



wwPDB X-ray Structure Validation Summary Report ⓘ

Aug 11, 2021 – 11:31 am BST

PDB ID : 7A0S
Title : 50S Deinococcus radiodurans ribosome bounded with mycinamicin I
Authors : Breiner, E.; Eyal, Z.; Matzov, D.; Halfon, Y.; Camicata, G.; Rozenberg, H.;
Zimmerman, E.; Bashan, A.; Yonath, A.
Deposited on : 2020-08-10
Resolution : 3.22 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 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 : 2.23.1
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) : 2.23.1

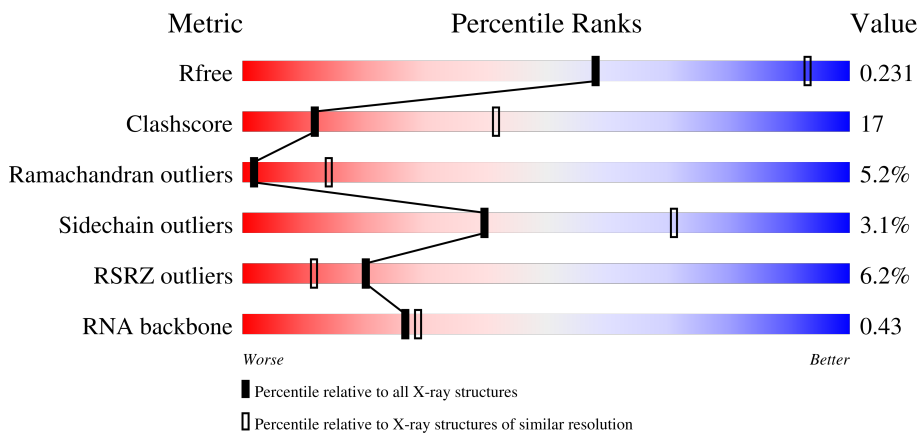
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.22 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	1335 (3.24-3.20)
Clashscore	141614	1460 (3.24-3.20)
Ramachandran outliers	138981	1437 (3.24-3.20)
Sidechain outliers	138945	1436 (3.24-3.20)
RSRZ outliers	127900	1291 (3.24-3.20)
RNA backbone	3102	1023 (3.54-2.90)

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	X	2880	 32% 37% 20% 6%
2	Y	123	 35% 41% 21% 2% 2%
3	A	274	 56% 38% 5% 7% 4%
4	B	206	 62% 36% 4% 4% 2%

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Mol	Chain	Length	Quality of chain
5	C	205	
6	D	177	
7	E	171	
8	G	143	
9	H	134	
10	I	137	
11	J	136	
12	K	116	
13	L	104	
14	M	166	
15	N	117	
16	O	98	
17	P	134	
18	Q	93	
19	R	110	
20	S	175	
21	T	91	
22	U	74	
23	V	61	
24	W	55	
25	Z	58	
26	1	49	
27	2	47	
28	3	63	

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 crite-

ria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
30	MG	I	201	-	-	-	X
30	MG	K	201	-	-	-	X
30	MG	X	2924	-	-	-	X
30	MG	X	2953	-	-	-	X
30	MG	X	2975	-	-	-	X
30	MG	X	2978	-	-	-	X
30	MG	X	2983	-	-	-	X
30	MG	X	2985	-	-	-	X
30	MG	X	3002	-	-	-	X
30	MG	X	3023	-	-	-	X
30	MG	X	3051	-	-	-	X
30	MG	X	3057	-	-	-	X
30	MG	X	3065	-	-	-	X
30	MG	X	3072	-	-	-	X
30	MG	X	3083	-	-	-	X
30	MG	X	3086	-	-	-	X
30	MG	X	3087	-	-	-	X
30	MG	X	3107	-	-	-	X
30	MG	X	3110	-	-	-	X
30	MG	X	3115	-	-	-	X
30	MG	X	3117	-	-	-	X
30	MG	X	3120	-	-	-	X
30	MG	X	3130	-	-	-	X
30	MG	X	3134	-	-	-	X
30	MG	X	3143	-	-	-	X
30	MG	X	3146	-	-	-	X
30	MG	X	3155	-	-	-	X
30	MG	X	3176	-	-	-	X
30	MG	X	3183	-	-	-	X
30	MG	X	3190	-	-	-	X
30	MG	X	3196	-	-	-	X
30	MG	X	3207	-	-	-	X
30	MG	X	3209	-	-	-	X
30	MG	X	3210	-	-	-	X
30	MG	X	3211	-	-	-	X
30	MG	X	3214	-	-	-	X
30	MG	X	3224	-	-	-	X
30	MG	X	3227	-	-	-	X
30	MG	X	3232	-	-	-	X
30	MG	Y	205	-	-	-	X
30	MG	Y	210	-	-	-	X
30	MG	Y	213	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
30	MG	Y	214	-	-	-	X
32	MPD	X	3245	-	-	-	X

2 Entry composition [i](#)

There are 36 unique types of molecules in this entry. The entry contains 84486 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 RNA (2732-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
1	X	2699	57935	25843	10696	18698	2698	5	0	0

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
X	1526	U	C	conflict	GB 1026245073
X	2779	A	C	conflict	GB 1026245073

- Molecule 2 is a RNA chain called RNA (122-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
2	Y	122	2598	1161	476	840	121	0	0	0

- Molecule 3 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	A	272	2011	1248	396	364	3	0	0	0

- Molecule 4 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
4	B	206	1544	968	296	272	8	0	0	0

- Molecule 5 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
5	C	196	1479	918	284	274	3	0	0	0

- Molecule 6 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
6	D	177	1375	874	243	251	7	0	0	0

- Molecule 7 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
7	E	171	1286	812	237	236	1	0	0	0

- Molecule 8 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
8	G	142	1110	701	208	198	3	0	0	0

- Molecule 9 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
9	H	134	997	614	198	180	5	0	0	0

- Molecule 10 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
10	I	137	982	603	194	184	1	0	0	0

- Molecule 11 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
11	J	135	1062	676	197	182	7	0	0	0

- Molecule 12 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
12	K	115	893	549	182	159	3	0	0	0

- Molecule 13 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
13	L	104	761	462	159	140	0	0	0

- Molecule 14 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
14	M	118	923	578	178	167	0	0	0

- Molecule 15 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
15	N	117	955	594	203	157	1	0	0	0

- Molecule 16 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
16	O	98	736	459	138	138	1	0	0	0

- Molecule 17 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
17	P	129	1014	640	198	174	2	0	0	0

- Molecule 18 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
18	Q	92	705	445	131	127	2	0	0	0

- Molecule 19 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
19	R	110	771	473	147	150	1	0	0	0

- Molecule 20 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
20	S	175	1288	809	224	250	5	0	0	0

- Molecule 21 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
21	T	74	537	334	105	97	1	0	0	0

- Molecule 22 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
22	U	74	519	319	106	94	0	0	0

- Molecule 23 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
23	V	54	438	270	89	78	1	0	0	0

- Molecule 24 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
24	W	55	424	264	82	76	2	0	0	0

- Molecule 25 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
25	Z	57	448	275	92	76	5	0	0	0

- Molecule 26 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
26	1	49	314	199	53	62	0	0	0

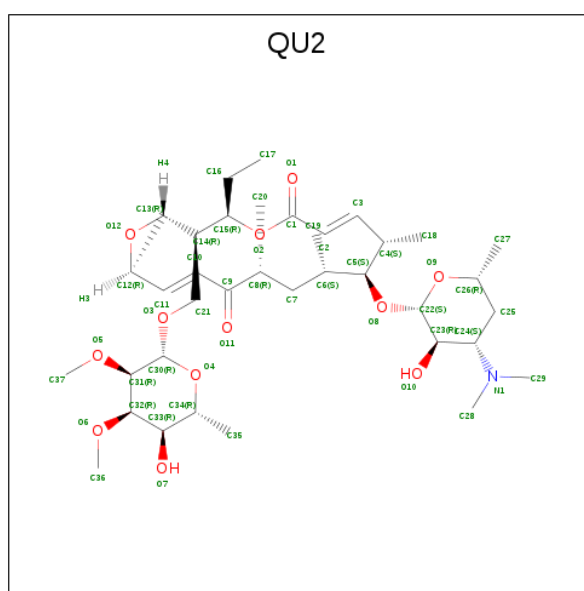
- Molecule 27 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
27	2	46	Total 383	C 230	N 91	O 60	S 2	0	0	0

- Molecule 28 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
28	3	63	Total 459	C 288	N 94	O 74	S 3	0	0	0

- Molecule 29 is mycinamicin I (three-letter code: QU2) (formula: C₃₇H₆₁NO₁₂) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	N	O		
29	X	1	Total 50	C 37	N 1	O 12	0	0

- Molecule 30 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

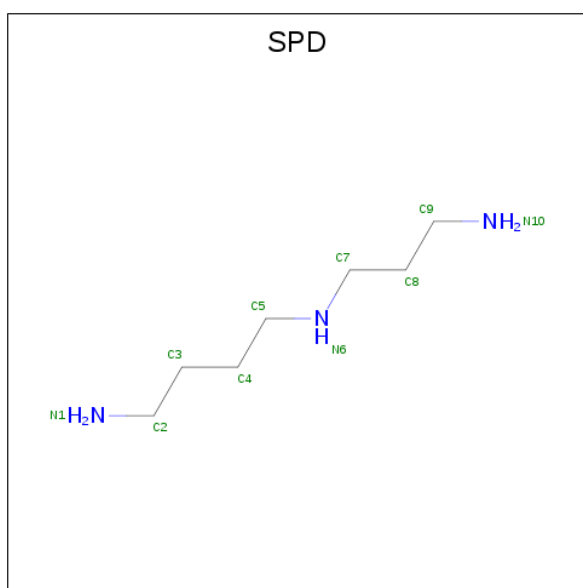
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
30	X	335	Total 335	Mg 335	0	0
30	Y	17	Total 17	Mg 17	0	0
30	A	3	Total 3	Mg 3	0	0
30	B	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
30	I	2	Total Mg 2 2	0	0
30	J	1	Total Mg 1 1	0	0
30	K	1	Total Mg 1 1	0	0
30	M	1	Total Mg 1 1	0	0
30	N	3	Total Mg 3 3	0	0
30	2	2	Total Mg 2 2	0	0
30	3	1	Total Mg 1 1	0	0

- Molecule 31 is SPERMIDINE (three-letter code: SPD) (formula: C₇H₁₉N₃).



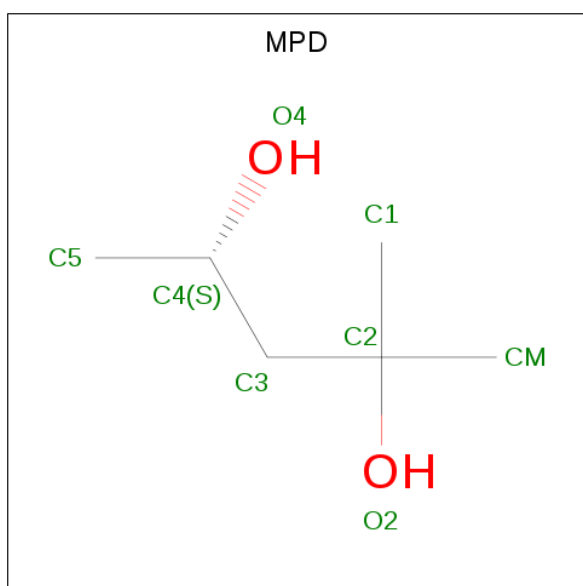
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
31	X	1	Total C N 10 7 3	0	0
31	X	1	Total C N 10 7 3	0	0
31	X	1	Total C N 10 7 3	0	0
31	X	1	Total C N 10 7 3	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
31	X	1	Total	C	N	0	0
			10	7	3		
31	X	1	Total	C	N	0	0
			10	7	3		
31	X	1	Total	C	N	0	0
			10	7	3		
31	X	1	Total	C	N	0	0
			10	7	3		

- Molecule 32 is (4S)-2-METHYL-2,4-PENTANEDIOL (three-letter code: MPD) (formula: C₆H₁₄O₂).

