



Full wwPDB X-ray Structure Validation Report ⓘ

Sep 2, 2026 – 08:35 PM EDT

PDB ID : 9Q6R / pdb_00009q6r
Title : Crystal structure of the wild-type *Thermus thermophilus* 70S ribosome in complex with pleuromutilin-27 triazole derivative and protein Y at 2.85Å resolution
Authors : Killam, B.Y.; Kopec, I.; Breiner, L.M.; Hoernig, M.; LoPresti, M.; Abdelsattar, A.S.; Abouelkhair, A.A.; Briganti, A.J.; Slowinski, R.P.; Vogelaar, N.J.; Seleem, M.N.; Brown, A.M.; Lowell, A.N.; Polikanov, Y.S.
Deposited on : 2025-08-22
Resolution : 2.85 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](#) ①) were used in the production of this report:

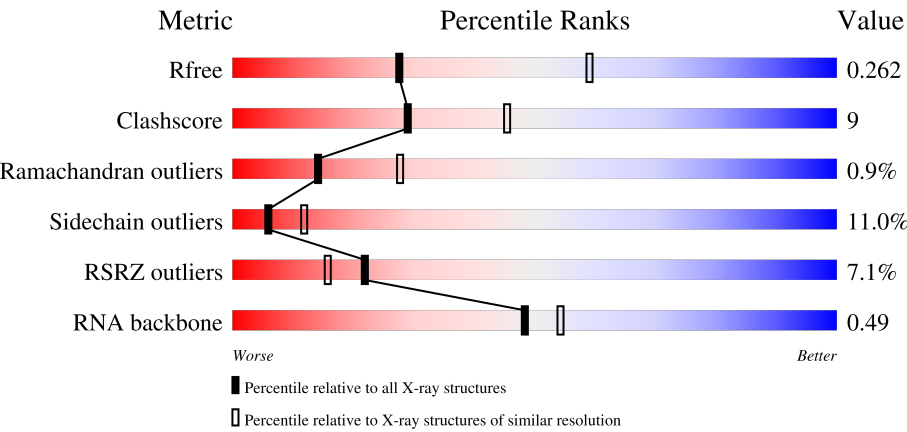
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.50

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 2.85 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.



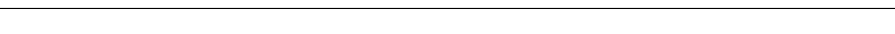
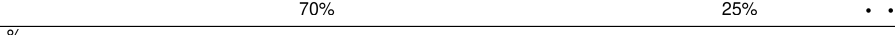
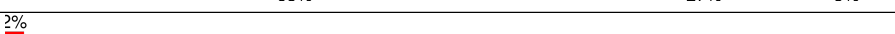
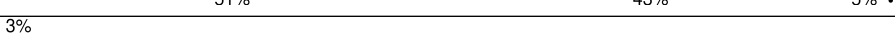
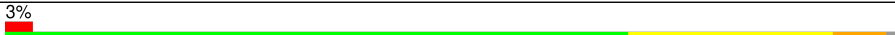
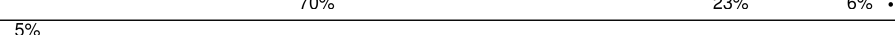
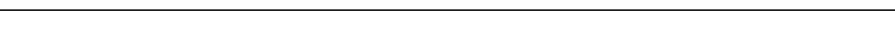
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R _{free}	180053	1407 (2.88-2.84)
Clashscore	190562	1446 (2.88-2.84)
Ramachandran outliers	187476	1406 (2.88-2.84)
Sidechain outliers	187428	1407 (2.88-2.84)
RSRZ outliers	180081	1408 (2.88-2.84)
RNA backbone	3983	1009 (3.06-2.66)

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	5% 65%28%6% .
1	2A	2915	6% 60%32%7% .
2	1B	121	% 72%26% ..
2	2B	121	3% 50%41%8% .

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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	

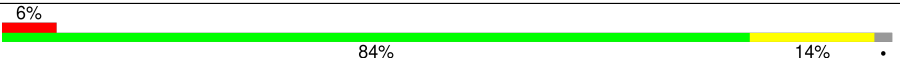
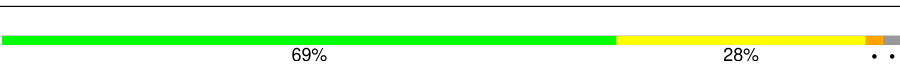
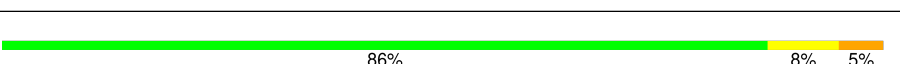
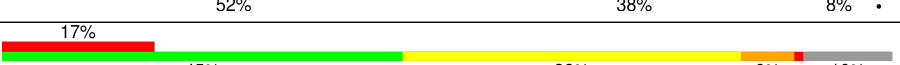
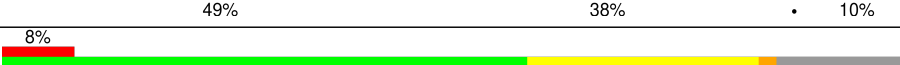
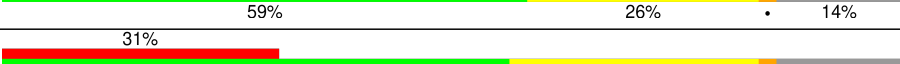
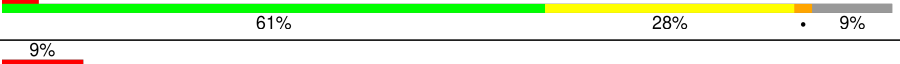
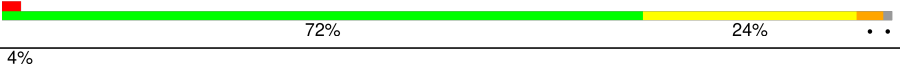
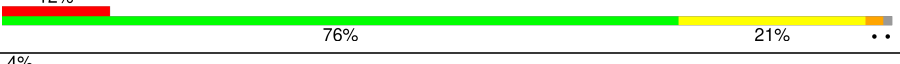
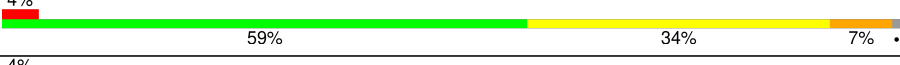
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Mol	Chain	Length	Quality of chain
15	2T	146	
16	1U	118	
16	2U	118	
17	1V	101	
17	2V	101	
18	1W	113	
18	2W	113	
19	1X	96	
19	2X	96	
20	1Y	110	
20	2Y	110	
21	1Z	206	
21	2Z	206	
22	10	85	
22	20	85	
23	11	98	
23	21	98	
24	12	72	
24	22	72	
25	13	60	
25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

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
54	MG	1A	3283	-	-	-	X
54	MG	1A	3630	-	-	-	X
54	MG	2A	3697	-	-	-	X
54	MG	2a	3164	-	-	-	X
59	SF4	2d	501	-	-	X	-

2 Entry composition [i](#)

There are 60 unique types of molecules in this entry. The entry contains 297568 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	77	Total	C	N	O	S	0	0	0
			608	375	129	103	1			
22	20	77	Total	C	N	O	S	0	0	0
			608	375	129	103	1			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	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 MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	1A	1010	Total	Mg	0	0
			1010	1010		
54	1B	31	Total	Mg	0	0
			31	31		
54	1D	18	Total	Mg	0	0
			18	18		
54	1E	9	Total	Mg	0	0
			9	9		
54	1F	17	Total	Mg	0	0
			17	17		
54	1G	4	Total	Mg	0	0
			4	4		
54	1H	2	Total	Mg	0	0
			2	2		
54	1N	4	Total	Mg	0	0
			4	4		
54	1O	1	Total	Mg	0	0
			1	1		
54	1P	7	Total	Mg	0	0
			7	7		
54	1Q	5	Total	Mg	0	0
			5	5		
54	1R	9	Total	Mg	0	0
			9	9		
54	1T	4	Total	Mg	0	0
			4	4		
54	1U	6	Total	Mg	0	0
			6	6		
54	1V	7	Total	Mg	0	0
			7	7		
54	1W	3	Total	Mg	0	0
			3	3		
54	1Y	1	Total	Mg	0	0
			1	1		
54	1Z	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	10	7	Total 7	Mg 7	0	0
54	11	5	Total 5	Mg 5	0	0
54	13	4	Total 4	Mg 4	0	0
54	14	1	Total 1	Mg 1	0	0
54	15	8	Total 8	Mg 8	0	0
54	17	5	Total 5	Mg 5	0	0
54	18	3	Total 3	Mg 3	0	0
54	19	3	Total 3	Mg 3	0	0
54	1a	277	Total 277	Mg 277	0	0
54	1b	1	Total 1	Mg 1	0	0
54	1d	5	Total 5	Mg 5	0	0
54	1e	2	Total 2	Mg 2	0	0
54	1f	2	Total 2	Mg 2	0	0
54	1g	3	Total 3	Mg 3	0	0
54	1h	2	Total 2	Mg 2	0	0
54	1i	1	Total 1	Mg 1	0	0
54	1k	1	Total 1	Mg 1	0	0
54	1l	3	Total 3	Mg 3	0	0
54	1m	1	Total 1	Mg 1	0	0
54	1n	2	Total 2	Mg 2	0	0
54	1o	2	Total 2	Mg 2	0	0

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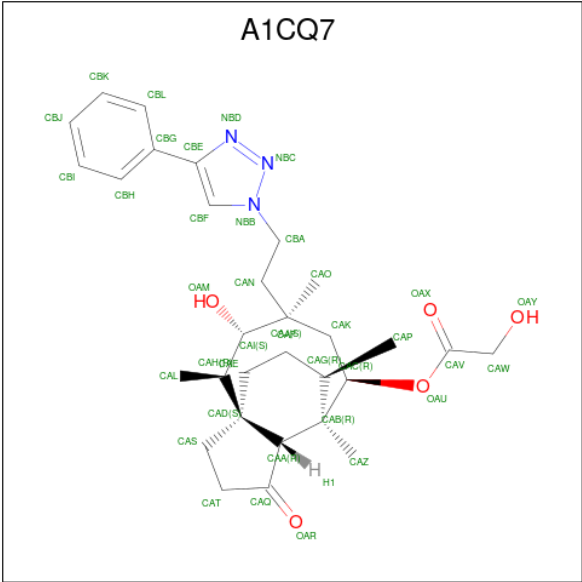
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	1t	2	Total Mg 2 2	0	0
54	1y	3	Total Mg 3 3	0	0
54	2A	740	Total Mg 740 740	0	0
54	2B	20	Total Mg 20 20	0	0
54	2D	6	Total Mg 6 6	0	0
54	2E	7	Total Mg 7 7	0	0
54	2F	4	Total Mg 4 4	0	0
54	2G	3	Total Mg 3 3	0	0
54	2I	1	Total Mg 1 1	0	0
54	2O	1	Total Mg 1 1	0	0
54	2P	3	Total Mg 3 3	0	0
54	2Q	4	Total Mg 4 4	0	0
54	2R	2	Total Mg 2 2	0	0
54	2T	4	Total Mg 4 4	0	0
54	2U	1	Total Mg 1 1	0	0
54	2V	3	Total Mg 3 3	0	0
54	2W	3	Total Mg 3 3	0	0
54	2X	1	Total Mg 1 1	0	0
54	2Y	1	Total Mg 1 1	0	0
54	20	2	Total Mg 2 2	0	0
54	21	3	Total Mg 3 3	0	0

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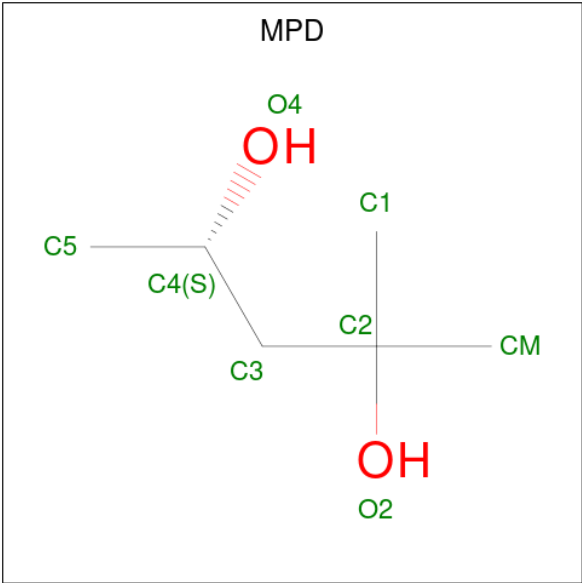
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	23	1	Total 1	Mg 1	0	0
54	25	1	Total 1	Mg 1	0	0
54	26	2	Total 2	Mg 2	0	0
54	28	1	Total 1	Mg 1	0	0
54	29	1	Total 1	Mg 1	0	0
54	2a	187	Total 187	Mg 187	0	0
54	2e	1	Total 1	Mg 1	0	0
54	2f	1	Total 1	Mg 1	0	0
54	2h	1	Total 1	Mg 1	0	0
54	2j	1	Total 1	Mg 1	0	0
54	2k	2	Total 2	Mg 2	0	0
54	2l	1	Total 1	Mg 1	0	0
54	2n	1	Total 1	Mg 1	0	0
54	2p	1	Total 1	Mg 1	0	0
54	2t	1	Total 1	Mg 1	0	0

- Molecule 55 is (3aS,4R,5S,6S,8R,9R,9aR,10R)-5-hydroxy-4,6,9,10-tetramethyl-1-oxo-6-[2-(4-phenyl-1H-1,2,3-triazol-1-yl)ethyl]decahydro-3a,9-propanocyclopenta[8]annulen-8-yl hydroxyacetate (CCD ID: A1CQ7) (formula: C₃₀H₄₁N₃O₅) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
55	1A	1	Total	C	N	O	0	0
			38	30	3	5		
55	2A	1	Total	C	N	O	0	0
			38	30	3	5		

- Molecule 56 is (4S)-2-METHYL-2,4-PENTANEDIOL (CCD ID: MPD) (formula: C₆H₁₄O₂).



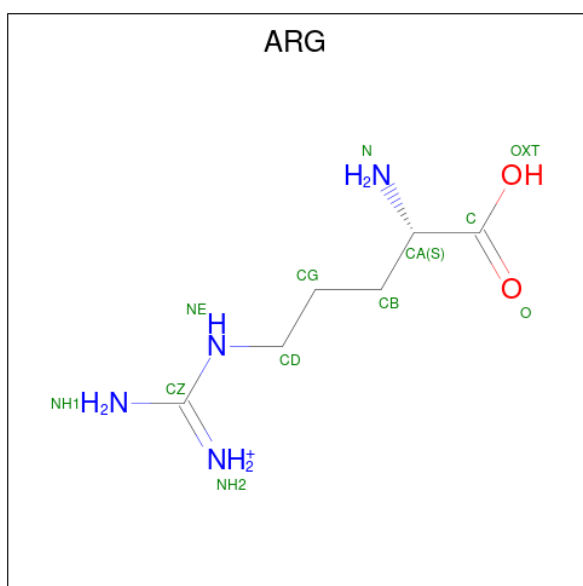
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	1A	1	Total	C	O	0	0
			8	6	2		
56	1T	1	Total	C	O	0	0
			8	6	2		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	18	1	Total	C	O	0	0
			8	6	2		
56	1a	1	Total	C	O	0	0
			8	6	2		
56	2A	1	Total	C	O	0	0
			8	6	2		
56	2A	1	Total	C	O	0	0
			8	6	2		
56	2B	1	Total	C	O	0	0
			8	6	2		

- Molecule 57 is ARGinine (CCD ID: ARG) (formula: $C_6H_{15}N_4O_2$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
57	1B	1	Total	C	N	O	0	0
			12	6	4	2		
57	1F	1	Total	C	N	O	0	0
			12	6	4	2		

- Molecule 58 is ZINC ION (CCD ID: ZN) (formula: Zn).

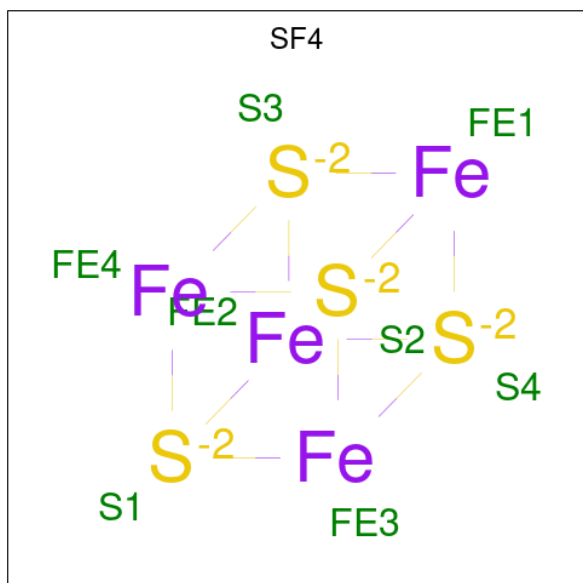
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	1Y	1	Total	Zn	0	0
			1	1		
58	14	1	Total	Zn	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	15	1	Total	Zn	0	0
			1	1		
58	16	1	Total	Zn	0	0
			1	1		
58	19	1	Total	Zn	0	0
			1	1		
58	1n	1	Total	Zn	0	0
			1	1		
58	2Y	1	Total	Zn	0	0
			1	1		
58	24	1	Total	Zn	0	0
			1	1		
58	25	1	Total	Zn	0	0
			1	1		
58	26	1	Total	Zn	0	0
			1	1		
58	29	1	Total	Zn	0	0
			1	1		
58	2n	1	Total	Zn	0	0
			1	1		

- Molecule 59 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
59	1d	1	Total	Fe	S	0	0
			8	4	4		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
59	2d	1	Total	Fe	S	0	0
			8	4	4		

- Molecule 60 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	1A	3924	Total	O	0	0
			3924	3924		
60	1B	103	Total	O	0	0
			103	103		
60	1D	114	Total	O	0	0
			114	114		
60	1E	82	Total	O	0	0
			82	82		
60	1F	72	Total	O	0	0
			72	72		
60	1G	16	Total	O	0	0
			16	16		
60	1H	19	Total	O	0	0
			19	19		
60	1I	8	Total	O	0	0
			8	8		
60	1N	54	Total	O	0	0
			54	54		
60	1O	26	Total	O	0	0
			26	26		
60	1P	63	Total	O	0	0
			63	63		
60	1Q	39	Total	O	0	0
			39	39		
60	1R	32	Total	O	0	0
			32	32		
60	1S	8	Total	O	0	0
			8	8		
60	1T	39	Total	O	0	0
			39	39		
60	1U	47	Total	O	0	0
			47	47		
60	1V	37	Total	O	0	0
			37	37		
60	1W	27	Total	O	0	0
			27	27		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	1X	21	Total 21	O 21	0	0
60	1Y	19	Total 19	O 19	0	0
60	1Z	14	Total 14	O 14	0	0
60	10	27	Total 27	O 27	0	0
60	11	23	Total 23	O 23	0	0
60	12	18	Total 18	O 18	0	0
60	13	25	Total 25	O 25	0	0
60	14	2	Total 2	O 2	0	0
60	15	25	Total 25	O 25	0	0
60	16	21	Total 21	O 21	0	0
60	17	14	Total 14	O 14	0	0
60	18	32	Total 32	O 32	0	0
60	19	10	Total 10	O 10	0	0
60	1a	576	Total 576	O 576	0	0
60	1b	1	Total 1	O 1	0	0
60	1d	11	Total 11	O 11	0	0
60	1e	10	Total 10	O 10	0	0
60	1f	1	Total 1	O 1	0	0
60	1j	2	Total 2	O 2	0	0
60	1l	5	Total 5	O 5	0	0
60	1m	2	Total 2	O 2	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	1o	4	Total 4	O 4	0	0
60	1p	4	Total 4	O 4	0	0
60	1t	2	Total 2	O 2	0	0
60	1y	4	Total 4	O 4	0	0
60	2A	2074	Total 2074	O 2074	0	0
60	2B	44	Total 44	O 44	0	0
60	2D	55	Total 55	O 55	0	0
60	2E	37	Total 37	O 37	0	0
60	2F	26	Total 26	O 26	0	0
60	2G	7	Total 7	O 7	0	0
60	2H	3	Total 3	O 3	0	0
60	2I	3	Total 3	O 3	0	0
60	2N	7	Total 7	O 7	0	0
60	2O	19	Total 19	O 19	0	0
60	2P	23	Total 23	O 23	0	0
60	2Q	19	Total 19	O 19	0	0
60	2R	19	Total 19	O 19	0	0
60	2S	4	Total 4	O 4	0	0
60	2T	9	Total 9	O 9	0	0
60	2U	13	Total 13	O 13	0	0
60	2V	7	Total 7	O 7	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	2W	18	Total 18	O 18	0	0
60	2X	7	Total 7	O 7	0	0
60	2Y	3	Total 3	O 3	0	0
60	2Z	14	Total 14	O 14	0	0
60	20	6	Total 6	O 6	0	0
60	21	17	Total 17	O 17	0	0
60	22	1	Total 1	O 1	0	0
60	23	3	Total 3	O 3	0	0
60	24	2	Total 2	O 2	0	0
60	25	8	Total 8	O 8	0	0
60	26	6	Total 6	O 6	0	0
60	27	7	Total 7	O 7	0	0
60	28	14	Total 14	O 14	0	0
60	29	1	Total 1	O 1	0	0
60	2a	438	Total 438	O 438	0	0
60	2d	4	Total 4	O 4	0	0
60	2e	1	Total 1	O 1	0	0
60	2f	1	Total 1	O 1	0	0
60	2j	2	Total 2	O 2	0	0
60	2l	6	Total 6	O 6	0	0
60	2m	1	Total 1	O 1	0	0

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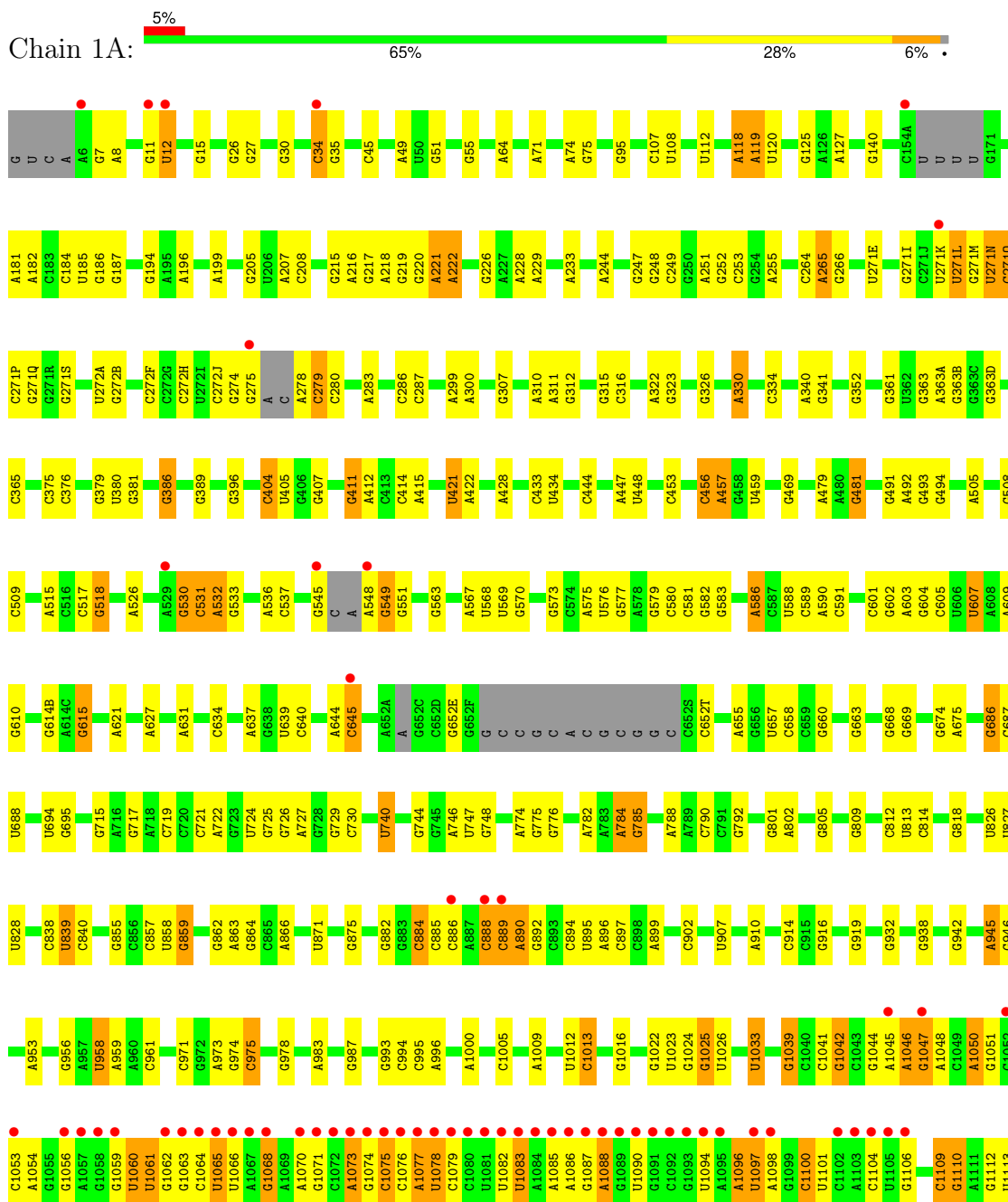
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	2n	1	Total 1	O 1	0	0
60	2o	3	Total 3	O 3	0	0
60	2p	2	Total 2	O 2	0	0
60	2q	1	Total 1	O 1	0	0
60	2r	4	Total 4	O 4	0	0
60	2t	2	Total 2	O 2	0	0
60	2y	4	Total 4	O 4	0	0

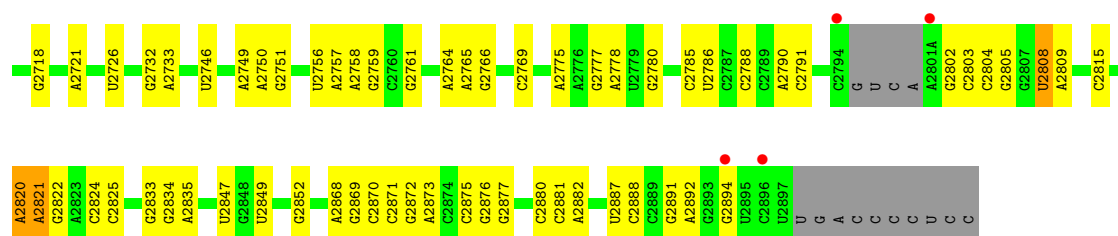
3 Residue-property plots

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.

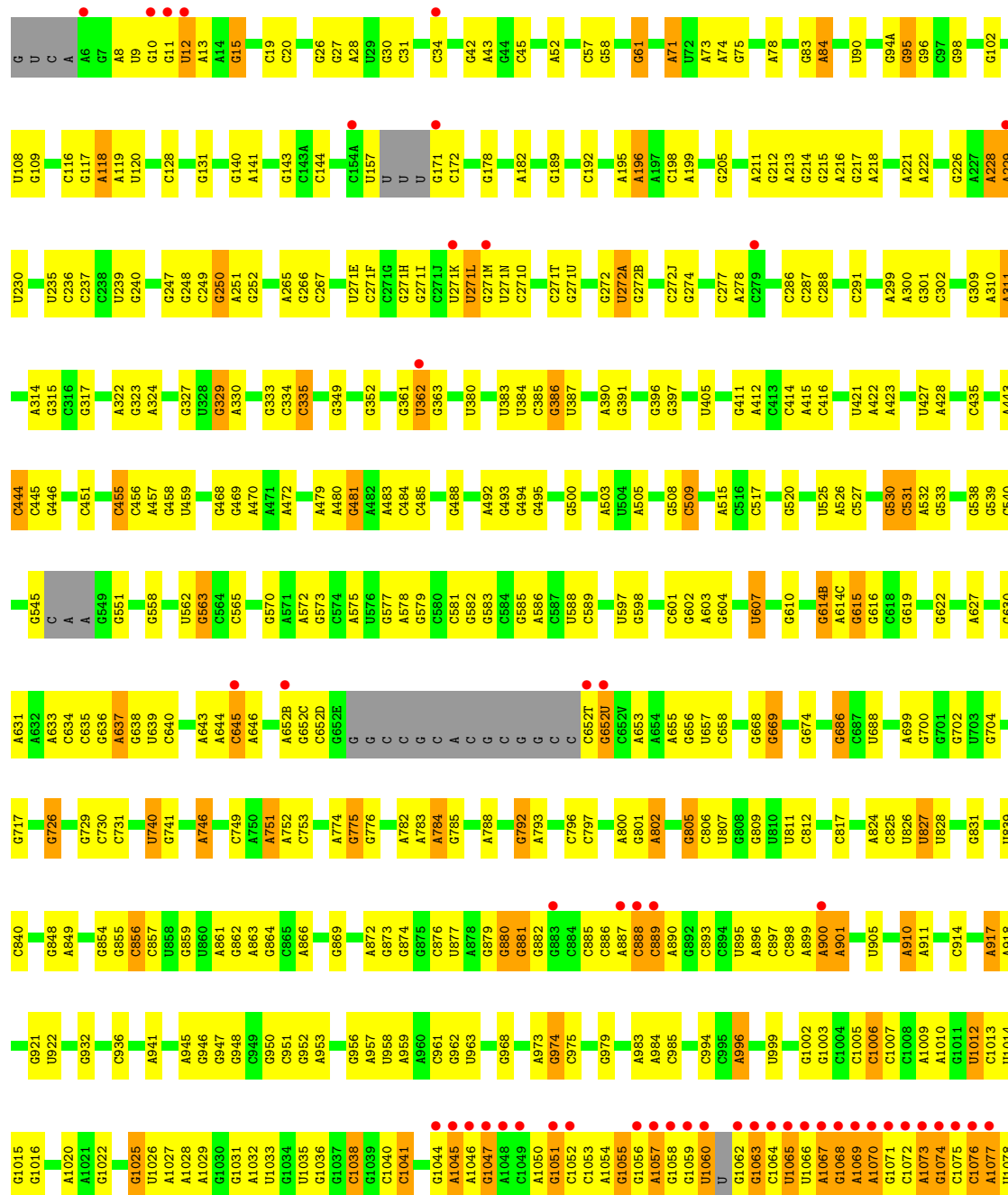
- Molecule 1: 23S Ribosomal RNA



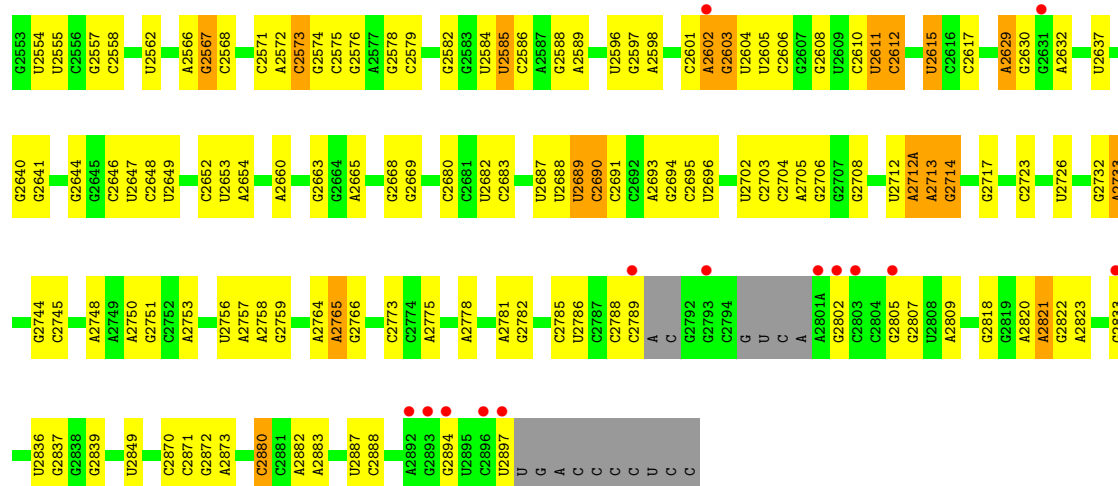




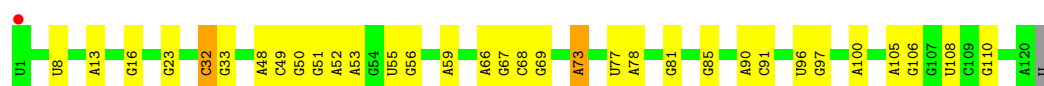
• Molecule 1: 23S Ribosomal RNA



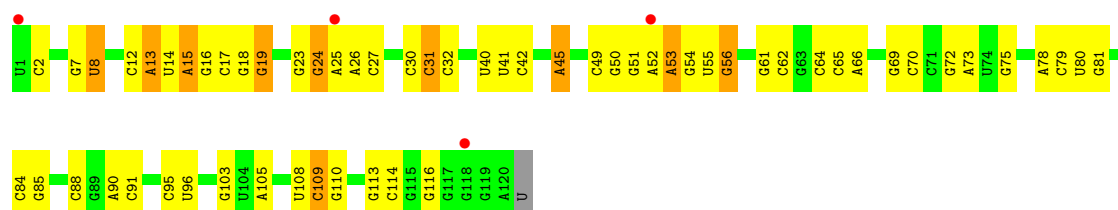
A2435	G2349	G2370	A2169	U2109	G2010	G1899	C1640	U	G1416	A1284	C1186	C1079
G2350	C2351	G2271	A2170	G2110	U2011	A1900	G1648	A	C1417	C1291	G1171	G1080
A2439	A2352	U2272	U2171	C2111	G2019	G1904	C1649	C1536	G1418	C1292	G1171	U1081
G2440	A2352	A2273	U2172	G2112	A2019	G1905	G1649	G1537	A1419	U1292	G	U1082
C2441	G2353	A2274	C2174	U2113	A2020	C1906	A1652	C1542	U1420	C1293	U	U1083
G2444	C2356	C2275	C2175	G2115	C2021	G1906	C1652	C1543	G1421	U1300	G	A1084
G2445	U2357	G2277	A2176	G2116	U2022	G1910	C1656	C1543	G1426	U1301	A	A1085
A2448	G2358	A2278	C2177	U2117	U2023	U1911	C1657	G1555	G1427	A1301	C1178	A1086
C2466	C2364	G2280	C2178	U2118	G2024	A1912	C1658	G1555	C1428	G1303	C1179	A1087
G2370	G2365	G2281	U2180	G2120	C2025	A1913	U1659	A1568	G1442	G1314	G1089	U1090
A2466	A2366	C2282	G2181	G2121	A2030	U1915	C1660	G1559	G1443	C1315	G1184	U1091
G2474	G2370	C2283	G2182	U2122	A2031	A1916	A1664	A1566	G1444	U1316	G1185	C1092
G2475	C2371	C2284	C2183	G2123	A2032	U1917	A1668	A1567	G1445	A1317	G1187	G1093
A2476	A2385	G2285	G2184	G2124	G2033	A1918	A1669	G1568	A1449	C1318	U1188	U1094
G2477	A2386	A2286	C2185	G2125	A2034	C1920	C1674	A1569	G1450	G1319	G1195	A1095
A2478	G2375	G2287	G2186	A2126	G2043	A1927	G1674	A1572	G1459	C1320	U1199	A1096
G2479	A2376	C2288	C2187	G2127	A2051	A1928	C1675	U1578	A1460	G1332	U1199	U1097
G2480	A2377	U2189	C2188	C2128	G2055	G1929	G1675	A1579	G1461	C1333	G1203	A1098
C2483	A2378	G2190	G2189	U2130	G2056	G1930	C1684	A1580	C1464	G1334	A1204	C1102
G2486	C2380	G2191	C2192	G2131	A2057	U1931	C1684	A1580	G1465	U1340	U1205	C1103
G2490	G2383	C2195	C2195	U2132	A2058	G1933	U1688	C1584	G1466	U1341	A1210	C1104
U2491	G2384	A2198	A2198	G2133	A2059	C1934	G1696	A1586	C1467	A1342	U1211	U1105
U2492	C2385	C2198	C2198	A2135	A2060	G1935	G1696	A1587	U1471	U1352	A1210	G1106
C2499	A2388	U2203	U2203	G2136	G2061	A1936	A1700	A1588	G1471	G1356	G1219	C1109
G2502	G2389	C2205	C2205	C2137	A2062	A1937	A1701	A1589	G1482	G1356	A1220	G1110
A2503	A2390	G2206	G2206	G2138	G2063	U1938	G1702	C1599	G1482	A1359	C1230	A1111
U2504	U2391	G2207	G2207	U2140	C2064	U1939	G1703	C1599	G1482	A1360	U1230	U1112
G2505	G2392	U2218	U2218	G2141	C2065	C1942	G1721	G1593	G1491	A1361	G1239	U1113
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C2507	G2400	G2228	G2228	U2144	G2070	C1947	U1739	C1598	A1494	C1364	A1241	G1117
G2512	U2401	G2229	G2229	G2145	A2071	U1955	G1740	C1599	A1496	A1365	G1244	G1118
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G2543	G2414	U2243	U2243	G2152	C2097	A1971	U1768	A1616	U1512	C1404	A1272	U1142
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G2551	G2428	A2268	A2268	G2159	G2107	A2001	A1786	C1638	C1532	G1413	G1281	U1165
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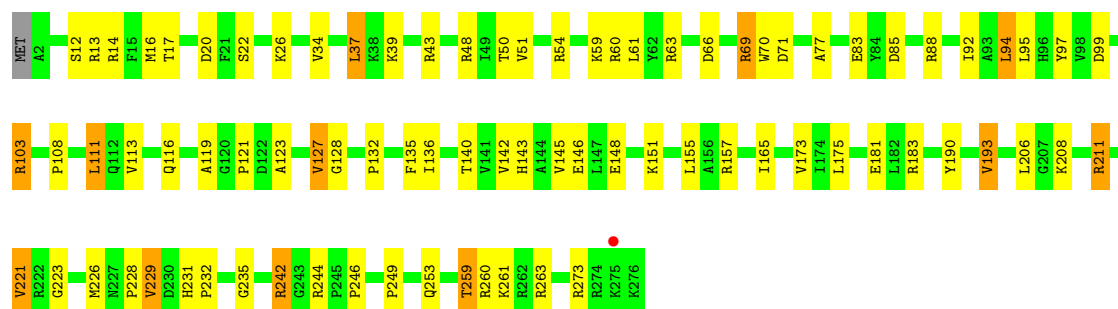
• Molecule 2: 5S Ribosomal RNA



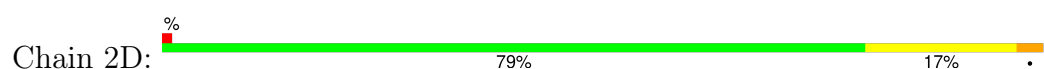
• Molecule 2: 5S Ribosomal RNA

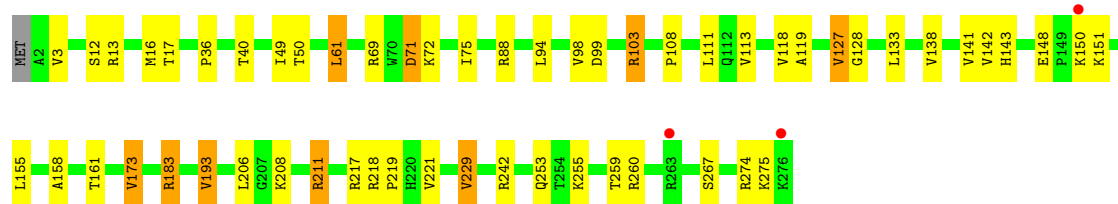


• Molecule 3: 50S ribosomal protein L2



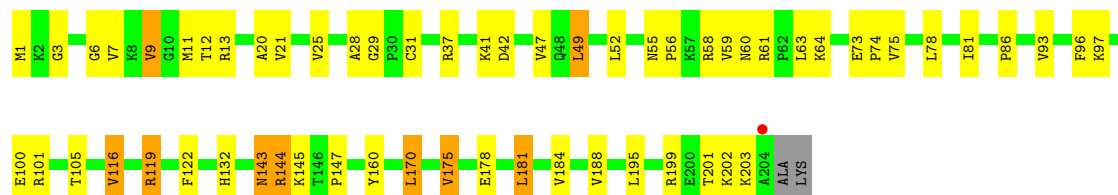
• Molecule 3: 50S ribosomal protein L2





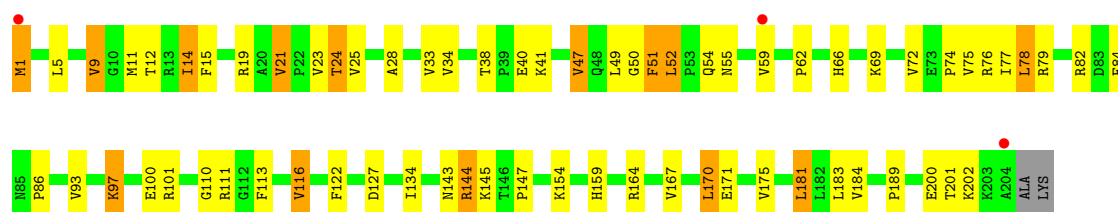
• Molecule 4: 50S ribosomal protein L3

Chain 1E: 70% 25% . .



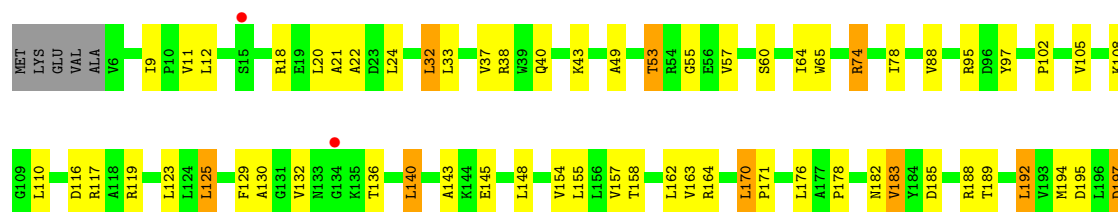
• Molecule 4: 50S ribosomal protein L3

Chain 2E: 66% 26% 7% . .



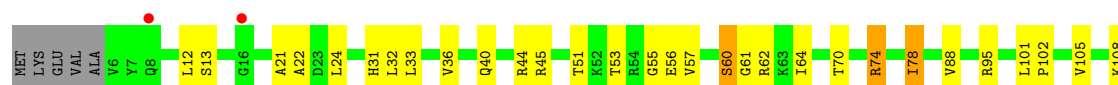
• Molecule 5: 50S ribosomal protein L4

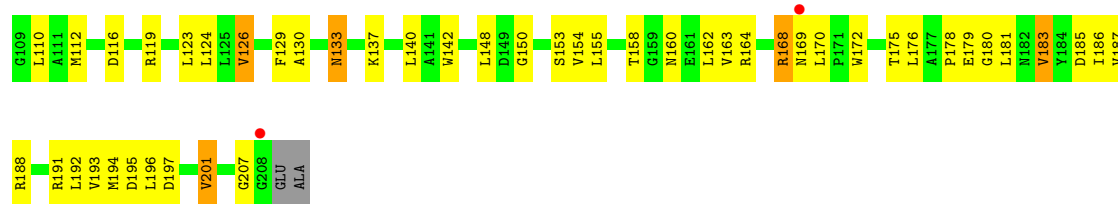
Chain 1F: 65% 27% 5% . .



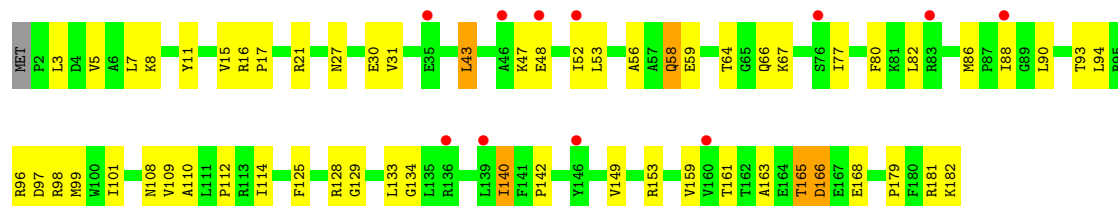
• Molecule 5: 50S ribosomal protein L4

Chain 2F: 60% 33% . .

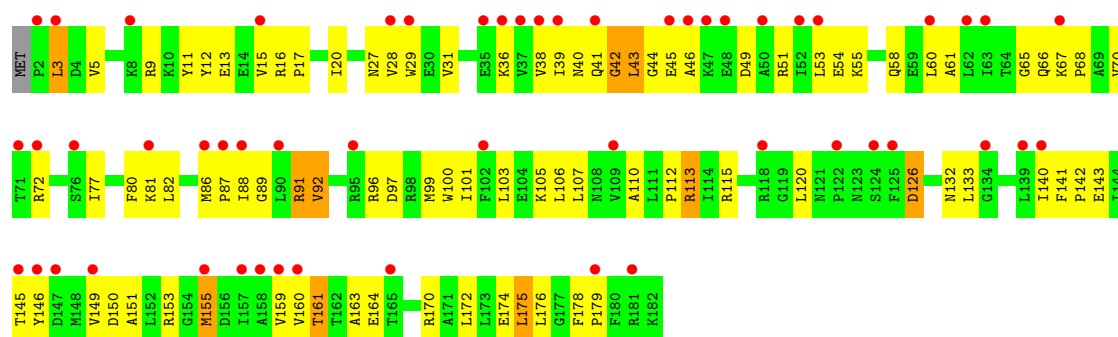




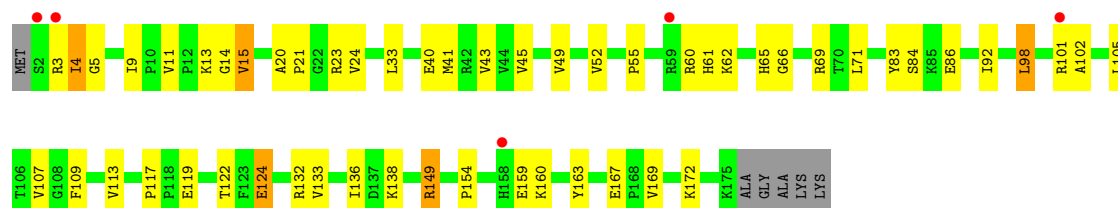
• Molecule 6: 50S ribosomal protein L5



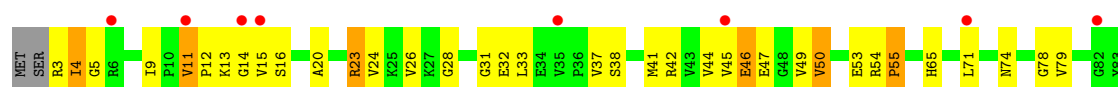
• Molecule 6: 50S ribosomal protein L5

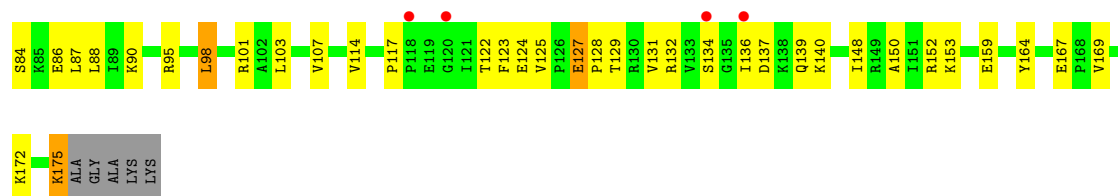


• Molecule 7: 50S ribosomal protein L6

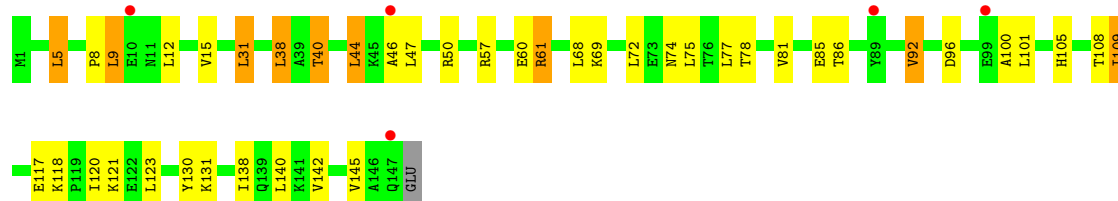


• Molecule 7: 50S ribosomal protein L6

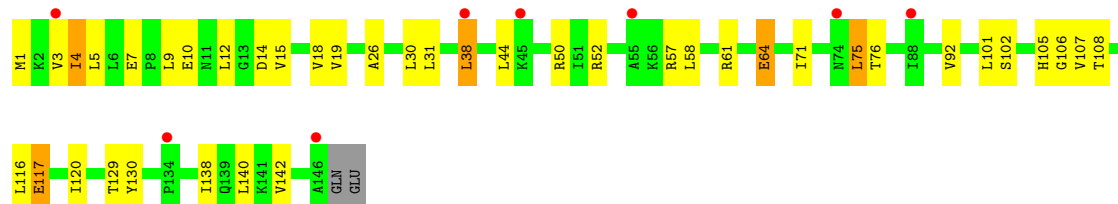




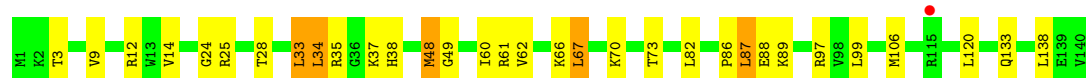
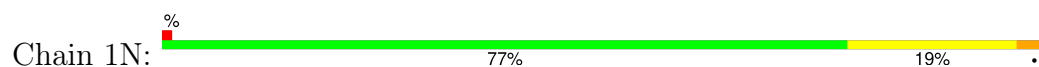
- Molecule 8: 50S ribosomal protein L9



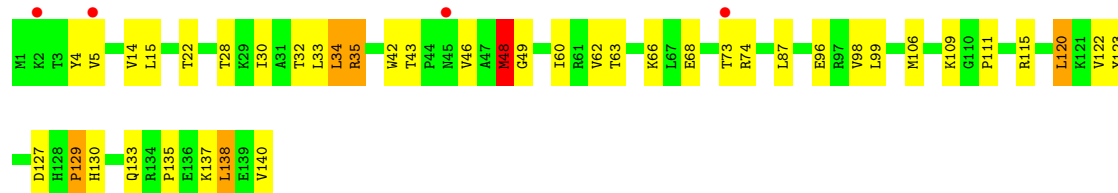
- Molecule 8: 50S ribosomal protein L9



- Molecule 9: 50S ribosomal protein L13

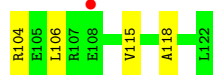
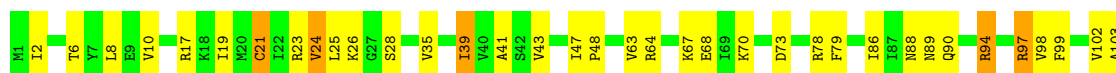


- Molecule 9: 50S ribosomal protein L13

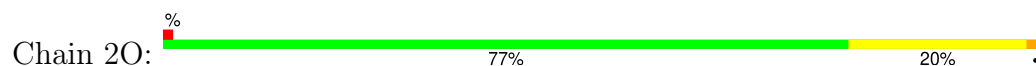


- Molecule 10: 50S ribosomal protein L14

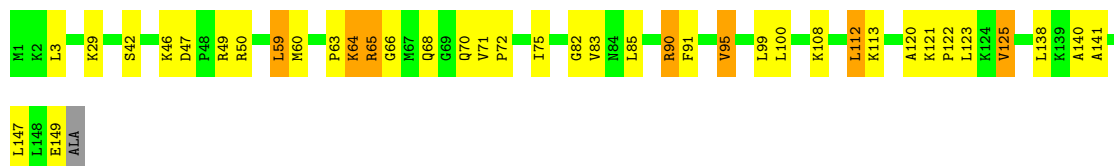




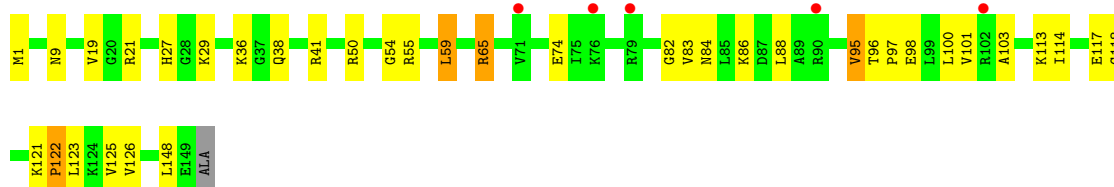
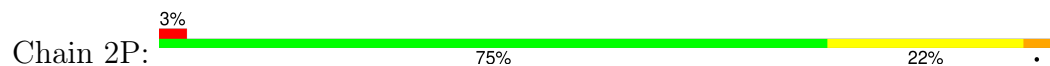
- Molecule 10: 50S ribosomal protein L14



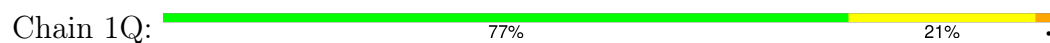
- Molecule 11: 50S ribosomal protein L15



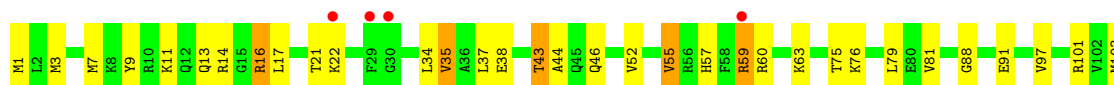
- Molecule 11: 50S ribosomal protein L15



- Molecule 12: 50S ribosomal protein L16



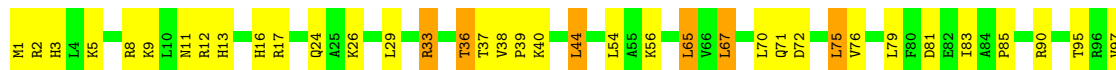
- Molecule 12: 50S ribosomal protein L16





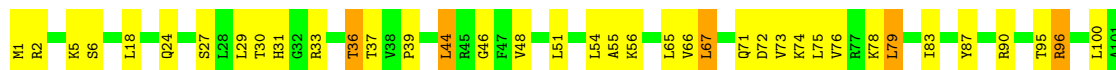
• Molecule 13: 50S ribosomal protein L17

Chain 1R: 64% 31% 5%



• Molecule 13: 50S ribosomal protein L17

Chain 2R: 59% 36% 5%



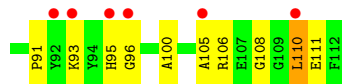
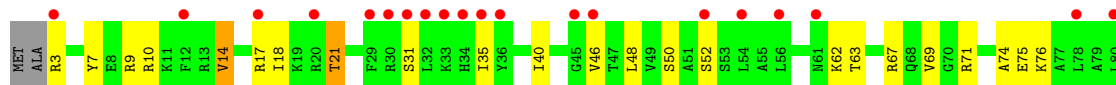
• Molecule 14: 50S ribosomal protein L18

Chain 1S: 74% 21% 5%



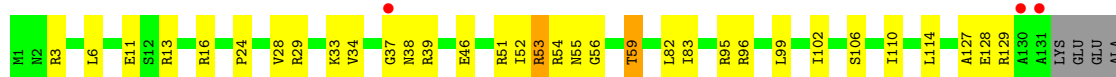
• Molecule 14: 50S ribosomal protein L18

Chain 2S: 23% 69% 8%



• Molecule 15: 50S ribosomal protein L19

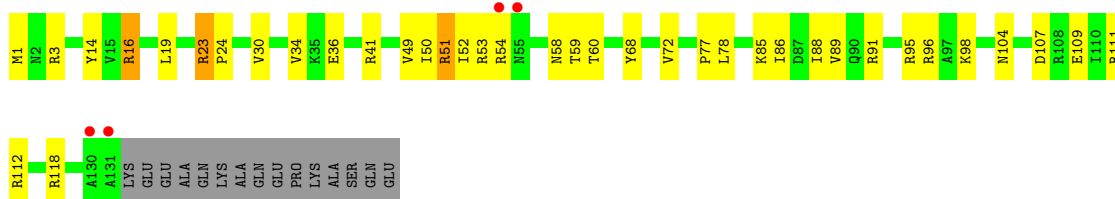
Chain 1T: 2% 67% 21% 10%



GLN
LYS
ALA
GLN
GLU
PRO
LYS
ALA
SER
GLN
GLU

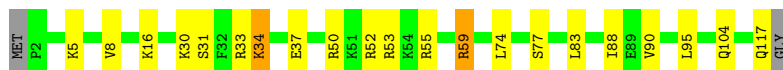
• Molecule 15: 50S ribosomal protein L19

Chain 2T:  3% 64% 24% 10%



• Molecule 16: 50S ribosomal protein L20

Chain 1U:  81% 16% 3%



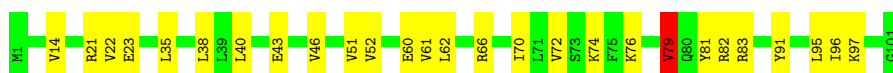
• Molecule 16: 50S ribosomal protein L20

Chain 2U:  74% 23% 3%



• Molecule 17: 50S ribosomal protein L21

Chain 1V:  73% 26% 1%



• Molecule 17: 50S ribosomal protein L21

Chain 2V:  2% 67% 29% 1%

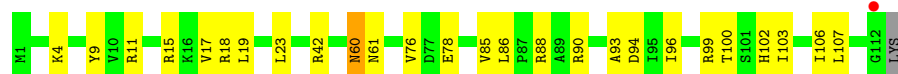
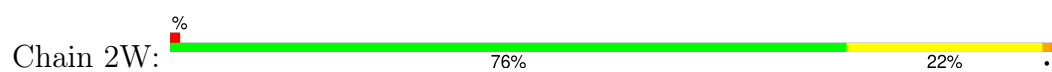


• Molecule 18: 50S ribosomal protein L22

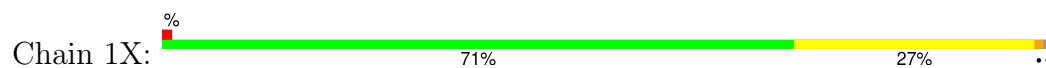
Chain 1W:  82% 16% 2%



• Molecule 18: 50S ribosomal protein L22



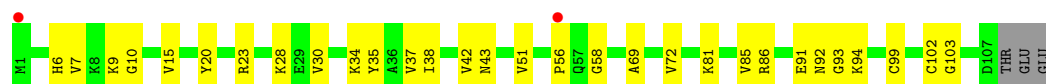
- Molecule 19: 50S ribosomal protein L23



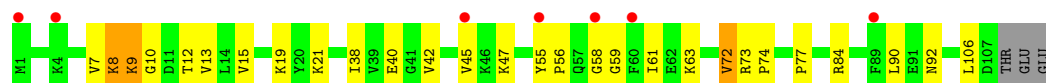
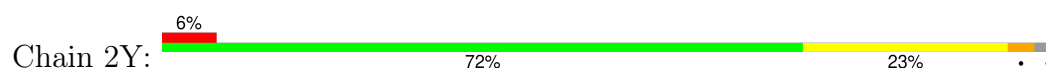
- Molecule 19: 50S ribosomal protein L23



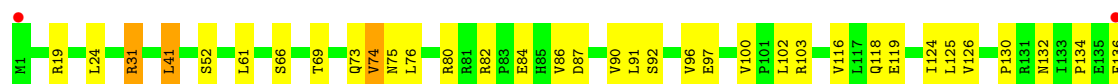
- Molecule 20: 50S ribosomal protein L24



- Molecule 20: 50S ribosomal protein L24

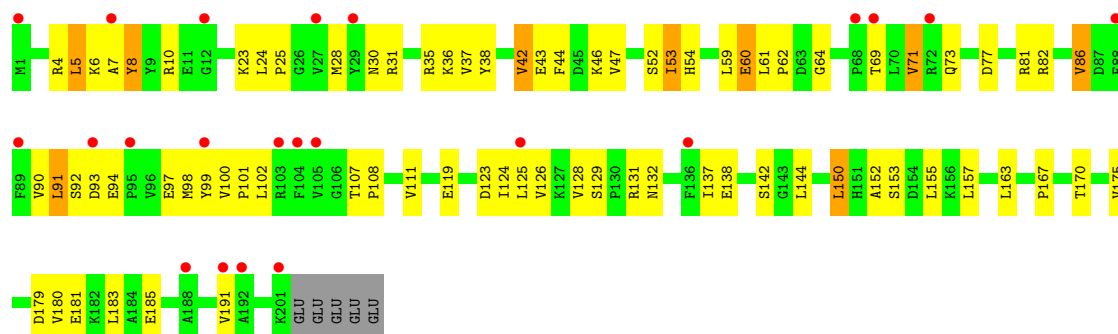


- Molecule 21: 50S ribosomal protein L25



- Molecule 21: 50S ribosomal protein L25

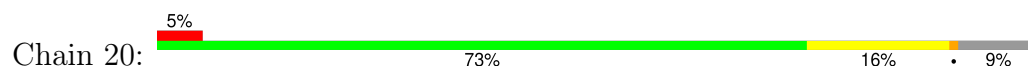




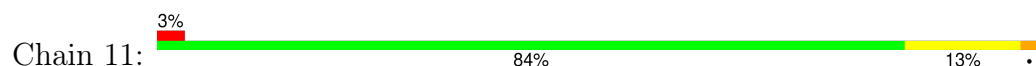
- Molecule 22: 50S ribosomal protein L27



- Molecule 22: 50S ribosomal protein L27



- Molecule 23: 50S ribosomal protein L28



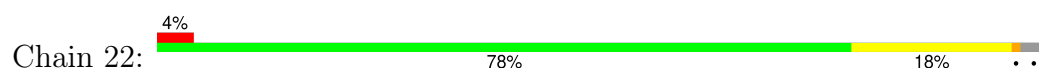
- Molecule 23: 50S ribosomal protein L28



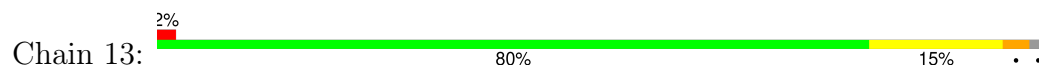
- Molecule 24: 50S ribosomal protein L29



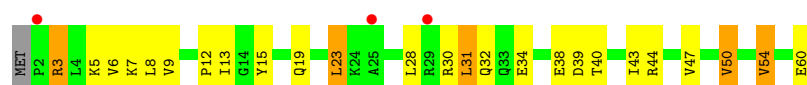
- Molecule 24: 50S ribosomal protein L29



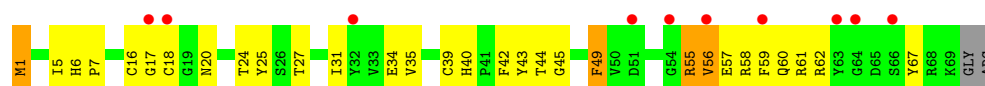
- Molecule 25: 50S ribosomal protein L30



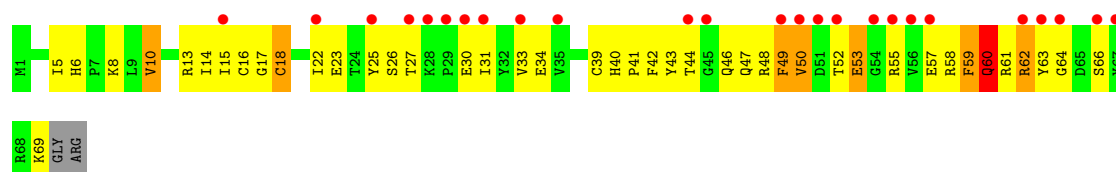
- Molecule 25: 50S ribosomal protein L30



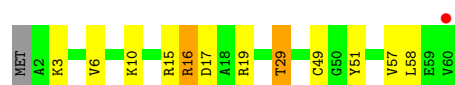
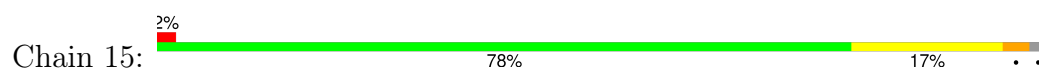
- Molecule 26: 50S ribosomal protein L31



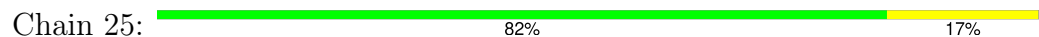
- Molecule 26: 50S ribosomal protein L31



- Molecule 27: 50S ribosomal protein L32



- Molecule 27: 50S ribosomal protein L32





- Molecule 28: 50S ribosomal protein L33

Chain 16: 80% 17% ..



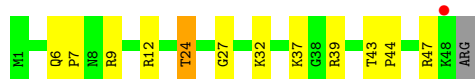
- Molecule 28: 50S ribosomal protein L33

Chain 26: 4% 78% 17% ..



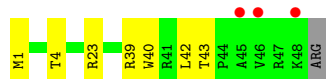
- Molecule 29: 50S ribosomal protein L34

Chain 17: 2% 73% 22% ..



- Molecule 29: 50S ribosomal protein L34

Chain 27: 6% 84% 14% .



- Molecule 30: 50S ribosomal protein L35

Chain 18: 69% 28% ..



- Molecule 30: 50S ribosomal protein L35

Chain 28: 2% 72% 22% 5% .

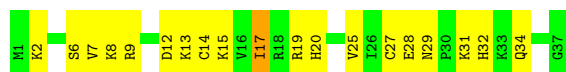


- Molecule 31: 50S ribosomal protein L36

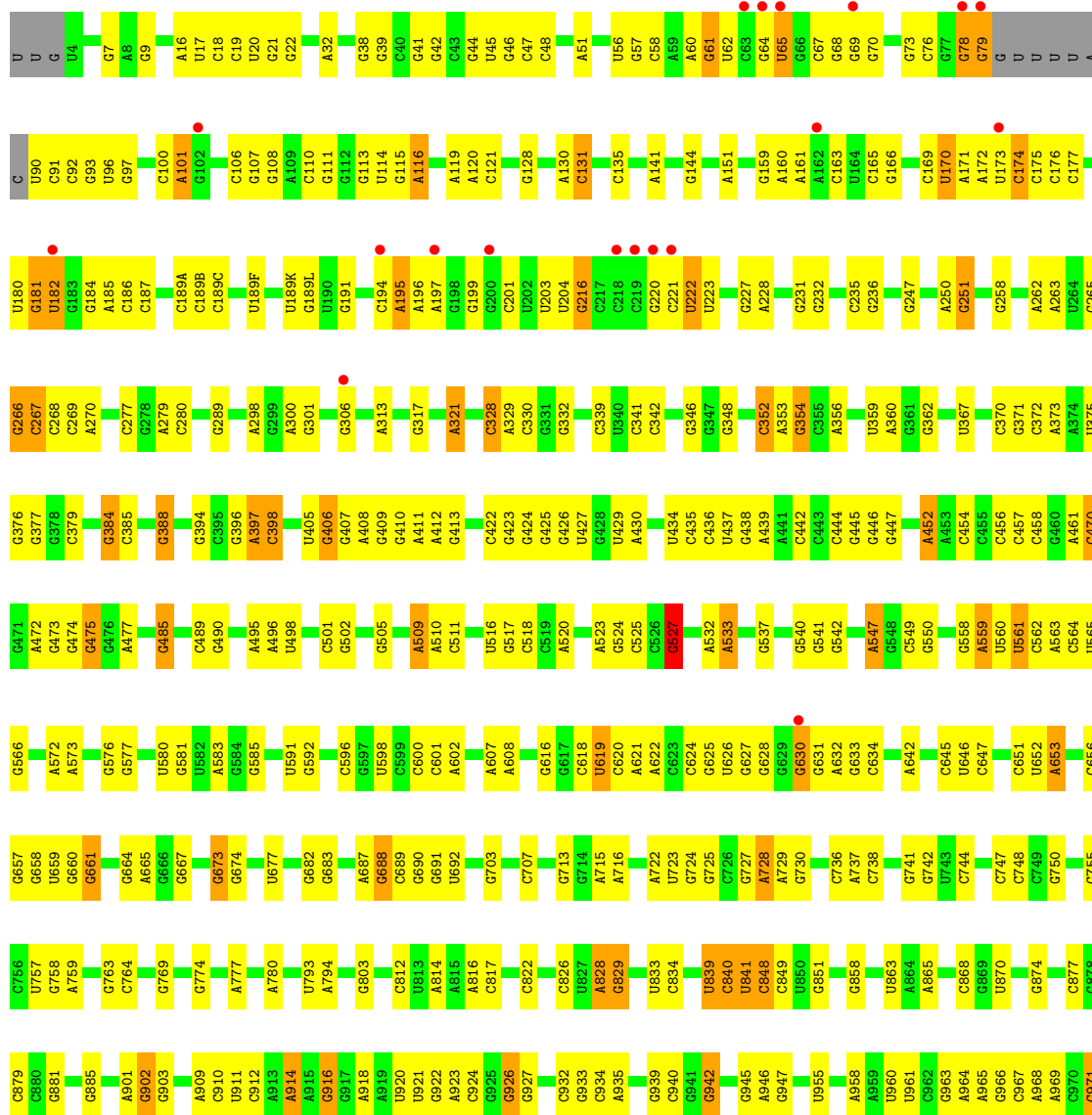
Chain 19: 86% 8% 5%

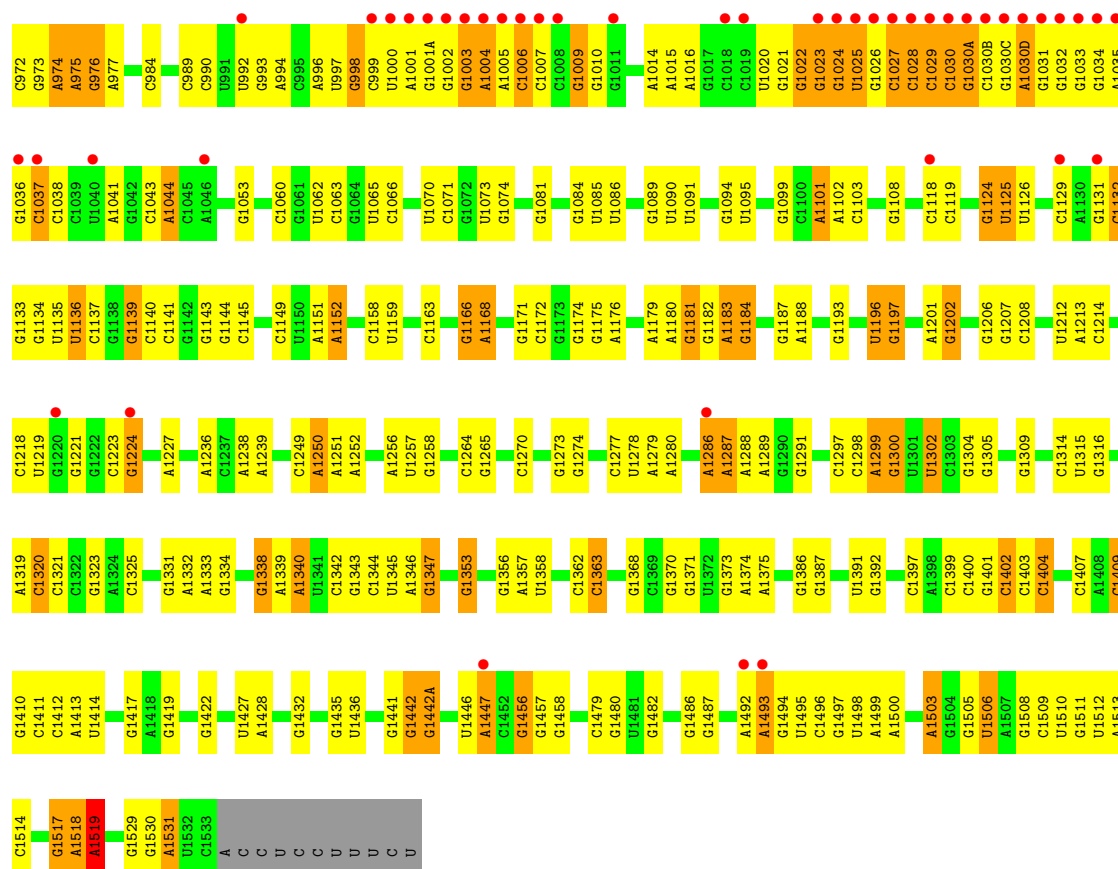


- Molecule 31: 50S ribosomal protein L36

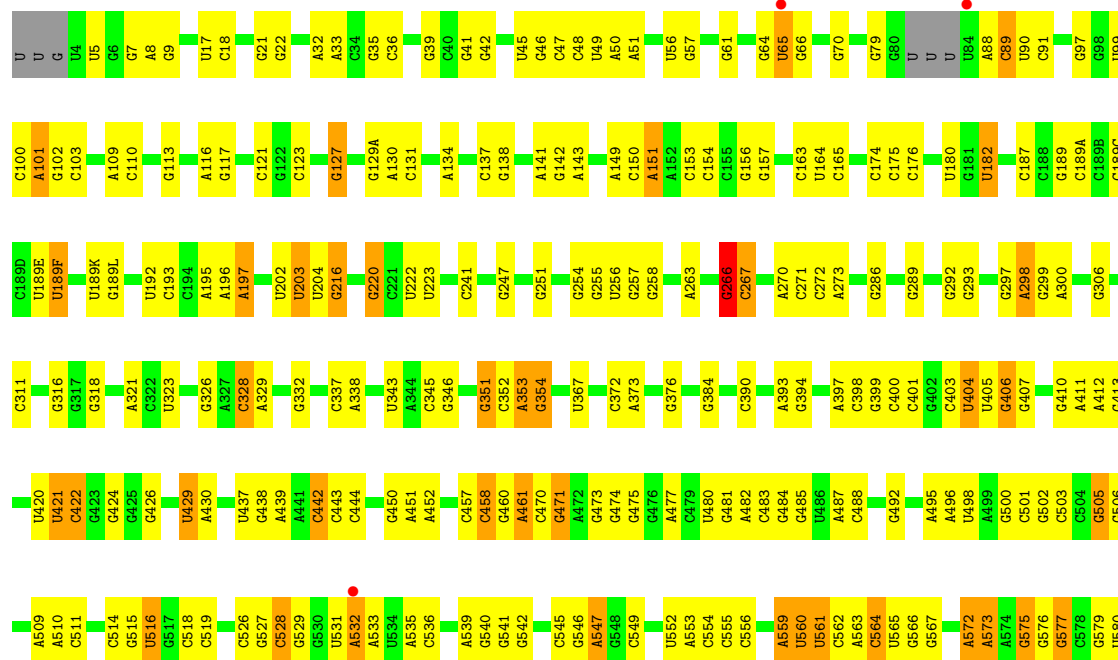


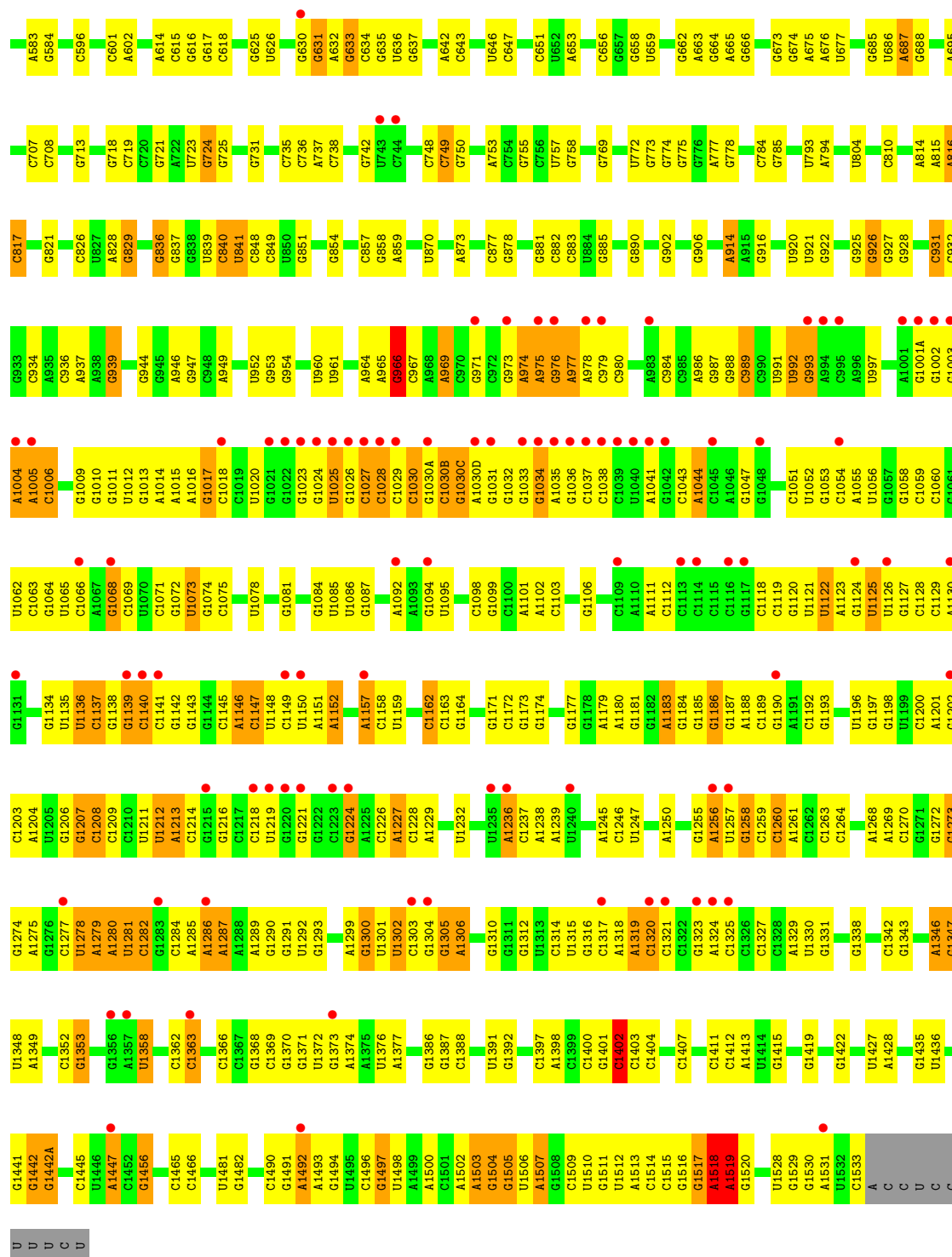
- Molecule 32: 16S Ribosomal RNA

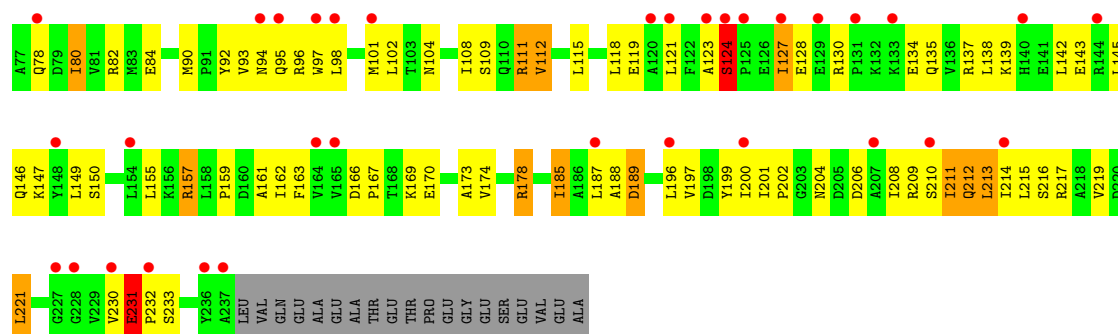




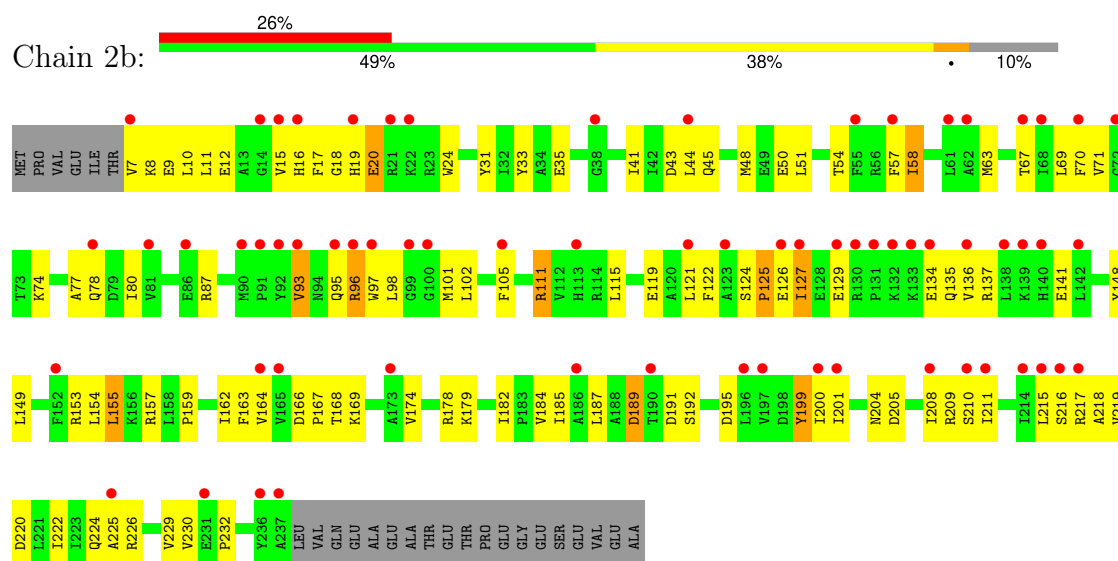
• Molecule 32: 16S Ribosomal RNA



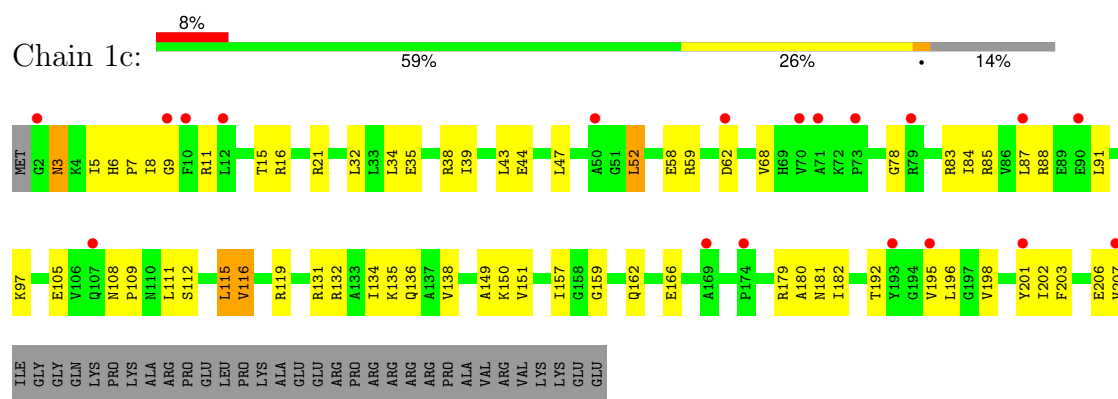




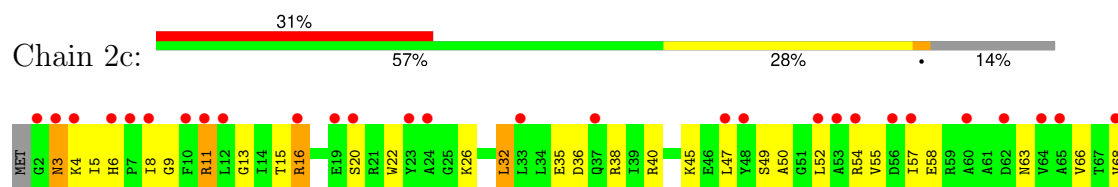
• Molecule 33: 30S ribosomal protein S2

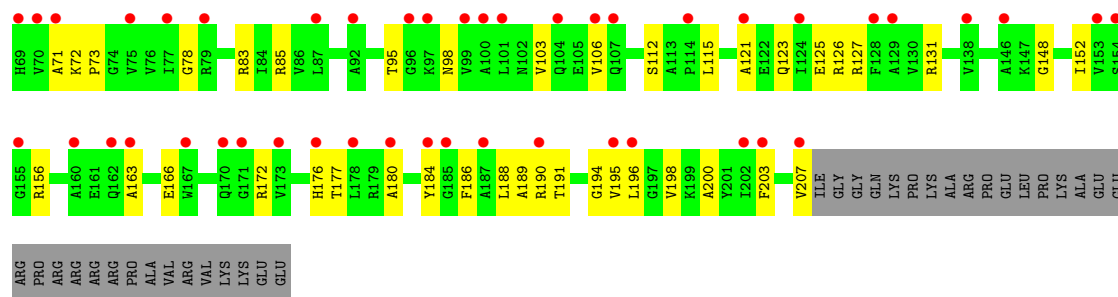


• Molecule 34: 30S ribosomal protein S3

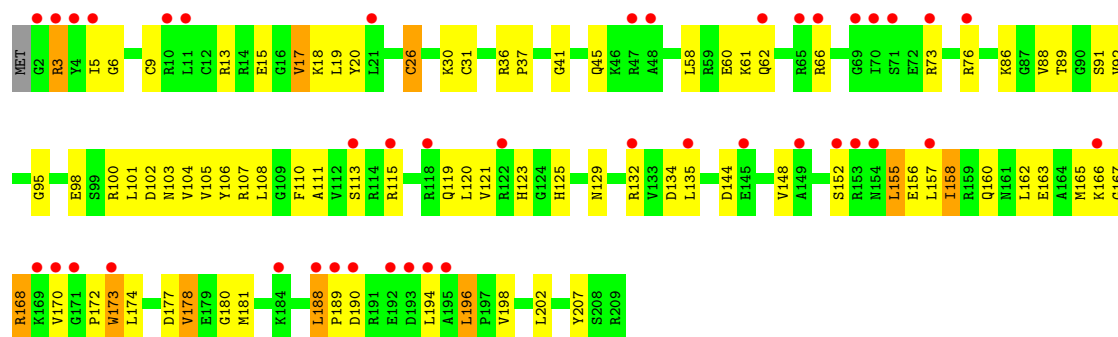


• Molecule 34: 30S ribosomal protein S3

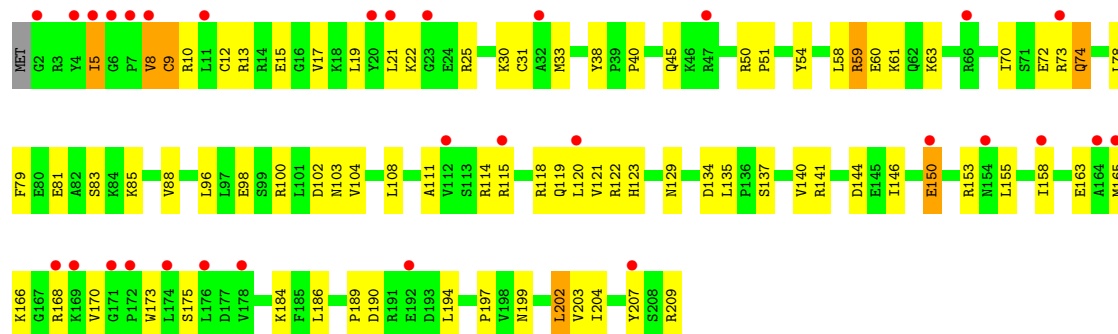




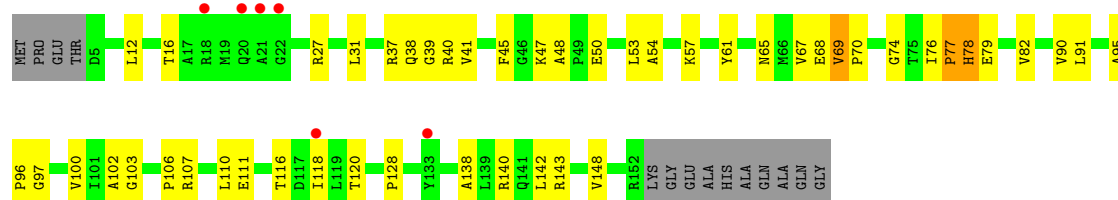
• Molecule 35: 30S ribosomal protein S4



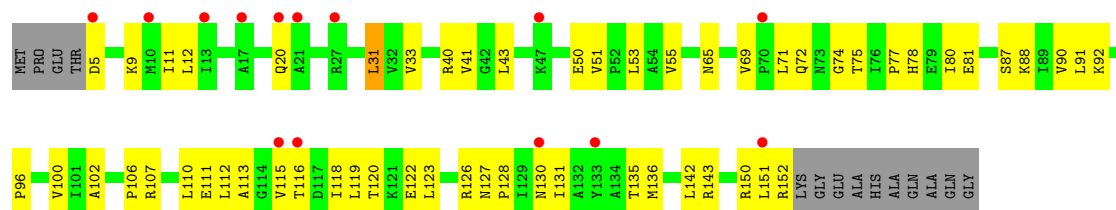
• Molecule 35: 30S ribosomal protein S4



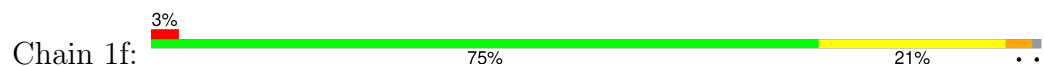
• Molecule 36: 30S ribosomal protein S5



• Molecule 36: 30S ribosomal protein S5



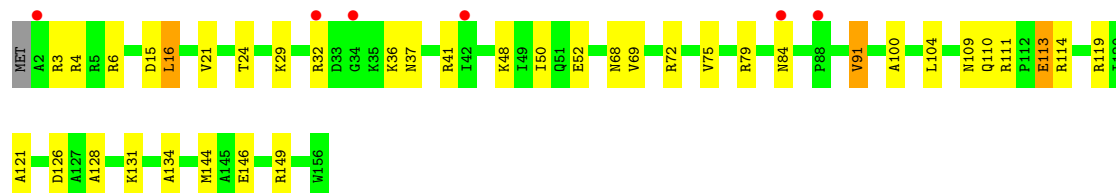
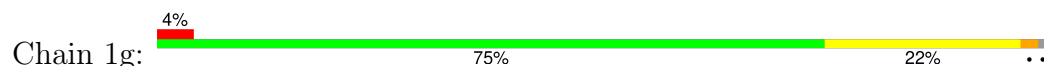
- Molecule 37: 30S ribosomal protein S6



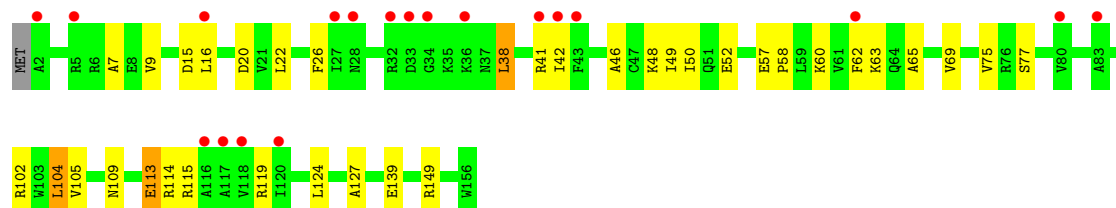
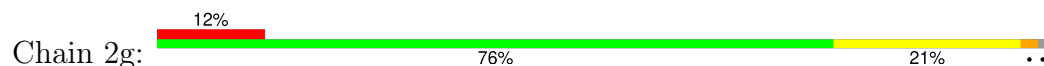
- Molecule 37: 30S ribosomal protein S6



- Molecule 38: 30S ribosomal protein S7

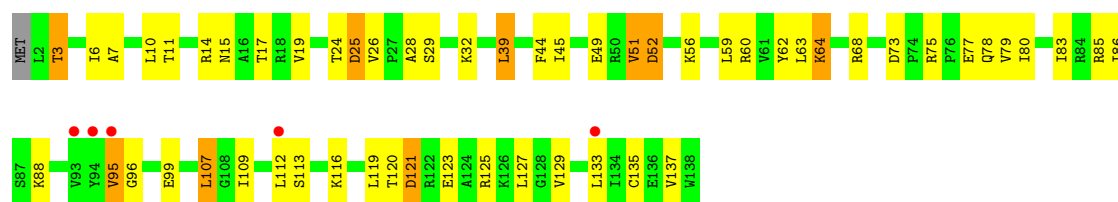


- Molecule 38: 30S ribosomal protein S7

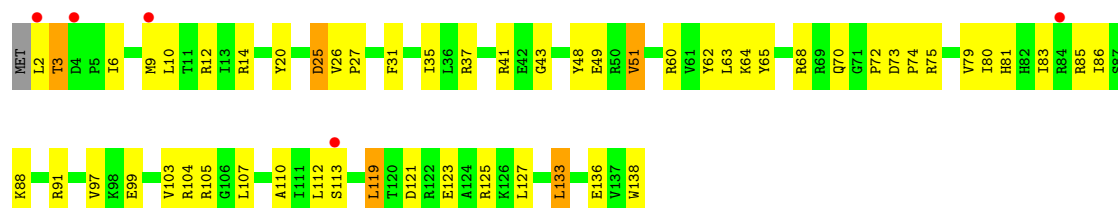


- Molecule 39: 30S ribosomal protein S8

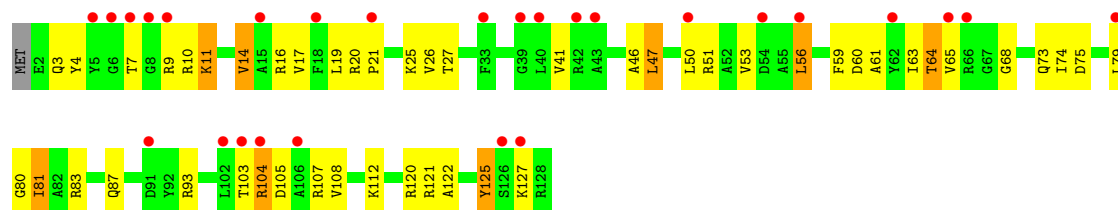




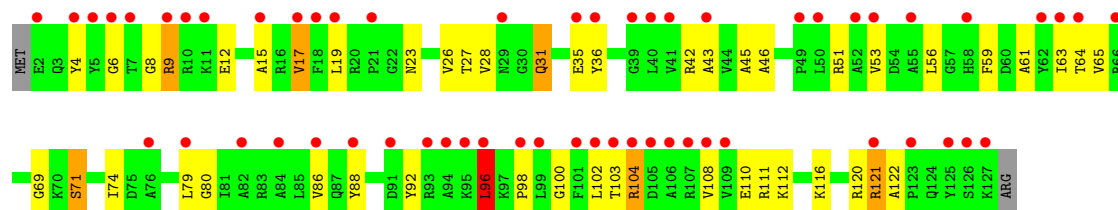
• Molecule 39: 30S ribosomal protein S8



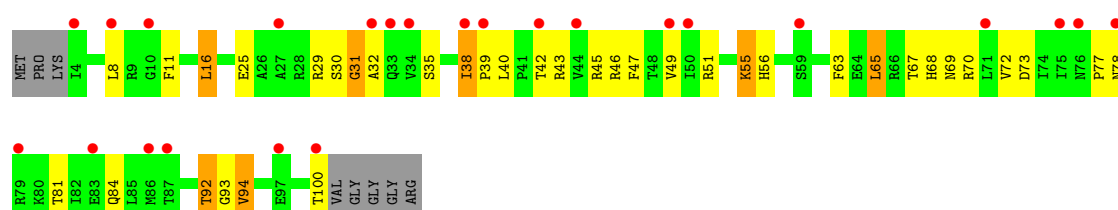
• Molecule 40: 30S ribosomal protein S9



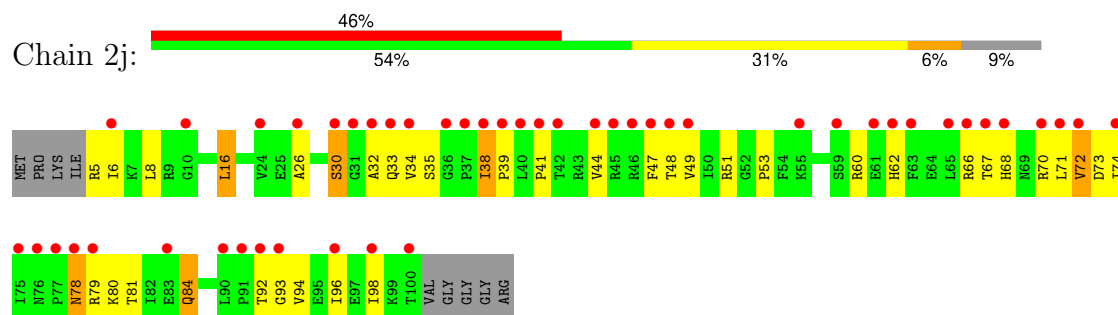
• Molecule 40: 30S ribosomal protein S9



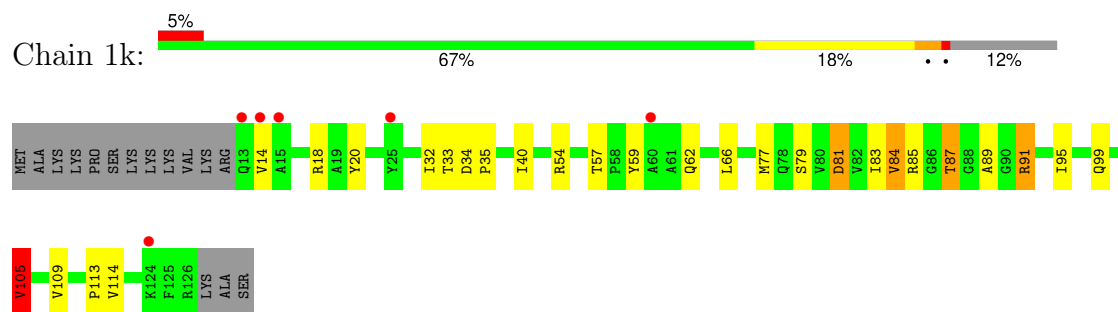
• Molecule 41: 30S ribosomal protein S10



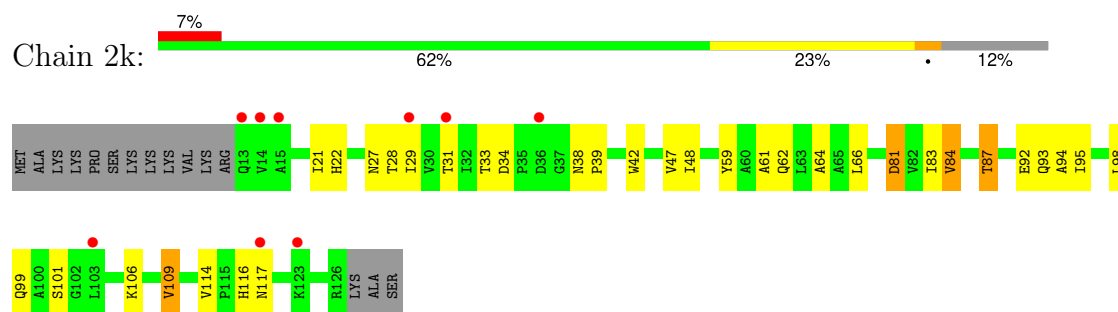
- Molecule 41: 30S ribosomal protein S10



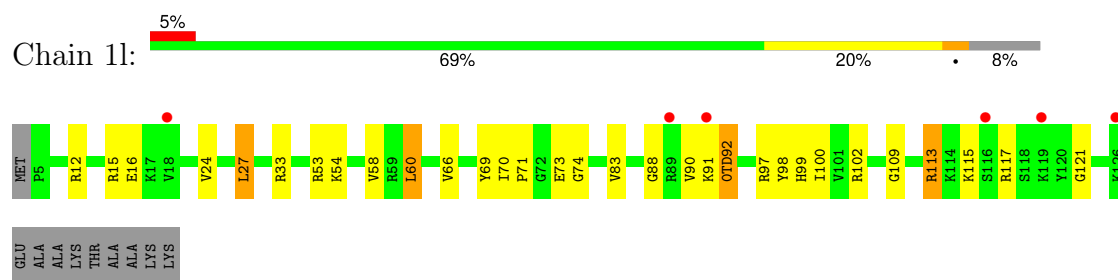
- Molecule 42: 30S ribosomal protein S11



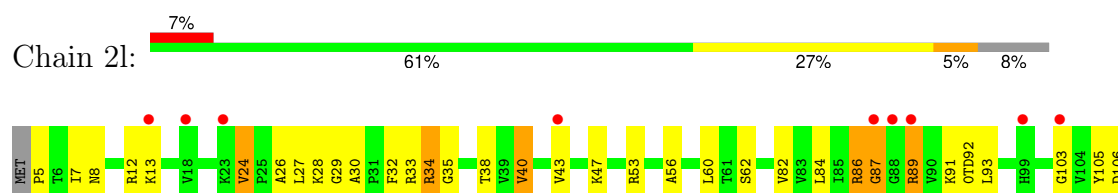
- Molecule 42: 30S ribosomal protein S11



- Molecule 43: 30S ribosomal protein S12



- Molecule 43: 30S ribosomal protein S12

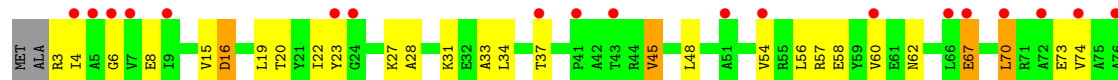




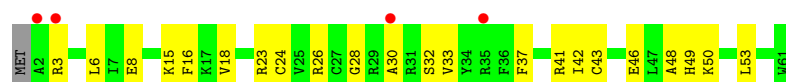
• Molecule 44: 30S ribosomal protein S13



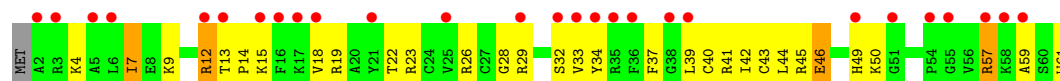
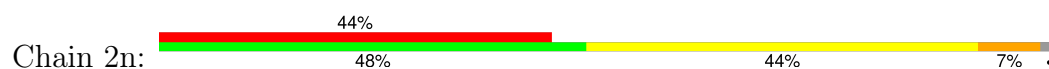
• Molecule 44: 30S ribosomal protein S13



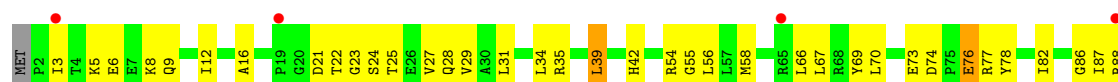
• Molecule 45: 30S ribosomal protein S14 type Z



• Molecule 45: 30S ribosomal protein S14 type Z



• Molecule 46: 30S ribosomal protein S15



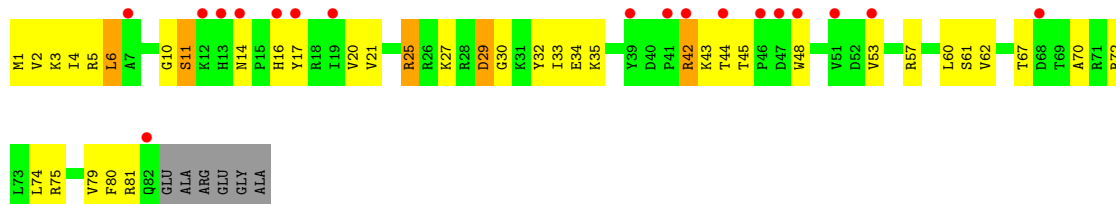
- Molecule 46: 30S ribosomal protein S15

Chain 2o:  79% 17% ..



