2a:1188:A:O4'	2.12	0.49
47:2p:18:ARG:HD3	47:2p:35:LYS:HD2	1.95	0.49
1:1A:2703:C:H2'	1:1A:2704:C:H6	1.77	0.49
13:1R:56:LYS:NZ	13:1R:90:ARG:O	2.45	0.49
26:14:16:CYS:HB2	26:14:36:CYS:HB3	1.93	0.49
32:1a:954:G:O6	44:1m:104:ARG:NH1	2.45	0.49
33:1b:16:HIS:CG	33:1b:17:PHE:N	2.80	0.49
53:1y:74:ILE:O	53:1y:78:ILE:HG12	2.13	0.49
1:2A:1504:C:H2'	1:2A:1505:C:H6	1.77	0.49
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.47	0.49
1:2A:2286:A:OP1	28:26:29:ASN:ND2	2.46	0.49
11:2P:96:THR:HG23	11:2P:99:LEU:HD13	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:509:A:H5''	35:2d:55:ALA:HB2	1.95	0.49
1:1A:1759:A:H1'	1:1A:2711:A:C2	2.48	0.49
1:1A:2638:G:OP1	4:1E:82:ARG:NH2	2.39	0.49
1:1A:2790:A:H3'	1:1A:2790:A:N3	2.27	0.49
9:1N:12:ARG:NH1	9:1N:50:ASP:OD2	2.45	0.49
15:1T:35:LYS:HZ2	15:1T:37:GLY:H	1.59	0.49
22:10:43:THR:O	22:10:43:THR:HG23	2.12	0.49
32:1a:731:G:H5'	32:1a:766:A:H4'	1.94	0.49
48:1q:74:LEU:HD23	48:1q:75:ARG:HB2	1.95	0.49
53:1y:32:THR:HG21	53:1y:85:LEU:HD11	1.95	0.49
1:2A:13:A:N1	1:2A:525:U:H2'	2.27	0.49
1:2A:355:G:H2'	1:2A:356:G:H8	1.78	0.49
1:2A:796:C:H2'	1:2A:797:C:C6	2.47	0.49
1:2A:1490:A:O2'	3:2D:99:ASP:OD1	2.31	0.49
3:2D:242:ARG:HD3	3:2D:242:ARG:N	2.26	0.49
11:2P:89:ALA:HA	11:2P:121:LYS:HE2	1.94	0.49
21:2Z:47:VAL:O	21:2Z:51:ALA:N	2.42	0.49
32:2a:407:G:O4'	35:2d:119:GLN:NE2	2.46	0.49
32:2a:1291:G:OP1	38:2g:37:ASN:ND2	2.45	0.49
34:2c:173:VAL:HG11	34:2c:201:TYR:HB3	1.93	0.49
35:2d:112:VAL:HG22	35:2d:116:GLN:NE2	2.28	0.49
35:2d:155:LEU:O	35:2d:159:ARG:HG3	2.12	0.49
1:1A:86:C:H4'	1:1A:104:U:H1'	1.94	0.49
1:1A:1198:U:O2'	62:1A:4191:HOH:O	2.20	0.49
1:1A:2627:G:O2'	1:1A:2781:A:N1	2.44	0.49
1:1A:2687:U:H2'	1:1A:2688:U:O4'	2.11	0.49
7:1H:105:LEU:HD11	7:1H:148:ILE:HG23	1.95	0.49
8:1I:126:TYR:O	8:1I:141:LYS:HA	2.13	0.49
32:1a:250:A:H5'	32:1a:252:U:O4'	2.12	0.49
32:1a:922:G:C6	32:1a:923:A:C6	3.01	0.49
32:1a:1376:U:H2'	32:1a:1377:A:C8	2.47	0.49
37:1f:91:VAL:HG11	49:1r:72:ARG:NH1	2.28	0.49
1:2A:392:C:H5''	1:2A:409:C:H5''	1.95	0.49
1:2A:994:C:P	16:2U:54:LYS:HZ1	2.34	0.49
1:2A:1570:A:H2'	1:2A:1571:A:C8	2.48	0.49
1:2A:2073:C:O2'	1:2A:2598:A:O2'	2.28	0.49
1:2A:2299:G:N1	1:2A:2318:G:N7	2.61	0.49
8:2I:116:LEU:HD13	8:2I:128:LEU:HD21	1.95	0.49
9:2N:47:ALA:HB2	9:2N:112:LEU:HD11	1.93	0.49
15:2T:43:GLN:NE2	32:2a:346:G:OP2	2.45	0.49
30:28:34:TRP:CE2	30:28:35:GLN:HB3	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:521:G:H4'	43:2l:73:GLU:HG2	1.95	0.49
32:2a:994:A:N7	32:2a:1216:G:H4'	2.27	0.49
32:2a:1123:A:N3	41:2j:39:PRO:HD2	2.27	0.49
32:2a:1347:G:H22	32:2a:1374:A:P	2.35	0.49
33:2b:217:ARG:HA	33:2b:220:ASP:HB2	1.95	0.49
34:2c:187:ALA:O	34:2c:198:VAL:HG22	2.13	0.49
1:1A:724:U:H2'	1:1A:725:G:O4'	2.13	0.49
1:1A:744:G:OP1	4:1E:132:HIS:ND1	2.41	0.49
1:1A:1711:C:H2'	1:1A:1712:C:C6	2.48	0.49
1:1A:1783:A:H5'	1:1A:2608:G:H4'	1.94	0.49
1:1A:2133:G:C2	1:1A:2157:G:H2'	2.47	0.49
5:1F:39:TRP:CH2	5:1F:106:ARG:HD3	2.47	0.49
32:1a:142:G:H2'	32:1a:143:A:C8	2.48	0.49
32:1a:1096:C:H2'	32:1a:1097:C:C6	2.47	0.49
32:1a:1429:C:H2'	32:1a:1430:C:C6	2.48	0.49
41:1j:16:LEU:HD21	41:1j:70:ARG:HG2	1.94	0.49
42:1k:109:VAL:HG23	49:1r:84:LYS:HB3	1.93	0.49
1:2A:1059:G:OP2	1:2A:1060:U:H2'	2.13	0.49
1:2A:1509(A):A:H3'	1:2A:1509(B):A:H8	1.76	0.49
1:2A:2079:U:O3'	23:21:35:THR:OG1	2.31	0.49
1:2A:2647:U:H2'	1:2A:2648:C:H6	1.77	0.49
1:2A:2680:C:H1'	4:2E:187:ALA:HB1	1.94	0.49
6:2G:20:ILE:HG23	6:2G:25:TYR:HB2	1.95	0.49
14:2S:14:VAL:HG11	14:2S:89:ARG:HG2	1.95	0.49
24:22:7:ARG:HA	24:22:10:LEU:HD12	1.94	0.49
32:2a:1084:G:C5	32:2a:1085:U:C4	3.01	0.49
33:2b:76:GLN:HE21	33:2b:206:ASP:HA	1.78	0.49
38:2g:67:GLU:HG2	38:2g:70:LYS:HD3	1.94	0.49
1:1A:792:G:O2'	1:1A:2440:C:N3	2.42	0.49
1:1A:881:G:H2'	1:1A:882:G:O4'	2.12	0.49
1:1A:1054:A:H61	1:1A:1105:U:H3	1.59	0.49
1:1A:1064:C:H3'	1:1A:1065:U:H5''	1.95	0.49
1:1A:1802:A:N1	1:1A:1822:G:H1'	2.28	0.49
1:1A:1814:G:H4'	3:1D:51:VAL:HG21	1.94	0.49
1:1A:1819:A:H2'	3:1D:178:PRO:HB2	1.95	0.49
4:1E:32:PRO:HA	4:1E:90:THR:HA	1.94	0.49
21:1Z:3:TYR:CE2	21:1Z:51:ALA:HB2	2.48	0.49
21:1Z:146:ILE:HA	21:1Z:147:GLY:HA2	1.60	0.49
32:1a:714:G:H2'	32:1a:715:A:C8	2.48	0.49
32:1a:920:U:H2'	32:1a:921:U:C6	2.47	0.49
32:1a:1505:G:OP1	62:1a:1905:HOH:O	2.20	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:187:LEU:HD13	33:1b:214:ILE:HD13	1.94	0.49
36:1e:43:LEU:HD21	36:1e:132:ALA:HB1	1.95	0.49
53:1y:93:GLU:HA	53:1y:96:ARG:HD2	1.93	0.49
1:2A:898:C:H2'	1:2A:899:A:O4'	2.13	0.49
1:2A:965:C:OP2	62:2A:3874:HOH:O	2.20	0.49
1:2A:1598:C:H2'	1:2A:1599:C:C6	2.48	0.49
1:2A:2076:U:OP2	1:2A:2238:G:N2	2.38	0.49
1:2A:2141:G:O6	1:2A:2150:U:C2	2.64	0.49
1:2A:2166:G:H2'	1:2A:2167:U:O4'	2.12	0.49
2:2B:17:C:H2'	2:2B:18:G:O4'	2.12	0.49
15:2T:78:LEU:HD12	15:2T:79:HIS:CE1	2.48	0.49
32:2a:90:U:O2'	32:2a:91:C:H5'	2.13	0.49
32:2a:300:A:O2'	32:2a:564:C:N3	2.36	0.49
32:2a:576:G:O6	32:2a:880:C:O2'	2.26	0.49
32:2a:591:U:H2'	32:2a:592:G:C8	2.48	0.49
32:2a:1320:C:OP1	50:2s:70:LYS:HG3	2.13	0.49
42:2k:116:HIS:N	42:2k:117:ASN:HA	2.28	0.49
1:1A:1006:C:O2'	9:1N:106:MET:HB3	2.13	0.48
1:1A:1423:G:H2'	1:1A:1424:G:H8	1.78	0.48
1:1A:1857:G:C6	1:1A:1858:G:C6	3.01	0.48
1:1A:2359:C:H2'	1:1A:2360:A:O4'	2.13	0.48
5:1F:7:TYR:CD2	5:1F:24:LEU:HB2	2.48	0.48
5:1F:155:LEU:HD11	5:1F:176:LEU:HD12	1.95	0.48
6:1G:110:ALA:HB1	6:1G:140:ILE:HG22	1.94	0.48
8:1I:132:PRO:HD2	8:1I:136:VAL:O	2.13	0.48
32:1a:1219:U:OP1	45:1n:19:ARG:NH2	2.38	0.48
33:1b:88:ALA:HB2	33:1b:219:VAL:HG13	1.94	0.48
34:1c:22:TRP:CH2	34:1c:32:LEU:HB2	2.47	0.48
49:1r:70:ILE:O	49:1r:74:ARG:HG3	2.13	0.48
1:2A:370:G:OP2	1:2A:370:G:H8	1.94	0.48
1:2A:1688:U:O2	1:2A:1700:A:H5'	2.12	0.48
1:2A:2515:C:H2'	1:2A:2516:G:H8	1.78	0.48
2:2B:75:G:H22	21:2Z:73:GLN:NE2	2.11	0.48
5:2F:107:LYS:HG2	5:2F:206:ILE:HA	1.95	0.48
6:2G:20:ILE:HA	6:2G:25:TYR:HD2	1.78	0.48
9:2N:21:LYS:NZ	9:2N:140:VAL:O	2.46	0.48
11:2P:63:PRO:HG2	30:28:25:MET:HB2	1.95	0.48
13:2R:12:ARG:HB3	13:2R:16:HIS:HB3	1.95	0.48
32:2a:966:M2G:H3'	32:2a:967:5MC:HM53	1.93	0.48
32:2a:1123:A:C2	41:2j:39:PRO:HD2	2.48	0.48
41:2j:19:SER:O	41:2j:23:ILE:HG12	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:2o:82:ILE:O	46:2o:86:GLY:N	2.47	0.48
48:2q:22:LEU:HD21	48:2q:39:SER:HB2	1.95	0.48
1:1A:27:G:N2	1:1A:512:G:H1'	2.28	0.48
1:1A:271(L):U:H4'	8:1I:50:ARG:NH1	2.28	0.48
1:1A:754:C:H2'	1:1A:755:C:C6	2.48	0.48
1:1A:1265:A:OP2	62:1A:4190:HOH:O	2.20	0.48
1:1A:1923:U:H2'	1:1A:1924:C:C6	2.48	0.48
1:1A:2682:U:H5'	4:1E:11:MET:O	2.12	0.48
6:1G:126:ASP:HB3	6:1G:128:ARG:H	1.78	0.48
10:1O:58:VAL:HG21	10:1O:86:ILE:HG12	1.94	0.48
11:1P:50:ARG:O	11:1P:52:GLU:HG3	2.13	0.48
32:1a:254:G:OP1	48:1q:66:SER:OG	2.25	0.48
32:1a:1202:G:N2	45:1n:46:GLU:OE2	2.44	0.48
32:1a:1354:C:H2'	32:1a:1355:G:H8	1.78	0.48
36:1e:95:ALA:HB1	36:1e:96:PRO:HD2	1.95	0.48
1:2A:740:U:OP2	62:2A:3819:HOH:O	2.20	0.48
1:2A:1354:A:H2'	1:2A:1355:G:O4'	2.13	0.48
1:2A:1394:U:OP1	62:2A:3875:HOH:O	2.20	0.48
1:2A:2134:A:O2'	1:2A:2159:G:H1'	2.12	0.48
7:2H:24:VAL:HG13	7:2H:35:VAL:HB	1.95	0.48
12:2Q:55:VAL:HG23	21:2Z:183:LEU:HD11	1.95	0.48
17:2V:35:LEU:HB2	17:2V:57:VAL:HG22	1.94	0.48
32:2a:640:A:H4'	39:2h:116:LYS:HZ3	1.78	0.48
33:2b:51:LEU:HD21	33:2b:201:ILE:HG23	1.93	0.48
1:1A:143:G:H1'	19:1X:37:THR:HG21	1.95	0.48
1:1A:185:U:H4'	1:1A:218:A:H4'	1.94	0.48
1:1A:1593:G:H2'	1:1A:1594:G:C8	2.49	0.48
1:1A:1844:C:H2'	1:1A:1845:G:C8	2.48	0.48
1:1A:2740:A:C6	1:1A:2764:A:C8	3.01	0.48
2:1B:79:C:H2'	2:1B:80:U:O4'	2.13	0.48
3:1D:244:ARG:HB2	3:1D:245:PRO:HD2	1.94	0.48
4:1E:119:ARG:NH1	4:1E:156:MET:O	2.46	0.48
5:1F:153:SER:HB2	5:1F:190:GLU:H	1.78	0.48
14:1S:34:HIS:O	14:1S:97:ARG:NH2	2.47	0.48
32:1a:235:C:H2'	32:1a:236:G:C8	2.49	0.48
32:1a:491:G:H2'	32:1a:492:G:O4'	2.14	0.48
32:1a:1446:U:H3	32:1a:1452:C:H1'	1.78	0.48
1:2A:495:G:N3	18:2W:61:ASN:ND2	2.59	0.48
1:2A:1497:U:H3'	1:2A:1498:C:H6	1.78	0.48
1:2A:2849:U:H4'	1:2A:2868:A:C2	2.48	0.48
3:2D:89:SER:HB2	3:2D:201:HIS:CD2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2D:127:VAL:HA	3:2D:193:VAL:HG23	1.94	0.48
7:2H:125:VAL:HG22	7:2H:131:VAL:HG22	1.94	0.48
17:2V:14:VAL:HG12	17:2V:18:LEU:HD23	1.94	0.48
32:2a:553:A:H5''	43:2l:24:VAL:HG21	1.95	0.48
32:2a:1249:C:H2'	32:2a:1250:A:H5''	1.96	0.48
42:2k:77:MET:HG3	42:2k:103:LEU:HD11	1.94	0.48
51:2t:86:ARG:NH2	51:2t:90:GLN:HE22	2.09	0.48
1:1A:493:G:OP2	62:1A:4193:HOH:O	2.20	0.48
1:1A:606:U:H4'	1:1A:658:C:H4'	1.94	0.48
1:1A:1179:C:H2'	1:1A:1180:C:C6	2.48	0.48
1:1A:1399:C:N4	62:1A:4591:HOH:O	2.46	0.48
1:1A:1469:A:H2'	1:1A:1470:G:O4'	2.13	0.48
7:1H:158:HIS:O	7:1H:160:LYS:N	2.45	0.48
12:1Q:85:LYS:HG3	22:10:7:LEU:HB3	1.94	0.48
24:12:32:LEU:O	24:12:36:ARG:HG3	2.14	0.48
32:1a:106:C:O2'	32:1a:379:C:H5''	2.13	0.48
32:1a:1328:C:OP1	52:1u:21:TYR:OH	2.27	0.48
32:1a:1398:A:C2	36:1e:19:MET:HE3	2.48	0.48
33:1b:80:ILE:HD11	33:1b:212:GLN:HB2	1.93	0.48
41:1j:20:ALA:HB1	41:1j:37:PRO:HB3	1.94	0.48
49:1r:44:LEU:HD11	49:1r:79:LEU:HD13	1.96	0.48
1:2A:329:G:H8	1:2A:329:G:OP1	1.96	0.48
1:2A:527:C:N4	1:2A:2779:U:OP2	2.45	0.48
1:2A:1592:C:H2'	1:2A:1593:G:C8	2.47	0.48
1:2A:2115:G:N2	1:2A:2119:A:H5'	2.29	0.48
1:2A:2196:C:OP2	62:2A:3871:HOH:O	2.20	0.48
2:2B:50:G:P	14:2S:62:LYS:HB2	2.54	0.48
3:2D:21:PHE:HB3	3:2D:24:ILE:HD12	1.96	0.48
5:2F:33:LEU:HD23	11:2P:1:MET:HE2	1.94	0.48
14:2S:26:LEU:HA	14:2S:39:ILE:HG12	1.94	0.48
32:2a:18:C:H4'	32:2a:1078:U:O2	2.12	0.48
32:2a:108:G:C6	51:2t:15:ARG:HG2	2.48	0.48
32:2a:429:U:OP2	35:2d:36:ARG:NH2	2.40	0.48
32:2a:437:U:H5'	35:2d:155:LEU:HD11	1.95	0.48
32:2a:598:U:H4'	39:2h:94:TYR:CG	2.49	0.48
32:2a:1058:G:H2'	32:2a:1059:C:C6	2.48	0.48
1:1A:263:C:H2'	1:1A:264:C:O4'	2.14	0.48
1:1A:562:U:O2'	1:1A:563:G:OP2	2.20	0.48
1:1A:2364:C:H2'	1:1A:2365:G:O4'	2.13	0.48
12:1Q:3:MET:HE2	62:1Q:305:HOH:O	2.12	0.48
15:1T:33:LYS:HB3	15:1T:82:LEU:HD23	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:266:G:H5''	32:1a:267:C:H5	1.78	0.48
32:1a:1030:C:N4	32:1a:1031:G:N1	2.52	0.48
34:1c:7:PRO:HB3	34:1c:175:LEU:HD23	1.95	0.48
1:2A:1803:A:H4'	3:2D:259:THR:HG23	1.94	0.48
1:2A:2397:G:N2	1:2A:2420:C:H1'	2.28	0.48
1:2A:2780:G:OP2	9:2N:118:LYS:HD3	2.14	0.48
2:2B:103:G:H21	21:2Z:73:GLN:NE2	2.08	0.48
32:2a:230:G:H2'	32:2a:231:G:O4'	2.13	0.48
32:2a:715:A:H5''	32:2a:805:C:H1'	1.96	0.48
32:2a:859:A:H2'	32:2a:860:A:O4'	2.12	0.48
37:2f:2:ARG:CZ	37:2f:69:GLU:HG2	2.44	0.48
41:2j:12:ASP:OD1	41:2j:13:HIS:N	2.46	0.48
48:2q:45:HIS:HB2	48:2q:65:ILE:HD13	1.96	0.48
48:2q:53:LEU:HD23	48:2q:82:MET:HE1	1.96	0.48
1:1A:242:G:C8	30:18:5:LYS:HG2	2.48	0.48
1:1A:1071:G:N3	1:1A:1089:G:O2'	2.34	0.48
1:1A:1086:A:H3'	1:1A:1086:A:N3	2.28	0.48
1:1A:2163:C:H3'	1:1A:2164:C:C6	2.49	0.48
1:1A:2602:A:H61	54:1w:76:PPU:H5'	1.79	0.48
1:1A:2809:A:H62	1:1A:2891:G:H2'	1.78	0.48
6:1G:16:ARG:NH2	6:1G:28:VAL:O	2.47	0.48
7:1H:83:TYR:CE2	7:1H:138:LYS:HB2	2.48	0.48
11:1P:98:GLU:O	11:1P:101:VAL:HG22	2.14	0.48
32:1a:524:G:H2'	32:1a:525:C:C6	2.48	0.48
32:1a:1373:G:H5''	38:1g:36:LYS:HD2	1.94	0.48
33:1b:48:MET:HE2	33:1b:48:MET:HB3	1.72	0.48
33:1b:150:SER:O	33:1b:153:ARG:HG2	2.13	0.48
40:1i:117:HIS:CD2	40:1i:123:PRO:HA	2.48	0.48
41:1j:11:PHE:HE1	41:1j:67:THR:HG22	1.78	0.48
1:2A:2104:G:N2	1:2A:2185:C:C2	2.80	0.48
1:2A:2119:A:N6	1:2A:2168:G:H21	2.09	0.48
4:2E:7:VAL:HG23	4:2E:51:PHE:CE2	2.48	0.48
8:2I:75:LEU:HD22	8:2I:76:THR:H	1.79	0.48
8:2I:75:LEU:HD22	8:2I:76:THR:N	2.28	0.48
11:2P:8:PRO:HB2	11:2P:12:ALA:HB3	1.95	0.48
32:2a:308:C:H2'	32:2a:309:G:H8	1.79	0.48
32:2a:857:C:H2'	32:2a:858:G:O4'	2.13	0.48
32:2a:892:A:O2'	32:2a:1415:G:H4'	2.13	0.48
32:2a:1068:G:N2	32:2a:1191:A:H1'	2.29	0.48
32:2a:1333:A:H2'	32:2a:1334:G:O4'	2.13	0.48
39:2h:14:ARG:HH11	39:2h:83:ILE:HG23	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:37:PHE:CE2	40:2i:74:ILE:HG12	2.49	0.48
42:2k:18:ARG:O	42:2k:32:ILE:HA	2.13	0.48
44:2m:15:VAL:HB	44:2m:34:LEU:HD21	1.95	0.48
44:2m:86:CYS:HA	50:2s:73:GLU:O	2.14	0.48
53:2y:40:ILE:N	53:2y:51:ASP:O	2.44	0.48
1:1A:96:G:OP1	24:12:46:GLN:NE2	2.31	0.48
1:1A:1826:G:H4'	3:1D:242:ARG:CZ	2.43	0.48
1:1A:2001:A:H2'	1:1A:2002:G:C8	2.47	0.48
6:1G:179:PRO:HB2	26:14:42:PHE:HE2	1.78	0.48
32:1a:266:G:C5'	32:1a:268:C:H41	2.26	0.48
32:1a:346:G:H5''	58:1a:1858:MPD:H4	1.96	0.48
32:1a:624:C:H2'	32:1a:625:G:H8	1.79	0.48
32:1a:1140:C:H2'	32:1a:1141:C:H6	1.79	0.48
34:1c:44:GLU:HA	34:1c:52:LEU:HD23	1.95	0.48
39:1h:45:ILE:C	39:1h:64:LYS:HE3	2.39	0.48
39:1h:73:ASP:OD1	39:1h:75:ARG:NH1	2.46	0.48
1:2A:458:G:O6	62:2A:3860:HOH:O	2.18	0.48
1:2A:2080:G:H5'	23:21:35:THR:O	2.14	0.48
1:2A:2110:G:H4'	1:2A:2111:C:OP2	2.14	0.48
1:2A:2313:C:H2'	1:2A:2314:C:C6	2.48	0.48
1:2A:2723:C:OP2	4:2E:109:LYS:NZ	2.46	0.48
4:2E:32:PRO:HA	4:2E:90:THR:HG22	1.95	0.48
4:2E:75:VAL:HG13	4:2E:77:ILE:H	1.78	0.48
7:2H:23:ARG:HG3	7:2H:36:PRO:HA	1.95	0.48
32:2a:437:U:O2'	35:2d:125:HIS:HE1	1.95	0.48
32:2a:926:G:O4'	53:2y:91:LYS:NZ	2.46	0.48
32:2a:958:A:N6	32:2a:1221:G:O2'	2.44	0.48
32:2a:1133:G:H2'	32:2a:1134:G:H8	1.77	0.48
32:2a:1304:G:C6	32:2a:1305:G:N1	2.82	0.48
33:2b:70:PHE:O	33:2b:93:VAL:N	2.39	0.48
33:2b:77:ALA:HA	33:2b:80:ILE:HG22	1.96	0.48
37:2f:33:TYR:HB2	37:2f:75:LEU:HD12	1.96	0.48
41:2j:16:LEU:HD23	41:2j:94:VAL:HG22	1.94	0.48
44:2m:3:ARG:HH12	44:2m:53:VAL:HG21	1.78	0.48
44:2m:15:VAL:HG13	44:2m:45:VAL:HG22	1.96	0.48
1:1A:55:G:O2'	1:1A:127:A:N1	2.43	0.48
1:1A:2872:G:O2'	1:1A:2873:A:H5'	2.14	0.48
2:1B:42:C:OP1	6:1G:67:LYS:NZ	2.40	0.48
9:1N:108:PRO:O	9:1N:113:GLY:HA3	2.14	0.48
32:1a:76:C:H2'	32:1a:77:G:H8	1.79	0.48
32:1a:737:A:H2'	32:1a:738:C:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1118:C:P	40:1i:104:ARG:HE	2.36	0.48
32:1a:1190:G:OP1	34:1c:5:ILE:N	2.38	0.48
45:1n:48:ALA:HB2	45:1n:53:LEU:HD12	1.95	0.48
1:2A:379:G:H4'	1:2A:2232:U:H5''	1.95	0.48
1:2A:527:C:O2'	1:2A:2779:U:O2'	2.32	0.48
1:2A:639:U:H2'	1:2A:640:C:C6	2.49	0.48
1:2A:1125:G:H5'	31:29:37:GLY:HA2	1.95	0.48
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.47	0.48
1:2A:2037:G:H2'	1:2A:2038:G:C8	2.49	0.48
1:2A:2183:C:H2'	1:2A:2184:G:C8	2.49	0.48
32:2a:107:G:H2'	32:2a:108:G:O4'	2.14	0.48
32:2a:1154:G:H2'	32:2a:1155:G:C8	2.49	0.48
32:2a:1304:G:OP1	52:2u:2:GLY:N	2.47	0.48
32:2a:1320:C:O2'	50:2s:73:GLU:HB3	2.14	0.48
40:2i:47:LEU:HD22	40:2i:47:LEU:H	1.77	0.48
1:1A:571:A:N6	1:1A:2499:C:O3'	2.41	0.48
1:1A:840:C:H2'	1:1A:841:A:H8	1.79	0.48
1:1A:1091:G:H1	1:1A:1100:C:N4	2.11	0.48
1:1A:1607:C:H4'	1:1A:1608:A:O5'	2.13	0.48
1:1A:1810:A:H2'	1:1A:1811:G:O4'	2.14	0.48
1:1A:2314:C:H5''	6:1G:38:VAL:HG21	1.94	0.48
1:1A:2712:U:O2'	1:1A:2713:A:H5'	2.13	0.48
20:1Y:43:ASN:HD22	20:1Y:43:ASN:HA	1.52	0.48
21:1Z:128:VAL:HB	21:1Z:161:VAL:HG23	1.94	0.48
21:1Z:152:ALA:O	21:1Z:155:LEU:HB2	2.13	0.48
32:1a:636:U:H2'	32:1a:637:G:C8	2.49	0.48
32:1a:1158:C:H5	32:1a:1181:G:N1	2.11	0.48
1:2A:299:A:N3	1:2A:319:C:O2'	2.39	0.48
1:2A:387:U:P	23:21:20:ARG:HH12	2.36	0.48
1:2A:1007:C:OP1	9:2N:35:ARG:NH1	2.47	0.48
1:2A:1091:G:H2'	1:2A:1091:G:N3	2.28	0.48
1:2A:1131:G:O6	1:2A:2040:C:H1'	2.14	0.48
1:2A:1230:C:H2'	1:2A:1231:G:H8	1.79	0.48
1:2A:1336:A:H2'	1:2A:1337:G:C8	2.49	0.48
1:2A:1608:A:H1'	1:2A:1610:A:OP2	2.14	0.48
1:2A:1996:C:H4'	1:2A:1997:G:OP1	2.13	0.48
1:2A:2100:G:C2	1:2A:2101:G:H1'	2.49	0.48
1:2A:2331:G:H4'	22:20:43:THR:H	1.78	0.48
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.14	0.48
13:2R:94:TYR:C	13:2R:117:VAL:HG23	2.38	0.48
20:2Y:73:ARG:HG2	20:2Y:73:ARG:HH11	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:21:76:ARG:NH2	23:21:97:LEU:O	2.46	0.48
32:2a:46:G:H2'	32:2a:366:C:C5	2.49	0.48
32:2a:269:C:H2'	32:2a:270:A:C8	2.48	0.48
32:2a:1198:G:H2'	32:2a:1199:U:C6	2.48	0.48
32:2a:1273:G:H3'	32:2a:1274:G:C8	2.49	0.48
32:2a:1288:A:N3	32:2a:1352:C:O2'	2.43	0.48
32:2a:1490:C:H2'	32:2a:1491:G:C8	2.49	0.48
41:2j:77:PRO:O	41:2j:81:THR:OG1	2.27	0.48
1:1A:526:A:O2'	1:1A:2043:C:O2	2.28	0.48
1:1A:582:G:H2'	1:1A:583:G:C8	2.49	0.48
1:1A:727:A:OP1	1:1A:1431:U:O2'	2.31	0.48
1:1A:746:A:H2'	1:1A:2612:C:H5''	1.94	0.48
1:1A:1501:C:H2'	1:1A:1502:C:C6	2.49	0.48
1:1A:1818:U:O4	3:1D:154:LYS:HD3	2.14	0.48
1:1A:2014:A:OP2	62:1A:4195:HOH:O	2.20	0.48
1:1A:2811:G:N2	1:1A:2891:G:H1'	2.29	0.48
3:1D:206:LEU:HD22	3:1D:211:ARG:HG2	1.96	0.48
9:1N:48:MET:HE3	9:1N:48:MET:C	2.39	0.48
32:1a:1149:C:H2'	32:1a:1150:U:C6	2.48	0.48
32:1a:1469:G:H2'	32:1a:1470:G:C8	2.48	0.48
33:1b:98:LEU:HG	33:1b:101:MET:HE3	1.95	0.48
35:1d:117:ALA:O	35:1d:121:VAL:HG12	2.13	0.48
41:1j:9:ARG:NH2	41:1j:95:GLU:OE2	2.45	0.48
1:2A:1017:G:N7	62:2A:4001:HOH:O	2.35	0.48
1:2A:1193:G:H2'	1:2A:1194:A:C8	2.49	0.48
1:2A:2515:C:H2'	1:2A:2516:G:C8	2.48	0.48
3:2D:145:VAL:HB	3:2D:155:LEU:HB2	1.95	0.48
32:2a:684:A:O2'	42:2k:39:PRO:O	2.31	0.48
32:2a:1035:A:O2'	32:2a:1036:G:H8	1.97	0.48
33:2b:189:ASP:OD1	33:2b:189:ASP:N	2.41	0.48
34:2c:19:GLU:HB3	34:2c:40:ARG:HH12	1.78	0.48
35:2d:38:TYR:CE1	35:2d:45:GLN:HG3	2.49	0.48
38:2g:16:LEU:HD13	40:2i:41:VAL:O	2.14	0.48
40:2i:121:ARG:NH1	40:2i:122:ALA:O	2.47	0.48
44:2m:44:ARG:HB2	44:2m:47:ASP:CG	2.39	0.48
1:1A:312:G:H4'	1:1A:331:A:C2	2.49	0.47
1:1A:456:C:H4'	62:1A:5738:HOH:O	2.14	0.47
1:1A:459:U:OP2	1:1A:469:G:N1	2.33	0.47
1:1A:1003:G:O2'	1:1A:1010:A:N1	2.39	0.47
1:1A:1178:C:H2'	1:1A:1179:C:H6	1.79	0.47
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1919:A:O2'	32:1a:1517:G:N3	2.41	0.47
1:1A:2178:C:H2'	1:1A:2179:C:H6	1.79	0.47
1:1A:2849:U:H4'	1:1A:2868:A:C2	2.49	0.47
2:1B:90:A:N7	2:1B:91:C:H1'	2.29	0.47
4:1E:119:ARG:HG3	4:1E:160:TYR:HB2	1.96	0.47
6:1G:131:TYR:HB3	6:1G:159:VAL:HB	1.95	0.47
7:1H:41:MET:HE2	7:1H:65:HIS:HA	1.96	0.47
8:1I:73:GLU:HG2	8:1I:139:GLN:O	2.14	0.47
32:1a:77:G:H2'	32:1a:78:G:H5'	1.94	0.47
32:1a:116:A:H61	32:1a:313:A:H1'	1.78	0.47
32:1a:625:G:H2'	32:1a:626:U:C6	2.49	0.47
32:1a:1123:A:H4'	41:1j:36:GLY:HA3	1.95	0.47
32:1a:1315:U:H2'	32:1a:1316:G:O4'	2.14	0.47
39:1h:83:ILE:HG13	39:1h:137:VAL:HG22	1.96	0.47
48:1q:54:GLY:H	48:1q:85:VAL:HG21	1.79	0.47
1:2A:271(H):G:H2'	1:2A:271(I):G:H8	1.79	0.47
1:2A:272(I):U:H2'	1:2A:272(J):C:H6	1.79	0.47
1:2A:579:G:OP2	62:2A:3873:HOH:O	2.20	0.47
1:2A:911:A:H2'	12:2Q:9:TYR:OH	2.14	0.47
1:2A:1429:G:H2'	1:2A:1430:C:H6	1.79	0.47
1:2A:1525:G:H2'	1:2A:1526:G:C8	2.49	0.47
1:2A:2119:A:O2'	1:2A:2120:G:H5'	2.14	0.47
1:2A:2506:U:C2	1:2A:2585:U:O4	2.67	0.47
5:2F:37:VAL:HG13	5:2F:184:TYR:HD1	1.79	0.47
6:2G:116:ASP:O	6:2G:118:ARG:N	2.47	0.47
19:2X:50:LYS:N	19:2X:87:GLN:OE1	2.39	0.47
25:23:27:GLY:O	25:23:33:GLN:NE2	2.47	0.47
32:2a:1469:G:H2'	32:2a:1470:G:C8	2.48	0.47
36:2e:19:MET:SD	36:2e:24:ARG:HB3	2.54	0.47
40:2i:53:VAL:HG11	40:2i:92:TYR:CE1	2.49	0.47
1:1A:303:U:H2'	1:1A:304:G:C8	2.49	0.47
6:1G:43:LEU:O	6:1G:45:GLU:N	2.41	0.47
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.53	0.47
8:1I:72:LEU:C	8:1I:74:ASN:N	2.73	0.47
10:1O:108:GLU:H	10:1O:108:GLU:HG2	1.40	0.47
21:1Z:125:LEU:HB3	21:1Z:165:VAL:HG13	1.96	0.47
30:18:39:LYS:HA	30:18:42:ARG:NH1	2.29	0.47
32:1a:201:C:N4	32:1a:216:G:H1	2.08	0.47
32:1a:814:A:H2'	32:1a:816:A:H5''	1.95	0.47
32:1a:1521:G:H2'	32:1a:1522:U:C6	2.49	0.47
33:1b:140:HIS:O	33:1b:144:ARG:HB2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:30:ARG:NH1	45:1n:35:ARG:O	2.47	0.47
35:1d:90:GLY:HA3	35:1d:200:GLU:HG3	1.96	0.47
45:1n:26:ARG:HD3	45:1n:43:CYS:HB3	1.95	0.47
55:1x:76:8AN:O2P	62:1x:201:HOH:O	2.20	0.47
1:2A:1796:U:O3'	3:2D:256:GLY:HA2	2.14	0.47
1:2A:2115:G:N2	1:2A:2171:A:H61	2.10	0.47
4:2E:56:PRO:HA	4:2E:59:VAL:HG12	1.96	0.47
13:2R:29:LEU:HB3	13:2R:75:LEU:HD11	1.95	0.47
13:2R:48:VAL:HG21	13:2R:95:THR:HG21	1.96	0.47
15:2T:41:ARG:NH1	32:2a:346:G:OP1	2.48	0.47
23:21:3:LYS:HB2	23:21:61:ARG:HH12	1.78	0.47
32:2a:1147:C:H1'	40:2i:16:ARG:HH21	1.78	0.47
40:2i:96:LEU:H	40:2i:98:PRO:HD2	1.79	0.47
40:2i:125:TYR:OH	40:2i:127:LYS:HE2	2.14	0.47
41:2j:80:LYS:O	41:2j:84:GLN:HB3	2.14	0.47
1:1A:530:G:H4'	1:1A:531:C:OP1	2.14	0.47
1:1A:616:G:H5'	5:1F:205:ARG:HD3	1.94	0.47
1:1A:1020:A:N1	1:1A:1141:U:O2'	2.46	0.47
1:1A:1161:C:O2'	17:1V:8:GLY:HA2	2.14	0.47
1:1A:1210:A:H5''	1:1A:1212:G:O4'	2.14	0.47
1:1A:1359:A:H61	1:1A:1372:U:H3	1.62	0.47
1:1A:1778:U:H2'	1:1A:1784:A:N6	2.29	0.47
1:1A:1798:U:H5'	3:1D:259:THR:CG2	2.43	0.47
1:1A:2389:G:H5''	1:1A:2390:U:O4'	2.14	0.47
1:1A:2483:C:H2'	1:1A:2484:G:O4'	2.15	0.47
14:1S:74:ALA:HB3	14:1S:108:GLY:HA3	1.96	0.47
32:1a:192:U:H4'	51:1t:57:ARG:HD3	1.96	0.47
32:1a:690:G:C6	32:1a:691:G:C6	3.02	0.47
32:1a:1364:U:C6	52:1u:14:TRP:HH2	2.32	0.47
34:1c:98:ASN:N	34:1c:98:ASN:OD1	2.47	0.47
42:1k:77:MET:HE3	42:1k:77:MET:HB2	1.86	0.47
43:1l:33:ARG:HD2	43:1l:33:ARG:HA	1.61	0.47
47:1p:21:VAL:HG13	47:1p:34:GLU:HB3	1.96	0.47
52:1u:5:ASP:O	52:1u:11:GLY:HA3	2.14	0.47
1:2A:554:U:C4	1:2A:555:U:C4	3.02	0.47
1:2A:1065:U:H3	1:2A:1073:A:N6	2.12	0.47
1:2A:1090:U:O5'	1:2A:1090:U:H6	1.98	0.47
1:2A:1322:A:N1	1:2A:1333:C:O2'	2.41	0.47
1:2A:1983:C:H4'	1:2A:2606:C:H4'	1.97	0.47
1:2A:2308:G:O2'	1:2A:2310:A:N7	2.41	0.47
2:2B:2:C:H2'	2:2B:3:C:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:89:ASP:OD1	4:2E:89:ASP:N	2.46	0.47
10:2O:98:VAL:HG13	10:2O:117:LEU:HB2	1.96	0.47
20:2Y:55:TYR:CZ	20:2Y:61:ILE:HG21	2.49	0.47
32:2a:129(A):G:C6	32:2a:189(E):U:H4'	2.49	0.47
32:2a:513:C:H2'	32:2a:514:C:H6	1.78	0.47
32:2a:1081:G:OP1	36:2e:18:ARG:HG2	2.14	0.47
32:2a:1188:A:H2'	32:2a:1189:C:O4'	2.14	0.47
44:2m:27:LYS:HD2	44:2m:27:LYS:HA	1.68	0.47
1:1A:7:G:H2'	1:1A:8:A:O4'	2.14	0.47
1:1A:23:G:OP1	1:1A:504:U:N3	2.43	0.47
1:1A:1243:G:O2'	11:1P:7:ARG:NH2	2.47	0.47
1:1A:2406:U:H2'	1:1A:2406:U:OP2	2.14	0.47
2:1B:6:C:H2'	2:1B:7:G:H5''	1.96	0.47
6:1G:124:SER:HB2	6:1G:131:TYR:CE1	2.50	0.47
20:1Y:97:ARG:HB3	20:1Y:106:LEU:HD12	1.96	0.47
32:1a:141:A:H1'	32:1a:182:U:O2	2.14	0.47
32:1a:603:U:H2'	32:1a:604:G:H8	1.78	0.47
32:1a:1469:G:H2'	32:1a:1470:G:H8	1.80	0.47
35:1d:176:LEU:HG	35:1d:178:VAL:HG22	1.96	0.47
40:1i:26:VAL:HG12	40:1i:61:ALA:HB3	1.95	0.47
44:1m:13:LYS:C	44:1m:44:ARG:HD3	2.40	0.47
1:2A:1031:G:N3	31:29:36:GLN:NE2	2.63	0.47
1:2A:2189:U:H2'	1:2A:2190:G:C8	2.49	0.47
1:2A:2630:G:H2'	1:2A:2631:G:H8	1.76	0.47
1:2A:2689:U:OP2	1:2A:2719:G:N2	2.43	0.47
5:2F:33:LEU:HD12	5:2F:33:LEU:HA	1.69	0.47
6:2G:9:ARG:O	6:2G:13:GLU:HB2	2.15	0.47
6:2G:145:THR:OG1	6:2G:146:TYR:N	2.47	0.47
7:2H:7:LEU:HB2	7:2H:69:ARG:HE	1.80	0.47
10:2O:64:ARG:HB2	10:2O:79:PHE:CD2	2.50	0.47
11:2P:59:LEU:HD13	30:28:58:ILE:HG12	1.95	0.47
28:26:12:GLU:OE1	28:26:19:ARG:NH1	2.47	0.47
32:2a:1517:G:H2'	32:2a:1518:MA6:H8	1.96	0.47
37:2f:3:ARG:HD3	37:2f:64:GLN:NE2	2.29	0.47
40:2i:4:TYR:HA	40:2i:87:GLN:HE22	1.79	0.47
1:1A:642:G:N2	1:1A:645:C:OP2	2.46	0.47
1:1A:1045:A:OP1	1:1A:1045:A:H4'	2.14	0.47
1:1A:1045:A:O2'	1:1A:1047:G:C4	2.67	0.47
1:1A:1057:A:N1	1:1A:1081:U:C4	2.80	0.47
1:1A:2611:U:C4	27:15:3:LYS:HG2	2.50	0.47
2:1B:7:G:N7	62:1B:308:HOH:O	2.36	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1E:33:VAL:HG22	4:1E:47:VAL:HG21	1.95	0.47
20:1Y:102:CYS:SG	20:1Y:104:GLY:N	2.84	0.47
32:1a:406:G:O3'	35:1d:3:ARG:NH2	2.46	0.47
32:1a:413:G:N2	32:1a:428:G:H1'	2.28	0.47
32:1a:481:G:O2'	32:1a:483:C:N4	2.44	0.47
32:1a:540:G:H2'	32:1a:541:G:O4'	2.14	0.47
32:1a:595:G:N3	32:1a:596:C:N4	2.60	0.47
32:1a:1332:A:H2'	32:1a:1333:A:C8	2.49	0.47
32:1a:1404:5MC:O2	32:1a:1519:MA6:O2'	2.29	0.47
34:1c:86:VAL:HA	34:1c:89:GLU:HB2	1.94	0.47
34:1c:203:PHE:HZ	34:1c:206:GLU:HG3	1.79	0.47
36:1e:90:VAL:HG23	36:1e:121:LYS:O	2.15	0.47
48:1q:53:LEU:HB3	48:1q:82:MET:HE1	1.96	0.47
1:2A:615:G:OP1	5:2F:40:GLN:NE2	2.47	0.47
1:2A:875:G:H5''	21:2Z:149:SER:HB3	1.96	0.47
1:2A:1129:A:N1	1:2A:2569:G:O2'	2.43	0.47
1:2A:1384:A:N3	1:2A:1405:U:H1'	2.29	0.47
1:2A:2692:C:H1'	1:2A:2847:U:H1'	1.96	0.47
7:2H:86:GLU:HA	7:2H:131:VAL:O	2.15	0.47
14:2S:74:ALA:O	14:2S:78:LEU:HB2	2.14	0.47
19:2X:8:ILE:O	24:22:36:ARG:NH2	2.47	0.47
29:27:16:HIS:HB2	29:27:44:PRO:HG2	1.96	0.47
32:2a:601:C:H2'	32:2a:602:A:H8	1.79	0.47
32:2a:931:C:N4	32:2a:1386:G:H1	2.13	0.47
32:2a:938:A:C6	32:2a:939:G:C5	3.03	0.47
32:2a:951:G:O6	44:2m:105:THR:HG21	2.14	0.47
32:2a:1391:U:H2'	32:2a:1392:G:C8	2.50	0.47
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.29	0.47
32:2a:1477:C:H2'	32:2a:1478:C:C6	2.50	0.47
40:2i:42:ARG:HH12	40:2i:75:ASP:HB2	1.79	0.47
42:2k:20:TYR:HA	42:2k:83:ILE:O	2.14	0.47
49:2r:53:ARG:HA	49:2r:56:THR:OG1	2.15	0.47
1:1A:142:A:N1	1:1A:1595:G:O2'	2.45	0.47
1:1A:324:A:N6	1:1A:338:G:O2'	2.47	0.47
1:1A:372:G:O2'	1:1A:400:G:O6	2.32	0.47
1:1A:569:U:C4	1:1A:570:G:C6	3.03	0.47
1:1A:1028:A:H61	1:1A:1125:G:H2'	1.79	0.47
1:1A:1790:C:H5''	1:1A:1791:A:OP1	2.15	0.47
1:1A:2271:G:OP1	22:10:18:ALA:HB1	2.15	0.47
1:1A:2304:G:H22	1:1A:2312:U:H3	1.62	0.47
1:1A:2774:C:H2'	1:1A:2775:A:O4'	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2803:C:H2'	1:1A:2804:C:C6	2.50	0.47
13:1R:118:GLU:H	13:1R:118:GLU:CD	2.21	0.47
19:1X:60:ARG:HH12	29:17:47:ARG:NH2	2.10	0.47
22:10:41:ARG:HA	62:10:201:HOH:O	2.13	0.47
32:1a:297:G:H4'	32:1a:557:G:H4'	1.97	0.47
32:1a:472:A:H5''	47:1p:80:PHE:HB3	1.95	0.47
32:1a:966:M2G:H8	32:1a:966:M2G:OP2	1.97	0.47
32:1a:1129:C:H4'	40:1i:16:ARG:HH22	1.79	0.47
32:1a:1132:C:H2'	32:1a:1133:G:H8	1.80	0.47
40:1i:14:VAL:HG13	40:1i:66:ARG:HH22	1.80	0.47
1:2A:476:G:H4'	1:2A:502:A:N1	2.28	0.47
1:2A:686:G:H21	1:2A:788:A:H61	1.61	0.47
1:2A:1341:U:OP1	1:2A:1397:U:N3	2.37	0.47
1:2A:2031:A:N3	1:2A:2455:G:O2'	2.33	0.47
1:2A:2784:C:H1'	4:2E:37:ARG:NH1	2.30	0.47
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.49	0.47
18:2W:37:ARG:NH1	27:25:48:GLU:OE2	2.48	0.47
32:2a:53:A:OP2	62:2a:3217:HOH:O	2.20	0.47
32:2a:910:C:H2'	32:2a:911:U:O4'	2.15	0.47
32:2a:1516:G:H2'	32:2a:1518:MA6:OP2	2.14	0.47
39:2h:33:GLU:HG3	39:2h:59:LEU:HD13	1.97	0.47
1:1A:244:A:C2	1:1A:255:A:C4	3.03	0.47
1:1A:443:A:H1'	1:1A:1201:C:O4'	2.15	0.47
1:1A:1194:A:H2'	1:1A:1195:G:O4'	2.15	0.47
1:1A:1500:G:O2'	3:1D:100:GLY:O	2.23	0.47
1:1A:1583:A:H5'	1:1A:1584:C:OP1	2.15	0.47
1:1A:2115:G:N3	1:1A:2117:A:N6	2.60	0.47
1:1A:2193:G:H2'	1:1A:2194:G:C8	2.49	0.47
1:1A:2375:G:N2	1:1A:2378:A:OP2	2.40	0.47
1:1A:2419:U:H2'	1:1A:2420:C:C6	2.50	0.47
7:1H:17:VAL:HG11	7:1H:50:VAL:HG21	1.96	0.47
9:1N:12:ARG:HH21	9:1N:138:LEU:HD21	1.80	0.47
10:1O:115:VAL:HG13	10:1O:121:VAL:HG21	1.96	0.47
15:1T:99:LEU:O	15:1T:102:ILE:HG12	2.14	0.47
22:10:43:THR:OG1	22:10:46:LYS:HD3	2.14	0.47
32:1a:630:G:N2	62:1a:1972:HOH:O	2.47	0.47
32:1a:826:C:O2	39:1h:15:ASN:ND2	2.48	0.47
32:1a:976:G:H5'	32:1a:1358:U:O2'	2.15	0.47
32:1a:1183:A:H3'	32:1a:1184:G:C5'	2.45	0.47
32:1a:1429:C:H2'	32:1a:1430:C:H6	1.79	0.47
35:1d:20:TYR:CD1	35:1d:26:CYS:HB3	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:76:ARG:HD3	35:1d:207:TYR:CE1	2.49	0.47
42:1k:50:TYR:CD1	42:1k:54:ARG:HD3	2.49	0.47
47:1p:19:ILE:HG23	47:1p:36:ILE:HG13	1.97	0.47
1:2A:9:U:H3	1:2A:2629:A:H2	1.57	0.47
1:2A:271(U):G:H2'	1:2A:271(V):G:C8	2.50	0.47
1:2A:320:A:H4'	1:2A:322:A:N7	2.30	0.47
1:2A:582:G:H2'	1:2A:583:G:C8	2.50	0.47
1:2A:699:A:H2'	1:2A:700:G:O4'	2.14	0.47
1:2A:897:C:H2'	1:2A:898:C:H6	1.80	0.47
1:2A:910:A:N1	1:2A:2277:G:H1'	2.29	0.47
1:2A:2019:A:N7	27:25:9:LYS:HE2	2.30	0.47
1:2A:2131:G:OP2	1:2A:2158:A:N6	2.46	0.47
1:2A:2203:U:H2'	1:2A:2205:C:C6	2.50	0.47
1:2A:2391:G:C6	1:2A:2427:C:H1'	2.50	0.47
1:2A:2678:C:H2'	1:2A:2679:A:O4'	2.15	0.47
2:2B:24:G:H5'	2:2B:25:A:N7	2.29	0.47
2:2B:66:A:H61	2:2B:109:C:C5'	2.28	0.47
2:2B:84:C:OP1	25:23:15:TYR:OH	2.28	0.47
5:2F:150:GLY:HA2	5:2F:172:TRP:CD2	2.50	0.47
6:2G:11:TYR:O	6:2G:16:ARG:N	2.45	0.47
8:2I:96:ASP:C	8:2I:98:ALA:H	2.23	0.47
10:2O:59:LYS:NZ	10:2O:89:ASN:OD1	2.31	0.47
13:2R:2:ARG:NH1	13:2R:5:LYS:O	2.45	0.47
21:2Z:57:ILE:O	21:2Z:69:THR:OG1	2.33	0.47
26:24:62:ARG:HA	26:24:62:ARG:NE	2.29	0.47
32:2a:149:A:H2'	32:2a:150:C:C6	2.50	0.47
32:2a:300:A:H1'	32:2a:565:U:O2	2.14	0.47
32:2a:765:G:H5''	32:2a:766:A:OP1	2.14	0.47
32:2a:940:C:H2'	32:2a:941:G:C8	2.49	0.47
32:2a:1177:G:H3'	32:2a:1178:G:H8	1.80	0.47
32:2a:1222:G:OP1	50:2s:77:THR:OG1	2.32	0.47
32:2a:1492:A:H5''	43:2l:47:LYS:HD3	1.96	0.47
32:2a:1518:MA6:H93	32:2a:1519:MA6:H102	1.97	0.47
34:2c:21:ARG:NH2	34:2c:56:ASP:HB3	2.30	0.47
35:2d:171:GLY:O	35:2d:174:LEU:N	2.46	0.47
36:2e:7:GLU:O	36:2e:34:VAL:HA	2.14	0.47
36:2e:141:GLN:HA	36:2e:143:ARG:HH21	1.80	0.47
37:2f:6:VAL:HG13	37:2f:90:VAL:HG22	1.96	0.47
37:2f:46:ARG:HH22	49:2r:37:VAL:HG11	1.79	0.47
42:2k:50:TYR:CD2	42:2k:60:ALA:HB2	2.50	0.47
1:1A:118:A:C8	1:1A:119:A:C8	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:429:A:OP2	62:1A:4194:HOH:O	2.20	0.47
1:1A:1754:C:OP1	15:1T:96:ARG:NH1	2.47	0.47
1:1A:2390:U:P	30:18:35:GLN:HE22	2.38	0.47
1:1A:2791:C:H5'	1:1A:2893:G:N2	2.29	0.47
2:1B:75:G:O2'	21:1Z:85:HIS:NE2	2.41	0.47
2:1B:78:A:C2	2:1B:100:A:C4	3.03	0.47
5:1F:164:ARG:HE	59:1F:316:ARG:NH1	2.13	0.47
11:1P:95:VAL:HG22	11:1P:125:VAL:HA	1.96	0.47
32:1a:738:C:H2'	32:1a:739:C:C6	2.50	0.47
32:1a:975:A:N6	32:1a:1367:C:O4'	2.47	0.47
32:1a:1492:A:H4'	32:1a:1493:A:C2	2.50	0.47
50:1s:22:LEU:HB3	50:1s:27:GLU:CB	2.44	0.47
1:2A:194:G:H3'	62:2A:4241:HOH:O	2.15	0.47
1:2A:923:C:H2'	1:2A:924:C:C6	2.49	0.47
1:2A:1059:G:OP1	1:2A:1060:U:H5''	2.15	0.47
1:2A:1509(B):A:H3'	1:2A:1510:G:H8	1.78	0.47
4:2E:101:ARG:CZ	4:2E:171:GLU:HB2	2.45	0.47
5:2F:102:PRO:HB2	5:2F:105:VAL:HG23	1.95	0.47
6:2G:166:ASP:O	6:2G:170:ARG:N	2.48	0.47
15:2T:16:ARG:HB3	15:2T:79:HIS:HA	1.97	0.47
19:2X:31:HIS:CD2	19:2X:33:LYS:H	2.33	0.47
32:2a:46:G:O2'	32:2a:365:U:H1'	2.15	0.47
32:2a:403:C:OP1	35:2d:137:SER:OG	2.28	0.47
32:2a:977:A:N6	32:2a:1224:G:OP1	2.39	0.47
32:2a:1091:U:H2'	32:2a:1093:A:OP2	2.13	0.47
32:2a:1101:A:H8	33:2b:172:ILE:HD13	1.79	0.47
32:2a:1320:C:H1'	50:2s:73:GLU:N	2.30	0.47
40:2i:86:VAL:HG13	40:2i:90:PRO:HA	1.95	0.47
1:1A:395:U:O2'	1:1A:396:G:N7	2.47	0.47
1:1A:1188:U:C4'	17:1V:79:VAL:HG22	2.45	0.47
1:1A:1913:A:N1	32:1a:1492:A:N3	2.62	0.47
1:1A:2661:G:H2'	1:1A:2662:A:C8	2.50	0.47
20:1Y:107:ASP:OD1	20:1Y:107:ASP:N	2.47	0.47
32:1a:1030:C:N4	32:1a:1031:G:C6	2.75	0.47
32:1a:1202:G:H1'	45:1n:29:ARG:HD2	1.96	0.47
32:1a:1368:G:OP2	40:1i:112:LYS:HG3	2.15	0.47
33:1b:88:ALA:O	33:1b:226:ARG:NH2	2.48	0.47
35:1d:122:ARG:HD2	35:1d:122:ARG:HA	1.55	0.47
40:1i:66:ARG:HB2	40:1i:66:ARG:NH2	2.30	0.47
43:1l:117:ARG:HB3	43:1l:122:THR:O	2.14	0.47
1:2A:1026:U:H4'	1:2A:1027:A:OP1	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2179:C:N4	1:2A:2180:U:O4	2.47	0.47
1:2A:2557:G:H2'	1:2A:2558:C:C6	2.50	0.47
6:2G:10:LYS:HG3	6:2G:14:GLU:OE1	2.15	0.47
23:21:5:CYS:SG	23:21:62:VAL:HG23	2.55	0.47
32:2a:300:A:H2'	32:2a:301:G:O4'	2.15	0.47
32:2a:510:A:N3	32:2a:543:C:H1'	2.30	0.47
32:2a:527:G7M:O2'	32:2a:535:A:N1	2.43	0.47
32:2a:689:C:H2'	32:2a:690:G:O4'	2.15	0.47
32:2a:757:U:H2'	32:2a:758:G:O4'	2.15	0.47
32:2a:973:G:OP1	41:2j:57:LYS:NZ	2.39	0.47
32:2a:1276:G:H2'	32:2a:1277:C:O4'	2.14	0.47
32:2a:1394:A:N1	32:2a:1500:A:O2'	2.40	0.47
32:2a:1512:U:H2'	32:2a:1513:A:C8	2.50	0.47
51:2t:67:ALA:HB2	51:2t:77:ALA:HB2	1.96	0.47
1:1A:36:G:N3	1:1A:450:G:O2'	2.48	0.47
1:1A:303:U:H2'	1:1A:304:G:H8	1.80	0.47
1:1A:631:A:H1'	11:1P:66:GLY:HA2	1.97	0.47
1:1A:671:C:H2'	1:1A:672:C:C6	2.50	0.47
1:1A:715:G:C4	46:1o:56:LEU:HD21	2.50	0.47
1:1A:811:U:OP1	62:1A:4196:HOH:O	2.20	0.47
1:1A:1061:U:O2	1:1A:1061:U:H2'	2.15	0.47
1:1A:2432:A:H2'	1:1A:2433:A:C8	2.49	0.47
5:1F:119:ARG:NH1	5:1F:119:ARG:HB3	2.30	0.47
8:1I:73:GLU:HG3	8:1I:138:ILE:HG23	1.97	0.47
12:1Q:127:ILE:O	62:1Q:302:HOH:O	2.20	0.47
20:1Y:9:LYS:HA	20:1Y:10:GLY:HA2	1.58	0.47
21:1Z:14:LYS:HZ3	21:1Z:16:SER:N	2.13	0.47
24:12:22:GLU:OE2	24:12:68:ARG:NH2	2.46	0.47
32:1a:24:U:H2'	32:1a:25:C:C6	2.49	0.47
32:1a:1492:A:P	43:1l:47:LYS:HE2	2.55	0.47
39:1h:92:ARG:NH1	39:1h:132:GLU:OE2	2.47	0.47
40:1i:21:PRO:HA	40:1i:59:PHE:HA	1.97	0.47
41:1j:51:ARG:HD2	41:1j:59:SER:OG	2.14	0.47
42:1k:50:TYR:CG	42:1k:54:ARG:HD3	2.50	0.47
47:1p:35:LYS:HB3	47:1p:35:LYS:HE2	1.61	0.47
1:2A:840:C:H2'	1:2A:841:A:H8	1.80	0.47
1:2A:922:U:H2'	1:2A:923:C:C6	2.50	0.47
1:2A:2092:U:H4'	1:2A:2093:G:O5'	2.15	0.47
1:2A:2291:U:H2'	1:2A:2292:C:C6	2.50	0.47
1:2A:2504:U:OP2	62:2A:3876:HOH:O	2.20	0.47
2:2B:1:U:H2'	2:2B:2:C:C5	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:2V:66:ARG:HA	17:2V:90:PRO:HA	1.97	0.47
28:26:6:ARG:NH1	28:26:26:ASN:HB2	2.30	0.47
28:26:41:PRO:O	28:26:44:ARG:HG3	2.15	0.47
32:2a:142:G:H2'	32:2a:143:A:C8	2.46	0.47
32:2a:297:G:O2'	32:2a:299:G:N7	2.42	0.47
32:2a:719:C:O2'	49:2r:49:LYS:HB3	2.14	0.47
32:2a:922:G:H1'	36:2e:19:MET:HB2	1.97	0.47
32:2a:975:A:N1	41:2j:48:THR:HB	2.29	0.47
32:2a:1190:G:H5'	34:2c:176:HIS:CE1	2.50	0.47
32:2a:1233:G:O2'	32:2a:1365:G:OP1	2.32	0.47
32:2a:1312:G:H5'	50:2s:5:LEU:HD11	1.97	0.47
33:2b:16:HIS:ND1	33:2b:16:HIS:O	2.47	0.47
38:2g:42:ILE:HG22	38:2g:120:ILE:HD12	1.96	0.47
40:2i:6:GLY:O	40:2i:17:VAL:HG22	2.15	0.47
53:2y:23:ARG:HG2	53:2y:78:ILE:HG13	1.97	0.47
1:1A:320:A:H4'	1:1A:322:A:N7	2.31	0.46
1:1A:721:C:H2'	1:1A:722:A:H8	1.80	0.46
1:1A:1824:G:OP1	3:1D:52:ARG:HD3	2.15	0.46
1:1A:2508:G:O3'	1:1A:2555:U:H5'	2.15	0.46
1:1A:2529:G:O6	31:19:31:LYS:NZ	2.49	0.46
21:1Z:4:ARG:NE	21:1Z:60:GLU:OE2	2.37	0.46
28:16:23:THR:OG1	28:16:24:GLU:N	2.48	0.46
32:1a:77:G:C2'	32:1a:78:G:H5'	2.44	0.46
32:1a:173:U:H5''	32:1a:197:A:O4'	2.15	0.46
32:1a:186:C:H2'	32:1a:187:C:H6	1.80	0.46
32:1a:227:G:H2'	32:1a:228:A:O4'	2.14	0.46
32:1a:747:C:OP2	32:1a:748:C:N4	2.44	0.46
32:1a:883:C:N4	32:1a:884:U:O4	2.48	0.46
32:1a:978:A:O2'	32:1a:1322:C:N3	2.42	0.46
36:1e:33:VAL:HG13	36:1e:112:LEU:HD13	1.97	0.46
38:1g:14:PRO:HB3	38:1g:19:GLY:O	2.15	0.46
39:1h:49:GLU:O	39:1h:51:VAL:HG23	2.15	0.46
44:1m:4:ILE:HA	44:1m:5:ALA:HA	1.65	0.46
54:1w:76:PPU:H93	62:1w:102:HOH:O	2.15	0.46
1:2A:1759:A:H5''	1:2A:2715:C:H1'	1.95	0.46
1:2A:1900:A:N1	1:2A:1970:A:C6	2.83	0.46
1:2A:2334:G:H1'	14:2S:16:ASN:HD21	1.78	0.46
1:2A:2556:C:H2'	1:2A:2557:G:O4'	2.14	0.46
18:2W:77:ASP:HB2	18:2W:102:HIS:HB2	1.96	0.46
21:2Z:92:SER:O	21:2Z:130:PRO:HG2	2.15	0.46
32:2a:296:U:O2'	32:2a:556:C:O2	2.28	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:324:G:N1	32:2a:327:A:OP2	2.47	0.46
32:2a:591:U:H2'	32:2a:592:G:H8	1.80	0.46
32:2a:1030(A):G:H2'	32:2a:1030(B):C:H5''	1.95	0.46
32:2a:1144:G:H21	32:2a:1146:A:H62	1.62	0.46
35:2d:11:LEU:HD23	35:2d:66:ARG:HB3	1.97	0.46
35:2d:105:VAL:HG13	35:2d:110:PHE:HB2	1.97	0.46
36:2e:6:PHE:HE1	36:2e:36:ASP:HB3	1.80	0.46
36:2e:53:LEU:HD12	36:2e:53:LEU:H	1.79	0.46
37:2f:99:ALA:O	49:2r:28:GLU:HA	2.15	0.46
39:2h:11:THR:HG22	39:2h:15:ASN:ND2	2.29	0.46
1:1A:478:A:N1	1:1A:500:G:H4'	2.30	0.46
1:1A:489:G:H2'	1:1A:491:G:O4'	2.16	0.46
1:1A:993:G:H1'	17:1V:89:GLN:OE1	2.15	0.46
1:1A:1081:U:H2'	1:1A:1082:U:O4'	2.14	0.46
1:1A:2417:C:OP1	11:1P:65:ARG:NH2	2.48	0.46
1:1A:2732:G:H3'	1:1A:2733:A:O4'	2.15	0.46
4:1E:16:ARG:NH1	4:1E:171:GLU:OE2	2.47	0.46
6:1G:3:LEU:O	6:1G:8:LYS:NZ	2.31	0.46
7:1H:154:PRO:HB3	7:1H:163:TYR:CZ	2.50	0.46
11:1P:97:PRO:HD3	11:1P:126:VAL:O	2.15	0.46
12:1Q:35:VAL:HG22	12:1Q:102:VAL:HG22	1.97	0.46
26:14:62:ARG:C	26:14:64:GLY:HA2	2.41	0.46
32:1a:133:U:O2'	32:1a:134:A:N7	2.45	0.46
32:1a:297:G:N2	32:1a:300:A:OP2	2.43	0.46
32:1a:1101:A:H4'	32:1a:1102:A:O5'	2.15	0.46
33:1b:36:ARG:O	33:1b:38:GLY:N	2.47	0.46
33:1b:61:LEU:HD23	33:1b:68:ILE:HD11	1.97	0.46
33:1b:82:ARG:HD2	33:1b:86:GLU:CD	2.40	0.46
40:1i:50:LEU:HB3	40:1i:85:LEU:HD11	1.98	0.46
51:1t:49:ALA:O	51:1t:53:LEU:HG	2.14	0.46
51:1t:57:ARG:HH22	51:1t:100:ILE:HD13	1.79	0.46
1:2A:76:C:HO2'	24:22:62:THR:HG1	1.57	0.46
1:2A:81:G:O6	62:2A:3877:HOH:O	2.20	0.46
1:2A:597:U:H2'	1:2A:598:G:C8	2.50	0.46
1:2A:1126:A:H8	1:2A:1126:A:OP1	1.97	0.46
1:2A:1331:A:H2'	1:2A:1333:C:C5	2.50	0.46
1:2A:2144:U:HO2'	1:2A:2147:G:H1	1.61	0.46
1:2A:2659:G:O2'	1:2A:2661:G:N7	2.31	0.46
2:2B:115:G:H2'	2:2B:116:G:C8	2.50	0.46
6:2G:7:LEU:HD23	6:2G:100:TRP:CE3	2.48	0.46
6:2G:111:LEU:HB2	6:2G:112:PRO:HD3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:27:LYS:NZ	7:2H:32:GLU:HB2	2.31	0.46
9:2N:67:LEU:O	9:2N:88:GLU:N	2.47	0.46
16:2U:43:GLY:HA3	17:2V:73:SER:OG	2.15	0.46
26:24:1:MET:HG2	26:24:6:HIS:CE1	2.50	0.46
32:2a:321:A:C2	32:2a:333:G:C2	3.03	0.46
32:2a:335:C:H2'	32:2a:336:C:C6	2.51	0.46
32:2a:539:A:C6	32:2a:540:G:C6	3.03	0.46
32:2a:601:C:H2'	32:2a:602:A:C8	2.50	0.46
32:2a:659:U:H2'	32:2a:660:G:O4'	2.16	0.46
32:2a:691:G:H2'	32:2a:692:U:C6	2.50	0.46
32:2a:976:G:N2	32:2a:1363:C:OP2	2.29	0.46
1:1A:1098:A:H2'	1:1A:1099:G:O4'	2.16	0.46
1:1A:1606:G:OP1	62:1A:4197:HOH:O	2.20	0.46
1:1A:1970:A:OP1	62:1A:4133:HOH:O	2.21	0.46
1:1A:2065:C:H2'	1:1A:2066:C:C6	2.50	0.46
1:1A:2319:G:N1	14:1S:3:ARG:HA	2.30	0.46
1:1A:2506:U:C2	1:1A:2585:U:O4	2.68	0.46
1:1A:2635:C:H5''	4:1E:78:LEU:O	2.15	0.46
10:1O:49:ARG:HH12	32:1a:1423:G:P	2.38	0.46
15:1T:65:LYS:HE3	15:1T:67:SER:HB2	1.98	0.46
17:1V:62:LEU:HD21	17:1V:95:LEU:HB2	1.96	0.46
32:1a:96:U:H2'	32:1a:97:G:C8	2.50	0.46
32:1a:858:G:O2'	32:1a:859:A:H5'	2.15	0.46
32:1a:1003:G:H8	32:1a:1003:G:O5'	1.99	0.46
32:1a:1007:C:H2'	32:1a:1008:C:C6	2.51	0.46
39:1h:123:GLU:O	39:1h:127:LEU:HD12	2.15	0.46
1:2A:297:C:OP1	20:2Y:87:LYS:HG3	2.14	0.46
1:2A:587:C:OP2	11:2P:21:ARG:NH1	2.37	0.46
1:2A:1686:C:H2'	1:2A:1687:G:O4'	2.15	0.46
1:2A:1697:G:OP2	1:2A:1698:A:O2'	2.27	0.46
1:2A:1814:G:C4'	3:2D:51:VAL:HG21	2.46	0.46
1:2A:2182:G:O2'	1:2A:2183:C:H5'	2.15	0.46
1:2A:2704:C:H2'	1:2A:2705:A:O4'	2.16	0.46
5:2F:96:ASP:OD1	5:2F:98:SER:OG	2.33	0.46
8:2I:70:GLU:OE1	8:2I:70:GLU:N	2.48	0.46
10:2O:103:ALA:HB1	10:2O:105:GLU:OE1	2.15	0.46
32:2a:383:A:C5	32:2a:384:G:H1'	2.51	0.46
32:2a:410:G:OP1	35:2d:30:LYS:NZ	2.29	0.46
32:2a:565:U:OP2	32:2a:566:G:O2'	2.29	0.46
32:2a:1105:A:H2'	32:2a:1106:G:C8	2.48	0.46
44:2m:74:VAL:HA	44:2m:77:ASN:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:2m:81:LEU:HD22	44:2m:88:ARG:HB3	1.97	0.46
53:2y:70:MET:O	53:2y:74:ILE:HG13	2.15	0.46
1:1A:218:A:C2	1:1A:235:U:H4'	2.51	0.46
1:1A:264:C:O2'	1:1A:265:A:H2'	2.15	0.46
1:1A:536:A:H2'	1:1A:537:C:C6	2.51	0.46
1:1A:784:A:C5	3:1D:229:VAL:HG21	2.50	0.46
1:1A:2093:G:C6	1:1A:2225:A:C8	3.04	0.46
1:1A:2336:A:H61	22:10:43:THR:HG22	1.80	0.46
1:1A:2341:G:H2'	1:1A:2342:C:C6	2.50	0.46
1:1A:2433:A:N6	62:1A:4622:HOH:O	2.47	0.46
1:1A:2690:C:OP2	1:1A:2690:C:H6	1.98	0.46
16:1U:76:TYR:CZ	16:1U:80:ILE:HG13	2.49	0.46
20:1Y:12:THR:OG1	20:1Y:26:LYS:NZ	2.49	0.46
32:1a:669:U:H2'	32:1a:670:G:C8	2.51	0.46
32:1a:935:A:H1'	32:1a:1384:C:N3	2.31	0.46
36:1e:100:VAL:HG13	36:1e:118:ILE:HG22	1.98	0.46
1:2A:98:G:H5'	24:22:3:LEU:HD23	1.98	0.46
1:2A:881:G:H1	1:2A:895:U:H3	1.63	0.46
1:2A:1297:C:O2'	1:2A:1302:A:N1	2.47	0.46
1:2A:1648:C:N3	1:2A:2009:G:N1	2.39	0.46
1:2A:2238:G:H2'	1:2A:2238:G:N3	2.31	0.46
1:2A:2287:A:C8	1:2A:2289:G:C8	3.03	0.46
2:2B:41:U:H5	6:2G:70:VAL:H	1.63	0.46
15:2T:64:ARG:HB2	15:2T:73:GLU:HG2	1.96	0.46
18:2W:84:ARG:O	18:2W:96:ILE:N	2.47	0.46
25:23:11:SER:HA	25:23:31:LEU:HD11	1.97	0.46
32:2a:91:C:H2'	32:2a:92:C:C6	2.51	0.46
32:2a:474:G:H2'	32:2a:475:G:H8	1.80	0.46
32:2a:1016:A:H2'	32:2a:1017:G:O4'	2.16	0.46
32:2a:1068:G:N7	32:2a:1094:G:C8	2.83	0.46
32:2a:1194:U:H4'	36:2e:22:GLY:CA	2.45	0.46
33:2b:83:MET:O	33:2b:87:ARG:HB2	2.16	0.46
1:1A:512:G:OP2	62:1A:4198:HOH:O	2.21	0.46
1:1A:535:C:O3'	16:1U:53:ARG:NH1	2.47	0.46
1:1A:814:C:H4'	1:1A:1224:C:O2	2.16	0.46
1:1A:960:A:C8	1:1A:962:G:C8	3.03	0.46
1:1A:1359:A:H2'	1:1A:1360:A:H5'	1.98	0.46
1:1A:2747:G:O6	1:1A:2755:C:H5''	2.15	0.46
13:1R:28:LEU:HD23	13:1R:48:VAL:HG21	1.98	0.46
21:1Z:145:GLU:H	21:1Z:148:ASP:HB2	1.80	0.46
32:1a:944:G:O6	32:1a:1337:G:H8	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:610:G:H2'	1:2A:611:C:C6	2.51	0.46
1:2A:751:A:H5'	18:2W:90:ARG:HA	1.97	0.46
1:2A:817:C:O2'	1:2A:839:U:H5''	2.16	0.46
1:2A:1274:A:N3	1:2A:1297:C:H1'	2.30	0.46
1:2A:1479:G:H5''	1:2A:1560:G:H4'	1.96	0.46
1:2A:2531:A:N3	1:2A:2658:C:O2'	2.47	0.46
62:2A:4419:HOH:O	23:21:3:LYS:HE2	2.14	0.46
3:2D:218:ARG:HB3	3:2D:219:PRO:HD2	1.97	0.46
8:2I:78:THR:OG1	8:2I:104:GLN:NE2	2.49	0.46
16:2U:97:ASP:OD1	16:2U:101:ARG:HD2	2.16	0.46
21:2Z:28:MET:HE3	21:2Z:59:LEU:HD12	1.97	0.46
32:2a:675:A:O2'	42:2k:114:VAL:O	2.26	0.46
32:2a:1431:C:H2'	32:2a:1432:G:O4'	2.15	0.46
33:2b:9:GLU:O	33:2b:11:LEU:N	2.48	0.46
38:2g:15:ASP:OD1	38:2g:20:ASP:N	2.48	0.46
39:2h:33:GLU:HG2	39:2h:48:TYR:CE1	2.50	0.46
42:2k:69:ALA:HB1	42:2k:103:LEU:HD23	1.98	0.46
1:1A:448:U:C4	1:1A:583:G:H1'	2.50	0.46
1:1A:1503:U:H2'	1:1A:1504:C:C6	2.50	0.46
1:1A:1999:C:H5''	1:1A:2723:C:O2'	2.16	0.46
1:1A:2319:G:H22	14:1S:3:ARG:CG	2.29	0.46
6:1G:78:SER:OG	6:1G:79:ASN:OD1	2.30	0.46
8:1I:104:GLN:C	8:1I:106:GLY:H	2.24	0.46
32:1a:134:A:H1'	32:1a:325:A:C5	2.50	0.46
32:1a:375:U:O3'	47:1p:6:LEU:HB2	2.16	0.46
32:1a:501:C:H2'	32:1a:502:G:C8	2.51	0.46
32:1a:601:C:H2'	32:1a:602:A:H8	1.80	0.46
32:1a:1277:C:O2'	32:1a:1279:A:H1'	2.15	0.46
34:1c:116:VAL:HG21	34:1c:202:ILE:HD11	1.97	0.46
40:1i:46:ALA:HA	40:1i:78:LYS:HB2	1.98	0.46
46:1o:45:VAL:HG12	46:1o:46:HIS:CD2	2.51	0.46
1:2A:65:C:H2'	1:2A:66:C:C6	2.51	0.46
1:2A:247:G:H4'	1:2A:386:G:C6	2.50	0.46
1:2A:695:G:OP1	1:2A:1380:G:O2'	2.29	0.46
1:2A:1464:C:H2'	1:2A:1465:G:C8	2.50	0.46
1:2A:1593:G:H2'	1:2A:1594:G:H8	1.81	0.46
1:2A:1669:A:O3'	1:2A:2549:G:H5''	2.16	0.46
2:2B:66:A:H61	2:2B:109:C:H5'	1.81	0.46
5:2F:129:PHE:HA	5:2F:142:TRP:NE1	2.30	0.46
12:2Q:52:VAL:HG13	21:2Z:183:LEU:HD13	1.98	0.46
32:2a:131:C:H2'	32:2a:132:C:H6	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:189(J):G:H2'	32:2a:189(K):U:C6	2.51	0.46
32:2a:640:A:H4'	39:2h:116:LYS:NZ	2.30	0.46
32:2a:741:G:H2'	32:2a:742:G:O4'	2.15	0.46
32:2a:742:G:P	46:2o:35:ARG:HH22	2.38	0.46
32:2a:976:G:P	45:2n:32:SER:H	2.39	0.46
32:2a:1131:G:OP1	40:2i:20:ARG:NH2	2.49	0.46
32:2a:1176:A:H2'	32:2a:1177:G:O4'	2.16	0.46
34:2c:15:THR:HG21	34:2c:181:ASN:HA	1.98	0.46
35:2d:88:VAL:HG22	36:2e:96:PRO:HB2	1.97	0.46
44:2m:16:ASP:HB3	44:2m:41:PRO:HB3	1.96	0.46
1:1A:24:G:H2'	1:1A:25:U:O4'	2.15	0.46
1:1A:324:A:H2'	1:1A:325:G:O4'	2.16	0.46
1:1A:811:U:H2'	11:1P:21:ARG:HA	1.98	0.46
1:1A:1082:U:C4	1:1A:1086:A:N1	2.83	0.46
1:1A:2375:G:O2'	1:1A:2377:A:N7	2.40	0.46
1:1A:2494:G:O2'	12:1Q:80:GLU:HA	2.15	0.46
1:1A:2794:C:H42	1:1A:2802:G:H1	1.64	0.46
14:1S:87:PHE:CZ	14:1S:102:ALA:HB2	2.51	0.46
16:1U:112:ARG:NH2	62:1U:308:HOH:O	2.45	0.46
22:10:46:LYS:NZ	22:10:75:LEU:O	2.49	0.46
32:1a:573:A:N3	32:1a:883:C:O2'	2.45	0.46
32:1a:875:C:H1'	39:1h:15:ASN:OD1	2.16	0.46
32:1a:1030(A):G:H2'	32:1a:1030(C):G:OP2	2.16	0.46
32:1a:1117:G:O3'	40:1i:104:ARG:NE	2.45	0.46
32:1a:1318:A:H5''	50:1s:3:ARG:NH1	2.30	0.46
33:1b:160:ASP:O	33:1b:183:PRO:HD2	2.16	0.46
40:1i:111:ARG:O	40:1i:113:LYS:HD2	2.15	0.46
41:1j:35:SER:OG	41:1j:73:ASP:HB2	2.15	0.46
50:1s:12:ASP:C	50:1s:14:HIS:H	2.24	0.46
1:2A:55:G:O2'	1:2A:127:A:N1	2.40	0.46
1:2A:207:A:H2'	1:2A:208:C:O4'	2.16	0.46
1:2A:489:G:N7	18:2W:49:LYS:NZ	2.63	0.46
10:2O:80:ASP:OD2	15:2T:64:ARG:NH2	2.43	0.46
11:2P:38:GLN:HB3	11:2P:45:LEU:HD23	1.97	0.46
16:2U:49:HIS:O	16:2U:53:ARG:N	2.40	0.46
32:2a:1074:G:H4'	33:2b:103:THR:O	2.16	0.46
32:2a:1162:C:H2'	32:2a:1163:C:C6	2.50	0.46
33:2b:98:LEU:HA	33:2b:98:LEU:HD13	1.53	0.46
33:2b:218:ALA:O	33:2b:222:ILE:HG23	2.14	0.46
34:2c:133:ALA:O	34:2c:136:GLN:HG2	2.15	0.46
38:2g:136:LYS:HD3	38:2g:139:GLU:OE1	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:2l:53:ARG:HB2	43:2l:93:LEU:HD11	1.98	0.46
1:1A:1652:A:C2'	1:1A:1653:G:H5'	2.45	0.46
1:1A:2137:C:N3	1:1A:2154:G:C2	2.83	0.46
1:1A:2684:U:H1'	10:1O:70:LYS:HD2	1.98	0.46
5:1F:7:TYR:O	5:1F:21:ALA:HA	2.15	0.46
5:1F:143:ALA:HB1	5:1F:148:LEU:HB2	1.98	0.46
6:1G:129:GLY:O	6:1G:161:THR:HG22	2.15	0.46
7:1H:163:TYR:CE1	7:1H:169:VAL:HG22	2.50	0.46
21:1Z:144:LEU:HD11	21:1Z:150:LEU:HD22	1.98	0.46
22:10:70:GLN:HG2	22:10:72:ARG:HG3	1.98	0.46
35:1d:11:LEU:HD23	35:1d:66:ARG:HB3	1.98	0.46
35:1d:60:GLU:HG3	35:1d:202:LEU:HD12	1.97	0.46
1:2A:208:C:H2'	1:2A:209:C:H6	1.80	0.46
1:2A:349:G:H2'	1:2A:350:U:O4'	2.15	0.46
1:2A:1223:G:N2	1:2A:1226:A:OP2	2.39	0.46
1:2A:1409:C:H2'	1:2A:1410:G:C8	2.51	0.46
1:2A:1491:G:H5'	3:2D:99:ASP:OD2	2.15	0.46
1:2A:1999:C:H5''	1:2A:2723:C:O2'	2.15	0.46
1:2A:2059:A:O2'	5:2F:69:HIS:HD2	1.97	0.46
1:2A:2115:G:H22	1:2A:2119:A:H5'	1.80	0.46
6:2G:2:PRO:HB2	6:2G:97:ASP:OD2	2.15	0.46
6:2G:37:VAL:HG11	6:2G:102:PHE:CD2	2.51	0.46
7:2H:96:ALA:HB1	7:2H:103:LEU:HD11	1.97	0.46
10:2O:35:VAL:HG22	10:2O:69:ILE:HG12	1.97	0.46
14:2S:35:ILE:HG13	14:2S:66:ALA:HB2	1.98	0.46
17:2V:3:ALA:HB2	17:2V:40:LEU:HD23	1.98	0.46
32:2a:41:G:H2'	32:2a:42:G:H8	1.81	0.46
32:2a:64:G:H4'	32:2a:65:U:H5''	1.97	0.46
32:2a:423:G:H3'	32:2a:423:G:N3	2.30	0.46
32:2a:1305:G:H8	52:2u:5:ASP:HB2	1.80	0.46
33:2b:88:ALA:HB2	33:2b:219:VAL:HG13	1.98	0.46
40:2i:28:VAL:HA	40:2i:63:ILE:O	2.16	0.46
44:2m:25:ILE:HG23	44:2m:29:ARG:HB2	1.98	0.46
44:2m:30:ALA:O	44:2m:34:LEU:HD12	2.16	0.46
1:1A:579:G:H2'	1:1A:580:C:C6	2.50	0.46
1:1A:673:C:H5''	5:1F:81:PRO:HD2	1.96	0.46
1:1A:795:C:H2'	1:1A:796:C:H6	1.80	0.46
1:1A:1495:A:O2'	1:1A:1496:A:H5'	2.16	0.46
1:1A:2101:G:H2'	1:1A:2102:U:C6	2.51	0.46
1:1A:2563:U:H4'	10:1O:28:SER:HA	1.97	0.46
4:1E:3:GLY:HA3	4:1E:81:ILE:HD12	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:92:VAL:HG22	8:1I:120:ILE:HD12	1.97	0.46
11:1P:87:ASP:HB3	11:1P:105:LEU:HD22	1.96	0.46
32:1a:343:U:O2'	32:1a:346:G:O6	2.30	0.46
32:1a:437:U:H5'	35:1d:155:LEU:HD11	1.96	0.46
32:1a:490:G:OP2	35:1d:132:ARG:NH2	2.48	0.46
32:1a:738:C:H2'	32:1a:739:C:H6	1.80	0.46
36:1e:12:LEU:HB3	36:1e:31:LEU:HB3	1.98	0.46
39:1h:44:PHE:CE2	39:1h:109:ILE:HG12	2.50	0.46
44:1m:98:VAL:O	44:1m:100:GLY:N	2.43	0.46
1:2A:748:G:O6	18:2W:90:ARG:NH1	2.49	0.46
1:2A:2079:U:H2'	1:2A:2080:G:O4'	2.16	0.46
1:2A:2111:C:H42	1:2A:2144:U:H4'	1.81	0.46
1:2A:2155:G:H2'	1:2A:2156:G:O4'	2.16	0.46
15:2T:85:LYS:NZ	15:2T:87:ASP:OD2	2.32	0.46
30:28:23:VAL:HG22	30:28:47:LYS:HB3	1.98	0.46
31:29:19:ARG:HG2	31:29:20:HIS:ND1	2.30	0.46
32:2a:235:C:H2'	32:2a:236:G:H8	1.81	0.46
32:2a:615:C:H2'	32:2a:616:G:O4'	2.16	0.46
32:2a:1366:C:HO2'	41:2j:60:ARG:HH22	1.57	0.46
34:2c:42:LEU:O	34:2c:46:GLU:HG2	2.16	0.46
35:2d:13:ARG:NH1	35:2d:38:TYR:O	2.47	0.46
44:2m:32:GLU:HG2	44:2m:64:TRP:HZ2	1.81	0.46
1:1A:124:G:OP1	1:1A:1376:C:O2'	2.30	0.46
1:1A:991:C:OP2	62:1A:4110:HOH:O	2.20	0.46
1:1A:1176:G:C1'	1:1A:1177:A:H5''	2.42	0.46
1:1A:2236:C:H2'	1:1A:2237:G:O4'	2.15	0.46
1:1A:2330:G:H2'	1:1A:2331:G:O4'	2.16	0.46
8:1I:31:LEU:HD21	8:1I:38:LEU:HG	1.97	0.46
14:1S:38:GLN:HB3	14:1S:47:THR:HG23	1.98	0.46
28:16:13:CYS:HB2	28:16:49:HIS:NE2	2.31	0.46
32:1a:97:G:H2'	32:1a:98:G:O4'	2.15	0.46
32:1a:792:A:H1'	32:1a:794:A:N7	2.31	0.46
32:1a:1249:C:H4'	40:1i:73:GLN:HE22	1.80	0.46
35:1d:124:GLY:C	35:1d:126:ILE:H	2.24	0.46
43:1l:119:LYS:C	43:1l:121:GLY:H	2.24	0.46
1:2A:286:C:H2'	1:2A:287:C:C6	2.51	0.46
1:2A:1059:G:H5''	1:2A:1060:U:OP2	2.15	0.46
1:2A:1503:U:H2'	1:2A:1504:C:C6	2.50	0.46
1:2A:1837:C:OP1	32:2a:784:C:H4'	2.15	0.46
1:2A:2080:G:H2'	1:2A:2081:C:C6	2.51	0.46
1:2A:2186:G:H5'	1:2A:2187:G:OP2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2270:G:H2'	1:2A:2271:G:O4'	2.16	0.46
8:2I:78:THR:HA	8:2I:143:SER:HB3	1.97	0.46
18:2W:15:ARG:O	18:2W:19:LEU:HD22	2.16	0.46
24:22:28:LYS:HB3	24:22:53:LEU:HD21	1.98	0.46
26:24:58:ARG:C	26:24:60:GLN:HB2	2.41	0.46
32:2a:953:G:H5'	32:2a:965:A:N1	2.30	0.46
32:2a:957:U:O2	32:2a:959:A:H8	1.99	0.46
32:2a:1226:C:OP2	44:2m:91:ARG:NH1	2.47	0.46
32:2a:1466:C:H2'	32:2a:1467:G:O4'	2.15	0.46
34:2c:22:TRP:NE1	34:2c:36:ASP:OD2	2.45	0.46
38:2g:116:ALA:O	38:2g:120:ILE:N	2.36	0.46
49:2r:73:ALA:HB3	49:2r:79:LEU:HD12	1.98	0.46
53:2y:40:ILE:HB	53:2y:51:ASP:H	1.80	0.46
1:1A:574:C:N3	4:1E:145:LYS:NZ	2.51	0.45
1:1A:784:A:C8	1:1A:792:G:C5	3.04	0.45
1:1A:797:C:OP1	5:1F:60:SER:OG	2.26	0.45
1:1A:2295:C:OP1	14:1S:10:ARG:NH1	2.49	0.45
1:1A:2445:G:OP1	5:1F:74:ARG:NH2	2.49	0.45
1:1A:2564:A:C2	1:1A:2647:U:H4'	2.50	0.45
1:1A:2801(A):A:H1'	1:1A:2895:U:H1'	1.97	0.45
5:1F:64:ILE:HD12	5:1F:65:TRP:CE3	2.51	0.45
13:1R:83:ILE:O	13:1R:86:ARG:HG2	2.16	0.45
32:1a:401:C:O2'	32:1a:621:A:N3	2.48	0.45
32:1a:833:U:H2'	32:1a:834:C:H6	1.80	0.45
32:1a:921:U:O2'	36:1e:19:MET:O	2.32	0.45
35:1d:12:CYS:SG	35:1d:19:LEU:N	2.75	0.45
36:1e:90:VAL:O	36:1e:120:THR:HA	2.15	0.45
37:1f:10:LEU:HD22	37:1f:19:LEU:HD12	1.98	0.45
45:1n:27:CYS:SG	45:1n:29:ARG:HG3	2.55	0.45
47:1p:56:ALA:O	47:1p:60:LEU:HD12	2.16	0.45
50:1s:5:LEU:HD23	50:1s:5:LEU:HA	1.78	0.45
1:2A:195:A:H2'	1:2A:198:C:N4	2.30	0.45
1:2A:562:U:O2'	1:2A:563:G:OP2	2.29	0.45
1:2A:885:C:H2'	1:2A:886:C:O4'	2.16	0.45
1:2A:1171:G:H1	1:2A:1178:C:H42	1.64	0.45
1:2A:1847:A:C3'	1:2A:1848:A:H5'	2.45	0.45
1:2A:1927:A:H2'	1:2A:1928:A:C8	2.51	0.45
1:2A:2086:U:H2'	1:2A:2087:G:C8	2.51	0.45
1:2A:2207:G:H2'	1:2A:2208:A:C2	2.51	0.45
1:2A:2391:G:O6	1:2A:2425:A:H8	1.98	0.45
1:2A:2552:2MU:H6'3	1:2A:2554:U:C6	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:8:U:H5'	14:2S:15:ARG:NH1	2.31	0.45
6:2G:115:ARG:HD3	6:2G:136:ARG:HH11	1.80	0.45
7:2H:3:ARG:NH1	7:2H:5:GLY:H	2.14	0.45
9:2N:28:THR:HG22	9:2N:29:LYS:N	2.31	0.45
12:2Q:57:HIS:NE2	12:2Q:116:GLU:HB3	2.30	0.45
14:2S:74:ALA:HB2	14:2S:105:ALA:HA	1.97	0.45
32:2a:153:C:H2'	32:2a:154:C:C6	2.51	0.45
32:2a:308:C:H2'	32:2a:309:G:C8	2.52	0.45
32:2a:500:G:H2'	32:2a:501:C:C6	2.51	0.45
32:2a:636:U:H2'	32:2a:637:G:C8	2.50	0.45
32:2a:674:G:H2'	32:2a:675:A:H8	1.81	0.45
32:2a:926:G:C6	53:2y:87:LYS:HG3	2.50	0.45
32:2a:1040:U:H2'	32:2a:1041:A:O4'	2.15	0.45
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.51	0.45
32:2a:1315:U:H2'	32:2a:1316:G:O4'	2.16	0.45
32:2a:1320:C:C2	50:2s:72:GLY:HA3	2.50	0.45
33:2b:19:HIS:CE1	33:2b:206:ASP:HB2	2.52	0.45
37:2f:7:ASN:OD1	37:2f:7:ASN:N	2.49	0.45
44:2m:73:GLU:O	44:2m:77:ASN:N	2.49	0.45
44:2m:82:MET:SD	44:2m:93:ARG:HG2	2.56	0.45
46:2o:39:LEU:HD23	46:2o:56:LEU:HB2	1.98	0.45
47:2p:23:ASP:OD2	47:2p:25:ARG:NH2	2.49	0.45
53:2y:3:MET:HB3	53:2y:37:PRO:HD2	1.97	0.45
53:2y:51:ASP:HA	53:2y:64:SER:HA	1.98	0.45
1:1A:910:A:N1	1:1A:2277:G:H1'	2.31	0.45
1:1A:1167:U:H2'	1:1A:1168:G:C8	2.51	0.45
1:1A:1371:G:H2'	1:1A:1372:U:C5	2.52	0.45
12:1Q:2:LEU:HD22	12:1Q:69:PHE:CE1	2.50	0.45
12:1Q:14:ARG:HG2	12:1Q:41:TRP:HH2	1.80	0.45
21:1Z:54:HIS:ND1	21:1Z:101:PRO:HG3	2.31	0.45
21:1Z:153:SER:HB3	21:1Z:167:PRO:HB3	1.99	0.45
25:13:4:LEU:O	25:13:36:VAL:HA	2.16	0.45
32:1a:735:C:H2'	32:1a:736:C:H6	1.81	0.45
32:1a:814:A:N7	32:1a:816:A:C4	2.84	0.45
33:1b:219:VAL:HA	33:1b:222:ILE:HD12	1.98	0.45
38:1g:26:PHE:O	38:1g:30:ILE:HG13	2.16	0.45
41:1j:5:ARG:HH21	41:1j:73:ASP:CG	2.23	0.45
1:2A:11:G:H2'	1:2A:12:U:H5'	1.97	0.45
1:2A:271(E):U:H2'	1:2A:271(F):C:C6	2.52	0.45
1:2A:307:G:N1	1:2A:310:A:OP2	2.48	0.45
1:2A:459:U:H2'	1:2A:460:A:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:706:A:N6	1:2A:725:G:O2'	2.42	0.45
1:2A:942:G:O2'	1:2A:1189:A:N3	2.48	0.45
1:2A:1127:A:N7	1:2A:2488:A:O2'	2.46	0.45
1:2A:1891:G:H2'	1:2A:1892:C:O4'	2.17	0.45
1:2A:2030:A:H4'	1:2A:2031:A:C8	2.51	0.45
1:2A:2031:A:C6	1:2A:2498:C:H1'	2.51	0.45
1:2A:2507:C:O2'	54:2w:75:C:O2	2.30	0.45
11:2P:97:PRO:HD3	11:2P:126:VAL:O	2.16	0.45
12:2Q:31:ASP:OD1	12:2Q:134:ARG:NH1	2.49	0.45
20:2Y:44:ILE:HG22	20:2Y:62:GLU:HB3	1.98	0.45
25:23:19:GLN:O	25:23:23:LEU:HD22	2.16	0.45
32:2a:325:A:H2'	32:2a:326:G:O4'	2.16	0.45
32:2a:474:G:H2'	32:2a:475:G:C8	2.51	0.45
32:2a:793:U:O4	32:2a:1517:G:H8	2.00	0.45
32:2a:831:U:H2'	32:2a:832:C:H6	1.81	0.45
32:2a:922:G:N3	32:2a:1398:A:H2	2.14	0.45
34:2c:39:ILE:O	34:2c:43:LEU:HB2	2.16	0.45
42:2k:34:ASP:HB3	42:2k:40:ILE:HD11	1.97	0.45
44:2m:90:LEU:HD23	44:2m:93:ARG:HH21	1.81	0.45
1:1A:271(M):G:N2	8:1I:50:ARG:HD3	2.29	0.45
1:1A:271(S):G:C6	1:1A:271(T):C:C4	3.04	0.45
1:1A:302:C:H2'	1:1A:303:U:H6	1.80	0.45
1:1A:323:G:H1'	1:1A:1205:U:O2	2.16	0.45
1:1A:594:U:H2'	1:1A:595:C:C6	2.51	0.45
1:1A:831:G:N2	11:1P:53:GLY:O	2.48	0.45
1:1A:1429:G:O2'	1:1A:1430:C:H5'	2.16	0.45
16:1U:50:ARG:NH1	62:1U:307:HOH:O	2.44	0.45
32:1a:62:U:H1'	32:1a:379:C:H1'	1.98	0.45
32:1a:96:U:H2'	32:1a:97:G:H8	1.82	0.45
32:1a:130:A:O2'	32:1a:131:C:O5'	2.31	0.45
40:1i:112:LYS:HE2	40:1i:117:HIS:O	2.16	0.45
42:1k:19:ALA:HB3	42:1k:82:VAL:HG22	1.97	0.45
44:1m:108:ARG:HD3	44:1m:108:ARG:HA	1.54	0.45
51:1t:21:LYS:O	51:1t:25:ARG:HG3	2.15	0.45
1:2A:900:A:H2'	1:2A:901:A:O4'	2.16	0.45
1:2A:1012:U:C5	9:2N:28:THR:HG21	2.51	0.45
1:2A:1072:C:H3'	1:2A:1094:U:O4	2.16	0.45
1:2A:1668:A:O2'	1:2A:1674:G:N7	2.45	0.45
5:2F:197:ASP:O	5:2F:201:VAL:HG13	2.15	0.45
6:2G:7:LEU:CD2	6:2G:103:LEU:HB2	2.46	0.45
6:2G:179:PRO:HG3	26:24:43:TYR:OH	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:2N:4:TYR:CD2	16:2U:100:VAL:HG11	2.51	0.45
11:2P:2:LYS:HE3	11:2P:4:SER:OG	2.16	0.45
12:2Q:34:LEU:HD11	12:2Q:129:THR:HB	1.98	0.45
32:2a:60:A:H4'	32:2a:61:G:O5'	2.16	0.45
32:2a:582:U:C2	32:2a:760:G:C6	3.04	0.45
32:2a:1130:A:H4'	40:2i:3:GLN:HE22	1.81	0.45
33:2b:219:VAL:O	33:2b:222:ILE:HG13	2.17	0.45
34:2c:45:LYS:HA	34:2c:45:LYS:HD3	1.86	0.45
34:2c:59:ARG:HD3	34:2c:63:ASN:O	2.16	0.45
