



wwPDB X-ray Structure Validation Summary Report ⓘ

Feb 1, 2016 – 08:01 AM GMT

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
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.7 (RC4), CSD as536be (2015)
Xtriage (Phenix) : 1.9-1692
EDS : rb-20026688
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Refmac : 5.8.0135
CCP4 : 6.5.0
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : trunk26865

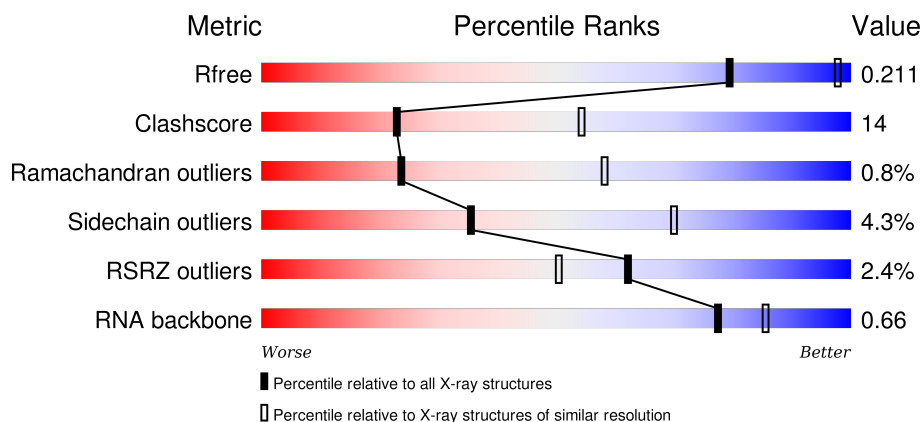
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.80 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.



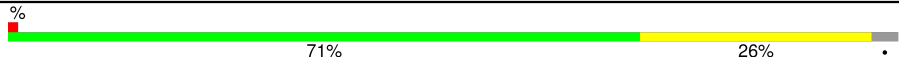
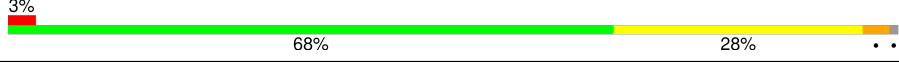
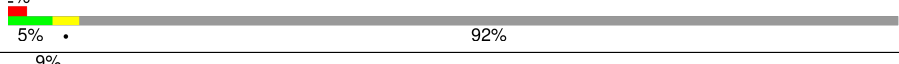


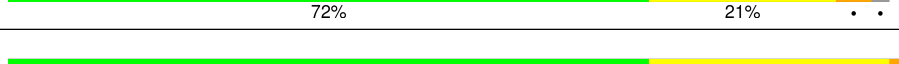
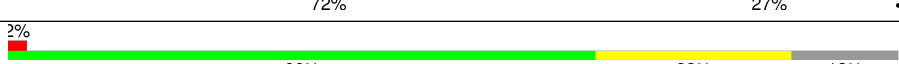
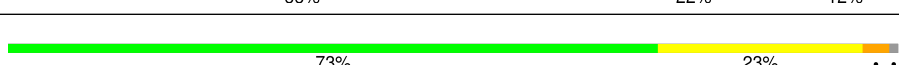
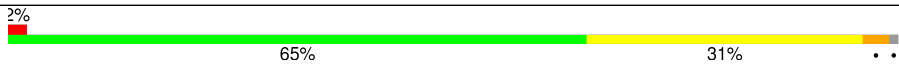


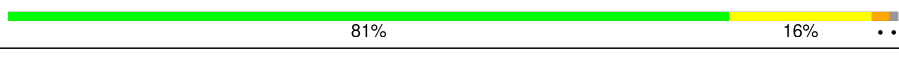
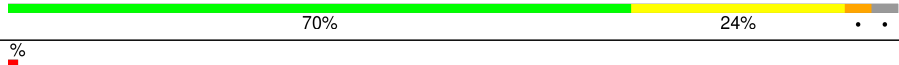

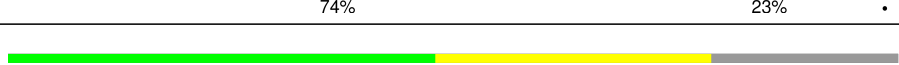



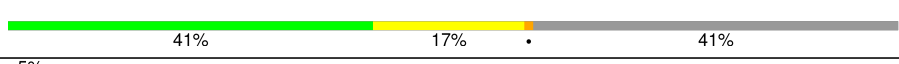
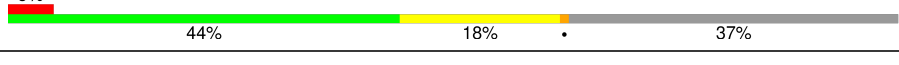





Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	91344	2393 (2.80-2.80)
Clashscore	102246	2827 (2.80-2.80)
Ramachandran outliers	100387	2782 (2.80-2.80)
Sidechain outliers	100360	2784 (2.80-2.80)
RSRZ outliers	91569	2404 (2.80-2.80)
RNA backbone	2183	1091 (3.20-2.40)

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 on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. 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> <div>3%</div> <div>72%</div> <div>24%</div> <div>• •</div> </div>
2	B	338	<div> <div>65%</div> <div>31%</div> <div>•</div> </div>
3	C	246	<div> <div>74%</div> <div>23%</div> <div>•</div> </div>
4	D	177	<div> <div>15%</div> <div>44%</div> <div>35%</div> <div>21%</div> </div>

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

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Mol	Chain	Length	Quality of chain
30	0	2923	
31	9	122	

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
32	MG	0	8009	-	-	-	X
32	MG	0	8014	-	-	-	X
32	MG	0	8015	-	-	-	X
32	MG	0	8028	-	-	-	X
32	MG	0	8041	-	-	-	X
32	MG	0	8045	-	-	-	X
32	MG	0	8047	-	-	-	X
32	MG	A	8051	-	-	-	X
33	K	0	8401	-	-	-	X
34	NA	0	8504	-	-	-	X
34	NA	0	8507	-	-	-	X
34	NA	0	8512	-	-	-	X
34	NA	0	8517	-	-	-	X
34	NA	0	8521	-	-	-	X
34	NA	0	8522	-	-	-	X
34	NA	0	8527	-	-	-	X
34	NA	0	8530	-	-	-	X
34	NA	0	8533	-	-	-	X
34	NA	0	8535	-	-	-	X
34	NA	0	8537	-	-	-	X
34	NA	0	8542	-	-	-	X
34	NA	0	8547	-	-	-	X
34	NA	0	8552	-	-	-	X
34	NA	0	8553	-	-	-	X
34	NA	0	8555	-	-	-	X
34	NA	0	8556	-	-	-	X
34	NA	0	8557	-	-	-	X
34	NA	0	8558	-	-	-	X
34	NA	0	8559	-	-	-	X
34	NA	0	8560	-	-	-	X
34	NA	0	8562	-	-	-	X
34	NA	0	8563	-	-	-	X
34	NA	0	8564	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
34	NA	0	8565	-	-	-	X
34	NA	0	8567	-	-	-	X
34	NA	0	8569	-	-	-	X
34	NA	0	8575	-	-	-	X
34	NA	9	8572	-	-	-	X
35	CL	J	8801	-	-	X	-
36	SR	0	8903	-	-	-	X
36	SR	0	8904	-	-	-	X
36	SR	0	8926	-	-	-	X
36	SR	0	8947	-	-	-	X
36	SR	0	8969	-	-	-	X
36	SR	0	8992	-	-	-	X
36	SR	0	9001	-	-	-	X
36	SR	B	8987	-	-	-	X
36	SR	J	8986	-	-	-	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
1	A	237	Total	C	N	O	S	0	0	0
			1753	1072	352	324	5			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- 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	0	84	Total	Mg	0	0
			84	84		
32	Y	1	Total	Mg	0	0
			1	1		
32	K	1	Total	Mg	0	0
			1	1		
32	B	2	Total	Mg	0	0
			2	2		
32	A	2	Total	Mg	0	0
			2	2		
32	T	1	Total	Mg	0	0
			1	1		
32	9	2	Total	Mg	0	0
			2	2		

- Molecule 33 is POTASSIUM ION (three-letter code: K) (formula: K).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
33	0	2	Total K 2 2	0	0

- Molecule 34 is SODIUM ION (three-letter code: NA) (formula: Na).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
34	0	66	Total Na 66 66	0	0
34	J	1	Total Na 1 1	0	0
34	Q	1	Total Na 1 1	0	0
34	H	1	Total Na 1 1	0	0
34	C	1	Total Na 1 1	0	0
34	R	1	Total Na 1 1	0	0
34	9	2	Total Na 2 2	0	0
34	S	1	Total Na 1 1	0	0
34	M	1	Total Na 1 1	0	0

