



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 29, 2026 – 06:20 PM UTC

PDB ID : 6XHX / pdb_00006xhx
Title : Crystal structure of the A2058-unmethylated *Thermus thermophilus* 70S ribosome in complex with erythromycin and protein Y (YfiA) at 2.55Å resolution
Authors : Svetlov, M.S.; Syroegin, E.A.; Aleksandrova, E.V.; Atkinson, G.C.; Gregory, S.T.; Mankin, A.S.; Polikanov, Y.S.
Deposited on : 2020-06-19
Resolution : 2.55 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

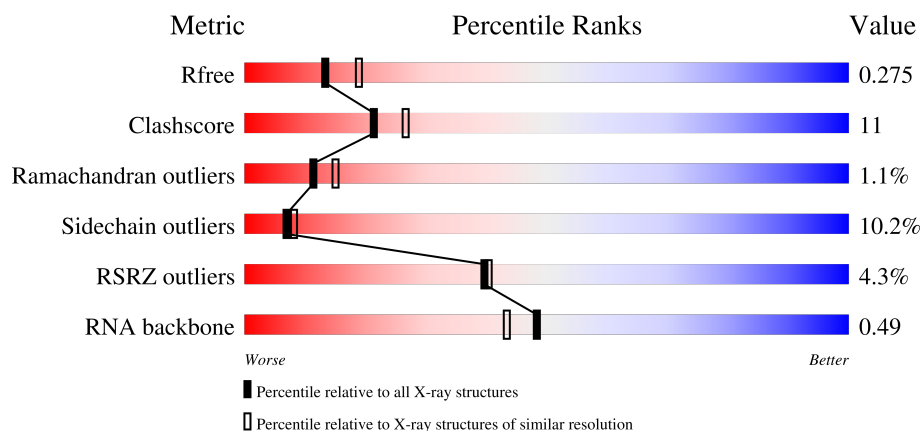
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.55 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.



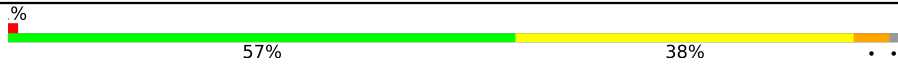
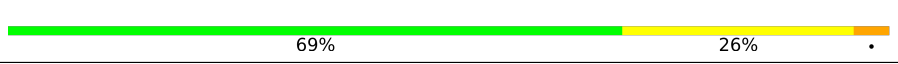
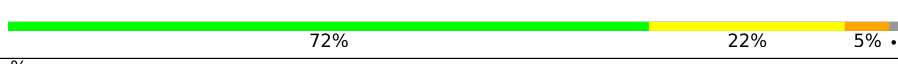
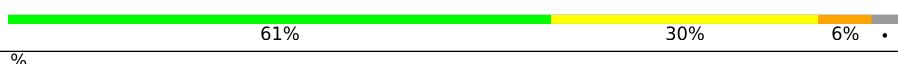
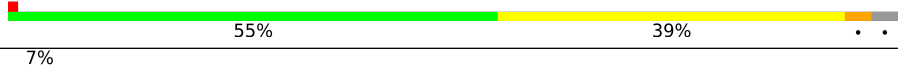
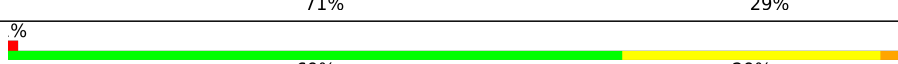
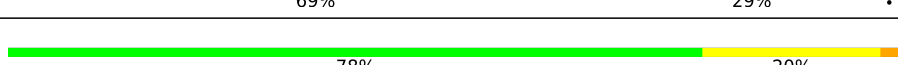
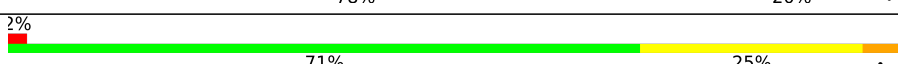
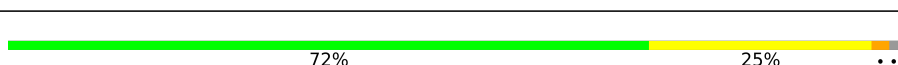
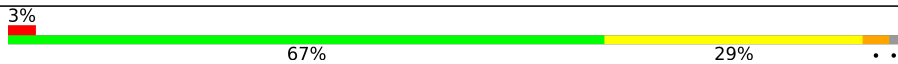
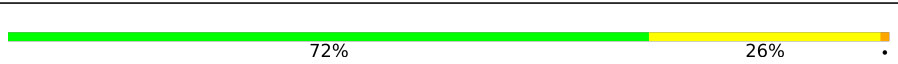
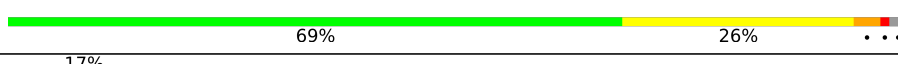
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1091 (2.54-2.54)
Clashscore	190562	1120 (2.54-2.54)
Ramachandran outliers	187476	1106 (2.54-2.54)
Sidechain outliers	187428	1106 (2.54-2.54)
RSRZ outliers	180081	1091 (2.54-2.54)
RNA backbone	3983	1112 (2.80-2.28)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	1A	2915	2% 61% 31% 7%
1	2A	2915	2% 55% 36% 8%
2	1B	121	63% 31% 5%

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Mol	Chain	Length	Quality of chain
2	2B	121	
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	

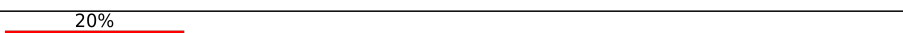
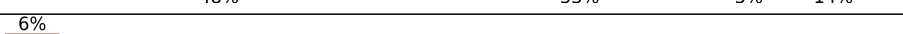
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Mol	Chain	Length	Quality of chain
15	1T	146	
15	2T	146	
16	1U	118	
16	2U	118	
17	1V	101	
17	2V	101	
18	1W	113	
18	2W	113	
19	1X	96	
19	2X	96	
20	1Y	110	
20	2Y	110	
21	1Z	206	
21	2Z	206	
22	10	85	
22	20	85	
23	11	98	
23	21	98	
24	12	72	
24	22	72	
25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

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Mol	Chain	Length	Quality of chain
27	25	60	
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	

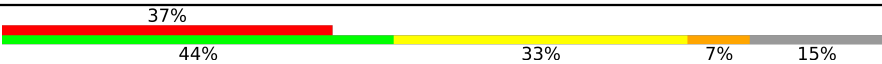
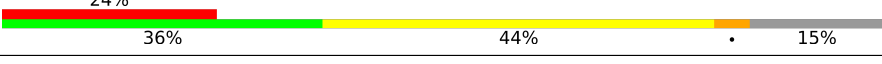
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Mol	Chain	Length	Quality of chain
40	1i	128	
40	2i	128	
41	1j	105	
41	2j	105	
42	1k	129	
42	2k	129	
43	1l	132	
43	2l	132	
44	1m	126	
44	2m	126	
45	1n	61	
45	2n	61	
46	1o	89	
46	2o	89	
47	1p	88	
47	2p	88	
48	1q	105	
48	2q	105	
49	1r	88	
49	2r	88	
50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

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Mol	Chain	Length	Quality of chain
52	2u	27	
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	2a	3115	-	-	-	X

2 Entry composition

There are 60 unique types of molecules in this entry. The entry contains 296819 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	1020	Total	Mg	0	0
			1020	1020		
54	1B	32	Total	Mg	0	0
			32	32		
54	1D	16	Total	Mg	0	0
			16	16		
54	1E	10	Total	Mg	0	0
			10	10		
54	1F	18	Total	Mg	0	0
			18	18		
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	6	Total	Mg	0	0
			6	6		
54	1Q	4	Total	Mg	0	0
			4	4		
54	1R	5	Total	Mg	0	0
			5	5		
54	1T	3	Total	Mg	0	0
			3	3		
54	1U	8	Total	Mg	0	0
			8	8		
54	1V	7	Total	Mg	0	0
			7	7		
54	1W	4	Total	Mg	0	0
			4	4		
54	1Y	2	Total	Mg	0	0
			2	2		
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	4	Total 4	Mg 4	0	0
54	13	4	Total 4	Mg 4	0	0
54	15	6	Total 6	Mg 6	0	0
54	17	5	Total 5	Mg 5	0	0
54	18	2	Total 2	Mg 2	0	0
54	19	1	Total 1	Mg 1	0	0
54	1a	274	Total 274	Mg 274	0	0
54	1b	1	Total 1	Mg 1	0	0
54	1d	5	Total 5	Mg 5	0	0
54	1e	3	Total 3	Mg 3	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	1l	2	Total 2	Mg 2	0	0
54	1m	1	Total 1	Mg 1	0	0
54	1n	3	Total 3	Mg 3	0	0
54	1o	1	Total 1	Mg 1	0	0
54	1t	2	Total 2	Mg 2	0	0
54	1y	3	Total 3	Mg 3	0	0

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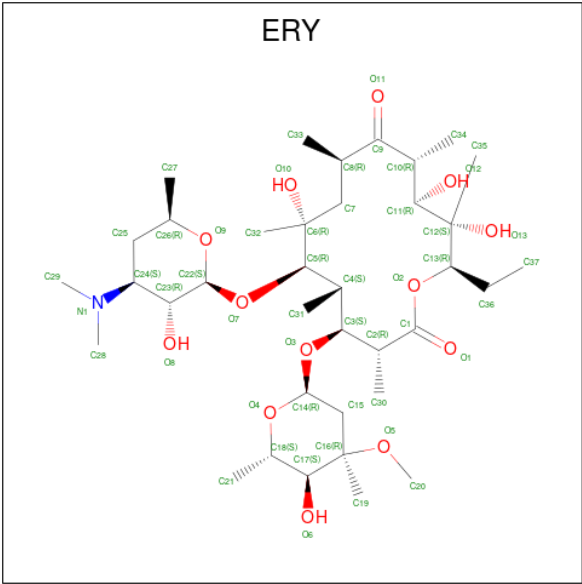
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	2A	733	Total 733	Mg 733	0	0
54	2B	18	Total 18	Mg 18	0	0
54	2D	10	Total 10	Mg 10	0	0
54	2E	7	Total 7	Mg 7	0	0
54	2F	4	Total 4	Mg 4	0	0
54	2G	3	Total 3	Mg 3	0	0
54	2I	1	Total 1	Mg 1	0	0
54	2N	1	Total 1	Mg 1	0	0
54	2O	2	Total 2	Mg 2	0	0
54	2P	2	Total 2	Mg 2	0	0
54	2Q	2	Total 2	Mg 2	0	0
54	2R	2	Total 2	Mg 2	0	0
54	2T	3	Total 3	Mg 3	0	0
54	2V	3	Total 3	Mg 3	0	0
54	2W	3	Total 3	Mg 3	0	0
54	2X	1	Total 1	Mg 1	0	0
54	20	2	Total 2	Mg 2	0	0
54	21	1	Total 1	Mg 1	0	0
54	23	1	Total 1	Mg 1	0	0
54	25	2	Total 2	Mg 2	0	0
54	27	1	Total 1	Mg 1	0	0

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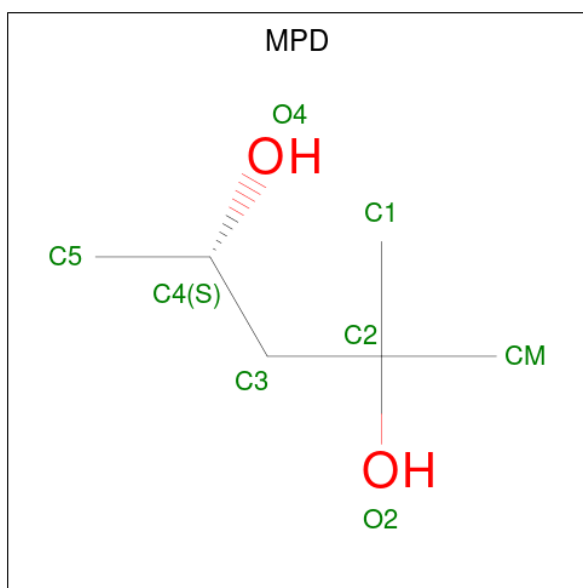
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	28	2	Total	Mg	0	0
			2	2		
54	2a	183	Total	Mg	0	0
			183	183		
54	2e	2	Total	Mg	0	0
			2	2		
54	2f	1	Total	Mg	0	0
			1	1		
54	2j	1	Total	Mg	0	0
			1	1		
54	2l	1	Total	Mg	0	0
			1	1		
54	2n	1	Total	Mg	0	0
			1	1		
54	2o	1	Total	Mg	0	0
			1	1		
54	2t	1	Total	Mg	0	0
			1	1		

- Molecule 55 is ERYTHROMYCIN A (CCD ID: ERY) (formula: C₃₇H₆₇NO₁₃).



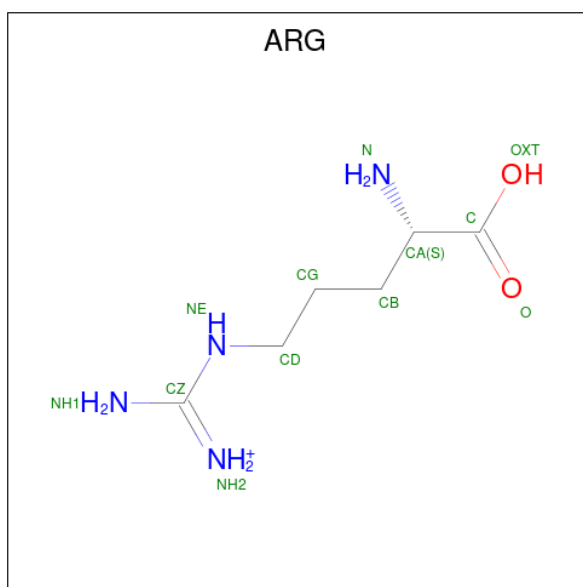
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
55	1A	1	Total	C	N	O	0	0
			51	37	1	13		
55	2A	1	Total	C	N	O	0	0
			51	37	1	13		

- Molecule 56 is (4S)-2-METHYL-2,4-PENTANEDIOL (CCD ID: MPD) (formula: $C_6H_{14}O_2$).



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		
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).

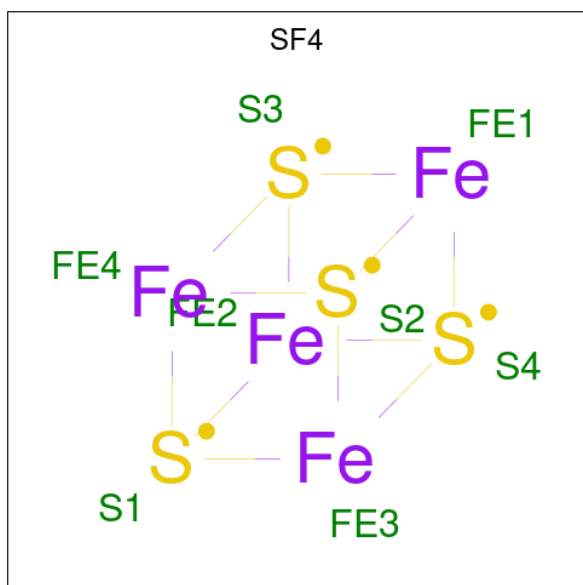
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	1Y	1	Total	Zn	0	0
			1	1		
58	14	1	Total	Zn	0	0
			1	1		
58	15	1	Total	Zn	0	0
			1	1		
58	16	1	Total	Zn	0	0
			1	1		
58	19	1	Total	Zn	0	0
			1	1		
58	1n	1	Total	Zn	0	0
			1	1		
58	2Y	1	Total	Zn	0	0
			1	1		
58	24	1	Total	Zn	0	0
			1	1		
58	25	1	Total	Zn	0	0
			1	1		
58	26	1	Total	Zn	0	0
			1	1		

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

- Molecule 60 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	1A	3765	Total	O	0	0
			3765	3765		
60	1B	106	Total	O	0	0
			106	106		
60	1D	90	Total	O	0	0
			90	90		
60	1E	74	Total	O	0	0
			74	74		
60	1F	67	Total	O	0	0
			67	67		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	1G	18	Total	O	0	0
			18	18		
60	1H	14	Total	O	0	0
			14	14		
60	1I	8	Total	O	0	0
			8	8		
60	1N	51	Total	O	0	0
			51	51		
60	1O	26	Total	O	0	0
			26	26		
60	1P	57	Total	O	0	0
			57	57		
60	1Q	41	Total	O	0	0
			41	41		
60	1R	32	Total	O	0	0
			32	32		
60	1S	14	Total	O	0	0
			14	14		
60	1T	33	Total	O	0	0
			33	33		
60	1U	42	Total	O	0	0
			42	42		
60	1V	39	Total	O	0	0
			39	39		
60	1W	27	Total	O	0	0
			27	27		
60	1X	24	Total	O	0	0
			24	24		
60	1Y	18	Total	O	0	0
			18	18		
60	1Z	13	Total	O	0	0
			13	13		
60	10	20	Total	O	0	0
			20	20		
60	11	25	Total	O	0	0
			25	25		
60	12	12	Total	O	0	0
			12	12		
60	13	26	Total	O	0	0
			26	26		
60	14	2	Total	O	0	0
			2	2		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	15	28	Total 28	O 28	0	0
60	16	19	Total 19	O 19	0	0
60	17	14	Total 14	O 14	0	0
60	18	28	Total 28	O 28	0	0
60	19	5	Total 5	O 5	0	0
60	1a	465	Total 465	O 465	0	0
60	1d	9	Total 9	O 9	0	0
60	1e	1	Total 1	O 1	0	0
60	1f	2	Total 2	O 2	0	0
60	1h	1	Total 1	O 1	0	0
60	1i	1	Total 1	O 1	0	0
60	1j	1	Total 1	O 1	0	0
60	1k	1	Total 1	O 1	0	0
60	1l	5	Total 5	O 5	0	0
60	1m	3	Total 3	O 3	0	0
60	1o	3	Total 3	O 3	0	0
60	1p	1	Total 1	O 1	0	0
60	1u	1	Total 1	O 1	0	0
60	1y	3	Total 3	O 3	0	0
60	2A	1860	Total 1860	O 1860	0	0
60	2B	53	Total 53	O 53	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	2D	40	Total 40	O 40	0	0
60	2E	19	Total 19	O 19	0	0
60	2F	22	Total 22	O 22	0	0
60	2G	7	Total 7	O 7	0	0
60	2H	4	Total 4	O 4	0	0
60	2I	4	Total 4	O 4	0	0
60	2N	3	Total 3	O 3	0	0
60	2O	19	Total 19	O 19	0	0
60	2P	19	Total 19	O 19	0	0
60	2Q	18	Total 18	O 18	0	0
60	2R	17	Total 17	O 17	0	0
60	2S	3	Total 3	O 3	0	0
60	2T	8	Total 8	O 8	0	0
60	2U	16	Total 16	O 16	0	0
60	2V	3	Total 3	O 3	0	0
60	2W	13	Total 13	O 13	0	0
60	2X	6	Total 6	O 6	0	0
60	2Y	5	Total 5	O 5	0	0
60	2Z	7	Total 7	O 7	0	0
60	20	10	Total 10	O 10	0	0
60	21	20	Total 20	O 20	0	0

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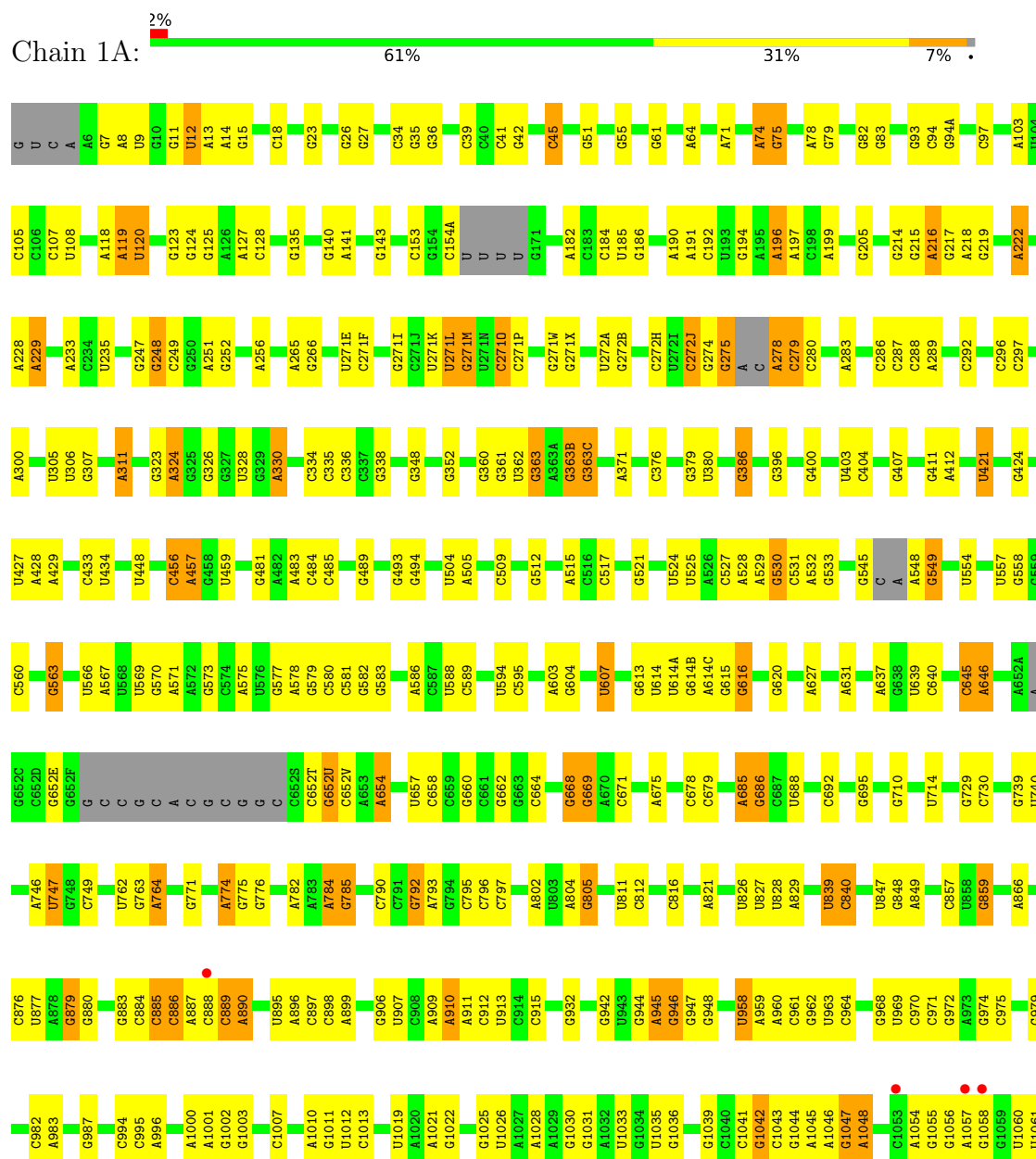
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	22	2	Total 2	O 2	0	0
60	23	3	Total 3	O 3	0	0
60	25	6	Total 6	O 6	0	0
60	26	5	Total 5	O 5	0	0
60	27	9	Total 9	O 9	0	0
60	28	9	Total 9	O 9	0	0
60	29	1	Total 1	O 1	0	0
60	2a	303	Total 303	O 303	0	0
60	2d	2	Total 2	O 2	0	0
60	2e	1	Total 1	O 1	0	0
60	2f	2	Total 2	O 2	0	0
60	2j	2	Total 2	O 2	0	0
60	2l	2	Total 2	O 2	0	0
60	2m	3	Total 3	O 3	0	0
60	2n	1	Total 1	O 1	0	0
60	2o	2	Total 2	O 2	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	2y	3	Total 3	O 3	0	0

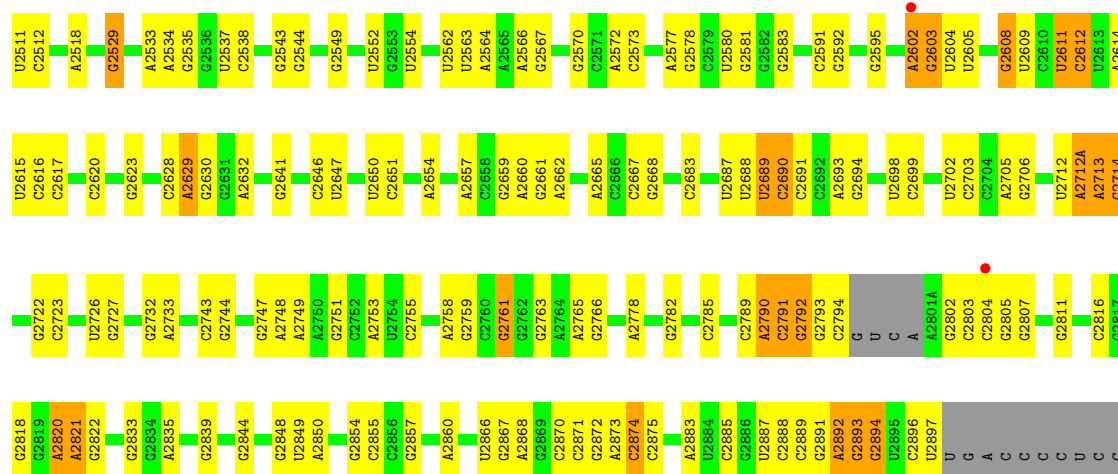
3 Residue-property plots

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.

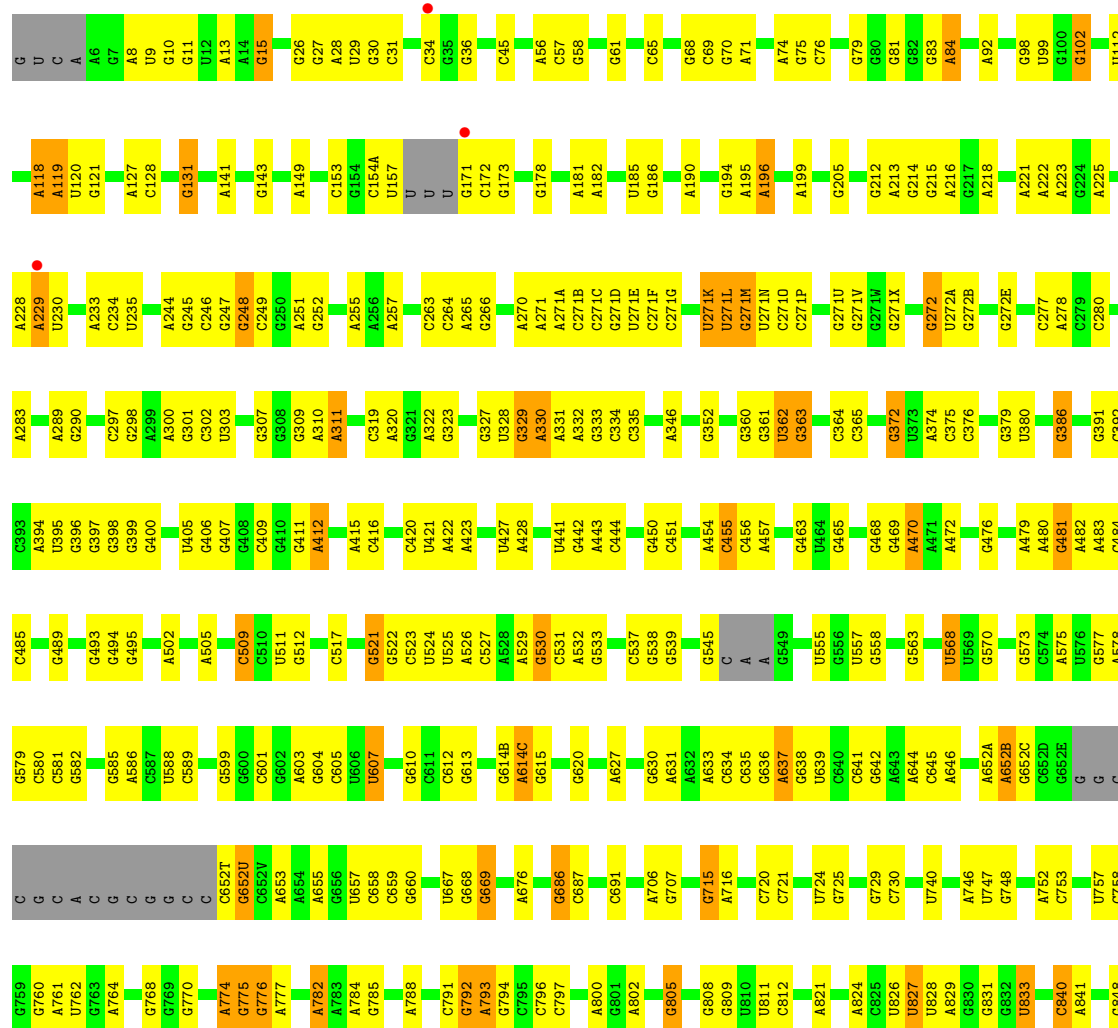
• Molecule 1: 23S Ribosomal RNA

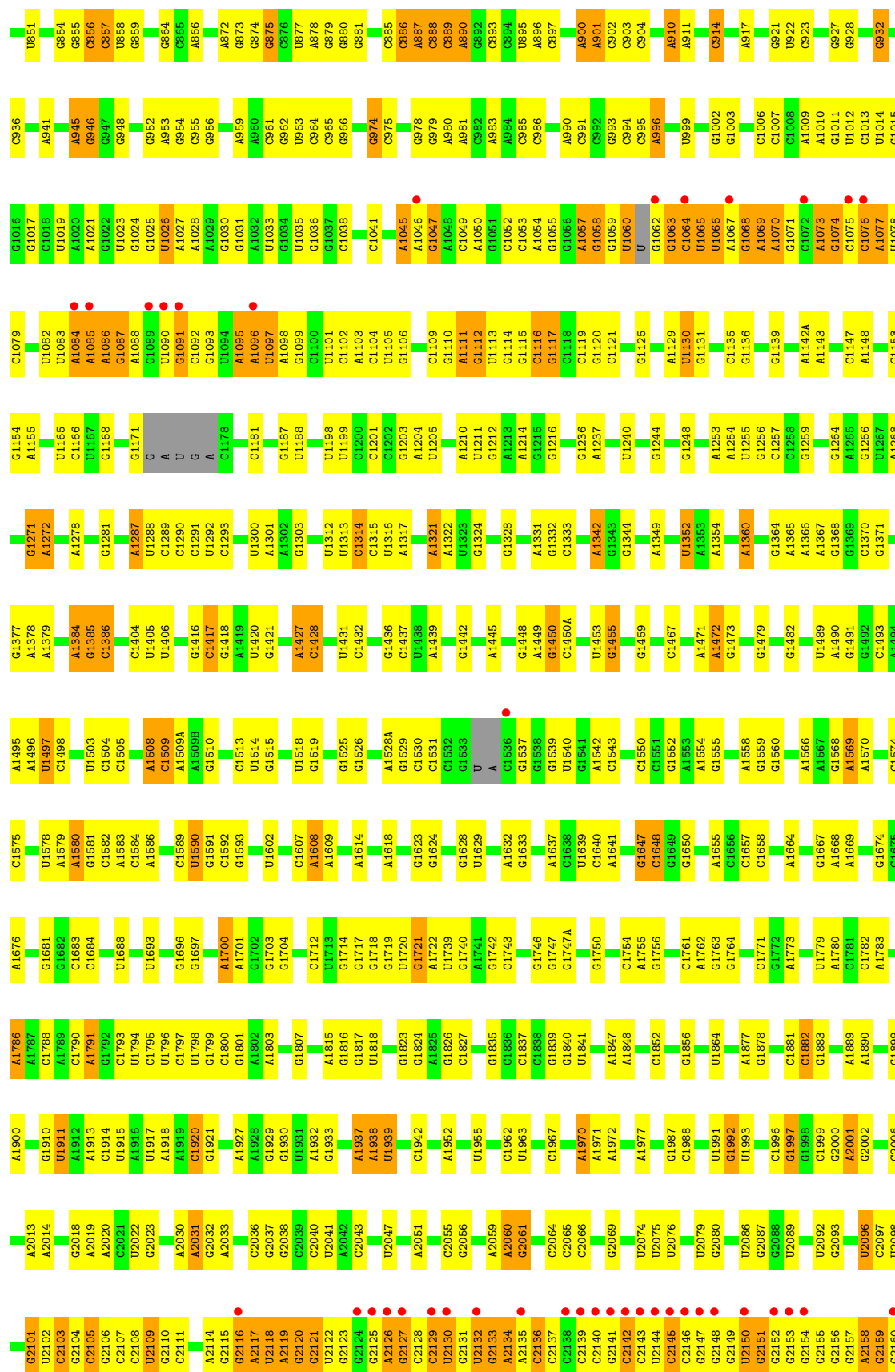


G2421	A2422	A2423	A2424	A2425	A2426	A2427	G2428	G2429	A2430	A2435	U2438	A2439	C2440	C2441	C2442	C2443	C2444	G2445	G2446	G2447	A2448	G2453	C2464	C2465	C2467	G2468	A2469	C2475	A2476	C2477	C2478	A2479	C2480	C2483	G2484	G2485	G2486	G2487	U2491	U2492	C2493	C2494	G2502	A2503	U2504	G2505	U2506	G2509	C2510						
C2314	G2315	C2316	C2319	A2320	G2325	G2326	A2327	A2328	G2329	G2330	G2331	G2334	A2335	A2336	G2341	G2345	A2346	C2347	U2348	G2349	C2350	G2353	C2354	C2355	C2356	U2357	C2364	G2365	C2372	C2373	C2374	A2375	A2376	C2377	C2381	G2382	G2383	G2384	C2385	C2386	U2390	A2393	C2396	G2405	U2406	C2313									
G2207	A2208	A2225	G2228	U2232	U2233	G2238	G2239	G2242	U2243	U2244	C2248	U2249	G2250	G2251	C2254	C2258	C2264	A2268	A2273	A2274	C2275	G2276	A2277	A2278	G2279	G2280	C2281	G2282	C2283	A2286	A2287	A2288	G2289	G2290	U2291	C2292	G2303	G2304	A2305	U2309	A2310	U2311	U2312	U2313	C2206										
C2137	C2138	C2139	C2140	C2141	C2142	C2143	U2144	C2145	C2146	C2147	G2148	G2149	U2150	G2151	G2153	G2154	G2155	G2156	G2157	A2158	G2159	G2160	G2161	G2162	C2163	C2164	G2165	G2166	U2167	G2168	A2169	A2170	U2171	U2172	A2173	U2180	G2181	G2182	C2183	G2184	C2185	G2186	G2187	C2188	U2189	G2190	G2191	C2192	G2193	A2198	C2202	C2206			
A2060	G2061	C2066	G2069	U2074	U2075	U2076	U2079	U2086	G2087	U2092	G2093	G2094	C2095	U2096	U2097	U2098	G2099	G2100	G2101	C2102	C2103	G2104	C2105	G2106	C2107	C2108	U2109	G2110	C2111	C2112	U2113	A2114	G2115	G2116	A2117	U2118	G2119	G2120	G2121	U2122	G2123	A2126	G2127	C2128	C2129	U2130	G2131	U2132	G2133	A2134	A2135	C2136			
A1938	U1939	U1940	C1941	C1942	G1954	U1955	U1956	C1957	G1962	U1963	G1964	C1965	A1966	C1967	G1968	A1969	A1970	A1971	A1972	G1985	U1983	G1997	C2006	C2007	A2014	U2017	G2018	A2019	A2020	C2021	G2022	G2023	G2024	C2025	G2029	A2030	A2031	G2032	A2033	U2034	G2035	C2043	A2051	C2055	G2056	A2059									
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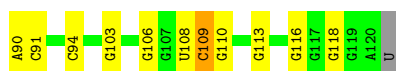


● Molecule 1: 23S Ribosomal RNA

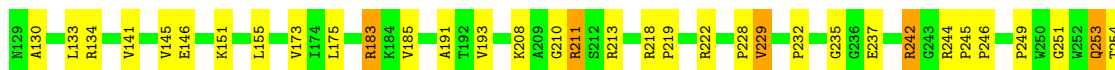
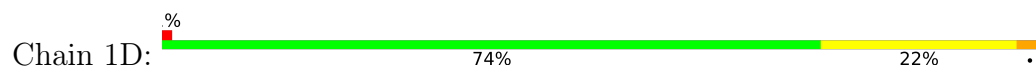








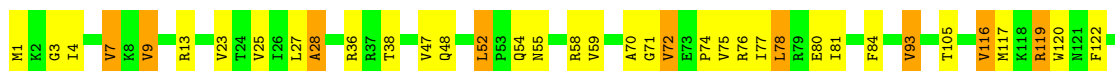
• Molecule 3: 50S ribosomal protein L2



• Molecule 3: 50S ribosomal protein L2



• Molecule 4: 50S ribosomal protein L3



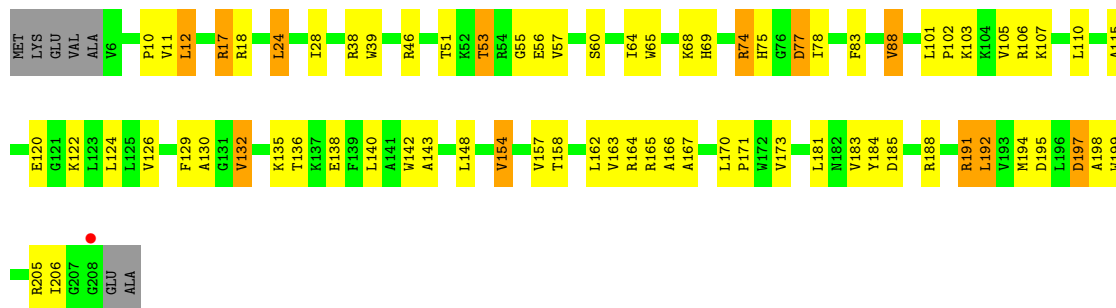
• Molecule 4: 50S ribosomal protein L3





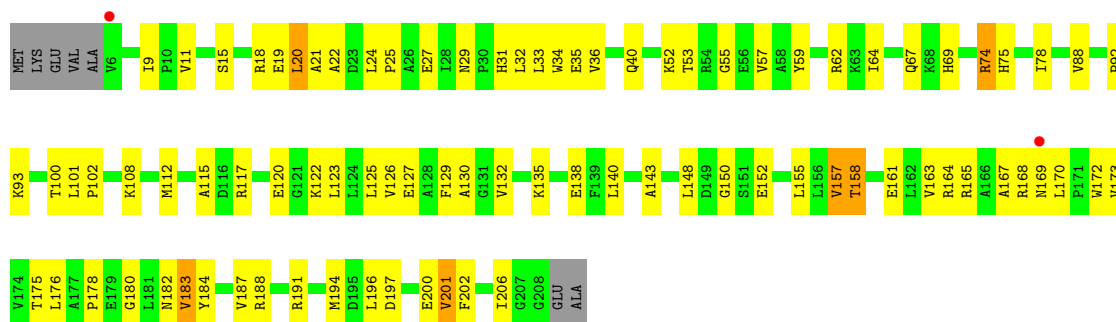
- Molecule 5: 50S ribosomal protein L4

Chain 1F: 61% 30% 6% .



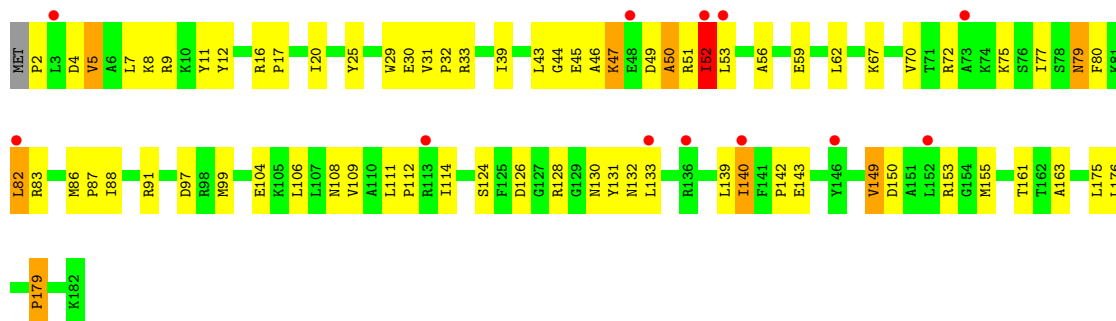
- Molecule 5: 50S ribosomal protein L4

Chain 2F: 55% 39% . .



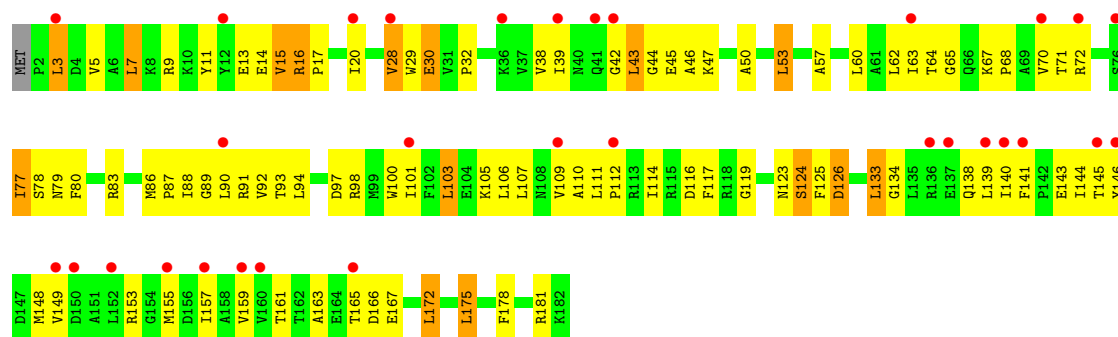
- Molecule 6: 50S ribosomal protein L5

Chain 1G: 59% 35% . .

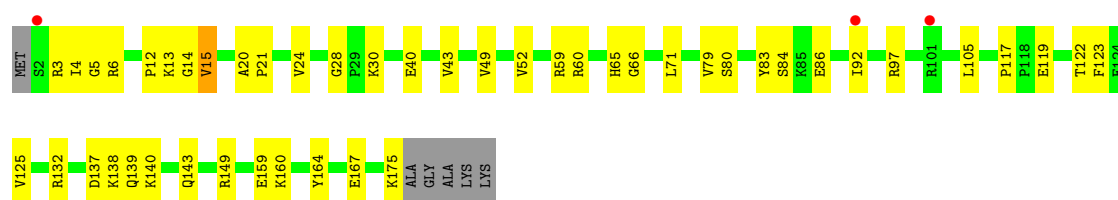
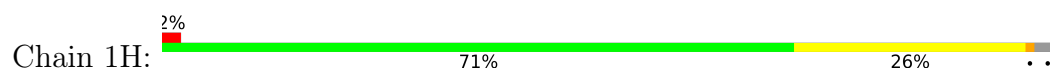


- Molecule 6: 50S ribosomal protein L5

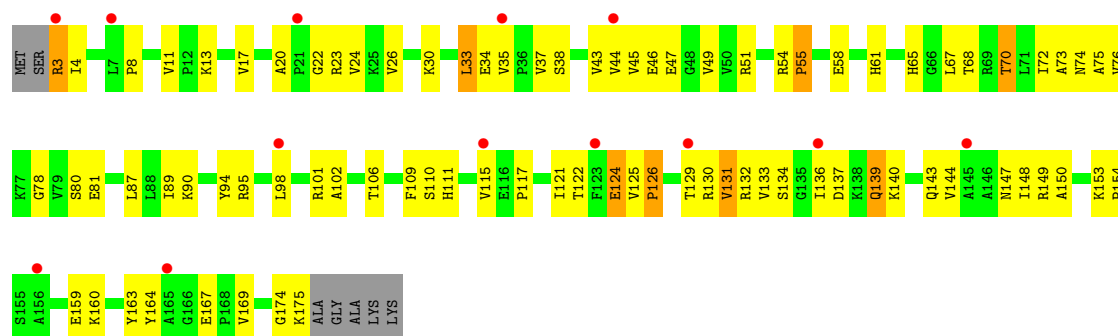
Chain 2G: 47% 44% 8% .



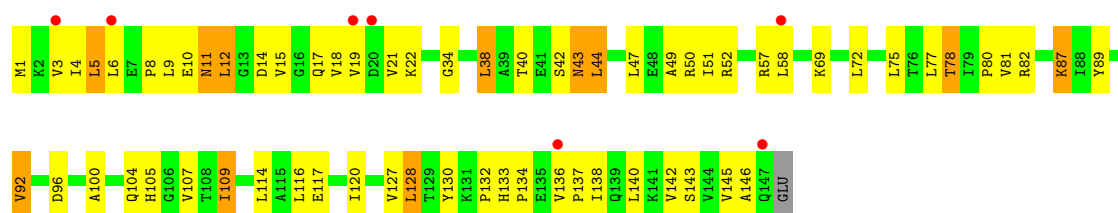
• Molecule 7: 50S ribosomal protein L6



• Molecule 7: 50S ribosomal protein L6

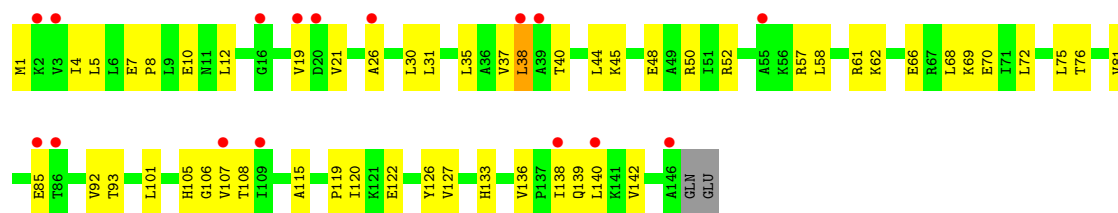


• Molecule 8: 50S ribosomal protein L9



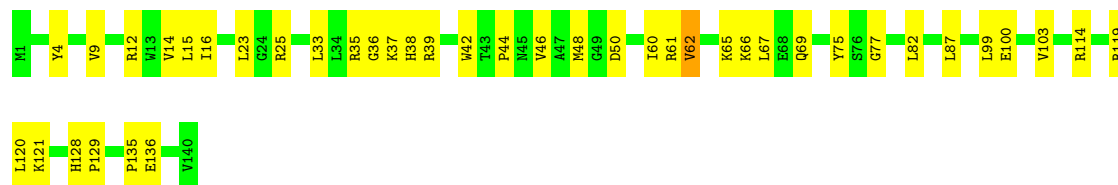
• Molecule 8: 50S ribosomal protein L9





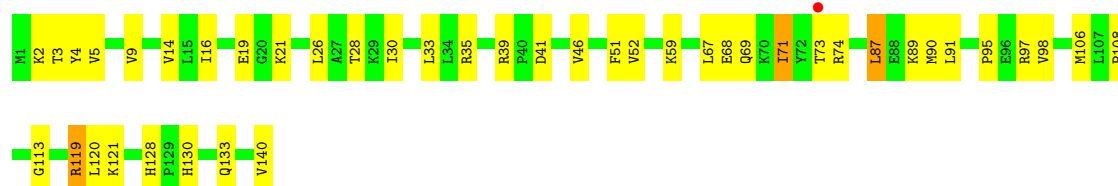
• Molecule 9: 50S ribosomal protein L13

Chain 1N: 71% 29%



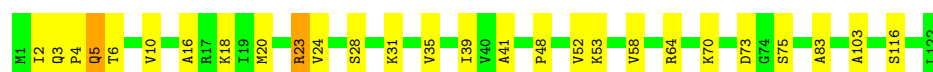
• Molecule 9: 50S ribosomal protein L13

Chain 2N: 69% 29%



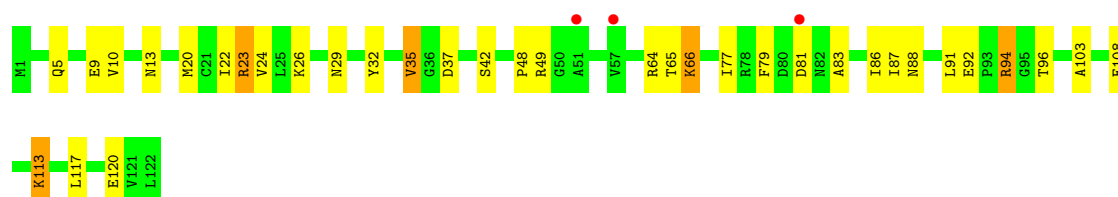
• Molecule 10: 50S ribosomal protein L14

Chain 1O: 78% 20%



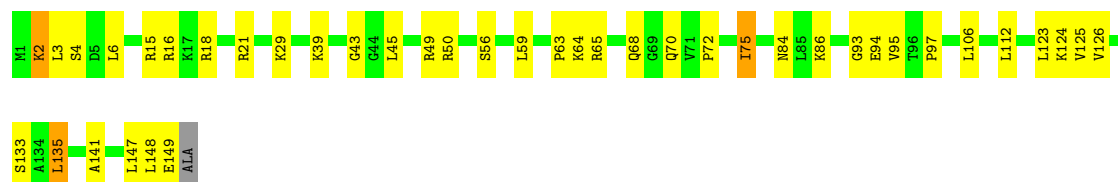
• Molecule 10: 50S ribosomal protein L14

Chain 2O: 71% 25%

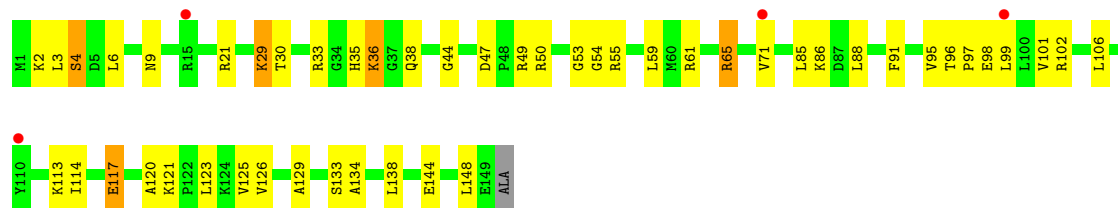


• Molecule 11: 50S ribosomal protein L15

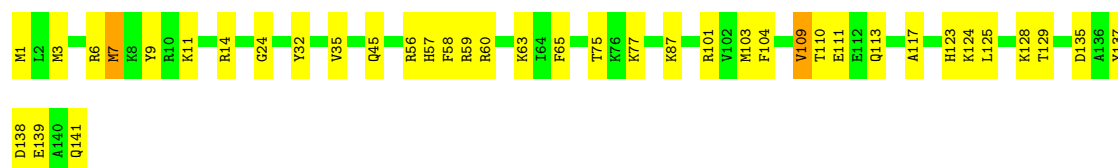
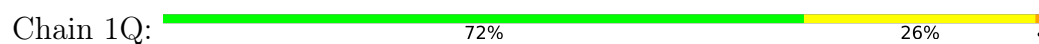
Chain 1P: 72% 25%



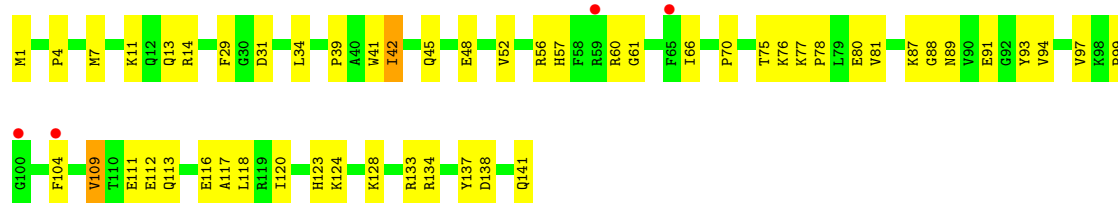
- Molecule 11: 50S ribosomal protein L15



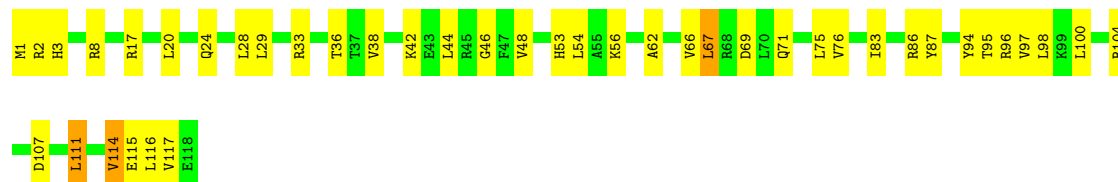
- Molecule 12: 50S ribosomal protein L16



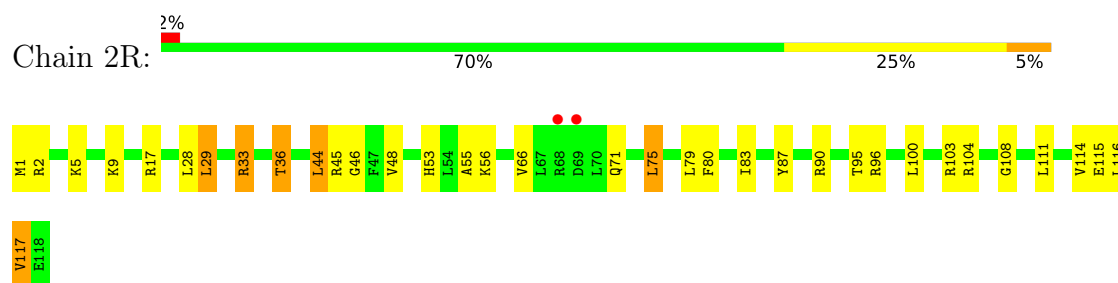
- Molecule 12: 50S ribosomal protein L16



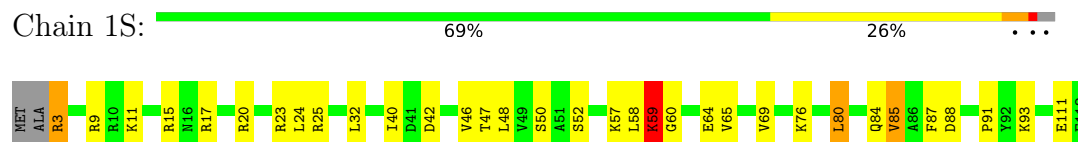
- Molecule 13: 50S ribosomal protein L17



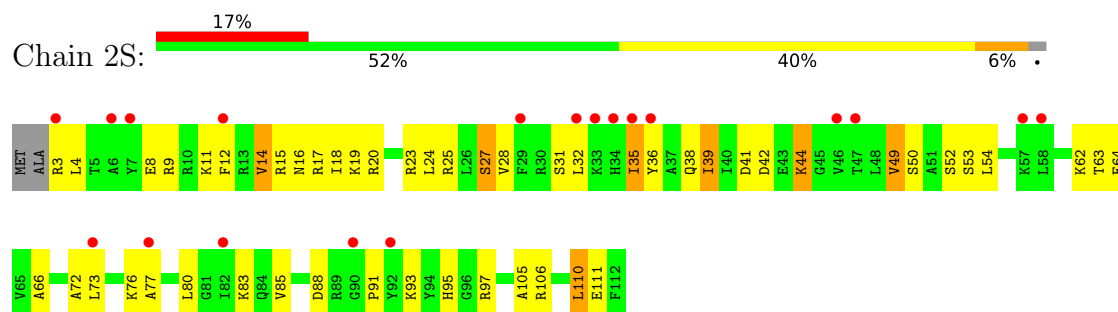
- Molecule 13: 50S ribosomal protein L17



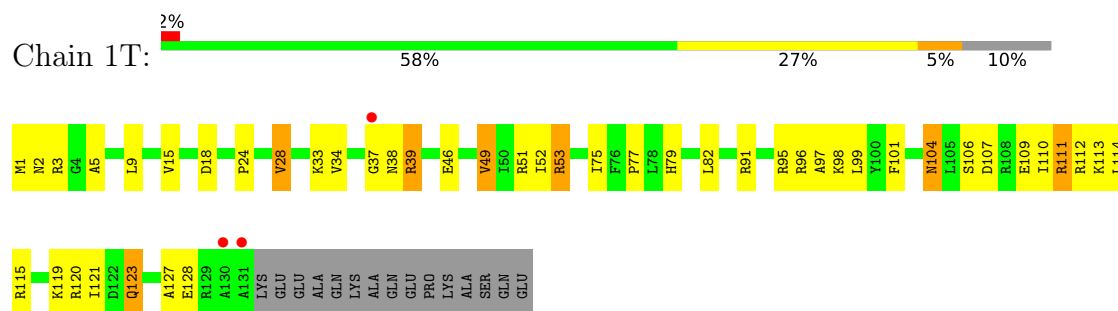
- Molecule 14: 50S ribosomal protein L18



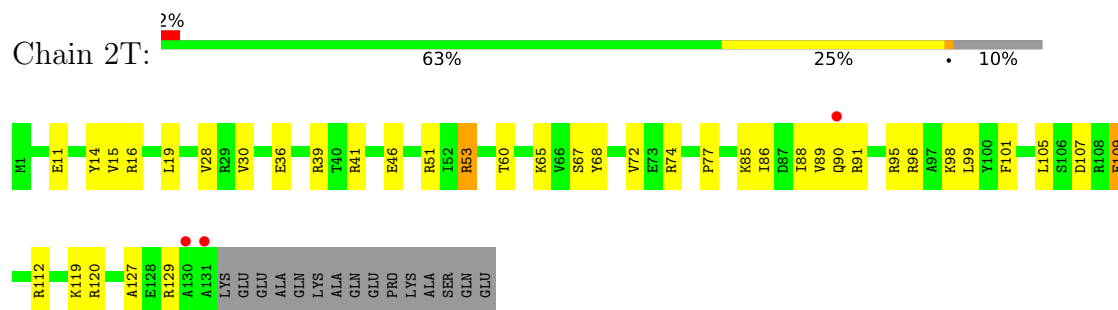
- Molecule 14: 50S ribosomal protein L18



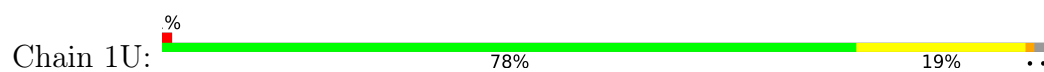
- Molecule 15: 50S ribosomal protein L19



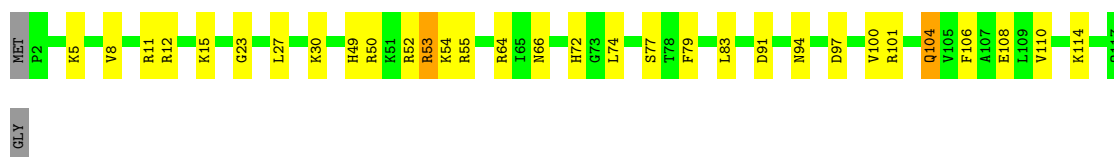
- Molecule 15: 50S ribosomal protein L19



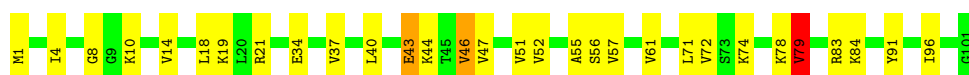
- Molecule 16: 50S ribosomal protein L20



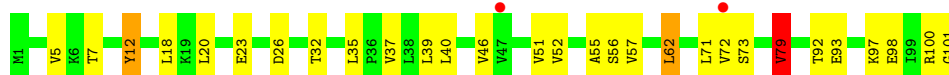
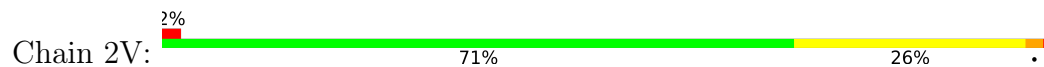
• Molecule 16: 50S ribosomal protein L20



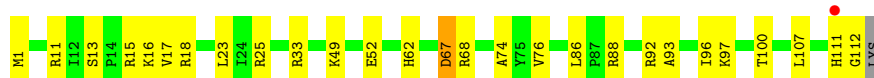
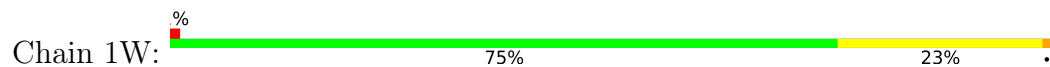
• Molecule 17: 50S ribosomal protein L21



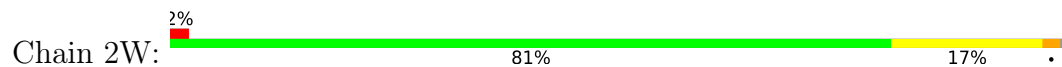
• Molecule 17: 50S ribosomal protein L21



• Molecule 18: 50S ribosomal protein L22

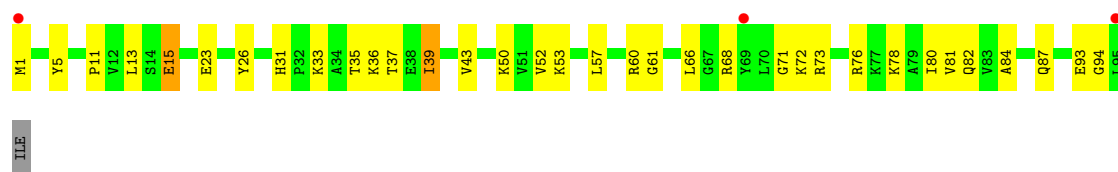


• Molecule 18: 50S ribosomal protein L22

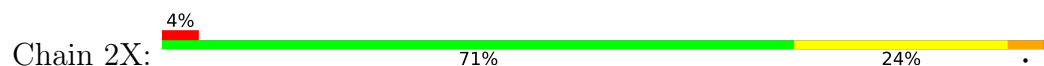


• Molecule 19: 50S ribosomal protein L23

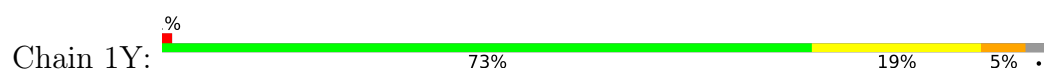




- Molecule 19: 50S ribosomal protein L23



- Molecule 20: 50S ribosomal protein L24



- Molecule 20: 50S ribosomal protein L24



- Molecule 21: 50S ribosomal protein L25



- Molecule 21: 50S ribosomal protein L25

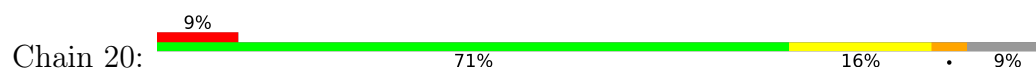




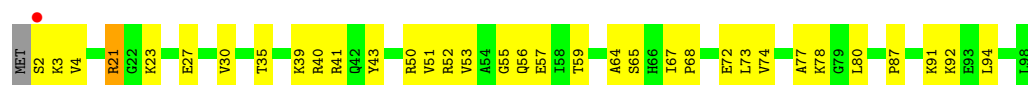
- Molecule 22: 50S ribosomal protein L27



- Molecule 22: 50S ribosomal protein L27



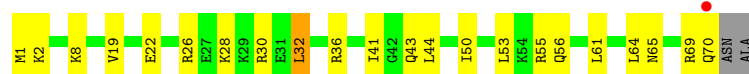
- Molecule 23: 50S ribosomal protein L28



- Molecule 23: 50S ribosomal protein L28



- Molecule 24: 50S ribosomal protein L29



- Molecule 24: 50S ribosomal protein L29





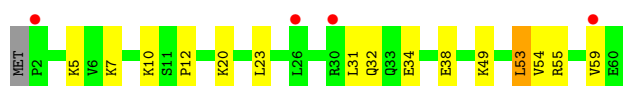
- Molecule 25: 50S ribosomal protein L30

Chain 13: 63% 30% 5% .



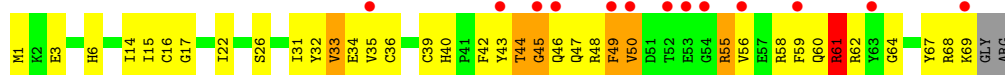
- Molecule 25: 50S ribosomal protein L30

Chain 23: 7% 73% 23% . .



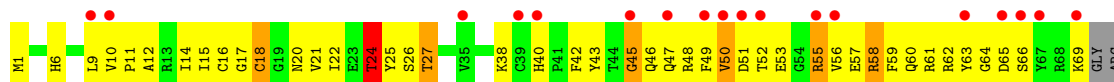
- Molecule 26: 50S ribosomal protein L31

Chain 14: 18% 45% 42% 8% . .



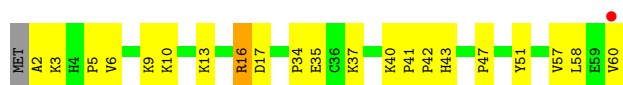
- Molecule 26: 50S ribosomal protein L31

Chain 24: 25% 35% 52% 8% . .



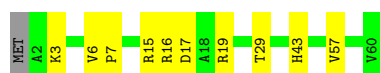
- Molecule 27: 50S ribosomal protein L32

Chain 15: 2% 63% 33% . .



- Molecule 27: 50S ribosomal protein L32

Chain 25: 82% 17% .



- Molecule 28: 50S ribosomal protein L33

Chain 16:  59% 35% ..



- Molecule 28: 50S ribosomal protein L33

Chain 26:  2% 67% 20% 11% ..



- Molecule 29: 50S ribosomal protein L34

Chain 17:  4% 67% 29% ..



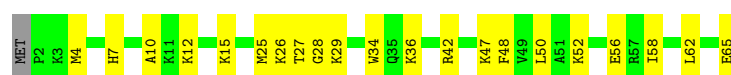
- Molecule 29: 50S ribosomal protein L34

Chain 27:  2% 73% 20% ..



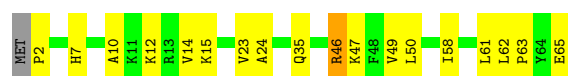
- Molecule 30: 50S ribosomal protein L35

Chain 18:  66% 32% ..



- Molecule 30: 50S ribosomal protein L35

Chain 28:  71% 26% ..

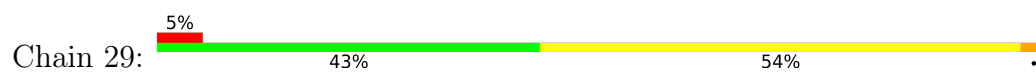


- Molecule 31: 50S ribosomal protein L36

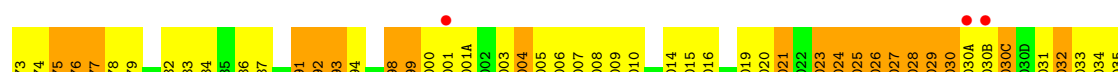
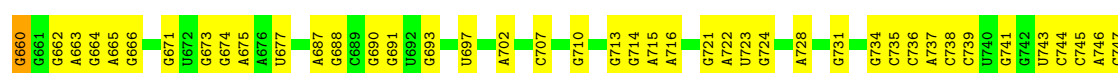
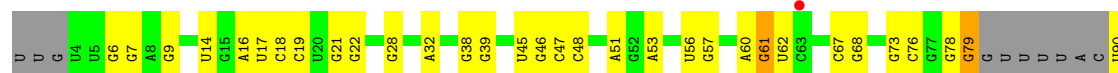
Chain 19:  81% 16% ..

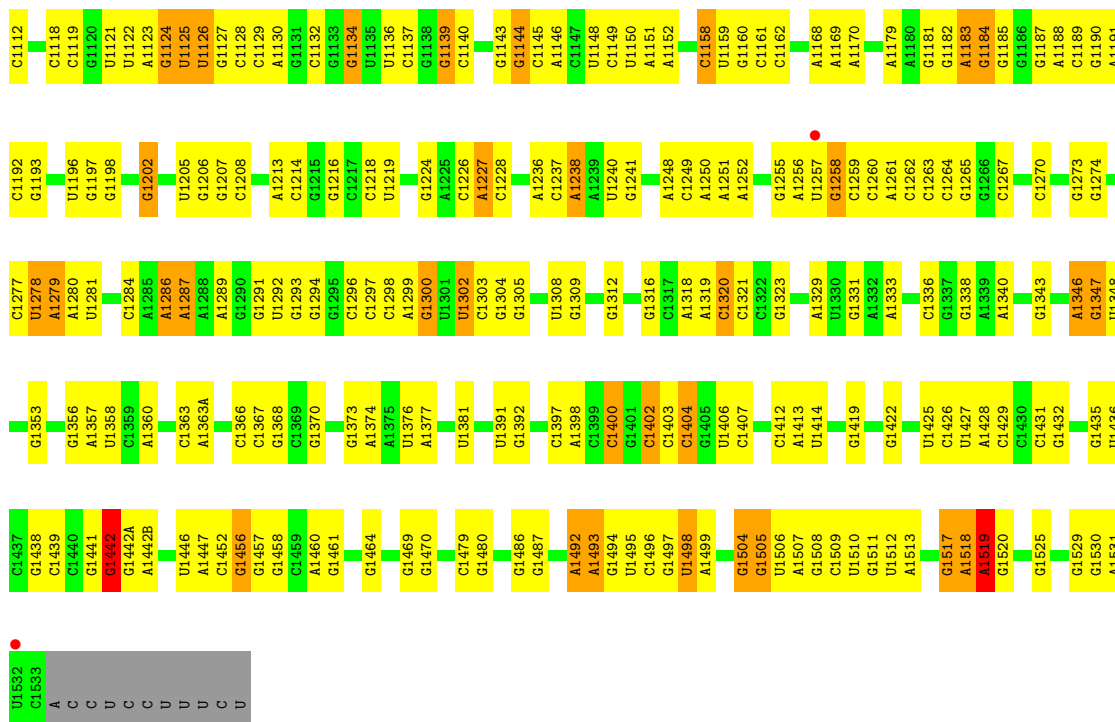


- Molecule 31: 50S ribosomal protein L36

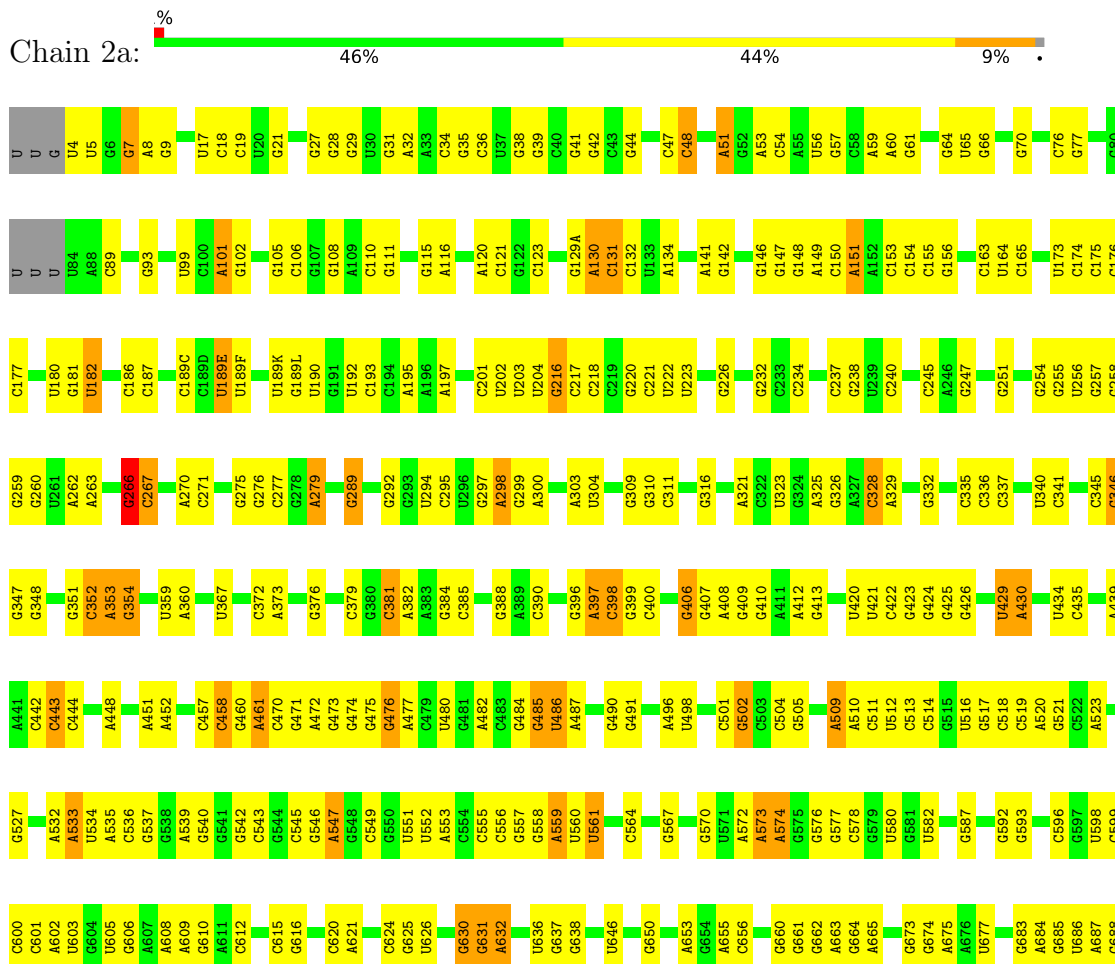


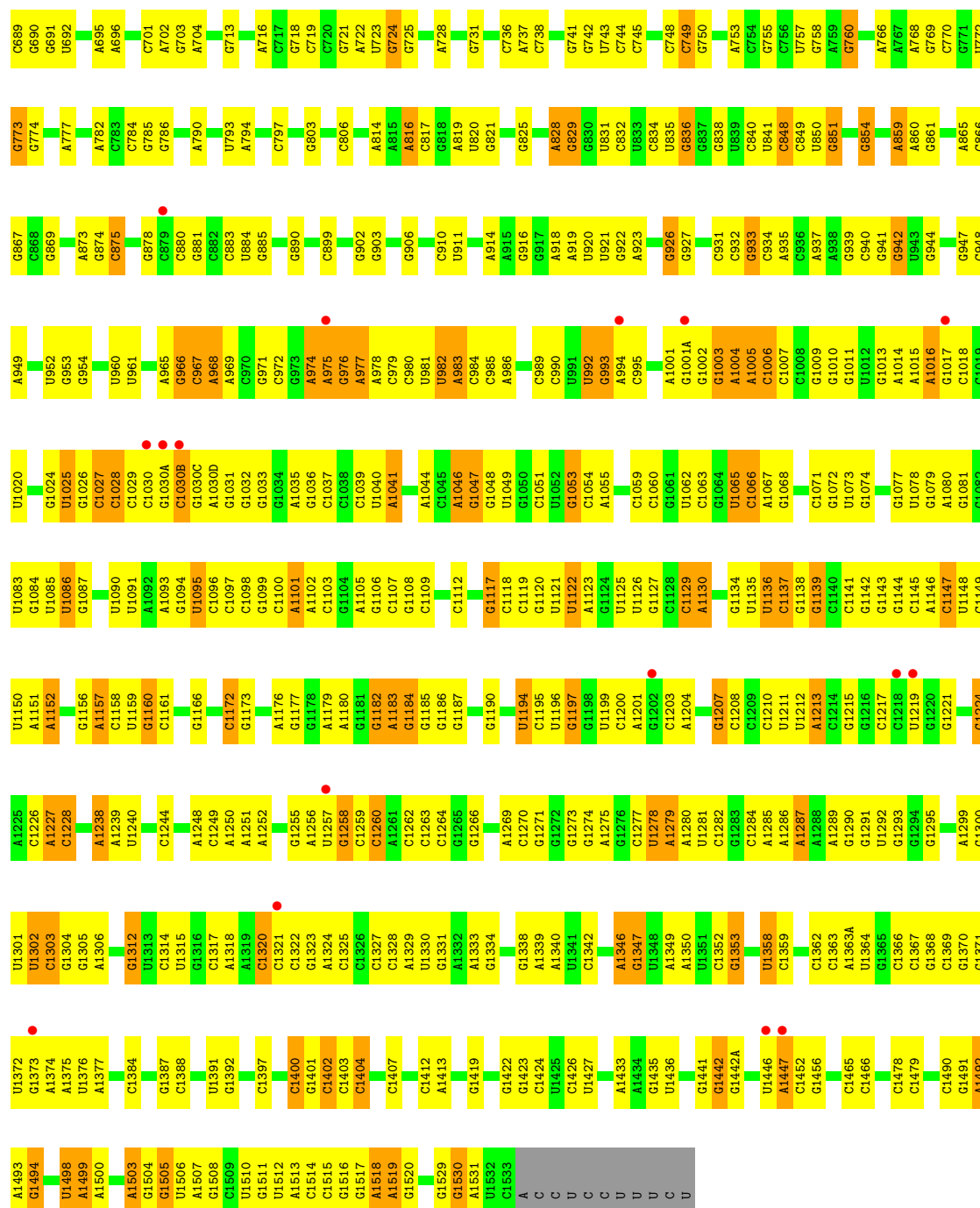
• Molecule 32: 16S Ribosomal RNA





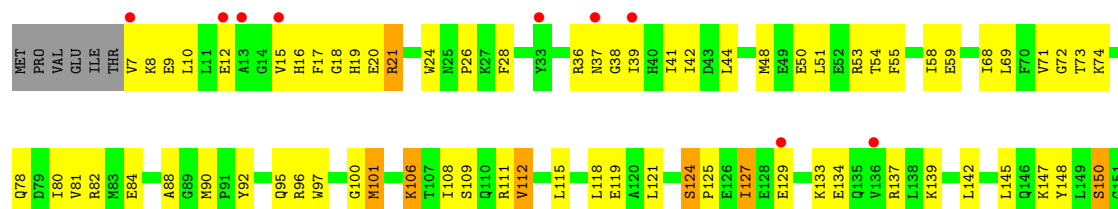
- Molecule 32: 16S Ribosomal RNA

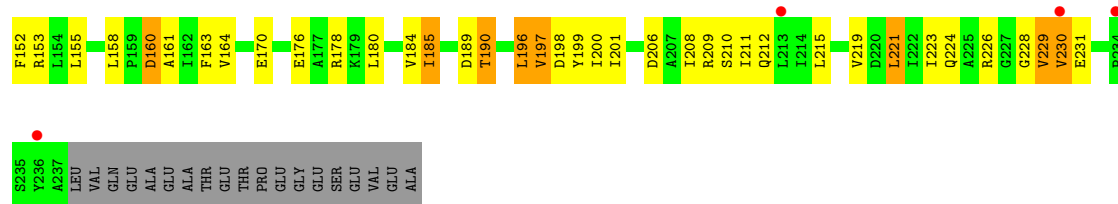




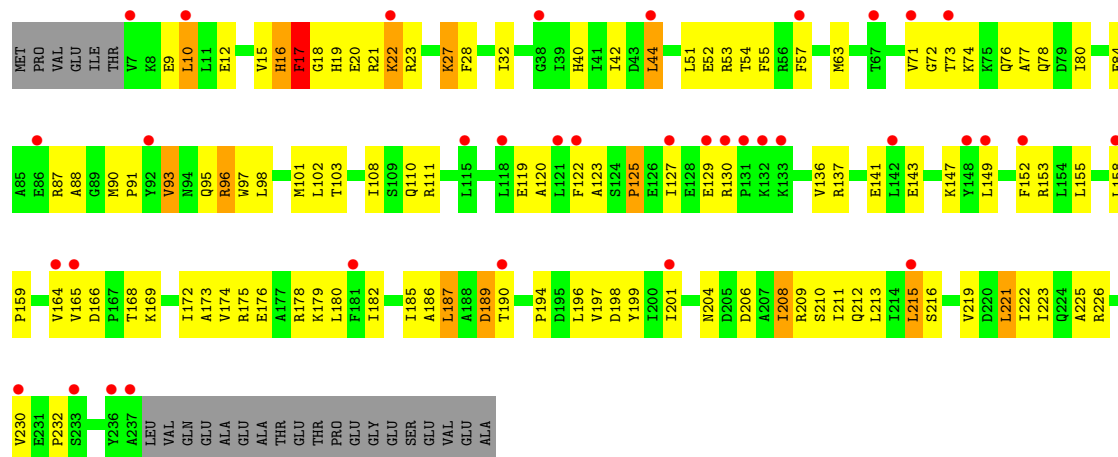
• Molecule 33: 30S ribosomal protein S2

Chain 1b: 5% 48% 37% 6% 10%

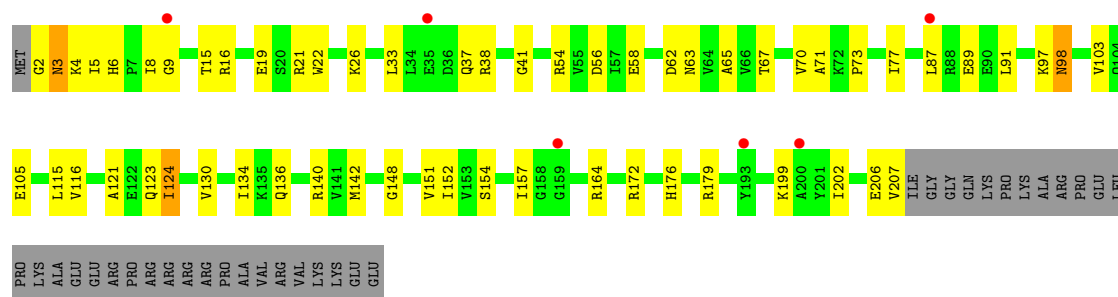




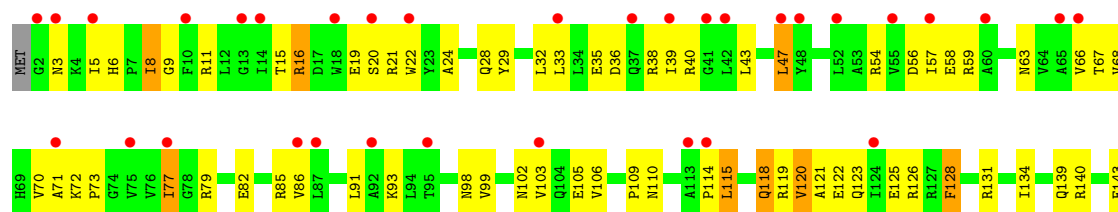
• Molecule 33: 30S ribosomal protein S2

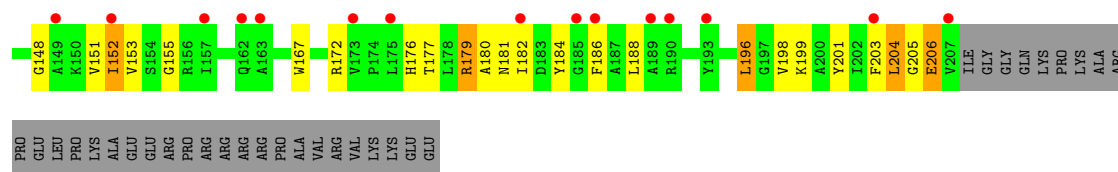


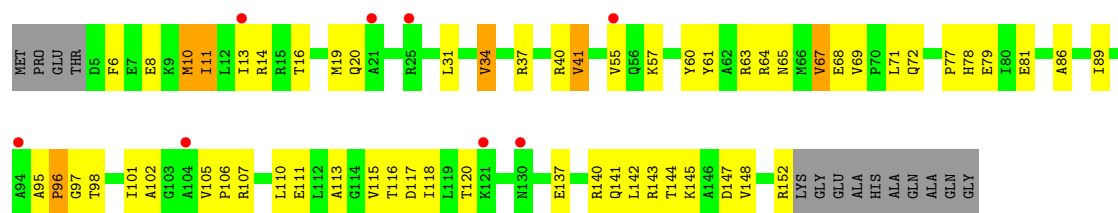
• Molecule 34: 30S ribosomal protein S3



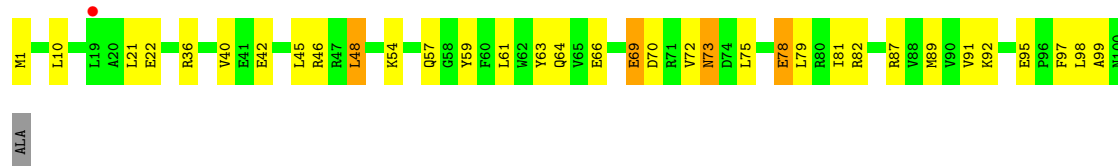
• Molecule 34: 30S ribosomal protein S3







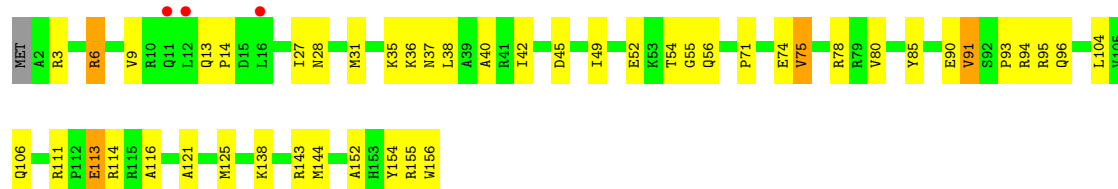
• Molecule 37: 30S ribosomal protein S6



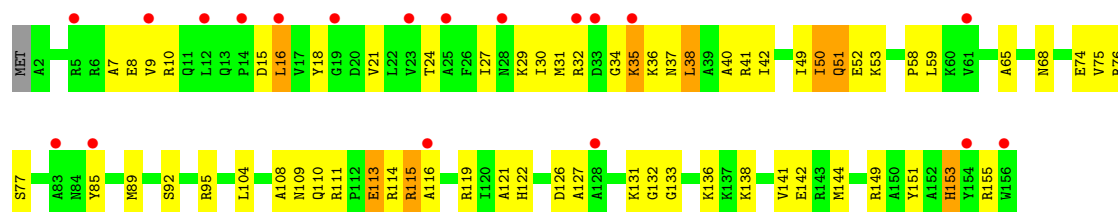
• Molecule 37: 30S ribosomal protein S6



• Molecule 38: 30S ribosomal protein S7

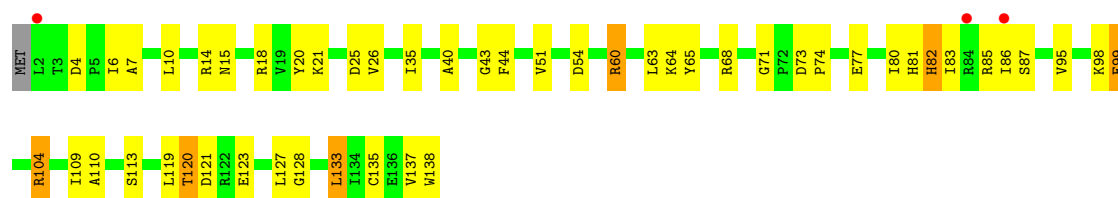


• Molecule 38: 30S ribosomal protein S7

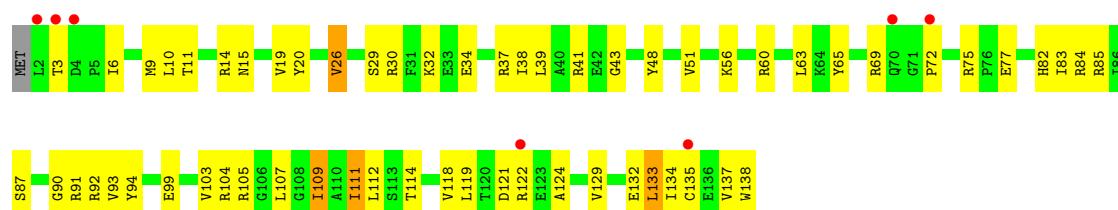


• Molecule 39: 30S ribosomal protein S8

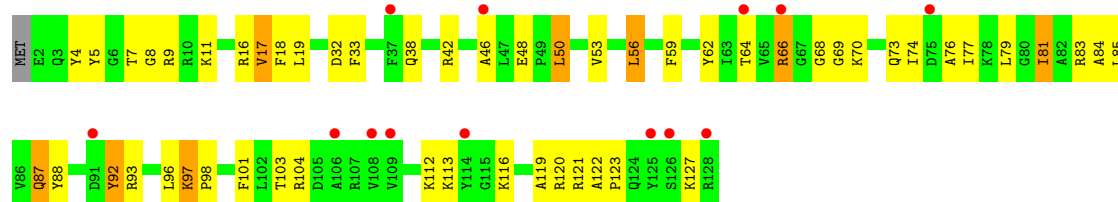




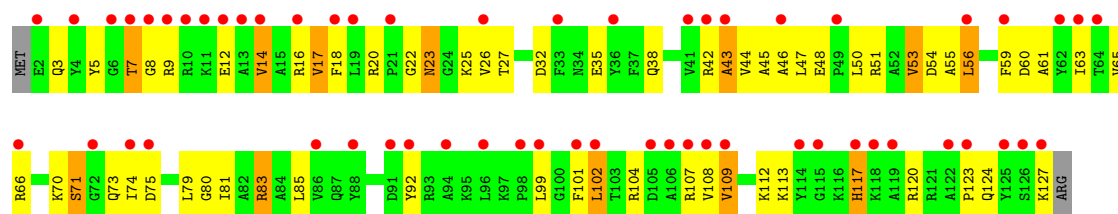
- Molecule 39: 30S ribosomal protein S8



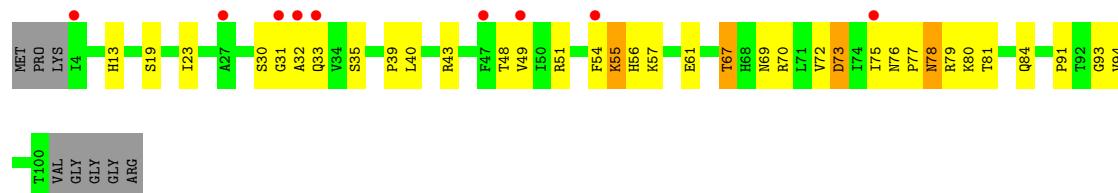
- Molecule 40: 30S ribosomal protein S9



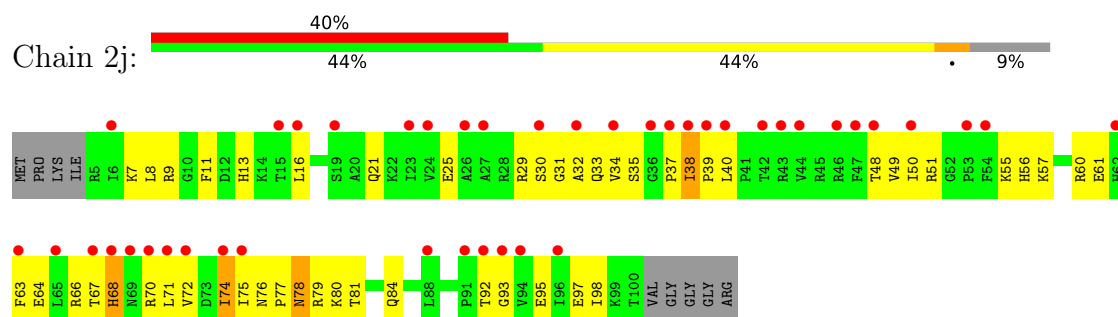
- Molecule 40: 30S ribosomal protein S9



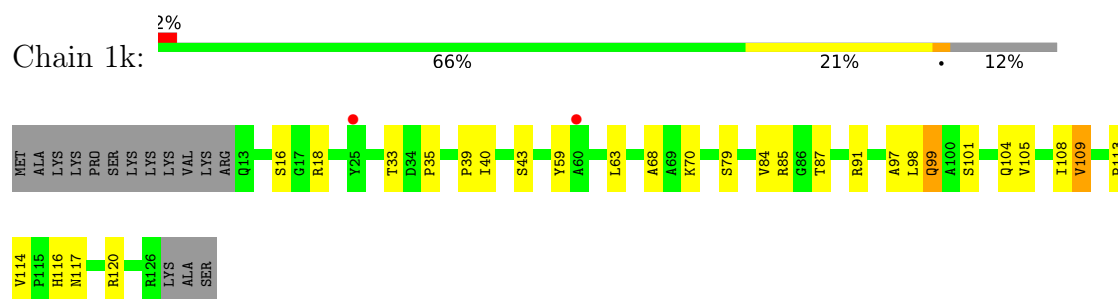
- Molecule 41: 30S ribosomal protein S10



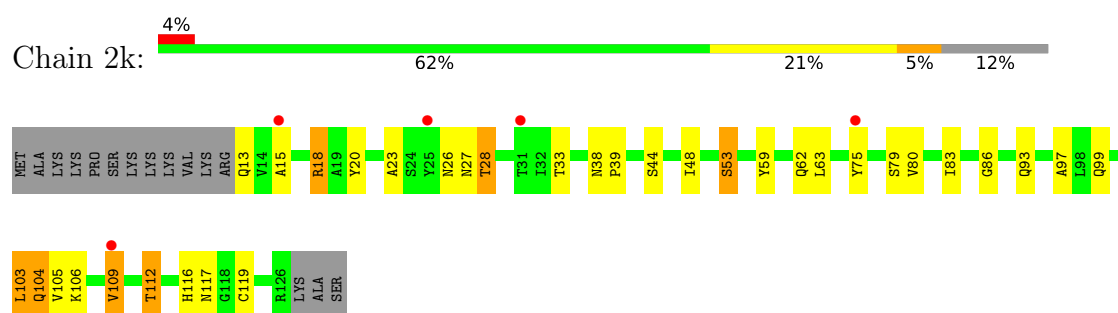
- Molecule 41: 30S ribosomal protein S10



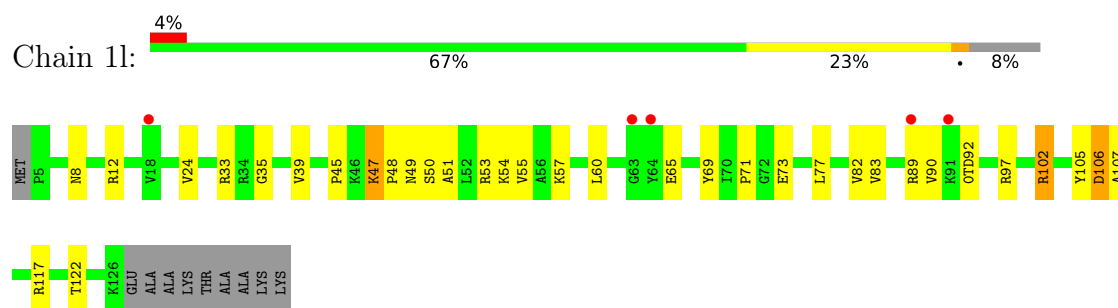
- Molecule 42: 30S ribosomal protein S11



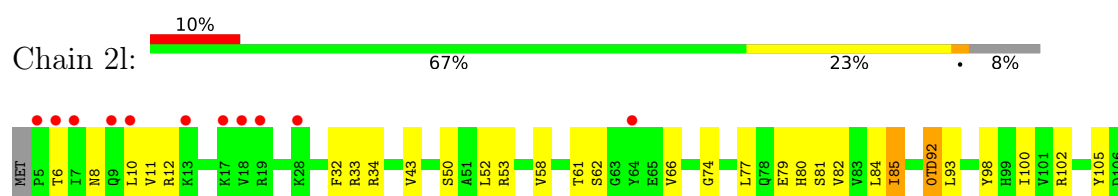
- Molecule 42: 30S ribosomal protein S11

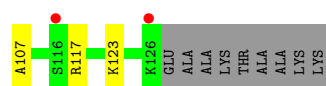


- Molecule 43: 30S ribosomal protein S12

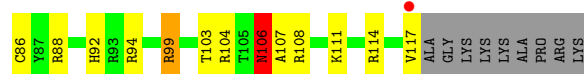
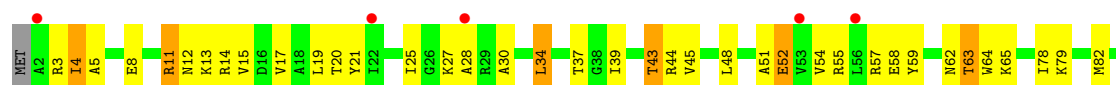


- Molecule 43: 30S ribosomal protein S12

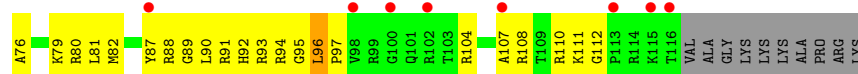
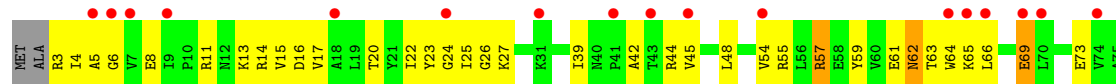




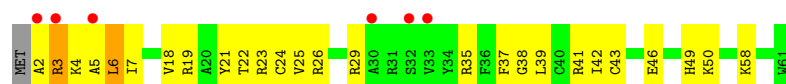
- Molecule 44: 30S ribosomal protein S13



- Molecule 44: 30S ribosomal protein S13



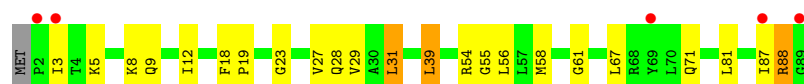
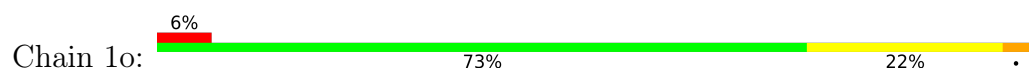
- Molecule 45: 30S ribosomal protein S14 type Z



- Molecule 45: 30S ribosomal protein S14 type Z

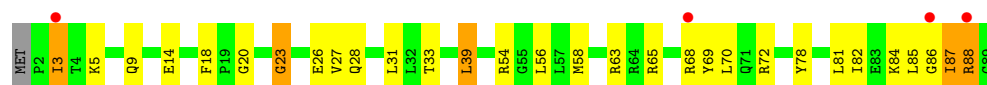


- Molecule 46: 30S ribosomal protein S15



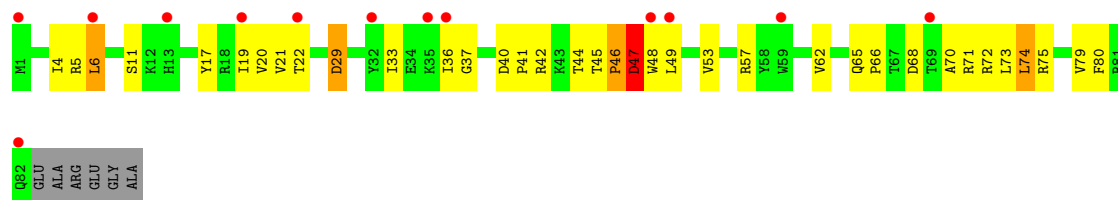
- Molecule 46: 30S ribosomal protein S15

Chain 2o: 



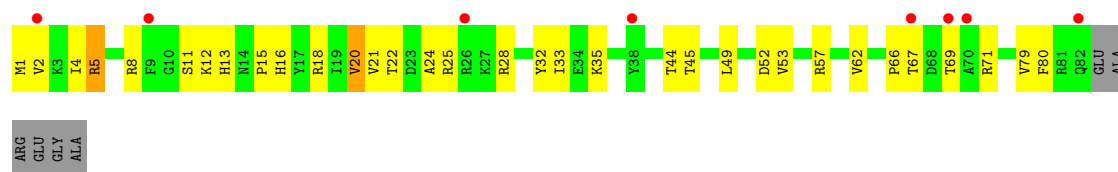
• Molecule 47: 30S ribosomal protein S16

Chain 1p: 



• Molecule 47: 30S ribosomal protein S16

Chain 2p: 



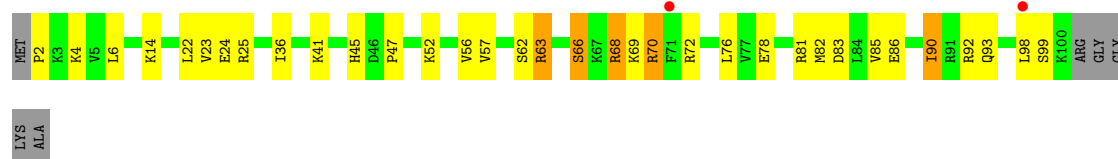
• Molecule 48: 30S ribosomal protein S17

Chain 1q: 



• Molecule 48: 30S ribosomal protein S17

Chain 2q: 



• Molecule 49: 30S ribosomal protein S18

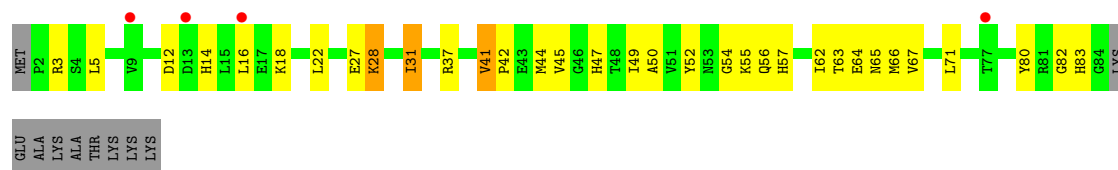
Chain 1r: 



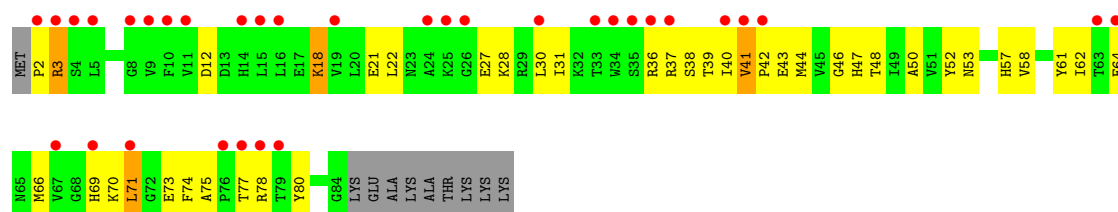
- Molecule 49: 30S ribosomal protein S18



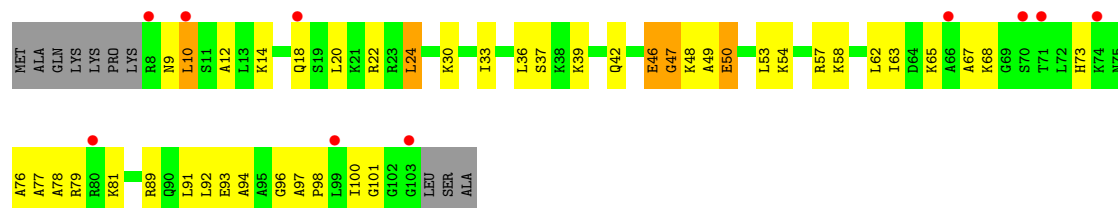
- Molecule 50: 30S ribosomal protein S19



- Molecule 50: 30S ribosomal protein S19

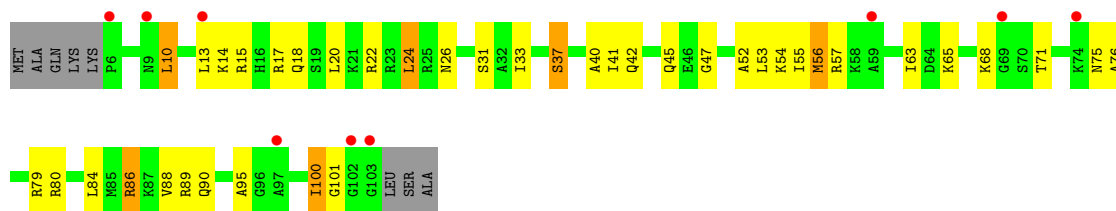


- Molecule 51: 30S ribosomal protein S20

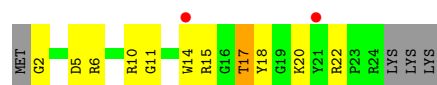
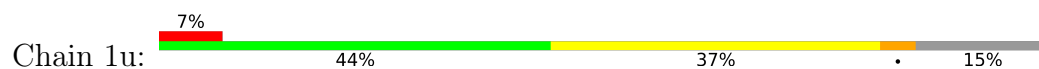


- Molecule 51: 30S ribosomal protein S20

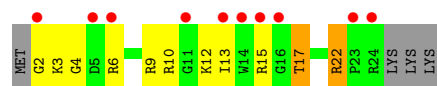
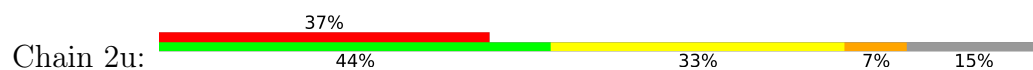




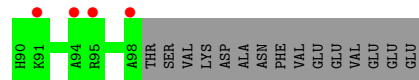
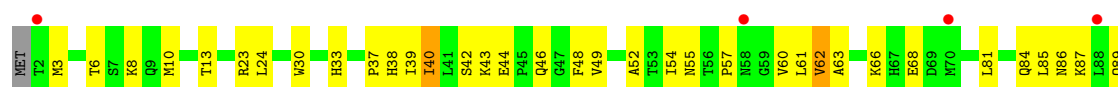
- Molecule 52: 30S ribosomal protein Thx



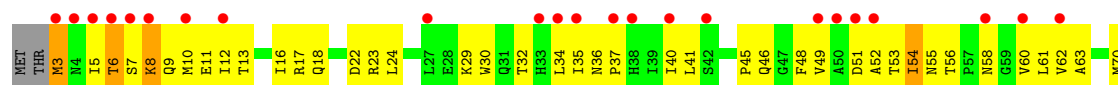
- Molecule 52: 30S ribosomal protein Thx



- 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	209.51Å 448.86Å 619.61Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	224.43 – 2.55 224.43 – 2.55	Depositor EDS
% Data completeness (in resolution range)	99.9 (224.43-2.55) 99.9 (224.43-2.55)	Depositor EDS
R_{merge}	0.26	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.15 (at 2.55Å)	Xtriage
Refinement program	PHENIX 1.8.2	Depositor
R, R_{free}	0.222 , 0.272 0.228 , 0.275	Depositor DCC
R_{free} test set	93828 reflections (5.02%)	wwPDB-VP
Wilson B-factor (Å ²)	53.8	Xtriage
Anisotropy	0.213	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.36 , 82.8	EDS
L-test for twinning ²	$\langle L \rangle = 0.34$, $\langle L^2 \rangle = 0.17$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.90	EDS
Total number of atoms	296819	wwPDB-VP
Average B, all atoms (Å ²)	59.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.59% 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: ERY, 2MU, MG, PSU, 0TD, 5MU, 7MG, MA6, M2G, UR3, SF4, 5MC, 2MA, 4OC, 2MG, ZN, MPD, OMG

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	0.30	0/69029	0.50	4/107746 (0.0%)
1	2A	0.24	0/68901	0.43	1/107544 (0.0%)
2	1B	0.25	0/2876	0.45	0/4486
2	2B	0.20	0/2878	0.38	0/4490
3	1D	0.29	0/2181	0.55	0/2940
3	2D	0.25	0/2186	0.48	0/2944
4	1E	0.28	0/1592	0.51	0/2149
4	2E	0.22	0/1592	0.50	1/2149 (0.0%)
5	1F	0.26	0/1619	0.47	0/2193
5	2F	0.22	0/1615	0.51	0/2188
6	1G	0.22	0/1451	0.45	0/1961
6	2G	0.22	0/1449	0.47	0/1957
7	1H	0.24	0/1356	0.43	0/1834
7	2H	0.19	0/1350	0.41	0/1826
8	1I	0.20	0/1109	0.43	0/1512
8	2I	0.18	0/1091	0.40	0/1490
9	1N	0.27	0/1148	0.48	0/1547
9	2N	0.21	0/1144	0.39	0/1543
10	1O	0.30	0/943	0.53	0/1269
10	2O	0.21	0/943	0.45	0/1269
11	1P	0.29	0/1152	0.55	0/1533
11	2P	0.23	0/1152	0.47	0/1533
12	1Q	0.28	0/1143	0.50	0/1527
12	2Q	0.21	0/1143	0.45	0/1527
13	1R	0.30	0/982	0.52	0/1312
13	2R	0.23	0/982	0.48	0/1312
14	1S	0.24	0/887	0.49	0/1180
14	2S	0.21	0/880	0.46	0/1172
15	1T	0.26	0/1105	0.50	0/1477
15	2T	0.23	0/1097	0.44	0/1468
16	1U	0.29	0/977	0.49	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
16	2U	0.20	0/977	0.41	0/1301
17	1V	0.26	0/786	0.46	0/1053
17	2V	0.20	0/782	0.46	0/1049
18	1W	0.28	0/897	0.49	0/1205
18	2W	0.23	0/897	0.43	0/1205
19	1X	0.27	0/764	0.55	0/1025
19	2X	0.22	0/764	0.45	0/1025
20	1Y	0.28	0/823	0.56	0/1099
20	2Y	0.22	0/823	0.46	0/1100
21	1Z	0.24	0/1620	0.44	0/2200
21	2Z	0.21	0/1590	0.46	0/2162
22	10	0.29	0/616	0.52	0/821
22	20	0.22	0/616	0.47	0/821
23	11	0.27	0/761	0.45	0/1013
23	21	0.24	0/766	0.49	0/1018
24	12	0.26	0/590	0.52	0/781
24	22	0.21	0/594	0.40	0/785
25	13	0.30	0/474	0.53	0/635
25	23	0.21	0/469	0.44	0/630
26	14	0.22	0/559	0.58	0/754
26	24	0.28	0/549	0.63	0/741
27	15	0.29	0/473	0.55	0/639
27	25	0.23	0/469	0.48	0/635
28	16	0.26	0/460	0.48	0/613
28	26	0.23	0/456	0.43	0/608
29	17	0.32	0/426	0.54	0/561
29	27	0.25	0/426	0.50	0/561
30	18	0.29	0/525	0.49	0/691
30	28	0.22	0/525	0.38	0/691
31	19	0.25	0/310	0.48	0/407
31	29	0.22	0/310	0.43	0/407
32	1a	0.21	0/35795	0.40	1/55864 (0.0%)
32	2a	0.21	0/35890	0.40	1/56012 (0.0%)
33	1b	0.21	0/1876	0.48	0/2533
33	2b	0.24	0/1860	0.49	0/2518
34	1c	0.20	0/1582	0.41	0/2137
34	2c	0.23	0/1566	0.43	0/2119
35	1d	0.21	0/1695	0.46	0/2274
35	2d	0.22	0/1698	0.48	0/2277
36	1e	0.22	0/1149	0.45	0/1548
36	2e	0.21	0/1149	0.45	0/1548
37	1f	0.21	0/827	0.41	0/1120
37	2f	0.20	0/829	0.43	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	1g	0.20	0/1254	0.40	0/1683
38	2g	0.19	0/1248	0.41	0/1676
39	1h	0.21	0/1118	0.43	0/1506
39	2h	0.18	0/1108	0.41	0/1494
40	1i	0.20	0/1005	0.47	0/1351
40	2i	0.21	0/985	0.47	0/1329
41	1j	0.19	0/732	0.43	0/993
41	2j	0.22	0/723	0.50	0/984
42	1k	0.18	0/849	0.40	0/1150
42	2k	0.19	0/848	0.50	0/1149
43	1l	0.21	0/937	0.44	0/1260
43	2l	0.20	0/937	0.41	0/1260
44	1m	0.22	0/924	0.46	0/1242
44	2m	0.23	0/905	0.53	0/1217
45	1n	0.21	0/501	0.49	0/664
45	2n	0.21	0/501	0.48	0/664
46	1o	0.21	0/739	0.40	0/985
46	2o	0.21	0/739	0.38	0/985
47	1p	0.20	0/697	0.46	0/939
47	2p	0.20	0/693	0.45	0/935
48	1q	0.22	0/836	0.47	0/1117
48	2q	0.21	0/836	0.46	0/1117
49	1r	0.22	0/560	0.45	0/746
49	2r	0.22	0/560	0.41	0/746
50	1s	0.20	0/663	0.44	0/895
50	2s	0.21	0/660	0.41	0/893
51	1t	0.24	0/734	0.50	0/969
51	2t	0.21	0/736	0.45	0/976
52	1u	0.21	0/203	0.42	0/266
52	2u	0.21	0/203	0.52	0/266
53	1y	0.22	0/776	0.41	0/1048
53	2y	0.18	0/761	0.37	0/1030
All	All	0.24	0/309937	0.45	8/463223 (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
21	2Z	0	1
26	24	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
40	1i	0	1
All	All	0	3

There are no bond length outliers.

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	1042	G	OP1-P-O3'	-9.78	78.67	108.00
1	1A	1042	G	OP2-P-O3'	-6.38	88.85	108.00
4	2E	142	GLY	N-CA-C	6.32	118.38	110.29
1	2A	1992	G	C2'-C3'-O3'	5.36	117.53	109.50
32	2a	266	G	P-O3'-C3'	5.30	128.15	120.20
1	1A	1300	U	C4'-C3'-O3'	5.12	117.08	109.40
32	1a	1442	G	P-O3'-C3'	5.11	125.83	119.70
1	1A	1300	U	P-O3'-C3'	5.09	127.83	120.20

There are no chirality outliers.

