



wwPDB X-ray Structure Validation Summary Report ⓘ

Aug 21, 2023 – 11:45 PM EDT

PDB ID : 2OTJ
Title : 13-deoxytedanolide bound to the large subunit of Haloarcula marismortui
Authors : Blaha, G.; Schroeder, S.J.; Tirado-Rives, J.
Deposited on : 2007-02-08
Resolution : 2.90 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 : 2.35
buster-report : 1.1.7 (2018)
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) : 2.35

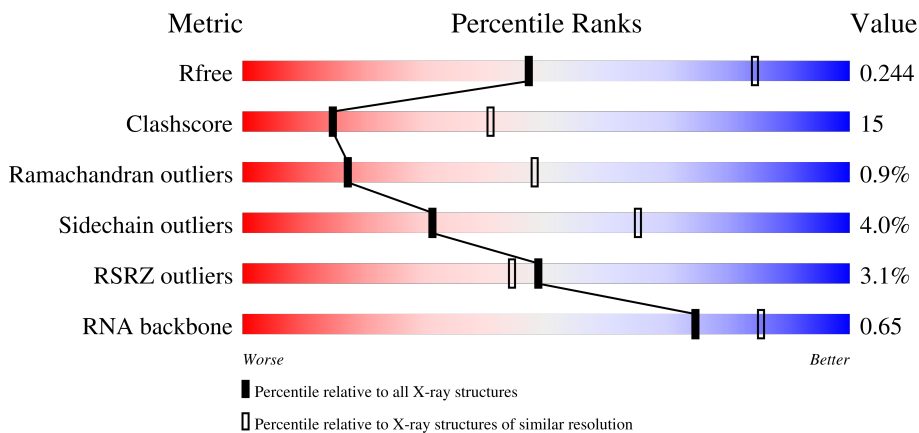
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.90 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.






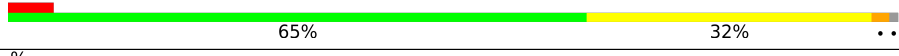
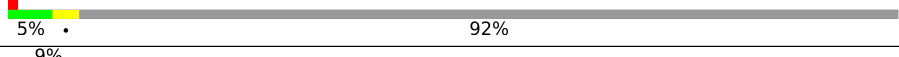



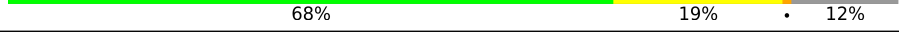
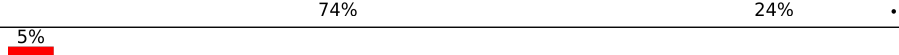
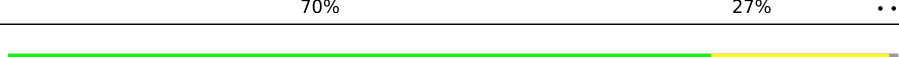
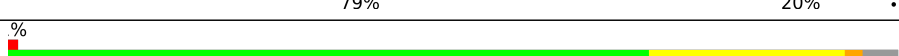

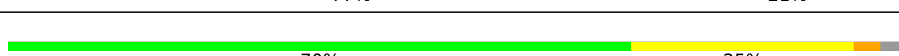
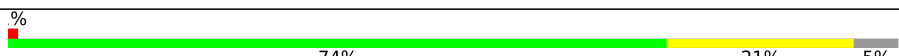
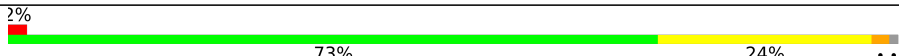
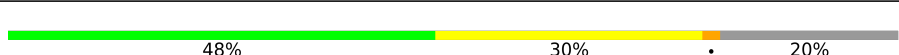



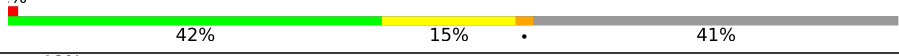
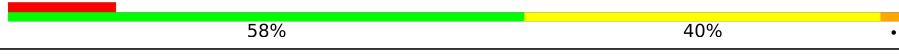

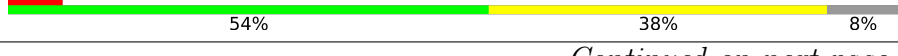

Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1957 (2.90-2.90)
Clashscore	141614	2172 (2.90-2.90)
Ramachandran outliers	138981	2115 (2.90-2.90)
Sidechain outliers	138945	2117 (2.90-2.90)
RSRZ outliers	127900	1906 (2.90-2.90)
RNA backbone	3102	1007 (3.16-2.64)

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	0	2922	
2	9	122	
3	A	240	
4	B	338	

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Mol	Chain	Length	Quality of chain
5	C	246	
6	D	177	
7	E	178	
8	F	120	
9	G	348	
10	H	171	
11	J	145	
12	K	132	
13	L	165	
14	M	194	
15	N	187	
16	O	116	
17	P	149	
18	Q	96	
19	R	155	
20	S	85	
21	T	120	
22	U	66	
23	V	71	
24	W	154	
25	X	92	
26	Y	241	
27	Z	73	
28	1	57	
29	2	50	

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Mol	Chain	Length	Quality of chain
30	3	92	
31	I	161	

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	13T	0	9000	-	-	X	-
35	NA	0	8506	-	-	-	X
35	NA	0	8516	-	-	-	X
35	NA	0	8528	-	-	-	X
35	NA	0	8542	-	-	X	-
35	NA	0	8550	-	-	-	X
35	NA	0	8577	-	-	-	X
35	NA	0	8584	-	-	-	X
36	CL	J	8801	-	-	X	-

2 Entry composition [i](#)

There are 38 unique types of molecules in this entry. The entry contains 99043 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
1	0	2754	59021	26350	10878	19048	2745	0	0	0

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
0	560	C	U	conflict	GB 3377779
0	628	1MA	A	modified residue	GB 3377779
0	2587	OMU	U	modified residue	GB 3377779
0	2588	OMG	G	modified residue	GB 3377779
0	2619	UR3	U	modified residue	GB 3377779
0	2621	PSU	U	modified residue	GB 3377779

- Molecule 2 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
2	9	122	2600	1160	472	847	121	0	0	0

- Molecule 3 is a protein called 50S ribosomal protein L2P.

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

- Molecule 4 is a protein called 50S ribosomal protein L3P.

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

- Molecule 5 is a protein called 50S ribosomal protein L4P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
5	C	246	1859	1131	344	383	1	0	0	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C	73	LEU	GLN	conflict	UNP P12735

- Molecule 6 is a protein called 50S ribosomal protein L5P.

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

- Molecule 7 is a protein called 50S ribosomal protein L6P.

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

- Molecule 8 is a protein called 50S ribosomal protein L7Ae.

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

- Molecule 9 is a protein called 50S ribosomal protein L10E.

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

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
G	248	ASP	ALA	conflict	UNP P15825

- Molecule 10 is a protein called 50S ribosomal protein L10e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
10	H	160	1266	785	237	238	6	0	0	0

There are 8 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
H	164	ASP	-	insertion	UNP P60617
H	165	SER	-	insertion	UNP P60617
H	166	SER	-	insertion	UNP P60617
H	167	PRO	-	insertion	UNP P60617
H	168	ALA	-	insertion	UNP P60617
H	169	GLY	-	insertion	UNP P60617
H	170	ASN	-	insertion	UNP P60617
H	171	ALA	-	insertion	UNP P60617

- Molecule 11 is a protein called 50S ribosomal protein L13P.

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

- Molecule 12 is a protein called 50S ribosomal protein L14P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
12	K	132	992	609	187	192	4	0	0	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
K	44	LEU	HIS	conflict	UNP P22450

- Molecule 13 is a protein called 50S ribosomal protein L15P.

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

- Molecule 14 is a protein called 50S ribosomal protein L15e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
14	M	194	1560	943	332	284	1	0	0	0

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
M	13	GLU	LYS	conflict	UNP P60618
M	194	ALA	-	insertion	UNP P60618

- Molecule 15 is a protein called 50S ribosomal protein L18P.

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

- Molecule 16 is a protein called 50S ribosomal protein L18e.

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

- Molecule 17 is a protein called 50S ribosomal protein L19e.

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

- Molecule 18 is a protein called 50S ribosomal protein L21e.

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

- Molecule 19 is a protein called 50S ribosomal protein L22P.

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

- Molecule 20 is a protein called 50S ribosomal protein L23P.

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

- Molecule 21 is a protein called 50S ribosomal protein L24P.

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

- Molecule 22 is a protein called 50S ribosomal protein L24e.

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

- Molecule 23 is a protein called 50S ribosomal protein L29P.

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

- Molecule 24 is a protein called 50S ribosomal protein L30P.

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

- Molecule 25 is a protein called 50S ribosomal protein L31e.

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

- Molecule 26 is a protein called 50S ribosomal protein L32e.

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

- Molecule 27 is a protein called 50S ribosomal protein L37Ae.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	Z	73	Total	C	N	O	S	0	0	0
			579	346	116	112	5			

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
Z	10	ARG	-	insertion	UNP P60619

- Molecule 28 is a protein called 50S ribosomal protein L37e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
28	1	56	431	258	86	83	4	0	0	0

- Molecule 29 is a protein called 50S ribosomal protein L39e.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
29	2	46	396	239	89	67	1	0	0	0

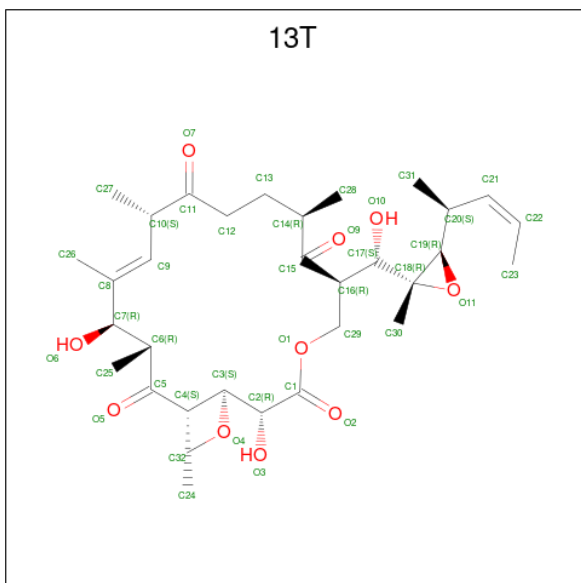
- Molecule 30 is a protein called 50S ribosomal protein L44E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
30	3	92	755	458	153	137	7	0	0	0

- Molecule 31 is a protein called 50S ribosomal protein L11P.