- Molecule 35 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
35	0	9	Total Cl 9 9	0	0
35	J	3	Total Cl 3 3	0	0
35	K	1	Total Cl 1 1	0	0
35	B	1	Total Cl 1 1	0	0
35	A	1	Total Cl 1 1	0	0
35	N	1	Total Cl 1 1	0	0
35	O	1	Total Cl 1 1	0	0
35	R	1	Total Cl 1 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
35	Y	1	Total 1	Cl 1	0	0
35	L	1	Total 1	Cl 1	0	0
35	3	1	Total 1	Cl 1	0	0
35	M	1	Total 1	Cl 1	0	0

- Molecule 36 is STRONTIUM ION (three-letter code: SR) (formula: Sr).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
36	0	92	Total 92	Sr 92	0	0
36	J	1	Total 1	Sr 1	0	0
36	1	2	Total 2	Sr 2	0	0
36	B	2	Total 2	Sr 2	0	0
36	3	2	Total 2	Sr 2	0	0
36	A	3	Total 3	Sr 3	0	0
36	R	1	Total 1	Sr 1	0	0
36	9	3	Total 3	Sr 3	0	0
36	S	1	Total 1	Sr 1	0	0
36	F	1	Total 1	Sr 1	0	0

- Molecule 37 is CADMIUM ION (three-letter code: CD) (formula: Cd).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
37	O	1	Total 1	Cd 1	0	0
37	Z	1	Total 1	Cd 1	0	0
37	1	1	Total 1	Cd 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
37	3	1	Total 1	Cd 1	0	0
37	U	1	Total 1	Cd 1	0	0

- Molecule 38 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
38	0	5933	Total 5933	O 5933	0	0
38	9	144	Total 144	O 144	0	0
38	A	110	Total 110	O 110	0	0
38	B	144	Total 144	O 144	0	0
38	C	178	Total 178	O 178	0	0
38	D	45	Total 45	O 45	0	0
38	E	43	Total 43	O 43	0	0
38	F	27	Total 27	O 27	0	0
38	G	17	Total 17	O 17	0	0
38	H	69	Total 69	O 69	0	0
38	I	6	Total 6	O 6	0	0
38	J	53	Total 53	O 53	0	0
38	K	56	Total 56	O 56	0	0
38	L	92	Total 92	O 92	0	0
38	M	129	Total 129	O 129	0	0
38	N	63	Total 63	O 63	0	0
38	O	40	Total 40	O 40	0	0

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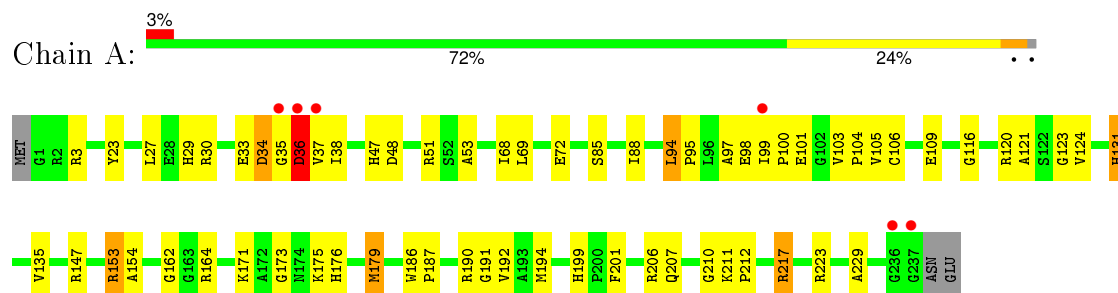
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
38	P	66	Total 66	O 66	0	0
38	Q	46	Total 46	O 46	0	0
38	R	76	Total 76	O 76	0	0
38	S	39	Total 39	O 39	0	0
38	T	35	Total 35	O 35	0	0
38	U	28	Total 28	O 28	0	0
38	V	13	Total 13	O 13	0	0
38	W	69	Total 69	O 69	0	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

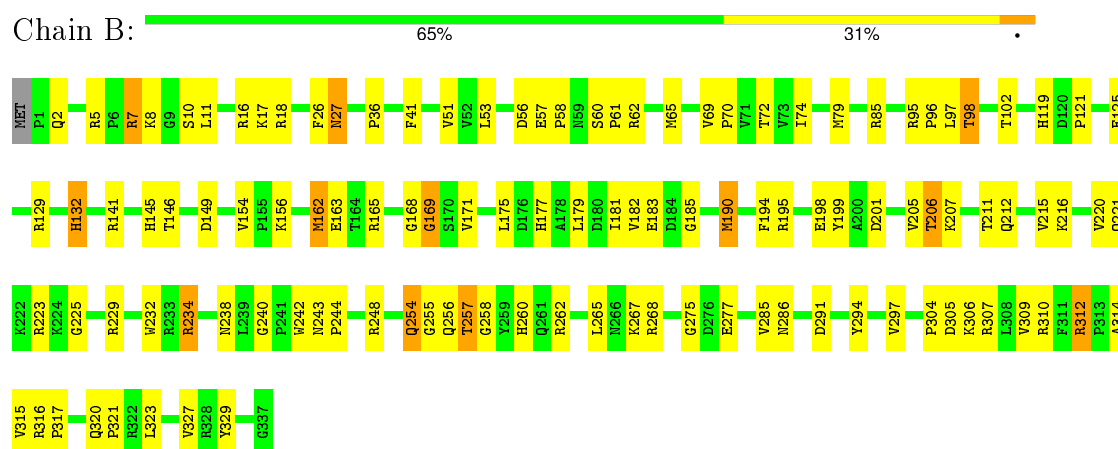
3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors 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.

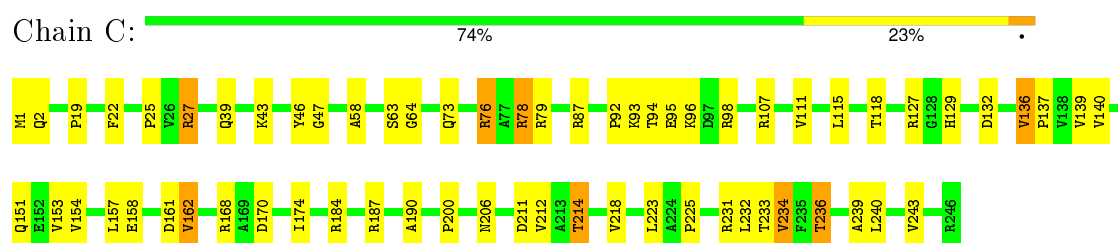
- Molecule 1: 50S ribosomal protein L2P



- Molecule 2: 50S ribosomal protein L3P

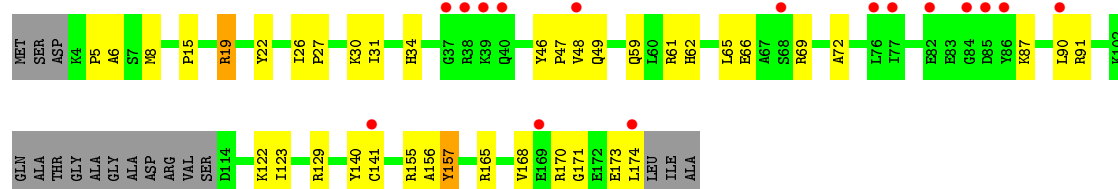


- Molecule 3: 50S ribosomal protein L4P

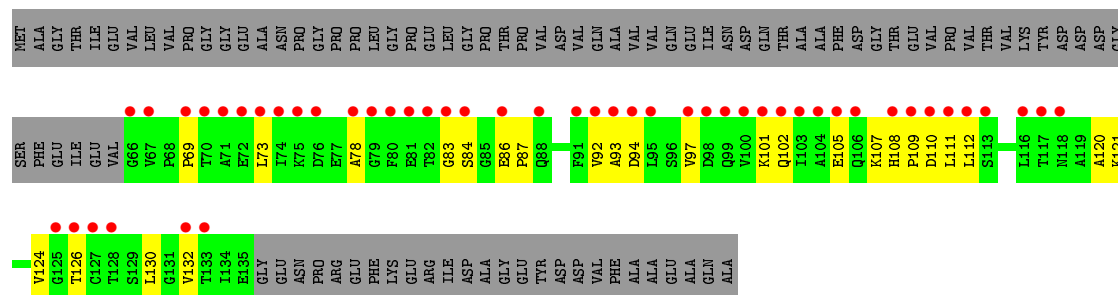


- Molecule 4: 50S ribosomal protein L5P

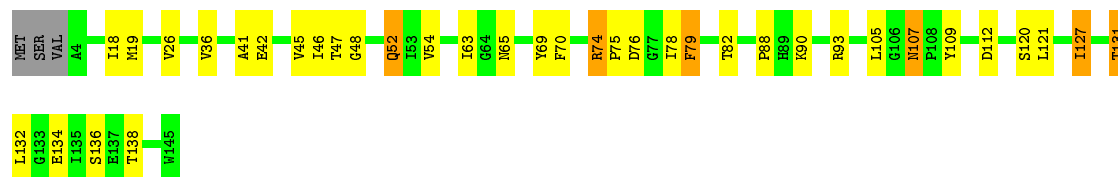
- Molecule 8: 50S ribosomal protein L10e



