



wwPDB X-ray Structure Validation Summary Report ⓘ

Mar 23, 2026 – 01:41 PM UTC

PDB ID : 3CF5 / pdb_00003cf5
Title : Thiopeptide antibiotic Thiostrepton bound to the large ribosomal subunit of *Deinococcus radiodurans*
Authors : Harms, J.M.; Wilson, D.N.; Schlutzen, F.; Connell, S.R.; Stachelhaus, T.; Zaborowska, Z.; Spahn, C.M.T.; Fucini, P.
Deposited on : 2008-03-02
Resolution : 3.30 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 : 4-5-2 with Phenix2.0
Mogul : 2022.3.0, CSD as543be (2022)
Xtriage (Phenix) : 2.0
EDS : 3.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4 : 9.0.010 (Gargrove)
Density-Fitness : 1.0.12
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

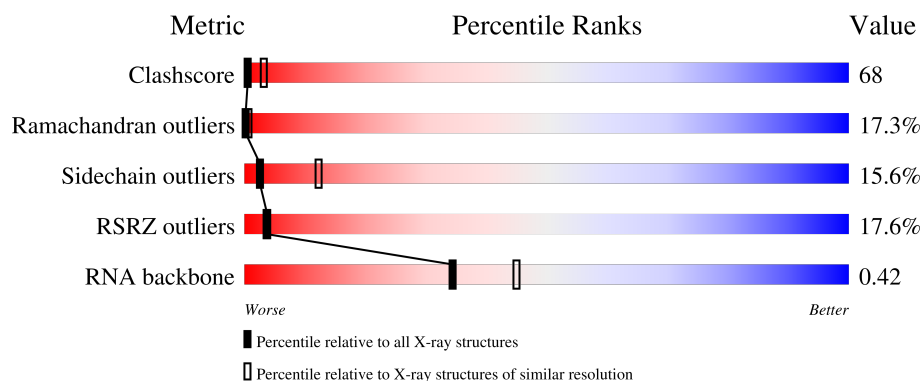
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.30 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))
Clashscore	190562	1209 (3.32-3.28)
Ramachandran outliers	187476	1188 (3.32-3.28)
Sidechain outliers	187428	1187 (3.32-3.28)
RSRZ outliers	180081	1169 (3.32-3.28)
RNA backbone	3983	1048 (3.60-3.00)

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	1	55	<div> <div>96%</div> <div>96%</div> </div>
2	2	47	<div> <div>98%</div> <div>98%</div> </div>
3	3	66	<div> <div>95%</div> <div>94%</div> <div>5%</div> </div>
4	4	37	<div> <div>24%</div> <div>5%</div> <div>73%</div> <div>22%</div> </div>
5	5	19	<div> <div>16%</div> <div>42%</div> <div>37%</div> <div>21%</div> </div>

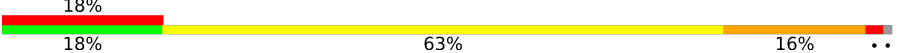
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Mol	Chain	Length	Quality of chain
6	A	274	
7	B	211	
8	C	205	
9	D	180	
10	E	185	
11	F	144	
12	G	174	
13	H	134	
14	I	156	
15	J	142	
16	K	116	
17	L	114	
18	M	166	
19	N	118	
20	O	100	
21	P	134	
22	Q	95	
23	R	115	
24	S	237	
25	T	91	
26	U	81	
27	V	67	
28	W	55	
29	X	2880	
30	Y	60	

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Mol	Chain	Length	Quality of chain
31	Z	123	

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
5	BB9	5	13	-	X	-	-

2 Entry composition

There are 32 unique types of molecules in this entry. The entry contains 84475 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called 50S RIBOSOMAL PROTEIN L33.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
1	1	53	Total C 53 53	0	0	53

- Molecule 2 is a protein called 50S RIBOSOMAL PROTEIN L34.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
2	2	46	Total C 46 46	0	0	46

- Molecule 3 is a protein called 50S RIBOSOMAL PROTEIN L35.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
3	3	63	Total C 63 63	0	0	63

- Molecule 4 is a protein called 50S RIBOSOMAL PROTEIN L36.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
4	4	37	Total C N O S 297 179 66 47 5	0	0	0

- Molecule 5 is a protein called THIOSTREPTON.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
5	5	19	Total C N O S 114 72 19 18 5	0	0	1

- Molecule 6 is a protein called 50S RIBOSOMAL PROTEIN L2.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
6	A	240	Total C N O S 1826 1137 366 321 2	0	0	0

- Molecule 7 is a protein called 50S RIBOSOMAL PROTEIN L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	B	205	Total	C	N	O	S	0	0	0
			1539	965	295	271	8			

- Molecule 8 is a protein called 50S RIBOSOMAL PROTEIN L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	C	197	Total	C	N	O	S	0	0	0
			1506	935	287	282	2			

- Molecule 9 is a protein called 50S RIBOSOMAL PROTEIN L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	D	177	Total	C	N	O	S	0	0	0
			1400	892	247	254	7			

- Molecule 10 is a protein called 50S RIBOSOMAL PROTEIN L6.

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

- Molecule 11 is a protein called 50S RIBOSOMAL PROTEIN L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	F	144	Total	C	N	O	S	0	0	0
			1044	663	179	197	5			

- Molecule 12 is a protein called 50S RIBOSOMAL PROTEIN L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	G	142	Total	C	N	O	S	0	0	0
			1114	704	209	198	3			

- Molecule 13 is a protein called 50S RIBOSOMAL PROTEIN L14.

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

- Molecule 14 is a protein called 50S RIBOSOMAL PROTEIN L15.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
14	I	141	Total	C	N	O	0	0	0
			1067	655	216	196			

- Molecule 15 is a protein called 50S RIBOSOMAL PROTEIN L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	J	136	Total	C	N	O	S	0	0	0
			1090	696	202	185	7			

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
J	1	MET	-	initiating methionine	UNP Q9RXJ5

- Molecule 16 is a protein called 50S RIBOSOMAL PROTEIN L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	K	113	Total	C	N	O	S	0	0	0
			878	541	178	157	2			

- Molecule 17 is a protein called 50S RIBOSOMAL PROTEIN L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
17	L	104	Total	C	N	O	0	0	0
			779	476	161	142			

- Molecule 18 is a protein called 50S RIBOSOMAL PROTEIN L19.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	M	108	Total	C	N	O	0	0	0
			871	543	172	156			

- Molecule 19 is a protein called 50S RIBOSOMAL PROTEIN L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	N	117	Total	C	N	O	S	0	0	0
			978	608	210	159	1			

- Molecule 20 is a protein called 50S RIBOSOMAL PROTEIN L21.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
20	O	94	Total	C	N	O	0	0	0
			741	465	139	137			

- Molecule 21 is a protein called 50S RIBOSOMAL PROTEIN L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	P	127	Total	C	N	O	S	0	0	0
			1014	639	199	174	2			

- Molecule 22 is a protein called 50S RIBOSOMAL PROTEIN L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	Q	93	Total	C	N	O	S	0	0	0
			726	458	136	130	2			

- Molecule 23 is a protein called 50S RIBOSOMAL PROTEIN L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	R	110	Total	C	N	O	S	0	0	0
			825	513	160	151	1			

- Molecule 24 is a protein called 50S RIBOSOMAL PROTEIN L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	S	175	Total	C	N	O	S	0	0	0
			1345	849	236	254	6			

- Molecule 25 is a protein called 50S RIBOSOMAL PROTEIN L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	T	84	Total	C	N	O	S	0	0	0
			625	393	122	109	1			

- Molecule 26 is a protein called 50S RIBOSOMAL PROTEIN L28.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
26	U	72	Total	C	N	O	0	0	0
			552	341	116	95			

- Molecule 27 is a protein called 50S RIBOSOMAL PROTEIN L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	V	66	Total	C	N	O	S	0	0	0
			533	327	107	96	3			

- Molecule 28 is a protein called 50S RIBOSOMAL PROTEIN L30.