1:1A:320:A:H4'	1:1A:322:A:C8	2.51	0.45
1:1A:589:C:H2'	1:1A:590:A:C8	2.51	0.45
1:1A:1092:C:H2'	1:1A:1093:G:O4'	2.16	0.45
1:1A:1742:G:H2'	1:1A:1743:C:O4'	2.17	0.45
1:1A:2320:A:H2'	1:1A:2320:A:N3	2.32	0.45
62:1A:6266:HOH:O	9:1N:89:LYS:HE3	2.16	0.45
4:1E:33:VAL:HG13	4:1E:47:VAL:HG23	1.98	0.45
14:1S:20:ARG:NH2	22:10:51:VAL:O	2.49	0.45
21:1Z:24:LEU:HB2	21:1Z:41:LEU:HD13	1.97	0.45
32:1a:19:C:O2'	32:1a:572:A:N1	2.45	0.45
32:1a:73:G:H2'	32:1a:76:C:C6	2.51	0.45
32:1a:894:G:C6	32:1a:895:G:C5	3.05	0.45
33:1b:52:GLU:HG2	33:1b:56:ARG:HH12	1.81	0.45
34:1c:29:TYR:OH	45:1n:54:PRO:O	2.33	0.45
1:2A:9:U:N3	1:2A:2629:A:H2	2.14	0.45
1:2A:83:G:N2	1:2A:102:G:HI'	2.31	0.45
1:2A:516:C:OP1	27:25:13:LYS:NZ	2.49	0.45
1:2A:875:G:H5''	21:2Z:149:SER:CB	2.46	0.45
8:2I:61:ARG:HD3	8:2I:61:ARG:HA	1.66	0.45
17:2V:2:PHE:CE2	17:2V:41:GLY:HA3	2.51	0.45
20:2Y:85:VAL:HG13	20:2Y:97:ARG:HB3	1.98	0.45
32:2a:192:U:H2'	32:2a:193:C:H6	1.80	0.45
32:2a:425:G:O3'	35:2d:45:GLN:NE2	2.49	0.45
32:2a:592:G:H2'	32:2a:593:G:C8	2.51	0.45
32:2a:1194:U:H2'	32:2a:1195:C:C6	2.52	0.45
32:2a:1263:C:H2'	32:2a:1264:C:C6	2.51	0.45
32:2a:1425:U:H2'	32:2a:1426:C:H6	1.82	0.45
33:2b:24:TRP:CE2	33:2b:26:PRO:HG3	2.52	0.45
33:2b:72:GLY:HA2	33:2b:165:VAL:HG21	1.98	0.45
34:2c:110:ASN:O	34:2c:111:LEU:HD12	2.15	0.45
35:2d:98:GLU:HG3	35:2d:194:LEU:HD23	1.98	0.45
41:2j:32:ALA:HA	41:2j:33:GLN:HA	1.54	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:2j:35:SER:HB3	41:2j:73:ASP:H	1.81	0.45
1:1A:272(J):C:H2'	1:1A:274:G:C8	2.51	0.45
1:1A:729:G:C5	3:1D:208:LYS:HB2	2.52	0.45
1:1A:1087:G:H2'	1:1A:1089:G:C4'	2.46	0.45
1:1A:1141:U:H4'	1:1A:1142(A):A:O4'	2.16	0.45
1:1A:1485:G:H1	1:1A:1504:C:H42	1.64	0.45
1:1A:1882:C:H2'	1:1A:1883:G:O4'	2.16	0.45
1:1A:2312:U:H5'	6:1G:88:ILE:HD11	1.97	0.45
1:1A:2314:C:H4'	6:1G:38:VAL:HG21	1.99	0.45
1:1A:2336:A:H61	22:10:43:THR:CG2	2.29	0.45
1:1A:2507:C:H4'	1:1A:2573:C:N4	2.31	0.45
3:1D:37:LEU:HB2	3:1D:62:TYR:HB2	1.99	0.45
5:1F:150:GLY:HA2	5:1F:172:TRP:CD2	2.51	0.45
7:1H:37:VAL:HG22	7:1H:68:THR:HG23	1.98	0.45
23:11:56:GLN:NE2	23:11:87:PRO:HD3	2.31	0.45
26:14:24:THR:OG1	26:14:25:TYR:N	2.37	0.45
32:1a:583:A:H2'	32:1a:584:G:O4'	2.17	0.45
32:1a:755:G:OP2	46:1o:65:ARG:HD2	2.16	0.45
32:1a:790:A:C2	53:1y:29:LYS:HD3	2.51	0.45
32:1a:1008:C:H2'	32:1a:1009:G:O4'	2.17	0.45
32:1a:1095:U:OP2	62:1a:1921:HOH:O	2.21	0.45
32:1a:1279:A:H5''	32:1a:1280:A:OP1	2.16	0.45
34:1c:81:GLY:O	34:1c:85:ARG:HG3	2.16	0.45
46:1o:74:ASP:HB3	46:1o:77:ARG:HB2	1.99	0.45
1:2A:391:G:H1'	1:2A:411:G:O4'	2.17	0.45
1:2A:571:A:O2'	17:2V:78:LYS:HE2	2.17	0.45
1:2A:1100:C:H2'	1:2A:1101:U:H6	1.81	0.45
1:2A:1292:U:H2'	1:2A:1293:C:C6	2.51	0.45
1:2A:2047:U:O2'	1:2A:2823:A:N1	2.44	0.45
1:2A:2552:2MU:C2	1:2A:2554:U:H5''	2.46	0.45
1:2A:2838:G:C6	1:2A:2839:G:C5	3.04	0.45
8:2I:69:LYS:HA	8:2I:138:ILE:HG23	1.99	0.45
17:2V:71:LEU:HD23	17:2V:71:LEU:HA	1.75	0.45
19:2X:12:VAL:HG21	19:2X:27:THR:HG22	1.98	0.45
19:2X:50:LYS:O	19:2X:84:ALA:N	2.48	0.45
32:2a:152:A:N6	32:2a:170:U:C2	2.84	0.45
32:2a:232:G:H1'	32:2a:262:A:N1	2.32	0.45
32:2a:685:G:C2	32:2a:686:U:C4	3.04	0.45
32:2a:1401:G:OP1	53:2y:80:LYS:HG2	2.16	0.45
36:2e:40:ARG:NE	36:2e:68:GLU:OE2	2.38	0.45
37:2f:76:ALA:O	37:2f:80:ARG:HG3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:2m:80:ARG:HE	50:2s:65:ASN:HB3	1.81	0.45
1:1A:68:G:H2'	1:1A:69:C:O4'	2.17	0.45
1:1A:511:U:O4	1:1A:512:G:N1	2.50	0.45
1:1A:1012:U:O4	9:1N:25:ARG:HA	2.17	0.45
1:1A:1790:C:H2'	1:1A:1791:A:C5	2.52	0.45
1:1A:2103:C:H1'	1:1A:2187:G:N2	2.32	0.45
1:1A:2887:U:H2'	1:1A:2888:C:C6	2.51	0.45
3:1D:106:ILE:HG12	62:1D:450:HOH:O	2.16	0.45
8:1I:4:ILE:HD11	8:1I:44:LEU:HD23	1.97	0.45
25:13:22:ALA:HB2	25:13:49:LYS:HD3	1.98	0.45
32:1a:236:G:H5''	48:1q:42:TYR:OH	2.16	0.45
32:1a:585:G:N3	32:1a:879:C:H4'	2.31	0.45
32:1a:1004:A:C5	32:1a:1037:C:C2	3.04	0.45
32:1a:1178:G:OP1	40:1i:93:ARG:NE	2.50	0.45
35:1d:98:GLU:OE1	35:1d:103:ASN:ND2	2.46	0.45
50:1s:71:LEU:HD23	50:1s:71:LEU:HA	1.77	0.45
1:2A:238:C:H2'	1:2A:239:U:O4'	2.17	0.45
1:2A:729:G:C8	3:2D:208:LYS:HD2	2.52	0.45
1:2A:1142(A):A:O2'	1:2A:1143:A:H3'	2.15	0.45
5:2F:164:ARG:HD2	5:2F:175:THR:HG23	1.98	0.45
7:2H:137:ASP:HB3	7:2H:140:LYS:HB3	1.98	0.45
17:2V:25:LEU:N	17:2V:92:THR:OG1	2.36	0.45
28:26:6:ARG:HH11	28:26:26:ASN:HB2	1.81	0.45
32:2a:457:C:H2'	32:2a:458:C:C6	2.52	0.45
32:2a:584:G:OP2	48:2q:87:LYS:NZ	2.34	0.45
32:2a:1070:U:OP1	36:2e:25:ARG:NH1	2.44	0.45
32:2a:1292:U:OP2	38:2g:41:ARG:NH2	2.48	0.45
32:2a:1328:C:H2'	32:2a:1329:A:O4'	2.17	0.45
33:2b:81:VAL:HG23	33:2b:215:LEU:HD13	1.98	0.45
34:2c:164:ARG:HG2	34:2c:165:THR:H	1.82	0.45
39:2h:37:ARG:NH1	39:2h:41:ARG:HH21	2.15	0.45
53:2y:93:GLU:O	53:2y:96:ARG:HD2	2.16	0.45
1:1A:302:C:OP2	20:1Y:73:ARG:NH2	2.49	0.45
1:1A:394:A:C6	1:1A:395:U:C4	3.05	0.45
1:1A:527:C:H4'	1:1A:528:A:O5'	2.16	0.45
1:1A:1010:A:OP2	62:1A:4201:HOH:O	2.21	0.45
1:1A:2718:G:O2'	1:1A:2847:U:OP1	2.30	0.45
8:1I:14:ASP:O	8:1I:17:GLN:HG2	2.16	0.45
13:1R:87:TYR:OH	13:1R:116:LEU:HB3	2.17	0.45
23:11:3:LYS:CB	23:11:61:ARG:HH12	2.30	0.45
23:11:26:ARG:NH1	62:11:204:HOH:O	2.40	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:11:67:ILE:N	23:11:68:PRO:HD2	2.32	0.45
28:16:9:LEU:HD21	28:16:25:LYS:HB3	1.98	0.45
32:1a:113:G:H2'	32:1a:114:U:C6	2.52	0.45
32:1a:448:A:OP2	32:1a:485:G:N2	2.40	0.45
32:1a:499:A:O2'	32:1a:546:G:N2	2.48	0.45
32:1a:833:U:H2'	32:1a:834:C:C6	2.52	0.45
32:1a:858:G:O6	32:1a:869:G:H3'	2.17	0.45
32:1a:1288:A:N1	32:1a:1371:G:H1'	2.31	0.45
32:1a:1396:A:C2	36:1e:19:MET:HG3	2.51	0.45
35:1d:53:ASP:HB3	35:1d:57:ARG:NH1	2.32	0.45
39:1h:7:ALA:HB2	39:1h:85:ARG:HD3	1.98	0.45
41:1j:46:ARG:NH2	41:1j:64:GLU:OE1	2.50	0.45
1:2A:580:C:H2'	1:2A:581:C:C6	2.50	0.45
1:2A:1007:C:H5''	9:2N:35:ARG:NH1	2.32	0.45
1:2A:1052:C:H2'	1:2A:1053:C:C6	2.52	0.45
1:2A:1109:C:H3'	1:2A:1110:G:C8	2.52	0.45
1:2A:1291:C:H2'	1:2A:1292:U:C6	2.52	0.45
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.52	0.45
1:2A:1817:G:C6	1:2A:1818:U:C4	3.05	0.45
1:2A:1889:A:N1	1:2A:2234:G:H1'	2.32	0.45
1:2A:2330:G:H2'	1:2A:2331:G:O4'	2.16	0.45
5:2F:184:TYR:CE2	5:2F:188:ARG:HD2	2.52	0.45
7:2H:16:SER:HB2	7:2H:27:LYS:HG3	1.99	0.45
28:26:39:TYR:HB2	28:26:46:HIS:CE1	2.51	0.45
30:28:31:HIS:O	30:28:36:LYS:NZ	2.50	0.45
31:29:7:VAL:HG12	31:29:34:GLN:HB3	1.99	0.45
32:2a:408:A:H4'	35:2d:112:VAL:HG21	1.99	0.45
32:2a:760:G:N2	48:2q:94:ASN:OD1	2.50	0.45
32:2a:1410:G:H2'	32:2a:1411:C:C6	2.52	0.45
36:2e:143:ARG:HA	36:2e:143:ARG:HD3	1.70	0.45
39:2h:91:ARG:HG3	48:2q:34:LYS:N	2.31	0.45
40:2i:5:TYR:H	40:2i:87:GLN:NE2	2.15	0.45
42:2k:20:TYR:O	42:2k:30:VAL:HA	2.17	0.45
47:2p:13:HIS:C	47:2p:15:PRO:HD3	2.42	0.45
1:1A:764:A:O4'	3:1D:213:ARG:HG3	2.16	0.45
1:1A:1048:A:N1	1:1A:1112:G:O2'	2.42	0.45
1:1A:1790:C:H2'	1:1A:1791:A:C4	2.51	0.45
1:1A:1929:G:H4'	1:1A:1930:G:OP1	2.17	0.45
1:1A:2032:G:OP2	1:1A:2454:G:O2'	2.16	0.45
1:1A:2493:U:H2'	1:1A:2494:G:O4'	2.16	0.45
1:1A:2674:G:O2'	10:1O:29:ASN:OD1	2.28	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1O:60:ALA:HB1	10:1O:84:ALA:HB1	1.98	0.45
11:1P:64:LYS:HZ1	30:18:12:LYS:HD3	1.82	0.45
18:1W:58:ALA:HB1	18:1W:64:MET:HB2	1.99	0.45
32:1a:7:G:O2'	36:1e:120:THR:O	2.34	0.45
32:1a:189(F):U:O2	48:1q:63:ARG:NH2	2.25	0.45
32:1a:642:A:N3	39:1h:113:SER:OG	2.37	0.45
32:1a:781:A:OP1	32:1a:1523:G:H5'	2.17	0.45
34:1c:135:LYS:HE2	36:1e:53:LEU:HD21	1.99	0.45
35:1d:64:LEU:HB2	35:1d:198:VAL:HG11	1.99	0.45
36:1e:78:HIS:NE2	36:1e:142:LEU:HA	2.32	0.45
1:2A:666:G:N2	30:28:2:PRO:O	2.50	0.45
1:2A:735:A:N7	1:2A:761:A:H2	2.14	0.45
1:2A:1827:C:C2'	1:2A:1828:G:H5'	2.47	0.45
1:2A:1920:OMC:HM22	1:2A:1921:G:H5'	1.99	0.45
1:2A:2286:A:H4'	1:2A:2287:A:O4'	2.17	0.45
1:2A:2307:G:H8	1:2A:2307:G:OP1	1.99	0.45
1:2A:2611:U:H6	1:2A:2611:U:H5'	1.81	0.45
3:2D:175:LEU:HD12	3:2D:185:VAL:HG21	1.98	0.45
5:2F:101:LEU:HD23	5:2F:106:ARG:HG2	1.99	0.45
7:2H:54:ARG:HG3	7:2H:56:SER:O	2.17	0.45
11:2P:79:ARG:O	11:2P:111:ARG:N	2.49	0.45
16:2U:90:VAL:HA	17:2V:11:GLN:OE1	2.17	0.45
21:2Z:75:ASN:HB2	21:2Z:85:HIS:HB3	1.99	0.45
32:2a:439:A:C5	32:2a:441:A:H1'	2.51	0.45
32:2a:503:C:OP2	43:2l:116:SER:OG	2.22	0.45
32:2a:547:A:H4'	32:2a:548:G:O5'	2.17	0.45
35:2d:15:GLU:HB3	35:2d:63:LYS:HG2	1.98	0.45
1:1A:146:G:O6	62:1A:4185:HOH:O	2.19	0.45
1:1A:729:G:O2'	1:1A:763:G:H4'	2.17	0.45
1:1A:1782:C:H1'	1:1A:2609:U:H5''	1.98	0.45
1:1A:2287:A:C8	1:1A:2289:G:C8	3.04	0.45
1:1A:2591:C:H2'	1:1A:2592:G:C8	2.52	0.45
1:1A:2752:C:OP2	7:1H:4:ILE:HD11	2.16	0.45
21:1Z:147:GLY:HA2	21:1Z:174:VAL:O	2.16	0.45
32:1a:300:A:H1'	32:1a:565:U:O2	2.16	0.45
32:1a:1117:G:H5''	40:1i:104:ARG:NH2	2.32	0.45
32:1a:1137:C:H3'	32:1a:1137:C:H6	1.82	0.45
33:1b:54:THR:O	33:1b:58:ILE:HG23	2.17	0.45
36:1e:88:LYS:HB3	36:1e:123:LEU:HB2	1.98	0.45
39:1h:14:ARG:O	39:1h:18:ARG:HG2	2.17	0.45
41:1j:42:THR:HB	41:1j:68:HIS:HA	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:1j:47:PHE:CZ	45:1n:37:PHE:HE2	2.35	0.45
43:1l:28:LYS:HE2	43:1l:64:TYR:CE2	2.51	0.45
1:2A:523:C:O2	1:2A:554:U:O2'	2.34	0.45
1:2A:861:A:N3	2:2B:79:C:O2'	2.44	0.45
1:2A:863:A:P	12:2Q:22:LYS:HG3	2.57	0.45
1:2A:910:A:C6	1:2A:911:A:C6	3.04	0.45
1:2A:1084:A:H3'	1:2A:1085:A:C4'	2.47	0.45
1:2A:1630:G:H2'	1:2A:1631:C:C6	2.52	0.45
21:2Z:58:VAL:HA	21:2Z:68:PRO:HA	1.99	0.45
23:21:83:GLU:HA	23:21:84:GLY:HA2	1.59	0.45
25:23:40:THR:O	25:23:44:ARG:N	2.45	0.45
32:2a:974:A:OP2	45:2n:29:ARG:NH2	2.49	0.45
32:2a:1067:A:H8	32:2a:1067:A:O5'	1.99	0.45
32:2a:1256:A:N6	32:2a:1278:U:O4'	2.50	0.45
38:2g:86:GLN:HE21	38:2g:144:MET:HE1	1.81	0.45
43:2l:28:LYS:HE2	43:2l:64:TYR:CE2	2.50	0.45
46:2o:82:ILE:HB	46:2o:87:ILE:HB	1.98	0.45
50:2s:40:ILE:HD12	50:2s:66:MET:O	2.17	0.45
53:2y:13:THR:O	53:2y:17:ARG:HB2	2.17	0.45
1:1A:142(A):C:H2'	1:1A:143:G:O4'	2.16	0.45
1:1A:478:A:C6	1:1A:480:A:C6	3.05	0.45
1:1A:862:G:H2'	1:1A:863:A:O4'	2.17	0.45
1:1A:1470:G:N2	1:1A:1520:G:OP2	2.30	0.45
1:1A:1877:A:H5'	1:1A:1878:G:OP2	2.17	0.45
3:1D:132:PRO:HG3	3:1D:190:TYR:CE2	2.52	0.45
6:1G:142:PRO:HB2	26:14:31:ILE:HG21	1.99	0.45
10:1O:88:ASN:C	10:1O:90:GLN:H	2.23	0.45
11:1P:38:GLN:HG2	11:1P:45:LEU:HD23	1.98	0.45
32:1a:109:A:C6	32:1a:326:G:C6	3.05	0.45
32:1a:1249:C:O2'	40:1i:73:GLN:NE2	2.50	0.45
32:1a:1304:G:C6	32:1a:1305:G:N1	2.85	0.45
35:1d:163:GLU:O	35:1d:166:LYS:HB2	2.17	0.45
50:1s:3:ARG:HH21	50:1s:7:LYS:HB3	1.82	0.45
1:2A:57:C:H2'	1:2A:58:G:O4'	2.17	0.45
1:2A:658:C:H2'	1:2A:659:C:C6	2.52	0.45
1:2A:848:G:O6	1:2A:928:G:H2'	2.17	0.45
1:2A:2120:G:H1	1:2A:2178:C:H42	1.63	0.45
1:2A:2130:U:H2'	1:2A:2158:A:N6	2.32	0.45
1:2A:2320:A:N3	1:2A:2320:A:H2'	2.32	0.45
1:2A:2370:G:C6	1:2A:2371:G:C6	3.05	0.45
1:2A:2461:C:H2'	1:2A:2462:U:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2577:A:H4'	27:25:2:ALA:HA	1.99	0.45
2:2B:80:U:H2'	2:2B:81:G:C8	2.51	0.45
7:2H:109:PHE:C	7:2H:111:HIS:H	2.24	0.45
10:2O:26:LYS:HD3	10:2O:37:ASP:CG	2.42	0.45
11:2P:127:ALA:O	11:2P:148:LEU:HB2	2.16	0.45
12:2Q:7:MET:HB3	12:2Q:7:MET:HE3	1.61	0.45
32:2a:35:G:H2'	32:2a:36:C:C6	2.52	0.45
32:2a:192:U:H2'	32:2a:193:C:C6	2.52	0.45
32:2a:269:C:H2'	32:2a:270:A:H8	1.82	0.45
32:2a:714:G:N2	32:2a:777:A:N3	2.62	0.45
32:2a:1089:G:C6	32:2a:1090:U:C4	3.05	0.45
32:2a:1264:C:H2'	32:2a:1265:G:H8	1.82	0.45
33:2b:31:TYR:O	33:2b:42:ILE:HG23	2.17	0.45
44:2m:94:ARG:HB3	44:2m:96:LEU:HG	1.98	0.45
46:2o:6:GLU:OE1	46:2o:6:GLU:N	2.46	0.45
1:1A:281:G:H1'	1:1A:359:A:H61	1.82	0.44
1:1A:414:C:H2'	1:1A:415:A:C8	2.52	0.44
1:1A:818:G:H4'	1:1A:838:C:O3'	2.17	0.44
1:1A:1237:A:OP1	62:1A:4203:HOH:O	2.21	0.44
1:1A:1297:C:O2'	1:1A:1302:A:N1	2.48	0.44
1:1A:1579:A:H2'	1:1A:1580:A:O4'	2.16	0.44
1:1A:1652:A:O2'	1:1A:1653:G:H5'	2.17	0.44
1:1A:2114:A:H1'	1:1A:2168:G:H5'	1.99	0.44
7:1H:140:LYS:O	7:1H:144:VAL:HG23	2.17	0.44
11:1P:86:LYS:HB3	11:1P:118:GLY:HA3	1.99	0.44
24:12:33:MET:HG3	24:12:36:ARG:NH2	2.32	0.44
30:18:23:VAL:HG13	58:18:104:MPD:H53	1.99	0.44
32:1a:1033:G:H3'	32:1a:1034:G:H8	1.82	0.44
32:1a:1347:G:N2	32:1a:1373:G:H2'	2.31	0.44
33:1b:95:GLN:HG3	33:1b:147:LYS:HG2	1.99	0.44
33:1b:143:GLU:HA	33:1b:146:GLN:HG2	1.99	0.44
34:1c:70:VAL:O	34:1c:106:VAL:N	2.39	0.44
1:2A:1269:A:N7	62:2A:4010:HOH:O	2.36	0.44
1:2A:1412:A:H2'	1:2A:1413:G:C8	2.51	0.44
1:2A:2197:U:C2'	1:2A:2224:G:H1	2.29	0.44
2:2B:75:G:H22	21:2Z:73:GLN:HE22	1.65	0.44
6:2G:64:THR:HB	6:2G:94:LEU:HD21	1.99	0.44
18:2W:88:ARG:HG3	18:2W:92:ARG:HH21	1.82	0.44
27:25:41:PRO:O	27:25:44:THR:OG1	2.25	0.44
31:29:2:LYS:HB2	31:29:34:GLN:HG2	1.99	0.44
32:2a:222:U:H2'	32:2a:223:U:H6	1.78	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:666:G:H5'	32:2a:726:C:H1'	1.99	0.44
32:2a:686:U:O4	32:2a:703:G:O2'	2.26	0.44
32:2a:782:A:O3'	32:2a:1515:C:H4'	2.17	0.44
32:2a:790:A:H61	32:2a:1498:UR3:P	2.41	0.44
32:2a:1372:U:OP1	40:2i:72:GLY:N	2.44	0.44
32:2a:1456:G:H22	51:2t:43:LEU:HD11	1.82	0.44
40:2i:32:ASP:O	40:2i:36:TYR:N	2.49	0.44
41:2j:47:PHE:CZ	45:2n:37:PHE:HE2	2.35	0.44
41:2j:63:PHE:HZ	45:2n:49:HIS:HE1	1.65	0.44
50:2s:52:TYR:HB2	50:2s:57:HIS:CE1	2.52	0.44
53:2y:40:ILE:C	53:2y:41:LEU:HD12	2.41	0.44
1:1A:71:A:H5''	1:1A:73:A:C8	2.52	0.44
1:1A:774:A:N3	1:1A:774:A:H2'	2.31	0.44
1:1A:1095:A:C6	1:1A:1096:A:C5	3.04	0.44
1:1A:1478:G:H1'	1:1A:1557:C:O2'	2.17	0.44
1:1A:2110:G:H5''	1:1A:2111:C:H5	1.82	0.44
1:1A:2573:C:H3'	62:1A:4883:HOH:O	2.16	0.44
2:1B:78:A:H2'	2:1B:79:C:O4'	2.17	0.44
5:1F:140:LEU:HD23	5:1F:140:LEU:HA	1.75	0.44
13:1R:84:ALA:N	13:1R:85:PRO:HD2	2.32	0.44
19:1X:43:VAL:HG21	19:1X:81:VAL:HG11	1.99	0.44
22:10:2:ALA:N	62:10:204:HOH:O	2.50	0.44
25:13:2:PRO:HA	25:13:60:GLU:HB2	1.98	0.44
32:1a:632:A:H5'	32:1a:633:G:OP2	2.17	0.44
32:1a:719:C:H1'	49:1r:49:LYS:HB3	1.98	0.44
32:1a:1112:C:N4	34:1c:176:HIS:O	2.50	0.44
32:1a:1518:MA6:O5'	32:1a:1518:MA6:H8	2.16	0.44
33:1b:114:ARG:O	33:1b:118:LEU:HG	2.17	0.44
46:1o:21:ASP:O	46:1o:27:VAL:HG21	2.17	0.44
52:1u:13:ILE:HG13	52:1u:22:ARG:HD3	2.00	0.44
1:2A:26:G:C6	1:2A:27:G:N1	2.84	0.44
1:2A:539:G:H2'	1:2A:540:C:C6	2.52	0.44
1:2A:539:G:H2'	1:2A:540:C:H6	1.82	0.44
1:2A:616:G:H5'	5:2F:205:ARG:HD3	1.99	0.44
1:2A:632:A:H2'	1:2A:633:A:C8	2.52	0.44
1:2A:957:A:H5'	12:2Q:76:LYS:HG3	1.99	0.44
1:2A:1117:G:H2'	1:2A:1118:C:C6	2.52	0.44
1:2A:2080:G:H2'	1:2A:2081:C:H6	1.82	0.44
1:2A:2290:G:C2	1:2A:2343:C:O2	2.70	0.44
7:2H:98:LEU:HA	7:2H:103:LEU:HA	1.99	0.44
14:2S:15:ARG:O	14:2S:19:LYS:HG2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:2Y:7:VAL:HG11	20:2Y:13:VAL:HG11	1.99	0.44
22:20:38:VAL:HB	22:20:59:LEU:HB2	1.98	0.44
32:2a:38:G:N2	32:2a:397:A:H5'	2.25	0.44
32:2a:257:G:H2'	32:2a:258:G:O4'	2.16	0.44
32:2a:299:G:C6	32:2a:300:A:C6	3.05	0.44
32:2a:380:G:N2	32:2a:383:A:OP2	2.49	0.44
32:2a:860:A:H2'	32:2a:861:G:O4'	2.17	0.44
32:2a:1258:G:H2'	32:2a:1259:C:C6	2.52	0.44
32:2a:1318:A:O2'	50:2s:37:ARG:HB2	2.17	0.44
38:2g:68:ASN:ND2	38:2g:127:ALA:O	2.28	0.44
40:2i:4:TYR:N	40:2i:19:LEU:O	2.50	0.44
46:2o:61:GLY:O	46:2o:65:ARG:HG3	2.18	0.44
49:2r:51:LEU:HB2	49:2r:56:THR:HG23	1.98	0.44
1:1A:438:G:H2'	1:1A:440:G:C8	2.52	0.44
1:1A:1328:G:O2'	1:1A:1329:U:H2'	2.18	0.44
1:1A:1686:C:H2'	1:1A:1687:G:O4'	2.17	0.44
1:1A:2059:A:H2'	1:1A:2503:2MA:HM23	2.00	0.44
1:1A:2193:G:H2'	1:1A:2194:G:H8	1.82	0.44
1:1A:2304:G:N2	6:1G:156:ASP:OD2	2.36	0.44
1:1A:2317:C:H2'	1:1A:2318:G:O4'	2.18	0.44
1:1A:2869:G:H2'	1:1A:2870:C:O4'	2.17	0.44
62:1A:4335:HOH:O	19:1X:40:LYS:HE2	2.17	0.44
7:1H:27:LYS:HG2	7:1H:32:GLU:HG2	1.97	0.44
15:1T:24:PRO:HA	15:1T:49:VAL:HG22	2.00	0.44
16:1U:112:ARG:NH2	17:1V:47:VAL:HB	2.31	0.44
21:1Z:29:TYR:OH	21:1Z:87:ASP:HB3	2.17	0.44
23:11:2:SER:HA	23:11:43:TYR:CD1	2.52	0.44
32:1a:152:A:N6	32:1a:170:U:C2	2.86	0.44
32:1a:271:C:H2'	32:1a:272:C:C6	2.49	0.44
32:1a:1275:A:H2'	32:1a:1276:G:O4'	2.17	0.44
33:1b:223:ILE:H	33:1b:223:ILE:HG13	1.55	0.44
34:1c:21:ARG:HE	34:1c:21:ARG:HB2	1.63	0.44
37:1f:75:LEU:O	37:1f:79:LEU:HG	2.17	0.44
38:1g:13:GLN:NE2	38:1g:14:PRO:O	2.50	0.44
39:1h:81:HIS:N	39:1h:138:TRP:O	2.50	0.44
1:2A:1010:A:H1'	1:2A:1153:C:H1'	1.99	0.44
1:2A:2138:C:H2'	1:2A:2139:C:C6	2.53	0.44
1:2A:2348:U:OP2	30:28:42:ARG:NH2	2.50	0.44
2:2B:42:C:O2'	6:2G:66:GLN:HG2	2.16	0.44
3:2D:133:LEU:HD12	3:2D:189:CYS:HB2	1.99	0.44
3:2D:228:PRO:HD3	3:2D:235:GLY:CA	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:2F:176:LEU:HD23	5:2F:176:LEU:HA	1.68	0.44
6:2G:41:GLN:HB3	6:2G:43:LEU:HG	1.99	0.44
6:2G:75:LYS:NZ	6:2G:77:ILE:HG12	2.33	0.44
10:2O:115:VAL:HG13	10:2O:121:VAL:HG21	1.98	0.44
29:27:46:VAL:HG13	29:27:48:LYS:NZ	2.32	0.44
30:28:8:LYS:HB3	30:28:12:LYS:HE3	1.98	0.44
32:2a:1024:G:H2'	32:2a:1025:U:H5''	1.98	0.44
33:2b:16:HIS:CE1	33:2b:203:GLY:HA3	2.52	0.44
33:2b:176:GLU:O	33:2b:180:LEU:HG	2.16	0.44
38:2g:115:ARG:HD2	38:2g:118:VAL:HG23	2.00	0.44
1:1A:840:C:H2'	1:1A:841:A:C8	2.52	0.44
1:1A:1140:C:OP2	9:1N:66:LYS:NZ	2.47	0.44
1:1A:1643:G:H2'	1:1A:1644:C:O4'	2.17	0.44
1:1A:1707:G:C5	1:1A:1756:G:C6	3.05	0.44
6:1G:27:ASN:HB3	6:1G:30:GLU:HG3	1.98	0.44
6:1G:83:ARG:H	6:1G:86:MET:CE	2.30	0.44
16:1U:44:ASN:HB2	62:1U:306:HOH:O	2.16	0.44
21:1Z:1:MET:O	21:1Z:55:HIS:CG	2.69	0.44
28:16:39:TYR:HB2	28:16:46:HIS:CE1	2.53	0.44
32:1a:455:C:H2'	32:1a:456:C:H6	1.82	0.44
32:1a:676:A:H2'	32:1a:677:U:C6	2.52	0.44
32:1a:841:U:H3'	32:1a:848:C:O4'	2.17	0.44
32:1a:1074:G:O2'	32:1a:1101:A:N1	2.45	0.44
32:1a:1400:5MC:H1'	53:1y:80:LYS:HD3	2.00	0.44
32:1a:1438:G:H2'	32:1a:1439:C:H6	1.82	0.44
40:1i:106:ALA:O	40:1i:108:VAL:HG13	2.17	0.44
41:1j:31:GLY:HA2	41:1j:32:ALA:HA	1.63	0.44
44:1m:23:TYR:HB3	44:1m:67:GLU:HA	2.00	0.44
48:1q:62:SER:OG	48:1q:72:ARG:HG3	2.17	0.44
50:1s:34:TRP:HD1	50:1s:52:TYR:CD2	2.34	0.44
53:1y:3:MET:HB2	53:1y:37:PRO:HG2	1.98	0.44
55:1x:75:C:H5''	55:1x:76:8AN:O2P	2.17	0.44
1:2A:208:C:H2'	1:2A:209:C:C6	2.53	0.44
1:2A:251:A:OP1	30:28:7:HIS:NE2	2.36	0.44
1:2A:271(X):G:C2	1:2A:271(Y):U:O4	2.71	0.44
1:2A:674:G:H1'	5:2F:74:ARG:HD2	2.00	0.44
1:2A:784:A:C6	3:2D:229:VAL:HG11	2.52	0.44
1:2A:818:G:OP2	62:2A:3878:HOH:O	2.21	0.44
1:2A:1019:U:OP1	1:2A:1035:U:O2'	2.32	0.44
1:2A:1027:A:C2	1:2A:2488:A:H5'	2.53	0.44
1:2A:1151:G:H4'	16:2U:81:HIS:CG	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1665:A:OP2	62:2A:3879:HOH:O	2.21	0.44
1:2A:1946:U:H2'	1:2A:1947:C:C6	2.52	0.44
1:2A:2180:U:H2'	1:2A:2181:G:C8	2.53	0.44
6:2G:80:PHE:O	6:2G:82:LEU:N	2.50	0.44
11:2P:101:VAL:HG13	11:2P:106:LEU:HD23	1.98	0.44
31:29:17:ILE:H	31:29:17:ILE:HD13	1.81	0.44
32:2a:693:G:H1'	38:2g:82:GLY:HA3	1.98	0.44
32:2a:991:U:H2'	32:2a:1212:U:C4	2.53	0.44
32:2a:1234:C:H1'	32:2a:1364:U:O2	2.17	0.44
32:2a:1384:C:N4	32:2a:1385:G:O6	2.50	0.44
32:2a:1479:C:H2'	32:2a:1480:G:C8	2.52	0.44
33:2b:72:GLY:HA2	33:2b:165:VAL:CG2	2.47	0.44
33:2b:74:LYS:NZ	33:2b:205:ASP:O	2.39	0.44
35:2d:61:LYS:NZ	35:2d:72:GLU:OE1	2.48	0.44
39:2h:11:THR:HG22	39:2h:15:ASN:HD21	1.82	0.44
39:2h:30:ARG:O	39:2h:34:GLU:HG2	2.18	0.44
39:2h:86:ILE:HB	39:2h:133:LEU:O	2.17	0.44
40:2i:26:VAL:HA	40:2i:61:ALA:O	2.17	0.44
48:2q:94:ASN:O	48:2q:98:LEU:HD13	2.18	0.44
1:1A:1906:G:OP1	1:1A:1930:G:H8	2.01	0.44
1:1A:2196:C:O2'	1:1A:2197:U:H5'	2.17	0.44
3:1D:175:LEU:HD12	3:1D:185:VAL:HG21	1.99	0.44
7:1H:3:ARG:HE	7:1H:54:ARG:NH1	2.15	0.44
32:1a:926:G:H5''	32:1a:927:G:O5'	2.17	0.44
32:1a:1168:A:H2'	32:1a:1169:A:C8	2.52	0.44
32:1a:1226:C:H4'	50:1s:80:TYR:CZ	2.53	0.44
32:1a:1228:C:P	44:1m:108:ARG:HH22	2.40	0.44
32:1a:1406:U:H3'	32:1a:1407:5MC:HM53	2.00	0.44
41:1j:21:GLN:HG3	41:1j:25:GLU:CD	2.42	0.44
44:1m:11:ARG:C	44:1m:13:LYS:H	2.25	0.44
44:1m:106:ASN:HB2	44:1m:107:ALA:H	1.56	0.44
1:2A:217:G:H2'	1:2A:218:A:O4'	2.17	0.44
1:2A:848:G:N3	1:2A:933:A:H1'	2.32	0.44
1:2A:1665:A:H4'	10:2O:67:LYS:HB2	2.00	0.44
1:2A:1702:G:H2'	1:2A:1703:G:O4'	2.18	0.44
8:2I:130:TYR:CE2	8:2I:132:PRO:HB3	2.52	0.44
25:23:26:LEU:O	25:23:35:ARG:NE	2.50	0.44
32:2a:41:G:H2'	32:2a:42:G:C8	2.52	0.44
32:2a:746:A:H2'	32:2a:747:C:H6	1.83	0.44
32:2a:1126:U:H3	41:2j:40:LEU:HD21	1.82	0.44
33:2b:114:ARG:HE	33:2b:118:LEU:CD2	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2f:75:LEU:O	37:2f:79:LEU:HG	2.18	0.44
48:2q:10:VAL:HG13	48:2q:19:VAL:HB	2.00	0.44
54:2w:74:C:C2'	54:2w:75:C:H5'	2.47	0.44
1:1A:962:G:H4'	1:1A:2496:C:O2'	2.17	0.44
1:1A:1858:G:N2	1:1A:1883:G:H2'	2.33	0.44
1:1A:2492:U:H2'	1:1A:2493:U:C6	2.52	0.44
4:1E:25:VAL:HG21	15:1T:10:VAL:HG21	1.99	0.44
12:1Q:111:GLU:O	12:1Q:115:MET:HG2	2.18	0.44
26:14:62:ARG:HD3	26:14:62:ARG:HA	1.68	0.44
32:1a:687:A:N3	32:1a:688:G:H1'	2.31	0.44
32:1a:955:U:O2'	50:1s:83:HIS:HD2	2.00	0.44
32:1a:1132:C:H2'	32:1a:1133:G:C8	2.53	0.44
32:1a:1226:C:H5''	44:1m:96:LEU:HD11	1.98	0.44
32:1a:1284:C:H3'	32:1a:1285:A:H8	1.82	0.44
32:1a:1503:A:OP1	32:1a:1531:A:O2'	2.24	0.44
33:1b:192:SER:O	33:1b:194:PRO:HD3	2.17	0.44
36:1e:35:GLY:HA3	36:1e:112:LEU:HB3	1.98	0.44
1:2A:81:G:HO2'	1:2A:295:G:HO2'	1.64	0.44
1:2A:537:C:H4'	9:2N:5:VAL:HG11	1.98	0.44
1:2A:610:G:H2'	1:2A:611:C:H6	1.83	0.44
1:2A:816:C:OP1	1:2A:1185:C:O2'	2.33	0.44
1:2A:1598:C:H2'	1:2A:1599:C:H6	1.82	0.44
1:2A:1614:A:P	1:2A:1614:A:H8	2.40	0.44
1:2A:2577:A:O4'	27:25:3:LYS:HB2	2.18	0.44
6:2G:4:ASP:HA	6:2G:8:LYS:HZ1	1.83	0.44
8:2I:76:THR:O	8:2I:78:THR:N	2.50	0.44
12:2Q:31:ASP:O	12:2Q:134:ARG:N	2.49	0.44
14:2S:26:LEU:HD22	14:2S:87:PHE:CD1	2.52	0.44
14:2S:99:LYS:HE2	14:2S:103:GLU:OE2	2.17	0.44
16:2U:27:LEU:HA	16:2U:30:LYS:HB2	1.99	0.44
32:2a:264:U:O2'	48:2q:64:PRO:O	2.31	0.44
32:2a:382:A:H2'	32:2a:383:A:C8	2.52	0.44
32:2a:397:A:H3'	32:2a:397:A:N3	2.33	0.44
32:2a:1355:G:H2'	32:2a:1356:G:C8	2.52	0.44
32:2a:1509:C:H2'	32:2a:1510:U:O4'	2.18	0.44
37:2f:7:ASN:ND2	37:2f:89:MET:HE2	2.33	0.44
1:1A:26:G:C6	1:1A:27:G:N1	2.86	0.44
1:1A:154(A):C:H42	1:1A:172:C:H42	1.65	0.44
1:1A:518:G:H4'	18:1W:18:ARG:NH1	2.33	0.44
1:1A:620:G:N3	1:1A:620:G:H5'	2.32	0.44
1:1A:1019:U:OP1	1:1A:1035:U:O2'	2.24	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1062:G:H1'	1:1A:1088:A:N7	2.33	0.44
1:1A:1614:A:P	1:1A:1614:A:H8	2.40	0.44
1:1A:1996:C:H4'	1:1A:1997:G:OP1	2.16	0.44
1:1A:2115:G:O2'	1:1A:2166:G:N2	2.50	0.44
1:1A:2461:C:H2'	1:1A:2462:U:C6	2.53	0.44
1:1A:2561:A:H2'	1:1A:2562:U:O4'	2.18	0.44
2:1B:113:G:N2	62:1B:315:HOH:O	2.44	0.44
5:1F:119:ARG:HB3	5:1F:119:ARG:HH11	1.81	0.44
5:1F:192:LEU:HD13	5:1F:194:MET:HE2	2.00	0.44
6:1G:56:ALA:HB2	6:1G:153:ARG:NE	2.31	0.44
6:1G:125:PHE:CZ	6:1G:170:ARG:HA	2.53	0.44
17:1V:72:VAL:HB	17:1V:85:LYS:HB3	1.99	0.44
32:1a:110:C:O2'	47:1p:25:ARG:O	2.31	0.44
32:1a:149:A:H2'	32:1a:150:C:H6	1.83	0.44
32:1a:435:C:H2'	32:1a:436:C:H6	1.83	0.44
32:1a:452:A:H4'	47:1p:72:ARG:NH1	2.32	0.44
32:1a:618:C:H3'	32:1a:619:U:H5''	1.99	0.44
32:1a:1212:U:H5'	32:1a:1213:A:OP1	2.18	0.44
32:1a:1366:C:O2'	41:1j:60:ARG:NH2	2.33	0.44
35:1d:36:ARG:HD2	35:1d:38:TYR:OH	2.18	0.44
38:1g:106:GLN:O	38:1g:110:GLN:HG2	2.18	0.44
1:2A:124:G:OP1	1:2A:1376:C:O2'	2.25	0.44
1:2A:192:C:O2'	1:2A:802:A:N3	2.47	0.44
1:2A:870:A:C2	1:2A:908:C:C2	3.06	0.44
1:2A:937:U:H2'	1:2A:938:G:O4'	2.18	0.44
1:2A:1325:G:OP1	1:2A:1647:G:O2'	2.30	0.44
1:2A:1447:G:O2'	1:2A:1544:A:N3	2.41	0.44
1:2A:2139:C:N4	1:2A:2152:G:N1	2.37	0.44
1:2A:2729:G:O2'	4:2E:186:GLY:HA3	2.18	0.44
1:2A:2784:C:H2'	1:2A:2785:C:C6	2.51	0.44
2:2B:18:G:H2'	2:2B:19:G:C8	2.53	0.44
32:2a:563:A:H2'	32:2a:567:G:C8	2.53	0.44
1:1A:1291:C:H2'	1:1A:1292:U:C6	2.53	0.44
1:1A:1430:C:H2'	1:1A:1431:U:C6	2.52	0.44
1:1A:2140:C:N3	1:1A:2151:G:O6	2.50	0.44
1:1A:2722:G:H2'	1:1A:2723:C:C6	2.53	0.44
5:1F:102:PRO:HB2	5:1F:105:VAL:HG23	2.00	0.44
8:1I:85:GLU:C	8:1I:87:LYS:H	2.26	0.44
12:1Q:30:GLY:HA2	12:1Q:107:ALA:HB2	1.99	0.44
12:1Q:53:ALA:HB1	12:1Q:120:ILE:HG22	2.00	0.44
16:1U:83:LEU:HD13	16:1U:113:ALA:HB2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:18:28:GLY:O	30:18:36:LYS:NZ	2.48	0.44
32:1a:165:C:H2'	32:1a:166:G:H8	1.83	0.44
32:1a:542:G:H5'	35:1d:41:GLY:HA3	1.98	0.44
32:1a:921:U:H2'	32:1a:922:G:O4'	2.17	0.44
32:1a:975:A:H62	41:1j:60:ARG:HH12	1.64	0.44
40:1i:53:VAL:HB	40:1i:92:TYR:CZ	2.52	0.44
45:1n:3:ARG:O	45:1n:7:ILE:N	2.48	0.44
53:1y:38:HIS:CD2	53:1y:40:ILE:HD11	2.53	0.44
1:2A:853:G:H2'	1:2A:854:G:C8	2.53	0.44
1:2A:855:G:H2'	1:2A:856:C:C6	2.53	0.44
1:2A:1153:C:OP1	16:2U:76:TYR:OH	2.31	0.44
1:2A:1351:C:O2'	1:2A:1571:A:N3	2.48	0.44
1:2A:2633:G:H5''	1:2A:2812:G:H5'	2.00	0.44
3:2D:132:PRO:HG3	3:2D:190:TYR:CE2	2.52	0.44
5:2F:95:ARG:HD3	5:2F:97:TYR:CZ	2.52	0.44
6:2G:19:LEU:HD13	6:2G:32:PRO:HD2	1.99	0.44
6:2G:47:LYS:O	6:2G:51:ARG:HG2	2.18	0.44
6:2G:74:LYS:O	6:2G:84:LYS:HE2	2.17	0.44
32:2a:37:U:H2'	32:2a:38:G:O4'	2.18	0.44
32:2a:255:G:H2'	32:2a:256:U:C6	2.52	0.44
32:2a:436:C:H2'	32:2a:437:U:O4'	2.18	0.44
32:2a:458:C:H2'	32:2a:460:G:O4'	2.18	0.44
32:2a:603:U:H2'	32:2a:604:G:C8	2.53	0.44
32:2a:1401:G:H2'	32:2a:1402:4OC:O4'	2.18	0.44
32:2a:1417:G:C6	32:2a:1482:G:C6	3.05	0.44
34:2c:70:VAL:O	34:2c:106:VAL:N	2.50	0.44
37:2f:15:ASP:OD1	37:2f:17:SER:OG	2.24	0.44
42:2k:13:GLN:HA	42:2k:75:TYR:O	2.18	0.44
50:2s:41:VAL:HG22	50:2s:42:PRO:HD2	1.98	0.44
53:2y:37:PRO:CA	53:2y:54:ILE:HB	2.46	0.44
1:1A:61:G:OP1	24:12:51:ARG:NH2	2.51	0.44
1:1A:581:C:H2'	1:1A:582:G:C8	2.53	0.44
1:1A:1359:A:N1	1:1A:1372:U:C4	2.85	0.44
8:1I:86:THR:HA	8:1I:123:LEU:HD12	1.99	0.44
17:1V:21:ARG:HD3	17:1V:91:TYR:CD1	2.53	0.44
18:1W:37:ARG:NH1	27:15:48:GLU:OE2	2.51	0.44
32:1a:1149:C:O2'	32:1a:1280:A:N1	2.40	0.44
32:1a:1251:A:H2'	32:1a:1252:A:C8	2.53	0.44
33:1b:217:ARG:HA	33:1b:217:ARG:HD3	1.84	0.44
38:1g:57:GLU:O	38:1g:61:VAL:HG23	2.17	0.44
41:1j:78:ASN:O	41:1j:80:LYS:N	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:1l:53:ARG:HD2	43:1l:93:LEU:HD21	2.00	0.44
1:2A:852:G:H5'	25:23:45:GLY:HA3	2.00	0.44
1:2A:853:G:H2'	1:2A:854:G:H8	1.82	0.44
1:2A:1270:C:OP1	1:2A:1271:G:H5'	2.18	0.44
1:2A:1410:G:H2'	1:2A:1411:C:C6	2.53	0.44
1:2A:1526:G:C6	1:2A:1527:G:C2	3.06	0.44
1:2A:1752:C:H2'	1:2A:1753:G:C8	2.53	0.44
1:2A:2741:A:H2'	1:2A:2742:C:O4'	2.17	0.44
1:2A:2807:G:H22	1:2A:2892:A:H61	1.61	0.44
2:2B:28:C:H2'	2:2B:29:A:O4'	2.17	0.44
5:2F:178:PRO:HB2	5:2F:201:VAL:CG2	2.48	0.44
23:21:67:ILE:N	23:21:68:PRO:HD2	2.33	0.44
32:2a:437:U:O2'	35:2d:123:HIS:HD2	2.01	0.44
32:2a:888:G:H4'	32:2a:1488:G:O2'	2.18	0.44
32:2a:911:U:H2'	32:2a:912:C:C6	2.53	0.44
32:2a:981:U:H5'	45:2n:21:TYR:CE2	2.53	0.44
32:2a:1095:U:N3	32:2a:1096:C:C4	2.86	0.44
36:2e:6:PHE:HB2	36:2e:63:ARG:HH12	1.83	0.44
36:2e:41:VAL:HG13	36:2e:67:VAL:HG13	2.00	0.44
38:2g:26:PHE:CZ	38:2g:30:ILE:HD11	2.53	0.44
40:2i:46:ALA:O	40:2i:81:ILE:HD11	2.18	0.44
44:2m:33:ALA:HB1	44:2m:56:LEU:HD11	1.99	0.44
47:2p:4:ILE:HA	47:2p:20:VAL:O	2.18	0.44
48:2q:60:ILE:O	48:2q:62:SER:OG	2.34	0.44
53:2y:67:HIS:HB3	53:2y:72:THR:OG1	2.18	0.44
1:1A:35:G:H2'	1:1A:36:G:O4'	2.17	0.43
1:1A:271(K):U:O2	8:1I:50:ARG:HG3	2.17	0.43
1:1A:296:C:H2'	1:1A:297:C:H6	1.82	0.43
1:1A:747:U:O2'	18:1W:92:ARG:NH2	2.51	0.43
1:1A:1358:G:O2'	1:1A:1359:A:H5''	2.18	0.43
1:1A:1630:G:H2'	1:1A:1631:C:C6	2.53	0.43
1:1A:2659:G:O2'	1:1A:2661:G:N7	2.34	0.43
1:1A:2850:A:C2	1:1A:2851:A:C4	3.06	0.43
5:1F:185:ASP:HA	5:1F:188:ARG:HD3	1.99	0.43
27:15:49:CYS:SG	27:15:51:TYR:HB2	2.57	0.43
29:17:41:ARG:HE	29:17:41:ARG:HB2	1.62	0.43
32:1a:924:C:H2'	32:1a:925:G:C8	2.52	0.43
32:1a:1138:G:C5	32:1a:1140:C:H1'	2.53	0.43
33:1b:17:PHE:HB3	33:1b:44:LEU:HD11	1.99	0.43
33:1b:83:MET:SD	33:1b:234:PRO:HB2	2.58	0.43
39:1h:60:ARG:HD3	39:1h:62:TYR:OH	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:1m:3:ARG:HD3	44:1m:4:ILE:HG22	2.00	0.43
49:1r:58:LEU:HD22	49:1r:62:GLU:HB3	2.00	0.43
1:2A:297:C:H2'	1:2A:298:G:O4'	2.17	0.43
1:2A:795:C:H2'	1:2A:796:C:C6	2.53	0.43
1:2A:1750:G:O2'	1:2A:2860:A:N1	2.50	0.43
1:2A:1802:A:N1	1:2A:1822:G:H1'	2.33	0.43
2:2B:50:G:OP1	14:2S:63:THR:N	2.51	0.43
10:2O:20:MET:HE3	10:2O:22:ILE:HG22	2.00	0.43
10:2O:35:VAL:HG13	10:2O:65:THR:HG23	1.99	0.43
13:2R:88:ARG:NH2	13:2R:89:ASP:OD1	2.51	0.43
14:2S:35:ILE:HD13	14:2S:97:ARG:HH21	1.84	0.43
23:21:77:ALA:O	23:21:80:LEU:HB2	2.17	0.43
32:2a:115:G:H4'	32:2a:116:A:O5'	2.16	0.43
32:2a:139:G:O6	62:2a:3218:HOH:O	2.21	0.43
32:2a:707:C:H2'	32:2a:708:C:C6	2.53	0.43
32:2a:731:G:H5'	32:2a:766:A:H4'	1.99	0.43
32:2a:828:A:H2'	32:2a:829:G:O4'	2.18	0.43
32:2a:1226:C:H4'	50:2s:80:TYR:CZ	2.53	0.43
32:2a:1456:G:N2	51:2t:43:LEU:HD11	2.33	0.43
33:2b:210:SER:OG	33:2b:211:ILE:N	2.50	0.43
34:2c:36:ASP:HA	34:2c:39:ILE:HD12	2.00	0.43
34:2c:152:ILE:O	34:2c:198:VAL:HA	2.18	0.43
38:2g:125:MET:HE2	38:2g:125:MET:HB3	1.83	0.43
51:2t:54:LYS:HA	51:2t:57:ARG:CZ	2.48	0.43
53:2y:6:THR:O	53:2y:41:LEU:HD13	2.17	0.43
53:2y:69:ASP:CG	53:2y:70:MET:N	2.76	0.43
1:1A:662:G:OP1	11:1P:16:ARG:NE	2.51	0.43
1:1A:1649:G:OP1	62:1A:4202:HOH:O	2.21	0.43
1:1A:1919:A:N1	32:1a:1495:U:O2'	2.33	0.43
1:1A:2262:U:H4'	1:1A:2328:A:C2	2.53	0.43
1:1A:2630:G:H2'	1:1A:2631:G:O4'	2.18	0.43
17:1V:49:THR:HG22	17:1V:49:THR:O	2.18	0.43
21:1Z:69:THR:HG22	21:1Z:90:VAL:HA	2.00	0.43
26:14:14:ILE:HB	26:14:22:ILE:HB	2.01	0.43
32:1a:258:G:H2'	32:1a:259:G:C8	2.53	0.43
32:1a:1014:A:C2	32:1a:1219:U:H1'	2.53	0.43
33:1b:29:ALA:HA	33:1b:32:ILE:HD12	2.00	0.43
35:1d:178:VAL:C	35:1d:180:GLY:H	2.26	0.43
1:2A:415:A:H2'	1:2A:416:C:O4'	2.18	0.43
1:2A:724:U:H2'	1:2A:725:G:O4'	2.18	0.43
1:2A:1003:G:N2	1:2A:1153:C:C2	2.85	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1628:G:H2'	1:2A:1629:U:C6	2.53	0.43
1:2A:1796:U:H2'	1:2A:1797:C:H6	1.80	0.43
1:2A:2262:U:H4'	1:2A:2328:A:C2	2.53	0.43
1:2A:2327:A:H2'	1:2A:2328:A:H8	1.81	0.43
1:2A:2408:U:H2'	1:2A:2409:G:C8	2.53	0.43
1:2A:2721:A:O2'	1:2A:2874:C:H5'	2.18	0.43
1:2A:2837:G:N7	62:2A:3991:HOH:O	2.35	0.43
6:2G:125:PHE:HB3	6:2G:166:ASP:CG	2.43	0.43
11:2P:114:ILE:HG13	11:2P:125:VAL:HG11	1.99	0.43
13:2R:44:LEU:O	13:2R:48:VAL:HG22	2.17	0.43
30:28:50:LEU:HD23	30:28:50:LEU:HA	1.80	0.43
32:2a:224:C:H2'	32:2a:225:C:H6	1.82	0.43
32:2a:251:G:C6	32:2a:266:G:O6	2.71	0.43
32:2a:1216:G:H5''	45:2n:5:ALA:HB2	1.99	0.43
32:2a:1447:A:H5''	32:2a:1452:C:OP2	2.18	0.43
33:2b:133:LYS:HD2	33:2b:133:LYS:HA	1.77	0.43
40:2i:25:LYS:H	40:2i:60:ASP:HB3	1.83	0.43
1:1A:207:A:H2'	1:1A:208:C:O4'	2.18	0.43
1:1A:286:C:H2'	1:1A:287:C:H6	1.80	0.43
1:1A:330:A:H2	1:1A:1210:A:C2'	2.31	0.43
1:1A:363(A):A:H2'	1:1A:363(B):G:C8	2.53	0.43
1:1A:657:U:H2'	1:1A:658:C:C6	2.53	0.43
1:1A:1682:G:H2'	1:1A:1683:C:O4'	2.18	0.43
1:1A:1683:C:H2'	1:1A:1684:C:C6	2.53	0.43
1:1A:1794:U:H2'	1:1A:1795:C:C6	2.53	0.43
1:1A:2896:C:H2'	1:1A:2897:U:C6	2.53	0.43
14:1S:30:ARG:HD2	14:1S:97:ARG:HD3	1.99	0.43
15:1T:111:ARG:NH2	32:1a:1464:G:OP2	2.51	0.43
21:1Z:75:ASN:O	21:1Z:84:GLU:HG2	2.19	0.43
26:14:8:LYS:HD2	26:14:10:VAL:HG13	2.00	0.43
28:16:6:ARG:HD3	28:16:24:GLU:OE2	2.18	0.43
32:1a:142:G:O2'	32:1a:196:A:N1	2.43	0.43
32:1a:450:G:H4'	47:1p:41:PRO:HB2	2.00	0.43
32:1a:509:A:H5''	35:1d:55:ALA:HB2	2.00	0.43
32:1a:1289:A:N1	32:1a:1371:G:O2'	2.31	0.43
32:1a:1352:C:OP1	52:1u:3:LYS:NZ	2.30	0.43
32:1a:1445:C:H2'	32:1a:1446:U:O4'	2.17	0.43
33:1b:208:ILE:H	33:1b:208:ILE:HG13	1.57	0.43
35:1d:8:VAL:HG11	35:1d:22:LYS:HG3	1.99	0.43
36:1e:78:HIS:ND1	36:1e:79:GLU:O	2.50	0.43
47:1p:6:LEU:HB3	47:1p:17:TYR:CD1	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:717:G:H2'	1:2A:718:A:O4'	2.18	0.43
1:2A:888:C:H2'	1:2A:889:C:N3	2.33	0.43
1:2A:1540:U:H2'	1:2A:1541:G:O4'	2.19	0.43
1:2A:1652:A:N7	1:2A:1653:G:C6	2.87	0.43
1:2A:1670:C:O2	4:2E:129:HIS:NE2	2.51	0.43
1:2A:2373:G:H2'	1:2A:2374:C:C6	2.54	0.43
1:2A:2607:G:H2'	1:2A:2608:G:O4'	2.18	0.43
2:2B:16:G:H1	2:2B:68:C:H42	1.66	0.43
4:2E:50:GLY:CA	4:2E:75:VAL:HG11	2.48	0.43
5:2F:126:VAL:HG22	5:2F:195:ASP:HA	1.99	0.43
12:2Q:63:LYS:NZ	21:2Z:118:GLN:OE1	2.41	0.43
15:2T:88:ILE:HG21	15:2T:91:ARG:NE	2.34	0.43
18:2W:79:GLY:HA3	18:2W:100:THR:HG22	2.00	0.43
22:20:74:ARG:HE	22:20:74:ARG:HB3	1.69	0.43
32:2a:109:A:C6	32:2a:326:G:C6	3.07	0.43
32:2a:937:A:H2'	32:2a:938:A:C8	2.53	0.43
32:2a:1125:U:HO2'	32:2a:1126:U:P	2.39	0.43
33:2b:19:HIS:CE1	33:2b:206:ASP:H	2.36	0.43
33:2b:223:ILE:H	33:2b:223:ILE:HG13	1.73	0.43
34:2c:84:ILE:HA	34:2c:87:LEU:HD12	2.00	0.43
47:2p:21:VAL:HG21	47:2p:59:TRP:CD1	2.53	0.43
1:1A:271(P):C:H2'	1:1A:271(Q):G:O4'	2.18	0.43
1:1A:762:U:OP1	62:1A:4192:HOH:O	2.20	0.43
1:1A:909:A:H2'	1:1A:912:C:C5	2.54	0.43
1:1A:1512:U:H2'	1:1A:1513:C:C6	2.53	0.43
1:1A:2040:C:H2'	1:1A:2041:U:O4'	2.18	0.43
1:1A:2633:G:H2'	1:1A:2634:G:O4'	2.18	0.43
6:1G:126:ASP:N	6:1G:130:ASN:O	2.43	0.43
7:1H:41:MET:HE1	7:1H:54:ARG:HB3	2.01	0.43
9:1N:4:TYR:CD2	16:1U:100:VAL:HG11	2.53	0.43
11:1P:6:LEU:HA	11:1P:6:LEU:HD23	1.77	0.43
21:1Z:144:LEU:HD23	21:1Z:144:LEU:HA	1.84	0.43
26:14:43:TYR:O	26:14:45:GLY:N	2.51	0.43
28:16:11:LEU:HB2	28:16:21:TYR:HB2	2.00	0.43
32:1a:320:C:H2'	32:1a:321:A:C8	2.53	0.43
32:1a:512:U:H2'	32:1a:513:C:C6	2.54	0.43
32:1a:1327:C:H2'	32:1a:1328:C:C6	2.54	0.43
1:2A:211:A:H2'	1:2A:212:G:O4'	2.19	0.43
1:2A:409:C:H2'	1:2A:410:G:C8	2.53	0.43
1:2A:1049:C:C4	1:2A:1050:A:N7	2.86	0.43
1:2A:2122:U:C2	1:2A:2176:A:N1	2.85	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2851:A:H2'	1:2A:2852:G:O4'	2.19	0.43
2:2B:8:U:P	14:2S:15:ARG:HH22	2.41	0.43
2:2B:48:A:H2'	2:2B:49:C:C6	2.53	0.43
4:2E:55:ASN:O	4:2E:58:ARG:N	2.51	0.43
9:2N:91:LEU:HA	9:2N:95:PRO:HA	1.99	0.43
14:2S:11:LYS:HD3	14:2S:15:ARG:NH2	2.33	0.43
19:2X:94:GLY:HA3	19:2X:95:LEU:C	2.42	0.43
27:25:20:ARG:C	27:25:22:HIS:H	2.27	0.43
32:2a:4:U:O4	39:2h:105:ARG:HA	2.17	0.43
32:2a:746:A:H4'	32:2a:837:G:O2'	2.19	0.43
32:2a:953:G:N7	44:2m:104:ARG:NH2	2.66	0.43
32:2a:977:A:H2'	32:2a:978:A:H5''	2.00	0.43
32:2a:1172:C:H2'	32:2a:1173:G:H8	1.83	0.43
32:2a:1223:C:H3'	32:2a:1224:G:H5''	2.00	0.43
33:2b:118:LEU:O	33:2b:122:PHE:HB3	2.18	0.43
38:2g:70:LYS:NZ	38:2g:96:GLN:HB2	2.34	0.43
43:2l:117:ARG:HB3	43:2l:122:THR:HB	1.99	0.43
51:2t:59:ALA:O	51:2t:63:ILE:HG13	2.18	0.43
1:1A:629:G:N3	1:1A:639:U:O2'	2.48	0.43
1:1A:1224:C:H2'	1:1A:1225:G:O4'	2.18	0.43
1:1A:2503:2MA:O2'	1:1A:2505:G:OP2	2.27	0.43
2:1B:7:G:H5''	2:1B:7:G:H8	1.83	0.43
12:1Q:51:ARG:O	12:1Q:55:VAL:HG23	2.18	0.43
15:1T:108:ARG:HA	15:1T:111:ARG:NH1	2.32	0.43
32:1a:60:A:N1	32:1a:107:G:O2'	2.43	0.43
32:1a:93:G:H2'	32:1a:96:U:O4'	2.18	0.43
32:1a:417:C:H42	32:1a:426:G:H1	1.66	0.43
32:1a:658:G:C6	32:1a:659:U:C4	3.06	0.43
32:1a:1513:A:H2'	32:1a:1514:C:C6	2.53	0.43
51:1t:47:GLY:HA2	51:1t:48:LYS:HB2	2.01	0.43
1:2A:38:A:H2'	1:2A:39:C:C6	2.54	0.43
1:2A:144:C:H5'	19:2X:2:LYS:HD3	1.98	0.43
1:2A:1062:G:C5	1:2A:1070:A:H1'	2.53	0.43
1:2A:1133:U:O4	1:2A:2026:C:H1'	2.19	0.43
1:2A:1209:G:O2'	1:2A:1237:A:N1	2.44	0.43
1:2A:1216:G:OP2	16:2U:12:ARG:NH2	2.48	0.43
1:2A:1518:U:H2'	1:2A:1519:G:O4'	2.19	0.43
1:2A:2589:A:N3	62:2A:4004:HOH:O	2.36	0.43
1:2A:2639:A:H2'	1:2A:2640:G:O4'	2.19	0.43
1:2A:2814:C:O2'	27:25:29:THR:OG1	2.25	0.43
8:2I:29:TYR:HD2	8:2I:30:LEU:HD23	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:97:GLU:HG2	21:2Z:125:LEU:HG	2.01	0.43
30:28:32:LEU:C	30:28:36:LYS:HZ1	2.27	0.43
32:2a:1457:G:C2'	32:2a:1458:G:H5'	2.49	0.43
33:2b:210:SER:C	33:2b:212:GLN:H	2.25	0.43
36:2e:39:GLY:HA2	36:2e:71:LEU:HD13	2.00	0.43
37:2f:9:VAL:HB	37:2f:87:ARG:HB2	2.00	0.43
41:2j:50:ILE:HG22	41:2j:52:GLY:H	1.83	0.43
1:1A:583:G:OP2	16:1U:10:ARG:HD2	2.19	0.43
1:1A:721:C:H2'	1:1A:722:A:C8	2.53	0.43
1:1A:1477:A:C2	1:1A:1515:G:C2	3.07	0.43
1:1A:1934:C:H4'	1:1A:1974:C:O3'	2.19	0.43
7:1H:40:GLU:CD	7:1H:60:ARG:HH12	2.22	0.43
9:1N:121:LYS:HB3	9:1N:123:TYR:HE2	1.84	0.43
11:1P:2:LYS:HE2	11:1P:4:SER:HG	1.84	0.43
11:1P:97:PRO:O	11:1P:101:VAL:HG13	2.19	0.43
13:1R:38:VAL:HG22	13:1R:112:ALA:HB2	2.00	0.43
18:1W:88:ARG:HG3	18:1W:92:ARG:HH21	1.82	0.43
27:15:20:ARG:HG2	27:15:23:HIS:CE1	2.53	0.43
29:17:46:VAL:HG13	29:17:48:LYS:NZ	2.33	0.43
32:1a:601:C:H2'	32:1a:602:A:C8	2.54	0.43
32:1a:736:C:H2'	32:1a:737:A:C8	2.53	0.43
33:1b:196:LEU:HD12	33:1b:196:LEU:HA	1.77	0.43
34:1c:62:ASP:O	34:1c:97:LYS:HB2	2.19	0.43
34:1c:134:ILE:HG22	34:1c:168:ALA:HB3	1.99	0.43
35:1d:162:LEU:HA	35:1d:165:MET:HB2	2.01	0.43
40:1i:6:GLY:HA3	40:1i:83:ARG:HB2	2.00	0.43
41:1j:27:ALA:HA	41:1j:30:SER:HB3	2.01	0.43
41:1j:55:LYS:HB2	41:1j:56:HIS:H	1.59	0.43
44:1m:37:THR:O	44:1m:55:ARG:NH1	2.46	0.43
45:1n:4:LYS:HE2	45:1n:4:LYS:HB2	1.80	0.43
52:1u:3:LYS:HB3	52:1u:14:TRP:CD1	2.54	0.43
1:2A:581:C:OP2	16:2U:33:ARG:HD3	2.18	0.43
1:2A:614(C):A:C4	5:2F:180:GLY:HA2	2.52	0.43
1:2A:784:A:C8	1:2A:792:G:C5	3.06	0.43
1:2A:918:A:N3	2:2B:80:U:O2'	2.49	0.43
1:2A:1188:U:H4'	17:2V:79:VAL:HG22	2.01	0.43
1:2A:1288:U:O4	13:2R:106:GLY:HA3	2.18	0.43
1:2A:1403:C:OP1	1:2A:1520:G:N2	2.35	0.43
1:2A:1570:A:H5'	3:2D:36:PRO:HD3	2.01	0.43
1:2A:1604:C:OP1	62:2A:3875:HOH:O	2.21	0.43
1:2A:1999:C:H2'	1:2A:2000:G:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:13:A:N1	2:2B:69:G:O2'	2.46	0.43
3:2D:13:ARG:HD3	3:2D:13:ARG:HA	1.63	0.43
4:2E:16:ARG:NH1	4:2E:171:GLU:OE2	2.50	0.43
6:2G:7:LEU:HD22	6:2G:103:LEU:HB2	2.01	0.43
8:2I:23:PRO:HB2	8:2I:27:ARG:NH2	2.34	0.43
8:2I:128:LEU:O	8:2I:139:GLN:HA	2.19	0.43
32:2a:8:A:C5	35:2d:209:ARG:HA	2.52	0.43
32:2a:375:U:O3'	47:2p:6:LEU:HB2	2.18	0.43
32:2a:437:U:C4	32:2a:438:G:C6	3.07	0.43
32:2a:978:A:O2'	32:2a:1322:C:N3	2.50	0.43
48:2q:92:ARG:HD3	48:2q:92:ARG:HA	1.88	0.43
49:2r:35:ARG:O	49:2r:37:VAL:N	2.51	0.43
50:2s:36:ARG:HB3	50:2s:72:GLY:CA	2.48	0.43
1:1A:359:A:H2'	1:1A:360:G:O4'	2.18	0.43
1:1A:372:G:H8	23:11:65:SER:O	2.02	0.43
1:1A:458:G:C8	29:17:37:LYS:HG2	2.53	0.43
1:1A:599:G:O5'	11:1P:9:ASN:ND2	2.52	0.43
1:1A:829:A:N7	1:1A:2248:C:H5'	2.34	0.43
1:1A:851:U:O2'	25:13:42:ALA:O	2.33	0.43
1:1A:1266:G:O6	18:1W:13:SER:OG	2.24	0.43
1:1A:1926:U:O2'	1:1A:1928:A:N7	2.47	0.43
1:1A:2065:C:H4'	1:1A:2251:OMG:HM22	2.01	0.43
1:1A:2184:G:H2'	1:1A:2185:C:O4'	2.19	0.43
1:1A:2611:U:H5'	1:1A:2611:U:H6	1.84	0.43
62:1A:4331:HOH:O	20:1Y:50:ARG:NH2	2.51	0.43
3:1D:71:ASP:OD2	3:1D:103:ARG:NH1	2.51	0.43
5:1F:114:VAL:HG22	5:1F:192:LEU:HD11	2.01	0.43
17:1V:14:VAL:HB	17:1V:96:ILE:HG13	2.01	0.43
21:1Z:11:GLU:O	21:1Z:36:LYS:HE3	2.18	0.43
32:1a:37:U:O2'	32:1a:547:A:N1	2.50	0.43
32:1a:160:A:H1'	32:1a:344:A:C5	2.54	0.43
32:1a:353:A:H5'	32:1a:353:A:H8	1.84	0.43
32:1a:715:A:H2'	32:1a:716:A:C8	2.54	0.43
32:1a:1001:A:H2'	32:1a:1001(A):G:H8	1.84	0.43
32:1a:1148:U:O2'	40:1i:66:ARG:NH2	2.52	0.43
40:1i:43:ALA:HA	40:1i:74:ILE:HD13	2.00	0.43
50:1s:20:LEU:HD23	50:1s:23:ASN:HD22	1.83	0.43
51:1t:46:GLU:HG3	51:1t:48:LYS:HD2	1.99	0.43
53:1y:3:MET:HB3	53:1y:3:MET:HE2	1.72	0.43
1:2A:24:G:H2'	1:2A:25:U:O4'	2.19	0.43
1:2A:234:C:H2'	1:2A:235:U:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1051:G:O2'	1:2A:1052:C:O5'	2.32	0.43
1:2A:1098:A:H3'	1:2A:1099:G:C8	2.53	0.43
1:2A:1216:G:P	16:2U:12:ARG:HH21	2.41	0.43
1:2A:1409:C:H2'	1:2A:1410:G:H8	1.84	0.43
1:2A:1411:C:H2'	1:2A:1412:A:C8	2.54	0.43
1:2A:1557:C:H5''	1:2A:1558:A:OP2	2.18	0.43
1:2A:1668:A:H4'	1:2A:1669:A:O5'	2.18	0.43
1:2A:1815:A:C6	1:2A:1817:G:C6	3.06	0.43
1:2A:2807:G:H1	1:2A:2892:A:H62	1.65	0.43
16:2U:108:GLU:HG2	17:2V:47:VAL:HG21	1.99	0.43
23:21:30:VAL:HG23	62:21:208:HOH:O	2.18	0.43
32:2a:57:G:H2'	32:2a:58:C:C6	2.54	0.43
32:2a:233:C:H2'	32:2a:234:C:H6	1.83	0.43
32:2a:316:G:OP2	32:2a:351:G:O2'	2.21	0.43
32:2a:535:A:H5''	62:2a:3202:HOH:O	2.18	0.43
32:2a:714:G:H2'	32:2a:715:A:C8	2.53	0.43
32:2a:1323:G:H4'	32:2a:1363:C:C2	2.54	0.43
32:2a:1371:G:H5''	40:2i:69:GLY:H	1.84	0.43
32:2a:1490:C:H2'	32:2a:1491:G:H8	1.82	0.43
35:2d:107:ARG:HE	35:2d:173:TRP:HZ2	1.67	0.43
43:2l:71:PRO:O	43:2l:102:ARG:NH1	2.48	0.43
49:2r:56:THR:HB	49:2r:58:LEU:HD12	2.00	0.43
50:2s:6:LYS:HE2	50:2s:6:LYS:HB3	1.85	0.43
1:1A:971:C:OP2	62:1A:4205:HOH:O	2.21	0.43
1:1A:1296:G:OP1	1:1A:2709:G:O2'	2.22	0.43
1:1A:1720:U:H2'	1:1A:1721:G:O4'	2.19	0.43
1:1A:1756:G:H4'	1:1A:1758:G:O4'	2.19	0.43
1:1A:2097:C:H2'	1:1A:2098:U:O4'	2.19	0.43
1:1A:2155:G:H2'	1:1A:2156:G:O4'	2.18	0.43
1:1A:2543:G:H2'	1:1A:2544:G:C8	2.53	0.43
8:1l:71:ILE:O	8:1l:75:LEU:HD23	2.19	0.43
10:1O:120:GLU:HG2	10:1O:122:LEU:HG	1.99	0.43
15:1T:15:VAL:HG13	15:1T:79:HIS:CE1	2.54	0.43
15:1T:96:ARG:NH2	62:1T:307:HOH:O	2.51	0.43
32:1a:523:A:N1	43:1l:92:0TD:H6	2.34	0.43
32:1a:689:C:OP1	42:1k:27:ASN:ND2	2.40	0.43
32:1a:713:G:H2'	32:1a:714:G:C8	2.53	0.43
32:1a:926:G:O6	53:1y:87:LYS:HE2	2.18	0.43
32:1a:1425:U:H2'	32:1a:1426:C:C6	2.54	0.43
33:1b:97:TRP:HZ2	33:1b:102:LEU:HD22	1.84	0.43
33:1b:219:VAL:O	33:1b:223:ILE:HG13	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:28:ASN:HA	38:1g:31:MET:HE3	2.00	0.43
42:1k:66:LEU:HG	42:1k:97:ALA:HB1	2.00	0.43
1:2A:271(P):C:O3'	8:2I:42:SER:OG	2.33	0.43
1:2A:1324:G:C4	1:2A:1328:G:O6	2.72	0.43
1:2A:1657:C:H2'	1:2A:1658:C:H6	1.82	0.43
1:2A:1999:C:H4'	1:2A:2723:C:O2	2.18	0.43
1:2A:2154:G:O5'	1:2A:2154:G:H8	2.01	0.43
1:2A:2337:G:H2'	1:2A:2337:G:N3	2.34	0.43
3:2D:181:GLU:HG3	3:2D:272:ALA:O	2.19	0.43
6:2G:16:ARG:O	6:2G:20:ILE:HG13	2.18	0.43
20:2Y:8:LYS:HD3	20:2Y:97:ARG:NH2	2.34	0.43
32:2a:112:G:H4'	32:2a:389:A:H4'	2.01	0.43
32:2a:286:G:H2'	32:2a:287:U:O4'	2.19	0.43
32:2a:323:U:H2'	32:2a:324:G:O4'	2.19	0.43
32:2a:625:G:H4'	47:2p:16:HIS:CG	2.53	0.43
32:2a:1147:C:C4	32:2a:1148:U:C4	3.07	0.43
32:2a:1240:U:OP1	38:2g:119:ARG:NH2	2.52	0.43
32:2a:1268:A:O2'	52:2u:19:GLY:HA2	2.18	0.43
50:2s:27:GLU:OE1	50:2s:47:HIS:NE2	2.52	0.43
1:1A:448:U:O4	1:1A:583:G:H1'	2.19	0.43
1:1A:1009:A:OP2	9:1N:37:LYS:NZ	2.44	0.43
1:1A:1653:G:C6	13:1R:9:LYS:HB2	2.54	0.43
1:1A:1912:A:N1	32:1a:1407:5MC:O2'	2.48	0.43
1:1A:2365:G:H4'	22:10:60:PHE:CZ	2.53	0.43
3:1D:43:ARG:HA	3:1D:48:ARG:O	2.19	0.43
10:1O:68:GLU:CB	10:1O:78:ARG:HB2	2.48	0.43
21:1Z:1:MET:H2	21:1Z:55:HIS:CD2	2.36	0.43
32:1a:102:G:H2'	32:1a:103:C:C6	2.53	0.43
32:1a:341:C:H2'	32:1a:342:C:C6	2.54	0.43
32:1a:399:G:H2'	32:1a:400:C:C6	2.54	0.43
32:1a:458:C:H3'	32:1a:460:G:H8	1.84	0.43
32:1a:858:G:N1	32:1a:870:U:OP2	2.35	0.43
32:1a:951:G:O6	44:1m:105:THR:HG21	2.18	0.43
32:1a:1002:G:N1	32:1a:1003:G:C2	2.87	0.43
33:1b:187:LEU:HD12	33:1b:201:ILE:O	2.19	0.43
35:1d:122:ARG:NH1	35:1d:134:ASP:O	2.51	0.43
37:1f:97:PHE:HD2	49:1r:31:LEU:HD12	1.84	0.43
39:1h:83:ILE:HA	39:1h:136:GLU:O	2.19	0.43
40:1i:19:LEU:HD23	40:1i:19:LEU:HA	1.86	0.43
44:1m:15:VAL:O	44:1m:19:LEU:HG	2.19	0.43
47:1p:4:ILE:HA	47:1p:20:VAL:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1q:13:ASP:HA	48:1q:19:VAL:HG12	2.01	0.43
48:1q:65:ILE:HD11	48:1q:72:ARG:HG2	2.01	0.43
1:2A:309:G:N3	1:2A:329:G:O2'	2.49	0.43
1:2A:570:G:H2'	1:2A:2030:A:C5	2.54	0.43
1:2A:628:G:O2'	1:2A:651:G:O2'	2.33	0.43
1:2A:1671:U:O4	62:2A:3816:HOH:O	2.21	0.43
1:2A:2050:C:C4	1:2A:2051:A:C6	3.07	0.43
1:2A:2097:C:N3	1:2A:2192:G:O6	2.52	0.43
1:2A:2532:G:H2'	1:2A:2533:A:O4'	2.19	0.43
2:2B:43:C:C4	2:2B:45:A:C6	3.07	0.43
3:2D:159:ALA:HB1	3:2D:198:ASN:O	2.19	0.43
3:2D:182:LEU:HD23	3:2D:182:LEU:HA	1.87	0.43
6:2G:66:GLN:OE1	6:2G:98:ARG:NE	2.52	0.43
6:2G:138:GLN:HE22	6:2G:153:ARG:NH2	2.17	0.43
8:2I:102:SER:C	8:2I:104:GLN:H	2.26	0.43
9:2N:30:ILE:HG22	9:2N:34:LEU:HD22	2.01	0.43
32:2a:20:U:H2'	32:2a:21:G:O4'	2.18	0.43
32:2a:266:G:H3'	48:2q:67:LYS:HB2	2.00	0.43
32:2a:309:G:H1'	32:2a:608:A:C2	2.53	0.43
32:2a:460:G:H3'	32:2a:461:A:H5''	2.01	0.43
32:2a:646:U:H2'	32:2a:647:C:C6	2.54	0.43
32:2a:886:G:H2'	32:2a:887:G:O4'	2.19	0.43
32:2a:940:C:H2'	32:2a:941:G:H8	1.84	0.43
32:2a:996:A:H2'	32:2a:997:U:C6	2.54	0.43
34:2c:98:ASN:O	34:2c:100:ALA:N	2.51	0.43
37:2f:5:GLU:OE1	49:2r:34:TYR:OH	2.21	0.43
39:2h:20:TYR:CE2	39:2h:75:ARG:HD2	2.53	0.43
44:2m:22:ILE:HB	44:2m:25:ILE:HD12	2.01	0.43
44:2m:58:GLU:O	44:2m:62:ASN:ND2	2.51	0.43
54:2w:74:C:H2'	54:2w:75:C:H5'	1.99	0.43
1:1A:1092:C:N3	1:1A:1099:G:O6	2.52	0.43
1:1A:2467:C:H4'	12:1Q:123:HIS:CG	2.53	0.43
1:1A:2584:U:H2'	1:1A:2585:U:C6	2.53	0.43
2:1B:42:C:O2	6:1G:92:VAL:HA	2.19	0.43
6:1G:112:PRO:HG3	26:14:43:TYR:CE2	2.54	0.43
8:1I:85:GLU:O	8:1I:87:LYS:N	2.52	0.43
12:1Q:48:GLU:O	12:1Q:52:VAL:HG23	2.19	0.43
16:1U:102:GLU:HG3	17:1V:2:PHE:CE2	2.54	0.43
17:1V:34:GLU:HB3	17:1V:56:SER:HB2	1.99	0.43
21:1Z:74:VAL:HG22	21:1Z:86:VAL:HG12	2.00	0.43
21:1Z:198:LYS:HE2	21:1Z:198:LYS:HB2	1.90	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:16:CYS:HA	26:14:33:VAL:HG23	2.00	0.43
28:16:33:LYS:HD3	28:16:33:LYS:HA	1.73	0.43
32:1a:253:U:H2'	32:1a:254:G:C8	2.54	0.43
32:1a:474:G:H2'	32:1a:475:G:H8	1.84	0.43
32:1a:1060:C:H2'	32:1a:1061:G:H8	1.83	0.43
32:1a:1518:MA6:H93	32:1a:1519:MA6:C9	2.43	0.43
34:1c:22:TRP:CE2	34:1c:59:ARG:HD2	2.53	0.43
34:1c:88:ARG:HG2	34:1c:101:LEU:HB3	2.01	0.43
34:1c:188:LEU:HD12	34:1c:188:LEU:HA	1.89	0.43
37:1f:69:GLU:O	37:1f:72:VAL:HG13	2.19	0.43
1:2A:118:A:C8	1:2A:119:A:C8	3.07	0.43
1:2A:484:C:H2'	1:2A:485:C:C6	2.54	0.43
1:2A:993:G:N2	17:2V:23:GLU:OE2	2.51	0.43
1:2A:1140:C:H5'	9:2N:24:GLY:HA3	2.00	0.43
1:2A:1412:A:H2'	1:2A:1413:G:H8	1.84	0.43
1:2A:1926:U:H2'	1:2A:1928:A:OP2	2.18	0.43
1:2A:2110:G:H5''	1:2A:2118:U:C2	2.53	0.43
1:2A:2298:A:H2'	1:2A:2299:G:O4'	2.19	0.43
1:2A:2563:U:H4'	10:2O:28:SER:HA	2.01	0.43
2:2B:29:A:P	14:2S:32:LEU:HD12	2.58	0.43
2:2B:61:G:H2'	2:2B:62:C:C6	2.54	0.43
2:2B:90:A:C8	2:2B:91:C:H1'	2.54	0.43
3:2D:24:ILE:HD13	3:2D:84:TYR:HB2	2.01	0.43
5:2F:196:LEU:O	5:2F:200:GLU:N	2.48	0.43
6:2G:16:ARG:NH2	6:2G:28:VAL:HG12	2.33	0.43
7:2H:124:GLU:O	7:2H:126:PRO:HD3	2.18	0.43
21:2Z:31:ARG:NH2	21:2Z:94:GLU:HG2	2.33	0.43
22:20:56:ASP:OD1	22:20:58:THR:OG1	2.32	0.43
22:20:66:VAL:O	22:20:81:VAL:HA	2.19	0.43
23:21:52:ARG:HH12	23:21:55:GLY:C	2.27	0.43
32:2a:800:G:H2'	32:2a:801:U:C5	2.54	0.43
32:2a:925:G:H1'	32:2a:1502:A:C4	2.54	0.43
32:2a:937:A:H2'	32:2a:938:A:H8	1.84	0.43
32:2a:1109:C:H2'	32:2a:1110:A:O4'	2.19	0.43
32:2a:1191:A:OP1	34:2c:4:LYS:HE3	2.19	0.43
37:2f:99:ALA:HB1	49:2r:23:LYS:NZ	2.34	0.43
44:2m:108:ARG:NE	44:2m:114:ARG:HG2	2.34	0.43
45:2n:24:CYS:HB2	45:2n:40:CYS:HB3	2.01	0.43
50:2s:64:GLU:H	50:2s:64:GLU:HG2	1.65	0.43
1:1A:581:C:H2'	1:1A:582:G:H8	1.84	0.42
1:1A:608:A:OP1	5:1F:100:THR:OG1	2.23	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:971:C:H2'	1:1A:972:G:O4'	2.18	0.42
1:1A:1361:G:N2	1:1A:1371:G:H1'	2.34	0.42
1:1A:1392:A:C6	1:1A:1393:A:C6	3.07	0.42
1:1A:1952:A:C6	1:1A:1953:A:N1	2.87	0.42
1:1A:2119:A:C6	1:1A:2171:A:C5	3.07	0.42
1:1A:2741:A:H2'	1:1A:2742:C:O4'	2.19	0.42
3:1D:70:TRP:CE2	3:1D:150:LYS:HD2	2.54	0.42
7:1H:126:PRO:HG2	7:1H:130:ARG:HH21	1.84	0.42
10:1O:70:LYS:HB3	10:1O:70:LYS:HE2	1.68	0.42
12:1Q:109:VAL:HG22	12:1Q:113:GLN:CD	2.44	0.42
14:1S:59:LYS:H	14:1S:59:LYS:HG3	1.52	0.42
32:1a:984:C:H2'	32:1a:985:C:H6	1.84	0.42
32:1a:1004:A:N7	32:1a:1036:G:N1	2.66	0.42
32:1a:1013:G:N2	32:1a:1016:A:OP2	2.52	0.42
32:1a:1030:C:N3	32:1a:1031:G:C2	2.87	0.42
32:1a:1053:G:H4'	32:1a:1054:C:H3'	2.00	0.42
32:1a:1263:C:H2'	32:1a:1264:C:C6	2.54	0.42
32:1a:1511:G:H2'	32:1a:1512:U:O4'	2.19	0.42
50:1s:6:LYS:HE2	50:1s:6:LYS:HB3	1.81	0.42
53:1y:70:MET:HE2	53:1y:70:MET:HB3	1.87	0.42
1:2A:601:C:O2	1:2A:605:C:H4'	2.18	0.42
1:2A:674:G:O2'	5:2F:74:ARG:HD3	2.19	0.42
1:2A:799:G:H3'	1:2A:800:A:H2'	2.01	0.42
1:2A:876:C:H2'	1:2A:877:U:O4'	2.19	0.42
1:2A:1047:G:N3	1:2A:1110:G:N2	2.66	0.42
1:2A:1118:C:H2'	1:2A:1119:C:O4'	2.19	0.42
1:2A:1710:C:H2'	1:2A:1711:C:H6	1.84	0.42
1:2A:2179:C:C4	1:2A:2180:U:C4	3.08	0.42
1:2A:2199:A:N3	62:2A:4013:HOH:O	2.36	0.42
1:2A:2271:G:OP1	22:20:18:ALA:HB1	2.19	0.42
1:2A:2814:C:HO2'	27:25:29:THR:HG1	1.51	0.42
2:2B:14:U:O2	2:2B:108:U:H4'	2.19	0.42
4:2E:18:ASP:HB3	15:2T:82:LEU:HD21	2.01	0.42
6:2G:103:LEU:HA	6:2G:106:LEU:HB3	2.01	0.42
8:2I:4:ILE:HG12	8:2I:18:VAL:HG22	2.01	0.42
10:2O:80:ASP:CG	15:2T:64:ARG:HH22	2.24	0.42
21:2Z:48:PHE:HE1	21:2Z:71:VAL:HG11	1.84	0.42
31:29:32:HIS:O	31:29:34:GLN:HG3	2.19	0.42
32:2a:407:G:H2'	32:2a:408:A:H8	1.83	0.42
32:2a:501:C:H2'	32:2a:502:G:H8	1.84	0.42
32:2a:654:G:H2'	32:2a:655:A:O4'	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:684:A:C6	32:2a:685:G:C6	3.06	0.42
32:2a:750:G:N3	46:2o:23:GLY:HA3	2.34	0.42
32:2a:977:A:H1'	32:2a:982:U:O4	2.19	0.42
32:2a:1134:G:H2'	32:2a:1135:U:H5'	2.01	0.42
32:2a:1503:A:H5'	32:2a:1531:A:H1'	1.99	0.42
36:2e:144:THR:O	36:2e:148:VAL:HG13	2.19	0.42
37:2f:11:ASN:HB3	37:2f:14:LEU:HG	2.00	0.42
45:2n:23:ARG:HA	45:2n:29:ARG:O	2.19	0.42
49:2r:58:LEU:HD22	49:2r:62:GLU:HB3	2.00	0.42
1:1A:422:A:H2'	1:1A:423:A:C8	2.53	0.42
1:1A:764:A:N1	1:1A:1789:A:O2'	2.49	0.42
1:1A:1526:G:C6	1:1A:1527:G:C2	3.07	0.42
1:1A:1588:C:H2'	1:1A:1589:C:C6	2.53	0.42
1:1A:1802:A:H2'	1:1A:1803:A:C8	2.54	0.42
1:1A:1932:A:H2'	1:1A:1933:G:O4'	2.19	0.42
1:1A:2207:G:H2'	1:1A:2208:A:C2	2.54	0.42
1:1A:2286:A:H4'	1:1A:2287:A:O4'	2.19	0.42
4:1E:37:ARG:O	4:1E:45:THR:HA	2.19	0.42
11:1P:94:GLU:OE2	11:1P:124:LYS:HD3	2.20	0.42
20:1Y:30:VAL:HG22	20:1Y:37:VAL:HG12	2.01	0.42
20:1Y:37:VAL:HG21	20:1Y:72:VAL:HG21	2.00	0.42
32:1a:452:A:H4'	47:1p:72:ARG:CZ	2.49	0.42
32:1a:678:U:H2'	32:1a:679:C:C6	2.54	0.42
32:1a:1316:G:N2	32:1a:1318:A:H3'	2.34	0.42
38:1g:86:GLN:HB2	38:1g:148:ASN:ND2	2.34	0.42
39:1h:121:ASP:OD2	39:1h:125:ARG:NH2	2.52	0.42
47:1p:40:ASP:HB3	47:1p:48:TRP:HB2	2.01	0.42
1:2A:35:G:H2'	1:2A:36:G:O4'	2.18	0.42
1:2A:536:A:H2'	1:2A:537:C:C6	2.54	0.42
1:2A:1024:G:C6	1:2A:1025:G:C6	3.06	0.42
1:2A:1533:G:H1'	1:2A:1537:G:N2	2.33	0.42
1:2A:1586:A:H8	1:2A:1586:A:O5'	2.02	0.42
1:2A:1790:C:H2'	1:2A:1791:A:C5	2.54	0.42
1:2A:2267:A:H5''	1:2A:2268:A:H5'	2.01	0.42
1:2A:2409:G:H2'	1:2A:2410:G:O4'	2.19	0.42
1:2A:2645:G:O6	62:2A:3866:HOH:O	2.19	0.42
1:2A:2694:G:C6	1:2A:2695:C:C4	3.07	0.42
1:2A:2768:C:H2'	1:2A:2769:C:O4'	2.19	0.42
2:2B:43:C:N3	2:2B:45:A:C6	2.88	0.42
5:2F:64:ILE:HG21	5:2F:78:ILE:HG23	2.00	0.42
7:2H:17:VAL:HG23	7:2H:24:VAL:HG23	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:35:VAL:HG13	7:2H:71:LEU:HD13	2.01	0.42
13:2R:104:ARG:HB3	13:2R:107:ASP:OD1	2.19	0.42
14:2S:11:LYS:HD3	14:2S:15:ARG:CZ	2.49	0.42
16:2U:72:HIS:HB3	16:2U:110:VAL:HG11	2.02	0.42
19:2X:26:TYR:HB3	19:2X:92:LEU:HD22	2.02	0.42
21:2Z:146:ILE:HA	21:2Z:174:VAL:HG12	2.01	0.42
26:24:8:LYS:O	26:24:27:THR:HG22	2.18	0.42
32:2a:49:U:C2	32:2a:361:G:N2	2.87	0.42
32:2a:273:A:H1'	48:2q:16:GLN:NE2	2.33	0.42
32:2a:603:U:H2'	32:2a:604:G:H8	1.84	0.42
32:2a:975:A:H61	41:2j:48:THR:HB	1.84	0.42
34:2c:181:ASN:HD21	34:2c:205:GLY:H	1.65	0.42
44:2m:32:GLU:O	44:2m:35:GLU:HG2	2.19	0.42
1:1A:298:G:H5''	1:1A:299:A:OP1	2.18	0.42
1:1A:479:A:N3	1:1A:481:G:H5''	2.34	0.42
1:1A:518:G:H2'	1:1A:519:U:C6	2.54	0.42
1:1A:958:U:H4'	62:1A:4374:HOH:O	2.19	0.42
1:1A:1175:U:H3'	1:1A:1177:A:OP1	2.19	0.42
1:1A:1608:A:H1'	1:1A:1610:A:OP2	2.19	0.42
1:1A:1754:C:H2'	1:1A:1755:A:O4'	2.19	0.42
1:1A:2147:G:H2'	1:1A:2148:G:O4'	2.19	0.42
1:1A:2602:A:N6	55:1x:76:8AN:H2'	2.34	0.42
2:1B:8:U:OP1	14:1S:11:LYS:HE2	2.19	0.42
4:1E:110:GLY:O	62:1R:301:HOH:O	2.21	0.42
6:1G:43:LEU:C	6:1G:45:GLU:H	2.27	0.42
9:1N:73:THR:HA	9:1N:83:LYS:O	2.19	0.42
15:1T:50:ILE:HG22	15:1T:102:ILE:HD11	2.01	0.42
24:12:51:ARG:HD3	24:12:55:ARG:NH1	2.35	0.42
32:1a:7:G:H21	36:1e:121:LYS:HG2	1.83	0.42
32:1a:78:G:O2'	32:1a:79:G:H5'	2.19	0.42
32:1a:189(K):U:H2'	32:1a:189(L):G:H8	1.84	0.42
32:1a:418:C:H1'	32:1a:540:G:O2'	2.19	0.42
32:1a:911:U:H2'	32:1a:912:C:C6	2.54	0.42
32:1a:958:A:C2	50:1s:55:LYS:HB2	2.54	0.42
33:1b:131:PRO:O	33:1b:135:GLN:N	2.49	0.42
35:1d:4:TYR:CE2	35:1d:11:LEU:HD11	2.53	0.42
47:1p:22:THR:OG1	47:1p:26:ARG:HG3	2.19	0.42
1:2A:117:G:C6	1:2A:119:A:C6	3.08	0.42
1:2A:355:G:H2'	1:2A:356:G:C8	2.54	0.42
1:2A:971:C:H2'	1:2A:972:G:O4'	2.19	0.42
1:2A:999:U:H5''	1:2A:1154:G:O6	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1007:C:H5''	9:2N:35:ARG:HH11	1.83	0.42
1:2A:1366:A:OP1	23:21:3:LYS:NZ	2.51	0.42
1:2A:1580:A:H5'	1:2A:1581:G:OP2	2.19	0.42
1:2A:2319:G:H22	14:2S:3:ARG:HD3	1.83	0.42
3:2D:71:ASP:OD2	3:2D:103:ARG:NH2	2.46	0.42
4:2E:182:LEU:HD12	4:2E:182:LEU:HA	1.86	0.42
5:2F:7:TYR:O	5:2F:22:ALA:N	2.53	0.42
7:2H:33:LEU:HD22	7:2H:75:ALA:HA	2.02	0.42
7:2H:35:VAL:HG11	7:2H:72:ILE:HD13	2.00	0.42
12:2Q:116:GLU:OE2	12:2Q:119:ARG:NH2	2.45	0.42
15:2T:36:GLU:O	15:2T:39:ARG:HG2	2.19	0.42
23:21:85:LEU:HD13	23:21:89:GLU:HB3	2.00	0.42
31:29:19:ARG:HG2	31:29:20:HIS:CE1	2.55	0.42
32:2a:66:G:H4'	32:2a:199:G:H4'	2.02	0.42
32:2a:926:G:N3	53:2y:91:LYS:HA	2.35	0.42
32:2a:1015:A:H2'	32:2a:1016:A:C8	2.53	0.42
32:2a:1256:A:H5'	32:2a:1258:G:O4'	2.18	0.42
33:2b:27:LYS:HB3	33:2b:194:PRO:HD2	2.01	0.42
35:2d:61:LYS:HD2	35:2d:207:TYR:OH	2.18	0.42
43:2l:8:ASN:O	43:2l:12:ARG:HG3	2.19	0.42
1:1A:57:C:H2'	1:1A:58:G:O4'	2.20	0.42
1:1A:83:G:O6	62:1A:4204:HOH:O	2.21	0.42
1:1A:458:G:H8	29:17:37:LYS:O	2.02	0.42
1:1A:824:A:H1'	1:1A:2358:G:N7	2.35	0.42
1:1A:832:G:N3	11:1P:53:GLY:HA3	2.34	0.42
1:1A:875:G:H2'	1:1A:876:C:O4'	2.18	0.42
1:1A:1057:A:H2'	1:1A:1058:G:C8	2.55	0.42
1:1A:1173:G:OP2	1:1A:1173:G:H2'	2.19	0.42
1:1A:1174:A:H4'	1:1A:1175:U:OP1	2.18	0.42
1:1A:1462:C:H4'	1:1A:2703:C:H5'	2.01	0.42
1:1A:2602:A:N6	54:1w:76:PPU:H5'	2.34	0.42
1:1A:2649:U:H2'	1:1A:2650:U:C6	2.53	0.42
2:1B:2:C:H2'	2:1B:3:C:C6	2.54	0.42
10:1O:63:VAL:HG11	10:1O:85:VAL:HG23	2.00	0.42
32:1a:362:G:N1	32:1a:365:U:OP2	2.50	0.42
32:1a:826:C:H5'	39:1h:12:ARG:CZ	2.50	0.42
