



wwPDB X-ray Structure Validation Summary Report ⓘ

Aug 27, 2023 – 03:44 AM EDT

PDB ID : 3G71
Title : Co-crystal structure of Bruceantin bound to the large ribosomal subunit
Authors : Gurel, G.; Blaha, G.; Moore, P.B.; Steitz, T.A.
Deposited on : 2009-02-09
Resolution : 2.85 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

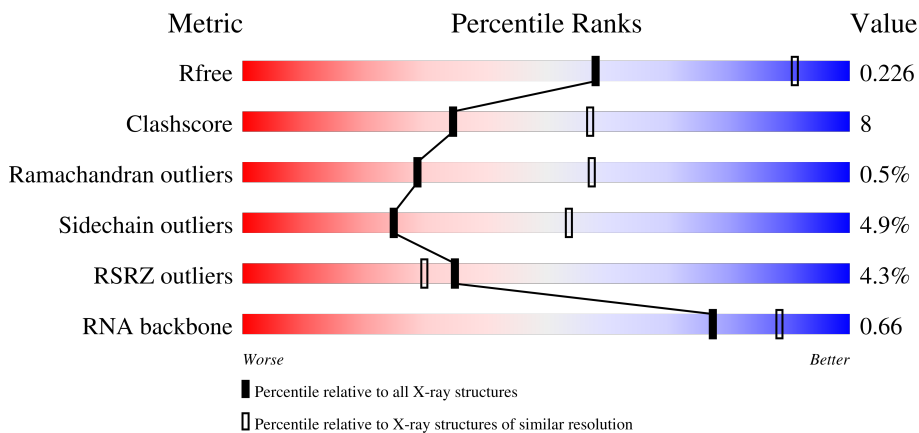
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.85 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



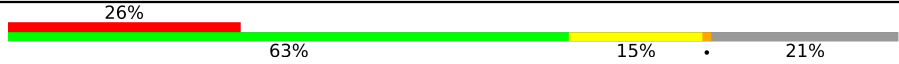
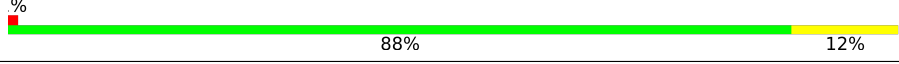
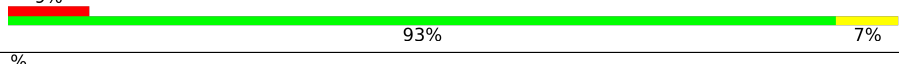
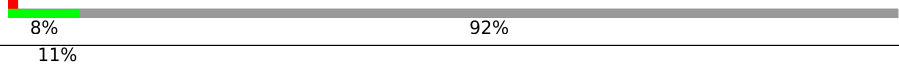

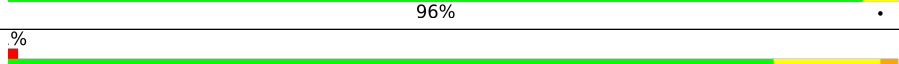
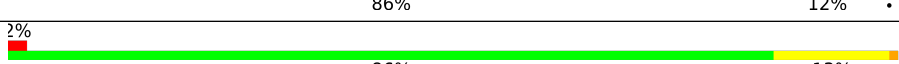
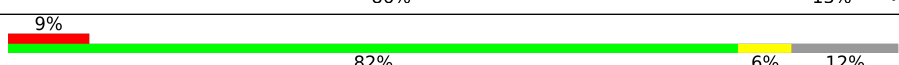
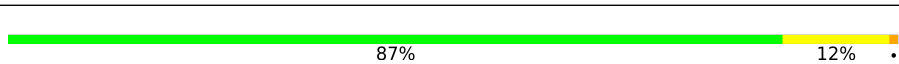

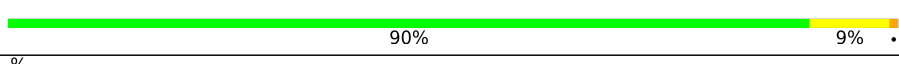
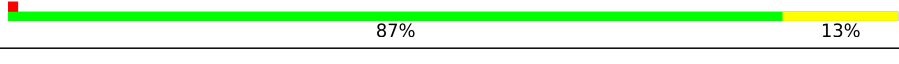
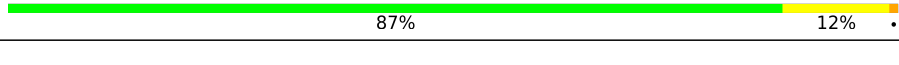
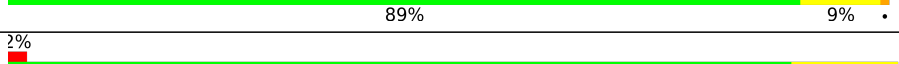
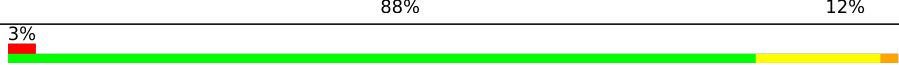




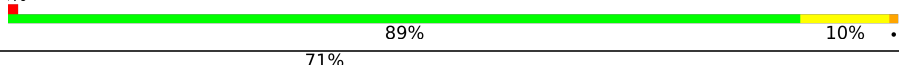
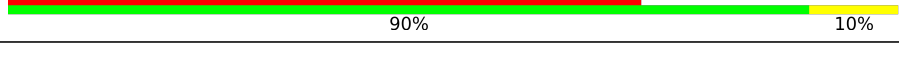




Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	3168 (2.90-2.82)
Clashscore	141614	3438 (2.90-2.82)
Ramachandran outliers	138981	3348 (2.90-2.82)
Sidechain outliers	138945	3351 (2.90-2.82)
RSRZ outliers	127900	3103 (2.90-2.82)
RNA backbone	3102	1088 (3.12-2.60)

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	2923	54% 34% 5% 6%
2	A	237	6% 84% 14% .
3	B	337	85% 14% .
4	C	246	84% 13% .

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Mol	Chain	Length	Quality of chain
5	D	177	
6	E	172	
7	F	119	
8	G	348	
9	H	177	
10	I	70	
11	J	142	
12	K	132	
13	L	165	
14	M	194	
15	N	186	
16	O	115	
17	P	143	
18	Q	95	
19	R	150	
20	S	81	
21	T	119	
22	U	53	
23	V	65	
24	W	154	
25	X	82	
26	Y	142	
27	Z	73	
28	1	56	
29	2	50	

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Mol	Chain	Length	Quality of chain
30	3	92	
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	8090	-	-	-	X
33	K	0	8401	-	-	-	X
34	NA	0	8524	-	-	-	X
34	NA	0	8527	-	-	-	X
34	NA	0	8542	-	-	-	X
34	NA	0	8549	-	-	-	X
34	NA	0	8554	-	-	-	X
34	NA	0	8556	-	-	-	X
34	NA	0	8560	-	-	-	X
34	NA	0	8566	-	-	-	X
34	NA	9	8572	-	-	-	X
34	NA	H	8518	-	-	-	X
36	SR	0	8913	-	-	-	X
36	SR	0	8982	-	-	-	X
36	SR	0	8996	-	-	-	X
36	SR	0	9006	-	-	-	X
36	SR	B	8987	-	-	-	X

2 Entry composition [i](#)

There are 39 unique types of molecules in this entry. The entry contains 99174 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	26349	10873	19054	2745	0	0	0

- Molecule 2 is a protein called 50S ribosomal protein L2P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	A	237	1754	1072	352	325	5	0	0	0

- Molecule 3 is a protein called 50S ribosomal protein L3P.

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

- Molecule 4 is a protein called 50S ribosomal protein L4P.

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

- Molecule 5 is a protein called 50S ribosomal protein L5P.

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

- Molecule 6 is a protein called 50S ribosomal protein L6P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
6	E	172	1358	840	224	290	4	0	0	0

- Molecule 7 is a protein called 50S ribosomal protein L7Ae.

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

- Molecule 8 is a protein called 50S ribosomal protein L10E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
8	G	29	240	149	39	51	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	H	160	1282	798	240	238	6	0	0	0

- Molecule 10 is a protein called 50S ribosomal protein L11P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
10	I	70	520	323	81	115	1	0	0	0

- 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	994	609	189	192	4	0	0	0

- 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	1559	943	333	282	1	0	0	0

- 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	1137	683	229	225	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	1150	713	209	224	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	642	389	111	139	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
			411	244	75	87	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
			500	304	94	101	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
			655	402	129	123	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
			1131	686	228	217			

- 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
			574	343	113	113	5			

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

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

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

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

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

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

- 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	85	Total	Mg	0	0
			85	85		
32	A	1	Total	Mg	0	0
			1	1		
32	B	1	Total	Mg	0	0
			1	1		
32	K	1	Total	Mg	0	0
			1	1		
32	T	1	Total	Mg	0	0
			1	1		
32	Y	1	Total	Mg	0	0
			1	1		
32	2	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	C	1	Total Na 1 1	0	0
34	H	1	Total Na 1 1	0	0
34	J	1	Total Na 1 1	0	0
34	M	1	Total Na 1 1	0	0
34	Q	1	Total Na 1 1	0	0
34	R	1	Total Na 1 1	0	0
34	S	1	Total Na 1 1	0	0
34	9	2	Total Na 2 2	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	A	1	Total Cl 1 1	0	0
35	B	1	Total Cl 1 1	0	0
35	J	3	Total Cl 3 3	0	0
35	K	1	Total Cl 1 1	0	0
35	L	1	Total Cl 1 1	0	0
35	M	1	Total Cl 1 1	0	0
35	N	1	Total Cl 1 1	0	0

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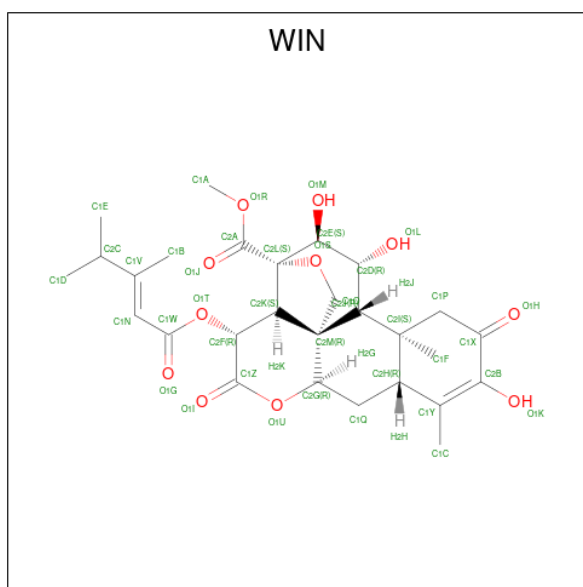
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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
35	O	1	Total Cl 1 1	0	0
35	R	1	Total Cl 1 1	0	0
35	Y	1	Total Cl 1 1	0	0
35	3	1	Total Cl 1 1	0	0

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

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
36	0	95	Total Sr 95 95	0	0
36	A	2	Total Sr 2 2	0	0
36	B	2	Total Sr 2 2	0	0
36	F	1	Total Sr 1 1	0	0
36	R	1	Total Sr 1 1	0	0
36	S	1	Total Sr 1 1	0	0
36	1	1	Total Sr 1 1	0	0
36	3	2	Total Sr 2 2	0	0
36	9	3	Total Sr 3 3	0	0

- Molecule 37 is methyl (5beta,7alpha,9beta,10alpha,11alpha,12alpha,13beta,15alpha)-15-{{(2 E)-3,4-dimethylpent-2-enoyl}oxy}-3,11,12-trihydroxy-2,16-dioxo-13,20-epoxypicras-3-en-21-oate (three-letter code: WIN) (formula: C₂₈H₃₆O₁₁).



Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	
37	0	1	Total	C	O	0	0
			39	28	11		

- Molecule 38 is CADMIUM ION (three-letter code: CD) (formula: Cd).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
38	O	1	Total	Cd	0	0
			1	1		
38	U	1	Total	Cd	0	0
			1	1		
38	Z	1	Total	Cd	0	0
			1	1		
38	1	1	Total	Cd	0	0
			1	1		
38	3	1	Total	Cd	0	0
			1	1		

- Molecule 39 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
39	0	5993	Total	O	0	0
			5993	5993		
39	A	107	Total	O	0	0
			107	107		
39	B	146	Total	O	0	0
			146	146		

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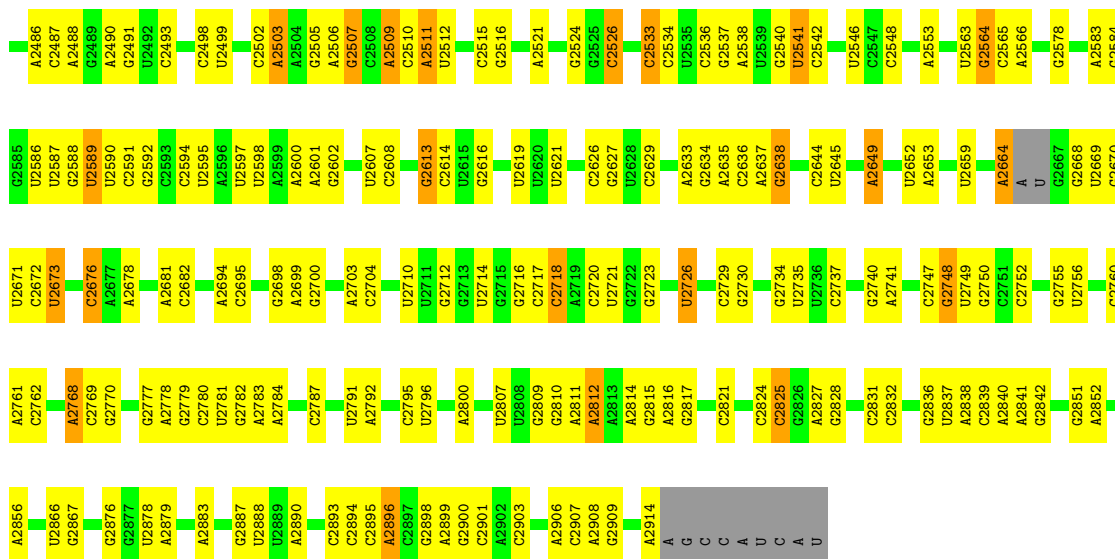
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
39	C	171	Total 171	O 171	0	0
39	D	45	Total 45	O 45	0	0
39	E	40	Total 40	O 40	0	0
39	F	25	Total 25	O 25	0	0
39	G	18	Total 18	O 18	0	0
39	H	62	Total 62	O 62	0	0
39	I	5	Total 5	O 5	0	0
39	J	52	Total 52	O 52	0	0
39	K	53	Total 53	O 53	0	0
39	L	79	Total 79	O 79	0	0
39	M	128	Total 128	O 128	0	0
39	N	62	Total 62	O 62	0	0
39	O	40	Total 40	O 40	0	0
39	P	65	Total 65	O 65	0	0
39	Q	43	Total 43	O 43	0	0
39	R	77	Total 77	O 77	0	0
39	S	28	Total 28	O 28	0	0
39	T	32	Total 32	O 32	0	0
39	U	27	Total 27	O 27	0	0
39	V	12	Total 12	O 12	0	0
39	W	65	Total 65	O 65	0	0

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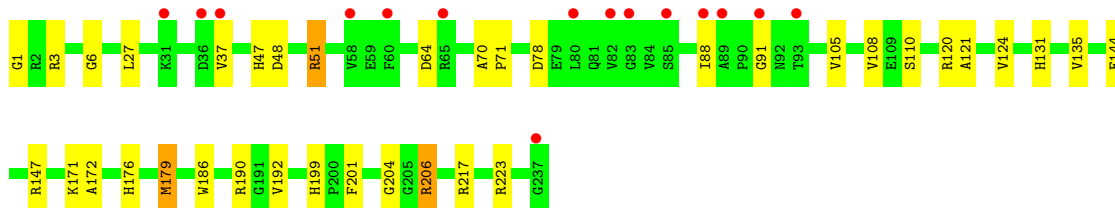
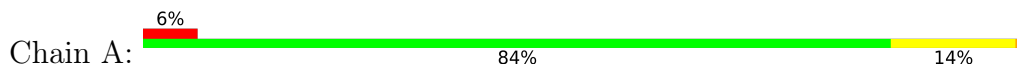
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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
39	X	20	Total O 20 20	0	0
39	Y	94	Total O 94 94	0	0
39	Z	28	Total O 28 28	0	0
39	1	52	Total O 52 52	0	0
39	2	39	Total O 39 39	0	0
39	3	66	Total O 66 66	0	0
39	9	149	Total O 149 149	0	0

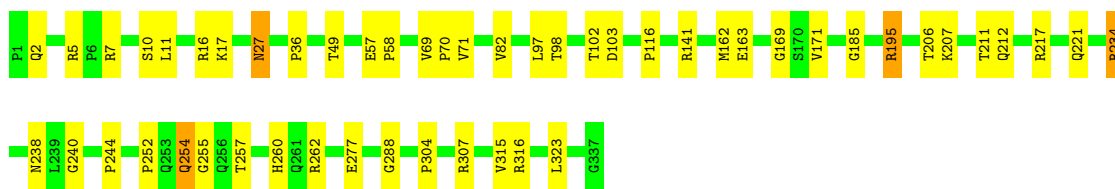
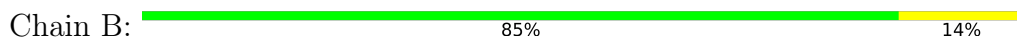
U1066	C1165	C1238	A1434	G1546	A1641	U1741	C1834	G1947	A2039	A	U2265	G2379
A1057	A1166	G1239	U1435	G1556	A1642	A1742	U1835	G1948	C2040	C	A2266	A2380
G1071	G1167	A1242	C1436	C1557	C1643	G1749	U1838	G1951	G2041	G	C2267	C2381
A1072	U1169	U1243	U1439	C1558	U1644	U1749	A1839	U	U2042	G	C2268	A2382
G1073	U1170	U1244	C1440	U	U1645	G1752	A1840	A	G2045	G	G2269	G2385
G1074	A1171	C1245	G1441	U1561	C1652	A1755	C1844	C	G2046	U	G2270	U2386
G1075	G1172	A1246	A1442	C1562	A1653	G1756	U1845	U	C2047	G	U2271	U2387
G1076	A1173	U1249	G1443	U1566	U1654	U1759	U1846	A	G2050	C	U2277	C2388
G1077	A1174	G1250	G1444	C1566	A1655	G1756	U1847	U	A2054	C	C2281	U2389
G1078	G1175	C1251	G1445	G1567	A1656	A1759	A1848	G	A2055	G	U2282	G2392
A1081	C1176	U1251	U1446	U1568	A1657	G1760	G1849	A	U2064	U	A2291	A2401
C1084	A1177	C1257	U1447	U1569	A1658	U1761	G1849	C	G2070	G	U2277	A2402
G1087	U1180	G1258	G1453	C1570	A1664	C1762	G1855	C	G2071	U	A2300	A2402
A1088	A1181	U1259	U1454	U1371	C1665	C1763	C1856	G	C2072	G	C2301	A2411
A1097	C1182	G1260	C1455	A1372	A1666	U1766	A1857	C1965	G2073	G	U2302	C2411
A1098	C1183	C1268	U1456	A1375	A1667	C1768	U1858	U1966	A2074	A	U2308	C2412
G1099	U1184	G1269	U1457	A1376	U1668	C1769	C1861	U1967	G2074	C	C2309	A2413
G1100	C1185	C1273	U1463	C1377	U1677	U1770	C1862	A1968	A2075	G	G2316	A2415
C1104	A1186	A1278	C1464	U1577	A1678	U1770	C1864	A1969	G2076	C	C2317	G2416
C1105	U1187	U1279	C1474	U1587	C1679	G1773	G1868	U1970	G2077	A	U2317	C2417
C1106	A1188	C1289	C1477	U1588	C1680	A1778	G1886	U1971	A2082	G	U2318	G2418
U1109	C1188	A1291	U1478	G1589	G1681	A1779	G1887	A1972	A2083	C	A2320	U2419
G1110	U1189	G1290	U1478	C1592	A1682	A1779	G1888	G1973	G2087	C	A2321	G2420
U1115	A1190	A1291	C1477	C1593	A1683	A1779	U1881	G1974	C2087	C	U2325	G2421
U1116	C1201	U1299	U1478	C1594	A1684	A1783	U1882	U1978	G2088	G	C2326	U2422
A1117	A1202	G1300	C1482	C1595	A1685	U1784	U1883	A1979	A2089	G	U2326	G2426
A1118	G1203	G1306	U1484	G1596	C1686	C1787	A1886	U1980	G2090	C	G2338	U2435
G1119	C1204	U1307	G1485	A1597	C1687	U1788	A1887	A1981	C2091	G	A	U2436
U1120	U1205	A1308	A1485	U1598	C1688	U1789	U1888	U1982	G2092	C	C	A2437
G1121	U1206	A1308	A1485	A1599	C1688	C1790	U1889	U1993	G2093	G	G	G2438
U1130	A1207	G1311	C1495	A1399	C1692	U1791	A1896	U1996	A2096	U	A	C2439
G1131	C1208	G1312	U1503	A1399	C1692	G1795	U1903	U1996	A2100	A	A	C2443
A1132	C1209	U1313	A1504	A1399	C1692	A1796	A1904	C2002	A2101	C	C	U2444
A1133	G1210	U1314	U1505	C1613	G1707	C1798	A1904	U2003	G2102	G	G	U2445
G1137	G1211	G1315	U1506	C1614	G1707	G1799	A1909	U2004	A2103	A	A	C2347
U1149	C1212	G1316	U1506	A1616	A1710	G1800	A1910	G2005	C2104	G	G	C2348
A1150	G1213	G1321	A1515	C1617	C1714	U1803	A1919	A2007	C2105	U	U	A2353
G1151	G1214	A1322	U1516	A1607	A1715	A1804	C1920	U2008	C2106	C	C	A2354
A1154	G1215	G1322	U1524	A1607	A1716	G1805	A1921	U2008	G2110	A	A	A2361
G1155	G1216	U1328	G1525	C1622	A1716	G1805	A1922	U2008	G2111	C	C	A2467
U1159	G1217	A1329	U1527	C1623	U1722	A1811	A1922	A2011	C2114	C	C	A2468
G1158	U1218	G1331	A1528	U1624	G1723	G1812	C1928	U2012	C2115	C	C	C2472
G1159	U1219	U1332	G1529	U1625	U1724	U1813	G1929	U2013	U2115	G	G	U2473
G1160	U1220	C1333	G1529	G1627	C1725	G1814	U1937	G2013	U2116	C	C	A2474
A1161	G1229	U1334	G1529	G1627	C1725	G1814	U1937	G2013	U2116	C	C	G2365
U1164	U1230	C1334	G1536	G1627	C1725	G1814	U1937	G2013	U2116	C	C	C2366
U1164	U1234	C1342	C1587	G1632	C1730	G1815	U1937	G2013	U2116	C	C	A2367
U1164	U1237	C1343	U1544	G1633	G1730	G1816	U1937	G2013	U2116	C	C	A2368
			U1545	G1634	A1731	C1817	U1937	G2013	U2116	C	C	A2369
			U1545	G1635	A1732	C1818	U1937	G2013	U2116	C	C	A2370
			U1545	G1636	A1733	C1819	U1937	G2013	U2116	C	C	A2371
			U1545	G1637	A1734	C1820	U1937	G2013	U2116	C	C	A2372
			U1545	A1637	A1736	G1829	U1937	G2013	U2116	C	C	U2373
			U1545	A1637	A1736	G1829	U1937	G2013	U2116	C	C	G2374
			U1545	A1637	A1736	G1829	U1937	G2013	U2116	C	C	C2376