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

- Molecule 29 is a RNA chain called RRNA-23S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	X	2686	Total	C	N	O	P	0	0	0
			57651	25718	10642	18606	2685			

- Molecule 30 is a protein called 50S RIBOSOMAL PROTEIN L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	Y	58	Total	C	N	O	S	0	0	0
			457	281	94	77	5			

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

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

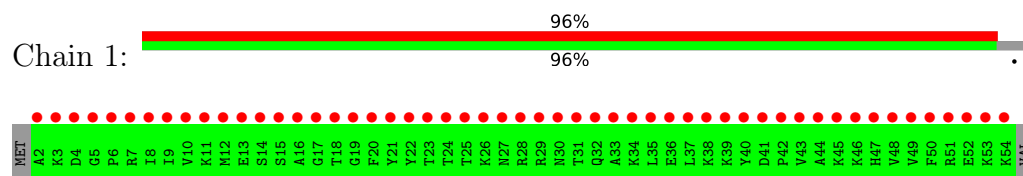
- Molecule 32 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
32	M	1	Total	Mg	0	0
			1	1		
32	X	30	Total	Mg	0	0
			30	30		
32	Z	5	Total	Mg	0	0
			5	5		

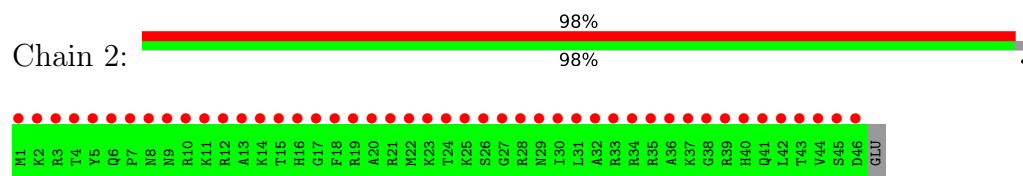
3 Residue-property plots [i](#)

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

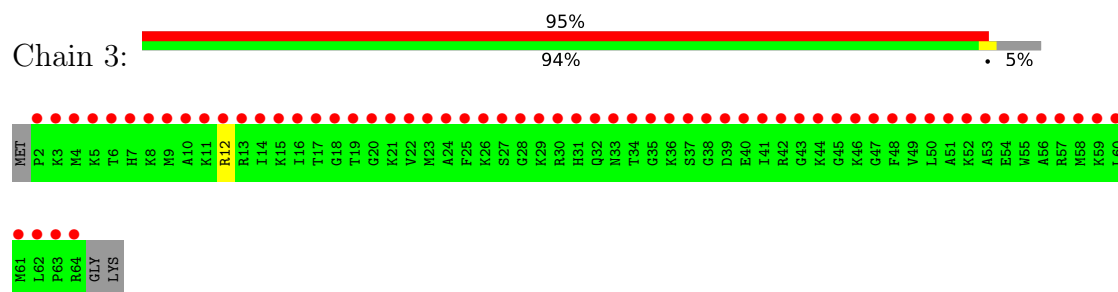
- Molecule 1: 50S RIBOSOMAL PROTEIN L33



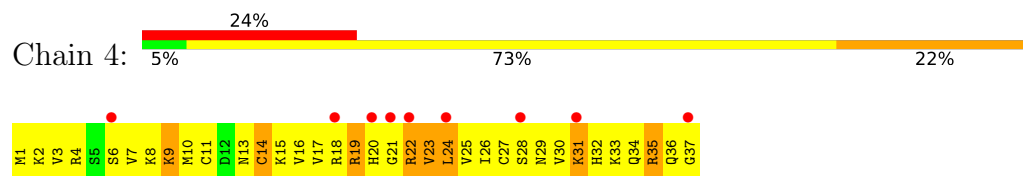
- Molecule 2: 50S RIBOSOMAL PROTEIN L34



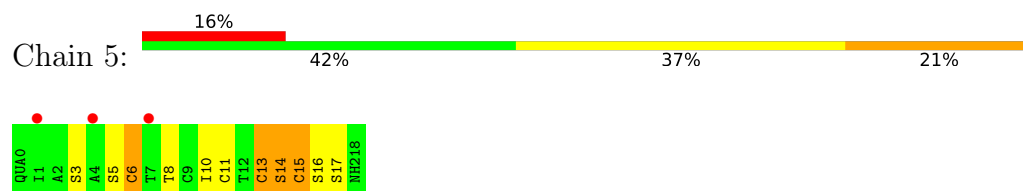
- Molecule 3: 50S RIBOSOMAL PROTEIN L35



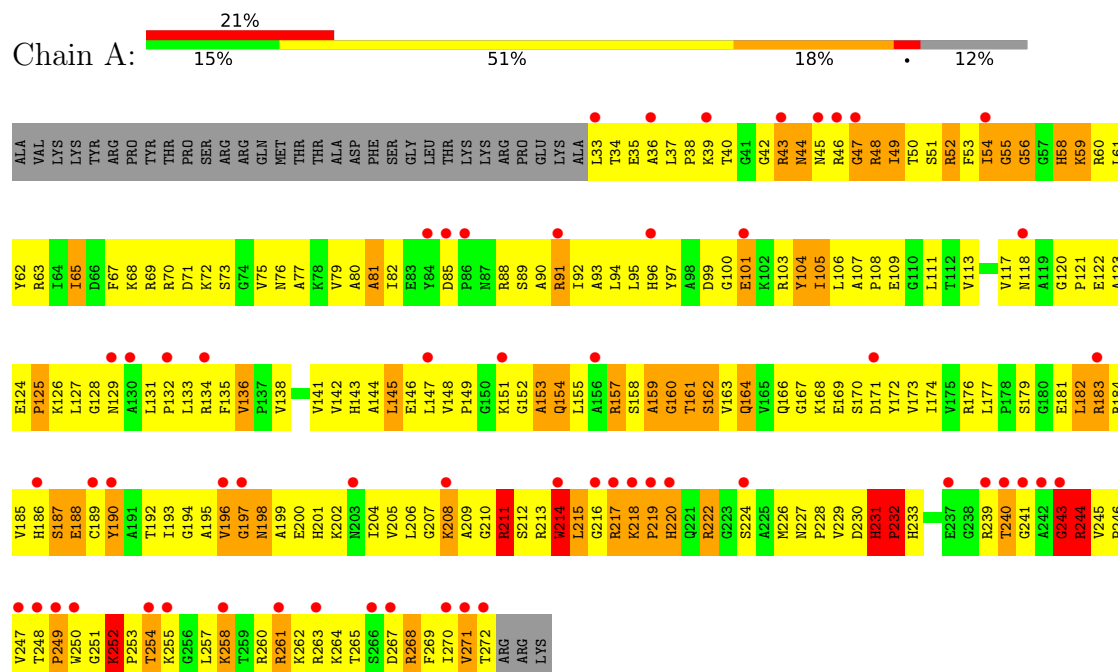
- Molecule 4: 50S RIBOSOMAL PROTEIN L36



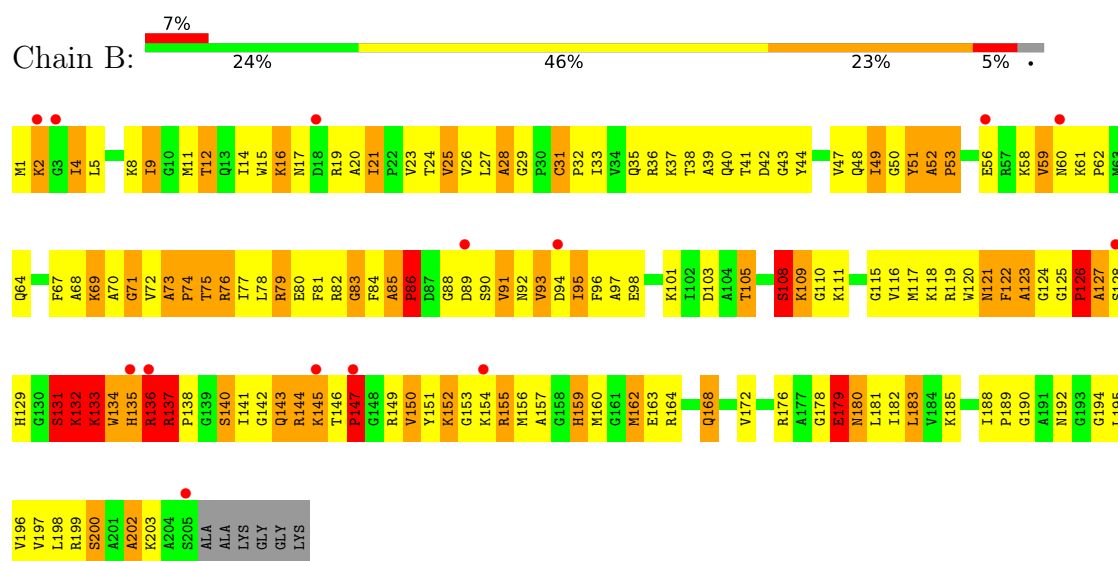
- Molecule 5: THIOSTREPTON

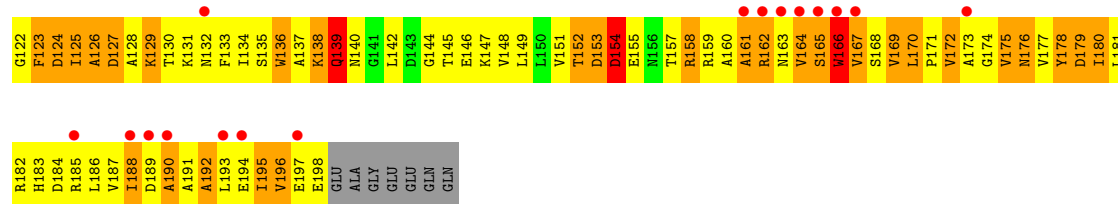


• Molecule 6: 50S RIBOSOMAL PROTEIN L2

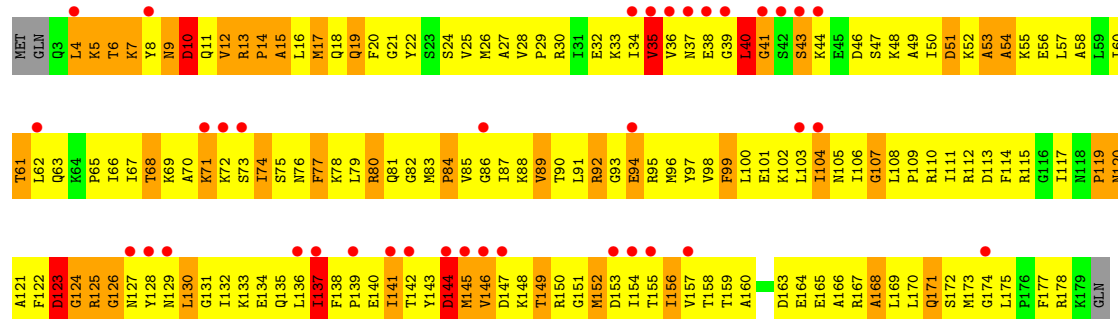
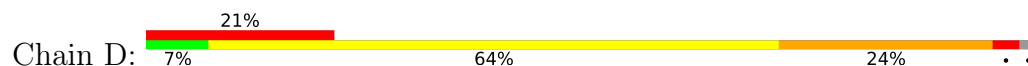


