



wwPDB X-ray Structure Validation Summary Report ⓘ

Aug 16, 2023 – 10:26 AM EDT

PDB ID : 2A68
Title : Crystal structure of the *T. thermophilus* RNA polymerase holoenzyme in complex with antibiotic rifabutin
Authors : Artsimovitch, I.; Vassylyeva, M.N.; Svetlov, D.; Svetlov, V.; Perederina, A.; Igarashi, N.; Matsugaki, N.; Wakatsuki, S.; Tahirov, T.H.; Vassylyev, D.G.; RIKEN Structural Genomics/Proteomics Initiative (RSGI)
Deposited on : 2005-07-01
Resolution : 2.50 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](#) ①) were used in the production of this report:

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtrriage (Phenix) : 1.13
EDS : 2.35
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.35

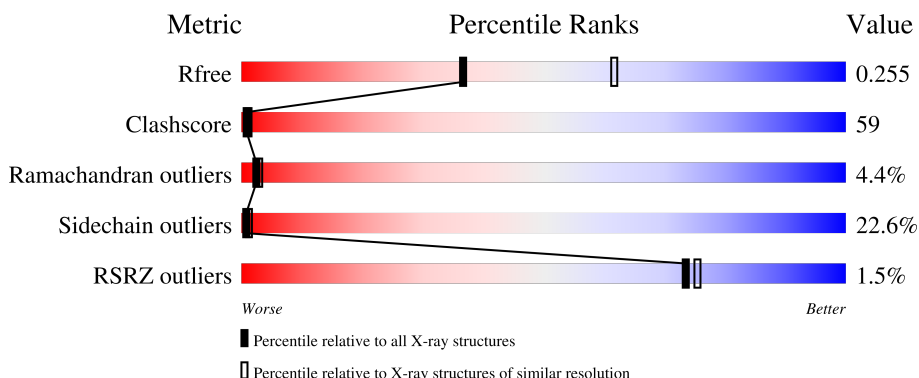
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.50 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	4661 (2.50-2.50)
Clashscore	141614	5346 (2.50-2.50)
Ramachandran outliers	138981	5231 (2.50-2.50)
Sidechain outliers	138945	5233 (2.50-2.50)
RSRZ outliers	127900	4559 (2.50-2.50)

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	A	315	
1	B	315	
1	K	315	
1	L	315	
2	C	1119	

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Mol	Chain	Length	Quality of chain
2	M	1119	<p>25% 58% 17%</p>
3	D	1524	<p>23% 51% 16% 9%</p>
3	N	1524	<p>25% 51% 15% 9%</p>
4	E	99	<p>27% 58% 11%</p>
4	O	99	<p>22% 56% 17%</p>
5	F	423	<p>21% 48% 11% 18%</p>
5	P	423	<p>24% 47% 10% 18%</p>

2 Entry composition [i](#)

There are 9 unique types of molecules in this entry. The entry contains 61089 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 DNA-directed RNA polymerase alpha chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	229	Total	C	N	O	S	0	0	0
			1806	1153	313	337	3			
1	B	229	Total	C	N	O	S	0	0	0
			1806	1153	313	337	3			
1	K	229	Total	C	N	O	S	0	0	0
			1806	1153	313	337	3			
1	L	229	Total	C	N	O	S	0	0	0
			1806	1153	313	337	3			

- Molecule 2 is a protein called DNA-directed RNA polymerase beta chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	C	1119	Total	C	N	O	S	0	0	0
			8829	5581	1577	1647	24			
2	M	1119	Total	C	N	O	S	0	0	0
			8829	5581	1577	1647	24			

- Molecule 3 is a protein called DNA-directed RNA polymerase beta' chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	D	1392	Total	C	N	O	S	0	0	0
			10797	6819	1925	2020	33			
3	N	1392	Total	C	N	O	S	0	0	0
			10797	6819	1925	2020	33			

- Molecule 4 is a protein called RNA polymerase omega chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
4	E	95	Total	C	N	O	S	0	0	0
			769	488	133	144	4			
4	O	95	Total	C	N	O	S	0	0	0
			769	488	133	144	4			

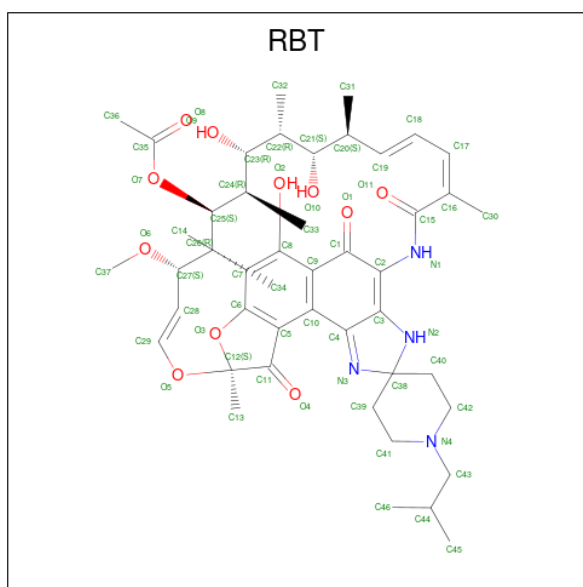
- Molecule 5 is a protein called RNA polymerase sigma factor rpoD.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	F	345	Total	C	N	O	S	0	0	0
			2771	1744	504	519	4			
5	P	345	Total	C	N	O	S	0	0	0
			2771	1744	504	519	4			

- Molecule 6 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
6	A	31	Total	Mg	0	0
			31	31		
6	B	23	Total	Mg	0	0
			23	23		
6	C	81	Total	Mg	0	0
			81	81		
6	D	137	Total	Mg	0	0
			137	137		
6	E	10	Total	Mg	0	0
			10	10		
6	F	31	Total	Mg	0	0
			31	31		
6	K	21	Total	Mg	0	0
			21	21		
6	L	25	Total	Mg	0	0
			25	25		
6	M	69	Total	Mg	0	0
			69	69		
6	N	108	Total	Mg	0	0
			108	108		
6	O	6	Total	Mg	0	0
			6	6		
6	P	20	Total	Mg	0	0
			20	20		

- Molecule 7 is RIFABUTIN (three-letter code: RBT) (formula: C₄₆H₆₂N₄O₁₁).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
7	C	1	Total	C	N	O	0	0
			61	46	4	11		
7	M	1	Total	C	N	O	0	0
			61	46	4	11		

- Molecule 8 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
8	D	2	Total	Zn	0	0
			2	2		
8	N	2	Total	Zn	0	0
			2	2		

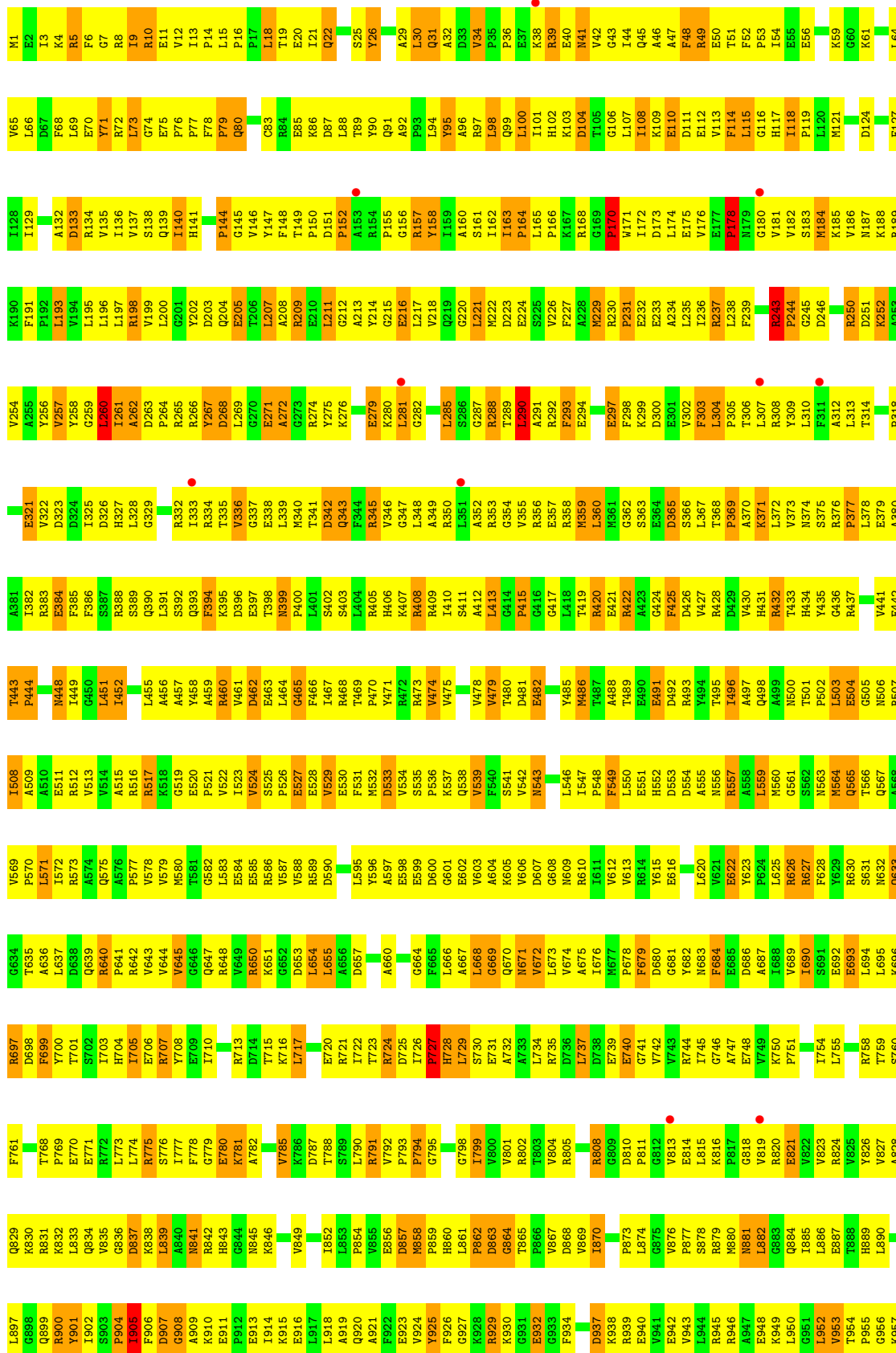
- Molecule 9 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
9	A	253	Total	O	0	0
			253	253		
9	B	307	Total	O	0	0
			307	307		
9	C	1000	Total	O	0	0
			1000	1000		
9	D	1418	Total	O	0	0
			1418	1418		
9	E	112	Total	O	0	0
			112	112		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
9	F	456	Total 456	O 456	0	0
9	K	213	Total 213	O 213	0	0
9	L	237	Total 237	O 237	0	0
9	M	998	Total 998	O 998	0	0
9	N	1357	Total 1357	O 1357	0	0
9	O	117	Total 117	O 117	0	0
9	P	377	Total 377	O 377	0	0



