



wwPDB X-ray Structure Validation Summary Report ⓘ

Feb 11, 2024 – 10:29 AM EST

PDB ID : 3CCU
Title : Structure of Anisomycin resistant 50S Ribosomal Subunit: 23S rRNA mutation G2482C
Authors : Blaha, G.; Gurel, G.
Deposited on : 2008-02-26
Resolution : 2.80 Å (reported)

This is a wwPDB X-ray Structure Validation Summary 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 : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.36
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36

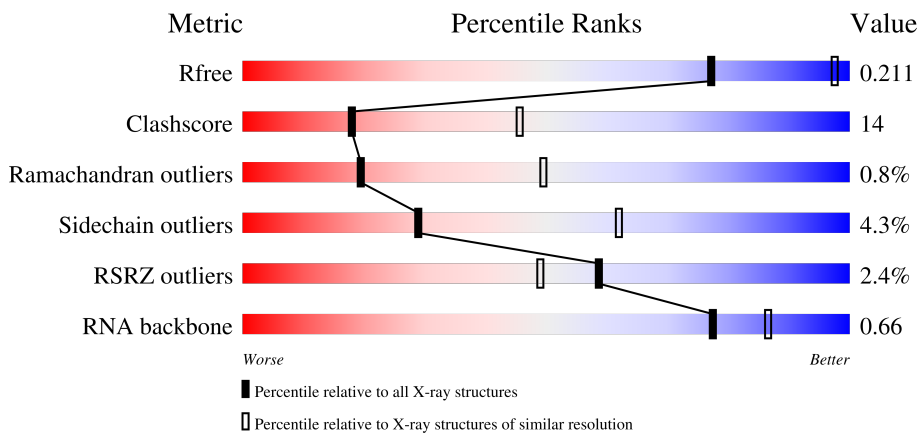
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.80 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.



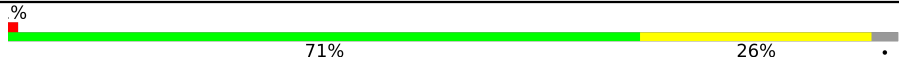
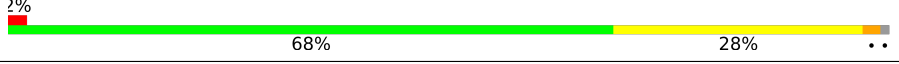
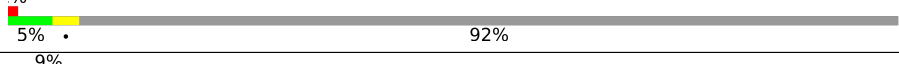


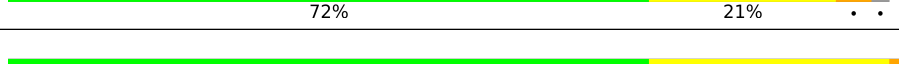
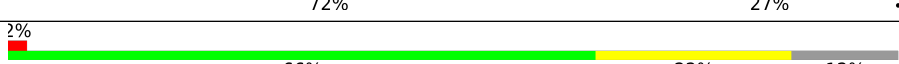
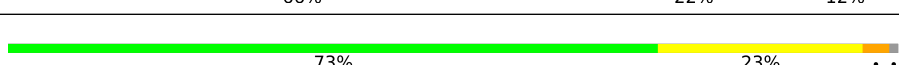
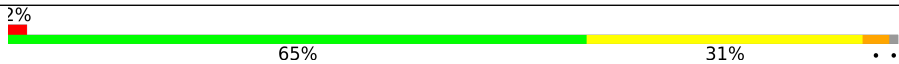


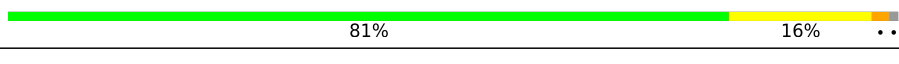
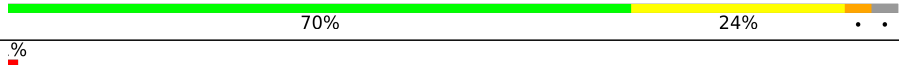

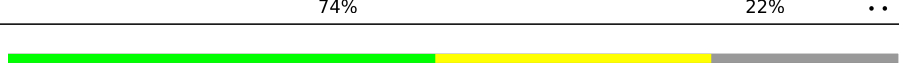



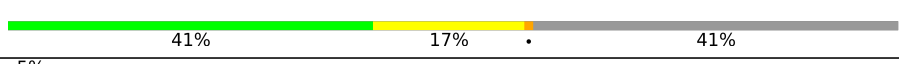
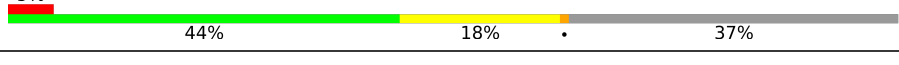





Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	3140 (2.80-2.80)
Clashscore	141614	3569 (2.80-2.80)
Ramachandran outliers	138981	3498 (2.80-2.80)
Sidechain outliers	138945	3500 (2.80-2.80)
RSRZ outliers	127900	3078 (2.80-2.80)
RNA backbone	3102	1227 (3.10-2.50)

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	A	240	<div style="display: flex; align-items: center;"> <div style="width: 2%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 72%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 24%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 2%; height: 10px; background-color: orange; margin-right: 5px;"></div> <div style="width: 2%; height: 10px; background-color: grey;"></div> </div> <p style="text-align: center; margin-top: 5px;">2% 72% 24% ••</p>
2	B	338	<div style="display: flex; align-items: center;"> <div style="width: 65%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 31%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 4%; height: 10px; background-color: orange; margin-right: 5px;"></div> </div> <p style="text-align: center; margin-top: 5px;">65% 31% •</p>
3	C	246	<div style="display: flex; align-items: center;"> <div style="width: 74%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 23%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 3%; height: 10px; background-color: orange; margin-right: 5px;"></div> </div> <p style="text-align: center; margin-top: 5px;">74% 23% •</p>
4	D	177	<div style="display: flex; align-items: center;"> <div style="width: 15%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 44%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 35%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 21%; height: 10px; background-color: grey;"></div> </div> <p style="text-align: center; margin-top: 5px;">15% 44% 35% 21%</p>

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Mol	Chain	Length	Quality of chain
5	E	178	 71% 26%
6	F	120	 68% 28%
7	G	348	 92% 5%
8	H	177	 68% 21% 10% 9%
9	I	162	 30% 27% 16% 57%
10	J	145	 72% 21%
11	K	132	 72% 27%
12	L	165	 66% 22% 12% 2%
13	M	196	 73% 23%
14	N	187	 65% 31% 2%
15	O	116	 84% 16%
16	P	149	 81% 13%
17	Q	96	 81% 16%
18	R	155	 70% 24%
19	S	85	 74% 21% 5%
20	T	120	 74% 22% 2%
21	U	67	 48% 31% 21%
22	V	71	 66% 23% 8% 8%
23	W	154	 68% 29%
24	X	92	 62% 24% 11% 2%
25	Y	241	 41% 17% 41%
26	Z	116	 44% 18% 37% 5%
27	1	57	 67% 32%
28	2	50	 68% 24% 8% 4%
29	3	92	 68% 29%

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Mol	Chain	Length	Quality of chain
30	0	2923	<p>%</p> <p>52% 36% 6% 6%</p>
31	9	122	<p>2%</p> <p>41% 45% 12%</p>

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
33	CL	J	8801	-	-	X	-
34	SR	0	9006	-	-	-	X
34	SR	J	8986	-	-	-	X
37	K	0	8401	-	-	-	X

2 Entry composition

There are 38 unique types of molecules in this entry. The entry contains 99119 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 protein called 50S ribosomal protein L2P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	237	1753	1072	352	324	5	0	0	0

- Molecule 2 is a protein called 50S ribosomal protein L3P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	B	337	2625	1616	493	511	5	0	0	0

- Molecule 3 is a protein called 50S ribosomal protein L4P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	C	246	1860	1130	345	384	1	0	0	0

- Molecule 4 is a protein called 50S ribosomal protein L5P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
4	D	140	1094	685	195	210	4	0	0	0

- Molecule 5 is a protein called 50S ribosomal protein L6P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
5	E	172	1357	840	224	289	4	0	0	0

- Molecule 6 is a protein called 50S ribosomal protein L7Ae.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
6	F	119	890	551	141	197	1	0	0	0

- Molecule 7 is a protein called 50S ribosomal protein L10E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
7	G	29	240	149	39	51	1	0	0	0

- Molecule 8 is a protein called 50S ribosomal protein L10e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
8	H	160	1282	798	240	238	6	0	0	0

- Molecule 9 is a protein called 50S ribosomal protein L11P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
9	I	70	519	323	81	114	1	0	0	0

- Molecule 10 is a protein called 50S ribosomal protein L13P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
10	J	142	1120	696	199	222	3	0	0	0

- Molecule 11 is a protein called 50S ribosomal protein L14P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
11	K	132	994	609	189	192	4	0	0	0

- Molecule 12 is a protein called 50S ribosomal protein L15P.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
12	L	145	1118	670	222	226	0	0	0

- Molecule 13 is a protein called 50S ribosomal protein L15e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
13	M	194	1558	943	333	281	1	0	0	0

- Molecule 14 is a protein called 50S ribosomal protein L18P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
14	N	186	1445	895	262	286	2	0	0	0

- Molecule 15 is a protein called 50S ribosomal protein L18e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O				
15	O	115	865	529	161	175		0	0	0

- Molecule 16 is a protein called 50S ribosomal protein L19e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O				
16	P	143	1136	683	229	224		0	0	0

- Molecule 17 is a protein called 50S ribosomal protein L21e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O				
17	Q	95	735	450	141	144		0	0	0

- Molecule 18 is a protein called 50S ribosomal protein L22P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
18	R	150	1149	713	209	223	4	0	0	0

- Molecule 19 is a protein called 50S ribosomal protein L23P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
19	S	81	641	389	111	138	3	0	0	0

- Molecule 20 is a protein called 50S ribosomal protein L24P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O				
20	T	119	950	568	180	202		0	0	0

- Molecule 21 is a protein called 50S ribosomal protein L24e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	U	53	Total	C	N	O	S	0	0	0
			410	244	75	86	5			

- Molecule 22 is a protein called 50S ribosomal protein L29P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	V	65	Total	C	N	O	S	0	0	0
			499	304	94	100	1			

- Molecule 23 is a protein called 50S ribosomal protein L30P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	W	154	Total	C	N	O	S	0	0	0
			1196	737	209	244	6			

- Molecule 24 is a protein called 50S ribosomal protein L31e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	X	82	Total	C	N	O	S	0	0	0
			654	402	129	122	1			

- Molecule 25 is a protein called 50S ribosomal protein L32e.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
25	Y	142	Total	C	N	O	0	0	0
			1130	686	228	216			

- Molecule 26 is a protein called 50S ribosomal protein L37Ae.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	Z	73	Total	C	N	O	S	0	0	0
			573	343	113	112	5			

- Molecule 27 is a protein called 50S ribosomal protein L37e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	1	56	Total	C	N	O	S	0	0	0
			431	258	86	83	4			

- Molecule 28 is a protein called 50S ribosomal protein L39e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	2	46	Total	C	N	O	S	0	0	0
			396	239	89	67	1			

- Molecule 29 is a protein called 50S ribosomal protein L44E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	3	92	Total	C	N	O	S	0	0	0
			755	458	153	137	7			

- Molecule 30 is a RNA chain called 23S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	0	2754	Total	C	N	O	P	0	0	0
			59017	26348	10871	19053	2745			