• Molecule 7: 50S RIBOSOMAL PROTEIN L3

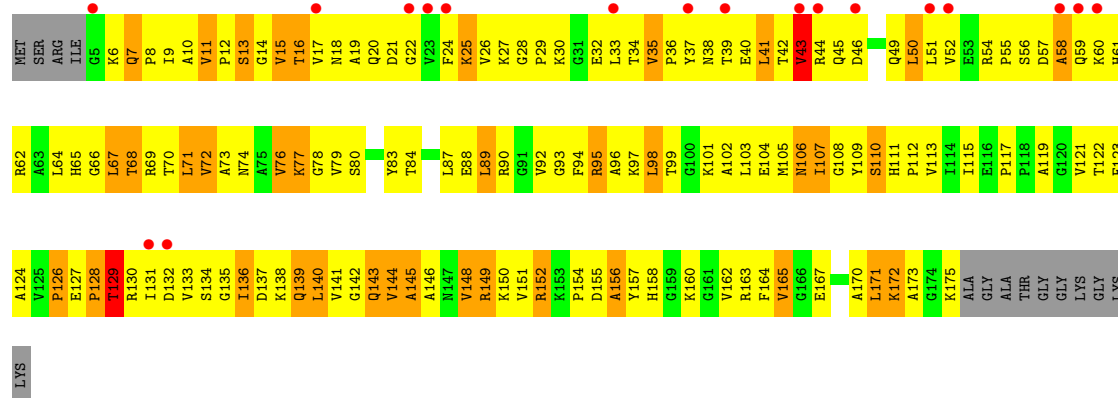
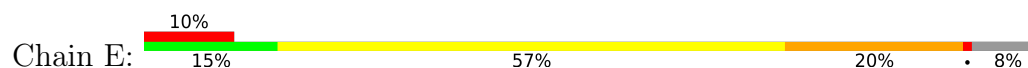




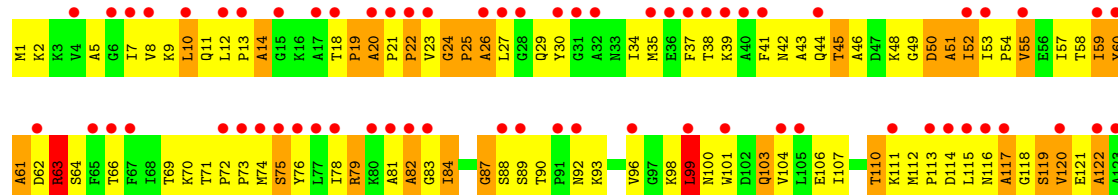
● Molecule 9: 50S RIBOSOMAL PROTEIN L5

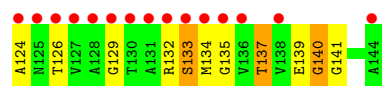


● Molecule 10: 50S RIBOSOMAL PROTEIN L6

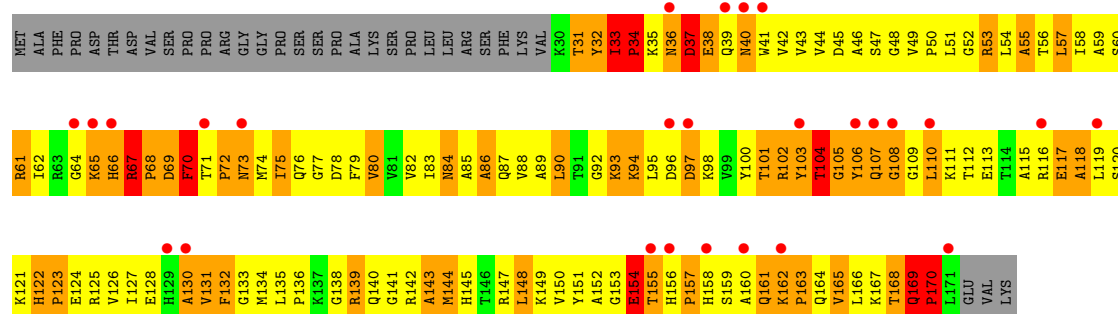


● Molecule 11: 50S RIBOSOMAL PROTEIN L11

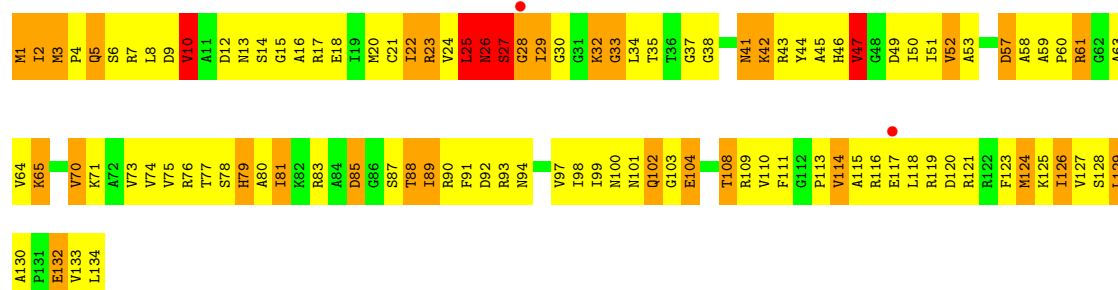
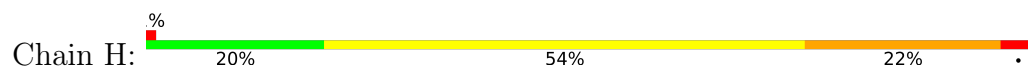




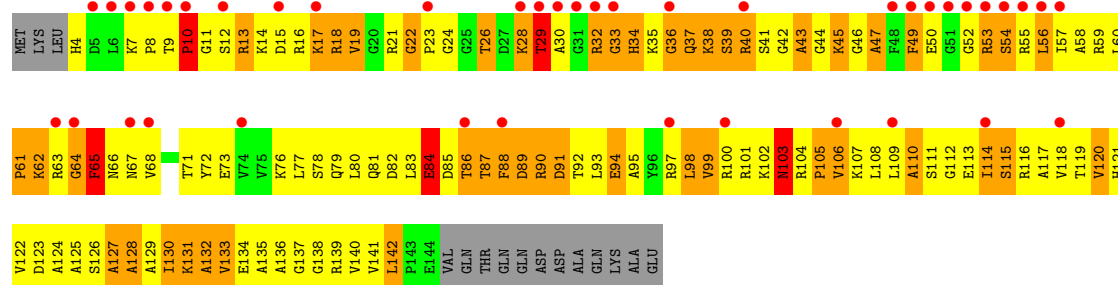
• Molecule 12: 50S RIBOSOMAL PROTEIN L13



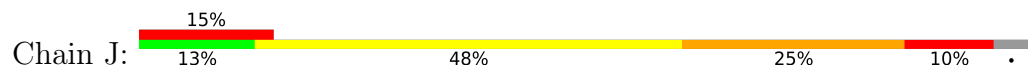
• Molecule 13: 50S RIBOSOMAL PROTEIN L14

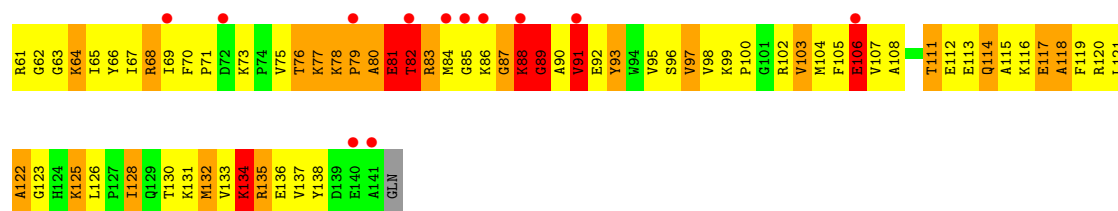


• Molecule 14: 50S RIBOSOMAL PROTEIN L15

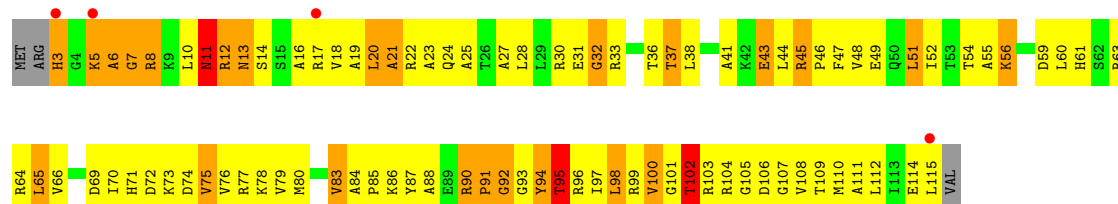
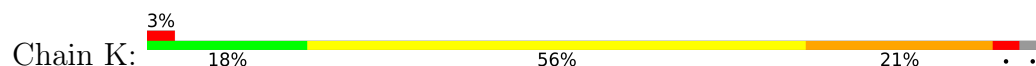