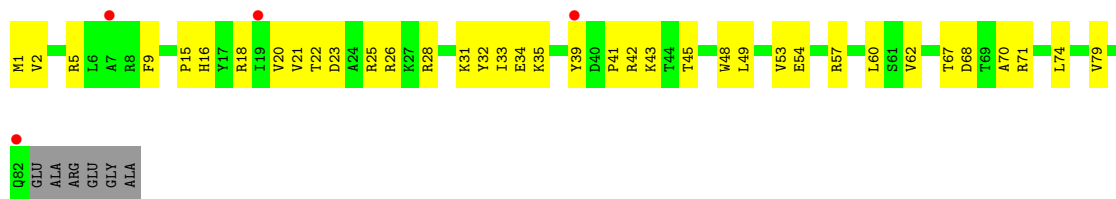
- Molecule 47: 30S ribosomal protein S16

Chain 1p:  20% 49% 39% 6% 7%



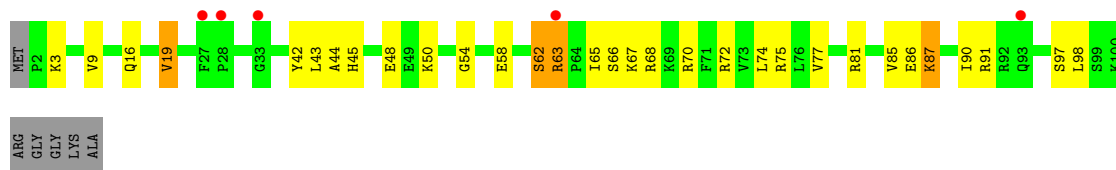
- Molecule 47: 30S ribosomal protein S16

Chain 2p:  5% 51% 42% 7%



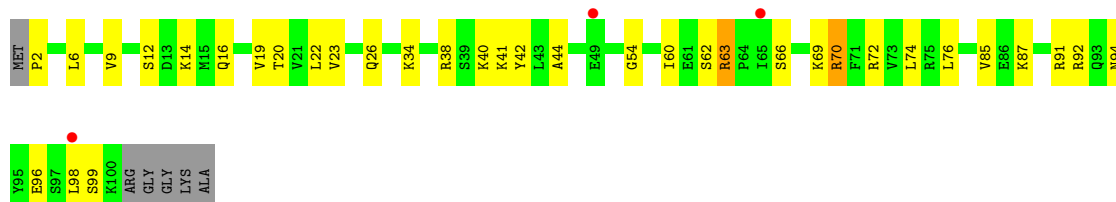
- Molecule 48: 30S ribosomal protein S17

Chain 1q:  5% 65% 26% 6%

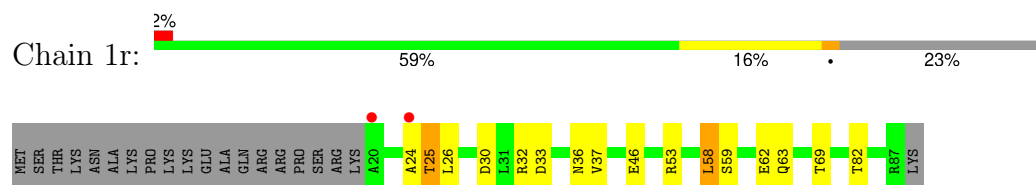


- Molecule 48: 30S ribosomal protein S17

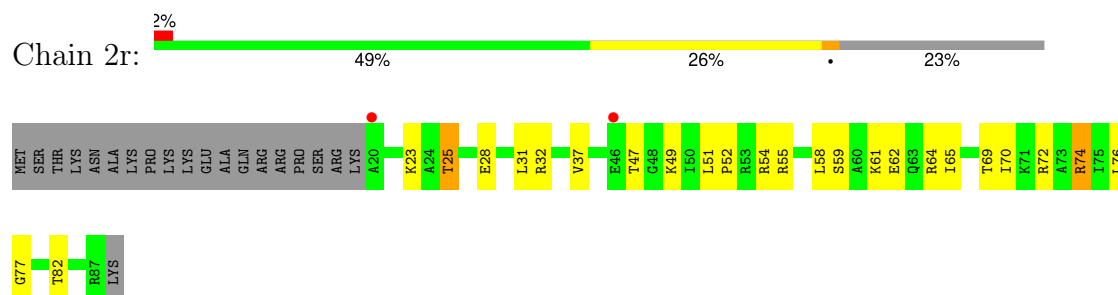
Chain 2q:  3% 61% 31% 6%



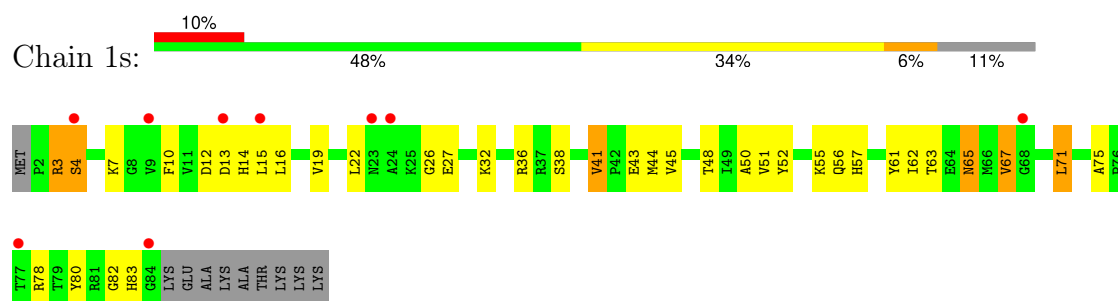
- Molecule 49: 30S ribosomal protein S18



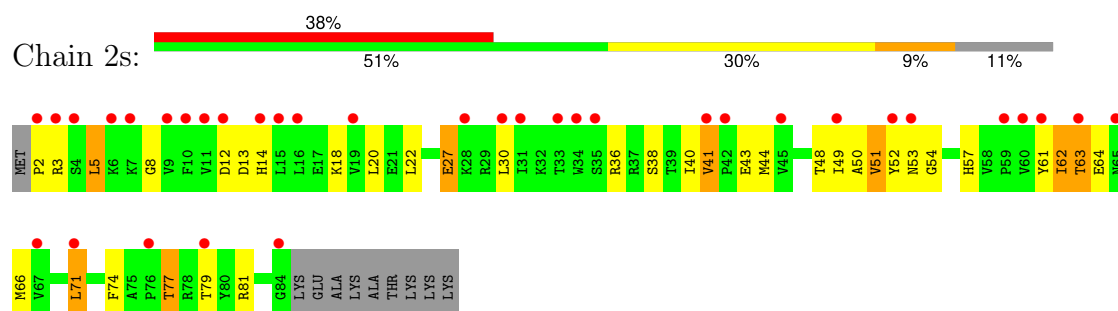
- Molecule 49: 30S ribosomal protein S18



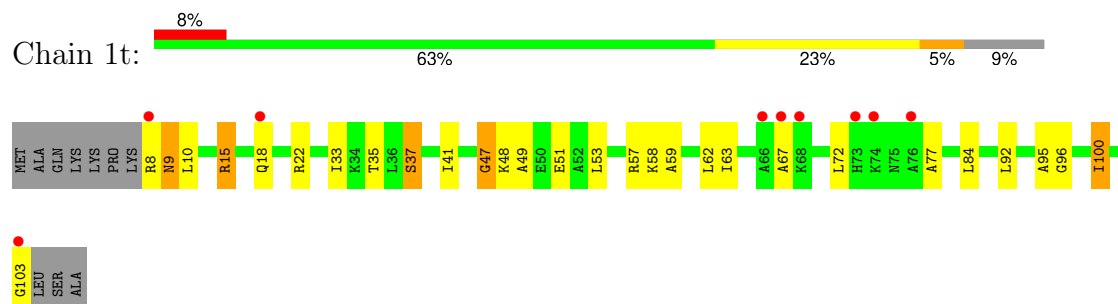
- Molecule 50: 30S ribosomal protein S19



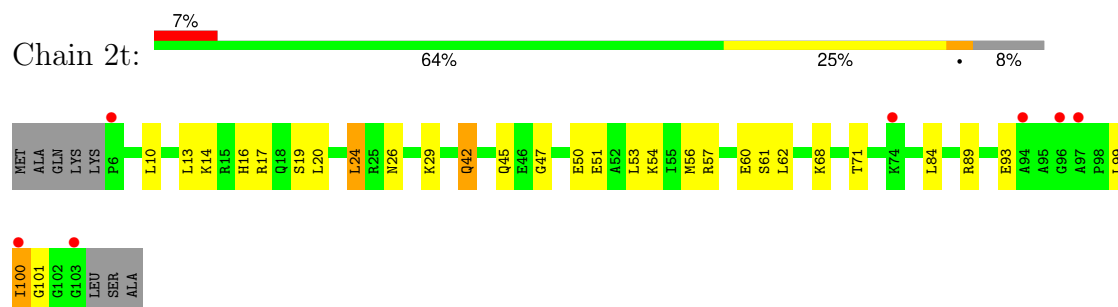
- Molecule 50: 30S ribosomal protein S19



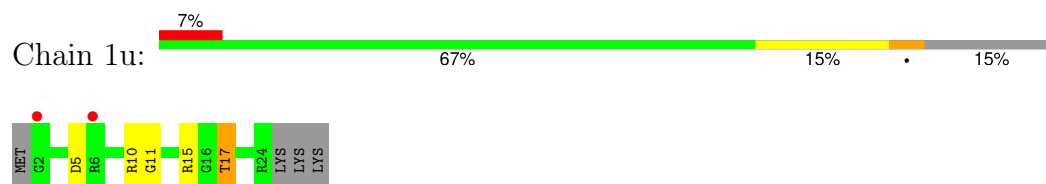
- Molecule 51: 30S ribosomal protein S20



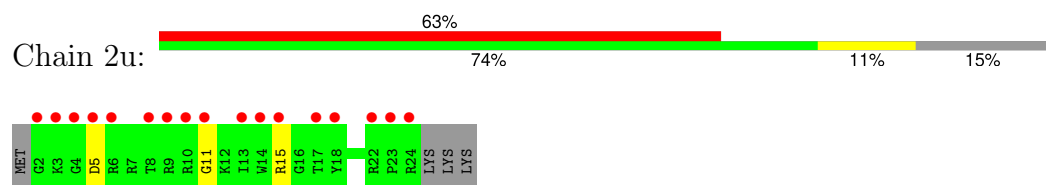
- Molecule 51: 30S ribosomal protein S20



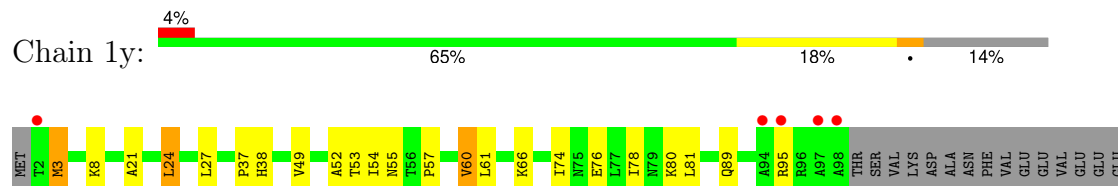
- Molecule 52: 30S ribosomal protein Thx



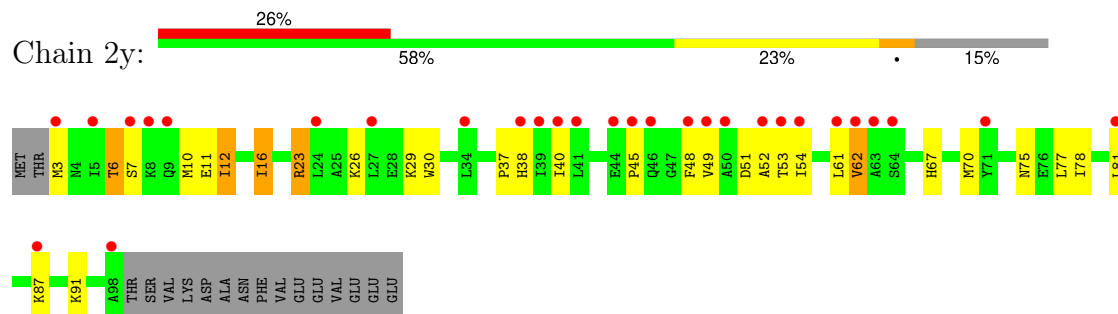
- Molecule 52: 30S ribosomal protein Thx



- Molecule 53: Ribosome-associated inhibitor A



- Molecule 53: Ribosome-associated inhibitor A



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	210.42Å 450.57Å 623.10Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	365.11 – 2.85 365.11 – 2.85	Depositor EDS
% Data completeness (in resolution range)	99.8 (365.11-2.85) 99.9 (365.11-2.85)	Depositor EDS
R_{merge}	0.35	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.26 (at 2.86Å)	Xtriage
Refinement program	PHENIX 1.17.1	Depositor
R, R_{free}	0.212 , 0.265 0.211 , 0.262	Depositor DCC
R_{free} test set	68254 reflections (5.02%)	wwPDB-VP
Wilson B-factor (Å ²)	45.2	Xtriage
Anisotropy	0.075	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.41 , 178.4	EDS
L-test for twinning ²	$\langle L \rangle = 0.42$, $\langle L^2 \rangle = 0.25$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.85	EDS
Total number of atoms	297568	wwPDB-VP
Average B, all atoms (Å ²)	50.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.53% 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: A1CQ7, 0TD, PSU, 5MU, MG, 2MA, ZN, OMG, OMC, G7M, OMU, 2MG, MPD, 4OC, UR3, SF4, MA6, 5MC, M2G

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	0.28	0/69031	0.44	0/107754
1	2A	0.23	0/68903	0.41	1/107552 (0.0%)
2	1B	0.22	0/2876	0.39	0/4486
2	2B	0.21	0/2878	0.37	0/4490
3	1D	0.28	0/2181	0.51	0/2940
3	2D	0.23	0/2186	0.47	0/2944
4	1E	0.40	1/1592 (0.1%)	0.53	0/2149
4	2E	0.22	0/1592	0.47	0/2149
5	1F	0.27	0/1619	0.47	0/2193
5	2F	0.21	0/1615	0.49	0/2188
6	1G	0.22	0/1451	0.43	0/1961
6	2G	0.21	0/1449	0.44	0/1957
7	1H	0.23	0/1356	0.44	0/1834
7	2H	0.19	0/1350	0.39	0/1826
8	1I	0.20	0/1109	0.44	0/1512
8	2I	0.20	0/1091	0.43	1/1490 (0.1%)
9	1N	0.25	0/1148	0.47	0/1547
9	2N	0.20	0/1144	0.41	0/1543
10	1O	0.29	0/943	0.50	0/1269
10	2O	0.22	0/943	0.45	0/1269
11	1P	0.27	0/1152	0.51	0/1533
11	2P	0.22	0/1152	0.49	0/1533
12	1Q	0.26	0/1143	0.46	0/1527
12	2Q	0.20	0/1143	0.40	0/1527
13	1R	0.28	0/982	0.50	0/1312
13	2R	0.23	0/982	0.48	0/1312
14	1S	0.21	0/887	0.49	0/1180
14	2S	0.21	0/880	0.44	0/1172
15	1T	0.28	0/1105	0.51	0/1477
15	2T	0.23	0/1097	0.44	0/1468
16	1U	0.29	0/977	0.46	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
16	2U	0.22	0/977	0.43	0/1301
17	1V	0.25	0/786	0.46	0/1053
17	2V	0.22	0/782	0.45	0/1049
18	1W	0.26	0/897	0.47	0/1205
18	2W	0.22	0/897	0.42	0/1205
19	1X	0.28	0/764	0.52	0/1025
19	2X	0.22	0/764	0.49	0/1025
20	1Y	0.26	0/823	0.52	0/1099
20	2Y	0.22	0/823	0.46	0/1100
21	1Z	0.23	0/1620	0.45	0/2200
21	2Z	0.23	0/1590	0.45	0/2162
22	10	0.26	0/616	0.52	0/821
22	20	0.21	0/616	0.47	0/821
23	11	0.27	0/761	0.45	0/1013
23	21	0.26	0/766	0.44	0/1018
24	12	0.24	0/590	0.46	0/781
24	22	0.19	0/594	0.38	0/785
25	13	0.27	0/474	0.45	0/635
25	23	0.19	0/469	0.40	0/630
26	14	0.27	0/559	0.61	0/754
26	24	0.30	0/549	0.68	2/741 (0.3%)
27	15	0.28	0/473	0.50	0/639
27	25	0.24	0/469	0.44	0/635
28	16	0.24	0/460	0.45	0/613
28	26	0.23	0/456	0.44	0/608
29	17	0.30	0/426	0.50	0/561
29	27	0.24	0/426	0.49	0/561
30	18	0.29	0/525	0.43	0/691
30	28	0.20	0/525	0.41	0/691
31	19	0.30	0/310	0.48	0/407
31	29	0.22	0/310	0.46	0/407
32	1a	0.20	0/35795	0.38	0/55864
32	2a	0.20	1/35890 (0.0%)	0.38	2/56012 (0.0%)
33	1b	0.24	0/1876	0.49	0/2533
33	2b	0.26	0/1860	0.49	0/2518
34	1c	0.20	0/1582	0.43	0/2137
34	2c	0.23	0/1566	0.44	0/2119
35	1d	0.24	0/1695	0.48	0/2274
35	2d	0.20	0/1698	0.44	0/2277
36	1e	0.21	0/1149	0.47	0/1548
36	2e	0.20	0/1149	0.43	0/1548
37	1f	0.20	0/827	0.42	0/1120
37	2f	0.20	0/829	0.44	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	1g	0.19	0/1254	0.40	0/1683
38	2g	0.21	0/1248	0.40	0/1676
39	1h	0.19	0/1118	0.42	0/1506
39	2h	0.19	0/1108	0.43	0/1494
40	1i	0.22	0/1005	0.47	0/1351
40	2i	0.23	0/985	0.48	0/1329
41	1j	0.19	0/732	0.40	0/993
41	2j	0.26	0/723	0.50	0/984
42	1k	0.20	0/849	0.43	0/1150
42	2k	0.20	0/848	0.47	0/1149
43	1l	0.20	0/937	0.43	0/1260
43	2l	0.22	0/937	0.53	1/1260 (0.1%)
44	1m	0.19	0/924	0.46	0/1242
44	2m	0.22	0/905	0.48	0/1217
45	1n	0.20	0/501	0.42	0/664
45	2n	0.21	0/501	0.44	0/664
46	1o	0.19	0/739	0.42	0/985
46	2o	0.19	0/739	0.42	0/985
47	1p	0.21	0/697	0.46	0/939
47	2p	0.21	0/693	0.44	0/935
48	1q	0.22	0/836	0.46	0/1117
48	2q	0.22	0/836	0.44	0/1117
49	1r	0.19	0/560	0.40	0/746
49	2r	0.22	0/560	0.44	0/746
50	1s	0.20	0/663	0.48	0/895
50	2s	0.20	0/660	0.41	0/893
51	1t	0.22	0/734	0.48	0/969
51	2t	0.20	0/736	0.41	0/976
52	1u	0.21	0/203	0.43	0/266
52	2u	0.25	0/203	0.50	0/266
53	1y	0.22	0/776	0.36	0/1048
53	2y	0.19	0/761	0.35	0/1030
All	All	0.24	2/309941 (0.0%)	0.42	7/463239 (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
26	24	0	1
33	1b	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
33	2b	0	1
43	2l	0	1
All	All	0	4

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	1E	143	ASN	CA-C	-11.58	1.47	1.53
32	2a	527	G7M	O3'-P	5.01	1.61	1.56

All (7) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	2l	87	GLY	N-CA-C	6.52	121.13	112.65
26	24	59	PHE	CA-C-N	5.88	132.29	121.70
26	24	59	PHE	C-N-CA	5.88	132.29	121.70
32	2a	266	G	C2'-C3'-O3'	5.88	118.31	109.50
1	2A	1992	G	C2'-C3'-O3'	5.85	118.28	109.50
8	2I	71	ILE	N-CA-C	-5.85	106.07	112.80
32	2a	266	G	P-O3'-C3'	5.46	128.39	120.20

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
33	1b	231	GLU	Peptide
26	24	18	CYS	Peptide
33	2b	199	TYR	Peptide
43	2l	86	ARG	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	31205	587	0
1	2A	61758	0	31153	681	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	1B	2572	0	1305	19	0
2	2B	2573	0	1306	40	0
3	1D	2131	0	2207	61	0
3	2D	2136	0	2218	32	0
4	1E	1559	0	1618	35	0
4	2E	1559	0	1618	52	0
5	1F	1584	0	1625	37	0
5	2F	1580	0	1619	48	0
6	1G	1426	0	1445	39	0
6	2G	1424	0	1441	64	0
7	1H	1330	0	1407	28	0
7	2H	1324	0	1402	34	0
8	1I	1094	0	1127	25	0
8	2I	1076	0	1094	19	0
9	1N	1121	0	1195	21	0
9	2N	1117	0	1184	19	0
10	1O	933	0	996	28	0
10	2O	933	0	996	17	0
11	1P	1135	0	1212	31	0
11	2P	1135	0	1212	26	0
12	1Q	1122	0	1179	21	0
12	2Q	1122	0	1179	27	0
13	1R	968	0	1033	29	0
13	2R	968	0	1033	26	0
14	1S	877	0	938	21	0
14	2S	870	0	923	16	0
15	1T	1091	0	1151	22	0
15	2T	1083	0	1136	25	0
16	1U	959	0	1019	9	0
16	2U	959	0	1019	23	0
17	1V	775	0	841	14	0
17	2V	771	0	830	19	0
18	1W	886	0	940	11	0
18	2W	886	0	940	13	0
19	1X	750	0	814	18	0
19	2X	750	0	814	18	0
20	1Y	810	0	892	14	0
20	2Y	810	0	887	16	0
21	1Z	1587	0	1598	35	0
21	2Z	1557	0	1564	55	0
22	10	608	0	622	12	0
22	20	608	0	622	10	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
23	11	754	0	823	9	0
23	21	759	0	837	24	0
24	12	588	0	643	14	0
24	22	592	0	654	8	0
25	13	469	0	518	5	0
25	23	464	0	514	15	0
26	14	546	0	522	21	0
26	24	536	0	514	29	0
27	15	459	0	476	11	0
27	25	455	0	465	6	0
28	16	453	0	473	4	0
28	26	449	0	469	7	0
29	17	418	0	467	11	0
29	27	418	0	467	2	0
30	18	517	0	582	15	0
30	28	517	0	582	11	0
31	19	307	0	335	3	0
31	29	307	0	335	14	0
32	1a	32246	0	16294	459	0
32	2a	32331	0	16338	501	0
33	1b	1842	0	1862	62	0
33	2b	1825	0	1828	73	0
34	1c	1558	0	1557	40	0
34	2c	1542	0	1517	44	0
35	1d	1665	0	1687	64	0
35	2d	1668	0	1703	68	0
36	1e	1133	0	1191	31	0
36	2e	1133	0	1191	34	0
37	1f	814	0	808	10	0
37	2f	816	0	808	23	0
38	1g	1235	0	1249	26	0
38	2g	1229	0	1238	19	0
39	1h	1098	0	1143	42	0
39	2h	1088	0	1126	38	0
40	1i	986	0	990	34	0
40	2i	966	0	953	32	0
41	1j	719	0	672	22	0
41	2j	710	0	661	28	0
42	1k	834	0	838	16	0
42	2k	833	0	836	19	0
43	1l	932	0	981	18	0
43	2l	932	0	981	28	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
44	1m	914	0	954	31	0
44	2m	895	0	920	27	0
45	1n	492	0	529	12	0
45	2n	492	0	529	24	0
46	1o	728	0	760	21	0
46	2o	728	0	760	9	0
47	1p	681	0	697	30	0
47	2p	677	0	686	25	0
48	1q	823	0	891	22	0
48	2q	823	0	891	24	0
49	1r	555	0	618	9	0
49	2r	555	0	618	17	0
50	1s	648	0	658	28	0
50	2s	645	0	635	27	0
51	1t	732	0	809	17	0
51	2t	733	0	795	19	0
52	1u	199	0	208	3	0
52	2u	199	0	208	2	0
53	1y	764	0	786	15	0
53	2y	749	0	757	19	0
54	10	7	0	0	0	0
54	11	5	0	0	0	0
54	13	4	0	0	0	0
54	14	1	0	0	0	0
54	15	8	0	0	0	0
54	17	5	0	0	0	0
54	18	3	0	0	0	0
54	19	3	0	0	0	0
54	1A	1010	0	0	0	0
54	1B	31	0	0	0	0
54	1D	18	0	0	0	0
54	1E	9	0	0	0	0
54	1F	17	0	0	0	0
54	1G	4	0	0	0	0
54	1H	2	0	0	0	0
54	1N	4	0	0	0	0
54	1O	1	0	0	0	0
54	1P	7	0	0	0	0
54	1Q	5	0	0	0	0
54	1R	9	0	0	0	0
54	1T	4	0	0	0	0
54	1U	6	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	1V	7	0	0	0	0
54	1W	3	0	0	0	0
54	1Y	1	0	0	0	0
54	1Z	1	0	0	0	0
54	1a	277	0	0	0	0
54	1b	1	0	0	0	0
54	1d	5	0	0	0	0
54	1e	2	0	0	0	0
54	1f	2	0	0	0	0
54	1g	3	0	0	0	0
54	1h	2	0	0	0	0
54	1i	1	0	0	0	0
54	1k	1	0	0	0	0
54	1l	3	0	0	0	0
54	1m	1	0	0	0	0
54	1n	2	0	0	0	0
54	1o	2	0	0	0	0
54	1t	2	0	0	0	0
54	1y	3	0	0	0	0
54	20	2	0	0	0	0
54	21	3	0	0	0	0
54	23	1	0	0	0	0
54	25	1	0	0	0	0
54	26	2	0	0	0	0
54	28	1	0	0	0	0
54	29	1	0	0	0	0
54	2A	740	0	0	0	0
54	2B	20	0	0	0	0
54	2D	6	0	0	0	0
54	2E	7	0	0	0	0
54	2F	4	0	0	0	0
54	2G	3	0	0	0	0
54	2I	1	0	0	0	0
54	2O	1	0	0	0	0
54	2P	3	0	0	0	0
54	2Q	4	0	0	0	0
54	2R	2	0	0	0	0
54	2T	4	0	0	0	0
54	2U	1	0	0	0	0
54	2V	3	0	0	0	0
54	2W	3	0	0	0	0
54	2X	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	2Y	1	0	0	0	0
54	2a	187	0	0	0	0
54	2e	1	0	0	0	0
54	2f	1	0	0	0	0
54	2h	1	0	0	0	0
54	2j	1	0	0	0	0
54	2k	2	0	0	0	0
54	2l	1	0	0	0	0
54	2n	1	0	0	0	0
54	2p	1	0	0	0	0
54	2t	1	0	0	0	0
55	1A	38	0	0	0	0
55	2A	38	0	0	0	0
56	18	8	0	14	2	0
56	1A	8	0	14	1	0
56	1T	8	0	14	1	0
56	1a	8	0	11	3	0
56	2A	16	0	28	1	0
56	2B	8	0	14	0	0
57	1B	12	0	12	3	0
57	1F	12	0	12	3	0
58	14	1	0	0	0	0
58	15	1	0	0	0	0
58	16	1	0	0	0	0
58	19	1	0	0	0	0
58	1Y	1	0	0	0	0
58	1n	1	0	0	0	0
58	24	1	0	0	0	0
58	25	1	0	0	0	0
58	26	1	0	0	0	0
58	29	1	0	0	0	0
58	2Y	1	0	0	0	0
58	2n	1	0	0	0	0
59	1d	8	0	0	0	0
59	2d	8	0	0	3	0
60	10	27	0	0	2	0
60	11	23	0	0	0	0
60	12	18	0	0	3	0
60	13	25	0	0	0	0
60	14	2	0	0	0	0
60	15	25	0	0	2	0
60	16	21	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	17	14	0	0	0	0
60	18	32	0	0	3	0
60	19	10	0	0	0	0
60	1A	3924	0	0	130	0
60	1B	103	0	0	8	0
60	1D	114	0	0	7	0
60	1E	82	0	0	2	0
60	1F	72	0	0	3	0
60	1G	16	0	0	0	0
60	1H	19	0	0	0	0
60	1I	8	0	0	0	0
60	1N	54	0	0	2	0
60	1O	26	0	0	1	0
60	1P	63	0	0	3	0
60	1Q	39	0	0	1	0
60	1R	32	0	0	2	0
60	1S	8	0	0	0	0
60	1T	39	0	0	1	0
60	1U	47	0	0	4	0
60	1V	37	0	0	1	0
60	1W	27	0	0	1	0
60	1X	21	0	0	0	0
60	1Y	19	0	0	0	0
60	1Z	14	0	0	2	0
60	1a	576	0	0	41	0
60	1b	1	0	0	0	0
60	1d	11	0	0	1	0
60	1e	10	0	0	0	0
60	1f	1	0	0	0	0
60	1j	2	0	0	0	0
60	1l	5	0	0	0	0
60	1m	2	0	0	0	0
60	1o	4	0	0	0	0
60	1p	4	0	0	0	0
60	1t	2	0	0	0	0
60	1y	4	0	0	1	0
60	20	6	0	0	0	0
60	21	17	0	0	1	0
60	22	1	0	0	0	0
60	23	3	0	0	1	0
60	24	2	0	0	1	0
60	25	8	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	26	6	0	0	1	0
60	27	7	0	0	0	0
60	28	14	0	0	1	0
60	29	1	0	0	0	0
60	2A	2074	0	0	112	0
60	2B	44	0	0	2	0
60	2D	55	0	0	1	0
60	2E	37	0	0	5	0
60	2F	26	0	0	2	0
60	2G	7	0	0	1	0
60	2H	3	0	0	0	0
60	2I	3	0	0	1	0
60	2N	7	0	0	1	0
60	2O	19	0	0	0	0
60	2P	23	0	0	1	0
60	2Q	19	0	0	0	0
60	2R	19	0	0	3	0
60	2S	4	0	0	0	0
60	2T	9	0	0	0	0
60	2U	13	0	0	2	0
60	2V	7	0	0	0	0
60	2W	18	0	0	1	0
60	2X	7	0	0	0	0
60	2Y	3	0	0	0	0
60	2Z	14	0	0	2	0
60	2a	438	0	0	26	0
60	2d	4	0	0	0	0
60	2e	1	0	0	0	0
60	2f	1	0	0	0	0
60	2j	2	0	0	1	0
60	2l	6	0	0	0	0
60	2m	1	0	0	0	0
60	2n	1	0	0	0	0
60	2o	3	0	0	0	0
60	2p	2	0	0	0	0
60	2q	1	0	0	0	0
60	2r	4	0	0	0	0
60	2t	2	0	0	0	0
60	2y	4	0	0	0	0
All	All	297568	0	194515	4119	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 9.