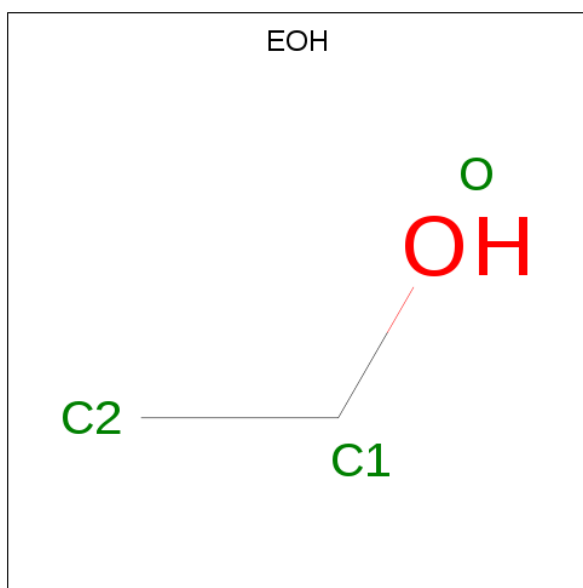


Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
32	X	1	Total	C	O	0	0
			8	6	2		
32	X	1	Total	C	O	0	0
			8	6	2		
32	X	1	Total	C	O	0	0
			8	6	2		
32	X	1	Total	C	O	0	0
			8	6	2		

- Molecule 33 is SODIUM ION (three-letter code: NA) (formula: Na).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
33	X	1	Total	Na	0	0
			1	1		

- Molecule 34 is ETHANOL (three-letter code: EOH) (formula: C_2H_6O).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
34	X	1	Total C O 3 2 1	0	0

- Molecule 35 is CALCIUM ION (three-letter code: CA) (formula: Ca).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
35	X	5	Total Ca 5 5	0	0

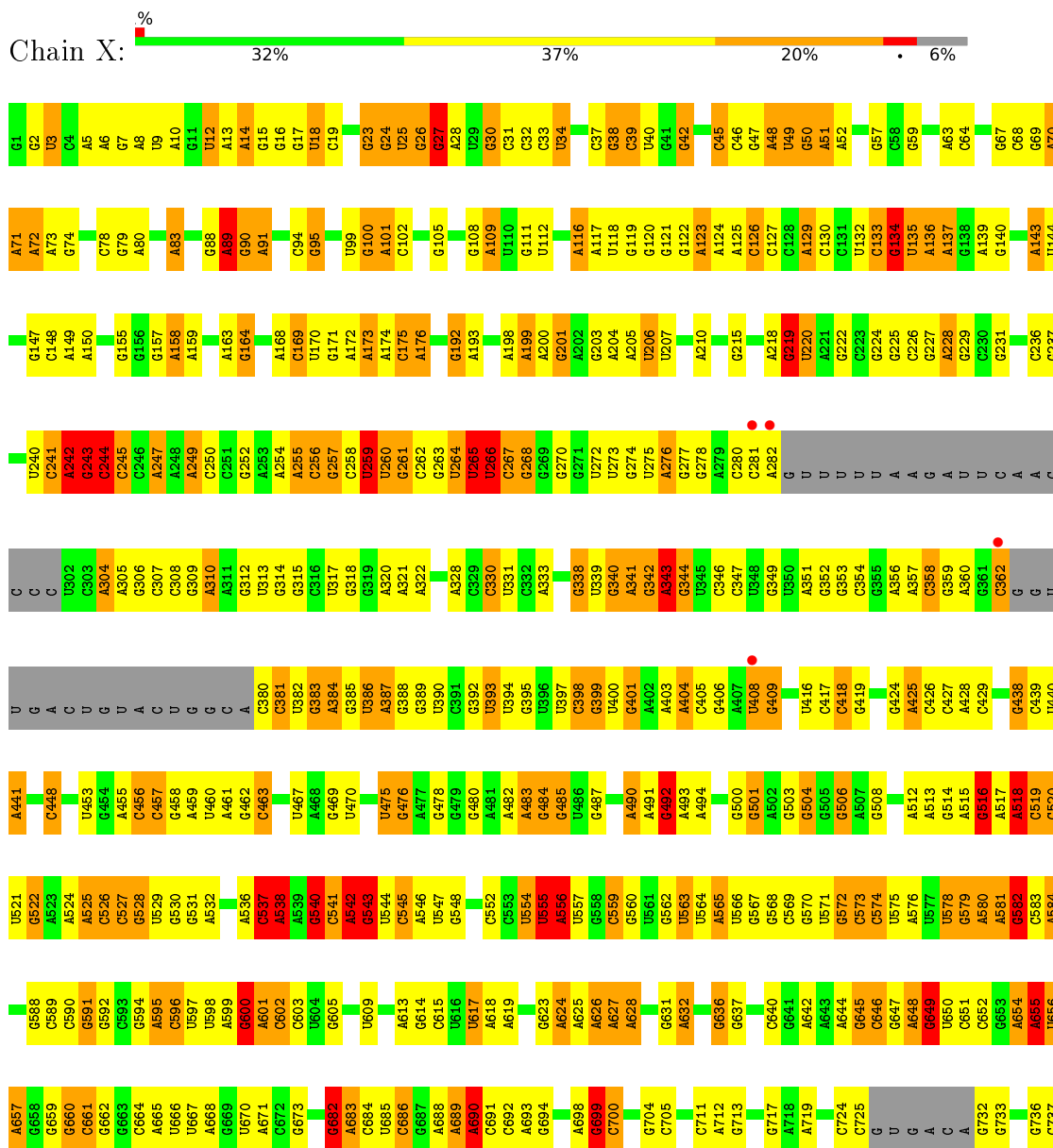
- Molecule 36 is POTASSIUM ION (three-letter code: K) (formula: K).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
36	X	1	Total K 1 1	0	0

3 Residue-property plots

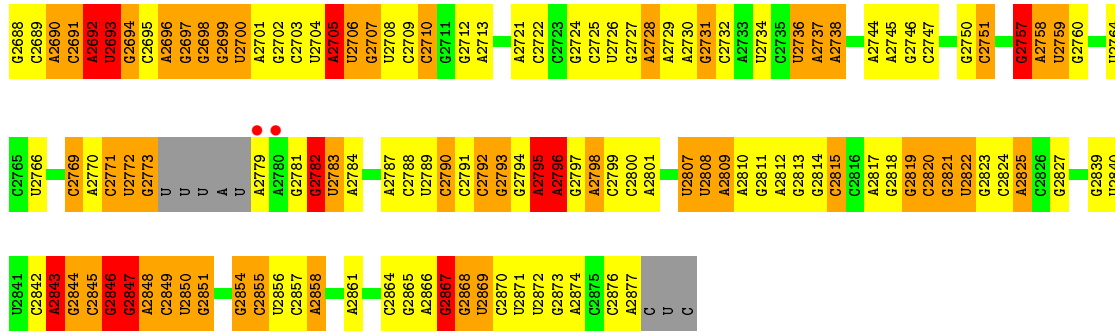
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

- Molecule 1: RNA (2732-MER)