33:1b:185:ILE:HG22	33:1b:199:TYR:HB2	2.01	0.42
34:1c:22:TRP:CG	34:1c:59:ARG:HB2	2.54	0.42
35:1d:121:VAL:O	35:1d:134:ASP:HA	2.20	0.42
38:1g:116:ALA:O	38:1g:120:ILE:HG12	2.19	0.42
44:1m:108:ARG:HD2	44:1m:112:GLY:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1q:56:VAL:HG23	48:1q:81:ARG:HG3	2.01	0.42
50:1s:20:LEU:HD23	50:1s:20:LEU:HA	1.80	0.42
50:1s:45:VAL:HA	50:1s:62:ILE:HG22	2.01	0.42
51:1t:57:ARG:HH22	51:1t:100:ILE:CD1	2.32	0.42
1:2A:585:G:O6	1:2A:1251:C:O2'	2.35	0.42
1:2A:714:U:N3	1:2A:717:G:OP2	2.31	0.42
1:2A:1055:G:H8	1:2A:1055:G:OP2	2.02	0.42
1:2A:2070:G:H2'	1:2A:2071:A:H8	1.83	0.42
1:2A:2572:A:O5'	1:2A:2574:G:H4'	2.19	0.42
8:2I:94:ALA:HB1	8:2I:114:LEU:HD23	2.00	0.42
14:2S:26:LEU:HD12	14:2S:39:ILE:HD11	2.02	0.42
15:2T:45:PHE:CE1	15:2T:65:LYS:HD3	2.55	0.42
20:2Y:43:ASN:CG	20:2Y:65:ALA:HB3	2.43	0.42
32:2a:261:U:OP2	51:2t:79:ARG:NH2	2.52	0.42
32:2a:645:C:C4	32:2a:646:U:C4	3.06	0.42
32:2a:1068:G:H8	32:2a:1068:G:OP2	2.02	0.42
32:2a:1070:U:H2'	32:2a:1071:C:H6	1.85	0.42
32:2a:1101:A:H4'	32:2a:1102:A:O5'	2.20	0.42
32:2a:1371:G:OP1	40:2i:12:GLU:HB3	2.20	0.42
35:2d:173:TRP:CE3	35:2d:193:ASP:HB3	2.54	0.42
37:2f:22:GLU:OE1	37:2f:84:ASN:HB2	2.20	0.42
37:2f:82:ARG:HE	37:2f:82:ARG:HB3	1.71	0.42
1:1A:341:G:H2'	1:1A:342:G:O4'	2.19	0.42
1:1A:565:C:OP1	17:1V:82:ARG:NH1	2.53	0.42
1:1A:1824:G:N3	3:1D:254:THR:OG1	2.53	0.42
1:1A:1952:A:OP1	10:1O:42:SER:OG	2.34	0.42
1:1A:2114:A:O2'	1:1A:2168:G:OP1	2.38	0.42
1:1A:2143:C:N3	1:1A:2148:G:C6	2.87	0.42
1:1A:2270:G:H2'	1:1A:2271:G:O4'	2.18	0.42
1:1A:2319:G:H1	14:1S:3:ARG:HA	1.84	0.42
1:1A:2365:G:OP1	22:10:55:ARG:HG2	2.20	0.42
4:1E:178:GLU:H	4:1E:178:GLU:CD	2.26	0.42
8:1I:72:LEU:O	8:1I:74:ASN:N	2.53	0.42
16:1U:55:ARG:H	16:1U:55:ARG:HG3	1.61	0.42
16:1U:76:TYR:CE2	16:1U:80:ILE:HG13	2.54	0.42
32:1a:44:G:H2'	32:1a:45:U:O4'	2.20	0.42
32:1a:390:C:H2'	32:1a:391:G:C8	2.54	0.42
32:1a:551:U:H2'	32:1a:552:U:C6	2.54	0.42
32:1a:787:A:N1	32:1a:795:C:N4	2.65	0.42
32:1a:1143:G:H2'	32:1a:1144:G:H8	1.83	0.42
32:1a:1278:U:H3'	32:1a:1278:U:H6	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:1i:42:ARG:O	40:1i:42:ARG:HG3	2.19	0.42
51:1t:62:LEU:HD23	51:1t:62:LEU:HA	1.85	0.42
1:2A:152:G:H2'	1:2A:153:C:C6	2.55	0.42
1:2A:878:A:H3'	1:2A:879:G:H8	1.85	0.42
1:2A:1073:A:O2'	1:2A:1074:G:O5'	2.35	0.42
1:2A:1264:G:H2'	1:2A:2014:A:N6	2.34	0.42
1:2A:1667:G:H22	1:2A:1992:G:H5'	1.85	0.42
1:2A:1810:A:H2'	1:2A:1811:G:O4'	2.18	0.42
1:2A:1857:G:C6	1:2A:1858:G:N1	2.88	0.42
1:2A:2028:U:H2'	1:2A:2029:G:O4'	2.20	0.42
1:2A:2321:G:O2'	1:2A:2322:A:OP1	2.33	0.42
3:2D:68:LYS:O	3:2D:70:TRP:N	2.48	0.42
3:2D:70:TRP:CZ2	3:2D:150:LYS:HA	2.54	0.42
3:2D:75:ILE:HG22	3:2D:97:TYR:HD1	1.84	0.42
7:2H:149:ARG:HG3	7:2H:162:ILE:HG22	2.00	0.42
12:2Q:111:GLU:O	12:2Q:115:MET:HG2	2.20	0.42
16:2U:61:TRP:CZ2	16:2U:93:LYS:HG3	2.54	0.42
21:2Z:146:ILE:H	21:2Z:146:ILE:HG12	1.67	0.42
21:2Z:155:LEU:CD1	21:2Z:171:ILE:HD13	2.50	0.42
24:22:24:LEU:HG	24:22:60:LEU:HD13	2.02	0.42
32:2a:576:G:N1	32:2a:759:A:OP1	2.52	0.42
32:2a:859:A:C2	39:2h:19:VAL:HG11	2.54	0.42
32:2a:1146:A:H2'	32:2a:1147:C:O4'	2.19	0.42
32:2a:1286:A:C8	32:2a:1287:A:H4'	2.54	0.42
32:2a:1293:G:H2'	32:2a:1294:G:C8	2.55	0.42
33:2b:19:HIS:HE1	33:2b:206:ASP:H	1.67	0.42
33:2b:68:ILE:O	33:2b:90:MET:HB3	2.20	0.42
35:2d:155:LEU:HD12	35:2d:156:GLU:N	2.35	0.42
38:2g:53:LYS:HE2	38:2g:53:LYS:HB3	1.90	0.42
39:2h:67:PRO:O	39:2h:69:ARG:HG3	2.19	0.42
42:2k:33:THR:HG22	42:2k:39:PRO:HA	2.02	0.42
47:2p:19:ILE:HD11	47:2p:39:TYR:HB2	2.02	0.42
1:1A:18:C:O2'	1:1A:554:U:OP1	2.36	0.42
1:1A:302:C:H2'	1:1A:303:U:C6	2.54	0.42
1:1A:330:A:H2	1:1A:1210:A:H2'	1.84	0.42
1:1A:2431:U:O2'	1:1A:2433:A:N7	2.52	0.42
1:1A:2470:G:O6	1:1A:2476:A:O2'	2.18	0.42
1:1A:2730:C:O2'	1:1A:2731:G:H5'	2.19	0.42
2:1B:29:A:C2	2:1B:30:C:C2	3.08	0.42
4:1E:29:GLY:H	4:1E:93:VAL:HG13	1.85	0.42
4:1E:143:ASN:HD22	4:1E:147:PRO:CD	2.28	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1E:199:ARG:HD3	62:1E:436:HOH:O	2.19	0.42
5:1F:27:GLU:O	5:1F:112:MET:HE2	2.20	0.42
19:1X:12:VAL:HG22	19:1X:29:TRP:CE2	2.55	0.42
24:12:3:LEU:HD23	24:12:3:LEU:HA	1.79	0.42
29:17:12:ARG:NH2	29:17:44:PRO:HB3	2.35	0.42
32:1a:501:C:H1'	32:1a:549:C:H1'	2.02	0.42
32:1a:620:C:H2'	32:1a:621:A:O4'	2.20	0.42
32:1a:836:G:H1	32:1a:850:U:H3	1.65	0.42
32:1a:1043:C:H2'	32:1a:1044:A:O4'	2.20	0.42
32:1a:1112:C:H1'	34:1c:179:ARG:NE	2.34	0.42
32:1a:1190:G:H5'	34:1c:176:HIS:CE1	2.54	0.42
35:1d:15:GLU:CD	35:1d:59:ARG:HH12	2.28	0.42
37:1f:11:ASN:HB3	37:1f:14:LEU:HG	2.01	0.42
39:1h:49:GLU:HG2	39:1h:62:TYR:HE2	1.83	0.42
40:1i:8:GLY:HA3	40:1i:76:ALA:O	2.20	0.42
41:1j:21:GLN:O	41:1j:25:GLU:N	2.52	0.42
1:2A:137:C:N4	1:2A:139:G:O6	2.53	0.42
1:2A:563:G:H22	1:2A:578:A:H2	1.68	0.42
1:2A:851:U:H2'	1:2A:852:G:H8	1.85	0.42
1:2A:1049:C:H2'	1:2A:1050:A:H8	1.85	0.42
1:2A:1423:G:H2'	1:2A:1424:G:H8	1.84	0.42
1:2A:1639:U:H2'	1:2A:1640:C:H5''	2.01	0.42
1:2A:1922:G:H2'	1:2A:1923:U:O4'	2.19	0.42
1:2A:1942:5MC:OP2	1:2A:1943:U:O2'	2.35	0.42
1:2A:2198:A:P	8:2I:33:ARG:HH22	2.43	0.42
1:2A:2341:G:H2'	1:2A:2342:C:C6	2.55	0.42
3:2D:16:MET:HE2	3:2D:208:LYS:HG2	2.02	0.42
4:2E:67:PHE:CD2	4:2E:74:PRO:HA	2.55	0.42
7:2H:68:THR:O	7:2H:72:ILE:HG12	2.19	0.42
10:2O:88:ASN:HB3	10:2O:94:ARG:HD3	2.00	0.42
12:2Q:82:ARG:NH2	22:2O:4:LYS:HE3	2.35	0.42
21:2Z:25:PRO:HD2	21:2Z:84:GLU:O	2.19	0.42
32:2a:401:C:O2'	32:2a:621:A:N3	2.51	0.42
32:2a:766:A:H2'	32:2a:767:A:O4'	2.20	0.42
32:2a:834:C:H2'	32:2a:835:U:H6	1.84	0.42
32:2a:1375:A:H4'	38:2g:29:LYS:NZ	2.34	0.42
33:2b:19:HIS:HE1	33:2b:206:ASP:HB2	1.84	0.42
33:2b:19:HIS:CD2	33:2b:20:GLU:H	2.37	0.42
37:2f:2:ARG:HD3	37:2f:92:LYS:NZ	2.34	0.42
37:2f:14:LEU:HB3	37:2f:18:GLN:HB2	2.01	0.42
40:2i:65:VAL:HG21	40:2i:73:GLN:HB3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:2t:47:GLY:HA2	51:2t:48:LYS:CB	2.50	0.42
1:1A:244:A:H4'	11:1P:74:GLU:HB2	2.01	0.42
1:1A:613:G:N2	1:1A:614(C):A:O2'	2.52	0.42
1:1A:675:A:C8	1:1A:804:A:C6	3.07	0.42
1:1A:782:A:N1	62:1A:4405:HOH:O	2.36	0.42
1:1A:1144:G:C6	1:1A:1145:C:C4	3.07	0.42
1:1A:1255:U:O5'	1:1A:1256:G:H5''	2.19	0.42
1:1A:1503:U:H2'	1:1A:1504:C:H6	1.84	0.42
1:1A:1779:U:H2'	62:1A:4812:HOH:O	2.18	0.42
1:1A:1864:U:OP1	1:1A:2410:G:O2'	2.24	0.42
1:1A:2011:U:OP1	18:1W:42:ARG:HD3	2.19	0.42
1:1A:2386:C:H2'	1:1A:2387:U:C6	2.54	0.42
1:1A:2637:U:OP2	62:1A:4207:HOH:O	2.21	0.42
1:1A:2667:C:H1'	7:1H:109:PHE:CD1	2.55	0.42
6:1G:72:ARG:NH1	6:1G:87:PRO:HG3	2.34	0.42
9:1N:7:LYS:H	9:1N:7:LYS:HG2	1.50	0.42
13:1R:44:LEU:O	13:1R:48:VAL:HG22	2.19	0.42
16:1U:10:ARG:NH2	62:1U:313:HOH:O	2.52	0.42
19:1X:5:TYR:CZ	24:12:30:ARG:HG3	2.55	0.42
19:1X:12:VAL:HG21	19:1X:27:THR:HG22	2.01	0.42
26:14:68:ARG:H	26:14:68:ARG:NE	2.00	0.42
32:1a:20:U:H2'	32:1a:21:G:O4'	2.19	0.42
32:1a:293:G:H5'	32:1a:610:G:C2	2.55	0.42
35:1d:110:PHE:N	35:1d:110:PHE:CD1	2.87	0.42
36:1e:8:GLU:OE2	36:1e:63:ARG:NH2	2.43	0.42
36:1e:36:ASP:OD2	36:1e:38:GLN:HB2	2.20	0.42
36:1e:103:GLY:O	36:1e:107:ARG:HB3	2.19	0.42
40:1i:66:ARG:HB2	40:1i:66:ARG:HH21	1.85	0.42
41:1j:61:GLU:OE2	45:1n:49:HIS:HE1	2.02	0.42
46:1o:16:ALA:HB1	46:1o:21:ASP:HB3	2.00	0.42
48:1q:67:LYS:C	48:1q:70:ARG:HH12	2.27	0.42
1:2A:401:A:H2'	1:2A:402:A:O4'	2.20	0.42
1:2A:807:U:O2'	1:2A:2060:A:N1	2.40	0.42
1:2A:924:C:H2'	1:2A:925:C:H6	1.82	0.42
1:2A:952:G:C6	1:2A:953:A:N7	2.88	0.42
1:2A:1009:A:O4'	16:2U:59:ARG:HG2	2.20	0.42
1:2A:1151:G:H5''	16:2U:81:HIS:CD2	2.54	0.42
1:2A:2019:A:O4'	16:2U:34:LYS:HE2	2.20	0.42
1:2A:2718:G:O2'	1:2A:2847:U:OP1	2.36	0.42
1:2A:2732:G:H3'	1:2A:2733:A:O4'	2.19	0.42
1:2A:2813:A:H2'	1:2A:2814:C:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2864:G:OP1	15:2T:119:LYS:HE3	2.20	0.42
4:2E:103:ASP:OD2	4:2E:168:MET:HE3	2.20	0.42
5:2F:169:ASN:O	5:2F:169:ASN:ND2	2.53	0.42
8:2I:129:THR:HA	8:2I:138:ILE:O	2.20	0.42
9:2N:108:PRO:O	9:2N:113:GLY:HA3	2.20	0.42
21:2Z:98:MET:HE2	21:2Z:98:MET:HB2	1.96	0.42
23:21:95:LEU:HA	23:21:95:LEU:HD13	1.72	0.42
25:23:46:ASN:O	25:23:50:VAL:HG22	2.19	0.42
32:2a:374:A:C6	32:2a:375:U:C4	3.07	0.42
32:2a:403:C:H2'	32:2a:404:U:H6	1.85	0.42
32:2a:779:C:O2'	42:2k:120:ARG:HD3	2.19	0.42
32:2a:779:C:H2'	32:2a:780:A:O4'	2.20	0.42
34:2c:181:ASN:ND2	34:2c:181:ASN:N	2.67	0.42
35:2d:173:TRP:NE1	35:2d:189:PRO:HG3	2.34	0.42
52:2u:12:LYS:HE2	52:2u:18:TYR:C	2.45	0.42
1:1A:56:A:H2'	1:1A:57:C:O4'	2.20	0.42
1:1A:289:A:H3'	1:1A:290:G:H8	1.84	0.42
1:1A:299:A:N1	1:1A:322:A:O2'	2.39	0.42
1:1A:335:C:H6	1:1A:335:C:O5'	2.02	0.42
1:1A:444:C:H4'	5:1F:49:ALA:HB2	2.01	0.42
1:1A:656:G:H2'	1:1A:657:U:O4'	2.20	0.42
1:1A:760:G:H2'	1:1A:761:A:O4'	2.20	0.42
1:1A:857:C:N4	1:1A:858:U:O4	2.53	0.42
1:1A:1231:G:H2'	1:1A:1232:G:H8	1.85	0.42
1:1A:1268:A:C2	1:1A:2013:A:C4	3.08	0.42
1:1A:1301:A:C8	1:1A:1303:G:C8	3.07	0.42
1:1A:2086:U:H2'	1:1A:2087:G:H8	1.83	0.42
1:1A:2141:G:H2'	1:1A:2142:C:C6	2.54	0.42
1:1A:2303:G:O2'	6:1G:132:ASN:HB2	2.20	0.42
2:1B:57:A:H1'	6:1G:29:TRP:HB2	2.00	0.42
5:1F:129:PHE:CD2	5:1F:163:VAL:HG21	2.54	0.42
5:1F:152:GLU:HB3	5:1F:190:GLU:HB2	2.02	0.42
6:1G:16:ARG:HE	6:1G:31:VAL:HG21	1.84	0.42
9:1N:23:LEU:HA	9:1N:60:ILE:HD11	2.02	0.42
15:1T:39:ARG:NH1	15:1T:41:ARG:HB3	2.35	0.42
32:1a:593:G:H2'	32:1a:594:G:O4'	2.20	0.42
32:1a:674:G:N2	32:1a:717:C:O2	2.52	0.42
32:1a:790:A:H61	32:1a:1498:UR3:P	2.42	0.42
32:1a:976:G:OP2	32:1a:1358:U:O2'	2.29	0.42
32:1a:978:A:H61	32:1a:1316:G:H1'	1.84	0.42
32:1a:1125:U:H4'	41:1j:5:ARG:HH22	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1182:G:C4'	32:1a:1183:A:H5'	2.50	0.42
42:1k:115:PRO:HB2	42:1k:118:GLY:H	1.85	0.42
43:1l:39:VAL:HG12	43:1l:41:ARG:HG2	2.01	0.42
48:1q:14:LYS:HE2	48:1q:14:LYS:HB2	1.95	0.42
1:2A:1248:G:C5	16:2U:3:ARG:HB2	2.55	0.42
1:2A:1549:C:H2'	1:2A:1550:C:H6	1.82	0.42
1:2A:2134:A:C2	1:2A:2158:A:H4'	2.55	0.42
5:2F:155:LEU:HD22	5:2F:185:ASP:C	2.45	0.42
6:2G:139:LEU:HA	6:2G:144:ILE:HB	2.02	0.42
7:2H:98:LEU:HG	7:2H:125:VAL:HB	2.02	0.42
7:2H:101:ARG:HH12	7:2H:122:THR:HG23	1.85	0.42
9:2N:107:LEU:HD12	9:2N:117:PHE:HB2	2.01	0.42
21:2Z:4:ARG:HH11	21:2Z:4:ARG:HB2	1.85	0.42
32:2a:340:U:H2'	32:2a:341:C:C6	2.54	0.42
32:2a:690:G:C6	32:2a:691:G:C6	3.08	0.42
32:2a:775:G:H2'	32:2a:776:G:O4'	2.20	0.42
32:2a:908:A:H2'	32:2a:909:A:C8	2.55	0.42
32:2a:1187:G:OP1	40:2i:113:LYS:HE2	2.19	0.42
34:2c:117:ALA:HB1	34:2c:198:VAL:HG23	2.01	0.42
36:2e:33:VAL:HG13	36:2e:112:LEU:HD13	2.00	0.42
40:2i:16:ARG:HH11	40:2i:64:THR:HG21	1.85	0.42
41:2j:50:ILE:HB	45:2n:41:ARG:NH1	2.34	0.42
42:2k:50:TYR:HD2	42:2k:60:ALA:HB2	1.84	0.42
46:2o:32:LEU:HD22	46:2o:59:MET:HG2	2.02	0.42
1:1A:76:C:H2'	1:1A:77:C:C6	2.55	0.42
1:1A:77:C:OP1	24:12:59:ARG:HD3	2.20	0.42
1:1A:194:G:H3'	62:1A:4907:HOH:O	2.20	0.42
1:1A:372:G:H3'	23:11:66:HIS:CE1	2.55	0.42
1:1A:614(A):U:OP1	59:1F:316:ARG:HG2	2.20	0.42
1:1A:744:G:P	4:1E:132:HIS:HD1	2.43	0.42
1:1A:828:U:H4'	1:1A:831:G:N1	2.34	0.42
1:1A:1889:A:H2'	1:1A:1890:A:C8	2.54	0.42
1:1A:1890:A:H2'	1:1A:1891:G:O4'	2.19	0.42
1:1A:1965:C:OP1	1:1A:1966:A:O2'	2.29	0.42
1:1A:2137:C:H2'	1:1A:2138:C:O4'	2.19	0.42
1:1A:2139:C:N4	1:1A:2152:G:H1	2.16	0.42
1:1A:2693:A:H2'	1:1A:2694:G:H8	1.84	0.42
1:1A:2743:C:H2'	1:1A:2744:G:O4'	2.19	0.42
1:1A:2751:G:C4	7:1H:2:SER:HA	2.55	0.42
5:1F:122:LYS:HD2	5:1F:191:ARG:HG2	2.02	0.42
6:1G:152:LEU:HD23	6:1G:152:LEU:HA	1.91	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:1N:110:GLY:O	9:1N:114:ARG:HG3	2.20	0.42
13:1R:26:LYS:HE2	13:1R:70:LEU:O	2.19	0.42
21:1Z:152:ALA:HB3	21:1Z:167:PRO:HA	2.02	0.42
32:1a:6:G:C4	36:1e:119:LEU:HD11	2.55	0.42
32:1a:258:G:H2'	32:1a:259:G:H8	1.84	0.42
32:1a:376:G:OP2	47:1p:67:THR:HG21	2.20	0.42
32:1a:1298:C:H4'	32:1a:1299:A:O4'	2.20	0.42
33:1b:41:ILE:HD13	33:1b:41:ILE:HA	1.86	0.42
41:1j:21:GLN:HE21	41:1j:25:GLU:HG3	1.85	0.42
41:1j:35:SER:N	41:1j:73:ASP:O	2.44	0.42
47:1p:19:ILE:HG22	47:1p:37:GLY:C	2.45	0.42
1:2A:210:C:H4'	1:2A:1367:A:H1'	2.01	0.42
1:2A:243:U:OP1	30:28:6:THR:OG1	2.30	0.42
1:2A:453:C:O2	1:2A:457:A:O2'	2.37	0.42
1:2A:723:G:H2'	1:2A:724:U:O4'	2.19	0.42
1:2A:830:G:H5''	62:2A:4649:HOH:O	2.18	0.42
1:2A:938:G:OP2	30:28:52:LYS:NZ	2.46	0.42
1:2A:1065:U:H1'	1:2A:1066:U:O5'	2.19	0.42
1:2A:1366:A:H2'	1:2A:1367:A:O4'	2.20	0.42
1:2A:1414:G:C6	1:2A:1415:U:C4	3.08	0.42
1:2A:1805:U:O2	3:2D:50:THR:HB	2.20	0.42
1:2A:2147:G:C8	1:2A:2147:G:H3'	2.54	0.42
1:2A:2290:G:H4'	1:2A:2381:C:O2'	2.19	0.42
1:2A:2547:U:O2	10:2O:23:ARG:NH2	2.52	0.42
1:2A:2568:C:H2'	1:2A:2569:G:O4'	2.20	0.42
6:2G:7:LEU:HD13	6:2G:104:GLU:HA	2.02	0.42
6:2G:8:LYS:O	6:2G:11:TYR:HB3	2.20	0.42
21:2Z:35:ARG:HA	21:2Z:35:ARG:HD2	1.83	0.42
21:2Z:180:VAL:HA	21:2Z:183:LEU:HG	2.01	0.42
32:2a:27:G:H2'	32:2a:28:G:C8	2.54	0.42
32:2a:921:U:H2'	32:2a:922:G:O4'	2.20	0.42
32:2a:933:G:N2	32:2a:935:A:O4'	2.52	0.42
32:2a:988:G:N1	32:2a:989:C:C2	2.88	0.42
32:2a:1346:A:C8	32:2a:1348:U:C2	3.07	0.42
33:2b:43:ASP:O	33:2b:47:THR:HG23	2.19	0.42
33:2b:126:GLU:CD	33:2b:126:GLU:H	2.28	0.42
34:2c:43:LEU:HD13	34:2c:68:VAL:HG21	2.02	0.42
34:2c:181:ASN:ND2	34:2c:181:ASN:H	2.18	0.42
38:2g:50:ILE:HD13	38:2g:61:VAL:HG11	2.01	0.42
39:2h:4:ASP:HB2	39:2h:89:PRO:HG2	2.02	0.42
53:2y:24:LEU:HD22	53:2y:27:LEU:HD12	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:271(A):A:N1	1:1A:272(D):G:O2'	2.38	0.42
1:1A:469:G:N7	29:17:37:LYS:NZ	2.59	0.42
1:1A:570:G:H2'	1:1A:2030:A:C5	2.55	0.42
1:1A:996:A:H4'	16:1U:91:ASP:OD2	2.19	0.42
1:1A:1344:G:O2'	1:1A:1385:G:H2'	2.20	0.42
1:1A:2120:G:C2	1:1A:2179:C:C2	3.07	0.42
1:1A:2468:G:OP1	31:19:8:LYS:NZ	2.53	0.42
1:1A:2516:G:C6	1:1A:2517:C:C4	3.08	0.42
1:1A:2611:U:H3'	1:1A:2611:U:OP2	2.20	0.42
1:1A:2657:A:O3'	7:1H:160:LYS:NZ	2.52	0.42
6:1G:54:GLU:HA	6:1G:57:ALA:HB3	2.02	0.42
10:1O:47:ILE:HG13	10:1O:47:ILE:H	1.74	0.42
24:12:16:LEU:HD22	24:12:20:GLU:HB3	2.02	0.42
29:17:24:THR:O	29:17:28:ARG:HG3	2.20	0.42
32:1a:315:A:OP1	62:1a:1922:HOH:O	2.22	0.42
32:1a:1503:A:H5'	32:1a:1531:A:H1'	2.01	0.42
35:1d:103:ASN:OD1	35:1d:114:ARG:NH2	2.42	0.42
44:1m:34:LEU:HD13	44:1m:41:PRO:HA	2.01	0.42
51:1t:49:ALA:HB1	51:1t:98:PRO:HA	2.02	0.42
1:2A:451:C:H41	1:2A:454:A:H5'	1.85	0.42
1:2A:1047:G:N2	1:2A:1111:A:H62	2.05	0.42
1:2A:1203:G:C6	1:2A:1204:A:N6	2.88	0.42
1:2A:1477:A:H2'	1:2A:1478:G:O4'	2.20	0.42
1:2A:1487:G:H2'	1:2A:1488:G:O4'	2.20	0.42
1:2A:1580:A:H3'	1:2A:1581:G:H8	1.85	0.42
1:2A:1951:U:O2	1:2A:1953:A:H8	2.01	0.42
1:2A:2051:A:H5'	1:2A:2578:G:O4'	2.19	0.42
1:2A:2173:A:H2'	1:2A:2173:A:N3	2.35	0.42
1:2A:2787:C:H2'	1:2A:2788:C:H6	1.85	0.42
11:2P:81:GLN:HB3	11:2P:106:LEU:HD12	2.01	0.42
12:2Q:35:VAL:HA	12:2Q:101:ARG:O	2.20	0.42
32:2a:683:G:C6	32:2a:684:A:C6	3.08	0.42
32:2a:853:G:C4	32:2a:854:G:C8	3.08	0.42
32:2a:1057:G:H2'	32:2a:1058:G:O4'	2.20	0.42
34:2c:179:ARG:NH1	34:2c:206:GLU:HB3	2.35	0.42
39:2h:6:ILE:HB	39:2h:85:ARG:NH1	2.35	0.42
40:2i:31:GLN:HB2	40:2i:36:TYR:HB2	2.02	0.42
1:1A:236:C:H2'	1:1A:237:C:C6	2.54	0.41
1:1A:1027:A:C2	1:1A:2488:A:H5'	2.55	0.41
1:1A:1045:A:H1'	1:1A:1047:G:N3	2.35	0.41
1:1A:1174:A:H4'	1:1A:1177:A:H61	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1274:A:N3	1:1A:1297:C:H1'	2.35	0.41
1:1A:1954:G:O2'	1:1A:1956:U:O4	2.35	0.41
1:1A:2118:U:O2'	1:1A:2119:A:H5'	2.20	0.41
1:1A:2354:G:H21	22:10:36:ILE:HD11	1.85	0.41
1:1A:2376:A:H2'	1:1A:2377:A:O4'	2.20	0.41
1:1A:2789:C:H1'	1:1A:2892:A:H2	1.84	0.41
8:1I:134:PRO:C	8:1I:136:VAL:H	2.27	0.41
14:1S:61:ASN:HB3	14:1S:64:GLU:HB2	2.02	0.41
32:1a:224:C:H2'	32:1a:225:C:C6	2.55	0.41
32:1a:229:U:H2'	32:1a:230:G:O4'	2.20	0.41
32:1a:233:C:H2'	32:1a:234:C:H6	1.84	0.41
32:1a:261:U:N3	32:1a:264:U:OP2	2.42	0.41
32:1a:1314:C:H2'	32:1a:1315:U:C6	2.55	0.41
35:1d:20:TYR:HA	35:1d:26:CYS:SG	2.59	0.41
35:1d:105:VAL:HG13	35:1d:110:PHE:HB2	2.02	0.41
38:1g:6:ARG:H	38:1g:6:ARG:HG3	1.61	0.41
53:1y:88:LEU:HD23	53:1y:88:LEU:HA	1.88	0.41
1:2A:30:G:H2'	1:2A:31:C:C6	2.55	0.41
1:2A:286:C:H2'	1:2A:287:C:H6	1.84	0.41
1:2A:679:C:H2'	1:2A:680:G:C8	2.55	0.41
1:2A:839:U:H1'	1:2A:1191:G:H1'	2.02	0.41
1:2A:2055:C:H2'	1:2A:2504:U:H4'	2.02	0.41
1:2A:2134:A:N6	1:2A:2135:A:H62	2.18	0.41
1:2A:2351:G:H8	1:2A:2351:G:O5'	2.03	0.41
1:2A:2683:C:O2	10:2O:70:LYS:HE3	2.20	0.41
1:2A:2735:G:H2'	1:2A:2736:G:H8	1.86	0.41
1:2A:2754:U:O2'	1:2A:2756:U:OP2	2.33	0.41
5:2F:172:TRP:H	5:2F:172:TRP:CD1	2.37	0.41
6:2G:57:ALA:HB2	6:2G:90:LEU:HD22	2.02	0.41
14:2S:65:VAL:O	14:2S:69:VAL:HG23	2.19	0.41
18:2W:34:ASN:ND2	27:25:39:MET:HG3	2.35	0.41
28:26:9:LEU:HB2	28:26:51:GLU:HG3	2.02	0.41
32:2a:46:G:H2'	32:2a:366:C:H5	1.84	0.41
32:2a:299:G:H2'	32:2a:300:A:C8	2.55	0.41
32:2a:1004:A:C5	32:2a:1037:C:C4	3.08	0.41
32:2a:1177:G:H3'	32:2a:1178:G:C8	2.54	0.41
33:2b:87:ARG:CZ	33:2b:233:SER:HB3	2.49	0.41
34:2c:137:ALA:HA	34:2c:140:ARG:NH2	2.35	0.41
35:2d:92:VAL:O	35:2d:96:LEU:HG	2.20	0.41
35:2d:119:GLN:HG3	35:2d:123:HIS:NE2	2.35	0.41
37:2f:30:LEU:HB3	37:2f:35:ALA:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:2g:121:ALA:O	38:2g:125:MET:N	2.44	0.41
41:2j:81:THR:O	41:2j:85:LEU:N	2.44	0.41
45:2n:4:LYS:HE2	45:2n:4:LYS:HB2	1.94	0.41
51:2t:86:ARG:HH21	51:2t:90:GLN:NE2	2.11	0.41
53:2y:85:LEU:O	53:2y:89:GLN:HG2	2.20	0.41
1:1A:250:G:P	30:18:13:ARG:HH22	2.43	0.41
1:1A:391:G:H1'	1:1A:411:G:O4'	2.20	0.41
1:1A:600:G:H2'	1:1A:601:C:O4'	2.20	0.41
1:1A:1027:A:C6	1:1A:1126:A:C4	3.08	0.41
1:1A:1332:G:C8	1:1A:1610:A:C8	3.07	0.41
1:1A:1465:G:H5'	1:1A:1528:A:O2'	2.19	0.41
1:1A:1568:G:N7	62:1D:403:HOH:O	2.36	0.41
1:1A:1815:A:P	3:1D:54:ARG:HH22	2.42	0.41
1:1A:2115:G:H2'	1:1A:2117:A:N6	2.36	0.41
1:1A:2521:C:C4	1:1A:2522:U:C4	3.08	0.41
1:1A:2809:A:C6	1:1A:2892:A:C8	3.08	0.41
7:1H:46:GLU:CD	7:1H:51:ARG:HE	2.28	0.41
12:1Q:82:ARG:HB2	22:10:7:LEU:HD11	2.01	0.41
12:1Q:108:GLY:HA3	21:1Z:116:VAL:HG13	2.02	0.41
32:1a:15:G:H21	36:1e:18:ARG:HA	1.84	0.41
32:1a:108:G:OP1	32:1a:326:G:N2	2.27	0.41
32:1a:232:G:H1'	32:1a:262:A:N1	2.35	0.41
32:1a:370:C:H2'	32:1a:371:G:C8	2.55	0.41
32:1a:688:G:H5'	42:1k:46:GLY:C	2.45	0.41
36:1e:102:ALA:HB1	36:1e:106:PRO:HG2	2.01	0.41
1:2A:30:G:H2'	1:2A:31:C:O4'	2.20	0.41
1:2A:272:G:N7	1:2A:421:U:H2'	2.35	0.41
1:2A:287:C:H2'	1:2A:288:C:O4'	2.20	0.41
1:2A:385:C:C2	11:2P:71:VAL:HG21	2.55	0.41
1:2A:1193:G:H2'	1:2A:1194:A:H8	1.85	0.41
1:2A:1344:G:O2'	1:2A:1385:G:H2'	2.21	0.41
1:2A:1654:A:C1'	1:2A:2823:A:H5'	2.50	0.41
1:2A:2331:G:O2'	1:2A:2336:A:N1	2.48	0.41
1:2A:2615:U:N1	27:25:7:PRO:HA	2.35	0.41
1:2A:2695:C:H2'	1:2A:2696:U:C6	2.56	0.41
2:2B:1:U:H2'	2:2B:2:C:C6	2.55	0.41
7:2H:148:ILE:HG12	7:2H:148:ILE:H	1.67	0.41
8:2I:70:GLU:H	8:2I:70:GLU:CD	2.25	0.41
21:2Z:25:PRO:O	21:2Z:85:HIS:HA	2.20	0.41
32:2a:163:C:H2'	32:2a:164:U:O4'	2.19	0.41
32:2a:189(F):U:C4	48:2q:72:ARG:NH1	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:225:C:H2'	32:2a:226:G:O4'	2.20	0.41
32:2a:564:C:H4'	39:2h:91:ARG:NH2	2.35	0.41
32:2a:885:G:C2	32:2a:886:G:C8	3.09	0.41
32:2a:1005:A:H3'	32:2a:1006:C:O4'	2.20	0.41
32:2a:1308:U:P	44:2m:101:GLN:HE22	2.42	0.41
34:2c:124:ILE:H	34:2c:124:ILE:HG12	1.58	0.41
44:2m:13:LYS:HA	44:2m:13:LYS:HD3	1.87	0.41
1:1A:227:A:H5'	1:1A:228:A:C2	2.55	0.41
1:1A:481:G:C4	1:1A:507:A:C2	3.08	0.41
1:1A:705:A:H2'	1:1A:706:A:O4'	2.20	0.41
1:1A:785:G:C5	1:1A:786:C:C4	3.08	0.41
1:1A:1354:A:H2'	1:1A:1355:G:O4'	2.20	0.41
1:1A:1416:G:O2'	1:1A:1417:C:OP2	2.28	0.41
1:1A:2406:U:C2	11:1P:72:PRO:HG2	2.55	0.41
1:1A:2480:C:N4	1:1A:2481:G:C6	2.87	0.41
1:1A:2574:G:H2'	1:1A:2575:C:C6	2.55	0.41
3:1D:6:PHE:HE2	3:1D:18:VAL:HG13	1.85	0.41
7:1H:86:GLU:HB3	7:1H:165:ALA:HB2	2.02	0.41
12:1Q:17:LEU:HD22	12:1Q:39:PRO:HB2	2.03	0.41
13:1R:29:LEU:HD12	13:1R:29:LEU:HA	1.92	0.41
15:1T:37:GLY:HA2	15:1T:38:ASN:HA	1.65	0.41
15:1T:127:ALA:C	15:1T:129:ARG:H	2.28	0.41
25:13:10:LYS:HB3	25:13:53:LEU:HA	2.02	0.41
25:13:31:LEU:C	25:13:33:GLN:H	2.28	0.41
32:1a:270:A:H2'	32:1a:271:C:C6	2.55	0.41
32:1a:335:C:H2'	32:1a:336:C:C6	2.54	0.41
32:1a:737:A:H2'	32:1a:738:C:H6	1.86	0.41
32:1a:1109:C:H2'	32:1a:1110:A:O4'	2.20	0.41
32:1a:1203:C:H2'	32:1a:1204:A:O4'	2.20	0.41
32:1a:1460:A:H2'	32:1a:1461:G:O4'	2.20	0.41
33:1b:16:HIS:HB3	33:1b:210:SER:HB2	2.02	0.41
33:1b:103:THR:HA	33:1b:180:LEU:HD11	2.02	0.41
33:1b:180:LEU:C	33:1b:182:ILE:H	2.28	0.41
36:1e:131:ILE:HA	36:1e:131:ILE:HD13	1.80	0.41
50:1s:36:ARG:HB3	50:1s:72:GLY:HA3	2.02	0.41
1:2A:118:A:H1'	1:2A:178:G:O4'	2.19	0.41
1:2A:784:A:C5	3:2D:229:VAL:HG21	2.55	0.41
1:2A:828:U:H2'	1:2A:829:A:C8	2.55	0.41
1:2A:957:A:N1	1:2A:2458:G:H4'	2.35	0.41
1:2A:1100:C:H2'	1:2A:1101:U:C6	2.55	0.41
1:2A:1270:C:H5''	1:2A:1271:G:O5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1288:U:C2	1:2A:1327:C:O2	2.73	0.41
1:2A:1371:G:O2'	1:2A:1372:U:H5	2.03	0.41
1:2A:1562:A:H2'	1:2A:1563:G:C8	2.55	0.41
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.55	0.41
1:2A:2002:G:OP1	13:2R:9:LYS:NZ	2.50	0.41
1:2A:2359:C:H2'	1:2A:2360:A:C8	2.55	0.41
1:2A:2639:A:H3'	1:2A:2640:G:H8	1.85	0.41
2:2B:5:C:O2'	2:2B:27:C:O2	2.38	0.41
5:2F:179:GLU:O	5:2F:205:ARG:NH2	2.53	0.41
8:2I:93:THR:O	8:2I:97:ILE:HG13	2.20	0.41
9:2N:90:MET:HE3	9:2N:94:HIS:HB2	2.01	0.41
10:2O:97:ARG:NH1	10:2O:99:PHE:HE1	2.18	0.41
21:2Z:30:ASN:HA	21:2Z:89:PHE:CE1	2.56	0.41
28:26:18:ARG:HD2	28:26:42:TRP:CE2	2.55	0.41
32:2a:321:A:H2'	32:2a:322:C:C6	2.55	0.41
32:2a:666:G:OP2	32:2a:725:G:N2	2.38	0.41
32:2a:724:G:C2	32:2a:725:G:C8	3.08	0.41
32:2a:1158:C:O2'	32:2a:1160:G:OP1	2.31	0.41
36:2e:79:GLU:HG3	36:2e:93:PRO:HD2	2.01	0.41
44:2m:20:THR:HA	44:2m:25:ILE:O	2.21	0.41
44:2m:84:ILE:HG13	44:2m:86:CYS:HB3	2.01	0.41
1:1A:1124:C:H2'	1:1A:1125:G:O4'	2.21	0.41
1:1A:1266:G:O2'	1:1A:2012:G:O6	2.36	0.41
1:1A:1783:A:C5'	1:1A:2608:G:H4'	2.49	0.41
1:1A:2061:G:H5''	1:1A:2503:2MA:C2	2.50	0.41
1:1A:2219:G:H2'	1:1A:2220:G:H8	1.85	0.41
1:1A:2259:G:C8	1:1A:2427:C:C4	3.09	0.41
1:1A:2419:U:H2'	1:1A:2420:C:H6	1.84	0.41
2:1B:108:U:H2'	2:1B:109:C:H5''	2.01	0.41
6:1G:47:LYS:H	6:1G:47:LYS:HG2	1.67	0.41
10:1O:65:THR:HB	62:1O:303:HOH:O	2.20	0.41
21:1Z:136:PHE:HE1	21:1Z:138:GLU:HG3	1.84	0.41
32:1a:347:G:C8	58:1a:1858:MPD:H53	2.56	0.41
32:1a:764:C:H2'	32:1a:765:G:O4'	2.19	0.41
32:1a:765:G:C6	32:1a:812:C:C2	3.09	0.41
32:1a:1054:C:C6	53:1y:45:PRO:HG2	2.54	0.41
32:1a:1159:U:O4	62:1a:1920:HOH:O	2.20	0.41
35:1d:61:LYS:HD2	35:1d:207:TYR:CZ	2.56	0.41
35:1d:98:GLU:O	35:1d:103:ASN:ND2	2.53	0.41
35:1d:168:ARG:CA	35:1d:168:ARG:HH11	2.34	0.41
37:1f:92:LYS:HE3	37:1f:92:LYS:HB2	1.66	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:1k:30:VAL:HG21	42:1k:65:ALA:HA	2.02	0.41
43:1l:5:PRO:HG2	43:1l:10:LEU:HD21	2.02	0.41
44:1m:57:ARG:O	44:1m:61:GLU:HG3	2.20	0.41
1:2A:191:A:H2'	1:2A:192:C:C6	2.56	0.41
1:2A:484:C:H2'	1:2A:485:C:H6	1.85	0.41
1:2A:576:U:H2'	1:2A:577:G:C8	2.56	0.41
1:2A:1058:G:H1'	1:2A:1082:U:N3	2.34	0.41
1:2A:1359:A:N1	1:2A:1372:U:O4	2.53	0.41
1:2A:2064:C:H2'	1:2A:2065:C:C6	2.56	0.41
1:2A:2313:C:H4'	6:2G:91:ARG:HD3	2.02	0.41
1:2A:2352:A:N6	1:2A:2365:G:O2'	2.53	0.41
1:2A:2591:C:H2'	1:2A:2592:G:C8	2.56	0.41
1:2A:2756:U:H1'	1:2A:2757:A:H5''	2.03	0.41
7:2H:84:SER:HA	7:2H:134:SER:HA	2.01	0.41
14:2S:78:LEU:HA	14:2S:78:LEU:HD23	1.86	0.41
17:2V:58:VAL:HG21	17:2V:100:ARG:CZ	2.50	0.41
25:23:5:LYS:HE2	25:23:57:GLU:CB	2.49	0.41
32:2a:69:G:N3	32:2a:70:G:C8	2.88	0.41
32:2a:413:G:H21	32:2a:428:G:H1'	1.84	0.41
32:2a:973:G:H3'	32:2a:974:A:H5''	2.02	0.41
32:2a:1069:C:O2'	32:2a:1192:C:H1'	2.20	0.41
32:2a:1072:G:C6	32:2a:1073:U:C4	3.08	0.41
32:2a:1486:G:C6	32:2a:1487:G:C6	3.08	0.41
33:2b:28:PHE:O	33:2b:32:ILE:HG13	2.19	0.41
37:2f:67:MET:SD	37:2f:75:LEU:HD13	2.61	0.41
39:2h:77:GLU:HG2	39:2h:78:GLN:H	1.85	0.41
39:2h:133:LEU:HD23	39:2h:133:LEU:HA	1.78	0.41
45:2n:47:LEU:HD23	45:2n:47:LEU:HA	1.90	0.41
51:2t:56:MET:HE2	51:2t:56:MET:HB3	1.73	0.41
1:1A:194:G:H2'	1:1A:195:A:O4'	2.21	0.41
1:1A:1152:C:H4'	16:1U:77:SER:HA	2.02	0.41
1:1A:1263:U:C4	1:1A:1264:G:C6	3.08	0.41
1:1A:1386:C:H2'	1:1A:1387:C:C6	2.55	0.41
1:1A:1421:G:C2	1:1A:1422:G:C8	3.08	0.41
1:1A:1431:U:H2'	1:1A:1432:C:C6	2.56	0.41
1:1A:1638:C:H5''	1:1A:2710:C:O2'	2.21	0.41
1:1A:2366:A:H2'	1:1A:2367:G:O4'	2.20	0.41
1:1A:2526:G:H5'	1:1A:2742:C:O2'	2.21	0.41
6:1G:5:VAL:HG22	6:1G:8:LYS:H	1.86	0.41
6:1G:16:ARG:O	6:1G:20:ILE:HG13	2.20	0.41
6:1G:109:VAL:HG11	6:1G:142:PRO:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:75:LEU:HD13	8:1I:105:HIS:CE1	2.55	0.41
8:1I:133:HIS:HD1	8:1I:136:VAL:HG23	1.85	0.41
18:1W:7:ALA:HB2	18:1W:50:VAL:HG22	2.02	0.41
20:1Y:23:ARG:HD2	20:1Y:42:VAL:HG22	2.02	0.41
21:1Z:31:ARG:H	21:1Z:31:ARG:HG3	1.50	0.41
28:16:40:CYS:O	28:16:44:ARG:N	2.53	0.41
28:16:45:LYS:HE2	28:16:46:HIS:O	2.20	0.41
32:1a:297:G:O2'	62:1a:1923:HOH:O	2.22	0.41
32:1a:735:C:H2'	32:1a:736:C:C6	2.56	0.41
32:1a:1016:A:OP1	45:1n:15:LYS:HE3	2.20	0.41
32:1a:1402:4OC:H2'	32:1a:1403:C:O4'	2.21	0.41
33:1b:75:LYS:HD3	33:1b:75:LYS:HA	1.81	0.41
36:1e:65:ASN:HD22	36:1e:65:ASN:C	2.28	0.41
38:1g:82:GLY:HA3	53:1y:96:ARG:HG2	2.02	0.41
40:1i:10:ARG:HH22	40:1i:107:ARG:NH2	2.18	0.41
43:1l:11:VAL:HG22	48:1q:29:HIS:CD2	2.55	0.41
44:1m:3:ARG:HG2	44:1m:8:GLU:HA	2.01	0.41
1:2A:134:C:H2'	1:2A:135:G:C8	2.55	0.41
1:2A:459:U:H2'	1:2A:460:A:H8	1.84	0.41
1:2A:626:U:O4	11:2P:81:GLN:NE2	2.53	0.41
1:2A:890:A:H2'	1:2A:892:G:O4'	2.20	0.41
1:2A:1064:C:H3'	1:2A:1065:U:C5'	2.50	0.41
1:2A:1967:C:C4	1:2A:1968:G:C5	3.08	0.41
1:2A:2032:G:OP2	1:2A:2454:G:O2'	2.32	0.41
1:2A:2142:C:H2'	1:2A:2143:C:H6	1.85	0.41
1:2A:2252:G:H2'	1:2A:2253:G:O4'	2.20	0.41
7:2H:13:LYS:HA	7:2H:14:GLY:HA2	1.77	0.41
9:2N:40:PRO:HB3	16:2U:68:ALA:HB2	2.01	0.41
17:2V:12:TYR:CD1	17:2V:20:LEU:HD21	2.56	0.41
20:2Y:1:MET:HE2	20:2Y:1:MET:HB3	1.92	0.41
22:20:34:GLY:N	22:20:61:ALA:O	2.44	0.41
29:27:34:ARG:NH1	29:27:41:ARG:O	2.53	0.41
32:2a:19:C:OP1	36:2e:125:SER:OG	2.35	0.41
32:2a:411:A:OP2	35:2d:25:ARG:NH2	2.53	0.41
32:2a:1104:G:O5'	33:2b:111:ARG:HD2	2.20	0.41
32:2a:1247:U:H1'	32:2a:1291:G:N2	2.35	0.41
32:2a:1270:C:O2'	32:2a:1314:C:H5'	2.19	0.41
34:2c:142:MET:HE3	34:2c:142:MET:HB3	1.94	0.41
38:2g:26:PHE:CD2	38:2g:62:PHE:HE1	2.38	0.41
46:2o:24:SER:O	46:2o:28:GLN:HG3	2.20	0.41
1:1A:78:A:H2'	1:1A:79:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:296:C:H2'	1:1A:297:C:C6	2.56	0.41
1:1A:697:C:H2'	1:1A:698:C:C6	2.55	0.41
1:1A:1297:C:OP1	1:1A:2710:C:H4'	2.21	0.41
1:1A:1541:G:OP2	1:1A:1542:A:O2'	2.35	0.41
1:1A:2618:G:H21	4:1E:150:VAL:HG21	1.85	0.41
9:1N:97:ARG:HA	9:1N:100:GLU:HB2	2.02	0.41
13:1R:36:THR:HG22	13:1R:37:THR:H	1.86	0.41
14:1S:10:ARG:HG2	14:1S:91:PRO:HA	2.02	0.41
19:1X:59:VAL:O	62:1X:101:HOH:O	2.20	0.41
23:11:3:LYS:O	23:11:12:PRO:HD3	2.20	0.41
27:15:42:PRO:HB2	27:15:43:HIS:ND1	2.36	0.41
32:1a:532:A:N6	34:1c:156:ARG:HH12	2.19	0.41
32:1a:562:C:H4'	32:1a:563:A:O5'	2.21	0.41
32:1a:1019:C:H2'	32:1a:1020:U:H4'	2.02	0.41
32:1a:1492:A:H4'	32:1a:1493:A:C6	2.56	0.41
35:1d:186:LEU:HD13	35:1d:186:LEU:HA	1.93	0.41
40:1i:3:GLN:HB2	40:1i:20:ARG:HG3	2.01	0.41
41:1j:11:PHE:CE1	41:1j:67:THR:HG22	2.54	0.41
42:1k:104:GLN:O	42:1k:106:LYS:N	2.53	0.41
46:1o:31:LEU:HD23	46:1o:31:LEU:HA	1.78	0.41
1:2A:524:U:H2'	1:2A:525:U:C6	2.56	0.41
1:2A:1131:G:C2	1:2A:1132:A:C4	3.09	0.41
1:2A:1688:U:H1'	1:2A:1701:A:C6	2.55	0.41
1:2A:1718:G:H2'	1:2A:1719:G:H8	1.84	0.41
1:2A:1834:U:H4'	1:2A:1969:A:C6	2.55	0.41
1:2A:2206:G:H5''	1:2A:2207:G:H8	1.78	0.41
1:2A:2281:C:O2'	1:2A:2282:G:H5'	2.20	0.41
1:2A:2345:G:H5'	1:2A:2347:C:O4'	2.20	0.41
1:2A:2405:G:H5'	11:2P:75:ILE:HD13	2.02	0.41
16:2U:93:LYS:HE2	16:2U:93:LYS:HB3	1.86	0.41
25:23:8:LEU:O	25:23:32:GLN:N	2.30	0.41
32:2a:189(B):C:H2'	32:2a:189(C):C:C6	2.55	0.41
32:2a:546:G:OP1	35:2d:73:ARG:HG2	2.21	0.41
32:2a:983:A:N1	32:2a:1222:G:N2	2.67	0.41
32:2a:1329:A:H5''	44:2m:26:GLY:H	1.85	0.41
32:2a:1330:U:H4'	44:2m:23:TYR:CZ	2.56	0.41
33:2b:157:ARG:NH2	33:2b:160:ASP:OD1	2.53	0.41
38:2g:140:ASP:OD1	38:2g:143:ARG:NH2	2.51	0.41
40:2i:23:ASN:HB2	40:2i:25:LYS:HZ3	1.84	0.41
53:2y:75:ASN:C	53:2y:77:LEU:N	2.77	0.41
1:1A:729:G:O5'	3:1D:208:LYS:NZ	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:888:C:N3	44:1m:83:ASP:HA	2.36	0.41
1:1A:1826:G:H2'	1:1A:1827:C:O4'	2.21	0.41
1:1A:1971:A:C4	3:1D:241:PRO:HD3	2.56	0.41
1:1A:2019:A:H2	1:1A:2035:G:H22	1.68	0.41
1:1A:2029:G:H2'	1:1A:2031:A:OP1	2.21	0.41
1:1A:2712:U:H1'	1:1A:2712(A):A:C8	2.55	0.41
1:1A:2803:C:H2'	1:1A:2804:C:H6	1.85	0.41
1:1A:2852:G:H2'	1:1A:2853:C:O4'	2.21	0.41
2:1B:32:C:C2	2:1B:51:G:N2	2.89	0.41
5:1F:110:LEU:HD23	5:1F:110:LEU:HA	1.96	0.41
6:1G:21:ARG:HG3	6:1G:22:ARG:N	2.34	0.41
16:1U:27:LEU:HD11	62:15:217:HOH:O	2.21	0.41
22:10:49:LYS:HB3	22:10:80:HIS:HB3	2.02	0.41
32:1a:44:G:C2	32:1a:45:U:H1'	2.56	0.41
32:1a:67:C:H2'	32:1a:68:G:C8	2.55	0.41
32:1a:142:G:H2'	32:1a:143:A:H8	1.85	0.41
32:1a:160:A:H1'	32:1a:344:A:N7	2.36	0.41
32:1a:347:G:H8	58:1a:1858:MPD:H53	1.85	0.41
32:1a:938:A:H2'	32:1a:939:G:O4'	2.21	0.41
32:1a:1100:C:N4	32:1a:1103:C:OP1	2.54	0.41
33:1b:97:TRP:HH2	33:1b:176:GLU:CD	2.29	0.41
34:1c:63:ASN:CB	34:1c:98:ASN:HB2	2.50	0.41
35:1d:107:ARG:NH2	35:1d:194:LEU:HD11	2.35	0.41
40:1i:92:TYR:HD1	40:1i:92:TYR:HA	1.77	0.41
41:1j:47:PHE:HB2	41:1j:63:PHE:HB2	2.03	0.41
41:1j:64:GLU:CD	41:1j:66:ARG:HH11	2.27	0.41
43:1l:34:ARG:HD3	43:1l:105:TYR:CE2	2.56	0.41
1:2A:78:A:H2'	1:2A:79:G:C8	2.56	0.41
1:2A:324:A:H2'	1:2A:325:G:O4'	2.21	0.41
1:2A:519:U:C2	1:2A:520:G:C8	3.09	0.41
1:2A:1332:G:C8	1:2A:1610:A:C8	3.08	0.41
1:2A:1847:A:H3'	1:2A:1848:A:H5'	2.02	0.41
1:2A:2082:A:N6	1:2A:2237:G:O2'	2.53	0.41
1:2A:2199:A:O3'	62:2A:3883:HOH:O	2.22	0.41
1:2A:2206:G:C8	1:2A:2207:G:N7	2.87	0.41
1:2A:2319:G:N1	14:2S:3:ARG:HA	2.35	0.41
1:2A:2542:A:H4'	1:2A:2543:G:C8	2.55	0.41
1:2A:2772:C:H2'	1:2A:2773:C:C6	2.56	0.41
1:2A:2888:C:H2'	1:2A:2889:C:O4'	2.20	0.41
2:2B:11:C:OP2	2:2B:12:C:N4	2.48	0.41
3:2D:182:LEU:HB2	3:2D:272:ALA:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:48:GLN:NE2	4:2E:78:LEU:HD13	2.36	0.41
4:2E:117:MET:HG2	4:2E:122:PHE:O	2.20	0.41
8:2I:47:LEU:O	8:2I:51:ILE:HG13	2.21	0.41
10:2O:19:ILE:HG22	10:2O:43:VAL:HA	2.03	0.41
11:2P:87:ASP:HB3	11:2P:105:LEU:CD2	2.51	0.41
13:2R:95:THR:HG22	13:2R:116:LEU:HD23	2.02	0.41
26:24:55:ARG:C	26:24:57:GLU:H	2.28	0.41
28:26:6:ARG:NE	28:26:24:GLU:OE2	2.25	0.41
32:2a:8:A:H5'	36:2e:101:ILE:HG22	2.02	0.41
32:2a:192:U:O2'	51:2t:60:GLU:OE1	2.32	0.41
32:2a:429:U:H1'	32:2a:430:A:H5''	2.03	0.41
32:2a:790:A:C6	32:2a:791:G:C6	3.08	0.41
32:2a:1362:C:C2'	32:2a:1363:C:H5''	2.50	0.41
33:2b:55:PHE:HE1	33:2b:218:ALA:HA	1.86	0.41
33:2b:69:LEU:HD13	33:2b:155:LEU:HD22	2.02	0.41
36:2e:82:VAL:HG22	36:2e:138:ALA:HB2	2.02	0.41
38:2g:75:VAL:HA	38:2g:87:VAL:O	2.21	0.41
40:2i:78:LYS:HD3	40:2i:101:PHE:HD1	1.85	0.41
46:2o:21:ASP:O	46:2o:27:VAL:HG21	2.20	0.41
1:1A:562:U:C4	1:1A:2036:C:O4'	2.73	0.41
1:1A:573:G:O2'	1:1A:574:C:H3'	2.21	0.41
1:1A:704:G:N3	1:1A:726:G:C2	2.88	0.41
1:1A:1054:A:N6	1:1A:1105:U:H3	2.19	0.41
1:1A:1130:U:C2	1:1A:2025:C:H5''	2.56	0.41
1:1A:2235:G:H2'	1:1A:2236:C:C6	2.56	0.41
5:1F:167:ALA:HB1	5:1F:173:VAL:HG11	2.03	0.41
6:1G:77:ILE:N	6:1G:82:LEU:O	2.46	0.41
6:1G:165:THR:OG1	6:1G:168:GLU:HG3	2.21	0.41
26:14:16:CYS:HB3	26:14:20:ASN:HB3	2.02	0.41
32:1a:499:A:N1	32:1a:546:G:O2'	2.52	0.41
32:1a:503:C:H2'	32:1a:504:C:H6	1.86	0.41
32:1a:578:C:O2'	32:1a:728:A:N3	2.48	0.41
32:1a:806:C:H2'	32:1a:807:A:H8	1.86	0.41
32:1a:860:A:H2'	32:1a:861:G:O4'	2.21	0.41
32:1a:1010:G:H22	32:1a:1020:U:H1'	1.86	0.41
35:1d:108:LEU:HD23	35:1d:174:LEU:HD13	2.03	0.41
40:1i:38:GLN:HE21	40:1i:39:GLY:N	2.18	0.41
41:1j:35:SER:CB	41:1j:73:ASP:HB2	2.51	0.41
46:1o:32:LEU:HD23	46:1o:32:LEU:HA	1.89	0.41
1:2A:140:G:N2	1:2A:1596:A:H4'	2.36	0.41
1:2A:551:G:N3	1:2A:1220:A:H2	2.18	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:571:A:N6	1:2A:2499:C:O3'	2.51	0.41
1:2A:675:A:OP1	5:2F:63:LYS:NZ	2.46	0.41
1:2A:778:G:C5	1:2A:779:U:C4	3.08	0.41
1:2A:824:A:H1'	1:2A:2358:G:N7	2.36	0.41
1:2A:1266:G:O5'	18:2W:15:ARG:NH2	2.51	0.41
1:2A:1382:G:O4'	1:2A:1572:A:H2	2.04	0.41
1:2A:2331:G:H4'	22:20:43:THR:N	2.35	0.41
6:2G:95:ARG:O	6:2G:96:ARG:C	2.64	0.41
8:2I:97:ILE:HD12	8:2I:114:LEU:HD21	2.02	0.41
12:2Q:1:MET:HB3	12:2Q:1:MET:HE2	1.87	0.41
17:2V:80:GLN:HA	17:2V:82:ARG:NH1	2.36	0.41
24:22:52:ASP:O	24:22:56:GLN:HG3	2.20	0.41
29:27:1:MET:HE3	29:27:3:ARG:NH2	2.36	0.41
32:2a:127:G:OP1	32:2a:635:G:H1'	2.21	0.41
32:2a:141:A:H1'	32:2a:182:U:O2	2.20	0.41
32:2a:967:5MC:H5''	32:2a:968:A:OP2	2.21	0.41
32:2a:1054:C:H5	53:2y:46:GLN:HG2	1.85	0.41
32:2a:1058:G:N2	41:2j:53:PRO:HG3	2.36	0.41
32:2a:1096:C:H2'	32:2a:1097:C:C6	2.55	0.41
33:2b:87:ARG:NE	33:2b:233:SER:HB3	2.36	0.41
35:2d:173:TRP:CE2	35:2d:189:PRO:HG3	2.56	0.41
36:2e:108:ALA:O	36:2e:112:LEU:HD12	2.21	0.41
36:2e:141:GLN:HA	36:2e:143:ARG:NH2	2.35	0.41
50:2s:62:ILE:HA	50:2s:66:MET:SD	2.61	0.41
1:1A:42:G:H2'	1:1A:43:A:O4'	2.21	0.41
1:1A:511:U:H4'	1:1A:1235:G:H4'	2.03	0.41
1:1A:608:A:C4	1:1A:621:A:C6	3.09	0.41
1:1A:626:U:O4	11:1P:107:LYS:HE2	2.20	0.41
1:1A:782:A:H5'	1:1A:783:A:N7	2.36	0.41
1:1A:858:U:O2	1:1A:2268:A:H2'	2.20	0.41
1:1A:871:U:H2'	1:1A:872:A:C8	2.56	0.41
1:1A:969:U:H2'	1:1A:970:C:C6	2.56	0.41
1:1A:990:A:C6	1:1A:1186:G:H1'	2.56	0.41
1:1A:1256:G:O2'	5:1F:75:HIS:HE1	2.04	0.41
1:1A:1405:U:H2'	1:1A:1406:U:H6	1.85	0.41
1:1A:1740:G:H2'	1:1A:1741:A:C8	2.56	0.41
1:1A:2356:C:H2'	1:1A:2357:U:O4'	2.21	0.41
1:1A:2684:U:C4	1:1A:2685:G:N7	2.89	0.41
2:1B:37:C:H2'	2:1B:38:C:O4'	2.21	0.41
3:1D:79:VAL:HG11	3:1D:111:LEU:HD13	2.03	0.41
4:1E:46:ALA:HB2	4:1E:82:ARG:HA	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1G:53:LEU:C	6:1G:55:LYS:N	2.79	0.41
11:1P:85:LEU:HD12	11:1P:116:GLY:HA2	2.01	0.41
11:1P:95:VAL:HG22	11:1P:125:VAL:HG22	2.02	0.41
12:1Q:34:LEU:HD11	12:1Q:129:THR:HB	2.03	0.41
15:1T:95:ARG:HA	15:1T:95:ARG:HD2	1.97	0.41
17:1V:29:PRO:HA	17:1V:61:VAL:HG12	2.03	0.41
19:1X:39:ILE:HD13	19:1X:79:ALA:HB2	2.01	0.41
21:1Z:20:ARG:C	21:1Z:22:GLY:H	2.29	0.41
22:10:40:GLN:OE1	22:10:44:ARG:HB2	2.21	0.41
25:13:18:ASP:OD1	25:13:19:GLN:N	2.53	0.41
26:14:59:PHE:C	26:14:61:ARG:HG3	2.46	0.41
32:1a:189(K):U:H2'	32:1a:189(L):G:C8	2.56	0.41
32:1a:191:G:N3	51:1t:103:GLY:HA3	2.36	0.41
32:1a:294:U:H2'	32:1a:295:C:C6	2.55	0.41
32:1a:404:U:H2'	32:1a:405:U:C6	2.56	0.41
32:1a:417:C:N4	32:1a:426:G:H1	2.18	0.41
32:1a:691:G:H1'	32:1a:696:A:N6	2.36	0.41
32:1a:730:G:H2'	32:1a:766:A:H5'	2.03	0.41
32:1a:909:A:H2'	32:1a:910:C:O4'	2.20	0.41
32:1a:1237:C:O2'	32:1a:1300:G:N1	2.44	0.41
32:1a:1305:G:OP2	52:1u:5:ASP:HB2	2.21	0.41
36:1e:41:VAL:HG13	36:1e:67:VAL:HG13	2.02	0.41
37:1f:76:ALA:O	37:1f:80:ARG:HG3	2.20	0.41
45:1n:21:TYR:HE1	45:1n:23:ARG:NE	2.19	0.41
1:2A:171:G:H2'	1:2A:172:C:C5	2.56	0.41
1:2A:248:G:OP1	62:2A:3880:HOH:O	2.21	0.41
1:2A:579:G:H2'	1:2A:580:C:H6	1.86	0.41
1:2A:631:A:H2'	1:2A:632:A:O4'	2.20	0.41
1:2A:741:G:O2'	1:2A:1676:A:OP1	2.31	0.41
1:2A:797:C:OP1	5:2F:60:SER:OG	2.31	0.41
1:2A:826:U:H5''	1:2A:2428:G:O3'	2.20	0.41
1:2A:1152:C:H4'	16:2U:77:SER:HA	2.03	0.41
1:2A:1362:C:HO2'	1:2A:1810:A:HO2'	1.64	0.41
1:2A:1459:G:H2'	1:2A:1461:G:H5'	2.03	0.41
1:2A:1470:G:N7	62:2A:4021:HOH:O	2.37	0.41
1:2A:1504:C:H2'	1:2A:1505:C:C6	2.56	0.41
1:2A:1656:C:H2'	1:2A:1657:C:H6	1.86	0.41
1:2A:1709:U:H2'	1:2A:1710:C:C6	2.56	0.41
1:2A:1971:A:C4	3:2D:241:PRO:HD3	2.55	0.41
1:2A:2022:U:O2'	1:2A:2617:C:H5'	2.21	0.41
1:2A:2091:U:OP2	1:2A:2092:U:O2'	2.29	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2126:A:H1'	1:2A:2127:G:OP2	2.21	0.41
1:2A:2250:G:O2'	1:2A:2496:C:OP1	2.16	0.41
1:2A:2315:G:H2'	1:2A:2316:C:C6	2.55	0.41
1:2A:2413:G:H2'	1:2A:2414:G:O4'	2.21	0.41
1:2A:2516:G:C6	1:2A:2517:C:C4	3.09	0.41
3:2D:53:PHE:HA	3:2D:218:ARG:HB2	2.03	0.41
3:2D:71:ASP:HB3	3:2D:103:ARG:HH22	1.86	0.41
3:2D:179:SER:O	3:2D:274:ARG:HB2	2.20	0.41
9:2N:90:MET:CE	9:2N:97:ARG:HD2	2.50	0.41
10:2O:29:ASN:OD1	10:2O:29:ASN:N	2.53	0.41
15:2T:42:ILE:O	15:2T:42:ILE:HG13	2.21	0.41
21:2Z:30:ASN:HA	21:2Z:89:PHE:HE1	1.85	0.41
21:2Z:132:ASN:ND2	21:2Z:160:GLY:HA3	2.35	0.41
21:2Z:145:GLU:N	21:2Z:148:ASP:OD1	2.52	0.41
23:21:23:LYS:HB2	23:21:23:LYS:HE3	1.79	0.41
25:23:7:LYS:HE3	25:23:32:GLN:HB3	2.03	0.41
26:24:57:GLU:HA	26:24:58:ARG:HA	1.81	0.41
32:2a:64:G:O6	32:2a:101:A:N6	2.54	0.41
32:2a:73:G:H1	32:2a:96:U:H3	1.69	0.41
32:2a:234:C:H2'	32:2a:235:C:H6	1.86	0.41
32:2a:458:C:H3'	32:2a:460:G:H8	1.85	0.41
32:2a:656:C:HO2'	46:2o:28:GLN:CD	2.25	0.41
32:2a:674:G:H8	32:2a:674:G:O5'	2.04	0.41
32:2a:881:G:H2'	32:2a:882:C:O4'	2.20	0.41
32:2a:977:A:O2'	32:2a:981:U:N3	2.54	0.41
32:2a:1041:A:C6	32:2a:1042:G:C5	3.09	0.41
32:2a:1151:A:O2'	32:2a:1152:A:H8	2.04	0.41
32:2a:1291:G:C6	32:2a:1292:U:C4	3.09	0.41
32:2a:1305:G:H5''	52:2u:4:GLY:C	2.46	0.41
32:2a:1324:A:H4'	32:2a:1362:C:O3'	2.21	0.41
33:2b:101:MET:HA	33:2b:108:ILE:HG13	2.01	0.41
33:2b:223:ILE:HA	33:2b:226:ARG:HB2	2.02	0.41
34:2c:131:ARG:NH2	36:2e:50:GLU:HG3	2.36	0.41
35:2d:4:TYR:O	35:2d:115:ARG:NH1	2.54	0.41
39:2h:112:LEU:HB3	39:2h:133:LEU:HA	2.02	0.41
42:2k:58:PRO:O	42:2k:62:GLN:N	2.48	0.41
46:2o:57:LEU:HD23	46:2o:57:LEU:HA	1.90	0.41
50:2s:3:ARG:NE	50:2s:10:PHE:HB2	2.36	0.41
1:1A:16:G:H5''	27:15:17:ASP:HB2	2.03	0.41
1:1A:118:A:H3'	1:1A:119:A:H5''	2.03	0.41
1:1A:265:A:O2'	1:1A:428:A:N6	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:382:G:O6	62:1A:4206:HOH:O	2.21	0.41
1:1A:528:A:O2'	1:1A:529:A:H5'	2.21	0.41
1:1A:571:A:O2'	17:1V:78:LYS:HE2	2.20	0.41
1:1A:1059:G:C6	1:1A:1060:U:C4	3.09	0.41
1:1A:1164:G:H2'	1:1A:1165:U:C6	2.56	0.41
1:1A:1422:G:H4'	1:1A:1493:C:OP1	2.21	0.41
1:1A:1435:G:H2'	1:1A:1436:G:O4'	2.20	0.41
1:1A:1789:A:H2'	1:1A:1790:C:O4'	2.21	0.41
1:1A:2116:G:H2'	1:1A:2117:A:C4	2.56	0.41
1:1A:2522:U:O2'	1:1A:2647:U:OP1	2.21	0.41
1:1A:2691:C:O3'	1:1A:2871:C:H4'	2.20	0.41
2:1B:30:C:H2'	2:1B:31:C:H5'	2.03	0.41
6:1G:107:LEU:HD13	6:1G:177:GLY:C	2.46	0.41
10:1O:16:ALA:HB2	10:1O:52:VAL:HG21	2.02	0.41
14:1S:24:LEU:HB2	14:1S:85:VAL:HG23	2.02	0.41
15:1T:54:ARG:HA	15:1T:59:THR:HG23	2.02	0.41
18:1W:37:ARG:HD3	18:1W:38:TYR:CE2	2.56	0.41
32:1a:458:C:H2'	32:1a:460:G:O4'	2.21	0.41
32:1a:983:A:H5''	32:1a:984:C:OP2	2.21	0.41
32:1a:1143:G:H2'	32:1a:1144:G:C8	2.54	0.41
38:1g:70:LYS:HB3	38:1g:96:GLN:HG2	2.03	0.41
40:1i:19:LEU:HB3	40:1i:59:PHE:CD1	2.56	0.41
48:1q:45:HIS:O	48:1q:73:VAL:HG23	2.21	0.41
51:1t:36:LEU:HD13	51:1t:58:LYS:HG3	2.03	0.41
51:1t:76:ALA:HA	51:1t:79:ARG:NH1	2.36	0.41
1:2A:311:A:C6	1:2A:328:U:C4	3.08	0.41
1:2A:848:G:C2	1:2A:933:A:H1'	2.56	0.41
1:2A:863:A:H2'	1:2A:864:G:C8	2.56	0.41
1:2A:1053:C:H4'	1:2A:1054:A:OP1	2.21	0.41
1:2A:1352:U:OP2	62:2A:3884:HOH:O	2.22	0.41
1:2A:1676:A:H2'	1:2A:1677:A:O4'	2.21	0.41
1:2A:2242:G:H2'	1:2A:2243:U:O4'	2.20	0.41
1:2A:2295:C:H5	14:2S:13:ARG:HH22	1.69	0.41
1:2A:2530:A:O2'	1:2A:2532:G:OP2	2.32	0.41
1:2A:2552:2MU:H6	1:2A:2552:2MU:O5'	2.21	0.41
1:2A:2590:A:H5''	3:2D:239:ARG:HG3	2.03	0.41
8:2I:62:LYS:NZ	8:2I:66:GLU:HB3	2.35	0.41
10:2O:119:PRO:HB2	15:2T:68:TYR:CD2	2.56	0.41
17:2V:25:LEU:HD12	17:2V:94:LEU:HD21	2.02	0.41
22:20:28:GLY:HA2	22:20:66:VAL:HG13	2.03	0.41
23:21:62:VAL:HG22	23:21:63:ALA:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:21:96:LYS:HB2	23:21:96:LYS:HE3	1.78	0.41
24:22:53:LEU:O	24:22:57:ILE:HG13	2.21	0.41
32:2a:813:U:H5''	32:2a:903:G:O3'	2.21	0.41
32:2a:814:A:H2'	32:2a:816:A:H5''	2.02	0.41
32:2a:942:G:C2	32:2a:1342:C:C2	3.08	0.41
32:2a:1374:A:O2'	38:2g:28:ASN:HB3	2.21	0.41
32:2a:1516:G:N1	32:2a:1519:MA6:OP2	2.55	0.41
33:2b:30:ARG:NH2	33:2b:194:PRO:HB2	2.36	0.41
34:2c:22:TRP:CB	34:2c:59:ARG:HB2	2.50	0.41
36:2e:50:GLU:HB2	36:2e:53:LEU:HD13	2.02	0.41
39:2h:50:ARG:HA	39:2h:59:LEU:HD23	2.02	0.41
41:2j:64:GLU:OE2	41:2j:66:ARG:NH1	2.47	0.41
49:2r:66:LEU:O	49:2r:70:ILE:HG13	2.20	0.41
1:1A:392:C:OP1	62:1A:4168:HOH:O	2.21	0.40
1:1A:523:C:H2'	1:1A:524:U:O4'	2.21	0.40
1:1A:556:G:H2'	1:1A:557:U:C6	2.56	0.40
1:1A:666:G:H1'	30:18:4:MET:HE3	2.04	0.40
1:1A:1325:G:OP1	1:1A:1647:G:O2'	2.21	0.40
4:1E:34:VAL:HG21	4:1E:78:LEU:HD21	2.03	0.40
32:1a:438:G:N1	32:1a:495:A:OP2	2.35	0.40
32:1a:756:C:H2'	32:1a:757:U:O4'	2.21	0.40
32:1a:840:C:H6	32:1a:840:C:OP2	2.03	0.40
32:1a:872:A:H2'	32:1a:872:A:N3	2.36	0.40
32:1a:965:A:O2'	53:1y:40:ILE:HG21	2.20	0.40
32:1a:1054:C:H4'	32:1a:1055:A:O5'	2.21	0.40
32:1a:1152:A:C6	32:1a:1153:C:C4	3.09	0.40
32:1a:1402:4OC:HM22	32:1a:1403:C:H5'	2.03	0.40
33:1b:136:VAL:HG13	33:1b:139:LYS:HD2	2.03	0.40
35:1d:155:LEU:HD12	35:1d:156:GLU:H	1.85	0.40
44:1m:89:GLY:O	44:1m:93:ARG:HG3	2.21	0.40
47:1p:36:ILE:HD12	47:1p:56:ALA:HB2	2.02	0.40
53:1y:6:THR:OG1	53:1y:38:HIS:HE1	2.05	0.40
1:2A:335:C:H5''	20:2Y:73:ARG:NH1	2.36	0.40
1:2A:574:C:N3	4:2E:145:LYS:NZ	2.65	0.40
1:2A:1015:G:H2'	1:2A:1016:G:C8	2.56	0.40
1:2A:2396:G:H4'	23:21:29:GLY:O	2.21	0.40
1:2A:2436:G:N3	1:2A:2598:A:H2	2.19	0.40
2:2B:70:C:H2'	2:2B:71:C:H6	1.86	0.40
8:2I:125:GLU:HA	8:2I:142:VAL:O	2.21	0.40
15:2T:46:GLU:O	15:2T:65:LYS:HD2	2.22	0.40
16:2U:80:ILE:HD13	16:2U:80:ILE:HA	1.91	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:2X:47:PHE:O	19:2X:49:VAL:HG13	2.21	0.40
25:23:16:PRO:HB2	25:23:18:ASP:OD1	2.21	0.40
32:2a:166:G:H2'	32:2a:167:G:C8	2.55	0.40
32:2a:246:A:N1	32:2a:278:G:O2'	2.51	0.40
32:2a:965:A:O2'	53:2y:40:ILE:HD12	2.21	0.40
32:2a:1012:U:H2'	32:2a:1013:G:O4'	2.21	0.40
32:2a:1124:G:H4'	32:2a:1125:U:OP1	2.21	0.40
32:2a:1178:G:N2	32:2a:1180:A:H3'	2.35	0.40
32:2a:1220:G:H2'	32:2a:1221:G:O4'	2.20	0.40
44:2m:80:ARG:NH1	44:2m:80:ARG:HB3	2.35	0.40
1:1A:58:G:O2'	1:1A:73:A:N1	2.52	0.40
1:1A:191:A:H2'	1:1A:192:C:C6	2.55	0.40
1:1A:278:A:H2'	1:1A:279:C:C6	2.56	0.40
1:1A:414:C:OP1	1:1A:1879:C:O2'	2.37	0.40
1:1A:523:C:H5''	1:1A:540:C:O2'	2.21	0.40
1:1A:754:C:H2'	1:1A:755:C:H6	1.87	0.40
1:1A:857:C:H1'	22:10:26:TYR:CE1	2.56	0.40
1:1A:1131:G:O6	1:1A:2040:C:H1'	2.21	0.40
1:1A:1889:A:N1	1:1A:2234:G:H1'	2.37	0.40
1:1A:2679:A:H4'	4:1E:165:VAL:HG11	2.03	0.40
9:1N:70:LYS:HD3	9:1N:87:LEU:HD22	2.02	0.40
11:1P:1:MET:SD	11:1P:5:ASP:HB2	2.62	0.40
18:1W:12:ILE:HD12	18:1W:42:ARG:HG2	2.02	0.40
18:1W:97:LYS:HE2	18:1W:99:ARG:NH2	2.36	0.40
32:1a:112:G:H22	32:1a:315:A:H2	1.68	0.40
32:1a:193:C:H2'	32:1a:194:C:C6	2.56	0.40
32:1a:279:A:N7	48:1q:98:LEU:HD23	2.35	0.40
32:1a:302:G:N3	32:1a:556:C:H4'	2.37	0.40
32:1a:381:C:H2'	32:1a:382:A:O4'	2.21	0.40
32:1a:472:A:H4'	47:1p:80:PHE:O	2.21	0.40
32:1a:925:G:H2'	32:1a:927:G:H5''	2.03	0.40
32:1a:1007:C:N3	32:1a:1022:G:O6	2.55	0.40
32:1a:1161:C:H2'	32:1a:1162:C:C6	2.56	0.40
34:1c:6:HIS:HD2	34:1c:8:ILE:H	1.67	0.40
42:1k:65:ALA:HB3	42:1k:97:ALA:HB3	2.03	0.40
42:1k:87:THR:O	42:1k:87:THR:OG1	2.35	0.40
48:1q:58:GLU:HG3	48:1q:77:VAL:HG21	2.03	0.40
1:2A:300:A:P	20:2Y:86:ARG:HH21	2.43	0.40
1:2A:373:U:H2'	1:2A:374:A:H8	1.86	0.40
1:2A:839:U:H2'	1:2A:840:C:C6	2.56	0.40
1:2A:856:C:O2'	1:2A:857:C:OP1	2.31	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1028:A:H2'	1:2A:1029:A:C8	2.56	0.40
1:2A:1341:U:O4'	19:2X:57:LEU:HD22	2.21	0.40
1:2A:1500:G:H21	3:2D:100:GLY:HA3	1.86	0.40
1:2A:1523:U:H2'	1:2A:1524:G:O4'	2.22	0.40
1:2A:1897:G:H2'	1:2A:1898:U:O4'	2.21	0.40
1:2A:2065:C:H2'	1:2A:2066:C:C6	2.55	0.40
1:2A:2273:A:O2'	1:2A:2274:A:H5'	2.21	0.40
1:2A:2695:C:H2'	1:2A:2696:U:H6	1.87	0.40
3:2D:77:ALA:HB2	3:2D:97:TYR:CZ	2.56	0.40
4:2E:93:VAL:HG12	4:2E:182:LEU:HD22	2.04	0.40
4:2E:176:ILE:HB	4:2E:181:LEU:HB2	2.03	0.40
6:2G:41:GLN:OE1	6:2G:56:ALA:HB1	2.21	0.40
6:2G:57:ALA:O	6:2G:61:ALA:N	2.54	0.40
8:2I:12:LEU:HD21	8:2I:25:TYR:HE2	1.86	0.40
8:2I:47:LEU:HD12	8:2I:47:LEU:HA	1.89	0.40
10:2O:78:ARG:NH2	15:2T:73:GLU:OE1	2.46	0.40
15:2T:25:GLY:N	15:2T:99:LEU:HD11	2.36	0.40
21:2Z:137:ILE:O	21:2Z:139:VAL:HG23	2.21	0.40
32:2a:457:C:H2'	32:2a:458:C:H6	1.86	0.40
32:2a:696:A:N1	32:2a:797:C:O2'	2.37	0.40
32:2a:831:U:H2'	32:2a:832:C:C6	2.56	0.40
32:2a:851:G:C6	32:2a:852:G:C6	3.09	0.40
32:2a:886:G:H4'	32:2a:915:A:H1'	2.03	0.40
32:2a:954:G:H2'	32:2a:955:U:C6	2.57	0.40
32:2a:1070:U:O2'	32:2a:1071:C:H5'	2.22	0.40
32:2a:1206:G:H2'	32:2a:1207:2MG:O4'	2.21	0.40
32:2a:1279:A:H2'	32:2a:1279:A:N3	2.36	0.40
34:2c:35:GLU:O	34:2c:39:ILE:HG13	2.21	0.40
35:2d:78:LEU:HD23	35:2d:78:LEU:HA	1.83	0.40
36:2e:74:GLY:O	36:2e:116:THR:N	2.48	0.40
1:1A:247:G:H5''	1:1A:386:G:O2'	2.21	0.40
1:1A:515:A:H2	1:1A:1260:G:N3	2.18	0.40
1:1A:817:C:H4'	1:1A:932:G:C5	2.56	0.40
1:1A:1311:G:N2	62:1A:4814:HOH:O	2.54	0.40
1:1A:1486:A:H2'	1:1A:1487:G:C8	2.56	0.40
1:1A:1814:G:C6	1:1A:1815:A:C6	3.09	0.40
1:1A:2017:U:O2	27:15:10:LYS:HB2	2.21	0.40
1:1A:2125:G:O2'	1:1A:2173:A:N6	2.54	0.40
1:1A:2705:A:H2'	1:1A:2706:G:O4'	2.21	0.40
1:1A:2705:A:O2'	1:1A:2852:G:OP1	2.35	0.40
1:1A:2838:G:C6	1:1A:2839:G:C5	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1E:111:ARG:HA	13:1R:1:MET:SD	2.61	0.40
13:1R:62:ALA:HA	13:1R:65:LEU:HD12	2.02	0.40
15:1T:23:ARG:HD2	15:1T:120:ARG:CZ	2.52	0.40
32:1a:253:U:H2'	32:1a:254:G:H8	1.86	0.40
32:1a:321:A:H2'	32:1a:322:C:C6	2.56	0.40
32:1a:1108:G:H5'	34:1c:176:HIS:CD2	2.56	0.40
32:1a:1318:A:OP1	50:1s:7:LYS:NZ	2.50	0.40
32:1a:1466:C:H2'	32:1a:1467:G:O4'	2.21	0.40
33:1b:67:THR:HA	33:1b:90:MET:SD	2.61	0.40
36:1e:144:THR:OG1	36:1e:147:ASP:OD1	2.29	0.40
48:1q:6:LEU:HG	48:1q:23:VAL:HG11	2.03	0.40
49:1r:23:LYS:HD2	49:1r:58:LEU:HD23	2.03	0.40
51:1t:67:ALA:HB2	51:1t:77:ALA:HB2	2.02	0.40
1:2A:247:G:N7	1:2A:249:C:C2	2.90	0.40
1:2A:620:G:H5'	1:2A:620:G:N3	2.37	0.40
1:2A:902:C:H2'	1:2A:903:C:C6	2.56	0.40
1:2A:1819:A:H2	3:2D:274:ARG:HD2	1.85	0.40
1:2A:2542:A:H4'	1:2A:2543:G:H8	1.84	0.40
1:2A:2863:C:H5''	32:2a:1442(A):G:O6	2.22	0.40
2:2B:73:A:C4	2:2B:105:A:C2	3.09	0.40
4:2E:50:GLY:HA2	4:2E:77:ILE:O	2.22	0.40
4:2E:72:VAL:HG12	4:2E:73:GLU:O	2.20	0.40
5:2F:110:LEU:O	5:2F:114:VAL:HG12	2.21	0.40
7:2H:13:LYS:HB3	7:2H:13:LYS:HE3	1.85	0.40
8:2I:102:SER:HA	8:2I:107:VAL:N	2.35	0.40
13:2R:83:ILE:O	13:2R:86:ARG:HG2	2.21	0.40
13:2R:117:VAL:HG12	13:2R:118:GLU:H	1.86	0.40
32:2a:124:G:H4'	32:2a:291:C:O2'	2.22	0.40
32:2a:189(L):G:H2'	32:2a:190:U:C6	2.55	0.40
32:2a:660:G:OP2	32:2a:660:G:H8	2.04	0.40
32:2a:674:G:H2'	32:2a:675:A:C8	2.57	0.40
32:2a:801:U:H2'	32:2a:802:A:C8	2.57	0.40
32:2a:1058:G:C5	32:2a:1059:C:C4	3.09	0.40
32:2a:1211:U:H4'	32:2a:1213:A:O4'	2.21	0.40
1:1A:201:C:O2'	1:1A:251:A:N1	2.51	0.40
1:1A:221:A:N1	1:1A:265:A:O2'	2.39	0.40
1:1A:224:G:H2'	1:1A:225:A:O4'	2.21	0.40
1:1A:1174:A:H4'	1:1A:1177:A:N6	2.36	0.40
1:1A:2141:G:C6	1:1A:2151:G:C5	3.10	0.40
1:1A:2573:C:N4	54:1w:75:C:O2'	2.55	0.40
1:1A:2728:U:H2'	1:1A:2729:G:C8	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:1A:6074:HOH:O	3:1D:229:VAL:HG22	2.20	0.40
4:1E:40:GLU:H	4:1E:40:GLU:CD	2.30	0.40
5:1F:65:TRP:CZ2	5:1F:75:HIS:HD2	2.39	0.40
11:1P:58:THR:HG21	30:18:54:GLU:HB3	2.04	0.40
15:1T:51:ARG:HG3	15:1T:98:LYS:HD2	2.04	0.40
21:1Z:116:VAL:O	21:1Z:174:VAL:HA	2.22	0.40
21:1Z:150:LEU:HD12	21:1Z:150:LEU:HA	1.73	0.40
23:11:23:LYS:HB3	23:11:29:GLY:HA3	2.03	0.40
32:1a:120:A:C6	32:1a:122:G:C2	3.10	0.40
32:1a:396:G:O2'	32:1a:398:C:OP1	2.34	0.40
32:1a:687:A:N1	32:1a:700:G:O2'	2.46	0.40
32:1a:872:A:C8	32:1a:874:G:C8	3.09	0.40
32:1a:995:C:N3	32:1a:1046:A:O2'	2.47	0.40
32:1a:1216:G:H5''	45:1n:5:ALA:HB2	2.04	0.40
33:1b:73:THR:HG23	33:1b:95:GLN:O	2.20	0.40
39:1h:5:PRO:HA	39:1h:8:ASP:HB3	2.02	0.40
1:2A:854:G:H2'	1:2A:855:G:C8	2.57	0.40
1:2A:1406:U:H2'	1:2A:1407:C:C6	2.56	0.40
1:2A:1580:A:OP2	1:2A:1580:A:H8	2.04	0.40
1:2A:1902:C:H5'	3:2D:246:PRO:HD3	2.03	0.40
1:2A:2104:G:N1	1:2A:2185:C:C4	2.89	0.40
1:2A:2278:A:O2'	21:2Z:199:LYS:HD2	2.21	0.40
1:2A:2424:C:O2	1:2A:2429:G:O2'	2.30	0.40
1:2A:2540:C:H2'	1:2A:2541:A:O4'	2.21	0.40
9:2N:120:LEU:HG	9:2N:122:VAL:HG23	2.04	0.40
12:2Q:41:TRP:HB3	12:2Q:94:VAL:HB	2.04	0.40
20:2Y:5:MET:HE1	20:2Y:32:PRO:HA	2.02	0.40
26:24:59:PHE:CB	26:24:61:ARG:HB2	2.51	0.40
32:2a:611:A:H8	32:2a:611:A:O5'	2.05	0.40
32:2a:878:G:H1'	39:2h:3:THR:HG21	2.04	0.40
32:2a:920:U:H2'	32:2a:921:U:H6	1.85	0.40
32:2a:1018:C:H2'	32:2a:1019:C:O4'	2.21	0.40
32:2a:1026:G:N3	32:2a:1026:G:H2'	2.36	0.40
32:2a:1095:U:P	32:2a:1108:G:H1	2.45	0.40
32:2a:1226:C:C5	44:2m:104:ARG:HA	2.57	0.40
32:2a:1307:U:H2'	32:2a:1308:U:C6	2.57	0.40
32:2a:1479:C:H2'	32:2a:1480:G:H8	1.86	0.40
32:2a:1511:G:C6	32:2a:1512:U:C4	3.09	0.40
35:2d:31:CYS:SG	35:2d:33:MET:HB2	2.61	0.40
36:2e:77:PRO:HG2	36:2e:78:HIS:HD2	1.86	0.40
37:2f:10:LEU:HB2	37:2f:59:TYR:HB3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:2h:19:VAL:HG23	39:2h:21:LYS:HD2	2.04	0.40
50:2s:3:ARG:CZ	50:2s:10:PHE:HB2	2.52	0.40
1:1A:944:G:H5''	1:1A:945:A:O5'	2.22	0.40
1:1A:965:C:OP2	62:1A:4208:HOH:O	2.22	0.40
1:1A:1062:G:H1'	1:1A:1088:A:C8	2.57	0.40
1:1A:1265:A:H5'	1:1A:1267:U:H1'	2.03	0.40
1:1A:1417:C:H3'	62:1A:4323:HOH:O	2.21	0.40
1:1A:1510:G:H2'	1:1A:1511:C:C6	2.57	0.40
1:1A:1796:U:H2'	1:1A:1797:C:H6	1.82	0.40
1:1A:2038:G:H2'	1:1A:2039:C:O4'	2.21	0.40
1:1A:2504:U:H6	1:1A:2504:U:O5'	2.05	0.40
1:1A:2749:A:H1'	7:1H:63:SER:OG	2.22	0.40
1:1A:2820:A:OP2	13:1R:2:ARG:NH2	2.54	0.40
2:1B:11:C:H3'	2:1B:12:C:H6	1.84	0.40
3:1D:245:PRO:HA	3:1D:246:PRO:HD3	1.96	0.40
10:1O:9:GLU:OE2	10:1O:18:LYS:HE2	2.22	0.40
14:1S:20:ARG:HA	14:1S:20:ARG:HD2	1.94	0.40
15:1T:42:ILE:HD13	15:1T:84:GLN:OE1	2.22	0.40
21:1Z:98:MET:HE3	21:1Z:98:MET:HB2	1.99	0.40
32:1a:302:G:C6	32:1a:303:A:C5	3.09	0.40
32:1a:437:U:C5'	35:1d:155:LEU:HD11	2.52	0.40
32:1a:1026:G:N3	32:1a:1026:G:H2'	2.36	0.40
32:1a:1072:G:C5	32:1a:1073:U:C4	3.09	0.40
32:1a:1124:G:N7	32:1a:1145:C:O2'	2.53	0.40
32:1a:1245:A:H2'	32:1a:1246:C:C6	2.57	0.40
33:1b:118:LEU:HD11	33:1b:141:GLU:OE1	2.21	0.40
34:1c:190:ARG:HB2	34:1c:190:ARG:NH2	2.37	0.40
35:1d:102:ASP:OD1	35:1d:103:ASN:N	2.54	0.40
37:1f:23:LYS:NZ	37:1f:23:LYS:HB3	2.36	0.40
40:1i:17:VAL:HA	40:1i:63:ILE:HA	2.02	0.40
40:1i:36:TYR:O	40:1i:70:LYS:NZ	2.53	0.40
44:1m:15:VAL:HG23	44:1m:41:PRO:HA	2.03	0.40
1:2A:14:A:N6	1:2A:15:G:C2	2.89	0.40
1:2A:818:G:H4'	1:2A:838:C:O3'	2.21	0.40
1:2A:904:C:H2'	1:2A:905:U:C6	2.56	0.40
1:2A:935:C:H2'	1:2A:936:C:C6	2.56	0.40
1:2A:962:G:H2'	1:2A:963:U:C6	2.56	0.40
1:2A:1092:C:H6	1:2A:1092:C:OP1	2.04	0.40
1:2A:1108:U:H2'	1:2A:1109:C:H6	1.86	0.40
1:2A:1187:G:N2	1:2A:1188:U:O4	2.54	0.40
1:2A:1203:G:C6	1:2A:1204:A:C6	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1252:G:O2'	1:2A:1253:A:C8	2.75	0.40
1:2A:1266:G:O2'	1:2A:2012:G:O6	2.32	0.40
1:2A:1491:G:H2'	1:2A:1492:G:H8	1.85	0.40
1:2A:2447:G:N2	1:2A:2450:A:OP2	2.55	0.40
1:2A:2712:U:O2'	1:2A:2713:A:H5'	2.22	0.40
3:2D:36:PRO:HA	3:2D:61:LEU:HD23	2.02	0.40
4:2E:9:VAL:HG13	15:2T:3:ARG:HG2	2.03	0.40
4:2E:31:CYS:HB3	4:2E:49:LEU:HB3	2.03	0.40
4:2E:101:ARG:NH2	4:2E:171:GLU:HB2	2.36	0.40
6:2G:124:SER:HB2	6:2G:131:TYR:CE1	2.56	0.40
12:2Q:82:ARG:CZ	22:20:4:LYS:HE3	2.51	0.40
15:2T:11:GLU:O	15:2T:15:VAL:HG23	2.21	0.40
16:2U:24:TYR:HB2	16:2U:29:SER:HB3	2.04	0.40
16:2U:92:ARG:HA	16:2U:95:LEU:HB2	2.03	0.40
16:2U:105:VAL:HG11	17:2V:39:LEU:HD21	2.03	0.40
23:21:94:LEU:HD23	23:21:94:LEU:HA	1.84	0.40
32:2a:380:G:C2	32:2a:384:G:C6	3.10	0.40
32:2a:624:C:H4'	47:2p:10:GLY:C	2.46	0.40
32:2a:1241:G:H2'	32:2a:1242:C:C6	2.57	0.40
34:2c:181:ASN:ND2	34:2c:181:ASN:O	2.53	0.40
35:2d:114:ARG:O	35:2d:118:ARG:N	2.54	0.40
40:2i:9:ARG:HB3	40:2i:14:VAL:HG12	2.03	0.40
44:2m:23:TYR:O	44:2m:66:LEU:HB3	2.22	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	1D	273/276 (99%)	257 (94%)	16 (6%)	0	100	100
3	2D	273/276 (99%)	251 (92%)	22 (8%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	1E	202/206 (98%)	189 (94%)	12 (6%)	1 (0%)	24	39
4	2E	202/206 (98%)	193 (96%)	8 (4%)	1 (0%)	24	39
5	1F	201/210 (96%)	194 (96%)	6 (3%)	1 (0%)	24	39
5	2F	201/210 (96%)	193 (96%)	7 (4%)	1 (0%)	24	39
6	1G	179/182 (98%)	158 (88%)	17 (10%)	4 (2%)	5	9
6	2G	179/182 (98%)	155 (87%)	22 (12%)	2 (1%)	11	19
7	1H	172/180 (96%)	156 (91%)	14 (8%)	2 (1%)	10	17
7	2H	171/180 (95%)	145 (85%)	22 (13%)	4 (2%)	5	8
8	1I	145/148 (98%)	129 (89%)	14 (10%)	2 (1%)	9	14
8	2I	144/148 (97%)	126 (88%)	14 (10%)	4 (3%)	4	6
9	1N	138/140 (99%)	132 (96%)	6 (4%)	0	100	100
9	2N	138/140 (99%)	132 (96%)	6 (4%)	0	100	100
10	1O	120/122 (98%)	111 (92%)	9 (8%)	0	100	100
10	2O	120/122 (98%)	110 (92%)	9 (8%)	1 (1%)	16	27
11	1P	147/150 (98%)	138 (94%)	8 (5%)	1 (1%)	18	30
11	2P	147/150 (98%)	136 (92%)	9 (6%)	2 (1%)	9	14
12	1Q	139/141 (99%)	133 (96%)	6 (4%)	0	100	100
12	2Q	139/141 (99%)	133 (96%)	5 (4%)	1 (1%)	18	30
13	1R	116/118 (98%)	111 (96%)	5 (4%)	0	100	100
13	2R	116/118 (98%)	109 (94%)	7 (6%)	0	100	100
14	1S	108/112 (96%)	99 (92%)	8 (7%)	1 (1%)	14	24
14	2S	108/112 (96%)	98 (91%)	10 (9%)	0	100	100
15	1T	129/146 (88%)	123 (95%)	5 (4%)	1 (1%)	16	27
15	2T	129/146 (88%)	119 (92%)	8 (6%)	2 (2%)	7	12
16	1U	114/118 (97%)	114 (100%)	0	0	100	100
16	2U	114/118 (97%)	112 (98%)	2 (2%)	0	100	100
17	1V	99/101 (98%)	90 (91%)	7 (7%)	2 (2%)	6	10
17	2V	99/101 (98%)	87 (88%)	11 (11%)	1 (1%)	12	20
18	1W	110/113 (97%)	108 (98%)	2 (2%)	0	100	100
18	2W	110/113 (97%)	108 (98%)	2 (2%)	0	100	100
19	1X	93/96 (97%)	90 (97%)	2 (2%)	1 (1%)	11	19