All (4119) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1082:U:H3	1:1A:1086:A:N6	1.40	1.18
32:2a:1003:G:H2'	32:2a:1004:A:H4'	1.41	1.01
1:1A:1082:U:O4	1:1A:1086:A:N1	1.95	0.99
15:1T:55:ASN:H	15:1T:59:THR:HG22	1.30	0.94
1:1A:1798:U:H5'	3:1D:259:THR:HG22	1.47	0.93
4:2E:52:LEU:HD12	4:2E:76:ARG:HD3	1.51	0.92
33:2b:155:LEU:HD11	33:2b:159:PRO:HG3	1.51	0.91
1:1A:1082:U:H3	1:1A:1086:A:H61	0.93	0.90
6:2G:112:PRO:HG3	26:24:43:TYR:HE2	1.38	0.88
3:2D:71:ASP:OD2	3:2D:103:ARG:NH2	2.07	0.87
29:17:24:THR:HG22	29:17:27:GLY:H	1.40	0.86
1:1A:2561:A:H2	10:1O:23:ARG:HH21	1.19	0.86
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.08	0.86
1:1A:675:A:OP2	60:1A:4111:HOH:O	1.93	0.85
1:1A:2822:G:OP2	60:1A:4112:HOH:O	1.95	0.84
1:1A:631:A:OP1	11:1P:65:ARG:NH1	2.10	0.84
10:2O:48:PRO:HB3	32:2a:1422:G:H5''	1.58	0.84
1:2A:958:U:OP2	12:2Q:14:ARG:NH1	2.10	0.84
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.10	0.84
40:1i:4:TYR:HB2	40:1i:19:LEU:HB2	1.60	0.82
1:2A:974:G:N2	60:2A:3831:HOH:O	2.12	0.82
1:2A:962:G:OP1	60:2A:3807:HOH:O	1.97	0.81
1:2A:2144:U:HO2'	1:2A:2147:G:H1	1.22	0.81
1:1A:1009:A:OP2	9:1N:37:LYS:NZ	2.13	0.81
1:1A:2759:G:N7	60:1A:4144:HOH:O	2.13	0.81
32:1a:406:G:H5'	35:1d:5:ILE:HD11	1.63	0.81
19:2X:35:THR:HG22	19:2X:37:THR:H	1.45	0.81
32:2a:1500:A:OP1	60:2a:3202:HOH:O	1.98	0.81
1:1A:517:C:OP1	27:15:16:ARG:NH2	2.14	0.80
11:1P:42:SER:O	60:1P:301:HOH:O	1.98	0.80
1:2A:1041:C:H42	1:2A:1114:G:H1	1.30	0.80
4:2E:110:GLY:O	60:2R:301:HOH:O	2.00	0.80
32:2a:677:U:H3	32:2a:713:G:H22	1.28	0.80
7:1H:124:GLU:HG3	7:1H:132:ARG:HB3	1.61	0.80
32:1a:73:G:H1	32:1a:96:U:H3	1.28	0.80
35:1d:107:ARG:HH21	35:1d:194:LEU:HD21	1.46	0.80
32:1a:330:C:OP2	60:1a:3306:HOH:O	2.00	0.80
1:1A:11:G:H2'	1:1A:12:U:H5''	1.65	0.79
1:1A:1024:G:OP2	60:1A:4114:HOH:O	2.00	0.79
32:1a:1108:G:O6	60:1a:3307:HOH:O	2.01	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:37:ARG:HH12	36:1e:111:GLU:HG2	1.45	0.79
1:1A:1634:A:OP2	60:1A:4113:HOH:O	1.98	0.79
6:1G:161:THR:HG22	6:1G:163:ALA:H	1.47	0.79
1:2A:2589:A:OP1	60:2A:3808:HOH:O	2.01	0.79
1:1A:1064:C:H3'	1:1A:1065:U:H5''	1.65	0.79
50:2s:50:ALA:HB1	50:2s:57:HIS:HB3	1.62	0.79
20:1Y:92:ASN:HB2	20:1Y:94:LYS:H	1.47	0.79
32:1a:664:G:H22	32:1a:741:G:H1	1.31	0.78
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.47	0.78
32:2a:1441:G:H5''	32:2a:1442:G:H5'	1.64	0.78
37:2f:67:MET:HE1	37:2f:75:LEU:HD22	1.66	0.78
1:1A:2821:A:OP2	60:1A:4112:HOH:O	2.01	0.78
32:1a:1373:G:H5''	38:1g:36:LYS:HE2	1.66	0.78
3:1D:13:ARG:NH1	3:1D:16:MET:SD	2.56	0.78
21:2Z:99:TYR:HB3	21:2Z:123:ASP:HB2	1.66	0.78
16:2U:89:GLU:HG2	17:2V:50:PRO:HB2	1.66	0.78
10:1O:35:VAL:HG11	10:1O:103:ALA:HB3	1.66	0.78
32:2a:1189:C:OP1	41:2j:51:ARG:NH2	2.16	0.78
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.65	0.77
33:2b:178:ARG:HH22	39:2h:74:PRO:HB3	1.49	0.77
1:1A:2137:C:H42	1:1A:2154:G:H1	1.28	0.77
14:1S:59:LYS:HD2	14:1S:60:GLY:H	1.49	0.77
1:2A:963:U:OP2	60:2A:3807:HOH:O	2.03	0.77
1:1A:1312:U:OP2	19:1X:63:LYS:NZ	2.17	0.77
39:1h:116:LYS:HD3	39:1h:127:LEU:HD23	1.66	0.77
34:2c:47:LEU:HB2	34:2c:52:LEU:HD12	1.67	0.77
1:2A:1604:C:OP2	60:2A:3809:HOH:O	2.02	0.77
33:1b:69:LEU:HB3	33:1b:162:ILE:HG22	1.66	0.76
1:2A:2125:G:O2'	1:2A:2173:A:N6	2.18	0.76
11:2P:126:VAL:HG12	11:2P:148:LEU:HD23	1.66	0.76
21:2Z:28:MET:HE3	21:2Z:37:VAL:HG11	1.67	0.76
32:2a:559:A:H4'	32:2a:560:U:H3'	1.67	0.76
42:1k:34:ASP:HB3	42:1k:40:ILE:HD11	1.66	0.76
21:2Z:152:ALA:HB1	21:2Z:163:LEU:HD21	1.66	0.76
32:2a:975:A:H4'	32:2a:976:G:H5''	1.66	0.76
16:1U:34:LYS:NZ	16:1U:37:GLU:OE1	2.19	0.76
43:2l:32:PHE:HB3	43:2l:84:LEU:HD11	1.68	0.76
26:14:40:HIS:HB3	26:14:43:TYR:HD2	1.51	0.76
32:1a:328:C:OP1	60:1a:3308:HOH:O	2.02	0.76
33:1b:84:GLU:HB3	33:1b:219:VAL:HG21	1.67	0.76
1:2A:775:G:O3'	60:2A:3811:HOH:O	2.04	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:13:8:LEU:HD13	25:13:31:LEU:HD23	1.66	0.76
1:1A:1082:U:N3	1:1A:1086:A:N6	2.22	0.75
1:2A:572:A:OP2	17:2V:78:LYS:NZ	2.19	0.75
1:2A:1568:G:N7	60:2A:3870:HOH:O	2.19	0.75
1:2A:2427:C:OP1	60:2A:3810:HOH:O	2.02	0.75
26:14:57:GLU:HB2	26:14:58:ARG:HA	1.66	0.75
32:1a:964:A:OP1	60:1a:3310:HOH:O	2.04	0.75
7:2H:11:VAL:HG13	7:2H:15:VAL:HG23	1.68	0.75
33:1b:185:ILE:HG22	33:1b:199:TYR:HB2	1.69	0.75
32:2a:536:C:OP2	60:2a:3203:HOH:O	2.05	0.75
1:1A:2602:A:H1'	1:1A:2603:G:H5''	1.69	0.74
6:2G:9:ARG:NH1	6:2G:13:GLU:OE2	2.20	0.74
32:1a:803:G:OP1	60:1a:3311:HOH:O	2.05	0.74
36:1e:100:VAL:O	36:1e:107:ARG:NH2	2.20	0.74
1:2A:805:G:OP1	60:2A:3812:HOH:O	2.04	0.74
3:1D:221:VAL:HG22	3:1D:226:MET:HE2	1.68	0.74
53:1y:49:VAL:HG22	53:1y:66:LYS:HG2	1.69	0.74
3:1D:69:ARG:NH2	3:1D:128:GLY:O	2.20	0.74
32:1a:437:U:H5'	35:1d:155:LEU:HD21	1.69	0.74
32:1a:877:C:OP1	39:1h:88:LYS:NZ	2.16	0.74
21:2Z:157:LEU:HD11	21:2Z:163:LEU:HB2	1.69	0.74
32:2a:1500:A:OP2	60:2a:3204:HOH:O	2.05	0.74
36:2e:78:HIS:HE1	36:2e:143:ARG:H	1.36	0.74
25:13:3:ARG:NH1	25:13:60:GLU:OE2	2.19	0.74
26:24:46:GLN:HE21	26:24:48:ARG:HH22	1.34	0.74
1:2A:749:C:OP2	60:2A:3813:HOH:O	2.05	0.74
1:2A:947:G:OP2	60:2A:3814:HOH:O	2.05	0.74
1:2A:1602:U:O4	60:2A:3816:HOH:O	2.06	0.74
32:1a:975:A:H4'	32:1a:976:G:H5''	1.69	0.74
39:1h:29:SER:HB3	39:1h:32:LYS:HG3	1.70	0.74
7:2H:124:GLU:HB2	7:2H:132:ARG:HB3	1.68	0.74
11:1P:59:LEU:HD11	30:18:10:ALA:HB2	1.70	0.74
32:2a:1285:A:H4'	32:2a:1286:A:H5'	1.70	0.74
30:18:8:LYS:NZ	60:18:201:HOH:O	2.21	0.74
32:1a:1300:G:N7	60:1a:3334:HOH:O	2.21	0.74
32:2a:1402:4OC:HM22	32:2a:1403:C:H5'	1.70	0.74
39:2h:64:LYS:HG2	39:2h:79:VAL:HG21	1.70	0.74
26:24:59:PHE:HA	26:24:60:GLN:C	2.14	0.73
1:2A:2575:C:OP2	60:2A:3815:HOH:O	2.05	0.73
1:1A:1753:G:N7	60:1A:4198:HOH:O	2.21	0.73
1:1A:2746:U:OP2	60:1A:4116:HOH:O	2.06	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1633:G:OP2	60:2A:3817:HOH:O	2.06	0.73
1:2A:2547:U:O2	10:2O:23:ARG:NH2	2.20	0.73
32:1a:201:C:H42	32:1a:216:G:H1	1.34	0.73
32:1a:547:A:OP1	60:1a:3312:HOH:O	2.05	0.73
33:1b:231:GLU:HB3	33:1b:232:PRO:HD3	1.69	0.73
32:2a:407:G:OP1	35:2d:115:ARG:NH2	2.22	0.73
33:2b:119:GLU:HG3	33:2b:153:ARG:HH22	1.53	0.73
32:1a:803:G:OP1	60:1a:3309:HOH:O	2.04	0.73
32:2a:286:G:N7	60:2a:3218:HOH:O	2.21	0.73
32:2a:673:G:H2'	32:2a:674:G:C8	2.24	0.73
1:1A:1496:A:N7	60:1A:4203:HOH:O	2.22	0.72
46:1o:54:ARG:HG2	46:1o:58:MET:HE2	1.71	0.72
1:1A:1647:G:OP1	60:1A:4119:HOH:O	2.08	0.72
1:1A:2144:U:H2'	1:1A:2147:G:H1	1.54	0.72
43:1l:53:ARG:HB3	43:1l:69:TYR:HE1	1.54	0.72
1:1A:1721:G:H8	1:1A:1741:A:H62	1.35	0.72
20:1Y:102:CYS:SG	20:1Y:103:GLY:N	2.62	0.72
47:1p:53:VAL:HG13	47:1p:79:VAL:HG12	1.69	0.72
1:2A:1047:G:H2'	1:2A:1110:G:H22	1.54	0.72
1:2A:2683:C:OP1	15:2T:53:ARG:NH2	2.23	0.72
32:2a:931:C:H42	32:2a:1386:G:H1	1.35	0.72
34:2c:78:GLY:HA3	34:2c:83:ARG:H	1.54	0.72
4:1E:28:ALA:HB3	4:1E:93:VAL:HG12	1.70	0.72
32:1a:472:A:H5''	47:1p:80:PHE:HB3	1.71	0.72
1:2A:1007:C:OP1	9:2N:35:ARG:NH1	2.22	0.72
1:1A:220:G:O6	60:1A:4115:HOH:O	2.06	0.72
17:2V:40:LEU:HB2	17:2V:46:VAL:HG13	1.72	0.72
1:1A:326:G:OP2	60:1A:4121:HOH:O	2.08	0.72
3:1D:242:ARG:HG3	3:1D:242:ARG:HH11	1.54	0.72
35:1d:60:GLU:HG3	35:1d:202:LEU:HD12	1.71	0.72
32:2a:964:A:OP1	60:2a:3205:HOH:O	2.07	0.72
10:1O:28:SER:OG	60:1O:301:HOH:O	2.08	0.72
1:2A:775:G:N3	60:2A:3886:HOH:O	2.21	0.72
1:1A:1968:G:OP1	60:1A:4122:HOH:O	2.08	0.72
14:1S:25:ARG:NH1	14:1S:42:ASP:OD1	2.22	0.72
32:1a:394:G:O6	60:1a:3313:HOH:O	2.06	0.72
32:1a:812:C:N3	60:1a:3339:HOH:O	2.22	0.72
1:2A:2285:C:OP2	28:26:6:ARG:NH1	2.23	0.72
50:1s:38:SER:HB2	50:1s:71:LEU:HD12	1.72	0.71
41:2j:49:VAL:HG23	45:2n:41:ARG:HB2	1.72	0.71
47:1p:20:VAL:HG23	47:1p:35:LYS:HA	1.70	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:547:A:OP1	60:2a:3206:HOH:O	2.07	0.71
32:2a:584:G:H5'	48:2q:91:ARG:HH22	1.55	0.71
1:2A:1332:G:OP1	60:2A:3819:HOH:O	2.08	0.71
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.71	0.71
1:2A:1314:C:OP1	60:2A:3819:HOH:O	2.08	0.71
1:2A:2640:G:O3'	9:2N:74:ARG:NH2	2.18	0.71
2:1B:8:U:O3'	14:1S:25:ARG:NH2	2.23	0.71
1:1A:2482:G:O6	60:1A:4129:HOH:O	2.09	0.71
1:2A:1031:G:H5''	31:29:8:LYS:HE3	1.72	0.71
8:2I:61:ARG:HA	8:2I:64:GLU:HB3	1.73	0.71
32:2a:406:G:H21	35:2d:119:GLN:HE22	1.37	0.71
32:2a:1086:U:H3	32:2a:1099:G:H22	1.38	0.71
32:2a:1366:C:O2'	41:2j:60:ARG:NH2	2.23	0.71
1:1A:1271:G:OP2	60:1A:4119:HOH:O	2.08	0.71
1:1A:1315:C:OP2	60:1A:4125:HOH:O	2.08	0.71
1:1A:2137:C:N4	1:1A:2154:G:H1	1.89	0.71
1:1A:2749:A:OP1	7:1H:3:ARG:NH1	2.24	0.71
11:1P:63:PRO:HD3	30:18:27:THR:HG22	1.71	0.71
2:2B:103:G:H21	21:2Z:73:GLN:HE22	1.38	0.71
4:1E:105:THR:OG1	4:1E:199:ARG:NH2	2.24	0.71
32:1a:780:A:OP2	60:1a:3315:HOH:O	2.09	0.71
1:2A:1890:A:OP2	60:2A:3820:HOH:O	2.08	0.71
30:28:34:TRP:O	60:28:201:HOH:O	2.08	0.71
32:2a:1292:U:OP2	38:2g:41:ARG:NH2	2.24	0.71
1:2A:143:G:H4'	19:2X:35:THR:HG21	1.72	0.70
1:1A:412:A:OP2	60:1A:4118:HOH:O	2.07	0.70
16:1U:59:ARG:NH1	60:1U:301:HOH:O	2.23	0.70
32:1a:405:U:OP2	35:1d:3:ARG:NH2	2.24	0.70
32:2a:1518:MA6:H93	32:2a:1519:MA6:H102	1.70	0.70
1:1A:1797:C:O2	60:1A:4123:HOH:O	2.08	0.70
1:2A:1604:C:OP1	60:2A:3818:HOH:O	2.07	0.70
1:1A:2849:U:OP2	15:1T:95:ARG:NH1	2.25	0.70
15:1T:51:ARG:NH1	60:1T:301:HOH:O	2.22	0.70
39:1h:120:THR:H	39:1h:123:GLU:HB2	1.57	0.70
32:2a:656:C:O2'	46:2o:28:GLN:NE2	2.24	0.70
1:1A:1185:C:OP2	60:1A:4124:HOH:O	2.08	0.70
1:1A:2305:A:N7	60:1A:4223:HOH:O	2.24	0.70
40:2i:121:ARG:NH1	40:2i:122:ALA:O	2.25	0.70
1:1A:217:G:OP2	60:1A:4132:HOH:O	2.10	0.70
17:1V:74:LYS:HB2	17:1V:83:ARG:HB2	1.72	0.70
32:1a:901:A:OP2	60:1a:3316:HOH:O	2.09	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:631:A:OP1	11:2P:65:ARG:NH1	2.23	0.70
1:2A:1603:A:OP1	60:2A:3809:HOH:O	2.09	0.70
1:1A:2683:C:O2	10:1O:70:LYS:NZ	2.21	0.70
1:1A:995:C:OP1	60:1A:4131:HOH:O	2.10	0.70
22:10:27:GLU:HG3	22:10:68:GLU:HA	1.74	0.70
32:1a:645:C:OP2	60:1a:3314:HOH:O	2.09	0.70
35:2d:12:CYS:HB3	59:2d:501:SF4:S2	2.32	0.70
1:1A:1781:C:O2'	60:1A:4117:HOH:O	2.06	0.70
1:1A:2876:G:OP1	60:1A:4126:HOH:O	2.08	0.70
36:1e:110:LEU:HD13	36:1e:118:ILE:HG21	1.73	0.70
50:1s:36:ARG:NH1	50:1s:52:TYR:O	2.24	0.70
1:2A:2483:C:N3	12:2Q:124:LYS:NZ	2.39	0.70
32:2a:49:U:OP2	60:2a:3209:HOH:O	2.10	0.70
39:2h:37:ARG:HH12	39:2h:41:ARG:HH21	1.40	0.70
24:12:22:GLU:HG3	24:12:64:LEU:HD11	1.73	0.69
1:1A:1700:A:OP2	60:1A:4134:HOH:O	2.10	0.69
1:1A:2550:G:OP1	60:1A:4120:HOH:O	2.08	0.69
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.25	0.69
5:2F:123:LEU:HD11	5:2F:194:MET:HE2	1.73	0.69
6:2G:106:LEU:HA	6:2G:110:ALA:HB3	1.74	0.69
26:24:13:ARG:HH12	26:24:23:GLU:HG2	1.57	0.69
46:2o:16:ALA:HB1	46:2o:21:ASP:HB3	1.74	0.69
6:1G:181:ARG:HG3	6:1G:182:LYS:H	1.56	0.69
32:1a:346:G:H5''	56:1a:3278:MPD:H4	1.74	0.69
1:2A:1315:C:OP2	60:2A:3819:HOH:O	2.09	0.69
1:2A:2602:A:H1'	1:2A:2603:G:H5''	1.74	0.69
32:1a:916:G:N7	60:1a:3346:HOH:O	2.24	0.69
1:2A:1063:G:H22	1:2A:1075:C:H42	1.38	0.69
1:2A:2504:U:OP2	60:2A:3822:HOH:O	2.09	0.69
32:2a:1002:G:C2	32:2a:1003:G:H8	2.10	0.69
32:2a:1151:A:H5'	41:2j:41:PRO:HA	1.72	0.69
1:1A:365:C:OP2	60:1A:4127:HOH:O	2.09	0.69
1:1A:2319:G:H22	14:1S:3:ARG:HD2	1.56	0.69
32:1a:317:G:OP2	60:1a:3317:HOH:O	2.11	0.69
33:2b:162:ILE:HD11	33:2b:184:VAL:HG22	1.72	0.69
1:1A:1706:U:OP1	60:1A:4128:HOH:O	2.09	0.69
1:2A:2280:G:N7	60:2A:3918:HOH:O	2.26	0.69
32:2a:829:G:OP2	60:2a:3207:HOH:O	2.09	0.69
21:2Z:69:THR:HG22	21:2Z:90:VAL:HA	1.72	0.69
36:2e:122:GLU:O	36:2e:126:ARG:NH1	2.26	0.69
1:1A:279:C:H42	1:1A:361:G:H1	1.39	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:656:C:O2'	46:1o:28:GLN:NE2	2.25	0.69
32:1a:1518:MA6:H93	32:1a:1519:MA6:H92	1.72	0.69
1:2A:2033:A:OP1	60:2A:3825:HOH:O	2.10	0.69
2:2B:49:C:OP1	60:2B:301:HOH:O	2.10	0.69
45:1n:48:ALA:HB2	45:1n:53:LEU:HD12	1.74	0.69
1:1A:1295:C:OP2	60:1A:4130:HOH:O	2.10	0.69
1:1A:2547:U:O2	10:1O:23:ARG:NH2	2.26	0.69
32:1a:1003:G:N2	32:1a:1004:A:N3	2.41	0.69
7:2H:101:ARG:HG2	7:2H:117:PRO:HG2	1.73	0.69
32:2a:1198:G:OP1	60:2a:3208:HOH:O	2.10	0.69
32:2a:1505:G:OP1	60:2a:3202:HOH:O	2.11	0.69
45:2n:23:ARG:NH1	45:2n:28:GLY:O	2.26	0.69
35:1d:18:LYS:NZ	35:1d:31:CYS:SG	2.65	0.68
1:2A:2104:G:N2	1:2A:2105:C:N3	2.42	0.68
35:2d:163:GLU:HA	35:2d:166:LYS:HD3	1.75	0.68
1:1A:621:A:OP2	11:1P:108:LYS:NZ	2.26	0.68
1:1A:2690:C:OP1	13:1R:17:ARG:NH2	2.26	0.68
32:1a:903:G:OP1	60:1a:3318:HOH:O	2.11	0.68
1:1A:253:C:OP1	60:1A:4133:HOH:O	2.10	0.68
1:2A:637:A:H8	11:2P:117:GLU:HG3	1.58	0.68
1:2A:1602:U:OP1	60:2A:3826:HOH:O	2.10	0.68
41:2j:6:ILE:HD12	41:2j:98:ILE:HG12	1.74	0.68
1:2A:1658:C:OP1	60:2A:3824:HOH:O	2.10	0.68
9:2N:123:TYR:HH	9:2N:130:HIS:HE2	1.38	0.68
23:21:50:ARG:HG2	23:21:59:THR:HG22	1.75	0.68
1:1A:1466:G:HO2'	1:1A:1546:C:HO2'	1.38	0.68
47:2p:15:PRO:HD2	47:2p:42:ARG:HD2	1.75	0.68
1:1A:1779:U:OP2	60:1A:4137:HOH:O	2.12	0.68
33:1b:16:HIS:HB3	33:1b:210:SER:HB2	1.76	0.68
1:2A:2610:C:O2'	60:2A:3821:HOH:O	2.08	0.68
1:1A:1267:U:OP1	60:1A:4138:HOH:O	2.12	0.68
1:2A:2683:C:O2	10:2O:70:LYS:NZ	2.27	0.68
7:2H:137:ASP:HB3	7:2H:140:LYS:HB2	1.76	0.68
43:2l:110:VAL:HB	43:2l:113:ARG:HG2	1.74	0.68
32:1a:38:G:H22	32:1a:397:A:H5'	1.57	0.68
1:2A:585:G:OP2	60:2A:3827:HOH:O	2.11	0.68
4:1E:47:VAL:HG21	4:1E:86:PRO:HD2	1.73	0.68
32:2a:944:G:N1	32:2a:1338:G:OP2	2.27	0.68
32:2a:1149:C:O2'	32:2a:1280:A:N1	2.27	0.68
1:1A:1342:A:OP2	60:1A:4141:HOH:O	2.13	0.67
1:1A:2646:C:OP2	1:1A:2732:G:O2'	2.12	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:965:A:OP2	53:1y:8:LYS:NZ	2.26	0.67
43:1l:71:PRO:O	43:1l:102:ARG:NH1	2.26	0.67
44:1m:58:GLU:O	44:1m:62:ASN:ND2	2.25	0.67
11:2P:50:ARG:HD3	30:28:7:HIS:CD2	2.29	0.67
13:2R:87:TYR:OH	13:2R:117:VAL:O	2.09	0.67
28:26:14:THR:OG1	28:26:48:VAL:O	2.13	0.67
32:2a:1256:A:H61	32:2a:1278:U:H1'	1.58	0.67
34:1c:6:HIS:HD2	34:1c:9:GLY:H	1.41	0.67
23:21:80:LEU:O	60:21:201:HOH:O	2.11	0.67
41:2j:38:ILE:HG12	41:2j:71:LEU:HB3	1.76	0.67
3:2D:69:ARG:NH2	3:2D:128:GLY:O	2.28	0.67
7:2H:24:VAL:HG13	7:2H:37:VAL:HG21	1.74	0.67
10:2O:35:VAL:HG11	10:2O:103:ALA:HB3	1.76	0.67
1:1A:1041:C:H42	1:1A:1114:G:H1	1.42	0.67
48:1q:45:HIS:HB2	48:1q:65:ILE:HD13	1.76	0.67
1:2A:1356:G:OP1	60:2A:3832:HOH:O	2.12	0.67
26:24:18:CYS:SG	26:24:39:CYS:HB3	2.35	0.67
32:2a:1135:U:H4'	32:2a:1136:U:H5	1.59	0.67
32:1a:501:C:OP1	43:1l:117:ARG:NH2	2.26	0.67
32:1a:1496:C:OP2	60:1a:3320:HOH:O	2.12	0.67
1:2A:198:C:OP2	60:2A:3801:HOH:O	2.12	0.67
1:2A:2615:U:OP1	60:2A:3830:HOH:O	2.12	0.67
1:1A:2602:A:N7	60:1A:4248:HOH:O	2.27	0.67
2:1B:66:A:H61	2:1B:108:U:H2'	1.59	0.67
1:2A:1771:C:OP1	60:2A:3829:HOH:O	2.12	0.67
53:2y:53:THR:HG22	53:2y:62:VAL:HG12	1.77	0.67
1:1A:2834:G:OP2	60:1A:4135:HOH:O	2.11	0.67
35:1d:98:GLU:O	35:1d:103:ASN:ND2	2.27	0.67
39:1h:95:VAL:HB	39:1h:99:GLU:HG3	1.77	0.67
1:2A:1084:A:N6	1:2A:1086:A:N7	2.42	0.67
1:1A:2454:G:OP1	60:1A:4139:HOH:O	2.12	0.67
21:2Z:81:ARG:NH2	60:2Z:302:HOH:O	2.27	0.67
43:2l:103:GLY:N	43:2l:107:ALA:O	2.22	0.67
44:2m:20:THR:HG21	44:2m:27:LYS:HD2	1.76	0.67
1:1A:1290:C:OP2	60:1A:4147:HOH:O	2.13	0.67
32:1a:1346:A:OP1	40:1i:120:ARG:NH1	2.25	0.67
32:1a:1441:G:H5''	32:1a:1442:G:H5'	1.77	0.67
1:2A:1012:U:OP1	16:2U:75:ASN:ND2	2.28	0.67
32:2a:426:G:OP1	35:2d:38:TYR:OH	2.13	0.67
32:2a:580:U:OP2	60:2a:3210:HOH:O	2.13	0.67
1:1A:2319:G:H22	14:1S:3:ARG:HH11	1.43	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:1V:66:ARG:NH1	60:1V:301:HOH:O	2.25	0.67
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.30	0.67
6:2G:17:PRO:HA	6:2G:20:ILE:HB	1.76	0.67
6:2G:67:LYS:N	60:2G:302:HOH:O	2.28	0.67
20:2Y:13:VAL:HG12	20:2Y:74:PRO:HA	1.75	0.67
40:2i:19:LEU:HD23	40:2i:61:ALA:HB2	1.77	0.67
1:1A:1359:A:H61	1:1A:1372:U:H3	1.43	0.66
1:2A:2366:A:OP1	60:2A:3835:HOH:O	2.14	0.66
57:1F:318:ARG:OXT	60:1F:401:HOH:O	2.12	0.66
1:2A:11:G:H2'	1:2A:12:U:H5'	1.75	0.66
1:2A:526:A:OP1	60:2A:3833:HOH:O	2.13	0.66
12:2Q:97:VAL:HG11	12:2Q:103:MET:HE3	1.75	0.66
32:2a:954:G:H21	32:2a:1227:A:H62	1.44	0.66
1:1A:2506:U:OP1	4:1E:144:ARG:NH2	2.28	0.66
34:2c:71:ALA:HA	34:2c:106:VAL:HB	1.76	0.66
32:1a:251:G:N7	60:1a:3354:HOH:O	2.28	0.66
32:1a:758:G:OP2	60:1a:3319:HOH:O	2.11	0.66
12:2Q:34:LEU:HB2	12:2Q:118:LEU:HD22	1.78	0.66
18:2W:18:ARG:HG2	18:2W:76:VAL:HB	1.78	0.66
32:2a:134:A:H61	47:2p:25:ARG:HH22	1.41	0.66
32:2a:977:A:O2'	32:2a:980:C:N4	2.28	0.66
36:2e:100:VAL:O	36:2e:107:ARG:NH2	2.29	0.66
46:2o:39:LEU:HD13	46:2o:56:LEU:HB2	1.78	0.66
1:1A:30:G:OP1	60:1A:4140:HOH:O	2.12	0.66
1:2A:1798:U:H5'	3:2D:259:THR:HG22	1.76	0.66
1:2A:1993:U:OP2	60:2A:3834:HOH:O	2.13	0.66
1:1A:1777:U:OP2	60:1A:4142:HOH:O	2.13	0.66
32:2a:976:G:H5'	32:2a:1358:U:O2'	1.95	0.66
32:2a:1075:C:H5''	33:2b:179:LYS:HE2	1.78	0.66
32:2a:1129:C:H2'	32:2a:1139:G:N7	2.10	0.66
1:1A:740:U:OP2	60:1A:4148:HOH:O	2.13	0.66
1:1A:1346:G:OP2	60:1A:4152:HOH:O	2.14	0.66
21:1Z:145:GLU:O	21:1Z:148:ASP:N	2.28	0.66
36:1e:74:GLY:HA3	36:1e:116:THR:HG22	1.76	0.66
1:2A:1786:A:H1'	1:2A:1938:A:N6	2.10	0.66
1:1A:1176:G:H4'	1:1A:1177:A:OP1	1.96	0.66
1:1A:2140:C:H2'	1:1A:2141:G:H8	1.58	0.66
21:1Z:24:LEU:HB2	21:1Z:41:LEU:HG	1.77	0.66
32:1a:863:U:OP1	60:1a:3323:HOH:O	2.13	0.66
1:2A:1428:C:O2'	1:2A:1569:A:OP2	2.12	0.66
19:1X:35:THR:HG22	19:1X:38:GLU:H	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:280:C:OP1	48:1q:91:ARG:NH1	2.25	0.66
36:1e:76:ILE:HD12	36:1e:142:LEU:HD21	1.78	0.66
40:1i:16:ARG:HB2	40:1i:64:THR:HG22	1.77	0.66
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.60	0.66
6:2G:112:PRO:HG3	26:24:43:TYR:CE2	2.28	0.66
32:2a:1255:G:HO2'	32:2a:1258:G:HO2'	1.44	0.66
44:2m:82:MET:HE2	44:2m:92:HIS:HB3	1.78	0.66
1:1A:1352:U:OP2	60:1A:4156:HOH:O	2.14	0.65
1:2A:2025:C:N4	60:2A:3949:HOH:O	2.29	0.65
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.32	0.65
14:2S:93:LYS:HG2	14:2S:95:HIS:HB2	1.78	0.65
33:2b:12:GLU:HA	33:2b:15:VAL:HG22	1.78	0.65
34:2c:180:ALA:HB1	34:2c:203:PHE:HE1	1.61	0.65
1:1A:447:A:OP2	60:1A:4157:HOH:O	2.14	0.65
34:1c:112:SER:HB3	34:1c:115:LEU:HD22	1.77	0.65
1:1A:1300:U:OP2	60:1A:4153:HOH:O	2.14	0.65
1:2A:2644:G:O6	60:2A:3823:HOH:O	2.09	0.65
24:22:16:LEU:O	24:22:67:LYS:NZ	2.30	0.65
44:2m:3:ARG:HD3	44:2m:8:GLU:HG3	1.78	0.65
44:2m:58:GLU:O	44:2m:62:ASN:ND2	2.30	0.65
3:1D:71:ASP:OD2	3:1D:103:ARG:NH2	2.30	0.65
39:1h:14:ARG:NH1	39:1h:83:ILE:O	2.28	0.65
1:2A:2712(A):A:OP2	60:2A:3836:HOH:O	2.14	0.65
36:2e:33:VAL:HG13	36:2e:112:LEU:HD12	1.79	0.65
1:1A:219:G:OP2	60:1A:4154:HOH:O	2.14	0.65
1:1A:1570:A:OP1	60:1A:4149:HOH:O	2.13	0.65
1:1A:1903:G:O3'	60:1A:4150:HOH:O	2.14	0.65
32:1a:984:C:H42	32:1a:1221:G:H1	1.44	0.65
40:1i:3:GLN:HE21	40:1i:20:ARG:HE	1.45	0.65
1:2A:1064:C:N4	1:2A:1074:G:O6	2.29	0.65
5:2F:62:ARG:NH1	60:2F:402:HOH:O	2.29	0.65
32:1a:1086:U:H3	32:1a:1099:G:H22	1.44	0.65
32:1a:1402:4OC:HM22	32:1a:1403:C:H5'	1.77	0.65
43:1l:60:LEU:HD21	43:1l:66:VAL:HG22	1.79	0.65
11:2P:54:GLY:O	60:2P:302:HOH:O	2.14	0.65
16:2U:49:HIS:HA	16:2U:52:ARG:HG2	1.79	0.65
17:2V:62:LEU:HD11	17:2V:95:LEU:HB2	1.79	0.65
1:1A:1345:C:OP2	60:1A:4152:HOH:O	2.14	0.65
1:1A:2584:U:O4	60:1A:4136:HOH:O	2.12	0.65
1:2A:15:G:OP2	60:2A:3837:HOH:O	2.14	0.65
33:2b:16:HIS:O	33:2b:18:GLY:N	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:975:C:OP1	60:1A:4160:HOH:O	2.15	0.65
1:1A:1971:A:OP2	60:1A:4158:HOH:O	2.15	0.65
6:1G:77:ILE:HB	6:1G:82:LEU:HB2	1.78	0.65
21:1Z:144:LEU:HD21	21:1Z:150:LEU:HD13	1.78	0.65
33:1b:73:THR:OG1	33:1b:170:GLU:OE2	2.14	0.65
33:1b:166:ASP:HB3	33:1b:169:LYS:HB3	1.78	0.65
40:1i:17:VAL:HG21	40:1i:81:ILE:HG22	1.78	0.65
1:2A:602:G:O2'	1:2A:655:A:N6	2.29	0.65
60:1A:4112:HOH:O	13:1R:3:HIS:NE2	2.28	0.65
1:2A:2165:G:H2'	1:2A:2166:G:O4'	1.97	0.65
49:2r:51:LEU:HD22	49:2r:55:ARG:HE	1.61	0.65
6:1G:96:ARG:H	6:1G:99:MET:HE2	1.62	0.65
1:2A:2849:U:O4	15:2T:23:ARG:NH2	2.24	0.65
5:2F:178:PRO:HB2	5:2F:201:VAL:HG21	1.79	0.65
33:2b:7:VAL:O	33:2b:217:ARG:NH1	2.29	0.65
1:1A:307:G:H21	1:1A:330:A:H62	1.45	0.64
1:1A:2602:A:N7	60:1A:4289:HOH:O	2.30	0.64
1:2A:451:C:OP2	60:2A:3845:HOH:O	2.15	0.64
32:2a:854:G:N7	60:2a:3238:HOH:O	2.28	0.64
32:2a:1071:C:H2'	32:2a:1072:G:H8	1.62	0.64
48:2q:66:SER:O	48:2q:70:ARG:NH1	2.31	0.64
5:1F:197:ASP:N	5:1F:197:ASP:OD1	2.27	0.64
13:1R:33:ARG:NH2	27:15:57:VAL:O	2.22	0.64
1:2A:1843:C:H5'	3:2D:253:GLN:HE22	1.62	0.64
19:2X:88:LYS:HD2	19:2X:93:GLU:HG3	1.78	0.64
26:24:59:PHE:HB3	26:24:61:ARG:HB3	1.78	0.64
32:2a:1314:C:N4	50:2s:2:PRO:O	2.29	0.64
1:1A:2815:C:H5'	27:15:29:THR:HG21	1.79	0.64
18:1W:12:ILE:HD13	18:1W:17:VAL:HG13	1.79	0.64
32:1a:407:G:OP1	35:1d:115:ARG:NH2	2.29	0.64
1:2A:948:G:OP1	60:2A:3807:HOH:O	2.14	0.64
1:2A:2529:G:O6	31:29:31:LYS:NZ	2.30	0.64
4:2E:143:ASN:HD22	4:2E:147:PRO:HD3	1.61	0.64
17:2V:72:VAL:HG13	17:2V:85:LYS:HB3	1.79	0.64
40:2i:28:VAL:HG22	40:2i:63:ILE:HB	1.79	0.64
1:1A:2126:A:H4'	1:1A:2127:G:O5'	1.96	0.64
21:1Z:144:LEU:HD11	21:1Z:150:LEU:HD22	1.78	0.64
32:1a:1197:G:OP2	60:1a:3325:HOH:O	2.15	0.64
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.80	0.64
1:1A:2239:G:OP2	60:1A:4155:HOH:O	2.14	0.64
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:84:ILE:HA	34:1c:87:LEU:HD12	1.80	0.64
1:2A:495:G:OP2	60:2A:3846:HOH:O	2.15	0.64
1:2A:2596:U:OP2	60:2A:3839:HOH:O	2.14	0.64
35:2d:78:LEU:HD22	35:2d:96:LEU:HB3	1.77	0.64
44:2m:84:ILE:HB	50:2s:66:MET:HE2	1.79	0.64
1:1A:1631:C:OP2	60:1A:4163:HOH:O	2.15	0.64
14:1S:27:SER:HA	14:1S:88:ASP:HB3	1.80	0.64
32:1a:352:C:OP2	60:1a:3326:HOH:O	2.15	0.64
32:1a:1505:G:OP1	60:1a:3324:HOH:O	2.15	0.64
1:2A:1637:A:OP2	60:2A:3842:HOH:O	2.15	0.64
1:2A:1754:C:P	15:2T:96:ARG:HH12	2.20	0.64
1:2A:2408:U:OP2	60:2A:3840:HOH:O	2.14	0.64
1:1A:312:G:OP2	60:1A:4164:HOH:O	2.15	0.64
30:18:42:ARG:NH1	60:18:204:HOH:O	2.26	0.64
1:2A:1675:C:OP2	60:2A:3838:HOH:O	2.14	0.64
1:2A:1793:C:OP1	60:2A:3844:HOH:O	2.15	0.64
34:2c:52:LEU:HD21	34:2c:55:VAL:HG23	1.80	0.64
36:2e:110:LEU:HD13	36:2e:118:ILE:HG21	1.78	0.64
32:1a:116:A:H61	32:1a:313:A:H1'	1.63	0.64
34:1c:180:ALA:HB1	34:1c:203:PHE:HE1	1.61	0.64
36:1e:78:HIS:HE1	36:1e:142:LEU:HA	1.63	0.64
39:2h:10:LEU:HD22	39:2h:83:ILE:HD11	1.78	0.64
32:1a:474:G:H2'	32:1a:475:G:H8	1.63	0.64
1:2A:500:G:N1	1:2A:503:A:OP2	2.31	0.64
1:2A:751:A:H5'	18:2W:90:ARG:HA	1.79	0.64
1:2A:783:A:OP2	60:2A:3847:HOH:O	2.15	0.64
1:2A:2748:A:H5'	7:2H:4:ILE:HD12	1.80	0.64
32:2a:662:G:H2'	32:2a:663:A:C8	2.32	0.64
33:2b:216:SER:O	33:2b:220:ASP:N	2.28	0.64
1:1A:381:G:O6	60:1A:4145:HOH:O	2.13	0.64
1:1A:2010:G:N7	60:1A:4296:HOH:O	2.30	0.64
1:1A:2696:U:O3'	60:1A:4162:HOH:O	2.15	0.64
32:1a:1124:G:N7	32:1a:1145:C:O2'	2.31	0.64
1:2A:131:G:OP1	60:2A:3843:HOH:O	2.15	0.64
1:2A:1063:G:H22	1:2A:1075:C:N4	1.95	0.64
49:2r:32:ARG:HA	49:2r:69:THR:HG21	1.80	0.64
34:1c:35:GLU:OE2	34:1c:59:ARG:NH2	2.31	0.63
37:1f:68:PRO:HG2	37:1f:71:ARG:HD2	1.80	0.63
1:2A:509:C:OP1	60:2A:3848:HOH:O	2.15	0.63
5:2F:154:VAL:HG22	5:2F:191:ARG:HB2	1.81	0.63
33:2b:16:HIS:HB2	33:2b:204:ASN:HB3	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:66:ASP:OD2	60:1D:401:HOH:O	2.15	0.63
24:12:59:ARG:NH2	60:12:101:HOH:O	2.31	0.63
32:1a:828:A:H2'	32:1a:829:G:O4'	1.98	0.63
33:2b:122:PHE:HA	33:2b:127:ILE:HG12	1.81	0.63
39:1h:73:ASP:OD1	39:1h:75:ARG:NH1	2.32	0.63
1:2A:468:G:N7	29:27:39:ARG:NH2	2.43	0.63
1:2A:577:G:O2'	1:2A:1254:A:OP1	2.16	0.63
1:2A:562:U:OP1	60:2A:3851:HOH:O	2.16	0.63
1:2A:1062:G:C5	1:2A:1070:A:H1'	2.33	0.63
1:2A:1063:G:N2	1:2A:1064:C:N3	2.46	0.63
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.34	0.63
32:2a:35:G:O2'	43:2l:118:SER:O	2.16	0.63
44:2m:31:LYS:HA	44:2m:34:LEU:HB2	1.81	0.63
53:2y:3:MET:HE3	53:2y:37:PRO:HB2	1.80	0.63
1:2A:826:U:OP1	60:2A:3810:HOH:O	2.14	0.63
1:2A:1075:C:H2'	1:2A:1076:C:H5'	1.80	0.63
1:2A:1843:C:H5'	3:2D:253:GLN:NE2	2.13	0.63
5:1F:164:ARG:HE	57:1F:318:ARG:NH2	1.97	0.63
1:2A:1631(A):A:N6	60:2A:3891:HOH:O	2.22	0.63
6:2G:16:ARG:CZ	6:2G:31:VAL:HG21	2.29	0.63
1:2A:1334:G:OP2	60:2A:3850:HOH:O	2.15	0.63
44:2m:16:ASP:OD1	44:2m:16:ASP:N	2.29	0.63
1:1A:2445:G:OP1	5:1F:74:ARG:NH2	2.31	0.63
4:1E:29:GLY:HA3	60:1E:405:HOH:O	1.97	0.63
6:1G:59:GLU:OE1	6:1G:153:ARG:NH2	2.31	0.63
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.13	0.62
35:1d:173:TRP:CD1	35:1d:173:TRP:H	2.15	0.62
1:2A:459:U:H5''	29:27:40:TRP:CD2	2.33	0.62
1:2A:2139:C:H42	1:2A:2152:G:H1	1.46	0.62
32:2a:316:G:OP2	32:2a:351:G:O2'	2.17	0.62
33:2b:98:LEU:HB2	33:2b:101:MET:HE3	1.81	0.62
1:1A:1300:U:H4'	1:1A:1301:A:H5''	1.80	0.62
32:1a:1025:U:O2	32:1a:1036:G:O6	2.17	0.62
40:1i:50:LEU:HD13	40:1i:56:LEU:HA	1.81	0.62
45:1n:24:CYS:HB3	45:1n:28:GLY:H	1.63	0.62
23:21:51:VAL:HG11	23:21:74:VAL:HG21	1.80	0.62
2:1B:55:U:OP2	60:1B:302:HOH:O	2.16	0.62
32:1a:262:A:H2'	32:1a:263:A:C8	2.35	0.62
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.33	0.62
7:2H:90:LYS:NZ	7:2H:159:GLU:OE2	2.26	0.62
32:2a:1352:C:H2'	32:2a:1353:G:C8	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:2k:48:ILE:HD11	42:2k:64:ALA:HA	1.82	0.62
26:14:61:ARG:HG3	26:14:62:ARG:H	1.64	0.62
38:1g:69:VAL:HG21	38:1g:104:LEU:HD21	1.81	0.62
1:2A:2010:G:H5''	18:2W:42:ARG:HB2	1.81	0.62
3:2D:127:VAL:HA	3:2D:193:VAL:HG22	1.80	0.62
27:25:16:ARG:NH1	27:25:17:ASP:OD1	2.33	0.62
32:1a:1375:A:H4'	38:1g:29:LYS:HD3	1.81	0.62
1:2A:2533:A:OP1	1:2A:2665:A:O2'	2.16	0.62
8:2I:5:LEU:HD11	8:2I:19:VAL:HG22	1.81	0.62
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.81	0.62
40:2i:42:ARG:NH1	40:2i:71:SER:O	2.33	0.62
1:1A:588:U:H2'	1:1A:589:C:C6	2.35	0.62
32:1a:222:U:H2'	32:1a:223:U:C6	2.35	0.62
32:1a:376:G:H4'	47:1p:5:ARG:HH11	1.63	0.62
32:1a:619:U:N3	35:1d:134:ASP:OD1	2.32	0.62
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.34	0.62
32:1a:1432:G:O6	60:1a:3322:HOH:O	2.13	0.62
1:2A:578:A:OP2	60:2A:3852:HOH:O	2.16	0.62
32:2a:1226:C:OP2	44:2m:91:ARG:NH1	2.33	0.62
41:2j:74:ILE:O	60:2j:302:HOH:O	2.16	0.62
48:2q:12:SER:HB3	48:2q:20:THR:HB	1.82	0.62
1:1A:1173:G:O2'	1:1A:1174:A:O5'	2.18	0.62
34:1c:6:HIS:NE2	34:1c:8:ILE:HB	2.15	0.62
34:1c:180:ALA:HA	34:1c:206:GLU:HB3	1.81	0.62
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.34	0.62
1:2A:2706:G:N7	60:2A:3968:HOH:O	2.31	0.62
10:2O:24:VAL:HG12	10:2O:33:ALA:HB2	1.82	0.62
32:2a:1004:A:N7	32:2a:1037:C:H2'	2.14	0.62
32:2a:1030(C):G:H2'	32:2a:1030(D):A:H8	1.63	0.62
46:2o:54:ARG:HG2	46:2o:58:MET:HE2	1.81	0.62
53:2y:87:LYS:O	53:2y:91:LYS:HB2	2.00	0.62
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.35	0.62
15:1T:56:GLY:O	15:1T:59:THR:HG23	2.00	0.62
32:1a:79:G:C6	32:1a:90:U:N3	2.68	0.62
32:1a:1158:C:H5	32:1a:1181:G:H1	1.48	0.62
35:1d:61:LYS:NZ	35:1d:62:GLN:OE1	2.25	0.62
50:1s:63:THR:OG1	50:1s:65:ASN:OD1	2.18	0.62
1:2A:2781:A:H5''	1:2A:2782:G:H5'	1.80	0.62
18:2W:86:LEU:HD22	18:2W:96:ILE:HD11	1.81	0.62
32:2a:839:U:H5''	32:2a:840:C:H5	1.65	0.62
1:2A:31:C:OP1	60:2A:3856:HOH:O	2.16	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2548:G:O6	60:2A:3849:HOH:O	2.15	0.62
1:1A:530:G:N1	1:1A:2023:G:OP1	2.25	0.62
4:1E:58:ARG:NH1	60:1E:402:HOH:O	2.24	0.62
5:1F:185:ASP:HA	5:1F:188:ARG:HD3	1.82	0.62
17:1V:76:LYS:HB2	17:1V:81:TYR:HB3	1.80	0.62
33:1b:123:ALA:O	33:1b:124:SER:HB2	2.00	0.62
39:1h:10:LEU:HD22	39:1h:83:ILE:HD11	1.82	0.62
32:1a:135:C:N3	47:1p:1:MET:N	2.48	0.61
41:2j:32:ALA:HB1	41:2j:33:GLN:HA	1.82	0.61
2:1B:81:G:N7	57:1B:232:ARG:NH2	2.42	0.61
32:2a:255:G:OP1	48:2q:69:LYS:NZ	2.27	0.61
1:1A:2305:A:H5''	6:1G:134:GLY:HA3	1.82	0.61
32:1a:1124:G:N2	32:1a:1125:U:O4	2.25	0.61
36:1e:50:GLU:HB2	36:1e:53:LEU:HD13	1.82	0.61
50:1s:32:LYS:HA	50:1s:50:ALA:HB3	1.82	0.61
1:1A:1013:C:OP2	60:1A:4166:HOH:O	2.16	0.61
1:1A:1068:G:HO2'	1:1A:1096:A:HO2'	1.48	0.61
34:1c:179:ARG:HG3	34:1c:206:GLU:HB2	1.80	0.61
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	1.82	0.61
1:2A:323:G:HO2'	1:2A:1205:U:H3	1.47	0.61
1:2A:1768:U:OP2	60:2A:3859:HOH:O	2.16	0.61
1:2A:2237:G:OP1	60:2A:3854:HOH:O	2.16	0.61
5:2F:110:LEU:HD11	5:2F:181:LEU:HG	1.82	0.61
32:2a:642:A:N3	39:2h:113:SER:OG	2.33	0.61
44:2m:33:ALA:O	44:2m:37:THR:OG1	2.15	0.61
1:1A:2825:C:OP2	60:1A:4165:HOH:O	2.16	0.61
47:1p:21:VAL:HG13	47:1p:33:ILE:HB	1.83	0.61
47:1p:42:ARG:HB3	47:1p:44:THR:HG23	1.83	0.61
1:2A:2032:G:N7	60:2A:3967:HOH:O	2.31	0.61
8:2I:101:LEU:O	8:2I:106:GLY:N	2.34	0.61
32:2a:134:A:N6	47:2p:25:ARG:HH22	1.98	0.61
32:2a:573:A:OP2	60:2a:3211:HOH:O	2.16	0.61
1:1A:1085:A:O2'	1:1A:1104:C:O2'	2.19	0.61
1:1A:1364:G:N7	23:11:3:LYS:HE2	2.15	0.61
23:11:51:VAL:HG11	23:11:74:VAL:HG21	1.81	0.61
41:1j:35:SER:HB3	41:1j:73:ASP:HB2	1.82	0.61
4:2E:52:LEU:O	4:2E:76:ARG:N	2.33	0.61
28:26:8:LYS:NZ	60:26:201:HOH:O	2.19	0.61
1:1A:567:A:N7	60:1A:4310:HOH:O	2.31	0.61
1:1A:2709:G:N7	60:1A:4298:HOH:O	2.30	0.61
4:1E:59:VAL:HG21	4:1E:74:PRO:HB3	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:1Y:92:ASN:N	20:1Y:93:GLY:HA2	2.14	0.61
32:1a:591:U:H2'	32:1a:592:G:H8	1.65	0.61
8:2I:3:VAL:HG12	8:2I:38:LEU:HA	1.83	0.61
1:1A:1264:G:OP1	27:15:19:ARG:NH2	2.23	0.61
32:1a:473:G:H2'	32:1a:474:G:H8	1.65	0.61
1:2A:1010:A:OP2	60:2A:3857:HOH:O	2.16	0.61
1:2A:1057:A:N6	1:2A:1087:G:OP1	2.34	0.61
1:2A:1062:G:H2'	1:2A:1063:G:H8	1.66	0.61
1:1A:1060:U:H4'	1:1A:1061:U:H5'	1.83	0.61
1:1A:1094:U:H1'	1:1A:1097:U:H5	1.66	0.61
1:1A:2304:G:H22	1:1A:2312:U:H3	1.49	0.61
16:1U:33:ARG:NH1	60:1U:304:HOH:O	2.34	0.61
32:1a:737:A:H2'	32:1a:738:C:C6	2.36	0.61
1:2A:1239:G:OP1	60:2A:3856:HOH:O	2.16	0.61
7:2H:86:GLU:OE2	7:2H:132:ARG:NH2	2.32	0.61
32:2a:403:C:N4	60:2a:3206:HOH:O	2.26	0.61
1:1A:1937:A:H1'	1:1A:1939:5MU:H72	1.82	0.60
3:1D:157:ARG:O	60:1D:402:HOH:O	2.16	0.60
32:1a:17:U:H2'	32:1a:18:C:C6	2.36	0.60
32:1a:1028:C:H2'	32:1a:1029:C:H4'	1.83	0.60
1:2A:979:G:N7	60:2A:3969:HOH:O	2.31	0.60
13:1R:97:VAL:HG22	13:1R:114:VAL:HG22	1.82	0.60
32:1a:1264:C:H2'	32:1a:1265:G:H8	1.65	0.60
33:1b:231:GLU:HB3	33:1b:232:PRO:CD	2.31	0.60
35:1d:162:LEU:HD13	35:1d:181:MET:HG2	1.83	0.60
51:1t:33:ILE:O	51:1t:37:SER:OG	2.18	0.60
31:29:29:ASN:HD22	31:29:32:HIS:CE1	2.19	0.60
32:2a:1030:C:N3	32:2a:1031:G:N2	2.48	0.60
32:1a:352:C:O2'	32:1a:354:G:OP1	2.18	0.60
32:1a:1030(C):G:H2'	32:1a:1030(D):A:C8	2.36	0.60
32:1a:1182:G:H4'	32:1a:1183:A:H5'	1.83	0.60
1:2A:309:G:N3	1:2A:329:G:O2'	2.35	0.60
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.83	0.60
1:1A:330:A:H2	1:1A:1210:A:O2'	1.84	0.60
1:1A:978:G:N3	60:1A:4303:HOH:O	2.31	0.60
32:1a:131:C:O2'	32:1a:262:A:N3	2.34	0.60
32:1a:300:A:O2'	32:1a:564:C:N3	2.28	0.60
1:2A:1153:C:OP2	60:2A:3853:HOH:O	2.16	0.60
1:2A:1493:C:N4	1:2A:2206:G:O2'	2.35	0.60
32:2a:1092:A:N3	32:2a:1183:A:N6	2.49	0.60
7:1H:101:ARG:HG2	7:1H:117:PRO:HG2	1.81	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:196:LEU:O	35:1d:198:VAL:N	2.34	0.60
1:2A:2022:U:O2'	1:2A:2617:C:H5'	2.01	0.60
7:2H:45:VAL:HG22	7:2H:50:VAL:HG13	1.84	0.60
51:2t:50:GLU:HB2	51:2t:99:LEU:HD22	1.84	0.60
23:11:64:ALA:HA	23:11:67:ILE:HG13	1.83	0.60
32:1a:1414:U:H3	32:1a:1486:G:H1	1.50	0.60
34:1c:6:HIS:CD2	34:1c:9:GLY:H	2.19	0.60
35:1d:6:GLY:O	35:1d:115:ARG:NH1	2.35	0.60
40:1i:20:ARG:O	40:1i:60:ASP:N	2.32	0.60
1:2A:2499:C:OP1	60:2A:3841:HOH:O	2.16	0.60
32:2a:631:G:N2	60:2a:3250:HOH:O	2.34	0.60
32:2a:1005:A:OP2	32:2a:1024:G:N2	2.34	0.60
32:2a:1030:C:H42	32:2a:1031:G:H1	1.50	0.60
38:2g:50:ILE:HD11	38:2g:58:PRO:HA	1.81	0.60
10:1O:2:ILE:HD12	10:1O:6:THR:HG21	1.83	0.60
14:2S:14:VAL:O	14:2S:18:ILE:HG12	2.02	0.60
39:2h:51:VAL:HG11	39:2h:60:ARG:HD2	1.82	0.60
1:1A:1508:A:H4'	1:1A:1509(A):A:C5	2.37	0.60
21:1Z:52:SER:O	60:1Z:401:HOH:O	2.17	0.60
1:2A:1184:G:OP1	25:23:30:ARG:NH1	2.35	0.60
1:2A:2822:G:OP2	60:2A:3855:HOH:O	2.16	0.60
1:1A:2319:G:N2	14:1S:3:ARG:HD2	2.17	0.60
6:1G:66:GLN:NE2	6:1G:93:THR:O	2.34	0.60
1:2A:801:G:O6	5:2F:53:THR:OG1	2.20	0.60
6:2G:44:GLY:HA2	6:2G:88:ILE:HG22	1.84	0.60
13:2R:67:LEU:HD13	13:2R:76:VAL:HG21	1.83	0.60
36:2e:12:LEU:HD12	36:2e:128:PRO:HB2	1.84	0.60
50:2s:30:LEU:HD11	50:2s:50:ALA:HB2	1.83	0.60
5:1F:116:ASP:OD1	5:1F:119:ARG:NH2	2.35	0.60
32:1a:563:A:N6	60:1a:3370:HOH:O	2.34	0.60
41:1j:16:LEU:HD21	41:1j:70:ARG:HG2	1.84	0.60
1:2A:2105:C:N4	1:2A:2106:G:O6	2.35	0.60
26:24:48:ARG:HB3	26:24:52:THR:HA	1.84	0.60
32:2a:1256:A:H61	32:2a:1278:U:C1'	2.15	0.60
34:2c:6:HIS:HD2	34:2c:9:GLY:H	1.50	0.60
1:1A:784:A:H5'	1:1A:785:G:OP1	2.02	0.59
1:1A:1139:G:OP1	60:1A:4167:HOH:O	2.17	0.59
1:1A:2328:A:H2'	1:1A:2329:G:C8	2.36	0.59
2:1B:78:A:OP1	60:1B:301:HOH:O	2.16	0.59
5:1F:53:THR:HG22	5:1F:55:GLY:H	1.67	0.59
8:1I:77:LEU:HB3	8:1I:142:VAL:HG22	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:1S:34:HIS:ND1	14:1S:53:SER:OG	2.35	0.59
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.37	0.59
3:2D:148:GLU:HB2	3:2D:151:LYS:HD2	1.83	0.59
8:2I:4:ILE:HG13	8:2I:18:VAL:HG22	1.84	0.59
32:2a:266:G:O2'	32:2a:267:C:OP2	2.15	0.59
32:2a:1172:C:H2'	32:2a:1173:G:H8	1.66	0.59
3:1D:17:THR:O	3:1D:211:ARG:NH2	2.35	0.59
6:1G:16:ARG:NE	6:1G:31:VAL:HG21	2.18	0.59
32:1a:266:G:O3'	48:1q:67:LYS:HB2	2.02	0.59
44:1m:60:VAL:HG22	44:1m:64:TRP:HZ3	1.67	0.59
48:2q:22:LEU:HD13	48:2q:41:LYS:HG3	1.84	0.59
32:1a:1025:U:C2	32:1a:1036:G:O6	2.55	0.59
44:1m:13:LYS:HA	44:1m:44:ARG:HH11	1.65	0.59
1:2A:848:G:H2'	1:2A:849:A:C8	2.37	0.59
1:2A:1090:U:H2'	1:2A:1091:G:H8	1.67	0.59
1:2A:2161:C:O2'	1:2A:2173:A:O2'	2.13	0.59
17:2V:43:GLU:OE1	17:2V:43:GLU:N	2.36	0.59
18:2W:18:ARG:NH1	18:2W:76:VAL:O	2.33	0.59
32:2a:1274:G:N2	32:2a:1275:A:N7	2.49	0.59
1:1A:1509(A):A:H2'	1:1A:1509(B):A:O4'	2.03	0.59
6:1G:16:ARG:HE	6:1G:31:VAL:HG21	1.67	0.59
5:2F:129:PHE:CD2	5:2F:163:VAL:HG21	2.37	0.59
1:1A:1651:G:OP1	13:1R:40:LYS:NZ	2.35	0.59
32:1a:1264:C:H2'	32:1a:1265:G:C8	2.37	0.59
33:1b:134:GLU:HG3	33:1b:137:ARG:HH21	1.68	0.59
1:2A:1316:U:H2'	1:2A:1317:A:C8	2.37	0.59
5:2F:124:LEU:HB3	5:2F:193:VAL:HG22	1.83	0.59
27:25:33:CYS:HB2	27:25:40:LYS:HD3	1.84	0.59
1:1A:2267:A:H5''	1:1A:2268:A:H5'	1.83	0.59
13:1R:98:LEU:HB2	13:1R:113:LEU:HD11	1.84	0.59
6:2G:15:VAL:HG22	6:2G:175:LEU:HB3	1.84	0.59
32:2a:41:G:H2'	32:2a:42:G:C8	2.36	0.59
32:2a:991:U:O2'	32:2a:992:U:OP2	2.15	0.59
38:2g:65:ALA:HB1	38:2g:127:ALA:HB3	1.85	0.59
40:2i:96:LEU:H	40:2i:98:PRO:HD2	1.68	0.59
1:1A:993:G:OP1	16:1U:50:ARG:NH2	2.33	0.59
33:1b:74:LYS:NZ	33:1b:206:ASP:OD1	2.32	0.59
39:1h:44:PHE:HB3	39:1h:80:ILE:HG12	1.84	0.59
41:1j:8:LEU:HB2	41:1j:70:ARG:HB2	1.85	0.59
47:1p:6:LEU:HB2	47:1p:17:TYR:HB3	1.85	0.59
6:2G:179:PRO:HB3	26:24:43:TYR:HE1	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:443:C:H2'	32:2a:444:C:C6	2.38	0.59
32:2a:1127:G:H5'	32:2a:1280:A:O2'	2.03	0.59
37:2f:6:VAL:HG22	37:2f:90:VAL:HG22	1.85	0.59
1:1A:222:A:H3'	1:1A:421:U:H5'	1.85	0.59
1:1A:1541:G:OP2	60:1A:4161:HOH:O	2.15	0.59
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	1.85	0.59
32:1a:100:C:H2'	32:1a:101:A:C8	2.38	0.59
32:1a:673:G:H2'	32:1a:674:G:C8	2.37	0.59
32:1a:757:U:H2'	32:1a:758:G:O4'	2.03	0.59
1:2A:1495:A:H2'	1:2A:1496:A:C8	2.38	0.59
1:2A:2206:G:H5''	1:2A:2207:G:C8	2.38	0.59
32:2a:41:G:H2'	32:2a:42:G:H8	1.67	0.59
38:2g:114:ARG:HB2	38:2g:115:ARG:NH2	2.18	0.59
1:1A:2712:U:OP1	1:1A:2714:G:H4'	2.02	0.59
9:1N:34:LEU:HD21	9:1N:120:LEU:HB2	1.85	0.59
32:1a:976:G:H5'	32:1a:1358:U:O2'	2.03	0.59
36:2e:92:LYS:HB3	36:2e:119:LEU:HB2	1.84	0.59
4:1E:12:THR:HG21	15:1T:11:GLU:OE2	2.03	0.58
32:1a:452:A:OP1	47:1p:43:LYS:NZ	2.36	0.58
32:1a:520:A:O2'	43:1l:73:GLU:OE2	2.18	0.58
33:1b:189:ASP:OD1	33:1b:189:ASP:N	2.30	0.58
42:1k:99:GLN:HG2	42:1k:105:VAL:HG21	1.85	0.58
1:2A:1105:U:H2'	1:2A:1106:G:H8	1.67	0.58
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.38	0.58
32:2a:254:G:OP1	48:2q:66:SER:OG	2.16	0.58
47:2p:53:VAL:HG13	47:2p:79:VAL:HG22	1.85	0.58
1:1A:1652:A:OP1	13:1R:8:ARG:NH1	2.36	0.58
32:1a:1239:A:H62	32:1a:1299:A:N6	2.01	0.58
35:1d:15:GLU:OE2	35:1d:66:ARG:NH1	2.34	0.58
37:1f:11:ASN:HB3	37:1f:14:LEU:HG	1.85	0.58
43:1l:24:VAL:HB	43:1l:27:LEU:HD22	1.85	0.58
1:2A:2152:G:H2'	1:2A:2153:G:C8	2.37	0.58
36:2e:74:GLY:HA3	36:2e:116:THR:HG22	1.85	0.58
38:2g:22:LEU:HD23	38:2g:63:LYS:HG2	1.85	0.58
53:2y:12:ILE:HG23	53:2y:16:ILE:HG23	1.85	0.58
1:1A:2384:G:O6	60:1A:4151:HOH:O	2.14	0.58
46:1o:39:LEU:HD13	46:1o:56:LEU:HB2	1.83	0.58
1:2A:1278:A:OP1	13:2R:36:THR:HG23	2.03	0.58
32:2a:1158:C:N4	32:2a:1181:G:O6	2.36	0.58
1:1A:1175:U:OP1	1:1A:1177:A:N6	2.37	0.58
32:1a:750:G:O2'	46:1o:22:THR:O	2.20	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1183:A:H3'	32:1a:1184:G:H5''	1.86	0.58
40:1i:17:VAL:HA	40:1i:63:ILE:HG12	1.85	0.58
1:2A:973:A:H8	1:2A:973:A:OP1	1.86	0.58
2:2B:8:U:H3	2:2B:113:G:H1	1.51	0.58
2:2B:55:U:O3'	6:2G:27:ASN:ND2	2.36	0.58
32:2a:939:G:H5'	38:2g:102:ARG:NH1	2.18	0.58
50:2s:38:SER:HB2	50:2s:71:LEU:HD22	1.86	0.58
1:1A:2564:A:C2	1:1A:2647:U:H4'	2.39	0.58
7:1H:3:ARG:NH1	7:1H:5:GLY:H	2.00	0.58
32:1a:1027:C:H2'	32:1a:1028:C:C5	2.38	0.58
32:1a:1135:U:H4'	32:1a:1136:U:H5	1.68	0.58
1:2A:2115:G:N2	1:2A:2117:A:N7	2.52	0.58
3:2D:158:ALA:O	3:2D:161:THR:OG1	2.21	0.58
7:2H:42:ARG:HB3	7:2H:53:GLU:HB2	1.85	0.58
32:2a:977:A:N6	32:2a:1224:G:OP1	2.37	0.58
32:2a:1301:U:O2'	32:2a:1302:U:H5'	2.04	0.58
32:1a:269:C:H2'	32:1a:270:A:C8	2.38	0.58
32:1a:1033:G:H2'	32:1a:1034:G:H8	1.68	0.58
1:2A:2273:A:H2'	1:2A:2274:A:C8	2.39	0.58
6:2G:36:LYS:HZ3	6:2G:160:VAL:HG21	1.67	0.58
32:2a:430:A:OP1	35:2d:9:CYS:HB2	2.04	0.58
1:1A:456:C:H4'	60:1A:6883:HOH:O	2.03	0.58
32:1a:562:C:H1'	43:1l:15:ARG:HD2	1.86	0.58
48:1q:86:GLU:O	48:1q:90:ILE:HG12	2.03	0.58
50:1s:3:ARG:HH11	50:1s:10:PHE:HB2	1.68	0.58
10:2O:107:ARG:HG2	10:2O:115:VAL:HG21	1.86	0.58
32:1a:116:A:OP1	60:1a:3330:HOH:O	2.17	0.58
32:1a:1151:A:HO2'	32:1a:1152:A:H8	1.51	0.58
33:1b:78:GLN:NE2	33:1b:94:ASN:O	2.36	0.58
1:2A:2126:A:H4'	1:2A:2127:G:O5'	2.03	0.58
6:2G:3:LEU:HD11	6:2G:97:ASP:HB3	1.86	0.58
44:2m:107:ALA:HB3	44:2m:111:LYS:HE3	1.85	0.58
1:1A:2153:G:H2'	1:1A:2154:G:C8	2.39	0.58
41:1j:39:PRO:HA	41:1j:70:ARG:HD3	1.85	0.58
1:2A:1316:U:H2'	1:2A:1317:A:H8	1.67	0.58
6:2G:101:ILE:HD13	26:24:25:TYR:HB2	1.86	0.58
12:2Q:38:GLU:HG3	12:2Q:127:ILE:HG22	1.86	0.58
32:2a:931:C:N4	32:2a:1386:G:H1	2.02	0.58
1:1A:1165:U:H2'	1:1A:1166:C:C6	2.38	0.58
1:1A:1187:G:H5''	17:1V:81:TYR:CE1	2.39	0.58
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:12:LEU:HB3	36:1e:31:LEU:HB2	1.86	0.58
1:2A:2161:C:HO2'	1:2A:2173:A:HO2'	1.42	0.58
32:2a:64:G:H4'	32:2a:65:U:H3'	1.86	0.58
8:1I:109:ILE:HG13	8:1I:130:TYR:CZ	2.38	0.57
32:1a:171:A:H2'	32:1a:172:A:C8	2.39	0.57
1:2A:61:G:H5'	24:22:50:ILE:HG21	1.86	0.57
1:2A:271(T):C:H2'	1:2A:271(U):G:H8	1.69	0.57
1:2A:1062:G:H22	1:2A:1077:A:H2	1.50	0.57
1:2A:2717:G:O2'	15:2T:96:ARG:HD3	2.04	0.57
2:2B:41:U:H5	6:2G:70:VAL:HB	1.69	0.57
22:20:27:GLU:HB2	22:20:69:PHE:HD1	1.69	0.57
35:2d:98:GLU:HG3	35:2d:194:LEU:HD21	1.84	0.57
32:2a:662:G:O2'	32:2a:836:G:OP1	2.21	0.57
32:2a:928:G:O2'	32:2a:1533:C:OP1	2.22	0.57
32:2a:1278:U:H5''	32:2a:1279:A:H5'	1.86	0.57
1:1A:271(P):C:H2'	1:1A:271(Q):G:O4'	2.04	0.57
1:1A:2115:G:H2'	1:1A:2117:A:N6	2.18	0.57
1:1A:2458:G:OP2	60:1A:4168:HOH:O	2.17	0.57
8:1I:72:LEU:C	8:1I:74:ASN:H	2.12	0.57
24:12:64:LEU:HD21	24:12:68:ARG:HE	1.68	0.57
32:1a:92:C:H2'	32:1a:93:G:C8	2.40	0.57
53:1y:52:ALA:HB3	53:1y:81:LEU:HD11	1.86	0.57
1:2A:2732:G:O6	60:2A:3860:HOH:O	2.17	0.57
32:2a:196:A:OP1	51:2t:68:LYS:NZ	2.34	0.57
39:2h:12:ARG:NH1	39:2h:27:PRO:HD3	2.19	0.57
39:2h:110:ALA:HB1	39:2h:133:LEU:HD21	1.85	0.57
3:1D:148:GLU:HB2	3:1D:151:LYS:HD2	1.85	0.57
19:1X:60:ARG:HH12	29:17:47:ARG:HH12	1.52	0.57
23:11:77:ALA:HA	23:11:80:LEU:HD13	1.87	0.57
38:1g:146:GLU:OE2	38:1g:149:ARG:NE	2.37	0.57
1:2A:291:C:H42	1:2A:349:G:H1	1.52	0.57
1:2A:1065:U:H3	1:2A:1073:A:H61	1.53	0.57
2:2B:17:C:H2'	2:2B:18:G:O4'	2.05	0.57
6:2G:46:ALA:HB1	6:2G:51:ARG:HA	1.87	0.57
10:2O:115:VAL:HG13	10:2O:121:VAL:HG21	1.87	0.57
33:2b:115:LEU:O	33:2b:119:GLU:N	2.30	0.57
1:1A:251:A:C5	1:1A:252:G:H1'	2.40	0.57
1:1A:1250:G:H5''	60:1U:322:HOH:O	2.03	0.57
1:1A:1602:U:O4	60:1A:4141:HOH:O	2.17	0.57
12:1Q:32:TYR:OH	12:1Q:111:GLU:OE2	2.18	0.57
32:1a:945:G:OP1	60:1a:3329:HOH:O	2.17	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:48:LYS:O	38:1g:52:GLU:HG2	2.04	0.57
1:2A:800:A:H8	1:2A:800:A:OP1	1.88	0.57
1:2A:1025:G:C4	1:2A:1135:C:H1'	2.39	0.57
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.39	0.57
2:2B:40:U:H1'	2:2B:45:A:H61	1.70	0.57
17:2V:57:VAL:HG12	17:2V:99:ILE:HG23	1.86	0.57
32:2a:353:A:H5'	32:2a:353:A:H8	1.68	0.57
32:2a:461:A:O2'	32:2a:471:G:N7	2.35	0.57
1:1A:748:G:O6	18:1W:90:ARG:NH1	2.37	0.57
1:1A:1919:A:O2'	32:1a:1517:G:N3	2.34	0.57
1:1A:2430:A:N3	1:1A:2430:A:H2'	2.19	0.57
4:1E:3:GLY:HA3	4:1E:81:ILE:HD12	1.85	0.57
1:2A:1035:U:H2'	1:2A:1036:G:C8	2.39	0.57
2:2B:24:G:H4'	2:2B:25:A:C8	2.40	0.57
13:2R:103:ARG:NH1	13:2R:108:GLY:O	2.36	0.57
32:2a:503:C:OP2	43:2l:116:SER:HB3	2.05	0.57
32:2a:748:C:H4'	32:2a:749:C:O5'	2.05	0.57
38:2g:57:GLU:HG3	38:2g:60:LYS:H	1.69	0.57
48:2q:62:SER:OG	48:2q:72:ARG:NH1	2.38	0.57
1:1A:2316:C:O2'	6:1G:128:ARG:NH2	2.38	0.57
17:1V:43:GLU:OE1	17:1V:43:GLU:N	2.38	0.57
41:1j:47:PHE:HB2	41:1j:63:PHE:HB2	1.87	0.57
1:2A:192:C:O2'	1:2A:802:A:N3	2.36	0.57
1:2A:1364:G:OP2	23:21:3:LYS:HG3	2.05	0.57
32:2a:987:G:H2'	32:2a:988:G:H8	1.69	0.57
5:1F:155:LEU:HD11	5:1F:176:LEU:HD12	1.85	0.57
32:1a:181:G:H4'	32:1a:182:U:H5'	1.86	0.57
32:1a:1345:U:OP1	60:1a:3331:HOH:O	2.18	0.57
32:1a:1409:C:H2'	32:1a:1410:G:C8	2.39	0.57
20:2Y:77:PRO:HD2	20:2Y:106:LEU:HD23	1.86	0.57
32:2a:56:U:H2'	32:2a:57:G:H8	1.69	0.57
32:2a:1286:A:H8	32:2a:1287:A:H4'	1.68	0.57
35:2d:8:VAL:HG22	35:2d:21:LEU:HD13	1.86	0.57
41:2j:51:ARG:O	45:2n:45:ARG:NH1	2.38	0.57
1:1A:1518:U:H2'	1:1A:1519:G:O4'	2.04	0.57
1:1A:1942:5MC:OP2	1:1A:1943:U:O2'	2.18	0.57
1:1A:2499:C:OP1	60:1A:4171:HOH:O	2.17	0.57
32:1a:78:G:H1	32:1a:91:C:H42	1.51	0.57
1:2A:1062:G:N7	1:2A:1070:A:H1'	2.20	0.57
5:2F:32:LEU:HB3	5:2F:112:MET:HE1	1.87	0.57
8:2I:26:ALA:HB1	8:2I:31:LEU:HD13	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:857:C:H2'	32:2a:858:G:O4'	2.04	0.57
44:2m:81:LEU:HD22	44:2m:88:ARG:HD2	1.87	0.57
1:1A:1763:G:OP1	60:1A:4170:HOH:O	2.17	0.57
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.40	0.57
1:1A:2657:A:O3'	7:1H:160:LYS:NZ	2.37	0.57
11:1P:63:PRO:HG2	30:18:25:MET:HB2	1.85	0.57
1:2A:751:A:OP1	60:2A:3864:HOH:O	2.18	0.57
21:2Z:179:ASP:OD1	21:2Z:180:VAL:N	2.38	0.57
23:21:54:ALA:HB1	23:21:83:GLU:HG3	1.87	0.57
32:2a:438:G:H4'	35:2d:123:HIS:HD2	1.69	0.57
32:2a:979:C:O2	45:2n:19:ARG:HG2	2.05	0.57
1:1A:1068:G:O2'	1:1A:1096:A:O2'	2.19	0.56
1:1A:2137:C:N3	1:1A:2154:G:N2	2.51	0.56
1:1A:2314:C:H2'	1:1A:2315:G:C8	2.40	0.56
32:2a:646:U:H2'	32:2a:647:C:C6	2.39	0.56
35:2d:13:ARG:HD3	35:2d:38:TYR:O	2.04	0.56
1:1A:2689:U:H4'	1:1A:2690:C:H5'	1.87	0.56
28:16:13:CYS:SG	28:16:47:THR:HG21	2.44	0.56
32:1a:165:C:H2'	32:1a:166:G:C8	2.40	0.56
33:1b:167:PRO:HG2	33:1b:188:ALA:HB2	1.87	0.56
44:1m:9:ILE:HB	44:1m:18:ALA:HB1	1.86	0.56
12:2Q:63:LYS:HD2	21:2Z:175:VAL:HG21	1.86	0.56
25:23:39:ASP:OD2	25:23:44:ARG:NH1	2.37	0.56
32:2a:164:U:H2'	32:2a:165:C:C6	2.39	0.56
32:2a:481:G:O2'	32:2a:483:C:N4	2.35	0.56
34:2c:6:HIS:CD2	34:2c:9:GLY:H	2.22	0.56
42:2k:21:ILE:HB	42:2k:84:VAL:HG22	1.87	0.56
3:1D:119:ALA:N	60:1D:411:HOH:O	2.37	0.56
7:1H:11:VAL:HG13	7:1H:15:VAL:HG22	1.88	0.56
13:1R:67:LEU:HD13	13:1R:76:VAL:HG21	1.87	0.56
14:1S:15:ARG:O	14:1S:19:LYS:HG2	2.04	0.56
19:1X:31:HIS:CD2	19:1X:33:LYS:H	2.23	0.56
33:1b:15:VAL:HG22	33:1b:209:ARG:HB3	1.88	0.56
44:1m:11:ARG:HA	44:1m:45:VAL:HB	1.87	0.56
5:2F:116:ASP:OD1	5:2F:119:ARG:NH2	2.38	0.56
6:2G:60:LEU:HD23	6:2G:68:PRO:HG3	1.87	0.56
36:2e:88:LYS:HE2	36:2e:123:LEU:HD12	1.87	0.56
47:2p:20:VAL:HG23	47:2p:35:LYS:HA	1.86	0.56
32:1a:624:C:O3'	47:1p:10:GLY:HA2	2.05	0.56
46:1o:25:THR:HG21	46:1o:70:LEU:HB2	1.88	0.56
1:2A:1187:G:H5'	17:2V:81:TYR:CE1	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:61:ALA:O	6:2G:65:GLY:N	2.36	0.56
1:1A:914:C:OP1	60:1A:4169:HOH:O	2.17	0.56
32:1a:558:G:O6	60:1a:3321:HOH:O	2.13	0.56
34:1c:85:ARG:HA	34:1c:88:ARG:HD2	1.87	0.56
37:1f:69:GLU:O	37:1f:72:VAL:HG12	2.06	0.56
38:1g:79:ARG:HA	38:1g:84:ASN:HA	1.87	0.56
53:1y:55:ASN:HA	53:1y:60:VAL:HA	1.88	0.56
1:2A:2104:G:N2	1:2A:2105:C:C4	2.71	0.56
4:2E:28:ALA:HB3	4:2E:93:VAL:HG12	1.87	0.56
32:2a:407:G:H5'	35:2d:115:ARG:HB3	1.88	0.56
32:2a:501:C:H2'	32:2a:502:G:C8	2.40	0.56
32:2a:1128:C:H1'	32:2a:1147:C:H42	1.69	0.56
32:2a:1172:C:H2'	32:2a:1173:G:C8	2.40	0.56
1:2A:1688:U:O2	1:2A:1700:A:H5'	2.05	0.56
1:2A:2821:A:OP2	60:2R:301:HOH:O	2.18	0.56
4:2E:49:LEU:N	4:2E:79:ARG:O	2.33	0.56
32:2a:1286:A:C8	32:2a:1287:A:H4'	2.40	0.56
33:2b:16:HIS:CD2	33:2b:210:SER:HB3	2.41	0.56
1:1A:2698:U:O4	60:1A:4146:HOH:O	2.13	0.56
19:1X:53:LYS:HB3	19:1X:82:GLN:HB3	1.88	0.56
46:1o:74:ASP:HB3	46:1o:77:ARG:HB2	1.85	0.56
1:2A:84:A:N1	1:2A:98:G:O2'	2.34	0.56
1:2A:2552:OMU:OP2	60:2A:3862:HOH:O	2.18	0.56
23:21:3:LYS:HB2	23:21:61:ARG:HH22	1.71	0.56
32:1a:737:A:H2'	32:1a:738:C:H6	1.71	0.56
39:1h:64:LYS:HG2	39:1h:79:VAL:HG21	1.87	0.56
40:1i:105:ASP:HB2	40:1i:107:ARG:HG3	1.88	0.56
41:1j:11:PHE:HE1	41:1j:67:THR:HG22	1.71	0.56
1:2A:2286:A:H4'	1:2A:2287:A:O4'	2.05	0.56
2:2B:114:C:H4'	14:2S:46:VAL:HG13	1.88	0.56
6:2G:105:LYS:NZ	6:2G:143:GLU:OE2	2.38	0.56
32:2a:1164:G:H1	32:2a:1172:C:H42	1.53	0.56
32:2a:1212:U:H4'	32:2a:1213:A:C8	2.41	0.56
1:1A:1173:G:C2	1:1A:1175:U:H4'	2.41	0.56
1:1A:2142:C:O2	1:1A:2149:G:N1	2.39	0.56
32:1a:1446:U:O2'	32:1a:1447:A:H2'	2.05	0.56
41:1j:49:VAL:HG23	45:1n:41:ARG:HB2	1.88	0.56
44:1m:78:ILE:HG22	44:1m:82:MET:HE2	1.87	0.56
1:2A:740:U:H2'	1:2A:741:G:C8	2.41	0.56
32:2a:737:A:H2'	32:2a:738:C:C6	2.41	0.56
32:2a:1135:U:H4'	32:2a:1136:U:C5	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:25:ARG:NH1	35:2d:30:LYS:O	2.39	0.56
39:2h:86:ILE:HG21	39:2h:133:LEU:HD13	1.88	0.56
57:1B:232:ARG:N	60:1B:319:HOH:O	2.39	0.56
40:1i:9:ARG:HG2	40:1i:14:VAL:HG13	1.88	0.56
50:1s:22:LEU:O	50:1s:26:GLY:N	2.38	0.56
1:2A:1032:A:H2	1:2A:1122:G:H22	1.54	0.56
1:2A:1272:A:H3'	1:2A:1273:U:H5''	1.89	0.56
1:2A:2646:C:OP2	1:2A:2732:G:O2'	2.22	0.56
32:2a:450:G:H4'	47:2p:41:PRO:HB2	1.87	0.56
32:2a:881:G:OP1	43:2l:12:ARG:NH2	2.39	0.56
32:2a:1005:A:H5''	32:2a:1006:C:C5	2.41	0.56
1:1A:971:C:OP2	60:1A:4176:HOH:O	2.18	0.55
1:1A:2142:C:H2'	1:1A:2143:C:C6	2.41	0.55
26:14:16:CYS:SG	26:14:17:GLY:N	2.78	0.55
32:1a:1034:G:H2'	32:1a:1035:A:O4'	2.06	0.55
32:1a:1409:C:H2'	32:1a:1410:G:H8	1.71	0.55
41:1j:30:SER:OG	41:1j:81:THR:HG22	2.06	0.55
53:1y:38:HIS:O	53:1y:52:ALA:HA	2.07	0.55
1:2A:1063:G:H2'	1:2A:1065:U:C6	2.42	0.55
45:2n:46:GLU:O	45:2n:50:LYS:HG2	2.06	0.55
1:1A:956:G:O6	60:1A:4159:HOH:O	2.15	0.55
1:1A:1815:A:OP2	3:1D:54:ARG:NH2	2.39	0.55
6:1G:77:ILE:HG22	6:1G:80:PHE:H	1.70	0.55
21:1Z:19:ARG:NH1	21:1Z:84:GLU:O	2.39	0.55
32:1a:473:G:H2'	32:1a:474:G:C8	2.41	0.55
1:2A:1105:U:H2'	1:2A:1106:G:C8	2.41	0.55
1:2A:1161:C:H4'	17:2V:8:GLY:HA2	1.88	0.55
1:2A:2328:A:H2'	1:2A:2329:G:C8	2.40	0.55
6:2G:55:LYS:HA	6:2G:58:GLN:HB3	1.87	0.55
22:20:9:SER:OG	22:20:10:THR:N	2.38	0.55
32:2a:989:C:H42	32:2a:1216:G:H1	1.54	0.55
32:2a:1239:A:O2'	38:2g:114:ARG:O	2.24	0.55
35:2d:12:CYS:SG	35:2d:19:LEU:N	2.79	0.55
1:1A:434:U:OP2	60:1A:4172:HOH:O	2.18	0.55
32:1a:221:C:H2'	32:1a:222:U:H6	1.71	0.55
32:1a:1103:C:OP1	33:1b:96:ARG:NH2	2.39	0.55
1:2A:570:G:O6	60:2A:3841:HOH:O	2.15	0.55
1:2A:1593:G:H2'	1:2A:1594:G:H8	1.70	0.55
8:2I:9:LEU:HB2	8:2I:12:LEU:HB2	1.88	0.55
23:21:94:LEU:HA	23:21:97:LEU:HD12	1.88	0.55
32:2a:17:U:H2'	32:2a:18:C:C6	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:542:G:OP1	35:2d:10:ARG:NH1	2.29	0.55
37:2f:3:ARG:HD3	37:2f:64:GLN:HE21	1.71	0.55
37:2f:99:ALA:HB2	49:2r:31:LEU:HD11	1.88	0.55
1:1A:469:G:O6	29:17:37:LYS:NZ	2.36	0.55
3:1D:108:PRO:HD2	3:1D:111:LEU:HG	1.89	0.55
6:1G:114:ILE:HG12	6:1G:140:ILE:HG12	1.87	0.55
19:1X:1:MET:HE1	24:12:26:ARG:NH2	2.20	0.55
36:1e:39:GLY:HA2	36:1e:69:VAL:HG22	1.88	0.55
1:2A:58:G:O2'	1:2A:73:A:N1	2.40	0.55
1:2A:251:A:C5	1:2A:252:G:H1'	2.42	0.55
1:2A:807:U:OP2	11:2P:41:ARG:NH2	2.39	0.55
1:2A:2353:G:O6	60:2A:3858:HOH:O	2.16	0.55
32:2a:986:A:N3	50:2s:52:TYR:OH	2.27	0.55
38:2g:48:LYS:O	38:2g:52:GLU:HG2	2.07	0.55
50:2s:20:LEU:HD21	50:2s:43:GLU:HG2	1.89	0.55
4:1E:47:VAL:HG12	4:1E:49:LEU:HD13	1.88	0.55
9:1N:73:THR:OG1	9:1N:82:LEU:HD11	2.07	0.55
32:1a:1043:C:H2'	32:1a:1044:A:O4'	2.07	0.55
32:1a:1340:A:OP2	60:1a:3328:HOH:O	2.17	0.55
1:2A:1199:U:O2'	60:2A:3868:HOH:O	2.18	0.55
1:2A:2870:C:H2'	1:2A:2871:C:O4'	2.06	0.55
13:2R:55:ALA:HB2	13:2R:79:LEU:HD13	1.88	0.55
32:2a:1087:G:OP1	60:2a:3212:HOH:O	2.18	0.55
34:2c:6:HIS:HB3	45:2n:49:HIS:ND1	2.22	0.55
34:2c:35:GLU:HA	34:2c:38:ARG:HG3	1.87	0.55
41:2j:44:VAL:HG22	41:2j:66:ARG:HG2	1.88	0.55
1:1A:526:A:O2'	1:1A:2043:C:O2	2.23	0.55
1:1A:801:G:OP2	60:1A:4175:HOH:O	2.18	0.55
1:1A:2345:G:N3	1:1A:2381:C:H2'	2.22	0.55
46:1o:9:GLN:HA	46:1o:12:ILE:HD12	1.88	0.55
46:1o:70:LEU:HD11	46:1o:77:ARG:HB3	1.87	0.55
4:2E:111:ARG:NH2	60:2E:404:HOH:O	2.36	0.55
21:2Z:52:SER:O	60:2Z:301:HOH:O	2.18	0.55
21:2Z:98:MET:HE2	21:2Z:100:VAL:HG22	1.89	0.55
41:2j:6:ILE:HB	41:2j:72:VAL:HG23	1.87	0.55
47:2p:43:LYS:HA	47:2p:48:TRP:HB3	1.89	0.55
11:1P:90:ARG:HD2	11:1P:91:PHE:CE2	2.42	0.55
32:2a:1010:G:H2'	32:2a:1011:G:C8	2.41	0.55
40:2i:51:ARG:HG2	40:2i:56:LEU:HD21	1.89	0.55
1:1A:34:C:O2'	1:1A:35:G:H5'	2.07	0.55
1:1A:1073:A:H2	1:1A:1074:G:H8	1.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1063:G:H2'	1:2A:1065:U:H6	1.72	0.55
13:2R:95:THR:HG22	13:2R:116:LEU:HD23	1.88	0.55
32:2a:192:U:H2'	32:2a:193:C:H6	1.71	0.55
32:2a:406:G:N2	35:2d:119:GLN:HE22	2.05	0.55
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.42	0.55
39:2h:20:TYR:HA	39:2h:65:TYR:CZ	2.41	0.55
47:2p:20:VAL:HG21	47:2p:32:TYR:CG	2.41	0.55
1:1A:1664:A:OP1	60:1A:4173:HOH:O	2.18	0.55
1:2A:2206:G:H8	1:2A:2207:G:N7	2.05	0.55
8:2I:57:ARG:O	8:2I:61:ARG:NH1	2.40	0.55
15:2T:30:VAL:HG22	15:2T:86:ILE:HG12	1.89	0.55
19:2X:31:HIS:HB3	19:2X:34:ALA:HB2	1.89	0.55
32:2a:1024:G:H2'	32:2a:1025:U:H5''	1.87	0.55
34:2c:20:SER:OG	34:2c:22:TRP:NE1	2.40	0.55
15:1T:54:ARG:HA	15:1T:59:THR:HB	1.87	0.55
17:1V:60:GLU:OE1	17:1V:97:LYS:NZ	2.35	0.55
32:1a:189(K):U:H2'	32:1a:189(L):G:H8	1.71	0.55
36:1e:40:ARG:NH2	36:1e:68:GLU:OE2	2.40	0.55
2:2B:13:A:N1	2:2B:69:G:O2'	2.37	0.55
2:2B:75:G:O3'	21:2Z:10:ARG:NH2	2.39	0.55
37:2f:61:LEU:HB3	37:2f:63:TYR:CE2	2.41	0.55
1:1A:1178:C:H2'	1:1A:1179:C:C6	2.41	0.54
1:1A:2060:A:N7	60:1A:4331:HOH:O	2.33	0.54
5:1F:9:ILE:HG12	5:1F:123:LEU:HD23	1.89	0.54
32:1a:67:C:H2'	32:1a:68:G:C8	2.42	0.54
35:1d:165:MET:HA	35:1d:168:ARG:HG2	1.89	0.54
42:1k:87:THR:O	42:1k:87:THR:OG1	2.25	0.54
1:2A:226:G:H21	1:2A:228:A:H62	1.55	0.54
1:2A:2602:A:H4'	1:2A:2603:G:OP1	2.07	0.54
4:1E:56:PRO:O	4:1E:64:LYS:NZ	2.39	0.54
7:1H:159:GLU:HG2	7:1H:169:VAL:HG11	1.88	0.54
8:1I:86:THR:HA	8:1I:123:LEU:HD12	1.88	0.54
32:1a:627:G:H2'	32:1a:628:G:H8	1.73	0.54
32:1a:1286:A:H2'	32:1a:1287:A:H4'	1.89	0.54
34:1c:15:THR:HG21	34:1c:181:ASN:HA	1.89	0.54
36:1e:12:LEU:HD12	36:1e:128:PRO:HB2	1.89	0.54
1:2A:323:G:O2'	1:2A:1205:U:N3	2.40	0.54
1:2A:2112:G:H2'	1:2A:2113:U:C6	2.42	0.54
15:2T:24:PRO:HD3	15:2T:52:ILE:HD12	1.89	0.54
31:29:27:CYS:SG	31:29:28:GLU:N	2.80	0.54
32:2a:987:G:H2'	32:2a:988:G:C8	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:121:ALA:HB1	34:2c:189:ALA:HB2	1.88	0.54
35:2d:72:GLU:OE2	35:2d:207:TYR:OH	2.26	0.54
13:1R:36:THR:HG22	13:1R:37:THR:H	1.71	0.54
32:1a:45:U:H2'	32:1a:46:G:C8	2.43	0.54
1:2A:1065:U:H3	1:2A:1073:A:N6	2.04	0.54
1:2A:1076:C:H4'	1:2A:1077:A:OP1	2.06	0.54
1:2A:1371:G:N7	60:2A:3987:HOH:O	2.33	0.54
1:2A:2376:A:N3	14:2S:106:ARG:NH2	2.55	0.54
32:2a:102:G:H2'	32:2a:103:C:H6	1.71	0.54
32:2a:254:G:H21	48:2q:16:GLN:NE2	2.05	0.54
34:2c:6:HIS:NE2	34:2c:8:ILE:HB	2.22	0.54
40:2i:17:VAL:HG11	40:2i:80:GLY:C	2.33	0.54
47:2p:21:VAL:HG13	47:2p:33:ILE:HB	1.89	0.54
1:1A:2721:A:H5''	60:1A:4496:HOH:O	2.08	0.54
22:10:11:ARG:O	22:10:14:ARG:NH2	2.30	0.54
32:1a:1368:G:OP2	40:1i:112:LYS:HG3	2.07	0.54
33:1b:155:LEU:HD11	33:1b:159:PRO:HG3	1.89	0.54
50:1s:43:GLU:OE1	50:1s:43:GLU:N	2.41	0.54
60:2A:3981:HOH:O	23:21:20:ARG:NH1	2.34	0.54
6:2G:42:GLY:HA2	6:2G:89:GLY:HA2	1.90	0.54
10:2O:120:GLU:HG2	10:2O:122:LEU:HG	1.88	0.54
1:1A:694:U:OP1	3:1D:59:LYS:NZ	2.41	0.54
1:1A:1056:G:N2	1:1A:1104:C:N3	2.55	0.54
1:1A:1453:U:O2'	1:1A:1455:G:N7	2.37	0.54
1:1A:2674:G:H5''	10:1O:26:LYS:HE3	1.88	0.54
32:1a:411:A:OP1	35:1d:30:LYS:NZ	2.41	0.54
32:1a:591:U:H2'	32:1a:592:G:C8	2.41	0.54
32:1a:688:G:H2'	32:1a:689:C:H6	1.72	0.54
53:1y:89:GLN:OE1	60:1y:301:HOH:O	2.18	0.54
1:2A:446:G:OP1	16:2U:3:ARG:NH1	2.33	0.54
1:2A:1839:G:C8	1:2A:1927:A:H1'	2.41	0.54
32:2a:273:A:H1'	48:2q:16:GLN:NE2	2.23	0.54
34:2c:6:HIS:CD2	45:2n:49:HIS:HB3	2.42	0.54
34:2c:148:GLY:HA3	34:2c:172:ARG:O	2.07	0.54
40:2i:59:PHE:HZ	40:2i:88:TYR:CZ	2.25	0.54
1:1A:307:G:H21	1:1A:330:A:N6	2.06	0.54
1:1A:2086:U:H2'	1:1A:2087:G:C8	2.43	0.54
12:1Q:63:LYS:NZ	21:1Z:118:GLN:OE1	2.41	0.54
32:1a:1183:A:O2'	32:1a:1184:G:OP1	2.20	0.54
2:2B:24:G:N7	2:2B:56:G:H2'	2.23	0.54
32:2a:56:U:H2'	32:2a:57:G:C8	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1348:U:H4'	40:2i:120:ARG:HD2	1.90	0.54
33:2b:15:VAL:HB	33:2b:209:ARG:HB3	1.90	0.54
1:1A:2336:A:H61	22:10:43:THR:HG22	1.72	0.54
16:1U:88:ILE:HG22	16:1U:90:VAL:HG23	1.88	0.54
32:1a:189(K):U:H2'	32:1a:189(L):G:C8	2.43	0.54
32:1a:826:C:O2	39:1h:15:ASN:ND2	2.40	0.54
32:1a:833:U:H2'	32:1a:834:C:C6	2.43	0.54
32:1a:1343:G:H2'	32:1a:1344:C:C6	2.42	0.54
1:2A:2407:G:OP1	60:2A:3863:HOH:O	2.18	0.54
5:2F:185:ASP:HA	5:2F:188:ARG:HD3	1.89	0.54
19:2X:26:TYR:HB3	19:2X:92:LEU:HD23	1.90	0.54
32:2a:222:U:H2'	32:2a:223:U:C6	2.42	0.54
33:2b:8:LYS:HD2	33:2b:48:MET:HG2	1.88	0.54
38:2g:69:VAL:HG21	38:2g:104:LEU:HD11	1.90	0.54
1:1A:548:A:O2'	1:1A:549:G:OP1	2.24	0.54
22:10:70:GLN:HG2	22:10:72:ARG:HG3	1.89	0.54
32:1a:106:C:H2'	32:1a:107:G:C8	2.43	0.54
34:1c:6:HIS:HB3	45:1n:49:HIS:ND1	2.22	0.54
32:2a:36:C:N4	60:2a:3235:HOH:O	2.38	0.54
32:2a:539:A:H2'	32:2a:540:G:C8	2.42	0.54
32:2a:1376:U:H2'	32:2a:1377:A:C8	2.43	0.54
1:1A:187:G:OP2	60:1A:4181:HOH:O	2.19	0.54
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.89	0.54
14:1S:20:ARG:NH2	22:10:51:VAL:O	2.37	0.54
39:1h:11:THR:OG1	39:1h:14:ARG:NH2	2.41	0.54
42:1k:81:ASP:N	42:1k:81:ASP:OD1	2.41	0.54
44:1m:11:ARG:C	44:1m:13:LYS:H	2.16	0.54
1:2A:1067:A:H4'	1:2A:1068:G:OP2	2.07	0.54
1:2A:1178:C:H2'	1:2A:1179:C:C6	2.43	0.54
1:2A:1904:G:OP1	60:2A:3867:HOH:O	2.18	0.54
1:2A:2150:U:H2'	1:2A:2151:G:C8	2.43	0.54
32:2a:997:U:H3	32:2a:1044:A:H61	1.55	0.54
32:2a:1456:G:N1	51:2t:51:GLU:OE2	2.33	0.54
34:2c:123:GLN:HA	34:2c:126:ARG:HD2	1.89	0.54
37:2f:76:ALA:HB1	37:2f:80:ARG:HH22	1.73	0.54
1:1A:1441:G:H2'	1:1A:1442:G:H8	1.73	0.54
1:1A:1781:C:N4	60:1A:4495:HOH:O	2.41	0.54
1:1A:2079:U:OP1	23:11:21:ARG:NH2	2.40	0.54
32:1a:452:A:H4'	47:1p:72:ARG:NH1	2.22	0.54
40:1i:7:THR:O	40:1i:83:ARG:NH1	2.40	0.54
1:2A:27:G:O2'	1:2A:28:A:OP2	2.25	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1186:G:C2	1:2A:1187:G:H1'	2.42	0.54
1:2A:2180:U:H2'	1:2A:2181:G:C8	2.42	0.54
1:2A:2375:G:N2	1:2A:2378:A:OP2	2.37	0.54
1:2A:2602:A:H1'	1:2A:2603:G:C5'	2.36	0.54
19:2X:54:VAL:HG22	19:2X:81:VAL:HG12	1.90	0.54
21:2Z:93:ASP:HB2	21:2Z:131:ARG:HH12	1.73	0.54
36:2e:43:LEU:O	36:2e:65:ASN:ND2	2.30	0.54
37:2f:35:ALA:HA	37:2f:67:MET:HB3	1.89	0.54
1:1A:1047:G:H2'	1:1A:1110:G:H22	1.73	0.53
1:1A:2143:C:N3	1:1A:2148:G:O6	2.41	0.53
1:1A:2144:U:C2'	1:1A:2147:G:H1	2.19	0.53
10:1O:48:PRO:HB3	32:1a:1422:G:H5''	1.89	0.53
12:1Q:58:PHE:O	12:1Q:60:ARG:N	2.41	0.53
44:1m:3:ARG:HG2	44:1m:8:GLU:HG3	1.89	0.53
47:1p:43:LYS:HG2	47:1p:48:TRP:CE2	2.43	0.53
1:2A:639:U:H2'	1:2A:640:C:C6	2.43	0.53
5:2F:160:ASN:HB3	5:2F:163:VAL:HB	1.90	0.53
22:20:56:ASP:OD1	22:20:58:THR:OG1	2.24	0.53
32:2a:110:C:O2'	47:2p:25:ARG:O	2.25	0.53
39:2h:51:VAL:HG11	39:2h:60:ARG:HH11	1.73	0.53
40:2i:116:LYS:HD2	40:2i:122:ALA:HA	1.90	0.53
1:1A:323:G:C8	5:1F:171:PRO:HG3	2.43	0.53
1:1A:1641:A:OP2	60:1A:4180:HOH:O	2.19	0.53
1:1A:2140:C:H2'	1:1A:2141:G:C8	2.41	0.53
32:1a:715:A:H2'	32:1a:716:A:C8	2.43	0.53
47:1p:4:ILE:HG13	47:1p:21:VAL:HG23	1.91	0.53
50:1s:22:LEU:HD22	50:1s:27:GLU:HA	1.89	0.53
1:2A:1915:5MU:H2'	1:2A:1916:A:O4'	2.09	0.53
4:2E:11:MET:HG2	4:2E:24:THR:HG23	1.90	0.53
15:2T:41:ARG:NH2	32:2a:346:G:OP1	2.29	0.53
17:2V:60:GLU:HB2	17:2V:97:LYS:HE2	1.88	0.53
32:2a:1071:C:H2'	32:2a:1072:G:C8	2.42	0.53
33:2b:166:ASP:HB3	33:2b:169:LYS:HB3	1.89	0.53
40:2i:6:GLY:H	40:2i:17:VAL:HG13	1.73	0.53
1:1A:207:A:H2'	1:1A:208:C:O4'	2.08	0.53
3:1D:108:PRO:HG3	3:1D:143:HIS:CE1	2.43	0.53
32:1a:266:G:H5'	32:1a:268:C:H41	1.73	0.53
32:1a:1325:C:H4'	52:1u:17:THR:HG21	1.91	0.53
40:1i:4:TYR:HD1	40:1i:87:GLN:HG3	1.73	0.53
1:2A:854:G:H2'	1:2A:855:G:H8	1.74	0.53
1:2A:2114:A:H3'	1:2A:2115:G:H8	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:26:ALA:HA	8:2I:30:LEU:HB2	1.90	0.53
23:21:75:GLU:HA	23:21:78:LYS:HE2	1.89	0.53
34:2c:20:SER:HB2	34:2c:40:ARG:HH21	1.74	0.53
1:1A:185:U:H4'	1:1A:218:A:H4'	1.89	0.53
1:1A:1341:U:OP2	1:1A:1394:U:O2'	2.18	0.53
1:1A:1823:G:OP1	3:1D:54:ARG:NH1	2.41	0.53
1:1A:2023:G:H5'	1:1A:2617:C:H4'	1.89	0.53
6:1G:125:PHE:HB3	6:1G:166:ASP:OD1	2.09	0.53
14:1S:11:LYS:HG3	14:1S:91:PRO:HD3	1.90	0.53
21:1Z:152:ALA:HB1	21:1Z:163:LEU:HD21	1.91	0.53
21:1Z:155:LEU:HB3	21:1Z:157:LEU:HD21	1.90	0.53
32:1a:222:U:H2'	32:1a:223:U:H6	1.73	0.53
34:1c:35:GLU:HG2	34:1c:39:ILE:HD11	1.90	0.53
34:1c:134:ILE:HG23	34:1c:151:VAL:HB	1.91	0.53
1:2A:1064:C:H3'	1:2A:1065:U:C5'	2.38	0.53
32:2a:192:U:O2'	51:2t:60:GLU:OE1	2.25	0.53
33:2b:102:LEU:HD23	33:2b:182:ILE:HD12	1.91	0.53
36:2e:53:LEU:HD12	36:2e:53:LEU:H	1.71	0.53
32:1a:474:G:H2'	32:1a:475:G:C8	2.43	0.53
32:1a:642:A:N3	39:1h:113:SER:OG	2.30	0.53
33:1b:16:HIS:HB2	33:1b:204:ASN:HB3	1.90	0.53
34:1c:58:GLU:HB3	41:1j:92:THR:HG21	1.91	0.53
1:2A:1334:G:O6	60:2A:3865:HOH:O	2.18	0.53
1:2A:1795:C:O2	3:2D:255:LYS:NZ	2.42	0.53
2:2B:95:C:H2'	2:2B:96:U:C6	2.43	0.53
33:2b:9:GLU:HB3	33:2b:11:LEU:HG	1.89	0.53
33:2b:179:LYS:HA	39:2h:72:PRO:HG3	1.91	0.53
1:1A:286:C:H2'	1:1A:287:C:C6	2.44	0.53
2:1B:66:A:N6	2:1B:108:U:H2'	2.23	0.53
32:1a:1179:A:OP2	40:1i:93:ARG:NH2	2.42	0.53
32:1a:1277:C:O2'	32:1a:1279:A:H1'	2.09	0.53
34:1c:21:ARG:NH2	34:1c:58:GLU:OE2	2.38	0.53
35:1d:172:PRO:C	35:1d:174:LEU:H	2.16	0.53
38:1g:113:GLU:HG2	38:1g:119:ARG:HG2	1.91	0.53
41:1j:16:LEU:HD22	41:1j:68:HIS:HB2	1.89	0.53
1:2A:1657:C:H2'	1:2A:1658:C:C6	2.44	0.53
32:2a:1103:C:OP1	33:2b:96:ARG:NH2	2.41	0.53
33:2b:95:GLN:HB3	33:2b:148:TYR:CD1	2.44	0.53
32:1a:42:G:O2'	32:1a:622:A:N1	2.38	0.53
32:1a:191:G:H1'	51:1t:103:GLY:HA3	1.91	0.53
32:1a:677:U:H3	32:1a:713:G:H22	1.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:796:C:H2'	1:2A:797:C:C6	2.44	0.53
1:2A:2168:G:O2'	1:2A:2170:A:N7	2.30	0.53
32:2a:1503:A:OP1	32:2a:1531:A:O2'	2.22	0.53
1:1A:729:G:C6	3:1D:208:LYS:HB2	2.43	0.53
1:1A:2121:G:N2	60:1A:4378:HOH:O	2.42	0.53
26:14:55:ARG:N	26:14:56:VAL:HA	2.24	0.53
32:1a:79:G:C2	32:1a:90:U:O2	2.62	0.53
32:1a:376:G:H5''	47:1p:5:ARG:HD2	1.89	0.53
32:1a:427:U:OP1	35:1d:13:ARG:NH1	2.35	0.53
32:1a:1003:G:C2'	32:1a:1004:A:H4'	2.39	0.53
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.24	0.53
1:2A:387:U:OP1	60:2A:3866:HOH:O	2.18	0.53
1:2A:2104:G:N7	1:2A:2186:G:N2	2.57	0.53
7:2H:150:ALA:HA	7:2H:153:LYS:HG3	1.91	0.53
32:2a:137:C:H2'	32:2a:138:G:H8	1.74	0.53
3:1D:123:ALA:O	60:1D:403:HOH:O	2.19	0.53
3:1D:206:LEU:HD22	3:1D:211:ARG:HG2	1.90	0.53
34:1c:108:ASN:HB3	34:1c:111:LEU:HB2	1.91	0.53
53:1y:3:MET:HE2	53:1y:21:ALA:HB2	1.91	0.53
1:2A:1507:A:O2'	1:2A:1508:A:O5'	2.22	0.53
4:2E:127:ASP:OD2	60:2E:401:HOH:O	2.19	0.53
23:21:4:VAL:HG12	23:21:11:ARG:HB3	1.90	0.53
34:2c:63:ASN:HB2	34:2c:98:ASN:HB2	1.91	0.53
43:2l:86:ARG:HH11	43:2l:87:GLY:HA3	1.74	0.53
5:1F:143:ALA:HB1	5:1F:148:LEU:HB2	1.91	0.53
17:1V:21:ARG:HD3	17:1V:91:TYR:CD1	2.44	0.53
34:1c:7:PRO:O	34:1c:11:ARG:NH1	2.41	0.53
36:1e:53:LEU:H	36:1e:53:LEU:HD12	1.74	0.53
36:1e:57:LYS:HG2	36:1e:61:TYR:CE2	2.44	0.53
3:2D:49:ILE:O	60:2D:401:HOH:O	2.18	0.53
5:2F:102:PRO:HB2	5:2F:105:VAL:HG23	1.91	0.53
26:24:16:CYS:SG	26:24:17:GLY:N	2.81	0.53
32:2a:528:C:H5'	32:2a:529:G:OP2	2.09	0.53
32:2a:531:U:O3'	32:2a:532:A:H4'	2.09	0.53
32:2a:1002:G:C2	32:2a:1003:G:C8	2.95	0.53
39:2h:86:ILE:HD11	39:2h:136:GLU:HG2	1.91	0.53
1:1A:1097:U:H3'	1:1A:1098:A:H8	1.75	0.52
1:1A:1113:U:H2'	1:1A:1114:G:C8	2.44	0.52
1:1A:1430:C:H2'	1:1A:1431:U:C6	2.44	0.52
33:1b:97:TRP:CH2	33:1b:173:ALA:HA	2.44	0.52
37:1f:95:GLU:O	49:1r:32:ARG:NH1	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:1m:49:THR:HG22	44:1m:51:ALA:H	1.74	0.52
1:2A:2571:C:H5''	1:2A:2572:A:H5''	1.90	0.52
32:2a:882:C:OP2	43:2l:13:LYS:NZ	2.41	0.52
33:2b:105:PHE:HE1	33:2b:155:LEU:HD23	1.74	0.52
1:1A:607:U:OP1	5:1F:102:PRO:HA	2.09	0.52
1:1A:2615:U:OP2	60:1A:4179:HOH:O	2.18	0.52
1:1A:2849:U:H4'	1:1A:2868:A:C2	2.44	0.52
9:1N:35:ARG:NH2	60:1N:302:HOH:O	2.40	0.52
14:1S:15:ARG:HE	14:1S:88:ASP:CG	2.17	0.52
18:1W:18:ARG:NH1	18:1W:76:VAL:O	2.43	0.52
32:1a:7:G:H5'	32:1a:298:A:O4'	2.10	0.52
32:1a:973:G:H3'	32:1a:974:A:H5''	1.91	0.52
39:1h:86:ILE:HG21	39:1h:133:LEU:HD13	1.91	0.52
1:2A:1798:U:H5'	3:2D:259:THR:CG2	2.39	0.52
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.45	0.52
26:24:48:ARG:HH11	26:24:48:ARG:HA	1.75	0.52
33:2b:185:ILE:HG13	33:2b:199:TYR:HB2	1.92	0.52
50:2s:40:ILE:HG13	50:2s:71:LEU:HD12	1.91	0.52
1:1A:2142:C:N3	1:1A:2149:G:O6	2.42	0.52
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.45	0.52
50:1s:80:TYR:CZ	50:1s:82:GLY:HA2	2.45	0.52
1:2A:2785:C:O2'	4:2E:66:HIS:ND1	2.43	0.52
2:2B:42:C:O2'	6:2G:66:GLN:HG2	2.10	0.52
33:2b:168:THR:OG1	33:2b:192:SER:HA	2.09	0.52
51:2t:89:ARG:O	51:2t:93:GLU:HG2	2.09	0.52
1:1A:1025:G:C4	1:1A:1135:C:H1'	2.44	0.52
1:1A:2331:G:O2'	1:1A:2336:A:N1	2.31	0.52
6:1G:179:PRO:HG3	26:14:43:TYR:OH	2.10	0.52
10:1O:39:ILE:HD12	10:1O:41:ALA:HB2	1.91	0.52
32:1a:38:G:N2	32:1a:397:A:H5'	2.24	0.52
32:1a:426:G:OP1	35:1d:36:ARG:NH1	2.43	0.52
6:2G:80:PHE:O	6:2G:82:LEU:N	2.43	0.52
11:2P:19:VAL:HG12	11:2P:27:HIS:HB3	1.92	0.52
11:2P:88:LEU:HD11	11:2P:114:ILE:HD12	1.90	0.52
32:2a:337:C:H2'	32:2a:338:A:H8	1.74	0.52
35:2d:79:PHE:HE1	35:2d:204:ILE:HD13	1.74	0.52
45:2n:34:TYR:HE2	45:2n:44:LEU:HD22	1.74	0.52
1:1A:272(F):C:H42	1:1A:363(D):G:H1	1.57	0.52
1:1A:1278:A:OP1	13:1R:36:THR:HG23	2.10	0.52
1:1A:1509(B):A:H2'	1:1A:1510:G:O4'	2.10	0.52
2:1B:48:A:H4'	14:1S:95:HIS:HD2	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1Z:80:ARG:HB3	21:1Z:82:ARG:HD3	1.91	0.52
28:16:6:ARG:NH1	28:16:26:ASN:HB2	2.25	0.52
32:1a:1333:A:H2'	32:1a:1334:G:O4'	2.09	0.52
51:1t:57:ARG:HH22	51:1t:100:ILE:HD12	1.74	0.52
53:1y:37:PRO:HA	53:1y:54:ILE:HG12	1.90	0.52
1:2A:1156:A:O4'	16:2U:51:LYS:NZ	2.41	0.52
30:28:62:LEU:HB3	30:28:65:GLU:HG2	1.92	0.52
32:2a:404:U:H2'	32:2a:405:U:H6	1.74	0.52
32:2a:719:C:O2'	49:2r:49:LYS:HB3	2.09	0.52
32:2a:1031:G:H2'	32:2a:1032:G:C8	2.45	0.52
40:2i:31:GLN:HB3	40:2i:36:TYR:HB2	1.92	0.52
1:1A:1542:A:O2'	60:1A:4161:HOH:O	2.19	0.52
1:1A:2096:U:H2'	1:1A:2097:C:C6	2.45	0.52
6:1G:3:LEU:O	6:1G:8:LYS:NZ	2.28	0.52
32:1a:266:G:H5''	32:1a:267:C:C5	2.44	0.52
32:1a:1171:G:H2'	32:1a:1172:C:C6	2.45	0.52
32:1a:1305:G:H22	32:1a:1331:G:H1'	1.74	0.52
33:1b:127:ILE:HG22	33:1b:130:ARG:HG2	1.92	0.52
33:1b:162:ILE:O	33:1b:185:ILE:HG12	2.10	0.52
2:2B:14:U:OP2	2:2B:70:C:O2'	2.27	0.52
4:2E:23:VAL:HG11	4:2E:183:LEU:HD23	1.91	0.52
4:2E:59:VAL:HG21	4:2E:74:PRO:HB3	1.91	0.52
36:2e:127:ASN:HB3	36:2e:130:ASN:HB2	1.90	0.52
42:2k:61:ALA:HB1	42:2k:94:ALA:HB2	1.91	0.52
1:1A:1919:A:N1	32:1a:1495:U:O2'	2.34	0.52
1:1A:2602:A:H4'	1:1A:2603:G:OP1	2.08	0.52
5:1F:148:LEU:HD22	5:1F:154:VAL:HG21	1.92	0.52
12:1Q:55:VAL:HG12	12:1Q:64:ILE:HD12	1.91	0.52
32:1a:444:C:H2'	32:1a:445:G:H8	1.75	0.52
34:1c:182:ILE:HG12	34:1c:203:PHE:HD1	1.73	0.52
1:2A:1803:A:O2'	3:2D:259:THR:HG21	2.09	0.52
1:2A:2291:U:OP1	1:2A:2380:C:O2'	2.28	0.52
11:2P:86:LYS:HB3	11:2P:118:GLY:HA3	1.92	0.52
32:2a:8:A:N6	35:2d:209:ARG:HB2	2.24	0.52
32:2a:562:C:OP1	60:2a:3213:HOH:O	2.19	0.52
32:2a:1277:C:H1'	32:2a:1282:C:C2	2.44	0.52
33:2b:178:ARG:HB3	39:2h:72:PRO:HA	1.91	0.52
36:2e:9:LYS:NZ	36:2e:111:GLU:OE1	2.43	0.52
44:2m:6:GLY:HA3	44:2m:67:GLU:HB2	1.92	0.52
12:1Q:141:GLN:NE2	21:1Z:74:VAL:O	2.38	0.52
32:1a:377:G:OP1	47:1p:3:LYS:NZ	2.38	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1223:C:P	50:1s:78:ARG:HH21	2.31	0.52
33:1b:185:ILE:CG2	33:1b:199:TYR:HB2	2.39	0.52
47:1p:1:MET:HG3	47:1p:3:LYS:HG3	1.91	0.52
48:1q:66:SER:O	48:1q:70:ARG:NH1	2.43	0.52
53:1y:24:LEU:HD22	53:1y:27:LEU:HD12	1.90	0.52
1:2A:1420:U:O2'	1:2A:1421:G:OP1	2.24	0.52
1:2A:1587:A:H2'	1:2A:1588:C:C6	2.45	0.52
1:2A:1754:C:OP1	15:2T:96:ARG:NH1	2.42	0.52
1:2A:1833:U:O2'	1:2A:1969:A:N1	2.38	0.52
1:2A:2578:G:OP1	60:2A:3876:HOH:O	2.19	0.52
6:2G:77:ILE:HG22	6:2G:80:PHE:H	1.74	0.52
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.45	0.52
33:2b:24:TRP:CD1	33:2b:24:TRP:H	2.28	0.52
37:2f:61:LEU:HB3	37:2f:63:TYR:HE2	1.74	0.52
38:2g:46:ALA:HA	38:2g:49:ILE:HD12	1.91	0.52
41:2j:35:SER:HB3	41:2j:73:ASP:HB2	1.92	0.52
1:1A:1177:A:H2'	1:1A:1177:A:N3	2.23	0.52
1:1A:2712:U:O2'	1:1A:2713:A:H5'	2.10	0.52
14:1S:3:ARG:HH11	14:1S:3:ARG:HA	1.75	0.52
32:1a:1074:G:O2'	32:1a:1101:A:N1	2.40	0.52
40:1i:21:PRO:HA	40:1i:59:PHE:HA	1.91	0.52
7:2H:95:ARG:HB2	7:2H:128:PRO:HB3	1.91	0.52
15:2T:60:THR:HG22	15:2T:77:PRO:HA	1.92	0.52
31:29:14:CYS:HA	31:29:27:CYS:HB2	1.92	0.52
32:2a:815:A:N7	32:2a:1509:C:O2'	2.42	0.52
32:2a:920:U:H2'	32:2a:921:U:C6	2.44	0.52
32:2a:1163:C:H2'	32:2a:1164:G:H8	1.75	0.52
33:2b:189:ASP:OD1	33:2b:189:ASP:N	2.27	0.52
1:1A:1754:C:OP1	15:1T:96:ARG:NH1	2.43	0.52
32:1a:16:A:O2'	36:1e:16:THR:HB	2.10	0.52
32:1a:96:U:H2'	32:1a:97:G:C8	2.45	0.52
32:1a:490:G:OP2	35:1d:132:ARG:NH2	2.43	0.52
38:1g:50:ILE:HG23	38:1g:121:ALA:HB1	1.92	0.52
40:1i:3:GLN:HE21	40:1i:20:ARG:NE	2.07	0.52
1:2A:635:C:O2'	1:2A:639:U:OP1	2.25	0.52
1:2A:644:A:H4'	1:2A:645:C:C5	2.46	0.52
1:2A:1062:G:O2'	1:2A:1063:G:H5'	2.10	0.52
1:2A:2157:G:H8	1:2A:2157:G:O5'	1.93	0.52
11:2P:121:LYS:O	11:2P:123:LEU:N	2.42	0.52
32:2a:1119:C:H2'	32:2a:1120:G:C8	2.45	0.52
32:2a:1151:A:O2'	32:2a:1152:A:H8	1.93	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1342:C:H2'	32:2a:1343:G:H8	1.75	0.52
37:2f:78:GLU:HA	37:2f:81:ILE:HD13	1.91	0.52
1:1A:2492:U:H2'	1:1A:2493:U:C6	2.45	0.51
1:1A:2687:U:H2'	1:1A:2688:U:O4'	2.11	0.51
14:1S:15:ARG:NE	14:1S:88:ASP:OD2	2.39	0.51
15:1T:29:ARG:HG3	15:1T:46:GLU:HB2	1.92	0.51
35:1d:119:GLN:HG2	35:1d:123:HIS:CD2	2.44	0.51
44:1m:3:ARG:HG3	44:1m:4:ILE:H	1.74	0.51
1:2A:1889:A:H2'	1:2A:1890:A:C8	2.44	0.51
1:2A:2074:U:H2'	1:2A:2075:U:C6	2.44	0.51
1:2A:2131:G:OP1	1:2A:2132:U:H5'	2.10	0.51
1:2A:2478:A:H5'	31:29:31:LYS:HE2	1.92	0.51
32:2a:429:U:OP1	35:2d:13:ARG:NH2	2.42	0.51
32:2a:992:U:H5''	32:2a:993:G:C5	2.45	0.51
32:2a:1346:A:H5''	40:2i:120:ARG:HH12	1.75	0.51
32:2a:1518:MA6:H93	32:2a:1519:MA6:C10	2.39	0.51
1:1A:459:U:OP2	29:17:39:ARG:NH1	2.42	0.51
1:1A:1707:G:O6	60:1A:4177:HOH:O	2.18	0.51
5:1F:183:VAL:HG13	60:1F:444:HOH:O	2.09	0.51
7:1H:33:LEU:HD21	7:1H:136:ILE:HG13	1.91	0.51
40:1i:79:LEU:HD22	40:1i:104:ARG:HB2	1.92	0.51
1:2A:271(E):U:H2'	1:2A:271(F):C:C6	2.46	0.51
1:2A:888:C:H2'	1:2A:889:C:C2	2.46	0.51
1:2A:1649:G:O2'	13:2R:107:ASP:OD2	2.23	0.51
13:2R:51:LEU:HD22	13:2R:66:VAL:HG13	1.93	0.51
23:21:2:SER:HB3	23:21:46:LEU:HD12	1.92	0.51
32:2a:21:G:H2'	32:2a:22:G:C8	2.45	0.51
32:2a:975:A:N1	41:2j:48:THR:HB	2.26	0.51
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.44	0.51
48:2q:62:SER:OG	48:2q:72:ARG:HG3	2.10	0.51
1:1A:249:C:O2	30:18:12:LYS:NZ	2.36	0.51
1:1A:813:U:H2'	1:1A:814:C:C6	2.46	0.51
1:1A:994:C:OP1	16:1U:53:ARG:NH2	2.44	0.51
6:1G:179:PRO:HB2	26:14:42:PHE:HE2	1.75	0.51
40:1i:125:TYR:CZ	40:1i:127:LYS:HB2	2.46	0.51
41:1j:55:LYS:HE3	41:1j:56:HIS:CE1	2.45	0.51
1:2A:2641:G:P	9:2N:74:ARG:HH22	2.32	0.51
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.45	0.51
6:2G:46:ALA:O	6:2G:51:ARG:HG3	2.09	0.51
21:2Z:144:LEU:HD11	21:2Z:150:LEU:HD22	1.91	0.51
32:2a:272:C:H2'	32:2a:273:A:H8	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:914:A:O5'	60:2a:3214:HOH:O	2.19	0.51
32:2a:1003:G:H3'	32:2a:1003:G:N3	2.25	0.51
32:2a:1084:G:H5'	32:2a:1102:A:OP2	2.10	0.51
32:2a:1348:U:H2'	32:2a:1349:A:H8	1.76	0.51
47:2p:26:ARG:NE	47:2p:31:LYS:O	2.40	0.51
1:1A:1996:C:H4'	1:1A:1997:G:OP1	2.10	0.51
1:1A:2079:U:O3'	23:11:35:THR:OG1	2.29	0.51
18:1W:39:THR:O	60:1W:301:HOH:O	2.19	0.51
21:1Z:136:PHE:HE1	21:1Z:138:GLU:HG3	1.74	0.51
22:10:10:THR:HG22	22:10:12:ASN:H	1.75	0.51
1:2A:8:A:H2'	1:2A:9:U:H6	1.75	0.51
25:23:13:ILE:O	60:23:201:HOH:O	2.19	0.51
1:1A:942:G:O6	60:1A:4178:HOH:O	2.18	0.51
1:1A:1784:A:OP2	60:1A:4148:HOH:O	2.19	0.51
1:1A:2228:G:OP1	3:1D:261:LYS:NZ	2.38	0.51
1:1A:2341:G:H2'	1:1A:2342:C:C6	2.46	0.51
1:1A:2364:C:H2'	1:1A:2365:G:O4'	2.11	0.51
11:1P:64:LYS:NZ	60:1P:302:HOH:O	2.22	0.51
32:1a:974:A:H8	32:1a:974:A:OP1	1.94	0.51
33:1b:97:TRP:HZ2	33:1b:102:LEU:HD13	1.76	0.51
39:1h:121:ASP:OD1	39:1h:121:ASP:N	2.43	0.51
1:2A:854:G:H2'	1:2A:855:G:C8	2.45	0.51
1:2A:2155:G:H3'	1:2A:2156:G:H8	1.74	0.51
32:2a:149:A:H2'	32:2a:150:C:C6	2.46	0.51
32:2a:707:C:H2'	32:2a:708:C:C6	2.45	0.51
1:1A:1803:A:O2'	3:1D:259:THR:HG21	2.11	0.51
1:1A:2147:G:H2'	1:1A:2148:G:O4'	2.11	0.51
32:1a:266:G:H2'	32:1a:266:G:N3	2.26	0.51
32:1a:456:C:H2'	32:1a:457:C:C6	2.45	0.51
1:2A:1445:A:OP1	60:2A:3872:HOH:O	2.19	0.51
1:2A:1566:A:OP1	3:2D:211:ARG:NH1	2.39	0.51
32:2a:757:U:H2'	32:2a:758:G:O4'	2.10	0.51
32:2a:841:U:OP1	32:2a:841:U:H6	1.93	0.51
34:2c:121:ALA:HB2	34:2c:198:VAL:HG21	1.93	0.51
39:2h:103:VAL:HG21	39:2h:110:ALA:HB2	1.93	0.51
1:1A:1022:G:N7	9:1N:66:LYS:HE2	2.25	0.51
1:1A:1045:A:H5'	1:1A:1046:A:H5'	1.93	0.51
1:1A:1381:G:N7	60:1A:4336:HOH:O	2.34	0.51
1:1A:2562:U:H4'	10:1O:25:LEU:HD21	1.92	0.51
5:1F:164:ARG:HE	57:1F:318:ARG:HH22	1.58	0.51
15:1T:53:ARG:HB3	15:1T:53:ARG:HH11	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:7:PRO:HB2	26:14:27:THR:HG21	1.92	0.51
32:1a:96:U:H2'	32:1a:97:G:H8	1.76	0.51
1:2A:530:G:N1	1:2A:2023:G:OP1	2.38	0.51
1:2A:1588:C:H2'	1:2A:1589:C:C6	2.46	0.51
1:2A:2267:A:H5''	1:2A:2268:A:H5'	1.91	0.51
1:2A:2615:U:C2	27:25:7:PRO:HA	2.46	0.51
6:2G:54:GLU:O	6:2G:58:GLN:N	2.39	0.51
12:2Q:59:ARG:NH2	12:2Q:60:ARG:HH21	2.09	0.51
14:2S:7:TYR:CZ	14:2S:91:PRO:HG3	2.46	0.51
23:21:83:GLU:OE1	23:21:83:GLU:N	2.36	0.51
32:2a:1135:U:H2'	32:2a:1137:C:C4	2.45	0.51
50:2s:36:ARG:NH1	50:2s:53:ASN:HB3	2.26	0.51
1:1A:1379:A:H4'	1:1A:1380:G:OP2	2.10	0.51
1:1A:2887:U:H2'	1:1A:2888:C:C6	2.45	0.51
35:1d:106:TYR:HD2	35:1d:107:ARG:HD3	1.76	0.51
1:2A:2765:A:OP2	60:2A:3869:HOH:O	2.19	0.51
17:2V:5:VAL:HG11	17:2V:57:VAL:HG21	1.93	0.51
32:2a:677:U:H3	32:2a:713:G:N2	2.03	0.51
32:2a:1056:U:H5'	34:2c:163:ALA:HB2	1.93	0.51
40:2i:9:ARG:O	40:2i:104:ARG:HG3	2.11	0.51
53:2y:23:ARG:HG3	53:2y:78:ILE:HG13	1.91	0.51
1:1A:1578:U:H2'	1:1A:1579:A:H5'	1.93	0.51
1:1A:1794:U:H2'	1:1A:1795:C:H6	1.76	0.51
1:1A:2870:C:H2'	1:1A:2871:C:O4'	2.11	0.51
3:1D:26:LYS:HB3	3:1D:83:GLU:HG2	1.92	0.51
11:1P:82:GLY:HA2	11:1P:113:LYS:O	2.11	0.51
15:1T:106:SER:O	15:1T:110:ILE:HG13	2.11	0.51
32:1a:1023:G:H2'	32:1a:1024:G:C8	2.46	0.51
33:1b:212:GLN:O	33:1b:216:SER:OG	2.23	0.51
1:2A:2492:U:OP1	60:2A:3875:HOH:O	2.19	0.51
1:2A:2693:A:H2'	1:2A:2694:G:H8	1.75	0.51
6:2G:97:ASP:HA	6:2G:100:TRP:HD1	1.76	0.51
7:2H:41:MET:HE2	7:2H:55:PRO:HD2	1.93	0.51
32:2a:1320:C:H2'	32:2a:1321:C:O4'	2.10	0.51
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.26	0.51
33:2b:95:GLN:HB3	33:2b:148:TYR:HD1	1.76	0.51
1:1A:1023:U:OP2	60:1A:4114:HOH:O	2.20	0.51
1:1A:1050:A:H2'	1:1A:1051:G:O4'	2.11	0.51
1:1A:1075:C:N4	1:1A:1077:A:N1	2.58	0.51
1:1A:2393:A:O2'	11:1P:60:MET:O	2.25	0.51
32:1a:184:G:H2'	32:1a:185:A:C8	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:690:G:C6	32:1a:691:G:C6	2.99	0.51
32:1a:1014:A:C2	32:1a:1219:U:H1'	2.46	0.51
1:2A:1281:G:N7	60:2A:3995:HOH:O	2.35	0.51
32:2a:457:C:H2'	32:2a:458:C:H6	1.76	0.51
32:2a:1279:A:H2'	32:2a:1279:A:N3	2.26	0.51
32:2a:1362:C:H2'	32:2a:1363:C:H5''	1.93	0.51
1:1A:1794:U:H2'	1:1A:1795:C:C6	2.45	0.50
32:1a:600:C:H2'	32:1a:601:C:C6	2.46	0.50
32:1a:626:U:H2'	32:1a:627:G:C8	2.46	0.50
1:2A:952:G:OP1	12:2Q:16:ARG:NH2	2.44	0.50
1:2A:2136:C:H42	1:2A:2156:G:N2	2.09	0.50
2:2B:14:U:O3'	2:2B:108:U:O2'	2.28	0.50
6:2G:141:PHE:HE2	6:2G:155:MET:HE1	1.76	0.50
33:2b:77:ALA:HB2	33:2b:211:ILE:HD13	1.93	0.50
38:2g:62:PHE:HA	38:2g:124:LEU:HD22	1.93	0.50
1:1A:184:C:H2'	1:1A:185:U:C6	2.46	0.50
1:1A:871:U:OP1	12:1Q:5:ARG:NH1	2.44	0.50
32:1a:454:C:OP1	47:1p:75:ARG:NH2	2.30	0.50
32:1a:1024:G:H21	32:1a:1025:U:H5''	1.77	0.50
32:1a:1511:G:H2'	32:1a:1512:U:O4'	2.11	0.50
1:2A:1503:U:H2'	1:2A:1504:C:C6	2.46	0.50
1:2A:2080:G:H5'	23:21:35:THR:O	2.12	0.50
6:2G:46:ALA:HB2	6:2G:53:LEU:HG	1.92	0.50
6:2G:103:LEU:HA	6:2G:106:LEU:HB3	1.93	0.50
14:2S:105:ALA:O	14:2S:110:LEU:HB2	2.11	0.50
32:2a:79:G:H1	32:2a:90:U:H3	1.59	0.50
41:2j:39:PRO:HA	41:2j:70:ARG:HD3	1.94	0.50
42:2k:34:ASP:OD1	42:2k:38:ASN:N	2.38	0.50
1:1A:695:G:OP1	1:1A:1380:G:O2'	2.25	0.50
1:1A:2222:G:OP2	60:1A:4182:HOH:O	2.19	0.50
6:1G:109:VAL:C	6:1G:112:PRO:HD2	2.37	0.50
12:1Q:63:LYS:HD3	60:1Z:403:HOH:O	2.11	0.50
19:1X:27:THR:HG23	19:1X:80:ILE:HG12	1.93	0.50
32:1a:445:G:H1	32:1a:489:C:H42	1.59	0.50
32:1a:580:U:H2'	32:1a:581:G:O4'	2.11	0.50
32:1a:840:C:H4'	32:1a:841:U:OP1	2.11	0.50
32:1a:1456:G:N1	51:1t:51:GLU:OE2	2.37	0.50
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.46	0.50
33:1b:55:PHE:HA	33:1b:58:ILE:HB	1.94	0.50
34:1c:138:VAL:HG13	34:1c:149:ALA:HB3	1.93	0.50
42:1k:18:ARG:HB2	42:1k:33:THR:OG1	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1045:A:H5'	1:2A:1047:G:P	2.51	0.50
1:2A:1598:C:H2'	1:2A:1599:C:H6	1.76	0.50
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.47	0.50
1:2A:2144:U:H5''	1:2A:2145:C:C5	2.46	0.50
1:2A:2647:U:H2'	1:2A:2648:C:C6	2.47	0.50
6:2G:15:VAL:HG21	6:2G:176:LEU:HD23	1.94	0.50
12:2Q:138:ASP:OD1	12:2Q:138:ASP:N	2.43	0.50
32:2a:142:G:H2'	32:2a:143:A:C8	2.46	0.50
32:2a:1073:U:H2'	32:2a:1074:G:C8	2.47	0.50
32:2a:1490:C:H2'	32:2a:1491:G:C8	2.47	0.50
44:2m:108:ARG:CZ	44:2m:114:ARG:HG2	2.42	0.50
53:2y:54:ILE:HB	53:2y:61:LEU:HB2	1.92	0.50
1:1A:1048:A:OP2	1:1A:1109:C:N4	2.44	0.50
26:14:43:TYR:O	26:14:45:GLY:N	2.45	0.50
30:18:62:LEU:HB3	30:18:65:GLU:HG3	1.93	0.50
32:1a:1386:G:H2'	32:1a:1387:G:H8	1.74	0.50
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.47	0.50
10:2O:120:GLU:HB2	15:2T:68:TYR:HE2	1.75	0.50
32:2a:127:G:O2'	48:2q:2:PRO:O	2.29	0.50
32:2a:473:G:H2'	32:2a:474:G:H8	1.76	0.50
32:2a:1256:A:OP1	34:2c:26:LYS:NZ	2.28	0.50
47:2p:57:ARG:NH2	47:2p:79:VAL:O	2.44	0.50
50:2s:52:TYR:HB2	50:2s:57:HIS:CE1	2.47	0.50
53:2y:29:LYS:HG2	53:2y:30:TRP:CE3	2.47	0.50
32:1a:408:A:OP1	35:1d:113:SER:OG	2.27	0.50
32:1a:841:U:C5	32:1a:848:C:H1'	2.46	0.50
35:1d:20:TYR:HA	35:1d:26:CYS:SG	2.52	0.50
44:1m:75:ALA:O	44:1m:79:LYS:N	2.39	0.50
1:2A:1996:C:H4'	1:2A:1997:G:OP1	2.10	0.50
1:2A:2113:U:H2'	1:2A:2114:A:O4'	2.10	0.50
3:2D:218:ARG:HB3	3:2D:219:PRO:HD2	1.92	0.50
21:2Z:23:LYS:HB3	21:2Z:38:TYR:CD1	2.46	0.50
32:2a:404:U:H2'	32:2a:405:U:C6	2.47	0.50
40:2i:4:TYR:CZ	40:2i:88:TYR:HD1	2.29	0.50
48:2q:40:LYS:HD3	48:2q:42:TYR:CZ	2.46	0.50
1:1A:1420:U:O2'	1:1A:1421:G:OP1	2.29	0.50
1:1A:2031:A:C6	1:1A:2498:C:H1'	2.46	0.50
1:1A:2601:C:O2'	1:1A:2602:A:O4'	2.22	0.50
12:1Q:34:LEU:HD11	12:1Q:129:THR:HB	1.93	0.50
33:1b:109:SER:HA	33:1b:112:VAL:HG13	1.93	0.50
35:1d:163:GLU:O	35:1d:166:LYS:HG2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:189:G:OP2	23:21:39:LYS:NZ	2.44	0.50
1:2A:652(T):C:H2'	1:2A:652(U):G:C8	2.47	0.50
1:2A:2139:C:N4	1:2A:2152:G:H1	2.09	0.50
1:2A:2171:A:H1'	1:2A:2172:U:C6	2.47	0.50
1:1A:363(A):A:H2'	1:1A:363(B):G:C8	2.46	0.50
1:1A:1912:A:HO2'	32:1a:1494:G:HO2'	1.58	0.50
1:1A:2115:G:H2'	1:1A:2117:A:H62	1.77	0.50
1:1A:2133:G:C2	1:1A:2157:G:H2'	2.46	0.50
1:1A:2567:G:H2'	1:1A:2568:C:C6	2.47	0.50
3:1D:229:VAL:HG22	60:1D:472:HOH:O	2.12	0.50
21:1Z:73:GLN:HB3	21:1Z:87:ASP:HB2	1.93	0.50
53:1y:54:ILE:O	53:1y:61:LEU:N	2.34	0.50
1:2A:8:A:H2'	1:2A:9:U:C6	2.46	0.50
1:2A:397:G:N7	60:2A:3985:HOH:O	2.33	0.50
1:2A:1639:U:H2'	1:2A:1640:C:H5''	1.94	0.50
2:2B:80:U:H2'	2:2B:81:G:C8	2.47	0.50
10:2O:15:GLY:O	10:2O:47:ILE:HG13	2.12	0.50
32:2a:102:G:H2'	32:2a:103:C:C6	2.47	0.50
32:2a:337:C:H2'	32:2a:338:A:C8	2.46	0.50
32:2a:1010:G:H2'	32:2a:1011:G:H8	1.77	0.50
32:2a:1316:G:N2	32:2a:1318:A:H3'	2.27	0.50
37:2f:30:LEU:HD23	37:2f:75:LEU:HD11	1.93	0.50
45:2n:37:PHE:HB3	45:2n:39:LEU:HG	1.94	0.50
1:1A:1082:U:C4	1:1A:1086:A:N1	2.77	0.50
1:1A:1292:U:H2'	1:1A:1293:C:C6	2.47	0.50
1:1A:1509(A):A:H2'	1:1A:1509(B):A:C8	2.47	0.50
32:1a:130:A:O2'	32:1a:131:C:O5'	2.26	0.50
33:1b:18:GLY:HA2	33:1b:204:ASN:HB2	1.93	0.50
1:2A:335:C:H4'	20:2Y:73:ARG:HH11	1.76	0.50
1:2A:1443:G:O6	60:2A:3861:HOH:O	2.17	0.50
1:2A:1755:A:N6	1:2A:2694:G:O2'	2.45	0.50
1:2A:2448:A:OP1	60:2A:3841:HOH:O	2.19	0.50
1:2A:2572:A:OP1	1:2A:2574:G:O2'	2.30	0.50
12:2Q:52:VAL:HG13	21:2Z:183:LEU:HD13	1.92	0.50
17:2V:16:PRO:HD3	17:2V:99:ILE:HD11	1.93	0.50
32:2a:134:A:N1	47:2p:25:ARG:NH2	2.59	0.50
32:2a:189:G:H2'	32:2a:189(A):C:C6	2.47	0.50
32:2a:1289:A:N1	32:2a:1371:G:O2'	2.42	0.50
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.47	0.50
34:2c:40:ARG:NH1	34:2c:55:VAL:O	2.45	0.50
34:2c:191:THR:OG1	34:2c:194:GLY:O	2.30	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:2h:81:HIS:N	39:2h:138:TRP:O	2.43	0.50
1:1A:615:G:OP2	5:1F:43:LYS:NZ	2.42	0.50
1:1A:747:U:O2	1:1A:2014:A:H1'	2.12	0.50
1:1A:1078:U:C6	1:1A:1088:A:H5''	2.46	0.50
1:1A:1665:A:H4'	10:1O:67:LYS:HB2	1.93	0.50
1:1A:2808:U:H5''	1:1A:2891:G:O6	2.11	0.50
6:1G:67:LYS:HD3	26:14:5:ILE:HB	1.94	0.50
32:1a:537:G:H5''	43:1l:113:ARG:HH12	1.76	0.50
34:1c:47:LEU:HB2	34:1c:52:LEU:HD22	1.93	0.50
1:2A:586:A:N1	1:2A:809:G:O2'	2.36	0.50
1:2A:2687:U:H2'	1:2A:2688:U:O4'	2.12	0.50
2:2B:103:G:H21	21:2Z:73:GLN:NE2	2.05	0.50
15:2T:109:GLU:HG2	15:2T:112:ARG:NH2	2.27	0.50
21:2Z:102:LEU:HD23	21:2Z:137:ILE:HB	1.94	0.50
21:2Z:144:LEU:HD21	21:2Z:150:LEU:HD13	1.93	0.50
32:2a:189(K):U:H2'	32:2a:189(L):G:C8	2.47	0.50
32:2a:1323:G:H2'	32:2a:1324:A:C8	2.47	0.50
41:2j:16:LEU:HD23	41:2j:94:VAL:HG22	1.92	0.50
42:2k:99:GLN:C	42:2k:101:SER:H	2.20	0.50
44:2m:54:VAL:HA	44:2m:57:ARG:HB3	1.94	0.50
1:1A:884:C:H2'	1:1A:885:C:O4'	2.12	0.49
1:1A:1810:A:H2'	1:1A:1811:G:O4'	2.12	0.49
1:1A:2705:A:O2'	1:1A:2852:G:OP1	2.30	0.49
1:1A:2788:C:OP1	4:1E:61:ARG:NH2	2.45	0.49
32:1a:64:G:H4'	32:1a:65:U:H3'	1.93	0.49
32:1a:769:G:H4'	32:1a:1513:A:H4'	1.93	0.49
32:1a:1158:C:H5	32:1a:1181:G:N1	2.10	0.49
32:1a:1298:C:P	38:1g:114:ARG:HH22	2.35	0.49
34:1c:8:ILE:HD12	34:1c:16:ARG:HG3	1.94	0.49
1:2A:656:G:H2'	1:2A:657:U:O4'	2.12	0.49
3:2D:16:MET:HG3	3:2D:206:LEU:O	2.12	0.49
13:2R:33:ARG:NH2	13:2R:115:GLU:OE1	2.44	0.49
13:2R:78:LYS:HE2	13:2R:83:ILE:HD11	1.93	0.49
21:2Z:92:SER:OG	21:2Z:94:GLU:OE1	2.20	0.49
37:2f:35:ALA:HB2	37:2f:67:MET:HE2	1.94	0.49
38:2g:113:GLU:HG3	38:2g:119:ARG:HA	1.94	0.49
1:1A:300:A:OP2	20:1Y:86:ARG:NH2	2.45	0.49
32:1a:1273:G:H3'	32:1a:1274:G:H8	1.77	0.49
32:1a:1320:C:H2'	32:1a:1321:C:O4'	2.12	0.49
1:2A:2753:A:N3	31:29:15:LYS:NZ	2.60	0.49
25:23:8:LEU:HG	25:23:31:LEU:HD22	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1188:A:H2'	32:2a:1189:C:O4'	2.12	0.49
41:2j:78:ASN:O	41:2j:80:LYS:N	2.45	0.49
1:1A:2022:U:O2'	1:1A:2617:C:H5'	2.12	0.49
1:1A:2314:C:H2'	1:1A:2315:G:H8	1.75	0.49
7:1H:9:ILE:HD11	7:1H:69:ARG:HG2	1.94	0.49
7:1H:40:GLU:CD	7:1H:60:ARG:HH12	2.19	0.49
35:1d:88:VAL:HG13	36:1e:97:GLY:HA2	1.93	0.49
49:1r:53:ARG:HH21	49:1r:59:SER:HA	1.76	0.49
4:2E:47:VAL:HG11	4:2E:86:PRO:HD2	1.94	0.49
5:2F:60:SER:OG	5:2F:61:GLY:N	2.44	0.49
6:2G:11:TYR:CZ	6:2G:16:ARG:HD3	2.47	0.49
32:2a:411:A:OP2	35:2d:25:ARG:NH2	2.46	0.49
32:2a:1310:G:H1	32:2a:1327:C:H42	1.61	0.49
1:1A:1364:G:OP2	23:11:3:LYS:HD3	2.12	0.49
5:1F:192:LEU:HD22	5:1F:194:MET:HE2	1.95	0.49
7:1H:20:ALA:HB1	7:1H:21:PRO:HD2	1.94	0.49
11:1P:91:PHE:O	11:1P:121:LYS:NZ	2.41	0.49
32:1a:160:A:H2'	32:1a:161:A:O4'	2.12	0.49
35:1d:173:TRP:CE3	35:1d:174:LEU:HG	2.47	0.49
1:2A:488:G:OP2	60:2A:3880:HOH:O	2.20	0.49
1:2A:1983:C:H4'	1:2A:2606:C:H4'	1.93	0.49
1:2A:2375:G:O2'	1:2A:2377:A:N7	2.32	0.49
26:24:14:ILE:HB	26:24:22:ILE:HD13	1.94	0.49
30:28:63:PRO:HG2	30:28:64:TYR:CE2	2.47	0.49
32:2a:750:G:N3	46:2o:23:GLY:HA3	2.27	0.49
32:2a:1445:C:O2'	32:2a:1447:A:N6	2.45	0.49
35:2d:81:GLU:O	35:2d:85:LYS:HG3	2.12	0.49
36:2e:80:ILE:HG22	36:2e:91:LEU:HB2	1.94	0.49
1:1A:674:G:O2'	5:1F:74:ARG:HD3	2.13	0.49
1:1A:2134:A:N7	1:1A:2157:G:O2'	2.44	0.49
8:1I:61:ARG:HA	8:1I:61:ARG:HH11	1.76	0.49
8:1I:75:LEU:HD22	8:1I:105:HIS:ND1	2.27	0.49
27:15:49:CYS:SG	27:15:51:TYR:HB2	2.53	0.49
32:1a:858:G:N7	60:1a:3301:HOH:O	2.35	0.49
33:1b:115:LEU:O	33:1b:119:GLU:HG2	2.13	0.49
1:2A:607:U:OP1	5:2F:102:PRO:HA	2.13	0.49
1:2A:688:U:O4	60:2A:3871:HOH:O	2.19	0.49
1:2A:910:A:C5	12:2Q:13:GLN:HG3	2.48	0.49
13:2R:2:ARG:NH1	13:2R:5:LYS:O	2.45	0.49
25:23:8:LEU:HB2	25:23:28:LEU:HD22	1.95	0.49
31:29:19:ARG:HG2	31:29:20:HIS:ND1	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:2k:84:VAL:HG21	42:2k:95:ILE:HD11	1.95	0.49
47:2p:74:LEU:HG	47:2p:79:VAL:HG21	1.95	0.49
1:1A:1793:C:OP1	60:1A:4188:HOH:O	2.20	0.49
3:1D:70:TRP:HB3	3:1D:190:TYR:CE2	2.47	0.49
5:1F:53:THR:CG2	5:1F:55:GLY:H	2.24	0.49
21:1Z:130:PRO:C	21:1Z:132:ASN:H	2.20	0.49
21:1Z:146:ILE:HG12	21:1Z:174:VAL:HG12	1.94	0.49
32:1a:1304:G:OP2	60:1a:3332:HOH:O	2.20	0.49
38:1g:68:ASN:ND2	38:1g:128:ALA:O	2.46	0.49
38:1g:149:ARG:HD2	42:1k:59:TYR:CE1	2.48	0.49
53:1y:74:ILE:O	53:1y:78:ILE:HG12	2.12	0.49
1:2A:287:C:H2'	1:2A:288:C:H6	1.77	0.49
4:2E:9:VAL:HB	15:2T:3:ARG:HG2	1.93	0.49
7:2H:3:ARG:HH11	7:2H:4:ILE:H	1.60	0.49
7:2H:117:PRO:HG3	7:2H:123:PHE:CE2	2.48	0.49
23:21:40:ARG:NH2	23:21:42:GLN:HG2	2.27	0.49
32:2a:328:C:H4'	32:2a:329:A:H5'	1.94	0.49
32:2a:420:U:H2'	32:2a:422:C:C5	2.47	0.49
32:2a:573:A:N3	32:2a:883:C:O2'	2.44	0.49
32:2a:1028:C:H1'	32:2a:1033:G:H22	1.76	0.49
33:2b:119:GLU:HG3	33:2b:153:ARG:NH2	2.24	0.49
36:2e:100:VAL:HA	36:2e:118:ILE:HG22	1.93	0.49
36:2e:152:ARG:HG3	39:2h:43:GLY:O	2.12	0.49
38:2g:149:ARG:NE	42:2k:59:TYR:OH	2.45	0.49
40:2i:100:GLY:O	40:2i:103:THR:HG22	2.12	0.49
1:1A:1915:5MU:O2	60:1A:4187:HOH:O	2.19	0.49
1:1A:2066:C:H5''	60:1A:7048:HOH:O	2.12	0.49
3:1D:121:PRO:HB3	3:1D:135:PHE:CE2	2.48	0.49
5:1F:32:LEU:HD11	5:1F:105:VAL:HG13	1.95	0.49
32:1a:601:C:H2'	32:1a:602:A:C8	2.47	0.49
32:1a:1288:A:N1	32:1a:1371:G:H1'	2.27	0.49
32:1a:1479:C:H2'	32:1a:1480:G:C8	2.47	0.49
36:1e:67:VAL:HG21	36:1e:140:ARG:HA	1.95	0.49
39:1h:86:ILE:HG12	39:1h:135:CYS:HA	1.94	0.49
50:1s:13:ASP:HA	50:1s:16:LEU:HB3	1.94	0.49
1:2A:9:U:O4	1:2A:2629:A:H2	1.96	0.49
1:2A:644:A:H4'	1:2A:645:C:H5	1.77	0.49
1:2A:876:C:H2'	1:2A:877:U:O4'	2.13	0.49
1:2A:2320:A:N3	1:2A:2320:A:H2'	2.28	0.49
4:2E:50:GLY:O	4:2E:51:PHE:HB2	2.12	0.49
9:2N:14:VAL:HG13	9:2N:138:LEU:HB2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:2U:30:LYS:NZ	60:2U:301:HOH:O	2.14	0.49
32:2a:401:C:OP2	35:2d:73:ARG:NH2	2.44	0.49
34:2c:11:ARG:NH2	34:2c:177:THR:O	2.45	0.49
1:1A:2298:A:H2'	1:1A:2299:G:O4'	2.12	0.49
25:13:5:LYS:HG3	25:13:36:VAL:HG22	1.95	0.49
29:17:12:ARG:NH2	29:17:44:PRO:HB3	2.27	0.49
32:1a:300:A:H2'	32:1a:301:G:O4'	2.13	0.49
32:1a:583:A:N6	32:1a:758:G:O2'	2.45	0.49
50:1s:45:VAL:HA	50:1s:62:ILE:HG22	1.94	0.49
1:2A:774:A:H2'	1:2A:774:A:N3	2.28	0.49
1:2A:825:C:O2	11:2P:55:ARG:NH1	2.46	0.49
1:2A:1118:C:H2'	1:2A:1119:C:O4'	2.13	0.49
1:2A:2579:C:H4'	4:2E:134:ILE:HG12	1.94	0.49
6:2G:55:LYS:NZ	6:2G:153:ARG:HH22	2.10	0.49
32:2a:404:U:OP1	35:2d:118:ARG:NH2	2.46	0.49
32:2a:1391:U:H2'	32:2a:1392:G:C8	2.48	0.49
34:2c:9:GLY:HA3	45:2n:49:HIS:HA	1.93	0.49
42:2k:98:LEU:O	42:2k:101:SER:OG	2.24	0.49
1:1A:1935:G:H1'	1:1A:1964:G:N2	2.28	0.49
3:1D:242:ARG:HG3	3:1D:242:ARG:NH1	2.27	0.49
5:1F:11:VAL:HB	5:1F:18:ARG:HG3	1.94	0.49
32:1a:1021:G:C2	32:1a:1022:G:H1'	2.47	0.49
32:1a:1136:U:H5''	32:1a:1137:C:O2	2.13	0.49
38:1g:126:ASP:HB3	38:1g:131:LYS:HB2	1.94	0.49
41:1j:11:PHE:CE1	41:1j:67:THR:HG22	2.46	0.49
42:1k:84:VAL:HG21	42:1k:95:ILE:HD11	1.95	0.49
1:2A:299:A:N1	1:2A:322:A:O2'	2.44	0.49
1:2A:668:G:H5'	1:2A:669:G:OP2	2.12	0.49
1:2A:1064:C:H3'	1:2A:1065:U:H5'	1.95	0.49
1:2A:2162:G:H4'	1:2A:2172:U:O2'	2.13	0.49
7:2H:107:VAL:HB	7:2H:152:ARG:HG2	1.95	0.49
9:2N:42:TRP:HA	9:2N:48:MET:HE1	1.94	0.49
9:2N:98:VAL:O	60:2N:201:HOH:O	2.20	0.49
25:23:3:ARG:HH21	25:23:60:GLU:C	2.21	0.49
32:2a:1150:U:O4	32:2a:1151:A:N6	2.45	0.49
36:2e:71:LEU:HD11	36:2e:113:ALA:O	2.13	0.49
1:1A:299:A:N1	1:1A:322:A:O2'	2.42	0.49
60:1A:5895:HOH:O	4:1E:144:ARG:HD3	2.12	0.49
4:1E:60:ASN:OD1	4:1E:63:LEU:HB2	2.13	0.49
4:1E:97:LYS:N	4:1E:100:GLU:OE1	2.42	0.49
5:1F:49:ALA:O	60:1F:402:HOH:O	2.20	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1G:101:ILE:HD13	26:14:25:TYR:HB2	1.94	0.49
32:1a:657:G:H1'	46:1o:23:GLY:HA2	1.94	0.49
32:1a:1037:C:H2'	32:1a:1038:C:C6	2.48	0.49
33:1b:80:ILE:HD13	33:1b:211:ILE:HB	1.95	0.49
44:1m:87:TYR:O	44:1m:91:ARG:HG2	2.13	0.49
8:2I:130:TYR:HB3	8:2I:138:ILE:HB	1.95	0.49
9:2N:15:LEU:HB2	9:2N:135:PRO:HB2	1.95	0.49
13:2R:44:LEU:HD22	13:2R:48:VAL:HG23	1.95	0.49
39:2h:25:ASP:OD1	39:2h:60:ARG:HG3	2.13	0.49
1:1A:744:G:OP1	4:1E:132:HIS:ND1	2.38	0.48
1:1A:1065:U:O2	1:1A:1066:U:N3	2.45	0.48
1:1A:2099:U:H3	1:1A:2190:G:H1	1.60	0.48
32:1a:130:A:C8	48:1q:63:ARG:HD3	2.48	0.48
32:1a:501:C:H2'	32:1a:502:G:C8	2.48	0.48
32:1a:946:A:H2'	32:1a:947:G:C8	2.48	0.48
1:2A:1073:A:H2'	1:2A:1074:G:C8	2.48	0.48
3:2D:72:LYS:NZ	3:2D:99:ASP:OD2	2.39	0.48
21:2Z:4:ARG:HH21	21:2Z:60:GLU:HG2	1.78	0.48
32:2a:473:G:H2'	32:2a:474:G:C8	2.48	0.48
32:2a:1111:A:H2'	32:2a:1112:C:C6	2.48	0.48
32:2a:1126:U:C4	41:2j:71:LEU:HD12	2.48	0.48
32:2a:1411:C:H2'	32:2a:1412:C:C6	2.48	0.48
34:2c:131:ARG:NH2	36:2e:50:GLU:HG3	2.29	0.48
1:1A:247:G:H4'	1:1A:386:G:C5	2.48	0.48
1:1A:1587:A:H2'	1:1A:1588:C:C6	2.48	0.48
3:1D:77:ALA:HB2	3:1D:97:TYR:CD1	2.48	0.48
8:1I:8:PRO:HD3	8:1I:15:VAL:HB	1.95	0.48
13:1R:12:ARG:O	13:1R:17:ARG:NH1	2.46	0.48
30:18:15:LYS:HB3	56:18:104:MPD:H31	1.94	0.48
32:1a:430:A:OP1	35:1d:9:CYS:HB2	2.11	0.48
32:1a:1030:C:C4	32:1a:1030(A):G:H1'	2.49	0.48
46:1o:55:GLY:HA2	46:1o:58:MET:HE3	1.96	0.48
1:2A:361:G:O2'	1:2A:362:U:H5'	2.13	0.48
1:2A:1652:A:OP2	60:2A:3877:HOH:O	2.19	0.48
1:2A:2186:G:C2	1:2A:2187:G:C5	3.02	0.48
32:2a:984:C:H42	32:2a:1221:G:H1	1.61	0.48
32:2a:1320:C:N4	50:2s:36:ARG:HB2	2.28	0.48
50:2s:49:ILE:HD13	50:2s:62:ILE:HD11	1.95	0.48
1:1A:286:C:H2'	1:1A:287:C:H6	1.79	0.48
1:1A:2100:G:H1	1:1A:2189:U:H3	1.60	0.48
1:1A:2183:C:H2'	1:1A:2184:G:C8	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.48	0.48
1:1A:2447:G:OP2	60:1A:4190:HOH:O	2.20	0.48
60:1A:6650:HOH:O	18:1W:92:ARG:HD2	2.12	0.48
35:1d:89:THR:OG1	60:1d:401:HOH:O	2.20	0.48
35:1d:173:TRP:CD1	35:1d:189:PRO:HB3	2.48	0.48
51:1t:59:ALA:O	51:1t:63:ILE:HG13	2.13	0.48
1:2A:13:A:N1	1:2A:525:U:H2'	2.27	0.48
1:2A:287:C:H2'	1:2A:288:C:C6	2.48	0.48
1:2A:824:A:H1'	1:2A:2358:G:N7	2.29	0.48
1:2A:1028:A:N3	1:2A:2486:G:O2'	2.41	0.48
1:2A:2582:G:OP1	60:2A:3881:HOH:O	2.20	0.48
19:2X:94:GLY:HA3	19:2X:95:LEU:C	2.39	0.48
32:2a:1286:A:H2'	32:2a:1287:A:H4'	1.94	0.48
32:2a:1369:C:OP2	40:2i:112:LYS:N	2.41	0.48
1:1A:579:G:H2'	1:1A:580:C:C6	2.48	0.48
1:1A:2501:C:OP1	60:1A:4194:HOH:O	2.20	0.48
7:1H:3:ARG:HH21	7:1H:65:HIS:HB3	1.79	0.48
19:1X:41:ASN:O	19:1X:45:THR:HG23	2.13	0.48
27:15:16:ARG:HG3	27:15:17:ASP:N	2.29	0.48
32:1a:558:G:H5''	32:1a:559:A:OP2	2.13	0.48
32:1a:688:G:H2'	32:1a:689:C:C6	2.48	0.48
32:1a:1202:G:N2	45:1n:46:GLU:OE2	2.38	0.48
50:1s:3:ARG:NH1	50:1s:10:PHE:HB2	2.28	0.48
1:2A:1853:A:H2'	1:2A:1854:A:C8	2.48	0.48
2:2B:26:A:H2'	2:2B:27:C:O4'	2.13	0.48
23:21:35:THR:O	23:21:35:THR:OG1	2.30	0.48
32:2a:410:G:OP1	35:2d:30:LYS:NZ	2.37	0.48
32:2a:633:G:H2'	32:2a:634:C:C6	2.48	0.48
35:2d:140:VAL:HG11	35:2d:146:ILE:HD11	1.95	0.48
44:2m:74:VAL:HA	44:2m:77:ASN:HB2	1.94	0.48
1:1A:1140:C:O3'	9:1N:25:ARG:NH1	2.47	0.48
1:1A:1173:G:OP2	1:1A:1173:G:H2'	2.14	0.48
7:1H:3:ARG:HH22	7:1H:66:GLY:N	2.11	0.48
32:1a:62:U:O2'	32:1a:379:C:O2	2.26	0.48
32:1a:376:G:H4'	47:1p:5:ARG:NH1	2.27	0.48
35:1d:178:VAL:C	35:1d:180:GLY:H	2.21	0.48
46:1o:16:ALA:HB1	46:1o:21:ASP:HB3	1.96	0.48
49:1r:58:LEU:HD23	49:1r:63:GLN:HA	1.96	0.48
1:2A:252:G:OP1	11:2P:50:ARG:NH1	2.43	0.48
1:2A:597:U:H2'	1:2A:598:G:C8	2.49	0.48
1:2A:2203:U:H2'	1:2A:2205:C:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2732:G:H3'	1:2A:2733:A:O4'	2.13	0.48
32:2a:545:C:H5'	35:2d:72:GLU:HB2	1.94	0.48
32:2a:601:C:H2'	32:2a:602:A:C8	2.48	0.48
32:2a:1372:U:H5''	40:2i:71:SER:HB3	1.95	0.48
35:2d:12:CYS:CB	59:2d:501:SF4:S2	2.97	0.48
48:2q:94:ASN:O	48:2q:98:LEU:HD13	2.14	0.48
1:1A:444:C:OP2	60:1A:4186:HOH:O	2.19	0.48
1:1A:774:A:N3	1:1A:774:A:H2'	2.29	0.48
1:1A:2116:G:OP2	1:1A:2166:G:N2	2.43	0.48
3:1D:85:ASP:HB2	3:1D:92:ILE:HG12	1.96	0.48
17:1V:14:VAL:HB	17:1V:96:ILE:HG13	1.94	0.48
32:1a:92:C:H2'	32:1a:93:G:H8	1.78	0.48
32:1a:186:C:H2'	32:1a:187:C:C6	2.48	0.48
32:1a:625:G:H4'	47:1p:16:HIS:CG	2.49	0.48
32:1a:1033:G:H2'	32:1a:1034:G:C8	2.47	0.48
32:1a:1221:G:OP1	32:1a:1320:C:N4	2.44	0.48
34:1c:39:ILE:HG23	34:1c:91:LEU:HD11	1.96	0.48
35:1d:100:ARG:HB3	35:1d:102:ASP:OD1	2.13	0.48
42:1k:32:ILE:HG22	42:1k:77:MET:HE3	1.95	0.48
44:1m:57:ARG:O	44:1m:61:GLU:HG3	2.13	0.48
1:2A:879:G:H2'	1:2A:880:G:O4'	2.14	0.48
1:2A:958:U:O2	2:2B:90:A:O2'	2.27	0.48
1:2A:2313:C:H2'	1:2A:2314:C:C6	2.49	0.48
1:2A:2758:A:C2	1:2A:2759:G:H1'	2.48	0.48
3:2D:12:SER:HB3	3:2D:208:LYS:HB3	1.96	0.48
6:2G:39:ILE:HB	6:2G:92:VAL:HG13	1.96	0.48
7:2H:46:GLU:HB2	7:2H:49:VAL:HG12	1.95	0.48
21:2Z:44:PHE:CZ	21:2Z:86:VAL:HG11	2.49	0.48
23:21:77:ALA:HA	23:21:80:LEU:HD13	1.94	0.48
26:24:57:GLU:HA	26:24:58:ARG:HA	1.56	0.48
30:28:23:VAL:HG11	30:28:47:LYS:HD3	1.96	0.48
32:2a:974:A:OP2	45:2n:29:ARG:NH2	2.47	0.48
34:2c:3:ASN:OD1	34:2c:3:ASN:N	2.45	0.48
50:2s:22:LEU:HB3	50:2s:27:GLU:HA	1.95	0.48
53:2y:7:SER:OG	53:2y:10:MET:O	2.24	0.48
1:1A:586:A:N1	1:1A:809:G:O2'	2.40	0.48
1:1A:1039:G:H1	1:1A:1116:C:H42	1.61	0.48
1:1A:2319:G:H22	14:1S:3:ARG:NH1	2.10	0.48
6:1G:129:GLY:O	6:1G:161:THR:HB	2.13	0.48
32:1a:437:U:O3'	35:1d:125:HIS:HE1	1.96	0.48
32:1a:444:C:H2'	32:1a:445:G:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:653:A:OP1	39:1h:56:LYS:NZ	2.45	0.48
32:1a:1334:G:OP2	60:1a:3333:HOH:O	2.20	0.48
32:1a:1362:C:H2'	32:1a:1363:C:H5''	1.95	0.48
33:1b:146:GLN:O	33:1b:150:SER:HB3	2.13	0.48
35:1d:105:VAL:HG13	35:1d:110:PHE:HB2	1.96	0.48
40:1i:10:ARG:HG3	40:1i:11:LYS:H	1.77	0.48
1:2A:271(T):C:H2'	1:2A:271(U):G:C8	2.48	0.48
1:2A:2104:G:O6	1:2A:2185:C:N3	2.47	0.48
1:2A:2823:A:OP1	4:2E:113:PHE:HB2	2.14	0.48
1:2A:2880:C:O3'	13:2R:90:ARG:NH1	2.47	0.48
3:2D:260:ARG:NH1	3:2D:267:SER:OG	2.43	0.48
5:2F:155:LEU:HD11	5:2F:176:LEU:HD12	1.95	0.48
1:1A:64:A:O3'	19:1X:71:GLY:HA3	2.13	0.48
1:1A:644:A:H4'	1:1A:645:C:H5	1.78	0.48
1:1A:2207:G:O2'	1:1A:2208:A:OP1	2.29	0.48
1:1A:2777:G:O6	60:1A:4174:HOH:O	2.18	0.48
20:1Y:30:VAL:HG22	20:1Y:37:VAL:HG12	1.96	0.48
1:2A:484:C:H2'	1:2A:485:C:C6	2.49	0.48
1:2A:1803:A:N1	1:2A:1822:G:O2'	2.44	0.48
1:2A:2445:G:OP1	5:2F:74:ARG:NH2	2.47	0.48
1:2A:2543:G:H2'	1:2A:2544:G:C8	2.48	0.48
4:2E:144:ARG:HB3	4:2E:145:LYS:H	1.49	0.48
32:2a:1316:G:N2	32:2a:1319:A:O5'	2.47	0.48
1:1A:433:C:OP1	60:1A:4192:HOH:O	2.20	0.48
1:1A:784:A:C6	3:1D:229:VAL:HG11	2.49	0.48
1:1A:919:G:N2	1:1A:2269:A:OP2	2.47	0.48
1:1A:1359:A:N6	1:1A:1372:U:H3	2.09	0.48
10:1O:68:GLU:HB3	10:1O:78:ARG:HB2	1.95	0.48
21:1Z:125:LEU:HB3	21:1Z:165:VAL:HG13	1.94	0.48
32:1a:598:U:O4	60:1a:3327:HOH:O	2.16	0.48
32:1a:877:C:O2'	39:1h:3:THR:OG1	2.30	0.48
1:2A:530:G:H4'	1:2A:531:C:OP1	2.13	0.48
4:2E:97:LYS:N	4:2E:100:GLU:OE1	2.41	0.48
4:2E:101:ARG:CZ	4:2E:171:GLU:HB2	2.43	0.48
11:2P:82:GLY:HA2	11:2P:113:LYS:O	2.14	0.48
14:2S:50:SER:O	14:2S:76:LYS:NZ	2.32	0.48
21:2Z:53:ILE:HG22	21:2Z:71:VAL:O	2.14	0.48
33:2b:127:ILE:C	33:2b:129:GLU:H	2.22	0.48
34:2c:8:ILE:HG23	34:2c:16:ARG:HD3	1.95	0.48
36:2e:71:LEU:HD21	36:2e:115:VAL:HG22	1.96	0.48
41:2j:26:ALA:O	41:2j:84:GLN:NE2	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:2t:20:LEU:O	51:2t:24:LEU:HD22	2.14	0.48
1:1A:639:U:H2'	1:1A:640:C:C6	2.49	0.48
2:1B:96:U:H2'	2:1B:97:G:C8	2.49	0.48
32:1a:227:G:H2'	32:1a:228:A:O4'	2.14	0.48
39:1h:25:ASP:N	39:1h:25:ASP:OD1	2.46	0.48
40:1i:26:VAL:HA	40:1i:61:ALA:HB3	1.95	0.48
1:2A:84:A:H5'	20:2Y:8:LYS:HB3	1.96	0.48
1:2A:116:C:H2'	1:2A:117:G:O4'	2.14	0.48
1:2A:271(H):G:H2'	1:2A:271(I):G:C8	2.48	0.48
1:2A:1247:A:OP1	5:2F:95:ARG:NH2	2.45	0.48
1:2A:1935:G:H1'	1:2A:1964:G:N2	2.29	0.48
3:2D:61:LEU:HD12	3:2D:61:LEU:HA	1.76	0.48
32:2a:399:G:H2'	32:2a:400:C:C6	2.48	0.48
32:2a:1068:G:H8	32:2a:1068:G:OP2	1.97	0.48
32:2a:1184:G:H2'	32:2a:1185:G:C8	2.49	0.48
32:2a:1347:G:N2	32:2a:1373:G:H2'	2.28	0.48
32:2a:1427:U:H2'	32:2a:1428:A:C8	2.48	0.48
53:2y:48:PHE:N	53:2y:67:HIS:O	2.47	0.48
1:1A:602:G:O2'	1:1A:655:A:N6	2.47	0.47
1:1A:1814:G:H4'	3:1D:51:VAL:HG21	1.96	0.47
1:1A:1858:G:N2	1:1A:1883:G:H2'	2.29	0.47
13:1R:24:GLN:HE21	13:1R:44:LEU:HG	1.77	0.47
32:1a:79:G:N1	32:1a:90:U:C2	2.82	0.47
32:1a:341:C:H2'	32:1a:342:C:C6	2.49	0.47
34:1c:78:GLY:HA3	34:1c:83:ARG:H	1.79	0.47
38:1g:111:ARG:NH1	38:1g:113:GLU:OE2	2.42	0.47
1:2A:458:G:O2'	1:2A:469:G:O6	2.32	0.47
1:2A:1031:G:O2'	31:29:7:VAL:O	2.31	0.47
1:2A:1656:C:OP2	60:2A:3883:HOH:O	2.20	0.47
1:2A:2051:A:H8	1:2A:2051:A:OP2	1.97	0.47
1:2A:2051:A:H5'	1:2A:2578:G:O4'	2.14	0.47
1:2A:2133:G:O2'	1:2A:2158:A:N1	2.47	0.47
1:2A:2704:C:H2'	1:2A:2705:A:O4'	2.13	0.47
6:2G:161:THR:HG23	6:2G:163:ALA:H	1.79	0.47
7:2H:28:GLY:N	7:2H:31:GLY:O	2.47	0.47
16:2U:83:LEU:HD12	16:2U:88:ILE:HD13	1.95	0.47
19:2X:84:ALA:HB3	19:2X:87:GLN:NE2	2.29	0.47
26:24:41:PRO:HG3	26:24:49:PHE:CE2	2.49	0.47
32:2a:583:A:H2'	32:2a:584:G:O4'	2.13	0.47
32:2a:1305:G:N2	32:2a:1331:G:H1'	2.29	0.47
33:2b:217:ARG:HA	33:2b:220:ASP:HB2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2f:50:TYR:CE2	49:2r:77:GLY:HA2	2.49	0.47
1:1A:253:C:OP2	30:18:5:LYS:NZ	2.35	0.47
1:1A:1143:A:OP1	9:1N:25:ARG:NH2	2.47	0.47
4:1E:73:GLU:H	4:1E:73:GLU:CD	2.22	0.47
16:1U:33:ARG:NH2	60:1U:308:HOH:O	2.47	0.47
21:1Z:158:PRO:HG2	21:1Z:161:VAL:HG11	1.95	0.47
1:2A:855:G:H2'	1:2A:856:C:C6	2.49	0.47
1:2A:1796:U:H2'	1:2A:1797:C:H6	1.76	0.47
4:2E:54:GLN:OE1	4:2E:55:ASN:N	2.46	0.47
11:2P:97:PRO:HD3	11:2P:126:VAL:O	2.14	0.47
21:2Z:5:LEU:O	21:2Z:59:LEU:HA	2.14	0.47
21:2Z:6:LYS:HB2	21:2Z:8:TYR:HE2	1.79	0.47
23:21:83:GLU:HA	23:21:84:GLY:HA2	1.53	0.47
25:23:12:PRO:HA	25:23:15:TYR:HD2	1.78	0.47
32:2a:390:C:O3'	47:2p:28:ARG:NH2	2.48	0.47
32:2a:458:C:H2'	32:2a:460:G:O4'	2.14	0.47
32:2a:1208:C:H2'	32:2a:1209:C:C6	2.49	0.47
33:2b:121:LEU:O	33:2b:125:PRO:HD2	2.14	0.47
35:2d:119:GLN:HG3	35:2d:123:HIS:CE1	2.49	0.47
49:2r:47:THR:HG23	49:2r:49:LYS:HG3	1.94	0.47
1:1A:1593:G:H2'	1:1A:1594:G:C8	2.49	0.47
32:1a:169:C:H2'	32:1a:170:U:C6	2.49	0.47
32:1a:509:A:H3'	60:1a:3414:HOH:O	2.13	0.47
34:1c:116:VAL:HG21	34:1c:202:ILE:HD11	1.96	0.47
50:1s:12:ASP:HB3	50:1s:14:HIS:CD2	2.49	0.47
1:2A:520:G:N7	60:2A:4006:HOH:O	2.36	0.47
1:2A:1657:C:H2'	1:2A:1658:C:H6	1.78	0.47
1:2A:2312:U:H5'	6:2G:88:ILE:HD11	1.96	0.47
19:2X:53:LYS:NZ	19:2X:55:ASN:OD1	2.35	0.47
32:2a:1151:A:C5'	41:2j:41:PRO:HA	2.42	0.47
32:2a:1263:C:H2'	32:2a:1264:C:C6	2.48	0.47
35:2d:111:ALA:HB2	35:2d:120:LEU:HD11	1.96	0.47
45:2n:9:LYS:O	45:2n:12:ARG:HG2	2.14	0.47
1:1A:2430:A:OP1	60:1A:4195:HOH:O	2.20	0.47
1:1A:2646:C:H2'	1:1A:2647:U:O4'	2.14	0.47
32:1a:1302:U:OP2	44:1m:21:TYR:OH	2.21	0.47
34:1c:3:ASN:OD1	34:1c:3:ASN:N	2.47	0.47
35:1d:17:VAL:HG12	35:1d:18:LYS:H	1.78	0.47
46:1o:8:LYS:O	46:1o:12:ILE:HG13	2.15	0.47
49:1r:24:ALA:O	49:1r:26:LEU:N	2.47	0.47
50:1s:41:VAL:HB	50:1s:44:MET:HE3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:2X:11:PRO:HG2	19:2X:13:LEU:HD21	1.95	0.47
32:2a:270:A:H2'	32:2a:271:C:C6	2.49	0.47
32:2a:1015:A:H4'	45:2n:15:LYS:NZ	2.28	0.47
32:2a:1030(C):G:H2'	32:2a:1030(D):A:C8	2.48	0.47
32:2a:1148:U:H2'	32:2a:1149:C:O4'	2.13	0.47
34:2c:112:SER:OG	34:2c:115:LEU:HB2	2.14	0.47
1:1A:194:G:N3	60:1A:4367:HOH:O	2.36	0.47
1:1A:839:U:H2'	1:1A:840:C:C6	2.49	0.47
1:1A:1073:A:C2	1:1A:1074:G:C8	3.03	0.47
8:1I:46:ALA:O	8:1I:50:ARG:HG2	2.13	0.47
11:1P:100:LEU:HD12	11:1P:112:LEU:HD11	1.95	0.47
12:1Q:21:THR:HG21	12:1Q:101:ARG:HB2	1.96	0.47
13:1R:72:ASP:HB3	13:1R:75:LEU:HB2	1.96	0.47
21:1Z:75:ASN:O	21:1Z:84:GLU:HG2	2.15	0.47
32:1a:106:C:H2'	32:1a:107:G:H8	1.78	0.47
32:1a:933:G:O6	38:1g:3:ARG:NH2	2.48	0.47
32:1a:1201:A:H4'	32:1a:1202:G:O5'	2.14	0.47
1:2A:272:G:N7	1:2A:421:U:H2'	2.29	0.47
1:2A:492:A:H2'	1:2A:493:G:O4'	2.15	0.47
1:2A:1092:C:H2'	1:2A:1092:C:O2	2.15	0.47
1:2A:1669:A:H5''	1:2A:2550:G:OP1	2.14	0.47
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.29	0.47
2:2B:103:G:N2	21:2Z:73:GLN:HE22	2.10	0.47
32:2a:443:C:H2'	32:2a:444:C:H6	1.79	0.47
32:2a:1515:C:H2'	32:2a:1516:G:H8	1.78	0.47
43:2l:27:LEU:O	43:2l:33:ARG:NE	2.47	0.47
1:1A:389:G:O6	11:1P:70:GLN:HB3	2.14	0.47
1:1A:1805:U:O2	3:1D:50:THR:HB	2.14	0.47
9:1N:33:LEU:HD12	9:1N:38:HIS:CE1	2.50	0.47
32:1a:955:U:O2'	50:1s:83:HIS:HD2	1.98	0.47
38:1g:104:LEU:HD22	38:1g:134:ALA:HB1	1.95	0.47
44:1m:11:ARG:O	44:1m:13:LYS:N	2.45	0.47
45:1n:24:CYS:HB3	45:1n:28:GLY:N	2.30	0.47
1:2A:579:G:O2'	1:2A:2019:A:OP1	2.26	0.47
1:2A:2092:U:OP1	60:2A:3874:HOH:O	2.19	0.47
1:2A:2166:G:H2'	1:2A:2167:U:O4'	2.14	0.47
1:2A:2230:G:H1'	23:21:45:ASN:CG	2.40	0.47
11:2P:98:GLU:H	11:2P:98:GLU:CD	2.23	0.47
18:2W:60:ASN:HD22	18:2W:60:ASN:N	2.12	0.47
22:20:70:GLN:NE2	22:20:72:ARG:HD2	2.30	0.47
32:2a:1004:A:H62	32:2a:1037:C:H3'	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1103:C:H5''	33:2b:98:LEU:HD22	1.96	0.47
33:2b:69:LEU:HB3	33:2b:162:ILE:HG22	1.97	0.47
34:2c:32:LEU:O	34:2c:36:ASP:HB2	2.14	0.47
51:2t:16:HIS:O	51:2t:19:SER:OG	2.30	0.47
53:2y:53:THR:HA	53:2y:61:LEU:O	2.14	0.47
1:1A:107:C:H2'	1:1A:108:U:H6	1.79	0.47
1:1A:112:U:O3'	60:1A:4191:HOH:O	2.20	0.47
1:1A:411:G:C5	11:1P:72:PRO:HB3	2.50	0.47
1:1A:1648:C:OP1	60:1A:4119:HOH:O	2.20	0.47
1:1A:1653:G:H3'	13:1R:2:ARG:HD3	1.95	0.47
1:1A:1712:C:H2'	1:1A:1713:U:O4'	2.14	0.47
1:1A:1987:G:H2'	1:1A:1988:C:H6	1.79	0.47
20:1Y:20:TYR:HB3	20:1Y:23:ARG:HD2	1.96	0.47
21:1Z:146:ILE:HA	21:1Z:147:GLY:HA2	1.58	0.47
32:1a:108:G:C6	51:1t:15:ARG:HG2	2.50	0.47
32:1a:194:C:H2'	32:1a:195:A:H5''	1.95	0.47
32:1a:235:C:H2'	32:1a:236:G:H8	1.78	0.47
32:1a:865:A:H2	32:1a:918:A:H4'	1.79	0.47
32:1a:914:A:O5'	60:1a:3335:HOH:O	2.21	0.47
32:1a:1003:G:C2	32:1a:1004:A:N3	2.82	0.47
32:1a:1340:A:OP1	53:1y:57:PRO:HB3	2.14	0.47
34:1c:32:LEU:HD13	34:1c:59:ARG:HH11	1.80	0.47
35:1d:106:TYR:C	35:1d:108:LEU:H	2.23	0.47
43:1l:54:LYS:HD2	43:1l:54:LYS:N	2.30	0.47
44:1m:45:VAL:HG13	44:1m:48:LEU:HD12	1.97	0.47
48:1q:62:SER:OG	48:1q:72:ARG:HG3	2.15	0.47
1:2A:196:A:N3	1:2A:196:A:H2'	2.30	0.47
1:2A:565:C:H4'	1:2A:1253:A:N6	2.30	0.47
1:2A:2238:G:N7	60:2A:4008:HOH:O	2.36	0.47
7:2H:98:LEU:HD22	7:2H:125:VAL:HG23	1.96	0.47
9:2N:4:TYR:CD2	16:2U:100:VAL:HG11	2.50	0.47
12:2Q:35:VAL:HG13	12:2Q:130:LYS:HB3	1.96	0.47
32:2a:102:G:O2'	32:2a:151:A:N3	2.35	0.47
32:2a:117:G:OP2	60:2a:3215:HOH:O	2.20	0.47
32:2a:142:G:H2'	32:2a:143:A:H8	1.79	0.47
32:2a:192:U:H2'	32:2a:193:C:C6	2.49	0.47
32:2a:437:U:H5'	35:2d:155:LEU:HD21	1.97	0.47
32:2a:737:A:H5''	37:2f:92:LYS:HG3	1.97	0.47
32:2a:839:U:H5''	32:2a:840:C:C5	2.47	0.47
32:2a:890:G:O2'	32:2a:906:G:O6	2.26	0.47
32:2a:1111:A:H2'	32:2a:1112:C:H6	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:71:VAL:HG12	33:2b:93:VAL:HG22	1.96	0.47
44:2m:37:THR:HG21	44:2m:56:LEU:HA	1.97	0.47
1:1A:859:G:O2'	1:1A:916:G:O6	2.30	0.47
6:1G:43:LEU:HD11	6:1G:153:ARG:HD3	1.97	0.47
7:1H:154:PRO:HB3	7:1H:163:TYR:CZ	2.50	0.47
19:1X:31:HIS:HD2	19:1X:33:LYS:H	1.62	0.47
32:1a:69:G:H2'	32:1a:70:G:H8	1.80	0.47
32:1a:110:C:H2'	32:1a:111:G:O4'	2.14	0.47
32:1a:235:C:H2'	32:1a:236:G:C8	2.50	0.47
32:1a:814:A:N7	32:1a:816:A:C4	2.83	0.47
34:1c:44:GLU:HA	34:1c:52:LEU:HD23	1.97	0.47
46:1o:6:GLU:OE1	46:1o:6:GLU:N	2.47	0.47
48:1q:48:GLU:HB2	48:1q:50:LYS:HG2	1.97	0.47
48:1q:58:GLU:O	48:1q:74:LEU:N	2.43	0.47
48:1q:62:SER:HB3	48:1q:72:ARG:HH11	1.80	0.47
1:2A:2723:C:O3'	13:2R:1:MET:HE1	2.15	0.47
10:2O:22:ILE:HG23	10:2O:41:ALA:HA	1.96	0.47
21:2Z:30:ASN:ND2	21:2Z:90:VAL:HB	2.30	0.47
26:24:15:ILE:O	26:24:33:VAL:HG22	2.15	0.47
32:2a:1207:2MG:H2'	32:2a:1208:C:C6	2.50	0.47
35:2d:189:PRO:HB2	35:2d:194:LEU:HD11	1.96	0.47
43:2l:89:ARG:HE	43:2l:91:LYS:HA	1.79	0.47
51:2t:51:GLU:HA	51:2t:54:LYS:HE2	1.97	0.47
1:1A:1230:C:H2'	1:1A:1231:G:C8	2.50	0.47
1:1A:2153:G:H2'	1:1A:2154:G:H8	1.77	0.47
6:1G:96:ARG:N	6:1G:99:MET:HE2	2.28	0.47
21:1Z:152:ALA:HA	21:1Z:155:LEU:HD22	1.97	0.47
27:15:17:ASP:OD2	60:15:201:HOH:O	2.21	0.47
32:1a:61:G:OP2	51:1t:10:LEU:HD22	2.15	0.47
32:1a:79:G:N1	32:1a:90:U:N3	2.62	0.47
32:1a:221:C:H2'	32:1a:222:U:C6	2.48	0.47
32:1a:1070:U:H2'	32:1a:1071:C:C6	2.49	0.47
33:1b:157:ARG:HE	33:1b:157:ARG:HB3	1.38	0.47
33:1b:163:PHE:CD1	33:1b:185:ILE:HG13	2.49	0.47
33:1b:197:VAL:O	39:1h:68:ARG:NH2	2.48	0.47
37:1f:78:GLU:O	37:1f:81:ILE:HG22	2.15	0.47
1:2A:302:C:H42	1:2A:315:G:H1	1.62	0.47
1:2A:1165:U:H2'	1:2A:1166:C:C6	2.50	0.47
1:2A:1219:G:H1	1:2A:1230:C:H42	1.62	0.47
1:2A:2379:G:O2'	14:2S:17:ARG:NH1	2.47	0.47
2:2B:31:C:H4'	6:2G:29:TRP:CZ2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:500:G:H2'	32:2a:501:C:C6	2.49	0.47
32:2a:1063:C:H3'	32:2a:1064:G:H2'	1.96	0.47
32:2a:1481:U:H2'	32:2a:1482:G:C8	2.50	0.47
38:2g:16:LEU:HD13	40:2i:45:ALA:HB2	1.97	0.47
49:2r:52:PRO:HB2	49:2r:54:ARG:HG2	1.96	0.47
50:2s:41:VAL:HG12	50:2s:44:MET:HG3	1.97	0.47
50:2s:62:ILE:HG23	50:2s:66:MET:HG3	1.97	0.47
1:1A:226:G:H21	1:1A:228:A:H62	1.62	0.47
1:1A:1310:G:OP2	29:17:9:ARG:NE	2.46	0.47
1:1A:1688:U:O2	1:1A:1700:A:H5'	2.15	0.47
14:1S:10:ARG:O	14:1S:14:VAL:HG13	2.15	0.47
32:1a:445:G:H2'	32:1a:446:G:C8	2.50	0.47
32:1a:524:G:H2'	32:1a:525:C:C6	2.50	0.47
32:1a:1479:C:H2'	32:1a:1480:G:H8	1.80	0.47
38:1g:111:ARG:HB3	38:1g:113:GLU:OE2	2.15	0.47
1:2A:636:G:O2'	1:2A:638:G:O2'	2.25	0.47
1:2A:1040:C:H2'	1:2A:1041:C:C6	2.50	0.47
1:2A:1319:G:C6	1:2A:1320:C:N4	2.83	0.47
1:2A:2313:C:H4'	6:2G:91:ARG:HG3	1.97	0.47
7:2H:87:LEU:HD23	7:2H:164:TYR:HA	1.97	0.47
8:2I:75:LEU:HD11	8:2I:105:HIS:ND1	2.30	0.47
12:2Q:111:GLU:O	12:2Q:115:MET:HG2	2.15	0.47
13:2R:72:ASP:OD1	13:2R:74:LYS:N	2.48	0.47
26:24:47:GLN:O	26:24:48:ARG:HB2	2.15	0.47
32:2a:742:G:OP2	46:2o:35:ARG:NH2	2.48	0.47
32:2a:992:U:H5''	32:2a:993:G:C4	2.50	0.47
32:2a:1401:G:C2	32:2a:1402:4OC:H1'	2.50	0.47
35:2d:59:ARG:HH11	35:2d:59:ARG:HA	1.80	0.47
35:2d:61:LYS:HA	35:2d:203:VAL:HG22	1.97	0.47
41:2j:62:HIS:HB3	45:2n:59:ALA:HB3	1.96	0.47
1:1A:491:G:H2'	1:1A:492:A:C8	2.50	0.46
1:1A:576:U:H2'	1:1A:577:G:C8	2.50	0.46
1:1A:1230:C:H2'	1:1A:1231:G:H8	1.80	0.46
1:1A:1762:A:H2'	60:1A:7265:HOH:O	2.13	0.46
7:1H:84:SER:HA	7:1H:133:VAL:O	2.15	0.46
13:1R:26:LYS:HE2	13:1R:70:LEU:O	2.15	0.46
32:1a:58:C:O2'	32:1a:388:G:N7	2.44	0.46
32:1a:376:G:H5''	47:1p:5:ARG:HB2	1.96	0.46
32:1a:1249:C:O2'	40:1i:73:GLN:NE2	2.48	0.46
34:1c:131:ARG:HE	34:1c:135:LYS:HZ2	1.62	0.46
37:1f:36:ARG:HB3	37:1f:66:GLU:HB3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:1u:5:ASP:O	52:1u:11:GLY:HA3	2.15	0.46
1:2A:918:A:N3	2:2B:80:U:O2'	2.46	0.46
1:2A:1359:A:N3	1:2A:1359:A:H5'	2.31	0.46
1:2A:2011:U:OP2	60:2A:3879:HOH:O	2.20	0.46
21:2Z:142:SER:C	21:2Z:144:LEU:H	2.23	0.46
32:2a:343:U:H2'	32:2a:345:C:C5	2.50	0.46
32:2a:615:C:H2'	32:2a:616:G:O4'	2.15	0.46
33:2b:195:ASP:O	39:2h:68:ARG:NH2	2.49	0.46
39:2h:48:TYR:HA	39:2h:60:ARG:O	2.16	0.46
52:2u:5:ASP:O	52:2u:11:GLY:HA3	2.14	0.46
1:1A:715:G:C2	46:1o:56:LEU:HD21	2.51	0.46
1:1A:862:G:H2'	1:1A:863:A:O4'	2.16	0.46
1:1A:1490:A:O2'	3:1D:99:ASP:OD1	2.33	0.46
1:1A:1665:A:H2'	1:1A:1666:G:O4'	2.15	0.46
1:1A:2156:G:H2'	1:1A:2157:G:O4'	2.15	0.46
1:1A:2334:G:H5'	14:1S:9:ARG:HG2	1.97	0.46
1:1A:2683:C:H2'	1:1A:2684:U:H6	1.79	0.46
32:1a:1014:A:H4'	50:1s:14:HIS:CE1	2.49	0.46
47:1p:20:VAL:HG21	47:1p:32:TYR:CG	2.49	0.46
51:1t:47:GLY:HA2	51:1t:48:LYS:C	2.40	0.46
1:2A:1057:A:N7	1:2A:1086:A:H2'	2.31	0.46
2:2B:88:C:OP2	60:2B:302:HOH:O	2.21	0.46
6:2G:15:VAL:HA	6:2G:175:LEU:HD23	1.96	0.46
28:26:34:LEU:HB2	28:26:51:GLU:HB2	1.96	0.46
35:2d:70:ILE:HG12	35:2d:74:GLN:HG3	1.97	0.46
39:2h:119:LEU:HB3	39:2h:123:GLU:HB2	1.97	0.46
40:2i:23:ASN:N	40:2i:23:ASN:OD1	2.47	0.46
40:2i:46:ALA:HB2	40:2i:74:ILE:HG23	1.97	0.46
1:1A:660:G:O3'	5:1F:38:ARG:NH2	2.49	0.46
1:1A:1429:G:H2'	1:1A:1430:C:C6	2.50	0.46
1:1A:2186:G:H5'	1:1A:2187:G:OP2	2.15	0.46
5:1F:64:ILE:HG21	5:1F:78:ILE:HG23	1.97	0.46
6:1G:97:ASP:O	6:1G:101:ILE:HG13	2.14	0.46
32:1a:501:C:H1'	32:1a:549:C:H1'	1.98	0.46
32:1a:1288:A:H2'	32:1a:1289:A:C8	2.49	0.46
33:1b:21:ARG:HB2	33:1b:22:LYS:H	1.49	0.46
1:2A:272:G:H4'	1:2A:272(A):U:H5''	1.96	0.46
1:2A:517:C:OP1	27:25:16:ARG:NH2	2.48	0.46
1:2A:1057:A:H62	1:2A:1086:A:H3'	1.81	0.46
1:2A:1188:U:H4'	17:2V:79:VAL:HG22	1.96	0.46
1:2A:1803:A:H2'	1:2A:1804:C:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1937:A:O2'	1:2A:1939:5MU:OP2	2.29	0.46
1:2A:2261:C:H1'	1:2A:2388:A:N3	2.29	0.46
1:2A:2786:U:OP1	4:2E:69:LYS:NZ	2.39	0.46
32:2a:255:G:H2'	32:2a:256:U:C6	2.50	0.46
35:2d:173:TRP:CD1	35:2d:189:PRO:HG3	2.50	0.46
39:2h:37:ARG:NH1	39:2h:41:ARG:HH21	2.11	0.46
48:2q:41:LYS:NZ	48:2q:92:ARG:HH21	2.13	0.46
1:1A:601:C:O2'	1:1A:605:C:H5''	2.16	0.46
1:1A:2877:G:OP2	60:1A:4193:HOH:O	2.20	0.46
26:14:62:ARG:HA	26:14:62:ARG:HD3	1.74	0.46
32:1a:646:U:H2'	32:1a:647:C:C6	2.49	0.46
32:1a:1090:U:H2'	32:1a:1091:U:C6	2.49	0.46
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.51	0.46
32:1a:1137:C:H3'	32:1a:1137:C:H6	1.80	0.46
32:1a:1298:C:H2'	38:1g:114:ARG:HH21	1.79	0.46
33:1b:21:ARG:HB3	33:1b:38:GLY:O	2.16	0.46
44:1m:20:THR:C	44:1m:22:ILE:H	2.23	0.46
1:2A:495:G:N3	18:2W:61:ASN:ND2	2.63	0.46
1:2A:2689:U:H5'	1:2A:2689:U:O2	2.15	0.46
4:2E:116:VAL:HG13	4:2E:122:PHE:HB2	1.97	0.46
8:2I:12:LEU:HD22	8:2I:19:VAL:HG21	1.98	0.46
15:2T:118:ARG:HG2	32:2a:1442(A):G:C8	2.50	0.46
32:2a:442:C:H42	32:2a:492:G:H1	1.63	0.46
32:2a:1004:A:C5'	32:2a:1025:U:H5	2.28	0.46
32:2a:1371:G:OP1	40:2i:12:GLU:HB2	2.16	0.46
32:2a:1502:A:H5'	32:2a:1504:G:N7	2.31	0.46
33:2b:31:TYR:HE2	33:2b:200:ILE:HG21	1.81	0.46
36:2e:77:PRO:HD2	36:2e:142:LEU:HD22	1.96	0.46
43:2l:40:VAL:HG13	43:2l:56:ALA:HB2	1.97	0.46
46:2o:32:LEU:HD23	46:2o:32:LEU:HA	1.82	0.46
1:1A:221:A:N1	1:1A:265:A:O2'	2.43	0.46
1:1A:1266:G:O5'	18:1W:15:ARG:NH2	2.48	0.46
3:1D:34:VAL:HG12	3:1D:63:ARG:HG3	1.97	0.46
26:14:18:CYS:SG	26:14:20:ASN:HB2	2.55	0.46
30:18:61:LEU:O	30:18:63:PRO:HD3	2.16	0.46
32:1a:171:A:H2'	32:1a:172:A:H8	1.81	0.46
32:1a:359:U:H2'	32:1a:360:A:C8	2.51	0.46
32:1a:1314:C:H2'	32:1a:1315:U:C6	2.51	0.46
33:1b:167:PRO:HD3	33:1b:187:LEU:O	2.16	0.46
35:1d:111:ALA:HB2	35:1d:120:LEU:HD12	1.97	0.46
11:2P:100:LEU:HA	11:2P:103:ALA:HB3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:26:25:LYS:NZ	28:26:51:GLU:OE1	2.46	0.46
32:2a:1073:U:H2'	32:2a:1074:G:H8	1.80	0.46
32:2a:1218:C:H2'	32:2a:1219:U:C6	2.50	0.46
33:2b:215:LEU:O	33:2b:219:VAL:HG23	2.16	0.46
50:2s:49:ILE:HG22	50:2s:51:VAL:HG22	1.98	0.46
1:1A:569:U:C4	1:1A:570:G:C6	3.04	0.46
1:1A:1138:G:N3	9:1N:106:MET:HE2	2.31	0.46
5:1F:22:ALA:HB3	5:1F:199:TRP:HZ2	1.81	0.46
37:1f:22:GLU:OE2	37:1f:82:ARG:NH2	2.49	0.46
1:2A:265:A:N1	1:2A:427:U:O2'	2.44	0.46
1:2A:614(B):G:H2'	5:2F:44:ARG:HH11	1.81	0.46
1:2A:1721:G:H2'	1:2A:1740:G:O6	2.15	0.46
1:2A:1783:A:H5'	1:2A:2608:G:H4'	1.98	0.46
1:2A:2104:G:N2	1:2A:2105:C:C2	2.84	0.46
1:2A:2142:C:H2'	1:2A:2143:C:C6	2.51	0.46
1:2A:2321:G:O2'	1:2A:2322:A:OP1	2.30	0.46
1:2A:2584:U:H2'	1:2A:2585:U:H2'	1.97	0.46
4:2E:14:ILE:O	4:2E:21:VAL:HG23	2.16	0.46
32:2a:1184:G:H2'	32:2a:1185:G:H8	1.81	0.46
32:2a:1347:G:H22	32:2a:1374:A:P	2.39	0.46
32:2a:1442:G:O2'	32:2a:1442(A):G:O5'	2.30	0.46
1:1A:2017:U:O2	27:15:10:LYS:HB2	2.15	0.46
1:1A:2279:G:O6	22:10:14:ARG:HG3	2.15	0.46
1:1A:2572:A:N7	4:1E:144:ARG:HD2	2.31	0.46
6:1G:16:ARG:HB2	6:1G:17:PRO:HD3	1.98	0.46
32:1a:19:C:H2'	32:1a:20:U:H6	1.81	0.46
32:1a:56:U:H2'	32:1a:57:G:C8	2.50	0.46
32:1a:659:U:H2'	32:1a:660:G:C8	2.51	0.46
32:1a:1015:A:H2'	32:1a:1016:A:C8	2.51	0.46
32:1a:1132:C:H2'	32:1a:1133:G:H8	1.81	0.46
35:1d:106:TYR:HE2	35:1d:107:ARG:HH11	1.62	0.46
35:1d:173:TRP:CD2	35:1d:189:PRO:HG3	2.51	0.46
36:1e:78:HIS:CE1	36:1e:142:LEU:HD23	2.51	0.46
40:1i:17:VAL:HG11	40:1i:80:GLY:C	2.41	0.46
1:2A:861:A:N3	2:2B:79:C:O2'	2.43	0.46
1:2A:921:G:C6	1:2A:922:U:C4	3.04	0.46
1:2A:1426:G:O2'	1:2A:1572:A:N6	2.45	0.46
4:2E:79:ARG:NH1	60:2E:406:HOH:O	2.48	0.46
9:2N:35:ARG:H	9:2N:35:ARG:HG2	1.59	0.46
25:23:43:ILE:O	25:23:47:VAL:HG23	2.16	0.46
32:2a:7:G:H5'	32:2a:298:A:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:735:C:H2'	32:2a:736:C:C6	2.51	0.46
32:2a:1015:A:H2'	32:2a:1016:A:C8	2.51	0.46
36:2e:87:SER:HB3	36:2e:131:ILE:HD13	1.96	0.46
42:2k:83:ILE:HG12	42:2k:109:VAL:HG13	1.98	0.46
50:2s:41:VAL:HG13	50:2s:43:GLU:H	1.81	0.46
1:1A:379:G:N2	60:1A:4492:HOH:O	2.41	0.46
1:1A:2167:U:O2'	1:1A:2168:G:O4'	2.31	0.46
1:1A:2312:U:H5'	6:1G:88:ILE:HD11	1.98	0.46
1:1A:2662:A:H8	1:1A:2662:A:O5'	1.99	0.46
4:1E:37:ARG:HA	4:1E:42:ASP:OD2	2.16	0.46
32:1a:128:G:O2'	48:1q:3:LYS:HE2	2.15	0.46
32:1a:747:C:H3'	32:1a:748:C:C6	2.51	0.46
32:1a:1131:G:OP1	40:1i:20:ARG:NH2	2.49	0.46
1:2A:286:C:H2'	1:2A:287:C:C6	2.51	0.46
1:2A:994:C:H3'	16:2U:54:LYS:HE3	1.98	0.46
1:2A:2313:C:H2'	1:2A:2314:C:H6	1.81	0.46
1:2A:2562:U:H1'	10:2O:23:ARG:HE	1.81	0.46
11:2P:88:LEU:HD22	11:2P:95:VAL:HG11	1.97	0.46
21:2Z:24:LEU:HD12	21:2Z:25:PRO:HD2	1.97	0.46
32:2a:70:G:H1	32:2a:99:U:H3	1.62	0.46
32:2a:438:G:H4'	35:2d:123:HIS:CD2	2.50	0.46
43:2l:7:ILE:HG22	48:2q:34:LYS:HD2	1.97	0.46
1:1A:271(O):C:H2'	1:1A:271(P):C:C6	2.50	0.46
1:1A:1779:U:H2'	60:1A:5267:HOH:O	2.16	0.46
16:1U:30:LYS:N	16:1U:30:LYS:HD2	2.31	0.46
20:1Y:6:HIS:H	20:1Y:6:HIS:CD2	2.33	0.46
32:1a:321:A:N7	32:1a:328:C:O2'	2.40	0.46
32:1a:601:C:H2'	32:1a:602:A:H8	1.81	0.46
32:1a:984:C:N4	32:1a:1221:G:H1	2.11	0.46
33:1b:138:LEU:O	33:1b:142:LEU:N	2.43	0.46
35:1d:91:SER:O	35:1d:95:GLY:N	2.43	0.46
43:1l:70:ILE:HG12	43:1l:100:ILE:HD12	1.98	0.46
47:1p:57:ARG:HH21	47:1p:79:VAL:HA	1.80	0.46
51:1t:9:ASN:O	51:1t:10:LEU:HD23	2.16	0.46
1:2A:1005:C:H2'	1:2A:1006:C:C6	2.51	0.46
1:2A:1022:G:N7	9:2N:66:LYS:HE2	2.31	0.46
1:2A:1141:U:OP2	9:2N:63:THR:OG1	2.33	0.46
1:2A:1598:C:H2'	1:2A:1599:C:C6	2.51	0.46
1:2A:2185:C:N4	1:2A:2186:G:C6	2.84	0.46
1:2A:2243:U:H2'	1:2A:2244:U:C6	2.51	0.46
2:2B:53:A:H2'	2:2B:54:G:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:91:C:OP1	12:2Q:16:ARG:HG3	2.16	0.46
4:2E:200:GLU:O	60:2E:402:HOH:O	2.21	0.46
10:2O:9:GLU:O	10:2O:83:ALA:HA	2.15	0.46
32:2a:1260:C:O5'	32:2a:1284:C:H4'	2.16	0.46
40:2i:71:SER:HA	40:2i:74:ILE:HD12	1.97	0.46
1:1A:186:G:H2'	1:1A:187:G:H8	1.81	0.46
1:1A:657:U:H2'	1:1A:658:C:C6	2.51	0.46
6:1G:53:LEU:O	6:1G:56:ALA:N	2.44	0.46
15:1T:16:ARG:NH1	15:1T:83:ILE:O	2.46	0.46
32:1a:565:U:H3'	32:1a:566:G:H2'	1.98	0.46
47:1p:70:ALA:O	47:1p:74:LEU:HD12	2.16	0.46
1:2A:96:G:H4'	24:22:48:HIS:CD2	2.50	0.46
1:2A:1342:A:OP2	60:2A:3816:HOH:O	2.21	0.46
7:2H:74:ASN:O	7:2H:78:GLY:N	2.45	0.46
7:2H:159:GLU:HG3	7:2H:169:VAL:HG11	1.98	0.46
9:2N:123:TYR:OH	9:2N:130:HIS:NE2	2.34	0.46
19:2X:12:VAL:HG22	19:2X:29:TRP:CE2	2.51	0.46
19:2X:43:VAL:HG21	19:2X:81:VAL:HG11	1.97	0.46
32:2a:457:C:H2'	32:2a:458:C:C6	2.51	0.46
32:2a:614:A:H2'	32:2a:615:C:C6	2.51	0.46
32:2a:817:C:OP2	60:2a:3216:HOH:O	2.21	0.46
33:2b:33:TYR:N	33:2b:41:ILE:O	2.46	0.46
35:2d:60:GLU:HG3	35:2d:202:LEU:HD12	1.97	0.46
1:1A:1786:A:H1'	1:1A:1938:A:N6	2.31	0.45
1:1A:2051:A:H5'	1:1A:2578:G:O4'	2.17	0.45
1:1A:2377:A:H2'	1:1A:2378:A:C8	2.51	0.45
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.51	0.45
32:1a:91:C:H2'	32:1a:92:C:C6	2.51	0.45
32:1a:370:C:H2'	32:1a:371:G:C8	2.52	0.45
32:1a:868:C:OP2	60:1a:3337:HOH:O	2.21	0.45
35:1d:172:PRO:O	35:1d:174:LEU:N	2.49	0.45
49:1r:24:ALA:C	49:1r:26:LEU:H	2.24	0.45
1:2A:2030:A:H4'	1:2A:2031:A:C8	2.51	0.45
1:2A:2331:G:O2'	1:2A:2336:A:N1	2.33	0.45
1:2A:2336:A:H61	22:20:43:THR:CG2	2.29	0.45
3:2D:133:LEU:HB3	3:2D:173:VAL:HG11	1.97	0.45
4:2E:93:VAL:HG13	60:2E:412:HOH:O	2.17	0.45
6:2G:145:THR:OG1	6:2G:146:TYR:N	2.48	0.45
32:2a:1151:A:N3	41:2j:39:PRO:HG3	2.32	0.45
32:2a:1494:G:OP1	53:2y:75:ASN:ND2	2.49	0.45
33:2b:48:MET:HA	33:2b:51:LEU:HD12	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:219:VAL:HG13	33:2b:222:ILE:HD11	1.98	0.45
42:2k:27:ASN:OD1	42:2k:28:THR:N	2.45	0.45
45:2n:14:PRO:HB2	45:2n:19:ARG:HB2	1.98	0.45
1:1A:1094:U:H2'	1:1A:1096:A:OP2	2.15	0.45
1:1A:1342:A:O2'	1:1A:1344:G:OP2	2.28	0.45
1:1A:1721:G:N1	1:1A:1739:U:OP2	2.50	0.45
1:1A:1807:G:O6	60:1A:4183:HOH:O	2.19	0.45
1:1A:1877:A:H5'	1:1A:1878:G:OP2	2.17	0.45
1:1A:2114:A:H3'	1:1A:2115:G:H8	1.80	0.45
1:1A:2273:A:H2'	1:1A:2274:A:C8	2.51	0.45
5:1F:20:LEU:HG	5:1F:21:ALA:H	1.80	0.45
6:1G:181:ARG:HG3	6:1G:182:LYS:N	2.29	0.45
8:1I:69:LYS:HG3	8:1I:138:ILE:HG12	1.97	0.45
9:1N:67:LEU:HB2	60:1N:325:HOH:O	2.16	0.45
13:1R:56:LYS:NZ	13:1R:90:ARG:O	2.50	0.45
19:1X:60:ARG:NH1	29:17:47:ARG:HH12	2.14	0.45
20:1Y:15:VAL:HG21	20:1Y:42:VAL:HG11	1.97	0.45
26:14:55:ARG:H	26:14:56:VAL:HA	1.82	0.45
27:15:15:ARG:HD3	60:15:202:HOH:O	2.15	0.45
32:1a:78:G:H1	32:1a:91:C:N4	2.13	0.45
32:1a:630:G:H2'	32:1a:631:G:O4'	2.17	0.45
32:1a:727:G:N2	32:1a:730:G:OP2	2.38	0.45
32:1a:1002:G:H2'	32:1a:1003:G:C1'	2.47	0.45
33:1b:213:LEU:HD23	33:1b:214:ILE:HG12	1.98	0.45
36:1e:69:VAL:HA	36:1e:70:PRO:HD3	1.81	0.45
50:1s:52:TYR:HB2	50:1s:57:HIS:CE1	2.51	0.45
1:2A:272(J):C:H2'	1:2A:274:G:C8	2.51	0.45
1:2A:2079:U:O3'	23:21:35:THR:OG1	2.34	0.45
1:2A:2140:C:H2'	1:2A:2141:G:C8	2.52	0.45
2:2B:66:A:H61	2:2B:109:C:H5'	1.80	0.45
5:2F:32:LEU:O	5:2F:36:VAL:HG23	2.15	0.45
5:2F:181:LEU:HD11	5:2F:186:ILE:HD11	1.99	0.45
17:2V:28:GLU:O	17:2V:61:VAL:HG21	2.15	0.45
20:2Y:90:LEU:HB3	20:2Y:92:ASN:H	1.81	0.45
31:29:17:ILE:HD13	31:29:17:ILE:HA	1.84	0.45
32:2a:567:G:O6	43:2l:5:PRO:HD3	2.16	0.45
32:2a:814:A:N7	32:2a:816:A:C4	2.85	0.45
32:2a:1342:C:H2'	32:2a:1343:G:C8	2.51	0.45
1:1A:1641:A:H2'	1:1A:1642:G:O4'	2.16	0.45
1:1A:2286:A:H4'	1:1A:2287:A:O4'	2.17	0.45
3:1D:108:PRO:HG3	3:1D:143:HIS:HE1	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1E:181:LEU:HD11	15:1T:6:LEU:HD23	1.98	0.45
24:12:1:MET:N	60:12:103:HOH:O	2.49	0.45
32:1a:396:G:O2'	32:1a:398:C:OP1	2.30	0.45
35:1d:129:ASN:HD21	35:1d:144:ASP:HA	1.81	0.45
38:1g:29:LYS:HD2	38:1g:29:LYS:HA	1.74	0.45
39:1h:39:LEU:HB3	39:1h:45:ILE:HG12	1.97	0.45
39:1h:112:LEU:HD22	39:1h:133:LEU:HA	1.96	0.45
39:1h:119:LEU:HD22	39:1h:123:GLU:HB3	1.99	0.45
1:2A:71:A:H5''	1:2A:73:A:C8	2.51	0.45
1:2A:422:A:H2'	1:2A:423:A:C8	2.51	0.45
1:2A:582:G:H2'	1:2A:583:G:C8	2.51	0.45
1:2A:1062:G:O6	1:2A:1088:A:H8	2.00	0.45
5:2F:126:VAL:O	5:2F:196:LEU:HG	2.17	0.45
19:2X:36:LYS:HE2	19:2X:55:ASN:HA	1.98	0.45
32:2a:1053:G:N7	32:2a:1200:C:H5''	2.31	0.45
32:2a:1126:U:O4'	32:2a:1281:U:H1'	2.15	0.45
33:2b:178:ARG:NH2	39:2h:74:PRO:HB3	2.26	0.45
37:2f:78:GLU:O	37:2f:81:ILE:HB	2.16	0.45
39:2h:49:GLU:OE2	39:2h:62:TYR:OH	2.17	0.45
39:2h:121:ASP:OD1	39:2h:121:ASP:N	2.48	0.45
43:2l:82:VAL:O	43:2l:106:ASP:HB2	2.15	0.45
1:1A:748:G:C8	18:1W:89:ALA:HB1	2.52	0.45
1:1A:1654:A:OP1	13:1R:1:MET:N	2.45	0.45
1:1A:2336:A:H61	22:10:43:THR:CG2	2.29	0.45
1:1A:2881:C:H2'	1:1A:2882:A:O4'	2.17	0.45
5:1F:64:ILE:HD12	5:1F:65:TRP:CZ3	2.51	0.45
32:1a:277:C:H5''	48:1q:68:ARG:NH2	2.32	0.45
34:1c:5:ILE:HD13	41:1j:51:ARG:HH12	1.82	0.45
34:1c:150:LYS:HB2	34:1c:150:LYS:HE3	1.81	0.45
44:1m:57:ARG:HG3	44:1m:61:GLU:OE2	2.17	0.45
1:2A:52:A:N1	1:2A:178:G:O2'	2.45	0.45
1:2A:581:C:H2'	1:2A:582:G:C8	2.51	0.45
1:2A:1648:C:OP1	60:2A:3884:HOH:O	2.21	0.45
1:2A:1668:A:O2'	1:2A:1674:G:N7	2.43	0.45
1:2A:1889:A:N1	1:2A:2234:G:H1'	2.31	0.45
5:2F:176:LEU:HD23	5:2F:176:LEU:HA	1.81	0.45
7:2H:26:VAL:HG12	7:2H:79:VAL:HG11	1.98	0.45
8:2I:92:VAL:HB	8:2I:120:ILE:HB	1.99	0.45
18:2W:78:GLU:OE2	18:2W:99:ARG:HD3	2.16	0.45
21:2Z:8:TYR:N	21:2Z:8:TYR:CD2	2.85	0.45
32:2a:1258:G:H2'	32:2a:1259:C:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:100:ARG:NH1	35:2d:137:SER:OG	2.47	0.45
36:2e:12:LEU:HB3	36:2e:31:LEU:HB2	1.97	0.45
1:1A:1083:U:H1'	1:1A:1086:A:N6	2.32	0.45
1:1A:1188:U:H4'	17:1V:79:VAL:HG22	1.99	0.45
1:1A:2718:G:O2'	1:1A:2847:U:OP1	2.29	0.45
1:1A:2869:G:H2'	1:1A:2870:C:O4'	2.16	0.45
3:1D:69:ARG:NH1	60:1D:413:HOH:O	2.49	0.45
4:1E:119:ARG:HG2	4:1E:160:TYR:CG	2.52	0.45
6:1G:67:LYS:HB3	26:14:6:HIS:CE1	2.51	0.45
21:1Z:102:LEU:HD11	21:1Z:124:ILE:HB	1.99	0.45
32:1a:375:U:H4'	47:1p:17:TYR:CE1	2.52	0.45
32:1a:1036:G:H5'	32:1a:1037:C:OP2	2.17	0.45
32:1a:1273:G:H5'	32:1a:1274:G:OP2	2.17	0.45
1:2A:479:A:H4'	1:2A:480:A:OP1	2.16	0.45
1:2A:674:G:H1'	5:2F:74:ARG:HD2	1.97	0.45
1:2A:1668:A:H4'	1:2A:1669:A:O5'	2.17	0.45
1:2A:2228:G:C5	1:2A:2229:C:C4	3.05	0.45
6:2G:150:ASP:OD1	6:2G:151:ALA:N	2.41	0.45
13:2R:56:LYS:NZ	13:2R:90:ARG:O	2.49	0.45
25:23:50:VAL:O	25:23:54:VAL:HB	2.16	0.45
32:2a:1030(A):G:H2'	32:2a:1030(B):C:H5''	1.97	0.45
32:2a:1138:G:H2'	32:2a:1140:C:H5'	1.99	0.45
32:2a:1510:U:H2'	32:2a:1511:G:C8	2.51	0.45
33:2b:19:HIS:CG	33:2b:20:GLU:N	2.84	0.45
40:2i:8:GLY:O	40:2i:15:ALA:N	2.42	0.45
48:2q:41:LYS:HZ3	48:2q:92:ARG:HH21	1.64	0.45
1:1A:340:A:H2'	1:1A:341:G:O4'	2.16	0.45
1:1A:1033:U:OP1	31:19:9:ARG:NH2	2.49	0.45
1:1A:1296:G:OP1	1:1A:2709:G:O2'	2.24	0.45
1:1A:1783:A:H5'	1:1A:2608:G:H4'	1.97	0.45
1:1A:1800:C:OP1	3:1D:260:ARG:NH2	2.48	0.45
3:1D:242:ARG:HD2	3:1D:246:PRO:HG3	1.98	0.45
7:1H:86:GLU:OE2	7:1H:132:ARG:NH2	2.50	0.45
9:1N:24:GLY:O	9:1N:28:THR:HG23	2.15	0.45
9:1N:48:MET:HE2	9:1N:48:MET:HB2	1.66	0.45
10:1O:88:ASN:O	10:1O:90:GLN:N	2.50	0.45
13:1R:79:LEU:HD12	13:1R:83:ILE:HB	1.98	0.45
32:1a:250:A:H4'	32:1a:251:G:O5'	2.16	0.45
32:1a:1347:G:N2	32:1a:1374:A:O5'	2.49	0.45
32:1a:1353:G:OP1	52:1u:10:ARG:NH1	2.50	0.45
39:1h:51:VAL:HG11	39:1h:60:ARG:HH12	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:1m:34:LEU:HD13	44:1m:41:PRO:HA	1.98	0.45
1:2A:229:A:H2'	1:2A:229:A:N3	2.31	0.45
1:2A:1056:G:H5''	1:2A:1057:A:O4'	2.17	0.45
1:2A:1826:G:H2'	1:2A:1827:C:O4'	2.17	0.45
1:2A:2023:G:H5'	1:2A:2617:C:H4'	1.98	0.45
1:2A:2115:G:H21	1:2A:2171:A:H61	1.62	0.45
1:2A:2134:A:N6	1:2A:2135:A:H62	2.14	0.45
8:2I:75:LEU:HD11	8:2I:105:HIS:CG	2.52	0.45
10:2O:68:GLU:HB3	10:2O:78:ARG:HB2	1.97	0.45
16:2U:85:LYS:NZ	16:2U:117:GLN:HA	2.32	0.45
22:20:53:MET:HG3	22:20:59:LEU:HD23	1.98	0.45
32:2a:141:A:H1'	32:2a:182:U:H1'	1.99	0.45
32:2a:964:A:N3	32:2a:969:A:O2'	2.47	0.45
33:2b:78:GLN:NE2	33:2b:95:GLN:OE1	2.50	0.45
34:2c:180:ALA:HB1	34:2c:203:PHE:CE1	2.46	0.45
46:2o:88:ARG:HE	46:2o:88:ARG:HB3	1.52	0.45
50:2s:77:THR:O	50:2s:77:THR:OG1	2.33	0.45
1:1A:802:A:OP1	60:1A:4196:HOH:O	2.20	0.45
1:1A:1405:U:H2'	1:1A:1406:U:C6	2.52	0.45
1:1A:2611:U:C4	27:15:3:LYS:HG2	2.51	0.45
11:1P:95:VAL:HG22	11:1P:125:VAL:HB	1.99	0.45
32:1a:22:G:H4'	32:1a:885:G:C8	2.52	0.45
32:1a:923:A:O2'	32:1a:1399:C:OP2	2.27	0.45
32:1a:1196:U:H3	34:1c:162:GLN:HE22	1.65	0.45
1:2A:30:G:H2'	1:2A:31:C:C6	2.52	0.45
1:2A:1239:G:H2'	1:2A:1240:U:O4'	2.16	0.45
1:2A:1464:C:H2'	1:2A:1465:G:C8	2.52	0.45
4:2E:40:GLU:H	4:2E:40:GLU:CD	2.24	0.45
5:2F:64:ILE:HG21	5:2F:78:ILE:HG23	1.98	0.45
25:23:9:VAL:HG12	25:23:32:GLN:HE22	1.82	0.45
32:2a:936:C:H2'	32:2a:937:A:O4'	2.16	0.45
32:2a:1272:G:H2'	32:2a:1273:G:O4'	2.15	0.45
1:1A:1359:A:N1	1:1A:1372:U:O4	2.50	0.45
1:1A:1968:G:OP1	60:1A:4197:HOH:O	2.21	0.45
7:1H:3:ARG:NH1	7:1H:4:ILE:H	2.15	0.45
10:1O:97:ARG:HD2	32:1a:339:C:OP2	2.17	0.45
21:1Z:69:THR:HG22	21:1Z:90:VAL:HG22	1.99	0.45
32:1a:682:G:H2'	32:1a:683:G:O4'	2.17	0.45
33:1b:101:MET:HA	33:1b:108:ILE:HD12	1.99	0.45
39:1h:51:VAL:HG12	39:1h:52:ASP:H	1.81	0.45
40:1i:16:ARG:HD3	40:1i:64:THR:CG2	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:1t:9:ASN:N	51:1t:9:ASN:OD1	2.50	0.45
1:2A:731:C:OP1	60:2A:3885:HOH:O	2.21	0.45
1:2A:811:U:H2'	11:2P:21:ARG:HA	1.98	0.45
1:2A:911:A:H2'	12:2Q:9:TYR:OH	2.16	0.45
1:2A:1097:U:O2	1:2A:1097:U:H2'	2.17	0.45
1:2A:1772:G:O6	56:2A:3742:MPD:H31	2.17	0.45
1:2A:2115:G:H2'	1:2A:2115:G:N3	2.31	0.45
1:2A:2135:A:H3'	1:2A:2136:C:H5'	1.98	0.45
4:2E:1:MET:O	4:2E:84:PHE:HB2	2.17	0.45
7:2H:3:ARG:NH1	7:2H:5:GLY:H	2.14	0.45
7:2H:164:TYR:HB2	7:2H:167:GLU:HB2	1.99	0.45
11:2P:59:LEU:HD11	30:28:10:ALA:HB2	1.97	0.45
16:2U:27:LEU:HD23	16:2U:27:LEU:HA	1.80	0.45
26:24:5:ILE:HG13	26:24:6:HIS:CD2	2.51	0.45
26:24:64:GLY:C	26:24:66:SER:H	2.24	0.45
32:2a:89:C:H2'	32:2a:90:U:O4'	2.17	0.45
32:2a:157:G:H1	32:2a:164:U:H3	1.64	0.45
32:2a:560:U:H4'	32:2a:561:U:O5'	2.16	0.45
32:2a:1190:G:O2'	34:2c:3:ASN:HB2	2.16	0.45
32:2a:1491:G:O2'	32:2a:1492:A:OP1	2.27	0.45
35:2d:59:ARG:HA	35:2d:59:ARG:NH1	2.31	0.45
47:2p:23:ASP:OD1	47:2p:25:ARG:HG2	2.16	0.45
51:2t:57:ARG:NH1	51:2t:100:ILE:HB	2.32	0.45
1:1A:818:G:H4'	1:1A:838:C:O3'	2.16	0.45
1:1A:826:U:OP1	60:1A:4189:HOH:O	2.20	0.45
1:1A:2046:G:H5'	27:15:19:ARG:HG3	1.99	0.45
1:1A:2162:G:H4'	1:1A:2172:U:O2'	2.17	0.45
3:1D:71:ASP:HB3	3:1D:103:ARG:NH2	2.32	0.45
11:1P:121:LYS:HE2	11:1P:123:LEU:HD11	1.98	0.45
26:14:24:THR:OG1	26:14:25:TYR:N	2.50	0.45
28:16:33:LYS:HA	28:16:33:LYS:HD3	1.77	0.45
39:1h:51:VAL:HG21	39:1h:60:ARG:HH11	1.81	0.45
1:2A:921:G:C5	1:2A:922:U:C4	3.05	0.45
1:2A:922:U:O2	60:2A:3882:HOH:O	2.20	0.45
1:2A:996:A:H1'	17:2V:9:GLY:O	2.16	0.45
1:2A:1027:A:C6	1:2A:1126:A:C4	3.05	0.45
1:2A:1412:A:H2'	1:2A:1413:G:C8	2.52	0.45
1:2A:1914:C:H2'	1:2A:1915:5MU:O4'	2.17	0.45
1:2A:2104:G:O6	1:2A:2186:G:C4	2.70	0.45
1:2A:2114:A:C2	1:2A:2115:G:H1'	2.52	0.45
21:2Z:99:TYR:HA	21:2Z:124:ILE:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:297:G:N2	32:2a:300:A:OP2	2.48	0.45
32:2a:406:G:H5'	35:2d:5:ILE:HG12	1.99	0.45
32:2a:546:G:OP1	35:2d:73:ARG:HG2	2.17	0.45
32:2a:559:A:OP1	36:2e:126:ARG:NH2	2.50	0.45
32:2a:616:G:P	35:2d:141:ARG:HH22	2.39	0.45
34:2c:13:GLY:HA3	45:2n:57:ARG:NH2	2.32	0.45
35:2d:88:VAL:HG22	36:2e:96:PRO:HB2	1.99	0.45
35:2d:102:ASP:OD1	35:2d:102:ASP:N	2.50	0.45
47:2p:22:THR:HA	47:2p:33:ILE:HG13	1.99	0.45
1:1A:222:A:H5''	1:1A:421:U:OP1	2.17	0.45
1:1A:310:A:H2'	60:1A:6535:HOH:O	2.17	0.45
4:1E:144:ARG:HB3	4:1E:145:LYS:H	1.66	0.45
8:1I:57:ARG:HA	8:1I:60:GLU:HB3	1.99	0.45
8:1I:81:VAL:HG22	8:1I:145:VAL:O	2.16	0.45
30:18:23:VAL:HG11	30:18:47:LYS:HD3	1.99	0.45
32:1a:165:C:H2'	32:1a:166:G:H8	1.79	0.45
32:1a:625:G:H2'	32:1a:626:U:C6	2.52	0.45
34:1c:109:PRO:HA	34:1c:115:LEU:HD23	1.99	0.45
46:1o:69:TYR:CE1	46:1o:73:GLU:HG3	2.52	0.45
1:2A:414:C:H2'	1:2A:415:A:C8	2.52	0.45
1:2A:704:G:H1'	1:2A:726:G:N2	2.32	0.45
1:2A:2119:A:N6	1:2A:2168:G:H1'	2.32	0.45
1:2A:2155:G:C2	1:2A:2156:G:H1'	2.52	0.45
26:24:40:HIS:CD2	26:24:41:PRO:HD2	2.51	0.45
32:2a:100:C:H2'	32:2a:101:A:C8	2.52	0.45
32:2a:775:G:N2	32:2a:804:U:O4	2.50	0.45
32:2a:926:G:C6	53:2y:87:LYS:HG3	2.52	0.45
32:2a:977:A:H2'	32:2a:977:A:N3	2.31	0.45
32:2a:1069:C:H42	32:2a:1106:G:H1	1.66	0.45
35:2d:119:GLN:HG3	35:2d:123:HIS:ND1	2.32	0.45
39:2h:6:ILE:HB	39:2h:85:ARG:NH1	2.32	0.45
43:2l:30:ALA:HB2	43:2l:33:ARG:HH21	1.82	0.45
50:2s:5:LEU:H	50:2s:5:LEU:HG	1.45	0.45
1:1A:300:A:H2'	1:1A:334:C:H1'	1.99	0.44
1:1A:2458:G:O6	60:1A:4200:HOH:O	2.21	0.44
1:1A:2633:G:H2'	1:1A:2634:G:O4'	2.17	0.44
1:1A:2788:C:O2'	1:1A:2809:A:N3	2.46	0.44
57:1B:232:ARG:HB2	60:1B:387:HOH:O	2.18	0.44
3:1D:145:VAL:HG12	3:1D:146:GLU:O	2.17	0.44
8:1I:77:LEU:HD22	8:1I:101:LEU:HG	1.99	0.44
9:1N:67:LEU:HD12	9:1N:87:LEU:HD13	1.97	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:1V:97:LYS:HD3	17:1V:97:LYS:HA	1.79	0.44
32:1a:176:C:H2'	32:1a:177:C:C6	2.52	0.44
32:1a:189(A):C:H2'	32:1a:189(B):C:C6	2.52	0.44
32:1a:607:A:H2'	32:1a:608:A:C8	2.52	0.44
32:1a:657:G:C2	32:1a:658:G:C8	3.05	0.44
1:2A:384:U:H2'	1:2A:385:C:H6	1.81	0.44
1:2A:863:A:P	12:2Q:22:LYS:HG3	2.57	0.44
1:2A:1449:A:N3	1:2A:1529:G:H1'	2.32	0.44
1:2A:1636:C:H2'	1:2A:1637:A:C8	2.52	0.44
1:2A:1817:G:OP1	3:2D:88:ARG:NH2	2.45	0.44
1:2A:2823:A:OP1	4:2E:159:HIS:NE2	2.50	0.44
12:2Q:11:LYS:NZ	12:2Q:88:GLY:O	2.32	0.44
20:2Y:9:LYS:HG2	20:2Y:10:GLY:N	2.32	0.44
21:2Z:54:HIS:NE2	21:2Z:123:ASP:HB3	2.32	0.44
23:21:8:SER:HB3	23:21:66:HIS:CD2	2.53	0.44
32:2a:563:A:H2'	32:2a:567:G:C8	2.51	0.44
32:2a:992:U:H4'	32:2a:993:G:O5'	2.16	0.44
32:2a:1190:G:H5'	34:2c:176:HIS:CE1	2.52	0.44
33:2b:16:HIS:HB2	33:2b:204:ASN:HD22	1.82	0.44
33:2b:134:GLU:HA	33:2b:137:ARG:NH2	2.33	0.44
33:2b:137:ARG:O	33:2b:141:GLU:N	2.45	0.44
51:2t:13:LEU:O	51:2t:17:ARG:HG3	2.18	0.44
1:1A:857:C:N4	1:1A:858:U:O4	2.51	0.44
3:1D:136:ILE:HG22	3:1D:140:THR:OG1	2.16	0.44
19:1X:1:MET:HE2	19:1X:3:THR:HG22	1.99	0.44
32:1a:405:U:H5''	32:1a:495:A:H2	1.82	0.44
32:1a:523:A:N1	43:1l:92:OTD:H6	2.32	0.44
32:1a:651:C:H2'	32:1a:652:U:C6	2.53	0.44
32:1a:998:G:H2'	32:1a:999:C:C6	2.52	0.44
32:1a:1004:A:H8	32:1a:1005:A:C1'	2.31	0.44
35:1d:73:ARG:HA	35:1d:73:ARG:HD2	1.76	0.44
35:1d:119:GLN:HE21	35:1d:123:HIS:CD2	2.35	0.44
36:1e:82:VAL:HG21	36:1e:138:ALA:HA	1.99	0.44
43:1l:88:GLY:O	43:1l:99:HIS:HD2	2.00	0.44
1:2A:94(A):G:H2'	1:2A:95:G:O4'	2.17	0.44
1:2A:494:G:H3'	60:2A:3846:HOH:O	2.15	0.44
6:2G:110:ALA:HB1	6:2G:140:ILE:HG22	1.98	0.44
15:2T:109:GLU:HG2	15:2T:112:ARG:HH22	1.82	0.44
18:2W:42:ARG:NH2	60:2W:303:HOH:O	2.47	0.44
32:2a:8:A:C6	35:2d:209:ARG:HB2	2.52	0.44
32:2a:500:G:C6	32:2a:546:G:C2	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1245:A:H2'	32:2a:1246:C:O4'	2.16	0.44
35:2d:10:ARG:HB2	35:2d:40:PRO:HG3	1.98	0.44
35:2d:103:ASN:OD1	35:2d:114:ARG:NH2	2.39	0.44
48:2q:6:LEU:HB3	48:2q:23:VAL:HG11	1.99	0.44
1:1A:414:C:H2'	1:1A:415:A:C8	2.52	0.44
1:1A:1904:G:O2'	1:1A:1928:A:N1	2.43	0.44
1:1A:2165:G:H2'	1:1A:2166:G:C8	2.52	0.44
10:1O:63:VAL:HG12	10:1O:106:LEU:HD11	2.00	0.44
23:11:56:GLN:HE21	23:11:87:PRO:HG3	1.82	0.44
32:1a:1174:G:H2'	32:1a:1175:G:H8	1.81	0.44
36:1e:103:GLY:O	36:1e:107:ARG:HB3	2.17	0.44
45:1n:46:GLU:O	45:1n:50:LYS:HG3	2.17	0.44
49:1r:33:ASP:OD2	49:1r:36:ASN:N	2.50	0.44
51:1t:18:GLN:O	51:1t:22:ARG:HG3	2.18	0.44
1:2A:2712:U:H2'	1:2A:2714:G:H5''	1.98	0.44
1:2A:2882:A:OP1	13:2R:96:ARG:NH1	2.51	0.44
2:2B:72:G:H1'	2:2B:105:A:H61	1.82	0.44
12:2Q:1:MET:HG3	12:2Q:44:ALA:HB1	1.99	0.44
15:2T:16:ARG:HH11	15:2T:19:LEU:HD11	1.82	0.44
18:2W:76:VAL:HG22	18:2W:103:ILE:HG23	1.99	0.44
32:2a:90:U:O2'	32:2a:91:C:H5'	2.18	0.44
32:2a:197:A:O2'	32:2a:220:G:N2	2.49	0.44
32:2a:552:U:O3'	43:2l:87:GLY:HA2	2.18	0.44
53:2y:61:LEU:HB3	53:2y:81:LEU:HD22	1.99	0.44
1:1A:1570:A:H2'	1:1A:1571:A:C8	2.53	0.44
1:1A:1693:U:H1'	3:1D:14:ARG:NH1	2.32	0.44
1:1A:2803:C:H2'	1:1A:2804:C:C6	2.52	0.44
3:1D:20:ASP:OD2	3:1D:22:SER:OG	2.27	0.44
10:1O:73:ASP:HB2	15:1T:82:LEU:HD13	1.99	0.44
32:1a:130:A:N7	48:1q:63:ARG:HB2	2.31	0.44
32:1a:736:C:H2'	32:1a:737:A:C8	2.51	0.44
32:1a:923:A:H2'	32:1a:924:C:C6	2.53	0.44
32:1a:1299:A:N3	32:1a:1299:A:H5''	2.33	0.44
35:1d:167:GLY:H	35:1d:168:ARG:NH1	2.15	0.44
39:1h:6:ILE:HB	39:1h:85:ARG:NH1	2.31	0.44
1:2A:310:A:H1'	1:2A:311:A:H2'	1.99	0.44
1:2A:827:U:O2'	1:2A:2068:U:C2	2.69	0.44
1:2A:1014:U:H2'	1:2A:1015:G:H8	1.83	0.44
1:2A:1292:U:H2'	1:2A:1293:C:C6	2.52	0.44
1:2A:2133:G:C2	1:2A:2157:G:H2'	2.52	0.44
3:2D:206:LEU:HD22	3:2D:211:ARG:HG2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:107:LEU:HD21	6:2G:178:PHE:CZ	2.53	0.44
26:24:10:VAL:HG22	60:24:602:HOH:O	2.16	0.44
26:24:26:SER:OG	26:24:27:THR:N	2.51	0.44
32:2a:176:C:OP1	51:2t:29:LYS:NZ	2.29	0.44
32:2a:187:C:O2'	51:2t:89:ARG:HD3	2.17	0.44
32:2a:625:G:H2'	32:2a:626:U:H6	1.82	0.44
32:2a:724:G:C2	32:2a:725:G:C8	3.05	0.44
32:2a:1126:U:O4	41:2j:71:LEU:HD12	2.17	0.44
32:2a:1321:C:H4'	44:2m:87:TYR:CZ	2.52	0.44
32:2a:1325:C:OP1	52:2u:15:ARG:HD2	2.17	0.44
32:2a:1496:C:H2'	32:2a:1497:G:O4'	2.18	0.44
32:2a:1512:U:H2'	32:2a:1513:A:H8	1.82	0.44
32:2a:1515:C:H2'	32:2a:1516:G:C8	2.52	0.44
33:2b:163:PHE:HA	33:2b:185:ILE:O	2.18	0.44
36:2e:43:LEU:HB2	36:2e:136:MET:SD	2.57	0.44
37:2f:76:ALA:HB1	37:2f:80:ARG:NH2	2.32	0.44
37:2f:97:PHE:CZ	49:2r:61:LYS:HE3	2.52	0.44
43:2l:112:ASP:N	43:2l:112:ASP:OD1	2.51	0.44
1:1A:531:C:H4'	1:1A:532:A:H5''	1.99	0.44
1:1A:2064:C:H2'	1:1A:2065:C:C6	2.52	0.44
56:1A:4012:MPD:HM2	56:1A:4012:MPD:H4	1.74	0.44
2:1B:16:G:C6	2:1B:69:G:C2	3.05	0.44
3:1D:16:MET:HE3	3:1D:16:MET:HB2	1.82	0.44
19:1X:35:THR:HG23	19:1X:37:THR:H	1.82	0.44
32:1a:435:C:H2'	32:1a:436:C:H6	1.82	0.44
32:1a:527:G7M:H5''	32:1a:527:G7M:H8	2.00	0.44
32:1a:560:U:O2'	32:1a:561:U:OP2	2.27	0.44
32:1a:1174:G:H2'	32:1a:1175:G:C8	2.53	0.44
32:1a:1297:C:O2'	38:1g:114:ARG:NH1	2.47	0.44
32:1a:1457:G:H2'	32:1a:1458:G:O4'	2.17	0.44
50:1s:36:ARG:NH2	50:1s:75:ALA:O	2.35	0.44
1:2A:910:A:N1	1:2A:2277:G:H1'	2.31	0.44
1:2A:1059:G:H2'	1:2A:1060:U:C5	2.52	0.44
1:2A:1529:G:C6	1:2A:1530:C:C4	3.05	0.44
1:2A:2648:C:H2'	1:2A:2649:U:C6	2.52	0.44
2:2B:15:A:H3'	2:2B:16:G:H8	1.82	0.44
16:2U:55:ARG:H	16:2U:55:ARG:HG3	1.58	0.44
32:2a:437:U:C5'	35:2d:155:LEU:HD11	2.48	0.44
32:2a:565:U:OP2	32:2a:566:G:O2'	2.31	0.44
32:2a:784:C:H2'	32:2a:785:G:O4'	2.17	0.44
32:2a:1158:C:O2	32:2a:1158:C:H2'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1186:G:H4'	40:2i:110:GLU:OE2	2.17	0.44
37:2f:100:ASN:HD21	49:2r:23:LYS:HE2	1.81	0.44
38:2g:38:LEU:O	38:2g:42:ILE:HG12	2.18	0.44
47:2p:18:ARG:HD3	47:2p:35:LYS:HD2	2.00	0.44
53:2y:6:THR:HB	53:2y:40:ILE:HG13	2.00	0.44
1:1A:1073:A:C2	1:1A:1074:G:H8	2.34	0.44
1:1A:1127:A:N7	1:1A:2488:A:O2'	2.47	0.44
1:1A:1508:A:H5'	1:1A:1509(A):A:C8	2.53	0.44
1:1A:1703:G:H2'	1:1A:1704:G:C8	2.53	0.44
1:1A:1709:U:H2'	1:1A:1710:C:C6	2.53	0.44
1:1A:1791:A:H3'	1:1A:1792:G:H8	1.83	0.44
1:1A:2188:C:H2'	1:1A:2189:U:O4'	2.17	0.44
1:1A:2206:G:OP2	1:1A:2206:G:H4'	2.18	0.44
1:1A:2584:U:H2'	1:1A:2585:U:H2'	1.99	0.44
2:1B:91:C:OP1	12:1Q:16:ARG:NH1	2.49	0.44
4:1E:6:GLY:O	4:1E:195:LEU:HD12	2.18	0.44
4:1E:13:ARG:HD2	4:1E:20:ALA:HB1	2.00	0.44
11:1P:47:ASP:OD2	11:1P:49:ARG:NH2	2.50	0.44
56:1T:205:MPD:H12	56:1T:205:MPD:H4	1.73	0.44
32:1a:406:G:H21	35:1d:119:GLN:HE22	1.65	0.44
32:1a:1298:C:H2'	38:1g:114:ARG:NH2	2.33	0.44
32:1a:1338:G:H2'	32:1a:1339:A:C8	2.52	0.44
35:1d:5:ILE:O	35:1d:5:ILE:HG12	2.17	0.44
44:1m:84:ILE:HD11	44:1m:86:CYS:HB2	1.99	0.44
48:1q:54:GLY:O	48:1q:81:ARG:HB2	2.18	0.44
1:2A:515:A:H1'	1:2A:581:C:H1'	1.99	0.44
1:2A:1153:C:H2'	1:2A:1154:G:O4'	2.18	0.44
1:2A:2314:C:H5'	6:2G:38:VAL:HG11	1.99	0.44
32:2a:501:C:H2'	32:2a:502:G:H8	1.81	0.44
32:2a:1004:A:H5'	32:2a:1025:U:H5	1.83	0.44
32:2a:1221:G:H1'	50:2s:54:GLY:HA3	1.99	0.44
33:2b:124:SER:HB2	33:2b:125:PRO:HD3	1.99	0.44
33:2b:218:ALA:O	33:2b:222:ILE:HG23	2.18	0.44
45:2n:4:LYS:O	45:2n:7:ILE:HG12	2.17	0.44
1:1A:272(J):C:H2'	1:1A:274:G:H8	1.82	0.44
1:1A:855:G:N7	60:1A:4382:HOH:O	2.36	0.44
1:1A:1289:C:H3'	60:1A:4147:HOH:O	2.17	0.44
1:1A:1799:G:O2'	3:1D:181:GLU:OE2	2.27	0.44
1:1A:1936:A:OP1	1:1A:1937:A:H5'	2.18	0.44
1:1A:2712:U:H1'	1:1A:2712(A):A:C8	2.53	0.44
2:1B:77:U:OP1	21:1Z:19:ARG:NH2	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1O:104:ARG:CZ	15:1T:34:VAL:HG11	2.48	0.44
20:1Y:9:LYS:HA	20:1Y:10:GLY:HA2	1.61	0.44
32:1a:461:A:O2'	32:1a:470:C:H5'	2.17	0.44
32:1a:1346:A:N1	32:1a:1374:A:H5''	2.33	0.44
35:1d:168:ARG:N	35:1d:168:ARG:HH11	2.16	0.44
36:1e:48:ALA:HB3	36:1e:54:ALA:HB2	2.00	0.44
36:1e:95:ALA:HB1	36:1e:96:PRO:HD2	1.99	0.44
11:2P:97:PRO:O	11:2P:101:VAL:HG23	2.18	0.44
14:2S:10:ARG:O	14:2S:14:VAL:HG13	2.18	0.44
20:2Y:19:LYS:HE2	20:2Y:19:LYS:HB3	1.78	0.44
24:22:24:LEU:HG	24:22:60:LEU:HD11	1.99	0.44
32:2a:658:G:C6	32:2a:659:U:C4	3.06	0.44
32:2a:1517:G:N7	32:2a:1518:MA6:H103	2.33	0.44
34:2c:188:LEU:HD11	34:2c:195:VAL:HG22	2.00	0.44
40:2i:79:LEU:HD22	40:2i:104:ARG:HB2	2.00	0.44
1:1A:453:C:O2	1:1A:457:A:O2'	2.36	0.44
1:1A:1179:C:H2'	1:1A:1180:C:C6	2.53	0.44
1:1A:1495:A:C6	1:1A:1496:A:C6	3.06	0.44
1:1A:2130:U:HO2'	1:1A:2133:G:HO2'	1.63	0.44
1:1A:2224:G:H4'	1:1A:2226:C:C2	2.53	0.44
6:1G:64:THR:HB	6:1G:94:LEU:HD11	1.99	0.44
11:1P:68:GLN:HG3	60:1P:302:HOH:O	2.17	0.44
32:1a:184:G:H2'	32:1a:185:A:H8	1.82	0.44
32:1a:384:G:H2'	32:1a:385:C:C6	2.52	0.44
32:1a:566:G:H8	32:1a:566:G:OP1	2.01	0.44
32:1a:689:C:H2'	32:1a:690:G:O4'	2.17	0.44
32:1a:728:A:H2'	32:1a:729:A:C8	2.53	0.44
32:1a:1060:C:H5''	41:1j:51:ARG:HG2	1.98	0.44
32:1a:1508:G:H2'	32:1a:1509:C:O4'	2.18	0.44
36:1e:57:LYS:HG2	36:1e:61:TYR:HE2	1.82	0.44
39:1h:86:ILE:HG13	39:1h:133:LEU:HD22	2.00	0.44
1:2A:247:G:H4'	1:2A:386:G:C5	2.53	0.44
1:2A:483:A:O2'	20:2Y:59:GLY:N	2.42	0.44
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.18	0.44
3:2D:13:ARG:HA	3:2D:13:ARG:HD3	1.83	0.44
4:2E:14:ILE:HB	15:2T:14:TYR:CE1	2.53	0.44
9:2N:34:LEU:O	9:2N:49:GLY:HA3	2.18	0.44
10:2O:100:GLY:HA2	15:2T:68:TYR:HB2	1.99	0.44
12:2Q:76:LYS:HB3	12:2Q:91:GLU:HG3	2.00	0.44
32:2a:406:G:H4'	35:2d:5:ILE:HD11	2.00	0.44
32:2a:505:G:H2'	32:2a:506:G:H8	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1027:C:H5''	32:2a:1028:C:C5	2.53	0.44
32:2a:1036:G:H3'	32:2a:1037:C:H6	1.83	0.44
33:2b:43:ASP:OD1	33:2b:45:GLN:HB3	2.18	0.44
35:2d:122:ARG:HD2	35:2d:122:ARG:HA	1.60	0.44
45:2n:34:TYR:CE2	45:2n:44:LEU:HD22	2.52	0.44
3:1D:12:SER:HB3	3:1D:208:LYS:HB3	1.99	0.44
5:1F:195:ASP:HB3	5:1F:198:ALA:H	1.82	0.44
24:12:22:GLU:OE2	24:12:68:ARG:NH2	2.51	0.44
24:12:41:ILE:HG13	24:12:43:GLN:HG3	2.00	0.44
32:1a:763:G:H2'	32:1a:764:C:C6	2.52	0.44
32:1a:1166:G:H5'	32:1a:1168:A:OP2	2.18	0.44
33:1b:54:THR:HG21	33:1b:201:ILE:HD11	1.99	0.44
48:1q:87:LYS:HA	48:1q:87:LYS:HD2	1.72	0.44
1:2A:445:C:OP1	16:2U:2:PRO:HA	2.17	0.44
1:2A:1094:U:OP1	1:2A:1096:A:N6	2.51	0.44
1:2A:2390:U:O2'	1:2A:2391:G:H5'	2.18	0.44
1:2A:2785:C:OP1	4:2E:41:LYS:NZ	2.46	0.44
8:2I:7:GLU:HB3	60:2I:301:HOH:O	2.18	0.44
9:2N:123:TYR:CZ	9:2N:129:PRO:HD2	2.53	0.44
16:2U:89:GLU:HB2	17:2V:38:LEU:HD23	1.99	0.44
19:2X:11:PRO:HB3	19:2X:92:LEU:HD11	2.00	0.44
20:2Y:7:VAL:HG21	20:2Y:72:VAL:HG12	2.00	0.44
32:2a:36:C:OP1	43:2I:123:LYS:NZ	2.40	0.44
32:2a:316:G:H4'	60:2a:3372:HOH:O	2.18	0.44
32:2a:555:C:H2'	32:2a:556:C:C6	2.53	0.44
32:2a:565:U:H3'	32:2a:566:G:H2'	2.00	0.44
32:2a:1034:G:H2'	32:2a:1035:A:O4'	2.17	0.44
32:2a:1465:C:H2'	32:2a:1466:C:O4'	2.18	0.44
33:2b:204:ASN:OD1	33:2b:205:ASP:N	2.51	0.44
34:2c:22:TRP:HA	41:2j:93:GLY:HA2	1.98	0.44
34:2c:57:ILE:HG12	34:2c:66:VAL:HG22	2.00	0.44
36:2e:90:VAL:O	36:2e:120:THR:HA	2.18	0.44
42:2k:116:HIS:N	42:2k:117:ASN:HA	2.33	0.44
1:1A:2849:U:P	15:1T:95:ARG:HH12	2.41	0.43
5:1F:178:PRO:O	5:1F:205:ARG:NH2	2.50	0.43
6:1G:58:GLN:O	6:1G:58:GLN:HG3	2.18	0.43
32:1a:1458:G:OP1	51:1t:35:THR:OG1	2.26	0.43
32:1a:1503:A:H5'	32:1a:1531:A:H1'	2.00	0.43
33:1b:68:ILE:HG12	33:1b:161:ALA:HB3	2.00	0.43
39:1h:17:THR:HB	39:1h:78:GLN:OE1	2.18	0.43
48:1q:75:ARG:HH12	48:1q:77:VAL:HG22	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:539:G:H2'	1:2A:540:C:C6	2.53	0.43
1:2A:578:A:H3'	60:2A:4079:HOH:O	2.18	0.43
1:2A:674:G:O2'	5:2F:74:ARG:HD3	2.18	0.43
1:2A:2319:G:N2	14:2S:3:ARG:HD3	2.33	0.43
1:2A:2466:C:H5''	31:29:6:SER:HB2	2.00	0.43
1:2A:2682:U:H5'	4:2E:11:MET:O	2.18	0.43
23:21:15:ALA:O	23:21:40:ARG:HG3	2.17	0.43
24:22:65:ASN:OD1	24:22:69:ARG:NH1	2.51	0.43
32:2a:149:A:H2'	32:2a:150:C:H6	1.82	0.43
32:2a:451:A:N6	32:2a:480:U:H2'	2.33	0.43
32:2a:686:U:O2'	32:2a:687:A:OP2	2.31	0.43
32:2a:1125:U:HO2'	32:2a:1126:U:H2'	1.82	0.43
32:2a:1162:C:N4	32:2a:1174:G:H1	2.15	0.43
32:2a:1330:U:H4'	44:2m:23:TYR:CE1	2.53	0.43
33:2b:96:ARG:HG3	33:2b:97:TRP:N	2.31	0.43
1:1A:26:G:C6	1:1A:27:G:N1	2.86	0.43
1:1A:272(J):C:H2'	1:1A:274:G:C8	2.53	0.43
1:1A:2232:U:P	23:11:40:ARG:HH12	2.41	0.43
2:1B:59:A:N6	60:1B:303:HOH:O	2.34	0.43
2:1B:78:A:C2	2:1B:100:A:C4	3.05	0.43
8:1I:117:GLU:HG3	8:1I:118:LYS:H	1.83	0.43
11:1P:50:ARG:HD3	30:18:7:HIS:CD2	2.54	0.43
13:1R:24:GLN:NE2	60:1R:305:HOH:O	2.51	0.43
13:1R:65:LEU:HD12	13:1R:65:LEU:HA	1.88	0.43
17:1V:38:LEU:HD23	17:1V:51:VAL:HG12	1.99	0.43
32:1a:920:U:H2'	32:1a:921:U:C6	2.54	0.43
32:1a:1492:A:H4'	32:1a:1493:A:C2	2.52	0.43
36:1e:77:PRO:HD2	36:1e:142:LEU:HD22	2.00	0.43
44:1m:40:ASN:HD22	44:1m:43:THR:HG23	1.83	0.43
1:2A:19:C:H2'	1:2A:20:C:H6	1.83	0.43
1:2A:211:A:H2'	1:2A:212:G:O4'	2.18	0.43
1:2A:570:G:H2'	1:2A:2030:A:C5	2.52	0.43
1:2A:996:A:H4'	16:2U:91:ASP:OD2	2.18	0.43
1:2A:999:U:OP2	60:2A:3853:HOH:O	2.21	0.43
1:2A:1141:U:H4'	1:2A:1142(A):A:O4'	2.18	0.43
1:2A:1910:G:H2'	1:2A:1911:PSU:H6	1.83	0.43
1:2A:2507:C:H5''	1:2A:2573:C:N4	2.33	0.43
4:2E:15:PHE:HA	4:2E:19:ARG:O	2.19	0.43
5:2F:31:HIS:HB2	11:2P:9:ASN:OD1	2.18	0.43
5:2F:164:ARG:O	5:2F:168:ARG:HG3	2.18	0.43
6:2G:53:LEU:HD23	6:2G:53:LEU:HA	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:24:30:GLU:C	26:24:31:ILE:HG13	2.43	0.43
32:2a:1142:G:H2'	32:2a:1143:G:O4'	2.17	0.43
32:2a:1247:U:H1'	32:2a:1291:G:N2	2.33	0.43
32:2a:1503:A:H5'	32:2a:1531:A:H1'	1.99	0.43
40:2i:92:TYR:O	40:2i:96:LEU:HB2	2.17	0.43
1:1A:1268:A:H2'	1:1A:1269:A:O4'	2.18	0.43
1:1A:1448:G:O2'	1:1A:1528(A):A:N1	2.47	0.43
1:1A:1803:A:H4'	3:1D:259:THR:HG23	2.01	0.43
1:1A:2495:G:H5''	12:1Q:82:ARG:HG2	1.98	0.43
1:1A:2820:A:OP2	13:1R:2:ARG:NH2	2.51	0.43
4:1E:9:VAL:HB	15:1T:3:ARG:HG2	1.99	0.43
22:10:46:LYS:HB2	22:10:78:TYR:CE1	2.54	0.43
32:1a:911:U:H2'	32:1a:912:C:C6	2.54	0.43
32:1a:1124:G:H1	32:1a:1149:C:H42	1.66	0.43
34:1c:62:ASP:O	34:1c:97:LYS:HB2	2.19	0.43
38:1g:32:ARG:HH22	38:1g:109:ASN:ND2	2.15	0.43
40:1i:121:ARG:NH1	40:1i:122:ALA:O	2.51	0.43
44:1m:17:VAL:O	44:1m:20:THR:OG1	2.32	0.43
1:2A:390:A:H4'	1:2A:391:G:H5'	2.01	0.43
1:2A:699:A:H2'	1:2A:700:G:O4'	2.17	0.43
1:2A:1064:C:C6	1:2A:1065:U:H5'	2.54	0.43
1:2A:1614:A:N1	18:2W:93:ALA:HB2	2.33	0.43
1:2A:2315:G:H2'	1:2A:2316:C:C6	2.53	0.43
1:2A:2682:U:O2'	15:2T:58:ASN:ND2	2.51	0.43
12:2Q:130:LYS:HB3	12:2Q:130:LYS:HE3	1.81	0.43
21:2Z:8:TYR:N	21:2Z:8:TYR:HD2	2.16	0.43
21:2Z:180:VAL:HG13	21:2Z:183:LEU:HD12	1.99	0.43
32:2a:625:G:H4'	47:2p:16:HIS:CD2	2.53	0.43
32:2a:1063:C:H2'	32:2a:1064:G:C8	2.53	0.43
35:2d:15:GLU:HB3	35:2d:63:LYS:HG2	2.00	0.43
1:1A:2406:U:H2'	1:1A:2406:U:OP2	2.18	0.43
1:1A:2750:A:OP2	7:1H:62:LYS:NZ	2.40	0.43
10:1O:64:ARG:NH2	10:1O:99:PHE:O	2.51	0.43
11:1P:46:LYS:HE3	11:1P:46:LYS:HB3	1.86	0.43
13:1R:13:HIS:CE1	13:1R:16:HIS:HB2	2.54	0.43
13:1R:71:GLN:NE2	60:1R:301:HOH:O	2.38	0.43
32:1a:559:A:H4'	32:1a:560:U:H5''	1.99	0.43
33:1b:59:GLU:HB2	33:1b:221:LEU:HD11	2.00	0.43
50:1s:52:TYR:HA	50:1s:56:GLN:O	2.19	0.43
1:2A:455:C:N3	1:2A:472:A:H2'	2.33	0.43
1:2A:686:G:N2	1:2A:788:A:H61	2.16	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:863:A:H2'	1:2A:864:G:C8	2.53	0.43
1:2A:1363:C:O2'	1:2A:1809:A:N3	2.47	0.43
6:2G:41:GLN:O	6:2G:43:LEU:N	2.51	0.43
12:2Q:52:VAL:HA	12:2Q:55:VAL:HG13	1.99	0.43
13:2R:67:LEU:HD13	13:2R:67:LEU:HA	1.90	0.43
16:2U:97:ASP:HB3	60:2U:308:HOH:O	2.18	0.43
21:2Z:91:LEU:HD12	21:2Z:91:LEU:HA	1.79	0.43
32:2a:192:U:H5'	51:2t:101:GLY:HA3	2.00	0.43
32:2a:1016:A:N6	32:2a:1017:G:N3	2.66	0.43
32:2a:1256:A:N6	32:2a:1278:U:H1'	2.30	0.43
32:2a:1269:A:H2	32:2a:1312:G:N3	2.17	0.43
34:2c:50:ALA:HB1	34:2c:72:LYS:O	2.19	0.43
40:2i:8:GLY:HA2	40:2i:79:LEU:HD23	2.00	0.43
51:2t:42:GLN:O	51:2t:45:GLN:HB3	2.18	0.43
1:1A:55:G:O2'	1:1A:127:A:N1	2.50	0.43
1:1A:118:A:H3'	1:1A:119:A:C5'	2.48	0.43
1:1A:515:A:H1'	1:1A:581:C:H1'	2.00	0.43
1:1A:973:A:H8	1:1A:973:A:OP1	2.01	0.43
1:1A:1203:G:H5'	11:1P:3:LEU:HD23	2.00	0.43
1:1A:1557:C:H5''	1:1A:1558:A:OP2	2.18	0.43
1:1A:2095:C:H2'	1:1A:2096:U:O4'	2.19	0.43
5:1F:136:THR:HG22	5:1F:140:LEU:HD22	2.00	0.43
6:1G:142:PRO:HB2	26:14:31:ILE:HG21	2.01	0.43
9:1N:67:LEU:O	9:1N:88:GLU:HG3	2.17	0.43
10:1O:88:ASN:C	10:1O:90:GLN:H	2.26	0.43
24:12:53:LEU:HD23	24:12:53:LEU:HA	1.82	0.43
32:1a:517:G:N2	32:1a:533:A:OP2	2.47	0.43
32:1a:839:U:H1'	32:1a:840:C:OP1	2.18	0.43
32:1a:1133:G:H1	32:1a:1141:C:H42	1.66	0.43
33:1b:24:TRP:CZ3	33:1b:26:PRO:HA	2.52	0.43
34:1c:150:LYS:HB3	34:1c:201:TYR:HB2	2.01	0.43
40:1i:10:ARG:O	40:1i:11:LYS:C	2.61	0.43
51:1t:92:LEU:O	51:1t:96:GLY:N	2.51	0.43
1:2A:792:G:H5''	1:2A:793:A:H5'	2.00	0.43
1:2A:2505:G:H2'	1:2A:2576:G:H1	1.83	0.43
1:2A:2637:U:OP1	4:2E:82:ARG:NH1	2.51	0.43
4:2E:111:ARG:HA	13:2R:1:MET:SD	2.58	0.43
12:2Q:3:MET:SD	21:2Z:191:VAL:HG11	2.58	0.43
21:2Z:42:VAL:O	21:2Z:46:LYS:HD3	2.18	0.43
32:2a:256:U:H2'	32:2a:257:G:C8	2.53	0.43
32:2a:420:U:H3'	32:2a:422:C:H41	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:564:C:O2'	39:2h:91:ARG:NH2	2.46	0.43
32:2a:625:G:H2'	32:2a:626:U:C6	2.53	0.43
32:2a:1055:A:C6	32:2a:1206:G:C5	3.06	0.43
32:2a:1122:U:H2'	32:2a:1123:A:C8	2.54	0.43
32:2a:1289:A:H2'	32:2a:1290:G:H5'	2.01	0.43
33:2b:63:MET:HG3	33:2b:225:ALA:HB1	2.01	0.43
33:2b:167:PRO:HD3	33:2b:187:LEU:O	2.18	0.43
39:2h:31:PHE:CE2	39:2h:35:ILE:HD11	2.52	0.43
44:2m:94:ARG:O	44:2m:96:LEU:N	2.51	0.43
1:1A:1651:G:N7	13:1R:11:ASN:ND2	2.66	0.43
1:1A:2320:A:H2'	1:1A:2320:A:N3	2.33	0.43
20:1Y:56:PRO:C	20:1Y:58:GLY:H	2.26	0.43
30:18:23:VAL:CG1	30:18:47:LYS:HB3	2.48	0.43
32:1a:1250:A:H4'	40:1i:68:GLY:N	2.34	0.43
37:1f:23:LYS:NZ	37:1f:61:LEU:HD21	2.33	0.43
42:1k:34:ASP:HB2	42:1k:35:PRO:HD2	1.99	0.43
50:1s:61:TYR:CE2	50:1s:63:THR:HG22	2.53	0.43
1:2A:212:G:H2'	1:2A:213:A:O4'	2.18	0.43
1:2A:1069:A:H2'	1:2A:1073:A:N7	2.34	0.43
1:2A:1110:G:H8	1:2A:1110:G:OP2	2.01	0.43
1:2A:1589:C:H2'	1:2A:1590:U:C6	2.54	0.43
1:2A:2282:G:H4'	1:2A:2389:G:O2'	2.19	0.43
1:2A:2364:C:H2'	1:2A:2365:G:O4'	2.17	0.43
1:2A:2887:U:H2'	1:2A:2888:C:H6	1.84	0.43
6:2G:39:ILE:O	6:2G:91:ARG:HG2	2.17	0.43
21:2Z:5:LEU:HB2	21:2Z:47:VAL:HG21	2.00	0.43
22:20:70:GLN:HE21	22:20:72:ARG:HD2	1.83	0.43
32:2a:18:C:H4'	32:2a:1078:U:O2	2.19	0.43
32:2a:272:C:H2'	32:2a:273:A:C8	2.53	0.43
32:2a:1203:C:H2'	32:2a:1204:A:C8	2.54	0.43
32:2a:1343:G:H4'	40:2i:122:ALA:HB3	2.01	0.43
33:2b:11:LEU:HD12	33:2b:217:ARG:HH12	1.84	0.43
50:2s:40:ILE:HD13	50:2s:66:MET:O	2.19	0.43
1:1A:724:U:H2'	1:1A:725:G:O4'	2.19	0.43
1:1A:1141:U:OP1	9:1N:25:ARG:NH1	2.51	0.43
1:1A:2207:G:HO2'	1:1A:2208:A:P	2.41	0.43
8:1I:38:LEU:HB3	8:1I:40:THR:HG22	2.00	0.43
11:1P:121:LYS:O	11:1P:123:LEU:N	2.52	0.43
12:1Q:21:THR:HG23	12:1Q:99:PRO:O	2.18	0.43
13:1R:81:ASP:O	13:1R:85:PRO:HG2	2.19	0.43
15:1T:37:GLY:HA2	15:1T:38:ASN:HA	1.61	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1Z:152:ALA:O	21:1Z:155:LEU:HB2	2.19	0.43
32:1a:542:G:H5'	35:1d:41:GLY:HA3	2.00	0.43
32:1a:742:G:OP2	46:1o:35:ARG:NH2	2.47	0.43
32:1a:1410:G:H2'	32:1a:1411:C:C6	2.53	0.43
36:1e:148:VAL:HG21	39:1h:107:LEU:HB3	2.00	0.43
40:1i:26:VAL:HG13	40:1i:61:ALA:HB3	2.00	0.43
41:1j:92:THR:O	41:1j:94:VAL:N	2.50	0.43
1:2A:746:A:H2'	1:2A:2612:C:H5''	2.00	0.43
1:2A:807:U:OP2	11:2P:36:LYS:HD3	2.18	0.43
1:2A:1050:A:H2'	1:2A:1051:G:C8	2.53	0.43
1:2A:1084:A:N6	1:2A:1086:A:H62	2.16	0.43
1:2A:1932:A:H2'	1:2A:1933:G:O4'	2.19	0.43
1:2A:2302:G:O2'	6:2G:126:ASP:O	2.28	0.43
1:2A:2821:A:H2'	1:2A:2822:G:C8	2.54	0.43
5:2F:137:LYS:HE2	5:2F:137:LYS:HB3	1.71	0.43
13:2R:37:THR:HB	13:2R:39:PRO:HD2	2.00	0.43
21:2Z:6:LYS:NZ	21:2Z:43:GLU:OE1	2.40	0.43
21:2Z:152:ALA:HB3	21:2Z:167:PRO:HA	2.01	0.43
32:2a:474:G:H2'	32:2a:475:G:C8	2.54	0.43
32:2a:949:A:H61	32:2a:1232:U:H3	1.66	0.43
35:2d:190:ASP:O	35:2d:194:LEU:HD12	2.19	0.43
36:2e:102:ALA:HB1	36:2e:106:PRO:HG2	1.99	0.43
47:2p:39:TYR:HD1	47:2p:49:LEU:HD13	1.84	0.43
51:2t:14:LYS:HA	51:2t:17:ARG:CZ	2.49	0.43
1:1A:518:G:H4'	18:1W:18:ARG:NH1	2.33	0.43
1:1A:1309:G:H4'	29:17:7:PRO:HG2	2.00	0.43
1:1A:2067:G:O2'	1:1A:2069:G:H5''	2.19	0.43
1:1A:2330:G:H2'	1:1A:2331:G:O4'	2.18	0.43
1:1A:2469:A:H5'	1:1A:2470:G:OP2	2.19	0.43
1:1A:2699:C:H2'	1:1A:2700:C:O4'	2.19	0.43
7:1H:83:TYR:CZ	7:1H:138:LYS:HD2	2.53	0.43
11:1P:85:LEU:HD22	11:1P:120:ALA:HA	2.00	0.43
20:1Y:35:TYR:CE2	20:1Y:69:ALA:HB3	2.53	0.43
21:1Z:141:VAL:HB	21:1Z:144:LEU:HD12	2.01	0.43
29:17:47:ARG:HE	29:17:47:ARG:HB3	1.70	0.43
30:18:26:LYS:HD3	30:18:26:LYS:HA	1.88	0.43
32:1a:902:G:O2'	32:1a:903:G:H5'	2.19	0.43
32:1a:1029:C:H5'	32:1a:1030:C:OP2	2.19	0.43
33:1b:19:HIS:CG	33:1b:20:GLU:N	2.85	0.43
1:2A:601:C:OP1	5:2F:108:LYS:NZ	2.36	0.43
1:2A:881:G:H2'	1:2A:882:G:C8	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1009:A:OP2	60:2A:3857:HOH:O	2.21	0.43
1:2A:1055:G:H3'	1:2A:1056:G:C8	2.54	0.43
1:2A:1800:C:P	3:2D:183:ARG:HH12	2.42	0.43
2:2B:95:C:H2'	2:2B:96:U:H6	1.84	0.43
3:2D:36:PRO:HA	3:2D:61:LEU:HD12	2.01	0.43
32:2a:113:G:O2'	32:2a:354:G:H5'	2.19	0.43
32:2a:203:U:O4'	32:2a:216:G:N2	2.52	0.43
32:2a:300:A:O2'	32:2a:564:C:N3	2.45	0.43
32:2a:553:A:H5''	43:2l:24:VAL:HG21	2.00	0.43
32:2a:1120:G:C6	32:2a:1121:U:C4	3.07	0.43
32:2a:1146:A:H3'	32:2a:1147:C:H5''	2.01	0.43
32:2a:1146:A:H5'	32:2a:1147:C:OP2	2.19	0.43
32:2a:1347:G:HO2'	32:2a:1373:G:H1	1.66	0.43
1:1A:404:C:OP1	60:1A:4202:HOH:O	2.21	0.43
1:1A:491:G:H2'	1:1A:492:A:H8	1.83	0.43
1:1A:818:G:H5'	1:1A:839:U:OP1	2.17	0.43
1:1A:888:C:H2'	1:1A:889:C:C5	2.54	0.43
1:1A:987:G:O2'	1:1A:1000:A:N3	2.46	0.43
1:1A:1170:G:C2	1:1A:1180:C:C2	3.07	0.43
1:1A:1653:G:C6	13:1R:9:LYS:HB2	2.53	0.43
1:1A:2070:G:H2'	1:1A:2071:A:O4'	2.19	0.43
1:1A:2682:U:H5'	4:1E:11:MET:O	2.18	0.43
10:1O:118:ALA:O	56:1a:3278:MPD:H12	2.18	0.43
19:1X:5:TYR:CZ	24:12:30:ARG:HB2	2.54	0.43
25:13:31:LEU:HD23	25:13:31:LEU:HA	1.92	0.43
31:19:24:TYR:CD1	31:19:35:ARG:HB2	2.54	0.43
32:1a:1118:C:H2'	32:1a:1119:C:C6	2.53	0.43
32:1a:1332:A:H2'	32:1a:1333:A:C8	2.54	0.43
35:1d:156:GLU:O	35:1d:160:GLN:HG2	2.18	0.43
44:1m:89:GLY:O	44:1m:93:ARG:HG3	2.18	0.43
1:2A:1203:G:C6	1:2A:1204:A:N6	2.87	0.43
1:2A:2347:C:O2'	28:26:21:TYR:OH	2.35	0.43
1:2A:2397:G:N2	1:2A:2420:C:H1'	2.34	0.43
4:2E:52:LEU:H	4:2E:76:ARG:HB2	1.83	0.43
5:2F:207:GLY:O	60:2F:401:HOH:O	2.21	0.43
12:2Q:35:VAL:HA	12:2Q:101:ARG:O	2.19	0.43
32:2a:421:U:OP2	32:2a:422:C:N4	2.45	0.43
36:2e:5:ASP:N	36:2e:5:ASP:OD1	2.49	0.43
42:2k:22:HIS:HB3	42:2k:29:ILE:HB	2.00	0.43
1:1A:49:A:H5''	1:1A:51:G:O4'	2.19	0.43
1:1A:1766:U:H2'	1:1A:1767:C:H6	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2074:U:H2'	1:1A:2075:U:C6	2.53	0.43
7:1H:98:LEU:HD12	7:1H:102:ALA:O	2.19	0.43
12:1Q:137:TYR:O	12:1Q:141:GLN:HG2	2.18	0.43
24:12:3:LEU:HD23	24:12:3:LEU:HA	1.87	0.43
32:1a:44:G:H2'	32:1a:45:U:O4'	2.19	0.43
32:1a:1036:G:H2'	32:1a:1036:G:N3	2.34	0.43
32:1a:1151:A:N3	41:1j:39:PRO:HG3	2.34	0.43
32:1a:1179:A:H2'	32:1a:1180:A:O4'	2.19	0.43
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.54	0.43
34:1c:157:ILE:HD13	34:1c:166:GLU:HB2	2.01	0.43
35:1d:108:LEU:HD23	35:1d:110:PHE:CZ	2.54	0.43
35:1d:168:ARG:HA	35:1d:168:ARG:HD3	1.61	0.43
39:1h:39:LEU:HD12	39:1h:39:LEU:HA	1.87	0.43
1:2A:314:A:H2'	1:2A:315:G:C8	2.53	0.43
1:2A:539:G:H2'	1:2A:540:C:H6	1.84	0.43
1:2A:1939:5MU:OP1	1:2A:2604:U:O2'	2.37	0.43
1:2A:2070:G:H2'	1:2A:2071:A:O4'	2.19	0.43
5:2F:53:THR:HG22	5:2F:56:GLU:HG3	2.01	0.43
5:2F:183:VAL:O	5:2F:187:VAL:HG23	2.19	0.43
7:2H:20:ALA:HB3	7:2H:23:ARG:HB3	2.00	0.43
23:21:62:VAL:HG22	23:21:63:ALA:O	2.18	0.43
24:22:63:VAL:O	24:22:67:LYS:HG2	2.18	0.43
32:2a:299:G:H2'	32:2a:300:A:C8	2.53	0.43
32:2a:474:G:H2'	32:2a:475:G:H8	1.84	0.43
32:2a:577:G:C8	32:2a:816:A:C6	3.07	0.43
32:2a:1002:G:N3	32:2a:1003:G:H8	2.17	0.43
32:2a:1012:U:H2'	32:2a:1013:G:C8	2.53	0.43
32:2a:1239:A:H62	32:2a:1299:A:H62	1.67	0.43
32:2a:1324:A:H4'	32:2a:1362:C:O3'	2.18	0.43
32:2a:1387:G:H2'	32:2a:1388:C:H6	1.83	0.43
32:2a:1387:G:H2'	32:2a:1388:C:C6	2.54	0.43
33:2b:126:GLU:CD	33:2b:126:GLU:H	2.27	0.43
36:2e:78:HIS:HA	39:2h:105:ARG:HG3	2.01	0.43
1:1A:2593:U:H2'	1:1A:2594:C:C6	2.54	0.42
3:1D:223:GLY:HA3	3:1D:231:HIS:CE1	2.54	0.42
4:1E:49:LEU:HD12	4:1E:49:LEU:HA	1.79	0.42
4:1E:181:LEU:HA	4:1E:181:LEU:HD12	1.76	0.42
18:1W:68:ARG:HH11	18:1W:111:HIS:HA	1.83	0.42
30:18:30:ARG:HD3	60:18:221:HOH:O	2.19	0.42
32:1a:757:U:OP1	32:1a:822:C:O2'	2.33	0.42
32:1a:1084:G:C5	32:1a:1085:U:C4	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1132:C:H2'	32:1a:1133:G:C8	2.54	0.42
36:1e:27:ARG:HE	36:1e:27:ARG:HB2	1.65	0.42
38:1g:100:ALA:O	38:1g:104:LEU:HD23	2.19	0.42
40:1i:46:ALA:HB2	40:1i:74:ILE:HG23	2.01	0.42
1:2A:1015:G:O2'	1:2A:1016:G:H5'	2.19	0.42
1:2A:1038:C:H42	1:2A:1117:G:H1	1.65	0.42
1:2A:1340:U:OP1	19:2X:16:LYS:NZ	2.51	0.42
1:2A:1412:A:H2'	1:2A:1413:G:H8	1.84	0.42
1:2A:1857:G:C6	1:2A:1858:G:C6	3.07	0.42
1:2A:2172:U:H1'	1:2A:2173:A:OP1	2.18	0.42
2:2B:18:G:H2'	2:2B:19:G:C8	2.54	0.42
2:2B:23:G:C2	2:2B:24:G:O6	2.72	0.42
5:2F:178:PRO:C	5:2F:180:GLY:H	2.27	0.42
7:2H:3:ARG:HH21	7:2H:54:ARG:NH1	2.17	0.42
7:2H:84:SER:HB2	7:2H:132:ARG:HH11	1.84	0.42
9:2N:96:GLU:HB2	9:2N:122:VAL:HG12	2.00	0.42
14:2S:67:ARG:HB2	14:2S:100:ALA:HB1	2.01	0.42
25:23:7:LYS:O	25:23:54:VAL:HA	2.18	0.42
30:28:34:TRP:CG	30:28:35:GLN:N	2.87	0.42
32:2a:153:C:H2'	32:2a:154:C:C6	2.54	0.42
32:2a:189(F):U:O2	48:2q:63:ARG:NH1	2.52	0.42
32:2a:516:PSU:O2'	32:2a:519:C:N3	2.52	0.42
32:2a:1512:U:H2'	32:2a:1513:A:C8	2.54	0.42
35:2d:150:GLU:HA	35:2d:153:ARG:HE	1.84	0.42
39:2h:121:ASP:HB2	39:2h:125:ARG:CZ	2.49	0.42
47:2p:21:VAL:HG12	47:2p:34:GLU:O	2.19	0.42
1:1A:1332:G:OP1	60:1A:4125:HOH:O	2.21	0.42
1:1A:2000:G:OP1	13:1R:5:LYS:NZ	2.52	0.42
4:1E:9:VAL:HG22	4:1E:25:VAL:HB	2.00	0.42
10:1O:19:ILE:HG22	10:1O:43:VAL:HG22	2.01	0.42
32:1a:189(B):C:H2'	32:1a:189(C):C:C6	2.54	0.42
32:1a:1010:G:N2	32:1a:1020:U:H1'	2.33	0.42
41:1j:25:GLU:O	41:1j:29:ARG:HB2	2.19	0.42
1:2A:322:A:OP2	5:2F:169:ASN:HB2	2.18	0.42
1:2A:862:G:O2'	2:2B:78:A:N3	2.52	0.42
1:2A:1849:G:H2'	1:2A:1850:G:H8	1.83	0.42
5:2F:148:LEU:HD22	5:2F:154:VAL:HG21	2.00	0.42
6:2G:77:ILE:HG21	6:2G:80:PHE:CD2	2.54	0.42
8:2I:1:MET:HE2	8:2I:38:LEU:HD21	2.01	0.42
10:2O:70:LYS:HE2	10:2O:70:LYS:HB3	1.65	0.42
32:2a:33:A:N3	43:2l:32:PHE:HE2	2.16	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:973:G:H3'	32:2a:974:A:H5''	2.00	0.42
37:2f:22:GLU:OE1	37:2f:84:ASN:ND2	2.52	0.42
43:2l:53:ARG:HD2	43:2l:93:LEU:HD11	2.01	0.42
44:2m:23:TYR:HE2	44:2m:70:LEU:HB3	1.84	0.42
45:2n:32:SER:O	45:2n:40:CYS:HA	2.19	0.42
1:1A:271(L):U:H5'	8:1I:50:ARG:HH12	1.85	0.42
1:1A:644:A:H4'	1:1A:645:C:C5	2.53	0.42
1:1A:1155:A:OP1	16:1U:55:ARG:HD3	2.19	0.42
1:1A:1580:A:OP2	1:1A:1580:A:H8	2.02	0.42
1:1A:1695:G:N7	3:1D:14:ARG:NH2	2.67	0.42
1:1A:1833:U:O2'	1:1A:1969:A:N1	2.45	0.42
1:1A:2093:G:C6	1:1A:2225:A:C8	3.08	0.42
3:1D:13:ARG:HA	3:1D:13:ARG:HD2	1.76	0.42
4:1E:101:ARG:HB2	4:1E:201:THR:HG21	2.00	0.42
14:1S:110:LEU:HA	14:1S:110:LEU:HD12	1.70	0.42
15:1T:114:LEU:HD23	15:1T:114:LEU:HA	1.87	0.42
21:1Z:157:LEU:HD11	21:1Z:163:LEU:HD13	2.02	0.42
22:10:43:THR:O	22:10:43:THR:HG23	2.20	0.42
24:12:13:ALA:HA	24:12:16:LEU:HD12	2.01	0.42
32:1a:626:U:H2'	32:1a:627:G:H8	1.83	0.42
33:1b:37:ASN:O	33:1b:39:ILE:HG12	2.19	0.42
39:1h:96:GLY:O	39:1h:99:GLU:HG2	2.19	0.42
40:1i:16:ARG:O	40:1i:63:ILE:HA	2.19	0.42
40:1i:127:LYS:HB3	40:1i:127:LYS:HE2	1.80	0.42
48:1q:19:VAL:HG23	48:1q:44:ALA:HB3	2.01	0.42
49:1r:58:LEU:HG	49:1r:62:GLU:HB3	2.00	0.42
1:2A:250:G:C6	1:2A:251:A:C6	3.08	0.42
1:2A:493:G:H2'	1:2A:494:G:O4'	2.20	0.42
1:2A:872:A:H2'	1:2A:873:G:C8	2.54	0.42
1:2A:1199:U:OP1	60:2A:3887:HOH:O	2.21	0.42
1:2A:1364:G:P	23:21:3:LYS:HG3	2.58	0.42
1:2A:2060:A:OP1	60:2A:3889:HOH:O	2.22	0.42
1:2A:2557:G:H2'	1:2A:2558:C:C6	2.55	0.42
1:2A:2652:C:H2'	1:2A:2653:U:O4'	2.18	0.42
21:2Z:35:ARG:HD2	21:2Z:35:ARG:HA	1.69	0.42
21:2Z:36:LYS:HB2	21:2Z:36:LYS:HE3	1.74	0.42
32:2a:292:G:C5	32:2a:293:G:H1'	2.54	0.42
32:2a:632:A:H3'	32:2a:633:G:H8	1.84	0.42
32:2a:772:U:H2'	32:2a:773:G:O4'	2.19	0.42
32:2a:947:G:O2'	32:2a:1306:A:H4'	2.20	0.42
34:2c:73:PRO:HB3	34:2c:103:VAL:HG11	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:129:ASN:HD21	35:2d:144:ASP:HA	1.85	0.42
35:2d:175:SER:O	35:2d:184:LYS:N	2.52	0.42
44:2m:15:VAL:HG12	44:2m:45:VAL:HG22	2.01	0.42
1:1A:645:C:H2'	60:1A:7197:HOH:O	2.19	0.42
1:1A:686:G:H8	29:17:6:GLN:O	2.01	0.42
1:1A:1176:G:H21	1:1A:1178:C:P	2.42	0.42
1:1A:1179:C:H2'	1:1A:1180:C:H6	1.84	0.42
1:1A:1441:G:H2'	1:1A:1442:G:C8	2.53	0.42
1:1A:2267:A:H5''	1:1A:2268:A:C5'	2.49	0.42
1:1A:2319:G:N2	14:1S:3:ARG:HA	2.33	0.42
1:1A:2695:C:H2'	1:1A:2696:U:H6	1.84	0.42
4:1E:143:ASN:HD22	4:1E:147:PRO:CD	2.33	0.42
8:1I:40:THR:O	8:1I:44:LEU:HB2	2.18	0.42
11:1P:125:VAL:HG13	11:1P:138:LEU:HD21	2.01	0.42
24:12:65:ASN:O	24:12:69:ARG:HG3	2.20	0.42
32:1a:130:A:C8	48:1q:63:ARG:HB2	2.55	0.42
32:1a:447:G:O6	32:1a:485:G:O2'	2.36	0.42
32:1a:1427:U:H2'	32:1a:1428:A:C8	2.54	0.42
46:1o:76:GLU:H	46:1o:76:GLU:HG2	1.66	0.42
53:1y:76:GLU:O	53:1y:80:LYS:HG3	2.20	0.42
1:2A:300:A:H2'	1:2A:334:C:H1'	2.02	0.42
1:2A:644:A:N6	1:2A:2349:G:O2'	2.52	0.42
1:2A:729:G:C6	3:2D:208:LYS:HB2	2.54	0.42
1:2A:900:A:H2'	1:2A:901:A:O4'	2.20	0.42
4:2E:5:LEU:HD11	4:2E:79:ARG:HB2	2.01	0.42
5:2F:172:TRP:H	5:2F:172:TRP:CD1	2.37	0.42
6:2G:43:LEU:C	6:2G:45:GLU:H	2.27	0.42
6:2G:142:PRO:O	26:24:31:ILE:HG21	2.19	0.42
8:2I:4:ILE:HD11	8:2I:44:LEU:HD12	2.02	0.42
9:2N:109:LYS:HD3	9:2N:109:LYS:HA	1.87	0.42
13:2R:118:GLU:CD	13:2R:118:GLU:H	2.27	0.42
15:2T:1:MET:HE3	15:2T:3:ARG:HG3	2.00	0.42
17:2V:24:LYS:HB3	17:2V:24:LYS:HE3	1.82	0.42
18:2W:9:TYR:H	18:2W:102:HIS:CE1	2.37	0.42
32:2a:675:A:H2'	32:2a:676:A:O4'	2.20	0.42
32:2a:952:U:H2'	32:2a:953:G:C8	2.54	0.42
32:2a:1427:U:H2'	32:2a:1428:A:H8	1.85	0.42
35:2d:165:MET:SD	35:2d:168:ARG:NH1	2.87	0.42
49:2r:58:LEU:HB3	49:2r:62:GLU:HG3	2.02	0.42
50:2s:3:ARG:HH11	50:2s:8:GLY:H	1.67	0.42
1:1A:219:G:N7	60:1A:4381:HOH:O	2.36	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:479:A:N3	1:1A:481:G:H5''	2.35	0.42
1:1A:889:C:O2'	1:1A:890:A:O5'	2.33	0.42
1:1A:995:C:O2	9:1N:3:THR:OG1	2.37	0.42
1:1A:1174:A:H1'	1:1A:1175:U:O4'	2.20	0.42
3:1D:37:LEU:HD22	3:1D:60:ARG:HB2	2.00	0.42
10:1O:21:CYS:HB2	10:1O:39:ILE:HD13	2.00	0.42
12:1Q:110:THR:HG23	12:1Q:113:GLN:OE1	2.19	0.42
15:1T:127:ALA:C	15:1T:129:ARG:H	2.27	0.42
19:1X:88:LYS:HE3	19:1X:88:LYS:HB2	1.91	0.42
20:1Y:92:ASN:HB2	20:1Y:94:LYS:HG2	2.01	0.42
32:1a:265:G:H5''	48:1q:65:ILE:O	2.19	0.42
32:1a:279:A:C5	48:1q:98:LEU:HD23	2.54	0.42
32:1a:434:U:H2'	32:1a:435:C:C6	2.54	0.42
32:1a:707:C:OP1	42:1k:85:ARG:NH1	2.52	0.42
32:1a:722:A:N6	32:1a:724:G:C2	2.88	0.42
35:1d:88:VAL:O	35:1d:92:VAL:HG23	2.20	0.42
39:1h:49:GLU:HG2	39:1h:62:TYR:HE2	1.84	0.42
44:1m:76:ALA:HA	44:1m:79:LYS:HB3	2.02	0.42
44:1m:105:THR:OG1	44:1m:106:ASN:N	2.52	0.42
1:2A:26:G:C6	1:2A:27:G:N1	2.88	0.42
1:2A:740:U:H2'	1:2A:741:G:H8	1.81	0.42
1:2A:817:C:O2'	1:2A:839:U:H5''	2.20	0.42
1:2A:898:C:H2'	1:2A:899:A:O4'	2.18	0.42
1:2A:956:G:H2'	1:2A:957:A:H2'	2.02	0.42
1:2A:2058:A:H8	1:2A:2058:A:O5'	2.02	0.42
1:2A:2059:A:OP2	60:2A:3888:HOH:O	2.22	0.42
1:2A:2441:C:OP2	1:2A:2586:C:O2'	2.37	0.42
2:2B:50:G:OP2	14:2S:62:LYS:HB2	2.20	0.42
6:2G:12:TYR:HA	6:2G:16:ARG:CG	2.49	0.42
12:2Q:16:ARG:O	12:2Q:17:LEU:HD23	2.20	0.42
17:2V:12:TYR:CG	17:2V:20:LEU:HD21	2.55	0.42
21:2Z:28:MET:HE1	21:2Z:61:LEU:HD11	2.00	0.42
32:2a:501:C:H1'	32:2a:549:C:H1'	2.01	0.42
32:2a:735:C:H2'	32:2a:736:C:H6	1.83	0.42
32:2a:1051:C:H42	32:2a:1207:2MG:HN1	1.67	0.42
32:2a:1122:U:C4	32:2a:1123:A:N7	2.87	0.42
32:2a:1504:G:OP1	32:2a:1507:A:H4'	2.18	0.42
33:2b:222:ILE:O	33:2b:226:ARG:HB2	2.19	0.42
39:2h:73:ASP:OD1	39:2h:75:ARG:HG3	2.20	0.42
43:2l:86:ARG:NH1	43:2l:87:GLY:HA3	2.34	0.42
1:1A:271(N):U:O2'	1:1A:271(O):C:H5'	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:536:A:H2'	1:1A:537:C:C6	2.54	0.42
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.35	0.42
2:1B:33:G:C2	2:1B:50:G:C2	3.07	0.42
5:1F:197:ASP:O	5:1F:201:VAL:HG13	2.20	0.42
11:1P:121:LYS:HG2	11:1P:122:PRO:HD2	2.01	0.42
11:1P:140:ALA:O	25:23:38:GLU:HG2	2.20	0.42
11:1P:141:ALA:HA	25:23:38:GLU:HG2	2.00	0.42
12:1Q:7:MET:HB2	12:1Q:7:MET:HE3	1.71	0.42
12:1Q:108:GLY:HA3	21:1Z:116:VAL:HG13	2.02	0.42
41:1j:31:GLY:HA2	41:1j:32:ALA:HA	1.49	0.42
1:2A:443:A:N7	5:2F:45:ARG:HG2	2.35	0.42
1:2A:527:C:OP1	60:2A:3833:HOH:O	2.21	0.42
1:2A:615:G:OP1	5:2F:40:GLN:NE2	2.52	0.42
1:2A:881:G:H1	1:2A:895:U:H3	1.67	0.42
1:2A:1418:G:H8	1:2A:1418:G:O5'	2.03	0.42
1:2A:2103:C:H42	1:2A:2185:C:H42	1.66	0.42
1:2A:2188:C:H2'	1:2A:2189:U:O4'	2.20	0.42
1:2A:2503:2MA:H4'	1:2A:2504:U:OP1	2.20	0.42
2:2B:42:C:OP1	6:2G:67:LYS:NZ	2.48	0.42
3:2D:17:THR:O	3:2D:211:ARG:NH2	2.53	0.42
4:2E:170:LEU:HD23	4:2E:184:VAL:HG11	2.01	0.42
4:2E:181:LEU:HD12	4:2E:181:LEU:HA	1.72	0.42
6:2G:120:LEU:HD12	6:2G:178:PHE:HD2	1.84	0.42
12:2Q:37:LEU:HD12	12:2Q:128:LYS:HB3	2.00	0.42
32:2a:514:C:H2'	32:2a:515:G:H8	1.84	0.42
32:2a:1013:G:N2	32:2a:1016:A:OP2	2.52	0.42
32:2a:1033:G:H2'	32:2a:1033:G:N3	2.34	0.42
32:2a:1292:U:H2'	32:2a:1293:G:C8	2.54	0.42
32:2a:1415:G:OP2	60:2a:3217:HOH:O	2.21	0.42
36:2e:81:GLU:OE1	36:2e:88:LYS:HE3	2.19	0.42
41:2j:32:ALA:CB	41:2j:33:GLN:HA	2.47	0.42
43:2l:34:ARG:HG3	43:2l:35:GLY:N	2.34	0.42
1:1A:863:A:H2'	1:1A:864:G:C8	2.53	0.42
1:1A:1778:U:H2'	1:1A:1784:A:N6	2.34	0.42
1:1A:2233:U:H2'	1:1A:2234:G:C8	2.55	0.42
1:1A:2751:G:H4'	7:1H:4:ILE:HG13	2.01	0.42
1:1A:2824:C:O2	60:1A:4199:HOH:O	2.21	0.42
4:1E:116:VAL:HG13	4:1E:122:PHE:HB2	2.01	0.42
17:1V:40:LEU:HB2	17:1V:46:VAL:CG1	2.50	0.42
32:1a:67:C:H4'	32:1a:172:A:O4'	2.20	0.42
32:1a:425:G:O3'	35:1d:45:GLN:NE2	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1073:U:O2'	33:1b:104:ASN:OD1	2.35	0.42
32:1a:1182:G:C4'	32:1a:1183:A:H5'	2.49	0.42
39:1h:121:ASP:HB2	39:1h:125:ARG:NH2	2.35	0.42
40:1i:25:LYS:HA	40:1i:25:LYS:HD2	1.74	0.42
1:2A:118:A:C8	1:2A:119:A:C8	3.08	0.42
1:2A:563:G:H5'	1:2A:572:A:H4'	2.01	0.42
1:2A:1091:G:H2'	1:2A:1091:G:N3	2.34	0.42
1:2A:2136:C:C2	1:2A:2155:G:N2	2.83	0.42
2:2B:80:U:H2'	2:2B:81:G:H8	1.82	0.42
5:2F:187:VAL:HG13	11:2P:1:MET:O	2.19	0.42
14:2S:18:ILE:O	14:2S:21:THR:HG23	2.20	0.42
32:2a:323:U:OP1	51:2t:26:ASN:ND2	2.45	0.42
32:2a:1004:A:N6	32:2a:1037:C:C6	2.87	0.42
32:2a:1053:G:O5'	32:2a:1054:C:H3'	2.19	0.42
32:2a:1162:C:H42	32:2a:1174:G:H1	1.68	0.42
32:2a:1314:C:H2'	32:2a:1315:U:C6	2.54	0.42
32:2a:1318:A:H5''	50:2s:3:ARG:NH2	2.35	0.42
34:2c:125:GLU:HG2	34:2c:190:ARG:O	2.20	0.42
35:2d:54:TYR:CE2	35:2d:58:LEU:HD12	2.54	0.42
42:2k:21:ILE:HD12	42:2k:95:ILE:HG12	2.01	0.42
44:2m:81:LEU:HA	44:2m:84:ILE:HG12	2.00	0.42
49:2r:25:THR:O	49:2r:25:THR:OG1	2.36	0.42
50:2s:36:ARG:H	50:2s:36:ARG:HG3	1.65	0.42
1:1A:7:G:H2'	1:1A:8:A:O4'	2.19	0.42
1:1A:95:G:O2'	24:12:48:HIS:ND1	2.36	0.42
1:1A:375:C:H2'	1:1A:376:C:C6	2.55	0.42
1:1A:1578:U:C2'	1:1A:1579:A:H5'	2.49	0.42
1:1A:2386:C:H5'	60:10:206:HOH:O	2.20	0.42
1:1A:2474:C:H5''	1:1A:2475:C:OP2	2.19	0.42
8:1I:31:LEU:HD21	8:1I:38:LEU:HD13	2.01	0.42
31:19:17:ILE:HD13	31:19:17:ILE:HA	1.80	0.42
32:1a:195:A:H2'	32:1a:196:A:C8	2.54	0.42
32:1a:926:G:C6	32:1a:1505:G:C6	3.08	0.42
32:1a:939:G:C6	32:1a:940:C:C4	3.07	0.42
32:1a:1314:C:OP2	50:1s:4:SER:HB3	2.20	0.42
33:1b:47:THR:HA	33:1b:202:PRO:HG2	2.02	0.42
35:1d:61:LYS:HD2	35:1d:207:TYR:OH	2.20	0.42
45:1n:15:LYS:HG2	45:1n:16:PHE:CE2	2.55	0.42
1:2A:1813:G:H1'	3:2D:50:THR:OG1	2.19	0.42
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.55	0.42
1:2A:2773:C:H5''	4:2E:164:ARG:HG2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2887:U:H2'	1:2A:2888:C:C6	2.55	0.42
5:2F:101:LEU:HD12	5:2F:102:PRO:HD2	2.00	0.42
19:2X:46:ALA:HB1	24:22:33:MET:HE1	2.01	0.42
21:2Z:77:ASP:N	21:2Z:82:ARG:O	2.43	0.42
32:2a:1128:C:O2'	32:2a:1147:C:N3	2.36	0.42
32:2a:1145:C:H4'	32:2a:1146:A:H5''	2.02	0.42
32:2a:1237:C:O3'	32:2a:1300:G:N2	2.47	0.42
33:2b:69:LEU:HD12	33:2b:70:PHE:H	1.85	0.42
38:2g:109:ASN:HA	38:2g:119:ARG:HE	1.85	0.42
44:2m:73:GLU:O	44:2m:77:ASN:N	2.45	0.42
1:1A:515:A:H2	1:1A:1260:G:N3	2.17	0.42
1:1A:857:C:H4'	22:10:23:VAL:HG21	2.00	0.42
1:1A:1022:G:C5	1:1A:1140:C:C4	3.08	0.42
1:1A:1508:A:H4'	1:1A:1509(A):A:C4	2.55	0.42
1:1A:2674:G:H2'	1:1A:2675:A:C8	2.54	0.42
3:1D:43:ARG:HA	3:1D:48:ARG:O	2.20	0.42
6:1G:11:TYR:HA	6:1G:15:VAL:HB	2.02	0.42
8:1I:96:ASP:O	8:1I:100:ALA:N	2.50	0.42
15:1T:24:PRO:HD3	15:1T:52:ILE:HD12	2.02	0.42
15:1T:99:LEU:O	15:1T:102:ILE:HG12	2.19	0.42
19:1X:61:GLY:HA3	19:1X:73:ARG:O	2.20	0.42
32:1a:437:U:O3'	35:1d:125:HIS:CE1	2.73	0.42
32:1a:438:G:OP1	35:1d:125:HIS:NE2	2.44	0.42
32:1a:501:C:H2'	32:1a:502:G:H8	1.84	0.42
32:1a:562:C:O2	43:1l:16:GLU:N	2.49	0.42
32:1a:877:C:HO2'	39:1h:3:THR:HG1	1.66	0.42
32:1a:1187:G:H2'	32:1a:1188:A:C8	2.54	0.42
32:1a:1291:G:OP1	38:1g:37:ASN:ND2	2.50	0.42
33:1b:82:ARG:HG3	33:1b:92:TYR:CZ	2.55	0.42
43:1l:90:VAL:O	43:1l:92:OTD:N	2.53	0.42
1:2A:1248:G:C5	16:2U:3:ARG:HB2	2.54	0.42
1:2A:2303:G:O2'	6:2G:132:ASN:ND2	2.53	0.42
2:2B:75:G:H22	21:2Z:73:GLN:NE2	2.17	0.42
16:2U:106:PHE:O	16:2U:110:VAL:HG23	2.20	0.42
20:2Y:56:PRO:C	20:2Y:58:GLY:H	2.28	0.42
32:2a:127:G:OP1	32:2a:635:G:H1'	2.19	0.42
32:2a:554:C:H2'	32:2a:555:C:C6	2.55	0.42
32:2a:877:C:O2	39:2h:3:THR:OG1	2.37	0.42
32:2a:1118:C:H1'	32:2a:1179:A:C4	2.54	0.42
32:2a:1124:G:H4'	32:2a:1125:U:OP1	2.20	0.42
32:2a:1202:G:O2'	45:2n:29:ARG:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:2l:8:ASN:O	43:2l:12:ARG:HG3	2.19	0.42
48:2q:72:ARG:HG3	48:2q:72:ARG:HH11	1.85	0.42
1:1A:875:G:H1	1:1A:902:C:H42	1.68	0.42
1:1A:1686:C:H2'	1:1A:1687:G:O4'	2.20	0.42
10:1O:115:VAL:O	56:1a:3278:MPD:H13	2.20	0.42
18:1W:25:ARG:NH2	18:1W:74:ALA:O	2.40	0.42
28:16:12:GLU:OE1	28:16:19:ARG:NH1	2.53	0.42
32:1a:881:G:OP2	43:1l:12:ARG:NH2	2.53	0.42
32:1a:1347:G:H22	32:1a:1374:A:P	2.42	0.42
32:1a:1413:A:H2	32:1a:1487:G:H22	1.66	0.42
33:1b:80:ILE:HD11	33:1b:212:GLN:HB2	2.01	0.42
37:1f:27:GLN:HA	37:1f:30:LEU:HD12	2.02	0.42
42:1k:62:GLN:HG2	42:1k:66:LEU:HD11	2.01	0.42
46:1o:39:LEU:O	46:1o:42:HIS:N	2.53	0.42
47:1p:27:LYS:HG3	47:1p:30:GLY:HA3	2.01	0.42
51:1t:67:ALA:HB2	51:1t:77:ALA:HB2	2.01	0.42
1:2A:236:C:H2'	1:2A:237:C:H6	1.84	0.42
1:2A:806:C:O2	1:2A:2444:G:O2'	2.35	0.42
1:2A:2400:G:H2'	1:2A:2401:U:H6	1.85	0.42
4:2E:9:VAL:HG13	4:2E:25:VAL:O	2.20	0.42
4:2E:51:PHE:CZ	4:2E:52:LEU:HD23	2.55	0.42
4:2E:78:LEU:HD12	4:2E:78:LEU:HA	1.76	0.42
13:2R:73:VAL:HG23	60:2R:312:HOH:O	2.19	0.42
16:2U:104:GLN:NE2	16:2U:105:VAL:HG23	2.34	0.42
24:22:60:LEU:HD23	24:22:60:LEU:HA	1.89	0.42
32:2a:102:G:OP1	51:2t:10:LEU:HD11	2.20	0.42
32:2a:1329:A:P	44:2m:28:ALA:HB3	2.59	0.42
53:2y:81:LEU:HD23	53:2y:81:LEU:HA	1.89	0.42
1:1A:244:A:C2	1:1A:255:A:C4	3.08	0.41
1:1A:958:U:H5''	12:1Q:14:ARG:HD3	2.00	0.41
1:1A:1059:G:H2'	1:1A:1060:U:C5	2.54	0.41
1:1A:2693:A:H2'	1:1A:2694:G:C8	2.55	0.41
3:1D:88:ARG:NH1	60:1D:406:HOH:O	2.28	0.41
5:1F:9:ILE:HG21	5:1F:125:LEU:HD22	2.02	0.41
5:1F:20:LEU:HG	5:1F:21:ALA:N	2.35	0.41
5:1F:40:GLN:NE2	5:1F:182:ASN:HB2	2.35	0.41
6:1G:67:LYS:H	26:14:6:HIS:CE1	2.38	0.41
10:1O:17:ARG:NH1	10:1O:47:ILE:HD13	2.35	0.41
17:1V:22:VAL:HG23	17:1V:23:GLU:O	2.19	0.41
24:12:36:ARG:HD3	60:12:110:HOH:O	2.19	0.41
32:1a:67:C:H2'	32:1a:68:G:H8	1.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:262:A:C6	32:1a:263:A:C6	3.08	0.41
32:1a:747:C:H3'	32:1a:748:C:H6	1.85	0.41
32:1a:1009:G:N2	32:1a:1021:G:H1'	2.35	0.41
32:1a:1140:C:H2'	32:1a:1141:C:C6	2.55	0.41
33:1b:109:SER:O	33:1b:112:VAL:HG22	2.20	0.41
33:1b:139:LYS:O	33:1b:143:GLU:HG3	2.19	0.41
34:1c:132:ARG:O	34:1c:136:GLN:HG3	2.19	0.41
34:1c:157:ILE:C	34:1c:159:GLY:H	2.28	0.41
35:1d:155:LEU:HB3	35:1d:158:ILE:HG12	2.01	0.41
47:1p:11:SER:HB2	47:1p:14:ASN:HB3	2.01	0.41
1:2A:171:G:H2'	1:2A:172:C:H6	1.85	0.41
1:2A:702:G:C2	1:2A:731:C:C2	3.08	0.41
1:2A:861:A:C2	1:2A:917:A:C4	3.08	0.41
1:2A:950:G:C6	1:2A:951:C:C4	3.07	0.41
1:2A:2690:C:N4	1:2A:2713:A:H1'	2.35	0.41
4:2E:9:VAL:HG22	4:2E:25:VAL:HB	2.02	0.41
6:2G:36:LYS:HG2	6:2G:160:VAL:HB	2.01	0.41
7:2H:54:ARG:HG2	7:2H:65:HIS:CE1	2.55	0.41
21:2Z:62:PRO:C	21:2Z:64:GLY:H	2.27	0.41
32:2a:137:C:H2'	32:2a:138:G:C8	2.52	0.41
32:2a:376:G:H5''	47:2p:5:ARG:HB2	2.02	0.41
32:2a:487:A:H2'	32:2a:488:C:O4'	2.20	0.41
32:2a:636:U:H2'	32:2a:637:G:C8	2.55	0.41
32:2a:1203:C:H2'	32:2a:1204:A:O4'	2.20	0.41
32:2a:1206:G:C6	32:2a:1207:2MG:C5	3.08	0.41
33:2b:111:ARG:HA	33:2b:111:ARG:HD3	1.79	0.41
34:2c:5:ILE:HG12	34:2c:6:HIS:H	1.84	0.41
36:2e:118:ILE:HD12	36:2e:118:ILE:HA	1.91	0.41
50:2s:40:ILE:HD11	50:2s:74:PHE:HE2	1.84	0.41
53:2y:52:ALA:HB3	53:2y:77:LEU:HD11	2.02	0.41
1:1A:663:G:N7	60:1A:4397:HOH:O	2.37	0.41
2:1B:23:G:O6	60:1B:303:HOH:O	2.21	0.41
2:1B:96:U:H2'	2:1B:97:G:H8	1.84	0.41
4:1E:170:LEU:HB3	4:1E:184:VAL:CG2	2.50	0.41
9:1N:34:LEU:O	9:1N:49:GLY:HA3	2.20	0.41
21:1Z:103:ARG:HD3	21:1Z:136:PHE:CG	2.54	0.41
32:1a:119:A:H4'	32:1a:120:A:C8	2.55	0.41
32:1a:362:G:OP2	60:1a:3340:HOH:O	2.22	0.41
32:1a:661:G:H1	32:1a:744:C:H42	1.67	0.41
32:1a:763:G:H2'	32:1a:764:C:H6	1.84	0.41
32:1a:865:A:C2	32:1a:918:A:H4'	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:971:G:OP1	32:1a:972:C:H5''	2.19	0.41
32:1a:1251:A:H2'	32:1a:1252:A:C8	2.55	0.41
35:1d:121:VAL:O	35:1d:134:ASP:HA	2.21	0.41
35:1d:152:SER:O	35:1d:158:ILE:HD11	2.20	0.41
47:1p:29:ASP:OD1	47:1p:29:ASP:N	2.53	0.41
1:2A:239:U:H2'	1:2A:240:G:O4'	2.20	0.41
1:2A:1379:A:H4'	1:2A:1380:G:OP2	2.20	0.41
1:2A:1512:U:H2'	1:2A:1513:C:C6	2.55	0.41
1:2A:2365:G:O6	30:28:39:LYS:NZ	2.53	0.41
16:2U:24:TYR:HB2	16:2U:29:SER:HB3	2.02	0.41
16:2U:49:HIS:O	16:2U:53:ARG:N	2.51	0.41
21:2Z:54:HIS:CD2	21:2Z:101:PRO:HG3	2.54	0.41
26:24:48:ARG:O	26:24:50:VAL:N	2.54	0.41
31:29:2:LYS:HB2	31:29:34:GLN:HG2	2.02	0.41
37:2f:89:MET:HE1	49:2r:72:ARG:HB3	2.02	0.41
39:2h:9:MET:HG3	39:2h:26:VAL:HG11	2.02	0.41
44:2m:106:ASN:OD1	44:2m:106:ASN:N	2.54	0.41
47:2p:9:PHE:CE1	47:2p:18:ARG:HD2	2.55	0.41
51:2t:53:LEU:O	51:2t:57:ARG:HG3	2.20	0.41
1:1A:568:U:H5'	1:1A:945:A:N6	2.35	0.41
1:1A:687:C:H2'	1:1A:688:U:O4'	2.19	0.41
4:1E:31:CYS:HB3	4:1E:49:LEU:HG	2.01	0.41
4:1E:96:PHE:O	4:1E:175:VAL:HG11	2.19	0.41
7:1H:3:ARG:NH2	7:1H:65:HIS:HB3	2.36	0.41
20:1Y:92:ASN:CB	20:1Y:94:LYS:HG2	2.50	0.41
32:1a:540:G:H2'	32:1a:541:G:O4'	2.19	0.41
33:1b:112:VAL:HG12	33:1b:149:LEU:HD13	2.02	0.41
35:1d:194:LEU:HD12	35:1d:194:LEU:HA	1.71	0.41
40:1i:47:LEU:O	40:1i:50:LEU:HG	2.21	0.41
42:1k:20:TYR:CZ	42:1k:83:ILE:HD12	2.54	0.41
45:1n:37:PHE:CE1	45:1n:53:LEU:HD13	2.55	0.41
1:2A:1002:G:H2'	1:2A:1003:G:O4'	2.20	0.41
1:2A:1028:A:H2'	1:2A:1029:A:C8	2.56	0.41
1:2A:2152:G:H2'	1:2A:2153:G:H8	1.82	0.41
1:2A:2572:A:OP1	4:2E:144:ARG:HB2	2.20	0.41
7:2H:127:GLU:C	7:2H:129:THR:H	2.27	0.41
14:2S:74:ALA:HB3	14:2S:108:GLY:HA3	2.01	0.41
26:24:42:PHE:HD2	26:24:43:TYR:CD1	2.38	0.41
32:2a:393:A:C2	32:2a:394:G:C8	3.08	0.41
32:2a:1087:G:H1	32:2a:1098:C:H42	1.68	0.41
32:2a:1125:U:O2'	32:2a:1126:U:H2'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2f:68:PRO:HB2	37:2f:71:ARG:HG3	2.02	0.41
41:2j:38:ILE:HD13	41:2j:71:LEU:HD22	2.02	0.41
43:2l:26:ALA:HB1	43:2l:60:LEU:HD22	2.02	0.41
43:2l:28:LYS:N	43:2l:29:GLY:HA2	2.35	0.41
48:2q:19:VAL:HG23	48:2q:44:ALA:HB3	2.02	0.41
49:2r:65:ILE:H	49:2r:65:ILE:HG12	1.64	0.41
51:2t:57:ARG:HH22	51:2t:100:ILE:HD12	1.85	0.41
1:1A:107:C:H2'	1:1A:108:U:C6	2.54	0.41
1:1A:380:U:OP1	60:1A:4201:HOH:O	2.21	0.41
1:1A:1857:G:C6	1:1A:1858:G:C6	3.09	0.41
1:1A:1864:U:OP1	1:1A:2410:G:O2'	2.34	0.41
1:1A:2482:G:N2	60:1A:4719:HOH:O	2.52	0.41
3:1D:127:VAL:HA	3:1D:193:VAL:HG22	2.02	0.41
3:1D:132:PRO:HD3	3:1D:190:TYR:CZ	2.55	0.41
5:1F:117:ARG:NH2	5:1F:189:THR:O	2.51	0.41
6:1G:165:THR:OG1	6:1G:168:GLU:HG3	2.20	0.41
21:1Z:100:VAL:HG11	21:1Z:134:PRO:HG2	2.03	0.41
32:1a:620:C:H2'	32:1a:621:A:O4'	2.19	0.41
32:1a:841:U:H5	32:1a:848:C:H1'	1.85	0.41
32:1a:942:G:C2	32:1a:1342:C:C2	3.09	0.41
32:1a:1101:A:H4'	32:1a:1102:A:O5'	2.21	0.41
32:1a:1140:C:H2'	32:1a:1141:C:H6	1.85	0.41
32:1a:1183:A:H3'	32:1a:1184:G:C5'	2.50	0.41
33:1b:95:GLN:HG3	33:1b:147:LYS:HG2	2.02	0.41
38:1g:16:LEU:H	38:1g:16:LEU:HG	1.52	0.41
40:1i:50:LEU:HD12	40:1i:51:ARG:N	2.36	0.41
43:1l:113:ARG:NE	43:1l:115:LYS:O	2.53	0.41
1:2A:42:G:H2'	1:2A:43:A:O4'	2.21	0.41
1:2A:444:C:H5''	60:2A:4078:HOH:O	2.21	0.41
1:2A:2065:C:H4'	1:2A:2251:OMG:HM22	2.02	0.41
1:2A:2420:C:OP1	30:28:34:TRP:HB3	2.20	0.41
1:2A:2786:U:O2'	4:2E:62:PRO:O	2.32	0.41
7:2H:9:ILE:N	7:2H:50:VAL:O	2.40	0.41
10:2O:63:VAL:HG11	10:2O:85:VAL:HG23	2.01	0.41
18:2W:88:ARG:NH1	18:2W:94:ASP:OD2	2.53	0.41
21:2Z:152:ALA:HA	21:2Z:155:LEU:HB2	2.02	0.41
32:2a:1059:C:H2'	32:2a:1060:C:O4'	2.21	0.41
32:2a:1192:C:OP2	34:2c:4:LYS:NZ	2.53	0.41
33:2b:50:GLU:O	33:2b:54:THR:OG1	2.34	0.41
33:2b:174:VAL:O	33:2b:178:ARG:HG2	2.20	0.41
35:2d:98:GLU:OE1	35:2d:103:ASN:ND2	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:26:VAL:HA	40:2i:61:ALA:O	2.20	0.41
1:1A:609:A:H2'	1:1A:610:G:O4'	2.21	0.41
1:1A:686:G:N2	1:1A:788:A:H61	2.19	0.41
1:1A:1041:C:H5'	1:1A:1042:G:OP2	2.21	0.41
1:1A:1469:A:H2'	1:1A:1470:G:O4'	2.21	0.41
1:1A:2667:C:H1'	7:1H:109:PHE:CD1	2.55	0.41
5:1F:95:ARG:HD3	5:1F:97:TYR:CZ	2.55	0.41
12:1Q:3:MET:HE2	60:1Q:318:HOH:O	2.20	0.41
14:1S:14:VAL:O	14:1S:18:ILE:HG12	2.20	0.41
32:1a:174:C:H2'	32:1a:175:C:C6	2.56	0.41
32:1a:266:G:C5'	32:1a:268:C:H41	2.33	0.41
32:1a:1118:C:H1'	32:1a:1179:A:C5	2.56	0.41
32:1a:1492:A:H4'	32:1a:1493:A:N1	2.36	0.41
32:1a:1506:U:OP1	60:1a:3336:HOH:O	2.21	0.41
33:1b:7:VAL:O	33:1b:217:ARG:NH2	2.53	0.41
33:1b:50:GLU:O	33:1b:54:THR:OG1	2.38	0.41
33:1b:185:ILE:HA	33:1b:199:TYR:O	2.21	0.41
34:1c:34:LEU:O	34:1c:38:ARG:HG3	2.21	0.41
41:1j:42:THR:HG23	41:1j:68:HIS:HA	2.03	0.41
42:1k:85:ARG:HD3	42:1k:113:PRO:HD3	2.01	0.41
44:1m:35:GLU:H	44:1m:35:GLU:HG3	1.60	0.41
44:1m:76:ALA:O	44:1m:80:ARG:HG2	2.20	0.41
1:2A:630:G:N2	1:2A:633:A:OP2	2.42	0.41
1:2A:657:U:H2'	1:2A:658:C:C6	2.54	0.41
1:2A:784:A:C5	3:2D:229:VAL:HG21	2.55	0.41
1:2A:828:U:H4'	1:2A:831:G:N1	2.35	0.41
1:2A:1946:U:H2'	1:2A:1947:C:C6	2.56	0.41
1:2A:2336:A:H61	22:20:43:THR:HG21	1.84	0.41
1:2A:2356:C:H2'	1:2A:2357:U:O4'	2.20	0.41
1:2A:2370:G:C6	1:2A:2371:G:C6	3.08	0.41
6:2G:16:ARG:HA	6:2G:16:ARG:HD2	1.91	0.41
6:2G:170:ARG:HH21	6:2G:174:GLU:CD	2.27	0.41
15:2T:107:ASP:O	15:2T:111:ARG:HG3	2.20	0.41
32:2a:130:A:H1'	32:2a:263:A:O2'	2.20	0.41
32:2a:266:G:N3	32:2a:266:G:H5''	2.34	0.41
32:2a:685:G:C2	32:2a:686:U:C4	3.09	0.41
32:2a:878:G:OP1	39:2h:88:LYS:HB3	2.20	0.41
32:2a:1030(A):G:H1'	32:2a:1030(C):G:N7	2.36	0.41
35:2d:38:TYR:CE1	35:2d:45:GLN:HG3	2.55	0.41
35:2d:50:ARG:HA	35:2d:51:PRO:HD3	1.95	0.41
37:2f:30:LEU:HB3	37:2f:35:ALA:HB3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:2j:5:ARG:O	41:2j:6:ILE:HD13	2.20	0.41
42:2k:33:THR:HG22	42:2k:39:PRO:HA	2.02	0.41
43:2l:33:ARG:HD3	43:2l:62:SER:HB3	2.02	0.41
45:2n:26:ARG:HB3	45:2n:43:CYS:SG	2.60	0.41
46:2o:28:GLN:HB3	46:2o:66:LEU:HD23	2.02	0.41
1:1A:493:G:H2'	1:1A:494:G:O4'	2.21	0.41
1:1A:747:U:O2'	18:1W:92:ARG:NH2	2.53	0.41
1:1A:1045:A:O2'	1:1A:1047:G:C4	2.70	0.41
1:1A:1086:A:H3'	1:1A:1086:A:N3	2.34	0.41
1:1A:1100:C:H2'	1:1A:1101:U:O4'	2.20	0.41
1:1A:1474:C:H2'	1:1A:1475:G:C8	2.56	0.41
1:1A:1824:G:O3'	3:1D:249:PRO:HD3	2.21	0.41
60:1A:5108:HOH:O	29:17:32:LYS:HE2	2.21	0.41
6:1G:53:LEU:HD13	6:1G:90:LEU:HD21	2.02	0.41
8:1I:109:ILE:HA	8:1I:109:ILE:HD12	1.86	0.41
9:1N:34:LEU:HD12	9:1N:34:LEU:HA	1.72	0.41
9:1N:67:LEU:HD12	9:1N:67:LEU:HA	1.88	0.41
32:1a:21:G:H2'	32:1a:22:G:C8	2.56	0.41
32:1a:73:G:H2'	32:1a:76:C:C6	2.56	0.41
32:1a:236:G:H5''	48:1q:42:TYR:OH	2.20	0.41
32:1a:996:A:H2'	32:1a:997:U:C6	2.55	0.41
32:1a:1000:U:H3	32:1a:1041:A:H61	1.68	0.41
32:1a:1399:C:C2	32:1a:1401:G:C5	3.09	0.41
33:1b:174:VAL:O	33:1b:178:ARG:HB2	2.19	0.41
36:1e:31:LEU:HD23	36:1e:31:LEU:HA	1.85	0.41
45:1n:23:ARG:NH1	45:1n:30:ALA:HB2	2.36	0.41
50:1s:15:LEU:O	50:1s:19:VAL:HG23	2.20	0.41
1:2A:2351:G:H8	1:2A:2351:G:O5'	2.04	0.41
1:2A:2652:C:H42	1:2A:2668:G:H1	1.67	0.41
1:2A:2836:U:C4	1:2A:2883:A:N6	2.88	0.41
5:2F:130:ALA:H	5:2F:142:TRP:CD1	2.38	0.41
32:2a:1157:A:H4'	32:2a:1158:C:O5'	2.20	0.41
32:2a:1201:A:H4'	32:2a:1202:G:H5''	2.02	0.41
35:2d:121:VAL:O	35:2d:134:ASP:HA	2.20	0.41
37:2f:97:PHE:HD2	49:2r:31:LEU:HD13	1.85	0.41
38:2g:20:ASP:OD2	38:2g:63:LYS:HE2	2.21	0.41
39:2h:14:ARG:NH1	39:2h:83:ILE:O	2.53	0.41
1:1A:1815:A:H8	1:1A:1815:A:OP1	2.04	0.41
1:1A:1920:OMC:HM22	1:1A:1921:G:O4'	2.21	0.41
6:1G:110:ALA:HA	6:1G:140:ILE:O	2.20	0.41
7:1H:41:MET:HE3	7:1H:41:MET:HB3	1.75	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:1P:71:VAL:HG22	11:1P:72:PRO:HA	2.02	0.41
12:1Q:37:LEU:HD23	12:1Q:37:LEU:HA	1.91	0.41
19:1X:53:LYS:HE3	19:1X:55:ASN:OD1	2.21	0.41
19:1X:92:LEU:C	19:1X:94:GLY:N	2.78	0.41
32:1a:1022:G:H5'	32:1a:1023:G:OP2	2.20	0.41
32:1a:1224:G:OP2	60:1a:3338:HOH:O	2.21	0.41
41:1j:45:ARG:HB3	41:1j:65:LEU:HD23	2.03	0.41
42:1k:34:ASP:HB2	42:1k:35:PRO:CD	2.50	0.41
1:2A:635:C:H2'	1:2A:636:G:O4'	2.20	0.41
1:2A:784:A:OP1	1:2A:2588:G:H5''	2.21	0.41
1:2A:784:A:C8	1:2A:792:G:C5	3.09	0.41
1:2A:2203:U:H2'	1:2A:2205:C:H6	1.85	0.41
1:2A:2597:G:H2'	1:2A:2598:A:C8	2.56	0.41
1:2A:2695:C:H2'	1:2A:2696:U:C6	2.56	0.41
7:2H:13:LYS:HA	7:2H:14:GLY:HA2	1.64	0.41
8:2I:14:ASP:OD1	8:2I:15:VAL:N	2.54	0.41
11:2P:84:ASN:OD1	11:2P:117:GLU:HB2	2.19	0.41
32:2a:45:U:H2'	32:2a:46:G:C8	2.56	0.41
32:2a:189(F):U:C4	48:2q:72:ARG:NH1	2.89	0.41
32:2a:241:C:C2	32:2a:286:G:C2	3.09	0.41
32:2a:925:G:H1'	32:2a:1502:A:C4	2.56	0.41
32:2a:976:G:P	45:2n:32:SER:H	2.44	0.41
32:2a:1014:A:C2	32:2a:1219:U:H1'	2.56	0.41
32:2a:1187:G:O2'	45:2n:61:TRP:OXT	2.31	0.41
42:2k:31:THR:HG23	42:2k:42:TRP:HB3	2.03	0.41
1:1A:1478:G:O2'	1:1A:1558:A:N7	2.54	0.41
5:1F:129:PHE:CD2	5:1F:163:VAL:HG21	2.56	0.41
8:1I:121:LYS:HD2	8:1I:121:LYS:HA	1.88	0.41
9:1N:70:LYS:O	9:1N:86:PRO:HA	2.21	0.41
10:1O:86:ILE:HG22	10:1O:94:ARG:HG3	2.01	0.41
22:10:41:ARG:HA	60:10:203:HOH:O	2.20	0.41
32:1a:1005:A:OP1	32:1a:1006:C:N4	2.54	0.41
32:1a:1304:G:C6	32:1a:1305:G:N1	2.89	0.41
33:1b:21:ARG:C	33:1b:23:ARG:H	2.29	0.41
33:1b:108:ILE:O	33:1b:111:ARG:HB3	2.21	0.41
39:1h:7:ALA:HB2	39:1h:85:ARG:HG3	2.02	0.41
1:2A:383:U:H2'	1:2A:385:C:H5	1.86	0.41
1:2A:480:A:OP2	20:2Y:47:LYS:HD3	2.20	0.41
1:2A:588:U:H2'	1:2A:589:C:C6	2.56	0.41
1:2A:630:G:OP2	30:28:15:LYS:NZ	2.45	0.41
1:2A:1512:U:H2'	1:2A:1513:C:H6	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2258:C:H5''	60:2A:4212:HOH:O	2.21	0.41
1:2A:2689:U:H4'	1:2A:2690:C:H5'	2.03	0.41
5:2F:178:PRO:HB2	5:2F:201:VAL:CG2	2.49	0.41
6:2G:110:ALA:O	6:2G:113:ARG:N	2.54	0.41
15:2T:36:GLU:CD	15:2T:41:ARG:HE	2.28	0.41
19:2X:57:LEU:HD21	19:2X:78:LYS:HE2	2.01	0.41
21:2Z:97:GLU:HG2	21:2Z:125:LEU:HD11	2.02	0.41
26:24:41:PRO:HG3	26:24:49:PHE:CD2	2.55	0.41
32:2a:540:G:C6	32:2a:541:G:C5	3.08	0.41
32:2a:965:A:O2'	53:2y:40:ILE:HG21	2.21	0.41
32:2a:1004:A:H5''	32:2a:1025:U:C5	2.56	0.41
32:2a:1058:G:N2	41:2j:53:PRO:HG3	2.36	0.41
32:2a:1134:G:H2'	32:2a:1135:U:H5'	2.02	0.41
1:1A:315:G:H2'	1:1A:316:C:C6	2.56	0.41
1:1A:492:A:H2'	1:1A:493:G:O4'	2.20	0.41
1:1A:875:G:O2'	21:1Z:151:HIS:HE1	2.04	0.41
1:1A:1000:A:H62	1:1A:1154:G:H2'	1.86	0.41
1:1A:1759:A:H1'	1:1A:2711:A:C2	2.56	0.41
1:1A:1790:C:H2'	1:1A:1791:A:C5	2.56	0.41
1:1A:1843:C:H5'	3:1D:253:GLN:NE2	2.36	0.41
1:1A:2101:G:H2'	1:1A:2102:U:C6	2.56	0.41
1:1A:2246:G:H2'	1:1A:2247:A:C8	2.56	0.41
1:1A:2291:U:H2'	1:1A:2292:C:C6	2.56	0.41
1:1A:2785:C:H2'	1:1A:2786:U:O4'	2.21	0.41
2:1B:32:C:C2	2:1B:51:G:N2	2.88	0.41
6:1G:98:ARG:CZ	26:14:1:MET:HE3	2.51	0.41
8:1I:57:ARG:O	8:1I:61:ARG:HG2	2.21	0.41
8:1I:131:LYS:HE3	8:1I:131:LYS:HB2	1.78	0.41
10:1O:97:ARG:HD3	10:1O:99:PHE:CZ	2.56	0.41
12:1Q:43:THR:O	12:1Q:47:ILE:HG13	2.20	0.41
32:1a:69:G:H2'	32:1a:70:G:C8	2.55	0.41
32:1a:922:G:C6	32:1a:923:A:C6	3.08	0.41
32:1a:958:A:C5	50:1s:55:LYS:HD2	2.56	0.41
32:1a:1129:C:O2'	32:1a:1139:G:N7	2.47	0.41
32:1a:1144:G:O2'	32:1a:1145:C:H5'	2.21	0.41
32:1a:1236:A:H4'	32:1a:1304:G:H4'	2.02	0.41
32:1a:1492:A:H4'	32:1a:1493:A:C6	2.56	0.41
33:1b:41:ILE:HD13	33:1b:41:ILE:HA	1.81	0.41
33:1b:215:LEU:O	33:1b:219:VAL:HG23	2.21	0.41
36:1e:90:VAL:O	36:1e:120:THR:HA	2.21	0.41
37:1f:96:PRO:HB3	49:1r:30:ASP:CG	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:1j:38:ILE:O	41:1j:38:ILE:HG13	2.21	0.41
44:1m:33:ALA:HB2	44:1m:64:TRP:HH2	1.86	0.41
44:1m:50:GLU:O	44:1m:54:VAL:HG22	2.21	0.41
46:1o:29:VAL:HG11	46:1o:67:LEU:HD21	2.03	0.41
47:1p:21:VAL:HG12	47:1p:34:GLU:O	2.21	0.41
47:1p:34:GLU:HG2	47:1p:35:LYS:N	2.35	0.41
1:2A:558:G:OP1	9:2N:111:PRO:HD2	2.21	0.41
1:2A:873:G:N2	1:2A:905:U:C2	2.89	0.41
1:2A:1203:G:H2'	1:2A:1241:A:N6	2.36	0.41
1:2A:1409:C:H2'	1:2A:1410:G:C8	2.56	0.41
1:2A:1418:G:N7	60:2A:4020:HOH:O	2.37	0.41
1:2A:1459:G:H2'	1:2A:1461:G:OP2	2.20	0.41
1:2A:1509(A):A:H3'	1:2A:1509(B):A:H8	1.85	0.41
1:2A:1529:G:O6	1:2A:1530:C:N4	2.54	0.41
1:2A:1589:C:H2'	1:2A:1590:U:H6	1.85	0.41
1:2A:1758:G:C2	1:2A:2696:U:H5'	2.55	0.41
1:2A:2104:G:N7	1:2A:2186:G:C2	2.89	0.41
1:2A:2206:G:H5''	1:2A:2207:G:N7	2.35	0.41
1:2A:2611:U:H6	1:2A:2611:U:H5'	1.85	0.41
1:2A:2680:C:H5'	4:2E:189:PRO:HA	2.03	0.41
1:2A:2788:C:O2'	1:2A:2809:A:N3	2.53	0.41
3:2D:118:VAL:HG22	3:2D:119:ALA:H	1.86	0.41
4:2E:101:ARG:HB2	4:2E:201:THR:HG21	2.02	0.41
4:2E:170:LEU:HB3	4:2E:184:VAL:HG13	2.02	0.41
6:2G:72:ARG:HG2	6:2G:87:PRO:HA	2.03	0.41
9:2N:30:ILE:HG21	9:2N:120:LEU:HD13	2.03	0.41
12:2Q:57:HIS:HD2	12:2Q:117:ALA:HB2	1.86	0.41
16:2U:81:HIS:CE1	16:2U:85:LYS:HE2	2.56	0.41
17:2V:64:HIS:CD2	17:2V:92:THR:HG23	2.56	0.41
20:2Y:15:VAL:O	20:2Y:21:LYS:HA	2.21	0.41
21:2Z:144:LEU:HD23	21:2Z:144:LEU:HA	1.86	0.41
26:24:8:LYS:HG2	26:24:10:VAL:HG12	2.03	0.41
26:24:61:ARG:H	26:24:62:ARG:NH1	2.19	0.41
30:28:50:LEU:HB3	30:28:55:ALA:HB2	2.02	0.41
31:29:13:LYS:HG2	31:29:28:GLU:OE2	2.20	0.41
32:2a:109:A:H2'	32:2a:326:G:N2	2.35	0.41
32:2a:535:A:H5''	60:2a:3203:HOH:O	2.21	0.41
32:2a:572:A:OP2	60:2a:3211:HOH:O	2.21	0.41
32:2a:643:C:H5'	39:2h:31:PHE:CE1	2.56	0.41
32:2a:826:C:H4'	39:2h:12:ARG:HG2	2.03	0.41
32:2a:1128:C:H4'	32:2a:1148:U:O2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:19:HIS:CD2	33:2b:20:GLU:H	2.39	0.41
34:2c:184:TYR:HA	34:2c:200:ALA:O	2.20	0.41
35:2d:17:VAL:HG11	35:2d:197:PRO:CB	2.51	0.41
38:2g:26:PHE:HE1	38:2g:105:VAL:HG22	1.86	0.41
40:2i:111:ARG:HG3	45:2n:61:TRP:HE1	1.86	0.41
47:2p:68:ASP:C	47:2p:70:ALA:H	2.29	0.41
49:2r:70:ILE:O	49:2r:74:ARG:HG3	2.21	0.41
53:2y:3:MET:HE3	53:2y:3:MET:HB2	1.89	0.41
1:1A:719:C:H6	1:1A:719:C:O5'	2.04	0.41
1:1A:784:A:C5	3:1D:229:VAL:HG21	2.56	0.41
1:1A:1109:C:H3'	1:1A:1110:G:C8	2.56	0.41
1:1A:1939:5MU:OP1	1:1A:2604:U:O2'	2.33	0.41
60:1B:337:HOH:O	6:1G:27:ASN:HB2	2.20	0.41
7:1H:40:GLU:OE1	7:1H:61:HIS:NE2	2.44	0.41
8:1I:9:LEU:HA	8:1I:9:LEU:HD12	1.69	0.41
10:1O:24:VAL:HA	10:1O:39:ILE:HG22	2.02	0.41
11:1P:65:ARG:HG2	56:18:104:MPD:O2	2.20	0.41
13:1R:38:VAL:HB	13:1R:39:PRO:HD3	2.02	0.41
32:1a:741:G:H2'	32:1a:742:G:O4'	2.21	0.41
32:1a:1202:G:C2	45:1n:42:ILE:HG21	2.56	0.41
32:1a:1223:C:OP2	50:1s:78:ARG:NH2	2.54	0.41
33:1b:115:LEU:HD13	33:1b:145:LEU:HB2	2.03	0.41
34:1c:52:LEU:HD11	34:1c:68:VAL:HG13	2.03	0.41
43:1l:97:ARG:HB2	43:1l:98:TYR:CE2	2.56	0.41
51:1t:49:ALA:O	51:1t:53:LEU:HG	2.21	0.41
51:1t:58:LYS:HD2	51:1t:58:LYS:HA	1.87	0.41
1:2A:83:G:H1	1:2A:102:G:HO2'	1.67	0.41
1:2A:144:C:H5'	19:2X:2:LYS:HD3	2.02	0.41
1:2A:415:A:H2'	1:2A:416:C:O4'	2.21	0.41
1:2A:984:A:H5''	1:2A:985:C:H5	1.86	0.41
1:2A:1055:G:H3'	1:2A:1056:G:H8	1.85	0.41
1:2A:1525:G:H2'	1:2A:1526:G:C8	2.56	0.41
1:2A:2271:G:OP1	22:20:18:ALA:HB1	2.21	0.41
1:2A:2505:G:H2'	1:2A:2576:G:N1	2.35	0.41
1:2A:2512:C:O2'	4:2E:154:LYS:NZ	2.52	0.41
6:2G:97:ASP:O	6:2G:101:ILE:HG13	2.20	0.41
7:2H:98:LEU:HD12	7:2H:103:LEU:HA	2.03	0.41
25:23:5:LYS:HE3	25:23:34:GLU:CD	2.46	0.41
32:2a:837:G:H1	32:2a:849:C:H42	1.69	0.41
32:2a:885:G:O2'	32:2a:914:A:N1	2.47	0.41
32:2a:922:G:N3	32:2a:1398:A:H2	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1036:G:H3'	32:2a:1037:C:C6	2.56	0.41
32:2a:1179:A:H2'	32:2a:1180:A:O4'	2.20	0.41
32:2a:1376:U:H2'	32:2a:1377:A:H8	1.86	0.41
33:2b:87:ARG:NH1	33:2b:220:ASP:OD1	2.35	0.41
34:2c:58:GLU:HB3	41:2j:92:THR:HG21	2.03	0.41
36:2e:31:LEU:HD23	36:2e:31:LEU:HA	1.86	0.41
42:2k:87:THR:O	42:2k:87:THR:OG1	2.32	0.41
49:2r:59:SER:OG	49:2r:62:GLU:HG2	2.21	0.41
1:1A:118:A:H3'	1:1A:119:A:H5''	2.02	0.40
1:1A:264:C:O2'	1:1A:265:A:H2'	2.22	0.40
1:1A:726:G:O2'	1:1A:727:A:OP2	2.36	0.40
1:1A:1016:G:O6	60:1A:4184:HOH:O	2.19	0.40
1:1A:1832:C:N4	1:1A:1833:U:C4	2.90	0.40
1:1A:1904:G:H2'	1:1A:1905:C:O4'	2.21	0.40
1:1A:2417:C:OP1	11:1P:65:ARG:NH2	2.54	0.40
1:1A:2693:A:H2'	1:1A:2694:G:H8	1.85	0.40
2:1B:48:A:H2'	2:1B:49:C:C6	2.57	0.40
3:1D:228:PRO:HD3	3:1D:235:GLY:CA	2.51	0.40
11:1P:65:ARG:HG3	11:1P:66:GLY:N	2.36	0.40
17:1V:95:LEU:HD23	17:1V:97:LYS:HE3	2.02	0.40
20:1Y:28:LYS:N	20:1Y:38:ILE:O	2.51	0.40
21:1Z:92:SER:O	21:1Z:130:PRO:HG2	2.21	0.40
32:1a:113:G:H2'	32:1a:114:U:C6	2.56	0.40
32:1a:932:C:H5''	38:1g:4:ARG:CZ	2.51	0.40
35:1d:188:LEU:HA	35:1d:189:PRO:HD3	1.92	0.40
39:1h:51:VAL:HG21	39:1h:60:ARG:NH1	2.35	0.40
46:1o:78:TYR:CE1	46:1o:82:ILE:HG21	2.56	0.40
47:1p:25:ARG:H	47:1p:25:ARG:HG2	1.64	0.40
50:1s:65:ASN:OD1	50:1s:65:ASN:N	2.47	0.40
51:1t:37:SER:O	51:1t:41:ILE:HG13	2.21	0.40
1:2A:57:C:H2'	1:2A:58:G:O4'	2.21	0.40
1:2A:108:U:H2'	1:2A:109:G:C8	2.57	0.40
1:2A:468:G:HO2'	5:2F:62:ARG:HH22	1.66	0.40
6:2G:161:THR:CG2	6:2G:163:ALA:H	2.34	0.40
13:2R:1:MET:HE3	13:2R:1:MET:HB2	1.86	0.40
22:20:12:ASN:HB3	22:20:13:GLY:H	1.66	0.40
32:2a:376:G:O2'	47:2p:5:ARG:NH1	2.54	0.40
32:2a:575:G:H4'	32:2a:575:G:OP1	2.21	0.40
32:2a:579:G:C6	32:2a:580:U:C4	3.09	0.40
33:2b:8:LYS:O	33:2b:9:GLU:HB2	2.21	0.40
35:2d:22:LYS:HD2	59:2d:501:SF4:S3	2.60	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:153:ARG:O	35:2d:155:LEU:N	2.49	0.40
42:2k:81:ASP:OD1	42:2k:106:LYS:HB2	2.20	0.40
48:2q:38:ARG:HD3	48:2q:38:ARG:HA	1.86	0.40
50:2s:14:HIS:O	50:2s:18:LYS:HG3	2.21	0.40
50:2s:61:TYR:CE2	50:2s:63:THR:HG22	2.56	0.40
1:1A:582:G:H2'	1:1A:583:G:C8	2.55	0.40
1:1A:590:A:H2'	1:1A:591:C:O4'	2.21	0.40
1:1A:1173:G:O2'	1:1A:1174:A:O4'	2.37	0.40
1:1A:2133:G:H3'	1:1A:2157:G:H21	1.86	0.40
1:1A:2186:G:H3'	1:1A:2187:G:H5''	2.03	0.40
60:1B:384:HOH:O	25:13:16:PRO:HG2	2.22	0.40
3:1D:94:LEU:HD22	3:1D:95:LEU:N	2.37	0.40
3:1D:232:PRO:HB3	3:1D:244:ARG:CZ	2.52	0.40
6:1G:108:ASN:O	6:1G:112:PRO:HG2	2.21	0.40
21:1Z:31:ARG:H	21:1Z:31:ARG:HG3	1.51	0.40
21:1Z:145:GLU:H	21:1Z:148:ASP:HB2	1.86	0.40
21:1Z:183:LEU:HD23	21:1Z:183:LEU:HA	1.97	0.40
32:1a:232:G:H1'	32:1a:262:A:N1	2.36	0.40
32:1a:1417:G:H2'	32:1a:1482:G:N2	2.36	0.40
32:1a:1500:A:OP1	60:1a:3324:HOH:O	2.22	0.40
36:1e:102:ALA:HB1	36:1e:106:PRO:HG2	2.02	0.40
39:1h:120:THR:HG23	39:1h:123:GLU:OE1	2.21	0.40
41:1j:40:LEU:HB2	41:1j:69:ASN:HB2	2.04	0.40
1:2A:217:G:H2'	1:2A:218:A:O4'	2.22	0.40
1:2A:1683:C:H2'	1:2A:1684:C:C6	2.56	0.40
1:2A:1814:G:OP1	3:2D:40:THR:OG1	2.39	0.40
1:2A:2805:G:H2'	1:2A:2807:G:H8	1.82	0.40
2:2B:61:G:H2'	2:2B:62:C:C6	2.56	0.40
2:2B:64:C:H2'	2:2B:65:C:C6	2.56	0.40
4:2E:14:ILE:HB	15:2T:14:TYR:CZ	2.56	0.40
32:2a:130:A:OP2	48:2q:63:ARG:HG2	2.20	0.40
32:2a:617:G:OP2	60:2a:3220:HOH:O	2.22	0.40
32:2a:946:A:H2'	32:2a:947:G:C8	2.56	0.40
32:2a:1236:A:O2'	32:2a:1304:G:H4'	2.20	0.40
32:2a:1268:A:H2'	32:2a:1269:A:C8	2.57	0.40
32:2a:1371:G:O3'	40:2i:69:GLY:HA3	2.21	0.40
33:2b:57:PHE:HD2	33:2b:58:ILE:HD13	1.86	0.40
34:2c:6:HIS:ND1	34:2c:184:TYR:HE2	2.19	0.40
35:2d:100:ARG:O	35:2d:104:VAL:HG23	2.21	0.40
44:2m:54:VAL:O	44:2m:58:GLU:N	2.42	0.40
2:1B:73:A:C4	2:1B:105:A:C2	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1O:64:ARG:HB2	10:1O:79:PHE:CG	2.56	0.40
32:1a:141:A:H1'	32:1a:182:U:O2	2.22	0.40
32:1a:1442:G:O2'	32:1a:1442(A):G:O5'	2.38	0.40
32:1a:1486:G:H2'	32:1a:1487:G:O4'	2.21	0.40
36:1e:143:ARG:NH1	39:1h:77:GLU:OE1	2.54	0.40
38:1g:72:ARG:O	38:1g:91:VAL:HG23	2.21	0.40
39:1h:28:ALA:HA	39:1h:59:LEU:HG	2.03	0.40
39:1h:96:GLY:H	39:1h:99:GLU:CD	2.29	0.40
53:1y:24:LEU:HD23	53:1y:24:LEU:HA	1.89	0.40
1:2A:239:U:O2'	1:2A:622:G:H4'	2.21	0.40
1:2A:301:G:OP2	20:2Y:84:ARG:NH2	2.54	0.40
1:2A:479:A:N3	1:2A:481:G:H5''	2.36	0.40
1:2A:538:G:H2'	1:2A:539:G:H8	1.86	0.40
1:2A:1404:C:O2'	1:2A:1405:U:H5'	2.22	0.40
1:2A:2106:G:C2	1:2A:2184:G:C2	3.10	0.40
1:2A:2251:OMG:H5'	60:2A:5418:HOH:O	2.22	0.40
1:2A:2647:U:H2'	1:2A:2648:C:H6	1.87	0.40
1:2A:2708:G:H1'	13:2R:71:GLN:HE22	1.87	0.40
5:2F:12:LEU:HD23	5:2F:13:SER:N	2.36	0.40
5:2F:150:GLY:HA2	5:2F:172:TRP:CD2	2.56	0.40
11:2P:121:LYS:HG3	11:2P:122:PRO:HD2	2.03	0.40
13:2R:30:THR:HG22	13:2R:31:HIS:CD2	2.56	0.40
15:2T:51:ARG:HB2	15:2T:98:LYS:HD2	2.03	0.40
15:2T:54:ARG:HA	15:2T:59:THR:HG23	2.02	0.40
15:2T:88:ILE:HG13	15:2T:91:ARG:NH2	2.36	0.40
20:2Y:21:LYS:HB2	20:2Y:21:LYS:HE3	1.75	0.40
20:2Y:40:GLU:O	20:2Y:42:VAL:HG23	2.20	0.40
20:2Y:55:TYR:CE2	20:2Y:61:ILE:HD13	2.56	0.40
21:2Z:153:SER:C	21:2Z:155:LEU:H	2.29	0.40
32:2a:123:C:OP1	32:2a:311:C:O2'	2.30	0.40
32:2a:526:C:OP2	43:2l:91:LYS:HE3	2.20	0.40
32:2a:664:G:P	49:2r:64:ARG:HH21	2.44	0.40
32:2a:718:G:C4	42:2k:116:HIS:CD2	3.09	0.40
33:2b:58:ILE:H	33:2b:58:ILE:HG12	1.62	0.40
33:2b:77:ALA:HA	33:2b:80:ILE:HG22	2.03	0.40
36:2e:80:ILE:HD12	39:2h:104:ARG:NH2	2.37	0.40
44:2m:92:HIS:CE1	44:2m:98:VAL:HG21	2.56	0.40
48:2q:54:GLY:HA2	48:2q:85:VAL:HG21	2.02	0.40
1:1A:569:U:N3	60:1A:4311:HOH:O	2.31	0.40
1:1A:721:C:H2'	1:1A:722:A:H8	1.87	0.40
1:1A:2251:OMG:OP2	1:1A:2251:OMG:H8	2.05	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:170:LEU:HD12	5:1F:170:LEU:HA	1.82	0.40
7:1H:55:PRO:HG2	7:1H:61:HIS:CE1	2.56	0.40
9:1N:138:LEU:HD23	9:1N:138:LEU:HA	1.64	0.40
21:1Z:150:LEU:HD12	21:1Z:150:LEU:HA	1.95	0.40
26:14:34:GLU:HB2	44:1m:57:ARG:CZ	2.51	0.40
32:1a:409:G:H2'	32:1a:410:G:O4'	2.22	0.40
32:1a:585:G:N3	32:1a:879:C:H4'	2.37	0.40
32:1a:691:G:H2'	32:1a:692:U:C6	2.57	0.40
32:1a:909:A:H2'	32:1a:910:C:O4'	2.21	0.40
32:1a:1513:A:H2'	32:1a:1514:C:C6	2.56	0.40
35:1d:62:GLN:O	35:1d:66:ARG:HD2	2.22	0.40
36:1e:45:PHE:HD2	36:1e:47:LYS:HE2	1.87	0.40
39:1h:116:LYS:HD2	39:1h:129:VAL:HG11	2.03	0.40
42:1k:54:ARG:O	42:1k:57:THR:OG1	2.37	0.40
45:1n:26:ARG:HD3	45:1n:43:CYS:HB3	2.02	0.40
46:1o:27:VAL:O	46:1o:31:LEU:HG	2.21	0.40
1:2A:271(L):U:OP1	8:2I:50:ARG:NH1	2.51	0.40
1:2A:1886:C:H2'	1:2A:1887:C:H6	1.87	0.40
1:2A:2567:G:H2'	1:2A:2568:C:C6	2.56	0.40
1:2A:2660:A:N7	7:2H:175:LYS:NZ	2.43	0.40
6:2G:51:ARG:HE	6:2G:51:ARG:HB2	1.66	0.40
14:2S:71:ARG:O	14:2S:75:GLU:HG2	2.21	0.40
21:2Z:128:VAL:HG22	21:2Z:132:ASN:HB3	2.03	0.40
25:23:19:GLN:O	25:23:23:LEU:HD22	2.21	0.40
32:2a:966:M2G:H1'	53:2y:53:THR:HG21	2.03	0.40
33:2b:71:VAL:HG11	33:2b:97:TRP:HE1	1.86	0.40
33:2b:74:LYS:NZ	33:2b:205:ASP:O	2.54	0.40
1:1A:1263:U:C4	1:1A:1264:G:C6	3.10	0.40
1:1A:2227:A:H5''	3:1D:263:ARG:NH1	2.37	0.40
1:1A:2820:A:P	13:1R:2:ARG:HH22	2.45	0.40
7:1H:149:ARG:NH1	7:1H:167:GLU:OE2	2.53	0.40
8:1I:5:LEU:HD21	8:1I:12:LEU:HD22	2.03	0.40
12:1Q:109:VAL:HG13	12:1Q:113:GLN:HB2	2.04	0.40
15:1T:55:ASN:N	15:1T:59:THR:HG22	2.14	0.40
26:14:59:PHE:HE1	50:1s:67:VAL:HG21	1.86	0.40
32:1a:60:A:N1	32:1a:107:G:O2'	2.52	0.40
32:1a:657:G:C2	32:1a:750:G:C5	3.09	0.40
32:1a:1309:G:OP2	44:1m:99:ARG:NH2	2.42	0.40
32:1a:1315:U:H2'	32:1a:1316:G:O4'	2.21	0.40
42:1k:89:ALA:C	42:1k:91:ARG:H	2.28	0.40
43:1l:109:GLY:HA3	43:1l:121:GLY:O	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1q:74:LEU:HG	48:1q:75:ARG:HG2	2.04	0.40
53:1y:95:ARG:HD3	53:1y:95:ARG:HA	1.74	0.40
1:2A:218:A:C2	1:2A:235:U:H4'	2.56	0.40
1:2A:643:A:C8	28:26:44:ARG:NH1	2.90	0.40
1:2A:805:G:H5''	11:2P:38:GLN:HG3	2.02	0.40
1:2A:824:A:H2'	1:2A:825:C:O4'	2.22	0.40
1:2A:1291:C:H2'	1:2A:1292:U:C6	2.56	0.40
1:2A:1839:G:N7	1:2A:1927:A:H1'	2.37	0.40
1:2A:2693:A:H2'	1:2A:2694:G:C8	2.54	0.40
6:2G:96:ARG:N	6:2G:99:MET:HE2	2.36	0.40
12:2Q:43:THR:HG23	12:2Q:46:GLN:CD	2.47	0.40
21:2Z:7:ALA:C	21:2Z:8:TYR:HD2	2.29	0.40
21:2Z:108:PRO:HB2	21:2Z:111:VAL:HG23	2.03	0.40
21:2Z:183:LEU:HD23	21:2Z:183:LEU:HA	1.91	0.40
27:25:16:ARG:HG2	27:25:17:ASP:OD1	2.22	0.40
32:2a:674:G:H8	32:2a:674:G:O5'	2.05	0.40
33:2b:69:LEU:HD13	33:2b:155:LEU:HD13	2.02	0.40
35:2d:119:GLN:HG3	35:2d:123:HIS:HD1	1.86	0.40
37:2f:10:LEU:HD11	37:2f:61:LEU:HD22	2.03	0.40
42:2k:62:GLN:HB2	42:2k:93:GLN:HG3	2.04	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%)	260 (95%)	13 (5%)	0	100	100
3	2D	273/276 (99%)	256 (94%)	17 (6%)	0	100	100
4	1E	202/206 (98%)	193 (96%)	8 (4%)	1 (0%)	24	42
4	2E	202/206 (98%)	189 (94%)	12 (6%)	1 (0%)	24	42