- Molecule 9: 50S ribosomal protein L11P



- Molecule 10: 50S ribosomal protein L13P

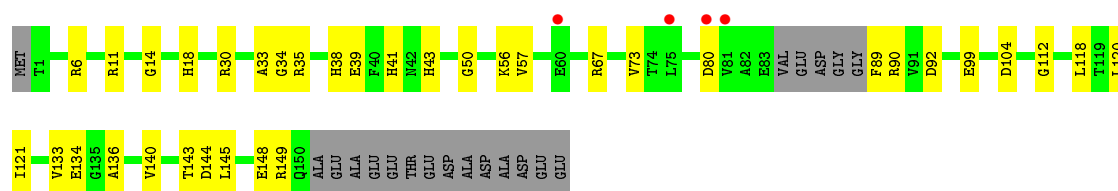


- Molecule 11: 50S ribosomal protein L14P



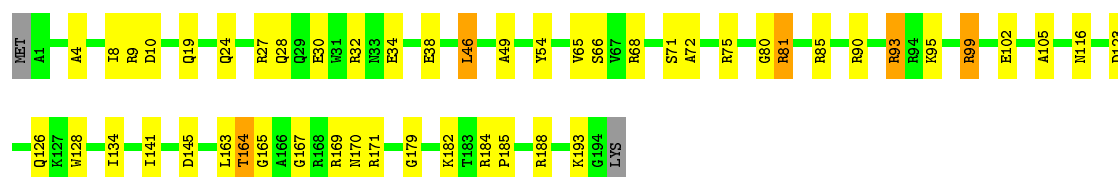
- Molecule 12: 50S ribosomal protein L15P





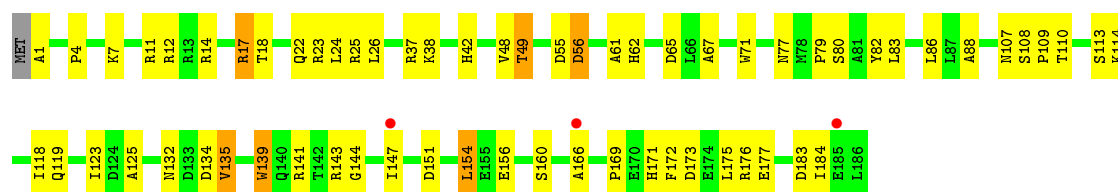
- Molecule 13: 50S ribosomal protein L15e

Chain M: 73% 23% ..



- Molecule 14: 50S ribosomal protein L18P

Chain N: 2% 65% 31% ..



- Molecule 15: 50S ribosomal protein L18e

Chain O: 84% 16% .



- Molecule 16: 50S ribosomal protein L19e

Chain P: 81% 13% ..



- Molecule 17: 50S ribosomal protein L21e

Chain Q: 81% 16% ..

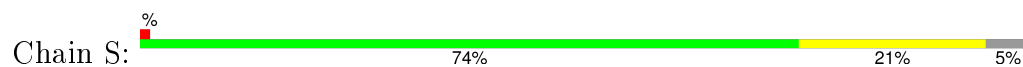


- Molecule 18: 50S ribosomal protein L22P

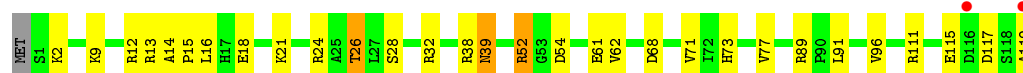
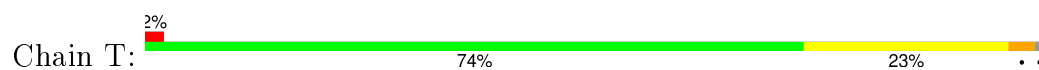
Chain R: 70% 24% ..



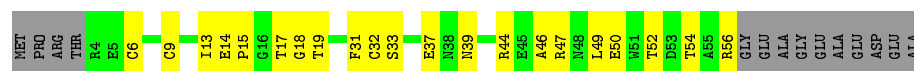
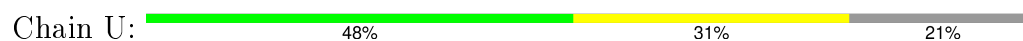
- Molecule 19: 50S ribosomal protein L23P



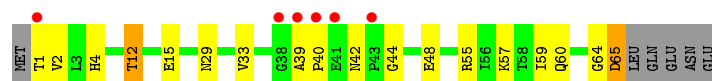
- Molecule 20: 50S ribosomal protein L24P



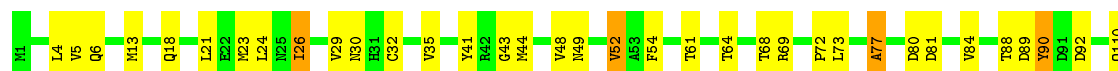
- Molecule 21: 50S ribosomal protein L24e



- Molecule 22: 50S ribosomal protein L29P



- Molecule 23: 50S ribosomal protein L30P



- Molecule 24: 50S ribosomal protein L31e



- [illegible]

G1481	A1392	U1304	C1212	U1149	U1028	G958	A861	A761	A659	U560	G458	A347	A262	C168	C93
A1482	A1393	C1305	G1214	A1150	U1029	C959	G868	C764	A860	G561	C461	C348	U263	A169	G94
C1483	C1394	U1306	A1215	G1151	U1041	G960	G869	C765	G661	U564	G466	G350	U264	U170	A95
G1484	C1395	A1307	G1216	A1154	U1042	C962	G669	G775	G670	U567	A467	G358	U265	C171	A96
A1492	C1396	U1308	U1218	G1155	C1043	C963	G670	G776	A671	C570	U470	U364	C271	A177	G97
A1493	C1397	U1309	U1219	G1157	C1044	G969	G671	U777	G672	C571	G482	G365	A272	U178	A99
A1494	C1400	G1311	U1220	G1158	U1045	G969	A875	A790	C677	G574	G483	U366	G273	U179	C100
C1495	G1401	G1312	G1221	G1159	G1052	U970	G876	A791	C677	A575	G484	G367	U277	G182	A102
A1496	A1313	A1313	G1226	G1160	U1053	G	G877	A792	C677	G575	U485	U368	U278	G183	A106
G1497	A1406	A1321	G1226	G1161	A1058	G	G878	U794	G681	A575	A484	C368	C279	A186	U107
U1503	A1407	G1322	C1229	G1162	G1059	C	G879	G795	G682	A575	A485	C369	C280	A187	G
A1504	U1408	G1322	A1230	G1163	C1060	C	C884	G796	G683	G581	A486	U371	U281	G188	C111
U1505	G1410	G1325	A1231	U1164	U1060	C	G885	A797	G684	U582	G487	U372	C282	A189	G112
U1506	U1413	A1328	A1232	G1165	U1066	G	U888	A797	G685	U584	U488	C373	U283	G190	A113
U1511	A1413	A1328	A1233	G1167	U1067	C	G889	G800	G686	U584	A497	G378	C284	A191	A114
G1512	A1414	U1329	U1234	G1168	A1067	U	A895	G801	A688	A587	A498	A379	U286	A192	U115
G1513	G1415	A1330	G1235	U1169	G1072	C	C896	U801	G689	U588	G499	C379	G289	G196	A119
C1514	U1416	U1333	U1236	U1170	A1073	C	A897	G802	G690	C594	G500	A380	C290	C197	A120
A1515	U1417	U1334	U1237	A1171	G1074	A	G898	C804	G691	U595	A501	G381	C291	U197	U121
A1516	U1418	G1334	U1238	G1172	U1075	G	C899	C804	A694	C596	A502	U392	G292	A199	C122
U1520	U1419	G1339	G1239	A1173	C1080	A	G901	A807	C695	A602	G503	U393	C295	C200	U123
C1521	U1422	G1340	A1242	A1174	A1081	G	G902	A808	C696	A603	G504	C394	G296	A204	G124
A1522	A1423	A1341	C1243	G1175	A1082	G	U903	G809	G697	A604	C505	A395	G297	U205	U125
G1523	C1424	C1342	U1244	C1176	G1087	A	U904	A812	A698	G605	A507	U396	U299	C	G
U1524	G1425	C1343	C1245	A1177	A1088	C	C905	C813	C699	U614	A508	U397	U300	U	U
C1525	C1426	G1344	A1246	U1180	U1088	C	C906	G814	U701	G622	A509	U398	G304	A212	A128
A1526	A1427	U1345	U1247	U1181	A1097	C	A907	U815	G702	U625	U510	C399	A305	G213	A129
U1527	U1434	G1350	U1248	C1182	A1098	G	A912	G816	G709	U619	G512	A407	A306	U214	C130
C1528	U1435	G1351	U1249	C1183	G1099	C	C920	A818	G710	U620	G513	A408	G307	G219	U134
G1529	C1436	C1352	C1250	U1184	A1118	A	C921	G820	G711	A620	G514	U409	U308	C220	G135
U1537	U1437	C1353	C1251	U1185	C1104	C	A922	U821	C712	C621	C515	G413	C309	G221	C136
U1544	U1440	U1354	U1251	U1186	U1109	A	A923	C822	U713	G622	A516	C414	U310	U137	U137
C1545	U1441	G1363	C1267	U1187	G1110	C	A926	U823	U714	U625	U517	G415	C311	C228	C139
A1559	G1443	C1364	C1268	U1188	U1116	C	U932	C824	G716	A629	G518	C416	U312	A226	G140
U1561	U1444	G1365	G1269	U1189	A1117	C	U933	U825	C717	A630	A524	C417	U316	A227	G141
C1562	U1445	C1366	C1273	U1190	U1118	C	C934	U834	U718	A631	A524	A423	A317	G229	C141
U1565	C1450	G1372	A1278	U1191	U1119	U1003	G940	U835	C724	A632	A532	C424	A318	A236	A145
C1566	C1451	C1373	U1279	U1192	U1122	U1004	G941	U836	C725	A632	A532	U425	U319	G237	A148
A1573	G1452	G1375	A1287	U1193	A1123	U1005	U942	U840	G730	C638	G537	G426	U324	A241	A151
C1574	C1453	C1377	U1288	U1194	C1129	U1006	A943	A841	U734	A639	C538	C427	U325	G246	A152
U1575	U1463	A1381	C1289	U1200	U1130	A1014	G944	C848	C735	U644	A540	C440	A329	A247	C153
U1577	C1464	G1382	U1290	G1203	G1131	U1015	U945	U851	A736	U645	C541	A441	C330	G248	C154
G1586	U1467	U1383	A1291	G1204	A1132	C1016	C946	U852	A737	G646	A542	A442	G336	G249	C155
U1587	C1474	C1385	U1294	U1205	G1135	A1020	U947	C853	G738	U647	G544	C444	A337	C250	G157
G1588	U1477	G1386	G1295	U1206	U1136	G1021	G948	U854	U739	G652	G545	A446	C338	C254	C162
G1589	U1478	G1387	U1298	U1207	G1137	A1022	U949	U855	G744	U653	G545	A447	A339	A255	U163
		G1391	G1300	C1208	G1138	U1025	G952	U858	G744	U655	G553	A448	C342	C256	G164
				U1209	G1139	U1026	G953	U859	G759	G656	C558	A449	C343	G257	A165
				G1211	C1140	G1027	U954	U860	G760	C658	U559	C450	C344	G259	A166