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

- Molecule 32 is 13-DEOXYTEDANOLIDE (three-letter code: 13T) (formula: C₃₂H₅₀O₁₀).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
32	0	1	Total	C	O	0	0
			42	32	10		

- Molecule 33 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
33	0	108	Total	Mg	0	0
			108	108		
33	9	1	Total	Mg	0	0
			1	1		
33	A	2	Total	Mg	0	0
			2	2		
33	B	1	Total	Mg	0	0
			1	1		
33	K	1	Total	Mg	0	0
			1	1		
33	T	1	Total	Mg	0	0
			1	1		
33	Y	1	Total	Mg	0	0
			1	1		
33	3	2	Total	Mg	0	0
			2	2		

- Molecule 34 is POTASSIUM ION (three-letter code: K) (formula: K).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
34	0	2	Total	K	0	0
			2	2		

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
35	0	74	Total	Na	0	0
			74	74		
35	9	2	Total	Na	0	0
			2	2		
35	A	1	Total	Na	0	0
			1	1		
35	C	1	Total	Na	0	0
			1	1		
35	H	1	Total	Na	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
35	J	1	Total 1	Na 1	0	0
35	L	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	2	Total 2	Na 2	0	0
35	S	1	Total 1	Na 1	0	0

- Molecule 36 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
36	0	9	Total 9	Cl 9	0	0
36	A	1	Total 1	Cl 1	0	0
36	B	1	Total 1	Cl 1	0	0
36	J	3	Total 3	Cl 3	0	0
36	L	1	Total 1	Cl 1	0	0
36	M	1	Total 1	Cl 1	0	0
36	N	1	Total 1	Cl 1	0	0
36	O	1	Total 1	Cl 1	0	0
36	R	1	Total 1	Cl 1	0	0
36	Y	2	Total 2	Cl 2	0	0
36	3	1	Total 1	Cl 1	0	0

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

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

- Molecule 38 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
38	0	5905	Total O 5905 5905	0	0
38	9	140	Total O 140 140	0	0
38	A	112	Total O 112 112	0	0
38	B	142	Total O 142 142	0	0
38	C	170	Total O 170 170	0	0
38	D	45	Total O 45 45	0	0
38	E	42	Total O 42 42	0	0
38	F	26	Total O 26 26	0	0
38	G	19	Total O 19 19	0	0
38	H	70	Total O 70 70	0	0
38	J	58	Total O 58 58	0	0
38	K	59	Total O 59 59	0	0
38	L	83	Total O 83 83	0	0
38	M	123	Total O 123 123	0	0
38	N	63	Total O 63 63	0	0

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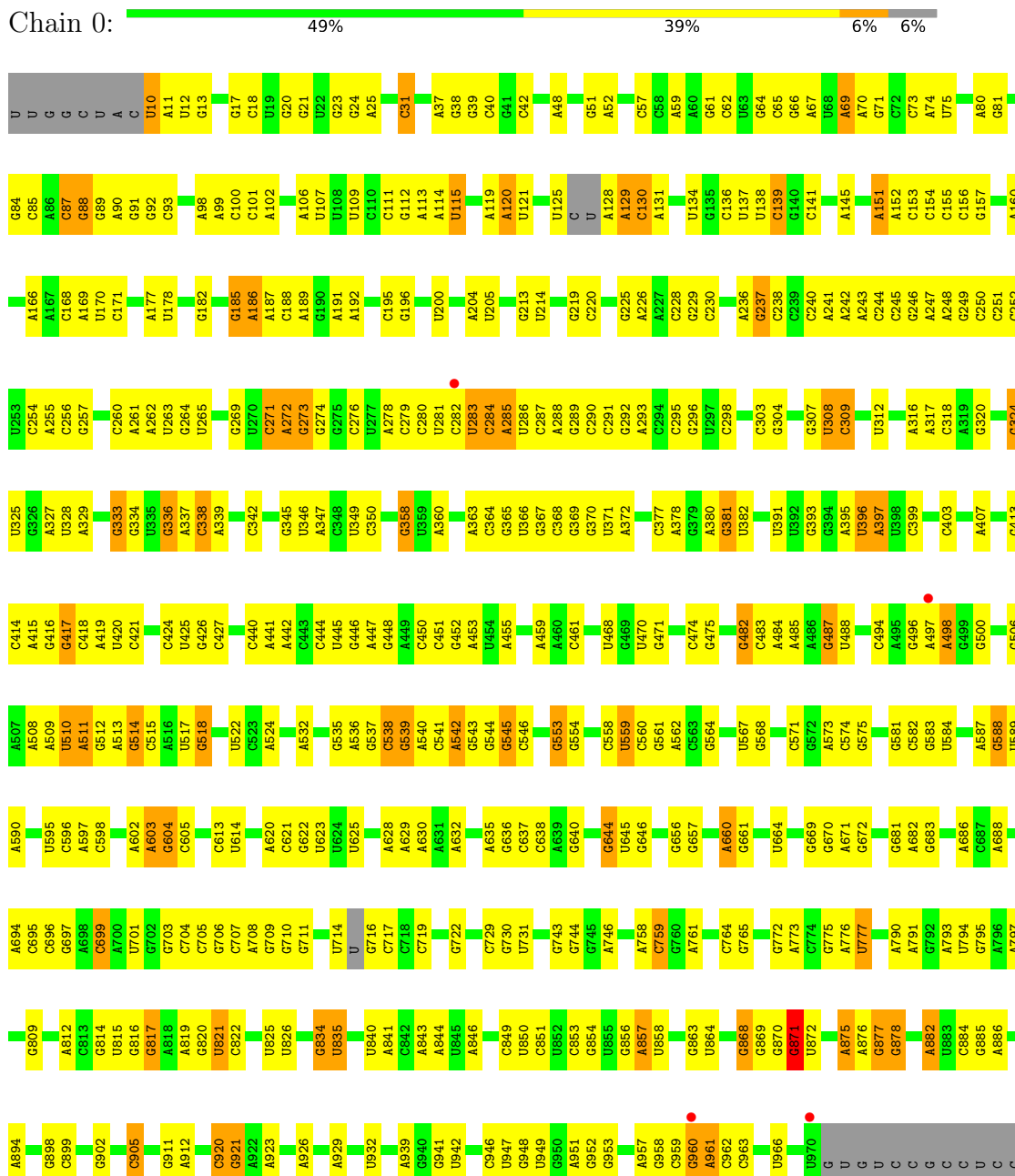
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
38	O	44	Total 44	O 44	0	0
38	P	56	Total 56	O 56	0	0
38	Q	51	Total 51	O 51	0	0
38	R	80	Total 80	O 80	0	0
38	S	36	Total 36	O 36	0	0
38	T	33	Total 33	O 33	0	0
38	U	26	Total 26	O 26	0	0
38	V	11	Total 11	O 11	0	0
38	W	67	Total 67	O 67	0	0
38	X	21	Total 21	O 21	0	0
38	Y	96	Total 96	O 96	0	0
38	Z	31	Total 31	O 31	0	0
38	1	56	Total 56	O 56	0	0
38	2	45	Total 45	O 45	0	0
38	3	66	Total 66	O 66	0	0
38	I	8	Total 8	O 8	0	0