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
5	1F	201/210 (96%)	195 (97%)	5 (2%)	1 (0%)	24	42
5	2F	201/210 (96%)	186 (92%)	14 (7%)	1 (0%)	24	42
6	1G	179/182 (98%)	159 (89%)	18 (10%)	2 (1%)	11	24
6	2G	179/182 (98%)	159 (89%)	18 (10%)	2 (1%)	11	24
7	1H	172/180 (96%)	158 (92%)	13 (8%)	1 (1%)	21	38
7	2H	171/180 (95%)	148 (86%)	21 (12%)	2 (1%)	10	22
8	1I	145/148 (98%)	129 (89%)	15 (10%)	1 (1%)	18	35
8	2I	144/148 (97%)	124 (86%)	18 (12%)	2 (1%)	9	19
9	1N	138/140 (99%)	132 (96%)	6 (4%)	0	100	100
9	2N	138/140 (99%)	132 (96%)	3 (2%)	3 (2%)	5	12
10	1O	120/122 (98%)	114 (95%)	5 (4%)	1 (1%)	16	31
10	2O	120/122 (98%)	114 (95%)	5 (4%)	1 (1%)	16	31
11	1P	147/150 (98%)	137 (93%)	9 (6%)	1 (1%)	18	35
11	2P	147/150 (98%)	137 (93%)	8 (5%)	2 (1%)	9	19
12	1Q	139/141 (99%)	130 (94%)	8 (6%)	1 (1%)	18	35
12	2Q	139/141 (99%)	131 (94%)	7 (5%)	1 (1%)	18	35
13	1R	116/118 (98%)	108 (93%)	8 (7%)	0	100	100
13	2R	116/118 (98%)	110 (95%)	6 (5%)	0	100	100
14	1S	108/112 (96%)	102 (94%)	6 (6%)	0	100	100
14	2S	108/112 (96%)	100 (93%)	5 (5%)	3 (3%)	4	9
15	1T	129/146 (88%)	120 (93%)	9 (7%)	0	100	100
15	2T	129/146 (88%)	123 (95%)	6 (5%)	0	100	100
16	1U	114/118 (97%)	111 (97%)	3 (3%)	0	100	100
16	2U	114/118 (97%)	110 (96%)	4 (4%)	0	100	100
17	1V	99/101 (98%)	92 (93%)	6 (6%)	1 (1%)	12	25
17	2V	99/101 (98%)	91 (92%)	6 (6%)	2 (2%)	6	13
18	1W	110/113 (97%)	110 (100%)	0	0	100	100
18	2W	110/113 (97%)	109 (99%)	1 (1%)	0	100	100
19	1X	93/96 (97%)	90 (97%)	3 (3%)	0	100	100
19	2X	93/96 (97%)	87 (94%)	5 (5%)	1 (1%)	11	24
20	1Y	105/110 (96%)	96 (91%)	9 (9%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
20	2Y	105/110 (96%)	96 (91%)	9 (9%)	0	100	100
21	1Z	201/206 (98%)	187 (93%)	14 (7%)	0	100	100
21	2Z	199/206 (97%)	174 (87%)	25 (13%)	0	100	100
22	10	75/85 (88%)	73 (97%)	2 (3%)	0	100	100
22	20	75/85 (88%)	72 (96%)	3 (4%)	0	100	100
23	11	95/98 (97%)	94 (99%)	0	1 (1%)	11	24
23	21	95/98 (97%)	91 (96%)	3 (3%)	1 (1%)	11	24
24	12	68/72 (94%)	67 (98%)	1 (2%)	0	100	100
24	22	68/72 (94%)	63 (93%)	5 (7%)	0	100	100
25	13	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
25	23	57/60 (95%)	54 (95%)	2 (4%)	1 (2%)	6	15
26	14	67/71 (94%)	49 (73%)	14 (21%)	4 (6%)	1	2
26	24	67/71 (94%)	48 (72%)	13 (19%)	6 (9%)	0	0
27	15	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
27	25	57/60 (95%)	53 (93%)	3 (5%)	1 (2%)	6	15
28	16	51/54 (94%)	49 (96%)	2 (4%)	0	100	100
28	26	51/54 (94%)	50 (98%)	1 (2%)	0	100	100
29	17	46/49 (94%)	46 (100%)	0	0	100	100
29	27	46/49 (94%)	46 (100%)	0	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%)	32 (91%)	3 (9%)	0	100	100
33	1b	229/256 (90%)	192 (84%)	27 (12%)	10 (4%)	2	3
33	2b	229/256 (90%)	192 (84%)	32 (14%)	5 (2%)	5	12
34	1c	204/239 (85%)	189 (93%)	15 (7%)	0	100	100
34	2c	204/239 (85%)	177 (87%)	25 (12%)	2 (1%)	12	25
35	1d	206/209 (99%)	186 (90%)	18 (9%)	2 (1%)	12	25
35	2d	206/209 (99%)	189 (92%)	17 (8%)	0	100	100
36	1e	146/162 (90%)	129 (88%)	16 (11%)	1 (1%)	18	35
36	2e	146/162 (90%)	140 (96%)	6 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
37	1f	98/101 (97%)	92 (94%)	6 (6%)	0	100	100
37	2f	98/101 (97%)	93 (95%)	5 (5%)	0	100	100
38	1g	153/156 (98%)	146 (95%)	7 (5%)	0	100	100
38	2g	153/156 (98%)	141 (92%)	11 (7%)	1 (1%)	18	35
39	1h	135/138 (98%)	130 (96%)	5 (4%)	0	100	100
39	2h	135/138 (98%)	124 (92%)	10 (7%)	1 (1%)	18	35
40	1i	125/128 (98%)	113 (90%)	10 (8%)	2 (2%)	7	17
40	2i	124/128 (97%)	106 (86%)	15 (12%)	3 (2%)	4	10
41	1j	95/105 (90%)	74 (78%)	16 (17%)	5 (5%)	1	2
41	2j	94/105 (90%)	80 (85%)	11 (12%)	3 (3%)	3	7
42	1k	112/129 (87%)	99 (88%)	12 (11%)	1 (1%)	14	28
42	2k	112/129 (87%)	102 (91%)	10 (9%)	0	100	100
43	1l	119/132 (90%)	106 (89%)	11 (9%)	2 (2%)	7	16
43	2l	119/132 (90%)	109 (92%)	9 (8%)	1 (1%)	16	31
44	1m	114/126 (90%)	105 (92%)	7 (6%)	2 (2%)	6	15
44	2m	112/126 (89%)	97 (87%)	13 (12%)	2 (2%)	6	15
45	1n	58/61 (95%)	53 (91%)	5 (9%)	0	100	100
45	2n	58/61 (95%)	54 (93%)	3 (5%)	1 (2%)	7	16
46	1o	86/89 (97%)	84 (98%)	1 (1%)	1 (1%)	10	22
46	2o	86/89 (97%)	79 (92%)	7 (8%)	0	100	100
47	1p	80/88 (91%)	70 (88%)	9 (11%)	1 (1%)	9	21
47	2p	80/88 (91%)	72 (90%)	8 (10%)	0	100	100
48	1q	97/105 (92%)	86 (89%)	11 (11%)	0	100	100
48	2q	97/105 (92%)	90 (93%)	6 (6%)	1 (1%)	12	25
49	1r	66/88 (75%)	61 (92%)	4 (6%)	1 (2%)	8	18
49	2r	66/88 (75%)	61 (92%)	5 (8%)	0	100	100
50	1s	81/93 (87%)	70 (86%)	10 (12%)	1 (1%)	10	22
50	2s	81/93 (87%)	66 (82%)	15 (18%)	0	100	100
51	1t	94/106 (89%)	85 (90%)	6 (6%)	3 (3%)	3	7
51	2t	96/106 (91%)	88 (92%)	7 (7%)	1 (1%)	12	25
52	1u	21/27 (78%)	19 (90%)	2 (10%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
52	2u	21/27 (78%)	17 (81%)	4 (19%)	0	100	100
53	1y	95/113 (84%)	92 (97%)	3 (3%)	0	100	100
53	2y	94/113 (83%)	86 (92%)	7 (7%)	1 (1%)	11	24
All	All	11629/12354 (94%)	10696 (92%)	834 (7%)	99 (1%)	14	28