• Molecule 15: 50S RIBOSOMAL PROTEIN L16

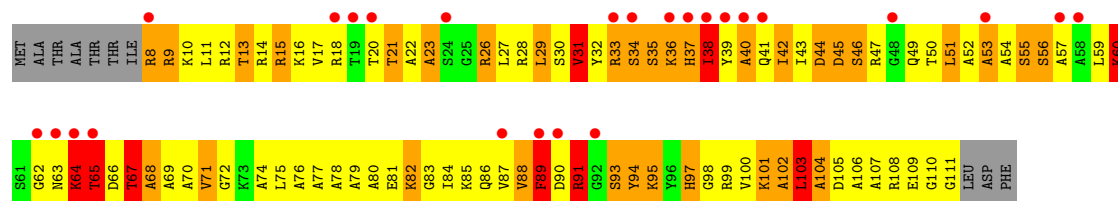




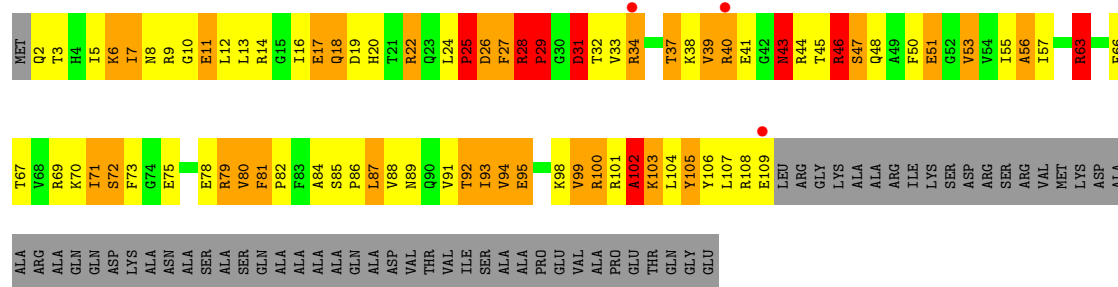
• Molecule 16: 50S RIBOSOMAL PROTEIN L17



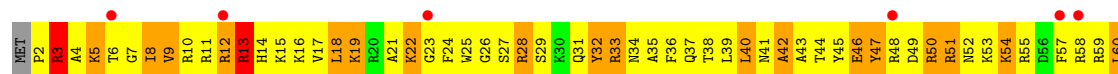
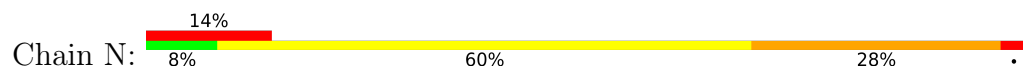
• Molecule 17: 50S RIBOSOMAL PROTEIN L18

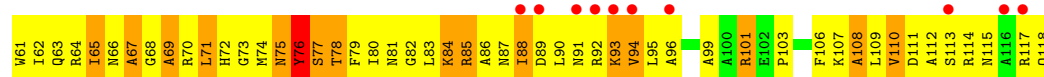


• Molecule 18: 50S RIBOSOMAL PROTEIN L19

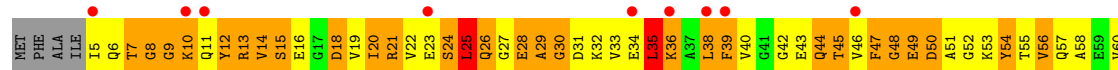


• Molecule 19: 50S RIBOSOMAL PROTEIN L20

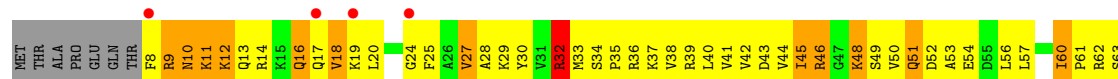
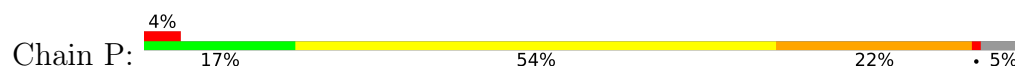




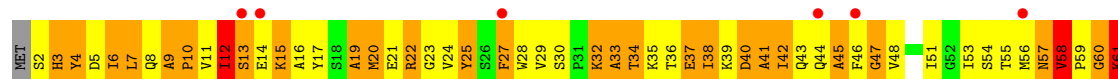
• Molecule 20: 50S RIBOSOMAL PROTEIN L21



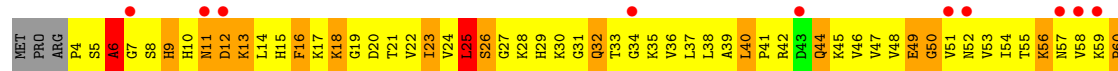
• Molecule 21: 50S RIBOSOMAL PROTEIN L22



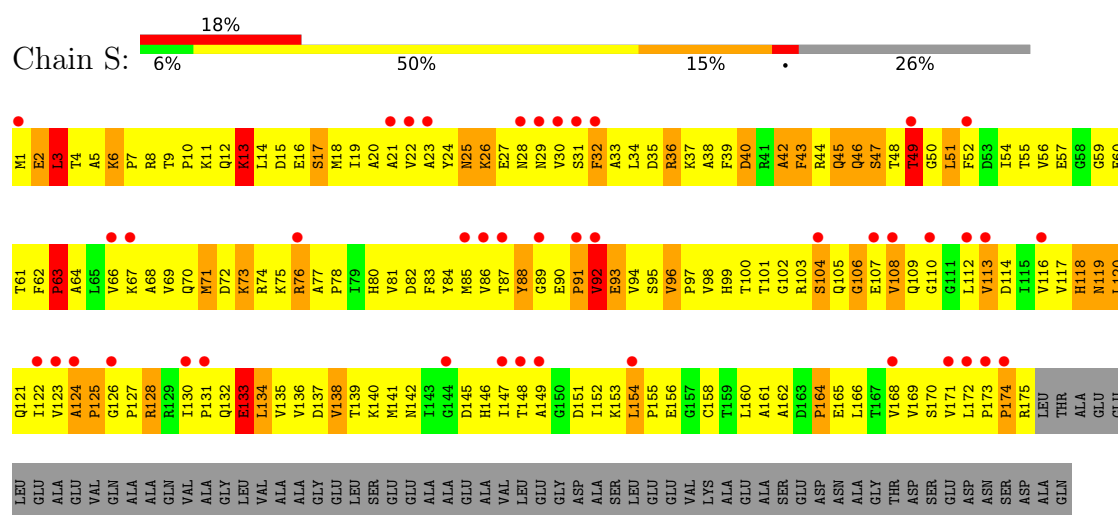
• Molecule 22: 50S RIBOSOMAL PROTEIN L23