All (3) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
40	1i	59	PHE	Peptide
26	24	18	CYS	Peptide
21	2Z	136	PHE	Peptide

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1A	61869	0	31202	739	0
1	2A	61758	0	31148	905	0
2	1B	2572	0	1305	28	0
2	2B	2573	0	1306	40	0
3	1D	2131	0	2207	58	0
3	2D	2136	0	2218	59	0
4	1E	1559	0	1618	38	0
4	2E	1559	0	1618	38	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	1F	1584	0	1625	57	0
5	2F	1580	0	1619	55	0
6	1G	1426	0	1445	56	0
6	2G	1424	0	1441	67	0
7	1H	1330	0	1407	31	0
7	2H	1324	0	1402	41	0
8	1I	1094	0	1127	41	1
8	2I	1076	0	1094	34	0
9	1N	1121	0	1195	26	0
9	2N	1117	0	1184	25	0
10	1O	933	0	996	16	0
10	2O	933	0	996	26	0
11	1P	1135	0	1212	35	0
11	2P	1135	0	1212	36	0
12	1Q	1122	0	1179	30	0
12	2Q	1122	0	1179	35	0
13	1R	968	0	1033	29	0
13	2R	968	0	1033	23	0
14	1S	877	0	938	24	0
14	2S	870	0	923	39	0
15	1T	1091	0	1151	35	0
15	2T	1083	0	1136	26	0
16	1U	959	0	1019	19	0
16	2U	959	0	1019	26	0
17	1V	775	0	841	22	0
17	2V	771	0	829	12	0
18	1W	886	0	940	16	0
18	2W	886	0	940	18	0
19	1X	750	0	814	23	0
19	2X	750	0	814	18	0
20	1Y	810	0	892	18	0
20	2Y	810	0	887	27	0
21	1Z	1587	0	1598	38	0
21	2Z	1557	0	1564	59	0
22	10	608	0	622	17	0
22	20	608	0	622	17	0
23	11	754	0	823	22	0
23	21	759	0	837	24	0
24	12	588	0	643	12	0
24	22	592	0	654	22	0
25	13	469	0	518	13	0
25	23	464	0	514	9	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
26	14	546	0	522	30	0
26	24	536	0	514	34	0
27	15	459	0	476	16	0
27	25	455	0	465	10	0
28	16	453	0	473	13	0
28	26	449	0	469	10	0
29	17	418	0	467	12	0
29	27	418	0	467	10	0
30	18	517	0	582	20	0
30	28	517	0	582	13	0
31	19	307	0	335	5	0
31	29	307	0	335	14	0
32	1a	32246	0	16296	489	0
32	2a	32331	0	16339	601	1
33	1b	1842	0	1862	70	0
33	2b	1825	0	1828	82	0
34	1c	1558	0	1557	40	0
34	2c	1542	0	1517	75	0
35	1d	1665	0	1687	65	0
35	2d	1668	0	1703	67	0
36	1e	1133	0	1191	29	0
36	2e	1133	0	1191	43	0
37	1f	814	0	808	29	0
37	2f	816	0	808	12	0
38	1g	1235	0	1249	33	0
38	2g	1229	0	1238	41	0
39	1h	1098	0	1143	37	0
39	2h	1088	0	1126	37	0
40	1i	986	0	990	36	0
40	2i	966	0	953	59	0
41	1j	719	0	672	22	0
41	2j	710	0	661	37	0
42	1k	834	0	838	16	0
42	2k	833	0	836	23	0
43	1l	932	0	981	19	0
43	2l	932	0	981	17	0
44	1m	914	0	954	38	0
44	2m	895	0	920	41	0
45	1n	492	0	528	20	0
45	2n	492	0	529	36	0
46	1o	728	0	760	15	0
46	2o	728	0	760	20	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
47	1p	681	0	697	24	0
47	2p	677	0	686	22	0
48	1q	823	0	891	25	0
48	2q	823	0	891	22	0
49	1r	555	0	618	23	0
49	2r	555	0	618	11	0
50	1s	648	0	658	26	0
50	2s	645	0	635	32	0
51	1t	732	0	809	26	0
51	2t	733	0	795	24	0
52	1u	199	0	208	9	0
52	2u	199	0	208	9	0
53	1y	764	0	786	23	0
53	2y	749	0	757	38	0
54	10	7	0	0	0	0
54	11	4	0	0	0	0
54	13	4	0	0	0	0
54	15	6	0	0	0	0
54	17	5	0	0	0	0
54	18	2	0	0	0	0
54	19	1	0	0	0	0
54	1A	1020	0	0	0	0
54	1B	32	0	0	0	0
54	1D	16	0	0	0	0
54	1E	10	0	0	0	0
54	1F	18	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	6	0	0	0	0
54	1Q	4	0	0	0	0
54	1R	5	0	0	0	0
54	1T	3	0	0	0	0
54	1U	8	0	0	0	0
54	1V	7	0	0	0	0
54	1W	4	0	0	0	0
54	1Y	2	0	0	0	0
54	1Z	1	0	0	0	0
54	1a	274	0	0	0	0
54	1b	1	0	0	0	0
54	1d	5	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	1e	3	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	1l	2	0	0	0	0
54	1m	1	0	0	0	0
54	1n	3	0	0	0	0
54	1o	1	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	1	0	0	0	0
54	23	1	0	0	0	0
54	25	2	0	0	0	0
54	27	1	0	0	0	0
54	28	2	0	0	0	0
54	2A	733	0	0	0	0
54	2B	18	0	0	0	0
54	2D	10	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	2N	1	0	0	0	0
54	2O	2	0	0	0	0
54	2P	2	0	0	0	0
54	2Q	2	0	0	0	0
54	2R	2	0	0	0	0
54	2T	3	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
54	2a	183	0	0	0	0
54	2e	2	0	0	0	0
54	2f	1	0	0	0	0
54	2j	1	0	0	0	0
54	2l	1	0	0	0	0
54	2n	1	0	0	0	0
54	2o	1	0	0	0	0
54	2t	1	0	0	0	0
55	1A	51	0	67	4	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	2A	51	0	67	2	0
56	18	8	0	14	4	0
56	1A	8	0	14	2	0
56	1T	8	0	14	1	0
56	1a	8	0	14	3	0
56	2A	16	0	28	3	0
56	2B	8	0	14	0	0
57	1B	12	0	12	2	0
57	1F	12	0	12	4	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	1	0
59	2d	8	0	0	1	0
60	10	20	0	0	1	0
60	11	25	0	0	3	0
60	12	12	0	0	0	0
60	13	26	0	0	2	0
60	14	2	0	0	0	0
60	15	28	0	0	1	0
60	16	19	0	0	1	0
60	17	14	0	0	2	0
60	18	28	0	0	2	0
60	19	5	0	0	0	0
60	1A	3765	0	0	169	0
60	1B	106	0	0	2	0
60	1D	90	0	0	4	0
60	1E	74	0	0	5	0
60	1F	67	0	0	2	0
60	1G	18	0	0	0	0
60	1H	14	0	0	0	0
60	1I	8	0	0	2	0
60	1N	51	0	0	3	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	1O	26	0	0	2	0
60	1P	57	0	0	3	0
60	1Q	41	0	0	2	0
60	1R	32	0	0	3	0
60	1S	14	0	0	5	0
60	1T	33	0	0	4	0
60	1U	42	0	0	3	0
60	1V	39	0	0	0	0
60	1W	27	0	0	2	0
60	1X	24	0	0	2	0
60	1Y	18	0	0	2	0
60	1Z	13	0	0	1	0
60	1a	465	0	0	27	0
60	1d	9	0	0	1	0
60	1e	1	0	0	0	0
60	1f	2	0	0	0	0
60	1h	1	0	0	0	0
60	1i	1	0	0	0	0
60	1j	1	0	0	0	0
60	1k	1	0	0	0	0
60	1l	5	0	0	1	0
60	1m	3	0	0	1	0
60	1o	3	0	0	0	0
60	1p	1	0	0	0	0
60	1u	1	0	0	0	0
60	1y	3	0	0	0	0
60	20	10	0	0	0	0
60	21	20	0	0	1	0
60	22	2	0	0	1	0
60	23	3	0	0	0	0
60	25	6	0	0	2	0
60	26	5	0	0	0	0
60	27	9	0	0	1	0
60	28	9	0	0	0	0
60	29	1	0	0	0	0
60	2A	1860	0	0	176	0
60	2B	53	0	0	9	0
60	2D	40	0	0	4	0
60	2E	19	0	0	2	0
60	2F	22	0	0	1	0
60	2G	7	0	0	0	0
60	2H	4	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	2I	4	0	0	4	0
60	2N	3	0	0	1	0
60	2O	19	0	0	4	0
60	2P	19	0	0	3	0
60	2Q	18	0	0	1	0
60	2R	17	0	0	3	0
60	2S	3	0	0	0	0
60	2T	8	0	0	0	0
60	2U	16	0	0	3	0
60	2V	3	0	0	1	0
60	2W	13	0	0	0	0
60	2X	6	0	0	1	0
60	2Y	5	0	0	0	0
60	2Z	7	0	0	0	0
60	2a	303	0	0	34	0
60	2d	2	0	0	0	0
60	2e	1	0	0	0	0
60	2f	2	0	0	0	0
60	2j	2	0	0	1	0
60	2l	2	0	0	0	0
60	2m	3	0	0	0	0
60	2n	1	0	0	0	0
60	2o	2	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	2y	3	0	0	0	0
All	All	296819	0	194645	5059	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 11.