All (99) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	1F	130	ALA
6	1G	47	LYS
7	1H	92	ILE
26	14	49	PHE
33	1b	8	LYS
33	1b	9	GLU
33	1b	17	PHE
33	1b	124	SER
33	1b	231	GLU
35	1d	173	TRP
40	1i	11	LYS
4	2E	51	PHE
26	24	53	GLU
26	24	60	GLN
26	24	62	ARG
33	2b	17	PHE
10	1O	89	ASN
12	1Q	59	ARG
17	1V	79	VAL
26	14	44	THR
26	14	55	ARG
33	1b	21	ARG
41	1j	55	LYS
43	1l	91	LYS
47	1p	81	ARG
49	1r	25	THR
51	1t	47	GLY
6	2G	81	LYS
7	2H	55	PRO
10	2O	5	GLN
12	2Q	59	ARG
14	2S	96	GLY
17	2V	79	VAL

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Mol	Chain	Res	Type
19	2X	94	GLY
23	2l	3	LYS
44	2m	67	GLU
44	2m	95	GLY
33	1b	37	ASN
33	1b	127	ILE
41	1j	31	GLY
44	1m	3	ARG
44	1m	67	GLU
51	1t	95	ALA
5	2F	133	ASN
8	2I	10	GLU
8	2I	117	GLU
9	2N	137	LYS
11	2P	29	LYS
33	2b	10	LEU
33	2b	20	GLU
33	2b	125	PRO
38	2g	7	ALA
39	2h	70	GLN
41	2j	79	ARG
4	1E	52	LEU
6	1G	48	GLU
8	1I	85	GLU
11	1P	29	LYS
33	1b	10	LEU
41	1j	78	ASN
50	1s	7	LYS
14	2S	31	SER
17	2V	100	ARG
26	24	44	THR
34	2c	95	THR
34	2c	156	ARG
40	2i	43	ALA
40	2i	121	ARG
41	2j	30	SER
41	2j	78	ASN
43	2l	105	TYR
26	14	39	CYS
33	1b	20	GLU
40	1i	56	LEU
41	1j	77	PRO

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Mol	Chain	Res	Type
9	2N	48	MET
26	24	49	PHE
26	24	55	ARG
27	25	35	GLU
40	2i	96	LEU
45	2n	12	ARG
53	2y	45	PRO
23	1l	3	LYS
46	1o	86	GLY
9	2N	129	PRO
48	2q	14	LYS
51	1t	100	ILE
14	2S	35	ILE
36	1e	77	PRO
6	2G	42	GLY
11	2P	122	PRO
35	1d	37	PRO
41	1j	93	GLY
42	1k	105	VAL
43	1l	74	GLY
7	2H	12	PRO
25	23	50	VAL
33	2b	232	PRO
51	2t	47	GLY

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%)	191 (89%)	23 (11%)	6	13
3	2D	215/218 (99%)	190 (88%)	25 (12%)	5	10
4	1E	164/166 (99%)	145 (88%)	19 (12%)	5	10
4	2E	164/166 (99%)	141 (86%)	23 (14%)	3	6
5	1F	160/166 (96%)	136 (85%)	24 (15%)	3	5

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
5	2F	159/166 (96%)	135 (85%)	24 (15%)	3	5
6	1G	144/156 (92%)	130 (90%)	14 (10%)	8	17
6	2G	142/156 (91%)	122 (86%)	20 (14%)	3	6
7	1H	144/148 (97%)	126 (88%)	18 (12%)	4	8
7	2H	143/148 (97%)	119 (83%)	24 (17%)	2	3
8	1I	111/124 (90%)	97 (87%)	14 (13%)	4	8
8	2I	108/124 (87%)	93 (86%)	15 (14%)	3	6
9	1N	119/119 (100%)	104 (87%)	15 (13%)	4	8
9	2N	118/119 (99%)	95 (80%)	23 (20%)	1	2
10	1O	100/100 (100%)	91 (91%)	9 (9%)	9	19
10	2O	100/100 (100%)	93 (93%)	7 (7%)	14	29
11	1P	115/116 (99%)	103 (90%)	12 (10%)	7	14
11	2P	115/116 (99%)	108 (94%)	7 (6%)	17	35
12	1Q	111/111 (100%)	102 (92%)	9 (8%)	11	23
12	2Q	111/111 (100%)	96 (86%)	15 (14%)	4	7
13	1R	101/101 (100%)	90 (89%)	11 (11%)	6	12
13	2R	101/101 (100%)	84 (83%)	17 (17%)	2	3
14	1S	87/88 (99%)	77 (88%)	10 (12%)	5	10
14	2S	85/88 (97%)	76 (89%)	9 (11%)	6	13
15	1T	115/127 (91%)	108 (94%)	7 (6%)	17	35
15	2T	113/127 (89%)	101 (89%)	12 (11%)	6	13
16	1U	93/94 (99%)	80 (86%)	13 (14%)	3	6
16	2U	93/94 (99%)	88 (95%)	5 (5%)	20	42
17	1V	81/82 (99%)	73 (90%)	8 (10%)	7	16
17	2V	80/82 (98%)	71 (89%)	9 (11%)	5	11
18	1W	90/92 (98%)	83 (92%)	7 (8%)	11	25
18	2W	90/92 (98%)	79 (88%)	11 (12%)	5	9
19	1X	77/78 (99%)	72 (94%)	5 (6%)	15	32
19	2X	77/78 (99%)	71 (92%)	6 (8%)	11	25
20	1Y	86/91 (94%)	77 (90%)	9 (10%)	6	13
20	2Y	86/91 (94%)	79 (92%)	7 (8%)	11	23

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
21	1Z	169/179 (94%)	152 (90%)	17 (10%)	7	15
21	2Z	165/179 (92%)	147 (89%)	18 (11%)	6	12
22	10	61/67 (91%)	58 (95%)	3 (5%)	22	45
22	20	61/67 (91%)	59 (97%)	2 (3%)	33	58
23	11	79/83 (95%)	75 (95%)	4 (5%)	21	43
23	21	81/83 (98%)	73 (90%)	8 (10%)	7	16
24	12	65/67 (97%)	61 (94%)	4 (6%)	16	34
24	22	66/67 (98%)	61 (92%)	5 (8%)	12	26
25	13	51/52 (98%)	45 (88%)	6 (12%)	5	10
25	23	50/52 (96%)	44 (88%)	6 (12%)	5	9
26	14	58/63 (92%)	52 (90%)	6 (10%)	7	14
26	24	54/63 (86%)	47 (87%)	7 (13%)	4	7
27	15	51/52 (98%)	47 (92%)	4 (8%)	11	25
27	25	50/52 (96%)	47 (94%)	3 (6%)	17	36
28	16	51/52 (98%)	47 (92%)	4 (8%)	11	25
28	26	50/52 (96%)	46 (92%)	4 (8%)	11	24
29	17	41/42 (98%)	39 (95%)	2 (5%)	22	45
29	27	41/42 (98%)	36 (88%)	5 (12%)	5	9
30	18	54/55 (98%)	51 (94%)	3 (6%)	19	40
30	28	54/55 (98%)	48 (89%)	6 (11%)	6	12
31	19	34/34 (100%)	31 (91%)	3 (9%)	9	20
31	29	34/34 (100%)	31 (91%)	3 (9%)	9	20
33	1b	191/220 (87%)	159 (83%)	32 (17%)	2	3
33	2b	187/220 (85%)	165 (88%)	22 (12%)	5	10
34	1c	144/188 (77%)	132 (92%)	12 (8%)	10	22
34	2c	140/188 (74%)	124 (89%)	16 (11%)	5	11
35	1d	171/181 (94%)	150 (88%)	21 (12%)	4	8
35	2d	172/181 (95%)	156 (91%)	16 (9%)	8	18
36	1e	114/123 (93%)	107 (94%)	7 (6%)	17	35
36	2e	114/123 (93%)	102 (90%)	12 (10%)	6	13
37	1f	85/90 (94%)	76 (89%)	9 (11%)	6	13

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
37	2f	85/90 (94%)	80 (94%)	5 (6%)	18	37
38	1g	120/127 (94%)	109 (91%)	11 (9%)	8	19
38	2g	119/127 (94%)	111 (93%)	8 (7%)	15	31
39	1h	116/119 (98%)	101 (87%)	15 (13%)	4	7
39	2h	114/119 (96%)	101 (89%)	13 (11%)	5	11
40	1i	91/99 (92%)	78 (86%)	13 (14%)	3	6
40	2i	88/99 (89%)	74 (84%)	14 (16%)	2	4
41	1j	68/92 (74%)	58 (85%)	10 (15%)	3	5
41	2j	68/92 (74%)	56 (82%)	12 (18%)	2	3
42	1k	83/99 (84%)	74 (89%)	9 (11%)	6	12
42	2k	83/99 (84%)	75 (90%)	8 (10%)	8	17
43	1l	96/108 (89%)	90 (94%)	6 (6%)	16	34
43	2l	96/108 (89%)	87 (91%)	9 (9%)	8	18
44	1m	90/101 (89%)	79 (88%)	11 (12%)	5	9
44	2m	87/101 (86%)	75 (86%)	12 (14%)	3	7
45	1n	49/50 (98%)	43 (88%)	6 (12%)	5	9
45	2n	49/50 (98%)	41 (84%)	8 (16%)	2	4
46	1o	78/80 (98%)	69 (88%)	9 (12%)	5	10
46	2o	78/80 (98%)	69 (88%)	9 (12%)	5	10
47	1p	69/74 (93%)	58 (84%)	11 (16%)	2	4
47	2p	68/74 (92%)	60 (88%)	8 (12%)	5	10
48	1q	94/97 (97%)	85 (90%)	9 (10%)	8	17
48	2q	94/97 (97%)	84 (89%)	10 (11%)	6	13
49	1r	59/77 (77%)	54 (92%)	5 (8%)	10	22
49	2r	59/77 (77%)	53 (90%)	6 (10%)	7	15
50	1s	68/80 (85%)	60 (88%)	8 (12%)	5	10
50	2s	67/80 (84%)	53 (79%)	14 (21%)	1	1
51	1t	71/82 (87%)	64 (90%)	7 (10%)	7	16
51	2t	70/82 (85%)	62 (89%)	8 (11%)	5	11
52	1u	18/22 (82%)	16 (89%)	2 (11%)	6	12
52	2u	18/22 (82%)	18 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
53	1y	82/98 (84%)	78 (95%)	4 (5%)	22	45
53	2y	79/98 (81%)	68 (86%)	11 (14%)	3	6
All	All	9524/10260 (93%)	8477 (89%)	1047 (11%)	6	12

All (1047) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	37	LEU
3	1D	39	LYS
3	1D	61	LEU
3	1D	69	ARG
3	1D	94	LEU
3	1D	103	ARG
3	1D	111	LEU
3	1D	113	VAL
3	1D	116	GLN
3	1D	127	VAL
3	1D	142	VAL
3	1D	155	LEU
3	1D	165	ILE
3	1D	173	VAL
3	1D	175	LEU
3	1D	183	ARG
3	1D	193	VAL
3	1D	211	ARG
3	1D	221	VAL
3	1D	229	VAL
3	1D	242	ARG
3	1D	259	THR
3	1D	273	ARG
4	1E	1	MET
4	1E	7	VAL
4	1E	9	VAL
4	1E	21	VAL
4	1E	41	LYS
4	1E	49	LEU
4	1E	55	ASN
4	1E	75	VAL
4	1E	78	LEU
4	1E	116	VAL
4	1E	119	ARG

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Mol	Chain	Res	Type
4	1E	144	ARG
4	1E	170	LEU
4	1E	175	VAL
4	1E	178	GLU
4	1E	181	LEU
4	1E	188	VAL
4	1E	202	LYS
4	1E	203	LYS
5	1F	12	LEU
5	1F	24	LEU
5	1F	32	LEU
5	1F	33	LEU
5	1F	37	VAL
5	1F	53	THR
5	1F	57	VAL
5	1F	60	SER
5	1F	74	ARG
5	1F	88	VAL
5	1F	108	LYS
5	1F	110	LEU
5	1F	125	LEU
5	1F	132	VAL
5	1F	140	LEU
5	1F	145	GLU
5	1F	157	VAL
5	1F	158	THR
5	1F	162	LEU
5	1F	170	LEU
5	1F	183	VAL
5	1F	192	LEU
5	1F	197	ASP
5	1F	201	VAL
6	1G	5	VAL
6	1G	7	LEU
6	1G	21	ARG
6	1G	30	GLU
6	1G	43	LEU
6	1G	52	ILE
6	1G	58	GLN
6	1G	86	MET
6	1G	133	LEU
6	1G	140	ILE

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Mol	Chain	Res	Type
6	1G	149	VAL
6	1G	159	VAL
6	1G	165	THR
6	1G	166	ASP
7	1H	4	ILE
7	1H	15	VAL
7	1H	23	ARG
7	1H	24	VAL
7	1H	43	VAL
7	1H	45	VAL
7	1H	49	VAL
7	1H	52	VAL
7	1H	71	LEU
7	1H	98	LEU
7	1H	105	LEU
7	1H	107	VAL
7	1H	113	VAL
7	1H	119	GLU
7	1H	122	THR
7	1H	124	GLU
7	1H	149	ARG
7	1H	172	LYS
8	1I	5	LEU
8	1I	9	LEU
8	1I	31	LEU
8	1I	38	LEU
8	1I	40	THR
8	1I	44	LEU
8	1I	47	LEU
8	1I	61	ARG
8	1I	68	LEU
8	1I	78	THR
8	1I	92	VAL
8	1I	108	THR
8	1I	109	ILE
8	1I	140	LEU
9	1N	9	VAL
9	1N	12	ARG
9	1N	14	VAL
9	1N	33	LEU
9	1N	34	LEU
9	1N	48	MET

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Mol	Chain	Res	Type
9	1N	60	ILE
9	1N	61	ARG
9	1N	62	VAL
9	1N	67	LEU
9	1N	87	LEU
9	1N	89	LYS
9	1N	97	ARG
9	1N	99	LEU
9	1N	133	GLN
10	1O	8	LEU
10	1O	10	VAL
10	1O	21	CYS
10	1O	24	VAL
10	1O	39	ILE
10	1O	94	ARG
10	1O	97	ARG
10	1O	98	VAL
10	1O	102	VAL
11	1P	59	LEU
11	1P	64	LYS
11	1P	65	ARG
11	1P	75	ILE
11	1P	83	VAL
11	1P	90	ARG
11	1P	95	VAL
11	1P	99	LEU
11	1P	112	LEU
11	1P	125	VAL
11	1P	147	LEU
11	1P	149	GLU
12	1Q	2	LEU
12	1Q	5	ARG
12	1Q	6	ARG
12	1Q	7	MET
12	1Q	55	VAL
12	1Q	75	THR
12	1Q	81	VAL
12	1Q	109	VAL
12	1Q	133	ARG
13	1R	29	LEU
13	1R	33	ARG
13	1R	36	THR

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Mol	Chain	Res	Type
13	1R	44	LEU
13	1R	54	LEU
13	1R	65	LEU
13	1R	67	LEU
13	1R	75	LEU
13	1R	95	THR
13	1R	100	LEU
13	1R	111	LEU
14	1S	14	VAL
14	1S	36	TYR
14	1S	46	VAL
14	1S	50	SER
14	1S	57	LYS
14	1S	59	LYS
14	1S	69	VAL
14	1S	80	LEU
14	1S	85	VAL
14	1S	110	LEU
15	1T	13	ARG
15	1T	28	VAL
15	1T	33	LYS
15	1T	39	ARG
15	1T	53	ARG
15	1T	59	THR
15	1T	128	GLU
16	1U	5	LYS
16	1U	8	VAL
16	1U	16	LYS
16	1U	31	SER
16	1U	34	LYS
16	1U	52	ARG
16	1U	59	ARG
16	1U	74	LEU
16	1U	77	SER
16	1U	83	LEU
16	1U	95	LEU
16	1U	104	GLN
16	1U	117	GLN
17	1V	35	LEU
17	1V	52	VAL
17	1V	61	VAL
17	1V	62	LEU

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Mol	Chain	Res	Type
17	1V	70	ILE
17	1V	72	VAL
17	1V	79	VAL
17	1V	82	ARG
18	1W	11	ARG
18	1W	17	VAL
18	1W	19	LEU
18	1W	23	LEU
18	1W	95	ILE
18	1W	100	THR
18	1W	107	LEU
19	1X	14	SER
19	1X	35	THR
19	1X	66	LEU
19	1X	68	ARG
19	1X	81	VAL
20	1Y	7	VAL
20	1Y	34	LYS
20	1Y	43	ASN
20	1Y	51	VAL
20	1Y	72	VAL
20	1Y	81	LYS
20	1Y	85	VAL
20	1Y	91	GLU
20	1Y	99	CYS
21	1Z	31	ARG
21	1Z	41	LEU
21	1Z	61	LEU
21	1Z	66	SER
21	1Z	74	VAL
21	1Z	76	LEU
21	1Z	86	VAL
21	1Z	91	LEU
21	1Z	96	VAL
21	1Z	97	GLU
21	1Z	119	GLU
21	1Z	126	VAL
21	1Z	150	LEU
21	1Z	155	LEU
21	1Z	161	VAL
21	1Z	170	THR
21	1Z	191	VAL

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Mol	Chain	Res	Type
22	10	14	ARG
22	10	39	ARG
22	10	59	LEU
23	11	21	ARG
23	11	30	VAL
23	11	59	THR
23	11	95	LEU
24	12	1	MET
24	12	24	LEU
24	12	32	LEU
24	12	53	LEU
25	13	3	ARG
25	13	6	VAL
25	13	8	LEU
25	13	23	LEU
25	13	54	VAL
25	13	58	VAL
26	14	1	MET
26	14	35	VAL
26	14	49	PHE
26	14	56	VAL
26	14	60	GLN
26	14	67	TYR
27	15	6	VAL
27	15	16	ARG
27	15	29	THR
27	15	58	LEU
28	16	9	LEU
28	16	19	ARG
28	16	48	VAL
28	16	52	VAL
29	17	24	THR
29	17	43	THR
30	18	14	VAL
30	18	15	LYS
30	18	32	LEU
31	19	17	ILE
31	19	28	GLU
31	19	35	ARG
33	1b	15	VAL
33	1b	21	ARG
33	1b	32	ILE

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Mol	Chain	Res	Type
33	1b	41	ILE
33	1b	44	LEU
33	1b	67	THR
33	1b	71	VAL
33	1b	76	GLN
33	1b	80	ILE
33	1b	90	MET
33	1b	93	VAL
33	1b	98	LEU
33	1b	111	ARG
33	1b	112	VAL
33	1b	118	LEU
33	1b	121	LEU
33	1b	124	SER
33	1b	128	GLU
33	1b	135	GLN
33	1b	157	ARG
33	1b	178	ARG
33	1b	185	ILE
33	1b	189	ASP
33	1b	196	LEU
33	1b	200	ILE
33	1b	208	ILE
33	1b	211	ILE
33	1b	212	GLN
33	1b	213	LEU
33	1b	221	LEU
33	1b	230	VAL
33	1b	233	SER
34	1c	3	ASN
34	1c	43	LEU
34	1c	52	LEU
34	1c	105	GLU
34	1c	115	LEU
34	1c	116	VAL
34	1c	119	ARG
34	1c	192	THR
34	1c	195	VAL
34	1c	196	LEU
34	1c	198	VAL
34	1c	207	VAL
35	1d	3	ARG

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Mol	Chain	Res	Type
35	1d	17	VAL
35	1d	19	LEU
35	1d	26	CYS
35	1d	58	LEU
35	1d	76	ARG
35	1d	86	LYS
35	1d	101	LEU
35	1d	104	VAL
35	1d	135	LEU
35	1d	148	VAL
35	1d	155	LEU
35	1d	157	LEU
35	1d	158	ILE
35	1d	168	ARG
35	1d	170	VAL
35	1d	177	ASP
35	1d	178	VAL
35	1d	188	LEU
35	1d	190	ASP
35	1d	196	LEU
36	1e	38	GLN
36	1e	41	VAL
36	1e	65	ASN
36	1e	69	VAL
36	1e	78	HIS
36	1e	79	GLU
36	1e	91	LEU
37	1f	61	LEU
37	1f	63	TYR
37	1f	69	GLU
37	1f	72	VAL
37	1f	74	ASP
37	1f	89	MET
37	1f	91	VAL
37	1f	94	GLN
37	1f	98	LEU
38	1g	6	ARG
38	1g	15	ASP
38	1g	16	LEU
38	1g	21	VAL
38	1g	24	THR
38	1g	41	ARG

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Mol	Chain	Res	Type
38	1g	75	VAL
38	1g	91	VAL
38	1g	110	GLN
38	1g	113	GLU
38	1g	144	MET
39	1h	3	THR
39	1h	19	VAL
39	1h	24	THR
39	1h	25	ASP
39	1h	26	VAL
39	1h	39	LEU
39	1h	51	VAL
39	1h	52	ASP
39	1h	63	LEU
39	1h	64	LYS
39	1h	95	VAL
39	1h	107	LEU
39	1h	109	ILE
39	1h	121	ASP
39	1h	137	VAL
40	1i	14	VAL
40	1i	27	THR
40	1i	41	VAL
40	1i	47	LEU
40	1i	53	VAL
40	1i	64	THR
40	1i	65	VAL
40	1i	75	ASP
40	1i	81	ILE
40	1i	103	THR
40	1i	104	ARG
40	1i	108	VAL
40	1i	125	TYR
41	1j	16	LEU
41	1j	38	ILE
41	1j	43	ARG
41	1j	46	ARG
41	1j	65	LEU
41	1j	72	VAL
41	1j	84	GLN
41	1j	92	THR
41	1j	94	VAL

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Mol	Chain	Res	Type
41	1j	100	THR
42	1k	14	VAL
42	1k	79	SER
42	1k	81	ASP
42	1k	84	VAL
42	1k	87	THR
42	1k	91	ARG
42	1k	105	VAL
42	1k	109	VAL
42	1k	114	VAL
43	1l	27	LEU
43	1l	33	ARG
43	1l	58	VAL
43	1l	60	LEU
43	1l	83	VAL
43	1l	113	ARG
44	1m	11	ARG
44	1m	19	LEU
44	1m	29	ARG
44	1m	35	GLU
44	1m	70	LEU
44	1m	81	LEU
44	1m	98	VAL
44	1m	102	ARG
44	1m	105	THR
44	1m	106	ASN
44	1m	114	ARG
45	1n	3	ARG
45	1n	6	LEU
45	1n	8	GLU
45	1n	18	VAL
45	1n	32	SER
45	1n	33	VAL
46	1o	3	ILE
46	1o	5	LYS
46	1o	24	SER
46	1o	34	LEU
46	1o	39	LEU
46	1o	66	LEU
46	1o	76	GLU
46	1o	87	ILE
46	1o	88	ARG

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Mol	Chain	Res	Type
47	1p	2	VAL
47	1p	6	LEU
47	1p	11	SER
47	1p	25	ARG
47	1p	29	ASP
47	1p	42	ARG
47	1p	45	THR
47	1p	60	LEU
47	1p	61	SER
47	1p	62	VAL
47	1p	67	THR
48	1q	9	VAL
48	1q	16	GLN
48	1q	19	VAL
48	1q	43	LEU
48	1q	62	SER
48	1q	63	ARG
48	1q	85	VAL
48	1q	87	LYS
48	1q	97	SER
49	1r	25	THR
49	1r	37	VAL
49	1r	46	GLU
49	1r	58	LEU
49	1r	82	THR
50	1s	3	ARG
50	1s	4	SER
50	1s	41	VAL
50	1s	48	THR
50	1s	51	VAL
50	1s	65	ASN
50	1s	67	VAL
50	1s	71	LEU
51	1t	8	ARG
51	1t	9	ASN
51	1t	15	ARG
51	1t	37	SER
51	1t	62	LEU
51	1t	72	LEU
51	1t	84	LEU
52	1u	15	ARG
52	1u	17	THR

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Mol	Chain	Res	Type
53	1y	3	MET
53	1y	24	LEU
53	1y	53	THR
53	1y	60	VAL
3	2D	3	VAL
3	2D	61	LEU
3	2D	71	ASP
3	2D	75	ILE
3	2D	94	LEU
3	2D	98	VAL
3	2D	103	ARG
3	2D	111	LEU
3	2D	113	VAL
3	2D	127	VAL
3	2D	138	VAL
3	2D	141	VAL
3	2D	142	VAL
3	2D	150	LYS
3	2D	155	LEU
3	2D	173	VAL
3	2D	183	ARG
3	2D	193	VAL
3	2D	211	ARG
3	2D	217	ARG
3	2D	221	VAL
3	2D	229	VAL
3	2D	242	ARG
3	2D	274	ARG
3	2D	275	LYS
4	2E	1	MET
4	2E	9	VAL
4	2E	12	THR
4	2E	14	ILE
4	2E	21	VAL
4	2E	24	THR
4	2E	33	VAL
4	2E	34	VAL
4	2E	38	THR
4	2E	47	VAL
4	2E	52	LEU
4	2E	72	VAL
4	2E	75	VAL

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Mol	Chain	Res	Type
4	2E	77	ILE
4	2E	78	LEU
4	2E	97	LYS
4	2E	116	VAL
4	2E	144	ARG
4	2E	167	VAL
4	2E	170	LEU
4	2E	175	VAL
4	2E	181	LEU
4	2E	202	LYS
5	2F	24	LEU
5	2F	33	LEU
5	2F	51	THR
5	2F	57	VAL
5	2F	60	SER
5	2F	70	THR
5	2F	74	ARG
5	2F	78	ILE
5	2F	88	VAL
5	2F	126	VAL
5	2F	133	ASN
5	2F	140	LEU
5	2F	153	SER
5	2F	158	THR
5	2F	162	LEU
5	2F	168	ARG
5	2F	170	LEU
5	2F	175	THR
5	2F	179	GLU
5	2F	183	VAL
5	2F	192	LEU
5	2F	195	ASP
5	2F	197	ASP
5	2F	201	VAL
6	2G	3	LEU
6	2G	5	VAL
6	2G	28	VAL
6	2G	40	ASN
6	2G	43	LEU
6	2G	49	ASP
6	2G	86	MET
6	2G	91	ARG

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Mol	Chain	Res	Type
6	2G	92	VAL
6	2G	113	ARG
6	2G	115	ARG
6	2G	126	ASP
6	2G	133	LEU
6	2G	149	VAL
6	2G	155	MET
6	2G	159	VAL
6	2G	161	THR
6	2G	164	GLU
6	2G	172	LEU
6	2G	175	LEU
7	2H	4	ILE
7	2H	11	VAL
7	2H	16	SER
7	2H	23	ARG
7	2H	32	GLU
7	2H	33	LEU
7	2H	38	SER
7	2H	44	VAL
7	2H	46	GLU
7	2H	47	GLU
7	2H	50	VAL
7	2H	71	LEU
7	2H	88	LEU
7	2H	98	LEU
7	2H	114	VAL
7	2H	122	THR
7	2H	127	GLU
7	2H	131	VAL
7	2H	134	SER
7	2H	136	ILE
7	2H	139	GLN
7	2H	148	ILE
7	2H	172	LYS
7	2H	175	LYS
8	2I	4	ILE
8	2I	38	LEU
8	2I	52	ARG
8	2I	58	LEU
8	2I	64	GLU
8	2I	75	LEU

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Mol	Chain	Res	Type
8	2I	76	THR
8	2I	102	SER
8	2I	107	VAL
8	2I	108	THR
8	2I	116	LEU
8	2I	117	GLU
8	2I	129	THR
8	2I	140	LEU
8	2I	142	VAL
9	2N	5	VAL
9	2N	22	THR
9	2N	28	THR
9	2N	32	THR
9	2N	33	LEU
9	2N	34	LEU
9	2N	35	ARG
9	2N	43	THR
9	2N	46	VAL
9	2N	48	MET
9	2N	60	ILE
9	2N	62	VAL
9	2N	68	GLU
9	2N	73	THR
9	2N	87	LEU
9	2N	99	LEU
9	2N	106	MET
9	2N	115	ARG
9	2N	120	LEU
9	2N	127	ASP
9	2N	133	GLN
9	2N	138	LEU
9	2N	140	VAL
10	2O	10	VAL
10	2O	23	ARG
10	2O	24	VAL
10	2O	35	VAL
10	2O	97	ARG
10	2O	98	VAL
10	2O	108	GLU
11	2P	59	LEU
11	2P	65	ARG
11	2P	74	GLU

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Mol	Chain	Res	Type
11	2P	83	VAL
11	2P	95	VAL
11	2P	96	THR
11	2P	125	VAL
12	2Q	7	MET
12	2Q	16	ARG
12	2Q	21	THR
12	2Q	35	VAL
12	2Q	43	THR
12	2Q	55	VAL
12	2Q	75	THR
12	2Q	79	LEU
12	2Q	81	VAL
12	2Q	106	VAL
12	2Q	109	VAL
12	2Q	110	THR
12	2Q	127	ILE
12	2Q	133	ARG
12	2Q	138	ASP
13	2R	6	SER
13	2R	18	LEU
13	2R	24	GLN
13	2R	27	SER
13	2R	29	LEU
13	2R	36	THR
13	2R	44	LEU
13	2R	54	LEU
13	2R	65	LEU
13	2R	67	LEU
13	2R	75	LEU
13	2R	79	LEU
13	2R	96	ARG
13	2R	100	LEU
13	2R	102	GLU
13	2R	111	LEU
13	2R	114	VAL
14	2S	14	VAL
14	2S	21	THR
14	2S	40	ILE
14	2S	48	LEU
14	2S	52	SER
14	2S	63	THR

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Mol	Chain	Res	Type
14	2S	69	VAL
14	2S	110	LEU
14	2S	111	GLU
15	2T	16	ARG
15	2T	23	ARG
15	2T	34	VAL
15	2T	49	VAL
15	2T	50	ILE
15	2T	51	ARG
15	2T	72	VAL
15	2T	78	LEU
15	2T	85	LYS
15	2T	89	VAL
15	2T	95	ARG
15	2T	104	ASN
16	2U	8	VAL
16	2U	31	SER
16	2U	55	ARG
16	2U	74	LEU
16	2U	83	LEU
17	2V	1	MET
17	2V	32	THR
17	2V	46	VAL
17	2V	51	VAL
17	2V	52	VAL
17	2V	53	GLU
17	2V	72	VAL
17	2V	79	VAL
17	2V	99	ILE
18	2W	4	LYS
18	2W	11	ARG
18	2W	15	ARG
18	2W	17	VAL
18	2W	19	LEU
18	2W	23	LEU
18	2W	60	ASN
18	2W	85	VAL
18	2W	100	THR
18	2W	106	ILE
18	2W	107	LEU
19	2X	8	ILE
19	2X	51	VAL

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Mol	Chain	Res	Type
19	2X	57	LEU
19	2X	81	VAL
19	2X	89	ILE
19	2X	92	LEU
20	2Y	8	LYS
20	2Y	9	LYS
20	2Y	12	THR
20	2Y	38	ILE
20	2Y	45	VAL
20	2Y	63	LYS
20	2Y	72	VAL
21	2Z	5	LEU
21	2Z	8	TYR
21	2Z	31	ARG
21	2Z	42	VAL
21	2Z	53	ILE
21	2Z	60	GLU
21	2Z	71	VAL
21	2Z	86	VAL
21	2Z	91	LEU
21	2Z	107	THR
21	2Z	119	GLU
21	2Z	126	VAL
21	2Z	129	SER
21	2Z	138	GLU
21	2Z	150	LEU
21	2Z	170	THR
21	2Z	181	GLU
21	2Z	185	GLU
22	20	10	THR
22	20	39	ARG
23	21	35	THR
23	21	51	VAL
23	21	57	GLU
23	21	62	VAL
23	21	75	GLU
23	21	85	LEU
23	21	95	LEU
23	21	98	LEU
24	22	16	LEU
24	22	17	SER
24	22	25	VAL

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Mol	Chain	Res	Type
24	22	30	ARG
24	22	32	LEU
25	23	3	ARG
25	23	6	VAL
25	23	23	LEU
25	23	31	LEU
25	23	40	THR
25	23	54	VAL
26	24	10	VAL
26	24	34	GLU
26	24	50	VAL
26	24	53	GLU
26	24	60	GLN
26	24	63	TYR
26	24	69	LYS
27	25	6	VAL
27	25	29	THR
27	25	57	VAL
28	26	6	ARG
28	26	14	THR
28	26	19	ARG
28	26	37	ARG
29	27	1	MET
29	27	4	THR
29	27	23	ARG
29	27	42	LEU
29	27	43	THR
30	28	14	VAL
30	28	34	TRP
30	28	39	LYS
30	28	46	ARG
30	28	50	LEU
30	28	56	GLU
31	29	9	ARG
31	29	12	ASP
31	29	17	ILE
33	2b	35	GLU
33	2b	44	LEU
33	2b	58	ILE
33	2b	67	THR
33	2b	93	VAL
33	2b	96	ARG

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Mol	Chain	Res	Type
33	2b	111	ARG
33	2b	127	ILE
33	2b	135	GLN
33	2b	136	VAL
33	2b	149	LEU
33	2b	154	LEU
33	2b	155	LEU
33	2b	157	ARG
33	2b	164	VAL
33	2b	189	ASP
33	2b	191	ASP
33	2b	201	ILE
33	2b	208	ILE
33	2b	224	GLN
33	2b	229	VAL
33	2b	230	VAL
34	2c	3	ASN
34	2c	11	ARG
34	2c	15	THR
34	2c	16	ARG
34	2c	32	LEU
34	2c	45	LYS
34	2c	49	SER
34	2c	54	ARG
34	2c	68	VAL
34	2c	85	ARG
34	2c	127	ARG
34	2c	152	ILE
34	2c	166	GLU
34	2c	186	PHE
34	2c	196	LEU
34	2c	207	VAL
35	2d	5	ILE
35	2d	8	VAL
35	2d	9	CYS
35	2d	31	CYS
35	2d	33	MET
35	2d	59	ARG
35	2d	74	GLN
35	2d	83	SER
35	2d	108	LEU
35	2d	135	LEU

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Mol	Chain	Res	Type
35	2d	150	GLU
35	2d	158	ILE
35	2d	170	VAL
35	2d	186	LEU
35	2d	199	ASN
35	2d	202	LEU
36	2e	11	ILE
36	2e	31	LEU
36	2e	40	ARG
36	2e	41	VAL
36	2e	51	VAL
36	2e	55	VAL
36	2e	69	VAL
36	2e	72	GLN
36	2e	75	THR
36	2e	135	THR
36	2e	150	ARG
36	2e	151	LEU
37	2f	46	ARG
37	2f	71	ARG
37	2f	72	VAL
37	2f	75	LEU
37	2f	81	ILE
38	2g	9	VAL
38	2g	15	ASP
38	2g	38	LEU
38	2g	75	VAL
38	2g	77	SER
38	2g	104	LEU
38	2g	113	GLU
38	2g	139	GLU
39	2h	2	LEU
39	2h	3	THR
39	2h	25	ASP
39	2h	51	VAL
39	2h	63	LEU
39	2h	80	ILE
39	2h	97	VAL
39	2h	99	GLU
39	2h	107	LEU
39	2h	112	LEU
39	2h	119	LEU

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Mol	Chain	Res	Type
39	2h	127	LEU
39	2h	133	LEU
40	2i	9	ARG
40	2i	17	VAL
40	2i	27	THR
40	2i	31	GLN
40	2i	35	GLU
40	2i	53	VAL
40	2i	64	THR
40	2i	65	VAL
40	2i	71	SER
40	2i	86	VAL
40	2i	96	LEU
40	2i	102	LEU
40	2i	104	ARG
40	2i	108	VAL
41	2j	8	LEU
41	2j	16	LEU
41	2j	30	SER
41	2j	34	VAL
41	2j	38	ILE
41	2j	47	PHE
41	2j	67	THR
41	2j	68	HIS
41	2j	72	VAL
41	2j	81	THR
41	2j	84	GLN
41	2j	96	ILE
42	2k	47	VAL
42	2k	66	LEU
42	2k	81	ASP
42	2k	84	VAL
42	2k	87	THR
42	2k	92	GLU
42	2k	109	VAL
42	2k	114	VAL
43	2l	24	VAL
43	2l	34	ARG
43	2l	38	THR
43	2l	40	VAL
43	2l	43	VAL
43	2l	47	LYS

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Mol	Chain	Res	Type
43	2l	89	ARG
43	2l	112	ASP
43	2l	122	THR
44	2m	4	ILE
44	2m	16	ASP
44	2m	19	LEU
44	2m	22	ILE
44	2m	45	VAL
44	2m	48	LEU
44	2m	60	VAL
44	2m	70	LEU
44	2m	81	LEU
44	2m	90	LEU
44	2m	98	VAL
44	2m	106	ASN
45	2n	7	ILE
45	2n	13	THR
45	2n	18	VAL
45	2n	22	THR
45	2n	33	VAL
45	2n	42	ILE
45	2n	46	GLU
45	2n	57	ARG
46	2o	10	LYS
46	2o	22	THR
46	2o	24	SER
46	2o	26	GLU
46	2o	28	GLN
46	2o	39	LEU
46	2o	64	ARG
46	2o	83	GLU
46	2o	88	ARG
47	2p	1	MET
47	2p	2	VAL
47	2p	45	THR
47	2p	54	GLU
47	2p	60	LEU
47	2p	62	VAL
47	2p	67	THR
47	2p	71	ARG
48	2q	9	VAL
48	2q	26	GLN

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Mol	Chain	Res	Type
48	2q	60	ILE
48	2q	63	ARG
48	2q	70	ARG
48	2q	74	LEU
48	2q	76	LEU
48	2q	87	LYS
48	2q	96	GLU
48	2q	99	SER
49	2r	25	THR
49	2r	28	GLU
49	2r	37	VAL
49	2r	74	ARG
49	2r	76	LEU
49	2r	82	THR
50	2s	5	LEU
50	2s	12	ASP
50	2s	13	ASP
50	2s	27	GLU
50	2s	41	VAL
50	2s	48	THR
50	2s	51	VAL
50	2s	62	ILE
50	2s	63	THR
50	2s	64	GLU
50	2s	71	LEU
50	2s	77	THR
50	2s	79	THR
50	2s	81	ARG
51	2t	24	LEU
51	2t	42	GLN
51	2t	56	MET
51	2t	61	SER
51	2t	62	LEU
51	2t	71	THR
51	2t	84	LEU
51	2t	100	ILE
53	2y	6	THR
53	2y	11	GLU
53	2y	12	ILE
53	2y	16	ILE
53	2y	23	ARG
53	2y	26	LYS

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Mol	Chain	Res	Type
53	2y	38	HIS
53	2y	49	VAL
53	2y	51	ASP
53	2y	62	VAL
53	2y	70	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (130) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	87	ASN
3	1D	253	GLN
4	1E	48	GLN
4	1E	121	ASN
5	1F	8	GLN
5	1F	203	GLN
6	1G	108	ASN
8	1I	104	GLN
9	1N	94	HIS
9	1N	133	GLN
12	1Q	57	HIS
12	1Q	89	ASN
13	1R	24	GLN
14	1S	95	HIS
15	1T	58	ASN
15	1T	84	GLN
16	1U	81	HIS
16	1U	94	ASN
19	1X	31	HIS
20	1Y	6	HIS
20	1Y	92	ASN
21	1Z	34	ASN
21	1Z	65	GLN
21	1Z	73	GLN
21	1Z	121	HIS
21	1Z	151	HIS
22	10	17	GLN
23	11	56	GLN
24	12	46	GLN
25	13	32	GLN
26	14	60	GLN
31	19	34	GLN
33	1b	113	HIS

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Mol	Chain	Res	Type
34	1c	6	HIS
34	1c	181	ASN
35	1d	77	ASN
35	1d	119	GLN
35	1d	123	HIS
35	1d	129	ASN
36	1e	20	GLN
36	1e	78	HIS
37	1f	64	GLN
37	1f	73	ASN
37	1f	94	GLN
37	1f	100	ASN
38	1g	28	ASN
38	1g	86	GLN
38	1g	110	GLN
40	1i	3	GLN
40	1i	58	HIS
40	1i	73	GLN
40	1i	117	HIS
41	1j	56	HIS
41	1j	84	GLN
42	1k	93	GLN
42	1k	116	HIS
43	1l	99	HIS
46	1o	28	GLN
47	1p	13	HIS
48	1q	16	GLN
50	1s	57	HIS
50	1s	83	HIS
53	1y	9	GLN
53	1y	19	HIS
3	2D	126	GLN
3	2D	143	HIS
3	2D	253	GLN
5	2F	69	HIS
5	2F	133	ASN
6	2G	132	ASN
8	2I	43	ASN
8	2I	139	GLN
10	2O	3	GLN
10	2O	90	GLN
11	2P	81	GLN

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Mol	Chain	Res	Type
12	2Q	12	GLN
12	2Q	89	ASN
12	2Q	123	HIS
13	2R	50	HIS
13	2R	71	GLN
15	2T	58	ASN
17	2V	64	HIS
17	2V	80	GLN
18	2W	60	ASN
19	2X	82	GLN
21	2Z	34	ASN
21	2Z	73	GLN
21	2Z	151	HIS
22	20	35	ASN
22	20	70	GLN
23	21	16	ASN
25	23	32	GLN
26	24	40	HIS
26	24	46	GLN
26	24	60	GLN
31	29	29	ASN
33	2b	19	HIS
33	2b	76	GLN
33	2b	78	GLN
33	2b	212	GLN
34	2c	6	HIS
34	2c	139	GLN
35	2d	74	GLN
35	2d	77	ASN
35	2d	116	GLN
35	2d	119	GLN
35	2d	125	HIS
36	2e	78	HIS
37	2f	18	GLN
37	2f	64	GLN
37	2f	100	ASN
38	2g	28	ASN
38	2g	64	GLN
38	2g	86	GLN
38	2g	148	ASN
40	2i	3	GLN
40	2i	117	HIS

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Mol	Chain	Res	Type
41	2j	69	ASN
42	2k	93	GLN
44	2m	12	ASN
44	2m	62	ASN
46	2o	28	GLN
46	2o	50	HIS
47	2p	16	HIS
48	2q	16	GLN
48	2q	26	GLN
50	2s	57	HIS
51	2t	90	GLN
53	2y	19	HIS
53	2y	89	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2865/2915 (98%)	437 (15%)	25 (0%)
1	2A	2858/2915 (98%)	499 (17%)	37 (1%)
2	1B	119/121 (98%)	12 (10%)	0
2	2B	119/121 (98%)	22 (18%)	0
32	1a	1497/1521 (98%)	251 (16%)	0
32	2a	1501/1521 (98%)	276 (18%)	0
All	All	8959/9114 (98%)	1497 (16%)	62 (0%)

All (1497) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	12	U
1	1A	15	G
1	1A	34	C
1	1A	45	C
1	1A	71	A
1	1A	74	A
1	1A	75	G
1	1A	118	A
1	1A	119	A
1	1A	120	U
1	1A	125	G
1	1A	140	G
1	1A	181	A

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Mol	Chain	Res	Type
1	1A	182	A
1	1A	196	A
1	1A	199	A
1	1A	205	G
1	1A	215	G
1	1A	216	A
1	1A	221	A
1	1A	222	A
1	1A	229	A
1	1A	233	A
1	1A	248	G
1	1A	265	A
1	1A	271(E)	U
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(S)	G
1	1A	272(A)	U
1	1A	272(B)	G
1	1A	272(H)	C
1	1A	275	G
1	1A	279	C
1	1A	280	C
1	1A	283	A
1	1A	311	A
1	1A	330	A
1	1A	352	G
1	1A	363	G
1	1A	386	G
1	1A	396	G
1	1A	404	C
1	1A	405	U
1	1A	407	G
1	1A	411	G
1	1A	421	U
1	1A	422	A
1	1A	428	A
1	1A	448	U
1	1A	456	C

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Mol	Chain	Res	Type
1	1A	457	A
1	1A	481	G
1	1A	505	A
1	1A	508	G
1	1A	509	C
1	1A	518	G
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	551	G
1	1A	563	G
1	1A	573	G
1	1A	575	A
1	1A	586	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	634	C
1	1A	637	A
1	1A	645	C
1	1A	652(E)	G
1	1A	652(T)	C
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	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	805	G

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Mol	Chain	Res	Type
1	1A	812	C
1	1A	827	U
1	1A	828	U
1	1A	859	G
1	1A	866	A
1	1A	882	G
1	1A	884	C
1	1A	886	C
1	1A	888	C
1	1A	889	C
1	1A	890	A
1	1A	892	G
1	1A	894	C
1	1A	896	A
1	1A	897	C
1	1A	899	A
1	1A	907	U
1	1A	910	A
1	1A	932	G
1	1A	938	G
1	1A	945	A
1	1A	946	G
1	1A	953	A
1	1A	958	U
1	1A	959	A
1	1A	961	C
1	1A	974	G
1	1A	975	C
1	1A	983	A
1	1A	996	A
1	1A	1005	C
1	1A	1012	U
1	1A	1013	C
1	1A	1025	G
1	1A	1026	U
1	1A	1033	U
1	1A	1039	G
1	1A	1042	G
1	1A	1044	G
1	1A	1046	A
1	1A	1047	G
1	1A	1050	A

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Mol	Chain	Res	Type
1	1A	1053	C
1	1A	1054	A
1	1A	1060	U
1	1A	1061	U
1	1A	1062	G
1	1A	1063	G
1	1A	1065	U
1	1A	1068	G
1	1A	1070	A
1	1A	1071	G
1	1A	1073	A
1	1A	1075	C
1	1A	1076	C
1	1A	1077	A
1	1A	1078	U
1	1A	1079	C
1	1A	1083	U
1	1A	1087	G
1	1A	1088	A
1	1A	1090	U
1	1A	1096	A
1	1A	1097	U
1	1A	1100	C
1	1A	1106	G
1	1A	1109	C
1	1A	1110	G
1	1A	1112	G
1	1A	1116	C
1	1A	1128	A
1	1A	1129	A
1	1A	1130	U
1	1A	1135	C
1	1A	1136	G
1	1A	1139	G
1	1A	1149	G
1	1A	1170	G
1	1A	1171	G
1	1A	1173	G
1	1A	1174	A
1	1A	1175	U
1	1A	1176	G
1	1A	1177	A

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Mol	Chain	Res	Type
1	1A	1178	C
1	1A	1210	A
1	1A	1211	U
1	1A	1250	G
1	1A	1253	A
1	1A	1256	G
1	1A	1271	G
1	1A	1272	A
1	1A	1300	U
1	1A	1301	A
1	1A	1305	C
1	1A	1345	C
1	1A	1352	U
1	1A	1359	A
1	1A	1360	A
1	1A	1365	A
1	1A	1370	C
1	1A	1380	G
1	1A	1384	A
1	1A	1385	G
1	1A	1395	A
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	1452	A
1	1A	1455	G
1	1A	1467	C
1	1A	1471	A
1	1A	1482	G
1	1A	1493	C
1	1A	1506	C
1	1A	1508	A
1	1A	1509	C
1	1A	1509(A)	A
1	1A	1540	U
1	1A	1542	A
1	1A	1543	C
1	1A	1558	A

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Mol	Chain	Res	Type
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	1609	A
1	1A	1610	A
1	1A	1648	C
1	1A	1654	A
1	1A	1674	G
1	1A	1696	G
1	1A	1700	A
1	1A	1701	A
1	1A	1717	G
1	1A	1721	G
1	1A	1722	A
1	1A	1740	G
1	1A	1756	G
1	1A	1762	A
1	1A	1763	G
1	1A	1764	G
1	1A	1773	A
1	1A	1780	A
1	1A	1782	C
1	1A	1791	A
1	1A	1800	C
1	1A	1801	G
1	1A	1811	G
1	1A	1812	A
1	1A	1816	G
1	1A	1828	G
1	1A	1829	A
1	1A	1839	G
1	1A	1847	A
1	1A	1877	A
1	1A	1878	G
1	1A	1889	A
1	1A	1900	A
1	1A	1905	C
1	1A	1906	G

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Mol	Chain	Res	Type
1	1A	1913	A
1	1A	1914	C
1	1A	1929	G
1	1A	1930	G
1	1A	1937	A
1	1A	1938	A
1	1A	1955	U
1	1A	1956	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	2021	C
1	1A	2023	G
1	1A	2031	A
1	1A	2032	G
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	2062	A
1	1A	2069	G
1	1A	2104	G
1	1A	2107	C
1	1A	2108	C
1	1A	2112	G
1	1A	2115	G
1	1A	2116	G
1	1A	2117	A
1	1A	2121	G
1	1A	2123	G
1	1A	2125	G
1	1A	2126	A
1	1A	2127	G
1	1A	2129	C
1	1A	2131	G

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Mol	Chain	Res	Type
1	1A	2132	U
1	1A	2133	G
1	1A	2134	A
1	1A	2135	A
1	1A	2142	C
1	1A	2144	U
1	1A	2145	C
1	1A	2146	C
1	1A	2158	A
1	1A	2159	G
1	1A	2160	G
1	1A	2161	C
1	1A	2165	G
1	1A	2167	U
1	1A	2173	A
1	1A	2185	C
1	1A	2186	G
1	1A	2187	G
1	1A	2190	G
1	1A	2192	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	2249	U
1	1A	2268	A
1	1A	2269	A
1	1A	2273	A
1	1A	2278	A
1	1A	2280	G
1	1A	2283	C
1	1A	2286	A
1	1A	2287	A
1	1A	2289	G
1	1A	2305	A
1	1A	2308	G
1	1A	2320	A
1	1A	2325	G
1	1A	2334	G

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Mol	Chain	Res	Type
1	1A	2335	A
1	1A	2336	A
1	1A	2347	C
1	1A	2350	C
1	1A	2354	G
1	1A	2379	G
1	1A	2383	G
1	1A	2385	C
1	1A	2406	U
1	1A	2407	G
1	1A	2414	G
1	1A	2422	A
1	1A	2423	U
1	1A	2424	C
1	1A	2425	A
1	1A	2428	G
1	1A	2429	G
1	1A	2430	A
1	1A	2431	U
1	1A	2435	A
1	1A	2439	A
1	1A	2441	C
1	1A	2445	G
1	1A	2448	A
1	1A	2468	G
1	1A	2471	C
1	1A	2474	C
1	1A	2476	A
1	1A	2478	A
1	1A	2490	G
1	1A	2498	C
1	1A	2502	G
1	1A	2505	G
1	1A	2506	U
1	1A	2518	A
1	1A	2529	G
1	1A	2535	G
1	1A	2549	G
1	1A	2554	U
1	1A	2566	A
1	1A	2567	G
1	1A	2574	G

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Mol	Chain	Res	Type
1	1A	2578	G
1	1A	2582	G
1	1A	2585	U
1	1A	2602	A
1	1A	2603	G
1	1A	2609	U
1	1A	2610	C
1	1A	2611	U
1	1A	2612	C
1	1A	2623	G
1	1A	2629	A
1	1A	2630	G
1	1A	2654	A
1	1A	2689	U
1	1A	2690	C
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	2761	G
1	1A	2764	A
1	1A	2765	A
1	1A	2766	G
1	1A	2769	C
1	1A	2775	A
1	1A	2778	A
1	1A	2780	G
1	1A	2790	A
1	1A	2791	C
1	1A	2802	G
1	1A	2805	G
1	1A	2808	U
1	1A	2820	A
1	1A	2821	A
1	1A	2833	G
1	1A	2835	A
1	1A	2872	G
1	1A	2873	A

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Mol	Chain	Res	Type
1	1A	2875	C
1	1A	2880	C
1	1A	2892	A
1	1A	2894	G
2	1B	13	A
2	1B	32	C
2	1B	52	A
2	1B	53	A
2	1B	56	G
2	1B	67	G
2	1B	68	C
2	1B	73	A
2	1B	85	G
2	1B	90	A
2	1B	106	G
2	1B	110	G
32	1a	9	G
32	1a	32	A
32	1a	39	G
32	1a	41	G
32	1a	47	C
32	1a	48	C
32	1a	51	A
32	1a	61	G
32	1a	65	U
32	1a	78	G
32	1a	79	G
32	1a	101	A
32	1a	115	G
32	1a	116	A
32	1a	121	C
32	1a	131	C
32	1a	144	G
32	1a	151	A
32	1a	159	G
32	1a	163	C
32	1a	170	U
32	1a	173	U
32	1a	174	C
32	1a	180	U
32	1a	181	G
32	1a	182	U

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Mol	Chain	Res	Type
32	1a	189(F)	U
32	1a	195	A
32	1a	197	A
32	1a	199	G
32	1a	203	U
32	1a	204	U
32	1a	216	G
32	1a	220	G
32	1a	222	U
32	1a	231	G
32	1a	247	G
32	1a	251	G
32	1a	258	G
32	1a	266	G
32	1a	267	C
32	1a	289	G
32	1a	306	G
32	1a	321	A
32	1a	328	C
32	1a	329	A
32	1a	332	G
32	1a	348	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	384	G
32	1a	388	G
32	1a	397	A
32	1a	398	C
32	1a	406	G
32	1a	412	A
32	1a	413	G
32	1a	422	C
32	1a	423	G
32	1a	424	G
32	1a	429	U
32	1a	439	A
32	1a	442	C

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Mol	Chain	Res	Type
32	1a	452	A
32	1a	458	C
32	1a	470	C
32	1a	475	G
32	1a	477	A
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	527	G7M
32	1a	532	A
32	1a	533	A
32	1a	547	A
32	1a	550	G
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	616	G
32	1a	618	C
32	1a	619	U
32	1a	630	G
32	1a	632	A
32	1a	633	G
32	1a	634	C
32	1a	653	A
32	1a	661	G
32	1a	665	A
32	1a	667	G
32	1a	673	G
32	1a	687	A
32	1a	688	G
32	1a	703	G
32	1a	723	U
32	1a	725	G

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Mol	Chain	Res	Type
32	1a	728	A
32	1a	755	G
32	1a	759	A
32	1a	774	G
32	1a	777	A
32	1a	793	U
32	1a	794	A
32	1a	817	C
32	1a	828	A
32	1a	829	G
32	1a	839	U
32	1a	840	C
32	1a	841	U
32	1a	848	C
32	1a	849	C
32	1a	851	G
32	1a	870	U
32	1a	874	G
32	1a	902	G
32	1a	914	A
32	1a	916	G
32	1a	926	G
32	1a	927	G
32	1a	934	C
32	1a	935	A
32	1a	942	G
32	1a	960	U
32	1a	961	U
32	1a	963	G
32	1a	968	A
32	1a	969	A
32	1a	971	G
32	1a	974	A
32	1a	975	A
32	1a	976	G
32	1a	977	A
32	1a	989	C
32	1a	990	C
32	1a	992	U
32	1a	993	G
32	1a	994	A
32	1a	998	G

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Mol	Chain	Res	Type
32	1a	1001	A
32	1a	1001(A)	G
32	1a	1003	G
32	1a	1004	A
32	1a	1006	C
32	1a	1007	C
32	1a	1009	G
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	1030(B)	C
32	1a	1030(D)	A
32	1a	1031	G
32	1a	1032	G
32	1a	1037	C
32	1a	1044	A
32	1a	1053	G
32	1a	1065	U
32	1a	1066	C
32	1a	1081	G
32	1a	1089	G
32	1a	1094	G
32	1a	1095	U
32	1a	1101	A
32	1a	1124	G
32	1a	1125	U
32	1a	1126	U
32	1a	1132	C
32	1a	1134	G
32	1a	1136	U
32	1a	1139	G
32	1a	1143	G
32	1a	1152	A
32	1a	1159	U
32	1a	1163	C

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Mol	Chain	Res	Type
32	1a	1166	G
32	1a	1168	A
32	1a	1176	A
32	1a	1181	G
32	1a	1183	A
32	1a	1184	G
32	1a	1193	G
32	1a	1196	U
32	1a	1197	G
32	1a	1202	G
32	1a	1206	G
32	1a	1208	C
32	1a	1212	U
32	1a	1213	A
32	1a	1214	C
32	1a	1224	G
32	1a	1227	A
32	1a	1238	A
32	1a	1250	A
32	1a	1256	A
32	1a	1257	U
32	1a	1258	G
32	1a	1270	C
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	1319	A
32	1a	1320	C
32	1a	1323	G
32	1a	1338	G
32	1a	1340	A
32	1a	1347	G
32	1a	1353	G
32	1a	1363	C
32	1a	1370	G
32	1a	1397	C
32	1a	1404	5MC
32	1a	1409	C

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Mol	Chain	Res	Type
32	1a	1419	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1447	A
32	1a	1456	G
32	1a	1493	A
32	1a	1497	G
32	1a	1499	A
32	1a	1503	A
32	1a	1506	U
32	1a	1517	G
32	1a	1519	MA6
32	1a	1529	G
32	1a	1530	G
32	1a	1531	A
1	2A	10	G
1	2A	12	U
1	2A	15	G
1	2A	34	C
1	2A	45	C
1	2A	61	G
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	78	A
1	2A	84	A
1	2A	90	U
1	2A	95	G
1	2A	118	A
1	2A	120	U
1	2A	128	C
1	2A	140	G
1	2A	141	A
1	2A	157	U
1	2A	182	A
1	2A	196	A
1	2A	199	A
1	2A	205	G
1	2A	214	G
1	2A	215	G
1	2A	216	A
1	2A	221	A

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Mol	Chain	Res	Type
1	2A	222	A
1	2A	228	A
1	2A	229	A
1	2A	230	U
1	2A	248	G
1	2A	249	C
1	2A	250	G
1	2A	267	C
1	2A	271(K)	U
1	2A	271(L)	U
1	2A	271(M)	G
1	2A	271(N)	U
1	2A	271(O)	C
1	2A	272(A)	U
1	2A	272(B)	G
1	2A	277	C
1	2A	278	A
1	2A	311	A
1	2A	317	G
1	2A	324	A
1	2A	327	G
1	2A	329	G
1	2A	330	A
1	2A	333	G
1	2A	335	C
1	2A	352	G
1	2A	362	U
1	2A	363	G
1	2A	380	U
1	2A	386	G
1	2A	396	G
1	2A	405	U
1	2A	411	G
1	2A	412	A
1	2A	428	A
1	2A	435	C
1	2A	444	C
1	2A	455	C
1	2A	456	C
1	2A	457	A
1	2A	470	A
1	2A	481	G

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Mol	Chain	Res	Type
1	2A	505	A
1	2A	508	G
1	2A	509	C
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	533	G
1	2A	545	G
1	2A	551	G
1	2A	563	G
1	2A	573	G
1	2A	575	A
1	2A	603	A
1	2A	604	G
1	2A	607	U
1	2A	610	G
1	2A	614(B)	G
1	2A	614(C)	A
1	2A	615	G
1	2A	616	G
1	2A	619	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(D)	C
1	2A	652(U)	G
1	2A	653	A
1	2A	669	G
1	2A	686	G
1	2A	717	G
1	2A	726	G
1	2A	730	C
1	2A	740	U
1	2A	751	A
1	2A	752	A
1	2A	753	C
1	2A	775	G
1	2A	776	G

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Mol	Chain	Res	Type
1	2A	782	A
1	2A	784	A
1	2A	785	G
1	2A	792	G
1	2A	802	A
1	2A	805	G
1	2A	812	C
1	2A	827	U
1	2A	857	C
1	2A	859	G
1	2A	866	A
1	2A	869	G
1	2A	874	G
1	2A	880	G
1	2A	881	G
1	2A	885	C
1	2A	886	C
1	2A	887	A
1	2A	888	C
1	2A	889	C
1	2A	890	A
1	2A	893	C
1	2A	896	A
1	2A	897	C
1	2A	900	A
1	2A	901	A
1	2A	910	A
1	2A	914	C
1	2A	917	A
1	2A	932	G
1	2A	936	C
1	2A	941	A
1	2A	945	A
1	2A	946	G
1	2A	953	A
1	2A	959	A
1	2A	961	C
1	2A	968	G
1	2A	974	G
1	2A	975	C
1	2A	983	A
1	2A	996	A

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Mol	Chain	Res	Type
1	2A	1006	C
1	2A	1012	U
1	2A	1013	C
1	2A	1020	A
1	2A	1025	G
1	2A	1026	U
1	2A	1033	U
1	2A	1038	C
1	2A	1041	C
1	2A	1044	G
1	2A	1045	A
1	2A	1046	A
1	2A	1047	G
1	2A	1051	G
1	2A	1052	C
1	2A	1053	C
1	2A	1054	A
1	2A	1055	G
1	2A	1058	G
1	2A	1060	U
1	2A	1063	G
1	2A	1065	U
1	2A	1066	U
1	2A	1067	A
1	2A	1068	G
1	2A	1069	A
1	2A	1070	A
1	2A	1071	G
1	2A	1072	C
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	1081	U
1	2A	1082	U
1	2A	1083	U
1	2A	1084	A
1	2A	1085	A
1	2A	1086	A
1	2A	1088	A

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Mol	Chain	Res	Type
1	2A	1090	U
1	2A	1091	G
1	2A	1092	C
1	2A	1093	G
1	2A	1094	U
1	2A	1096	A
1	2A	1097	U
1	2A	1109	C
1	2A	1110	G
1	2A	1111	A
1	2A	1112	G
1	2A	1114	G
1	2A	1118	C
1	2A	1126	A
1	2A	1130	U
1	2A	1135	C
1	2A	1136	G
1	2A	1141	U
1	2A	1171	G
1	2A	1195	G
1	2A	1211	U
1	2A	1220	A
1	2A	1244	G
1	2A	1253	A
1	2A	1256	G
1	2A	1271	G
1	2A	1272	A
1	2A	1276	A
1	2A	1284	A
1	2A	1300	U
1	2A	1301	A
1	2A	1303	G
1	2A	1314	C
1	2A	1342	A
1	2A	1352	U
1	2A	1359	A
1	2A	1360	A
1	2A	1365	A
1	2A	1368	G
1	2A	1370	C
1	2A	1380	G
1	2A	1384	A