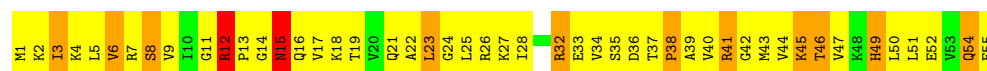


• Molecule 23: 50S RIBOSOMAL PROTEIN L24

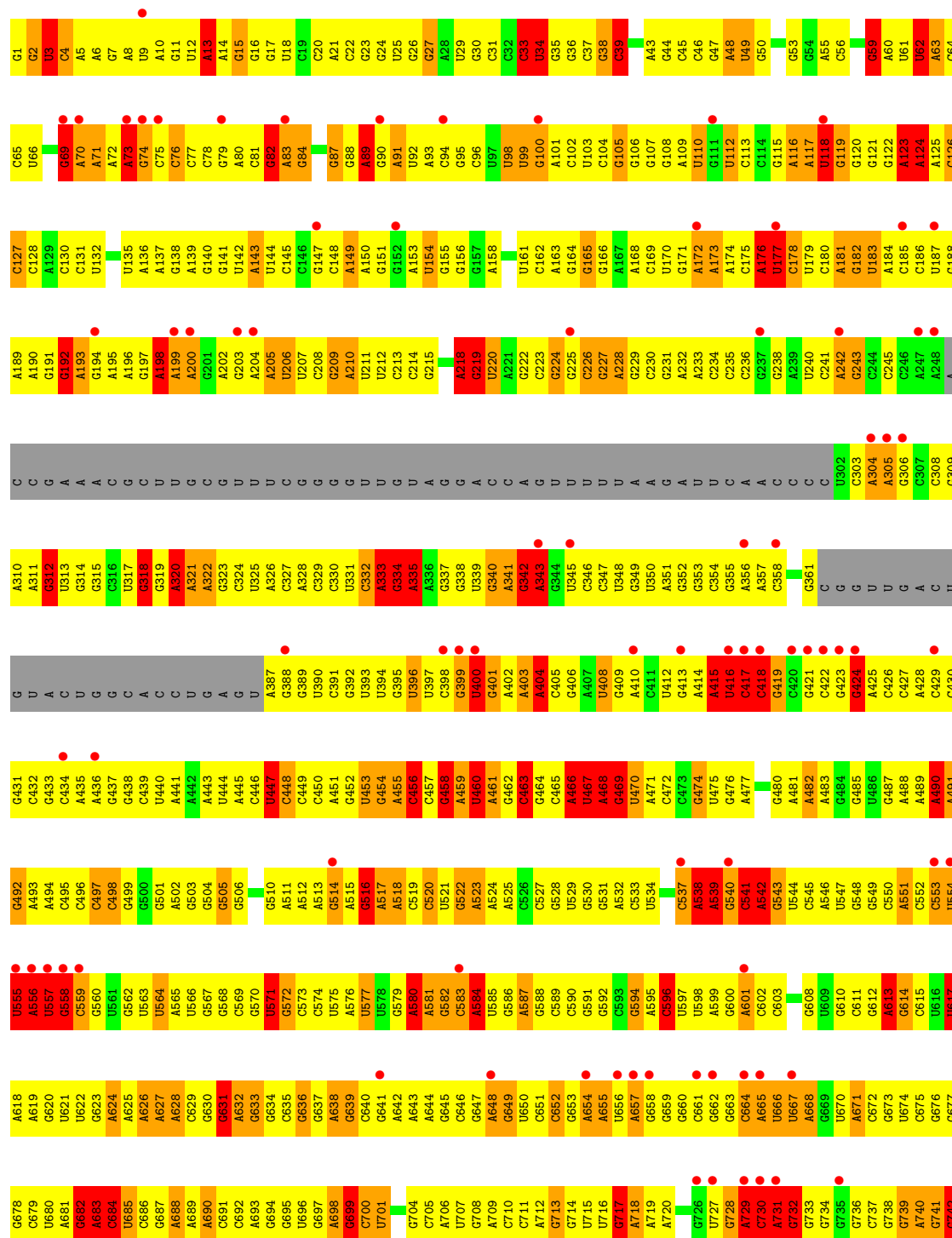
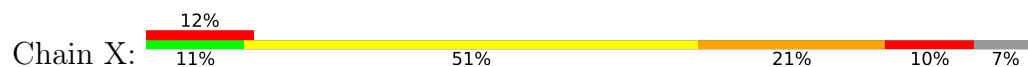


• Molecule 24: 50S RIBOSOMAL PROTEIN L25



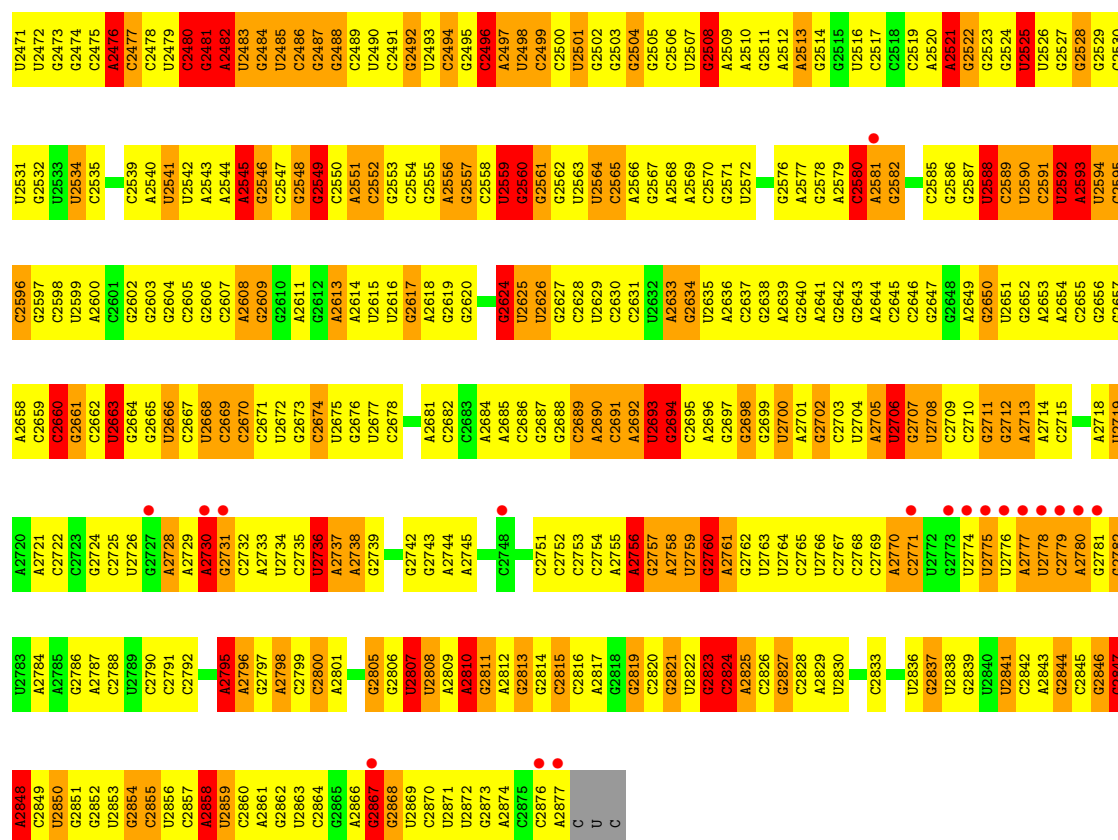


• Molecule 29: RRNA-23S RIBOSOMAL RNA

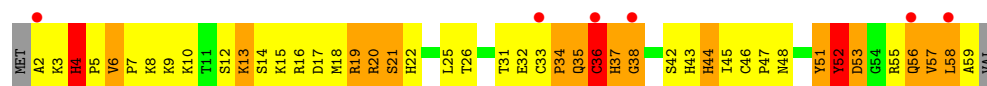
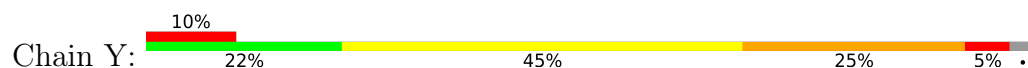