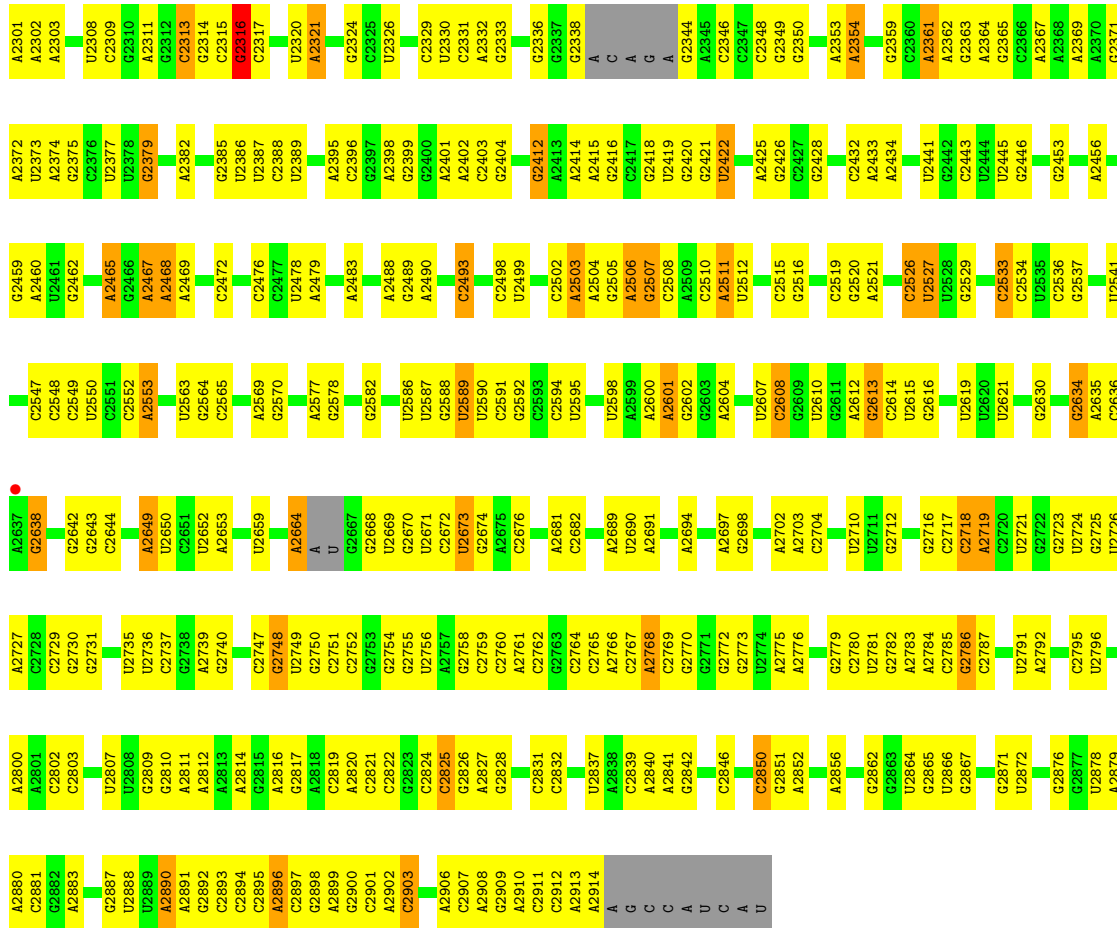
3 Residue-property plots i

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

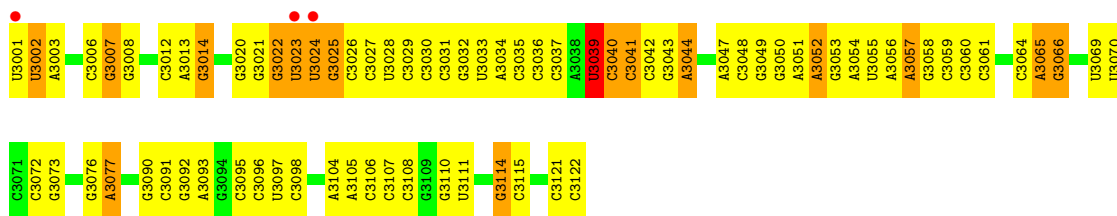
- Molecule 1: 23S ribosomal RNA



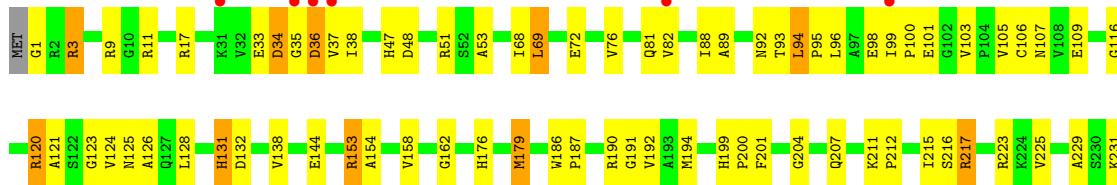
C	A2081	G1069	G1165	G1322	U1419	U1524	C1602	C1686	G1785	G1902	U1996	A2081	C
U	G2082	A1070	A1166	G1323	C1420	G1525	A1603	C1687	C1786	U1903	U1996	G2082	U
A	A2083	G1071	G1167	G1234	C1421	A1526	G1604	C1688	C1787	A1904	G2000	A2083	A
G	G2087	G1072	C1168	G1235	U1422	A1527	G1605	C1689	U1788	U1905	G2001	G2087	G
C	C2088	G1076	U1169	G1236	C1423	A1528	C1609	A1701	C1789	A1909	G2002	C2088	C
C	A2089	U1170	U1170	U1237	U1424	A1529	G1610	U1702	C1790	A1909	U2003	A2089	C
G	G2090	A1171	A1171	C1238	A1246	G1535	G1615	C1705	C1798	C1913	U2004	G2090	G
C	G2091	G1077	G1172	G1239	A1247	C1536	A1616	C1714	G1805	C1914	G2005	G2091	C
G	G2092	A1078	A1173	A1079	C1242	C1537	C1617	C1715	G1806	C1914	A2007	G2092	G
A	A2096	C1080	C1175	C1081	U1244	U1544	G1618	A1716	G1809	A1919	U2008	A2096	A
C	A2100	G1082	C1176	A1082	C1245	C1545	G1619	A1717	C1810	A1921	G2009	A2100	C
C	A2101	C1083	A1177	G1083	A1246	G1546	C1620	U1722	C1811	A1922	A2010	A2101	C
C	A2102	C1084	U1180	C1084	U1249	G1547	G1622	U1723	A1811	A1923	A2011	A2102	C
U	U2103	A1087	A1181	C1342	C1250	G1548	G1623	U1724	A1812	A1924	U2012	U2103	U
A	A2104	G1088	C1182	C1343	C1251	G1549	G1624	G1723	A1813	A1925	G2013	A2104	A
C	C2105	A1089	C1183	G1344	C1252	U	U1625	U1724	A1815	A1926	G2014	C2105	C
C	C2106	A1090	C1184	G1344	A1252	G1556	U1626	C1725	G1819	A1927	A2015	C2106	C
G	G2237	U1109	U1185	U1350	C1253	G1557	G1627	G1730	G1820	A1930	U2016	G2237	G
G	A2238	G1099	U1186	G1351	U1447	G1558	G1627	A1731	G1821	A1931	U2017	A2238	G
U	U2240	A1098	C1186	G1352	U1448	C1559	A1630	C1732	U1825	A1932	C2026	U2240	U
C	C2241	G1099	U1187	A1352	G1449	C1560	A1631	A1733	C1826	G1932	U2027	C2241	C
A	A2242	C1104	A1188	A1353	G1450	U	A1632	A1734	A1839	A1941	U2032	A2242	A
C	C2243	A1104	A1189	A1354	C1451	G1561	A1633	A1735	A1840	A1942	G2033	C2243	C
C	A2244	U1109	A1190	A1355	C1452	G1562	C1633	A1736	C1834	A1943	U2034	A2244	C
C	C2247	G1110	A1191	C1366	G1453	G1563	G1634	U1748	U1835	C1943	U2035	C2247	C
G	G2251	A1114	A1192	U1372	G1454	G1564	U1635	G1749	U1836	G1944	G2036	G2251	G
G	A2252	U1115	A1193	A1372	C1455	C1565	U1636	A1749	U1837	G1945	A2039	A2252	G
C	C2253	U1116	A1194	A1376	C1456	G1566	A1637	U1749	A1842	G1946	G2044	C2253	C
G	G2254	A1117	U1198	G1376	U1457	A1567	A1641	G1745	A1843	G1947	C2047	G2254	G
A	A2255	C1113	A1199	C1377	A1458	G1568	A1642	A1746	A1844	G1948	G2048	A2255	A
G	G2256	G1118	A1200	U1377	G1474	U1569	A1643	U1748	C1841	G1951	G2049	G2256	G
G	C2257	G1119	C1201	C1384	C1477	A1573	C1643	G1752	A1845	U	G2050	C2257	G
A	A2258	A1123	A1202	G1385	C1477	C1574	C1644	A1755	A1846	A	A2054	A2258	A
C	G2263	G1127	A1203	G1386	A1482	C1575	U1654	G1756	G1851	C	A2055	G2263	C
C	A2264	U1128	G1203	U1288	C1483	G1576	G1655	A1755	G1852	A	G2061	A2264	C
C	U2265	C1129	C1023	C1289	G1484	U1577	A1656	G1756	C1853	U	A2062	U2265	C
C	G2270	U1130	G1024	U1290	U1485	C1578	A1657	A1755	G1854	A	U2063	G2270	C
C	G2271	G1131	C1025	A1291	A1486	A1579	A1658	G1756	A1855	C	C2065	G2271	C
C	G2272	A1132	C1209	A1291	U1487	A1580	A1661	U1761	G1856	C	G2070	G2272	C
A	A2274	G1137	G1210	A1294	U1488	A1583	C1662	C1763	C1857	C	C2071	A2274	A
C	G2275	G1138	G1211	G1299	G1489	U1583	G1663	U1763	C1858	C	C2072	G2275	C
A	A1150	A1150	C1213	A1307	C1492	G1586	C1666	U1766	A1857	C	G1970	A1150	A
G	G1151	G1151	G1214	A1308	A1493	U1587	A1667	A1767	A1858	C	G1971	G1151	G
U	U1154	A1154	A1215	U1309	A1494	U1588	U1668	C1768	C1862	U	U1972	U1154	U
C	G1155	G1155	G1216	U1310	C1495	G1589	G1669	U1770	G1863	C	A1973	C1155	C
A	C1156	C1156	U1218	G1311	G1496	G1592	G1670	U1771	G1868	A	G1974	A1156	A
G	G1157	G1157	U1219	G1312	G1497	C1593	U1677	C1772	G1869	C	G1975	G1157	G
G	C1158	C1158	G1224	A1313	U1500	G1594	A1678	C1773	G1870	U	A2074	C1158	G
G	U1056	U1056	C1225	U1314	U1501	G1595	C1679	G1774	G1873	U	G2075	U1056	G
A	A1161	A1161	G1226	G1315	U1503	A1596	G1681	A1778	G1877	C	U2076	A1161	A
A	G1162	G1162	U1229	G1316	U1504	A1597	G1682	A1779	G1878	C	G2077	G1162	A
U	A1058	A1058	A1230	U1319	U1505	A1598	A1682	A1779	U1879	C	U2078	A1058	U
C	G1060	G1060	A1231	G1320	U1506	U1599	A1684	A1783	U1883	C	G2080	G1060	C
A	A1164	A1164	A1231	A1321	G1523	G1601	A1685	U1784	U1883	A	A2300	A1164	A



• Molecule 2: 5S ribosomal RNA



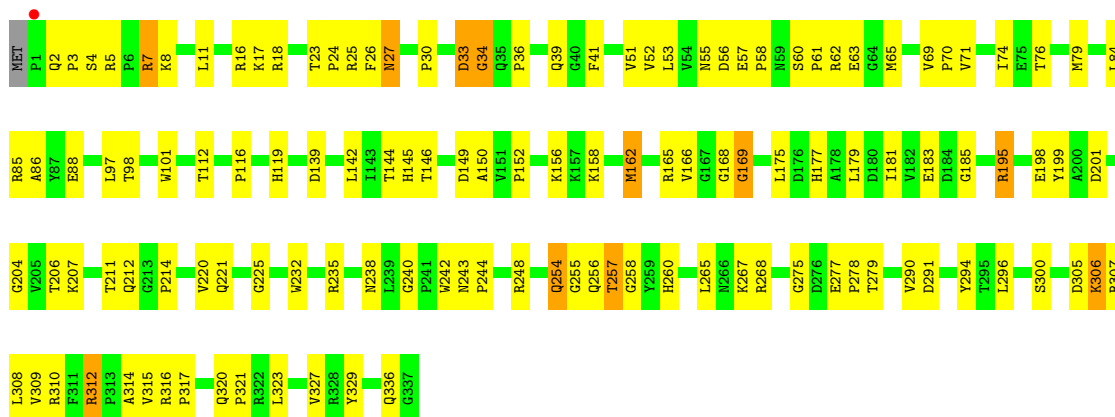
• Molecule 3: 50S ribosomal protein L2P





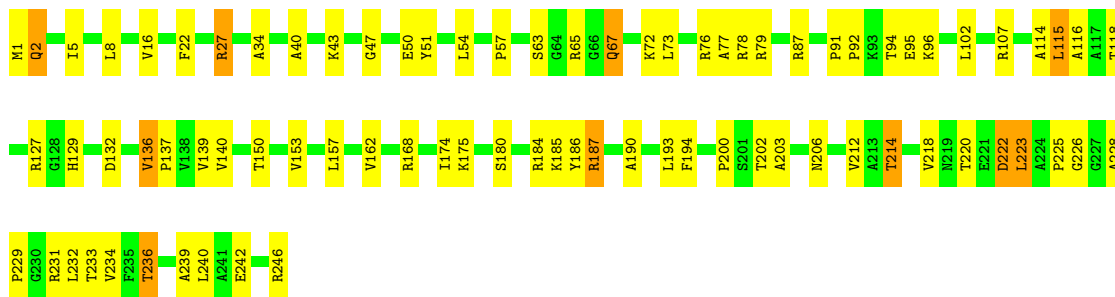
- Molecule 4: 50S ribosomal protein L3P

Chain B: 62% 34% .



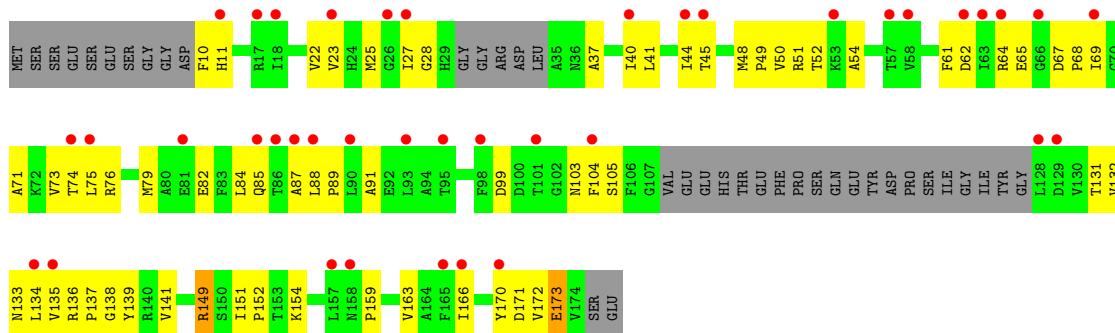
- Molecule 5: 50S ribosomal protein L4P

Chain C: 67% 29% .

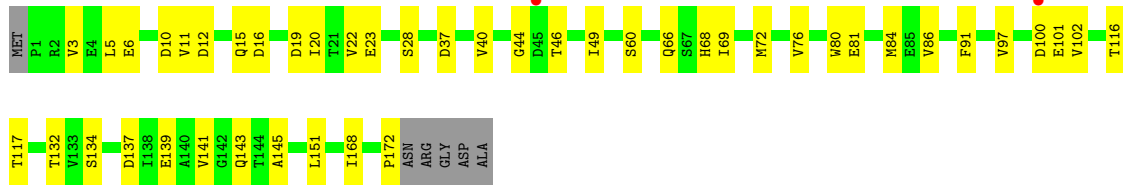
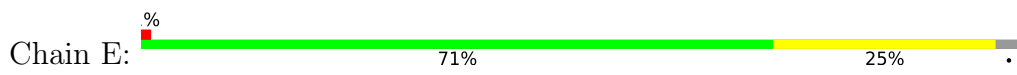


- Molecule 6: 50S ribosomal protein L5P

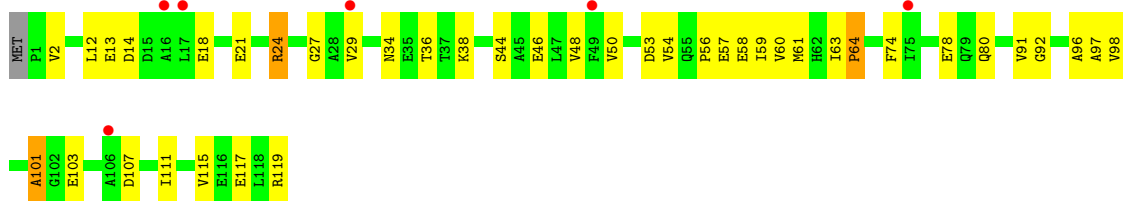
Chain D: 22% 44% 34% 21%



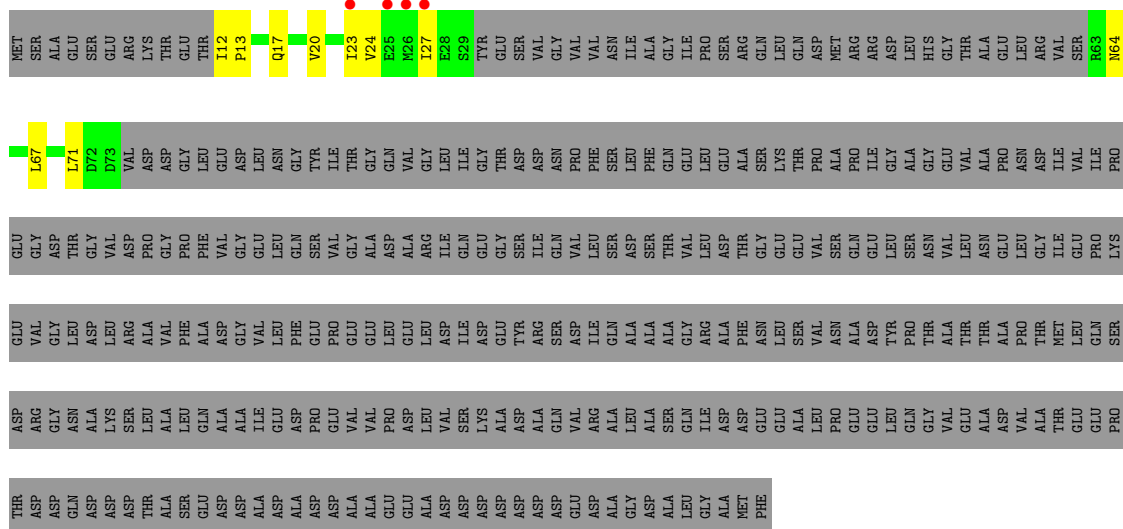
- Molecule 7: 50S ribosomal protein L6P



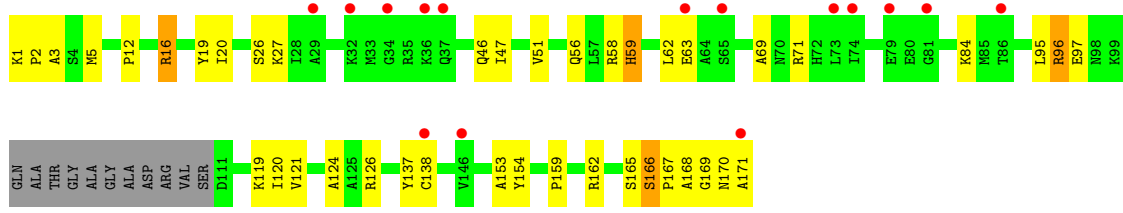
- Molecule 8: 50S ribosomal protein L7Ae