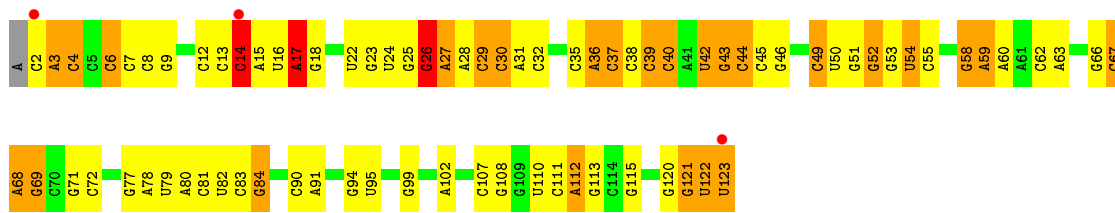


C1674	C1593	U1466	G1371	U1303	A1227	A1153	A1088	A1025	C947	U890	C805	G738
C1675	U1594	U1447	A1372	U1304	G1228	A1154	C1089	U1026	C948	U891	A806	G739
U1676	A1595	A1448	G1373	C1305	C1229	G1155	C1090	G1027	G949	A807	A876	A740
U1677				C1306		U1156	C1091	G1028	G877		G877	G741
U1678	G1601	C1451	G1377	U1307	C1234	C1160	U1092	C1029	A952	U810	U810	G742
U1679	G1602	U1452	A1378	C1308	G1246	U1161	U1093	U1030	G953	G811	G811	A743
U1680	A1603	A1463	A1379	U1309	G1241	U1162	C1094	C1031	U954			
A1681	A1604	C1465	C1380	C1310	A1242	A1095	U1095	A1032	G955	G812	G812	G746
A1682		G1466	G1381	C1311	G1247	C1163	A1096	G1033	A956	A883	A813	A757
G1683		G1467	C1385	G1312	U1246	A1097	U1097	U1034	A884	C884	G814	A748
G1684		U1468	U1247	U1313	U1247	G1164	G1098	A1164	A885	A885	A815	A749
A1685		A1469	A1386	A1314	G1248	A1166	A1099	G1036	G958	A886	U816	C749
A1686		A1463	A1391	A1315	G1249	A1167	A1099	A1037	C959	G887	A817	C750
C1687		A1464	U1392	G1316	A1250	A1171	G1100	U1037	C962	U889	G818	G751
U1688		G1465	G1393		G1251	U1172	U1101	U1038		U890	G819	G752
C1689		C1466	G1394	A1321	G1252	U1173	G1102	A891	G	U820	U820	G753
A1690		U1467	U1395	G1322	G1253	G1174	G1103	G	G	A821	A821	G754
G1691		U1468	A1397	G1323	G1254	G1175	G1104	G	G	A822	A822	C755
C1692		U1469	G1398	U1324	U1255	A1176	U1055	U969	G	U823	U823	C756
A1693		G1470	C1399	G1325	C1256	U1177	A1106	A870	G	U824	U824	U757
C1694		A1471	G1400	U1326	U1257	A1179	A1107	G1047	G	C825	C825	U758
C1695		C1472	A1401	U1329	G1258	A1180	G1110	U1048	G	C826	C826	C759
C1696		U1473	G1402	G1330	U1259	C1181	G1111	C1049	C	C827	C827	U760
U1697		A1474	U1403	A1331	G1261	U1182	U1112	U974	U	G830	G830	A762
A1698		U1475	C1404	G1332		C1183	U1113	U1051	A	A831	A831	A763
C1699		G1476		G1333	G1264	G1184	A1114	G1052	C	A832	A832	A764
C1700		C1477	A1408	U1333	G1265	C	C1115	C1054	A	A833	A833	G765
C1701		U1478	U1409	A1334	G1266	G	C1116	C1055	A	A834	A834	A766
C1702		G1479	C1410	U1335	U1267	A	U1117	U974	U	U835	U835	
U1705		U1482	C1411	G1336	U1268	A	G1118	U1056	U	U836	U836	G772
A1706		U1483	C1412	U1337	G1269	G	U1058	U974	U	U837	U837	G773
G1707		G1484	U1413	U1338	C1270	C	A1059	G987	G	A838	A838	A774
C1708		U1485	C1418	U1339	C1271	G1191	G1122	A1060	C	U839	U839	U775
U1709		A1486	G1419	C1340	G1272	A1192	U1123	G1061	C	U840	U840	U776
U1710		C1487	U1420	G1341	A1275	G1193	U1124	A992	G	A841	A841	G777
A1711		G1488	C1422	U1342	U1276	U1194	U124	A991	G	A842	A842	G778
G1712		C1489	U1423	C1343	G1277	U1197	C1127	A994	G	A843	A843	U779
G1713		U1490	U1424	C1344	A1278		G1128	A995	G	U844	U844	U780
A1714		U1491	G1425	G1345	U1279	G1201	A1129	C996	U	A846	A846	G781
G1715		G1495	U1426	U1346	U1280	U1202	U1130	C997	U	C847	C847	U782
A1716		C1497	G1427	C1347	A1281	A1203	G1133	A1001	U	U848	U848	G783
A1717		G1498	U1428	A1348	U1282	A1207	U1134	A922	U	A849	A849	A767
A1718		A1499	A1429	G1349	G1283	G1207	C1135	G1070	U	C850	C850	C788
G1719		U1500	G1430	U1350	U1284		G1136	U1071	U	U852	U852	G789
U1723		C1501	U1431	C1352	A1285	C1210	A1137	A928	U	A853	A853	A790
C1724		G1502	G1432	A1353	U1286	G1211	A1138	G1008	U	G854	G854	A791
G1727		U1503	A1433	U1354	A1287	U1212	A1139	C1009	U	A930	A930	U792
A1728		G1504	U1434	A1355	U1288	U1213	A1140	G1076	U	U857	U857	G793
C1729		U1505	G1435	G1356	A1289		U1141	U1077	U	G858	G858	A794
U1732		A1506	U1436	U1357	U1290	U1217	A1142	A936	U	U859	U859	A795
U		A1509	A1437		G1291	A1143	A1143	C937	U	U860	U860	A796
C		U1510	G1438	G1359	A1292	C1218	U1144	C938	U	U861	U861	A797
U1735		A1511	U1440	U1365	U1297	G1220	C1145	C939	U	C863	C863	G798
G1736		A1512	G1441	A1366	A1298	U1221	G1146	G940	U	U868	U868	U800
C1737		U1513	C1442	A1367	A1299	G1147	U1082	U941	U	C869	C869	A801
U1738		C1514	A1443	G1368	U1301	G1148	A1083	U942	U	U870	U870	A802
		U1592	G1444	U1370	A1300	G1149	A1084	G945	U	C871	C871	C803
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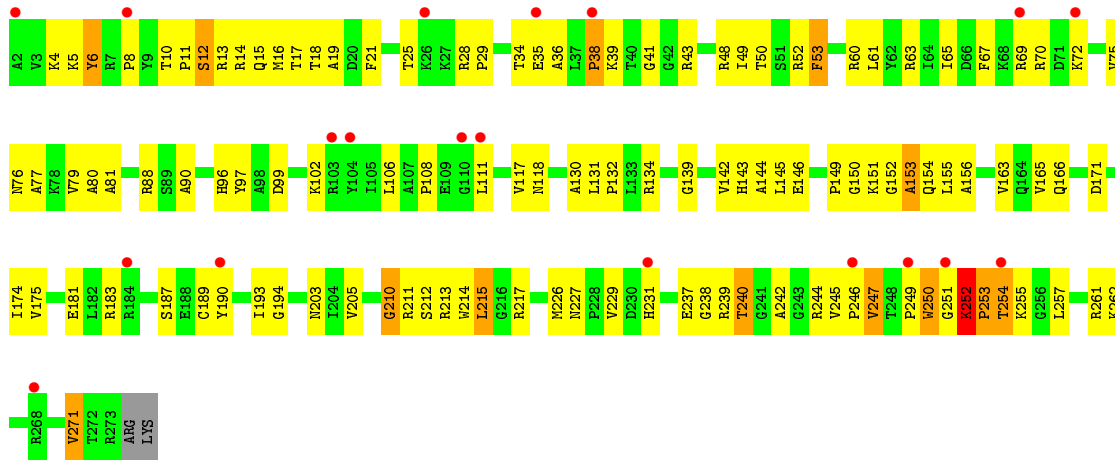
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• Molecule 2: RNA (122-MER)

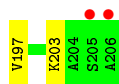


• Molecule 3: 50S ribosomal protein L2

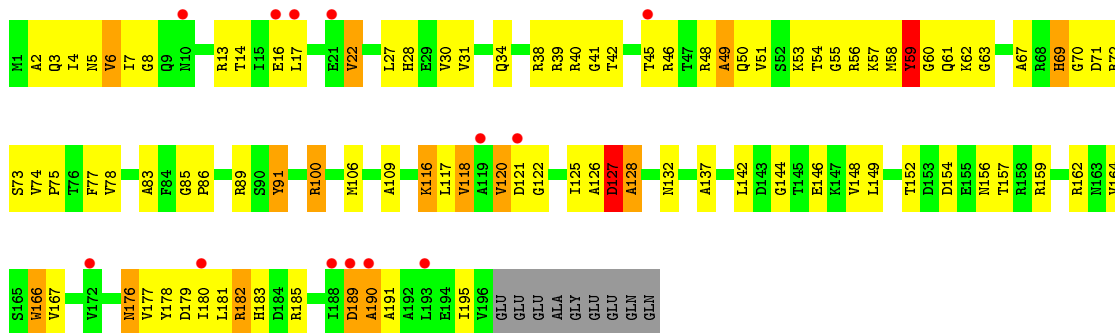


• Molecule 4: 50S ribosomal protein L3

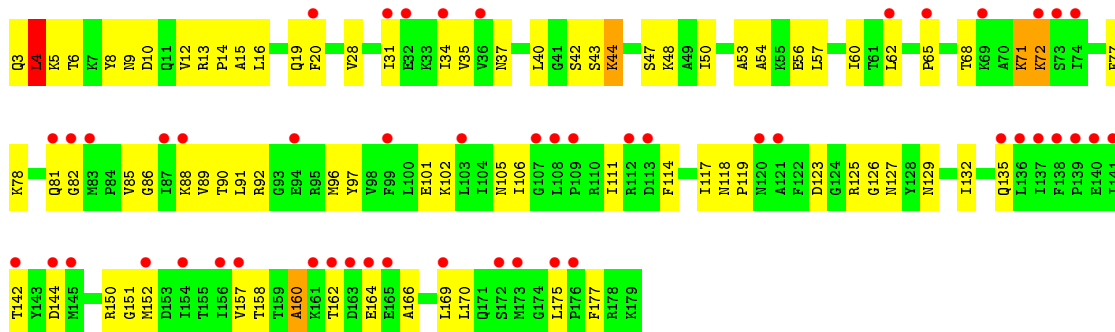




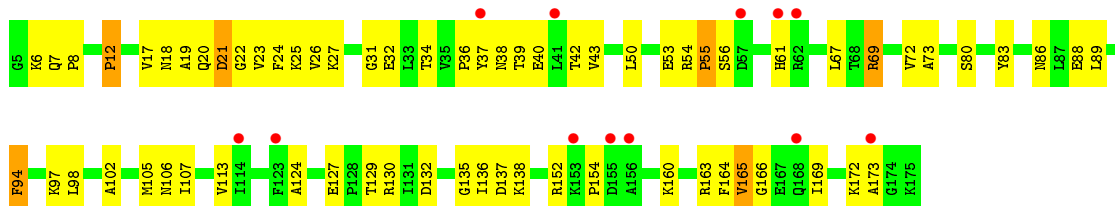
• Molecule 5: 50S ribosomal protein L4



• Molecule 6: 50S ribosomal protein L5

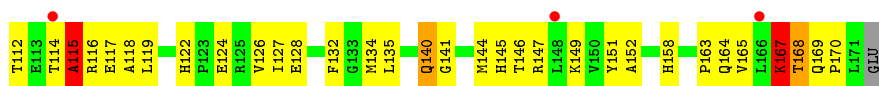


• Molecule 7: 50S ribosomal protein L6



• Molecule 8: 50S ribosomal protein L13

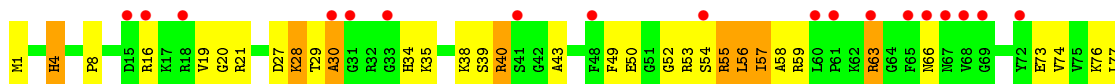




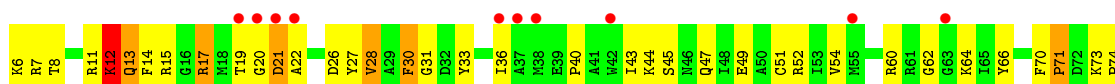
- Molecule 9: 50S ribosomal protein L14



- Molecule 10: 50S ribosomal protein L15



- Molecule 11: 50S ribosomal protein L16

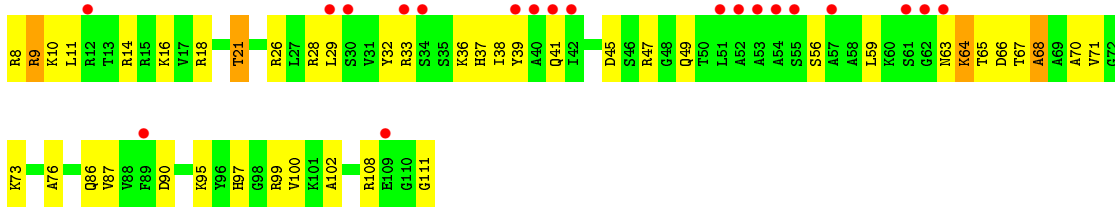


- Molecule 12: 50S ribosomal protein L17

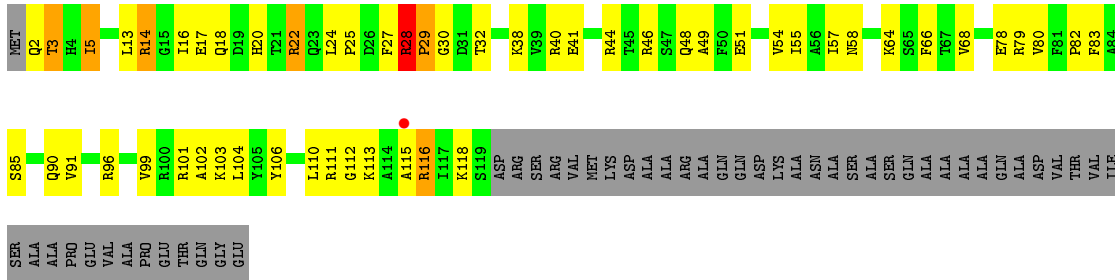


- Molecule 13: 50S ribosomal protein L18

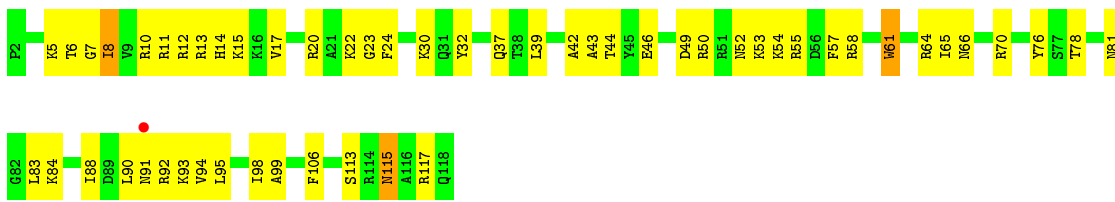




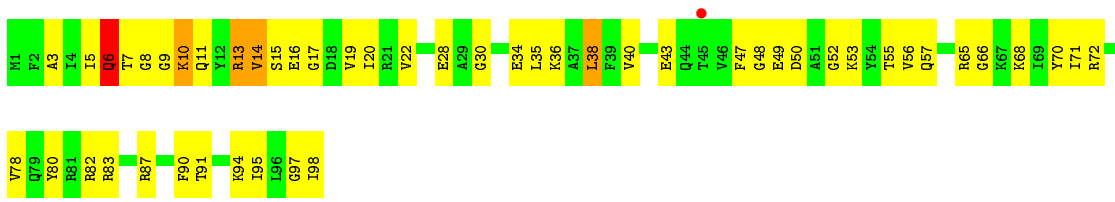
• Molecule 14: 50S ribosomal protein L19