T958	P989	E960	E961	E962	E964	E965	E966	E967	E968	E969	E970	E971	E972	E973	E974	E975	E976	E977	E978	E979	E980	E981	E982	E983	E984	E985	E986	E987	E988	E989	E990	E991	E992	E993	E994	E995	E996	E997	E998	E999	Y1000	Y1001	E1002	D1003	K1004	M1005	R1008	S1009	T1010	G1011	P1012	Y1013	S1014	L1015	I1016	T1017	K1018
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Q1019	P1020	L1021	G1022	A1025	F1026	G1028	G1029	Q1030	G1033	E1034	M1035	E1036	L1037	M1038	Y1039	L1040	A1042	A1045	T1048	L1049	Q1050	E1051	M1052	L1053	T1054	L1055	K1056	S1057	D1058	D1059	I1060	E1061	G1062	R1063	A1066	Y1067	E1068	A1069	I1070	I1071	K1072	M1073	G1074	D1075	V1076	P1079	S1080	Y1081	V1082	L1083	I1084	E1085	F1085
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R1086	V1087	L1088	K1089	K1090	E1091	L1092	Q1093	A1094	R1095	L1096	L1097	L1098	V1099	Q1100	T1101	L1102	D1103	E1104	K1105	D1106	F1107	P1108	V1109	D1110	I1111	E1112	R1113	G1114	L1115	A1116	S1117	K1118	R1119	V34	P35	R36	E37	K38	R39	E40	M41	V42	G43	I44	Q45	A46	A47	F48	R49	E50	T51	F52	P53	I54	E55	E56	D57	K59	G60	K61	F62	G62
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• Molecule 2: DNA-directed RNA polymerase beta chain



M1	E2	I3	K4	R5	F6	G7	Q1093	A1094	R1095	L1096	L1097	L1098	V1099	Q1100	T1101	L1102	D1103	E1104	K1105	D1106	F1107	P1108	V1109	D1110	I1111	E1112	R1113	G1114	L1115	A1116	S1117	K1118	R1119	V34	P35	R36	E37	K38	R39	E40	M41	V42	G43	I44	Q45	A46	A47	F48	R49	E50	T51	F52	P53	I54	E55	E56	D57	K59	G60	K61	F62	G62
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G63	L64	V65	L66	D67	F68	L69	E70	Y71	R72	L73	G74	F78	P79	Q80	D81	E82	C83	R84	E85	K86	D87	L88	T89	Y90	Q91	A92	P93	L94	Y95	A96	R97	L98	Q99	I101	H102	K103	D104	L107	I171	E110	D111	F114	L115	G116	H117	I118	P119	L120	E123	E124	D125	G126	S126	F127	K128
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I129	M130	G131	A132	D133	R134	Y135	I136	L137	S138	Q139	L140	R142	S143	P144	D145	E205	V146	Y147	F148	T149	P150	D151	P152	A153	R154	P155	G156	R157	Y158	I159	A160	S161	I162	I163	P164	L165	P166	K167	D168	G169	P170	I171	L172	D173	L174	E175	V176	E177	F178	H179	G180	V181	V182	S183	M184	K185	V186	M187	K188
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R189	K190	F191	P192	L193	V194	L195	L196	R197	R198	L199	R200	G201	Y202	D203	Q204	E205	V206	L207	A208	R209	E210	L211	G212	A213	Y214	G215	E216	L217	V218	Q219	G220	L221	M222	I223	E224	P164	L165	P166	K167	D168	G169	P170	I171	L172	D173	L174	E175	V176	E177	F178	H179	G180	V181	V182	S183	M184	K185	V186	M187	K188
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K249	R250	D251	K252	L253	V254	A255	Y256	V257	G258	G259	L260	A262	D263	P264	R265	R266	V267	D268	L269	E270	E271	G272	A273	R274	Y275	G276	E277	E278	E279	K280	L281	D282	I283	R284	L285	S286	G287	R288	T289	L290	A291	R292	F293	E294	D295	G296	E297	F298	K299	D300	E301	V302	E303	F304	L304	P305	L306	L307	R308
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Y309	L310	F311	A312	L313	T314	A315	P318	G319	H320	E321	V322	D323	D324	I325	D326	S327	R328	G329	N330	R331	R332	I333	R334	T335	V336	G337	E338	L339	K340	T341	D342	Q343	F344	R345	V346	G347	L348	A349	R350	L351	A352	E353	G354	V355	R356	R357	R358	K359	L360	M361	G362	S363	E364	V365	R366	L367	T368	P369
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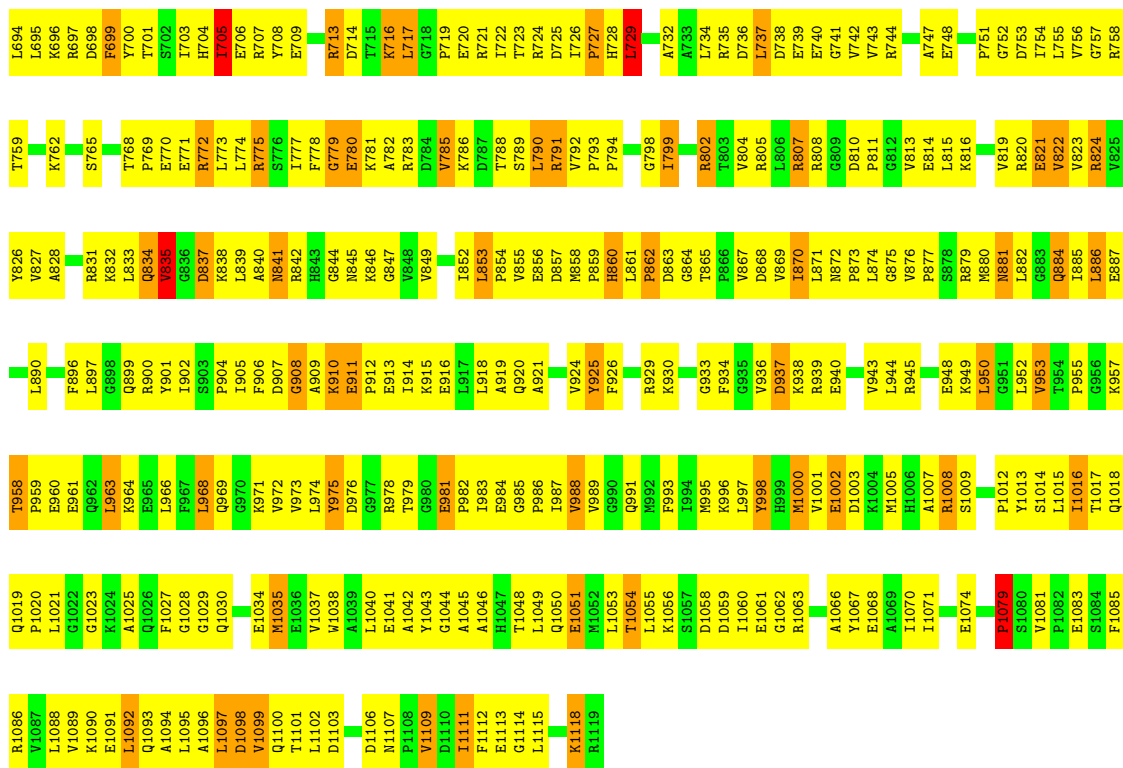
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T433	H434	Y435	G436	R437	I438	C439	E442	T443	P444	E445	L451	L452	T453	S454	L455	A456	A457	Y458	A459	R460	V461	S462	D462	E463	L464	G465	F466	I467	R468	T469	P470	R473	H406	K407	V474	V475	V478	V479	T480	D481	G414	G415	G416	G417	L418	T419	A488	T489	E490	E491	D492	R493	Y494	A555	V427	I496	A497	Q498	S561	G562	M563
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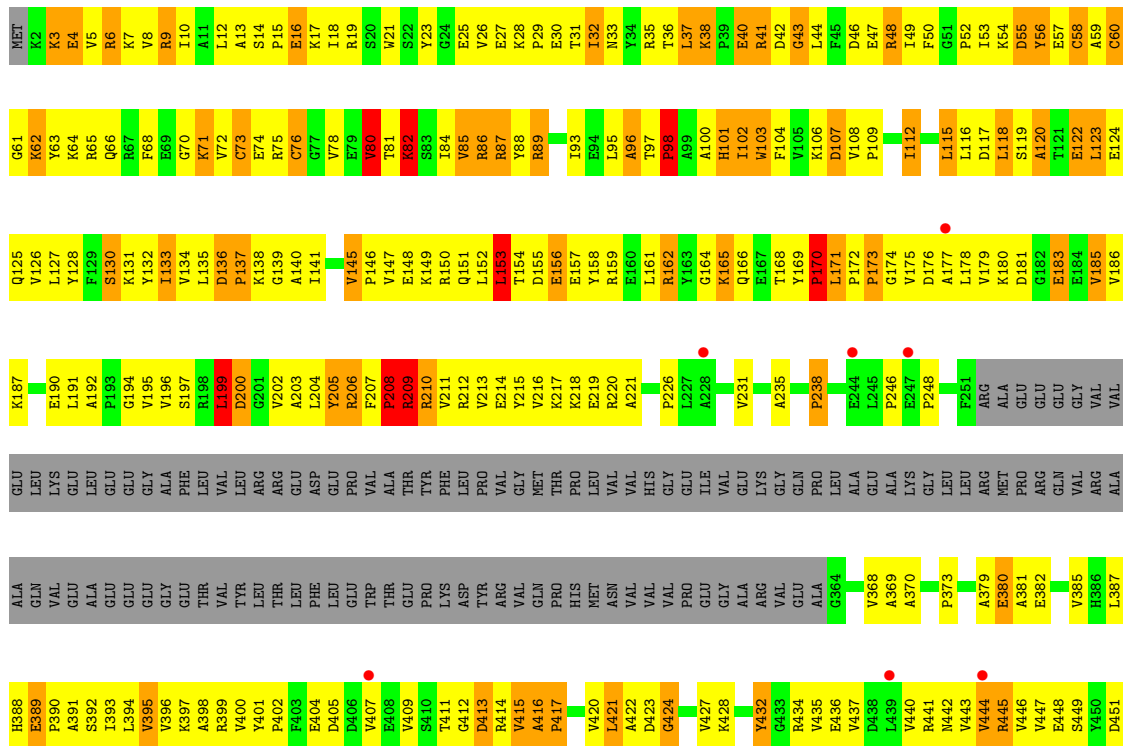
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M564	Q565	T566	V569	P570	L571	I572	R573	A574	Q575	A576	P577	V578	V579	M580	T581	G582	L583	E584	E585	R586	V587	V588	R589	D590	L595	Y596	M597	A597	E598	G601	L666	V602	L668	G669	K605	Q670	V606	D607	G608	N609	R610	A675	I611	V612	V613	R614	Y615	L680	D617	L682	M683	R619	L620	V621	E622	L688	V623	P624	L625	R626	G627	F628
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M629	R630	S631	N632	Q633	G634	T635	A636	L637	D638	Q639	Q640	P641	R642	V643	M644	V645	G646	G647	R648	V649	R650	K651	L654	A660	S661	E662	M663	G664	F665	L666	A667	V602	L668	G669	K605	Q670	V606	D607	G608	N609	R610	A675	I611	V612	V613	R614	Y615	L680	D617	L682	M683	R619	L620	V621	E622	L688	V623	P624	L625	R626	G627	F628
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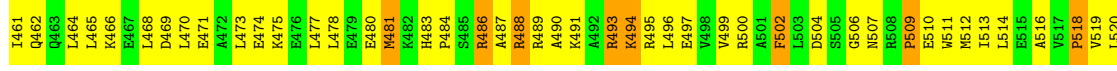
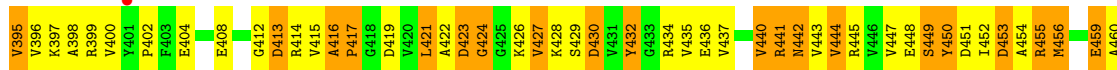
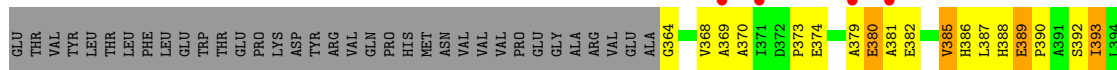
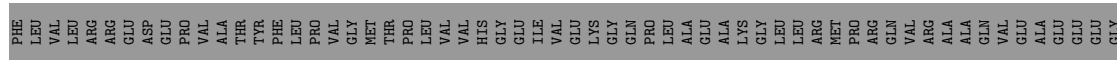
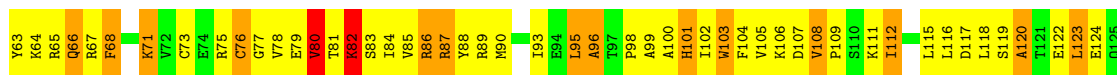
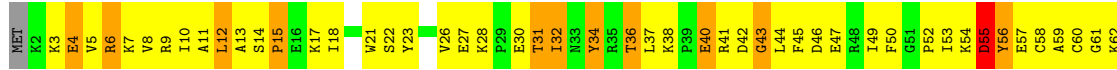
• Molecule 3: DNA-directed RNA polymerase beta' chain