A2840	C2759	U2563	C2476	C2376	U290	A	G	C2071	G	C1863	U1771	G1683	G1592
A2841	C2760	G2564	C2477	U2377	U290	U	C	G2072	A	C1864	C1772	A1684	C1593
A2842	C2761	C2565	U2478	G2378	A291	A	A	G2073	A	G1865	G1773	A1685	C1594
A2843	C2762	A2566	A2479	C2380	A2300	C	U	A2074	C	C1866	G1774	C1687	G1595
C2846	C2765	A2569	C2482	C2381	A2301	U	A	A2081	C	C1872	A1778	C1687	U1596
G2851	A2766	C2570	C2483	U2384	A2302	C	G	G	C1965	A1779	A1692	A1597	A1598
A2852	C2768	G2578	U2484	G2385	C2309	C	U	C2087	U1966	G1877	A1693	A1603	A1603
A2853	C2769	A2485	U2485	U2386	C2313	C	A	C2088	U1967	G1878	A1697	G1604	G1604
U2866	G2584	U2486	A2486	U2387	G2314	U	G	A2089	A1968	U1784	G1697	G1605	G1605
G2867	C2487	U2388	C2487	U2388	G2315	G	A	G2091	A1969	C1787	G1700	A1606	A1606
A2778	A2490	U2389	A2490	U2389	G2316	C	A	G2092	A1970	U1788	A1701	A1607	A1607
G2779	C2493	A2401	C2493	A2401	C2317	G	U	G2093	U1972	G1789	U1702	C1613	C1613
C2780	C2498	A2402	C2498	A2402	C2317	U	C	G2094	A1973	C1790	C1705	G1614	G1614
U2781	U2500	A2408	U2499	A2408	U2320	C	U	A2096	C1975	U1791	G1706	A1615	A1615
A2782	C2502	C2411	U2499	C2411	U2321	U	A	A2100	U1977	C1798	G1707	G1622	G1622
A2783	A2503	G2412	C2502	G2412	G2324	C	A	A2101	A1978	G1805	C1714	C1623	C1623
A2784	A2504	A2413	A2503	A2413	U2325	C	A	A2102	C1979	A1815	C1715	A1624	A1624
C2787	A2505	A2414	A2504	A2414	C2326	G	A	A2103	A1994	U1903	A1716	U1625	U1625
U2791	U2506	G2415	A2506	A2415	C2329	G	A	C2104	G1995	A1904	A1717	A1626	A1626
U2792	G2507	G2416	G2507	G2416	U2330	U	U	C2105	U1996	C1818	U1722	G1627	G1627
C2795	C2508	U2419	C2508	U2419	C2331	C	C	C2106	U2004	G1819	G1723	A1632	A1632
U2796	A2509	G2420	A2509	G2420	G2336	A	C	G2110	G2005	G1820	U1724	C1633	C1633
A2800	G2713	C2421	G2511	C2421	G2337	C	C	G2111	C2006	G1823	C1725	G1634	G1634
C2801	U2714	U2422	A2512	U2422	G2338	C	C	U2115	A2007	C1824	G1730	U1635	U1635
C2802	G2715	G2426	A2513	G2426	A	C	G	U2116	U2008	C1826	C1731	A1637	A1637
G2900	G2716	U2514	U2514	C2432	C	A	C	G2121	G2009	A1829	A1732	A1641	A1641
A2901	C2717	C2433	G2515	C2433	A	C	G	C2122	A2010	C1830	A1733	A1642	A1642
C2903	C2718	A2434	G2516	A2434	G	U	U	U2012	U2011	C1834	C1734	G1649	G1649
U2904	C2720	U2435	A2521	U2435	A2345	C	C	G2128	U2012	U1835	G1739	C1650	C1650
A2908	C2810	G2616	G2524	G2616	C2346	C	C	U2133	U2016	U1838	U1740	C1651	C1651
G2909	A2811	G2630	G2525	G2630	C2347	C	C	G2134	U2017	A1839	U1741	C1652	C1652
A2913	A2812	G2634	G2526	C2438	C2348	C	C	A2135	A2022	C1840	A1742	U1654	U1654
A2914	A2813	C2635	U2527	C2439	A2353	C	C	G2136	C1936	C1841	A1746	G1655	G1655
A	G2814	A2635	U2527	C2443	A2354	C	C	A	C1940	A1845	A1747	A1656	A1656
G	G2815	C2636	C2533	U2444	A2366	C	C	C	A1941	U1846	G1752	A1657	A1657
C	G2816	A2637	C2534	U2445	G2359	C	C	U2032	A1942	A1847	A1755	A1664	A1664
C	G2817	G2638	U2535	G2446	C2360	C	C	C	C1943	G1848	G1756	G1665	G1665
A	A2818	G2642	C2536	G2453	A2361	C	C	U2034	C1943	U1850	A1759	C1666	C1666
A	C2819	G2643	G2537	A2456	A2362	C	C	A	C1946	G1851	G1760	A1667	A1667
C	A2820	C2644	G2537	U2457	G2363	C	C	A2039	G1947	A1852	C1761	U1668	U1668
U	C2821	C2644	U2541	U2457	A2364	C	C	G	G1948	C1853	U1766	A1677	A1677
A	C2824	A2649	C2542	U2461	A2367	C	C	G2044	G1951	C1854	A1767	C1679	C1679
U	C2825	U2748	G2543	G2462	A2367	A	A	G2050	U	G1855	C1768	C1680	C1680
G	G2826	G2750	G2544	G2462	A2368	C	C	A	A	C1856	C1769	G1681	G1681
C	A2827	C2751	C2547	A2465	A2369	C	C	A	A	A1857	U1766	A1678	A1678
C	G2828	C2654	C2548	A2467	G2371	C	C	U2064	A	A1858	A1767	C1679	C1679
C	C2831	U2659	C2548	A2467	A2372	U	U	C2065	C	C1861	U1770	A1682	A1682
A	C2832	G2755	C2552	A2468	U2282	G	G	U	U	C1862			
		U2756	A2553	A2468	G2373	C	C						
		A2664			G2383	A	A						
		A			G2384								

• Molecule 31: 5S RIBOSOMAL RNA



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)	Xtriage
Refinement program	CNS 1.0	Depositor
R, R_{free}	0.179 , 0.223 0.172 , 0.211	Depositor DCC
R_{free} test set	4353 reflections (1.06%)	DCC
Wilson B-factor (Å ²)	45.1	Xtriage
Anisotropy	0.234	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.31 , 69.3	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning ²	$\langle L \rangle = 0.49$, $\langle L^2 \rangle = 0.32$	Xtriage
Outliers	0 of 667168 reflections	Xtriage
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