• Molecule 15: 50S ribosomal protein L20

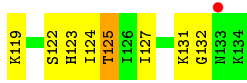


• Molecule 16: 50S ribosomal protein L21



• Molecule 17: 50S ribosomal protein L22



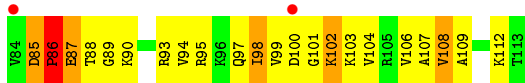
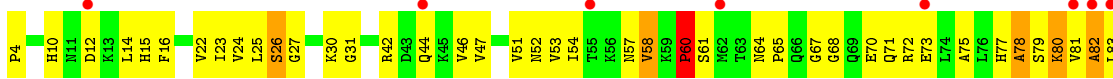


- Molecule 18: 50S ribosomal protein L23

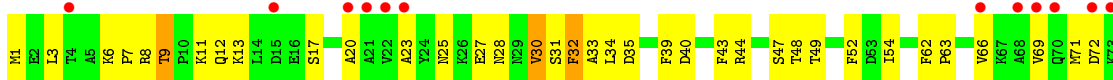


GLN

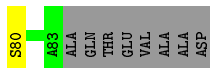
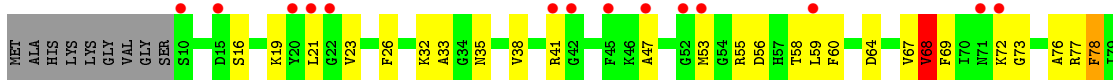
- Molecule 19: 50S ribosomal protein L24



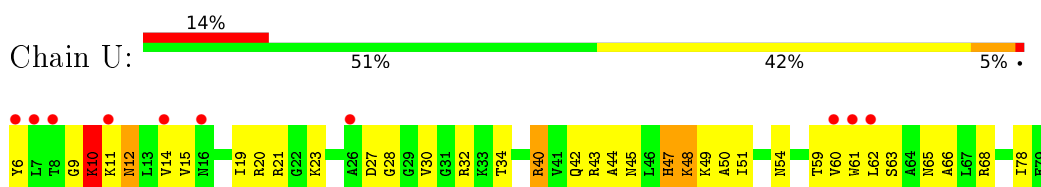
- Molecule 20: 50S ribosomal protein L25



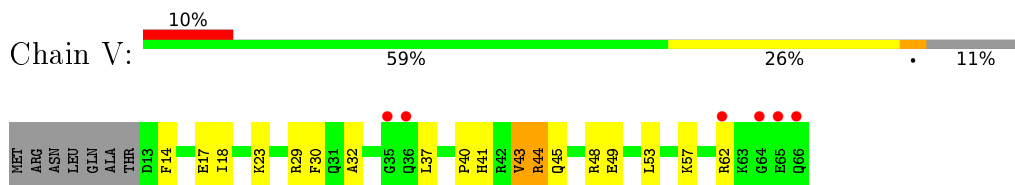
- Molecule 21: 50S ribosomal protein L27



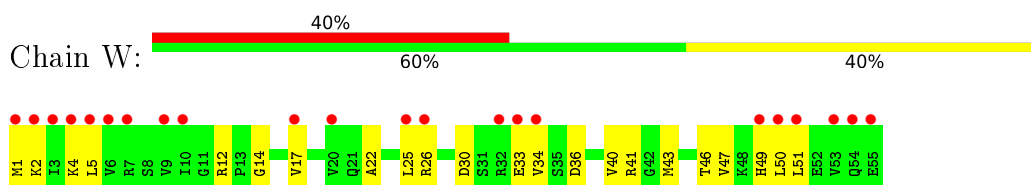
- Molecule 22: 50S ribosomal protein L28



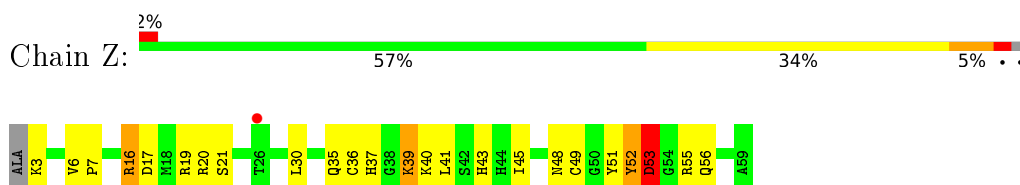
- Molecule 23: 50S ribosomal protein L29



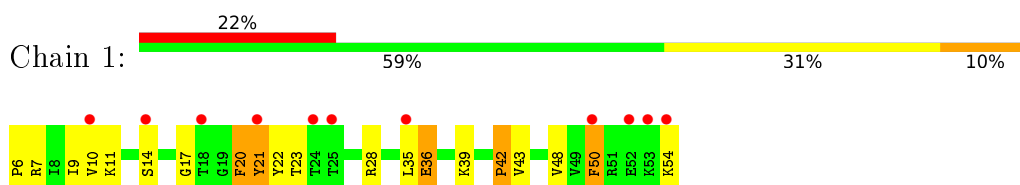
- Molecule 24: 50S ribosomal protein L30



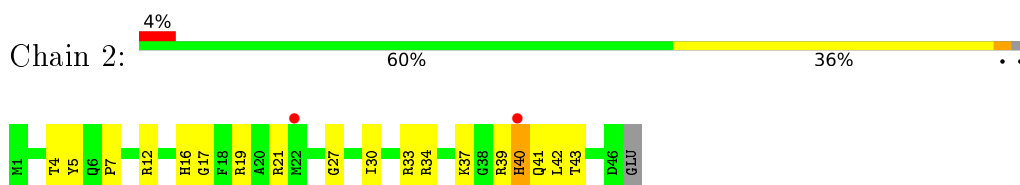
- Molecule 25: 50S ribosomal protein L32



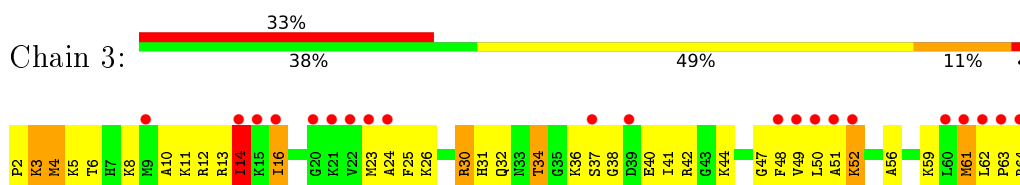
- Molecule 26: 50S ribosomal protein L33



- Molecule 27: 50S ribosomal protein L34



- Molecule 28: 50S ribosomal protein L35



4 Data and refinement statistics

Property	Value	Source
Space group	I 2 2 2	Depositor
Cell constants a, b, c, α , β , γ	170.00Å 410.74Å 697.78Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.67 – 3.22 49.67 – 3.22	Depositor EDS
% Data completeness (in resolution range)	99.1 (49.67-3.22) 99.2 (49.67-3.22)	Depositor EDS
R_{merge}	0.18	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.14 (at 3.19Å)	Xtrriage
Refinement program	PHENIX 1.18_3845	Depositor
R, R_{free}	0.224 , 0.253 0.225 , 0.231	Depositor DCC
R_{free} test set	19448 reflections (5.00%)	wwPDB-VP
Wilson B-factor (Å ²)	93.5	Xtrriage
Anisotropy	0.672	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.17 , 30.9	EDS
L-test for twinning ²	$\langle L \rangle = 0.46$, $\langle L^2 \rangle = 0.29$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.94	EDS
Total number of atoms	84486	wwPDB-VP
Average B, all atoms (Å ²)	134.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.30% 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: MG, EOH, K, CA, NA, MPD, SPD, QU2

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	X	0.85	58/64872 (0.1%)	1.51	1153/101178 (1.1%)
2	Y	0.61	1/2904 (0.0%)	1.25	15/4525 (0.3%)
3	A	0.42	0/2050	0.70	1/2772 (0.0%)
4	B	0.66	0/1572	0.88	1/2112 (0.0%)
5	C	0.57	0/1502	0.84	1/2035 (0.0%)
6	D	0.36	0/1393	0.62	0/1873
7	E	0.36	0/1308	0.59	0/1771
8	G	0.59	1/1134 (0.1%)	0.77	0/1535
9	H	0.75	0/1007	0.96	1/1352 (0.1%)
10	I	0.54	0/994	0.92	3/1338 (0.2%)
11	J	0.59	0/1085	0.84	1/1451 (0.1%)
12	K	0.79	2/901 (0.2%)	1.07	5/1208 (0.4%)
13	L	0.40	0/767	0.69	0/1027
14	M	0.74	0/936	0.93	1/1257 (0.1%)
15	N	0.63	0/971	0.95	3/1296 (0.2%)
16	O	0.52	0/743	0.83	1/995 (0.1%)
17	P	0.70	1/1027 (0.1%)	0.94	5/1375 (0.4%)
18	Q	0.52	0/716	0.76	1/963 (0.1%)
19	R	0.51	0/781	0.74	0/1062
20	S	0.34	0/1313	0.59	0/1796
21	T	0.52	0/543	0.76	0/722
22	U	0.43	0/524	0.71	0/707
23	V	0.44	0/441	0.59	0/586
24	W	0.44	0/426	0.75	0/568
25	Z	0.72	0/460	1.12	1/618 (0.2%)
26	1	0.46	0/317	0.70	0/434
27	2	0.46	0/387	0.81	0/509
28	3	0.50	0/464	0.83	0/611
All	All	0.77	63/91538 (0.1%)	1.37	1193/137676 (0.9%)

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
3	A	0	2
4	B	0	2
5	C	0	2
8	G	0	3
10	I	0	4
11	J	0	6
12	K	0	1
14	M	0	1
16	O	0	1
17	P	0	2
19	R	0	3
20	S	0	1
21	T	0	1
22	U	0	1
25	Z	0	2
28	3	0	4
All	All	0	36

The worst 5 of 63 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	X	1278	A	N3-C4	-7.98	1.30	1.34
1	X	827	C	N1-C6	-7.37	1.32	1.37
1	X	2795	A	C6-N1	6.95	1.40	1.35
1	X	537	C	N1-C2	6.69	1.46	1.40
1	X	1283	C	N3-C4	-6.59	1.29	1.33

The worst 5 of 1193 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	X	540	G	C6-C5-N7	-20.38	118.17	130.40
1	X	1468	A	C8-N9-C4	-19.09	98.16	105.80
1	X	540	G	C4-C5-N7	17.19	117.68	110.80
1	X	540	G	N1-C6-O6	17.00	130.10	119.90
1	X	540	G	C5-C6-O6	-16.48	118.71	128.60

There are no chirality outliers.

5 of 36 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	A	210	GLY	Peptide
3	A	271	VAL	Peptide
4	B	132	LYS	Peptide
4	B	146	THR	Peptide
5	C	49	ALA	Peptide

5.2 Too-close contacts [i](#)

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	X	57935	0	29196	1261	0
2	Y	2598	0	1328	75	0
3	A	2011	0	2012	124	0
4	B	1544	0	1605	86	0
5	C	1479	0	1488	111	0
6	D	1375	0	1433	67	0
7	E	1286	0	1336	58	0
8	G	1110	0	1133	80	0
9	H	997	0	1046	68	0
10	I	982	0	973	62	0
11	J	1062	0	1067	56	0
12	K	893	0	944	39	0
13	L	761	0	776	47	0
14	M	923	0	942	56	0
15	N	955	0	974	57	0
16	O	736	0	735	42	0
17	P	1014	0	1085	48	0
18	Q	705	0	717	38	0
19	R	771	0	740	50	0
20	S	1288	0	1237	63	0
21	T	537	0	537	21	0
22	U	519	0	501	35	0
23	V	438	0	456	13	0
24	W	424	0	470	17	0
25	Z	448	0	448	32	0
26	1	314	0	249	16	0
27	2	383	0	414	19	0
28	3	459	0	486	55	0
29	X	50	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
30	2	2	0	0	0	0
30	3	1	0	0	0	0
30	A	3	0	0	0	0
30	B	1	0	0	0	0
30	I	2	0	0	0	0
30	J	1	0	0	0	0
30	K	1	0	0	0	0
30	M	1	0	0	0	0
30	N	3	0	0	0	0
30	X	335	0	0	0	0
30	Y	17	0	0	0	0
31	X	80	0	124	18	0
32	X	32	0	55	2	0
33	X	1	0	0	0	0
34	X	3	0	6	0	0
35	X	5	0	0	0	0
36	X	1	0	0	0	0
All	All	84486	0	54513	2385	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 17.