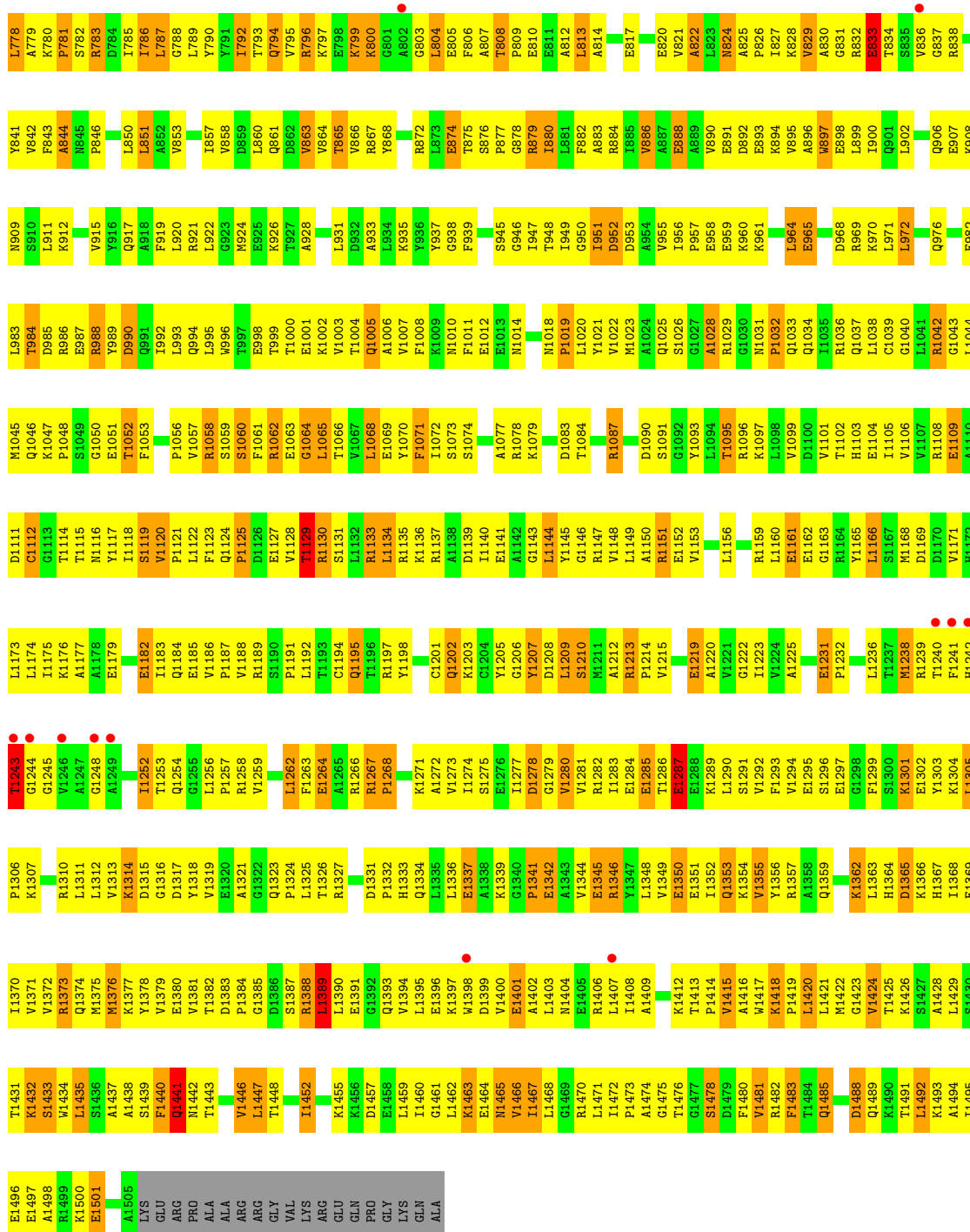


E1350	E1351	E1352	Q1353	K1354	V1355	Y1356	R1357	A1358	G1359	Q1360	V1361	K1362	L1363	H1364	D1365	K1366	H1367	I1368	E1369	I1370	V1371	V1372	R1373	Q1374	M1375	M1376	K1377	V1378	V1379	V1380	V1381	T1382	P1383	P1384	G1385	R1388	L1389	L1390	E1391	Q1392	Q1393	V1394	L1395	E1396	K1397	M1398	D1399	V1400	E1401	A1402	L1403	M1404	V1394	E1405	R1406	L1407	A1408	I1409	E1410					
E1286	I1286	E1287	E1288	K1289	L1290	S1291	V1292	F1293	P1294	Q1295	T1296	F1299	S1300	K1301	E1302	V1303	K1304	K1307	R1310	L1311	L1312	V1313	K1314	D1315	L1316	L1317	Y1318	V1319	E1320	A1321	P1257	L1191	Q1323	P1324	L1325	T1326	R1327	I1330	D1331	P1332	H1333	Q1334	L1335	L1336	E1337	A1338	K1339	G1340	P1341	E1342	M1403	V1344	E1405	R1406	L1407	A1408	I1409	E1410						
G1157	V1158	R1159	L1160	E1161	E1162	G1163	R1164	F1165	L1166	Q1167	T1234	M1168	D1169	D1170	H1171	E1172	L1173	L1174	L1175	K1176	L1177	A1178	E1179	A1180	G1181	E1182	I1183	V1186	P1187	L1191	L1192	T1193	C1194	Q1195	T1196	R1197	Y1198	C1201	Q1202	K1203	C1204	Y1205	L1206	A1271	D1207	D1208	L1209	S1210	M1211	A1212	Q1279	V1280	V1281	I1282	L1283	E1284								
L1094	T1095	K1096	K1097	L1098	V1099	D1100	V1101	T1102	H1103	E1104	I1105	V1106	V1107	E1108	E1109	A1110	D1111	G1112	G1113	T1114	S1119	V1120	P1121	L1122	F1123	Q1124	P1125	F1126	E1127	R1128	T1129	L1130	S1131	L1132	R1133	L1134	R1136	R1137	A1138	D1139	L1140	E1141	A1142	G1143	L1144	Y1145	G1146	R1147	V1148	L1149	A1150	R1151	H1152	V1153	E1154	L1155	L1156							
P1032	Q1033	I1034	I1035	R1036	Q1037	L1038	C1039	G1040	L1041	R1042	G1043	L1044	M1045	K1046	K1047	P1048	S1049	G1050	E1051	F1053	E1054	V1055	P1056	V1057	R1058	S1059	S1060	F1061	R1062	E1063	G1064	L1065	T1066	L1067	L1068	E1069	Y1070	F1071	I1072	S1073	S1074	E1075	L1076	K1079	L1080	L1081	L1082	T1083	T1084	A1085	L1086	R1087	L1088	A1089	D1090	S1091	G1092	Y1093						
L964	E965	D966	R967	K970	L971	L972	Q973	R974	E975	G976	A977	Y978	L983	T984	D985	A986	E987	R988	Q991	I992	L993	Q994	L995	E996	T997	E998	T999	T1000	E1001	K1002	V1003	D1004	G1005	A1006	V1007	F1008	K1009	N1010	F1011	E1012	E1013	M1014	Y1015	P1016	F1019	L1020	M1023	L1024	S1026	E958	D959	A1028	R1029	G1030	M1031									
E898	L899	I900	Q901	L902	D903	V904	Q905	P906	E907	K908	S910	L911	K912	E913	D914	L915	V916	Q917	F919	L920	R921	G923	M924	E925	K926	T927	R928	E1000	L930	L931	D932	K935	T940	T943	T944	R879	L881	I949	G950	I951	D952	D953	A954	V955	L956	P957	R958	L959	Q961	K962	Y963													
T834	S835	V836	G837	R838	L839	K840	T841	V842	F843	A844	D847	E848	A849	L850	L851	A852	V853	T857	V858	D859	L860	Q861	S862	V863	V864	T865	R804	E805	F806	D870	K871	R872	L873	E874	T875	S876	P877	G878	R879	L880	F882	A883	R884	L885	E888	A889	V890	R926	L927	K828	D892	E929	K894	V895	A896	M897								