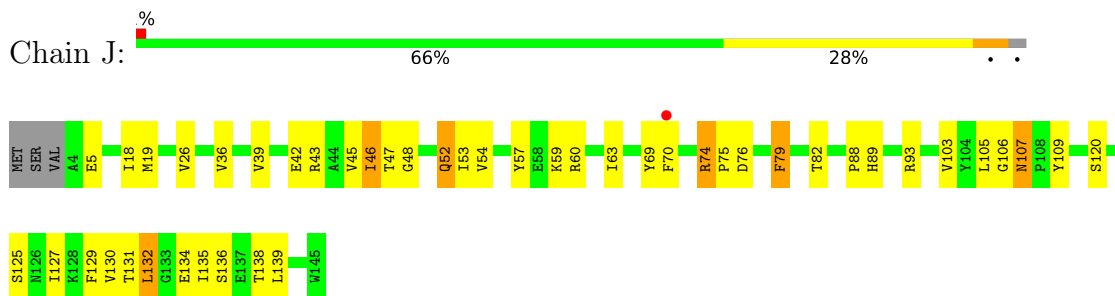
- Molecule 9: 50S ribosomal protein L10E



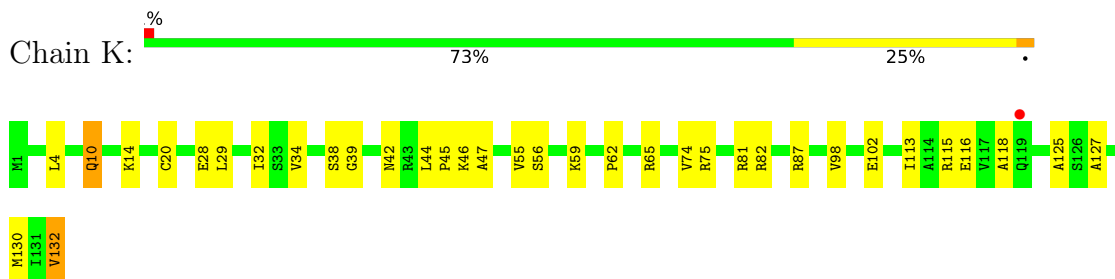
- Molecule 10: 50S ribosomal protein L10e



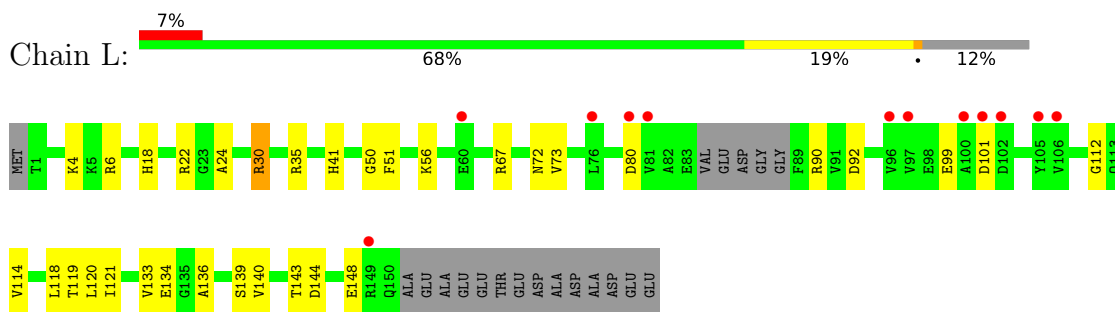
- Molecule 11: 50S ribosomal protein L13P



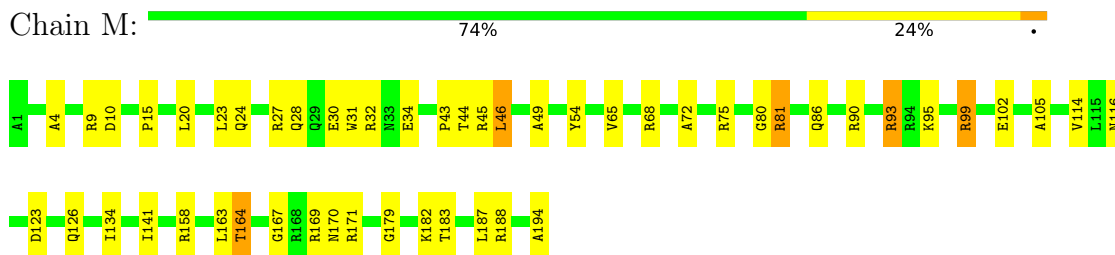
- Molecule 12: 50S ribosomal protein L14P



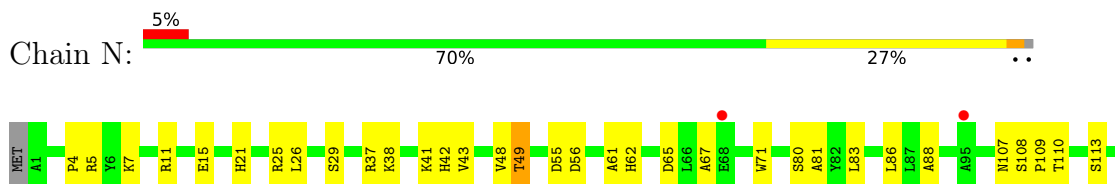
- Molecule 13: 50S ribosomal protein L15P



- Molecule 14: 50S ribosomal protein L15e

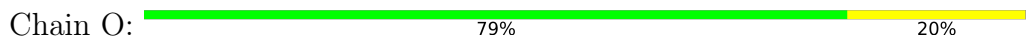


- Molecule 15: 50S ribosomal protein L18P

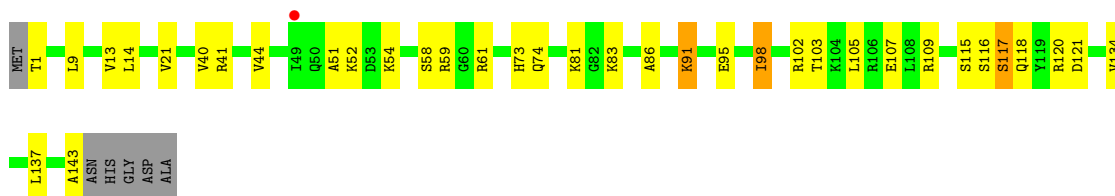




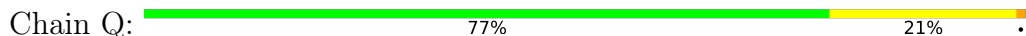
- Molecule 16: 50S ribosomal protein L18e



- Molecule 17: 50S ribosomal protein L19e



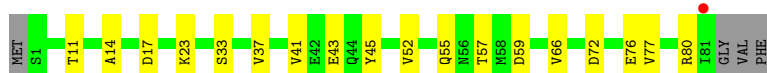
- Molecule 18: 50S ribosomal protein L21e



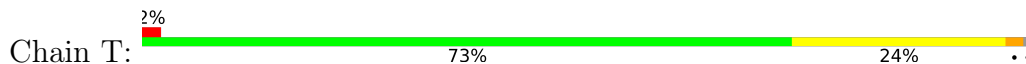
- Molecule 19: 50S ribosomal protein L22P



- Molecule 20: 50S ribosomal protein L23P



- Molecule 21: 50S ribosomal protein L24P

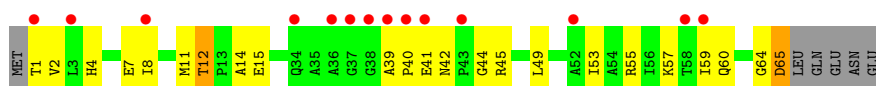




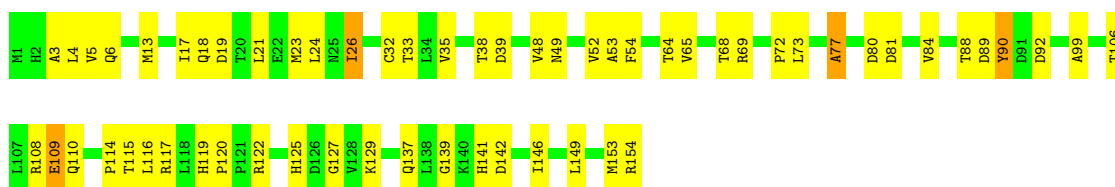
- Molecule 22: 50S ribosomal protein L24e



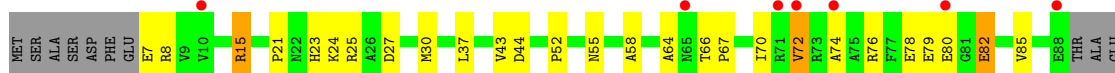
- Molecule 23: 50S ribosomal protein L29P



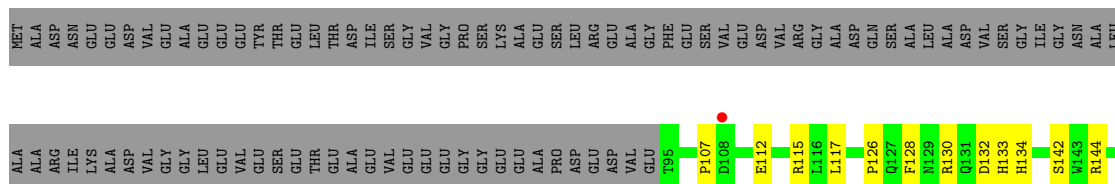
- Molecule 24: 50S ribosomal protein L30P



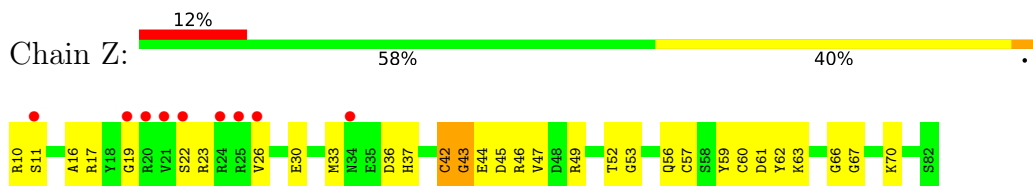
- Molecule 25: 50S ribosomal protein L31e



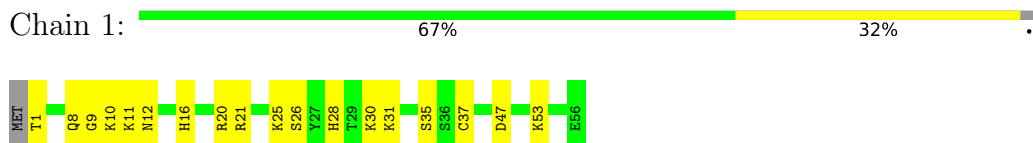
- Molecule 26: 50S ribosomal protein L32e