- Molecule 31 is a RNA chain called 5S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	9	122	Total	C	N	O	P	0	0	0
			2599	1160	471	847	121			

- Molecule 32 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
32	A	2	Total	Mg	0	0
			2	2		
32	B	2	Total	Mg	0	0
			2	2		
32	K	1	Total	Mg	0	0
			1	1		
32	T	1	Total	Mg	0	0
			1	1		
32	Y	1	Total	Mg	0	0
			1	1		
32	0	84	Total	Mg	0	0
			84	84		
32	9	2	Total	Mg	0	0
			2	2		

- Molecule 33 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
33	A	1	Total Cl 1 1	0	0
33	B	1	Total Cl 1 1	0	0
33	J	3	Total Cl 3 3	0	0
33	K	1	Total Cl 1 1	0	0
33	L	1	Total Cl 1 1	0	0
33	M	1	Total Cl 1 1	0	0
33	N	1	Total Cl 1 1	0	0
33	O	1	Total Cl 1 1	0	0
33	R	1	Total Cl 1 1	0	0
33	Y	1	Total Cl 1 1	0	0
33	3	1	Total Cl 1 1	0	0
33	0	9	Total Cl 9 9	0	0

- Molecule 34 is STRONTIUM ION (three-letter code: SR) (formula: Sr).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
34	A	3	Total Sr 3 3	0	0
34	B	2	Total Sr 2 2	0	0
34	F	1	Total Sr 1 1	0	0
34	J	1	Total Sr 1 1	0	0
34	R	1	Total Sr 1 1	0	0
34	S	1	Total Sr 1 1	0	0
34	1	2	Total Sr 2 2	0	0
34	3	2	Total Sr 2 2	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
34	0	92	Total 92	Sr 92	0	0
34	9	3	Total 3	Sr 3	0	0

- Molecule 35 is SODIUM ION (three-letter code: NA) (formula: Na).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
35	C	1	Total 1	Na 1	0	0
35	H	1	Total 1	Na 1	0	0
35	J	1	Total 1	Na 1	0	0
35	M	1	Total 1	Na 1	0	0
35	Q	1	Total 1	Na 1	0	0
35	R	1	Total 1	Na 1	0	0
35	S	1	Total 1	Na 1	0	0
35	0	66	Total 66	Na 66	0	0
35	9	2	Total 2	Na 2	0	0

- Molecule 36 is CADMIUM ION (three-letter code: CD) (formula: Cd).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
36	O	1	Total 1	Cd 1	0	0
36	U	1	Total 1	Cd 1	0	0
36	Z	1	Total 1	Cd 1	0	0
36	1	1	Total 1	Cd 1	0	0
36	3	1	Total 1	Cd 1	0	0

- Molecule 37 is POTASSIUM ION (three-letter code: K) (formula: K).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
37	0	2	Total K 2 2	0	0

- Molecule 38 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
38	A	110	Total O 110 110	0	0
38	B	144	Total O 144 144	0	0
38	C	178	Total O 178 178	0	0
38	D	45	Total O 45 45	0	0
38	E	43	Total O 43 43	0	0
38	F	27	Total O 27 27	0	0
38	G	17	Total O 17 17	0	0
38	H	69	Total O 69 69	0	0
38	I	6	Total O 6 6	0	0
38	J	53	Total O 53 53	0	0
38	K	56	Total O 56 56	0	0
38	L	92	Total O 92 92	0	0
38	M	129	Total O 129 129	0	0
38	N	63	Total O 63 63	0	0
38	O	40	Total O 40 40	0	0
38	P	66	Total O 66 66	0	0
38	Q	46	Total O 46 46	0	0
38	R	76	Total O 76 76	0	0
38	S	39	Total O 39 39	0	0

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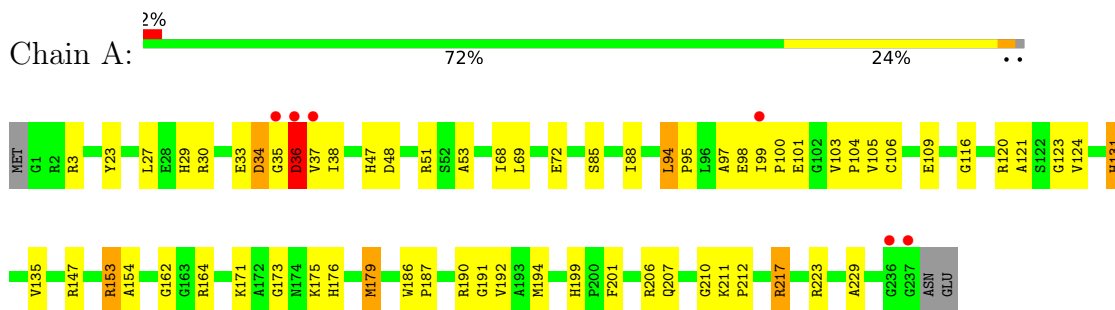
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
38	T	35	Total 35	O 35	0	0
38	U	28	Total 28	O 28	0	0
38	V	13	Total 13	O 13	0	0
38	W	69	Total 69	O 69	0	0
38	X	27	Total 27	O 27	0	0
38	Y	91	Total 91	O 91	0	0
38	Z	25	Total 25	O 25	0	0
38	1	56	Total 56	O 56	0	0
38	2	38	Total 38	O 38	0	0
38	3	65	Total 65	O 65	0	0
38	0	5933	Total 5933	O 5933	0	0
38	9	144	Total 144	O 144	0	0

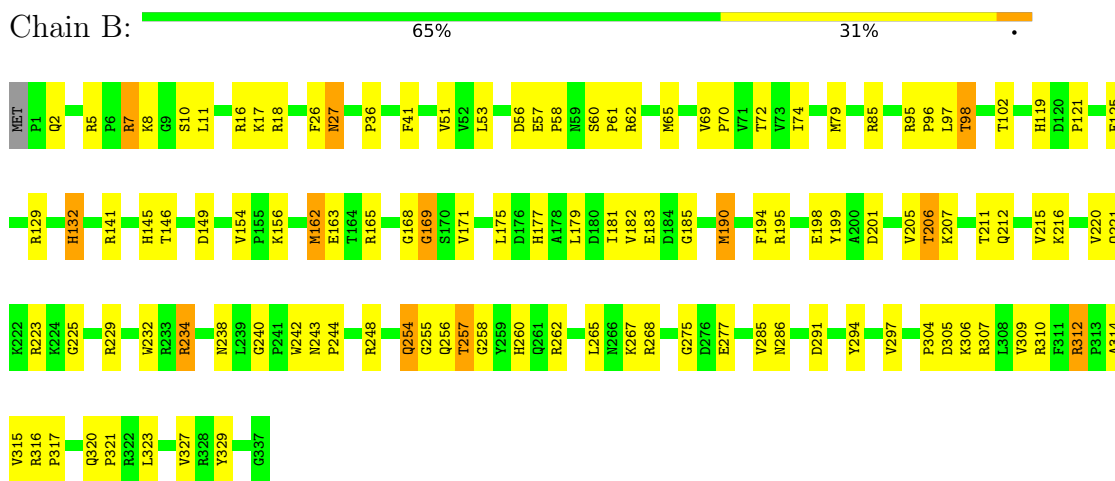
3 Residue-property plots

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.

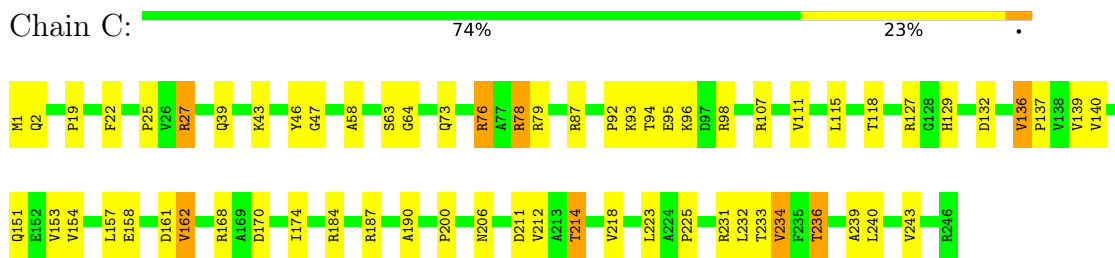
- Molecule 1: 50S ribosomal protein L2P



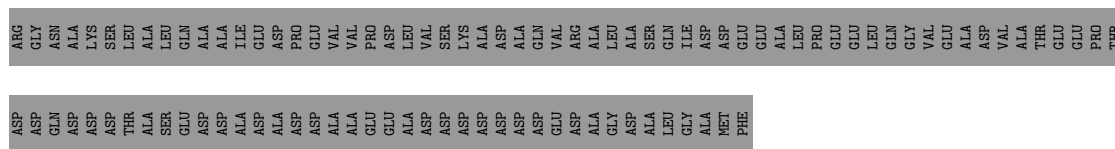
- Molecule 2: 50S ribosomal protein L3P



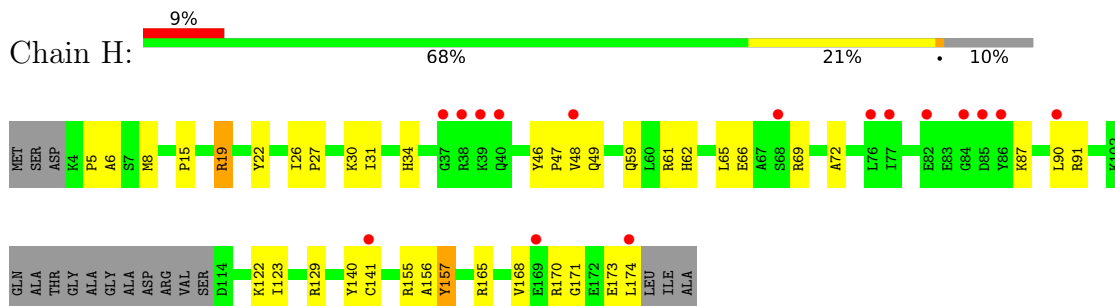
- Molecule 3: 50S ribosomal protein L4P



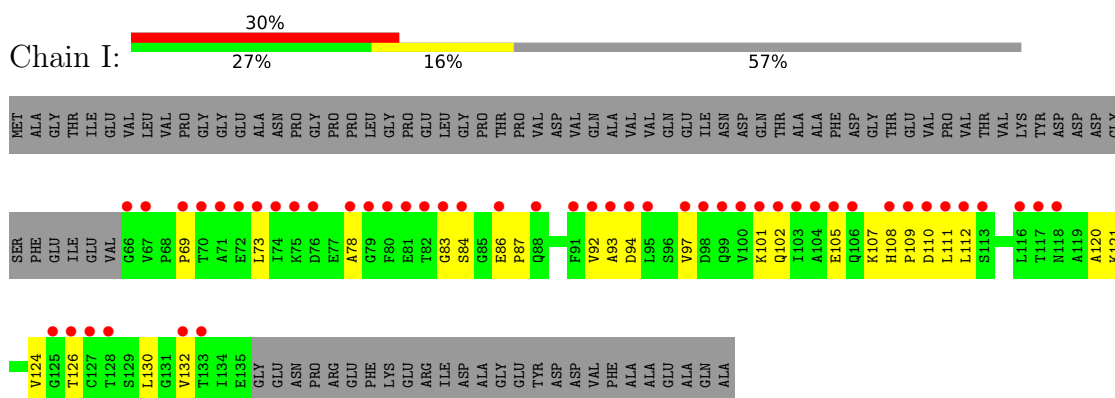
- Molecule 4: 50S ribosomal protein L5P



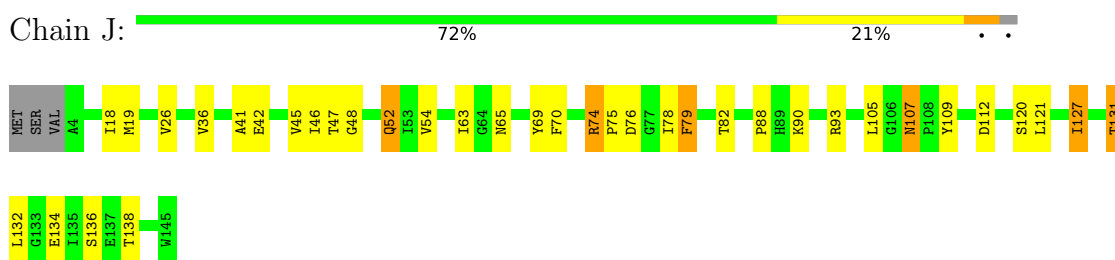
• Molecule 8: 50S ribosomal protein L10e