S774	G775	E776	P777	L778	A779	K780	F781	S782	R783	D784	I785	L786	L787	G788	L789	Y790	Y791	I792	T793	Q794	V795	R796	K797	F798	K799	R800	G801	A802	F803	T808	P809	E810	E811	A812	L813	A814	A815	H816	R817	G819	E820	V821	A822	L823	M824	A825	P826	L828	K829	V829	A830	E831	R832	E833										
L708	H709	R710	L711	G712	L713	K714	A715	E716	Q717	F718	V719	L720	V721	E722	G723	Q724	S725	L726	Q727	L728	T666	A667	P668	M669	L670	S608	L643	G609	E670	E678	E679	Q616	M617	G680	E681	D682	D685	V688	D689	A690	L691	E692	E693	V694	A757	L695	H696	V699	L700	L637	K638	L702	N703	R704	A705	P706	C642	D579						
L644	P645	R646	K647	M648	A649	L650	E651	A652	F653	K654	P655	F656	L657	L658	K659	M660	E661	E662	E663	T666	A667	P668	M669	L670	S608	L643	G609	E670	E678	E679	Q616	M617	G680	E681	D682	D685	V688	D689	A690	L691	E692	E693	V694	A757	L695	H696	V699	L700	L637	K638	L702	N703	R704	A705	P706	C642	D579							
V517	P518	V519	L520	R455	P521	G522	D523	L524	R525	A460	M527	Q462	Q463	Q464	L465	K466	E467	G532	L468	R534	F535	A536	T537	L473	A474	K475	E476	L477	L478	E479	E480	H481	K482	H483	L547	L548	N549	R550	L551	N552	M553	R489	A490	S495	R496	R497	A498	V499	R500	F502	F503	L503	D504	S505	P509	R572	M573	W511	L574	Q575	E576	L577	E515	C643

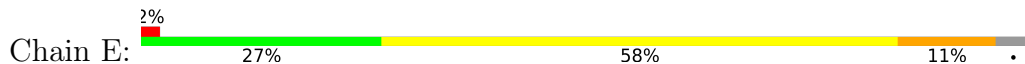


● Molecule 3: DNA-directed RNA polymerase beta' chain





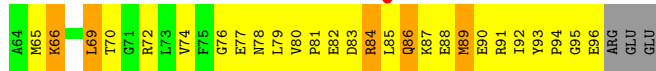
● Molecule 4: RNA polymerase omega chain



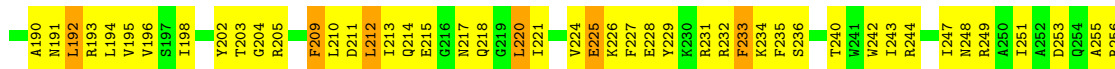
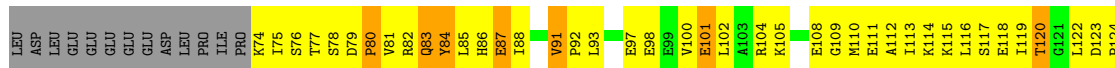
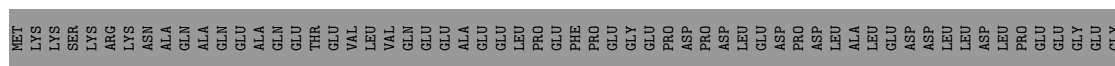
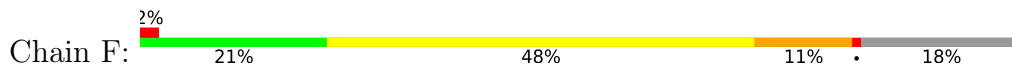
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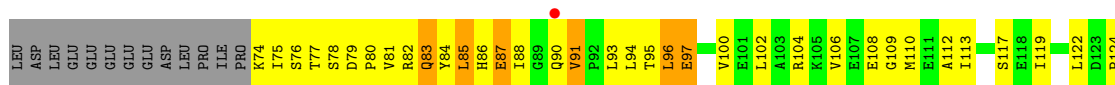
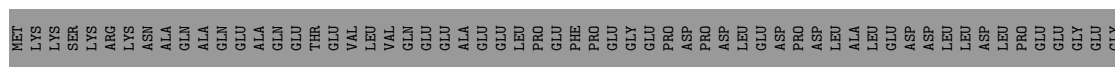
● Molecule 4: RNA polymerase omega chain

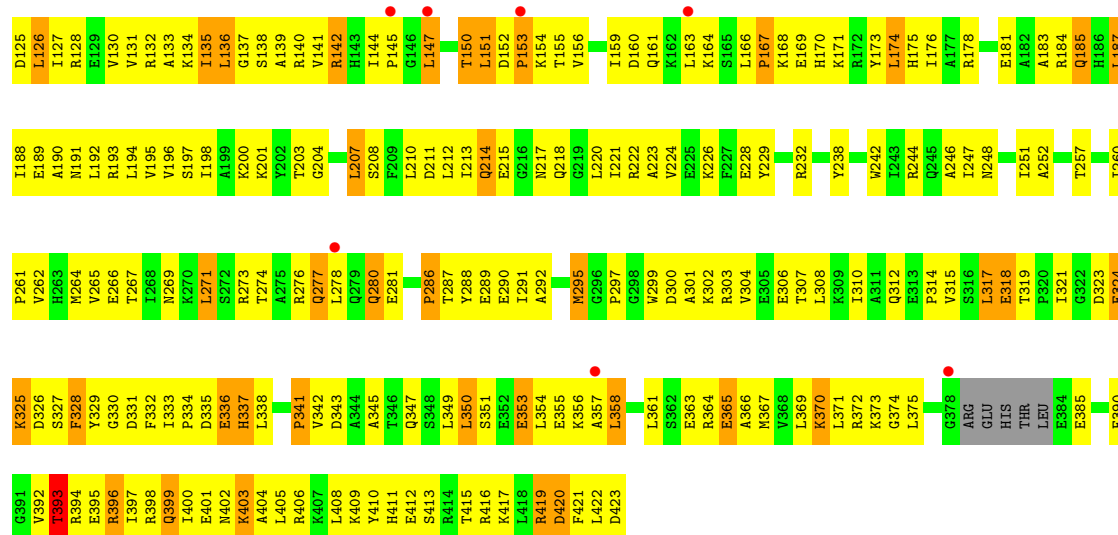


● Molecule 5: RNA polymerase sigma factor rpoD



● Molecule 5: RNA polymerase sigma factor rpoD





4 Data and refinement statistics i

Property	Value	Source
Space group	P 32	Depositor
Cell constants a, b, c, α , β , γ	239.50Å 239.50Å 253.10Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	25.00 – 2.50 24.85 – 2.50	Depositor EDS
% Data completeness (in resolution range)	(Not available) (25.00-2.50) 91.2 (24.85-2.50)	Depositor EDS
R_{merge}	0.07	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.13 (at 2.50Å)	Xtrriage
Refinement program	CNS 1.1	Depositor
R, R_{free}	0.225 , 0.257 0.223 , 0.255	Depositor DCC
R_{free} test set	29386 reflections (5.75%)	wwPDB-VP
Wilson B-factor (Å ²)	45.1	Xtrriage
Anisotropy	0.178	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.27 , 77.0	EDS
L-test for twinning ²	$\langle L \rangle = 0.40$, $\langle L^2 \rangle = 0.23$	Xtrriage
Estimated twinning fraction	0.499 for -h,-k,l 0.085 for h,-h-k,-l 0.085 for -k,-h,-l	Xtrriage
F_o, F_c correlation	0.92	EDS
Total number of atoms	61089	wwPDB-VP
Average B, all atoms (Å ²)	67.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.18% 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: ZN, RBT, MG