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
19	2X	93/96 (97%)	87 (94%)	5 (5%)	1 (1%)	11	19
20	1Y	105/110 (96%)	96 (91%)	7 (7%)	2 (2%)	6	10
20	2Y	105/110 (96%)	96 (91%)	9 (9%)	0	100	100
21	1Z	201/206 (98%)	184 (92%)	16 (8%)	1 (0%)	24	39
21	2Z	199/206 (97%)	177 (89%)	19 (10%)	3 (2%)	8	13
22	10	81/85 (95%)	77 (95%)	4 (5%)	0	100	100
22	20	81/85 (95%)	73 (90%)	7 (9%)	1 (1%)	10	17
23	11	95/98 (97%)	91 (96%)	4 (4%)	0	100	100
23	21	95/98 (97%)	90 (95%)	5 (5%)	0	100	100
24	12	68/72 (94%)	67 (98%)	1 (2%)	0	100	100
24	22	68/72 (94%)	64 (94%)	4 (6%)	0	100	100
25	13	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
25	23	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
26	14	67/71 (94%)	49 (73%)	15 (22%)	3 (4%)	2	2
26	24	67/71 (94%)	45 (67%)	19 (28%)	3 (4%)	2	2
27	15	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
27	25	57/60 (95%)	53 (93%)	4 (7%)	0	100	100
28	16	51/54 (94%)	48 (94%)	3 (6%)	0	100	100
28	26	51/54 (94%)	47 (92%)	4 (8%)	0	100	100
29	17	46/49 (94%)	44 (96%)	2 (4%)	0	100	100
29	27	46/49 (94%)	45 (98%)	1 (2%)	0	100	100
30	18	62/65 (95%)	62 (100%)	0	0	100	100
30	28	62/65 (95%)	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	229/256 (90%)	185 (81%)	34 (15%)	10 (4%)	2	2
33	2b	229/256 (90%)	186 (81%)	36 (16%)	7 (3%)	3	5
34	1c	204/239 (85%)	181 (89%)	21 (10%)	2 (1%)	12	20
34	2c	204/239 (85%)	181 (89%)	21 (10%)	2 (1%)	12	20
35	1d	206/209 (99%)	192 (93%)	14 (7%)	0	100	100
35	2d	206/209 (99%)	197 (96%)	9 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
36	1e	146/162 (90%)	136 (93%)	8 (6%)	2 (1%)	9	14
36	2e	146/162 (90%)	139 (95%)	7 (5%)	0	100	100
37	1f	98/101 (97%)	94 (96%)	4 (4%)	0	100	100
37	2f	98/101 (97%)	93 (95%)	5 (5%)	0	100	100
38	1g	153/156 (98%)	144 (94%)	9 (6%)	0	100	100
38	2g	153/156 (98%)	137 (90%)	16 (10%)	0	100	100
39	1h	135/138 (98%)	128 (95%)	7 (5%)	0	100	100
39	2h	135/138 (98%)	124 (92%)	9 (7%)	2 (2%)	8	13
40	1i	125/128 (98%)	113 (90%)	10 (8%)	2 (2%)	7	12
40	2i	124/128 (97%)	102 (82%)	21 (17%)	1 (1%)	16	27
41	1j	95/105 (90%)	79 (83%)	11 (12%)	5 (5%)	1	2
41	2j	94/105 (90%)	81 (86%)	10 (11%)	3 (3%)	3	4
42	1k	112/129 (87%)	105 (94%)	6 (5%)	1 (1%)	14	24
42	2k	112/129 (87%)	104 (93%)	6 (5%)	2 (2%)	6	11
43	1l	119/132 (90%)	110 (92%)	7 (6%)	2 (2%)	7	12
43	2l	119/132 (90%)	108 (91%)	9 (8%)	2 (2%)	7	12
44	1m	114/126 (90%)	100 (88%)	11 (10%)	3 (3%)	4	6
44	2m	112/126 (89%)	100 (89%)	11 (10%)	1 (1%)	14	24
45	1n	58/61 (95%)	55 (95%)	3 (5%)	0	100	100
45	2n	58/61 (95%)	54 (93%)	4 (7%)	0	100	100
46	1o	86/89 (97%)	75 (87%)	11 (13%)	0	100	100
46	2o	86/89 (97%)	81 (94%)	5 (6%)	0	100	100
47	1p	80/88 (91%)	69 (86%)	9 (11%)	2 (2%)	4	7
47	2p	80/88 (91%)	70 (88%)	10 (12%)	0	100	100
48	1q	97/105 (92%)	92 (95%)	5 (5%)	0	100	100
48	2q	97/105 (92%)	91 (94%)	6 (6%)	0	100	100
49	1r	66/88 (75%)	64 (97%)	2 (3%)	0	100	100
49	2r	66/88 (75%)	62 (94%)	3 (4%)	1 (2%)	8	13
50	1s	81/93 (87%)	74 (91%)	6 (7%)	1 (1%)	10	17
50	2s	81/93 (87%)	70 (86%)	10 (12%)	1 (1%)	10	17
51	1t	94/106 (89%)	89 (95%)	4 (4%)	1 (1%)	11	19