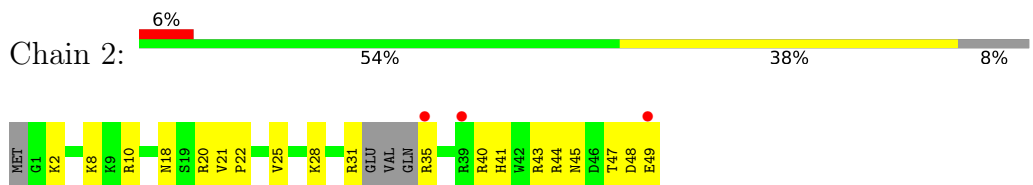
- Molecule 27: 50S ribosomal protein L37Ae



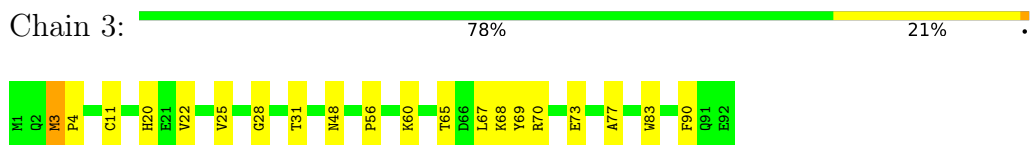
• Molecule 28: 50S ribosomal protein L37e



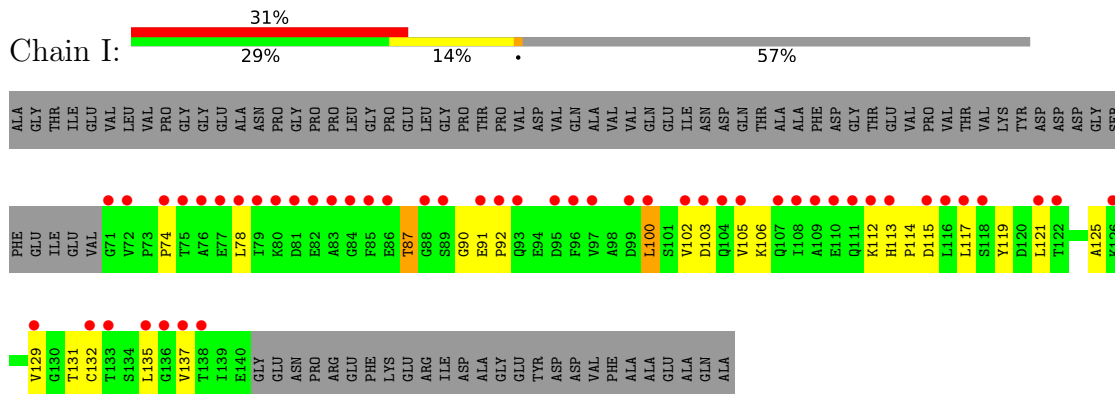
• Molecule 29: 50S ribosomal protein L39e



• Molecule 30: 50S ribosomal protein L44E



• Molecule 31: 50S ribosomal protein L11P



4 Data and refinement statistics

Property	Value	Source
Space group	C 2 2 21	Depositor
Cell constants a, b, c, α , β , γ	211.74Å 299.52Å 573.59Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.70 – 2.90 85.48 – 2.40	Depositor EDS
% Data completeness (in resolution range)	99.9 (49.70-2.90) 91.7 (85.48-2.40)	Depositor EDS
R_{merge}	0.16	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}	0.193 , 0.238 0.212 , 0.244	Depositor DCC
R_{free} test set	6547 reflections (0.98%)	wwPDB-VP
Wilson B-factor (Å ²)	50.3	Xtrriage
Anisotropy	0.049	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.32 , 74.2	EDS
L-test for twinning ²	$\langle L \rangle = 0.48$, $\langle L^2 \rangle = 0.31$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.92	EDS
Total number of atoms	99043	wwPDB-VP
Average B, all atoms (Å ²)	58.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.50% 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, CD, OMU, PSU, UR3, MG, 13T, NA, K, OMG, CL

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	0	0.39	0/65959	0.69	14/102870 (0.0%)
2	9	0.34	0/2905	0.69	1/4528 (0.0%)
3	A	0.35	0/1786	0.66	0/2408
4	B	0.34	0/2690	0.66	0/3652
5	C	0.39	0/1884	0.66	0/2551
6	D	0.33	0/1111	0.58	0/1498
7	E	0.34	0/1382	0.57	0/1880
8	F	0.38	0/901	0.58	0/1224
9	G	0.33	0/241	0.49	0/324
10	H	0.38	0/1287	0.65	0/1725
11	J	0.36	0/1136	0.61	0/1530
12	K	0.36	0/1001	0.68	0/1347
13	L	0.35	0/1130	0.64	0/1509
14	M	0.37	0/1584	0.63	0/2119
15	N	0.31	0/1474	0.65	1/1999 (0.1%)
16	O	0.36	0/874	0.61	1/1181 (0.1%)
17	P	0.35	0/1147	0.55	0/1528
18	Q	0.37	0/749	0.68	0/1005
19	R	0.36	0/1172	0.64	0/1578
20	S	0.35	0/648	0.59	0/875
21	T	0.34	0/958	0.63	0/1289
22	U	0.36	0/417	0.56	0/562
23	V	0.35	0/502	0.56	0/675
24	W	0.34	0/1219	0.63	0/1655
25	X	0.35	0/664	0.59	0/895
26	Y	0.36	0/1146	0.63	0/1536
27	Z	0.39	0/590	0.64	0/787
28	1	0.40	0/438	0.63	0/578
29	2	0.37	0/401	0.56	0/529
30	3	0.37	0/771	0.57	0/1024
31	I	0.35	0/526	0.57	0/716
All	All	0.38	0/98693	0.67	17/147577 (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
1	0	1	42
2	9	0	2
24	W	0	1
All	All	1	45

There are no bond length outliers.

The worst 5 of 17 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	1563	G	C2'-C3'-O3'	9.37	130.11	109.50
2	9	3039	U	N1-C1'-C2'	6.50	122.45	114.00
1	0	2316	G	C5'-C4'-C3'	-6.49	105.61	116.00
1	0	1504	A	C1'-O4'-C4'	-6.21	104.93	109.90
1	0	1942	A	C5'-C4'-C3'	6.20	125.92	116.00

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	0	1563	G	C3'

5 of 45 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	0	131	A	Sidechain
1	0	220	C	Sidechain
1	0	324	G	Sidechain
1	0	333	G	Sidechain
1	0	48	A	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	0	59021	0	29812	1337	0
2	9	2600	0	1326	95	0
3	A	1753	0	1766	78	0
4	B	2625	0	2533	112	0
5	C	1859	0	1816	74	0
6	D	1094	0	1085	56	0
7	E	1357	0	1266	38	0
8	F	890	0	843	32	0
9	G	240	0	231	9	0
10	H	1266	0	1268	39	0
11	J	1120	0	1098	49	0
12	K	992	0	1031	40	0
13	L	1118	0	1076	28	0
14	M	1560	0	1568	45	0
15	N	1445	0	1401	45	0
16	O	865	0	873	21	0
17	P	1136	0	1123	33	0
18	Q	735	0	728	22	0
19	R	1149	0	1122	41	0
20	S	641	0	605	14	0
21	T	950	0	923	25	0
22	U	410	0	364	21	0
23	V	499	0	511	19	0
24	W	1196	0	1137	57	0
25	X	654	0	653	25	0
26	Y	1130	0	1133	46	0
27	Z	579	0	539	25	0
28	1	431	0	426	21	0
29	2	396	0	413	18	0
30	3	755	0	728	18	0
31	I	519	0	500	23	0
32	0	42	0	50	24	0
33	0	108	0	0	0	0
33	3	2	0	0	0	0
33	9	1	0	0	0	0
33	A	2	0	0	0	0
33	B	1	0	0	0	0
33	K	1	0	0	0	0
33	T	1	0	0	0	0
33	Y	1	0	0	0	0
34	0	2	0	0	0	0
35	0	74	0	0	2	0
35	9	2	0	0	0	0

Continued on next page...

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
35	A	1	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	L	1	0	0	1	0
35	M	1	0	0	0	0
35	Q	1	0	0	0	0
35	R	2	0	0	0	0
35	S	1	0	0	0	0
36	0	9	0	0	2	0
36	3	1	0	0	0	0
36	A	1	0	0	0	0
36	B	1	0	0	0	0
36	J	3	0	0	2	0
36	L	1	0	0	0	0
36	M	1	0	0	1	0
36	N	1	0	0	0	0
36	O	1	0	0	0	0
36	R	1	0	0	0	0
36	Y	2	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	5905	0	0	199	0
38	1	56	0	0	1	0
38	2	45	0	0	4	0
38	3	66	0	0	2	0
38	9	140	0	0	10	0
38	A	112	0	0	8	0
38	B	142	0	0	21	0
38	C	170	0	0	16	0
38	D	45	0	0	8	0
38	E	42	0	0	5	0
38	F	26	0	0	2	0
38	G	19	0	0	0	0
38	H	70	0	0	6	0
38	I	8	0	0	1	0
38	J	58	0	0	3	0
38	K	59	0	0	1	0
38	L	83	0	0	10	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
38	M	123	0	0	4	0
38	N	63	0	0	6	0
38	O	44	0	0	3	0
38	P	56	0	0	2	0
38	Q	51	0	0	5	0
38	R	80	0	0	2	0
38	S	36	0	0	2	0
38	T	33	0	0	1	0
38	U	26	0	0	2	0
38	V	11	0	0	1	0
38	W	67	0	0	6	0
38	X	21	0	0	2	0
38	Y	96	0	0	6	0
38	Z	31	0	0	2	0
All	All	99043	0	59948	2276	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 15.

The worst 5 of 2276 close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:871:G:C8	1:0:871:G:H5'	1.77	1.19
1:0:1160:G:C5'	1:0:1161:A:H5'	1.73	1.18
1:0:1160:G:H5'	1:0:1161:A:C5'	1.79	1.12
1:0:871:G:H5'	1:0:871:G:H8	1.01	1.09
1:0:1002:G:H2'	1:0:1003:U:H5''	1.37	1.07

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	A	235/240 (98%)	212 (90%)	21 (9%)	2 (1%)	17	48
4	B	335/338 (99%)	310 (92%)	21 (6%)	4 (1%)	13	40
5	C	244/246 (99%)	224 (92%)	18 (7%)	2 (1%)	19	51
6	D	134/177 (76%)	113 (84%)	18 (13%)	3 (2%)	6	24
7	E	170/178 (96%)	163 (96%)	6 (4%)	1 (1%)	25	58
8	F	117/120 (98%)	103 (88%)	11 (9%)	3 (3%)	5	20
9	G	25/348 (7%)	25 (100%)	0	0	100	100
10	H	156/171 (91%)	142 (91%)	11 (7%)	3 (2%)	8	28
11	J	140/145 (97%)	129 (92%)	9 (6%)	2 (1%)	11	36
12	K	130/132 (98%)	122 (94%)	8 (6%)	0	100	100
13	L	141/165 (86%)	121 (86%)	20 (14%)	0	100	100
14	M	192/194 (99%)	183 (95%)	9 (5%)	0	100	100
15	N	184/187 (98%)	167 (91%)	13 (7%)	4 (2%)	6	24
16	O	113/116 (97%)	110 (97%)	3 (3%)	0	100	100
17	P	141/149 (95%)	136 (96%)	4 (3%)	1 (1%)	22	54
18	Q	93/96 (97%)	86 (92%)	6 (6%)	1 (1%)	14	42
19	R	148/155 (96%)	137 (93%)	11 (7%)	0	100	100
20	S	79/85 (93%)	76 (96%)	3 (4%)	0	100	100
21	T	117/120 (98%)	109 (93%)	7 (6%)	1 (1%)	17	48
22	U	51/66 (77%)	48 (94%)	3 (6%)	0	100	100
23	V	63/71 (89%)	58 (92%)	5 (8%)	0	100	100
24	W	152/154 (99%)	150 (99%)	0	2 (1%)	12	37
25	X	80/92 (87%)	72 (90%)	7 (9%)	1 (1%)	12	37
26	Y	140/241 (58%)	140 (100%)	0	0	100	100
27	Z	71/73 (97%)	60 (84%)	9 (13%)	2 (3%)	5	19
28	1	54/57 (95%)	52 (96%)	2 (4%)	0	100	100
29	2	42/50 (84%)	41 (98%)	1 (2%)	0	100	100
30	3	90/92 (98%)	85 (94%)	5 (6%)	0	100	100
31	I	68/161 (42%)	62 (91%)	6 (9%)	0	100	100
All	All	3705/4419 (84%)	3436 (93%)	237 (6%)	32 (1%)	17	48