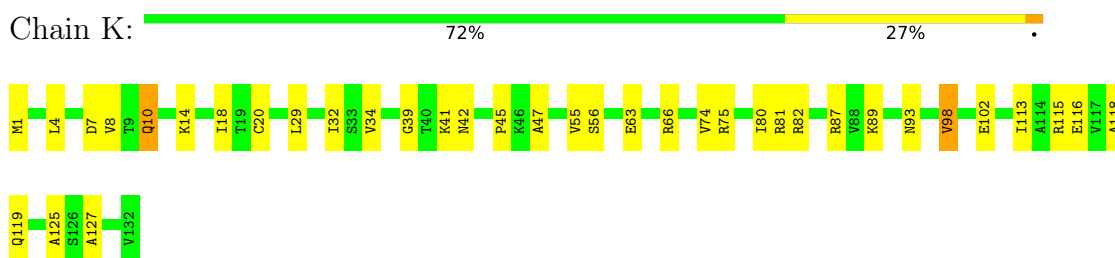
• Molecule 9: 50S ribosomal protein L11P



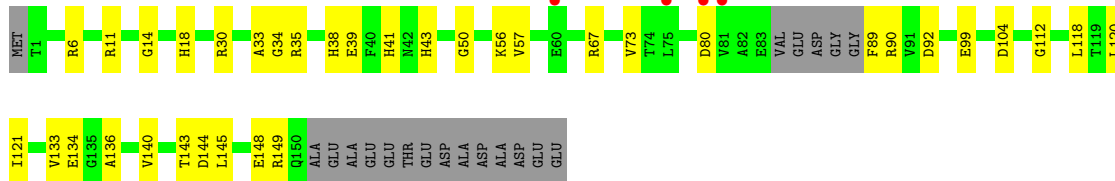
• Molecule 10: 50S ribosomal protein L13P



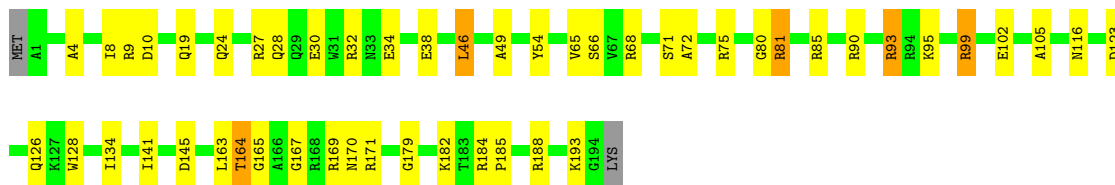
• Molecule 11: 50S ribosomal protein L14P



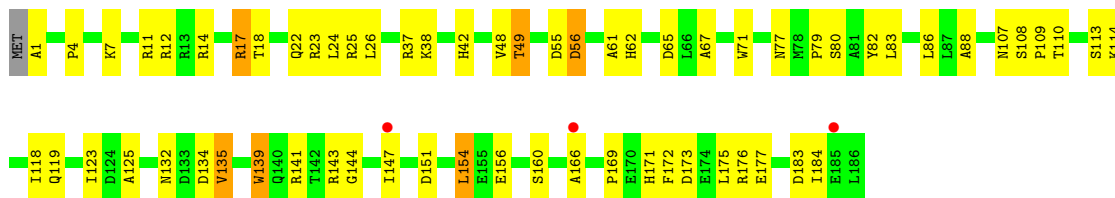
• Molecule 12: 50S ribosomal protein L15P



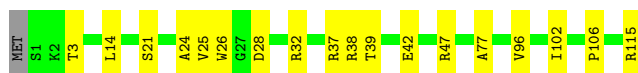
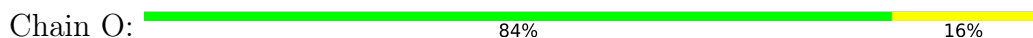
- Molecule 13: 50S ribosomal protein L15e



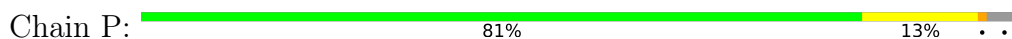
- Molecule 14: 50S ribosomal protein L18P



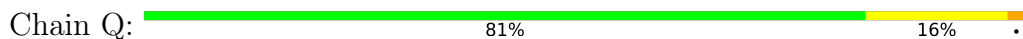
- Molecule 15: 50S ribosomal protein L18e



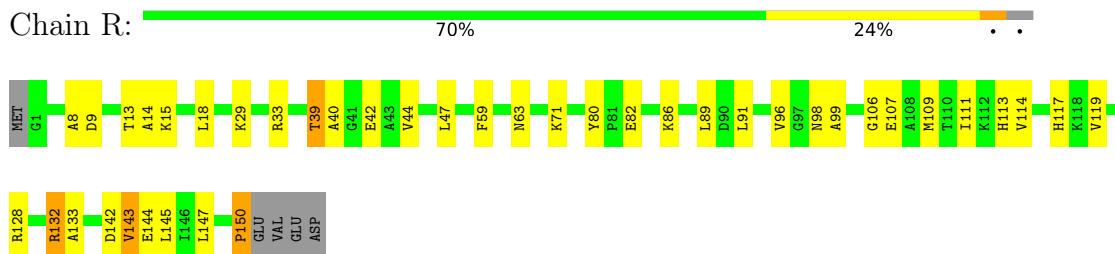
- Molecule 16: 50S ribosomal protein L19e



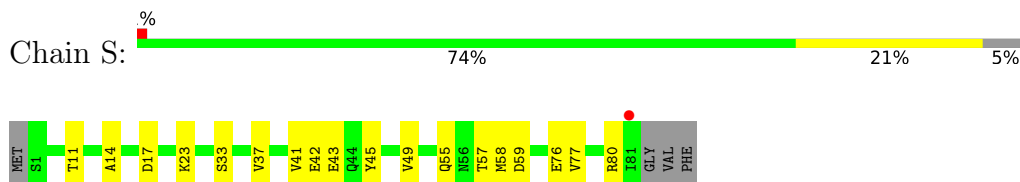
- Molecule 17: 50S ribosomal protein L21e



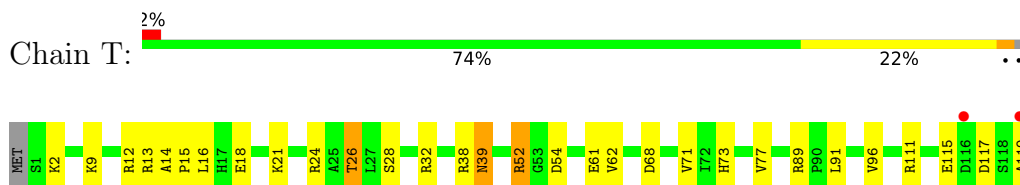
- Molecule 18: 50S ribosomal protein L22P



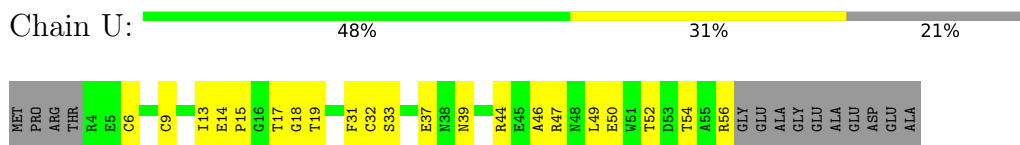
- Molecule 19: 50S ribosomal protein L23P



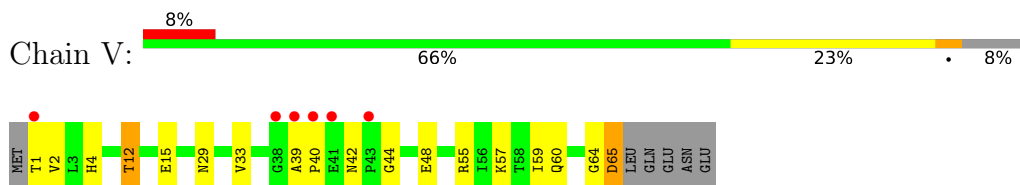
- Molecule 20: 50S ribosomal protein L24P



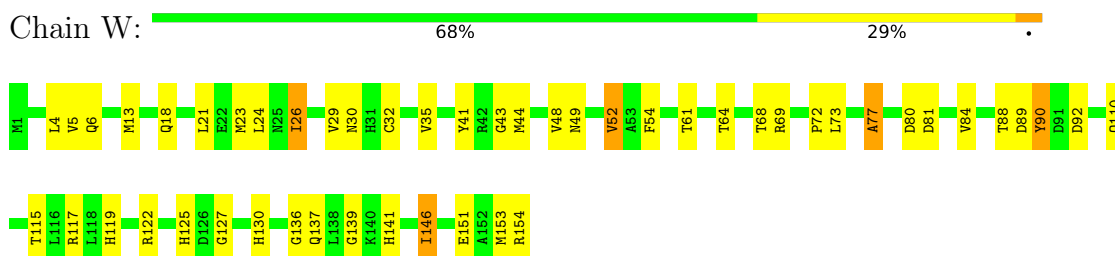
- Molecule 21: 50S ribosomal protein L24e



- Molecule 22: 50S ribosomal protein L29P



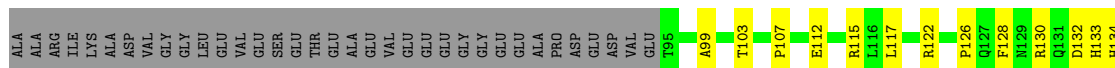
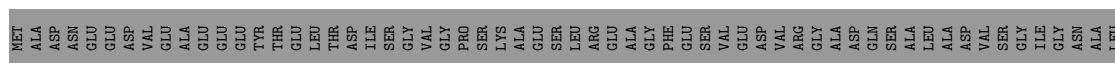
- Molecule 23: 50S ribosomal protein L30P



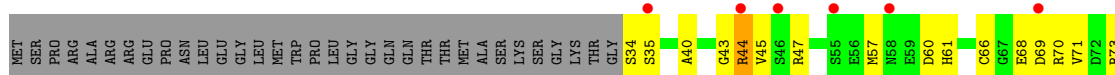
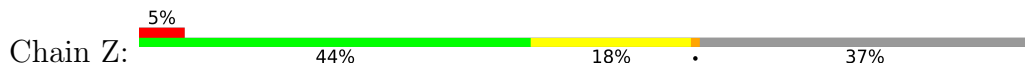
- Molecule 24: 50S ribosomal protein L31e