The worst 5 of 2385 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)
4:B:143:GLN:HB2	4:B:147:PRO:HG3	1.30	1.10
1:X:243:G:H2'	1:X:244:C:H5'	1.32	1.07
18:Q:89:GLU:HB2	18:Q:91:LEU:HD22	1.38	1.06
15:N:66:ASN:HB3	15:N:76:TYR:HB2	1.38	1.05
1:X:566:U:O3'	8:G:140:GLN:NE2	1.88	1.04

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	270/274 (98%)	221 (82%)	30 (11%)	19 (7%)	1	7
4	B	204/206 (99%)	180 (88%)	18 (9%)	6 (3%)	4	27
5	C	194/205 (95%)	152 (78%)	29 (15%)	13 (7%)	1	8
6	D	175/177 (99%)	140 (80%)	29 (17%)	6 (3%)	3	23
7	E	169/171 (99%)	144 (85%)	18 (11%)	7 (4%)	3	19
8	G	140/143 (98%)	111 (79%)	18 (13%)	11 (8%)	1	5
9	H	132/134 (98%)	120 (91%)	9 (7%)	3 (2%)	6	33
10	I	135/137 (98%)	109 (81%)	18 (13%)	8 (6%)	1	12
11	J	133/136 (98%)	102 (77%)	22 (16%)	9 (7%)	1	8
12	K	113/116 (97%)	101 (89%)	8 (7%)	4 (4%)	3	23
13	L	102/104 (98%)	80 (78%)	17 (17%)	5 (5%)	2	16
14	M	116/166 (70%)	100 (86%)	9 (8%)	7 (6%)	1	11
15	N	115/117 (98%)	101 (88%)	11 (10%)	3 (3%)	5	30
16	O	96/98 (98%)	75 (78%)	16 (17%)	5 (5%)	2	14
17	P	127/134 (95%)	119 (94%)	8 (6%)	0	100	100
18	Q	90/93 (97%)	80 (89%)	8 (9%)	2 (2%)	6	34
19	R	108/110 (98%)	73 (68%)	19 (18%)	16 (15%)	0	1
20	S	173/175 (99%)	136 (79%)	28 (16%)	9 (5%)	2	14
21	T	72/91 (79%)	61 (85%)	8 (11%)	3 (4%)	3	19
22	U	72/74 (97%)	51 (71%)	17 (24%)	4 (6%)	2	13
23	V	52/61 (85%)	48 (92%)	3 (6%)	1 (2%)	8	38
24	W	53/55 (96%)	47 (89%)	6 (11%)	0	100	100
25	Z	55/58 (95%)	44 (80%)	7 (13%)	4 (7%)	1	7
26	1	47/49 (96%)	33 (70%)	8 (17%)	6 (13%)	0	1
27	2	44/47 (94%)	38 (86%)	4 (9%)	2 (4%)	2	17
28	3	61/63 (97%)	45 (74%)	11 (18%)	5 (8%)	1	5
All	All	3048/3194 (95%)	2511 (82%)	379 (12%)	158 (5%)	2	14

5 of 158 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	A	90	ALA
3	A	153	ALA
3	A	242	ALA
3	A	247	VAL
3	A	252	LYS

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	197/215 (92%)	195 (99%)	2 (1%)	76 89
4	B	155/155 (100%)	153 (99%)	2 (1%)	69 86
5	C	151/163 (93%)	144 (95%)	7 (5%)	27 62
6	D	147/153 (96%)	144 (98%)	3 (2%)	55 79
7	E	136/136 (100%)	133 (98%)	3 (2%)	52 78
8	G	117/119 (98%)	114 (97%)	3 (3%)	46 75
9	H	103/103 (100%)	100 (97%)	3 (3%)	42 72
10	I	93/105 (89%)	89 (96%)	4 (4%)	29 63
11	J	104/110 (94%)	101 (97%)	3 (3%)	42 72
12	K	91/93 (98%)	83 (91%)	8 (9%)	10 36
13	L	69/74 (93%)	67 (97%)	2 (3%)	42 72
14	M	97/134 (72%)	93 (96%)	4 (4%)	30 65
15	N	91/96 (95%)	89 (98%)	2 (2%)	52 78
16	O	71/78 (91%)	69 (97%)	2 (3%)	43 73
17	P	107/115 (93%)	102 (95%)	5 (5%)	26 61
18	Q	71/75 (95%)	71 (100%)	0	100 100
19	R	77/91 (85%)	73 (95%)	4 (5%)	23 58
20	S	134/149 (90%)	132 (98%)	2 (2%)	65 84
21	T	51/67 (76%)	49 (96%)	2 (4%)	32 66
22	U	45/59 (76%)	42 (93%)	3 (7%)	16 49

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
23	V	43/49 (88%)	42 (98%)	1 (2%)	50 77
24	W	48/48 (100%)	47 (98%)	1 (2%)	53 79
25	Z	50/51 (98%)	49 (98%)	1 (2%)	55 79
26	1	22/44 (50%)	20 (91%)	2 (9%)	9 33
27	2	39/40 (98%)	38 (97%)	1 (3%)	46 75
28	3	42/50 (84%)	38 (90%)	4 (10%)	8 31
All	All	2351/2572 (91%)	2277 (97%)	74 (3%)	40 71

5 of 74 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
20	S	9	THR
28	3	44	LYS
21	T	55	ARG
24	W	4	LYS
10	I	55	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 17 such sidechains are listed below:

Mol	Chain	Res	Type
19	R	15	HIS
25	Z	56	GLN
5	C	163	ASN
5	C	176	ASN
6	D	37	ASN

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	X	2686/2880 (93%)	750 (27%)	76 (2%)
2	Y	121/123 (98%)	33 (27%)	4 (3%)
All	All	2807/3003 (93%)	783 (27%)	80 (2%)

5 of 783 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	X	3	U
1	X	10	A

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Mol	Chain	Res	Type
1	X	12	U
1	X	13	A
1	X	14	A

5 of 80 RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	X	1920	A
1	X	2705	A
1	X	2180	U
1	X	2325	A
1	X	2848	A

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

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 388 ligands modelled in this entry, 374 are monoatomic - leaving 14 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	$\# Z > 2$
31	SPD	X	3243	1	9,9,9	0.63	0	8,8,8	1.12	0
31	SPD	X	3242	1	9,9,9	0.60	0	8,8,8	0.93	0
32	MPD	X	3245	-	7,7,7	0.57	0	9,10,10	0.40	0
29	QU2	X	2901	-	53,53,53	1.00	4 (7%)	66,76,76	1.65	11 (16%)
34	EOH	X	3250	-	2,2,2	0.50	0	1,1,1	0.11	0
31	SPD	X	3238	1	9,9,9	0.85	0	8,8,8	2.07	3 (37%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	MPD	X	3248	-	7,7,7	0.62	0	9,10,10	0.40	0
31	SPD	X	3240	1	9,9,9	0.67	0	8,8,8	1.36	1 (12%)
31	SPD	X	3241	1	9,9,9	0.31	0	8,8,8	0.79	0
32	MPD	X	3246	-	7,7,7	0.55	0	9,10,10	1.14	0
32	MPD	X	3247	-	7,7,7	0.39	0	9,10,10	0.73	0
31	SPD	X	3244	1	9,9,9	0.27	0	8,8,8	0.82	0
31	SPD	X	3239	1	9,9,9	0.67	0	8,8,8	1.86	2 (25%)
31	SPD	X	3237	1	9,9,9	0.68	0	8,8,8	1.18	1 (12%)

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
31	SPD	X	3243	1	-	3/7/7/7	-
31	SPD	X	3242	1	-	1/7/7/7	-
32	MPD	X	3245	-	-	1/5/5/5	-
29	QU2	X	2901	-	-	21/57/98/98	0/3/4/4
31	SPD	X	3238	1	-	2/7/7/7	-
32	MPD	X	3248	-	-	3/5/5/5	-
31	SPD	X	3240	1	-	1/7/7/7	-
31	SPD	X	3241	1	-	2/7/7/7	-
32	MPD	X	3246	-	-	2/5/5/5	-
32	MPD	X	3247	-	-	3/5/5/5	-
31	SPD	X	3244	1	-	2/7/7/7	-
31	SPD	X	3239	1	-	2/7/7/7	-
31	SPD	X	3237	1	-	4/7/7/7	-

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
29	X	2901	QU2	C32-C31	3.95	1.60	1.52
29	X	2901	QU2	C7-C8	3.04	1.62	1.54
29	X	2901	QU2	C7-C6	2.27	1.57	1.54
29	X	2901	QU2	O6-C32	2.05	1.47	1.42

The worst 5 of 18 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	X	2901	QU2	C5-C4-C3	5.21	126.35	109.52
31	X	3238	SPD	C7-N6-C5	4.51	134.73	113.45
29	X	2901	QU2	O8-C22-C23	4.08	118.67	108.10
29	X	2901	QU2	C36-O6-C32	3.98	124.97	114.52
29	X	2901	QU2	O5-C31-C30	-3.87	99.93	111.04

There are no chirality outliers.

5 of 47 torsion outliers are listed below:

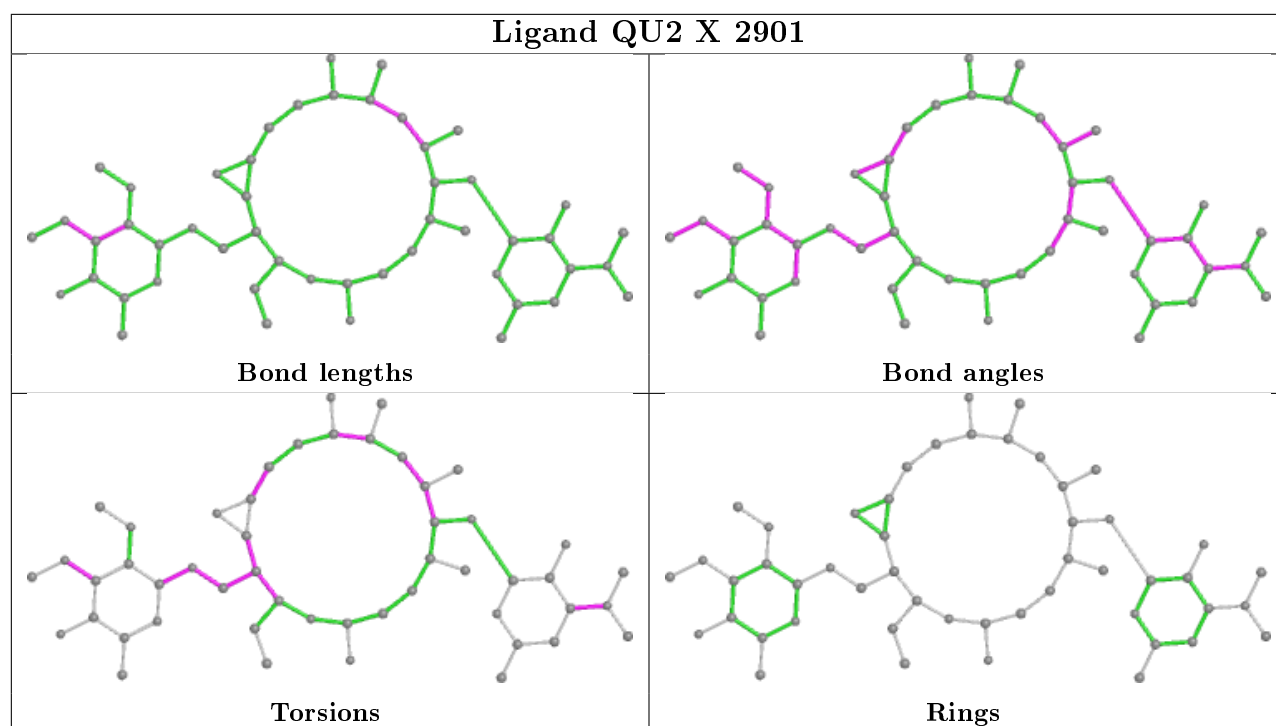
Mol	Chain	Res	Type	Atoms
29	X	2901	QU2	C10-C11-C12-C13
29	X	2901	QU2	C10-C11-C12-O12
29	X	2901	QU2	C12-C13-C14-C15
29	X	2901	QU2	O12-C13-C14-C15
29	X	2901	QU2	O12-C13-C14-C21

There are no ring outliers.