Xtriage'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, 0.375 respectively for untwinned datasets, and 0.333, 0.2 for perfectly twinned datasets.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

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	2	0	0	0	0
34	0	66	0	0	0	0
34	9	2	0	0	0	0
34	C	1	0	0	0	0
34	H	1	0	0	0	0
34	J	1	0	0	0	0
34	M	1	0	0	0	0
34	Q	1	0	0	0	0
34	R	1	0	0	0	0
34	S	1	0	0	0	0
35	0	9	0	0	1	0
35	3	1	0	0	0	0
35	A	1	0	0	0	0
35	B	1	0	0	0	0
35	J	3	0	0	3	0
35	K	1	0	0	0	0
35	L	1	0	0	0	0
35	M	1	0	0	0	0
35	N	1	0	0	1	0
35	O	1	0	0	0	0
35	R	1	0	0	0	0
35	Y	1	0	0	0	0
36	0	92	0	0	0	0
36	1	2	0	0	0	0
36	3	2	0	0	0	0
36	9	3	0	0	0	0
36	A	3	0	0	0	0
36	B	2	0	0	0	0
36	F	1	0	0	0	0
36	J	1	0	0	0	0
36	R	1	0	0	0	0
36	S	1	0	0	0	0
37	1	1	0	0	0	0
37	3	1	0	0	0	0
37	O	1	0	0	0	0
37	U	1	0	0	0	0
37	Z	1	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

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	
1	A	235/240 (98%)	212 (90%)	19 (8%)	4 (2%)	11	36
2	B	335/338 (99%)	307 (92%)	24 (7%)	4 (1%)	16	47
3	C	244/246 (99%)	224 (92%)	20 (8%)	0	100	100
4	D	134/177 (76%)	110 (82%)	20 (15%)	4 (3%)	5	18
5	E	170/178 (96%)	162 (95%)	8 (5%)	0	100	100
6	F	117/120 (98%)	106 (91%)	8 (7%)	3 (3%)	7	22
7	G	25/348 (7%)	25 (100%)	0	0	100	100
8	H	156/177 (88%)	144 (92%)	10 (6%)	2 (1%)	15	44
9	I	68/162 (42%)	52 (76%)	15 (22%)	1 (2%)	13	40
10	J	140/145 (97%)	129 (92%)	10 (7%)	1 (1%)	26	62
11	K	130/132 (98%)	122 (94%)	7 (5%)	1 (1%)	24	58
12	L	141/165 (86%)	128 (91%)	12 (8%)	1 (1%)	26	62
13	M	192/196 (98%)	184 (96%)	7 (4%)	1 (0%)	34	69
14	N	184/187 (98%)	168 (91%)	12 (6%)	4 (2%)	8	28
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%)	15	44
24	X	80/92 (87%)	74 (92%)	5 (6%)	1 (1%)	15	44
25	Y	140/241 (58%)	140 (100%)	0	0	100	100
26	Z	71/116 (61%)	63 (89%)	7 (10%)	1 (1%)	14	42
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%)	17	50
All	All	3705/4472 (83%)	3453 (93%)	221 (6%)	31 (1%)	24	58

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 ⓘ

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%)	26	59
2	B	282/283 (100%)	267 (95%)	15 (5%)	28	61
3	C	193/193 (100%)	178 (92%)	15 (8%)	16	41
4	D	117/148 (79%)	112 (96%)	5 (4%)	35	70
5	E	152/156 (97%)	148 (97%)	4 (3%)	54	86
6	F	93/94 (99%)	92 (99%)	1 (1%)	80	95
7	G	27/282 (10%)	26 (96%)	1 (4%)	41	76
8	H	134/145 (92%)	130 (97%)	4 (3%)	48	82
9	I	58/130 (45%)	57 (98%)	1 (2%)	68	92

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
10	J	118/121 (98%)	108 (92%)	10 (8%)	13	36
11	K	106/106 (100%)	102 (96%)	4 (4%)	40	74
12	L	113/127 (89%)	108 (96%)	5 (4%)	35	69
13	M	158/160 (99%)	149 (94%)	9 (6%)	25	58
14	N	149/150 (99%)	141 (95%)	8 (5%)	27	60
15	O	93/94 (99%)	92 (99%)	1 (1%)	80	95
16	P	113/117 (97%)	111 (98%)	2 (2%)	66	91
17	Q	79/80 (99%)	75 (95%)	4 (5%)	29	63
18	R	117/122 (96%)	114 (97%)	3 (3%)	54	86
19	S	71/74 (96%)	71 (100%)	0	100	100
20	T	105/106 (99%)	97 (92%)	8 (8%)	16	42
21	U	44/53 (83%)	43 (98%)	1 (2%)	58	88
22	V	51/57 (90%)	49 (96%)	2 (4%)	39	74
23	W	130/130 (100%)	126 (97%)	4 (3%)	47	81
24	X	66/74 (89%)	57 (86%)	9 (14%)	5	14
25	Y	120/196 (61%)	115 (96%)	5 (4%)	36	71
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%)	57	87
29	3	79/79 (100%)	77 (98%)	2 (2%)	55	86
All	All	3095/3646 (85%)	2961 (96%)	134 (4%)	35	70

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

Mol	Chain	Res	Type
10	J	93	ARG
13	M	10	ASP
24	X	72	VAL
10	J	112	ASP
11	K	98	VAL

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

Mol	Chain	Res	Type
14	N	107	ASN
18	R	94	ASN
28	2	18	ASN
14	N	132	ASN
16	P	118	GLN

5.3.3 RNA ⓘ

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	1474	C
30	0	2761	A
30	0	1352	A
30	0	1506	U

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

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	OMU	0	2587	30	12,22,23	0.96	1 (8%)	19,31,34	3.13	2 (10%)
30	OMG	0	2588	30	17,26,27	1.00	2 (11%)	21,38,41	2.53	3 (14%)
30	UR3	0	2619	30	12,22,23	0.74	0	16,32,35	0.75	0
30	PSU	0	2621	30	13,21,22	1.71	2 (15%)	18,30,33	6.12	3 (16%)
30	1MA	0	628	30	14,25,26	0.96	1 (7%)	15,37,40	1.11	1 (6%)

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

The worst 5 of 6 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	0	2621	PSU	C5-C1'	-5.17	1.47	1.52
30	0	2588	OMG	C8-N7	-2.04	1.30	1.34
30	0	2587	OMU	C4-N3	2.29	1.37	1.33
30	0	628	1MA	C6-N6	2.55	1.33	1.29
30	0	2621	PSU	C4-N3	2.55	1.37	1.33

The worst 5 of 9 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	0	2621	PSU	N1-C2-N3	-21.49	114.62	128.33
30	0	2588	OMG	C5-C6-N1	-8.68	111.72	123.59
30	0	628	1MA	C2-N3-C4	-3.67	110.72	116.40
30	0	2587	OMU	C5-C4-N3	-3.24	114.80	123.12
30	0	2588	OMG	N3-C2-N1	-2.26	124.00	127.44

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 carbohydrates 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%) 61 48	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%)	-0.71	0 100 100	20, 40, 64, 79	0
4	D	140/177 (79%)	0.95	27 (19%) 2 1	61, 98, 123, 132	0
5	E	172/178 (96%)	-0.46	2 (1%) 81 73	43, 66, 86, 91	0
6	F	119/120 (99%)	0.00	3 (2%) 61 48	44, 67, 97, 113	0
7	G	29/348 (8%)	0.71	6 (20%) 1 1	77, 94, 103, 104	0
8	H	160/177 (90%)	0.36	16 (10%) 9 4	48, 69, 99, 104	0
9	I	70/162 (43%)	3.48	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%)	-0.18	4 (2%) 56 44	25, 62, 112, 124	0
13	M	194/196 (98%)	-0.86	0 100 100	26, 39, 55, 63	0
14	N	186/187 (99%)	-0.30	3 (1%) 74 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%)	-0.79	0 100 100	33, 49, 65, 73	0
17	Q	95/96 (98%)	-0.74	0 100 100	35, 45, 62, 79	0
18	R	150/155 (96%)	-0.85	0 100 100	27, 42, 62, 77	0
19	S	81/85 (95%)	-0.58	1 (1%) 81 73	38, 54, 74, 87	0
20	T	119/120 (99%)	-0.55	2 (1%) 73 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%)	0.70	6 (9%) 11 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%) 62 50	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%)	-0.86	1 (0%) 89 84	21, 40, 63, 86	0
26	Z	73/116 (62%)	0.36	6 (8%) 14 7	53, 72, 85, 95	0
27	1	56/57 (98%)	-0.72	0 100 100	22, 28, 36, 44	0
28	2	46/50 (92%)	-0.35	2 (4%) 39 27	30, 56, 84, 98	0
29	3	92/92 (100%)	-0.54	0 100 100	33, 56, 68, 81	0
30	0	2749/2923 (94%)	-0.65	22 (0%) 87 81	19, 42, 86, 163	0
31	9	122/122 (100%)	-0.69	2 (1%) 74 66	34, 64, 87, 144	0
All	All	6646/7517 (88%)	-0.51	160 (2%) 62 50	19, 48, 97, 163	0