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
51	2t	96/106 (91%)	88 (92%)	5 (5%)	3 (3%)	3	5
52	1u	21/27 (78%)	20 (95%)	1 (5%)	0	100	100
52	2u	21/27 (78%)	19 (90%)	2 (10%)	0	100	100
53	1y	95/113 (84%)	93 (98%)	1 (1%)	1 (1%)	11	19
53	2y	94/113 (83%)	82 (87%)	11 (12%)	1 (1%)	11	19
56	1v	1/3 (33%)	1 (100%)	0	0	100	100
56	2v	1/3 (33%)	1 (100%)	0	0	100	100
All	All	11643/12360 (94%)	10696 (92%)	840 (7%)	107 (1%)	14	24

All (107) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	1F	130	ALA
6	1G	50	ALA
7	1H	159	GLU
26	14	47	GLN
33	1b	17	PHE
33	1b	21	ARG
33	1b	127	ILE
36	1e	96	PRO
43	1l	91	LYS
44	1m	67	GLU
44	1m	106	ASN
5	2F	130	ALA
6	2G	96	ARG
15	2T	128	GLU
33	2b	10	LEU
33	2b	21	ARG
40	2i	54	ASP
43	2l	91	LYS
44	2m	67	GLU
6	1G	47	LYS
8	1I	86	THR
17	1V	79	VAL
19	1X	94	GLY
21	1Z	52	SER
26	14	39	CYS
36	1e	97	GLY
41	1j	55	LYS
42	1k	105	VAL

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Mol	Chain	Res	Type
7	2H	126	PRO
10	2O	5	GLN
15	2T	127	ALA
21	2Z	77	ASP
34	2c	79	ARG
34	2c	99	VAL
39	2h	50	ARG
41	2j	79	ARG
51	2t	47	GLY
11	1P	29	LYS
14	1S	94	TYR
26	14	44	THR
33	1b	8	LYS
33	1b	20	GLU
33	1b	129	GLU
33	1b	135	GLN
40	1i	11	LYS
53	1y	97	ALA
6	2G	117	PHE
11	2P	29	LYS
17	2V	100	ARG
33	2b	9	GLU
33	2b	20	GLU
39	2h	133	LEU
49	2r	36	ASN
4	1E	52	LEU
8	1I	73	GLU
33	1b	37	ASN
33	1b	232	PRO
41	1j	78	ASN
44	1m	99	ARG
47	1p	28	ARG
47	1p	81	ARG
51	1t	100	ILE
4	2E	52	LEU
7	2H	65	HIS
8	2I	97	ILE
19	2X	94	GLY
22	20	4	LYS
26	24	55	ARG
33	2b	34	ALA
33	2b	211	ILE

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Mol	Chain	Res	Type
41	2j	55	LYS
42	2k	15	ALA
42	2k	104	GLN
50	2s	29	ARG
53	2y	15	ALA
7	1H	126	PRO
20	1Y	78	ALA
20	1Y	101	LYS
40	1i	107	ARG
41	1j	77	PRO
8	2I	85	GLU
8	2I	117	GLU
21	2Z	52	SER
43	2l	105	TYR
51	2t	100	ILE
41	1j	79	ARG
43	1l	74	GLY
8	2I	77	LEU
12	2Q	60	ARG
33	2b	125	PRO
41	2j	75	ILE
15	1T	37	GLY
7	2H	12	PRO
51	2t	102	GLY
34	1c	81	GLY
41	1j	91	PRO
7	2H	128	PRO
21	2Z	194	PRO
26	24	56	VAL
6	1G	44	GLY
34	1c	174	PRO
50	1s	26	GLY
6	1G	52	ILE
17	1V	61	VAL
11	2P	122	PRO
26	24	50	VAL
33	1b	125	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	214/218 (98%)	201 (94%)	13 (6%)	17	30
3	2D	215/218 (99%)	195 (91%)	20 (9%)	8	13
4	1E	164/166 (99%)	156 (95%)	8 (5%)	22	38
4	2E	164/166 (99%)	155 (94%)	9 (6%)	19	33
5	1F	160/166 (96%)	140 (88%)	20 (12%)	4	6
5	2F	159/166 (96%)	140 (88%)	19 (12%)	5	7
6	1G	144/156 (92%)	129 (90%)	15 (10%)	7	10
6	2G	142/156 (91%)	119 (84%)	23 (16%)	2	3
7	1H	144/148 (97%)	134 (93%)	10 (7%)	14	24
7	2H	143/148 (97%)	127 (89%)	16 (11%)	6	8
8	1I	111/124 (90%)	97 (87%)	14 (13%)	4	6
8	2I	108/124 (87%)	88 (82%)	20 (18%)	1	2
9	1N	119/119 (100%)	108 (91%)	11 (9%)	8	14
9	2N	118/119 (99%)	110 (93%)	8 (7%)	14	25
10	1O	100/100 (100%)	92 (92%)	8 (8%)	11	19
10	2O	100/100 (100%)	95 (95%)	5 (5%)	22	37
11	1P	115/116 (99%)	107 (93%)	8 (7%)	14	24
11	2P	115/116 (99%)	104 (90%)	11 (10%)	8	12
12	1Q	111/111 (100%)	106 (96%)	5 (4%)	24	42
12	2Q	111/111 (100%)	105 (95%)	6 (5%)	20	35
13	1R	101/101 (100%)	95 (94%)	6 (6%)	18	30
13	2R	101/101 (100%)	96 (95%)	5 (5%)	22	37
14	1S	87/88 (99%)	79 (91%)	8 (9%)	8	14
14	2S	85/88 (97%)	74 (87%)	11 (13%)	4	6
15	1T	115/127 (91%)	110 (96%)	5 (4%)	26	44
15	2T	113/127 (89%)	104 (92%)	9 (8%)	11	19
16	1U	93/94 (99%)	86 (92%)	7 (8%)	12	21
16	2U	93/94 (99%)	88 (95%)	5 (5%)	20	35
17	1V	81/82 (99%)	76 (94%)	5 (6%)	16	29

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
17	2V	80/82 (98%)	72 (90%)	8 (10%)	7	11
18	1W	90/92 (98%)	82 (91%)	8 (9%)	9	15
18	2W	90/92 (98%)	80 (89%)	10 (11%)	6	9
19	1X	77/78 (99%)	72 (94%)	5 (6%)	15	27
19	2X	77/78 (99%)	75 (97%)	2 (3%)	40	63
20	1Y	86/91 (94%)	75 (87%)	11 (13%)	4	6
20	2Y	86/91 (94%)	81 (94%)	5 (6%)	18	31
21	1Z	169/179 (94%)	156 (92%)	13 (8%)	12	20
21	2Z	165/179 (92%)	144 (87%)	21 (13%)	4	6
22	10	65/67 (97%)	61 (94%)	4 (6%)	16	29
22	20	64/67 (96%)	60 (94%)	4 (6%)	16	29
23	11	79/83 (95%)	76 (96%)	3 (4%)	29	49
23	21	81/83 (98%)	73 (90%)	8 (10%)	7	11
24	12	65/67 (97%)	62 (95%)	3 (5%)	24	41
24	22	66/67 (98%)	56 (85%)	10 (15%)	3	4
25	13	51/52 (98%)	50 (98%)	1 (2%)	48	69
25	23	50/52 (96%)	45 (90%)	5 (10%)	7	11
26	14	58/63 (92%)	50 (86%)	8 (14%)	3	5
26	24	54/63 (86%)	46 (85%)	8 (15%)	3	4
27	15	51/52 (98%)	45 (88%)	6 (12%)	5	7
27	25	50/52 (96%)	46 (92%)	4 (8%)	11	19
28	16	51/52 (98%)	47 (92%)	4 (8%)	11	20
28	26	50/52 (96%)	44 (88%)	6 (12%)	5	7
29	17	41/42 (98%)	39 (95%)	2 (5%)	22	38
29	27	41/42 (98%)	39 (95%)	2 (5%)	22	38
30	18	54/55 (98%)	51 (94%)	3 (6%)	19	32
30	28	54/55 (98%)	50 (93%)	4 (7%)	13	21
31	19	34/34 (100%)	31 (91%)	3 (9%)	9	15
31	29	34/34 (100%)	32 (94%)	2 (6%)	18	30
33	1b	191/220 (87%)	171 (90%)	20 (10%)	6	10
33	2b	187/220 (85%)	164 (88%)	23 (12%)	4	7

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
34	1c	144/188 (77%)	129 (90%)	15 (10%)	7	10
34	2c	140/188 (74%)	124 (89%)	16 (11%)	5	8
35	1d	171/181 (94%)	154 (90%)	17 (10%)	7	11
35	2d	172/181 (95%)	160 (93%)	12 (7%)	14	24
36	1e	114/123 (93%)	105 (92%)	9 (8%)	11	19
36	2e	114/123 (93%)	100 (88%)	14 (12%)	4	7
37	1f	85/90 (94%)	77 (91%)	8 (9%)	8	13
37	2f	85/90 (94%)	81 (95%)	4 (5%)	23	40
38	1g	120/127 (94%)	109 (91%)	11 (9%)	8	14
38	2g	119/127 (94%)	106 (89%)	13 (11%)	6	9
39	1h	116/119 (98%)	105 (90%)	11 (10%)	8	13
39	2h	114/119 (96%)	101 (89%)	13 (11%)	5	8
40	1i	91/99 (92%)	78 (86%)	13 (14%)	3	4
40	2i	88/99 (89%)	77 (88%)	11 (12%)	4	6
41	1j	68/92 (74%)	58 (85%)	10 (15%)	3	4
41	2j	68/92 (74%)	60 (88%)	8 (12%)	5	7
42	1k	83/99 (84%)	76 (92%)	7 (8%)	10	17
42	2k	83/99 (84%)	75 (90%)	8 (10%)	8	12
43	1l	96/108 (89%)	94 (98%)	2 (2%)	47	69
43	2l	96/108 (89%)	94 (98%)	2 (2%)	47	69
44	1m	90/101 (89%)	83 (92%)	7 (8%)	11	20
44	2m	87/101 (86%)	79 (91%)	8 (9%)	8	14
45	1n	49/50 (98%)	45 (92%)	4 (8%)	10	18
45	2n	49/50 (98%)	45 (92%)	4 (8%)	10	18
46	1o	78/80 (98%)	73 (94%)	5 (6%)	16	28
46	2o	78/80 (98%)	74 (95%)	4 (5%)	21	36
47	1p	69/74 (93%)	62 (90%)	7 (10%)	7	11
47	2p	68/74 (92%)	62 (91%)	6 (9%)	9	15
48	1q	94/97 (97%)	87 (93%)	7 (7%)	13	21
48	2q	94/97 (97%)	86 (92%)	8 (8%)	10	17
49	1r	59/77 (77%)	56 (95%)	3 (5%)	21	36

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
49	2r	59/77 (77%)	57 (97%)	2 (3%)	32	53
50	1s	68/80 (85%)	63 (93%)	5 (7%)	13	21
50	2s	67/80 (84%)	54 (81%)	13 (19%)	1	2
51	1t	71/82 (87%)	64 (90%)	7 (10%)	7	11
51	2t	70/82 (85%)	65 (93%)	5 (7%)	13	23
52	1u	18/22 (82%)	15 (83%)	3 (17%)	2	3
52	2u	18/22 (82%)	15 (83%)	3 (17%)	2	3
53	1y	82/98 (84%)	79 (96%)	3 (4%)	30	50
53	2y	79/98 (81%)	73 (92%)	6 (8%)	12	21
56	1v	1/1 (100%)	1 (100%)	0	100	100
56	2v	1/1 (100%)	1 (100%)	0	100	100
All	All	9533/10262 (93%)	8693 (91%)	840 (9%)	9	15

All (840) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	3	VAL
3	1D	71	ASP
3	1D	99	ASP
3	1D	106	ILE
3	1D	111	LEU
3	1D	136	ILE
3	1D	141	VAL
3	1D	183	ARG
3	1D	193	VAL
3	1D	211	ARG
3	1D	212	SER
3	1D	229	VAL
3	1D	242	ARG
4	1E	45	THR
4	1E	59	VAL
4	1E	75	VAL
4	1E	116	VAL
4	1E	181	LEU
4	1E	184	VAL
4	1E	188	VAL
4	1E	197	ILE
5	1F	12	LEU

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Mol	Chain	Res	Type
5	1F	18	ARG
5	1F	53	THR
5	1F	57	VAL
5	1F	74	ARG
5	1F	78	ILE
5	1F	108	LYS
5	1F	110	LEU
5	1F	119	ARG
5	1F	120	GLU
5	1F	158	THR
5	1F	162	LEU
5	1F	170	LEU
5	1F	183	VAL
5	1F	189	THR
5	1F	192	LEU
5	1F	194	MET
5	1F	200	GLU
5	1F	201	VAL
5	1F	204	ASN
6	1G	5	VAL
6	1G	21	ARG
6	1G	28	VAL
6	1G	31	VAL
6	1G	38	VAL
6	1G	43	LEU
6	1G	45	GLU
6	1G	49	ASP
6	1G	53	LEU
6	1G	79	ASN
6	1G	88	ILE
6	1G	126	ASP
6	1G	139	LEU
6	1G	144	ILE
6	1G	172	LEU
7	1H	18	GLU
7	1H	23	ARG
7	1H	24	VAL
7	1H	86	GLU
7	1H	101	ARG
7	1H	106	THR
7	1H	124	GLU
7	1H	127	GLU

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Mol	Chain	Res	Type
7	1H	130	ARG
7	1H	172	LYS
8	1I	5	LEU
8	1I	10	GLU
8	1I	12	LEU
8	1I	40	THR
8	1I	42	SER
8	1I	60	GLU
8	1I	66	GLU
8	1I	74	ASN
8	1I	78	THR
8	1I	85	GLU
8	1I	92	VAL
8	1I	101	LEU
8	1I	109	ILE
8	1I	140	LEU
9	1N	7	LYS
9	1N	14	VAL
9	1N	33	LEU
9	1N	48	MET
9	1N	60	ILE
9	1N	65	LYS
9	1N	68	GLU
9	1N	71	ILE
9	1N	73	THR
9	1N	85	ILE
9	1N	133	GLN
10	1O	28	SER
10	1O	31	LYS
10	1O	53	LYS
10	1O	86	ILE
10	1O	94	ARG
10	1O	97	ARG
10	1O	98	VAL
10	1O	108	GLU
11	1P	65	ARG
11	1P	75	ILE
11	1P	95	VAL
11	1P	98	GLU
11	1P	105	LEU
11	1P	135	LEU
11	1P	148	LEU

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Mol	Chain	Res	Type
11	1P	149	GLU
12	1Q	7	MET
12	1Q	42	ILE
12	1Q	75	THR
12	1Q	109	VAL
12	1Q	133	ARG
13	1R	6	SER
13	1R	15	SER
13	1R	29	LEU
13	1R	36	THR
13	1R	49	ASP
13	1R	102	GLU
14	1S	3	ARG
14	1S	27	SER
14	1S	46	VAL
14	1S	50	SER
14	1S	52	SER
14	1S	59	LYS
14	1S	85	VAL
14	1S	110	LEU
15	1T	28	VAL
15	1T	34	VAL
15	1T	49	VAL
15	1T	82	LEU
15	1T	128	GLU
16	1U	5	LYS
16	1U	30	LYS
16	1U	31	SER
16	1U	74	LEU
16	1U	83	LEU
16	1U	100	VAL
16	1U	117	GLN
17	1V	35	LEU
17	1V	73	SER
17	1V	79	VAL
17	1V	82	ARG
17	1V	95	LEU
18	1W	11	ARG
18	1W	15	ARG
18	1W	17	VAL
18	1W	19	LEU
18	1W	21	VAL

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Mol	Chain	Res	Type
18	1W	49	LYS
18	1W	59	VAL
18	1W	100	THR
19	1X	60	ARG
19	1X	66	LEU
19	1X	68	ARG
19	1X	72	LYS
19	1X	88	LYS
20	1Y	4	LYS
20	1Y	7	VAL
20	1Y	43	ASN
20	1Y	72	VAL
20	1Y	73	ARG
20	1Y	75	ILE
20	1Y	85	VAL
20	1Y	90	LEU
20	1Y	92	ASN
20	1Y	106	LEU
20	1Y	107	ASP
21	1Z	14	LYS
21	1Z	33	LEU
21	1Z	42	VAL
21	1Z	55	HIS
21	1Z	94	GLU
21	1Z	102	LEU
21	1Z	126	VAL
21	1Z	149	SER
21	1Z	150	LEU
21	1Z	155	LEU
21	1Z	169	GLU
21	1Z	175	VAL
21	1Z	185	GLU
22	10	9	SER
22	10	55	ARG
22	10	68	GLU
22	10	82	ARG
23	11	21	ARG
23	11	40	ARG
23	11	46	LEU
24	12	19	VAL
24	12	30	ARG
24	12	40	SER

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Mol	Chain	Res	Type
25	13	54	VAL
26	14	21	VAL
26	14	28	LYS
26	14	46	GLN
26	14	49	PHE
26	14	52	THR
26	14	58	ARG
26	14	61	ARG
26	14	68	ARG
27	15	6	VAL
27	15	26	THR
27	15	35	GLU
27	15	55	ARG
27	15	58	LEU
27	15	60	VAL
28	16	5	VAL
28	16	9	LEU
28	16	45	LYS
28	16	52	VAL
29	17	41	ARG
29	17	43	THR
30	18	14	VAL
30	18	26	LYS
30	18	29	LYS
31	19	4	ARG
31	19	10	ILE
31	19	17	ILE
33	1b	8	LYS
33	1b	9	GLU
33	1b	39	ILE
33	1b	40	HIS
33	1b	48	MET
33	1b	58	ILE
33	1b	63	MET
33	1b	102	LEU
33	1b	106	LYS
33	1b	112	VAL
33	1b	124	SER
33	1b	135	GLN
33	1b	144	ARG
33	1b	168	THR
33	1b	185	ILE

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Mol	Chain	Res	Type
33	1b	200	ILE
33	1b	208	ILE
33	1b	223	ILE
33	1b	229	VAL
33	1b	231	GLU
34	1c	3	ASN
34	1c	15	THR
34	1c	20	SER
34	1c	64	VAL
34	1c	70	VAL
34	1c	89	GLU
34	1c	91	LEU
34	1c	98	ASN
34	1c	102	ASN
34	1c	104	GLN
34	1c	105	GLU
34	1c	115	LEU
34	1c	150	LYS
34	1c	195	VAL
34	1c	202	ILE
35	1d	8	VAL
35	1d	17	VAL
35	1d	19	LEU
35	1d	34	GLU
35	1d	59	ARG
35	1d	67	ILE
35	1d	70	ILE
35	1d	85	LYS
35	1d	121	VAL
35	1d	123	HIS
35	1d	135	LEU
35	1d	150	GLU
35	1d	168	ARG
35	1d	178	VAL
35	1d	187	ARG
35	1d	194	LEU
35	1d	204	ILE
36	1e	53	LEU
36	1e	55	VAL
36	1e	67	VAL
36	1e	73	ASN
36	1e	80	ILE

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Mol	Chain	Res	Type
36	1e	90	VAL
36	1e	112	LEU
36	1e	131	ILE
36	1e	144	THR
37	1f	10	LEU
37	1f	15	ASP
37	1f	21	LEU
37	1f	42	GLU
37	1f	57	GLN
37	1f	66	GLU
37	1f	72	VAL
37	1f	78	GLU
38	1g	6	ARG
38	1g	20	ASP
38	1g	41	ARG
38	1g	56	GLN
38	1g	59	LEU
38	1g	75	VAL
38	1g	76	ARG
38	1g	96	GLN
38	1g	98	SER
38	1g	104	LEU
38	1g	113	GLU
39	1h	3	THR
39	1h	17	THR
39	1h	26	VAL
39	1h	35	ILE
39	1h	52	ASP
39	1h	63	LEU
39	1h	84	ARG
39	1h	99	GLU
39	1h	102	ARG
39	1h	120	THR
39	1h	133	LEU
40	1i	3	GLN
40	1i	17	VAL
40	1i	27	THR
40	1i	38	GLN
40	1i	41	VAL
40	1i	42	ARG
40	1i	56	LEU
40	1i	65	VAL

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Mol	Chain	Res	Type
40	1i	66	ARG
40	1i	81	ILE
40	1i	87	GLN
40	1i	92	TYR
40	1i	103	THR
41	1j	5	ARG
41	1j	22	LYS
41	1j	35	SER
41	1j	38	ILE
41	1j	42	THR
41	1j	55	LYS
41	1j	72	VAL
41	1j	81	THR
41	1j	84	GLN
41	1j	94	VAL
42	1k	16	SER
42	1k	84	VAL
42	1k	87	THR
42	1k	105	VAL
42	1k	109	VAL
42	1k	112	THR
42	1k	114	VAL
43	1l	33	ARG
43	1l	118	SER
44	1m	4	ILE
44	1m	15	VAL
44	1m	17	VAL
44	1m	25	ILE
44	1m	70	LEU
44	1m	106	ASN
44	1m	117	VAL
45	1n	7	ILE
45	1n	13	THR
45	1n	17	LYS
45	1n	18	VAL
46	1o	3	ILE
46	1o	11	VAL
46	1o	38	ARG
46	1o	45	VAL
46	1o	76	GLU
47	1p	1	MET
47	1p	5	ARG

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Mol	Chain	Res	Type
47	1p	8	ARG
47	1p	21	VAL
47	1p	29	ASP
47	1p	33	ILE
47	1p	38	TYR
48	1q	6	LEU
48	1q	11	VAL
48	1q	12	SER
48	1q	22	LEU
48	1q	45	HIS
48	1q	53	LEU
48	1q	74	LEU
49	1r	28	GLU
49	1r	61	LYS
49	1r	86	VAL
50	1s	9	VAL
50	1s	35	SER
50	1s	37	ARG
50	1s	48	THR
50	1s	77	THR
51	1t	10	LEU
51	1t	24	LEU
51	1t	37	SER
51	1t	46	GLU
51	1t	51	GLU
51	1t	53	LEU
51	1t	100	ILE
52	1u	6	ARG
52	1u	7	ARG
52	1u	8	THR
53	1y	3	MET
53	1y	24	LEU
53	1y	42	SER
3	2D	3	VAL
3	2D	32	SER
3	2D	34	VAL
3	2D	39	LYS
3	2D	51	VAL
3	2D	94	LEU
3	2D	103	ARG
3	2D	115	GLN
3	2D	116	GLN

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Mol	Chain	Res	Type
3	2D	141	VAL
3	2D	142	VAL
3	2D	155	LEU
3	2D	173	VAL
3	2D	183	ARG
3	2D	211	ARG
3	2D	221	VAL
3	2D	229	VAL
3	2D	242	ARG
3	2D	267	SER
3	2D	276	LYS
4	2E	59	VAL
4	2E	75	VAL
4	2E	89	ASP
4	2E	93	VAL
4	2E	116	VAL
4	2E	181	LEU
4	2E	183	LEU
4	2E	184	VAL
4	2E	188	VAL
5	2F	12	LEU
5	2F	20	LEU
5	2F	24	LEU
5	2F	33	LEU
5	2F	57	VAL
5	2F	74	ARG
5	2F	126	VAL
5	2F	132	VAL
5	2F	140	LEU
5	2F	153	SER
5	2F	162	LEU
5	2F	170	LEU
5	2F	175	THR
5	2F	176	LEU
5	2F	183	VAL
5	2F	192	LEU
5	2F	197	ASP
5	2F	201	VAL
5	2F	203	GLN
6	2G	3	LEU
6	2G	5	VAL
6	2G	7	LEU

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Mol	Chain	Res	Type
6	2G	14	GLU
6	2G	15	VAL
6	2G	16	ARG
6	2G	28	VAL
6	2G	39	ILE
6	2G	49	ASP
6	2G	53	LEU
6	2G	92	VAL
6	2G	96	ARG
6	2G	99	MET
6	2G	103	LEU
6	2G	109	VAL
6	2G	133	LEU
6	2G	137	GLU
6	2G	138	GLN
6	2G	140	ILE
6	2G	149	VAL
6	2G	152	LEU
6	2G	167	GLU
6	2G	173	LEU
7	2H	17	VAL
7	2H	24	VAL
7	2H	27	LYS
7	2H	43	VAL
7	2H	65	HIS
7	2H	70	THR
7	2H	71	LEU
7	2H	72	ILE
7	2H	81	GLU
7	2H	86	GLU
7	2H	97	ARG
7	2H	105	LEU
7	2H	106	THR
7	2H	113	VAL
7	2H	114	VAL
7	2H	122	THR
8	2I	5	LEU
8	2I	38	LEU
8	2I	41	GLU
8	2I	58	LEU
8	2I	68	LEU
8	2I	70	GLU

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Mol	Chain	Res	Type
8	2I	73	GLU
8	2I	75	LEU
8	2I	76	THR
8	2I	82	ARG
8	2I	88	ILE
8	2I	92	VAL
8	2I	102	SER
8	2I	108	THR
8	2I	110	ASP
8	2I	117	GLU
8	2I	123	LEU
8	2I	127	VAL
8	2I	139	GLN
8	2I	145	VAL
9	2N	28	THR
9	2N	34	LEU
9	2N	43	THR
9	2N	48	MET
9	2N	67	LEU
9	2N	73	THR
9	2N	83	LYS
9	2N	88	GLU
10	2O	53	LYS
10	2O	66	LYS
10	2O	70	LYS
10	2O	94	ARG
10	2O	98	VAL
11	2P	1	MET
11	2P	5	ASP
11	2P	40	SER
11	2P	57	THR
11	2P	65	ARG
11	2P	96	THR
11	2P	98	GLU
11	2P	123	LEU
11	2P	133	SER
11	2P	146	VAL
11	2P	148	LEU
12	2Q	7	MET
12	2Q	75	THR
12	2Q	79	LEU
12	2Q	106	VAL

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Mol	Chain	Res	Type
12	2Q	109	VAL
12	2Q	110	THR
13	2R	29	LEU
13	2R	36	THR
13	2R	86	ARG
13	2R	114	VAL
13	2R	117	VAL
14	2S	5	THR
14	2S	12	PHE
14	2S	17	ARG
14	2S	25	ARG
14	2S	32	LEU
14	2S	35	ILE
14	2S	40	ILE
14	2S	48	LEU
14	2S	56	LEU
14	2S	68	GLN
14	2S	78	LEU
15	2T	6	LEU
15	2T	8	LYS
15	2T	28	VAL
15	2T	36	GLU
15	2T	51	ARG
15	2T	53	ARG
15	2T	89	VAL
15	2T	96	ARG
15	2T	108	ARG
16	2U	5	LYS
16	2U	9	VAL
16	2U	31	SER
16	2U	74	LEU
16	2U	108	GLU
17	2V	7	THR
17	2V	14	VAL
17	2V	35	LEU
17	2V	49	THR
17	2V	56	SER
17	2V	66	ARG
17	2V	72	VAL
17	2V	79	VAL
18	2W	1	MET
18	2W	6	ILE

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Mol	Chain	Res	Type
18	2W	11	ARG
18	2W	17	VAL
18	2W	19	LEU
18	2W	67	ASP
18	2W	95	ILE
18	2W	96	ILE
18	2W	100	THR
18	2W	109	GLU
19	2X	35	THR
19	2X	60	ARG
20	2Y	3	VAL
20	2Y	14	LEU
20	2Y	49	VAL
20	2Y	72	VAL
20	2Y	99	CYS
21	2Z	2	GLU
21	2Z	4	ARG
21	2Z	5	LEU
21	2Z	13	GLU
21	2Z	18	LEU
21	2Z	41	LEU
21	2Z	56	VAL
21	2Z	58	VAL
21	2Z	65	GLN
21	2Z	73	GLN
21	2Z	90	VAL
21	2Z	94	GLU
21	2Z	96	VAL
21	2Z	133	ILE
21	2Z	135	GLU
21	2Z	146	ILE
21	2Z	165	VAL
21	2Z	170	THR
21	2Z	175	VAL
21	2Z	190	GLU
21	2Z	191	VAL
22	20	30	VAL
22	20	63	VAL
22	20	66	VAL
22	20	67	VAL
23	21	21	ARG
23	21	40	ARG

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Mol	Chain	Res	Type
23	21	46	LEU
23	21	52	ARG
23	21	69	LYS
23	21	80	LEU
23	21	83	GLU
23	21	95	LEU
24	22	3	LEU
24	22	7	ARG
24	22	11	GLU
24	22	19	VAL
24	22	28	LYS
24	22	32	LEU
24	22	40	SER
24	22	41	ILE
24	22	53	LEU
24	22	64	LEU
25	23	3	ARG
25	23	23	LEU
25	23	31	LEU
25	23	56	VAL
25	23	58	VAL
26	24	9	LEU
26	24	15	ILE
26	24	23	GLU
26	24	35	VAL
26	24	44	THR
26	24	50	VAL
26	24	52	THR
26	24	63	TYR
27	25	6	VAL
27	25	26	THR
27	25	55	ARG
27	25	58	LEU
28	26	13	CYS
28	26	29	ASN
28	26	34	LEU
28	26	40	CYS
28	26	47	THR
28	26	48	VAL
29	27	1	MET
29	27	43	THR
30	28	14	VAL

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Mol	Chain	Res	Type
30	28	23	VAL
30	28	37	SER
30	28	58	ILE
31	29	13	LYS
31	29	17	ILE
33	2b	8	LYS
33	2b	9	GLU
33	2b	12	GLU
33	2b	16	HIS
33	2b	44	LEU
33	2b	55	PHE
33	2b	68	ILE
33	2b	80	ILE
33	2b	98	LEU
33	2b	107	THR
33	2b	111	ARG
33	2b	121	LEU
33	2b	128	GLU
33	2b	149	LEU
33	2b	164	VAL
33	2b	187	LEU
33	2b	198	ASP
33	2b	200	ILE
33	2b	208	ILE
33	2b	211	ILE
33	2b	216	SER
33	2b	229	VAL
33	2b	233	SER
34	2c	16	ARG
34	2c	20	SER
34	2c	28	GLN
34	2c	31	HIS
34	2c	47	LEU
34	2c	52	LEU
34	2c	56	ASP
34	2c	68	VAL
34	2c	110	ASN
34	2c	124	ILE
34	2c	131	ARG
34	2c	144	SER
34	2c	152	ILE
34	2c	181	ASN

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Mol	Chain	Res	Type
34	2c	192	THR
34	2c	204	LEU
35	2d	3	ARG
35	2d	8	VAL
35	2d	17	VAL
35	2d	46	LYS
35	2d	83	SER
35	2d	104	VAL
35	2d	106	TYR
35	2d	127	THR
35	2d	135	LEU
35	2d	170	VAL
35	2d	175	SER
35	2d	194	LEU
36	2e	5	ASP
36	2e	18	ARG
36	2e	41	VAL
36	2e	47	LYS
36	2e	55	VAL
36	2e	73	ASN
36	2e	80	ILE
36	2e	81	GLU
36	2e	107	ARG
36	2e	115	VAL
36	2e	120	THR
36	2e	131	ILE
36	2e	143	ARG
36	2e	148	VAL
37	2f	7	ASN
37	2f	22	GLU
37	2f	69	GLU
37	2f	72	VAL
38	2g	24	THR
38	2g	27	ILE
38	2g	50	ILE
38	2g	67	GLU
38	2g	75	VAL
38	2g	92	SER
38	2g	97	GLN
38	2g	109	ASN
38	2g	111	ARG
38	2g	125	MET

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Mol	Chain	Res	Type
38	2g	131	LYS
38	2g	140	ASP
38	2g	148	ASN
39	2h	8	ASP
39	2h	9	MET
39	2h	11	THR
39	2h	21	LYS
39	2h	26	VAL
39	2h	29	SER
39	2h	64	LYS
39	2h	85	ARG
39	2h	112	LEU
39	2h	114	THR
39	2h	119	LEU
39	2h	123	GLU
39	2h	133	LEU
40	2i	9	ARG
40	2i	17	VAL
40	2i	27	THR
40	2i	28	VAL
40	2i	32	ASP
40	2i	47	LEU
40	2i	53	VAL
40	2i	54	ASP
40	2i	60	ASP
40	2i	102	LEU
40	2i	108	VAL
41	2j	17	ASP
41	2j	34	VAL
41	2j	47	PHE
41	2j	57	LYS
41	2j	72	VAL
41	2j	84	GLN
41	2j	95	GLU
41	2j	98	ILE
42	2k	24	SER
42	2k	30	VAL
42	2k	63	LEU
42	2k	66	LEU
42	2k	79	SER
42	2k	105	VAL
42	2k	109	VAL

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Mol	Chain	Res	Type
42	2k	117	ASN
43	2l	36	VAL
43	2l	81	SER
44	2m	15	VAL
44	2m	27	LYS
44	2m	62	ASN
44	2m	66	LEU
44	2m	80	ARG
44	2m	86	CYS
44	2m	98	VAL
44	2m	102	ARG
45	2n	4	LYS
45	2n	13	THR
45	2n	18	VAL
45	2n	46	GLU
46	2o	3	ILE
46	2o	27	VAL
46	2o	45	VAL
46	2o	87	ILE
47	2p	2	VAL
47	2p	5	ARG
47	2p	20	VAL
47	2p	54	GLU
47	2p	60	LEU
47	2p	69	THR
48	2q	5	VAL
48	2q	6	LEU
48	2q	22	LEU
48	2q	24	GLU
48	2q	58	GLU
48	2q	70	ARG
48	2q	79	SER
48	2q	86	GLU
49	2r	25	THR
49	2r	84	LYS
50	2s	5	LEU
50	2s	7	LYS
50	2s	13	ASP
50	2s	33	THR
50	2s	41	VAL
50	2s	48	THR
50	2s	49	ILE

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Mol	Chain	Res	Type
50	2s	53	ASN
50	2s	62	ILE
50	2s	64	GLU
50	2s	69	HIS
50	2s	77	THR
50	2s	83	HIS
51	2t	41	ILE
51	2t	42	GLN
51	2t	86	ARG
51	2t	99	LEU
51	2t	100	ILE
52	2u	8	THR
52	2u	17	THR
52	2u	24	ARG
53	2y	3	MET
53	2y	5	ILE
53	2y	51	ASP
53	2y	53	THR
53	2y	54	ILE
53	2y	77	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (156) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	143	HIS
3	1D	253	GLN
4	1E	60	ASN
5	1F	8	GLN
5	1F	69	HIS
5	1F	204	ASN
6	1G	26	GLN
8	1I	43	ASN
9	1N	56	ASN
9	1N	94	HIS
9	1N	133	GLN
12	1Q	89	ASN
13	1R	13	HIS
13	1R	71	GLN
14	1S	95	HIS
15	1T	58	ASN
15	1T	123	GLN
16	1U	117	GLN