All (5059) 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	1.39	1.19
1:2A:2139:C:N4	1:2A:2152:G:H1	1.50	1.08
32:1a:1003:G:H2'	32:1a:1004:A:H4'	1.42	1.02
32:2a:1003:G:H2'	32:2a:1004:A:H4'	1.45	0.98
1:2A:2139:C:N3	1:2A:2152:G:N2	2.13	0.96
1:2A:2122:U:H3	1:2A:2176:A:H61	1.06	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2131:G:N7	1:2A:2158:A:N6	2.17	0.91
1:1A:1082:U:O4	1:1A:1086:A:N1	2.03	0.90
1:1A:2137:C:N4	1:1A:2154:G:H1	1.69	0.90
10:1O:35:VAL:HG11	10:1O:103:ALA:HB3	1.54	0.89
32:2a:70:G:H1	32:2a:99:U:H3	1.00	0.89
32:2a:559:A:H4'	32:2a:560:U:H3'	1.54	0.89
1:2A:1798:U:H5'	3:2D:259:THR:HG22	1.53	0.89
1:2A:792:G:O6	60:2A:3805:HOH:O	1.89	0.87
32:2a:1046:A:N6	32:2a:1211:U:O2	2.08	0.87
1:2A:777:A:O2'	60:2A:3807:HOH:O	1.94	0.86
1:2A:2427:C:OP1	60:2A:3806:HOH:O	1.92	0.86
1:2A:2527:C:N4	60:2A:3821:HOH:O	2.07	0.85
1:1A:517:C:OP1	27:15:16:ARG:NH2	2.10	0.85
11:2P:54:GLY:O	60:2P:301:HOH:O	1.95	0.85
32:2a:1129:C:N4	32:2a:1143:G:H1	1.75	0.84
1:2A:570:G:O6	60:2A:3808:HOH:O	1.94	0.84
1:1A:826:U:OP1	60:1A:4106:HOH:O	1.96	0.84
1:2A:826:U:OP1	60:2A:3806:HOH:O	1.94	0.84
32:2a:975:A:H4'	32:2a:976:G:H5''	1.60	0.84
1:1A:1634:A:OP2	60:1A:4105:HOH:O	1.94	0.84
1:2A:194:G:OP2	60:2A:3809:HOH:O	1.96	0.84
39:2h:85:ARG:NH2	39:2h:87:SER:O	2.11	0.84
32:2a:1346:A:H5''	40:2i:120:ARG:HH12	1.41	0.83
1:1A:2849:U:OP2	15:1T:95:ARG:NH1	2.11	0.83
32:1a:501:C:OP1	43:1l:117:ARG:NH2	2.12	0.83
1:1A:2258:C:OP1	60:1A:4107:HOH:O	1.97	0.83
10:2O:48:PRO:HB3	32:2a:1422:G:H5''	1.59	0.83
1:2A:1084:A:H3'	1:2A:1085:A:H4'	1.59	0.83
1:1A:2469:A:H4'	12:1Q:56:ARG:HG2	1.60	0.83
16:1U:33:ARG:NH1	60:1U:301:HOH:O	2.11	0.82
32:1a:975:A:H4'	32:1a:976:G:H5''	1.61	0.82
43:2l:32:PHE:HB3	43:2l:84:LEU:HD11	1.60	0.82
3:1D:242:ARG:HG3	3:1D:242:ARG:HH11	1.44	0.82
1:2A:991:C:OP2	60:2A:3810:HOH:O	1.98	0.82
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.13	0.82
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	1.59	0.82
32:2a:1182:G:H4'	32:2a:1183:A:H3'	1.62	0.82
1:2A:2104:G:N2	1:2A:2105:C:N3	2.26	0.81
1:1A:2137:C:N3	1:1A:2154:G:N2	2.28	0.81
1:1A:2499:C:OP1	60:1A:4108:HOH:O	1.98	0.81
1:1A:1315:C:OP2	60:1A:4109:HOH:O	1.99	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1670:C:OP2	60:1A:4110:HOH:O	1.99	0.81
1:1A:1843:C:H5'	3:1D:253:GLN:HE21	1.44	0.81
32:2a:1051:C:H42	32:2a:1207:2MG:HN1	1.28	0.81
1:2A:1314:C:OP1	60:2A:3812:HOH:O	1.99	0.81
3:2D:206:LEU:HD22	3:2D:211:ARG:HG2	1.61	0.81
1:1A:1047:G:H2'	1:1A:1110:G:H22	1.46	0.80
1:1A:2690:C:OP1	13:1R:17:ARG:NH2	2.14	0.80
1:2A:2122:U:H3	1:2A:2176:A:N6	1.78	0.80
32:1a:736:C:H5''	49:1r:72:ARG:HH21	1.46	0.80
1:2A:1648:C:OP1	60:2A:3813:HOH:O	2.00	0.80
1:2A:2128:C:H42	1:2A:2160:G:H1	1.29	0.80
1:2A:2640:G:O3'	9:2N:74:ARG:NH2	2.14	0.80
32:2a:664:G:H22	32:2a:741:G:H1	1.27	0.80
3:2D:69:ARG:HH21	3:2D:105:ILE:HD13	1.46	0.80
1:2A:83:G:H1	1:2A:102:G:HO2'	1.25	0.80
32:1a:612:C:O2	32:1a:629:G:N2	2.15	0.79
50:2s:50:ALA:HB1	50:2s:57:HIS:HB3	1.63	0.79
25:13:8:LEU:HD13	25:13:31:LEU:HD23	1.64	0.79
4:2E:110:GLY:O	60:2R:301:HOH:O	2.00	0.79
1:2A:631:A:OP1	11:2P:65:ARG:NH1	2.14	0.79
33:2b:119:GLU:HG3	33:2b:153:ARG:HH22	1.47	0.79
32:2a:977:A:N6	32:2a:1224:G:OP1	2.16	0.79
39:2h:51:VAL:HG11	39:2h:60:ARG:HD2	1.64	0.79
1:2A:1007:C:OP1	9:2N:35:ARG:NH1	2.16	0.79
1:2A:2444:G:OP1	60:2A:3814:HOH:O	2.00	0.79
1:2A:2705:A:OP2	60:2A:3811:HOH:O	1.99	0.79
2:2B:27:C:H5''	14:2S:54:LEU:HD11	1.64	0.79
48:1q:6:LEU:HD23	48:1q:23:VAL:HG11	1.63	0.79
44:2m:13:LYS:HA	44:2m:44:ARG:HH11	1.46	0.79
8:1I:130:TYR:HB3	8:1I:138:ILE:HB	1.63	0.79
46:1o:54:ARG:HG2	46:1o:58:MET:HE2	1.65	0.79
1:2A:848:G:OP1	60:2A:3816:HOH:O	2.01	0.79
1:1A:2102:U:O2	1:1A:2187:G:O6	2.00	0.78
34:2c:120:VAL:HA	34:2c:123:GLN:HB2	1.66	0.78
41:2j:38:ILE:HD13	41:2j:71:LEU:HD23	1.66	0.78
1:1A:2646:C:OP2	1:1A:2732:G:O2'	2.01	0.78
1:2A:630:G:OP2	30:28:15:LYS:NZ	2.17	0.78
32:2a:501:C:OP1	43:2l:117:ARG:NH2	2.16	0.78
1:1A:1865:G:OP1	60:1A:4113:HOH:O	2.01	0.78
43:1l:57:LYS:HE2	43:1l:65:GLU:HG2	1.66	0.78
1:1A:1669:A:OP2	60:1A:4110:HOH:O	2.01	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2386:C:O2'	60:1A:4111:HOH:O	2.01	0.78
42:1k:99:GLN:HG3	42:1k:105:VAL:HG21	1.66	0.78
32:2a:573:A:OP2	60:2a:3205:HOH:O	2.01	0.78
1:1A:2137:C:H42	1:1A:2154:G:H1	1.25	0.78
3:2D:134:ARG:NH1	3:2D:188:GLU:OE2	2.15	0.78
1:1A:1203:G:O6	60:1A:4114:HOH:O	2.02	0.77
32:1a:1030(C):G:N7	32:1a:1031:G:N2	2.32	0.77
32:2a:937:A:OP2	60:2a:3206:HOH:O	2.02	0.77
36:2e:144:THR:H	36:2e:147:ASP:HB2	1.50	0.77
32:1a:1291:G:OP1	38:1g:37:ASN:ND2	2.17	0.77
51:2t:65:LYS:HA	51:2t:68:LYS:HD3	1.65	0.77
1:2A:1342:A:OP2	60:2A:3820:HOH:O	2.03	0.77
44:1m:11:ARG:HA	44:1m:45:VAL:HB	1.65	0.77
1:2A:1281:G:N7	60:2A:3884:HOH:O	2.17	0.77
1:2A:2453:A:OP1	60:2A:3818:HOH:O	2.02	0.77
32:2a:578:C:OP1	60:2a:3208:HOH:O	2.03	0.77
1:1A:2867:G:OP2	15:1T:119:LYS:NZ	2.14	0.77
1:1A:521:G:O6	60:1A:4115:HOH:O	2.03	0.77
1:1A:2822:G:OP2	60:1A:4112:HOH:O	2.01	0.77
9:1N:12:ARG:NH1	9:1N:50:ASP:OD2	2.17	0.77
1:2A:1771:C:OP1	60:2A:3815:HOH:O	2.01	0.77
1:2A:962:G:OP1	60:2A:3817:HOH:O	2.01	0.77
1:2A:2141:G:O6	1:2A:2150:U:O2	2.03	0.77
1:2A:2407:G:OP1	60:2A:3819:HOH:O	2.02	0.77
1:1A:2308:G:O2'	1:1A:2310:A:N7	2.17	0.77
33:2b:166:ASP:HB3	33:2b:169:LYS:HB3	1.65	0.77
42:2k:62:GLN:HB2	42:2k:93:GLN:HG3	1.67	0.77
1:1A:2427:C:OP1	60:1A:4106:HOH:O	2.03	0.76
1:2A:2102:U:O2	1:2A:2187:G:O6	2.03	0.76
32:2a:1047:G:H5''	45:2n:4:LYS:HD2	1.68	0.76
1:1A:1085:A:O2'	1:1A:1104:C:O2'	2.02	0.76
1:2A:2104:G:N7	1:2A:2186:G:N2	2.32	0.76
32:2a:942:G:N2	40:2i:124:GLN:OE1	2.18	0.76
13:1R:33:ARG:NH1	13:1R:115:GLU:OE1	2.18	0.76
19:1X:80:ILE:O	60:1X:101:HOH:O	2.02	0.76
1:2A:280:C:O2	1:2A:360:G:N2	2.18	0.76
1:2A:2156:G:N7	1:2A:2157:G:N2	2.32	0.76
1:1A:326:G:N7	60:1A:4170:HOH:O	2.16	0.76
20:1Y:92:ASN:HB2	20:1Y:94:LYS:H	1.50	0.76
1:1A:2623:G:OP1	60:1A:4116:HOH:O	2.03	0.76
5:2F:165:ARG:HA	5:2F:168:ARG:HD2	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1500:A:OP1	60:2a:3207:HOH:O	2.02	0.76
1:2A:2237:G:OP1	60:2A:3822:HOH:O	2.04	0.76
33:2b:91:PRO:HG3	33:2b:155:LEU:HD13	1.67	0.76
1:1A:1300:U:H4'	1:1A:1301:A:H5'	1.67	0.76
1:1A:2448:A:OP1	60:1A:4108:HOH:O	2.04	0.76
1:1A:1227:G:OP2	16:1U:16:LYS:NZ	2.18	0.76
33:1b:82:ARG:NH1	33:1b:92:TYR:OH	2.19	0.76
1:2A:2807:G:N2	1:2A:2893:G:O6	2.18	0.76
39:1h:120:THR:H	39:1h:123:GLU:HB2	1.49	0.76
1:2A:2120:G:H1	1:2A:2178:C:H42	1.32	0.76
6:1G:114:ILE:HG12	6:1G:140:ILE:HG12	1.68	0.75
1:2A:1076:C:H1'	1:2A:1077:A:H5'	1.66	0.75
1:2A:1823:G:O2'	60:2A:3823:HOH:O	2.04	0.75
33:2b:122:PHE:HA	33:2b:127:ILE:HG12	1.68	0.75
1:1A:2109:U:H3	1:1A:2180:U:H3	1.34	0.75
1:2A:2310:A:H61	6:2G:79:ASN:HD22	1.33	0.75
32:1a:664:G:H22	32:1a:741:G:H1	1.34	0.75
32:1a:922:G:H4'	36:1e:20:GLN:HA	1.69	0.75
26:24:9:LEU:HG	26:24:27:THR:HG23	1.68	0.75
1:1A:1332:G:OP1	60:1A:4109:HOH:O	2.03	0.75
32:1a:982:U:H5''	45:1n:6:LEU:HD21	1.68	0.75
51:2t:86:ARG:HH21	51:2t:90:GLN:HE22	1.34	0.75
29:17:24:THR:HG23	29:17:27:GLY:H	1.50	0.75
1:2A:1602:U:O4	60:2A:3820:HOH:O	2.04	0.75
1:1A:1041:C:H42	1:1A:1114:G:H1	1.33	0.74
2:1B:28:C:N4	2:1B:56:G:O6	2.17	0.74
32:1a:1086:U:H3	32:1a:1099:G:H22	1.35	0.74
32:1a:1373:G:H5''	38:1g:36:LYS:HE2	1.69	0.74
33:2b:155:LEU:HD21	33:2b:159:PRO:HG3	1.69	0.74
36:2e:140:ARG:O	36:2e:143:ARG:NH2	2.19	0.74
1:2A:1647:G:OP1	60:2A:3813:HOH:O	2.05	0.74
1:2A:2822:G:OP2	60:2A:3824:HOH:O	2.05	0.74
21:2Z:19:ARG:NH1	21:2Z:84:GLU:O	2.20	0.74
32:2a:1030(A):G:H21	32:2a:1030(C):G:H3'	1.52	0.74
38:1g:27:ILE:HD12	38:1g:40:ALA:HA	1.69	0.74
40:1i:17:VAL:HG21	40:1i:81:ILE:HG22	1.69	0.74
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.69	0.74
1:2A:2448:A:OP1	60:2A:3808:HOH:O	2.05	0.74
1:1A:2464:C:O2'	60:1A:4119:HOH:O	2.06	0.74
32:1a:1189:C:OP1	41:1j:51:ARG:NH2	2.20	0.74
2:2B:43:C:H5''	26:24:1:MET:HG2	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:2F:132:VAL:HG21	5:2F:163:VAL:HG22	1.69	0.74
13:2R:103:ARG:NH1	13:2R:108:GLY:O	2.20	0.74
42:2k:62:GLN:HG3	42:2k:97:ALA:HB2	1.69	0.74
1:1A:2029:G:N7	60:1A:4212:HOH:O	2.21	0.74
1:2A:511:U:OP2	60:2A:3827:HOH:O	2.06	0.74
1:2A:2536:G:O6	60:2A:3821:HOH:O	2.03	0.74
1:1A:1798:U:H5'	3:1D:259:THR:HG22	1.69	0.74
32:1a:407:G:H5''	35:1d:115:ARG:HB3	1.68	0.74
43:1l:71:PRO:O	43:1l:102:ARG:NH1	2.21	0.74
1:2A:963:U:OP2	60:2A:3817:HOH:O	2.05	0.74
1:1A:2116:G:OP2	1:1A:2166:G:N2	2.20	0.73
1:2A:81:G:N7	60:2A:3924:HOH:O	2.21	0.73
22:20:11:ARG:O	22:20:14:ARG:NH2	2.21	0.73
8:1I:77:LEU:HD12	8:1I:104:GLN:HE21	1.53	0.73
1:1A:123:G:OP2	60:1A:4117:HOH:O	2.05	0.73
1:1A:1271:G:OP2	60:1A:4118:HOH:O	2.05	0.73
33:2b:15:VAL:HB	33:2b:209:ARG:HB3	1.70	0.73
1:2A:1041:C:H42	1:2A:1114:G:H1	1.37	0.73
1:1A:1542:A:O2'	60:1A:4120:HOH:O	2.06	0.73
34:1c:179:ARG:NH1	34:1c:206:GLU:OE1	2.21	0.73
41:2j:49:VAL:HG23	45:2n:41:ARG:HB2	1.71	0.73
1:2A:691:C:OP1	60:2A:3829:HOH:O	2.07	0.73
6:1G:83:ARG:H	6:1G:86:MET:HE3	1.53	0.73
1:2A:1495:A:OP2	60:2A:3825:HOH:O	2.05	0.73
32:2a:1147:C:O2	40:2i:16:ARG:NH2	2.21	0.73
45:2n:9:LYS:HG3	45:2n:12:ARG:HH21	1.54	0.73
32:1a:677:U:H3	32:1a:713:G:H22	1.37	0.73
48:1q:66:SER:O	48:1q:70:ARG:NH1	2.21	0.73
32:2a:547:A:OP1	60:2a:3209:HOH:O	2.07	0.73
32:2a:954:G:H21	32:2a:1227:A:H62	1.36	0.73
1:2A:1352:U:OP2	60:2A:3828:HOH:O	2.06	0.73
1:2A:2749:A:OP1	7:2H:3:ARG:NH1	2.19	0.73
12:2Q:137:TYR:HB3	21:2Z:76:LEU:HD11	1.70	0.73
34:2c:36:ASP:HA	34:2c:39:ILE:HD12	1.70	0.73
6:1G:161:THR:HG22	6:1G:163:ALA:H	1.54	0.72
1:2A:1618:A:OP2	60:2A:3826:HOH:O	2.05	0.72
1:2A:2379:G:O2'	14:2S:17:ARG:NH1	2.19	0.72
32:2a:266:G:O2'	32:2a:267:C:OP2	2.06	0.72
1:2A:805:G:OP1	60:2A:3830:HOH:O	2.07	0.72
10:2O:86:ILE:O	60:2O:301:HOH:O	2.06	0.72
1:1A:1036:G:OP2	7:1H:59:ARG:NH2	2.21	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2251:OMG:OP2	60:1A:4121:HOH:O	2.06	0.72
3:1D:71:ASP:HB3	3:1D:103:ARG:HH22	1.55	0.72
23:11:56:GLN:HE21	23:11:87:PRO:HD3	1.53	0.72
32:2a:558:G:OP1	60:2a:3210:HOH:O	2.07	0.72
8:1I:116:LEU:HD13	8:1I:128:LEU:HD11	1.70	0.72
1:2A:2430:A:OP2	60:2A:3831:HOH:O	2.07	0.72
50:2s:38:SER:HB3	50:2s:71:LEU:HD22	1.71	0.72
1:1A:739:G:OP1	60:1A:4122:HOH:O	2.08	0.72
1:2A:301:G:OP2	20:2Y:84:ARG:NH2	2.22	0.72
1:2A:495:G:N3	18:2W:61:ASN:ND2	2.37	0.72
1:2A:948:G:OP1	60:2A:3817:HOH:O	2.07	0.72
1:2A:1063:G:H1	1:2A:1075:C:H42	1.34	0.72
1:2A:1632:A:N7	60:2A:3907:HOH:O	2.23	0.72
5:1F:164:ARG:HD2	57:1F:319:ARG:HH12	1.54	0.72
1:2A:2131:G:H5''	1:2A:2132:U:H5'	1.71	0.72
20:2Y:82:PRO:O	20:2Y:101:LYS:NZ	2.23	0.72
34:2c:16:ARG:HH21	34:2c:54:ARG:HH12	1.35	0.72
1:1A:563:G:N7	60:1A:4221:HOH:O	2.22	0.72
32:1a:201:C:H42	32:1a:216:G:H1	1.36	0.72
35:1d:172:PRO:HB2	35:1d:187:ARG:HH21	1.53	0.72
1:2A:2425:A:N7	60:2A:3919:HOH:O	2.21	0.72
6:2G:16:ARG:HH22	6:2G:28:VAL:HB	1.55	0.72
32:2a:19:C:O2'	60:2a:3211:HOH:O	2.08	0.72
1:2A:2659:G:N2	1:2A:2662:A:OP2	2.20	0.72
1:1A:2316:C:O2'	6:1G:128:ARG:NH2	2.23	0.71
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.71	0.71
32:2a:1221:G:OP1	32:2a:1320:C:N4	2.23	0.71
33:1b:15:VAL:HG13	33:1b:209:ARG:HB3	1.72	0.71
1:2A:509:C:OP1	60:2A:3835:HOH:O	2.08	0.71
1:2A:1009:A:OP2	60:2N:301:HOH:O	2.08	0.71
1:2A:1063:G:H1	1:2A:1075:C:N4	1.89	0.71
24:22:65:ASN:OD1	24:22:69:ARG:NH1	2.23	0.71
32:2a:390:C:O3'	47:2p:28:ARG:NH2	2.23	0.71
32:2a:692:U:OP2	42:2k:26:ASN:ND2	2.22	0.71
34:2c:79:ARG:H	34:2c:82:GLU:HB3	1.53	0.71
46:2o:39:LEU:HD13	46:2o:56:LEU:HB2	1.71	0.71
53:2y:48:PHE:HD2	53:2y:70:MET:HB2	1.56	0.71
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.71	0.71
32:1a:803:G:OP1	60:1a:1905:HOH:O	2.09	0.71
32:1a:964:A:OP1	60:1a:1904:HOH:O	2.08	0.71
32:1a:1402:4OC:HM22	32:1a:1403:C:H5'	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2260:C:OP1	60:2A:3832:HOH:O	2.07	0.71
1:2A:2504:U:OP2	60:2A:3833:HOH:O	2.08	0.71
5:2F:9:ILE:HG12	5:2F:123:LEU:HD23	1.73	0.71
7:2H:8:PRO:HB3	7:2H:51:ARG:HG2	1.70	0.71
32:2a:1108:G:H5'	34:2c:176:HIS:HD2	1.54	0.71
38:2g:35:LYS:HD3	38:2g:38:LEU:HB2	1.72	0.71
52:2u:17:THR:O	52:2u:22:ARG:NH1	2.23	0.71
1:1A:1173:G:O2'	1:1A:1174:A:O5'	2.08	0.71
5:1F:53:THR:HG23	5:1F:55:GLY:H	1.55	0.71
1:1A:83:G:OP1	60:1A:4123:HOH:O	2.08	0.71
9:1N:100:GLU:OE2	60:1N:301:HOH:O	2.08	0.71
44:2m:24:GLY:HA3	44:2m:66:LEU:HD22	1.73	0.71
48:2q:57:VAL:HG12	48:2q:76:LEU:HA	1.71	0.71
32:1a:1077:G:N2	32:1a:1080:A:OP2	2.23	0.70
1:2A:2022:U:OP1	60:2A:3839:HOH:O	2.09	0.70
1:1A:631:A:OP1	11:1P:65:ARG:NH1	2.23	0.70
51:1t:57:ARG:NH1	51:1t:101:GLY:O	2.24	0.70
1:2A:1920:4OC:HM22	1:2A:1921:G:H5'	1.74	0.70
32:2a:626:U:OP1	47:2p:35:LYS:NZ	2.24	0.70
32:1a:289:G:OP2	60:1a:1903:HOH:O	2.08	0.70
1:2A:1066:U:O2'	1:2A:1068:G:OP2	2.06	0.70
32:1a:572:A:OP2	60:1a:1909:HOH:O	2.10	0.70
32:1a:1340:A:OP2	60:1a:1910:HOH:O	2.10	0.70
1:2A:1890:A:OP2	60:2A:3837:HOH:O	2.09	0.70
10:2O:66:LYS:NZ	60:2O:304:HOH:O	2.23	0.70
32:2a:1373:G:H5''	38:2g:36:LYS:HE3	1.73	0.70
6:1G:79:ASN:OD1	6:1G:79:ASN:N	2.23	0.70
36:1e:79:GLU:HG2	36:1e:92:LYS:HE2	1.73	0.70
46:1o:39:LEU:HD13	46:1o:56:LEU:HB2	1.74	0.70
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.26	0.70
50:2s:70:LYS:HB2	50:2s:73:GLU:HG3	1.72	0.70
1:1A:429:A:OP2	60:1A:4125:HOH:O	2.09	0.70
1:1A:371:A:O2'	60:1A:4124:HOH:O	2.08	0.70
1:1A:1058:G:O6	1:1A:1080:C:N3	2.24	0.70
1:1A:1176:G:H4'	1:1A:1177:A:OP1	1.90	0.70
1:2A:1031:G:H5''	31:29:8:LYS:HE3	1.72	0.70
2:2B:25:A:OP1	60:2B:302:HOH:O	2.09	0.70
40:2i:14:VAL:HG23	40:2i:66:ARG:HB2	1.74	0.70
1:1A:330:A:H2	1:1A:1210:A:HO2'	1.37	0.70
1:1A:749:C:OP2	60:1A:4129:HOH:O	2.10	0.70
1:1A:1468:C:OP1	60:1A:4127:HOH:O	2.10	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1667:G:O2'	1:2A:1991:U:O4	2.08	0.70
1:2A:1987:G:OP2	60:2A:3841:HOH:O	2.09	0.70
1:2A:2103:C:N4	1:2A:2185:C:H42	1.90	0.70
32:2a:1518:MA6:H93	32:2a:1519:MA6:H102	1.72	0.70
35:2d:98:GLU:OE1	35:2d:107:ARG:NH2	2.24	0.70
1:2A:2748:A:H5'	7:2H:4:ILE:HD12	1.73	0.70
1:1A:847:U:OP2	60:1A:4126:HOH:O	2.09	0.70
1:1A:1957:C:OP1	60:1A:4128:HOH:O	2.10	0.70
32:1a:548:G:OP1	60:1a:1908:HOH:O	2.09	0.70
32:1a:1238:A:OP2	60:1a:1906:HOH:O	2.09	0.70
1:2A:1024:G:OP2	60:2A:3843:HOH:O	2.10	0.70
1:2A:2006:C:OP2	60:2A:3844:HOH:O	2.10	0.70
34:2c:57:ILE:HG12	34:2c:66:VAL:HG22	1.73	0.70
32:1a:559:A:OP1	36:1e:126:ARG:NH2	2.25	0.69
48:1q:60:ILE:HB	48:1q:74:LEU:HD12	1.73	0.69
1:2A:1057:A:N6	1:2A:1087:G:OP1	2.25	0.69
1:2A:1153:C:OP2	60:2A:3836:HOH:O	2.09	0.69
40:1i:50:LEU:HD13	40:1i:56:LEU:HA	1.73	0.69
1:2A:990:A:OP2	60:2A:3810:HOH:O	2.10	0.69
8:2I:93:THR:HG22	8:2I:119:PRO:HB3	1.74	0.69
12:2Q:29:PHE:O	21:2Z:122:ARG:NH2	2.24	0.69
1:2A:412:A:OP1	60:2A:3845:HOH:O	2.10	0.69
1:2A:1069:A:H2'	1:2A:1073:A:N7	2.07	0.69
5:2F:20:LEU:HD23	5:2F:21:ALA:H	1.57	0.69
33:2b:165:VAL:HG23	33:2b:166:ASP:H	1.57	0.69
32:2a:1004:A:N7	32:2a:1037:C:H2'	2.07	0.69
32:2a:1376:U:O4	38:2g:10:ARG:NH1	2.25	0.69
1:2A:271(L):U:H5'	8:2I:50:ARG:HH22	1.56	0.69
1:2A:955:C:OP1	12:2Q:87:LYS:NZ	2.24	0.69
32:2a:1217:C:OP1	45:2n:9:LYS:NZ	2.26	0.69
35:2d:150:GLU:HA	35:2d:153:ARG:HE	1.56	0.69
37:1f:22:GLU:OE2	37:1f:82:ARG:NH2	2.25	0.69
1:2A:1266:G:O5'	18:2W:15:ARG:NH2	2.26	0.69
1:2A:2227:A:O2'	60:2A:3840:HOH:O	2.09	0.69
5:2F:158:THR:O	5:2F:164:ARG:NH1	2.25	0.69
10:1O:31:LYS:O	60:1O:302:HOH:O	2.10	0.69
23:11:41:ARG:O	60:11:201:HOH:O	2.10	0.69
32:1a:1198:G:OP1	60:1a:1911:HOH:O	2.11	0.69
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.73	0.69
26:24:59:PHE:HA	26:24:61:ARG:N	2.06	0.69
2:1B:77:U:OP1	21:1Z:19:ARG:NH2	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:69:ARG:HE	3:1D:130:ALA:HB2	1.56	0.69
51:1t:10:LEU:HB3	51:1t:12:ALA:H	1.57	0.69
6:2G:101:ILE:HD13	26:24:25:TYR:HB2	1.74	0.69
15:2T:30:VAL:HG22	15:2T:86:ILE:HG12	1.75	0.69
38:2g:111:ARG:NH1	38:2g:113:GLU:OE2	2.24	0.69
1:1A:400:G:N7	60:1A:4261:HOH:O	2.25	0.69
13:1R:69:ASP:O	60:1R:301:HOH:O	2.09	0.69
41:1j:49:VAL:HG23	45:1n:41:ARG:HB2	1.73	0.69
1:2A:2584:U:H2'	1:2A:2585:U:H2'	1.75	0.69
2:2B:66:A:H61	2:2B:109:C:H5'	1.58	0.69
34:2c:35:GLU:HA	34:2c:38:ARG:HD2	1.74	0.69
36:2e:77:PRO:HG2	36:2e:78:HIS:HD2	1.57	0.69
1:1A:376:C:OP1	60:1A:4131:HOH:O	2.10	0.69
1:1A:1031:G:OP1	60:1A:4133:HOH:O	2.11	0.69
1:1A:2875:C:OP1	15:1T:3:ARG:NH1	2.23	0.69
15:1T:39:ARG:NH1	60:1T:303:HOH:O	2.26	0.69
32:1a:826:C:O2	39:1h:15:ASN:ND2	2.26	0.69
35:2d:18:LYS:NZ	35:2d:31:CYS:SG	2.65	0.69
8:1I:69:LYS:HG3	8:1I:138:ILE:HG12	1.75	0.68
30:18:62:LEU:HB3	30:18:65:GLU:HG3	1.74	0.68
32:1a:1069:C:OP2	60:1a:1907:HOH:O	2.09	0.68
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.26	0.68
1:2A:995:C:OP2	16:2U:54:LYS:NZ	2.24	0.68
1:1A:995:C:N4	60:1A:4165:HOH:O	2.16	0.68
1:2A:530:G:O6	60:2A:3839:HOH:O	2.09	0.68
4:2E:199:ARG:NH1	60:2E:401:HOH:O	2.25	0.68
36:2e:152:ARG:HB3	39:2h:43:GLY:HA3	1.75	0.68
1:2A:1017:G:O6	60:2A:3834:HOH:O	2.08	0.68
51:2t:33:ILE:O	51:2t:37:SER:OG	2.10	0.68
4:1E:70:ALA:O	4:1E:72:VAL:N	2.27	0.68
32:1a:73:G:H1	32:1a:96:U:H3	1.40	0.68
1:2A:15:G:OP2	60:2A:3846:HOH:O	2.10	0.68
1:2A:2139:C:H42	1:2A:2152:G:H1	0.77	0.68
36:2e:37:ARG:HH12	36:2e:111:GLU:HG2	1.58	0.68
1:1A:2014:A:OP2	60:1A:4141:HOH:O	2.12	0.68
21:1Z:52:SER:O	60:1Z:401:HOH:O	2.11	0.68
32:2a:533:A:O2'	32:2a:535:A:OP2	2.12	0.68
1:1A:2759:G:N7	60:1A:4304:HOH:O	2.27	0.68
23:11:52:ARG:NH2	23:11:55:GLY:O	2.27	0.68
32:1a:38:G:H22	32:1a:397:A:H5'	1.58	0.68
46:1o:39:LEU:HB3	46:1o:56:LEU:HD12	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1257:C:OP2	60:2A:3849:HOH:O	2.11	0.68
1:2A:1271:G:OP2	60:2A:3813:HOH:O	2.11	0.68
1:2A:2136:C:C2	1:2A:2155:G:N2	2.60	0.68
32:2a:255:G:OP1	48:2q:69:LYS:NZ	2.25	0.68
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.75	0.68
32:2a:976:G:H5'	32:2a:1358:U:O2'	1.93	0.68
1:1A:1143:A:OP1	9:1N:25:ARG:NH2	2.27	0.68
17:1V:40:LEU:HB2	17:1V:46:VAL:HG13	1.75	0.68
22:10:27:GLU:HG3	22:10:68:GLU:HA	1.76	0.68
1:1A:802:A:OP1	60:1A:4143:HOH:O	2.12	0.68
1:1A:2509:G:N7	60:1A:4262:HOH:O	2.25	0.68
33:1b:10:LEU:HD12	33:1b:48:MET:HE3	1.74	0.68
21:2Z:10:ARG:NH1	21:2Z:26:GLY:O	2.26	0.68
15:1T:1:MET:HE2	15:1T:3:ARG:HG2	1.75	0.68
1:1A:915:C:OP2	60:1A:4132:HOH:O	2.11	0.68
50:1s:63:THR:OG1	50:1s:65:ASN:OD1	2.12	0.68
1:2A:585:G:OP2	60:2A:3855:HOH:O	2.12	0.68
1:2A:762:U:OP2	60:2A:3848:HOH:O	2.11	0.68
2:2B:13:A:N1	2:2B:69:G:O2'	2.24	0.68
1:2A:2596:U:OP2	60:2A:3851:HOH:O	2.12	0.67
32:1a:189(A):C:H42	32:1a:189(J):G:H1	1.39	0.67
32:1a:1304:G:OP2	60:1a:1912:HOH:O	2.11	0.67
35:1d:108:LEU:HD21	35:1d:183:GLY:HA3	1.76	0.67
1:2A:131:G:OP1	60:2A:3852:HOH:O	2.12	0.67
39:1h:95:VAL:HB	39:1h:99:GLU:HG3	1.75	0.67
1:2A:1371:G:O6	60:2A:3847:HOH:O	2.11	0.67
1:2A:1568:G:N7	60:2A:3989:HOH:O	2.28	0.67
1:1A:379:G:OP1	60:1A:4137:HOH:O	2.11	0.67
1:1A:1721:G:N1	1:1A:1739:U:OP2	2.28	0.67
1:1A:2821:A:OP2	60:1A:4112:HOH:O	2.13	0.67
20:1Y:28:LYS:HG3	20:1Y:40:GLU:HG3	1.74	0.67
1:2A:1937:A:O2'	60:2A:3838:HOH:O	2.09	0.67
1:2A:2126:A:H4'	1:2A:2127:G:O5'	1.95	0.67
1:2A:2206:G:H5''	1:2A:2207:G:C8	2.29	0.67
32:2a:1505:G:OP2	60:2a:3213:HOH:O	2.12	0.67
29:17:34:ARG:NH2	60:17:201:HOH:O	2.12	0.67
32:1a:60:A:H4'	32:1a:61:G:H5'	1.77	0.67
35:1d:18:LYS:NZ	35:1d:31:CYS:SG	2.64	0.67
53:1y:49:VAL:HG22	53:1y:66:LYS:HG2	1.76	0.67
1:2A:2109:U:H2'	1:2A:2110:G:C8	2.30	0.67
32:2a:656:C:O2'	46:2o:28:GLN:NE2	2.26	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1376:U:H2'	32:2a:1377:A:H8	1.59	0.67
1:2A:2051:A:OP2	60:2A:3850:HOH:O	2.11	0.67
32:2a:444:C:H42	32:2a:490:G:H1	1.43	0.67
1:1A:256:A:OP2	60:1A:4134:HOH:O	2.11	0.67
1:1A:1671:U:O4	60:1A:4110:HOH:O	2.11	0.67
1:1A:2059:A:OP2	60:1A:4136:HOH:O	2.11	0.67
1:2A:2637:U:OP1	4:2E:82:ARG:NH1	2.28	0.67
60:2A:3829:HOH:O	3:2D:213:ARG:NH2	2.27	0.67
16:2U:5:LYS:NZ	60:2U:202:HOH:O	2.27	0.67
32:2a:567:G:OP2	60:2a:3212:HOH:O	2.11	0.67
32:2a:992:U:H3	32:2a:1044:A:H62	1.41	0.67
35:2d:166:LYS:HA	35:2d:178:VAL:HG21	1.76	0.67
35:2d:201:GLN:NE2	36:2e:116:THR:O	2.26	0.67
32:1a:309:G:O2'	32:1a:607:A:N1	2.28	0.67
32:1a:1227:A:OP1	50:1s:80:TYR:OH	2.10	0.67
1:2A:2128:C:H1'	1:2A:2173:A:H2	1.59	0.67
32:2a:1295:G:O2'	44:2m:14:ARG:NH1	2.28	0.67
1:1A:1178:C:H2'	1:1A:1179:C:C6	2.29	0.67
27:15:40:LYS:NZ	27:15:41:PRO:O	2.27	0.67
35:1d:155:LEU:HB3	35:1d:158:ILE:HG12	1.76	0.67
1:2A:791:C:OP2	60:2A:3860:HOH:O	2.13	0.67
15:1T:95:ARG:O	60:1T:301:HOH:O	2.12	0.67
32:1a:1110:A:OP2	60:1a:1913:HOH:O	2.12	0.67
32:1a:1249:C:O2'	40:1i:73:GLN:NE2	2.27	0.67
32:1a:1518:MA6:H93	32:1a:1519:MA6:H92	1.75	0.67
34:1c:123:GLN:HE22	34:1c:140:ARG:HH22	1.42	0.67
1:2A:782:A:OP2	60:2A:3856:HOH:O	2.12	0.67
1:2A:979:G:N7	60:2A:3885:HOH:O	2.28	0.67
1:1A:654:A:OP2	60:1A:4145:HOH:O	2.13	0.66
1:1A:1856:G:OP2	60:1A:4150:HOH:O	2.14	0.66
1:1A:2115:G:N2	1:1A:2119:A:N7	2.43	0.66
1:1A:2458:G:OP2	60:1A:4135:HOH:O	2.11	0.66
5:1F:102:PRO:HB2	5:1F:105:VAL:HG23	1.77	0.66
1:2A:827:U:OP1	60:2A:3831:HOH:O	2.11	0.66
1:2A:1352:U:OP1	60:2A:3854:HOH:O	2.12	0.66
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.59	0.66
21:2Z:99:TYR:HB3	21:2Z:123:ASP:HB2	1.78	0.66
32:2a:238:G:OP1	48:2q:25:ARG:NH2	2.28	0.66
1:1A:2595:G:OP2	60:1A:4140:HOH:O	2.12	0.66
1:1A:2616:C:O2	60:1A:4138:HOH:O	2.11	0.66
1:2A:1069:A:C2	1:2A:1073:A:H5'	2.30	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1E:54:GLN:OE1	60:1E:403:HOH:O	2.14	0.66
15:2T:39:ARG:HH22	15:2T:41:ARG:HD3	1.59	0.66
23:21:31:GLY:O	60:21:201:HOH:O	2.12	0.66
36:2e:143:ARG:NH1	39:2h:77:GLU:OE2	2.29	0.66
1:1A:1759:A:N3	60:1A:4312:HOH:O	2.27	0.66
26:14:68:ARG:HD3	26:14:69:LYS:H	1.59	0.66
36:1e:143:ARG:NH1	39:1h:77:GLU:OE1	2.29	0.66
1:1A:1068:G:O2'	1:1A:1096:A:O2'	2.07	0.66
1:1A:1381:G:N7	60:1A:4326:HOH:O	2.28	0.66
1:1A:1598:C:OP1	60:1A:4148:HOH:O	2.13	0.66
34:1c:21:ARG:NH2	34:1c:58:GLU:OE2	2.24	0.66
36:1e:8:GLU:HG3	36:1e:34:VAL:HG23	1.78	0.66
43:1l:117:ARG:NH1	60:1l:302:HOH:O	2.28	0.66
1:2A:1939:5MU:O5'	60:2A:3838:HOH:O	2.13	0.66
48:2q:81:ARG:NH1	48:2q:83:ASP:OD2	2.29	0.66
1:1A:153:C:OP2	23:11:92:LYS:NZ	2.28	0.66
1:1A:580:C:OP1	60:1A:4142:HOH:O	2.12	0.66
1:1A:1816:G:O6	3:1D:35:LYS:NZ	2.26	0.66
1:1A:1970:A:OP1	60:1A:4146:HOH:O	2.13	0.66
32:1a:1047:G:H5''	45:1n:4:LYS:HD2	1.78	0.66
35:1d:85:LYS:O	60:1d:401:HOH:O	2.13	0.66
46:1o:8:LYS:HE3	46:1o:31:LEU:HD21	1.78	0.66
1:2A:1023:U:OP2	60:2A:3843:HOH:O	2.13	0.66
1:2A:1065:U:H4'	1:2A:1066:U:H5'	1.78	0.66
34:2c:199:LYS:NZ	34:2c:201:TYR:OH	2.28	0.66
32:1a:176:C:H2'	32:1a:177:C:H6	1.61	0.66
1:2A:2815:C:H5'	27:25:29:THR:HG21	1.78	0.66
12:2Q:91:GLU:O	60:2Q:301:HOH:O	2.14	0.66
23:21:53:VAL:HG22	23:21:74:VAL:HG13	1.78	0.66
32:2a:1508:G:OP1	60:2a:3207:HOH:O	2.12	0.66
1:1A:197:A:N1	60:1A:4318:HOH:O	2.28	0.66
39:1h:77:GLU:OE2	39:1h:81:HIS:NE2	2.25	0.66
1:2A:1378:A:OP1	29:27:10:ARG:NH2	2.28	0.66
32:2a:1129:C:H42	32:2a:1143:G:H1	1.41	0.66
1:1A:1900:A:OP2	60:1A:4149:HOH:O	2.13	0.66
1:1A:2390:U:OP2	60:1A:4151:HOH:O	2.14	0.66
3:1D:88:ARG:NH1	60:1D:402:HOH:O	2.28	0.66
32:1a:608:A:OP2	60:1a:1915:HOH:O	2.13	0.66
32:1a:1296:C:OP1	44:1m:44:ARG:NH2	2.28	0.66
1:2A:2429:G:OP1	60:2A:3806:HOH:O	2.13	0.66
32:2a:21:G:OP1	60:2a:3215:HOH:O	2.13	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1030:G:OP1	60:1A:4155:HOH:O	2.14	0.65
10:1O:116:SER:HA	56:1a:1875:MPD:HM2	1.78	0.65
32:1a:812:C:N3	60:1a:1946:HOH:O	2.29	0.65
33:1b:160:ASP:N	33:1b:160:ASP:OD1	2.28	0.65
1:1A:530:G:N1	1:1A:2023:G:OP1	2.27	0.65
1:1A:710:G:N7	60:1A:4346:HOH:O	2.29	0.65
1:2A:2431:U:OP1	60:2A:3861:HOH:O	2.14	0.65
11:2P:88:LEU:HD11	11:2P:114:ILE:HD12	1.77	0.65
22:20:27:GLU:HG3	22:20:68:GLU:HA	1.78	0.65
1:1A:297:C:N4	60:1A:4334:HOH:O	2.29	0.65
40:1i:16:ARG:HH11	40:1i:64:THR:HG21	1.61	0.65
1:2A:1418:G:N7	60:2A:4001:HOH:O	2.29	0.65
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.31	0.65
33:2b:22:LYS:HA	33:2b:40:HIS:HE1	1.61	0.65
4:1E:54:GLN:O	60:1E:402:HOH:O	2.14	0.65
32:1a:758:G:OP2	60:1a:1916:HOH:O	2.14	0.65
1:2A:521:G:O6	60:2A:3842:HOH:O	2.10	0.65
1:2A:1970:A:OP1	60:2A:3857:HOH:O	2.12	0.65
32:2a:1286:A:H8	32:2a:1287:A:H4'	1.61	0.65
32:2a:1305:G:N2	32:2a:1331:G:H1'	2.12	0.65
8:1I:8:PRO:HD3	8:1I:15:VAL:HB	1.79	0.65
21:1Z:158:PRO:HG2	21:1Z:161:VAL:HG11	1.76	0.65
32:1a:1025:U:C2	32:1a:1036:G:O6	2.48	0.65
32:2a:981:U:O4	60:2a:3216:HOH:O	2.13	0.65
37:2f:35:ALA:HA	37:2f:67:MET:HB3	1.77	0.65
1:1A:1069:A:H4'	1:1A:1070:A:H5''	1.78	0.65
1:1A:2372:G:N3	60:1A:4330:HOH:O	2.28	0.65
32:1a:410:G:OP1	35:1d:30:LYS:NZ	2.22	0.65
1:2A:2120:G:H1	1:2A:2178:C:N4	1.94	0.65
19:2X:35:THR:HG22	19:2X:37:THR:H	1.59	0.65
32:2a:574:A:OP2	60:2a:3205:HOH:O	2.14	0.65
1:1A:194:G:N3	60:1A:4324:HOH:O	2.28	0.65
37:1f:95:GLU:O	49:1r:32:ARG:NH1	2.28	0.65
46:1o:29:VAL:HG11	46:1o:67:LEU:HD21	1.79	0.65
1:2A:775:G:O3'	60:2A:3865:HOH:O	2.14	0.65
32:2a:41:G:H2'	32:2a:42:G:C8	2.31	0.65
20:1Y:70:SER:O	60:1Y:303:HOH:O	2.14	0.65
20:1Y:92:ASN:N	20:1Y:93:GLY:HA2	2.12	0.65
32:1a:840:C:H4'	32:1a:841:U:OP2	1.95	0.65
47:1p:22:THR:HA	47:1p:33:ILE:HD12	1.78	0.65
1:2A:2064:C:OP2	60:2A:3869:HOH:O	2.15	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2133:G:O2'	1:2A:2158:A:N1	2.29	0.65
1:2A:2406:U:OP1	60:2A:3859:HOH:O	2.13	0.65
2:2B:75:G:O3'	21:2Z:10:ARG:NH2	2.30	0.65
1:1A:2485:G:OP2	60:1A:4159:HOH:O	2.15	0.65
2:1B:59:A:N6	60:1B:302:HOH:O	2.25	0.65
1:2A:2857:G:N2	1:2A:2860:A:OP2	2.25	0.65
32:2a:557:G:OP1	60:2a:3218:HOH:O	2.14	0.65
34:2c:63:ASN:HB2	34:2c:98:ASN:HB2	1.78	0.65
1:1A:521:G:N7	60:1A:4332:HOH:O	2.29	0.65
1:1A:763:G:OP1	60:1A:4156:HOH:O	2.14	0.65
1:2A:599:G:N7	60:2A:4011:HOH:O	2.30	0.65
1:2A:1313:U:OP1	60:2A:3864:HOH:O	2.14	0.65
1:2A:2036:C:OP2	60:2A:3870:HOH:O	2.15	0.65
3:2D:241:PRO:O	60:2D:401:HOH:O	2.13	0.65
16:2U:8:VAL:HG23	16:2U:11:ARG:HH21	1.63	0.65
31:29:2:LYS:NZ	31:29:31:LYS:O	2.26	0.65
24:12:65:ASN:OD1	24:12:69:ARG:NH1	2.29	0.64
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.32	0.64
6:2G:60:LEU:HD23	6:2G:68:PRO:HG3	1.78	0.64
32:2a:56:U:H2'	32:2a:57:G:C8	2.33	0.64
32:2a:766:A:OP2	60:2a:3217:HOH:O	2.14	0.64
32:2a:1013:G:N2	32:2a:1016:A:OP2	2.31	0.64
36:2e:102:ALA:HB1	36:2e:106:PRO:HG2	1.78	0.64
1:1A:1817:G:OP1	3:1D:88:ARG:NH2	2.30	0.64
1:1A:1912:A:HO2'	32:1a:1494:G:HO2'	1.45	0.64
17:1V:74:LYS:HB2	17:1V:83:ARG:HB2	1.79	0.64
44:1m:54:VAL:HA	44:1m:57:ARG:HB3	1.78	0.64
1:2A:1315:C:OP2	60:2A:3812:HOH:O	2.14	0.64
1:2A:2314:C:H5''	6:2G:38:VAL:HG21	1.78	0.64
12:2Q:39:PRO:HD3	12:2Q:99:PRO:HG3	1.79	0.64
32:2a:1172:C:H2'	32:2a:1173:G:H8	1.62	0.64
32:2a:1249:C:O2'	40:2i:73:GLN:NE2	2.30	0.64
1:1A:120:U:OP2	60:1A:4154:HOH:O	2.14	0.64
25:13:29:ARG:O	60:13:201:HOH:O	2.15	0.64
46:1o:55:GLY:HA2	46:1o:58:MET:HE3	1.80	0.64
2:2B:103:G:O6	60:2B:303:HOH:O	2.12	0.64
5:2F:184:TYR:CE2	5:2F:188:ARG:HD2	2.32	0.64
6:2G:50:ALA:HB1	6:2G:53:LEU:HD23	1.78	0.64
23:11:77:ALA:HA	23:11:80:LEU:HD13	1.79	0.64
1:2A:248:G:OP1	60:2A:3862:HOH:O	2.14	0.64
1:2A:1324:G:O6	60:2A:3853:HOH:O	2.12	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1793:C:OP1	60:2A:3866:HOH:O	2.15	0.64
1:2A:1798:U:OP2	3:2D:274:ARG:NH2	2.30	0.64
1:1A:2506:U:OP2	60:1A:4160:HOH:O	2.15	0.64
24:12:28:LYS:NZ	24:12:56:GLN:OE1	2.26	0.64
40:1i:16:ARG:HD3	40:1i:66:ARG:HH12	1.62	0.64
1:2A:1650:G:OP2	60:2A:3867:HOH:O	2.15	0.64
6:2G:38:VAL:HG22	6:2G:93:THR:HG23	1.80	0.64
1:1A:97:C:OP1	24:12:2:LYS:NZ	2.28	0.64
22:10:11:ARG:O	22:10:14:ARG:NH2	2.20	0.64
24:12:22:GLU:HG3	24:12:64:LEU:HD11	1.80	0.64
1:2A:1354:A:OP2	60:2A:3874:HOH:O	2.15	0.64
24:22:1:MET:SD	24:22:56:GLN:NE2	2.71	0.64
1:1A:1452:A:OP2	60:1A:4161:HOH:O	2.15	0.64
1:1A:1648:C:OP1	60:1A:4118:HOH:O	2.15	0.64
1:1A:2373:G:N7	60:1A:4360:HOH:O	2.30	0.64
5:1F:140:LEU:HD11	5:1F:170:LEU:HD21	1.78	0.64
13:1R:56:LYS:NZ	13:1R:87:TYR:O	2.28	0.64
1:2A:586:A:N1	1:2A:809:G:O2'	2.28	0.64
46:2o:65:ARG:HG2	46:2o:68:ARG:HH21	1.61	0.64
1:1A:1173:G:OP2	60:1A:4158:HOH:O	2.15	0.64
1:1A:1378:A:OP1	29:17:10:ARG:NH2	2.30	0.64
36:1e:144:THR:H	36:1e:147:ASP:HB2	1.62	0.64
1:2A:365:C:OP2	60:2A:3868:HOH:O	2.15	0.64
1:2A:881:G:H1	1:2A:895:U:H3	1.45	0.64
1:2A:964:C:OP1	60:2A:3876:HOH:O	2.15	0.64
1:2A:2103:C:H42	1:2A:2185:C:H42	1.44	0.64
32:2a:425:G:O3'	35:2d:45:GLN:NE2	2.26	0.64
8:1I:42:SER:OG	60:1I:201:HOH:O	2.15	0.64
48:1q:62:SER:HB3	48:1q:72:ARG:HH11	1.63	0.64
51:1t:33:ILE:O	51:1t:37:SER:OG	2.11	0.64
32:2a:881:G:OP2	43:2l:12:ARG:NH2	2.31	0.64
1:1A:11:G:H2'	1:1A:12:U:H5'	1.80	0.64
1:1A:380:U:OP1	60:1A:4163:HOH:O	2.15	0.64
1:1A:456:C:H4'	60:1A:5680:HOH:O	1.98	0.64
1:1A:2102:U:C2	1:1A:2187:G:O6	2.51	0.64
19:1X:50:LYS:N	19:1X:87:GLN:OE1	2.30	0.64
34:1c:124:ILE:HG22	34:1c:130:VAL:HG22	1.80	0.64
3:2D:49:ILE:O	60:2D:402:HOH:O	2.15	0.64
33:2b:63:MET:HG2	33:2b:225:ALA:HB1	1.80	0.64
50:2s:41:VAL:HG12	50:2s:44:MET:HG3	1.79	0.64
8:1I:5:LEU:HD21	8:1I:12:LEU:HD23	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1O:64:ARG:HG2	10:1O:83:ALA:HB3	1.78	0.63
23:11:21:ARG:HD3	23:11:35:THR:HG21	1.78	0.63
4:2E:28:ALA:HB3	4:2E:93:VAL:HG12	1.79	0.63
38:2g:50:ILE:HD11	38:2g:58:PRO:HA	1.79	0.63
1:2A:400:G:N7	60:2A:4017:HOH:O	2.30	0.63
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.33	0.63
12:2Q:141:GLN:HE22	21:2Z:74:VAL:HG13	1.64	0.63
32:2a:56:U:H2'	32:2a:57:G:H8	1.63	0.63
45:2n:47:LEU:HA	45:2n:50:LYS:HG3	1.81	0.63
1:2A:1364:G:OP2	23:21:3:LYS:HG3	1.99	0.63
40:2i:53:VAL:O	40:2i:55:ALA:N	2.31	0.63
8:1I:4:ILE:HD11	8:1I:44:LEU:HD13	1.79	0.63
19:1X:84:ALA:HB3	19:1X:87:GLN:HG3	1.80	0.63
32:1a:1003:G:C2'	32:1a:1004:A:H4'	2.25	0.63
1:2A:993:G:N2	17:2V:23:GLU:OE2	2.32	0.63
1:2A:2313:C:H4'	6:2G:91:ARG:HD3	1.80	0.63
1:2A:2590:A:OP2	60:2A:3872:HOH:O	2.15	0.63
1:2A:2602:A:H1'	1:2A:2603:G:H5''	1.80	0.63
6:2G:105:LYS:NZ	6:2G:143:GLU:OE2	2.32	0.63
32:2a:1004:A:H5'	32:2a:1024:G:H22	1.63	0.63
32:2a:1271:G:O2'	60:2a:3219:HOH:O	2.15	0.63
1:2A:1259:G:N7	60:2A:4012:HOH:O	2.30	0.63
1:2A:2134:A:N6	1:2A:2156:G:O2'	2.31	0.63
26:24:24:THR:OG1	26:24:25:TYR:N	2.26	0.63
40:2i:32:ASP:HB3	40:2i:35:GLU:HB3	1.79	0.63
41:2j:55:LYS:O	41:2j:57:LYS:N	2.31	0.63
2:1B:44:G:N3	2:1B:47:C:N4	2.40	0.63
11:1P:50:ARG:HD3	30:18:7:HIS:CD2	2.34	0.63
26:14:43:TYR:O	26:14:45:GLY:N	2.31	0.63
32:2a:944:G:N1	32:2a:1338:G:OP2	2.30	0.63
32:2a:1126:U:H3	41:2j:40:LEU:HD21	1.63	0.63
34:2c:180:ALA:HA	34:2c:206:GLU:HA	1.79	0.63
40:2i:117:HIS:HD2	40:2i:123:PRO:HB3	1.63	0.63
1:1A:889:C:O2'	1:1A:890:A:O5'	2.16	0.63
40:1i:16:ARG:HB2	40:1i:64:THR:HG22	1.80	0.63
5:2F:101:LEU:HD12	5:2F:102:PRO:HD2	1.79	0.63
20:2Y:31:LEU:HB2	20:2Y:36:ALA:HB3	1.81	0.63
21:2Z:152:ALA:HA	21:2Z:155:LEU:HD13	1.81	0.63
32:2a:164:U:H2'	32:2a:165:C:C6	2.33	0.63
39:2h:38:ILE:HD13	39:2h:41:ARG:HH21	1.63	0.63
6:1G:46:ALA:HA	6:1G:49:ASP:HB2	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:992:U:H4'	32:1a:993:G:H5'	1.80	0.63
35:1d:108:LEU:HG	35:1d:176:LEU:HD13	1.79	0.63
44:1m:17:VAL:O	44:1m:20:THR:OG1	2.17	0.63
6:1G:142:PRO:HB2	26:14:31:ILE:HG21	1.81	0.63
37:1f:99:ALA:HB1	49:1r:23:LYS:HE2	1.81	0.63
44:1m:59:TYR:O	44:1m:63:THR:OG1	2.17	0.63
1:2A:668:G:H5'	1:2A:669:G:OP2	1.99	0.63
1:2A:2376:A:N3	14:2S:106:ARG:NH2	2.47	0.63
3:2D:72:LYS:NZ	3:2D:99:ASP:OD2	2.31	0.63
17:2V:12:TYR:OH	60:2V:301:HOH:O	2.14	0.63
36:2e:72:GLN:HE21	36:2e:77:PRO:HB3	1.64	0.63
1:2A:143:G:H4'	19:2X:35:THR:HG21	1.81	0.62
1:2A:2850:A:O2'	60:2A:3878:HOH:O	2.16	0.62
7:2H:90:LYS:HD3	7:2H:159:GLU:HG2	1.81	0.62
32:2a:695:A:OP2	42:2k:53:SER:OG	2.16	0.62
32:2a:867:G:O2'	32:2a:873:A:N1	2.30	0.62
1:1A:906:G:O6	60:1A:4152:HOH:O	2.14	0.62
8:1I:132:PRO:O	60:1I:202:HOH:O	2.15	0.62
32:1a:1015:A:H2'	32:1a:1016:A:C8	2.33	0.62
32:2a:222:U:H2'	32:2a:223:U:C6	2.35	0.62
32:2a:1051:C:N4	32:2a:1207:2MG:HN1	1.96	0.62
32:2a:1244:C:N4	32:2a:1293:G:H1	1.97	0.62
39:2h:9:MET:HG3	39:2h:26:VAL:HG11	1.80	0.62
4:1E:7:VAL:HG13	4:1E:27:LEU:HB3	1.80	0.62
32:1a:300:A:O2'	32:1a:564:C:N3	2.26	0.62
34:1c:56:ASP:HB2	34:1c:67:THR:HB	1.80	0.62
44:1m:34:LEU:HD23	44:1m:39:ILE:HB	1.81	0.62
1:2A:2116:G:H3'	1:2A:2117:A:C8	2.34	0.62
19:2X:53:LYS:HB3	19:2X:82:GLN:HB3	1.80	0.62
33:2b:178:ARG:HB3	39:2h:72:PRO:HA	1.82	0.62
35:2d:160:GLN:HA	35:2d:163:GLU:HG3	1.81	0.62
1:1A:942:G:N2	60:1A:4389:HOH:O	2.31	0.62
13:1R:33:ARG:NH2	27:15:57:VAL:O	2.15	0.62
32:1a:1183:A:H3'	32:1a:1184:G:H5''	1.79	0.62
34:1c:63:ASN:HB3	34:1c:98:ASN:HB2	1.81	0.62
1:1A:2377:A:H2'	1:1A:2378:A:C8	2.35	0.62
3:1D:237:GLU:OE2	60:1D:401:HOH:O	2.16	0.62
6:1G:12:TYR:HA	6:1G:16:ARG:HG3	1.81	0.62
11:1P:59:LEU:HD21	30:18:10:ALA:HB2	1.80	0.62
14:1S:11:LYS:HG3	14:1S:91:PRO:HD3	1.80	0.62
38:1g:54:THR:O	38:1g:56:GLN:N	2.31	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:588:U:H2'	1:2A:589:C:C6	2.35	0.62
1:2A:1188:U:H4'	17:2V:79:VAL:HG22	1.82	0.62
1:2A:2150:U:H2'	1:2A:2151:G:C8	2.34	0.62
14:2S:105:ALA:HB1	14:2S:110:LEU:HD23	1.80	0.62
32:2a:101:A:H5'	51:2t:10:LEU:HD21	1.81	0.62
1:1A:2115:G:N3	1:1A:2117:A:N6	2.47	0.62
6:1G:5:VAL:HG22	6:1G:8:LYS:H	1.64	0.62
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.35	0.62
42:1k:33:THR:HG22	42:1k:39:PRO:HA	1.80	0.62
11:2P:96:THR:HG22	11:2P:98:GLU:H	1.65	0.62
32:2a:134:A:H61	47:2p:25:ARG:HH22	1.48	0.62
34:2c:5:ILE:HD13	41:2j:51:ARG:HH22	1.64	0.62
34:2c:152:ILE:HG23	34:2c:199:LYS:HB2	1.80	0.62
1:1A:784:A:H5'	1:1A:785:G:OP1	1.99	0.62
7:1H:84:SER:OG	7:1H:132:ARG:NH1	2.32	0.62
41:2j:78:ASN:O	41:2j:80:LYS:N	2.32	0.62
1:1A:529:A:OP2	9:1N:114:ARG:NH2	2.33	0.62
1:1A:2106:G:O6	1:1A:2183:C:N3	2.32	0.62
4:1E:143:ASN:HD22	4:1E:147:PRO:HD3	1.64	0.62
32:1a:452:A:H4'	47:1p:72:ARG:NH1	2.14	0.62
36:1e:61:TYR:HA	36:1e:64:ARG:HB2	1.82	0.62
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.35	0.62
6:2G:65:GLY:HA3	26:24:9:LEU:HD11	1.81	0.62
26:24:59:PHE:HA	26:24:60:GLN:C	2.25	0.62
37:2f:30:LEU:HD23	37:2f:75:LEU:HD11	1.80	0.62
1:1A:1007:C:H5''	9:1N:35:ARG:HH11	1.64	0.62
1:1A:1379:A:H4'	1:1A:1380:G:OP2	2.00	0.62
1:1A:1803:A:O2'	3:1D:259:THR:HG21	1.99	0.62
1:1A:2018:G:N2	60:1A:4229:HOH:O	2.22	0.62
35:1d:173:TRP:CD1	35:1d:189:PRO:HB3	2.35	0.62
40:1i:113:LYS:NZ	40:1i:119:ALA:O	2.33	0.62
1:2A:483:A:O2'	20:2Y:49:VAL:O	2.16	0.62
1:2A:2302:G:N2	6:2G:126:ASP:OD1	2.31	0.62
6:2G:57:ALA:HB2	6:2G:90:LEU:HD13	1.82	0.62
14:2S:39:ILE:HB	14:2S:49:VAL:HG23	1.81	0.62
32:2a:539:A:H2'	32:2a:540:G:C8	2.34	0.62
41:2j:61:GLU:OE2	45:2n:58:LYS:NZ	2.30	0.62
1:1A:771:G:OP1	29:17:14:LYS:HE2	2.00	0.62
8:1I:87:LYS:HD3	8:1I:87:LYS:H	1.65	0.62
1:2A:320:A:OP1	5:2F:135:LYS:NZ	2.33	0.62
32:2a:115:G:OP1	60:2a:3221:HOH:O	2.16	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:123:C:OP1	32:2a:311:C:O2'	2.15	0.62
32:2a:1077:G:N2	32:2a:1080:A:OP2	2.29	0.62
33:2b:53:ARG:NH2	33:2b:198:ASP:O	2.26	0.62
52:2u:6:ARG:HE	52:2u:15:ARG:NH1	1.98	0.62
32:1a:542:G:H5'	35:1d:41:GLY:HA3	1.82	0.61
35:1d:30:LYS:HA	35:1d:35:ARG:HE	1.65	0.61
1:2A:2870:C:H2'	1:2A:2871:C:O4'	1.99	0.61
32:2a:335:C:O2'	32:2a:1433:A:N3	2.29	0.61
33:2b:78:GLN:NE2	33:2b:95:GLN:OE1	2.33	0.61
1:1A:1651:G:OP2	60:1A:4169:HOH:O	2.16	0.61
2:1B:87:G:N2	2:1B:90:A:OP2	2.26	0.61
32:1a:426:G:OP1	35:1d:36:ARG:NH1	2.32	0.61
38:1g:111:ARG:NH1	38:1g:113:GLU:OE2	2.33	0.61
32:2a:1372:U:H5''	40:2i:71:SER:HB2	1.82	0.61
37:2f:37:VAL:HA	37:2f:65:VAL:HG12	1.81	0.61
48:2q:6:LEU:HD23	48:2q:23:VAL:HG11	1.80	0.61
1:1A:1075:C:OP1	12:1Q:59:ARG:NH1	2.32	0.61
3:1D:17:THR:O	3:1D:211:ARG:NH2	2.33	0.61
11:1P:49:ARG:NH1	30:18:4:MET:HE1	2.14	0.61
32:1a:6:G:H4'	32:1a:298:A:H4'	1.83	0.61
44:1m:114:ARG:NH1	60:1m:301:HOH:O	2.34	0.61
50:1s:55:LYS:HG2	50:1s:56:GLN:HE21	1.65	0.61
17:2V:62:LEU:HD23	17:2V:93:GLU:HG2	1.81	0.61
1:2A:641:C:O2'	1:2A:2350:C:OP1	2.15	0.61
3:2D:71:ASP:OD2	3:2D:103:ARG:NH2	2.32	0.61
21:2Z:103:ARG:O	21:2Z:105:VAL:N	2.32	0.61
27:25:16:ARG:NH1	27:25:17:ASP:OD1	2.33	0.61
32:2a:920:U:H2'	32:2a:921:U:C6	2.36	0.61
41:2j:48:THR:O	45:2n:34:TYR:OH	2.18	0.61
19:1X:5:TYR:CZ	24:12:30:ARG:HG3	2.36	0.61
35:1d:61:LYS:NZ	35:1d:72:GLU:OE1	2.33	0.61
1:2A:1125:G:H5'	31:29:37:GLY:HA2	1.81	0.61
1:2A:1453:U:O2'	1:2A:1455:G:N7	2.32	0.61
1:2A:2128:C:N4	1:2A:2160:G:H1	1.96	0.61
1:2A:2432:A:N3	60:2A:4028:HOH:O	2.31	0.61
60:2A:3814:HOH:O	5:2F:67:GLN:NE2	2.21	0.61
32:2a:201:C:H42	32:2a:216:G:H1	1.47	0.61
1:1A:2092:U:O4	60:1A:4139:HOH:O	2.11	0.61
1:1A:2849:U:P	15:1T:95:ARG:HH12	2.23	0.61
21:1Z:144:LEU:HD21	21:1Z:150:LEU:HD13	1.81	0.61
1:2A:999:U:OP2	60:2A:3836:HOH:O	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2689:U:P	1:2A:2719:G:H22	2.23	0.61
6:2G:97:ASP:HA	6:2G:100:TRP:CD1	2.35	0.61
26:24:59:PHE:CE2	50:2s:64:GLU:HB2	2.36	0.61
32:2a:130:A:H5'	48:2q:63:ARG:HH21	1.65	0.61
32:2a:673:G:H2'	32:2a:674:G:C8	2.36	0.61
32:2a:1318:A:H5''	50:2s:3:ARG:HH22	1.65	0.61
33:2b:119:GLU:OE2	33:2b:153:ARG:NH1	2.32	0.61
40:2i:17:VAL:HG11	40:2i:80:GLY:C	2.25	0.61
3:1D:21:PHE:HB3	3:1D:24:ILE:HD12	1.83	0.61
32:1a:269:C:H2'	32:1a:270:A:C8	2.36	0.61
32:1a:1308:U:H2'	32:1a:1309:G:H8	1.64	0.61
47:1p:47:ASP:OD1	47:1p:47:ASP:N	2.33	0.61
1:2A:493:G:N7	60:2A:4021:HOH:O	2.31	0.61
1:2A:2079:U:OP1	23:21:21:ARG:NH2	2.34	0.61
32:2a:1002:G:H2'	32:2a:1003:G:C8	2.36	0.61
1:1A:2331:G:O2'	1:1A:2336:A:N1	2.26	0.61
32:1a:1108:G:O6	60:1a:1914:HOH:O	2.13	0.61
1:2A:374:A:OP1	60:2A:3881:HOH:O	2.16	0.61
1:2A:1064:C:H3'	1:2A:1065:U:C5'	2.31	0.61
1:2A:1087:G:H22	1:2A:1102:C:N4	1.99	0.61
1:2A:1168:G:H1	1:2A:1181:C:H42	1.49	0.61
1:2A:2352:A:N6	1:2A:2365:G:O2'	2.34	0.61
1:2A:2690:C:OP1	13:2R:17:ARG:NH2	2.34	0.61
33:2b:208:ILE:HA	33:2b:211:ILE:HB	1.83	0.61
40:2i:5:TYR:HE2	40:2i:7:THR:HG23	1.64	0.61
1:1A:2444:G:OP2	60:1A:4171:HOH:O	2.16	0.61
1:1A:2602:A:H1'	1:1A:2603:G:H5''	1.83	0.61
1:2A:61:G:OP1	24:22:51:ARG:NH2	2.33	0.61
8:2I:48:GLU:HG3	8:2I:52:ARG:NH1	2.16	0.61
37:1f:10:LEU:HD13	37:1f:61:LEU:HD13	1.83	0.61
1:2A:468:G:N7	29:27:39:ARG:NH2	2.49	0.61
1:2A:527:C:OP1	60:2A:3882:HOH:O	2.16	0.61
6:2G:64:THR:HB	6:2G:94:LEU:HD21	1.82	0.61
10:2O:26:LYS:NZ	10:2O:37:ASP:OD2	2.30	0.61
14:2S:12:PHE:O	14:2S:16:ASN:ND2	2.34	0.61
14:2S:35:ILE:HG12	14:2S:97:ARG:HH21	1.66	0.61
32:2a:854:G:O6	60:2a:3214:HOH:O	2.13	0.61
32:2a:1129:C:H2'	32:2a:1139:G:N7	2.16	0.61
34:2c:73:PRO:HB3	34:2c:103:VAL:HG11	1.82	0.61
1:1A:18:C:O2'	1:1A:554:U:OP1	2.14	0.60
6:1G:59:GLU:OE1	6:1G:153:ARG:NH2	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2298:A:H62	1:2A:2318:G:H8	1.48	0.60
32:2a:328:C:H4'	32:2a:329:A:H5'	1.83	0.60
44:2m:91:ARG:NE	44:2m:97:PRO:O	2.33	0.60
32:1a:1112:C:H1'	34:1c:179:ARG:HE	1.66	0.60
6:2G:42:GLY:O	6:2G:44:GLY:N	2.34	0.60
32:2a:53:A:OP2	60:2a:3220:HOH:O	2.15	0.60
32:2a:1248:A:N3	40:2i:70:LYS:NZ	2.49	0.60
34:2c:16:ARG:NH2	34:2c:54:ARG:HH12	1.99	0.60
35:2d:148:VAL:HG12	35:2d:152:SER:HB2	1.83	0.60
8:1I:109:ILE:HG13	8:1I:130:TYR:CZ	2.36	0.60
21:1Z:58:VAL:HG12	21:1Z:68:PRO:HA	1.83	0.60
32:1a:1129:C:O2'	32:1a:1139:G:N7	2.28	0.60
34:1c:6:HIS:HD2	34:1c:9:GLY:H	1.48	0.60
21:2Z:144:LEU:HD11	21:2Z:150:LEU:HG	1.81	0.60
32:2a:38:G:H22	32:2a:397:A:H5''	1.66	0.60
32:2a:279:A:N6	48:2q:98:LEU:O	2.34	0.60
1:1A:2346:A:N1	60:1A:4368:HOH:O	2.31	0.60
1:1A:2591:C:H2'	1:1A:2592:G:C8	2.37	0.60
32:1a:266:G:H5'	32:1a:268:C:H41	1.66	0.60
19:2X:26:TYR:HB3	19:2X:92:LEU:HD23	1.83	0.60
32:2a:677:U:H3	32:2a:713:G:H22	1.48	0.60
32:2a:1503:A:OP1	32:2a:1531:A:O2'	2.16	0.60
1:1A:330:A:H2	1:1A:1210:A:O2'	1.83	0.60
32:1a:506:G:OP1	60:1a:1917:HOH:O	2.15	0.60
37:2f:91:VAL:HG11	49:2r:72:ARG:HH12	1.66	0.60
1:1A:1132:A:N3	60:1A:4388:HOH:O	2.31	0.60
32:1a:330:C:OP2	60:1a:1918:HOH:O	2.16	0.60
32:1a:1096:C:HO2'	32:1a:1170:A:HO2'	1.48	0.60
32:1a:1308:U:H2'	32:1a:1309:G:C8	2.36	0.60
39:1h:86:ILE:HG13	39:1h:133:LEU:HD22	1.84	0.60
1:2A:2092:U:OP1	60:2A:3879:HOH:O	2.16	0.60
1:2A:2225:A:N1	60:2A:4030:HOH:O	2.31	0.60
1:2A:2683:C:OP1	15:2T:53:ARG:NH2	2.34	0.60
32:2a:1028:C:C2	32:2a:1033:G:N1	2.69	0.60
44:2m:15:VAL:HG12	44:2m:45:VAL:HG22	1.84	0.60
1:1A:579:G:H2'	1:1A:580:C:C6	2.36	0.60
1:1A:1954:G:O6	60:1A:4153:HOH:O	2.14	0.60
30:18:28:GLY:O	30:18:36:LYS:NZ	2.32	0.60
32:1a:737:A:H2'	32:1a:738:C:C6	2.36	0.60
14:2S:35:ILE:H	14:2S:53:SER:HB3	1.65	0.60
16:2U:27:LEU:HA	16:2U:30:LYS:HB2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2126:A:H4'	1:1A:2127:G:O5'	1.99	0.60
32:1a:656:C:O2'	46:1o:28:GLN:NE2	2.32	0.60
32:1a:1505:G:OP2	60:1a:1919:HOH:O	2.17	0.60
1:2A:2847:U:OP1	15:2T:98:LYS:NZ	2.35	0.60
2:2B:8:U:H3	2:2B:113:G:H1	1.50	0.60
28:26:10:LEU:HB2	28:26:52:VAL:HG12	1.84	0.60
32:2a:406:G:O2'	35:2d:3:ARG:NH2	2.35	0.60
50:2s:22:LEU:HB3	50:2s:27:GLU:HA	1.82	0.60
50:2s:22:LEU:HD13	50:2s:28:LYS:H	1.67	0.60
32:1a:1158:C:H5	32:1a:1181:G:H1	1.47	0.60
1:2A:2441:C:OP2	1:2A:2586:C:O2'	2.20	0.60
1:1A:217:G:OP2	60:1A:4168:HOH:O	2.16	0.60
1:1A:620:G:N3	1:1A:620:G:H5'	2.17	0.60
16:1U:34:LYS:NZ	16:1U:37:GLU:OE1	2.27	0.60
21:1Z:92:SER:O	21:1Z:130:PRO:HG2	2.02	0.60
26:14:16:CYS:SG	26:14:17:GLY:N	2.75	0.60
1:2A:659:C:H2'	1:2A:660:G:H8	1.67	0.60
1:2A:1011:G:OP2	16:2U:66:ASN:ND2	2.34	0.60
1:2A:1637:A:OP2	60:2A:3871:HOH:O	2.15	0.60
1:2A:2218:U:O4'	23:21:52:ARG:NH2	2.35	0.60
33:2b:27:LYS:HB2	33:2b:194:PRO:HD2	1.84	0.60
34:2c:6:HIS:CD2	45:2n:49:HIS:HB3	2.37	0.60
36:2e:77:PRO:HG2	36:2e:78:HIS:CD2	2.37	0.60
1:1A:286:C:H2'	1:1A:287:C:C6	2.37	0.59
60:1A:4265:HOH:O	29:17:32:LYS:HE2	2.02	0.59
32:1a:1182:G:H4'	32:1a:1183:A:H5'	1.84	0.59
1:2A:1807:G:OP1	60:2A:3877:HOH:O	2.16	0.59
48:2q:45:HIS:HB3	48:2q:72:ARG:HG2	1.83	0.59
1:1A:1371:G:N7	60:1A:4398:HOH:O	2.32	0.59
32:1a:946:A:H2'	32:1a:947:G:C8	2.37	0.59
1:2A:526:A:OP1	60:2A:3880:HOH:O	2.16	0.59
32:2a:17:U:H2'	32:2a:18:C:C6	2.37	0.59
32:2a:921:U:O2	36:2e:19:MET:HB2	2.01	0.59
1:1A:1649:G:O2'	13:1R:107:ASP:OD2	2.15	0.59
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.37	0.59
1:2A:1530:C:H42	1:2A:1539:G:H1	1.49	0.59
6:2G:15:VAL:HB	6:2G:175:LEU:HB3	1.84	0.59
14:2S:14:VAL:O	14:2S:18:ILE:HG12	2.02	0.59
32:2a:1004:A:H5''	32:2a:1025:U:C5	2.37	0.59
32:2a:1030:C:N4	32:2a:1032:G:O6	2.35	0.59
34:2c:71:ALA:HA	34:2c:106:VAL:HB	1.82	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:2p:57:ARG:NH2	47:2p:79:VAL:O	2.34	0.59
50:2s:41:VAL:HG13	50:2s:43:GLU:H	1.68	0.59
1:1A:2312:U:H5'	6:1G:88:ILE:HD11	1.85	0.59
5:1F:191:ARG:NH2	60:1F:403:HOH:O	2.29	0.59
19:1X:76:ARG:NH1	60:1X:102:HOH:O	2.34	0.59
32:1a:454:C:OP1	47:1p:75:ARG:NH2	2.36	0.59
36:1e:91:LEU:HB3	36:1e:118:ILE:HD11	1.85	0.59
50:1s:42:PRO:HA	50:1s:45:VAL:HG23	1.84	0.59
1:2A:247:G:O6	30:28:12:LYS:NZ	2.28	0.59
1:2A:965:C:OP2	60:2A:3873:HOH:O	2.15	0.59
1:2A:1796:U:H2'	1:2A:1797:C:H6	1.65	0.59
1:2A:2305:A:H5''	6:2G:134:GLY:HA3	1.84	0.59
10:2O:88:ASN:HD21	10:2O:92:GLU:HB2	1.66	0.59
32:2a:662:G:H2'	32:2a:663:A:H8	1.66	0.59
1:1A:1919:A:N1	32:1a:1495:U:O2'	2.27	0.59
1:1A:2023:G:H5'	1:1A:2617:C:H4'	1.83	0.59
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.38	0.59
1:2A:2104:G:O6	1:2A:2185:C:N3	2.35	0.59
1:2A:2280:G:H5'	21:2Z:201:LYS:HE2	1.85	0.59
26:24:64:GLY:C	26:24:66:SER:H	2.11	0.59
28:26:35:GLU:OE2	28:26:50:ARG:NH1	2.35	0.59
34:2c:181:ASN:N	34:2c:205:GLY:O	2.22	0.59
21:1Z:152:ALA:HB1	21:1Z:163:LEU:HD11	1.85	0.59
32:1a:1267:C:O2	52:1u:20:LYS:NZ	2.28	0.59
36:1e:74:GLY:HA3	36:1e:116:THR:HG22	1.84	0.59
1:2A:1147:C:H2'	1:2A:1148:A:H8	1.68	0.59
2:2B:83:G:H1	2:2B:94:C:H42	1.51	0.59
33:2b:80:ILE:HD13	33:2b:211:ILE:HG22	1.84	0.59
33:2b:103:THR:HG22	33:2b:180:LEU:HD21	1.85	0.59
35:2d:79:PHE:HE1	35:2d:204:ILE:HD13	1.67	0.59
1:1A:271(L):U:OP1	8:1I:50:ARG:NH1	2.27	0.59
1:1A:2583:G:OP2	60:1A:4174:HOH:O	2.17	0.59
15:1T:15:VAL:HG13	15:1T:79:HIS:CE1	2.37	0.59
32:1a:352:C:O2'	32:1a:354:G:OP1	2.15	0.59
32:1a:1010:G:N2	32:1a:1020:U:H1'	2.17	0.59
1:2A:1147:C:H2'	1:2A:1148:A:C8	2.37	0.59
8:2I:48:GLU:HG3	8:2I:52:ARG:HH11	1.67	0.59
21:2Z:7:ALA:HB3	21:2Z:61:LEU:HD12	1.85	0.59
24:22:1:MET:N	24:22:52:ASP:OD1	2.30	0.59
1:1A:1007:C:H5''	9:1N:35:ARG:NH1	2.18	0.59
36:1e:81:GLU:HG2	36:1e:90:VAL:HG13	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2693:A:H2'	1:2A:2694:G:H8	1.68	0.59
8:2I:75:LEU:HD11	8:2I:105:HIS:CG	2.37	0.59
35:2d:68:TYR:OH	35:2d:98:GLU:OE2	2.20	0.59
38:2g:113:GLU:HG3	38:2g:119:ARG:HG2	1.84	0.59
33:1b:118:LEU:HB2	33:1b:142:LEU:HD13	1.84	0.59
1:2A:792:G:OP2	60:2A:3888:HOH:O	2.17	0.59
1:2A:2079:U:O3'	23:21:35:THR:OG1	2.19	0.59
7:2H:154:PRO:HB3	7:2H:163:TYR:CZ	2.38	0.59
28:26:6:ARG:NH1	28:26:26:ASN:HB2	2.18	0.59
32:2a:1010:G:H2'	32:2a:1011:G:H8	1.67	0.59
33:2b:16:HIS:HB2	33:2b:204:ASN:HB3	1.84	0.59
36:2e:10:MET:HB2	36:2e:13:ILE:HD11	1.85	0.59
44:2m:54:VAL:HG12	44:2m:57:ARG:HH12	1.67	0.59
1:1A:278:A:N6	1:1A:362:U:O4	2.32	0.59
1:1A:1179:C:H2'	1:1A:1180:C:H6	1.68	0.59
1:1A:2439:A:N3	60:1A:4382:HOH:O	2.31	0.59
3:1D:71:ASP:CB	3:1D:103:ARG:HH22	2.16	0.59
1:2A:397:G:O6	60:2A:3875:HOH:O	2.15	0.59
1:2A:2144:U:H5''	1:2A:2145:C:C5	2.38	0.59
32:2a:1030(A):G:H1'	32:2a:1030(C):G:N7	2.18	0.59
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.37	0.59
6:1G:104:GLU:O	6:1G:108:ASN:ND2	2.36	0.58
25:13:55:ARG:NH1	60:13:208:HOH:O	2.36	0.58
34:1c:3:ASN:OD1	34:1c:3:ASN:N	2.36	0.58
43:1l:82:VAL:O	43:1l:106:ASP:HB2	2.02	0.58
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.38	0.58
1:2A:1742:G:O6	60:2A:3858:HOH:O	2.13	0.58
1:2A:2492:U:OP1	60:2A:3890:HOH:O	2.17	0.58
13:2R:95:THR:HG22	13:2R:116:LEU:HD23	1.85	0.58
32:2a:982:U:H5''	45:2n:6:LEU:HD21	1.84	0.58
32:2a:1346:A:N6	32:2a:1375:A:OP2	2.34	0.58
38:2g:89:MET:HE1	38:2g:155:ARG:HA	1.85	0.58
1:1A:1007:C:OP1	9:1N:37:LYS:NZ	2.33	0.58
26:14:16:CYS:HA	26:14:33:VAL:HG23	1.85	0.58
33:1b:74:LYS:NZ	33:1b:206:ASP:OD1	2.33	0.58
1:2A:249:C:O2	30:28:12:LYS:NZ	2.29	0.58
1:2A:2319:G:H22	14:2S:3:ARG:HD3	1.68	0.58
1:2A:2445:G:OP1	5:2F:74:ARG:NH2	2.31	0.58
18:2W:18:ARG:NH1	18:2W:76:VAL:O	2.36	0.58
32:2a:1010:G:H2'	32:2a:1011:G:C8	2.38	0.58
32:2a:1239:A:O2'	38:2g:114:ARG:O	2.20	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1465:C:H2'	32:2a:1466:C:O4'	2.03	0.58
39:2h:112:LEU:HB3	39:2h:133:LEU:HA	1.85	0.58
1:1A:1541:G:O6	60:1A:4157:HOH:O	2.14	0.58
1:1A:1830:C:OP2	60:1A:4172:HOH:O	2.17	0.58
1:1A:2119:A:O2'	1:1A:2120:G:H5'	2.03	0.58
32:1a:707:C:OP1	42:1k:85:ARG:NH1	2.35	0.58
1:2A:796:C:H2'	1:2A:797:C:C6	2.38	0.58
1:2A:1714:G:H2'	1:2A:1717:G:H8	1.68	0.58
6:2G:97:ASP:HA	6:2G:100:TRP:HD1	1.66	0.58
7:2H:90:LYS:HD2	7:2H:163:TYR:CD2	2.38	0.58
31:29:14:CYS:HA	31:29:27:CYS:HB2	1.86	0.58
35:2d:60:GLU:HG3	35:2d:202:LEU:HD12	1.85	0.58
42:2k:99:GLN:HG2	42:2k:105:VAL:HG21	1.85	0.58
1:1A:2275:C:OP1	60:1A:4175:HOH:O	2.17	0.58
2:1B:25:A:OP2	60:1B:301:HOH:O	2.17	0.58
32:1a:911:U:OP2	43:1l:97:ARG:NH2	2.36	0.58
2:2B:14:U:OP2	2:2B:70:C:O2'	2.15	0.58
1:1A:271(M):G:H21	8:1I:50:ARG:HD3	1.68	0.58
1:1A:2303:G:O2'	6:1G:132:ASN:ND2	2.36	0.58
36:1e:79:GLU:HG3	36:1e:93:PRO:HD2	1.83	0.58
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.24	0.58
32:2a:1391:U:H2'	32:2a:1392:G:C8	2.38	0.58
35:2d:111:ALA:HB1	35:2d:116:GLN:HG2	1.85	0.58
14:1S:9:ARG:NH1	60:1S:204:HOH:O	2.28	0.58
15:1T:51:ARG:NH1	60:1T:304:HOH:O	2.36	0.58
15:1T:91:ARG:HB2	15:1T:121:ILE:HG13	1.86	0.58
21:1Z:69:THR:HG22	21:1Z:90:VAL:HA	1.86	0.58
38:1g:75:VAL:HG11	38:1g:144:MET:HG3	1.84	0.58
40:1i:18:PHE:HB2	40:1i:62:TYR:HB3	1.85	0.58
15:2T:51:ARG:HD2	15:2T:98:LYS:HD2	1.85	0.58
30:28:14:VAL:HG12	30:28:24:ALA:HB2	1.86	0.58
35:2d:70:ILE:HD11	35:2d:74:GLN:HB3	1.83	0.58
45:2n:7:ILE:HA	45:2n:23:ARG:HD2	1.85	0.58
50:2s:46:GLY:HA2	50:2s:61:TYR:HE1	1.67	0.58
51:2t:18:GLN:O	51:2t:22:ARG:HG3	2.03	0.58
1:1A:2763:G:OP2	60:1A:4173:HOH:O	2.17	0.58
60:1A:4112:HOH:O	13:1R:3:HIS:NE2	2.31	0.58
32:1a:1248:A:N3	40:1i:70:LYS:HE3	2.19	0.58
33:1b:71:VAL:HB	33:1b:164:VAL:HG22	1.85	0.58
1:2A:1063:G:H2'	1:2A:1065:U:H6	1.69	0.58
1:2A:2641:G:P	9:2N:74:ARG:HH22	2.25	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:111:LEU:HA	6:2G:114:ILE:HD12	1.86	0.58
36:2e:8:GLU:HG2	36:2e:34:VAL:HG23	1.85	0.58
1:1A:222:A:H3'	1:1A:421:U:H5'	1.85	0.58
1:1A:336:C:HO2'	20:1Y:35:TYR:HH	1.48	0.58
13:1R:38:VAL:HG12	13:1R:42:LYS:HE3	1.85	0.58
18:1W:92:ARG:NH1	60:1W:303:HOH:O	2.36	0.58
32:1a:560:U:O2'	32:1a:561:U:OP2	2.16	0.58
33:1b:73:THR:OG1	33:1b:170:GLU:OE2	2.17	0.58
42:1k:108:ILE:HG22	49:1r:87:ARG:HG3	1.85	0.58
1:2A:212:G:H2'	1:2A:213:A:O4'	2.04	0.58
6:2G:3:LEU:HD23	6:2G:3:LEU:H	1.69	0.58
32:2a:397:A:N7	32:2a:547:A:O2'	2.33	0.58
33:2b:84:GLU:OE1	33:2b:87:ARG:NH2	2.36	0.58
35:2d:36:ARG:HG2	35:2d:38:TYR:CE2	2.38	0.58
39:2h:6:ILE:HB	39:2h:85:ARG:NH1	2.19	0.58
1:1A:607:U:OP1	5:1F:102:PRO:HA	2.04	0.58
1:1A:2102:U:O2	1:1A:2187:G:C6	2.57	0.58
17:1V:8:GLY:O	17:1V:10:LYS:NZ	2.36	0.58
33:1b:36:ARG:O	33:1b:38:GLY:N	2.36	0.58
44:1m:11:ARG:O	44:1m:13:LYS:N	2.31	0.58
1:2A:1552:G:N7	60:2A:4046:HOH:O	2.33	0.58
1:2A:2109:U:OP2	1:2A:2150:U:H4'	2.03	0.58
1:2A:2537:U:O4	60:2A:3863:HOH:O	2.14	0.58
33:1b:95:GLN:HG3	33:1b:147:LYS:O	2.03	0.58
1:2A:1602:U:OP1	60:2A:3889:HOH:O	2.17	0.58
1:2A:1852:C:N3	60:2A:4035:HOH:O	2.32	0.58
32:2a:1027:C:H5''	32:2a:1028:C:C5	2.38	0.58
32:2a:1346:A:H5''	40:2i:120:ARG:NH1	2.16	0.58
34:2c:58:GLU:HG2	41:2j:92:THR:HG21	1.86	0.58
34:2c:153:VAL:HG22	34:2c:198:VAL:HG22	1.86	0.58
1:1A:2749:A:OP1	7:1H:3:ARG:NH1	2.36	0.57
32:1a:1003:G:C2	32:1a:1004:A:H1'	2.39	0.57
32:1a:1286:A:H2'	32:1a:1287:A:H4'	1.86	0.57
33:1b:119:GLU:OE2	33:1b:153:ARG:NH1	2.30	0.57
43:1l:77:LEU:HD21	43:1l:107:ALA:HB2	1.85	0.57
48:1q:87:LYS:HD2	48:1q:90:ILE:HD12	1.85	0.57
1:2A:493:G:OP2	60:2A:3883:HOH:O	2.17	0.57
1:2A:2753:A:N3	31:29:15:LYS:NZ	2.52	0.57
6:2G:161:THR:HG22	6:2G:163:ALA:H	1.67	0.57
19:2X:12:VAL:HG22	19:2X:29:TRP:CE2	2.39	0.57
23:21:50:ARG:HG2	23:21:59:THR:HG22	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:36:C:H5''	43:2l:123:LYS:HD3	1.86	0.57
1:1A:558:G:OP2	60:1A:4176:HOH:O	2.17	0.57
1:1A:639:U:H2'	1:1A:640:C:C6	2.39	0.57
1:1A:1370:C:OP2	60:1A:4177:HOH:O	2.17	0.57
25:13:3:ARG:NH1	25:13:60:GLU:OE2	2.38	0.57
37:1f:36:ARG:NH2	37:1f:66:GLU:OE1	2.37	0.57
1:2A:1647:G:H3'	1:2A:1647:G:OP2	2.04	0.57
7:2H:144:VAL:O	7:2H:148:ILE:HG12	2.04	0.57
22:20:49:LYS:HG3	22:20:50:ASN:ND2	2.18	0.57
36:2e:145:LYS:HA	36:2e:148:VAL:HG22	1.86	0.57
1:1A:1025:G:C4	1:1A:1135:C:HI'	2.38	0.57
1:1A:1047:G:H2'	1:1A:1110:G:N2	2.19	0.57
1:1A:1245:G:N7	60:1A:4391:HOH:O	2.32	0.57
1:1A:2591:C:H2'	1:1A:2592:G:H8	1.69	0.57
32:1a:673:G:H2'	32:1a:674:G:C8	2.40	0.57
1:2A:607:U:OP1	5:2F:102:PRO:HA	2.04	0.57
1:2A:1550:C:OP1	1:2A:1720:U:O2'	2.16	0.57
1:2A:2262:U:H4'	1:2A:2328:A:C2	2.40	0.57
10:2O:120:GLU:OE1	15:2T:67:SER:OG	2.22	0.57
35:2d:63:LYS:HD2	35:2d:198:VAL:HG22	1.86	0.57
53:2y:58:ASN:HB3	53:2y:88:LEU:HG	1.85	0.57
3:1D:35:LYS:HD3	3:1D:64:ILE:HD11	1.85	0.57
15:1T:24:PRO:HA	15:1T:49:VAL:HG22	1.86	0.57
48:1q:45:HIS:HB2	48:1q:65:ILE:HD13	1.86	0.57
1:2A:1065:U:H4'	1:2A:1066:U:C5'	2.34	0.57
1:2A:1681:G:HO2'	1:2A:1762:A:HO2'	1.51	0.57
1:2A:2386:C:O2'	60:2A:3887:HOH:O	2.17	0.57
2:2B:57:A:H4'	6:2G:30:GLU:HG3	1.87	0.57
6:2G:5:VAL:HG11	6:2G:101:ILE:HG12	1.87	0.57
11:2P:86:LYS:HD3	11:2P:117:GLU:HG2	1.87	0.57
32:2a:1258:G:H2'	32:2a:1259:C:C6	2.39	0.57
34:2c:8:ILE:HD11	34:2c:182:ILE:O	2.04	0.57
1:1A:1179:C:H2'	1:1A:1180:C:C6	2.39	0.57
1:1A:1637:A:OP2	60:1A:4178:HOH:O	2.18	0.57
1:1A:2101:G:H2'	1:1A:2102:U:H6	1.69	0.57
37:1f:97:PHE:HB3	49:1r:31:LEU:HB2	1.85	0.57
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.19	0.57
1:2A:2105:C:N4	1:2A:2106:G:O6	2.38	0.57
22:20:27:GLU:HB2	22:20:69:PHE:HD1	1.69	0.57
32:2a:1226:C:OP2	44:2m:91:ARG:NH1	2.38	0.57
5:1F:10:PRO:HB3	5:1F:17:ARG:HH21	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:769:G:H4'	32:1a:1513:A:H4'	1.86	0.57
41:1j:54:PHE:HD2	41:1j:55:LYS:HG2	1.69	0.57
1:2A:1818:U:O2'	3:2D:154:LYS:O	2.21	0.57
4:2E:1:MET:HE3	4:2E:199:ARG:HD2	1.85	0.57
8:2I:75:LEU:HD11	8:2I:105:HIS:CD2	2.40	0.57
11:2P:85:LEU:HA	11:2P:88:LEU:HD12	1.87	0.57
49:2r:47:THR:HG23	49:2r:49:LYS:HG3	1.85	0.57
1:1A:2185:C:H2'	1:1A:2186:G:O4'	2.04	0.57
5:1F:75:HIS:ND1	60:1F:405:HOH:O	2.32	0.57
33:1b:101:MET:HA	33:1b:108:ILE:HD12	1.86	0.57
34:1c:6:HIS:CD2	34:1c:9:GLY:H	2.22	0.57
37:1f:42:GLU:OE2	37:1f:59:TYR:OH	2.21	0.57
1:2A:1076:C:H4'	1:2A:1077:A:OP1	2.03	0.57
1:2A:2110:G:OP1	1:2A:2118:U:N3	2.37	0.57
1:2A:2751:G:H3'	1:2A:2752:C:C6	2.39	0.57
17:2V:52:VAL:HG23	17:2V:55:ALA:HB3	1.85	0.57
22:20:68:GLU:OE2	22:20:82:ARG:NH1	2.37	0.57
23:21:51:VAL:HG11	23:21:74:VAL:HG21	1.85	0.57
32:2a:41:G:H2'	32:2a:42:G:H8	1.68	0.57
32:2a:1499:A:OP2	60:2a:3213:HOH:O	2.17	0.57
1:1A:247:G:H4'	1:1A:386:G:C5	2.39	0.57
1:1A:1094:U:O2'	1:1A:1096:A:N7	2.28	0.57
48:1q:81:ARG:NH1	48:1q:83:ASP:OD2	2.38	0.57
1:2A:1503:U:H2'	1:2A:1504:C:C6	2.40	0.57
1:2A:2431:U:OP1	60:2A:3891:HOH:O	2.17	0.57
7:2H:98:LEU:HG	7:2H:125:VAL:HG23	1.87	0.57
10:2O:32:TYR:OH	60:2O:302:HOH:O	2.17	0.57
28:26:34:LEU:HB2	28:26:51:GLU:HB2	1.86	0.57
32:2a:289:G:OP2	60:2a:3224:HOH:O	2.18	0.57
32:2a:674:G:H2'	32:2a:675:A:H8	1.70	0.57
32:2a:1305:G:H22	32:2a:1331:G:H1'	1.68	0.57
35:2d:109:GLY:HA3	35:2d:165:MET:HG3	1.86	0.57
1:1A:2421:G:O6	60:1A:4147:HOH:O	2.13	0.57
11:1P:49:ARG:HH12	30:18:4:MET:HE1	1.70	0.57
18:1W:68:ARG:HH12	18:1W:112:GLY:H	1.51	0.57
40:2i:5:TYR:CE2	40:2i:7:THR:HG23	2.39	0.57
47:1p:53:VAL:HG13	47:1p:79:VAL:HG12	1.87	0.57
1:2A:489:G:N7	18:2W:49:LYS:NZ	2.53	0.57
1:2A:922:U:H2'	1:2A:923:C:C6	2.39	0.57
1:2A:1803:A:O2'	3:2D:259:THR:HG21	2.05	0.57
32:2a:134:A:N6	47:2p:25:ARG:HH22	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1238:A:OP2	60:2a:3223:HOH:O	2.17	0.57
32:2a:1503:A:H5'	32:2a:1531:A:H1'	1.87	0.57
1:1A:286:C:H2'	1:1A:287:C:H6	1.68	0.56
24:12:41:ILE:HG13	24:12:43:GLN:HG3	1.87	0.56
32:2a:1014:A:C2	32:2a:1219:U:H1'	2.40	0.56
39:2h:121:ASP:OD1	39:2h:122:ARG:N	2.37	0.56
1:1A:2428:G:OP1	60:1A:4106:HOH:O	2.17	0.56
23:11:3:LYS:HG3	23:11:4:VAL:H	1.69	0.56
32:1a:222:U:H2'	32:1a:223:U:C6	2.40	0.56
32:1a:256:U:OP1	48:1q:17:LYS:NZ	2.36	0.56
32:1a:1124:G:N7	32:1a:1145:C:O2'	2.32	0.56
1:2A:981:A:OP1	60:2A:3885:HOH:O	2.17	0.56
1:2A:2206:G:H8	1:2A:2207:G:N7	2.03	0.56
1:2A:2483:C:N3	12:2Q:124:LYS:NZ	2.51	0.56
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.70	0.56
6:2G:72:ARG:HG2	6:2G:87:PRO:HA	1.85	0.56
32:2a:881:G:P	43:2l:12:ARG:HH22	2.29	0.56
38:2g:31:MET:HE3	38:2g:34:GLY:HA2	1.86	0.56
1:1A:1175:U:OP1	1:1A:1177:A:N6	2.39	0.56
1:1A:1503:U:H2'	1:1A:1504:C:C6	2.40	0.56
1:1A:2314:C:H2'	1:1A:2315:G:H8	1.70	0.56
2:1B:66:A:H61	2:1B:108:U:H2'	1.71	0.56
2:1B:81:G:N7	57:1B:233:ARG:NH2	2.48	0.56
3:1D:26:LYS:HE2	3:1D:28:GLU:O	2.05	0.56
13:1R:71:GLN:NE2	60:1R:305:HOH:O	2.37	0.56
29:17:35:ARG:NH1	60:17:202:HOH:O	2.37	0.56
32:1a:166:G:H2'	32:1a:167:G:H8	1.70	0.56
33:1b:84:GLU:HB3	33:1b:219:VAL:HG21	1.86	0.56
48:1q:19:VAL:HG23	48:1q:44:ALA:HB3	1.87	0.56
1:2A:2096:U:H3	1:2A:2193:G:H1	1.51	0.56
7:2H:98:LEU:HD11	7:2H:124:GLU:HA	1.87	0.56
15:2T:60:THR:HG22	15:2T:77:PRO:HA	1.87	0.56
15:2T:127:ALA:C	15:2T:129:ARG:H	2.11	0.56
23:21:52:ARG:NH1	23:21:55:GLY:O	2.39	0.56
25:23:7:LYS:HE3	25:23:32:GLN:HE21	1.70	0.56
32:2a:1001:A:H2'	32:2a:1001(A):G:C8	2.40	0.56
32:2a:1290:G:H5''	38:2g:35:LYS:HZ2	1.69	0.56
32:2a:1387:G:H2'	32:2a:1388:C:C6	2.40	0.56
44:2m:89:GLY:HA2	44:2m:92:HIS:HB2	1.86	0.56
51:2t:42:GLN:O	51:2t:45:GLN:HB3	2.04	0.56
1:1A:2086:U:H2'	1:1A:2087:G:C8	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2206:G:H2'	1:1A:2207:G:C2	2.41	0.56
1:1A:2611:U:C4	27:15:3:LYS:HG2	2.41	0.56
14:1S:93:LYS:O	60:1S:201:HOH:O	2.18	0.56
53:1y:43:LYS:NZ	53:1y:44:GLU:O	2.31	0.56
1:2A:2267:A:OP1	60:2A:3893:HOH:O	2.18	0.56
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	1.86	0.56
5:2F:25:PRO:HD2	5:2F:115:ALA:HB2	1.87	0.56
33:2b:21:ARG:O	33:2b:23:ARG:N	2.33	0.56
1:1A:483:A:O2'	20:1Y:49:VAL:O	2.17	0.56
1:1A:1508:A:H4'	1:1A:1509(A):A:C5	2.41	0.56
31:19:25:VAL:HB	31:19:34:GLN:HB2	1.88	0.56
32:1a:201:C:N4	32:1a:216:G:H1	2.03	0.56
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.40	0.56
44:1m:52:GLU:HG3	44:1m:55:ARG:HH21	1.70	0.56
48:1q:53:LEU:HD21	48:1q:85:VAL:HG11	1.87	0.56
1:2A:320:A:H4'	1:2A:322:A:N7	2.20	0.56
1:2A:568:U:H5'	1:2A:945:A:N6	2.21	0.56
1:2A:706:A:H2'	1:2A:707:G:O4'	2.06	0.56
1:2A:2382:G:OP2	60:2A:3892:HOH:O	2.18	0.56
1:2A:2469:A:H4'	12:2Q:56:ARG:HG2	1.86	0.56
1:2A:2784:C:H2'	1:2A:2785:C:H6	1.70	0.56
32:2a:64:G:H4'	32:2a:65:U:H3'	1.87	0.56
32:2a:384:G:H2'	32:2a:385:C:H6	1.70	0.56
32:2a:1090:U:H2'	32:2a:1091:U:C6	2.40	0.56
32:2a:1129:C:N3	32:2a:1143:G:N2	2.47	0.56
38:2g:114:ARG:HB2	38:2g:115:ARG:HH21	1.70	0.56
53:2y:34:LEU:HD23	53:2y:54:ILE:HG21	1.88	0.56
1:1A:39:C:O2	5:1F:46:ARG:NH2	2.37	0.56
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.41	0.56
1:1A:2438:U:O2'	1:1A:2440:C:OP1	2.23	0.56
15:1T:91:ARG:HD2	15:1T:120:ARG:HH12	1.71	0.56
18:1W:67:ASP:N	18:1W:67:ASP:OD1	2.38	0.56
1:2A:630:G:OP1	30:28:47:LYS:NZ	2.35	0.56
1:2A:1019:U:OP1	1:2A:1035:U:O2'	2.18	0.56
13:2R:87:TYR:OH	13:2R:117:VAL:O	2.16	0.56
32:2a:523:A:H61	43:2l:92:0TD:CG	2.18	0.56
32:2a:1329:A:H5''	44:2m:26:GLY:H	1.70	0.56
33:2b:18:GLY:HA2	33:2b:42:ILE:HD12	1.87	0.56
33:2b:74:LYS:NZ	33:2b:166:ASP:HB2	2.20	0.56
33:2b:88:ALA:HB1	33:2b:222:ILE:HD11	1.88	0.56
41:2j:32:ALA:O	41:2j:76:ASN:N	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2336:A:H61	22:10:43:THR:CG2	2.18	0.56
32:1a:1216:G:H5'	45:1n:5:ALA:HB2	1.87	0.56
1:2A:1504:C:H2'	1:2A:1505:C:C6	2.40	0.56
13:2R:2:ARG:NH1	13:2R:5:LYS:O	2.39	0.56
32:2a:890:G:O2'	32:2a:906:G:O6	2.21	0.56
32:2a:1066:C:H2'	32:2a:1067:A:C8	2.41	0.56
53:2y:40:ILE:HB	53:2y:51:ASP:HB2	1.88	0.56
1:1A:614(C):A:OP2	60:1A:4179:HOH:O	2.18	0.56
1:1A:2103:C:H2'	1:1A:2104:G:H5'	1.87	0.56
32:1a:373:A:H2'	32:1a:374:A:H8	1.71	0.56
36:1e:6:PHE:HB2	36:1e:34:VAL:HG22	1.88	0.56
42:1k:18:ARG:NH1	42:1k:35:PRO:O	2.39	0.56
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.41	0.56
8:2I:75:LEU:HD21	8:2I:105:HIS:ND1	2.21	0.56
32:2a:995:C:O2	45:2n:4:LYS:NZ	2.38	0.56
36:2e:96:PRO:O	36:2e:98:THR:N	2.39	0.56
38:2g:74:GLU:OE1	38:2g:95:ARG:NH1	2.38	0.56
1:1A:2133:G:C2	1:1A:2157:G:H2'	2.41	0.56
1:1A:2887:U:H2'	1:1A:2888:C:H6	1.71	0.56
5:1F:53:THR:CG2	5:1F:55:GLY:H	2.19	0.56
5:1F:143:ALA:HB1	5:1F:148:LEU:HB2	1.88	0.56
8:1I:77:LEU:HB3	8:1I:142:VAL:HG22	1.87	0.56
32:1a:406:G:H5'	35:1d:5:ILE:HD13	1.88	0.56
32:1a:1469:G:H2'	32:1a:1470:G:C8	2.41	0.56
41:1j:40:LEU:HB2	41:1j:69:ASN:HB3	1.86	0.56
44:1m:4:ILE:HG23	44:1m:57:ARG:HE	1.71	0.56
4:2E:9:VAL:HG13	4:2E:25:VAL:O	2.06	0.56
26:24:48:ARG:HD2	26:24:52:THR:HA	1.88	0.56
32:2a:31:G:O2'	32:2a:48:C:N4	2.39	0.56
32:2a:164:U:H2'	32:2a:165:C:H6	1.70	0.56
11:1P:70:GLN:NE2	60:1P:304:HOH:O	2.38	0.56
33:1b:185:ILE:HG22	33:1b:199:TYR:HD2	1.71	0.56
39:1h:10:LEU:HD22	39:1h:83:ILE:HD11	1.88	0.56
51:1t:50:GLU:HA	51:1t:53:LEU:HD12	1.88	0.56
1:2A:729:G:C6	3:2D:208:LYS:HB2	2.41	0.56
3:2D:85:ASP:OD2	3:2D:88:ARG:NH1	2.33	0.56
6:2G:145:THR:HG22	6:2G:148:MET:HE3	1.88	0.56
32:2a:834:C:H2'	32:2a:835:U:H6	1.71	0.56
1:1A:1292:U:H2'	1:1A:1293:C:C6	2.42	0.55
1:1A:2691:C:OP2	60:1A:4180:HOH:O	2.18	0.55
32:1a:1237:C:H3'	32:1a:1336:C:H41	1.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.41	0.55
47:1p:75:ARG:HG3	47:1p:80:PHE:HD2	1.70	0.55
1:2A:2810:A:N6	1:2A:2891:G:O2'	2.35	0.55
22:20:49:LYS:HG3	22:20:50:ASN:HD22	1.70	0.55
32:2a:460:G:H2'	32:2a:461:A:H2'	1.88	0.55
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.88	0.55
32:2a:1323:G:HO2'	32:2a:1362:C:HO2'	1.52	0.55
32:2a:1491:G:O2'	32:2a:1492:A:OP1	2.21	0.55
41:2j:8:LEU:HB2	41:2j:70:ARG:HB2	1.88	0.55
44:2m:95:GLY:O	44:2m:110:ARG:HG3	2.05	0.55
45:2n:29:ARG:HD3	45:2n:40:CYS:SG	2.47	0.55
1:1A:614(A):U:H5''	57:1F:319:ARG:HB3	1.87	0.55
1:1A:2155:G:H3'	1:1A:2156:G:H8	1.71	0.55
1:1A:2279:G:O6	22:10:14:ARG:HG3	2.06	0.55
17:1V:52:VAL:CG2	17:1V:55:ALA:HB3	2.36	0.55
18:1W:97:LYS:O	60:1W:301:HOH:O	2.18	0.55
21:1Z:150:LEU:O	21:1Z:171:ILE:HG13	2.06	0.55
26:14:40:HIS:HB3	26:14:43:TYR:HD2	1.71	0.55
36:1e:110:LEU:HD13	36:1e:118:ILE:HG21	1.87	0.55
1:2A:2171:A:H4'	1:2A:2172:U:OP1	2.06	0.55
3:2D:25:THR:HG21	3:2D:113:VAL:HG11	1.87	0.55
7:2H:22:GLY:O	7:2H:37:VAL:N	2.39	0.55
13:2R:33:ARG:NH1	13:2R:115:GLU:OE1	2.38	0.55
32:2a:992:U:H4'	32:2a:993:G:O5'	2.07	0.55
32:2a:1031:G:H2'	32:2a:1032:G:C8	2.41	0.55
43:2l:77:LEU:HD21	43:2l:107:ALA:HA	1.87	0.55
1:1A:1920:4OC:HM22	1:1A:1921:G:H5'	1.88	0.55
1:1A:2844:G:O6	60:1A:4164:HOH:O	2.16	0.55
28:16:6:ARG:NH1	28:16:26:ASN:HB2	2.21	0.55
30:18:42:ARG:NH1	60:18:201:HOH:O	2.20	0.55
32:1a:524:G:H2'	32:1a:525:C:C6	2.41	0.55
1:2A:776:G:N7	1:2A:793:A:O2'	2.38	0.55
11:2P:134:ALA:O	11:2P:138:LEU:HB2	2.06	0.55
33:2b:219:VAL:HA	33:2b:222:ILE:HG12	1.88	0.55
40:2i:42:ARG:NH1	40:2i:71:SER:O	2.39	0.55
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.42	0.55
7:1H:149:ARG:NH1	7:1H:167:GLU:OE2	2.38	0.55
32:1a:1226:C:H2'	44:1m:103:THR:HB	1.87	0.55
4:2E:14:ILE:HB	15:2T:14:TYR:CZ	2.42	0.55
15:2T:28:VAL:HG13	15:2T:86:ILE:HG23	1.88	0.55
32:2a:1006:C:H2'	32:2a:1007:C:C6	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:47:LEU:HD13	34:2c:68:VAL:HG11	1.87	0.55
36:2e:6:PHE:HB2	36:2e:34:VAL:HG22	1.89	0.55
39:2h:37:ARG:NH2	39:2h:118:VAL:O	2.35	0.55
1:1A:1082:U:H3	1:1A:1086:A:H61	0.65	0.55
1:1A:1226:A:OP1	17:1V:84:LYS:NZ	2.31	0.55
6:1G:143:GLU:OE2	26:14:26:SER:OG	2.19	0.55
32:1a:270:A:H2'	32:1a:271:C:C6	2.42	0.55
34:1c:87:LEU:O	34:1c:91:LEU:N	2.32	0.55
1:2A:577:G:O2'	1:2A:1254:A:OP1	2.21	0.55
11:2P:95:VAL:HG23	11:2P:125:VAL:HA	1.87	0.55
18:2W:67:ASP:OD1	18:2W:67:ASP:N	2.39	0.55
33:2b:51:LEU:HD21	33:2b:201:ILE:HG23	1.87	0.55
40:2i:9:ARG:HB2	40:2i:104:ARG:HE	1.70	0.55
1:1A:1570:A:H2'	1:1A:1571:A:C8	2.41	0.55
1:1A:2022:U:O2'	1:1A:2617:C:H5'	2.06	0.55
1:1A:2345:G:N3	1:1A:2381:C:H2'	2.22	0.55
32:1a:659:U:H2'	32:1a:660:G:C8	2.41	0.55
49:1r:26:LEU:HB2	49:1r:29:PHE:CE2	2.41	0.55
32:2a:620:C:C2	35:2d:135:LEU:HG	2.41	0.55
32:2a:939:G:H2'	32:2a:940:C:C6	2.42	0.55
32:2a:1387:G:H2'	32:2a:1388:C:H6	1.72	0.55
33:2b:98:LEU:HB2	33:2b:101:MET:HG3	1.87	0.55
38:2g:68:ASN:ND2	38:2g:127:ALA:O	2.23	0.55
1:1A:251:A:C5	1:1A:252:G:H1'	2.42	0.55
1:1A:2096:U:H3	1:1A:2193:G:H1	1.55	0.55
32:1a:355:C:O2'	32:1a:388:G:N3	2.36	0.55
48:1q:67:LYS:HA	48:1q:70:ARG:HH12	1.71	0.55
1:2A:265:A:N1	1:2A:427:U:O2'	2.37	0.55
1:2A:1815:A:OP2	3:2D:54:ARG:NH2	2.39	0.55
1:2A:2286:A:P	28:26:29:ASN:HD22	2.30	0.55
33:2b:32:ILE:HD13	33:2b:40:HIS:HB3	1.89	0.55
1:1A:1070:A:N7	1:1A:1097:U:H4'	2.21	0.55
1:1A:1094:U:H1'	1:1A:1097:U:H5	1.70	0.55
32:1a:986:A:H1'	50:1s:54:GLY:O	2.07	0.55
32:1a:1122:U:OP2	60:1a:1920:HOH:O	2.18	0.55
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.42	0.55
6:2G:106:LEU:HA	6:2G:110:ALA:HB3	1.89	0.55
32:2a:663:A:H61	32:2a:742:G:H1	1.52	0.55
32:2a:986:A:N3	50:2s:52:TYR:OH	2.30	0.55
41:2j:77:PRO:O	41:2j:81:THR:OG1	2.16	0.55
6:1G:49:ASP:O	6:1G:51:ARG:N	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:1:MET:N	8:1I:21:VAL:O	2.34	0.55
1:2A:154(A):C:H42	1:2A:171:G:H1	1.55	0.55
1:2A:579:G:H2'	1:2A:580:C:C6	2.42	0.55
1:2A:2698:U:H2'	1:2A:2699:C:C6	2.42	0.55
21:2Z:52:SER:HB3	21:2Z:54:HIS:H	1.70	0.55
32:2a:803:G:OP1	60:2a:3225:HOH:O	2.18	0.55
44:2m:87:TYR:HA	44:2m:90:LEU:HG	1.89	0.55
53:2y:53:THR:HG22	53:2y:62:VAL:HG12	1.89	0.55
1:1A:1047:G:O2'	1:1A:1048:A:H8	1.90	0.55
6:1G:77:ILE:HG21	6:1G:80:PHE:CD2	2.42	0.55
15:1T:112:ARG:HG2	15:1T:115:ARG:HH21	1.71	0.55
32:1a:62:U:O2'	32:1a:379:C:O2	2.24	0.55
33:1b:68:ILE:HG12	33:1b:161:ALA:HB3	1.87	0.55
39:1h:86:ILE:HG12	39:1h:135:CYS:HA	1.89	0.55
1:2A:720:C:H2'	1:2A:721:C:H6	1.72	0.55
1:2A:878:A:H3'	1:2A:879:G:H8	1.70	0.55
1:2A:2155:G:C2	1:2A:2156:G:H1'	2.42	0.55
32:2a:513:C:H2'	32:2a:514:C:H6	1.72	0.55
32:2a:1030(B):C:H41	32:2a:1030(C):G:N2	2.05	0.55
32:2a:1179:A:H2'	32:2a:1180:A:O4'	2.06	0.55
40:2i:9:ARG:HG2	40:2i:14:VAL:HG12	1.89	0.55
1:1A:588:U:H2'	1:1A:589:C:C6	2.41	0.54
1:1A:1086:A:H3'	1:1A:1086:A:N3	2.22	0.54
1:1A:1188:U:H4'	17:1V:79:VAL:HG22	1.89	0.54
1:1A:1441:G:O6	60:1A:4166:HOH:O	2.16	0.54
1:1A:2076:U:OP2	1:1A:2238:G:N2	2.37	0.54
1:1A:2690:C:N4	60:1A:4559:HOH:O	2.39	0.54
4:1E:55:ASN:HB3	4:1E:58:ARG:HG3	1.88	0.54
8:1I:132:PRO:HD2	8:1I:136:VAL:O	2.07	0.54
44:1m:52:GLU:HG3	44:1m:55:ARG:NH2	2.22	0.54
1:2A:2130:U:H2'	1:2A:2158:A:H61	1.72	0.54
14:2S:50:SER:O	14:2S:76:LYS:NZ	2.28	0.54
24:22:64:LEU:O	24:22:68:ARG:HG2	2.07	0.54
33:2b:223:ILE:HA	33:2b:226:ARG:HB2	1.90	0.54
38:2g:132:GLY:O	38:2g:136:LYS:HG2	2.07	0.54
1:1A:1154:G:O2'	60:1A:4162:HOH:O	2.15	0.54
1:1A:2233:U:OP1	60:1A:4185:HOH:O	2.18	0.54
1:1A:2563:U:H4'	10:1O:28:SER:HA	1.89	0.54
8:1I:43:ASN:OD1	8:1I:43:ASN:N	2.39	0.54
21:1Z:150:LEU:HB3	21:1Z:171:ILE:HD11	1.88	0.54
32:1a:544:G:OP1	35:1d:59:ARG:NH2	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1236:A:H4'	32:1a:1304:G:H4'	1.89	0.54
1:2A:190:A:OP2	23:21:39:LYS:HE3	2.07	0.54
1:2A:1497:U:H5''	1:2A:1498:C:H5	1.72	0.54
1:2A:2786:U:OP1	4:2E:69:LYS:NZ	2.39	0.54
1:1A:1082:U:C4	1:1A:1086:A:N1	2.75	0.54
1:1A:1352:U:OP1	60:1A:4181:HOH:O	2.18	0.54
1:1A:1833:U:O2'	1:1A:1969:A:N1	2.38	0.54
1:1A:2183:C:H2'	1:1A:2184:G:C8	2.42	0.54
17:1V:1:MET:HE1	17:1V:44:LYS:HG2	1.89	0.54
27:15:5:PRO:O	60:15:201:HOH:O	2.18	0.54
32:1a:160:A:H2'	32:1a:161:A:O4'	2.08	0.54
32:1a:828:A:H2'	32:1a:829:G:O4'	2.08	0.54
44:1m:11:ARG:C	44:1m:13:LYS:H	2.14	0.54
48:1q:58:GLU:O	48:1q:74:LEU:N	2.34	0.54
1:2A:635:C:O2'	1:2A:639:U:OP1	2.22	0.54
1:2A:740:U:OP2	60:2A:3894:HOH:O	2.18	0.54
1:2A:1119:C:N4	60:2A:3918:HOH:O	2.23	0.54
1:2A:1714:G:H2'	1:2A:1717:G:C8	2.42	0.54
8:2I:101:LEU:O	8:2I:106:GLY:N	2.40	0.54
42:2k:18:ARG:HH12	42:2k:83:ILE:HD11	1.71	0.54
1:1A:1069:A:O2'	1:1A:1073:A:N6	2.40	0.54
10:1O:2:ILE:HD12	10:1O:6:THR:HG21	1.88	0.54
26:14:68:ARG:HD3	26:14:69:LYS:N	2.23	0.54
32:1a:384:G:H2'	32:1a:385:C:C6	2.42	0.54
32:1a:457:C:H2'	32:1a:458:C:C6	2.43	0.54
47:1p:57:ARG:HE	47:1p:79:VAL:HA	1.72	0.54
1:2A:465:G:OP1	29:27:12:ARG:NH2	2.39	0.54
1:2A:1062:G:O2'	1:2A:1063:G:H5'	2.07	0.54
1:2A:1096:A:C5	1:2A:1097:U:H5	2.24	0.54
1:2A:2130:U:H2'	1:2A:2158:A:N6	2.22	0.54
1:2A:2673:G:O2'	60:2A:3897:HOH:O	2.18	0.54
40:2i:70:LYS:O	40:2i:74:ILE:HG13	2.07	0.54
1:1A:1721:G:H8	1:1A:1741:A:H62	1.55	0.54
4:1E:76:ARG:NH1	60:1E:403:HOH:O	2.40	0.54
19:1X:5:TYR:CE1	24:12:30:ARG:HG3	2.42	0.54
32:1a:573:A:OP2	60:1a:1909:HOH:O	2.18	0.54
32:1a:976:G:H5'	32:1a:1358:U:O2'	2.08	0.54
32:1a:1226:C:H4'	32:1a:1227:A:OP1	2.06	0.54
1:2A:1417:C:H2'	1:2A:1418:G:O4'	2.08	0.54
1:2A:2223:G:OP1	3:2D:172:TYR:OH	2.19	0.54
1:2A:2273:A:H2'	1:2A:2274:A:C8	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:50:G:OP1	14:2S:63:THR:N	2.40	0.54
5:2F:150:GLY:HA2	5:2F:172:TRP:CD2	2.43	0.54
23:21:76:ARG:HH22	23:21:97:LEU:HB3	1.71	0.54
32:2a:926:G:C6	53:2y:87:LYS:HG3	2.41	0.54
32:2a:1244:C:H42	32:2a:1293:G:H1	1.55	0.54
32:2a:1314:C:N4	50:2s:2:PRO:O	2.38	0.54
34:2c:180:ALA:HB1	34:2c:203:PHE:HE1	1.73	0.54
1:1A:105:C:OP1	60:1A:4182:HOH:O	2.18	0.54
1:1A:784:A:N6	3:1D:229:VAL:HG11	2.23	0.54
1:1A:2147:G:C4	1:1A:2148:G:H1'	2.43	0.54
32:1a:461:A:O2'	32:1a:470:C:H5'	2.07	0.54
32:1a:975:A:H4'	32:1a:976:G:C5'	2.37	0.54
32:1a:1034:G:C2	32:1a:1035:A:H1'	2.43	0.54
35:1d:187:ARG:NH1	35:1d:189:PRO:HA	2.23	0.54
1:2A:1688:U:O2	1:2A:1700:A:H5'	2.08	0.54
1:2A:1783:A:N7	60:2A:4057:HOH:O	2.34	0.54
12:2Q:57:HIS:HD2	12:2Q:117:ALA:HB2	1.73	0.54
23:21:3:LYS:HB2	23:21:61:ARG:HH22	1.73	0.54
32:2a:129(A):G:C6	32:2a:189(E):U:H4'	2.43	0.54
1:1A:185:U:H2'	1:1A:186:G:H8	1.73	0.54
1:1A:2790:A:H2'	1:1A:2790:A:N3	2.22	0.54
1:1A:2870:C:H2'	1:1A:2871:C:O4'	2.06	0.54
1:1A:2887:U:H2'	1:1A:2888:C:C6	2.43	0.54
32:1a:791:G:N2	32:1a:1497:G:O3'	2.40	0.54
32:1a:1192:C:O2	36:1e:25:ARG:NH2	2.35	0.54
46:1o:8:LYS:O	46:1o:12:ILE:HG13	2.08	0.54
1:2A:83:G:N1	1:2A:102:G:O2'	2.27	0.54
1:2A:811:U:H2'	11:2P:21:ARG:HA	1.90	0.54
1:2A:995:C:O2	9:2N:3:THR:OG1	2.16	0.54
1:2A:1057:A:N7	1:2A:1086:A:H2'	2.23	0.54
1:2A:1525:G:H2'	1:2A:1526:G:C8	2.42	0.54
3:2D:118:VAL:HG22	3:2D:119:ALA:H	1.73	0.54
4:2E:176:ILE:HB	4:2E:181:LEU:HB2	1.89	0.54
26:24:16:CYS:SG	26:24:17:GLY:N	2.80	0.54
32:2a:1005:A:H5''	32:2a:1006:C:C5	2.42	0.54
38:2g:153:HIS:HA	38:2g:155:ARG:NH1	2.22	0.54
53:2y:35:ILE:N	53:2y:55:ASN:O	2.38	0.54
1:1A:2820:A:OP2	13:1R:2:ARG:NH2	2.41	0.54
32:1a:1263:C:H2'	32:1a:1264:C:C6	2.43	0.54
32:1a:1347:G:H22	32:1a:1374:A:P	2.31	0.54
40:1i:8:GLY:HA2	40:1i:79:LEU:HD23	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:98:G:H5'	24:22:3:LEU:HD23	1.90	0.54
1:2A:1087:G:H22	1:2A:1102:C:H42	1.55	0.54
1:2A:2645:G:N2	1:2A:2767:C:OP2	2.40	0.54
6:2G:133:LEU:HD23	6:2G:157:ILE:HB	1.90	0.54
9:2N:19:GLU:OE2	9:2N:59:LYS:NZ	2.36	0.54
14:2S:11:LYS:HE2	14:2S:91:PRO:HD3	1.90	0.54
32:2a:684:A:O2'	42:2k:39:PRO:O	2.23	0.54
32:2a:1003:G:H2'	32:2a:1004:A:C4'	2.29	0.54
34:2c:139:GLN:HE21	34:2c:143:GLU:HG3	1.72	0.54
35:2d:114:ARG:HA	35:2d:117:ALA:HB3	1.90	0.54
38:2g:133:GLY:HA2	38:2g:136:LYS:HB2	1.90	0.54
42:2k:13:GLN:HA	42:2k:75:TYR:O	2.08	0.54
1:1A:821:A:H2'	1:1A:946:G:H5''	1.89	0.54
1:1A:1509(A):A:H2'	1:1A:1509(B):A:O4'	2.08	0.54
1:1A:2143:C:H2'	1:1A:2144:U:H4'	1.90	0.54
15:1T:111:ARG:NH2	32:1a:1464:G:OP2	2.40	0.54
32:1a:405:U:O4	35:1d:2:GLY:N	2.40	0.54
33:1b:215:LEU:O	33:1b:219:VAL:HG23	2.08	0.54
39:1h:44:PHE:CE2	39:1h:109:ILE:HG12	2.43	0.54
15:2T:109:GLU:HG3	15:2T:112:ARG:HH22	1.72	0.54
16:2U:110:VAL:HG12	16:2U:114:LYS:HE2	1.90	0.54
32:2a:745:C:H4'	32:2a:836:G:H21	1.72	0.54
32:2a:1119:C:H2'	32:2a:1120:G:H8	1.72	0.54
32:2a:1516:G:N2	32:2a:1519:MA6:OP2	2.40	0.54
33:2b:158:LEU:HG	33:2b:182:ILE:HD11	1.89	0.54
1:1A:82:G:N7	60:1A:4426:HOH:O	2.33	0.54
5:1F:64:ILE:HG21	5:1F:78:ILE:HG23	1.90	0.54
12:1Q:7:MET:HG3	12:1Q:9:TYR:O	2.08	0.54
15:1T:91:ARG:HD2	15:1T:120:ARG:NH1	2.23	0.54
19:1X:53:LYS:HB3	19:1X:82:GLN:HB3	1.89	0.54
32:1a:559:A:P	36:1e:126:ARG:HH22	2.30	0.54
32:1a:1179:A:OP2	40:1i:93:ARG:NH2	2.41	0.54
8:2I:57:ARG:O	8:2I:61:ARG:HG2	2.08	0.54
9:2N:16:ILE:HG21	9:2N:26:LEU:HD11	1.90	0.54
16:2U:97:ASP:OD1	16:2U:101:ARG:HD2	2.08	0.54
32:2a:1014:A:H2	32:2a:1219:U:H1'	1.71	0.54
35:2d:165:MET:HB3	35:2d:176:LEU:HD21	1.89	0.54
1:1A:2155:G:H3'	1:1A:2156:G:C8	2.42	0.53
30:18:26:LYS:HD2	30:18:48:PHE:CD2	2.43	0.53
32:1a:261:U:OP2	51:1t:79:ARG:NH2	2.41	0.53
32:1a:738:C:H2'	32:1a:739:C:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.43	0.53
41:1j:55:LYS:HE3	41:1j:56:HIS:CE1	2.42	0.53
44:1m:37:THR:O	44:1m:55:ARG:NH1	2.41	0.53
1:2A:966:G:O2'	60:2A:3899:HOH:O	2.19	0.53
1:2A:2749:A:H3'	1:2A:2750:A:H2'	1.90	0.53
10:2O:9:GLU:O	10:2O:83:ALA:HA	2.08	0.53
10:2O:64:ARG:HD2	10:2O:81:ASP:OD1	2.08	0.53
32:2a:254:G:OP1	48:2q:66:SER:OG	2.25	0.53
32:2a:975:A:N1	41:2j:48:THR:HB	2.23	0.53
34:2c:181:ASN:HB3	34:2c:204:LEU:HB2	1.90	0.53
51:2t:40:ALA:HB2	51:2t:55:ILE:HG22	1.89	0.53
4:1E:116:VAL:HG13	4:1E:122:PHE:HB2	1.89	0.53
21:1Z:157:LEU:HD11	21:1Z:163:LEU:HB2	1.90	0.53
32:1a:651:C:N4	32:1a:753:A:OP2	2.42	0.53
33:1b:50:GLU:O	33:1b:54:THR:N	2.32	0.53
53:1y:43:LYS:HD3	53:1y:48:PHE:CE1	2.44	0.53
1:2A:2292:C:OP1	14:2S:17:ARG:NH2	2.28	0.53
1:2A:2321:G:O2'	1:2A:2322:A:OP1	2.23	0.53
18:2W:73:ALA:HB3	18:2W:106:ILE:HB	1.90	0.53
32:2a:519:C:OP2	43:2l:50:SER:OG	2.23	0.53
32:2a:520:A:OP1	60:2a:3227:HOH:O	2.19	0.53
32:2a:1401:G:O6	53:2y:83:ARG:NH2	2.41	0.53
40:2i:7:THR:O	40:2i:83:ARG:NH1	2.42	0.53
1:1A:1096:A:H3'	1:1A:1097:U:H5''	1.90	0.53
1:1A:2782:G:N2	60:1A:4373:HOH:O	2.31	0.53
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.44	0.53
38:1g:80:VAL:HB	38:1g:85:TYR:CE2	2.43	0.53
39:1h:14:ARG:O	39:1h:18:ARG:HG2	2.07	0.53
40:1i:66:ARG:HH21	40:1i:66:ARG:HB2	1.72	0.53
1:2A:271(F):C:H2'	1:2A:271(G):C:C6	2.44	0.53
1:2A:1449:A:N3	1:2A:1529:G:H1'	2.23	0.53
40:2i:117:HIS:CD2	40:2i:123:PRO:HB3	2.43	0.53
1:1A:1605:C:OP2	60:1A:4188:HOH:O	2.19	0.53
35:1d:111:ALA:HB1	35:1d:116:GLN:HB3	1.89	0.53
40:1i:46:ALA:HB2	40:1i:74:ILE:HG23	1.90	0.53
1:2A:1910:G:H2'	1:2A:1911:PSU:H6	1.73	0.53
3:2D:108:PRO:HB3	3:2D:143:HIS:HE1	1.73	0.53
3:2D:145:VAL:HG12	3:2D:146:GLU:O	2.08	0.53
14:2S:39:ILE:HG13	14:2S:73:LEU:HD11	1.89	0.53
32:2a:398:C:OP2	60:2a:3226:HOH:O	2.18	0.53
32:2a:662:G:H2'	32:2a:663:A:C8	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:974:A:OP2	45:2n:29:ARG:NH2	2.40	0.53
32:2a:1203:C:H2'	32:2a:1204:A:O4'	2.08	0.53
1:1A:796:C:H2'	1:1A:797:C:C6	2.44	0.53
1:1A:1157:G:OP2	60:1A:4190:HOH:O	2.19	0.53
1:1A:2282:G:N2	60:1A:4623:HOH:O	2.42	0.53
6:1G:72:ARG:HG2	6:1G:87:PRO:HA	1.90	0.53
33:1b:72:GLY:HA3	33:1b:81:VAL:HG11	1.89	0.53
1:2A:335:C:H4'	20:2Y:73:ARG:HD2	1.90	0.53
1:2A:875:G:H5''	21:2Z:149:SER:OG	2.08	0.53
1:2A:1047:G:H2'	1:2A:1110:G:H22	1.73	0.53
1:2A:1332:G:OP1	60:2A:3812:HOH:O	2.18	0.53
1:2A:1657:C:H2'	1:2A:1658:C:C6	2.43	0.53
1:2A:2060:A:OP2	60:2A:3896:HOH:O	2.18	0.53
7:2H:87:LEU:HB2	7:2H:131:VAL:HG23	1.90	0.53
32:2a:631:G:H2'	32:2a:632:A:O4'	2.08	0.53
32:2a:1346:A:H61	32:2a:1374:A:H3'	1.72	0.53
33:2b:93:VAL:HG21	33:2b:97:TRP:CD1	2.43	0.53
36:2e:95:ALA:HB1	36:2e:96:PRO:HD2	1.89	0.53
39:2h:30:ARG:O	39:2h:34:GLU:HG2	2.09	0.53
46:2o:39:LEU:HB3	46:2o:56:LEU:HD13	1.90	0.53
3:1D:117:VAL:HG11	3:1D:128:GLY:HA3	1.91	0.53
13:1R:104:ARG:HB2	13:1R:111:LEU:HD21	1.90	0.53
32:1a:408:A:H2'	32:1a:409:G:O4'	2.08	0.53
32:1a:955:U:O2'	50:1s:83:HIS:HD2	1.92	0.53
32:1a:1100:C:H3'	33:1b:96:ARG:NH1	2.24	0.53
32:1a:1348:U:H4'	40:1i:120:ARG:HD2	1.91	0.53
35:1d:94:LEU:HA	35:1d:97:LEU:HD12	1.90	0.53
35:1d:168:ARG:N	35:1d:168:ARG:HH11	2.07	0.53
46:1o:12:ILE:HG12	46:1o:31:LEU:HD11	1.90	0.53
47:1p:46:PRO:O	47:1p:48:TRP:N	2.40	0.53
1:2A:927:G:H2'	1:2A:928:G:O4'	2.08	0.53
1:2A:2639:A:H2'	1:2A:2640:G:O4'	2.09	0.53
32:2a:102:G:O2'	32:2a:151:A:N3	2.36	0.53
32:2a:513:C:H2'	32:2a:514:C:C6	2.44	0.53
32:2a:947:G:H2'	32:2a:948:C:O4'	2.08	0.53
32:2a:1002:G:N3	32:2a:1003:G:H8	2.06	0.53
42:2k:48:ILE:HG21	42:2k:63:LEU:HB3	1.91	0.53
53:2y:48:PHE:CD2	53:2y:70:MET:HB2	2.40	0.53
53:2y:87:LYS:O	53:2y:91:LYS:HB2	2.08	0.53
1:1A:323:G:C8	5:1F:171:PRO:HG3	2.44	0.53
1:1A:994:C:O2	17:1V:10:LYS:HE3	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1224:C:OP2	60:1A:4184:HOH:O	2.18	0.53
1:1A:1359:A:H61	1:1A:1372:U:H3	1.57	0.53
1:1A:1566:A:OP1	3:1D:211:ARG:NH1	2.42	0.53
21:1Z:152:ALA:HA	21:1Z:155:LEU:HD22	1.90	0.53
28:16:13:CYS:SG	28:16:47:THR:HG21	2.48	0.53
32:1a:7:G:H5'	32:1a:298:A:O4'	2.09	0.53
32:1a:1010:G:H22	32:1a:1020:U:H1'	1.73	0.53
32:1a:1125:U:O2	32:1a:1126:U:O2'	2.22	0.53
51:1t:18:GLN:O	51:1t:22:ARG:HG3	2.08	0.53
1:2A:2125:G:H22	1:2A:2172:U:H3'	1.73	0.53
6:2G:71:THR:OG1	6:2G:89:GLY:O	2.26	0.53
10:2O:35:VAL:HG11	10:2O:103:ALA:HB3	1.90	0.53
32:2a:600:C:H2'	32:2a:601:C:C6	2.44	0.53
45:2n:26:ARG:HD3	45:2n:43:CYS:HB3	1.89	0.53
46:2o:26:GLU:HG3	46:2o:81:LEU:HD13	1.89	0.53
7:1H:12:PRO:O	7:1H:15:VAL:HG13	2.08	0.53
23:11:59:THR:O	23:11:91:LYS:NZ	2.35	0.53
32:1a:45:U:H2'	32:1a:46:G:C8	2.44	0.53
35:1d:128:VAL:HG12	35:1d:129:ASN:HD22	1.74	0.53
39:1h:7:ALA:HB2	39:1h:85:ARG:HG3	1.91	0.53
48:1q:86:GLU:O	48:1q:90:ILE:HG13	2.08	0.53
1:2A:2274:A:OP2	60:2A:3900:HOH:O	2.19	0.53
1:2A:2526:G:H5'	1:2A:2742:C:O2'	2.08	0.53
3:2D:102:LYS:C	3:2D:103:ARG:HG2	2.34	0.53
4:2E:105:THR:OG1	4:2E:199:ARG:NH2	2.42	0.53
4:2E:159:HIS:ND1	60:2E:404:HOH:O	2.34	0.53
40:2i:3:GLN:NE2	40:2i:20:ARG:HE	2.06	0.53
44:2m:79:LYS:HA	44:2m:82:MET:HE2	1.91	0.53
53:2y:35:ILE:HB	53:2y:55:ASN:HB3	1.89	0.53
1:1A:64:A:O3'	19:1X:71:GLY:HA3	2.09	0.53
1:1A:1877:A:H5'	1:1A:1878:G:OP2	2.09	0.53
1:1A:2142:C:C2	1:1A:2149:G:N1	2.77	0.53
1:1A:2511:U:O2'	4:1E:138:PRO:O	2.23	0.53
1:1A:2611:U:H5'	1:1A:2611:U:H6	1.74	0.53
6:1G:75:LYS:HE3	6:1G:77:ILE:HD11	1.91	0.53
6:1G:179:PRO:HG3	26:14:43:TYR:OH	2.09	0.53
12:1Q:63:LYS:HA	21:1Z:178:GLU:HG2	1.91	0.53
32:1a:96:U:H2'	32:1a:97:G:H8	1.74	0.53
32:1a:1498:UR3:H4'	32:1a:1519:MA6:H2	1.91	0.53
43:1l:45:PRO:HG2	43:1l:49:ASN:O	2.09	0.53
1:2A:271(D):G:H2'	1:2A:271(E):U:C6	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2820:A:OP1	13:2R:2:ARG:NH2	2.42	0.53
8:2I:26:ALA:O	8:2I:31:LEU:HB2	2.08	0.53
32:2a:407:G:H5''	35:2d:115:ARG:HB3	1.90	0.53
32:2a:580:U:H5''	46:2o:58:MET:HG2	1.91	0.53
32:2a:967:5MC:H2'	32:2a:968:A:N7	2.24	0.53
32:2a:1400:5MC:N3	53:2y:63:ALA:HA	2.24	0.53
45:2n:10:ALA:HB2	45:2n:21:TYR:CZ	2.44	0.53
1:1A:279:C:H42	1:1A:361:G:H1	1.57	0.53
1:1A:2228:G:OP1	3:1D:261:LYS:NZ	2.38	0.53
1:1A:2805:G:H2'	1:1A:2807:G:H8	1.74	0.53
11:1P:63:PRO:HD3	30:18:27:THR:HG22	1.90	0.53
21:1Z:103:ARG:HD3	21:1Z:136:PHE:CD1	2.43	0.53
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.23	0.53
1:2A:361:G:O2'	1:2A:362:U:H5'	2.09	0.53
1:2A:362:U:O2'	1:2A:363:G:H5'	2.08	0.53
1:2A:1062:G:N7	1:2A:1070:A:H1'	2.24	0.53
1:2A:1913:A:N1	32:2a:1492:A:N6	2.57	0.53
1:2A:2134:A:O2'	1:2A:2159:G:N3	2.41	0.53
7:2H:89:ILE:HG22	7:2H:94:TYR:HB3	1.90	0.53
19:2X:11:PRO:HG2	19:2X:13:LEU:HD21	1.91	0.53
32:2a:410:G:OP1	35:2d:30:LYS:NZ	2.41	0.53
44:2m:107:ALA:O	44:2m:111:LYS:HB2	2.09	0.53
1:1A:613:G:N2	1:1A:614(C):A:O2'	2.42	0.52
1:1A:1705:G:C2'	1:1A:1706:U:H5'	2.39	0.52
60:1A:6737:HOH:O	19:1X:15:GLU:HB2	2.09	0.52
5:1F:132:VAL:HA	5:1F:138:GLU:HB3	1.91	0.52
32:1a:136:C:O2'	47:1p:65:GLN:NE2	2.38	0.52
32:1a:592:G:H1	32:1a:647:C:H42	1.57	0.52
32:1a:1360:A:OP2	45:1n:35:ARG:NH2	2.42	0.52
33:1b:54:THR:O	33:1b:58:ILE:HG12	2.08	0.52
39:1h:44:PHE:HB3	39:1h:80:ILE:HD11	1.91	0.52
6:2G:77:ILE:HG21	6:2G:80:PHE:CD2	2.44	0.52
12:2Q:34:LEU:HB2	12:2Q:118:LEU:HD22	1.90	0.52
32:2a:979:C:O2	45:2n:19:ARG:NE	2.42	0.52
32:2a:1033:G:H2'	32:2a:1033:G:N3	2.24	0.52
32:2a:1212:U:H4'	32:2a:1213:A:C8	2.44	0.52
32:2a:1262:C:H42	32:2a:1273:G:H1	1.55	0.52
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.44	0.52
33:2b:16:HIS:CD2	33:2b:210:SER:HB3	2.44	0.52
37:2f:91:VAL:HG11	49:2r:72:ARG:NH1	2.23	0.52
1:1A:249:C:O2'	11:1P:64:LYS:NZ	2.34	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:493:G:H2'	1:1A:494:G:O4'	2.08	0.52
1:1A:2336:A:H61	22:10:43:THR:HG22	1.73	0.52
1:1A:2487:G:N7	60:1A:4432:HOH:O	2.34	0.52
12:1Q:58:PHE:O	12:1Q:60:ARG:N	2.41	0.52
15:1T:2:ASN:OD1	15:1T:5:ALA:N	2.36	0.52
32:1a:673:G:O3'	37:1f:87:ARG:NH2	2.42	0.52
32:1a:1309:G:OP1	44:1m:88:ARG:NH2	2.36	0.52
1:2A:2602:A:H4'	1:2A:2603:G:OP1	2.09	0.52
60:2A:4733:HOH:O	5:2F:74:ARG:HD2	2.08	0.52
6:2G:124:SER:O	6:2G:124:SER:OG	2.16	0.52
14:2S:41:ASP:OD2	14:2S:44:LYS:HB2	2.09	0.52
14:2S:105:ALA:O	14:2S:110:LEU:HB2	2.09	0.52
19:2X:44:GLU:OE2	60:2X:201:HOH:O	2.18	0.52
32:2a:748:C:H4'	32:2a:749:C:O5'	2.07	0.52
42:2k:23:ALA:HA	42:2k:28:THR:HG22	1.90	0.52
18:1W:86:LEU:HD23	18:1W:88:ARG:HD3	1.91	0.52
32:1a:785:G:C2'	32:1a:786:G:H5'	2.39	0.52
32:1a:1316:G:N1	32:1a:1319:A:OP2	2.41	0.52
38:1g:78:ARG:HD2	38:1g:156:TRP:HZ3	1.72	0.52
1:2A:1952:A:OP1	10:2O:42:SER:OG	2.25	0.52
9:2N:30:ILE:HG23	9:2N:52:VAL:HG11	1.89	0.52
32:2a:444:C:N4	32:2a:490:G:H1	2.08	0.52
32:2a:724:G:C2	32:2a:725:G:C8	2.97	0.52
32:2a:738:C:OP1	37:2f:2:ARG:NH1	2.42	0.52
32:2a:1090:U:H2'	32:2a:1091:U:H6	1.72	0.52
32:2a:1318:A:H5''	50:2s:3:ARG:NH2	2.24	0.52
40:2i:50:LEU:HB2	40:2i:56:LEU:HD23	1.91	0.52
1:1A:185:U:H4'	1:1A:218:A:H4'	1.91	0.52
1:1A:1003:G:O2'	1:1A:1010:A:N1	2.39	0.52
1:1A:1011:G:OP1	16:1U:77:SER:OG	2.24	0.52
1:1A:2578:G:OP1	1:1A:2614:A:N6	2.40	0.52
8:1I:114:LEU:HD12	8:1I:130:TYR:HA	1.90	0.52
32:1a:169:C:H2'	32:1a:170:U:H6	1.74	0.52
32:1a:620:C:H2'	32:1a:621:A:O4'	2.09	0.52
51:1t:89:ARG:O	51:1t:93:GLU:HG2	2.09	0.52
1:2A:1010:A:OP2	60:2A:3898:HOH:O	2.18	0.52
1:2A:1747:G:H2'	1:2A:1747(A):G:H8	1.75	0.52
1:2A:1939:5MU:H2'	60:2A:3838:HOH:O	2.09	0.52
3:2D:175:LEU:HD12	3:2D:185:VAL:HG21	1.90	0.52
32:2a:1287:A:N6	32:2a:1371:G:O4'	2.41	0.52
35:2d:19:LEU:HB3	35:2d:21:LEU:HD21	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:2s:39:THR:HG22	50:2s:40:ILE:O	2.09	0.52
1:1A:1750:G:O2'	1:1A:2860:A:N1	2.38	0.52
1:1A:2107:C:N3	1:1A:2182:G:O6	2.43	0.52
3:1D:242:ARG:HG3	3:1D:242:ARG:NH1	2.18	0.52
5:1F:39:TRP:CH2	5:1F:106:ARG:HD3	2.44	0.52
25:13:3:ARG:HD3	25:13:60:GLU:CD	2.34	0.52
32:1a:299:G:H2'	32:1a:300:A:C8	2.44	0.52
32:1a:399:G:H2'	32:1a:400:C:C6	2.45	0.52
1:2A:84:A:N1	1:2A:98:G:O2'	2.42	0.52
1:2A:2150:U:H2'	1:2A:2151:G:H8	1.75	0.52
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.10	0.52
10:2O:49:ARG:NH1	32:2a:1422:G:O3'	2.43	0.52
32:2a:256:U:H2'	32:2a:257:G:C8	2.44	0.52
32:2a:1320:C:H2'	32:2a:1321:C:O4'	2.09	0.52
33:2b:54:THR:HG23	33:2b:199:TYR:HB3	1.92	0.52
34:2c:82:GLU:O	34:2c:86:VAL:N	2.39	0.52
34:2c:152:ILE:HB	34:2c:167:TRP:HB3	1.91	0.52
39:2h:29:SER:HB3	39:2h:32:LYS:HD2	1.92	0.52
26:14:56:VAL:HB	26:14:60:GLN:HG2	1.91	0.52
26:14:59:PHE:HE1	50:1s:67:VAL:HG21	1.74	0.52
32:1a:132:C:H2'	32:1a:133:U:H6	1.75	0.52
32:1a:1329:A:P	44:1m:28:ALA:HB3	2.50	0.52
53:1y:55:ASN:HA	53:1y:60:VAL:HA	1.91	0.52
1:2A:455:C:N3	1:2A:472:A:H2'	2.25	0.52
1:2A:851:U:H5'	25:23:49:LYS:HD2	1.91	0.52
6:2G:32:PRO:HB2	6:2G:172:LEU:HD13	1.91	0.52
32:2a:1158:C:O2	32:2a:1160:G:H5'	2.10	0.52
33:2b:123:ALA:HB3	33:2b:125:PRO:HD2	1.90	0.52
33:2b:211:ILE:O	33:2b:215:LEU:HB2	2.10	0.52
47:2p:18:ARG:HD3	47:2p:35:LYS:HD2	1.91	0.52
1:1A:879:G:H2'	1:1A:880:G:O4'	2.09	0.52
1:1A:1786:A:H1'	1:1A:1938:A:N6	2.25	0.52
1:1A:2816:C:O2	1:1A:2883:A:O2'	2.25	0.52
6:1G:16:ARG:O	6:1G:20:ILE:HG13	2.10	0.52
32:1a:38:G:N2	32:1a:397:A:H5'	2.24	0.52
32:1a:1367:C:H4'	41:1j:48:THR:HG21	1.92	0.52
1:2A:271(P):C:OP1	8:2I:45:LYS:HD3	2.10	0.52
1:2A:522:G:H2'	1:2A:523:C:C6	2.45	0.52
1:2A:774:A:H2'	1:2A:774:A:N3	2.25	0.52
1:2A:1824:G:O3'	3:2D:249:PRO:HD3	2.09	0.52
23:21:56:GLN:HE21	23:21:87:PRO:HG3	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1030(A):G:H2'	32:2a:1030(B):C:H5''	1.92	0.52
32:2a:1251:A:H2'	32:2a:1252:A:C8	2.45	0.52
33:2b:101:MET:HG2	33:2b:108:ILE:HG21	1.92	0.52
41:2j:64:GLU:OE2	41:2j:66:ARG:NH1	2.41	0.52
5:1F:184:TYR:CE2	5:1F:188:ARG:HD2	2.45	0.52
9:1N:9:VAL:HG21	9:1N:39:ARG:NH2	2.25	0.52
20:1Y:92:ASN:HB2	20:1Y:94:LYS:N	2.22	0.52
26:14:67:TYR:HD1	50:1s:16:LEU:HD21	1.75	0.52
38:1g:78:ARG:HD2	38:1g:156:TRP:CZ3	2.45	0.52
1:2A:309:G:N3	1:2A:329:G:O2'	2.40	0.52
1:2A:1035:U:H2'	1:2A:1036:G:C8	2.44	0.52
1:2A:1427:A:H4'	1:2A:1428:C:O5'	2.10	0.52
1:2A:1697:G:O6	60:2A:3886:HOH:O	2.17	0.52
15:2T:91:ARG:HD2	15:2T:120:ARG:NH1	2.25	0.52
21:2Z:180:VAL:HG13	21:2Z:183:LEU:HD12	1.92	0.52
32:2a:1028:C:C2'	32:2a:1033:G:H22	2.22	0.52
32:2a:1266:G:N2	32:2a:1269:A:OP2	2.32	0.52
40:2i:8:GLY:HA2	40:2i:79:LEU:HD23	1.92	0.52
51:2t:53:LEU:O	51:2t:57:ARG:HG3	2.10	0.52
6:1G:150:ASP:N	6:1G:150:ASP:OD1	2.42	0.52
13:1R:24:GLN:HB3	13:1R:44:LEU:HD11	1.92	0.52
28:16:8:LYS:HD3	30:18:34:TRP:CD2	2.45	0.52
32:1a:648:A:H2'	32:1a:649:G:H8	1.75	0.52
32:1a:1007:C:O2	32:1a:1023:G:N2	2.43	0.52
32:1a:1014:A:H4'	50:1s:14:HIS:CE1	2.45	0.52
32:1a:1241:G:OP1	38:1g:35:LYS:NZ	2.42	0.52
32:1a:1425:U:H2'	32:1a:1426:C:C6	2.45	0.52
50:1s:12:ASP:OD1	50:1s:37:ARG:HD2	2.10	0.52
52:1u:17:THR:O	52:1u:22:ARG:NH1	2.42	0.52
1:2A:1798:U:H5'	3:2D:259:THR:CG2	2.34	0.52
2:2B:50:G:OP2	60:2B:305:HOH:O	2.19	0.52
6:2G:43:LEU:HD22	6:2G:153:ARG:HD2	1.92	0.52
8:2I:62:LYS:HG2	8:2I:133:HIS:CE1	2.45	0.52
28:26:11:LEU:HB2	28:26:21:TYR:HB2	1.91	0.52
1:1A:300:A:H2'	1:1A:334:C:H1'	1.91	0.52
1:1A:1721:G:H5'	1:1A:1722:A:OP2	2.10	0.52
1:1A:2154:G:H2'	1:1A:2155:G:H8	1.75	0.52
21:1Z:136:PHE:HE1	21:1Z:138:GLU:HG3	1.75	0.52
38:1g:80:VAL:HB	38:1g:85:TYR:HE2	1.75	0.52
40:1i:5:TYR:HE1	40:1i:16:ARG:HB3	1.74	0.52
1:2A:154(A):C:N3	1:2A:171:G:N2	2.58	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2104:G:N7	1:2A:2186:G:C2	2.78	0.52
1:2A:2313:C:H2'	1:2A:2314:C:C6	2.45	0.52
10:2O:88:ASN:ND2	10:2O:92:GLU:HB2	2.24	0.52
12:2Q:41:TRP:HB3	12:2Q:94:VAL:HB	1.92	0.52
21:2Z:125:LEU:HB3	21:2Z:165:VAL:HG13	1.92	0.52
26:24:47:GLN:O	26:24:49:PHE:N	2.40	0.52
32:2a:407:G:OP1	35:2d:115:ARG:NH2	2.40	0.52
32:2a:1143:G:H2'	32:2a:1144:G:C8	2.44	0.52
33:2b:102:LEU:HB3	33:2b:180:LEU:HD11	1.91	0.52
35:2d:173:TRP:NE1	35:2d:189:PRO:HG3	2.24	0.52
50:2s:18:LYS:HA	50:2s:21:GLU:HB2	1.91	0.52
1:1A:196:A:H2'	1:1A:196:A:N3	2.24	0.51
1:1A:2602:A:N6	60:1A:4630:HOH:O	2.42	0.51
13:1R:104:ARG:HD2	13:1R:107:ASP:OD1	2.10	0.51
32:1a:868:C:H2'	32:1a:869:G:O4'	2.09	0.51
32:1a:1020:U:H2'	32:1a:1021:G:C8	2.45	0.51
32:1a:1264:C:H2'	32:1a:1265:G:C8	2.45	0.51
35:1d:163:GLU:HA	35:1d:166:LYS:HG2	1.92	0.51
48:1q:83:ASP:N	48:1q:83:ASP:OD1	2.42	0.51
1:2A:2119:A:C2	1:2A:2171:A:H5'	2.45	0.51
1:2A:2162:G:H4'	1:2A:2172:U:O2'	2.09	0.51
1:2A:2788:C:O2'	1:2A:2809:A:N3	2.38	0.51
6:2G:98:ARG:NH1	26:24:1:MET:SD	2.83	0.51
16:2U:72:HIS:HB3	16:2U:110:VAL:HG11	1.92	0.51
32:2a:189(K):U:H2'	32:2a:189(L):G:C8	2.45	0.51
32:2a:660:G:H1	32:2a:745:C:H42	1.58	0.51
32:2a:1187:G:H5''	40:2i:113:LYS:NZ	2.25	0.51
34:2c:63:ASN:CB	34:2c:98:ASN:HB2	2.40	0.51
34:2c:180:ALA:HB1	34:2c:203:PHE:CE1	2.45	0.51
1:1A:1082:U:N3	1:1A:1086:A:N6	2.24	0.51
1:1A:1203:G:H5'	11:1P:3:LEU:HD23	1.92	0.51
32:1a:1003:G:N2	32:1a:1004:A:H1'	2.25	0.51
53:1y:6:THR:OG1	53:1y:38:HIS:HE1	1.94	0.51
1:2A:2022:U:O2'	1:2A:2617:C:H5'	2.09	0.51
1:2A:2693:A:H2'	1:2A:2694:G:C8	2.45	0.51
3:2D:24:ILE:HD13	3:2D:84:TYR:HB2	1.91	0.51
7:2H:164:TYR:HB2	7:2H:167:GLU:HB2	1.91	0.51
21:2Z:5:LEU:HB3	21:2Z:59:LEU:HD23	1.92	0.51
32:2a:130:A:H5'	48:2q:63:ARG:NH2	2.25	0.51
32:2a:992:U:H5''	32:2a:993:G:C4	2.45	0.51
34:2c:22:TRP:CD1	34:2c:59:ARG:HD2	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2e:57:LYS:HG2	36:2e:61:TYR:HE2	1.75	0.51
1:1A:185:U:H2'	1:1A:186:G:C8	2.45	0.51
1:1A:271(O):C:H2'	1:1A:271(P):C:C6	2.45	0.51
1:1A:324:A:N6	1:1A:338:G:O2'	2.43	0.51
6:1G:67:LYS:H	26:14:6:HIS:CE1	2.27	0.51
13:1R:97:VAL:HG22	13:1R:114:VAL:HG13	1.92	0.51
36:1e:12:LEU:HB3	36:1e:31:LEU:HB2	1.91	0.51
1:2A:70:G:OP1	1:2A:112:U:N3	2.39	0.51
1:2A:1073:A:H2'	1:2A:1074:G:C8	2.45	0.51
1:2A:1098:A:H3'	1:2A:1099:G:H8	1.75	0.51
1:2A:1479:G:H5''	1:2A:1560:G:H4'	1.93	0.51
1:2A:1826:G:H4'	3:2D:242:ARG:CZ	2.40	0.51
1:2A:2837:G:N7	60:2A:4061:HOH:O	2.34	0.51
3:2D:17:THR:O	3:2D:211:ARG:NH2	2.41	0.51
3:2D:253:GLN:HB3	60:2D:417:HOH:O	2.11	0.51
20:2Y:6:HIS:CD2	20:2Y:7:VAL:HG23	2.45	0.51
32:2a:234:C:H5''	48:2q:70:ARG:HH21	1.75	0.51
33:2b:44:LEU:H	33:2b:44:LEU:HD12	1.75	0.51
1:1A:1342:A:O2'	1:1A:1344:G:OP2	2.24	0.51
1:1A:2202:C:O2	3:1D:151:LYS:NZ	2.37	0.51
60:1A:4405:HOH:O	14:1S:3:ARG:NH2	2.42	0.51
7:1H:3:ARG:NH1	7:1H:4:ILE:H	2.08	0.51
23:11:51:VAL:HG11	23:11:74:VAL:HG21	1.92	0.51
33:1b:97:TRP:HH2	33:1b:176:GLU:CD	2.19	0.51
1:2A:2136:C:H42	1:2A:2156:G:N2	2.08	0.51
2:2B:58:A:OP2	60:2B:304:HOH:O	2.18	0.51
5:2F:64:ILE:HG21	5:2F:78:ILE:HG23	1.93	0.51
21:2Z:27:VAL:HG23	21:2Z:36:LYS:HA	1.92	0.51
32:2a:587:G:OP1	39:2h:92:ARG:NH2	2.41	0.51
32:2a:743:U:H2'	32:2a:744:C:C6	2.46	0.51
32:2a:954:G:OP1	53:2y:7:SER:HB2	2.10	0.51
32:2a:1074:G:O2'	32:2a:1101:A:N1	2.38	0.51
32:2a:1292:U:H2'	32:2a:1293:G:H8	1.75	0.51
53:2y:29:LYS:HE3	53:2y:30:TRP:CZ3	2.46	0.51
1:1A:1250:G:H5''	60:1U:317:HOH:O	2.09	0.51
60:1A:4229:HOH:O	16:1U:34:LYS:NZ	2.43	0.51
6:1G:43:LEU:O	6:1G:45:GLU:N	2.41	0.51
12:1Q:110:THR:HG23	12:1Q:113:GLN:OE1	2.11	0.51
13:1R:67:LEU:HG	13:1R:76:VAL:HG21	1.93	0.51
34:1c:116:VAL:HG21	34:1c:202:ILE:HD11	1.92	0.51
35:1d:107:ARG:HH21	35:1d:194:LEU:HD21	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:1l:89:ARG:HG2	43:1l:90:VAL:N	2.26	0.51
46:1o:5:LYS:O	46:1o:9:GLN:HG2	2.11	0.51
1:2A:271:A:N3	1:2A:365:C:O2'	2.42	0.51
1:2A:322:A:OP2	5:2F:169:ASN:HB2	2.11	0.51
1:2A:1102:C:H2'	1:2A:1103:A:H8	1.75	0.51
8:2I:40:THR:O	8:2I:44:LEU:N	2.38	0.51
19:2X:61:GLY:HA3	19:2X:73:ARG:O	2.11	0.51
20:2Y:55:TYR:CZ	20:2Y:61:ILE:HG21	2.45	0.51
32:2a:141:A:H1'	32:2a:182:U:O2	2.10	0.51
32:2a:952:U:H2'	32:2a:953:G:H8	1.75	0.51
40:2i:3:GLN:HE21	40:2i:20:ARG:HE	1.58	0.51
1:1A:2168:G:C2	1:1A:2171:A:C8	2.99	0.51
1:1A:2446:G:OP2	60:1A:4183:HOH:O	2.18	0.51
20:1Y:34:LYS:O	20:1Y:34:LYS:HD3	2.11	0.51
20:1Y:102:CYS:SG	20:1Y:103:GLY:N	2.83	0.51
26:14:50:VAL:HG11	44:1m:65:LYS:HG2	1.92	0.51
32:1a:56:U:H2'	32:1a:57:G:C8	2.46	0.51
32:1a:973:G:OP1	41:1j:57:LYS:NZ	2.41	0.51
32:1a:1015:A:H2'	32:1a:1016:A:H8	1.74	0.51
34:1c:134:ILE:HG23	34:1c:151:VAL:HB	1.93	0.51
35:1d:64:LEU:HD23	35:1d:203:VAL:HG21	1.92	0.51
47:1p:6:LEU:HB3	47:1p:17:TYR:HB3	1.92	0.51
47:1p:74:LEU:O	47:1p:79:VAL:HG22	2.10	0.51
1:2A:1064:C:H3'	1:2A:1065:U:H5'	1.91	0.51
1:2A:2165:G:H2'	1:2A:2166:G:O4'	2.11	0.51
2:2B:90:A:N7	2:2B:91:C:H1'	2.26	0.51
6:2G:78:SER:OG	6:2G:79:ASN:N	2.41	0.51
26:24:9:LEU:HD23	26:24:26:SER:HA	1.93	0.51
34:2c:58:GLU:HB3	41:2j:92:THR:HG21	1.92	0.51
42:2k:99:GLN:HG3	42:2k:105:VAL:HG11	1.92	0.51
1:1A:884:C:H2'	1:1A:885:C:O4'	2.11	0.51
1:1A:2033:A:O2'	1:1A:2035:G:OP2	2.26	0.51
20:1Y:43:ASN:ND2	60:1Y:304:HOH:O	2.29	0.51
34:1c:130:VAL:HG21	34:1c:157:ILE:HG23	1.92	0.51
1:2A:720:C:H2'	1:2A:721:C:C6	2.46	0.51
1:2A:2118:U:O2'	1:2A:2119:A:H5''	2.11	0.51
6:2G:60:LEU:HA	6:2G:63:ILE:HD12	1.93	0.51
21:2Z:28:MET:HE1	21:2Z:61:LEU:HD11	1.93	0.51
26:24:64:GLY:O	26:24:66:SER:N	2.43	0.51
33:2b:84:GLU:HG3	33:2b:215:LEU:HB3	1.91	0.51
33:2b:96:ARG:NH1	33:2b:98:LEU:HD23	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:2j:74:ILE:HD12	60:2j:301:HOH:O	2.11	0.51
1:1A:987:G:O2'	1:1A:1000:A:N3	2.39	0.51
1:1A:1291:C:H2'	1:1A:1292:U:C6	2.46	0.51
1:1A:1494:A:H2'	1:1A:1495:A:C8	2.46	0.51
1:1A:2066:C:N4	60:1A:4631:HOH:O	2.42	0.51
1:1A:2791:C:H2'	1:1A:2792:G:C8	2.46	0.51
8:1I:72:LEU:HD12	8:1I:138:ILE:HG21	1.91	0.51
19:1X:11:PRO:HG2	19:1X:13:LEU:HD21	1.92	0.51
19:1X:57:LEU:HD11	19:1X:78:LYS:HE2	1.93	0.51
32:1a:141:A:H1'	32:1a:182:U:O2	2.11	0.51
32:1a:601:C:H2'	32:1a:602:A:H8	1.76	0.51
32:1a:1020:U:H2'	32:1a:1021:G:H8	1.76	0.51
32:1a:1070:U:H2'	32:1a:1071:C:H6	1.75	0.51
32:1a:1504:G:OP1	32:1a:1507:A:H4'	2.11	0.51
1:2A:833:U:O2	11:2P:55:ARG:NH1	2.43	0.51
1:2A:2306:C:H3'	1:2A:2307:G:H2'	1.92	0.51
1:2A:2548:G:O6	60:2A:3903:HOH:O	2.19	0.51
1:2A:2785:C:O2'	4:2E:66:HIS:ND1	2.44	0.51
26:24:59:PHE:HB3	26:24:61:ARG:HB3	1.93	0.51
32:2a:1179:A:H5''	40:2i:102:LEU:HD12	1.93	0.51
34:2c:5:ILE:HD11	45:2n:49:HIS:HE1	1.75	0.51
1:1A:958:U:H5''	12:1Q:14:ARG:HD3	1.91	0.51
1:1A:1783:A:H5'	1:1A:2608:G:H4'	1.93	0.51
1:1A:2646:C:H2'	1:1A:2647:U:O4'	2.11	0.51
11:1P:106:LEU:HD13	11:1P:112:LEU:HD13	1.93	0.51
14:1S:59:LYS:HD2	14:1S:60:GLY:H	1.74	0.51
32:1a:626:U:H2'	32:1a:627:G:C8	2.45	0.51
35:1d:36:ARG:HD2	35:1d:38:TYR:OH	2.10	0.51
1:2A:479:A:N3	1:2A:481:G:H5''	2.26	0.51
1:2A:1098:A:H3'	1:2A:1099:G:C8	2.45	0.51
1:2A:1439:A:OP1	60:2A:3904:HOH:O	2.19	0.51
1:2A:2722:G:O6	60:2A:3895:HOH:O	2.18	0.51
5:2F:40:GLN:HE22	5:2F:182:ASN:HB2	1.76	0.51
32:2a:1262:C:N4	32:2a:1273:G:H1	2.08	0.51
34:2c:134:ILE:HG23	34:2c:151:VAL:HB	1.93	0.51
34:2c:179:ARG:HG3	34:2c:206:GLU:HB2	1.93	0.51
1:1A:1342:A:OP1	19:1X:36:LYS:NZ	2.40	0.51
1:1A:1778:U:H2'	1:1A:1784:A:N6	2.26	0.51
1:1A:1906:G:H1	1:1A:1924:C:H42	1.59	0.51
1:1A:2328:A:H2'	1:1A:2329:G:C8	2.46	0.51
3:1D:102:LYS:C	3:1D:103:ARG:HG2	2.36	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:1H:3:ARG:NH1	7:1H:5:GLY:H	2.08	0.51
20:1Y:107:ASP:OD1	20:1Y:107:ASP:N	2.44	0.51
32:1a:376:G:H4'	47:1p:5:ARG:HH11	1.75	0.51
32:1a:651:C:H2'	32:1a:652:U:C6	2.46	0.51
33:1b:28:PHE:CD1	33:1b:190:THR:HA	2.45	0.51
49:1r:33:ASP:OD2	49:1r:36:ASN:N	2.44	0.51
52:1u:5:ASP:O	52:1u:11:GLY:HA3	2.11	0.51
1:2A:2850:A:N7	1:2A:2868:A:O2'	2.38	0.51
60:2A:4401:HOH:O	29:27:43:THR:HB	2.11	0.51
2:2B:116:G:N7	60:2B:312:HOH:O	2.34	0.51
7:2H:102:ALA:HA	7:2H:117:PRO:HD3	1.92	0.51
7:2H:109:PHE:C	7:2H:111:HIS:H	2.19	0.51
31:29:10:ILE:HD12	31:29:32:HIS:HA	1.92	0.51
32:2a:952:U:H2'	32:2a:953:G:C8	2.46	0.51
32:2a:954:G:H5'	53:2y:17:ARG:CZ	2.40	0.51
32:2a:1146:A:H5'	32:2a:1147:C:OP2	2.11	0.51
33:2b:19:HIS:CE1	33:2b:206:ASP:HB2	2.46	0.51
34:2c:70:VAL:HG12	34:2c:72:LYS:H	1.75	0.51
44:2m:20:THR:HA	44:2m:25:ILE:O	2.11	0.51
50:2s:41:VAL:HG22	50:2s:42:PRO:HD2	1.92	0.51
1:1A:272(J):C:H42	1:1A:363:G:H1	1.59	0.50
1:1A:829:A:N7	1:1A:2248:C:H5'	2.26	0.50
1:1A:2314:C:H2'	1:1A:2315:G:C8	2.45	0.50
1:1A:2712:U:O2'	1:1A:2712(A):A:OP2	2.27	0.50
4:1E:47:VAL:HG12	4:1E:84:PHE:HB3	1.92	0.50
5:1F:10:PRO:HB3	5:1F:17:ARG:NH2	2.26	0.50
13:1R:53:HIS:ND1	13:1R:94:TYR:OH	2.37	0.50
28:16:2:ALA:N	60:16:604:HOH:O	2.44	0.50
32:1a:278:G:OP2	48:1q:92:ARG:NH2	2.44	0.50
32:1a:1319:A:O2'	32:1a:1323:G:N7	2.38	0.50
35:1d:147:ALA:HA	35:1d:182:LYS:HA	1.92	0.50
51:1t:20:LEU:O	51:1t:24:LEU:HD12	2.11	0.50
1:2A:323:G:HO2'	1:2A:1205:U:H3	1.54	0.50
1:2A:652(A):A:H2'	1:2A:652(A):A:N3	2.24	0.50
1:2A:1292:U:H2'	1:2A:1293:C:C6	2.46	0.50
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.75	0.50
1:2A:1803:A:H4'	3:2D:259:THR:HG23	1.92	0.50
1:2A:2061:G:H5''	1:2A:2503:2MA:C2	2.42	0.50
1:2A:2793:G:N2	1:2A:2804:C:H1'	2.26	0.50
3:2D:108:PRO:HD2	3:2D:111:LEU:HD22	1.92	0.50
3:2D:200:ASP:N	3:2D:200:ASP:OD1	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:2O:64:ARG:HB2	10:2O:79:PHE:CG	2.46	0.50
26:24:14:ILE:HB	26:24:22:ILE:HB	1.92	0.50
29:27:24:THR:HG23	29:27:27:GLY:H	1.77	0.50
32:2a:790:A:N6	32:2a:1498:UR3:OP1	2.43	0.50
32:2a:1054:C:H41	53:2y:46:GLN:HG3	1.77	0.50
32:2a:1144:G:N2	32:2a:1146:A:N7	2.58	0.50
49:2r:56:THR:HB	49:2r:58:LEU:HD13	1.93	0.50
53:2y:24:LEU:HD13	53:2y:78:ILE:HD12	1.92	0.50
1:1A:13:A:N1	1:1A:525:U:H2'	2.27	0.50
1:1A:566:U:H5''	11:1P:29:LYS:HE3	1.92	0.50
1:1A:982:C:OP2	60:1A:4196:HOH:O	2.20	0.50
1:1A:1291:C:H2'	1:1A:1292:U:H6	1.75	0.50
1:1A:1919:A:O2'	32:1a:1517:G:N3	2.33	0.50
1:1A:2628:C:O2	60:1A:4191:HOH:O	2.19	0.50
4:1E:119:ARG:HG3	4:1E:160:TYR:HB2	1.93	0.50
9:1N:42:TRP:CH2	9:1N:44:PRO:HB3	2.47	0.50
10:1O:73:ASP:HB2	15:1T:82:LEU:HD13	1.92	0.50
14:1S:87:PHE:O	60:1S:202:HOH:O	2.19	0.50
32:1a:142:G:H2'	32:1a:143:A:H8	1.75	0.50
32:1a:642:A:N3	39:1h:113:SER:OG	2.39	0.50
33:1b:96:ARG:HB3	33:1b:148:TYR:CE1	2.47	0.50
40:1i:32:ASP:OD1	40:1i:33:PHE:N	2.44	0.50
1:2A:1047:G:H21	1:2A:1111:A:H62	1.59	0.50
1:2A:1084:A:H3'	1:2A:1085:A:C4'	2.33	0.50
1:2A:1628:G:H2'	1:2A:1629:U:C6	2.46	0.50
1:2A:1786:A:H1'	1:2A:1938:A:N6	2.26	0.50
1:2A:2507:C:H5''	1:2A:2573:C:N4	2.27	0.50
21:2Z:6:LYS:HA	21:2Z:60:GLU:HB2	1.92	0.50
24:22:51:ARG:O	24:22:55:ARG:HG3	2.11	0.50
35:2d:3:ARG:HH11	35:2d:115:ARG:HD3	1.75	0.50
1:1A:1174:A:H4'	1:1A:1175:U:OP1	2.10	0.50
1:1A:1359:A:N6	1:1A:1372:U:H3	2.08	0.50
1:1A:2137:C:N4	1:1A:2154:G:N1	2.34	0.50
6:1G:70:VAL:HG11	6:1G:72:ARG:HE	1.76	0.50
7:1H:137:ASP:OD1	7:1H:139:GLN:HG2	2.11	0.50
11:1P:141:ALA:HA	25:23:38:GLU:CG	2.41	0.50
14:1S:84:GLN:HG2	14:1S:111:GLU:HB2	1.92	0.50
15:1T:33:LYS:HG2	15:1T:82:LEU:HD23	1.93	0.50
35:1d:15:GLU:OE2	35:1d:59:ARG:NH1	2.44	0.50
37:1f:97:PHE:O	49:1r:31:LEU:N	2.35	0.50
1:2A:1087:G:H1	1:2A:1102:C:H42	1.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1436:G:H2'	1:2A:1437:C:O4'	2.11	0.50
1:2A:2122:U:O2	1:2A:2176:A:N1	2.44	0.50
3:2D:139:GLY:H	3:2D:165:ILE:HB	1.75	0.50
11:2P:47:ASP:OD2	11:2P:49:ARG:NH2	2.43	0.50
23:21:80:LEU:HD23	23:21:82:LEU:HD21	1.94	0.50
32:2a:1073:U:H2'	32:2a:1074:G:H8	1.77	0.50
1:1A:2893:G:H4'	1:1A:2894:G:O5'	2.11	0.50
20:1Y:56:PRO:C	20:1Y:58:GLY:H	2.19	0.50
21:1Z:7:ALA:HB2	21:1Z:59:LEU:HD22	1.92	0.50
21:1Z:180:VAL:HG13	21:1Z:183:LEU:HD12	1.93	0.50
23:11:27:GLU:OE2	60:11:202:HOH:O	2.19	0.50
32:1a:200:G:H2'	32:1a:201:C:O4'	2.11	0.50
32:1a:757:U:H2'	32:1a:758:G:O4'	2.11	0.50
32:1a:1074:G:OP1	36:1e:64:ARG:NH1	2.45	0.50
32:1a:1101:A:OP2	33:1b:96:ARG:NH1	2.45	0.50
35:1d:15:GLU:OE2	35:1d:66:ARG:NH1	2.44	0.50
35:1d:148:VAL:HB	35:1d:181:MET:HB3	1.92	0.50
1:2A:81:G:H21	20:2Y:1:MET:HE2	1.76	0.50
1:2A:1006:C:O2'	9:2N:106:MET:O	2.26	0.50
1:2A:2815:C:C5'	27:25:29:THR:HG21	2.40	0.50
32:2a:1278:U:H5''	32:2a:1279:A:H5'	1.94	0.50
33:2b:76:GLN:HB2	33:2b:208:ILE:HG12	1.93	0.50
38:2g:49:ILE:O	38:2g:53:LYS:N	2.39	0.50
38:2g:51:GLN:HG3	38:2g:52:GLU:HG2	1.93	0.50
1:1A:876:C:H2'	1:1A:877:U:O4'	2.10	0.50
1:1A:2791:C:H2'	1:1A:2792:G:H8	1.76	0.50
5:1F:185:ASP:HA	5:1F:188:ARG:HD3	1.93	0.50
32:1a:194:C:H2'	32:1a:195:A:H5''	1.92	0.50
32:1a:1187:G:H2'	32:1a:1188:A:C8	2.45	0.50
1:2A:2324:C:H5''	1:2A:2325:G:H5'	1.93	0.50
1:2A:2338:G:H2'	1:2A:2339:G:C8	2.46	0.50
1:2A:2543:G:H2'	1:2A:2544:G:C8	2.46	0.50
2:2B:75:G:OP1	60:2B:306:HOH:O	2.19	0.50
3:2D:129:ASN:H	3:2D:193:VAL:HG22	1.77	0.50
4:2E:40:GLU:H	4:2E:40:GLU:CD	2.19	0.50
32:2a:1346:A:N1	32:2a:1374:A:H5''	2.26	0.50
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.47	0.50
1:1A:2751:G:H4'	7:1H:4:ILE:HD11	1.93	0.50
3:1D:71:ASP:HB3	3:1D:72:LYS:HG3	1.93	0.50
4:1E:28:ALA:HB3	4:1E:93:VAL:HG13	1.92	0.50
32:1a:519:C:OP2	43:1l:50:SER:OG	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1027:C:H2'	32:1a:1028:C:C4	2.47	0.50
44:1m:15:VAL:HG23	44:1m:43:THR:O	2.11	0.50
51:1t:14:LYS:HG2	51:1t:18:GLN:NE2	2.27	0.50
1:2A:659:C:H4'	5:2F:100:THR:O	2.11	0.50
1:2A:667:U:O2	30:28:2:PRO:HD2	2.11	0.50
1:2A:1287:A:O4'	13:2R:104:ARG:HD3	2.12	0.50
1:2A:1614:A:C2	18:2W:93:ALA:HB2	2.47	0.50
1:2A:2125:G:N2	1:2A:2172:U:H3'	2.27	0.50
8:2I:4:ILE:HD11	8:2I:44:LEU:HD23	1.94	0.50
20:2Y:7:VAL:HG11	20:2Y:13:VAL:HG11	1.93	0.50
32:2a:474:G:H2'	32:2a:475:G:C8	2.47	0.50
32:2a:719:C:O2'	49:2r:49:LYS:HB3	2.10	0.50
32:2a:903:G:OP1	60:2a:3228:HOH:O	2.19	0.50
32:2a:1001:A:H2'	32:2a:1001(A):G:H8	1.75	0.50
38:2g:49:ILE:HD12	38:2g:121:ALA:HB2	1.93	0.50
40:2i:99:LEU:HD23	40:2i:101:PHE:CE2	2.47	0.50
1:1A:678:C:H5''	60:1A:5583:HOH:O	2.12	0.50
1:1A:1453:U:O2'	1:1A:1455:G:N7	2.42	0.50
1:1A:1593:G:H2'	1:1A:1594:G:C8	2.47	0.50
1:1A:1900:A:N1	1:1A:1970:A:C6	2.80	0.50
1:1A:2291:U:H2'	1:1A:2292:C:C6	2.47	0.50
9:1N:36:GLY:HA2	9:1N:38:HIS:CE1	2.47	0.50
10:1O:16:ALA:HB2	10:1O:52:VAL:HG21	1.92	0.50
33:1b:95:GLN:OE1	33:1b:147:LYS:HE3	2.12	0.50
33:1b:197:VAL:O	39:1h:68:ARG:NH2	2.45	0.50
1:2A:1278:A:OP1	13:2R:36:THR:HG23	2.12	0.50
9:2N:67:LEU:HA	9:2N:87:LEU:HD13	1.94	0.50
32:2a:1095:U:H2'	32:2a:1096:C:C6	2.47	0.50
1:1A:184:C:H2'	1:1A:185:U:C6	2.47	0.50
1:1A:1028:A:H61	1:1A:1125:G:H2'	1.77	0.50
1:1A:1058:G:N1	1:1A:1080:C:O2	2.38	0.50
1:1A:1452:A:H5''	60:1A:6423:HOH:O	2.12	0.50
1:1A:2101:G:H2'	1:1A:2102:U:C6	2.46	0.50
1:1A:2602:A:H4'	1:1A:2603:G:OP1	2.12	0.50
5:1F:135:LYS:HB2	5:1F:138:GLU:CD	2.37	0.50
6:1G:50:ALA:C	6:1G:52:ILE:H	2.19	0.50
12:1Q:109:VAL:HG22	12:1Q:113:GLN:CD	2.36	0.50
32:1a:814:A:H2'	32:1a:816:A:H5''	1.94	0.50
33:1b:115:LEU:O	33:1b:119:GLU:HG2	2.12	0.50
45:1n:46:GLU:O	45:1n:50:LYS:HG3	2.12	0.50
1:2A:570:G:H2'	1:2A:2030:A:C5	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1112:G:H2'	1:2A:1113:U:O4'	2.12	0.50
1:2A:1292:U:H2'	1:2A:1293:C:H6	1.76	0.50
1:2A:2089:U:O4	60:2A:3901:HOH:O	2.19	0.50
1:2A:2139:C:N4	1:2A:2152:G:N1	2.26	0.50
5:2F:120:GLU:HB3	5:2F:122:LYS:HG2	1.94	0.50
17:2V:40:LEU:HD11	17:2V:101:GLY:HA2	1.94	0.50
24:22:35:LEU:HD21	24:22:49:LYS:HE2	1.93	0.50
26:24:55:ARG:C	26:24:57:GLU:H	2.19	0.50
26:24:59:PHE:HE2	50:2s:64:GLU:HB2	1.77	0.50
32:2a:259:G:H2'	32:2a:260:G:O4'	2.12	0.50
32:2a:636:U:H5'	48:2q:2:PRO:HG3	1.94	0.50
32:2a:758:G:H4'	32:2a:880:C:H4'	1.93	0.50
32:2a:1490:C:H2'	32:2a:1491:G:C8	2.46	0.50
46:2o:88:ARG:NH2	46:2o:88:ARG:HB3	2.27	0.50
53:2y:30:TRP:CD1	53:2y:89:GLN:HG3	2.46	0.50
1:1A:1588:C:H2'	1:1A:1589:C:C6	2.47	0.50
1:1A:2683:C:OP1	15:1T:53:ARG:NH2	2.41	0.50
3:1D:12:SER:HB3	3:1D:208:LYS:HB3	1.94	0.50
4:1E:1:MET:HE2	4:1E:202:LYS:HE2	1.93	0.50
26:14:44:THR:O	26:14:46:GLN:N	2.45	0.50
32:1a:1091:U:H2'	32:1a:1093:A:OP2	2.11	0.50
33:1b:224:GLN:HB2	33:1b:229:VAL:HG13	1.94	0.50
35:1d:111:ALA:HB2	35:1d:120:LEU:HD12	1.93	0.50
37:1f:70:ASP:N	37:1f:70:ASP:OD1	2.40	0.50
44:1m:3:ARG:HG3	44:1m:4:ILE:HG13	1.93	0.50
53:1y:54:ILE:O	53:1y:61:LEU:N	2.41	0.50
1:2A:2310:A:N6	6:2G:79:ASN:HD22	2.07	0.50
14:2S:72:ALA:O	14:2S:76:LYS:HG3	2.12	0.50
32:2a:474:G:H2'	32:2a:475:G:H8	1.77	0.50
32:2a:1330:U:H2'	32:2a:1331:G:H5'	1.94	0.50
39:2h:20:TYR:HD1	39:2h:65:TYR:CD1	2.30	0.50
1:1A:23:G:OP1	1:1A:504:U:N3	2.43	0.49
1:1A:489:G:N7	18:1W:49:LYS:NZ	2.60	0.49
1:1A:1185:C:OP2	60:1A:4186:HOH:O	2.18	0.49
1:1A:2885:C:OP2	60:1A:4197:HOH:O	2.20	0.49
12:1Q:103:MET:HE1	12:1Q:125:LEU:HD13	1.94	0.49
20:1Y:90:LEU:HB2	20:1Y:92:ASN:HD22	1.76	0.49
32:1a:177:C:OP1	51:1t:65:LYS:NZ	2.35	0.49
33:1b:150:SER:O	33:1b:153:ARG:HG2	2.12	0.49
33:1b:185:ILE:HG22	33:1b:199:TYR:CD2	2.47	0.49
1:2A:659:C:H2'	1:2A:660:G:C8	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:747:U:O2	1:2A:2014:A:H1'	2.12	0.49
1:2A:2109:U:H2'	1:2A:2110:G:H8	1.76	0.49
3:2D:268:ARG:NE	60:2D:413:HOH:O	2.45	0.49
16:2U:11:ARG:O	16:2U:15:LYS:HG3	2.12	0.49
32:2a:1099:G:C6	32:2a:1100:C:C4	3.00	0.49
1:1A:218:A:C2	1:1A:235:U:H4'	2.48	0.49
1:1A:2115:G:H2'	1:1A:2117:A:N6	2.27	0.49
1:1A:2162:G:H4'	1:1A:2172:U:O2'	2.11	0.49
1:1A:2577:A:OP2	27:15:3:LYS:NZ	2.44	0.49
5:1F:107:LYS:HG3	5:1F:206:ILE:HA	1.93	0.49
6:1G:139:LEU:HD21	6:1G:149:VAL:HG11	1.94	0.49
32:1a:965:A:OP2	53:1y:8:LYS:NZ	2.44	0.49
32:1a:1054:C:N4	53:1y:46:GLN:OE1	2.31	0.49
47:1p:44:THR:OG1	47:1p:45:THR:N	2.38	0.49
1:2A:715:G:H2'	1:2A:716:A:C8	2.47	0.49
1:2A:1045:A:H5'	1:2A:1047:G:O4'	2.11	0.49
1:2A:2128:C:H5'	1:2A:2129:C:OP2	2.11	0.49
1:2A:2189:U:H2'	1:2A:2190:G:C8	2.47	0.49
5:2F:29:ASN:HB3	5:2F:112:MET:HE1	1.94	0.49
32:2a:689:C:OP1	42:2k:44:SER:OG	2.26	0.49
32:2a:1079:G:O3'	36:2e:14:ARG:NH2	2.46	0.49
32:2a:1084:G:H5'	32:2a:1102:A:OP2	2.12	0.49
32:2a:1151:A:N3	41:2j:39:PRO:HG3	2.27	0.49
32:2a:1327:C:H2'	32:2a:1328:C:C6	2.47	0.49
32:2a:1510:U:H2'	32:2a:1511:G:C8	2.47	0.49
33:2b:172:ILE:O	33:2b:176:GLU:N	2.44	0.49
1:1A:970:C:OP1	25:13:20:LYS:NZ	2.45	0.49
1:1A:1173:G:N3	1:1A:1177:A:H2	2.10	0.49
1:1A:2849:U:H4'	1:1A:2868:A:C2	2.47	0.49
5:1F:12:LEU:HD22	5:1F:124:LEU:HD11	1.94	0.49
26:14:59:PHE:CE1	50:1s:67:VAL:HG21	2.48	0.49
32:1a:580:U:H2'	32:1a:581:G:O4'	2.13	0.49
32:1a:1024:G:H2'	32:1a:1024:G:N3	2.26	0.49
32:1a:1414:U:H3	32:1a:1486:G:H1	1.60	0.49
1:2A:1216:G:OP2	16:2U:12:ARG:NH2	2.34	0.49
32:2a:825:G:H21	39:2h:11:THR:HG21	1.76	0.49
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.48	0.49
32:2a:1072:G:H2'	32:2a:1073:U:C6	2.47	0.49
32:2a:1286:A:C8	32:2a:1287:A:H4'	2.44	0.49
33:2b:189:ASP:OD1	33:2b:189:ASP:N	2.28	0.49
34:2c:19:GLU:HB2	34:2c:40:ARG:HH22	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:13:ARG:HH22	35:2d:36:ARG:CZ	2.24	0.49
35:2d:122:ARG:C	35:2d:123:HIS:HD1	2.20	0.49
1:1A:660:G:O3'	5:1F:38:ARG:NH2	2.43	0.49
1:1A:913:U:OP1	60:1A:4195:HOH:O	2.19	0.49
1:1A:1405:U:H2'	1:1A:1406:U:C6	2.46	0.49
5:1F:197:ASP:N	5:1F:197:ASP:OD1	2.45	0.49
17:1V:21:ARG:HD3	17:1V:91:TYR:CD1	2.47	0.49
40:1i:48:GLU:HB3	40:1i:101:PHE:CZ	2.48	0.49
1:2A:196:A:N3	1:2A:196:A:H2'	2.27	0.49
1:2A:588:U:H2'	1:2A:589:C:H6	1.76	0.49
1:2A:2391:G:O6	1:2A:2425:A:H8	1.96	0.49
5:2F:122:LYS:NZ	5:2F:152:GLU:OE2	2.44	0.49
32:2a:1151:A:O2'	32:2a:1152:A:O5'	2.29	0.49
34:2c:121:ALA:O	34:2c:125:GLU:HG3	2.13	0.49
35:2d:22:LYS:HG3	59:2d:501:SF4:S4	2.53	0.49
1:1A:135:G:N7	60:1A:4437:HOH:O	2.34	0.49
1:1A:859:G:H5'	60:1A:4397:HOH:O	2.12	0.49
1:1A:1176:G:H1'	1:1A:1177:A:H5'	1.93	0.49
1:1A:2153:G:H2'	1:1A:2154:G:C8	2.48	0.49
1:1A:2889:C:H2'	1:1A:2891:G:O4'	2.12	0.49
7:1H:164:TYR:HB2	7:1H:167:GLU:HB2	1.94	0.49
9:1N:42:TRP:CE3	16:1U:63:VAL:HG11	2.48	0.49
18:1W:25:ARG:NH2	18:1W:74:ALA:O	2.44	0.49
21:1Z:141:VAL:HG12	21:1Z:150:LEU:HD22	1.95	0.49
29:17:24:THR:HG23	29:17:27:GLY:N	2.24	0.49
32:1a:890:G:O2'	32:1a:906:G:O6	2.28	0.49
32:1a:1004:A:O4'	32:1a:1025:U:N3	2.45	0.49
32:1a:1402:4OC:HM43	32:1a:1403:C:C2	2.47	0.49
32:1a:1469:G:H2'	32:1a:1470:G:H8	1.77	0.49
39:1h:25:ASP:OD1	39:1h:60:ARG:HG3	2.13	0.49
42:1k:85:ARG:HD3	42:1k:113:PRO:HD3	1.94	0.49
1:2A:652(T):C:H2'	1:2A:652(U):G:C8	2.47	0.49
1:2A:2158:A:H1'	1:2A:2159:G:C8	2.47	0.49
12:2Q:61:GLY:HA2	21:2Z:177:PRO:HB2	1.94	0.49
22:20:43:THR:OG1	22:20:46:LYS:HG2	2.13	0.49
31:29:15:LYS:HE2	31:29:17:ILE:HD11	1.93	0.49
31:29:27:CYS:SG	31:29:28:GLU:N	2.85	0.49
32:2a:299:G:H2'	32:2a:300:A:C8	2.47	0.49
32:2a:458:C:H2'	32:2a:460:G:O4'	2.11	0.49
34:2c:66:VAL:HG12	34:2c:68:VAL:HG23	1.94	0.49
40:2i:53:VAL:HG11	40:2i:92:TYR:CE1	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1429:G:H2'	1:1A:1430:C:C6	2.47	0.49
1:1A:2429:G:OP1	60:1A:4106:HOH:O	2.20	0.49
5:1F:136:THR:HA	5:1F:166:ALA:O	2.12	0.49
7:1H:40:GLU:OE1	7:1H:60:ARG:NH1	2.45	0.49
8:1I:133:HIS:ND1	8:1I:134:PRO:O	2.41	0.49
16:1U:112:ARG:HD2	17:1V:47:VAL:HG11	1.93	0.49
32:1a:21:G:H2'	32:1a:22:G:C8	2.48	0.49
32:1a:743:U:H2'	32:1a:744:C:C6	2.48	0.49
32:1a:794:A:OP2	60:1a:1923:HOH:O	2.20	0.49
32:1a:1102:A:O3'	33:1b:96:ARG:NH2	2.46	0.49
33:1b:80:ILE:HG22	33:1b:215:LEU:HD12	1.93	0.49
34:1c:58:GLU:HB2	34:1c:65:ALA:HB3	1.94	0.49
35:1d:116:GLN:CD	35:1d:157:LEU:HD21	2.37	0.49
41:1j:35:SER:HB3	41:1j:73:ASP:HB2	1.94	0.49
50:1s:45:VAL:HA	50:1s:62:ILE:HG22	1.94	0.49
1:2A:746:A:H2'	1:2A:2612:C:H5''	1.95	0.49
1:2A:1489:U:HO2'	1:2A:1490:A:H8	1.59	0.49
1:2A:2319:G:N1	14:2S:3:ARG:HA	2.28	0.49
2:2B:30:C:H5	14:2S:32:LEU:HD13	1.78	0.49
21:2Z:24:LEU:HD12	21:2Z:25:PRO:HD2	1.94	0.49
21:2Z:73:GLN:H	21:2Z:87:ASP:HB2	1.76	0.49
32:2a:828:A:H2'	32:2a:829:G:O4'	2.13	0.49
34:2c:6:HIS:HD2	45:2n:49:HIS:HB3	1.77	0.49
1:1A:219:G:OP2	60:1A:4199:HOH:O	2.20	0.49
1:1A:580:C:H2'	1:1A:581:C:C6	2.47	0.49
1:1A:2687:U:H2'	1:1A:2688:U:O4'	2.11	0.49
1:1A:2896:C:H2'	1:1A:2897:U:C6	2.47	0.49
32:1a:67:C:H2'	32:1a:68:G:C8	2.47	0.49
32:1a:384:G:H2'	32:1a:385:C:H6	1.78	0.49
32:1a:745:C:H2'	32:1a:746:A:C8	2.47	0.49
32:1a:1100:C:H3'	33:1b:96:ARG:HH12	1.78	0.49
32:1a:1240:U:OP2	38:1g:116:ALA:N	2.46	0.49
35:1d:8:VAL:HG11	35:1d:22:LYS:HG3	1.95	0.49
35:1d:53:ASP:HB3	35:1d:57:ARG:NH1	2.28	0.49
37:1f:75:LEU:O	37:1f:79:LEU:HG	2.13	0.49
1:2A:76:C:O3'	24:22:59:ARG:HG3	2.12	0.49
1:2A:747:U:H1'	18:2W:92:ARG:HH12	1.77	0.49
1:2A:1827:C:O2'	1:2A:1970:A:N3	2.32	0.49
1:2A:2287:A:O2'	1:2A:2288:A:H3'	2.13	0.49
1:2A:2387:U:H1'	22:20:41:ARG:NE	2.27	0.49
1:2A:2499:C:N3	60:2A:4063:HOH:O	2.35	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2540:C:H2'	1:2A:2541:A:O4'	2.12	0.49
8:2I:1:MET:N	8:2I:21:VAL:O	2.44	0.49
8:2I:8:PRO:O	60:2I:301:HOH:O	2.20	0.49
8:2I:122:GLU:HB2	8:2I:126:TYR:OH	2.12	0.49
9:2N:4:TYR:CD2	16:2U:100:VAL:HG11	2.48	0.49
11:2P:33:ARG:O	60:2P:302:HOH:O	2.19	0.49
12:2Q:57:HIS:NE2	12:2Q:116:GLU:HB3	2.28	0.49
21:2Z:42:VAL:O	21:2Z:46:LYS:HG2	2.13	0.49
26:24:42:PHE:HD2	26:24:43:TYR:CD1	2.31	0.49
32:2a:1403:C:H2'	32:2a:1404:5MC:HM53	1.93	0.49
1:1A:583:G:OP2	16:1U:10:ARG:HD2	2.11	0.49
1:1A:664:C:OP2	60:1A:4192:HOH:O	2.19	0.49
1:1A:944:G:H5''	1:1A:945:A:O5'	2.13	0.49
1:1A:1798:U:H5'	3:1D:259:THR:CG2	2.40	0.49
1:1A:2074:U:H2'	1:1A:2075:U:C6	2.48	0.49
8:1I:81:VAL:O	8:1I:146:ALA:HA	2.13	0.49
25:13:3:ARG:HH21	25:13:36:VAL:HB	1.78	0.49
26:14:14:ILE:HB	26:14:22:ILE:HB	1.94	0.49
26:14:59:PHE:CE1	50:1s:64:GLU:HG3	2.47	0.49
32:1a:73:G:H2'	32:1a:76:C:C6	2.48	0.49
32:1a:710:G:OP1	37:1f:54:LYS:HD3	2.13	0.49
51:1t:47:GLY:HA2	51:1t:48:LYS:HB2	1.95	0.49
1:2A:8:A:H2'	1:2A:9:U:C6	2.48	0.49
1:2A:300:A:H1'	1:2A:319:C:H1'	1.94	0.49
1:2A:800:A:H8	1:2A:800:A:OP1	1.95	0.49
1:2A:981:A:OP1	60:2A:3911:HOH:O	2.20	0.49
1:2A:985:C:H2'	1:2A:986:C:H6	1.77	0.49
4:2E:64:LYS:O	4:2E:68:ALA:N	2.46	0.49
7:2H:101:ARG:NH1	7:2H:121:ILE:O	2.46	0.49
32:2a:457:C:H2'	32:2a:458:C:H6	1.78	0.49
34:2c:28:GLN:HG2	34:2c:32:LEU:HD13	1.95	0.49
34:2c:110:ASN:OD1	34:2c:140:ARG:NH1	2.45	0.49
37:2f:95:GLU:O	49:2r:32:ARG:NH1	2.40	0.49
42:2k:27:ASN:OD1	42:2k:28:THR:N	2.44	0.49
47:2p:5:ARG:HH21	47:2p:24:ALA:HA	1.77	0.49
1:1A:548:A:N6	17:1V:19:LYS:H	2.11	0.49
1:1A:886:C:H3'	1:1A:887:A:H5''	1.94	0.49
32:1a:14:U:O2'	32:1a:16:A:N7	2.41	0.49
47:1p:4:ILE:HB	47:1p:66:PRO:HA	1.94	0.49
1:2A:821:A:H2'	1:2A:946:G:H5''	1.95	0.49
56:2A:3735:MPD:O4	56:2A:3735:MPD:O2	2.29	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:17:C:H2'	2:2B:18:G:O4'	2.12	0.49
17:2V:5:VAL:HG11	17:2V:57:VAL:HG21	1.95	0.49
17:2V:98:GLU:CD	17:2V:100:ARG:HD3	2.37	0.49
23:21:6:GLU:OE1	23:21:61:ARG:N	2.42	0.49
32:2a:384:G:H2'	32:2a:385:C:C6	2.47	0.49
34:2c:109:PRO:HB3	34:2c:115:LEU:HD23	1.95	0.49
36:2e:77:PRO:HD2	36:2e:142:LEU:HD22	1.95	0.49
50:2s:50:ALA:CB	50:2s:57:HIS:HB3	2.39	0.49
1:1A:45:C:OP2	1:1A:215:G:H2'	2.12	0.49
1:1A:1634:A:H4'	60:1A:4433:HOH:O	2.12	0.49
8:1I:3:VAL:HG23	8:1I:19:VAL:HG23	1.94	0.49
21:1Z:129:SER:HB3	21:1Z:132:ASN:HB2	1.94	0.49
32:1a:176:C:H2'	32:1a:177:C:C6	2.44	0.49
32:1a:632:A:OP1	39:1h:98:LYS:NZ	2.41	0.49
45:1n:3:ARG:CZ	45:1n:3:ARG:HB3	2.43	0.49
1:2A:974:G:OP1	1:2A:1187:G:O2'	2.19	0.49
1:2A:1882:C:H3'	1:2A:1883:G:H8	1.78	0.49
1:2A:2203:U:H2'	1:2A:2205:C:C6	2.48	0.49
11:2P:121:LYS:O	11:2P:123:LEU:N	2.46	0.49
12:2Q:45:GLN:OE1	12:2Q:45:GLN:N	2.45	0.49
32:2a:1157:A:H4'	32:2a:1158:C:O5'	2.11	0.49
42:2k:33:THR:HG22	42:2k:39:PRO:HA	1.94	0.49
49:2r:74:ARG:HB3	49:2r:81:PHE:CZ	2.48	0.49
1:1A:27:G:N2	1:1A:512:G:H1'	2.28	0.48
1:1A:248:G:OP2	60:1A:4193:HOH:O	2.19	0.48
1:1A:271(E):U:H2'	1:1A:271(F):C:C6	2.47	0.48
1:1A:1790:C:H2'	1:1A:1791:A:C5	2.48	0.48
4:1E:3:GLY:HA3	4:1E:81:ILE:HD12	1.95	0.48
27:15:47:PRO:O	27:15:60:VAL:HG21	2.13	0.48
32:1a:972:C:OP1	60:1a:1921:HOH:O	2.19	0.48
37:1f:69:GLU:O	37:1f:72:VAL:HG12	2.13	0.48
39:1h:21:LYS:O	39:1h:65:TYR:OH	2.24	0.48
1:2A:1055:G:H21	1:2A:1084:A:H62	1.60	0.48
1:2A:1581:G:H2'	1:2A:1582:C:O4'	2.13	0.48
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.48	0.48
11:2P:35:HIS:O	11:2P:36:LYS:HB2	2.12	0.48
26:24:46:GLN:O	26:24:48:ARG:N	2.45	0.48
29:27:9:ARG:HD3	60:27:205:HOH:O	2.13	0.48
31:29:29:ASN:HB3	31:29:32:HIS:ND1	2.27	0.48
32:2a:309:G:H2'	32:2a:310:G:H8	1.77	0.48
32:2a:918:A:H2'	32:2a:919:A:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1109:C:OP1	60:2a:3229:HOH:O	2.20	0.48
32:2a:1402:4OC:CM2	32:2a:1403:C:H5'	2.43	0.48
34:2c:24:ALA:HB2	34:2c:32:LEU:HD22	1.95	0.48
40:2i:46:ALA:HB2	40:2i:74:ILE:HG23	1.94	0.48
11:1P:43:GLY:HA3	60:1P:301:HOH:O	2.14	0.48
32:1a:1158:C:H5	32:1a:1181:G:N1	2.11	0.48
32:1a:1237:C:O2'	32:1a:1300:G:N2	2.41	0.48
33:1b:96:ARG:HB3	33:1b:148:TYR:HE1	1.78	0.48
35:1d:171:GLY:C	35:1d:173:TRP:H	2.22	0.48
53:1y:38:HIS:O	53:1y:52:ALA:HA	2.12	0.48
1:2A:831:G:N2	11:2P:53:GLY:O	2.43	0.48
1:2A:955:C:OP2	12:2Q:14:ARG:HG3	2.12	0.48
1:2A:1102:C:H2'	1:2A:1103:A:C8	2.49	0.48
1:2A:2104:G:N2	1:2A:2184:G:H1	2.11	0.48
1:2A:2155:G:H3'	1:2A:2156:G:H8	1.78	0.48
1:2A:2286:A:H4'	1:2A:2287:A:O4'	2.13	0.48
1:2A:2802:G:H2'	1:2A:2803:C:O4'	2.13	0.48
2:2B:49:C:H2'	2:2B:50:G:C8	2.48	0.48
8:2I:5:LEU:HD11	8:2I:19:VAL:HG22	1.95	0.48
19:2X:35:THR:HG22	19:2X:37:THR:N	2.26	0.48
32:2a:1366:C:H2'	32:2a:1367:C:C6	2.48	0.48
33:2b:95:GLN:HG3	33:2b:96:ARG:H	1.78	0.48
38:2g:16:LEU:HD22	40:2i:45:ALA:HB2	1.94	0.48
1:1A:1056:G:H5''	1:1A:1057:A:O4'	2.13	0.48
1:1A:1386:C:H2'	1:1A:1387:C:C6	2.48	0.48
1:1A:1823:G:OP1	3:1D:54:ARG:NH1	2.46	0.48
1:1A:2018:G:OP1	27:15:9:LYS:NZ	2.42	0.48
4:1E:105:THR:OG1	4:1E:199:ARG:NH2	2.47	0.48
9:1N:33:LEU:HA	9:1N:38:HIS:CE1	2.49	0.48
10:1O:3:GLN:NE2	60:1O:306:HOH:O	2.45	0.48
14:1S:47:THR:N	60:1S:208:HOH:O	2.46	0.48
32:1a:559:A:N3	32:1a:559:A:H5'	2.28	0.48
32:1a:974:A:OP1	45:1n:29:ARG:NH2	2.46	0.48
34:1c:121:ALA:HA	34:1c:124:ILE:HD11	1.95	0.48
1:2A:247:G:H4'	1:2A:386:G:C5	2.49	0.48
1:2A:1377:G:OP2	60:2A:3906:HOH:O	2.19	0.48
2:2B:3:C:H2'	2:2B:4:C:H6	1.78	0.48
12:2Q:138:ASP:OD2	21:2Z:81:ARG:NH1	2.46	0.48
32:2a:545:C:OP1	35:2d:61:LYS:NZ	2.47	0.48
32:2a:965:A:C8	53:2y:8:LYS:HD2	2.48	0.48
32:2a:1190:G:H5'	34:2c:176:HIS:CE1	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:119:ARG:O	34:2c:123:GLN:N	2.45	0.48
38:2g:113:GLU:CG	38:2g:119:ARG:HG2	2.43	0.48
7:1H:3:ARG:HH21	7:1H:65:HIS:HB3	1.79	0.48
12:1Q:63:LYS:HD2	21:1Z:175:VAL:HG21	1.95	0.48
13:1R:87:TYR:OH	13:1R:117:VAL:O	2.24	0.48
26:14:55:ARG:H	26:14:56:VAL:HA	1.78	0.48
32:1a:437:U:H4'	35:1d:155:LEU:HD11	1.95	0.48
34:1c:6:HIS:CD2	34:1c:8:ILE:H	2.31	0.48
50:1s:22:LEU:O	50:1s:27:GLU:N	2.46	0.48
1:2A:1059:G:OP2	1:2A:1060:U:H2'	2.14	0.48
1:2A:1321:A:H2'	1:2A:1322:A:O4'	2.13	0.48
7:2H:70:THR:HA	7:2H:73:ALA:HB3	1.96	0.48
32:2a:353:A:H5'	32:2a:353:A:H8	1.79	0.48
32:2a:609:A:H5'	47:2p:18:ARG:HH22	1.78	0.48
32:2a:757:U:H2'	32:2a:758:G:O4'	2.14	0.48
32:2a:1136:U:OP2	32:2a:1137:C:N4	2.47	0.48
33:2b:71:VAL:O	33:2b:165:VAL:HG22	2.13	0.48
33:2b:110:GLN:O	33:2b:111:ARG:NH1	2.46	0.48
1:1A:1177:A:H2'	1:1A:1177:A:N3	2.27	0.48
2:1B:96:U:O4	57:1B:233:ARG:NH1	2.46	0.48
32:1a:457:C:H2'	32:1a:458:C:H6	1.79	0.48
32:1a:1226:C:O2'	44:1m:111:LYS:NZ	2.46	0.48
32:1a:1302:U:C5	44:1m:17:VAL:HG11	2.48	0.48
50:1s:80:TYR:CZ	50:1s:82:GLY:HA2	2.48	0.48
52:1u:14:TRP:HZ3	52:1u:15:ARG:HH21	1.61	0.48
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.28	0.48
1:2A:2336:A:H61	22:20:43:THR:CG2	2.26	0.48
1:2A:2397:G:N2	1:2A:2420:C:H1'	2.29	0.48
1:2A:2740:A:H2'	1:2A:2741:A:C8	2.49	0.48
1:2A:2820:A:O2'	1:2A:2821:A:OP1	2.31	0.48
9:2N:39:ARG:NH2	9:2N:41:ASP:OD2	2.47	0.48
14:2S:15:ARG:O	14:2S:19:LYS:HG2	2.13	0.48
32:2a:546:G:OP1	35:2d:73:ARG:HG2	2.13	0.48
32:2a:620:C:H2'	32:2a:621:A:O4'	2.14	0.48
35:2d:11:LEU:HG	35:2d:66:ARG:HD3	1.94	0.48
45:2n:24:CYS:HB3	45:2n:29:ARG:H	1.78	0.48
1:1A:1028:A:N6	1:1A:1125:G:H2'	2.28	0.48
1:1A:1155:A:OP1	16:1U:55:ARG:HD3	2.13	0.48
1:1A:2564:A:C2	1:1A:2647:U:H4'	2.48	0.48
8:1I:80:PRO:HA	8:1I:145:VAL:HG23	1.94	0.48
15:1T:120:ARG:HA	15:1T:123:GLN:HB2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:1X:31:HIS:CD2	19:1X:33:LYS:H	2.31	0.48
32:1a:201:C:H42	32:1a:216:G:H22	1.61	0.48
32:1a:971:G:N2	32:1a:1363(A):A:OP2	2.40	0.48
32:1a:986:A:H2'	32:1a:987:G:C8	2.48	0.48
37:1f:78:GLU:O	37:1f:81:ILE:HG22	2.14	0.48
38:1g:93:PRO:O	38:1g:96:GLN:HB2	2.14	0.48
51:1t:63:ILE:HG21	51:1t:81:LYS:HG3	1.96	0.48
51:1t:67:ALA:HB2	51:1t:77:ALA:HB2	1.96	0.48
1:2A:614(C):A:C4	5:2F:180:GLY:HA2	2.49	0.48
1:2A:657:U:H2'	1:2A:658:C:C6	2.49	0.48
1:2A:1203:G:C6	1:2A:1204:A:N6	2.82	0.48
1:2A:1514:U:H2'	1:2A:1515:G:C8	2.48	0.48
1:2A:2128:C:H3'	1:2A:2129:C:H5''	1.95	0.48
32:2a:1106:G:H2'	32:2a:1107:C:H6	1.79	0.48
1:1A:1250:G:N7	11:1P:18:ARG:NH1	2.55	0.48
1:1A:1268:A:H2'	1:1A:1269:A:O4'	2.14	0.48
1:1A:2287:A:O2'	1:1A:2289:G:N7	2.47	0.48
3:1D:77:ALA:HB2	3:1D:97:TYR:CD1	2.49	0.48
5:1F:154:VAL:HG22	5:1F:191:ARG:HB3	1.95	0.48
32:1a:186:C:H5'	51:1t:78:ALA:HB1	1.96	0.48
32:1a:1070:U:OP1	36:1e:25:ARG:NH1	2.46	0.48
40:1i:4:TYR:HA	40:1i:87:GLN:HE22	1.79	0.48
1:2A:538:G:H2'	1:2A:539:G:H8	1.79	0.48
1:2A:1530:C:N4	1:2A:1539:G:H1	2.11	0.48
1:2A:1539:G:H2'	1:2A:1540:U:C6	2.48	0.48
15:2T:53:ARG:HB3	15:2T:53:ARG:NH1	2.28	0.48
16:2U:8:VAL:HG23	16:2U:11:ARG:NH2	2.27	0.48
24:22:10:LEU:O	24:22:14:ARG:HB2	2.13	0.48
32:2a:448:A:OP2	32:2a:485:G:N2	2.25	0.48
32:2a:593:G:H1	32:2a:646:U:H3	1.62	0.48
32:2a:980:C:H3'	32:2a:981:U:C6	2.48	0.48
32:2a:1152:A:O3'	41:2j:13:HIS:NE2	2.47	0.48
32:2a:1259:C:N4	32:2a:1260:C:O2	2.46	0.48
34:2c:73:PRO:O	34:2c:77:ILE:HG12	2.14	0.48
35:2d:146:ILE:HD12	35:2d:146:ILE:H	1.78	0.48
1:1A:1614:A:C2	18:1W:93:ALA:HB2	2.47	0.48
1:1A:2345:G:OP2	60:1A:4198:HOH:O	2.20	0.48
5:1F:164:ARG:HD2	57:1F:319:ARG:NH1	2.27	0.48
6:1G:32:PRO:HB3	6:1G:163:ALA:HB2	1.95	0.48
10:1O:48:PRO:HB3	32:1a:1422:G:H5''	1.96	0.48
21:1Z:103:ARG:HD3	21:1Z:136:PHE:CG	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1101:A:H4'	32:1a:1102:A:O5'	2.13	0.48
35:1d:57:ARG:HG2	35:1d:202:LEU:HD22	1.95	0.48
36:1e:99:GLY:N	36:1e:117:ASP:OD1	2.35	0.48
37:1f:1:MET:HE3	37:1f:66:GLU:HG2	1.95	0.48
38:1g:91:VAL:HG13	38:1g:95:ARG:HD3	1.95	0.48
1:2A:858:U:O2	1:2A:2268:A:H2'	2.14	0.48
1:2A:1002:G:H2'	1:2A:1003:G:O4'	2.13	0.48
1:2A:2462:U:H2'	1:2A:2463:C:C6	2.49	0.48
3:2D:133:LEU:HB3	3:2D:173:VAL:HG11	1.96	0.48
4:2E:34:VAL:HG21	4:2E:78:LEU:HD11	1.95	0.48
10:2O:35:VAL:HG22	10:2O:65:THR:HG23	1.96	0.48
20:2Y:83:THR:OG1	20:2Y:84:ARG:O	2.26	0.48
32:2a:297:G:N2	32:2a:300:A:OP2	2.44	0.48
32:2a:932:C:H2'	32:2a:933:G:C8	2.48	0.48
50:2s:50:ALA:O	50:2s:57:HIS:ND1	2.46	0.48
1:1A:1165:U:H2'	1:1A:1166:C:C6	2.49	0.48
5:1F:24:LEU:HD21	5:1F:199:TRP:HH2	1.79	0.48
5:1F:51:THR:HB	5:1F:88:VAL:HG11	1.96	0.48
6:1G:8:LYS:NZ	6:1G:97:ASP:OD1	2.47	0.48
8:1I:11:ASN:N	8:1I:11:ASN:OD1	2.46	0.48
32:1a:646:U:H2'	32:1a:647:C:H6	1.77	0.48
32:1a:785:G:H2'	32:1a:786:G:H5'	1.95	0.48
32:1a:926:G:C6	53:1y:87:LYS:HG3	2.48	0.48
32:1a:1036:G:H5''	32:1a:1037:C:C5	2.49	0.48
32:1a:1304:G:C6	32:1a:1305:G:N1	2.82	0.48
1:2A:172:C:H2'	1:2A:173:G:C8	2.49	0.48
1:2A:1889:A:H2'	1:2A:1890:A:C8	2.49	0.48
1:2A:2680:C:H1'	4:2E:187:ALA:HB1	1.95	0.48
5:2F:197:ASP:O	5:2F:201:VAL:HG13	2.14	0.48
15:2T:90:GLN:OE1	15:2T:91:ARG:N	2.44	0.48
32:2a:217:C:H2'	32:2a:218:C:H6	1.77	0.48
32:2a:423:G:H3'	32:2a:423:G:N3	2.29	0.48
32:2a:1186:G:N2	45:2n:61:TRP:O	2.40	0.48
33:2b:212:GLN:OE1	33:2b:216:SER:HB3	2.12	0.48
1:1A:1223:G:N2	1:1A:1226:A:OP2	2.36	0.48
1:1A:2753:A:N3	31:19:15:LYS:NZ	2.60	0.48
1:1A:2896:C:H2'	1:1A:2897:U:H6	1.79	0.48
2:1B:108:U:H2'	2:1B:109:C:H5''	1.96	0.48
6:1G:43:LEU:C	6:1G:45:GLU:H	2.22	0.48
12:1Q:11:LYS:HD3	12:1Q:87:LYS:HG2	1.96	0.48
14:1S:15:ARG:NH2	60:1S:205:HOH:O	2.30	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:15:ILE:HB	26:14:32:TYR:CD1	2.48	0.48
26:14:62:ARG:C	26:14:64:GLY:HA2	2.39	0.48
32:1a:553:A:H5''	43:1l:24:VAL:HG21	1.96	0.48
38:1g:38:LEU:HG	38:1g:42:ILE:HD11	1.96	0.48
42:1k:98:LEU:O	42:1k:101:SER:OG	2.26	0.48
1:2A:27:G:N2	1:2A:512:G:H1'	2.28	0.48
1:2A:271(U):G:H2'	1:2A:271(V):G:H8	1.78	0.48
1:2A:300:A:OP1	20:2Y:86:ARG:NH2	2.46	0.48
1:2A:2224:G:H4'	1:2A:2226:C:C2	2.49	0.48
5:2F:34:TRP:CE3	5:2F:35:GLU:HG2	2.49	0.48
6:2G:7:LEU:HD22	6:2G:100:TRP:O	2.13	0.48
32:2a:1143:G:H2'	32:2a:1144:G:H8	1.78	0.48
32:2a:1151:A:O4'	41:2j:39:PRO:HB2	2.14	0.48
32:2a:1286:A:H2'	32:2a:1287:A:H4'	1.96	0.48
1:1A:192:C:O2'	1:1A:802:A:N3	2.46	0.47
1:1A:517:C:OP2	27:15:13:LYS:HE3	2.14	0.47
1:1A:2250:G:OP1	60:1A:4202:HOH:O	2.20	0.47
4:1E:59:VAL:HG21	4:1E:74:PRO:HB3	1.95	0.47
32:1a:123:C:O2'	32:1a:290:C:O2	2.28	0.47
32:1a:768:A:OP2	60:1a:1922:HOH:O	2.20	0.47
1:2A:887:A:O2'	1:2A:888:C:H3'	2.14	0.47
1:2A:1623:G:H2'	1:2A:1624:G:H8	1.78	0.47
1:2A:2338:G:H2'	1:2A:2339:G:H8	1.78	0.47
3:2D:13:ARG:HD3	3:2D:13:ARG:HA	1.55	0.47
3:2D:16:MET:HG3	3:2D:206:LEU:O	2.14	0.47
6:2G:71:THR:N	6:2G:89:GLY:O	2.42	0.47
21:2Z:193:GLU:HG2	21:2Z:194:PRO:HD2	1.95	0.47
32:2a:718:G:H5'	42:2k:117:ASN:OD1	2.13	0.47
32:2a:819:A:H4'	32:2a:820:U:OP2	2.13	0.47
32:2a:848:C:H2'	32:2a:849:C:H6	1.79	0.47
32:2a:1338:G:H2'	32:2a:1339:A:C8	2.49	0.47
45:2n:21:TYR:HE1	45:2n:23:ARG:HE	1.62	0.47
45:2n:26:ARG:NH1	45:2n:46:GLU:OE1	2.27	0.47
1:1A:265:A:N1	1:1A:427:U:O2'	2.47	0.47
1:1A:1019:U:OP1	1:1A:1035:U:O2'	2.23	0.47
1:1A:1790:C:H5''	1:1A:1791:A:OP1	2.13	0.47
1:1A:2106:G:C5	1:1A:2107:C:H1'	2.49	0.47
1:1A:2287:A:C8	1:1A:2289:G:C8	3.02	0.47
1:1A:2782:G:OP2	60:1A:4200:HOH:O	2.20	0.47
4:1E:9:VAL:HG22	4:1E:25:VAL:HB	1.95	0.47
11:1P:94:GLU:HG3	11:1P:124:LYS:HD3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:1P:126:VAL:HG12	11:1P:148:LEU:HG	1.96	0.47
21:1Z:19:ARG:NH1	21:1Z:84:GLU:O	2.47	0.47
32:1a:131:C:H2'	32:1a:132:C:C6	2.48	0.47
32:1a:166:G:H2'	32:1a:167:G:C8	2.48	0.47
32:1a:266:G:H2'	32:1a:266:G:N3	2.28	0.47
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.49	0.47
32:1a:1286:A:C8	32:1a:1287:A:H4'	2.47	0.47
32:1a:1525:G:OP1	42:1k:120:ARG:NH2	2.47	0.47
1:2A:2590:A:O3'	3:2D:239:ARG:NH2	2.47	0.47
1:2A:2788:C:OP1	4:2E:61:ARG:NH2	2.47	0.47
1:2A:2884:U:P	27:25:43:HIS:HE2	2.36	0.47
19:2X:11:PRO:HB3	19:2X:92:LEU:HD11	1.96	0.47
30:28:46:ARG:HB2	30:28:46:ARG:HH11	1.79	0.47
32:2a:110:C:H2'	32:2a:111:G:O4'	2.14	0.47
32:2a:932:C:H2'	32:2a:933:G:H8	1.79	0.47
32:2a:1051:C:N3	32:2a:1207:2MG:N2	2.62	0.47
34:2c:82:GLU:HA	34:2c:85:ARG:HH12	1.79	0.47
35:2d:38:TYR:CE1	35:2d:45:GLN:HG3	2.49	0.47
35:2d:120:LEU:HB3	35:2d:126:ILE:HD11	1.95	0.47
38:2g:85:TYR:HB3	38:2g:151:TYR:CD2	2.49	0.47
39:2h:82:HIS:N	39:2h:138:TRP:O	2.43	0.47
1:1A:2129:C:N3	1:1A:2159:G:O6	2.46	0.47
1:1A:2785:C:O2'	60:1A:4203:HOH:O	2.20	0.47
22:10:31:VAL:HG12	22:10:35:ASN:HD22	1.79	0.47
32:1a:100:C:H2'	32:1a:101:A:C8	2.49	0.47
32:1a:560:U:H5'	32:1a:566:G:N2	2.29	0.47
32:1a:1298:C:H2'	38:1g:114:ARG:HH21	1.79	0.47
33:1b:16:HIS:CG	33:1b:17:PHE:N	2.82	0.47
37:1f:69:GLU:H	37:1f:69:GLU:CD	2.21	0.47
1:2A:171:G:H2'	1:2A:172:C:C6	2.49	0.47
1:2A:537:C:OP1	1:2A:995:C:N4	2.46	0.47
1:2A:2317:C:H2'	1:2A:2318:G:H5'	1.95	0.47
1:2A:2320:A:N3	1:2A:2320:A:H2'	2.29	0.47
1:2A:2392:A:N3	11:2P:61:ARG:HG2	2.28	0.47
2:2B:7:G:N3	14:2S:38:GLN:NE2	2.51	0.47
3:2D:76:PRO:HB2	3:2D:116:GLN:HE21	1.79	0.47
6:2G:16:ARG:O	6:2G:20:ILE:HG13	2.15	0.47
14:2S:24:LEU:HD22	14:2S:41:ASP:HB2	1.95	0.47
21:2Z:152:ALA:HB1	21:2Z:163:LEU:HD21	1.96	0.47
32:2a:598:U:H4'	39:2h:94:TYR:CD2	2.49	0.47
32:2a:1142:G:H3'	32:2a:1143:G:H8	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1402:4OC:HM43	53:2y:83:ARG:NH1	2.29	0.47
43:2l:11:VAL:HG11	48:2q:36:ILE:HG21	1.96	0.47
1:1A:911:A:H2'	12:1Q:9:TYR:OH	2.13	0.47
1:1A:1007:C:OP2	60:1A:4187:HOH:O	2.19	0.47
1:1A:1083:U:H1'	1:1A:1086:A:N6	2.29	0.47
2:1B:32:C:C2	2:1B:51:G:N2	2.82	0.47
5:1F:17:ARG:HB3	5:1F:17:ARG:HH11	1.79	0.47
32:1a:28:G:O2'	32:1a:296:U:OP1	2.29	0.47
32:1a:181:G:H4'	32:1a:182:U:H5'	1.95	0.47
32:1a:1008:C:H2'	32:1a:1009:G:O4'	2.14	0.47
35:1d:32:ALA:O	35:1d:36:ARG:N	2.45	0.47
39:1h:81:HIS:N	39:1h:138:TRP:O	2.48	0.47
41:1j:13:HIS:H	41:1j:13:HIS:CD2	2.30	0.47
44:1m:51:ALA:HA	44:1m:54:VAL:HG22	1.97	0.47
1:2A:270:A:OP2	1:2A:271(X):G:N1	2.38	0.47
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.50	0.47
6:2G:11:TYR:HA	6:2G:15:VAL:CG1	2.45	0.47
7:2H:94:TYR:HA	7:2H:106:THR:O	2.14	0.47
32:2a:27:G:H2'	32:2a:28:G:C8	2.49	0.47
36:2e:6:PHE:HD2	36:2e:63:ARG:HH11	1.62	0.47
39:2h:51:VAL:HG11	39:2h:60:ARG:HH11	1.79	0.47
50:2s:30:LEU:HD21	50:2s:50:ALA:HB3	1.97	0.47
51:2t:56:MET:HG3	51:2t:88:VAL:HG21	1.96	0.47
1:1A:182:A:H8	1:1A:182:A:OP2	1.97	0.47
1:1A:1065:U:O2	1:1A:1066:U:N3	2.47	0.47
1:1A:1210:A:H5''	1:1A:1212:G:O4'	2.15	0.47
1:1A:2022:U:OP1	60:1A:4206:HOH:O	2.20	0.47
1:1A:2142:C:O2	1:1A:2149:G:N1	2.48	0.47
12:1Q:63:LYS:NZ	60:1Q:301:HOH:O	2.33	0.47
29:17:46:VAL:HG12	29:17:48:LYS:H	1.79	0.47
37:1f:46:ARG:HH21	49:1r:37:VAL:HG11	1.79	0.47
40:1i:50:LEU:HB3	40:1i:85:LEU:HD11	1.97	0.47
1:2A:854:G:H2'	1:2A:855:G:H8	1.79	0.47
1:2A:2375:G:N2	1:2A:2378:A:OP2	2.33	0.47
2:2B:12:C:H2'	22:20:73:GLY:HA3	1.96	0.47
2:2B:31:C:H4'	6:2G:29:TRP:CH2	2.49	0.47
5:2F:36:VAL:O	5:2F:40:GLN:HG3	2.14	0.47
6:2G:70:VAL:HA	6:2G:90:LEU:HD23	1.95	0.47
19:2X:44:GLU:HG2	19:2X:49:VAL:O	2.15	0.47
25:23:10:LYS:HB3	25:23:53:LEU:HB3	1.97	0.47
25:23:12:PRO:HB2	25:23:20:LYS:HG2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:7:G:H5'	32:2a:298:A:O4'	2.15	0.47
32:2a:825:G:H1	32:2a:875:C:H42	1.62	0.47
36:2e:144:THR:O	36:2e:148:VAL:HG13	2.14	0.47
47:2p:21:VAL:HG22	47:2p:33:ILE:HD12	1.97	0.47
1:1A:459:U:H4'	29:17:40:TRP:CZ3	2.49	0.47
1:1A:548:A:O2'	1:1A:549:G:OP1	2.28	0.47
1:1A:2791:C:H5'	1:1A:2893:G:N2	2.30	0.47
60:1A:5497:HOH:O	16:1U:34:LYS:HE2	2.14	0.47
7:1H:30:LYS:HE2	7:1H:80:SER:O	2.15	0.47
17:1V:52:VAL:HG23	17:1V:55:ALA:HB3	1.96	0.47
32:1a:1278:U:H5'	32:1a:1279:A:C5'	2.44	0.47
33:1b:10:LEU:HA	33:1b:48:MET:CE	2.45	0.47
34:1c:19:GLU:HG2	34:1c:54:ARG:NH1	2.29	0.47
1:2A:642:G:N2	1:2A:644:A:H3'	2.29	0.47
1:2A:770:G:O6	60:2A:3902:HOH:O	2.19	0.47
1:2A:1817:G:OP1	3:2D:88:ARG:NH2	2.45	0.47
1:2A:2111:C:N3	1:2A:2145:C:O2'	2.48	0.47
11:2P:97:PRO:HD3	11:2P:126:VAL:O	2.14	0.47
15:2T:39:ARG:HH12	15:2T:41:ARG:HB3	1.80	0.47
32:2a:108:G:C6	51:2t:15:ARG:HG2	2.49	0.47
32:2a:1333:A:H2'	32:2a:1334:G:O4'	2.15	0.47
39:2h:29:SER:HB3	39:2h:32:LYS:HB2	1.97	0.47
44:2m:73:GLU:HA	44:2m:76:ALA:HB3	1.96	0.47
46:2o:18:PHE:O	46:2o:20:GLY:N	2.41	0.47
50:2s:27:GLU:OE1	50:2s:47:HIS:NE2	2.47	0.47
1:1A:127:A:H5''	1:1A:128:C:C6	2.50	0.47
1:1A:271(W):G:C6	1:1A:271(X):G:N1	2.83	0.47
1:1A:403:U:H4'	1:1A:404:C:H5'	1.95	0.47
1:1A:1001:A:H2'	1:1A:1002:G:O4'	2.15	0.47
1:1A:1465:G:H5'	1:1A:1528:A:O2'	2.15	0.47
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.28	0.47
1:1A:2375:G:O2'	1:1A:2377:A:N7	2.41	0.47
1:1A:2612:C:OP2	27:15:2:ALA:N	2.48	0.47
5:1F:64:ILE:HD11	5:1F:75:HIS:HB2	1.97	0.47
5:1F:192:LEU:HD13	5:1F:194:MET:HE2	1.96	0.47
8:1I:78:THR:HG23	8:1I:80:PRO:HD3	1.96	0.47
14:1S:20:ARG:NH2	22:10:51:VAL:O	2.47	0.47
23:11:23:LYS:HB2	23:11:23:LYS:HE3	1.72	0.47
27:15:16:ARG:HG3	27:15:17:ASP:N	2.30	0.47
28:16:10:LEU:HB2	28:16:52:VAL:HG12	1.97	0.47
32:1a:96:U:H2'	32:1a:97:G:C8	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:153:C:H42	32:1a:169:C:N4	2.13	0.47
32:1a:437:U:O2	35:1d:119:GLN:NE2	2.48	0.47
32:1a:626:U:H2'	32:1a:627:G:H8	1.78	0.47
32:1a:1019:C:H2'	32:1a:1020:U:O4'	2.15	0.47
32:1a:1438:G:H2'	32:1a:1439:C:H6	1.79	0.47
33:1b:178:ARG:NH2	39:1h:74:PRO:HB3	2.29	0.47
35:1d:177:ASP:HB3	35:1d:182:LYS:HG3	1.96	0.47
38:1g:9:VAL:HG13	38:1g:94:ARG:HH21	1.79	0.47
39:1h:6:ILE:HB	39:1h:85:ARG:NH1	2.30	0.47
43:1l:8:ASN:O	43:1l:12:ARG:HG3	2.15	0.47
50:1s:28:LYS:HD3	50:1s:47:HIS:HA	1.96	0.47
1:2A:271(K):U:O2	8:2I:50:ARG:HD2	2.15	0.47
1:2A:271(L):U:H4'	1:2A:271(M):G:H5'	1.96	0.47
1:2A:406:G:N2	60:2A:4115:HOH:O	2.39	0.47
1:2A:470:A:OP1	5:2F:59:TYR:HE1	1.98	0.47
1:2A:493:G:H2'	1:2A:494:G:O4'	2.15	0.47
1:2A:517:C:OP1	27:25:16:ARG:NH2	2.47	0.47
1:2A:1316:U:H2'	1:2A:1317:A:C8	2.50	0.47
1:2A:1331:A:H2'	1:2A:1333:C:H5	1.80	0.47
1:2A:1641:A:OP2	60:2A:3910:HOH:O	2.20	0.47
1:2A:2142:C:H2'	1:2A:2143:C:C6	2.50	0.47
1:2A:2335:A:C8	1:2A:2337:G:C5	3.03	0.47
3:2D:147:LEU:HD13	3:2D:155:LEU:HD21	1.95	0.47
6:2G:145:THR:HG22	6:2G:148:MET:HG2	1.97	0.47
11:2P:50:ARG:HD3	30:28:7:HIS:CD2	2.49	0.47
15:2T:101:PHE:O	15:2T:105:LEU:HG	2.15	0.47
19:2X:43:VAL:HG21	19:2X:81:VAL:HG11	1.96	0.47
32:2a:175:C:H2'	32:2a:176:C:H6	1.79	0.47
32:2a:186:C:H2'	32:2a:187:C:H6	1.80	0.47
32:2a:426:G:OP1	35:2d:38:TYR:OH	2.28	0.47
32:2a:768:A:N6	60:2a:3277:HOH:O	2.47	0.47
32:2a:910:C:H2'	32:2a:911:U:O4'	2.14	0.47
32:2a:1048:G:OP1	45:2n:4:LYS:HB2	2.15	0.47
32:2a:1118:C:OP1	40:2i:9:ARG:HD2	2.15	0.47
32:2a:1402:4OC:C2	32:2a:1500:A:H61	2.28	0.47
32:2a:1516:G:H2'	32:2a:1518:MA6:OP2	2.15	0.47
33:2b:74:LYS:O	33:2b:78:GLN:N	2.48	0.47
34:2c:8:ILE:HD13	34:2c:8:ILE:HA	1.71	0.47
35:2d:173:TRP:CD1	35:2d:174:LEU:HG	2.50	0.47
44:2m:4:ILE:O	44:2m:6:GLY:N	2.43	0.47
44:2m:15:VAL:HG11	44:2m:48:LEU:HD11	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:190:A:N3	1:1A:679:C:O2'	2.44	0.47
1:1A:580:C:H2'	1:1A:581:C:H6	1.78	0.47
1:1A:2848:G:H8	15:1T:97:ALA:HB2	1.79	0.47
32:1a:1036:G:H2'	32:1a:1036:G:N3	2.30	0.47
35:1d:74:GLN:O	35:1d:78:LEU:HG	2.15	0.47
41:1j:78:ASN:O	41:1j:81:THR:HG23	2.15	0.47
1:2A:1139:G:O2'	1:2A:1143:A:N1	2.46	0.47
1:2A:2119:A:O2'	1:2A:2120:G:H5'	2.15	0.47
1:2A:2424:C:O2	1:2A:2429:G:O2'	2.29	0.47
1:2A:2680:C:H5'	4:2E:189:PRO:HA	1.96	0.47
12:2Q:11:LYS:HD2	12:2Q:87:LYS:HG2	1.97	0.47
32:2a:770:C:O2'	32:2a:899:C:N3	2.46	0.47
32:2a:920:U:H2'	32:2a:921:U:H6	1.79	0.47
32:2a:1325:C:H4'	52:2u:17:THR:HG21	1.97	0.47
36:2e:69:VAL:HG21	36:2e:113:ALA:HB1	1.97	0.47
39:2h:69:ARG:HG3	39:2h:75:ARG:O	2.15	0.47
40:2i:26:VAL:HA	40:2i:61:ALA:O	2.15	0.47
46:2o:33:THR:HG23	46:2o:63:ARG:NH1	2.30	0.47
47:2p:53:VAL:HG13	47:2p:79:VAL:HG12	1.97	0.47
7:1H:86:GLU:HG3	7:1H:132:ARG:HE	1.80	0.47
16:1U:81:HIS:CE1	16:1U:85:LYS:HD2	2.50	0.47
32:1a:19:C:O2'	32:1a:572:A:N1	2.46	0.47
32:1a:474:G:H2'	32:1a:475:G:H8	1.80	0.47
32:1a:584:G:H5'	48:1q:91:ARG:NH2	2.30	0.47
32:1a:1438:G:H2'	32:1a:1439:C:C6	2.49	0.47
52:1u:6:ARG:HE	52:1u:15:ARG:NH1	2.13	0.47
1:2A:760:G:H2'	1:2A:761:A:O4'	2.15	0.47
1:2A:2032:G:OP1	60:2A:3915:HOH:O	2.21	0.47
1:2A:2051:A:H5'	1:2A:2578:G:O4'	2.15	0.47
8:2I:1:MET:HE3	8:2I:1:MET:HB2	1.73	0.47
14:2S:36:TYR:OH	14:2S:54:LEU:HD22	2.15	0.47
32:2a:674:G:H2'	32:2a:675:A:C8	2.50	0.47
32:2a:1112:C:O2	34:2c:179:ARG:N	2.44	0.47
33:2b:175:ARG:HB3	33:2b:175:ARG:NH1	2.30	0.47
41:2j:7:LYS:HB3	41:2j:97:GLU:HB2	1.97	0.47
46:2o:27:VAL:O	46:2o:31:LEU:HB2	2.14	0.47
46:2o:54:ARG:HG2	46:2o:58:MET:HE2	1.96	0.47
1:1A:2142:C:N3	1:1A:2149:G:O6	2.48	0.47
1:1A:2287:A:O2'	1:1A:2288:A:H3'	2.15	0.47
8:1I:49:ALA:HA	8:1I:52:ARG:HG2	1.97	0.47
27:15:35:GLU:HG2	27:15:51:TYR:CD1	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:909:A:H2'	32:1a:910:C:O4'	2.13	0.47
32:1a:979:C:O2	45:1n:19:ARG:NE	2.46	0.47
32:1a:1366:C:H2'	32:1a:1367:C:H6	1.80	0.47
1:2A:612:C:H2'	1:2A:613:G:O4'	2.15	0.47
23:21:83:GLU:HA	23:21:84:GLY:HA2	1.59	0.47
32:2a:570:G:H1'	32:2a:820:U:C4	2.50	0.47
32:2a:1129:C:N4	32:2a:1143:G:N1	2.54	0.47
32:2a:1259:C:C4	32:2a:1260:C:H1'	2.50	0.47
34:2c:9:GLY:HA3	45:2n:49:HIS:HA	1.97	0.47
39:2h:20:TYR:HA	39:2h:65:TYR:CZ	2.50	0.47
53:2y:61:LEU:HB3	53:2y:81:LEU:HD22	1.97	0.47
1:1A:326:G:OP2	60:1A:4205:HOH:O	2.20	0.46
1:1A:909:A:H2'	1:1A:912:C:C5	2.49	0.46
1:1A:1550:C:H5'	1:1A:1742:G:N2	2.29	0.46
1:1A:2319:G:N2	14:1S:3:ARG:HA	2.30	0.46
1:1A:2467:C:H4'	12:1Q:123:HIS:CD2	2.50	0.46
16:1U:33:ARG:NH2	60:1U:308:HOH:O	2.48	0.46
32:1a:738:C:H2'	32:1a:739:C:H6	1.80	0.46
38:1g:45:ASP:O	38:1g:49:ILE:HG13	2.15	0.46
40:1i:84:ALA:O	40:1i:88:TYR:N	2.34	0.46
1:2A:251:A:C5	1:2A:252:G:H1'	2.49	0.46
1:2A:856:C:HO2'	1:2A:857:C:P	2.36	0.46
1:2A:1999:C:H4'	1:2A:2723:C:O2	2.14	0.46
7:2H:143:GLN:NE2	7:2H:147:ASN:OD1	2.45	0.46
15:2T:53:ARG:HB3	15:2T:53:ARG:HH11	1.79	0.46
28:26:14:THR:OG1	28:26:48:VAL:O	2.30	0.46
32:2a:29:G:O2'	32:2a:295:C:H4'	2.15	0.46
32:2a:1039:C:H2'	32:2a:1040:U:O4'	2.15	0.46
33:2b:51:LEU:HD22	33:2b:55:PHE:HE2	1.81	0.46
34:2c:181:ASN:CG	34:2c:204:LEU:HD12	2.39	0.46
36:2e:41:VAL:HB	36:2e:113:ALA:HB2	1.96	0.46
40:2i:43:ALA:C	40:2i:45:ALA:H	2.23	0.46
44:2m:81:LEU:HD22	44:2m:88:ARG:HB3	1.96	0.46
50:2s:50:ALA:HA	50:2s:58:VAL:O	2.15	0.46
1:1A:35:G:H2'	1:1A:36:G:O4'	2.16	0.46
1:1A:1166:C:H2'	1:1A:1167:U:C6	2.51	0.46
9:1N:65:LYS:HE2	9:1N:69:GLN:HE22	1.81	0.46
14:1S:84:GLN:HA	14:1S:111:GLU:HB2	1.96	0.46
33:1b:88:ALA:O	33:1b:226:ARG:NH2	2.41	0.46
34:1c:5:ILE:HD11	45:1n:49:HIS:HE1	1.79	0.46
35:1d:155:LEU:HD23	35:1d:156:GLU:N	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:1f:89:MET:HE1	49:1r:72:ARG:HB2	1.97	0.46
1:2A:1721:G:N1	1:2A:1739:U:OP2	2.49	0.46
1:2A:2472:G:N1	1:2A:2477:C:OP1	2.36	0.46
1:2A:2548:G:H2'	1:2A:2549:G:O4'	2.16	0.46
1:2A:2641:G:OP1	9:2N:74:ARG:NH1	2.47	0.46
18:2W:80:PRO:O	18:2W:100:THR:HB	2.15	0.46
32:2a:501:C:H1'	32:2a:549:C:H1'	1.98	0.46
32:2a:978:A:O2'	32:2a:1322:C:N3	2.39	0.46
33:2b:209:ARG:HD3	33:2b:209:ARG:HA	1.71	0.46
38:2g:108:ALA:O	38:2g:119:ARG:HD2	2.15	0.46
41:2j:51:ARG:O	45:2n:45:ARG:NH1	2.48	0.46
50:2s:36:ARG:HH12	50:2s:75:ALA:HB3	1.80	0.46
53:2y:52:ALA:HB2	53:2y:77:LEU:HD21	1.97	0.46
1:1A:228:A:H8	1:1A:229:A:H5'	1.79	0.46
1:1A:1268:A:OP2	60:1A:4209:HOH:O	2.21	0.46
1:1A:2113:U:O4	1:1A:2168:G:H4'	2.15	0.46
1:1A:2189:U:C2'	1:1A:2190:G:H5'	2.45	0.46
55:1A:4021:ERY:H312	55:1A:4021:ERY:H2	1.78	0.46
11:1P:2:LYS:HE3	11:1P:4:SER:OG	2.15	0.46
15:1T:106:SER:O	15:1T:110:ILE:HG13	2.16	0.46
24:12:65:ASN:O	24:12:69:ARG:HG3	2.16	0.46
32:1a:574:A:OP2	60:1a:1909:HOH:O	2.21	0.46
32:1a:1161:C:H2'	32:1a:1162:C:C6	2.51	0.46
39:1h:64:LYS:HB3	39:1h:64:LYS:HE2	1.55	0.46
39:1h:83:ILE:HG13	39:1h:137:VAL:HG22	1.98	0.46
51:1t:49:ALA:HB1	51:1t:98:PRO:HA	1.96	0.46
1:2A:379:G:H4'	1:2A:2232:U:H5''	1.97	0.46
1:2A:889:C:O2'	1:2A:890:A:O5'	2.28	0.46
1:2A:2378:A:O3'	14:2S:23:ARG:NH2	2.48	0.46
6:2G:97:ASP:O	6:2G:101:ILE:HG13	2.14	0.46
6:2G:138:GLN:HE22	6:2G:153:ARG:HH21	1.62	0.46
8:2I:12:LEU:HD22	8:2I:19:VAL:HG21	1.97	0.46
9:2N:90:MET:HE3	9:2N:97:ARG:HB3	1.97	0.46
20:2Y:90:LEU:HB3	20:2Y:92:ASN:HB3	1.96	0.46
24:22:28:LYS:HD2	24:22:60:LEU:HD11	1.96	0.46
32:2a:1002:G:N3	32:2a:1003:G:C8	2.83	0.46
32:2a:1289:A:N1	32:2a:1371:G:O2'	2.43	0.46
39:2h:109:ILE:HG23	39:2h:137:VAL:HB	1.98	0.46
44:2m:55:ARG:O	44:2m:59:TYR:HB3	2.14	0.46
46:2o:3:ILE:H	46:2o:3:ILE:HG13	1.49	0.46
48:2q:41:LYS:NZ	48:2q:92:ARG:HH21	2.13	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:2t:54:LYS:HB3	51:2t:54:LYS:HE2	1.51	0.46
1:1A:82:G:N2	1:1A:103:A:OP2	2.42	0.46
1:1A:1486:A:H2'	1:1A:1487:G:C8	2.51	0.46
1:1A:2144:U:H2'	1:1A:2147:G:O6	2.15	0.46
1:1A:2537:U:H2'	1:1A:2538:C:C6	2.50	0.46
1:1A:2712:U:H2'	1:1A:2714:G:H5''	1.98	0.46
56:1T:204:MPD:H4	56:1T:204:MPD:HM2	1.66	0.46
32:1a:235:C:H2'	32:1a:236:G:C8	2.50	0.46
32:1a:253:U:H2'	32:1a:254:G:C8	2.51	0.46
32:1a:359:U:H2'	32:1a:360:A:C8	2.49	0.46
32:1a:501:C:H1'	32:1a:549:C:H1'	1.97	0.46
32:1a:999:C:H2'	32:1a:1000:U:O4'	2.16	0.46
32:1a:1273:G:H3'	32:1a:1274:G:H8	1.79	0.46
32:1a:1297:C:O2'	38:1g:114:ARG:NH1	2.43	0.46
33:1b:100:GLY:N	33:1b:176:GLU:OE2	2.28	0.46
1:2A:1712:C:N3	1:2A:1747(A):G:N1	2.63	0.46
1:2A:2611:U:H6	1:2A:2611:U:H5'	1.80	0.46
1:2A:2619:C:H4'	4:2E:151:TYR:O	2.16	0.46
5:2F:120:GLU:CB	5:2F:122:LYS:HG2	2.45	0.46
15:2T:11:GLU:O	15:2T:15:VAL:HG23	2.16	0.46
21:2Z:10:ARG:HD3	21:2Z:37:VAL:O	2.15	0.46
32:2a:691:G:H2'	32:2a:692:U:C6	2.51	0.46
32:2a:1149:C:H4'	40:2i:66:ARG:NH1	2.31	0.46
32:2a:1158:C:N3	32:2a:1160:G:C8	2.84	0.46
32:2a:1327:C:P	52:2u:12:LYS:HZ1	2.38	0.46
35:2d:15:GLU:C	35:2d:17:VAL:H	2.22	0.46
46:2o:81:LEU:HG	46:2o:85:LEU:HD12	1.96	0.46
1:1A:1843:C:H5'	3:1D:253:GLN:NE2	2.21	0.46
1:1A:2056:G:OP1	60:1A:4210:HOH:O	2.21	0.46
2:1B:66:A:N6	2:1B:108:U:H2'	2.30	0.46
3:1D:69:ARG:NH2	3:1D:128:GLY:O	2.49	0.46
29:17:34:ARG:NH1	29:17:41:ARG:O	2.49	0.46
32:1a:79:G:C6	32:1a:90:U:N3	2.83	0.46
32:1a:189(G):G:H4'	32:1a:189(H):G:OP2	2.15	0.46
32:1a:254:G:OP1	48:1q:66:SER:OG	2.32	0.46
37:1f:22:GLU:CD	37:1f:82:ARG:HH21	2.23	0.46
49:1r:26:LEU:HB2	49:1r:29:PHE:HE2	1.79	0.46
1:2A:1999:C:H2'	1:2A:2000:G:O4'	2.16	0.46
1:2A:2343:C:H4'	1:2A:2373:G:O3'	2.14	0.46
7:2H:115:VAL:HG11	7:2H:148:ILE:HD11	1.96	0.46
27:25:15:ARG:HD3	60:25:202:HOH:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:27:24:THR:CG2	29:27:27:GLY:H	2.29	0.46
30:28:62:LEU:HB3	30:28:65:GLU:HG3	1.98	0.46
32:2a:54:C:N4	32:2a:353:A:OP2	2.43	0.46
32:2a:154:C:H2'	32:2a:155:C:C6	2.51	0.46
32:2a:1244:C:N3	32:2a:1293:G:N2	2.61	0.46
32:2a:1255:G:N1	32:2a:1279:A:N7	2.64	0.46
41:2j:33:GLN:O	41:2j:74:ILE:HA	2.16	0.46
44:2m:16:ASP:HB2	44:2m:27:LYS:HE3	1.97	0.46
1:1A:811:U:H2'	11:1P:21:ARG:HA	1.98	0.46
1:1A:1568:G:H5'	3:1D:60:ARG:HA	1.98	0.46
1:1A:2094:G:P	8:1I:22:LYS:HD2	2.55	0.46
1:1A:2103:C:C2'	1:1A:2104:G:H5'	2.46	0.46
1:1A:2632:A:O2'	1:1A:2811:G:O2'	2.27	0.46
1:1A:2789:C:H1'	1:1A:2892:A:H2	1.80	0.46
5:1F:120:GLU:HB3	5:1F:122:LYS:HG2	1.96	0.46
8:1I:109:ILE:HD12	8:1I:109:ILE:HA	1.71	0.46
9:1N:60:ILE:HG13	9:1N:61:ARG:N	2.31	0.46
14:1S:76:LYS:O	14:1S:80:LEU:HD22	2.16	0.46
32:1a:297:G:H4'	32:1a:557:G:H4'	1.98	0.46
32:1a:1070:U:H2'	32:1a:1071:C:C6	2.51	0.46
33:1b:178:ARG:NE	39:1h:71:GLY:O	2.34	0.46
41:1j:19:SER:O	41:1j:23:ILE:HG12	2.16	0.46
46:1o:88:ARG:NH2	46:1o:88:ARG:HB3	2.31	0.46
1:2A:2140:C:N3	1:2A:2151:G:O6	2.49	0.46
3:2D:124:PRO:HB2	3:2D:126:GLN:HG2	1.97	0.46
15:2T:127:ALA:C	15:2T:129:ARG:N	2.74	0.46
32:2a:429:U:H1'	32:2a:430:A:H5''	1.97	0.46
32:2a:582:U:C2	32:2a:760:G:C6	3.03	0.46
32:2a:1005:A:H1'	32:2a:1025:U:C2	2.50	0.46
32:2a:1030(A):G:N2	32:2a:1030(D):A:OP2	2.49	0.46
39:2h:85:ARG:HD2	39:2h:85:ARG:HA	1.67	0.46
1:1A:515:A:H1'	1:1A:581:C:H1'	1.98	0.46
1:1A:1439:A:H2'	1:1A:1440:G:O4'	2.15	0.46
1:1A:1865:G:O2'	1:1A:1876:A:N7	2.47	0.46
5:1F:167:ALA:HB1	5:1F:173:VAL:HG11	1.97	0.46
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.52	0.46
29:17:29:LYS:O	29:17:33:ARG:HG3	2.15	0.46
33:1b:54:THR:HG21	33:1b:201:ILE:HD11	1.98	0.46
44:1m:78:ILE:HD13	44:1m:92:HIS:CD2	2.51	0.46
1:2A:874:G:O2'	21:2Z:120:ILE:HD11	2.15	0.46
1:2A:1655:A:N1	60:2A:4080:HOH:O	2.36	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2115:G:H21	1:2A:2171:A:H61	1.62	0.46
1:2A:2314:C:H2'	1:2A:2315:G:C8	2.51	0.46
1:2A:2502:G:N7	60:2A:4072:HOH:O	2.35	0.46
19:2X:9:LEU:HA	24:22:36:ARG:HH21	1.79	0.46
21:2Z:3:TYR:CD2	21:2Z:51:ALA:HB2	2.51	0.46
22:20:66:VAL:O	22:20:81:VAL:HA	2.16	0.46
26:24:48:ARG:HB3	26:24:51:ASP:O	2.14	0.46
32:2a:1292:U:C2	32:2a:1293:G:C8	3.04	0.46
32:2a:1352:C:H2'	32:2a:1353:G:C8	2.51	0.46
32:2a:1391:U:H2'	32:2a:1392:G:H8	1.77	0.46
32:2a:1516:G:N1	32:2a:1519:MA6:OP2	2.47	0.46
32:2a:1530:G:OP1	32:2a:1530:G:H4'	2.16	0.46
33:2b:74:LYS:HZ1	33:2b:166:ASP:HB2	1.79	0.46
37:2f:14:LEU:HB3	37:2f:18:GLN:HB2	1.98	0.46
38:2g:122:HIS:O	38:2g:126:ASP:N	2.36	0.46
1:1A:910:A:N1	1:1A:2277:G:H1'	2.31	0.46
1:1A:1041:C:N3	1:1A:1114:G:N2	2.36	0.46
1:1A:2319:G:H22	14:1S:3:ARG:HA	1.81	0.46
1:1A:2364:C:H2'	1:1A:2365:G:O4'	2.15	0.46
9:1N:4:TYR:CD2	16:1U:100:VAL:HG11	2.51	0.46
12:1Q:32:TYR:OH	12:1Q:111:GLU:OE2	2.23	0.46
32:1a:428:G:OP2	35:1d:10:ARG:NH1	2.49	0.46
34:1c:152:ILE:HB	34:1c:199:LYS:HB2	1.97	0.46
40:1i:77:ILE:O	40:1i:81:ILE:HG23	2.16	0.46
47:1p:19:ILE:HG23	47:1p:36:ILE:HG13	1.98	0.46
53:1y:61:LEU:HD11	53:1y:85:LEU:HD13	1.97	0.46
1:2A:328:U:H4'	20:2Y:68:HIS:CD2	2.50	0.46
1:2A:1316:U:H2'	1:2A:1317:A:H8	1.80	0.46
3:2D:94:LEU:HD23	3:2D:94:LEU:HA	1.85	0.46
8:2I:58:LEU:HD11	8:2I:62:LYS:HE2	1.97	0.46
16:2U:104:GLN:CD	16:2U:104:GLN:H	2.23	0.46
21:2Z:128:VAL:HG21	21:2Z:161:VAL:HG12	1.97	0.46
23:21:64:ALA:HA	23:21:67:ILE:HG13	1.97	0.46
32:2a:1053:G:N7	32:2a:1200:C:H5''	2.31	0.46
32:2a:1118:C:N3	32:2a:1156:G:N2	2.63	0.46
32:2a:1366:C:O2'	41:2j:60:ARG:NH2	2.40	0.46
33:2b:172:ILE:HA	33:2b:175:ARG:HB2	1.96	0.46
39:2h:87:SER:HB2	39:2h:93:VAL:H	1.80	0.46
44:2m:8:GLU:OE2	44:2m:11:ARG:NH1	2.49	0.46
53:2y:74:ILE:O	53:2y:78:ILE:HG12	2.16	0.46
1:1A:191:A:H2'	1:1A:192:C:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1531:C:N3	1:1A:1532:C:N4	2.63	0.46
1:1A:2693:A:H2'	1:1A:2694:G:H8	1.81	0.46
6:1G:106:LEU:O	6:1G:111:LEU:HG	2.16	0.46
7:1H:28:GLY:HA3	7:1H:79:VAL:HB	1.97	0.46
26:14:61:ARG:HH21	50:1s:42:PRO:CD	2.29	0.46
32:1a:79:G:C2	32:1a:90:U:O2	2.69	0.46
32:1a:115:G:H4'	32:1a:116:A:O5'	2.16	0.46
32:1a:343:U:O2'	32:1a:344:A:H2'	2.15	0.46
32:1a:1457:G:H2'	32:1a:1458:G:H8	1.81	0.46
33:1b:7:VAL:HG11	33:1b:221:LEU:HD23	1.98	0.46
35:1d:108:LEU:HD23	35:1d:110:PHE:CZ	2.51	0.46
39:1h:4:ASP:OD1	39:1h:85:ARG:NH1	2.49	0.46
53:1y:3:MET:HB3	53:1y:3:MET:HE2	1.65	0.46
1:2A:856:C:O2'	1:2A:857:C:OP1	2.28	0.46
1:2A:1204:A:H8	1:2A:1204:A:OP1	1.98	0.46
1:2A:1495:A:H2'	1:2A:1496:A:C8	2.51	0.46
3:2D:89:SER:HB2	3:2D:201:HIS:CD2	2.51	0.46
11:2P:44:GLY:O	60:2P:303:HOH:O	2.21	0.46
32:2a:8:A:H5'	36:2e:101:ILE:HG22	1.98	0.46
32:2a:216:G:N2	32:2a:217:C:O2	2.49	0.46
32:2a:1029:C:N4	32:2a:1030:C:H41	2.13	0.46
32:2a:1347:G:N2	32:2a:1373:G:H2'	2.31	0.46
33:2b:174:VAL:O	33:2b:178:ARG:HG2	2.16	0.46
34:2c:29:TYR:OH	45:2n:54:PRO:HD2	2.16	0.46
46:2o:78:TYR:O	46:2o:82:ILE:HG12	2.16	0.46
1:1A:2286:A:H4'	1:1A:2287:A:O4'	2.16	0.46
1:1A:2334:G:H5'	14:1S:9:ARG:HG2	1.96	0.46
8:1I:40:THR:O	8:1I:44:LEU:HB2	2.16	0.46
13:1R:95:THR:HG22	13:1R:116:LEU:HD23	1.98	0.46
14:1S:25:ARG:HG3	14:1S:40:ILE:HB	1.96	0.46
27:15:42:PRO:HB2	27:15:43:HIS:ND1	2.31	0.46
32:1a:17:U:H2'	32:1a:18:C:C6	2.51	0.46
40:1i:85:LEU:HA	40:1i:88:TYR:HB3	1.98	0.46
1:2A:886:C:O2'	1:2A:889:C:N4	2.49	0.46
1:2A:1155:A:H5''	16:2U:55:ARG:HD3	1.98	0.46
1:2A:1590:U:H2'	1:2A:1591:G:C8	2.51	0.46
3:2D:70:TRP:HB3	3:2D:190:TYR:CZ	2.51	0.46
21:2Z:30:ASN:ND2	21:2Z:90:VAL:HB	2.31	0.46
24:22:19:VAL:HG12	24:22:23:LYS:HE3	1.97	0.46
32:2a:664:G:P	49:2r:64:ARG:HH21	2.38	0.46
32:2a:1121:U:H2'	32:2a:1122:U:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1292:U:H2'	32:2a:1293:G:C8	2.51	0.46
40:2i:9:ARG:O	40:2i:104:ARG:HG3	2.16	0.46
45:2n:23:ARG:HG3	45:2n:29:ARG:O	2.16	0.46
46:2o:5:LYS:O	46:2o:9:GLN:HG2	2.15	0.46
1:1A:107:C:H2'	1:1A:108:U:H6	1.79	0.45
1:1A:196:A:O2'	1:1A:805:G:O6	2.17	0.45
1:1A:569:U:C4	1:1A:570:G:C6	3.04	0.45
1:1A:1588:C:H2'	1:1A:1589:C:H6	1.82	0.45
9:1N:82:LEU:O	60:1N:302:HOH:O	2.21	0.45
12:1Q:135:ASP:N	12:1Q:138:ASP:OD2	2.47	0.45
15:1T:51:ARG:HG3	15:1T:98:LYS:HE3	1.97	0.45
17:1V:37:VAL:HB	17:1V:52:VAL:HG22	1.99	0.45
20:1Y:15:VAL:O	20:1Y:22:GLY:N	2.46	0.45
23:11:50:ARG:HD2	23:11:57:GLU:OE2	2.16	0.45
32:1a:1184:G:H2'	32:1a:1185:G:C8	2.51	0.45
32:1a:1460:A:H3'	32:1a:1461:G:H8	1.80	0.45
33:1b:10:LEU:HA	33:1b:48:MET:HE3	1.98	0.45
45:1n:37:PHE:HB3	45:1n:39:LEU:HD12	1.98	0.45
50:1s:31:ILE:HG22	50:1s:49:ILE:HG23	1.97	0.45
1:2A:311:A:C6	1:2A:328:U:C4	3.04	0.45
1:2A:1049:C:H2'	1:2A:1050:A:C8	2.51	0.45
1:2A:1216:G:P	16:2U:12:ARG:HH21	2.39	0.45
1:2A:1289:C:H2'	1:2A:1290:C:H6	1.81	0.45
1:2A:2133:G:N2	1:2A:2157:G:H2'	2.32	0.45
1:2A:2647:U:H2'	1:2A:2648:C:C6	2.51	0.45
7:2H:74:ASN:O	7:2H:78:GLY:N	2.47	0.45
13:2R:44:LEU:HD23	13:2R:44:LEU:HA	1.77	0.45
18:2W:82:LEU:HD23	18:2W:82:LEU:HA	1.67	0.45
20:2Y:7:VAL:HG11	20:2Y:13:VAL:CG1	2.46	0.45
26:24:64:GLY:C	26:24:66:SER:N	2.74	0.45
32:2a:685:G:N1	32:2a:704:A:OP2	2.36	0.45
32:2a:1119:C:H2'	32:2a:1120:G:C8	2.51	0.45
52:2u:2:GLY:C	52:2u:4:GLY:H	2.24	0.45
1:1A:686:G:C4	29:17:11:LYS:HG2	2.51	0.45
1:1A:695:G:OP1	1:1A:1380:G:O2'	2.30	0.45
1:1A:2503:2MA:C8	55:1A:4021:ERY:H282	2.47	0.45
6:1G:47:LYS:HB2	6:1G:86:MET:SD	2.56	0.45
6:1G:56:ALA:HA	6:1G:59:GLU:HB2	1.98	0.45
19:1X:1:MET:HE1	24:12:26:ARG:NH2	2.30	0.45
32:1a:575:G:O2'	32:1a:821:G:H5'	2.17	0.45
32:1a:1028:C:H2'	32:1a:1029:C:H4'	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1125:U:C2	32:1a:1127:G:C8	3.04	0.45
33:1b:178:ARG:NH1	33:1b:196:LEU:O	2.48	0.45
45:1n:4:LYS:O	45:1n:7:ILE:HG12	2.15	0.45
47:1p:49:LEU:HD22	47:1p:73:LEU:HD22	1.99	0.45
1:2A:26:G:C6	1:2A:27:G:N1	2.84	0.45
1:2A:1331:A:H2'	1:2A:1333:C:C5	2.51	0.45
6:2G:110:ALA:HB1	6:2G:140:ILE:HG22	1.98	0.45
7:2H:20:ALA:HB3	7:2H:23:ARG:HB2	1.98	0.45
32:2a:192:U:H2'	32:2a:193:C:H6	1.81	0.45
32:2a:600:C:H2'	32:2a:601:C:H6	1.79	0.45
32:2a:834:C:H2'	32:2a:835:U:C6	2.52	0.45
32:2a:1141:C:H2'	32:2a:1142:G:H8	1.80	0.45
32:2a:1157:A:C6	32:2a:1180:A:C6	3.04	0.45
32:2a:1194:U:H2'	32:2a:1195:C:C6	2.51	0.45
34:2c:186:PHE:CZ	34:2c:188:LEU:HD13	2.51	0.45
35:2d:141:ARG:H	35:2d:141:ARG:HG3	1.51	0.45
42:2k:20:TYR:CE1	42:2k:83:ILE:HD12	2.51	0.45
1:1A:93:G:H2'	1:1A:94:C:H6	1.81	0.45
1:1A:143:G:H1'	19:1X:37:THR:HG21	1.97	0.45
1:1A:2142:C:H2'	1:1A:2143:C:C6	2.52	0.45
1:1A:2690:C:N4	1:1A:2713:A:H1'	2.31	0.45
60:1A:5759:HOH:O	5:1F:68:LYS:HE2	2.16	0.45
4:1E:179:GLU:HG3	15:1T:9:LEU:HD21	1.98	0.45
5:1F:129:PHE:HA	5:1F:142:TRP:NE1	2.30	0.45
11:1P:135:LEU:HD23	11:1P:135:LEU:HA	1.75	0.45
20:1Y:6:HIS:H	20:1Y:6:HIS:CD2	2.34	0.45
32:1a:344:A:H4'	32:1a:345:C:OP2	2.17	0.45
32:1a:1040:U:H2'	32:1a:1041:A:H8	1.80	0.45
32:1a:1431:C:H2'	32:1a:1432:G:O4'	2.17	0.45
39:1h:110:ALA:O	39:1h:120:THR:HA	2.17	0.45
46:1o:29:VAL:HB	46:1o:81:LEU:HD21	1.97	0.45
53:1y:3:MET:HG3	53:1y:37:PRO:HG2	1.99	0.45
1:2A:1668:A:H4'	1:2A:1669:A:O5'	2.16	0.45
1:2A:2262:U:H2'	1:2A:2263:C:C6	2.52	0.45
1:2A:2294:C:H2'	1:2A:2295:C:H6	1.81	0.45
2:2B:28:C:OP1	14:2S:31:SER:OG	2.23	0.45
10:2O:64:ARG:HG2	10:2O:83:ALA:HB3	1.97	0.45
13:2R:1:MET:N	60:2R:306:HOH:O	2.50	0.45
23:21:40:ARG:HE	23:21:40:ARG:HB2	1.58	0.45
32:2a:1035:A:H2'	32:2a:1036:G:C8	2.51	0.45
32:2a:1036:G:H2'	32:2a:1037:C:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1347:G:C8	40:2i:107:ARG:HB3	2.51	0.45
36:2e:71:LEU:HD21	36:2e:115:VAL:HG22	1.98	0.45
44:2m:17:VAL:O	44:2m:20:THR:OG1	2.31	0.45
1:1A:335:C:H2'	1:1A:336:C:H6	1.81	0.45
1:1A:795:C:H2'	1:1A:796:C:C6	2.52	0.45
1:1A:2239:G:H5'	3:1D:251:GLY:HA3	1.99	0.45
1:1A:2657:A:O3'	7:1H:160:LYS:NZ	2.49	0.45
55:1A:4021:ERY:H4	55:1A:4021:ERY:H71	1.69	0.45
5:1F:28:ILE:HD11	5:1F:115:ALA:HB3	1.98	0.45
7:1H:117:PRO:HG3	7:1H:123:PHE:CD2	2.52	0.45
32:1a:189(G):G:H8	32:1a:189(G):G:OP1	1.99	0.45
32:1a:735:C:H5'	49:1r:71:LYS:HD3	1.98	0.45
32:1a:952:U:O2'	32:1a:953:G:H5'	2.17	0.45
32:1a:1087:G:H2'	32:1a:1088:G:C8	2.51	0.45
40:1i:79:LEU:HD22	40:1i:104:ARG:HB2	1.98	0.45
1:2A:372:G:H8	23:21:65:SER:O	1.99	0.45
1:2A:885:C:H2'	1:2A:886:C:O4'	2.16	0.45
1:2A:1057:A:O2'	1:2A:1058:G:OP1	2.34	0.45
1:2A:1688:U:O2'	1:2A:1700:A:N7	2.45	0.45
1:2A:2330:G:H2'	1:2A:2331:G:O4'	2.16	0.45
6:2G:53:LEU:HD22	6:2G:53:LEU:HA	1.64	0.45
9:2N:4:TYR:O	16:2U:64:ARG:NH2	2.41	0.45
10:2O:113:LYS:HB2	10:2O:113:LYS:HE3	1.81	0.45
16:2U:79:PHE:CE2	16:2U:83:LEU:HD11	2.51	0.45
16:2U:106:PHE:O	16:2U:110:VAL:HG23	2.17	0.45
24:22:11:GLU:O	24:22:15:LYS:NZ	2.50	0.45
32:2a:263:A:OP2	51:2t:79:ARG:NH1	2.50	0.45
32:2a:509:A:N3	32:2a:543:C:O2'	2.39	0.45
32:2a:1103:C:H5''	33:2b:98:LEU:HD22	1.98	0.45
32:2a:1135:U:H4'	32:2a:1136:U:C5	2.51	0.45
34:2c:35:GLU:OE2	34:2c:59:ARG:NH2	2.49	0.45
36:2e:11:ILE:HG21	36:2e:105:VAL:HA	1.98	0.45
37:2f:50:TYR:CE2	49:2r:77:GLY:HA2	2.52	0.45
1:1A:1011:G:P	16:1U:77:SER:HG	2.37	0.45
55:1A:4021:ERY:H321	55:1A:4021:ERY:H8	1.63	0.45
9:1N:15:LEU:HD12	9:1N:16:ILE:H	1.81	0.45
21:1Z:3:TYR:CD2	21:1Z:51:ALA:HB2	2.52	0.45
32:1a:1060:C:C5	34:1c:2:GLY:HA3	2.52	0.45
32:1a:1289:A:OP1	52:1u:10:ARG:NH2	2.50	0.45
33:1b:147:LYS:HE2	33:1b:148:TYR:CZ	2.52	0.45
41:1j:67:THR:O	41:1j:67:THR:OG1	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:1l:117:ARG:HB3	43:1l:122:THR:O	2.16	0.45
1:2A:581:C:H2'	1:2A:582:G:C8	2.52	0.45
1:2A:954:G:H5''	12:2Q:13:GLN:HB3	1.97	0.45
1:2A:2257:U:O2'	1:2A:2258:C:H5'	2.17	0.45
2:2B:23:G:O6	60:2B:307:HOH:O	2.20	0.45
4:2E:178:GLU:CD	4:2E:178:GLU:H	2.23	0.45
12:2Q:66:ILE:HG12	12:2Q:104:PHE:CE1	2.52	0.45
12:2Q:78:PRO:HB2	12:2Q:81:VAL:HG21	1.97	0.45
16:2U:94:ASN:ND2	60:2U:203:HOH:O	2.31	0.45
24:22:60:LEU:O	24:22:63:VAL:HG22	2.17	0.45
32:2a:677:U:H1'	42:2k:119:CYS:SG	2.56	0.45
32:2a:1291:G:OP1	38:2g:37:ASN:ND2	2.49	0.45
39:2h:111:ILE:HD11	39:2h:137:VAL:HG21	1.98	0.45
40:2i:3:GLN:HG3	40:2i:20:ARG:HG2	1.97	0.45
40:2i:50:LEU:HD21	40:2i:81:ILE:HG12	1.99	0.45
53:2y:77:LEU:HD23	53:2y:78:ILE:HD13	1.98	0.45
1:1A:1064:C:H3'	1:1A:1065:U:H5''	1.99	0.45
1:1A:1466:G:H2'	1:1A:1547:C:N4	2.31	0.45
5:1F:24:LEU:HB3	5:1F:115:ALA:HB2	1.98	0.45
6:1G:5:VAL:HG13	6:1G:8:LYS:HE2	1.97	0.45
32:1a:324:G:N2	32:1a:327:A:OP2	2.49	0.45
32:1a:1128:C:H4'	32:1a:1148:U:O2	2.17	0.45
32:1a:1191:A:H5''	34:1c:4:LYS:NZ	2.32	0.45
48:1q:26:GLN:HE21	48:1q:26:GLN:HB2	1.45	0.45
1:2A:1289:C:H2'	1:2A:1290:C:C6	2.51	0.45
1:2A:1525:G:H2'	1:2A:1526:G:H8	1.81	0.45
1:2A:2564:A:C2	1:2A:2647:U:H4'	2.51	0.45
1:2A:2756:U:H1'	1:2A:2757:A:H5''	1.97	0.45
2:2B:42:C:O2'	60:2B:308:HOH:O	2.21	0.45
3:2D:69:ARG:HE	3:2D:105:ILE:HG21	1.82	0.45
6:2G:14:GLU:C	6:2G:17:PRO:HD2	2.41	0.45
8:2I:38:LEU:HB3	8:2I:40:THR:HG23	1.99	0.45
8:2I:72:LEU:HD11	8:2I:107:VAL:HG11	1.99	0.45
18:2W:1:MET:HE2	18:2W:62:HIS:CG	2.52	0.45
21:2Z:93:ASP:N	21:2Z:93:ASP:OD1	2.48	0.45
26:24:57:GLU:HA	26:24:58:ARG:HA	1.68	0.45
32:2a:637:G:H2'	32:2a:638:G:C8	2.52	0.45
32:2a:784:C:H2'	32:2a:785:G:O4'	2.17	0.45
32:2a:1017:G:H2'	32:2a:1018:C:O4'	2.17	0.45
32:2a:1271:G:H5'	32:2a:1314:C:H5''	1.97	0.45
32:2a:1303:C:H2'	32:2a:1304:G:H5'	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1401:G:N7	53:2y:83:ARG:NH1	2.60	0.45
33:2b:16:HIS:CG	33:2b:210:SER:HB3	2.51	0.45
34:2c:11:ARG:HB3	34:2c:15:THR:HB	1.99	0.45
34:2c:186:PHE:HA	34:2c:198:VAL:O	2.17	0.45
35:2d:166:LYS:HB2	35:2d:166:LYS:HE3	1.69	0.45
35:2d:187:ARG:NH1	35:2d:190:ASP:OD2	2.49	0.45
52:2u:12:LYS:HB3	52:2u:17:THR:O	2.16	0.45
53:2y:23:ARG:HE	53:2y:23:ARG:HB2	1.52	0.45
1:1A:2023:G:H4'	1:1A:2617:C:O3'	2.17	0.45
1:1A:2167:U:H2'	1:1A:2168:G:C8	2.52	0.45
3:1D:183:ARG:HG3	3:1D:270:ILE:HG12	1.99	0.45
32:1a:664:G:N2	32:1a:741:G:H1	2.07	0.45
32:1a:1264:C:H2'	32:1a:1265:G:H8	1.81	0.45
33:1b:208:ILE:HA	33:1b:211:ILE:HD12	1.99	0.45
35:1d:20:TYR:HA	35:1d:26:CYS:SG	2.57	0.45
39:1h:99:GLU:H	39:1h:99:GLU:HG2	1.66	0.45
42:1k:109:VAL:HA	49:1r:85:LEU:O	2.17	0.45
45:1n:24:CYS:HB3	45:1n:29:ARG:H	1.81	0.45
1:2A:443:A:H1'	1:2A:1201:C:O4'	2.16	0.45
1:2A:851:U:OP1	25:23:49:LYS:NZ	2.44	0.45
1:2A:1030:G:OP2	12:2Q:128:LYS:NZ	2.50	0.45
1:2A:1271:G:H2'	60:2A:3826:HOH:O	2.16	0.45
1:2A:1385:G:H1'	1:2A:1386:C:C6	2.52	0.45
1:2A:2262:U:H4'	1:2A:2328:A:H2	1.79	0.45
25:23:7:LYS:HG3	25:23:34:GLU:HG2	1.98	0.45
32:2a:560:U:H4'	32:2a:561:U:O5'	2.17	0.45
32:2a:1053:G:H4'	32:2a:1054:C:H5''	1.98	0.45
50:2s:62:ILE:HG23	50:2s:66:MET:HG3	1.99	0.45
1:1A:675:A:C8	1:1A:804:A:C6	3.05	0.45
1:1A:1071:G:O2'	1:1A:1089:G:H2'	2.17	0.45
1:1A:1292:U:H2'	1:1A:1293:C:H6	1.80	0.45
1:1A:1503:U:H2'	1:1A:1504:C:H6	1.81	0.45
1:1A:1824:G:O3'	3:1D:249:PRO:HD3	2.17	0.45
1:1A:1932:A:H2'	1:1A:1933:G:O4'	2.17	0.45
1:1A:2405:G:H5''	11:1P:75:ILE:HG12	1.99	0.45
2:1B:11:C:H3'	2:1B:12:C:C6	2.51	0.45
4:1E:36:ARG:NE	60:1E:410:HOH:O	2.41	0.45
5:1F:12:LEU:HD12	5:1F:12:LEU:HA	1.69	0.45
6:1G:77:ILE:H	6:1G:82:LEU:HB3	1.81	0.45
7:1H:3:ARG:HH11	7:1H:4:ILE:H	1.65	0.45
12:1Q:3:MET:HE2	60:1Q:320:HOH:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:1Y:9:LYS:HA	20:1Y:10:GLY:HA2	1.55	0.45
30:18:15:LYS:CB	56:18:103:MPD:H52	2.47	0.45
32:1a:1149:C:H2'	32:1a:1150:U:C6	2.51	0.45
32:1a:1279:A:O2'	32:1a:1281:U:OP2	2.28	0.45
33:1b:118:LEU:HA	33:1b:121:LEU:HB3	1.99	0.45
52:1u:20:LYS:HB3	52:1u:20:LYS:HE2	1.81	0.45
1:2A:30:G:H2'	1:2A:31:C:C6	2.51	0.45
1:2A:223:A:O2'	1:2A:420:C:O2	2.33	0.45
1:2A:320:A:H4'	1:2A:322:A:C8	2.52	0.45
1:2A:476:G:H4'	1:2A:502:A:N1	2.31	0.45
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.51	0.45
1:2A:2031:A:C6	1:2A:2498:C:H1'	2.52	0.45
1:2A:2245:U:H5''	1:2A:2246:G:H5'	1.99	0.45
4:2E:119:ARG:HG2	4:2E:160:TYR:HB2	1.99	0.45
8:2I:92:VAL:HB	8:2I:120:ILE:HB	1.99	0.45
9:2N:91:LEU:HG	9:2N:98:VAL:HG21	1.97	0.45
32:2a:504:C:OP1	60:2a:3230:HOH:O	2.20	0.45
32:2a:533:A:OP1	60:2a:3232:HOH:O	2.21	0.45
32:2a:1150:U:O4	32:2a:1151:A:N6	2.50	0.45
40:2i:51:ARG:HG2	40:2i:56:LEU:HD11	1.98	0.45
41:2j:11:PHE:CE1	41:2j:67:THR:HG22	2.52	0.45
1:1A:41:C:H2'	1:1A:42:G:O4'	2.17	0.45
1:1A:668:G:H5'	1:1A:669:G:OP2	2.17	0.45
1:1A:729:G:C6	3:1D:208:LYS:HB2	2.51	0.45
1:1A:1113:U:H2'	1:1A:1114:G:C8	2.52	0.45
1:1A:1166:C:H2'	1:1A:1167:U:H6	1.82	0.45
1:1A:1740:G:H2'	1:1A:1741:A:C8	2.52	0.45
1:1A:2484:G:H1'	12:1Q:124:LYS:HD2	1.98	0.45
1:1A:2572:A:N7	4:1E:145:LYS:HB2	2.32	0.45
1:1A:2873:A:O2'	1:1A:2874:C:H5'	2.17	0.45
6:1G:126:ASP:HB3	6:1G:128:ARG:H	1.82	0.45
8:1I:96:ASP:O	8:1I:100:ALA:N	2.44	0.45
19:1X:26:TYR:OH	19:1X:93:GLU:OE2	2.29	0.45
32:1a:345:C:O3'	56:1a:1875:MPD:HM1	2.17	0.45
32:1a:977:A:H2'	32:1a:978:A:H5''	1.98	0.45
32:1a:1058:G:OP1	34:1c:199:LYS:HE3	2.16	0.45
32:1a:1182:G:C4'	32:1a:1183:A:H5'	2.47	0.45
32:1a:1457:G:H2'	32:1a:1458:G:C8	2.52	0.45
33:1b:78:GLN:HE22	33:1b:95:GLN:HA	1.82	0.45
51:1t:36:LEU:HA	51:1t:39:LYS:HB3	1.99	0.45
1:2A:29:U:H2'	1:2A:30:G:C8	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:996:A:H4'	16:2U:91:ASP:OD2	2.17	0.45
1:2A:1104:C:H2'	1:2A:1105:U:C6	2.52	0.45
1:2A:1580:A:H8	1:2A:1580:A:OP2	1.99	0.45
1:2A:1633:G:O6	60:2A:3907:HOH:O	2.19	0.45
1:2A:1742:G:H2'	1:2A:1743:C:C6	2.52	0.45
20:2Y:15:VAL:HG12	20:2Y:21:LYS:HA	1.99	0.45
32:2a:189(L):G:H2'	32:2a:190:U:H6	1.82	0.45
40:2i:51:ARG:HG2	40:2i:56:LEU:HD21	1.99	0.45
40:2i:53:VAL:C	40:2i:55:ALA:H	2.25	0.45
44:2m:5:ALA:HB2	44:2m:61:GLU:HG2	1.98	0.45
48:2q:45:HIS:NE2	48:2q:47:PRO:HG3	2.32	0.45
1:1A:94(A):G:O6	60:1A:4194:HOH:O	2.19	0.45
1:1A:305:U:H2'	1:1A:306:U:C6	2.51	0.45
1:1A:577:G:OP1	1:1A:2502:G:O2'	2.29	0.45
1:1A:857:C:H4'	22:10:23:VAL:HG21	1.98	0.45
1:1A:1316:U:H2'	1:1A:1317:A:C8	2.52	0.45
1:1A:1916:A:H8	1:1A:1916:A:O5'	1.99	0.45
1:1A:2149:G:H2'	1:1A:2150:U:O4'	2.17	0.45
1:1A:2353:G:H5''	22:10:32:ARG:NH2	2.31	0.45
11:1P:68:GLN:HG3	60:1P:328:HOH:O	2.17	0.45
13:1R:28:LEU:HD23	13:1R:48:VAL:HG21	1.98	0.45
23:11:53:VAL:HG22	23:11:74:VAL:HG13	1.99	0.45
32:1a:662:G:H2'	32:1a:663:A:C8	2.52	0.45
32:1a:933:G:O6	38:1g:3:ARG:NH2	2.50	0.45
32:1a:1302:U:C6	44:1m:17:VAL:HG11	2.52	0.45
32:1a:1492:A:H4'	32:1a:1493:A:C6	2.52	0.45
33:1b:16:HIS:HB3	33:1b:210:SER:HB2	1.97	0.45
34:1c:37:GLN:O	34:1c:41:GLY:N	2.45	0.45
38:1g:28:ASN:HA	38:1g:31:MET:HE2	1.98	0.45
45:1n:25:VAL:HG22	45:1n:38:GLY:O	2.17	0.45
47:1p:19:ILE:HG22	47:1p:37:GLY:O	2.17	0.45
47:1p:57:ARG:HH21	47:1p:79:VAL:HA	1.82	0.45
49:1r:68:LYS:O	49:1r:72:ARG:HG2	2.17	0.45
51:1t:91:LEU:HA	51:1t:91:LEU:HD23	1.84	0.45
1:2A:495:G:N2	18:2W:61:ASN:HD21	2.15	0.45
1:2A:529:A:H62	1:2A:2041:U:H3	1.64	0.45
1:2A:840:C:H2'	1:2A:841:A:C8	2.52	0.45
1:2A:999:U:H5''	1:2A:1154:G:O6	2.17	0.45
1:2A:1101:U:H2'	1:2A:1102:C:C6	2.52	0.45
1:2A:1799:G:C2	3:2D:155:LEU:HD12	2.51	0.45
1:2A:2131:G:C8	1:2A:2158:A:N6	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2331:G:O2'	1:2A:2336:A:N1	2.46	0.45
1:2A:2600:A:O2'	1:2A:2601:C:H5'	2.17	0.45
2:2B:75:G:H21	21:2Z:85:HIS:CE1	2.35	0.45
6:2G:101:ILE:HG22	6:2G:105:LYS:HE2	1.98	0.45
21:2Z:128:VAL:CG2	21:2Z:161:VAL:HG12	2.46	0.45
32:2a:1305:G:O2'	32:2a:1306:A:OP2	2.35	0.45
32:2a:1371:G:OP1	40:2i:12:GLU:HB2	2.16	0.45
46:2o:82:ILE:O	46:2o:86:GLY:N	2.50	0.45
47:2p:18:ARG:HG2	47:2p:35:LYS:HE3	1.99	0.45
47:2p:22:THR:HA	47:2p:33:ILE:HG13	1.98	0.45
50:2s:30:LEU:HD11	50:2s:50:ALA:HB2	1.98	0.45
50:2s:40:ILE:HD11	50:2s:74:PHE:HE2	1.82	0.45
51:2t:54:LYS:HA	51:2t:57:ARG:CZ	2.47	0.45
1:1A:652(U):G:H3'	1:1A:652(V):C:H6	1.81	0.44
3:1D:232:PRO:HB3	3:1D:244:ARG:CZ	2.47	0.44
5:1F:148:LEU:HD22	5:1F:154:VAL:HG21	1.99	0.44
6:1G:16:ARG:HB2	6:1G:17:PRO:HD3	1.97	0.44
19:1X:72:LYS:HE3	19:1X:73:ARG:O	2.15	0.44
26:14:55:ARG:N	26:14:56:VAL:HA	2.32	0.44
32:1a:93:G:H2'	32:1a:96:U:O4'	2.17	0.44
32:1a:201:C:N4	32:1a:216:G:H22	2.15	0.44
32:1a:715:A:H2'	32:1a:716:A:C8	2.52	0.44
35:1d:196:LEU:O	35:1d:198:VAL:N	2.46	0.44
40:1i:121:ARG:NH1	40:1i:122:ALA:O	2.49	0.44
1:2A:8:A:H2'	1:2A:9:U:H6	1.81	0.44
1:2A:263:C:H2'	1:2A:264:C:O4'	2.17	0.44
1:2A:888:C:H2'	1:2A:889:C:N3	2.31	0.44
2:2B:75:G:H4'	21:2Z:36:LYS:HG2	1.98	0.44
8:2I:62:LYS:O	8:2I:66:GLU:HB2	2.17	0.44
12:2Q:76:LYS:HB3	12:2Q:91:GLU:HG3	1.97	0.44
12:2Q:109:VAL:HG22	12:2Q:113:GLN:OE1	2.17	0.44
13:2R:9:LYS:O	13:2R:17:ARG:HD3	2.18	0.44
21:2Z:7:ALA:HB2	21:2Z:59:LEU:HD22	1.98	0.44
21:2Z:85:HIS:HE1	21:2Z:87:ASP:OD1	2.01	0.44
21:2Z:99:TYR:HA	21:2Z:124:ILE:O	2.17	0.44
21:2Z:152:ALA:O	21:2Z:155:LEU:HB2	2.17	0.44
32:2a:381:C:H3'	32:2a:382:A:H8	1.80	0.44
35:2d:112:VAL:H	35:2d:116:GLN:NE2	2.15	0.44
38:2g:74:GLU:HA	38:2g:141:VAL:HG12	1.99	0.44
1:1A:848:G:H2'	1:1A:849:A:C8	2.52	0.44
1:1A:968:G:OP2	60:1A:4215:HOH:O	2.21	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:994:C:OP1	16:1U:53:ARG:NH2	2.50	0.44
1:1A:1045:A:H1'	1:1A:1047:G:N3	2.33	0.44
1:1A:1114:G:H2'	1:1A:1115:G:C8	2.53	0.44
1:1A:1174:A:H1'	1:1A:1175:U:H5'	2.00	0.44
1:1A:1686:C:H2'	1:1A:1687:G:O4'	2.17	0.44
1:1A:2006:C:O5'	1:1A:2006:C:H6	2.00	0.44
32:1a:221:C:H2'	32:1a:222:U:H6	1.81	0.44
35:1d:158:ILE:HG13	35:1d:159:ARG:N	2.33	0.44
36:1e:71:LEU:HD11	36:1e:113:ALA:O	2.18	0.44
45:1n:21:TYR:HE1	45:1n:23:ARG:HE	1.64	0.44
47:1p:71:ARG:HG3	47:1p:80:PHE:CE2	2.52	0.44
49:1r:71:LYS:O	49:1r:75:ILE:HG13	2.17	0.44
1:2A:463:G:O6	60:2A:3922:HOH:O	2.21	0.44
1:2A:856:C:H2'	1:2A:857:C:C6	2.53	0.44
1:2A:1404:C:H2'	1:2A:1405:U:H6	1.82	0.44
1:2A:2167:U:H2'	1:2A:2168:G:C4	2.52	0.44
3:2D:275:LYS:HD3	3:2D:275:LYS:HA	1.72	0.44
7:2H:33:LEU:HD11	7:2H:75:ALA:HA	2.00	0.44
17:2V:37:VAL:HG11	17:2V:40:LEU:HD23	1.99	0.44
20:2Y:21:LYS:HE3	20:2Y:21:LYS:HB2	1.82	0.44
21:2Z:4:ARG:HH21	21:2Z:60:GLU:CD	2.25	0.44
27:25:15:ARG:NH1	60:25:202:HOH:O	2.29	0.44
32:2a:605:U:H2'	32:2a:606:G:O4'	2.18	0.44
32:2a:1207:2MG:H2'	32:2a:1208:C:H6	1.82	0.44
33:2b:9:GLU:OE1	33:2b:10:LEU:N	2.47	0.44
35:2d:165:MET:SD	35:2d:168:ARG:NH1	2.88	0.44
38:2g:65:ALA:HB1	38:2g:127:ALA:HB3	1.98	0.44
47:2p:53:VAL:HG22	47:2p:79:VAL:HG12	1.99	0.44
53:2y:3:MET:HB2	53:2y:37:PRO:HG2	2.00	0.44
53:2y:85:LEU:O	53:2y:89:GLN:HG2	2.18	0.44
1:1A:330:A:H2	1:1A:1210:A:C2'	2.29	0.44
1:1A:1693:U:H1'	3:1D:14:ARG:NH1	2.32	0.44
1:1A:2443:C:OP1	5:1F:68:LYS:HD3	2.18	0.44
3:1D:37:LEU:HD22	3:1D:60:ARG:HB2	1.99	0.44
6:1G:77:ILE:HG21	6:1G:80:PHE:HD2	1.82	0.44
7:1H:3:ARG:NH2	7:1H:65:HIS:HB3	2.32	0.44
9:1N:103:VAL:HG11	9:1N:120:LEU:HD22	1.99	0.44
10:1O:4:PRO:O	10:1O:5:GLN:HB2	2.17	0.44
21:1Z:155:LEU:HD12	21:1Z:155:LEU:HA	1.86	0.44
26:14:56:VAL:O	26:14:60:GLN:HB2	2.18	0.44
32:1a:747:C:H3'	32:1a:748:C:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1318:A:H5''	50:1s:3:ARG:NH1	2.33	0.44
44:1m:106:ASN:HB2	44:1m:107:ALA:H	1.51	0.44
1:2A:724:U:H2'	1:2A:725:G:O4'	2.17	0.44
1:2A:1014:U:H2'	1:2A:1015:G:C8	2.51	0.44
1:2A:1750:G:O2'	1:2A:2860:A:N1	2.42	0.44
1:2A:2114:A:C2	1:2A:2115:G:H1'	2.52	0.44
10:2O:13:ASN:HD21	10:2O:96:THR:HG1	1.57	0.44
18:2W:1:MET:HE2	18:2W:62:HIS:HB3	1.98	0.44
24:22:3:LEU:O	24:22:7:ARG:HB2	2.18	0.44
32:2a:325:A:H2'	32:2a:326:G:O4'	2.17	0.44
32:2a:460:G:N2	32:2a:473:G:O6	2.50	0.44
32:2a:984:C:H2'	32:2a:985:C:H6	1.82	0.44
32:2a:1105:A:H2'	32:2a:1106:G:H8	1.81	0.44
32:2a:1323:G:H2'	32:2a:1324:A:C8	2.52	0.44
33:2b:77:ALA:HB1	33:2b:165:VAL:HG11	1.99	0.44
34:2c:115:LEU:HD12	34:2c:115:LEU:HA	1.80	0.44
35:2d:173:TRP:CZ3	35:2d:193:ASP:HB3	2.53	0.44
1:1A:578:A:OP2	60:1A:4211:HOH:O	2.21	0.44
1:1A:1803:A:H4'	3:1D:259:THR:HG23	1.99	0.44
1:1A:2722:G:H2'	1:1A:2723:C:C6	2.53	0.44
4:1E:120:TRP:CD1	4:1E:155:LYS:HB3	2.53	0.44
5:1F:129:PHE:CD2	5:1F:163:VAL:HG21	2.52	0.44
18:1W:13:SER:HB3	18:1W:16:LYS:HD2	1.99	0.44
22:10:10:THR:HA	60:10:209:HOH:O	2.17	0.44
28:16:18:ARG:HD2	28:16:42:TRP:CD1	2.52	0.44
31:19:17:ILE:HA	31:19:17:ILE:HD13	1.82	0.44
32:1a:1251:A:H2'	32:1a:1252:A:C8	2.52	0.44
34:1c:16:ARG:HH21	34:1c:54:ARG:HH21	1.65	0.44
34:1c:148:GLY:HA3	34:1c:172:ARG:O	2.17	0.44
1:2A:244:A:C2	1:2A:255:A:C4	3.06	0.44
1:2A:855:G:H2'	1:2A:856:C:C6	2.53	0.44
1:2A:1614:A:N1	18:2W:93:ALA:HB2	2.32	0.44
1:2A:2270:G:H2'	1:2A:2271:G:O4'	2.17	0.44
60:2A:4009:HOH:O	18:2W:18:ARG:HD3	2.16	0.44
6:2G:123:ASN:HD22	6:2G:123:ASN:H	1.64	0.44
13:2R:44:LEU:HD22	13:2R:48:VAL:HG23	1.98	0.44
31:29:17:ILE:HD13	31:29:17:ILE:HA	1.79	0.44
32:2a:558:G:OP2	32:2a:559:A:O2'	2.28	0.44
32:2a:948:C:H2'	32:2a:949:A:H8	1.82	0.44
32:2a:1347:G:HO2'	32:2a:1373:G:H1	1.64	0.44
32:2a:1426:C:H2'	32:2a:1427:U:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:42:ARG:O	40:2i:74:ILE:HG21	2.16	0.44
43:2l:79:GLU:HG2	43:2l:80:HIS:CE1	2.53	0.44
1:1A:1091:G:H2'	1:1A:1092:C:C6	2.52	0.44
1:1A:1628:G:H2'	1:1A:1629:U:C6	2.52	0.44
1:1A:2149:G:C2	1:1A:2150:U:H1'	2.52	0.44
4:1E:4:ILE:HD13	4:1E:28:ALA:HB1	1.98	0.44
12:1Q:137:TYR:O	12:1Q:141:GLN:HG2	2.17	0.44
15:1T:104:ASN:OD1	15:1T:104:ASN:N	2.51	0.44
22:10:43:THR:O	22:10:43:THR:HG23	2.17	0.44
32:1a:256:U:H2'	32:1a:257:G:O4'	2.18	0.44
32:1a:600:C:H4'	39:1h:128:GLY:O	2.18	0.44
32:1a:612:C:H2'	32:1a:613:C:H6	1.81	0.44
32:1a:615:C:H2'	32:1a:616:G:O4'	2.17	0.44
32:1a:690:G:C6	32:1a:691:G:C6	3.05	0.44
32:1a:1149:C:OP2	40:1i:9:ARG:NH2	2.43	0.44
33:1b:24:TRP:CZ3	33:1b:26:PRO:HA	2.53	0.44
51:1t:73:HIS:H	51:1t:76:ALA:HB3	1.82	0.44
1:2A:68:G:H2'	1:2A:69:C:O4'	2.17	0.44
1:2A:172:C:H2'	1:2A:173:G:H8	1.82	0.44
1:2A:392:C:H5''	1:2A:409:C:H5''	2.00	0.44
1:2A:555:U:OP1	60:2A:3914:HOH:O	2.21	0.44
1:2A:601:C:O2'	1:2A:605:C:H5''	2.17	0.44
1:2A:1064:C:H5	1:2A:1065:U:C6	2.35	0.44
1:2A:1472:A:H2'	1:2A:1473:G:O4'	2.18	0.44
1:2A:2547:U:O2	10:2O:23:ARG:NH2	2.50	0.44
3:2D:146:GLU:HA	3:2D:153:ALA:HA	2.00	0.44
5:2F:108:LYS:O	5:2F:112:MET:HG3	2.17	0.44
5:2F:157:VAL:HB	5:2F:194:MET:HG2	2.00	0.44
7:2H:55:PRO:HG2	7:2H:61:HIS:CE1	2.53	0.44
12:2Q:89:ASN:O	12:2Q:91:GLU:HG2	2.18	0.44
15:2T:16:ARG:HD3	15:2T:19:LEU:HG	1.99	0.44
21:2Z:91:LEU:HD12	21:2Z:130:PRO:HG3	1.98	0.44
24:22:12:GLU:HA	24:22:15:LYS:HZ3	1.82	0.44
32:2a:59:A:H1'	32:2a:354:G:N2	2.32	0.44
32:2a:70:G:N2	32:2a:99:U:O2	2.44	0.44
32:2a:359:U:H2'	32:2a:360:A:C8	2.52	0.44
32:2a:1122:U:C4	32:2a:1123:A:N7	2.85	0.44
33:2b:32:ILE:HD11	33:2b:190:THR:HB	2.00	0.44
39:2h:14:ARG:HH11	39:2h:83:ILE:HG23	1.83	0.44
39:2h:56:LYS:HD3	39:2h:56:LYS:HA	1.70	0.44
41:2j:49:VAL:CG2	45:2n:41:ARG:HB2	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:2q:22:LEU:HD13	48:2q:41:LYS:HG3	1.99	0.44
1:1A:910:A:N3	1:1A:2264:C:O2'	2.46	0.44
1:1A:1466:G:H2'	1:1A:1547:C:H41	1.82	0.44
1:1A:1607:C:H4'	1:1A:1608:A:O5'	2.18	0.44
1:1A:1766:U:H2'	1:1A:1767:C:H6	1.83	0.44
1:1A:2292:C:OP1	14:1S:17:ARG:NH2	2.50	0.44
5:1F:181:LEU:O	5:1F:205:ARG:NH1	2.47	0.44
25:13:56:VAL:HG12	25:13:57:GLU:H	1.81	0.44
30:18:56:GLU:HG3	60:18:224:HOH:O	2.17	0.44
32:1a:106:C:H2'	32:1a:107:G:H8	1.82	0.44
32:1a:666:G:C6	32:1a:741:G:C5	3.06	0.44
32:1a:954:G:O6	44:1m:104:ARG:NH1	2.50	0.44
32:1a:1298:C:P	38:1g:114:ARG:HH22	2.41	0.44
32:1a:1309:G:N7	44:1m:99:ARG:NH2	2.64	0.44
33:1b:51:LEU:HG	33:1b:201:ILE:HG23	2.00	0.44
34:1c:97:LYS:HE2	34:1c:97:LYS:HB3	1.81	0.44
35:1d:12:CYS:SG	35:1d:19:LEU:N	2.83	0.44
37:1f:99:ALA:HB3	49:1r:29:PHE:CE1	2.53	0.44
47:1p:29:ASP:OD1	47:1p:29:ASP:N	2.49	0.44
48:1q:44:ALA:HB1	48:1q:73:VAL:HG22	2.00	0.44
1:2A:441:U:H2'	1:2A:442:G:C8	2.52	0.44
1:2A:579:G:H2'	1:2A:580:C:H6	1.82	0.44
1:2A:1803:A:O2'	60:2A:3909:HOH:O	2.20	0.44
1:2A:2432:A:OP2	60:2A:3861:HOH:O	2.21	0.44
4:2E:104:VAL:HG13	4:2E:198:VAL:HG22	1.99	0.44
11:2P:2:LYS:HE3	11:2P:4:SER:OG	2.18	0.44
11:2P:101:VAL:HA	11:2P:106:LEU:O	2.17	0.44
11:2P:113:LYS:HA	11:2P:129:ALA:O	2.17	0.44
28:26:3:SER:OG	28:26:4:GLU:N	2.50	0.44
32:2a:132:C:OP1	51:2t:75:ASN:ND2	2.51	0.44
32:2a:336:C:H2'	32:2a:337:C:C6	2.52	0.44
32:2a:512:U:H1'	35:2d:42:GLN:HE22	1.81	0.44
34:2c:22:TRP:HA	41:2j:93:GLY:HA2	1.99	0.44
35:2d:154:ASN:HA	35:2d:159:ARG:NH2	2.32	0.44
42:2k:80:VAL:HG22	42:2k:103:LEU:HB3	2.00	0.44
49:2r:66:LEU:O	49:2r:70:ILE:HG13	2.17	0.44
1:1A:969:U:H2'	1:1A:970:C:C6	2.52	0.44
1:1A:1430:C:H2'	1:1A:1431:U:C6	2.53	0.44
1:1A:2406:U:H6	1:1A:2406:U:H2'	1.63	0.44
1:1A:2659:G:O2'	7:1H:175:LYS:NZ	2.49	0.44
60:1A:4918:HOH:O	18:1W:18:ARG:HD3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:1P:84:ASN:HB2	11:1P:86:LYS:HZ2	1.83	0.44
17:1V:14:VAL:HB	17:1V:96:ILE:HG13	1.99	0.44
19:1X:61:GLY:HA3	19:1X:73:ARG:O	2.18	0.44
30:18:15:LYS:HB2	56:18:103:MPD:H52	1.99	0.44
32:1a:260:G:H2'	32:1a:261:U:C6	2.53	0.44
32:1a:337:C:H2'	32:1a:338:A:C8	2.53	0.44
32:1a:376:G:H2'	32:1a:377:G:H8	1.83	0.44
32:1a:1134:G:N3	32:1a:1134:G:H2'	2.33	0.44
35:1d:155:LEU:O	35:1d:159:ARG:HG3	2.17	0.44
39:1h:40:ALA:O	39:1h:43:GLY:N	2.45	0.44
53:1y:24:LEU:HD11	53:1y:39:ILE:HD11	2.00	0.44
53:1y:30:TRP:CZ2	53:1y:86:ASN:HB2	2.53	0.44
1:2A:153:C:OP2	23:21:92:LYS:NZ	2.44	0.44
1:2A:332:A:O2'	1:2A:334:C:OP2	2.29	0.44
1:2A:652(B):A:H61	1:2A:655:A:H1'	1.82	0.44
1:2A:824:A:O2'	1:2A:2358:G:O6	2.32	0.44
1:2A:993:G:OP1	16:2U:50:ARG:HD2	2.18	0.44
1:2A:1116:C:H2'	1:2A:1117:G:C8	2.53	0.44
1:2A:1204:A:H61	1:2A:1240:U:H2'	1.83	0.44
1:2A:1291:C:H2'	1:2A:1292:U:C6	2.53	0.44
1:2A:1366:A:H2'	1:2A:1367:A:O4'	2.18	0.44
1:2A:1840:G:C6	1:2A:1841:U:C4	3.06	0.44
1:2A:1987:G:H2'	1:2A:1988:C:C6	2.52	0.44
1:2A:2134:A:N7	1:2A:2157:G:H5'	2.31	0.44
1:2A:2377:A:H2'	1:2A:2378:A:C8	2.53	0.44
56:2A:3735:MPD:HO2	56:2A:3735:MPD:HO4	1.66	0.44
5:2F:176:LEU:HD23	5:2F:176:LEU:HA	1.87	0.44
6:2G:7:LEU:HD13	6:2G:103:LEU:C	2.42	0.44
14:2S:35:ILE:HD12	14:2S:66:ALA:HB2	2.00	0.44
32:2a:303:A:H2'	32:2a:304:U:O4'	2.18	0.44
32:2a:1130:A:H5'	40:2i:18:PHE:CE2	2.52	0.44
32:2a:1183:A:H1'	32:2a:1184:G:OP1	2.18	0.44
32:2a:1447:A:H5''	32:2a:1452:C:OP2	2.16	0.44
35:2d:76:ARG:NH2	35:2d:80:GLU:OE1	2.44	0.44
41:2j:68:HIS:CD2	41:2j:68:HIS:N	2.86	0.44
1:1A:1866:C:H2'	1:1A:1876:A:O4'	2.18	0.44
1:1A:2141:G:H2'	1:1A:2142:C:H5'	1.99	0.44
14:1S:65:VAL:O	14:1S:69:VAL:HG13	2.17	0.44
15:1T:37:GLY:HA2	15:1T:38:ASN:HA	1.61	0.44
19:1X:72:LYS:HB3	19:1X:72:LYS:HE2	1.81	0.44
32:1a:153:C:H2'	32:1a:154:C:C6	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:435:C:H2'	32:1a:436:C:H6	1.83	0.44
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.32	0.44
33:1b:41:ILE:HD13	33:1b:41:ILE:HA	1.83	0.44
33:1b:82:ARG:HG3	33:1b:92:TYR:CZ	2.53	0.44
1:2A:921:G:C2	1:2A:922:U:C2	3.05	0.44
1:2A:1058:G:H2'	1:2A:1059:G:C8	2.52	0.44
1:2A:1360:A:OP2	60:2A:3920:HOH:O	2.21	0.44
1:2A:1864:U:OP1	1:2A:2410:G:O2'	2.29	0.44
5:2F:31:HIS:NE2	5:2F:35:GLU:OE2	2.43	0.44
9:2N:128:HIS:ND1	9:2N:130:HIS:HB2	2.32	0.44
13:2R:28:LEU:HD23	13:2R:48:VAL:HG21	2.00	0.44
20:2Y:19:LYS:HB3	20:2Y:19:LYS:HE2	1.85	0.44
32:2a:217:C:H2'	32:2a:218:C:C6	2.52	0.44
32:2a:294:U:OP1	32:2a:610:G:O2'	2.28	0.44
32:2a:410:G:O5'	35:2d:25:ARG:NH2	2.51	0.44
32:2a:573:A:N3	32:2a:883:C:O2'	2.50	0.44
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.53	0.44
32:2a:1493:A:H4'	53:2y:72:THR:HG23	1.99	0.44
33:2b:221:LEU:HD22	33:2b:221:LEU:HA	1.83	0.44
44:2m:108:ARG:O	44:2m:112:GLY:N	2.44	0.44
1:1A:107:C:H2'	1:1A:108:U:C6	2.52	0.44
1:1A:839:U:H2'	1:1A:840:C:C6	2.53	0.44
1:1A:1239:G:H2'	1:1A:1240:U:O4'	2.18	0.44
1:1A:1993:U:H4'	4:1E:128:SER:OG	2.18	0.44
1:1A:2365:G:H4'	22:10:60:PHE:CZ	2.53	0.44
4:1E:170:LEU:HD13	4:1E:184:VAL:HG11	1.98	0.44
6:1G:109:VAL:C	6:1G:112:PRO:HD2	2.43	0.44
7:1H:20:ALA:HB1	7:1H:21:PRO:HD2	2.00	0.44
11:1P:6:LEU:HD23	11:1P:6:LEU:HA	1.77	0.44
23:11:94:LEU:HD23	23:11:94:LEU:HA	1.69	0.44
28:16:47:THR:HG22	28:16:48:VAL:O	2.18	0.44
32:1a:253:U:H2'	32:1a:254:G:H8	1.83	0.44
32:1a:1320:C:H2'	32:1a:1321:C:O4'	2.18	0.44
33:1b:21:ARG:HA	33:1b:39:ILE:HA	2.00	0.44
39:1h:121:ASP:OD1	39:1h:121:ASP:N	2.50	0.44
47:1p:40:ASP:O	47:1p:48:TRP:HB2	2.17	0.44
50:1s:52:TYR:HB2	50:1s:57:HIS:CE1	2.53	0.44
1:2A:57:C:H2'	1:2A:58:G:O4'	2.17	0.44
1:2A:932:G:O2'	60:2A:3905:HOH:O	2.19	0.44
1:2A:1676:A:N7	60:2A:4087:HOH:O	2.37	0.44
1:2A:1754:C:P	15:2T:96:ARG:HH12	2.41	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2168:G:H22	1:2A:2171:A:H2'	1.83	0.44
2:2B:3:C:H2'	2:2B:4:C:C6	2.53	0.44
4:2E:170:LEU:HB3	4:2E:184:VAL:HG22	2.00	0.44
5:2F:164:ARG:O	5:2F:168:ARG:HG3	2.18	0.44
8:2I:62:LYS:HG2	8:2I:133:HIS:NE2	2.33	0.44
32:2a:381:C:H3'	32:2a:382:A:C8	2.52	0.44
32:2a:878:G:OP1	39:2h:90:GLY:N	2.47	0.44
32:2a:1002:G:C4	32:2a:1003:G:C8	3.06	0.44
32:2a:1004:A:H62	32:2a:1037:C:H3'	1.82	0.44
32:2a:1073:U:H2'	32:2a:1074:G:C8	2.53	0.44
32:2a:1074:G:OP1	36:2e:64:ARG:NH1	2.50	0.44
32:2a:1274:G:H2'	32:2a:1275:A:H8	1.82	0.44
32:2a:1402:4OC:HM22	32:2a:1403:C:H5'	1.99	0.44
33:2b:28:PHE:CD1	33:2b:194:PRO:HG3	2.53	0.44
48:2q:90:ILE:HA	48:2q:93:GLN:HB2	2.00	0.44
4:1E:132:HIS:CE1	4:1E:133:LYS:HD2	2.53	0.43
32:1a:142:G:O2'	32:1a:196:A:N1	2.48	0.43
35:1d:107:ARG:HG3	35:1d:173:TRP:HH2	1.83	0.43
35:1d:173:TRP:CE3	35:1d:174:LEU:HG	2.53	0.43
37:1f:89:MET:HE2	37:1f:91:VAL:HG22	1.99	0.43
1:2A:757:U:H2'	1:2A:758:C:O4'	2.18	0.43
1:2A:956:G:H5''	12:2Q:77:LYS:HD2	1.99	0.43
1:2A:1288:U:O2'	1:2A:1647:G:N2	2.51	0.43
1:2A:2104:G:N1	1:2A:2185:C:O2	2.51	0.43
1:2A:2328:A:H2'	1:2A:2329:G:C8	2.53	0.43
4:2E:5:LEU:HD11	4:2E:79:ARG:HB2	2.00	0.43
4:2E:114:ALA:HB3	4:2E:119:ARG:HG3	2.00	0.43
5:2F:183:VAL:O	5:2F:187:VAL:HG23	2.18	0.43
7:2H:137:ASP:HB3	7:2H:140:LYS:HB2	2.00	0.43
10:2O:113:LYS:O	10:2O:117:LEU:HG	2.18	0.43
20:2Y:67:LEU:HD23	20:2Y:67:LEU:HA	1.85	0.43
26:24:20:ASN:HD21	26:24:38:LYS:HG3	1.81	0.43
26:24:45:GLY:O	26:24:47:GLN:N	2.45	0.43
32:2a:409:G:H2'	32:2a:410:G:O4'	2.18	0.43
32:2a:551:U:H2'	32:2a:552:U:C6	2.52	0.43
32:2a:1030(B):C:H41	32:2a:1030(C):G:H21	1.66	0.43
32:2a:1227:A:OP1	50:2s:80:TYR:OH	2.26	0.43
32:2a:1304:G:C6	32:2a:1305:G:N1	2.86	0.43
35:2d:121:VAL:O	35:2d:134:ASP:HB2	2.18	0.43
36:2e:144:THR:O	36:2e:148:VAL:N	2.49	0.43
39:2h:84:ARG:O	39:2h:135:CYS:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:2m:82:MET:HB3	44:2m:93:ARG:HD3	2.00	0.43
45:2n:27:CYS:SG	45:2n:29:ARG:HB2	2.58	0.43
1:1A:27:G:C2	1:1A:512:G:N3	2.86	0.43
1:1A:607:U:P	5:1F:103:LYS:HG3	2.58	0.43
1:1A:2051:A:H5'	1:1A:2578:G:O4'	2.18	0.43
1:1A:2206:G:H5'	1:1A:2207:G:C5	2.53	0.43
1:1A:2850:A:OP2	1:1A:2866:U:N3	2.42	0.43
1:1A:2854:G:H2'	1:1A:2855:C:C6	2.53	0.43
3:1D:218:ARG:HB3	3:1D:219:PRO:HD2	1.99	0.43
4:1E:176:ILE:HB	4:1E:181:LEU:HB2	1.99	0.43
9:1N:23:LEU:HA	9:1N:60:ILE:HD11	2.00	0.43
9:1N:69:GLN:OE1	60:1N:303:HOH:O	2.21	0.43
12:1Q:135:ASP:O	12:1Q:139:GLU:HG3	2.17	0.43
32:1a:298:A:C6	32:1a:299:G:C2	3.07	0.43
32:1a:901:A:O2'	32:1a:1513:A:OP1	2.19	0.43
32:1a:1508:G:H2'	32:1a:1509:C:O4'	2.18	0.43
34:1c:19:GLU:HG2	34:1c:54:ARG:CZ	2.47	0.43
1:2A:79:G:O2'	1:2A:346:A:N3	2.41	0.43
1:2A:635:C:H2'	1:2A:636:G:O4'	2.18	0.43
1:2A:1788:C:OP1	3:2D:222:ARG:NH2	2.51	0.43
1:2A:2316:C:H2'	1:2A:2317:C:C6	2.53	0.43
2:2B:80:U:H2'	2:2B:81:G:C8	2.52	0.43
4:2E:120:TRP:CD2	4:2E:155:LYS:HG2	2.53	0.43
6:2G:9:ARG:O	6:2G:13:GLU:HB2	2.18	0.43
10:2O:120:GLU:HB2	15:2T:68:TYR:HE2	1.83	0.43
25:23:10:LYS:HB3	25:23:53:LEU:HA	2.00	0.43
32:2a:397:A:H3'	32:2a:397:A:N3	2.33	0.43
32:2a:683:G:H2'	32:2a:684:A:C8	2.54	0.43
34:2c:6:HIS:CD2	34:2c:9:GLY:H	2.36	0.43
38:2g:27:ILE:HA	38:2g:30:ILE:HD12	2.00	0.43
48:2q:62:SER:HB3	48:2q:72:ARG:NH1	2.32	0.43
1:1A:247:G:H4'	1:1A:386:G:C6	2.53	0.43
1:1A:288:C:H2'	1:1A:289:A:C8	2.54	0.43
1:1A:307:G:H21	1:1A:330:A:H62	1.65	0.43
1:1A:960:A:C8	1:1A:962:G:C8	3.07	0.43
1:1A:1091:G:H1	1:1A:1100:C:N4	2.16	0.43
1:1A:1709:U:H1'	1:1A:2860:A:N3	2.34	0.43
1:1A:2135:A:C2	1:1A:2136:C:H1'	2.52	0.43
1:1A:2347:C:H2'	1:1A:2348:U:C6	2.54	0.43
1:1A:2839:G:H5'	13:1R:46:GLY:HA2	2.00	0.43
2:1B:30:C:H2'	2:1B:31:C:H5'	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:1E:13:ARG:NH2	15:1T:77:PRO:HB3	2.33	0.43
7:1H:3:ARG:CZ	7:1H:5:GLY:H	2.32	0.43
9:1N:62:VAL:HG13	9:1N:66:LYS:HB2	2.00	0.43
32:1a:186:C:H2'	32:1a:187:C:C6	2.54	0.43
32:1a:491:G:H2'	32:1a:492:G:O4'	2.17	0.43
32:1a:509:A:N3	32:1a:543:C:O2'	2.37	0.43
32:1a:710:G:H5''	37:1f:54:LYS:NZ	2.33	0.43
32:1a:1054:C:H4'	32:1a:1055:A:O5'	2.18	0.43
32:1a:1227:A:OP2	44:1m:111:LYS:HE3	2.18	0.43
33:1b:109:SER:HA	33:1b:112:VAL:HG13	1.99	0.43
34:1c:22:TRP:HA	41:1j:93:GLY:HA2	1.99	0.43
35:1d:173:TRP:CD1	35:1d:173:TRP:H	2.36	0.43
43:1l:54:LYS:HD2	43:1l:54:LYS:N	2.33	0.43
48:1q:51:TYR:HE1	48:1q:76:LEU:HD13	1.84	0.43
53:1y:24:LEU:HD23	53:1y:24:LEU:HA	1.88	0.43
1:2A:1024:G:C6	1:2A:1025:G:C6	3.06	0.43
1:2A:1047:G:N2	1:2A:1111:A:H62	2.15	0.43
1:2A:1165:U:H2'	1:2A:1166:C:C6	2.53	0.43
1:2A:2390:U:P	30:28:35:GLN:HE22	2.41	0.43
2:2B:66:A:N6	2:2B:108:U:H3'	2.33	0.43
2:2B:70:C:H2'	2:2B:71:C:H6	1.83	0.43
21:2Z:125:LEU:HG	21:2Z:164:ALA:HB3	2.00	0.43
32:2a:533:A:O2'	32:2a:534:U:H5''	2.18	0.43
32:2a:1184:G:H2'	32:2a:1185:G:H8	1.82	0.43
34:2c:114:PRO:O	34:2c:118:GLN:HG3	2.18	0.43
35:2d:163:GLU:O	35:2d:166:LYS:HG2	2.18	0.43
38:2g:114:ARG:HB2	38:2g:115:ARG:NH2	2.32	0.43
40:2i:50:LEU:HD11	40:2i:81:ILE:HD11	1.99	0.43
41:2j:9:ARG:NH2	41:2j:95:GLU:OE1	2.52	0.43
1:1A:7:G:H2'	1:1A:8:A:O4'	2.19	0.43
1:1A:645:C:H5'	1:1A:646:A:OP2	2.18	0.43
1:1A:774:A:N3	1:1A:774:A:H2'	2.34	0.43
1:1A:947:G:H2'	1:1A:948:G:C8	2.53	0.43
1:1A:1851:U:O4	60:1A:4217:HOH:O	2.21	0.43
1:1A:2140:C:N3	1:1A:2151:G:O6	2.51	0.43
1:1A:2570:G:OP1	60:1A:4214:HOH:O	2.21	0.43
1:1A:2747:G:OP1	7:1H:138:LYS:NZ	2.40	0.43
4:1E:13:ARG:NH1	60:1E:406:HOH:O	2.32	0.43
4:1E:146:THR:HA	4:1E:147:PRO:HA	1.83	0.43
11:1P:63:PRO:HG2	30:18:25:MET:HB2	2.00	0.43
24:12:61:LEU:HD23	24:12:61:LEU:HA	1.85	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:977:A:H1'	32:1a:982:U:O4	2.19	0.43
32:1a:983:A:H5'	32:1a:984:C:OP2	2.17	0.43
32:1a:1302:U:OP2	44:1m:21:TYR:OH	2.15	0.43
44:1m:4:ILE:HA	44:1m:5:ALA:HA	1.56	0.43
1:2A:11:G:N7	60:2A:4089:HOH:O	2.37	0.43
1:2A:99:U:O4	20:2Y:8:LYS:NZ	2.51	0.43
1:2A:1062:G:C5	1:2A:1070:A:H1'	2.53	0.43
1:2A:1747:G:H2'	1:2A:1747(A):G:C8	2.54	0.43
1:2A:2037:G:H2'	1:2A:2038:G:C8	2.53	0.43
1:2A:2115:G:N1	1:2A:2119:A:OP2	2.52	0.43
1:2A:2872:G:O2'	1:2A:2873:A:H5'	2.18	0.43
3:2D:118:VAL:N	3:2D:129:ASN:OD1	2.49	0.43
6:2G:119:GLY:HA3	6:2G:181:ARG:HB2	1.99	0.43
7:2H:139:GLN:HG2	7:2H:140:LYS:N	2.33	0.43
8:2I:30:LEU:HD23	8:2I:35:LEU:HD12	2.00	0.43
15:2T:109:GLU:HG3	15:2T:112:ARG:NH2	2.33	0.43
24:22:65:ASN:O	24:22:69:ARG:HG3	2.18	0.43
32:2a:685:G:O2'	32:2a:686:U:H5'	2.18	0.43
32:2a:1004:A:N6	32:2a:1037:C:C6	2.87	0.43
32:2a:1085:U:H3'	32:2a:1086:U:C6	2.52	0.43
36:2e:116:THR:HG23	36:2e:117:ASP:CG	2.44	0.43
38:2g:138:LYS:HE2	38:2g:142:GLU:OE2	2.18	0.43
44:2m:94:ARG:HB3	44:2m:96:LEU:HD12	1.99	0.43
50:2s:40:ILE:HD13	50:2s:66:MET:O	2.18	0.43
1:1A:27:G:H22	1:1A:512:G:H1'	1.83	0.43
1:1A:271(M):G:N2	8:1I:50:ARG:HD3	2.32	0.43
1:1A:1676:A:H2'	1:1A:1677:A:O4'	2.19	0.43
1:1A:1789:A:P	3:1D:222:ARG:HE	2.42	0.43
1:1A:2660:A:H2'	1:1A:2661:G:O4'	2.19	0.43
2:1B:16:G:C6	2:1B:69:G:C2	3.07	0.43
4:1E:52:LEU:O	4:1E:76:ARG:N	2.47	0.43
13:1R:20:LEU:O	13:1R:24:GLN:HG3	2.18	0.43
15:1T:99:LEU:HD13	15:1T:114:LEU:HD11	2.01	0.43
32:1a:1190:G:OP1	34:1c:5:ILE:N	2.48	0.43
32:1a:1236:A:H2'	32:1a:1237:C:C6	2.53	0.43
32:1a:1258:G:H2'	32:1a:1259:C:C6	2.54	0.43
33:1b:223:ILE:HD13	33:1b:230:VAL:H	1.82	0.43
1:2A:271(A):A:H8	1:2A:271(B):C:C6	2.37	0.43
1:2A:289:A:H2'	1:2A:290:G:O4'	2.17	0.43
1:2A:310:A:H1'	1:2A:311:A:H2'	2.00	0.43
1:2A:335:C:H5''	20:2Y:73:ARG:NH1	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:687:C:H5''	29:27:2:LYS:HE2	2.00	0.43
1:2A:1026:U:H4'	1:2A:1027:A:OP1	2.18	0.43
1:2A:1272:A:OP1	60:2A:3916:HOH:O	2.21	0.43
1:2A:1344:G:O2'	1:2A:1385:G:H2'	2.19	0.43
1:2A:2341:G:H2'	1:2A:2342:C:C6	2.53	0.43
1:2A:2525:G:O6	60:2A:3863:HOH:O	2.21	0.43
5:2F:11:VAL:HG13	5:2F:125:LEU:HB2	2.01	0.43
6:2G:145:THR:OG1	6:2G:146:TYR:N	2.51	0.43
11:2P:29:LYS:HG2	11:2P:30:THR:HG23	2.00	0.43
21:2Z:45:ASP:HB3	21:2Z:46:LYS:HZ2	1.84	0.43
32:2a:270:A:H2'	32:2a:271:C:C6	2.53	0.43
32:2a:860:A:H2'	32:2a:861:G:O4'	2.17	0.43
32:2a:1151:A:O2'	32:2a:1152:A:H8	2.02	0.43
32:2a:1305:G:H1'	32:2a:1306:A:C8	2.53	0.43
35:2d:103:ASN:HD21	35:2d:107:ARG:HH21	1.65	0.43
35:2d:124:GLY:C	35:2d:126:ILE:H	2.26	0.43
42:2k:116:HIS:N	42:2k:117:ASN:HA	2.33	0.43
1:1A:671:C:N4	60:1A:4879:HOH:O	2.51	0.43
1:1A:1164:G:H2'	1:1A:1165:U:C6	2.54	0.43
1:1A:2281:C:OP1	21:1Z:201:LYS:NZ	2.30	0.43
7:1H:3:ARG:HG2	7:1H:6:ARG:HG2	2.01	0.43
11:1P:59:LEU:HD11	30:18:10:ALA:HA	2.00	0.43
11:1P:97:PRO:HD3	11:1P:126:VAL:O	2.19	0.43
14:1S:15:ARG:HE	14:1S:88:ASP:CG	2.25	0.43
14:1S:23:ARG:NH1	14:1S:84:GLN:HB3	2.33	0.43
15:1T:28:VAL:O	15:1T:46:GLU:HA	2.19	0.43
15:1T:127:ALA:O	15:1T:128:GLU:HB3	2.18	0.43
17:1V:34:GLU:HB3	17:1V:56:SER:HB2	2.00	0.43
19:1X:60:ARG:HE	19:1X:60:ARG:HB3	1.48	0.43
30:18:15:LYS:HB2	56:18:103:MPD:H11	2.01	0.43
33:1b:133:LYS:H	33:1b:133:LYS:HG2	1.60	0.43
33:1b:197:VAL:HG12	33:1b:198:ASP:H	1.84	0.43
41:1j:33:GLN:O	41:1j:75:ILE:N	2.50	0.43
42:1k:59:TYR:CZ	42:1k:63:LEU:HD21	2.53	0.43
1:2A:537:C:H4'	9:2N:5:VAL:HG11	2.01	0.43
1:2A:1153:C:H2'	1:2A:1154:G:O4'	2.18	0.43
1:2A:1826:G:H2'	1:2A:1827:C:O4'	2.18	0.43
1:2A:2186:G:N2	1:2A:2187:G:C4	2.86	0.43
1:2A:2390:U:O2'	1:2A:2391:G:H5'	2.19	0.43
4:2E:109:LYS:HE2	4:2E:191:PRO:HB3	2.00	0.43
11:2P:138:LEU:HD12	11:2P:138:LEU:HA	1.85	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:2R:29:LEU:HB3	13:2R:75:LEU:HD21	2.00	0.43
18:2W:6:ILE:HA	18:2W:103:ILE:O	2.19	0.43
32:2a:630:G:O2'	32:2a:631:G:H5'	2.17	0.43
32:2a:1065:U:H1'	32:2a:1066:C:OP2	2.18	0.43
32:2a:1251:A:N6	32:2a:1285:A:N1	2.67	0.43
38:2g:42:ILE:HD13	38:2g:116:ALA:HB3	2.00	0.43
41:2j:29:ARG:C	41:2j:31:GLY:H	2.27	0.43
41:2j:51:ARG:HG2	41:2j:61:GLU:HB2	2.01	0.43
43:2l:74:GLY:O	43:2l:102:ARG:NH2	2.45	0.43
53:2y:10:MET:HE3	53:2y:12:ILE:HD11	1.99	0.43
1:1A:1045:A:H8	1:1A:1111:A:C6	2.36	0.43
1:1A:1289:C:H2'	1:1A:1290:C:C6	2.53	0.43
1:1A:2748:A:H5'	7:1H:4:ILE:HD13	2.00	0.43
5:1F:195:ASP:HB2	5:1F:198:ALA:H	1.84	0.43
7:1H:3:ARG:HH22	7:1H:66:GLY:N	2.16	0.43
7:1H:83:TYR:CE2	7:1H:138:LYS:HB2	2.53	0.43
8:1I:9:LEU:HA	8:1I:9:LEU:HD23	1.65	0.43
15:1T:96:ARG:NH1	15:1T:96:ARG:HB2	2.33	0.43
17:1V:43:GLU:OE1	17:1V:43:GLU:N	2.51	0.43
19:1X:39:ILE:O	19:1X:43:VAL:HG23	2.19	0.43
21:1Z:54:HIS:HB3	21:1Z:101:PRO:HD3	2.01	0.43
32:1a:109:A:C6	32:1a:326:G:C6	3.06	0.43
32:1a:744:C:O2'	32:1a:851:G:N2	2.51	0.43
32:1a:1030:C:N4	32:1a:1032:G:O6	2.52	0.43
32:1a:1161:C:H2'	32:1a:1162:C:H6	1.83	0.43
32:1a:1216:G:OP1	45:1n:2:ALA:HA	2.18	0.43
32:1a:1286:A:H8	32:1a:1287:A:H4'	1.84	0.43
35:1d:121:VAL:O	35:1d:134:ASP:HA	2.18	0.43
35:1d:155:LEU:HD23	35:1d:156:GLU:H	1.83	0.43
39:1h:127:LEU:HD12	39:1h:127:LEU:HA	1.83	0.43
42:1k:84:VAL:HG11	42:1k:91:ARG:HD2	2.01	0.43
49:1r:51:LEU:HD23	49:1r:52:PRO:HD2	2.00	0.43
1:2A:415:A:H2'	1:2A:416:C:O4'	2.19	0.43
1:2A:480:A:O5'	20:2Y:47:LYS:HD3	2.18	0.43
1:2A:995:C:N4	9:2N:2:LYS:HD2	2.32	0.43
1:2A:1045:A:N3	1:2A:1045:A:H2'	2.33	0.43
1:2A:1187:G:N2	1:2A:1188:U:O4	2.51	0.43
1:2A:2207:G:H2'	1:2A:2208:A:C2	2.54	0.43
1:2A:2630:G:H2'	1:2A:2631:G:C8	2.54	0.43
5:2F:127:GLU:HA	5:2F:196:LEU:HD11	2.00	0.43
5:2F:167:ALA:HB1	5:2F:173:VAL:HG11	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:107:LEU:HD11	6:2G:178:PHE:CE1	2.54	0.43
7:2H:24:VAL:HG22	7:2H:35:VAL:HB	2.00	0.43
9:2N:120:LEU:O	9:2N:121:LYS:HD3	2.18	0.43
11:2P:91:PHE:O	11:2P:121:LYS:NZ	2.33	0.43
11:2P:98:GLU:HG3	11:2P:102:ARG:NH2	2.33	0.43
13:2R:79:LEU:HA	13:2R:83:ILE:HD12	2.00	0.43
20:2Y:102:CYS:C	20:2Y:104:GLY:H	2.27	0.43
21:2Z:144:LEU:HD22	21:2Z:148:ASP:HB3	1.99	0.43
30:28:14:VAL:HG21	30:28:58:ILE:HG21	1.99	0.43
32:2a:443:C:H2'	32:2a:444:C:C6	2.53	0.43
32:2a:1318:A:H1'	50:2s:37:ARG:HH11	1.83	0.43
34:2c:139:GLN:NE2	34:2c:143:GLU:HG3	2.33	0.43
40:2i:22:GLY:H	40:2i:59:PHE:HA	1.83	0.43
40:2i:112:LYS:HE2	40:2i:117:HIS:O	2.18	0.43
44:2m:57:ARG:C	44:2m:59:TYR:H	2.27	0.43
1:1A:616:G:H5'	5:1F:205:ARG:HD3	2.01	0.43
1:1A:729:G:N7	3:1D:210:GLY:N	2.62	0.43
1:1A:1417:C:H2'	1:1A:1418:G:O4'	2.18	0.43
1:1A:2096:U:H2'	1:1A:2097:C:C6	2.54	0.43
1:1A:2135:A:H4'	1:1A:2160:G:H4'	2.01	0.43
1:1A:2142:C:N3	1:1A:2149:G:C6	2.87	0.43
2:1B:2:C:H2'	2:1B:3:C:C6	2.53	0.43
2:1B:34:U:P	6:1G:2:PRO:HD3	2.58	0.43
22:10:12:ASN:O	22:10:14:ARG:NH2	2.52	0.43
24:12:32:LEU:HD22	24:12:36:ARG:HH11	1.84	0.43
28:16:35:GLU:HA	28:16:49:HIS:O	2.19	0.43
32:1a:786:G:H2'	32:1a:787:A:O4'	2.18	0.43
32:1a:941:G:C6	32:1a:1343:G:C6	3.07	0.43
32:1a:1026:G:H5'	32:1a:1027:C:H5	1.82	0.43
34:1c:73:PRO:O	34:1c:77:ILE:HG13	2.18	0.43
41:1j:31:GLY:HA2	41:1j:32:ALA:HA	1.45	0.43
50:1s:12:ASP:C	50:1s:14:HIS:H	2.26	0.43
1:2A:864:G:H1'	1:2A:914:C:N4	2.34	0.43
1:2A:1010:A:H1'	1:2A:1153:C:H1'	2.01	0.43
1:2A:1063:G:N2	1:2A:1075:C:N3	2.54	0.43
1:2A:1111:A:O3'	1:2A:1112:G:H4'	2.18	0.43
1:2A:2316:C:H2'	1:2A:2317:C:H6	1.84	0.43
12:2Q:4:PRO:HD3	12:2Q:70:PRO:O	2.19	0.43
14:2S:25:ARG:NH1	14:2S:42:ASP:OD2	2.51	0.43
21:2Z:35:ARG:HA	21:2Z:35:ARG:HD2	1.75	0.43
21:2Z:67:LEU:HD13	21:2Z:90:VAL:HG11	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:21:85:LEU:HB3	23:21:89:GLU:HB2	2.00	0.43
34:2c:36:ASP:OD1	34:2c:57:ILE:HD13	2.18	0.43
35:2d:73:ARG:HD2	35:2d:73:ARG:HA	1.87	0.43
44:2m:97:PRO:N	44:2m:110:ARG:HG2	2.33	0.43
45:2n:32:SER:O	45:2n:40:CYS:HA	2.19	0.43
1:1A:55:G:O2'	1:1A:127:A:N1	2.45	0.43
1:1A:512:G:OP2	60:1A:4218:HOH:O	2.21	0.43
1:1A:1171:G:N3	1:1A:1171:G:H2'	2.33	0.43
1:1A:1766:U:H2'	1:1A:1767:C:C6	2.54	0.43
1:1A:2111:C:OP2	1:1A:2145:C:N4	2.51	0.43
1:1A:2857:G:N2	1:1A:2860:A:OP2	2.40	0.43
2:1B:13:A:N1	2:1B:69:G:O2'	2.51	0.43
5:1F:101:LEU:HD23	5:1F:106:ARG:HG2	2.01	0.43
10:1O:20:MET:HE2	10:1O:20:MET:HB3	1.88	0.43
21:1Z:70:LEU:HG	21:1Z:91:LEU:HD21	2.00	0.43
23:11:67:ILE:N	23:11:68:PRO:HD2	2.33	0.43
32:1a:911:U:H2'	32:1a:912:C:C6	2.54	0.43
32:1a:1087:G:H2'	32:1a:1088:G:H8	1.84	0.43
33:1b:124:SER:HA	33:1b:125:PRO:HA	1.64	0.43
35:1d:131:ARG:O	35:1d:133:VAL:HG23	2.19	0.43
41:1j:61:GLU:OE2	45:1n:58:LYS:NZ	2.44	0.43
42:1k:43:SER:HB3	42:1k:68:ALA:HB2	1.99	0.43
49:1r:35:ARG:O	49:1r:37:VAL:N	2.52	0.43
1:2A:398:G:H2'	1:2A:399:G:C8	2.54	0.43
1:2A:840:C:OP2	1:2A:932:G:N2	2.39	0.43
1:2A:1312:U:OP2	19:2X:63:LYS:NZ	2.48	0.43
1:2A:1479:G:N2	1:2A:1513:C:H1'	2.34	0.43
1:2A:1637:A:H4'	1:2A:2711:A:O2'	2.19	0.43
1:2A:1761:C:H2'	1:2A:1762:A:H5''	2.00	0.43
1:2A:2074:U:H2'	1:2A:2075:U:C6	2.53	0.43
1:2A:2557:G:H2'	1:2A:2558:C:C6	2.54	0.43
1:2A:2637:U:H5''	4:2E:82:ARG:NH1	2.34	0.43
55:2A:3734:ERY:H321	55:2A:3734:ERY:H8	1.65	0.43
4:2E:143:ASN:HD22	4:2E:147:PRO:HD3	1.84	0.43
32:2a:396:G:O2'	32:2a:398:C:OP1	2.28	0.43
32:2a:674:G:H8	32:2a:674:G:O5'	2.02	0.43
32:2a:701:C:H1'	32:2a:703:G:C6	2.53	0.43
32:2a:722:A:N6	32:2a:724:G:C2	2.87	0.43
32:2a:859:A:OP2	32:2a:869:G:N2	2.37	0.43
32:2a:1004:A:H5'	32:2a:1024:G:N2	2.33	0.43
32:2a:1036:G:H3'	32:2a:1037:C:H6	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1118:C:H1'	32:2a:1179:A:C4	2.54	0.43
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.33	0.43
36:2e:110:LEU:HD13	36:2e:118:ILE:HD13	2.01	0.43
38:2g:113:GLU:H	38:2g:113:GLU:HG2	1.41	0.43
43:2l:85:ILE:HD12	43:2l:98:TYR:HB3	2.01	0.43
47:2p:13:HIS:C	47:2p:15:PRO:HD3	2.44	0.43
51:2t:53:LEU:HD23	51:2t:53:LEU:HA	1.83	0.43
1:1A:685:A:H1'	1:1A:688:U:O4	2.18	0.43
1:1A:1030:G:OP2	12:1Q:128:LYS:NZ	2.52	0.43
1:1A:1448:G:H5''	1:1A:1542:A:OP1	2.18	0.43
1:1A:2006:C:H2'	1:1A:2007:C:C6	2.54	0.43
1:1A:2543:G:H2'	1:1A:2544:G:O4'	2.18	0.43
3:1D:145:VAL:HG12	3:1D:146:GLU:O	2.19	0.43
5:1F:74:ARG:H	5:1F:74:ARG:HG3	1.40	0.43
11:1P:93:GLY:N	11:1P:123:LEU:HD22	2.34	0.43
13:1R:24:GLN:NE2	60:1R:309:HOH:O	2.51	0.43
13:1R:44:LEU:HD22	13:1R:48:VAL:HG23	2.01	0.43
18:1W:33:ARG:NH2	18:1W:52:GLU:OE1	2.31	0.43
32:1a:1183:A:H3'	32:1a:1184:G:C5'	2.47	0.43
35:1d:12:CYS:CB	59:1d:306:SF4:S2	3.07	0.43
36:1e:66:MET:HE3	36:1e:66:MET:HB3	1.76	0.43
48:1q:67:LYS:O	48:1q:68:ARG:HB3	2.19	0.43
1:2A:1069:A:C4	1:2A:1095:A:H4'	2.54	0.43
1:2A:2018:G:N7	60:2A:4086:HOH:O	2.37	0.43
1:2A:2086:U:H2'	1:2A:2087:G:C8	2.53	0.43
2:2B:70:C:H2'	2:2B:71:C:C6	2.54	0.43
5:2F:143:ALA:HB1	5:2F:148:LEU:HB2	2.01	0.43
7:2H:72:ILE:O	7:2H:76:VAL:HG13	2.19	0.43
9:2N:91:LEU:O	9:2N:95:PRO:HB3	2.19	0.43
11:2P:99:LEU:HD23	11:2P:102:ARG:HH21	1.84	0.43
12:2Q:87:LYS:HG3	12:2Q:88:GLY:N	2.34	0.43
21:2Z:70:LEU:HD21	21:2Z:98:MET:HE3	2.01	0.43
26:24:59:PHE:CZ	50:2s:64:GLU:HB2	2.54	0.43
32:2a:831:U:H2'	32:2a:832:C:H6	1.83	0.43
32:2a:1148:U:OP1	40:2i:7:THR:HG21	2.19	0.43
32:2a:1369:C:OP2	40:2i:112:LYS:N	2.45	0.43
34:2c:128:PHE:HD1	34:2c:128:PHE:HA	1.75	0.43
35:2d:108:LEU:HD12	35:2d:108:LEU:HA	1.72	0.43
37:2f:9:VAL:HB	37:2f:87:ARG:HB2	2.01	0.43
44:2m:65:LYS:HD2	44:2m:69:GLU:OE1	2.19	0.43
1:1A:1923:U:H2'	1:1A:1924:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1939:5MU:OP1	1:1A:2604:U:O2'	2.33	0.42
9:1N:12:ARG:HB3	9:1N:50:ASP:OD1	2.18	0.42
12:1Q:57:HIS:CD2	12:1Q:117:ALA:HB2	2.54	0.42
15:1T:24:PRO:HD3	15:1T:52:ILE:HD12	2.01	0.42
32:1a:189(K):U:H2'	32:1a:189(L):G:H8	1.84	0.42
32:1a:954:G:C5	32:1a:955:U:C4	3.07	0.42
32:1a:1005:A:H5''	32:1a:1006:C:OP2	2.18	0.42
32:1a:1099:G:H2'	32:1a:1100:C:C6	2.54	0.42
32:1a:1190:G:H5'	34:1c:176:HIS:CE1	2.54	0.42
32:1a:1303:C:OP1	60:1a:1912:HOH:O	2.21	0.42
32:1a:1456:G:O6	51:1t:54:LYS:NZ	2.44	0.42
33:1b:134:GLU:HG3	33:1b:137:ARG:NH2	2.34	0.42
33:1b:178:ARG:C	33:1b:180:LEU:H	2.27	0.42
36:1e:143:ARG:HB3	36:1e:147:ASP:HB3	2.01	0.42
43:1l:53:ARG:HB3	43:1l:69:TYR:HE1	1.84	0.42
44:1m:15:VAL:HG21	44:1m:48:LEU:HD21	2.01	0.42
1:2A:56:A:H2'	1:2A:57:C:O4'	2.19	0.42
1:2A:394:A:O2'	1:2A:395:U:H5'	2.19	0.42
1:2A:854:G:H2'	1:2A:855:G:C8	2.53	0.42
1:2A:1069:A:H5'	1:2A:1096:A:H5'	2.01	0.42
1:2A:1198:U:H2'	1:2A:1199:U:C6	2.54	0.42
1:2A:1214:A:OP2	60:2A:3917:HOH:O	2.21	0.42
1:2A:1448:G:H21	1:2A:1528(A):A:H2	1.66	0.42
1:2A:2101:G:N2	1:2A:2189:U:H1'	2.34	0.42
1:2A:2166:G:O6	1:2A:2171:A:O2'	2.35	0.42
6:2G:111:LEU:HD13	6:2G:117:PHE:CZ	2.54	0.42
6:2G:125:PHE:HB3	6:2G:166:ASP:CG	2.44	0.42
6:2G:144:ILE:HA	6:2G:148:MET:SD	2.59	0.42
10:2O:77:ILE:HG13	15:2T:74:ARG:HG2	2.00	0.42
20:2Y:43:ASN:HB3	20:2Y:65:ALA:HB3	2.00	0.42
22:20:63:VAL:HG23	22:20:64:ASP:O	2.19	0.42
32:2a:44:G:OP2	47:2p:12:LYS:NZ	2.37	0.42
32:2a:146:G:H2'	32:2a:147:G:O4'	2.19	0.42
32:2a:941:G:H2'	32:2a:942:G:O4'	2.19	0.42
32:2a:1512:U:H2'	32:2a:1513:A:C8	2.54	0.42
36:2e:40:ARG:HA	36:2e:67:VAL:O	2.18	0.42
51:2t:76:ALA:O	51:2t:80:ARG:HG2	2.18	0.42
1:1A:93:G:H2'	1:1A:94:C:C6	2.53	0.42
1:1A:897:C:H2'	1:1A:898:C:C6	2.54	0.42
1:1A:2238:G:N3	1:1A:2238:G:H2'	2.33	0.42
1:1A:2727:G:O2'	10:1O:70:LYS:HE3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:64:ILE:CG2	5:1F:78:ILE:HG23	2.49	0.42
7:1H:86:GLU:HG3	7:1H:132:ARG:NE	2.34	0.42
28:16:6:ARG:NE	28:16:24:GLU:OE2	2.40	0.42
32:1a:865:A:H2	32:1a:918:A:H4'	1.84	0.42
32:1a:976:G:OP2	32:1a:1358:U:O2'	2.24	0.42
32:1a:991:U:H4'	32:1a:992:U:O5'	2.17	0.42
32:1a:1003:G:H8	32:1a:1003:G:O5'	2.02	0.42
38:1g:91:VAL:HB	38:1g:96:GLN:NE2	2.34	0.42
40:1i:97:LYS:HG3	40:1i:98:PRO:HD3	2.00	0.42
47:1p:70:ALA:O	47:1p:74:LEU:HD12	2.19	0.42
53:1y:85:LEU:O	53:1y:89:GLN:HG2	2.18	0.42
1:2A:307:G:N1	1:2A:310:A:OP2	2.48	0.42
1:2A:1783:A:H5'	1:2A:2608:G:H4'	2.01	0.42
1:2A:2444:G:OP2	60:2A:3921:HOH:O	2.21	0.42
23:21:51:VAL:HG11	23:21:74:VAL:CG2	2.49	0.42
32:2a:149:A:H2'	32:2a:150:C:C6	2.53	0.42
32:2a:696:A:H1'	32:2a:786:G:O2'	2.19	0.42
32:2a:1302:U:OP1	44:2m:13:LYS:NZ	2.37	0.42
32:2a:1305:G:H5''	52:2u:4:GLY:C	2.44	0.42
33:2b:15:VAL:O	33:2b:17:PHE:N	2.46	0.42
33:2b:15:VAL:CB	33:2b:209:ARG:HB3	2.45	0.42
33:2b:57:PHE:HE2	33:2b:185:ILE:HD11	1.83	0.42
34:2c:123:GLN:O	34:2c:128:PHE:HB2	2.18	0.42
35:2d:116:GLN:CD	35:2d:157:LEU:HD21	2.44	0.42
36:2e:89:ILE:HD12	36:2e:89:ILE:HA	1.87	0.42
36:2e:148:VAL:HG11	39:2h:107:LEU:HD13	2.01	0.42
44:2m:108:ARG:O	44:2m:111:LYS:N	2.53	0.42
1:1A:214:G:H1'	1:1A:216:A:O2'	2.20	0.42
1:1A:1173:G:O2'	1:1A:1174:A:O4'	2.35	0.42
1:1A:2086:U:H2'	1:1A:2087:G:H8	1.83	0.42
1:1A:2183:C:H2'	1:1A:2184:G:H8	1.82	0.42
3:1D:246:PRO:O	3:1D:254:THR:HG22	2.19	0.42
9:1N:62:VAL:CG1	9:1N:66:LYS:HB2	2.48	0.42
25:13:39:ASP:OD2	25:13:44:ARG:NH2	2.45	0.42
30:18:47:LYS:HD3	56:18:103:MPD:H51	2.01	0.42
32:1a:737:A:H1'	37:1f:73:ASN:HD21	1.84	0.42
34:1c:136:GLN:O	34:1c:140:ARG:HG3	2.19	0.42
38:1g:71:PRO:HA	38:1g:138:LYS:HG3	2.00	0.42
40:1i:7:THR:O	40:1i:83:ARG:NH1	2.45	0.42
50:1s:71:LEU:HD23	50:1s:71:LEU:HA	1.82	0.42
1:2A:185:U:H4'	1:2A:218:A:H4'	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:225:A:O2'	1:2A:257:A:H4'	2.19	0.42
1:2A:330:A:HO2'	1:2A:331:A:H8	1.61	0.42
1:2A:768:G:O2'	1:2A:1379:A:N1	2.45	0.42
1:2A:1120:G:H2'	1:2A:1121:C:O4'	2.19	0.42
1:2A:2152:G:H2'	1:2A:2153:G:C8	2.55	0.42
1:2A:2615:U:C2	27:25:7:PRO:HA	2.54	0.42
5:2F:31:HIS:HB2	11:2P:9:ASN:OD1	2.19	0.42
6:2G:39:ILE:O	6:2G:91:ARG:HA	2.19	0.42
9:2N:51:PHE:CZ	9:2N:119:ARG:HD2	2.55	0.42
11:2P:59:LEU:HD21	30:28:10:ALA:HB2	2.01	0.42
12:2Q:48:GLU:O	12:2Q:52:VAL:HG23	2.19	0.42
19:2X:57:LEU:HD11	19:2X:78:LYS:HE2	2.01	0.42
32:2a:472:A:H4'	47:2p:80:PHE:O	2.19	0.42
32:2a:542:G:OP1	35:2d:10:ARG:NH1	2.53	0.42
32:2a:624:C:H2'	32:2a:625:G:H8	1.84	0.42
32:2a:736:C:H2'	32:2a:737:A:C8	2.54	0.42
32:2a:745:C:H5'	32:2a:851:G:H21	1.85	0.42
32:2a:1005:A:OP1	32:2a:1006:C:N4	2.52	0.42
32:2a:1027:C:H5''	32:2a:1028:C:C6	2.54	0.42
32:2a:1423:G:H2'	32:2a:1424:C:H6	1.83	0.42
35:2d:67:ILE:HG21	35:2d:196:LEU:HD23	2.01	0.42
40:2i:45:ALA:O	40:2i:48:GLU:HB2	2.19	0.42
53:2y:76:GLU:HA	53:2y:79:ASN:ND2	2.34	0.42
1:1A:51:G:O2'	1:1A:119:A:N1	2.49	0.42
1:1A:292:C:H42	1:1A:348:G:H1	1.66	0.42
1:1A:433:C:H2'	1:1A:434:U:C6	2.54	0.42
1:1A:816:C:OP2	60:1A:4219:HOH:O	2.21	0.42
1:1A:1098:A:H2'	1:1A:1099:G:O4'	2.18	0.42
1:1A:1273:U:H5'	60:1A:7414:HOH:O	2.19	0.42
1:1A:1936:A:OP1	1:1A:1937:A:H5'	2.20	0.42
1:1A:2747:G:O6	1:1A:2755:C:H5''	2.19	0.42
3:1D:85:ASP:OD2	60:1D:402:HOH:O	2.20	0.42
6:1G:4:ASP:CG	6:1G:9:ARG:HH21	2.28	0.42
6:1G:53:LEU:O	6:1G:56:ALA:N	2.49	0.42
6:1G:124:SER:HB2	6:1G:131:TYR:CE1	2.54	0.42
10:1O:75:SER:HB2	15:1T:75:ILE:O	2.19	0.42
25:13:10:LYS:NZ	25:13:15:TYR:OH	2.52	0.42
26:14:35:VAL:HG22	26:14:36:CYS:H	1.85	0.42
30:18:52:LYS:HB2	30:18:52:LYS:HE3	1.74	0.42
32:1a:374:A:C6	32:1a:375:U:C4	3.07	0.42
32:1a:460:G:N2	32:1a:471:G:N7	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1292:U:H5'	40:1i:38:GLN:OE1	2.20	0.42
32:1a:1366:C:H2'	32:1a:1367:C:C6	2.55	0.42
33:1b:106:LYS:H	33:1b:106:LYS:HZ3	1.68	0.42
33:1b:163:PHE:HA	33:1b:185:ILE:HG12	2.00	0.42
36:1e:27:ARG:HG2	36:1e:28:PHE:H	1.84	0.42
42:1k:70:LYS:HE2	42:1k:70:LYS:HB2	1.88	0.42
51:1t:92:LEU:O	51:1t:96:GLY:N	2.52	0.42
53:1y:6:THR:HB	53:1y:40:ILE:HG13	2.01	0.42
1:2A:495:G:H21	18:2W:61:ASN:HD21	1.66	0.42
1:2A:1503:U:H2'	1:2A:1504:C:H6	1.82	0.42
1:2A:1508:A:H5'	1:2A:1509:C:OP1	2.19	0.42
1:2A:1669:A:H2'	60:2A:3969:HOH:O	2.19	0.42
1:2A:1889:A:C6	1:2A:1890:A:C6	3.07	0.42
1:2A:2279:G:O6	22:20:14:ARG:HG3	2.19	0.42
1:2A:2461:C:H2'	1:2A:2462:U:C6	2.54	0.42
1:2A:2784:C:H2'	1:2A:2785:C:C6	2.52	0.42
55:2A:3734:ERY:H312	55:2A:3734:ERY:H2	1.88	0.42
2:2B:27:C:H4'	14:2S:54:LEU:HD21	2.02	0.42
3:2D:132:PRO:O	3:2D:136:ILE:HG13	2.20	0.42
4:2E:174:ASP:OD1	4:2E:175:VAL:N	2.53	0.42
5:2F:32:LEU:HD22	5:2F:112:MET:HE2	1.99	0.42
5:2F:92:PRO:O	5:2F:93:LYS:HD2	2.19	0.42
8:2I:12:LEU:HA	8:2I:12:LEU:HD23	1.82	0.42
9:2N:89:LYS:HE2	9:2N:89:LYS:HB2	1.89	0.42
14:2S:93:LYS:HE3	14:2S:95:HIS:HB2	2.02	0.42
19:2X:31:HIS:CD2	19:2X:33:LYS:H	2.36	0.42
23:21:3:LYS:HB3	23:21:4:VAL:H	1.65	0.42
32:2a:19:C:H5''	36:2e:86:ALA:HB3	2.00	0.42
32:2a:352:C:H4'	32:2a:354:G:OP1	2.19	0.42
32:2a:407:G:H2'	32:2a:408:A:C8	2.55	0.42
32:2a:490:G:H2'	32:2a:491:G:C8	2.55	0.42
32:2a:637:G:H2'	32:2a:638:G:H8	1.84	0.42
32:2a:980:C:H3'	32:2a:981:U:H6	1.82	0.42
32:2a:1106:G:H2'	32:2a:1107:C:C6	2.54	0.42
32:2a:1176:A:H2'	32:2a:1177:G:C8	2.54	0.42
32:2a:1323:G:O2'	32:2a:1362:C:O2'	2.28	0.42
33:2b:127:ILE:HA	33:2b:130:ARG:HG2	2.00	0.42
35:2d:173:TRP:CD1	35:2d:189:PRO:HG3	2.54	0.42
40:2i:26:VAL:HG22	40:2i:61:ALA:HB3	2.00	0.42
46:2o:69:TYR:HD1	46:2o:72:ARG:HH22	1.67	0.42
50:2s:39:THR:HG23	50:2s:69:HIS:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:582:G:H2'	1:1A:583:G:C8	2.55	0.42
1:1A:1359:A:N1	1:1A:1372:U:O4	2.52	0.42
1:1A:1800:C:OP1	3:1D:264:LYS:NZ	2.45	0.42
1:1A:2839:G:C5'	13:1R:46:GLY:HA2	2.49	0.42
3:1D:130:ALA:HA	3:1D:191:ALA:O	2.19	0.42
4:1E:117:MET:HE2	4:1E:117:MET:HB3	1.87	0.42
4:1E:143:ASN:HD22	4:1E:147:PRO:CD	2.32	0.42
12:1Q:57:HIS:HD2	12:1Q:117:ALA:HB2	1.84	0.42
16:1U:21:ALA:HA	16:1U:24:TYR:CE2	2.54	0.42
17:1V:21:ARG:HD3	17:1V:91:TYR:CE1	2.55	0.42
23:11:78:LYS:HD3	23:11:78:LYS:HA	1.83	0.42
31:19:24:TYR:CE1	31:19:35:ARG:HG3	2.54	0.42
32:1a:418:C:H1'	32:1a:540:G:O2'	2.19	0.42
32:1a:660:G:C2	32:1a:746:A:C2	3.08	0.42
32:1a:946:A:OP2	60:1a:1927:HOH:O	2.22	0.42
32:1a:1260:C:H4'	32:1a:1284:C:H5'	2.02	0.42
32:1a:1492:A:H4'	32:1a:1493:A:C5	2.53	0.42
56:1a:1875:MPD:H12	56:1a:1875:MPD:H52	2.02	0.42
34:1c:164:ARG:HE	34:1c:164:ARG:HB3	1.62	0.42
36:1e:78:HIS:ND1	39:1h:104:ARG:HD2	2.35	0.42
40:1i:69:GLY:O	40:1i:73:GLN:HG3	2.19	0.42
41:1j:78:ASN:O	41:1j:80:LYS:N	2.52	0.42
1:2A:1115:G:H2'	1:2A:1116:C:C6	2.55	0.42
1:2A:1569:A:H2'	1:2A:1570:A:C8	2.55	0.42
1:2A:2079:U:H2'	1:2A:2080:G:O4'	2.19	0.42
1:2A:2472:G:H22	1:2A:2477:C:H5''	1.84	0.42
3:2D:71:ASP:OD2	3:2D:103:ARG:NH1	2.52	0.42
20:2Y:90:LEU:HD13	20:2Y:92:ASN:HB3	2.01	0.42
26:24:1:MET:HE2	26:24:6:HIS:CG	2.54	0.42
31:29:18:ARG:HG3	31:29:22:ARG:O	2.20	0.42
32:2a:347:G:H2'	32:2a:348:G:O4'	2.19	0.42
32:2a:772:U:H2'	32:2a:773:G:O4'	2.20	0.42
32:2a:1197:G:OP2	60:2a:3231:HOH:O	2.21	0.42
32:2a:1292:U:OP2	38:2g:41:ARG:NH2	2.52	0.42
32:2a:1375:A:H4'	38:2g:29:LYS:HD3	2.00	0.42
32:2a:1423:G:H2'	32:2a:1424:C:C6	2.55	0.42
34:2c:6:HIS:HB3	45:2n:49:HIS:ND1	2.35	0.42
44:2m:22:ILE:HD13	44:2m:25:ILE:HD12	2.00	0.42
48:2q:45:HIS:CD2	48:2q:47:PRO:HG3	2.55	0.42
51:2t:52:ALA:O	51:2t:56:MET:HB2	2.19	0.42
53:2y:32:THR:HG21	53:2y:85:LEU:HD11	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1035:U:H2'	1:1A:1036:G:C8	2.54	0.42
1:1A:1257:C:H4'	5:1F:83:PHE:CE1	2.55	0.42
1:1A:2232:U:P	23:11:40:ARG:HH12	2.42	0.42
1:1A:2242:G:OP1	60:1A:4222:HOH:O	2.22	0.42
1:1A:2805:G:H2'	1:1A:2807:G:C8	2.52	0.42
2:1B:103:G:H21	21:1Z:73:GLN:HE22	1.68	0.42
12:1Q:7:MET:HE3	12:1Q:7:MET:HB3	1.84	0.42
17:1V:34:GLU:HA	17:1V:57:VAL:O	2.19	0.42
28:16:11:LEU:HD23	28:16:11:LEU:HA	1.83	0.42
32:1a:22:G:H4'	32:1a:885:G:C8	2.55	0.42
32:1a:235:C:H2'	32:1a:236:G:H8	1.85	0.42
32:1a:263:A:OP2	51:1t:79:ARG:NH1	2.53	0.42
32:1a:603:U:H2'	32:1a:604:G:C8	2.54	0.42
32:1a:946:A:O2'	32:1a:1333:A:N3	2.39	0.42
32:1a:1169:A:H2'	32:1a:1170:A:C8	2.53	0.42
32:1a:1404:5MC:O2	32:1a:1519:MA6:O2'	2.32	0.42
38:1g:121:ALA:O	38:1g:125:MET:HG3	2.19	0.42
41:1j:70:ARG:HD3	41:1j:70:ARG:HA	1.86	0.42
48:1q:22:LEU:HD11	48:1q:39:SER:HB2	2.00	0.42
1:2A:154(A):C:N4	1:2A:171:G:H1	2.16	0.42
1:2A:234:C:H2'	1:2A:235:U:C6	2.55	0.42
1:2A:808:G:O6	60:2A:3927:HOH:O	2.22	0.42
1:2A:1977:A:OP2	56:2A:3735:MPD:H11	2.20	0.42
1:2A:2134:A:N6	1:2A:2136:C:O2	2.52	0.42
1:2A:2837:G:H21	13:2R:45:ARG:HH12	1.67	0.42
2:2B:18:G:H2'	2:2B:19:G:C8	2.53	0.42
2:2B:90:A:C8	2:2B:91:C:H1'	2.55	0.42
6:2G:64:THR:HB	6:2G:94:LEU:HD11	2.02	0.42
7:2H:30:LYS:HZ3	7:2H:81:GLU:C	2.28	0.42
7:2H:55:PRO:HG2	7:2H:61:HIS:ND1	2.35	0.42
8:2I:69:LYS:NZ	8:2I:136:VAL:HG13	2.35	0.42
12:2Q:31:ASP:OD1	12:2Q:134:ARG:NH1	2.35	0.42
31:29:3:VAL:HA	31:29:35:ARG:O	2.19	0.42
32:2a:399:G:H2'	32:2a:400:C:C6	2.54	0.42
32:2a:625:G:H4'	47:2p:16:HIS:CD2	2.54	0.42
32:2a:942:G:C2	32:2a:1342:C:C2	3.07	0.42
32:2a:1083:U:OP2	60:2a:3233:HOH:O	2.21	0.42
32:2a:1135:U:H2'	32:2a:1137:C:N3	2.34	0.42
32:2a:1493:A:H2'	32:2a:1494:G:H5'	2.00	0.42
33:2b:152:PHE:CE1	33:2b:155:LEU:HD23	2.54	0.42
35:2d:127:THR:HB	35:2d:132:ARG:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:23:ASN:OD1	40:2i:23:ASN:N	2.47	0.42
53:2y:58:ASN:ND2	53:2y:89:GLN:OE1	2.46	0.42
1:1A:614:U:H5'	1:1A:614(C):A:N6	2.35	0.42
1:1A:1230:C:H2'	1:1A:1231:G:C8	2.55	0.42
1:1A:2657:A:C2	1:1A:2665:A:C4	3.08	0.42
6:1G:99:MET:HE2	6:1G:99:MET:HB3	1.94	0.42
12:1Q:63:LYS:HG2	12:1Q:65:PHE:CE2	2.55	0.42
18:1W:1:MET:HE2	18:1W:62:HIS:HB3	2.02	0.42
21:1Z:5:LEU:HD13	21:1Z:47:VAL:HG21	2.01	0.42
32:1a:651:C:OP1	60:1a:1926:HOH:O	2.22	0.42
33:1b:81:VAL:HG12	33:1b:215:LEU:HD11	2.01	0.42
36:1e:61:TYR:O	36:1e:64:ARG:N	2.52	0.42
36:1e:137:GLU:OE1	36:1e:140:ARG:NH1	2.53	0.42
44:1m:20:THR:HA	44:1m:25:ILE:O	2.20	0.42
1:2A:557:U:H2'	1:2A:558:G:H8	1.85	0.42
1:2A:570:G:H5''	60:2A:4859:HOH:O	2.19	0.42
1:2A:902:C:H2'	1:2A:903:C:C6	2.55	0.42
1:2A:1291:C:H2'	1:2A:1292:U:H6	1.84	0.42
1:2A:2345:G:H4'	1:2A:2346:A:H5''	2.02	0.42
1:2A:2417:C:P	11:2P:65:ARG:HH21	2.42	0.42
1:2A:2536:G:H2'	1:2A:2537:U:H6	1.84	0.42
1:2A:2671:A:H2'	1:2A:2672:G:O4'	2.19	0.42
1:2A:2757:A:N1	7:2H:67:LEU:HD13	2.34	0.42
6:2G:44:GLY:C	6:2G:46:ALA:H	2.28	0.42
8:2I:115:ALA:O	60:2I:302:HOH:O	2.22	0.42
10:2O:87:ILE:HD12	10:2O:91:LEU:HA	2.01	0.42
12:2Q:120:ILE:HA	12:2Q:123:HIS:HD2	1.85	0.42
21:2Z:179:ASP:O	21:2Z:182:LYS:HG2	2.20	0.42
26:24:1:MET:HE2	26:24:6:HIS:CD2	2.55	0.42
26:24:18:CYS:HB2	26:24:20:ASN:HB2	2.00	0.42
29:27:48:LYS:HE2	29:27:48:LYS:HB2	1.86	0.42
32:2a:292:G:O2'	32:2a:608:A:N6	2.53	0.42
32:2a:560:U:H6	32:2a:560:U:H2'	1.60	0.42
32:2a:615:C:H2'	32:2a:616:G:O4'	2.19	0.42
32:2a:1003:G:H3'	32:2a:1003:G:N3	2.35	0.42
32:2a:1349:A:C4	32:2a:1350:A:C8	3.08	0.42
37:2f:15:ASP:OD1	37:2f:18:GLN:N	2.37	0.42
41:2j:21:GLN:O	41:2j:25:GLU:HG2	2.20	0.42
1:1A:271(M):G:N2	8:1I:50:ARG:HH21	2.17	0.42
1:1A:557:U:OP1	60:1A:4201:HOH:O	2.20	0.42
1:1A:571:A:O2'	17:1V:78:LYS:HE2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1250:G:OP2	11:1P:18:ARG:NH2	2.45	0.42
1:1A:1314:C:OP1	60:1A:4109:HOH:O	2.20	0.42
1:1A:1773:A:N6	60:1A:4818:HOH:O	2.49	0.42
1:1A:2017:U:O2	27:15:10:LYS:HB2	2.19	0.42
1:1A:2079:U:O2	1:1A:2242:G:N2	2.53	0.42
1:1A:2511:U:C4	1:1A:2512:C:C4	3.08	0.42
3:1D:133:LEU:HD13	3:1D:173:VAL:HG21	2.02	0.42
6:1G:25:TYR:CD1	6:1G:30:GLU:HB3	2.55	0.42
8:1I:75:LEU:HD13	8:1I:105:HIS:ND1	2.35	0.42
9:1N:75:TYR:CE2	9:1N:77:GLY:HA2	2.55	0.42
21:1Z:104:PHE:HD1	21:1Z:141:VAL:HG11	1.84	0.42
32:1a:169:C:H2'	32:1a:170:U:C6	2.54	0.42
32:1a:474:G:H2'	32:1a:475:G:C8	2.54	0.42
32:1a:1368:G:OP2	40:1i:112:LYS:HG3	2.19	0.42
34:1c:33:LEU:O	34:1c:37:GLN:HG2	2.20	0.42
44:1m:58:GLU:O	44:1m:62:ASN:ND2	2.29	0.42
45:1n:26:ARG:HD3	45:1n:43:CYS:HB3	2.01	0.42
46:1o:18:PHE:HB2	46:1o:19:PRO:HD2	2.02	0.42
1:2A:13:A:N1	1:2A:525:U:H2'	2.35	0.42
1:2A:271(V):G:O6	60:2A:3923:HOH:O	2.21	0.42
1:2A:479:A:H4'	1:2A:480:A:OP1	2.19	0.42
1:2A:873:G:H1	1:2A:904:C:H42	1.67	0.42
1:2A:2097:C:N3	1:2A:2192:G:O6	2.52	0.42
1:2A:2115:G:N2	1:2A:2171:A:H61	2.17	0.42
1:2A:2462:U:H2'	1:2A:2463:C:H6	1.84	0.42
1:2A:2494:G:O2'	12:2Q:80:GLU:HA	2.20	0.42
1:2A:2564:A:OP1	1:2A:2648:C:H4'	2.20	0.42
3:2D:9:TYR:CD1	3:2D:10:THR:HG23	2.54	0.42
4:2E:59:VAL:HG21	4:2E:74:PRO:HB3	2.02	0.42
23:21:65:SER:HB2	23:21:66:HIS:ND1	2.34	0.42
32:2a:300:A:N6	60:2a:3260:HOH:O	2.39	0.42
32:2a:983:A:H1'	32:2a:1049:U:O2	2.20	0.42
32:2a:1240:U:O2'	38:2g:32:ARG:NE	2.37	0.42
32:2a:1295:G:H21	32:2a:1302:U:H3	1.66	0.42
32:2a:1478:C:H2'	32:2a:1479:C:H6	1.85	0.42
33:2b:74:LYS:HG3	33:2b:76:GLN:HG2	2.00	0.42
34:2c:67:THR:HG23	34:2c:102:ASN:HB3	2.02	0.42
1:1A:9:U:N3	1:1A:2629:A:C2	2.87	0.42
1:1A:456:C:O2'	1:1A:457:A:OP2	2.36	0.42
1:1A:887:A:C2	1:1A:889:C:H2'	2.55	0.42
1:1A:1486:A:H2'	1:1A:1487:G:H8	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2356:C:H2'	1:1A:2357:U:O4'	2.19	0.42
1:1A:2529:G:O6	31:19:31:LYS:NZ	2.53	0.42
1:1A:2533:A:H2'	1:1A:2534:A:O4'	2.20	0.42
2:1B:48:A:H2'	2:1B:49:C:C6	2.55	0.42
4:1E:119:ARG:HG2	4:1E:160:TYR:CG	2.55	0.42
6:1G:70:VAL:HG12	6:1G:72:ARG:HG3	2.01	0.42
11:1P:68:GLN:OE1	30:18:12:LYS:HG2	2.20	0.42
20:1Y:17:SER:OG	20:1Y:71:LYS:NZ	2.53	0.42
28:16:6:ARG:HH12	28:16:26:ASN:HB2	1.84	0.42
32:1a:924:C:H2'	32:1a:925:G:C8	2.55	0.42
32:1a:950:U:H2'	32:1a:951:G:C8	2.55	0.42
32:1a:1030:C:N3	32:1a:1031:G:C2	2.88	0.42
32:1a:1183:A:O2'	32:1a:1184:G:OP1	2.35	0.42
32:1a:1202:G:N1	45:1n:46:GLU:OE2	2.53	0.42
32:1a:1305:G:OP1	52:1u:2:GLY:N	2.52	0.42
35:1d:162:LEU:HD13	35:1d:181:MET:HG2	2.01	0.42
36:1e:110:LEU:HB3	36:1e:115:VAL:HB	2.01	0.42
38:1g:113:GLU:H	38:1g:113:GLU:HG2	1.65	0.42
40:1i:92:TYR:HB3	40:1i:96:LEU:HD12	2.00	0.42
50:1s:62:ILE:HA	50:1s:66:MET:SD	2.60	0.42
1:2A:375:C:H2'	1:2A:376:C:C6	2.55	0.42
1:2A:1041:C:N4	1:2A:1114:G:H1	2.12	0.42
1:2A:1091:G:H2'	1:2A:1091:G:N3	2.35	0.42
1:2A:1384:A:N3	1:2A:1405:U:H1'	2.34	0.42
1:2A:1574:C:H2'	1:2A:1575:C:C6	2.55	0.42
1:2A:2019:A:H5''	16:2U:27:LEU:HD12	2.01	0.42
1:2A:2336:A:H61	22:20:43:THR:HG22	1.84	0.42
1:2A:2840:C:O3'	13:2R:53:HIS:NE2	2.53	0.42
16:2U:8:VAL:HG22	16:2U:12:ARG:HG3	2.01	0.42
21:2Z:82:ARG:HE	21:2Z:82:ARG:HB3	1.42	0.42
22:20:14:ARG:H	22:20:14:ARG:HG2	1.71	0.42
32:2a:7:G:O2'	36:2e:120:THR:O	2.38	0.42
32:2a:256:U:H2'	32:2a:257:G:H8	1.84	0.42
32:2a:388:G:H5''	60:2a:3368:HOH:O	2.20	0.42
32:2a:420:U:H2'	32:2a:422:C:C5	2.54	0.42
32:2a:601:C:H2'	32:2a:602:A:C8	2.55	0.42
32:2a:660:G:H1	32:2a:745:C:N4	2.18	0.42
32:2a:1005:A:N3	32:2a:1005:A:H2'	2.34	0.42
32:2a:1059:C:H2'	32:2a:1060:C:O4'	2.20	0.42
32:2a:1097:C:H2'	32:2a:1098:C:C6	2.55	0.42
32:2a:1147:C:H1'	40:2i:16:ARG:HH21	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1324:A:O4'	32:2a:1362:C:H4'	2.19	0.42
33:2b:12:GLU:HA	33:2b:213:LEU:HD13	2.01	0.42
33:2b:72:GLY:HA2	33:2b:165:VAL:CG2	2.49	0.42
36:2e:34:VAL:HG11	36:2e:63:ARG:HG2	2.01	0.42
39:2h:48:TYR:HA	39:2h:60:ARG:O	2.19	0.42
45:2n:26:ARG:NH1	45:2n:43:CYS:SG	2.87	0.42
47:2p:66:PRO:HG2	47:2p:71:ARG:CZ	2.49	0.42
1:1A:792:G:N2	60:1A:4902:HOH:O	2.52	0.42
1:1A:883:G:H2'	1:1A:884:C:C6	2.54	0.42
1:1A:1101:U:H2'	1:1A:1102:C:H6	1.85	0.42
1:1A:1844:C:H2'	1:1A:1845:G:H8	1.85	0.42
1:1A:2330:G:O2'	22:10:41:ARG:O	2.35	0.42
1:1A:2353:G:H5''	22:10:32:ARG:HH22	1.85	0.42
1:1A:2580:U:C5	1:1A:2581:G:C6	3.08	0.42
1:1A:2620:C:O2'	4:1E:119:ARG:NH2	2.53	0.42
60:1A:7039:HOH:O	18:1W:92:ARG:HD2	2.20	0.42
2:1B:31:C:H4'	6:1G:29:TRP:CH2	2.55	0.42
4:1E:48:GLN:HA	4:1E:80:GLU:HA	2.02	0.42
6:1G:39:ILE:O	6:1G:91:ARG:HA	2.20	0.42
8:1I:116:LEU:HD11	8:1I:120:ILE:HG12	2.01	0.42
9:1N:128:HIS:CE1	9:1N:135:PRO:HG2	2.55	0.42
17:1V:52:VAL:HG21	17:1V:55:ALA:HB3	2.02	0.42
32:1a:512:U:H2'	32:1a:513:C:C6	2.55	0.42
32:1a:953:G:N7	44:1m:104:ARG:NH2	2.68	0.42
32:1a:1219:U:OP1	45:1n:19:ARG:NH1	2.31	0.42
35:1d:65:ARG:HG3	35:1d:70:ILE:HG23	2.02	0.42
42:1k:79:SER:HA	42:1k:104:GLN:HB3	2.01	0.42
42:1k:97:ALA:O	42:1k:101:SER:HB3	2.19	0.42
46:1o:67:LEU:O	46:1o:71:GLN:N	2.51	0.42
51:1t:96:GLY:HA3	51:1t:97:ALA:HA	1.78	0.42
1:2A:9:U:O4	1:2A:2629:A:H2	2.02	0.42
1:2A:302:C:H2'	1:2A:303:U:C6	2.55	0.42
1:2A:829:A:N7	1:2A:2248:C:H5'	2.35	0.42
1:2A:1939:5MU:OP1	1:2A:2604:U:O2'	2.35	0.42
1:2A:2704:C:H2'	1:2A:2705:A:O4'	2.20	0.42
1:2A:2732:G:O6	60:2A:3912:HOH:O	2.20	0.42
1:2A:2895:U:H6	1:2A:2895:U:O5'	2.03	0.42
2:2B:12:C:O2'	22:20:74:ARG:HG2	2.20	0.42
7:2H:163:TYR:CE1	7:2H:169:VAL:HG22	2.55	0.42
16:2U:23:GLY:O	60:2U:201:HOH:O	2.22	0.42
32:2a:598:U:H2'	32:2a:599:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1053:G:O2'	32:2a:1199:U:H5	2.03	0.42
32:2a:1093:A:N3	32:2a:1109:C:O2'	2.46	0.42
33:2b:215:LEU:HD22	33:2b:215:LEU:HA	1.93	0.42
34:2c:43:LEU:HD11	34:2c:66:VAL:HG11	2.02	0.42
36:2e:78:HIS:NE2	36:2e:142:LEU:HA	2.34	0.42
38:2g:18:TYR:HB3	38:2g:59:LEU:HD13	2.01	0.42
53:2y:30:TRP:HD1	53:2y:89:GLN:HG3	1.84	0.42
1:1A:78:A:H2'	1:1A:79:G:C8	2.55	0.41
1:1A:594:U:H2'	1:1A:595:C:C6	2.55	0.41
1:1A:971:C:H2'	1:1A:972:G:O4'	2.20	0.41
1:1A:1541:G:H3'	1:1A:1542:A:H2'	2.00	0.41
1:1A:1549:C:H2'	1:1A:1550:C:C6	2.55	0.41
3:1D:175:LEU:HD12	3:1D:185:VAL:HG21	2.02	0.41
6:1G:56:ALA:HA	6:1G:59:GLU:OE1	2.20	0.41
7:1H:137:ASP:HB3	7:1H:140:LYS:HB3	2.01	0.41
10:1O:39:ILE:HD12	10:1O:41:ALA:HB2	2.02	0.41
14:1S:58:LEU:HA	14:1S:58:LEU:HD23	1.64	0.41
32:1a:79:G:N1	32:1a:90:U:C2	2.88	0.41
32:1a:153:C:H42	32:1a:169:C:H42	1.67	0.41
32:1a:392:G:H2'	32:1a:393:A:H8	1.85	0.41
32:1a:412:A:OP2	35:1d:35:ARG:NH2	2.53	0.41
33:1b:152:PHE:CE1	33:1b:155:LEU:HD23	2.55	0.41
35:1d:164:ALA:O	35:1d:168:ARG:HG2	2.19	0.41
37:1f:89:MET:HE1	49:1r:72:ARG:CB	2.51	0.41
39:1h:85:ARG:NH2	39:1h:87:SER:O	2.52	0.41
43:1l:47:LYS:HA	43:1l:48:PRO:HA	1.81	0.41
1:2A:185:U:H2'	1:2A:186:G:H8	1.84	0.41
1:2A:246:C:N4	60:2A:3935:HOH:O	2.23	0.41
1:2A:272(E):G:C2	1:2A:364:C:C2	3.07	0.41
1:2A:1021:A:H3'	1:2A:1021:A:N3	2.34	0.41
1:2A:1268:A:C2	1:2A:2013:A:C4	3.08	0.41
1:2A:1657:C:H2'	1:2A:1658:C:H6	1.85	0.41
1:2A:2134:A:C5	1:2A:2157:G:H5'	2.55	0.41
1:2A:2137:C:N3	1:2A:2154:G:O6	2.53	0.41
1:2A:2405:G:O2'	1:2A:2406:U:OP1	2.26	0.41
1:2A:2717:G:H2'	1:2A:2718:G:O4'	2.19	0.41
5:2F:75:HIS:ND1	60:2F:405:HOH:O	2.36	0.41
5:2F:178:PRO:HB2	5:2F:201:VAL:HG21	2.01	0.41
14:2S:35:ILE:HD11	14:2S:97:ARG:HE	1.84	0.41
17:2V:18:LEU:HD22	17:2V:20:LEU:HB2	2.02	0.41
32:2a:475:G:O2'	32:2a:476:G:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:608:A:H4'	47:2p:32:TYR:OH	2.20	0.41
32:2a:848:C:O5'	32:2a:848:C:H6	2.02	0.41
32:2a:869:G:H8	32:2a:869:G:O5'	2.03	0.41
32:2a:884:U:H4'	32:2a:885:G:H5''	2.02	0.41
32:2a:1260:C:O5'	32:2a:1284:C:H4'	2.19	0.41
32:2a:1292:U:H5'	40:2i:38:GLN:HE22	1.85	0.41
33:2b:137:ARG:O	33:2b:141:GLU:HG3	2.20	0.41
36:2e:60:TYR:CE2	36:2e:64:ARG:HD3	2.55	0.41
38:2g:149:ARG:HB3	42:2k:59:TYR:CE2	2.55	0.41
1:1A:279:C:N4	1:1A:361:G:H1	2.18	0.41
1:1A:363(B):G:C6	1:1A:363(C):G:N7	2.88	0.41
1:1A:2562:U:O2'	10:1O:23:ARG:HD3	2.20	0.41
3:1D:34:VAL:HG12	3:1D:63:ARG:HG3	2.01	0.41
3:1D:242:ARG:NH1	60:1D:418:HOH:O	2.49	0.41
6:1G:11:TYR:OH	6:1G:33:ARG:HB3	2.20	0.41
32:1a:195:A:N3	32:1a:222:U:O2'	2.44	0.41
32:1a:359:U:H2'	32:1a:360:A:H8	1.84	0.41
32:1a:568:G:O2'	32:1a:574:A:N1	2.51	0.41
32:1a:593:G:H2'	32:1a:594:G:O4'	2.20	0.41
32:1a:602:A:C2	32:1a:603:U:C2	3.09	0.41
32:1a:721:G:H4'	32:1a:722:A:O4'	2.20	0.41
32:1a:1118:C:H2'	32:1a:1119:C:C6	2.55	0.41
32:1a:1376:U:H2'	32:1a:1377:A:C8	2.55	0.41
32:1a:1511:G:H2'	32:1a:1512:U:O4'	2.21	0.41
34:1c:71:ALA:O	34:1c:73:PRO:HD3	2.21	0.41
35:1d:119:GLN:HG3	35:1d:123:HIS:CE1	2.55	0.41
38:1g:78:ARG:NH1	38:1g:154:TYR:O	2.54	0.41
48:1q:62:SER:OG	48:1q:72:ARG:HG3	2.20	0.41
51:1t:42:GLN:NE2	51:1t:46:GLU:OE1	2.53	0.41
1:2A:1754:C:H2'	1:2A:1755:A:C8	2.56	0.41
1:2A:1790:C:H5''	1:2A:1791:A:OP1	2.20	0.41
1:2A:1881:C:H2'	1:2A:1882:C:C6	2.54	0.41
1:2A:2552:2MU:H2'	1:2A:2554:U:OP2	2.19	0.41
1:2A:2695:C:H2'	1:2A:2696:U:C6	2.55	0.41
1:2A:2758:A:C2	1:2A:2759:G:H1'	2.55	0.41
5:2F:202:PHE:O	5:2F:206:ILE:HG12	2.20	0.41
7:2H:126:PRO:HD2	7:2H:130:ARG:HB3	2.00	0.41
7:2H:149:ARG:HD3	7:2H:164:TYR:CE2	2.55	0.41
9:2N:69:GLN:O	9:2N:71:ILE:HD12	2.20	0.41
11:2P:6:LEU:HA	11:2P:6:LEU:HD23	1.80	0.41
26:24:50:VAL:HG11	44:2m:64:TRP:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:434:U:H2'	32:2a:435:C:C6	2.54	0.41
32:2a:517:G:N2	32:2a:533:A:OP2	2.39	0.41
32:2a:865:A:H2'	32:2a:866:C:O4'	2.19	0.41
32:2a:953:G:H4'	53:2y:6:THR:OG1	2.20	0.41
32:2a:1145:C:O4'	32:2a:1146:A:H8	2.03	0.41
32:2a:1263:C:H2'	32:2a:1264:C:H6	1.85	0.41
32:2a:1426:C:H2'	32:2a:1427:U:H6	1.85	0.41
32:2a:1530:G:H2'	32:2a:1531:A:C8	2.55	0.41
33:2b:127:ILE:C	33:2b:129:GLU:H	2.28	0.41
35:2d:99:SER:O	35:2d:140:VAL:HG23	2.19	0.41
35:2d:102:ASP:OD1	35:2d:103:ASN:N	2.53	0.41
39:2h:124:ALA:HB1	39:2h:129:VAL:O	2.20	0.41
51:2t:14:LYS:HA	51:2t:17:ARG:CZ	2.50	0.41
51:2t:20:LEU:O	51:2t:24:LEU:HD22	2.19	0.41
1:1A:26:G:C6	1:1A:27:G:C6	3.08	0.41
1:1A:747:U:O2	1:1A:2014:A:H1'	2.20	0.41
1:1A:1111:A:N3	1:1A:1112:G:H1'	2.35	0.41
1:1A:1335:U:H2'	1:1A:1336:A:O4'	2.20	0.41
1:1A:1810:A:H2'	1:1A:1811:G:O4'	2.20	0.41
1:1A:2187:G:N7	1:1A:2188:C:C4	2.88	0.41
1:1A:2254:C:O5'	1:1A:2254:C:H6	2.03	0.41
1:1A:2353:G:H1'	22:10:34:GLY:HA3	2.02	0.41
12:1Q:1:MET:HE1	12:1Q:45:GLN:HG3	2.02	0.41
16:1U:94:ASN:HB3	17:1V:4:ILE:HD13	2.03	0.41
32:1a:266:G:C5'	32:1a:268:C:H41	2.33	0.41
32:1a:664:G:P	49:1r:64:ARG:HH21	2.44	0.41
32:1a:939:G:C6	32:1a:940:C:C4	3.09	0.41
33:1b:69:LEU:HD12	33:1b:155:LEU:HD22	2.02	0.41
1:2A:185:U:H2'	1:2A:186:G:C8	2.55	0.41
1:2A:297:C:H2'	1:2A:298:G:O4'	2.20	0.41
1:2A:729:G:C5	3:2D:208:LYS:HB2	2.56	0.41
1:2A:952:G:C6	1:2A:966:G:C6	3.08	0.41
1:2A:1837:C:O2'	1:2A:1927:A:N3	2.47	0.41
1:2A:2115:G:H3'	1:2A:2116:G:C5'	2.50	0.41
1:2A:2573:C:OP1	1:2A:2574:G:H5''	2.19	0.41
1:2A:2734:A:H2'	1:2A:2735:G:O4'	2.19	0.41
3:2D:246:PRO:O	3:2D:254:THR:HG22	2.20	0.41
4:2E:56:PRO:C	4:2E:58:ARG:H	2.28	0.41
7:2H:150:ALA:HA	7:2H:153:LYS:HG3	2.03	0.41
11:2P:123:LEU:O	11:2P:144:GLU:N	2.52	0.41
32:2a:51:A:C6	32:2a:353:A:C2	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:300:A:H8	32:2a:300:A:O5'	2.03	0.41
32:2a:1117:G:H4'	40:2i:104:ARG:NH1	2.35	0.41
34:2c:21:ARG:HH22	34:2c:56:ASP:HB3	1.86	0.41
35:2d:200:GLU:O	35:2d:204:ILE:HG12	2.20	0.41
1:1A:184:C:H2'	1:1A:185:U:H6	1.85	0.41
1:1A:1287:A:H8	13:1R:104:ARG:HD3	1.85	0.41
1:1A:1328:G:O2'	1:1A:1329:U:H2'	2.20	0.41
1:1A:1805:U:O2	3:1D:50:THR:HB	2.19	0.41
18:1W:86:LEU:HB2	18:1W:96:ILE:HG13	2.01	0.41
21:1Z:65:GLN:HB3	21:1Z:67:LEU:HD21	2.02	0.41
28:16:38:LYS:HE3	28:16:38:LYS:HB3	1.85	0.41
32:1a:120:A:C6	32:1a:122:G:C2	3.08	0.41
32:1a:551:U:H2'	32:1a:552:U:C6	2.55	0.41
32:1a:675:A:H1'	42:1k:116:HIS:CG	2.55	0.41
32:1a:1205:U:H2'	32:1a:1206:G:H8	1.84	0.41
32:1a:1441:G:H5''	32:1a:1442:G:H5'	2.02	0.41
53:1y:33:HIS:HB3	53:1y:57:PRO:HD3	2.02	0.41
1:2A:36:G:N3	1:2A:450:G:O2'	2.52	0.41
1:2A:686:G:N2	1:2A:788:A:H61	2.19	0.41
1:2A:2641:G:P	9:2N:74:ARG:HH12	2.44	0.41
1:2A:2742:C:OP1	31:29:35:ARG:HD3	2.20	0.41
5:2F:18:ARG:C	5:2F:19:GLU:HG2	2.45	0.41
11:2P:85:LEU:HD13	11:2P:120:ALA:HB2	2.03	0.41
15:2T:46:GLU:O	15:2T:65:LYS:HD2	2.21	0.41
21:2Z:25:PRO:O	21:2Z:85:HIS:HA	2.20	0.41
24:22:35:LEU:HD12	24:22:53:LEU:HD12	2.03	0.41
25:23:5:LYS:HB3	25:23:5:LYS:HE2	1.75	0.41
32:2a:176:C:H2'	32:2a:177:C:H6	1.85	0.41
32:2a:323:U:OP1	51:2t:26:ASN:ND2	2.46	0.41
32:2a:340:U:H2'	32:2a:341:C:C6	2.55	0.41
32:2a:345:C:H5'	32:2a:346:G:C5	2.55	0.41
32:2a:685:G:C2	32:2a:686:U:C4	3.09	0.41
32:2a:849:C:H2'	32:2a:850:U:O4'	2.20	0.41
32:2a:865:A:H5'	32:2a:1078:U:O4	2.20	0.41
32:2a:954:G:O6	44:2m:104:ARG:NH2	2.46	0.41
33:2b:93:VAL:HG21	33:2b:97:TRP:HD1	1.83	0.41
35:2d:208:SER:OG	36:2e:101:ILE:HD12	2.19	0.41
42:2k:83:ILE:HA	42:2k:109:VAL:O	2.20	0.41
45:2n:57:ARG:HE	45:2n:57:ARG:HB2	1.62	0.41
1:1A:662:G:OP1	11:1P:16:ARG:NE	2.42	0.41
1:1A:1064:C:C4	1:1A:1074:G:N1	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2024:G:H2'	1:1A:2025:C:H6	1.86	0.41
1:1A:2427:C:H5''	1:1A:2428:G:OP1	2.20	0.41
1:1A:2543:G:H21	1:1A:2646:C:H5''	1.85	0.41
1:1A:2698:U:H2'	1:1A:2699:C:C6	2.56	0.41
2:1B:21:G:H2'	2:1B:22:U:H6	1.85	0.41
6:1G:155:MET:HE2	6:1G:155:MET:HB3	1.96	0.41
8:1I:14:ASP:N	8:1I:17:GLN:OE1	2.37	0.41
11:1P:95:VAL:HG22	11:1P:125:VAL:HA	2.01	0.41
16:1U:34:LYS:HA	16:1U:34:LYS:HD2	1.68	0.41
21:1Z:150:LEU:HB3	21:1Z:171:ILE:CD1	2.50	0.41
32:1a:195:A:C6	32:1a:196:A:N1	2.88	0.41
32:1a:457:C:H42	32:1a:474:G:H1	1.67	0.41
32:1a:814:A:N7	32:1a:816:A:C4	2.89	0.41
32:1a:1346:A:N1	32:1a:1374:A:H5''	2.35	0.41
35:1d:19:LEU:O	35:1d:21:LEU:N	2.52	0.41
36:1e:116:THR:HG23	36:1e:117:ASP:OD2	2.21	0.41
39:1h:120:THR:HG23	39:1h:123:GLU:HG3	2.02	0.41
53:1y:52:ALA:HB3	53:1y:81:LEU:HD11	2.03	0.41
1:2A:271(B):C:H2'	1:2A:271(C):C:C6	2.55	0.41
1:2A:484:C:H2'	1:2A:485:C:C6	2.55	0.41
1:2A:1075:C:H2'	1:2A:1076:C:H5'	2.03	0.41
1:2A:1683:C:H2'	1:2A:1684:C:C6	2.55	0.41
1:2A:1996:C:H4'	1:2A:1997:G:OP1	2.20	0.41
60:2B:308:HOH:O	6:2G:67:LYS:N	2.37	0.41
3:2D:92:ILE:HD12	3:2D:104:TYR:CD1	2.55	0.41
13:2R:55:ALA:HA	13:2R:80:PHE:CE2	2.55	0.41
13:2R:71:GLN:NE2	60:2R:307:HOH:O	2.52	0.41
32:2a:106:C:O2'	32:2a:379:C:OP1	2.37	0.41
32:2a:275:G:C2	32:2a:276:G:C8	3.08	0.41
32:2a:555:C:H2'	32:2a:556:C:C6	2.55	0.41
34:2c:122:GLU:O	34:2c:126:ARG:HD2	2.20	0.41
35:2d:107:ARG:HG2	35:2d:174:LEU:HD12	2.02	0.41
38:2g:108:ALA:O	38:2g:111:ARG:HG3	2.20	0.41
44:2m:3:ARG:HH21	44:2m:45:VAL:HG12	1.85	0.41
44:2m:108:ARG:HD3	44:2m:108:ARG:HA	1.75	0.41
45:2n:9:LYS:HB3	45:2n:9:LYS:HE2	1.88	0.41
1:1A:296:C:H2'	1:1A:297:C:C6	2.56	0.41
1:1A:524:U:H2'	1:1A:525:U:C6	2.55	0.41
1:1A:692:C:H5''	3:1D:39:LYS:HB3	2.02	0.41
1:1A:1301:A:C8	1:1A:1303:G:C8	3.07	0.41
1:1A:1614:A:P	1:1A:1614:A:H8	2.44	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1688:U:O2	1:1A:1700:A:H5'	2.21	0.41
1:1A:2689:U:H4'	1:1A:2690:C:H5'	2.02	0.41
1:1A:2803:C:H2'	1:1A:2804:C:C6	2.56	0.41
13:1R:62:ALA:O	13:1R:66:VAL:HG23	2.20	0.41
13:1R:83:ILE:O	13:1R:86:ARG:HG2	2.19	0.41
18:1W:68:ARG:NH1	18:1W:111:HIS:HA	2.35	0.41
32:1a:306:G:H3'	32:1a:306:G:OP2	2.21	0.41
32:1a:648:A:H2'	32:1a:649:G:C8	2.55	0.41
32:1a:986:A:C6	32:1a:987:G:C6	3.09	0.41
32:1a:1427:U:H2'	32:1a:1428:A:C8	2.55	0.41
35:1d:64:LEU:HD12	35:1d:68:TYR:HE2	1.84	0.41
35:1d:133:VAL:HG11	35:1d:138:TYR:CD1	2.56	0.41
49:1r:38:GLU:HA	49:1r:41:LYS:HG2	2.02	0.41
1:2A:422:A:H2'	1:2A:423:A:C8	2.56	0.41
1:2A:1667:G:OP1	60:2A:3929:HOH:O	2.22	0.41
1:2A:1932:A:H2'	1:2A:1933:G:O4'	2.21	0.41
1:2A:2047:U:O2'	1:2A:2823:A:N1	2.47	0.41
5:2F:122:LYS:HB3	5:2F:191:ARG:HA	2.02	0.41
5:2F:155:LEU:HD11	5:2F:176:LEU:HD12	2.01	0.41
8:2I:106:GLY:O	60:2I:303:HOH:O	2.22	0.41
14:2S:4:LEU:HD22	14:2S:8:GLU:HB3	2.01	0.41
14:2S:27:SER:HA	14:2S:88:ASP:HB3	2.01	0.41
24:22:12:GLU:HB2	60:22:101:HOH:O	2.20	0.41
32:2a:376:G:H5''	47:2p:5:ARG:HD3	2.03	0.41
32:2a:750:G:N3	46:2o:23:GLY:HA3	2.35	0.41
32:2a:782:A:O3'	32:2a:1515:C:H4'	2.21	0.41
32:2a:926:G:C6	32:2a:1505:G:C5	3.08	0.41
32:2a:1036:G:H3'	32:2a:1037:C:C6	2.55	0.41
32:2a:1190:G:H8	32:2a:1190:G:O5'	2.03	0.41
32:2a:1314:C:H2'	32:2a:1315:U:H6	1.85	0.41
33:2b:97:TRP:CH2	33:2b:173:ALA:HA	2.56	0.41
33:2b:179:LYS:HA	39:2h:72:PRO:HG3	2.03	0.41
34:2c:22:TRP:HB3	34:2c:59:ARG:HB2	2.02	0.41
34:2c:91:LEU:C	34:2c:93:LYS:H	2.28	0.41
43:2l:8:ASN:O	43:2l:12:ARG:HG3	2.20	0.41
52:2u:15:ARG:HG2	52:2u:17:THR:OG1	2.20	0.41
53:2y:37:PRO:HB3	53:2y:54:ILE:HG12	2.03	0.41
1:1A:657:U:H2'	1:1A:658:C:C6	2.56	0.41
1:1A:1920:4OC:O2'	32:1a:1496:C:H4'	2.21	0.41
1:1A:2059:A:O2'	5:1F:69:HIS:HD2	2.04	0.41
1:1A:2129:C:O2	1:1A:2159:G:N1	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1B:29:A:H2'	2:1B:30:C:O4'	2.21	0.41
2:1B:73:A:C4	2:1B:105:A:C2	3.09	0.41
4:1E:77:ILE:HD13	4:1E:195:LEU:HD13	2.03	0.41
8:1I:6:LEU:HD12	8:1I:34:GLY:O	2.21	0.41
12:1Q:35:VAL:HA	12:1Q:101:ARG:O	2.20	0.41
13:1R:1:MET:HE3	13:1R:1:MET:HB2	1.97	0.41
18:1W:18:ARG:NH1	18:1W:76:VAL:O	2.53	0.41
21:1Z:52:SER:HB3	21:1Z:54:HIS:HD1	1.85	0.41
22:10:70:GLN:HG2	22:10:72:ARG:HG3	2.03	0.41
32:1a:1031:G:H2'	32:1a:1032:G:H5'	2.03	0.41
38:1g:6:ARG:H	38:1g:6:ARG:HG3	1.69	0.41
38:1g:90:GLU:H	38:1g:90:GLU:CD	2.28	0.41
40:1i:16:ARG:NH1	40:1i:64:THR:HG21	2.32	0.41
41:1j:30:SER:CB	41:1j:81:THR:HG22	2.50	0.41
43:1l:45:PRO:HG3	43:1l:51:ALA:HB3	2.02	0.41
48:1q:41:LYS:NZ	48:1q:92:ARG:HH21	2.18	0.41
52:1u:17:THR:HG22	52:1u:18:TYR:H	1.85	0.41
53:1y:23:ARG:HD3	53:1y:23:ARG:HA	1.76	0.41
1:2A:121:G:H4'	1:2A:149:A:H5'	2.02	0.41
1:2A:469:G:O6	29:27:37:LYS:NZ	2.48	0.41
1:2A:620:G:N3	1:2A:620:G:H5'	2.36	0.41
1:2A:840:C:H2'	1:2A:841:A:H8	1.86	0.41
1:2A:985:C:H2'	1:2A:986:C:C6	2.54	0.41
1:2A:1065:U:H4'	1:2A:1066:U:O5'	2.21	0.41
1:2A:2573:C:H1'	60:2A:5214:HOH:O	2.20	0.41
5:2F:135:LYS:HB2	5:2F:138:GLU:CD	2.46	0.41
12:2Q:93:TYR:OH	21:2Z:194:PRO:HG2	2.20	0.41
19:2X:20:GLY:O	19:2X:25:LYS:N	2.49	0.41
32:2a:180:U:H2'	32:2a:181:G:H5'	2.01	0.41
32:2a:814:A:N7	32:2a:816:A:C4	2.89	0.41
32:2a:1228:C:P	44:2m:108:ARG:HH12	2.44	0.41
32:2a:1277:C:O2'	32:2a:1279:A:C8	2.71	0.41
46:2o:85:LEU:HB3	46:2o:87:ILE:HG13	2.03	0.41
1:1A:311:A:C6	1:1A:328:U:C4	3.09	0.41
1:1A:1021:A:N3	1:1A:1021:A:H3'	2.35	0.41
1:1A:1495:A:C6	1:1A:1496:A:C6	3.08	0.41
1:1A:1890:A:N7	60:1A:4485:HOH:O	2.37	0.41
1:1A:2273:A:H2'	1:1A:2274:A:C8	2.56	0.41
1:1A:2705:A:H2'	1:1A:2706:G:O4'	2.20	0.41
6:1G:51:ARG:C	6:1G:53:LEU:H	2.29	0.41
6:1G:179:PRO:HB2	26:14:42:PHE:HE2	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:38:LEU:HB3	8:1I:40:THR:HG22	2.01	0.41
12:1Q:103:MET:HE2	12:1Q:104:PHE:CE2	2.54	0.41
14:1S:25:ARG:HD3	14:1S:42:ASP:OD1	2.21	0.41
25:13:4:LEU:O	25:13:36:VAL:HA	2.21	0.41
32:1a:189(F):U:O4	48:1q:72:ARG:NH1	2.54	0.41
32:1a:1151:A:H4'	41:1j:39:PRO:HB2	2.02	0.41
32:1a:1228:C:P	44:1m:108:ARG:HH22	2.44	0.41
33:1b:55:PHE:HB3	33:1b:221:LEU:HD11	2.03	0.41
34:1c:62:ASP:O	34:1c:97:LYS:HB2	2.20	0.41
34:1c:124:ILE:H	34:1c:124:ILE:HG12	1.61	0.41
1:2A:65:C:H5'	19:2X:71:GLY:HA3	2.03	0.41
1:2A:581:C:H2'	1:2A:582:G:H8	1.86	0.41
1:2A:805:G:H5''	11:2P:38:GLN:HG3	2.02	0.41
1:2A:872:A:H2'	1:2A:873:G:C8	2.56	0.41
1:2A:2059:A:O3'	5:2F:69:HIS:HA	2.20	0.41
1:2A:2142:C:N3	1:2A:2149:G:O6	2.54	0.41
1:2A:2184:G:H2'	1:2A:2185:C:O4'	2.21	0.41
1:2A:2219:G:C2	1:2A:2220:G:C8	3.09	0.41
1:2A:2281:C:OP1	21:2Z:201:LYS:NZ	2.54	0.41
1:2A:2344:U:H3'	28:26:37:ARG:O	2.21	0.41
1:2A:2416:C:O3'	11:2P:65:ARG:NH2	2.54	0.41
5:2F:117:ARG:NH1	5:2F:120:GLU:OE1	2.53	0.41
24:22:2:LYS:N	24:22:5:GLU:OE1	2.49	0.41
24:22:41:ILE:H	24:22:41:ILE:HG13	1.72	0.41
32:2a:4:U:O4	39:2h:105:ARG:HA	2.20	0.41
32:2a:131:C:H2'	32:2a:132:C:H6	1.86	0.41
32:2a:578:C:O2'	32:2a:728:A:N3	2.50	0.41
32:2a:674:G:H1	32:2a:716:A:H61	1.69	0.41
32:2a:977:A:H2'	32:2a:978:A:H5''	2.02	0.41
32:2a:1263:C:H2'	32:2a:1264:C:C6	2.56	0.41
32:2a:1368:G:OP2	40:2i:112:LYS:HG3	2.20	0.41
39:2h:38:ILE:HG21	39:2h:111:ILE:HG23	2.03	0.41
40:2i:85:LEU:HB3	40:2i:92:TYR:CD2	2.55	0.41
51:2t:63:ILE:HD13	51:2t:80:ARG:HB2	2.03	0.41
1:1A:424:G:N7	56:1A:4022:MPD:H52	2.36	0.41
1:1A:560:C:H4'	16:1U:52:ARG:CZ	2.50	0.41
1:1A:1926:U:O2'	1:1A:1928:A:N7	2.43	0.41
1:1A:2147:G:O5'	1:1A:2147:G:H8	2.04	0.41
1:1A:2186:G:C2	1:1A:2187:G:C8	3.09	0.41
1:1A:2650:U:H2'	1:1A:2651:C:C6	2.55	0.41
1:1A:2867:G:N7	60:1A:4474:HOH:O	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1B:7:G:H5''	2:1B:7:G:H8	1.86	0.41
5:1F:11:VAL:O	5:1F:17:ARG:HA	2.21	0.41
5:1F:12:LEU:HD22	5:1F:124:LEU:HD21	2.03	0.41
6:1G:46:ALA:HB3	6:1G:53:LEU:HD23	2.02	0.41
8:1I:81:VAL:HG22	8:1I:145:VAL:O	2.21	0.41
11:1P:64:LYS:HE2	30:18:12:LYS:HB3	2.03	0.41
12:1Q:135:ASP:CG	21:1Z:49:ARG:HH12	2.28	0.41
14:1S:32:LEU:HD23	14:1S:32:LEU:HA	1.90	0.41
17:1V:10:LYS:HZ2	17:1V:10:LYS:HG3	1.81	0.41
19:1X:31:HIS:HD2	19:1X:33:LYS:H	1.67	0.41
21:1Z:97:GLU:HA	21:1Z:126:VAL:O	2.21	0.41
21:1Z:146:ILE:HA	21:1Z:147:GLY:HA2	1.61	0.41
23:11:64:ALA:HA	23:11:67:ILE:HG13	2.02	0.41
26:14:46:GLN:O	26:14:48:ARG:N	2.54	0.41
32:1a:401:C:H2'	32:1a:402:G:C8	2.56	0.41
32:1a:540:G:H2'	32:1a:541:G:O4'	2.20	0.41
32:1a:553:A:H2'	32:1a:554:C:O4'	2.21	0.41
32:1a:657:G:C2	32:1a:658:G:C8	3.08	0.41
32:1a:833:U:H2'	32:1a:834:C:C6	2.56	0.41
32:1a:834:C:C2	32:1a:853:G:C2	3.09	0.41
32:1a:1160:G:OP1	33:1b:133:LYS:NZ	2.54	0.41
32:1a:1273:G:C2	32:1a:1274:G:H1'	2.56	0.41
32:1a:1400:5MC:C2	53:1y:63:ALA:HA	2.56	0.41
38:1g:13:GLN:HG2	38:1g:14:PRO:HD2	2.03	0.41
51:1t:33:ILE:HG12	51:1t:62:LEU:HB3	2.03	0.41
51:1t:58:LYS:HD2	51:1t:58:LYS:HA	1.81	0.41
1:2A:451:C:H4'	5:2F:52:LYS:HE2	2.03	0.41
1:2A:638:G:C5	1:2A:639:U:C4	3.09	0.41
1:2A:875:G:H5''	21:2Z:149:SER:CB	2.51	0.41
1:2A:910:A:C6	1:2A:911:A:C6	3.09	0.41
1:2A:978:G:C2	1:2A:986:C:C2	3.09	0.41
1:2A:1062:G:H2'	1:2A:1063:G:H8	1.86	0.41
1:2A:1105:U:H2'	1:2A:1106:G:O4'	2.21	0.41
1:2A:1110:G:H1'	1:2A:1111:A:C8	2.56	0.41
1:2A:1130:U:O2	4:2E:149:ARG:NH2	2.49	0.41
1:2A:1518:U:H2'	1:2A:1519:G:O4'	2.21	0.41
1:2A:2032:G:O2'	4:2E:145:LYS:HE3	2.20	0.41
1:2A:2104:G:N2	1:2A:2105:C:C4	2.85	0.41
1:2A:2104:G:H22	1:2A:2184:G:H1	1.69	0.41
1:2A:2286:A:OP1	28:26:29:ASN:ND2	2.50	0.41
1:2A:2366:A:OP2	60:2A:3925:HOH:O	2.22	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2864:G:OP1	15:2T:119:LYS:HE3	2.21	0.41
2:2B:18:G:H2'	2:2B:19:G:H8	1.85	0.41
3:2D:68:LYS:O	3:2D:70:TRP:N	2.49	0.41
6:2G:16:ARG:HB3	6:2G:17:PRO:HD3	2.02	0.41
6:2G:83:ARG:H	6:2G:86:MET:HE3	1.86	0.41
7:2H:46:GLU:HB2	7:2H:49:VAL:HG12	2.03	0.41
8:2I:7:GLU:HB3	60:2I:301:HOH:O	2.20	0.41
8:2I:68:LEU:HB3	8:2I:138:ILE:HD11	2.03	0.41
10:2O:88:ASN:HB3	10:2O:94:ARG:HD3	2.01	0.41
12:2Q:137:TYR:CE1	21:2Z:83:PRO:HB3	2.55	0.41
13:2R:56:LYS:NZ	13:2R:90:ARG:O	2.54	0.41
20:2Y:56:PRO:C	20:2Y:58:GLY:H	2.29	0.41
30:28:61:LEU:O	30:28:63:PRO:HD3	2.20	0.41
32:2a:77:G:C6	32:2a:93:G:C6	3.09	0.41
32:2a:221:C:H2'	32:2a:222:U:H6	1.86	0.41
32:2a:451:A:N6	32:2a:480:U:H2'	2.36	0.41
32:2a:580:U:OP1	46:2o:54:ARG:NH2	2.54	0.41
32:2a:995:C:N3	32:2a:1046:A:O2'	2.43	0.41
32:2a:1040:U:H2'	32:2a:1041:A:O4'	2.21	0.41
34:2c:11:ARG:NH2	34:2c:177:THR:O	2.53	0.41
35:2d:141:ARG:N	35:2d:144:ASP:OD2	2.52	0.41
38:2g:27:ILE:HD12	38:2g:40:ALA:HA	2.02	0.41
41:2j:33:GLN:H	41:2j:75:ILE:H	1.67	0.41
41:2j:63:PHE:HE1	45:2n:58:LYS:HG2	1.86	0.41
45:2n:42:ILE:H	45:2n:42:ILE:HG13	1.65	0.41
48:2q:4:LYS:HD2	48:2q:4:LYS:HA	1.88	0.41
1:1A:567:A:OP2	11:1P:29:LYS:NZ	2.41	0.41
1:1A:764:A:O4'	3:1D:213:ARG:HG3	2.21	0.41
1:1A:1066:U:H2'	1:1A:1067:A:C2	2.56	0.41
1:1A:1583:A:H5'	1:1A:1584:C:OP1	2.20	0.41
1:1A:2093:G:C6	1:1A:2225:A:C8	3.09	0.41
1:1A:2743:C:H2'	1:1A:2744:G:O4'	2.21	0.41
4:1E:48:GLN:NE2	4:1E:78:LEU:HG	2.36	0.41
5:1F:60:SER:O	5:1F:77:ASP:HB2	2.21	0.41
11:1P:39:LYS:HB2	11:1P:45:LEU:HD21	2.03	0.41
21:1Z:45:ASP:O	21:1Z:49:ARG:HG3	2.21	0.41
25:13:6:VAL:O	25:13:34:GLU:HA	2.21	0.41
27:15:34:PRO:HG2	27:15:35:GLU:OE1	2.21	0.41
32:1a:226:G:N2	32:1a:227:G:H1'	2.36	0.41
32:1a:673:G:H5''	37:1f:87:ARG:CZ	2.51	0.41
32:1a:1479:C:H2'	32:1a:1480:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:1h:6:ILE:HD12	39:1h:35:ILE:HD12	2.01	0.41
41:1j:33:GLN:H	41:1j:76:ASN:CB	2.34	0.41
1:2A:118:A:O5'	1:2A:119:A:H5''	2.21	0.41
1:2A:127:A:H5''	1:2A:128:C:O4'	2.21	0.41
1:2A:578:A:OP1	1:2A:1255:U:O2'	2.34	0.41
1:2A:1607:C:H4'	1:2A:1608:A:O5'	2.21	0.41
1:2A:2076:U:O5'	1:2A:2076:U:H6	2.03	0.41
5:2F:11:VAL:HA	5:2F:125:LEU:O	2.21	0.41
32:2a:34:C:H2'	32:2a:35:G:C8	2.55	0.41
32:2a:187:C:O2'	51:2t:89:ARG:HD3	2.21	0.41
32:2a:277:C:OP1	48:2q:68:ARG:NH2	2.49	0.41
32:2a:696:A:N1	32:2a:797:C:O2'	2.43	0.41
32:2a:745:C:H4'	32:2a:836:G:N2	2.36	0.41
32:2a:1184:G:H2'	32:2a:1185:G:C8	2.56	0.41
37:2f:84:ASN:O	37:2f:86:ARG:HG3	2.21	0.41
40:2i:25:LYS:H	40:2i:60:ASP:CB	2.34	0.41
1:1A:190:A:OP2	23:11:39:LYS:HE3	2.22	0.40
1:1A:2055:C:H5'	1:1A:2056:G:O5'	2.20	0.40
2:1B:24:G:N7	2:1B:56:G:H2'	2.37	0.40
3:1D:16:MET:HE3	3:1D:16:MET:HB2	1.94	0.40
3:1D:228:PRO:HD3	3:1D:235:GLY:CA	2.51	0.40
5:1F:164:ARG:CD	57:1F:319:ARG:HH12	2.30	0.40
8:1I:82:ARG:O	8:1I:89:TYR:HD2	2.04	0.40
32:1a:56:U:H2'	32:1a:57:G:H8	1.86	0.40
32:1a:486:U:H2'	32:1a:487:A:C8	2.55	0.40
32:1a:581:G:OP1	46:1o:61:GLY:HA3	2.22	0.40
32:1a:598:U:H2'	32:1a:599:C:H6	1.85	0.40
32:1a:848:C:H2'	32:1a:849:C:O4'	2.21	0.40
32:1a:865:A:C2	32:1a:918:A:H4'	2.56	0.40
33:1b:18:GLY:HA3	33:1b:42:ILE:HG13	2.03	0.40
37:1f:48:LEU:H	37:1f:48:LEU:HG	1.74	0.40
39:1h:82:HIS:CD2	39:1h:82:HIS:C	2.99	0.40
43:1l:102:ARG:HD2	43:1l:102:ARG:HA	1.50	0.40
44:1m:30:ALA:O	44:1m:34:LEU:HD12	2.21	0.40
47:1p:79:VAL:HG23	47:1p:80:PHE:CD1	2.56	0.40
53:1y:62:VAL:O	53:1y:84:GLN:NE2	2.43	0.40
1:2A:228:A:H2'	1:2A:229:A:H5'	2.02	0.40
1:2A:1264:G:H2'	1:2A:2014:A:N6	2.36	0.40
1:2A:1324:G:C4	1:2A:1328:G:O6	2.74	0.40
1:2A:1779:U:H2'	60:2A:4057:HOH:O	2.21	0.40
1:2A:2031:A:N3	1:2A:2455:G:O2'	2.45	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2120:G:H2'	1:2A:2121:G:C8	2.56	0.40
1:2A:2131:G:OP1	1:2A:2132:U:H5'	2.22	0.40
1:2A:2319:G:H22	14:2S:3:ARG:CD	2.34	0.40
4:2E:11:MET:HE2	4:2E:11:MET:HB3	1.88	0.40
5:2F:129:PHE:O	5:2F:132:VAL:HG22	2.21	0.40
7:2H:13:LYS:HE3	7:2H:13:LYS:HB2	1.94	0.40
9:2N:108:PRO:O	9:2N:113:GLY:HA3	2.21	0.40
10:2O:20:MET:HE3	10:2O:22:ILE:HG22	2.02	0.40
17:2V:5:VAL:HG12	17:2V:37:VAL:HG22	2.03	0.40
21:2Z:132:ASN:O	21:2Z:134:PRO:HD3	2.21	0.40
26:24:50:VAL:HG22	44:2m:62:ASN:O	2.21	0.40
32:2a:486:U:H2'	32:2a:487:A:H8	1.86	0.40
32:2a:922:G:C6	32:2a:923:A:C6	3.09	0.40
32:2a:1086:U:H2'	32:2a:1087:G:H8	1.87	0.40
33:2b:120:ALA:O	33:2b:125:PRO:HG2	2.21	0.40
33:2b:186:ALA:HB3	33:2b:197:VAL:HG11	2.03	0.40
36:2e:102:ALA:O	36:2e:107:ARG:NH1	2.54	0.40
38:2g:108:ALA:C	38:2g:110:GLN:H	2.28	0.40
41:2j:16:LEU:HA	41:2j:16:LEU:HD23	1.80	0.40
42:2k:79:SER:HB2	42:2k:104:GLN:HB3	2.03	0.40
43:2l:10:LEU:HD23	43:2l:10:LEU:HA	1.76	0.40
44:2m:14:ARG:NE	44:2m:42:ALA:HA	2.35	0.40
1:1A:124:G:OP1	1:1A:1376:C:O2'	2.37	0.40
1:1A:274:G:H2'	1:1A:275:G:C8	2.56	0.40
1:1A:484:C:H2'	1:1A:485:C:C6	2.56	0.40
1:1A:963:U:H2'	1:1A:964:C:C6	2.56	0.40
1:1A:1257:C:H4'	5:1F:83:PHE:CD1	2.55	0.40
1:1A:1341:U:O4'	19:1X:57:LEU:HD23	2.20	0.40
1:1A:1906:G:H5''	1:1A:1929:G:O2'	2.21	0.40
1:1A:2357:U:O2'	60:1A:4213:HOH:O	2.21	0.40
2:1B:78:A:C2	2:1B:100:A:C4	3.10	0.40
3:1D:245:PRO:HA	3:1D:246:PRO:HD3	1.91	0.40
13:1R:98:LEU:HD23	13:1R:98:LEU:HA	1.91	0.40
14:1S:24:LEU:O	14:1S:85:VAL:HG22	2.21	0.40
15:1T:109:GLU:O	15:1T:113:LYS:HG2	2.22	0.40
23:11:73:LEU:HD23	23:11:73:LEU:HA	1.86	0.40
26:14:58:ARG:HG3	50:1s:67:VAL:HB	2.03	0.40
27:15:37:LYS:HD3	27:15:37:LYS:HA	1.83	0.40
28:16:23:THR:OG1	28:16:24:GLU:N	2.54	0.40
32:1a:67:C:O2'	32:1a:171:A:H1'	2.21	0.40
32:1a:1052:U:O2'	32:1a:1055:A:OP2	2.30	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1084:G:C5	32:1a:1085:U:C4	3.08	0.40
32:1a:1250:A:H4'	40:1i:68:GLY:N	2.36	0.40
32:1a:1255:G:N7	41:1j:43:ARG:NH2	2.66	0.40
37:1f:1:MET:HE3	37:1f:66:GLU:CG	2.52	0.40
43:1l:35:GLY:HA3	43:1l:60:LEU:HD23	2.03	0.40
1:2A:27:G:O2'	1:2A:28:A:OP2	2.38	0.40
1:2A:118:A:N3	1:2A:178:G:H1'	2.36	0.40
1:2A:630:G:N2	1:2A:633:A:OP2	2.48	0.40
1:2A:637:A:OP1	11:2P:133:SER:OG	2.28	0.40
1:2A:1450:G:H2'	1:2A:1450(A):C:C6	2.56	0.40
1:2A:1882:C:H2'	1:2A:1883:G:O4'	2.21	0.40
4:2E:119:ARG:CG	4:2E:160:TYR:HB2	2.51	0.40
14:2S:32:LEU:O	14:2S:62:LYS:NZ	2.43	0.40
14:2S:49:VAL:HG21	14:2S:77:ALA:HB2	2.03	0.40
14:2S:83:LYS:HB3	14:2S:111:GLU:OE1	2.21	0.40
17:2V:97:LYS:HD3	17:2V:97:LYS:HA	1.80	0.40
21:2Z:77:ASP:N	21:2Z:82:ARG:O	2.46	0.40
26:24:12:ALA:HB3	26:24:26:SER:HB3	2.02	0.40
32:2a:663:A:H5''	49:2r:61:LYS:NZ	2.35	0.40
32:2a:691:G:H1'	32:2a:696:A:N6	2.37	0.40
32:2a:935:A:H8	32:2a:935:A:O5'	2.03	0.40
32:2a:1013:G:N2	32:2a:1015:A:H3'	2.36	0.40
32:2a:1490:C:H2'	32:2a:1491:G:H8	1.86	0.40
33:2b:17:PHE:CG	33:2b:18:GLY:N	2.89	0.40
33:2b:102:LEU:HB3	33:2b:180:LEU:CD1	2.52	0.40
33:2b:196:LEU:HD12	33:2b:196:LEU:HA	1.73	0.40
34:2c:5:ILE:HD13	41:2j:51:ARG:NH2	2.33	0.40
40:2i:108:VAL:HG22	40:2i:109:VAL:H	1.86	0.40
41:2j:49:VAL:HG22	41:2j:50:ILE:O	2.21	0.40
42:2k:86:GLY:H	42:2k:112:THR:HG1	1.67	0.40
47:2p:8:ARG:HB3	47:2p:28:ARG:NH1	2.35	0.40
51:2t:100:ILE:HB	51:2t:101:GLY:H	1.65	0.40
52:2u:9:ARG:O	52:2u:13:ILE:HG13	2.20	0.40
1:1A:74:A:H5'	1:1A:75:G:O4'	2.22	0.40
1:1A:274:G:H2'	1:1A:275:G:N7	2.37	0.40
1:1A:581:C:H2'	1:1A:582:G:C8	2.56	0.40
1:1A:1701:A:OP2	60:1A:4225:HOH:O	2.22	0.40
1:1A:1707:G:C5	1:1A:1756:G:C6	3.10	0.40
1:1A:2667:C:H2'	1:1A:2668:G:O4'	2.22	0.40
1:1A:2761:G:H1'	7:1H:143:GLN:OE1	2.21	0.40
5:1F:64:ILE:HD12	5:1F:65:TRP:CZ3	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1G:126:ASP:HB2	6:1G:130:ASN:HB2	2.04	0.40
9:1N:60:ILE:HG13	9:1N:61:ARG:H	1.86	0.40
23:11:2:SER:HA	23:11:43:TYR:CD1	2.56	0.40
25:13:7:LYS:HE3	25:13:32:GLN:NE2	2.36	0.40
26:14:69:LYS:HB3	26:14:69:LYS:HE2	1.81	0.40
32:1a:61:G:H2'	32:1a:62:U:O4'	2.21	0.40
32:1a:502:G:H2'	32:1a:503:C:O4'	2.21	0.40
32:1a:971:G:H22	32:1a:1363(A):A:P	2.44	0.40
32:1a:998:G:H2'	32:1a:999:C:C6	2.57	0.40
32:1a:1005:A:C2	32:1a:1025:U:H1'	2.56	0.40
32:1a:1261:A:H3'	32:1a:1262:C:C6	2.56	0.40
33:1b:19:HIS:NE2	33:1b:189:ASP:OD2	2.54	0.40
37:1f:97:PHE:HB3	49:1r:31:LEU:CB	2.51	0.40
38:1g:38:LEU:O	38:1g:42:ILE:HG13	2.21	0.40
39:1h:20:TYR:HA	39:1h:65:TYR:CZ	2.56	0.40
39:1h:95:VAL:CB	39:1h:99:GLU:HG3	2.50	0.40
44:1m:79:LYS:HA	44:1m:82:MET:HE2	2.03	0.40
50:1s:41:VAL:HG12	50:1s:44:MET:HG3	2.03	0.40
1:2A:522:G:H2'	1:2A:523:C:H6	1.85	0.40
1:2A:748:G:C8	18:2W:89:ALA:HB1	2.57	0.40
1:2A:2155:G:H2'	1:2A:2156:G:O4'	2.21	0.40
1:2A:2611:U:C4	27:25:3:LYS:HG2	2.57	0.40
1:2A:2712:U:H2'	1:2A:2714:G:H5''	2.03	0.40
6:2G:106:LEU:HD12	6:2G:110:ALA:HB3	2.04	0.40
7:2H:175:LYS:HB3	7:2H:175:LYS:HE2	1.89	0.40
12:2Q:42:ILE:HG13	12:2Q:97:VAL:HG21	2.03	0.40
21:2Z:59:LEU:HD23	21:2Z:59:LEU:HA	1.83	0.40
32:2a:598:U:H2'	32:2a:599:C:H6	1.86	0.40
32:2a:874:G:O2'	32:2a:875:C:H5'	2.21	0.40
32:2a:1269:A:N1	32:2a:1312:G:O2'	2.43	0.40
32:2a:1441:G:H8	32:2a:1441:G:O5'	2.03	0.40
33:2b:187:LEU:HB2	33:2b:201:ILE:HB	2.02	0.40
34:2c:148:GLY:HA3	34:2c:172:ARG:O	2.21	0.40
35:2d:3:ARG:NH1	35:2d:115:ARG:HD3	2.35	0.40
38:2g:29:LYS:HA	38:2g:29:LYS:HD2	1.83	0.40
43:2l:34:ARG:O	43:2l:61:THR:HG23	2.20	0.40
43:2l:53:ARG:HD2	43:2l:93:LEU:HG	2.04	0.40
50:2s:22:LEU:HD12	50:2s:31:ILE:HD11	2.02	0.40
51:2t:13:LEU:O	51:2t:17:ARG:HG3	2.21	0.40
1:1A:1171:G:H3'	1:1A:1173:G:H5'	2.02	0.40
1:1A:1178:C:H2'	1:1A:1179:C:H6	1.78	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2406:U:C4	11:1P:72:PRO:HD2	2.56	0.40
56:1A:4022:MPD:H51	60:1A:6360:HOH:O	2.21	0.40
2:1B:88:C:H2'	2:1B:89:G:O4'	2.21	0.40
4:1E:170:LEU:HB3	4:1E:184:VAL:HG13	2.03	0.40
5:1F:53:THR:HB	5:1F:56:GLU:OE1	2.22	0.40
6:1G:50:ALA:C	6:1G:52:ILE:N	2.79	0.40
15:1T:101:PHE:O	60:1T:302:HOH:O	2.22	0.40
21:1Z:52:SER:HB3	21:1Z:54:HIS:ND1	2.35	0.40
23:11:65:SER:HA	60:11:218:HOH:O	2.21	0.40
24:12:44:LEU:HD12	24:12:44:LEU:HA	1.79	0.40
26:14:40:HIS:HB3	26:14:43:TYR:CD2	2.55	0.40
32:1a:343:U:O2'	32:1a:346:G:O6	2.39	0.40
32:1a:630:G:N2	32:1a:631:G:H1'	2.37	0.40
32:1a:630:G:O2'	32:1a:631:G:H5'	2.21	0.40
32:1a:722:A:C6	32:1a:724:G:C4	3.10	0.40
34:1c:6:HIS:HD2	34:1c:8:ILE:H	1.69	0.40
34:1c:142:MET:HE3	34:1c:142:MET:HB3	1.92	0.40
40:1i:8:GLY:O	40:1i:76:ALA:HB1	2.21	0.40
51:1t:9:ASN:O	51:1t:10:LEU:HD23	2.21	0.40
1:2A:272:G:N7	1:2A:421:U:H2'	2.36	0.40
1:2A:327:G:O6	60:2A:3926:HOH:O	2.22	0.40
1:2A:568:U:OP1	1:2A:945:A:N6	2.52	0.40
1:2A:900:A:O2'	1:2A:901:A:OP1	2.38	0.40
1:2A:1131:G:O6	1:2A:2040:C:H1'	2.22	0.40
1:2A:1592:C:H2'	1:2A:1593:G:C8	2.57	0.40
1:2A:1684:C:H42	1:2A:1704:G:H1	1.69	0.40
1:2A:2065:C:H2'	1:2A:2066:C:C6	2.56	0.40
1:2A:2657:A:O2'	7:2H:160:LYS:NZ	2.48	0.40
1:2A:2768:C:H2'	1:2A:2769:C:O4'	2.21	0.40
2:2B:61:G:C6	2:2B:62:C:C4	3.09	0.40
4:2E:27:LEU:HD12	4:2E:180:ASN:HB2	2.04	0.40
5:2F:172:TRP:H	5:2F:172:TRP:CD1	2.39	0.40
6:2G:106:LEU:HD13	6:2G:141:PHE:CZ	2.57	0.40
6:2G:112:PRO:HB3	26:24:40:HIS:HD2	1.86	0.40
7:2H:126:PRO:HB2	7:2H:130:ARG:HE	1.86	0.40
10:2O:29:ASN:OD1	60:2O:303:HOH:O	2.22	0.40
12:2Q:111:GLU:OE2	12:2Q:133:ARG:NH2	2.54	0.40
14:2S:20:ARG:HD2	14:2S:20:ARG:HA	1.92	0.40
20:2Y:44:ILE:HA	20:2Y:63:LYS:O	2.21	0.40
32:2a:501:C:H2'	32:2a:502:G:C8	2.56	0.40
32:2a:602:A:H2'	32:2a:603:U:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:939:G:H2'	32:2a:940:C:H6	1.84	0.40
32:2a:1371:G:C6	32:2a:1372:U:C4	3.09	0.40
33:2b:143:GLU:O	33:2b:147:LYS:HG3	2.20	0.40
34:2c:155:GLY:HA3	34:2c:196:LEU:HD23	2.04	0.40
36:2e:137:GLU:O	36:2e:141:GLN:HG3	2.22	0.40
39:2h:20:TYR:HA	39:2h:65:TYR:CE1	2.57	0.40
41:2j:13:HIS:HB3	41:2j:68:HIS:ND1	2.35	0.40
43:2l:52:LEU:HD23	43:2l:52:LEU:HA	1.96	0.40
44:2m:13:LYS:C	44:2m:44:ARG:HD3	2.47	0.40
44:2m:92:HIS:HA	44:2m:110:ARG:NH2	2.37	0.40
47:2p:4:ILE:HA	47:2p:20:VAL:O	2.22	0.40
53:2y:18:GLN:NE2	53:2y:22:ASP:OD1	2.54	0.40
1:1A:297:C:OP1	20:1Y:87:LYS:NZ	2.54	0.40
1:1A:784:A:C6	3:1D:229:VAL:HG11	2.56	0.40
1:1A:1826:G:H4'	3:1D:242:ARG:CZ	2.51	0.40
1:1A:2114:A:H2'	1:1A:2115:G:O4'	2.21	0.40
1:1A:2341:G:N7	60:1A:4503:HOH:O	2.37	0.40
1:1A:2483:C:N3	12:1Q:124:LYS:NZ	2.67	0.40
6:1G:11:TYR:CE2	6:1G:16:ARG:HD3	2.56	0.40
32:1a:373:A:H2'	32:1a:374:A:C8	2.55	0.40
32:1a:407:G:OP1	35:1d:115:ARG:HD3	2.22	0.40
32:1a:714:G:H2'	32:1a:715:A:C8	2.56	0.40
32:1a:1143:G:H2'	32:1a:1144:G:H8	1.86	0.40
35:1d:57:ARG:NE	35:1d:205:GLU:OE1	2.53	0.40
36:1e:37:ARG:HH12	36:1e:111:GLU:HG2	1.87	0.40
37:1f:91:VAL:HG12	37:1f:92:LYS:O	2.21	0.40
38:1g:31:MET:HE1	38:1g:36:LYS:NZ	2.37	0.40
38:1g:152:ALA:O	38:1g:155:ARG:HD3	2.21	0.40
40:1i:4:TYR:HB2	40:1i:19:LEU:HB2	2.04	0.40
40:1i:116:LYS:HA	40:1i:123:PRO:HD3	2.02	0.40
44:1m:4:ILE:HG21	44:1m:57:ARG:HB2	2.03	0.40
47:1p:17:TYR:HE2	47:1p:41:PRO:HG3	1.86	0.40
1:2A:218:A:C2	1:2A:235:U:H4'	2.57	0.40
1:2A:667:U:O4	60:2A:3913:HOH:O	2.20	0.40
1:2A:1431:U:H2'	1:2A:1432:C:C6	2.57	0.40
1:2A:1718:G:H2'	1:2A:1719:G:H8	1.86	0.40
1:2A:1856:G:N7	60:2A:4100:HOH:O	2.37	0.40
1:2A:2115:G:H3'	1:2A:2116:G:H5'	2.03	0.40
1:2A:2387:U:O2'	22:20:41:ARG:NH2	2.54	0.40
1:2A:2536:G:H2'	1:2A:2537:U:C6	2.56	0.40
4:2E:28:ALA:HB3	4:2E:93:VAL:CG1	2.48	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:124:GLU:OE1	7:2H:132:ARG:HD2	2.21	0.40
13:2R:66:VAL:HG11	13:2R:79:LEU:HD23	2.03	0.40
16:2U:49:HIS:O	16:2U:53:ARG:N	2.52	0.40
20:2Y:30:VAL:O	20:2Y:32:PRO:HD3	2.21	0.40
21:2Z:42:VAL:O	21:2Z:46:LYS:NZ	2.54	0.40
32:2a:1270:C:H2'	32:2a:1271:G:C8	2.57	0.40
34:2c:114:PRO:HD3	34:2c:184:TYR:O	2.22	0.40
35:2d:153:ARG:NH1	35:2d:153:ARG:HB3	2.36	0.40
48:2q:82:MET:HA	48:2q:85:VAL:HB	2.02	0.40
53:2y:12:ILE:HG22	53:2y:17:ARG:HG3	2.04	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:82:ARG:NH2	32:2a:56:U:O2'[3_654]	2.12	0.08