• Molecule 25: 50S ribosomal protein L32e



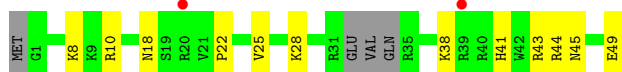
• Molecule 26: 50S ribosomal protein L37Ae



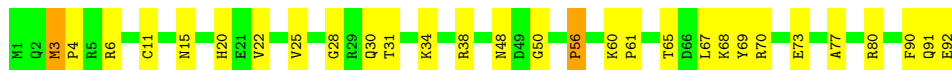
• Molecule 27: 50S ribosomal protein L37e



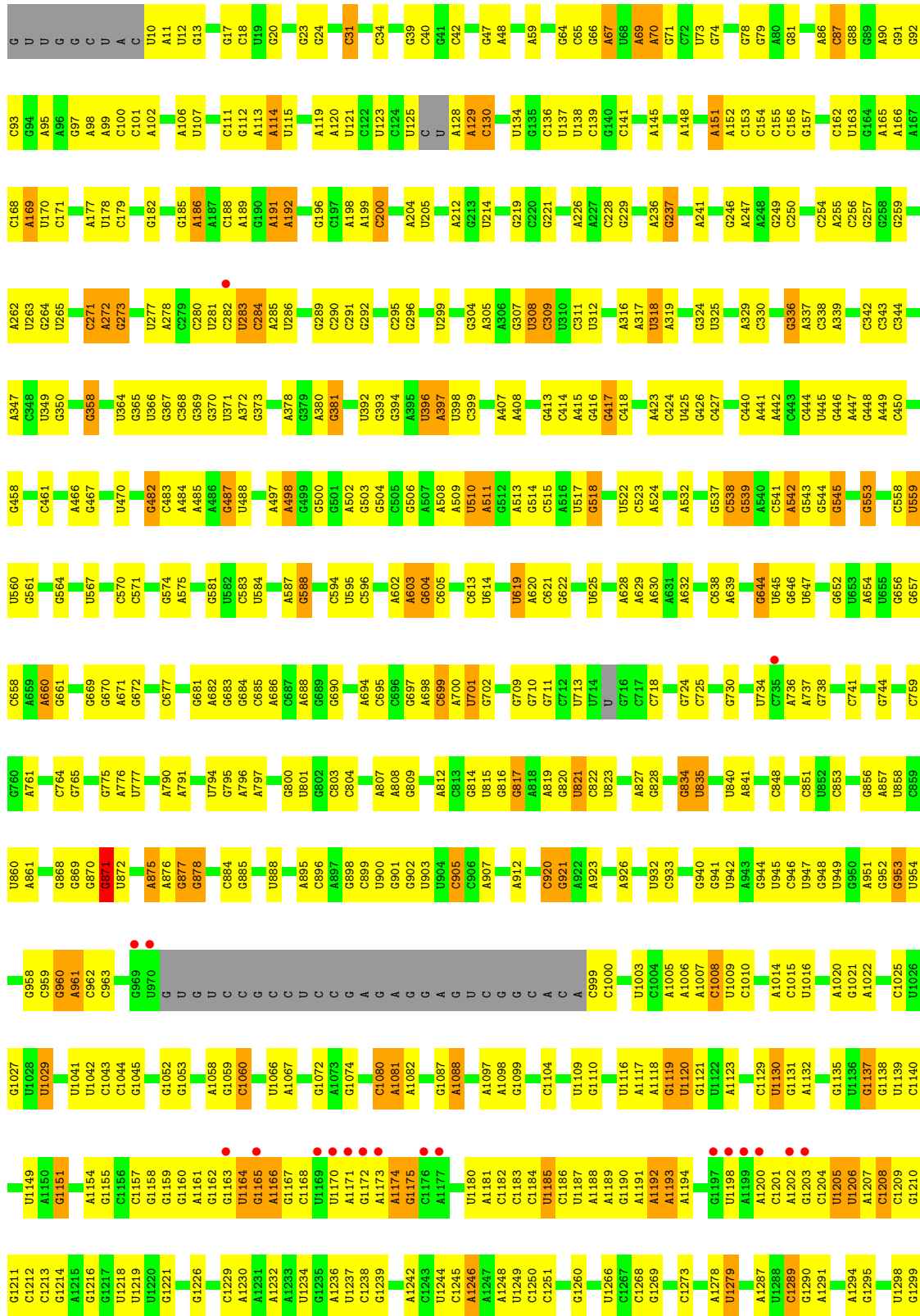
• Molecule 28: 50S ribosomal protein L39e



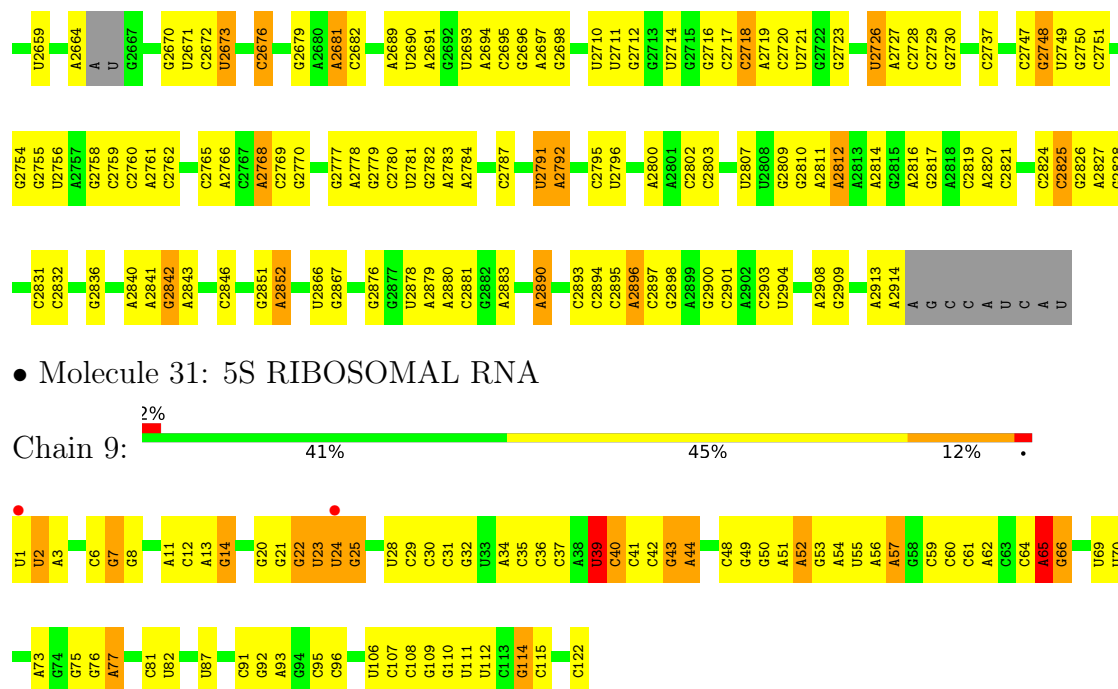
• Molecule 29: 50S ribosomal protein L44E



● Molecule 30: 23S RIBOSOMAL RNA



G1300	G1391	G1478	G1692	A1682	U1770	G1862	U	G	A	A	G2284	A2375	C2472	U2563		
G1304	A1392	G1481	G1693	G1683	U1771	G1863	G	G2071	G	A	G2285	C2376	C2473	G2564		
C1305	A1393	G1482	A1694	C1864	C1772	C1864	A	G2072	A	U	A2290	U2377	C2474	G2565		
U1306	C1394	A1483	A1695	C1865	G1773	C1865	C	G2073	C	A	A2291	G2378	G2475	A2566		
C1307	G1395	G1484	C1686	G1866	G1774	G1866	C	A2074	U	C	A2300	G2379	A2476	G2567		
A1308	C1396	C1485	A1597	C1872	A1778	C1872	U	A2081	G	A	A2301	C2380	A2477	A2568		
U1309	G1397	A1486	A1598	G1692	A1779	G1877	U	U1964	G	C	A2302	C2381	C2482	G2569		
G1310	A1398	A1487	A1599	A1693	A1780	G1877	U	C1965	G	C	U2384	U2379	A2483	G2570		
C1311	G1400	A1494	A1603	A1694	U1783	G1878	U	U1966	C	C	C2309	U2385	A2484	G2571		
A1312	G1401	C1495	A1604	G1697	A1784	G1879	A	U1967	A	G	A2385	U2386	U2485	G2572		
A1313	G1402	A1496	G1605	G1698	U1879	C1880	A	A1968	C	A	U2387	U2387	A2486	G2573		
A1321	A1406	G1497	A1606	C1700	C1787	A1881	G	A1969	U	C	G2313	U2388	C2487	G2574		
G1322	A1407	A1503	A1607	A1701	U1788	A1881	G	G1970	G	G	C2314	U2389	C2488	G2575		
G1325	U1408	U1504	U1505	U1702	G1789	A1886	U	U1972	U	G	C2315	U2390	U2586	G2576		
A1328	G1409	A1505	G1410	U1703	U1790	A1886	U	A1973	C	U	G2316	A2401	A2490	G2577		
G1329	G1409	U1506	G1411	G1705	U1791	C1889	G	A1974	C	G	C2317	A2402	C2493	G2578		
A1330	G1413	U1511	G1414	G1706	C1798	U1890	U	C1975	C	U	U2320	A2408	C2498	G2579		
G1331	A1414	G1512	G1415	G1707	A1805	G1896	U	G1976	C	A	A2321	A2409	U2499	C2582		
G1333	A1416	C1513	G1417	C1714	G1805	U1897	U	U1977	C	A	G2324	C2411	C2502	C2583		
C1334	G1417	G1514	G1418	C1715	A1815	U1897	U	A1978	C	G	G2325	G2412	A2503	G2584		
G1339	G1419	C1515	U1419	A1717	A1815	G1902	U	G1979	C	A	C2326	A2413	C2504	U2578		
G1340	U1422	A1516	U1423	U1722	G1818	U1903	U	A1994	C	G	G2329	A2414	G2505	U2579		
G1341	C1423	G1520	C1423	U1723	G1819	U1904	U	U1995	C	G	U2330	A2415	A2506	U2580		
C1342	A1424	G1521	G1425	G1724	G1820	U1905	U	U1996	C	U	C2331	G2416	G2507	A2581		
C1343	G1425	A1522	C1426	C1725	U1823	A1909	U	U2004	C	A	G2336	U2419	C2508	A2582		
G1344	A1426	G1523	A1427	C1725	C1824	G2005	U	G2005	C	G	G2337	G2420	A2509	G2583		
U1350	A1427	U1524	U1427	G1730	U1825	C1920	U	A2007	C	C	G2338	G2421	C2510	G2584		
G1351	U1434	G1525	U1435	C1731	U1826	A1921	U	U2008	C	G	A	U2422	A2511	U2580	U2607	
C1353	U1436	A1526	C1436	U1732	G1829	A1922	U	G2009	C	G	C	G2426	U2512	A2581	G2608	
C1360	A1437	U1527	G1438	A1733	U1830	U1923	U	A2010	C	G	G2428	C2432	U2513	G2609	G2613	
C1361	G1439	A1528	C1439	C1735	C1830	G1925	U	U2011	C	A	G2251	U2433	C2514	G2610	G2614	
U1362	U1440	G1529	U1441	G1739	C1834	G1926	U	U2012	C	U	A2252	U2434	C2515	U2611	U2615	
G1363	G1441	G1537	A1442	U1740	U1835	A1927	U	U2013	C	G	G2254	U2435	C2516	G2612	G2616	
G1364	A1442	U1537	G1443	U1741	U1838	A1931	U	G2013	C	C	A2255	G2438	G2524	U2619	G2619	
C1365	U1444	U1538	G1444	A1742	U1839	G1932	U	U2016	C	G	A2256	U2439	G2525	U2620	U2619	
C1366	G1445	U1561	G1445	A1746	A1840	G1936	U	U2017	C	G	A2257	C2347	G2526	U2621	U2620	
A1372	U1446	C1562	U1446	A1747	C1841	A1936	U	A2022	C	A	A2258	C2348	C2527	G2621	G2621	
C1373	U1450	U1561	C1450	G1752	U1845	C1940	U	C2026	C	C	U2265	A2353	G2533	G2630	G2630	
C1374	C1451	C1566	C1452	A1755	U1846	A1941	U	U2027	C	G	A2266	U2445	C2534	G2631	G2634	
G1375	C1451	U1566	G1452	G1756	A1847	C1943	U	U2032	C	G	G2267	G2446	U2535	A2635	A2635	
G1376	G1453	C1566	G1453	G1756	G1848	C1943	U	G2033	C	G	C2268	G2453	G2536	G2636	G2636	
C1377	U1457	C1566	G1457	G1759	U1850	C1946	U	U2034	C	U	G2270	A2456	G2537	A2637	A2637	
A1381	U1457	U1574	C1457	A1761	G1851	G1947	U	A2039	C	C	G2271	U2457	U2541	G2638	G2638	
G1382	C1451	C1575	C1451	U1761	G1852	G1948	U	G2044	C	C	C2272	U2457	G2542	G2642	G2642	
U1383	U1463	G1576	U1463	C1762	C1853	U1948	U	G2050	A	G	A2274	A2461	G2543	G2643	G2643	
C1384	U1464	U1577	U1464	C1763	C1854	G1949	U	G2054	C	A	G2275	G2462	G2544	G2644	G2644	
G1385	G1466	G1577	G1466	U1766	G1855	C1949	U	A2054	C	A	U2276	A2463	C2547	A2649	A2649	
U1386	C1474	U1587	U1386	C1767	C1856	G1951	U	U2064	C	G	U2277	G2466	G2548	U2652	U2652	
G1387	U1477	G1589	G1387	C1769	A1857	G1951	U	U2065	C	C	G2282	A2468	A2553	G2654	G2654	
											G2283					