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Mol	Chain	Res	Type
19	1X	31	HIS
19	1X	82	GLN
20	1Y	43	ASN
21	1Z	73	GLN
21	1Z	118	GLN
21	1Z	151	HIS
22	10	3	HIS
25	13	32	GLN
30	18	35	GLN
33	1b	40	HIS
33	1b	135	GLN
33	1b	224	GLN
34	1c	6	HIS
34	1c	108	ASN
34	1c	110	ASN
34	1c	118	GLN
34	1c	162	GLN
34	1c	176	HIS
35	1d	45	GLN
35	1d	123	HIS
35	1d	125	HIS
35	1d	129	ASN
36	1e	20	GLN
36	1e	65	ASN
36	1e	73	ASN
37	1f	18	GLN
37	1f	73	ASN
37	1f	84	ASN
37	1f	100	ASN
38	1g	13	GLN
38	1g	28	ASN
38	1g	56	GLN
38	1g	86	GLN
38	1g	97	GLN
38	1g	148	ASN
40	1i	3	GLN
40	1i	73	GLN
40	1i	87	GLN
40	1i	117	HIS
41	1j	21	GLN
41	1j	56	HIS
41	1j	84	GLN

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Mol	Chain	Res	Type
43	1l	99	HIS
44	1m	77	ASN
44	1m	106	ASN
45	1n	49	HIS
46	1o	62	GLN
47	1p	13	HIS
47	1p	16	HIS
48	1q	93	GLN
50	1s	57	HIS
50	1s	69	HIS
50	1s	83	HIS
53	1y	9	GLN
53	1y	19	HIS
53	1y	38	HIS
3	2D	253	GLN
4	2E	48	GLN
5	2F	69	HIS
5	2F	75	HIS
5	2F	203	GLN
6	2G	123	ASN
6	2G	132	ASN
6	2G	138	GLN
7	2H	74	ASN
8	2I	43	ASN
8	2I	104	GLN
9	2N	69	GLN
12	2Q	89	ASN
12	2Q	123	HIS
13	2R	13	HIS
13	2R	71	GLN
14	2S	68	GLN
15	2T	58	ASN
15	2T	79	HIS
16	2U	94	ASN
16	2U	104	GLN
19	2X	31	HIS
20	2Y	43	ASN
21	2Z	73	GLN
21	2Z	132	ASN
21	2Z	151	HIS
22	20	3	HIS
24	22	9	GLN

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Mol	Chain	Res	Type
26	24	20	ASN
26	24	40	HIS
29	27	36	GLN
30	28	35	GLN
33	2b	19	HIS
33	2b	45	GLN
33	2b	140	HIS
33	2b	212	GLN
34	2c	37	GLN
34	2c	69	HIS
34	2c	110	ASN
34	2c	162	GLN
34	2c	170	GLN
34	2c	181	ASN
35	2d	77	ASN
35	2d	116	GLN
35	2d	129	ASN
35	2d	160	GLN
36	2e	20	GLN
36	2e	65	ASN
36	2e	130	ASN
37	2f	7	ASN
37	2f	73	ASN
38	2g	28	ASN
38	2g	64	GLN
38	2g	122	HIS
39	2h	81	HIS
39	2h	82	HIS
40	2i	3	GLN
40	2i	73	GLN
41	2j	13	HIS
41	2j	68	HIS
42	2k	62	GLN
44	2m	62	ASN
44	2m	92	HIS
44	2m	101	GLN
44	2m	106	ASN
45	2n	49	HIS
45	2n	52	GLN
46	2o	62	GLN
46	2o	71	GLN
48	2q	26	GLN

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Mol	Chain	Res	Type
48	2q	93	GLN
49	2r	36	ASN
51	2t	16	HIS
51	2t	42	GLN
51	2t	75	ASN
51	2t	90	GLN
53	2y	19	HIS
53	2y	33	HIS
53	2y	36	ASN
53	2y	55	ASN
53	2y	84	GLN
53	2y	86	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2865/2915 (98%)	428 (14%)	28 (0%)
1	2A	2858/2915 (98%)	491 (17%)	31 (1%)
2	1B	119/121 (98%)	18 (15%)	0
2	2B	119/121 (98%)	16 (13%)	0
32	1a	1497/1521 (98%)	245 (16%)	0
32	2a	1501/1521 (98%)	290 (19%)	0
54	1w	1/4 (25%)	1 (100%)	0
54	2w	1/4 (25%)	0	0
55	1x	1/4 (25%)	0	0
55	2x	1/4 (25%)	0	0
All	All	8963/9130 (98%)	1489 (16%)	59 (0%)

All (1489) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	12	U
1	1A	34	C
1	1A	45	C
1	1A	61	G
1	1A	64	A
1	1A	71	A
1	1A	74	A
1	1A	75	G
1	1A	95	G
1	1A	118	A

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Mol	Chain	Res	Type
1	1A	119	A
1	1A	120	U
1	1A	125	G
1	1A	140	G
1	1A	154(A)	C
1	1A	181	A
1	1A	188	G
1	1A	196	A
1	1A	199	A
1	1A	200	U
1	1A	205	G
1	1A	214	G
1	1A	215	G
1	1A	216	A
1	1A	221	A
1	1A	222	A
1	1A	229	A
1	1A	248	G
1	1A	271(I)	G
1	1A	271(K)	U
1	1A	271(L)	U
1	1A	271(M)	G
1	1A	271(N)	U
1	1A	271(O)	C
1	1A	271(P)	C
1	1A	271(S)	G
1	1A	272(A)	U
1	1A	272(B)	G
1	1A	272(G)	C
1	1A	272(H)	C
1	1A	272(I)	U
1	1A	275	G
1	1A	279	C
1	1A	288	C
1	1A	311	A
1	1A	330	A
1	1A	335	C
1	1A	345	A
1	1A	352	G
1	1A	353	G
1	1A	363	G
1	1A	370	G

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Mol	Chain	Res	Type
1	1A	386	G
1	1A	396	G
1	1A	405	U
1	1A	411	G
1	1A	412	A
1	1A	421	U
1	1A	422	A
1	1A	428	A
1	1A	447	A
1	1A	448	U
1	1A	456	C
1	1A	457	A
1	1A	481	G
1	1A	505	A
1	1A	509	C
1	1A	530	G
1	1A	531	C
1	1A	532	A
1	1A	533	G
1	1A	545	G
1	1A	549	G
1	1A	563	G
1	1A	573	G
1	1A	575	A
1	1A	603	A
1	1A	604	G
1	1A	607	U
1	1A	614(B)	G
1	1A	615	G
1	1A	627	A
1	1A	637	A
1	1A	645	C
1	1A	652(E)	G
1	1A	652(F)	G
1	1A	652(U)	G
1	1A	668	G
1	1A	669	G
1	1A	686	G
1	1A	717	G
1	1A	730	C
1	1A	740	U
1	1A	746	A

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Mol	Chain	Res	Type
1	1A	747	U
1	1A	764	A
1	1A	775	G
1	1A	776	G
1	1A	782	A
1	1A	784	A
1	1A	785	G
1	1A	790	C
1	1A	792	G
1	1A	793	A
1	1A	805	G
1	1A	811	U
1	1A	812	C
1	1A	827	U
1	1A	828	U
1	1A	855	G
1	1A	859	G
1	1A	866	A
1	1A	884	C
1	1A	886	C
1	1A	887	A
1	1A	888	C
1	1A	889	C
1	1A	890	A
1	1A	896	A
1	1A	897	C
1	1A	907	U
1	1A	910	A
1	1A	915	C
1	1A	932	G
1	1A	945	A
1	1A	946	G
1	1A	953	A
1	1A	961	C
1	1A	974	G
1	1A	975	C
1	1A	983	A
1	1A	996	A
1	1A	1008	C
1	1A	1012	U
1	1A	1013	C
1	1A	1026	U

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Mol	Chain	Res	Type
1	1A	1027	A
1	1A	1033	U
1	1A	1039	G
1	1A	1045	A
1	1A	1046	A
1	1A	1047	G
1	1A	1048	A
1	1A	1053	C
1	1A	1054	A
1	1A	1058	G
1	1A	1059	G
1	1A	1061	U
1	1A	1062	G
1	1A	1063	G
1	1A	1065	U
1	1A	1066	U
1	1A	1069	A
1	1A	1070	A
1	1A	1071	G
1	1A	1072	C
1	1A	1073	A
1	1A	1074	G
1	1A	1075	C
1	1A	1077	A
1	1A	1078	U
1	1A	1079	C
1	1A	1088	A
1	1A	1090	U
1	1A	1095	A
1	1A	1096	A
1	1A	1097	U
1	1A	1098	A
1	1A	1100	C
1	1A	1101	U
1	1A	1110	G
1	1A	1112	G
1	1A	1130	U
1	1A	1135	C
1	1A	1136	G
1	1A	1139	G
1	1A	1149	G
1	1A	1170	G

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Mol	Chain	Res	Type
1	1A	1171	G
1	1A	1173	G
1	1A	1174	A
1	1A	1175	U
1	1A	1176	G
1	1A	1177	A
1	1A	1178	C
1	1A	1195	G
1	1A	1210	A
1	1A	1211	U
1	1A	1218	C
1	1A	1220	A
1	1A	1229	G
1	1A	1253	A
1	1A	1256	G
1	1A	1271	G
1	1A	1272	A
1	1A	1273	U
1	1A	1275	A
1	1A	1300	U
1	1A	1301	A
1	1A	1303	G
1	1A	1352	U
1	1A	1359	A
1	1A	1360	A
1	1A	1365	A
1	1A	1384	A
1	1A	1385	G
1	1A	1386	C
1	1A	1416	G
1	1A	1417	C
1	1A	1420	U
1	1A	1421	G
1	1A	1428	C
1	1A	1445	A
1	1A	1450	G
1	1A	1459	G
1	1A	1461	G
1	1A	1467	C
1	1A	1471	A
1	1A	1482	G
1	1A	1493	C

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Mol	Chain	Res	Type
1	1A	1495	A
1	1A	1508	A
1	1A	1509	C
1	1A	1509(A)	A
1	1A	1532	C
1	1A	1542	A
1	1A	1543	C
1	1A	1558	A
1	1A	1566	A
1	1A	1569	A
1	1A	1578	U
1	1A	1579	A
1	1A	1581	G
1	1A	1584	C
1	1A	1586	A
1	1A	1608	A
1	1A	1610	A
1	1A	1647	G
1	1A	1648	C
1	1A	1654	A
1	1A	1664	A
1	1A	1674	G
1	1A	1675	C
1	1A	1700	A
1	1A	1701	A
1	1A	1703	G
1	1A	1718	G
1	1A	1721	G
1	1A	1722	A
1	1A	1739	U
1	1A	1748	G
1	1A	1762	A
1	1A	1763	G
1	1A	1764	G
1	1A	1773	A
1	1A	1780	A
1	1A	1791	A
1	1A	1800	C
1	1A	1801	G
1	1A	1816	G
1	1A	1817	G
1	1A	1828	G

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Mol	Chain	Res	Type
1	1A	1847	A
1	1A	1858	G
1	1A	1877	A
1	1A	1878	G
1	1A	1900	A
1	1A	1906	G
1	1A	1913	A
1	1A	1914	C
1	1A	1929	G
1	1A	1930	G
1	1A	1931	U
1	1A	1937	A
1	1A	1938	A
1	1A	1941	C
1	1A	1955	U
1	1A	1963	U
1	1A	1967	C
1	1A	1970	A
1	1A	1971	A
1	1A	1972	A
1	1A	1993	U
1	1A	1997	G
1	1A	2020	A
1	1A	2023	G
1	1A	2031	A
1	1A	2033	A
1	1A	2043	C
1	1A	2055	C
1	1A	2056	G
1	1A	2060	A
1	1A	2061	G
1	1A	2069	G
1	1A	2099	U
1	1A	2103	C
1	1A	2104	G
1	1A	2107	C
1	1A	2108	C
1	1A	2110	G
1	1A	2111	C
1	1A	2116	G
1	1A	2117	A
1	1A	2119	A

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Mol	Chain	Res	Type
1	1A	2120	G
1	1A	2123	G
1	1A	2126	A
1	1A	2127	G
1	1A	2131	G
1	1A	2132	U
1	1A	2133	G
1	1A	2135	A
1	1A	2136	C
1	1A	2145	C
1	1A	2146	C
1	1A	2158	A
1	1A	2159	G
1	1A	2164	C
1	1A	2165	G
1	1A	2166	G
1	1A	2170	A
1	1A	2172	U
1	1A	2173	A
1	1A	2174	C
1	1A	2176	A
1	1A	2180	U
1	1A	2186	G
1	1A	2187	G
1	1A	2189	U
1	1A	2191	G
1	1A	2192	G
1	1A	2193	G
1	1A	2198	A
1	1A	2206	G
1	1A	2207	G
1	1A	2208	A
1	1A	2225	A
1	1A	2238	G
1	1A	2239	G
1	1A	2268	A
1	1A	2269	A
1	1A	2273	A
1	1A	2279	G
1	1A	2280	G
1	1A	2283	C
1	1A	2287	A

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Mol	Chain	Res	Type
1	1A	2289	G
1	1A	2305	A
1	1A	2312	U
1	1A	2314	C
1	1A	2320	A
1	1A	2325	G
1	1A	2334	G
1	1A	2336	A
1	1A	2347	C
1	1A	2350	C
1	1A	2354	G
1	1A	2359	C
1	1A	2383	G
1	1A	2385	C
1	1A	2406	U
1	1A	2422	A
1	1A	2425	A
1	1A	2429	G
1	1A	2430	A
1	1A	2431	U
1	1A	2432	A
1	1A	2435	A
1	1A	2439	A
1	1A	2441	C
1	1A	2448	A
1	1A	2449	U
1	1A	2468	G
1	1A	2469	A
1	1A	2476	A
1	1A	2478	A
1	1A	2490	G
1	1A	2491	U
1	1A	2494	G
1	1A	2498	C
1	1A	2502	G
1	1A	2505	G
1	1A	2518	A
1	1A	2529	G
1	1A	2554	U
1	1A	2566	A
1	1A	2567	G
1	1A	2573	C

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Mol	Chain	Res	Type
1	1A	2582	G
1	1A	2585	U
1	1A	2602	A
1	1A	2609	U
1	1A	2611	U
1	1A	2612	C
1	1A	2629	A
1	1A	2630	G
1	1A	2654	A
1	1A	2686	G
1	1A	2689	U
1	1A	2690	C
1	1A	2702	U
1	1A	2703	C
1	1A	2712(A)	A
1	1A	2713	A
1	1A	2714	G
1	1A	2726	U
1	1A	2733	A
1	1A	2757	A
1	1A	2758	A
1	1A	2764	A
1	1A	2765	A
1	1A	2778	A
1	1A	2789	C
1	1A	2790	A
1	1A	2791	C
1	1A	2794	C
1	1A	2802	G
1	1A	2808	U
1	1A	2818	G
1	1A	2820	A
1	1A	2821	A
1	1A	2833	G
1	1A	2835	A
1	1A	2836	U
1	1A	2872	G
1	1A	2873	A
1	1A	2893	G
1	1A	2894	G
2	1B	2	C
2	1B	7	G

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Mol	Chain	Res	Type
2	1B	9	G
2	1B	12	C
2	1B	13	A
2	1B	24	G
2	1B	30	C
2	1B	42	C
2	1B	45	A
2	1B	56	G
2	1B	67	G
2	1B	73	A
2	1B	85	G
2	1B	91	C
2	1B	94	C
2	1B	106	G
2	1B	110	G
2	1B	120	A
32	1a	9	G
32	1a	22	G
32	1a	32	A
32	1a	39	G
32	1a	48	C
32	1a	51	A
32	1a	56	U
32	1a	61	G
32	1a	69	G
32	1a	78	G
32	1a	79	G
32	1a	93	G
32	1a	108	G
32	1a	115	G
32	1a	116	A
32	1a	121	C
32	1a	131	C
32	1a	150	C
32	1a	151	A
32	1a	156	G
32	1a	158	G
32	1a	160	A
32	1a	163	C
32	1a	165	C
32	1a	169	C
32	1a	173	U

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Mol	Chain	Res	Type
32	1a	174	C
32	1a	182	U
32	1a	189(B)	C
32	1a	195	A
32	1a	197	A
32	1a	201	C
32	1a	202	U
32	1a	216	G
32	1a	218	C
32	1a	220	G
32	1a	222	U
32	1a	231	G
32	1a	247	G
32	1a	251	G
32	1a	259	G
32	1a	266	G
32	1a	267	C
32	1a	289	G
32	1a	306	G
32	1a	316	G
32	1a	318	G
32	1a	321	A
32	1a	328	C
32	1a	329	A
32	1a	332	G
32	1a	351	G
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	356	A
32	1a	367	U
32	1a	372	C
32	1a	373	A
32	1a	378	G
32	1a	384	G
32	1a	397	A
32	1a	406	G
32	1a	412	A
32	1a	413	G
32	1a	414	A
32	1a	423	G
32	1a	424	G

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Mol	Chain	Res	Type
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	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
32	1a	518	C
32	1a	519	C
32	1a	532	A
32	1a	533	A
32	1a	536	C
32	1a	547	A
32	1a	559	A
32	1a	561	U
32	1a	572	A
32	1a	573	A
32	1a	576	G
32	1a	577	G
32	1a	596	C
32	1a	618	C
32	1a	619	U
32	1a	630	G
32	1a	631	G
32	1a	632	A
32	1a	642	A
32	1a	653	A
32	1a	661	G
32	1a	665	A
32	1a	687	A
32	1a	688	G
32	1a	723	U
32	1a	728	A
32	1a	731	G
32	1a	755	G

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Mol	Chain	Res	Type
32	1a	770	C
32	1a	776	G
32	1a	777	A
32	1a	792	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	836	G
32	1a	838	G
32	1a	839	U
32	1a	840	C
32	1a	841	U
32	1a	848	C
32	1a	853	G
32	1a	902	G
32	1a	914	A
32	1a	926	G
32	1a	927	G
32	1a	934	C
32	1a	960	U
32	1a	961	U
32	1a	968	A
32	1a	969	A
32	1a	971	G
32	1a	975	A
32	1a	976	G
32	1a	977	A
32	1a	983	A
32	1a	991	U
32	1a	992	U
32	1a	993	G
32	1a	998	G
32	1a	999	C
32	1a	1001	A
32	1a	1002	G
32	1a	1004	A
32	1a	1005	A

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Mol	Chain	Res	Type
32	1a	1006	C
32	1a	1009	G
32	1a	1020	U
32	1a	1022	G
32	1a	1023	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
32	1a	1032	G
32	1a	1036	G
32	1a	1037	C
32	1a	1044	A
32	1a	1065	U
32	1a	1068	G
32	1a	1081	G
32	1a	1094	G
32	1a	1095	U
32	1a	1101	A
32	1a	1104	G
32	1a	1122	U
32	1a	1124	G
32	1a	1126	U
32	1a	1130	A
32	1a	1136	U
32	1a	1137	C
32	1a	1139	G
32	1a	1146	A
32	1a	1152	A
32	1a	1168	A
32	1a	1183	A
32	1a	1184	G
32	1a	1196	U
32	1a	1197	G
32	1a	1202	G
32	1a	1212	U
32	1a	1213	A
32	1a	1225	A

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Mol	Chain	Res	Type
32	1a	1227	A
32	1a	1238	A
32	1a	1240	U
32	1a	1256	A
32	1a	1257	U
32	1a	1258	G
32	1a	1270	C
32	1a	1276	G
32	1a	1278	U
32	1a	1280	A
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	1319	A
32	1a	1320	C
32	1a	1323	G
32	1a	1340	A
32	1a	1344	C
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	1398	A
32	1a	1419	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1446	U
32	1a	1447	A
32	1a	1452	C
32	1a	1456	G
32	1a	1458	G
32	1a	1475	G
32	1a	1487	G
32	1a	1492	A
32	1a	1493	A

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Mol	Chain	Res	Type
32	1a	1499	A
32	1a	1504	G
32	1a	1505	G
32	1a	1506	U
32	1a	1517	G
32	1a	1520	G
32	1a	1529	G
32	1a	1530	G
32	1a	1531	A
54	1w	75	C
1	2A	11	G
1	2A	12	U
1	2A	14	A
1	2A	15	G
1	2A	45	C
1	2A	64	A
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	84	A
1	2A	87	C
1	2A	94	C
1	2A	99	U
1	2A	118	A
1	2A	119	A
1	2A	120	U
1	2A	133	C
1	2A	139	G
1	2A	141	A
1	2A	157	U
1	2A	181	A
1	2A	182	A
1	2A	196	A
1	2A	199	A
1	2A	205	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	240	G

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Mol	Chain	Res	Type
1	2A	245	G
1	2A	248	G
1	2A	265	A
1	2A	266	G
1	2A	271(K)	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	283	A
1	2A	311	A
1	2A	317	G
1	2A	324	A
1	2A	327	G
1	2A	329	G
1	2A	330	A
1	2A	352	G
1	2A	363	G
1	2A	370	G
1	2A	372	G
1	2A	386	G
1	2A	391	G
1	2A	405	U
1	2A	406	G
1	2A	411	G
1	2A	412	A
1	2A	428	A
1	2A	429	A
1	2A	444	C
1	2A	454	A
1	2A	455	C
1	2A	456	C
1	2A	470	A
1	2A	479	A
1	2A	481	G
1	2A	505	A
1	2A	509	C
1	2A	530	G
1	2A	531	C

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Mol	Chain	Res	Type
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	574	C
1	2A	575	A
1	2A	586	A
1	2A	603	A
1	2A	604	G
1	2A	607	U
1	2A	614(A)	U
1	2A	614(B)	G
1	2A	614(C)	A
1	2A	615	G
1	2A	627	A
1	2A	634	C
1	2A	637	A
1	2A	645	C
1	2A	646	A
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	726	G
1	2A	730	C
1	2A	752	A
1	2A	753	C
1	2A	764	A
1	2A	765	G
1	2A	776	G
1	2A	782	A
1	2A	784	A
1	2A	785	G
1	2A	790	C
1	2A	792	G
1	2A	802	A
1	2A	805	G
1	2A	812	C

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Mol	Chain	Res	Type
1	2A	827	U
1	2A	828	U
1	2A	857	C
1	2A	859	G
1	2A	866	A
1	2A	869	G
1	2A	880	G
1	2A	886	C
1	2A	887	A
1	2A	888	C
1	2A	889	C
1	2A	890	A
1	2A	892	G
1	2A	893	C
1	2A	896	A
1	2A	897	C
1	2A	900	A
1	2A	901	A
1	2A	907	U
1	2A	910	A
1	2A	914	C
1	2A	915	C
1	2A	917	A
1	2A	924	C
1	2A	931	G
1	2A	932	G
1	2A	938	G
1	2A	941	A
1	2A	945	A
1	2A	946	G
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	1025	G
1	2A	1026	U
1	2A	1033	U
1	2A	1038	C
1	2A	1042	G

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Mol	Chain	Res	Type
1	2A	1045	A
1	2A	1046	A
1	2A	1047	G
1	2A	1048	A
1	2A	1052	C
1	2A	1054	A
1	2A	1055	G
1	2A	1056	G
1	2A	1057	A
1	2A	1059	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	1070	A
1	2A	1071	G
1	2A	1073	A
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	1097	U
1	2A	1111	A
1	2A	1112	G
1	2A	1116	C
1	2A	1117	G
1	2A	1130	U

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Mol	Chain	Res	Type
1	2A	1135	C
1	2A	1136	G
1	2A	1142	U
1	2A	1149	G
1	2A	1170	G
1	2A	1171	G
1	2A	1179	C
1	2A	1211	U
1	2A	1212	G
1	2A	1220	A
1	2A	1229	G
1	2A	1250	G
1	2A	1253	A
1	2A	1256	G
1	2A	1271	G
1	2A	1272	A
1	2A	1300	U
1	2A	1301	A
1	2A	1303	G
1	2A	1308	A
1	2A	1314	C
1	2A	1321	A
1	2A	1328	G
1	2A	1349	A
1	2A	1352	U
1	2A	1359	A
1	2A	1365	A
1	2A	1368	G
1	2A	1370	C
1	2A	1380	G
1	2A	1384	A
1	2A	1385	G
1	2A	1386	C
1	2A	1395	A
1	2A	1416	G
1	2A	1417	C
1	2A	1420	U
1	2A	1421	G
1	2A	1427	A
1	2A	1428	C
1	2A	1445	A
1	2A	1450	G

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Mol	Chain	Res	Type
1	2A	1455	G
1	2A	1459	G
1	2A	1467	C
1	2A	1471	A
1	2A	1472	A
1	2A	1480	G
1	2A	1482	G
1	2A	1486	A
1	2A	1490	A
1	2A	1493	C
1	2A	1494	A
1	2A	1497	U
1	2A	1508	A
1	2A	1509	C
1	2A	1509(A)	A
1	2A	1524	G
1	2A	1525	G
1	2A	1533	G
1	2A	1542	A
1	2A	1543	C
1	2A	1547	C
1	2A	1558	A
1	2A	1560	G
1	2A	1566	A
1	2A	1569	A
1	2A	1573	G
1	2A	1578	U
1	2A	1580	A
1	2A	1584	C
1	2A	1586	A
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A
1	2A	1640	C
1	2A	1648	C
1	2A	1664	A
1	2A	1674	G
1	2A	1696	G
1	2A	1700	A
1	2A	1701	A
1	2A	1721	G
1	2A	1722	A

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Mol	Chain	Res	Type
1	2A	1746	G
1	2A	1756	G
1	2A	1758	G
1	2A	1759	A
1	2A	1762	A
1	2A	1763	G
1	2A	1764	G
1	2A	1773	A
1	2A	1780	A
1	2A	1782	C
1	2A	1786	A
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1816	G
1	2A	1828	G
1	2A	1829	A
1	2A	1847	A
1	2A	1848	A
1	2A	1877	A
1	2A	1878	G
1	2A	1900	A
1	2A	1906	G
1	2A	1913	A
1	2A	1914	C
1	2A	1929	G
1	2A	1930	G
1	2A	1937	A
1	2A	1938	A
1	2A	1955	U
1	2A	1963	U
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1984	G
1	2A	1993	U
1	2A	1997	G
1	2A	2020	A
1	2A	2023	G
1	2A	2031	A
1	2A	2032	G

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Mol	Chain	Res	Type
1	2A	2033	A
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	2101	G
1	2A	2103	C
1	2A	2104	G
1	2A	2105	C
1	2A	2107	C
1	2A	2108	C
1	2A	2109	U
1	2A	2111	C
1	2A	2112	G
1	2A	2113	U
1	2A	2115	G
1	2A	2116	G
1	2A	2117	A
1	2A	2118	U
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	2135	A
1	2A	2136	C
1	2A	2144	U
1	2A	2145	C
1	2A	2146	C
1	2A	2147	G
1	2A	2148	G
1	2A	2150	U
1	2A	2151	G
1	2A	2157	G
1	2A	2159	G
1	2A	2160	G

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Mol	Chain	Res	Type
1	2A	2161	C
1	2A	2162	G
1	2A	2163	C
1	2A	2164	C
1	2A	2166	G
1	2A	2168	G
1	2A	2172	U
1	2A	2173	A
1	2A	2174	C
1	2A	2178	C
1	2A	2183	C
1	2A	2185	C
1	2A	2186	G
1	2A	2187	G
1	2A	2189	U
1	2A	2192	G
1	2A	2198	A
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2218	U
1	2A	2219	G
1	2A	2225	A
1	2A	2239	G
1	2A	2248	C
1	2A	2268	A
1	2A	2269	A
1	2A	2275	C
1	2A	2278	A
1	2A	2280	G
1	2A	2283	C
1	2A	2287	A
1	2A	2289	G
1	2A	2304	G
1	2A	2305	A
1	2A	2308	G
1	2A	2310	A
1	2A	2311	A
1	2A	2320	A
1	2A	2321	G
1	2A	2322	A
1	2A	2325	G

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Mol	Chain	Res	Type
1	2A	2334	G
1	2A	2336	A
1	2A	2347	C
1	2A	2348	U
1	2A	2350	C
1	2A	2354	G
1	2A	2383	G
1	2A	2385	C
1	2A	2406	U
1	2A	2407	G
1	2A	2414	G
1	2A	2417	C
1	2A	2422	A
1	2A	2423	U
1	2A	2424	C
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	2473	U
1	2A	2474	C
1	2A	2476	A
1	2A	2478	A
1	2A	2491	U
1	2A	2492	U
1	2A	2494	G
1	2A	2502	G
1	2A	2505	G
1	2A	2518	A
1	2A	2520	C
1	2A	2529	G
1	2A	2554	U
1	2A	2564	A
1	2A	2566	A
1	2A	2567	G
1	2A	2573	C
1	2A	2578	G
1	2A	2582	G
1	2A	2585	U

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Mol	Chain	Res	Type
1	2A	2602	A
1	2A	2611	U
1	2A	2612	C
1	2A	2629	A
1	2A	2630	G
1	2A	2654	A
1	2A	2663	G
1	2A	2689	U
1	2A	2690	C
1	2A	2702	U
1	2A	2703	C
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2714	G
1	2A	2726	U
1	2A	2733	A
1	2A	2744	G
1	2A	2751	G
1	2A	2757	A
1	2A	2758	A
1	2A	2764	A
1	2A	2765	A
1	2A	2766	G
1	2A	2773	C
1	2A	2778	A
1	2A	2779	U
1	2A	2789	C
1	2A	2802	G
1	2A	2803	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	2875	C
1	2A	2880	C
1	2A	2894	G
1	2A	2897	U
2	2B	2	C
2	2B	7	G
2	2B	9	G

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Mol	Chain	Res	Type
2	2B	12	C
2	2B	13	A
2	2B	33	G
2	2B	35	U
2	2B	42	C
2	2B	45	A
2	2B	51	G
2	2B	56	G
2	2B	73	A
2	2B	84	C
2	2B	90	A
2	2B	110	G
2	2B	116	G
32	2a	5	U
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	50	A
32	2a	51	A
32	2a	52	G
32	2a	61	G
32	2a	71	C
32	2a	78	G
32	2a	88	A
32	2a	89	C
32	2a	90	U
32	2a	91	C
32	2a	92	C
32	2a	93	G
32	2a	96	U
32	2a	97	G
32	2a	98	G
32	2a	100	C
32	2a	101	A
32	2a	102	G
32	2a	105	G
32	2a	116	A
32	2a	121	C
32	2a	127	G

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Mol	Chain	Res	Type
32	2a	129(A)	G
32	2a	131	C
32	2a	151	A
32	2a	163	C
32	2a	173	U
32	2a	174	C
32	2a	182	U
32	2a	187	C
32	2a	189(F)	U
32	2a	195	A
32	2a	197	A
32	2a	202	U
32	2a	203	U
32	2a	204	U
32	2a	216	G
32	2a	231	G
32	2a	247	G
32	2a	251	G
32	2a	258	G
32	2a	266	G
32	2a	267	C
32	2a	289	G
32	2a	319	G
32	2a	321	A
32	2a	328	C
32	2a	332	G
32	2a	346	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	397	A
32	2a	398	C
32	2a	406	G
32	2a	412	A
32	2a	413	G
32	2a	417	C
32	2a	429	U
32	2a	439	A

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Mol	Chain	Res	Type
32	2a	452	A
32	2a	461	A
32	2a	470	C
32	2a	476	G
32	2a	482	A
32	2a	485	G
32	2a	495	A
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	521	G
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	574	A
32	2a	576	G
32	2a	577	G
32	2a	596	C
32	2a	630	G
32	2a	642	A
32	2a	650	G
32	2a	653	A
32	2a	660	G
32	2a	662	G
32	2a	665	A
32	2a	687	A
32	2a	688	G
32	2a	690	G
32	2a	702	A
32	2a	721	G
32	2a	723	U
32	2a	724	G
32	2a	731	G

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Mol	Chain	Res	Type
32	2a	734	G
32	2a	735	C
32	2a	746	A
32	2a	749	C
32	2a	753	A
32	2a	754	C
32	2a	755	G
32	2a	766	A
32	2a	774	G
32	2a	777	A
32	2a	793	U
32	2a	794	A
32	2a	799	G
32	2a	815	A
32	2a	817	C
32	2a	820	U
32	2a	821	G
32	2a	828	A
32	2a	829	G
32	2a	836	G
32	2a	840	C
32	2a	841	U
32	2a	848	C
32	2a	851	G
32	2a	854	G
32	2a	859	A
32	2a	872	A
32	2a	880	C
32	2a	902	G
32	2a	914	A
32	2a	916	G
32	2a	926	G
32	2a	927	G
32	2a	931	C
32	2a	934	C
32	2a	935	A
32	2a	942	G
32	2a	943	U
32	2a	958	A
32	2a	960	U
32	2a	961	U
32	2a	965	A

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Mol	Chain	Res	Type
32	2a	968	A
32	2a	969	A
32	2a	971	G
32	2a	972	C
32	2a	974	A
32	2a	975	A
32	2a	976	G
32	2a	977	A
32	2a	989	C
32	2a	992	U
32	2a	993	G
32	2a	995	C
32	2a	999	C
32	2a	1002	G
32	2a	1003	G
32	2a	1004	A
32	2a	1005	A
32	2a	1006	C
32	2a	1011	G
32	2a	1020	U
32	2a	1023	G
32	2a	1025	U
32	2a	1026	G
32	2a	1027	C
32	2a	1028	C
32	2a	1029	C
32	2a	1030(B)	C
32	2a	1030(C)	G
32	2a	1031	G
32	2a	1032	G
32	2a	1034	G
32	2a	1038	C
32	2a	1041	A
32	2a	1044	A
32	2a	1046	A
32	2a	1053	G
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1070	U
32	2a	1081	G
32	2a	1093	A

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Mol	Chain	Res	Type
32	2a	1094	G
32	2a	1095	U
32	2a	1101	A
32	2a	1113	C
32	2a	1116	C
32	2a	1121	U
32	2a	1125	U
32	2a	1128	C
32	2a	1129	C
32	2a	1130	A
32	2a	1136	U
32	2a	1137	C
32	2a	1138	G
32	2a	1139	G
32	2a	1140	C
32	2a	1142	G
32	2a	1146	A
32	2a	1147	C
32	2a	1152	A
32	2a	1154	G
32	2a	1159	U
32	2a	1170	A
32	2a	1183	A
32	2a	1184	G
32	2a	1188	A
32	2a	1196	U
32	2a	1197	G
32	2a	1213	A
32	2a	1214	C
32	2a	1215	G
32	2a	1224	G
32	2a	1227	A
32	2a	1233	G
32	2a	1238	A
32	2a	1240	U
32	2a	1241	G
32	2a	1247	U
32	2a	1248	A
32	2a	1250	A
32	2a	1256	A
32	2a	1257	U
32	2a	1258	G

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Mol	Chain	Res	Type
32	2a	1260	C
32	2a	1270	C
32	2a	1275	A
32	2a	1278	U
32	2a	1279	A
32	2a	1280	A
32	2a	1281	U
32	2a	1287	A
32	2a	1297	C
32	2a	1298	C
32	2a	1299	A
32	2a	1300	G
32	2a	1302	U
32	2a	1303	C
32	2a	1307	U
32	2a	1312	G
32	2a	1316	G
32	2a	1317	C
32	2a	1319	A
32	2a	1320	C
32	2a	1346	A
32	2a	1347	G
32	2a	1353	G
32	2a	1363	C
32	2a	1363(A)	A
32	2a	1364	U
32	2a	1370	G
32	2a	1384	C
32	2a	1400	5MC
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1446	U
32	2a	1447	A
32	2a	1452	C
32	2a	1456	G
32	2a	1457	G
32	2a	1458	G
32	2a	1459	C
32	2a	1492	A
32	2a	1493	A
32	2a	1499	A

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Mol	Chain	Res	Type
32	2a	1503	A
32	2a	1504	G
32	2a	1506	U
32	2a	1507	A
32	2a	1517	G
32	2a	1519	MA6
32	2a	1520	G
32	2a	1529	G
32	2a	1530	G

All (59) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	196	A
1	1A	266	G
1	1A	271(K)	U
1	1A	278	A
1	1A	746	A
1	1A	774	A
1	1A	827	U
1	1A	840	C
1	1A	888	C
1	1A	895	U
1	1A	974	G
1	1A	1047	G
1	1A	1067	A
1	1A	1074	G
1	1A	1176	G
1	1A	1210	A
1	1A	1300	U
1	1A	1301	A
1	1A	1420	U
1	1A	1442	G
1	1A	1608	A
1	1A	1653	G
1	1A	1762	A
1	1A	2126	A
1	1A	2430	A
1	1A	2689	U
1	1A	2756	U
1	1A	2893	G
1	2A	195	A

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Mol	Chain	Res	Type
1	2A	196	A
1	2A	249	C
1	2A	271(M)	G
1	2A	277	C
1	2A	532	A
1	2A	752	A
1	2A	764	A
1	2A	827	U
1	2A	840	C
1	2A	856	C
1	2A	900	A
1	2A	1051	G
1	2A	1053	C
1	2A	1065	U
1	2A	1067	A
1	2A	1073	A
1	2A	1076	C
1	2A	1210	A
1	2A	1379	A
1	2A	1442	G
1	2A	1491	G
1	2A	1992	G
1	2A	2126	A
1	2A	2171	A
1	2A	2172	U
1	2A	2321	G
1	2A	2406	U
1	2A	2439	A
1	2A	2689	U
1	2A	2756	U

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

54 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
56	FME	1v	1	56	8,9,10	1.01	1 (12%)	8,9,11	0.92	0
1	OMG	2A	2251	57,55,1	23,26,27	1.26	3 (13%)	32,38,41	1.92	6 (18%)
32	2MG	2a	1207	32	23,26,27	1.24	2 (8%)	33,38,41	2.16	7 (21%)
32	G7M	1a	527	57,32	23,26,27	1.52	4 (17%)	34,39,42	1.65	5 (14%)
1	5MU	2A	1939	1	19,22,23	1.47	5 (26%)	27,32,35	2.14	7 (25%)
1	2MU	2A	2552	57,1	19,22,24	1.32	3 (15%)	25,31,36	1.69	5 (20%)
1	PSU	1A	2605	1	18,21,22	1.34	2 (11%)	21,30,33	2.12	4 (19%)
32	PSU	2a	516	57,32	18,21,22	1.34	2 (11%)	21,30,33	2.01	5 (23%)
55	8AN	2x	76	57,55,56	21,24,25	1.38	3 (14%)	26,35,38	2.35	11 (42%)
1	OMC	1A	1920	1	19,22,23	0.76	0	25,31,34	1.03	1 (4%)
1	5MU	2A	1915	1	19,22,23	1.43	4 (21%)	27,32,35	2.12	8 (29%)
1	2MA	2A	2503	57,1	22,25,26	1.40	5 (22%)	32,37,40	2.36	9 (28%)
56	FME	2v	1	56	8,9,10	0.94	0	8,9,11	0.89	0
32	2MG	1a	1207	32	23,26,27	1.24	3 (13%)	33,38,41	2.26	8 (24%)
1	5MU	1A	1915	1	19,22,23	1.48	5 (26%)	27,32,35	2.32	8 (29%)
1	5MC	2A	1942	1	19,22,23	1.79	3 (15%)	26,32,35	1.32	3 (11%)
54	PPU	1w	76	54,1	37,40,41	2.52	18 (48%)	47,57,60	2.29	15 (31%)
32	MA6	1a	1519	32	23,26,27	0.47	0	33,38,41	2.06	9 (27%)
1	PSU	2A	1917	1	18,21,22	1.37	2 (11%)	21,30,33	1.90	3 (14%)
32	M2G	2a	966	32	24,27,28	1.34	4 (16%)	33,40,43	1.85	6 (18%)
32	UR3	2a	1498	32	19,22,23	0.99	0	26,32,35	1.70	2 (7%)
32	5MC	1a	1404	32	19,22,23	1.53	2 (10%)	26,32,35	1.19	4 (15%)
54	PPU	2w	76	54,1	37,40,41	2.35	15 (40%)	47,57,60	2.32	20 (42%)
1	5MC	1A	1962	57,1	19,22,23	1.65	3 (15%)	26,32,35	1.07	2 (7%)
43	0TD	1l	92	43	8,9,10	4.74	2 (25%)	6,11,13	5.32	3 (50%)
32	G7M	2a	527	57,32	23,26,27	1.52	3 (13%)	34,39,42	1.65	5 (14%)
1	PSU	2A	2605	1	18,21,22	1.34	2 (11%)	21,30,33	2.01	5 (23%)
1	OMG	1A	2251	55,1	23,26,27	1.24	3 (13%)	32,38,41	2.07	7 (21%)
1	5MU	1A	1939	1	19,22,23	1.27	3 (15%)	27,32,35	2.25	6 (22%)
1	2MA	1A	2503	57,1	22,25,26	1.53	4 (18%)	32,37,40	2.39	9 (28%)
32	5MC	2a	1400	32	19,22,23	1.88	2 (10%)	26,32,35	1.33	2 (7%)
1	PSU	2A	1911	1	18,21,22	1.42	2 (11%)	21,30,33	2.02	3 (14%)
1	PSU	1A	1911	1	18,21,22	1.39	2 (11%)	21,30,33	1.99	4 (19%)
32	MA6	2a	1518	32	23,26,27	0.38	0	33,38,41	2.03	9 (27%)
32	5MC	1a	967	32	19,22,23	1.69	3 (15%)	26,32,35	1.13	3 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	5MC	2a	1407	32	19,22,23	1.58	3 (15%)	26,32,35	1.11	3 (11%)
1	PSU	1A	1917	57,1	18,21,22	1.38	2 (11%)	21,30,33	1.94	3 (14%)
43	0TD	2l	92	43	8,9,10	4.56	2 (25%)	6,11,13	1.73	2 (33%)
32	MA6	2a	1519	32	23,26,27	0.42	0	33,38,41	2.10	10 (30%)
32	4OC	1a	1402	32	20,23,24	0.69	0	25,32,35	0.96	1 (4%)
32	MA6	1a	1518	32	23,26,27	0.41	0	33,38,41	1.96	9 (27%)
1	5MC	1A	1942	1	19,22,23	1.27	3 (15%)	26,32,35	1.11	4 (15%)
32	5MC	1a	1407	32	19,22,23	1.32	3 (15%)	26,32,35	1.18	3 (11%)
32	UR3	1a	1498	32	19,22,23	0.92	1 (5%)	26,32,35	1.82	4 (15%)
32	5MC	1a	1400	32	19,22,23	1.74	3 (15%)	26,32,35	1.15	2 (7%)
32	5MC	2a	1404	32	19,22,23	1.67	3 (15%)	26,32,35	1.17	4 (15%)
32	5MC	2a	967	32	19,22,23	1.69	3 (15%)	26,32,35	1.18	4 (15%)
1	OMC	2A	1920	1	19,22,23	0.77	0	25,31,34	1.01	1 (4%)
1	5MC	2A	1962	57,1	19,22,23	1.57	3 (15%)	26,32,35	1.13	2 (7%)
55	8AN	1x	76	57,55,56	21,24,25	1.50	2 (9%)	26,35,38	2.19	10 (38%)
32	PSU	1a	516	57,32	18,21,22	1.41	3 (16%)	21,30,33	2.03	5 (23%)
1	2MU	1A	2552	57,1	19,22,24	1.26	2 (10%)	25,31,36	1.82	5 (20%)
32	M2G	1a	966	32	24,27,28	1.28	4 (16%)	33,40,43	1.81	6 (18%)
32	4OC	2a	1402	32	20,23,24	0.74	0	25,32,35	0.96	1 (4%)

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
56	FME	1v	1	56	-	3/7/9/11	-
1	OMG	2A	2251	57,55,1	-	0/9/27/28	0/3/3/3
32	2MG	2a	1207	32	-	0/9/27/28	0/3/3/3
32	G7M	1a	527	57,32	-	0/7/25/26	0/3/3/3
1	5MU	2A	1939	1	-	0/7/25/26	0/2/2/2
1	2MU	2A	2552	57,1	-	0/9/27/28	0/2/2/2
1	PSU	1A	2605	1	-	0/7/25/26	0/2/2/2
32	PSU	2a	516	57,32	-	2/7/25/26	0/2/2/2
55	8AN	2x	76	57,55,56	-	1/7/25/26	0/3/3/3
1	OMC	1A	1920	1	-	1/9/27/28	0/2/2/2
1	5MU	2A	1915	1	-	2/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	2MA	2A	2503	57,1	-	0/7/25/26	0/3/3/3
56	FME	2v	1	56	-	4/7/9/11	-
32	2MG	1a	1207	32	-	0/9/27/28	0/3/3/3
1	5MU	1A	1915	1	-	2/7/25/26	0/2/2/2
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
54	PPU	1w	76	54,1	-	3/25/43/44	0/4/4/4
32	MA6	1a	1519	32	-	2/11/29/30	0/3/3/3
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
32	M2G	2a	966	32	-	0/11/29/30	0/3/3/3
32	UR3	2a	1498	32	-	1/7/25/26	0/2/2/2
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
54	PPU	2w	76	54,1	-	1/25/43/44	0/4/4/4
1	5MC	1A	1962	57,1	-	0/7/25/26	0/2/2/2
43	0TD	1l	92	43	-	2/7/12/14	-
32	G7M	2a	527	57,32	-	2/7/25/26	0/3/3/3
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
1	OMG	1A	2251	55,1	-	0/9/27/28	0/3/3/3
1	5MU	1A	1939	1	-	0/7/25/26	0/2/2/2
1	2MA	1A	2503	57,1	-	2/7/25/26	0/3/3/3
32	5MC	2a	1400	32	-	6/7/25/26	0/2/2/2
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
32	MA6	2a	1518	32	-	0/11/29/30	0/3/3/3
32	5MC	1a	967	32	-	0/7/25/26	0/2/2/2
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
1	PSU	1A	1917	57,1	-	0/7/25/26	0/2/2/2
43	0TD	2l	92	43	-	2/7/12/14	-
32	MA6	2a	1519	32	-	3/11/29/30	0/3/3/3
32	4OC	1a	1402	32	-	0/9/29/30	0/2/2/2
32	MA6	1a	1518	32	-	0/11/29/30	0/3/3/3
1	5MC	1A	1942	1	-	0/7/25/26	0/2/2/2
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
32	5MC	1a	1400	32	-	1/7/25/26	0/2/2/2
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2
32	5MC	2a	967	32	-	0/7/25/26	0/2/2/2
1	OMC	2A	1920	1	-	1/9/27/28	0/2/2/2
1	5MC	2A	1962	57,1	-	0/7/25/26	0/2/2/2
55	8AN	1x	76	57,55,56	-	1/7/25/26	0/3/3/3
32	PSU	1a	516	57,32	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	2MU	1A	2552	57,1	-	0/9/27/28	0/2/2/2
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
32	4OC	2a	1402	32	-	0/9/29/30	0/2/2/2

All (152) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	1l	92	0TD	CB-SB	-12.79	1.69	1.82
43	2l	92	0TD	CB-SB	-12.37	1.69	1.82
32	2a	1400	5MC	C5-C4	6.94	1.49	1.44
1	2A	1942	5MC	C5-C4	6.56	1.49	1.44
32	2a	967	5MC	C5-C4	6.24	1.48	1.44
32	1a	1400	5MC	C5-C4	6.22	1.48	1.44
32	2a	1404	5MC	C5-C4	6.21	1.48	1.44
32	1a	967	5MC	C5-C4	6.19	1.48	1.44
1	1A	1962	5MC	C5-C4	5.91	1.48	1.44
54	1w	76	PPU	C5-N7	-5.73	1.28	1.39
1	2A	1962	5MC	C5-C4	5.48	1.48	1.44
54	1w	76	PPU	C8-N9	-5.46	1.28	1.37
32	2a	1407	5MC	C5-C4	5.45	1.48	1.44
55	1x	76	8AN	C5-N7	-5.29	1.29	1.39
32	1a	1404	5MC	C5-C4	5.20	1.48	1.44
54	2w	76	PPU	C5-N7	-5.14	1.29	1.39
54	2w	76	PPU	C4-N9	-4.79	1.27	1.37
54	2w	76	PPU	C8-N9	-4.78	1.29	1.37
32	1a	527	G7M	C5-N7	-4.73	1.33	1.39
32	2a	527	G7M	C5-N7	-4.71	1.33	1.39
54	2w	76	PPU	C2'-C3'	-4.47	1.46	1.53
1	1A	2503	2MA	C5-C4	4.42	1.47	1.39
1	2A	2503	2MA	C5-C4	4.25	1.46	1.39
32	1a	1407	5MC	C5-C4	4.21	1.47	1.44
54	1w	76	PPU	C4-N9	-3.94	1.29	1.37
1	1A	1942	5MC	C5-C4	3.84	1.47	1.44
54	1w	76	PPU	C2'-C3'	-3.79	1.47	1.53
55	2x	76	8AN	C5-N7	-3.74	1.32	1.39
54	2w	76	PPU	O4'-C4'	-3.69	1.36	1.45
54	1w	76	PPU	O-C	-3.55	1.16	1.23
54	1w	76	PPU	C4'-C3'	-3.55	1.46	1.52
1	1A	1917	PSU	C6-C5	3.54	1.39	1.35
54	1w	76	PPU	C3'-N3'	-3.53	1.40	1.45
1	2A	1917	PSU	C6-C5	3.53	1.39	1.35
1	2A	1911	PSU	C6-C5	3.50	1.39	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	1911	PSU	C6-C5	3.49	1.39	1.35
54	2w	76	PPU	C4'-C3'	-3.44	1.46	1.52
54	1w	76	PPU	O4'-C4'	-3.44	1.37	1.45
32	2a	516	PSU	C6-C5	3.41	1.39	1.35
32	1a	516	PSU	C6-C5	3.36	1.39	1.35
32	2a	966	M2G	C5-C4	3.30	1.47	1.38
1	2A	2605	PSU	C6-C5	3.28	1.38	1.35
1	1A	1915	5MU	C2-N1	3.28	1.43	1.38
32	2a	1400	5MC	C6-C5	3.25	1.39	1.34
32	1a	527	G7M	C5-C4	3.22	1.46	1.38
32	2a	1207	2MG	C5-C4	3.20	1.47	1.38
32	2a	527	G7M	C5-C4	3.20	1.46	1.38
32	1a	1404	5MC	C6-C5	3.18	1.39	1.34
1	2A	2251	OMG	C5-C4	3.13	1.47	1.38
32	1a	966	M2G	C5-C4	3.13	1.47	1.38
55	2x	76	8AN	C5-C4	-3.09	1.33	1.39
32	1a	1400	5MC	C6-C5	3.09	1.39	1.34
1	1A	2552	2MU	C4-N3	-3.08	1.33	1.38
32	2a	966	M2G	C2-N2	3.06	1.40	1.35
54	1w	76	PPU	CD2-CG	-3.05	1.32	1.38
32	1a	1207	2MG	C5-C4	3.02	1.47	1.38
1	2A	1939	5MU	C6-C5	3.01	1.39	1.34
54	2w	76	PPU	O-C	-3.00	1.17	1.23
1	1A	2251	OMG	C5-C4	3.00	1.47	1.38
32	2a	1407	5MC	C6-C5	2.97	1.39	1.34
1	2A	1962	5MC	C6-C5	2.94	1.39	1.34
1	2A	1915	5MU	C6-C5	2.92	1.39	1.34
1	1A	1939	5MU	C6-C5	2.89	1.39	1.34
43	1l	92	0TD	CB-CA	2.86	1.55	1.54
55	2x	76	8AN	C5-C6	-2.85	1.33	1.41
1	2A	1939	5MU	C4-N3	-2.84	1.33	1.38
1	2A	2552	2MU	C4-N3	-2.83	1.33	1.38
1	2A	2251	OMG	C5-N7	-2.83	1.33	1.39
1	2A	1939	5MU	C4-C5	2.81	1.49	1.44
1	2A	1915	5MU	C2-N1	2.80	1.42	1.38
1	2A	1911	PSU	C4-N3	-2.76	1.33	1.38
54	1w	76	PPU	C-N3'	-2.76	1.28	1.34
32	1a	967	5MC	C6-C5	2.75	1.39	1.34
32	1a	516	PSU	C4-N3	-2.75	1.33	1.38
1	1A	1915	5MU	C6-C5	2.75	1.39	1.34
1	2A	2605	PSU	C4-N3	-2.74	1.33	1.38
1	1A	2605	PSU	C6-C5	2.73	1.38	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	2503	2MA	C5-C6	2.72	1.48	1.41
1	1A	1917	PSU	C4-N3	-2.71	1.33	1.38
1	1A	2605	PSU	C4-N3	-2.69	1.33	1.38
1	2A	2251	OMG	C6-N1	-2.67	1.33	1.38
32	1a	966	M2G	C6-N1	-2.66	1.33	1.38
1	1A	1942	5MC	C6-C5	2.64	1.38	1.34
1	1A	1915	5MU	C4-N3	-2.64	1.33	1.38
1	1A	1962	5MC	C6-N1	-2.62	1.33	1.38
1	1A	1939	5MU	C4-C5	2.62	1.49	1.44
55	1x	76	8AN	C5-C6	-2.59	1.33	1.41
54	1w	76	PPU	C6-N1	-2.59	1.29	1.34
1	2A	1942	5MC	C6-N1	-2.57	1.33	1.38
32	2a	966	M2G	C6-N1	-2.57	1.34	1.38
1	2A	1915	5MU	C4-N3	-2.56	1.34	1.38
32	1a	966	M2G	C2-N2	2.55	1.39	1.35
1	1A	2251	OMG	C6-N1	-2.55	1.34	1.38
1	2A	1942	5MC	C6-C5	2.54	1.38	1.34
32	1a	1407	5MC	C6-C5	2.54	1.38	1.34
32	2a	1404	5MC	C6-C5	2.53	1.38	1.34
32	2a	967	5MC	C6-C5	2.49	1.38	1.34
54	1w	76	PPU	C2-N3	-2.47	1.29	1.33
1	2A	1917	PSU	C4-N3	-2.47	1.34	1.38
32	2a	516	PSU	C4-N3	-2.46	1.34	1.38
54	2w	76	PPU	O5'-C5'	-2.46	1.37	1.44
32	2a	527	G7M	C6-N1	-2.45	1.34	1.38
1	1A	1911	PSU	C4-N3	-2.43	1.34	1.38
32	1a	1207	2MG	C6-N1	-2.42	1.34	1.38
1	2A	2503	2MA	C5-C6	2.38	1.47	1.41
43	2l	92	0TD	CB-CA	2.37	1.55	1.54
1	1A	2503	2MA	C8-N7	2.37	1.36	1.31
32	1a	1400	5MC	C6-N1	-2.37	1.34	1.38
1	1A	2251	OMG	C5-N7	-2.36	1.34	1.39
32	2a	1207	2MG	C6-N1	-2.35	1.34	1.38
1	1A	1962	5MC	C6-C5	2.35	1.38	1.34
1	1A	2503	2MA	C5-N7	-2.34	1.34	1.39
1	2A	1915	5MU	C4-C5	2.33	1.48	1.44
54	1w	76	PPU	O5'-C5'	-2.30	1.37	1.44
54	2w	76	PPU	CE1-CZ	-2.28	1.34	1.38
1	2A	2552	2MU	C5-C4	2.27	1.48	1.43
1	2A	2552	2MU	C2-N1	2.24	1.42	1.38
32	2a	967	5MC	C6-N1	-2.24	1.34	1.38
54	2w	76	PPU	C3'-N3'	-2.23	1.42	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	1962	5MC	C6-N1	-2.23	1.34	1.38
1	2A	2503	2MA	C8-N7	2.23	1.36	1.31
1	1A	1915	5MU	C4-C5	2.22	1.48	1.44
32	2a	1404	5MC	C6-N1	-2.21	1.34	1.38
1	2A	1939	5MU	C2-N3	-2.21	1.34	1.38
54	2w	76	PPU	C2-N3	-2.20	1.30	1.33
54	1w	76	PPU	CE2-CZ	-2.19	1.34	1.38
1	1A	1939	5MU	C4-N3	-2.19	1.34	1.38
54	1w	76	PPU	C2'-C1'	-2.18	1.46	1.53
32	1a	527	G7M	C6-N1	-2.18	1.34	1.38
54	1w	76	PPU	CE1-CD1	-2.17	1.35	1.38
32	1a	1407	5MC	C6-N1	-2.17	1.34	1.38
1	2A	2503	2MA	C5-N7	-2.17	1.35	1.39
32	1a	967	5MC	C6-N1	-2.16	1.34	1.38
54	2w	76	PPU	CE1-CD1	-2.16	1.35	1.38
32	1a	1498	UR3	C6-C5	2.16	1.40	1.35
1	1A	1942	5MC	C6-N1	-2.15	1.34	1.38
32	1a	1207	2MG	C4-N9	-2.15	1.32	1.38
1	2A	1939	5MU	C6-N1	-2.13	1.34	1.38
54	1w	76	PPU	CE1-CZ	-2.13	1.34	1.38
32	2a	1407	5MC	C6-N1	-2.09	1.34	1.38
32	1a	527	G7M	C4-N9	-2.09	1.32	1.38
32	2a	966	M2G	C5-N7	-2.08	1.34	1.39
32	1a	516	PSU	C2-N3	-2.08	1.34	1.37
54	2w	76	PPU	CE2-CZ	-2.07	1.34	1.38
54	1w	76	PPU	C4-N3	-2.04	1.30	1.34
1	1A	2552	2MU	C2-N3	-2.04	1.34	1.38
54	2w	76	PPU	CD1-CG	-2.03	1.34	1.38
1	1A	1915	5MU	C2-N3	-2.03	1.34	1.38
56	1v	1	FME	CA-N	-2.03	1.43	1.46
32	1a	966	M2G	C5-N7	-2.02	1.35	1.39
1	2A	2503	2MA	C4-N9	-2.02	1.33	1.37
54	2w	76	PPU	C4-N3	-2.00	1.30	1.34

All (283) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	1l	92	0TD	CSB-SB-CB	12.16	124.23	102.36
1	1A	2503	2MA	C5-C4-N3	-8.01	118.75	127.18
1	2A	2503	2MA	C5-C4-N3	-7.90	118.86	127.18
32	1a	1498	UR3	C4-N3-C2	-7.37	118.65	124.58
32	1a	1207	2MG	C2-N3-C4	7.03	120.79	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1207	2MG	C2-N3-C4	6.79	120.50	112.00
32	2a	1498	UR3	C4-N3-C2	-6.79	119.12	124.58
1	1A	2251	OMG	C5-C4-N3	-6.51	118.03	128.39
1	1A	2605	PSU	N1-C2-N3	6.50	122.03	115.17
54	1w	76	PPU	C5-C4-N3	-6.46	117.83	126.72
1	2A	1911	PSU	N1-C2-N3	6.45	121.97	115.17
1	2A	2503	2MA	N3-C4-N9	6.40	135.11	126.99
32	1a	516	PSU	N1-C2-N3	6.38	121.89	115.17
1	2A	2251	OMG	C5-C4-N3	-6.31	118.35	128.39
1	1A	2503	2MA	N3-C4-N9	6.28	134.96	126.99
1	2A	2605	PSU	N1-C2-N3	6.26	121.77	115.17
32	2a	966	M2G	C5-C4-N3	-6.22	118.49	128.39
1	1A	1917	PSU	N1-C2-N3	6.02	121.52	115.17
1	2A	1917	PSU	N1-C2-N3	5.98	121.47	115.17
32	2a	516	PSU	N1-C2-N3	5.98	121.47	115.17
1	1A	1911	PSU	N1-C2-N3	5.96	121.46	115.17
32	1a	966	M2G	C5-C4-N3	-5.75	119.23	128.39
32	2a	1207	2MG	C5-C4-N3	-5.75	119.25	128.39
55	2x	76	8AN	N1-C2-N3	-5.66	120.02	128.58
1	2A	1939	5MU	N3-C2-N1	5.55	122.12	114.89
55	1x	76	8AN	N1-C2-N3	-5.46	120.31	128.58
55	2x	76	8AN	C5-C4-N3	-5.42	119.26	126.72
1	1A	2251	OMG	C2-N3-C4	5.41	121.63	112.30
54	2w	76	PPU	C5-C4-N3	-5.39	119.30	126.72
1	1A	1939	5MU	C4-N3-C2	-5.38	120.29	127.34
32	1a	1207	2MG	C5-C4-N3	-5.38	119.83	128.39
32	2a	527	G7M	N9-C4-N3	5.27	136.49	125.95
1	2A	1939	5MU	C4-N3-C2	-5.24	120.47	127.34
32	1a	527	G7M	N9-C4-N3	5.19	136.32	125.95
1	1A	2552	2MU	N3-C2-N1	5.18	121.64	114.89
32	1a	1519	MA6	N1-C2-N3	-5.18	120.74	128.58
32	2a	527	G7M	C5-C4-N3	-5.11	118.49	128.15
1	1A	1939	5MU	N3-C2-N1	5.11	121.54	114.89
1	2A	1915	5MU	N3-C2-N1	5.06	121.48	114.89
1	1A	1915	5MU	N3-C2-N1	5.03	121.44	114.89
32	2a	1519	MA6	C5-C4-N3	-4.99	119.84	126.72
32	2a	1518	MA6	N1-C2-N3	-4.95	121.08	128.58
32	2a	966	M2G	N9-C4-N3	4.89	135.72	125.95
32	1a	527	G7M	C5-C4-N3	-4.89	118.92	128.15
54	1w	76	PPU	N3-C4-N9	4.81	135.35	127.17
1	1A	1915	5MU	C4-N3-C2	-4.75	121.11	127.34
32	2a	1519	MA6	N1-C2-N3	-4.72	121.43	128.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2w	76	PPU	O2'-C2'-C3'	-4.71	99.63	111.16
1	2A	2552	2MU	N3-C2-N1	4.71	121.02	114.89
1	2A	1915	5MU	C4-N3-C2	-4.65	121.24	127.34
1	2A	2251	OMG	N9-C4-N3	4.64	135.24	125.95
32	1a	1518	MA6	N1-C2-N3	-4.63	121.57	128.58
1	1A	2251	OMG	N9-C4-N3	4.62	135.19	125.95
54	1w	76	PPU	C2-N1-C6	4.61	123.09	111.83
1	2A	2251	OMG	C2-N3-C4	4.61	120.23	112.30
54	2w	76	PPU	CA-C-N3'	4.59	122.43	116.21
1	1A	1939	5MU	C5-C4-N3	4.52	119.25	115.32
1	1A	1915	5MU	C1'-N1-C2	4.44	125.57	117.59
1	1A	1939	5MU	O2-C2-N1	-4.44	117.02	122.80
54	2w	76	PPU	C4-C5-N7	-4.44	105.51	110.58
32	1a	527	G7M	C2-N3-C4	4.40	119.89	112.30
32	2a	527	G7M	C2-N3-C4	4.39	119.86	112.30
32	2a	966	M2G	C2-N3-C4	4.31	120.48	112.51
1	1A	1915	5MU	C5-C4-N3	4.30	119.06	115.32
32	1a	1519	MA6	C2-N1-C6	4.28	122.27	111.83
32	2a	516	PSU	C4-N3-C2	-4.25	120.51	126.37
1	1A	2552	2MU	C4-N3-C2	-4.24	121.35	126.61
54	1w	76	PPU	C4-C5-N7	-4.22	105.75	110.58
1	1A	2605	PSU	O2-C2-N1	-4.22	118.44	122.79
32	2a	1518	MA6	C5-C4-N3	-4.21	120.92	126.72
32	1a	1207	2MG	C6-C5-N7	4.20	137.94	130.29
1	1A	2605	PSU	C4-N3-C2	-4.20	120.58	126.37
1	2A	2605	PSU	C4-N3-C2	-4.19	120.59	126.37
1	2A	1939	5MU	C5-C4-N3	4.19	118.97	115.32
1	1A	1939	5MU	O4-C4-C5	-4.19	120.12	124.92
32	1a	966	M2G	N9-C4-N3	4.17	134.30	125.95
32	1a	966	M2G	C2-N3-C4	4.17	120.22	112.51
54	1w	76	PPU	N1-C6-N6	4.15	121.91	116.86
32	2a	1518	MA6	C2-N1-C6	4.15	121.97	111.83
1	1A	1915	5MU	O4-C4-C5	-4.15	120.17	124.92
32	1a	1518	MA6	C2-N1-C6	4.13	121.92	111.83
1	2A	2552	2MU	C4-N3-C2	-4.13	121.49	126.61
32	1a	516	PSU	C4-N3-C2	-4.12	120.69	126.37
55	1x	76	8AN	C5-C4-N3	-4.12	121.05	126.72
32	1a	1519	MA6	C5-C4-N3	-4.12	121.05	126.72
1	1A	1917	PSU	C4-N3-C2	-4.02	120.83	126.37
32	1a	1518	MA6	C5-C4-N3	-4.01	121.19	126.72
1	1A	1911	PSU	C4-N3-C2	-4.01	120.84	126.37
32	2a	1519	MA6	C4-C5-N7	-3.99	106.02	110.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	1915	5MU	C5-C4-N3	3.93	118.74	115.32
1	1A	2503	2MA	C4-C5-N7	-3.92	106.10	110.58
1	2A	1911	PSU	C4-N3-C2	-3.89	121.01	126.37
1	2A	1915	5MU	O4-C4-C5	-3.89	120.47	124.92
55	1x	76	8AN	C5-N7-C8	3.88	109.55	103.45
54	2w	76	PPU	C2-N1-C6	3.86	121.26	111.83
1	2A	1939	5MU	C5-C6-N1	-3.86	119.12	123.31
32	2a	1207	2MG	N9-C4-N3	3.85	133.65	125.95
32	2a	1519	MA6	C5-N7-C8	3.84	109.48	103.45
32	2a	1518	MA6	C5-N7-C8	3.84	109.48	103.45
1	1A	1939	5MU	C5-C6-N1	-3.82	119.17	123.31
32	1a	1519	MA6	C4-C5-N7	-3.82	106.22	110.58
55	1x	76	8AN	N9-C8-N7	-3.81	108.53	113.94
54	2w	76	PPU	N1-C6-N6	3.78	121.46	116.86
32	2a	1519	MA6	C2-N1-C6	3.76	121.02	111.83
1	1A	1915	5MU	C1'-N1-C6	-3.73	115.01	121.15
32	1a	1519	MA6	C5-N7-C8	3.73	109.31	103.45
1	2A	1942	5MC	C5-C6-N1	-3.71	119.28	123.31
32	1a	1207	2MG	N1-C2-N2	3.70	120.34	116.56
32	1a	1518	MA6	C5-N7-C8	3.68	109.24	103.45
32	2a	1207	2MG	C6-C5-N7	3.67	136.98	130.29
32	2a	1518	MA6	C4-C5-N7	-3.66	106.40	110.58
54	1w	76	PPU	C4-C5-C6	3.64	119.67	115.91
32	2a	1519	MA6	C2-N3-C4	3.61	120.66	111.83
54	2w	76	PPU	C2-N3-C4	3.60	120.62	111.83
1	2A	1917	PSU	C4-N3-C2	-3.60	121.41	126.37
1	2A	1962	5MC	C5-C6-N1	-3.58	119.42	123.31
1	2A	2503	2MA	N6-C6-N1	3.53	121.78	117.03
43	1l	92	0TD	OD2-CG-CB	3.51	120.74	113.15
32	1a	1207	2MG	N9-C4-N3	3.50	132.96	125.95
1	2A	1911	PSU	O2-C2-N1	-3.50	119.18	122.79
32	2a	1518	MA6	N9-C8-N7	-3.49	108.99	113.94
1	2A	1917	PSU	O2-C2-N1	-3.49	119.19	122.79
32	1a	1400	5MC	C5-C6-N1	-3.48	119.53	123.31
1	1A	1911	PSU	O2-C2-N1	-3.48	119.20	122.79
32	2a	1400	5MC	C5-C4-N3	-3.46	118.21	121.75
32	1a	1518	MA6	C4-C5-N7	-3.45	106.64	110.58
54	2w	76	PPU	O-C-CA	-3.43	113.05	120.28
55	2x	76	8AN	N9-C8-N7	-3.41	109.09	113.94
32	1a	1519	MA6	C2-N3-C4	3.40	120.13	111.83
55	2x	76	8AN	C2-N3-C4	3.38	120.09	111.83
32	1a	1404	5MC	C5-C6-N1	-3.38	119.64	123.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	1a	1518	MA6	N9-C8-N7	-3.38	109.14	113.94
1	2A	1915	5MU	C1'-N1-C2	3.37	123.65	117.59
55	2x	76	8AN	C5-C4-N9	3.36	109.47	105.81
32	2a	516	PSU	O2-C2-N1	-3.35	119.33	122.79
54	1w	76	PPU	C2-N3-C4	3.35	120.01	111.83
32	2a	1404	5MC	C5-C6-N1	-3.33	119.70	123.31
1	2A	2503	2MA	C4-C5-N7	-3.33	106.78	110.58
32	2a	1518	MA6	C2-N3-C4	3.33	119.95	111.83
32	1a	966	M2G	C6-C5-N7	3.32	136.34	130.29
1	1A	2251	OMG	C6-C5-N7	3.32	136.33	130.29
1	1A	2503	2MA	C4-N9-C8	3.30	109.20	105.74
1	2A	2503	2MA	C4-N9-C8	3.26	109.16	105.74
55	1x	76	8AN	C2-N3-C4	3.23	119.73	111.83
32	1a	516	PSU	O2-C2-N1	-3.21	119.47	122.79
32	2a	1519	MA6	N9-C8-N7	-3.20	109.39	113.94
1	1A	1942	5MC	C5-C6-N1	-3.18	119.86	123.31
1	2A	1942	5MC	C5-C4-N3	-3.18	118.50	121.75
32	2a	1498	UR3	C5-C4-N3	3.17	119.22	115.04
32	1a	1519	MA6	N9-C8-N7	-3.17	109.44	113.94
55	2x	76	8AN	C5-N7-C8	3.16	108.42	103.45
54	2w	76	PPU	N3-C4-N9	3.16	132.54	127.17
32	2a	1400	5MC	O2-C2-N3	-3.14	117.37	122.33
54	1w	76	PPU	CG-CB-CA	-3.11	107.76	114.13
32	1a	1207	2MG	C4-C5-N7	-3.09	105.78	110.67
54	1w	76	PPU	O2'-C2'-C1'	-3.08	99.49	110.10
43	2l	92	0TD	OD2-CG-CB	3.07	119.79	113.15
32	1a	1518	MA6	C2-N3-C4	3.07	119.32	111.83
1	2A	1939	5MU	O4-C4-C5	-3.04	121.44	124.92
1	1A	2503	2MA	C5-N7-C8	3.02	108.19	103.45
32	2a	1207	2MG	C4-C5-N7	-3.00	105.91	110.67
54	1w	76	PPU	C4'-O4'-C1'	3.00	116.08	109.47
32	1a	967	5MC	C5-C6-N1	-2.98	120.07	123.31
1	1A	1917	PSU	O2-C2-N1	-2.94	119.76	122.79
32	2a	1519	MA6	N3-C4-N9	2.93	132.15	127.17
1	1A	1915	5MU	O2-C2-N3	-2.91	116.12	121.49
32	2a	1404	5MC	C5-C4-N3	-2.90	118.78	121.75
32	2a	1407	5MC	C5-C6-N1	-2.85	120.22	123.31
1	1A	2251	OMG	C4-C5-N7	-2.84	106.17	110.67
54	1w	76	PPU	C5-N7-C8	2.84	107.91	103.45
1	1A	2503	2MA	C2-N1-C6	2.83	122.44	118.10
32	2a	1207	2MG	N1-C2-N2	2.81	119.43	116.56
54	2w	76	PPU	C-CA-N	-2.81	98.77	109.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	1a	1498	UR3	C5-C4-N3	2.81	118.74	115.04
32	2a	1407	5MC	C5-C4-N3	-2.80	118.88	121.75
1	1A	2503	2MA	N6-C6-N1	2.80	120.80	117.03
32	1a	1400	5MC	C5-C4-N3	-2.79	118.90	121.75
32	2a	967	5MC	C5-C4-N3	-2.78	118.91	121.75
32	1a	1407	5MC	C5-C4-N3	-2.77	118.92	121.75
1	2A	2605	PSU	O2-C2-N1	-2.75	119.95	122.79
1	1A	1962	5MC	C5-C6-N1	-2.74	120.34	123.31
1	2A	1939	5MU	O2-C2-N1	-2.74	119.24	122.80
54	1w	76	PPU	O2'-C2'-C3'	-2.73	104.48	111.16
1	1A	1920	OMC	O2-C2-N3	-2.73	118.03	122.33
1	2A	2552	2MU	C5-C4-N3	2.72	118.61	114.80
54	2w	76	PPU	CD1-CE1-CZ	2.72	122.84	119.73
32	1a	1404	5MC	C5-C4-N3	-2.71	118.97	121.75
32	2a	1519	MA6	C4-C5-C6	2.71	118.71	115.91
1	1A	2552	2MU	C5-C4-N3	2.71	118.59	114.80
1	2A	1962	5MC	C5-C4-N3	-2.71	118.98	121.75
1	2A	2503	2MA	C2-N1-C6	2.70	122.26	118.10
32	1a	1404	5MC	O2-C2-N3	-2.70	118.07	122.33
54	2w	76	PPU	N3-C2-N1	-2.70	124.50	128.58
43	1l	92	0TD	OD1-CG-CB	-2.70	116.80	122.44
32	2a	966	M2G	C6-C5-N7	2.69	135.19	130.29
55	2x	76	8AN	C4-C5-N7	-2.67	107.53	110.58
32	1a	1402	4OC	C6-C5-C4	2.66	120.21	117.00
54	1w	76	PPU	N3-C2-N1	-2.66	124.56	128.58
32	1a	967	5MC	C5-C4-N3	-2.65	119.04	121.75
32	2a	1518	MA6	N3-C4-N9	2.64	131.66	127.17
54	2w	76	PPU	C5-C6-N6	-2.64	121.16	125.33
1	1A	2503	2MA	N9-C8-N7	-2.63	110.21	113.94
55	1x	76	8AN	N3-C4-N9	2.62	131.62	127.17
32	1a	1207	2MG	N2-C2-N3	-2.61	117.19	120.51
1	2A	2503	2MA	C5-N7-C8	2.61	107.55	103.45
55	2x	76	8AN	C6-C5-C4	2.61	120.73	117.18
32	1a	1518	MA6	N3-C4-N9	2.60	131.59	127.17
1	1A	1915	5MU	C5-C6-N1	-2.60	120.49	123.31
1	2A	1915	5MU	C1'-N1-C6	-2.59	116.88	121.15
32	2a	967	5MC	C5-C6-N1	-2.57	120.52	123.31
32	1a	966	M2G	C4-C5-N7	-2.56	106.62	110.67
1	2A	2251	OMG	C6-C5-N7	2.53	134.89	130.29
1	2A	1915	5MU	C5-C6-N1	-2.51	120.58	123.31
1	2A	1920	OMC	O2-C2-N3	-2.51	118.37	122.33
32	2a	1207	2MG	N2-C2-N3	-2.51	117.32	120.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	1962	5MC	C5-C4-N3	-2.50	119.20	121.75
32	1a	1518	MA6	C4-C5-C6	2.50	118.49	115.91
32	1a	527	G7M	O6-C6-C5	-2.49	122.46	128.01
32	1a	1498	UR3	C6-N1-C2	-2.48	119.77	121.80
32	1a	1407	5MC	C5-C6-N1	-2.48	120.62	123.31
54	2w	76	PPU	C6-C5-N7	2.45	137.35	133.43
43	2l	92	0TD	OD1-CG-CB	-2.44	117.33	122.44
1	2A	2503	2MA	N9-C8-N7	-2.43	110.49	113.94
54	1w	76	PPU	CM-OC-CZ	2.43	122.70	117.50
55	2x	76	8AN	N3-C4-N9	2.41	131.27	127.17
54	2w	76	PPU	C5-N7-C8	2.40	107.22	103.45
54	2w	76	PPU	CM-OC-CZ	2.40	122.64	117.50
1	2A	2251	OMG	C4-C5-N7	-2.40	106.87	110.67
1	1A	2552	2MU	O4-C4-C5	-2.38	121.06	125.16
1	2A	1942	5MC	CM5-C5-C6	-2.37	119.64	122.85
1	1A	1911	PSU	C6-C5-C4	-2.37	116.58	118.17
1	2A	2251	OMG	O6-C6-C5	-2.34	120.37	126.53
55	1x	76	8AN	C5-C6-N6	-2.33	117.51	123.29
32	1a	1498	UR3	C3U-N3-C4	2.33	121.10	117.87
1	2A	2552	2MU	C2'-C1'-N1	-2.32	109.83	114.24
1	1A	2503	2MA	C6-C5-N7	2.32	136.55	132.09
32	2a	516	PSU	C5-C6-N1	-2.31	118.93	122.14
32	1a	1519	MA6	N3-C4-N9	2.31	131.09	127.17
32	2a	1518	MA6	C4-C5-C6	2.30	118.29	115.91
1	1A	2552	2MU	O2-C2-N1	-2.29	119.81	122.80
32	2a	516	PSU	O4'-C1'-C2'	2.29	108.32	105.15
55	2x	76	8AN	C4'-O4'-C1'	-2.28	104.44	109.47
32	2a	1407	5MC	O2-C2-N3	-2.27	118.76	122.33
32	2a	966	M2G	C4-C5-N7	-2.26	107.09	110.67
32	1a	516	PSU	C5-C6-N1	-2.25	119.02	122.14
55	1x	76	8AN	C4'-O4'-C1'	-2.24	104.52	109.47
55	2x	76	8AN	O4'-C1'-N9	2.23	112.38	108.09
54	2w	76	PPU	C3'-N3'-C	-2.22	119.82	123.20
1	1A	1942	5MC	C5-C4-N4	-2.22	118.27	121.39
1	2A	2605	PSU	C5-C6-N1	-2.22	119.06	122.14
1	2A	2552	2MU	O4-C4-C5	-2.21	121.35	125.16
32	2a	527	G7M	O6-C6-C5	-2.21	123.08	128.01
55	1x	76	8AN	C5-C6-N1	2.20	123.09	117.51
32	1a	516	PSU	O4'-C1'-C2'	2.18	108.17	105.15
32	2a	1404	5MC	O2-C2-N3	-2.18	118.90	122.33
1	1A	2605	PSU	C5-C6-N1	-2.17	119.13	122.14
1	2A	2503	2MA	C6-C5-N7	2.17	136.27	132.09

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2w	76	PPU	C5-C4-N9	2.16	108.17	105.81
1	1A	2251	OMG	O6-C6-C5	-2.16	120.83	126.53
32	2a	967	5MC	O2-C2-N3	-2.16	118.93	122.33
1	1A	1942	5MC	C5-C4-N3	-2.15	119.55	121.75
32	2a	966	M2G	O6-C6-C5	-2.12	120.95	126.53
55	1x	76	8AN	C4-C5-N7	-2.11	108.17	110.58
54	1w	76	PPU	O4'-C1'-C2'	-2.10	102.11	106.62
32	1a	1519	MA6	C4-C5-C6	2.10	118.08	115.91
32	1a	1407	5MC	N4-C4-N3	2.09	122.29	118.51
32	2a	967	5MC	C1'-N1-C6	-2.08	117.72	121.15
32	1a	1404	5MC	N1-C2-N3	2.08	122.42	118.80
1	2A	1939	5MU	C5M-C5-C4	2.08	121.00	118.78
54	2w	76	PPU	CE1-CD1-CG	-2.07	118.28	121.00
32	2a	1402	4OC	C6-C5-C4	2.07	119.49	117.00
32	2a	527	G7M	C5-C6-N1	2.07	116.11	111.84
1	2A	1915	5MU	O2-C2-N3	-2.06	117.70	121.49
32	2a	1404	5MC	CM5-C5-C6	-2.04	120.09	122.85
1	1A	2251	OMG	C5-C6-N1	2.04	118.44	113.25
54	2w	76	PPU	CB-CA-N	-2.03	103.63	111.40
32	1a	527	G7M	C5-C6-N1	2.03	116.03	111.84
1	1A	1942	5MC	N4-C4-N3	2.03	122.18	118.51
32	1a	966	M2G	O6-C6-C5	-2.02	121.20	126.53
32	2a	1519	MA6	C5-C4-N9	2.02	108.01	105.81
1	2A	2605	PSU	O2-C2-N3	-2.02	118.28	121.86
32	1a	1207	2MG	C8-N7-C5	2.01	107.83	104.26
32	1a	967	5MC	CM5-C5-C6	-2.01	120.14	122.85

There are no chirality outliers.

All (42) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	1A	1915	5MU	O4'-C1'-N1-C2
1	1A	1915	5MU	O4'-C1'-N1-C6
43	1l	92	0TD	CG-CB-SB-CSB
1	2A	1915	5MU	O4'-C1'-N1-C2
1	2A	1915	5MU	O4'-C1'-N1-C6
32	2a	1400	5MC	O4'-C1'-N1-C2
32	2a	1400	5MC	O4'-C1'-N1-C6
32	2a	1519	MA6	O4'-C4'-C5'-O5'
55	1x	76	8AN	C4'-C5'-O5'-P
56	1v	1	FME	O1-CN-N-CA
56	2v	1	FME	O1-CN-N-CA

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Mol	Chain	Res	Type	Atoms
56	2v	1	FME	C-CA-CB-CG
56	2v	1	FME	CA-CB-CG-SD
56	1v	1	FME	CA-CB-CG-SD
32	2a	1400	5MC	O4'-C4'-C5'-O5'
32	2a	1400	5MC	C3'-C4'-C5'-O5'
32	2a	527	G7M	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'
32	1a	1519	MA6	O4'-C4'-C5'-O5'
54	1w	76	PPU	N-CA-CB-CG
55	2x	76	8AN	C4'-C5'-O5'-P
32	2a	1400	5MC	C2'-C1'-N1-C6
54	1w	76	PPU	CE2-CZ-OC-CM
56	2v	1	FME	CB-CA-N-CN
54	1w	76	PPU	CE1-CZ-OC-CM
43	2l	92	0TD	CG-CB-SB-CSB
43	2l	92	0TD	SB-CB-CG-OD1
54	2w	76	PPU	N-CA-CB-CG
32	2a	516	PSU	O4'-C1'-C5-C4
32	2a	527	G7M	O4'-C4'-C5'-O5'
32	2a	1400	5MC	C2'-C1'-N1-C2
1	1A	2503	2MA	C4'-C5'-O5'-P
32	2a	1519	MA6	C4'-C5'-O5'-P
32	1a	1400	5MC	O4'-C4'-C5'-O5'
43	1l	92	0TD	CA-CB-SB-CSB
1	1A	2503	2MA	O4'-C4'-C5'-O5'
32	2a	516	PSU	O4'-C1'-C5-C6
56	1v	1	FME	C-CA-CB-CG
32	2a	1498	UR3	O4'-C4'-C5'-O5'
32	1a	1519	MA6	C3'-C4'-C5'-O5'
1	1A	1920	OMC	C2'-C1'-N1-C2
1	2A	1920	OMC	C2'-C1'-N1-C2

There are no ring outliers.