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	0.79	1/1838 (0.1%)	0.86	2/2498 (0.1%)
1	B	0.73	0/1838	0.82	3/2498 (0.1%)
1	K	0.75	0/1838	0.84	2/2498 (0.1%)
1	L	0.71	1/1838 (0.1%)	0.78	0/2498
2	C	0.81	0/8997	0.88	6/12164 (0.0%)
2	M	0.79	0/8997	0.88	8/12164 (0.1%)
3	D	0.82	0/10975	0.93	22/14836 (0.1%)
3	N	0.80	0/10975	0.91	14/14836 (0.1%)
4	E	0.82	0/783	0.98	1/1054 (0.1%)
4	O	0.84	0/783	0.96	1/1054 (0.1%)
5	F	0.73	0/2812	0.82	2/3781 (0.1%)
5	P	0.71	0/2812	0.80	1/3781 (0.0%)
All	All	0.79	2/54486 (0.0%)	0.88	62/73662 (0.1%)

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	48	ILE	C-N	5.18	1.44	1.34
1	L	172	SER	N-CA	-5.06	1.36	1.46

The worst 5 of 62 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	138	LEU	CA-CB-CG	8.26	134.29	115.30
3	D	199	LEU	CA-CB-CG	-8.08	96.72	115.30
3	N	199	LEU	CA-CB-CG	-7.83	97.28	115.30
3	N	1389	LEU	CA-CB-CG	7.33	132.15	115.30
5	F	361	LEU	CA-CB-CG	7.04	131.49	115.30

There are no chirality outliers.

There are no planarity outliers.

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	A	1806	0	1861	231	0
1	B	1806	0	1861	211	0
1	K	1806	0	1861	199	0
1	L	1806	0	1861	202	0
2	C	8829	0	8933	1201	0
2	M	8829	0	8933	1179	0
3	D	10797	0	10873	1404	0
3	N	10797	0	10873	1285	0
4	E	769	0	775	92	0
4	O	769	0	775	99	0
5	F	2771	0	2844	340	0
5	P	2771	0	2844	315	0
6	A	31	0	0	0	0
6	B	23	0	0	0	0
6	C	81	0	0	0	0
6	D	137	0	0	0	0
6	E	10	0	0	0	0
6	F	31	0	0	0	0
6	K	21	0	0	0	0
6	L	25	0	0	0	0
6	M	69	0	0	0	0
6	N	108	0	0	0	0
6	O	6	0	0	0	0
6	P	20	0	0	0	0
7	C	61	0	61	3	0
7	M	61	0	61	3	0
8	D	2	0	0	0	0
8	N	2	0	0	0	0
9	A	253	0	0	49	0
9	B	307	0	0	49	0
9	C	1000	0	0	202	0
9	D	1418	0	0	282	0
9	E	112	0	0	22	0
9	F	456	0	0	98	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
9	K	213	0	0	34	0
9	L	237	0	0	58	0
9	M	998	0	0	255	0
9	N	1357	0	0	240	0
9	O	117	0	0	26	0
9	P	377	0	0	75	0
All	All	61089	0	54416	6365	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 59.

The worst 5 of 6365 close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:42:ARG:HH12	2:C:857:ASP:HB3	1.08	1.12
2:M:1054:THR:HG21	2:M:1079:PRO:HB3	1.27	1.11
3:N:1045:MET:HG2	3:N:1073:SER:HA	1.35	1.08
2:C:630:ARG:HH21	2:C:705:ILE:HG22	1.18	1.07
3:N:52:PRO:HB2	3:N:80:VAL:HG13	1.34	1.06

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	
1	A	227/315 (72%)	204 (90%)	19 (8%)	4 (2%)	8	14
1	B	227/315 (72%)	201 (88%)	21 (9%)	5 (2%)	6	10
1	K	227/315 (72%)	204 (90%)	19 (8%)	4 (2%)	8	14
1	L	227/315 (72%)	205 (90%)	18 (8%)	4 (2%)	8	14
2	C	1117/1119 (100%)	911 (82%)	153 (14%)	53 (5%)	2	2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	M	1117/1119 (100%)	904 (81%)	168 (15%)	45 (4%)	3	3
3	D	1388/1524 (91%)	1112 (80%)	202 (15%)	74 (5%)	2	2
3	N	1388/1524 (91%)	1118 (80%)	195 (14%)	75 (5%)	2	2
4	E	93/99 (94%)	74 (80%)	15 (16%)	4 (4%)	2	3
4	O	93/99 (94%)	76 (82%)	13 (14%)	4 (4%)	2	3
5	F	341/423 (81%)	286 (84%)	40 (12%)	15 (4%)	2	3
5	P	341/423 (81%)	290 (85%)	37 (11%)	14 (4%)	3	3
All	All	6786/7590 (89%)	5585 (82%)	900 (13%)	301 (4%)	2	3

5 of 301 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	29	GLU
1	B	29	GLU
1	B	48	ILE
2	C	152	PRO
2	C	156	GLY

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	
1	A	202/273 (74%)	148 (73%)	54 (27%)	0	0
1	B	202/273 (74%)	164 (81%)	38 (19%)	1	2
1	K	202/273 (74%)	144 (71%)	58 (29%)	0	0
1	L	202/273 (74%)	159 (79%)	43 (21%)	1	2
2	C	941/941 (100%)	738 (78%)	203 (22%)	1	1
2	M	941/941 (100%)	737 (78%)	204 (22%)	1	1
3	D	1123/1279 (88%)	841 (75%)	282 (25%)	0	1
3	N	1123/1279 (88%)	865 (77%)	258 (23%)	1	1
4	E	83/87 (95%)	67 (81%)	16 (19%)	1	2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	O	83/87 (95%)	61 (74%)	22 (26%)	0	0
5	F	295/370 (80%)	235 (80%)	60 (20%)	1	2
5	P	295/370 (80%)	247 (84%)	48 (16%)	2	4
All	All	5692/6446 (88%)	4406 (77%)	1286 (23%)	1	1

5 of 1286 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	M	934	PHE
3	N	1202	GLN
2	M	1100	GLN
2	M	925	TYR
3	N	594	PRO

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 174 such sidechains are listed below:

Mol	Chain	Res	Type
2	M	663	ASN
3	N	824	ASN
2	M	843	HIS
3	N	549	ASN
3	N	1033	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

Of 568 ligands modelled in this entry, 566 are monoatomic - leaving 2 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
7	RBT	C	8001	6	61,66,66	2.90	22 (36%)	86,101,101	1.87	19 (22%)
7	RBT	M	8002	-	61,66,66	2.86	24 (39%)	86,101,101	1.95	18 (20%)

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
7	RBT	C	8001	6	-	18/59/116/116	0/5/6/6
7	RBT	M	8002	-	-	16/59/116/116	0/5/6/6

The worst 5 of 46 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	C	8001	RBT	C9-C8	8.84	1.58	1.41
7	M	8002	RBT	C9-C8	8.54	1.57	1.41
7	M	8002	RBT	C8-C7	7.03	1.54	1.40
7	C	8001	RBT	C8-C7	6.71	1.54	1.40
7	C	8001	RBT	C5-C6	6.59	1.48	1.39

The worst 5 of 37 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	M	8002	RBT	C42-C40-C38	7.37	122.58	112.64
7	C	8001	RBT	C42-C40-C38	7.35	122.55	112.64
7	M	8002	RBT	C41-C39-C38	7.18	122.32	112.64
7	C	8001	RBT	C41-C39-C38	7.09	122.20	112.64
7	M	8002	RBT	C39-C38-N3	-5.00	106.87	111.42

There are no chirality outliers.