4 Data and refinement statistics

Property	Value	Source
Space group	C 2 2 21	Depositor
Cell constants a, b, c, α , β , γ	211.76Å 299.27Å 574.37Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.99 – 2.80 85.47 – 2.40	Depositor EDS
% Data completeness (in resolution range)	93.3 (49.99-2.80) 93.0 (85.47-2.40)	Depositor EDS
R_{merge}	0.13	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.00 (at 2.40Å)	Xtrriage
Refinement program	CNS	Depositor
R, R_{free}	0.179 , 0.223 0.170 , 0.211	Depositor DCC
R_{free} test set	6547 reflections (0.98%)	wwPDB-VP
Wilson B-factor (Å ²)	45.1	Xtrriage
Anisotropy	0.234	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.31 , 69.3	EDS
L-test for twinning ²	$\langle L \rangle = 0.49$, $\langle L^2 \rangle = 0.32$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.94	EDS
Total number of atoms	99119	wwPDB-VP
Average B, all atoms (Å ²)	50.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.49% 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 i

5.1 Standard geometry i

Bond lengths and bond angles in the following residue types are not validated in this section: 1MA, UR3, OMG, CL, NA, OMU, CD, PSU, K, MG, SR

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	A	0.33	0/1786	0.65	0/2408
2	B	0.33	0/2690	0.65	0/3652
3	C	0.36	0/1885	0.63	0/2552
4	D	0.32	0/1111	0.55	0/1498
5	E	0.32	0/1382	0.58	0/1880
6	F	0.33	0/901	0.57	0/1224
7	G	0.30	0/241	0.48	0/324
8	H	0.33	0/1302	0.61	0/1743
9	I	0.30	0/526	0.50	0/716
10	J	0.36	0/1136	0.59	0/1530
11	K	0.35	0/1004	0.67	0/1351
12	L	0.32	0/1130	0.63	0/1509
13	M	0.34	0/1582	0.62	0/2116
14	N	0.29	0/1474	0.62	0/1999
15	O	0.33	0/874	0.58	0/1181
16	P	0.32	0/1147	0.52	0/1528
17	Q	0.34	0/749	0.66	0/1005
18	R	1.26	7/1172 (0.6%)	1.10	6/1578 (0.4%)
19	S	0.33	0/648	0.57	0/875
20	T	0.33	0/958	0.64	1/1289 (0.1%)
21	U	0.34	0/417	0.57	0/562
22	V	0.31	0/502	0.51	0/675
23	W	0.34	0/1219	0.62	0/1655
24	X	0.34	0/664	0.60	0/895
25	Y	0.36	0/1146	0.63	0/1536
26	Z	0.35	0/584	0.59	0/781
27	1	0.39	0/438	0.61	0/578
28	2	0.34	0/401	0.59	0/529
29	3	0.37	0/771	0.57	0/1024
30	0	0.37	0/65953	0.69	16/102860 (0.0%)
31	9	0.31	0/2904	0.68	1/4526 (0.0%)
All	All	0.38	7/98697 (0.0%)	0.67	24/147579 (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
18	R	1	0
23	W	0	1
30	0	1	34
31	9	0	3
All	All	2	38

The worst 5 of 7 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
18	R	150	PRO	CB-CG	27.61	2.88	1.50
18	R	150	PRO	CA-C	-17.92	1.17	1.52
18	R	150	PRO	CG-CD	13.88	1.96	1.50
18	R	150	PRO	C-O	11.88	1.47	1.23
18	R	150	PRO	N-CA	11.29	1.66	1.47

The worst 5 of 24 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	R	150	PRO	CB-CA-C	-22.50	55.74	112.00
18	R	150	PRO	N-CA-C	-19.33	61.84	112.10
18	R	150	PRO	CA-N-CD	12.33	128.96	111.70
18	R	150	PRO	N-CA-CB	10.99	116.49	103.30
30	0	2482	C	C2'-C3'-O3'	9.28	129.92	109.50

All (2) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
18	R	150	PRO	CA
30	0	2482	C	C3'

5 of 38 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
30	0	221	G	Sidechain
30	0	246	G	Sidechain
30	0	396	U	Sidechain
30	0	458	G	Sidechain
23	W	90	TYR	Sidechain

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	A	1753	0	1766	71	0
2	B	2625	0	2533	100	0
3	C	1860	0	1813	58	0
4	D	1094	0	1085	44	0
5	E	1357	0	1266	32	0
6	F	890	0	843	30	0
7	G	240	0	231	9	0
8	H	1282	0	1292	33	0
9	I	519	0	500	23	0
10	J	1120	0	1098	38	0
11	K	994	0	1027	35	0
12	L	1118	0	1076	28	0
13	M	1558	0	1573	45	0
14	N	1445	0	1401	57	0
15	O	865	0	873	19	0
16	P	1136	0	1123	18	0
17	Q	735	0	729	16	0
18	R	1149	0	1122	38	0
19	S	641	0	605	16	0
20	T	950	0	924	22	0
21	U	410	0	364	19	0
22	V	499	0	511	14	0
23	W	1196	0	1137	48	0
24	X	654	0	653	16	0
25	Y	1130	0	1133	38	0
26	Z	573	0	531	21	0
27	1	431	0	426	23	0
28	2	396	0	413	14	0
29	3	755	0	728	25	0
30	0	59017	0	29810	1217	0
31	9	2599	0	1325	89	0
32	0	84	0	0	0	0
32	9	2	0	0	0	0
32	A	2	0	0	0	0
32	B	2	0	0	0	0
32	K	1	0	0	0	0
32	T	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
32	Y	1	0	0	0	0
33	0	9	0	0	1	0
33	3	1	0	0	0	0
33	A	1	0	0	0	0
33	B	1	0	0	0	0
33	J	3	0	0	3	0
33	K	1	0	0	0	0
33	L	1	0	0	0	0
33	M	1	0	0	0	0
33	N	1	0	0	1	0
33	O	1	0	0	0	0
33	R	1	0	0	0	0
33	Y	1	0	0	0	0
34	0	92	0	0	0	0
34	1	2	0	0	0	0
34	3	2	0	0	0	0
34	9	3	0	0	0	0
34	A	3	0	0	0	0
34	B	2	0	0	0	0
34	F	1	0	0	0	0
34	J	1	0	0	0	0
34	R	1	0	0	0	0
34	S	1	0	0	0	0
35	0	66	0	0	0	0
35	9	2	0	0	0	0
35	C	1	0	0	0	0
35	H	1	0	0	0	0
35	J	1	0	0	0	0
35	M	1	0	0	0	0
35	Q	1	0	0	0	0
35	R	1	0	0	0	0
35	S	1	0	0	0	0
36	1	1	0	0	0	0
36	3	1	0	0	0	0
36	O	1	0	0	0	0
36	U	1	0	0	0	0
36	Z	1	0	0	0	0
37	0	2	0	0	0	0
38	0	5933	0	0	188	0
38	1	56	0	0	4	0
38	2	38	0	0	0	0
38	3	65	0	0	4	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
38	9	144	0	0	9	0
38	A	110	0	0	6	0
38	B	144	0	0	18	0
38	C	178	0	0	14	0
38	D	45	0	0	3	0
38	E	43	0	0	2	0
38	F	27	0	0	2	0
38	G	17	0	0	0	0
38	H	69	0	0	8	0
38	I	6	0	0	0	0
38	J	53	0	0	2	0
38	K	56	0	0	3	0
38	L	92	0	0	6	0
38	M	129	0	0	4	0
38	N	63	0	0	6	0
38	O	40	0	0	2	0
38	P	66	0	0	1	0
38	Q	46	0	0	1	0
38	R	76	0	0	2	0
38	S	39	0	0	4	0
38	T	35	0	0	3	0
38	U	28	0	0	3	0
38	V	13	0	0	0	0
38	W	69	0	0	5	0
38	X	27	0	0	2	0
38	Y	91	0	0	10	0
38	Z	25	0	0	3	0
All	All	99119	0	59911	2035	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 14.