34 monomers are involved in 62 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	2A	2251	OMG	1	0
32	2a	1207	2MG	1	0
32	1a	527	G7M	1	0
1	2A	1939	5MU	1	0
1	2A	2552	2MU	4	0
55	2x	76	8AN	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	2v	1	FME	1	0
1	2A	1942	5MC	1	0
54	1w	76	PPU	8	0
32	1a	1519	MA6	3	0
32	2a	966	M2G	2	0
32	2a	1498	UR3	1	0
32	1a	1404	5MC	1	0
54	2w	76	PPU	5	0
43	1l	92	0TD	1	0
32	2a	527	G7M	1	0
1	1A	2251	OMG	1	0
1	1A	1939	5MU	2	0
1	1A	2503	2MA	3	0
32	2a	1400	5MC	2	0
1	2A	1911	PSU	1	0
32	2a	1518	MA6	3	0
43	2l	92	0TD	1	0
32	2a	1519	MA6	2	0
32	1a	1402	4OC	2	0
32	1a	1518	MA6	3	0
32	1a	1407	5MC	2	0
32	1a	1498	UR3	1	0
32	1a	1400	5MC	2	0
32	2a	967	5MC	3	0
1	2A	1920	OMC	1	0
55	1x	76	8AN	3	0
32	1a	966	M2G	1	0
32	2a	1402	4OC	2	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 2450 ligands modelled in this entry, 2440 are monoatomic - leaving 10 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	MPD	1a	1858	32	7,7,7	0.34	0	9,10,10	0.51	0
59	ARG	1F	316	-	10,11,11	0.74	1 (10%)	9,13,13	0.99	1 (11%)
58	MPD	1T	207	-	7,7,7	0.31	0	9,10,10	0.44	0
61	SF4	2d	501	35	0,12,12	-	-	-		
61	SF4	1d	306	35	0,12,12	-	-	-		
58	MPD	18	104	-	7,7,7	0.34	0	9,10,10	0.32	0
58	MPD	2A	3717	-	7,7,7	0.30	0	9,10,10	0.12	0
58	MPD	2A	3718	-	7,7,7	0.30	0	9,10,10	0.24	0
58	MPD	1A	4005	-	7,7,7	0.32	0	9,10,10	0.33	0
59	ARG	1B	231	-	10,11,11	0.72	1 (10%)	9,13,13	1.00	1 (11%)

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	MPD	1a	1858	32	-	4/5/5/5	-
59	ARG	1F	316	-	-	1/11/11/11	-
58	MPD	1T	207	-	-	4/5/5/5	-
61	SF4	2d	501	35	-	-	0/6/5/5
61	SF4	1d	306	35	-	-	0/6/5/5
58	MPD	18	104	-	-	4/5/5/5	-
58	MPD	2A	3717	-	-	5/5/5/5	-
58	MPD	2A	3718	-	-	3/5/5/5	-
58	MPD	1A	4005	-	-	3/5/5/5	-
59	ARG	1B	231	-	-	4/11/11/11	-

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	1F	316	ARG	OXT-C	-2.16	1.23	1.30
59	1B	231	ARG	OXT-C	-2.01	1.24	1.30

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	1B	231	ARG	OXT-C-O	-2.91	117.47	124.08
59	1F	316	ARG	OXT-C-O	-2.70	117.95	124.08

There are no chirality outliers.

All (28) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
58	1A	4005	MPD	C2-C3-C4-O4
58	1A	4005	MPD	C2-C3-C4-C5
58	1T	207	MPD	C1-C2-C3-C4
58	1T	207	MPD	O2-C2-C3-C4
58	1a	1858	MPD	C2-C3-C4-O4
58	1a	1858	MPD	C2-C3-C4-C5
58	2A	3717	MPD	C2-C3-C4-O4
58	2A	3717	MPD	C2-C3-C4-C5
59	1B	231	ARG	C-CA-CB-CG
59	1F	316	ARG	NE-CD-CG-CB
58	18	104	MPD	C2-C3-C4-O4
58	1A	4005	MPD	CM-C2-C3-C4
58	1T	207	MPD	CM-C2-C3-C4
58	1a	1858	MPD	C1-C2-C3-C4
58	1a	1858	MPD	CM-C2-C3-C4
58	2A	3717	MPD	CM-C2-C3-C4
58	2A	3718	MPD	CM-C2-C3-C4
58	1T	207	MPD	C2-C3-C4-C5
58	18	104	MPD	C2-C3-C4-C5
59	1B	231	ARG	NE-CD-CG-CB
59	1B	231	ARG	CA-CB-CG-CD
58	18	104	MPD	O2-C2-C3-C4
58	2A	3717	MPD	O2-C2-C3-C4
58	2A	3718	MPD	O2-C2-C3-C4
58	18	104	MPD	C1-C2-C3-C4
58	2A	3717	MPD	C1-C2-C3-C4
58	2A	3718	MPD	C1-C2-C3-C4
59	1B	231	ARG	OXT-C-CA-N

There are no ring outliers.

5 monomers are involved in 10 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
58	1a	1858	MPD	5	0
59	1F	316	ARG	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
58	18	104	MPD	1	0
58	2A	3717	MPD	1	0
59	1B	231	ARG	1	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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%)	-0.40	62 (2%) 62 56	33, 51, 106, 123	0
1	2A	2856/2915 (97%)	-0.02	81 (2%) 55 48	47, 70, 110, 123	0
2	1B	120/121 (99%)	-0.35	1 (0%) 82 79	43, 64, 77, 93	0
2	2B	120/121 (99%)	0.84	8 (6%) 24 18	75, 96, 105, 113	0
3	1D	275/276 (99%)	0.02	2 (0%) 84 82	35, 49, 62, 75	0
3	2D	275/276 (99%)	0.45	5 (1%) 67 63	44, 64, 76, 93	0
4	1E	204/206 (99%)	0.11	3 (1%) 72 67	35, 57, 74, 87	0
4	2E	204/206 (99%)	0.35	2 (0%) 79 76	45, 68, 83, 94	0
5	1F	203/210 (96%)	0.06	3 (1%) 72 67	36, 57, 80, 98	0
5	2F	203/210 (96%)	0.44	2 (0%) 79 76	46, 79, 91, 99	0
6	1G	181/182 (99%)	0.53	7 (3%) 43 35	58, 76, 89, 97	0
6	2G	181/182 (99%)	1.43	36 (19%) 3 2	88, 97, 103, 109	0
7	1H	174/180 (96%)	0.29	1 (0%) 85 83	54, 67, 79, 86	0
7	2H	173/180 (96%)	0.94	10 (5%) 29 22	76, 93, 99, 101	0
8	1I	147/148 (99%)	0.71	4 (2%) 56 49	60, 83, 95, 102	0
8	2I	146/148 (98%)	1.49	37 (25%) 1 1	69, 91, 104, 110	0
9	1N	140/140 (100%)	0.14	1 (0%) 84 82	40, 55, 72, 89	0
9	2N	140/140 (100%)	0.48	1 (0%) 84 82	58, 76, 89, 95	0
10	1O	122/122 (100%)	0.04	0 100 100	42, 54, 72, 82	0
10	2O	122/122 (100%)	0.35	3 (2%) 58 52	53, 67, 79, 86	0
11	1P	149/150 (99%)	0.15	0 100 100	34, 60, 79, 95	0
11	2P	149/150 (99%)	0.58	5 (3%) 48 40	53, 78, 93, 99	0
12	1Q	141/141 (100%)	-0.09	1 (0%) 84 82	40, 53, 65, 79	0
12	2Q	141/141 (100%)	0.90	11 (7%) 19 14	58, 79, 87, 94	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	1R	118/118 (100%)	0.07	0 100 100	40, 51, 64, 72	0
13	2R	118/118 (100%)	0.26	3 (2%) 58 52	53, 63, 74, 81	0
14	1S	110/112 (98%)	0.37	3 (2%) 56 49	51, 63, 73, 80	0
14	2S	110/112 (98%)	1.33	23 (20%) 2 1	80, 90, 95, 97	0
15	1T	131/146 (89%)	0.12	3 (2%) 61 54	49, 60, 79, 95	0
15	2T	131/146 (89%)	0.36	2 (1%) 72 67	56, 70, 87, 95	0
16	1U	116/118 (98%)	0.01	1 (0%) 81 78	37, 47, 62, 80	0
16	2U	116/118 (98%)	0.62	4 (3%) 48 40	56, 75, 86, 92	0
17	1V	101/101 (100%)	0.06	1 (0%) 79 76	37, 56, 73, 82	0
17	2V	101/101 (100%)	0.48	2 (1%) 65 59	58, 85, 92, 95	0
18	1W	112/113 (99%)	0.01	1 (0%) 81 78	39, 49, 67, 91	0
18	2W	112/113 (99%)	0.44	3 (2%) 56 49	47, 64, 81, 104	0
19	1X	95/96 (98%)	0.14	1 (1%) 78 75	43, 52, 71, 82	0
19	2X	95/96 (98%)	0.87	7 (7%) 20 15	62, 74, 87, 89	0
20	1Y	107/110 (97%)	0.23	0 100 100	50, 64, 80, 89	0
20	2Y	107/110 (97%)	1.07	9 (8%) 17 12	73, 83, 92, 96	0
21	1Z	203/206 (98%)	0.29	3 (1%) 72 67	54, 69, 83, 97	0
21	2Z	201/206 (97%)	1.15	29 (14%) 6 4	76, 90, 98, 103	0
22	10	83/85 (97%)	0.13	0 100 100	42, 50, 64, 68	0
22	20	83/85 (97%)	1.04	9 (10%) 11 9	59, 76, 85, 86	0
23	11	97/98 (98%)	0.37	3 (3%) 51 43	39, 58, 78, 82	0
23	21	97/98 (98%)	0.56	4 (4%) 41 33	54, 69, 86, 90	0
24	12	70/72 (97%)	0.32	3 (4%) 40 32	50, 64, 76, 92	0
24	22	70/72 (97%)	0.71	2 (2%) 53 46	71, 84, 89, 92	0
25	13	59/60 (98%)	-0.03	2 (3%) 48 40	41, 51, 72, 83	0
25	23	59/60 (98%)	0.80	3 (5%) 33 26	69, 78, 92, 93	0
26	14	69/71 (97%)	0.91	8 (11%) 9 8	69, 90, 101, 106	0
26	24	69/71 (97%)	1.58	19 (27%) 1 1	88, 102, 108, 110	0
27	15	59/60 (98%)	0.01	1 (1%) 69 64	36, 50, 66, 76	0
27	25	59/60 (98%)	0.24	0 100 100	49, 64, 75, 79	0
28	16	53/54 (98%)	-0.00	0 100 100	46, 57, 71, 74	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	26	53/54 (98%)	0.41	0 100 100	66, 75, 83, 85	0
29	17	48/49 (97%)	0.09	1 (2%) 63 57	36, 43, 63, 73	0
29	27	48/49 (97%)	0.35	5 (10%) 11 9	49, 55, 76, 83	0
30	18	64/65 (98%)	0.14	1 (1%) 70 66	42, 48, 54, 69	0
30	28	64/65 (98%)	0.52	0 100 100	61, 68, 75, 82	0
31	19	37/37 (100%)	0.28	0 100 100	46, 55, 71, 74	0
31	29	37/37 (100%)	1.19	3 (8%) 18 13	70, 79, 89, 92	0
32	1a	1488/1521 (97%)	0.08	22 (1%) 72 67	48, 80, 105, 118	0
32	2a	1492/1521 (98%)	0.42	51 (3%) 48 40	59, 89, 109, 122	0
33	1b	231/256 (90%)	0.81	24 (10%) 11 9	76, 88, 98, 102	0
33	2b	231/256 (90%)	1.28	44 (19%) 3 2	87, 97, 104, 109	0
34	1c	206/239 (86%)	0.67	6 (2%) 53 46	73, 83, 94, 98	0
34	2c	206/239 (86%)	1.27	35 (16%) 4 3	86, 97, 102, 106	0
35	1d	208/209 (99%)	0.76	12 (5%) 29 22	70, 82, 93, 98	0
35	2d	208/209 (99%)	0.89	9 (4%) 40 32	72, 84, 92, 99	0
36	1e	148/162 (91%)	0.53	3 (2%) 65 59	64, 76, 86, 94	0
36	2e	148/162 (91%)	0.77	12 (8%) 18 13	76, 87, 94, 105	0
37	1f	100/101 (99%)	0.36	2 (2%) 65 59	63, 76, 86, 88	0
37	2f	100/101 (99%)	0.46	4 (4%) 42 34	71, 83, 93, 95	0
38	1g	155/156 (99%)	0.46	5 (3%) 50 42	74, 83, 91, 97	0
38	2g	155/156 (99%)	1.17	26 (16%) 4 3	87, 94, 100, 103	0
39	1h	137/138 (99%)	0.56	5 (3%) 46 38	68, 78, 86, 91	0
39	2h	137/138 (99%)	0.73	6 (4%) 39 31	80, 88, 92, 99	0
40	1i	127/128 (99%)	1.06	16 (12%) 8 6	71, 88, 97, 99	0
40	2i	126/128 (98%)	1.86	51 (40%) 0 0	91, 100, 104, 107	0
41	1j	97/105 (92%)	1.08	16 (16%) 4 3	72, 89, 98, 101	0
41	2j	96/105 (91%)	1.66	35 (36%) 1 0	91, 99, 104, 107	0
42	1k	114/129 (88%)	0.31	2 (1%) 67 63	55, 74, 84, 91	0
42	2k	114/129 (88%)	0.70	5 (4%) 39 31	73, 87, 94, 96	0
43	1l	121/132 (91%)	0.61	9 (7%) 20 15	59, 70, 82, 87	0
43	2l	121/132 (91%)	0.86	15 (12%) 8 7	72, 79, 86, 92	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	1m	116/126 (92%)	0.69	6 (5%) 33 25	75, 85, 91, 95	0
44	2m	114/126 (90%)	1.49	27 (23%) 2 1	90, 97, 101, 103	0
45	1n	60/61 (98%)	0.95	8 (13%) 7 6	74, 82, 89, 90	0
45	2n	60/61 (98%)	2.23	34 (56%) 0 0	87, 98, 103, 104	0
46	1o	88/89 (98%)	0.74	8 (9%) 15 11	59, 76, 87, 93	0
46	2o	88/89 (98%)	0.72	6 (6%) 23 17	73, 85, 93, 99	0
47	1p	82/88 (93%)	1.30	16 (19%) 3 2	70, 83, 93, 98	0
47	2p	82/88 (93%)	1.11	10 (12%) 8 7	70, 81, 91, 95	0
48	1q	99/105 (94%)	0.84	9 (9%) 15 11	67, 79, 89, 94	0
48	2q	99/105 (94%)	0.94	3 (3%) 52 45	72, 83, 90, 94	0
49	1r	68/88 (77%)	0.38	1 (1%) 72 67	64, 75, 86, 89	0
49	2r	68/88 (77%)	0.64	3 (4%) 39 31	78, 87, 93, 99	0
50	1s	83/93 (89%)	0.77	6 (7%) 21 16	76, 88, 96, 99	0
50	2s	83/93 (89%)	1.70	27 (32%) 1 0	91, 99, 103, 106	0
51	1t	96/106 (90%)	1.08	12 (12%) 8 6	75, 83, 93, 95	0
51	2t	98/106 (92%)	0.77	5 (5%) 33 26	69, 81, 91, 92	0
52	1u	23/27 (85%)	1.03	2 (8%) 16 12	79, 83, 87, 89	0
52	2u	23/27 (85%)	2.15	11 (47%) 0 0	94, 98, 101, 103	0
53	1y	97/113 (85%)	0.99	11 (11%) 10 8	64, 74, 85, 94	0
53	2y	96/113 (84%)	2.63	61 (63%) 0 0	83, 98, 104, 108	0
54	1w	3/4 (75%)	0.14	0 100 100	45, 45, 53, 65	0
54	2w	3/4 (75%)	1.05	1 (33%) 1 0	59, 59, 64, 83	0
55	1x	3/4 (75%)	0.23	1 (33%) 1 0	40, 40, 40, 54	0
55	2x	3/4 (75%)	1.49	1 (33%) 1 0	52, 52, 56, 67	0
56	1v	2/3 (66%)	-0.08	0 100 100	38, 38, 38, 39	0
56	2v	2/3 (66%)	0.57	0 100 100	56, 56, 56, 62	0
All	All	20794/21490 (96%)	0.36	1129 (5%) 31 25	33, 76, 102, 123	0

All (1129) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	1A	1087	G	7.3
45	2n	2	ALA	7.3

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Mol	Chain	Res	Type	RSRZ
53	2y	40	ILE	6.5
53	1y	98	ALA	6.3
53	2y	8	LYS	6.3
6	2G	39	ILE	5.7
1	1A	1076	C	5.7
1	1A	1077	A	5.7
34	2c	2	GLY	5.6
1	1A	1075	C	5.5
53	2y	27	LEU	5.4
53	2y	42	SER	5.3
34	1c	2	GLY	5.3
53	2y	73	ALA	5.2
51	1t	103	GLY	5.1
8	2I	89	TYR	5.1
53	2y	7	SER	5.1
40	2i	102	LEU	4.9
53	2y	5	ILE	4.9
44	2m	102	ARG	4.9
23	2l	2	SER	4.8
38	2g	5	ARG	4.8
32	2a	1202	G	4.8
21	2Z	192	ALA	4.8
1	1A	1089	G	4.8
47	2p	9	PHE	4.7
40	2i	126	SER	4.7
32	2a	78	G	4.6
1	1A	1090	U	4.6
44	2m	9	ILE	4.6
52	2u	14	TRP	4.6
40	2i	43	ALA	4.6
45	2n	5	ALA	4.6
32	2a	79	G	4.6
21	2Z	1	MET	4.5
6	2G	28	VAL	4.5
32	2a	1001(A)	G	4.5
53	2y	98	ALA	4.4
1	1A	2147	G	4.4
55	2x	73	A	4.4
45	2n	7	ILE	4.4
8	2I	71	ILE	4.4
53	2y	3	MET	4.4
53	2y	44	GLU	4.4

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Mol	Chain	Res	Type	RSRZ
51	1t	18	GLN	4.3
40	2i	109	VAL	4.3
1	2A	2165	G	4.3
20	2Y	1	MET	4.3
33	2b	132	LYS	4.3
14	2S	54	LEU	4.3
33	2b	133	LYS	4.3
40	2i	115	GLY	4.3
26	14	50	VAL	4.3
53	2y	41	LEU	4.3
53	1y	68	GLU	4.3
32	2a	1030(B)	C	4.3
53	2y	49	VAL	4.3
3	2D	276	LYS	4.2
45	2n	30	ALA	4.2
51	2t	6	PRO	4.2
8	2I	84	GLY	4.2
53	2y	35	ILE	4.2
45	2n	29	ARG	4.2
1	2A	2174	C	4.2
52	2u	2	GLY	4.2
1	2A	2166	G	4.2
34	2c	207	VAL	4.2
7	1H	2	SER	4.2
26	14	52	THR	4.2
50	1s	13	ASP	4.1
43	2l	10	LEU	4.1
4	2E	204	ALA	4.1
52	2u	16	GLY	4.1
1	1A	1026	U	4.1
3	2D	275	LYS	4.1
8	2I	83	ALA	4.1
1	1A	1088	A	4.1
1	1A	1103	A	4.1
39	2h	2	LEU	4.1
53	2y	4	ASN	4.0
12	2Q	104	PHE	4.0
50	2s	9	VAL	4.0
23	11	2	SER	4.0
50	2s	82	GLY	4.0
40	2i	96	LEU	4.0
41	2j	65	LEU	4.0

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Mol	Chain	Res	Type	RSRZ
33	1b	7	VAL	4.0
47	1p	82	GLN	4.0
53	2y	43	LYS	4.0
53	2y	45	PRO	3.9
1	2A	1171	G	3.9
4	1E	204	ALA	3.9
34	2c	189	ALA	3.9
50	2s	71	LEU	3.9
53	2y	34	LEU	3.9
26	24	56	VAL	3.9
26	24	49	PHE	3.9
35	1d	138	TYR	3.8
32	2a	1036	G	3.8
16	1U	117	GLN	3.8
1	2A	2148	G	3.8
41	2j	37	PRO	3.8
29	27	48	LYS	3.8
6	2G	139	LEU	3.8
53	2y	24	LEU	3.8
34	2c	129	ALA	3.8
35	1d	167	GLY	3.8
53	2y	9	GLN	3.8
33	2b	121	LEU	3.8
51	2t	103	GLY	3.7
6	2G	146	TYR	3.7
8	1I	147	GLN	3.7
36	2e	21	ALA	3.7
1	2A	2147	G	3.7
32	2a	71	C	3.7
14	2S	7	TYR	3.7
45	2n	34	TYR	3.7
1	2A	2173	A	3.6
1	1A	1091	G	3.6
8	2I	146	ALA	3.6
1	1A	1078	U	3.6
47	1p	17	TYR	3.6
1	2A	2152	G	3.6
40	1i	126	SER	3.6
41	2j	54	PHE	3.6
47	2p	82	GLN	3.6
43	2l	28	LYS	3.6
54	2w	73	A	3.6

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Mol	Chain	Res	Type	RSRZ
40	2i	86	VAL	3.6
16	2U	109	LEU	3.6
26	24	9	LEU	3.6
32	2a	100	C	3.6
14	2S	46	VAL	3.6
53	2y	39	ILE	3.5
53	2y	74	ILE	3.5
53	2y	70	MET	3.5
6	2G	142	PRO	3.5
50	2s	41	VAL	3.5
44	2m	116	THR	3.5
53	2y	6	THR	3.5
15	1T	130	ALA	3.5
1	1A	1064	C	3.5
8	2I	80	PRO	3.5
26	14	49	PHE	3.5
21	2Z	166	SER	3.5
44	2m	18	ALA	3.5
33	2b	163	PHE	3.5
33	2b	127	ILE	3.5
34	2c	53	ALA	3.5
40	2i	56	LEU	3.5
42	2k	13	GLN	3.5
41	2j	63	PHE	3.5
52	2u	15	ARG	3.5
1	1A	1092	C	3.4
1	2A	2154	G	3.4
33	1b	10	LEU	3.4
39	1h	112	LEU	3.4
21	2Z	55	HIS	3.4
5	1F	208	GLY	3.4
34	2c	158	GLY	3.4
53	2y	97	ALA	3.4
38	2g	12	LEU	3.4
40	1i	128	ARG	3.4
37	1f	90	VAL	3.4
45	2n	18	VAL	3.4
44	2m	4	ILE	3.4
45	2n	21	TYR	3.4
48	2q	32	TYR	3.4
52	2u	11	GLY	3.4
22	20	7	LEU	3.4

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Mol	Chain	Res	Type	RSRZ
1	2A	2172	U	3.4
32	1a	1257	U	3.4
40	2i	2	GLU	3.4
40	2i	123	PRO	3.4
8	2I	72	LEU	3.4
22	20	3	HIS	3.4
8	2I	107	VAL	3.4
33	2b	136	VAL	3.4
1	1A	1102	C	3.3
45	2n	14	PRO	3.3
53	2y	37	PRO	3.3
1	2A	2116	G	3.3
53	2y	48	PHE	3.3
33	1b	236	TYR	3.3
6	2G	2	PRO	3.3
33	2b	158	LEU	3.3
52	2u	6	ARG	3.3
33	2b	165	VAL	3.3
40	2i	14	VAL	3.3
6	1G	52	ILE	3.3
1	1A	1074	G	3.3
12	2Q	82	ARG	3.3
1	1A	2130	U	3.3
40	2i	106	ALA	3.3
40	1i	127	LYS	3.3
7	2H	123	PHE	3.3
21	2Z	96	VAL	3.3
25	23	59	VAL	3.3
3	1D	276	LYS	3.3
43	1l	126	LYS	3.3
53	2y	50	ALA	3.3
53	2y	52	ALA	3.3
2	1B	1	U	3.3
19	2X	28	PHE	3.3
41	2j	58	ASP	3.3
6	2G	133	LEU	3.2
33	2b	187	LEU	3.2
45	2n	22	THR	3.2
45	2n	55	GLY	3.2
32	2a	80	G	3.2
53	2y	12	ILE	3.2
40	1i	75	ASP	3.2

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Mol	Chain	Res	Type	RSRZ
1	1A	1066	U	3.2
43	2l	89	ARG	3.2
1	2A	2139	C	3.2
1	2A	2140	C	3.2
32	1a	63	C	3.2
6	2G	50	ALA	3.2
14	2S	92	TYR	3.2
45	2n	42	ILE	3.2
32	2a	1030(A)	G	3.2
8	2I	62	LYS	3.2
21	2Z	78	LYS	3.2
32	2a	84	U	3.2
22	20	75	LEU	3.2
33	1b	11	LEU	3.2
26	24	44	THR	3.2
1	1A	1072	C	3.2
44	1m	87	TYR	3.2
34	2c	128	PHE	3.2
29	27	1	MET	3.2
33	2b	44	LEU	3.2
53	2y	14	PRO	3.2
44	1m	2	ALA	3.2
14	2S	35	ILE	3.2
46	1o	87	ILE	3.2
47	2p	19	ILE	3.2
8	2I	3	VAL	3.2
53	2y	60	VAL	3.2
1	1A	1079	C	3.1
21	2Z	82	ARG	3.1
6	2G	155	MET	3.1
53	2y	10	MET	3.1
52	2u	23	PRO	3.1
53	1y	2	THR	3.1
38	2g	25	ALA	3.1
41	1j	32	ALA	3.1
6	2G	159	VAL	3.1
1	2A	2155	G	3.1
26	24	55	ARG	3.1
41	1j	64	GLU	3.1
52	1u	2	GLY	3.1
45	2n	25	VAL	3.1
14	2S	3	ARG	3.1

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Mol	Chain	Res	Type	RSRZ
39	2h	30	ARG	3.1
33	2b	193	ASP	3.1
1	1A	2803	C	3.1
1	2A	2803	C	3.1
40	2i	69	GLY	3.1
33	1b	34	ALA	3.1
44	2m	72	ALA	3.1
45	1n	2	ALA	3.1
53	2y	16	ILE	3.1
26	24	28	LYS	3.1
32	2a	1286	A	3.1
33	1b	133	LYS	3.1
37	2f	47	ARG	3.1
53	2y	64	SER	3.1
51	1t	10	LEU	3.1
51	1t	72	LEU	3.1
40	2i	75	ASP	3.1
20	2Y	80	GLY	3.1
44	2m	100	GLY	3.1
43	1l	91	LYS	3.1
1	2A	2142	C	3.1
21	1Z	96	VAL	3.1
21	2Z	88	PHE	3.1
48	1q	23	VAL	3.1
43	2l	31	PRO	3.0
36	2e	13	ILE	3.0
33	1b	165	VAL	3.0
6	2G	53	LEU	3.0
39	1h	2	LEU	3.0
1	2A	2119	A	3.0
32	2a	1235	U	3.0
45	1n	3	ARG	3.0
33	2b	129	GLU	3.0
1	2A	2124	G	3.0
18	2W	92	ARG	3.0
38	1g	120	ILE	3.0
53	1y	95	ARG	3.0
43	2l	32	PHE	3.0
19	2X	70	LEU	3.0
19	2X	92	LEU	3.0
41	1j	40	LEU	3.0
47	2p	26	ARG	3.0

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Mol	Chain	Res	Type	RSRZ
34	2c	5	ILE	3.0
53	2y	72	THR	3.0
32	2a	1030	C	3.0
1	2A	1088	A	3.0
17	2V	79	VAL	3.0
41	2j	49	VAL	3.0
47	1p	41	PRO	2.9
40	2i	36	TYR	2.9
52	1u	24	ARG	2.9
15	2T	131	ALA	2.9
7	2H	45	VAL	2.9
21	2Z	74	VAL	2.9
33	1b	17	PHE	2.9
1	2A	2107	C	2.9
1	1A	548	A	2.9
1	2A	2125	G	2.9
43	1l	28	LYS	2.9
33	2b	131	PRO	2.9
1	1A	1065	U	2.9
50	2s	35	SER	2.9
53	2y	46	GLN	2.9
33	1b	33	TYR	2.9
33	2b	162	ILE	2.9
12	1Q	33	GLY	2.9
40	1i	115	GLY	2.9
5	2F	181	LEU	2.9
43	2l	16	GLU	2.9
1	1A	1067	A	2.9
1	2A	1070	A	2.9
1	2A	2146	C	2.9
14	2S	20	ARG	2.9
1	1A	1081	U	2.9
1	2A	1091	G	2.9
2	2B	55	U	2.9
32	2a	77	G	2.9
32	2a	973	G	2.9
14	1S	92	TYR	2.9
40	2i	125	TYR	2.9
5	1F	134	GLY	2.9
45	2n	20	ALA	2.9
4	1E	52	LEU	2.9
7	2H	24	VAL	2.9

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Mol	Chain	Res	Type	RSRZ
11	2P	71	VAL	2.9
14	2S	33	LYS	2.9
53	2y	67	HIS	2.9
29	27	47	ARG	2.9
44	2m	106	ASN	2.9
34	2c	77	ILE	2.9
53	2y	78	ILE	2.9
1	1A	2108	C	2.9
1	2A	2143	C	2.9
2	2B	1	U	2.9
32	2a	1027	C	2.9
32	2a	1236	A	2.9
1	2A	2141	G	2.9
1	2A	2319	G	2.9
2	2B	118	G	2.9
15	1T	131	ALA	2.9
26	14	56	VAL	2.9
32	2a	1156	G	2.9
38	2g	16	LEU	2.9
38	2g	152	ALA	2.9
50	2s	15	LEU	2.9
47	1p	46	PRO	2.8
6	2G	29	TRP	2.8
14	2S	53	SER	2.8
47	2p	11	SER	2.8
38	2g	28	ASN	2.8
41	2j	96	ILE	2.8
46	1o	3	ILE	2.8
53	2y	75	ASN	2.8
26	24	43	TYR	2.8
40	2i	6	GLY	2.8
53	2y	59	GLY	2.8
4	1E	195	LEU	2.8
8	2I	76	THR	2.8
44	1m	116	THR	2.8
51	2t	10	LEU	2.8
1	1A	2132	U	2.8
6	2G	149	VAL	2.8
33	2b	7	VAL	2.8
1	2A	2170	A	2.8
32	2a	983	A	2.8
26	14	46	GLN	2.8

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Mol	Chain	Res	Type	RSRZ
32	1a	1361	G	2.8
41	1j	4	ILE	2.8
33	1b	187	LEU	2.8
40	2i	5	TYR	2.8
44	1m	23	TYR	2.8
45	2n	39	LEU	2.8
40	2i	59	PHE	2.8
40	2i	10	ARG	2.8
40	2i	21	PRO	2.8
46	1o	68	ARG	2.8
32	1a	262	A	2.8
45	2n	9	LYS	2.8
32	1a	309	G	2.8
6	1G	119	GLY	2.8
6	2G	25	TYR	2.8
6	2G	160	VAL	2.8
41	2j	24	VAL	2.8
45	2n	31	ARG	2.8
14	2S	57	LYS	2.8
51	2t	74	LYS	2.8
32	2a	974	A	2.8
1	1A	1053	C	2.8
53	2y	55	ASN	2.8
8	2I	38	LEU	2.8
26	24	54	GLY	2.8
33	1b	134	GLU	2.8
33	2b	237	ALA	2.8
38	2g	128	ALA	2.8
39	2h	3	THR	2.8
40	2i	7	THR	2.8
1	1A	1093	G	2.8
8	1I	29	TYR	2.8
26	14	63	TYR	2.8
32	2a	1002	G	2.8
53	2y	71	TYR	2.8
40	2i	63	ILE	2.7
1	1A	1086	A	2.7
1	1A	1080	C	2.7
3	2D	262	ARG	2.7
33	2b	15	VAL	2.7
34	1c	201	TYR	2.7
40	2i	11	LYS	2.7

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Mol	Chain	Res	Type	RSRZ
51	1t	74	LYS	2.7
1	2A	1062	G	2.7
35	2d	5	ILE	2.7
1	1A	1094	U	2.7
21	1Z	55	HIS	2.7
33	2b	99	GLY	2.7
6	2G	147	ASP	2.7
36	1e	21	ALA	2.7
40	1i	18	PHE	2.7
40	2i	101	PHE	2.7
41	2j	67	THR	2.7
45	2n	56	VAL	2.7
34	2c	184	TYR	2.7
1	2A	2111	C	2.7
48	1q	36	ILE	2.7
24	22	60	LEU	2.7
35	1d	155	LEU	2.7
41	2j	88	LEU	2.7
44	2m	56	LEU	2.7
1	2A	2893	G	2.7
35	2d	154	ASN	2.7
8	2I	100	ALA	2.7
33	2b	152	PHE	2.7
32	2a	1001	A	2.7
1	2A	34	C	2.7
6	2G	90	LEU	2.7
7	2H	33	LEU	2.7
33	2b	138	LEU	2.7
6	2G	76	SER	2.7
8	2I	91	SER	2.7
41	2j	59	SER	2.7
53	2y	79	ASN	2.7
40	2i	64	THR	2.7
44	1m	111	LYS	2.7
45	2n	13	THR	2.7
48	2q	44	ALA	2.7
1	1A	2144	U	2.6
40	1i	114	TYR	2.6
47	2p	38	TYR	2.6
21	1Z	1	MET	2.6
1	1A	1057	A	2.6
32	1a	1493	A	2.6

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Mol	Chain	Res	Type	RSRZ
33	2b	145	LEU	2.6
6	2G	136	ARG	2.6
44	2m	104	ARG	2.6
53	2y	33	HIS	2.6
46	1o	89	GLY	2.6
1	2A	1536	C	2.6
44	2m	65	LYS	2.6
14	2S	28	VAL	2.6
15	2T	130	ALA	2.6
17	2V	47	VAL	2.6
40	2i	44	VAL	2.6
44	2m	7	VAL	2.6
40	1i	125	TYR	2.6
40	2i	88	TYR	2.6
46	1o	88	ARG	2.6
47	1p	81	ARG	2.6
8	2I	99	GLU	2.6
53	1y	66	LYS	2.6
1	2A	1046	A	2.6
14	2S	16	ASN	2.6
34	2c	65	ALA	2.6
45	2n	10	ALA	2.6
45	2n	61	TRP	2.6
50	2s	2	PRO	2.6
50	2s	77	THR	2.6
8	2I	17	GLN	2.6
1	2A	1076	C	2.6
26	24	65	ASP	2.6
40	1i	66	ARG	2.6
32	2a	951	G	2.6
29	27	45	ALA	2.6
34	2c	130	VAL	2.6
45	1n	5	ALA	2.6
48	1q	26	GLN	2.6
32	2a	88	A	2.6
40	2i	91	ASP	2.6
33	2b	201	ILE	2.6
40	2i	40	LEU	2.6
45	2n	6	LEU	2.6
38	2g	154	TYR	2.6
48	1q	63	ARG	2.6
6	1G	182	LYS	2.6

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Mol	Chain	Res	Type	RSRZ
18	1W	111	HIS	2.6
51	1t	14	LYS	2.6
51	1t	16	HIS	2.6
53	2y	82	GLU	2.6
1	1A	1082	U	2.6
12	2Q	55	VAL	2.6
21	2Z	173	ALA	2.6
33	1b	230	VAL	2.6
40	2i	108	VAL	2.6
33	1b	37	ASN	2.6
34	1c	10	PHE	2.6
20	2Y	107	ASP	2.5
6	2G	157	ILE	2.5
33	1b	214	ILE	2.5
38	2g	42	ILE	2.5
41	2j	82	ILE	2.5
43	2l	7	ILE	2.5
53	2y	54	ILE	2.5
34	2c	196	LEU	2.5
16	2U	16	LYS	2.5
38	2g	149	ARG	2.5
45	1n	4	LYS	2.5
40	2i	114	TYR	2.5
41	2j	64	GLU	2.5
32	1a	312	C	2.5
50	2s	84	GLY	2.5
14	2S	69	VAL	2.5
21	2Z	86	VAL	2.5
35	1d	8	VAL	2.5
41	1j	77	PRO	2.5
21	2Z	136	PHE	2.5
1	2A	2144	U	2.5
7	2H	136	ILE	2.5
33	2b	58	ILE	2.5
33	2b	118	LEU	2.5
35	2d	47	ARG	2.5
36	2e	123	LEU	2.5
45	2n	3	ARG	2.5
53	2y	23	ARG	2.5
1	1A	1068	G	2.5
2	2B	52	A	2.5
31	29	28	GLU	2.5

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Mol	Chain	Res	Type	RSRZ
40	1i	35	GLU	2.5
55	1x	73	A	2.5
35	1d	2	GLY	2.5
46	2o	86	GLY	2.5
21	2Z	83	PRO	2.5
53	2y	57	PRO	2.5
8	1I	3	VAL	2.5
38	2g	80	VAL	2.5
50	2s	11	VAL	2.5
35	1d	110	PHE	2.5
1	2A	2175	C	2.5
5	2F	82	ILE	2.5
33	1b	39	ILE	2.5
33	2b	185	ILE	2.5
1	2A	1065	U	2.5
19	2X	95	LEU	2.5
32	2a	1219	U	2.5
32	2a	1257	U	2.5
41	2j	40	LEU	2.5
53	2y	17	ARG	2.5
11	2P	110	TYR	2.5
3	1D	251	GLY	2.5
6	2G	42	GLY	2.5
14	2S	45	GLY	2.5
1	2A	229	A	2.5
1	2A	1071	G	2.5
1	2A	2133	G	2.5
1	2A	2153	G	2.5
32	1a	377	G	2.5
24	12	70	GLN	2.5
33	2b	164	VAL	2.5
41	1j	34	VAL	2.5
40	2i	119	ALA	2.5
41	2j	32	ALA	2.5
41	2j	47	PHE	2.5
14	2S	11	LYS	2.5
6	2G	176	LEU	2.5
8	2I	51	ILE	2.5
11	2P	15	ARG	2.5
14	2S	56	LEU	2.5
33	2b	208	ILE	2.5
34	1c	182	ILE	2.5

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Mol	Chain	Res	Type	RSRZ
1	1A	2804	C	2.5
44	2m	64	TRP	2.5
1	1A	1061	U	2.5
1	2A	2296	U	2.5
47	1p	37	GLY	2.5
41	1j	33	GLN	2.5
43	2l	18	VAL	2.5
44	2m	101	GLN	2.5
35	2d	79	PHE	2.5
40	2i	45	ALA	2.5
45	2n	11	LYS	2.4
45	2n	17	LYS	2.4
1	1A	2117	A	2.4
1	2A	529	A	2.4
41	1j	76	ASN	2.4
51	1t	83	ARG	2.4
5	1F	148	LEU	2.4
6	2G	144	ILE	2.4
34	2c	8	ILE	2.4
47	1p	6	LEU	2.4
1	1A	1099	G	2.4
1	2A	1059	G	2.4
1	2A	2108	C	2.4
32	1a	390	C	2.4
1	2A	2132	U	2.4
1	2A	2150	U	2.4
42	2k	75	TYR	2.4
7	2H	19	VAL	2.4
21	2Z	191	VAL	2.4
16	2U	86	ALA	2.4
21	2Z	48	PHE	2.4
45	1n	16	PHE	2.4
40	2i	66	ARG	2.4
50	2s	3	ARG	2.4
13	2R	65	LEU	2.4
47	1p	19	ILE	2.4
53	2y	61	LEU	2.4
8	2I	10	GLU	2.4
32	2a	1003	G	2.4
32	2a	1032	G	2.4
34	2c	41	GLY	2.4
48	1q	28	PRO	2.4

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Mol	Chain	Res	Type	RSRZ
47	1p	27	LYS	2.4
1	1A	2142	C	2.4
1	1A	2143	C	2.4
9	2N	5	VAL	2.4
32	1a	1325	C	2.4
32	2a	879	C	2.4
38	2g	85	TYR	2.4
33	2b	207	ALA	2.4
34	2c	187	ALA	2.4
36	2e	17	ALA	2.4
53	2y	15	ALA	2.4
6	2G	71	THR	2.4
8	2I	77	LEU	2.4
33	2b	200	ILE	2.4
38	2g	38	LEU	2.4
44	2m	22	ILE	2.4
50	2s	63	THR	2.4
34	2c	167	TRP	2.4
36	2e	121	LYS	2.4
43	2l	17	LYS	2.4
44	2m	31	LYS	2.4
45	1n	15	LYS	2.4
13	2R	7	GLY	2.4
41	2j	10	GLY	2.4
38	2g	21	VAL	2.4
1	1A	1056	G	2.4
1	1A	1062	G	2.4
8	2I	55	ALA	2.4
34	2c	180	ALA	2.4
44	2m	80	ARG	2.4
49	2r	87	ARG	2.4
53	1y	94	ALA	2.4
8	2I	101	LEU	2.4
21	2Z	41	LEU	2.4
34	2c	39	ILE	2.4
39	2h	36	LEU	2.4
40	1i	56	LEU	2.4
40	2i	99	LEU	2.4
43	1l	60	LEU	2.4
45	2n	44	LEU	2.4
47	1p	44	THR	2.4
53	2y	32	THR	2.4

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Mol	Chain	Res	Type	RSRZ
1	2A	888	C	2.4
1	2A	2145	C	2.4
41	1j	78	ASN	2.4
33	2b	86	GLU	2.4
20	2Y	34	LYS	2.4
45	2n	4	LYS	2.4
38	2g	133	GLY	2.4
40	2i	39	GLY	2.4
41	2j	36	GLY	2.4
19	2X	65	ARG	2.4
22	20	74	ARG	2.4
27	15	60	VAL	2.4
33	1b	136	VAL	2.4
34	1c	207	VAL	2.4
22	20	45	PHE	2.4
32	1a	134	A	2.4
42	2k	89	ALA	2.4
14	2S	32	LEU	2.3
20	2Y	35	TYR	2.3
26	24	67	TYR	2.3
34	2c	33	LEU	2.3
36	2e	119	LEU	2.3
33	2b	80	ILE	2.3
39	1h	86	ILE	2.3
26	24	27	THR	2.3
50	2s	79	THR	2.3
1	1A	2152	G	2.3
1	2A	2151	G	2.3
32	2a	1353	G	2.3
6	2G	54	GLU	2.3
6	2G	137	GLU	2.3
45	2n	8	GLU	2.3
32	1a	308	C	2.3
25	23	2	PRO	2.3
4	2E	29	GLY	2.3
15	1T	37	GLY	2.3
47	1p	28	ARG	2.3
8	2I	18	VAL	2.3
31	29	16	VAL	2.3
37	1f	88	VAL	2.3
41	1j	49	VAL	2.3
22	20	69	PHE	2.3

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Mol	Chain	Res	Type	RSRZ
34	2c	186	PHE	2.3
8	2I	68	LEU	2.3
36	2e	53	LEU	2.3
45	2n	53	LEU	2.3
40	2i	92	TYR	2.3
32	1a	389	A	2.3
53	2y	38	HIS	2.3
20	2Y	5	MET	2.3
26	24	30	GLU	2.3
29	17	48	LYS	2.3
1	2A	1083	U	2.3
26	24	51	ASP	2.3
32	2a	1364	U	2.3
1	1A	2116	G	2.3
1	2A	171	G	2.3
1	2A	2318	G	2.3
32	1a	1036	G	2.3
43	1l	5	PRO	2.3
32	1a	1029	C	2.3
32	2a	72	C	2.3
32	2a	1149	C	2.3
38	2g	81	GLY	2.3
26	24	10	VAL	2.3
19	1X	95	LEU	2.3
34	2c	168	ALA	2.3
34	2c	169	ALA	2.3
34	2c	175	LEU	2.3
41	2j	90	LEU	2.3
49	2r	60	ALA	2.3
53	2y	81	LEU	2.3
8	2I	79	ILE	2.3
36	2e	109	ILE	2.3
53	2y	19	HIS	2.3
33	2b	148	TYR	2.3
44	2m	87	TYR	2.3
44	2m	103	THR	2.3
6	2G	55	LYS	2.3
14	2S	61	ASN	2.3
25	23	60	GLU	2.3
52	2u	3	LYS	2.3
1	1A	1070	A	2.3
1	2A	1085	A	2.3

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Mol	Chain	Res	Type	RSRZ
32	2a	1256	A	2.3
32	2a	1357	A	2.3
13	2R	69	ASP	2.3
8	1I	27	ARG	2.3
30	18	46	ARG	2.3
40	1i	42	ARG	2.3
41	2j	77	PRO	2.3
14	2S	90	GLY	2.3
1	2A	2167	U	2.3
1	2A	2897	U	2.3
38	2g	124	LEU	2.3
6	1G	46	ALA	2.3
6	2G	20	ILE	2.3
1	1A	154(A)	C	2.3
1	2A	2149	G	2.3
32	2a	1397	C	2.3
41	2j	55	LYS	2.3
41	2j	100	THR	2.3
38	2g	84	ASN	2.3
20	2Y	32	PRO	2.3
33	2b	21	ARG	2.3
46	1o	2	PRO	2.3
50	2s	4	SER	2.3
2	2B	25	A	2.3
43	2l	9	GLN	2.3
26	14	17	GLY	2.3
18	2W	50	VAL	2.3
33	2b	81	VAL	2.3
39	1h	133	LEU	2.3
50	2s	16	LEU	2.3
3	2D	67	PHE	2.3
1	1A	2109	U	2.2
1	2A	1026	U	2.2
40	2i	117	HIS	2.2
8	2I	2	LYS	2.2
33	1b	148	TYR	2.2
1	1A	34	C	2.2
1	2A	2138	C	2.2
1	1A	275	G	2.2
1	1A	1058	G	2.2
1	1A	1059	G	2.2
1	1A	2156	G	2.2

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Mol	Chain	Res	Type	RSRZ
1	2A	2160	G	2.2
46	2o	88	ARG	2.2
39	2h	72	PRO	2.2
23	2l	28	GLY	2.2
6	1G	53	LEU	2.2
6	2G	3	LEU	2.2
26	24	50	VAL	2.2
33	1b	229	VAL	2.2
34	2c	64	VAL	2.2
35	1d	157	LEU	2.2
41	2j	8	LEU	2.2
42	1k	98	LEU	2.2
53	2y	62	VAL	2.2
1	2A	2171	A	2.2
6	2G	74	LYS	2.2
10	2O	79	PHE	2.2
14	1S	93	LYS	2.2
37	2f	89	MET	2.2
41	2j	26	ALA	2.2
48	1q	100	LYS	2.2
1	1A	1060	U	2.2
6	1G	146	TYR	2.2
43	1l	64	TYR	2.2
41	2j	45	ARG	2.2
44	2m	3	ARG	2.2
45	2n	54	PRO	2.2
1	2A	1178	C	2.2
1	2A	2137	C	2.2
2	2B	88	C	2.2
32	2a	1029	C	2.2
1	1A	2159	G	2.2
1	2A	2162	G	2.2
18	2W	112	GLY	2.2
14	2S	80	LEU	2.2
32	1a	380	G	2.2
32	2a	1033	G	2.2
51	1t	20	LEU	2.2
53	1y	61	LEU	2.2
8	2I	145	VAL	2.2
12	2Q	132	VAL	2.2
21	2Z	199	LYS	2.2
40	1i	95	LYS	2.2

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Mol	Chain	Res	Type	RSRZ
40	2i	127	LYS	2.2
41	2j	94	VAL	2.2
43	2l	96	VAL	2.2
44	2m	45	VAL	2.2
7	2H	4	ILE	2.2
33	2b	122	PHE	2.2
41	1j	98	ILE	2.2
6	2G	46	ALA	2.2
44	2m	76	ALA	2.2
32	2a	1493	A	2.2
41	1j	42	THR	2.2
6	1G	25	TYR	2.2
26	14	67	TYR	2.2
32	2a	99	U	2.2
43	1l	89	ARG	2.2
47	2p	8	ARG	2.2
46	1o	78	TYR	2.2
53	1y	71	TYR	2.2
50	2s	59	PRO	2.2
24	22	70	GLN	2.2
8	2I	58	LEU	2.2
12	2Q	22	LYS	2.2
21	2Z	155	LEU	2.2
34	1c	62	ASP	2.2
40	2i	70	LYS	2.2
43	2l	47	LYS	2.2
49	1r	79	LEU	2.2
10	2O	57	VAL	2.2
44	1m	45	VAL	2.2
47	1p	1	MET	2.2
1	1A	1104	C	2.2
14	2S	87	PHE	2.2
32	1a	1397	C	2.2
38	2g	153	HIS	2.2
41	2j	75	ILE	2.2
35	2d	195	ALA	2.2
47	1p	7	ALA	2.2
49	2r	20	ALA	2.2
53	1y	50	ALA	2.2
1	1A	1071	G	2.2
1	2A	1089	G	2.2
1	2A	2106	G	2.2

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Mol	Chain	Res	Type	RSRZ
1	2A	2112	G	2.2
32	1a	1030(A)	G	2.2
32	2a	1031	G	2.2
50	1s	39	THR	2.2
24	12	69	ARG	2.2
36	1e	152	ARG	2.2
38	1g	32	ARG	2.2
41	2j	46	ARG	2.2
14	2S	36	TYR	2.2
25	13	2	PRO	2.2
32	2a	1447	A	2.2
35	2d	4	TYR	2.2
36	2e	130	ASN	2.2
42	2k	25	TYR	2.2
50	2s	52	TYR	2.2
46	1o	71	GLN	2.2
12	2Q	18	LYS	2.2
39	2h	131	GLY	2.2
47	2p	68	ASP	2.2
26	24	66	SER	2.2
42	2k	14	VAL	2.2
14	2S	12	PHE	2.2
34	2c	10	PHE	2.2
7	2H	145	ALA	2.1
10	2O	51	ALA	2.1
12	2Q	95	ALA	2.1
21	2Z	51	ALA	2.1
33	1b	97	TRP	2.1
50	2s	34	TRP	2.1
1	1A	888	C	2.1
1	2A	914	C	2.1
6	2G	83	ARG	2.1
8	2I	86	THR	2.1
38	1g	79	ARG	2.1
1	2A	1063	G	2.1
33	1b	131	PRO	2.1
34	2c	109	PRO	2.1
36	2e	133	TYR	2.1
37	2f	54	LYS	2.1
40	2i	118	LYS	2.1
43	2l	23	LYS	2.1
53	2y	36	ASN	2.1