8 monomers are involved in 20 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
31	X	3243	SPD	5	0
31	X	3242	SPD	1	0
31	X	3238	SPD	5	0
32	X	3248	MPD	1	0
31	X	3240	SPD	3	0
32	X	3246	MPD	1	0
31	X	3244	SPD	1	0
31	X	3239	SPD	3	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](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	X	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	X	724:C	O3'	725:C	P	4.40

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	X	2699/2880 (93%)	-0.55	38 (1%) 75 64	74, 122, 216, 317	2 (0%)
2	Y	122/123 (99%)	-0.44	3 (2%) 57 44	131, 174, 197, 204	0
3	A	272/274 (99%)	0.37	19 (6%) 16 10	102, 146, 172, 180	0
4	B	206/206 (100%)	0.07	9 (4%) 34 22	83, 99, 121, 130	0
5	C	196/205 (95%)	0.22	13 (6%) 18 11	94, 144, 175, 183	0
6	D	177/177 (100%)	1.12	50 (28%) 0 0	197, 222, 244, 253	0
7	E	171/171 (100%)	0.16	12 (7%) 16 10	130, 176, 217, 223	0
8	G	142/143 (99%)	0.19	9 (6%) 20 11	92, 121, 139, 144	0
9	H	134/134 (100%)	-0.46	1 (0%) 87 82	86, 93, 104, 108	0
10	I	137/137 (100%)	0.73	25 (18%) 1 1	112, 159, 177, 179	0
11	J	135/136 (99%)	0.75	22 (16%) 1 1	133, 156, 174, 182	0
12	K	115/116 (99%)	-0.27	1 (0%) 84 76	76, 81, 91, 93	0
13	L	104/104 (100%)	0.94	20 (19%) 1 0	158, 170, 176, 179	0
14	M	118/166 (71%)	-0.25	1 (0%) 86 79	90, 98, 118, 124	0
15	N	117/117 (100%)	-0.17	1 (0%) 84 76	87, 118, 147, 154	0
16	O	98/98 (100%)	-0.13	1 (1%) 82 73	105, 139, 163, 169	0
17	P	129/134 (96%)	0.09	4 (3%) 49 34	83, 92, 118, 135	0
18	Q	92/93 (98%)	0.44	12 (13%) 3 2	114, 137, 155, 161	0
19	R	110/110 (100%)	0.52	10 (9%) 9 5	128, 135, 177, 198	0
20	S	175/175 (100%)	0.83	32 (18%) 1 0	161, 189, 202, 208	0
21	T	74/91 (81%)	0.99	14 (18%) 1 0	129, 139, 146, 151	0
22	U	74/74 (100%)	0.75	10 (13%) 3 2	129, 164, 191, 198	0
23	V	54/61 (88%)	0.23	6 (11%) 5 3	149, 159, 187, 199	0
24	W	55/55 (100%)	1.56	22 (40%) 0 0	130, 137, 144, 146	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
25	Z	57/58 (98%)	-0.32	1 (1%) 68 56	76, 91, 115, 122	0
26	1	49/49 (100%)	1.26	11 (22%) 0 0	158, 163, 167, 170	0
27	2	46/47 (97%)	0.38	2 (4%) 35 23	94, 110, 119, 123	0
28	3	63/63 (100%)	1.47	21 (33%) 0 0	136, 142, 153, 154	0
All	All	5921/6197 (95%)	-0.06	370 (6%) 20 12	74, 133, 212, 317	2 (0%)

The worst 5 of 370 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
10	I	67	ASN	9.5
1	X	774	A	8.9
28	3	63	PRO	8.2
10	I	68	VAL	7.3
6	D	162	THR	6.8

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

There are no non-standard protein/DNA/RNA residues in this entry.