5 of 32 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
8	F	101	ALA
10	H	166	SER
11	J	5	GLU
15	N	154	LEU
15	N	183	ASP

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	
3	A	179/182 (98%)	170 (95%)	9 (5%)	24	57
4	B	282/283 (100%)	268 (95%)	14 (5%)	24	57
5	C	193/193 (100%)	178 (92%)	15 (8%)	12	34
6	D	117/148 (79%)	115 (98%)	2 (2%)	60	86
7	E	152/156 (97%)	149 (98%)	3 (2%)	55	82
8	F	93/94 (99%)	89 (96%)	4 (4%)	29	62
9	G	27/283 (10%)	27 (100%)	0	100	100
10	H	132/138 (96%)	126 (96%)	6 (4%)	27	61
11	J	118/121 (98%)	110 (93%)	8 (7%)	16	42
12	K	106/106 (100%)	104 (98%)	2 (2%)	57	84
13	L	113/127 (89%)	107 (95%)	6 (5%)	22	54
14	M	158/158 (100%)	149 (94%)	9 (6%)	20	51
15	N	149/150 (99%)	146 (98%)	3 (2%)	55	82
16	O	93/94 (99%)	92 (99%)	1 (1%)	73	92
17	P	113/117 (97%)	109 (96%)	4 (4%)	36	70
18	Q	79/80 (99%)	78 (99%)	1 (1%)	69	90
19	R	117/122 (96%)	113 (97%)	4 (3%)	37	71
20	S	71/74 (96%)	70 (99%)	1 (1%)	67	89
21	T	105/106 (99%)	99 (94%)	6 (6%)	20	51
22	U	44/52 (85%)	43 (98%)	1 (2%)	50	80

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
23	V	51/57 (90%)	49 (96%)	2 (4%)	32	66
24	W	130/130 (100%)	124 (95%)	6 (5%)	27	60
25	X	66/74 (89%)	61 (92%)	5 (8%)	13	36
26	Y	120/196 (61%)	114 (95%)	6 (5%)	24	57
27	Z	60/60 (100%)	60 (100%)	0	100	100
28	1	46/47 (98%)	45 (98%)	1 (2%)	52	81
29	2	42/46 (91%)	40 (95%)	2 (5%)	25	58
30	3	79/79 (100%)	78 (99%)	1 (1%)	69	90
31	I	58/129 (45%)	56 (97%)	2 (3%)	37	71
All	All	3093/3602 (86%)	2969 (96%)	124 (4%)	31	65

5 of 124 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
11	J	93	ARG
25	X	72	VAL
14	M	68	ARG
25	X	52	PRO
28	1	47	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 71 such sidechains are listed below:

Mol	Chain	Res	Type
26	Y	149	GLN
26	Y	189	ASN
29	2	45	ASN
12	K	10	GLN
11	J	107	ASN

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	0	2746/2922 (93%)	241 (8%)	33 (1%)
2	9	121/122 (99%)	18 (14%)	1 (0%)
All	All	2867/3044 (94%)	259 (9%)	34 (1%)

5 of 259 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	0	11	A
1	0	31	C
1	0	67	A
1	0	69	A
1	0	70	A

5 of 34 RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	0	2526	C
1	0	2536	C
1	0	2761	A
1	0	1165	G
1	0	1080	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$
1	1MA	0	628	1	16,25,26	1.33	3 (18%)	18,37,40	1.05	2 (11%)
1	OMG	0	2588	1	18,26,27	1.09	2 (11%)	19,38,41	0.71	1 (5%)
1	OMU	0	2587	1	19,22,23	0.32	0	26,31,34	0.42	0
1	PSU	0	2621	1	18,21,22	1.50	2 (11%)	22,30,33	1.31	3 (13%)
1	UR3	0	2619	1	19,22,23	0.48	0	26,32,35	0.68	1 (3%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	1MA	0	628	1	-	0/3/25/26	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	OMG	0	2588	1	-	0/5/27/28	0/3/3/3
1	OMU	0	2587	1	-	0/9/27/28	0/2/2/2
1	PSU	0	2621	1	-	0/7/25/26	0/2/2/2
1	UR3	0	2619	1	-	0/7/25/26	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)
1	0	2621	PSU	C2-N1	4.98	1.43	1.36
1	0	628	1MA	C2-N3	3.37	1.33	1.29
1	0	2588	OMG	C5-C6	-3.09	1.41	1.47
1	0	2621	PSU	C6-C5	2.66	1.38	1.35
1	0	628	1MA	C6-N6	2.42	1.33	1.27

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

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	2621	PSU	C6-C5-C4	3.52	120.66	118.20
1	0	2621	PSU	C6-N1-C2	-2.86	119.75	122.68
1	0	2621	PSU	O2-C2-N1	2.79	125.86	122.79
1	0	628	1MA	N1-C2-N3	2.69	129.16	126.02
1	0	628	1MA	C5-C6-N1	2.53	117.67	113.90

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

1 monomer is involved in 1 short contact:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	0	2587	OMU	1	0

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 233 ligands modelled in this entry, 232 are monoatomic - leaving 1 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	13T	0	9000	-	41,43,43	2.02	10 (24%)	51,63,63	1.75	9 (17%)

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
32	13T	0	9000	-	-	15/73/81/81	0/1/2/2

The worst 5 of 10 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	0	9000	13T	C18-C19	7.20	1.56	1.47
32	0	9000	13T	C10-C9	3.89	1.57	1.51
32	0	9000	13T	O2-C1	3.33	1.29	1.21
32	0	9000	13T	O5-C5	3.27	1.26	1.21
32	0	9000	13T	C9-C8	3.21	1.40	1.33

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

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	0	9000	13T	C18-O11-C19	7.60	65.36	60.79
32	0	9000	13T	O4-C3-C4	4.13	115.61	105.83
32	0	9000	13T	O11-C18-C19	-4.10	56.62	59.38
32	0	9000	13T	C27-C10-C9	2.56	113.14	110.75
32	0	9000	13T	O11-C19-C18	-2.55	58.01	59.83

There are no chirality outliers.

5 of 15 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
32	0	9000	13T	C2-C3-O4-C32
32	0	9000	13T	C1-C2-C3-O4

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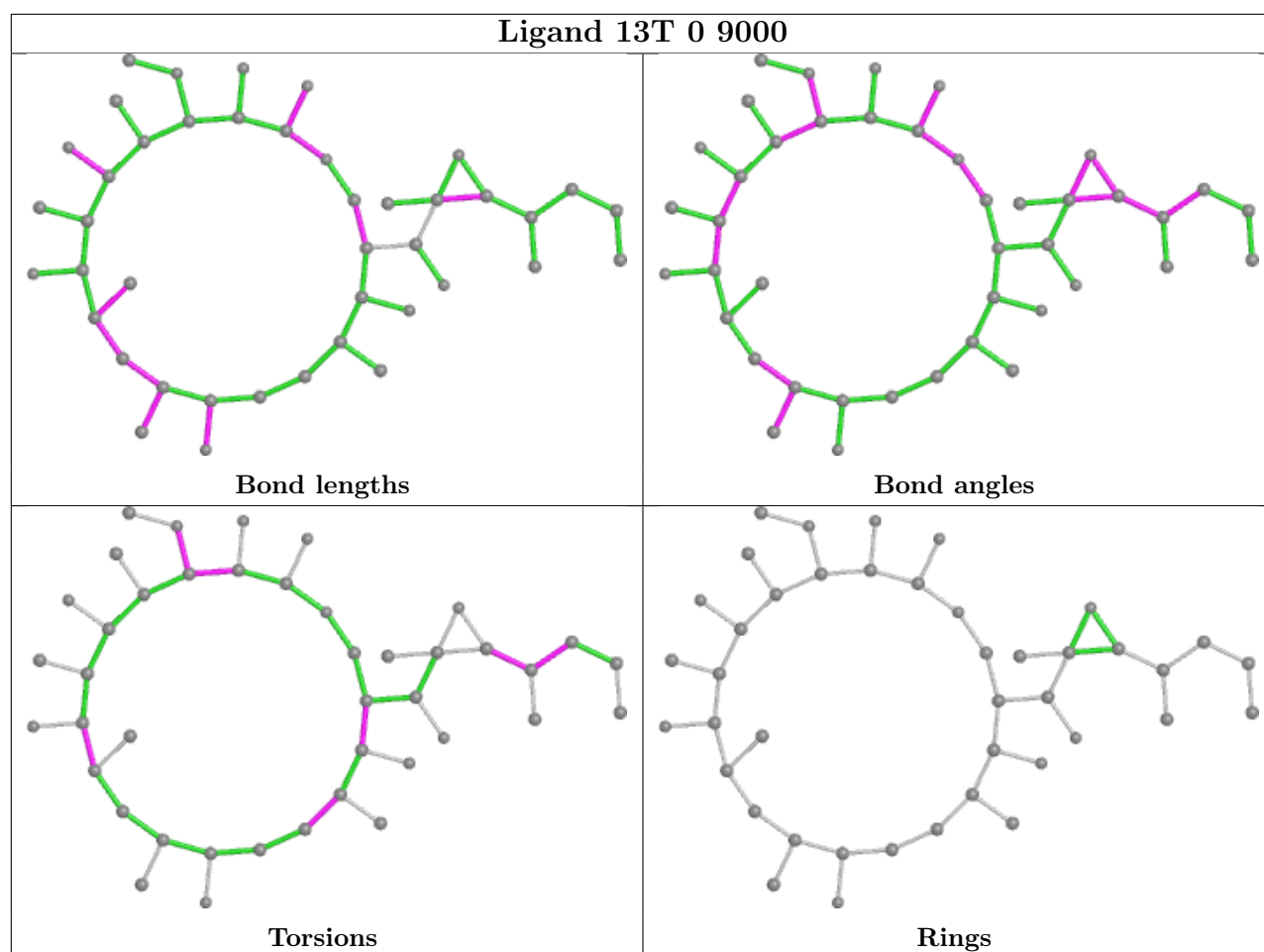
Mol	Chain	Res	Type	Atoms
32	0	9000	13T	O6-C7-C8-C9
32	0	9000	13T	O6-C7-C8-C26
32	0	9000	13T	C6-C7-C8-C9

There are no ring outliers.