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	1D	273/276 (99%)	259 (95%)	14 (5%)	0	100	100
3	2D	273/276 (99%)	252 (92%)	21 (8%)	0	100	100
4	1E	202/206 (98%)	192 (95%)	7 (4%)	3 (2%)	8	10
4	2E	202/206 (98%)	186 (92%)	14 (7%)	2 (1%)	12	17
5	1F	201/210 (96%)	192 (96%)	8 (4%)	1 (0%)	24	34
5	2F	201/210 (96%)	195 (97%)	5 (2%)	1 (0%)	24	34
6	1G	179/182 (98%)	157 (88%)	17 (10%)	5 (3%)	4	3
6	2G	179/182 (98%)	152 (85%)	24 (13%)	3 (2%)	7	8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
7	1H	172/180 (96%)	161 (94%)	9 (5%)	2 (1%)	10	13
7	2H	171/180 (95%)	153 (90%)	13 (8%)	5 (3%)	3	3
8	1I	145/148 (98%)	126 (87%)	18 (12%)	1 (1%)	18	25
8	2I	144/148 (97%)	133 (92%)	9 (6%)	2 (1%)	9	11
9	1N	138/140 (99%)	134 (97%)	3 (2%)	1 (1%)	18	25
9	2N	138/140 (99%)	133 (96%)	5 (4%)	0	100	100
10	1O	120/122 (98%)	112 (93%)	7 (6%)	1 (1%)	16	22
10	2O	120/122 (98%)	111 (92%)	8 (7%)	1 (1%)	16	22
11	1P	147/150 (98%)	137 (93%)	10 (7%)	0	100	100
11	2P	147/150 (98%)	135 (92%)	10 (7%)	2 (1%)	9	11
12	1Q	139/141 (99%)	134 (96%)	4 (3%)	1 (1%)	18	25
12	2Q	139/141 (99%)	126 (91%)	13 (9%)	0	100	100
13	1R	116/118 (98%)	113 (97%)	3 (3%)	0	100	100
13	2R	116/118 (98%)	112 (97%)	4 (3%)	0	100	100
14	1S	108/112 (96%)	99 (92%)	8 (7%)	1 (1%)	14	20
14	2S	108/112 (96%)	95 (88%)	13 (12%)	0	100	100
15	1T	129/146 (88%)	122 (95%)	7 (5%)	0	100	100
15	2T	129/146 (88%)	119 (92%)	10 (8%)	0	100	100
16	1U	114/118 (97%)	112 (98%)	2 (2%)	0	100	100
16	2U	114/118 (97%)	111 (97%)	3 (3%)	0	100	100
17	1V	99/101 (98%)	94 (95%)	3 (3%)	2 (2%)	6	6
17	2V	99/101 (98%)	94 (95%)	4 (4%)	1 (1%)	12	17
18	1W	110/113 (97%)	108 (98%)	2 (2%)	0	100	100
18	2W	110/113 (97%)	106 (96%)	4 (4%)	0	100	100
19	1X	93/96 (97%)	88 (95%)	4 (4%)	1 (1%)	11	15
19	2X	93/96 (97%)	87 (94%)	5 (5%)	1 (1%)	11	15
20	1Y	105/110 (96%)	97 (92%)	7 (7%)	1 (1%)	12	17
20	2Y	105/110 (96%)	97 (92%)	7 (7%)	1 (1%)	12	17
21	1Z	201/206 (98%)	185 (92%)	15 (8%)	1 (0%)	24	34
21	2Z	199/206 (97%)	177 (89%)	19 (10%)	3 (2%)	8	10
22	10	75/85 (88%)	72 (96%)	3 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
22	20	75/85 (88%)	69 (92%)	6 (8%)	0	100	100
23	11	95/98 (97%)	94 (99%)	1 (1%)	0	100	100
23	21	95/98 (97%)	88 (93%)	6 (6%)	1 (1%)	11	15
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%)	55 (96%)	2 (4%)	0	100	100
26	14	67/71 (94%)	52 (78%)	8 (12%)	7 (10%)	0	0
26	24	67/71 (94%)	44 (66%)	16 (24%)	7 (10%)	0	0
27	15	57/60 (95%)	57 (100%)	0	0	100	100
27	25	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
28	16	51/54 (94%)	49 (96%)	2 (4%)	0	100	100
28	26	51/54 (94%)	47 (92%)	4 (8%)	0	100	100
29	17	46/49 (94%)	46 (100%)	0	0	100	100
29	27	46/49 (94%)	45 (98%)	1 (2%)	0	100	100
30	18	62/65 (95%)	62 (100%)	0	0	100	100
30	28	62/65 (95%)	61 (98%)	1 (2%)	0	100	100
31	19	35/37 (95%)	34 (97%)	1 (3%)	0	100	100
31	29	35/37 (95%)	33 (94%)	2 (6%)	0	100	100
33	1b	229/256 (90%)	191 (83%)	28 (12%)	10 (4%)	2	1
33	2b	229/256 (90%)	197 (86%)	27 (12%)	5 (2%)	5	5
34	1c	204/239 (85%)	186 (91%)	18 (9%)	0	100	100
34	2c	204/239 (85%)	175 (86%)	27 (13%)	2 (1%)	12	17
35	1d	206/209 (99%)	193 (94%)	12 (6%)	1 (0%)	24	34
35	2d	206/209 (99%)	186 (90%)	19 (9%)	1 (0%)	24	34
36	1e	146/162 (90%)	140 (96%)	6 (4%)	0	100	100
36	2e	146/162 (90%)	134 (92%)	10 (7%)	2 (1%)	9	11
37	1f	98/101 (97%)	92 (94%)	6 (6%)	0	100	100
37	2f	98/101 (97%)	89 (91%)	9 (9%)	0	100	100
38	1g	153/156 (98%)	143 (94%)	9 (6%)	1 (1%)	18	25
38	2g	153/156 (98%)	131 (86%)	19 (12%)	3 (2%)	6	6