5 of 34 torsion outliers are listed below:

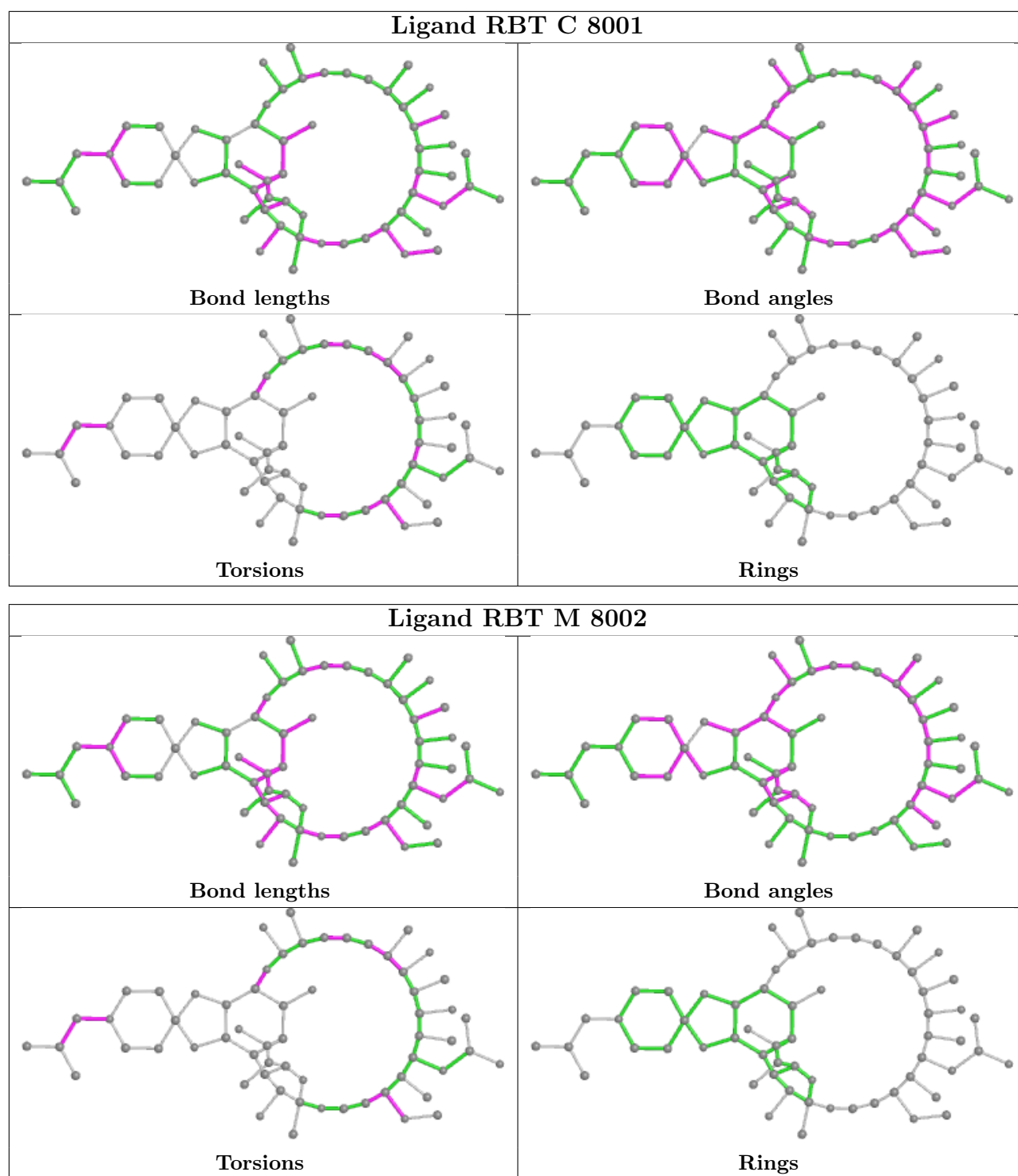
Mol	Chain	Res	Type	Atoms
7	C	8001	RBT	C1-C2-N1-C15
7	C	8001	RBT	C3-C2-N1-C15
7	C	8001	RBT	C16-C17-C18-C19
7	C	8001	RBT	C26-C27-C28-C29
7	C	8001	RBT	C26-C27-O6-C37

There are no ring outliers.

2 monomers are involved in 6 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
7	C	8001	RBT	3	0
7	M	8002	RBT	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

There are no chain breaks in this entry.

6 Fit of model and data [i](#)

6.1 Protein, DNA and RNA chains [i](#)

In the following table, the column labelled ‘#RSRZ > 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q < 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ > 2	OWAB(Å ²)	Q < 0.9
1	A	229/315 (72%)	-0.40	1 (0%) 92 93	29, 60, 84, 110	0
1	B	229/315 (72%)	-0.13	13 (5%) 23 25	44, 89, 114, 118	0
1	K	229/315 (72%)	-0.40	2 (0%) 84 86	33, 58, 89, 120	0
1	L	229/315 (72%)	-0.25	8 (3%) 44 47	49, 89, 109, 119	0
2	C	1119/1119 (100%)	-0.39	10 (0%) 84 86	14, 74, 102, 117	0
2	M	1119/1119 (100%)	-0.39	12 (1%) 80 82	19, 71, 103, 119	0
3	D	1392/1524 (91%)	-0.36	17 (1%) 79 80	19, 62, 107, 125	0
3	N	1392/1524 (91%)	-0.36	24 (1%) 70 72	23, 65, 107, 131	0
4	E	95/99 (95%)	-0.40	2 (2%) 63 66	41, 77, 107, 120	0
4	O	95/99 (95%)	-0.44	1 (1%) 80 82	33, 72, 94, 103	0
5	F	345/423 (81%)	-0.39	7 (2%) 65 68	46, 81, 104, 118	0
5	P	345/423 (81%)	-0.30	8 (2%) 60 63	53, 81, 108, 123	0
All	All	6818/7590 (89%)	-0.36	105 (1%) 73 75	14, 70, 105, 131	0

The worst 5 of 105 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
5	P	145	PRO	5.8
3	N	1243	THR	5.8
2	M	269	LEU	5.2
3	D	1244	GLY	4.8
3	D	1240	THR	4.8