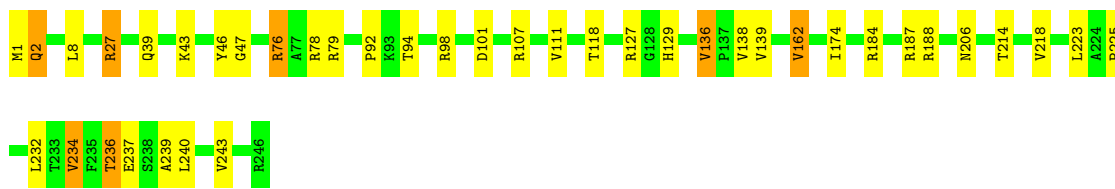
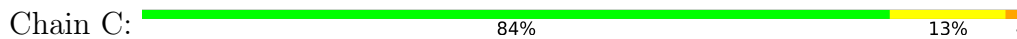
• Molecule 2: 50S ribosomal protein L2P



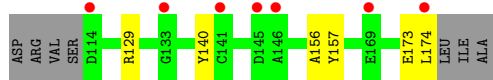
• Molecule 3: 50S ribosomal protein L3P



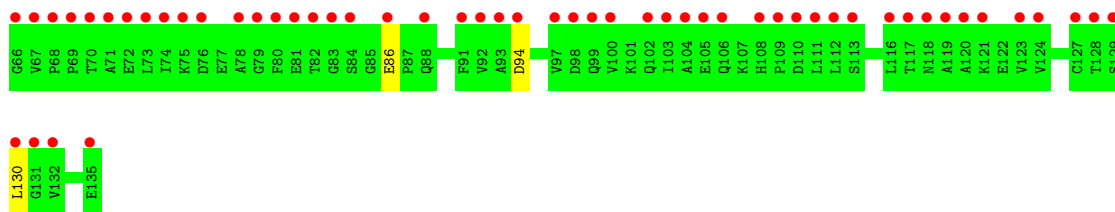
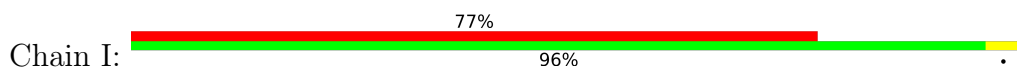
• Molecule 4: 50S ribosomal protein L4P



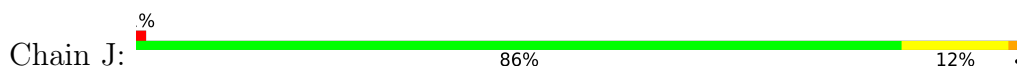
• Molecule 5: 50S ribosomal protein L5P



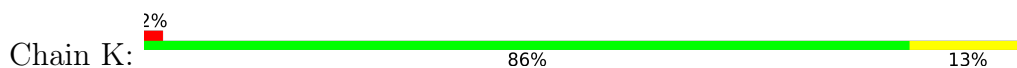
• Molecule 10: 50S ribosomal protein L11P



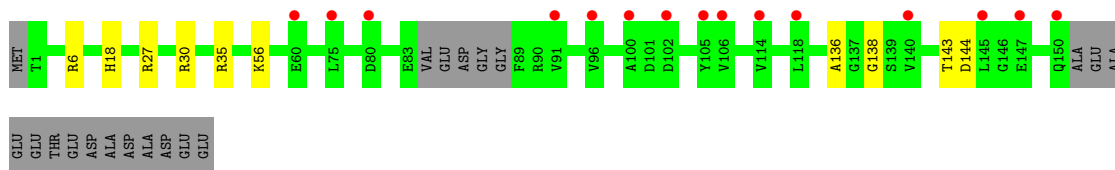
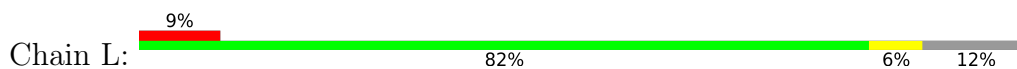
• Molecule 11: 50S ribosomal protein L13P



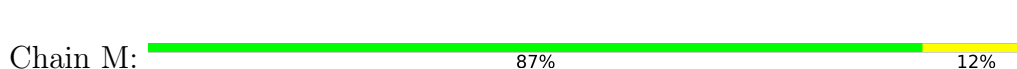
• Molecule 12: 50S ribosomal protein L14P



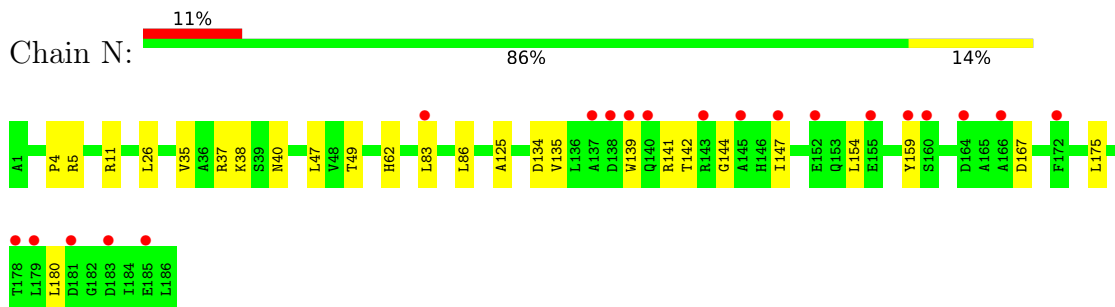
• Molecule 13: 50S ribosomal protein L15P



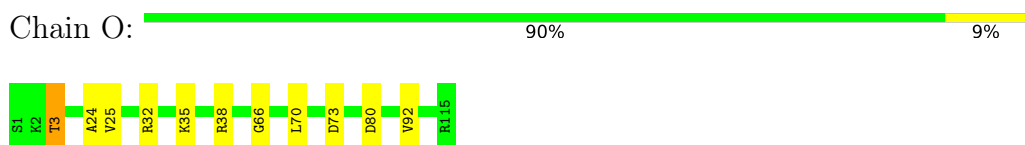
• Molecule 14: 50S ribosomal protein L15e



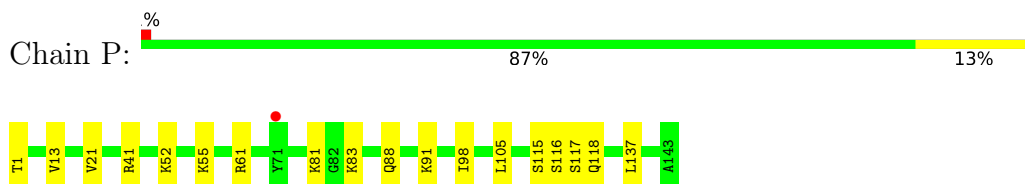
- Molecule 15: 50S ribosomal protein L18P



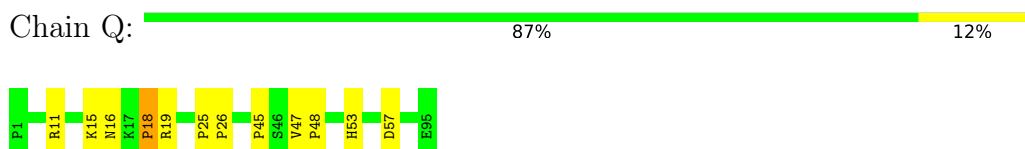
- Molecule 16: 50S ribosomal protein L18e



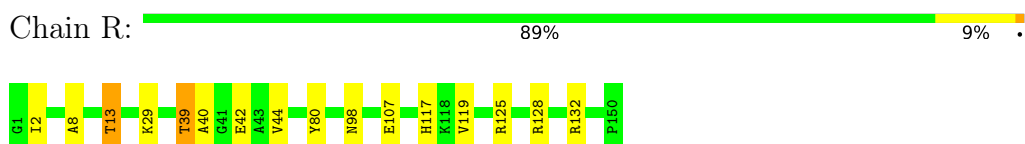
- Molecule 17: 50S ribosomal protein L19e



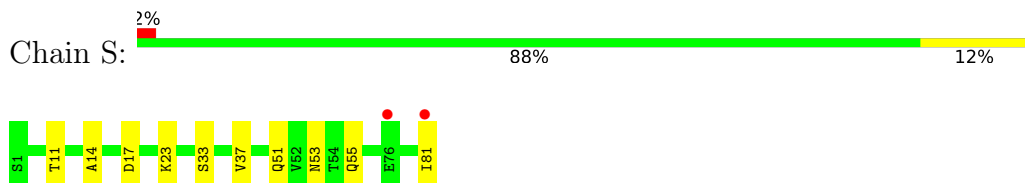
- Molecule 18: 50S ribosomal protein L21e



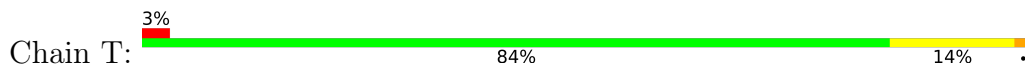
- Molecule 19: 50S ribosomal protein L22P