G1545	U1486	U1424	C1363	C1302	G1241	U1119	G1058	C997	G931	U868	C803	A743
C1546	A1486	G1425	C1364	U1303	A1242	C1120	A1059	C996	G932	C869	C804	G744
U1547	G1487	U1426	U1365	U1304	G1243	G1121	A1060	A999	G933	U871	G805	G745
U1548	G1488	G1427	A1366	C1305	U1244	A1122	A1061	G1000	G934	U870	G806	G746
C1549	C1489	G1428	A1367	U1306	G1245	U1123	G1062	A1001	C935	C872	A807	A747
C1550	U1490	A1429	G1368	G1307	G1246	U1124	G1063	A1002	A936	C873	C808	A748
U1551	C1491	G1430	G1369	C1308	U1247	G1125	C1064	C1003	C937	A874	C809	C749
C1552	A1492	U1431	U1370	G1309	G1248	G1126	A1065	C1004	G938	G875	U810	C750
G1553	A1493	G1432	G1371	C1310	U1249	C1127	G1066	U1005	C939	A876	G811	G751
G1554	G1494	A1433	A1372	C1311	G1250	G1128	A1067	C1006	G940	C877	C812	G752
G1495	G1373	U1434	G1373	G1312	G1251	G1129	A1068	A1007	U941	C878	A813	U753
G1496	G1374	G1435	G1374	U1313	C1252	U1130	G1069	G1008	U942	G879	G814	G754
C1497	G1375	A1436	C1375	A1314	G1253	G1131	G1070	U943	A943	C884	A815	C755
A1437	C1376	A1437	C1376	A1315	G1254	C1132	U1071	A944	A944	A885	U816	C756
A1498	G1377	G1438	G1377	G1316	C1255	G1133	U1072	G945	G945	A886	A817	U757
U1500	A1378	G1439	A1378	G1317	U1256	C1134	G1073	U946	U946	C887	C818	U758
C1501	A1379	G1440	A1379	G1318	U1257	G1135	G1074	C947	C947	C888	C819	C759
G1561	A1380	A1441	C1380	C1319	G1258	G1136	C1075	G1013	C948	C889	U820	U760
G1562	G1381	G1442	G1381	A1320	A1259	A1137	U1076	U1015	C948	A821	G821	G761
U1563	G1382	G1443	G1382	A1321	U1260	A1138	U1077	C1016	G951	C822	A762	A762
U1564	C1383	C1444	C1383	G1322	G1261	A1139	A1078	G1017	A952	U823	A763	A763
U1505	G1384	G1445	G1384	G1323	U1262	U1140	G1079	C1018	G953	G	U824	A764
A1569	A1385	U1446	C1385	G1324	G1263	U1141	A1080	U1019	U954	G	C825	G765
G1570	A1386	U1447	A1386	U1325	G1264	G1142	A1081	A1020	G955	G	U826	A766
G1571	G1387	A1448	G1387	U1326	G1265	U1143	G1082	A1021	A956	G	C827	G767
G1572	C1388	C1449	C1388	U1327	G1266	U1144	C1083	A1022	G957	G	C828	U768
G1573	G1389	G1450	G1389	U1329	U1267	C1145	A1084	U1023	G958	C	C829	C769
A1574	G1390	G1451	G1390	G1330	G1268	G1146	G1085	G1024	C959	C	C830	U770
C1575	A1391	U1452	A1391	G1331	G1269	G1147	C1086	A1025	U960	A	G831	C771
G1576	U1392	A1453	U1392	G1332	G1270	U1148	C1087	U1026	C	A	A832	C772
G1577	G1393	U1454	G1393	G1333	C1271	G1149	A1088	C1027	G965	C	A833	G773
U1578	G1394	C1455	G1394	A1334	G1272	C1150	C1089	A966	A966	C	A834	A774
C1579	A1395	C1456	A1395	G1335	C1273	U1151	C1090	G967	G967	A	U835	U775
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G1582	G1398	C1461	G1398	G1338	G1276	A1154	C1093	G1033	A970	U	A838	G778
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G1584	A1400	A1463	A1400	C1340	G1278	U1156	A1095	G1035	C972	A	U840	U780
C1585	G1401	G1464	G1401	G1341	U1279	C1157	A1096	U1036	U973	C	G841	G781
A1586	U1402	U1465	U1402	U1342	U1280	U1159	U1097	G1037	U974	C	A842	U782
A1587	C1403	C1466	C1403	C1343	A1281	C1160	G1098	U1038	C975	A911	G843	G783
G1588	U1404	C1467	U1404	C1344	C1282	U1161	A1099	A1039	C976	A912	C844	U784
G1589	A1405	A1468	A1405	G1345	G1283	C1163	G1100	G1040	G977	A913	U845	U785
C1590	G1406	U1469	G1406	C1346	A1284	C1164	U1101	G1041	G980	C914	A846	U786
U1591	G1407	U1470	G1407	C1347	U1285	U1165	G1102	G1042	C981	C915	C847	A787
C1592	A1408	G1471	A1408	C1348	A1286	A1166	G1103	A1043	C982	C916	A848	G788
U1593	U1409	C1472	U1409	C1349	A1287	A1167	G1104	U1044	C983	U917	G849	G789
A1594	C1410	U1473	C1410	G1350	A1288	G1168	U1105	G1045	C984	A918	C850	A790
A1595	G1411	A1474	G1411	G1351	A1289	G1169	A1106	U1046	A984	U919	G920	G791
A1596	C1412	U1475	C1412	C1352	G1291	U1170	A1107	G985	C985	G921	U857	U792
C1597	U1413	G1476	U1413	A1353	A1292	U1171	U1108	U1048	A986	A921	U858	G793
G1598	G1414	A1477	G1414	C1354	A1293	A1172	A1109	C1049	G987	A922	C859	A794
U1599	C1415	U1478	C1415	A1355	G1294	U1173	G1112	G988	U988	A923	U860	A795
U1600	A1416	G1479	A1416	C1356	U1295	G1174	C1113	U1051	C924	C924	C861	G796
G1602	C1417	U1480	C1417	U1357	G1296	U1175	C1114	C1052	C925	U925	A862	A797
A1603	G1418	U1481	G1418	C1358	A1297	U1176	C1115	A992	C933	C927	C863	G798
G1604	G1419	U1482	G1419	G1359	G1298	U1177	U1116	C1054	C934	G928	C864	G799
A1605	A1420	G1483	A1420	C1360	A1299	U1178	A1055	A994	A994	A929	A865	U800
C1606	A1423	G1484	A1423	A1362	U1301	A1179	G1118	C996	C996	A930	U866	A801
A1544												A802

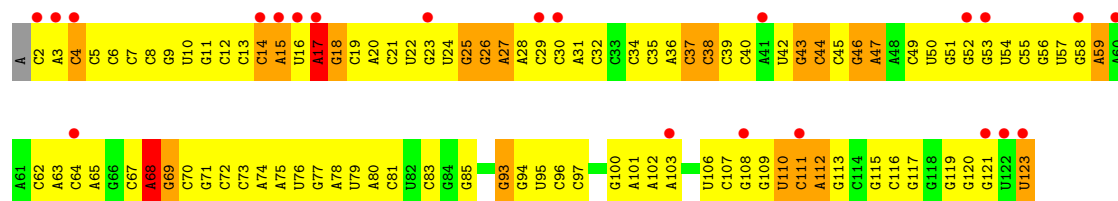
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C1674	C1736	C1737	C1738	C1739	C1740	C1741	C1742	C1743	C1744	C1745	C1746	C1747	C1748	C1749	A1750	U1751	U1752	A1753	C1754	C1755	C1756	C1757	C1758	A1759	C1762	G1763	A1764	C1765	U1766	U1769	A1770	A1771	C1772	C1773	A1774	A1775	A1776	A1777	U1778	C1779	A1780	C1781	A1782	U1785	C1786	U1787	C1788	U1789	C1790	C1791	C1792	C1793	A1794	C1795	U1796	U1797	C1798	C1799																																																																																																																																																																																																																																																						
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• Molecule 30: 50S RIBOSOMAL PROTEIN L32



• Molecule 31: RRNA-5S RIBOSOMAL RNA



4 Data and refinement statistics

Property	Value	Source
Space group	I 2 2 2	Depositor
Cell constants a, b, c, α , β , γ	169.90Å 408.90Å 694.50Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	30.00 – 3.30 30.00 – 3.31	Depositor EDS
% Data completeness (in resolution range)	94.1 (30.00-3.30) 93.1 (30.00-3.31)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.14 (at 3.31Å)	Xtriage
Refinement program	CNS	Depositor
R, R_{free}	0.276 , 0.318 0.240 , (Not available)	Depositor DCC
R_{free} test set	No test flags present.	wwPDB-VP
Wilson B-factor (Å ²)	67.5	Xtriage
Anisotropy	0.110	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.18 , 53.6	EDS
L-test for twinning ²	$\langle L \rangle = 0.42$, $\langle L^2 \rangle = 0.25$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.88	EDS
Total number of atoms	84475	wwPDB-VP
Average B, all atoms (Å ²)	49.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.08% 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 ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: DHA, BB9, DBU, QUA, NH2, TS9, MG, MH6, DCY

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$
4	4	0.56	0/298	0.92	1/390 (0.3%)
5	5	1.73	0/31	1.26	0/38
6	A	0.68	0/1862	1.28	19/2510 (0.8%)
7	B	1.00	4/1567 (0.3%)	1.48	29/2105 (1.4%)
8	C	0.79	1/1529 (0.1%)	1.33	20/2070 (1.0%)
9	D	0.56	0/1419	1.07	12/1903 (0.6%)
10	E	0.60	0/1308	1.19	10/1771 (0.6%)
11	F	0.64	1/1063 (0.1%)	1.17	12/1440 (0.8%)
12	G	0.84	0/1138	1.46	23/1539 (1.5%)
13	H	1.07	3/1007 (0.3%)	1.47	15/1352 (1.1%)
14	I	0.79	1/1081 (0.1%)	1.34	11/1448 (0.8%)
15	J	0.83	1/1113 (0.1%)	1.42	22/1486 (1.5%)
16	K	1.14	2/886 (0.2%)	1.46	8/1188 (0.7%)
17	L	0.60	0/785	1.29	10/1048 (1.0%)
18	M	0.92	1/884 (0.1%)	1.88	20/1186 (1.7%)
19	N	0.77	0/994	1.26	11/1323 (0.8%)
20	O	0.68	0/750	1.21	4/1000 (0.4%)
21	P	0.97	0/1027	1.32	11/1373 (0.8%)
22	Q	0.80	0/737	1.39	18/988 (1.8%)
23	R	0.70	0/835	1.57	18/1121 (1.6%)
24	S	0.61	0/1370	1.07	11/1862 (0.6%)
25	T	0.67	0/633	1.19	5/838 (0.6%)
26	U	0.78	2/556 (0.4%)	1.53	15/741 (2.0%)
27	V	0.54	0/537	1.04	4/714 (0.6%)
28	W	0.75	0/426	1.28	6/568 (1.1%)
29	X	0.60	12/64561 (0.0%)	1.05	479/100708 (0.5%)
30	Y	0.95	0/469	1.65	13/629 (2.1%)
31	Z	0.40	0/2904	0.77	0/4525
All	All	0.65	28/91770 (0.0%)	1.12	807/137864 (0.6%)

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
6	A	0	1
19	N	0	2
22	Q	0	1
29	X	2	257
30	Y	0	1
31	Z	0	4
All	All	2	266

The worst 5 of 28 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	H	2	ILE	CA-CB	-7.99	1.44	1.54
29	X	1856	U	O3'-P	-6.91	1.50	1.61
29	X	1056	U	O5'-C5'	6.50	1.52	1.42
29	X	1855	G	O3'-P	-6.49	1.51	1.61
11	F	52	ILE	CA-CB	6.44	1.60	1.53