1 monomer is involved in 24 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	0	9000	13T	24	0

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



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	0	2749/2922 (94%)	-0.50	14 (0%) 91 91	23, 50, 93, 150	0
2	9	122/122 (100%)	-0.69	3 (2%) 57 55	43, 69, 91, 151	0
3	A	237/240 (98%)	-0.21	7 (2%) 50 45	32, 55, 86, 105	0
4	B	337/338 (99%)	-0.28	1 (0%) 94 94	33, 60, 82, 90	0
5	C	246/246 (100%)	-0.44	0 100 100	30, 50, 73, 82	0
6	D	140/177 (79%)	1.26	39 (27%) 0 0	63, 103, 124, 130	0
7	E	172/178 (96%)	-0.13	2 (1%) 79 79	55, 73, 90, 96	0
8	F	119/120 (99%)	0.38	6 (5%) 28 25	57, 74, 96, 106	0
9	G	29/348 (8%)	0.78	4 (13%) 2 2	81, 94, 103, 103	0
10	H	160/171 (93%)	0.44	15 (9%) 8 6	52, 67, 93, 100	0
11	J	142/145 (97%)	-0.36	1 (0%) 87 87	45, 56, 74, 94	0
12	K	132/132 (100%)	-0.44	1 (0%) 86 86	41, 54, 75, 81	0
13	L	145/165 (87%)	0.27	12 (8%) 11 8	32, 71, 107, 118	0
14	M	194/194 (100%)	-0.52	0 100 100	36, 47, 60, 64	0
15	N	186/187 (99%)	0.10	9 (4%) 30 27	50, 67, 110, 119	0
16	O	115/116 (99%)	-0.34	0 100 100	44, 59, 71, 76	0
17	P	143/149 (95%)	-0.30	1 (0%) 87 87	46, 60, 70, 75	0
18	Q	95/96 (98%)	-0.44	0 100 100	43, 52, 64, 72	0
19	R	150/155 (96%)	-0.43	0 100 100	38, 50, 68, 73	0
20	S	81/85 (95%)	-0.05	1 (1%) 79 79	52, 65, 81, 85	0
21	T	119/120 (99%)	-0.08	3 (2%) 57 55	47, 62, 83, 96	0
22	U	53/66 (80%)	-0.20	0 100 100	51, 61, 75, 81	0
23	V	65/71 (91%)	1.28	14 (21%) 0 0	59, 79, 109, 114	0
24	W	154/154 (100%)	-0.39	0 100 100	42, 56, 70, 77	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
25	X	82/92 (89%)	0.17	7 (8%) 10 8	52, 64, 87, 97	0
26	Y	142/241 (58%)	-0.57	2 (1%) 75 75	30, 51, 70, 86	0
27	Z	73/73 (100%)	0.30	9 (12%) 4 3	58, 69, 80, 94	0
28	1	56/57 (98%)	-0.44	0 100 100	31, 37, 43, 51	0
29	2	46/50 (92%)	0.16	3 (6%) 18 14	41, 69, 90, 99	0
30	3	92/92 (100%)	-0.35	0 100 100	42, 60, 71, 82	0
31	I	70/161 (43%)	3.20	50 (71%) 0 0	109, 119, 135, 135	0
All	All	6646/7463 (89%)	-0.24	204 (3%) 49 44	23, 57, 100, 151	0

The worst 5 of 204 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
31	I	75	THR	9.2
31	I	79	ILE	8.7
23	V	1	THR	8.2
31	I	109	ALA	8.2
6	D	63	ILE	7.9

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
1	OMU	0	2587	21/22	0.95	0.12	38,39,40,41	0
1	1MA	0	628	23/24	0.96	0.17	33,35,36,37	0
1	UR3	0	2619	21/22	0.96	0.15	36,38,39,40	0
1	OMG	0	2588	24/25	0.97	0.13	37,38,39,40	0
1	PSU	0	2621	20/21	0.97	0.12	30,32,39,40	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
33	MG	0	8113	1/1	0.23	0.16	44,44,44,44	0
35	NA	9	8551	1/1	0.38	0.38	92,92,92,92	0
35	NA	0	8538	1/1	0.47	0.09	55,55,55,55	0
35	NA	0	8559	1/1	0.48	0.37	53,53,53,53	0
33	MG	0	8096	1/1	0.48	0.11	48,48,48,48	0
35	NA	0	8507	1/1	0.53	0.24	69,69,69,69	0
35	NA	0	8513	1/1	0.54	0.07	72,72,72,72	0
33	MG	0	8104	1/1	0.54	0.37	78,78,78,78	0
35	NA	0	8531	1/1	0.55	0.39	57,57,57,57	0
35	NA	0	8585	1/1	0.60	0.38	65,65,65,65	0
35	NA	0	8571	1/1	0.61	0.30	59,59,59,59	0
35	NA	0	8577	1/1	0.63	0.75	81,81,81,81	0
33	MG	0	8080	1/1	0.64	0.15	39,39,39,39	0
36	CL	0	8815	1/1	0.64	0.14	89,89,89,89	0
35	NA	0	8502	1/1	0.66	0.20	57,57,57,57	0
35	NA	0	8550	1/1	0.66	0.61	65,65,65,65	0
35	NA	0	8528	1/1	0.68	0.50	54,54,54,54	0
33	MG	0	8111	1/1	0.68	0.08	46,46,46,46	0
35	NA	0	8569	1/1	0.69	0.25	64,64,64,64	0
33	MG	0	8117	1/1	0.69	0.09	34,34,34,34	0
33	MG	0	8100	1/1	0.71	0.10	42,42,42,42	0
33	MG	0	8102	1/1	0.71	0.29	50,50,50,50	0
35	NA	0	8582	1/1	0.72	0.21	85,85,85,85	0
33	MG	0	8046	1/1	0.72	0.07	56,56,56,56	0
35	NA	0	8509	1/1	0.72	0.11	48,48,48,48	0
35	NA	0	8510	1/1	0.72	0.15	45,45,45,45	0
35	NA	0	8560	1/1	0.74	0.24	60,60,60,60	0
35	NA	9	8583	1/1	0.74	0.15	73,73,73,73	0
35	NA	0	8535	1/1	0.74	0.35	54,54,54,54	0
35	NA	0	8575	1/1	0.75	0.32	72,72,72,72	0
35	NA	J	8546	1/1	0.76	0.25	39,39,39,39	0
33	MG	0	8045	1/1	0.76	0.12	67,67,67,67	0
33	MG	0	8075	1/1	0.77	0.05	56,56,56,56	0
35	NA	0	8506	1/1	0.77	0.71	49,49,49,49	0
33	MG	9	8095	1/1	0.77	0.15	77,77,77,77	0
35	NA	0	8517	1/1	0.77	0.13	37,37,37,37	0
35	NA	0	8584	1/1	0.77	0.70	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
35	NA	0	8564	1/1	0.78	0.37	49,49,49,49	0
35	NA	0	8527	1/1	0.78	0.24	61,61,61,61	0
35	NA	0	8516	1/1	0.78	0.42	49,49,49,49	0
35	NA	H	8522	1/1	0.79	0.35	77,77,77,77	0
33	MG	0	8094	1/1	0.80	0.15	59,59,59,59	0
36	CL	0	8816	1/1	0.80	0.13	69,69,69,69	0
35	NA	0	8581	1/1	0.81	0.08	42,42,42,42	0
35	NA	0	8524	1/1	0.81	0.11	48,48,48,48	0
35	NA	0	8562	1/1	0.81	0.49	70,70,70,70	0
33	MG	0	8052	1/1	0.81	0.13	68,68,68,68	0
35	NA	0	8565	1/1	0.81	0.57	47,47,47,47	0
33	MG	0	8084	1/1	0.82	0.14	58,58,58,58	0
33	MG	K	8069	1/1	0.82	0.06	51,51,51,51	0
33	MG	0	8063	1/1	0.82	0.09	63,63,63,63	0
33	MG	0	8071	1/1	0.82	0.07	50,50,50,50	0
33	MG	0	8047	1/1	0.83	0.12	57,57,57,57	0
35	NA	0	8521	1/1	0.83	0.41	77,77,77,77	0
35	NA	0	8529	1/1	0.84	0.09	68,68,68,68	0
33	MG	0	8061	1/1	0.84	0.16	44,44,44,44	0
33	MG	0	8024	1/1	0.84	1.00	65,65,65,65	0
35	NA	C	8504	1/1	0.84	0.08	35,35,35,35	0
33	MG	0	8035	1/1	0.84	0.11	46,46,46,46	0
33	MG	0	8112	1/1	0.84	0.07	39,39,39,39	0
35	NA	0	8566	1/1	0.84	0.18	48,48,48,48	0
35	NA	0	8568	1/1	0.84	0.20	87,87,87,87	0
36	CL	L	8810	1/1	0.84	0.10	59,59,59,59	0
33	MG	0	8097	1/1	0.85	0.07	45,45,45,45	0
33	MG	0	8072	1/1	0.85	0.09	57,57,57,57	0
35	NA	0	8579	1/1	0.85	0.23	65,65,65,65	0
33	MG	0	8057	1/1	0.85	0.05	41,41,41,41	0
36	CL	0	8822	1/1	0.85	0.48	90,90,90,90	0
33	MG	0	8015	1/1	0.85	0.17	35,35,35,35	0
35	NA	0	8515	1/1	0.86	0.22	49,49,49,49	0
32	13T	0	9000	42/42	0.86	0.25	58,67,73,74	0
33	MG	0	8058	1/1	0.86	0.11	42,42,42,42	0
35	NA	0	8544	1/1	0.86	0.07	29,29,29,29	0
33	MG	0	8116	1/1	0.86	0.10	56,56,56,56	0
35	NA	S	8512	1/1	0.87	0.42	57,57,57,57	0
36	CL	0	8812	1/1	0.87	0.09	49,49,49,49	0
35	NA	0	8561	1/1	0.87	0.32	50,50,50,50	0
35	NA	0	8556	1/1	0.87	0.44	61,61,61,61	0
34	K	0	8401	1/1	0.87	0.73	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
36	CL	J	8821	1/1	0.87	0.21	77,77,77,77	0
33	MG	0	8076	1/1	0.87	0.06	49,49,49,49	0
35	NA	0	8572	1/1	0.88	0.39	73,73,73,73	0
33	MG	0	8013	1/1	0.88	0.19	38,38,38,38	0
35	NA	0	8557	1/1	0.88	0.13	45,45,45,45	0
35	NA	0	8555	1/1	0.88	0.99	85,85,85,85	0
36	CL	N	8807	1/1	0.88	0.14	71,71,71,71	0
36	CL	O	8808	1/1	0.88	0.09	67,67,67,67	0
37	CD	O	8705	1/1	0.88	0.10	186,186,186,186	0
33	MG	Y	8109	1/1	0.89	0.16	44,44,44,44	0
33	MG	0	8008	1/1	0.89	0.08	29,29,29,29	0
35	NA	0	8558	1/1	0.89	0.56	75,75,75,75	0
33	MG	0	8029	1/1	0.89	0.12	42,42,42,42	0
35	NA	0	8518	1/1	0.89	0.34	58,58,58,58	0
33	MG	0	8011	1/1	0.89	0.18	39,39,39,39	0
33	MG	0	8020	1/1	0.90	0.12	39,39,39,39	0
35	NA	M	8547	1/1	0.90	0.07	41,41,41,41	0
33	MG	0	8115	1/1	0.90	0.07	45,45,45,45	0
33	MG	0	8062	1/1	0.90	0.22	13,13,13,13	0
35	NA	0	8563	1/1	0.90	0.42	68,68,68,68	0
33	MG	0	8022	1/1	0.90	0.08	37,37,37,37	0
35	NA	0	8554	1/1	0.90	0.15	42,42,42,42	0
33	MG	0	8081	1/1	0.90	0.13	43,43,43,43	0
33	MG	0	8018	1/1	0.90	0.15	39,39,39,39	0
33	MG	0	8090	1/1	0.90	0.23	73,73,73,73	0
33	MG	0	8028	1/1	0.90	0.06	33,33,33,33	0
35	NA	0	8532	1/1	0.90	0.23	44,44,44,44	0
33	MG	0	8091	1/1	0.91	0.10	65,65,65,65	0
35	NA	0	8542	1/1	0.91	0.29	15,15,15,15	0
33	MG	0	8114	1/1	0.91	0.35	54,54,54,54	0
36	CL	B	8819	1/1	0.91	0.10	53,53,53,53	0
36	CL	J	8802	1/1	0.91	0.15	76,76,76,76	0
35	NA	0	8505	1/1	0.91	0.23	37,37,37,37	0
35	NA	0	8567	1/1	0.91	0.46	61,61,61,61	0
35	NA	0	8552	1/1	0.91	0.13	68,68,68,68	0
33	MG	0	8040	1/1	0.91	0.34	53,53,53,53	0
33	MG	0	8031	1/1	0.91	0.10	30,30,30,30	0
33	MG	0	8036	1/1	0.92	0.06	41,41,41,41	0
33	MG	0	8093	1/1	0.92	0.10	61,61,61,61	0
33	MG	0	8070	1/1	0.92	0.15	43,43,43,43	0
33	MG	0	8023	1/1	0.92	0.24	61,61,61,61	0
35	NA	0	8574	1/1	0.92	0.60	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
33	MG	0	8050	1/1	0.92	0.19	74,74,74,74	0
33	MG	0	8088	1/1	0.92	0.10	33,33,33,33	0
35	NA	0	8533	1/1	0.92	0.12	39,39,39,39	0
33	MG	0	8010	1/1	0.92	0.16	11,11,11,11	0
33	MG	0	8103	1/1	0.92	0.19	78,78,78,78	0
33	MG	0	8083	1/1	0.93	0.07	41,41,41,41	0
35	NA	0	8539	1/1	0.93	0.30	40,40,40,40	0
36	CL	0	8803	1/1	0.93	0.15	56,56,56,56	0
35	NA	0	8540	1/1	0.93	0.26	50,50,50,50	0
33	MG	0	8025	1/1	0.93	0.10	43,43,43,43	0
35	NA	0	8526	1/1	0.93	0.30	70,70,70,70	0
35	NA	0	8549	1/1	0.93	0.26	53,53,53,53	0
33	MG	0	8049	1/1	0.93	0.17	36,36,36,36	0
33	MG	0	8089	1/1	0.93	0.13	62,62,62,62	0
33	MG	0	8044	1/1	0.93	0.08	55,55,55,55	0
33	MG	0	8001	1/1	0.93	0.12	44,44,44,44	0
33	MG	0	8079	1/1	0.93	0.15	27,27,27,27	0
33	MG	0	8067	1/1	0.93	0.09	37,37,37,37	0
33	MG	0	8037	1/1	0.93	0.07	42,42,42,42	0
33	MG	0	8019	1/1	0.94	0.04	34,34,34,34	0
33	MG	0	8033	1/1	0.94	0.04	38,38,38,38	0
35	NA	A	8545	1/1	0.94	0.16	61,61,61,61	0
33	MG	0	8006	1/1	0.94	0.09	36,36,36,36	0
33	MG	3	8078	1/1	0.94	0.10	16,16,16,16	0
35	NA	0	8541	1/1	0.94	0.09	46,46,46,46	0
35	NA	0	8570	1/1	0.94	0.39	65,65,65,65	0
35	NA	Q	8548	1/1	0.94	0.11	46,46,46,46	0
35	NA	R	8537	1/1	0.94	0.14	45,45,45,45	0
33	MG	0	8021	1/1	0.94	0.09	37,37,37,37	0
35	NA	0	8534	1/1	0.94	0.07	40,40,40,40	0
35	NA	R	8586	1/1	0.95	0.35	23,23,23,23	0
35	NA	0	8530	1/1	0.95	0.09	45,45,45,45	0
33	MG	0	8051	1/1	0.95	0.12	56,56,56,56	0
33	MG	0	8085	1/1	0.95	0.12	48,48,48,48	0
36	CL	0	8813	1/1	0.95	0.06	54,54,54,54	0
33	MG	0	8038	1/1	0.95	0.12	31,31,31,31	0
33	MG	0	8042	1/1	0.95	0.05	33,33,33,33	0
34	K	0	8402	1/1	0.95	0.13	61,61,61,61	0
36	CL	A	8809	1/1	0.95	0.19	82,82,82,82	0
35	NA	0	8536	1/1	0.95	0.07	54,54,54,54	0
36	CL	J	8801	1/1	0.95	0.06	58,58,58,58	0
33	MG	0	8098	1/1	0.95	0.11	42,42,42,42	0