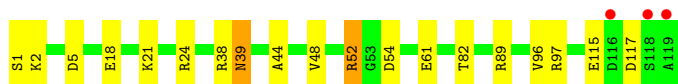


- Molecule 20: 50S ribosomal protein L23P



- Molecule 21: 50S ribosomal protein L24P

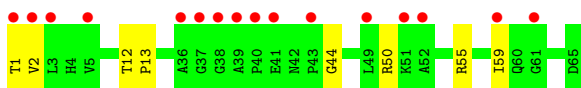
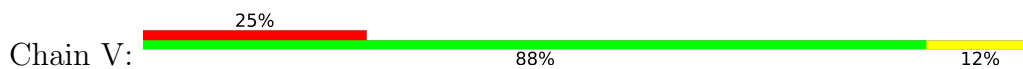




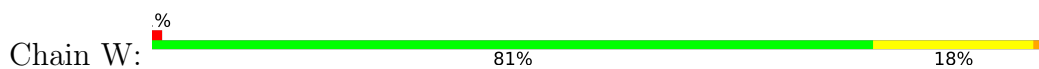
- Molecule 22: 50S ribosomal protein L24e



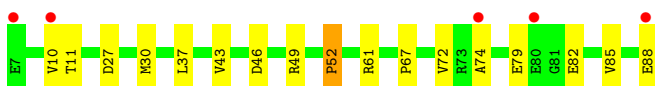
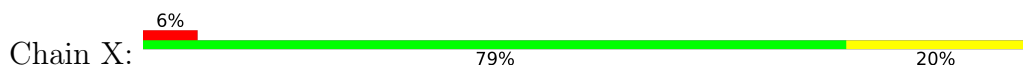
- Molecule 23: 50S ribosomal protein L29P



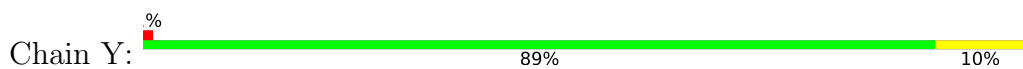
- Molecule 24: 50S ribosomal protein L30P



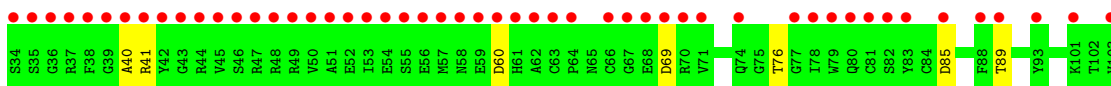
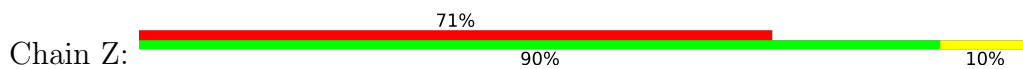
- Molecule 25: 50S ribosomal protein L31e




- Molecule 26: 50S ribosomal protein L32e



- Molecule 27: 50S ribosomal protein L37Ae




- Molecule 28: 50S ribosomal protein L37e

Chain 1:  80% 20%




- Molecule 29: 50S ribosomal protein L39e

Chain 2:  6% 74% 18% 8%



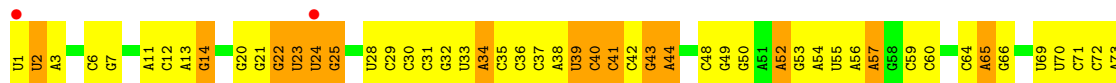
- Molecule 30: 50S ribosomal protein L44E

Chain 3:  3% 91% 9%



- Molecule 31: 5S ribosomal RNA

Chain 9:  2% 43% 42% 15%



4 Data and refinement statistics

Property	Value	Source
Space group	C 2 2 21	Depositor
Cell constants a, b, c, α , β , γ	212.21Å 299.54Å 574.25Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.76 – 2.85 85.61 – 2.40	Depositor EDS
% Data completeness (in resolution range)	91.2 (49.76-2.85) 91.0 (85.61-2.40)	Depositor EDS
R_{merge}	0.11	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	0.00 (at 2.40Å)	Xtrriage
Refinement program	CNS 1.0	Depositor
R, R_{free}	0.186 , 0.233 0.181 , 0.226	Depositor DCC
R_{free} test set	6547 reflections (0.98%)	wwPDB-VP
Wilson B-factor (Å ²)	58.3	Xtrriage
Anisotropy	0.215	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.31 , 80.7	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	0.94	EDS
Total number of atoms	99174	wwPDB-VP
Average B, all atoms (Å ²)	66.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.57% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality i

5.1 Standard geometry i

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

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	0/65958	0.68	10/102869 (0.0%)
2	A	0.51	1/1787 (0.1%)	0.76	0/2408
3	B	0.53	0/2690	0.77	0/3652
4	C	0.56	0/1885	0.79	0/2552
5	D	0.63	0/1111	0.71	2/1498 (0.1%)
6	E	0.60	0/1383	0.68	0/1880
7	F	0.54	0/901	0.70	0/1224
8	G	0.50	0/241	0.66	0/324
9	H	0.61	0/1302	0.76	0/1743
10	I	0.58	0/527	0.63	0/716
11	J	0.62	0/1136	0.73	0/1530
12	K	0.49	0/1004	0.80	0/1351
13	L	0.52	0/1130	0.74	0/1509
14	M	0.51	0/1583	0.74	0/2116
15	N	0.55	0/1474	0.75	0/1999
16	O	0.50	0/874	0.72	1/1181 (0.1%)
17	P	0.53	0/1148	0.66	0/1528
18	Q	0.51	0/749	0.75	0/1005
19	R	0.57	0/1173	0.76	0/1578
20	S	0.54	0/649	0.65	0/875
21	T	0.47	0/958	0.76	1/1289 (0.1%)
22	U	0.58	0/418	0.68	0/562
23	V	0.43	0/503	0.68	0/675
24	W	0.52	0/1219	0.77	1/1655 (0.1%)
25	X	0.52	0/665	0.75	0/895
26	Y	0.51	0/1147	0.72	0/1536
27	Z	0.68	0/585	0.71	0/781
28	1	0.55	0/438	0.73	0/578
29	2	0.45	0/401	0.70	0/529
30	3	0.56	0/771	0.67	0/1024
31	9	0.33	0/2904	0.69	1/4526 (0.0%)
All	All	0.44	1/98714 (0.0%)	0.70	16/147588 (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	0	31
24	W	0	1
31	9	0	1
All	All	0	33

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	192	VAL	CB-CG1	-5.05	1.42	1.52

The worst 5 of 16 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	871	G	C5'-C4'-O4'	-7.01	100.69	109.10
1	0	2726	U	N1-C1'-C2'	5.93	121.71	114.00
1	0	1942	A	C5'-C4'-C3'	5.70	125.13	116.00
1	0	1504	A	C1'-O4'-C4'	-5.67	105.36	109.90
31	9	39	U	N1-C1'-C2'	5.64	121.34	114.00

There are no chirality outliers.

5 of 33 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	0	221	G	Sidechain
1	0	333	G	Sidechain
1	0	396	U	Sidechain
1	0	458	G	Sidechain
1	0	471	G	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	1012	0
2	A	1754	0	1766	26	0
3	B	2625	0	2533	33	0
4	C	1860	0	1813	23	0
5	D	1094	0	1085	14	0
6	E	1358	0	1266	10	0
7	F	890	0	843	2	0
8	G	240	0	231	1	0
9	H	1282	0	1292	14	0
10	I	520	0	500	2	0
11	J	1120	0	1098	16	0
12	K	994	0	1027	12	0
13	L	1118	0	1076	9	0
14	M	1559	0	1573	15	0
15	N	1445	0	1401	14	0
16	O	865	0	873	8	0
17	P	1137	0	1123	12	0
18	Q	735	0	729	7	0
19	R	1150	0	1122	11	0
20	S	642	0	605	6	0
21	T	950	0	924	9	0
22	U	411	0	364	3	0
23	V	500	0	511	6	0
24	W	1196	0	1137	20	0
25	X	655	0	653	7	0
26	Y	1131	0	1133	12	0
27	Z	574	0	534	6	0
28	1	431	0	426	10	0
29	2	396	0	413	8	0
30	3	755	0	729	5	0
31	9	2599	0	1325	77	0
32	0	85	0	0	0	0
32	2	1	0	0	0	0
32	9	2	0	0	0	0
32	A	1	0	0	0	0
32	B	1	0	0	0	0
32	K	1	0	0	0	0
32	T	1	0	0	0	0
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

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
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	0	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	1	0
35	K	1	0	0	1	0
35	L	1	0	0	0	0
35	M	1	0	0	0	0
35	N	1	0	0	0	0
35	O	1	0	0	0	0
35	R	1	0	0	0	0
35	Y	1	0	0	0	0
36	0	95	0	0	0	0
36	1	1	0	0	0	0
36	3	2	0	0	0	0
36	9	3	0	0	0	0
36	A	2	0	0	0	0
36	B	2	0	0	0	0
36	F	1	0	0	0	0
36	R	1	0	0	0	0
36	S	1	0	0	0	0
37	0	39	0	36	13	0
38	1	1	0	0	0	0
38	3	1	0	0	0	0
38	O	1	0	0	0	0
38	U	1	0	0	0	0
38	Z	1	0	0	0	0
39	0	5993	0	0	125	0
39	1	52	0	0	0	0
39	2	39	0	0	0	0
39	3	66	0	0	0	0
39	9	149	0	0	7	0
39	A	107	0	0	3	0
39	B	146	0	0	1	0
39	C	171	0	0	5	0
39	D	45	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
39	E	40	0	0	0	0
39	F	25	0	0	0	0
39	G	18	0	0	0	0
39	H	62	0	0	2	0
39	I	5	0	0	1	0
39	J	52	0	0	1	0
39	K	53	0	0	0	0
39	L	79	0	0	3	0
39	M	128	0	0	0	0
39	N	62	0	0	0	0
39	O	40	0	0	2	0
39	P	65	0	0	0	0
39	Q	43	0	0	0	0
39	R	77	0	0	1	0
39	S	28	0	0	0	0
39	T	32	0	0	0	0
39	U	27	0	0	0	0
39	V	12	0	0	0	0
39	W	65	0	0	1	0
39	X	20	0	0	0	0
39	Y	94	0	0	3	0
39	Z	28	0	0	1	0
All	All	99174	0	59953	1243	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 8.