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
6	MG	B	9163	1/1	0.92	0.06	44,44,44,44	0
6	MG	N	9538	1/1	0.92	0.10	42,42,42,42	0
6	MG	L	9258	1/1	0.94	0.10	47,47,47,47	0
6	MG	M	9364	1/1	0.94	0.08	37,37,37,37	0
6	MG	F	9410	1/1	0.94	0.12	47,47,47,47	0
6	MG	C	9068	1/1	0.95	0.12	37,37,37,37	0
6	MG	C	9398	1/1	0.95	0.10	44,44,44,44	0
6	MG	N	9235	1/1	0.95	0.12	63,63,63,63	0
6	MG	N	9250	1/1	0.95	0.16	61,61,61,61	0
6	MG	N	9354	1/1	0.95	0.07	42,42,42,42	0
6	MG	B	9199	1/1	0.95	0.10	52,52,52,52	0
8	ZN	D	7058	1/1	0.95	0.07	100,100,100,100	0
6	MG	D	9147	1/1	0.96	0.09	40,40,40,40	0
6	MG	D	9155	1/1	0.96	0.12	56,56,56,56	0
6	MG	D	9520	1/1	0.96	0.14	46,46,46,46	0
6	MG	F	9048	1/1	0.96	0.16	50,50,50,50	0
6	MG	A	9413	1/1	0.96	0.10	46,46,46,46	0
6	MG	K	9257	1/1	0.96	0.12	57,57,57,57	0
6	MG	A	9514	1/1	0.96	0.12	42,42,42,42	0
6	MG	M	9220	1/1	0.96	0.13	45,45,45,45	0
6	MG	M	9255	1/1	0.96	0.13	58,58,58,58	0
6	MG	M	9261	1/1	0.96	0.10	45,45,45,45	0
6	MG	M	9267	1/1	0.96	0.12	41,41,41,41	0
6	MG	C	9177	1/1	0.96	0.09	40,40,40,40	0
6	MG	M	9383	1/1	0.96	0.09	46,46,46,46	0
6	MG	C	9190	1/1	0.96	0.07	40,40,40,40	0
6	MG	A	9062	1/1	0.96	0.11	45,45,45,45	0
6	MG	N	9253	1/1	0.96	0.08	39,39,39,39	0
6	MG	N	9349	1/1	0.96	0.06	37,37,37,37	0
6	MG	C	9399	1/1	0.96	0.10	43,43,43,43	0
6	MG	N	9474	1/1	0.96	0.13	56,56,56,56	0
6	MG	N	9503	1/1	0.96	0.12	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
6	MG	D	9084	1/1	0.96	0.10	47,47,47,47	0
6	MG	O	9359	1/1	0.96	0.08	57,57,57,57	0
6	MG	P	9322	1/1	0.96	0.12	43,43,43,43	0
7	RBT	M	8002	61/61	0.96	0.18	28,39,48,54	0
6	MG	D	9111	1/1	0.96	0.09	43,43,43,43	0
6	MG	D	9543	1/1	0.97	0.12	46,46,46,46	0
6	MG	D	9548	1/1	0.97	0.12	51,51,51,51	0
6	MG	E	9184	1/1	0.97	0.16	48,48,48,48	0
6	MG	E	9467	1/1	0.97	0.12	52,52,52,52	0
6	MG	F	9010	1/1	0.97	0.17	57,57,57,57	0
6	MG	A	9107	1/1	0.97	0.07	40,40,40,40	0
6	MG	A	9559	1/1	0.97	0.12	45,45,45,45	0
6	MG	F	9461	1/1	0.97	0.12	52,52,52,52	0
6	MG	C	9192	1/1	0.97	0.10	55,55,55,55	0
6	MG	K	9351	1/1	0.97	0.09	37,37,37,37	0
6	MG	K	9363	1/1	0.97	0.09	47,47,47,47	0
6	MG	L	9249	1/1	0.97	0.07	51,51,51,51	0
6	MG	A	9145	1/1	0.97	0.11	45,45,45,45	0
6	MG	L	9346	1/1	0.97	0.14	52,52,52,52	0
6	MG	L	9483	1/1	0.97	0.15	44,44,44,44	0
6	MG	A	9050	1/1	0.97	0.10	41,41,41,41	0
6	MG	C	9414	1/1	0.97	0.07	41,41,41,41	0
6	MG	M	9259	1/1	0.97	0.17	57,57,57,57	0
6	MG	C	9455	1/1	0.97	0.12	61,61,61,61	0
6	MG	D	9026	1/1	0.97	0.12	37,37,37,37	0
6	MG	M	9312	1/1	0.97	0.10	37,37,37,37	0
6	MG	M	9325	1/1	0.97	0.10	44,44,44,44	0
6	MG	M	9332	1/1	0.97	0.13	54,54,54,54	0
6	MG	M	9334	1/1	0.97	0.09	44,44,44,44	0
6	MG	M	9348	1/1	0.97	0.11	63,63,63,63	0
6	MG	D	9042	1/1	0.97	0.12	47,47,47,47	0
6	MG	D	9066	1/1	0.97	0.11	49,49,49,49	0
6	MG	M	9473	1/1	0.97	0.11	42,42,42,42	0
6	MG	N	9208	1/1	0.97	0.12	35,35,35,35	0
6	MG	N	9230	1/1	0.97	0.09	40,40,40,40	0
6	MG	D	9067	1/1	0.97	0.12	49,49,49,49	0
6	MG	N	9244	1/1	0.97	0.08	37,37,37,37	0
6	MG	N	9246	1/1	0.97	0.13	49,49,49,49	0
6	MG	N	9247	1/1	0.97	0.08	29,29,29,29	0
6	MG	C	9023	1/1	0.97	0.09	44,44,44,44	0
6	MG	D	9095	1/1	0.97	0.06	40,40,40,40	0
6	MG	N	9327	1/1	0.97	0.11	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
6	MG	D	9096	1/1	0.97	0.14	43,43,43,43	0
6	MG	C	9047	1/1	0.97	0.06	47,47,47,47	0
6	MG	N	9358	1/1	0.97	0.12	48,48,48,48	0
6	MG	N	9381	1/1	0.97	0.07	35,35,35,35	0
6	MG	A	9430	1/1	0.97	0.11	35,35,35,35	0
6	MG	N	9486	1/1	0.97	0.09	44,44,44,44	0
6	MG	D	9152	1/1	0.97	0.11	32,32,32,32	0
6	MG	N	9508	1/1	0.97	0.11	41,41,41,41	0
6	MG	C	9081	1/1	0.97	0.13	52,52,52,52	0
6	MG	N	9539	1/1	0.97	0.10	57,57,57,57	0
6	MG	N	9551	1/1	0.97	0.08	40,40,40,40	0
6	MG	N	9554	1/1	0.97	0.11	45,45,45,45	0
6	MG	N	9555	1/1	0.97	0.11	56,56,56,56	0
6	MG	O	9209	1/1	0.97	0.11	37,37,37,37	0
6	MG	D	9423	1/1	0.97	0.09	44,44,44,44	0
6	MG	P	9284	1/1	0.97	0.10	51,51,51,51	0
6	MG	P	9304	1/1	0.97	0.10	57,57,57,57	0
6	MG	D	9518	1/1	0.97	0.11	55,55,55,55	0
7	RBT	C	8001	61/61	0.97	0.19	25,37,42,48	0
6	MG	C	9156	1/1	0.97	0.12	43,43,43,43	0
6	MG	D	9523	1/1	0.97	0.11	41,41,41,41	0
6	MG	D	9445	1/1	0.98	0.13	48,48,48,48	0
6	MG	D	9447	1/1	0.98	0.10	50,50,50,50	0
6	MG	D	9449	1/1	0.98	0.07	29,29,29,29	0
6	MG	D	9451	1/1	0.98	0.09	37,37,37,37	0
6	MG	D	9466	1/1	0.98	0.10	57,57,57,57	0
6	MG	D	9516	1/1	0.98	0.05	51,51,51,51	0
6	MG	C	9083	1/1	0.98	0.11	48,48,48,48	0
6	MG	C	9124	1/1	0.98	0.08	33,33,33,33	0
6	MG	C	9141	1/1	0.98	0.12	45,45,45,45	0
6	MG	A	9109	1/1	0.98	0.09	33,33,33,33	0
6	MG	C	9157	1/1	0.98	0.16	44,44,44,44	0
6	MG	E	9131	1/1	0.98	0.08	47,47,47,47	0
6	MG	E	9151	1/1	0.98	0.05	48,48,48,48	0
6	MG	B	9079	1/1	0.98	0.11	28,28,28,28	0
6	MG	C	9183	1/1	0.98	0.16	44,44,44,44	0
6	MG	B	9092	1/1	0.98	0.11	50,50,50,50	0
6	MG	C	9191	1/1	0.98	0.13	44,44,44,44	0
6	MG	F	9153	1/1	0.98	0.07	39,39,39,39	0
6	MG	F	9167	1/1	0.98	0.12	59,59,59,59	0
6	MG	F	9206	1/1	0.98	0.12	33,33,33,33	0
6	MG	B	9101	1/1	0.98	0.08	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
6	MG	F	9429	1/1	0.98	0.12	57,57,57,57	0
6	MG	F	9437	1/1	0.98	0.09	47,47,47,47	0
6	MG	F	9448	1/1	0.98	0.10	38,38,38,38	0
6	MG	C	9396	1/1	0.98	0.14	57,57,57,57	0
6	MG	K	9214	1/1	0.98	0.20	31,31,31,31	0
6	MG	K	9217	1/1	0.98	0.06	36,36,36,36	0
6	MG	B	9148	1/1	0.98	0.15	54,54,54,54	0
6	MG	K	9344	1/1	0.98	0.12	55,55,55,55	0
6	MG	B	9150	1/1	0.98	0.10	43,43,43,43	0
6	MG	C	9406	1/1	0.98	0.10	47,47,47,47	0
6	MG	K	9367	1/1	0.98	0.09	38,38,38,38	0
6	MG	K	9484	1/1	0.98	0.11	30,30,30,30	0
6	MG	K	9553	1/1	0.98	0.09	50,50,50,50	0
6	MG	L	9213	1/1	0.98	0.23	49,49,49,49	0
6	MG	A	9078	1/1	0.98	0.13	34,34,34,34	0
6	MG	A	9165	1/1	0.98	0.11	65,65,65,65	0
6	MG	L	9311	1/1	0.98	0.07	33,33,33,33	0
6	MG	C	9457	1/1	0.98	0.10	40,40,40,40	0
6	MG	L	9378	1/1	0.98	0.14	47,47,47,47	0
6	MG	C	9458	1/1	0.98	0.09	38,38,38,38	0
6	MG	L	9505	1/1	0.98	0.10	58,58,58,58	0
6	MG	L	9532	1/1	0.98	0.08	51,51,51,51	0
6	MG	L	9556	1/1	0.98	0.09	58,58,58,58	0
6	MG	M	9211	1/1	0.98	0.10	28,28,28,28	0
6	MG	M	9219	1/1	0.98	0.10	39,39,39,39	0
6	MG	C	9515	1/1	0.98	0.08	41,41,41,41	0
6	MG	M	9227	1/1	0.98	0.10	44,44,44,44	0
6	MG	M	9229	1/1	0.98	0.09	35,35,35,35	0
6	MG	M	9233	1/1	0.98	0.15	38,38,38,38	0
6	MG	M	9243	1/1	0.98	0.11	45,45,45,45	0
6	MG	C	9546	1/1	0.98	0.06	49,49,49,49	0
6	MG	C	9549	1/1	0.98	0.11	48,48,48,48	0
6	MG	D	9002	1/1	0.98	0.16	29,29,29,29	0
6	MG	D	9003	1/1	0.98	0.06	43,43,43,43	0
6	MG	M	9276	1/1	0.98	0.14	54,54,54,54	0
6	MG	M	9283	1/1	0.98	0.14	35,35,35,35	0
6	MG	M	9285	1/1	0.98	0.13	43,43,43,43	0
6	MG	M	9290	1/1	0.98	0.12	48,48,48,48	0
6	MG	M	9293	1/1	0.98	0.11	43,43,43,43	0