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
30	MG	X	3190	1/1	0.37	0.91	183,183,183,183	0
30	MG	X	3130	1/1	0.41	0.73	143,143,143,143	0
30	MG	X	3211	1/1	0.52	0.56	111,111,111,111	0
30	MG	Y	210	1/1	0.54	0.58	149,149,149,149	0
30	MG	X	3143	1/1	0.58	0.53	95,95,95,95	0
30	MG	X	3155	1/1	0.59	0.48	99,99,99,99	0
30	MG	X	3057	1/1	0.60	0.85	131,131,131,131	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
30	MG	X	3087	1/1	0.65	0.65	82,82,82,82	0
30	MG	X	2983	1/1	0.66	1.13	121,121,121,121	0
30	MG	Y	213	1/1	0.66	0.96	131,131,131,131	0
30	MG	X	3107	1/1	0.68	0.91	122,122,122,122	0
30	MG	X	3117	1/1	0.68	0.77	130,130,130,130	0
30	MG	X	3210	1/1	0.68	0.74	99,99,99,99	0
30	MG	X	3227	1/1	0.69	0.44	98,98,98,98	0
30	MG	X	3086	1/1	0.69	0.62	112,112,112,112	0
30	MG	X	3002	1/1	0.69	0.58	107,107,107,107	0
30	MG	X	3224	1/1	0.70	2.02	133,133,133,133	0
30	MG	X	3083	1/1	0.70	0.53	104,104,104,104	0
30	MG	X	3110	1/1	0.70	0.53	127,127,127,127	0
30	MG	X	3176	1/1	0.70	0.45	106,106,106,106	0
30	MG	X	3120	1/1	0.71	0.58	110,110,110,110	0
30	MG	X	2924	1/1	0.72	0.95	78,78,78,78	0
30	MG	X	3231	1/1	0.72	0.16	99,99,99,99	0
30	MG	X	3196	1/1	0.73	0.90	86,86,86,86	0
30	MG	X	3207	1/1	0.73	0.44	102,102,102,102	0
30	MG	X	3050	1/1	0.73	0.31	91,91,91,91	0
30	MG	Y	214	1/1	0.73	1.13	122,122,122,122	0
30	MG	2	102	1/1	0.73	0.32	116,116,116,116	0
30	MG	Y	205	1/1	0.74	1.25	123,123,123,123	0
30	MG	X	3191	1/1	0.74	0.33	146,146,146,146	0
30	MG	X	3023	1/1	0.74	1.01	91,91,91,91	0
30	MG	X	2985	1/1	0.74	0.61	101,101,101,101	0
30	MG	X	2975	1/1	0.74	1.03	79,79,79,79	0
30	MG	X	3232	1/1	0.75	0.78	87,87,87,87	0
30	MG	X	3051	1/1	0.75	0.54	79,79,79,79	0
30	MG	X	2953	1/1	0.75	1.05	125,125,125,125	0
30	MG	X	3156	1/1	0.76	0.30	121,121,121,121	0
30	MG	X	3115	1/1	0.76	0.72	108,108,108,108	0
30	MG	X	3214	1/1	0.76	0.83	94,94,94,94	0
30	MG	X	3041	1/1	0.76	0.33	88,88,88,88	0
30	MG	X	3139	1/1	0.77	0.37	99,99,99,99	0
30	MG	I	201	1/1	0.77	0.49	105,105,105,105	0
30	MG	X	3183	1/1	0.77	0.43	92,92,92,92	0
30	MG	X	3146	1/1	0.78	0.50	97,97,97,97	0
30	MG	K	201	1/1	0.78	0.41	89,89,89,89	0
30	MG	X	2978	1/1	0.78	0.93	95,95,95,95	0
30	MG	X	3065	1/1	0.79	0.81	102,102,102,102	0
30	MG	X	3134	1/1	0.79	0.52	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
30	MG	X	3072	1/1	0.79	0.90	123,123,123,123	0
30	MG	X	3141	1/1	0.79	0.29	87,87,87,87	0
32	MPD	X	3245	8/8	0.79	0.46	128,128,128,128	0
30	MG	X	3079	1/1	0.80	0.42	106,106,106,106	0
30	MG	X	3111	1/1	0.80	0.58	100,100,100,100	0
30	MG	X	3215	1/1	0.80	0.51	105,105,105,105	0
30	MG	X	3209	1/1	0.80	0.51	81,81,81,81	0
31	SPD	X	3243	10/10	0.80	0.39	96,96,96,96	0
31	SPD	X	3244	10/10	0.80	0.31	137,137,137,137	0
30	MG	X	3112	1/1	0.80	1.67	128,128,128,128	0
30	MG	N	203	1/1	0.81	0.59	98,98,98,98	0
30	MG	X	3043	1/1	0.81	0.81	120,120,120,120	0
30	MG	X	2994	1/1	0.81	0.56	86,86,86,86	0
30	MG	Y	207	1/1	0.81	0.93	131,131,131,131	0
30	MG	X	2989	1/1	0.81	1.05	111,111,111,111	0
30	MG	X	3225	1/1	0.82	0.30	132,132,132,132	0
30	MG	Y	216	1/1	0.82	0.60	152,152,152,152	0
30	MG	X	3161	1/1	0.82	0.39	107,107,107,107	0
30	MG	X	2982	1/1	0.82	0.69	83,83,83,83	0
30	MG	X	3181	1/1	0.82	0.24	91,91,91,91	0
30	MG	X	3025	1/1	0.82	1.06	109,109,109,109	0
30	MG	X	2928	1/1	0.82	0.36	127,127,127,127	0
30	MG	X	2955	1/1	0.82	0.67	80,80,80,80	0
30	MG	X	3067	1/1	0.82	0.47	85,85,85,85	0
35	CA	X	3251	1/1	0.82	0.32	78,78,78,78	0
30	MG	X	3185	1/1	0.83	0.40	92,92,92,92	0
30	MG	X	3189	1/1	0.83	0.64	153,153,153,153	0
30	MG	X	3152	1/1	0.83	0.46	88,88,88,88	0
30	MG	X	3160	1/1	0.83	0.53	108,108,108,108	0
30	MG	X	3019	1/1	0.83	0.88	82,82,82,82	0
30	MG	X	2954	1/1	0.84	0.30	115,115,115,115	0
30	MG	X	3182	1/1	0.84	0.32	87,87,87,87	0
30	MG	X	3223	1/1	0.84	1.86	137,137,137,137	0
30	MG	X	3103	1/1	0.84	0.69	145,145,145,145	0
30	MG	X	3169	1/1	0.84	0.92	112,112,112,112	0
30	MG	X	3009	1/1	0.84	0.72	123,123,123,123	0
30	MG	X	3178	1/1	0.84	0.26	95,95,95,95	0
30	MG	A	302	1/1	0.84	1.29	104,104,104,104	0
30	MG	X	2950	1/1	0.85	0.77	122,122,122,122	0
30	MG	X	3233	1/1	0.85	0.86	68,68,68,68	0
30	MG	Y	201	1/1	0.85	1.01	126,126,126,126	0
30	MG	X	3037	1/1	0.85	1.48	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
30	MG	X	2917	1/1	0.85	1.17	79,79,79,79	0
30	MG	X	3164	1/1	0.85	0.48	149,149,149,149	0
30	MG	X	2948	1/1	0.85	1.06	103,103,103,103	0
30	MG	X	3187	1/1	0.85	0.82	120,120,120,120	0
30	MG	X	3024	1/1	0.85	0.87	122,122,122,122	0
30	MG	X	3014	1/1	0.86	0.24	96,96,96,96	0
30	MG	X	3042	1/1	0.86	0.33	89,89,89,89	0
30	MG	X	3074	1/1	0.86	1.05	106,106,106,106	0
30	MG	X	2969	1/1	0.86	0.52	96,96,96,96	0
30	MG	X	2906	1/1	0.86	0.59	94,94,94,94	0
30	MG	X	2944	1/1	0.86	0.53	101,101,101,101	0
31	SPD	X	3242	10/10	0.86	0.32	95,95,95,95	0
30	MG	X	2946	1/1	0.86	0.54	75,75,75,75	0
30	MG	X	3059	1/1	0.86	0.40	149,149,149,149	0
30	MG	X	2913	1/1	0.86	0.58	85,85,85,85	0
30	MG	X	3140	1/1	0.86	0.36	98,98,98,98	0
30	MG	X	2965	1/1	0.87	0.72	99,99,99,99	0
30	MG	X	3118	1/1	0.87	0.72	98,98,98,98	0
30	MG	A	303	1/1	0.87	0.51	113,113,113,113	0
30	MG	X	3005	1/1	0.87	0.52	120,120,120,120	0
30	MG	X	3124	1/1	0.87	0.27	95,95,95,95	0
30	MG	X	3104	1/1	0.87	0.53	97,97,97,97	0
30	MG	X	3036	1/1	0.87	0.34	89,89,89,89	0
30	MG	X	3179	1/1	0.87	0.46	75,75,75,75	0
30	MG	Y	208	1/1	0.87	0.49	180,180,180,180	0
30	MG	X	3116	1/1	0.87	0.56	115,115,115,115	0
30	MG	X	3204	1/1	0.87	0.41	161,161,161,161	0
30	MG	X	3226	1/1	0.87	0.58	79,79,79,79	0
30	MG	X	3168	1/1	0.88	0.37	135,135,135,135	0
30	MG	X	3206	1/1	0.88	0.21	102,102,102,102	0
30	MG	X	2996	1/1	0.88	0.59	71,71,71,71	0
30	MG	2	101	1/1	0.88	0.59	103,103,103,103	0
30	MG	X	3208	1/1	0.88	0.79	104,104,104,104	0
30	MG	X	2992	1/1	0.88	0.29	91,91,91,91	0
30	MG	X	3068	1/1	0.88	0.36	83,83,83,83	0
30	MG	X	3017	1/1	0.88	0.58	93,93,93,93	0
30	MG	X	3101	1/1	0.88	0.76	128,128,128,128	0
34	EOH	X	3250	3/3	0.88	0.42	88,88,88,88	0
30	MG	X	2968	1/1	0.88	0.48	114,114,114,114	0
29	QU2	X	2901	50/50	0.89	0.37	80,80,80,80	0
30	MG	X	2941	1/1	0.89	0.47	81,81,81,81	0
30	MG	X	3216	1/1	0.89	0.18	135,135,135,135	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
30	MG	X	3217	1/1	0.89	1.01	83,83,83,83	0
30	MG	X	3012	1/1	0.89	1.23	101,101,101,101	0
30	MG	X	3094	1/1	0.89	0.40	84,84,84,84	0
30	MG	X	2925	1/1	0.89	0.53	99,99,99,99	0
30	MG	X	3048	1/1	0.89	0.55	112,112,112,112	0
30	MG	X	3166	1/1	0.89	0.77	139,139,139,139	0
30	MG	X	3029	1/1	0.89	0.22	87,87,87,87	0
30	MG	X	2991	1/1	0.89	0.55	90,90,90,90	0
30	MG	X	3078	1/1	0.89	0.96	86,86,86,86	0
30	MG	X	3236	1/1	0.89	0.53	88,88,88,88	0
30	MG	X	3055	1/1	0.89	0.79	111,111,111,111	0
30	MG	X	3142	1/1	0.89	0.18	94,94,94,94	0
30	MG	X	3080	1/1	0.89	0.22	98,98,98,98	0
30	MG	X	3081	1/1	0.89	0.33	123,123,123,123	0
30	MG	X	2997	1/1	0.90	0.74	97,97,97,97	0
30	MG	X	2961	1/1	0.90	0.54	70,70,70,70	0
30	MG	X	3088	1/1	0.90	0.54	87,87,87,87	0
30	MG	X	3228	1/1	0.90	0.38	109,109,109,109	0
30	MG	X	2963	1/1	0.90	0.79	94,94,94,94	0
30	MG	X	3095	1/1	0.90	0.80	106,106,106,106	0
30	MG	X	3098	1/1	0.90	0.65	69,69,69,69	0
30	MG	X	2942	1/1	0.90	0.58	73,73,73,73	0
30	MG	X	3071	1/1	0.90	0.06	155,155,155,155	0
30	MG	Y	202	1/1	0.90	0.56	122,122,122,122	0
30	MG	Y	204	1/1	0.90	0.84	140,140,140,140	0
30	MG	X	3144	1/1	0.90	0.39	108,108,108,108	0
30	MG	Y	206	1/1	0.90	0.56	148,148,148,148	0
30	MG	X	3192	1/1	0.90	0.41	88,88,88,88	0
30	MG	X	3030	1/1	0.90	1.01	83,83,83,83	0
30	MG	X	3148	1/1	0.90	0.52	88,88,88,88	0
30	MG	X	3126	1/1	0.91	0.30	107,107,107,107	0
30	MG	X	3128	1/1	0.91	0.15	92,92,92,92	0
30	MG	X	2930	1/1	0.91	0.66	87,87,87,87	0
30	MG	Y	209	1/1	0.91	0.88	140,140,140,140	0
30	MG	X	2964	1/1	0.91	0.73	85,85,85,85	0
30	MG	X	3076	1/1	0.91	0.43	108,108,108,108	0
30	MG	X	3052	1/1	0.91	0.75	121,121,121,121	0
30	MG	X	3106	1/1	0.91	0.30	79,79,79,79	0
30	MG	X	3032	1/1	0.91	0.80	56,56,56,56	0
30	MG	X	3108	1/1	0.91	0.57	112,112,112,112	0
30	MG	X	2940	1/1	0.91	0.81	89,89,89,89	0
30	MG	X	3145	1/1	0.91	0.46	106,106,106,106	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
30	MG	X	2958	1/1	0.91	0.62	79,79,79,79	0
30	MG	X	3060	1/1	0.91	0.21	84,84,84,84	0
30	MG	X	3114	1/1	0.91	0.84	105,105,105,105	0
31	SPD	X	3240	10/10	0.91	0.26	75,75,75,75	0
30	MG	X	3064	1/1	0.91	0.54	82,82,82,82	0
30	MG	X	2998	1/1	0.91	0.56	84,84,84,84	0
30	MG	X	2959	1/1	0.91	0.89	79,79,79,79	0
30	MG	X	3090	1/1	0.91	0.34	78,78,78,78	0
30	MG	X	3004	1/1	0.91	0.85	105,105,105,105	0
30	MG	X	2921	1/1	0.91	0.30	97,97,97,97	0
35	CA	X	3253	1/1	0.91	0.38	72,72,72,72	0
30	MG	X	3180	1/1	0.92	0.34	76,76,76,76	0
30	MG	X	3003	1/1	0.92	0.37	82,82,82,82	0
30	MG	X	3077	1/1	0.92	0.58	118,118,118,118	0
30	MG	X	2915	1/1	0.92	0.46	83,83,83,83	0
30	MG	N	202	1/1	0.92	0.31	95,95,95,95	0
30	MG	X	3047	1/1	0.92	0.92	100,100,100,100	0
30	MG	X	3070	1/1	0.92	1.17	105,105,105,105	0
30	MG	X	3167	1/1	0.92	0.25	117,117,117,117	0