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Mol	Chain	Res	Type
1	2A	1385	G
1	2A	1386	C
1	2A	1416	G
1	2A	1417	C
1	2A	1420	U
1	2A	1421	G
1	2A	1427	A
1	2A	1428	C
1	2A	1445	A
1	2A	1450	G
1	2A	1459	G
1	2A	1467	C
1	2A	1471	A
1	2A	1482	G
1	2A	1493	C
1	2A	1497	U
1	2A	1508	A
1	2A	1509	C
1	2A	1509(A)	A
1	2A	1525	G
1	2A	1531	C
1	2A	1533	G
1	2A	1542	A
1	2A	1543	C
1	2A	1555	G
1	2A	1558	A
1	2A	1559	G
1	2A	1566	A
1	2A	1569	A
1	2A	1578	U
1	2A	1580	A
1	2A	1584	C
1	2A	1586	A
1	2A	1595	G
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A
1	2A	1613	G
1	2A	1616	A
1	2A	1631	C
1	2A	1640	C
1	2A	1648	C

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Mol	Chain	Res	Type
1	2A	1660	C
1	2A	1664	A
1	2A	1674	G
1	2A	1675	C
1	2A	1696	G
1	2A	1700	A
1	2A	1701	A
1	2A	1703	G
1	2A	1721	G
1	2A	1722	A
1	2A	1756	G
1	2A	1758	G
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	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1816	G
1	2A	1817	G
1	2A	1829	A
1	2A	1835	G
1	2A	1836	C
1	2A	1839	G
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	1936	A
1	2A	1937	A
1	2A	1938	A
1	2A	1955	U
1	2A	1963	U

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Mol	Chain	Res	Type
1	2A	1964	G
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1992	G
1	2A	1993	U
1	2A	1997	G
1	2A	2020	A
1	2A	2023	G
1	2A	2031	A
1	2A	2032	G
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	2063	C
1	2A	2069	G
1	2A	2093	G
1	2A	2096	U
1	2A	2097	C
1	2A	2099	U
1	2A	2103	C
1	2A	2105	C
1	2A	2107	C
1	2A	2108	C
1	2A	2109	U
1	2A	2110	G
1	2A	2112	G
1	2A	2115	G
1	2A	2116	G
1	2A	2117	A
1	2A	2118	U
1	2A	2119	A
1	2A	2121	G
1	2A	2123	G
1	2A	2124	G
1	2A	2126	A
1	2A	2127	G

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Mol	Chain	Res	Type
1	2A	2129	C
1	2A	2130	U
1	2A	2131	G
1	2A	2132	U
1	2A	2133	G
1	2A	2134	A
1	2A	2136	C
1	2A	2138	C
1	2A	2142	C
1	2A	2145	C
1	2A	2146	C
1	2A	2147	G
1	2A	2148	G
1	2A	2151	G
1	2A	2158	A
1	2A	2159	G
1	2A	2163	C
1	2A	2164	C
1	2A	2165	G
1	2A	2167	U
1	2A	2172	U
1	2A	2173	A
1	2A	2175	C
1	2A	2180	U
1	2A	2182	G
1	2A	2184	G
1	2A	2186	G
1	2A	2187	G
1	2A	2189	U
1	2A	2192	G
1	2A	2195	C
1	2A	2198	A
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2218	U
1	2A	2225	A
1	2A	2235	G
1	2A	2238	G
1	2A	2268	A
1	2A	2269	A
1	2A	2275	C

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Mol	Chain	Res	Type
1	2A	2278	A
1	2A	2283	C
1	2A	2289	G
1	2A	2305	A
1	2A	2308	G
1	2A	2309	A
1	2A	2312	U
1	2A	2320	A
1	2A	2321	G
1	2A	2322	A
1	2A	2325	G
1	2A	2334	G
1	2A	2336	A
1	2A	2343	C
1	2A	2347	C
1	2A	2350	C
1	2A	2383	G
1	2A	2385	C
1	2A	2388	A
1	2A	2396	G
1	2A	2406	U
1	2A	2410	G
1	2A	2413	G
1	2A	2414	G
1	2A	2422	A
1	2A	2423	U
1	2A	2425	A
1	2A	2428	G
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	2474	C
1	2A	2476	A
1	2A	2480	C
1	2A	2490	G
1	2A	2491	U
1	2A	2492	U
1	2A	2502	G
1	2A	2505	G

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Mol	Chain	Res	Type
1	2A	2506	U
1	2A	2518	A
1	2A	2525	G
1	2A	2529	G
1	2A	2554	U
1	2A	2555	U
1	2A	2566	A
1	2A	2567	G
1	2A	2573	C
1	2A	2585	U
1	2A	2602	A
1	2A	2603	G
1	2A	2611	U
1	2A	2612	C
1	2A	2615	U
1	2A	2629	A
1	2A	2630	G
1	2A	2632	A
1	2A	2654	A
1	2A	2663	G
1	2A	2669	G
1	2A	2689	U
1	2A	2690	C
1	2A	2691	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	2745	C
1	2A	2750	A
1	2A	2751	G
1	2A	2757	A
1	2A	2764	A
1	2A	2765	A
1	2A	2766	G
1	2A	2775	A
1	2A	2778	A
1	2A	2789	C

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Mol	Chain	Res	Type
1	2A	2802	G
1	2A	2818	G
1	2A	2820	A
1	2A	2821	A
1	2A	2833	G
1	2A	2872	G
1	2A	2873	A
1	2A	2880	C
1	2A	2894	G
1	2A	2897	U
2	2B	2	C
2	2B	7	G
2	2B	8	U
2	2B	12	C
2	2B	13	A
2	2B	15	A
2	2B	19	G
2	2B	24	G
2	2B	30	C
2	2B	31	C
2	2B	32	C
2	2B	45	A
2	2B	51	G
2	2B	52	A
2	2B	53	A
2	2B	56	G
2	2B	73	A
2	2B	84	C
2	2B	85	G
2	2B	109	C
2	2B	110	G
2	2B	116	G
32	2a	5	U
32	2a	9	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	61	G
32	2a	65	U

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Mol	Chain	Res	Type
32	2a	66	G
32	2a	88	A
32	2a	89	C
32	2a	97	G
32	2a	101	A
32	2a	116	A
32	2a	121	C
32	2a	127	G
32	2a	129(A)	G
32	2a	131	C
32	2a	151	A
32	2a	156	G
32	2a	163	C
32	2a	174	C
32	2a	175	C
32	2a	180	U
32	2a	182	U
32	2a	189(C)	C
32	2a	189(E)	U
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	220	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	298	A
32	2a	306	G
32	2a	318	G
32	2a	321	A
32	2a	328	C
32	2a	332	G
32	2a	351	G
32	2a	352	C
32	2a	353	A

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Mol	Chain	Res	Type
32	2a	354	G
32	2a	367	U
32	2a	372	C
32	2a	373	A
32	2a	384	G
32	2a	397	A
32	2a	398	C
32	2a	404	U
32	2a	406	G
32	2a	412	A
32	2a	413	G
32	2a	421	U
32	2a	422	C
32	2a	424	G
32	2a	429	U
32	2a	439	A
32	2a	442	C
32	2a	452	A
32	2a	458	C
32	2a	461	A
32	2a	470	C
32	2a	471	G
32	2a	477	A
32	2a	482	A
32	2a	484	G
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	528	C
32	2a	532	A
32	2a	533	A
32	2a	547	A
32	2a	559	A
32	2a	560	U
32	2a	561	U
32	2a	564	C

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Mol	Chain	Res	Type
32	2a	572	A
32	2a	573	A
32	2a	575	G
32	2a	576	G
32	2a	577	G
32	2a	596	C
32	2a	618	C
32	2a	630	G
32	2a	631	G
32	2a	633	G
32	2a	651	C
32	2a	653	A
32	2a	665	A
32	2a	666	G
32	2a	687	A
32	2a	688	G
32	2a	695	A
32	2a	721	G
32	2a	723	U
32	2a	724	G
32	2a	731	G
32	2a	749	C
32	2a	753	A
32	2a	755	G
32	2a	774	G
32	2a	777	A
32	2a	778	G
32	2a	793	U
32	2a	794	A
32	2a	810	C
32	2a	816	A
32	2a	817	C
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	859	A
32	2a	870	U

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Mol	Chain	Res	Type
32	2a	873	A
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	932	C
32	2a	934	C
32	2a	939	G
32	2a	960	U
32	2a	961	U
32	2a	966	M2G
32	2a	969	A
32	2a	971	G
32	2a	974	A
32	2a	975	A
32	2a	976	G
32	2a	977	A
32	2a	978	A
32	2a	989	C
32	2a	992	U
32	2a	993	G
32	2a	1001(A)	G
32	2a	1004	A
32	2a	1005	A
32	2a	1006	C
32	2a	1009	G
32	2a	1017	G
32	2a	1018	C
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	C
32	2a	1030(B)	C
32	2a	1030(C)	G
32	2a	1034	G
32	2a	1038	C

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Mol	Chain	Res	Type
32	2a	1041	A
32	2a	1043	C
32	2a	1044	A
32	2a	1047	G
32	2a	1052	U
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1073	U
32	2a	1081	G
32	2a	1085	U
32	2a	1094	G
32	2a	1095	U
32	2a	1101	A
32	2a	1122	U
32	2a	1125	U
32	2a	1130	A
32	2a	1136	U
32	2a	1137	C
32	2a	1139	G
32	2a	1140	C
32	2a	1141	C
32	2a	1146	A
32	2a	1147	C
32	2a	1152	A
32	2a	1157	A
32	2a	1159	U
32	2a	1162	C
32	2a	1171	G
32	2a	1177	G
32	2a	1183	A
32	2a	1186	G
32	2a	1193	G
32	2a	1196	U
32	2a	1197	G
32	2a	1208	C
32	2a	1211	U
32	2a	1212	U
32	2a	1213	A
32	2a	1214	C
32	2a	1224	G
32	2a	1227	A

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Mol	Chain	Res	Type
32	2a	1228	C
32	2a	1229	A
32	2a	1236	A
32	2a	1238	A
32	2a	1250	A
32	2a	1256	A
32	2a	1257	U
32	2a	1258	G
32	2a	1260	C
32	2a	1261	A
32	2a	1270	C
32	2a	1273	G
32	2a	1278	U
32	2a	1279	A
32	2a	1280	A
32	2a	1281	U
32	2a	1282	C
32	2a	1286	A
32	2a	1287	A
32	2a	1300	G
32	2a	1302	U
32	2a	1303	C
32	2a	1305	G
32	2a	1306	A
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	1358	U
32	2a	1363	C
32	2a	1368	G
32	2a	1370	G
32	2a	1397	C
32	2a	1402	4OC
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1447	A
32	2a	1456	G
32	2a	1492	A

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Mol	Chain	Res	Type
32	2a	1493	A
32	2a	1497	G
32	2a	1503	A
32	2a	1504	G
32	2a	1505	G
32	2a	1506	U
32	2a	1507	A
32	2a	1517	G
32	2a	1518	MA6
32	2a	1519	MA6
32	2a	1520	G
32	2a	1528	U
32	2a	1529	G
32	2a	1530	G

All (62) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	196	A
1	1A	266	G
1	1A	278	A
1	1A	746	A
1	1A	827	U
1	1A	839	U
1	1A	888	C
1	1A	895	U
1	1A	958	U
1	1A	1065	U
1	1A	1176	G
1	1A	1210	A
1	1A	1420	U
1	1A	1442	G
1	1A	1608	A
1	1A	1653	G
1	1A	2111	C
1	1A	2126	A
1	1A	2288	A
1	1A	2406	U
1	1A	2422	A
1	1A	2430	A
1	1A	2602	A
1	1A	2689	U

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Mol	Chain	Res	Type
1	1A	2756	U
1	2A	195	A
1	2A	196	A
1	2A	249	C
1	2A	266	G
1	2A	271(M)	G
1	2A	277	C
1	2A	746	A
1	2A	752	A
1	2A	827	U
1	2A	840	C
1	2A	856	C
1	2A	900	A
1	2A	1053	C
1	2A	1057	A
1	2A	1065	U
1	2A	1067	A
1	2A	1073	A
1	2A	1210	A
1	2A	1275	A
1	2A	1379	A
1	2A	1420	U
1	2A	1442	G
1	2A	1491	G
1	2A	1608	A
1	2A	1992	G
1	2A	2126	A
1	2A	2171	A
1	2A	2172	U
1	2A	2288	A
1	2A	2321	G
1	2A	2406	U
1	2A	2422	A
1	2A	2439	A
1	2A	2601	C
1	2A	2602	A
1	2A	2689	U
1	2A	2756	U

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

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

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# $ Z > 2$	Counts	RMSZ	# $ Z > 2$
1	5MU	2A	1939	1,54	19,22,23	1.50	6 (31%)	27,32,35	2.12	6 (22%)
32	4OC	2a	1402	32	20,23,24	0.75	0	25,32,35	1.08	2 (8%)
32	MA6	2a	1519	32	23,26,27	0.39	0	33,38,41	2.08	8 (24%)
1	5MC	2A	1962	1,54	19,22,23	1.57	3 (15%)	26,32,35	1.08	2 (7%)
1	5MU	1A	1915	1	19,22,23	1.42	5 (26%)	27,32,35	2.38	8 (29%)
1	PSU	1A	1911	1	18,21,22	1.35	2 (11%)	21,30,33	2.08	5 (23%)
32	PSU	2a	516	54,32	18,21,22	1.34	3 (16%)	21,30,33	2.09	5 (23%)
1	5MC	1A	1962	1,54	19,22,23	1.57	3 (15%)	26,32,35	1.15	4 (15%)
43	0TD	1l	92	43	8,9,10	4.52	1 (12%)	6,11,13	4.26	2 (33%)
32	5MC	2a	1407	32	19,22,23	1.70	3 (15%)	26,32,35	1.20	3 (11%)
32	5MC	1a	1407	32	19,22,23	1.70	2 (10%)	26,32,35	1.15	4 (15%)
1	OMU	2A	2552	1,54	19,22,23	1.18	3 (15%)	25,31,34	1.90	5 (20%)
32	MA6	1a	1519	32	23,26,27	0.45	0	33,38,41	1.98	9 (27%)
1	OMG	2A	2251	1,54	23,26,27	1.19	3 (13%)	32,38,41	2.01	6 (18%)
32	2MG	2a	1207	32	23,26,27	1.25	3 (13%)	33,38,41	2.10	7 (21%)
32	2MG	1a	1207	32	23,26,27	1.24	3 (13%)	33,38,41	2.38	9 (27%)
1	2MA	1A	2503	1,54	22,25,26	1.49	5 (22%)	32,37,40	2.31	6 (18%)
1	5MC	1A	1942	1	19,22,23	1.57	3 (15%)	26,32,35	1.14	3 (11%)
32	5MC	2a	1404	32	19,22,23	1.67	3 (15%)	26,32,35	1.12	2 (7%)
32	G7M	2a	527	54,32	23,26,27	1.51	4 (17%)	34,39,42	1.71	5 (14%)
32	4OC	1a	1402	32	20,23,24	0.75	0	25,32,35	0.95	1 (4%)
32	5MC	2a	967	32	19,22,23	1.84	3 (15%)	26,32,35	1.07	2 (7%)
32	UR3	2a	1498	32	19,22,23	0.97	1 (5%)	26,32,35	1.66	3 (11%)
32	UR3	1a	1498	32	19,22,23	0.93	1 (5%)	26,32,35	1.75	3 (11%)
1	2MA	2A	2503	1,54	22,25,26	1.47	4 (18%)	32,37,40	2.33	8 (25%)
32	M2G	2a	966	54,32	24,27,28	1.28	3 (12%)	33,40,43	1.82	6 (18%)
32	5MC	1a	1400	32	19,22,23	1.66	3 (15%)	26,32,35	1.07	2 (7%)
1	PSU	2A	2605	1	18,21,22	1.36	2 (11%)	21,30,33	1.88	3 (14%)
1	OMC	2A	1920	1	19,22,23	0.78	0	25,31,34	0.95	1 (4%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	PSU	1a	516	54,32	18,21,22	1.38	2 (11%)	21,30,33	1.88	5 (23%)
32	M2G	1a	966	32	24,27,28	1.29	3 (12%)	33,40,43	1.81	5 (15%)
1	PSU	1A	2605	1	18,21,22	1.37	4 (22%)	21,30,33	1.80	4 (19%)
1	PSU	1A	1917	1	18,21,22	1.37	2 (11%)	21,30,33	2.00	4 (19%)
1	5MC	2A	1942	1	19,22,23	1.60	3 (15%)	26,32,35	1.14	2 (7%)
1	5MU	1A	1939	1,54	19,22,23	1.41	5 (26%)	27,32,35	2.18	6 (22%)
1	5MU	2A	1915	1	19,22,23	1.47	4 (21%)	27,32,35	2.24	9 (33%)
32	5MC	2a	1400	32	19,22,23	1.58	3 (15%)	26,32,35	1.24	3 (11%)
1	PSU	2A	1917	1	18,21,22	1.35	2 (11%)	21,30,33	1.98	3 (14%)
1	PSU	2A	1911	1	18,21,22	1.36	2 (11%)	21,30,33	2.04	3 (14%)
32	G7M	1a	527	54,32	23,26,27	1.59	3 (13%)	34,39,42	1.75	5 (14%)
43	0TD	2l	92	43	8,9,10	4.44	1 (12%)	6,11,13	3.01	3 (50%)
32	5MC	1a	967	32	19,22,23	1.57	3 (15%)	26,32,35	1.05	2 (7%)
1	OMG	1A	2251	1,54	23,26,27	1.24	3 (13%)	32,38,41	2.06	6 (18%)
1	OMU	1A	2552	1,54	19,22,23	1.27	3 (15%)	25,31,34	1.71	5 (20%)
1	OMC	1A	1920	1	19,22,23	0.79	0	25,31,34	0.88	0
32	5MC	1a	1404	32	19,22,23	1.70	3 (15%)	26,32,35	1.13	2 (7%)
32	MA6	2a	1518	32	23,26,27	0.39	0	33,38,41	2.01	9 (27%)
32	MA6	1a	1518	32	23,26,27	0.43	0	33,38,41	2.02	9 (27%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	5MU	2A	1939	1,54	-	0/7/25/26	0/2/2/2
32	4OC	2a	1402	32	-	2/9/29/30	0/2/2/2
32	MA6	2a	1519	32	-	3/11/29/30	0/3/3/3
1	5MC	2A	1962	1,54	-	0/7/25/26	0/2/2/2
1	5MU	1A	1915	1	-	2/7/25/26	0/2/2/2
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
32	PSU	2a	516	54,32	-	1/7/25/26	0/2/2/2
1	5MC	1A	1962	1,54	-	0/7/25/26	0/2/2/2
43	0TD	1l	92	43	-	2/7/12/14	-
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	OMU	2A	2552	1,54	-	0/9/27/28	0/2/2/2
32	MA6	1a	1519	32	-	2/11/29/30	0/3/3/3
1	OMG	2A	2251	1,54	-	0/9/27/28	0/3/3/3
32	2MG	2a	1207	32	-	0/9/27/28	0/3/3/3
32	2MG	1a	1207	32	-	2/9/27/28	0/3/3/3
1	2MA	1A	2503	1,54	-	2/7/25/26	0/3/3/3
1	5MC	1A	1942	1	-	0/7/25/26	0/2/2/2
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2
32	G7M	2a	527	54,32	-	2/7/25/26	0/3/3/3
32	4OC	1a	1402	32	-	2/9/29/30	0/2/2/2
32	5MC	2a	967	32	-	0/7/25/26	0/2/2/2
32	UR3	2a	1498	32	-	0/7/25/26	0/2/2/2
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
1	2MA	2A	2503	1,54	-	0/7/25/26	0/3/3/3
32	M2G	2a	966	54,32	-	1/11/29/30	0/3/3/3
32	5MC	1a	1400	32	-	1/7/25/26	0/2/2/2
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
1	OMC	2A	1920	1	-	1/9/27/28	0/2/2/2
32	PSU	1a	516	54,32	-	0/7/25/26	0/2/2/2
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
1	PSU	1A	2605	1	-	0/7/25/26	0/2/2/2
1	PSU	1A	1917	1	-	0/7/25/26	0/2/2/2
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
1	5MU	1A	1939	1,54	-	0/7/25/26	0/2/2/2
1	5MU	2A	1915	1	-	2/7/25/26	0/2/2/2
32	5MC	2a	1400	32	-	0/7/25/26	0/2/2/2
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
32	G7M	1a	527	54,32	-	3/7/25/26	0/3/3/3
43	0TD	2l	92	43	-	1/7/12/14	-
32	5MC	1a	967	32	-	0/7/25/26	0/2/2/2
1	OMG	1A	2251	1,54	-	0/9/27/28	0/3/3/3
1	OMU	1A	2552	1,54	-	0/9/27/28	0/2/2/2
1	OMC	1A	1920	1	-	0/9/27/28	0/2/2/2
32	5MC	1a	1404	32	-	2/7/25/26	0/2/2/2
32	MA6	2a	1518	32	-	2/11/29/30	0/3/3/3
32	MA6	1a	1518	32	-	0/11/29/30	0/3/3/3

All (118) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	1l	92	0TD	CB-SB	-12.30	1.69	1.82
43	2l	92	0TD	CB-SB	-12.18	1.70	1.82
32	2a	967	5MC	C5-C4	6.80	1.49	1.44
32	1a	1407	5MC	C5-C4	6.35	1.48	1.44
32	2a	1407	5MC	C5-C4	6.18	1.48	1.44
32	1a	1404	5MC	C5-C4	6.14	1.48	1.44
32	2a	1404	5MC	C5-C4	6.08	1.48	1.44
32	1a	1400	5MC	C5-C4	5.91	1.48	1.44
32	2a	1400	5MC	C5-C4	5.71	1.48	1.44
1	2A	1942	5MC	C5-C4	5.67	1.48	1.44
32	1a	967	5MC	C5-C4	5.56	1.48	1.44
1	1A	1942	5MC	C5-C4	5.54	1.48	1.44
1	2A	1962	5MC	C5-C4	5.53	1.48	1.44
1	1A	1962	5MC	C5-C4	5.51	1.48	1.44
32	1a	527	G7M	C5-N7	-5.09	1.33	1.39
32	2a	527	G7M	C5-N7	-4.55	1.33	1.39
1	2A	2503	2MA	C5-C4	4.52	1.47	1.39
1	1A	2503	2MA	C5-C4	4.32	1.46	1.39
32	1a	516	PSU	C6-C5	3.70	1.39	1.35
1	1A	1911	PSU	C6-C5	3.57	1.39	1.35
32	1a	527	G7M	C5-C4	3.53	1.47	1.38
1	1A	1917	PSU	C6-C5	3.45	1.39	1.35
32	2a	516	PSU	C6-C5	3.41	1.39	1.35
1	2A	1939	5MU	C6-C5	3.41	1.40	1.34
1	2A	2605	PSU	C6-C5	3.40	1.39	1.35
32	2a	527	G7M	C5-C4	3.31	1.46	1.38
1	2A	1917	PSU	C6-C5	3.30	1.38	1.35
1	2A	1911	PSU	C6-C5	3.28	1.38	1.35
32	2a	1207	2MG	C5-C4	3.27	1.47	1.38
1	2A	1915	5MU	C2-N1	3.26	1.43	1.38
32	1a	966	M2G	C5-C4	3.22	1.47	1.38
1	2A	2251	OMG	C5-C4	3.22	1.47	1.38
32	1a	1207	2MG	C5-C4	3.14	1.47	1.38
32	2a	966	M2G	C5-C4	3.13	1.47	1.38
1	1A	2251	OMG	C5-C4	3.10	1.47	1.38
1	1A	1915	5MU	C2-N1	3.10	1.43	1.38
32	2a	967	5MC	C6-C5	3.06	1.39	1.34
1	2A	1915	5MU	C6-C5	2.99	1.39	1.34
1	1A	2605	PSU	C4-N3	-2.99	1.33	1.38
1	1A	2552	OMU	C4-N3	-2.96	1.33	1.38
32	2a	966	M2G	C2-N2	2.89	1.40	1.35
1	1A	1939	5MU	C6-C5	2.88	1.39	1.34
32	1a	1404	5MC	C6-C5	2.82	1.39	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	1407	5MC	C6-C5	2.81	1.39	1.34
1	1A	1939	5MU	C4-N3	-2.80	1.33	1.38
32	2a	1404	5MC	C6-C5	2.78	1.39	1.34
32	1a	1400	5MC	C6-C5	2.73	1.39	1.34
1	1A	2251	OMG	C6-N1	-2.72	1.33	1.38
32	1a	966	M2G	C2-N2	2.72	1.40	1.35
32	1a	967	5MC	C6-C5	2.71	1.39	1.34
1	1A	1917	PSU	C4-N3	-2.70	1.33	1.38
1	2A	1962	5MC	C6-C5	2.70	1.39	1.34
1	2A	1911	PSU	C4-N3	-2.68	1.33	1.38
1	1A	2503	2MA	C5-N7	-2.66	1.34	1.39
1	2A	1942	5MC	C6-C5	2.66	1.38	1.34
1	1A	2552	OMU	C2-N3	-2.64	1.33	1.38
1	1A	1942	5MC	C6-C5	2.63	1.38	1.34
32	1a	966	M2G	C6-N1	-2.63	1.33	1.38
1	1A	1939	5MU	C6-N1	-2.62	1.33	1.38
1	1A	1962	5MC	C6-N1	-2.62	1.33	1.38
1	2A	2552	OMU	C4-N3	-2.61	1.34	1.38
32	1a	1407	5MC	C6-C5	2.57	1.38	1.34
1	2A	1939	5MU	C4-N3	-2.56	1.34	1.38
1	2A	2503	2MA	C5-C6	2.54	1.48	1.41
1	2A	1939	5MU	C4-C5	2.53	1.48	1.44
1	1A	1915	5MU	C4-N3	-2.51	1.34	1.38
32	2a	1400	5MC	C6-C5	2.48	1.38	1.34
1	2A	2605	PSU	C4-N3	-2.47	1.34	1.38
1	1A	2503	2MA	C5-C6	2.46	1.47	1.41
32	1a	527	G7M	C6-N1	-2.46	1.34	1.38
1	1A	1962	5MC	C6-C5	2.46	1.38	1.34
32	2a	516	PSU	C4-N3	-2.45	1.34	1.38
1	1A	1915	5MU	C6-C5	2.45	1.38	1.34
1	2A	1915	5MU	C4-N3	-2.44	1.34	1.38
32	1a	1400	5MC	C6-N1	-2.43	1.33	1.38
1	2A	1942	5MC	C6-N1	-2.42	1.33	1.38
1	2A	2251	OMG	C6-N1	-2.41	1.34	1.38
1	2A	2503	2MA	C8-N7	2.40	1.36	1.31
32	2a	966	M2G	C6-N1	-2.39	1.34	1.38
1	2A	1917	PSU	C4-N3	-2.38	1.34	1.38
32	2a	1207	2MG	C6-N1	-2.36	1.34	1.38
32	1a	1207	2MG	C6-N1	-2.32	1.34	1.38
1	2A	1962	5MC	C6-N1	-2.32	1.34	1.38
1	2A	1915	5MU	C4-C5	2.32	1.48	1.44
1	2A	1939	5MU	C2-N1	2.32	1.42	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	1942	5MC	C6-N1	-2.30	1.34	1.38
32	1a	516	PSU	C4-N3	-2.30	1.34	1.38
1	1A	1911	PSU	C4-N3	-2.29	1.34	1.38
1	1A	1939	5MU	C2-N3	-2.29	1.34	1.38
32	2a	527	G7M	C6-N1	-2.29	1.34	1.38
1	1A	2251	OMG	C5-N7	-2.28	1.34	1.39
1	1A	2605	PSU	C6-C5	2.28	1.37	1.35
1	2A	2503	2MA	C5-N7	-2.28	1.34	1.39
32	2a	1404	5MC	C6-N1	-2.28	1.34	1.38
32	1a	1404	5MC	C6-N1	-2.27	1.34	1.38
1	2A	2251	OMG	C5-N7	-2.26	1.34	1.39
32	2a	1400	5MC	C6-N1	-2.22	1.34	1.38
1	2A	2552	OMU	C2-N3	-2.21	1.34	1.38
1	1A	2503	2MA	C8-N7	2.21	1.35	1.31
1	2A	1939	5MU	C2-N3	-2.16	1.34	1.38
32	2a	1407	5MC	C6-N1	-2.16	1.34	1.38
1	1A	1915	5MU	C4-C5	2.15	1.48	1.44
1	1A	1939	5MU	C4-C5	2.15	1.48	1.44
32	2a	516	PSU	O4'-C1'	-2.11	1.40	1.43
1	2A	1939	5MU	C6-N1	-2.10	1.34	1.38
32	2a	967	5MC	C6-N1	-2.10	1.34	1.38
32	1a	1207	2MG	C2-N3	2.10	1.36	1.32
1	1A	1915	5MU	C6-N1	-2.09	1.34	1.38
1	1A	2552	OMU	C5-C4	-2.08	1.39	1.43
32	1a	967	5MC	C6-N1	-2.06	1.34	1.38
32	2a	1498	UR3	C6-C5	2.05	1.39	1.35
1	1A	2503	2MA	C4-N9	-2.03	1.33	1.37
32	2a	527	G7M	C5-C6	2.03	1.48	1.43
32	1a	1498	UR3	C6-C5	2.02	1.39	1.35
1	2A	2552	OMU	C5-C4	-2.02	1.39	1.43
1	1A	2605	PSU	C2-N3	-2.00	1.34	1.37
32	2a	1207	2MG	C5-N7	-2.00	1.35	1.39
1	1A	2605	PSU	C2-N1	-2.00	1.34	1.36

All (215) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	1l	92	0TD	CSB-SB-CB	9.97	120.28	102.36
1	1A	2503	2MA	C5-C4-N3	-8.76	117.95	127.18
1	2A	2503	2MA	C5-C4-N3	-8.19	118.55	127.18
32	1a	1207	2MG	C2-N3-C4	7.45	121.31	112.00
32	1a	1498	UR3	C4-N3-C2	-6.94	119.00	124.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1498	UR3	C4-N3-C2	-6.71	119.18	124.58
1	1A	2503	2MA	N3-C4-N9	6.66	135.44	126.99
32	2a	1207	2MG	C2-N3-C4	6.59	120.24	112.00
1	1A	2251	OMG	C5-C4-N3	-6.49	118.06	128.39
1	1A	1911	PSU	N1-C2-N3	6.48	122.01	115.17
1	2A	2503	2MA	N3-C4-N9	6.45	135.18	126.99
1	2A	2251	OMG	C5-C4-N3	-6.39	118.22	128.39
1	1A	1917	PSU	N1-C2-N3	6.27	121.78	115.17
32	2a	516	PSU	N1-C2-N3	6.21	121.72	115.17
1	2A	1911	PSU	N1-C2-N3	6.18	121.68	115.17
1	2A	1917	PSU	N1-C2-N3	6.14	121.65	115.17
32	1a	1207	2MG	C5-C4-N3	-6.14	118.62	128.39
43	2l	92	0TD	CSB-SB-CB	-6.11	91.39	102.36
32	1a	966	M2G	C5-C4-N3	-5.90	119.00	128.39
32	2a	966	M2G	C5-C4-N3	-5.81	119.14	128.39
1	2A	1939	5MU	N3-C2-N1	5.74	122.36	114.89
32	2a	1207	2MG	C5-C4-N3	-5.73	119.28	128.39
1	2A	2605	PSU	N1-C2-N3	5.66	121.14	115.17
32	1a	527	G7M	N9-C4-N3	5.62	137.19	125.95
32	1a	516	PSU	N1-C2-N3	5.60	121.07	115.17
1	1A	2605	PSU	N1-C2-N3	5.43	120.90	115.17
32	1a	527	G7M	C5-C4-N3	-5.43	117.89	128.15
32	2a	527	G7M	N9-C4-N3	5.42	136.80	125.95
32	2a	527	G7M	C5-C4-N3	-5.40	117.94	128.15
1	1A	1939	5MU	C4-N3-C2	-5.32	120.37	127.34
1	1A	2251	OMG	C2-N3-C4	5.28	121.39	112.30
1	1A	1915	5MU	C1'-N1-C2	5.26	127.05	117.59
1	2A	1939	5MU	C4-N3-C2	-5.23	120.48	127.34
1	2A	2251	OMG	C2-N3-C4	5.06	121.01	112.30
32	1a	1518	MA6	N1-C2-N3	-5.06	120.93	128.58
1	2A	1915	5MU	N3-C2-N1	5.06	121.47	114.89
1	2A	2552	OMU	C4-N3-C2	-5.03	120.36	126.61
32	2a	1519	MA6	N1-C2-N3	-5.00	121.01	128.58
1	2A	2251	OMG	N9-C4-N3	4.99	135.92	125.95
1	1A	1939	5MU	N3-C2-N1	4.91	121.28	114.89
32	2a	527	G7M	C2-N3-C4	4.83	120.62	112.30
1	2A	2552	OMU	N3-C2-N1	4.70	121.01	114.89
32	2a	1518	MA6	N1-C2-N3	-4.68	121.49	128.58
32	2a	1518	MA6	C5-C4-N3	-4.66	120.30	126.72
1	1A	1915	5MU	C1'-N1-C6	-4.64	113.51	121.15
1	1A	1939	5MU	C5-C6-N1	-4.62	118.29	123.31
32	1a	1519	MA6	N1-C2-N3	-4.62	121.59	128.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	1915	5MU	C1'-N1-C2	4.55	125.77	117.59
32	2a	966	M2G	C2-N3-C4	4.53	120.88	112.51
1	1A	2552	OMU	C4-N3-C2	-4.52	121.01	126.61
1	1A	2251	OMG	N9-C4-N3	4.51	134.97	125.95
1	1A	1915	5MU	N3-C2-N1	4.49	120.74	114.89
1	1A	1939	5MU	C5-C4-N3	4.45	119.19	115.32
1	2A	1915	5MU	C4-N3-C2	-4.42	121.55	127.34
32	1a	527	G7M	C2-N3-C4	4.40	119.88	112.30
32	1a	1519	MA6	C5-C4-N3	-4.39	120.68	126.72
1	1A	1915	5MU	C4-N3-C2	-4.38	121.60	127.34
32	2a	516	PSU	C4-N3-C2	-4.34	120.40	126.37
32	1a	966	M2G	C2-N3-C4	4.32	120.50	112.51
1	1A	1915	5MU	O4-C4-C5	-4.25	120.06	124.92
1	2A	1911	PSU	C4-N3-C2	-4.22	120.56	126.37
32	1a	966	M2G	N9-C4-N3	4.22	134.38	125.95
32	2a	1519	MA6	C5-C4-N3	-4.21	120.92	126.72
1	1A	1915	5MU	C5-C4-N3	4.21	118.98	115.32
32	1a	1518	MA6	C2-N1-C6	4.19	122.07	111.83
32	2a	966	M2G	N9-C4-N3	4.14	134.23	125.95
1	2A	1915	5MU	O4-C4-C5	-4.05	120.28	124.92
1	1A	1911	PSU	C4-N3-C2	-4.05	120.79	126.37
1	1A	1939	5MU	O4-C4-C5	-4.03	120.30	124.92
32	1a	1207	2MG	N9-C4-N3	4.02	133.99	125.95
32	2a	1519	MA6	C2-N1-C6	4.00	121.61	111.83
1	1A	1917	PSU	C4-N3-C2	-3.99	120.87	126.37
32	1a	1518	MA6	C5-N7-C8	3.98	109.71	103.45
1	2A	1917	PSU	C4-N3-C2	-3.95	120.93	126.37
1	2A	1939	5MU	C5-C6-N1	-3.95	119.03	123.31
32	2a	1519	MA6	C4-C5-N7	-3.95	106.07	110.58
32	2a	1519	MA6	C5-N7-C8	3.93	109.62	103.45
1	1A	2552	OMU	N3-C2-N1	3.93	120.00	114.89
1	1A	1911	PSU	O2-C2-N1	-3.92	118.75	122.79
32	2a	1518	MA6	C2-N1-C6	3.91	121.39	111.83
32	1a	1518	MA6	N9-C8-N7	-3.91	108.39	113.94
32	2a	1207	2MG	N9-C4-N3	3.90	133.76	125.95
1	2A	2605	PSU	C4-N3-C2	-3.90	120.99	126.37
1	2A	1939	5MU	C5-C4-N3	3.88	118.70	115.32
1	1A	2552	OMU	C5-C4-N3	3.88	120.24	114.80
32	1a	1519	MA6	C2-N1-C6	3.82	121.16	111.83
32	1a	1207	2MG	C6-C5-N7	3.78	137.18	130.29
32	1a	1519	MA6	C5-N7-C8	3.77	109.38	103.45
1	2A	2552	OMU	C5-C4-N3	3.76	120.07	114.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	1a	1404	5MC	C5-C6-N1	-3.74	119.25	123.31
32	1a	1518	MA6	C5-C4-N3	-3.73	121.58	126.72
1	2A	1915	5MU	C5-C4-N3	3.73	118.56	115.32
32	2a	1518	MA6	C4-C5-N7	-3.72	106.32	110.58
32	2a	1518	MA6	C5-N7-C8	3.71	109.28	103.45
1	2A	1939	5MU	O4-C4-C5	-3.67	120.72	124.92
1	2A	1917	PSU	O2-C2-N1	-3.67	119.00	122.79
32	2a	967	5MC	C5-C6-N1	-3.64	119.36	123.31
1	1A	2605	PSU	C4-N3-C2	-3.62	121.39	126.37
32	1a	1518	MA6	C4-C5-N7	-3.59	106.47	110.58
1	1A	2251	OMG	C6-C5-N7	3.57	136.78	130.29
1	2A	1911	PSU	O2-C2-N1	-3.56	119.12	122.79
32	1a	516	PSU	C4-N3-C2	-3.55	121.47	126.37
1	2A	1915	5MU	C1'-N1-C6	-3.51	115.37	121.15
1	2A	2503	2MA	C4-C5-N7	-3.48	106.60	110.58
32	2a	1207	2MG	C6-C5-N7	3.47	136.60	130.29
32	2a	1519	MA6	C2-N3-C4	3.45	120.26	111.83
1	2A	2503	2MA	N6-C6-N1	3.45	121.68	117.03
32	2a	1400	5MC	C5-C6-N1	-3.45	119.57	123.31
32	2a	1518	MA6	C2-N3-C4	3.43	120.21	111.83
32	2a	966	M2G	C6-C5-N7	3.43	136.53	130.29
32	2a	1407	5MC	C5-C6-N1	-3.42	119.60	123.31
32	1a	1519	MA6	C4-C5-N7	-3.41	106.68	110.58
32	2a	1519	MA6	N9-C8-N7	-3.40	109.11	113.94
1	1A	1939	5MU	O2-C2-N1	-3.39	118.38	122.80
32	1a	1519	MA6	C2-N3-C4	3.37	120.06	111.83
32	2a	516	PSU	O2-C2-N1	-3.36	119.32	122.79
32	2a	1404	5MC	C5-C6-N1	-3.34	119.69	123.31
32	1a	1400	5MC	C5-C6-N1	-3.34	119.69	123.31
1	1A	1962	5MC	C5-C6-N1	-3.33	119.69	123.31
32	1a	966	M2G	C6-C5-N7	3.33	136.35	130.29
1	1A	1917	PSU	O2-C2-N1	-3.29	119.40	122.79
1	1A	2605	PSU	O2-C2-N1	-3.23	119.46	122.79
1	1A	1942	5MC	C5-C6-N1	-3.22	119.81	123.31
32	1a	1518	MA6	C2-N3-C4	3.22	119.69	111.83
32	1a	516	PSU	O2-C2-N1	-3.21	119.48	122.79
1	2A	2552	OMU	O2-C2-N1	-3.21	118.62	122.80
43	2l	92	0TD	OD2-CG-CB	3.20	120.06	113.15
1	2A	1962	5MC	C5-C6-N1	-3.19	119.84	123.31
1	1A	2503	2MA	C4-C5-N7	-3.18	106.95	110.58
32	2a	1498	UR3	C5-C4-N3	3.13	119.16	115.04
32	1a	1519	MA6	N9-C8-N7	-3.12	109.51	113.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	1a	1207	2MG	N1-C2-N2	3.07	119.69	116.56
32	2a	1518	MA6	N9-C8-N7	-3.05	109.60	113.94
32	1a	1207	2MG	C4-C5-N7	-3.05	105.83	110.67
1	1A	2251	OMG	C4-C5-N7	-3.01	105.90	110.67
32	1a	1519	MA6	N3-C4-N9	3.00	132.26	127.17
32	1a	1498	UR3	C5-C4-N3	2.95	118.92	115.04
1	2A	1942	5MC	C5-C4-N3	-2.94	118.74	121.75
32	2a	1407	5MC	C5-C4-N3	-2.92	118.76	121.75
1	1A	2503	2MA	N6-C6-N1	2.86	120.89	117.03
1	2A	2605	PSU	O2-C2-N1	-2.85	119.85	122.79
32	2a	1404	5MC	C5-C4-N3	-2.84	118.85	121.75
32	1a	967	5MC	C5-C6-N1	-2.83	120.24	123.31
32	2a	1518	MA6	N3-C4-N9	2.83	131.98	127.17
32	2a	1207	2MG	C4-C5-N7	-2.82	106.19	110.67
1	2A	2503	2MA	C4-N9-C8	2.82	108.70	105.74
1	2A	2552	OMU	O4-C4-C5	-2.76	120.40	125.16
32	1a	1407	5MC	C5-C4-N3	-2.76	118.92	121.75
1	2A	1942	5MC	C5-C6-N1	-2.75	120.33	123.31
32	2a	1518	MA6	C4-C5-C6	2.74	118.74	115.91
32	1a	1404	5MC	C5-C4-N3	-2.74	118.95	121.75
32	1a	1400	5MC	C5-C4-N3	-2.69	119.00	121.75
1	2A	2251	OMG	C6-C5-N7	2.65	135.10	130.29
1	2A	2503	2MA	C5-N7-C8	2.62	107.56	103.45
1	2A	2251	OMG	O6-C6-C5	-2.60	119.68	126.53
1	2A	1939	5MU	O2-C2-N1	-2.58	119.44	122.80
32	1a	966	M2G	C4-C5-N7	-2.57	106.59	110.67
32	2a	966	M2G	C4-C5-N7	-2.56	106.61	110.67
1	1A	1915	5MU	C5M-C5-C4	2.56	121.52	118.78
1	2A	1915	5MU	O2-C2-N3	-2.56	116.77	121.49
32	1a	1407	5MC	C5-C6-N1	-2.55	120.54	123.31
32	1a	967	5MC	C5-C4-N3	-2.55	119.14	121.75
32	2a	1207	2MG	N1-C2-N2	2.55	119.16	116.56
1	2A	2503	2MA	C2-N1-C6	2.53	121.99	118.10
32	1a	1519	MA6	C4-C5-C6	2.53	118.52	115.91
32	2a	967	5MC	C5-C4-N3	-2.52	119.17	121.75
32	2a	1402	4OC	C6-C5-C4	2.52	120.03	117.00
32	2a	516	PSU	O4'-C1'-C2'	2.50	108.61	105.15
32	1a	527	G7M	O6-C6-C5	-2.49	122.44	128.01
32	2a	1207	2MG	N2-C2-N3	-2.48	117.35	120.51
1	1A	1942	5MC	C5-C4-N3	-2.48	119.21	121.75
32	1a	516	PSU	C6-C5-C4	-2.48	116.50	118.17
32	1a	1518	MA6	C4-N9-C8	2.48	108.34	105.74

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1400	5MC	C5-C4-N3	-2.48	119.21	121.75
1	1A	2552	OMU	O4-C4-C5	-2.47	120.90	125.16
32	1a	1407	5MC	O2-C2-N3	-2.46	118.46	122.33
1	2A	1915	5MU	C6-N1-C2	-2.45	118.86	121.30
32	1a	1518	MA6	N3-C4-N9	2.45	131.34	127.17
1	2A	1962	5MC	C5-C4-N3	-2.44	119.26	121.75
32	2a	1519	MA6	N3-C4-N9	2.43	131.30	127.17
1	2A	1920	OMC	O2-C2-N3	-2.42	118.52	122.33
32	2a	1498	UR3	C3U-N3-C4	2.41	121.21	117.87
1	1A	2503	2MA	C2-N1-C6	2.40	121.78	118.10
32	1a	1207	2MG	N2-C2-N3	-2.35	117.51	120.51
1	1A	1915	5MU	O2-C2-N3	-2.35	117.15	121.49
32	1a	1498	UR3	C6-N1-C2	-2.33	119.89	121.80
32	2a	516	PSU	C5-C6-N1	-2.32	118.92	122.14
32	2a	1400	5MC	O2-C2-N3	-2.29	118.72	122.33
1	1A	2552	OMU	O2-C2-N1	-2.26	119.85	122.80
32	1a	1207	2MG	O3'-C3'-C2'	2.25	119.01	111.82
32	1a	1402	4OC	C6-C5-C4	2.24	119.70	117.00
1	1A	1962	5MC	CM5-C5-C6	-2.22	119.84	122.85
1	1A	1917	PSU	C5-C6-N1	-2.21	119.07	122.14
32	2a	527	G7M	C5-C6-N1	2.21	116.40	111.84
32	2a	527	G7M	O6-C6-C5	-2.20	123.10	128.01
1	2A	2503	2MA	N9-C8-N7	-2.16	110.87	113.94
1	1A	1962	5MC	C5-C4-N3	-2.15	119.55	121.75
1	1A	2503	2MA	C5-N7-C8	2.14	106.82	103.45
32	1a	1407	5MC	CM5-C5-C6	-2.14	119.96	122.85
43	1l	92	0TD	OD2-CG-CB	2.13	117.75	113.15
32	1a	516	PSU	O4'-C1'-C2'	2.11	108.06	105.15
1	2A	2251	OMG	C4-C5-N7	-2.10	107.34	110.67
1	1A	1911	PSU	O4'-C1'-C2'	2.09	108.05	105.15
32	2a	966	M2G	O6-C6-C5	-2.07	121.07	126.53
1	1A	2251	OMG	C8-N7-C5	2.07	107.95	104.26
1	1A	1942	5MC	O2-C2-N3	-2.06	119.08	122.33
32	2a	1407	5MC	O2-C2-N3	-2.06	119.08	122.33
32	2a	1402	4OC	O2-C2-N3	-2.05	119.09	122.33
32	1a	527	G7M	C5-C6-N1	2.05	116.08	111.84
1	1A	2605	PSU	C5-C6-N1	-2.05	119.29	122.14
43	2l	92	0TD	OD1-CG-CB	-2.04	118.17	122.44
1	2A	1915	5MU	C5-C6-N1	-2.01	121.13	123.31
1	1A	1911	PSU	C5-C6-N1	-2.01	119.35	122.14
1	1A	1962	5MC	C1'-N1-C6	-2.00	117.85	121.15
32	1a	1207	2MG	C8-N7-C5	2.00	107.83	104.26

There are no chirality outliers.

All (33) 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
32	1a	1207	2MG	N1-C2-N2-CM2
32	1a	1207	2MG	N3-C2-N2-CM2
1	2A	1915	5MU	O4'-C1'-N1-C2
1	2A	1915	5MU	O4'-C1'-N1-C6
32	2a	1402	4OC	O4'-C4'-C5'-O5'
32	2a	1518	MA6	O4'-C4'-C5'-O5'
32	2a	1518	MA6	C3'-C4'-C5'-O5'
32	2a	1519	MA6	O4'-C4'-C5'-O5'
32	1a	527	G7M	C3'-C4'-C5'-O5'
32	1a	1519	MA6	O4'-C4'-C5'-O5'
32	1a	1402	4OC	O4'-C4'-C5'-O5'
32	2a	527	G7M	C3'-C4'-C5'-O5'
32	2a	1402	4OC	C3'-C4'-C5'-O5'
32	1a	1519	MA6	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'
32	1a	527	G7M	O4'-C4'-C5'-O5'
32	1a	1402	4OC	C3'-C4'-C5'-O5'
32	2a	527	G7M	O4'-C4'-C5'-O5'
32	1a	1404	5MC	O4'-C4'-C5'-O5'
32	1a	1404	5MC	C3'-C4'-C5'-O5'
43	1l	92	0TD	CG-CB-SB-CSB
43	2l	92	0TD	CG-CB-SB-CSB
43	1l	92	0TD	SB-CB-CG-OD1
1	2A	1920	OMC	C3'-C2'-O2'-CM2
32	2a	516	PSU	O4'-C1'-C5-C4
32	2a	1519	MA6	C4'-C5'-O5'-P
1	1A	2503	2MA	C4'-C5'-O5'-P
32	1a	1400	5MC	O4'-C4'-C5'-O5'
1	1A	2503	2MA	O4'-C4'-C5'-O5'
32	2a	966	M2G	O4'-C4'-C5'-O5'
32	1a	527	G7M	C4'-C5'-O5'-P

There are no ring outliers.

22 monomers are involved in 30 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	2A	1939	5MU	2	0
32	2a	1402	4OC	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	2a	1519	MA6	2	0
1	1A	1915	5MU	1	0
32	2a	516	PSU	1	0
43	1l	92	0TD	2	0
1	2A	2552	OMU	1	0
32	1a	1519	MA6	1	0
1	2A	2251	OMG	2	0
32	2a	1207	2MG	3	0
1	1A	1942	5MC	1	0
32	1a	1402	4OC	1	0
1	2A	2503	2MA	1	0
32	2a	966	M2G	1	0
1	1A	1939	5MU	2	0
1	2A	1915	5MU	2	0
1	2A	1911	PSU	1	0
32	1a	527	G7M	1	0
1	1A	2251	OMG	1	0
1	1A	1920	OMC	1	0
32	2a	1518	MA6	3	0
32	1a	1518	MA6	1	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 2519 ligands modelled in this entry, 2506 are monoatomic - leaving 13 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	$\# Z > 2$
56	MPD	2A	3743	-	7,7,7	0.31	0	9,10,10	0.25	0
56	MPD	1A	4012	-	7,7,7	0.37	0	9,10,10	0.23	0
56	MPD	1T	205	-	7,7,7	0.34	0	9,10,10	0.32	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
57	ARG	1B	232	-	10,11,11	0.74	1 (10%)	9,13,13	0.95	1 (11%)
55	A1CQ7	1A	4011	-	40,42,42	3.04	10 (25%)	54,65,65	2.42	21 (38%)
56	MPD	1a	3278	32	7,7,7	0.34	0	9,10,10	0.48	0
56	MPD	2B	221	-	7,7,7	0.32	0	9,10,10	0.32	0
55	A1CQ7	2A	3741	-	40,42,42	3.06	13 (32%)	54,65,65	2.40	19 (35%)
56	MPD	2A	3742	-	7,7,7	0.28	0	9,10,10	0.35	0
56	MPD	18	104	-	7,7,7	0.33	0	9,10,10	0.30	0
59	SF4	1d	306	35	0,12,12	-	-	-	-	-
57	ARG	1F	318	-	10,11,11	0.72	1 (10%)	9,13,13	1.02	1 (11%)
59	SF4	2d	501	35	0,12,12	-	-	-	-	-

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	MPD	2A	3743	-	-	2/5/5/5	-
56	MPD	1A	4012	-	-	2/5/5/5	-
56	MPD	1T	205	-	-	0/5/5/5	-
57	ARG	1B	232	-	-	4/11/11/11	-
55	A1CQ7	1A	4011	-	-	0/15/77/77	0/5/5/5
56	MPD	1a	3278	32	-	3/5/5/5	-
56	MPD	2B	221	-	-	1/5/5/5	-
55	A1CQ7	2A	3741	-	-	1/15/77/77	0/5/5/5
56	MPD	2A	3742	-	-	2/5/5/5	-
56	MPD	18	104	-	-	2/5/5/5	-
59	SF4	1d	306	35	-	-	0/6/5/5
57	ARG	1F	318	-	-	3/11/11/11	-
59	SF4	2d	501	35	-	-	0/6/5/5

All (25) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	2A	3741	A1CQ7	CBG-CBE	-10.72	1.31	1.47
55	1A	4011	A1CQ7	CBG-CBE	-10.47	1.32	1.47
55	1A	4011	A1CQ7	CAA-CAQ	-9.08	1.39	1.53
55	2A	3741	A1CQ7	CAA-CAQ	-8.70	1.40	1.53
55	1A	4011	A1CQ7	CAT-CAQ	-8.66	1.37	1.51
55	2A	3741	A1CQ7	CAT-CAQ	-8.58	1.37	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	1A	4011	A1CQ7	OAU-CAC	-5.03	1.38	1.46
55	2A	3741	A1CQ7	OAU-CAC	-3.99	1.39	1.46
55	2A	3741	A1CQ7	CAB-CAC	-3.60	1.53	1.56
55	2A	3741	A1CQ7	CAH-CAI	-3.51	1.52	1.56
55	2A	3741	A1CQ7	CBF-CBE	-3.47	1.31	1.37
55	1A	4011	A1CQ7	CAS-CAD	-3.41	1.47	1.54
55	1A	4011	A1CQ7	CBF-CBE	-3.34	1.31	1.37
55	2A	3741	A1CQ7	CAF-CAG	-2.99	1.49	1.53
55	1A	4011	A1CQ7	CBE-NBD	-2.88	1.31	1.36
55	1A	4011	A1CQ7	CAB-CAC	-2.75	1.54	1.56
55	2A	3741	A1CQ7	CBE-NBD	-2.63	1.31	1.36
55	2A	3741	A1CQ7	CAB-CAG	-2.60	1.52	1.56
55	2A	3741	A1CQ7	CAS-CAD	-2.55	1.49	1.54
55	1A	4011	A1CQ7	CAF-CAG	-2.49	1.49	1.53
57	1B	232	ARG	OXT-C	-2.17	1.23	1.30
55	2A	3741	A1CQ7	CAD-CAH	-2.14	1.53	1.56
55	1A	4011	A1CQ7	CAD-CAH	-2.10	1.53	1.56
57	1F	318	ARG	OXT-C	-2.07	1.24	1.30
55	2A	3741	A1CQ7	CAE-CAF	-2.05	1.49	1.53

All (42) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	1A	4011	A1CQ7	CAK-CAC-CAB	-8.76	106.88	116.28
55	2A	3741	A1CQ7	CAK-CAC-CAB	-7.87	107.83	116.28
55	1A	4011	A1CQ7	CAZ-CAB-CAC	-5.23	103.47	108.81
55	2A	3741	A1CQ7	CAE-CAF-CAG	-4.90	106.06	112.38
55	2A	3741	A1CQ7	CAZ-CAB-CAC	-4.61	104.10	108.81
55	2A	3741	A1CQ7	CAF-CAG-CAB	-4.35	106.72	111.57
55	1A	4011	A1CQ7	CAE-CAD-CAA	4.31	114.28	106.82
55	2A	3741	A1CQ7	CAE-CAD-CAA	4.26	114.20	106.82
55	1A	4011	A1CQ7	CAG-CAB-CAC	4.01	114.85	112.13
55	1A	4011	A1CQ7	CAD-CAA-CAB	-3.98	112.57	117.94
55	2A	3741	A1CQ7	CAD-CAA-CAB	-3.95	112.61	117.94
55	2A	3741	A1CQ7	CBG-CBE-CBF	-3.88	123.72	129.65
55	1A	4011	A1CQ7	CAE-CAF-CAG	-3.85	107.41	112.38
55	2A	3741	A1CQ7	CBA-NBB-NBC	3.78	128.36	120.78
55	1A	4011	A1CQ7	CAF-CAG-CAB	-3.77	107.36	111.57
55	1A	4011	A1CQ7	CBG-CBE-CBF	-3.48	124.33	129.65
55	2A	3741	A1CQ7	CBF-CBE-NBD	3.30	111.03	107.85
55	1A	4011	A1CQ7	CBA-NBB-NBC	3.26	127.33	120.78
55	1A	4011	A1CQ7	CBF-NBB-NBC	-3.22	107.61	110.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	2A	3741	A1CQ7	CBE-NBD-NBC	-3.21	105.79	109.23
55	2A	3741	A1CQ7	CBA-NBB-CBF	-3.14	122.97	128.83
55	1A	4011	A1CQ7	CBE-NBD-NBC	-3.10	105.91	109.23
55	2A	3741	A1CQ7	CAG-CAB-CAC	2.98	114.15	112.13
57	1F	318	ARG	OXT-C-O	-2.93	117.43	124.08
55	2A	3741	A1CQ7	CAC-OAU-CAV	-2.88	112.79	118.03
55	1A	4011	A1CQ7	CBF-CBE-NBD	2.85	110.60	107.85
55	1A	4011	A1CQ7	CAC-OAU-CAV	-2.85	112.85	118.03
55	1A	4011	A1CQ7	OAU-CAC-CAB	2.81	110.69	106.32
55	2A	3741	A1CQ7	CAL-CAH-CAI	-2.77	109.97	112.20
57	1B	232	ARG	OXT-C-O	-2.69	117.98	124.08
55	1A	4011	A1CQ7	OAR-CAQ-CAT	-2.35	122.16	125.52
55	2A	3741	A1CQ7	OAR-CAQ-CAT	-2.34	122.17	125.52
55	2A	3741	A1CQ7	OAU-CAC-CAB	2.32	109.94	106.32
55	1A	4011	A1CQ7	CAS-CAD-CAH	-2.27	107.92	110.55
55	1A	4011	A1CQ7	CAL-CAH-CAD	-2.18	108.41	111.23
55	2A	3741	A1CQ7	CBF-NBB-NBC	-2.15	108.66	110.75
55	1A	4011	A1CQ7	NBB-NBC-NBD	2.11	108.92	107.02
55	2A	3741	A1CQ7	CAS-CAD-CAH	-2.08	108.14	110.55
55	1A	4011	A1CQ7	CBE-CBF-NBB	2.06	106.94	105.28
55	1A	4011	A1CQ7	OAM-CAI-CAH	-2.05	108.22	110.91
55	2A	3741	A1CQ7	CBL-CBG-CBH	2.04	121.16	118.57
55	1A	4011	A1CQ7	CBA-NBB-CBF	-2.03	125.03	128.83

There are no chirality outliers.

All (20) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
55	2A	3741	A1CQ7	CAK-CAJ-CAN-CBA
56	1a	3278	MPD	C2-C3-C4-O4
56	1a	3278	MPD	C2-C3-C4-C5
56	2A	3742	MPD	C2-C3-C4-O4
56	2A	3742	MPD	C2-C3-C4-C5
57	1F	318	ARG	O-C-CA-N
57	1F	318	ARG	OXT-C-CA-N
57	1B	232	ARG	OXT-C-CA-N
57	1B	232	ARG	NE-CD-CG-CB
56	2B	221	MPD	C2-C3-C4-C5
57	1B	232	ARG	CA-CB-CG-CD
56	1A	4012	MPD	O2-C2-C3-C4
56	1a	3278	MPD	O2-C2-C3-C4
56	18	104	MPD	C2-C3-C4-O4

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Mol	Chain	Res	Type	Atoms
56	1A	4012	MPD	C1-C2-C3-C4
56	18	104	MPD	C1-C2-C3-C4
56	2A	3743	MPD	C1-C2-C3-C4
56	2A	3743	MPD	CM-C2-C3-C4
57	1F	318	ARG	N-CA-CB-CG
57	1B	232	ARG	O-C-CA-N

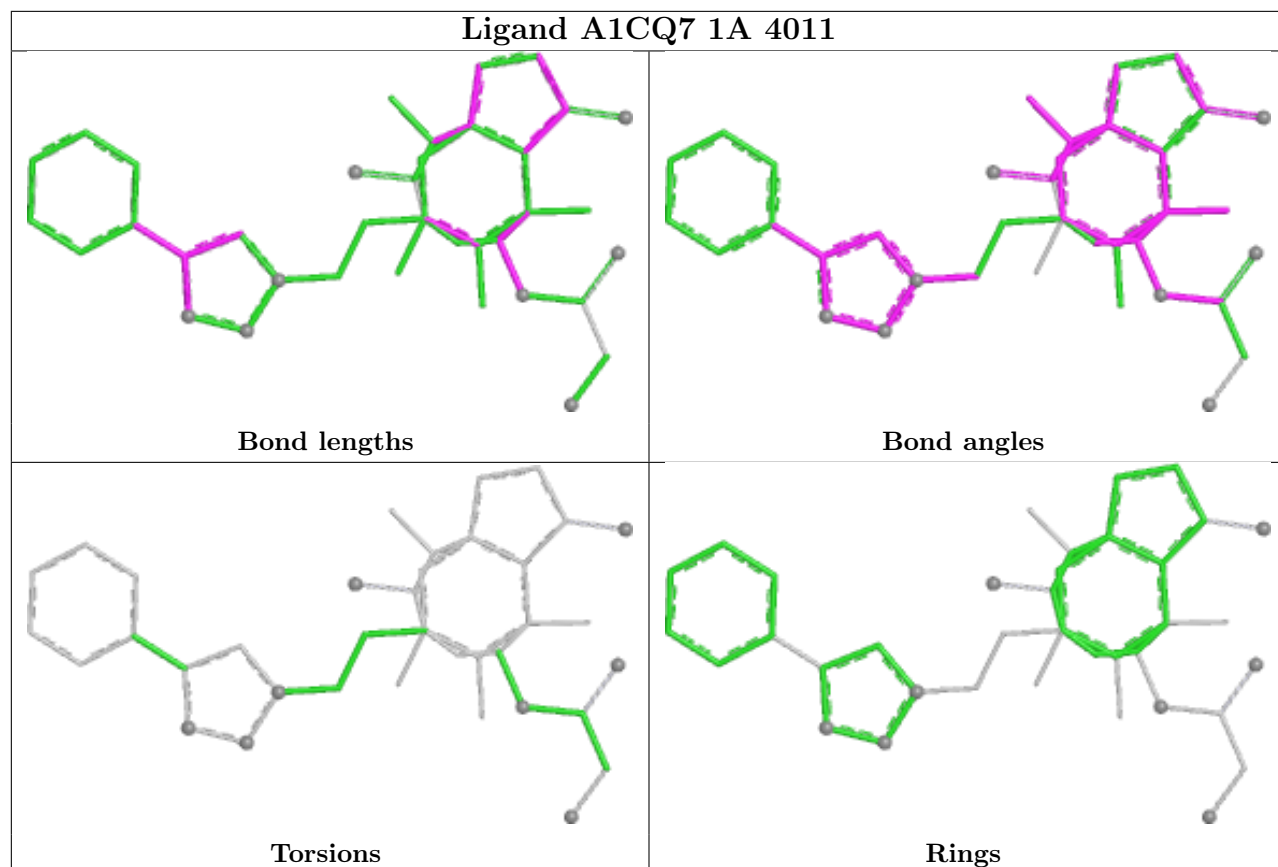
There are no ring outliers.

8 monomers are involved in 17 short contacts:

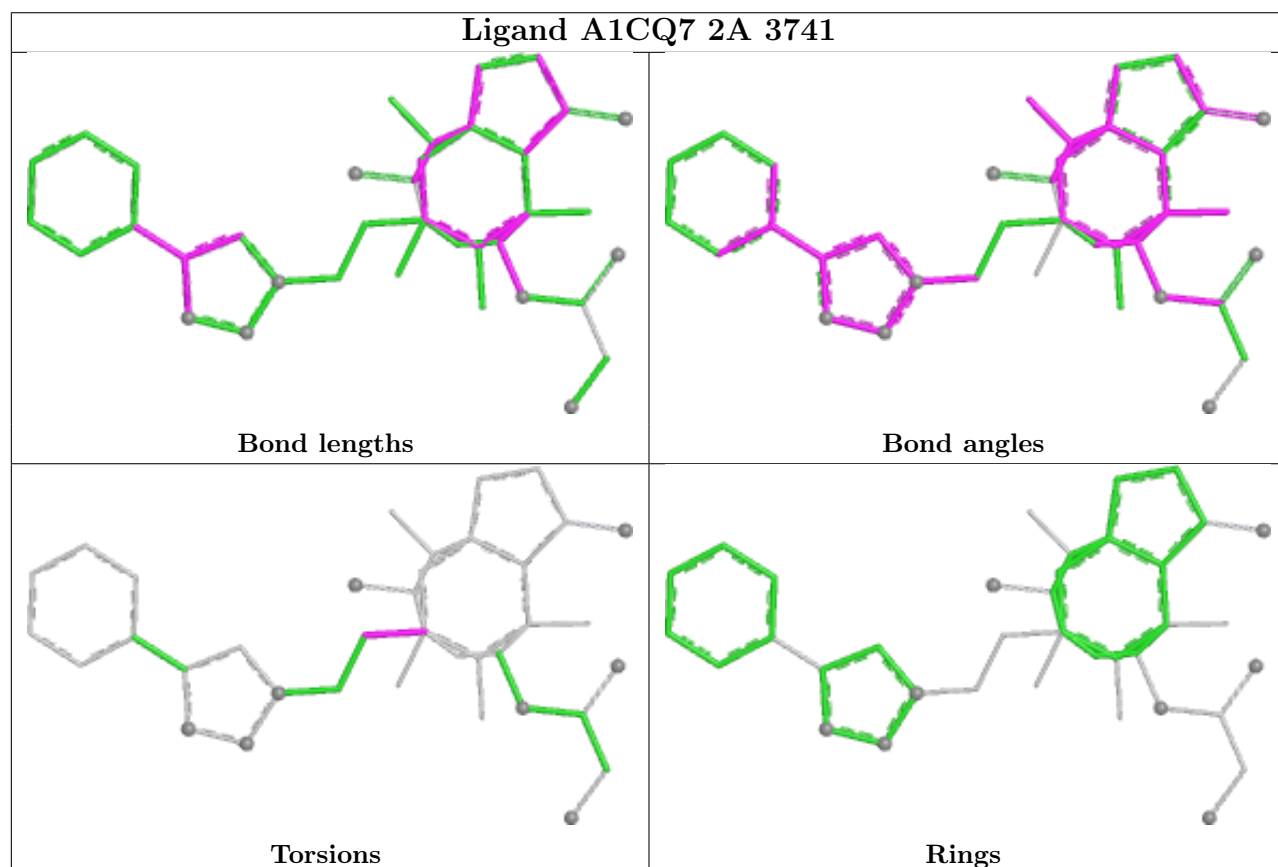
Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	1A	4012	MPD	1	0
56	1T	205	MPD	1	0
57	1B	232	ARG	3	0
56	1a	3278	MPD	3	0
56	2A	3742	MPD	1	0
56	18	104	MPD	2	0
57	1F	318	ARG	3	0
59	2d	501	SF4	3	0

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

Ligand A1CQ7 1A 4011



Ligand A1CQ7 2A 3741



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	139 (4%) 35 27	10, 26, 87, 103	0
1	2A	2856/2915 (97%)	0.07	173 (6%) 27 20	23, 45, 90, 103	0
2	1B	120/121 (99%)	-0.15	1 (0%) 82 78	22, 42, 58, 75	0
2	2B	120/121 (99%)	0.98	4 (3%) 49 40	46, 72, 81, 84	0
3	1D	275/276 (99%)	-0.26	1 (0%) 88 87	11, 26, 41, 64	0
3	2D	275/276 (99%)	-0.03	3 (1%) 78 73	22, 38, 54, 73	0
4	1E	204/206 (99%)	-0.29	1 (0%) 87 85	9, 29, 49, 66	0
4	2E	204/206 (99%)	0.18	3 (1%) 72 65	21, 45, 62, 71	0
5	1F	203/210 (96%)	-0.25	2 (0%) 79 74	9, 30, 57, 76	0
5	2F	203/210 (96%)	0.39	4 (1%) 65 57	24, 53, 69, 81	0
6	1G	181/182 (99%)	0.64	11 (6%) 27 20	38, 55, 72, 83	0
6	2G	181/182 (99%)	1.64	53 (29%) 1 1	66, 76, 84, 88	0
7	1H	174/180 (96%)	0.15	5 (2%) 53 45	27, 42, 56, 64	0
7	2H	173/180 (96%)	1.09	12 (6%) 23 17	59, 72, 78, 84	0
8	1I	147/148 (99%)	0.66	5 (3%) 48 38	31, 61, 73, 79	0
8	2I	146/148 (98%)	0.77	8 (5%) 30 23	42, 65, 75, 83	0
9	1N	140/140 (100%)	-0.21	1 (0%) 84 80	15, 28, 50, 64	0
9	2N	140/140 (100%)	0.42	4 (2%) 53 45	33, 51, 65, 72	0
10	1O	122/122 (100%)	-0.25	1 (0%) 82 78	17, 28, 46, 52	0
10	2O	122/122 (100%)	0.01	1 (0%) 82 78	32, 43, 56, 68	0
11	1P	149/150 (99%)	-0.25	0 100 100	11, 34, 53, 65	0
11	2P	149/150 (99%)	0.41	5 (3%) 48 38	25, 55, 70, 81	0
12	1Q	141/141 (100%)	-0.29	0 100 100	15, 29, 44, 58	0
12	2Q	141/141 (100%)	0.41	4 (2%) 55 46	34, 51, 63, 71	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	1R	118/118 (100%)	-0.31	0 100 100	15, 25, 40, 54	0
13	2R	118/118 (100%)	-0.10	0 100 100	27, 39, 50, 58	0
14	1S	110/112 (98%)	0.14	1 (0%) 81 76	28, 41, 55, 58	0
14	2S	110/112 (98%)	1.52	26 (23%) 2 2	53, 67, 75, 77	0
15	1T	131/146 (89%)	-0.06	3 (2%) 61 52	23, 33, 60, 69	0
15	2T	131/146 (89%)	0.30	4 (3%) 51 43	38, 47, 67, 79	0
16	1U	116/118 (98%)	-0.46	0 100 100	13, 21, 38, 54	0
16	2U	116/118 (98%)	0.36	0 100 100	30, 47, 64, 70	0
17	1V	101/101 (100%)	-0.23	0 100 100	13, 31, 47, 57	0
17	2V	101/101 (100%)	0.70	2 (1%) 65 57	28, 58, 68, 75	0
18	1W	112/113 (99%)	-0.36	0 100 100	13, 21, 44, 75	0
18	2W	112/113 (99%)	-0.06	1 (0%) 81 76	27, 37, 56, 77	0
19	1X	95/96 (98%)	-0.24	1 (1%) 78 73	17, 27, 49, 59	0
19	2X	95/96 (98%)	0.48	3 (3%) 50 41	34, 48, 63, 68	0
20	1Y	107/110 (97%)	0.11	2 (1%) 66 59	26, 38, 57, 64	0
20	2Y	107/110 (97%)	0.92	7 (6%) 25 18	42, 60, 70, 77	0
21	1Z	203/206 (98%)	0.41	3 (1%) 72 65	31, 47, 65, 75	0
21	2Z	201/206 (97%)	1.15	22 (10%) 10 8	51, 66, 77, 86	0
22	10	77/85 (90%)	-0.06	1 (1%) 75 68	19, 27, 42, 54	0
22	20	77/85 (90%)	0.72	4 (5%) 33 25	41, 51, 61, 66	0
23	11	97/98 (98%)	0.07	3 (3%) 51 43	19, 34, 60, 67	0
23	21	97/98 (98%)	0.38	2 (2%) 63 55	28, 43, 64, 69	0
24	12	70/72 (97%)	-0.10	1 (1%) 73 67	24, 36, 51, 79	0
24	22	70/72 (97%)	0.69	3 (4%) 40 31	47, 60, 67, 71	0
25	13	59/60 (98%)	0.00	1 (1%) 69 63	19, 27, 51, 62	0
25	23	59/60 (98%)	0.44	3 (5%) 33 26	37, 51, 64, 72	0
26	14	69/71 (97%)	1.18	10 (14%) 6 4	51, 69, 85, 89	0
26	24	69/71 (97%)	1.80	25 (36%) 1 1	70, 81, 89, 92	0
27	15	59/60 (98%)	-0.28	1 (1%) 69 63	11, 25, 50, 60	0
27	25	59/60 (98%)	0.08	0 100 100	25, 42, 59, 69	0
28	16	53/54 (98%)	-0.15	0 100 100	23, 32, 43, 52	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	26	53/54 (98%)	0.48	2 (3%) 44 35	43, 49, 57, 65	0
29	17	48/49 (97%)	-0.41	1 (2%) 63 55	11, 16, 49, 55	0
29	27	48/49 (97%)	0.08	3 (6%) 26 19	20, 30, 56, 65	0
30	18	64/65 (98%)	-0.33	0 100 100	17, 22, 31, 42	0
30	28	64/65 (98%)	0.27	1 (1%) 70 64	34, 42, 51, 60	0
31	19	37/37 (100%)	-0.31	0 100 100	19, 30, 45, 54	0
31	29	37/37 (100%)	0.82	0 100 100	46, 55, 64, 68	0
32	1a	1488/1521 (97%)	0.54	64 (4%) 40 31	25, 63, 87, 103	0
32	2a	1492/1521 (98%)	0.69	99 (6%) 24 18	33, 67, 89, 102	0
33	1b	231/256 (90%)	1.25	43 (18%) 3 3	58, 71, 81, 87	0
33	2b	231/256 (90%)	1.59	67 (29%) 1 1	62, 76, 84, 89	0
34	1c	206/239 (86%)	1.15	19 (9%) 14 11	58, 68, 77, 81	0
34	2c	206/239 (86%)	1.78	73 (35%) 1 1	63, 77, 82, 91	0
35	1d	208/209 (99%)	1.39	42 (20%) 3 3	48, 65, 74, 82	0
35	2d	208/209 (99%)	1.10	31 (14%) 5 4	52, 63, 71, 76	0
36	1e	148/162 (91%)	0.65	6 (4%) 41 32	38, 56, 66, 78	0
36	2e	148/162 (91%)	1.05	14 (9%) 14 11	53, 64, 73, 80	0
37	1f	100/101 (99%)	0.73	3 (3%) 52 44	47, 59, 68, 72	0
37	2f	100/101 (99%)	0.69	2 (2%) 65 57	46, 60, 70, 73	0
38	1g	155/156 (99%)	0.72	6 (3%) 43 34	55, 64, 72, 78	0
38	2g	155/156 (99%)	1.12	19 (12%) 8 6	61, 71, 77, 83	0
39	1h	137/138 (99%)	0.70	5 (3%) 46 36	47, 59, 67, 73	0
39	2h	137/138 (99%)	0.75	5 (3%) 46 36	52, 62, 69, 79	0
40	1i	127/128 (99%)	1.44	27 (21%) 2 2	53, 71, 79, 83	0
40	2i	126/128 (98%)	1.96	57 (45%) 0 0	68, 78, 85, 86	0
41	1j	97/105 (92%)	1.54	24 (24%) 2 1	56, 73, 80, 84	0
41	2j	96/105 (91%)	2.08	48 (50%) 0 0	69, 78, 85, 87	0
42	1k	114/129 (88%)	0.70	6 (5%) 32 24	34, 54, 68, 73	0
42	2k	114/129 (88%)	0.97	9 (7%) 18 14	51, 63, 71, 78	0
43	1l	121/132 (91%)	0.37	6 (4%) 34 27	40, 50, 61, 70	0
43	2l	121/132 (91%)	0.87	9 (7%) 20 14	46, 57, 65, 69	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	1m	116/126 (92%)	1.12	13 (11%) 10 8	56, 68, 74, 80	0
44	2m	114/126 (90%)	1.40	26 (22%) 2 2	66, 77, 83, 87	0
45	1n	60/61 (98%)	1.01	4 (6%) 24 17	56, 66, 72, 76	0
45	2n	60/61 (98%)	2.06	27 (45%) 0 0	68, 77, 82, 84	0
46	1o	88/89 (98%)	0.79	4 (4%) 38 29	42, 58, 67, 76	0
46	2o	88/89 (98%)	0.66	0 100 100	47, 61, 70, 73	0
47	1p	82/88 (93%)	1.35	18 (21%) 2 2	51, 64, 74, 81	0
47	2p	82/88 (93%)	0.88	4 (4%) 35 27	50, 61, 72, 77	0
48	1q	99/105 (94%)	0.90	5 (5%) 33 26	41, 58, 67, 71	0
48	2q	99/105 (94%)	0.72	3 (3%) 52 44	47, 60, 69, 72	0
49	1r	68/88 (77%)	0.85	2 (2%) 53 45	48, 57, 68, 73	0
49	2r	68/88 (77%)	0.60	2 (2%) 53 45	52, 61, 69, 72	0
50	1s	83/93 (89%)	1.18	9 (10%) 11 8	61, 70, 79, 79	0
50	2s	83/93 (89%)	1.82	35 (42%) 0 0	67, 81, 87, 90	0
51	1t	96/106 (90%)	0.94	9 (9%) 14 11	49, 64, 72, 75	0
51	2t	98/106 (92%)	0.83	7 (7%) 22 16	48, 60, 72, 74	0
52	1u	23/27 (85%)	1.38	2 (8%) 16 12	59, 67, 71, 72	0
52	2u	23/27 (85%)	2.37	17 (73%) 0 0	68, 75, 79, 81	0
53	1y	97/113 (85%)	0.70	5 (5%) 33 25	46, 59, 68, 77	0
53	2y	96/113 (84%)	1.73	29 (30%) 1 1	62, 74, 82, 88	0
All	All	20766/21468 (96%)	0.40	1482 (7%) 22 16	9, 54, 82, 103	0

All (1482) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	1A	1076	C	9.0
1	1A	2174	C	8.9
1	1A	1064	C	8.4
1	2A	2162	G	8.0
1	2A	2173	A	7.8
1	2A	2125	G	7.8
1	1A	2173	A	7.6
1	2A	2174	C	7.6
45	2n	2	ALA	7.2
35	1d	4	TYR	7.2

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Mol	Chain	Res	Type	RSRZ
1	1A	1087	G	6.9
1	2A	2175	C	6.7
1	2A	2176	A	6.7
1	2A	2124	G	6.5
53	1y	98	ALA	6.4
7	1H	2	SER	6.4
1	1A	1063	G	6.4
1	2A	2172	U	6.3
1	2A	1075	C	6.3
1	1A	2117	A	6.2
1	1A	1089	G	6.1
1	1A	2116	G	6.1
44	2m	102	ARG	6.0
1	1A	2172	U	6.0
1	1A	2176	A	6.0
1	2A	2107	C	5.9
35	1d	3	ARG	5.9
1	1A	2161	C	5.8
40	2i	126	SER	5.8
1	2A	2126	A	5.8
1	2A	2119	A	5.7
1	2A	2118	U	5.7
1	1A	2123	G	5.7
35	1d	2	GLY	5.7
1	1A	2119	A	5.6
20	2Y	1	MET	5.6
1	2A	1076	C	5.6
1	2A	2147	G	5.5
40	2i	105	ASP	5.5
1	1A	1075	C	5.5
32	2a	1001(A)	G	5.4
1	2A	1046	A	5.4
1	1A	2168	G	5.3
1	2A	2109	U	5.3
1	2A	2169	A	5.3
1	2A	2110	G	5.2
1	1A	1077	A	5.2
26	24	49	PHE	5.2
1	1A	1093	G	5.2
1	2A	2127	G	5.2
1	2A	2148	G	5.1
1	1A	1072	C	5.0

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Mol	Chain	Res	Type	RSRZ
1	1A	2175	C	5.0
1	2A	2171	A	5.0
40	2i	102	LEU	5.0
35	2d	4	TYR	5.0
1	2A	1070	A	5.0
44	1m	87	TYR	5.0
34	2c	8	ILE	4.9
1	1A	2162	G	4.9
1	2A	2120	G	4.9
1	1A	1074	G	4.9
1	1A	2147	G	4.9
1	2A	2123	G	4.8
45	1n	2	ALA	4.8
33	2b	99	GLY	4.8
1	1A	1086	A	4.8
32	1a	1001	A	4.8
40	1i	15	ALA	4.7
1	1A	1088	A	4.7
1	2A	2138	C	4.7
1	2A	1089	G	4.7
1	2A	2106	G	4.7
1	1A	1066	U	4.6
1	1A	1092	C	4.6
1	1A	2115	G	4.6
1	2A	2108	C	4.6
32	1a	1036	G	4.6
23	1l	2	SER	4.6
40	2i	7	THR	4.5
40	2i	2	GLU	4.5
1	2A	2151	G	4.5
34	1c	2	GLY	4.5
32	2a	1219	U	4.5
6	2G	159	VAL	4.4
1	1A	1091	G	4.4
32	2a	1036	G	4.4
15	1T	130	ALA	4.4
53	2y	45	PRO	4.4
26	14	56	VAL	4.4
1	1A	2109	U	4.4
51	1t	103	GLY	4.3
1	2A	1091	G	4.3
1	2A	2168	G	4.3

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Mol	Chain	Res	Type	RSRZ
40	2i	18	PHE	4.3
40	2i	106	ALA	4.3
1	1A	1081	U	4.3
38	2g	32	ARG	4.3
35	2d	11	LEU	4.3
1	2A	2139	C	4.3
1	1A	1067	A	4.3
33	2b	237	ALA	4.3
12	2Q	59	ARG	4.3
44	1m	2	ALA	4.3
1	1A	2120	G	4.2
1	2A	2802	G	4.2
1	1A	2108	C	4.2
1	2A	2179	C	4.2
23	2l	26	ARG	4.2
33	1b	165	VAL	4.2
45	2n	17	LYS	4.2
51	2t	6	PRO	4.2
1	1A	2149	G	4.2
32	2a	1027	C	4.2
50	1s	84	GLY	4.2
1	1A	2166	G	4.1
1	2A	1087	G	4.1
1	2A	2121	G	4.1
1	2A	2128	C	4.1
32	2a	1034	G	4.1
23	2l	2	SER	4.1
1	1A	2107	C	4.1
1	2A	1536	C	4.1
1	1A	1062	G	4.1
1	1A	1078	U	4.1
1	1A	2150	U	4.1
35	1d	5	ILE	4.1
32	1a	1026	G	4.1
1	1A	2171	A	4.1
34	2c	160	ALA	4.1
34	2c	163	ALA	4.1
42	1k	60	ALA	4.1
53	2y	98	ALA	4.1
40	2i	6	GLY	4.0
1	2A	1083	U	4.0
41	1j	44	VAL	4.0

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Mol	Chain	Res	Type	RSRZ
6	2G	157	ILE	4.0
35	1d	70	ILE	4.0
35	2d	5	ILE	4.0
1	1A	1057	A	4.0
1	2A	2149	G	4.0
6	2G	146	TYR	4.0
1	1A	1065	U	4.0
41	2j	37	PRO	4.0
52	2u	23	PRO	4.0
1	1A	1102	C	4.0
1	2A	1074	G	4.0
1	1A	2167	U	3.9
15	2T	131	ALA	3.9
1	1A	2169	A	3.9
6	2G	2	PRO	3.9
15	2T	55	ASN	3.9
24	12	70	GLN	3.9
1	2A	2165	G	3.9
1	2A	2140	C	3.9
1	2A	2153	G	3.9
14	2S	32	LEU	3.8
6	2G	39	ILE	3.8
35	1d	122	ARG	3.8
50	2s	2	PRO	3.8
15	1T	131	ALA	3.8
1	1A	1082	U	3.8
1	2A	2170	A	3.8
1	1A	1071	G	3.8
1	2A	2133	G	3.8
32	1a	1002	G	3.8
32	2a	1003	G	3.8
50	2s	9	VAL	3.8
41	1j	33	GLN	3.8
1	1A	2126	A	3.8
1	2A	2602	A	3.8
42	2k	31	THR	3.8
8	1I	147	GLN	3.8
32	1a	1031	G	3.8
21	2Z	7	ALA	3.8
6	2G	3	LEU	3.7
41	1j	76	ASN	3.7
41	2j	40	LEU	3.7

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Mol	Chain	Res	Type	RSRZ
1	2A	1071	G	3.7
34	2c	155	GLY	3.7
1	2A	1067	A	3.7
32	2a	1001	A	3.7
1	2A	2117	A	3.7
33	1b	127	ILE	3.7
50	2s	11	VAL	3.7
6	2G	87	PRO	3.7
32	1a	1029	C	3.7
45	2n	18	VAL	3.7
32	2a	1220	G	3.7
50	2s	16	LEU	3.7
6	1G	48	GLU	3.7
32	2a	1321	C	3.6
1	1A	2160	G	3.6
1	2A	2166	G	3.6
32	2a	1033	G	3.6
52	2u	14	TRP	3.6
33	2b	134	GLU	3.6
1	1A	1083	U	3.6
32	1a	65	U	3.6
33	2b	121	LEU	3.6
1	1A	1104	C	3.6
1	2A	2164	C	3.6
32	1a	1034	G	3.6
1	2A	2130	U	3.6
53	1y	97	ALA	3.6
1	2A	2894	G	3.6
6	2G	50	ALA	3.6
47	2p	82	GLN	3.6
52	2u	4	GLY	3.6
1	2A	2146	C	3.6
1	1A	1084	A	3.6
1	1A	1085	A	3.6
14	2S	93	LYS	3.5
41	1j	32	ALA	3.5
32	2a	1235	U	3.5
1	2A	2116	G	3.5
32	1a	1030(A)	G	3.5
34	2c	207	VAL	3.5
42	1k	14	VAL	3.5
14	2S	92	TYR	3.5

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Mol	Chain	Res	Type	RSRZ
37	1f	88	VAL	3.5
1	1A	2148	G	3.5
6	2G	62	LEU	3.5
32	1a	1030(C)	G	3.5
50	1s	13	ASP	3.5
41	2j	76	ASN	3.5
40	1i	66	ARG	3.5
1	1A	1103	A	3.5
1	2A	2129	C	3.5
32	2a	1236	A	3.5
1	2A	2150	U	3.5
20	2Y	58	GLY	3.5
6	2G	35	GLU	3.5
12	2Q	22	LYS	3.5
1	1A	2127	G	3.5
53	2y	9	GLN	3.5
40	2i	109	VAL	3.5
33	2b	133	LYS	3.5
50	2s	4	SER	3.5
41	2j	32	ALA	3.5
6	2G	52	ILE	3.4
32	1a	1001(A)	G	3.4
32	2a	1224	G	3.4
40	2i	53	VAL	3.4
1	2A	1095	A	3.4
1	2A	1096	A	3.4
1	1A	1105	U	3.4
33	2b	97	TRP	3.4
34	2c	92	ALA	3.4
41	2j	83	GLU	3.4
1	1A	1058	G	3.4
21	2Z	103	ARG	3.4
32	2a	1026	G	3.4
1	2A	1064	C	3.4
32	1a	194	C	3.4
33	1b	97	TRP	3.4
40	2i	127	LYS	3.4
14	2S	45	GLY	3.4
15	1T	37	GLY	3.4
25	13	2	PRO	3.4
1	1A	2125	G	3.4
49	2r	20	ALA	3.4

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Mol	Chain	Res	Type	RSRZ
41	2j	79	ARG	3.4
44	1m	102	ARG	3.4
41	2j	59	SER	3.4
53	2y	27	LEU	3.3
1	2A	2152	G	3.3
1	2A	2159	G	3.3
1	1A	2129	C	3.3
1	2A	2136	C	3.3
50	2s	10	PHE	3.3
34	1c	62	ASP	3.3
33	1b	228	GLY	3.3
48	1q	63	ARG	3.3
50	2s	3	ARG	3.3
50	2s	53	ASN	3.3
1	2A	6	A	3.3
1	2A	2161	C	3.3
1	1A	2124	G	3.3
32	2a	1002	G	3.3
45	2n	49	HIS	3.3
6	2G	145	THR	3.3
1	2A	2167	U	3.3
2	2B	1	U	3.3
38	2g	33	ASP	3.3
41	2j	10	GLY	3.3
41	2j	75	ILE	3.3
1	1A	2151	G	3.3
14	2S	46	VAL	3.3
38	1g	34	GLY	3.3
1	2A	2122	U	3.3
10	1O	108	GLU	3.3
42	2k	117	ASN	3.3
32	1a	1035	A	3.3
32	2a	1035	A	3.3
44	2m	5	ALA	3.3
23	11	26	ARG	3.3
38	2g	5	ARG	3.3
40	2i	10	ARG	3.3
52	2u	24	ARG	3.3
17	2V	91	TYR	3.2
26	24	67	TYR	3.2
1	1A	2122	U	3.2
29	27	48	LYS	3.2

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Mol	Chain	Res	Type	RSRZ
53	2y	38	HIS	3.2
19	1X	95	LEU	3.2
32	2a	994	A	3.2
6	2G	28	VAL	3.2
35	2d	8	VAL	3.2
1	2A	1509	C	3.2
32	1a	1027	C	3.2
35	1d	71	SER	3.2
2	1B	1	U	3.2
44	2m	66	LEU	3.2
35	1d	153	ARG	3.2
35	1d	62	GLN	3.2
1	1A	1073	A	3.2
1	2A	652(B)	A	3.2
34	2c	4	LYS	3.2
40	1i	8	GLY	3.2
41	2j	55	LYS	3.2
53	2y	40	ILE	3.2
1	2A	2180	U	3.2
38	2g	28	ASN	3.2
48	2q	98	LEU	3.2
40	2i	58	HIS	3.2
1	2A	2131	G	3.2
26	24	35	VAL	3.2
43	2l	18	VAL	3.2
34	2c	162	GLN	3.2
33	1b	125	PRO	3.2
41	2j	41	PRO	3.2
34	2c	48	TYR	3.2
44	2m	4	ILE	3.2
50	2s	35	SER	3.2
52	2u	13	ILE	3.2
26	24	51	ASP	3.2
32	1a	1000	U	3.2
41	1j	34	VAL	3.2
41	2j	93	GLY	3.2
52	2u	2	GLY	3.2
37	2f	89	MET	3.2
44	1m	116	THR	3.2
6	2G	88	ILE	3.2
47	1p	46	PRO	3.2
36	2e	133	TYR	3.1

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Mol	Chain	Res	Type	RSRZ
40	2i	5	TYR	3.1
38	1g	32	ARG	3.1
47	1p	68	ASP	3.1
36	2e	47	LYS	3.1
53	2y	87	LYS	3.1
1	2A	1082	U	3.1
1	2A	2111	C	3.1
26	24	56	VAL	3.1
32	1a	219	C	3.1
33	2b	15	VAL	3.1
36	2e	20	GLN	3.1
19	2X	86	GLY	3.1
46	1o	19	PRO	3.1
1	1A	2153	G	3.1
1	2A	2190	G	3.1
35	1d	11	LEU	3.1
35	1d	115	ARG	3.1
14	2S	33	LYS	3.1
1	1A	2170	A	3.1
1	1A	1090	U	3.1
1	1A	1080	C	3.1
1	2A	2137	C	3.1
53	2y	54	ILE	3.1
50	2s	30	LEU	3.1
45	2n	34	TYR	3.1
41	2j	68	HIS	3.1
32	1a	220	G	3.1
41	2j	34	VAL	3.1
36	1e	20	GLN	3.1
26	24	45	GLY	3.1
35	1d	69	GLY	3.1
41	1j	10	GLY	3.1
40	1i	56	LEU	3.1
41	2j	65	LEU	3.1
52	2u	9	ARG	3.1
35	1d	195	ALA	3.1
42	1k	15	ALA	3.1
44	2m	51	ALA	3.1
39	1h	94	TYR	3.1
20	2Y	45	VAL	3.1
1	1A	548	A	3.1
1	1A	2121	G	3.1

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Mol	Chain	Res	Type	RSRZ
1	2A	1084	A	3.1
32	1a	79	G	3.1
1	1A	2118	U	3.1
25	23	2	PRO	3.1
41	2j	30	SER	3.0
35	1d	76	ARG	3.0
33	1b	12	GLU	3.0
33	2b	126	GLU	3.0
45	2n	6	LEU	3.0
1	1A	2602	A	3.0
32	1a	1024	G	3.0
33	2b	164	VAL	3.0
41	2j	49	VAL	3.0
1	1A	888	C	3.0
1	1A	1509	C	3.0
5	1F	15	SER	3.0
40	1i	126	SER	3.0
41	2j	78	ASN	3.0
34	2c	185	GLY	3.0
1	2A	1073	A	3.0
1	2A	1085	A	3.0
8	2I	146	ALA	3.0
29	27	45	ALA	3.0
32	1a	1286	A	3.0
32	2a	1004	A	3.0
21	2Z	88	PHE	3.0
45	2n	25	VAL	3.0
45	2n	36	PHE	3.0
1	2A	2155	G	3.0
32	2a	1304	G	3.0
32	2a	1323	G	3.0
1	2A	2177	C	3.0
1	2A	2178	C	3.0
14	2S	30	ARG	3.0
6	2G	53	LEU	3.0
33	1b	124	SER	3.0
35	1d	21	LEU	3.0
34	1c	90	GLU	3.0
4	1E	204	ALA	3.0
40	2i	43	ALA	3.0
45	2n	59	ALA	3.0
6	2G	160	VAL	3.0

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Mol	Chain	Res	Type	RSRZ
1	1A	2114	A	3.0
1	2A	1088	A	3.0
1	2A	2801(A)	A	3.0
50	2s	6	LYS	3.0
7	1H	101	ARG	3.0
14	2S	20	ARG	3.0
41	2j	6	ILE	3.0
40	1i	39	GLY	3.0
32	2a	1030(A)	G	3.0
26	24	66	SER	3.0
34	2c	62	ASP	3.0
1	2A	1072	C	3.0
1	2A	2896	C	3.0
44	1m	113	PRO	3.0
51	1t	66	ALA	3.0
21	2Z	89	PHE	3.0
34	2c	99	VAL	3.0
41	2j	44	VAL	3.0
41	2j	72	VAL	3.0
36	1e	18	ARG	2.9
52	2u	6	ARG	2.9
1	2A	2135	A	2.9
32	1a	1046	A	2.9
47	1p	39	TYR	2.9
47	1p	41	PRO	2.9
1	1A	2159	G	2.9
1	2A	171	G	2.9
1	2A	2160	G	2.9
32	1a	1030(B)	C	2.9
53	2y	52	ALA	2.9
33	2b	70	PHE	2.9
33	2b	138	LEU	2.9
39	1h	133	LEU	2.9
40	2i	96	LEU	2.9
45	2n	38	GLY	2.9
6	1G	35	GLU	2.9
36	2e	130	ASN	2.9
41	1j	78	ASN	2.9
20	1Y	1	MET	2.9
53	2y	64	SER	2.9
35	1d	170	VAL	2.9
36	2e	21	ALA	2.9

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Mol	Chain	Res	Type	RSRZ
14	2S	29	PHE	2.9
40	1i	7	THR	2.9
47	1p	44	THR	2.9
1	2A	2163	C	2.9
1	2A	2803	C	2.9
32	2a	1223	C	2.9
32	1a	1003	G	2.9
34	2c	196	LEU	2.9
33	1b	78	GLN	2.9
8	1I	10	GLU	2.9
6	2G	147	ASP	2.9
35	1d	193	ASP	2.9
44	2m	54	VAL	2.9
45	2n	58	LYS	2.9
49	1r	24	ALA	2.9
14	2S	34	HIS	2.9
26	14	18	CYS	2.9
41	1j	4	ILE	2.9
7	2H	71	LEU	2.9
41	2j	71	LEU	2.9
1	1A	2177	C	2.9
32	1a	1037	C	2.9
32	2a	1150	U	2.9
1	1A	2110	G	2.9
33	1b	131	PRO	2.9
34	1c	193	TYR	2.9
35	1d	169	LYS	2.9
14	2S	61	ASN	2.9
21	2Z	191	VAL	2.9
34	2c	68	VAL	2.9
33	2b	152	PHE	2.9
32	2a	532	A	2.9
34	2c	79	ARG	2.9
35	1d	10	ARG	2.9
35	2d	73	ARG	2.9
50	2s	63	THR	2.9
14	2S	35	ILE	2.9
33	1b	187	LEU	2.9
35	1d	194	LEU	2.9
40	2i	79	LEU	2.9
53	2y	61	LEU	2.9
52	2u	11	GLY	2.8

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Mol	Chain	Res	Type	RSRZ
47	1p	82	GLN	2.8
1	1A	1094	U	2.8
1	1A	1532	C	2.8
32	1a	1028	C	2.8
33	1b	148	TYR	2.8
47	1p	17	TYR	2.8
1	2A	1059	G	2.8
1	2A	2893	G	2.8
32	2a	976	G	2.8
34	2c	129	ALA	2.8
38	2g	80	VAL	2.8
45	2n	33	VAL	2.8
26	14	59	PHE	2.8
28	26	20	ASN	2.8
50	1s	24	ALA	2.8
34	2c	128	PHE	2.8
38	2g	43	PHE	2.8
40	2i	91	ASP	2.8
14	2S	52	SER	2.8
26	24	15	ILE	2.8
26	14	54	GLY	2.8
34	2c	2	GLY	2.8
51	2t	96	GLY	2.8
6	2G	48	GLU	2.8
1	1A	1097	U	2.8
6	1G	146	TYR	2.8
33	2b	92	TYR	2.8
1	2A	1104	C	2.8
14	2S	17	ARG	2.8
32	1a	1030	C	2.8
35	1d	66	ARG	2.8
40	2i	76	ALA	2.8
40	2i	86	VAL	2.8
23	11	98	LEU	2.8
34	2c	20	SER	2.8
7	2H	120	GLY	2.8
30	28	38	GLY	2.8
32	2a	1324	A	2.8
44	2m	24	GLY	2.8
34	1c	73	PRO	2.8
34	2c	107	GLN	2.8
34	2c	106	VAL	2.8

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Mol	Chain	Res	Type	RSRZ
35	1d	73	ARG	2.8
1	2A	1097	U	2.8
33	2b	123	ALA	2.8
7	2H	136	ILE	2.8
41	1j	75	ILE	2.8
47	2p	19	ILE	2.8
51	2t	100	ILE	2.8
1	1A	2128	C	2.8
1	2A	1080	C	2.8
1	2A	2142	C	2.8
32	2a	1037	C	2.8
32	2a	1149	C	2.8
21	1Z	1	MET	2.8
44	2m	6	GLY	2.8
1	2A	2115	G	2.8
21	2Z	95	PRO	2.8
53	2y	46	GLN	2.8
33	2b	129	GLU	2.8
33	1b	33	TYR	2.8
41	2j	47	PHE	2.8
1	2A	362	U	2.8
33	2b	214	ILE	2.8
36	1e	118	ILE	2.8
40	1i	102	LEU	2.8
1	1A	2164	C	2.8
32	1a	218	C	2.8
32	2a	1218	C	2.8
34	2c	114	PRO	2.8
41	2j	77	PRO	2.8
40	2i	41	VAL	2.7
1	1A	2112	G	2.7
1	2A	10	G	2.7
1	2A	1056	G	2.7
1	2A	2141	G	2.7
6	2G	139	LEU	2.7
32	1a	630	G	2.7
32	2a	1005	A	2.7
32	2a	1286	A	2.7
34	2c	167	TRP	2.7
45	2n	39	LEU	2.7
1	2A	271(K)	U	2.7
3	1D	275	LYS	2.7

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Mol	Chain	Res	Type	RSRZ
6	2G	165	THR	2.7
14	2S	31	SER	2.7
18	2W	112	GLY	2.7
33	2b	130	ARG	2.7
34	2c	170	GLN	2.7
45	2n	35	ARG	2.7
7	2H	35	VAL	2.7
34	1c	71	ALA	2.7
40	1i	106	ALA	2.7
41	2j	63	PHE	2.7
45	1n	30	ALA	2.7
33	2b	127	ILE	2.7
44	2m	9	ILE	2.7
1	1A	1095	A	2.7
1	1A	1177	A	2.7
1	1A	1847	A	2.7
1	2A	1077	A	2.7
32	2a	993	G	2.7
32	2a	1024	G	2.7
33	1b	94	ASN	2.7
35	2d	6	GLY	2.7
44	1m	100	GLY	2.7
47	1p	42	ARG	2.7
34	2c	195	VAL	2.7
39	1h	93	VAL	2.7
50	2s	67	VAL	2.7
1	1A	154(A)	C	2.7
1	1A	2137	C	2.7
1	1A	2138	C	2.7
1	2A	2105	C	2.7
1	2A	2145	C	2.7
21	2Z	136	PHE	2.7
32	1a	999	C	2.7
32	2a	1363	C	2.7
33	1b	214	ILE	2.7
34	2c	52	LEU	2.7
34	2c	57	ILE	2.7
35	2d	21	LEU	2.7
40	2i	52	ALA	2.7
43	1l	91	LYS	2.7
47	1p	12	LYS	2.7
32	2a	1256	A	2.7

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Mol	Chain	Res	Type	RSRZ
44	2m	106	ASN	2.7
35	1d	65	ARG	2.7
41	2j	45	ARG	2.7
41	2j	91	PRO	2.7
50	2s	76	PRO	2.7
52	2u	5	ASP	2.7
1	1A	1056	G	2.7
1	1A	1176	G	2.7
1	2A	1062	G	2.7
32	1a	1032	G	2.7
32	2a	1021	G	2.7
32	2a	1068	G	2.7
45	2n	32	SER	2.7
33	2b	165	VAL	2.7
43	2l	43	VAL	2.7
44	2m	98	VAL	2.7
34	1c	50	ALA	2.7
34	2c	53	ALA	2.7
38	2g	120	ILE	2.7
33	2b	16	HIS	2.7
47	2p	39	TYR	2.7
50	2s	52	TYR	2.7
7	2H	6	ARG	2.7
14	2S	3	ARG	2.7
35	1d	47	ARG	2.7
40	2i	66	ARG	2.7
21	2Z	69	THR	2.7
41	2j	48	THR	2.7
1	2A	2134	A	2.7
32	2a	1157	A	2.7
34	2c	104	GLN	2.7
21	2Z	105	VAL	2.7
40	2i	99	LEU	2.7
46	1o	3	ILE	2.6
50	2s	15	LEU	2.7
35	1d	166	LYS	2.6
35	2d	164	ALA	2.6
6	2G	86	MET	2.6
32	2a	1202	G	2.6
33	1b	101	MET	2.6
6	2G	118	ARG	2.6
9	1N	115	ARG	2.6

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Mol	Chain	Res	Type	RSRZ
40	1i	42	ARG	2.6
41	1j	79	ARG	2.6
41	2j	46	ARG	2.6
32	2a	1028	C	2.6
51	2t	103	GLY	2.6
1	1A	12	U	2.6
34	2c	153	VAL	2.6
39	1h	112	LEU	2.6
39	2h	4	ASP	2.6
40	1i	54	ASP	2.6
51	2t	74	LYS	2.6
53	2y	81	LEU	2.6
1	2A	1057	A	2.6
40	2i	63	ILE	2.6
42	2k	29	ILE	2.6
33	2b	210	SER	2.6
36	1e	21	ALA	2.6
40	2i	55	ALA	2.6
43	2l	99	HIS	2.6
1	1A	2141	G	2.6
1	2A	1093	G	2.6
32	2a	1094	G	2.6
32	2a	1124	G	2.6
34	2c	184	TYR	2.6
35	2d	47	ARG	2.6
38	2g	41	ARG	2.6
40	2i	125	TYR	2.6
42	1k	25	TYR	2.6
33	2b	131	PRO	2.6
44	2m	116	THR	2.6
52	2u	8	THR	2.6
1	1A	2136	C	2.6
32	2a	1141	C	2.6
6	2G	63	ILE	2.6
8	1I	46	ALA	2.6
32	1a	173	U	2.6
32	2a	1040	U	2.6
36	2e	5	ASP	2.6
1	2A	1069	A	2.6
6	2G	76	SER	2.6
35	1d	118	ARG	2.6
52	1u	6	ARG	2.6

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Mol	Chain	Res	Type	RSRZ
52	2u	10	ARG	2.6
53	1y	95	ARG	2.6
21	2Z	99	TYR	2.6
26	24	29	PRO	2.6
41	2j	36	GLY	2.6
1	1A	2152	G	2.6
1	1A	2165	G	2.6
1	2A	1171	G	2.6
1	2A	2805	G	2.6
1	2A	2833	G	2.6
14	2S	80	LEU	2.6
41	2j	67	THR	2.6
40	2i	15	ALA	2.6
40	2i	101	PHE	2.6
41	1j	27	ALA	2.6
1	1A	2139	C	2.6
32	2a	995	C	2.6
32	2a	1054	C	2.6
1	1A	271(K)	U	2.6
1	1A	2130	U	2.6
34	2c	69	HIS	2.6
50	1s	4	SER	2.6
34	2c	16	ARG	2.6
1	2A	1098	A	2.6
32	2a	1041	A	2.6
32	2a	1357	A	2.6
6	2G	81	LYS	2.6
33	2b	38	GLY	2.6
34	2c	96	GLY	2.6
35	2d	172	PRO	2.6
38	2g	34	GLY	2.6
40	1i	62	TYR	2.6
44	1m	97	PRO	2.6
50	2s	59	PRO	2.6
33	2b	81	VAL	2.6
41	2j	38	ILE	2.6
34	2c	37	GLN	2.6
1	2A	2100	G	2.5
32	1a	1023	G	2.5
1	2A	1060	U	2.5
11	2P	90	ARG	2.5
32	2a	1039	C	2.5

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Mol	Chain	Res	Type	RSRZ
40	2i	11	LYS	2.5
1	1A	2801(A)	A	2.5
14	2S	78	LEU	2.5
40	2i	39	GLY	2.5
42	2k	103	LEU	2.5
43	2l	87	GLY	2.5
33	2b	236	TYR	2.5
40	2i	4	TYR	2.5
53	2y	41	LEU	2.5
7	2H	11	VAL	2.5
36	2e	10	MET	2.5
6	2G	45	GLU	2.5
33	2b	67	THR	2.5
35	2d	150	GLU	2.5
40	2i	64	THR	2.5
53	1y	2	THR	2.5
34	2c	100	ALA	2.5
33	2b	217	ARG	2.5
45	2n	12	ARG	2.5
33	1b	40	HIS	2.5
51	1t	73	HIS	2.5
6	1G	76	SER	2.5
1	2A	11	G	2.5
1	2A	2154	G	2.5
32	1a	1033	G	2.5
1	1A	2163	C	2.5
5	2F	16	GLY	2.5
33	2b	61	LEU	2.5
34	1c	12	LEU	2.5
35	1d	171	GLY	2.5
38	1g	42	ILE	2.5
40	2i	17	VAL	2.5
53	2y	71	TYR	2.5
32	1a	1492	A	2.5
26	24	30	GLU	2.5
26	24	52	THR	2.5
33	2b	225	ALA	2.5
40	2i	84	ALA	2.5
6	1G	136	ARG	2.5
6	2G	72	ARG	2.5
44	2m	99	ARG	2.5
1	2A	1066	U	2.5

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Mol	Chain	Res	Type	RSRZ
32	1a	1025	U	2.5
21	2Z	1	MET	2.5
34	2c	87	LEU	2.5
34	2c	101	LEU	2.5
38	2g	16	LEU	2.5
35	2d	23	GLY	2.5
48	1q	33	GLY	2.5
53	2y	39	ILE	2.5
1	2A	1102	C	2.5
32	2a	1114	C	2.5
1	2A	2101	G	2.5
1	2A	2182	G	2.5
32	1a	1220	G	2.5
32	2a	1022	G	2.5
33	2b	231	GLU	2.5
53	2y	44	GLU	2.5
34	2c	24	ALA	2.5
35	1d	48	ALA	2.5
37	1f	94	GLN	2.5
40	2i	94	ALA	2.5
40	2i	103	THR	2.5
50	2s	33	THR	2.5
40	2i	9	ARG	2.5
33	2b	22	LYS	2.5
42	1k	124	LYS	2.5
34	2c	176	HIS	2.5
33	1b	121	LEU	2.5
40	1i	50	LEU	2.5
50	2s	42	PRO	2.5
1	2A	2132	U	2.5
35	2d	158	ILE	2.5
35	2d	171	GLY	2.5
41	2j	96	ILE	2.5
6	2G	109	VAL	2.5
50	1s	9	VAL	2.5
36	1e	133	TYR	2.5
4	2E	204	ALA	2.5
22	20	55	ARG	2.5
42	2k	15	ALA	2.5
51	2t	97	ALA	2.5
1	1A	1053	C	2.5
6	2G	47	LYS	2.5

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Mol	Chain	Res	Type	RSRZ
32	2a	1325	C	2.5
53	2y	53	THR	2.5
1	1A	1068	G	2.5
1	2A	2112	G	2.5
32	2a	1221	G	2.5
1	2A	229	A	2.5
33	2b	196	LEU	2.4
41	1j	86	MET	2.4
26	24	22	ILE	2.4
41	1j	50	ILE	2.4
4	2E	59	VAL	2.4
6	1G	160	VAL	2.4
26	14	64	GLY	2.4
26	24	33	VAL	2.4
33	2b	197	VAL	2.4
34	1c	70	VAL	2.4
44	2m	74	VAL	2.4
20	2Y	89	PHE	2.4
45	2n	16	PHE	2.4
21	2Z	201	LYS	2.4
33	1b	237	ALA	2.4
41	2j	33	GLN	2.4
41	2j	62	HIS	2.4
1	2A	652(T)	C	2.4
32	1a	221	C	2.4
50	1s	23	ASN	2.4
14	2S	54	LEU	2.4
22	10	84	LEU	2.4
34	2c	47	LEU	2.4
35	1d	188	LEU	2.4
41	1j	8	LEU	2.4
1	2A	1044	G	2.4
32	2a	1117	G	2.4
32	2a	1139	G	2.4
33	2b	200	ILE	2.4
17	2V	63	GLY	2.4
33	2b	100	GLY	2.4
47	1p	53	VAL	2.4
33	1b	144	ARG	2.4
33	2b	96	ARG	2.4
34	2c	11	ARG	2.4
6	2G	102	PHE	2.4

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Mol	Chain	Res	Type	RSRZ
32	2a	743	U	2.4
35	1d	173	TRP	2.4
40	2i	35	GLU	2.4
41	1j	97	GLU	2.4
33	2b	95	GLN	2.4
51	1t	67	ALA	2.4
53	1y	94	ALA	2.4
26	14	32	TYR	2.4
35	2d	174	LEU	2.4
50	1s	15	LEU	2.4
1	1A	34	C	2.4
1	1A	1079	C	2.4
1	2A	34	C	2.4
1	2A	1092	C	2.4
32	2a	1066	C	2.4
41	1j	39	PRO	2.4
6	2G	38	VAL	2.4
34	1c	9	GLY	2.4
34	2c	75	VAL	2.4
1	1A	529	A	2.4
1	2A	887	A	2.4
41	2j	70	ARG	2.4
1	2A	1058	G	2.4
32	2a	630	G	2.4
32	2a	1373	G	2.4
34	1c	10	PHE	2.4
33	2b	186	ALA	2.4
1	2A	1090	U	2.4
45	2n	21	TYR	2.4
36	2e	116	THR	2.4
14	2S	110	LEU	2.4
33	1b	200	ILE	2.4
33	1b	232	PRO	2.4
40	2i	21	PRO	2.4
33	2b	7	VAL	2.4
39	1h	95	VAL	2.4
26	24	55	ARG	2.4
33	2b	132	LYS	2.4
35	2d	115	ARG	2.4
40	1i	91	ASP	2.4
1	2A	645	C	2.4
1	2A	1178	C	2.4