The worst 5 of 160 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
22	V	1	THR	12.6
9	I	74	ILE	10.3
22	V	39	ALA	8.5
9	I	104	ALA	8.3
9	I	70	THR	8.2

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. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. 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	LLDF	B-factors(Å ²)	Q<0.9
30	OMG	0	2588	24/25	0.98	0.12	-	29,31,34,35	0
30	1MA	0	628	23/24	0.98	0.14	-	23,27,29,31	0
30	OMU	0	2587	21/22	0.99	0.11	-	29,31,32,35	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

6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

6.4 Ligands ⓘ

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. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. 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	LLDF	B-factors(Å ²)	Q<0.9
34	NA	0	8562	1/1	0.82	0.66	177.83	78,78,78,78	0
36	SR	B	8987	1/1	0.90	0.90	39.67	200,200,200,200	0
34	NA	0	8565	1/1	0.80	0.38	38.65	66,66,66,66	0
34	NA	0	8563	1/1	0.85	0.64	30.12	74,74,74,74	0
36	SR	J	8986	1/1	0.80	0.80	28.73	200,200,200,200	0
34	NA	0	8555	1/1	0.90	0.58	25.17	54,54,54,54	0
34	NA	0	8535	1/1	0.82	0.24	23.76	47,47,47,47	0
34	NA	0	8512	1/1	0.86	0.37	21.49	50,50,50,50	0
34	NA	0	8522	1/1	0.86	0.42	21.34	73,73,73,73	0
34	NA	0	8542	1/1	0.84	0.39	19.78	48,48,48,48	0
34	NA	0	8564	1/1	0.90	0.27	18.08	61,61,61,61	0
34	NA	0	8560	1/1	0.85	0.38	16.21	74,74,74,74	0
34	NA	9	8572	1/1	0.29	0.33	13.21	93,93,93,93	0
34	NA	0	8552	1/1	0.94	0.33	10.66	56,56,56,56	0
34	NA	0	8559	1/1	0.93	0.18	10.03	73,73,73,73	0
34	NA	0	8547	1/1	0.97	0.25	9.33	43,43,43,43	0
34	NA	0	8556	1/1	0.98	0.56	9.17	44,44,44,44	0
34	NA	0	8553	1/1	0.95	0.31	9.03	68,68,68,68	0
36	SR	0	8992	1/1	0.99	0.24	7.19	136,136,136,136	0
34	NA	0	8567	1/1	0.94	0.26	6.91	77,77,77,77	0
34	NA	0	8569	1/1	0.91	0.28	6.72	65,65,65,65	0
33	K	0	8401	1/1	0.59	0.53	6.48	132,132,132,132	0
34	NA	0	8575	1/1	0.97	0.32	6.37	86,86,86,86	0
36	SR	0	8903	1/1	1.00	0.15	6.23	46,46,46,46	0
36	SR	0	8947	1/1	0.77	0.22	6.12	170,170,170,170	0
34	NA	0	8507	1/1	0.99	0.17	5.09	31,31,31,31	0
34	NA	0	8557	1/1	0.92	0.12	5.01	56,56,56,56	0
34	NA	0	8530	1/1	0.87	0.21	4.99	46,46,46,46	0
36	SR	0	9001	1/1	0.67	0.17	4.99	158,158,158,158	0
32	MG	A	8051	1/1	0.90	0.37	4.74	62,62,62,62	0
32	MG	0	8014	1/1	0.98	0.16	4.45	21,21,21,21	0
32	MG	0	8041	1/1	0.95	0.20	4.26	25,25,25,25	0
32	MG	0	8015	1/1	0.99	0.14	4.13	24,24,24,24	0
32	MG	0	8009	1/1	0.99	0.19	4.12	18,18,18,18	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
34	NA	0	8517	1/1	0.99	0.18	4.03	28,28,28,28	0
34	NA	0	8527	1/1	0.99	0.18	3.70	53,53,53,53	0
32	MG	0	8047	1/1	0.98	0.22	3.52	38,38,38,38	0
36	SR	0	8904	1/1	0.99	0.18	3.21	48,48,48,48	0
34	NA	0	8558	1/1	0.90	0.20	3.12	45,45,45,45	0
36	SR	0	8926	1/1	0.95	0.13	3.03	114,114,114,114	0
32	MG	0	8028	1/1	0.98	0.17	2.95	22,22,22,22	0
36	SR	0	8969	1/1	0.98	0.15	2.65	158,158,158,158	0
32	MG	0	8045	1/1	0.95	0.11	2.52	28,28,28,28	0
34	NA	0	8504	1/1	0.98	0.18	2.35	30,30,30,30	0
34	NA	0	8533	1/1	0.85	0.15	2.34	45,45,45,45	0
34	NA	0	8521	1/1	0.98	0.18	2.33	52,52,52,52	0
34	NA	0	8537	1/1	0.96	0.13	2.27	34,34,34,34	0
32	MG	0	8004	1/1	0.99	0.18	1.71	22,22,22,22	0
32	MG	0	8011	1/1	0.95	0.18	1.49	20,20,20,20	0
34	NA	0	8528	1/1	0.99	0.13	1.46	35,35,35,35	0
32	MG	0	8008	1/1	0.99	0.12	1.34	19,19,19,19	0
36	SR	R	8912	1/1	0.98	0.17	1.24	78,78,78,78	0
32	MG	0	8006	1/1	0.96	0.13	1.17	25,25,25,25	0
32	MG	0	8088	1/1	0.90	0.13	1.01	30,30,30,30	0
34	NA	0	8523	1/1	0.95	0.12	0.83	41,41,41,41	0
32	MG	0	8085	1/1	0.83	0.11	0.72	76,76,76,76	0
36	SR	0	8972	1/1	0.90	0.19	0.68	163,163,163,163	0
32	MG	0	8067	1/1	0.99	0.17	0.62	31,31,31,31	0
32	MG	0	8003	1/1	1.00	0.14	0.61	28,28,28,28	0
32	MG	0	8062	1/1	0.99	0.16	0.60	37,37,37,37	0
36	SR	3	8932	1/1	0.99	0.12	0.33	67,67,67,67	0
37	CD	1	8702	1/1	0.99	0.12	0.30	59,59,59,59	0
34	NA	0	8568	1/1	0.81	0.17	0.18	36,36,36,36	0
36	SR	0	8944	1/1	0.71	0.10	0.17	167,167,167,167	0
32	MG	0	8072	1/1	0.95	0.14	0.04	48,48,48,48	0
32	MG	0	8084	1/1	0.99	0.11	0.03	31,31,31,31	0
34	NA	0	8534	1/1	0.98	0.15	0.01	37,37,37,37	0
36	SR	0	8985	1/1	0.79	0.08	-0.39	115,115,115,115	0
32	MG	0	8012	1/1	0.99	0.16	-0.54	15,15,15,15	0
34	NA	M	8539	1/1	0.97	0.10	-0.67	26,26,26,26	0
32	MG	B	8042	1/1	0.98	0.08	-0.74	50,50,50,50	0
34	NA	J	8538	1/1	0.77	0.11	-0.93	51,51,51,51	0
32	MG	0	8058	1/1	0.98	0.09	-1.03	18,18,18,18	0
32	MG	0	8010	1/1	0.90	0.13	-1.08	44,44,44,44	0
34	NA	0	8520	1/1	0.85	0.09	-1.11	47,47,47,47	0
36	SR	A	8929	1/1	0.92	0.09	-1.17	123,123,123,123	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
32	MG	0	8001	1/1	0.97	0.10	-1.35	33,33,33,33	0
36	SR	0	8948	1/1	0.98	0.10	-1.45	94,94,94,94	0
36	SR	0	8922	1/1	0.82	0.13	-1.45	150,150,150,150	0
34	NA	0	8513	1/1	0.97	0.13	-1.52	42,42,42,42	0
34	NA	0	8571	1/1	0.85	0.07	-1.56	72,72,72,72	0
35	CL	J	8821	1/1	0.99	0.06	-1.60	60,60,60,60	0
35	CL	M	8818	1/1	0.99	0.08	-1.64	34,34,34,34	0
34	NA	Q	8540	1/1	0.95	0.07	-1.72	48,48,48,48	0
32	MG	B	8043	1/1	0.99	0.07	-1.72	38,38,38,38	0
37	CD	3	8704	1/1	1.00	0.06	-1.74	66,66,66,66	0
36	SR	0	8975	1/1	0.94	0.07	-1.74	124,124,124,124	0