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
39	1h	135/138 (98%)	128 (95%)	7 (5%)	0	100	100
39	2h	135/138 (98%)	122 (90%)	11 (8%)	2 (2%)	8	10
40	1i	125/128 (98%)	112 (90%)	12 (10%)	1 (1%)	16	22
40	2i	124/128 (97%)	106 (86%)	15 (12%)	3 (2%)	4	4
41	1j	95/105 (90%)	77 (81%)	13 (14%)	5 (5%)	1	0
41	2j	94/105 (90%)	75 (80%)	12 (13%)	7 (7%)	1	0
42	1k	112/129 (87%)	102 (91%)	9 (8%)	1 (1%)	14	20
42	2k	112/129 (87%)	102 (91%)	8 (7%)	2 (2%)	6	7
43	1l	119/132 (90%)	109 (92%)	9 (8%)	1 (1%)	16	22
43	2l	119/132 (90%)	107 (90%)	11 (9%)	1 (1%)	16	22
44	1m	114/126 (90%)	100 (88%)	11 (10%)	3 (3%)	4	3
44	2m	112/126 (89%)	95 (85%)	16 (14%)	1 (1%)	14	20
45	1n	58/61 (95%)	56 (97%)	2 (3%)	0	100	100
45	2n	58/61 (95%)	50 (86%)	7 (12%)	1 (2%)	7	8
46	1o	86/89 (97%)	81 (94%)	4 (5%)	1 (1%)	10	13
46	2o	86/89 (97%)	81 (94%)	4 (5%)	1 (1%)	10	13
47	1p	80/88 (91%)	71 (89%)	6 (8%)	3 (4%)	2	1
47	2p	80/88 (91%)	67 (84%)	12 (15%)	1 (1%)	9	12
48	1q	97/105 (92%)	88 (91%)	9 (9%)	0	100	100
48	2q	97/105 (92%)	88 (91%)	8 (8%)	1 (1%)	12	17
49	1r	66/88 (75%)	64 (97%)	1 (2%)	1 (2%)	8	10
49	2r	66/88 (75%)	61 (92%)	5 (8%)	0	100	100
50	1s	81/93 (87%)	71 (88%)	10 (12%)	0	100	100
50	2s	81/93 (87%)	70 (86%)	11 (14%)	0	100	100
51	1t	94/106 (89%)	86 (92%)	6 (6%)	2 (2%)	5	5
51	2t	96/106 (91%)	84 (88%)	9 (9%)	3 (3%)	3	2
52	1u	21/27 (78%)	19 (90%)	2 (10%)	0	100	100
52	2u	21/27 (78%)	16 (76%)	4 (19%)	1 (5%)	2	1
53	1y	95/113 (84%)	93 (98%)	1 (1%)	1 (1%)	11	15
53	2y	94/113 (83%)	88 (94%)	4 (4%)	2 (2%)	5	5
All	All	11629/12354 (94%)	10669 (92%)	832 (7%)	128 (1%)	11	15

All (128) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	1E	71	GLY
6	1G	47	LYS
7	1H	92	ILE
14	1S	59	LYS
26	14	44	THR
26	14	45	GLY
33	1b	37	ASN
33	1b	124	SER
33	1b	127	ILE
41	1j	55	LYS
44	1m	106	ASN
5	2F	130	ALA
33	2b	17	PHE
33	2b	125	PRO
36	2e	96	PRO
36	2e	97	GLY
41	2j	79	ARG
42	2k	106	LYS
51	2t	100	ILE
6	1G	50	ALA
17	1V	43	GLU
19	1X	94	GLY
26	14	39	CYS
33	1b	21	ARG
38	1g	55	GLY
40	1i	11	LYS
51	1t	47	GLY
51	1t	94	ALA
6	2G	126	ASP
8	2I	10	GLU
8	2I	85	GLU
11	2P	36	LYS
17	2V	79	VAL
19	2X	94	GLY
20	2Y	40	GLU
21	2Z	104	PHE
26	24	45	GLY
26	24	65	ASP
35	2d	156	GLU
40	2i	43	ALA
40	2i	54	ASP
41	2j	56	HIS

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Mol	Chain	Res	Type
42	2k	15	ALA
48	2q	68	ARG
5	1F	130	ALA
6	1G	52	ILE
7	1H	159	GLU
10	1O	5	GLN
26	14	49	PHE
41	1j	77	PRO
47	1p	47	ASP
7	2H	65	HIS
7	2H	126	PRO
11	2P	29	LYS
21	2Z	52	SER
21	2Z	120	ILE
23	21	3	LYS
26	24	24	THR
26	24	55	ARG
26	24	62	ARG
33	2b	22	LYS
34	2c	99	VAL
41	2j	78	ASN
43	2l	105	TYR
46	2o	23	GLY
47	2p	52	ASP
52	2u	3	LYS
4	1E	28	ALA
4	1E	52	LEU
20	1Y	90	LEU
26	14	47	GLN
33	1b	20	GLU
33	1b	129	GLU
33	1b	158	LEU
35	1d	180	GLY
42	1k	117	ASN
44	1m	11	ARG
47	1p	46	PRO
53	1y	68	GLU
4	2E	28	ALA
4	2E	52	LEU
6	2G	45	GLU
7	2H	55	PRO
10	2O	5	GLN

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Mol	Chain	Res	Type
34	2c	204	LEU
38	2g	7	ALA
38	2g	109	ASN
39	2h	133	LEU
41	2j	30	SER
51	2t	47	GLY
51	2t	95	ALA
12	1Q	24	GLY
17	1V	79	VAL
26	14	55	ARG
26	14	61	ARG
41	1j	78	ASN
41	1j	79	ARG
43	1l	105	TYR
6	2G	43	LEU
7	2H	174	GLY
33	2b	20	GLU
38	2g	131	LYS
41	2j	34	VAL
44	2m	23	TYR
21	1Z	52	SER
33	1b	9	GLU
33	1b	228	GLY
44	1m	12	ASN
47	1p	68	ASP
7	2H	110	SER
41	2j	84	GLN
45	2n	14	PRO
6	1G	44	GLY
49	1r	27	GLY
33	1b	231	GLU
46	1o	23	GLY
33	2b	232	PRO
40	2i	44	VAL
41	2j	37	PRO
6	1G	179	PRO
8	1I	137	PRO
9	1N	129	PRO
26	24	11	PRO
26	24	56	VAL
39	2h	134	ILE
53	2y	36	ASN

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Mol	Chain	Res	Type
41	1j	91	PRO
53	2y	45	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	1D	214/218 (98%)	197 (92%)	17 (8%)	11	16
3	2D	215/218 (99%)	193 (90%)	22 (10%)	7	8
4	1E	164/166 (99%)	151 (92%)	13 (8%)	11	16
4	2E	164/166 (99%)	156 (95%)	8 (5%)	22	34
5	1F	160/166 (96%)	139 (87%)	21 (13%)	4	4
5	2F	159/166 (96%)	140 (88%)	19 (12%)	5	5
6	1G	144/156 (92%)	132 (92%)	12 (8%)	10	14
6	2G	142/156 (91%)	117 (82%)	25 (18%)	2	1
7	1H	144/148 (97%)	133 (92%)	11 (8%)	12	17
7	2H	143/148 (97%)	118 (82%)	25 (18%)	2	1
8	1I	111/124 (90%)	89 (80%)	22 (20%)	1	1
8	2I	108/124 (87%)	98 (91%)	10 (9%)	8	10
9	1N	119/119 (100%)	109 (92%)	10 (8%)	10	14
9	2N	118/119 (99%)	105 (89%)	13 (11%)	6	6
10	1O	100/100 (100%)	94 (94%)	6 (6%)	17	26
10	2O	100/100 (100%)	92 (92%)	8 (8%)	11	15
11	1P	115/116 (99%)	107 (93%)	8 (7%)	14	19
11	2P	115/116 (99%)	109 (95%)	6 (5%)	21	32
12	1Q	111/111 (100%)	105 (95%)	6 (5%)	20	30
12	2Q	111/111 (100%)	104 (94%)	7 (6%)	16	23
13	1R	101/101 (100%)	91 (90%)	10 (10%)	7	9
13	2R	101/101 (100%)	91 (90%)	10 (10%)	7	9

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
14	1S	87/88 (99%)	77 (88%)	10 (12%)	5	6
14	2S	85/88 (97%)	73 (86%)	12 (14%)	3	3
15	1T	115/127 (91%)	105 (91%)	10 (9%)	9	13
15	2T	113/127 (89%)	103 (91%)	10 (9%)	9	12
16	1U	93/94 (99%)	85 (91%)	8 (9%)	10	13
16	2U	93/94 (99%)	87 (94%)	6 (6%)	15	22
17	1V	81/82 (99%)	74 (91%)	7 (9%)	10	13
17	2V	80/82 (98%)	65 (81%)	15 (19%)	1	1
18	1W	90/92 (98%)	83 (92%)	7 (8%)	11	16
18	2W	90/92 (98%)	85 (94%)	5 (6%)	19	29
19	1X	77/78 (99%)	69 (90%)	8 (10%)	7	8
19	2X	77/78 (99%)	72 (94%)	5 (6%)	15	22
20	1Y	86/91 (94%)	78 (91%)	8 (9%)	8	10
20	2Y	86/91 (94%)	74 (86%)	12 (14%)	3	3
21	1Z	169/179 (94%)	150 (89%)	19 (11%)	6	6
21	2Z	165/179 (92%)	145 (88%)	20 (12%)	5	5
22	10	61/67 (91%)	59 (97%)	2 (3%)	33	50
22	20	61/67 (91%)	58 (95%)	3 (5%)	22	34
23	11	79/83 (95%)	76 (96%)	3 (4%)	29	44
23	21	81/83 (98%)	77 (95%)	4 (5%)	22	34
24	12	65/67 (97%)	57 (88%)	8 (12%)	4	4
24	22	66/67 (98%)	61 (92%)	5 (8%)	12	17
25	13	51/52 (98%)	46 (90%)	5 (10%)	7	9
25	23	50/52 (96%)	44 (88%)	6 (12%)	5	5
26	14	58/63 (92%)	51 (88%)	7 (12%)	5	5
26	24	54/63 (86%)	44 (82%)	10 (18%)	1	1
27	15	51/52 (98%)	48 (94%)	3 (6%)	18	27
27	25	50/52 (96%)	48 (96%)	2 (4%)	28	42
28	16	51/52 (98%)	45 (88%)	6 (12%)	5	5
28	26	50/52 (96%)	43 (86%)	7 (14%)	3	3
29	17	41/42 (98%)	39 (95%)	2 (5%)	22	34

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
29	27	41/42 (98%)	37 (90%)	4 (10%)	7	9
30	18	54/55 (98%)	51 (94%)	3 (6%)	19	29
30	28	54/55 (98%)	50 (93%)	4 (7%)	13	17
31	19	34/34 (100%)	33 (97%)	1 (3%)	37	55
31	29	34/34 (100%)	30 (88%)	4 (12%)	5	5
33	1b	191/220 (87%)	166 (87%)	25 (13%)	4	4
33	2b	187/220 (85%)	167 (89%)	20 (11%)	6	7
34	1c	144/188 (77%)	131 (91%)	13 (9%)	9	11
34	2c	140/188 (74%)	123 (88%)	17 (12%)	5	5
35	1d	171/181 (94%)	150 (88%)	21 (12%)	4	4
35	2d	172/181 (95%)	146 (85%)	26 (15%)	3	2
36	1e	114/123 (93%)	106 (93%)	8 (7%)	14	19
36	2e	114/123 (93%)	102 (90%)	12 (10%)	6	8
37	1f	85/90 (94%)	74 (87%)	11 (13%)	4	4
37	2f	85/90 (94%)	77 (91%)	8 (9%)	8	10
38	1g	120/127 (94%)	111 (92%)	9 (8%)	12	17
38	2g	119/127 (94%)	100 (84%)	19 (16%)	2	2
39	1h	116/119 (98%)	104 (90%)	12 (10%)	7	8
39	2h	114/119 (96%)	98 (86%)	16 (14%)	3	3
40	1i	91/99 (92%)	79 (87%)	12 (13%)	4	4
40	2i	88/99 (89%)	71 (81%)	17 (19%)	1	1
41	1j	68/92 (74%)	63 (93%)	5 (7%)	13	17
41	2j	68/92 (74%)	62 (91%)	6 (9%)	9	12
42	1k	83/99 (84%)	77 (93%)	6 (7%)	13	18
42	2k	83/99 (84%)	75 (90%)	8 (10%)	8	9
43	1l	96/108 (89%)	88 (92%)	8 (8%)	10	14
43	2l	96/108 (89%)	86 (90%)	10 (10%)	7	8
44	1m	90/101 (89%)	75 (83%)	15 (17%)	2	2
44	2m	87/101 (86%)	80 (92%)	7 (8%)	11	15
45	1n	49/50 (98%)	44 (90%)	5 (10%)	7	8
45	2n	49/50 (98%)	44 (90%)	5 (10%)	7	8

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
46	1o	78/80 (98%)	72 (92%)	6 (8%)	12	17
46	2o	78/80 (98%)	71 (91%)	7 (9%)	9	11
47	1p	69/74 (93%)	60 (87%)	9 (13%)	4	4
47	2p	68/74 (92%)	57 (84%)	11 (16%)	2	2
48	1q	94/97 (97%)	89 (95%)	5 (5%)	20	31
48	2q	94/97 (97%)	83 (88%)	11 (12%)	5	6
49	1r	59/77 (77%)	55 (93%)	4 (7%)	14	20
49	2r	59/77 (77%)	55 (93%)	4 (7%)	14	20
50	1s	68/80 (85%)	63 (93%)	5 (7%)	13	17
50	2s	67/80 (84%)	58 (87%)	9 (13%)	4	3
51	1t	71/82 (87%)	64 (90%)	7 (10%)	7	9
51	2t	70/82 (85%)	61 (87%)	9 (13%)	4	4
52	1u	18/22 (82%)	17 (94%)	1 (6%)	19	29
52	2u	18/22 (82%)	15 (83%)	3 (17%)	2	2
53	1y	82/98 (84%)	77 (94%)	5 (6%)	17	25
53	2y	79/98 (81%)	64 (81%)	15 (19%)	1	1
All	All	9524/10260 (93%)	8552 (90%)	972 (10%)	7	8

All (972) 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	71	ASP
3	1D	94	LEU
3	1D	103	ARG
3	1D	106	ILE
3	1D	115	GLN
3	1D	134	ARG
3	1D	141	VAL
3	1D	155	LEU
3	1D	183	ARG
3	1D	193	VAL
3	1D	211	ARG
3	1D	229	VAL

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Mol	Chain	Res	Type
3	1D	242	ARG
3	1D	253	GLN
4	1E	7	VAL
4	1E	9	VAL
4	1E	23	VAL
4	1E	38	THR
4	1E	72	VAL
4	1E	75	VAL
4	1E	78	LEU
4	1E	93	VAL
4	1E	116	VAL
4	1E	119	ARG
4	1E	184	VAL
4	1E	195	LEU
4	1E	198	VAL
5	1F	12	LEU
5	1F	17	ARG
5	1F	18	ARG
5	1F	24	LEU
5	1F	53	THR
5	1F	57	VAL
5	1F	74	ARG
5	1F	77	ASP
5	1F	88	VAL
5	1F	110	LEU
5	1F	126	VAL
5	1F	132	VAL
5	1F	154	VAL
5	1F	157	VAL
5	1F	158	THR
5	1F	162	LEU
5	1F	165	ARG
5	1F	183	VAL
5	1F	191	ARG
5	1F	192	LEU
5	1F	197	ASP
6	1G	5	VAL
6	1G	7	LEU
6	1G	31	VAL
6	1G	52	ILE
6	1G	62	LEU
6	1G	79	ASN

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Mol	Chain	Res	Type
6	1G	82	LEU
6	1G	133	LEU
6	1G	140	ILE
6	1G	149	VAL
6	1G	175	LEU
6	1G	176	LEU
7	1H	15	VAL
7	1H	24	VAL
7	1H	43	VAL
7	1H	49	VAL
7	1H	52	VAL
7	1H	71	LEU
7	1H	97	ARG
7	1H	105	LEU
7	1H	119	GLU
7	1H	122	THR
7	1H	125	VAL
8	1I	5	LEU
8	1I	10	GLU
8	1I	11	ASN
8	1I	12	LEU
8	1I	18	VAL
8	1I	38	LEU
8	1I	43	ASN
8	1I	44	LEU
8	1I	47	LEU
8	1I	51	ILE
8	1I	57	ARG
8	1I	58	LEU
8	1I	78	THR
8	1I	87	LYS
8	1I	92	VAL
8	1I	107	VAL
8	1I	109	ILE
8	1I	117	GLU
8	1I	127	VAL
8	1I	128	LEU
8	1I	140	LEU
8	1I	143	SER
9	1N	14	VAL
9	1N	46	VAL
9	1N	48	MET

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Mol	Chain	Res	Type
9	1N	62	VAL
9	1N	67	LEU
9	1N	87	LEU
9	1N	99	LEU
9	1N	119	ARG
9	1N	121	LYS
9	1N	136	GLU
10	1O	10	VAL
10	1O	18	LYS
10	1O	23	ARG
10	1O	24	VAL
10	1O	53	LYS
10	1O	58	VAL
11	1P	2	LYS
11	1P	15	ARG
11	1P	56	SER
11	1P	75	ILE
11	1P	133	SER
11	1P	135	LEU
11	1P	147	LEU
11	1P	149	GLU
12	1Q	6	ARG
12	1Q	7	MET
12	1Q	75	THR
12	1Q	77	LYS
12	1Q	109	VAL
12	1Q	129	THR
13	1R	8	ARG
13	1R	29	LEU
13	1R	36	THR
13	1R	54	LEU
13	1R	67	LEU
13	1R	75	LEU
13	1R	96	ARG
13	1R	100	LEU
13	1R	111	LEU
13	1R	114	VAL
14	1S	3	ARG
14	1S	46	VAL
14	1S	48	LEU
14	1S	50	SER
14	1S	52	SER

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Mol	Chain	Res	Type
14	1S	57	LYS
14	1S	59	LYS
14	1S	64	GLU
14	1S	80	LEU
14	1S	85	VAL
15	1T	18	ASP
15	1T	28	VAL
15	1T	34	VAL
15	1T	39	ARG
15	1T	49	VAL
15	1T	53	ARG
15	1T	104	ASN
15	1T	107	ASP
15	1T	111	ARG
15	1T	123	GLN
16	1U	8	VAL
16	1U	31	SER
16	1U	34	LYS
16	1U	36	ARG
16	1U	59	ARG
16	1U	74	LEU
16	1U	104	GLN
16	1U	110	VAL
17	1V	18	LEU
17	1V	46	VAL
17	1V	51	VAL
17	1V	61	VAL
17	1V	71	LEU
17	1V	72	VAL
17	1V	79	VAL
18	1W	11	ARG
18	1W	15	ARG
18	1W	17	VAL
18	1W	23	LEU
18	1W	67	ASP
18	1W	100	THR
18	1W	107	LEU
19	1X	15	GLU
19	1X	23	GLU
19	1X	35	THR
19	1X	39	ILE
19	1X	52	VAL

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Mol	Chain	Res	Type
19	1X	66	LEU
19	1X	68	ARG
19	1X	81	VAL
20	1Y	7	VAL
20	1Y	9	LYS
20	1Y	34	LYS
20	1Y	43	ASN
20	1Y	71	LYS
20	1Y	72	VAL
20	1Y	99	CYS
20	1Y	107	ASP
21	1Z	2	GLU
21	1Z	20	ARG
21	1Z	31	ARG
21	1Z	33	LEU
21	1Z	61	LEU
21	1Z	70	LEU
21	1Z	86	VAL
21	1Z	91	LEU
21	1Z	94	GLU
21	1Z	111	VAL
21	1Z	112	ARG
21	1Z	126	VAL
21	1Z	150	LEU
21	1Z	155	LEU
21	1Z	161	VAL
21	1Z	163	LEU
21	1Z	171	ILE
21	1Z	191	VAL
21	1Z	202	GLU
22	10	10	THR
22	10	82	ARG
23	11	21	ARG
23	11	30	VAL
23	11	72	GLU
24	12	1	MET
24	12	8	LYS
24	12	19	VAL
24	12	32	LEU
24	12	50	ILE
24	12	53	LEU
24	12	55	ARG

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Mol	Chain	Res	Type
24	12	70	GLN
25	13	8	LEU
25	13	23	LEU
25	13	36	VAL
25	13	54	VAL
25	13	56	VAL
26	14	1	MET
26	14	3	GLU
26	14	33	VAL
26	14	34	GLU
26	14	49	PHE
26	14	50	VAL
26	14	61	ARG
27	15	6	VAL
27	15	16	ARG
27	15	58	LEU
28	16	5	VAL
28	16	9	LEU
28	16	14	THR
28	16	44	ARG
28	16	48	VAL
28	16	52	VAL
29	17	43	THR
29	17	48	LYS
30	18	29	LYS
30	18	50	LEU
30	18	58	ILE
31	19	17	ILE
33	1b	8	LYS
33	1b	12	GLU
33	1b	44	LEU
33	1b	53	ARG
33	1b	59	GLU
33	1b	90	MET
33	1b	101	MET
33	1b	106	LYS
33	1b	111	ARG
33	1b	112	VAL
33	1b	127	ILE
33	1b	139	LYS
33	1b	145	LEU
33	1b	150	SER

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Mol	Chain	Res	Type
33	1b	160	ASP
33	1b	184	VAL
33	1b	185	ILE
33	1b	190	THR
33	1b	196	LEU
33	1b	197	VAL
33	1b	200	ILE
33	1b	212	GLN
33	1b	221	LEU
33	1b	229	VAL
33	1b	230	VAL
34	1c	3	ASN
34	1c	15	THR
34	1c	26	LYS
34	1c	38	ARG
34	1c	70	VAL
34	1c	89	GLU
34	1c	98	ASN
34	1c	103	VAL
34	1c	105	GLU
34	1c	115	LEU
34	1c	124	ILE
34	1c	154	SER
34	1c	207	VAL
35	1d	5	ILE
35	1d	17	VAL
35	1d	61	LYS
35	1d	64	LEU
35	1d	67	ILE
35	1d	76	ARG
35	1d	85	LYS
35	1d	104	VAL
35	1d	108	LEU
35	1d	112	VAL
35	1d	127	THR
35	1d	140	VAL
35	1d	150	GLU
35	1d	157	LEU
35	1d	160	GLN
35	1d	166	LYS
35	1d	168	ARG
35	1d	170	VAL

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Mol	Chain	Res	Type
35	1d	178	VAL
35	1d	188	LEU
35	1d	190	ASP
36	1e	13	ILE
36	1e	16	THR
36	1e	33	VAL
36	1e	34	VAL
36	1e	69	VAL
36	1e	131	ILE
36	1e	144	THR
36	1e	145	LYS
37	1f	21	LEU
37	1f	40	VAL
37	1f	45	LEU
37	1f	48	LEU
37	1f	57	GLN
37	1f	63	TYR
37	1f	64	GLN
37	1f	69	GLU
37	1f	73	ASN
37	1f	78	GLU
37	1f	98	LEU
38	1g	6	ARG
38	1g	52	GLU
38	1g	74	GLU
38	1g	75	VAL
38	1g	91	VAL
38	1g	104	LEU
38	1g	106	GLN
38	1g	113	GLU
38	1g	143	ARG
39	1h	26	VAL
39	1h	51	VAL
39	1h	54	ASP
39	1h	60	ARG
39	1h	63	LEU
39	1h	73	ASP
39	1h	82	HIS
39	1h	99	GLU
39	1h	104	ARG
39	1h	119	LEU
39	1h	120	THR

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Mol	Chain	Res	Type
39	1h	133	LEU
40	1i	17	VAL
40	1i	42	ARG
40	1i	50	LEU
40	1i	53	VAL
40	1i	56	LEU
40	1i	66	ARG
40	1i	81	ILE
40	1i	87	GLN
40	1i	92	TYR
40	1i	97	LYS
40	1i	103	THR
40	1i	127	LYS
41	1j	67	THR
41	1j	72	VAL
41	1j	73	ASP
41	1j	84	GLN
41	1j	94	VAL
42	1k	16	SER
42	1k	40	ILE
42	1k	87	THR
42	1k	99	GLN
42	1k	109	VAL
42	1k	114	VAL
43	1l	33	ARG
43	1l	39	VAL
43	1l	47	LYS
43	1l	55	VAL
43	1l	73	GLU
43	1l	83	VAL
43	1l	102	ARG
43	1l	106	ASP
44	1m	4	ILE
44	1m	8	GLU
44	1m	14	ARG
44	1m	19	LEU
44	1m	27	LYS
44	1m	34	LEU
44	1m	43	THR
44	1m	52	GLU
44	1m	63	THR
44	1m	64	TRP