The worst 5 of 1243 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:H5'	1:0:871:G:H8	1.10	1.15
1:0:1160:G:H5'	1:0:1161:A:H5'	1.26	1.12
1:0:871:G:H5'	1:0:871:G:C8	1.88	1.08
31:9:76:G:H3'	31:9:77:A:H5''	1.36	1.05
31:9:56:A:H2'	31:9:57:A:H5''	1.37	1.04

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	
2	A	235/237 (99%)	218 (93%)	14 (6%)	3 (1%)	12	33
3	B	335/337 (99%)	307 (92%)	26 (8%)	2 (1%)	25	53
4	C	244/246 (99%)	224 (92%)	18 (7%)	2 (1%)	19	46
5	D	134/177 (76%)	121 (90%)	10 (8%)	3 (2%)	6	21
6	E	170/172 (99%)	161 (95%)	9 (5%)	0	100	100
7	F	117/119 (98%)	109 (93%)	7 (6%)	1 (1%)	17	43
8	G	25/348 (7%)	25 (100%)	0	0	100	100
9	H	156/177 (88%)	150 (96%)	5 (3%)	1 (1%)	25	53
10	I	68/70 (97%)	58 (85%)	10 (15%)	0	100	100
11	J	140/142 (99%)	134 (96%)	6 (4%)	0	100	100
12	K	130/132 (98%)	125 (96%)	4 (3%)	1 (1%)	19	46
13	L	141/165 (86%)	127 (90%)	14 (10%)	0	100	100
14	M	192/194 (99%)	187 (97%)	4 (2%)	1 (0%)	29	57
15	N	184/186 (99%)	173 (94%)	8 (4%)	3 (2%)	9	28
16	O	113/115 (98%)	111 (98%)	2 (2%)	0	100	100
17	P	141/143 (99%)	139 (99%)	2 (1%)	0	100	100
18	Q	93/95 (98%)	88 (95%)	4 (4%)	1 (1%)	14	38
19	R	148/150 (99%)	142 (96%)	6 (4%)	0	100	100
20	S	79/81 (98%)	75 (95%)	4 (5%)	0	100	100
21	T	117/119 (98%)	111 (95%)	5 (4%)	1 (1%)	17	43
22	U	51/53 (96%)	47 (92%)	4 (8%)	0	100	100
23	V	63/65 (97%)	61 (97%)	2 (3%)	0	100	100
24	W	152/154 (99%)	148 (97%)	4 (3%)	0	100	100
25	X	80/82 (98%)	77 (96%)	2 (2%)	1 (1%)	12	33
26	Y	140/142 (99%)	139 (99%)	1 (1%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
27	Z	71/73 (97%)	65 (92%)	6 (8%)	0	100	100
28	1	54/56 (96%)	52 (96%)	2 (4%)	0	100	100
29	2	42/50 (84%)	41 (98%)	1 (2%)	0	100	100
30	3	90/92 (98%)	88 (98%)	2 (2%)	0	100	100
All	All	3705/4172 (89%)	3503 (94%)	182 (5%)	20 (0%)	29	57

5 of 20 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	A	37	VAL
5	D	137	PRO
15	N	154	LEU
15	N	139	TRP
3	B	2	GLN

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	
2	A	179/179 (100%)	168 (94%)	11 (6%)	18	43
3	B	282/282 (100%)	268 (95%)	14 (5%)	24	53
4	C	193/193 (100%)	176 (91%)	17 (9%)	10	26
5	D	117/148 (79%)	108 (92%)	9 (8%)	13	32
6	E	152/152 (100%)	146 (96%)	6 (4%)	32	63
7	F	93/93 (100%)	90 (97%)	3 (3%)	39	69
8	G	27/282 (10%)	27 (100%)	0	100	100
9	H	134/145 (92%)	128 (96%)	6 (4%)	27	57
10	I	58/58 (100%)	57 (98%)	1 (2%)	60	83
11	J	118/118 (100%)	110 (93%)	8 (7%)	16	38
12	K	106/106 (100%)	100 (94%)	6 (6%)	20	47
13	L	113/127 (89%)	112 (99%)	1 (1%)	78	92

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
14	M	158/158 (100%)	152 (96%)	6 (4%)	33	64
15	N	149/149 (100%)	140 (94%)	9 (6%)	19	45
16	O	93/93 (100%)	90 (97%)	3 (3%)	39	69
17	P	113/113 (100%)	108 (96%)	5 (4%)	28	58
18	Q	79/79 (100%)	75 (95%)	4 (5%)	24	52
19	R	117/117 (100%)	112 (96%)	5 (4%)	29	59
20	S	71/71 (100%)	70 (99%)	1 (1%)	67	86
21	T	105/105 (100%)	96 (91%)	9 (9%)	10	27
22	U	44/44 (100%)	44 (100%)	0	100	100
23	V	51/51 (100%)	49 (96%)	2 (4%)	32	63
24	W	130/130 (100%)	123 (95%)	7 (5%)	22	49
25	X	66/66 (100%)	57 (86%)	9 (14%)	3	9
26	Y	120/120 (100%)	116 (97%)	4 (3%)	38	68
27	Z	60/60 (100%)	59 (98%)	1 (2%)	60	83
28	1	46/46 (100%)	45 (98%)	1 (2%)	52	79
29	2	42/46 (91%)	41 (98%)	1 (2%)	49	77
30	3	79/79 (100%)	77 (98%)	2 (2%)	47	76
All	All	3095/3410 (91%)	2944 (95%)	151 (5%)	25	54

5 of 151 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
21	T	5	ASP
26	Y	174	VAL
21	T	82	THR
24	W	125	HIS
30	3	22	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 66 such sidechains are listed below:

Mol	Chain	Res	Type
28	1	16	HIS
29	2	16	ASN
30	3	48	ASN
13	L	41	HIS

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Mol	Chain	Res	Type
13	L	18	HIS

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	0	2745/2923 (93%)	238 (8%)	26 (0%)
31	9	121/122 (99%)	17 (14%)	1 (0%)
All	All	2866/3045 (94%)	255 (8%)	27 (0%)

5 of 255 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	0	31	C
1	0	67	A
1	0	69	A
1	0	70	A
1	0	71	G

5 of 27 RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	0	1377	C
1	0	1684	A
1	0	2761	A
1	0	1667	A
1	0	1979	G

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	1,34	16,25,26	1.41	3 (18%)	18,37,40	1.20	3 (16%)
1	PSU	0	2621	1	18,21,22	1.52	2 (11%)	22,30,33	1.30	3 (13%)
1	OMU	0	2587	1,34	19,22,23	0.33	0	26,31,34	0.36	0
1	UR3	0	2619	1	19,22,23	0.49	0	26,32,35	0.61	1 (3%)
1	OMG	0	2588	1	18,26,27	1.05	2 (11%)	19,38,41	0.75	1 (5%)

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	1,34	-	0/3/25/26	0/3/3/3
1	PSU	0	2621	1	-	0/7/25/26	0/2/2/2
1	OMU	0	2587	1,34	-	0/9/27/28	0/2/2/2
1	UR3	0	2619	1	-	0/7/25/26	0/2/2/2
1	OMG	0	2588	1	-	1/5/27/28	0/3/3/3

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	4.95	1.43	1.36
1	0	628	1MA	C2-N3	3.69	1.33	1.29
1	0	2588	OMG	C5-C6	-2.79	1.41	1.47
1	0	2621	PSU	C6-C5	2.79	1.38	1.35
1	0	628	1MA	C6-N6	2.61	1.34	1.27

The worst 5 of 8 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	2621	PSU	C6-C5-C4	3.30	120.51	118.20
1	0	628	1MA	N1-C2-N3	2.88	129.37	126.02
1	0	2621	PSU	C6-N1-C2	-2.86	119.76	122.68
1	0	2621	PSU	O2-C2-N1	2.80	125.87	122.79
1	0	628	1MA	C5-C6-N1	2.52	117.66	113.90

There are no chirality outliers.

All (1) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	0	2588	OMG	C3'-C2'-O2'-CM2

There are no ring outliers.

2 monomers are involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	0	628	1MA	1	0
1	0	2587	OMU	1	0

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 306 ligands modelled in this entry, 305 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
37	WIN	0	9101	-	41,43,43	1.87	9 (21%)	50,71,71	3.82	29 (58%)

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
37	WIN	0	9101	-	-	6/20/110/110	0/6/5/5

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

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	0	9101	WIN	C2M-C2G	5.40	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	0	9101	WIN	C1N-C1V	5.32	1.41	1.33
37	0	9101	WIN	C2B-C1X	-4.08	1.40	1.46
37	0	9101	WIN	C1C-C1Y	3.64	1.56	1.50
37	0	9101	WIN	C1N-C1W	-2.95	1.39	1.46

The worst 5 of 29 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	0	9101	WIN	O1R-C2A-C2L	9.27	125.14	111.41
37	0	9101	WIN	C2F-O1T-C1W	-9.15	104.94	116.94
37	0	9101	WIN	C1O-C2M-C2G	6.67	123.74	112.79
37	0	9101	WIN	O1J-C2A-C2L	-6.55	111.90	123.67
37	0	9101	WIN	O1U-C1Z-O1I	6.15	127.45	118.47

There are no chirality outliers.

5 of 6 torsion outliers are listed below:

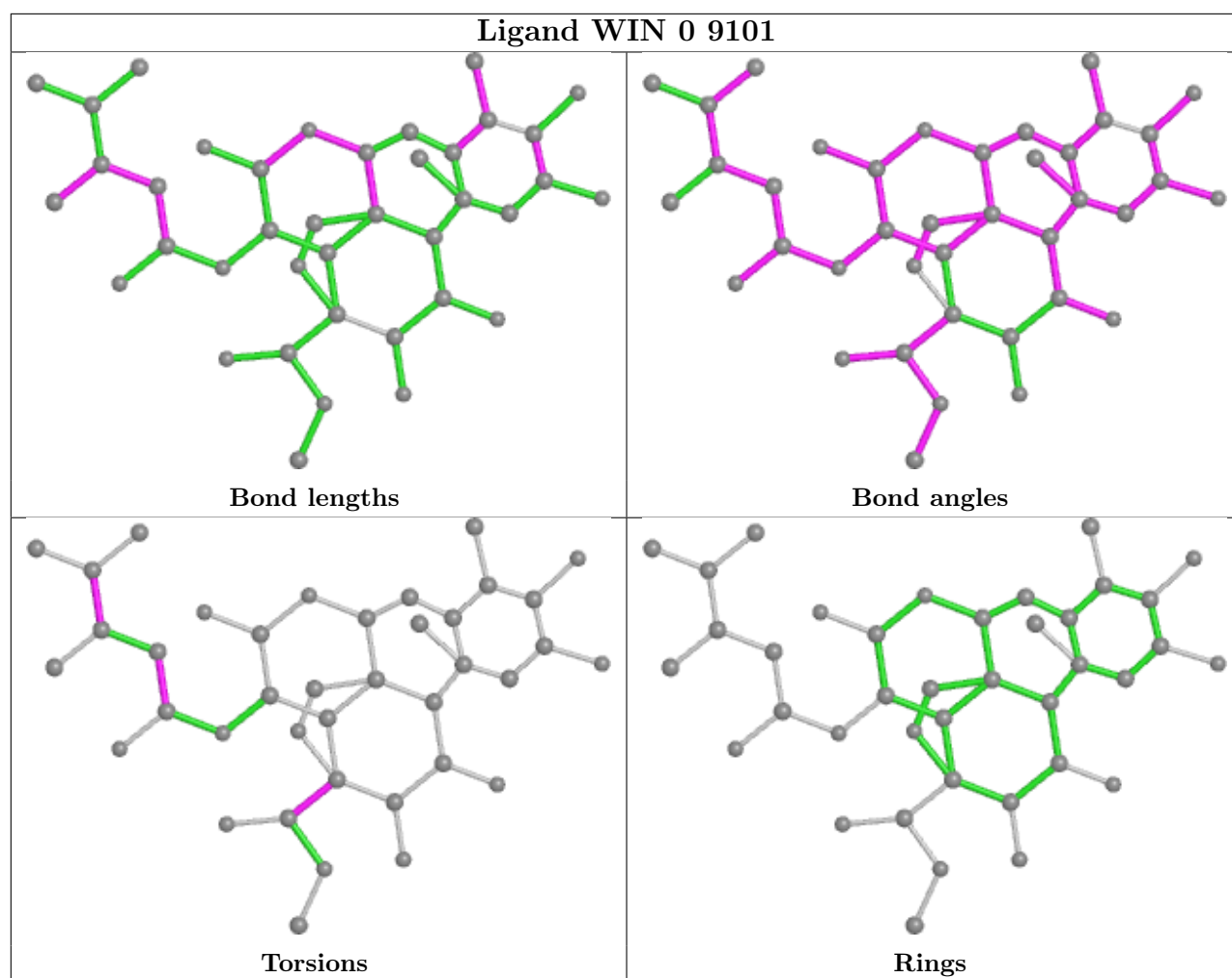
Mol	Chain	Res	Type	Atoms
37	0	9101	WIN	C1B-C1V-C2C-C1E
37	0	9101	WIN	O1J-C2A-C2L-O1S
37	0	9101	WIN	O1R-C2A-C2L-O1S
37	0	9101	WIN	C1V-C1N-C1W-O1T
37	0	9101	WIN	O1R-C2A-C2L-C2K