The worst 5 of 2035 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)
18:R:150:PRO:CG	18:R:150:PRO:CD	1.96	1.43
30:0:1160:G:C5'	30:0:1161:A:H5'	1.74	1.16
31:9:56:A:H2'	31:9:57:A:H5''	1.20	1.16
30:0:1160:G:H5'	30:0:1161:A:C5'	1.77	1.14
14:N:37:ARG:NH1	31:9:6:C:H5''	1.62	1.14

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	235/240 (98%)	212 (90%)	19 (8%)	4 (2%)	9	29
2	B	335/338 (99%)	307 (92%)	24 (7%)	4 (1%)	13	39
3	C	244/246 (99%)	224 (92%)	20 (8%)	0	100	100
4	D	134/177 (76%)	110 (82%)	20 (15%)	4 (3%)	4	15
5	E	170/178 (96%)	162 (95%)	8 (5%)	0	100	100
6	F	117/120 (98%)	106 (91%)	8 (7%)	3 (3%)	5	18
7	G	25/348 (7%)	25 (100%)	0	0	100	100
8	H	156/177 (88%)	144 (92%)	10 (6%)	2 (1%)	12	36
9	I	68/162 (42%)	52 (76%)	15 (22%)	1 (2%)	10	33
10	J	140/145 (97%)	129 (92%)	10 (7%)	1 (1%)	22	53
11	K	130/132 (98%)	122 (94%)	7 (5%)	1 (1%)	19	49
12	L	141/165 (86%)	128 (91%)	12 (8%)	1 (1%)	22	53
13	M	192/196 (98%)	184 (96%)	7 (4%)	1 (0%)	29	61
14	N	184/187 (98%)	168 (91%)	12 (6%)	4 (2%)	6	22
15	O	113/116 (97%)	111 (98%)	2 (2%)	0	100	100
16	P	141/149 (95%)	139 (99%)	2 (1%)	0	100	100
17	Q	93/96 (97%)	88 (95%)	5 (5%)	0	100	100
18	R	148/155 (96%)	141 (95%)	7 (5%)	0	100	100
19	S	79/85 (93%)	75 (95%)	4 (5%)	0	100	100
20	T	117/120 (98%)	112 (96%)	5 (4%)	0	100	100
21	U	51/67 (76%)	47 (92%)	4 (8%)	0	100	100
22	V	63/71 (89%)	60 (95%)	3 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
23	W	152/154 (99%)	150 (99%)	0	2 (1%)	12	36
24	X	80/92 (87%)	74 (92%)	5 (6%)	1 (1%)	12	36
25	Y	140/241 (58%)	140 (100%)	0	0	100	100
26	Z	71/116 (61%)	63 (89%)	7 (10%)	1 (1%)	11	34
27	1	54/57 (95%)	52 (96%)	2 (4%)	0	100	100
28	2	42/50 (84%)	42 (100%)	0	0	100	100
29	3	90/92 (98%)	86 (96%)	3 (3%)	1 (1%)	14	41
All	All	3705/4472 (83%)	3453 (93%)	221 (6%)	31 (1%)	19	49

5 of 31 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	27	LEU
1	A	37	VAL
6	F	101	ALA
8	H	19	ARG
12	L	149	ARG

5.3.2 Protein sidechains [i](#)

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	
1	A	179/182 (98%)	169 (94%)	10 (6%)	21	51
2	B	282/283 (100%)	267 (95%)	15 (5%)	22	54
3	C	193/193 (100%)	178 (92%)	15 (8%)	12	35
4	D	117/148 (79%)	112 (96%)	5 (4%)	29	62
5	E	152/156 (97%)	148 (97%)	4 (3%)	46	79
6	F	93/94 (99%)	92 (99%)	1 (1%)	73	92
7	G	27/282 (10%)	26 (96%)	1 (4%)	34	68
8	H	134/145 (92%)	130 (97%)	4 (3%)	41	75
9	I	58/130 (45%)	57 (98%)	1 (2%)	60	87

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
10	J	118/121 (98%)	108 (92%)	10 (8%)	10	31
11	K	106/106 (100%)	102 (96%)	4 (4%)	33	67
12	L	113/127 (89%)	108 (96%)	5 (4%)	28	61
13	M	158/160 (99%)	149 (94%)	9 (6%)	20	50
14	N	149/150 (99%)	141 (95%)	8 (5%)	22	53
15	O	93/94 (99%)	92 (99%)	1 (1%)	73	92
16	P	113/117 (97%)	111 (98%)	2 (2%)	59	86
17	Q	79/80 (99%)	75 (95%)	4 (5%)	24	55
18	R	117/122 (96%)	114 (97%)	3 (3%)	46	79
19	S	71/74 (96%)	71 (100%)	0	100	100
20	T	105/106 (99%)	97 (92%)	8 (8%)	13	36
21	U	44/53 (83%)	43 (98%)	1 (2%)	50	82
22	V	51/57 (90%)	49 (96%)	2 (4%)	32	66
23	W	130/130 (100%)	126 (97%)	4 (3%)	40	74
24	X	66/74 (89%)	57 (86%)	9 (14%)	3	11
25	Y	120/196 (61%)	115 (96%)	5 (4%)	30	63
26	Z	60/94 (64%)	60 (100%)	0	100	100
27	1	46/47 (98%)	46 (100%)	0	100	100
28	2	42/46 (91%)	41 (98%)	1 (2%)	49	81
29	3	79/79 (100%)	77 (98%)	2 (2%)	47	80
All	All	3095/3646 (85%)	2961 (96%)	134 (4%)	29	62

5 of 134 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
23	W	73	LEU
24	X	44	ASP
25	Y	203	VAL
5	E	156	ASP
5	E	102	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 79 such sidechains are listed below:

Mol	Chain	Res	Type
23	W	27	HIS
27	1	28	HIS
23	W	110	GLN
25	Y	133	HIS
28	2	45	ASN

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
30	0	2745/2923 (93%)	236 (8%)	30 (1%)
31	9	121/122 (99%)	18 (14%)	1 (0%)
All	All	2866/3045 (94%)	254 (8%)	31 (1%)

5 of 254 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
30	0	31	C
30	0	67	A
30	0	69	A
30	0	70	A
30	0	71	G

5 of 31 RNA pucker outliers are listed below:

Mol	Chain	Res	Type
30	0	1246	A
30	0	2726	U
30	0	1474	C
30	0	2791	U
30	0	2526	C

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

5 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
30	OMG	0	2588	30	18,26,27	1.03	2 (11%)	19,38,41	0.72	1 (5%)
30	1MA	0	628	30	16,25,26	1.35	3 (18%)	18,37,40	1.04	2 (11%)
30	UR3	0	2619	30	19,22,23	0.46	0	26,32,35	0.64	1 (3%)
30	PSU	0	2621	30	18,21,22	1.40	2 (11%)	22,30,33	1.27	3 (13%)
30	OMU	0	2587	30	19,22,23	0.31	0	26,31,34	0.37	0

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
30	OMG	0	2588	30	-	0/5/27/28	0/3/3/3
30	1MA	0	628	30	-	0/3/25/26	0/3/3/3
30	UR3	0	2619	30	-	0/7/25/26	0/2/2/2
30	PSU	0	2621	30	-	0/7/25/26	0/2/2/2
30	OMU	0	2587	30	-	0/9/27/28	0/2/2/2

The worst 5 of 7 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	0	2621	PSU	C2-N1	4.67	1.43	1.36
30	0	628	1MA	C2-N3	3.43	1.33	1.29
30	0	2588	OMG	C5-C6	-2.59	1.42	1.47
30	0	2588	OMG	C8-N7	-2.54	1.30	1.35
30	0	628	1MA	C6-N6	2.46	1.33	1.27

The worst 5 of 7 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	0	2621	PSU	C6-C5-C4	3.38	120.56	118.20
30	0	628	1MA	N1-C2-N3	2.77	129.25	126.02
30	0	2621	PSU	C6-N1-C2	-2.71	119.91	122.68
30	0	2621	PSU	O2-C2-N1	2.66	125.72	122.79
30	0	628	1MA	C5-C6-N1	2.55	117.71	113.90

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

1 monomer is involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
30	0	2587	OMU	2	0

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 305 ligands modelled in this entry, 305 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

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

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

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	237/240 (98%)	-0.57	6 (2%) 57 47	22, 48, 85, 107	0
2	B	337/338 (99%)	-0.76	0 100 100	24, 49, 78, 90	0
3	C	246/246 (100%)	-0.72	0 100 100	20, 40, 64, 79	0
4	D	140/177 (79%)	0.92	26 (18%) 1 1	61, 98, 123, 132	0
5	E	172/178 (96%)	-0.46	2 (1%) 79 73	43, 66, 86, 91	0
6	F	119/120 (99%)	-0.01	3 (2%) 57 47	44, 67, 97, 113	0
7	G	29/348 (8%)	0.68	5 (17%) 1 1	77, 94, 103, 104	0
8	H	160/177 (90%)	0.34	16 (10%) 7 4	48, 69, 99, 104	0
9	I	70/162 (43%)	3.42	49 (70%) 0 0	128, 145, 162, 163	0
10	J	142/145 (97%)	-0.73	0 100 100	32, 47, 68, 90	0
11	K	132/132 (100%)	-0.92	0 100 100	30, 44, 67, 73	0
12	L	145/165 (87%)	-0.19	4 (2%) 53 43	25, 62, 112, 124	0
13	M	194/196 (98%)	-0.87	0 100 100	26, 39, 55, 63	0
14	N	186/187 (99%)	-0.31	3 (1%) 72 66	39, 63, 111, 120	0
15	O	115/116 (99%)	-0.74	0 100 100	33, 51, 68, 72	0
16	P	143/149 (95%)	-0.80	0 100 100	33, 49, 65, 73	0
17	Q	95/96 (98%)	-0.75	0 100 100	35, 45, 62, 79	0
18	R	150/155 (96%)	-0.86	0 100 100	27, 42, 62, 77	0
19	S	81/85 (95%)	-0.59	1 (1%) 79 73	38, 54, 74, 87	0
20	T	119/120 (99%)	-0.56	2 (1%) 70 63	37, 52, 80, 109	0
21	U	53/67 (79%)	-0.68	0 100 100	37, 50, 68, 78	0
22	V	65/71 (91%)	0.68	6 (9%) 9 5	47, 68, 117, 122	0
23	W	154/154 (100%)	-0.67	0 100 100	32, 47, 63, 77	0
24	X	82/92 (89%)	-0.46	2 (2%) 59 49	41, 57, 82, 99	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
25	Y	142/241 (58%)	-0.87	1 (0%) 87 84	21, 40, 63, 86	0
26	Z	73/116 (62%)	0.35	6 (8%) 11 6	53, 72, 85, 95	0
27	1	56/57 (98%)	-0.73	0 100 100	22, 28, 36, 44	0
28	2	46/50 (92%)	-0.35	2 (4%) 35 25	30, 56, 84, 98	0
29	3	92/92 (100%)	-0.55	0 100 100	33, 56, 68, 81	0
30	0	2749/2923 (94%)	-0.72	23 (0%) 86 81	19, 42, 86, 163	0
31	9	122/122 (100%)	-0.73	2 (1%) 72 66	34, 64, 87, 144	0
All	All	6646/7517 (88%)	-0.54	159 (2%) 59 49	19, 48, 97, 163	0

The worst 5 of 159 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
22	V	1	THR	12.3
9	I	74	ILE	10.2
22	V	39	ALA	8.6
9	I	104	ALA	8.4
9	I	70	THR	8.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
30	1MA	0	628	23/24	0.98	0.14	23,27,29,31	0
30	OMG	0	2588	24/25	0.98	0.12	29,31,34,35	0
30	UR3	0	2619	21/22	0.98	0.13	33,36,38,41	0
30	PSU	0	2621	20/21	0.98	0.14	22,26,37,37	0
30	OMU	0	2587	21/22	0.99	0.11	29,31,32,35	0