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Mol	Chain	Res	Type	RSRZ
12	2Q	17	LEU	2.1
21	2Z	76	LEU	2.1
21	2Z	125	LEU	2.1
34	2c	178	LEU	2.1
38	2g	104	LEU	2.1
40	1i	102	LEU	2.1
53	1y	70	MET	2.1
53	2y	88	LEU	2.1
2	2B	53	A	2.1
32	1a	1447	A	2.1
32	2a	1363(A)	A	2.1
40	2i	68	GLY	2.1
41	1j	31	GLY	2.1
46	2o	89	GLY	2.1
1	2A	1060	U	2.1
19	2X	80	ILE	2.1
20	2Y	24	VAL	2.1
21	2Z	116	VAL	2.1
22	20	71	ASP	2.1
34	2c	6	HIS	2.1
40	2i	28	VAL	2.1
41	2j	50	ILE	2.1
52	2u	13	ILE	2.1
35	1d	48	ALA	2.1
40	2i	52	ALA	2.1
48	2q	49	GLU	2.1
6	2G	128	ARG	2.1
21	2Z	170	THR	2.1
38	2g	112	PRO	2.1
41	2j	91	PRO	2.1
43	1l	47	LYS	2.1
44	2m	46	LYS	2.1
46	2o	75	PRO	2.1
48	1q	14	LYS	2.1
1	2A	2105	C	2.1
11	2P	68	GLN	2.1
32	1a	103	C	2.1
36	2e	20	GLN	2.1
33	2b	213	LEU	2.1
50	1s	16	LEU	2.1
51	1t	99	LEU	2.1
53	2y	77	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
7	2H	92	ILE	2.1
17	1V	70	ILE	2.1
34	2c	182	ILE	2.1
35	1d	140	VAL	2.1
35	2d	158	ILE	2.1
40	2i	65	VAL	2.1
41	1j	44	VAL	2.1
41	2j	98	ILE	2.1
50	1s	9	VAL	2.1
50	1s	19	VAL	2.1
50	2s	31	ILE	2.1
51	1t	73	HIS	2.1
21	2Z	165	VAL	2.1
23	11	70	VAL	2.1
32	2a	630	G	2.1
50	2s	67	VAL	2.1
50	2s	74	PHE	2.1
1	2A	271(K)	U	2.1
6	2G	57	ALA	2.1
11	2P	120	ALA	2.1
32	2a	1492	A	2.1
33	2b	225	ALA	2.1
40	2i	82	ALA	2.1
51	1t	97	ALA	2.1
9	1N	61	ARG	2.1
14	1S	3	ARG	2.1
33	2b	97	TRP	2.1
35	2d	3	ARG	2.1
52	2u	9	ARG	2.1
26	24	52	THR	2.1
50	1s	77	THR	2.1
40	2i	113	LYS	2.1
41	2j	57	LYS	2.1
53	1y	91	LYS	2.1
26	24	29	PRO	2.1
33	2b	234	PRO	2.1
50	2s	76	PRO	2.1
6	2G	138	GLN	2.1
12	2Q	1	MET	2.1
53	2y	84	GLN	2.1
33	1b	213	LEU	2.1
8	2I	90	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
12	2Q	108	GLY	2.1
33	1b	19	HIS	2.1
44	2m	6	GLY	2.1
44	2m	95	GLY	2.1
16	2U	88	ILE	2.1
37	2f	9	VAL	2.1
43	1l	7	ILE	2.1
8	2I	85	GLU	2.1
21	2Z	188	ALA	2.1
29	27	41	ARG	2.1
33	1b	237	ALA	2.1
35	1d	150	GLU	2.1
38	2g	32	ARG	2.1
40	1i	13	ALA	2.1
48	1q	12	SER	2.1
46	2o	68	ARG	2.1
1	1A	1095	A	2.1
1	2A	1090	U	2.1
2	2B	120	A	2.1
32	1a	313	A	2.1
33	1b	8	LYS	2.1
43	2l	13	LYS	2.1
50	2s	55	LYS	2.1
41	2j	42	THR	2.1
41	2j	53	PRO	2.1
22	20	70	GLN	2.1
33	2b	10	LEU	2.1
38	1g	84	ASN	2.1
8	2I	34	GLY	2.1
22	20	76	GLY	2.1
36	2e	97	GLY	2.1
38	2g	19	GLY	2.1
40	1i	68	GLY	2.1
8	2I	88	ILE	2.1
26	24	22	ILE	2.1
33	2b	42	ILE	2.1
34	2c	57	ILE	2.1
38	2g	120	ILE	2.1
50	2s	62	ILE	2.1
35	1d	112	VAL	2.1
35	1d	170	VAL	2.1
46	2o	60	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
24	12	37	PHE	2.1
33	2b	17	PHE	2.1
45	2n	36	PHE	2.1
7	2H	3	ARG	2.0
8	2I	27	ARG	2.0
23	21	26	ARG	2.0
45	2n	35	ARG	2.0
51	2t	25	ARG	2.0
52	2u	24	ARG	2.0
8	2I	115	ALA	2.0
35	2d	48	ALA	2.0
38	2g	127	ALA	2.0
50	2s	75	ALA	2.0
53	2y	93	GLU	2.0
1	1A	2174	C	2.0
20	2Y	19	LYS	2.0
32	1a	1030	C	2.0
40	2i	95	LYS	2.0
41	1j	80	LYS	2.0
8	2I	78	THR	2.0
47	1p	22	THR	2.0
40	2i	98	PRO	2.0
47	2p	46	PRO	2.0
32	2a	1205	U	2.0
33	2b	215	LEU	2.0
43	2l	84	LEU	2.0
1	1A	2153	G	2.0
1	2A	652(B)	A	2.0
1	2A	2110	G	2.0
47	1p	16	HIS	2.0
12	2Q	33	GLY	2.0
34	2c	155	GLY	2.0
36	1e	97	GLY	2.0
38	2g	50	ILE	2.0
40	2i	74	ILE	2.0
41	2j	38	ILE	2.0
50	2s	72	GLY	2.0
8	2I	81	VAL	2.0
8	2I	92	VAL	2.0
31	29	7	VAL	2.0
33	2b	236	TYR	2.0
34	2c	99	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
39	1h	137	VAL	2.0
42	1k	25	TYR	2.0
45	1n	21	TYR	2.0
47	2p	39	TYR	2.0
50	2s	19	VAL	2.0
44	2m	88	ARG	2.0
45	2n	12	ARG	2.0
19	2X	91	ALA	2.0
21	2Z	179	ASP	2.0
21	2Z	201	LYS	2.0
41	1j	27	ALA	2.0
34	2c	7	PRO	2.0
3	2D	155	LEU	2.0
32	2a	880	C	2.0
32	2a	1028	C	2.0
32	2a	1234	C	2.0
34	2c	188	LEU	2.0
38	1g	16	LEU	2.0
45	1n	53	LEU	2.0
1	2A	1082	U	2.0
1	2A	2118	U	2.0
6	2G	65	GLY	2.0
25	13	13	ILE	2.0
48	1q	33	GLY	2.0
1	2A	6	A	2.0
1	2A	1077	A	2.0
1	2A	1098	A	2.0
21	2Z	90	VAL	2.0
23	21	74	VAL	2.0
32	2a	1035	A	2.0
44	2m	110	ARG	2.0
45	2n	33	VAL	2.0
21	2Z	99	TYR	2.0
23	11	71	TYR	2.0
47	1p	38	TYR	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($\text{\AA}^2$)	Q<0.9
1	5MU	2A	1915	21/22	0.83	0.12	93,99,102,108	0
32	5MC	2a	1400	21/22	0.87	0.19	81,95,104,107	0
1	PSU	2A	1917	20/21	0.88	0.09	85,92,105,108	0
1	PSU	2A	1911	20/21	0.89	0.08	85,90,94,101	0
32	PSU	2a	516	20/21	0.89	0.10	86,90,96,96	0
32	G7M	2a	527	24/25	0.89	0.14	77,84,89,93	0
32	M2G	2a	966	25/26	0.89	0.14	73,90,99,107	0
1	5MU	1A	1915	21/22	0.89	0.10	79,85,96,100	0
1	PSU	1A	1917	20/21	0.90	0.09	65,79,88,89	0
32	2MG	2a	1207	24/25	0.90	0.09	98,101,107,112	0
1	OMC	2A	1920	21/22	0.90	0.10	81,86,92,94	0
1	PSU	1A	1911	20/21	0.91	0.10	62,75,80,83	0
32	5MC	2a	967	21/22	0.91	0.12	85,90,94,99	0
43	0TD	2l	92	10/11	0.93	0.11	78,85,88,92	0
32	4OC	2a	1402	22/23	0.94	0.11	73,81,84,88	0
32	5MC	2a	1404	21/22	0.94	0.09	73,76,80,83	0
1	5MC	2A	1942	21/22	0.94	0.10	55,66,73,81	0
32	MA6	1a	1519	24/25	0.95	0.12	56,61,67,69	0
43	0TD	1l	92	10/11	0.95	0.09	66,72,76,77	0
32	G7M	1a	527	24/25	0.95	0.10	59,67,72,73	0
32	5MC	2a	1407	21/22	0.95	0.10	74,80,83,85	0
32	UR3	2a	1498	21/22	0.95	0.09	73,80,91,94	0
32	MA6	2a	1519	24/25	0.95	0.13	75,81,86,87	0
32	2MG	1a	1207	24/25	0.95	0.08	73,84,88,94	0
56	FME	2v	1	10/11	0.95	0.14	54,64,69,79	0
32	5MC	1a	1407	21/22	0.96	0.10	58,63,71,76	0
32	MA6	1a	1518	24/25	0.96	0.10	50,60,65,68	0
1	5MU	2A	1939	21/22	0.96	0.09	49,54,58,60	0
32	PSU	1a	516	20/21	0.96	0.08	67,73,76,76	0
1	5MC	2A	1962	21/22	0.96	0.09	56,63,67,77	0
1	OMG	2A	2251	24/25	0.96	0.10	45,53,58,59	0
1	PSU	2A	2605	20/21	0.96	0.09	46,53,57,58	0
32	MA6	2a	1518	24/25	0.96	0.09	76,82,87,88	0
1	OMC	1A	1920	21/22	0.96	0.08	58,73,77,79	0
1	5MC	1A	1942	21/22	0.96	0.08	46,53,56,58	0
55	8AN	2x	76	22/23	0.96	0.10	48,55,57,62	0
56	FME	1v	1	10/11	0.96	0.12	38,41,63,71	0
32	5MC	1a	1404	21/22	0.96	0.11	57,60,65,67	0
1	2MU	1A	2552	21/23	0.97	0.08	42,45,50,51	0
32	5MC	1a	1400	21/22	0.97	0.09	55,64,68,71	0
32	4OC	1a	1402	22/23	0.97	0.10	59,65,67,76	0
32	M2G	1a	966	25/26	0.97	0.09	60,71,81,81	0
32	5MC	1a	967	21/22	0.97	0.09	65,77,84,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	PPU	1w	76	37/38	0.97	0.08	31,39,44,54	0
54	PPU	2w	76	37/38	0.97	0.09	39,52,57,61	0
1	2MA	2A	2503	23/24	0.97	0.09	44,48,52,54	0
1	2MU	2A	2552	21/23	0.97	0.07	41,52,57,63	0
32	UR3	1a	1498	21/22	0.97	0.10	55,61,66,70	0
1	2MA	1A	2503	23/24	0.98	0.07	27,37,42,44	0
1	5MU	1A	1939	21/22	0.98	0.06	35,41,44,47	0
55	8AN	1x	76	22/23	0.98	0.06	34,40,43,44	0
1	PSU	1A	2605	20/21	0.98	0.07	36,41,47,51	0
1	5MC	1A	1962	21/22	0.98	0.07	38,49,55,61	0
1	OMG	1A	2251	24/25	0.98	0.07	27,37,44,46	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
57	MG	1A	3302	1/1	0.28	0.26	114,114,114,114	0
57	MG	1A	3690	1/1	0.35	0.15	96,96,96,96	0
57	MG	1A	3965	1/1	0.43	0.18	98,98,98,98	0
57	MG	2a	3119	1/1	0.50	0.18	97,97,97,97	0
57	MG	2a	3131	1/1	0.54	0.23	95,95,95,95	0
57	MG	1A	3970	1/1	0.56	0.39	81,81,81,81	0
57	MG	2a	3049	1/1	0.57	0.40	95,95,95,95	0
57	MG	1A	3998	1/1	0.58	0.23	85,85,85,85	0
57	MG	1A	3059	1/1	0.58	0.30	74,74,74,74	0
57	MG	1a	1712	1/1	0.59	0.20	95,95,95,95	0
57	MG	2a	3069	1/1	0.59	0.50	90,90,90,90	0
57	MG	1a	1643	1/1	0.61	0.32	82,82,82,82	0
57	MG	2A	3603	1/1	0.62	0.25	87,87,87,87	0
57	MG	2A	3389	1/1	0.63	0.15	92,92,92,92	0
57	MG	2A	3320	1/1	0.64	0.32	90,90,90,90	0
57	MG	2A	3082	1/1	0.65	0.38	94,94,94,94	0
57	MG	2a	3113	1/1	0.66	0.34	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3641	1/1	0.66	0.21	89,89,89,89	0
57	MG	2G	202	1/1	0.66	0.41	90,90,90,90	0
57	MG	1a	1843	1/1	0.68	0.17	83,83,83,83	0
57	MG	1A	4000	1/1	0.68	0.20	87,87,87,87	0
57	MG	2a	3003	1/1	0.68	0.26	88,88,88,88	0
57	MG	2A	3105	1/1	0.68	0.24	91,91,91,91	0
57	MG	2a	3166	1/1	0.68	0.35	89,89,89,89	0
57	MG	2a	3171	1/1	0.68	0.35	91,91,91,91	0
57	MG	2a	3040	1/1	0.69	0.20	88,88,88,88	0
57	MG	1a	1717	1/1	0.69	0.24	84,84,84,84	0
57	MG	1F	313	1/1	0.69	0.26	63,63,63,63	0
57	MG	2A	3177	1/1	0.69	0.46	91,91,91,91	0
57	MG	1A	3610	1/1	0.70	0.22	82,82,82,82	0
57	MG	2a	3080	1/1	0.70	0.35	82,82,82,82	0
57	MG	2B	203	1/1	0.70	0.25	83,83,83,83	0
57	MG	2A	3379	1/1	0.70	0.22	75,75,75,75	0
57	MG	1B	227	1/1	0.70	0.26	78,78,78,78	0
57	MG	1a	1671	1/1	0.70	0.38	84,84,84,84	0
57	MG	2A	3607	1/1	0.70	0.25	82,82,82,82	0
57	MG	2A	3500	1/1	0.71	0.25	67,67,67,67	0
57	MG	2A	3150	1/1	0.71	0.27	98,98,98,98	0
57	MG	1A	3848	1/1	0.71	0.27	80,80,80,80	0
57	MG	1B	204	1/1	0.71	0.24	95,95,95,95	0
57	MG	1B	220	1/1	0.71	0.20	75,75,75,75	0
57	MG	2G	201	1/1	0.71	0.21	100,100,100,100	0
57	MG	1A	3648	1/1	0.71	0.20	85,85,85,85	0
57	MG	2Y	201	1/1	0.71	0.29	79,79,79,79	0
57	MG	2A	3464	1/1	0.71	0.23	68,68,68,68	0
57	MG	1a	1832	1/1	0.72	0.19	90,90,90,90	0
57	MG	2A	3488	1/1	0.72	0.30	79,79,79,79	0
57	MG	1A	3176	1/1	0.72	0.29	78,78,78,78	0
57	MG	2A	3184	1/1	0.72	0.24	79,79,79,79	0
57	MG	1a	1694	1/1	0.73	0.10	76,76,76,76	0
57	MG	1a	1710	1/1	0.73	0.21	88,88,88,88	0
57	MG	1A	3657	1/1	0.73	0.20	73,73,73,73	0
57	MG	1A	3854	1/1	0.73	0.41	55,55,55,55	0
57	MG	2a	3022	1/1	0.73	0.33	76,76,76,76	0
57	MG	1a	1727	1/1	0.73	0.20	77,77,77,77	0
57	MG	2A	3535	1/1	0.73	0.21	88,88,88,88	0
57	MG	1a	1794	1/1	0.73	0.14	91,91,91,91	0
57	MG	2A	3283	1/1	0.73	0.22	88,88,88,88	0
57	MG	2A	3629	1/1	0.73	0.24	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3319	1/1	0.73	0.28	87,87,87,87	0
57	MG	2A	3713	1/1	0.73	0.20	81,81,81,81	0
57	MG	2a	3153	1/1	0.73	0.16	101,101,101,101	0
57	MG	2B	201	1/1	0.73	0.43	91,91,91,91	0
57	MG	1A	3649	1/1	0.73	0.27	80,80,80,80	0
57	MG	2a	3089	1/1	0.74	0.18	77,77,77,77	0
57	MG	2a	3147	1/1	0.74	0.14	100,100,100,100	0
57	MG	1a	1656	1/1	0.74	0.21	82,82,82,82	0
57	MG	2a	3114	1/1	0.74	0.16	97,97,97,97	0
57	MG	1D	312	1/1	0.74	0.39	65,65,65,65	0
57	MG	1a	1672	1/1	0.75	0.21	96,96,96,96	0
57	MG	1a	1774	1/1	0.75	0.13	75,75,75,75	0
57	MG	2A	3429	1/1	0.75	0.23	82,82,82,82	0
57	MG	2A	3264	1/1	0.75	0.32	87,87,87,87	0
57	MG	2A	3715	1/1	0.75	0.18	80,80,80,80	0
57	MG	2A	3486	1/1	0.76	0.34	85,85,85,85	0
57	MG	2A	3547	1/1	0.76	0.15	80,80,80,80	0
57	MG	2a	3159	1/1	0.76	0.23	92,92,92,92	0
57	MG	2A	3587	1/1	0.76	0.17	79,79,79,79	0
57	MG	2a	3109	1/1	0.76	0.17	81,81,81,81	0
57	MG	2a	3177	1/1	0.76	0.17	93,93,93,93	0
57	MG	2A	3282	1/1	0.77	0.11	94,94,94,94	0
57	MG	1a	1681	1/1	0.77	0.19	79,79,79,79	0
57	MG	2A	3312	1/1	0.77	0.37	78,78,78,78	0
57	MG	1a	1813	1/1	0.77	0.17	80,80,80,80	0
57	MG	1a	1693	1/1	0.77	0.22	76,76,76,76	0
57	MG	2A	3323	1/1	0.77	0.20	75,75,75,75	0
57	MG	1A	3529	1/1	0.77	0.23	86,86,86,86	0
57	MG	2A	3042	1/1	0.77	0.14	68,68,68,68	0
57	MG	2A	3045	1/1	0.77	0.20	69,69,69,69	0
57	MG	2A	3047	1/1	0.77	0.25	80,80,80,80	0
57	MG	1a	1639	1/1	0.77	0.31	90,90,90,90	0
57	MG	1A	3758	1/1	0.77	0.15	52,52,52,52	0
57	MG	2A	3110	1/1	0.77	0.23	86,86,86,86	0
57	MG	2A	3528	1/1	0.77	0.27	102,102,102,102	0
57	MG	2A	3149	1/1	0.77	0.30	78,78,78,78	0
57	MG	1A	3063	1/1	0.77	0.28	76,76,76,76	0
57	MG	2A	3157	1/1	0.77	0.26	87,87,87,87	0
57	MG	2A	3172	1/1	0.77	0.18	85,85,85,85	0
57	MG	1A	3639	1/1	0.77	0.17	40,40,40,40	0
57	MG	1D	315	1/1	0.77	0.18	77,77,77,77	0
57	MG	2A	3218	1/1	0.77	0.14	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3252	1/1	0.77	0.27	66,66,66,66	0
57	MG	2a	3175	1/1	0.77	0.18	86,86,86,86	0
57	MG	1a	1783	1/1	0.77	0.19	84,84,84,84	0
57	MG	1a	1833	1/1	0.78	0.14	70,70,70,70	0
57	MG	1a	1790	1/1	0.78	0.24	95,95,95,95	0
57	MG	2A	3230	1/1	0.78	0.27	80,80,80,80	0
57	MG	1d	301	1/1	0.78	0.28	80,80,80,80	0
57	MG	1A	3207	1/1	0.78	0.12	85,85,85,85	0
57	MG	2a	3053	1/1	0.78	0.22	76,76,76,76	0
57	MG	2a	3058	1/1	0.78	0.42	89,89,89,89	0
57	MG	1A	3604	1/1	0.78	0.25	74,74,74,74	0
57	MG	2B	214	1/1	0.78	0.13	85,85,85,85	0
57	MG	2a	3172	1/1	0.78	0.14	74,74,74,74	0
57	MG	1a	1828	1/1	0.78	0.32	79,79,79,79	0
57	MG	1A	3721	1/1	0.78	0.15	80,80,80,80	0
57	MG	2A	3247	1/1	0.79	0.17	68,68,68,68	0
57	MG	1a	1806	1/1	0.79	0.27	77,77,77,77	0
57	MG	2A	3436	1/1	0.79	0.14	72,72,72,72	0
57	MG	2A	3259	1/1	0.79	0.29	76,76,76,76	0
57	MG	1a	1753	1/1	0.79	0.23	94,94,94,94	0
57	MG	1A	3851	1/1	0.79	0.10	84,84,84,84	0
57	MG	2A	3490	1/1	0.79	0.17	68,68,68,68	0
57	MG	1a	1716	1/1	0.79	0.40	80,80,80,80	0
57	MG	2A	3299	1/1	0.79	0.27	74,74,74,74	0
57	MG	2A	3310	1/1	0.79	0.52	72,72,72,72	0
57	MG	2A	3078	1/1	0.79	0.29	85,85,85,85	0
57	MG	2a	3034	1/1	0.79	0.26	80,80,80,80	0
57	MG	2a	3167	1/1	0.79	0.26	82,82,82,82	0
57	MG	2a	3170	1/1	0.79	0.23	90,90,90,90	0
57	MG	1A	3759	1/1	0.79	0.24	65,65,65,65	0
57	MG	1A	3486	1/1	0.79	0.16	65,65,65,65	0
57	MG	1a	1857	1/1	0.79	0.15	71,71,71,71	0
57	MG	2A	3231	1/1	0.79	0.25	66,66,66,66	0
58	MPD	2A	3717	8/8	0.79	0.29	76,85,93,98	0
57	MG	2a	3018	1/1	0.80	0.15	95,95,95,95	0
57	MG	2A	3064	1/1	0.80	0.22	80,80,80,80	0
57	MG	1A	3142	1/1	0.80	0.10	76,76,76,76	0
57	MG	2a	3035	1/1	0.80	0.25	94,94,94,94	0
57	MG	1a	1721	1/1	0.80	0.17	76,76,76,76	0
57	MG	1a	1688	1/1	0.80	0.35	84,84,84,84	0
57	MG	2a	3052	1/1	0.80	0.10	104,104,104,104	0
57	MG	2A	3520	1/1	0.80	0.13	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3866	1/1	0.80	0.25	76,76,76,76	0
57	MG	2A	3136	1/1	0.80	0.29	76,76,76,76	0
57	MG	1A	3953	1/1	0.80	0.20	85,85,85,85	0
57	MG	1A	3762	1/1	0.80	0.24	77,77,77,77	0
57	MG	2A	3152	1/1	0.80	0.15	82,82,82,82	0
57	MG	1A	3752	1/1	0.80	0.14	69,69,69,69	0
57	MG	2A	3023	1/1	0.80	0.21	88,88,88,88	0
57	MG	1a	1713	1/1	0.80	0.67	84,84,84,84	0
57	MG	2A	3673	1/1	0.80	0.30	81,81,81,81	0
57	MG	2A	3682	1/1	0.80	0.31	84,84,84,84	0
57	MG	2A	3182	1/1	0.80	0.31	78,78,78,78	0
57	MG	2A	3351	1/1	0.80	0.20	69,69,69,69	0
57	MG	1a	1803	1/1	0.80	0.17	94,94,94,94	0
57	MG	2A	3195	1/1	0.80	0.28	82,82,82,82	0
57	MG	2A	3413	1/1	0.80	0.14	80,80,80,80	0
57	MG	2E	305	1/1	0.80	0.22	57,57,57,57	0
57	MG	1A	3702	1/1	0.80	0.34	76,76,76,76	0
57	MG	2A	3224	1/1	0.80	0.31	60,60,60,60	0
57	MG	2A	3441	1/1	0.80	0.24	89,89,89,89	0
57	MG	2e	201	1/1	0.80	0.25	78,78,78,78	0
57	MG	2A	3051	1/1	0.80	0.14	86,86,86,86	0
57	MG	1A	3162	1/1	0.81	0.14	64,64,64,64	0
57	MG	2A	3301	1/1	0.81	0.31	85,85,85,85	0
57	MG	1a	1628	1/1	0.81	0.26	79,79,79,79	0
57	MG	2a	3108	1/1	0.81	0.23	80,80,80,80	0
57	MG	1a	1633	1/1	0.81	0.24	82,82,82,82	0
57	MG	1A	3442	1/1	0.81	0.14	83,83,83,83	0
57	MG	2A	3174	1/1	0.81	0.37	78,78,78,78	0
57	MG	1A	3715	1/1	0.81	0.09	80,80,80,80	0
57	MG	2A	3326	1/1	0.81	0.24	92,92,92,92	0
57	MG	2A	3350	1/1	0.81	0.15	92,92,92,92	0
57	MG	2A	3538	1/1	0.81	0.12	73,73,73,73	0
57	MG	2a	3010	1/1	0.81	0.20	84,84,84,84	0
57	MG	1a	1743	1/1	0.81	0.29	95,95,95,95	0
57	MG	1A	3913	1/1	0.81	0.14	69,69,69,69	0
57	MG	2A	3386	1/1	0.81	0.12	87,87,87,87	0
57	MG	1A	3925	1/1	0.81	0.12	42,42,42,42	0
57	MG	2A	3204	1/1	0.81	0.25	83,83,83,83	0
57	MG	2A	3290	1/1	0.81	0.24	81,81,81,81	0
57	MG	2A	3294	1/1	0.81	0.26	76,76,76,76	0
57	MG	2A	3439	1/1	0.81	0.37	78,78,78,78	0
57	MG	2n	101	1/1	0.81	0.28	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3696	1/1	0.81	0.13	89,89,89,89	0
57	MG	2a	3030	1/1	0.82	0.25	75,75,75,75	0
57	MG	1A	3665	1/1	0.82	0.20	71,71,71,71	0
57	MG	2A	3341	1/1	0.82	0.27	72,72,72,72	0
57	MG	2a	3038	1/1	0.82	0.25	89,89,89,89	0
57	MG	2A	3596	1/1	0.82	0.14	76,76,76,76	0
57	MG	1A	3627	1/1	0.82	0.17	62,62,62,62	0
57	MG	2a	3051	1/1	0.82	0.25	87,87,87,87	0
57	MG	1A	3310	1/1	0.82	0.16	60,60,60,60	0
57	MG	1A	3644	1/1	0.82	0.47	58,58,58,58	0
57	MG	1a	1853	1/1	0.82	0.13	62,62,62,62	0
57	MG	2A	3662	1/1	0.82	0.22	84,84,84,84	0
57	MG	2A	3672	1/1	0.82	0.21	86,86,86,86	0
57	MG	2a	3087	1/1	0.82	0.26	84,84,84,84	0
57	MG	1A	3541	1/1	0.82	0.22	75,75,75,75	0
57	MG	2A	3412	1/1	0.82	0.13	66,66,66,66	0
57	MG	1a	1630	1/1	0.82	0.12	75,75,75,75	0
57	MG	2A	3709	1/1	0.82	0.25	73,73,73,73	0
57	MG	2A	3273	1/1	0.82	0.33	82,82,82,82	0
57	MG	1y	3101	1/1	0.82	0.18	77,77,77,77	0
57	MG	1a	1785	1/1	0.82	0.10	84,84,84,84	0
57	MG	2A	3173	1/1	0.82	0.28	70,70,70,70	0
57	MG	2a	3150	1/1	0.82	0.13	90,90,90,90	0
57	MG	2B	205	1/1	0.82	0.20	78,78,78,78	0
57	MG	1A	3072	1/1	0.82	0.13	52,52,52,52	0
57	MG	1A	3903	1/1	0.82	0.19	81,81,81,81	0
57	MG	1a	1800	1/1	0.82	0.13	78,78,78,78	0
57	MG	1B	211	1/1	0.82	0.15	63,63,63,63	0
57	MG	2Q	201	1/1	0.82	0.25	74,74,74,74	0
57	MG	2A	3194	1/1	0.82	0.12	89,89,89,89	0
57	MG	2A	3053	1/1	0.82	0.38	82,82,82,82	0
57	MG	1A	3191	1/1	0.82	0.38	79,79,79,79	0
57	MG	1a	1660	1/1	0.82	0.16	80,80,80,80	0
57	MG	2A	3324	1/1	0.82	0.20	74,74,74,74	0
57	MG	2a	3028	1/1	0.82	0.16	87,87,87,87	0
57	MG	1A	3228	1/1	0.83	0.29	71,71,71,71	0
57	MG	2A	3234	1/1	0.83	0.22	69,69,69,69	0
57	MG	2A	3590	1/1	0.83	0.13	70,70,70,70	0
57	MG	1a	1835	1/1	0.83	0.19	86,86,86,86	0
57	MG	2A	3365	1/1	0.83	0.13	64,64,64,64	0
57	MG	2A	3606	1/1	0.83	0.21	70,70,70,70	0
57	MG	2A	3375	1/1	0.83	0.23	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1a	1683	1/1	0.83	0.25	80,80,80,80	0
57	MG	2A	3385	1/1	0.83	0.11	48,48,48,48	0
57	MG	2A	3658	1/1	0.83	0.13	95,95,95,95	0
57	MG	1a	1848	1/1	0.83	0.20	90,90,90,90	0
57	MG	2A	3387	1/1	0.83	0.13	59,59,59,59	0
57	MG	2a	3063	1/1	0.83	0.18	78,78,78,78	0
57	MG	1a	1764	1/1	0.83	0.21	86,86,86,86	0
57	MG	2A	3680	1/1	0.83	0.19	79,79,79,79	0
57	MG	2A	3266	1/1	0.83	0.32	65,65,65,65	0
57	MG	1A	3619	1/1	0.83	0.27	54,54,54,54	0
57	MG	2a	3099	1/1	0.83	0.17	81,81,81,81	0
57	MG	2A	3708	1/1	0.83	0.25	78,78,78,78	0
57	MG	2A	3420	1/1	0.83	0.17	83,83,83,83	0
57	MG	2a	3111	1/1	0.83	0.14	88,88,88,88	0
57	MG	1A	3946	1/1	0.83	0.22	72,72,72,72	0
57	MG	1t	202	1/1	0.83	0.18	75,75,75,75	0
57	MG	1a	1636	1/1	0.83	0.24	82,82,82,82	0
57	MG	1A	3164	1/1	0.83	0.35	57,57,57,57	0
57	MG	1A	3590	1/1	0.83	0.14	77,77,77,77	0
57	MG	1A	3684	1/1	0.83	0.21	72,72,72,72	0
57	MG	1A	3995	1/1	0.83	0.12	79,79,79,79	0
57	MG	1a	1666	1/1	0.83	0.35	73,73,73,73	0
57	MG	2a	3165	1/1	0.83	0.21	73,73,73,73	0
57	MG	1a	1810	1/1	0.83	0.17	99,99,99,99	0
57	MG	2A	3514	1/1	0.83	0.18	87,87,87,87	0
57	MG	2T	204	1/1	0.83	0.20	72,72,72,72	0
57	MG	2U	201	1/1	0.83	0.21	95,95,95,95	0
57	MG	2V	203	1/1	0.83	0.14	63,63,63,63	0
57	MG	1A	3309	1/1	0.83	0.39	63,63,63,63	0
57	MG	20	101	1/1	0.83	0.15	68,68,68,68	0
57	MG	1G	202	1/1	0.83	0.07	62,62,62,62	0
57	MG	2j	201	1/1	0.83	0.12	88,88,88,88	0
57	MG	1a	1740	1/1	0.83	0.17	70,70,70,70	0
57	MG	2A	3092	1/1	0.83	0.16	83,83,83,83	0
58	MPD	2A	3718	8/8	0.83	0.23	71,79,86,88	0
57	MG	1A	3629	1/1	0.84	0.15	50,50,50,50	0
57	MG	2A	3475	1/1	0.84	0.18	70,70,70,70	0
57	MG	2A	3263	1/1	0.84	0.17	56,56,56,56	0
57	MG	1a	1782	1/1	0.84	0.15	80,80,80,80	0
57	MG	2A	3265	1/1	0.84	0.25	64,64,64,64	0
57	MG	2A	3494	1/1	0.84	0.10	84,84,84,84	0
57	MG	2a	3020	1/1	0.84	0.35	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3184	1/1	0.84	0.16	86,86,86,86	0
57	MG	1A	3901	1/1	0.84	0.23	79,79,79,79	0
57	MG	2a	3029	1/1	0.84	0.26	83,83,83,83	0
57	MG	2A	3275	1/1	0.84	0.41	84,84,84,84	0
57	MG	1A	3255	1/1	0.84	0.19	67,67,67,67	0
57	MG	1A	3260	1/1	0.84	0.09	67,67,67,67	0
57	MG	1A	3918	1/1	0.84	0.18	68,68,68,68	0
57	MG	2a	3039	1/1	0.84	0.20	78,78,78,78	0
57	MG	2A	3543	1/1	0.84	0.15	69,69,69,69	0
57	MG	1A	3188	1/1	0.84	0.26	70,70,70,70	0
57	MG	2A	3557	1/1	0.84	0.15	68,68,68,68	0
57	MG	1A	3173	1/1	0.84	0.31	51,51,51,51	0
57	MG	1a	1708	1/1	0.84	0.31	83,83,83,83	0
57	MG	2A	3122	1/1	0.84	0.15	84,84,84,84	0
57	MG	1a	1616	1/1	0.84	0.18	77,77,77,77	0
57	MG	1a	1817	1/1	0.84	0.13	86,86,86,86	0
57	MG	1A	3204	1/1	0.84	0.15	74,74,74,74	0
57	MG	1A	3781	1/1	0.84	0.28	72,72,72,72	0
57	MG	1A	3785	1/1	0.84	0.28	83,83,83,83	0
57	MG	1A	3979	1/1	0.84	0.23	63,63,63,63	0
57	MG	2A	3336	1/1	0.84	0.23	78,78,78,78	0
57	MG	2A	3663	1/1	0.84	0.25	77,77,77,77	0
57	MG	1a	1838	1/1	0.84	0.27	74,74,74,74	0
57	MG	1a	1718	1/1	0.84	0.12	81,81,81,81	0
57	MG	2A	3675	1/1	0.84	0.36	70,70,70,70	0
57	MG	2A	3676	1/1	0.84	0.18	76,76,76,76	0
57	MG	1A	3982	1/1	0.84	0.27	55,55,55,55	0
57	MG	1A	3796	1/1	0.84	0.21	49,49,49,49	0
57	MG	1A	3314	1/1	0.84	0.26	82,82,82,82	0
57	MG	2a	3152	1/1	0.84	0.18	84,84,84,84	0
57	MG	2A	3186	1/1	0.84	0.27	59,59,59,59	0
57	MG	1a	1657	1/1	0.84	0.27	82,82,82,82	0
57	MG	2a	3160	1/1	0.84	0.27	92,92,92,92	0
57	MG	1d	305	1/1	0.84	0.10	97,97,97,97	0
57	MG	1n	101	1/1	0.84	0.16	90,90,90,90	0
57	MG	2A	3213	1/1	0.84	0.19	77,77,77,77	0
57	MG	2A	3391	1/1	0.84	0.25	78,78,78,78	0
57	MG	1o	101	1/1	0.84	0.23	78,78,78,78	0
57	MG	2B	208	1/1	0.84	0.17	81,81,81,81	0
57	MG	1t	201	1/1	0.84	0.17	74,74,74,74	0
57	MG	1a	1749	1/1	0.84	0.17	78,78,78,78	0
57	MG	1a	1658	1/1	0.84	0.17	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3016	1/1	0.84	0.18	82,82,82,82	0
57	MG	1a	1756	1/1	0.84	0.16	84,84,84,84	0
57	MG	1A	3082	1/1	0.84	0.11	66,66,66,66	0
57	MG	2A	3463	1/1	0.84	0.15	71,71,71,71	0
59	ARG	1F	316	12/12	0.84	0.15	72,81,90,92	0
57	MG	2a	3037	1/1	0.85	0.23	78,78,78,78	0
57	MG	2A	3253	1/1	0.85	0.20	75,75,75,75	0
57	MG	2A	3115	1/1	0.85	0.22	82,82,82,82	0
57	MG	1A	3045	1/1	0.85	0.21	70,70,70,70	0
57	MG	2A	3398	1/1	0.85	0.18	82,82,82,82	0
57	MG	2A	3408	1/1	0.85	0.15	52,52,52,52	0
57	MG	1A	3271	1/1	0.85	0.20	56,56,56,56	0
57	MG	1A	3499	1/1	0.85	0.12	37,37,37,37	0
57	MG	2a	3056	1/1	0.85	0.22	84,84,84,84	0
57	MG	1A	3175	1/1	0.85	0.19	58,58,58,58	0
57	MG	1A	3620	1/1	0.85	0.14	67,67,67,67	0
57	MG	2A	3430	1/1	0.85	0.27	87,87,87,87	0
57	MG	1a	1812	1/1	0.85	0.19	91,91,91,91	0
57	MG	2a	3086	1/1	0.85	0.32	78,78,78,78	0
57	MG	1A	3825	1/1	0.85	0.14	63,63,63,63	0
57	MG	2A	3021	1/1	0.85	0.09	61,61,61,61	0
57	MG	2A	3453	1/1	0.85	0.21	61,61,61,61	0
57	MG	2a	3106	1/1	0.85	0.25	73,73,73,73	0
57	MG	1A	3999	1/1	0.85	0.26	84,84,84,84	0
57	MG	1a	1822	1/1	0.85	0.13	93,93,93,93	0
57	MG	2A	3179	1/1	0.85	0.41	75,75,75,75	0
57	MG	2A	3043	1/1	0.85	0.18	83,83,83,83	0
57	MG	2A	3304	1/1	0.85	0.45	74,74,74,74	0
57	MG	2a	3117	1/1	0.85	0.14	84,84,84,84	0
57	MG	1A	3920	1/1	0.85	0.24	79,79,79,79	0
57	MG	1A	3826	1/1	0.85	0.16	74,74,74,74	0
57	MG	2a	3145	1/1	0.85	0.29	82,82,82,82	0
57	MG	2A	3191	1/1	0.85	0.29	68,68,68,68	0
57	MG	2A	3511	1/1	0.85	0.13	74,74,74,74	0
57	MG	2a	3151	1/1	0.85	0.14	75,75,75,75	0
57	MG	1a	1704	1/1	0.85	0.16	71,71,71,71	0
57	MG	1a	1773	1/1	0.85	0.17	86,86,86,86	0
57	MG	2A	3198	1/1	0.85	0.15	83,83,83,83	0
57	MG	2A	3533	1/1	0.85	0.24	79,79,79,79	0
57	MG	1A	3934	1/1	0.85	0.14	61,61,61,61	0
57	MG	2A	3069	1/1	0.85	0.23	65,65,65,65	0
57	MG	27	101	1/1	0.85	0.25	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2a	3169	1/1	0.85	0.17	88,88,88,88	0
57	MG	2A	3337	1/1	0.85	0.41	90,90,90,90	0
57	MG	2a	3005	1/1	0.85	0.14	74,74,74,74	0
57	MG	2A	3340	1/1	0.85	0.24	84,84,84,84	0
57	MG	1a	1778	1/1	0.85	0.10	58,58,58,58	0
57	MG	2A	3081	1/1	0.85	0.29	81,81,81,81	0
57	MG	2A	3227	1/1	0.85	0.25	68,68,68,68	0
57	MG	1a	1647	1/1	0.85	0.23	81,81,81,81	0
57	MG	1A	3625	1/1	0.85	0.17	68,68,68,68	0
57	MG	2A	3093	1/1	0.85	0.19	64,64,64,64	0
57	MG	1A	3947	1/1	0.85	0.20	66,66,66,66	0
57	MG	1A	3337	1/1	0.85	0.15	74,74,74,74	0
57	MG	2A	3116	1/1	0.86	0.23	74,74,74,74	0
57	MG	1a	1814	1/1	0.86	0.12	81,81,81,81	0
57	MG	1B	210	1/1	0.86	0.12	72,72,72,72	0
57	MG	2A	3148	1/1	0.86	0.31	76,76,76,76	0
57	MG	2A	3347	1/1	0.86	0.13	57,57,57,57	0
57	MG	1A	3743	1/1	0.86	0.28	66,66,66,66	0
57	MG	1a	1827	1/1	0.86	0.14	86,86,86,86	0
57	MG	2A	3355	1/1	0.86	0.12	90,90,90,90	0
57	MG	2B	210	1/1	0.86	0.32	77,77,77,77	0
57	MG	1B	212	1/1	0.86	0.35	84,84,84,84	0
57	MG	1A	3882	1/1	0.86	0.12	38,38,38,38	0
57	MG	1A	3891	1/1	0.86	0.16	63,63,63,63	0
57	MG	1A	3895	1/1	0.86	0.16	44,44,44,44	0
57	MG	1A	3129	1/1	0.86	0.15	70,70,70,70	0
57	MG	2A	3175	1/1	0.86	0.14	59,59,59,59	0
57	MG	1A	3531	1/1	0.86	0.14	59,59,59,59	0
57	MG	1A	3387	1/1	0.86	0.11	41,41,41,41	0
57	MG	1W	201	1/1	0.86	0.31	63,63,63,63	0
57	MG	1a	1856	1/1	0.86	0.14	78,78,78,78	0
57	MG	23	103	1/1	0.86	0.11	71,71,71,71	0
57	MG	26	101	1/1	0.86	0.11	77,77,77,77	0
57	MG	2A	3409	1/1	0.86	0.20	86,86,86,86	0
57	MG	10	107	1/1	0.86	0.18	70,70,70,70	0
57	MG	15	106	1/1	0.86	0.14	63,63,63,63	0
57	MG	2a	3008	1/1	0.86	0.15	69,69,69,69	0
57	MG	2A	3192	1/1	0.86	0.18	74,74,74,74	0
57	MG	2a	3011	1/1	0.86	0.17	84,84,84,84	0
57	MG	1d	303	1/1	0.86	0.29	80,80,80,80	0
57	MG	1a	1722	1/1	0.86	0.14	74,74,74,74	0
57	MG	1h	202	1/1	0.86	0.11	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2a	3023	1/1	0.86	0.51	84,84,84,84	0
57	MG	2a	3026	1/1	0.86	0.18	76,76,76,76	0
57	MG	1a	1726	1/1	0.86	0.27	80,80,80,80	0
57	MG	2A	3205	1/1	0.86	0.15	63,63,63,63	0
57	MG	2A	3450	1/1	0.86	0.34	89,89,89,89	0
57	MG	2A	3207	1/1	0.86	0.17	73,73,73,73	0
57	MG	2A	3458	1/1	0.86	0.13	67,67,67,67	0
57	MG	1a	1602	1/1	0.86	0.10	87,87,87,87	0
57	MG	2A	3217	1/1	0.86	0.32	80,80,80,80	0
57	MG	1A	3394	1/1	0.86	0.10	66,66,66,66	0
57	MG	2A	3477	1/1	0.86	0.23	72,72,72,72	0
57	MG	1a	1619	1/1	0.86	0.22	73,73,73,73	0
57	MG	1a	1746	1/1	0.86	0.26	77,77,77,77	0
57	MG	1A	3396	1/1	0.86	0.20	64,64,64,64	0
57	MG	1A	3663	1/1	0.86	0.14	78,78,78,78	0
57	MG	2a	3054	1/1	0.86	0.25	78,78,78,78	0
57	MG	2A	3496	1/1	0.86	0.10	75,75,75,75	0
57	MG	2A	3232	1/1	0.86	0.34	73,73,73,73	0
57	MG	2A	3233	1/1	0.86	0.14	76,76,76,76	0
57	MG	2a	3067	1/1	0.86	0.19	79,79,79,79	0
57	MG	1A	3932	1/1	0.86	0.17	69,69,69,69	0
57	MG	2a	3070	1/1	0.86	0.13	77,77,77,77	0
57	MG	2a	3076	1/1	0.86	0.17	69,69,69,69	0
57	MG	2A	3516	1/1	0.86	0.19	80,80,80,80	0
57	MG	2A	3033	1/1	0.86	0.15	76,76,76,76	0
57	MG	2A	3527	1/1	0.86	0.17	73,73,73,73	0
57	MG	2A	3034	1/1	0.86	0.21	72,72,72,72	0
57	MG	2a	3097	1/1	0.86	0.23	88,88,88,88	0
57	MG	2a	3098	1/1	0.86	0.30	82,82,82,82	0
57	MG	2A	3037	1/1	0.86	0.36	77,77,77,77	0
57	MG	2a	3100	1/1	0.86	0.30	80,80,80,80	0
57	MG	1A	3790	1/1	0.86	0.19	60,60,60,60	0
57	MG	1A	3795	1/1	0.86	0.14	70,70,70,70	0
57	MG	1A	3298	1/1	0.86	0.19	72,72,72,72	0
57	MG	1A	3805	1/1	0.86	0.23	47,47,47,47	0
57	MG	2A	3556	1/1	0.86	0.18	56,56,56,56	0
57	MG	2A	3050	1/1	0.86	0.19	68,68,68,68	0
57	MG	2A	3566	1/1	0.86	0.14	86,86,86,86	0
57	MG	1a	1649	1/1	0.86	0.23	75,75,75,75	0
57	MG	1A	3458	1/1	0.86	0.24	63,63,63,63	0
57	MG	2A	3591	1/1	0.86	0.24	82,82,82,82	0
57	MG	2A	3277	1/1	0.86	0.26	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3062	1/1	0.86	0.17	44,44,44,44	0
57	MG	1A	3460	1/1	0.86	0.18	75,75,75,75	0
57	MG	1A	3846	1/1	0.86	0.11	58,58,58,58	0
57	MG	2A	3292	1/1	0.86	0.19	72,72,72,72	0
57	MG	2A	3077	1/1	0.86	0.16	70,70,70,70	0
57	MG	2A	3644	1/1	0.86	0.15	75,75,75,75	0
57	MG	2A	3649	1/1	0.86	0.19	83,83,83,83	0
57	MG	2A	3656	1/1	0.86	0.13	72,72,72,72	0
57	MG	1A	3470	1/1	0.86	0.15	68,68,68,68	0
57	MG	1a	1799	1/1	0.86	0.14	70,70,70,70	0
57	MG	1A	3850	1/1	0.86	0.11	68,68,68,68	0
57	MG	2A	3667	1/1	0.86	0.14	82,82,82,82	0
57	MG	2A	3086	1/1	0.86	0.17	65,65,65,65	0
57	MG	1A	3269	1/1	0.86	0.14	86,86,86,86	0
57	MG	1A	3335	1/1	0.86	0.15	63,63,63,63	0
57	MG	1a	1677	1/1	0.86	0.15	73,73,73,73	0
57	MG	2A	3109	1/1	0.86	0.17	72,72,72,72	0
57	MG	2k	201	1/1	0.86	0.25	78,78,78,78	0
57	MG	2A	3681	1/1	0.86	0.19	78,78,78,78	0
57	MG	2r	101	1/1	0.86	0.22	84,84,84,84	0
58	MPD	1T	207	8/8	0.86	0.16	86,88,94,96	0
57	MG	1A	3859	1/1	0.86	0.14	76,76,76,76	0
57	MG	1A	3865	1/1	0.86	0.14	62,62,62,62	0
57	MG	2A	3705	1/1	0.86	0.16	85,85,85,85	0
57	MG	1a	1792	1/1	0.87	0.11	86,86,86,86	0
57	MG	2A	3262	1/1	0.87	0.17	71,71,71,71	0
57	MG	1a	1654	1/1	0.87	0.14	85,85,85,85	0
57	MG	1A	3361	1/1	0.87	0.15	54,54,54,54	0
57	MG	1A	3843	1/1	0.87	0.12	49,49,49,49	0
57	MG	1A	3183	1/1	0.87	0.21	80,80,80,80	0
57	MG	2a	3017	1/1	0.87	0.33	77,77,77,77	0
57	MG	2A	3079	1/1	0.87	0.17	60,60,60,60	0
57	MG	1A	3208	1/1	0.87	0.10	68,68,68,68	0
57	MG	1A	3591	1/1	0.87	0.12	39,39,39,39	0
57	MG	2A	3523	1/1	0.87	0.17	56,56,56,56	0
57	MG	1a	1670	1/1	0.87	0.16	69,69,69,69	0
57	MG	1A	3705	1/1	0.87	0.19	51,51,51,51	0
57	MG	1A	3030	1/1	0.87	0.10	44,44,44,44	0
57	MG	2A	3101	1/1	0.87	0.28	75,75,75,75	0
57	MG	1a	1816	1/1	0.87	0.22	74,74,74,74	0
57	MG	2A	3297	1/1	0.87	0.48	81,81,81,81	0
57	MG	1A	4001	1/1	0.87	0.13	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	4003	1/1	0.87	0.18	70,70,70,70	0
57	MG	1A	3398	1/1	0.87	0.10	57,57,57,57	0
57	MG	1B	206	1/1	0.87	0.09	67,67,67,67	0
57	MG	2A	3582	1/1	0.87	0.12	81,81,81,81	0
57	MG	1B	207	1/1	0.87	0.20	67,67,67,67	0
57	MG	2A	3314	1/1	0.87	0.41	71,71,71,71	0
57	MG	2A	3133	1/1	0.87	0.27	70,70,70,70	0
57	MG	1A	3861	1/1	0.87	0.10	31,31,31,31	0
57	MG	2a	3055	1/1	0.87	0.10	86,86,86,86	0
57	MG	2A	3600	1/1	0.87	0.16	89,89,89,89	0
57	MG	2A	3141	1/1	0.87	0.11	73,73,73,73	0
57	MG	2a	3062	1/1	0.87	0.23	81,81,81,81	0
57	MG	2A	3144	1/1	0.87	0.19	67,67,67,67	0
57	MG	1a	1699	1/1	0.87	0.17	77,77,77,77	0
57	MG	2A	3614	1/1	0.87	0.11	58,58,58,58	0
57	MG	1A	3399	1/1	0.87	0.11	78,78,78,78	0
57	MG	2a	3072	1/1	0.87	0.27	77,77,77,77	0
57	MG	2a	3073	1/1	0.87	0.15	83,83,83,83	0
57	MG	1A	3440	1/1	0.87	0.13	42,42,42,42	0
57	MG	1B	213	1/1	0.87	0.28	75,75,75,75	0
57	MG	1a	1849	1/1	0.87	0.12	73,73,73,73	0
57	MG	1A	3239	1/1	0.87	0.20	71,71,71,71	0
57	MG	1A	3453	1/1	0.87	0.17	71,71,71,71	0
57	MG	1A	3149	1/1	0.87	0.17	61,61,61,61	0
57	MG	1A	3897	1/1	0.87	0.12	84,84,84,84	0
57	MG	1A	3767	1/1	0.87	0.11	50,50,50,50	0
57	MG	1A	3259	1/1	0.87	0.09	85,85,85,85	0
57	MG	1f	201	1/1	0.87	0.11	57,57,57,57	0
57	MG	1P	204	1/1	0.87	0.31	51,51,51,51	0
57	MG	1T	206	1/1	0.87	0.09	67,67,67,67	0
57	MG	2A	3187	1/1	0.87	0.21	75,75,75,75	0
57	MG	2a	3112	1/1	0.87	0.13	70,70,70,70	0
57	MG	1A	3905	1/1	0.87	0.09	65,65,65,65	0
57	MG	1a	1736	1/1	0.87	0.20	80,80,80,80	0
57	MG	2A	3684	1/1	0.87	0.19	78,78,78,78	0
57	MG	2A	3688	1/1	0.87	0.29	81,81,81,81	0
57	MG	2a	3120	1/1	0.87	0.20	83,83,83,83	0
57	MG	1A	3642	1/1	0.87	0.20	63,63,63,63	0
57	MG	1A	3323	1/1	0.87	0.39	58,58,58,58	0
57	MG	1y	3102	1/1	0.87	0.15	80,80,80,80	0
57	MG	2A	3006	1/1	0.87	0.24	70,70,70,70	0
57	MG	2A	3710	1/1	0.87	0.30	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3794	1/1	0.87	0.25	75,75,75,75	0
57	MG	2A	3414	1/1	0.87	0.20	84,84,84,84	0
57	MG	2a	3156	1/1	0.87	0.26	81,81,81,81	0
57	MG	1A	3329	1/1	0.87	0.25	55,55,55,55	0
57	MG	1a	1618	1/1	0.87	0.14	65,65,65,65	0
57	MG	1A	3158	1/1	0.87	0.17	52,52,52,52	0
57	MG	1A	3801	1/1	0.87	0.17	59,59,59,59	0
57	MG	2A	3035	1/1	0.87	0.31	83,83,83,83	0
57	MG	1a	1766	1/1	0.87	0.23	82,82,82,82	0
57	MG	2E	303	1/1	0.87	0.20	66,66,66,66	0
57	MG	2A	3442	1/1	0.87	0.17	75,75,75,75	0
57	MG	2F	303	1/1	0.87	0.19	76,76,76,76	0
57	MG	2A	3039	1/1	0.87	0.15	64,64,64,64	0
57	MG	1A	3938	1/1	0.87	0.14	85,85,85,85	0
57	MG	2A	3455	1/1	0.87	0.14	105,105,105,105	0
57	MG	1A	3524	1/1	0.87	0.10	68,68,68,68	0
57	MG	1A	3810	1/1	0.87	0.11	32,32,32,32	0
57	MG	1A	3821	1/1	0.87	0.11	59,59,59,59	0
57	MG	2A	3471	1/1	0.87	0.14	78,78,78,78	0
57	MG	1A	3962	1/1	0.87	0.19	66,66,66,66	0
57	MG	20	102	1/1	0.87	0.27	85,85,85,85	0
57	MG	1A	3038	1/1	0.87	0.12	57,57,57,57	0
59	ARG	1B	231	12/12	0.87	0.15	41,61,73,75	0
57	MG	1A	3968	1/1	0.87	0.35	72,72,72,72	0
57	MG	1a	1720	1/1	0.88	0.10	72,72,72,72	0
57	MG	1A	3315	1/1	0.88	0.11	60,60,60,60	0
57	MG	1A	3238	1/1	0.88	0.14	71,71,71,71	0
57	MG	2A	3201	1/1	0.88	0.25	78,78,78,78	0
57	MG	1a	1724	1/1	0.88	0.26	72,72,72,72	0
57	MG	1A	3811	1/1	0.88	0.15	52,52,52,52	0
57	MG	2A	3206	1/1	0.88	0.14	75,75,75,75	0
57	MG	21	102	1/1	0.88	0.21	74,74,74,74	0
57	MG	1a	1613	1/1	0.88	0.08	76,76,76,76	0
57	MG	2A	3460	1/1	0.88	0.10	76,76,76,76	0
57	MG	1a	1729	1/1	0.88	0.19	71,71,71,71	0
57	MG	2a	3002	1/1	0.88	0.22	71,71,71,71	0
57	MG	2A	3214	1/1	0.88	0.27	83,83,83,83	0
57	MG	1A	3954	1/1	0.88	0.12	74,74,74,74	0
57	MG	2A	3473	1/1	0.88	0.22	78,78,78,78	0
57	MG	1A	3551	1/1	0.88	0.24	73,73,73,73	0
57	MG	2A	3223	1/1	0.88	0.15	74,74,74,74	0
57	MG	2A	3479	1/1	0.88	0.28	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3668	1/1	0.88	0.13	81,81,81,81	0
57	MG	2A	3024	1/1	0.88	0.18	70,70,70,70	0
57	MG	2A	3228	1/1	0.88	0.10	72,72,72,72	0
57	MG	2A	3030	1/1	0.88	0.18	79,79,79,79	0
57	MG	2a	3024	1/1	0.88	0.23	83,83,83,83	0
57	MG	1A	3677	1/1	0.88	0.38	52,52,52,52	0
57	MG	2A	3497	1/1	0.88	0.11	68,68,68,68	0
57	MG	1A	3680	1/1	0.88	0.13	63,63,63,63	0
57	MG	1A	3553	1/1	0.88	0.09	46,46,46,46	0
57	MG	1A	3577	1/1	0.88	0.15	67,67,67,67	0
57	MG	1a	1638	1/1	0.88	0.12	78,78,78,78	0
57	MG	2a	3036	1/1	0.88	0.28	88,88,88,88	0
57	MG	2A	3249	1/1	0.88	0.32	69,69,69,69	0
57	MG	2A	3522	1/1	0.88	0.17	85,85,85,85	0
57	MG	1A	3990	1/1	0.88	0.22	71,71,71,71	0
57	MG	1a	1640	1/1	0.88	0.20	65,65,65,65	0
57	MG	1A	3992	1/1	0.88	0.28	70,70,70,70	0
57	MG	2A	3529	1/1	0.88	0.28	79,79,79,79	0
57	MG	1A	3699	1/1	0.88	0.17	50,50,50,50	0
57	MG	1a	1648	1/1	0.88	0.20	79,79,79,79	0
57	MG	1A	3582	1/1	0.88	0.21	69,69,69,69	0
57	MG	1a	1784	1/1	0.88	0.12	92,92,92,92	0
57	MG	2A	3055	1/1	0.88	0.12	60,60,60,60	0
57	MG	2A	3056	1/1	0.88	0.14	70,70,70,70	0
57	MG	2A	3060	1/1	0.88	0.14	57,57,57,57	0
57	MG	1A	3588	1/1	0.88	0.19	57,57,57,57	0
57	MG	2a	3066	1/1	0.88	0.21	74,74,74,74	0
57	MG	2A	3567	1/1	0.88	0.12	60,60,60,60	0
57	MG	1A	3194	1/1	0.88	0.19	60,60,60,60	0
57	MG	1A	3299	1/1	0.88	0.33	81,81,81,81	0
57	MG	2A	3289	1/1	0.88	0.34	70,70,70,70	0
57	MG	1A	3724	1/1	0.88	0.18	65,65,65,65	0
57	MG	2a	3075	1/1	0.88	0.36	74,74,74,74	0
57	MG	1A	3119	1/1	0.88	0.28	67,67,67,67	0
57	MG	2A	3597	1/1	0.88	0.13	70,70,70,70	0
57	MG	1a	1662	1/1	0.88	0.32	71,71,71,71	0
57	MG	2A	3295	1/1	0.88	0.18	70,70,70,70	0
57	MG	1a	1801	1/1	0.88	0.12	83,83,83,83	0
57	MG	2a	3094	1/1	0.88	0.30	73,73,73,73	0
57	MG	2a	3095	1/1	0.88	0.21	63,63,63,63	0
57	MG	2a	3096	1/1	0.88	0.20	74,74,74,74	0
57	MG	1a	1664	1/1	0.88	0.23	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3352	1/1	0.88	0.18	77,77,77,77	0
57	MG	2A	3303	1/1	0.88	0.34	87,87,87,87	0
57	MG	2A	3634	1/1	0.88	0.13	87,87,87,87	0
57	MG	1A	3883	1/1	0.88	0.15	37,37,37,37	0
57	MG	1A	3755	1/1	0.88	0.16	67,67,67,67	0
57	MG	1A	3468	1/1	0.88	0.15	65,65,65,65	0
57	MG	1a	1675	1/1	0.88	0.48	80,80,80,80	0
57	MG	1A	3308	1/1	0.88	0.21	66,66,66,66	0
57	MG	1A	3475	1/1	0.88	0.17	63,63,63,63	0
57	MG	1a	1820	1/1	0.88	0.14	71,71,71,71	0
57	MG	1A	3481	1/1	0.88	0.13	52,52,52,52	0
57	MG	1a	1824	1/1	0.88	0.15	83,83,83,83	0
57	MG	2A	3124	1/1	0.88	0.09	66,66,66,66	0
57	MG	1a	1684	1/1	0.88	0.29	64,64,64,64	0
57	MG	2a	3139	1/1	0.88	0.12	86,86,86,86	0
57	MG	1A	3122	1/1	0.88	0.13	78,78,78,78	0
57	MG	1B	229	1/1	0.88	0.08	69,69,69,69	0
57	MG	1D	301	1/1	0.88	0.34	73,73,73,73	0
57	MG	2A	3147	1/1	0.88	0.27	82,82,82,82	0
57	MG	1A	3488	1/1	0.88	0.10	77,77,77,77	0
57	MG	1a	1703	1/1	0.88	0.31	68,68,68,68	0
57	MG	2A	3692	1/1	0.88	0.22	76,76,76,76	0
57	MG	2a	3158	1/1	0.88	0.23	61,61,61,61	0
57	MG	1A	3640	1/1	0.88	0.30	77,77,77,77	0
57	MG	2A	3698	1/1	0.88	0.24	72,72,72,72	0
57	MG	1a	1706	1/1	0.88	0.18	72,72,72,72	0
57	MG	2A	3707	1/1	0.88	0.36	79,79,79,79	0
57	MG	2A	3153	1/1	0.88	0.19	64,64,64,64	0
57	MG	1A	3793	1/1	0.88	0.16	61,61,61,61	0
57	MG	2A	3164	1/1	0.88	0.32	78,78,78,78	0
57	MG	1A	3034	1/1	0.88	0.21	70,70,70,70	0
57	MG	1a	1711	1/1	0.88	0.26	73,73,73,73	0
57	MG	1A	3313	1/1	0.88	0.16	71,71,71,71	0
57	MG	2a	3176	1/1	0.88	0.15	79,79,79,79	0
57	MG	1T	202	1/1	0.88	0.10	71,71,71,71	0
57	MG	1d	302	1/1	0.88	0.18	80,80,80,80	0
57	MG	1T	205	1/1	0.88	0.07	87,87,87,87	0
57	MG	2A	3411	1/1	0.88	0.22	60,60,60,60	0
57	MG	2l	201	1/1	0.88	0.16	85,85,85,85	0
57	MG	1d	304	1/1	0.88	0.12	85,85,85,85	0
57	MG	1A	3528	1/1	0.88	0.11	41,41,41,41	0
57	MG	2r	102	1/1	0.88	0.21	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1e	201	1/1	0.88	0.36	80,80,80,80	0
58	MPD	1a	1858	8/8	0.88	0.12	71,81,88,90	0
57	MG	2E	306	1/1	0.88	0.16	73,73,73,73	0
57	MG	1A	3132	1/1	0.88	0.12	67,67,67,67	0
57	MG	1a	1719	1/1	0.88	0.31	78,78,78,78	0
57	MG	1l	202	1/1	0.88	0.20	81,81,81,81	0
57	MG	1D	307	1/1	0.89	0.10	50,50,50,50	0
57	MG	2A	3493	1/1	0.89	0.13	45,45,45,45	0
57	MG	1a	1850	1/1	0.89	0.15	83,83,83,83	0
57	MG	2A	3095	1/1	0.89	0.16	85,85,85,85	0
57	MG	1A	3496	1/1	0.89	0.14	65,65,65,65	0
57	MG	1A	3412	1/1	0.89	0.11	62,62,62,62	0
57	MG	2A	3505	1/1	0.89	0.12	58,58,58,58	0
57	MG	2A	3269	1/1	0.89	0.23	66,66,66,66	0
57	MG	1A	3502	1/1	0.89	0.11	52,52,52,52	0
57	MG	1A	3505	1/1	0.89	0.16	50,50,50,50	0
57	MG	1a	1665	1/1	0.89	0.31	66,66,66,66	0
57	MG	1A	3522	1/1	0.89	0.10	66,66,66,66	0
57	MG	1Q	201	1/1	0.89	0.34	54,54,54,54	0
57	MG	1T	201	1/1	0.89	0.12	59,59,59,59	0
57	MG	2A	3126	1/1	0.89	0.20	64,64,64,64	0
57	MG	2A	3129	1/1	0.89	0.26	68,68,68,68	0
57	MG	1A	3067	1/1	0.89	0.39	48,48,48,48	0
57	MG	2A	3534	1/1	0.89	0.12	71,71,71,71	0
57	MG	1e	203	1/1	0.89	0.27	75,75,75,75	0
57	MG	2A	3140	1/1	0.89	0.22	73,73,73,73	0
57	MG	2A	3540	1/1	0.89	0.18	51,51,51,51	0
57	MG	1A	3226	1/1	0.89	0.12	74,74,74,74	0
57	MG	1A	3444	1/1	0.89	0.17	79,79,79,79	0
57	MG	2A	3549	1/1	0.89	0.33	74,74,74,74	0
57	MG	1i	201	1/1	0.89	0.17	73,73,73,73	0
57	MG	1V	205	1/1	0.89	0.20	68,68,68,68	0
57	MG	1A	3984	1/1	0.89	0.19	69,69,69,69	0
57	MG	2a	3047	1/1	0.89	0.14	82,82,82,82	0
57	MG	1A	3448	1/1	0.89	0.12	36,36,36,36	0
57	MG	2a	3050	1/1	0.89	0.24	71,71,71,71	0
57	MG	2A	3151	1/1	0.89	0.12	75,75,75,75	0
57	MG	1r	101	1/1	0.89	0.26	73,73,73,73	0
57	MG	1a	1685	1/1	0.89	0.19	68,68,68,68	0
57	MG	15	102	1/1	0.89	0.25	56,56,56,56	0
57	MG	2A	3158	1/1	0.89	0.12	74,74,74,74	0
57	MG	1a	1786	1/1	0.89	0.20	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3335	1/1	0.89	0.12	73,73,73,73	0
57	MG	2A	3168	1/1	0.89	0.20	76,76,76,76	0
57	MG	1a	1789	1/1	0.89	0.17	76,76,76,76	0
57	MG	2a	3065	1/1	0.89	0.36	75,75,75,75	0
57	MG	15	104	1/1	0.89	0.31	50,50,50,50	0
57	MG	2A	3009	1/1	0.89	0.18	60,60,60,60	0
57	MG	1A	3539	1/1	0.89	0.11	76,76,76,76	0
57	MG	2A	3630	1/1	0.89	0.20	82,82,82,82	0
57	MG	2A	3631	1/1	0.89	0.10	77,77,77,77	0
57	MG	2A	3348	1/1	0.89	0.15	74,74,74,74	0
57	MG	2A	3635	1/1	0.89	0.14	66,66,66,66	0
57	MG	2A	3349	1/1	0.89	0.15	70,70,70,70	0
57	MG	1a	1695	1/1	0.89	0.30	73,73,73,73	0
57	MG	2a	3084	1/1	0.89	0.18	80,80,80,80	0
57	MG	1a	1796	1/1	0.89	0.07	67,67,67,67	0
57	MG	2A	3652	1/1	0.89	0.19	60,60,60,60	0
57	MG	1a	1696	1/1	0.89	0.19	61,61,61,61	0
57	MG	2A	3356	1/1	0.89	0.24	68,68,68,68	0
57	MG	2A	3660	1/1	0.89	0.10	96,96,96,96	0
57	MG	2A	3025	1/1	0.89	0.14	59,59,59,59	0
57	MG	1a	1698	1/1	0.89	0.35	70,70,70,70	0
57	MG	1A	3770	1/1	0.89	0.13	44,44,44,44	0
57	MG	2A	3669	1/1	0.89	0.12	55,55,55,55	0
57	MG	2A	3188	1/1	0.89	0.25	74,74,74,74	0
57	MG	2a	3105	1/1	0.89	0.15	70,70,70,70	0
57	MG	1A	3997	1/1	0.89	0.20	75,75,75,75	0
57	MG	1A	3301	1/1	0.89	0.17	71,71,71,71	0
57	MG	2A	3388	1/1	0.89	0.15	58,58,58,58	0
57	MG	2A	3036	1/1	0.89	0.17	73,73,73,73	0
57	MG	1a	1809	1/1	0.89	0.23	83,83,83,83	0
57	MG	2A	3196	1/1	0.89	0.29	64,64,64,64	0
57	MG	1A	3653	1/1	0.89	0.12	56,56,56,56	0
57	MG	2A	3199	1/1	0.89	0.13	62,62,62,62	0
57	MG	2A	3689	1/1	0.89	0.16	65,65,65,65	0
57	MG	2A	3200	1/1	0.89	0.25	79,79,79,79	0
57	MG	2a	3121	1/1	0.89	0.22	78,78,78,78	0
57	MG	1A	3545	1/1	0.89	0.11	67,67,67,67	0
57	MG	2a	3133	1/1	0.89	0.09	73,73,73,73	0
57	MG	1A	3371	1/1	0.89	0.19	63,63,63,63	0
57	MG	1A	3189	1/1	0.89	0.15	59,59,59,59	0
57	MG	2a	3146	1/1	0.89	0.16	81,81,81,81	0
57	MG	2A	3706	1/1	0.89	0.12	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2a	3148	1/1	0.89	0.25	83,83,83,83	0
57	MG	2A	3046	1/1	0.89	0.13	80,80,80,80	0
57	MG	2A	3421	1/1	0.89	0.18	69,69,69,69	0
57	MG	1A	3568	1/1	0.89	0.17	57,57,57,57	0
57	MG	1A	3390	1/1	0.89	0.09	52,52,52,52	0
57	MG	1a	1714	1/1	0.89	0.31	81,81,81,81	0
57	MG	1A	3469	1/1	0.89	0.10	76,76,76,76	0
57	MG	2A	3054	1/1	0.89	0.21	78,78,78,78	0
57	MG	1A	3307	1/1	0.89	0.18	70,70,70,70	0
57	MG	2a	3162	1/1	0.89	0.26	81,81,81,81	0
57	MG	2A	3448	1/1	0.89	0.21	75,75,75,75	0
57	MG	1a	1826	1/1	0.89	0.20	65,65,65,65	0
57	MG	1A	3258	1/1	0.89	0.17	72,72,72,72	0
57	MG	2B	211	1/1	0.89	0.17	79,79,79,79	0
57	MG	1A	3698	1/1	0.89	0.46	54,54,54,54	0
57	MG	2B	216	1/1	0.89	0.17	85,85,85,85	0
57	MG	2D	305	1/1	0.89	0.15	55,55,55,55	0
57	MG	2a	3174	1/1	0.89	0.23	86,86,86,86	0
57	MG	2D	309	1/1	0.89	0.20	70,70,70,70	0
57	MG	2A	3456	1/1	0.89	0.20	63,63,63,63	0
57	MG	1A	3814	1/1	0.89	0.11	69,69,69,69	0
57	MG	1A	3818	1/1	0.89	0.14	44,44,44,44	0
57	MG	2F	301	1/1	0.89	0.28	60,60,60,60	0
57	MG	2A	3070	1/1	0.89	0.19	73,73,73,73	0
57	MG	1a	1834	1/1	0.89	0.24	72,72,72,72	0
57	MG	1A	3331	1/1	0.89	0.25	73,73,73,73	0
57	MG	2A	3239	1/1	0.89	0.24	58,58,58,58	0
57	MG	2T	201	1/1	0.89	0.23	93,93,93,93	0
57	MG	1a	1651	1/1	0.89	0.17	72,72,72,72	0
57	MG	1a	1842	1/1	0.89	0.15	67,67,67,67	0
57	MG	1A	3295	1/1	0.89	0.13	68,68,68,68	0
57	MG	1A	3401	1/1	0.89	0.08	48,48,48,48	0
57	MG	2A	3087	1/1	0.89	0.13	70,70,70,70	0
57	MG	2A	3489	1/1	0.89	0.17	73,73,73,73	0
57	MG	1A	3338	1/1	0.90	0.21	72,72,72,72	0
57	MG	2a	3004	1/1	0.90	0.44	76,76,76,76	0
57	MG	1A	3919	1/1	0.90	0.17	61,61,61,61	0
57	MG	2A	3524	1/1	0.90	0.09	72,72,72,72	0
57	MG	2a	3009	1/1	0.90	0.07	86,86,86,86	0
57	MG	2A	3280	1/1	0.90	0.23	69,69,69,69	0
57	MG	1A	3611	1/1	0.90	0.26	72,72,72,72	0
57	MG	2a	3015	1/1	0.90	0.09	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3921	1/1	0.90	0.14	70,70,70,70	0
57	MG	1a	1844	1/1	0.90	0.20	76,76,76,76	0
57	MG	1A	3193	1/1	0.90	0.20	61,61,61,61	0
57	MG	2A	3291	1/1	0.90	0.21	76,76,76,76	0
57	MG	1A	3286	1/1	0.90	0.36	64,64,64,64	0
57	MG	2A	3293	1/1	0.90	0.30	74,74,74,74	0
57	MG	1A	3779	1/1	0.90	0.22	67,67,67,67	0
57	MG	2A	3545	1/1	0.90	0.22	78,78,78,78	0
57	MG	1a	1852	1/1	0.90	0.24	71,71,71,71	0
57	MG	1A	3623	1/1	0.90	0.18	66,66,66,66	0
57	MG	2a	3032	1/1	0.90	0.14	72,72,72,72	0
57	MG	2a	3033	1/1	0.90	0.11	88,88,88,88	0
57	MG	10	104	1/1	0.90	0.13	73,73,73,73	0
57	MG	1A	3942	1/1	0.90	0.12	36,36,36,36	0
57	MG	2A	3559	1/1	0.90	0.14	69,69,69,69	0
57	MG	2A	3561	1/1	0.90	0.21	68,68,68,68	0
57	MG	1A	3945	1/1	0.90	0.13	59,59,59,59	0
57	MG	1A	3293	1/1	0.90	0.30	69,69,69,69	0
57	MG	2A	3578	1/1	0.90	0.17	79,79,79,79	0
57	MG	2a	3043	1/1	0.90	0.31	77,77,77,77	0
57	MG	1A	3382	1/1	0.90	0.10	68,68,68,68	0
57	MG	2A	3143	1/1	0.90	0.14	81,81,81,81	0
57	MG	1A	3497	1/1	0.90	0.12	34,34,34,34	0
57	MG	2A	3317	1/1	0.90	0.19	72,72,72,72	0
57	MG	2A	3145	1/1	0.90	0.15	67,67,67,67	0
57	MG	1a	1605	1/1	0.90	0.18	69,69,69,69	0
57	MG	2A	3598	1/1	0.90	0.17	70,70,70,70	0
57	MG	1A	3632	1/1	0.90	0.12	54,54,54,54	0
57	MG	1e	202	1/1	0.90	0.11	73,73,73,73	0
57	MG	2a	3057	1/1	0.90	0.15	73,73,73,73	0
57	MG	1A	3635	1/1	0.90	0.14	41,41,41,41	0
57	MG	1A	3383	1/1	0.90	0.16	79,79,79,79	0
57	MG	1a	1728	1/1	0.90	0.11	75,75,75,75	0
57	MG	2a	3064	1/1	0.90	0.51	86,86,86,86	0
57	MG	1A	3049	1/1	0.90	0.15	59,59,59,59	0
57	MG	1a	1626	1/1	0.90	0.19	67,67,67,67	0
57	MG	1A	3969	1/1	0.90	0.15	30,30,30,30	0
57	MG	1a	1741	1/1	0.90	0.12	74,74,74,74	0
57	MG	1A	3802	1/1	0.90	0.15	59,59,59,59	0
57	MG	1A	3971	1/1	0.90	0.14	55,55,55,55	0
57	MG	1A	3389	1/1	0.90	0.15	84,84,84,84	0
57	MG	2a	3074	1/1	0.90	0.15	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3513	1/1	0.90	0.12	73,73,73,73	0
57	MG	2A	3651	1/1	0.90	0.18	71,71,71,71	0
57	MG	2a	3078	1/1	0.90	0.23	74,74,74,74	0
57	MG	1A	3159	1/1	0.90	0.34	49,49,49,49	0
57	MG	1A	3989	1/1	0.90	0.18	67,67,67,67	0
57	MG	2a	3085	1/1	0.90	0.25	78,78,78,78	0
57	MG	2A	3359	1/1	0.90	0.24	81,81,81,81	0
57	MG	1A	3160	1/1	0.90	0.12	59,59,59,59	0
57	MG	2A	3011	1/1	0.90	0.10	60,60,60,60	0
57	MG	2a	3091	1/1	0.90	0.33	77,77,77,77	0
57	MG	2A	3012	1/1	0.90	0.11	76,76,76,76	0
57	MG	2A	3665	1/1	0.90	0.09	71,71,71,71	0
57	MG	1A	3095	1/1	0.90	0.12	54,54,54,54	0
57	MG	1A	3656	1/1	0.90	0.09	45,45,45,45	0
57	MG	2A	3670	1/1	0.90	0.22	68,68,68,68	0
57	MG	1A	3215	1/1	0.90	0.21	52,52,52,52	0
57	MG	1A	3658	1/1	0.90	0.44	59,59,59,59	0
57	MG	2a	3103	1/1	0.90	0.07	96,96,96,96	0
57	MG	2A	3674	1/1	0.90	0.12	63,63,63,63	0
57	MG	1A	3305	1/1	0.90	0.25	52,52,52,52	0
57	MG	1A	3108	1/1	0.90	0.16	61,61,61,61	0
57	MG	2A	3032	1/1	0.90	0.19	74,74,74,74	0
57	MG	2A	3404	1/1	0.90	0.25	70,70,70,70	0
57	MG	1A	3058	1/1	0.90	0.10	67,67,67,67	0
57	MG	1A	3229	1/1	0.90	0.49	56,56,56,56	0
57	MG	1a	1788	1/1	0.90	0.14	71,71,71,71	0
57	MG	1B	201	1/1	0.90	0.17	77,77,77,77	0
57	MG	1A	3678	1/1	0.90	0.08	89,89,89,89	0
57	MG	2A	3203	1/1	0.90	0.12	80,80,80,80	0
57	MG	1A	3548	1/1	0.90	0.15	78,78,78,78	0
57	MG	2a	3123	1/1	0.90	0.10	66,66,66,66	0
57	MG	2A	3702	1/1	0.90	0.17	69,69,69,69	0
57	MG	1A	3004	1/1	0.90	0.14	66,66,66,66	0
57	MG	2a	3138	1/1	0.90	0.10	86,86,86,86	0
57	MG	2A	3422	1/1	0.90	0.12	65,65,65,65	0
57	MG	2A	3425	1/1	0.90	0.19	58,58,58,58	0
57	MG	1B	208	1/1	0.90	0.31	75,75,75,75	0
57	MG	1A	3035	1/1	0.90	0.29	69,69,69,69	0
57	MG	2A	3208	1/1	0.90	0.13	76,76,76,76	0
57	MG	2a	3149	1/1	0.90	0.21	75,75,75,75	0
57	MG	1A	3557	1/1	0.90	0.35	63,63,63,63	0
57	MG	1A	3565	1/1	0.90	0.22	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3215	1/1	0.90	0.19	73,73,73,73	0
57	MG	1A	3567	1/1	0.90	0.16	54,54,54,54	0
57	MG	1A	3247	1/1	0.90	0.26	54,54,54,54	0
57	MG	1A	3575	1/1	0.90	0.20	73,73,73,73	0
57	MG	2B	209	1/1	0.90	0.48	82,82,82,82	0
57	MG	1A	3065	1/1	0.90	0.14	55,55,55,55	0
57	MG	2a	3161	1/1	0.90	0.25	67,67,67,67	0
57	MG	1A	3140	1/1	0.90	0.15	64,64,64,64	0
57	MG	1A	3008	1/1	0.90	0.12	54,54,54,54	0
57	MG	1A	3002	1/1	0.90	0.19	58,58,58,58	0
57	MG	1a	1689	1/1	0.90	0.11	72,72,72,72	0
57	MG	2a	3168	1/1	0.90	0.22	63,63,63,63	0
57	MG	1a	1691	1/1	0.90	0.23	76,76,76,76	0
57	MG	2A	3068	1/1	0.90	0.15	63,63,63,63	0
57	MG	1A	3154	1/1	0.90	0.21	71,71,71,71	0
57	MG	1a	1821	1/1	0.90	0.16	54,54,54,54	0
57	MG	2A	3242	1/1	0.90	0.44	68,68,68,68	0
57	MG	1E	303	1/1	0.90	0.16	53,53,53,53	0
57	MG	1F	305	1/1	0.90	0.22	47,47,47,47	0
57	MG	2A	3487	1/1	0.90	0.18	72,72,72,72	0
57	MG	1a	1825	1/1	0.90	0.15	76,76,76,76	0
57	MG	1A	3911	1/1	0.90	0.12	78,78,78,78	0
57	MG	1a	1697	1/1	0.90	0.22	63,63,63,63	0
57	MG	2A	3083	1/1	0.90	0.22	73,73,73,73	0
57	MG	2A	3084	1/1	0.90	0.12	66,66,66,66	0
57	MG	1F	315	1/1	0.90	0.12	65,65,65,65	0
57	MG	1A	3270	1/1	0.90	0.12	95,95,95,95	0
57	MG	2A	3091	1/1	0.90	0.23	71,71,71,71	0
57	MG	1a	1700	1/1	0.90	0.09	62,62,62,62	0
57	MG	2A	3270	1/1	0.90	0.13	82,82,82,82	0
57	MG	2A	3271	1/1	0.90	0.10	58,58,58,58	0
57	MG	1H	202	1/1	0.90	0.08	70,70,70,70	0
57	MG	2A	3274	1/1	0.90	0.32	63,63,63,63	0
57	MG	1A	3596	1/1	0.91	0.23	60,60,60,60	0
57	MG	2A	3466	1/1	0.91	0.17	71,71,71,71	0
57	MG	2T	203	1/1	0.91	0.12	77,77,77,77	0
57	MG	1a	1795	1/1	0.91	0.11	76,76,76,76	0
57	MG	1A	3719	1/1	0.91	0.11	74,74,74,74	0
57	MG	2A	3474	1/1	0.91	0.14	79,79,79,79	0
57	MG	2X	101	1/1	0.91	0.16	81,81,81,81	0
57	MG	1A	3318	1/1	0.91	0.16	65,65,65,65	0
57	MG	1A	3120	1/1	0.91	0.25	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3733	1/1	0.91	0.11	72,72,72,72	0
57	MG	1A	3900	1/1	0.91	0.08	56,56,56,56	0
57	MG	1A	3737	1/1	0.91	0.08	49,49,49,49	0
57	MG	1A	3287	1/1	0.91	0.28	71,71,71,71	0
57	MG	1A	3615	1/1	0.91	0.21	48,48,48,48	0
57	MG	28	102	1/1	0.91	0.16	68,68,68,68	0
57	MG	2A	3057	1/1	0.91	0.16	55,55,55,55	0
57	MG	1A	3909	1/1	0.91	0.11	63,63,63,63	0
57	MG	2A	3246	1/1	0.91	0.29	63,63,63,63	0
57	MG	1D	311	1/1	0.91	0.14	55,55,55,55	0
57	MG	2a	3006	1/1	0.91	0.27	86,86,86,86	0
57	MG	1A	3179	1/1	0.91	0.14	59,59,59,59	0
57	MG	2A	3066	1/1	0.91	0.13	64,64,64,64	0
57	MG	2A	3067	1/1	0.91	0.12	61,61,61,61	0
57	MG	2A	3508	1/1	0.91	0.17	79,79,79,79	0
57	MG	2A	3509	1/1	0.91	0.08	85,85,85,85	0
57	MG	1A	3520	1/1	0.91	0.06	68,68,68,68	0
57	MG	2A	3513	1/1	0.91	0.10	68,68,68,68	0
57	MG	2A	3260	1/1	0.91	0.27	74,74,74,74	0
57	MG	2A	3515	1/1	0.91	0.20	63,63,63,63	0
57	MG	1E	301	1/1	0.91	0.25	49,49,49,49	0
57	MG	1a	1819	1/1	0.91	0.08	77,77,77,77	0
57	MG	1A	3915	1/1	0.91	0.16	59,59,59,59	0
57	MG	2a	3027	1/1	0.91	0.12	77,77,77,77	0
57	MG	1A	3424	1/1	0.91	0.13	38,38,38,38	0
57	MG	1F	311	1/1	0.91	0.09	60,60,60,60	0
57	MG	1A	3624	1/1	0.91	0.22	47,47,47,47	0
57	MG	1A	3433	1/1	0.91	0.10	60,60,60,60	0
57	MG	1A	3525	1/1	0.91	0.18	56,56,56,56	0
57	MG	1A	3151	1/1	0.91	0.31	49,49,49,49	0
57	MG	1N	203	1/1	0.91	0.09	66,66,66,66	0
57	MG	1a	1831	1/1	0.91	0.10	77,77,77,77	0
57	MG	1A	3093	1/1	0.91	0.09	67,67,67,67	0
57	MG	1A	3783	1/1	0.91	0.11	59,59,59,59	0
57	MG	1A	3936	1/1	0.91	0.17	63,63,63,63	0
57	MG	1A	3187	1/1	0.91	0.15	67,67,67,67	0
57	MG	2a	3041	1/1	0.91	0.27	64,64,64,64	0
57	MG	2A	3286	1/1	0.91	0.19	66,66,66,66	0
57	MG	2a	3045	1/1	0.91	0.14	72,72,72,72	0
57	MG	2A	3099	1/1	0.91	0.10	87,87,87,87	0
57	MG	2A	3554	1/1	0.91	0.07	71,71,71,71	0
57	MG	1a	1837	1/1	0.91	0.16	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3103	1/1	0.91	0.27	74,74,74,74	0
57	MG	1A	3534	1/1	0.91	0.16	40,40,40,40	0
57	MG	1a	1707	1/1	0.91	0.28	70,70,70,70	0
57	MG	1A	3535	1/1	0.91	0.14	38,38,38,38	0
57	MG	1V	204	1/1	0.91	0.16	81,81,81,81	0
57	MG	2A	3572	1/1	0.91	0.12	59,59,59,59	0
57	MG	2A	3574	1/1	0.91	0.10	67,67,67,67	0
57	MG	1A	3641	1/1	0.91	0.19	63,63,63,63	0
57	MG	2A	3120	1/1	0.91	0.25	75,75,75,75	0
57	MG	1A	3537	1/1	0.91	0.15	67,67,67,67	0
57	MG	2A	3302	1/1	0.91	0.19	69,69,69,69	0
57	MG	10	102	1/1	0.91	0.20	58,58,58,58	0
57	MG	2A	3592	1/1	0.91	0.15	56,56,56,56	0
57	MG	10	103	1/1	0.91	0.13	57,57,57,57	0
57	MG	2a	3068	1/1	0.91	0.11	77,77,77,77	0
57	MG	1A	3348	1/1	0.91	0.12	51,51,51,51	0
57	MG	1a	1855	1/1	0.91	0.18	62,62,62,62	0
57	MG	2a	3071	1/1	0.91	0.27	78,78,78,78	0
57	MG	2A	3135	1/1	0.91	0.14	66,66,66,66	0
57	MG	2A	3601	1/1	0.91	0.18	63,63,63,63	0
57	MG	2A	3602	1/1	0.91	0.12	75,75,75,75	0
57	MG	2A	3315	1/1	0.91	0.15	67,67,67,67	0
57	MG	2A	3604	1/1	0.91	0.11	70,70,70,70	0
57	MG	2a	3077	1/1	0.91	0.32	71,71,71,71	0
57	MG	2A	3316	1/1	0.91	0.16	71,71,71,71	0
57	MG	2a	3079	1/1	0.91	0.17	75,75,75,75	0
57	MG	1A	3799	1/1	0.91	0.12	56,56,56,56	0
57	MG	2a	3083	1/1	0.91	0.31	72,72,72,72	0
57	MG	2A	3138	1/1	0.91	0.16	72,72,72,72	0
57	MG	2A	3627	1/1	0.91	0.21	71,71,71,71	0
57	MG	1A	3956	1/1	0.91	0.12	60,60,60,60	0
57	MG	1b	301	1/1	0.91	0.12	83,83,83,83	0
57	MG	15	103	1/1	0.91	0.15	54,54,54,54	0
57	MG	1A	3123	1/1	0.91	0.17	77,77,77,77	0
57	MG	1A	3454	1/1	0.91	0.14	45,45,45,45	0
57	MG	2A	3638	1/1	0.91	0.14	66,66,66,66	0
57	MG	1A	3056	1/1	0.91	0.16	62,62,62,62	0
57	MG	1A	3367	1/1	0.91	0.08	56,56,56,56	0
57	MG	2A	3647	1/1	0.91	0.10	58,58,58,58	0
57	MG	1A	3190	1/1	0.91	0.24	60,60,60,60	0
57	MG	1a	1614	1/1	0.91	0.18	80,80,80,80	0
57	MG	1A	3105	1/1	0.91	0.09	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1e	204	1/1	0.91	0.10	68,68,68,68	0
57	MG	1A	3975	1/1	0.91	0.22	65,65,65,65	0
57	MG	1g	201	1/1	0.91	0.21	72,72,72,72	0
57	MG	2A	3661	1/1	0.91	0.14	66,66,66,66	0
57	MG	2a	3110	1/1	0.91	0.22	81,81,81,81	0
57	MG	1A	3560	1/1	0.91	0.18	63,63,63,63	0
57	MG	2A	3161	1/1	0.91	0.14	73,73,73,73	0
57	MG	1A	3819	1/1	0.91	0.19	67,67,67,67	0
57	MG	2A	3358	1/1	0.91	0.23	66,66,66,66	0
57	MG	2A	3166	1/1	0.91	0.12	68,68,68,68	0
57	MG	1l	201	1/1	0.91	0.30	79,79,79,79	0
57	MG	2A	3170	1/1	0.91	0.25	75,75,75,75	0
57	MG	2A	3171	1/1	0.91	0.18	73,73,73,73	0
57	MG	1a	1627	1/1	0.91	0.29	83,83,83,83	0
57	MG	1A	3983	1/1	0.91	0.14	57,57,57,57	0
57	MG	1A	3664	1/1	0.91	0.07	34,34,34,34	0
57	MG	2a	3136	1/1	0.91	0.16	58,58,58,58	0
57	MG	2A	3679	1/1	0.91	0.11	79,79,79,79	0
57	MG	1a	1748	1/1	0.91	0.12	65,65,65,65	0
57	MG	1A	3139	1/1	0.91	0.07	45,45,45,45	0
57	MG	1a	1634	1/1	0.91	0.35	73,73,73,73	0
57	MG	2A	3393	1/1	0.91	0.22	59,59,59,59	0
57	MG	2A	3686	1/1	0.91	0.26	74,74,74,74	0
57	MG	2A	3394	1/1	0.91	0.07	56,56,56,56	0
57	MG	1a	1754	1/1	0.91	0.15	59,59,59,59	0
57	MG	1A	3011	1/1	0.91	0.13	71,71,71,71	0
57	MG	1x	101	1/1	0.91	0.09	46,46,46,46	0
57	MG	2A	3697	1/1	0.91	0.21	77,77,77,77	0
57	MG	2A	3005	1/1	0.91	0.20	73,73,73,73	0
57	MG	2A	3410	1/1	0.91	0.19	74,74,74,74	0
57	MG	2A	3703	1/1	0.91	0.13	87,87,87,87	0
57	MG	1a	1758	1/1	0.91	0.09	64,64,64,64	0
57	MG	1A	3837	1/1	0.91	0.07	75,75,75,75	0
57	MG	1A	3676	1/1	0.91	0.23	81,81,81,81	0
57	MG	1a	1767	1/1	0.91	0.24	76,76,76,76	0
57	MG	1A	3266	1/1	0.91	0.27	57,57,57,57	0
57	MG	1A	3847	1/1	0.91	0.12	65,65,65,65	0
57	MG	1a	1775	1/1	0.91	0.13	75,75,75,75	0
57	MG	2A	3423	1/1	0.91	0.22	61,61,61,61	0
57	MG	1a	1777	1/1	0.91	0.26	85,85,85,85	0
57	MG	1A	3570	1/1	0.91	0.15	49,49,49,49	0
57	MG	2A	3026	1/1	0.91	0.21	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2B	207	1/1	0.91	0.11	86,86,86,86	0
57	MG	2A	3202	1/1	0.91	0.17	63,63,63,63	0
57	MG	1A	3484	1/1	0.91	0.16	74,74,74,74	0
57	MG	1A	3485	1/1	0.91	0.14	68,68,68,68	0
57	MG	1A	3165	1/1	0.91	0.13	45,45,45,45	0
57	MG	2f	201	1/1	0.91	0.21	68,68,68,68	0
57	MG	1a	1652	1/1	0.91	0.28	61,61,61,61	0
57	MG	1A	3083	1/1	0.91	0.17	63,63,63,63	0
57	MG	2A	3452	1/1	0.91	0.44	64,64,64,64	0
57	MG	1B	203	1/1	0.91	0.16	64,64,64,64	0
57	MG	2p	101	1/1	0.91	0.25	73,73,73,73	0
57	MG	2A	3212	1/1	0.91	0.34	76,76,76,76	0
57	MG	1A	3395	1/1	0.91	0.11	69,69,69,69	0
57	MG	2A	3457	1/1	0.91	0.19	80,80,80,80	0
57	MG	2E	308	1/1	0.91	0.21	70,70,70,70	0
57	MG	1A	3146	1/1	0.91	0.10	62,62,62,62	0
57	MG	2A	3041	1/1	0.91	0.19	73,73,73,73	0
57	MG	2A	3461	1/1	0.91	0.24	68,68,68,68	0
57	MG	1A	3595	1/1	0.91	0.14	61,61,61,61	0
57	MG	2A	3210	1/1	0.92	0.12	65,65,65,65	0
57	MG	2F	305	1/1	0.92	0.24	72,72,72,72	0
57	MG	1A	3839	1/1	0.92	0.13	56,56,56,56	0
57	MG	1a	1781	1/1	0.92	0.07	73,73,73,73	0
57	MG	1A	3124	1/1	0.92	0.05	51,51,51,51	0
57	MG	2Q	203	1/1	0.92	0.14	65,65,65,65	0
57	MG	1A	3569	1/1	0.92	0.33	67,67,67,67	0
57	MG	2A	3216	1/1	0.92	0.19	67,67,67,67	0
57	MG	1a	1641	1/1	0.92	0.19	69,69,69,69	0
57	MG	1A	3355	1/1	0.92	0.20	59,59,59,59	0
57	MG	1A	3359	1/1	0.92	0.11	30,30,30,30	0
57	MG	1a	1787	1/1	0.92	0.17	77,77,77,77	0
57	MG	1A	3197	1/1	0.92	0.16	55,55,55,55	0
57	MG	1A	3697	1/1	0.92	0.13	69,69,69,69	0
57	MG	1A	3579	1/1	0.92	0.17	82,82,82,82	0
57	MG	20	103	1/1	0.92	0.14	72,72,72,72	0
57	MG	1a	1791	1/1	0.92	0.18	67,67,67,67	0
57	MG	23	102	1/1	0.92	0.15	72,72,72,72	0
57	MG	1A	3304	1/1	0.92	0.23	58,58,58,58	0
57	MG	2A	3052	1/1	0.92	0.09	67,67,67,67	0
57	MG	1a	1653	1/1	0.92	0.15	81,81,81,81	0
57	MG	27	102	1/1	0.92	0.15	64,64,64,64	0
57	MG	2A	3237	1/1	0.92	0.10	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3021	1/1	0.92	0.18	54,54,54,54	0
57	MG	1a	1655	1/1	0.92	0.14	63,63,63,63	0
57	MG	1A	3375	1/1	0.92	0.19	77,77,77,77	0
57	MG	2A	3501	1/1	0.92	0.12	43,43,43,43	0
57	MG	1A	3707	1/1	0.92	0.18	70,70,70,70	0
57	MG	2A	3506	1/1	0.92	0.10	60,60,60,60	0
57	MG	1A	3867	1/1	0.92	0.21	64,64,64,64	0
57	MG	1a	1659	1/1	0.92	0.20	69,69,69,69	0
57	MG	1a	1805	1/1	0.92	0.12	78,78,78,78	0
57	MG	2A	3255	1/1	0.92	0.14	66,66,66,66	0
57	MG	1A	3084	1/1	0.92	0.07	52,52,52,52	0
57	MG	1A	3592	1/1	0.92	0.10	58,58,58,58	0
57	MG	1B	219	1/1	0.92	0.15	58,58,58,58	0
57	MG	2a	3021	1/1	0.92	0.15	59,59,59,59	0
57	MG	2A	3517	1/1	0.92	0.11	58,58,58,58	0
57	MG	1A	3886	1/1	0.92	0.11	46,46,46,46	0
57	MG	1B	225	1/1	0.92	0.11	70,70,70,70	0
57	MG	2A	3071	1/1	0.92	0.11	71,71,71,71	0
57	MG	1a	1668	1/1	0.92	0.23	65,65,65,65	0
57	MG	2A	3267	1/1	0.92	0.24	63,63,63,63	0
57	MG	2A	3268	1/1	0.92	0.46	65,65,65,65	0
57	MG	1a	1815	1/1	0.92	0.16	80,80,80,80	0
57	MG	2A	3531	1/1	0.92	0.12	60,60,60,60	0
57	MG	1A	3110	1/1	0.92	0.13	65,65,65,65	0
57	MG	1A	3491	1/1	0.92	0.09	64,64,64,64	0
57	MG	1B	230	1/1	0.92	0.16	71,71,71,71	0
57	MG	1A	3731	1/1	0.92	0.13	52,52,52,52	0
57	MG	1a	1676	1/1	0.92	0.12	79,79,79,79	0
57	MG	1A	3494	1/1	0.92	0.10	72,72,72,72	0
57	MG	2A	3279	1/1	0.92	0.19	60,60,60,60	0
57	MG	1a	1679	1/1	0.92	0.13	61,61,61,61	0
57	MG	1A	3211	1/1	0.92	0.20	49,49,49,49	0
57	MG	1A	3740	1/1	0.92	0.18	58,58,58,58	0
57	MG	2A	3284	1/1	0.92	0.22	67,67,67,67	0
57	MG	1A	3267	1/1	0.92	0.17	68,68,68,68	0
57	MG	2A	3287	1/1	0.92	0.12	53,53,53,53	0
57	MG	1A	3613	1/1	0.92	0.08	67,67,67,67	0
57	MG	2A	3098	1/1	0.92	0.27	68,68,68,68	0
57	MG	1A	3311	1/1	0.92	0.34	55,55,55,55	0
57	MG	2A	3100	1/1	0.92	0.46	78,78,78,78	0
57	MG	1A	3756	1/1	0.92	0.16	69,69,69,69	0
57	MG	2A	3102	1/1	0.92	0.19	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1F	306	1/1	0.92	0.11	51,51,51,51	0
57	MG	2A	3583	1/1	0.92	0.14	51,51,51,51	0
57	MG	2A	3586	1/1	0.92	0.15	67,67,67,67	0
57	MG	1a	1692	1/1	0.92	0.16	62,62,62,62	0
57	MG	2A	3589	1/1	0.92	0.09	58,58,58,58	0
57	MG	2A	3298	1/1	0.92	0.33	63,63,63,63	0
57	MG	1A	3212	1/1	0.92	0.12	59,59,59,59	0
57	MG	1A	3091	1/1	0.92	0.13	30,30,30,30	0
57	MG	2A	3111	1/1	0.92	0.18	53,53,53,53	0
57	MG	2A	3112	1/1	0.92	0.19	51,51,51,51	0
57	MG	1A	3141	1/1	0.92	0.16	56,56,56,56	0
57	MG	2A	3306	1/1	0.92	0.34	68,68,68,68	0
57	MG	1A	3279	1/1	0.92	0.12	46,46,46,46	0
57	MG	2A	3119	1/1	0.92	0.17	74,74,74,74	0
57	MG	2A	3313	1/1	0.92	0.14	67,67,67,67	0
57	MG	1A	3285	1/1	0.92	0.14	62,62,62,62	0
57	MG	1A	3227	1/1	0.92	0.14	70,70,70,70	0
57	MG	1a	1846	1/1	0.92	0.15	80,80,80,80	0
57	MG	1A	3931	1/1	0.92	0.12	81,81,81,81	0
57	MG	2A	3621	1/1	0.92	0.12	54,54,54,54	0
57	MG	2A	3622	1/1	0.92	0.12	48,48,48,48	0
57	MG	2A	3127	1/1	0.92	0.14	56,56,56,56	0
57	MG	2a	3082	1/1	0.92	0.17	73,73,73,73	0
57	MG	1A	3402	1/1	0.92	0.18	57,57,57,57	0
57	MG	2A	3132	1/1	0.92	0.17	66,66,66,66	0
57	MG	1Q	206	1/1	0.92	0.07	57,57,57,57	0
57	MG	1A	3410	1/1	0.92	0.08	33,33,33,33	0
57	MG	2A	3328	1/1	0.92	0.28	72,72,72,72	0
57	MG	2A	3636	1/1	0.92	0.09	59,59,59,59	0
57	MG	2A	3637	1/1	0.92	0.14	78,78,78,78	0
57	MG	2a	3092	1/1	0.92	0.12	73,73,73,73	0
57	MG	1A	3079	1/1	0.92	0.12	54,54,54,54	0
57	MG	2A	3137	1/1	0.92	0.10	56,56,56,56	0
57	MG	1A	3786	1/1	0.92	0.20	80,80,80,80	0
57	MG	2A	3645	1/1	0.92	0.15	61,61,61,61	0
57	MG	2A	3646	1/1	0.92	0.09	61,61,61,61	0
57	MG	1A	3939	1/1	0.92	0.16	58,58,58,58	0
57	MG	1U	201	1/1	0.92	0.20	69,69,69,69	0
57	MG	1A	3332	1/1	0.92	0.29	58,58,58,58	0
57	MG	1A	3429	1/1	0.92	0.19	65,65,65,65	0
57	MG	1A	3333	1/1	0.92	0.15	58,58,58,58	0
57	MG	2A	3146	1/1	0.92	0.14	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1W	202	1/1	0.92	0.14	64,64,64,64	0
57	MG	1Z	301	1/1	0.92	0.07	71,71,71,71	0
57	MG	1A	3436	1/1	0.92	0.17	72,72,72,72	0
57	MG	1A	3064	1/1	0.92	0.08	49,49,49,49	0
57	MG	1A	3148	1/1	0.92	0.14	59,59,59,59	0
57	MG	1A	3102	1/1	0.92	0.30	44,44,44,44	0
57	MG	2A	3369	1/1	0.92	0.08	53,53,53,53	0
57	MG	1l	101	1/1	0.92	0.12	57,57,57,57	0
57	MG	2A	3671	1/1	0.92	0.28	84,84,84,84	0
57	MG	2A	3154	1/1	0.92	0.20	63,63,63,63	0
57	MG	2a	3122	1/1	0.92	0.20	74,74,74,74	0
57	MG	13	103	1/1	0.92	0.16	49,49,49,49	0
57	MG	2a	3124	1/1	0.92	0.12	72,72,72,72	0
57	MG	2a	3127	1/1	0.92	0.10	85,85,85,85	0
57	MG	2a	3128	1/1	0.92	0.07	71,71,71,71	0
57	MG	1A	3650	1/1	0.92	0.21	73,73,73,73	0
57	MG	1A	3803	1/1	0.92	0.14	78,78,78,78	0
57	MG	1A	3341	1/1	0.92	0.27	61,61,61,61	0
57	MG	2A	3677	1/1	0.92	0.09	72,72,72,72	0
57	MG	15	105	1/1	0.92	0.17	58,58,58,58	0
57	MG	2A	3390	1/1	0.92	0.09	54,54,54,54	0
57	MG	1A	3806	1/1	0.92	0.28	59,59,59,59	0
57	MG	2A	3392	1/1	0.92	0.10	57,57,57,57	0
57	MG	1a	1731	1/1	0.92	0.09	90,90,90,90	0
57	MG	1n	102	1/1	0.92	0.09	75,75,75,75	0
57	MG	2A	3395	1/1	0.92	0.14	59,59,59,59	0
57	MG	18	101	1/1	0.92	0.17	50,50,50,50	0
57	MG	1A	3451	1/1	0.92	0.07	30,30,30,30	0
57	MG	2A	3693	1/1	0.92	0.21	61,61,61,61	0
57	MG	2a	3154	1/1	0.92	0.20	77,77,77,77	0
57	MG	2A	3406	1/1	0.92	0.12	72,72,72,72	0
57	MG	1A	3452	1/1	0.92	0.13	48,48,48,48	0
57	MG	1a	1608	1/1	0.92	0.39	73,73,73,73	0
57	MG	1A	3972	1/1	0.92	0.10	62,62,62,62	0
57	MG	1A	3554	1/1	0.92	0.08	56,56,56,56	0
57	MG	1A	3662	1/1	0.92	0.07	39,39,39,39	0
57	MG	1A	3555	1/1	0.92	0.11	60,60,60,60	0
57	MG	1A	3343	1/1	0.92	0.24	61,61,61,61	0
57	MG	2A	3419	1/1	0.92	0.17	66,66,66,66	0
57	MG	2A	3008	1/1	0.92	0.17	53,53,53,53	0
57	MG	1a	1622	1/1	0.92	0.37	66,66,66,66	0
57	MG	2A	3189	1/1	0.92	0.18	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1a	1623	1/1	0.92	0.22	63,63,63,63	0
57	MG	2A	3716	1/1	0.92	0.14	89,89,89,89	0
57	MG	1a	1761	1/1	0.92	0.31	82,82,82,82	0
57	MG	2B	202	1/1	0.92	0.14	75,75,75,75	0
57	MG	2A	3427	1/1	0.92	0.16	76,76,76,76	0
57	MG	1A	3345	1/1	0.92	0.26	50,50,50,50	0
57	MG	2A	3019	1/1	0.92	0.32	64,64,64,64	0
57	MG	2A	3020	1/1	0.92	0.27	59,59,59,59	0
57	MG	1A	3987	1/1	0.92	0.19	59,59,59,59	0
57	MG	2A	3022	1/1	0.92	0.18	61,61,61,61	0
57	MG	1A	3240	1/1	0.92	0.09	61,61,61,61	0
57	MG	1a	1770	1/1	0.92	0.11	67,67,67,67	0
57	MG	1a	1771	1/1	0.92	0.13	72,72,72,72	0
57	MG	2D	303	1/1	0.92	0.15	61,61,61,61	0
57	MG	2A	3451	1/1	0.92	0.28	82,82,82,82	0
57	MG	1A	3827	1/1	0.92	0.14	57,57,57,57	0
57	MG	2A	3028	1/1	0.92	0.16	60,60,60,60	0
57	MG	2A	3029	1/1	0.92	0.10	55,55,55,55	0
57	MG	1A	3828	1/1	0.92	0.09	66,66,66,66	0
57	MG	1A	3830	1/1	0.92	0.25	55,55,55,55	0
57	MG	1A	3349	1/1	0.92	0.12	70,70,70,70	0
57	MG	1A	3917	1/1	0.93	0.11	60,60,60,60	0
57	MG	1A	3739	1/1	0.93	0.16	56,56,56,56	0
57	MG	1A	3500	1/1	0.93	0.09	44,44,44,44	0
57	MG	2A	3472	1/1	0.93	0.17	62,62,62,62	0
57	MG	1A	3741	1/1	0.93	0.08	72,72,72,72	0
57	MG	2A	3031	1/1	0.93	0.21	63,63,63,63	0
57	MG	1A	3400	1/1	0.93	0.13	73,73,73,73	0
57	MG	1A	3503	1/1	0.93	0.10	40,40,40,40	0
57	MG	2A	3226	1/1	0.93	0.23	67,67,67,67	0
57	MG	2A	3483	1/1	0.93	0.08	79,79,79,79	0
57	MG	1A	3753	1/1	0.93	0.14	66,66,66,66	0
57	MG	13	102	1/1	0.93	0.13	72,72,72,72	0
57	MG	2A	3229	1/1	0.93	0.11	70,70,70,70	0
57	MG	1A	3327	1/1	0.93	0.18	61,61,61,61	0
57	MG	15	101	1/1	0.93	0.15	57,57,57,57	0
57	MG	1a	1760	1/1	0.93	0.21	69,69,69,69	0
57	MG	1A	3508	1/1	0.93	0.10	39,39,39,39	0
57	MG	1a	1762	1/1	0.93	0.21	69,69,69,69	0
57	MG	1A	3757	1/1	0.93	0.14	58,58,58,58	0
57	MG	1A	3182	1/1	0.93	0.17	58,58,58,58	0
57	MG	2A	3241	1/1	0.93	0.31	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3502	1/1	0.93	0.16	73,73,73,73	0
57	MG	1A	3514	1/1	0.93	0.09	47,47,47,47	0
57	MG	1a	1768	1/1	0.93	0.10	84,84,84,84	0
57	MG	1a	1769	1/1	0.93	0.14	68,68,68,68	0
57	MG	1A	3516	1/1	0.93	0.10	49,49,49,49	0
57	MG	1A	3763	1/1	0.93	0.12	65,65,65,65	0
57	MG	1a	1772	1/1	0.93	0.19	80,80,80,80	0
57	MG	18	103	1/1	0.93	0.34	59,59,59,59	0
57	MG	19	101	1/1	0.93	0.10	63,63,63,63	0
57	MG	1A	3406	1/1	0.93	0.09	69,69,69,69	0
57	MG	2a	3013	1/1	0.93	0.14	80,80,80,80	0
57	MG	2A	3261	1/1	0.93	0.30	63,63,63,63	0
57	MG	1a	1603	1/1	0.93	0.37	78,78,78,78	0
57	MG	2A	3058	1/1	0.93	0.09	59,59,59,59	0
57	MG	2A	3059	1/1	0.93	0.12	64,64,64,64	0
57	MG	1A	3626	1/1	0.93	0.17	42,42,42,42	0
57	MG	2A	3061	1/1	0.93	0.16	63,63,63,63	0
57	MG	1a	1607	1/1	0.93	0.15	73,73,73,73	0
57	MG	1A	3950	1/1	0.93	0.14	70,70,70,70	0
57	MG	2a	3025	1/1	0.93	0.11	70,70,70,70	0
57	MG	2A	3530	1/1	0.93	0.11	71,71,71,71	0
57	MG	1a	1610	1/1	0.93	0.13	79,79,79,79	0
57	MG	2A	3532	1/1	0.93	0.12	80,80,80,80	0
57	MG	1A	3776	1/1	0.93	0.14	42,42,42,42	0
57	MG	1A	3409	1/1	0.93	0.09	44,44,44,44	0
57	MG	1A	3217	1/1	0.93	0.23	64,64,64,64	0
57	MG	1A	3958	1/1	0.93	0.10	61,61,61,61	0
57	MG	1A	3282	1/1	0.93	0.08	60,60,60,60	0
57	MG	2A	3075	1/1	0.93	0.19	66,66,66,66	0
57	MG	1A	3633	1/1	0.93	0.09	79,79,79,79	0
57	MG	1A	3527	1/1	0.93	0.08	56,56,56,56	0
57	MG	2A	3548	1/1	0.93	0.09	74,74,74,74	0
57	MG	2A	3281	1/1	0.93	0.09	63,63,63,63	0
57	MG	1A	3284	1/1	0.93	0.19	73,73,73,73	0
57	MG	1A	3792	1/1	0.93	0.24	57,57,57,57	0
57	MG	1A	3220	1/1	0.93	0.17	54,54,54,54	0
57	MG	1A	3048	1/1	0.93	0.29	54,54,54,54	0
57	MG	1a	1631	1/1	0.93	0.08	53,53,53,53	0
57	MG	1A	3156	1/1	0.93	0.21	57,57,57,57	0
57	MG	1A	3978	1/1	0.93	0.27	66,66,66,66	0
57	MG	2A	3571	1/1	0.93	0.12	62,62,62,62	0
57	MG	2A	3090	1/1	0.93	0.36	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3130	1/1	0.93	0.25	42,42,42,42	0
57	MG	1a	1637	1/1	0.93	0.12	82,82,82,82	0
57	MG	1A	3798	1/1	0.93	0.19	75,75,75,75	0
57	MG	1A	3647	1/1	0.93	0.21	39,39,39,39	0
57	MG	1A	3109	1/1	0.93	0.20	52,52,52,52	0
57	MG	1A	3985	1/1	0.93	0.24	50,50,50,50	0
57	MG	1A	3232	1/1	0.93	0.13	60,60,60,60	0
57	MG	1A	3446	1/1	0.93	0.09	44,44,44,44	0
57	MG	1A	3651	1/1	0.93	0.27	50,50,50,50	0
57	MG	1A	3542	1/1	0.93	0.05	30,30,30,30	0
57	MG	1a	1650	1/1	0.93	0.07	62,62,62,62	0
57	MG	1A	3654	1/1	0.93	0.20	75,75,75,75	0
57	MG	2A	3309	1/1	0.93	0.16	53,53,53,53	0
57	MG	1A	3447	1/1	0.93	0.15	50,50,50,50	0
57	MG	2A	3311	1/1	0.93	0.24	63,63,63,63	0
57	MG	1A	3235	1/1	0.93	0.19	50,50,50,50	0
57	MG	1A	3815	1/1	0.93	0.08	64,64,64,64	0
57	MG	1A	3060	1/1	0.93	0.21	56,56,56,56	0
57	MG	1a	1823	1/1	0.93	0.16	82,82,82,82	0
57	MG	1A	3118	1/1	0.93	0.13	51,51,51,51	0
57	MG	1A	3354	1/1	0.93	0.15	36,36,36,36	0
57	MG	1A	3006	1/1	0.93	0.09	40,40,40,40	0
57	MG	1A	3457	1/1	0.93	0.12	75,75,75,75	0
57	MG	2A	3321	1/1	0.93	0.26	66,66,66,66	0
57	MG	1A	3080	1/1	0.93	0.11	53,53,53,53	0
57	MG	1A	3670	1/1	0.93	0.08	59,59,59,59	0
57	MG	1A	3306	1/1	0.93	0.11	50,50,50,50	0
57	MG	1A	3364	1/1	0.93	0.13	55,55,55,55	0
57	MG	1A	3172	1/1	0.93	0.10	56,56,56,56	0
57	MG	1A	3257	1/1	0.93	0.16	56,56,56,56	0
57	MG	1A	3844	1/1	0.93	0.15	58,58,58,58	0
57	MG	1A	3681	1/1	0.93	0.09	85,85,85,85	0
57	MG	2A	3640	1/1	0.93	0.06	72,72,72,72	0
57	MG	1B	214	1/1	0.93	0.19	62,62,62,62	0
57	MG	2A	3642	1/1	0.93	0.11	51,51,51,51	0
57	MG	2A	3342	1/1	0.93	0.14	61,61,61,61	0
57	MG	2A	3139	1/1	0.93	0.28	62,62,62,62	0
57	MG	1A	3472	1/1	0.93	0.14	54,54,54,54	0
57	MG	1A	3573	1/1	0.93	0.17	73,73,73,73	0
57	MG	1A	3691	1/1	0.93	0.08	80,80,80,80	0
57	MG	1a	1847	1/1	0.93	0.13	75,75,75,75	0
57	MG	2A	3352	1/1	0.93	0.11	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3354	1/1	0.93	0.15	74,74,74,74	0
57	MG	1B	226	1/1	0.93	0.07	55,55,55,55	0
57	MG	1a	1680	1/1	0.93	0.12	75,75,75,75	0
57	MG	1A	3694	1/1	0.93	0.07	66,66,66,66	0
57	MG	1A	3101	1/1	0.93	0.18	54,54,54,54	0
57	MG	2A	3364	1/1	0.93	0.09	49,49,49,49	0
57	MG	1A	3856	1/1	0.93	0.14	61,61,61,61	0
57	MG	1A	3202	1/1	0.93	0.17	51,51,51,51	0
57	MG	2A	3668	1/1	0.93	0.16	64,64,64,64	0
57	MG	2a	3116	1/1	0.93	0.10	71,71,71,71	0
57	MG	2A	3374	1/1	0.93	0.19	53,53,53,53	0
57	MG	1D	305	1/1	0.93	0.12	68,68,68,68	0
57	MG	2A	3377	1/1	0.93	0.10	44,44,44,44	0
57	MG	1A	3032	1/1	0.93	0.18	63,63,63,63	0
57	MG	2A	3383	1/1	0.93	0.20	74,74,74,74	0
57	MG	1A	3700	1/1	0.93	0.14	64,64,64,64	0
57	MG	1A	3023	1/1	0.93	0.09	47,47,47,47	0
57	MG	2A	3156	1/1	0.93	0.14	70,70,70,70	0
57	MG	1A	3583	1/1	0.93	0.21	64,64,64,64	0
57	MG	1A	3868	1/1	0.93	0.17	52,52,52,52	0
57	MG	1A	3873	1/1	0.93	0.08	65,65,65,65	0
57	MG	2A	3163	1/1	0.93	0.10	78,78,78,78	0
57	MG	1E	308	1/1	0.93	0.11	46,46,46,46	0
57	MG	1A	3878	1/1	0.93	0.10	74,74,74,74	0
57	MG	2a	3141	1/1	0.93	0.09	69,69,69,69	0
57	MG	2a	3144	1/1	0.93	0.18	77,77,77,77	0
57	MG	1A	3178	1/1	0.93	0.17	45,45,45,45	0
57	MG	1A	3708	1/1	0.93	0.12	53,53,53,53	0
57	MG	1A	3589	1/1	0.93	0.12	69,69,69,69	0
57	MG	2A	3691	1/1	0.93	0.13	72,72,72,72	0
57	MG	1a	1701	1/1	0.93	0.26	60,60,60,60	0
57	MG	1A	3717	1/1	0.93	0.10	49,49,49,49	0
57	MG	1g	202	1/1	0.93	0.14	72,72,72,72	0
57	MG	1G	201	1/1	0.93	0.14	59,59,59,59	0
57	MG	1a	1705	1/1	0.93	0.28	75,75,75,75	0
57	MG	2A	3701	1/1	0.93	0.19	77,77,77,77	0
57	MG	1A	3892	1/1	0.93	0.19	44,44,44,44	0
57	MG	1H	201	1/1	0.93	0.25	74,74,74,74	0
57	MG	1A	3893	1/1	0.93	0.10	58,58,58,58	0
57	MG	1a	1709	1/1	0.93	0.46	77,77,77,77	0
57	MG	1A	3718	1/1	0.93	0.08	40,40,40,40	0
57	MG	1O	201	1/1	0.93	0.11	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2a	3163	1/1	0.93	0.08	62,62,62,62	0
57	MG	1P	202	1/1	0.93	0.23	47,47,47,47	0
57	MG	2A	3190	1/1	0.93	0.22	70,70,70,70	0
57	MG	2A	3711	1/1	0.93	0.24	79,79,79,79	0
57	MG	1P	203	1/1	0.93	0.21	83,83,83,83	0
57	MG	2A	3424	1/1	0.93	0.12	59,59,59,59	0
57	MG	1A	3268	1/1	0.93	0.14	61,61,61,61	0
57	MG	2A	3193	1/1	0.93	0.16	52,52,52,52	0
57	MG	2A	3428	1/1	0.93	0.14	62,62,62,62	0
57	MG	1A	3720	1/1	0.93	0.09	63,63,63,63	0
57	MG	1A	3126	1/1	0.93	0.21	52,52,52,52	0
57	MG	1R	203	1/1	0.93	0.12	64,64,64,64	0
57	MG	1R	205	1/1	0.93	0.18	59,59,59,59	0
57	MG	2a	3178	1/1	0.93	0.14	71,71,71,71	0
57	MG	1A	3319	1/1	0.93	0.36	69,69,69,69	0
57	MG	1A	3725	1/1	0.93	0.11	55,55,55,55	0
57	MG	1A	3907	1/1	0.93	0.11	63,63,63,63	0
57	MG	1A	3320	1/1	0.93	0.24	72,72,72,72	0
57	MG	1A	3180	1/1	0.93	0.12	64,64,64,64	0
57	MG	2A	3018	1/1	0.93	0.25	64,64,64,64	0
57	MG	1U	204	1/1	0.93	0.15	50,50,50,50	0
57	MG	2D	308	1/1	0.93	0.08	40,40,40,40	0
57	MG	1A	3735	1/1	0.93	0.10	76,76,76,76	0
57	MG	1A	3326	1/1	0.93	0.09	54,54,54,54	0
57	MG	1a	1730	1/1	0.93	0.09	55,55,55,55	0
57	MG	2A	3209	1/1	0.93	0.15	60,60,60,60	0
57	MG	1V	206	1/1	0.93	0.07	54,54,54,54	0
57	MG	1A	3916	1/1	0.93	0.08	45,45,45,45	0
57	MG	1a	1738	1/1	0.93	0.11	82,82,82,82	0
57	MG	1A	3347	1/1	0.94	0.10	47,47,47,47	0
57	MG	1A	3434	1/1	0.94	0.17	69,69,69,69	0
57	MG	2B	204	1/1	0.94	0.18	57,57,57,57	0
57	MG	1A	3051	1/1	0.94	0.10	42,42,42,42	0
57	MG	2B	206	1/1	0.94	0.11	80,80,80,80	0
57	MG	1B	209	1/1	0.94	0.05	59,59,59,59	0
57	MG	2A	3040	1/1	0.94	0.14	43,43,43,43	0
57	MG	1A	3722	1/1	0.94	0.09	50,50,50,50	0
57	MG	1A	3438	1/1	0.94	0.07	50,50,50,50	0
57	MG	2A	3444	1/1	0.94	0.09	48,48,48,48	0
57	MG	2A	3446	1/1	0.94	0.16	63,63,63,63	0
57	MG	2B	215	1/1	0.94	0.09	78,78,78,78	0
57	MG	1a	1779	1/1	0.94	0.17	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1a	1780	1/1	0.94	0.08	72,72,72,72	0
57	MG	2A	3219	1/1	0.94	0.06	78,78,78,78	0
57	MG	1A	3621	1/1	0.94	0.27	59,59,59,59	0
57	MG	1A	3729	1/1	0.94	0.09	65,65,65,65	0
57	MG	2E	301	1/1	0.94	0.14	53,53,53,53	0
57	MG	2A	3454	1/1	0.94	0.27	63,63,63,63	0
57	MG	2E	304	1/1	0.94	0.33	62,62,62,62	0
57	MG	2A	3225	1/1	0.94	0.10	76,76,76,76	0
57	MG	1A	3070	1/1	0.94	0.18	46,46,46,46	0
57	MG	1B	218	1/1	0.94	0.07	64,64,64,64	0
57	MG	1A	3441	1/1	0.94	0.08	39,39,39,39	0
57	MG	1A	3181	1/1	0.94	0.10	58,58,58,58	0
57	MG	1A	3071	1/1	0.94	0.15	54,54,54,54	0
57	MG	1A	3445	1/1	0.94	0.13	39,39,39,39	0
57	MG	1A	3262	1/1	0.94	0.19	59,59,59,59	0
57	MG	1A	3888	1/1	0.94	0.10	38,38,38,38	0
57	MG	2A	3469	1/1	0.94	0.12	68,68,68,68	0
57	MG	2R	201	1/1	0.94	0.15	58,58,58,58	0
57	MG	1A	3630	1/1	0.94	0.08	37,37,37,37	0
57	MG	2A	3236	1/1	0.94	0.25	63,63,63,63	0
57	MG	1A	3097	1/1	0.94	0.39	56,56,56,56	0
57	MG	1a	1793	1/1	0.94	0.09	76,76,76,76	0
57	MG	2V	201	1/1	0.94	0.07	80,80,80,80	0
57	MG	1D	303	1/1	0.94	0.24	57,57,57,57	0
57	MG	2W	202	1/1	0.94	0.13	67,67,67,67	0
57	MG	2A	3476	1/1	0.94	0.27	68,68,68,68	0
57	MG	1A	3099	1/1	0.94	0.17	52,52,52,52	0
57	MG	2A	3478	1/1	0.94	0.10	48,48,48,48	0
57	MG	2A	3244	1/1	0.94	0.35	67,67,67,67	0
57	MG	2A	3481	1/1	0.94	0.11	58,58,58,58	0
57	MG	2A	3245	1/1	0.94	0.15	64,64,64,64	0
57	MG	23	101	1/1	0.94	0.19	74,74,74,74	0
57	MG	2A	3485	1/1	0.94	0.21	61,61,61,61	0
57	MG	2A	3063	1/1	0.94	0.20	55,55,55,55	0
57	MG	25	101	1/1	0.94	0.44	63,63,63,63	0
57	MG	1D	306	1/1	0.94	0.11	53,53,53,53	0
57	MG	2A	3248	1/1	0.94	0.17	76,76,76,76	0
57	MG	1a	1797	1/1	0.94	0.21	65,65,65,65	0
57	MG	2A	3250	1/1	0.94	0.22	60,60,60,60	0
57	MG	2A	3491	1/1	0.94	0.14	77,77,77,77	0
57	MG	1A	3536	1/1	0.94	0.08	49,49,49,49	0
57	MG	1D	309	1/1	0.94	0.13	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3254	1/1	0.94	0.09	49,49,49,49	0
57	MG	1D	310	1/1	0.94	0.10	46,46,46,46	0
57	MG	2a	3007	1/1	0.94	0.08	77,77,77,77	0
57	MG	2A	3256	1/1	0.94	0.24	59,59,59,59	0
57	MG	2A	3258	1/1	0.94	0.13	78,78,78,78	0
57	MG	1A	3636	1/1	0.94	0.09	53,53,53,53	0
57	MG	1a	1804	1/1	0.94	0.08	70,70,70,70	0
57	MG	2A	3072	1/1	0.94	0.19	63,63,63,63	0
57	MG	2A	3074	1/1	0.94	0.34	61,61,61,61	0
57	MG	2a	3016	1/1	0.94	0.10	65,65,65,65	0
57	MG	1A	3050	1/1	0.94	0.12	45,45,45,45	0
57	MG	2A	3510	1/1	0.94	0.10	70,70,70,70	0
57	MG	1a	1663	1/1	0.94	0.12	70,70,70,70	0
57	MG	1a	1807	1/1	0.94	0.21	87,87,87,87	0
57	MG	1A	3538	1/1	0.94	0.10	33,33,33,33	0
57	MG	1A	3143	1/1	0.94	0.23	63,63,63,63	0
57	MG	1E	302	1/1	0.94	0.41	55,55,55,55	0
57	MG	1A	3225	1/1	0.94	0.26	46,46,46,46	0
57	MG	2A	3518	1/1	0.94	0.09	72,72,72,72	0
57	MG	1a	1669	1/1	0.94	0.26	61,61,61,61	0
57	MG	1A	3144	1/1	0.94	0.23	53,53,53,53	0
57	MG	1F	303	1/1	0.94	0.16	49,49,49,49	0
57	MG	1A	3456	1/1	0.94	0.11	57,57,57,57	0
57	MG	2a	3031	1/1	0.94	0.18	70,70,70,70	0
57	MG	1a	1818	1/1	0.94	0.10	86,86,86,86	0
57	MG	1A	3169	1/1	0.94	0.13	68,68,68,68	0
57	MG	2A	3278	1/1	0.94	0.17	65,65,65,65	0
57	MG	1A	3912	1/1	0.94	0.09	71,71,71,71	0
57	MG	1F	312	1/1	0.94	0.13	74,74,74,74	0
57	MG	2A	3097	1/1	0.94	0.18	74,74,74,74	0
57	MG	1a	1678	1/1	0.94	0.10	64,64,64,64	0
57	MG	1A	3769	1/1	0.94	0.10	50,50,50,50	0
57	MG	1F	314	1/1	0.94	0.08	69,69,69,69	0
57	MG	2A	3536	1/1	0.94	0.14	72,72,72,72	0
57	MG	2a	3042	1/1	0.94	0.15	68,68,68,68	0
57	MG	1A	3549	1/1	0.94	0.16	62,62,62,62	0
57	MG	2a	3044	1/1	0.94	0.12	79,79,79,79	0
57	MG	1a	1682	1/1	0.94	0.14	68,68,68,68	0
57	MG	1A	3077	1/1	0.94	0.42	50,50,50,50	0
57	MG	1A	3552	1/1	0.94	0.19	66,66,66,66	0
57	MG	1A	3321	1/1	0.94	0.11	56,56,56,56	0
57	MG	1a	1687	1/1	0.94	0.41	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3461	1/1	0.94	0.06	30,30,30,30	0
57	MG	2A	3550	1/1	0.94	0.08	66,66,66,66	0
57	MG	2A	3551	1/1	0.94	0.06	78,78,78,78	0
57	MG	1A	3784	1/1	0.94	0.14	45,45,45,45	0
57	MG	1a	1690	1/1	0.94	0.25	75,75,75,75	0
57	MG	1A	3655	1/1	0.94	0.08	75,75,75,75	0
57	MG	2A	3558	1/1	0.94	0.15	56,56,56,56	0
57	MG	1P	201	1/1	0.94	0.24	46,46,46,46	0
57	MG	1A	3462	1/1	0.94	0.19	69,69,69,69	0
57	MG	2A	3562	1/1	0.94	0.12	66,66,66,66	0
57	MG	2A	3300	1/1	0.94	0.13	72,72,72,72	0
57	MG	1A	3928	1/1	0.94	0.10	54,54,54,54	0
57	MG	2A	3568	1/1	0.94	0.12	70,70,70,70	0
57	MG	2A	3569	1/1	0.94	0.13	73,73,73,73	0
57	MG	1A	3930	1/1	0.94	0.07	70,70,70,70	0
57	MG	1A	3467	1/1	0.94	0.11	57,57,57,57	0
57	MG	1Q	203	1/1	0.94	0.21	54,54,54,54	0
57	MG	2A	3128	1/1	0.94	0.20	66,66,66,66	0
57	MG	2A	3307	1/1	0.94	0.21	56,56,56,56	0
57	MG	1A	3791	1/1	0.94	0.08	57,57,57,57	0
57	MG	2A	3584	1/1	0.94	0.10	60,60,60,60	0
57	MG	2A	3130	1/1	0.94	0.17	59,59,59,59	0
57	MG	1A	3558	1/1	0.94	0.26	78,78,78,78	0
57	MG	1A	3388	1/1	0.94	0.07	36,36,36,36	0
57	MG	2A	3134	1/1	0.94	0.15	85,85,85,85	0
57	MG	1A	3104	1/1	0.94	0.15	59,59,59,59	0
57	MG	2a	3081	1/1	0.94	0.22	73,73,73,73	0
57	MG	1A	3325	1/1	0.94	0.10	46,46,46,46	0
57	MG	2A	3595	1/1	0.94	0.11	65,65,65,65	0
57	MG	1A	3391	1/1	0.94	0.12	49,49,49,49	0
57	MG	1A	3086	1/1	0.94	0.09	62,62,62,62	0
57	MG	1A	3196	1/1	0.94	0.15	55,55,55,55	0
57	MG	2A	3599	1/1	0.94	0.11	68,68,68,68	0
57	MG	1A	3672	1/1	0.94	0.08	78,78,78,78	0
57	MG	1A	3674	1/1	0.94	0.12	63,63,63,63	0
57	MG	2A	3142	1/1	0.94	0.15	68,68,68,68	0
57	MG	2a	3093	1/1	0.94	0.12	77,77,77,77	0
57	MG	1A	3952	1/1	0.94	0.12	64,64,64,64	0
57	MG	1A	3236	1/1	0.94	0.32	55,55,55,55	0
57	MG	2A	3327	1/1	0.94	0.15	50,50,50,50	0
57	MG	1V	207	1/1	0.94	0.17	68,68,68,68	0
57	MG	2A	3608	1/1	0.94	0.09	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3088	1/1	0.94	0.33	52,52,52,52	0
57	MG	2A	3619	1/1	0.94	0.08	58,58,58,58	0
57	MG	1A	3198	1/1	0.94	0.17	65,65,65,65	0
57	MG	1A	3807	1/1	0.94	0.17	53,53,53,53	0
57	MG	1a	1715	1/1	0.94	0.37	65,65,65,65	0
57	MG	1A	3960	1/1	0.94	0.30	48,48,48,48	0
57	MG	1A	3578	1/1	0.94	0.09	54,54,54,54	0
57	MG	2A	3344	1/1	0.94	0.09	49,49,49,49	0
57	MG	1A	3296	1/1	0.94	0.27	70,70,70,70	0
57	MG	1A	3682	1/1	0.94	0.22	78,78,78,78	0
57	MG	1h	201	1/1	0.94	0.14	62,62,62,62	0
57	MG	2A	3155	1/1	0.94	0.15	53,53,53,53	0
57	MG	1A	3581	1/1	0.94	0.13	60,60,60,60	0
57	MG	2A	3639	1/1	0.94	0.15	54,54,54,54	0
57	MG	2a	3118	1/1	0.94	0.09	74,74,74,74	0
57	MG	1l	105	1/1	0.94	0.09	58,58,58,58	0
57	MG	2A	3353	1/1	0.94	0.06	45,45,45,45	0
57	MG	1A	3816	1/1	0.94	0.12	57,57,57,57	0
57	MG	2A	3159	1/1	0.94	0.07	62,62,62,62	0
57	MG	1A	3685	1/1	0.94	0.05	90,90,90,90	0
57	MG	2A	3357	1/1	0.94	0.14	57,57,57,57	0
57	MG	2A	3162	1/1	0.94	0.13	70,70,70,70	0
57	MG	2A	3648	1/1	0.94	0.11	67,67,67,67	0
57	MG	1m	202	1/1	0.94	0.11	77,77,77,77	0
57	MG	2A	3362	1/1	0.94	0.13	58,58,58,58	0
57	MG	1a	1725	1/1	0.94	0.15	84,84,84,84	0
57	MG	2A	3165	1/1	0.94	0.07	70,70,70,70	0
57	MG	1A	3489	1/1	0.94	0.07	61,61,61,61	0
57	MG	2a	3140	1/1	0.94	0.11	79,79,79,79	0
57	MG	2A	3659	1/1	0.94	0.13	82,82,82,82	0
57	MG	1A	3973	1/1	0.94	0.13	54,54,54,54	0
57	MG	2A	3169	1/1	0.94	0.26	75,75,75,75	0
57	MG	2A	3376	1/1	0.94	0.09	52,52,52,52	0
57	MG	1A	3297	1/1	0.94	0.10	55,55,55,55	0
57	MG	2A	3378	1/1	0.94	0.18	74,74,74,74	0
57	MG	1A	3587	1/1	0.94	0.09	52,52,52,52	0
57	MG	2A	3382	1/1	0.94	0.11	63,63,63,63	0
57	MG	1A	3696	1/1	0.94	0.10	70,70,70,70	0
57	MG	1A	3336	1/1	0.94	0.22	65,65,65,65	0
57	MG	1A	3199	1/1	0.94	0.13	54,54,54,54	0
57	MG	1A	3153	1/1	0.94	0.08	57,57,57,57	0
57	MG	2a	3155	1/1	0.94	0.05	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1a	1739	1/1	0.94	0.18	81,81,81,81	0
57	MG	2a	3157	1/1	0.94	0.17	70,70,70,70	0
57	MG	1A	3832	1/1	0.94	0.12	56,56,56,56	0
57	MG	19	102	1/1	0.94	0.10	65,65,65,65	0
57	MG	1A	3833	1/1	0.94	0.10	65,65,65,65	0
57	MG	2A	3010	1/1	0.94	0.12	77,77,77,77	0
57	MG	1A	3248	1/1	0.94	0.15	53,53,53,53	0
57	MG	1A	3342	1/1	0.94	0.11	64,64,64,64	0
57	MG	2a	3164	1/1	0.94	0.21	79,79,79,79	0
57	MG	1A	3840	1/1	0.94	0.08	63,63,63,63	0
57	MG	2A	3396	1/1	0.94	0.29	65,65,65,65	0
57	MG	2A	3683	1/1	0.94	0.12	72,72,72,72	0
57	MG	2A	3017	1/1	0.94	0.26	71,71,71,71	0
57	MG	2A	3402	1/1	0.94	0.07	65,65,65,65	0
57	MG	1A	3993	1/1	0.94	0.05	57,57,57,57	0
57	MG	2A	3405	1/1	0.94	0.08	73,73,73,73	0
57	MG	1A	3842	1/1	0.94	0.10	54,54,54,54	0
57	MG	2a	3173	1/1	0.94	0.15	74,74,74,74	0
57	MG	2A	3407	1/1	0.94	0.09	71,71,71,71	0
57	MG	1a	1755	1/1	0.94	0.22	56,56,56,56	0
57	MG	2A	3694	1/1	0.94	0.21	57,57,57,57	0
57	MG	1A	3416	1/1	0.94	0.09	34,34,34,34	0
57	MG	1a	1757	1/1	0.94	0.16	79,79,79,79	0
57	MG	1A	3419	1/1	0.94	0.09	53,53,53,53	0
57	MG	1a	1615	1/1	0.94	0.08	81,81,81,81	0
57	MG	1A	3845	1/1	0.94	0.08	46,46,46,46	0
57	MG	1A	3423	1/1	0.94	0.13	41,41,41,41	0
57	MG	2A	3415	1/1	0.94	0.13	73,73,73,73	0
57	MG	2A	3417	1/1	0.94	0.12	41,41,41,41	0
57	MG	2A	3418	1/1	0.94	0.10	55,55,55,55	0
57	MG	2A	3027	1/1	0.94	0.10	52,52,52,52	0
57	MG	1A	3711	1/1	0.94	0.07	56,56,56,56	0
57	MG	2y	201	1/1	0.94	0.23	79,79,79,79	0
57	MG	1a	1620	1/1	0.94	0.07	65,65,65,65	0
57	MG	1A	3253	1/1	0.94	0.25	47,47,47,47	0
57	MG	1A	3849	1/1	0.94	0.08	51,51,51,51	0
57	MG	1B	202	1/1	0.94	0.12	64,64,64,64	0
57	MG	1A	3203	1/1	0.94	0.35	47,47,47,47	0
57	MG	1A	3612	1/1	0.94	0.08	52,52,52,52	0
60	ZN	24	501	1/1	0.94	0.13	155,155,155,155	0
57	MG	1N	202	1/1	0.95	0.08	47,47,47,47	0
57	MG	2A	3445	1/1	0.95	0.12	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3377	1/1	0.95	0.12	41,41,41,41	0
57	MG	2A	3447	1/1	0.95	0.19	76,76,76,76	0
57	MG	1A	3234	1/1	0.95	0.33	55,55,55,55	0
57	MG	1A	3066	1/1	0.95	0.30	54,54,54,54	0
57	MG	1A	3490	1/1	0.95	0.08	64,64,64,64	0
57	MG	1A	3384	1/1	0.95	0.09	60,60,60,60	0
57	MG	1A	3385	1/1	0.95	0.07	35,35,35,35	0
57	MG	2A	3222	1/1	0.95	0.13	71,71,71,71	0
57	MG	1A	3616	1/1	0.95	0.09	65,65,65,65	0
57	MG	1A	3744	1/1	0.95	0.07	47,47,47,47	0
57	MG	2D	304	1/1	0.95	0.12	62,62,62,62	0
57	MG	1Q	204	1/1	0.95	0.31	53,53,53,53	0
57	MG	2D	306	1/1	0.95	0.16	70,70,70,70	0
57	MG	2D	307	1/1	0.95	0.29	69,69,69,69	0
57	MG	1a	1723	1/1	0.95	0.13	69,69,69,69	0
57	MG	2A	3459	1/1	0.95	0.17	56,56,56,56	0
57	MG	1A	3303	1/1	0.95	0.06	75,75,75,75	0
57	MG	1Q	208	1/1	0.95	0.08	58,58,58,58	0
57	MG	1A	3914	1/1	0.95	0.09	77,77,77,77	0
57	MG	1A	3111	1/1	0.95	0.18	50,50,50,50	0
57	MG	1A	3147	1/1	0.95	0.27	54,54,54,54	0
57	MG	2A	3468	1/1	0.95	0.10	63,63,63,63	0
57	MG	1A	3112	1/1	0.95	0.08	58,58,58,58	0
57	MG	2F	302	1/1	0.95	0.16	61,61,61,61	0
57	MG	1A	3113	1/1	0.95	0.13	50,50,50,50	0
57	MG	1A	3392	1/1	0.95	0.16	49,49,49,49	0
57	MG	2A	3235	1/1	0.95	0.28	54,54,54,54	0
57	MG	1a	1732	1/1	0.95	0.08	59,59,59,59	0
57	MG	2O	201	1/1	0.95	0.09	86,86,86,86	0
57	MG	1A	3242	1/1	0.95	0.12	66,66,66,66	0
57	MG	2Q	202	1/1	0.95	0.33	71,71,71,71	0
57	MG	1A	3761	1/1	0.95	0.08	41,41,41,41	0
57	MG	2A	3240	1/1	0.95	0.17	49,49,49,49	0
57	MG	1U	205	1/1	0.95	0.19	52,52,52,52	0
57	MG	1V	203	1/1	0.95	0.14	60,60,60,60	0
57	MG	1A	3924	1/1	0.95	0.08	46,46,46,46	0
57	MG	2A	3482	1/1	0.95	0.07	43,43,43,43	0
57	MG	1a	1742	1/1	0.95	0.07	65,65,65,65	0
57	MG	2V	202	1/1	0.95	0.14	65,65,65,65	0
57	MG	2A	3484	1/1	0.95	0.11	69,69,69,69	0
57	MG	2W	201	1/1	0.95	0.09	63,63,63,63	0
57	MG	1A	3506	1/1	0.95	0.10	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3926	1/1	0.95	0.07	68,68,68,68	0
57	MG	1A	3245	1/1	0.95	0.10	56,56,56,56	0
57	MG	1A	3929	1/1	0.95	0.08	71,71,71,71	0
57	MG	1A	3117	1/1	0.95	0.14	50,50,50,50	0
57	MG	1A	3768	1/1	0.95	0.10	61,61,61,61	0
57	MG	2I	101	1/1	0.95	0.12	66,66,66,66	0
57	MG	10	101	1/1	0.95	0.09	51,51,51,51	0
57	MG	1A	3192	1/1	0.95	0.26	54,54,54,54	0
57	MG	1A	3933	1/1	0.95	0.16	57,57,57,57	0
57	MG	2A	3495	1/1	0.95	0.13	73,73,73,73	0
57	MG	1A	3515	1/1	0.95	0.09	42,42,42,42	0
57	MG	1a	1759	1/1	0.95	0.09	75,75,75,75	0
57	MG	2A	3499	1/1	0.95	0.12	63,63,63,63	0
57	MG	10	105	1/1	0.95	0.13	64,64,64,64	0
57	MG	10	106	1/1	0.95	0.06	62,62,62,62	0
57	MG	1A	3773	1/1	0.95	0.11	55,55,55,55	0
57	MG	1A	3774	1/1	0.95	0.11	55,55,55,55	0
57	MG	1A	3775	1/1	0.95	0.17	57,57,57,57	0
57	MG	1A	3941	1/1	0.95	0.07	52,52,52,52	0
57	MG	1A	3312	1/1	0.95	0.18	44,44,44,44	0
57	MG	13	104	1/1	0.95	0.10	53,53,53,53	0
57	MG	1A	3943	1/1	0.95	0.07	58,58,58,58	0
57	MG	1A	3778	1/1	0.95	0.17	70,70,70,70	0
57	MG	1A	3249	1/1	0.95	0.20	42,42,42,42	0
57	MG	1A	3780	1/1	0.95	0.07	46,46,46,46	0
57	MG	1A	3637	1/1	0.95	0.08	37,37,37,37	0
57	MG	2a	3014	1/1	0.95	0.14	70,70,70,70	0
57	MG	2A	3272	1/1	0.95	0.11	60,60,60,60	0
57	MG	1A	3782	1/1	0.95	0.06	45,45,45,45	0
57	MG	2A	3519	1/1	0.95	0.12	72,72,72,72	0
57	MG	1A	3053	1/1	0.95	0.19	44,44,44,44	0
57	MG	2a	3019	1/1	0.95	0.11	71,71,71,71	0
57	MG	18	102	1/1	0.95	0.08	48,48,48,48	0
57	MG	2A	3276	1/1	0.95	0.38	71,71,71,71	0
57	MG	1A	3254	1/1	0.95	0.07	67,67,67,67	0
57	MG	2A	3525	1/1	0.95	0.09	47,47,47,47	0
57	MG	1A	3955	1/1	0.95	0.17	45,45,45,45	0
57	MG	1A	3403	1/1	0.95	0.17	65,65,65,65	0
57	MG	2A	3080	1/1	0.95	0.10	63,63,63,63	0
57	MG	1a	1601	1/1	0.95	0.14	84,84,84,84	0
57	MG	1A	3957	1/1	0.95	0.11	67,67,67,67	0
57	MG	1A	3404	1/1	0.95	0.23	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3787	1/1	0.95	0.16	74,74,74,74	0
57	MG	2A	3285	1/1	0.95	0.14	78,78,78,78	0
57	MG	2A	3085	1/1	0.95	0.11	78,78,78,78	0
57	MG	1a	1606	1/1	0.95	0.06	80,80,80,80	0
57	MG	2A	3537	1/1	0.95	0.23	72,72,72,72	0
57	MG	1A	3643	1/1	0.95	0.24	58,58,58,58	0
57	MG	1A	3964	1/1	0.95	0.14	48,48,48,48	0
57	MG	2A	3541	1/1	0.95	0.13	76,76,76,76	0
57	MG	2A	3542	1/1	0.95	0.20	44,44,44,44	0
57	MG	1a	1609	1/1	0.95	0.18	70,70,70,70	0
57	MG	2A	3544	1/1	0.95	0.08	62,62,62,62	0
57	MG	1A	3316	1/1	0.95	0.15	66,66,66,66	0
57	MG	1A	3646	1/1	0.95	0.12	49,49,49,49	0
57	MG	1A	3317	1/1	0.95	0.09	49,49,49,49	0
57	MG	1A	3037	1/1	0.95	0.07	62,62,62,62	0
57	MG	1A	3532	1/1	0.95	0.08	43,43,43,43	0
57	MG	2a	3046	1/1	0.95	0.12	76,76,76,76	0
57	MG	1A	3057	1/1	0.95	0.17	37,37,37,37	0
57	MG	2a	3048	1/1	0.95	0.13	89,89,89,89	0
57	MG	1A	3026	1/1	0.95	0.12	44,44,44,44	0
57	MG	1A	3074	1/1	0.95	0.26	45,45,45,45	0
57	MG	1A	3096	1/1	0.95	0.41	57,57,57,57	0
57	MG	1A	3200	1/1	0.95	0.21	54,54,54,54	0
57	MG	1a	1624	1/1	0.95	0.16	67,67,67,67	0
57	MG	1A	3265	1/1	0.95	0.12	47,47,47,47	0
57	MG	1A	3125	1/1	0.95	0.08	52,52,52,52	0
57	MG	2A	3564	1/1	0.95	0.13	68,68,68,68	0
57	MG	1A	3075	1/1	0.95	0.15	49,49,49,49	0
57	MG	1A	3660	1/1	0.95	0.11	65,65,65,65	0
57	MG	2a	3060	1/1	0.95	0.14	79,79,79,79	0
57	MG	2A	3113	1/1	0.95	0.12	85,85,85,85	0
57	MG	2A	3114	1/1	0.95	0.08	71,71,71,71	0
57	MG	1A	3986	1/1	0.95	0.10	67,67,67,67	0
57	MG	1A	3808	1/1	0.95	0.18	50,50,50,50	0
57	MG	1A	3809	1/1	0.95	0.13	67,67,67,67	0
57	MG	1a	1635	1/1	0.95	0.12	51,51,51,51	0
57	MG	2A	3580	1/1	0.95	0.15	53,53,53,53	0
57	MG	2A	3581	1/1	0.95	0.12	47,47,47,47	0
57	MG	1A	3661	1/1	0.95	0.06	53,53,53,53	0
57	MG	2A	3123	1/1	0.95	0.16	71,71,71,71	0
57	MG	1A	3435	1/1	0.95	0.07	47,47,47,47	0
57	MG	2A	3125	1/1	0.95	0.23	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3813	1/1	0.95	0.06	44,44,44,44	0
57	MG	1A	3994	1/1	0.95	0.21	48,48,48,48	0
57	MG	1A	3546	1/1	0.95	0.07	58,58,58,58	0
57	MG	2A	3325	1/1	0.95	0.08	64,64,64,64	0
57	MG	1A	3127	1/1	0.95	0.20	52,52,52,52	0
57	MG	2A	3594	1/1	0.95	0.07	43,43,43,43	0
57	MG	1A	3167	1/1	0.95	0.14	63,63,63,63	0
57	MG	2A	3131	1/1	0.95	0.12	67,67,67,67	0
57	MG	2A	3331	1/1	0.95	0.10	37,37,37,37	0
57	MG	2A	3332	1/1	0.95	0.10	87,87,87,87	0
57	MG	1a	1644	1/1	0.95	0.23	70,70,70,70	0
57	MG	1A	3550	1/1	0.95	0.09	43,43,43,43	0
57	MG	1A	3439	1/1	0.95	0.06	39,39,39,39	0
57	MG	1A	3128	1/1	0.95	0.29	48,48,48,48	0
57	MG	1A	4002	1/1	0.95	0.16	61,61,61,61	0
57	MG	2a	3090	1/1	0.95	0.24	81,81,81,81	0
57	MG	1A	3823	1/1	0.95	0.09	69,69,69,69	0
57	MG	1A	3209	1/1	0.95	0.12	44,44,44,44	0
57	MG	2A	3346	1/1	0.95	0.07	51,51,51,51	0
57	MG	1A	3275	1/1	0.95	0.16	58,58,58,58	0
57	MG	2A	3609	1/1	0.95	0.07	54,54,54,54	0
57	MG	1A	3276	1/1	0.95	0.13	51,51,51,51	0
57	MG	2A	3615	1/1	0.95	0.13	62,62,62,62	0
57	MG	2A	3618	1/1	0.95	0.15	56,56,56,56	0
57	MG	1a	1830	1/1	0.95	0.12	68,68,68,68	0
57	MG	1A	3277	1/1	0.95	0.34	51,51,51,51	0
57	MG	2a	3102	1/1	0.95	0.15	69,69,69,69	0
57	MG	1B	205	1/1	0.95	0.05	56,56,56,56	0
57	MG	2A	3625	1/1	0.95	0.07	40,40,40,40	0
57	MG	1A	3829	1/1	0.95	0.10	50,50,50,50	0
57	MG	2a	3107	1/1	0.95	0.13	74,74,74,74	0
57	MG	1A	3679	1/1	0.95	0.06	79,79,79,79	0
57	MG	1A	3339	1/1	0.95	0.15	41,41,41,41	0
57	MG	1A	3559	1/1	0.95	0.17	52,52,52,52	0
57	MG	1a	1661	1/1	0.95	0.18	73,73,73,73	0
57	MG	1a	1839	1/1	0.95	0.18	80,80,80,80	0
57	MG	1a	1841	1/1	0.95	0.14	67,67,67,67	0
57	MG	1A	3834	1/1	0.95	0.10	63,63,63,63	0
57	MG	2A	3361	1/1	0.95	0.16	60,60,60,60	0
57	MG	1A	3340	1/1	0.95	0.18	72,72,72,72	0
57	MG	1A	3076	1/1	0.95	0.10	49,49,49,49	0
57	MG	1a	1845	1/1	0.95	0.12	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3368	1/1	0.95	0.08	74,74,74,74	0
57	MG	1A	3016	1/1	0.95	0.23	46,46,46,46	0
57	MG	1A	3283	1/1	0.95	0.08	46,46,46,46	0
57	MG	1A	3174	1/1	0.95	0.12	59,59,59,59	0
57	MG	1A	3693	1/1	0.95	0.08	56,56,56,56	0
57	MG	1A	3020	1/1	0.95	0.35	50,50,50,50	0
57	MG	1B	223	1/1	0.95	0.08	58,58,58,58	0
57	MG	1A	3133	1/1	0.95	0.10	60,60,60,60	0
57	MG	2A	3380	1/1	0.95	0.12	51,51,51,51	0
57	MG	2a	3135	1/1	0.95	0.10	83,83,83,83	0
57	MG	2A	3655	1/1	0.95	0.10	70,70,70,70	0
57	MG	1a	1854	1/1	0.95	0.28	68,68,68,68	0
57	MG	1a	1674	1/1	0.95	0.35	76,76,76,76	0
57	MG	1A	3134	1/1	0.95	0.17	50,50,50,50	0
57	MG	1A	3351	1/1	0.95	0.11	36,36,36,36	0
57	MG	2a	3142	1/1	0.95	0.13	75,75,75,75	0
57	MG	1A	3289	1/1	0.95	0.21	61,61,61,61	0
57	MG	1A	3353	1/1	0.95	0.12	35,35,35,35	0
57	MG	1A	3033	1/1	0.95	0.07	59,59,59,59	0
57	MG	1A	3852	1/1	0.95	0.06	46,46,46,46	0
57	MG	1A	3703	1/1	0.95	0.18	54,54,54,54	0
57	MG	1A	3294	1/1	0.95	0.06	47,47,47,47	0
57	MG	1A	3857	1/1	0.95	0.10	46,46,46,46	0
57	MG	1D	308	1/1	0.95	0.08	33,33,33,33	0
57	MG	2A	3176	1/1	0.95	0.11	73,73,73,73	0
57	MG	1A	3081	1/1	0.95	0.25	57,57,57,57	0
57	MG	1a	1686	1/1	0.95	0.21	62,62,62,62	0
57	MG	2A	3181	1/1	0.95	0.10	66,66,66,66	0
57	MG	2A	3403	1/1	0.95	0.18	69,69,69,69	0
57	MG	1A	3106	1/1	0.95	0.19	48,48,48,48	0
57	MG	2A	3183	1/1	0.95	0.11	71,71,71,71	0
57	MG	2A	3678	1/1	0.95	0.10	63,63,63,63	0
57	MG	1A	3863	1/1	0.95	0.07	50,50,50,50	0
57	MG	1A	3710	1/1	0.95	0.08	73,73,73,73	0
57	MG	1A	3010	1/1	0.95	0.27	63,63,63,63	0
57	MG	1A	3366	1/1	0.95	0.10	56,56,56,56	0
57	MG	1A	3716	1/1	0.95	0.19	52,52,52,52	0
57	MG	1A	3869	1/1	0.95	0.09	73,73,73,73	0
57	MG	1E	307	1/1	0.95	0.12	36,36,36,36	0
57	MG	2A	3687	1/1	0.95	0.09	84,84,84,84	0
57	MG	1A	3230	1/1	0.95	0.16	46,46,46,46	0
57	MG	1E	309	1/1	0.95	0.14	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3477	1/1	0.95	0.11	64,64,64,64	0
57	MG	2A	3416	1/1	0.95	0.06	76,76,76,76	0
57	MG	1A	3880	1/1	0.95	0.12	59,59,59,59	0
57	MG	1A	3012	1/1	0.95	0.17	50,50,50,50	0
57	MG	2A	3695	1/1	0.95	0.19	68,68,68,68	0
57	MG	1F	307	1/1	0.95	0.07	50,50,50,50	0
57	MG	1F	308	1/1	0.95	0.17	45,45,45,45	0
57	MG	1a	1702	1/1	0.95	0.33	73,73,73,73	0
57	MG	1A	3593	1/1	0.95	0.11	42,42,42,42	0
57	MG	1A	3372	1/1	0.95	0.08	64,64,64,64	0
57	MG	2A	3001	1/1	0.95	0.30	71,71,71,71	0
57	MG	1A	3300	1/1	0.95	0.12	65,65,65,65	0
57	MG	1A	3599	1/1	0.95	0.10	56,56,56,56	0
57	MG	1A	3600	1/1	0.95	0.08	56,56,56,56	0
57	MG	1A	3601	1/1	0.95	0.11	51,51,51,51	0
57	MG	1A	3730	1/1	0.95	0.07	70,70,70,70	0
57	MG	2A	3431	1/1	0.95	0.07	56,56,56,56	0
57	MG	2A	3434	1/1	0.95	0.09	45,45,45,45	0
57	MG	2A	3712	1/1	0.95	0.07	54,54,54,54	0
58	MPD	1A	4005	8/8	0.95	0.15	61,67,71,72	0
57	MG	1G	203	1/1	0.95	0.15	55,55,55,55	0
57	MG	2A	3714	1/1	0.95	0.33	71,71,71,71	0
57	MG	2A	3437	1/1	0.95	0.12	42,42,42,42	0
57	MG	1A	3603	1/1	0.95	0.12	46,46,46,46	0
57	MG	2A	3211	1/1	0.95	0.32	63,63,63,63	0
57	MG	1A	3899	1/1	0.95	0.11	72,72,72,72	0
60	ZN	14	501	1/1	0.95	0.11	133,133,133,133	0
57	MG	2A	3443	1/1	0.95	0.12	65,65,65,65	0
57	MG	2R	202	1/1	0.96	0.23	68,68,68,68	0
57	MG	1A	3804	1/1	0.96	0.09	38,38,38,38	0
57	MG	2T	202	1/1	0.96	0.07	74,74,74,74	0
57	MG	1P	205	1/1	0.96	0.10	61,61,61,61	0
57	MG	1a	1851	1/1	0.96	0.12	62,62,62,62	0
57	MG	1A	3574	1/1	0.96	0.12	52,52,52,52	0
57	MG	1A	3069	1/1	0.96	0.06	53,53,53,53	0
57	MG	1A	3471	1/1	0.96	0.09	59,59,59,59	0
57	MG	2A	3318	1/1	0.96	0.11	50,50,50,50	0
57	MG	1A	3039	1/1	0.96	0.10	52,52,52,52	0
57	MG	1A	3951	1/1	0.96	0.08	56,56,56,56	0
57	MG	1R	201	1/1	0.96	0.33	49,49,49,49	0
57	MG	1R	202	1/1	0.96	0.06	51,51,51,51	0
57	MG	1A	3195	1/1	0.96	0.20	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3231	1/1	0.96	0.11	47,47,47,47	0
57	MG	1A	3478	1/1	0.96	0.06	56,56,56,56	0
57	MG	2A	3539	1/1	0.96	0.07	72,72,72,72	0
57	MG	1A	3479	1/1	0.96	0.06	65,65,65,65	0
57	MG	1A	3695	1/1	0.96	0.17	50,50,50,50	0
57	MG	2A	3329	1/1	0.96	0.08	42,42,42,42	0
57	MG	2A	3330	1/1	0.96	0.09	59,59,59,59	0
57	MG	1A	3585	1/1	0.96	0.12	59,59,59,59	0
57	MG	1A	3324	1/1	0.96	0.07	48,48,48,48	0
57	MG	1U	203	1/1	0.96	0.14	45,45,45,45	0
57	MG	1A	3817	1/1	0.96	0.06	55,55,55,55	0
57	MG	28	101	1/1	0.96	0.07	75,75,75,75	0
57	MG	1A	3961	1/1	0.96	0.11	55,55,55,55	0
57	MG	2a	3001	1/1	0.96	0.07	54,54,54,54	0
57	MG	1A	3482	1/1	0.96	0.10	34,34,34,34	0
57	MG	1A	3963	1/1	0.96	0.11	64,64,64,64	0
57	MG	2A	3552	1/1	0.96	0.09	39,39,39,39	0
57	MG	1A	3278	1/1	0.96	0.07	55,55,55,55	0
57	MG	1A	3040	1/1	0.96	0.13	66,66,66,66	0
57	MG	2A	3345	1/1	0.96	0.05	57,57,57,57	0
57	MG	1A	3966	1/1	0.96	0.10	69,69,69,69	0
57	MG	1A	3281	1/1	0.96	0.18	51,51,51,51	0
57	MG	1A	3397	1/1	0.96	0.11	54,54,54,54	0
57	MG	1A	3233	1/1	0.96	0.14	47,47,47,47	0
57	MG	2a	3012	1/1	0.96	0.07	65,65,65,65	0
57	MG	1A	3330	1/1	0.96	0.12	57,57,57,57	0
57	MG	2A	3167	1/1	0.96	0.13	60,60,60,60	0
57	MG	1A	3018	1/1	0.96	0.11	43,43,43,43	0
57	MG	1A	3709	1/1	0.96	0.08	39,39,39,39	0
57	MG	1o	102	1/1	0.96	0.19	76,76,76,76	0
57	MG	1A	3974	1/1	0.96	0.19	61,61,61,61	0
57	MG	1A	3152	1/1	0.96	0.18	51,51,51,51	0
57	MG	1A	3085	1/1	0.96	0.07	53,53,53,53	0
57	MG	2A	3575	1/1	0.96	0.06	65,65,65,65	0
57	MG	2A	3577	1/1	0.96	0.08	77,77,77,77	0
57	MG	1A	3713	1/1	0.96	0.08	49,49,49,49	0
57	MG	1A	3981	1/1	0.96	0.13	78,78,78,78	0
57	MG	11	103	1/1	0.96	0.15	67,67,67,67	0
57	MG	1A	3334	1/1	0.96	0.31	69,69,69,69	0
57	MG	2A	3178	1/1	0.96	0.08	68,68,68,68	0
57	MG	13	101	1/1	0.96	0.13	54,54,54,54	0
57	MG	2A	3585	1/1	0.96	0.08	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3366	1/1	0.96	0.16	60,60,60,60	0
57	MG	1A	3835	1/1	0.96	0.13	59,59,59,59	0
57	MG	2A	3007	1/1	0.96	0.07	61,61,61,61	0
57	MG	1A	3836	1/1	0.96	0.09	35,35,35,35	0
57	MG	1A	3602	1/1	0.96	0.09	58,58,58,58	0
57	MG	1A	3838	1/1	0.96	0.10	55,55,55,55	0
57	MG	1A	3177	1/1	0.96	0.15	44,44,44,44	0
57	MG	1a	1733	1/1	0.96	0.08	55,55,55,55	0
57	MG	2A	3015	1/1	0.96	0.12	55,55,55,55	0
57	MG	1a	1735	1/1	0.96	0.07	88,88,88,88	0
57	MG	1A	3988	1/1	0.96	0.05	50,50,50,50	0
57	MG	1A	3405	1/1	0.96	0.15	59,59,59,59	0
57	MG	1A	3841	1/1	0.96	0.09	57,57,57,57	0
57	MG	1A	3605	1/1	0.96	0.06	37,37,37,37	0
57	MG	15	107	1/1	0.96	0.09	58,58,58,58	0
57	MG	17	101	1/1	0.96	0.06	46,46,46,46	0
57	MG	17	102	1/1	0.96	0.13	53,53,53,53	0
57	MG	2A	3605	1/1	0.96	0.09	60,60,60,60	0
57	MG	1a	1744	1/1	0.96	0.05	84,84,84,84	0
57	MG	1a	1745	1/1	0.96	0.06	52,52,52,52	0
57	MG	1A	3201	1/1	0.96	0.12	46,46,46,46	0
57	MG	1A	3408	1/1	0.96	0.08	50,50,50,50	0
57	MG	1A	3288	1/1	0.96	0.07	44,44,44,44	0
57	MG	1a	1751	1/1	0.96	0.12	62,62,62,62	0
57	MG	1A	3135	1/1	0.96	0.18	50,50,50,50	0
57	MG	2A	3397	1/1	0.96	0.11	50,50,50,50	0
57	MG	2A	3620	1/1	0.96	0.12	61,61,61,61	0
57	MG	1A	3290	1/1	0.96	0.09	62,62,62,62	0
57	MG	1A	3727	1/1	0.96	0.10	46,46,46,46	0
57	MG	2a	3059	1/1	0.96	0.18	60,60,60,60	0
57	MG	1A	3510	1/1	0.96	0.12	37,37,37,37	0
57	MG	1A	3618	1/1	0.96	0.09	45,45,45,45	0
57	MG	2A	3628	1/1	0.96	0.10	54,54,54,54	0
57	MG	1a	1604	1/1	0.96	0.06	75,75,75,75	0
57	MG	1A	3414	1/1	0.96	0.09	43,43,43,43	0
57	MG	1A	3415	1/1	0.96	0.13	40,40,40,40	0
57	MG	2A	3632	1/1	0.96	0.09	57,57,57,57	0
57	MG	2A	3038	1/1	0.96	0.11	71,71,71,71	0
57	MG	1A	3734	1/1	0.96	0.07	48,48,48,48	0
57	MG	1A	3291	1/1	0.96	0.12	45,45,45,45	0
57	MG	1A	3241	1/1	0.96	0.20	46,46,46,46	0
57	MG	1A	3738	1/1	0.96	0.21	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1a	1612	1/1	0.96	0.08	88,88,88,88	0
57	MG	1A	3517	1/1	0.96	0.07	61,61,61,61	0
57	MG	2A	3221	1/1	0.96	0.21	69,69,69,69	0
57	MG	1A	3519	1/1	0.96	0.11	35,35,35,35	0
57	MG	1A	3421	1/1	0.96	0.13	38,38,38,38	0
57	MG	1A	3155	1/1	0.96	0.10	47,47,47,47	0
57	MG	1a	1617	1/1	0.96	0.12	59,59,59,59	0
57	MG	1A	3243	1/1	0.96	0.23	50,50,50,50	0
57	MG	1A	3746	1/1	0.96	0.08	40,40,40,40	0
57	MG	1A	3747	1/1	0.96	0.24	62,62,62,62	0
57	MG	1A	3751	1/1	0.96	0.09	60,60,60,60	0
57	MG	1A	3426	1/1	0.96	0.08	31,31,31,31	0
57	MG	1A	3879	1/1	0.96	0.06	71,71,71,71	0
57	MG	2A	3426	1/1	0.96	0.10	78,78,78,78	0
57	MG	2A	3657	1/1	0.96	0.20	75,75,75,75	0
57	MG	1B	215	1/1	0.96	0.07	68,68,68,68	0
57	MG	1A	3428	1/1	0.96	0.16	66,66,66,66	0
57	MG	1A	3881	1/1	0.96	0.14	49,49,49,49	0
57	MG	1a	1629	1/1	0.96	0.16	60,60,60,60	0
57	MG	1A	3754	1/1	0.96	0.09	52,52,52,52	0
57	MG	2A	3433	1/1	0.96	0.13	52,52,52,52	0
57	MG	1B	221	1/1	0.96	0.14	59,59,59,59	0
57	MG	2A	3435	1/1	0.96	0.17	65,65,65,65	0
57	MG	2A	3238	1/1	0.96	0.12	41,41,41,41	0
57	MG	1a	1632	1/1	0.96	0.06	61,61,61,61	0
57	MG	2A	3065	1/1	0.96	0.10	52,52,52,52	0
57	MG	2A	3440	1/1	0.96	0.06	53,53,53,53	0
57	MG	1A	3344	1/1	0.96	0.26	62,62,62,62	0
57	MG	1A	3244	1/1	0.96	0.04	74,74,74,74	0
57	MG	2A	3243	1/1	0.96	0.06	41,41,41,41	0
57	MG	1A	3005	1/1	0.96	0.12	39,39,39,39	0
57	MG	1A	3889	1/1	0.96	0.11	36,36,36,36	0
57	MG	1B	228	1/1	0.96	0.07	72,72,72,72	0
57	MG	1A	3206	1/1	0.96	0.14	51,51,51,51	0
57	MG	1A	3157	1/1	0.96	0.09	45,45,45,45	0
57	MG	2A	3449	1/1	0.96	0.07	54,54,54,54	0
57	MG	2A	3073	1/1	0.96	0.09	54,54,54,54	0
57	MG	1A	3437	1/1	0.96	0.06	45,45,45,45	0
57	MG	2A	3251	1/1	0.96	0.11	65,65,65,65	0
57	MG	2a	3115	1/1	0.96	0.07	69,69,69,69	0
57	MG	1D	302	1/1	0.96	0.39	52,52,52,52	0
57	MG	2A	3685	1/1	0.96	0.14	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3076	1/1	0.96	0.05	56,56,56,56	0
57	MG	1a	1642	1/1	0.96	0.28	59,59,59,59	0
57	MG	1A	3350	1/1	0.96	0.10	65,65,65,65	0
57	MG	1A	3009	1/1	0.96	0.14	36,36,36,36	0
57	MG	2A	3690	1/1	0.96	0.06	62,62,62,62	0
57	MG	2A	3257	1/1	0.96	0.10	61,61,61,61	0
57	MG	1A	3764	1/1	0.96	0.07	40,40,40,40	0
57	MG	2a	3125	1/1	0.96	0.12	75,75,75,75	0
57	MG	1A	3251	1/1	0.96	0.18	55,55,55,55	0
57	MG	1a	1802	1/1	0.96	0.14	75,75,75,75	0
57	MG	2a	3130	1/1	0.96	0.05	73,73,73,73	0
57	MG	2A	3462	1/1	0.96	0.08	52,52,52,52	0
57	MG	1A	3022	1/1	0.96	0.10	53,53,53,53	0
57	MG	1A	3014	1/1	0.96	0.28	63,63,63,63	0
57	MG	2A	3465	1/1	0.96	0.09	57,57,57,57	0
57	MG	2a	3137	1/1	0.96	0.09	75,75,75,75	0
57	MG	2A	3699	1/1	0.96	0.09	58,58,58,58	0
57	MG	2A	3700	1/1	0.96	0.08	65,65,65,65	0
57	MG	1A	3186	1/1	0.96	0.14	52,52,52,52	0
57	MG	1A	3772	1/1	0.96	0.17	57,57,57,57	0
57	MG	1A	3543	1/1	0.96	0.09	41,41,41,41	0
57	MG	2a	3143	1/1	0.96	0.08	74,74,74,74	0
57	MG	2A	3704	1/1	0.96	0.16	76,76,76,76	0
57	MG	2A	3470	1/1	0.96	0.06	75,75,75,75	0
57	MG	1a	1808	1/1	0.96	0.09	67,67,67,67	0
57	MG	1D	313	1/1	0.96	0.10	43,43,43,43	0
57	MG	1A	3256	1/1	0.96	0.11	59,59,59,59	0
57	MG	1D	316	1/1	0.96	0.16	66,66,66,66	0
57	MG	1D	317	1/1	0.96	0.10	56,56,56,56	0
57	MG	2A	3096	1/1	0.96	0.12	59,59,59,59	0
57	MG	1A	3360	1/1	0.96	0.11	49,49,49,49	0
57	MG	1A	3213	1/1	0.96	0.19	57,57,57,57	0
57	MG	1A	3363	1/1	0.96	0.07	54,54,54,54	0
57	MG	2A	3480	1/1	0.96	0.10	76,76,76,76	0
57	MG	1E	306	1/1	0.96	0.20	49,49,49,49	0
57	MG	1A	3449	1/1	0.96	0.08	44,44,44,44	0
57	MG	1A	3161	1/1	0.96	0.18	66,66,66,66	0
57	MG	1A	3216	1/1	0.96	0.28	48,48,48,48	0
57	MG	1A	3094	1/1	0.96	0.09	49,49,49,49	0
57	MG	2A	3106	1/1	0.96	0.09	56,56,56,56	0
57	MG	2A	3107	1/1	0.96	0.08	54,54,54,54	0
57	MG	1A	3261	1/1	0.96	0.08	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1a	1667	1/1	0.96	0.17	59,59,59,59	0
57	MG	1A	3218	1/1	0.96	0.09	50,50,50,50	0
57	MG	1A	3263	1/1	0.96	0.15	46,46,46,46	0
57	MG	1A	3219	1/1	0.96	0.12	49,49,49,49	0
57	MG	2B	213	1/1	0.96	0.16	71,71,71,71	0
57	MG	1A	3379	1/1	0.96	0.07	28,28,28,28	0
57	MG	1A	3163	1/1	0.96	0.07	49,49,49,49	0
57	MG	1a	1829	1/1	0.96	0.11	54,54,54,54	0
57	MG	2D	301	1/1	0.96	0.14	58,58,58,58	0
57	MG	2D	302	1/1	0.96	0.15	67,67,67,67	0
57	MG	2A	3118	1/1	0.96	0.14	45,45,45,45	0
57	MG	1a	1673	1/1	0.96	0.06	68,68,68,68	0
57	MG	1A	3927	1/1	0.96	0.08	60,60,60,60	0
57	MG	1A	3561	1/1	0.96	0.10	38,38,38,38	0
57	MG	1A	3666	1/1	0.96	0.12	37,37,37,37	0
57	MG	2A	3504	1/1	0.96	0.08	72,72,72,72	0
57	MG	2A	3296	1/1	0.96	0.07	52,52,52,52	0
57	MG	1A	3563	1/1	0.96	0.08	52,52,52,52	0
57	MG	2A	3507	1/1	0.96	0.10	58,58,58,58	0
57	MG	1A	3564	1/1	0.96	0.08	43,43,43,43	0
57	MG	1A	3224	1/1	0.96	0.11	59,59,59,59	0
57	MG	1G	204	1/1	0.96	0.17	67,67,67,67	0
57	MG	1A	3463	1/1	0.96	0.09	61,61,61,61	0
57	MG	2A	3512	1/1	0.96	0.08	59,59,59,59	0
57	MG	2t	201	1/1	0.96	0.15	54,54,54,54	0
57	MG	1A	3797	1/1	0.96	0.09	58,58,58,58	0
57	MG	1A	3465	1/1	0.96	0.06	50,50,50,50	0
57	MG	1A	3001	1/1	0.96	0.08	51,51,51,51	0
58	MPD	18	104	8/8	0.96	0.14	38,49,54,54	0
57	MG	2A	3305	1/1	0.96	0.10	44,44,44,44	0
57	MG	1N	204	1/1	0.96	0.05	82,82,82,82	0
57	MG	1A	3145	1/1	0.96	0.07	48,48,48,48	0
57	MG	2A	3308	1/1	0.96	0.16	65,65,65,65	0
57	MG	1A	3940	1/1	0.96	0.07	55,55,55,55	0
57	MG	1A	3572	1/1	0.96	0.10	69,69,69,69	0
57	MG	1A	3027	1/1	0.96	0.07	68,68,68,68	0
57	MG	1A	3495	1/1	0.97	0.14	59,59,59,59	0
57	MG	1A	3137	1/1	0.97	0.12	46,46,46,46	0
57	MG	1A	3210	1/1	0.97	0.12	63,63,63,63	0
57	MG	2A	3360	1/1	0.97	0.11	66,66,66,66	0
57	MG	2A	3002	1/1	0.97	0.08	69,69,69,69	0
57	MG	2A	3003	1/1	0.97	0.07	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3180	1/1	0.97	0.04	73,73,73,73	0
57	MG	1A	3138	1/1	0.97	0.06	48,48,48,48	0
57	MG	1A	3822	1/1	0.97	0.06	55,55,55,55	0
57	MG	2A	3570	1/1	0.97	0.06	61,61,61,61	0
57	MG	2A	3367	1/1	0.97	0.07	49,49,49,49	0
57	MG	1A	3024	1/1	0.97	0.07	37,37,37,37	0
57	MG	1A	3107	1/1	0.97	0.28	47,47,47,47	0
57	MG	2A	3370	1/1	0.97	0.06	61,61,61,61	0
57	MG	2A	3372	1/1	0.97	0.13	43,43,43,43	0
57	MG	2A	3373	1/1	0.97	0.10	44,44,44,44	0
57	MG	2A	3579	1/1	0.97	0.11	74,74,74,74	0
57	MG	2A	3185	1/1	0.97	0.07	58,58,58,58	0
57	MG	1A	3357	1/1	0.97	0.08	36,36,36,36	0
57	MG	1A	3504	1/1	0.97	0.05	57,57,57,57	0
57	MG	1I	102	1/1	0.97	0.12	57,57,57,57	0
57	MG	1A	3701	1/1	0.97	0.18	54,54,54,54	0
57	MG	2A	3013	1/1	0.97	0.10	39,39,39,39	0
57	MG	1A	3594	1/1	0.97	0.08	50,50,50,50	0
57	MG	2A	3381	1/1	0.97	0.07	50,50,50,50	0
57	MG	1A	3427	1/1	0.97	0.09	37,37,37,37	0
57	MG	1A	3831	1/1	0.97	0.07	51,51,51,51	0
57	MG	2A	3384	1/1	0.97	0.06	63,63,63,63	0
57	MG	1A	3704	1/1	0.97	0.07	50,50,50,50	0
57	MG	1A	3214	1/1	0.97	0.27	52,52,52,52	0
57	MG	1A	3597	1/1	0.97	0.07	61,61,61,61	0
57	MG	2A	3197	1/1	0.97	0.06	62,62,62,62	0
57	MG	1A	3507	1/1	0.97	0.09	44,44,44,44	0
57	MG	1A	3025	1/1	0.97	0.16	43,43,43,43	0
57	MG	1A	3431	1/1	0.97	0.09	63,63,63,63	0
57	MG	1A	3511	1/1	0.97	0.10	31,31,31,31	0
57	MG	1A	3991	1/1	0.97	0.10	57,57,57,57	0
57	MG	1A	3432	1/1	0.97	0.09	40,40,40,40	0
57	MG	1A	3714	1/1	0.97	0.15	47,47,47,47	0
57	MG	1A	3019	1/1	0.97	0.12	42,42,42,42	0
57	MG	17	103	1/1	0.97	0.08	56,56,56,56	0
57	MG	1a	1752	1/1	0.97	0.06	68,68,68,68	0
57	MG	2A	3400	1/1	0.97	0.07	46,46,46,46	0
57	MG	17	104	1/1	0.97	0.09	66,66,66,66	0
57	MG	1A	3362	1/1	0.97	0.08	43,43,43,43	0
57	MG	2A	3613	1/1	0.97	0.09	73,73,73,73	0
57	MG	1A	3606	1/1	0.97	0.10	58,58,58,58	0
57	MG	1A	3607	1/1	0.97	0.07	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3616	1/1	0.97	0.11	58,58,58,58	0
57	MG	2A	3617	1/1	0.97	0.06	64,64,64,64	0
57	MG	1A	3609	1/1	0.97	0.07	49,49,49,49	0
57	MG	1A	3068	1/1	0.97	0.21	55,55,55,55	0
57	MG	1A	3052	1/1	0.97	0.06	31,31,31,31	0
57	MG	1A	3365	1/1	0.97	0.09	39,39,39,39	0
57	MG	1A	3723	1/1	0.97	0.14	67,67,67,67	0
57	MG	2A	3624	1/1	0.97	0.05	54,54,54,54	0
57	MG	1A	3087	1/1	0.97	0.24	48,48,48,48	0
57	MG	1a	1763	1/1	0.97	0.11	72,72,72,72	0
57	MG	1A	3614	1/1	0.97	0.10	49,49,49,49	0
57	MG	1a	1765	1/1	0.97	0.07	61,61,61,61	0
57	MG	1A	3521	1/1	0.97	0.08	60,60,60,60	0
57	MG	1A	3853	1/1	0.97	0.05	58,58,58,58	0
57	MG	1A	3007	1/1	0.97	0.08	53,53,53,53	0
57	MG	2A	3633	1/1	0.97	0.05	59,59,59,59	0
57	MG	2A	3048	1/1	0.97	0.14	63,63,63,63	0
57	MG	2A	3049	1/1	0.97	0.05	67,67,67,67	0
57	MG	1A	3617	1/1	0.97	0.06	79,79,79,79	0
57	MG	1A	3523	1/1	0.97	0.06	57,57,57,57	0
57	MG	1A	3732	1/1	0.97	0.06	57,57,57,57	0
57	MG	1A	3369	1/1	0.97	0.16	67,67,67,67	0
57	MG	1A	3862	1/1	0.97	0.09	57,57,57,57	0
57	MG	1A	3370	1/1	0.97	0.07	44,44,44,44	0
57	MG	1A	3864	1/1	0.97	0.05	60,60,60,60	0
57	MG	2A	3643	1/1	0.97	0.06	61,61,61,61	0
57	MG	1a	1776	1/1	0.97	0.15	84,84,84,84	0
57	MG	1A	3221	1/1	0.97	0.35	48,48,48,48	0
57	MG	1A	3443	1/1	0.97	0.06	44,44,44,44	0
57	MG	1A	3223	1/1	0.97	0.12	50,50,50,50	0
57	MG	1B	216	1/1	0.97	0.11	60,60,60,60	0
57	MG	1a	1621	1/1	0.97	0.08	66,66,66,66	0
57	MG	1A	3114	1/1	0.97	0.15	47,47,47,47	0
57	MG	1A	3115	1/1	0.97	0.13	36,36,36,36	0
57	MG	2A	3654	1/1	0.97	0.08	66,66,66,66	0
57	MG	1A	3871	1/1	0.97	0.06	54,54,54,54	0
57	MG	1a	1625	1/1	0.97	0.09	70,70,70,70	0
57	MG	2A	3438	1/1	0.97	0.07	56,56,56,56	0
57	MG	1A	3185	1/1	0.97	0.18	52,52,52,52	0
57	MG	1B	222	1/1	0.97	0.04	41,41,41,41	0
57	MG	1A	3742	1/1	0.97	0.11	59,59,59,59	0
57	MG	1B	224	1/1	0.97	0.09	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3628	1/1	0.97	0.08	60,60,60,60	0
57	MG	1A	3381	1/1	0.97	0.13	44,44,44,44	0
57	MG	2A	3664	1/1	0.97	0.09	51,51,51,51	0
57	MG	1A	3745	1/1	0.97	0.08	47,47,47,47	0
57	MG	1A	3089	1/1	0.97	0.05	58,58,58,58	0
57	MG	1A	3150	1/1	0.97	0.24	48,48,48,48	0
57	MG	1A	3884	1/1	0.97	0.07	52,52,52,52	0
57	MG	1A	3748	1/1	0.97	0.07	73,73,73,73	0
57	MG	2a	3088	1/1	0.97	0.10	61,61,61,61	0
57	MG	1A	3749	1/1	0.97	0.12	58,58,58,58	0
57	MG	1a	1798	1/1	0.97	0.07	76,76,76,76	0
57	MG	1A	3090	1/1	0.97	0.06	41,41,41,41	0
57	MG	1D	304	1/1	0.97	0.06	57,57,57,57	0
57	MG	1A	3634	1/1	0.97	0.13	61,61,61,61	0
57	MG	1A	3055	1/1	0.97	0.18	54,54,54,54	0
57	MG	1A	3386	1/1	0.97	0.06	54,54,54,54	0
57	MG	1A	3894	1/1	0.97	0.05	69,69,69,69	0
57	MG	1A	3092	1/1	0.97	0.07	47,47,47,47	0
57	MG	1a	1645	1/1	0.97	0.11	58,58,58,58	0
57	MG	2A	3088	1/1	0.97	0.06	51,51,51,51	0
57	MG	2A	3089	1/1	0.97	0.09	67,67,67,67	0
57	MG	1A	3638	1/1	0.97	0.11	50,50,50,50	0
57	MG	1A	3121	1/1	0.97	0.05	49,49,49,49	0
57	MG	1A	3328	1/1	0.97	0.11	51,51,51,51	0
57	MG	1A	3459	1/1	0.97	0.05	67,67,67,67	0
57	MG	2A	3094	1/1	0.97	0.09	55,55,55,55	0
57	MG	1a	1811	1/1	0.97	0.13	71,71,71,71	0
57	MG	1D	314	1/1	0.97	0.11	74,74,74,74	0
57	MG	1A	3760	1/1	0.97	0.10	54,54,54,54	0
57	MG	1A	3904	1/1	0.97	0.05	42,42,42,42	0
57	MG	1A	3028	1/1	0.97	0.24	37,37,37,37	0
57	MG	1A	3906	1/1	0.97	0.07	67,67,67,67	0
57	MG	1A	3073	1/1	0.97	0.26	53,53,53,53	0
57	MG	1A	3003	1/1	0.97	0.08	38,38,38,38	0
57	MG	1A	3910	1/1	0.97	0.11	65,65,65,65	0
57	MG	1A	3645	1/1	0.97	0.12	38,38,38,38	0
57	MG	1A	3393	1/1	0.97	0.13	49,49,49,49	0
57	MG	1A	3464	1/1	0.97	0.08	65,65,65,65	0
57	MG	2A	3108	1/1	0.97	0.10	45,45,45,45	0
57	MG	1F	301	1/1	0.97	0.11	39,39,39,39	0
57	MG	1F	302	1/1	0.97	0.14	41,41,41,41	0
57	MG	1A	3042	1/1	0.97	0.13	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3288	1/1	0.97	0.17	48,48,48,48	0
57	MG	1F	304	1/1	0.97	0.06	47,47,47,47	0
57	MG	1A	3237	1/1	0.97	0.16	58,58,58,58	0
57	MG	1A	3771	1/1	0.97	0.14	61,61,61,61	0
57	MG	1A	3017	1/1	0.97	0.13	34,34,34,34	0
57	MG	1A	3556	1/1	0.97	0.06	63,63,63,63	0
57	MG	2A	3117	1/1	0.97	0.46	69,69,69,69	0
57	MG	1A	3652	1/1	0.97	0.19	60,60,60,60	0
57	MG	1A	3098	1/1	0.97	0.05	68,68,68,68	0
57	MG	1A	3046	1/1	0.97	0.06	42,42,42,42	0
57	MG	2A	3121	1/1	0.97	0.07	62,62,62,62	0
57	MG	1A	3100	1/1	0.97	0.07	40,40,40,40	0
57	MG	1A	3078	1/1	0.97	0.07	56,56,56,56	0
57	MG	1A	3131	1/1	0.97	0.23	40,40,40,40	0
57	MG	1A	3562	1/1	0.97	0.07	50,50,50,50	0
57	MG	1A	3659	1/1	0.97	0.08	65,65,65,65	0
57	MG	1a	1840	1/1	0.97	0.09	46,46,46,46	0
57	MG	1A	3476	1/1	0.97	0.08	69,69,69,69	0
57	MG	1A	3062	1/1	0.97	0.11	43,43,43,43	0
57	MG	1A	3166	1/1	0.97	0.21	43,43,43,43	0
57	MG	1N	201	1/1	0.97	0.07	58,58,58,58	0
57	MG	1A	3566	1/1	0.97	0.07	58,58,58,58	0
57	MG	1A	3246	1/1	0.97	0.09	60,60,60,60	0
57	MG	1A	3789	1/1	0.97	0.07	57,57,57,57	0
57	MG	2B	212	1/1	0.97	0.07	76,76,76,76	0
57	MG	1A	3935	1/1	0.97	0.07	59,59,59,59	0
57	MG	1A	3103	1/1	0.97	0.07	47,47,47,47	0
57	MG	1A	3205	1/1	0.97	0.04	33,33,33,33	0
57	MG	1A	3483	1/1	0.97	0.08	39,39,39,39	0
57	MG	1A	3669	1/1	0.97	0.10	44,44,44,44	0
57	MG	1A	3571	1/1	0.97	0.07	48,48,48,48	0
57	MG	1A	3671	1/1	0.97	0.06	69,69,69,69	0
57	MG	1A	3407	1/1	0.97	0.06	51,51,51,51	0
57	MG	1A	3673	1/1	0.97	0.07	54,54,54,54	0
57	MG	1Q	205	1/1	0.97	0.23	55,55,55,55	0
57	MG	2A	3521	1/1	0.97	0.05	67,67,67,67	0
57	MG	2A	3322	1/1	0.97	0.05	82,82,82,82	0
57	MG	1A	3047	1/1	0.97	0.26	60,60,60,60	0
57	MG	1Q	207	1/1	0.97	0.09	47,47,47,47	0
57	MG	2E	302	1/1	0.97	0.14	59,59,59,59	0
57	MG	1A	3675	1/1	0.97	0.04	47,47,47,47	0
57	MG	1Q	209	1/1	0.97	0.10	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3948	1/1	0.97	0.07	35,35,35,35	0
57	MG	1A	3949	1/1	0.97	0.11	45,45,45,45	0
57	MG	1A	3346	1/1	0.97	0.07	41,41,41,41	0
57	MG	1R	204	1/1	0.97	0.05	43,43,43,43	0
57	MG	1A	3487	1/1	0.97	0.12	64,64,64,64	0
57	MG	1S	201	1/1	0.97	0.14	76,76,76,76	0
57	MG	2F	304	1/1	0.97	0.08	56,56,56,56	0
57	MG	2A	3333	1/1	0.97	0.10	56,56,56,56	0
57	MG	1A	3576	1/1	0.97	0.12	60,60,60,60	0
57	MG	1A	3250	1/1	0.97	0.07	61,61,61,61	0
57	MG	1A	3411	1/1	0.97	0.05	47,47,47,47	0
57	MG	2A	3338	1/1	0.97	0.11	51,51,51,51	0
57	MG	1A	3171	1/1	0.97	0.05	40,40,40,40	0
57	MG	1A	3580	1/1	0.97	0.08	68,68,68,68	0
57	MG	1A	3683	1/1	0.97	0.07	67,67,67,67	0
57	MG	1A	3252	1/1	0.97	0.36	48,48,48,48	0
57	MG	1A	3493	1/1	0.97	0.07	45,45,45,45	0
57	MG	1m	201	1/1	0.97	0.06	83,83,83,83	0
57	MG	1V	201	1/1	0.97	0.18	39,39,39,39	0
57	MG	1A	3686	1/1	0.97	0.19	37,37,37,37	0
57	MG	1A	3812	1/1	0.97	0.08	44,44,44,44	0
57	MG	1A	3688	1/1	0.97	0.09	42,42,42,42	0
57	MG	1A	3013	1/1	0.97	0.07	46,46,46,46	0
57	MG	1o	103	1/1	0.97	0.06	75,75,75,75	0
57	MG	1A	3584	1/1	0.97	0.08	66,66,66,66	0
57	MG	2A	3553	1/1	0.97	0.09	61,61,61,61	0
57	MG	1A	3692	1/1	0.97	0.07	53,53,53,53	0
57	MG	2A	3555	1/1	0.97	0.05	71,71,71,71	0
57	MG	1A	3967	1/1	0.97	0.06	64,64,64,64	0
57	MG	1W	203	1/1	0.97	0.08	48,48,48,48	0
60	ZN	2n	102	1/1	0.97	0.06	110,110,110,110	0
57	MG	1A	3902	1/1	0.98	0.04	53,53,53,53	0
57	MG	2A	3371	1/1	0.98	0.10	48,48,48,48	0
57	MG	1A	3061	1/1	0.98	0.06	54,54,54,54	0
57	MG	1A	3280	1/1	0.98	0.06	54,54,54,54	0
57	MG	1A	3712	1/1	0.98	0.05	51,51,51,51	0
57	MG	2A	3565	1/1	0.98	0.05	67,67,67,67	0
57	MG	2A	3467	1/1	0.98	0.05	70,70,70,70	0
57	MG	1A	3413	1/1	0.98	0.09	47,47,47,47	0
57	MG	1A	3501	1/1	0.98	0.04	37,37,37,37	0
57	MG	1A	3292	1/1	0.98	0.05	29,29,29,29	0
57	MG	1A	3356	1/1	0.98	0.09	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3373	1/1	0.98	0.09	45,45,45,45	0
57	MG	1A	3417	1/1	0.98	0.09	37,37,37,37	0
57	MG	2A	3573	1/1	0.98	0.09	57,57,57,57	0
57	MG	2a	3104	1/1	0.98	0.10	71,71,71,71	0
57	MG	1A	3608	1/1	0.98	0.12	60,60,60,60	0
57	MG	2A	3044	1/1	0.98	0.18	64,64,64,64	0
57	MG	1A	3540	1/1	0.98	0.05	53,53,53,53	0
57	MG	1A	3855	1/1	0.98	0.06	36,36,36,36	0
57	MG	1T	204	1/1	0.98	0.04	55,55,55,55	0
57	MG	1A	3976	1/1	0.98	0.04	44,44,44,44	0
57	MG	1A	3374	1/1	0.98	0.09	48,48,48,48	0
57	MG	1A	3420	1/1	0.98	0.09	53,53,53,53	0
57	MG	1U	202	1/1	0.98	0.17	49,49,49,49	0
57	MG	1A	3980	1/1	0.98	0.09	47,47,47,47	0
57	MG	1A	3858	1/1	0.98	0.06	37,37,37,37	0
57	MG	1A	3765	1/1	0.98	0.07	51,51,51,51	0
57	MG	2A	3220	1/1	0.98	0.12	66,66,66,66	0
57	MG	2A	3588	1/1	0.98	0.10	64,64,64,64	0
57	MG	1A	3860	1/1	0.98	0.06	54,54,54,54	0
57	MG	1V	202	1/1	0.98	0.17	48,48,48,48	0
57	MG	1A	3766	1/1	0.98	0.04	53,53,53,53	0
57	MG	1A	3922	1/1	0.98	0.04	76,76,76,76	0
57	MG	2A	3593	1/1	0.98	0.10	72,72,72,72	0
57	MG	1A	3170	1/1	0.98	0.09	53,53,53,53	0
57	MG	2A	3492	1/1	0.98	0.07	67,67,67,67	0
57	MG	2a	3126	1/1	0.98	0.10	70,70,70,70	0
57	MG	2A	3399	1/1	0.98	0.12	60,60,60,60	0
57	MG	1A	3376	1/1	0.98	0.05	42,42,42,42	0
57	MG	2a	3129	1/1	0.98	0.15	72,72,72,72	0
57	MG	1A	3480	1/1	0.98	0.09	61,61,61,61	0
57	MG	1A	3726	1/1	0.98	0.06	62,62,62,62	0
57	MG	1A	3687	1/1	0.98	0.09	58,58,58,58	0
57	MG	1E	304	1/1	0.98	0.06	47,47,47,47	0
57	MG	1W	204	1/1	0.98	0.06	66,66,66,66	0
57	MG	1E	305	1/1	0.98	0.26	64,64,64,64	0
57	MG	1A	3728	1/1	0.98	0.06	50,50,50,50	0
57	MG	1A	3512	1/1	0.98	0.05	44,44,44,44	0
57	MG	1A	3689	1/1	0.98	0.05	53,53,53,53	0
57	MG	1a	1646	1/1	0.98	0.07	67,67,67,67	0
57	MG	1A	3358	1/1	0.98	0.06	48,48,48,48	0
57	MG	1A	3378	1/1	0.98	0.06	43,43,43,43	0
57	MG	2A	3611	1/1	0.98	0.13	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3612	1/1	0.98	0.08	72,72,72,72	0
57	MG	1A	3996	1/1	0.98	0.08	70,70,70,70	0
57	MG	1A	3875	1/1	0.98	0.05	38,38,38,38	0
57	MG	1A	3876	1/1	0.98	0.04	53,53,53,53	0
57	MG	1A	3777	1/1	0.98	0.05	51,51,51,51	0
57	MG	1A	3937	1/1	0.98	0.12	60,60,60,60	0
57	MG	2A	3160	1/1	0.98	0.10	56,56,56,56	0
57	MG	1I	104	1/1	0.98	0.07	57,57,57,57	0
57	MG	1A	3043	1/1	0.98	0.19	44,44,44,44	0
57	MG	1A	3380	1/1	0.98	0.09	47,47,47,47	0
57	MG	1F	309	1/1	0.98	0.06	47,47,47,47	0
57	MG	2A	3623	1/1	0.98	0.08	42,42,42,42	0
57	MG	1F	310	1/1	0.98	0.04	53,53,53,53	0
57	MG	2A	3334	1/1	0.98	0.10	58,58,58,58	0
57	MG	1A	3455	1/1	0.98	0.06	50,50,50,50	0
57	MG	1a	1734	1/1	0.98	0.06	54,54,54,54	0
57	MG	2B	217	1/1	0.98	0.12	74,74,74,74	0
57	MG	2A	3004	1/1	0.98	0.03	50,50,50,50	0
57	MG	1A	4004	1/1	0.98	0.06	52,52,52,52	0
57	MG	2A	3339	1/1	0.98	0.07	58,58,58,58	0
57	MG	2A	3526	1/1	0.98	0.07	58,58,58,58	0
57	MG	1A	3586	1/1	0.98	0.05	32,32,32,32	0
57	MG	1a	1737	1/1	0.98	0.05	53,53,53,53	0
57	MG	1A	3622	1/1	0.98	0.23	51,51,51,51	0
57	MG	2A	3343	1/1	0.98	0.04	48,48,48,48	0
57	MG	1A	3518	1/1	0.98	0.13	72,72,72,72	0
57	MG	1A	3944	1/1	0.98	0.06	61,61,61,61	0
57	MG	1A	3885	1/1	0.98	0.05	63,63,63,63	0
57	MG	2a	3061	1/1	0.98	0.08	68,68,68,68	0
57	MG	1A	3036	1/1	0.98	0.07	56,56,56,56	0
57	MG	1A	3887	1/1	0.98	0.06	44,44,44,44	0
57	MG	2A	3014	1/1	0.98	0.06	64,64,64,64	0
57	MG	1A	3430	1/1	0.98	0.05	46,46,46,46	0
57	MG	2E	307	1/1	0.98	0.09	45,45,45,45	0
57	MG	1A	3029	1/1	0.98	0.09	45,45,45,45	0
57	MG	1A	3890	1/1	0.98	0.04	35,35,35,35	0
57	MG	1a	1747	1/1	0.98	0.08	50,50,50,50	0
57	MG	1A	3273	1/1	0.98	0.06	38,38,38,38	0
57	MG	1A	3322	1/1	0.98	0.05	45,45,45,45	0
57	MG	1a	1750	1/1	0.98	0.15	66,66,66,66	0
57	MG	2A	3650	1/1	0.98	0.09	60,60,60,60	0
57	MG	1A	3041	1/1	0.98	0.11	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	2A	3104	1/1	0.98	0.08	58,58,58,58	0
57	MG	2A	3653	1/1	0.98	0.07	67,67,67,67	0
57	MG	2A	3546	1/1	0.98	0.09	69,69,69,69	0
57	MG	2x	101	1/1	0.98	0.10	48,48,48,48	0
57	MG	1A	3264	1/1	0.98	0.17	48,48,48,48	0
57	MG	1A	3526	1/1	0.98	0.07	54,54,54,54	0
57	MG	1A	3896	1/1	0.98	0.04	55,55,55,55	0
57	MG	1A	3031	1/1	0.98	0.04	43,43,43,43	0
57	MG	2A	3363	1/1	0.98	0.07	60,60,60,60	0
57	MG	1A	3898	1/1	0.98	0.04	65,65,65,65	0
57	MG	1A	3959	1/1	0.98	0.05	35,35,35,35	0
57	MG	1A	3054	1/1	0.98	0.08	49,49,49,49	0
57	MG	1Q	202	1/1	0.98	0.08	40,40,40,40	0
60	ZN	2Y	202	1/1	0.98	0.05	111,111,111,111	0
57	MG	1A	3750	1/1	0.98	0.05	46,46,46,46	0
57	MG	1A	3368	1/1	0.98	0.05	48,48,48,48	0
61	SF4	1d	306	8/8	0.98	0.05	73,76,85,90	0
61	SF4	2d	501	8/8	0.98	0.05	79,92,94,98	0
57	MG	1A	3824	1/1	0.99	0.03	35,35,35,35	0
57	MG	1A	3466	1/1	0.99	0.03	38,38,38,38	0
57	MG	1A	3977	1/1	0.99	0.04	55,55,55,55	0
57	MG	1A	3800	1/1	0.99	0.04	51,51,51,51	0
57	MG	1A	3136	1/1	0.99	0.07	36,36,36,36	0
57	MG	1A	3530	1/1	0.99	0.04	61,61,61,61	0
57	MG	1A	3498	1/1	0.99	0.06	63,63,63,63	0
57	MG	1A	3736	1/1	0.99	0.03	36,36,36,36	0
57	MG	1A	3015	1/1	0.99	0.05	50,50,50,50	0
57	MG	1A	3533	1/1	0.99	0.06	37,37,37,37	0
57	MG	2A	3560	1/1	0.99	0.05	43,43,43,43	0
57	MG	1A	3422	1/1	0.99	0.11	43,43,43,43	0
57	MG	1A	3116	1/1	0.99	0.04	38,38,38,38	0
57	MG	2A	3563	1/1	0.99	0.03	59,59,59,59	0
57	MG	1A	3222	1/1	0.99	0.02	43,43,43,43	0
57	MG	1B	217	1/1	0.99	0.03	54,54,54,54	0
57	MG	1A	3923	1/1	0.99	0.04	34,34,34,34	0
57	MG	1A	3425	1/1	0.99	0.06	39,39,39,39	0
57	MG	2A	3610	1/1	0.99	0.08	50,50,50,50	0
57	MG	1A	3474	1/1	0.99	0.05	34,34,34,34	0
57	MG	1A	3788	1/1	0.99	0.09	38,38,38,38	0
57	MG	2a	3132	1/1	0.99	0.10	82,82,82,82	0
57	MG	1A	3044	1/1	0.99	0.06	37,37,37,37	0
57	MG	2a	3134	1/1	0.99	0.05	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	MG	1A	3598	1/1	0.99	0.08	49,49,49,49	0
57	MG	1A	3272	1/1	0.99	0.05	65,65,65,65	0
57	MG	1A	3450	1/1	0.99	0.07	33,33,33,33	0
57	MG	1A	3168	1/1	0.99	0.10	46,46,46,46	0
57	MG	1A	3870	1/1	0.99	0.06	36,36,36,36	0
57	MG	1A	3509	1/1	0.99	0.04	61,61,61,61	0
57	MG	1A	3872	1/1	0.99	0.05	56,56,56,56	0
57	MG	1a	1611	1/1	0.99	0.03	38,38,38,38	0
57	MG	1A	3544	1/1	0.99	0.08	32,32,32,32	0
57	MG	2A	3666	1/1	0.99	0.06	65,65,65,65	0
57	MG	1A	3874	1/1	0.99	0.09	53,53,53,53	0
57	MG	1A	3820	1/1	0.99	0.03	48,48,48,48	0
57	MG	1A	3418	1/1	0.99	0.08	35,35,35,35	0
57	MG	2a	3101	1/1	0.99	0.03	76,76,76,76	0
57	MG	2A	3626	1/1	0.99	0.05	67,67,67,67	0
57	MG	2A	3503	1/1	0.99	0.04	58,58,58,58	0
57	MG	1A	3877	1/1	0.99	0.04	63,63,63,63	0
60	ZN	1Y	501	1/1	0.99	0.02	76,76,76,76	0
57	MG	1A	3908	1/1	0.99	0.08	58,58,58,58	0
60	ZN	1n	103	1/1	0.99	0.03	80,80,80,80	0
57	MG	1A	3274	1/1	0.99	0.09	30,30,30,30	0
57	MG	1T	203	1/1	0.99	0.09	61,61,61,61	0
60	ZN	25	102	1/1	0.99	0.05	72,72,72,72	0
60	ZN	26	102	1/1	0.99	0.04	78,78,78,78	0
60	ZN	29	501	1/1	0.99	0.03	77,77,77,77	0
57	MG	1a	1836	1/1	0.99	0.04	62,62,62,62	0
57	MG	1A	3667	1/1	0.99	0.02	65,65,65,65	0
57	MG	2A	3432	1/1	0.99	0.08	50,50,50,50	0
60	ZN	16	501	1/1	1.00	0.06	60,60,60,60	0
60	ZN	19	103	1/1	1.00	0.05	59,59,59,59	0
57	MG	2A	3401	1/1	1.00	0.03	50,50,50,50	0
57	MG	2A	3498	1/1	1.00	0.05	44,44,44,44	0
57	MG	2A	3576	1/1	1.00	0.03	47,47,47,47	0
57	MG	1A	3473	1/1	1.00	0.09	37,37,37,37	0
57	MG	1A	3706	1/1	1.00	0.02	56,56,56,56	0
57	MG	1A	3492	1/1	1.00	0.04	39,39,39,39	0
57	MG	1A	3631	1/1	1.00	0.08	44,44,44,44	0
57	MG	1A	3547	1/1	1.00	0.05	37,37,37,37	0
60	ZN	15	108	1/1	1.00	0.03	60,60,60,60	0

6.5 Other polymers [i](#)

There are no such residues in this entry.