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Mol	Chain	Res	Type
44	1m	86	CYS
44	1m	94	ARG
44	1m	99	ARG
44	1m	106	ASN
44	1m	117	VAL
45	1n	3	ARG
45	1n	6	LEU
45	1n	18	VAL
45	1n	22	THR
45	1n	42	ILE
46	1o	3	ILE
46	1o	27	VAL
46	1o	31	LEU
46	1o	39	LEU
46	1o	87	ILE
46	1o	88	ARG
47	1p	6	LEU
47	1p	11	SER
47	1p	20	VAL
47	1p	21	VAL
47	1p	29	ASP
47	1p	42	ARG
47	1p	47	ASP
47	1p	62	VAL
47	1p	74	LEU
48	1q	26	GLN
48	1q	36	ILE
48	1q	73	VAL
48	1q	85	VAL
48	1q	97	SER
49	1r	25	THR
49	1r	37	VAL
49	1r	38	GLU
49	1r	87	ARG
50	1s	5	LEU
50	1s	18	LYS
50	1s	28	LYS
50	1s	31	ILE
50	1s	41	VAL
51	1t	10	LEU
51	1t	24	LEU
51	1t	30	LYS

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Mol	Chain	Res	Type
51	1t	46	GLU
51	1t	50	GLU
51	1t	68	LYS
51	1t	100	ILE
52	1u	17	THR
53	1y	10	MET
53	1y	13	THR
53	1y	40	ILE
53	1y	42	SER
53	1y	62	VAL
3	2D	3	VAL
3	2D	27	THR
3	2D	61	LEU
3	2D	71	ASP
3	2D	73	VAL
3	2D	75	ILE
3	2D	94	LEU
3	2D	103	ARG
3	2D	105	ILE
3	2D	113	VAL
3	2D	138	VAL
3	2D	141	VAL
3	2D	155	LEU
3	2D	173	VAL
3	2D	183	ARG
3	2D	200	ASP
3	2D	211	ARG
3	2D	221	VAL
3	2D	229	VAL
3	2D	242	ARG
3	2D	259	THR
3	2D	276	LYS
4	2E	9	VAL
4	2E	12	THR
4	2E	23	VAL
4	2E	38	THR
4	2E	75	VAL
4	2E	116	VAL
4	2E	119	ARG
4	2E	188	VAL
5	2F	15	SER
5	2F	20	LEU

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Mol	Chain	Res	Type
5	2F	24	LEU
5	2F	27	GLU
5	2F	33	LEU
5	2F	57	VAL
5	2F	62	ARG
5	2F	74	ARG
5	2F	88	VAL
5	2F	126	VAL
5	2F	140	LEU
5	2F	157	VAL
5	2F	158	THR
5	2F	161	GLU
5	2F	170	LEU
5	2F	175	THR
5	2F	183	VAL
5	2F	200	GLU
5	2F	201	VAL
6	2G	3	LEU
6	2G	7	LEU
6	2G	15	VAL
6	2G	16	ARG
6	2G	28	VAL
6	2G	30	GLU
6	2G	47	LYS
6	2G	53	LEU
6	2G	62	LEU
6	2G	77	ILE
6	2G	88	ILE
6	2G	92	VAL
6	2G	103	LEU
6	2G	109	VAL
6	2G	116	ASP
6	2G	124	SER
6	2G	133	LEU
6	2G	139	LEU
6	2G	149	VAL
6	2G	155	MET
6	2G	159	VAL
6	2G	165	THR
6	2G	167	GLU
6	2G	172	LEU
6	2G	175	LEU

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Mol	Chain	Res	Type
7	2H	3	ARG
7	2H	11	VAL
7	2H	17	VAL
7	2H	26	VAL
7	2H	33	LEU
7	2H	34	GLU
7	2H	38	SER
7	2H	43	VAL
7	2H	44	VAL
7	2H	45	VAL
7	2H	47	GLU
7	2H	54	ARG
7	2H	58	GLU
7	2H	68	THR
7	2H	70	THR
7	2H	80	SER
7	2H	95	ARG
7	2H	122	THR
7	2H	124	GLU
7	2H	129	THR
7	2H	131	VAL
7	2H	133	VAL
7	2H	134	SER
7	2H	136	ILE
7	2H	139	GLN
8	2I	37	VAL
8	2I	38	LEU
8	2I	70	GLU
8	2I	76	THR
8	2I	81	VAL
8	2I	108	THR
8	2I	127	VAL
8	2I	139	GLN
8	2I	140	LEU
8	2I	142	VAL
9	2N	9	VAL
9	2N	14	VAL
9	2N	21	LYS
9	2N	28	THR
9	2N	33	LEU
9	2N	46	VAL
9	2N	68	GLU

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Mol	Chain	Res	Type
9	2N	71	ILE
9	2N	73	THR
9	2N	87	LEU
9	2N	119	ARG
9	2N	133	GLN
9	2N	140	VAL
10	2O	10	VAL
10	2O	23	ARG
10	2O	24	VAL
10	2O	35	VAL
10	2O	66	LYS
10	2O	94	ARG
10	2O	108	GLU
10	2O	113	LYS
11	2P	3	LEU
11	2P	4	SER
11	2P	65	ARG
11	2P	71	VAL
11	2P	117	GLU
11	2P	148	LEU
12	2Q	1	MET
12	2Q	7	MET
12	2Q	42	ILE
12	2Q	60	ARG
12	2Q	75	THR
12	2Q	109	VAL
12	2Q	112	GLU
13	2R	29	LEU
13	2R	33	ARG
13	2R	36	THR
13	2R	44	LEU
13	2R	75	LEU
13	2R	96	ARG
13	2R	100	LEU
13	2R	111	LEU
13	2R	114	VAL
13	2R	117	VAL
14	2S	14	VAL
14	2S	27	SER
14	2S	28	VAL
14	2S	35	ILE
14	2S	39	ILE

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Mol	Chain	Res	Type
14	2S	44	LYS
14	2S	49	VAL
14	2S	52	SER
14	2S	64	GLU
14	2S	80	LEU
14	2S	85	VAL
14	2S	110	LEU
15	2T	36	GLU
15	2T	53	ARG
15	2T	72	VAL
15	2T	85	LYS
15	2T	88	ILE
15	2T	89	VAL
15	2T	95	ARG
15	2T	99	LEU
15	2T	107	ASP
15	2T	109	GLU
16	2U	52	ARG
16	2U	53	ARG
16	2U	74	LEU
16	2U	77	SER
16	2U	104	GLN
16	2U	108	GLU
17	2V	7	THR
17	2V	12	TYR
17	2V	26	ASP
17	2V	32	THR
17	2V	35	LEU
17	2V	39	LEU
17	2V	46	VAL
17	2V	51	VAL
17	2V	56	SER
17	2V	62	LEU
17	2V	71	LEU
17	2V	72	VAL
17	2V	73	SER
17	2V	79	VAL
17	2V	92	THR
18	2W	11	ARG
18	2W	17	VAL
18	2W	67	ASP
18	2W	96	ILE

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Mol	Chain	Res	Type
18	2W	100	THR
19	2X	15	GLU
19	2X	49	VAL
19	2X	57	LEU
19	2X	81	VAL
19	2X	92	LEU
20	2Y	2	ARG
20	2Y	3	VAL
20	2Y	13	VAL
20	2Y	14	LEU
20	2Y	19	LYS
20	2Y	42	VAL
20	2Y	67	LEU
20	2Y	72	VAL
20	2Y	83	THR
20	2Y	85	VAL
20	2Y	96	ILE
20	2Y	99	CYS
21	2Z	14	LYS
21	2Z	27	VAL
21	2Z	31	ARG
21	2Z	35	ARG
21	2Z	41	LEU
21	2Z	42	VAL
21	2Z	52	SER
21	2Z	86	VAL
21	2Z	90	VAL
21	2Z	91	LEU
21	2Z	107	THR
21	2Z	119	GLU
21	2Z	123	ASP
21	2Z	126	VAL
21	2Z	139	VAL
21	2Z	140	ASP
21	2Z	142	SER
21	2Z	161	VAL
21	2Z	170	THR
21	2Z	185	GLU
22	20	11	ARG
22	20	14	ARG
22	20	68	GLU
23	21	21	ARG

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Mol	Chain	Res	Type
23	21	40	ARG
23	21	65	SER
23	21	80	LEU
24	22	14	ARG
24	22	17	SER
24	22	32	LEU
24	22	53	LEU
24	22	70	GLN
25	23	23	LEU
25	23	31	LEU
25	23	53	LEU
25	23	54	VAL
25	23	55	ARG
25	23	59	VAL
26	24	10	VAL
26	24	15	ILE
26	24	21	VAL
26	24	24	THR
26	24	27	THR
26	24	50	VAL
26	24	53	GLU
26	24	58	ARG
26	24	63	TYR
26	24	69	LYS
27	25	6	VAL
27	25	57	VAL
28	26	3	SER
28	26	5	VAL
28	26	14	THR
28	26	34	LEU
28	26	35	GLU
28	26	48	VAL
28	26	52	VAL
29	27	1	MET
29	27	24	THR
29	27	41	ARG
29	27	48	LYS
30	28	23	VAL
30	28	46	ARG
30	28	49	VAL
30	28	50	LEU
31	29	7	VAL

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Mol	Chain	Res	Type
31	29	13	LYS
31	29	17	ILE
31	29	26	ILE
33	2b	10	LEU
33	2b	16	HIS
33	2b	17	PHE
33	2b	27	LYS
33	2b	44	LEU
33	2b	52	GLU
33	2b	73	THR
33	2b	90	MET
33	2b	93	VAL
33	2b	96	ARG
33	2b	136	VAL
33	2b	149	LEU
33	2b	164	VAL
33	2b	168	THR
33	2b	187	LEU
33	2b	189	ASP
33	2b	208	ILE
33	2b	215	LEU
33	2b	221	LEU
33	2b	230	VAL
34	2c	3	ASN
34	2c	8	ILE
34	2c	16	ARG
34	2c	20	SER
34	2c	33	LEU
34	2c	47	LEU
34	2c	77	ILE
34	2c	105	GLU
34	2c	115	LEU
34	2c	118	GLN
34	2c	120	VAL
34	2c	128	PHE
34	2c	131	ARG
34	2c	152	ILE
34	2c	179	ARG
34	2c	196	LEU
34	2c	206	GLU
35	2d	5	ILE
35	2d	13	ARG

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Mol	Chain	Res	Type
35	2d	21	LEU
35	2d	22	LYS
35	2d	31	CYS
35	2d	34	GLU
35	2d	36	ARG
35	2d	50	ARG
35	2d	56	VAL
35	2d	74	GLN
35	2d	107	ARG
35	2d	108	LEU
35	2d	127	THR
35	2d	133	VAL
35	2d	135	LEU
35	2d	141	ARG
35	2d	146	ILE
35	2d	148	VAL
35	2d	150	GLU
35	2d	166	LYS
35	2d	175	SER
35	2d	178	VAL
35	2d	188	LEU
35	2d	200	GLU
35	2d	208	SER
35	2d	209	ARG
36	2e	10	MET
36	2e	11	ILE
36	2e	16	THR
36	2e	31	LEU
36	2e	34	VAL
36	2e	41	VAL
36	2e	55	VAL
36	2e	65	ASN
36	2e	67	VAL
36	2e	68	GLU
36	2e	79	GLU
36	2e	81	GLU
37	2f	22	GLU
37	2f	63	TYR
37	2f	70	ASP
37	2f	72	VAL
37	2f	73	ASN
37	2f	81	ILE

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Mol	Chain	Res	Type
37	2f	83	ASP
37	2f	95	GLU
38	2g	8	GLU
38	2g	9	VAL
38	2g	15	ASP
38	2g	16	LEU
38	2g	21	VAL
38	2g	24	THR
38	2g	35	LYS
38	2g	38	LEU
38	2g	50	ILE
38	2g	51	GLN
38	2g	75	VAL
38	2g	76	ARG
38	2g	77	SER
38	2g	92	SER
38	2g	104	LEU
38	2g	113	GLU
38	2g	115	ARG
38	2g	144	MET
38	2g	153	HIS
39	2h	3	THR
39	2h	10	LEU
39	2h	15	ASN
39	2h	19	VAL
39	2h	26	VAL
39	2h	39	LEU
39	2h	63	LEU
39	2h	91	ARG
39	2h	99	GLU
39	2h	103	VAL
39	2h	104	ARG
39	2h	109	ILE
39	2h	111	ILE
39	2h	114	THR
39	2h	119	LEU
39	2h	132	GLU
40	2i	7	THR
40	2i	14	VAL
40	2i	17	VAL
40	2i	23	ASN
40	2i	27	THR

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Mol	Chain	Res	Type
40	2i	47	LEU
40	2i	53	VAL
40	2i	56	LEU
40	2i	63	ILE
40	2i	65	VAL
40	2i	71	SER
40	2i	75	ASP
40	2i	83	ARG
40	2i	102	LEU
40	2i	109	VAL
40	2i	117	HIS
40	2i	127	LYS
41	2j	35	SER
41	2j	38	ILE
41	2j	68	HIS
41	2j	72	VAL
41	2j	74	ILE
41	2j	98	ILE
42	2k	18	ARG
42	2k	28	THR
42	2k	38	ASN
42	2k	53	SER
42	2k	103	LEU
42	2k	104	GLN
42	2k	109	VAL
42	2k	112	THR
43	2l	6	THR
43	2l	33	ARG
43	2l	43	VAL
43	2l	58	VAL
43	2l	62	SER
43	2l	66	VAL
43	2l	81	SER
43	2l	82	VAL
43	2l	85	ILE
43	2l	100	ILE
44	2m	39	ILE
44	2m	57	ARG
44	2m	62	ASN
44	2m	63	THR
44	2m	69	GLU
44	2m	80	ARG

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Mol	Chain	Res	Type
44	2m	96	LEU
45	2n	4	LYS
45	2n	8	GLU
45	2n	18	VAL
45	2n	33	VAL
45	2n	50	LYS
46	2o	3	ILE
46	2o	14	GLU
46	2o	39	LEU
46	2o	70	LEU
46	2o	84	LYS
46	2o	87	ILE
46	2o	88	ARG
47	2p	1	MET
47	2p	2	VAL
47	2p	5	ARG
47	2p	11	SER
47	2p	20	VAL
47	2p	44	THR
47	2p	45	THR
47	2p	49	LEU
47	2p	62	VAL
47	2p	67	THR
47	2p	69	THR
48	2q	14	LYS
48	2q	24	GLU
48	2q	52	LYS
48	2q	56	VAL
48	2q	63	ARG
48	2q	66	SER
48	2q	70	ARG
48	2q	78	GLU
48	2q	86	GLU
48	2q	90	ILE
48	2q	99	SER
49	2r	22	VAL
49	2r	37	VAL
49	2r	65	ILE
49	2r	85	LEU
50	2s	3	ARG
50	2s	12	ASP
50	2s	18	LYS

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Mol	Chain	Res	Type
50	2s	41	VAL
50	2s	48	THR
50	2s	53	ASN
50	2s	71	LEU
50	2s	77	THR
50	2s	78	ARG
51	2t	10	LEU
51	2t	24	LEU
51	2t	31	SER
51	2t	37	SER
51	2t	41	ILE
51	2t	56	MET
51	2t	71	THR
51	2t	84	LEU
51	2t	86	ARG
52	2u	10	ARG
52	2u	17	THR
52	2u	22	ARG
53	2y	3	MET
53	2y	5	ILE
53	2y	6	THR
53	2y	8	LYS
53	2y	9	GLN
53	2y	11	GLU
53	2y	13	THR
53	2y	16	ILE
53	2y	41	LEU
53	2y	49	VAL
53	2y	54	ILE
53	2y	56	THR
53	2y	60	VAL
53	2y	75	ASN
53	2y	78	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (165) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	87	ASN
3	1D	253	GLN
4	1E	48	GLN
4	1E	55	ASN
4	1E	143	ASN

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Mol	Chain	Res	Type
5	1F	69	HIS
5	1F	203	GLN
6	1G	26	GLN
6	1G	108	ASN
6	1G	132	ASN
8	1I	104	GLN
9	1N	69	GLN
9	1N	94	HIS
9	1N	133	GLN
10	1O	3	GLN
10	1O	89	ASN
11	1P	84	ASN
12	1Q	57	HIS
13	1R	50	HIS
14	1S	84	GLN
15	1T	58	ASN
16	1U	94	ASN
19	1X	31	HIS
20	1Y	6	HIS
20	1Y	43	ASN
20	1Y	92	ASN
21	1Z	32	HIS
21	1Z	73	GLN
22	10	35	ASN
23	11	56	GLN
24	12	70	GLN
33	1b	40	HIS
33	1b	78	GLN
34	1c	6	HIS
34	1c	37	GLN
34	1c	102	ASN
34	1c	104	GLN
34	1c	123	GLN
35	1d	43	HIS
35	1d	77	ASN
35	1d	103	ASN
35	1d	119	GLN
35	1d	123	HIS
35	1d	125	HIS
35	1d	129	ASN
35	1d	160	GLN
36	1e	65	ASN

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Mol	Chain	Res	Type
37	1f	73	ASN
38	1g	13	GLN
38	1g	28	ASN
38	1g	56	GLN
38	1g	64	GLN
38	1g	86	GLN
40	1i	3	GLN
40	1i	34	ASN
40	1i	58	HIS
40	1i	73	GLN
40	1i	87	GLN
41	1j	56	HIS
42	1k	93	GLN
43	1l	99	HIS
44	1m	92	HIS
44	1m	106	ASN
46	1o	28	GLN
46	1o	50	HIS
47	1p	13	HIS
47	1p	16	HIS
47	1p	65	GLN
48	1q	26	GLN
48	1q	93	GLN
50	1s	56	GLN
50	1s	83	HIS
51	1t	18	GLN
51	1t	75	ASN
53	1y	38	HIS
3	2D	116	GLN
3	2D	126	GLN
3	2D	253	GLN
5	2F	40	GLN
5	2F	69	HIS
5	2F	75	HIS
5	2F	133	ASN
5	2F	203	GLN
6	2G	79	ASN
6	2G	121	ASN
6	2G	123	ASN
6	2G	132	ASN
6	2G	138	GLN
8	2I	43	ASN

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Mol	Chain	Res	Type
8	2I	133	HIS
8	2I	139	GLN
9	2N	94	HIS
11	2P	27	HIS
12	2Q	57	HIS
12	2Q	89	ASN
12	2Q	123	HIS
12	2Q	141	GLN
13	2R	13	HIS
13	2R	71	GLN
16	2U	94	ASN
17	2V	64	HIS
18	2W	34	ASN
18	2W	60	ASN
19	2X	31	HIS
19	2X	82	GLN
20	2Y	92	ASN
21	2Z	32	HIS
21	2Z	34	ASN
21	2Z	50	GLN
21	2Z	85	HIS
21	2Z	151	HIS
22	20	50	ASN
23	21	56	GLN
25	23	32	GLN
28	26	20	ASN
30	28	35	GLN
33	2b	16	HIS
33	2b	19	HIS
33	2b	135	GLN
34	2c	3	ASN
34	2c	6	HIS
34	2c	69	HIS
34	2c	139	GLN
34	2c	162	GLN
34	2c	176	HIS
35	2d	42	GLN
35	2d	77	ASN
35	2d	116	GLN
35	2d	125	HIS
35	2d	161	ASN
35	2d	201	GLN

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Mol	Chain	Res	Type
36	2e	20	GLN
36	2e	72	GLN
36	2e	130	ASN
37	2f	94	GLN
37	2f	100	ASN
38	2g	11	GLN
38	2g	13	GLN
38	2g	37	ASN
38	2g	64	GLN
38	2g	86	GLN
39	2h	81	HIS
40	2i	3	GLN
40	2i	58	HIS
40	2i	73	GLN
40	2i	89	ASN
40	2i	117	HIS
41	2j	21	GLN
41	2j	62	HIS
41	2j	69	ASN
42	2k	62	GLN
42	2k	93	GLN
44	2m	77	ASN
46	2o	13	GLN
46	2o	28	GLN
47	2p	65	GLN
47	2p	76	GLN
48	2q	26	GLN
51	2t	16	HIS
51	2t	90	GLN
53	2y	18	GLN
53	2y	31	GLN
53	2y	75	ASN
53	2y	79	ASN
53	2y	84	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2865/2915 (98%)	434 (15%)	33 (1%)
1	2A	2858/2915 (98%)	487 (17%)	31 (1%)
2	1B	119/121 (98%)	10 (8%)	0

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
2	2B	119/121 (98%)	16 (13%)	0
32	1a	1497/1521 (98%)	258 (17%)	0
32	2a	1501/1521 (98%)	290 (19%)	0
All	All	8959/9114 (98%)	1495 (16%)	64 (0%)

All (1495) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	12	U
1	1A	14	A
1	1A	15	G
1	1A	34	C
1	1A	45	C
1	1A	61	G
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	141	A
1	1A	154(A)	C
1	1A	196	A
1	1A	199	A
1	1A	205	G
1	1A	216	A
1	1A	222	A
1	1A	229	A
1	1A	233	A
1	1A	248	G
1	1A	271(I)	G
1	1A	271(K)	U
1	1A	271(L)	U
1	1A	271(M)	G
1	1A	271(O)	C
1	1A	272(A)	U
1	1A	272(B)	G
1	1A	272(H)	C
1	1A	272(J)	C
1	1A	275	G

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Mol	Chain	Res	Type
1	1A	279	C
1	1A	280	C
1	1A	283	A
1	1A	311	A
1	1A	324	A
1	1A	330	A
1	1A	352	G
1	1A	360	G
1	1A	363	G
1	1A	363(B)	G
1	1A	363(C)	G
1	1A	386	G
1	1A	396	G
1	1A	407	G
1	1A	411	G
1	1A	412	A
1	1A	421	U
1	1A	428	A
1	1A	448	U
1	1A	456	C
1	1A	457	A
1	1A	481	G
1	1A	505	A
1	1A	509	C
1	1A	527	C
1	1A	528	A
1	1A	530	G
1	1A	531	C
1	1A	532	A
1	1A	533	G
1	1A	545	G
1	1A	549	G
1	1A	563	G
1	1A	573	G
1	1A	575	A
1	1A	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	616	G

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Mol	Chain	Res	Type
1	1A	627	A
1	1A	637	A
1	1A	645	C
1	1A	646	A
1	1A	652(E)	G
1	1A	652(T)	C
1	1A	652(U)	G
1	1A	654	A
1	1A	668	G
1	1A	669	G
1	1A	686	G
1	1A	714	U
1	1A	730	C
1	1A	740	U
1	1A	746	A
1	1A	747	U
1	1A	762	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	793	A
1	1A	805	G
1	1A	812	C
1	1A	827	U
1	1A	828	U
1	1A	859	G
1	1A	866	A
1	1A	879	G
1	1A	885	C
1	1A	886	C
1	1A	888	C
1	1A	889	C
1	1A	890	A
1	1A	896	A
1	1A	899	A
1	1A	907	U
1	1A	910	A
1	1A	932	G

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Mol	Chain	Res	Type
1	1A	945	A
1	1A	946	G
1	1A	958	U
1	1A	959	A
1	1A	961	C
1	1A	974	G
1	1A	975	C
1	1A	979	G
1	1A	983	A
1	1A	996	A
1	1A	1012	U
1	1A	1013	C
1	1A	1022	G
1	1A	1026	U
1	1A	1033	U
1	1A	1039	G
1	1A	1042	G
1	1A	1043	C
1	1A	1044	G
1	1A	1046	A
1	1A	1047	G
1	1A	1048	A
1	1A	1054	A
1	1A	1055	G
1	1A	1060	U
1	1A	1061	U
1	1A	1062	G
1	1A	1065	U
1	1A	1066	U
1	1A	1069	A
1	1A	1070	A
1	1A	1071	G
1	1A	1073	A
1	1A	1076	C
1	1A	1077	A
1	1A	1078	U
1	1A	1080	C
1	1A	1088	A
1	1A	1090	U
1	1A	1096	A
1	1A	1097	U
1	1A	1109	C

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Mol	Chain	Res	Type
1	1A	1110	G
1	1A	1112	G
1	1A	1129	A
1	1A	1130	U
1	1A	1135	C
1	1A	1136	G
1	1A	1144	G
1	1A	1150	C
1	1A	1171	G
1	1A	1173	G
1	1A	1174	A
1	1A	1175	U
1	1A	1176	G
1	1A	1177	A
1	1A	1178	C
1	1A	1180	C
1	1A	1210	A
1	1A	1211	U
1	1A	1218	C
1	1A	1220	A
1	1A	1229	G
1	1A	1236	G
1	1A	1253	A
1	1A	1256	G
1	1A	1271	G
1	1A	1272	A
1	1A	1273	U
1	1A	1300	U
1	1A	1301	A
1	1A	1320	C
1	1A	1321	A
1	1A	1345	C
1	1A	1352	U
1	1A	1359	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

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Mol	Chain	Res	Type
1	1A	1420	U
1	1A	1421	G
1	1A	1428	C
1	1A	1437	C
1	1A	1445	A
1	1A	1450	G
1	1A	1452	A
1	1A	1455	G
1	1A	1459	G
1	1A	1460	A
1	1A	1467	C
1	1A	1471	A
1	1A	1482	G
1	1A	1493	C
1	1A	1497	U
1	1A	1506	C
1	1A	1508	A
1	1A	1509	C
1	1A	1509(A)	A
1	1A	1525	G
1	1A	1542	A
1	1A	1543	C
1	1A	1558	A
1	1A	1569	A
1	1A	1578	U
1	1A	1580	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	1644	C
1	1A	1647	G
1	1A	1648	C
1	1A	1654	A
1	1A	1664	A
1	1A	1674	G
1	1A	1696	G
1	1A	1700	A
1	1A	1701	A
1	1A	1706	U

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Mol	Chain	Res	Type
1	1A	1722	A
1	1A	1739	U
1	1A	1747	G
1	1A	1756	G
1	1A	1757	U
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	1816	G
1	1A	1828	G
1	1A	1829	A
1	1A	1839	G
1	1A	1847	A
1	1A	1848	A
1	1A	1877	A
1	1A	1878	G
1	1A	1889	A
1	1A	1900	A
1	1A	1906	G
1	1A	1907	G
1	1A	1913	A
1	1A	1914	C
1	1A	1929	G
1	1A	1930	G
1	1A	1934	C
1	1A	1937	A
1	1A	1938	A
1	1A	1941	C
1	1A	1955	U
1	1A	1963	U
1	1A	1965	C
1	1A	1967	C
1	1A	1970	A
1	1A	1971	A
1	1A	1972	A
1	1A	1985	G

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Mol	Chain	Res	Type
1	1A	1993	U
1	1A	1997	G
1	1A	2020	A
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	2069	G
1	1A	2099	U
1	1A	2103	C
1	1A	2104	G
1	1A	2107	C
1	1A	2108	C
1	1A	2112	G
1	1A	2113	U
1	1A	2116	G
1	1A	2117	A
1	1A	2119	A
1	1A	2122	U
1	1A	2123	G
1	1A	2126	A
1	1A	2127	G
1	1A	2131	G
1	1A	2132	U
1	1A	2133	G
1	1A	2134	A
1	1A	2135	A
1	1A	2137	C
1	1A	2139	C
1	1A	2142	C
1	1A	2144	U
1	1A	2146	C
1	1A	2148	G
1	1A	2157	G
1	1A	2158	A
1	1A	2159	G
1	1A	2161	C

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Mol	Chain	Res	Type
1	1A	2162	G
1	1A	2164	C
1	1A	2165	G
1	1A	2173	A
1	1A	2176	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	2268	A
1	1A	2280	G
1	1A	2283	C
1	1A	2287	A
1	1A	2289	G
1	1A	2305	A
1	1A	2320	A
1	1A	2325	G
1	1A	2326	C
1	1A	2334	G
1	1A	2336	A
1	1A	2347	C
1	1A	2350	C
1	1A	2383	G
1	1A	2385	C
1	1A	2393	A
1	1A	2396	G
1	1A	2405	G
1	1A	2406	U
1	1A	2422	A
1	1A	2423	U
1	1A	2425	A
1	1A	2428	G
1	1A	2429	G
1	1A	2430	A

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Mol	Chain	Res	Type
1	1A	2435	A
1	1A	2439	A
1	1A	2441	C
1	1A	2448	A
1	1A	2475	C
1	1A	2476	A
1	1A	2478	A
1	1A	2480	C
1	1A	2491	U
1	1A	2492	U
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	2573	C
1	1A	2602	A
1	1A	2603	G
1	1A	2608	G
1	1A	2609	U
1	1A	2611	U
1	1A	2612	C
1	1A	2615	U
1	1A	2629	A
1	1A	2630	G
1	1A	2641	G
1	1A	2654	A
1	1A	2662	A
1	1A	2689	U
1	1A	2690	C
1	1A	2702	U
1	1A	2703	C
1	1A	2712(A)	A
1	1A	2713	A
1	1A	2714	G
1	1A	2726	U

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Mol	Chain	Res	Type
1	1A	2733	A
1	1A	2758	A
1	1A	2761	G
1	1A	2765	A
1	1A	2766	G
1	1A	2778	A
1	1A	2790	A
1	1A	2791	C
1	1A	2792	G
1	1A	2793	G
1	1A	2794	C
1	1A	2802	G
1	1A	2818	G
1	1A	2820	A
1	1A	2821	A
1	1A	2833	G
1	1A	2835	A
1	1A	2872	G
1	1A	2874	C
1	1A	2892	A
1	1A	2893	G
1	1A	2894	G
2	1B	2	C
2	1B	7	G
2	1B	13	A
2	1B	30	C
2	1B	45	A
2	1B	53	A
2	1B	56	G
2	1B	73	A
2	1B	84	C
2	1B	110	G
32	1a	9	G
32	1a	32	A
32	1a	39	G
32	1a	47	C
32	1a	48	C
32	1a	51	A
32	1a	53	A
32	1a	61	G
32	1a	78	G
32	1a	79	G

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Mol	Chain	Res	Type
32	1a	91	C
32	1a	96	U
32	1a	101	A
32	1a	116	A
32	1a	120	A
32	1a	121	C
32	1a	131	C
32	1a	141	A
32	1a	156	G
32	1a	163	C
32	1a	173	U
32	1a	174	C
32	1a	182	U
32	1a	189(C)	C
32	1a	189(D)	C
32	1a	189(F)	U
32	1a	195	A
32	1a	202	U
32	1a	203	U
32	1a	204	U
32	1a	216	G
32	1a	220	G
32	1a	236	G
32	1a	240	C
32	1a	247	G
32	1a	251	G
32	1a	254	G
32	1a	258	G
32	1a	266	G
32	1a	267	C
32	1a	289	G
32	1a	301	G
32	1a	306	G
32	1a	321	A
32	1a	327	A
32	1a	328	C
32	1a	329	A
32	1a	332	G
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	356	A

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Mol	Chain	Res	Type
32	1a	367	U
32	1a	372	C
32	1a	373	A
32	1a	397	A
32	1a	398	C
32	1a	406	G
32	1a	412	A
32	1a	413	G
32	1a	414	A
32	1a	422	C
32	1a	423	G
32	1a	424	G
32	1a	429	U
32	1a	430	A
32	1a	439	A
32	1a	441	A
32	1a	444	C
32	1a	452	A
32	1a	461	A
32	1a	470	C
32	1a	485	G
32	1a	496	A
32	1a	498	U
32	1a	505	G
32	1a	509	A
32	1a	510	A
32	1a	511	C
32	1a	518	C
32	1a	532	A
32	1a	547	A
32	1a	559	A
32	1a	561	U
32	1a	564	C
32	1a	572	A
32	1a	573	A
32	1a	576	G
32	1a	577	G
32	1a	607	A
32	1a	619	U
32	1a	630	G
32	1a	632	A
32	1a	650	G

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Mol	Chain	Res	Type
32	1a	653	A
32	1a	660	G
32	1a	665	A
32	1a	671	G
32	1a	687	A
32	1a	688	G
32	1a	693	G
32	1a	697	U
32	1a	702	A
32	1a	723	U
32	1a	728	A
32	1a	731	G
32	1a	734	G
32	1a	752	G
32	1a	755	G
32	1a	759	A
32	1a	767	A
32	1a	774	G
32	1a	777	A
32	1a	786	G
32	1a	793	U
32	1a	794	A
32	1a	815	A
32	1a	817	C
32	1a	821	G
32	1a	828	A
32	1a	829	G
32	1a	838	G
32	1a	839	U
32	1a	840	C
32	1a	841	U
32	1a	848	C
32	1a	851	G
32	1a	872	A
32	1a	902	G
32	1a	914	A
32	1a	926	G
32	1a	927	G
32	1a	934	C
32	1a	935	A
32	1a	960	U
32	1a	961	U

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Mol	Chain	Res	Type
32	1a	968	A
32	1a	969	A
32	1a	971	G
32	1a	975	A
32	1a	976	G
32	1a	977	A
32	1a	991	U
32	1a	992	U
32	1a	993	G
32	1a	994	A
32	1a	998	G
32	1a	999	C
32	1a	1001	A
32	1a	1001(A)	G
32	1a	1004	A
32	1a	1021	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(C)	G
32	1a	1032	G
32	1a	1033	G
32	1a	1037	C
32	1a	1038	C
32	1a	1040	U
32	1a	1044	A
32	1a	1065	U
32	1a	1066	C
32	1a	1067	A
32	1a	1070	U
32	1a	1081	G
32	1a	1085	U
32	1a	1093	A
32	1a	1094	G
32	1a	1095	U

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Mol	Chain	Res	Type
32	1a	1101	A
32	1a	1121	U
32	1a	1123	A
32	1a	1124	G
32	1a	1125	U
32	1a	1126	U
32	1a	1130	A
32	1a	1132	C
32	1a	1134	G
32	1a	1136	U
32	1a	1137	C
32	1a	1139	G
32	1a	1140	C
32	1a	1144	G
32	1a	1146	A
32	1a	1152	A
32	1a	1158	C
32	1a	1159	U
32	1a	1168	A
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	1208	C
32	1a	1213	A
32	1a	1214	C
32	1a	1224	G
32	1a	1227	A
32	1a	1238	A
32	1a	1256	A
32	1a	1257	U
32	1a	1258	G
32	1a	1270	C
32	1a	1277	C
32	1a	1278	U
32	1a	1279	A
32	1a	1280	A
32	1a	1286	A
32	1a	1287	A
32	1a	1293	G

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Mol	Chain	Res	Type
32	1a	1294	G
32	1a	1299	A
32	1a	1300	G
32	1a	1302	U
32	1a	1312	G
32	1a	1320	C
32	1a	1338	G
32	1a	1346	A
32	1a	1347	G
32	1a	1353	G
32	1a	1363	C
32	1a	1370	G
32	1a	1381	U
32	1a	1397	C
32	1a	1398	A
32	1a	1406	U
32	1a	1419	G
32	1a	1429	C
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1442(B)	A
32	1a	1446	U
32	1a	1447	A
32	1a	1452	C
32	1a	1456	G
32	1a	1487	G
32	1a	1492	A
32	1a	1493	A
32	1a	1499	A
32	1a	1504	G
32	1a	1505	G
32	1a	1506	U
32	1a	1517	G
32	1a	1519	MA6
32	1a	1520	G
32	1a	1529	G
32	1a	1530	G
32	1a	1531	A
1	2A	10	G
1	2A	15	G
1	2A	34	C
1	2A	45	C

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Mol	Chain	Res	Type
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	84	A
1	2A	92	A
1	2A	102	G
1	2A	118	A
1	2A	119	A
1	2A	120	U
1	2A	131	G
1	2A	141	A
1	2A	157	U
1	2A	181	A
1	2A	182	A
1	2A	196	A
1	2A	199	A
1	2A	205	G
1	2A	214	G
1	2A	215	G
1	2A	216	A
1	2A	221	A
1	2A	222	A
1	2A	229	A
1	2A	230	U
1	2A	233	A
1	2A	245	G
1	2A	248	G
1	2A	271(K)	U
1	2A	271(L)	U
1	2A	271(M)	G
1	2A	271(N)	U
1	2A	271(O)	C
1	2A	272	G
1	2A	272(A)	U
1	2A	272(B)	G
1	2A	277	C
1	2A	278	A
1	2A	283	A
1	2A	311	A
1	2A	329	G
1	2A	330	A
1	2A	333	G

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Mol	Chain	Res	Type
1	2A	352	G
1	2A	362	U
1	2A	363	G
1	2A	372	G
1	2A	380	U
1	2A	386	G
1	2A	391	G
1	2A	396	G
1	2A	405	U
1	2A	407	G
1	2A	411	G
1	2A	412	A
1	2A	428	A
1	2A	444	C
1	2A	454	A
1	2A	455	C
1	2A	456	C
1	2A	457	A
1	2A	470	A
1	2A	481	G
1	2A	482	A
1	2A	505	A
1	2A	509	C
1	2A	521	G
1	2A	524	U
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	533	G
1	2A	545	G
1	2A	563	G
1	2A	568	U
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	627	A

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Mol	Chain	Res	Type
1	2A	634	C
1	2A	637	A
1	2A	645	C
1	2A	646	A
1	2A	652(B)	A
1	2A	652(C)	G
1	2A	652(U)	G
1	2A	653	A
1	2A	669	G
1	2A	676	A
1	2A	686	G
1	2A	715	G
1	2A	730	C
1	2A	752	A
1	2A	753	C
1	2A	774	A
1	2A	775	G
1	2A	776	G
1	2A	782	A
1	2A	784	A
1	2A	785	G
1	2A	792	G
1	2A	793	A
1	2A	794	G
1	2A	802	A
1	2A	805	G
1	2A	812	C
1	2A	827	U
1	2A	828	U
1	2A	833	U
1	2A	857	C
1	2A	859	G
1	2A	866	A
1	2A	875	G
1	2A	877	U
1	2A	880	G
1	2A	886	C
1	2A	887	A
1	2A	888	C
1	2A	889	C
1	2A	890	A
1	2A	893	C

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Mol	Chain	Res	Type
1	2A	896	A
1	2A	897	C
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	974	G
1	2A	975	C
1	2A	980	A
1	2A	983	A
1	2A	996	A
1	2A	1012	U
1	2A	1013	C
1	2A	1026	U
1	2A	1033	U
1	2A	1038	C
1	2A	1045	A
1	2A	1046	A
1	2A	1047	G
1	2A	1052	C
1	2A	1053	C
1	2A	1054	A
1	2A	1058	G
1	2A	1060	U
1	2A	1063	G
1	2A	1064	C
1	2A	1065	U
1	2A	1066	U
1	2A	1067	A
1	2A	1068	G
1	2A	1069	A
1	2A	1070	A
1	2A	1071	G
1	2A	1073	A

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Mol	Chain	Res	Type
1	2A	1074	G
1	2A	1076	C
1	2A	1077	A
1	2A	1078	U
1	2A	1079	C
1	2A	1082	U
1	2A	1083	U
1	2A	1084	A
1	2A	1085	A
1	2A	1086	A
1	2A	1087	G
1	2A	1088	A
1	2A	1090	U
1	2A	1091	G
1	2A	1092	C
1	2A	1093	G
1	2A	1095	A
1	2A	1096	A
1	2A	1097	U
1	2A	1109	C
1	2A	1111	A
1	2A	1112	G
1	2A	1116	C
1	2A	1117	G
1	2A	1129	A
1	2A	1130	U
1	2A	1135	C
1	2A	1136	G
1	2A	1142(A)	A
1	2A	1171	G
1	2A	1211	U
1	2A	1212	G
1	2A	1236	G
1	2A	1237	A
1	2A	1244	G
1	2A	1248	G
1	2A	1253	A
1	2A	1256	G
1	2A	1271	G
1	2A	1272	A
1	2A	1287	A
1	2A	1300	U

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Mol	Chain	Res	Type
1	2A	1301	A
1	2A	1303	G
1	2A	1314	C
1	2A	1321	A
1	2A	1342	A
1	2A	1349	A
1	2A	1352	U
1	2A	1360	A
1	2A	1365	A
1	2A	1368	G
1	2A	1370	C
1	2A	1384	A
1	2A	1385	G
1	2A	1386	C
1	2A	1416	G
1	2A	1417	C
1	2A	1421	G
1	2A	1427	A
1	2A	1428	C
1	2A	1445	A
1	2A	1450	G
1	2A	1455	G
1	2A	1459	G
1	2A	1467	C
1	2A	1471	A
1	2A	1472	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	1510	G
1	2A	1531	C
1	2A	1537	G
1	2A	1542	A
1	2A	1543	C
1	2A	1554	A
1	2A	1555	G
1	2A	1558	A
1	2A	1559	G
1	2A	1566	A

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Mol	Chain	Res	Type
1	2A	1569	A
1	2A	1578	U
1	2A	1580	A
1	2A	1583	A
1	2A	1584	C
1	2A	1586	A
1	2A	1589	C
1	2A	1590	U
1	2A	1608	A
1	2A	1609	A
1	2A	1639	U
1	2A	1640	C
1	2A	1647	G
1	2A	1648	C
1	2A	1664	A
1	2A	1674	G
1	2A	1693	U
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	1740	G
1	2A	1746	G
1	2A	1756	G
1	2A	1763	G
1	2A	1764	G
1	2A	1773	A
1	2A	1780	A
1	2A	1782	C
1	2A	1786	A
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1816	G
1	2A	1835	G
1	2A	1839	G
1	2A	1847	A
1	2A	1848	A
1	2A	1877	A
1	2A	1878	G

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Mol	Chain	Res	Type
1	2A	1882	C
1	2A	1900	A
1	2A	1914	C
1	2A	1918	A
1	2A	1929	G
1	2A	1930	G
1	2A	1937	A
1	2A	1938	A
1	2A	1955	U
1	2A	1963	U
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1993	U
1	2A	1997	G
1	2A	2001	A
1	2A	2020	A
1	2A	2023	G
1	2A	2031	A
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	2069	G
1	2A	2093	G
1	2A	2096	U
1	2A	2098	U
1	2A	2101	G
1	2A	2103	C
1	2A	2105	C
1	2A	2107	C
1	2A	2108	C
1	2A	2109	U
1	2A	2116	G
1	2A	2117	A
1	2A	2118	U
1	2A	2119	A
1	2A	2120	G
1	2A	2121	G

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Mol	Chain	Res	Type
1	2A	2123	G
1	2A	2126	A
1	2A	2127	G
1	2A	2129	C
1	2A	2130	U
1	2A	2132	U
1	2A	2133	G
1	2A	2134	A
1	2A	2135	A
1	2A	2136	C
1	2A	2142	C
1	2A	2145	C
1	2A	2146	C
1	2A	2147	G
1	2A	2148	G
1	2A	2150	U
1	2A	2151	G
1	2A	2158	A
1	2A	2159	G
1	2A	2161	C
1	2A	2163	C
1	2A	2164	C
1	2A	2167	U
1	2A	2168	G
1	2A	2172	U
1	2A	2173	A
1	2A	2174	C
1	2A	2178	C
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	2198	A
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2218	U
1	2A	2219	G
1	2A	2225	A
1	2A	2268	A

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Mol	Chain	Res	Type
1	2A	2269	A
1	2A	2275	C
1	2A	2278	A
1	2A	2280	G
1	2A	2283	C
1	2A	2287	A
1	2A	2289	G
1	2A	2298	A
1	2A	2300	G
1	2A	2305	A
1	2A	2308	G
1	2A	2309	A
1	2A	2310	A
1	2A	2314	C
1	2A	2319	G
1	2A	2320	A
1	2A	2321	G
1	2A	2322	A
1	2A	2325	G
1	2A	2334	G
1	2A	2335	A
1	2A	2336	A
1	2A	2343	C
1	2A	2347	C
1	2A	2350	C
1	2A	2366	A
1	2A	2379	G
1	2A	2383	G
1	2A	2385	C
1	2A	2391	G
1	2A	2406	U
1	2A	2410	G
1	2A	2414	G
1	2A	2422	A
1	2A	2423	U
1	2A	2425	A
1	2A	2429	G
1	2A	2430	A
1	2A	2432	A
1	2A	2435	A
1	2A	2439	A
1	2A	2441	C

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Mol	Chain	Res	Type
1	2A	2445	G
1	2A	2448	A
1	2A	2470	G
1	2A	2474	C
1	2A	2476	A
1	2A	2480	C
1	2A	2487	G
1	2A	2490	G
1	2A	2502	G
1	2A	2504	U
1	2A	2505	G
1	2A	2506	U
1	2A	2507	C
1	2A	2518	A
1	2A	2520	C
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	2609	U
1	2A	2611	U
1	2A	2612	C
1	2A	2615	U
1	2A	2629	A
1	2A	2630	G
1	2A	2654	A
1	2A	2667	C
1	2A	2682	U
1	2A	2689	U
1	2A	2690	C
1	2A	2702	U
1	2A	2703	C
1	2A	2707	G
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2714	G
1	2A	2718	G

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Mol	Chain	Res	Type
1	2A	2726	U
1	2A	2733	A
1	2A	2750	A
1	2A	2752	C
1	2A	2757	A
1	2A	2758	A
1	2A	2764	A
1	2A	2765	A
1	2A	2778	A
1	2A	2789	C
1	2A	2803	C
1	2A	2818	G
1	2A	2820	A
1	2A	2821	A
1	2A	2833	G
1	2A	2836	U
1	2A	2872	G
1	2A	2880	C
1	2A	2892	A
1	2A	2894	G
1	2A	2897	U
2	2B	2	C
2	2B	8	U
2	2B	9	G
2	2B	12	C
2	2B	13	A
2	2B	24	G
2	2B	30	C
2	2B	33	G
2	2B	35	U
2	2B	56	G
2	2B	73	A
2	2B	84	C
2	2B	106	G
2	2B	109	C
2	2B	110	G
2	2B	118	G
32	2a	5	U
32	2a	7	G
32	2a	9	G
32	2a	32	A
32	2a	39	G

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Mol	Chain	Res	Type
32	2a	47	C
32	2a	48	C
32	2a	51	A
32	2a	60	A
32	2a	61	G
32	2a	66	G
32	2a	76	C
32	2a	89	C
32	2a	101	A
32	2a	105	G
32	2a	116	A
32	2a	120	A
32	2a	121	C
32	2a	130	A
32	2a	131	C
32	2a	142	G
32	2a	148	G
32	2a	151	A
32	2a	153	C
32	2a	156	G
32	2a	163	C
32	2a	173	U
32	2a	174	C
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	226	G
32	2a	232	G
32	2a	237	C
32	2a	240	C
32	2a	245	C
32	2a	247	G
32	2a	251	G
32	2a	258	G

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Mol	Chain	Res	Type
32	2a	262	A
32	2a	266	G
32	2a	267	C
32	2a	279	A
32	2a	289	G
32	2a	298	A
32	2a	316	G
32	2a	321	A
32	2a	328	C
32	2a	332	G
32	2a	346	G
32	2a	351	G
32	2a	352	C
32	2a	353	A
32	2a	354	G
32	2a	367	U
32	2a	372	C
32	2a	373	A
32	2a	381	C
32	2a	397	A
32	2a	398	C
32	2a	406	G
32	2a	412	A
32	2a	413	G
32	2a	421	U
32	2a	424	G
32	2a	429	U
32	2a	430	A
32	2a	439	A
32	2a	442	C
32	2a	443	C
32	2a	452	A
32	2a	458	C
32	2a	461	A
32	2a	470	C
32	2a	471	G
32	2a	476	G
32	2a	477	A
32	2a	482	A
32	2a	484	G
32	2a	485	G
32	2a	486	U

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Mol	Chain	Res	Type
32	2a	496	A
32	2a	498	U
32	2a	502	G
32	2a	505	G
32	2a	509	A
32	2a	510	A
32	2a	511	C
32	2a	518	C
32	2a	521	G
32	2a	532	A
32	2a	533	A
32	2a	536	C
32	2a	537	G
32	2a	547	A
32	2a	553	A
32	2a	559	A
32	2a	561	U
32	2a	564	C
32	2a	572	A
32	2a	573	A
32	2a	574	A
32	2a	576	G
32	2a	577	G
32	2a	592	G
32	2a	596	C
32	2a	612	C
32	2a	630	G
32	2a	631	G
32	2a	632	A
32	2a	650	G
32	2a	653	A
32	2a	655	A
32	2a	661	G
32	2a	665	A
32	2a	687	A
32	2a	688	G
32	2a	690	G
32	2a	702	A
32	2a	721	G
32	2a	723	U
32	2a	724	G
32	2a	731	G

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Mol	Chain	Res	Type
32	2a	749	C
32	2a	753	A
32	2a	755	G
32	2a	760	G
32	2a	773	G
32	2a	774	G
32	2a	777	A
32	2a	793	U
32	2a	794	A
32	2a	806	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	838	G
32	2a	840	C
32	2a	841	U
32	2a	848	C
32	2a	851	G
32	2a	854	G
32	2a	859	A
32	2a	875	C
32	2a	902	G
32	2a	914	A
32	2a	916	G
32	2a	926	G
32	2a	927	G
32	2a	931	C
32	2a	933	G
32	2a	934	C
32	2a	942	G
32	2a	960	U
32	2a	961	U
32	2a	966	M2G
32	2a	968	A
32	2a	969	A
32	2a	971	G
32	2a	972	C
32	2a	974	A
32	2a	975	A

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Mol	Chain	Res	Type
32	2a	976	G
32	2a	977	A
32	2a	982	U
32	2a	983	A
32	2a	989	C
32	2a	990	C
32	2a	992	U
32	2a	993	G
32	2a	994	A
32	2a	1003	G
32	2a	1004	A
32	2a	1005	A
32	2a	1006	C
32	2a	1009	G
32	2a	1016	A
32	2a	1020	U
32	2a	1025	U
32	2a	1026	G
32	2a	1027	C
32	2a	1028	C
32	2a	1030(B)	C
32	2a	1041	A
32	2a	1046	A
32	2a	1047	G
32	2a	1053	G
32	2a	1055	A
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1071	C
32	2a	1081	G
32	2a	1086	U
32	2a	1094	G
32	2a	1095	U
32	2a	1101	A
32	2a	1117	G
32	2a	1122	U
32	2a	1125	U
32	2a	1127	G
32	2a	1129	C
32	2a	1130	A
32	2a	1134	G

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Mol	Chain	Res	Type
32	2a	1136	U
32	2a	1137	C
32	2a	1138	G
32	2a	1139	G
32	2a	1147	C
32	2a	1152	A
32	2a	1157	A
32	2a	1159	U
32	2a	1160	G
32	2a	1161	C
32	2a	1166	G
32	2a	1172	C
32	2a	1182	G
32	2a	1183	A
32	2a	1184	G
32	2a	1194	U
32	2a	1196	U
32	2a	1197	G
32	2a	1201	A
32	2a	1210	C
32	2a	1213	A
32	2a	1215	G
32	2a	1224	G
32	2a	1227	A
32	2a	1228	C
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	1278	U
32	2a	1279	A
32	2a	1280	A
32	2a	1281	U
32	2a	1282	C
32	2a	1287	A
32	2a	1299	A
32	2a	1300	G
32	2a	1301	U
32	2a	1302	U
32	2a	1303	C

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Mol	Chain	Res	Type
32	2a	1312	G
32	2a	1317	C
32	2a	1320	C
32	2a	1340	A
32	2a	1346	A
32	2a	1347	G
32	2a	1353	G
32	2a	1358	U
32	2a	1359	C
32	2a	1363	C
32	2a	1363(A)	A
32	2a	1364	U
32	2a	1370	G
32	2a	1384	C
32	2a	1397	C
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1446	U
32	2a	1447	A
32	2a	1456	G
32	2a	1492	A
32	2a	1494	G
32	2a	1499	A
32	2a	1503	A
32	2a	1504	G
32	2a	1505	G
32	2a	1506	U
32	2a	1507	A
32	2a	1517	G
32	2a	1520	G
32	2a	1529	G
32	2a	1530	G

All (64) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	266	G
1	1A	278	A
1	1A	573	G
1	1A	685	A
1	1A	746	A

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Mol	Chain	Res	Type
1	1A	764	A
1	1A	774	A
1	1A	839	U
1	1A	840	C
1	1A	888	C
1	1A	895	U
1	1A	974	G
1	1A	1047	G
1	1A	1065	U
1	1A	1089	G
1	1A	1142(A)	A
1	1A	1174	A
1	1A	1175	U
1	1A	1176	G
1	1A	1210	A
1	1A	1300	U
1	1A	1379	A
1	1A	1442	G
1	1A	1608	A
1	1A	1653	G
1	1A	1663	C
1	1A	2111	C
1	1A	2126	A
1	1A	2406	U
1	1A	2422	A
1	1A	2602	A
1	1A	2689	U
1	1A	2893	G
1	2A	195	A
1	2A	196	A
1	2A	266	G
1	2A	271(M)	G
1	2A	277	C
1	2A	752	A
1	2A	764	A
1	2A	774	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

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Mol	Chain	Res	Type
1	2A	1065	U
1	2A	1067	A
1	2A	1073	A
1	2A	1076	C
1	2A	1210	A
1	2A	1420	U
1	2A	1442	G
1	2A	1491	G
1	2A	1992	G
1	2A	2126	A
1	2A	2171	A
1	2A	2172	U
1	2A	2321	G
1	2A	2406	U
1	2A	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	PSU	1A	1917	1	18,21,22	1.35	2 (11%)	21,30,33	1.93	3 (14%)
1	2MA	1A	2503	54,1	22,25,26	1.47	4 (18%)	32,37,40	2.29	8 (25%)
1	5MU	2A	1915	1	19,22,23	1.37	4 (21%)	27,32,35	2.19	7 (25%)
1	2MU	2A	2552	54,1	19,22,24	1.22	2 (10%)	25,31,36	1.92	6 (24%)
32	5MC	1a	1407	32	19,22,23	1.72	2 (10%)	26,32,35	1.11	3 (11%)
32	UR3	1a	1498	32	19,22,23	0.96	1 (5%)	26,32,35	1.85	4 (15%)
1	PSU	2A	1911	1	18,21,22	1.41	3 (16%)	21,30,33	2.03	3 (14%)
1	5MC	2A	1942	1	19,22,23	1.71	3 (15%)	26,32,35	1.22	2 (7%)
1	5MC	1A	1942	1	19,22,23	1.68	3 (15%)	26,32,35	1.19	3 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	4OC	1a	1402	32	20,23,24	0.77	1 (5%)	25,32,35	0.96	2 (8%)
1	5MC	2A	1962	54,1	19,22,23	1.59	2 (10%)	26,32,35	1.16	2 (7%)
32	4OC	2a	1402	32	20,23,24	0.78	0	25,32,35	1.04	1 (4%)
32	5MC	1a	1404	32	19,22,23	1.68	3 (15%)	26,32,35	1.17	2 (7%)
32	MA6	2a	1519	32	23,26,27	0.42	0	33,38,41	2.08	10 (30%)
32	MA6	1a	1519	32	23,26,27	0.44	0	33,38,41	2.06	10 (30%)
32	5MC	2a	1407	32	19,22,23	1.64	2 (10%)	26,32,35	1.17	3 (11%)
32	UR3	2a	1498	32	19,22,23	1.03	2 (10%)	26,32,35	1.69	4 (15%)
32	M2G	1a	966	32	24,27,28	1.29	4 (16%)	33,40,43	1.85	6 (18%)
32	5MC	2a	1404	32	19,22,23	1.71	3 (15%)	26,32,35	1.16	2 (7%)
32	M2G	2a	966	32	24,27,28	1.33	4 (16%)	33,40,43	1.88	5 (15%)
43	0TD	1l	92	43	8,9,10	4.47	1 (12%)	6,11,13	5.36	3 (50%)
1	4OC	2A	1920	1	19,22,24	0.82	0	25,31,35	0.96	1 (4%)
1	PSU	1A	1911	1	18,21,22	1.37	2 (11%)	21,30,33	2.05	3 (14%)
32	MA6	1a	1518	32	23,26,27	0.39	0	33,38,41	1.89	10 (30%)
1	OMG	2A	2251	54,1	23,26,27	1.21	3 (13%)	32,38,41	1.92	5 (15%)
1	PSU	2A	2605	1	18,21,22	1.37	3 (16%)	21,30,33	2.05	5 (23%)
1	4OC	1A	1920	1	19,22,24	0.84	0	25,31,35	1.01	1 (4%)
32	PSU	2a	516	54,32	18,21,22	1.35	2 (11%)	21,30,33	2.17	5 (23%)
32	5MC	2a	967	32	19,22,23	1.77	2 (10%)	26,32,35	1.03	2 (7%)
43	0TD	2l	92	43	8,9,10	4.38	1 (12%)	6,11,13	6.38	2 (33%)
1	OMG	1A	2251	54,1	23,26,27	1.26	3 (13%)	32,38,41	2.00	5 (15%)
1	5MU	2A	1939	54,1	19,22,23	1.45	6 (31%)	27,32,35	2.17	8 (29%)
32	2MG	2a	1207	32	23,26,27	1.24	3 (13%)	33,38,41	2.14	7 (21%)
1	5MU	1A	1915	1	19,22,23	1.41	4 (21%)	27,32,35	2.20	9 (33%)
32	5MC	2a	1400	32	19,22,23	1.72	3 (15%)	26,32,35	1.18	2 (7%)
32	PSU	1a	516	54,32	18,21,22	1.37	2 (11%)	21,30,33	2.00	5 (23%)
32	5MC	1a	967	32	19,22,23	1.64	3 (15%)	26,32,35	1.15	3 (11%)
32	2MG	1a	1207	54,32	23,26,27	1.21	2 (8%)	33,38,41	2.43	12 (36%)
32	7MG	1a	527	54,32	23,26,27	1.33	3 (13%)	27,39,42	2.57	7 (25%)
1	2MA	2A	2503	54,1	22,25,26	1.50	4 (18%)	32,37,40	2.48	9 (28%)
1	5MU	1A	1939	1	19,22,23	1.50	6 (31%)	27,32,35	2.11	8 (29%)
32	7MG	2a	527	32	23,26,27	1.42	4 (17%)	27,39,42	2.49	6 (22%)
1	5MC	1A	1962	1	19,22,23	1.54	3 (15%)	26,32,35	1.11	1 (3%)
1	PSU	1A	2605	54,1	18,21,22	1.43	3 (16%)	21,30,33	1.93	4 (19%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	5MC	1a	1400	32	19,22,23	1.74	3 (15%)	26,32,35	1.19	2 (7%)
1	2MU	1A	2552	54,1	19,22,24	1.33	4 (21%)	25,31,36	1.88	5 (20%)
32	MA6	2a	1518	32	23,26,27	0.38	0	33,38,41	2.03	9 (27%)
1	PSU	2A	1917	1	18,21,22	1.35	2 (11%)	21,30,33	2.06	3 (14%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	PSU	1A	1917	1	-	0/7/25/26	0/2/2/2
1	2MA	1A	2503	54,1	-	1/7/25/26	0/3/3/3
1	5MU	2A	1915	1	-	2/7/25/26	0/2/2/2
1	2MU	2A	2552	54,1	-	0/9/27/28	0/2/2/2
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
1	5MC	1A	1942	1	-	0/7/25/26	0/2/2/2
32	4OC	1a	1402	32	-	1/9/29/30	0/2/2/2
1	5MC	2A	1962	54,1	-	0/7/25/26	0/2/2/2
32	4OC	2a	1402	32	-	0/9/29/30	0/2/2/2
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
32	MA6	2a	1519	32	-	2/11/29/30	0/3/3/3
32	MA6	1a	1519	32	-	2/11/29/30	0/3/3/3
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
32	UR3	2a	1498	32	-	0/7/25/26	0/2/2/2
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2
32	M2G	2a	966	32	-	0/11/29/30	0/3/3/3
43	0TD	1l	92	43	-	1/7/12/14	-
1	4OC	2A	1920	1	-	0/9/27/30	0/2/2/2
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
32	MA6	1a	1518	32	-	0/11/29/30	0/3/3/3
1	OMG	2A	2251	54,1	-	1/9/27/28	0/3/3/3
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
1	4OC	1A	1920	1	-	1/9/27/30	0/2/2/2
32	PSU	2a	516	54,32	-	0/7/25/26	0/2/2/2
32	5MC	2a	967	32	-	0/7/25/26	0/2/2/2
43	0TD	2l	92	43	-	1/7/12/14	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	OMG	1A	2251	54,1	-	1/9/27/28	0/3/3/3
1	5MU	2A	1939	54,1	-	0/7/25/26	0/2/2/2
32	2MG	2a	1207	32	-	1/9/27/28	0/3/3/3
1	5MU	1A	1915	1	-	2/7/25/26	0/2/2/2
32	5MC	2a	1400	32	-	4/7/25/26	0/2/2/2
32	PSU	1a	516	54,32	-	0/7/25/26	0/2/2/2
32	5MC	1a	967	32	-	0/7/25/26	0/2/2/2
32	2MG	1a	1207	54,32	-	2/9/27/28	0/3/3/3
32	7MG	1a	527	54,32	-	2/7/37/38	0/3/3/3
1	2MA	2A	2503	54,1	-	0/7/25/26	0/3/3/3
1	5MU	1A	1939	1	-	0/7/25/26	0/2/2/2
32	7MG	2a	527	32	-	2/7/37/38	0/3/3/3
1	5MC	1A	1962	1	-	2/7/25/26	0/2/2/2
1	PSU	1A	2605	54,1	-	0/7/25/26	0/2/2/2
32	5MC	1a	1400	32	-	0/7/25/26	0/2/2/2
1	2MU	1A	2552	54,1	-	0/9/27/28	0/2/2/2
32	MA6	2a	1518	32	-	0/11/29/30	0/3/3/3
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2

All (117) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	1l	92	0TD	CB-SB	-12.23	1.69	1.82
43	2l	92	0TD	CB-SB	-12.00	1.70	1.82
32	2a	967	5MC	C5-C4	6.60	1.49	1.44
32	2a	1400	5MC	C5-C4	6.28	1.48	1.44
32	1a	1407	5MC	C5-C4	6.28	1.48	1.44
32	1a	1400	5MC	C5-C4	6.26	1.48	1.44
32	2a	1404	5MC	C5-C4	6.16	1.48	1.44
1	2A	1942	5MC	C5-C4	6.16	1.48	1.44
32	1a	1404	5MC	C5-C4	6.14	1.48	1.44
1	1A	1942	5MC	C5-C4	6.04	1.48	1.44
32	2a	1407	5MC	C5-C4	5.93	1.48	1.44
32	1a	967	5MC	C5-C4	5.87	1.48	1.44
1	2A	1962	5MC	C5-C4	5.57	1.48	1.44
1	1A	1962	5MC	C5-C4	5.27	1.48	1.44
1	1A	2503	2MA	C5-C4	4.47	1.47	1.39
1	2A	2503	2MA	C5-C4	4.38	1.46	1.39
1	2A	1911	PSU	C6-C5	3.54	1.39	1.35
1	1A	1917	PSU	C6-C5	3.49	1.39	1.35
1	1A	1911	PSU	C6-C5	3.49	1.39	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	966	M2G	C5-C4	3.40	1.48	1.38
32	1a	527	7MG	C4-N9	-3.38	1.33	1.37
32	2a	527	7MG	C4-N9	-3.36	1.33	1.37
32	2a	527	7MG	C5-C4	3.34	1.47	1.37
1	1A	2605	PSU	C4-N3	-3.28	1.32	1.38
32	1a	527	7MG	C5-C4	3.28	1.47	1.37
1	2A	2251	OMG	C5-C4	3.25	1.47	1.38
32	2a	1207	2MG	C5-C4	3.21	1.47	1.38
1	1A	2251	OMG	C5-C4	3.21	1.47	1.38
32	2a	516	PSU	C6-C5	3.17	1.38	1.35
1	2A	1962	5MC	C6-C5	3.13	1.39	1.34
32	1a	966	M2G	C5-C4	3.12	1.47	1.38
32	1a	516	PSU	C6-C5	3.12	1.38	1.35
1	2A	1917	PSU	C6-C5	3.11	1.38	1.35
1	2A	2605	PSU	C4-N3	-3.03	1.33	1.38
1	1A	1942	5MC	C6-C5	3.01	1.39	1.34
32	2a	1400	5MC	C6-C5	3.00	1.39	1.34
32	1a	1407	5MC	C6-C5	3.00	1.39	1.34
32	2a	1404	5MC	C6-C5	2.99	1.39	1.34
1	1A	1939	5MU	C6-C5	2.98	1.39	1.34
32	2a	1407	5MC	C6-C5	2.95	1.39	1.34
32	1a	1207	2MG	C5-C4	2.95	1.46	1.38
32	2a	966	M2G	C2-N2	2.95	1.40	1.35
32	2a	967	5MC	C6-C5	2.86	1.39	1.34
1	1A	2605	PSU	C6-C5	2.85	1.38	1.35
1	1A	1962	5MC	C6-C5	2.84	1.39	1.34
32	1a	1404	5MC	C6-C5	2.81	1.39	1.34
1	1A	2552	2MU	C5-C4	2.80	1.49	1.43
1	1A	1915	5MU	C2-N1	2.78	1.42	1.38
1	1A	1939	5MU	C4-C5	2.76	1.49	1.44
1	2A	1942	5MC	C6-C5	2.75	1.39	1.34
1	1A	1915	5MU	C6-C5	2.74	1.39	1.34
1	1A	2251	OMG	C6-N1	-2.72	1.33	1.38
32	1a	1400	5MC	C6-C5	2.71	1.39	1.34
1	2A	1911	PSU	C4-N3	-2.71	1.33	1.38
1	2A	1939	5MU	C4-C5	2.71	1.49	1.44
1	2A	1939	5MU	C6-C5	2.70	1.39	1.34
1	1A	2552	2MU	C4-N3	-2.67	1.34	1.38
1	2A	1915	5MU	C2-N1	2.67	1.42	1.38
1	2A	1915	5MU	C6-C5	2.67	1.39	1.34
1	1A	1939	5MU	C4-N3	-2.67	1.33	1.38
32	1a	967	5MC	C6-C5	2.67	1.39	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	1939	5MU	C4-N3	-2.66	1.33	1.38
32	1a	966	M2G	C2-N2	2.66	1.40	1.35
1	2A	2503	2MA	C5-C6	2.64	1.48	1.41
1	1A	2605	PSU	C2-N3	-2.63	1.33	1.37
1	2A	2251	OMG	C6-N1	-2.59	1.34	1.38
32	1a	516	PSU	C4-N3	-2.57	1.34	1.38
1	1A	1915	5MU	C4-N3	-2.57	1.34	1.38
1	2A	1917	PSU	C4-N3	-2.56	1.34	1.38
1	1A	1962	5MC	C6-N1	-2.55	1.33	1.38
32	1a	1400	5MC	C6-N1	-2.55	1.33	1.38
1	2A	2552	2MU	C4-N3	-2.53	1.34	1.38
1	2A	1939	5MU	C6-N1	-2.53	1.33	1.38
32	1a	966	M2G	C6-N1	-2.53	1.34	1.38
1	2A	2605	PSU	C2-N3	-2.51	1.33	1.37
1	2A	2605	PSU	C6-C5	2.51	1.38	1.35
1	1A	2503	2MA	C5-N7	-2.51	1.34	1.39
1	1A	1911	PSU	C4-N3	-2.50	1.34	1.38
1	1A	1939	5MU	C6-N1	-2.50	1.33	1.38
32	2a	966	M2G	C6-N1	-2.41	1.34	1.38
32	2a	516	PSU	C4-N3	-2.41	1.34	1.38
1	2A	1942	5MC	C6-N1	-2.41	1.33	1.38
1	2A	1915	5MU	C4-N3	-2.40	1.34	1.38
32	2a	1207	2MG	C6-N1	-2.39	1.34	1.38
32	2a	527	7MG	C8-N9	2.39	1.47	1.45
1	1A	1917	PSU	C4-N3	-2.38	1.34	1.38
1	1A	2503	2MA	C5-C6	2.38	1.47	1.41
1	2A	2503	2MA	C8-N7	2.37	1.36	1.31
32	1a	967	5MC	C6-N1	-2.36	1.34	1.38
32	2a	527	7MG	C6-N1	-2.36	1.34	1.38
32	1a	1207	2MG	C6-N1	-2.35	1.34	1.38
32	2a	1498	UR3	C6-C5	2.32	1.40	1.35
1	1A	1915	5MU	C4-C5	2.30	1.48	1.44
1	2A	1939	5MU	C2-N1	2.29	1.42	1.38
1	1A	1942	5MC	C6-N1	-2.22	1.34	1.38
1	1A	1939	5MU	C2-N1	2.20	1.41	1.38
1	2A	2503	2MA	C5-N7	-2.19	1.35	1.39
32	2a	1498	UR3	C2-N1	2.18	1.41	1.38
32	2a	1404	5MC	C6-N1	-2.18	1.34	1.38
1	1A	2552	2MU	C6-C5	2.17	1.40	1.35
32	1a	1404	5MC	C6-N1	-2.16	1.34	1.38
1	2A	1915	5MU	C4-C5	2.15	1.48	1.44
1	2A	2552	2MU	C5-C4	2.14	1.48	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	2251	OMG	C5-N7	-2.13	1.34	1.39
32	2a	1400	5MC	C6-N1	-2.11	1.34	1.38
32	1a	1498	UR3	C6-C5	2.10	1.40	1.35
1	1A	1939	5MU	C2-N3	-2.10	1.34	1.38
32	1a	966	M2G	C5-N7	-2.10	1.34	1.39
1	1A	2552	2MU	C2-N1	2.09	1.41	1.38
32	1a	527	7MG	C6-N1	-2.07	1.35	1.38
1	1A	2251	OMG	C5-N7	-2.05	1.35	1.39
1	1A	2503	2MA	C8-N7	2.04	1.35	1.31
1	2A	1911	PSU	C2-N3	-2.03	1.34	1.37
32	2a	966	M2G	C5-N7	-2.02	1.35	1.39
32	2a	1207	2MG	C5-N7	-2.01	1.35	1.39
1	2A	1939	5MU	C2-N3	-2.01	1.34	1.38
32	1a	1402	4OC	C6-C5	2.01	1.39	1.35

All (228) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	2l	92	0TD	CSB-SB-CB	-15.12	75.19	102.36
43	1l	92	0TD	CSB-SB-CB	-12.41	80.06	102.36
32	1a	527	7MG	N9-C4-N3	8.74	138.27	125.46
1	2A	2503	2MA	C5-C4-N3	-8.65	118.07	127.18
32	2a	527	7MG	N9-C4-N3	8.48	137.89	125.46
1	1A	2503	2MA	C5-C4-N3	-7.87	118.89	127.18
32	1a	1498	UR3	C4-N3-C2	-7.44	118.60	124.58
32	1a	1207	2MG	C2-N3-C4	7.12	120.91	112.00
1	2A	2503	2MA	N3-C4-N9	6.98	135.85	126.99
32	2a	1207	2MG	C2-N3-C4	6.71	120.39	112.00
32	2a	1498	UR3	C4-N3-C2	-6.68	119.21	124.58
32	2a	516	PSU	N1-C2-N3	6.67	122.20	115.17
1	1A	1911	PSU	N1-C2-N3	6.54	122.07	115.17
1	1A	2503	2MA	N3-C4-N9	6.44	135.16	126.99
32	2a	966	M2G	C5-C4-N3	-6.39	118.21	128.39
1	2A	1917	PSU	N1-C2-N3	6.33	121.85	115.17
1	1A	2251	OMG	C5-C4-N3	-6.29	118.39	128.39
1	2A	1911	PSU	N1-C2-N3	6.28	121.79	115.17
1	2A	2605	PSU	N1-C2-N3	6.11	121.62	115.17
1	2A	2251	OMG	C5-C4-N3	-6.08	118.72	128.39
32	1a	966	M2G	C5-C4-N3	-6.05	118.76	128.39
32	2a	1207	2MG	C5-C4-N3	-5.92	118.96	128.39
32	1a	516	PSU	N1-C2-N3	5.90	121.39	115.17
1	1A	1917	PSU	N1-C2-N3	5.90	121.39	115.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	2605	PSU	N1-C2-N3	5.82	121.31	115.17
1	1A	2552	2MU	N3-C2-N1	5.66	122.25	114.89
1	2A	1939	5MU	N3-C2-N1	5.55	122.12	114.89
32	1a	1207	2MG	C5-C4-N3	-5.55	119.55	128.39
1	1A	1939	5MU	N3-C2-N1	5.36	121.87	114.89
32	1a	527	7MG	N9-C8-N7	-5.31	95.85	103.37
1	1A	2251	OMG	C2-N3-C4	5.30	121.42	112.30
1	2A	1939	5MU	C4-N3-C2	-5.26	120.45	127.34
32	2a	527	7MG	N9-C8-N7	-5.18	96.03	103.37
1	2A	2552	2MU	N3-C2-N1	5.18	121.64	114.89
1	1A	1939	5MU	C4-N3-C2	-5.11	120.64	127.34
32	2a	527	7MG	C5-C4-N3	-5.09	118.57	128.13
32	2a	1519	MA6	N1-C2-N3	-4.90	121.16	128.58
32	1a	527	7MG	C5-C4-N3	-4.90	118.94	128.13
1	2A	2251	OMG	C2-N3-C4	4.89	120.73	112.30
1	2A	2552	2MU	C4-N3-C2	-4.84	120.61	126.61
32	1a	1519	MA6	C5-C4-N3	-4.82	120.08	126.72
32	1a	1519	MA6	N1-C2-N3	-4.79	121.33	128.58
1	1A	1915	5MU	N3-C2-N1	4.73	121.05	114.89
32	2a	966	M2G	N9-C4-N3	4.73	135.41	125.95
32	2a	1518	MA6	N1-C2-N3	-4.69	121.48	128.58
32	2a	1518	MA6	C5-C4-N3	-4.58	120.41	126.72
32	2a	966	M2G	C2-N3-C4	4.56	120.95	112.51
32	1a	966	M2G	N9-C4-N3	4.55	135.05	125.95
1	1A	1915	5MU	C4-N3-C2	-4.52	121.41	127.34
1	1A	2552	2MU	C4-N3-C2	-4.50	121.02	126.61
32	1a	1518	MA6	N1-C2-N3	-4.50	121.77	128.58
1	2A	1915	5MU	N3-C2-N1	4.45	120.68	114.89
32	1a	966	M2G	C2-N3-C4	4.43	120.70	112.51
1	2A	2251	OMG	N9-C4-N3	4.42	134.80	125.95
32	2a	1519	MA6	C5-C4-N3	-4.39	120.68	126.72
1	2A	2605	PSU	C4-N3-C2	-4.37	120.36	126.37
1	1A	1915	5MU	C5-C4-N3	4.35	119.11	115.32
1	1A	2251	OMG	N9-C4-N3	4.34	134.64	125.95
1	2A	1915	5MU	C4-N3-C2	-4.33	121.66	127.34
32	2a	516	PSU	C4-N3-C2	-4.33	120.41	126.37
32	2a	516	PSU	O2-C2-N1	-4.26	118.39	122.79
1	2A	1915	5MU	C1'-N1-C2	4.22	125.17	117.59
1	2A	1915	5MU	O4-C4-C5	-4.19	120.12	124.92
32	2a	1207	2MG	N9-C4-N3	4.15	134.24	125.95
32	1a	1207	2MG	C6-C5-N7	4.14	137.83	130.29
1	1A	2605	PSU	C4-N3-C2	-4.14	120.67	126.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	1917	PSU	C4-N3-C2	-4.12	120.69	126.37
32	2a	1519	MA6	C4-C5-N7	-4.09	105.90	110.58
32	1a	1518	MA6	C5-C4-N3	-4.08	121.10	126.72
1	2A	1911	PSU	C4-N3-C2	-4.05	120.80	126.37
32	2a	527	7MG	C2-N3-C4	4.04	119.26	112.30
1	2A	1917	PSU	O2-C2-N1	-4.04	118.62	122.79
1	1A	1915	5MU	O4-C4-C5	-4.03	120.30	124.92
32	2a	1519	MA6	C2-N1-C6	4.03	121.68	111.83
32	1a	516	PSU	C4-N3-C2	-4.03	120.82	126.37
32	2a	1400	5MC	C5-C6-N1	-4.01	118.95	123.31
1	2A	1915	5MU	C5-C4-N3	4.01	118.81	115.32
1	1A	1915	5MU	C1'-N1-C2	4.00	124.78	117.59
32	1a	527	7MG	C2-N3-C4	4.00	119.19	112.30
32	1a	1519	MA6	C4-C5-N7	-3.94	106.08	110.58
32	2a	1519	MA6	C5-N7-C8	3.91	109.59	103.45
1	1A	1917	PSU	C4-N3-C2	-3.90	121.00	126.37
32	1a	1519	MA6	C2-N1-C6	3.89	121.34	111.83
32	1a	1518	MA6	C2-N1-C6	3.89	121.33	111.83
1	2A	1939	5MU	C5-C4-N3	3.89	118.70	115.32
1	1A	1911	PSU	C4-N3-C2	-3.87	121.04	126.37
32	2a	1518	MA6	C2-N1-C6	3.87	121.28	111.83
1	1A	1911	PSU	O2-C2-N1	-3.87	118.80	122.79
1	2A	2503	2MA	C4-C5-N7	-3.85	106.17	110.58
32	2a	1518	MA6	C5-N7-C8	3.81	109.44	103.45
1	1A	1939	5MU	C5-C6-N1	-3.78	119.21	123.31
1	1A	1939	5MU	C5-C4-N3	3.77	118.60	115.32
1	2A	1915	5MU	C1'-N1-C6	-3.76	114.97	121.15
1	2A	2552	2MU	O2-C2-N1	-3.72	117.95	122.80
32	2a	1518	MA6	C4-C5-N7	-3.65	106.41	110.58
32	1a	1400	5MC	C5-C6-N1	-3.58	119.42	123.31
32	1a	1207	2MG	N9-C4-N3	3.57	133.09	125.95
1	2A	1942	5MC	C5-C6-N1	-3.56	119.45	123.31
32	1a	516	PSU	O2-C2-N1	-3.55	119.12	122.79
1	1A	2552	2MU	O2-C2-N1	-3.55	118.18	122.80
32	1a	1519	MA6	C2-N3-C4	3.55	120.49	111.83
1	1A	1917	PSU	O2-C2-N1	-3.53	119.15	122.79
32	1a	1519	MA6	C5-N7-C8	3.51	108.96	103.45
1	1A	1942	5MC	C5-C6-N1	-3.50	119.51	123.31
32	1a	1207	2MG	N1-C2-N2	3.50	120.13	116.56
1	1A	2251	OMG	C6-C5-N7	3.49	136.65	130.29
1	2A	1939	5MU	O4-C4-C5	-3.48	120.94	124.92
1	2A	2503	2MA	C4-N9-C8	3.47	109.38	105.74

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	2503	2MA	N6-C6-N1	3.44	121.67	117.03
32	1a	967	5MC	C5-C6-N1	-3.43	119.59	123.31
32	2a	1519	MA6	C2-N3-C4	3.42	120.18	111.83
1	2A	1911	PSU	O2-C2-N1	-3.42	119.26	122.79
1	1A	1962	5MC	C5-C6-N1	-3.41	119.61	123.31
32	2a	1207	2MG	C6-C5-N7	3.41	136.50	130.29
32	2a	1518	MA6	C2-N3-C4	3.41	120.16	111.83
1	1A	1915	5MU	C1'-N1-C6	-3.39	115.56	121.15
32	2a	1404	5MC	C5-C4-N3	-3.38	118.29	121.75
32	2a	1518	MA6	N9-C8-N7	-3.34	109.19	113.94
32	1a	1518	MA6	C5-N7-C8	3.33	108.69	103.45
1	1A	2503	2MA	C4-C5-N7	-3.32	106.78	110.58
43	1l	92	0TD	OD2-CG-CB	3.31	120.31	113.15
32	1a	1404	5MC	C5-C6-N1	-3.30	119.73	123.31
32	1a	1498	UR3	C5-C4-N3	3.27	119.35	115.04
32	2a	1519	MA6	N9-C8-N7	-3.23	109.36	113.94
1	2A	1939	5MU	C5-C6-N1	-3.19	119.84	123.31
1	2A	2251	OMG	C6-C5-N7	3.18	136.07	130.29
32	1a	1518	MA6	N9-C8-N7	-3.17	109.44	113.94
32	1a	966	M2G	C6-C5-N7	3.15	136.03	130.29
32	1a	1518	MA6	C2-N3-C4	3.12	119.45	111.83
32	2a	1404	5MC	C5-C6-N1	-3.12	119.93	123.31
1	2A	2605	PSU	C5-C6-N1	-3.12	117.81	122.14
32	2a	1407	5MC	C5-C4-N3	-3.10	118.58	121.75
1	2A	2503	2MA	C5-N7-C8	3.08	108.29	103.45
1	2A	1962	5MC	C5-C6-N1	-3.08	119.97	123.31
32	1a	1207	2MG	C4-C5-N7	-3.06	105.81	110.67
32	1a	1404	5MC	C5-C4-N3	-3.06	118.61	121.75
1	1A	2503	2MA	C4-N9-C8	3.03	108.92	105.74
32	2a	966	M2G	C6-C5-N7	3.00	135.75	130.29
32	1a	1407	5MC	C5-C6-N1	-3.00	120.06	123.31
43	2l	92	0TD	OD2-CG-CB	2.99	119.60	113.15
1	1A	1939	5MU	O4-C4-C5	-2.98	121.51	124.92
32	2a	1518	MA6	N3-C4-N9	2.95	132.19	127.17
1	1A	2251	OMG	C4-C5-N7	-2.94	106.00	110.67
32	2a	1407	5MC	C5-C6-N1	-2.94	120.12	123.31
32	1a	1518	MA6	N3-C4-N9	2.93	132.16	127.17
32	1a	1518	MA6	C4-C5-N7	-2.89	107.27	110.58
1	2A	2503	2MA	N6-C6-N1	2.85	120.87	117.03
32	1a	1400	5MC	C5-C4-N3	-2.82	118.86	121.75
32	2a	1207	2MG	C4-C5-N7	-2.82	106.21	110.67
32	1a	1407	5MC	C5-C4-N3	-2.81	118.87	121.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	2552	2MU	C5-C4-N3	2.81	118.73	114.80
32	1a	967	5MC	C5-C4-N3	-2.80	118.88	121.75
32	1a	527	7MG	C5-C4-N9	-2.77	102.79	106.33
1	2A	2552	2MU	O4-C4-C5	-2.74	120.44	125.16
32	2a	1498	UR3	C5-C4-N3	2.73	118.64	115.04
1	2A	2503	2MA	N9-C8-N7	-2.72	110.07	113.94
1	1A	2503	2MA	C5-N7-C8	2.72	107.73	103.45
32	1a	1207	2MG	N2-C2-N3	-2.71	117.06	120.51
1	2A	1962	5MC	C5-C4-N3	-2.68	119.01	121.75
1	2A	1942	5MC	C5-C4-N3	-2.68	119.01	121.75
32	1a	1498	UR3	C3U-N3-C2	2.68	122.00	117.33
32	2a	967	5MC	C5-C6-N1	-2.66	120.43	123.31
32	1a	1519	MA6	C4-C5-C6	2.66	118.66	115.91
1	1A	1942	5MC	C5-C4-N3	-2.64	119.05	121.75
32	1a	1519	MA6	N9-C8-N7	-2.62	110.22	113.94
1	1A	1939	5MU	O2-C2-N1	-2.61	119.40	122.80
1	2A	2251	OMG	C4-C5-N7	-2.61	106.54	110.67
32	2a	966	M2G	C4-C5-N7	-2.59	106.56	110.67
1	2A	1939	5MU	O2-C2-N1	-2.58	119.44	122.80
32	1a	1519	MA6	N3-C4-N9	2.54	131.48	127.17
32	1a	966	M2G	C4-C5-N7	-2.52	106.67	110.67
1	1A	2605	PSU	O2-C2-N1	-2.52	120.19	122.79
32	1a	527	7MG	C5-C6-N1	2.52	115.37	110.94
32	2a	1518	MA6	C4-C5-C6	2.52	118.51	115.91
1	1A	1920	4OC	O2-C2-N3	-2.51	118.37	122.33
32	2a	967	5MC	C5-C4-N3	-2.50	119.19	121.75
1	1A	2605	PSU	C5-C6-N1	-2.47	118.71	122.14
32	2a	516	PSU	C5-C6-N1	-2.45	118.74	122.14
1	1A	2552	2MU	C2'-C1'-N1	-2.45	109.60	114.24
32	1a	527	7MG	O6-C6-C5	-2.44	121.63	127.62
1	1A	1939	5MU	C5M-C5-C4	2.42	121.36	118.78
32	1a	1402	4OC	C6-C5-C4	2.42	119.91	117.00
32	1a	1519	MA6	C5-C4-N9	2.41	108.44	105.81
32	2a	527	7MG	C5-C6-N1	2.41	115.18	110.94
32	2a	1400	5MC	C5-C4-N3	-2.40	119.29	121.75
1	2A	1939	5MU	C5M-C5-C4	2.40	121.35	118.78
32	2a	1519	MA6	N3-C4-N9	2.38	131.22	127.17
1	1A	1939	5MU	C5M-C5-C6	-2.37	119.64	122.85
1	2A	1920	4OC	O2-C2-N3	-2.37	118.60	122.33
32	1a	1207	2MG	CM2-N2-C2	-2.36	118.58	123.65
1	1A	1942	5MC	O2-C2-N3	-2.36	118.61	122.33
32	2a	1407	5MC	O2-C2-N3	-2.34	118.65	122.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1519	MA6	C4-C5-C6	2.33	118.32	115.91
32	1a	516	PSU	O4'-C1'-C2'	2.33	108.37	105.15
1	1A	2503	2MA	N9-C8-N7	-2.33	110.63	113.94
32	2a	1207	2MG	N2-C2-N3	-2.31	117.56	120.51
1	1A	2503	2MA	C2-N1-C6	2.30	121.63	118.10
1	2A	2552	2MU	C2'-C1'-N1	-2.29	109.89	114.24
1	2A	2605	PSU	O2-C2-N3	-2.29	117.79	121.86
32	2a	1498	UR3	C6-N1-C2	-2.28	119.94	121.80
1	2A	2503	2MA	C2-N1-C6	2.28	121.60	118.10
32	2a	1498	UR3	C3U-N3-C4	2.27	121.01	117.87
1	1A	1915	5MU	C5-C6-N1	-2.26	120.86	123.31
32	1a	1518	MA6	C4-C5-C6	2.26	118.25	115.91
1	1A	2552	2MU	C5-C4-N3	2.24	117.93	114.80
1	2A	1939	5MU	C5M-C5-C6	-2.22	119.85	122.85
1	2A	1915	5MU	C5-C6-N1	-2.21	120.91	123.31
1	1A	1915	5MU	O2-C2-N3	-2.21	117.42	121.49
32	2a	527	7MG	C5-C4-N9	-2.20	103.52	106.33
32	2a	1207	2MG	N1-C2-N2	2.16	118.77	116.56
32	2a	516	PSU	O4'-C1'-C2'	2.16	108.14	105.15
1	2A	2605	PSU	O2-C2-N1	-2.13	120.59	122.79
1	2A	2503	2MA	C6-C5-N7	2.11	136.16	132.09
32	1a	967	5MC	O2-C2-N3	-2.11	119.01	122.33
32	2a	1402	4OC	C6-C5-C4	2.10	119.53	117.00
32	1a	1407	5MC	O2-C2-N3	-2.10	119.02	122.33
32	2a	1519	MA6	C5-C4-N9	2.10	108.10	105.81
43	1l	92	0TD	OD1-CG-CB	-2.09	118.07	122.44
32	1a	1498	UR3	C6-N1-C2	-2.08	120.10	121.80
32	1a	1207	2MG	C1'-N9-C4	-2.08	120.35	126.49
32	1a	516	PSU	C5-C6-N1	-2.06	119.28	122.14
32	1a	1207	2MG	C8-N7-C5	2.04	107.89	104.26
32	1a	1207	2MG	O3'-C3'-C2'	2.03	118.33	111.82
1	1A	1915	5MU	C5M-C5-C4	2.03	120.95	118.78
32	1a	1402	4OC	O2-C2-N3	-2.03	119.13	122.33
32	1a	1518	MA6	C4-N9-C8	2.02	107.86	105.74
32	1a	1207	2MG	C2'-C1'-N9	-2.02	107.63	113.25
32	1a	966	M2G	O6-C6-C5	-2.00	121.25	126.53

There are no chirality outliers.

All (28) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	1A	1915	5MU	O4'-C1'-N1-C2

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Mol	Chain	Res	Type	Atoms
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
1	2A	2251	OMG	C1'-C2'-O2'-CM2
32	2a	1207	2MG	N3-C2-N2-CM2
32	1a	1519	MA6	O4'-C4'-C5'-O5'
32	2a	1519	MA6	O4'-C4'-C5'-O5'
32	1a	527	7MG	C3'-C4'-C5'-O5'
32	1a	1519	MA6	C3'-C4'-C5'-O5'
32	2a	1400	5MC	C2'-C1'-N1-C6
32	2a	1519	MA6	C3'-C4'-C5'-O5'
32	2a	527	7MG	C3'-C4'-C5'-O5'
32	1a	527	7MG	O4'-C4'-C5'-O5'
32	1a	1402	4OC	O4'-C4'-C5'-O5'
32	2a	1400	5MC	O4'-C1'-N1-C6
1	1A	1962	5MC	C2'-C1'-N1-C6
1	1A	2251	OMG	C4'-C5'-O5'-P
1	1A	2503	2MA	C4'-C5'-O5'-P
1	1A	1962	5MC	O4'-C1'-N1-C6
32	2a	1400	5MC	C2'-C1'-N1-C2
32	2a	1400	5MC	O4'-C1'-N1-C2
1	1A	1920	4OC	C2'-C1'-N1-C2
43	1l	92	0TD	CG-CB-SB-CSB
43	2l	92	0TD	CG-CB-SB-CSB
32	2a	527	7MG	O4'-C4'-C5'-O5'

There are no ring outliers.

24 monomers are involved in 35 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	1A	2503	2MA	1	0
1	2A	2552	2MU	1	0
32	1a	1498	UR3	1	0
1	2A	1911	PSU	1	0
32	1a	1402	4OC	2	0
32	2a	1402	4OC	4	0
32	1a	1404	5MC	1	0
32	2a	1519	MA6	3	0
32	1a	1519	MA6	3	0
32	2a	1498	UR3	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	2a	1404	5MC	1	0
1	2A	1920	4OC	1	0
32	1a	1518	MA6	1	0
1	1A	1920	4OC	2	0
32	2a	967	5MC	1	0
43	2l	92	0TD	1	0
1	1A	2251	OMG	1	0
1	2A	1939	5MU	3	0
32	2a	1207	2MG	4	0
32	2a	1400	5MC	1	0
1	2A	2503	2MA	1	0
1	1A	1939	5MU	1	0
32	1a	1400	5MC	1	0
32	2a	1518	MA6	2	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 2499 ligands modelled in this entry, 2486 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	$\# Z > 2$
57	ARG	1F	319	54	10,11,11	0.75	1 (10%)	9,13,13	0.86	1 (11%)
59	SF4	1d	306	35	0,12,12	-	-	-	-	-
57	ARG	1B	233	54	10,11,11	0.72	1 (10%)	9,13,13	0.92	1 (11%)
56	MPD	1A	4022	54	7,7,7	0.29	0	9,10,10	0.56	0
56	MPD	2A	3735	-	7,7,7	0.30	0	9,10,10	0.21	0
56	MPD	2A	3736	-	7,7,7	0.34	0	9,10,10	0.36	0
56	MPD	1T	204	-	7,7,7	0.34	0	9,10,10	0.23	0
56	MPD	2B	219	-	7,7,7	0.30	0	9,10,10	0.30	0
56	MPD	1a	1875	-	7,7,7	0.40	0	9,10,10	0.45	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
59	SF4	2d	501	35	0,12,12	-	-	-		
56	MPD	18	103	-	7,7,7	0.35	0	9,10,10	0.49	0
55	ERY	1A	4021	-	53,53,53	0.93	2 (3%)	82,82,82	1.47	13 (15%)
55	ERY	2A	3734	-	53,53,53	0.94	2 (3%)	82,82,82	1.62	13 (15%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
57	ARG	1F	319	54	-	0/11/11/11	-
59	SF4	1d	306	35	-	-	0/6/5/5
57	ARG	1B	233	54	-	4/11/11/11	-
56	MPD	1A	4022	54	-	3/5/5/5	-
56	MPD	2A	3735	-	-	3/5/5/5	-
56	MPD	2A	3736	-	-	4/5/5/5	-
56	MPD	1T	204	-	-	3/5/5/5	-
56	MPD	2B	219	-	-	2/5/5/5	-
56	MPD	1a	1875	-	-	5/5/5/5	-
59	SF4	2d	501	35	-	-	0/6/5/5
56	MPD	18	103	-	-	1/5/5/5	-
55	ERY	1A	4021	-	-	8/72/107/107	0/3/3/3
55	ERY	2A	3734	-	-	8/72/107/107	0/3/3/3

All (6) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	2A	3734	ERY	O2-C1	4.87	1.45	1.34
55	1A	4021	ERY	O2-C1	4.75	1.45	1.34
55	1A	4021	ERY	O2-C13	-2.61	1.42	1.46
57	1B	233	ARG	OXT-C	-2.12	1.23	1.30
55	2A	3734	ERY	O2-C13	-2.08	1.42	1.46
57	1F	319	ARG	OXT-C	-2.06	1.24	1.30

All (28) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	2A	3734	ERY	O5-C16-C17	4.39	110.22	103.86

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	2A	3734	ERY	C13-O2-C1	-4.23	110.81	118.20
55	1A	4021	ERY	O7-C5-C4	-4.00	105.80	111.58
55	2A	3734	ERY	O5-C16-C15	-3.71	107.24	112.95
55	2A	3734	ERY	C6-C5-C4	-3.62	108.64	113.89
55	2A	3734	ERY	O4-C18-C17	3.54	116.12	110.04
55	2A	3734	ERY	O2-C1-C2	3.50	119.00	111.53
55	1A	4021	ERY	O5-C16-C15	-3.44	107.66	112.95
55	1A	4021	ERY	C15-C16-C17	3.30	113.28	107.64
55	1A	4021	ERY	O7-C5-C6	3.22	110.23	106.40
55	1A	4021	ERY	C32-C6-C5	3.18	115.57	110.13
55	2A	3734	ERY	C20-O5-C16	3.14	123.89	117.51
55	1A	4021	ERY	C13-O2-C1	-3.09	112.79	118.20
55	2A	3734	ERY	O7-C5-C4	-3.05	107.17	111.58
55	1A	4021	ERY	O3-C3-C4	3.00	111.76	108.23
55	1A	4021	ERY	C6-C5-C4	-2.90	109.68	113.89
55	1A	4021	ERY	O2-C1-C2	2.77	117.44	111.53
57	1B	233	ARG	OXT-C-O	-2.62	118.13	124.08
55	2A	3734	ERY	C16-C17-C18	2.62	114.92	111.12
55	1A	4021	ERY	C16-C17-C18	2.49	114.74	111.12
57	1F	319	ARG	OXT-C-O	-2.39	118.65	124.08
55	2A	3734	ERY	C36-C13-C12	-2.35	110.89	115.20
55	2A	3734	ERY	O2-C1-O1	-2.33	119.73	123.95
55	2A	3734	ERY	O7-C5-C6	2.29	109.13	106.40
55	1A	4021	ERY	O6-C17-C16	-2.26	106.97	111.08
55	2A	3734	ERY	C2-C3-C4	-2.24	106.47	112.91
55	1A	4021	ERY	O4-C18-C17	2.11	113.68	110.04
55	1A	4021	ERY	C2-C3-C4	-2.03	107.07	112.91

There are no chirality outliers.

All (41) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
55	1A	4021	ERY	C15-C16-O5-C20
55	1A	4021	ERY	C17-C16-O5-C20
55	1A	4021	ERY	C19-C16-O5-C20
55	2A	3734	ERY	C32-C6-C7-C8
55	2A	3734	ERY	C15-C16-O5-C20
55	2A	3734	ERY	C17-C16-O5-C20
55	2A	3734	ERY	C19-C16-O5-C20
56	1A	4022	MPD	C1-C2-C3-C4
56	1a	1875	MPD	C2-C3-C4-O4
56	2A	3736	MPD	C2-C3-C4-O4

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Mol	Chain	Res	Type	Atoms
56	2A	3736	MPD	C2-C3-C4-C5
57	1B	233	ARG	NE-CD-CG-CB
57	1B	233	ARG	CA-CB-CG-CD
55	2A	3734	ERY	O10-C6-C7-C8
55	1A	4021	ERY	C4-C5-C6-O10
55	2A	3734	ERY	C4-C5-C6-O10
56	1A	4022	MPD	O2-C2-C3-C4
56	2B	219	MPD	C2-C3-C4-O4
56	1A	4022	MPD	CM-C2-C3-C4
56	1T	204	MPD	CM-C2-C3-C4
56	2A	3735	MPD	CM-C2-C3-C4
56	2A	3736	MPD	C1-C2-C3-C4
55	1A	4021	ERY	O7-C5-C6-C7
56	1a	1875	MPD	C2-C3-C4-C5
56	2B	219	MPD	C2-C3-C4-C5
55	2A	3734	ERY	C4-C5-C6-C32
55	1A	4021	ERY	C30-C2-C3-C4
55	1A	4021	ERY	C32-C6-C7-C8
57	1B	233	ARG	OXT-C-CA-N
56	1a	1875	MPD	O2-C2-C3-C4
56	2A	3735	MPD	O2-C2-C3-C4
56	1T	204	MPD	C2-C3-C4-O4
56	18	103	MPD	C2-C3-C4-O4
56	1T	204	MPD	C1-C2-C3-C4
56	1a	1875	MPD	C1-C2-C3-C4
56	1a	1875	MPD	CM-C2-C3-C4
56	2A	3735	MPD	C1-C2-C3-C4
56	2A	3736	MPD	CM-C2-C3-C4
55	2A	3734	ERY	C6-C7-C8-C33
57	1B	233	ARG	O-C-CA-N
55	1A	4021	ERY	C23-C22-O7-C5

There are no ring outliers.

11 monomers are involved in 27 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
57	1F	319	ARG	4	0
59	1d	306	SF4	1	0
57	1B	233	ARG	2	0
56	1A	4022	MPD	2	0
56	2A	3735	MPD	3	0
56	1T	204	MPD	1	0

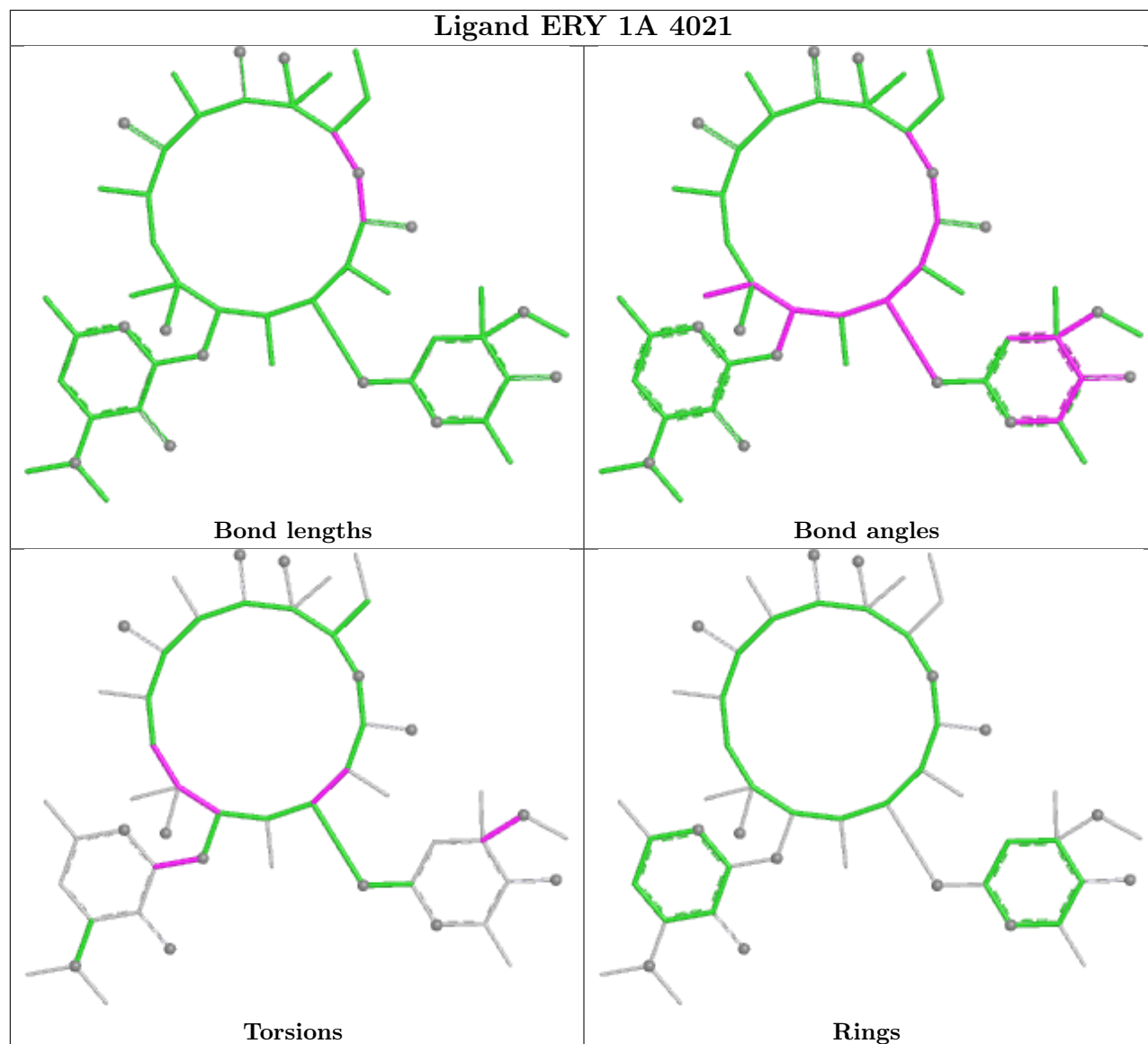
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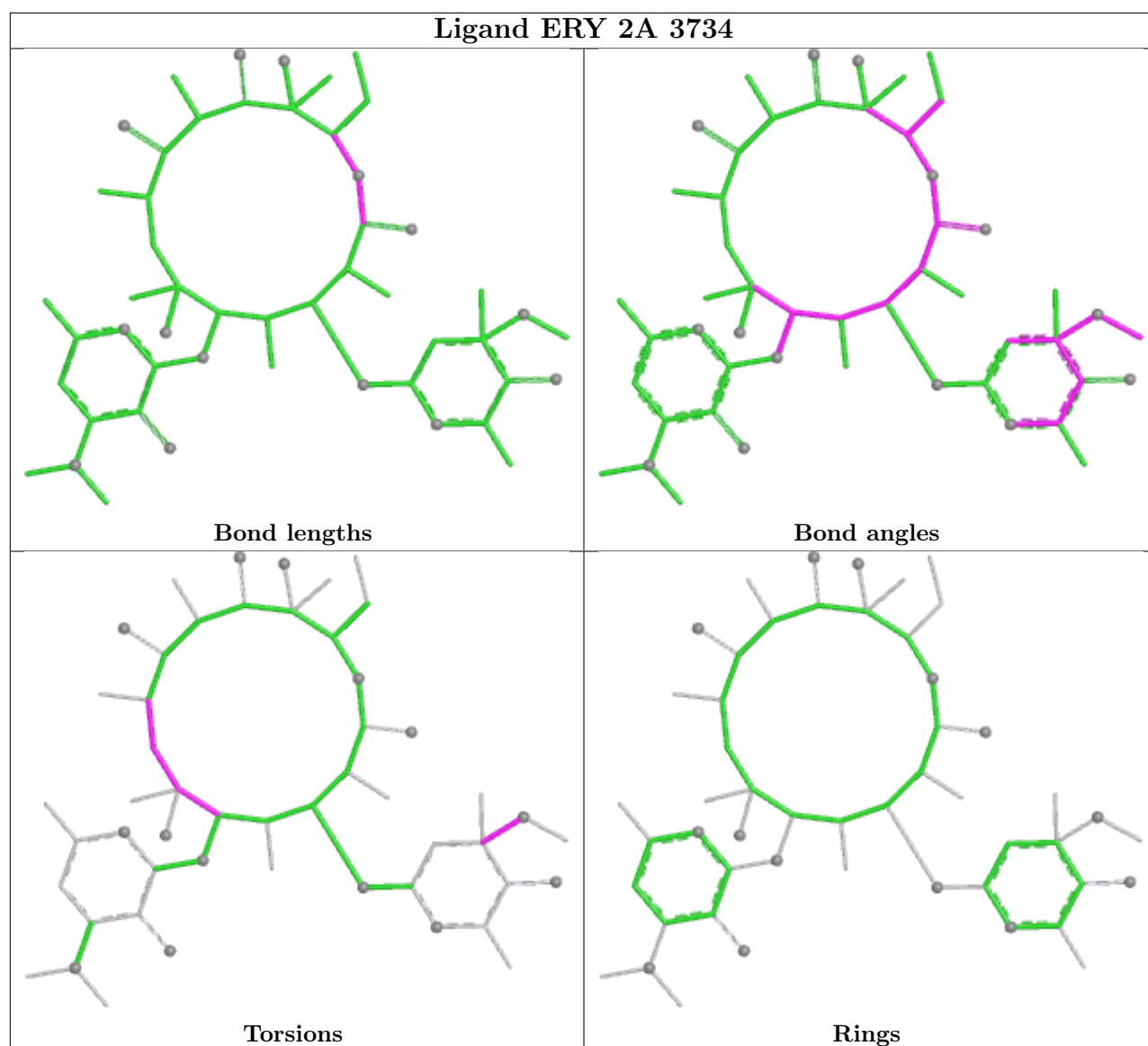
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Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	1a	1875	MPD	3	0
59	2d	501	SF4	1	0
56	18	103	MPD	4	0
55	1A	4021	ERY	4	0
55	2A	3734	ERY	2	0

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 ERY 1A 4021





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%)	-0.65	62 (2%) 62 63	22, 39, 89, 104	0
1	2A	2856/2915 (97%)	-0.23	51 (1%) 67 68	35, 58, 91, 103	0
2	1B	120/121 (99%)	-0.50	0 100 100	30, 52, 65, 78	0
2	2B	120/121 (99%)	0.24	1 (0%) 82 84	60, 75, 83, 87	0
3	1D	275/276 (99%)	-0.04	2 (0%) 84 86	25, 41, 54, 72	0
3	2D	275/276 (99%)	0.34	1 (0%) 88 90	36, 53, 65, 78	0
4	1E	204/206 (99%)	-0.05	0 100 100	23, 44, 60, 70	0
4	2E	204/206 (99%)	0.31	2 (0%) 79 80	32, 58, 73, 81	0
5	1F	203/210 (96%)	-0.07	1 (0%) 87 89	22, 46, 68, 84	0
5	2F	203/210 (96%)	0.50	2 (0%) 79 80	36, 65, 77, 83	0
6	1G	181/182 (99%)	0.74	12 (6%) 24 24	47, 63, 74, 79	0
6	2G	181/182 (99%)	1.37	31 (17%) 4 3	70, 79, 86, 89	0
7	1H	174/180 (96%)	0.23	3 (1%) 69 69	38, 55, 66, 74	0
7	2H	173/180 (96%)	1.01	13 (7%) 20 19	66, 77, 83, 87	0
8	1I	147/148 (99%)	0.69	7 (4%) 35 35	46, 71, 79, 82	0
8	2I	146/148 (98%)	1.11	16 (10%) 10 10	60, 72, 81, 85	0
9	1N	140/140 (100%)	0.01	0 100 100	29, 42, 62, 79	0
9	2N	140/140 (100%)	0.51	1 (0%) 84 86	45, 62, 74, 80	0
10	1O	122/122 (100%)	-0.12	0 100 100	32, 44, 58, 64	0
10	2O	122/122 (100%)	0.39	3 (2%) 58 59	49, 58, 68, 77	0
11	1P	149/150 (99%)	0.14	0 100 100	23, 48, 66, 76	0
11	2P	149/150 (99%)	0.56	4 (2%) 56 57	39, 65, 77, 83	0
12	1Q	141/141 (100%)	0.06	0 100 100	30, 44, 54, 65	0
12	2Q	141/141 (100%)	0.74	4 (2%) 55 56	47, 62, 72, 76	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	1R	118/118 (100%)	-0.06	0 100 100	30, 39, 53, 62	0
13	2R	118/118 (100%)	0.35	2 (1%) 69 69	42, 54, 63, 72	0
14	1S	110/112 (98%)	0.32	0 100 100	39, 51, 64, 69	0
14	2S	110/112 (98%)	1.16	19 (17%) 4 3	63, 70, 76, 79	0
15	1T	131/146 (89%)	0.08	3 (2%) 61 62	34, 48, 66, 80	0
15	2T	131/146 (89%)	0.48	3 (2%) 61 62	49, 60, 73, 78	0
16	1U	116/118 (98%)	-0.16	1 (0%) 81 83	24, 35, 49, 67	0
16	2U	116/118 (98%)	0.55	0 100 100	41, 59, 71, 76	0
17	1V	101/101 (100%)	-0.01	0 100 100	27, 44, 60, 67	0
17	2V	101/101 (100%)	0.46	2 (1%) 65 65	44, 65, 73, 78	0
18	1W	112/113 (99%)	-0.12	1 (0%) 81 83	26, 34, 55, 80	0
18	2W	112/113 (99%)	0.20	2 (1%) 67 68	39, 50, 65, 88	0
19	1X	95/96 (98%)	-0.04	3 (3%) 50 51	30, 39, 60, 69	0
19	2X	95/96 (98%)	0.80	4 (4%) 40 41	48, 60, 71, 76	0
20	1Y	107/110 (97%)	0.20	1 (0%) 81 83	35, 50, 65, 70	0
20	2Y	107/110 (97%)	0.92	6 (5%) 30 29	57, 67, 76, 81	0
21	1Z	203/206 (98%)	0.47	3 (1%) 72 73	41, 58, 71, 80	0
21	2Z	201/206 (97%)	1.05	15 (7%) 20 19	65, 73, 79, 84	0
22	10	77/85 (90%)	-0.01	1 (1%) 75 75	31, 40, 56, 60	0
22	20	77/85 (90%)	0.95	8 (10%) 11 11	50, 62, 70, 74	0
23	11	97/98 (98%)	0.17	1 (1%) 79 80	30, 46, 65, 72	0
23	21	97/98 (98%)	0.68	3 (3%) 51 52	43, 58, 72, 75	0
24	12	70/72 (97%)	0.21	1 (1%) 73 74	36, 50, 61, 76	0
24	22	70/72 (97%)	0.68	1 (1%) 73 74	57, 66, 73, 76	0
25	13	59/60 (98%)	-0.04	0 100 100	30, 40, 60, 65	0
25	23	59/60 (98%)	0.66	4 (6%) 23 22	50, 61, 75, 80	0
26	14	69/71 (97%)	1.13	13 (18%) 3 2	55, 77, 87, 90	0
26	24	69/71 (97%)	1.63	18 (26%) 1 1	74, 84, 89, 94	0
27	15	59/60 (98%)	-0.14	1 (1%) 69 69	23, 38, 56, 63	0
27	25	59/60 (98%)	0.02	0 100 100	37, 52, 66, 70	0
28	16	53/54 (98%)	0.03	0 100 100	35, 46, 59, 64	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	26	53/54 (98%)	0.46	1 (1%) 66 66	52, 60, 68, 71	0
29	17	48/49 (97%)	-0.17	2 (4%) 40 41	23, 31, 55, 62	0
29	27	48/49 (97%)	0.14	1 (2%) 63 64	34, 43, 63, 68	0
30	18	64/65 (98%)	-0.04	0 100 100	30, 37, 45, 60	0
30	28	64/65 (98%)	0.54	0 100 100	44, 56, 64, 70	0
31	19	37/37 (100%)	0.22	0 100 100	35, 46, 62, 63	0
31	29	37/37 (100%)	0.83	2 (5%) 31 31	57, 64, 76, 80	0
32	1a	1488/1521 (97%)	-0.02	6 (0%) 88 90	42, 69, 88, 101	0
32	2a	1492/1521 (98%)	0.25	16 (1%) 78 79	55, 76, 91, 100	0
33	1b	231/256 (90%)	0.83	13 (5%) 30 29	66, 75, 82, 88	0
33	2b	231/256 (90%)	1.23	36 (15%) 5 4	71, 80, 86, 89	0
34	1c	206/239 (86%)	0.66	6 (2%) 53 55	57, 71, 78, 84	0
34	2c	206/239 (86%)	1.46	48 (23%) 2 1	72, 80, 86, 90	0
35	1d	208/209 (99%)	0.74	13 (6%) 26 25	58, 70, 77, 86	0
35	2d	208/209 (99%)	1.11	15 (7%) 21 20	64, 72, 79, 81	0
36	1e	148/162 (91%)	0.58	1 (0%) 84 86	56, 65, 73, 80	0
36	2e	148/162 (91%)	0.92	8 (5%) 31 31	63, 73, 80, 85	0
37	1f	100/101 (99%)	0.55	1 (1%) 79 80	58, 65, 73, 77	0
37	2f	100/101 (99%)	0.49	0 100 100	59, 70, 76, 79	0
38	1g	155/156 (99%)	0.67	3 (1%) 66 66	61, 70, 77, 87	0
38	2g	155/156 (99%)	1.18	19 (12%) 8 7	69, 78, 83, 87	0
39	1h	137/138 (99%)	0.65	3 (2%) 62 63	59, 68, 74, 77	0
39	2h	137/138 (99%)	0.81	7 (5%) 33 33	65, 73, 78, 87	0
40	1i	127/128 (99%)	1.12	13 (10%) 12 11	58, 75, 81, 84	0
40	2i	126/128 (98%)	1.94	57 (45%) 0 0	74, 80, 84, 89	0
41	1j	97/105 (92%)	1.11	9 (9%) 14 13	64, 73, 83, 85	0
41	2j	96/105 (91%)	1.98	42 (43%) 0 0	71, 81, 86, 88	0
42	1k	114/129 (88%)	0.32	2 (1%) 67 68	44, 64, 71, 76	0
42	2k	114/129 (88%)	0.75	5 (4%) 39 39	61, 72, 79, 84	0
43	1l	121/132 (91%)	0.62	5 (4%) 41 42	53, 60, 69, 74	0
43	2l	121/132 (91%)	0.84	13 (10%) 11 10	59, 68, 76, 79	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	1m	116/126 (92%)	0.89	6 (5%) 33 32	58, 72, 78, 84	0
44	2m	114/126 (90%)	1.47	25 (21%) 2 2	74, 80, 84, 85	0
45	1n	60/61 (98%)	1.09	6 (10%) 12 12	63, 69, 75, 75	0
45	2n	60/61 (98%)	2.00	31 (51%) 0 0	73, 80, 85, 87	0
46	1o	88/89 (98%)	0.69	5 (5%) 29 29	50, 65, 75, 78	0
46	2o	88/89 (98%)	0.95	4 (4%) 38 38	65, 73, 78, 84	0
47	1p	82/88 (93%)	1.23	13 (15%) 5 4	61, 70, 77, 81	0
47	2p	82/88 (93%)	1.06	8 (9%) 13 12	63, 71, 75, 80	0
48	1q	99/105 (94%)	0.67	1 (1%) 79 80	58, 66, 75, 77	0
48	2q	99/105 (94%)	0.67	2 (2%) 65 65	61, 70, 77, 82	0
49	1r	68/88 (77%)	0.49	2 (2%) 53 55	58, 65, 74, 80	0
49	2r	68/88 (77%)	0.82	2 (2%) 53 55	65, 73, 80, 82	0
50	1s	83/93 (89%)	0.96	4 (4%) 35 35	65, 73, 80, 83	0
50	2s	83/93 (89%)	1.72	33 (39%) 1 0	71, 81, 86, 88	0
51	1t	96/106 (90%)	1.00	10 (10%) 11 11	62, 69, 79, 84	0
51	2t	98/106 (92%)	0.82	9 (9%) 14 14	59, 69, 76, 81	0
52	1u	23/27 (85%)	1.22	2 (8%) 16 15	67, 72, 78, 79	0
52	2u	23/27 (85%)	2.09	10 (43%) 0 0	74, 78, 82, 83	0
53	1y	97/113 (85%)	0.82	8 (8%) 17 17	54, 63, 73, 75	0
53	2y	96/113 (84%)	1.59	27 (28%) 1 1	67, 76, 82, 84	0
All	All	20766/21468 (96%)	0.26	887 (4%) 40 40	22, 64, 84, 104	0