6.3 Carbohydrates [i](#)

There are no monosaccharides 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(Å ²)	Q<0.9
35	NA	9	8572	1/1	0.29	0.33	93,93,93,93	0
35	NA	0	8509	1/1	0.53	0.16	56,56,56,56	0
37	K	0	8401	1/1	0.59	0.53	132,132,132,132	0
34	SR	0	8955	1/1	0.60	0.06	187,187,187,187	0
34	SR	0	9006	1/1	0.62	2.89	200,200,200,200	0
32	MG	0	8075	1/1	0.65	0.06	45,45,45,45	0
34	SR	0	8919	1/1	0.67	0.12	159,159,159,159	0
34	SR	0	9001	1/1	0.67	0.17	158,158,158,158	0
32	MG	0	8038	1/1	0.68	0.18	65,65,65,65	0
34	SR	0	8982	1/1	0.69	0.31	178,178,178,178	0
34	SR	0	8951	1/1	0.69	0.06	138,138,138,138	0
32	MG	0	8071	1/1	0.70	0.16	49,49,49,49	0
34	SR	0	8944	1/1	0.71	0.10	167,167,167,167	0
32	MG	0	8090	1/1	0.72	0.13	70,70,70,70	0
34	SR	0	8994	1/1	0.73	0.38	200,200,200,200	0
34	SR	S	8961	1/1	0.73	0.09	116,116,116,116	0
32	MG	0	8031	1/1	0.75	0.09	59,59,59,59	0
35	NA	0	8525	1/1	0.76	0.25	71,71,71,71	0
35	NA	0	8506	1/1	0.76	0.10	56,56,56,56	0
34	SR	0	8997	1/1	0.76	0.34	196,196,196,196	0
35	NA	J	8538	1/1	0.77	0.10	51,51,51,51	0
35	NA	0	8544	1/1	0.77	0.14	60,60,60,60	0
34	SR	A	8977	1/1	0.77	0.11	159,159,159,159	0
34	SR	0	8993	1/1	0.77	0.10	170,170,170,170	0
34	SR	0	8947	1/1	0.78	0.23	170,170,170,170	0
35	NA	0	8514	1/1	0.78	0.33	42,42,42,42	0
34	SR	0	8985	1/1	0.79	0.08	115,115,115,115	0
34	SR	J	8986	1/1	0.79	0.81	200,200,200,200	0
32	MG	0	8044	1/1	0.80	0.07	40,40,40,40	0
35	NA	0	8565	1/1	0.80	0.38	66,66,66,66	0
34	SR	0	8922	1/1	0.81	0.13	150,150,150,150	0
34	SR	0	8928	1/1	0.81	0.07	127,127,127,127	0
35	NA	0	8568	1/1	0.81	0.17	36,36,36,36	0
34	SR	0	8957	1/1	0.81	0.11	187,187,187,187	0
34	SR	0	8959	1/1	0.81	0.14	157,157,157,157	0
35	NA	0	8535	1/1	0.82	0.24	47,47,47,47	0
34	SR	0	8927	1/1	0.82	0.10	136,136,136,136	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
34	SR	0	8976	1/1	0.82	0.20	185,185,185,185	0
32	MG	0	8085	1/1	0.83	0.10	76,76,76,76	0
35	NA	0	8562	1/1	0.83	0.66	78,78,78,78	0
34	SR	0	8924	1/1	0.83	0.17	139,139,139,139	0
32	MG	0	8030	1/1	0.84	0.24	60,60,60,60	0
35	NA	0	8542	1/1	0.84	0.39	48,48,48,48	0
35	NA	0	8563	1/1	0.85	0.64	74,74,74,74	0
34	SR	0	8996	1/1	0.85	0.64	200,200,200,200	0
35	NA	0	8533	1/1	0.85	0.15	45,45,45,45	0
35	NA	0	8571	1/1	0.85	0.07	72,72,72,72	0
35	NA	0	8560	1/1	0.85	0.38	74,74,74,74	0
35	NA	0	8520	1/1	0.85	0.09	47,47,47,47	0
34	SR	9	9003	1/1	0.86	0.14	157,157,157,157	0
35	NA	0	8522	1/1	0.86	0.42	73,73,73,73	0
34	SR	0	8995	1/1	0.86	0.15	133,133,133,133	0
35	NA	0	8512	1/1	0.86	0.37	50,50,50,50	0
35	NA	0	8502	1/1	0.86	0.10	62,62,62,62	0
35	NA	0	8530	1/1	0.87	0.22	46,46,46,46	0
34	SR	0	8979	1/1	0.87	0.12	200,200,200,200	0
34	SR	B	8950	1/1	0.87	0.13	121,121,121,121	0
32	MG	0	8078	1/1	0.87	0.35	50,50,50,50	0
34	SR	0	8968	1/1	0.87	0.09	165,165,165,165	0
35	NA	0	8548	1/1	0.87	0.20	56,56,56,56	0
32	MG	T	8057	1/1	0.87	0.09	59,59,59,59	0
34	SR	0	8915	1/1	0.88	0.10	110,110,110,110	0
34	SR	0	9000	1/1	0.89	0.22	160,160,160,160	0
34	SR	0	8963	1/1	0.90	0.05	167,167,167,167	0
35	NA	0	8546	1/1	0.90	0.88	69,69,69,69	0
34	SR	0	8937	1/1	0.90	0.18	100,100,100,100	0
35	NA	0	8555	1/1	0.90	0.58	54,54,54,54	0
35	NA	0	8558	1/1	0.90	0.20	45,45,45,45	0
34	SR	0	8972	1/1	0.90	0.19	163,163,163,163	0
34	SR	0	8974	1/1	0.90	0.21	160,160,160,160	0
32	MG	0	8036	1/1	0.90	0.09	33,33,33,33	0
35	NA	0	8564	1/1	0.90	0.27	61,61,61,61	0
32	MG	0	8037	1/1	0.90	0.20	92,92,92,92	0
32	MG	A	8051	1/1	0.90	0.37	62,62,62,62	0
34	SR	B	8987	1/1	0.90	0.89	200,200,200,200	0
32	MG	0	8010	1/1	0.90	0.13	44,44,44,44	0
32	MG	0	8088	1/1	0.90	0.13	30,30,30,30	0
35	NA	0	8566	1/1	0.91	0.31	43,43,43,43	0
32	MG	0	8053	1/1	0.91	0.06	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
35	NA	0	8569	1/1	0.91	0.28	65,65,65,65	0
34	SR	0	8983	1/1	0.91	0.24	169,169,169,169	0
35	NA	0	8505	1/1	0.91	0.28	36,36,36,36	0
34	SR	0	8939	1/1	0.91	0.05	128,128,128,128	0
34	SR	0	8962	1/1	0.92	0.12	168,168,168,168	0
32	MG	0	8066	1/1	0.92	0.18	44,44,44,44	0
35	NA	H	8518	1/1	0.92	0.49	86,86,86,86	0
32	MG	0	8073	1/1	0.92	0.06	65,65,65,65	0
34	SR	0	8971	1/1	0.92	0.04	150,150,150,150	0
32	MG	0	8079	1/1	0.92	0.14	48,48,48,48	0
34	SR	A	8929	1/1	0.92	0.09	123,123,123,123	0
34	SR	0	8914	1/1	0.92	0.24	106,106,106,106	0
32	MG	0	8080	1/1	0.92	0.11	66,66,66,66	0
34	SR	0	8938	1/1	0.92	0.10	158,158,158,158	0
35	NA	0	8574	1/1	0.92	0.52	65,65,65,65	0
35	NA	0	8515	1/1	0.92	0.09	32,32,32,32	0
35	NA	0	8557	1/1	0.92	0.12	56,56,56,56	0
35	NA	0	8559	1/1	0.93	0.18	73,73,73,73	0
35	NA	0	8529	1/1	0.93	0.05	30,30,30,30	0
33	CL	O	8808	1/1	0.93	0.07	58,58,58,58	0
34	SR	0	8981	1/1	0.93	0.14	156,156,156,156	0
32	MG	0	8033	1/1	0.93	0.07	35,35,35,35	0
34	SR	0	8998	1/1	0.93	0.12	148,148,148,148	0
34	SR	0	8956	1/1	0.93	0.07	130,130,130,130	0
34	SR	A	8930	1/1	0.93	0.05	96,96,96,96	0
34	SR	0	8988	1/1	0.93	0.18	159,159,159,159	0
35	NA	0	8549	1/1	0.93	0.47	50,50,50,50	0
34	SR	0	8991	1/1	0.93	0.07	183,183,183,183	0
32	MG	0	8076	1/1	0.93	0.14	38,38,38,38	0
32	MG	9	8040	1/1	0.93	0.09	69,69,69,69	0
32	MG	0	8060	1/1	0.94	0.11	52,52,52,52	0
35	NA	0	8561	1/1	0.94	0.51	76,76,76,76	0
32	MG	0	8077	1/1	0.94	0.07	32,32,32,32	0
35	NA	0	8511	1/1	0.94	0.20	59,59,59,59	0
34	SR	0	8933	1/1	0.94	0.18	136,136,136,136	0
34	SR	0	8970	1/1	0.94	0.04	118,118,118,118	0
34	SR	0	8954	1/1	0.94	0.08	94,94,94,94	0
35	NA	0	8567	1/1	0.94	0.26	77,77,77,77	0
33	CL	0	8815	1/1	0.94	0.06	61,61,61,61	0
35	NA	0	8552	1/1	0.94	0.33	56,56,56,56	0
32	MG	0	8064	1/1	0.94	0.16	36,36,36,36	0
34	SR	0	8975	1/1	0.94	0.07	124,124,124,124	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
32	MG	0	8046	1/1	0.94	0.14	33,33,33,33	0
34	SR	0	8941	1/1	0.94	0.12	99,99,99,99	0
34	SR	0	8921	1/1	0.95	0.10	82,82,82,82	0
33	CL	0	8816	1/1	0.95	0.06	66,66,66,66	0
35	NA	Q	8540	1/1	0.95	0.07	48,48,48,48	0
35	NA	0	8550	1/1	0.95	0.13	51,51,51,51	0
35	NA	S	8510	1/1	0.95	0.10	29,29,29,29	0
35	NA	0	8553	1/1	0.95	0.31	68,68,68,68	0
32	MG	0	8069	1/1	0.95	0.40	99,99,99,99	0
34	SR	0	8926	1/1	0.95	0.13	114,114,114,114	0
34	SR	0	8958	1/1	0.95	0.08	101,101,101,101	0
32	MG	0	8045	1/1	0.95	0.11	28,28,28,28	0
32	MG	0	8072	1/1	0.95	0.14	48,48,48,48	0
32	MG	Y	8086	1/1	0.95	0.07	34,34,34,34	0
32	MG	0	8011	1/1	0.95	0.18	20,20,20,20	0
32	MG	0	8091	1/1	0.95	0.03	48,48,48,48	0
32	MG	0	8020	1/1	0.95	0.13	37,37,37,37	0
34	SR	0	8911	1/1	0.95	0.09	74,74,74,74	0
35	NA	0	8523	1/1	0.95	0.12	41,41,41,41	0
33	CL	L	8810	1/1	0.95	0.06	53,53,53,53	0
32	MG	0	8041	1/1	0.95	0.20	25,25,25,25	0
34	SR	0	9002	1/1	0.95	0.13	173,173,173,173	0
32	MG	0	8035	1/1	0.95	0.09	49,49,49,49	0
35	NA	0	8573	1/1	0.95	0.22	64,64,64,64	0
34	SR	9	8978	1/1	0.95	0.07	133,133,133,133	0
34	SR	9	8980	1/1	0.95	0.11	168,168,168,168	0
34	SR	0	8953	1/1	0.95	0.15	140,140,140,140	0
33	CL	A	8809	1/1	0.96	0.07	63,63,63,63	0
32	MG	0	8081	1/1	0.96	0.16	64,64,64,64	0