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Mol	Chain	Res	Type	RSRZ
1	2A	1086	A	2.4
8	1I	99	GLU	2.4
35	2d	192	GLU	2.4
48	2q	49	GLU	2.4
33	1b	34	ALA	2.4
5	2F	8	GLN	2.4
42	1k	13	GLN	2.4
1	2A	2157	G	2.4
32	2a	1048	G	2.4
33	1b	236	TYR	2.4
34	2c	12	LEU	2.4
41	2j	90	LEU	2.4
7	1H	59	ARG	2.3
34	1c	79	ARG	2.3
35	1d	154	ASN	2.3
34	2c	171	GLY	2.3
35	2d	66	ARG	2.3
41	1j	49	VAL	2.3
14	2S	12	PHE	2.3
34	2c	56	ASP	2.3
15	2T	130	ALA	2.3
33	1b	123	ALA	2.3
33	1b	207	ALA	2.3
53	2y	63	ALA	2.3
1	1A	645	C	2.3
1	1A	2896	C	2.3
1	2A	2789	C	2.3
32	1a	63	C	2.3
1	1A	6	A	2.3
6	2G	124	SER	2.3
34	2c	154	SER	2.3
8	2I	38	LEU	2.3
33	2b	140	HIS	2.3
33	2b	142	LEU	2.3
35	1d	135	LEU	2.3
44	2m	37	THR	2.3
50	2s	71	LEU	2.3
6	1G	52	ILE	2.3
3	2D	276	LYS	2.3
38	1g	88	PRO	2.3
52	2u	3	LYS	2.3
1	2A	2319	G	2.3

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Mol	Chain	Res	Type	RSRZ
7	1H	3	ARG	2.3
7	2H	45	VAL	2.3
37	1f	90	VAL	2.3
7	2H	14	GLY	2.3
41	2j	31	GLY	2.3
34	2c	10	PHE	2.3
40	1i	18	PHE	2.3
6	2G	158	ALA	2.3
35	1d	192	GLU	2.3
24	22	60	LEU	2.3
35	1d	152	SER	2.3
53	2y	7	SER	2.3
1	2A	1109	C	2.3
32	2a	1109	C	2.3
32	2a	1303	C	2.3
1	1A	1045	A	2.3
6	1G	88	ILE	2.3
32	1a	1447	A	2.3
34	2c	77	ILE	2.3
34	2c	124	ILE	2.3
52	2u	18	TYR	2.3
20	2Y	4	LYS	2.3
34	2c	97	LYS	2.3
45	2n	15	LYS	2.3
51	1t	74	LYS	2.3
11	2P	79	ARG	2.3
21	2Z	72	ARG	2.3
25	23	29	ARG	2.3
32	1a	1040	U	2.3
34	2c	7	PRO	2.3
41	2j	66	ARG	2.3
44	2m	60	VAL	2.3
53	2y	49	VAL	2.3
40	1i	6	GLY	2.3
40	1i	33	PHE	2.3
1	1A	1106	G	2.3
36	2e	17	ALA	2.3
41	1j	83	GLU	2.3
53	2y	3	MET	2.3
6	1G	139	LEU	2.3
6	2G	41	GLN	2.3
33	2b	44	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
53	2y	24	LEU	2.3
6	2G	8	LYS	2.3
6	2G	67	LYS	2.3
7	2H	134	SER	2.3
33	1b	210	SER	2.3
33	2b	208	ILE	2.3
51	1t	68	LYS	2.3
50	1s	77	THR	2.3
22	20	74	ARG	2.3
45	2n	57	ARG	2.3
33	1b	230	VAL	2.3
35	2d	7	PRO	2.3
40	2i	49	PRO	2.3
1	1A	886	C	2.3
1	1A	2794	C	2.3
32	2a	1140	C	2.3
32	2a	1277	C	2.3
1	2A	1065	U	2.3
32	2a	1025	U	2.3
32	2a	1126	U	2.3
32	2a	1130	A	2.3
5	1F	134	GLY	2.3
33	1b	227	GLY	2.3
6	2G	125	PHE	2.3
12	2Q	29	PHE	2.3
33	2b	55	PHE	2.3
6	1G	46	ALA	2.3
8	2I	55	ALA	2.3
34	2c	19	GLU	2.3
41	2j	61	GLU	2.3
33	1b	98	LEU	2.3
6	2G	36	LYS	2.3
50	2s	28	LYS	2.3
1	1A	1117	G	2.3
32	2a	971	G	2.3
6	2G	71	THR	2.3
34	2c	190	ARG	2.3
35	1d	113	SER	2.3
35	1d	132	ARG	2.3
40	2i	121	ARG	2.3
43	1l	116	SER	2.3
7	2H	118	PRO	2.3

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Mol	Chain	Res	Type	RSRZ
34	1c	174	PRO	2.3
34	1c	201	TYR	2.3
45	2n	54	PRO	2.3
32	2a	1257	U	2.3
1	2A	2183	C	2.2
32	2a	1113	C	2.2
32	2a	1116	C	2.2
32	2a	1320	C	2.2
32	2a	1447	A	2.2
33	2b	105	PHE	2.2
33	2b	173	ALA	2.2
34	2c	121	ALA	2.2
38	1g	84	ASN	2.2
38	2g	116	ALA	2.2
38	2g	117	ALA	2.2
40	1i	43	ALA	2.2
47	1p	14	ASN	2.2
22	20	84	LEU	2.2
35	1d	157	LEU	2.2
51	1t	18	GLN	2.2
33	2b	19	HIS	2.2
40	1i	9	ARG	2.2
40	1i	104	ARG	2.2
52	2u	22	ARG	2.2
6	2G	122	PRO	2.2
21	2Z	68	PRO	2.2
34	2c	173	VAL	2.2
35	2d	178	VAL	2.2
40	2i	108	VAL	2.2
42	2k	14	VAL	2.2
44	1m	54	VAL	2.2
44	1m	98	VAL	2.2
35	2d	20	TYR	2.2
1	2A	1099	G	2.2
32	1a	64	G	2.2
32	2a	1190	G	2.2
32	2a	1215	G	2.2
32	2a	1356	G	2.2
35	2d	165	MET	2.2
39	2h	9	MET	2.2
26	24	57	GLU	2.2
33	2b	62	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
35	2d	32	ALA	2.2
51	1t	76	ALA	2.2
1	2A	2114	A	2.2
2	2B	52	A	2.2
8	2I	74	ASN	2.2
10	2O	31	LYS	2.2
34	2c	3	ASN	2.2
41	1j	71	LEU	2.2
32	1a	1019	C	2.2
32	2a	1029	C	2.2
32	2a	1045	C	2.2
42	2k	123	LYS	2.2
43	1l	126	LYS	2.2
38	2g	42	ILE	2.2
47	1p	19	ILE	2.2
3	2D	263	ARG	2.2
35	1d	190	ASP	2.2
45	1n	3	ARG	2.2
6	2G	179	PRO	2.2
27	15	60	VAL	2.2
36	2e	115	VAL	2.2
40	1i	5	TYR	2.2
41	1j	59	SER	2.2
33	2b	14	GLY	2.2
33	2b	72	GLY	2.2
43	2l	88	GLY	2.2
50	1s	68	GLY	2.2
50	2s	84	GLY	2.2
11	2P	76	LYS	2.2
1	1A	275	G	2.2
1	1A	2206	G	2.2
1	2A	1051	G	2.2
21	2Z	188	ALA	2.2
33	1b	120	ALA	2.2
38	2g	36	LYS	2.2
32	1a	1224	G	2.2
39	2h	2	LEU	2.2
47	1p	7	ALA	2.2
1	1A	2113	U	2.2
1	2A	2897	U	2.2
32	2a	65	U	2.2
33	2b	211	ILE	2.2

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Mol	Chain	Res	Type	RSRZ
34	2c	202	ILE	2.2
39	2h	84	ARG	2.2
40	2i	107	ARG	2.2
46	1o	65	ARG	2.2
1	1A	2158	A	2.2
1	2A	900	A	2.2
1	2A	2892	A	2.2
1	1A	2111	C	2.2
1	1A	2146	C	2.2
1	2A	1049	C	2.2
32	1a	1007	C	2.2
32	1a	1008	C	2.2
32	2a	979	C	2.2
32	2a	1038	C	2.2
34	2c	6	HIS	2.2
21	2Z	93	ASP	2.2
21	2Z	27	VAL	2.2
6	2G	29	TRP	2.2
28	26	42	TRP	2.2
41	1j	100	THR	2.2
50	2s	34	TRP	2.2
14	2S	36	TYR	2.2
20	2Y	55	TYR	2.2
26	24	25	TYR	2.2
35	2d	2	GLY	2.2
52	1u	2	GLY	2.2
9	2N	2	LYS	2.2
40	1i	127	LYS	2.2
6	2G	90	LEU	2.2
35	2d	120	LEU	2.2
40	2i	19	LEU	2.2
40	2i	50	LEU	2.2
33	1b	62	ALA	2.2
34	2c	60	ALA	2.2
38	1g	2	ALA	2.2
38	2g	83	ALA	2.2
6	2G	95	ARG	2.2
43	1l	89	ARG	2.2
44	1m	4	ILE	2.2
45	2n	29	ARG	2.2
46	1o	88	ARG	2.2
9	2N	45	ASN	2.2

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Mol	Chain	Res	Type	RSRZ
42	2k	13	GLN	2.2
1	1A	11	G	2.2
1	1A	2894	G	2.2
1	2A	2793	G	2.2
7	1H	158	HIS	2.2
32	2a	973	G	2.2
33	1b	19	HIS	2.2
33	2b	113	HIS	2.2
8	2I	134	PRO	2.2
32	1a	1005	A	2.2
32	2a	978	A	2.2
33	1b	15	VAL	2.2
34	1c	195	VAL	2.2
35	2d	112	VAL	2.2
44	1m	117	VAL	2.2
1	1A	1052	C	2.2
1	2A	154(A)	C	2.2
1	2A	889	C	2.2
32	1a	1018	C	2.2
32	2a	1317	C	2.2
41	1j	87	THR	2.2
41	2j	100	THR	2.2
44	2m	43	THR	2.2
45	2n	13	THR	2.2
8	2I	45	LYS	2.2
22	20	13	GLY	2.2
47	1p	48	TRP	2.2
29	17	48	LYS	2.2
34	1c	87	LEU	2.2
44	2m	70	LEU	2.2
33	2b	86	GLU	2.2
34	2c	187	ALA	2.2
40	2i	82	ALA	2.2
44	2m	72	ALA	2.2
49	2r	46	GLU	2.2
8	2I	88	ILE	2.1
36	2e	27	ARG	2.1
41	2j	74	ILE	2.1
43	2l	89	ARG	2.1
50	2s	31	ILE	2.1
53	2y	5	ILE	2.1
33	1b	140	HIS	2.1

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Mol	Chain	Res	Type	RSRZ
6	2G	15	VAL	2.1
33	2b	136	VAL	2.1
47	1p	51	VAL	2.1
1	1A	2207	G	2.1
1	2A	2631	G	2.1
9	2N	73	THR	2.1
26	24	44	THR	2.1
32	1a	78	G	2.1
32	1a	102	G	2.1
32	1a	200	G	2.1
32	1a	1004	A	2.1
32	1a	1493	A	2.1
32	2a	1023	G	2.1
32	2a	1031	G	2.1
32	2a	1283	G	2.1
33	2b	190	THR	2.1
1	1A	889	C	2.1
1	1A	2179	C	2.1
21	1Z	136	PHE	2.1
21	2Z	125	LEU	2.1
8	1I	89	TYR	2.1
26	24	63	TYR	2.1
32	1a	1006	C	2.1
34	2c	178	LEU	2.1
50	2s	61	TYR	2.1
14	2S	105	ALA	2.1
34	2c	65	ALA	2.1
47	2p	7	ALA	2.1
14	1S	13	ARG	2.1
33	2b	21	ARG	2.1
40	2i	93	ARG	2.1
51	1t	8	ARG	2.1
26	24	31	ILE	2.1
36	2e	13	ILE	2.1
50	2s	49	ILE	2.1
47	1p	13	HIS	2.1
40	2i	29	ASN	2.1
7	2H	15	VAL	2.1
6	2G	155	MET	2.1
32	1a	992	U	2.1
33	1b	164	VAL	2.1
33	2b	93	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
34	1c	207	VAL	2.1
33	2b	90	MET	2.1
36	2e	70	PRO	2.1
37	2f	90	VAL	2.1
38	2g	118	VAL	2.1
40	1i	65	VAL	2.1
40	2i	123	PRO	2.1
43	2l	23	LYS	2.1
6	2G	134	GLY	2.1
26	14	17	GLY	2.1
40	1i	40	LEU	2.1
32	2a	1492	A	2.1
34	1c	169	ALA	2.1
34	2c	71	ALA	2.1
35	2d	168	ARG	2.1
35	2d	207	TYR	2.1
49	1r	20	ALA	2.1
1	1A	1537	G	2.1
1	2A	271(M)	G	2.1
1	2A	1533	G	2.1
2	2B	118	G	2.1
6	2G	140	ILE	2.1
32	2a	1042	G	2.1
33	1b	129	GLU	2.1
33	2b	201	ILE	2.1
32	1a	1118	C	2.1
33	2b	216	SER	2.1
39	2h	113	SER	2.1
34	1c	107	GLN	2.1
48	1q	93	GLN	2.1
14	2S	95	HIS	2.1
26	24	28	LYS	2.1
33	2b	139	LYS	2.1
34	2c	138	VAL	2.1
35	2d	154	ASN	2.1
50	2s	41	VAL	2.1
48	1q	28	PRO	2.1
1	2A	12	U	2.1
7	2H	82	GLY	2.1
21	2Z	12	GLY	2.1
21	2Z	104	PHE	2.1
24	22	52	ASP	2.1

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Mol	Chain	Res	Type	RSRZ
26	14	51	ASP	2.1
40	2i	40	LEU	2.1
44	1m	89	GLY	2.1
45	2n	55	GLY	2.1
33	1b	17	PHE	2.1
47	1p	47	ASP	2.1
52	2u	17	THR	2.1
53	2y	48	PHE	2.1
52	2u	15	ARG	2.1
38	2g	27	ILE	2.1
40	2i	62	TYR	2.1
41	1j	38	ILE	2.1
51	2t	94	ALA	2.1
26	14	63	TYR	2.1
1	1A	2629	A	2.1
26	14	66	SER	2.1
32	1a	197	A	2.1
32	1a	1030(D)	A	2.1
32	2a	975	A	2.1
32	2a	983	A	2.1
32	2a	1531	A	2.1
1	1A	1047	G	2.1
1	2A	888	C	2.1
1	2A	1047	G	2.1
1	2A	2206	G	2.1
32	1a	1129	C	2.1
8	2I	3	VAL	2.1
32	2a	1131	G	2.1
33	1b	133	LYS	2.1
35	1d	184	LYS	2.1
43	1l	18	VAL	2.1
50	2s	7	LYS	2.1
50	2s	19	VAL	2.1
40	1i	21	PRO	2.1
44	2m	41	PRO	2.1
19	2X	70	LEU	2.1
33	1b	10	LEU	2.1
33	2b	215	LEU	2.1
34	2c	33	LEU	2.1
35	2d	176	LEU	2.1
36	2e	151	LEU	2.1
5	2F	208	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
20	2Y	60	PHE	2.1
26	24	54	GLY	2.1
36	1e	22	GLY	2.1
48	1q	27	PHE	2.1
26	24	27	THR	2.1
26	24	62	ARG	2.1
40	2i	104	ARG	2.1
41	1j	42	THR	2.1
41	2j	42	THR	2.1
41	2j	92	THR	2.1
50	2s	79	THR	2.1
6	2G	46	ALA	2.1
21	2Z	192	ALA	2.1
33	1b	24	TRP	2.1
33	2b	68	ILE	2.1
41	2j	26	ALA	2.1
48	2q	65	ILE	2.1
53	2y	50	ALA	2.1
21	1Z	203	GLU	2.1
35	1d	145	GLU	2.1
44	2m	67	GLU	2.1
35	2d	169	LYS	2.0
47	1p	16	HIS	2.0
50	2s	14	HIS	2.0
1	2A	1045	A	2.0
1	2A	1048	A	2.0
6	2G	37	VAL	2.0
9	2N	5	VAL	2.0
26	24	50	VAL	2.0
32	1a	162	A	2.0
32	2a	1092	A	2.0
34	2c	64	VAL	2.0
41	2j	24	VAL	2.0
50	2s	45	VAL	2.0
53	2y	62	VAL	2.0
33	2b	91	PRO	2.0
35	1d	189	PRO	2.0
41	2j	39	PRO	2.0
1	2A	2380	C	2.0
5	2F	169	ASN	2.0
6	2G	60	LEU	2.0
14	2S	56	LEU	2.0

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Mol	Chain	Res	Type	RSRZ
19	2X	95	LEU	2.0
32	2a	1018	C	2.0
33	1b	154	LEU	2.0
53	2y	34	LEU	2.0
1	1A	545	G	2.0
1	1A	1173	G	2.0
1	1A	1538	G	2.0
1	2A	883	G	2.0
1	2A	1063	G	2.0
1	2A	1537	G	2.0
1	2A	2104	G	2.0
6	2G	181	ARG	2.0
12	2Q	30	GLY	2.0
32	1a	306	G	2.0
32	1a	1011	G	2.0
32	1a	1131	G	2.0
34	2c	203	PHE	2.0
38	2g	62	PHE	2.0
43	2l	103	GLY	2.0
45	2n	3	ARG	2.0
1	2A	1081	U	2.0
32	1a	182	U	2.0
40	1i	103	THR	2.0
44	1m	37	THR	2.0
42	2k	36	ASP	2.0
40	2i	36	TYR	2.0
40	2i	95	LYS	2.0
44	2m	23	TYR	2.0
44	2m	87	TYR	2.0
6	2G	149	VAL	2.0
29	27	46	VAL	2.0
33	1b	95	GLN	2.0
33	2b	78	GLN	2.0
44	2m	7	VAL	2.0
50	2s	60	VAL	2.0
20	1Y	56	PRO	2.0
40	2i	98	PRO	2.0
1	1A	1070	A	2.0
1	1A	1098	A	2.0
2	2B	25	A	2.0
32	2a	1030(D)	A	2.0
33	1b	196	LEU	2.0

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Mol	Chain	Res	Type	RSRZ
40	1i	79	LEU	2.0
6	1G	83	ARG	2.0
11	2P	102	ARG	2.0
15	2T	54	ARG	2.0
34	2c	54	ARG	2.0
45	1n	35	ARG	2.0
50	2s	65	ASN	2.0
14	2S	96	GLY	2.0
26	24	64	GLY	2.0
33	2b	57	PHE	2.0
45	2n	51	GLY	2.0
1	2A	279	C	2.0
1	2A	1052	C	2.0
32	2a	744	C	2.0
41	2j	98	ILE	2.0
44	2m	84	ILE	2.0
25	23	25	ALA	2.0
34	2c	146	ALA	2.0
34	2c	180	ALA	2.0
35	1d	149	ALA	2.0
38	2g	2	ALA	2.0
44	2m	76	ALA	2.0
45	2n	5	ALA	2.0
1	2A	2113	U	2.0
32	2a	84	U	2.0
32	2a	1240	U	2.0
50	2s	12	ASP	2.0
1	1A	1059	G	2.0
1	1A	2133	G	2.0
1	1A	2192	G	2.0
1	2A	652(U)	G	2.0
1	2A	1068	G	2.0
3	2D	150	LYS	2.0
32	1a	69	G	2.0
43	1l	119	LYS	2.0
43	2l	13	LYS	2.0
53	2y	8	LYS	2.0
4	2E	1	MET	2.0
24	22	1	MET	2.0
21	2Z	29	TYR	2.0
34	2c	23	TYR	2.0
40	2i	88	TYR	2.0