The worst 5 of 807 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	M	28	ARG	CA-C-N	27.84	154.64	119.84
18	M	28	ARG	C-N-CA	27.84	154.64	119.84
29	X	1055	A	N9-C1'-C2'	-24.20	75.70	112.00
29	X	2324	G	N9-C1'-C2'	19.26	142.88	114.00
29	X	557	U	N1-C1'-C2'	17.00	139.50	114.00

All (2) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
29	X	1278	A	C1'
29	X	2592	U	C1'

5 of 266 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
6	A	104	TYR	Sidechain
19	N	32	TYR	Sidechain
19	N	76	TYR	Sidechain
22	Q	25	TYR	Sidechain

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Mol	Chain	Res	Type	Group
29	X	12	U	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	1	53	0	0	0	0
2	2	46	0	0	0	0
3	3	63	0	0	1	0
4	4	297	0	330	67	0
5	5	114	0	79	5	0
6	A	1826	0	1885	468	0
7	B	1539	0	1600	314	0
8	C	1506	0	1525	393	0
9	D	1400	0	1481	385	0
10	E	1286	0	1336	276	0
11	F	1044	0	1088	182	0
12	G	1114	0	1144	333	0
13	H	997	0	1046	200	0
14	I	1067	0	1103	313	0
15	J	1090	0	1125	283	0
16	K	878	0	930	147	0
17	L	779	0	820	237	0
18	M	871	0	894	214	0
19	N	978	0	1020	250	0
20	O	741	0	756	194	0
21	P	1014	0	1096	184	0
22	Q	726	0	753	157	0
23	R	825	0	881	273	0
24	S	1345	0	1372	315	0
25	T	625	0	655	113	0
26	U	552	0	604	213	0
27	V	533	0	558	115	0
28	W	424	0	470	84	0
29	X	57651	0	29049	4310	0
30	Y	457	0	462	87	0
31	Z	2598	0	1328	185	0
32	M	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
32	X	30	0	0	0	0
32	Z	5	0	0	0	0
All	All	84475	0	55390	9436	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 68.

The worst 5 of 9436 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)
7:B:116:VAL:N	7:B:136:ARG:HE	1.23	1.30
29:X:1053:G:H2'	29:X:1054:C:C6	1.70	1.26
29:X:2196:U:H2'	29:X:2197:U:O4'	1.31	1.23
29:X:2736:U:O2'	29:X:2737:A:H5''	1.36	1.21
29:X:2496:C:O2'	29:X:2497:A:H3'	1.40	1.19

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	
4	4	35/37 (95%)	20 (57%)	10 (29%)	5 (14%)	0	1
5	5	5/19 (26%)	4 (80%)	1 (20%)	0	100	100
6	A	238/274 (87%)	154 (65%)	50 (21%)	34 (14%)	0	1
7	B	203/211 (96%)	148 (73%)	32 (16%)	23 (11%)	0	2
8	C	195/205 (95%)	97 (50%)	54 (28%)	44 (23%)	0	0
9	D	175/180 (97%)	95 (54%)	48 (27%)	32 (18%)	0	0
10	E	169/185 (91%)	100 (59%)	38 (22%)	31 (18%)	0	0
11	F	142/144 (99%)	94 (66%)	29 (20%)	19 (13%)	0	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
12	G	140/174 (80%)	76 (54%)	34 (24%)	30 (21%)	0	0
13	H	132/134 (98%)	105 (80%)	18 (14%)	9 (7%)	1	7
14	I	139/156 (89%)	59 (42%)	45 (32%)	35 (25%)	0	0
15	J	134/142 (94%)	82 (61%)	31 (23%)	21 (16%)	0	1
16	K	111/116 (96%)	74 (67%)	25 (22%)	12 (11%)	0	2
17	L	102/114 (90%)	59 (58%)	19 (19%)	24 (24%)	0	0
18	M	106/166 (64%)	70 (66%)	23 (22%)	13 (12%)	0	1
19	N	115/118 (98%)	57 (50%)	40 (35%)	18 (16%)	0	1
20	O	92/100 (92%)	57 (62%)	10 (11%)	25 (27%)	0	0
21	P	125/134 (93%)	89 (71%)	21 (17%)	15 (12%)	0	1
22	Q	91/95 (96%)	39 (43%)	28 (31%)	24 (26%)	0	0
23	R	108/115 (94%)	62 (57%)	27 (25%)	19 (18%)	0	0
24	S	173/237 (73%)	93 (54%)	46 (27%)	34 (20%)	0	0
25	T	82/91 (90%)	47 (57%)	19 (23%)	16 (20%)	0	0
26	U	70/81 (86%)	35 (50%)	16 (23%)	19 (27%)	0	0
27	V	64/67 (96%)	35 (55%)	16 (25%)	13 (20%)	0	0
28	W	53/55 (96%)	38 (72%)	9 (17%)	6 (11%)	0	2
30	Y	56/60 (93%)	40 (71%)	9 (16%)	7 (12%)	0	1
All	All	3055/3410 (90%)	1829 (60%)	698 (23%)	528 (17%)	0	1

5 of 528 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
6	A	59	LYS
6	A	145	LEU
6	A	168	LYS
6	A	217	ARG
6	A	220	HIS

5.3.2 Protein sidechains ⓘ

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

The Analysed column shows the number of residues for which the sidechain conformation was

analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	4	35/35 (100%)	32 (91%)	3 (9%)	10	33
5	5	3/4 (75%)	3 (100%)	0	100	100
6	A	185/215 (86%)	160 (86%)	25 (14%)	4	16
7	B	155/157 (99%)	127 (82%)	28 (18%)	2	8
8	C	157/163 (96%)	130 (83%)	27 (17%)	2	10
9	D	153/156 (98%)	137 (90%)	16 (10%)	6	25
10	E	136/144 (94%)	127 (93%)	9 (7%)	15	43
11	F	107/107 (100%)	99 (92%)	8 (8%)	12	38
12	G	118/146 (81%)	93 (79%)	25 (21%)	1	5
13	H	103/103 (100%)	83 (81%)	20 (19%)	1	6
14	I	108/121 (89%)	91 (84%)	17 (16%)	2	12
15	J	110/116 (95%)	86 (78%)	24 (22%)	1	5
16	K	90/93 (97%)	76 (84%)	14 (16%)	2	12
17	L	74/82 (90%)	52 (70%)	22 (30%)	0	1
18	M	94/134 (70%)	69 (73%)	25 (27%)	0	2
19	N	96/97 (99%)	82 (85%)	14 (15%)	3	14
20	O	75/79 (95%)	63 (84%)	12 (16%)	2	11
21	P	109/115 (95%)	96 (88%)	13 (12%)	5	20
22	Q	75/76 (99%)	65 (87%)	10 (13%)	4	17
23	R	91/96 (95%)	70 (77%)	21 (23%)	1	4
24	S	149/192 (78%)	132 (89%)	17 (11%)	5	21
25	T	62/67 (92%)	57 (92%)	5 (8%)	11	36
26	U	57/66 (86%)	42 (74%)	15 (26%)	0	2
27	V	54/55 (98%)	50 (93%)	4 (7%)	13	38
28	W	48/48 (100%)	40 (83%)	8 (17%)	2	11
30	Y	51/53 (96%)	44 (86%)	7 (14%)	3	16
All	All	2495/2720 (92%)	2106 (84%)	389 (16%)	2	12

5 of 389 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
17	L	67	THR

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Mol	Chain	Res	Type
20	O	56	VAL
18	M	6	LYS
18	M	94	VAL
21	P	126	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 86 such sidechains are listed below:

Mol	Chain	Res	Type
20	O	57	GLN
24	S	70	GLN
21	P	78	ASN
23	R	29	HIS
25	T	35	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
29	X	2680/2880 (93%)	704 (26%)	313 (11%)
31	Z	121/123 (98%)	24 (19%)	1 (0%)
All	All	2801/3003 (93%)	728 (25%)	314 (11%)

5 of 728 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
29	X	2	G
29	X	4	C
29	X	13	A
29	X	14	A
29	X	27	G

5 of 314 RNA pucker outliers are listed below:

Mol	Chain	Res	Type
29	X	2005	U
29	X	2594	U
29	X	2045	A
29	X	2324	G
29	X	2756	A

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

11 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
5	MH6	5	14	5	3,3,6	1.59	1 (33%)	1,3,7	0.42	0
5	BB9	5	13	5	2,4,6	1.73	1 (50%)	3,4,7	2.76	3 (100%)
5	DHA	5	3	5	3,4,5	1.64	1 (33%)	2,4,6	1.78	1 (50%)
5	TS9	5	10	5	7,8,10	0.91	0	6,12,15	1.08	0
5	DHA	5	16	5	3,4,5	1.55	1 (33%)	2,4,6	5.47	1 (50%)
5	BB9	5	11	5	2,5,6	1.53	0	1,5,7	2.57	1 (100%)
5	BB9	5	6	5	2,5,6	2.32	1 (50%)	1,5,7	2.58	1 (100%)
5	BB9	5	15	5	2,5,6	4.73	1 (50%)	1,5,7	4.05	1 (100%)
5	DBU	5	8	5	3,4,6	3.78	2 (66%)	3,4,7	1.77	1 (33%)
5	DHA	5	17	5	3,4,5	1.09	0	2,4,6	2.52	1 (50%)