There are no ring outliers.

1 monomer is involved in 13 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
37	0	9101	WIN	13	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	2749/2923 (94%)	-0.68	10 (0%) 92 92	24, 56, 105, 182	0
2	A	237/237 (100%)	0.07	15 (6%) 20 15	35, 71, 114, 133	0
3	B	337/337 (100%)	-0.43	0 100 100	34, 65, 95, 108	0
4	C	246/246 (100%)	-0.42	0 100 100	31, 56, 80, 91	0
5	D	140/177 (79%)	1.44	46 (32%) 0 0	80, 120, 142, 152	0
6	E	172/172 (100%)	-0.15	2 (1%) 79 78	55, 81, 105, 112	0
7	F	119/119 (100%)	0.64	11 (9%) 9 6	64, 90, 122, 137	0
8	G	29/348 (8%)	0.83	2 (6%) 16 12	89, 109, 116, 119	0
9	H	160/177 (90%)	0.64	20 (12%) 3 2	57, 84, 120, 128	0
10	I	70/70 (100%)	3.82	54 (77%) 0 0	142, 164, 183, 184	0
11	J	142/142 (100%)	-0.43	1 (0%) 87 87	47, 60, 82, 104	0
12	K	132/132 (100%)	-0.42	2 (1%) 73 72	44, 61, 86, 90	0
13	L	145/165 (87%)	0.43	15 (10%) 6 4	35, 87, 131, 142	0
14	M	194/194 (100%)	-0.43	0 100 100	38, 55, 75, 82	0
15	N	186/186 (100%)	0.38	20 (10%) 5 4	55, 83, 139, 146	0
16	O	115/115 (100%)	-0.41	0 100 100	43, 66, 84, 88	0
17	P	143/143 (100%)	-0.26	1 (0%) 87 87	50, 70, 86, 94	0
18	Q	95/95 (100%)	-0.50	0 100 100	49, 60, 76, 89	0
19	R	150/150 (100%)	-0.57	0 100 100	38, 56, 78, 84	0
20	S	81/81 (100%)	0.01	2 (2%) 57 54	56, 76, 100, 108	0
21	T	119/119 (100%)	-0.06	3 (2%) 57 54	48, 71, 100, 127	0
22	U	53/53 (100%)	-0.28	0 100 100	56, 72, 95, 102	0
23	V	65/65 (100%)	1.51	16 (24%) 0 0	66, 94, 137, 144	0
24	W	154/154 (100%)	-0.45	1 (0%) 89 89	44, 60, 79, 90	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
25	X	82/82 (100%)	-0.08	5 (6%) 21 17	55, 71, 97, 111	0
26	Y	142/142 (100%)	-0.58	1 (0%) 87 87	31, 53, 80, 102	0
27	Z	73/73 (100%)	4.55	52 (71%) 0 0	99, 132, 149, 150	0
28	1	56/56 (100%)	-0.48	0 100 100	33, 41, 52, 62	0
29	2	46/50 (92%)	0.04	3 (6%) 18 14	48, 79, 112, 122	0
30	3	92/92 (100%)	0.28	3 (3%) 46 41	58, 85, 99, 109	0
31	9	122/122 (100%)	-0.82	2 (1%) 72 70	46, 78, 108, 156	0
All	All	6646/7217 (92%)	-0.24	287 (4%) 35 30	24, 64, 122, 184	0

The worst 5 of 287 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
27	Z	46	SER	18.3
27	Z	58	ASN	18.3
27	Z	35	SER	17.0
27	Z	50	VAL	14.0
23	V	1	THR	13.9