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Mol	Chain	Res	Type	RSRZ
11	2P	71	VAL	2.0
34	2c	70	VAL	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
32	2MG	2a	1207	24/25	0.78	0.15	75,82,89,96	0
1	5MU	2A	1915	21/22	0.83	0.12	66,77,84,95	0
32	5MC	2a	967	21/22	0.84	0.15	64,70,78,89	0
32	M2G	2a	966	25/26	0.85	0.15	58,66,74,85	0
1	5MU	1A	1915	21/22	0.88	0.12	63,73,82,86	0
32	2MG	1a	1207	24/25	0.89	0.12	65,69,74,80	0
1	PSU	2A	1917	20/21	0.89	0.09	68,73,88,94	0
32	G7M	2a	527	24/25	0.89	0.12	55,62,66,67	0
1	PSU	2A	1911	20/21	0.90	0.10	58,63,77,79	0
32	PSU	2a	516	20/21	0.90	0.11	65,72,77,82	0
1	PSU	1A	1917	20/21	0.90	0.11	53,62,79,79	0
1	PSU	1A	1911	20/21	0.91	0.11	44,57,61,62	0
32	4OC	2a	1402	22/23	0.91	0.13	50,62,64,66	0
32	5MC	2a	1400	21/22	0.92	0.11	56,64,70,73	0
43	0TD	1l	92	10/11	0.92	0.12	46,51,55,57	0
43	0TD	2l	92	10/11	0.92	0.11	52,55,61,69	0
32	PSU	1a	516	20/21	0.93	0.11	54,57,62,63	0
1	OMC	2A	1920	21/22	0.93	0.10	49,61,64,68	0
32	M2G	1a	966	25/26	0.94	0.10	48,55,60,64	0
32	5MC	2a	1407	21/22	0.94	0.10	45,53,57,58	0
32	MA6	2a	1518	24/25	0.94	0.11	47,57,60,63	0
32	5MC	1a	967	21/22	0.94	0.10	49,57,70,70	0
32	MA6	1a	1519	24/25	0.95	0.10	31,38,42,47	0
32	G7M	1a	527	24/25	0.95	0.09	35,46,51,56	0
32	UR3	2a	1498	21/22	0.95	0.10	48,54,60,64	0
32	5MC	1a	1400	21/22	0.95	0.10	33,48,53,57	0
32	5MC	1a	1407	21/22	0.95	0.09	34,44,46,48	0
1	OMC	1A	1920	21/22	0.96	0.09	38,45,54,55	0
32	5MC	2a	1404	21/22	0.96	0.08	41,52,57,57	0
32	UR3	1a	1498	21/22	0.96	0.10	35,40,47,53	0
1	5MC	2A	1942	21/22	0.96	0.10	33,42,46,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
1	2MA	2A	2503	23/24	0.96	0.10	19,27,31,34	0
32	MA6	2a	1519	24/25	0.96	0.11	44,54,59,60	0
32	4OC	1a	1402	22/23	0.96	0.09	39,44,48,56	0
32	MA6	1a	1518	24/25	0.97	0.09	33,37,41,48	0
32	5MC	1a	1404	21/22	0.97	0.08	31,35,40,42	0
1	5MC	1A	1962	21/22	0.97	0.08	23,27,30,34	0
1	5MU	2A	1939	21/22	0.97	0.09	28,32,35,35	0
1	5MC	1A	1942	21/22	0.97	0.08	19,26,30,32	0
1	5MC	2A	1962	21/22	0.97	0.07	27,34,44,57	0
1	OMG	2A	2251	24/25	0.97	0.07	24,31,33,35	0
1	PSU	1A	2605	20/21	0.98	0.06	13,18,26,27	0
1	5MU	1A	1939	21/22	0.98	0.07	14,18,21,22	0
1	2MA	1A	2503	23/24	0.98	0.07	7,11,12,15	0
1	OMU	2A	2552	21/22	0.98	0.06	23,31,35,36	0
1	PSU	2A	2605	20/21	0.98	0.07	26,30,34,35	0
1	OMU	1A	2552	21/22	0.98	0.07	16,19,25,28	0
1	OMG	1A	2251	24/25	0.99	0.06	12,15,17,17	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
54	MG	1a	3200	1/1	0.48	0.18	67,67,67,67	0
54	MG	1a	3152	1/1	0.52	0.20	68,68,68,68	0
54	MG	1A	3750	1/1	0.53	0.22	61,61,61,61	0
54	MG	1A	3881	1/1	0.59	0.20	50,50,50,50	0
54	MG	2A	3505	1/1	0.60	0.25	62,62,62,62	0
54	MG	2j	201	1/1	0.60	0.12	80,80,80,80	0
54	MG	1t	202	1/1	0.64	0.14	56,56,56,56	0
54	MG	1A	3287	1/1	0.64	0.15	75,75,75,75	0
54	MG	2A	3523	1/1	0.64	0.16	71,71,71,71	0
54	MG	1A	3634	1/1	0.64	0.15	61,61,61,61	0
54	MG	2A	3715	1/1	0.65	0.13	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MPD	2B	221	8/8	0.65	0.33	56,65,69,70	0
54	MG	2A	3721	1/1	0.66	0.28	70,70,70,70	0
54	MG	2a	3140	1/1	0.66	0.30	79,79,79,79	0
54	MG	1A	3027	1/1	0.66	0.27	58,58,58,58	0
54	MG	1a	3077	1/1	0.66	0.20	67,67,67,67	0
54	MG	2A	3734	1/1	0.68	0.21	69,69,69,69	0
54	MG	1a	3168	1/1	0.68	0.19	80,80,80,80	0
54	MG	1a	3164	1/1	0.69	0.17	61,61,61,61	0
54	MG	2A	3171	1/1	0.69	0.19	59,59,59,59	0
54	MG	1A	3859	1/1	0.70	0.14	30,30,30,30	0
54	MG	1a	3055	1/1	0.70	0.32	64,64,64,64	0
54	MG	2a	3063	1/1	0.70	0.18	69,69,69,69	0
54	MG	1a	3006	1/1	0.71	0.14	58,58,58,58	0
54	MG	2G	202	1/1	0.71	0.14	69,69,69,69	0
54	MG	1B	226	1/1	0.71	0.13	46,46,46,46	0
54	MG	1a	3236	1/1	0.71	0.15	67,67,67,67	0
54	MG	2a	3145	1/1	0.71	0.15	79,79,79,79	0
54	MG	1a	3244	1/1	0.71	0.16	71,71,71,71	0
54	MG	1a	3066	1/1	0.71	0.25	68,68,68,68	0
54	MG	2A	3488	1/1	0.72	0.19	58,58,58,58	0
54	MG	1A	3087	1/1	0.72	0.12	59,59,59,59	0
54	MG	1F	316	1/1	0.72	0.24	40,40,40,40	0
54	MG	1a	3274	1/1	0.73	0.35	70,70,70,70	0
54	MG	2B	207	1/1	0.73	0.18	71,71,71,71	0
54	MG	1f	201	1/1	0.73	0.17	57,57,57,57	0
54	MG	2a	3007	1/1	0.73	0.12	57,57,57,57	0
54	MG	1a	3157	1/1	0.73	0.12	64,64,64,64	0
54	MG	2A	3611	1/1	0.73	0.21	66,66,66,66	0
54	MG	1A	3564	1/1	0.73	0.22	61,61,61,61	0
54	MG	2A	3418	1/1	0.73	0.17	51,51,51,51	0
54	MG	2k	201	1/1	0.73	0.22	69,69,69,69	0
54	MG	2A	3726	1/1	0.73	0.25	69,69,69,69	0
54	MG	2B	219	1/1	0.74	0.18	76,76,76,76	0
54	MG	1a	3033	1/1	0.74	0.13	45,45,45,45	0
54	MG	2Q	202	1/1	0.74	0.26	49,49,49,49	0
54	MG	2T	202	1/1	0.74	0.14	55,55,55,55	0
54	MG	2A	3100	1/1	0.74	0.18	61,61,61,61	0
54	MG	2A	3714	1/1	0.74	0.15	54,54,54,54	0
54	MG	2A	3108	1/1	0.74	0.19	63,63,63,63	0
54	MG	14	101	1/1	0.74	0.13	72,72,72,72	0
54	MG	1a	3254	1/1	0.74	0.26	65,65,65,65	0
54	MG	1a	3198	1/1	0.74	0.15	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2n	101	1/1	0.74	0.17	61,61,61,61	0
54	MG	1a	3158	1/1	0.74	0.25	58,58,58,58	0
54	MG	1A	3905	1/1	0.75	0.14	25,25,25,25	0
54	MG	2a	3113	1/1	0.75	0.24	63,63,63,63	0
54	MG	1a	3020	1/1	0.75	0.13	59,59,59,59	0
54	MG	1a	3114	1/1	0.75	0.14	73,73,73,73	0
54	MG	1a	3255	1/1	0.75	0.20	50,50,50,50	0
54	MG	2A	3260	1/1	0.75	0.19	59,59,59,59	0
54	MG	1Z	301	1/1	0.75	0.16	54,54,54,54	0
54	MG	2t	201	1/1	0.75	0.15	58,58,58,58	0
54	MG	1A	3186	1/1	0.75	0.11	50,50,50,50	0
54	MG	1B	224	1/1	0.76	0.13	46,46,46,46	0
54	MG	1a	3084	1/1	0.76	0.20	60,60,60,60	0
54	MG	2a	3162	1/1	0.76	0.15	51,51,51,51	0
54	MG	2A	3195	1/1	0.76	0.22	61,61,61,61	0
54	MG	1a	3195	1/1	0.76	0.17	52,52,52,52	0
54	MG	2a	3020	1/1	0.76	0.23	58,58,58,58	0
54	MG	2A	3697	1/1	0.76	0.47	50,50,50,50	0
54	MG	1a	3268	1/1	0.76	0.14	58,58,58,58	0
54	MG	1A	3976	1/1	0.77	0.19	54,54,54,54	0
54	MG	1B	209	1/1	0.77	0.21	57,57,57,57	0
54	MG	2a	3058	1/1	0.77	0.16	65,65,65,65	0
54	MG	1a	3039	1/1	0.77	0.24	67,67,67,67	0
54	MG	2a	3077	1/1	0.77	0.20	59,59,59,59	0
54	MG	2a	3106	1/1	0.77	0.15	69,69,69,69	0
54	MG	2A	3719	1/1	0.77	0.27	65,65,65,65	0
54	MG	2a	3125	1/1	0.77	0.16	73,73,73,73	0
54	MG	1A	3849	1/1	0.77	0.17	60,60,60,60	0
54	MG	1h	202	1/1	0.77	0.18	52,52,52,52	0
54	MG	2A	3493	1/1	0.77	0.21	29,29,29,29	0
54	MG	2a	3164	1/1	0.77	0.44	93,93,93,93	0
54	MG	1A	3407	1/1	0.77	0.17	50,50,50,50	0
54	MG	1a	3163	1/1	0.77	0.18	61,61,61,61	0
54	MG	1a	3008	1/1	0.77	0.22	59,59,59,59	0
54	MG	2A	3652	1/1	0.77	0.25	58,58,58,58	0
54	MG	2A	3666	1/1	0.77	0.15	53,53,53,53	0
54	MG	2A	3438	1/1	0.78	0.18	61,61,61,61	0
54	MG	2A	3448	1/1	0.78	0.17	63,63,63,63	0
54	MG	1A	3630	1/1	0.78	0.42	23,23,23,23	0
54	MG	21	103	1/1	0.78	0.34	62,62,62,62	0
54	MG	1a	3111	1/1	0.78	0.16	61,61,61,61	0
54	MG	1A	3771	1/1	0.78	0.13	20,20,20,20	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	3141	1/1	0.78	0.16	56,56,56,56	0
54	MG	2a	3061	1/1	0.78	0.22	67,67,67,67	0
54	MG	1A	3938	1/1	0.78	0.14	50,50,50,50	0
54	MG	1A	3861	1/1	0.78	0.22	74,74,74,74	0
56	MPD	2A	3742	8/8	0.78	0.27	31,44,48,53	0
54	MG	1N	203	1/1	0.78	0.14	63,63,63,63	0
54	MG	1A	3598	1/1	0.79	0.15	36,36,36,36	0
54	MG	1A	3283	1/1	0.79	0.53	37,37,37,37	0
54	MG	2A	3706	1/1	0.79	0.36	38,38,38,38	0
54	MG	1A	3153	1/1	0.79	0.14	50,50,50,50	0
54	MG	2a	3101	1/1	0.79	0.15	65,65,65,65	0
54	MG	1A	3689	1/1	0.79	0.14	54,54,54,54	0
54	MG	2A	3401	1/1	0.79	0.25	54,54,54,54	0
54	MG	1A	3148	1/1	0.79	0.26	49,49,49,49	0
54	MG	1a	3269	1/1	0.79	0.14	61,61,61,61	0
54	MG	1A	3219	1/1	0.79	0.13	53,53,53,53	0
54	MG	1d	303	1/1	0.79	0.36	74,74,74,74	0
54	MG	2A	3491	1/1	0.79	0.33	63,63,63,63	0
54	MG	1a	3169	1/1	0.79	0.16	71,71,71,71	0
54	MG	1A	3981	1/1	0.79	0.13	58,58,58,58	0
54	MG	2A	3509	1/1	0.79	0.14	66,66,66,66	0
54	MG	1A	3990	1/1	0.79	0.15	62,62,62,62	0
54	MG	1y	202	1/1	0.79	0.16	63,63,63,63	0
54	MG	1A	3584	1/1	0.79	0.13	54,54,54,54	0
54	MG	1A	3683	1/1	0.80	0.17	52,52,52,52	0
54	MG	2A	3512	1/1	0.80	0.19	48,48,48,48	0
54	MG	1A	3980	1/1	0.80	0.21	39,39,39,39	0
54	MG	2a	3155	1/1	0.80	0.13	57,57,57,57	0
54	MG	2a	3024	1/1	0.80	0.19	55,55,55,55	0
54	MG	2A	3564	1/1	0.80	0.21	73,73,73,73	0
54	MG	1f	202	1/1	0.80	0.14	49,49,49,49	0
54	MG	2A	3482	1/1	0.80	0.20	69,69,69,69	0
54	MG	2A	3288	1/1	0.80	0.11	43,43,43,43	0
54	MG	2A	3289	1/1	0.80	0.13	50,50,50,50	0
54	MG	2A	3354	1/1	0.80	0.12	54,54,54,54	0
54	MG	1l	104	1/1	0.80	0.14	44,44,44,44	0
54	MG	1A	3608	1/1	0.81	0.20	65,65,65,65	0
54	MG	2a	3002	1/1	0.81	0.17	56,56,56,56	0
54	MG	2A	3507	1/1	0.81	0.16	63,63,63,63	0
54	MG	2A	3148	1/1	0.81	0.25	58,58,58,58	0
54	MG	1a	3249	1/1	0.81	0.11	51,51,51,51	0
54	MG	2a	3050	1/1	0.81	0.24	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2a	3055	1/1	0.81	0.21	61,61,61,61	0
54	MG	2A	3181	1/1	0.81	0.17	60,60,60,60	0
54	MG	1B	207	1/1	0.81	0.13	36,36,36,36	0
54	MG	2A	3204	1/1	0.81	0.19	59,59,59,59	0
54	MG	2A	3645	1/1	0.81	0.10	33,33,33,33	0
54	MG	1A	3930	1/1	0.81	0.11	37,37,37,37	0
54	MG	1a	3263	1/1	0.81	0.16	81,81,81,81	0
54	MG	1A	3852	1/1	0.81	0.12	56,56,56,56	0
54	MG	2A	3345	1/1	0.81	0.20	57,57,57,57	0
54	MG	1a	3086	1/1	0.81	0.14	55,55,55,55	0
54	MG	1A	3661	1/1	0.81	0.12	55,55,55,55	0
54	MG	1a	3170	1/1	0.81	0.12	59,59,59,59	0
54	MG	1D	316	1/1	0.81	0.13	58,58,58,58	0
54	MG	1a	3120	1/1	0.81	0.10	49,49,49,49	0
54	MG	2A	3457	1/1	0.81	0.20	63,63,63,63	0
54	MG	1A	3758	1/1	0.81	0.15	43,43,43,43	0
54	MG	2A	3487	1/1	0.81	0.13	63,63,63,63	0
54	MG	1a	3232	1/1	0.81	0.12	63,63,63,63	0
54	MG	1A	3548	1/1	0.81	0.22	49,49,49,49	0
54	MG	1a	3239	1/1	0.81	0.21	66,66,66,66	0
54	MG	2A	3262	1/1	0.82	0.21	58,58,58,58	0
54	MG	1a	3230	1/1	0.82	0.10	60,60,60,60	0
54	MG	2A	3634	1/1	0.82	0.22	61,61,61,61	0
54	MG	1A	3571	1/1	0.82	0.13	36,36,36,36	0
54	MG	1A	3635	1/1	0.82	0.13	45,45,45,45	0
54	MG	1A	3428	1/1	0.82	0.18	33,33,33,33	0
54	MG	1A	3545	1/1	0.82	0.10	23,23,23,23	0
54	MG	1A	3964	1/1	0.82	0.15	35,35,35,35	0
54	MG	2A	3022	1/1	0.82	0.14	47,47,47,47	0
54	MG	2A	3039	1/1	0.82	0.27	53,53,53,53	0
54	MG	2a	3108	1/1	0.82	0.21	69,69,69,69	0
54	MG	2A	3451	1/1	0.82	0.15	52,52,52,52	0
54	MG	1a	3180	1/1	0.82	0.13	70,70,70,70	0
54	MG	1a	3073	1/1	0.82	0.12	46,46,46,46	0
54	MG	1A	3065	1/1	0.82	0.12	56,56,56,56	0
54	MG	2A	3150	1/1	0.82	0.14	42,42,42,42	0
54	MG	1a	3267	1/1	0.82	0.14	73,73,73,73	0
54	MG	1A	3286	1/1	0.82	0.16	53,53,53,53	0
54	MG	2P	202	1/1	0.82	0.10	47,47,47,47	0
54	MG	1a	3221	1/1	0.82	0.14	60,60,60,60	0
54	MG	2A	3198	1/1	0.82	0.12	49,49,49,49	0
54	MG	1a	3229	1/1	0.82	0.14	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	MPD	1T	205	8/8	0.82	0.30	57,61,72,72	0
54	MG	2A	3258	1/1	0.82	0.24	45,45,45,45	0
54	MG	1b	301	1/1	0.82	0.13	72,72,72,72	0
54	MG	2A	3386	1/1	0.83	0.14	53,53,53,53	0
54	MG	2a	3035	1/1	0.83	0.11	69,69,69,69	0
54	MG	2a	3045	1/1	0.83	0.33	72,72,72,72	0
54	MG	1a	3095	1/1	0.83	0.17	63,63,63,63	0
54	MG	2A	3413	1/1	0.83	0.13	53,53,53,53	0
54	MG	2A	3678	1/1	0.83	0.13	58,58,58,58	0
54	MG	1a	3109	1/1	0.83	0.16	66,66,66,66	0
54	MG	1a	3011	1/1	0.83	0.15	51,51,51,51	0
54	MG	1A	3415	1/1	0.83	0.14	53,53,53,53	0
54	MG	1A	3616	1/1	0.83	0.16	30,30,30,30	0
54	MG	1A	3672	1/1	0.83	0.14	43,43,43,43	0
54	MG	1A	3626	1/1	0.83	0.12	33,33,33,33	0
54	MG	1a	3062	1/1	0.83	0.21	59,59,59,59	0
54	MG	2a	3119	1/1	0.83	0.10	47,47,47,47	0
54	MG	2A	3729	1/1	0.83	0.14	62,62,62,62	0
54	MG	2a	3137	1/1	0.83	0.10	38,38,38,38	0
54	MG	1A	3196	1/1	0.83	0.15	47,47,47,47	0
54	MG	2A	3738	1/1	0.83	0.11	47,47,47,47	0
54	MG	2A	3215	1/1	0.83	0.19	52,52,52,52	0
54	MG	1A	3690	1/1	0.83	0.26	43,43,43,43	0
54	MG	1A	3702	1/1	0.83	0.36	59,59,59,59	0
54	MG	1a	3078	1/1	0.83	0.21	73,73,73,73	0
54	MG	2A	3274	1/1	0.83	0.11	40,40,40,40	0
54	MG	2A	3015	1/1	0.83	0.14	44,44,44,44	0
54	MG	1A	3744	1/1	0.83	0.20	40,40,40,40	0
54	MG	1A	3527	1/1	0.83	0.14	35,35,35,35	0
56	MPD	1a	3278	8/8	0.83	0.17	44,56,68,69	0
54	MG	2A	3091	1/1	0.83	0.21	52,52,52,52	0
54	MG	2A	3364	1/1	0.83	0.12	49,49,49,49	0
54	MG	1a	3136	1/1	0.84	0.17	62,62,62,62	0
54	MG	2A	3532	1/1	0.84	0.14	59,59,59,59	0
54	MG	1a	3171	1/1	0.84	0.20	53,53,53,53	0
54	MG	1a	3137	1/1	0.84	0.12	52,52,52,52	0
54	MG	1a	3190	1/1	0.84	0.16	58,58,58,58	0
54	MG	1A	3633	1/1	0.84	0.31	21,21,21,21	0
54	MG	2A	3077	1/1	0.84	0.18	39,39,39,39	0
54	MG	2A	3078	1/1	0.84	0.13	74,74,74,74	0
54	MG	2A	3382	1/1	0.84	0.12	60,60,60,60	0
54	MG	2a	3068	1/1	0.84	0.20	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3080	1/1	0.84	0.12	57,57,57,57	0
54	MG	2a	3078	1/1	0.84	0.23	44,44,44,44	0
54	MG	2A	3397	1/1	0.84	0.13	44,44,44,44	0
54	MG	1a	3261	1/1	0.84	0.08	40,40,40,40	0
54	MG	1A	3837	1/1	0.84	0.18	34,34,34,34	0
54	MG	10	105	1/1	0.84	0.11	43,43,43,43	0
54	MG	2A	3133	1/1	0.84	0.20	48,48,48,48	0
54	MG	1a	3215	1/1	0.84	0.11	66,66,66,66	0
54	MG	1a	3217	1/1	0.84	0.20	59,59,59,59	0
54	MG	1a	3272	1/1	0.84	0.10	57,57,57,57	0
54	MG	2A	3473	1/1	0.84	0.20	61,61,61,61	0
54	MG	1A	3586	1/1	0.84	0.14	21,21,21,21	0
54	MG	2B	215	1/1	0.84	0.13	61,61,61,61	0
54	MG	2A	3182	1/1	0.84	0.10	46,46,46,46	0
54	MG	1a	3222	1/1	0.84	0.31	67,67,67,67	0
54	MG	2I	201	1/1	0.84	0.10	55,55,55,55	0
54	MG	1A	3295	1/1	0.84	0.10	36,36,36,36	0
54	MG	1A	3480	1/1	0.84	0.11	12,12,12,12	0
54	MG	1F	309	1/1	0.84	0.20	39,39,39,39	0
54	MG	2A	3228	1/1	0.84	0.10	47,47,47,47	0
54	MG	1g	202	1/1	0.84	0.07	50,50,50,50	0
54	MG	1A	3993	1/1	0.84	0.14	40,40,40,40	0
54	MG	2A	3475	1/1	0.85	0.17	55,55,55,55	0
54	MG	1G	202	1/1	0.85	0.13	48,48,48,48	0
54	MG	1A	3944	1/1	0.85	0.12	17,17,17,17	0
54	MG	1A	3959	1/1	0.85	0.14	65,65,65,65	0
54	MG	2A	3207	1/1	0.85	0.14	47,47,47,47	0
54	MG	1A	3783	1/1	0.85	0.13	47,47,47,47	0
54	MG	1a	3112	1/1	0.85	0.12	48,48,48,48	0
54	MG	2A	3235	1/1	0.85	0.14	56,56,56,56	0
54	MG	11	102	1/1	0.85	0.11	48,48,48,48	0
54	MG	2a	3010	1/1	0.85	0.14	56,56,56,56	0
54	MG	1i	3101	1/1	0.85	0.19	65,65,65,65	0
54	MG	1A	3289	1/1	0.85	0.16	74,74,74,74	0
54	MG	2A	3530	1/1	0.85	0.44	46,46,46,46	0
54	MG	1A	3841	1/1	0.85	0.15	28,28,28,28	0
54	MG	2a	3046	1/1	0.85	0.14	66,66,66,66	0
54	MG	1A	3462	1/1	0.85	0.13	45,45,45,45	0
54	MG	2A	3587	1/1	0.85	0.11	38,38,38,38	0
54	MG	2A	3594	1/1	0.85	0.14	24,24,24,24	0
54	MG	1A	3986	1/1	0.85	0.24	37,37,37,37	0
54	MG	2A	3624	1/1	0.85	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
54	MG	2A	3293	1/1	0.85	0.10	57,57,57,57	0
54	MG	1a	3144	1/1	0.85	0.14	60,60,60,60	0
54	MG	1A	3987	1/1	0.85	0.11	31,31,31,31	0
54	MG	1A	3202	1/1	0.85	0.14	49,49,49,49	0
54	MG	2A	3672	1/1	0.85	0.17	71,71,71,71	0
54	MG	1A	3694	1/1	0.85	0.20	47,47,47,47	0
54	MG	2A	3683	1/1	0.85	0.14	26,26,26,26	0
54	MG	2a	3118	1/1	0.85	0.14	47,47,47,47	0
54	MG	2A	3692	1/1	0.85	0.11	45,45,45,45	0
54	MG	2A	3085	1/1	0.85	0.33	63,63,63,63	0
54	MG	2A	3704	1/1	0.85	0.11	52,52,52,52	0
54	MG	1A	3511	1/1	0.85	0.09	39,39,39,39	0
54	MG	2A	3398	1/1	0.85	0.27	62,62,62,62	0
54	MG	2a	3146	1/1	0.85	0.14	79,79,79,79	0
54	MG	2A	3399	1/1	0.85	0.19	59,59,59,59	0
54	MG	1A	3864	1/1	0.85	0.13	64,64,64,64	0
54	MG	1A	3867	1/1	0.85	0.28	30,30,30,30	0
54	MG	2a	3167	1/1	0.85	0.10	75,75,75,75	0
54	MG	2a	3181	1/1	0.85	0.12	83,83,83,83	0
54	MG	1A	3303	1/1	0.85	0.14	61,61,61,61	0
54	MG	1B	230	1/1	0.85	0.08	47,47,47,47	0
54	MG	1A	3659	1/1	0.85	0.16	54,54,54,54	0
54	MG	1A	3180	1/1	0.85	0.34	33,33,33,33	0
54	MG	2B	203	1/1	0.85	0.24	72,72,72,72	0
54	MG	2B	204	1/1	0.85	0.10	61,61,61,61	0
54	MG	1a	3183	1/1	0.85	0.09	72,72,72,72	0
54	MG	1A	3277	1/1	0.85	0.14	44,44,44,44	0
54	MG	2A	3111	1/1	0.86	0.19	58,58,58,58	0
54	MG	2A	3115	1/1	0.86	0.15	60,60,60,60	0
54	MG	10	106	1/1	0.86	0.14	52,52,52,52	0
54	MG	1A	3729	1/1	0.86	0.27	38,38,38,38	0
54	MG	2G	203	1/1	0.86	0.10	70,70,70,70	0
54	MG	1a	3139	1/1	0.86	0.23	73,73,73,73	0
54	MG	1A	3984	1/1	0.86	0.32	42,42,42,42	0
54	MG	2P	203	1/1	0.86	0.12	57,57,57,57	0
54	MG	1A	3254	1/1	0.86	0.14	56,56,56,56	0
54	MG	2A	3500	1/1	0.86	0.20	54,54,54,54	0
54	MG	2A	3501	1/1	0.86	0.15	65,65,65,65	0
54	MG	1a	3145	1/1	0.86	0.09	63,63,63,63	0
54	MG	1A	3507	1/1	0.86	0.11	9,9,9,9	0
54	MG	1A	3260	1/1	0.86	0.08	51,51,51,51	0
54	MG	1A	3760	1/1	0.86	0.16	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3878	1/1	0.86	0.14	30,30,30,30	0
54	MG	2a	3034	1/1	0.86	0.11	65,65,65,65	0
54	MG	2A	3213	1/1	0.86	0.10	62,62,62,62	0
54	MG	1A	3762	1/1	0.86	0.13	19,19,19,19	0
54	MG	2A	3552	1/1	0.86	0.14	45,45,45,45	0
54	MG	2A	3559	1/1	0.86	0.09	31,31,31,31	0
54	MG	2a	3054	1/1	0.86	0.09	52,52,52,52	0
54	MG	1a	3167	1/1	0.86	0.09	70,70,70,70	0
54	MG	1B	213	1/1	0.86	0.13	61,61,61,61	0
54	MG	2A	3241	1/1	0.86	0.65	43,43,43,43	0
54	MG	2a	3062	1/1	0.86	0.10	73,73,73,73	0
54	MG	2A	3608	1/1	0.86	0.10	66,66,66,66	0
54	MG	1B	215	1/1	0.86	0.31	57,57,57,57	0
54	MG	2a	3074	1/1	0.86	0.10	52,52,52,52	0
54	MG	2A	3613	1/1	0.86	0.16	55,55,55,55	0
54	MG	1d	302	1/1	0.86	0.11	59,59,59,59	0
54	MG	1B	217	1/1	0.86	0.10	47,47,47,47	0
54	MG	1A	3177	1/1	0.86	0.12	47,47,47,47	0
54	MG	1a	3174	1/1	0.86	0.19	65,65,65,65	0
54	MG	1A	3913	1/1	0.86	0.13	25,25,25,25	0
54	MG	1A	3914	1/1	0.86	0.12	29,29,29,29	0
54	MG	2A	3333	1/1	0.86	0.14	58,58,58,58	0
54	MG	1A	3778	1/1	0.86	0.10	44,44,44,44	0
54	MG	2a	3129	1/1	0.86	0.10	62,62,62,62	0
54	MG	1a	3082	1/1	0.86	0.13	49,49,49,49	0
54	MG	1E	308	1/1	0.86	0.12	24,24,24,24	0
54	MG	2A	3698	1/1	0.86	0.12	70,70,70,70	0
54	MG	1A	3593	1/1	0.86	0.11	39,39,39,39	0
54	MG	1a	3202	1/1	0.86	0.23	88,88,88,88	0
54	MG	2A	3026	1/1	0.86	0.10	41,41,41,41	0
54	MG	1A	3788	1/1	0.86	0.20	50,50,50,50	0
54	MG	2A	3717	1/1	0.86	0.12	31,31,31,31	0
54	MG	2A	3051	1/1	0.86	0.15	49,49,49,49	0
54	MG	1A	3798	1/1	0.86	0.18	78,78,78,78	0
54	MG	1A	3692	1/1	0.86	0.16	36,36,36,36	0
54	MG	2A	3727	1/1	0.86	0.20	54,54,54,54	0
54	MG	1P	204	1/1	0.86	0.21	21,21,21,21	0
54	MG	1A	3378	1/1	0.86	0.11	32,32,32,32	0
54	MG	1a	3116	1/1	0.86	0.35	54,54,54,54	0
54	MG	1a	3231	1/1	0.86	0.15	67,67,67,67	0
54	MG	1A	3469	1/1	0.86	0.09	10,10,10,10	0
54	MG	1a	3070	1/1	0.87	0.16	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3142	1/1	0.87	0.16	45,45,45,45	0
54	MG	2A	3467	1/1	0.87	0.19	47,47,47,47	0
54	MG	2B	209	1/1	0.87	0.18	49,49,49,49	0
54	MG	1A	3931	1/1	0.87	0.24	66,66,66,66	0
54	MG	1A	3441	1/1	0.87	0.18	51,51,51,51	0
54	MG	2A	3169	1/1	0.87	0.10	58,58,58,58	0
54	MG	2A	3483	1/1	0.87	0.12	46,46,46,46	0
54	MG	1d	301	1/1	0.87	0.12	62,62,62,62	0
54	MG	1a	3204	1/1	0.87	0.16	50,50,50,50	0
54	MG	1a	3214	1/1	0.87	0.19	55,55,55,55	0
54	MG	2A	3187	1/1	0.87	0.18	59,59,59,59	0
54	MG	1A	3184	1/1	0.87	0.14	43,43,43,43	0
54	MG	1A	3684	1/1	0.87	0.08	66,66,66,66	0
54	MG	1A	3862	1/1	0.87	0.09	28,28,28,28	0
54	MG	1A	3785	1/1	0.87	0.15	68,68,68,68	0
54	MG	1a	3225	1/1	0.87	0.10	64,64,64,64	0
54	MG	2A	3214	1/1	0.87	0.10	46,46,46,46	0
54	MG	2a	3021	1/1	0.87	0.08	42,42,42,42	0
54	MG	2A	3513	1/1	0.87	0.14	48,48,48,48	0
54	MG	1l	202	1/1	0.87	0.12	49,49,49,49	0
54	MG	1o	102	1/1	0.87	0.10	36,36,36,36	0
54	MG	2a	3042	1/1	0.87	0.14	59,59,59,59	0
54	MG	1t	201	1/1	0.87	0.12	55,55,55,55	0
54	MG	2A	3543	1/1	0.87	0.10	60,60,60,60	0
54	MG	2a	3047	1/1	0.87	0.12	51,51,51,51	0
54	MG	2A	3548	1/1	0.87	0.13	34,34,34,34	0
54	MG	1A	3331	1/1	0.87	0.21	60,60,60,60	0
54	MG	1a	3166	1/1	0.87	0.33	61,61,61,61	0
54	MG	1A	3362	1/1	0.87	0.10	26,26,26,26	0
54	MG	1A	3823	1/1	0.87	0.16	41,41,41,41	0
54	MG	2A	3265	1/1	0.87	0.15	61,61,61,61	0
54	MG	2A	3602	1/1	0.87	0.14	30,30,30,30	0
54	MG	1A	3367	1/1	0.87	0.16	35,35,35,35	0
54	MG	2A	3032	1/1	0.87	0.17	54,54,54,54	0
54	MG	1A	3907	1/1	0.87	0.11	26,26,26,26	0
54	MG	2A	3615	1/1	0.87	0.19	59,59,59,59	0
54	MG	2a	3083	1/1	0.87	0.13	51,51,51,51	0
54	MG	2A	3290	1/1	0.87	0.12	41,41,41,41	0
54	MG	1A	3838	1/1	0.87	0.10	38,38,38,38	0
54	MG	2A	3322	1/1	0.87	0.13	54,54,54,54	0
54	MG	2A	3074	1/1	0.87	0.14	43,43,43,43	0
54	MG	2A	3076	1/1	0.87	0.47	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3347	1/1	0.87	0.12	65,65,65,65	0
54	MG	1a	3173	1/1	0.87	0.10	62,62,62,62	0
54	MG	2a	3128	1/1	0.87	0.15	60,60,60,60	0
54	MG	1A	3432	1/1	0.87	0.20	56,56,56,56	0
54	MG	2a	3132	1/1	0.87	0.17	69,69,69,69	0
54	MG	2A	3371	1/1	0.87	0.16	38,38,38,38	0
54	MG	1a	3126	1/1	0.87	0.09	61,61,61,61	0
54	MG	1a	3257	1/1	0.87	0.13	57,57,57,57	0
54	MG	2A	3703	1/1	0.87	0.16	51,51,51,51	0
54	MG	2a	3152	1/1	0.87	0.12	72,72,72,72	0
54	MG	1a	3061	1/1	0.87	0.14	66,66,66,66	0
54	MG	2a	3158	1/1	0.87	0.13	63,63,63,63	0
54	MG	2A	3092	1/1	0.87	0.24	52,52,52,52	0
54	MG	1A	3765	1/1	0.87	0.12	24,24,24,24	0
54	MG	2A	3102	1/1	0.87	0.21	48,48,48,48	0
54	MG	2A	3403	1/1	0.87	0.20	29,29,29,29	0
54	MG	2A	3408	1/1	0.87	0.15	57,57,57,57	0
54	MG	2A	3105	1/1	0.87	0.09	37,37,37,37	0
54	MG	1a	3192	1/1	0.87	0.14	50,50,50,50	0
54	MG	2A	3420	1/1	0.87	0.09	55,55,55,55	0
54	MG	1a	3193	1/1	0.87	0.13	52,52,52,52	0
54	MG	2A	3447	1/1	0.87	0.17	55,55,55,55	0
54	MG	1P	207	1/1	0.87	0.07	53,53,53,53	0
54	MG	2A	3739	1/1	0.87	0.11	48,48,48,48	0
54	MG	1a	3049	1/1	0.88	0.12	50,50,50,50	0
54	MG	1A	3894	1/1	0.88	0.13	47,47,47,47	0
54	MG	1A	3411	1/1	0.88	0.15	10,10,10,10	0
54	MG	1n	101	1/1	0.88	0.14	58,58,58,58	0
54	MG	1a	3175	1/1	0.88	0.13	55,55,55,55	0
54	MG	1A	3789	1/1	0.88	0.14	50,50,50,50	0
54	MG	2A	3708	1/1	0.88	0.13	38,38,38,38	0
54	MG	1a	3064	1/1	0.88	0.12	36,36,36,36	0
54	MG	1a	3185	1/1	0.88	0.22	57,57,57,57	0
54	MG	2A	3355	1/1	0.88	0.18	54,54,54,54	0
54	MG	1y	203	1/1	0.88	0.13	61,61,61,61	0
54	MG	2A	3366	1/1	0.88	0.10	24,24,24,24	0
54	MG	2A	3725	1/1	0.88	0.21	49,49,49,49	0
54	MG	2A	3368	1/1	0.88	0.14	46,46,46,46	0
54	MG	1A	3588	1/1	0.88	0.16	48,48,48,48	0
54	MG	2A	3020	1/1	0.88	0.19	52,52,52,52	0
54	MG	2A	3730	1/1	0.88	0.14	40,40,40,40	0
54	MG	1A	3812	1/1	0.88	0.30	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
54	MG	2A	3393	1/1	0.88	0.13	44,44,44,44	0
54	MG	2A	3396	1/1	0.88	0.18	60,60,60,60	0
54	MG	1B	227	1/1	0.88	0.12	50,50,50,50	0
54	MG	1A	3816	1/1	0.88	0.12	51,51,51,51	0
54	MG	2B	206	1/1	0.88	0.18	44,44,44,44	0
54	MG	1B	231	1/1	0.88	0.09	47,47,47,47	0
54	MG	2A	3044	1/1	0.88	0.13	42,42,42,42	0
54	MG	1A	3710	1/1	0.88	0.42	34,34,34,34	0
54	MG	2A	3404	1/1	0.88	0.15	40,40,40,40	0
54	MG	2A	3405	1/1	0.88	0.20	39,39,39,39	0
54	MG	1A	3826	1/1	0.88	0.12	38,38,38,38	0
54	MG	1a	3203	1/1	0.88	0.11	49,49,49,49	0
54	MG	1A	3540	1/1	0.88	0.17	39,39,39,39	0
54	MG	1a	3088	1/1	0.88	0.28	56,56,56,56	0
54	MG	2A	3429	1/1	0.88	0.07	37,37,37,37	0
54	MG	1A	3953	1/1	0.88	0.11	59,59,59,59	0
54	MG	2A	3440	1/1	0.88	0.10	57,57,57,57	0
54	MG	1a	3096	1/1	0.88	0.15	46,46,46,46	0
54	MG	2a	3003	1/1	0.88	0.14	60,60,60,60	0
54	MG	1a	3218	1/1	0.88	0.12	59,59,59,59	0
54	MG	1a	3097	1/1	0.88	0.21	44,44,44,44	0
54	MG	2a	3013	1/1	0.88	0.14	54,54,54,54	0
54	MG	2a	3018	1/1	0.88	0.19	66,66,66,66	0
54	MG	2A	3093	1/1	0.88	0.11	55,55,55,55	0
54	MG	2A	3458	1/1	0.88	0.14	39,39,39,39	0
54	MG	2A	3464	1/1	0.88	0.13	51,51,51,51	0
54	MG	1a	3106	1/1	0.88	0.14	74,74,74,74	0
54	MG	2A	3470	1/1	0.88	0.11	49,49,49,49	0
54	MG	1A	3642	1/1	0.88	0.11	66,66,66,66	0
54	MG	1A	3645	1/1	0.88	0.23	45,45,45,45	0
54	MG	1O	201	1/1	0.88	0.11	44,44,44,44	0
54	MG	1A	3116	1/1	0.88	0.15	30,30,30,30	0
54	MG	1A	3602	1/1	0.88	0.28	28,28,28,28	0
54	MG	2A	3117	1/1	0.88	0.25	57,57,57,57	0
54	MG	1R	208	1/1	0.88	0.09	19,19,19,19	0
54	MG	2a	3057	1/1	0.88	0.17	61,61,61,61	0
54	MG	2A	3140	1/1	0.88	0.11	46,46,46,46	0
54	MG	2a	3059	1/1	0.88	0.12	54,54,54,54	0
54	MG	2A	3497	1/1	0.88	0.17	51,51,51,51	0
54	MG	1a	3238	1/1	0.88	0.14	60,60,60,60	0
54	MG	1A	3605	1/1	0.88	0.20	40,40,40,40	0
54	MG	2a	3066	1/1	0.88	0.10	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3860	1/1	0.88	0.15	33,33,33,33	0
54	MG	2A	3506	1/1	0.88	0.14	50,50,50,50	0
54	MG	1A	3205	1/1	0.88	0.13	32,32,32,32	0
54	MG	1a	3250	1/1	0.88	0.14	59,59,59,59	0
54	MG	1A	3503	1/1	0.88	0.13	38,38,38,38	0
54	MG	1A	3775	1/1	0.88	0.17	21,21,21,21	0
54	MG	2A	3185	1/1	0.88	0.23	41,41,41,41	0
54	MG	1a	3142	1/1	0.88	0.12	57,57,57,57	0
54	MG	13	102	1/1	0.88	0.09	24,24,24,24	0
54	MG	2a	3117	1/1	0.88	0.09	46,46,46,46	0
54	MG	1A	3318	1/1	0.88	0.11	46,46,46,46	0
54	MG	2A	3547	1/1	0.88	0.11	33,33,33,33	0
54	MG	1a	3146	1/1	0.88	0.13	64,64,64,64	0
54	MG	18	102	1/1	0.88	0.41	28,28,28,28	0
54	MG	1a	3001	1/1	0.88	0.19	59,59,59,59	0
54	MG	1A	4005	1/1	0.88	0.54	44,44,44,44	0
54	MG	2A	3567	1/1	0.88	0.14	34,34,34,34	0
54	MG	1a	3159	1/1	0.88	0.14	56,56,56,56	0
54	MG	2a	3143	1/1	0.88	0.11	56,56,56,56	0
54	MG	2A	3590	1/1	0.88	0.12	29,29,29,29	0
54	MG	2A	3216	1/1	0.88	0.12	54,54,54,54	0
54	MG	2a	3150	1/1	0.88	0.12	42,42,42,42	0
54	MG	1A	4008	1/1	0.88	0.13	49,49,49,49	0
54	MG	2A	3232	1/1	0.88	0.19	45,45,45,45	0
54	MG	2A	3610	1/1	0.88	0.14	50,50,50,50	0
54	MG	1B	205	1/1	0.88	0.15	48,48,48,48	0
54	MG	1a	3012	1/1	0.88	0.18	65,65,65,65	0
54	MG	2A	3249	1/1	0.88	0.11	39,39,39,39	0
54	MG	1B	206	1/1	0.88	0.17	47,47,47,47	0
54	MG	2A	3259	1/1	0.88	0.28	58,58,58,58	0
54	MG	1d	304	1/1	0.88	0.10	82,82,82,82	0
54	MG	1A	3255	1/1	0.88	0.14	53,53,53,53	0
54	MG	2A	3663	1/1	0.88	0.09	52,52,52,52	0
54	MG	1A	3631	1/1	0.88	0.11	42,42,42,42	0
54	MG	1a	3040	1/1	0.88	0.12	49,49,49,49	0
54	MG	2A	3279	1/1	0.88	0.15	52,52,52,52	0
56	MPD	2A	3743	8/8	0.88	0.23	57,60,63,66	0
54	MG	1g	203	1/1	0.88	0.21	67,67,67,67	0
57	ARG	1F	318	12/12	0.88	0.13	39,51,70,70	0
54	MG	2B	202	1/1	0.89	0.19	58,58,58,58	0
54	MG	1a	3075	1/1	0.89	0.17	47,47,47,47	0
54	MG	2A	3206	1/1	0.89	0.10	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	3076	1/1	0.89	0.18	64,64,64,64	0
54	MG	1a	3188	1/1	0.89	0.09	53,53,53,53	0
54	MG	1A	3560	1/1	0.89	0.12	39,39,39,39	0
54	MG	1A	3802	1/1	0.89	0.10	56,56,56,56	0
54	MG	2B	217	1/1	0.89	0.08	69,69,69,69	0
54	MG	2A	3480	1/1	0.89	0.17	52,52,52,52	0
54	MG	1A	3946	1/1	0.89	0.13	32,32,32,32	0
54	MG	2A	3219	1/1	0.89	0.08	43,43,43,43	0
54	MG	1A	3627	1/1	0.89	0.12	24,24,24,24	0
54	MG	2P	201	1/1	0.89	0.12	51,51,51,51	0
54	MG	2A	3230	1/1	0.89	0.17	42,42,42,42	0
54	MG	1A	3140	1/1	0.89	0.10	40,40,40,40	0
54	MG	1A	3055	1/1	0.89	0.13	46,46,46,46	0
54	MG	2A	3237	1/1	0.89	0.29	36,36,36,36	0
54	MG	1a	3091	1/1	0.89	0.12	53,53,53,53	0
54	MG	26	102	1/1	0.89	0.17	50,50,50,50	0
54	MG	1A	3966	1/1	0.89	0.13	38,38,38,38	0
54	MG	2A	3001	1/1	0.89	0.15	46,46,46,46	0
54	MG	1A	3969	1/1	0.89	0.10	49,49,49,49	0
54	MG	1U	206	1/1	0.89	0.26	29,29,29,29	0
54	MG	1Y	201	1/1	0.89	0.15	72,72,72,72	0
54	MG	1A	3706	1/1	0.89	0.16	24,24,24,24	0
54	MG	2A	3270	1/1	0.89	0.15	18,18,18,18	0
54	MG	2A	3514	1/1	0.89	0.10	43,43,43,43	0
54	MG	1A	3828	1/1	0.89	0.09	25,25,25,25	0
54	MG	2A	3037	1/1	0.89	0.09	38,38,38,38	0
54	MG	1A	3305	1/1	0.89	0.12	61,61,61,61	0
54	MG	2a	3039	1/1	0.89	0.17	57,57,57,57	0
54	MG	1A	3037	1/1	0.89	0.12	44,44,44,44	0
54	MG	2A	3545	1/1	0.89	0.12	26,26,26,26	0
54	MG	1A	3743	1/1	0.89	0.11	19,19,19,19	0
54	MG	2A	3063	1/1	0.89	0.15	42,42,42,42	0
54	MG	2A	3302	1/1	0.89	0.17	43,43,43,43	0
54	MG	2a	3053	1/1	0.89	0.11	53,53,53,53	0
54	MG	2A	3309	1/1	0.89	0.12	40,40,40,40	0
54	MG	2A	3318	1/1	0.89	0.09	34,34,34,34	0
54	MG	1A	3587	1/1	0.89	0.14	41,41,41,41	0
54	MG	2A	3569	1/1	0.89	0.10	28,28,28,28	0
54	MG	2A	3585	1/1	0.89	0.11	45,45,45,45	0
54	MG	2A	3323	1/1	0.89	0.10	44,44,44,44	0
54	MG	1A	3638	1/1	0.89	0.15	41,41,41,41	0
54	MG	1a	3132	1/1	0.89	0.16	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2a	3065	1/1	0.89	0.08	54,54,54,54	0
54	MG	1A	3992	1/1	0.89	0.21	49,49,49,49	0
54	MG	1a	3234	1/1	0.89	0.12	67,67,67,67	0
54	MG	2a	3072	1/1	0.89	0.15	45,45,45,45	0
54	MG	1A	3754	1/1	0.89	0.13	41,41,41,41	0
54	MG	1A	3225	1/1	0.89	0.20	32,32,32,32	0
54	MG	1a	3007	1/1	0.89	0.13	59,59,59,59	0
54	MG	1A	3431	1/1	0.89	0.13	51,51,51,51	0
54	MG	2a	3098	1/1	0.89	0.17	51,51,51,51	0
54	MG	2a	3100	1/1	0.89	0.10	46,46,46,46	0
54	MG	1A	3651	1/1	0.89	0.09	13,13,13,13	0
54	MG	2a	3102	1/1	0.89	0.09	60,60,60,60	0
54	MG	1A	3535	1/1	0.89	0.10	20,20,20,20	0
54	MG	1A	3770	1/1	0.89	0.10	32,32,32,32	0
54	MG	1a	3022	1/1	0.89	0.10	47,47,47,47	0
54	MG	2a	3114	1/1	0.89	0.23	53,53,53,53	0
54	MG	2a	3115	1/1	0.89	0.18	71,71,71,71	0
54	MG	1a	3030	1/1	0.89	0.20	50,50,50,50	0
54	MG	1a	3031	1/1	0.89	0.14	45,45,45,45	0
54	MG	1A	3355	1/1	0.89	0.10	31,31,31,31	0
54	MG	2a	3120	1/1	0.89	0.12	68,68,68,68	0
54	MG	2A	3673	1/1	0.89	0.13	31,31,31,31	0
54	MG	2A	3127	1/1	0.89	0.16	51,51,51,51	0
54	MG	1a	3034	1/1	0.89	0.19	47,47,47,47	0
54	MG	1a	3038	1/1	0.89	0.17	64,64,64,64	0
54	MG	1A	3167	1/1	0.89	0.15	40,40,40,40	0
54	MG	1A	3677	1/1	0.89	0.19	58,58,58,58	0
54	MG	2A	3149	1/1	0.89	0.13	71,71,71,71	0
54	MG	2A	3412	1/1	0.89	0.10	44,44,44,44	0
54	MG	2A	3705	1/1	0.89	0.10	42,42,42,42	0
54	MG	1A	3904	1/1	0.89	0.09	11,11,11,11	0
54	MG	2a	3151	1/1	0.89	0.09	84,84,84,84	0
54	MG	1A	3780	1/1	0.89	0.16	53,53,53,53	0
54	MG	2a	3153	1/1	0.89	0.12	61,61,61,61	0
54	MG	1A	3679	1/1	0.89	0.12	25,25,25,25	0
54	MG	2A	3424	1/1	0.89	0.11	51,51,51,51	0
54	MG	2A	3174	1/1	0.89	0.22	68,68,68,68	0
54	MG	2A	3431	1/1	0.89	0.24	57,57,57,57	0
54	MG	2A	3435	1/1	0.89	0.09	46,46,46,46	0
54	MG	2a	3177	1/1	0.89	0.12	58,58,58,58	0
54	MG	2A	3436	1/1	0.89	0.25	43,43,43,43	0
54	MG	2h	201	1/1	0.89	0.20	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3784	1/1	0.89	0.10	34,34,34,34	0
54	MG	1A	3169	1/1	0.89	0.12	39,39,39,39	0
54	MG	2I	201	1/1	0.89	0.09	53,53,53,53	0
54	MG	2A	3728	1/1	0.89	0.22	49,49,49,49	0
54	MG	2A	3444	1/1	0.89	0.09	64,64,64,64	0
54	MG	1A	3613	1/1	0.89	0.11	11,11,11,11	0
54	MG	2A	3733	1/1	0.89	0.29	50,50,50,50	0
54	MG	1d	305	1/1	0.89	0.07	42,42,42,42	0
54	MG	1A	3556	1/1	0.89	0.09	54,54,54,54	0
54	MG	1A	3932	1/1	0.89	0.08	43,43,43,43	0
54	MG	2A	3740	1/1	0.89	0.10	60,60,60,60	0
54	MG	1A	3299	1/1	0.90	0.15	44,44,44,44	0
54	MG	1A	3413	1/1	0.90	0.08	51,51,51,51	0
54	MG	1A	3131	1/1	0.90	0.21	32,32,32,32	0
54	MG	1a	3041	1/1	0.90	0.12	52,52,52,52	0
54	MG	2A	3190	1/1	0.90	0.12	48,48,48,48	0
54	MG	2A	3193	1/1	0.90	0.10	49,49,49,49	0
54	MG	1A	3547	1/1	0.90	0.27	36,36,36,36	0
54	MG	1e	201	1/1	0.90	0.11	51,51,51,51	0
54	MG	2A	3460	1/1	0.90	0.10	49,49,49,49	0
54	MG	2A	3202	1/1	0.90	0.20	41,41,41,41	0
54	MG	2B	218	1/1	0.90	0.08	50,50,50,50	0
54	MG	1a	3052	1/1	0.90	0.13	48,48,48,48	0
54	MG	2F	302	1/1	0.90	0.10	32,32,32,32	0
54	MG	1B	216	1/1	0.90	0.08	47,47,47,47	0
54	MG	2A	3471	1/1	0.90	0.10	42,42,42,42	0
54	MG	1A	3875	1/1	0.90	0.10	9,9,9,9	0
54	MG	1A	3757	1/1	0.90	0.12	44,44,44,44	0
54	MG	2A	3477	1/1	0.90	0.07	45,45,45,45	0
54	MG	1A	3213	1/1	0.90	0.40	26,26,26,26	0
54	MG	1A	3555	1/1	0.90	0.18	45,45,45,45	0
54	MG	1a	3069	1/1	0.90	0.21	38,38,38,38	0
54	MG	2W	203	1/1	0.90	0.11	54,54,54,54	0
54	MG	2I	102	1/1	0.90	0.14	49,49,49,49	0
54	MG	2A	3484	1/1	0.90	0.14	42,42,42,42	0
54	MG	1A	3896	1/1	0.90	0.09	29,29,29,29	0
54	MG	1A	3637	1/1	0.90	0.25	27,27,27,27	0
54	MG	2A	3229	1/1	0.90	0.13	44,44,44,44	0
54	MG	1A	3195	1/1	0.90	0.09	47,47,47,47	0
54	MG	2A	3494	1/1	0.90	0.09	43,43,43,43	0
54	MG	2a	3011	1/1	0.90	0.10	53,53,53,53	0
54	MG	1A	3281	1/1	0.90	0.28	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3499	1/1	0.90	0.31	49,49,49,49	0
54	MG	1A	3439	1/1	0.90	0.11	33,33,33,33	0
54	MG	1A	3567	1/1	0.90	0.12	40,40,40,40	0
54	MG	1a	3194	1/1	0.90	0.10	54,54,54,54	0
54	MG	2a	3027	1/1	0.90	0.14	50,50,50,50	0
54	MG	2A	3014	1/1	0.90	0.17	54,54,54,54	0
54	MG	2A	3252	1/1	0.90	0.16	56,56,56,56	0
54	MG	2a	3037	1/1	0.90	0.13	50,50,50,50	0
54	MG	1a	3080	1/1	0.90	0.11	53,53,53,53	0
54	MG	1a	3081	1/1	0.90	0.13	50,50,50,50	0
54	MG	2A	3021	1/1	0.90	0.11	54,54,54,54	0
54	MG	1A	3918	1/1	0.90	0.06	44,44,44,44	0
54	MG	2A	3517	1/1	0.90	0.09	28,28,28,28	0
54	MG	1a	3083	1/1	0.90	0.11	51,51,51,51	0
54	MG	1A	3654	1/1	0.90	0.15	44,44,44,44	0
54	MG	2A	3033	1/1	0.90	0.15	67,67,67,67	0
54	MG	2A	3539	1/1	0.90	0.12	67,67,67,67	0
54	MG	2A	3275	1/1	0.90	0.19	41,41,41,41	0
54	MG	2A	3034	1/1	0.90	0.14	41,41,41,41	0
54	MG	1A	3658	1/1	0.90	0.24	19,19,19,19	0
54	MG	1A	3332	1/1	0.90	0.16	21,21,21,21	0
54	MG	1A	3935	1/1	0.90	0.11	40,40,40,40	0
54	MG	2A	3292	1/1	0.90	0.08	20,20,20,20	0
54	MG	1A	3581	1/1	0.90	0.10	23,23,23,23	0
54	MG	2A	3294	1/1	0.90	0.16	45,45,45,45	0
54	MG	2A	3295	1/1	0.90	0.20	52,52,52,52	0
54	MG	1A	3940	1/1	0.90	0.19	71,71,71,71	0
54	MG	2A	3306	1/1	0.90	0.10	36,36,36,36	0
54	MG	2a	3076	1/1	0.90	0.13	58,58,58,58	0
54	MG	2A	3072	1/1	0.90	0.14	65,65,65,65	0
54	MG	1A	3669	1/1	0.90	0.10	48,48,48,48	0
54	MG	2A	3596	1/1	0.90	0.13	31,31,31,31	0
54	MG	1A	3458	1/1	0.90	0.07	24,24,24,24	0
54	MG	1A	3353	1/1	0.90	0.09	52,52,52,52	0
54	MG	2A	3330	1/1	0.90	0.16	55,55,55,55	0
54	MG	1a	3227	1/1	0.90	0.10	59,59,59,59	0
54	MG	1A	3156	1/1	0.90	0.15	38,38,38,38	0
54	MG	1A	3682	1/1	0.90	0.10	59,59,59,59	0
54	MG	2A	3622	1/1	0.90	0.12	41,41,41,41	0
54	MG	1A	3361	1/1	0.90	0.09	28,28,28,28	0
54	MG	2A	3631	1/1	0.90	0.10	81,81,81,81	0
54	MG	1A	3486	1/1	0.90	0.09	20,20,20,20	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3636	1/1	0.90	0.08	38,38,38,38	0
54	MG	1A	3818	1/1	0.90	0.22	28,28,28,28	0
54	MG	2A	3649	1/1	0.90	0.10	18,18,18,18	0
54	MG	1A	3820	1/1	0.90	0.10	20,20,20,20	0
54	MG	2A	3653	1/1	0.90	0.09	68,68,68,68	0
54	MG	2A	3658	1/1	0.90	0.10	59,59,59,59	0
54	MG	1A	3232	1/1	0.90	0.30	31,31,31,31	0
54	MG	2A	3369	1/1	0.90	0.15	50,50,50,50	0
54	MG	1a	3133	1/1	0.90	0.08	47,47,47,47	0
54	MG	2a	3142	1/1	0.90	0.11	66,66,66,66	0
54	MG	2A	3372	1/1	0.90	0.12	29,29,29,29	0
54	MG	1a	3135	1/1	0.90	0.18	57,57,57,57	0
54	MG	1A	3599	1/1	0.90	0.36	25,25,25,25	0
54	MG	1A	3241	1/1	0.90	0.13	66,66,66,66	0
54	MG	2A	3116	1/1	0.90	0.14	44,44,44,44	0
54	MG	1A	3243	1/1	0.90	0.12	33,33,33,33	0
54	MG	1A	3516	1/1	0.90	0.12	46,46,46,46	0
54	MG	2A	3130	1/1	0.90	0.16	43,43,43,43	0
54	MG	1A	3518	1/1	0.90	0.15	50,50,50,50	0
54	MG	2A	3402	1/1	0.90	0.18	46,46,46,46	0
54	MG	1A	3846	1/1	0.90	0.11	45,45,45,45	0
54	MG	1A	3709	1/1	0.90	0.20	77,77,77,77	0
54	MG	2a	3171	1/1	0.90	0.14	65,65,65,65	0
54	MG	2a	3175	1/1	0.90	0.15	67,67,67,67	0
54	MG	2A	3143	1/1	0.90	0.11	68,68,68,68	0
54	MG	1a	3028	1/1	0.90	0.16	51,51,51,51	0
54	MG	2a	3187	1/1	0.90	0.10	61,61,61,61	0
54	MG	1A	3526	1/1	0.90	0.15	21,21,21,21	0
54	MG	1a	3156	1/1	0.90	0.08	40,40,40,40	0
54	MG	2A	3722	1/1	0.90	0.16	46,46,46,46	0
54	MG	2A	3151	1/1	0.90	0.13	49,49,49,49	0
54	MG	2A	3419	1/1	0.90	0.31	33,33,33,33	0
54	MG	2A	3161	1/1	0.90	0.12	40,40,40,40	0
54	MG	1B	202	1/1	0.90	0.13	52,52,52,52	0
54	MG	2A	3428	1/1	0.90	0.14	51,51,51,51	0
54	MG	2A	3170	1/1	0.90	0.11	51,51,51,51	0
54	MG	1A	3718	1/1	0.90	0.08	19,19,19,19	0
54	MG	1A	3173	1/1	0.90	0.07	31,31,31,31	0
54	MG	2A	3179	1/1	0.90	0.10	44,44,44,44	0
54	MG	1a	3079	1/1	0.91	0.11	40,40,40,40	0
54	MG	2A	3002	1/1	0.91	0.09	47,47,47,47	0
54	MG	2B	208	1/1	0.91	0.19	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3585	1/1	0.91	0.09	43,43,43,43	0
54	MG	2B	210	1/1	0.91	0.11	39,39,39,39	0
54	MG	2A	3233	1/1	0.91	0.13	38,38,38,38	0
54	MG	1A	3508	1/1	0.91	0.10	29,29,29,29	0
54	MG	1A	3655	1/1	0.91	0.11	13,13,13,13	0
54	MG	10	102	1/1	0.91	0.38	36,36,36,36	0
54	MG	2E	303	1/1	0.91	0.10	22,22,22,22	0
54	MG	2E	304	1/1	0.91	0.11	46,46,46,46	0
54	MG	2A	3247	1/1	0.91	0.28	52,52,52,52	0
54	MG	1A	3420	1/1	0.91	0.09	16,16,16,16	0
54	MG	1A	3513	1/1	0.91	0.08	42,42,42,42	0
54	MG	2A	3254	1/1	0.91	0.26	45,45,45,45	0
54	MG	2A	3029	1/1	0.91	0.09	41,41,41,41	0
54	MG	1a	3199	1/1	0.91	0.08	60,60,60,60	0
54	MG	1a	3087	1/1	0.91	0.18	52,52,52,52	0
54	MG	1A	3272	1/1	0.91	0.13	44,44,44,44	0
54	MG	1a	3090	1/1	0.91	0.19	61,61,61,61	0
54	MG	2T	203	1/1	0.91	0.12	49,49,49,49	0
54	MG	1A	3296	1/1	0.91	0.08	30,30,30,30	0
54	MG	2I	101	1/1	0.91	0.19	56,56,56,56	0
54	MG	2A	3043	1/1	0.91	0.16	55,55,55,55	0
54	MG	1a	3206	1/1	0.91	0.20	64,64,64,64	0
54	MG	2A	3276	1/1	0.91	0.15	52,52,52,52	0
54	MG	2A	3047	1/1	0.91	0.18	36,36,36,36	0
54	MG	1a	3208	1/1	0.91	0.13	83,83,83,83	0
54	MG	1a	3092	1/1	0.91	0.12	35,35,35,35	0
54	MG	2a	3009	1/1	0.91	0.10	61,61,61,61	0
54	MG	2A	3516	1/1	0.91	0.18	45,45,45,45	0
54	MG	1a	3093	1/1	0.91	0.08	48,48,48,48	0
54	MG	2A	3291	1/1	0.91	0.08	35,35,35,35	0
54	MG	2a	3015	1/1	0.91	0.15	48,48,48,48	0
54	MG	2a	3017	1/1	0.91	0.09	37,37,37,37	0
54	MG	1A	3521	1/1	0.91	0.12	40,40,40,40	0
54	MG	1A	3865	1/1	0.91	0.10	22,22,22,22	0
54	MG	1A	3242	1/1	0.91	0.11	44,44,44,44	0
54	MG	2A	3540	1/1	0.91	0.09	56,56,56,56	0
54	MG	1a	3098	1/1	0.91	0.23	50,50,50,50	0
54	MG	2a	3028	1/1	0.91	0.18	70,70,70,70	0
54	MG	2A	3544	1/1	0.91	0.13	31,31,31,31	0
54	MG	1A	3151	1/1	0.91	0.08	35,35,35,35	0
54	MG	2A	3305	1/1	0.91	0.09	23,23,23,23	0
54	MG	1a	3004	1/1	0.91	0.20	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3876	1/1	0.91	0.09	66,66,66,66	0
54	MG	2A	3558	1/1	0.91	0.12	53,53,53,53	0
54	MG	1A	3053	1/1	0.91	0.22	28,28,28,28	0
54	MG	1B	201	1/1	0.91	0.13	40,40,40,40	0
54	MG	1a	3009	1/1	0.91	0.09	51,51,51,51	0
54	MG	1A	3450	1/1	0.91	0.10	32,32,32,32	0
54	MG	2A	3579	1/1	0.91	0.10	59,59,59,59	0
54	MG	2A	3581	1/1	0.91	0.09	30,30,30,30	0
54	MG	2A	3583	1/1	0.91	0.18	57,57,57,57	0
54	MG	1a	3121	1/1	0.91	0.14	72,72,72,72	0
54	MG	2A	3341	1/1	0.91	0.16	66,66,66,66	0
54	MG	2A	3588	1/1	0.91	0.18	51,51,51,51	0
54	MG	1a	3125	1/1	0.91	0.07	51,51,51,51	0
54	MG	2A	3110	1/1	0.91	0.07	36,36,36,36	0
54	MG	1B	204	1/1	0.91	0.07	37,37,37,37	0
54	MG	1A	3369	1/1	0.91	0.12	32,32,32,32	0
54	MG	2a	3067	1/1	0.91	0.14	54,54,54,54	0
54	MG	2A	3356	1/1	0.91	0.09	38,38,38,38	0
54	MG	1A	3619	1/1	0.91	0.10	10,10,10,10	0
54	MG	1A	3459	1/1	0.91	0.07	36,36,36,36	0
54	MG	1A	3316	1/1	0.91	0.07	21,21,21,21	0
54	MG	2A	3128	1/1	0.91	0.14	35,35,35,35	0
54	MG	1A	3793	1/1	0.91	0.27	41,41,41,41	0
54	MG	1A	3383	1/1	0.91	0.08	23,23,23,23	0
54	MG	2a	3089	1/1	0.91	0.07	65,65,65,65	0
54	MG	2a	3096	1/1	0.91	0.15	53,53,53,53	0
54	MG	2A	3376	1/1	0.91	0.09	32,32,32,32	0
54	MG	1A	3699	1/1	0.91	0.15	45,45,45,45	0
54	MG	1A	3472	1/1	0.91	0.11	24,24,24,24	0
54	MG	1A	3923	1/1	0.91	0.16	52,52,52,52	0
54	MG	2A	3146	1/1	0.91	0.20	39,39,39,39	0
54	MG	2a	3107	1/1	0.91	0.13	55,55,55,55	0
54	MG	1A	3474	1/1	0.91	0.08	14,14,14,14	0
54	MG	1A	3191	1/1	0.91	0.22	41,41,41,41	0
54	MG	1a	3044	1/1	0.91	0.15	65,65,65,65	0
54	MG	1A	3154	1/1	0.91	0.21	43,43,43,43	0
54	MG	1a	3276	1/1	0.91	0.13	63,63,63,63	0
54	MG	2A	3166	1/1	0.91	0.22	53,53,53,53	0
54	MG	2A	3168	1/1	0.91	0.36	31,31,31,31	0
54	MG	2A	3676	1/1	0.91	0.15	47,47,47,47	0
54	MG	1A	3488	1/1	0.91	0.08	24,24,24,24	0
54	MG	1D	310	1/1	0.91	0.21	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3684	1/1	0.91	0.11	55,55,55,55	0
54	MG	2a	3131	1/1	0.91	0.07	71,71,71,71	0
54	MG	2A	3685	1/1	0.91	0.10	49,49,49,49	0
54	MG	2A	3687	1/1	0.91	0.22	50,50,50,50	0
54	MG	1a	3057	1/1	0.91	0.27	56,56,56,56	0
54	MG	2A	3694	1/1	0.91	0.13	46,46,46,46	0
54	MG	2A	3172	1/1	0.91	0.14	59,59,59,59	0
54	MG	2A	3414	1/1	0.91	0.14	61,61,61,61	0
54	MG	2A	3701	1/1	0.91	0.16	43,43,43,43	0
54	MG	1a	3160	1/1	0.91	0.21	43,43,43,43	0
54	MG	1a	3161	1/1	0.91	0.18	56,56,56,56	0
54	MG	1a	3058	1/1	0.91	0.12	60,60,60,60	0
54	MG	1A	3824	1/1	0.91	0.08	33,33,33,33	0
54	MG	1e	202	1/1	0.91	0.15	57,57,57,57	0
54	MG	2a	3157	1/1	0.91	0.16	57,57,57,57	0
54	MG	1E	304	1/1	0.91	0.10	11,11,11,11	0
54	MG	1a	3063	1/1	0.91	0.13	55,55,55,55	0
54	MG	2A	3432	1/1	0.91	0.08	45,45,45,45	0
54	MG	2A	3192	1/1	0.91	0.19	52,52,52,52	0
54	MG	1g	201	1/1	0.91	0.20	61,61,61,61	0
54	MG	2a	3172	1/1	0.91	0.08	61,61,61,61	0
54	MG	2a	3174	1/1	0.91	0.10	51,51,51,51	0
54	MG	1A	3728	1/1	0.91	0.09	31,31,31,31	0
54	MG	1a	3065	1/1	0.91	0.22	56,56,56,56	0
54	MG	2a	3178	1/1	0.91	0.24	64,64,64,64	0
54	MG	2A	3200	1/1	0.91	0.19	52,52,52,52	0
54	MG	2A	3445	1/1	0.91	0.09	37,37,37,37	0
54	MG	2e	201	1/1	0.91	0.30	57,57,57,57	0
54	MG	1A	3572	1/1	0.91	0.12	16,16,16,16	0
54	MG	1A	3945	1/1	0.91	0.07	34,34,34,34	0
54	MG	1l	201	1/1	0.91	0.34	55,55,55,55	0
54	MG	2A	3456	1/1	0.91	0.10	53,53,53,53	0
54	MG	1A	3264	1/1	0.91	0.10	37,37,37,37	0
54	MG	1A	3949	1/1	0.91	0.12	59,59,59,59	0
54	MG	1A	3951	1/1	0.91	0.14	48,48,48,48	0
54	MG	1A	3333	1/1	0.91	0.10	32,32,32,32	0
54	MG	2B	201	1/1	0.91	0.11	62,62,62,62	0
54	MG	1a	3182	1/1	0.91	0.10	53,53,53,53	0
54	MG	1A	3840	1/1	0.91	0.22	43,43,43,43	0
54	MG	1A	3650	1/1	0.91	0.09	21,21,21,21	0
58	ZN	24	501	1/1	0.91	0.13	142,142,142,142	0
54	MG	2A	3224	1/1	0.92	0.09	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3929	1/1	0.92	0.17	28,28,28,28	0
54	MG	1A	3546	1/1	0.92	0.08	39,39,39,39	0
54	MG	1a	3181	1/1	0.92	0.13	59,59,59,59	0
54	MG	2A	3231	1/1	0.92	0.08	49,49,49,49	0
54	MG	2D	306	1/1	0.92	0.10	47,47,47,47	0
54	MG	1A	3324	1/1	0.92	0.15	32,32,32,32	0
54	MG	1D	311	1/1	0.92	0.14	36,36,36,36	0
54	MG	2A	3019	1/1	0.92	0.08	36,36,36,36	0
54	MG	2G	201	1/1	0.92	0.18	66,66,66,66	0
54	MG	1D	313	1/1	0.92	0.09	28,28,28,28	0
54	MG	1A	3477	1/1	0.92	0.09	23,23,23,23	0
54	MG	2A	3244	1/1	0.92	0.28	38,38,38,38	0
54	MG	2O	201	1/1	0.92	0.14	36,36,36,36	0
54	MG	1D	318	1/1	0.92	0.10	34,34,34,34	0
54	MG	2A	3248	1/1	0.92	0.08	37,37,37,37	0
54	MG	1A	3551	1/1	0.92	0.13	36,36,36,36	0
54	MG	2A	3251	1/1	0.92	0.14	37,37,37,37	0
54	MG	1A	3014	1/1	0.92	0.08	41,41,41,41	0
54	MG	1A	3419	1/1	0.92	0.11	24,24,24,24	0
54	MG	2T	204	1/1	0.92	0.07	36,36,36,36	0
54	MG	2A	3257	1/1	0.92	0.12	42,42,42,42	0
54	MG	2O	102	1/1	0.92	0.11	53,53,53,53	0
54	MG	1A	3712	1/1	0.92	0.09	22,22,22,22	0
54	MG	1A	3285	1/1	0.92	0.34	40,40,40,40	0
54	MG	1A	3727	1/1	0.92	0.31	31,31,31,31	0
54	MG	1A	3948	1/1	0.92	0.11	48,48,48,48	0
54	MG	28	101	1/1	0.92	0.08	38,38,38,38	0
54	MG	2A	3040	1/1	0.92	0.09	36,36,36,36	0
54	MG	2A	3042	1/1	0.92	0.13	37,37,37,37	0
54	MG	2A	3521	1/1	0.92	0.08	46,46,46,46	0
54	MG	1A	3829	1/1	0.92	0.10	36,36,36,36	0
54	MG	1A	3950	1/1	0.92	0.09	59,59,59,59	0
54	MG	1A	3494	1/1	0.92	0.09	24,24,24,24	0
54	MG	2A	3048	1/1	0.92	0.15	40,40,40,40	0
54	MG	2A	3286	1/1	0.92	0.09	37,37,37,37	0
54	MG	2A	3287	1/1	0.92	0.13	51,51,51,51	0
54	MG	1A	3187	1/1	0.92	0.09	45,45,45,45	0
54	MG	2A	3056	1/1	0.92	0.07	37,37,37,37	0
54	MG	2A	3060	1/1	0.92	0.20	47,47,47,47	0
54	MG	1a	3089	1/1	0.92	0.13	42,42,42,42	0
54	MG	2A	3066	1/1	0.92	0.12	41,41,41,41	0
54	MG	1a	3210	1/1	0.92	0.10	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2a	3033	1/1	0.92	0.13	55,55,55,55	0
54	MG	1V	205	1/1	0.92	0.11	45,45,45,45	0
54	MG	1A	3957	1/1	0.92	0.10	37,37,37,37	0
54	MG	2A	3299	1/1	0.92	0.08	54,54,54,54	0
54	MG	1A	3737	1/1	0.92	0.08	44,44,44,44	0
54	MG	1A	3960	1/1	0.92	0.26	25,25,25,25	0
54	MG	1A	3963	1/1	0.92	0.22	61,61,61,61	0
54	MG	1A	3569	1/1	0.92	0.08	46,46,46,46	0
54	MG	1A	3965	1/1	0.92	0.13	58,58,58,58	0
54	MG	2a	3048	1/1	0.92	0.07	28,28,28,28	0
54	MG	2A	3321	1/1	0.92	0.09	31,31,31,31	0
54	MG	2a	3051	1/1	0.92	0.16	59,59,59,59	0
54	MG	1A	3506	1/1	0.92	0.09	10,10,10,10	0
54	MG	2A	3589	1/1	0.92	0.12	64,64,64,64	0
54	MG	1A	3746	1/1	0.92	0.08	39,39,39,39	0
54	MG	13	103	1/1	0.92	0.12	52,52,52,52	0
54	MG	1A	3429	1/1	0.92	0.12	47,47,47,47	0
54	MG	2A	3597	1/1	0.92	0.10	45,45,45,45	0
54	MG	2A	3598	1/1	0.92	0.10	58,58,58,58	0
54	MG	2A	3601	1/1	0.92	0.12	31,31,31,31	0
54	MG	2A	3104	1/1	0.92	0.07	38,38,38,38	0
54	MG	2A	3343	1/1	0.92	0.11	47,47,47,47	0
54	MG	1A	3978	1/1	0.92	0.10	39,39,39,39	0
54	MG	2A	3107	1/1	0.92	0.12	45,45,45,45	0
54	MG	1A	3979	1/1	0.92	0.08	57,57,57,57	0
54	MG	1a	3003	1/1	0.92	0.13	61,61,61,61	0
54	MG	2a	3073	1/1	0.92	0.09	46,46,46,46	0
54	MG	2A	3619	1/1	0.92	0.15	44,44,44,44	0
54	MG	2A	3621	1/1	0.92	0.11	50,50,50,50	0
54	MG	1A	3216	1/1	0.92	0.10	46,46,46,46	0
54	MG	2A	3362	1/1	0.92	0.08	57,57,57,57	0
54	MG	2a	3079	1/1	0.92	0.09	52,52,52,52	0
54	MG	2A	3114	1/1	0.92	0.49	37,37,37,37	0
54	MG	1A	3258	1/1	0.92	0.15	37,37,37,37	0
54	MG	2A	3367	1/1	0.92	0.11	26,26,26,26	0
54	MG	2A	3637	1/1	0.92	0.13	52,52,52,52	0
54	MG	2a	3099	1/1	0.92	0.09	52,52,52,52	0
54	MG	1a	3240	1/1	0.92	0.11	54,54,54,54	0
54	MG	1a	3243	1/1	0.92	0.08	63,63,63,63	0
54	MG	1a	3123	1/1	0.92	0.08	46,46,46,46	0
54	MG	1A	3188	1/1	0.92	0.21	47,47,47,47	0
54	MG	1A	3514	1/1	0.92	0.07	17,17,17,17	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3378	1/1	0.92	0.12	48,48,48,48	0
54	MG	2A	3664	1/1	0.92	0.10	39,39,39,39	0
54	MG	1a	3129	1/1	0.92	0.08	52,52,52,52	0
54	MG	1A	3863	1/1	0.92	0.07	26,26,26,26	0
54	MG	1A	3988	1/1	0.92	0.16	32,32,32,32	0
54	MG	1a	3134	1/1	0.92	0.10	49,49,49,49	0
54	MG	1A	3022	1/1	0.92	0.12	34,34,34,34	0
54	MG	2A	3682	1/1	0.92	0.11	32,32,32,32	0
54	MG	2a	3121	1/1	0.92	0.07	51,51,51,51	0
54	MG	1a	3018	1/1	0.92	0.17	66,66,66,66	0
54	MG	1a	3019	1/1	0.92	0.10	46,46,46,46	0
54	MG	1A	3109	1/1	0.92	0.32	19,19,19,19	0
54	MG	2A	3686	1/1	0.92	0.12	47,47,47,47	0
54	MG	1A	3302	1/1	0.92	0.07	32,32,32,32	0
54	MG	1A	4000	1/1	0.92	0.15	35,35,35,35	0
54	MG	1a	3275	1/1	0.92	0.09	55,55,55,55	0
54	MG	2A	3167	1/1	0.92	0.09	53,53,53,53	0
54	MG	1A	3594	1/1	0.92	0.07	29,29,29,29	0
54	MG	2A	3700	1/1	0.92	0.09	67,67,67,67	0
54	MG	1A	4007	1/1	0.92	0.10	42,42,42,42	0
54	MG	1A	3772	1/1	0.92	0.17	23,23,23,23	0
54	MG	1a	3147	1/1	0.92	0.10	43,43,43,43	0
54	MG	1A	3671	1/1	0.92	0.09	59,59,59,59	0
54	MG	2A	3173	1/1	0.92	0.09	39,39,39,39	0
54	MG	2a	3154	1/1	0.92	0.08	57,57,57,57	0
54	MG	1a	3153	1/1	0.92	0.10	46,46,46,46	0
54	MG	2A	3710	1/1	0.92	0.09	45,45,45,45	0
54	MG	2A	3423	1/1	0.92	0.11	42,42,42,42	0
54	MG	2A	3177	1/1	0.92	0.14	37,37,37,37	0
54	MG	1a	3155	1/1	0.92	0.16	62,62,62,62	0
54	MG	1A	3275	1/1	0.92	0.11	52,52,52,52	0
54	MG	2A	3720	1/1	0.92	0.13	52,52,52,52	0
54	MG	1A	3165	1/1	0.92	0.11	44,44,44,44	0
54	MG	1A	3529	1/1	0.92	0.14	45,45,45,45	0
54	MG	1A	3902	1/1	0.92	0.10	20,20,20,20	0
54	MG	1A	3467	1/1	0.92	0.10	36,36,36,36	0
54	MG	1A	3607	1/1	0.92	0.09	32,32,32,32	0
54	MG	2a	3180	1/1	0.92	0.09	61,61,61,61	0
54	MG	1A	3279	1/1	0.92	0.61	38,38,38,38	0
54	MG	2a	3183	1/1	0.92	0.10	47,47,47,47	0
54	MG	1h	201	1/1	0.92	0.06	37,37,37,37	0
54	MG	2A	3196	1/1	0.92	0.08	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	3053	1/1	0.92	0.08	54,54,54,54	0
54	MG	1A	3609	1/1	0.92	0.17	25,25,25,25	0
54	MG	1A	3790	1/1	0.92	0.10	76,76,76,76	0
54	MG	2A	3452	1/1	0.92	0.14	49,49,49,49	0
54	MG	1A	3916	1/1	0.92	0.16	46,46,46,46	0
54	MG	1l	203	1/1	0.92	0.08	47,47,47,47	0
54	MG	1a	3060	1/1	0.92	0.12	59,59,59,59	0
54	MG	1n	102	1/1	0.92	0.24	61,61,61,61	0
54	MG	1B	219	1/1	0.92	0.09	28,28,28,28	0
54	MG	1A	3544	1/1	0.92	0.15	23,23,23,23	0
54	MG	1A	3919	1/1	0.92	0.10	50,50,50,50	0
54	MG	1A	3059	1/1	0.92	0.13	41,41,41,41	0
54	MG	2A	3222	1/1	0.92	0.32	48,48,48,48	0
54	MG	1A	3570	1/1	0.93	0.13	9,9,9,9	0
54	MG	1a	3027	1/1	0.93	0.12	53,53,53,53	0
54	MG	1A	3365	1/1	0.93	0.07	34,34,34,34	0
54	MG	2B	205	1/1	0.93	0.23	54,54,54,54	0
54	MG	1A	3248	1/1	0.93	0.11	37,37,37,37	0
54	MG	1A	3576	1/1	0.93	0.13	33,33,33,33	0
54	MG	2A	3463	1/1	0.93	0.10	53,53,53,53	0
54	MG	1A	3200	1/1	0.93	0.10	30,30,30,30	0
54	MG	2A	3217	1/1	0.93	0.16	53,53,53,53	0
54	MG	2B	213	1/1	0.93	0.12	53,53,53,53	0
54	MG	2B	214	1/1	0.93	0.07	52,52,52,52	0
54	MG	1A	3374	1/1	0.93	0.07	25,25,25,25	0
54	MG	1A	3691	1/1	0.93	0.32	23,23,23,23	0
54	MG	1A	3842	1/1	0.93	0.13	26,26,26,26	0
54	MG	2A	3474	1/1	0.93	0.08	38,38,38,38	0
54	MG	2D	301	1/1	0.93	0.43	27,27,27,27	0
54	MG	2A	3226	1/1	0.93	0.12	40,40,40,40	0
54	MG	2A	3476	1/1	0.93	0.15	45,45,45,45	0
54	MG	1A	4003	1/1	0.93	0.06	27,27,27,27	0
54	MG	2E	306	1/1	0.93	0.17	44,44,44,44	0
54	MG	1A	3125	1/1	0.93	0.17	34,34,34,34	0
54	MG	1A	3256	1/1	0.93	0.11	36,36,36,36	0
54	MG	1A	3388	1/1	0.93	0.08	8,8,8,8	0
54	MG	1A	3701	1/1	0.93	0.09	24,24,24,24	0
54	MG	2A	3485	1/1	0.93	0.09	56,56,56,56	0
54	MG	2A	3018	1/1	0.93	0.23	36,36,36,36	0
54	MG	1A	3400	1/1	0.93	0.10	28,28,28,28	0
54	MG	1A	3703	1/1	0.93	0.24	46,46,46,46	0
54	MG	2A	3239	1/1	0.93	0.09	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	3178	1/1	0.93	0.12	65,65,65,65	0
54	MG	2A	3496	1/1	0.93	0.10	20,20,20,20	0
54	MG	1A	3402	1/1	0.93	0.10	40,40,40,40	0
54	MG	2A	3246	1/1	0.93	0.12	45,45,45,45	0
54	MG	2A	3024	1/1	0.93	0.14	43,43,43,43	0
54	MG	1A	3707	1/1	0.93	0.23	19,19,19,19	0
54	MG	2A	3503	1/1	0.93	0.10	59,59,59,59	0
54	MG	2A	3504	1/1	0.93	0.07	46,46,46,46	0
54	MG	2A	3027	1/1	0.93	0.10	37,37,37,37	0
54	MG	1A	3130	1/1	0.93	0.05	23,23,23,23	0
54	MG	2A	3030	1/1	0.93	0.09	39,39,39,39	0
54	MG	29	101	1/1	0.93	0.20	52,52,52,52	0
54	MG	1A	3509	1/1	0.93	0.06	34,34,34,34	0
54	MG	2A	3255	1/1	0.93	0.12	49,49,49,49	0
54	MG	1a	3184	1/1	0.93	0.09	64,64,64,64	0
54	MG	1A	3209	1/1	0.93	0.44	24,24,24,24	0
54	MG	1a	3187	1/1	0.93	0.09	53,53,53,53	0
54	MG	1A	3304	1/1	0.93	0.13	50,50,50,50	0
54	MG	1A	3720	1/1	0.93	0.09	41,41,41,41	0
54	MG	1A	3185	1/1	0.93	0.14	34,34,34,34	0
54	MG	2A	3525	1/1	0.93	0.12	68,68,68,68	0
54	MG	1A	3606	1/1	0.93	0.21	21,21,21,21	0
54	MG	1a	3068	1/1	0.93	0.08	32,32,32,32	0
54	MG	1A	3889	1/1	0.93	0.08	49,49,49,49	0
54	MG	2a	3022	1/1	0.93	0.17	42,42,42,42	0
54	MG	1a	3197	1/1	0.93	0.11	59,59,59,59	0
54	MG	1A	3267	1/1	0.93	0.07	42,42,42,42	0
54	MG	2A	3280	1/1	0.93	0.10	37,37,37,37	0
54	MG	2a	3029	1/1	0.93	0.08	50,50,50,50	0
54	MG	2A	3283	1/1	0.93	0.07	20,20,20,20	0
54	MG	2A	3546	1/1	0.93	0.12	54,54,54,54	0
54	MG	1A	3730	1/1	0.93	0.06	21,21,21,21	0
54	MG	2A	3057	1/1	0.93	0.12	44,44,44,44	0
54	MG	1A	3897	1/1	0.93	0.29	28,28,28,28	0
54	MG	2a	3040	1/1	0.93	0.10	68,68,68,68	0
54	MG	2A	3556	1/1	0.93	0.10	42,42,42,42	0
54	MG	1A	3517	1/1	0.93	0.08	14,14,14,14	0
54	MG	1A	3214	1/1	0.93	0.19	52,52,52,52	0
54	MG	2A	3560	1/1	0.93	0.14	52,52,52,52	0
54	MG	2A	3067	1/1	0.93	0.25	39,39,39,39	0
54	MG	1A	3425	1/1	0.93	0.09	39,39,39,39	0
54	MG	1A	3426	1/1	0.93	0.10	11,11,11,11	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3576	1/1	0.93	0.08	57,57,57,57	0
54	MG	1A	3910	1/1	0.93	0.45	23,23,23,23	0
54	MG	1D	317	1/1	0.93	0.12	59,59,59,59	0
54	MG	1a	3212	1/1	0.93	0.11	82,82,82,82	0
54	MG	1A	3320	1/1	0.93	0.10	17,17,17,17	0
54	MG	2A	3304	1/1	0.93	0.07	42,42,42,42	0
54	MG	2A	3084	1/1	0.93	0.07	43,43,43,43	0
54	MG	1A	3752	1/1	0.93	0.08	31,31,31,31	0
54	MG	2A	3307	1/1	0.93	0.07	33,33,33,33	0
54	MG	2a	3064	1/1	0.93	0.11	44,44,44,44	0
54	MG	2A	3593	1/1	0.93	0.09	20,20,20,20	0
54	MG	2A	3088	1/1	0.93	0.20	44,44,44,44	0
54	MG	2A	3315	1/1	0.93	0.08	22,22,22,22	0
54	MG	1A	3623	1/1	0.93	0.09	17,17,17,17	0
54	MG	1F	304	1/1	0.93	0.24	22,22,22,22	0
54	MG	1A	3322	1/1	0.93	0.09	18,18,18,18	0
54	MG	2A	3094	1/1	0.93	0.09	34,34,34,34	0
54	MG	2a	3075	1/1	0.93	0.12	49,49,49,49	0
54	MG	2A	3606	1/1	0.93	0.10	49,49,49,49	0
54	MG	2A	3329	1/1	0.93	0.12	21,21,21,21	0
54	MG	2A	3097	1/1	0.93	0.29	35,35,35,35	0
54	MG	1A	3531	1/1	0.93	0.07	43,43,43,43	0
54	MG	2A	3337	1/1	0.93	0.09	49,49,49,49	0
54	MG	1A	3533	1/1	0.93	0.07	17,17,17,17	0
54	MG	2a	3094	1/1	0.93	0.09	50,50,50,50	0
54	MG	1A	3007	1/1	0.93	0.07	27,27,27,27	0
54	MG	1a	3228	1/1	0.93	0.09	42,42,42,42	0
54	MG	1A	3536	1/1	0.93	0.07	25,25,25,25	0
54	MG	1A	3766	1/1	0.93	0.10	33,33,33,33	0
54	MG	1A	3768	1/1	0.93	0.11	12,12,12,12	0
54	MG	1A	3537	1/1	0.93	0.06	19,19,19,19	0
54	MG	1U	203	1/1	0.93	0.12	33,33,33,33	0
54	MG	1U	205	1/1	0.93	0.24	33,33,33,33	0
54	MG	2A	3638	1/1	0.93	0.15	50,50,50,50	0
54	MG	2a	3112	1/1	0.93	0.06	58,58,58,58	0
54	MG	1a	3237	1/1	0.93	0.10	68,68,68,68	0
54	MG	1A	3328	1/1	0.93	0.18	7,7,7,7	0
54	MG	1a	3101	1/1	0.93	0.14	38,38,38,38	0
54	MG	1A	3541	1/1	0.93	0.12	32,32,32,32	0
54	MG	2A	3370	1/1	0.93	0.09	33,33,33,33	0
54	MG	1a	3242	1/1	0.93	0.07	42,42,42,42	0
54	MG	1W	201	1/1	0.93	0.13	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3374	1/1	0.93	0.09	39,39,39,39	0
54	MG	2A	3670	1/1	0.93	0.15	64,64,64,64	0
54	MG	2A	3671	1/1	0.93	0.13	63,63,63,63	0
54	MG	1A	3437	1/1	0.93	0.07	35,35,35,35	0
54	MG	1a	3245	1/1	0.93	0.09	64,64,64,64	0
54	MG	1A	3104	1/1	0.93	0.22	16,16,16,16	0
54	MG	1A	3644	1/1	0.93	0.11	49,49,49,49	0
54	MG	2A	3390	1/1	0.93	0.08	48,48,48,48	0
54	MG	1a	3253	1/1	0.93	0.09	43,43,43,43	0
54	MG	2A	3394	1/1	0.93	0.07	30,30,30,30	0
54	MG	1a	3115	1/1	0.93	0.12	60,60,60,60	0
54	MG	1A	3220	1/1	0.93	0.13	40,40,40,40	0
54	MG	2a	3148	1/1	0.93	0.09	63,63,63,63	0
54	MG	1A	3443	1/1	0.93	0.09	29,29,29,29	0
54	MG	2A	3157	1/1	0.93	0.12	35,35,35,35	0
54	MG	1A	3010	1/1	0.93	0.08	35,35,35,35	0
54	MG	1A	3653	1/1	0.93	0.07	14,14,14,14	0
54	MG	1A	3550	1/1	0.93	0.07	27,27,27,27	0
54	MG	2A	3699	1/1	0.93	0.17	48,48,48,48	0
54	MG	1A	3351	1/1	0.93	0.06	16,16,16,16	0
54	MG	1a	3127	1/1	0.93	0.07	67,67,67,67	0
54	MG	2a	3161	1/1	0.93	0.08	49,49,49,49	0
54	MG	2A	3406	1/1	0.93	0.08	69,69,69,69	0
54	MG	1A	3110	1/1	0.93	0.08	36,36,36,36	0
54	MG	2a	3165	1/1	0.93	0.07	56,56,56,56	0
54	MG	1a	3131	1/1	0.93	0.18	61,61,61,61	0
54	MG	15	101	1/1	0.93	0.20	34,34,34,34	0
54	MG	15	108	1/1	0.93	0.09	57,57,57,57	0
54	MG	1A	3354	1/1	0.93	0.13	45,45,45,45	0
54	MG	2A	3175	1/1	0.93	0.13	37,37,37,37	0
54	MG	1A	3799	1/1	0.93	0.15	46,46,46,46	0
54	MG	2A	3422	1/1	0.93	0.15	60,60,60,60	0
54	MG	2A	3718	1/1	0.93	0.10	50,50,50,50	0
54	MG	1A	3466	1/1	0.93	0.09	43,43,43,43	0
54	MG	1A	3804	1/1	0.93	0.14	15,15,15,15	0
54	MG	1A	3806	1/1	0.93	0.09	26,26,26,26	0
54	MG	1A	3663	1/1	0.93	0.14	31,31,31,31	0
54	MG	2A	3723	1/1	0.93	0.11	58,58,58,58	0
54	MG	1A	3971	1/1	0.93	0.13	44,44,44,44	0
54	MG	1A	3664	1/1	0.93	0.10	26,26,26,26	0
54	MG	2A	3434	1/1	0.93	0.08	46,46,46,46	0
54	MG	1A	3561	1/1	0.93	0.23	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2p	101	1/1	0.93	0.09	34,34,34,34	0
54	MG	1A	3192	1/1	0.93	0.11	49,49,49,49	0
56	MPD	1A	4012	8/8	0.93	0.19	38,44,54,56	0
54	MG	1a	3013	1/1	0.93	0.07	14,14,14,14	0
54	MG	1a	3150	1/1	0.93	0.09	64,64,64,64	0
54	MG	1a	3016	1/1	0.93	0.11	57,57,57,57	0
54	MG	1A	3075	1/1	0.93	0.10	39,39,39,39	0
54	MG	2A	3201	1/1	0.93	0.08	50,50,50,50	0
54	MG	1A	3179	1/1	0.93	0.10	48,48,48,48	0
54	MG	1A	3982	1/1	0.93	0.06	34,34,34,34	0
54	MG	1A	3808	1/1	0.94	0.08	34,34,34,34	0
54	MG	1a	3271	1/1	0.94	0.09	66,66,66,66	0
54	MG	10	103	1/1	0.94	0.07	28,28,28,28	0
54	MG	1A	3338	1/1	0.94	0.09	35,35,35,35	0
54	MG	1A	3345	1/1	0.94	0.10	47,47,47,47	0
54	MG	11	101	1/1	0.94	0.44	36,36,36,36	0
54	MG	2A	3732	1/1	0.94	0.17	58,58,58,58	0
54	MG	1A	3532	1/1	0.94	0.09	41,41,41,41	0
54	MG	1A	3440	1/1	0.94	0.17	44,44,44,44	0
54	MG	2A	3736	1/1	0.94	0.23	37,37,37,37	0
54	MG	1A	3534	1/1	0.94	0.07	22,22,22,22	0
54	MG	1A	3348	1/1	0.94	0.07	18,18,18,18	0
54	MG	1A	3229	1/1	0.94	0.30	26,26,26,26	0
54	MG	2A	3446	1/1	0.94	0.09	46,46,46,46	0
54	MG	1A	3975	1/1	0.94	0.07	70,70,70,70	0
54	MG	15	105	1/1	0.94	0.33	20,20,20,20	0
54	MG	1A	3610	1/1	0.94	0.10	24,24,24,24	0
54	MG	17	103	1/1	0.94	0.24	25,25,25,25	0
54	MG	1a	3140	1/1	0.94	0.07	34,34,34,34	0
54	MG	17	105	1/1	0.94	0.09	39,39,39,39	0
54	MG	1A	3704	1/1	0.94	0.21	31,31,31,31	0
54	MG	2A	3203	1/1	0.94	0.09	50,50,50,50	0
54	MG	1A	3612	1/1	0.94	0.10	35,35,35,35	0
54	MG	2B	212	1/1	0.94	0.11	56,56,56,56	0
54	MG	1A	3128	1/1	0.94	0.06	39,39,39,39	0
54	MG	2A	3465	1/1	0.94	0.16	23,23,23,23	0
54	MG	1A	3456	1/1	0.94	0.09	44,44,44,44	0
54	MG	2A	3208	1/1	0.94	0.09	48,48,48,48	0
54	MG	2A	3209	1/1	0.94	0.19	37,37,37,37	0
54	MG	2A	3472	1/1	0.94	0.07	28,28,28,28	0
54	MG	2B	220	1/1	0.94	0.09	66,66,66,66	0
54	MG	1A	3079	1/1	0.94	0.12	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2D	304	1/1	0.94	0.18	40,40,40,40	0
54	MG	1A	3711	1/1	0.94	0.14	25,25,25,25	0
54	MG	1a	3151	1/1	0.94	0.12	60,60,60,60	0
54	MG	1A	3171	1/1	0.94	0.06	29,29,29,29	0
54	MG	1A	3288	1/1	0.94	0.06	37,37,37,37	0
54	MG	2E	307	1/1	0.94	0.10	49,49,49,49	0
54	MG	1a	3154	1/1	0.94	0.08	55,55,55,55	0
54	MG	2A	3221	1/1	0.94	0.22	36,36,36,36	0
54	MG	1a	3010	1/1	0.94	0.07	41,41,41,41	0
54	MG	1A	3719	1/1	0.94	0.13	51,51,51,51	0
54	MG	2A	3225	1/1	0.94	0.19	43,43,43,43	0
54	MG	1A	3197	1/1	0.94	0.09	27,27,27,27	0
54	MG	1A	3290	1/1	0.94	0.11	43,43,43,43	0
54	MG	1a	3014	1/1	0.94	0.09	61,61,61,61	0
54	MG	1A	3293	1/1	0.94	0.11	36,36,36,36	0
54	MG	1A	3999	1/1	0.94	0.18	34,34,34,34	0
54	MG	2A	3004	1/1	0.94	0.10	40,40,40,40	0
54	MG	1A	3632	1/1	0.94	0.20	14,14,14,14	0
54	MG	2A	3498	1/1	0.94	0.27	33,33,33,33	0
54	MG	2V	201	1/1	0.94	0.08	56,56,56,56	0
54	MG	1A	3019	1/1	0.94	0.33	21,21,21,21	0
54	MG	1A	3733	1/1	0.94	0.06	25,25,25,25	0
54	MG	2A	3238	1/1	0.94	0.13	30,30,30,30	0
54	MG	2A	3502	1/1	0.94	0.19	41,41,41,41	0
54	MG	1a	3023	1/1	0.94	0.17	56,56,56,56	0
54	MG	25	101	1/1	0.94	0.11	48,48,48,48	0
54	MG	26	101	1/1	0.94	0.10	51,51,51,51	0
54	MG	1A	4006	1/1	0.94	0.10	54,54,54,54	0
54	MG	1A	3136	1/1	0.94	0.06	21,21,21,21	0
54	MG	1A	3738	1/1	0.94	0.16	41,41,41,41	0
54	MG	1A	4010	1/1	0.94	0.15	56,56,56,56	0
54	MG	2A	3508	1/1	0.94	0.08	53,53,53,53	0
54	MG	1A	3739	1/1	0.94	0.13	43,43,43,43	0
54	MG	2A	3511	1/1	0.94	0.06	43,43,43,43	0
54	MG	1A	3554	1/1	0.94	0.06	25,25,25,25	0
54	MG	1a	3036	1/1	0.94	0.08	52,52,52,52	0
54	MG	1a	3176	1/1	0.94	0.08	65,65,65,65	0
54	MG	1A	3877	1/1	0.94	0.09	23,23,23,23	0
54	MG	2a	3016	1/1	0.94	0.06	47,47,47,47	0
54	MG	1a	3179	1/1	0.94	0.08	54,54,54,54	0
54	MG	2A	3520	1/1	0.94	0.14	16,16,16,16	0
54	MG	1A	3203	1/1	0.94	0.51	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3103	1/1	0.94	0.15	38,38,38,38	0
54	MG	2A	3524	1/1	0.94	0.10	57,57,57,57	0
54	MG	2a	3023	1/1	0.94	0.15	49,49,49,49	0
54	MG	1A	3749	1/1	0.94	0.06	28,28,28,28	0
54	MG	2A	3526	1/1	0.94	0.07	52,52,52,52	0
54	MG	1A	3639	1/1	0.94	0.08	29,29,29,29	0
54	MG	1A	3895	1/1	0.94	0.11	48,48,48,48	0
54	MG	2A	3533	1/1	0.94	0.09	52,52,52,52	0
54	MG	1A	3385	1/1	0.94	0.09	14,14,14,14	0
54	MG	2A	3267	1/1	0.94	0.16	49,49,49,49	0
54	MG	2a	3036	1/1	0.94	0.12	52,52,52,52	0
54	MG	1A	3031	1/1	0.94	0.09	14,14,14,14	0
54	MG	2A	3272	1/1	0.94	0.17	34,34,34,34	0
54	MG	2A	3046	1/1	0.94	0.15	42,42,42,42	0
54	MG	1a	3054	1/1	0.94	0.07	58,58,58,58	0
54	MG	1a	3189	1/1	0.94	0.13	37,37,37,37	0
54	MG	2A	3050	1/1	0.94	0.23	63,63,63,63	0
54	MG	1A	3259	1/1	0.94	0.23	26,26,26,26	0
54	MG	2A	3052	1/1	0.94	0.10	28,28,28,28	0
54	MG	1a	3056	1/1	0.94	0.11	59,59,59,59	0
54	MG	1A	3565	1/1	0.94	0.18	26,26,26,26	0
54	MG	1B	221	1/1	0.94	0.07	55,55,55,55	0
54	MG	1A	3033	1/1	0.94	0.08	27,27,27,27	0
54	MG	1B	225	1/1	0.94	0.12	53,53,53,53	0
54	MG	2a	3056	1/1	0.94	0.09	33,33,33,33	0
54	MG	1A	3652	1/1	0.94	0.08	47,47,47,47	0
54	MG	2A	3572	1/1	0.94	0.07	42,42,42,42	0
54	MG	1A	3306	1/1	0.94	0.45	30,30,30,30	0
54	MG	2a	3060	1/1	0.94	0.12	50,50,50,50	0
54	MG	2A	3073	1/1	0.94	0.12	49,49,49,49	0
54	MG	1A	3313	1/1	0.94	0.20	27,27,27,27	0
54	MG	1A	3025	1/1	0.94	0.23	35,35,35,35	0
54	MG	1D	301	1/1	0.94	0.08	30,30,30,30	0
54	MG	1A	3266	1/1	0.94	0.11	51,51,51,51	0
54	MG	2A	3079	1/1	0.94	0.07	23,23,23,23	0
54	MG	1a	3205	1/1	0.94	0.12	51,51,51,51	0
54	MG	1A	3575	1/1	0.94	0.26	30,30,30,30	0
54	MG	2a	3070	1/1	0.94	0.16	45,45,45,45	0
54	MG	1A	3418	1/1	0.94	0.10	34,34,34,34	0
54	MG	1A	3071	1/1	0.94	0.30	22,22,22,22	0
54	MG	2A	3595	1/1	0.94	0.07	55,55,55,55	0
54	MG	2A	3314	1/1	0.94	0.05	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3090	1/1	0.94	0.12	38,38,38,38	0
54	MG	1a	3074	1/1	0.94	0.09	29,29,29,29	0
54	MG	1A	3927	1/1	0.94	0.10	36,36,36,36	0
54	MG	1A	3928	1/1	0.94	0.10	58,58,58,58	0
54	MG	2a	3082	1/1	0.94	0.12	43,43,43,43	0
54	MG	2A	3605	1/1	0.94	0.08	56,56,56,56	0
54	MG	2a	3087	1/1	0.94	0.10	53,53,53,53	0
54	MG	1A	3268	1/1	0.94	0.20	37,37,37,37	0
54	MG	2A	3327	1/1	0.94	0.06	40,40,40,40	0
54	MG	2A	3609	1/1	0.94	0.11	47,47,47,47	0
54	MG	1E	305	1/1	0.94	0.13	32,32,32,32	0
54	MG	1a	3220	1/1	0.94	0.10	56,56,56,56	0
54	MG	2A	3612	1/1	0.94	0.14	50,50,50,50	0
54	MG	2A	3332	1/1	0.94	0.07	27,27,27,27	0
54	MG	1A	3667	1/1	0.94	0.09	51,51,51,51	0
54	MG	2A	3617	1/1	0.94	0.10	54,54,54,54	0
54	MG	2A	3103	1/1	0.94	0.08	26,26,26,26	0
54	MG	1A	3668	1/1	0.94	0.08	56,56,56,56	0
54	MG	2A	3342	1/1	0.94	0.14	38,38,38,38	0
54	MG	1a	3224	1/1	0.94	0.11	37,37,37,37	0
54	MG	2A	3106	1/1	0.94	0.12	41,41,41,41	0
54	MG	2A	3632	1/1	0.94	0.17	49,49,49,49	0
54	MG	1A	3041	1/1	0.94	0.13	43,43,43,43	0
54	MG	2A	3635	1/1	0.94	0.09	40,40,40,40	0
54	MG	1F	310	1/1	0.94	0.07	33,33,33,33	0
54	MG	1F	314	1/1	0.94	0.09	34,34,34,34	0
54	MG	1F	315	1/1	0.94	0.13	50,50,50,50	0
54	MG	2A	3359	1/1	0.94	0.12	49,49,49,49	0
54	MG	2a	3126	1/1	0.94	0.07	52,52,52,52	0
54	MG	1a	3085	1/1	0.94	0.11	44,44,44,44	0
54	MG	1A	3670	1/1	0.94	0.08	42,42,42,42	0
54	MG	1G	201	1/1	0.94	0.08	65,65,65,65	0
54	MG	2A	3654	1/1	0.94	0.07	70,70,70,70	0
54	MG	2A	3655	1/1	0.94	0.10	54,54,54,54	0
54	MG	1A	3787	1/1	0.94	0.07	80,80,80,80	0
54	MG	2A	3123	1/1	0.94	0.12	37,37,37,37	0
54	MG	2A	3125	1/1	0.94	0.12	56,56,56,56	0
54	MG	2a	3144	1/1	0.94	0.12	53,53,53,53	0
54	MG	1G	203	1/1	0.94	0.12	56,56,56,56	0
54	MG	2A	3668	1/1	0.94	0.12	48,48,48,48	0
54	MG	1A	3161	1/1	0.94	0.33	21,21,21,21	0
54	MG	2a	3149	1/1	0.94	0.10	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3942	1/1	0.94	0.08	21,21,21,21	0
54	MG	2A	3373	1/1	0.94	0.12	24,24,24,24	0
54	MG	2A	3132	1/1	0.94	0.13	47,47,47,47	0
54	MG	2A	3375	1/1	0.94	0.09	46,46,46,46	0
54	MG	1A	3126	1/1	0.94	0.12	30,30,30,30	0
54	MG	2A	3680	1/1	0.94	0.10	46,46,46,46	0
54	MG	2A	3139	1/1	0.94	0.11	28,28,28,28	0
54	MG	1P	205	1/1	0.94	0.10	66,66,66,66	0
54	MG	1P	206	1/1	0.94	0.13	28,28,28,28	0
54	MG	1A	3227	1/1	0.94	0.33	21,21,21,21	0
54	MG	1A	3590	1/1	0.94	0.11	26,26,26,26	0
54	MG	2A	3147	1/1	0.94	0.09	47,47,47,47	0
54	MG	1T	201	1/1	0.94	0.08	23,23,23,23	0
54	MG	2a	3170	1/1	0.94	0.11	78,78,78,78	0
54	MG	2A	3693	1/1	0.94	0.12	45,45,45,45	0
54	MG	1T	202	1/1	0.94	0.08	51,51,51,51	0
54	MG	2A	3696	1/1	0.94	0.12	44,44,44,44	0
54	MG	1T	203	1/1	0.94	0.06	33,33,33,33	0
54	MG	1a	3252	1/1	0.94	0.09	65,65,65,65	0
54	MG	2A	3153	1/1	0.94	0.19	40,40,40,40	0
54	MG	2A	3155	1/1	0.94	0.07	29,29,29,29	0
54	MG	2A	3156	1/1	0.94	0.07	38,38,38,38	0
54	MG	1a	3107	1/1	0.94	0.09	37,37,37,37	0
54	MG	2A	3158	1/1	0.94	0.19	39,39,39,39	0
54	MG	2A	3160	1/1	0.94	0.07	36,36,36,36	0
54	MG	2A	3407	1/1	0.94	0.09	39,39,39,39	0
54	MG	2A	3707	1/1	0.94	0.07	28,28,28,28	0
54	MG	1A	3525	1/1	0.94	0.09	49,49,49,49	0
54	MG	2A	3709	1/1	0.94	0.18	38,38,38,38	0
54	MG	2A	3410	1/1	0.94	0.08	25,25,25,25	0
54	MG	2A	3713	1/1	0.94	0.07	44,44,44,44	0
54	MG	2A	3163	1/1	0.94	0.05	64,64,64,64	0
54	MG	2A	3164	1/1	0.94	0.16	56,56,56,56	0
54	MG	1A	3228	1/1	0.94	0.27	27,27,27,27	0
54	MG	1a	3256	1/1	0.94	0.10	44,44,44,44	0
54	MG	1A	3596	1/1	0.94	0.17	36,36,36,36	0
54	MG	1A	3685	1/1	0.94	0.09	19,19,19,19	0
54	MG	1A	3337	1/1	0.94	0.10	29,29,29,29	0
54	MG	1A	3955	1/1	0.94	0.09	32,32,32,32	0
54	MG	1A	3807	1/1	0.94	0.06	27,27,27,27	0
54	MG	2A	3081	1/1	0.95	0.17	44,44,44,44	0
54	MG	2A	3363	1/1	0.95	0.07	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3082	1/1	0.95	0.21	38,38,38,38	0
54	MG	2A	3083	1/1	0.95	0.07	50,50,50,50	0
54	MG	1A	3776	1/1	0.95	0.12	34,34,34,34	0
54	MG	1A	3194	1/1	0.95	0.10	40,40,40,40	0
54	MG	19	101	1/1	0.95	0.06	37,37,37,37	0
54	MG	2A	3089	1/1	0.95	0.10	29,29,29,29	0
54	MG	2A	3702	1/1	0.95	0.09	52,52,52,52	0
54	MG	1A	3149	1/1	0.95	0.07	23,23,23,23	0
54	MG	1A	3962	1/1	0.95	0.07	28,28,28,28	0
54	MG	1A	3781	1/1	0.95	0.16	45,45,45,45	0
54	MG	1a	3005	1/1	0.95	0.16	49,49,49,49	0
54	MG	1A	3097	1/1	0.95	0.13	47,47,47,47	0
54	MG	1A	3098	1/1	0.95	0.11	52,52,52,52	0
54	MG	2A	3099	1/1	0.95	0.07	33,33,33,33	0
54	MG	2A	3379	1/1	0.95	0.17	49,49,49,49	0
54	MG	2A	3712	1/1	0.95	0.08	33,33,33,33	0
54	MG	2A	3380	1/1	0.95	0.07	30,30,30,30	0
54	MG	1A	3005	1/1	0.95	0.04	8,8,8,8	0
54	MG	1a	3186	1/1	0.95	0.09	64,64,64,64	0
54	MG	2A	3716	1/1	0.95	0.10	33,33,33,33	0
54	MG	2A	3387	1/1	0.95	0.09	23,23,23,23	0
54	MG	1A	3435	1/1	0.95	0.10	24,24,24,24	0
54	MG	1A	3549	1/1	0.95	0.07	31,31,31,31	0
54	MG	1A	3972	1/1	0.95	0.07	29,29,29,29	0
54	MG	1A	3973	1/1	0.95	0.09	48,48,48,48	0
54	MG	1A	3974	1/1	0.95	0.06	38,38,38,38	0
54	MG	1A	3326	1/1	0.95	0.07	9,9,9,9	0
54	MG	1A	3023	1/1	0.95	0.14	17,17,17,17	0
54	MG	1A	3977	1/1	0.95	0.07	18,18,18,18	0
54	MG	1a	3196	1/1	0.95	0.08	63,63,63,63	0
54	MG	1A	3108	1/1	0.95	0.23	30,30,30,30	0
54	MG	1A	3795	1/1	0.95	0.07	27,27,27,27	0
54	MG	1A	3011	1/1	0.95	0.08	28,28,28,28	0
54	MG	2A	3731	1/1	0.95	0.07	51,51,51,51	0
54	MG	2A	3122	1/1	0.95	0.15	45,45,45,45	0
54	MG	1A	3660	1/1	0.95	0.07	35,35,35,35	0
54	MG	1a	3024	1/1	0.95	0.11	48,48,48,48	0
54	MG	1A	3801	1/1	0.95	0.33	35,35,35,35	0
54	MG	1A	3208	1/1	0.95	0.08	25,25,25,25	0
54	MG	2A	3129	1/1	0.95	0.06	29,29,29,29	0
54	MG	1a	3029	1/1	0.95	0.09	37,37,37,37	0
54	MG	2A	3416	1/1	0.95	0.11	21,21,21,21	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3557	1/1	0.95	0.07	34,34,34,34	0
54	MG	1a	3207	1/1	0.95	0.11	45,45,45,45	0
54	MG	2A	3134	1/1	0.95	0.11	52,52,52,52	0
54	MG	1A	3558	1/1	0.95	0.08	40,40,40,40	0
54	MG	1a	3209	1/1	0.95	0.06	50,50,50,50	0
54	MG	1a	3032	1/1	0.95	0.10	27,27,27,27	0
54	MG	2A	3427	1/1	0.95	0.08	45,45,45,45	0
54	MG	1A	3665	1/1	0.95	0.13	47,47,47,47	0
54	MG	1a	3213	1/1	0.95	0.08	63,63,63,63	0
54	MG	1A	3666	1/1	0.95	0.16	27,27,27,27	0
54	MG	1a	3035	1/1	0.95	0.07	37,37,37,37	0
54	MG	1A	3991	1/1	0.95	0.06	46,46,46,46	0
54	MG	1a	3037	1/1	0.95	0.16	50,50,50,50	0
54	MG	2B	216	1/1	0.95	0.06	43,43,43,43	0
54	MG	1A	3271	1/1	0.95	0.09	36,36,36,36	0
54	MG	1A	3454	1/1	0.95	0.08	8,8,8,8	0
54	MG	2A	3439	1/1	0.95	0.10	23,23,23,23	0
54	MG	2A	3154	1/1	0.95	0.06	49,49,49,49	0
54	MG	2A	3442	1/1	0.95	0.09	33,33,33,33	0
54	MG	2D	302	1/1	0.95	0.09	41,41,41,41	0
54	MG	2D	303	1/1	0.95	0.21	43,43,43,43	0
54	MG	1A	3996	1/1	0.95	0.08	50,50,50,50	0
54	MG	2D	305	1/1	0.95	0.08	26,26,26,26	0
54	MG	1A	3026	1/1	0.95	0.34	21,21,21,21	0
54	MG	1a	3042	1/1	0.95	0.14	39,39,39,39	0
54	MG	1a	3043	1/1	0.95	0.12	47,47,47,47	0
54	MG	1A	3341	1/1	0.95	0.07	33,33,33,33	0
54	MG	2A	3449	1/1	0.95	0.08	49,49,49,49	0
54	MG	2A	3450	1/1	0.95	0.08	35,35,35,35	0
54	MG	1A	4002	1/1	0.95	0.06	34,34,34,34	0
54	MG	1A	3343	1/1	0.95	0.07	17,17,17,17	0
54	MG	2A	3455	1/1	0.95	0.06	40,40,40,40	0
54	MG	1A	3568	1/1	0.95	0.06	54,54,54,54	0
54	MG	2A	3165	1/1	0.95	0.10	41,41,41,41	0
54	MG	1A	3273	1/1	0.95	0.18	35,35,35,35	0
54	MG	1a	3233	1/1	0.95	0.08	48,48,48,48	0
54	MG	2A	3461	1/1	0.95	0.08	40,40,40,40	0
54	MG	2Q	201	1/1	0.95	0.13	39,39,39,39	0
54	MG	1A	3463	1/1	0.95	0.07	44,44,44,44	0
54	MG	2R	201	1/1	0.95	0.10	42,42,42,42	0
54	MG	1a	3235	1/1	0.95	0.16	58,58,58,58	0
54	MG	1A	3210	1/1	0.95	0.39	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3466	1/1	0.95	0.08	34,34,34,34	0
54	MG	1A	3830	1/1	0.95	0.10	37,37,37,37	0
54	MG	2V	202	1/1	0.95	0.21	38,38,38,38	0
54	MG	2V	203	1/1	0.95	0.06	37,37,37,37	0
54	MG	2A	3469	1/1	0.95	0.06	42,42,42,42	0
54	MG	1A	3835	1/1	0.95	0.06	32,32,32,32	0
54	MG	1a	3059	1/1	0.95	0.10	60,60,60,60	0
54	MG	1A	3060	1/1	0.95	0.18	43,43,43,43	0
54	MG	1A	3574	1/1	0.95	0.07	29,29,29,29	0
54	MG	1A	3278	1/1	0.95	0.07	33,33,33,33	0
54	MG	1A	3124	1/1	0.95	0.08	22,22,22,22	0
54	MG	1A	3577	1/1	0.95	0.09	53,53,53,53	0
54	MG	1B	208	1/1	0.95	0.07	39,39,39,39	0
54	MG	2A	3479	1/1	0.95	0.12	40,40,40,40	0
54	MG	2A	3184	1/1	0.95	0.13	56,56,56,56	0
54	MG	2A	3481	1/1	0.95	0.16	50,50,50,50	0
54	MG	2a	3005	1/1	0.95	0.15	50,50,50,50	0
54	MG	2a	3006	1/1	0.95	0.16	65,65,65,65	0
54	MG	1A	3843	1/1	0.95	0.11	34,34,34,34	0
54	MG	2a	3008	1/1	0.95	0.12	39,39,39,39	0
54	MG	1A	3280	1/1	0.95	0.12	32,32,32,32	0
54	MG	2A	3189	1/1	0.95	0.10	39,39,39,39	0
54	MG	1A	3847	1/1	0.95	0.10	31,31,31,31	0
54	MG	1A	3475	1/1	0.95	0.11	14,14,14,14	0
54	MG	2a	3014	1/1	0.95	0.16	46,46,46,46	0
54	MG	1a	3071	1/1	0.95	0.07	53,53,53,53	0
54	MG	2A	3489	1/1	0.95	0.08	61,61,61,61	0
54	MG	1a	3072	1/1	0.95	0.15	37,37,37,37	0
54	MG	1A	3850	1/1	0.95	0.15	24,24,24,24	0
54	MG	2a	3019	1/1	0.95	0.06	56,56,56,56	0
54	MG	1a	3260	1/1	0.95	0.09	25,25,25,25	0
54	MG	2A	3495	1/1	0.95	0.10	35,35,35,35	0
54	MG	2A	3199	1/1	0.95	0.07	47,47,47,47	0
54	MG	1B	218	1/1	0.95	0.06	31,31,31,31	0
54	MG	1A	3359	1/1	0.95	0.07	7,7,7,7	0
54	MG	1a	3264	1/1	0.95	0.13	52,52,52,52	0
54	MG	1A	3856	1/1	0.95	0.09	23,23,23,23	0
54	MG	1A	3172	1/1	0.95	0.19	35,35,35,35	0
54	MG	2a	3032	1/1	0.95	0.09	32,32,32,32	0
54	MG	1A	3700	1/1	0.95	0.08	41,41,41,41	0
54	MG	1A	3482	1/1	0.95	0.09	13,13,13,13	0
54	MG	1A	3218	1/1	0.95	0.27	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1B	228	1/1	0.95	0.08	45,45,45,45	0
54	MG	2A	3212	1/1	0.95	0.12	49,49,49,49	0
54	MG	1A	3002	1/1	0.95	0.10	43,43,43,43	0
54	MG	1A	3592	1/1	0.95	0.09	47,47,47,47	0
54	MG	1a	3277	1/1	0.95	0.07	43,43,43,43	0
54	MG	2A	3510	1/1	0.95	0.12	53,53,53,53	0
54	MG	1A	3066	1/1	0.95	0.07	34,34,34,34	0
54	MG	1D	304	1/1	0.95	0.17	26,26,26,26	0
54	MG	2A	3218	1/1	0.95	0.07	44,44,44,44	0
54	MG	2a	3049	1/1	0.95	0.17	43,43,43,43	0
54	MG	1D	305	1/1	0.95	0.07	24,24,24,24	0
54	MG	2A	3220	1/1	0.95	0.07	54,54,54,54	0
54	MG	2a	3052	1/1	0.95	0.08	50,50,50,50	0
54	MG	1A	3501	1/1	0.95	0.10	58,58,58,58	0
54	MG	1A	3871	1/1	0.95	0.07	22,22,22,22	0
54	MG	1A	3873	1/1	0.95	0.10	52,52,52,52	0
54	MG	1A	3708	1/1	0.95	0.10	33,33,33,33	0
54	MG	1A	3368	1/1	0.95	0.07	17,17,17,17	0
54	MG	1A	3597	1/1	0.95	0.06	39,39,39,39	0
54	MG	1A	3224	1/1	0.95	0.09	39,39,39,39	0
54	MG	2A	3529	1/1	0.95	0.09	59,59,59,59	0
54	MG	1a	3094	1/1	0.95	0.08	49,49,49,49	0
54	MG	1A	3880	1/1	0.95	0.13	36,36,36,36	0
54	MG	1A	3069	1/1	0.95	0.35	31,31,31,31	0
54	MG	2A	3536	1/1	0.95	0.08	19,19,19,19	0
54	MG	1A	3714	1/1	0.95	0.06	35,35,35,35	0
54	MG	1A	3018	1/1	0.95	0.36	26,26,26,26	0
54	MG	1A	3382	1/1	0.95	0.07	13,13,13,13	0
54	MG	1F	311	1/1	0.95	0.12	14,14,14,14	0
54	MG	2a	3069	1/1	0.95	0.12	27,27,27,27	0
54	MG	1A	3510	1/1	0.95	0.07	14,14,14,14	0
54	MG	1A	3721	1/1	0.95	0.08	25,25,25,25	0
54	MG	2A	3242	1/1	0.95	0.11	34,34,34,34	0
54	MG	1m	201	1/1	0.95	0.07	63,63,63,63	0
54	MG	2A	3551	1/1	0.95	0.11	38,38,38,38	0
54	MG	2A	3245	1/1	0.95	0.12	34,34,34,34	0
54	MG	1A	3723	1/1	0.95	0.09	32,32,32,32	0
54	MG	1F	317	1/1	0.95	0.07	40,40,40,40	0
54	MG	1a	3113	1/1	0.95	0.09	47,47,47,47	0
54	MG	1A	3183	1/1	0.95	0.46	26,26,26,26	0
54	MG	2A	3250	1/1	0.95	0.22	40,40,40,40	0
54	MG	1A	3512	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
54	MG	1A	3008	1/1	0.95	0.10	28,28,28,28	0
54	MG	2a	3090	1/1	0.95	0.08	52,52,52,52	0
54	MG	1G	204	1/1	0.95	0.10	38,38,38,38	0
54	MG	2A	3575	1/1	0.95	0.13	62,62,62,62	0
54	MG	2a	3097	1/1	0.95	0.12	69,69,69,69	0
54	MG	1H	201	1/1	0.95	0.10	52,52,52,52	0
54	MG	2A	3256	1/1	0.95	0.17	40,40,40,40	0
54	MG	2A	3580	1/1	0.95	0.07	27,27,27,27	0
54	MG	1N	201	1/1	0.95	0.09	33,33,33,33	0
54	MG	2A	3003	1/1	0.95	0.09	33,33,33,33	0
54	MG	2a	3103	1/1	0.95	0.08	68,68,68,68	0
54	MG	1N	202	1/1	0.95	0.21	34,34,34,34	0
54	MG	2A	3005	1/1	0.95	0.09	42,42,42,42	0
54	MG	2A	3261	1/1	0.95	0.10	63,63,63,63	0
54	MG	2a	3111	1/1	0.95	0.10	44,44,44,44	0
54	MG	2A	3010	1/1	0.95	0.13	44,44,44,44	0
54	MG	2A	3263	1/1	0.95	0.10	46,46,46,46	0
54	MG	1A	3231	1/1	0.95	0.20	48,48,48,48	0
54	MG	1A	3731	1/1	0.95	0.15	38,38,38,38	0
54	MG	2A	3017	1/1	0.95	0.31	33,33,33,33	0
54	MG	1A	3611	1/1	0.95	0.08	43,43,43,43	0
54	MG	1a	3130	1/1	0.95	0.09	41,41,41,41	0
54	MG	1A	3734	1/1	0.95	0.07	31,31,31,31	0
54	MG	1A	3395	1/1	0.95	0.11	14,14,14,14	0
54	MG	2a	3122	1/1	0.95	0.14	43,43,43,43	0
54	MG	2a	3123	1/1	0.95	0.07	60,60,60,60	0
54	MG	1A	3397	1/1	0.95	0.07	12,12,12,12	0
54	MG	2A	3604	1/1	0.95	0.07	53,53,53,53	0
54	MG	1Q	204	1/1	0.95	0.11	40,40,40,40	0
54	MG	1R	201	1/1	0.95	0.18	19,19,19,19	0
54	MG	1R	206	1/1	0.95	0.12	27,27,27,27	0
54	MG	1A	3922	1/1	0.95	0.12	32,32,32,32	0
54	MG	2a	3133	1/1	0.95	0.10	46,46,46,46	0
54	MG	2a	3134	1/1	0.95	0.07	75,75,75,75	0
54	MG	1R	209	1/1	0.95	0.06	35,35,35,35	0
54	MG	2A	3031	1/1	0.95	0.25	46,46,46,46	0
54	MG	1A	3398	1/1	0.95	0.07	20,20,20,20	0
54	MG	1A	3924	1/1	0.95	0.11	44,44,44,44	0
54	MG	1A	3925	1/1	0.95	0.10	31,31,31,31	0
54	MG	1A	3132	1/1	0.95	0.07	20,20,20,20	0
54	MG	1U	204	1/1	0.95	0.34	25,25,25,25	0
54	MG	1A	3620	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
54	MG	2A	3041	1/1	0.95	0.09	44,44,44,44	0
54	MG	1A	3621	1/1	0.95	0.06	30,30,30,30	0
54	MG	2A	3625	1/1	0.95	0.10	47,47,47,47	0
54	MG	1A	3748	1/1	0.95	0.07	28,28,28,28	0
54	MG	1A	3236	1/1	0.95	0.22	33,33,33,33	0
54	MG	1A	3624	1/1	0.95	0.17	21,21,21,21	0
54	MG	1A	3934	1/1	0.95	0.05	16,16,16,16	0
54	MG	10	101	1/1	0.95	0.06	27,27,27,27	0
54	MG	2A	3310	1/1	0.95	0.09	47,47,47,47	0
54	MG	2A	3049	1/1	0.95	0.17	49,49,49,49	0
54	MG	2A	3640	1/1	0.95	0.10	29,29,29,29	0
54	MG	2A	3641	1/1	0.95	0.07	42,42,42,42	0
54	MG	1A	3625	1/1	0.95	0.13	61,61,61,61	0
54	MG	2A	3646	1/1	0.95	0.08	24,24,24,24	0
54	MG	2A	3647	1/1	0.95	0.08	39,39,39,39	0
54	MG	1A	3034	1/1	0.95	0.16	41,41,41,41	0
54	MG	1A	3080	1/1	0.95	0.39	26,26,26,26	0
54	MG	1A	3412	1/1	0.95	0.08	5,5,5,5	0
54	MG	1A	3141	1/1	0.95	0.06	27,27,27,27	0
54	MG	2a	3176	1/1	0.95	0.07	52,52,52,52	0
54	MG	2A	3058	1/1	0.95	0.07	43,43,43,43	0
54	MG	1A	3246	1/1	0.95	0.27	55,55,55,55	0
54	MG	1A	3142	1/1	0.95	0.14	26,26,26,26	0
54	MG	2A	3331	1/1	0.95	0.07	38,38,38,38	0
54	MG	2A	3665	1/1	0.95	0.08	42,42,42,42	0
54	MG	2a	3186	1/1	0.95	0.07	48,48,48,48	0
54	MG	2A	3064	1/1	0.95	0.17	20,20,20,20	0
54	MG	11	105	1/1	0.95	0.08	25,25,25,25	0
54	MG	2A	3334	1/1	0.95	0.06	25,25,25,25	0
54	MG	2A	3335	1/1	0.95	0.10	51,51,51,51	0
54	MG	1A	3308	1/1	0.95	0.10	29,29,29,29	0
54	MG	2A	3340	1/1	0.95	0.09	32,32,32,32	0
54	MG	1A	3020	1/1	0.95	0.33	31,31,31,31	0
54	MG	13	104	1/1	0.95	0.18	38,38,38,38	0
54	MG	1A	3422	1/1	0.95	0.04	14,14,14,14	0
55	A1CQ7	2A	3741	38/38	0.95	0.11	25,32,37,39	0
54	MG	2A	3075	1/1	0.95	0.24	33,33,33,33	0
54	MG	1A	3423	1/1	0.95	0.08	12,12,12,12	0
54	MG	1A	3952	1/1	0.95	0.07	49,49,49,49	0
54	MG	15	106	1/1	0.95	0.07	40,40,40,40	0
54	MG	1A	3314	1/1	0.95	0.23	26,26,26,26	0
54	MG	2A	3357	1/1	0.95	0.07	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
57	ARG	1B	232	12/12	0.95	0.10	23,36,42,46	0
54	MG	2A	3690	1/1	0.95	0.07	40,40,40,40	0
54	MG	1A	3641	1/1	0.95	0.06	44,44,44,44	0
54	MG	1A	3094	1/1	0.96	0.09	25,25,25,25	0
54	MG	2A	3131	1/1	0.96	0.09	45,45,45,45	0
54	MG	1A	3004	1/1	0.96	0.12	34,34,34,34	0
54	MG	1A	3844	1/1	0.96	0.08	37,37,37,37	0
54	MG	1A	3176	1/1	0.96	0.18	15,15,15,15	0
54	MG	2A	3137	1/1	0.96	0.09	46,46,46,46	0
54	MG	2A	3138	1/1	0.96	0.18	32,32,32,32	0
54	MG	1A	3485	1/1	0.96	0.11	54,54,54,54	0
54	MG	1B	203	1/1	0.96	0.05	34,34,34,34	0
54	MG	2A	3141	1/1	0.96	0.06	35,35,35,35	0
54	MG	1A	3848	1/1	0.96	0.09	11,11,11,11	0
54	MG	2A	3724	1/1	0.96	0.08	40,40,40,40	0
54	MG	1A	3591	1/1	0.96	0.06	37,37,37,37	0
54	MG	2A	3145	1/1	0.96	0.15	42,42,42,42	0
54	MG	2A	3417	1/1	0.96	0.09	47,47,47,47	0
54	MG	1a	3223	1/1	0.96	0.06	69,69,69,69	0
54	MG	1A	3363	1/1	0.96	0.06	22,22,22,22	0
54	MG	1A	3047	1/1	0.96	0.15	29,29,29,29	0
54	MG	1A	3855	1/1	0.96	0.06	27,27,27,27	0
54	MG	1A	3489	1/1	0.96	0.09	36,36,36,36	0
54	MG	1B	210	1/1	0.96	0.08	40,40,40,40	0
54	MG	2A	3426	1/1	0.96	0.05	38,38,38,38	0
54	MG	2A	3152	1/1	0.96	0.14	37,37,37,37	0
54	MG	1a	3046	1/1	0.96	0.16	35,35,35,35	0
54	MG	1a	3048	1/1	0.96	0.11	46,46,46,46	0
54	MG	2A	3430	1/1	0.96	0.09	51,51,51,51	0
54	MG	1A	3858	1/1	0.96	0.05	29,29,29,29	0
54	MG	1a	3051	1/1	0.96	0.14	38,38,38,38	0
54	MG	1A	3595	1/1	0.96	0.06	19,19,19,19	0
54	MG	1A	3493	1/1	0.96	0.05	25,25,25,25	0
54	MG	1A	3135	1/1	0.96	0.34	37,37,37,37	0
54	MG	2A	3437	1/1	0.96	0.07	59,59,59,59	0
54	MG	1A	3222	1/1	0.96	0.06	29,29,29,29	0
54	MG	1A	3502	1/1	0.96	0.10	41,41,41,41	0
54	MG	1B	220	1/1	0.96	0.09	54,54,54,54	0
54	MG	2A	3441	1/1	0.96	0.07	39,39,39,39	0
54	MG	1A	3600	1/1	0.96	0.05	52,52,52,52	0
54	MG	1A	3715	1/1	0.96	0.07	21,21,21,21	0
54	MG	1A	3717	1/1	0.96	0.06	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3869	1/1	0.96	0.16	35,35,35,35	0
54	MG	1A	3601	1/1	0.96	0.11	44,44,44,44	0
54	MG	1A	3100	1/1	0.96	0.09	24,24,24,24	0
54	MG	1B	229	1/1	0.96	0.05	47,47,47,47	0
54	MG	1A	3604	1/1	0.96	0.22	25,25,25,25	0
54	MG	1A	3370	1/1	0.96	0.05	41,41,41,41	0
54	MG	1a	3067	1/1	0.96	0.13	45,45,45,45	0
54	MG	2A	3454	1/1	0.96	0.07	17,17,17,17	0
54	MG	1A	3722	1/1	0.96	0.08	47,47,47,47	0
54	MG	1D	303	1/1	0.96	0.10	15,15,15,15	0
54	MG	2A	3178	1/1	0.96	0.05	30,30,30,30	0
54	MG	1A	3029	1/1	0.96	0.08	28,28,28,28	0
54	MG	2A	3180	1/1	0.96	0.09	45,45,45,45	0
54	MG	1a	3259	1/1	0.96	0.12	45,45,45,45	0
54	MG	1A	3724	1/1	0.96	0.20	32,32,32,32	0
54	MG	1A	3725	1/1	0.96	0.24	46,46,46,46	0
54	MG	2F	301	1/1	0.96	0.23	30,30,30,30	0
54	MG	1A	3882	1/1	0.96	0.09	36,36,36,36	0
54	MG	2F	303	1/1	0.96	0.07	39,39,39,39	0
54	MG	1D	312	1/1	0.96	0.24	25,25,25,25	0
54	MG	1a	3265	1/1	0.96	0.07	44,44,44,44	0
54	MG	1a	3266	1/1	0.96	0.08	73,73,73,73	0
54	MG	1A	3884	1/1	0.96	0.26	16,16,16,16	0
54	MG	1D	314	1/1	0.96	0.19	26,26,26,26	0
54	MG	1A	3226	1/1	0.96	0.11	25,25,25,25	0
54	MG	1a	3270	1/1	0.96	0.09	49,49,49,49	0
54	MG	1A	3893	1/1	0.96	0.10	65,65,65,65	0
54	MG	1A	3038	1/1	0.96	0.13	41,41,41,41	0
54	MG	1a	3273	1/1	0.96	0.07	44,44,44,44	0
54	MG	1E	302	1/1	0.96	0.41	27,27,27,27	0
54	MG	2T	201	1/1	0.96	0.14	40,40,40,40	0
54	MG	1A	3105	1/1	0.96	0.44	20,20,20,20	0
54	MG	1A	3144	1/1	0.96	0.10	17,17,17,17	0
54	MG	1E	307	1/1	0.96	0.05	25,25,25,25	0
54	MG	2U	201	1/1	0.96	0.07	67,67,67,67	0
54	MG	1A	3230	1/1	0.96	0.30	23,23,23,23	0
54	MG	1E	309	1/1	0.96	0.07	32,32,32,32	0
54	MG	1F	303	1/1	0.96	0.15	26,26,26,26	0
54	MG	1A	3899	1/1	0.96	0.09	9,9,9,9	0
54	MG	2X	101	1/1	0.96	0.10	45,45,45,45	0
54	MG	1F	307	1/1	0.96	0.14	14,14,14,14	0
54	MG	1F	308	1/1	0.96	0.14	18,18,18,18	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3900	1/1	0.96	0.08	23,23,23,23	0
54	MG	1A	3732	1/1	0.96	0.04	15,15,15,15	0
54	MG	1A	3393	1/1	0.96	0.13	9,9,9,9	0
54	MG	1F	313	1/1	0.96	0.31	29,29,29,29	0
54	MG	1A	3147	1/1	0.96	0.17	21,21,21,21	0
54	MG	1A	3736	1/1	0.96	0.07	30,30,30,30	0
54	MG	1A	3297	1/1	0.96	0.09	23,23,23,23	0
54	MG	1A	3107	1/1	0.96	0.17	21,21,21,21	0
54	MG	1A	3399	1/1	0.96	0.08	22,22,22,22	0
54	MG	2a	3004	1/1	0.96	0.08	38,38,38,38	0
54	MG	1a	3099	1/1	0.96	0.05	26,26,26,26	0
54	MG	1k	201	1/1	0.96	0.16	35,35,35,35	0
54	MG	1a	3100	1/1	0.96	0.07	37,37,37,37	0
54	MG	2A	3227	1/1	0.96	0.19	35,35,35,35	0
54	MG	1A	3915	1/1	0.96	0.06	36,36,36,36	0
54	MG	1A	3740	1/1	0.96	0.08	29,29,29,29	0
54	MG	1A	3917	1/1	0.96	0.19	44,44,44,44	0
54	MG	2a	3012	1/1	0.96	0.05	48,48,48,48	0
54	MG	1A	3300	1/1	0.96	0.23	30,30,30,30	0
54	MG	1a	3110	1/1	0.96	0.06	37,37,37,37	0
54	MG	1o	101	1/1	0.96	0.12	44,44,44,44	0
54	MG	2A	3234	1/1	0.96	0.10	41,41,41,41	0
54	MG	1A	3523	1/1	0.96	0.07	24,24,24,24	0
54	MG	2A	3236	1/1	0.96	0.09	48,48,48,48	0
54	MG	1A	3921	1/1	0.96	0.22	48,48,48,48	0
54	MG	1A	3524	1/1	0.96	0.09	51,51,51,51	0
54	MG	1y	201	1/1	0.96	0.07	68,68,68,68	0
54	MG	1A	3235	1/1	0.96	0.39	21,21,21,21	0
54	MG	1A	3404	1/1	0.96	0.06	28,28,28,28	0
54	MG	1A	3189	1/1	0.96	0.25	24,24,24,24	0
54	MG	2A	3522	1/1	0.96	0.09	46,46,46,46	0
54	MG	1a	3118	1/1	0.96	0.09	52,52,52,52	0
54	MG	1A	3628	1/1	0.96	0.08	42,42,42,42	0
54	MG	1A	3240	1/1	0.96	0.29	24,24,24,24	0
54	MG	1a	3122	1/1	0.96	0.08	53,53,53,53	0
54	MG	2A	3528	1/1	0.96	0.07	60,60,60,60	0
54	MG	1Q	202	1/1	0.96	0.05	23,23,23,23	0
54	MG	1a	3124	1/1	0.96	0.06	42,42,42,42	0
54	MG	1A	3756	1/1	0.96	0.06	28,28,28,28	0
54	MG	2A	3016	1/1	0.96	0.24	43,43,43,43	0
54	MG	2A	3253	1/1	0.96	0.06	26,26,26,26	0
54	MG	1Q	205	1/1	0.96	0.07	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2a	3043	1/1	0.96	0.18	56,56,56,56	0
54	MG	2a	3044	1/1	0.96	0.04	44,44,44,44	0
54	MG	1A	3081	1/1	0.96	0.21	22,22,22,22	0
54	MG	2A	3542	1/1	0.96	0.08	65,65,65,65	0
54	MG	1a	3128	1/1	0.96	0.18	35,35,35,35	0
54	MG	1A	3150	1/1	0.96	0.26	22,22,22,22	0
54	MG	1A	3193	1/1	0.96	0.07	38,38,38,38	0
54	MG	1A	3082	1/1	0.96	0.10	34,34,34,34	0
54	MG	1A	3152	1/1	0.96	0.07	21,21,21,21	0
54	MG	1A	3936	1/1	0.96	0.18	40,40,40,40	0
54	MG	1A	3249	1/1	0.96	0.15	21,21,21,21	0
54	MG	1T	204	1/1	0.96	0.05	48,48,48,48	0
54	MG	2A	3264	1/1	0.96	0.09	45,45,45,45	0
54	MG	2A	3557	1/1	0.96	0.06	33,33,33,33	0
54	MG	1U	201	1/1	0.96	0.09	21,21,21,21	0
54	MG	2A	3266	1/1	0.96	0.09	23,23,23,23	0
54	MG	1A	3421	1/1	0.96	0.07	13,13,13,13	0
54	MG	2A	3269	1/1	0.96	0.06	41,41,41,41	0
54	MG	1A	3941	1/1	0.96	0.15	23,23,23,23	0
54	MG	1A	3317	1/1	0.96	0.08	21,21,21,21	0
54	MG	2A	3570	1/1	0.96	0.06	48,48,48,48	0
54	MG	1A	3083	1/1	0.96	0.07	36,36,36,36	0
54	MG	1V	203	1/1	0.96	0.15	31,31,31,31	0
54	MG	2A	3038	1/1	0.96	0.09	21,21,21,21	0
54	MG	2A	3578	1/1	0.96	0.06	20,20,20,20	0
54	MG	1A	3542	1/1	0.96	0.06	46,46,46,46	0
54	MG	1V	206	1/1	0.96	0.13	38,38,38,38	0
54	MG	1V	207	1/1	0.96	0.04	42,42,42,42	0
54	MG	1A	3773	1/1	0.96	0.06	22,22,22,22	0
54	MG	1a	3148	1/1	0.96	0.13	45,45,45,45	0
54	MG	1a	3149	1/1	0.96	0.09	56,56,56,56	0
54	MG	1W	202	1/1	0.96	0.06	31,31,31,31	0
54	MG	1W	203	1/1	0.96	0.13	23,23,23,23	0
54	MG	1A	3643	1/1	0.96	0.06	26,26,26,26	0
54	MG	1A	3319	1/1	0.96	0.16	57,57,57,57	0
54	MG	1A	3111	1/1	0.96	0.24	25,25,25,25	0
54	MG	1A	3647	1/1	0.96	0.14	40,40,40,40	0
54	MG	1A	3198	1/1	0.96	0.07	44,44,44,44	0
54	MG	2a	3084	1/1	0.96	0.06	61,61,61,61	0
54	MG	2A	3298	1/1	0.96	0.06	35,35,35,35	0
54	MG	2a	3088	1/1	0.96	0.10	30,30,30,30	0
54	MG	2A	3054	1/1	0.96	0.10	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3301	1/1	0.96	0.11	39,39,39,39	0
54	MG	2a	3091	1/1	0.96	0.12	44,44,44,44	0
54	MG	2a	3092	1/1	0.96	0.06	34,34,34,34	0
54	MG	2a	3093	1/1	0.96	0.08	40,40,40,40	0
54	MG	10	104	1/1	0.96	0.06	42,42,42,42	0
54	MG	2a	3095	1/1	0.96	0.07	33,33,33,33	0
54	MG	1A	3323	1/1	0.96	0.07	13,13,13,13	0
54	MG	1A	3257	1/1	0.96	0.15	24,24,24,24	0
54	MG	1A	3113	1/1	0.96	0.11	33,33,33,33	0
54	MG	2A	3061	1/1	0.96	0.22	46,46,46,46	0
54	MG	2A	3308	1/1	0.96	0.07	31,31,31,31	0
54	MG	1A	3433	1/1	0.96	0.05	11,11,11,11	0
54	MG	1A	3434	1/1	0.96	0.12	46,46,46,46	0
54	MG	2A	3311	1/1	0.96	0.07	23,23,23,23	0
54	MG	2a	3104	1/1	0.96	0.09	57,57,57,57	0
54	MG	2a	3105	1/1	0.96	0.08	41,41,41,41	0
54	MG	2A	3065	1/1	0.96	0.08	43,43,43,43	0
54	MG	1A	3961	1/1	0.96	0.04	18,18,18,18	0
54	MG	2A	3316	1/1	0.96	0.08	47,47,47,47	0
54	MG	2a	3110	1/1	0.96	0.09	62,62,62,62	0
54	MG	1A	3201	1/1	0.96	0.11	33,33,33,33	0
54	MG	2A	3319	1/1	0.96	0.05	32,32,32,32	0
54	MG	2A	3069	1/1	0.96	0.13	38,38,38,38	0
54	MG	2A	3623	1/1	0.96	0.07	44,44,44,44	0
54	MG	2A	3070	1/1	0.96	0.08	36,36,36,36	0
54	MG	1A	3086	1/1	0.96	0.52	35,35,35,35	0
54	MG	2A	3326	1/1	0.96	0.08	40,40,40,40	0
54	MG	1A	3791	1/1	0.96	0.06	30,30,30,30	0
54	MG	2A	3633	1/1	0.96	0.07	42,42,42,42	0
54	MG	1A	3261	1/1	0.96	0.14	29,29,29,29	0
54	MG	1A	3262	1/1	0.96	0.08	25,25,25,25	0
54	MG	15	103	1/1	0.96	0.20	20,20,20,20	0
54	MG	15	104	1/1	0.96	0.27	18,18,18,18	0
54	MG	1A	3796	1/1	0.96	0.23	35,35,35,35	0
54	MG	1A	3970	1/1	0.96	0.05	35,35,35,35	0
54	MG	15	107	1/1	0.96	0.09	36,36,36,36	0
54	MG	2A	3642	1/1	0.96	0.08	41,41,41,41	0
54	MG	2A	3643	1/1	0.96	0.08	78,78,78,78	0
54	MG	2A	3644	1/1	0.96	0.06	39,39,39,39	0
54	MG	2A	3336	1/1	0.96	0.07	18,18,18,18	0
54	MG	1a	3177	1/1	0.96	0.11	71,71,71,71	0
54	MG	2a	3139	1/1	0.96	0.07	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3339	1/1	0.96	0.07	31,31,31,31	0
54	MG	1A	3335	1/1	0.96	0.07	19,19,19,19	0
54	MG	17	101	1/1	0.96	0.06	28,28,28,28	0
54	MG	1A	3336	1/1	0.96	0.05	35,35,35,35	0
54	MG	1A	3449	1/1	0.96	0.06	31,31,31,31	0
54	MG	2A	3087	1/1	0.96	0.13	48,48,48,48	0
54	MG	1A	3162	1/1	0.96	0.12	30,30,30,30	0
54	MG	2A	3661	1/1	0.96	0.08	30,30,30,30	0
54	MG	2A	3662	1/1	0.96	0.07	26,26,26,26	0
54	MG	2A	3350	1/1	0.96	0.06	58,58,58,58	0
54	MG	2A	3351	1/1	0.96	0.12	34,34,34,34	0
54	MG	1A	3803	1/1	0.96	0.07	26,26,26,26	0
54	MG	1A	3164	1/1	0.96	0.10	38,38,38,38	0
54	MG	1a	3002	1/1	0.96	0.11	28,28,28,28	0
54	MG	2A	3669	1/1	0.96	0.07	38,38,38,38	0
54	MG	1A	3206	1/1	0.96	0.28	27,27,27,27	0
54	MG	2a	3160	1/1	0.96	0.07	63,63,63,63	0
54	MG	1A	3207	1/1	0.96	0.20	23,23,23,23	0
54	MG	2A	3361	1/1	0.96	0.07	47,47,47,47	0
54	MG	1A	3344	1/1	0.96	0.06	27,27,27,27	0
54	MG	2A	3675	1/1	0.96	0.09	49,49,49,49	0
54	MG	2a	3166	1/1	0.96	0.09	40,40,40,40	0
54	MG	2A	3095	1/1	0.96	0.07	17,17,17,17	0
54	MG	2a	3168	1/1	0.96	0.07	40,40,40,40	0
54	MG	2A	3677	1/1	0.96	0.14	50,50,50,50	0
54	MG	2A	3096	1/1	0.96	0.09	42,42,42,42	0
54	MG	2A	3679	1/1	0.96	0.06	38,38,38,38	0
54	MG	2a	3173	1/1	0.96	0.10	47,47,47,47	0
54	MG	2A	3365	1/1	0.96	0.07	42,42,42,42	0
54	MG	1A	3809	1/1	0.96	0.09	45,45,45,45	0
54	MG	1A	3460	1/1	0.96	0.06	42,42,42,42	0
54	MG	1A	3815	1/1	0.96	0.35	19,19,19,19	0
54	MG	2A	3101	1/1	0.96	0.14	48,48,48,48	0
54	MG	1A	3057	1/1	0.96	0.09	44,44,44,44	0
54	MG	1A	3985	1/1	0.96	0.07	21,21,21,21	0
54	MG	2a	3182	1/1	0.96	0.06	55,55,55,55	0
54	MG	1A	3675	1/1	0.96	0.08	54,54,54,54	0
54	MG	2a	3185	1/1	0.96	0.05	36,36,36,36	0
54	MG	1A	3089	1/1	0.96	0.10	38,38,38,38	0
54	MG	1A	3573	1/1	0.96	0.09	29,29,29,29	0
54	MG	1A	3989	1/1	0.96	0.07	71,71,71,71	0
54	MG	2A	3695	1/1	0.96	0.11	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3091	1/1	0.96	0.06	33,33,33,33	0
54	MG	1A	3352	1/1	0.96	0.09	40,40,40,40	0
54	MG	2k	202	1/1	0.96	0.07	44,44,44,44	0
54	MG	1A	3468	1/1	0.96	0.07	32,32,32,32	0
54	MG	1A	3211	1/1	0.96	0.13	34,34,34,34	0
54	MG	2A	3381	1/1	0.96	0.07	28,28,28,28	0
54	MG	1A	3687	1/1	0.96	0.09	29,29,29,29	0
55	A1CQ7	1A	4011	38/38	0.96	0.10	12,17,27,29	0
54	MG	2A	3383	1/1	0.96	0.07	30,30,30,30	0
54	MG	1A	3998	1/1	0.96	0.06	34,34,34,34	0
54	MG	1A	3832	1/1	0.96	0.07	34,34,34,34	0
54	MG	2A	3119	1/1	0.96	0.15	39,39,39,39	0
54	MG	1A	3580	1/1	0.96	0.08	37,37,37,37	0
54	MG	1A	3276	1/1	0.96	0.13	45,45,45,45	0
54	MG	1A	3583	1/1	0.96	0.15	45,45,45,45	0
54	MG	1A	3092	1/1	0.96	0.33	31,31,31,31	0
54	MG	1a	3211	1/1	0.96	0.07	51,51,51,51	0
54	MG	1A	3357	1/1	0.96	0.06	33,33,33,33	0
58	ZN	2n	102	1/1	0.96	0.07	97,97,97,97	0
54	MG	1A	3473	1/1	0.97	0.06	14,14,14,14	0
54	MG	2A	3023	1/1	0.97	0.20	36,36,36,36	0
54	MG	2B	211	1/1	0.97	0.13	43,43,43,43	0
54	MG	13	101	1/1	0.97	0.15	23,23,23,23	0
54	MG	1A	3294	1/1	0.97	0.22	19,19,19,19	0
54	MG	1A	3827	1/1	0.97	0.05	30,30,30,30	0
54	MG	2A	3028	1/1	0.97	0.12	19,19,19,19	0
54	MG	1A	3582	1/1	0.97	0.06	30,30,30,30	0
54	MG	1A	3695	1/1	0.97	0.21	22,22,22,22	0
54	MG	1A	3697	1/1	0.97	0.18	18,18,18,18	0
54	MG	15	102	1/1	0.97	0.22	22,22,22,22	0
54	MG	1A	3698	1/1	0.97	0.07	36,36,36,36	0
54	MG	1A	3834	1/1	0.97	0.24	31,31,31,31	0
54	MG	2A	3486	1/1	0.97	0.05	29,29,29,29	0
54	MG	2A	3035	1/1	0.97	0.06	40,40,40,40	0
54	MG	2A	3036	1/1	0.97	0.08	35,35,35,35	0
54	MG	1A	3234	1/1	0.97	0.74	30,30,30,30	0
54	MG	2A	3490	1/1	0.97	0.04	32,32,32,32	0
54	MG	2E	301	1/1	0.97	0.11	31,31,31,31	0
54	MG	1A	3476	1/1	0.97	0.06	23,23,23,23	0
54	MG	2A	3492	1/1	0.97	0.08	46,46,46,46	0
54	MG	1A	3017	1/1	0.97	0.24	17,17,17,17	0
54	MG	1A	3839	1/1	0.97	0.14	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3478	1/1	0.97	0.06	14,14,14,14	0
54	MG	17	102	1/1	0.97	0.14	19,19,19,19	0
54	MG	1A	3479	1/1	0.97	0.06	17,17,17,17	0
54	MG	2F	304	1/1	0.97	0.27	41,41,41,41	0
54	MG	1A	3373	1/1	0.97	0.08	39,39,39,39	0
54	MG	1A	3705	1/1	0.97	0.08	22,22,22,22	0
54	MG	1A	3481	1/1	0.97	0.07	44,44,44,44	0
54	MG	19	103	1/1	0.97	0.07	47,47,47,47	0
54	MG	1A	3845	1/1	0.97	0.03	27,27,27,27	0
54	MG	1a	3172	1/1	0.97	0.07	54,54,54,54	0
54	MG	1A	3067	1/1	0.97	0.03	13,13,13,13	0
54	MG	1A	3483	1/1	0.97	0.07	10,10,10,10	0
54	MG	2A	3053	1/1	0.97	0.04	20,20,20,20	0
54	MG	1A	3484	1/1	0.97	0.05	23,23,23,23	0
54	MG	2Q	204	1/1	0.97	0.09	46,46,46,46	0
54	MG	2A	3055	1/1	0.97	0.06	30,30,30,30	0
54	MG	2R	202	1/1	0.97	0.07	30,30,30,30	0
54	MG	1A	4009	1/1	0.97	0.06	42,42,42,42	0
54	MG	1A	3376	1/1	0.97	0.07	38,38,38,38	0
54	MG	1A	3298	1/1	0.97	0.11	30,30,30,30	0
54	MG	1A	3380	1/1	0.97	0.05	12,12,12,12	0
54	MG	1A	3713	1/1	0.97	0.06	12,12,12,12	0
54	MG	2A	3062	1/1	0.97	0.17	26,26,26,26	0
54	MG	2A	3515	1/1	0.97	0.06	32,32,32,32	0
54	MG	1A	3238	1/1	0.97	0.20	21,21,21,21	0
54	MG	2W	201	1/1	0.97	0.37	39,39,39,39	0
54	MG	2W	202	1/1	0.97	0.08	40,40,40,40	0
54	MG	1A	3857	1/1	0.97	0.09	45,45,45,45	0
54	MG	1A	3143	1/1	0.97	0.04	23,23,23,23	0
54	MG	20	101	1/1	0.97	0.14	32,32,32,32	0
54	MG	1A	3301	1/1	0.97	0.12	18,18,18,18	0
54	MG	1A	3498	1/1	0.97	0.05	22,22,22,22	0
54	MG	2A	3277	1/1	0.97	0.08	28,28,28,28	0
54	MG	1A	3499	1/1	0.97	0.07	33,33,33,33	0
54	MG	1a	3017	1/1	0.97	0.06	58,58,58,58	0
54	MG	2A	3281	1/1	0.97	0.08	40,40,40,40	0
54	MG	2A	3527	1/1	0.97	0.06	49,49,49,49	0
54	MG	2A	3071	1/1	0.97	0.05	39,39,39,39	0
54	MG	2A	3284	1/1	0.97	0.06	31,31,31,31	0
54	MG	2a	3001	1/1	0.97	0.07	38,38,38,38	0
54	MG	2A	3285	1/1	0.97	0.07	19,19,19,19	0
54	MG	1A	3500	1/1	0.97	0.06	10,10,10,10	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3386	1/1	0.97	0.05	13,13,13,13	0
54	MG	2A	3534	1/1	0.97	0.05	34,34,34,34	0
54	MG	1B	214	1/1	0.97	0.13	36,36,36,36	0
54	MG	1a	3191	1/1	0.97	0.08	60,60,60,60	0
54	MG	1A	3068	1/1	0.97	0.06	22,22,22,22	0
54	MG	2A	3541	1/1	0.97	0.07	54,54,54,54	0
54	MG	1A	3389	1/1	0.97	0.06	17,17,17,17	0
54	MG	1A	3028	1/1	0.97	0.18	14,14,14,14	0
54	MG	1a	3025	1/1	0.97	0.05	45,45,45,45	0
54	MG	1a	3026	1/1	0.97	0.05	40,40,40,40	0
54	MG	1A	3070	1/1	0.97	0.34	29,29,29,29	0
54	MG	2A	3296	1/1	0.97	0.11	27,27,27,27	0
54	MG	2A	3297	1/1	0.97	0.10	43,43,43,43	0
54	MG	2A	3550	1/1	0.97	0.06	23,23,23,23	0
54	MG	1A	3106	1/1	0.97	0.26	32,32,32,32	0
54	MG	1A	3012	1/1	0.97	0.07	27,27,27,27	0
54	MG	2A	3553	1/1	0.97	0.05	32,32,32,32	0
54	MG	2A	3554	1/1	0.97	0.04	44,44,44,44	0
54	MG	1A	3307	1/1	0.97	0.07	40,40,40,40	0
54	MG	1B	222	1/1	0.97	0.04	31,31,31,31	0
54	MG	2A	3303	1/1	0.97	0.06	27,27,27,27	0
54	MG	2a	3025	1/1	0.97	0.09	48,48,48,48	0
54	MG	2a	3026	1/1	0.97	0.06	47,47,47,47	0
54	MG	2A	3086	1/1	0.97	0.13	39,39,39,39	0
54	MG	1B	223	1/1	0.97	0.05	32,32,32,32	0
54	MG	2A	3561	1/1	0.97	0.17	25,25,25,25	0
54	MG	2a	3030	1/1	0.97	0.19	54,54,54,54	0
54	MG	2a	3031	1/1	0.97	0.09	38,38,38,38	0
54	MG	2A	3562	1/1	0.97	0.07	42,42,42,42	0
54	MG	1A	3072	1/1	0.97	0.04	25,25,25,25	0
54	MG	2A	3566	1/1	0.97	0.06	55,55,55,55	0
54	MG	1A	3311	1/1	0.97	0.20	23,23,23,23	0
54	MG	2A	3568	1/1	0.97	0.05	31,31,31,31	0
54	MG	1A	3312	1/1	0.97	0.39	29,29,29,29	0
54	MG	2a	3038	1/1	0.97	0.11	40,40,40,40	0
54	MG	1A	3879	1/1	0.97	0.05	52,52,52,52	0
54	MG	1A	3617	1/1	0.97	0.07	39,39,39,39	0
54	MG	2A	3573	1/1	0.97	0.06	54,54,54,54	0
54	MG	1A	3405	1/1	0.97	0.15	35,35,35,35	0
54	MG	1A	3735	1/1	0.97	0.06	27,27,27,27	0
54	MG	1A	3042	1/1	0.97	0.05	25,25,25,25	0
54	MG	1A	3410	1/1	0.97	0.04	16,16,16,16	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1D	302	1/1	0.97	0.11	42,42,42,42	0
54	MG	2A	3098	1/1	0.97	0.07	39,39,39,39	0
54	MG	2A	3582	1/1	0.97	0.04	32,32,32,32	0
54	MG	2A	3320	1/1	0.97	0.05	22,22,22,22	0
54	MG	1A	3076	1/1	0.97	0.43	35,35,35,35	0
54	MG	1A	3078	1/1	0.97	0.15	22,22,22,22	0
54	MG	1a	3216	1/1	0.97	0.10	56,56,56,56	0
54	MG	1A	3112	1/1	0.97	0.23	20,20,20,20	0
54	MG	1a	3047	1/1	0.97	0.06	46,46,46,46	0
54	MG	2A	3592	1/1	0.97	0.06	39,39,39,39	0
54	MG	1a	3219	1/1	0.97	0.10	57,57,57,57	0
54	MG	1D	306	1/1	0.97	0.14	26,26,26,26	0
54	MG	1D	308	1/1	0.97	0.06	28,28,28,28	0
54	MG	1a	3050	1/1	0.97	0.06	41,41,41,41	0
54	MG	1A	3741	1/1	0.97	0.09	18,18,18,18	0
54	MG	2A	3109	1/1	0.97	0.12	26,26,26,26	0
54	MG	2A	3599	1/1	0.97	0.08	43,43,43,43	0
54	MG	1A	3204	1/1	0.97	0.25	33,33,33,33	0
54	MG	1A	3898	1/1	0.97	0.11	12,12,12,12	0
54	MG	2A	3603	1/1	0.97	0.07	39,39,39,39	0
54	MG	1A	3417	1/1	0.97	0.07	15,15,15,15	0
54	MG	1A	3157	1/1	0.97	0.21	33,33,33,33	0
54	MG	1A	3747	1/1	0.97	0.14	23,23,23,23	0
54	MG	1A	3629	1/1	0.97	0.13	18,18,18,18	0
54	MG	2a	3071	1/1	0.97	0.05	47,47,47,47	0
54	MG	2A	3118	1/1	0.97	0.11	51,51,51,51	0
54	MG	1A	3158	1/1	0.97	0.08	26,26,26,26	0
54	MG	2A	3120	1/1	0.97	0.09	24,24,24,24	0
54	MG	1A	3906	1/1	0.97	0.08	13,13,13,13	0
54	MG	1A	3528	1/1	0.97	0.08	31,31,31,31	0
54	MG	2A	3124	1/1	0.97	0.21	37,37,37,37	0
54	MG	2A	3352	1/1	0.97	0.07	46,46,46,46	0
54	MG	2A	3353	1/1	0.97	0.06	44,44,44,44	0
54	MG	2a	3081	1/1	0.97	0.16	45,45,45,45	0
54	MG	1A	3043	1/1	0.97	0.14	6,6,6,6	0
54	MG	1A	3912	1/1	0.97	0.11	33,33,33,33	0
54	MG	1A	3530	1/1	0.97	0.08	40,40,40,40	0
54	MG	2a	3085	1/1	0.97	0.17	62,62,62,62	0
54	MG	1A	3755	1/1	0.97	0.05	35,35,35,35	0
54	MG	2A	3358	1/1	0.97	0.04	54,54,54,54	0
54	MG	1F	301	1/1	0.97	0.17	18,18,18,18	0
54	MG	1F	302	1/1	0.97	0.15	17,17,17,17	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
54	MG	1A	3115	1/1	0.97	0.19	21,21,21,21	0
54	MG	1A	3263	1/1	0.97	0.15	26,26,26,26	0
54	MG	1A	3044	1/1	0.97	0.11	16,16,16,16	0
54	MG	2A	3135	1/1	0.97	0.12	31,31,31,31	0
54	MG	2A	3136	1/1	0.97	0.08	32,32,32,32	0
54	MG	1A	3424	1/1	0.97	0.15	19,19,19,19	0
54	MG	1A	3265	1/1	0.97	0.18	18,18,18,18	0
54	MG	1a	3247	1/1	0.97	0.06	57,57,57,57	0
54	MG	1A	3330	1/1	0.97	0.06	24,24,24,24	0
54	MG	1A	3427	1/1	0.97	0.07	29,29,29,29	0
54	MG	1F	312	1/1	0.97	0.10	27,27,27,27	0
54	MG	1A	3767	1/1	0.97	0.06	13,13,13,13	0
54	MG	2A	3144	1/1	0.97	0.13	38,38,38,38	0
54	MG	1A	3117	1/1	0.97	0.27	26,26,26,26	0
54	MG	1A	3769	1/1	0.97	0.07	34,34,34,34	0
54	MG	1A	3118	1/1	0.97	0.06	24,24,24,24	0
54	MG	1A	3212	1/1	0.97	0.28	29,29,29,29	0
54	MG	1A	3646	1/1	0.97	0.06	38,38,38,38	0
54	MG	1A	3269	1/1	0.97	0.21	19,19,19,19	0
54	MG	1A	3119	1/1	0.97	0.14	27,27,27,27	0
54	MG	2A	3659	1/1	0.97	0.05	57,57,57,57	0
54	MG	1a	3262	1/1	0.97	0.05	48,48,48,48	0
54	MG	2A	3385	1/1	0.97	0.07	30,30,30,30	0
54	MG	1A	3170	1/1	0.97	0.28	23,23,23,23	0
54	MG	2a	3116	1/1	0.97	0.09	36,36,36,36	0
54	MG	1A	3215	1/1	0.97	0.29	24,24,24,24	0
54	MG	1A	3779	1/1	0.97	0.09	22,22,22,22	0
54	MG	2A	3391	1/1	0.97	0.07	21,21,21,21	0
54	MG	2A	3392	1/1	0.97	0.08	56,56,56,56	0
54	MG	1A	3274	1/1	0.97	0.25	27,27,27,27	0
54	MG	1A	3120	1/1	0.97	0.11	22,22,22,22	0
54	MG	1N	204	1/1	0.97	0.07	50,50,50,50	0
54	MG	1A	3939	1/1	0.97	0.13	50,50,50,50	0
54	MG	1P	201	1/1	0.97	0.34	25,25,25,25	0
54	MG	2A	3162	1/1	0.97	0.12	40,40,40,40	0
54	MG	2A	3400	1/1	0.97	0.06	39,39,39,39	0
54	MG	1P	203	1/1	0.97	0.29	25,25,25,25	0
54	MG	1A	3782	1/1	0.97	0.13	19,19,19,19	0
54	MG	1A	3217	1/1	0.97	0.14	19,19,19,19	0
54	MG	1A	3656	1/1	0.97	0.04	39,39,39,39	0
54	MG	2a	3135	1/1	0.97	0.07	50,50,50,50	0
54	MG	2a	3136	1/1	0.97	0.06	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
54	MG	1A	3943	1/1	0.97	0.15	17,17,17,17	0
54	MG	1Q	201	1/1	0.97	0.13	27,27,27,27	0
54	MG	1A	3657	1/1	0.97	0.20	40,40,40,40	0
54	MG	2a	3141	1/1	0.97	0.07	53,53,53,53	0
54	MG	1A	3786	1/1	0.97	0.09	45,45,45,45	0
54	MG	1A	3030	1/1	0.97	0.05	20,20,20,20	0
54	MG	2A	3411	1/1	0.97	0.07	40,40,40,40	0
54	MG	2A	3689	1/1	0.97	0.06	51,51,51,51	0
54	MG	1A	3947	1/1	0.97	0.09	33,33,33,33	0
54	MG	2a	3147	1/1	0.97	0.11	66,66,66,66	0
54	MG	1R	202	1/1	0.97	0.12	23,23,23,23	0
54	MG	1a	3102	1/1	0.97	0.07	65,65,65,65	0
54	MG	2A	3415	1/1	0.97	0.10	46,46,46,46	0
54	MG	1R	205	1/1	0.97	0.06	26,26,26,26	0
54	MG	2A	3176	1/1	0.97	0.06	48,48,48,48	0
54	MG	1A	3552	1/1	0.97	0.15	34,34,34,34	0
54	MG	1a	3108	1/1	0.97	0.04	34,34,34,34	0
54	MG	1R	207	1/1	0.97	0.07	35,35,35,35	0
54	MG	1A	3442	1/1	0.97	0.04	24,24,24,24	0
54	MG	1A	3024	1/1	0.97	0.11	15,15,15,15	0
54	MG	1A	3447	1/1	0.97	0.07	31,31,31,31	0
54	MG	1A	3792	1/1	0.97	0.05	13,13,13,13	0
54	MG	1A	3448	1/1	0.97	0.05	41,41,41,41	0
54	MG	2A	3186	1/1	0.97	0.07	40,40,40,40	0
54	MG	1A	3174	1/1	0.97	0.12	30,30,30,30	0
54	MG	1A	3956	1/1	0.97	0.06	29,29,29,29	0
54	MG	1A	3032	1/1	0.97	0.05	30,30,30,30	0
54	MG	1A	3451	1/1	0.97	0.10	48,48,48,48	0
54	MG	2A	3433	1/1	0.97	0.06	36,36,36,36	0
54	MG	1A	3015	1/1	0.97	0.17	19,19,19,19	0
54	MG	2A	3194	1/1	0.97	0.12	48,48,48,48	0
54	MG	1A	3129	1/1	0.97	0.08	54,54,54,54	0
54	MG	1V	201	1/1	0.97	0.17	16,16,16,16	0
54	MG	2A	3197	1/1	0.97	0.06	40,40,40,40	0
54	MG	1V	202	1/1	0.97	0.12	21,21,21,21	0
54	MG	1A	3566	1/1	0.97	0.05	32,32,32,32	0
54	MG	1V	204	1/1	0.97	0.18	30,30,30,30	0
54	MG	2a	3179	1/1	0.97	0.09	58,58,58,58	0
54	MG	1A	3284	1/1	0.97	0.06	39,39,39,39	0
54	MG	2A	3443	1/1	0.97	0.10	58,58,58,58	0
54	MG	1A	3016	1/1	0.97	0.20	21,21,21,21	0
54	MG	1A	3358	1/1	0.97	0.07	9,9,9,9	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2a	3184	1/1	0.97	0.08	35,35,35,35	0
54	MG	1A	3035	1/1	0.97	0.06	20,20,20,20	0
54	MG	1A	3360	1/1	0.97	0.06	46,46,46,46	0
54	MG	1A	3061	1/1	0.97	0.10	16,16,16,16	0
54	MG	1A	3810	1/1	0.97	0.12	56,56,56,56	0
54	MG	2f	201	1/1	0.97	0.04	33,33,33,33	0
54	MG	1A	3062	1/1	0.97	0.06	24,24,24,24	0
54	MG	2A	3210	1/1	0.97	0.08	44,44,44,44	0
54	MG	2A	3211	1/1	0.97	0.36	39,39,39,39	0
54	MG	1A	3813	1/1	0.97	0.14	22,22,22,22	0
54	MG	1A	3063	1/1	0.97	0.05	34,34,34,34	0
54	MG	1A	3139	1/1	0.97	0.16	14,14,14,14	0
54	MG	2A	3007	1/1	0.97	0.08	25,25,25,25	0
54	MG	2A	3008	1/1	0.97	0.09	36,36,36,36	0
54	MG	2A	3737	1/1	0.97	0.12	29,29,29,29	0
54	MG	2A	3009	1/1	0.97	0.15	30,30,30,30	0
54	MG	1A	3471	1/1	0.97	0.05	11,11,11,11	0
54	MG	2A	3013	1/1	0.97	0.10	31,31,31,31	0
56	MPD	18	104	8/8	0.97	0.10	19,20,23,28	0
54	MG	1A	3819	1/1	0.97	0.06	13,13,13,13	0
54	MG	1A	3036	1/1	0.97	0.07	21,21,21,21	0
54	MG	10	107	1/1	0.97	0.07	42,42,42,42	0
54	MG	1a	3143	1/1	0.97	0.06	52,52,52,52	0
54	MG	1A	3821	1/1	0.97	0.10	28,28,28,28	0
54	MG	1A	3822	1/1	0.97	0.06	43,43,43,43	0
58	ZN	14	102	1/1	0.97	0.12	124,124,124,124	0
58	ZN	2Y	202	1/1	0.97	0.04	89,89,89,89	0
54	MG	11	103	1/1	0.97	0.07	28,28,28,28	0
54	MG	1A	3578	1/1	0.97	0.08	44,44,44,44	0
54	MG	1A	3085	1/1	0.98	0.29	27,27,27,27	0
54	MG	1A	3455	1/1	0.98	0.05	25,25,25,25	0
54	MG	1A	3562	1/1	0.98	0.06	8,8,8,8	0
54	MG	1R	203	1/1	0.98	0.11	34,34,34,34	0
54	MG	1R	204	1/1	0.98	0.07	34,34,34,34	0
54	MG	1A	3563	1/1	0.98	0.08	26,26,26,26	0
54	MG	1A	3800	1/1	0.98	0.04	29,29,29,29	0
54	MG	1A	3245	1/1	0.98	0.18	23,23,23,23	0
54	MG	2A	3563	1/1	0.98	0.06	37,37,37,37	0
54	MG	1A	3954	1/1	0.98	0.06	37,37,37,37	0
54	MG	2A	3565	1/1	0.98	0.07	42,42,42,42	0
54	MG	1A	3674	1/1	0.98	0.05	47,47,47,47	0
54	MG	1a	3103	1/1	0.98	0.08	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	3104	1/1	0.98	0.06	28,28,28,28	0
54	MG	2Y	201	1/1	0.98	0.10	40,40,40,40	0
54	MG	1a	3105	1/1	0.98	0.08	29,29,29,29	0
54	MG	1A	3457	1/1	0.98	0.04	38,38,38,38	0
54	MG	1A	3676	1/1	0.98	0.04	7,7,7,7	0
54	MG	1A	3805	1/1	0.98	0.05	34,34,34,34	0
54	MG	2A	3574	1/1	0.98	0.07	49,49,49,49	0
54	MG	23	101	1/1	0.98	0.07	41,41,41,41	0
54	MG	2A	3159	1/1	0.98	0.08	66,66,66,66	0
54	MG	1A	3364	1/1	0.98	0.05	31,31,31,31	0
54	MG	1A	3678	1/1	0.98	0.06	35,35,35,35	0
54	MG	1U	202	1/1	0.98	0.44	28,28,28,28	0
54	MG	1A	3050	1/1	0.98	0.20	20,20,20,20	0
54	MG	1A	3680	1/1	0.98	0.07	37,37,37,37	0
54	MG	1A	3366	1/1	0.98	0.05	34,34,34,34	0
54	MG	1A	3811	1/1	0.98	0.08	13,13,13,13	0
54	MG	2A	3584	1/1	0.98	0.04	42,42,42,42	0
54	MG	1A	3247	1/1	0.98	0.31	21,21,21,21	0
54	MG	2A	3586	1/1	0.98	0.04	26,26,26,26	0
54	MG	1a	3117	1/1	0.98	0.04	30,30,30,30	0
54	MG	1A	3968	1/1	0.98	0.05	12,12,12,12	0
54	MG	1A	3166	1/1	0.98	0.09	25,25,25,25	0
54	MG	1A	3814	1/1	0.98	0.18	32,32,32,32	0
54	MG	1A	3133	1/1	0.98	0.23	22,22,22,22	0
54	MG	1A	3250	1/1	0.98	0.20	15,15,15,15	0
54	MG	2A	3377	1/1	0.98	0.05	25,25,25,25	0
54	MG	1A	3817	1/1	0.98	0.05	13,13,13,13	0
54	MG	1A	3688	1/1	0.98	0.12	20,20,20,20	0
54	MG	1A	3371	1/1	0.98	0.05	38,38,38,38	0
54	MG	1A	3372	1/1	0.98	0.04	14,14,14,14	0
54	MG	1A	3252	1/1	0.98	0.07	17,17,17,17	0
54	MG	2A	3600	1/1	0.98	0.07	59,59,59,59	0
54	MG	1A	3253	1/1	0.98	0.06	33,33,33,33	0
54	MG	1A	3693	1/1	0.98	0.06	40,40,40,40	0
54	MG	1A	3375	1/1	0.98	0.07	22,22,22,22	0
54	MG	1A	3825	1/1	0.98	0.06	37,37,37,37	0
54	MG	2A	3388	1/1	0.98	0.05	45,45,45,45	0
54	MG	2A	3389	1/1	0.98	0.08	44,44,44,44	0
54	MG	2A	3607	1/1	0.98	0.07	52,52,52,52	0
54	MG	2A	3183	1/1	0.98	0.06	44,44,44,44	0
54	MG	1A	3168	1/1	0.98	0.04	18,18,18,18	0
54	MG	1A	3983	1/1	0.98	0.07	16,16,16,16	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3696	1/1	0.98	0.09	32,32,32,32	0
54	MG	1A	3579	1/1	0.98	0.08	28,28,28,28	0
54	MG	2A	3395	1/1	0.98	0.04	22,22,22,22	0
54	MG	2A	3614	1/1	0.98	0.04	59,59,59,59	0
54	MG	1A	3377	1/1	0.98	0.08	41,41,41,41	0
54	MG	1A	3052	1/1	0.98	0.20	19,19,19,19	0
54	MG	2A	3618	1/1	0.98	0.04	54,54,54,54	0
54	MG	2A	3191	1/1	0.98	0.09	40,40,40,40	0
54	MG	2A	3006	1/1	0.98	0.07	33,33,33,33	0
54	MG	1A	3831	1/1	0.98	0.04	21,21,21,21	0
54	MG	1A	3379	1/1	0.98	0.05	15,15,15,15	0
54	MG	2a	3041	1/1	0.98	0.06	52,52,52,52	0
54	MG	1A	3088	1/1	0.98	0.14	28,28,28,28	0
54	MG	1A	3381	1/1	0.98	0.07	7,7,7,7	0
54	MG	2A	3626	1/1	0.98	0.05	52,52,52,52	0
54	MG	2A	3628	1/1	0.98	0.05	25,25,25,25	0
54	MG	2A	3629	1/1	0.98	0.04	54,54,54,54	0
54	MG	2A	3630	1/1	0.98	0.05	34,34,34,34	0
54	MG	1A	3138	1/1	0.98	0.22	20,20,20,20	0
54	MG	1A	3309	1/1	0.98	0.14	27,27,27,27	0
54	MG	1A	3995	1/1	0.98	0.14	6,6,6,6	0
54	MG	1A	3310	1/1	0.98	0.10	12,12,12,12	0
54	MG	1A	3074	1/1	0.98	0.21	27,27,27,27	0
54	MG	2A	3409	1/1	0.98	0.07	43,43,43,43	0
54	MG	1A	3387	1/1	0.98	0.06	6,6,6,6	0
54	MG	1A	3001	1/1	0.98	0.07	24,24,24,24	0
54	MG	2A	3639	1/1	0.98	0.04	25,25,25,25	0
54	MG	1A	4001	1/1	0.98	0.05	44,44,44,44	0
54	MG	2A	3205	1/1	0.98	0.13	46,46,46,46	0
54	MG	1A	3064	1/1	0.98	0.05	21,21,21,21	0
54	MG	1A	3390	1/1	0.98	0.05	23,23,23,23	0
54	MG	1A	4004	1/1	0.98	0.07	20,20,20,20	0
54	MG	1A	3392	1/1	0.98	0.08	7,7,7,7	0
54	MG	1A	3490	1/1	0.98	0.07	42,42,42,42	0
54	MG	1A	3491	1/1	0.98	0.04	13,13,13,13	0
54	MG	1A	3492	1/1	0.98	0.06	58,58,58,58	0
54	MG	2A	3650	1/1	0.98	0.05	58,58,58,58	0
54	MG	2A	3651	1/1	0.98	0.04	52,52,52,52	0
54	MG	2A	3421	1/1	0.98	0.06	36,36,36,36	0
54	MG	17	104	1/1	0.98	0.07	24,24,24,24	0
54	MG	1A	3175	1/1	0.98	0.13	31,31,31,31	0
54	MG	18	101	1/1	0.98	0.29	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3656	1/1	0.98	0.05	37,37,37,37	0
54	MG	2A	3425	1/1	0.98	0.05	47,47,47,47	0
54	MG	1a	3162	1/1	0.98	0.10	66,66,66,66	0
54	MG	2A	3660	1/1	0.98	0.04	53,53,53,53	0
54	MG	1A	3394	1/1	0.98	0.05	8,8,8,8	0
54	MG	18	103	1/1	0.98	0.12	39,39,39,39	0
54	MG	1a	3165	1/1	0.98	0.08	46,46,46,46	0
54	MG	1A	3851	1/1	0.98	0.07	28,28,28,28	0
54	MG	2a	3080	1/1	0.98	0.09	48,48,48,48	0
54	MG	19	102	1/1	0.98	0.26	27,27,27,27	0
54	MG	1A	3495	1/1	0.98	0.09	30,30,30,30	0
54	MG	2A	3223	1/1	0.98	0.17	28,28,28,28	0
54	MG	1A	3853	1/1	0.98	0.11	30,30,30,30	0
54	MG	1A	3315	1/1	0.98	0.05	10,10,10,10	0
54	MG	1A	3114	1/1	0.98	0.12	26,26,26,26	0
54	MG	1A	3603	1/1	0.98	0.13	16,16,16,16	0
54	MG	1A	3093	1/1	0.98	0.22	14,14,14,14	0
54	MG	2A	3674	1/1	0.98	0.05	27,27,27,27	0
54	MG	1A	3178	1/1	0.98	0.16	22,22,22,22	0
54	MG	1A	3077	1/1	0.98	0.48	22,22,22,22	0
54	MG	1A	3401	1/1	0.98	0.04	15,15,15,15	0
54	MG	1A	3726	1/1	0.98	0.04	30,30,30,30	0
54	MG	1A	3146	1/1	0.98	0.06	15,15,15,15	0
54	MG	1A	3403	1/1	0.98	0.05	11,11,11,11	0
54	MG	2A	3681	1/1	0.98	0.05	28,28,28,28	0
54	MG	1A	3181	1/1	0.98	0.14	28,28,28,28	0
54	MG	1A	3866	1/1	0.98	0.07	41,41,41,41	0
54	MG	1A	3182	1/1	0.98	0.23	19,19,19,19	0
54	MG	1a	3015	1/1	0.98	0.12	39,39,39,39	0
54	MG	1A	3095	1/1	0.98	0.13	22,22,22,22	0
54	MG	1A	3870	1/1	0.98	0.05	20,20,20,20	0
54	MG	1A	3408	1/1	0.98	0.04	18,18,18,18	0
54	MG	1A	3614	1/1	0.98	0.05	14,14,14,14	0
54	MG	2A	3691	1/1	0.98	0.07	33,33,33,33	0
54	MG	2A	3059	1/1	0.98	0.09	35,35,35,35	0
54	MG	1A	3409	1/1	0.98	0.04	25,25,25,25	0
54	MG	2a	3109	1/1	0.98	0.08	60,60,60,60	0
54	MG	1a	3021	1/1	0.98	0.04	42,42,42,42	0
54	MG	1A	3270	1/1	0.98	0.23	15,15,15,15	0
54	MG	1A	3618	1/1	0.98	0.11	38,38,38,38	0
54	MG	2A	3459	1/1	0.98	0.05	41,41,41,41	0
54	MG	1A	3327	1/1	0.98	0.06	18,18,18,18	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3515	1/1	0.98	0.06	13,13,13,13	0
54	MG	1A	3221	1/1	0.98	0.07	22,22,22,22	0
54	MG	1A	3622	1/1	0.98	0.04	17,17,17,17	0
54	MG	2A	3068	1/1	0.98	0.10	45,45,45,45	0
54	MG	1A	3329	1/1	0.98	0.04	27,27,27,27	0
54	MG	1A	3883	1/1	0.98	0.20	26,26,26,26	0
54	MG	1A	3003	1/1	0.98	0.07	14,14,14,14	0
54	MG	1A	3885	1/1	0.98	0.04	29,29,29,29	0
54	MG	1A	3887	1/1	0.98	0.05	31,31,31,31	0
54	MG	1a	3201	1/1	0.98	0.06	45,45,45,45	0
54	MG	1A	3519	1/1	0.98	0.04	25,25,25,25	0
54	MG	2a	3127	1/1	0.98	0.05	50,50,50,50	0
54	MG	1A	3890	1/1	0.98	0.05	36,36,36,36	0
54	MG	2A	3711	1/1	0.98	0.05	36,36,36,36	0
54	MG	2a	3130	1/1	0.98	0.05	71,71,71,71	0
54	MG	1A	3892	1/1	0.98	0.04	21,21,21,21	0
54	MG	1A	3416	1/1	0.98	0.07	13,13,13,13	0
54	MG	1A	3522	1/1	0.98	0.10	35,35,35,35	0
54	MG	1A	3223	1/1	0.98	0.20	30,30,30,30	0
54	MG	1A	3056	1/1	0.98	0.07	35,35,35,35	0
54	MG	1A	3099	1/1	0.98	0.06	15,15,15,15	0
54	MG	1A	3751	1/1	0.98	0.06	27,27,27,27	0
54	MG	1D	315	1/1	0.98	0.08	40,40,40,40	0
54	MG	1A	3334	1/1	0.98	0.05	20,20,20,20	0
54	MG	1A	3753	1/1	0.98	0.07	39,39,39,39	0
54	MG	1a	3045	1/1	0.98	0.20	47,47,47,47	0
54	MG	1A	3121	1/1	0.98	0.04	16,16,16,16	0
54	MG	2A	3278	1/1	0.98	0.12	33,33,33,33	0
54	MG	1E	301	1/1	0.98	0.12	14,14,14,14	0
54	MG	1A	3903	1/1	0.98	0.05	18,18,18,18	0
54	MG	1E	303	1/1	0.98	0.17	18,18,18,18	0
54	MG	2A	3282	1/1	0.98	0.07	21,21,21,21	0
54	MG	1A	3122	1/1	0.98	0.05	14,14,14,14	0
54	MG	1A	3040	1/1	0.98	0.09	28,28,28,28	0
54	MG	1A	3190	1/1	0.98	0.09	24,24,24,24	0
54	MG	1A	3636	1/1	0.98	0.06	26,26,26,26	0
54	MG	1A	3759	1/1	0.98	0.03	14,14,14,14	0
54	MG	1A	3339	1/1	0.98	0.10	45,45,45,45	0
54	MG	2A	3735	1/1	0.98	0.05	33,33,33,33	0
54	MG	1A	3761	1/1	0.98	0.05	35,35,35,35	0
54	MG	1a	3226	1/1	0.98	0.06	57,57,57,57	0
54	MG	2a	3159	1/1	0.98	0.05	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3340	1/1	0.98	0.06	13,13,13,13	0
54	MG	1A	3102	1/1	0.98	0.19	23,23,23,23	0
54	MG	1F	306	1/1	0.98	0.04	25,25,25,25	0
54	MG	2a	3163	1/1	0.98	0.09	74,74,74,74	0
54	MG	1A	3640	1/1	0.98	0.08	33,33,33,33	0
54	MG	1A	3155	1/1	0.98	0.15	25,25,25,25	0
54	MG	1A	3282	1/1	0.98	0.25	13,13,13,13	0
54	MG	1A	3430	1/1	0.98	0.06	30,30,30,30	0
54	MG	1A	3058	1/1	0.98	0.05	10,10,10,10	0
54	MG	1A	3346	1/1	0.98	0.07	16,16,16,16	0
54	MG	2A	3300	1/1	0.98	0.06	34,34,34,34	0
54	MG	1A	3347	1/1	0.98	0.04	8,8,8,8	0
54	MG	1A	3233	1/1	0.98	0.38	18,18,18,18	0
54	MG	1A	3774	1/1	0.98	0.06	28,28,28,28	0
54	MG	2A	3112	1/1	0.98	0.24	31,31,31,31	0
54	MG	1A	3648	1/1	0.98	0.10	33,33,33,33	0
54	MG	1A	3543	1/1	0.98	0.05	35,35,35,35	0
54	MG	1A	3350	1/1	0.98	0.06	18,18,18,18	0
54	MG	2A	3519	1/1	0.98	0.09	20,20,20,20	0
54	MG	1A	3127	1/1	0.98	0.05	26,26,26,26	0
54	MG	1A	3021	1/1	0.98	0.18	26,26,26,26	0
54	MG	1A	3159	1/1	0.98	0.15	17,17,17,17	0
54	MG	1a	3246	1/1	0.98	0.05	33,33,33,33	0
54	MG	2A	3312	1/1	0.98	0.06	29,29,29,29	0
54	MG	2A	3121	1/1	0.98	0.08	40,40,40,40	0
54	MG	1A	3933	1/1	0.98	0.08	45,45,45,45	0
54	MG	1H	202	1/1	0.98	0.03	46,46,46,46	0
54	MG	2A	3317	1/1	0.98	0.08	27,27,27,27	0
54	MG	1A	3237	1/1	0.98	0.21	24,24,24,24	0
54	MG	1a	3251	1/1	0.98	0.11	58,58,58,58	0
54	MG	2A	3126	1/1	0.98	0.06	40,40,40,40	0
54	MG	2E	302	1/1	0.98	0.04	27,27,27,27	0
54	MG	1A	3048	1/1	0.98	0.04	15,15,15,15	0
54	MG	1A	3356	1/1	0.98	0.08	10,10,10,10	0
54	MG	2A	3535	1/1	0.98	0.09	59,59,59,59	0
54	MG	1A	3937	1/1	0.98	0.04	25,25,25,25	0
54	MG	2A	3538	1/1	0.98	0.04	35,35,35,35	0
54	MG	2A	3324	1/1	0.98	0.06	21,21,21,21	0
54	MG	1A	3444	1/1	0.98	0.05	34,34,34,34	0
54	MG	1A	3239	1/1	0.98	0.11	13,13,13,13	0
54	MG	1P	202	1/1	0.98	0.25	18,18,18,18	0
54	MG	1a	3258	1/1	0.98	0.04	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3553	1/1	0.98	0.07	29,29,29,29	0
54	MG	1A	3291	1/1	0.98	0.13	13,13,13,13	0
54	MG	1A	3084	1/1	0.98	0.13	24,24,24,24	0
54	MG	1A	3199	1/1	0.98	0.06	34,34,34,34	0
54	MG	1A	3163	1/1	0.98	0.18	22,22,22,22	0
54	MG	1A	3453	1/1	0.98	0.08	26,26,26,26	0
58	ZN	1Y	202	1/1	0.98	0.03	53,53,53,53	0
54	MG	1A	3559	1/1	0.98	0.05	33,33,33,33	0
58	ZN	1n	103	1/1	0.98	0.03	69,69,69,69	0
54	MG	1Q	203	1/1	0.98	0.05	23,23,23,23	0
54	MG	2Q	203	1/1	0.98	0.06	56,56,56,56	0
58	ZN	25	102	1/1	0.98	0.04	64,64,64,64	0
58	ZN	29	102	1/1	0.98	0.04	60,60,60,60	0
54	MG	1A	3794	1/1	0.98	0.05	38,38,38,38	0
59	SF4	2d	501	8/8	0.98	0.06	51,67,74,74	0
54	MG	2A	3011	1/1	0.99	0.07	21,21,21,21	0
54	MG	2A	3360	1/1	0.99	0.06	32,32,32,32	0
54	MG	2A	3012	1/1	0.99	0.07	36,36,36,36	0
54	MG	1A	3123	1/1	0.99	0.06	24,24,24,24	0
54	MG	2A	3571	1/1	0.99	0.07	21,21,21,21	0
54	MG	1a	3241	1/1	0.99	0.03	34,34,34,34	0
54	MG	2A	3688	1/1	0.99	0.04	45,45,45,45	0
54	MG	1A	3013	1/1	0.99	0.15	17,17,17,17	0
54	MG	1A	3009	1/1	0.99	0.24	23,23,23,23	0
54	MG	2A	3268	1/1	0.99	0.04	17,17,17,17	0
54	MG	2A	3468	1/1	0.99	0.04	32,32,32,32	0
54	MG	2A	3577	1/1	0.99	0.05	34,34,34,34	0
54	MG	1A	3908	1/1	0.99	0.06	8,8,8,8	0
54	MG	1A	3909	1/1	0.99	0.09	31,31,31,31	0
54	MG	2A	3271	1/1	0.99	0.04	47,47,47,47	0
54	MG	1A	3384	1/1	0.99	0.04	26,26,26,26	0
54	MG	2A	3273	1/1	0.99	0.07	22,22,22,22	0
54	MG	1A	3911	1/1	0.99	0.04	35,35,35,35	0
54	MG	1a	3248	1/1	0.99	0.04	44,44,44,44	0
54	MG	1D	307	1/1	0.99	0.04	7,7,7,7	0
54	MG	2A	3188	1/1	0.99	0.04	35,35,35,35	0
54	MG	1A	3414	1/1	0.99	0.05	21,21,21,21	0
54	MG	1D	309	1/1	0.99	0.15	18,18,18,18	0
54	MG	2A	3025	1/1	0.99	0.02	22,22,22,22	0
54	MG	1A	3446	1/1	0.99	0.02	15,15,15,15	0
54	MG	2A	3591	1/1	0.99	0.04	28,28,28,28	0
54	MG	2a	3124	1/1	0.99	0.04	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3520	1/1	0.99	0.05	14,14,14,14	0
54	MG	1A	3742	1/1	0.99	0.05	20,20,20,20	0
54	MG	1A	3049	1/1	0.99	0.15	26,26,26,26	0
54	MG	1A	3797	1/1	0.99	0.08	32,32,32,32	0
54	MG	2A	3384	1/1	0.99	0.03	19,19,19,19	0
54	MG	2A	3113	1/1	0.99	0.15	29,29,29,29	0
54	MG	1A	3251	1/1	0.99	0.17	39,39,39,39	0
54	MG	1A	3854	1/1	0.99	0.08	44,44,44,44	0
54	MG	1A	3920	1/1	0.99	0.04	28,28,28,28	0
54	MG	1A	3745	1/1	0.99	0.03	30,30,30,30	0
54	MG	1A	3649	1/1	0.99	0.06	21,21,21,21	0
54	MG	1A	3292	1/1	0.99	0.10	7,7,7,7	0
54	MG	1A	3160	1/1	0.99	0.07	20,20,20,20	0
54	MG	1A	3039	1/1	0.99	0.03	25,25,25,25	0
54	MG	1A	3926	1/1	0.99	0.11	36,36,36,36	0
54	MG	1E	306	1/1	0.99	0.07	8,8,8,8	0
54	MG	1A	3487	1/1	0.99	0.04	11,11,11,11	0
54	MG	1A	3994	1/1	0.99	0.06	74,74,74,74	0
54	MG	1A	3101	1/1	0.99	0.27	28,28,28,28	0
54	MG	1A	3145	1/1	0.99	0.06	13,13,13,13	0
54	MG	2A	3045	1/1	0.99	0.14	32,32,32,32	0
54	MG	1A	3997	1/1	0.99	0.04	19,19,19,19	0
54	MG	1A	3051	1/1	0.99	0.15	20,20,20,20	0
54	MG	1a	3119	1/1	0.99	0.06	27,27,27,27	0
54	MG	2A	3616	1/1	0.99	0.05	47,47,47,47	0
54	MG	1A	3342	1/1	0.99	0.07	36,36,36,36	0
54	MG	1F	305	1/1	0.99	0.19	23,23,23,23	0
54	MG	1A	3090	1/1	0.99	0.20	24,24,24,24	0
54	MG	2A	3620	1/1	0.99	0.04	51,51,51,51	0
54	MG	1A	3396	1/1	0.99	0.02	7,7,7,7	0
54	MG	2a	3156	1/1	0.99	0.06	58,58,58,58	0
54	MG	1A	3006	1/1	0.99	0.07	17,17,17,17	0
54	MG	1A	3868	1/1	0.99	0.04	17,17,17,17	0
54	MG	1A	3321	1/1	0.99	0.08	45,45,45,45	0
54	MG	1A	3662	1/1	0.99	0.03	29,29,29,29	0
54	MG	2A	3313	1/1	0.99	0.07	23,23,23,23	0
54	MG	1A	3496	1/1	0.99	0.04	40,40,40,40	0
54	MG	1A	3872	1/1	0.99	0.03	13,13,13,13	0
54	MG	2A	3518	1/1	0.99	0.06	24,24,24,24	0
54	MG	1A	3497	1/1	0.99	0.05	27,27,27,27	0
54	MG	1A	3461	1/1	0.99	0.03	31,31,31,31	0
54	MG	1A	3764	1/1	0.99	0.06	21,21,21,21	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3538	1/1	0.99	0.07	32,32,32,32	0
54	MG	2a	3169	1/1	0.99	0.09	52,52,52,52	0
54	MG	1A	3539	1/1	0.99	0.04	24,24,24,24	0
54	MG	1A	3045	1/1	0.99	0.32	17,17,17,17	0
54	MG	1A	3716	1/1	0.99	0.04	21,21,21,21	0
54	MG	1A	3054	1/1	0.99	0.20	23,23,23,23	0
54	MG	1a	3138	1/1	0.99	0.05	33,33,33,33	0
54	MG	2A	3325	1/1	0.99	0.03	26,26,26,26	0
54	MG	1A	3464	1/1	0.99	0.04	16,16,16,16	0
54	MG	1A	3465	1/1	0.99	0.06	19,19,19,19	0
54	MG	2A	3531	1/1	0.99	0.05	43,43,43,43	0
54	MG	2A	3328	1/1	0.99	0.09	25,25,25,25	0
54	MG	1A	3134	1/1	0.99	0.14	18,18,18,18	0
54	MG	1A	3673	1/1	0.99	0.06	42,42,42,42	0
54	MG	1A	3504	1/1	0.99	0.07	10,10,10,10	0
54	MG	2A	3648	1/1	0.99	0.05	25,25,25,25	0
54	MG	2A	3240	1/1	0.99	0.11	14,14,14,14	0
54	MG	2A	3537	1/1	0.99	0.03	36,36,36,36	0
54	MG	1B	211	1/1	0.99	0.07	37,37,37,37	0
54	MG	1B	212	1/1	0.99	0.03	36,36,36,36	0
54	MG	2A	3243	1/1	0.99	0.07	21,21,21,21	0
54	MG	1A	3505	1/1	0.99	0.03	7,7,7,7	0
54	MG	1A	3349	1/1	0.99	0.07	8,8,8,8	0
54	MG	2E	305	1/1	0.99	0.04	21,21,21,21	0
54	MG	2A	3338	1/1	0.99	0.04	19,19,19,19	0
54	MG	1A	3891	1/1	0.99	0.04	16,16,16,16	0
54	MG	1A	3777	1/1	0.99	0.05	29,29,29,29	0
54	MG	1A	3589	1/1	0.99	0.04	26,26,26,26	0
54	MG	1A	3958	1/1	0.99	0.06	33,33,33,33	0
54	MG	1A	3325	1/1	0.99	0.04	13,13,13,13	0
54	MG	2A	3549	1/1	0.99	0.03	39,39,39,39	0
54	MG	2A	3344	1/1	0.99	0.04	25,25,25,25	0
54	MG	1A	3833	1/1	0.99	0.04	22,22,22,22	0
54	MG	2A	3346	1/1	0.99	0.03	34,34,34,34	0
54	MG	2A	3667	1/1	0.99	0.04	47,47,47,47	0
54	MG	1A	3073	1/1	0.99	0.30	25,25,25,25	0
54	MG	2A	3348	1/1	0.99	0.04	21,21,21,21	0
54	MG	2A	3555	1/1	0.99	0.04	39,39,39,39	0
54	MG	2a	3086	1/1	0.99	0.05	57,57,57,57	0
54	MG	2A	3349	1/1	0.99	0.04	29,29,29,29	0
54	MG	1A	3046	1/1	0.99	0.04	5,5,5,5	0
54	MG	1A	3681	1/1	0.99	0.08	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3244	1/1	0.99	0.22	31,31,31,31	0
58	ZN	16	501	1/1	0.99	0.02	29,29,29,29	0
54	MG	1A	3436	1/1	0.99	0.07	35,35,35,35	0
54	MG	2A	3453	1/1	0.99	0.13	56,56,56,56	0
54	MG	1A	3901	1/1	0.99	0.04	45,45,45,45	0
54	MG	1A	3967	1/1	0.99	0.09	9,9,9,9	0
58	ZN	26	103	1/1	0.99	0.02	54,54,54,54	0
54	MG	1A	3137	1/1	0.99	0.17	30,30,30,30	0
54	MG	1A	3096	1/1	0.99	0.10	8,8,8,8	0
59	SF4	1d	306	8/8	0.99	0.04	50,57,65,73	0
54	MG	1A	3686	1/1	0.99	0.06	31,31,31,31	0
54	MG	1A	3438	1/1	1.00	0.03	10,10,10,10	0
54	MG	2A	3478	1/1	1.00	0.02	28,28,28,28	0
54	MG	2a	3138	1/1	1.00	0.07	38,38,38,38	0
54	MG	1A	3445	1/1	1.00	0.04	8,8,8,8	0
54	MG	1A	3470	1/1	1.00	0.04	25,25,25,25	0
54	MG	1A	3615	1/1	1.00	0.04	17,17,17,17	0
54	MG	1A	3763	1/1	1.00	0.02	21,21,21,21	0
58	ZN	15	109	1/1	1.00	0.02	50,50,50,50	0
54	MG	1A	3836	1/1	1.00	0.02	8,8,8,8	0
58	ZN	19	104	1/1	1.00	0.02	33,33,33,33	0
54	MG	1A	3406	1/1	1.00	0.03	9,9,9,9	0
54	MG	1A	3874	1/1	1.00	0.02	29,29,29,29	0
54	MG	1A	3391	1/1	1.00	0.04	25,25,25,25	0
54	MG	2A	3657	1/1	1.00	0.03	26,26,26,26	0
54	MG	2A	3627	1/1	1.00	0.03	25,25,25,25	0
54	MG	1A	3886	1/1	1.00	0.02	13,13,13,13	0
54	MG	1A	3452	1/1	1.00	0.03	38,38,38,38	0
54	MG	2A	3462	1/1	1.00	0.02	25,25,25,25	0
54	MG	1A	3888	1/1	1.00	0.04	20,20,20,20	0

6.5 Other polymers ⓘ

There are no such residues in this entry.