All (887) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	1A	1087	G	8.7
1	1A	1090	U	7.8
45	2n	2	ALA	6.5
1	1A	1091	G	6.2
1	1A	1089	G	6.0
3	1D	276	LYS	5.9
44	1m	2	ALA	5.5
26	24	56	VAL	5.3
1	1A	1077	A	5.2
26	24	49	PHE	5.0

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Mol	Chain	Res	Type	RSRZ
8	2I	3	VAL	5.0
41	2j	34	VAL	4.8
1	1A	1103	A	4.8
23	2I	2	SER	4.7
40	2i	2	GLU	4.7
44	2m	98	VAL	4.6
51	1t	103	GLY	4.6
34	2c	2	GLY	4.6
15	1T	37	GLY	4.6
7	1H	2	SER	4.5
40	2i	125	TYR	4.5
41	2j	37	PRO	4.5
1	1A	1076	C	4.4
6	2G	139	LEU	4.4
19	2X	92	LEU	4.4
50	2s	71	LEU	4.4
1	1A	1072	C	4.3
34	2c	77	ILE	4.3
53	1y	98	ALA	4.3
41	2j	38	ILE	4.3
1	1A	1064	C	4.3
8	2I	146	ALA	4.3
52	2u	14	TRP	4.2
40	2i	126	SER	4.2
1	2A	2602	A	4.1
32	2a	1030(A)	G	4.1
51	2t	6	PRO	4.1
40	2i	109	VAL	4.0
53	2y	98	ALA	4.0
40	2i	75	ASP	4.0
26	24	66	SER	4.0
44	1m	56	LEU	4.0
40	2i	14	VAL	4.0
45	1n	2	ALA	4.0
32	2a	1030(B)	C	4.0
26	14	49	PHE	4.0
1	1A	1102	C	3.9
38	2g	5	ARG	3.9
40	2i	7	THR	3.9
20	2Y	1	MET	3.9
23	11	2	SER	3.9
32	1a	1257	U	3.8

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Mol	Chain	Res	Type	RSRZ
40	2i	106	ALA	3.8
41	2j	63	PHE	3.8
1	1A	1092	C	3.8
12	2Q	104	PHE	3.8
41	2j	46	ARG	3.8
44	2m	100	GLY	3.8
21	2Z	191	VAL	3.7
6	2G	42	GLY	3.7
6	2G	39	ILE	3.7
6	2G	146	TYR	3.7
1	2A	1075	C	3.7
1	1A	1071	G	3.7
34	2c	124	ILE	3.7
1	2A	1536	C	3.7
1	1A	1088	A	3.6
26	14	56	VAL	3.6
41	2j	19	SER	3.6
52	2u	2	GLY	3.6
1	1A	1075	C	3.6
53	1y	2	THR	3.6
40	1i	66	ARG	3.6
39	2h	2	LEU	3.6
40	2i	102	LEU	3.6
1	1A	1078	U	3.5
33	2b	165	VAL	3.5
41	2j	67	THR	3.5
50	2s	9	VAL	3.5
39	1h	2	LEU	3.5
44	2m	5	ALA	3.5
43	1l	91	LYS	3.5
26	24	67	TYR	3.5
8	2I	20	ASP	3.5
1	2A	2139	C	3.5
1	1A	1066	U	3.5
21	1Z	192	ALA	3.5
8	2I	19	VAL	3.4
47	2p	82	GLN	3.4
26	14	45	GLY	3.4
26	14	63	TYR	3.4
34	2c	52	LEU	3.4
6	2G	20	ILE	3.4
7	2H	123	PHE	3.4

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Mol	Chain	Res	Type	RSRZ
1	2A	2147	G	3.4
45	2n	7	ILE	3.4
45	2n	30	ALA	3.4
12	2Q	59	ARG	3.4
32	2a	1257	U	3.4
33	1b	33	TYR	3.4
7	2H	44	VAL	3.4
41	2j	44	VAL	3.4
6	2G	160	VAL	3.3
26	14	59	PHE	3.3
38	1g	16	LEU	3.3
8	1I	3	VAL	3.3
45	2n	18	VAL	3.3
1	1A	1081	U	3.3
1	1A	1080	C	3.3
44	2m	102	ARG	3.3
1	1A	2602	A	3.3
14	2S	33	LYS	3.3
53	2y	7	SER	3.3
8	1I	20	ASP	3.3
1	1A	1104	C	3.3
14	2S	12	PHE	3.2
33	2b	118	LEU	3.2
51	2t	103	GLY	3.2
1	2A	1076	C	3.2
41	1j	32	ALA	3.2
52	2u	6	ARG	3.2
40	2i	127	LYS	3.2
41	1j	4	ILE	3.2
38	2g	128	ALA	3.2
1	2A	1064	C	3.2
40	1i	126	SER	3.2
45	2n	21	TYR	3.2
35	1d	167	GLY	3.2
40	2i	6	GLY	3.2
32	2a	1030	C	3.2
1	1A	1086	A	3.2
50	1s	9	VAL	3.2
50	1s	77	THR	3.2
40	1i	128	ARG	3.1
50	2s	35	SER	3.1
7	2H	21	PRO	3.1

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Mol	Chain	Res	Type	RSRZ
44	2m	66	LEU	3.1
43	1l	64	TYR	3.1
45	2n	33	VAL	3.1
36	2e	13	ILE	3.1
46	1o	3	ILE	3.1
1	1A	2506	U	3.1
6	1G	113	ARG	3.1
36	2e	21	ALA	3.1
35	1d	179	GLU	3.1
40	2i	96	LEU	3.1
40	2i	115	GLY	3.1
46	1o	87	ILE	3.1
41	2j	40	LEU	3.1
52	2u	5	ASP	3.1
34	1c	159	GLY	3.1
8	2I	2	LYS	3.1
43	2l	5	PRO	3.1
38	2g	16	LEU	3.1
46	1o	89	GLY	3.1
52	2u	11	GLY	3.1
6	2G	157	ILE	3.1
6	2G	159	VAL	3.1
33	2b	7	VAL	3.1
38	2g	83	ALA	3.0
41	2j	69	ASN	3.0
34	2c	18	TRP	3.0
44	2m	64	TRP	3.0
40	1i	109	VAL	3.0
47	1p	19	ILE	3.0
53	2y	40	ILE	3.0
1	1A	1065	U	3.0
26	24	63	TYR	3.0
1	2A	2169	A	3.0
38	2g	33	ASP	3.0
51	1t	70	SER	3.0
44	2m	24	GLY	3.0
24	12	70	GLN	3.0
26	14	50	VAL	3.0
43	2l	18	VAL	3.0
34	1c	35	GLU	3.0
7	2H	145	ALA	3.0
7	2H	165	ALA	3.0

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Mol	Chain	Res	Type	RSRZ
1	1A	888	C	3.0
6	2G	90	LEU	3.0
46	2o	68	ARG	3.0
3	1D	275	LYS	3.0
41	2j	32	ALA	2.9
40	2i	36	TYR	2.9
44	2m	87	TYR	2.9
50	2s	30	LEU	2.9
1	1A	2142	C	2.9
1	1A	2143	C	2.9
41	2j	54	PHE	2.9
36	1e	22	GLY	2.9
44	2m	7	VAL	2.9
45	2n	13	THR	2.9
38	2g	156	TRP	2.9
8	2I	140	LEU	2.9
1	2A	2174	C	2.9
41	2j	24	VAL	2.9
15	1T	131	ALA	2.9
26	24	45	GLY	2.9
45	2n	55	GLY	2.9
21	2Z	124	ILE	2.9
35	2d	5	ILE	2.9
22	20	74	ARG	2.9
34	2c	103	VAL	2.9
46	2o	88	ARG	2.9
29	27	48	LYS	2.9
41	2j	15	THR	2.9
1	1A	2147	G	2.9
40	2i	18	PHE	2.9
40	2i	92	TYR	2.9
6	2G	76	SER	2.8
34	2c	57	ILE	2.8
35	1d	5	ILE	2.8
41	2j	68	HIS	2.8
45	2n	3	ARG	2.8
8	2I	107	VAL	2.8
11	2P	71	VAL	2.8
40	1i	108	VAL	2.8
1	2A	2146	C	2.8
34	2c	92	ALA	2.8
22	20	78	TYR	2.8

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Mol	Chain	Res	Type	RSRZ
1	1A	2115	G	2.8
1	2A	2116	G	2.8
35	2d	146	ILE	2.8
53	2y	38	HIS	2.8
1	2A	2145	C	2.8
34	2c	163	ALA	2.8
1	2A	1067	A	2.8
14	2S	32	LEU	2.8
33	2b	152	PHE	2.8
40	2i	8	GLY	2.8
36	2e	130	ASN	2.8
33	2b	131	PRO	2.8
41	2j	39	PRO	2.8
40	2i	46	ALA	2.8
41	2j	71	LEU	2.8
22	10	8	GLY	2.8
51	2t	69	GLY	2.8
8	1I	19	VAL	2.8
45	2n	14	PRO	2.8
53	2y	60	VAL	2.8
38	2g	25	ALA	2.8
40	2i	13	ALA	2.8
40	2i	119	ALA	2.8
1	1A	2116	G	2.8
1	1A	2141	G	2.8
53	1y	91	LYS	2.8
41	2j	47	PHE	2.8
21	2Z	53	ILE	2.7
28	26	54	ILE	2.7
41	2j	96	ILE	2.7
40	2i	123	PRO	2.7
6	2G	109	VAL	2.7
26	24	50	VAL	2.7
33	1b	136	VAL	2.7
40	2i	108	VAL	2.7
21	2Z	173	ALA	2.7
47	1p	69	THR	2.7
13	2R	68	ARG	2.7
26	14	53	GLU	2.7
18	2W	112	GLY	2.7
6	2G	28	VAL	2.7
21	2Z	99	TYR	2.7

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Mol	Chain	Res	Type	RSRZ
50	2s	34	TRP	2.7
52	1u	14	TRP	2.7
34	2c	75	VAL	2.7
11	2P	99	LEU	2.7
38	1g	12	LEU	2.7
53	2y	27	LEU	2.7
40	2i	64	THR	2.7
45	2n	12	ARG	2.7
39	2h	4	ASP	2.7
1	1A	1093	G	2.7
1	1A	2153	G	2.7
50	2s	10	PHE	2.7
6	2G	140	ILE	2.7
34	2c	5	ILE	2.7
53	2y	5	ILE	2.7
38	2g	14	PRO	2.7
50	2s	2	PRO	2.7
21	2Z	90	VAL	2.7
40	2i	86	VAL	2.7
45	2n	25	VAL	2.7
53	2y	42	SER	2.7
53	2y	3	MET	2.7
47	1p	22	THR	2.7
50	2s	24	ALA	2.7
40	2i	12	GLU	2.7
1	1A	2167	U	2.7
33	2b	38	GLY	2.7
33	2b	201	ILE	2.7
40	2i	101	PHE	2.7
41	1j	75	ILE	2.7
41	2j	75	ILE	2.7
49	1r	43	PHE	2.7
1	2A	1072	C	2.7
47	1p	35	LYS	2.7
45	2n	29	ARG	2.7
15	2T	130	ALA	2.7
41	2j	26	ALA	2.7
1	1A	1082	U	2.7
22	20	52	GLY	2.6
33	2b	122	PHE	2.6
41	2j	74	ILE	2.6
41	2j	91	PRO	2.6

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Mol	Chain	Res	Type	RSRZ
6	2G	136	ARG	2.6
7	2H	3	ARG	2.6
1	1A	1063	G	2.6
20	2Y	105	ALA	2.6
26	24	47	GLN	2.6
40	2i	43	ALA	2.6
50	2s	77	THR	2.6
53	2y	6	THR	2.6
33	2b	22	LYS	2.6
43	1l	63	GLY	2.6
6	1G	52	ILE	2.6
40	2i	10	ARG	2.6
47	2p	26	ARG	2.6
52	2u	15	ARG	2.6
33	1b	213	LEU	2.6
38	2g	12	LEU	2.6
32	1a	1001	A	2.6
21	2Z	192	ALA	2.6
33	2b	190	THR	2.6
40	2i	94	ALA	2.6
42	2k	15	ALA	2.6
44	2m	116	THR	2.6
50	2s	63	THR	2.6
1	2A	1089	G	2.6
1	2A	2168	G	2.6
34	2c	48	TYR	2.6
42	2k	25	TYR	2.6
52	1u	21	TYR	2.6
22	20	76	GLY	2.6
40	2i	72	GLY	2.6
35	2d	158	ILE	2.6
40	2i	9	ARG	2.6
27	15	60	VAL	2.6
33	1b	7	VAL	2.6
40	1i	106	ALA	2.6
41	2j	42	THR	2.6
53	2y	73	ALA	2.6
1	1A	2114	A	2.6
6	1G	146	TYR	2.6
1	2A	2124	G	2.6
1	2A	2162	G	2.6
32	2a	1202	G	2.6

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Mol	Chain	Res	Type	RSRZ
47	1p	59	TRP	2.6
13	2R	69	ASP	2.6
50	2s	78	ARG	2.6
52	2u	24	ARG	2.6
53	2y	51	ASP	2.6
41	2j	23	ILE	2.6
12	2Q	65	PHE	2.6
6	1G	133	LEU	2.6
7	2H	115	VAL	2.6
8	1I	147	GLN	2.6
35	1d	8	VAL	2.6
38	2g	23	VAL	2.6
43	2l	9	GLN	2.6
40	1i	64	THR	2.6
40	2i	117	HIS	2.6
41	2j	27	ALA	2.6
42	2k	31	THR	2.6
45	2n	5	ALA	2.6
33	2b	133	LYS	2.6
35	2d	166	LYS	2.6
1	1A	2117	A	2.6
26	14	43	TYR	2.6
38	2g	154	TYR	2.6
43	2l	64	TYR	2.6
47	2p	38	TYR	2.6
1	1A	2107	C	2.5
1	2A	2140	C	2.5
34	2c	190	ARG	2.5
4	2E	56	PRO	2.5
35	1d	2	GLY	2.5
44	2m	41	PRO	2.5
1	1A	1074	G	2.5
7	2H	136	ILE	2.5
52	2u	13	ILE	2.5
35	2d	79	PHE	2.5
26	14	46	GLN	2.5
35	1d	170	VAL	2.5
39	2h	70	GLN	2.5
44	1m	117	VAL	2.5
26	14	69	LYS	2.5
34	2c	60	ALA	2.5
34	2c	149	ALA	2.5

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Mol	Chain	Res	Type	RSRZ
44	1m	28	ALA	2.5
50	2s	79	THR	2.5
45	1n	3	ARG	2.5
38	2g	85	TYR	2.5
40	2i	62	TYR	2.5
45	2n	34	TYR	2.5
1	2A	34	C	2.5
50	1s	13	ASP	2.5
52	2u	16	GLY	2.5
8	2I	109	ILE	2.5
6	2G	137	GLU	2.5
1	2A	2153	G	2.5
7	2H	7	LEU	2.5
8	2I	38	LEU	2.5
10	2O	57	VAL	2.5
40	2i	41	VAL	2.5
43	2l	17	LYS	2.5
44	2m	54	VAL	2.5
44	2m	65	LYS	2.5
45	2n	56	VAL	2.5
44	2m	18	ALA	2.5
14	2S	7	TYR	2.5
1	1A	1057	A	2.5
33	2b	86	GLU	2.5
1	2A	2138	C	2.5
32	1a	1030(B)	C	2.5
35	1d	194	LEU	2.5
41	1j	54	PHE	2.5
43	2l	10	LEU	2.5
1	1A	1101	U	2.5
32	2a	1219	U	2.5
33	2b	164	VAL	2.5
41	2j	72	VAL	2.5
1	2A	1091	G	2.5
1	2A	2127	G	2.5
6	1G	136	ARG	2.5
11	2P	15	ARG	2.5
40	2i	122	ALA	2.5
33	2b	73	THR	2.5
39	2h	135	CYS	2.5
47	1p	1	MET	2.5
25	23	2	PRO	2.5

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Mol	Chain	Res	Type	RSRZ
40	2i	88	TYR	2.5
1	2A	2173	A	2.5
6	2G	36	LYS	2.5
14	2S	57	LYS	2.5
34	2c	175	LEU	2.5
41	2j	16	LEU	2.5
47	1p	48	TRP	2.5
35	1d	178	VAL	2.5
2	2B	1	U	2.5
51	1t	80	ARG	2.5
33	1b	13	ALA	2.5
26	14	52	THR	2.5
41	1j	31	GLY	2.4
41	2j	36	GLY	2.4
26	24	51	ASP	2.4
43	2l	28	LYS	2.4
51	1t	74	LYS	2.4
53	2y	78	ILE	2.4
6	2G	152	LEU	2.4
14	2S	73	LEU	2.4
21	2Z	125	LEU	2.4
45	2n	6	LEU	2.4
41	1j	47	PHE	2.4
41	2j	62	HIS	2.4
50	2s	14	HIS	2.4
38	2g	32	ARG	2.4
51	1t	8	ARG	2.4
21	1Z	191	VAL	2.4
34	2c	173	VAL	2.4
45	1n	33	VAL	2.4
50	2s	67	VAL	2.4
1	2A	2132	U	2.4
10	2O	51	ALA	2.4
45	2n	59	ALA	2.4
41	2j	48	THR	2.4
50	2s	33	THR	2.4
21	2Z	52	SER	2.4
45	2n	50	LYS	2.4
46	2o	86	GLY	2.4
50	2s	8	GLY	2.4
33	1b	39	ILE	2.4
35	2d	144	ASP	2.4

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Mol	Chain	Res	Type	RSRZ
53	2y	12	ILE	2.4
22	20	75	LEU	2.4
34	1c	193	TYR	2.4
50	2s	15	LEU	2.4
51	1t	10	LEU	2.4
40	2i	42	ARG	2.4
40	2i	66	ARG	2.4
14	2S	46	VAL	2.4
50	2s	11	VAL	2.4
1	1A	1079	C	2.4
7	2H	156	ALA	2.4
8	2I	26	ALA	2.4
34	2c	189	ALA	2.4
38	2g	116	ALA	2.4
1	1A	2150	U	2.4
14	2S	47	THR	2.4
51	1t	71	THR	2.4
39	2h	72	PRO	2.4
50	2s	42	PRO	2.4
45	2n	38	GLY	2.4
26	24	39	CYS	2.4
46	2o	3	ILE	2.4
1	2A	2125	G	2.4
1	2A	2152	G	2.4
50	2s	5	LEU	2.4
53	2y	34	LEU	2.4
6	2G	12	TYR	2.4
40	1i	125	TYR	2.4
41	2j	94	VAL	2.4
1	1A	1067	A	2.4
15	2T	131	ALA	2.4
44	2m	107	ALA	2.4
53	2y	50	ALA	2.4
3	2D	276	LYS	2.4
22	20	43	THR	2.4
50	2s	76	PRO	2.4
53	2y	8	LYS	2.4
1	2A	2150	U	2.4
33	2b	233	SER	2.4
44	1m	22	ILE	2.4
6	2G	3	LEU	2.4
40	1i	91	ASP	2.4

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Mol	Chain	Res	Type	RSRZ
40	2i	56	LEU	2.4
50	1s	16	LEU	2.4
51	1t	99	LEU	2.4
20	1Y	1	MET	2.4
21	1Z	1	MET	2.4
32	2a	1001(A)	G	2.4
33	2b	57	PHE	2.4
44	1m	53	VAL	2.4
1	1A	1073	A	2.4
8	2I	39	ALA	2.4
34	2c	65	ALA	2.4
9	2N	73	THR	2.3
43	2l	6	THR	2.3
1	2A	2144	U	2.3
12	2Q	100	GLY	2.3
41	2j	43	ARG	2.3
34	2c	33	LEU	2.3
38	1g	11	GLN	2.3
47	1p	6	LEU	2.3
49	1r	79	LEU	2.3
14	2S	29	PHE	2.3
5	2F	6	VAL	2.3
7	2H	35	VAL	2.3
33	1b	15	VAL	2.3
38	2g	61	VAL	2.3
45	2n	4	LYS	2.3
40	1i	46	ALA	2.3
40	2i	49	PRO	2.3
53	2y	37	PRO	2.3
35	1d	168	ARG	2.3
1	1A	1094	U	2.3
25	23	26	LEU	2.3
31	29	10	ILE	2.3
41	2j	88	LEU	2.3
47	1p	36	ILE	2.3
6	2G	155	MET	2.3
33	2b	236	TYR	2.3
34	2c	66	VAL	2.3
35	2d	7	PRO	2.3
35	2d	48	ALA	2.3
41	2j	53	PRO	2.3
44	2m	113	PRO	2.3

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Mol	Chain	Res	Type	RSRZ
51	1t	66	ALA	2.3
52	2u	23	PRO	2.3
1	1A	2155	G	2.3
1	2A	171	G	2.3
8	2I	86	THR	2.3
32	2a	1373	G	2.3
45	2n	22	THR	2.3
33	2b	130	ARG	2.3
40	2i	16	ARG	2.3
1	1A	1762	A	2.3
1	2A	2135	A	2.3
34	2c	22	TRP	2.3
53	2y	33	HIS	2.3
6	1G	152	LEU	2.3
19	2X	95	LEU	2.3
33	2b	121	LEU	2.3
43	2l	7	ILE	2.3
44	2m	70	LEU	2.3
6	2G	150	ASP	2.3
33	2b	132	LYS	2.3
25	23	59	VAL	2.3
50	2s	64	GLU	2.3
40	2i	21	PRO	2.3
41	1j	27	ALA	2.3
45	2n	54	PRO	2.3
49	2r	20	ALA	2.3
14	2S	3	ARG	2.3
26	24	52	THR	2.3
34	2c	95	THR	2.3
39	2h	3	THR	2.3
44	2m	43	THR	2.3
40	2i	99	LEU	2.3
45	2n	42	ILE	2.3
53	1y	88	LEU	2.3
1	2A	1046	A	2.3
20	2Y	54	LYS	2.3
40	1i	75	ASP	2.3
44	2m	31	LYS	2.3
23	21	4	VAL	2.3
34	2c	86	VAL	2.3
53	2y	49	VAL	2.3
6	2G	112	PRO	2.3

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Mol	Chain	Res	Type	RSRZ
6	1G	73	ALA	2.2
14	2S	6	ALA	2.2
33	1b	37	ASN	2.2
38	2g	28	ASN	2.2
40	2i	107	ARG	2.3
47	2p	70	ALA	2.2
51	2t	59	ALA	2.2
21	2Z	170	THR	2.2
14	2S	34	HIS	2.2
15	2T	90	GLN	2.2
34	1c	9	GLY	2.2
47	1p	82	GLN	2.2
51	1t	18	GLN	2.2
19	2X	66	LEU	2.2
26	24	69	LYS	2.2
39	1h	86	ILE	2.2
51	2t	74	LYS	2.2
1	2A	1096	A	2.2
1	1A	2159	G	2.2
32	2a	1017	G	2.2
1	2A	1090	U	2.2
45	2n	16	PHE	2.2
38	2g	9	VAL	2.2
42	2k	109	VAL	2.2
50	2s	37	ARG	2.2
1	1A	2804	C	2.2
1	2A	2143	C	2.2
51	2t	9	ASN	2.2
53	2y	58	ASN	2.2
20	2Y	35	TYR	2.2
21	2Z	118	GLN	2.2
47	2p	69	THR	2.2
26	14	54	GLY	2.2
45	2n	9	LYS	2.2
50	2s	26	GLY	2.2
6	1G	53	LEU	2.2
33	2b	215	LEU	2.2
41	2j	65	LEU	2.2
22	20	9	SER	2.2
40	2i	91	ASP	2.2
1	2A	229	A	2.2
32	2a	1447	A	2.2

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Mol	Chain	Res	Type	RSRZ
1	1A	1083	U	2.2
1	2A	2172	U	2.2
7	1H	101	ARG	2.2
35	2d	75	PHE	2.2
45	2n	36	PHE	2.2
34	2c	207	VAL	2.2
36	2e	55	VAL	2.2
47	2p	2	VAL	2.2
1	2A	2804	C	2.2
29	17	45	ALA	2.2
45	1n	5	ALA	2.2
45	2n	20	ALA	2.2
53	1y	58	ASN	2.2
53	2y	4	ASN	2.2
35	1d	138	TYR	2.2
50	2s	25	LYS	2.2
48	2q	98	LEU	2.2
50	2s	16	LEU	2.2
34	2c	157	ILE	2.2
41	2j	50	ILE	2.2
6	1G	48	GLU	2.2
20	2Y	29	GLU	2.2
6	2G	72	ARG	2.2
18	2W	92	ARG	2.2
1	1A	2130	U	2.2
33	2b	181	PHE	2.2
34	2c	10	PHE	2.2
8	1I	136	VAL	2.2
1	2A	2160	G	2.2
32	1a	1030(A)	G	2.2
15	1T	130	ALA	2.2
34	1c	200	ALA	2.2
43	2l	13	LYS	2.2
1	1A	1100	C	2.2
33	2b	92	TYR	2.2
47	2p	67	THR	2.2
34	2c	42	LEU	2.2
6	2G	101	ILE	2.2
7	1H	92	ILE	2.2
40	2i	105	ASP	2.2
50	2s	3	ARG	2.2
50	2s	36	ARG	2.2

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Mol	Chain	Res	Type	RSRZ
40	1i	37	PHE	2.2
1	2A	1084	A	2.1
26	24	35	VAL	2.1
40	2i	26	VAL	2.1
43	1l	18	VAL	2.1
50	2s	41	VAL	2.1
45	2n	49	HIS	2.1
6	2G	41	GLN	2.1
51	2t	97	ALA	2.1
53	2y	52	ALA	2.1
1	1A	2168	G	2.1
1	2A	2141	G	2.1
1	2A	2148	G	2.1
26	24	9	LEU	2.1
33	2b	115	LEU	2.1
33	2b	142	LEU	2.1
51	2t	102	GLY	2.1
34	2c	152	ILE	2.1
44	2m	9	ILE	2.1
53	2y	35	ILE	2.1
33	1b	12	GLU	2.1
44	2m	69	GLU	2.1
45	2n	35	ARG	2.1
53	1y	95	ARG	2.1
21	2Z	179	ASP	2.1
26	24	65	ASP	2.1
43	2l	126	LYS	2.1
46	1o	2	PRO	2.1
21	2Z	165	VAL	2.1
33	1b	230	VAL	2.1
33	2b	71	VAL	2.1
41	1j	49	VAL	2.1
44	2m	45	VAL	2.1
34	2c	162	GLN	2.1
53	2y	10	MET	2.1
1	1A	2170	A	2.1
1	2A	1085	A	2.1
33	2b	237	ALA	2.1
6	1G	3	LEU	2.1
8	1I	6	LEU	2.1
14	2S	90	GLY	2.1
33	2b	44	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
33	2b	149	LEU	2.1
34	2c	13	GLY	2.1
35	2d	143	GLY	2.1
47	1p	49	LEU	2.1
14	2S	35	ILE	2.1
50	2s	40	ILE	2.1
14	2S	36	TYR	2.1
26	24	55	ARG	2.1
1	2A	2154	G	2.1
8	2I	85	GLU	2.1
33	1b	129	GLU	2.1
33	1b	236	TYR	2.1
33	2b	129	GLU	2.1
35	2d	20	TYR	2.1
43	1l	89	ARG	2.1
1	2A	2142	C	2.1
34	2c	20	SER	2.1
50	2s	4	SER	2.1
35	1d	22	LYS	2.1
6	2G	141	PHE	2.1
48	2q	71	PHE	2.1
16	1U	117	GLN	2.1
17	2V	47	VAL	2.1
53	2y	62	VAL	2.1
32	2a	1446	U	2.1
34	2c	113	ALA	2.1
53	1y	94	ALA	2.1
8	1I	58	LEU	2.1
14	2S	58	LEU	2.1
34	2c	87	LEU	2.1
35	1d	157	LEU	2.1
35	2d	157	LEU	2.1
37	1f	19	LEU	2.1
40	2i	19	LEU	2.1
6	2G	145	THR	2.1
6	2G	165	THR	2.1
41	2j	93	GLY	2.1
36	2e	25	ARG	2.1
8	2I	138	ILE	2.1
40	2i	63	ILE	2.1
33	2b	148	TYR	2.1
40	1i	114	TYR	2.1

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Mol	Chain	Res	Type	RSRZ
19	2X	33	LYS	2.1
40	2i	118	LYS	2.1
45	2n	17	LYS	2.1
43	2l	116	SER	2.1
1	1A	1053	C	2.1
21	2Z	95	PRO	2.1
32	1a	63	C	2.1
32	2a	879	C	2.1
32	2a	1218	C	2.1
33	1b	234	PRO	2.1
18	1W	111	HIS	2.1
19	1X	1	MET	2.1
21	2Z	1	MET	2.1
26	24	40	HIS	2.1
6	2G	70	VAL	2.1
26	14	35	VAL	2.1
26	24	10	VAL	2.1
40	2i	59	PHE	2.1
14	2S	77	ALA	2.1
36	2e	104	ALA	2.1
1	2A	2130	U	2.1
5	2F	169	ASN	2.1
33	2b	10	LEU	2.1
5	1F	208	GLY	2.1
35	2d	16	GLY	2.1
38	2g	19	GLY	2.1
39	1h	84	ARG	2.1
39	2h	122	ARG	2.1
49	2r	87	ARG	2.1
7	2H	129	THR	2.1
41	2j	92	THR	2.1
1	1A	1085	A	2.1
32	2a	975	A	2.1
34	2c	182	ILE	2.1
42	2k	75	TYR	2.1
46	1o	69	TYR	2.1
41	2j	30	SER	2.1
40	2i	98	PRO	2.1
1	1A	1058	G	2.0
1	1A	1062	G	2.0
1	2A	2129	C	2.1
32	2a	1321	C	2.1

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Mol	Chain	Res	Type	RSRZ
34	2c	37	GLN	2.0
41	1j	33	GLN	2.0
17	2V	72	VAL	2.0
31	29	25	VAL	2.0
33	2b	230	VAL	2.0
34	2c	55	VAL	2.0
34	2c	186	PHE	2.0
40	2i	33	PHE	2.0
44	2m	74	VAL	2.0
25	23	30	ARG	2.0
34	2c	71	ALA	2.0
36	2e	94	ALA	2.0
45	1n	30	ALA	2.0
4	2E	182	LEU	2.0
33	2b	158	LEU	2.0
35	1d	155	LEU	2.0
51	2t	13	LEU	2.0
8	2I	16	GLY	2.0
34	2c	185	GLY	2.0
44	2m	6	GLY	2.0
1	1A	2132	U	2.0
1	1A	2144	U	2.0
33	2b	67	THR	2.0
33	2b	127	ILE	2.0
34	2c	14	ILE	2.0
34	2c	39	ILE	2.0
36	2e	121	LYS	2.0
38	2g	35	LYS	2.0
40	2i	74	ILE	2.0
44	2m	115	LYS	2.0
48	1q	100	LYS	2.0
1	2A	2126	A	2.0
32	2a	994	A	2.0
10	2O	81	ASP	2.0
14	2S	92	TYR	2.0
23	21	68	PRO	2.0
34	2c	114	PRO	2.0
34	2c	193	TYR	2.0
40	2i	114	TYR	2.0
47	1p	32	TYR	2.0
29	17	1	MET	2.0
47	1p	13	HIS	2.0

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Mol	Chain	Res	Type	RSRZ
1	1A	2161	C	2.0
6	2G	149	VAL	2.0
20	2Y	45	VAL	2.0
34	2c	203	PHE	2.0
41	2j	70	ARG	2.0
43	2l	19	ARG	2.0
47	2p	9	PHE	2.0
50	2s	19	VAL	2.0
1	2A	1062	G	2.0
6	1G	82	LEU	2.0
7	2H	98	LEU	2.0
8	2I	55	ALA	2.0
19	1X	95	LEU	2.0
24	22	3	LEU	2.0
34	1c	87	LEU	2.0
34	2c	47	LEU	2.0
35	2d	164	ALA	2.0
42	1k	60	ALA	2.0
53	2y	77	LEU	2.0
34	2c	3	ASN	2.0
34	2c	41	GLY	2.0
40	2i	11	LYS	2.0
6	1G	140	ILE	2.0
6	2G	63	ILE	2.0
14	2S	82	ILE	2.0
22	20	10	THR	2.0
41	2j	6	ILE	2.0
1	2A	2897	U	2.0
32	1a	1532	U	2.0
53	1y	70	MET	2.0
11	2P	110	TYR	2.0
19	1X	69	TYR	2.0
35	2d	106	TYR	2.0
40	2i	4	TYR	2.0
42	1k	25	TYR	2.0
45	1n	32	SER	2.0
50	2s	69	HIS	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum,