37	CD	U	8701	1/1	1.00	0.07	-1.81	48,48,48,48	0
35	CL	O	8808	1/1	0.93	0.07	-1.88	58,58,58,58	0
34	NA	0	8515	1/1	0.92	0.09	-1.94	32,32,32,32	0
32	MG	T	8057	1/1	0.87	0.09	-1.98	59,59,59,59	0
32	MG	A	8050	1/1	0.99	0.10	-2.10	34,34,34,34	0
34	NA	0	8550	1/1	0.95	0.13	-2.16	51,51,51,51	0
35	CL	K	8812	1/1	0.99	0.07	-2.19	39,39,39,39	0
32	MG	0	8052	1/1	0.98	0.08	-2.21	39,39,39,39	0
36	SR	0	8943	1/1	0.99	0.05	-2.26	94,94,94,94	0
35	CL	3	8804	1/1	0.98	0.06	-2.28	57,57,57,57	0
37	CD	Z	8703	1/1	1.00	0.06	-2.45	79,79,79,79	0
36	SR	0	8902	1/1	0.99	0.13	-2.46	57,57,57,57	0
36	SR	0	8945	1/1	0.96	0.08	-2.46	97,97,97,97	0
36	SR	0	8962	1/1	0.92	0.12	-2.54	168,168,168,168	0
33	K	0	8402	1/1	0.96	0.10	-2.80	69,69,69,69	0
32	MG	0	8087	1/1	1.00	0.11	-2.89	29,29,29,29	0
36	SR	F	9005	1/1	0.99	0.04	-2.90	118,118,118,118	0
36	SR	0	8936	1/1	1.00	0.07	-2.92	84,84,84,84	0
36	SR	9	8978	1/1	0.95	0.07	-2.93	133,133,133,133	0
35	CL	0	8813	1/1	0.97	0.06	-3.23	49,49,49,49	0
32	MG	0	8065	1/1	0.99	0.08	-3.28	38,38,38,38	0
34	NA	0	8519	1/1	0.98	0.12	-3.32	37,37,37,37	0
35	CL	0	8815	1/1	0.94	0.06	-3.34	61,61,61,61	0
32	MG	0	8002	1/1	0.99	0.08	-3.95	25,25,25,25	0
36	SR	1	8913	1/1	0.99	0.08	-3.96	76,76,76,76	0
36	SR	0	8910	1/1	0.99	0.05	-4.14	93,93,93,93	0
32	MG	0	8044	1/1	0.80	0.07	-4.15	40,40,40,40	0
32	MG	0	8025	1/1	0.99	0.07	-4.17	22,22,22,22	0
35	CL	0	8805	1/1	0.97	0.05	-4.18	50,50,50,50	0
32	MG	0	8075	1/1	0.65	0.06	-4.18	45,45,45,45	0
36	SR	0	8970	1/1	0.94	0.04	-5.06	118,118,118,118	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
32	MG	Y	8086	1/1	0.95	0.07	-6.40	34,34,34,34	0
35	CL	B	8819	1/1	0.99	0.04	-7.76	44,44,44,44	0
36	SR	0	8949	1/1	0.97	0.05	-8.31	99,99,99,99	0
32	MG	0	8013	1/1	0.99	0.04	-9.34	22,22,22,22	0
32	MG	0	8034	1/1	0.98	0.03	-11.21	36,36,36,36	0
36	SR	0	8939	1/1	0.91	0.05	-	128,128,128,128	0
36	SR	0	8976	1/1	0.83	0.21	-	185,185,185,185	0
32	MG	0	8032	1/1	1.00	0.06	-	38,38,38,38	0
34	NA	0	8508	1/1	0.97	0.27	-	43,43,43,43	0
36	SR	0	8993	1/1	0.77	0.10	-	170,170,170,170	0
36	SR	0	8915	1/1	0.88	0.10	-	110,110,110,110	0
32	MG	0	8024	1/1	0.97	0.15	-	55,55,55,55	0
36	SR	0	8937	1/1	0.90	0.18	-	100,100,100,100	0
35	CL	J	8802	1/1	0.97	0.07	-	55,55,55,55	0
36	SR	0	8928	1/1	0.82	0.07	-	127,127,127,127	0
36	SR	0	8982	1/1	0.69	0.31	-	178,178,178,178	0
34	NA	0	8546	1/1	0.90	0.87	-	69,69,69,69	0
34	NA	0	8574	1/1	0.92	0.52	-	65,65,65,65	0
32	MG	0	8039	1/1	0.96	0.17	-	70,70,70,70	0
36	SR	0	8938	1/1	0.92	0.10	-	158,158,158,158	0
34	NA	0	8506	1/1	0.76	0.10	-	56,56,56,56	0
32	MG	0	8017	1/1	0.98	0.27	-	32,32,32,32	0
36	SR	0	8911	1/1	0.95	0.09	-	74,74,74,74	0
32	MG	0	8030	1/1	0.84	0.24	-	60,60,60,60	0
32	MG	0	8080	1/1	0.92	0.11	-	66,66,66,66	0
34	NA	0	8529	1/1	0.93	0.05	-	30,30,30,30	0
36	SR	0	8979	1/1	0.87	0.12	-	200,200,200,200	0
36	SR	0	9000	1/1	0.89	0.23	-	160,160,160,160	0
32	MG	0	8091	1/1	0.95	0.03	-	48,48,48,48	0
32	MG	0	8026	1/1	0.97	0.10	-	32,32,32,32	0
34	NA	0	8516	1/1	0.99	0.07	-	27,27,27,27	0
32	MG	0	8073	1/1	0.92	0.06	-	65,65,65,65	0
32	MG	9	8074	1/1	0.99	0.14	-	62,62,62,62	0
34	NA	S	8510	1/1	0.95	0.10	-	29,29,29,29	0
36	SR	0	8901	1/1	0.99	0.08	-	74,74,74,74	0
32	MG	0	8063	1/1	0.96	0.27	-	78,78,78,78	0
36	SR	0	8960	1/1	0.96	0.04	-	135,135,135,135	0
34	NA	0	8531	1/1	0.96	0.08	-	44,44,44,44	0
36	SR	0	8917	1/1	0.98	0.11	-	103,103,103,103	0
36	SR	0	8905	1/1	0.99	0.24	-	52,52,52,52	0
35	CL	A	8809	1/1	0.96	0.07	-	63,63,63,63	0
32	MG	0	8092	1/1	0.97	0.02	-	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å ²)	Q<0.9
32	MG	0	8076	1/1	0.93	0.14	-	38,38,38,38	0
34	NA	0	8505	1/1	0.91	0.28	-	36,36,36,36	0
36	SR	0	8908	1/1	0.96	0.13	-	92,92,92,92	0
36	SR	0	8925	1/1	0.99	0.10	-	83,83,83,83	0
34	NA	0	8526	1/1	0.98	0.03	-	36,36,36,36	0
36	SR	0	8920	1/1	0.98	0.03	-	108,108,108,108	0
32	MG	0	8022	1/1	0.96	0.13	-	30,30,30,30	0
36	SR	0	8918	1/1	0.99	0.11	-	74,74,74,74	0
34	NA	0	8501	1/1	0.97	0.15	-	31,31,31,31	0
36	SR	0	8981	1/1	0.93	0.14	-	156,156,156,156	0
36	SR	0	8959	1/1	0.81	0.14	-	157,157,157,157	0
32	MG	0	8007	1/1	0.98	0.19	-	29,29,29,29	0
32	MG	9	8040	1/1	0.93	0.09	-	69,69,69,69	0
32	MG	0	8069	1/1	0.95	0.39	-	99,99,99,99	0
32	MG	0	8059	1/1	0.97	0.07	-	44,44,44,44	0
32	MG	0	8083	1/1	0.98	0.03	-	48,48,48,48	0
36	SR	0	8942	1/1	0.97	0.08	-	108,108,108,108	0
34	NA	0	8502	1/1	0.87	0.10	-	62,62,62,62	0
32	MG	0	8046	1/1	0.94	0.14	-	33,33,33,33	0
36	SR	0	8916	1/1	0.98	0.09	-	101,101,101,101	0
32	MG	0	8068	1/1	0.96	0.09	-	51,51,51,51	0
34	NA	0	8525	1/1	0.76	0.25	-	71,71,71,71	0
32	MG	0	8023	1/1	0.97	0.09	-	24,24,24,24	0
32	MG	0	8060	1/1	0.94	0.11	-	52,52,52,52	0
35	CL	0	8822	1/1	0.99	0.24	-	78,78,78,78	0
35	CL	0	8817	1/1	0.96	0.05	-	50,50,50,50	0
36	SR	0	8965	1/1	0.99	0.05	-	117,117,117,117	0
35	CL	R	8806	1/1	0.99	0.10	-	38,38,38,38	0
36	SR	0	9006	1/1	0.62	2.88	-	200,200,200,200	0
32	MG	0	8033	1/1	0.93	0.07	-	35,35,35,35	0
36	SR	0	8954	1/1	0.94	0.08	-	94,94,94,94	0
36	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
36	SR	0	8958	1/1	0.95	0.08	-	101,101,101,101	0
36	SR	0	8983	1/1	0.91	0.24	-	169,169,169,169	0
36	SR	0	8946	1/1	0.99	0.17	-	110,110,110,110	0