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	1MA	0	628	23/24	0.98	0.15	34,36,38,39	0
1	UR3	0	2619	21/22	0.98	0.13	45,48,51,54	0
1	PSU	0	2621	20/21	0.98	0.12	30,35,50,51	0
1	OMU	0	2587	21/22	0.99	0.10	43,44,46,48	0
1	OMG	0	2588	24/25	0.99	0.12	42,44,46,48	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
32	MG	0	8090	1/1	-0.02	0.56	121,121,121,121	0
36	SR	0	8977	1/1	0.10	0.06	197,197,197,197	0
36	SR	0	8944	1/1	0.34	0.16	178,178,178,178	0
34	NA	0	8525	1/1	0.36	0.27	93,93,93,93	0
34	NA	0	8554	1/1	0.43	0.42	70,70,70,70	0
36	SR	9	9003	1/1	0.45	0.06	187,187,187,187	0
36	SR	0	8966	1/1	0.49	0.14	120,120,120,120	0
34	NA	9	8572	1/1	0.49	0.49	117,117,117,117	0
34	NA	0	8556	1/1	0.49	1.51	68,68,68,68	0
34	NA	0	8506	1/1	0.52	0.21	76,76,76,76	0
36	SR	0	8998	1/1	0.54	0.25	175,175,175,175	0
36	SR	0	8913	1/1	0.55	0.82	200,200,200,200	0
34	NA	C	8503	1/1	0.55	0.25	46,46,46,46	0
34	NA	0	8524	1/1	0.55	0.61	73,73,73,73	0
36	SR	0	9006	1/1	0.56	0.58	200,200,200,200	0
36	SR	0	8917	1/1	0.56	0.22	151,151,151,151	0
34	NA	0	8522	1/1	0.57	0.14	108,108,108,108	0
32	MG	0	8091	1/1	0.59	0.13	89,89,89,89	0
36	SR	0	8941	1/1	0.59	0.23	131,131,131,131	0
36	SR	0	8982	1/1	0.62	0.95	200,200,200,200	0
36	SR	0	8938	1/1	0.62	0.06	191,191,191,191	0
36	SR	0	8933	1/1	0.63	0.09	143,143,143,143	0
36	SR	0	8996	1/1	0.64	0.44	200,200,200,200	0
36	SR	0	8983	1/1	0.64	0.12	199,199,199,199	0
32	MG	0	8089	1/1	0.65	0.16	64,64,64,64	0
36	SR	0	8959	1/1	0.65	0.26	181,181,181,181	0
36	SR	0	8949	1/1	0.66	0.20	146,146,146,146	0
36	SR	0	8915	1/1	0.66	0.10	136,136,136,136	0
34	NA	0	8560	1/1	0.67	0.53	97,97,97,97	0
36	SR	0	8972	1/1	0.68	0.14	164,164,164,164	0
36	SR	0	8976	1/1	0.68	0.22	200,200,200,200	0
34	NA	0	8504	1/1	0.68	0.34	46,46,46,46	0
34	NA	0	8502	1/1	0.69	0.20	66,66,66,66	0
32	MG	0	8072	1/1	0.69	0.31	82,82,82,82	0
32	MG	9	8040	1/1	0.69	0.36	97,97,97,97	0
34	NA	0	8527	1/1	0.69	0.56	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
36	SR	0	8928	1/1	0.70	0.08	151,151,151,151	0
36	SR	0	8910	1/1	0.71	0.11	106,106,106,106	0
36	SR	0	9001	1/1	0.71	0.16	184,184,184,184	0
36	SR	0	8991	1/1	0.71	0.25	195,195,195,195	0
32	MG	0	8050	1/1	0.71	0.19	74,74,74,74	0
32	MG	0	8075	1/1	0.72	0.11	58,58,58,58	0
34	NA	0	8563	1/1	0.72	0.24	82,82,82,82	0
34	NA	0	8559	1/1	0.72	0.24	95,95,95,95	0
36	SR	0	8955	1/1	0.73	0.10	198,198,198,198	0
36	SR	0	8965	1/1	0.73	0.11	151,151,151,151	0
35	CL	3	8804	1/1	0.74	0.07	76,76,76,76	0
34	NA	0	8531	1/1	0.75	0.23	50,50,50,50	0
36	SR	0	8984	1/1	0.75	0.07	143,143,143,143	0
36	SR	0	8942	1/1	0.75	0.18	144,144,144,144	0
36	SR	B	8950	1/1	0.75	0.12	119,119,119,119	0
34	NA	0	8566	1/1	0.75	0.59	59,59,59,59	0
36	SR	0	9000	1/1	0.76	0.21	200,200,200,200	0
34	NA	0	8548	1/1	0.76	0.28	67,67,67,67	0
36	SR	0	8951	1/1	0.76	0.05	149,149,149,149	0
36	SR	0	9008	1/1	0.76	0.24	111,111,111,111	0
34	NA	H	8518	1/1	0.76	0.50	95,95,95,95	0
36	SR	0	8958	1/1	0.76	0.12	121,121,121,121	0
34	NA	0	8549	1/1	0.77	0.91	60,60,60,60	0
32	MG	0	8038	1/1	0.77	0.09	70,70,70,70	0
34	NA	0	8529	1/1	0.77	0.06	50,50,50,50	0
36	SR	B	8987	1/1	0.77	0.53	200,200,200,200	0
36	SR	0	8924	1/1	0.77	0.21	149,149,149,149	0
36	SR	0	8995	1/1	0.78	0.14	142,142,142,142	0
36	SR	0	8956	1/1	0.78	0.10	187,187,187,187	0
33	K	0	8401	1/1	0.78	0.88	123,123,123,123	0
34	NA	0	8523	1/1	0.78	0.16	65,65,65,65	0
36	SR	9	8978	1/1	0.78	0.12	169,169,169,169	0
36	SR	9	8980	1/1	0.78	0.05	175,175,175,175	0
32	MG	0	8030	1/1	0.78	0.33	79,79,79,79	0
36	SR	0	8994	1/1	0.80	0.40	199,199,199,199	0
36	SR	0	8964	1/1	0.80	0.10	139,139,139,139	0
34	NA	0	8555	1/1	0.80	0.58	53,53,53,53	0
36	SR	0	8997	1/1	0.80	1.19	200,200,200,200	0
34	NA	0	8542	1/1	0.80	0.70	62,62,62,62	0
34	NA	0	8557	1/1	0.80	0.04	74,74,74,74	0
32	MG	0	8006	1/1	0.80	0.17	33,33,33,33	0
36	SR	0	8908	1/1	0.81	0.29	175,175,175,175	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
36	SR	0	8922	1/1	0.81	0.27	156,156,156,156	0
34	NA	0	8565	1/1	0.81	1.90	100,100,100,100	0
32	MG	0	8062	1/1	0.82	0.28	61,61,61,61	0
32	MG	0	8092	1/1	0.82	0.10	80,80,80,80	0
36	SR	A	8930	1/1	0.82	0.26	169,169,169,169	0
34	NA	0	8536	1/1	0.82	0.07	65,65,65,65	0
32	MG	K	8054	1/1	0.82	0.21	47,47,47,47	0
32	MG	0	8069	1/1	0.82	0.19	49,49,49,49	0
34	NA	0	8515	1/1	0.82	0.15	50,50,50,50	0
34	NA	0	8550	1/1	0.82	0.49	59,59,59,59	0
36	SR	0	8968	1/1	0.83	0.06	165,165,165,165	0
36	SR	0	8920	1/1	0.83	0.59	185,185,185,185	0
36	SR	S	8961	1/1	0.83	0.12	145,145,145,145	0
37	WIN	0	9101	39/39	0.83	0.33	125,127,128,129	0
34	NA	0	8501	1/1	0.84	0.18	54,54,54,54	0
36	SR	0	9002	1/1	0.84	0.15	183,183,183,183	0
36	SR	0	8969	1/1	0.84	0.14	173,173,173,173	0
36	SR	0	8943	1/1	0.84	0.10	95,95,95,95	0
32	MG	0	8052	1/1	0.84	0.06	58,58,58,58	0
32	MG	0	8037	1/1	0.84	0.16	80,80,80,80	0
32	MG	0	8027	1/1	0.85	0.17	47,47,47,47	0
36	SR	0	8986	1/1	0.85	0.48	200,200,200,200	0
36	SR	0	8901	1/1	0.85	0.14	96,96,96,96	0
36	SR	0	8934	1/1	0.85	0.32	166,166,166,166	0
34	NA	0	8535	1/1	0.85	0.38	63,63,63,63	0
34	NA	J	8538	1/1	0.85	0.21	67,67,67,67	0
34	NA	0	8571	1/1	0.85	0.31	98,98,98,98	0
34	NA	0	8561	1/1	0.86	0.65	90,90,90,90	0
36	SR	0	8937	1/1	0.86	0.33	125,125,125,125	0
32	MG	0	8039	1/1	0.86	0.22	63,63,63,63	0
36	SR	0	8909	1/1	0.86	0.17	99,99,99,99	0
34	NA	Q	8540	1/1	0.87	0.13	58,58,58,58	0
34	NA	R	8532	1/1	0.87	0.11	59,59,59,59	0
32	MG	0	8066	1/1	0.87	0.34	88,88,88,88	0
34	NA	0	8558	1/1	0.87	0.50	63,63,63,63	0
36	SR	0	8989	1/1	0.87	0.17	185,185,185,185	0
34	NA	0	8568	1/1	0.87	0.22	57,57,57,57	0
34	NA	0	8553	1/1	0.87	0.42	69,69,69,69	0
32	MG	0	8063	1/1	0.87	0.22	80,80,80,80	0
36	SR	0	8954	1/1	0.87	0.11	109,109,109,109	0
34	NA	0	8511	1/1	0.87	0.22	67,67,67,67	0
32	MG	0	8080	1/1	0.87	0.29	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
36	SR	0	8981	1/1	0.87	0.21	158,158,158,158	0
36	SR	0	8962	1/1	0.88	0.17	180,180,180,180	0
34	NA	0	8567	1/1	0.88	0.51	87,87,87,87	0
35	CL	0	8815	1/1	0.88	0.14	83,83,83,83	0
36	SR	0	8988	1/1	0.88	0.12	158,158,158,158	0
32	MG	0	8085	1/1	0.88	0.11	69,69,69,69	0
32	MG	A	8051	1/1	0.88	0.29	98,98,98,98	0
32	MG	0	8053	1/1	0.88	0.06	69,69,69,69	0
34	NA	0	8505	1/1	0.88	1.08	44,44,44,44	0
34	NA	0	8537	1/1	0.88	0.21	50,50,50,50	0
32	MG	0	8018	1/1	0.88	0.28	54,54,54,54	0
32	MG	0	8084	1/1	0.88	0.14	36,36,36,36	0
36	SR	0	8916	1/1	0.88	0.10	129,129,129,129	0
36	SR	0	8902	1/1	0.89	0.17	70,70,70,70	0
32	MG	0	8002	1/1	0.89	0.18	26,26,26,26	0
34	NA	0	8562	1/1	0.89	0.62	82,82,82,82	0
36	SR	A	8929	1/1	0.89	0.10	142,142,142,142	0
36	SR	0	8971	1/1	0.89	0.06	185,185,185,185	0
32	MG	0	8047	1/1	0.89	0.39	71,71,71,71	0
34	NA	0	8544	1/1	0.89	0.19	73,73,73,73	0
34	NA	0	8509	1/1	0.89	0.28	77,77,77,77	0
34	NA	0	8533	1/1	0.89	0.15	72,72,72,72	0
33	K	0	8402	1/1	0.89	0.45	90,90,90,90	0
34	NA	0	8514	1/1	0.89	0.71	54,54,54,54	0
34	NA	0	8573	1/1	0.89	0.12	87,87,87,87	0
32	MG	0	8082	1/1	0.90	0.31	81,81,81,81	0
34	NA	0	8507	1/1	0.90	0.17	46,46,46,46	0
34	NA	0	8520	1/1	0.90	0.10	55,55,55,55	0
36	SR	0	8990	1/1	0.90	0.11	116,116,116,116	0
36	SR	0	8975	1/1	0.90	0.07	154,154,154,154	0
34	NA	0	8530	1/1	0.90	0.30	60,60,60,60	0
36	SR	0	8914	1/1	0.91	0.30	127,127,127,127	0
34	NA	0	8508	1/1	0.91	0.20	63,63,63,63	0
32	MG	0	8020	1/1	0.91	0.16	57,57,57,57	0
32	MG	0	8059	1/1	0.91	0.12	52,52,52,52	0
34	NA	0	8512	1/1	0.91	0.30	48,48,48,48	0
32	MG	T	8057	1/1	0.91	0.04	72,72,72,72	0
36	SR	0	8923	1/1	0.91	0.15	112,112,112,112	0
32	MG	0	8013	1/1	0.92	0.06	30,30,30,30	0
32	MG	0	8043	1/1	0.92	0.16	58,58,58,58	0
34	NA	0	8541	1/1	0.92	0.34	70,70,70,70	0
32	MG	0	8068	1/1	0.92	0.10	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
36	SR	1	8952	1/1	0.92	0.16	93,93,93,93	0
32	MG	2	8060	1/1	0.92	0.10	65,65,65,65	0
32	MG	0	8079	1/1	0.92	0.29	67,67,67,67	0
36	SR	0	8957	1/1	0.92	0.20	200,200,200,200	0
36	SR	0	8931	1/1	0.92	0.09	136,136,136,136	0
38	CD	Z	8703	1/1	0.92	0.06	172,172,172,172	0
32	MG	0	8078	1/1	0.93	0.29	54,54,54,54	0
36	SR	0	8939	1/1	0.93	0.07	145,145,145,145	0
35	CL	J	8801	1/1	0.93	0.09	82,82,82,82	0
36	SR	0	8919	1/1	0.93	0.08	179,179,179,179	0
34	NA	0	8516	1/1	0.93	0.15	37,37,37,37	0
32	MG	0	8034	1/1	0.93	0.14	47,47,47,47	0
36	SR	0	8948	1/1	0.93	0.16	122,122,122,122	0
36	SR	F	9005	1/1	0.93	0.04	149,149,149,149	0
34	NA	0	8574	1/1	0.93	0.41	69,69,69,69	0
32	MG	0	8049	1/1	0.93	0.53	116,116,116,116	0
32	MG	0	8036	1/1	0.93	0.13	60,60,60,60	0
32	MG	0	8071	1/1	0.93	0.12	71,71,71,71	0
32	MG	0	8031	1/1	0.93	0.36	73,73,73,73	0
32	MG	0	8064	1/1	0.93	0.18	51,51,51,51	0
34	NA	0	8528	1/1	0.93	0.17	60,60,60,60	0
32	MG	0	8019	1/1	0.94	0.23	30,30,30,30	0
34	NA	0	8521	1/1	0.94	0.26	71,71,71,71	0
35	CL	A	8809	1/1	0.94	0.31	96,96,96,96	0
32	MG	0	8001	1/1	0.94	0.15	26,26,26,26	0
35	CL	L	8810	1/1	0.94	0.09	69,69,69,69	0
36	SR	0	8970	1/1	0.94	0.06	135,135,135,135	0
32	MG	0	8081	1/1	0.94	0.17	81,81,81,81	0
36	SR	0	8992	1/1	0.94	0.11	137,137,137,137	0
32	MG	0	8024	1/1	0.94	0.20	54,54,54,54	0
34	NA	0	8546	1/1	0.94	0.73	85,85,85,85	0
36	SR	0	8921	1/1	0.94	0.11	99,99,99,99	0
32	MG	0	8044	1/1	0.94	0.05	55,55,55,55	0
36	SR	0	8979	1/1	0.94	0.10	195,195,195,195	0
36	SR	0	8960	1/1	0.94	0.11	151,151,151,151	0
34	NA	0	8526	1/1	0.94	0.12	45,45,45,45	0
32	MG	0	8032	1/1	0.95	0.06	42,42,42,42	0
36	SR	0	9004	1/1	0.95	0.47	200,200,200,200	0
36	SR	0	8985	1/1	0.95	0.05	148,148,148,148	0
32	MG	0	8045	1/1	0.95	0.08	30,30,30,30	0
32	MG	0	8041	1/1	0.95	0.23	32,32,32,32	0
35	CL	0	8803	1/1	0.95	0.07	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
34	NA	0	8545	1/1	0.95	0.14	48,48,48,48	0
32	MG	9	8074	1/1	0.95	0.14	101,101,101,101	0
36	SR	0	8974	1/1	0.95	0.23	179,179,179,179	0
34	NA	0	8547	1/1	0.95	0.87	71,71,71,71	0
34	NA	0	8534	1/1	0.95	0.26	47,47,47,47	0
34	NA	0	8575	1/1	0.95	0.27	87,87,87,87	0
32	MG	0	8073	1/1	0.95	0.08	80,80,80,80	0
32	MG	0	8056	1/1	0.95	0.15	62,62,62,62	0
32	MG	0	8033	1/1	0.95	0.20	63,63,63,63	0
36	SR	0	8945	1/1	0.95	0.07	131,131,131,131	0
36	SR	0	8993	1/1	0.96	0.05	178,178,178,178	0
36	SR	0	8940	1/1	0.96	0.10	94,94,94,94	0
36	SR	0	8967	1/1	0.96	0.04	147,147,147,147	0
32	MG	0	8005	1/1	0.96	0.23	35,35,35,35	0
32	MG	0	8029	1/1	0.96	0.18	69,69,69,69	0
34	NA	0	8519	1/1	0.96	0.33	50,50,50,50	0
34	NA	9	8543	1/1	0.96	0.17	57,57,57,57	0
32	MG	0	8046	1/1	0.96	0.18	53,53,53,53	0
36	SR	0	8946	1/1	0.96	0.17	129,129,129,129	0
36	SR	0	8947	1/1	0.96	0.25	200,200,200,200	0
32	MG	0	8023	1/1	0.96	0.20	30,30,30,30	0
36	SR	0	9007	1/1	0.96	0.67	199,199,199,199	0
35	CL	0	8811	1/1	0.96	0.11	72,72,72,72	0
34	NA	0	8551	1/1	0.96	0.20	60,60,60,60	0
34	NA	0	8552	1/1	0.96	0.27	80,80,80,80	0
32	MG	0	8061	1/1	0.96	0.22	36,36,36,36	0
35	CL	J	8821	1/1	0.96	0.09	78,78,78,78	0
34	NA	0	8570	1/1	0.96	0.08	59,59,59,59	0
32	MG	0	8048	1/1	0.96	0.23	28,28,28,28	0
32	MG	0	8087	1/1	0.96	0.13	36,36,36,36	0
36	SR	3	8932	1/1	0.96	0.10	94,94,94,94	0
32	MG	0	8035	1/1	0.96	0.19	70,70,70,70	0
32	MG	0	8076	1/1	0.96	0.10	38,38,38,38	0
36	SR	0	8963	1/1	0.96	0.09	133,133,133,133	0
34	NA	0	8513	1/1	0.96	0.34	56,56,56,56	0
32	MG	0	8016	1/1	0.96	0.16	30,30,30,30	0
32	MG	Y	8086	1/1	0.97	0.10	55,55,55,55	0
35	CL	0	8814	1/1	0.97	0.09	66,66,66,66	0
32	MG	0	8007	1/1	0.97	0.19	40,40,40,40	0
35	CL	0	8822	1/1	0.97	0.35	86,86,86,86	0
32	MG	0	8065	1/1	0.97	0.07	41,41,41,41	0
34	NA	M	8539	1/1	0.97	0.29	53,53,53,53	0