median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q<0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
1	5MU	2A	1915	21/22	0.86	0.11	80,84,88,102	0
32	M2G	2a	966	25/26	0.86	0.17	69,76,86,98	0
1	PSU	2A	1917	20/21	0.87	0.09	73,79,95,99	0
32	2MG	2a	1207	24/25	0.87	0.10	77,85,88,97	0
1	5MU	1A	1915	21/22	0.88	0.10	68,75,80,84	0
32	PSU	2a	516	20/21	0.88	0.10	76,79,84,89	0
32	5MC	2a	967	21/22	0.89	0.14	71,76,81,84	0
1	PSU	2A	1911	20/21	0.89	0.09	68,74,86,88	0
32	2MG	1a	1207	24/25	0.90	0.10	63,72,76,80	0
43	0TD	2l	92	10/11	0.90	0.14	67,70,73,81	0
1	4OC	2A	1920	21/23	0.92	0.10	67,70,73,76	0
1	PSU	1A	1917	20/21	0.93	0.08	65,72,76,79	0
32	7MG	2a	527	24/25	0.93	0.12	64,69,71,76	0
43	0TD	1l	92	10/11	0.93	0.12	51,59,63,68	0
1	PSU	1A	1911	20/21	0.94	0.08	61,69,76,82	0
32	5MC	2a	1400	21/22	0.94	0.12	67,74,78,81	0
32	4OC	2a	1402	22/23	0.94	0.11	62,69,73,81	0
32	PSU	1a	516	20/21	0.94	0.08	61,67,71,77	0
32	5MC	1a	1407	21/22	0.95	0.09	46,56,62,67	0
32	MA6	1a	1519	24/25	0.95	0.11	48,54,58,62	0
32	5MC	2a	1407	21/22	0.95	0.09	60,68,72,78	0
32	UR3	2a	1498	21/22	0.95	0.10	57,64,70,75	0
32	MA6	2a	1519	24/25	0.95	0.11	62,67,71,76	0
32	5MC	1a	967	21/22	0.95	0.09	65,71,75,80	0
1	PSU	2A	2605	20/21	0.96	0.10	37,41,48,49	0
32	7MG	1a	527	24/25	0.96	0.09	50,57,62,62	0
32	5MC	2a	1404	21/22	0.96	0.09	63,68,70,73	0
32	UR3	1a	1498	21/22	0.96	0.09	49,55,59,65	0
32	M2G	1a	966	25/26	0.96	0.09	54,65,71,77	0
32	MA6	2a	1518	24/25	0.96	0.10	63,70,73,75	0
32	5MC	1a	1400	21/22	0.96	0.10	43,56,64,66	0
1	5MC	2A	1942	21/22	0.96	0.08	43,57,62,67	0
1	5MU	2A	1939	21/22	0.97	0.08	39,48,50,53	0
32	5MC	1a	1404	21/22	0.97	0.07	49,54,59,61	0
1	5MC	2A	1962	21/22	0.97	0.08	44,53,56,59	0
1	OMG	2A	2251	24/25	0.97	0.09	42,46,51,51	0
1	2MA	2A	2503	23/24	0.97	0.09	31,37,43,44	0
1	2MU	2A	2552	21/23	0.97	0.08	40,46,51,53	0
1	4OC	1A	1920	21/23	0.97	0.08	47,62,69,73	0
1	PSU	1A	2605	20/21	0.97	0.08	30,33,38,39	0
32	MA6	1a	1518	24/25	0.97	0.09	44,53,57,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
32	4OC	1a	1402	22/23	0.97	0.07	50,55,61,64	0
1	5MC	1A	1962	21/22	0.98	0.06	30,39,45,47	0
1	OMG	1A	2251	24/25	0.98	0.06	24,29,33,33	0
1	2MA	1A	2503	23/24	0.98	0.06	20,25,30,32	0
1	2MU	1A	2552	21/23	0.98	0.08	30,35,38,43	0
1	5MU	1A	1939	21/22	0.98	0.07	29,34,38,40	0
1	5MC	1A	1942	21/22	0.98	0.06	35,42,48,56	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	2A	3630	1/1	0.61	0.21	61,61,61,61	0
54	MG	2A	3366	1/1	0.67	0.13	79,79,79,79	0
54	MG	2A	3301	1/1	0.69	0.17	71,71,71,71	0
54	MG	1A	3693	1/1	0.72	0.15	63,63,63,63	0
54	MG	1A	3285	1/1	0.72	0.24	79,79,79,79	0
54	MG	2a	3062	1/1	0.72	0.22	79,79,79,79	0
54	MG	2A	3660	1/1	0.73	0.16	81,81,81,81	0
54	MG	2A	3634	1/1	0.73	0.21	75,75,75,75	0
54	MG	1A	3997	1/1	0.74	0.14	74,74,74,74	0
54	MG	1a	1756	1/1	0.74	0.15	59,59,59,59	0
54	MG	2A	3044	1/1	0.74	0.21	79,79,79,79	0
54	MG	2a	3108	1/1	0.74	0.37	79,79,79,79	0
54	MG	2a	3115	1/1	0.74	0.58	82,82,82,82	0
54	MG	2a	3129	1/1	0.75	0.16	77,77,77,77	0
54	MG	1A	3406	1/1	0.76	0.15	64,64,64,64	0
54	MG	1t	202	1/1	0.76	0.13	62,62,62,62	0
54	MG	1A	3678	1/1	0.76	0.13	76,76,76,76	0
54	MG	2a	3170	1/1	0.76	0.29	70,70,70,70	0
54	MG	2j	201	1/1	0.76	0.16	73,73,73,73	0
56	MPD	1T	204	8/8	0.76	0.17	61,65,73,74	0
54	MG	2a	3070	1/1	0.77	0.20	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3580	1/1	0.78	0.22	70,70,70,70	0
54	MG	2a	3119	1/1	0.78	0.16	72,72,72,72	0
54	MG	1a	1732	1/1	0.78	0.18	79,79,79,79	0
54	MG	2A	3429	1/1	0.78	0.21	63,63,63,63	0
54	MG	2A	3528	1/1	0.78	0.26	80,80,80,80	0
54	MG	1a	1753	1/1	0.78	0.11	73,73,73,73	0
54	MG	2A	3278	1/1	0.79	0.14	44,44,44,44	0
54	MG	2a	3087	1/1	0.79	0.27	76,76,76,76	0
54	MG	2a	3094	1/1	0.79	0.16	82,82,82,82	0
54	MG	1a	1844	1/1	0.79	0.27	69,69,69,69	0
54	MG	1G	202	1/1	0.79	0.12	55,55,55,55	0
54	MG	2A	3393	1/1	0.79	0.30	69,69,69,69	0
54	MG	2A	3722	1/1	0.79	0.17	73,73,73,73	0
54	MG	2B	201	1/1	0.79	0.23	75,75,75,75	0
54	MG	2a	3058	1/1	0.79	0.28	74,74,74,74	0
54	MG	1A	3923	1/1	0.79	0.18	51,51,51,51	0
56	MPD	2B	219	8/8	0.79	0.24	61,71,72,75	0
57	ARG	1F	319	12/12	0.79	0.16	55,65,74,77	0
54	MG	2A	3582	1/1	0.80	0.14	83,83,83,83	0
54	MG	2A	3625	1/1	0.80	0.09	82,82,82,82	0
54	MG	1A	3616	1/1	0.80	0.14	34,34,34,34	0
54	MG	1A	3412	1/1	0.80	0.12	73,73,73,73	0
54	MG	1A	3220	1/1	0.80	0.16	66,66,66,66	0
54	MG	2A	3244	1/1	0.80	0.20	69,69,69,69	0
54	MG	2A	3435	1/1	0.80	0.13	59,59,59,59	0
54	MG	2A	3444	1/1	0.80	0.28	73,73,73,73	0
54	MG	2a	3060	1/1	0.80	0.31	77,77,77,77	0
54	MG	2A	3473	1/1	0.80	0.14	75,75,75,75	0
54	MG	1a	1784	1/1	0.80	0.17	69,69,69,69	0
54	MG	2G	203	1/1	0.81	0.16	70,70,70,70	0
54	MG	1a	1774	1/1	0.81	0.17	70,70,70,70	0
54	MG	2A	3475	1/1	0.81	0.12	46,46,46,46	0
54	MG	2A	3491	1/1	0.81	0.12	64,64,64,64	0
54	MG	1A	3569	1/1	0.81	0.18	70,70,70,70	0
54	MG	2A	3577	1/1	0.81	0.13	58,58,58,58	0
54	MG	1a	1800	1/1	0.81	0.14	74,74,74,74	0
54	MG	2A	3331	1/1	0.81	0.18	59,59,59,59	0
54	MG	1a	1740	1/1	0.81	0.26	76,76,76,76	0
54	MG	2A	3633	1/1	0.81	0.15	66,66,66,66	0
54	MG	1a	1867	1/1	0.81	0.14	80,80,80,80	0
54	MG	1h	202	1/1	0.81	0.12	79,79,79,79	0
54	MG	2a	3177	1/1	0.81	0.13	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1D	309	1/1	0.81	0.35	55,55,55,55	0
54	MG	1A	3589	1/1	0.81	0.16	63,63,63,63	0
54	MG	2B	203	1/1	0.81	0.20	83,83,83,83	0
54	MG	2G	201	1/1	0.81	0.12	78,78,78,78	0
54	MG	2A	3161	1/1	0.82	0.13	70,70,70,70	0
54	MG	2A	3172	1/1	0.82	0.11	63,63,63,63	0
54	MG	1A	3473	1/1	0.82	0.12	33,33,33,33	0
54	MG	2A	3253	1/1	0.82	0.12	73,73,73,73	0
54	MG	1a	1810	1/1	0.82	0.23	76,76,76,76	0
54	MG	2A	3519	1/1	0.82	0.21	64,64,64,64	0
54	MG	2a	3144	1/1	0.82	0.14	66,66,66,66	0
54	MG	1A	3633	1/1	0.82	0.40	45,45,45,45	0
54	MG	2A	3566	1/1	0.82	0.12	40,40,40,40	0
54	MG	2a	3178	1/1	0.82	0.15	65,65,65,65	0
54	MG	1A	3425	1/1	0.82	0.13	40,40,40,40	0
54	MG	1A	3602	1/1	0.82	0.12	67,67,67,67	0
54	MG	1A	3909	1/1	0.82	0.22	48,48,48,48	0
54	MG	1a	1786	1/1	0.82	0.16	62,62,62,62	0
54	MG	2O	202	1/1	0.83	0.11	80,80,80,80	0
54	MG	2a	3008	1/1	0.83	0.43	78,78,78,78	0
54	MG	2A	3494	1/1	0.83	0.11	63,63,63,63	0
54	MG	2A	3512	1/1	0.83	0.14	62,62,62,62	0
54	MG	1b	301	1/1	0.83	0.16	80,80,80,80	0
54	MG	1a	1787	1/1	0.83	0.09	70,70,70,70	0
54	MG	2A	3295	1/1	0.83	0.12	56,56,56,56	0
54	MG	1a	1682	1/1	0.83	0.29	75,75,75,75	0
54	MG	2a	3106	1/1	0.83	0.14	70,70,70,70	0
54	MG	1A	3707	1/1	0.83	0.13	70,70,70,70	0
54	MG	2A	3047	1/1	0.83	0.14	60,60,60,60	0
54	MG	2A	3055	1/1	0.83	0.23	72,72,72,72	0
54	MG	2A	3090	1/1	0.83	0.22	68,68,68,68	0
54	MG	2A	3094	1/1	0.83	0.18	76,76,76,76	0
54	MG	1a	1825	1/1	0.83	0.11	71,71,71,71	0
54	MG	2A	3704	1/1	0.83	0.17	52,52,52,52	0
54	MG	2A	3445	1/1	0.83	0.14	64,64,64,64	0
54	MG	2A	3461	1/1	0.83	0.18	56,56,56,56	0
54	MG	2A	3171	1/1	0.83	0.18	70,70,70,70	0
54	MG	1A	3965	1/1	0.83	0.18	59,59,59,59	0
54	MG	1A	3986	1/1	0.83	0.19	70,70,70,70	0
54	MG	1a	1826	1/1	0.84	0.19	72,72,72,72	0
54	MG	1A	3853	1/1	0.84	0.12	59,59,59,59	0
54	MG	2A	3708	1/1	0.84	0.11	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	1604	1/1	0.84	0.15	69,69,69,69	0
54	MG	2A	3419	1/1	0.84	0.15	57,57,57,57	0
54	MG	2A	3420	1/1	0.84	0.09	73,73,73,73	0
54	MG	1A	3622	1/1	0.84	0.10	30,30,30,30	0
54	MG	1a	1700	1/1	0.84	0.13	54,54,54,54	0
54	MG	2A	3436	1/1	0.84	0.29	77,77,77,77	0
54	MG	1A	3917	1/1	0.84	0.12	35,35,35,35	0
54	MG	1A	3449	1/1	0.84	0.13	49,49,49,49	0
54	MG	1A	3927	1/1	0.84	0.12	56,56,56,56	0
54	MG	1A	3955	1/1	0.84	0.14	71,71,71,71	0
54	MG	2a	3064	1/1	0.84	0.18	69,69,69,69	0
54	MG	2a	3065	1/1	0.84	0.13	76,76,76,76	0
54	MG	1a	1772	1/1	0.84	0.13	62,62,62,62	0
54	MG	2A	3486	1/1	0.84	0.13	61,61,61,61	0
54	MG	1A	3457	1/1	0.84	0.10	36,36,36,36	0
54	MG	2A	3121	1/1	0.84	0.26	72,72,72,72	0
54	MG	2A	3511	1/1	0.84	0.17	38,38,38,38	0
54	MG	1A	3681	1/1	0.84	0.19	62,62,62,62	0
54	MG	1A	3994	1/1	0.84	0.25	48,48,48,48	0
54	MG	1A	3206	1/1	0.84	0.29	70,70,70,70	0
54	MG	2A	3209	1/1	0.84	0.14	66,66,66,66	0
54	MG	2a	3150	1/1	0.84	0.13	66,66,66,66	0
54	MG	2A	3222	1/1	0.84	0.18	58,58,58,58	0
54	MG	1B	222	1/1	0.84	0.16	54,54,54,54	0
54	MG	2A	3619	1/1	0.84	0.14	45,45,45,45	0
54	MG	1A	3203	1/1	0.84	0.21	72,72,72,72	0
54	MG	1a	1812	1/1	0.84	0.11	66,66,66,66	0
54	MG	1a	1821	1/1	0.84	0.20	68,68,68,68	0
54	MG	1D	312	1/1	0.84	0.20	66,66,66,66	0
54	MG	1A	3353	1/1	0.85	0.13	49,49,49,49	0
54	MG	1a	1811	1/1	0.85	0.13	66,66,66,66	0
54	MG	2a	3069	1/1	0.85	0.18	77,77,77,77	0
54	MG	1a	1746	1/1	0.85	0.20	71,71,71,71	0
54	MG	1A	3431	1/1	0.85	0.16	67,67,67,67	0
54	MG	1A	3776	1/1	0.85	0.11	30,30,30,30	0
54	MG	2a	3105	1/1	0.85	0.15	71,71,71,71	0
54	MG	1A	3591	1/1	0.85	0.13	51,51,51,51	0
54	MG	2A	3129	1/1	0.85	0.19	70,70,70,70	0
54	MG	2A	3518	1/1	0.85	0.16	65,65,65,65	0
54	MG	1a	1828	1/1	0.85	0.14	65,65,65,65	0
54	MG	2E	304	1/1	0.85	0.14	40,40,40,40	0
54	MG	2A	3523	1/1	0.85	0.17	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	1617	1/1	0.85	0.19	73,73,73,73	0
54	MG	2a	3167	1/1	0.85	0.38	76,76,76,76	0
54	MG	1B	207	1/1	0.85	0.10	50,50,50,50	0
54	MG	1A	3885	1/1	0.85	0.15	56,56,56,56	0
54	MG	2a	3056	1/1	0.85	0.18	74,74,74,74	0
54	MG	2a	3057	1/1	0.85	0.24	64,64,64,64	0
54	MG	1g	202	1/1	0.85	0.08	59,59,59,59	0
54	MG	1a	1701	1/1	0.85	0.20	72,72,72,72	0
54	MG	1B	231	1/1	0.85	0.14	71,71,71,71	0
54	MG	1A	3755	1/1	0.86	0.18	77,77,77,77	0
54	MG	1A	3187	1/1	0.86	0.14	54,54,54,54	0
54	MG	2A	3089	1/1	0.86	0.20	72,72,72,72	0
54	MG	10	105	1/1	0.86	0.12	60,60,60,60	0
54	MG	1A	3971	1/1	0.86	0.16	45,45,45,45	0
54	MG	2l	101	1/1	0.86	0.17	75,75,75,75	0
54	MG	2a	3004	1/1	0.86	0.28	72,72,72,72	0
54	MG	1A	3979	1/1	0.86	0.17	65,65,65,65	0
54	MG	2a	3012	1/1	0.86	0.15	62,62,62,62	0
54	MG	2a	3020	1/1	0.86	0.18	63,63,63,63	0
54	MG	1a	1675	1/1	0.86	0.24	64,64,64,64	0
54	MG	1A	3586	1/1	0.86	0.18	67,67,67,67	0
54	MG	1a	1819	1/1	0.86	0.23	75,75,75,75	0
54	MG	1a	1696	1/1	0.86	0.17	71,71,71,71	0
54	MG	2A	3177	1/1	0.86	0.15	48,48,48,48	0
54	MG	2A	3187	1/1	0.86	0.14	66,66,66,66	0
54	MG	2A	3196	1/1	0.86	0.17	67,67,67,67	0
54	MG	1A	3989	1/1	0.86	0.33	47,47,47,47	0
54	MG	2A	3219	1/1	0.86	0.14	70,70,70,70	0
54	MG	1A	3639	1/1	0.86	0.25	69,69,69,69	0
54	MG	2A	3558	1/1	0.86	0.10	65,65,65,65	0
54	MG	2A	3563	1/1	0.86	0.10	44,44,44,44	0
54	MG	1A	3893	1/1	0.86	0.10	46,46,46,46	0
54	MG	2A	3570	1/1	0.86	0.15	53,53,53,53	0
54	MG	1a	1829	1/1	0.86	0.14	82,82,82,82	0
54	MG	1A	4002	1/1	0.86	0.11	50,50,50,50	0
54	MG	1a	1848	1/1	0.86	0.10	70,70,70,70	0
54	MG	1a	1850	1/1	0.86	0.09	64,64,64,64	0
54	MG	1A	3287	1/1	0.86	0.18	69,69,69,69	0
54	MG	1A	3304	1/1	0.86	0.10	84,84,84,84	0
54	MG	2A	3390	1/1	0.86	0.23	69,69,69,69	0
54	MG	1B	230	1/1	0.86	0.10	55,55,55,55	0
54	MG	2A	3679	1/1	0.86	0.09	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3418	1/1	0.86	0.14	47,47,47,47	0
54	MG	1a	1761	1/1	0.86	0.22	84,84,84,84	0
54	MG	1A	3487	1/1	0.86	0.16	41,41,41,41	0
54	MG	1A	3150	1/1	0.86	0.10	70,70,70,70	0
54	MG	2G	202	1/1	0.87	0.10	76,76,76,76	0
54	MG	1A	3714	1/1	0.87	0.28	53,53,53,53	0
54	MG	2A	3220	1/1	0.87	0.21	64,64,64,64	0
54	MG	2A	3495	1/1	0.87	0.13	59,59,59,59	0
54	MG	1a	1693	1/1	0.87	0.15	70,70,70,70	0
54	MG	1a	1794	1/1	0.87	0.22	86,86,86,86	0
54	MG	2A	3245	1/1	0.87	0.24	68,68,68,68	0
54	MG	1A	3527	1/1	0.87	0.16	49,49,49,49	0
54	MG	2a	3028	1/1	0.87	0.21	81,81,81,81	0
54	MG	2a	3040	1/1	0.87	0.23	75,75,75,75	0
54	MG	2a	3042	1/1	0.87	0.18	76,76,76,76	0
54	MG	2A	3254	1/1	0.87	0.15	64,64,64,64	0
54	MG	2A	3012	1/1	0.87	0.27	66,66,66,66	0
54	MG	2A	3042	1/1	0.87	0.13	48,48,48,48	0
54	MG	1A	3388	1/1	0.87	0.14	31,31,31,31	0
54	MG	1A	3789	1/1	0.87	0.16	66,66,66,66	0
54	MG	1a	1706	1/1	0.87	0.15	57,57,57,57	0
54	MG	2A	3378	1/1	0.87	0.10	39,39,39,39	0
54	MG	1A	3944	1/1	0.87	0.12	49,49,49,49	0
54	MG	2A	3588	1/1	0.87	0.17	54,54,54,54	0
54	MG	1H	201	1/1	0.87	0.16	56,56,56,56	0
54	MG	2a	3090	1/1	0.87	0.11	76,76,76,76	0
54	MG	2A	3093	1/1	0.87	0.14	67,67,67,67	0
54	MG	1a	1824	1/1	0.87	0.10	64,64,64,64	0
54	MG	1R	205	1/1	0.87	0.13	47,47,47,47	0
54	MG	2A	3423	1/1	0.87	0.14	77,77,77,77	0
54	MG	2A	3638	1/1	0.87	0.11	79,79,79,79	0
54	MG	2A	3639	1/1	0.87	0.14	73,73,73,73	0
54	MG	1A	3215	1/1	0.87	0.08	64,64,64,64	0
54	MG	2A	3671	1/1	0.87	0.18	67,67,67,67	0
54	MG	2A	3133	1/1	0.87	0.11	59,59,59,59	0
54	MG	1B	203	1/1	0.87	0.15	61,61,61,61	0
54	MG	1a	1760	1/1	0.87	0.14	66,66,66,66	0
54	MG	2A	3721	1/1	0.87	0.10	73,73,73,73	0
54	MG	1a	1837	1/1	0.87	0.12	57,57,57,57	0
54	MG	1A	3274	1/1	0.87	0.18	61,61,61,61	0
54	MG	1a	1662	1/1	0.87	0.24	74,74,74,74	0
54	MG	1a	1665	1/1	0.87	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	1A	3521	1/1	0.87	0.14	56,56,56,56	0
54	MG	1A	3582	1/1	0.88	0.11	46,46,46,46	0
54	MG	2A	3276	1/1	0.88	0.22	56,56,56,56	0
54	MG	1a	1748	1/1	0.88	0.17	67,67,67,67	0
54	MG	1a	1872	1/1	0.88	0.10	65,65,65,65	0
54	MG	1A	3655	1/1	0.88	0.08	31,31,31,31	0
54	MG	1d	303	1/1	0.88	0.11	56,56,56,56	0
54	MG	2A	3356	1/1	0.88	0.17	73,73,73,73	0
54	MG	2A	3675	1/1	0.88	0.10	74,74,74,74	0
54	MG	1A	3903	1/1	0.88	0.11	28,28,28,28	0
54	MG	2A	3687	1/1	0.88	0.15	69,69,69,69	0
54	MG	1A	3479	1/1	0.88	0.08	22,22,22,22	0
54	MG	2A	3386	1/1	0.88	0.13	56,56,56,56	0
54	MG	2A	3715	1/1	0.88	0.13	64,64,64,64	0
54	MG	1A	3679	1/1	0.88	0.13	76,76,76,76	0
54	MG	1A	3322	1/1	0.88	0.08	29,29,29,29	0
54	MG	2A	3732	1/1	0.88	0.12	66,66,66,66	0
54	MG	1A	3433	1/1	0.88	0.16	62,62,62,62	0
54	MG	1a	1776	1/1	0.88	0.20	68,68,68,68	0
54	MG	2B	204	1/1	0.88	0.18	66,66,66,66	0
54	MG	2B	212	1/1	0.88	0.30	80,80,80,80	0
54	MG	2B	217	1/1	0.88	0.07	72,72,72,72	0
54	MG	2D	308	1/1	0.88	0.15	46,46,46,46	0
54	MG	1a	1782	1/1	0.88	0.08	82,82,82,82	0
54	MG	2F	303	1/1	0.88	0.16	67,67,67,67	0
54	MG	2A	3050	1/1	0.88	0.18	71,71,71,71	0
54	MG	2A	3424	1/1	0.88	0.10	57,57,57,57	0
54	MG	1A	3696	1/1	0.88	0.14	44,44,44,44	0
54	MG	2A	3062	1/1	0.88	0.16	57,57,57,57	0
54	MG	1A	3702	1/1	0.88	0.22	41,41,41,41	0
54	MG	2A	3440	1/1	0.88	0.13	71,71,71,71	0
54	MG	1A	3601	1/1	0.88	0.19	32,32,32,32	0
54	MG	1a	1639	1/1	0.88	0.18	75,75,75,75	0
54	MG	2A	3451	1/1	0.88	0.09	68,68,68,68	0
54	MG	2a	3025	1/1	0.88	0.17	79,79,79,79	0
54	MG	2A	3452	1/1	0.88	0.15	69,69,69,69	0
54	MG	2a	3037	1/1	0.88	0.19	65,65,65,65	0
54	MG	1a	1798	1/1	0.88	0.10	60,60,60,60	0
54	MG	2A	3462	1/1	0.88	0.12	70,70,70,70	0
54	MG	1a	1652	1/1	0.88	0.11	69,69,69,69	0
54	MG	1a	1802	1/1	0.88	0.26	72,72,72,72	0
54	MG	2A	3484	1/1	0.88	0.11	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	3130	1/1	0.88	0.28	75,75,75,75	0
54	MG	1a	1807	1/1	0.88	0.12	68,68,68,68	0
54	MG	1A	3712	1/1	0.88	0.26	36,36,36,36	0
54	MG	1A	3266	1/1	0.88	0.18	66,66,66,66	0
54	MG	1A	3735	1/1	0.88	0.10	37,37,37,37	0
54	MG	1A	3354	1/1	0.88	0.09	36,36,36,36	0
54	MG	2a	3072	1/1	0.88	0.25	72,72,72,72	0
54	MG	2A	3179	1/1	0.88	0.13	60,60,60,60	0
54	MG	2A	3185	1/1	0.88	0.16	67,67,67,67	0
54	MG	1A	3992	1/1	0.88	0.15	52,52,52,52	0
54	MG	1A	3576	1/1	0.88	0.30	44,44,44,44	0
54	MG	2A	3541	1/1	0.88	0.10	63,63,63,63	0
54	MG	1A	3370	1/1	0.88	0.11	61,61,61,61	0
54	MG	2A	3562	1/1	0.88	0.12	37,37,37,37	0
54	MG	2A	3210	1/1	0.88	0.08	56,56,56,56	0
54	MG	1A	3810	1/1	0.88	0.13	46,46,46,46	0
54	MG	2a	3135	1/1	0.88	0.11	67,67,67,67	0
54	MG	1A	3817	1/1	0.88	0.17	41,41,41,41	0
54	MG	2A	3572	1/1	0.88	0.15	75,75,75,75	0
54	MG	1A	3638	1/1	0.88	0.14	60,60,60,60	0
54	MG	2A	3223	1/1	0.88	0.26	70,70,70,70	0
54	MG	1a	1738	1/1	0.88	0.10	52,52,52,52	0
54	MG	2A	3598	1/1	0.88	0.09	42,42,42,42	0
54	MG	2a	3181	1/1	0.88	0.17	72,72,72,72	0
54	MG	2A	3603	1/1	0.88	0.10	60,60,60,60	0
54	MG	1A	3857	1/1	0.88	0.12	51,51,51,51	0
54	MG	1a	1742	1/1	0.88	0.11	59,59,59,59	0
54	MG	2A	3626	1/1	0.88	0.12	57,57,57,57	0
54	MG	2B	202	1/1	0.89	0.13	71,71,71,71	0
54	MG	1a	1778	1/1	0.89	0.12	71,71,71,71	0
54	MG	1A	3883	1/1	0.89	0.08	49,49,49,49	0
54	MG	2A	3478	1/1	0.89	0.12	56,56,56,56	0
54	MG	2B	214	1/1	0.89	0.08	74,74,74,74	0
54	MG	1A	3366	1/1	0.89	0.13	39,39,39,39	0
54	MG	1A	3288	1/1	0.89	0.11	60,60,60,60	0
54	MG	2A	3489	1/1	0.89	0.16	68,68,68,68	0
54	MG	2A	3212	1/1	0.89	0.11	55,55,55,55	0
54	MG	1a	1683	1/1	0.89	0.18	79,79,79,79	0
54	MG	1B	204	1/1	0.89	0.19	52,52,52,52	0
54	MG	1l	202	1/1	0.89	0.11	70,70,70,70	0
54	MG	1n	102	1/1	0.89	0.09	58,58,58,58	0
54	MG	20	102	1/1	0.89	0.19	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3514	1/1	0.89	0.08	34,34,34,34	0
54	MG	1A	3040	1/1	0.89	0.10	52,52,52,52	0
54	MG	2A	3001	1/1	0.89	0.29	64,64,64,64	0
54	MG	1A	3086	1/1	0.89	0.12	56,56,56,56	0
54	MG	2A	3524	1/1	0.89	0.15	59,59,59,59	0
54	MG	2A	3038	1/1	0.89	0.20	68,68,68,68	0
54	MG	1A	3674	1/1	0.89	0.12	76,76,76,76	0
54	MG	2a	3035	1/1	0.89	0.14	74,74,74,74	0
54	MG	2a	3036	1/1	0.89	0.12	61,61,61,61	0
54	MG	2A	3550	1/1	0.89	0.14	63,63,63,63	0
54	MG	1A	3572	1/1	0.89	0.08	44,44,44,44	0
54	MG	2A	3287	1/1	0.89	0.12	60,60,60,60	0
54	MG	2a	3044	1/1	0.89	0.20	69,69,69,69	0
54	MG	1a	1809	1/1	0.89	0.24	71,71,71,71	0
54	MG	1a	1726	1/1	0.89	0.17	56,56,56,56	0
54	MG	2A	3330	1/1	0.89	0.10	56,56,56,56	0
54	MG	1A	3778	1/1	0.89	0.15	45,45,45,45	0
54	MG	1A	3785	1/1	0.89	0.14	45,45,45,45	0
54	MG	2A	3063	1/1	0.89	0.22	54,54,54,54	0
54	MG	1a	1814	1/1	0.89	0.09	72,72,72,72	0
54	MG	2A	3383	1/1	0.89	0.11	46,46,46,46	0
54	MG	2A	3601	1/1	0.89	0.08	63,63,63,63	0
54	MG	1A	3145	1/1	0.89	0.17	68,68,68,68	0
54	MG	1A	3614	1/1	0.89	0.19	64,64,64,64	0
54	MG	1A	3578	1/1	0.89	0.11	51,51,51,51	0
54	MG	2A	3412	1/1	0.89	0.19	72,72,72,72	0
54	MG	2A	3414	1/1	0.89	0.27	52,52,52,52	0
54	MG	2A	3105	1/1	0.89	0.14	69,69,69,69	0
54	MG	2A	3112	1/1	0.89	0.08	71,71,71,71	0
54	MG	1A	3241	1/1	0.89	0.15	67,67,67,67	0
54	MG	2a	3118	1/1	0.89	0.11	68,68,68,68	0
54	MG	18	102	1/1	0.89	0.10	58,58,58,58	0
54	MG	2a	3121	1/1	0.89	0.17	68,68,68,68	0
54	MG	1A	3628	1/1	0.89	0.13	68,68,68,68	0
54	MG	1A	3865	1/1	0.89	0.17	65,65,65,65	0
54	MG	2A	3145	1/1	0.89	0.14	49,49,49,49	0
54	MG	1a	1835	1/1	0.89	0.11	75,75,75,75	0
54	MG	2A	3682	1/1	0.89	0.13	67,67,67,67	0
54	MG	2A	3167	1/1	0.89	0.13	67,67,67,67	0
54	MG	2A	3168	1/1	0.89	0.22	58,58,58,58	0
54	MG	1A	3879	1/1	0.89	0.09	27,27,27,27	0
54	MG	2A	3447	1/1	0.89	0.23	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	1644	1/1	0.89	0.26	64,64,64,64	0
56	MPD	1A	4022	8/8	0.89	0.20	46,53,56,59	0
54	MG	1a	1847	1/1	0.89	0.09	68,68,68,68	0
56	MPD	2A	3735	8/8	0.89	0.21	50,57,60,64	0
54	MG	1A	3993	1/1	0.89	0.17	65,65,65,65	0
54	MG	1A	3881	1/1	0.89	0.06	29,29,29,29	0
54	MG	2A	3672	1/1	0.90	0.11	62,62,62,62	0
54	MG	1V	205	1/1	0.90	0.18	60,60,60,60	0
54	MG	2A	3417	1/1	0.90	0.09	72,72,72,72	0
54	MG	1A	3565	1/1	0.90	0.08	62,62,62,62	0
54	MG	1a	1779	1/1	0.90	0.20	57,57,57,57	0
54	MG	2A	3700	1/1	0.90	0.10	62,62,62,62	0
54	MG	1A	3303	1/1	0.90	0.15	67,67,67,67	0
54	MG	1A	3723	1/1	0.90	0.09	42,42,42,42	0
54	MG	2A	3714	1/1	0.90	0.09	78,78,78,78	0
54	MG	1a	1610	1/1	0.90	0.12	65,65,65,65	0
54	MG	1A	3038	1/1	0.90	0.07	38,38,38,38	0
54	MG	2A	3431	1/1	0.90	0.30	51,51,51,51	0
54	MG	2A	3727	1/1	0.90	0.16	65,65,65,65	0
54	MG	1a	1625	1/1	0.90	0.12	53,53,53,53	0
54	MG	2A	3114	1/1	0.90	0.15	69,69,69,69	0
54	MG	1a	1635	1/1	0.90	0.14	50,50,50,50	0
54	MG	2A	3442	1/1	0.90	0.10	64,64,64,64	0
54	MG	2A	3443	1/1	0.90	0.10	60,60,60,60	0
54	MG	2B	208	1/1	0.90	0.12	63,63,63,63	0
54	MG	2B	209	1/1	0.90	0.25	72,72,72,72	0
54	MG	2A	3125	1/1	0.90	0.17	54,54,54,54	0
54	MG	1A	3750	1/1	0.90	0.10	56,56,56,56	0
54	MG	1A	3435	1/1	0.90	0.10	49,49,49,49	0
54	MG	1A	3385	1/1	0.90	0.08	33,33,33,33	0
54	MG	2D	310	1/1	0.90	0.14	60,60,60,60	0
54	MG	1a	1653	1/1	0.90	0.13	62,62,62,62	0
54	MG	1a	1661	1/1	0.90	0.20	74,74,74,74	0
54	MG	1A	3640	1/1	0.90	0.14	61,61,61,61	0
54	MG	1a	1663	1/1	0.90	0.12	66,66,66,66	0
54	MG	1A	3642	1/1	0.90	0.16	70,70,70,70	0
54	MG	1a	1671	1/1	0.90	0.15	79,79,79,79	0
54	MG	2P	201	1/1	0.90	0.19	45,45,45,45	0
54	MG	1A	3646	1/1	0.90	0.14	73,73,73,73	0
54	MG	1A	3125	1/1	0.90	0.21	56,56,56,56	0
54	MG	1A	3816	1/1	0.90	0.07	27,27,27,27	0
54	MG	1a	1689	1/1	0.90	0.14	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2a	3010	1/1	0.90	0.19	56,56,56,56	0
54	MG	1A	3657	1/1	0.90	0.07	16,16,16,16	0
54	MG	2a	3018	1/1	0.90	0.17	73,73,73,73	0
54	MG	2A	3197	1/1	0.90	0.23	58,58,58,58	0
54	MG	2a	3022	1/1	0.90	0.20	64,64,64,64	0
54	MG	2A	3498	1/1	0.90	0.12	66,66,66,66	0
54	MG	2A	3200	1/1	0.90	0.09	68,68,68,68	0
54	MG	2A	3203	1/1	0.90	0.24	53,53,53,53	0
54	MG	1A	3852	1/1	0.90	0.11	27,27,27,27	0
54	MG	2A	3516	1/1	0.90	0.16	56,56,56,56	0
54	MG	2a	3038	1/1	0.90	0.25	66,66,66,66	0
54	MG	1A	3669	1/1	0.90	0.14	61,61,61,61	0
54	MG	1A	4007	1/1	0.90	0.13	50,50,50,50	0
54	MG	1a	1702	1/1	0.90	0.12	63,63,63,63	0
54	MG	2a	3046	1/1	0.90	0.21	67,67,67,67	0
54	MG	2a	3048	1/1	0.90	0.30	69,69,69,69	0
54	MG	1A	3461	1/1	0.90	0.10	53,53,53,53	0
54	MG	2A	3525	1/1	0.90	0.12	68,68,68,68	0
54	MG	1a	1715	1/1	0.90	0.20	69,69,69,69	0
54	MG	2A	3533	1/1	0.90	0.09	37,37,37,37	0
54	MG	1a	1719	1/1	0.90	0.19	76,76,76,76	0
54	MG	1A	3401	1/1	0.90	0.14	68,68,68,68	0
54	MG	1A	3866	1/1	0.90	0.10	45,45,45,45	0
54	MG	2a	3066	1/1	0.90	0.26	63,63,63,63	0
54	MG	1B	212	1/1	0.90	0.25	61,61,61,61	0
54	MG	1A	3404	1/1	0.90	0.22	55,55,55,55	0
54	MG	1B	226	1/1	0.90	0.13	54,54,54,54	0
54	MG	2a	3077	1/1	0.90	0.11	72,72,72,72	0
54	MG	2A	3277	1/1	0.90	0.16	73,73,73,73	0
54	MG	2a	3089	1/1	0.90	0.09	71,71,71,71	0
54	MG	1A	3131	1/1	0.90	0.10	51,51,51,51	0
54	MG	1l	201	1/1	0.90	0.10	70,70,70,70	0
54	MG	2a	3099	1/1	0.90	0.18	69,69,69,69	0
54	MG	2a	3103	1/1	0.90	0.11	85,85,85,85	0
54	MG	1A	3882	1/1	0.90	0.12	52,52,52,52	0
54	MG	2A	3585	1/1	0.90	0.13	60,60,60,60	0
54	MG	1a	1750	1/1	0.90	0.16	67,67,67,67	0
54	MG	2A	3309	1/1	0.90	0.12	54,54,54,54	0
54	MG	2a	3116	1/1	0.90	0.11	59,59,59,59	0
54	MG	1A	3495	1/1	0.90	0.08	61,61,61,61	0
54	MG	1A	3067	1/1	0.90	0.12	50,50,50,50	0
54	MG	2A	3613	1/1	0.90	0.12	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2a	3123	1/1	0.90	0.18	58,58,58,58	0
54	MG	2A	3618	1/1	0.90	0.11	39,39,39,39	0
54	MG	2A	3344	1/1	0.90	0.13	75,75,75,75	0
54	MG	2a	3136	1/1	0.90	0.19	84,84,84,84	0
54	MG	2a	3141	1/1	0.90	0.13	57,57,57,57	0
54	MG	2A	3624	1/1	0.90	0.07	68,68,68,68	0
54	MG	2A	3345	1/1	0.90	0.09	41,41,41,41	0
54	MG	2a	3151	1/1	0.90	0.29	68,68,68,68	0
54	MG	1a	1757	1/1	0.90	0.16	64,64,64,64	0
54	MG	1a	1758	1/1	0.90	0.19	68,68,68,68	0
54	MG	1A	3357	1/1	0.90	0.10	21,21,21,21	0
54	MG	1A	3705	1/1	0.90	0.10	55,55,55,55	0
54	MG	1P	204	1/1	0.90	0.27	57,57,57,57	0
54	MG	1A	3543	1/1	0.90	0.07	55,55,55,55	0
54	MG	2n	101	1/1	0.90	0.17	69,69,69,69	0
54	MG	2A	3641	1/1	0.90	0.15	65,65,65,65	0
54	MG	2A	3651	1/1	0.90	0.11	81,81,81,81	0
54	MG	2A	3054	1/1	0.90	0.23	70,70,70,70	0
54	MG	2A	3667	1/1	0.90	0.10	79,79,79,79	0
54	MG	1a	1775	1/1	0.90	0.32	79,79,79,79	0
54	MG	1B	217	1/1	0.91	0.17	50,50,50,50	0
54	MG	1B	219	1/1	0.91	0.10	52,52,52,52	0
54	MG	1d	302	1/1	0.91	0.22	71,71,71,71	0
54	MG	2A	3313	1/1	0.91	0.14	55,55,55,55	0
54	MG	1A	3312	1/1	0.91	0.16	58,58,58,58	0
54	MG	2A	3674	1/1	0.91	0.12	51,51,51,51	0
54	MG	1d	305	1/1	0.91	0.07	79,79,79,79	0
54	MG	2A	3335	1/1	0.91	0.24	61,61,61,61	0
54	MG	2A	3342	1/1	0.91	0.14	48,48,48,48	0
54	MG	2A	3683	1/1	0.91	0.10	65,65,65,65	0
54	MG	1A	3414	1/1	0.91	0.09	63,63,63,63	0
54	MG	2A	3688	1/1	0.91	0.16	71,71,71,71	0
54	MG	2A	3695	1/1	0.91	0.09	66,66,66,66	0
54	MG	1B	228	1/1	0.91	0.12	65,65,65,65	0
54	MG	1A	3571	1/1	0.91	0.08	23,23,23,23	0
54	MG	2A	3363	1/1	0.91	0.10	61,61,61,61	0
54	MG	2A	3711	1/1	0.91	0.12	64,64,64,64	0
54	MG	1A	3313	1/1	0.91	0.10	51,51,51,51	0
54	MG	2A	3368	1/1	0.91	0.08	37,37,37,37	0
54	MG	1a	1745	1/1	0.91	0.11	57,57,57,57	0
54	MG	2A	3380	1/1	0.91	0.11	68,68,68,68	0
54	MG	2A	3724	1/1	0.91	0.21	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3671	1/1	0.91	0.07	64,64,64,64	0
54	MG	1A	3168	1/1	0.91	0.10	58,58,58,58	0
54	MG	1E	306	1/1	0.91	0.12	45,45,45,45	0
54	MG	2A	3024	1/1	0.91	0.13	67,67,67,67	0
54	MG	2A	3399	1/1	0.91	0.09	59,59,59,59	0
54	MG	1A	3324	1/1	0.91	0.14	49,49,49,49	0
54	MG	1G	203	1/1	0.91	0.13	74,74,74,74	0
54	MG	1A	3342	1/1	0.91	0.10	57,57,57,57	0
54	MG	1A	3246	1/1	0.91	0.11	48,48,48,48	0
54	MG	2A	3048	1/1	0.91	0.10	63,63,63,63	0
54	MG	1A	3584	1/1	0.91	0.09	56,56,56,56	0
54	MG	2A	3053	1/1	0.91	0.16	49,49,49,49	0
54	MG	1U	207	1/1	0.91	0.26	40,40,40,40	0
54	MG	1a	1763	1/1	0.91	0.13	64,64,64,64	0
54	MG	1a	1771	1/1	0.91	0.08	80,80,80,80	0
54	MG	1A	3454	1/1	0.91	0.07	39,39,39,39	0
54	MG	2A	3080	1/1	0.91	0.07	73,73,73,73	0
54	MG	2A	3083	1/1	0.91	0.21	71,71,71,71	0
54	MG	1A	3697	1/1	0.91	0.15	48,48,48,48	0
54	MG	15	101	1/1	0.91	0.17	42,42,42,42	0
54	MG	1A	3906	1/1	0.91	0.08	30,30,30,30	0
54	MG	1A	3455	1/1	0.91	0.16	59,59,59,59	0
54	MG	2a	3001	1/1	0.91	0.12	56,56,56,56	0
54	MG	1A	3910	1/1	0.91	0.12	31,31,31,31	0
54	MG	1A	3260	1/1	0.91	0.14	75,75,75,75	0
54	MG	1a	1783	1/1	0.91	0.11	63,63,63,63	0
54	MG	1A	3593	1/1	0.91	0.10	57,57,57,57	0
54	MG	2a	3014	1/1	0.91	0.17	64,64,64,64	0
54	MG	1A	3594	1/1	0.91	0.08	41,41,41,41	0
54	MG	2A	3463	1/1	0.91	0.11	64,64,64,64	0
54	MG	1a	1636	1/1	0.91	0.19	58,58,58,58	0
54	MG	1A	3597	1/1	0.91	0.08	36,36,36,36	0
54	MG	1a	1797	1/1	0.91	0.10	65,65,65,65	0
54	MG	2a	3030	1/1	0.91	0.24	59,59,59,59	0
54	MG	2A	3134	1/1	0.91	0.10	62,62,62,62	0
54	MG	2A	3143	1/1	0.91	0.17	71,71,71,71	0
54	MG	1a	1641	1/1	0.91	0.12	65,65,65,65	0
54	MG	2A	3152	1/1	0.91	0.26	67,67,67,67	0
54	MG	2A	3156	1/1	0.91	0.28	58,58,58,58	0
54	MG	1a	1799	1/1	0.91	0.14	71,71,71,71	0
54	MG	1A	3183	1/1	0.91	0.09	52,52,52,52	0
54	MG	2A	3500	1/1	0.91	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	3733	1/1	0.91	0.10	49,49,49,49	0
54	MG	2a	3051	1/1	0.91	0.14	55,55,55,55	0
54	MG	1A	3072	1/1	0.91	0.14	47,47,47,47	0
54	MG	1a	1808	1/1	0.91	0.15	56,56,56,56	0
54	MG	1A	3127	1/1	0.91	0.13	56,56,56,56	0
54	MG	1A	3982	1/1	0.91	0.08	32,32,32,32	0
54	MG	2A	3180	1/1	0.91	0.13	66,66,66,66	0
54	MG	1A	3057	1/1	0.91	0.17	53,53,53,53	0
54	MG	1a	1664	1/1	0.91	0.12	67,67,67,67	0
54	MG	1A	3209	1/1	0.91	0.18	64,64,64,64	0
54	MG	1a	1817	1/1	0.91	0.07	67,67,67,67	0
54	MG	1a	1668	1/1	0.91	0.16	64,64,64,64	0
54	MG	2A	3540	1/1	0.91	0.10	60,60,60,60	0
54	MG	1A	3990	1/1	0.91	0.15	43,43,43,43	0
54	MG	2A	3545	1/1	0.91	0.09	71,71,71,71	0
54	MG	2A	3207	1/1	0.91	0.14	60,60,60,60	0
54	MG	1A	3505	1/1	0.91	0.08	26,26,26,26	0
54	MG	1A	3510	1/1	0.91	0.09	55,55,55,55	0
54	MG	2a	3095	1/1	0.91	0.19	65,65,65,65	0
54	MG	1A	3786	1/1	0.91	0.09	26,26,26,26	0
54	MG	2a	3100	1/1	0.91	0.12	69,69,69,69	0
54	MG	1A	3109	1/1	0.91	0.14	61,61,61,61	0
54	MG	2A	3569	1/1	0.91	0.08	61,61,61,61	0
54	MG	1A	3804	1/1	0.91	0.08	51,51,51,51	0
54	MG	2A	3571	1/1	0.91	0.09	67,67,67,67	0
54	MG	1a	1833	1/1	0.91	0.12	45,45,45,45	0
54	MG	1A	3124	1/1	0.91	0.21	60,60,60,60	0
54	MG	2A	3225	1/1	0.91	0.12	60,60,60,60	0
54	MG	2A	3227	1/1	0.91	0.13	67,67,67,67	0
54	MG	2A	3587	1/1	0.91	0.09	48,48,48,48	0
54	MG	2A	3238	1/1	0.91	0.09	61,61,61,61	0
54	MG	2a	3128	1/1	0.91	0.15	67,67,67,67	0
54	MG	2A	3240	1/1	0.91	0.32	64,64,64,64	0
54	MG	2a	3134	1/1	0.91	0.10	65,65,65,65	0
54	MG	1a	1697	1/1	0.91	0.14	71,71,71,71	0
54	MG	1a	1843	1/1	0.91	0.14	79,79,79,79	0
54	MG	2A	3247	1/1	0.91	0.27	61,61,61,61	0
54	MG	2A	3617	1/1	0.91	0.08	77,77,77,77	0
54	MG	2a	3149	1/1	0.91	0.21	71,71,71,71	0
54	MG	2A	3248	1/1	0.91	0.08	65,65,65,65	0
54	MG	1A	3538	1/1	0.91	0.08	34,34,34,34	0
54	MG	2a	3153	1/1	0.91	0.08	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2a	3164	1/1	0.91	0.11	74,74,74,74	0
54	MG	1A	3307	1/1	0.91	0.10	38,38,38,38	0
54	MG	2A	3255	1/1	0.91	0.10	64,64,64,64	0
54	MG	2A	3261	1/1	0.91	0.08	55,55,55,55	0
54	MG	2A	3271	1/1	0.91	0.10	64,64,64,64	0
54	MG	2A	3273	1/1	0.91	0.13	63,63,63,63	0
54	MG	2e	202	1/1	0.91	0.14	64,64,64,64	0
54	MG	1A	3821	1/1	0.91	0.13	71,71,71,71	0
54	MG	2A	3635	1/1	0.91	0.18	72,72,72,72	0
54	MG	2A	3637	1/1	0.91	0.13	72,72,72,72	0
54	MG	1A	3832	1/1	0.91	0.09	59,59,59,59	0
56	MPD	1a	1875	8/8	0.91	0.12	60,64,68,69	0
54	MG	1a	1866	1/1	0.91	0.08	44,44,44,44	0
54	MG	1a	1714	1/1	0.91	0.19	77,77,77,77	0
54	MG	2A	3643	1/1	0.91	0.17	56,56,56,56	0
54	MG	1A	3010	1/1	0.92	0.17	60,60,60,60	0
54	MG	1a	1624	1/1	0.92	0.17	59,59,59,59	0
54	MG	1A	3694	1/1	0.92	0.11	52,52,52,52	0
54	MG	1a	1633	1/1	0.92	0.15	66,66,66,66	0
54	MG	2A	3622	1/1	0.92	0.17	66,66,66,66	0
54	MG	1a	1634	1/1	0.92	0.08	44,44,44,44	0
54	MG	1a	1813	1/1	0.92	0.10	56,56,56,56	0
54	MG	1A	3500	1/1	0.92	0.11	59,59,59,59	0
54	MG	1A	3063	1/1	0.92	0.08	45,45,45,45	0
54	MG	2A	3233	1/1	0.92	0.08	54,54,54,54	0
54	MG	1a	1637	1/1	0.92	0.25	60,60,60,60	0
54	MG	1A	3699	1/1	0.92	0.14	48,48,48,48	0
54	MG	1a	1640	1/1	0.92	0.19	72,72,72,72	0
54	MG	1A	3302	1/1	0.92	0.27	64,64,64,64	0
54	MG	1A	3517	1/1	0.92	0.09	53,53,53,53	0
54	MG	1A	3932	1/1	0.92	0.07	61,61,61,61	0
54	MG	1A	3934	1/1	0.92	0.08	48,48,48,48	0
54	MG	1A	3935	1/1	0.92	0.08	50,50,50,50	0
54	MG	2A	3655	1/1	0.92	0.14	73,73,73,73	0
54	MG	2A	3659	1/1	0.92	0.12	56,56,56,56	0
54	MG	1A	3936	1/1	0.92	0.13	59,59,59,59	0
54	MG	2A	3258	1/1	0.92	0.21	60,60,60,60	0
54	MG	2A	3669	1/1	0.92	0.23	71,71,71,71	0
54	MG	2A	3670	1/1	0.92	0.13	68,68,68,68	0
54	MG	1A	3102	1/1	0.92	0.09	54,54,54,54	0
54	MG	1a	1838	1/1	0.92	0.14	67,67,67,67	0
54	MG	1a	1841	1/1	0.92	0.12	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3952	1/1	0.92	0.12	47,47,47,47	0
54	MG	1A	3368	1/1	0.92	0.11	39,39,39,39	0
54	MG	2A	3680	1/1	0.92	0.17	60,60,60,60	0
54	MG	1a	1666	1/1	0.92	0.18	56,56,56,56	0
54	MG	2A	3281	1/1	0.92	0.11	51,51,51,51	0
54	MG	2A	3684	1/1	0.92	0.08	55,55,55,55	0
54	MG	1A	3962	1/1	0.92	0.10	68,68,68,68	0
54	MG	1a	1849	1/1	0.92	0.19	85,85,85,85	0
54	MG	2A	3299	1/1	0.92	0.14	68,68,68,68	0
54	MG	2A	3698	1/1	0.92	0.09	50,50,50,50	0
54	MG	2A	3300	1/1	0.92	0.13	59,59,59,59	0
54	MG	1a	1669	1/1	0.92	0.21	61,61,61,61	0
54	MG	2A	3307	1/1	0.92	0.15	57,57,57,57	0
54	MG	1a	1857	1/1	0.92	0.10	65,65,65,65	0
54	MG	1a	1858	1/1	0.92	0.10	62,62,62,62	0
54	MG	1a	1859	1/1	0.92	0.14	68,68,68,68	0
54	MG	2A	3720	1/1	0.92	0.07	69,69,69,69	0
54	MG	1A	3609	1/1	0.92	0.23	42,42,42,42	0
54	MG	1A	3968	1/1	0.92	0.11	40,40,40,40	0
54	MG	2A	3341	1/1	0.92	0.11	47,47,47,47	0
54	MG	1a	1678	1/1	0.92	0.13	59,59,59,59	0
54	MG	1a	1679	1/1	0.92	0.11	56,56,56,56	0
54	MG	1A	3611	1/1	0.92	0.21	58,58,58,58	0
54	MG	2A	3346	1/1	0.92	0.09	66,66,66,66	0
54	MG	2A	3349	1/1	0.92	0.09	39,39,39,39	0
54	MG	2A	3352	1/1	0.92	0.09	69,69,69,69	0
54	MG	1A	3529	1/1	0.92	0.09	51,51,51,51	0
54	MG	1A	3981	1/1	0.92	0.08	46,46,46,46	0
54	MG	1e	203	1/1	0.92	0.15	70,70,70,70	0
54	MG	1f	202	1/1	0.92	0.09	39,39,39,39	0
54	MG	2A	3373	1/1	0.92	0.14	59,59,59,59	0
54	MG	2D	302	1/1	0.92	0.41	43,43,43,43	0
54	MG	1A	3195	1/1	0.92	0.10	55,55,55,55	0
54	MG	1a	1695	1/1	0.92	0.09	54,54,54,54	0
54	MG	2A	3382	1/1	0.92	0.11	54,54,54,54	0
54	MG	1A	3748	1/1	0.92	0.07	21,21,21,21	0
54	MG	1A	3619	1/1	0.92	0.10	38,38,38,38	0
54	MG	1n	101	1/1	0.92	0.25	72,72,72,72	0
54	MG	1A	3453	1/1	0.92	0.07	23,23,23,23	0
54	MG	2N	201	1/1	0.92	0.09	76,76,76,76	0
54	MG	1A	3763	1/1	0.92	0.10	56,56,56,56	0
54	MG	2A	3408	1/1	0.92	0.18	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	3410	1/1	0.92	0.17	58,58,58,58	0
54	MG	1A	3765	1/1	0.92	0.20	62,62,62,62	0
54	MG	2A	3007	1/1	0.92	0.19	50,50,50,50	0
54	MG	1A	3766	1/1	0.92	0.11	47,47,47,47	0
54	MG	2A	3016	1/1	0.92	0.34	69,69,69,69	0
54	MG	2a	3009	1/1	0.92	0.10	68,68,68,68	0
54	MG	1a	1707	1/1	0.92	0.11	62,62,62,62	0
54	MG	2A	3025	1/1	0.92	0.09	56,56,56,56	0
54	MG	2A	3032	1/1	0.92	0.08	56,56,56,56	0
54	MG	2a	3017	1/1	0.92	0.21	61,61,61,61	0
54	MG	2A	3035	1/1	0.92	0.08	59,59,59,59	0
54	MG	1A	3770	1/1	0.92	0.09	32,32,32,32	0
54	MG	2A	3040	1/1	0.92	0.23	70,70,70,70	0
54	MG	2a	3023	1/1	0.92	0.17	69,69,69,69	0
54	MG	2a	3024	1/1	0.92	0.21	63,63,63,63	0
54	MG	1A	3998	1/1	0.92	0.17	48,48,48,48	0
54	MG	1a	1716	1/1	0.92	0.12	75,75,75,75	0
54	MG	1A	3554	1/1	0.92	0.09	40,40,40,40	0
54	MG	2a	3033	1/1	0.92	0.14	68,68,68,68	0
54	MG	1a	1725	1/1	0.92	0.11	66,66,66,66	0
54	MG	1A	3632	1/1	0.92	0.10	39,39,39,39	0
54	MG	1a	1730	1/1	0.92	0.11	63,63,63,63	0
54	MG	1A	3782	1/1	0.92	0.13	46,46,46,46	0
54	MG	1a	1737	1/1	0.92	0.17	59,59,59,59	0
54	MG	1A	3556	1/1	0.92	0.14	58,58,58,58	0
54	MG	1A	3634	1/1	0.92	0.11	59,59,59,59	0
54	MG	2A	3456	1/1	0.92	0.10	61,61,61,61	0
54	MG	2A	3457	1/1	0.92	0.11	74,74,74,74	0
54	MG	2A	3068	1/1	0.92	0.21	54,54,54,54	0
54	MG	2a	3054	1/1	0.92	0.14	70,70,70,70	0
54	MG	2A	3069	1/1	0.92	0.18	63,63,63,63	0
54	MG	2A	3071	1/1	0.92	0.27	57,57,57,57	0
54	MG	2A	3464	1/1	0.92	0.12	57,57,57,57	0
54	MG	2A	3465	1/1	0.92	0.10	55,55,55,55	0
54	MG	2A	3471	1/1	0.92	0.15	67,67,67,67	0
54	MG	2A	3472	1/1	0.92	0.07	54,54,54,54	0
54	MG	1A	3635	1/1	0.92	0.23	34,34,34,34	0
54	MG	1A	3798	1/1	0.92	0.07	47,47,47,47	0
54	MG	2a	3067	1/1	0.92	0.17	61,61,61,61	0
54	MG	2A	3477	1/1	0.92	0.15	54,54,54,54	0
54	MG	1A	3557	1/1	0.92	0.07	59,59,59,59	0
54	MG	1B	220	1/1	0.92	0.07	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	2a	3076	1/1	0.92	0.32	68,68,68,68	0
54	MG	1A	3377	1/1	0.92	0.13	42,42,42,42	0
54	MG	1A	3256	1/1	0.92	0.19	64,64,64,64	0
54	MG	1A	3137	1/1	0.92	0.09	54,54,54,54	0
54	MG	1A	3645	1/1	0.92	0.11	59,59,59,59	0
54	MG	1A	3066	1/1	0.92	0.20	59,59,59,59	0
54	MG	2A	3120	1/1	0.92	0.21	54,54,54,54	0
54	MG	1A	3850	1/1	0.92	0.08	35,35,35,35	0
54	MG	2A	3503	1/1	0.92	0.14	77,77,77,77	0
54	MG	2A	3507	1/1	0.92	0.15	73,73,73,73	0
54	MG	1A	3575	1/1	0.92	0.17	59,59,59,59	0
54	MG	1a	1762	1/1	0.92	0.24	72,72,72,72	0
54	MG	1D	314	1/1	0.92	0.08	63,63,63,63	0
54	MG	1A	3468	1/1	0.92	0.08	26,26,26,26	0
54	MG	1F	304	1/1	0.92	0.13	38,38,38,38	0
54	MG	2A	3138	1/1	0.92	0.20	53,53,53,53	0
54	MG	2A	3140	1/1	0.92	0.15	46,46,46,46	0
54	MG	1A	3661	1/1	0.92	0.10	47,47,47,47	0
54	MG	1A	3665	1/1	0.92	0.11	63,63,63,63	0
54	MG	1A	3014	1/1	0.92	0.12	57,57,57,57	0
54	MG	2A	3529	1/1	0.92	0.11	64,64,64,64	0
54	MG	2a	3132	1/1	0.92	0.12	65,65,65,65	0
54	MG	2a	3133	1/1	0.92	0.09	75,75,75,75	0
54	MG	1O	201	1/1	0.92	0.17	50,50,50,50	0
54	MG	1A	3869	1/1	0.92	0.06	30,30,30,30	0
54	MG	2A	3165	1/1	0.92	0.30	52,52,52,52	0
54	MG	2A	3544	1/1	0.92	0.09	56,56,56,56	0
54	MG	1A	3475	1/1	0.92	0.09	46,46,46,46	0
54	MG	2A	3547	1/1	0.92	0.07	70,70,70,70	0
54	MG	1T	202	1/1	0.92	0.10	77,77,77,77	0
54	MG	2A	3170	1/1	0.92	0.17	76,76,76,76	0
54	MG	1A	3581	1/1	0.92	0.07	38,38,38,38	0
54	MG	2a	3162	1/1	0.92	0.12	61,61,61,61	0
54	MG	1A	3676	1/1	0.92	0.09	60,60,60,60	0
54	MG	10	102	1/1	0.92	0.14	37,37,37,37	0
54	MG	1a	1790	1/1	0.92	0.09	80,80,80,80	0
54	MG	1a	1793	1/1	0.92	0.11	52,52,52,52	0
54	MG	2A	3183	1/1	0.92	0.16	54,54,54,54	0
54	MG	1A	3476	1/1	0.92	0.09	35,35,35,35	0
54	MG	2a	3182	1/1	0.92	0.16	79,79,79,79	0
54	MG	2a	3183	1/1	0.92	0.14	86,86,86,86	0
54	MG	1a	1795	1/1	0.92	0.16	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2f	201	1/1	0.92	0.14	61,61,61,61	0
54	MG	2A	3195	1/1	0.92	0.15	54,54,54,54	0
54	MG	1A	3884	1/1	0.92	0.15	46,46,46,46	0
54	MG	15	106	1/1	0.92	0.13	68,68,68,68	0
54	MG	1A	3282	1/1	0.92	0.28	45,45,45,45	0
54	MG	1a	1602	1/1	0.92	0.22	55,55,55,55	0
54	MG	1A	3886	1/1	0.92	0.12	51,51,51,51	0
54	MG	1A	3210	1/1	0.92	0.24	46,46,46,46	0
57	ARG	1B	233	12/12	0.92	0.11	36,52,59,62	0
54	MG	2A	3606	1/1	0.92	0.16	62,62,62,62	0
54	MG	2A	3656	1/1	0.93	0.10	51,51,51,51	0
54	MG	1A	3759	1/1	0.93	0.12	59,59,59,59	0
54	MG	1A	3762	1/1	0.93	0.13	54,54,54,54	0
54	MG	1A	3399	1/1	0.93	0.12	45,45,45,45	0
54	MG	1A	3034	1/1	0.93	0.23	69,69,69,69	0
54	MG	1a	1691	1/1	0.93	0.10	55,55,55,55	0
54	MG	2A	3314	1/1	0.93	0.17	62,62,62,62	0
54	MG	2A	3328	1/1	0.93	0.15	52,52,52,52	0
54	MG	1a	1692	1/1	0.93	0.14	63,63,63,63	0
54	MG	1A	3035	1/1	0.93	0.14	43,43,43,43	0
54	MG	2A	3676	1/1	0.93	0.10	69,69,69,69	0
54	MG	2A	3677	1/1	0.93	0.09	49,49,49,49	0
54	MG	1A	3767	1/1	0.93	0.09	28,28,28,28	0
54	MG	2A	3339	1/1	0.93	0.18	59,59,59,59	0
54	MG	1A	3528	1/1	0.93	0.10	45,45,45,45	0
54	MG	1A	3158	1/1	0.93	0.24	37,37,37,37	0
54	MG	2A	3343	1/1	0.93	0.09	42,42,42,42	0
54	MG	1A	3410	1/1	0.93	0.10	25,25,25,25	0
54	MG	1A	3779	1/1	0.93	0.08	45,45,45,45	0
54	MG	2A	3692	1/1	0.93	0.08	51,51,51,51	0
54	MG	1t	201	1/1	0.93	0.09	56,56,56,56	0
54	MG	1A	3540	1/1	0.93	0.07	34,34,34,34	0
54	MG	1y	201	1/1	0.93	0.07	56,56,56,56	0
54	MG	2A	3354	1/1	0.93	0.14	63,63,63,63	0
54	MG	2A	3707	1/1	0.93	0.09	59,59,59,59	0
54	MG	1y	203	1/1	0.93	0.12	75,75,75,75	0
54	MG	1A	3999	1/1	0.93	0.07	51,51,51,51	0
54	MG	2A	3713	1/1	0.93	0.21	47,47,47,47	0
54	MG	2A	3364	1/1	0.93	0.12	62,62,62,62	0
54	MG	1A	4001	1/1	0.93	0.14	62,62,62,62	0
54	MG	2A	3716	1/1	0.93	0.07	65,65,65,65	0
54	MG	1a	1710	1/1	0.93	0.14	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	3370	1/1	0.93	0.17	51,51,51,51	0
54	MG	1A	3541	1/1	0.93	0.09	47,47,47,47	0
54	MG	2A	3017	1/1	0.93	0.10	56,56,56,56	0
54	MG	1A	4006	1/1	0.93	0.09	57,57,57,57	0
54	MG	2A	3731	1/1	0.93	0.11	62,62,62,62	0
54	MG	2A	3381	1/1	0.93	0.17	53,53,53,53	0
54	MG	1A	3221	1/1	0.93	0.11	61,61,61,61	0
54	MG	2A	3028	1/1	0.93	0.06	36,36,36,36	0
54	MG	1A	4016	1/1	0.93	0.08	60,60,60,60	0
54	MG	2A	3034	1/1	0.93	0.18	57,57,57,57	0
54	MG	2B	206	1/1	0.93	0.09	63,63,63,63	0
54	MG	2B	207	1/1	0.93	0.26	63,63,63,63	0
54	MG	1B	202	1/1	0.93	0.14	50,50,50,50	0
54	MG	1A	3547	1/1	0.93	0.12	58,58,58,58	0
54	MG	2A	3404	1/1	0.93	0.11	60,60,60,60	0
54	MG	1A	3643	1/1	0.93	0.14	46,46,46,46	0
54	MG	1A	3552	1/1	0.93	0.09	51,51,51,51	0
54	MG	1B	209	1/1	0.93	0.28	60,60,60,60	0
54	MG	2D	307	1/1	0.93	0.15	42,42,42,42	0
54	MG	1B	211	1/1	0.93	0.09	54,54,54,54	0
54	MG	2D	309	1/1	0.93	0.14	51,51,51,51	0
54	MG	1A	3808	1/1	0.93	0.18	40,40,40,40	0
54	MG	1A	3166	1/1	0.93	0.16	54,54,54,54	0
54	MG	1A	3651	1/1	0.93	0.17	56,56,56,56	0
54	MG	1A	3652	1/1	0.93	0.35	47,47,47,47	0
54	MG	1A	3819	1/1	0.93	0.27	39,39,39,39	0
54	MG	1A	3654	1/1	0.93	0.06	34,34,34,34	0
54	MG	1A	3827	1/1	0.93	0.07	42,42,42,42	0
54	MG	2O	201	1/1	0.93	0.10	58,58,58,58	0
54	MG	2A	3065	1/1	0.93	0.06	44,44,44,44	0
54	MG	1a	1754	1/1	0.93	0.10	55,55,55,55	0
54	MG	1A	3828	1/1	0.93	0.11	46,46,46,46	0
54	MG	1A	3418	1/1	0.93	0.12	43,43,43,43	0
54	MG	28	102	1/1	0.93	0.13	56,56,56,56	0
54	MG	1A	3846	1/1	0.93	0.11	36,36,36,36	0
54	MG	1a	1759	1/1	0.93	0.13	60,60,60,60	0
54	MG	2a	3006	1/1	0.93	0.15	63,63,63,63	0
54	MG	1A	3656	1/1	0.93	0.07	55,55,55,55	0
54	MG	1A	3243	1/1	0.93	0.25	56,56,56,56	0
54	MG	1E	302	1/1	0.93	0.24	38,38,38,38	0
54	MG	2A	3449	1/1	0.93	0.07	53,53,53,53	0
54	MG	1E	304	1/1	0.93	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
54	MG	2a	3015	1/1	0.93	0.08	63,63,63,63	0
54	MG	2A	3095	1/1	0.93	0.17	53,53,53,53	0
54	MG	2A	3097	1/1	0.93	0.07	62,62,62,62	0
54	MG	1A	3659	1/1	0.93	0.08	22,22,22,22	0
54	MG	2A	3458	1/1	0.93	0.08	74,74,74,74	0
54	MG	2A	3109	1/1	0.93	0.12	51,51,51,51	0
54	MG	1A	3856	1/1	0.93	0.07	54,54,54,54	0
54	MG	1a	1773	1/1	0.93	0.15	68,68,68,68	0
54	MG	1A	3321	1/1	0.93	0.13	63,63,63,63	0
54	MG	1A	3861	1/1	0.93	0.09	57,57,57,57	0
54	MG	2A	3468	1/1	0.93	0.07	33,33,33,33	0
54	MG	2A	3469	1/1	0.93	0.09	63,63,63,63	0
54	MG	1A	3864	1/1	0.93	0.13	41,41,41,41	0
54	MG	1a	1777	1/1	0.93	0.08	66,66,66,66	0
54	MG	1A	3663	1/1	0.93	0.09	54,54,54,54	0
54	MG	1A	3566	1/1	0.93	0.11	38,38,38,38	0
54	MG	2a	3041	1/1	0.93	0.17	73,73,73,73	0
54	MG	1a	1780	1/1	0.93	0.14	63,63,63,63	0
54	MG	2a	3043	1/1	0.93	0.19	54,54,54,54	0
54	MG	1A	3868	1/1	0.93	0.12	45,45,45,45	0
54	MG	1A	3244	1/1	0.93	0.20	39,39,39,39	0
54	MG	2A	3141	1/1	0.93	0.18	66,66,66,66	0
54	MG	2A	3142	1/1	0.93	0.10	46,46,46,46	0
54	MG	1A	3877	1/1	0.93	0.10	71,71,71,71	0
54	MG	1A	3002	1/1	0.93	0.11	56,56,56,56	0
54	MG	1W	201	1/1	0.93	0.18	51,51,51,51	0
54	MG	1Y	202	1/1	0.93	0.08	55,55,55,55	0
54	MG	2a	3059	1/1	0.93	0.19	61,61,61,61	0
54	MG	1Z	301	1/1	0.93	0.14	54,54,54,54	0
54	MG	2a	3061	1/1	0.93	0.27	64,64,64,64	0
54	MG	2A	3501	1/1	0.93	0.09	66,66,66,66	0
54	MG	1A	3439	1/1	0.93	0.09	51,51,51,51	0
54	MG	2A	3505	1/1	0.93	0.24	61,61,61,61	0
54	MG	10	104	1/1	0.93	0.10	47,47,47,47	0
54	MG	1a	1796	1/1	0.93	0.13	71,71,71,71	0
54	MG	2a	3068	1/1	0.93	0.12	60,60,60,60	0
54	MG	1A	3337	1/1	0.93	0.10	46,46,46,46	0
54	MG	10	107	1/1	0.93	0.14	51,51,51,51	0
54	MG	1A	3452	1/1	0.93	0.10	46,46,46,46	0
54	MG	1A	3341	1/1	0.93	0.07	40,40,40,40	0
54	MG	1A	3255	1/1	0.93	0.09	51,51,51,51	0
54	MG	2a	3081	1/1	0.93	0.41	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2a	3084	1/1	0.93	0.07	59,59,59,59	0
54	MG	2a	3085	1/1	0.93	0.07	67,67,67,67	0
54	MG	1a	1803	1/1	0.93	0.08	62,62,62,62	0
54	MG	1a	1601	1/1	0.93	0.09	50,50,50,50	0
54	MG	1A	3345	1/1	0.93	0.11	59,59,59,59	0
54	MG	1A	3348	1/1	0.93	0.08	39,39,39,39	0
54	MG	1a	1607	1/1	0.93	0.14	51,51,51,51	0
54	MG	1A	3898	1/1	0.93	0.08	61,61,61,61	0
54	MG	1A	3068	1/1	0.93	0.08	33,33,33,33	0
54	MG	2a	3101	1/1	0.93	0.14	62,62,62,62	0
54	MG	2a	3102	1/1	0.93	0.08	70,70,70,70	0
54	MG	2A	3198	1/1	0.93	0.12	62,62,62,62	0
54	MG	1a	1619	1/1	0.93	0.14	55,55,55,55	0
54	MG	2A	3202	1/1	0.93	0.21	50,50,50,50	0
54	MG	1A	3022	1/1	0.93	0.09	49,49,49,49	0
54	MG	2A	3206	1/1	0.93	0.14	64,64,64,64	0
54	MG	1A	3698	1/1	0.93	0.34	47,47,47,47	0
54	MG	1a	1818	1/1	0.93	0.21	76,76,76,76	0
54	MG	1a	1628	1/1	0.93	0.17	58,58,58,58	0
54	MG	1A	3193	1/1	0.93	0.09	57,57,57,57	0
54	MG	2a	3122	1/1	0.93	0.12	74,74,74,74	0
54	MG	1A	3474	1/1	0.93	0.09	26,26,26,26	0
54	MG	1A	3083	1/1	0.93	0.10	35,35,35,35	0
54	MG	1A	3925	1/1	0.93	0.11	66,66,66,66	0
54	MG	1A	3275	1/1	0.93	0.13	56,56,56,56	0
54	MG	2A	3575	1/1	0.93	0.10	50,50,50,50	0
54	MG	1A	3202	1/1	0.93	0.28	52,52,52,52	0
54	MG	1A	3481	1/1	0.93	0.11	27,27,27,27	0
54	MG	1a	1834	1/1	0.93	0.11	50,50,50,50	0
54	MG	2a	3139	1/1	0.93	0.18	70,70,70,70	0
54	MG	2A	3235	1/1	0.93	0.10	62,62,62,62	0
54	MG	1A	3482	1/1	0.93	0.07	27,27,27,27	0
54	MG	1A	3729	1/1	0.93	0.09	34,34,34,34	0
54	MG	1A	3938	1/1	0.93	0.09	45,45,45,45	0
54	MG	1A	3939	1/1	0.93	0.07	30,30,30,30	0
54	MG	1A	3372	1/1	0.93	0.10	44,44,44,44	0
54	MG	2a	3156	1/1	0.93	0.11	62,62,62,62	0
54	MG	2a	3160	1/1	0.93	0.10	74,74,74,74	0
54	MG	1A	3951	1/1	0.93	0.10	44,44,44,44	0
54	MG	1A	3375	1/1	0.93	0.09	45,45,45,45	0
54	MG	1A	3744	1/1	0.93	0.12	65,65,65,65	0
54	MG	1A	3960	1/1	0.93	0.10	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	2a	3172	1/1	0.93	0.10	76,76,76,76	0
54	MG	1A	3745	1/1	0.93	0.09	54,54,54,54	0
54	MG	2A	3260	1/1	0.93	0.08	59,59,59,59	0
54	MG	1a	1856	1/1	0.93	0.08	53,53,53,53	0
54	MG	1A	3132	1/1	0.93	0.28	37,37,37,37	0
54	MG	2A	3628	1/1	0.93	0.11	64,64,64,64	0
54	MG	2e	201	1/1	0.93	0.28	68,68,68,68	0
54	MG	2A	3272	1/1	0.93	0.07	58,58,58,58	0
54	MG	1A	3966	1/1	0.93	0.08	43,43,43,43	0
54	MG	1A	3027	1/1	0.93	0.07	69,69,69,69	0
54	MG	1a	1674	1/1	0.93	0.14	56,56,56,56	0
54	MG	1A	3140	1/1	0.93	0.17	43,43,43,43	0
54	MG	1a	1871	1/1	0.93	0.11	62,62,62,62	0
54	MG	1A	3976	1/1	0.93	0.09	52,52,52,52	0
54	MG	2A	3291	1/1	0.93	0.17	57,57,57,57	0
56	MPD	2A	3736	8/8	0.93	0.15	52,56,60,62	0
54	MG	1a	1873	1/1	0.93	0.09	59,59,59,59	0
54	MG	2A	3298	1/1	0.93	0.07	44,44,44,44	0
54	MG	1a	1874	1/1	0.93	0.12	71,71,71,71	0
54	MG	1a	1822	1/1	0.94	0.25	67,67,67,67	0
54	MG	1A	3918	1/1	0.94	0.14	55,55,55,55	0
54	MG	2A	3623	1/1	0.94	0.08	52,52,52,52	0
54	MG	1A	3921	1/1	0.94	0.10	67,67,67,67	0
54	MG	1a	1621	1/1	0.94	0.10	61,61,61,61	0
54	MG	1a	1623	1/1	0.94	0.10	60,60,60,60	0
54	MG	2A	3627	1/1	0.94	0.14	68,68,68,68	0
54	MG	1A	3922	1/1	0.94	0.07	43,43,43,43	0
54	MG	2A	3243	1/1	0.94	0.10	67,67,67,67	0
54	MG	1a	1832	1/1	0.94	0.10	52,52,52,52	0
54	MG	1A	3728	1/1	0.94	0.06	28,28,28,28	0
54	MG	1a	1626	1/1	0.94	0.08	49,49,49,49	0
54	MG	2A	3636	1/1	0.94	0.12	62,62,62,62	0
54	MG	1A	3605	1/1	0.94	0.23	38,38,38,38	0
54	MG	2A	3250	1/1	0.94	0.16	52,52,52,52	0
54	MG	2A	3251	1/1	0.94	0.09	58,58,58,58	0
54	MG	2A	3252	1/1	0.94	0.24	46,46,46,46	0
54	MG	1a	1629	1/1	0.94	0.16	63,63,63,63	0
54	MG	2A	3648	1/1	0.94	0.11	67,67,67,67	0
54	MG	1A	3498	1/1	0.94	0.07	45,45,45,45	0
54	MG	2A	3653	1/1	0.94	0.07	51,51,51,51	0
54	MG	1a	1839	1/1	0.94	0.09	63,63,63,63	0
54	MG	2A	3257	1/1	0.94	0.17	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	3658	1/1	0.94	0.08	53,53,53,53	0
54	MG	1A	3185	1/1	0.94	0.11	44,44,44,44	0
54	MG	2A	3259	1/1	0.94	0.20	55,55,55,55	0
54	MG	2A	3661	1/1	0.94	0.09	58,58,58,58	0
54	MG	2A	3662	1/1	0.94	0.10	38,38,38,38	0
54	MG	1A	3736	1/1	0.94	0.08	51,51,51,51	0
54	MG	1A	3314	1/1	0.94	0.24	57,57,57,57	0
54	MG	1A	3615	1/1	0.94	0.06	51,51,51,51	0
54	MG	1A	3507	1/1	0.94	0.09	43,43,43,43	0
54	MG	1A	3749	1/1	0.94	0.12	35,35,35,35	0
54	MG	1A	3130	1/1	0.94	0.12	30,30,30,30	0
54	MG	1A	3947	1/1	0.94	0.08	39,39,39,39	0
54	MG	1a	1645	1/1	0.94	0.16	57,57,57,57	0
54	MG	1a	1646	1/1	0.94	0.23	51,51,51,51	0
54	MG	2A	3285	1/1	0.94	0.07	47,47,47,47	0
54	MG	2A	3286	1/1	0.94	0.07	48,48,48,48	0
54	MG	1a	1647	1/1	0.94	0.15	63,63,63,63	0
54	MG	1a	1860	1/1	0.94	0.09	57,57,57,57	0
54	MG	2A	3292	1/1	0.94	0.09	57,57,57,57	0
54	MG	2A	3685	1/1	0.94	0.11	39,39,39,39	0
54	MG	2A	3293	1/1	0.94	0.09	62,62,62,62	0
54	MG	1a	1865	1/1	0.94	0.09	74,74,74,74	0
54	MG	2A	3297	1/1	0.94	0.07	36,36,36,36	0
54	MG	1a	1651	1/1	0.94	0.14	53,53,53,53	0
54	MG	1A	3752	1/1	0.94	0.12	40,40,40,40	0
54	MG	2A	3699	1/1	0.94	0.09	54,54,54,54	0
54	MG	1a	1870	1/1	0.94	0.12	68,68,68,68	0
54	MG	1A	3515	1/1	0.94	0.14	56,56,56,56	0
54	MG	2A	3303	1/1	0.94	0.10	51,51,51,51	0
54	MG	2A	3306	1/1	0.94	0.14	67,67,67,67	0
54	MG	1a	1657	1/1	0.94	0.07	67,67,67,67	0
54	MG	1A	3954	1/1	0.94	0.07	65,65,65,65	0
54	MG	2A	3311	1/1	0.94	0.11	58,58,58,58	0
54	MG	2A	3312	1/1	0.94	0.09	50,50,50,50	0
54	MG	1A	3758	1/1	0.94	0.08	53,53,53,53	0
54	MG	1A	3958	1/1	0.94	0.10	47,47,47,47	0
54	MG	2A	3319	1/1	0.94	0.14	51,51,51,51	0
54	MG	2A	3320	1/1	0.94	0.11	41,41,41,41	0
54	MG	2A	3723	1/1	0.94	0.07	35,35,35,35	0
54	MG	2A	3321	1/1	0.94	0.16	48,48,48,48	0
54	MG	2A	3726	1/1	0.94	0.08	57,57,57,57	0
54	MG	1d	301	1/1	0.94	0.19	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3624	1/1	0.94	0.09	57,57,57,57	0
54	MG	1A	3761	1/1	0.94	0.05	28,28,28,28	0
54	MG	1A	3408	1/1	0.94	0.07	42,42,42,42	0
54	MG	1A	3631	1/1	0.94	0.07	42,42,42,42	0
54	MG	1A	3247	1/1	0.94	0.23	40,40,40,40	0
54	MG	1A	3524	1/1	0.94	0.06	51,51,51,51	0
54	MG	1A	3525	1/1	0.94	0.12	59,59,59,59	0
54	MG	1i	201	1/1	0.94	0.10	59,59,59,59	0
54	MG	1A	3978	1/1	0.94	0.08	60,60,60,60	0
54	MG	1A	3092	1/1	0.94	0.28	36,36,36,36	0
54	MG	1A	3980	1/1	0.94	0.06	55,55,55,55	0
54	MG	1a	1681	1/1	0.94	0.10	52,52,52,52	0
54	MG	2B	215	1/1	0.94	0.12	67,67,67,67	0
54	MG	1n	103	1/1	0.94	0.15	63,63,63,63	0
54	MG	1A	3773	1/1	0.94	0.08	21,21,21,21	0
54	MG	2A	3358	1/1	0.94	0.12	58,58,58,58	0
54	MG	2A	3361	1/1	0.94	0.07	56,56,56,56	0
54	MG	1A	3636	1/1	0.94	0.11	34,34,34,34	0
54	MG	1a	1688	1/1	0.94	0.16	60,60,60,60	0
54	MG	2A	3365	1/1	0.94	0.18	61,61,61,61	0
54	MG	2E	307	1/1	0.94	0.19	63,63,63,63	0
54	MG	1A	3984	1/1	0.94	0.06	73,73,73,73	0
54	MG	2A	3367	1/1	0.94	0.09	59,59,59,59	0
54	MG	1A	3413	1/1	0.94	0.07	31,31,31,31	0
54	MG	2A	3003	1/1	0.94	0.07	51,51,51,51	0
54	MG	2A	3372	1/1	0.94	0.19	63,63,63,63	0
54	MG	1A	3096	1/1	0.94	0.07	48,48,48,48	0
54	MG	2A	3377	1/1	0.94	0.05	34,34,34,34	0
54	MG	1A	3780	1/1	0.94	0.15	40,40,40,40	0
54	MG	2P	202	1/1	0.94	0.09	61,61,61,61	0
54	MG	2Q	202	1/1	0.94	0.14	57,57,57,57	0
54	MG	2T	3301	1/1	0.94	0.09	56,56,56,56	0
54	MG	2T	3303	1/1	0.94	0.08	65,65,65,65	0
54	MG	2V	201	1/1	0.94	0.10	62,62,62,62	0
54	MG	2V	202	1/1	0.94	0.17	53,53,53,53	0
54	MG	20	101	1/1	0.94	0.10	63,63,63,63	0
54	MG	1A	3535	1/1	0.94	0.07	43,43,43,43	0
54	MG	1A	3783	1/1	0.94	0.12	50,50,50,50	0
54	MG	1A	3199	1/1	0.94	0.09	52,52,52,52	0
54	MG	1A	3265	1/1	0.94	0.11	26,26,26,26	0
54	MG	1A	3429	1/1	0.94	0.12	52,52,52,52	0
54	MG	1A	3790	1/1	0.94	0.09	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2a	3007	1/1	0.94	0.06	72,72,72,72	0
54	MG	1A	3792	1/1	0.94	0.15	58,58,58,58	0
54	MG	1A	3794	1/1	0.94	0.09	78,78,78,78	0
54	MG	2A	3402	1/1	0.94	0.11	37,37,37,37	0
54	MG	2A	3037	1/1	0.94	0.10	57,57,57,57	0
54	MG	1A	3097	1/1	0.94	0.14	66,66,66,66	0
54	MG	1a	1711	1/1	0.94	0.14	66,66,66,66	0
54	MG	2A	3041	1/1	0.94	0.20	56,56,56,56	0
54	MG	1A	3650	1/1	0.94	0.09	55,55,55,55	0
54	MG	2a	3019	1/1	0.94	0.07	67,67,67,67	0
54	MG	1A	3805	1/1	0.94	0.12	73,73,73,73	0
54	MG	1A	4019	1/1	0.94	0.11	58,58,58,58	0
54	MG	1B	201	1/1	0.94	0.14	51,51,51,51	0
54	MG	1a	1721	1/1	0.94	0.09	80,80,80,80	0
54	MG	1A	3346	1/1	0.94	0.08	36,36,36,36	0
54	MG	2a	3026	1/1	0.94	0.17	63,63,63,63	0
54	MG	1A	3809	1/1	0.94	0.09	57,57,57,57	0
54	MG	2A	3425	1/1	0.94	0.08	48,48,48,48	0
54	MG	1a	1727	1/1	0.94	0.12	65,65,65,65	0
54	MG	2A	3057	1/1	0.94	0.12	52,52,52,52	0
54	MG	1A	3551	1/1	0.94	0.07	49,49,49,49	0
54	MG	1A	3813	1/1	0.94	0.11	48,48,48,48	0
54	MG	2A	3064	1/1	0.94	0.09	48,48,48,48	0
54	MG	2a	3039	1/1	0.94	0.17	56,56,56,56	0
54	MG	1a	1736	1/1	0.94	0.22	62,62,62,62	0
54	MG	2A	3066	1/1	0.94	0.09	51,51,51,51	0
54	MG	1A	3815	1/1	0.94	0.08	53,53,53,53	0
54	MG	1A	3139	1/1	0.94	0.15	42,42,42,42	0
54	MG	1A	3099	1/1	0.94	0.07	44,44,44,44	0
54	MG	1B	216	1/1	0.94	0.08	56,56,56,56	0
54	MG	2a	3047	1/1	0.94	0.19	61,61,61,61	0
54	MG	1A	3440	1/1	0.94	0.14	74,74,74,74	0
54	MG	2a	3050	1/1	0.94	0.23	54,54,54,54	0
54	MG	2A	3087	1/1	0.94	0.10	80,80,80,80	0
54	MG	2a	3052	1/1	0.94	0.08	57,57,57,57	0
54	MG	1B	218	1/1	0.94	0.13	63,63,63,63	0
54	MG	1A	3059	1/1	0.94	0.11	45,45,45,45	0
54	MG	1a	1749	1/1	0.94	0.09	70,70,70,70	0
54	MG	2A	3459	1/1	0.94	0.08	59,59,59,59	0
54	MG	1A	3826	1/1	0.94	0.07	43,43,43,43	0
54	MG	1A	3356	1/1	0.94	0.06	45,45,45,45	0
54	MG	1A	3104	1/1	0.94	0.41	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	3102	1/1	0.94	0.12	51,51,51,51	0
54	MG	2a	3063	1/1	0.94	0.18	59,59,59,59	0
54	MG	2A	3103	1/1	0.94	0.18	66,66,66,66	0
54	MG	2A	3104	1/1	0.94	0.21	54,54,54,54	0
54	MG	1B	227	1/1	0.94	0.07	42,42,42,42	0
54	MG	1A	3830	1/1	0.94	0.07	50,50,50,50	0
54	MG	2A	3110	1/1	0.94	0.10	57,57,57,57	0
54	MG	1A	3831	1/1	0.94	0.06	37,37,37,37	0
54	MG	2A	3474	1/1	0.94	0.12	59,59,59,59	0
54	MG	2A	3113	1/1	0.94	0.08	56,56,56,56	0
54	MG	1A	3359	1/1	0.94	0.12	55,55,55,55	0
54	MG	1B	232	1/1	0.94	0.08	68,68,68,68	0
54	MG	2a	3078	1/1	0.94	0.14	57,57,57,57	0
54	MG	2a	3079	1/1	0.94	0.11	59,59,59,59	0
54	MG	1A	3835	1/1	0.94	0.08	49,49,49,49	0
54	MG	2a	3083	1/1	0.94	0.18	52,52,52,52	0
54	MG	1A	3364	1/1	0.94	0.09	50,50,50,50	0
54	MG	1A	3849	1/1	0.94	0.10	42,42,42,42	0
54	MG	1A	3214	1/1	0.94	0.32	47,47,47,47	0
54	MG	2A	3132	1/1	0.94	0.12	60,60,60,60	0
54	MG	1A	3670	1/1	0.94	0.11	38,38,38,38	0
54	MG	1A	3459	1/1	0.94	0.06	55,55,55,55	0
54	MG	1A	3855	1/1	0.94	0.07	47,47,47,47	0
54	MG	2a	3096	1/1	0.94	0.06	49,49,49,49	0
54	MG	1F	312	1/1	0.94	0.12	41,41,41,41	0
54	MG	1A	3672	1/1	0.94	0.07	53,53,53,53	0
54	MG	2A	3504	1/1	0.94	0.08	67,67,67,67	0
54	MG	1A	3673	1/1	0.94	0.07	41,41,41,41	0
54	MG	1A	3036	1/1	0.94	0.12	37,37,37,37	0
54	MG	2A	3510	1/1	0.94	0.09	54,54,54,54	0
54	MG	1N	203	1/1	0.94	0.06	53,53,53,53	0
54	MG	2a	3107	1/1	0.94	0.09	66,66,66,66	0
54	MG	2A	3150	1/1	0.94	0.14	53,53,53,53	0
54	MG	2A	3513	1/1	0.94	0.08	47,47,47,47	0
54	MG	1A	3297	1/1	0.94	0.07	48,48,48,48	0
54	MG	1A	3470	1/1	0.94	0.07	23,23,23,23	0
54	MG	1A	3471	1/1	0.94	0.07	27,27,27,27	0
54	MG	2A	3163	1/1	0.94	0.12	56,56,56,56	0
54	MG	2A	3520	1/1	0.94	0.10	57,57,57,57	0
54	MG	1A	3164	1/1	0.94	0.09	48,48,48,48	0
54	MG	1T	203	1/1	0.94	0.13	57,57,57,57	0
54	MG	1A	3691	1/1	0.94	0.06	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3526	1/1	0.94	0.14	47,47,47,47	0
54	MG	2A	3169	1/1	0.94	0.10	67,67,67,67	0
54	MG	1A	3871	1/1	0.94	0.12	28,28,28,28	0
54	MG	1V	206	1/1	0.94	0.12	47,47,47,47	0
54	MG	2A	3536	1/1	0.94	0.09	38,38,38,38	0
54	MG	1A	3373	1/1	0.94	0.09	54,54,54,54	0
54	MG	2a	3140	1/1	0.94	0.16	67,67,67,67	0
54	MG	1A	3076	1/1	0.94	0.15	43,43,43,43	0
54	MG	1A	3695	1/1	0.94	0.25	33,33,33,33	0
54	MG	2a	3146	1/1	0.94	0.10	67,67,67,67	0
54	MG	2a	3148	1/1	0.94	0.09	69,69,69,69	0
54	MG	1A	3587	1/1	0.94	0.06	25,25,25,25	0
54	MG	1A	3234	1/1	0.94	0.28	42,42,42,42	0
54	MG	1A	3384	1/1	0.94	0.08	32,32,32,32	0
54	MG	2A	3186	1/1	0.94	0.37	72,72,72,72	0
54	MG	10	106	1/1	0.94	0.16	63,63,63,63	0
54	MG	2a	3158	1/1	0.94	0.08	69,69,69,69	0
54	MG	2a	3159	1/1	0.94	0.11	66,66,66,66	0
54	MG	2A	3189	1/1	0.94	0.07	53,53,53,53	0
54	MG	2A	3565	1/1	0.94	0.06	41,41,41,41	0
54	MG	2A	3191	1/1	0.94	0.08	49,49,49,49	0
54	MG	2a	3165	1/1	0.94	0.07	68,68,68,68	0
54	MG	2a	3166	1/1	0.94	0.10	66,66,66,66	0
54	MG	1A	3046	1/1	0.94	0.14	50,50,50,50	0
54	MG	1l	103	1/1	0.94	0.10	56,56,56,56	0
54	MG	1a	1805	1/1	0.94	0.10	56,56,56,56	0
54	MG	2a	3174	1/1	0.94	0.17	75,75,75,75	0
54	MG	1A	3310	1/1	0.94	0.21	53,53,53,53	0
54	MG	1A	3704	1/1	0.94	0.14	50,50,50,50	0
54	MG	2a	3179	1/1	0.94	0.19	62,62,62,62	0
54	MG	2A	3201	1/1	0.94	0.17	63,63,63,63	0
54	MG	2A	3581	1/1	0.94	0.11	53,53,53,53	0
54	MG	1A	3394	1/1	0.94	0.09	22,22,22,22	0
54	MG	1A	3600	1/1	0.94	0.07	32,32,32,32	0
54	MG	1A	3004	1/1	0.94	0.08	45,45,45,45	0
54	MG	1A	3496	1/1	0.94	0.09	39,39,39,39	0
54	MG	2A	3592	1/1	0.94	0.11	65,65,65,65	0
54	MG	2l	201	1/1	0.94	0.12	63,63,63,63	0
54	MG	1a	1605	1/1	0.94	0.10	73,73,73,73	0
54	MG	2o	101	1/1	0.94	0.11	65,65,65,65	0
54	MG	2A	3599	1/1	0.94	0.09	51,51,51,51	0
54	MG	1A	3715	1/1	0.94	0.42	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MPD	18	103	8/8	0.94	0.12	33,41,46,48	0
54	MG	1a	1816	1/1	0.94	0.06	92,92,92,92	0
54	MG	2A	3604	1/1	0.94	0.06	52,52,52,52	0
54	MG	1a	1608	1/1	0.94	0.10	63,63,63,63	0
54	MG	1a	1609	1/1	0.94	0.09	67,67,67,67	0
54	MG	1A	3604	1/1	0.94	0.21	39,39,39,39	0
54	MG	1a	1615	1/1	0.94	0.13	60,60,60,60	0
54	MG	2A	3239	1/1	0.95	0.09	51,51,51,51	0
54	MG	1A	3149	1/1	0.95	0.09	46,46,46,46	0
54	MG	2A	3241	1/1	0.95	0.10	48,48,48,48	0
54	MG	2A	3242	1/1	0.95	0.08	59,59,59,59	0
54	MG	1A	3945	1/1	0.95	0.09	65,65,65,65	0
54	MG	1A	3946	1/1	0.95	0.06	24,24,24,24	0
54	MG	1A	3623	1/1	0.95	0.06	43,43,43,43	0
54	MG	2A	3246	1/1	0.95	0.25	60,60,60,60	0
54	MG	2A	3632	1/1	0.95	0.10	58,58,58,58	0
54	MG	1a	1627	1/1	0.95	0.07	62,62,62,62	0
54	MG	1A	3949	1/1	0.95	0.09	33,33,33,33	0
54	MG	1A	3286	1/1	0.95	0.07	37,37,37,37	0
54	MG	1a	1631	1/1	0.95	0.08	51,51,51,51	0
54	MG	1A	3376	1/1	0.95	0.08	52,52,52,52	0
54	MG	1A	3079	1/1	0.95	0.09	40,40,40,40	0
54	MG	1A	3764	1/1	0.95	0.06	30,30,30,30	0
54	MG	1A	3499	1/1	0.95	0.07	25,25,25,25	0
54	MG	1A	3378	1/1	0.95	0.06	36,36,36,36	0
54	MG	1A	3379	1/1	0.95	0.08	30,30,30,30	0
54	MG	1A	3154	1/1	0.95	0.13	57,57,57,57	0
54	MG	1A	3292	1/1	0.95	0.05	44,44,44,44	0
54	MG	1a	1642	1/1	0.95	0.10	67,67,67,67	0
54	MG	2A	3263	1/1	0.95	0.07	52,52,52,52	0
54	MG	1A	3386	1/1	0.95	0.08	29,29,29,29	0
54	MG	1a	1863	1/1	0.95	0.09	61,61,61,61	0
54	MG	1A	3969	1/1	0.95	0.09	55,55,55,55	0
54	MG	2A	3274	1/1	0.95	0.10	56,56,56,56	0
54	MG	2A	3275	1/1	0.95	0.10	48,48,48,48	0
54	MG	2A	3663	1/1	0.95	0.09	33,33,33,33	0
54	MG	1A	3296	1/1	0.95	0.06	40,40,40,40	0
54	MG	1A	3389	1/1	0.95	0.08	36,36,36,36	0
54	MG	1A	3977	1/1	0.95	0.18	63,63,63,63	0
54	MG	1A	3037	1/1	0.95	0.14	43,43,43,43	0
54	MG	1A	3396	1/1	0.95	0.05	28,28,28,28	0
54	MG	1A	3301	1/1	0.95	0.08	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	1659	1/1	0.95	0.21	42,42,42,42	0
54	MG	2A	3288	1/1	0.95	0.10	52,52,52,52	0
54	MG	1a	1660	1/1	0.95	0.25	56,56,56,56	0
54	MG	1A	3126	1/1	0.95	0.07	46,46,46,46	0
54	MG	1A	3100	1/1	0.95	0.33	38,38,38,38	0
54	MG	2A	3681	1/1	0.95	0.06	55,55,55,55	0
54	MG	1A	3983	1/1	0.95	0.07	46,46,46,46	0
54	MG	1A	3788	1/1	0.95	0.12	42,42,42,42	0
54	MG	1A	3530	1/1	0.95	0.08	52,52,52,52	0
54	MG	1f	201	1/1	0.95	0.15	55,55,55,55	0
54	MG	2A	3686	1/1	0.95	0.07	56,56,56,56	0
54	MG	1A	3988	1/1	0.95	0.05	21,21,21,21	0
54	MG	1g	201	1/1	0.95	0.23	62,62,62,62	0
54	MG	2A	3691	1/1	0.95	0.06	57,57,57,57	0
54	MG	1A	3533	1/1	0.95	0.08	49,49,49,49	0
54	MG	1A	3534	1/1	0.95	0.05	25,25,25,25	0
54	MG	1a	1670	1/1	0.95	0.26	58,58,58,58	0
54	MG	2A	3308	1/1	0.95	0.09	39,39,39,39	0
54	MG	1A	3224	1/1	0.95	0.16	35,35,35,35	0
54	MG	2A	3703	1/1	0.95	0.11	67,67,67,67	0
54	MG	2A	3310	1/1	0.95	0.08	43,43,43,43	0
54	MG	2A	3705	1/1	0.95	0.07	56,56,56,56	0
54	MG	1a	1672	1/1	0.95	0.09	62,62,62,62	0
54	MG	1A	3795	1/1	0.95	0.07	41,41,41,41	0
54	MG	1A	3228	1/1	0.95	0.23	42,42,42,42	0
54	MG	1A	3229	1/1	0.95	0.21	42,42,42,42	0
54	MG	2A	3317	1/1	0.95	0.10	31,31,31,31	0
54	MG	2A	3318	1/1	0.95	0.10	50,50,50,50	0
54	MG	1A	3658	1/1	0.95	0.07	51,51,51,51	0
54	MG	1A	3311	1/1	0.95	0.23	36,36,36,36	0
54	MG	1A	3542	1/1	0.95	0.12	40,40,40,40	0
54	MG	2A	3322	1/1	0.95	0.10	64,64,64,64	0
54	MG	2A	3325	1/1	0.95	0.12	39,39,39,39	0
54	MG	1y	202	1/1	0.95	0.13	53,53,53,53	0
54	MG	1A	3662	1/1	0.95	0.16	33,33,33,33	0
54	MG	1a	1685	1/1	0.95	0.13	58,58,58,58	0
54	MG	2A	3002	1/1	0.95	0.08	52,52,52,52	0
54	MG	2A	3336	1/1	0.95	0.08	41,41,41,41	0
54	MG	1a	1687	1/1	0.95	0.08	53,53,53,53	0
54	MG	1A	4003	1/1	0.95	0.09	90,90,90,90	0
54	MG	1A	4005	1/1	0.95	0.08	15,15,15,15	0
54	MG	2A	3013	1/1	0.95	0.06	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	1690	1/1	0.95	0.15	60,60,60,60	0
54	MG	1A	3008	1/1	0.95	0.09	42,42,42,42	0
54	MG	2A	3019	1/1	0.95	0.20	44,44,44,44	0
54	MG	2A	3348	1/1	0.95	0.08	53,53,53,53	0
54	MG	2A	3023	1/1	0.95	0.17	58,58,58,58	0
54	MG	2A	3351	1/1	0.95	0.11	47,47,47,47	0
54	MG	1A	3546	1/1	0.95	0.11	37,37,37,37	0
54	MG	2B	216	1/1	0.95	0.07	59,59,59,59	0
54	MG	2A	3353	1/1	0.95	0.20	65,65,65,65	0
54	MG	1A	4013	1/1	0.95	0.10	42,42,42,42	0
54	MG	1A	3668	1/1	0.95	0.06	44,44,44,44	0
54	MG	2A	3029	1/1	0.95	0.08	54,54,54,54	0
54	MG	1A	4017	1/1	0.95	0.13	43,43,43,43	0
54	MG	1A	4018	1/1	0.95	0.07	46,46,46,46	0
54	MG	1A	3235	1/1	0.95	0.23	36,36,36,36	0
54	MG	1A	3415	1/1	0.95	0.10	28,28,28,28	0
54	MG	1A	3417	1/1	0.95	0.07	46,46,46,46	0
54	MG	1A	3236	1/1	0.95	0.20	43,43,43,43	0
54	MG	1A	3419	1/1	0.95	0.12	25,25,25,25	0
54	MG	1B	206	1/1	0.95	0.24	43,43,43,43	0
54	MG	2I	201	1/1	0.95	0.12	59,59,59,59	0
54	MG	1A	3319	1/1	0.95	0.14	58,58,58,58	0
54	MG	2A	3045	1/1	0.95	0.12	52,52,52,52	0
54	MG	1B	208	1/1	0.95	0.11	47,47,47,47	0
54	MG	1A	3427	1/1	0.95	0.08	37,37,37,37	0
54	MG	1A	3238	1/1	0.95	0.16	39,39,39,39	0
54	MG	1a	1718	1/1	0.95	0.06	60,60,60,60	0
54	MG	2R	202	1/1	0.95	0.16	52,52,52,52	0
54	MG	1A	3176	1/1	0.95	0.13	48,48,48,48	0
54	MG	1a	1720	1/1	0.95	0.10	63,63,63,63	0
54	MG	1A	3834	1/1	0.95	0.07	39,39,39,39	0
54	MG	2A	3387	1/1	0.95	0.12	59,59,59,59	0
54	MG	2W	202	1/1	0.95	0.15	61,61,61,61	0
54	MG	2W	203	1/1	0.95	0.07	61,61,61,61	0
54	MG	2A	3389	1/1	0.95	0.14	70,70,70,70	0
54	MG	2A	3058	1/1	0.95	0.07	41,41,41,41	0
54	MG	2A	3059	1/1	0.95	0.15	54,54,54,54	0
54	MG	25	102	1/1	0.95	0.21	42,42,42,42	0
54	MG	2A	3398	1/1	0.95	0.14	42,42,42,42	0
54	MG	2A	3060	1/1	0.95	0.07	46,46,46,46	0
54	MG	1a	1723	1/1	0.95	0.08	63,63,63,63	0
54	MG	2a	3005	1/1	0.95	0.10	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	1A	3178	1/1	0.95	0.13	48,48,48,48	0
54	MG	2A	3406	1/1	0.95	0.11	51,51,51,51	0
54	MG	1A	3840	1/1	0.95	0.09	54,54,54,54	0
54	MG	1A	3843	1/1	0.95	0.10	55,55,55,55	0
54	MG	2A	3411	1/1	0.95	0.08	53,53,53,53	0
54	MG	1A	3683	1/1	0.95	0.11	35,35,35,35	0
54	MG	2a	3013	1/1	0.95	0.11	73,73,73,73	0
54	MG	1A	3686	1/1	0.95	0.11	56,56,56,56	0
54	MG	1a	1733	1/1	0.95	0.09	43,43,43,43	0
54	MG	1B	223	1/1	0.95	0.13	55,55,55,55	0
54	MG	2A	3073	1/1	0.95	0.08	49,49,49,49	0
54	MG	2A	3074	1/1	0.95	0.18	65,65,65,65	0
54	MG	1A	3687	1/1	0.95	0.12	58,58,58,58	0
54	MG	2A	3082	1/1	0.95	0.12	49,49,49,49	0
54	MG	1A	3688	1/1	0.95	0.17	58,58,58,58	0
54	MG	1A	3331	1/1	0.95	0.07	47,47,47,47	0
54	MG	1A	3573	1/1	0.95	0.09	29,29,29,29	0
54	MG	1a	1744	1/1	0.95	0.10	65,65,65,65	0
54	MG	2a	3027	1/1	0.95	0.09	70,70,70,70	0
54	MG	2A	3091	1/1	0.95	0.09	54,54,54,54	0
54	MG	2A	3439	1/1	0.95	0.06	61,61,61,61	0
54	MG	1A	3436	1/1	0.95	0.09	54,54,54,54	0
54	MG	2a	3034	1/1	0.95	0.07	58,58,58,58	0
54	MG	2A	3441	1/1	0.95	0.15	57,57,57,57	0
54	MG	1A	3336	1/1	0.95	0.09	48,48,48,48	0
54	MG	1A	3860	1/1	0.95	0.11	37,37,37,37	0
54	MG	2A	3096	1/1	0.95	0.09	46,46,46,46	0
54	MG	1D	310	1/1	0.95	0.18	33,33,33,33	0
54	MG	1D	311	1/1	0.95	0.19	39,39,39,39	0
54	MG	2A	3448	1/1	0.95	0.07	49,49,49,49	0
54	MG	1A	3025	1/1	0.95	0.20	40,40,40,40	0
54	MG	2A	3450	1/1	0.95	0.13	57,57,57,57	0
54	MG	1D	313	1/1	0.95	0.09	57,57,57,57	0
54	MG	2a	3045	1/1	0.95	0.28	59,59,59,59	0
54	MG	1a	1755	1/1	0.95	0.12	61,61,61,61	0
54	MG	2A	3455	1/1	0.95	0.07	48,48,48,48	0
54	MG	1A	3442	1/1	0.95	0.07	46,46,46,46	0
54	MG	2a	3049	1/1	0.95	0.23	59,59,59,59	0
54	MG	1A	3448	1/1	0.95	0.11	49,49,49,49	0
54	MG	1A	3339	1/1	0.95	0.11	61,61,61,61	0
54	MG	1A	3106	1/1	0.95	0.15	39,39,39,39	0
54	MG	2A	3460	1/1	0.95	0.14	45,45,45,45	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	0.95	0.09	65,65,65,65	0
54	MG	1E	310	1/1	0.95	0.08	58,58,58,58	0
54	MG	2A	3118	1/1	0.95	0.19	56,56,56,56	0
54	MG	1A	3133	1/1	0.95	0.21	37,37,37,37	0
54	MG	1A	3344	1/1	0.95	0.10	53,53,53,53	0
54	MG	1F	313	1/1	0.95	0.27	48,48,48,48	0
54	MG	2A	3127	1/1	0.95	0.14	47,47,47,47	0
54	MG	1a	1765	1/1	0.95	0.10	65,65,65,65	0
54	MG	1a	1768	1/1	0.95	0.14	60,60,60,60	0
54	MG	1a	1770	1/1	0.95	0.14	69,69,69,69	0
54	MG	1F	317	1/1	0.95	0.08	51,51,51,51	0
54	MG	1A	3874	1/1	0.95	0.10	39,39,39,39	0
54	MG	1A	3706	1/1	0.95	0.06	41,41,41,41	0
54	MG	1A	3249	1/1	0.95	0.46	43,43,43,43	0
54	MG	1A	3880	1/1	0.95	0.07	62,62,62,62	0
54	MG	2A	3480	1/1	0.95	0.09	45,45,45,45	0
54	MG	2a	3071	1/1	0.95	0.09	58,58,58,58	0
54	MG	2A	3481	1/1	0.95	0.11	59,59,59,59	0
54	MG	2a	3074	1/1	0.95	0.15	58,58,58,58	0
54	MG	1A	3708	1/1	0.95	0.06	52,52,52,52	0
54	MG	1A	3188	1/1	0.95	0.13	71,71,71,71	0
54	MG	1P	205	1/1	0.95	0.06	65,65,65,65	0
54	MG	2A	3149	1/1	0.95	0.09	60,60,60,60	0
54	MG	1R	204	1/1	0.95	0.10	44,44,44,44	0
54	MG	2A	3151	1/1	0.95	0.09	57,57,57,57	0
54	MG	2A	3496	1/1	0.95	0.11	56,56,56,56	0
54	MG	1A	3016	1/1	0.95	0.28	36,36,36,36	0
54	MG	2A	3499	1/1	0.95	0.08	46,46,46,46	0
54	MG	1T	201	1/1	0.95	0.08	64,64,64,64	0
54	MG	2A	3157	1/1	0.95	0.05	47,47,47,47	0
54	MG	2a	3092	1/1	0.95	0.16	67,67,67,67	0
54	MG	2A	3159	1/1	0.95	0.07	61,61,61,61	0
54	MG	1A	3194	1/1	0.95	0.14	43,43,43,43	0
54	MG	1A	3719	1/1	0.95	0.08	47,47,47,47	0
54	MG	2a	3098	1/1	0.95	0.20	60,60,60,60	0
54	MG	1a	1785	1/1	0.95	0.13	68,68,68,68	0
54	MG	2A	3509	1/1	0.95	0.12	63,63,63,63	0
54	MG	1U	201	1/1	0.95	0.22	36,36,36,36	0
54	MG	1A	3466	1/1	0.95	0.07	42,42,42,42	0
54	MG	1a	1788	1/1	0.95	0.07	75,75,75,75	0
54	MG	2a	3104	1/1	0.95	0.08	68,68,68,68	0
54	MG	1A	3887	1/1	0.95	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	3889	1/1	0.95	0.08	40,40,40,40	0
54	MG	1A	3891	1/1	0.95	0.06	52,52,52,52	0
54	MG	1A	3725	1/1	0.95	0.10	49,49,49,49	0
54	MG	2a	3114	1/1	0.95	0.14	70,70,70,70	0
54	MG	1A	3467	1/1	0.95	0.12	56,56,56,56	0
54	MG	1A	3900	1/1	0.95	0.09	54,54,54,54	0
54	MG	2a	3117	1/1	0.95	0.08	66,66,66,66	0
54	MG	2A	3521	1/1	0.95	0.09	64,64,64,64	0
54	MG	2A	3181	1/1	0.95	0.10	55,55,55,55	0
54	MG	1A	3262	1/1	0.95	0.10	55,55,55,55	0
54	MG	2A	3184	1/1	0.95	0.14	60,60,60,60	0
54	MG	1A	3905	1/1	0.95	0.06	54,54,54,54	0
54	MG	2a	3124	1/1	0.95	0.07	56,56,56,56	0
54	MG	2a	3127	1/1	0.95	0.09	63,63,63,63	0
54	MG	2A	3527	1/1	0.95	0.12	45,45,45,45	0
54	MG	1A	3730	1/1	0.95	0.09	57,57,57,57	0
54	MG	1A	3138	1/1	0.95	0.06	45,45,45,45	0
54	MG	2A	3530	1/1	0.95	0.10	51,51,51,51	0
54	MG	2A	3188	1/1	0.95	0.12	54,54,54,54	0
54	MG	1A	3734	1/1	0.95	0.10	40,40,40,40	0
54	MG	1l	104	1/1	0.95	0.08	45,45,45,45	0
54	MG	2a	3137	1/1	0.95	0.11	59,59,59,59	0
54	MG	2A	3192	1/1	0.95	0.12	60,60,60,60	0
54	MG	2A	3543	1/1	0.95	0.08	69,69,69,69	0
54	MG	2A	3193	1/1	0.95	0.09	57,57,57,57	0
54	MG	1A	3911	1/1	0.95	0.11	49,49,49,49	0
54	MG	1A	3112	1/1	0.95	0.09	39,39,39,39	0
54	MG	2a	3147	1/1	0.95	0.09	62,62,62,62	0
54	MG	2A	3548	1/1	0.95	0.10	45,45,45,45	0
54	MG	2A	3549	1/1	0.95	0.06	59,59,59,59	0
54	MG	18	101	1/1	0.95	0.15	34,34,34,34	0
54	MG	2A	3552	1/1	0.95	0.06	39,39,39,39	0
54	MG	2A	3553	1/1	0.95	0.07	63,63,63,63	0
54	MG	2a	3154	1/1	0.95	0.12	57,57,57,57	0
54	MG	2a	3155	1/1	0.95	0.09	70,70,70,70	0
54	MG	2A	3555	1/1	0.95	0.14	48,48,48,48	0
54	MG	2a	3157	1/1	0.95	0.07	73,73,73,73	0
54	MG	1A	3269	1/1	0.95	0.27	35,35,35,35	0
54	MG	2A	3559	1/1	0.95	0.08	69,69,69,69	0
54	MG	19	101	1/1	0.95	0.09	69,69,69,69	0
54	MG	1A	3738	1/1	0.95	0.05	39,39,39,39	0
54	MG	1A	3740	1/1	0.95	0.16	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	1603	1/1	0.95	0.14	75,75,75,75	0
54	MG	2A	3204	1/1	0.95	0.07	57,57,57,57	0
54	MG	1A	3741	1/1	0.95	0.17	44,44,44,44	0
54	MG	1A	3270	1/1	0.95	0.06	53,53,53,53	0
54	MG	1A	3610	1/1	0.95	0.09	49,49,49,49	0
54	MG	1A	3746	1/1	0.95	0.07	34,34,34,34	0
54	MG	2a	3175	1/1	0.95	0.10	71,71,71,71	0
54	MG	2a	3176	1/1	0.95	0.10	60,60,60,60	0
54	MG	1A	3933	1/1	0.95	0.12	55,55,55,55	0
54	MG	2A	3579	1/1	0.95	0.12	54,54,54,54	0
54	MG	2A	3580	1/1	0.95	0.12	60,60,60,60	0
54	MG	2A	3213	1/1	0.95	0.19	55,55,55,55	0
54	MG	2A	3215	1/1	0.95	0.09	56,56,56,56	0
54	MG	1A	3113	1/1	0.95	0.22	40,40,40,40	0
54	MG	2A	3586	1/1	0.95	0.08	53,53,53,53	0
54	MG	1a	1612	1/1	0.95	0.12	43,43,43,43	0
54	MG	2A	3221	1/1	0.95	0.13	52,52,52,52	0
54	MG	2A	3590	1/1	0.95	0.07	59,59,59,59	0
54	MG	1a	1613	1/1	0.95	0.10	74,74,74,74	0
54	MG	1A	3144	1/1	0.95	0.06	30,30,30,30	0
54	MG	2A	3224	1/1	0.95	0.07	48,48,48,48	0
54	MG	1A	3369	1/1	0.95	0.09	70,70,70,70	0
54	MG	1A	3122	1/1	0.95	0.10	37,37,37,37	0
54	MG	2A	3228	1/1	0.95	0.13	47,47,47,47	0
54	MG	2A	3232	1/1	0.95	0.07	54,54,54,54	0
54	MG	2A	3608	1/1	0.95	0.08	45,45,45,45	0
54	MG	1a	1830	1/1	0.95	0.09	66,66,66,66	0
54	MG	2A	3234	1/1	0.95	0.17	39,39,39,39	0
54	MG	1a	1831	1/1	0.95	0.08	69,69,69,69	0
54	MG	1A	3283	1/1	0.95	0.15	58,58,58,58	0
54	MG	2A	3305	1/1	0.96	0.12	60,60,60,60	0
54	MG	1A	3875	1/1	0.96	0.10	39,39,39,39	0
54	MG	2A	3033	1/1	0.96	0.14	57,57,57,57	0
54	MG	1D	305	1/1	0.96	0.04	40,40,40,40	0
54	MG	1A	3489	1/1	0.96	0.07	46,46,46,46	0
54	MG	1a	1717	1/1	0.96	0.06	54,54,54,54	0
54	MG	1A	3878	1/1	0.96	0.12	49,49,49,49	0
54	MG	1A	3119	1/1	0.96	0.19	33,33,33,33	0
54	MG	1A	3724	1/1	0.96	0.07	42,42,42,42	0
54	MG	1A	3305	1/1	0.96	0.10	48,48,48,48	0
54	MG	2A	3043	1/1	0.96	0.05	30,30,30,30	0
54	MG	2A	3664	1/1	0.96	0.05	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	3665	1/1	0.96	0.08	40,40,40,40	0
54	MG	1A	3091	1/1	0.96	0.10	28,28,28,28	0
54	MG	1D	316	1/1	0.96	0.20	32,32,32,32	0
54	MG	1E	301	1/1	0.96	0.18	40,40,40,40	0
54	MG	1A	3189	1/1	0.96	0.07	36,36,36,36	0
54	MG	2A	3049	1/1	0.96	0.07	64,64,64,64	0
54	MG	2A	3324	1/1	0.96	0.10	53,53,53,53	0
54	MG	1A	3015	1/1	0.96	0.05	33,33,33,33	0
54	MG	1A	3612	1/1	0.96	0.20	39,39,39,39	0
54	MG	1A	3613	1/1	0.96	0.07	34,34,34,34	0
54	MG	2A	3678	1/1	0.96	0.08	39,39,39,39	0
54	MG	1A	3503	1/1	0.96	0.05	19,19,19,19	0
54	MG	2A	3333	1/1	0.96	0.06	51,51,51,51	0
54	MG	2A	3056	1/1	0.96	0.26	62,62,62,62	0
54	MG	1F	308	1/1	0.96	0.10	24,24,24,24	0
54	MG	1F	310	1/1	0.96	0.20	56,56,56,56	0
54	MG	1A	3242	1/1	0.96	0.22	55,55,55,55	0
54	MG	1A	3506	1/1	0.96	0.07	20,20,20,20	0
54	MG	1F	314	1/1	0.96	0.29	43,43,43,43	0
54	MG	1A	3892	1/1	0.96	0.10	42,42,42,42	0
54	MG	1F	318	1/1	0.96	0.07	60,60,60,60	0
54	MG	2A	3689	1/1	0.96	0.07	40,40,40,40	0
54	MG	1A	3147	1/1	0.96	0.20	32,32,32,32	0
54	MG	1A	3896	1/1	0.96	0.07	46,46,46,46	0
54	MG	2A	3693	1/1	0.96	0.07	54,54,54,54	0
54	MG	1G	204	1/1	0.96	0.15	58,58,58,58	0
54	MG	2A	3696	1/1	0.96	0.07	55,55,55,55	0
54	MG	1a	1751	1/1	0.96	0.10	58,58,58,58	0
54	MG	1A	3508	1/1	0.96	0.05	50,50,50,50	0
54	MG	1H	202	1/1	0.96	0.05	46,46,46,46	0
54	MG	1N	202	1/1	0.96	0.15	41,41,41,41	0
54	MG	2A	3076	1/1	0.96	0.11	54,54,54,54	0
54	MG	2A	3077	1/1	0.96	0.11	44,44,44,44	0
54	MG	1A	3011	1/1	0.96	0.05	43,43,43,43	0
54	MG	2A	3362	1/1	0.96	0.08	53,53,53,53	0
54	MG	2A	3081	1/1	0.96	0.07	57,57,57,57	0
54	MG	2A	3712	1/1	0.96	0.10	57,57,57,57	0
54	MG	1A	3902	1/1	0.96	0.09	31,31,31,31	0
54	MG	1A	3513	1/1	0.96	0.06	21,21,21,21	0
54	MG	2A	3084	1/1	0.96	0.08	45,45,45,45	0
54	MG	2A	3086	1/1	0.96	0.07	48,48,48,48	0
54	MG	1A	3625	1/1	0.96	0.05	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3369	1/1	0.96	0.09	68,68,68,68	0
54	MG	1A	3626	1/1	0.96	0.07	34,34,34,34	0
54	MG	1A	3907	1/1	0.96	0.06	37,37,37,37	0
54	MG	1A	3908	1/1	0.96	0.06	21,21,21,21	0
54	MG	2A	3725	1/1	0.96	0.07	42,42,42,42	0
54	MG	1A	3514	1/1	0.96	0.13	39,39,39,39	0
54	MG	1A	3629	1/1	0.96	0.06	39,39,39,39	0
54	MG	2A	3729	1/1	0.96	0.08	54,54,54,54	0
54	MG	2A	3730	1/1	0.96	0.09	56,56,56,56	0
54	MG	1A	3751	1/1	0.96	0.10	51,51,51,51	0
54	MG	1A	3630	1/1	0.96	0.07	40,40,40,40	0
54	MG	2A	3733	1/1	0.96	0.05	52,52,52,52	0
54	MG	1A	3317	1/1	0.96	0.10	34,34,34,34	0
54	MG	1A	3516	1/1	0.96	0.06	22,22,22,22	0
54	MG	1V	207	1/1	0.96	0.09	67,67,67,67	0
54	MG	1A	3196	1/1	0.96	0.24	62,62,62,62	0
54	MG	2B	205	1/1	0.96	0.10	51,51,51,51	0
54	MG	1W	204	1/1	0.96	0.08	54,54,54,54	0
54	MG	2A	3106	1/1	0.96	0.12	56,56,56,56	0
54	MG	1A	3411	1/1	0.96	0.10	25,25,25,25	0
54	MG	2A	3394	1/1	0.96	0.14	59,59,59,59	0
54	MG	2B	210	1/1	0.96	0.05	64,64,64,64	0
54	MG	1A	3197	1/1	0.96	0.16	44,44,44,44	0
54	MG	1A	3048	1/1	0.96	0.15	47,47,47,47	0
54	MG	2A	3400	1/1	0.96	0.06	47,47,47,47	0
54	MG	1A	3250	1/1	0.96	0.19	34,34,34,34	0
54	MG	1A	3326	1/1	0.96	0.06	31,31,31,31	0
54	MG	2A	3405	1/1	0.96	0.06	41,41,41,41	0
54	MG	2D	303	1/1	0.96	0.13	51,51,51,51	0
54	MG	2A	3115	1/1	0.96	0.20	48,48,48,48	0
54	MG	2A	3407	1/1	0.96	0.09	61,61,61,61	0
54	MG	1a	1781	1/1	0.96	0.06	74,74,74,74	0
54	MG	2A	3409	1/1	0.96	0.11	47,47,47,47	0
54	MG	1A	3330	1/1	0.96	0.10	34,34,34,34	0
54	MG	2E	306	1/1	0.96	0.07	30,30,30,30	0
54	MG	1A	3641	1/1	0.96	0.14	41,41,41,41	0
54	MG	2F	301	1/1	0.96	0.18	47,47,47,47	0
54	MG	2A	3124	1/1	0.96	0.06	39,39,39,39	0
54	MG	2A	3413	1/1	0.96	0.11	62,62,62,62	0
54	MG	1A	3251	1/1	0.96	0.19	42,42,42,42	0
54	MG	2A	3415	1/1	0.96	0.09	50,50,50,50	0
54	MG	2A	3416	1/1	0.96	0.18	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	2A	3126	1/1	0.96	0.08	65,65,65,65	0
54	MG	1A	3937	1/1	0.96	0.07	69,69,69,69	0
54	MG	13	101	1/1	0.96	0.09	39,39,39,39	0
54	MG	13	102	1/1	0.96	0.09	41,41,41,41	0
54	MG	2A	3421	1/1	0.96	0.06	36,36,36,36	0
54	MG	2Q	201	1/1	0.96	0.14	63,63,63,63	0
54	MG	2A	3422	1/1	0.96	0.13	60,60,60,60	0
54	MG	2A	3131	1/1	0.96	0.16	51,51,51,51	0
54	MG	13	104	1/1	0.96	0.06	40,40,40,40	0
54	MG	1A	3772	1/1	0.96	0.05	34,34,34,34	0
54	MG	2A	3428	1/1	0.96	0.10	69,69,69,69	0
54	MG	1a	1791	1/1	0.96	0.08	68,68,68,68	0
54	MG	1a	1792	1/1	0.96	0.07	57,57,57,57	0
54	MG	2A	3434	1/1	0.96	0.08	60,60,60,60	0
54	MG	2X	101	1/1	0.96	0.08	57,57,57,57	0
54	MG	1A	3201	1/1	0.96	0.06	40,40,40,40	0
54	MG	1A	3941	1/1	0.96	0.12	55,55,55,55	0
54	MG	2A	3437	1/1	0.96	0.07	58,58,58,58	0
54	MG	25	101	1/1	0.96	0.26	44,44,44,44	0
54	MG	1A	3942	1/1	0.96	0.07	42,42,42,42	0
54	MG	1A	3422	1/1	0.96	0.05	20,20,20,20	0
54	MG	2A	3144	1/1	0.96	0.13	41,41,41,41	0
54	MG	2a	3003	1/1	0.96	0.21	64,64,64,64	0
54	MG	1A	3070	1/1	0.96	0.17	27,27,27,27	0
54	MG	2A	3146	1/1	0.96	0.12	34,34,34,34	0
54	MG	2A	3147	1/1	0.96	0.25	60,60,60,60	0
54	MG	1A	3647	1/1	0.96	0.07	33,33,33,33	0
54	MG	1A	3648	1/1	0.96	0.07	49,49,49,49	0
54	MG	1A	3259	1/1	0.96	0.06	41,41,41,41	0
54	MG	1A	3539	1/1	0.96	0.08	41,41,41,41	0
54	MG	2A	3154	1/1	0.96	0.06	65,65,65,65	0
54	MG	1A	3129	1/1	0.96	0.04	34,34,34,34	0
54	MG	1A	3160	1/1	0.96	0.34	36,36,36,36	0
54	MG	1A	3787	1/1	0.96	0.08	43,43,43,43	0
54	MG	1A	3956	1/1	0.96	0.08	50,50,50,50	0
54	MG	1A	3163	1/1	0.96	0.12	52,52,52,52	0
54	MG	1A	3959	1/1	0.96	0.12	54,54,54,54	0
54	MG	1A	3049	1/1	0.96	0.12	39,39,39,39	0
54	MG	1a	1616	1/1	0.96	0.05	56,56,56,56	0
54	MG	1A	3213	1/1	0.96	0.09	43,43,43,43	0
54	MG	1a	1618	1/1	0.96	0.08	62,62,62,62	0
54	MG	1a	1815	1/1	0.96	0.06	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3075	1/1	0.96	0.06	44,44,44,44	0
54	MG	2A	3173	1/1	0.96	0.07	45,45,45,45	0
54	MG	2A	3466	1/1	0.96	0.07	48,48,48,48	0
54	MG	2A	3175	1/1	0.96	0.07	57,57,57,57	0
54	MG	2a	3031	1/1	0.96	0.21	59,59,59,59	0
54	MG	2A	3176	1/1	0.96	0.06	42,42,42,42	0
54	MG	2A	3470	1/1	0.96	0.11	67,67,67,67	0
54	MG	1A	3793	1/1	0.96	0.19	61,61,61,61	0
54	MG	1a	1622	1/1	0.96	0.12	48,48,48,48	0
54	MG	1A	3548	1/1	0.96	0.11	43,43,43,43	0
54	MG	1A	3349	1/1	0.96	0.05	25,25,25,25	0
54	MG	1A	3970	1/1	0.96	0.06	34,34,34,34	0
54	MG	1A	3020	1/1	0.96	0.16	39,39,39,39	0
54	MG	1A	3799	1/1	0.96	0.05	40,40,40,40	0
54	MG	2A	3479	1/1	0.96	0.11	31,31,31,31	0
54	MG	1A	3801	1/1	0.96	0.06	44,44,44,44	0
54	MG	1A	3802	1/1	0.96	0.10	56,56,56,56	0
54	MG	1a	1630	1/1	0.96	0.11	57,57,57,57	0
54	MG	2A	3485	1/1	0.96	0.05	37,37,37,37	0
54	MG	1A	3803	1/1	0.96	0.07	38,38,38,38	0
54	MG	2A	3190	1/1	0.96	0.11	47,47,47,47	0
54	MG	1A	3553	1/1	0.96	0.10	54,54,54,54	0
54	MG	2A	3493	1/1	0.96	0.06	47,47,47,47	0
54	MG	1A	3664	1/1	0.96	0.08	52,52,52,52	0
54	MG	1A	3443	1/1	0.96	0.12	48,48,48,48	0
54	MG	2a	3053	1/1	0.96	0.06	66,66,66,66	0
54	MG	2A	3194	1/1	0.96	0.06	62,62,62,62	0
54	MG	1A	3555	1/1	0.96	0.11	33,33,33,33	0
54	MG	1A	3217	1/1	0.96	0.05	38,38,38,38	0
54	MG	1a	1836	1/1	0.96	0.10	55,55,55,55	0
54	MG	1A	3276	1/1	0.96	0.09	48,48,48,48	0
54	MG	2A	3502	1/1	0.96	0.07	49,49,49,49	0
54	MG	2A	3199	1/1	0.96	0.23	50,50,50,50	0
54	MG	1A	3987	1/1	0.96	0.07	55,55,55,55	0
54	MG	1A	3560	1/1	0.96	0.08	49,49,49,49	0
54	MG	2A	3506	1/1	0.96	0.07	39,39,39,39	0
54	MG	1A	3277	1/1	0.96	0.07	41,41,41,41	0
54	MG	2A	3508	1/1	0.96	0.09	46,46,46,46	0
54	MG	1a	1643	1/1	0.96	0.07	63,63,63,63	0
54	MG	1A	3280	1/1	0.96	0.16	49,49,49,49	0
54	MG	2A	3205	1/1	0.96	0.05	43,43,43,43	0
54	MG	1a	1846	1/1	0.96	0.06	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3361	1/1	0.96	0.05	27,27,27,27	0
54	MG	1A	3570	1/1	0.96	0.05	49,49,49,49	0
54	MG	2A	3515	1/1	0.96	0.09	49,49,49,49	0
54	MG	1A	3823	1/1	0.96	0.09	34,34,34,34	0
54	MG	2a	3075	1/1	0.96	0.12	61,61,61,61	0
54	MG	2A	3211	1/1	0.96	0.16	48,48,48,48	0
54	MG	1a	1649	1/1	0.96	0.14	50,50,50,50	0
54	MG	1A	3996	1/1	0.96	0.08	36,36,36,36	0
54	MG	2A	3214	1/1	0.96	0.14	57,57,57,57	0
54	MG	2a	3080	1/1	0.96	0.08	57,57,57,57	0
54	MG	1A	3825	1/1	0.96	0.04	18,18,18,18	0
54	MG	2a	3082	1/1	0.96	0.21	61,61,61,61	0
54	MG	2A	3216	1/1	0.96	0.09	59,59,59,59	0
54	MG	2A	3217	1/1	0.96	0.09	54,54,54,54	0
54	MG	2A	3218	1/1	0.96	0.15	45,45,45,45	0
54	MG	2a	3086	1/1	0.96	0.09	60,60,60,60	0
54	MG	1A	3281	1/1	0.96	0.14	36,36,36,36	0
54	MG	1a	1654	1/1	0.96	0.06	50,50,50,50	0
54	MG	1a	1656	1/1	0.96	0.16	51,51,51,51	0
54	MG	2a	3091	1/1	0.96	0.06	71,71,71,71	0
54	MG	1A	3218	1/1	0.96	0.13	30,30,30,30	0
54	MG	2a	3093	1/1	0.96	0.11	49,49,49,49	0
54	MG	1a	1658	1/1	0.96	0.08	64,64,64,64	0
54	MG	2A	3534	1/1	0.96	0.06	43,43,43,43	0
54	MG	1A	4000	1/1	0.96	0.05	60,60,60,60	0
54	MG	2a	3097	1/1	0.96	0.25	61,61,61,61	0
54	MG	2A	3537	1/1	0.96	0.10	47,47,47,47	0
54	MG	2A	3538	1/1	0.96	0.06	44,44,44,44	0
54	MG	1A	3170	1/1	0.96	0.07	48,48,48,48	0
54	MG	2A	3226	1/1	0.96	0.06	43,43,43,43	0
54	MG	1a	1868	1/1	0.96	0.15	63,63,63,63	0
54	MG	1a	1869	1/1	0.96	0.09	64,64,64,64	0
54	MG	2A	3230	1/1	0.96	0.09	56,56,56,56	0
54	MG	1A	3682	1/1	0.96	0.09	49,49,49,49	0
54	MG	1A	3029	1/1	0.96	0.08	39,39,39,39	0
54	MG	1A	3465	1/1	0.96	0.07	47,47,47,47	0
54	MG	1A	3222	1/1	0.96	0.20	37,37,37,37	0
54	MG	2a	3109	1/1	0.96	0.10	81,81,81,81	0
54	MG	2a	3110	1/1	0.96	0.07	61,61,61,61	0
54	MG	2a	3112	1/1	0.96	0.08	64,64,64,64	0
54	MG	2A	3237	1/1	0.96	0.11	52,52,52,52	0
54	MG	1A	3081	1/1	0.96	0.10	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	4009	1/1	0.96	0.10	47,47,47,47	0
54	MG	1A	4010	1/1	0.96	0.06	48,48,48,48	0
54	MG	1A	3838	1/1	0.96	0.06	44,44,44,44	0
54	MG	2A	3560	1/1	0.96	0.08	65,65,65,65	0
54	MG	2a	3120	1/1	0.96	0.17	68,68,68,68	0
54	MG	1A	3839	1/1	0.96	0.17	41,41,41,41	0
54	MG	1d	304	1/1	0.96	0.07	60,60,60,60	0
54	MG	2A	3564	1/1	0.96	0.08	58,58,58,58	0
54	MG	1A	3689	1/1	0.96	0.08	39,39,39,39	0
54	MG	2a	3126	1/1	0.96	0.13	66,66,66,66	0
54	MG	1A	3226	1/1	0.96	0.14	42,42,42,42	0
54	MG	1A	3291	1/1	0.96	0.18	44,44,44,44	0
54	MG	1A	3847	1/1	0.96	0.09	39,39,39,39	0
54	MG	1a	1676	1/1	0.96	0.10	68,68,68,68	0
54	MG	2A	3249	1/1	0.96	0.22	44,44,44,44	0
54	MG	1A	3848	1/1	0.96	0.09	45,45,45,45	0
54	MG	2A	3576	1/1	0.96	0.24	65,65,65,65	0
54	MG	1h	201	1/1	0.96	0.15	57,57,57,57	0
54	MG	2A	3578	1/1	0.96	0.07	54,54,54,54	0
54	MG	1A	3227	1/1	0.96	0.05	31,31,31,31	0
54	MG	1a	1680	1/1	0.96	0.08	52,52,52,52	0
54	MG	1A	3585	1/1	0.96	0.08	55,55,55,55	0
54	MG	1A	3295	1/1	0.96	0.08	45,45,45,45	0
54	MG	2a	3145	1/1	0.96	0.09	60,60,60,60	0
54	MG	2A	3584	1/1	0.96	0.06	46,46,46,46	0
54	MG	2A	3256	1/1	0.96	0.08	59,59,59,59	0
54	MG	1A	3182	1/1	0.96	0.27	42,42,42,42	0
54	MG	1a	1684	1/1	0.96	0.14	53,53,53,53	0
54	MG	1A	3588	1/1	0.96	0.14	50,50,50,50	0
54	MG	1A	3060	1/1	0.96	0.10	49,49,49,49	0
54	MG	2a	3152	1/1	0.96	0.09	71,71,71,71	0
54	MG	2A	3591	1/1	0.96	0.06	59,59,59,59	0
54	MG	1A	3380	1/1	0.96	0.05	19,19,19,19	0
54	MG	2A	3593	1/1	0.96	0.06	50,50,50,50	0
54	MG	2A	3596	1/1	0.96	0.06	34,34,34,34	0
54	MG	1A	3858	1/1	0.96	0.08	52,52,52,52	0
54	MG	2A	3264	1/1	0.96	0.08	55,55,55,55	0
54	MG	2A	3267	1/1	0.96	0.09	53,53,53,53	0
54	MG	2A	3270	1/1	0.96	0.27	51,51,51,51	0
54	MG	2a	3161	1/1	0.96	0.09	69,69,69,69	0
54	MG	1A	3859	1/1	0.96	0.09	48,48,48,48	0
54	MG	2a	3163	1/1	0.96	0.14	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3605	1/1	0.96	0.07	40,40,40,40	0
54	MG	1A	3592	1/1	0.96	0.09	51,51,51,51	0
54	MG	2A	3607	1/1	0.96	0.05	57,57,57,57	0
54	MG	1A	3477	1/1	0.96	0.12	33,33,33,33	0
54	MG	2a	3169	1/1	0.96	0.19	64,64,64,64	0
54	MG	1A	3230	1/1	0.96	0.07	36,36,36,36	0
54	MG	2A	3614	1/1	0.96	0.10	51,51,51,51	0
54	MG	2A	3616	1/1	0.96	0.11	49,49,49,49	0
54	MG	1A	3595	1/1	0.96	0.07	44,44,44,44	0
54	MG	2A	3005	1/1	0.96	0.07	56,56,56,56	0
54	MG	2A	3006	1/1	0.96	0.12	54,54,54,54	0
54	MG	2A	3620	1/1	0.96	0.07	50,50,50,50	0
54	MG	2A	3621	1/1	0.96	0.09	52,52,52,52	0
54	MG	2a	3180	1/1	0.96	0.06	57,57,57,57	0
54	MG	1B	221	1/1	0.96	0.07	31,31,31,31	0
54	MG	2A	3279	1/1	0.96	0.11	53,53,53,53	0
54	MG	1A	3231	1/1	0.96	0.10	49,49,49,49	0
54	MG	2A	3284	1/1	0.96	0.07	41,41,41,41	0
54	MG	1a	1699	1/1	0.96	0.14	60,60,60,60	0
54	MG	2A	3014	1/1	0.96	0.08	55,55,55,55	0
54	MG	2A	3015	1/1	0.96	0.10	38,38,38,38	0
54	MG	1A	3867	1/1	0.96	0.05	37,37,37,37	0
54	MG	2A	3631	1/1	0.96	0.14	51,51,51,51	0
54	MG	1B	224	1/1	0.96	0.05	53,53,53,53	0
55	ERY	1A	4021	51/51	0.96	0.09	23,35,44,46	0
55	ERY	2A	3734	51/51	0.96	0.10	32,46,59,66	0
54	MG	1A	3598	1/1	0.96	0.09	41,41,41,41	0
54	MG	2A	3020	1/1	0.96	0.09	45,45,45,45	0
54	MG	2A	3022	1/1	0.96	0.23	54,54,54,54	0
54	MG	1a	1703	1/1	0.96	0.16	52,52,52,52	0
54	MG	1A	3033	1/1	0.96	0.12	37,37,37,37	0
54	MG	1A	3387	1/1	0.96	0.09	24,24,24,24	0
54	MG	2A	3027	1/1	0.96	0.08	59,59,59,59	0
54	MG	1A	3873	1/1	0.96	0.09	50,50,50,50	0
54	MG	1A	3717	1/1	0.96	0.09	34,34,34,34	0
58	ZN	2Y	501	1/1	0.96	0.06	84,84,84,84	0
54	MG	1A	3458	1/1	0.97	0.07	52,52,52,52	0
54	MG	1a	1632	1/1	0.97	0.07	55,55,55,55	0
54	MG	1A	3760	1/1	0.97	0.10	33,33,33,33	0
54	MG	2A	3642	1/1	0.97	0.06	48,48,48,48	0
54	MG	2A	3289	1/1	0.97	0.06	33,33,33,33	0
54	MG	2A	3645	1/1	0.97	0.10	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3012	1/1	0.97	0.17	39,39,39,39	0
54	MG	1m	201	1/1	0.97	0.05	68,68,68,68	0
54	MG	2A	3652	1/1	0.97	0.10	51,51,51,51	0
54	MG	1A	3599	1/1	0.97	0.06	55,55,55,55	0
54	MG	2A	3654	1/1	0.97	0.06	54,54,54,54	0
54	MG	1A	3343	1/1	0.97	0.06	29,29,29,29	0
54	MG	2A	3296	1/1	0.97	0.05	46,46,46,46	0
54	MG	1A	3462	1/1	0.97	0.12	47,47,47,47	0
54	MG	1o	101	1/1	0.97	0.06	53,53,53,53	0
54	MG	1A	3464	1/1	0.97	0.09	46,46,46,46	0
54	MG	1A	3603	1/1	0.97	0.06	51,51,51,51	0
54	MG	1A	3252	1/1	0.97	0.06	36,36,36,36	0
54	MG	2A	3302	1/1	0.97	0.12	57,57,57,57	0
54	MG	1A	3080	1/1	0.97	0.11	42,42,42,42	0
54	MG	1A	3606	1/1	0.97	0.22	35,35,35,35	0
54	MG	1A	3052	1/1	0.97	0.14	43,43,43,43	0
54	MG	1A	3775	1/1	0.97	0.11	34,34,34,34	0
54	MG	1A	3974	1/1	0.97	0.06	52,52,52,52	0
54	MG	1A	3975	1/1	0.97	0.08	52,52,52,52	0
54	MG	1A	3192	1/1	0.97	0.18	64,64,64,64	0
54	MG	1A	3777	1/1	0.97	0.09	44,44,44,44	0
54	MG	2A	3008	1/1	0.97	0.19	49,49,49,49	0
54	MG	2A	3010	1/1	0.97	0.05	60,60,60,60	0
54	MG	1A	3082	1/1	0.97	0.19	34,34,34,34	0
54	MG	2A	3316	1/1	0.97	0.05	39,39,39,39	0
54	MG	1A	3350	1/1	0.97	0.08	32,32,32,32	0
54	MG	1A	3351	1/1	0.97	0.04	22,22,22,22	0
54	MG	1A	3261	1/1	0.97	0.07	40,40,40,40	0
54	MG	1A	3128	1/1	0.97	0.04	62,62,62,62	0
54	MG	1A	3263	1/1	0.97	0.11	40,40,40,40	0
54	MG	2A	3018	1/1	0.97	0.12	41,41,41,41	0
54	MG	2A	3323	1/1	0.97	0.05	46,46,46,46	0
54	MG	1A	3617	1/1	0.97	0.07	23,23,23,23	0
54	MG	1A	3985	1/1	0.97	0.11	39,39,39,39	0
54	MG	2A	3327	1/1	0.97	0.09	42,42,42,42	0
54	MG	1A	3021	1/1	0.97	0.24	43,43,43,43	0
54	MG	1A	3621	1/1	0.97	0.11	54,54,54,54	0
54	MG	1A	3009	1/1	0.97	0.06	26,26,26,26	0
54	MG	2A	3332	1/1	0.97	0.05	33,33,33,33	0
54	MG	2A	3694	1/1	0.97	0.04	66,66,66,66	0
54	MG	1A	3267	1/1	0.97	0.13	33,33,33,33	0
54	MG	2A	3334	1/1	0.97	0.11	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	2A	3697	1/1	0.97	0.05	40,40,40,40	0
54	MG	1A	3268	1/1	0.97	0.29	34,34,34,34	0
54	MG	1A	3991	1/1	0.97	0.06	43,43,43,43	0
54	MG	1a	1667	1/1	0.97	0.09	63,63,63,63	0
54	MG	2A	3702	1/1	0.97	0.06	48,48,48,48	0
54	MG	2A	3340	1/1	0.97	0.07	44,44,44,44	0
54	MG	2A	3030	1/1	0.97	0.06	48,48,48,48	0
54	MG	1A	3483	1/1	0.97	0.06	35,35,35,35	0
54	MG	2A	3706	1/1	0.97	0.06	52,52,52,52	0
54	MG	1A	3088	1/1	0.97	0.06	35,35,35,35	0
54	MG	1A	3367	1/1	0.97	0.08	26,26,26,26	0
54	MG	2A	3710	1/1	0.97	0.07	48,48,48,48	0
54	MG	1A	3797	1/1	0.97	0.11	41,41,41,41	0
54	MG	2A	3036	1/1	0.97	0.06	48,48,48,48	0
54	MG	2A	3347	1/1	0.97	0.08	35,35,35,35	0
54	MG	1A	3492	1/1	0.97	0.07	44,44,44,44	0
54	MG	1a	1673	1/1	0.97	0.27	66,66,66,66	0
54	MG	2A	3350	1/1	0.97	0.06	32,32,32,32	0
54	MG	2A	3717	1/1	0.97	0.07	64,64,64,64	0
54	MG	2A	3718	1/1	0.97	0.08	56,56,56,56	0
54	MG	1A	3494	1/1	0.97	0.06	48,48,48,48	0
54	MG	1A	3090	1/1	0.97	0.08	37,37,37,37	0
54	MG	1A	3271	1/1	0.97	0.17	51,51,51,51	0
54	MG	1a	1677	1/1	0.97	0.22	58,58,58,58	0
54	MG	1A	3272	1/1	0.97	0.13	43,43,43,43	0
54	MG	1A	3371	1/1	0.97	0.04	31,31,31,31	0
54	MG	2A	3046	1/1	0.97	0.12	51,51,51,51	0
54	MG	1A	3017	1/1	0.97	0.18	36,36,36,36	0
54	MG	1A	4004	1/1	0.97	0.25	41,41,41,41	0
54	MG	1A	3806	1/1	0.97	0.10	30,30,30,30	0
54	MG	1A	3807	1/1	0.97	0.17	44,44,44,44	0
54	MG	2A	3052	1/1	0.97	0.09	45,45,45,45	0
54	MG	1A	3501	1/1	0.97	0.10	53,53,53,53	0
54	MG	1A	3135	1/1	0.97	0.06	49,49,49,49	0
54	MG	1a	1686	1/1	0.97	0.18	59,59,59,59	0
54	MG	1A	3374	1/1	0.97	0.10	48,48,48,48	0
54	MG	1A	4011	1/1	0.97	0.08	58,58,58,58	0
54	MG	1A	4012	1/1	0.97	0.10	43,43,43,43	0
54	MG	2A	3376	1/1	0.97	0.04	53,53,53,53	0
54	MG	1A	3811	1/1	0.97	0.04	30,30,30,30	0
54	MG	1A	4014	1/1	0.97	0.07	39,39,39,39	0
54	MG	2A	3379	1/1	0.97	0.07	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	4015	1/1	0.97	0.13	40,40,40,40	0
54	MG	2B	211	1/1	0.97	0.11	59,59,59,59	0
54	MG	1A	3061	1/1	0.97	0.12	38,38,38,38	0
54	MG	1a	1694	1/1	0.97	0.12	49,49,49,49	0
54	MG	1A	3814	1/1	0.97	0.04	43,43,43,43	0
54	MG	2A	3385	1/1	0.97	0.11	53,53,53,53	0
54	MG	1A	3205	1/1	0.97	0.08	49,49,49,49	0
54	MG	2B	218	1/1	0.97	0.12	68,68,68,68	0
54	MG	2A	3067	1/1	0.97	0.05	48,48,48,48	0
54	MG	1A	3093	1/1	0.97	0.09	41,41,41,41	0
54	MG	2D	304	1/1	0.97	0.23	44,44,44,44	0
54	MG	2D	305	1/1	0.97	0.15	38,38,38,38	0
54	MG	2D	306	1/1	0.97	0.12	49,49,49,49	0
54	MG	1A	3509	1/1	0.97	0.12	23,23,23,23	0
54	MG	1A	3644	1/1	0.97	0.07	41,41,41,41	0
54	MG	2A	3072	1/1	0.97	0.06	30,30,30,30	0
54	MG	2A	3395	1/1	0.97	0.04	36,36,36,36	0
54	MG	1A	3820	1/1	0.97	0.22	27,27,27,27	0
54	MG	2E	305	1/1	0.97	0.05	50,50,50,50	0
54	MG	1A	3208	1/1	0.97	0.21	45,45,45,45	0
54	MG	1B	205	1/1	0.97	0.05	41,41,41,41	0
54	MG	2A	3401	1/1	0.97	0.14	59,59,59,59	0
54	MG	2F	302	1/1	0.97	0.05	39,39,39,39	0
54	MG	1a	1705	1/1	0.97	0.06	59,59,59,59	0
54	MG	2A	3403	1/1	0.97	0.10	69,69,69,69	0
54	MG	2A	3079	1/1	0.97	0.14	54,54,54,54	0
54	MG	1A	3822	1/1	0.97	0.06	19,19,19,19	0
54	MG	1A	3511	1/1	0.97	0.05	52,52,52,52	0
54	MG	1a	1708	1/1	0.97	0.06	47,47,47,47	0
54	MG	1a	1709	1/1	0.97	0.06	35,35,35,35	0
54	MG	1A	3512	1/1	0.97	0.06	46,46,46,46	0
54	MG	2A	3085	1/1	0.97	0.29	50,50,50,50	0
54	MG	1A	3095	1/1	0.97	0.06	18,18,18,18	0
54	MG	1a	1713	1/1	0.97	0.05	48,48,48,48	0
54	MG	2A	3088	1/1	0.97	0.16	39,39,39,39	0
54	MG	2R	201	1/1	0.97	0.08	46,46,46,46	0
54	MG	1B	210	1/1	0.97	0.05	46,46,46,46	0
54	MG	1A	3062	1/1	0.97	0.06	32,32,32,32	0
54	MG	2T	3302	1/1	0.97	0.06	53,53,53,53	0
54	MG	1A	3381	1/1	0.97	0.04	31,31,31,31	0
54	MG	2A	3092	1/1	0.97	0.06	46,46,46,46	0
54	MG	1B	213	1/1	0.97	0.03	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2W	201	1/1	0.97	0.16	45,45,45,45	0
54	MG	1A	3212	1/1	0.97	0.12	39,39,39,39	0
54	MG	1A	3018	1/1	0.97	0.12	27,27,27,27	0
54	MG	1A	3064	1/1	0.97	0.07	31,31,31,31	0
54	MG	1A	3833	1/1	0.97	0.12	34,34,34,34	0
54	MG	2A	3098	1/1	0.97	0.04	57,57,57,57	0
54	MG	2A	3099	1/1	0.97	0.07	42,42,42,42	0
54	MG	1A	3522	1/1	0.97	0.09	41,41,41,41	0
54	MG	1A	3028	1/1	0.97	0.20	25,25,25,25	0
54	MG	27	101	1/1	0.97	0.12	39,39,39,39	0
54	MG	28	101	1/1	0.97	0.06	44,44,44,44	0
54	MG	1A	3837	1/1	0.97	0.07	35,35,35,35	0
54	MG	1A	3216	1/1	0.97	0.18	37,37,37,37	0
54	MG	1a	1729	1/1	0.97	0.04	62,62,62,62	0
54	MG	2A	3108	1/1	0.97	0.07	60,60,60,60	0
54	MG	1A	3039	1/1	0.97	0.05	41,41,41,41	0
54	MG	1a	1731	1/1	0.97	0.05	56,56,56,56	0
54	MG	2A	3111	1/1	0.97	0.05	51,51,51,51	0
54	MG	1A	3393	1/1	0.97	0.06	20,20,20,20	0
54	MG	1A	3293	1/1	0.97	0.11	48,48,48,48	0
54	MG	1a	1734	1/1	0.97	0.07	60,60,60,60	0
54	MG	1A	3844	1/1	0.97	0.05	35,35,35,35	0
54	MG	2A	3117	1/1	0.97	0.11	43,43,43,43	0
54	MG	1A	3845	1/1	0.97	0.06	52,52,52,52	0
54	MG	2A	3446	1/1	0.97	0.06	60,60,60,60	0
54	MG	2a	3016	1/1	0.97	0.04	52,52,52,52	0
54	MG	2A	3119	1/1	0.97	0.07	52,52,52,52	0
54	MG	1A	3019	1/1	0.97	0.21	28,28,28,28	0
54	MG	1a	1739	1/1	0.97	0.15	53,53,53,53	0
54	MG	2A	3123	1/1	0.97	0.08	44,44,44,44	0
54	MG	1A	3531	1/1	0.97	0.05	47,47,47,47	0
54	MG	1a	1741	1/1	0.97	0.07	52,52,52,52	0
54	MG	2A	3454	1/1	0.97	0.05	59,59,59,59	0
54	MG	1D	301	1/1	0.97	0.26	40,40,40,40	0
54	MG	1D	303	1/1	0.97	0.08	33,33,33,33	0
54	MG	2A	3128	1/1	0.97	0.19	43,43,43,43	0
54	MG	1A	3532	1/1	0.97	0.32	35,35,35,35	0
54	MG	2a	3029	1/1	0.97	0.15	59,59,59,59	0
54	MG	1A	3152	1/1	0.97	0.25	36,36,36,36	0
54	MG	1A	3400	1/1	0.97	0.06	32,32,32,32	0
54	MG	1A	3153	1/1	0.97	0.09	30,30,30,30	0
54	MG	1A	3300	1/1	0.97	0.19	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	3854	1/1	0.97	0.06	39,39,39,39	0
54	MG	2A	3135	1/1	0.97	0.08	54,54,54,54	0
54	MG	1a	1752	1/1	0.97	0.07	61,61,61,61	0
54	MG	1A	3105	1/1	0.97	0.07	38,38,38,38	0
54	MG	1A	3407	1/1	0.97	0.06	35,35,35,35	0
54	MG	1A	3156	1/1	0.97	0.20	39,39,39,39	0
54	MG	1A	3675	1/1	0.97	0.17	57,57,57,57	0
54	MG	1A	3157	1/1	0.97	0.07	48,48,48,48	0
54	MG	1E	305	1/1	0.97	0.07	44,44,44,44	0
54	MG	1A	3677	1/1	0.97	0.08	55,55,55,55	0
54	MG	1E	307	1/1	0.97	0.06	23,23,23,23	0
54	MG	1E	308	1/1	0.97	0.04	25,25,25,25	0
54	MG	1E	309	1/1	0.97	0.05	52,52,52,52	0
54	MG	1A	3069	1/1	0.97	0.18	36,36,36,36	0
54	MG	1F	302	1/1	0.97	0.29	33,33,33,33	0
54	MG	1a	1767	1/1	0.97	0.08	66,66,66,66	0
54	MG	1A	3863	1/1	0.97	0.09	35,35,35,35	0
54	MG	1F	306	1/1	0.97	0.17	34,34,34,34	0
54	MG	2A	3158	1/1	0.97	0.15	59,59,59,59	0
54	MG	1F	307	1/1	0.97	0.08	39,39,39,39	0
54	MG	2A	3487	1/1	0.97	0.05	56,56,56,56	0
54	MG	2A	3488	1/1	0.97	0.06	54,54,54,54	0
54	MG	2A	3160	1/1	0.97	0.09	50,50,50,50	0
54	MG	1A	3544	1/1	0.97	0.20	45,45,45,45	0
54	MG	2A	3492	1/1	0.97	0.05	40,40,40,40	0
54	MG	2A	3162	1/1	0.97	0.07	56,56,56,56	0
54	MG	1F	309	1/1	0.97	0.12	34,34,34,34	0
54	MG	1A	3680	1/1	0.97	0.10	28,28,28,28	0
54	MG	1A	3545	1/1	0.97	0.14	32,32,32,32	0
54	MG	2A	3497	1/1	0.97	0.06	64,64,64,64	0
54	MG	1A	3107	1/1	0.97	0.07	44,44,44,44	0
54	MG	1A	3043	1/1	0.97	0.06	28,28,28,28	0
54	MG	1F	316	1/1	0.97	0.06	42,42,42,42	0
54	MG	1A	3684	1/1	0.97	0.08	46,46,46,46	0
54	MG	1A	3870	1/1	0.97	0.05	51,51,51,51	0
54	MG	1G	201	1/1	0.97	0.06	61,61,61,61	0
54	MG	2A	3174	1/1	0.97	0.21	45,45,45,45	0
54	MG	1A	3111	1/1	0.97	0.16	36,36,36,36	0
54	MG	2a	3073	1/1	0.97	0.20	55,55,55,55	0
54	MG	1A	3549	1/1	0.97	0.07	44,44,44,44	0
54	MG	1A	3045	1/1	0.97	0.08	14,14,14,14	0
54	MG	2A	3178	1/1	0.97	0.06	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	3232	1/1	0.97	0.19	30,30,30,30	0
54	MG	1A	3876	1/1	0.97	0.06	30,30,30,30	0
54	MG	1A	3690	1/1	0.97	0.05	47,47,47,47	0
54	MG	1A	3030	1/1	0.97	0.07	34,34,34,34	0
54	MG	1a	1789	1/1	0.97	0.05	56,56,56,56	0
54	MG	1N	204	1/1	0.97	0.05	65,65,65,65	0
54	MG	1A	3692	1/1	0.97	0.09	43,43,43,43	0
54	MG	1A	3115	1/1	0.97	0.20	36,36,36,36	0
54	MG	1A	3420	1/1	0.97	0.09	28,28,28,28	0
54	MG	1P	206	1/1	0.97	0.05	30,30,30,30	0
54	MG	1Q	203	1/1	0.97	0.09	41,41,41,41	0
54	MG	2a	3088	1/1	0.97	0.11	68,68,68,68	0
54	MG	1Q	204	1/1	0.97	0.06	47,47,47,47	0
54	MG	2A	3522	1/1	0.97	0.13	63,63,63,63	0
54	MG	1R	203	1/1	0.97	0.07	38,38,38,38	0
54	MG	1A	3421	1/1	0.97	0.08	30,30,30,30	0
54	MG	1A	3315	1/1	0.97	0.05	27,27,27,27	0
54	MG	1A	3558	1/1	0.97	0.06	56,56,56,56	0
54	MG	1A	3559	1/1	0.97	0.04	40,40,40,40	0
54	MG	1A	3423	1/1	0.97	0.07	41,41,41,41	0
54	MG	1a	1804	1/1	0.97	0.06	47,47,47,47	0
54	MG	1A	3700	1/1	0.97	0.16	35,35,35,35	0
54	MG	2A	3531	1/1	0.97	0.06	65,65,65,65	0
54	MG	1a	1806	1/1	0.97	0.05	69,69,69,69	0
54	MG	1U	204	1/1	0.97	0.24	33,33,33,33	0
54	MG	1U	205	1/1	0.97	0.12	36,36,36,36	0
54	MG	1A	3888	1/1	0.97	0.31	38,38,38,38	0
54	MG	1U	208	1/1	0.97	0.20	41,41,41,41	0
54	MG	2A	3539	1/1	0.97	0.06	76,76,76,76	0
54	MG	1V	203	1/1	0.97	0.08	45,45,45,45	0
54	MG	1A	3701	1/1	0.97	0.10	53,53,53,53	0
54	MG	2A	3542	1/1	0.97	0.05	56,56,56,56	0
54	MG	1A	3561	1/1	0.97	0.06	43,43,43,43	0
54	MG	2A	3208	1/1	0.97	0.09	59,59,59,59	0
54	MG	2a	3111	1/1	0.97	0.04	57,57,57,57	0
54	MG	1A	3562	1/1	0.97	0.15	43,43,43,43	0
54	MG	2a	3113	1/1	0.97	0.09	55,55,55,55	0
54	MG	2A	3546	1/1	0.97	0.16	44,44,44,44	0
54	MG	1A	3563	1/1	0.97	0.06	21,21,21,21	0
54	MG	1A	3564	1/1	0.97	0.10	39,39,39,39	0
54	MG	1Y	201	1/1	0.97	0.09	57,57,57,57	0
54	MG	1A	3424	1/1	0.97	0.12	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3899	1/1	0.97	0.06	42,42,42,42	0
54	MG	1a	1820	1/1	0.97	0.08	64,64,64,64	0
54	MG	10	101	1/1	0.97	0.06	42,42,42,42	0
54	MG	2A	3556	1/1	0.97	0.07	58,58,58,58	0
54	MG	2A	3557	1/1	0.97	0.05	69,69,69,69	0
54	MG	1A	3316	1/1	0.97	0.07	35,35,35,35	0
54	MG	1a	1823	1/1	0.97	0.07	52,52,52,52	0
54	MG	10	103	1/1	0.97	0.04	40,40,40,40	0
54	MG	1A	3567	1/1	0.97	0.06	45,45,45,45	0
54	MG	1A	3568	1/1	0.97	0.06	31,31,31,31	0
54	MG	2a	3130	1/1	0.97	0.04	64,64,64,64	0
54	MG	1A	3904	1/1	0.97	0.06	37,37,37,37	0
54	MG	1A	3172	1/1	0.97	0.04	30,30,30,30	0
54	MG	11	101	1/1	0.97	0.10	38,38,38,38	0
54	MG	2A	3567	1/1	0.97	0.09	53,53,53,53	0
54	MG	1A	3716	1/1	0.97	0.13	38,38,38,38	0
54	MG	1A	3173	1/1	0.97	0.06	49,49,49,49	0
54	MG	2a	3138	1/1	0.97	0.09	65,65,65,65	0
54	MG	1A	3430	1/1	0.97	0.06	51,51,51,51	0
54	MG	1A	3721	1/1	0.97	0.05	42,42,42,42	0
54	MG	1A	3320	1/1	0.97	0.08	29,29,29,29	0
54	MG	2A	3231	1/1	0.97	0.09	55,55,55,55	0
54	MG	1A	3239	1/1	0.97	0.22	32,32,32,32	0
54	MG	15	102	1/1	0.97	0.18	25,25,25,25	0
54	MG	15	103	1/1	0.97	0.24	36,36,36,36	0
54	MG	15	105	1/1	0.97	0.06	49,49,49,49	0
54	MG	1A	3915	1/1	0.97	0.07	50,50,50,50	0
54	MG	1a	1842	1/1	0.97	0.06	63,63,63,63	0
54	MG	17	101	1/1	0.97	0.10	28,28,28,28	0
54	MG	17	103	1/1	0.97	0.18	40,40,40,40	0
54	MG	1a	1845	1/1	0.97	0.16	64,64,64,64	0
54	MG	17	104	1/1	0.97	0.14	35,35,35,35	0
54	MG	17	105	1/1	0.97	0.06	42,42,42,42	0
54	MG	1A	3574	1/1	0.97	0.08	33,33,33,33	0
54	MG	1A	3434	1/1	0.97	0.05	35,35,35,35	0
54	MG	1A	3919	1/1	0.97	0.12	62,62,62,62	0
54	MG	1a	1855	1/1	0.97	0.10	63,63,63,63	0
54	MG	2A	3594	1/1	0.97	0.17	54,54,54,54	0
54	MG	2A	3595	1/1	0.97	0.07	47,47,47,47	0
54	MG	1A	3920	1/1	0.97	0.06	48,48,48,48	0
54	MG	1A	3116	1/1	0.97	0.08	41,41,41,41	0
54	MG	1A	3577	1/1	0.97	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	1A	3732	1/1	0.97	0.06	32,32,32,32	0
54	MG	2A	3602	1/1	0.97	0.04	70,70,70,70	0
54	MG	1A	3323	1/1	0.97	0.10	30,30,30,30	0
54	MG	2a	3168	1/1	0.97	0.08	50,50,50,50	0
54	MG	1a	1606	1/1	0.97	0.06	49,49,49,49	0
54	MG	1A	3579	1/1	0.97	0.06	36,36,36,36	0
54	MG	2a	3171	1/1	0.97	0.11	63,63,63,63	0
54	MG	1A	3931	1/1	0.97	0.09	56,56,56,56	0
54	MG	2a	3173	1/1	0.97	0.12	65,65,65,65	0
54	MG	1A	3437	1/1	0.97	0.04	33,33,33,33	0
54	MG	1A	3438	1/1	0.97	0.07	44,44,44,44	0
54	MG	2A	3610	1/1	0.97	0.10	38,38,38,38	0
54	MG	2A	3612	1/1	0.97	0.05	62,62,62,62	0
54	MG	1A	3177	1/1	0.97	0.17	37,37,37,37	0
54	MG	1A	3739	1/1	0.97	0.11	42,42,42,42	0
54	MG	2A	3615	1/1	0.97	0.07	68,68,68,68	0
54	MG	1a	1614	1/1	0.97	0.17	38,38,38,38	0
54	MG	1A	3117	1/1	0.97	0.04	33,33,33,33	0
54	MG	1A	3441	1/1	0.97	0.06	43,43,43,43	0
54	MG	1A	3743	1/1	0.97	0.10	53,53,53,53	0
54	MG	2A	3266	1/1	0.97	0.34	42,42,42,42	0
54	MG	1A	3179	1/1	0.97	0.18	35,35,35,35	0
54	MG	2A	3268	1/1	0.97	0.12	29,29,29,29	0
54	MG	2A	3269	1/1	0.97	0.16	48,48,48,48	0
54	MG	1A	3031	1/1	0.97	0.08	19,19,19,19	0
54	MG	1A	3333	1/1	0.97	0.07	48,48,48,48	0
54	MG	2t	201	1/1	0.97	0.09	42,42,42,42	0
54	MG	1A	3334	1/1	0.97	0.05	33,33,33,33	0
54	MG	1A	3335	1/1	0.97	0.08	35,35,35,35	0
54	MG	1A	3077	1/1	0.97	0.17	30,30,30,30	0
54	MG	2A	3629	1/1	0.97	0.07	46,46,46,46	0
54	MG	1e	201	1/1	0.97	0.15	48,48,48,48	0
54	MG	1A	3248	1/1	0.97	0.08	39,39,39,39	0
54	MG	1A	3184	1/1	0.97	0.09	41,41,41,41	0
54	MG	1A	3950	1/1	0.97	0.07	48,48,48,48	0
54	MG	1A	3123	1/1	0.97	0.17	32,32,32,32	0
54	MG	1A	3596	1/1	0.97	0.05	53,53,53,53	0
54	MG	1g	203	1/1	0.97	0.13	51,51,51,51	0
54	MG	1A	3953	1/1	0.97	0.07	58,58,58,58	0
54	MG	1A	3121	1/1	0.98	0.09	35,35,35,35	0
54	MG	2A	3719	1/1	0.98	0.08	48,48,48,48	0
54	MG	1A	4020	1/1	0.98	0.04	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	1a	1853	1/1	0.98	0.03	55,55,55,55	0
54	MG	2A	3182	1/1	0.98	0.09	43,43,43,43	0
54	MG	1a	1854	1/1	0.98	0.07	61,61,61,61	0
54	MG	1A	3456	1/1	0.98	0.07	45,45,45,45	0
54	MG	1A	3161	1/1	0.98	0.05	31,31,31,31	0
54	MG	1A	3162	1/1	0.98	0.15	35,35,35,35	0
54	MG	1A	3006	1/1	0.98	0.05	25,25,25,25	0
54	MG	2A	3728	1/1	0.98	0.04	46,46,46,46	0
54	MG	1a	1648	1/1	0.98	0.23	61,61,61,61	0
54	MG	1A	3460	1/1	0.98	0.04	41,41,41,41	0
54	MG	1a	1861	1/1	0.98	0.10	54,54,54,54	0
54	MG	1a	1650	1/1	0.98	0.12	55,55,55,55	0
54	MG	1a	1864	1/1	0.98	0.08	47,47,47,47	0
54	MG	1A	3278	1/1	0.98	0.11	42,42,42,42	0
54	MG	2A	3453	1/1	0.98	0.04	36,36,36,36	0
54	MG	1A	3279	1/1	0.98	0.06	42,42,42,42	0
54	MG	1A	3362	1/1	0.98	0.07	27,27,27,27	0
54	MG	1A	3583	1/1	0.98	0.06	42,42,42,42	0
54	MG	1a	1655	1/1	0.98	0.13	58,58,58,58	0
54	MG	1A	3862	1/1	0.98	0.04	28,28,28,28	0
54	MG	1A	3053	1/1	0.98	0.18	37,37,37,37	0
54	MG	1A	3710	1/1	0.98	0.03	33,33,33,33	0
54	MG	1A	3365	1/1	0.98	0.09	44,44,44,44	0
54	MG	1B	214	1/1	0.98	0.06	45,45,45,45	0
54	MG	1A	3165	1/1	0.98	0.11	35,35,35,35	0
54	MG	2B	213	1/1	0.98	0.08	60,60,60,60	0
54	MG	1A	3219	1/1	0.98	0.05	27,27,27,27	0
54	MG	1A	3055	1/1	0.98	0.12	41,41,41,41	0
54	MG	1A	3284	1/1	0.98	0.11	49,49,49,49	0
54	MG	2A	3467	1/1	0.98	0.06	60,60,60,60	0
54	MG	1A	3167	1/1	0.98	0.03	27,27,27,27	0
54	MG	1A	3720	1/1	0.98	0.07	32,32,32,32	0
54	MG	1A	3872	1/1	0.98	0.06	35,35,35,35	0
54	MG	1e	202	1/1	0.98	0.06	55,55,55,55	0
54	MG	1A	3094	1/1	0.98	0.12	31,31,31,31	0
54	MG	1A	3223	1/1	0.98	0.08	41,41,41,41	0
54	MG	1B	225	1/1	0.98	0.04	49,49,49,49	0
54	MG	1A	3169	1/1	0.98	0.35	38,38,38,38	0
54	MG	1A	3290	1/1	0.98	0.04	21,21,21,21	0
54	MG	1A	3727	1/1	0.98	0.09	54,54,54,54	0
54	MG	2E	301	1/1	0.98	0.09	43,43,43,43	0
54	MG	2E	303	1/1	0.98	0.17	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	1B	229	1/1	0.98	0.09	45,45,45,45	0
54	MG	1A	3071	1/1	0.98	0.16	30,30,30,30	0
54	MG	1A	3480	1/1	0.98	0.04	51,51,51,51	0
54	MG	2A	3483	1/1	0.98	0.08	43,43,43,43	0
54	MG	1A	3171	1/1	0.98	0.05	49,49,49,49	0
54	MG	1A	3731	1/1	0.98	0.07	49,49,49,49	0
54	MG	1D	302	1/1	0.98	0.09	50,50,50,50	0
54	MG	2F	304	1/1	0.98	0.13	42,42,42,42	0
54	MG	1A	3056	1/1	0.98	0.04	41,41,41,41	0
54	MG	1A	3294	1/1	0.98	0.07	29,29,29,29	0
54	MG	1D	307	1/1	0.98	0.06	49,49,49,49	0
54	MG	1D	308	1/1	0.98	0.15	33,33,33,33	0
54	MG	1A	3485	1/1	0.98	0.04	36,36,36,36	0
54	MG	1A	3486	1/1	0.98	0.05	30,30,30,30	0
54	MG	2A	3229	1/1	0.98	0.06	56,56,56,56	0
54	MG	1A	3074	1/1	0.98	0.08	42,42,42,42	0
54	MG	1A	3174	1/1	0.98	0.18	31,31,31,31	0
54	MG	1A	3490	1/1	0.98	0.09	30,30,30,30	0
54	MG	1A	3491	1/1	0.98	0.04	56,56,56,56	0
54	MG	1D	315	1/1	0.98	0.09	49,49,49,49	0
54	MG	1A	3607	1/1	0.98	0.12	28,28,28,28	0
54	MG	2A	3236	1/1	0.98	0.10	45,45,45,45	0
54	MG	1A	3742	1/1	0.98	0.06	58,58,58,58	0
54	MG	1A	3608	1/1	0.98	0.05	31,31,31,31	0
54	MG	1A	3894	1/1	0.98	0.05	39,39,39,39	0
54	MG	1A	3895	1/1	0.98	0.04	27,27,27,27	0
54	MG	2V	203	1/1	0.98	0.06	47,47,47,47	0
54	MG	2A	3009	1/1	0.98	0.05	43,43,43,43	0
54	MG	1A	3098	1/1	0.98	0.07	31,31,31,31	0
54	MG	1A	3493	1/1	0.98	0.10	36,36,36,36	0
54	MG	1A	3382	1/1	0.98	0.05	31,31,31,31	0
54	MG	1A	3747	1/1	0.98	0.12	34,34,34,34	0
54	MG	1A	3901	1/1	0.98	0.10	32,32,32,32	0
54	MG	1F	301	1/1	0.98	0.04	29,29,29,29	0
54	MG	23	101	1/1	0.98	0.18	54,54,54,54	0
54	MG	1A	3383	1/1	0.98	0.07	50,50,50,50	0
54	MG	1A	3298	1/1	0.98	0.12	49,49,49,49	0
54	MG	1F	305	1/1	0.98	0.08	35,35,35,35	0
54	MG	1A	3299	1/1	0.98	0.11	38,38,38,38	0
54	MG	2A	3517	1/1	0.98	0.13	63,63,63,63	0
54	MG	2A	3021	1/1	0.98	0.04	50,50,50,50	0
54	MG	1A	3013	1/1	0.98	0.04	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	1A	3233	1/1	0.98	0.26	34,34,34,34	0
54	MG	1A	3753	1/1	0.98	0.04	51,51,51,51	0
54	MG	1A	3754	1/1	0.98	0.05	37,37,37,37	0
54	MG	2A	3026	1/1	0.98	0.05	42,42,42,42	0
54	MG	1a	1712	1/1	0.98	0.04	44,44,44,44	0
54	MG	1F	311	1/1	0.98	0.04	39,39,39,39	0
54	MG	1A	3058	1/1	0.98	0.08	24,24,24,24	0
54	MG	2a	3011	1/1	0.98	0.07	59,59,59,59	0
54	MG	1A	3756	1/1	0.98	0.08	32,32,32,32	0
54	MG	2A	3031	1/1	0.98	0.07	37,37,37,37	0
54	MG	1A	3757	1/1	0.98	0.08	37,37,37,37	0
54	MG	2A	3265	1/1	0.98	0.09	32,32,32,32	0
54	MG	1F	315	1/1	0.98	0.05	41,41,41,41	0
54	MG	2A	3532	1/1	0.98	0.11	50,50,50,50	0
54	MG	1A	3914	1/1	0.98	0.19	33,33,33,33	0
54	MG	1A	3618	1/1	0.98	0.12	32,32,32,32	0
54	MG	2A	3535	1/1	0.98	0.10	34,34,34,34	0
54	MG	2a	3021	1/1	0.98	0.04	41,41,41,41	0
54	MG	1A	3916	1/1	0.98	0.03	41,41,41,41	0
54	MG	1A	3502	1/1	0.98	0.04	50,50,50,50	0
54	MG	1A	3620	1/1	0.98	0.09	52,52,52,52	0
54	MG	2A	3039	1/1	0.98	0.10	51,51,51,51	0
54	MG	1A	3044	1/1	0.98	0.09	32,32,32,32	0
54	MG	1A	3390	1/1	0.98	0.04	30,30,30,30	0
54	MG	1A	3392	1/1	0.98	0.05	24,24,24,24	0
54	MG	1A	3181	1/1	0.98	0.17	35,35,35,35	0
54	MG	1N	201	1/1	0.98	0.05	36,36,36,36	0
54	MG	1A	3103	1/1	0.98	0.08	31,31,31,31	0
54	MG	2a	3032	1/1	0.98	0.04	49,49,49,49	0
54	MG	1A	3924	1/1	0.98	0.05	51,51,51,51	0
54	MG	2A	3280	1/1	0.98	0.07	32,32,32,32	0
54	MG	1A	3395	1/1	0.98	0.05	24,24,24,24	0
54	MG	2A	3283	1/1	0.98	0.05	66,66,66,66	0
54	MG	1A	3926	1/1	0.98	0.06	32,32,32,32	0
54	MG	2A	3551	1/1	0.98	0.05	44,44,44,44	0
54	MG	1a	1735	1/1	0.98	0.04	54,54,54,54	0
54	MG	1P	202	1/1	0.98	0.10	29,29,29,29	0
54	MG	2A	3554	1/1	0.98	0.05	28,28,28,28	0
54	MG	1P	203	1/1	0.98	0.19	36,36,36,36	0
54	MG	1A	3627	1/1	0.98	0.10	23,23,23,23	0
54	MG	1A	3928	1/1	0.98	0.09	54,54,54,54	0
54	MG	2A	3290	1/1	0.98	0.10	48,48,48,48	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	0.98	0.11	38,38,38,38	0
54	MG	1Q	201	1/1	0.98	0.04	40,40,40,40	0
54	MG	2A	3561	1/1	0.98	0.05	54,54,54,54	0
54	MG	1Q	202	1/1	0.98	0.04	29,29,29,29	0
54	MG	2A	3294	1/1	0.98	0.03	33,33,33,33	0
54	MG	1A	3768	1/1	0.98	0.05	46,46,46,46	0
54	MG	1A	3769	1/1	0.98	0.04	40,40,40,40	0
54	MG	1R	201	1/1	0.98	0.07	29,29,29,29	0
54	MG	2A	3061	1/1	0.98	0.06	48,48,48,48	0
54	MG	2A	3568	1/1	0.98	0.04	33,33,33,33	0
54	MG	1a	1747	1/1	0.98	0.16	50,50,50,50	0
54	MG	1R	202	1/1	0.98	0.08	41,41,41,41	0
54	MG	1A	3306	1/1	0.98	0.07	28,28,28,28	0
54	MG	1A	3397	1/1	0.98	0.07	22,22,22,22	0
54	MG	2A	3573	1/1	0.98	0.07	67,67,67,67	0
54	MG	2A	3574	1/1	0.98	0.14	53,53,53,53	0
54	MG	1A	3398	1/1	0.98	0.11	48,48,48,48	0
54	MG	2A	3304	1/1	0.98	0.04	32,32,32,32	0
54	MG	1A	3774	1/1	0.98	0.06	38,38,38,38	0
54	MG	1A	3134	1/1	0.98	0.14	36,36,36,36	0
54	MG	1A	3308	1/1	0.98	0.03	23,23,23,23	0
54	MG	2A	3070	1/1	0.98	0.06	43,43,43,43	0
54	MG	1A	3309	1/1	0.98	0.21	35,35,35,35	0
54	MG	1U	202	1/1	0.98	0.15	32,32,32,32	0
54	MG	1A	3940	1/1	0.98	0.04	36,36,36,36	0
54	MG	1A	3402	1/1	0.98	0.06	17,17,17,17	0
54	MG	2A	3075	1/1	0.98	0.07	37,37,37,37	0
54	MG	1U	206	1/1	0.98	0.21	33,33,33,33	0
54	MG	1A	3403	1/1	0.98	0.05	33,33,33,33	0
54	MG	2A	3589	1/1	0.98	0.07	42,42,42,42	0
54	MG	2A	3078	1/1	0.98	0.04	42,42,42,42	0
54	MG	1A	3943	1/1	0.98	0.07	41,41,41,41	0
54	MG	1V	201	1/1	0.98	0.20	29,29,29,29	0
54	MG	1V	202	1/1	0.98	0.15	32,32,32,32	0
54	MG	1a	1764	1/1	0.98	0.09	39,39,39,39	0
54	MG	1A	3518	1/1	0.98	0.04	44,44,44,44	0
54	MG	1a	1766	1/1	0.98	0.04	69,69,69,69	0
54	MG	2A	3597	1/1	0.98	0.07	50,50,50,50	0
54	MG	1V	204	1/1	0.98	0.06	52,52,52,52	0
54	MG	1A	3781	1/1	0.98	0.05	33,33,33,33	0
54	MG	2A	3600	1/1	0.98	0.04	40,40,40,40	0
54	MG	2A	3326	1/1	0.98	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	1769	1/1	0.98	0.06	63,63,63,63	0
54	MG	1A	3637	1/1	0.98	0.15	27,27,27,27	0
54	MG	2A	3329	1/1	0.98	0.09	36,36,36,36	0
54	MG	1A	3520	1/1	0.98	0.23	32,32,32,32	0
54	MG	1A	3948	1/1	0.98	0.13	27,27,27,27	0
54	MG	1A	3240	1/1	0.98	0.09	25,25,25,25	0
54	MG	1A	3405	1/1	0.98	0.03	29,29,29,29	0
54	MG	2A	3609	1/1	0.98	0.05	39,39,39,39	0
54	MG	1A	3523	1/1	0.98	0.04	25,25,25,25	0
54	MG	2A	3611	1/1	0.98	0.05	33,33,33,33	0
54	MG	1A	3023	1/1	0.98	0.07	26,26,26,26	0
54	MG	1A	3024	1/1	0.98	0.03	19,19,19,19	0
54	MG	1A	3526	1/1	0.98	0.07	31,31,31,31	0
54	MG	1A	3186	1/1	0.98	0.07	46,46,46,46	0
54	MG	1A	3409	1/1	0.98	0.06	27,27,27,27	0
54	MG	1A	3957	1/1	0.98	0.04	59,59,59,59	0
54	MG	2A	3101	1/1	0.98	0.09	61,61,61,61	0
54	MG	1A	3047	1/1	0.98	0.07	29,29,29,29	0
54	MG	1A	3007	1/1	0.98	0.05	38,38,38,38	0
54	MG	1A	3649	1/1	0.98	0.15	40,40,40,40	0
54	MG	1A	3961	1/1	0.98	0.06	57,57,57,57	0
54	MG	1A	3108	1/1	0.98	0.07	34,34,34,34	0
54	MG	2A	3107	1/1	0.98	0.06	38,38,38,38	0
54	MG	1A	3963	1/1	0.98	0.11	51,51,51,51	0
54	MG	1A	3190	1/1	0.98	0.14	39,39,39,39	0
54	MG	13	103	1/1	0.98	0.05	45,45,45,45	0
54	MG	1A	3318	1/1	0.98	0.05	40,40,40,40	0
54	MG	1A	3967	1/1	0.98	0.04	27,27,27,27	0
54	MG	1A	3653	1/1	0.98	0.07	31,31,31,31	0
54	MG	1A	3191	1/1	0.98	0.11	40,40,40,40	0
54	MG	2A	3360	1/1	0.98	0.05	44,44,44,44	0
54	MG	15	104	1/1	0.98	0.15	25,25,25,25	0
54	MG	2A	3116	1/1	0.98	0.05	50,50,50,50	0
54	MG	1A	3416	1/1	0.98	0.05	31,31,31,31	0
54	MG	1A	3536	1/1	0.98	0.05	28,28,28,28	0
54	MG	1A	3142	1/1	0.98	0.08	37,37,37,37	0
54	MG	17	102	1/1	0.98	0.10	33,33,33,33	0
54	MG	2a	3125	1/1	0.98	0.09	64,64,64,64	0
54	MG	1A	3143	1/1	0.98	0.05	36,36,36,36	0
54	MG	2A	3640	1/1	0.98	0.06	47,47,47,47	0
54	MG	2A	3122	1/1	0.98	0.11	43,43,43,43	0
54	MG	1A	3026	1/1	0.98	0.13	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3253	1/1	0.98	0.07	37,37,37,37	0
54	MG	2A	3644	1/1	0.98	0.10	38,38,38,38	0
54	MG	2A	3371	1/1	0.98	0.06	53,53,53,53	0
54	MG	2A	3646	1/1	0.98	0.04	69,69,69,69	0
54	MG	1A	3254	1/1	0.98	0.07	53,53,53,53	0
54	MG	1A	3110	1/1	0.98	0.19	31,31,31,31	0
54	MG	2A	3374	1/1	0.98	0.10	56,56,56,56	0
54	MG	1A	3327	1/1	0.98	0.05	39,39,39,39	0
54	MG	1A	3328	1/1	0.98	0.09	15,15,15,15	0
54	MG	1A	3666	1/1	0.98	0.05	47,47,47,47	0
54	MG	1A	3667	1/1	0.98	0.14	37,37,37,37	0
54	MG	2a	3142	1/1	0.98	0.07	57,57,57,57	0
54	MG	2A	3657	1/1	0.98	0.04	44,44,44,44	0
54	MG	1A	3084	1/1	0.98	0.09	43,43,43,43	0
54	MG	1A	3818	1/1	0.98	0.09	39,39,39,39	0
54	MG	1A	3257	1/1	0.98	0.09	46,46,46,46	0
54	MG	1A	3428	1/1	0.98	0.05	50,50,50,50	0
54	MG	2A	3384	1/1	0.98	0.10	47,47,47,47	0
54	MG	1A	3258	1/1	0.98	0.18	32,32,32,32	0
54	MG	1A	3550	1/1	0.98	0.07	43,43,43,43	0
54	MG	2A	3139	1/1	0.98	0.09	46,46,46,46	0
54	MG	2A	3666	1/1	0.98	0.07	33,33,33,33	0
54	MG	2A	3388	1/1	0.98	0.11	46,46,46,46	0
54	MG	2A	3668	1/1	0.98	0.10	44,44,44,44	0
54	MG	1A	3148	1/1	0.98	0.05	51,51,51,51	0
54	MG	1a	1611	1/1	0.98	0.20	48,48,48,48	0
54	MG	2A	3391	1/1	0.98	0.04	39,39,39,39	0
54	MG	1A	3085	1/1	0.98	0.25	41,41,41,41	0
54	MG	1A	3432	1/1	0.98	0.04	18,18,18,18	0
54	MG	1A	3200	1/1	0.98	0.07	53,53,53,53	0
54	MG	2A	3396	1/1	0.98	0.11	47,47,47,47	0
54	MG	2A	3397	1/1	0.98	0.04	55,55,55,55	0
54	MG	1A	3065	1/1	0.98	0.08	55,55,55,55	0
54	MG	1A	3995	1/1	0.98	0.06	52,52,52,52	0
54	MG	1A	3829	1/1	0.98	0.05	45,45,45,45	0
54	MG	2A	3148	1/1	0.98	0.09	64,64,64,64	0
54	MG	1A	3151	1/1	0.98	0.08	46,46,46,46	0
54	MG	1A	3340	1/1	0.98	0.06	28,28,28,28	0
54	MG	1a	1620	1/1	0.98	0.05	48,48,48,48	0
54	MG	1A	3264	1/1	0.98	0.21	27,27,27,27	0
54	MG	2A	3153	1/1	0.98	0.06	45,45,45,45	0
54	MG	1a	1827	1/1	0.98	0.04	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	3155	1/1	0.98	0.05	45,45,45,45	0
54	MG	1A	3087	1/1	0.98	0.11	32,32,32,32	0
54	MG	2A	3690	1/1	0.98	0.04	38,38,38,38	0
54	MG	1A	3050	1/1	0.98	0.25	46,46,46,46	0
54	MG	1A	3089	1/1	0.98	0.13	38,38,38,38	0
54	MG	1A	3207	1/1	0.98	0.21	41,41,41,41	0
54	MG	1A	3155	1/1	0.98	0.15	43,43,43,43	0
54	MG	1A	3347	1/1	0.98	0.07	31,31,31,31	0
54	MG	1A	3445	1/1	0.98	0.06	27,27,27,27	0
54	MG	1A	3841	1/1	0.98	0.03	23,23,23,23	0
54	MG	2A	3164	1/1	0.98	0.17	48,48,48,48	0
54	MG	1A	4008	1/1	0.98	0.06	38,38,38,38	0
54	MG	2A	3166	1/1	0.98	0.14	38,38,38,38	0
54	MG	2A	3701	1/1	0.98	0.06	50,50,50,50	0
54	MG	1A	3842	1/1	0.98	0.09	44,44,44,44	0
54	MG	1A	3446	1/1	0.98	0.08	57,57,57,57	0
54	MG	1A	3447	1/1	0.98	0.06	55,55,55,55	0
54	MG	1a	1840	1/1	0.98	0.10	42,42,42,42	0
54	MG	1A	3118	1/1	0.98	0.13	35,35,35,35	0
54	MG	1A	3051	1/1	0.98	0.20	42,42,42,42	0
54	MG	2A	3426	1/1	0.98	0.10	49,49,49,49	0
54	MG	2A	3709	1/1	0.98	0.04	57,57,57,57	0
54	MG	2A	3427	1/1	0.98	0.04	38,38,38,38	0
54	MG	1A	3450	1/1	0.98	0.09	45,45,45,45	0
54	MG	1A	3120	1/1	0.98	0.10	26,26,26,26	0
54	MG	1a	1638	1/1	0.98	0.07	49,49,49,49	0
54	MG	2A	3432	1/1	0.98	0.05	48,48,48,48	0
54	MG	1A	3273	1/1	0.98	0.08	26,26,26,26	0
54	MG	1A	3352	1/1	0.98	0.05	46,46,46,46	0
58	ZN	14	501	1/1	0.98	0.08	110,110,110,110	0
54	MG	1A	3851	1/1	0.98	0.07	46,46,46,46	0
58	ZN	24	501	1/1	0.98	0.12	122,122,122,122	0
54	MG	1a	1851	1/1	0.99	0.03	53,53,53,53	0
54	MG	1a	1852	1/1	0.99	0.04	57,57,57,57	0
54	MG	2A	3433	1/1	0.99	0.04	47,47,47,47	0
54	MG	1A	3472	1/1	0.99	0.02	25,25,25,25	0
54	MG	1A	3338	1/1	0.99	0.05	49,49,49,49	0
54	MG	2A	3136	1/1	0.99	0.03	42,42,42,42	0
54	MG	2A	3137	1/1	0.99	0.10	60,60,60,60	0
54	MG	2A	3438	1/1	0.99	0.02	54,54,54,54	0
54	MG	1A	3041	1/1	0.99	0.08	30,30,30,30	0
54	MG	1A	3136	1/1	0.99	0.17	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3519	1/1	0.99	0.03	26,26,26,26	0
54	MG	1A	3289	1/1	0.99	0.11	25,25,25,25	0
54	MG	1A	3114	1/1	0.99	0.11	28,28,28,28	0
54	MG	1A	3824	1/1	0.99	0.07	33,33,33,33	0
54	MG	2A	3337	1/1	0.99	0.03	36,36,36,36	0
54	MG	2A	3338	1/1	0.99	0.03	37,37,37,37	0
54	MG	1A	3478	1/1	0.99	0.07	28,28,28,28	0
54	MG	1a	1862	1/1	0.99	0.03	35,35,35,35	0
54	MG	2A	3051	1/1	0.99	0.08	56,56,56,56	0
54	MG	1A	3709	1/1	0.99	0.04	37,37,37,37	0
54	MG	1A	3890	1/1	0.99	0.02	32,32,32,32	0
54	MG	1A	3660	1/1	0.99	0.04	54,54,54,54	0
54	MG	1A	3711	1/1	0.99	0.06	20,20,20,20	0
54	MG	1P	201	1/1	0.99	0.31	36,36,36,36	0
54	MG	1A	3054	1/1	0.99	0.15	24,24,24,24	0
54	MG	1A	3713	1/1	0.99	0.05	32,32,32,32	0
54	MG	1A	3245	1/1	0.99	0.25	36,36,36,36	0
54	MG	1A	3964	1/1	0.99	0.08	51,51,51,51	0
54	MG	1A	3042	1/1	0.99	0.07	24,24,24,24	0
54	MG	1a	1698	1/1	0.99	0.04	54,54,54,54	0
54	MG	1A	3897	1/1	0.99	0.03	47,47,47,47	0
54	MG	1A	3771	1/1	0.99	0.04	44,44,44,44	0
54	MG	2a	3002	1/1	0.99	0.04	56,56,56,56	0
54	MG	2A	3355	1/1	0.99	0.06	47,47,47,47	0
54	MG	1A	3204	1/1	0.99	0.05	38,38,38,38	0
54	MG	2A	3357	1/1	0.99	0.05	47,47,47,47	0
54	MG	1A	3444	1/1	0.99	0.05	29,29,29,29	0
54	MG	2A	3359	1/1	0.99	0.06	38,38,38,38	0
54	MG	1A	3836	1/1	0.99	0.05	30,30,30,30	0
54	MG	1a	1704	1/1	0.99	0.06	42,42,42,42	0
54	MG	1A	3718	1/1	0.99	0.03	30,30,30,30	0
54	MG	1A	3972	1/1	0.99	0.05	19,19,19,19	0
54	MG	2A	3583	1/1	0.99	0.04	55,55,55,55	0
54	MG	1A	3973	1/1	0.99	0.03	26,26,26,26	0
54	MG	2A	3262	1/1	0.99	0.20	41,41,41,41	0
54	MG	1A	3484	1/1	0.99	0.04	56,56,56,56	0
54	MG	1A	3225	1/1	0.99	0.04	36,36,36,36	0
54	MG	2A	3476	1/1	0.99	0.03	42,42,42,42	0
54	MG	1A	3078	1/1	0.99	0.05	34,34,34,34	0
54	MG	1A	3722	1/1	0.99	0.03	65,65,65,65	0
54	MG	1A	3141	1/1	0.99	0.11	31,31,31,31	0
54	MG	1A	3488	1/1	0.99	0.04	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	1U	203	1/1	0.99	0.09	34,34,34,34	0
54	MG	2A	3482	1/1	0.99	0.03	48,48,48,48	0
54	MG	1a	1801	1/1	0.99	0.04	65,65,65,65	0
54	MG	2a	3143	1/1	0.99	0.07	64,64,64,64	0
54	MG	1A	3005	1/1	0.99	0.11	22,22,22,22	0
54	MG	2A	3375	1/1	0.99	0.05	57,57,57,57	0
54	MG	1A	3726	1/1	0.99	0.05	24,24,24,24	0
54	MG	1A	3003	1/1	0.99	0.07	36,36,36,36	0
54	MG	1A	3912	1/1	0.99	0.04	20,20,20,20	0
54	MG	1D	304	1/1	0.99	0.03	36,36,36,36	0
54	MG	2A	3490	1/1	0.99	0.03	29,29,29,29	0
54	MG	1A	3913	1/1	0.99	0.08	36,36,36,36	0
54	MG	1D	306	1/1	0.99	0.04	16,16,16,16	0
54	MG	1A	3784	1/1	0.99	0.04	29,29,29,29	0
54	MG	1a	1724	1/1	0.99	0.04	40,40,40,40	0
54	MG	1A	3001	1/1	0.99	0.04	33,33,33,33	0
54	MG	1A	3451	1/1	0.99	0.04	61,61,61,61	0
54	MG	2A	3282	1/1	0.99	0.05	21,21,21,21	0
54	MG	1A	3537	1/1	0.99	0.05	40,40,40,40	0
54	MG	1a	1728	1/1	0.99	0.06	54,54,54,54	0
54	MG	1A	3325	1/1	0.99	0.05	25,25,25,25	0
54	MG	1A	3159	1/1	0.99	0.08	29,29,29,29	0
54	MG	1W	202	1/1	0.99	0.15	52,52,52,52	0
54	MG	2A	3392	1/1	0.99	0.08	37,37,37,37	0
54	MG	2A	3004	1/1	0.99	0.02	40,40,40,40	0
54	MG	1W	203	1/1	0.99	0.04	28,28,28,28	0
54	MG	1A	3355	1/1	0.99	0.03	18,18,18,18	0
54	MG	1A	3791	1/1	0.99	0.02	53,53,53,53	0
54	MG	2A	3100	1/1	0.99	0.06	39,39,39,39	0
54	MG	1A	3211	1/1	0.99	0.05	46,46,46,46	0
54	MG	1A	3497	1/1	0.99	0.04	40,40,40,40	0
54	MG	1A	3175	1/1	0.99	0.16	22,22,22,22	0
54	MG	2A	3011	1/1	0.99	0.02	35,35,35,35	0
54	MG	1A	3737	1/1	0.99	0.06	28,28,28,28	0
54	MG	1E	303	1/1	0.99	0.07	36,36,36,36	0
54	MG	1A	3796	1/1	0.99	0.07	32,32,32,32	0
54	MG	1A	3329	1/1	0.99	0.04	38,38,38,38	0
54	MG	1A	3590	1/1	0.99	0.03	39,39,39,39	0
54	MG	1a	1743	1/1	0.99	0.03	52,52,52,52	0
54	MG	1A	3391	1/1	0.99	0.07	18,18,18,18	0
54	MG	1A	3930	1/1	0.99	0.08	39,39,39,39	0
54	MG	1I	102	1/1	0.99	0.03	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3800	1/1	0.99	0.13	41,41,41,41	0
54	MG	1A	3685	1/1	0.99	0.03	45,45,45,45	0
54	MG	2D	301	1/1	0.99	0.17	45,45,45,45	0
54	MG	1A	3360	1/1	0.99	0.04	32,32,32,32	0
54	MG	1A	3073	1/1	0.99	0.04	29,29,29,29	0
54	MG	1F	303	1/1	0.99	0.19	28,28,28,28	0
54	MG	1A	3426	1/1	0.99	0.05	40,40,40,40	0
54	MG	1A	3504	1/1	0.99	0.03	22,22,22,22	0
54	MG	1A	3146	1/1	0.99	0.06	30,30,30,30	0
54	MG	1A	3463	1/1	0.99	0.03	38,38,38,38	0
54	MG	2A	3315	1/1	0.99	0.04	49,49,49,49	0
54	MG	1A	3363	1/1	0.99	0.06	34,34,34,34	0
54	MG	1A	3332	1/1	0.99	0.04	33,33,33,33	0
54	MG	2E	302	1/1	0.99	0.03	45,45,45,45	0
54	MG	1A	3101	1/1	0.99	0.24	33,33,33,33	0
54	MG	1A	3237	1/1	0.99	0.06	34,34,34,34	0
54	MG	2A	3649	1/1	0.99	0.04	46,46,46,46	0
54	MG	2A	3650	1/1	0.99	0.04	53,53,53,53	0
54	MG	1A	3812	1/1	0.99	0.03	45,45,45,45	0
54	MG	1A	3032	1/1	0.99	0.07	42,42,42,42	0
54	MG	1A	3469	1/1	0.99	0.06	43,43,43,43	0
58	ZN	1Y	203	1/1	0.99	0.02	56,56,56,56	0
54	MG	1A	3180	1/1	0.99	0.07	30,30,30,30	0
58	ZN	15	107	1/1	0.99	0.02	47,47,47,47	0
58	ZN	1n	104	1/1	0.99	0.03	68,68,68,68	0
54	MG	1A	3198	1/1	0.99	0.11	34,34,34,34	0
54	MG	2A	3430	1/1	0.99	0.06	36,36,36,36	0
58	ZN	25	103	1/1	0.99	0.02	57,57,57,57	0
58	ZN	29	501	1/1	0.99	0.03	81,81,81,81	0
58	ZN	2n	102	1/1	0.99	0.04	93,93,93,93	0
59	SF4	1d	306	8/8	0.99	0.04	61,69,73,74	0
59	SF4	2d	501	8/8	0.99	0.04	70,71,85,85	0
58	ZN	19	102	1/1	1.00	0.04	49,49,49,49	0
54	MG	1A	3358	1/1	1.00	0.03	20,20,20,20	0
54	MG	1B	215	1/1	1.00	0.03	39,39,39,39	0
54	MG	2a	3131	1/1	1.00	0.11	61,61,61,61	0
54	MG	1A	3703	1/1	1.00	0.02	33,33,33,33	0
58	ZN	26	501	1/1	1.00	0.04	60,60,60,60	0
54	MG	2A	3647	1/1	1.00	0.03	53,53,53,53	0
54	MG	2A	3673	1/1	1.00	0.04	51,51,51,51	0
54	MG	1a	1722	1/1	1.00	0.03	43,43,43,43	0
58	ZN	16	501	1/1	1.00	0.06	46,46,46,46	0

6.5 Other polymers [i](#)

There are no such residues in this entry.