32	MG	0	8048	1/1	0.98	0.21	-	19,19,19,19	0
32	MG	0	8031	1/1	0.75	0.09	-	59,59,59,59	0
36	SR	0	8984	1/1	0.97	0.09	-	111,111,111,111	0
34	NA	0	8509	1/1	0.53	0.16	-	56,56,56,56	0
32	MG	0	8064	1/1	0.94	0.16	-	36,36,36,36	0
36	SR	A	8930	1/1	0.93	0.05	-	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
36	SR	0	9008	1/1	0.99	0.10	-	84,84,84,84	0
36	SR	0	8955	1/1	0.59	0.06	-	187,187,187,187	0
36	SR	0	9004	1/1	0.95	0.39	-	200,200,200,200	0
36	SR	0	8996	1/1	0.85	0.61	-	200,200,200,200	0
36	SR	0	8933	1/1	0.94	0.18	-	136,136,136,136	0
36	SR	S	8961	1/1	0.73	0.09	-	116,116,116,116	0
36	SR	0	8940	1/1	0.99	0.10	-	85,85,85,85	0
34	NA	R	8532	1/1	0.98	0.07	-	37,37,37,37	0
36	SR	0	8909	1/1	1.00	0.14	-	77,77,77,77	0
34	NA	9	8543	1/1	0.97	0.15	-	42,42,42,42	0
34	NA	0	8549	1/1	0.93	0.48	-	50,50,50,50	0
36	SR	0	8924	1/1	0.83	0.17	-	139,139,139,139	0
34	NA	0	8514	1/1	0.78	0.33	-	42,42,42,42	0
35	CL	J	8801	1/1	0.97	0.06	-	66,66,66,66	0
34	NA	0	8570	1/1	0.96	0.10	-	43,43,43,43	0
32	MG	0	8018	1/1	0.98	0.20	-	29,29,29,29	0
32	MG	0	8029	1/1	0.98	0.15	-	37,37,37,37	0
32	MG	0	8082	1/1	0.98	0.17	-	77,77,77,77	0
32	MG	0	8056	1/1	0.97	0.10	-	48,48,48,48	0
35	CL	0	8816	1/1	0.95	0.06	-	66,66,66,66	0
36	SR	0	8914	1/1	0.92	0.24	-	106,106,106,106	0
36	SR	0	8998	1/1	0.93	0.12	-	148,148,148,148	0
36	SR	0	8953	1/1	0.95	0.15	-	140,140,140,140	0
36	SR	0	8974	1/1	0.90	0.21	-	160,160,160,160	0
36	SR	0	8966	1/1	0.96	0.06	-	100,100,100,100	0
36	SR	0	8941	1/1	0.94	0.12	-	99,99,99,99	0
36	SR	0	8991	1/1	0.93	0.07	-	183,183,183,183	0
34	NA	C	8503	1/1	0.99	0.15	-	31,31,31,31	0
32	MG	0	8016	1/1	0.97	0.12	-	46,46,46,46	0
36	SR	1	8952	1/1	1.00	0.10	-	73,73,73,73	0
34	NA	0	8573	1/1	0.95	0.22	-	64,64,64,64	0
37	CD	O	8705	1/1	0.98	0.08	-	80,80,80,80	0
36	SR	0	8931	1/1	0.98	0.09	-	98,98,98,98	0
36	SR	0	8927	1/1	0.82	0.10	-	136,136,136,136	0
36	SR	0	8906	1/1	1.00	0.19	-	48,48,48,48	0
35	CL	L	8810	1/1	0.95	0.06	-	53,53,53,53	0
36	SR	0	8989	1/1	0.96	0.18	-	177,177,177,177	0
32	MG	0	8049	1/1	0.98	0.27	-	65,65,65,65	0
36	SR	0	8990	1/1	0.98	0.17	-	124,124,124,124	0
34	NA	0	8511	1/1	0.94	0.20	-	59,59,59,59	0
36	SR	9	9003	1/1	0.86	0.13	-	157,157,157,157	0
32	MG	0	8027	1/1	0.99	0.05	-	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
36	SR	0	8973	1/1	0.98	0.08	-	124,124,124,124	0
36	SR	0	8921	1/1	0.95	0.10	-	82,82,82,82	0
36	SR	0	8907	1/1	1.00	0.11	-	54,54,54,54	0
35	CL	Y	8820	1/1	0.97	0.07	-	35,35,35,35	0
36	SR	0	8968	1/1	0.87	0.09	-	165,165,165,165	0
36	SR	9	8980	1/1	0.95	0.11	-	168,168,168,168	0
32	MG	0	8021	1/1	0.97	0.07	-	29,29,29,29	0
32	MG	0	8089	1/1	0.96	0.10	-	43,43,43,43	0
36	SR	0	8994	1/1	0.73	0.38	-	200,200,200,200	0
34	NA	0	8554	1/1	0.98	0.39	-	59,59,59,59	0
36	SR	0	8967	1/1	0.97	0.03	-	127,127,127,127	0
36	SR	0	8971	1/1	0.92	0.04	-	150,150,150,150	0
36	SR	A	8977	1/1	0.77	0.11	-	159,159,159,159	0
32	MG	0	8061	1/1	0.98	0.21	-	22,22,22,22	0
32	MG	0	8093	1/1	0.98	0.09	-	29,29,29,29	0
32	MG	0	8078	1/1	0.87	0.35	-	50,50,50,50	0
36	SR	0	8963	1/1	0.90	0.05	-	167,167,167,167	0
32	MG	0	8081	1/1	0.96	0.16	-	64,64,64,64	0
36	SR	0	8956	1/1	0.93	0.07	-	130,130,130,130	0
32	MG	0	8005	1/1	0.98	0.22	-	31,31,31,31	0
32	MG	0	8019	1/1	1.00	0.18	-	24,24,24,24	0
32	MG	0	8055	1/1	0.99	0.15	-	35,35,35,35	0
34	NA	0	8548	1/1	0.87	0.20	-	56,56,56,56	0
36	SR	0	8934	1/1	0.98	0.09	-	104,104,104,104	0
34	NA	0	8536	1/1	0.98	0.15	-	47,47,47,47	0
34	NA	0	8541	1/1	0.97	0.20	-	53,53,53,53	0
34	NA	0	8544	1/1	0.77	0.14	-	60,60,60,60	0
32	MG	0	8066	1/1	0.92	0.18	-	44,44,44,44	0
34	NA	0	8545	1/1	0.98	0.13	-	38,38,38,38	0
32	MG	0	8020	1/1	0.95	0.13	-	37,37,37,37	0
35	CL	0	8814	1/1	0.96	0.10	-	48,48,48,48	0
36	SR	0	8935	1/1	0.99	0.10	-	73,73,73,73	0
36	SR	B	8950	1/1	0.87	0.13	-	121,121,121,121	0
32	MG	0	8035	1/1	0.94	0.10	-	49,49,49,49	0
34	NA	0	8566	1/1	0.91	0.32	-	43,43,43,43	0
36	SR	0	9007	1/1	0.96	0.43	-	187,187,187,187	0
32	MG	0	8036	1/1	0.90	0.09	-	33,33,33,33	0
36	SR	0	8923	1/1	0.98	0.04	-	104,104,104,104	0
36	SR	0	8995	1/1	0.86	0.15	-	133,133,133,133	0
34	NA	0	8524	1/1	0.97	0.20	-	39,39,39,39	0
32	MG	0	8038	1/1	0.68	0.18	-	65,65,65,65	0
36	SR	0	8919	1/1	0.67	0.12	-	159,159,159,159	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
36	SR	0	8964	1/1	0.96	0.08	-	118,118,118,118	0
36	SR	0	8997	1/1	0.75	0.34	-	196,196,196,196	0
32	MG	0	8037	1/1	0.90	0.20	-	92,92,92,92	0
32	MG	0	8053	1/1	0.91	0.06	-	52,52,52,52	0
32	MG	0	8070	1/1	0.97	0.18	-	45,45,45,45	0
35	CL	N	8807	1/1	0.97	0.07	-	57,57,57,57	0
35	CL	0	8811	1/1	0.98	0.11	-	62,62,62,62	0
35	CL	0	8803	1/1	0.96	0.09	-	46,46,46,46	0
32	MG	K	8054	1/1	0.98	0.07	-	34,34,34,34	0
36	SR	0	9002	1/1	0.95	0.13	-	173,173,173,173	0
34	NA	H	8518	1/1	0.92	0.48	-	86,86,86,86	0
34	NA	0	8561	1/1	0.94	0.51	-	76,76,76,76	0
36	SR	0	8988	1/1	0.93	0.18	-	159,159,159,159	0
36	SR	3	8999	1/1	0.97	0.05	-	94,94,94,94	0
32	MG	0	8090	1/1	0.72	0.13	-	70,70,70,70	0
32	MG	0	8077	1/1	0.94	0.07	-	32,32,32,32	0
36	SR	0	8957	1/1	0.81	0.11	-	187,187,187,187	0
32	MG	0	8079	1/1	0.92	0.14	-	48,48,48,48	0
34	NA	0	8551	1/1	0.97	0.11	-	40,40,40,40	0

6.5 Other polymers

There are no such residues in this entry.