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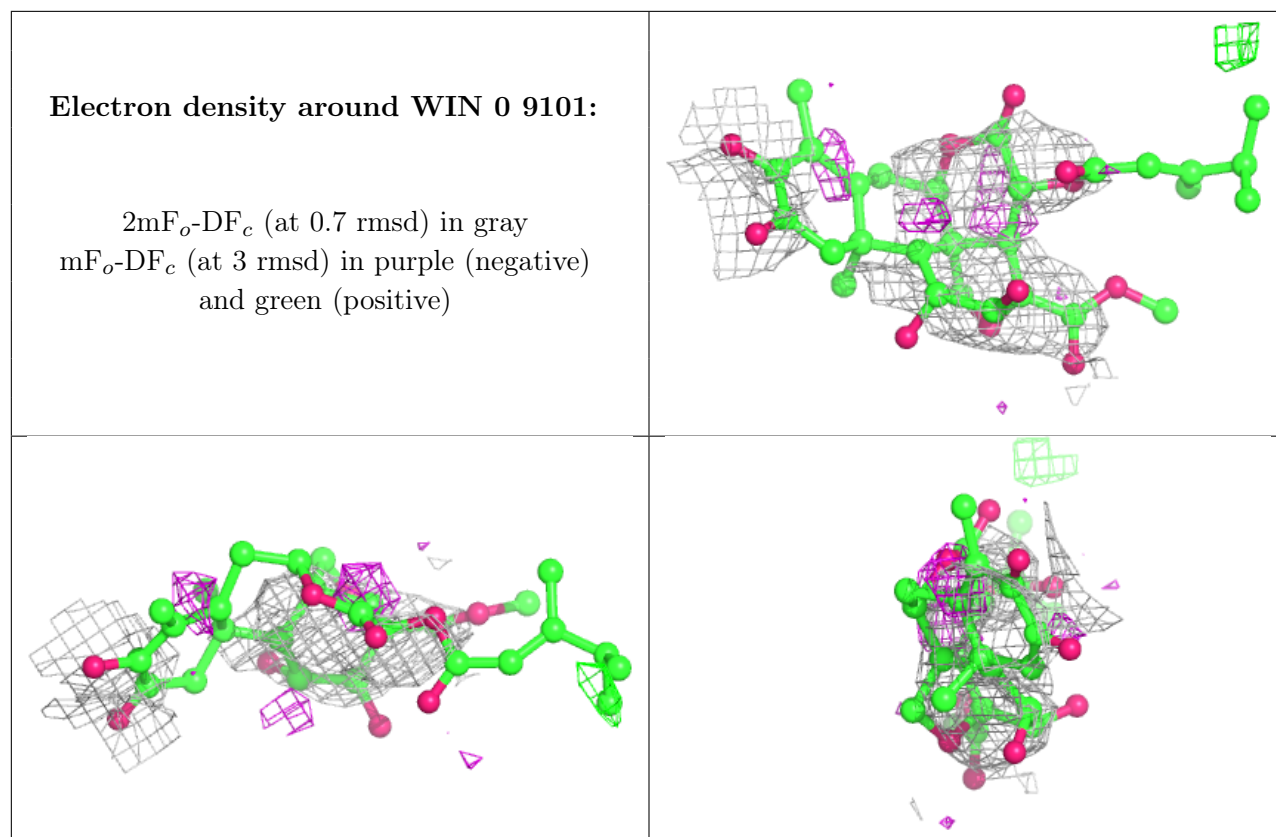
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
32	MG	0	8093	1/1	0.97	0.07	45,45,45,45	0
32	MG	0	8014	1/1	0.97	0.20	33,33,33,33	0
35	CL	N	8807	1/1	0.97	0.18	72,72,72,72	0
35	CL	O	8808	1/1	0.97	0.20	79,79,79,79	0
34	NA	S	8510	1/1	0.97	0.15	50,50,50,50	0
32	MG	0	8025	1/1	0.97	0.10	37,37,37,37	0
36	SR	0	8926	1/1	0.97	0.12	142,142,142,142	0
36	SR	0	8927	1/1	0.97	0.11	167,167,167,167	0
36	SR	0	8973	1/1	0.97	0.11	141,141,141,141	0
34	NA	0	8517	1/1	0.97	0.11	36,36,36,36	0
36	SR	0	8904	1/1	0.97	0.21	64,64,64,64	0
32	MG	0	8058	1/1	0.97	0.07	23,23,23,23	0
35	CL	0	8805	1/1	0.97	0.10	76,76,76,76	0
32	MG	0	8017	1/1	0.98	0.08	34,34,34,34	0
35	CL	Y	8820	1/1	0.98	0.05	46,46,46,46	0
32	MG	B	8042	1/1	0.98	0.13	62,62,62,62	0
36	SR	0	8935	1/1	0.98	0.09	93,93,93,93	0
36	SR	0	8936	1/1	0.98	0.07	108,108,108,108	0
32	MG	0	8011	1/1	0.98	0.24	30,30,30,30	0
32	MG	0	8070	1/1	0.98	0.28	64,64,64,64	0
34	NA	0	8569	1/1	0.98	0.16	61,61,61,61	0
32	MG	0	8012	1/1	0.98	0.20	26,26,26,26	0
32	MG	0	8003	1/1	0.98	0.15	35,35,35,35	0
35	CL	0	8813	1/1	0.98	0.02	54,54,54,54	0
32	MG	0	8021	1/1	0.98	0.10	43,43,43,43	0
32	MG	0	8088	1/1	0.98	0.18	46,46,46,46	0
35	CL	0	8816	1/1	0.98	0.22	75,75,75,75	0
35	CL	0	8817	1/1	0.98	0.05	68,68,68,68	0
32	MG	0	8008	1/1	0.98	0.16	32,32,32,32	0
32	MG	0	8015	1/1	0.98	0.14	33,33,33,33	0
35	CL	B	8819	1/1	0.98	0.10	57,57,57,57	0
32	MG	0	8077	1/1	0.98	0.06	43,43,43,43	0
36	SR	0	8953	1/1	0.98	0.19	164,164,164,164	0
35	CL	J	8802	1/1	0.98	0.07	79,79,79,79	0
32	MG	0	8010	1/1	0.98	0.11	34,34,34,34	0
36	SR	3	8999	1/1	0.98	0.10	140,140,140,140	0
35	CL	K	8812	1/1	0.98	0.11	57,57,57,57	0
36	SR	0	8925	1/1	0.98	0.11	95,95,95,95	0
32	MG	0	8067	1/1	0.98	0.26	34,34,34,34	0
35	CL	M	8818	1/1	0.98	0.04	49,49,49,49	0
38	CD	O	8705	1/1	0.98	0.06	105,105,105,105	0
34	NA	0	8564	1/1	0.98	0.65	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
32	MG	0	8028	1/1	0.99	0.25	30,30,30,30	0
36	SR	R	8912	1/1	0.99	0.19	93,93,93,93	0
32	MG	0	8009	1/1	0.99	0.35	42,42,42,42	0
32	MG	0	8022	1/1	0.99	0.17	37,37,37,37	0
32	MG	0	8055	1/1	0.99	0.20	49,49,49,49	0
36	SR	0	8905	1/1	0.99	0.26	73,73,73,73	0
36	SR	0	8918	1/1	0.99	0.14	94,94,94,94	0
36	SR	0	8906	1/1	0.99	0.23	67,67,67,67	0
32	MG	0	8083	1/1	0.99	0.27	74,74,74,74	0
32	MG	0	8026	1/1	0.99	0.13	55,55,55,55	0
32	MG	0	8004	1/1	0.99	0.17	29,29,29,29	0
36	SR	0	8911	1/1	0.99	0.08	95,95,95,95	0
38	CD	1	8702	1/1	0.99	0.14	72,72,72,72	0
38	CD	3	8704	1/1	0.99	0.06	94,94,94,94	0
38	CD	U	8701	1/1	1.00	0.12	71,71,71,71	0
35	CL	R	8806	1/1	1.00	0.10	55,55,55,55	0
36	SR	0	8907	1/1	1.00	0.14	62,62,62,62	0
36	SR	0	8903	1/1	1.00	0.21	66,66,66,66	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.