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
5	BB9	5	13	5	-	0/0/2/6	-
5	DHA	5	3	5	-	0/0/2/4	-
5	TS9	5	10	5	-	0/9/12/16	-
5	DHA	5	16	5	-	0/0/2/4	-
5	BB9	5	11	5	-	0/0/4/6	-
5	BB9	5	6	5	-	0/0/4/6	-
5	BB9	5	15	5	-	0/0/4/6	-
5	DBU	5	8	5	-	0/1/2/6	-
5	DHA	5	17	5	-	0/0/2/4	-

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

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	5	15	BB9	O-C	-6.68	1.07	1.22
5	5	8	DBU	CA-N	6.08	1.47	1.33
5	5	6	BB9	O-C	3.03	1.28	1.22
5	5	16	DHA	C-CA	-2.55	1.40	1.45
5	5	13	BB9	CA-N	2.45	1.39	1.33

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

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	5	16	DHA	O-C-CA	-7.70	111.08	125.53
5	5	15	BB9	O-C-CA	4.05	130.46	125.39
5	5	17	DHA	O-C-CA	-2.99	119.92	125.53
5	5	13	BB9	C-CA-CB	2.83	126.66	121.45
5	5	8	DBU	CB-CA-N	2.82	124.53	122.88

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

5 monomers are involved in 5 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	5	14	MH6	1	0
5	5	13	BB9	1	0
5	5	10	TS9	1	0
5	5	6	BB9	1	0
5	5	15	BB9	1	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 36 ligands modelled in this entry, 36 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

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	1	53/55 (96%)	15.66	53 (100%) 0 0	48, 56, 77, 82	0
2	2	46/47 (97%)	13.07	46 (100%) 0 0	9, 29, 38, 40	0
3	3	63/66 (95%)	12.76	63 (100%) 0 0	23, 41, 51, 57	0
4	4	37/37 (100%)	1.42	9 (24%) 2 1	60, 69, 77, 81	0
5	5	6/19 (31%)	1.35	3 (50%) 0 0	79, 83, 86, 86	0
6	A	240/274 (87%)	1.35	58 (24%) 2 1	25, 63, 77, 84	0
7	B	205/211 (97%)	0.24	14 (6%) 23 16	3, 22, 49, 63	0
8	C	197/205 (96%)	1.01	34 (17%) 4 4	8, 51, 73, 83	0
9	D	177/180 (98%)	1.35	37 (20%) 2 2	60, 75, 85, 91	0
10	E	171/185 (92%)	0.88	18 (10%) 11 9	44, 66, 79, 88	0
11	F	144/144 (100%)	2.23	81 (56%) 0 0	74, 89, 98, 102	0
12	G	142/174 (81%)	1.04	26 (18%) 3 3	22, 43, 67, 72	0
13	H	134/134 (100%)	0.00	2 (1%) 72 53	3, 16, 37, 45	0
14	I	141/156 (90%)	1.72	41 (29%) 1 1	22, 62, 77, 85	0
15	J	136/142 (95%)	0.98	22 (16%) 4 4	27, 51, 73, 80	0
16	K	113/116 (97%)	-0.02	4 (3%) 47 31	3, 9, 24, 34	0
17	L	104/114 (91%)	1.35	25 (24%) 2 1	43, 62, 72, 75	0
18	M	108/166 (65%)	0.14	3 (2%) 55 36	4, 19, 43, 64	0
19	N	117/118 (99%)	0.69	16 (13%) 6 5	4, 40, 62, 73	0
20	O	94/100 (94%)	0.89	10 (10%) 11 9	18, 53, 71, 81	0
21	P	127/134 (94%)	0.15	6 (4%) 36 24	4, 18, 53, 76	0
22	Q	93/95 (97%)	0.92	15 (16%) 4 4	32, 50, 69, 80	0
23	R	110/115 (95%)	1.29	23 (20%) 2 2	36, 54, 80, 87	0
24	S	175/237 (73%)	1.42	43 (24%) 2 1	61, 71, 82, 87	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
25	T	84/91 (92%)	1.14	17 (20%) 3 2	35, 51, 80, 90	0
26	U	72/81 (88%)	1.50	21 (29%) 1 1	45, 61, 72, 78	0
27	V	66/67 (98%)	0.58	4 (6%) 27 18	49, 61, 81, 88	0
28	W	55/55 (100%)	0.42	0 100 100	23, 41, 61, 78	0
29	X	2686/2880 (93%)	0.69	345 (12%) 7 6	4, 41, 116, 151	0
30	Y	58/60 (96%)	0.52	6 (10%) 12 10	4, 17, 44, 52	0
31	Z	122/123 (99%)	1.27	22 (18%) 3 3	30, 75, 102, 129	0
All	All	6076/6581 (92%)	1.19	1067 (17%) 4 4	3, 49, 95, 151	0

The worst 5 of 1067 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	1	6	PRO	30.5
1	1	52	GLU	24.4
1	1	33	ALA	24.4
1	1	25	THR	24.1
3	3	54	GLU	24.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
5	DHA	5	16	5/6	-0.14	0.31	83,83,85,86	0
5	DHA	5	17	5/6	0.33	0.38	76,77,78,80	2
5	DCY	5	9	6/7	0.49	0.21	87,87,87,87	0
5	DHA	5	3	5/6	0.50	0.28	82,83,84,85	0
5	TS9	5	10	9/11	0.60	0.16	87,88,89,89	0
5	BB9	5	13	5/7	0.62	0.18	85,86,86,87	0
5	MH6	5	14	4/7	0.73	0.14	86,86,87,87	0
5	BB9	5	6	6/7	0.75	0.12	82,84,85,86	0
5	BB9	5	11	6/7	0.76	0.14	85,87,87,88	0
5	DBU	5	8	5/7	0.76	0.29	85,86,87,87	0
5	BB9	5	15	6/7	0.77	0.22	88,88,88,88	0

6.3 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

6.4 Ligands ⓘ

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. 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(\AA^2)	Q<0.9
32	MG	X	2896	1/1	0.74	0.17	3,3,3,3	0
32	MG	X	2884	1/1	0.87	0.84	55,55,55,55	0
32	MG	X	2909	1/1	0.87	0.33	3,3,3,3	0
32	MG	X	2890	1/1	0.88	0.38	49,49,49,49	0
32	MG	X	2898	1/1	0.88	0.50	19,19,19,19	0
32	MG	X	2891	1/1	0.88	0.40	12,12,12,12	0
32	MG	X	2893	1/1	0.89	0.18	13,13,13,13	0
32	MG	X	2885	1/1	0.89	0.25	56,56,56,56	0
32	MG	X	2881	1/1	0.90	0.31	59,59,59,59	0
32	MG	X	2900	1/1	0.92	0.26	3,3,3,3	0
32	MG	Z	126	1/1	0.92	0.31	25,25,25,25	0
32	MG	X	2906	1/1	0.93	0.13	58,58,58,58	0
32	MG	X	2882	1/1	0.93	0.43	12,12,12,12	0
32	MG	X	2905	1/1	0.93	0.27	13,13,13,13	0
32	MG	X	2883	1/1	0.94	0.15	49,49,49,49	0
32	MG	X	2886	1/1	0.94	0.17	41,41,41,41	0
32	MG	X	2901	1/1	0.94	0.13	60,60,60,60	0
32	MG	Z	124	1/1	0.94	0.36	26,26,26,26	0
32	MG	X	2904	1/1	0.94	0.24	6,6,6,6	0
32	MG	Z	127	1/1	0.94	0.15	12,12,12,12	0
32	MG	Z	128	1/1	0.94	0.25	41,41,41,41	0
32	MG	X	2888	1/1	0.95	0.38	3,3,3,3	0
32	MG	X	2902	1/1	0.95	0.19	24,24,24,24	0
32	MG	X	2889	1/1	0.96	0.39	3,3,3,3	0
32	MG	X	2892	1/1	0.96	0.18	22,22,22,22	0
32	MG	X	2907	1/1	0.96	0.43	17,17,17,17	0
32	MG	M	167	1/1	0.96	0.32	3,3,3,3	0
32	MG	X	2910	1/1	0.97	0.36	19,19,19,19	0
32	MG	X	2899	1/1	0.97	0.48	3,3,3,3	0
32	MG	X	2897	1/1	0.97	0.47	3,3,3,3	0
32	MG	X	2908	1/1	0.97	0.10	3,3,3,3	0
32	MG	X	2887	1/1	0.97	0.17	3,3,3,3	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
32	MG	X	2903	1/1	0.98	0.29	3,3,3,3	0
32	MG	X	2895	1/1	0.98	0.29	3,3,3,3	0
32	MG	X	2894	1/1	0.98	0.43	15,15,15,15	0
32	MG	Z	125	1/1	0.99	0.33	9,9,9,9	0

6.5 Other polymers [i](#)

There are no such residues in this entry.