31	SPD	X	3237	10/10	0.92	0.30	82,82,82,82	0
30	MG	X	2920	1/1	0.92	0.77	67,67,67,67	0
30	MG	X	3082	1/1	0.92	0.18	110,110,110,110	0
30	MG	X	3172	1/1	0.92	0.61	98,98,98,98	0
30	MG	X	3195	1/1	0.92	0.55	91,91,91,91	0
30	MG	X	3174	1/1	0.92	0.82	115,115,115,115	0
32	MPD	X	3246	8/8	0.92	0.17	93,93,93,93	0
30	MG	X	3026	1/1	0.92	0.64	107,107,107,107	0
30	MG	X	3137	1/1	0.92	0.30	78,78,78,78	0
30	MG	X	2976	1/1	0.92	0.48	81,81,81,81	0
30	MG	X	3015	1/1	0.93	0.57	72,72,72,72	0
30	MG	X	2905	1/1	0.93	0.57	84,84,84,84	0
30	MG	X	2974	1/1	0.93	0.84	86,86,86,86	0
30	MG	X	3221	1/1	0.93	0.62	82,82,82,82	0
30	MG	X	3127	1/1	0.93	0.60	83,83,83,83	0
30	MG	X	3157	1/1	0.93	0.47	97,97,97,97	0
30	MG	X	3159	1/1	0.93	0.52	143,143,143,143	0
30	MG	I	202	1/1	0.93	0.42	143,143,143,143	0
30	MG	X	3085	1/1	0.93	0.39	127,127,127,127	0
30	MG	X	3058	1/1	0.93	0.36	156,156,156,156	0
30	MG	X	3109	1/1	0.93	1.03	77,77,77,77	0
30	MG	X	3073	1/1	0.93	0.78	137,137,137,137	0
30	MG	X	3046	1/1	0.93	0.24	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
30	MG	X	3202	1/1	0.93	0.53	156,156,156,156	0
31	SPD	X	3238	10/10	0.93	0.30	79,79,79,79	0
30	MG	X	3031	1/1	0.93	0.94	69,69,69,69	0
30	MG	X	3205	1/1	0.93	0.12	186,186,186,186	0
30	MG	X	3113	1/1	0.93	0.50	86,86,86,86	0
30	MG	X	3091	1/1	0.93	0.24	85,85,85,85	0
30	MG	X	3062	1/1	0.93	0.47	110,110,110,110	0
30	MG	X	2926	1/1	0.93	0.45	99,99,99,99	0
32	MPD	X	3248	8/8	0.93	0.31	94,94,94,94	0
30	MG	X	2904	1/1	0.93	0.63	62,62,62,62	0
30	MG	X	2995	1/1	0.93	0.39	76,76,76,76	0
30	MG	X	3147	1/1	0.93	0.14	93,93,93,93	0
30	MG	X	3044	1/1	0.94	0.63	82,82,82,82	0
30	MG	X	3045	1/1	0.94	0.25	124,124,124,124	0
30	MG	Y	211	1/1	0.94	0.33	173,173,173,173	0
30	MG	Y	212	1/1	0.94	0.62	186,186,186,186	0
30	MG	X	3089	1/1	0.94	0.59	89,89,89,89	0
30	MG	X	3133	1/1	0.94	0.78	70,70,70,70	0
30	MG	X	2910	1/1	0.94	0.68	70,70,70,70	0
30	MG	X	3135	1/1	0.94	0.07	90,90,90,90	0
30	MG	X	3219	1/1	0.94	0.44	103,103,103,103	0
30	MG	X	3186	1/1	0.94	0.52	105,105,105,105	0
30	MG	X	3136	1/1	0.94	0.54	77,77,77,77	0
30	MG	J	201	1/1	0.94	0.09	134,134,134,134	0
30	MG	X	3188	1/1	0.94	0.71	131,131,131,131	0
30	MG	X	2987	1/1	0.94	0.79	107,107,107,107	0
30	MG	X	2988	1/1	0.94	0.47	100,100,100,100	0
30	MG	X	3049	1/1	0.94	0.92	106,106,106,106	0
30	MG	X	3096	1/1	0.94	0.42	90,90,90,90	0
30	MG	3	101	1/1	0.94	0.78	103,103,103,103	0
30	MG	X	3229	1/1	0.94	0.17	112,112,112,112	0
30	MG	X	3038	1/1	0.94	0.35	80,80,80,80	0
31	SPD	X	3239	10/10	0.94	0.27	78,78,78,78	0
30	MG	X	3039	1/1	0.94	0.42	76,76,76,76	0
30	MG	X	3200	1/1	0.94	0.17	116,116,116,116	0
30	MG	X	3201	1/1	0.94	0.37	104,104,104,104	0
30	MG	X	3170	1/1	0.94	0.65	127,127,127,127	0
30	MG	X	3069	1/1	0.94	0.17	131,131,131,131	0
30	MG	X	3173	1/1	0.94	0.22	191,191,191,191	0
30	MG	X	3007	1/1	0.94	0.64	100,100,100,100	0
30	MG	X	2927	1/1	0.94	0.80	77,77,77,77	0
30	MG	X	3177	1/1	0.94	0.21	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
30	MG	X	3010	1/1	0.94	0.63	97,97,97,97	0
30	MG	X	2990	1/1	0.95	0.76	89,89,89,89	0
30	MG	X	2911	1/1	0.95	0.56	59,59,59,59	0
30	MG	B	301	1/1	0.95	0.18	72,72,72,72	0
30	MG	X	3006	1/1	0.95	0.16	108,108,108,108	0
30	MG	X	2977	1/1	0.95	0.67	82,82,82,82	0
30	MG	X	3230	1/1	0.95	0.52	119,119,119,119	0
30	MG	X	2993	1/1	0.95	0.33	95,95,95,95	0
30	MG	X	2956	1/1	0.95	0.34	107,107,107,107	0
30	MG	X	3011	1/1	0.95	0.53	87,87,87,87	0
30	MG	X	3234	1/1	0.95	0.42	75,75,75,75	0
30	MG	X	3034	1/1	0.95	0.35	99,99,99,99	0
30	MG	X	2951	1/1	0.95	0.92	115,115,115,115	0
30	MG	X	3054	1/1	0.95	0.76	93,93,93,93	0
30	MG	X	3123	1/1	0.95	0.18	104,104,104,104	0
30	MG	X	2919	1/1	0.95	1.04	89,89,89,89	0
30	MG	X	3056	1/1	0.95	0.79	149,149,149,149	0
30	MG	X	2960	1/1	0.95	0.71	74,74,74,74	0
30	MG	X	2970	1/1	0.95	0.68	88,88,88,88	0
30	MG	X	3129	1/1	0.95	0.66	76,76,76,76	0
30	MG	X	3018	1/1	0.95	0.12	89,89,89,89	0
30	MG	X	3131	1/1	0.95	0.36	83,83,83,83	0
32	MPD	X	3247	8/8	0.95	0.17	103,103,103,103	0
30	MG	X	3132	1/1	0.95	0.88	75,75,75,75	0
30	MG	X	2923	1/1	0.95	0.72	89,89,89,89	0
30	MG	X	3061	1/1	0.95	0.33	82,82,82,82	0
35	CA	X	3252	1/1	0.95	0.45	100,100,100,100	0
30	MG	X	2962	1/1	0.95	0.82	89,89,89,89	0
30	MG	X	3102	1/1	0.96	1.71	98,98,98,98	0
30	MG	Y	217	1/1	0.96	0.52	161,161,161,161	0
30	MG	X	2922	1/1	0.96	0.53	95,95,95,95	0
30	MG	X	2908	1/1	0.96	0.69	49,49,49,49	0
30	MG	X	2916	1/1	0.96	0.32	80,80,80,80	0
30	MG	X	2914	1/1	0.96	0.70	79,79,79,79	0
30	MG	X	2935	1/1	0.96	0.62	76,76,76,76	0
30	MG	X	2947	1/1	0.96	0.57	89,89,89,89	0
30	MG	X	3028	1/1	0.96	0.48	101,101,101,101	0
30	MG	X	3193	1/1	0.96	0.79	68,68,68,68	0
30	MG	X	3165	1/1	0.96	0.39	144,144,144,144	0
30	MG	X	2980	1/1	0.96	0.29	92,92,92,92	0
30	MG	X	3199	1/1	0.96	0.47	163,163,163,163	0
30	MG	X	2966	1/1	0.96	0.67	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
30	MG	X	2967	1/1	0.96	0.52	97,97,97,97	0
30	MG	X	3138	1/1	0.96	0.24	85,85,85,85	0
30	MG	X	3203	1/1	0.96	0.48	157,157,157,157	0
30	MG	X	2938	1/1	0.96	0.49	104,104,104,104	0
31	SPD	X	3241	10/10	0.96	0.27	160,160,160,160	0
30	MG	X	3013	1/1	0.96	0.49	74,74,74,74	0
30	MG	X	3092	1/1	0.96	0.41	91,91,91,91	0
30	MG	X	2949	1/1	0.96	0.21	91,91,91,91	0
30	MG	X	3000	1/1	0.96	0.68	98,98,98,98	0
30	MG	X	3016	1/1	0.96	0.39	116,116,116,116	0
30	MG	X	3122	1/1	0.96	0.32	97,97,97,97	0
30	MG	X	3001	1/1	0.96	0.96	128,128,128,128	0
30	MG	X	3099	1/1	0.96	0.38	101,101,101,101	0
30	MG	X	3040	1/1	0.96	0.10	143,143,143,143	0
30	MG	X	3149	1/1	0.96	0.56	100,100,100,100	0
30	MG	X	3150	1/1	0.96	0.26	158,158,158,158	0
35	CA	X	3255	1/1	0.96	0.23	78,78,78,78	0
30	MG	X	2986	1/1	0.97	0.57	101,101,101,101	0
30	MG	X	2907	1/1	0.97	0.48	75,75,75,75	0
30	MG	X	2932	1/1	0.97	0.24	94,94,94,94	0
30	MG	X	2971	1/1	0.97	0.66	149,149,149,149	0
30	MG	X	2933	1/1	0.97	0.30	81,81,81,81	0
30	MG	X	3063	1/1	0.97	0.36	88,88,88,88	0
30	MG	X	3212	1/1	0.97	0.22	95,95,95,95	0
30	MG	X	3213	1/1	0.97	0.75	99,99,99,99	0
30	MG	Y	215	1/1	0.97	0.11	130,130,130,130	0
30	MG	X	3008	1/1	0.97	0.30	110,110,110,110	0
30	MG	X	2957	1/1	0.97	0.57	72,72,72,72	0
30	MG	A	301	1/1	0.97	0.41	105,105,105,105	0
30	MG	X	3235	1/1	0.97	0.48	80,80,80,80	0
30	MG	X	3121	1/1	0.97	0.44	103,103,103,103	0
30	MG	X	3066	1/1	0.97	0.45	94,94,94,94	0
30	MG	X	2984	1/1	0.97	0.41	88,88,88,88	0
33	NA	X	3249	1/1	0.97	0.23	91,91,91,91	0
30	MG	Y	203	1/1	0.97	0.67	101,101,101,101	0
30	MG	X	3022	1/1	0.97	0.67	120,120,120,120	0
30	MG	X	3171	1/1	0.97	0.77	116,116,116,116	0
30	MG	M	201	1/1	0.97	0.26	90,90,90,90	0
35	CA	X	3254	1/1	0.97	0.24	82,82,82,82	0
30	MG	X	2918	1/1	0.97	0.47	97,97,97,97	0
30	MG	X	3198	1/1	0.98	0.53	132,132,132,132	0
30	MG	X	3097	1/1	0.98	0.62	132,132,132,132	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
30	MG	X	2999	1/1	0.98	0.20	105,105,105,105	0
30	MG	X	2936	1/1	0.98	0.39	87,87,87,87	0
30	MG	X	3100	1/1	0.98	0.45	88,88,88,88	0
30	MG	N	201	1/1	0.98	0.53	108,108,108,108	0
30	MG	X	3027	1/1	0.98	0.22	107,107,107,107	0
30	MG	X	2952	1/1	0.98	0.70	78,78,78,78	0
30	MG	X	3125	1/1	0.98	0.09	94,94,94,94	0
30	MG	X	2979	1/1	0.98	0.31	95,95,95,95	0
30	MG	X	2945	1/1	0.98	0.52	96,96,96,96	0
30	MG	X	3105	1/1	0.98	0.35	105,105,105,105	0
30	MG	X	3151	1/1	0.98	0.25	157,157,157,157	0
30	MG	X	2981	1/1	0.98	0.54	103,103,103,103	0
30	MG	X	3154	1/1	0.98	0.09	106,106,106,106	0
30	MG	X	2912	1/1	0.98	0.51	80,80,80,80	0
30	MG	X	3033	1/1	0.98	0.16	119,119,119,119	0
30	MG	X	2939	1/1	0.98	0.54	93,93,93,93	0
30	MG	X	3035	1/1	0.98	0.27	80,80,80,80	0
30	MG	X	2972	1/1	0.98	0.71	106,106,106,106	0
30	MG	X	3020	1/1	0.98	0.29	85,85,85,85	0
30	MG	X	3162	1/1	0.98	0.07	112,112,112,112	0
30	MG	X	3021	1/1	0.98	0.44	90,90,90,90	0
30	MG	X	3222	1/1	0.98	0.30	109,109,109,109	0
30	MG	X	3093	1/1	0.98	0.26	89,89,89,89	0
30	MG	X	2929	1/1	0.98	0.32	79,79,79,79	0
30	MG	X	3194	1/1	0.98	0.38	85,85,85,85	0
30	MG	X	2934	1/1	0.98	0.39	95,95,95,95	0
30	MG	X	2902	1/1	0.98	0.48	105,105,105,105	0
30	MG	X	3197	1/1	0.98	0.16	94,94,94,94	0
36	K	X	3256	1/1	0.98	0.24	89,89,89,89	0
30	MG	X	3119	1/1	0.99	0.10	102,102,102,102	0
30	MG	X	2931	1/1	0.99	0.38	93,93,93,93	0
30	MG	X	3158	1/1	0.99	0.49	67,67,67,67	0
30	MG	X	3184	1/1	0.99	0.10	75,75,75,75	0
30	MG	X	2943	1/1	0.99	0.38	87,87,87,87	0
30	MG	X	2909	1/1	0.99	0.34	68,68,68,68	0
30	MG	X	3075	1/1	0.99	0.45	100,100,100,100	0
30	MG	X	2903	1/1	0.99	0.40	89,89,89,89	0
30	MG	X	3175	1/1	0.99	0.07	89,89,89,89	0
30	MG	X	3218	1/1	0.99	0.26	88,88,88,88	0
30	MG	X	3163	1/1	0.99	0.20	71,71,71,71	0
30	MG	X	3220	1/1	0.99	0.38	88,88,88,88	0
30	MG	X	3084	1/1	0.99	0.12	128,128,128,128	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
30	MG	X	3153	1/1	0.99	0.41	110,110,110,110	0
30	MG	X	2937	1/1	0.99	0.32	80,80,80,80	0
30	MG	X	3053	1/1	0.99	0.09	110,110,110,110	0
30	MG	X	2973	1/1	1.00	0.30	107,107,107,107	0

6.5 Other polymers [i](#)

There are no such residues in this entry.