32	MG	0	8039	1/1	0.96	0.16	70,70,70,70	0
34	SR	0	9004	1/1	0.96	0.38	200,200,200,200	0
33	CL	0	8803	1/1	0.96	0.09	46,46,46,46	0
34	SR	0	9007	1/1	0.96	0.43	187,187,187,187	0
34	SR	0	8908	1/1	0.96	0.13	92,92,92,92	0
33	CL	0	8814	1/1	0.96	0.10	48,48,48,48	0
32	MG	0	8063	1/1	0.96	0.26	78,78,78,78	0
35	NA	0	8531	1/1	0.96	0.08	44,44,44,44	0
32	MG	0	8089	1/1	0.96	0.10	43,43,43,43	0
34	SR	0	8989	1/1	0.96	0.18	177,177,177,177	0
35	NA	0	8537	1/1	0.96	0.12	34,34,34,34	0
34	SR	0	8964	1/1	0.96	0.08	118,118,118,118	0
34	SR	0	8966	1/1	0.96	0.06	100,100,100,100	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
35	NA	0	8570	1/1	0.96	0.10	43,43,43,43	0
33	CL	0	8817	1/1	0.96	0.05	50,50,50,50	0
34	SR	0	8945	1/1	0.96	0.08	97,97,97,97	0
32	MG	0	8022	1/1	0.96	0.13	30,30,30,30	0
32	MG	0	8006	1/1	0.96	0.13	25,25,25,25	0
32	MG	0	8068	1/1	0.96	0.09	51,51,51,51	0
37	K	0	8402	1/1	0.96	0.10	69,69,69,69	0
32	MG	0	8021	1/1	0.97	0.07	29,29,29,29	0
35	NA	M	8539	1/1	0.97	0.10	26,26,26,26	0
35	NA	0	8547	1/1	0.97	0.25	43,43,43,43	0
34	SR	0	8984	1/1	0.97	0.09	111,111,111,111	0
32	MG	0	8016	1/1	0.97	0.12	46,46,46,46	0
35	NA	0	8501	1/1	0.97	0.15	31,31,31,31	0
35	NA	0	8551	1/1	0.97	0.11	40,40,40,40	0
32	MG	0	8023	1/1	0.97	0.09	24,24,24,24	0
32	MG	0	8024	1/1	0.97	0.15	55,55,55,55	0
32	MG	0	8092	1/1	0.97	0.02	51,51,51,51	0
35	NA	0	8508	1/1	0.97	0.27	43,43,43,43	0
34	SR	0	8960	1/1	0.97	0.04	135,135,135,135	0
32	MG	0	8026	1/1	0.97	0.10	32,32,32,32	0
32	MG	0	8001	1/1	0.97	0.10	33,33,33,33	0
35	NA	0	8513	1/1	0.97	0.13	42,42,42,42	0
33	CL	J	8801	1/1	0.97	0.06	66,66,66,66	0
33	CL	J	8802	1/1	0.97	0.07	55,55,55,55	0
34	SR	0	8967	1/1	0.97	0.03	127,127,127,127	0
32	MG	0	8070	1/1	0.97	0.18	45,45,45,45	0
33	CL	N	8807	1/1	0.97	0.07	57,57,57,57	0
35	NA	0	8524	1/1	0.97	0.20	39,39,39,39	0
34	SR	0	8942	1/1	0.97	0.08	108,108,108,108	0
34	SR	3	8999	1/1	0.97	0.05	94,94,94,94	0
32	MG	0	8056	1/1	0.97	0.10	48,48,48,48	0
33	CL	Y	8820	1/1	0.97	0.07	35,35,35,35	0
34	SR	0	8949	1/1	0.97	0.05	99,99,99,99	0
32	MG	0	8059	1/1	0.97	0.07	44,44,44,44	0
35	NA	0	8575	1/1	0.97	0.31	86,86,86,86	0
35	NA	9	8543	1/1	0.97	0.15	42,42,42,42	0
33	CL	0	8805	1/1	0.97	0.05	50,50,50,50	0
35	NA	0	8541	1/1	0.97	0.20	53,53,53,53	0
33	CL	0	8813	1/1	0.97	0.06	49,49,49,49	0
34	SR	0	8916	1/1	0.98	0.09	101,101,101,101	0
35	NA	0	8534	1/1	0.98	0.15	37,37,37,37	0
34	SR	0	8917	1/1	0.98	0.12	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
35	NA	0	8536	1/1	0.98	0.16	47,47,47,47	0
32	MG	0	8005	1/1	0.98	0.22	31,31,31,31	0
34	SR	0	8920	1/1	0.98	0.03	108,108,108,108	0
33	CL	3	8804	1/1	0.98	0.06	57,57,57,57	0
32	MG	0	8058	1/1	0.98	0.09	18,18,18,18	0
35	NA	0	8545	1/1	0.98	0.13	38,38,38,38	0
34	SR	0	8923	1/1	0.98	0.04	104,104,104,104	0
32	MG	0	8014	1/1	0.98	0.16	21,21,21,21	0
33	CL	0	8811	1/1	0.98	0.11	62,62,62,62	0
34	SR	0	8969	1/1	0.98	0.16	158,158,158,158	0
32	MG	K	8054	1/1	0.98	0.07	34,34,34,34	0
32	MG	0	8082	1/1	0.98	0.17	77,77,77,77	0
34	SR	0	8931	1/1	0.98	0.09	98,98,98,98	0
35	NA	R	8532	1/1	0.98	0.07	37,37,37,37	0
35	NA	0	8554	1/1	0.98	0.39	59,59,59,59	0
34	SR	0	8973	1/1	0.98	0.08	124,124,124,124	0
35	NA	0	8556	1/1	0.98	0.56	44,44,44,44	0
32	MG	0	8083	1/1	0.98	0.03	48,48,48,48	0
34	SR	0	8934	1/1	0.98	0.09	104,104,104,104	0
32	MG	0	8061	1/1	0.98	0.21	22,22,22,22	0
32	MG	0	8017	1/1	0.98	0.27	32,32,32,32	0
32	MG	0	8028	1/1	0.98	0.17	22,22,22,22	0
32	MG	0	8029	1/1	0.98	0.15	37,37,37,37	0
32	MG	0	8018	1/1	0.98	0.20	29,29,29,29	0
32	MG	0	8007	1/1	0.98	0.20	29,29,29,29	0
32	MG	0	8093	1/1	0.98	0.09	29,29,29,29	0
32	MG	B	8042	1/1	0.98	0.08	50,50,50,50	0
34	SR	0	8948	1/1	0.98	0.10	94,94,94,94	0
35	NA	0	8519	1/1	0.98	0.12	37,37,37,37	0
34	SR	0	8990	1/1	0.98	0.18	124,124,124,124	0
35	NA	0	8521	1/1	0.98	0.19	52,52,52,52	0
34	SR	R	8912	1/1	0.98	0.17	78,78,78,78	0
32	MG	0	8047	1/1	0.98	0.22	38,38,38,38	0
32	MG	0	8048	1/1	0.98	0.21	19,19,19,19	0
32	MG	0	8049	1/1	0.98	0.27	65,65,65,65	0
35	NA	0	8526	1/1	0.98	0.03	36,36,36,36	0
32	MG	0	8052	1/1	0.98	0.08	39,39,39,39	0
36	CD	O	8705	1/1	0.98	0.08	80,80,80,80	0
32	MG	0	8034	1/1	0.98	0.03	36,36,36,36	0
32	MG	0	8055	1/1	0.98	0.15	35,35,35,35	0
34	SR	0	8904	1/1	0.99	0.18	48,48,48,48	0
34	SR	0	8905	1/1	0.99	0.23	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
32	MG	B	8043	1/1	0.99	0.07	38,38,38,38	0
34	SR	0	8910	1/1	0.99	0.05	93,93,93,93	0
33	CL	R	8806	1/1	0.99	0.10	38,38,38,38	0
32	MG	0	8084	1/1	0.99	0.11	31,31,31,31	0
32	MG	0	8025	1/1	0.99	0.07	22,22,22,22	0
32	MG	0	8015	1/1	0.99	0.14	24,24,24,24	0
32	MG	0	8027	1/1	0.99	0.05	29,29,29,29	0
34	SR	0	8918	1/1	0.99	0.11	74,74,74,74	0
34	SR	0	9008	1/1	0.99	0.10	84,84,84,84	0
32	MG	0	8002	1/1	0.99	0.08	25,25,25,25	0
32	MG	0	8008	1/1	0.99	0.12	19,19,19,19	0
32	MG	0	8009	1/1	0.99	0.19	18,18,18,18	0
35	NA	C	8503	1/1	0.99	0.15	31,31,31,31	0
34	SR	0	8965	1/1	0.99	0.05	117,117,117,117	0
32	MG	0	8004	1/1	0.99	0.18	22,22,22,22	0
32	MG	0	8062	1/1	0.99	0.16	37,37,37,37	0
32	MG	9	8074	1/1	0.99	0.14	62,62,62,62	0
34	SR	0	8925	1/1	0.99	0.10	83,83,83,83	0
33	CL	0	8822	1/1	0.99	0.24	78,78,78,78	0
32	MG	A	8050	1/1	0.99	0.10	34,34,34,34	0
33	CL	B	8819	1/1	0.99	0.04	44,44,44,44	0
35	NA	0	8504	1/1	0.99	0.18	30,30,30,30	0
32	MG	0	8012	1/1	0.99	0.16	15,15,15,15	0
32	MG	0	8065	1/1	0.99	0.08	38,38,38,38	0
35	NA	0	8507	1/1	0.99	0.17	31,31,31,31	0
33	CL	J	8821	1/1	0.99	0.06	60,60,60,60	0
34	SR	0	8935	1/1	0.99	0.10	73,73,73,73	0
34	SR	F	9005	1/1	0.99	0.04	118,118,118,118	0
33	CL	K	8812	1/1	0.99	0.07	39,39,39,39	0
32	MG	0	8013	1/1	0.99	0.04	22,22,22,22	0
34	SR	0	8940	1/1	0.99	0.10	85,85,85,85	0
33	CL	M	8818	1/1	0.99	0.08	34,34,34,34	0
35	NA	0	8516	1/1	0.99	0.07	27,27,27,27	0
35	NA	0	8517	1/1	0.99	0.18	28,28,28,28	0
34	SR	1	8913	1/1	0.99	0.07	76,76,76,76	0
34	SR	0	8943	1/1	0.99	0.05	94,94,94,94	0
34	SR	3	8932	1/1	0.99	0.12	67,67,67,67	0
32	MG	0	8067	1/1	0.99	0.17	31,31,31,31	0
34	SR	0	8946	1/1	0.99	0.17	110,110,110,110	0
34	SR	0	8992	1/1	0.99	0.24	136,136,136,136	0
34	SR	0	8901	1/1	0.99	0.08	74,74,74,74	0
34	SR	0	8902	1/1	0.99	0.13	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
36	CD	1	8702	1/1	0.99	0.12	59,59,59,59	0
35	NA	0	8527	1/1	0.99	0.18	53,53,53,53	0
35	NA	0	8528	1/1	0.99	0.13	35,35,35,35	0
34	SR	0	8907	1/1	1.00	0.11	54,54,54,54	0
32	MG	0	8019	1/1	1.00	0.18	24,24,24,24	0
34	SR	0	8909	1/1	1.00	0.14	77,77,77,77	0
32	MG	0	8032	1/1	1.00	0.06	38,38,38,38	0
32	MG	0	8087	1/1	1.00	0.11	29,29,29,29	0
34	SR	0	8903	1/1	1.00	0.15	46,46,46,46	0
34	SR	0	8936	1/1	1.00	0.07	84,84,84,84	0
36	CD	U	8701	1/1	1.00	0.07	48,48,48,48	0
36	CD	Z	8703	1/1	1.00	0.06	79,79,79,79	0
34	SR	1	8952	1/1	1.00	0.09	73,73,73,73	0
36	CD	3	8704	1/1	1.00	0.06	66,66,66,66	0
32	MG	0	8003	1/1	1.00	0.14	28,28,28,28	0
34	SR	0	8906	1/1	1.00	0.19	48,48,48,48	0

6.5 Other polymers [i](#)

There are no such residues in this entry.