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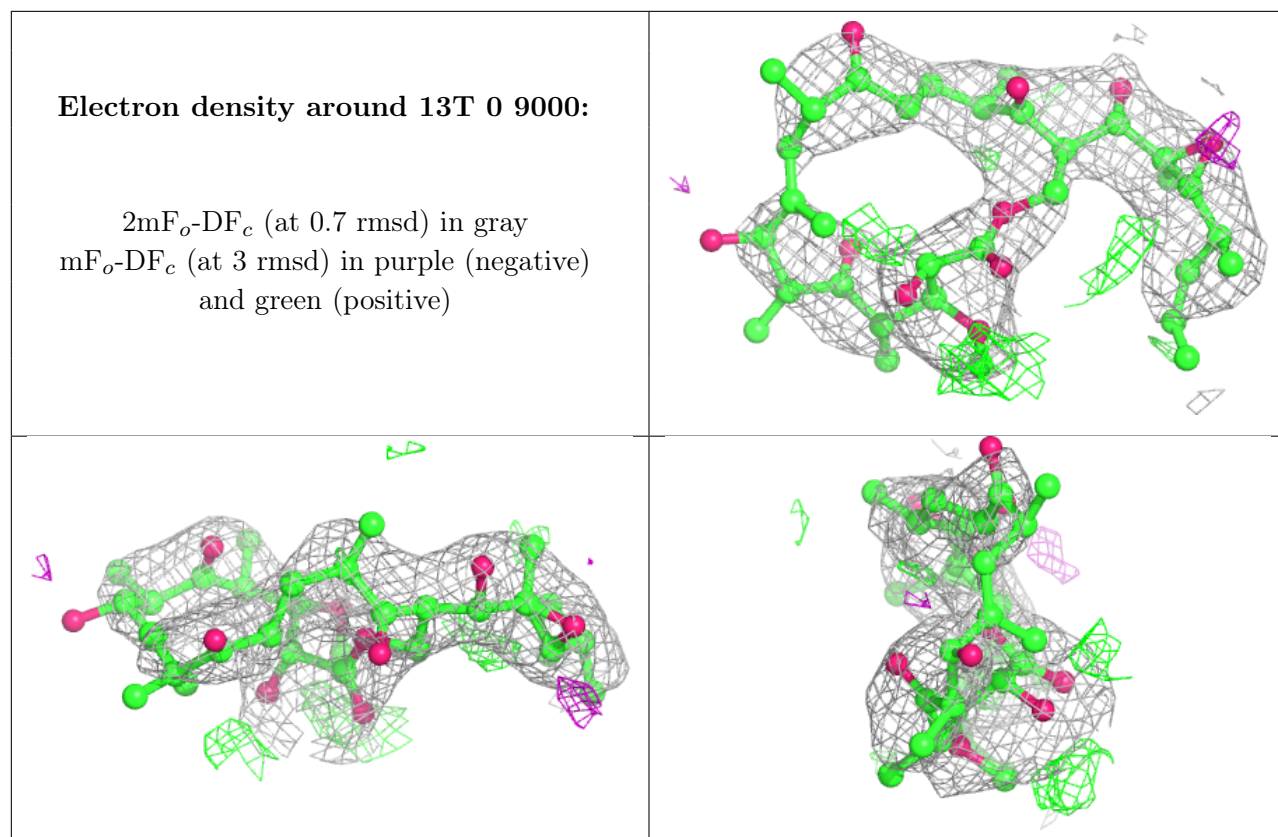
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
33	MG	0	8099	1/1	0.95	0.33	70,70,70,70	0
33	MG	0	8074	1/1	0.95	0.04	30,30,30,30	0
33	MG	0	8043	1/1	0.95	0.13	47,47,47,47	0
33	MG	0	8092	1/1	0.95	0.12	72,72,72,72	0
36	CL	Y	8817	1/1	0.95	0.15	70,70,70,70	0
33	MG	B	8055	1/1	0.95	0.15	64,64,64,64	0
33	MG	0	8041	1/1	0.96	0.23	68,68,68,68	0
33	MG	A	8065	1/1	0.96	0.14	45,45,45,45	0
33	MG	A	8066	1/1	0.96	0.05	73,73,73,73	0
35	NA	0	8514	1/1	0.96	0.10	38,38,38,38	0
36	CL	0	8814	1/1	0.96	0.11	57,57,57,57	0
33	MG	0	8034	1/1	0.96	0.10	25,25,25,25	0
33	MG	0	8004	1/1	0.96	0.18	37,37,37,37	0
33	MG	T	8073	1/1	0.96	0.10	57,57,57,57	0
33	MG	0	8108	1/1	0.96	0.03	77,77,77,77	0
35	NA	0	8520	1/1	0.96	0.23	36,36,36,36	0
33	MG	0	8053	1/1	0.96	0.13	43,43,43,43	0
33	MG	0	8086	1/1	0.96	0.07	42,42,42,42	0
33	MG	0	8087	1/1	0.96	0.09	63,63,63,63	0
33	MG	0	8077	1/1	0.96	0.16	36,36,36,36	0
36	CL	M	8818	1/1	0.96	0.09	44,44,44,44	0
33	MG	0	8048	1/1	0.96	0.09	49,49,49,49	0
33	MG	0	8005	1/1	0.96	0.10	32,32,32,32	0
33	MG	0	8101	1/1	0.96	0.08	45,45,45,45	0
36	CL	3	8804	1/1	0.96	0.09	56,56,56,56	0
35	NA	0	8508	1/1	0.96	0.26	58,58,58,58	0
37	CD	Z	8703	1/1	0.96	0.09	71,71,71,71	0
33	MG	0	8007	1/1	0.97	0.17	26,26,26,26	0
33	MG	0	8003	1/1	0.97	0.10	36,36,36,36	0
35	NA	0	8578	1/1	0.97	0.10	57,57,57,57	0
33	MG	0	8009	1/1	0.97	0.15	36,36,36,36	0
33	MG	0	8082	1/1	0.97	0.34	84,84,84,84	0
33	MG	0	8016	1/1	0.97	0.07	18,18,18,18	0
33	MG	0	8054	1/1	0.97	0.16	30,30,30,30	0
33	MG	0	8056	1/1	0.97	0.10	56,56,56,56	0
33	MG	0	8032	1/1	0.97	0.07	35,35,35,35	0
33	MG	0	8017	1/1	0.97	0.16	31,31,31,31	0
33	MG	0	8059	1/1	0.97	0.05	39,39,39,39	0
35	NA	0	8573	1/1	0.97	0.20	56,56,56,56	0
33	MG	0	8002	1/1	0.97	0.03	40,40,40,40	0
33	MG	0	8060	1/1	0.98	0.17	45,45,45,45	0
33	MG	3	8118	1/1	0.98	0.21	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
35	NA	0	8543	1/1	0.98	0.20	35,35,35,35	0
35	NA	0	8576	1/1	0.98	0.16	33,33,33,33	0
35	NA	0	8511	1/1	0.98	0.12	56,56,56,56	0
33	MG	0	8107	1/1	0.98	0.12	38,38,38,38	0
33	MG	0	8068	1/1	0.98	0.09	56,56,56,56	0
35	NA	L	8580	1/1	0.98	0.24	1,1,1,1	0
36	CL	Y	8820	1/1	0.98	0.05	44,44,44,44	0
33	MG	0	8026	1/1	0.98	0.09	33,33,33,33	0
35	NA	0	8553	1/1	0.98	0.11	44,44,44,44	0
35	NA	0	8525	1/1	0.98	0.39	59,59,59,59	0
37	CD	3	8704	1/1	0.98	0.08	65,65,65,65	0
33	MG	0	8106	1/1	0.99	0.07	71,71,71,71	0
35	NA	0	8523	1/1	0.99	0.22	38,38,38,38	0
35	NA	0	8501	1/1	0.99	0.06	50,50,50,50	0
36	CL	0	8805	1/1	0.99	0.13	71,71,71,71	0
36	CL	0	8811	1/1	0.99	0.11	58,58,58,58	0
33	MG	0	8064	1/1	0.99	0.09	41,41,41,41	0
35	NA	0	8503	1/1	0.99	0.30	1,1,1,1	0
36	CL	R	8806	1/1	0.99	0.03	49,49,49,49	0
33	MG	0	8039	1/1	0.99	0.07	64,64,64,64	0
33	MG	0	8110	1/1	0.99	0.10	53,53,53,53	0
33	MG	0	8030	1/1	0.99	0.07	35,35,35,35	0
33	MG	0	8012	1/1	0.99	0.14	39,39,39,39	0
37	CD	U	8701	1/1	0.99	0.10	67,67,67,67	0
35	NA	0	8519	1/1	0.99	0.16	17,17,17,17	0
37	CD	1	8702	1/1	0.99	0.08	65,65,65,65	0
33	MG	0	8027	1/1	0.99	0.03	40,40,40,40	0
33	MG	0	8014	1/1	1.00	0.10	41,41,41,41	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.



6.5 Other polymers [i](#)

There are no such residues in this entry.