6	MG	M	9298	1/1	0.98	0.12	43,43,43,43	0
6	MG	M	9309	1/1	0.98	0.15	35,35,35,35	0
6	MG	D	9009	1/1	0.98	0.12	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
6	MG	D	9012	1/1	0.98	0.06	39,39,39,39	0
6	MG	D	9015	1/1	0.98	0.12	37,37,37,37	0
6	MG	D	9019	1/1	0.98	0.15	35,35,35,35	0
6	MG	M	9347	1/1	0.98	0.11	37,37,37,37	0
6	MG	B	9389	1/1	0.98	0.10	37,37,37,37	0
6	MG	M	9350	1/1	0.98	0.09	37,37,37,37	0
6	MG	D	9034	1/1	0.98	0.16	37,37,37,37	0
6	MG	M	9377	1/1	0.98	0.12	39,39,39,39	0
6	MG	D	9036	1/1	0.98	0.13	41,41,41,41	0
6	MG	D	9039	1/1	0.98	0.11	40,40,40,40	0
6	MG	M	9478	1/1	0.98	0.06	35,35,35,35	0
6	MG	M	9485	1/1	0.98	0.06	42,42,42,42	0
6	MG	M	9488	1/1	0.98	0.12	42,42,42,42	0
6	MG	M	9540	1/1	0.98	0.16	63,63,63,63	0
6	MG	M	9557	1/1	0.98	0.09	54,54,54,54	0
6	MG	N	9207	1/1	0.98	0.10	30,30,30,30	0
6	MG	D	9041	1/1	0.98	0.10	32,32,32,32	0
6	MG	N	9228	1/1	0.98	0.08	49,49,49,49	0
6	MG	B	9395	1/1	0.98	0.11	56,56,56,56	0
6	MG	N	9232	1/1	0.98	0.10	33,33,33,33	0
6	MG	D	9055	1/1	0.98	0.09	51,51,51,51	0
6	MG	N	9242	1/1	0.98	0.12	36,36,36,36	0
6	MG	D	9057	1/1	0.98	0.11	33,33,33,33	0
6	MG	N	9245	1/1	0.98	0.12	28,28,28,28	0
6	MG	D	9059	1/1	0.98	0.10	40,40,40,40	0
6	MG	B	9419	1/1	0.98	0.11	46,46,46,46	0
6	MG	B	9427	1/1	0.98	0.11	42,42,42,42	0
6	MG	C	9007	1/1	0.98	0.11	34,34,34,34	0
6	MG	N	9262	1/1	0.98	0.14	49,49,49,49	0
6	MG	N	9266	1/1	0.98	0.08	36,36,36,36	0
6	MG	N	9281	1/1	0.98	0.09	50,50,50,50	0
6	MG	N	9288	1/1	0.98	0.10	33,33,33,33	0
6	MG	N	9292	1/1	0.98	0.16	52,52,52,52	0
6	MG	N	9295	1/1	0.98	0.05	48,48,48,48	0
6	MG	N	9297	1/1	0.98	0.13	48,48,48,48	0
6	MG	N	9301	1/1	0.98	0.08	50,50,50,50	0
6	MG	N	9310	1/1	0.98	0.08	36,36,36,36	0
6	MG	N	9313	1/1	0.98	0.09	39,39,39,39	0
6	MG	N	9314	1/1	0.98	0.11	38,38,38,38	0
6	MG	N	9315	1/1	0.98	0.11	41,41,41,41	0
6	MG	N	9319	1/1	0.98	0.11	41,41,41,41	0
6	MG	C	9014	1/1	0.98	0.14	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
6	MG	N	9338	1/1	0.98	0.12	42,42,42,42	0
6	MG	N	9341	1/1	0.98	0.13	38,38,38,38	0
6	MG	N	9342	1/1	0.98	0.07	48,48,48,48	0
6	MG	A	9097	1/1	0.98	0.09	41,41,41,41	0
6	MG	D	9099	1/1	0.98	0.07	38,38,38,38	0
6	MG	D	9104	1/1	0.98	0.09	35,35,35,35	0
6	MG	N	9365	1/1	0.98	0.12	43,43,43,43	0
6	MG	D	9108	1/1	0.98	0.11	51,51,51,51	0
6	MG	D	9110	1/1	0.98	0.13	38,38,38,38	0
6	MG	A	9102	1/1	0.98	0.09	38,38,38,38	0
6	MG	N	9490	1/1	0.98	0.12	41,41,41,41	0
6	MG	N	9498	1/1	0.98	0.09	45,45,45,45	0
6	MG	N	9499	1/1	0.98	0.08	38,38,38,38	0
6	MG	D	9112	1/1	0.98	0.13	39,39,39,39	0
6	MG	N	9504	1/1	0.98	0.10	32,32,32,32	0
6	MG	N	9506	1/1	0.98	0.10	56,56,56,56	0
6	MG	D	9123	1/1	0.98	0.14	37,37,37,37	0
6	MG	N	9526	1/1	0.98	0.10	30,30,30,30	0
6	MG	N	9529	1/1	0.98	0.08	55,55,55,55	0
6	MG	N	9534	1/1	0.98	0.09	54,54,54,54	0
6	MG	D	9140	1/1	0.98	0.13	43,43,43,43	0
6	MG	C	9063	1/1	0.98	0.10	32,32,32,32	0
6	MG	A	9001	1/1	0.98	0.18	26,26,26,26	0
6	MG	C	9076	1/1	0.98	0.11	37,37,37,37	0
6	MG	D	9168	1/1	0.98	0.06	38,38,38,38	0
6	MG	D	9172	1/1	0.98	0.10	35,35,35,35	0
6	MG	D	9202	1/1	0.98	0.18	61,61,61,61	0
6	MG	O	9362	1/1	0.98	0.04	49,49,49,49	0
6	MG	D	9397	1/1	0.98	0.12	31,31,31,31	0
6	MG	D	9401	1/1	0.98	0.12	40,40,40,40	0
6	MG	P	9317	1/1	0.98	0.18	53,53,53,53	0
6	MG	A	9522	1/1	0.98	0.11	57,57,57,57	0
6	MG	P	9541	1/1	0.98	0.10	44,44,44,44	0
6	MG	P	9558	1/1	0.98	0.09	44,44,44,44	0
6	MG	D	9424	1/1	0.98	0.14	50,50,50,50	0
6	MG	D	9432	1/1	0.98	0.10	47,47,47,47	0
6	MG	D	9441	1/1	0.98	0.10	46,46,46,46	0
6	MG	D	9460	1/1	0.99	0.14	38,38,38,38	0
6	MG	D	9463	1/1	0.99	0.11	32,32,32,32	0
6	MG	D	9464	1/1	0.99	0.12	38,38,38,38	0
6	MG	C	9204	1/1	0.99	0.12	41,41,41,41	0
6	MG	C	9205	1/1	0.99	0.12	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
6	MG	D	9517	1/1	0.99	0.09	45,45,45,45	0
6	MG	B	9391	1/1	0.99	0.12	27,27,27,27	0
6	MG	D	9519	1/1	0.99	0.12	55,55,55,55	0
6	MG	A	9116	1/1	0.99	0.12	47,47,47,47	0
6	MG	A	9117	1/1	0.99	0.07	32,32,32,32	0
6	MG	C	9400	1/1	0.99	0.12	49,49,49,49	0
6	MG	D	9544	1/1	0.99	0.11	49,49,49,49	0
6	MG	A	9440	1/1	0.99	0.10	53,53,53,53	0
6	MG	D	9561	1/1	0.99	0.06	38,38,38,38	0
6	MG	D	9562	1/1	0.99	0.17	49,49,49,49	0
6	MG	E	9115	1/1	0.99	0.08	39,39,39,39	0
6	MG	C	9408	1/1	0.99	0.12	38,38,38,38	0
6	MG	C	9409	1/1	0.99	0.12	49,49,49,49	0
6	MG	B	9434	1/1	0.99	0.11	35,35,35,35	0
6	MG	E	9186	1/1	0.99	0.10	35,35,35,35	0
6	MG	E	9187	1/1	0.99	0.12	39,39,39,39	0
6	MG	E	9402	1/1	0.99	0.12	39,39,39,39	0
6	MG	E	9438	1/1	0.99	0.10	38,38,38,38	0
6	MG	C	9415	1/1	0.99	0.11	38,38,38,38	0
6	MG	C	9420	1/1	0.99	0.07	37,37,37,37	0
6	MG	F	9032	1/1	0.99	0.09	32,32,32,32	0
6	MG	F	9035	1/1	0.99	0.10	40,40,40,40	0
6	MG	F	9045	1/1	0.99	0.10	40,40,40,40	0
6	MG	C	9422	1/1	0.99	0.13	41,41,41,41	0
6	MG	F	9053	1/1	0.99	0.10	34,34,34,34	0
6	MG	F	9054	1/1	0.99	0.07	37,37,37,37	0
6	MG	F	9072	1/1	0.99	0.07	40,40,40,40	0
6	MG	F	9080	1/1	0.99	0.12	30,30,30,30	0
6	MG	F	9089	1/1	0.99	0.10	48,48,48,48	0
6	MG	F	9133	1/1	0.99	0.10	42,42,42,42	0
6	MG	F	9135	1/1	0.99	0.14	42,42,42,42	0
6	MG	C	9426	1/1	0.99	0.06	47,47,47,47	0
6	MG	F	9164	1/1	0.99	0.11	29,29,29,29	0
6	MG	C	9428	1/1	0.99	0.12	42,42,42,42	0
6	MG	F	9197	1/1	0.99	0.10	39,39,39,39	0
6	MG	C	9431	1/1	0.99	0.06	42,42,42,42	0
6	MG	F	9407	1/1	0.99	0.07	32,32,32,32	0
6	MG	C	9439	1/1	0.99	0.10	35,35,35,35	0
6	MG	C	9444	1/1	0.99	0.09	40,40,40,40	0
6	MG	F	9435	1/1	0.99	0.08	40,40,40,40	0
6	MG	B	9442	1/1	0.99	0.12	47,47,47,47	0
6	MG	C	9456	1/1	0.99	0.07	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
6	MG	B	9450	1/1	0.99	0.08	46,46,46,46	0
6	MG	F	9465	1/1	0.99	0.06	36,36,36,36	0
6	MG	F	9513	1/1	0.99	0.14	43,43,43,43	0
6	MG	F	9525	1/1	0.99	0.08	54,54,54,54	0
6	MG	F	9542	1/1	0.99	0.19	50,50,50,50	0
6	MG	B	9512	1/1	0.99	0.20	53,53,53,53	0
6	MG	C	9462	1/1	0.99	0.12	50,50,50,50	0
6	MG	C	9004	1/1	0.99	0.09	30,30,30,30	0
6	MG	K	9265	1/1	0.99	0.13	37,37,37,37	0
6	MG	K	9279	1/1	0.99	0.11	36,36,36,36	0
6	MG	C	9521	1/1	0.99	0.12	45,45,45,45	0
6	MG	C	9524	1/1	0.99	0.08	45,45,45,45	0
6	MG	C	9545	1/1	0.99	0.10	45,45,45,45	0
6	MG	C	9005	1/1	0.99	0.08	31,31,31,31	0
6	MG	K	9370	1/1	0.99	0.06	46,46,46,46	0
6	MG	A	9126	1/1	0.99	0.10	39,39,39,39	0
6	MG	K	9487	1/1	0.99	0.12	36,36,36,36	0
6	MG	K	9492	1/1	0.99	0.10	40,40,40,40	0
6	MG	K	9493	1/1	0.99	0.09	38,38,38,38	0
6	MG	K	9495	1/1	0.99	0.10	35,35,35,35	0
6	MG	K	9496	1/1	0.99	0.09	42,42,42,42	0
6	MG	K	9507	1/1	0.99	0.14	45,45,45,45	0
6	MG	C	9011	1/1	0.99	0.10	39,39,39,39	0
6	MG	A	9139	1/1	0.99	0.10	35,35,35,35	0
6	MG	L	9234	1/1	0.99	0.07	41,41,41,41	0
6	MG	L	9236	1/1	0.99	0.08	41,41,41,41	0
6	MG	D	9008	1/1	0.99	0.13	37,37,37,37	0
6	MG	C	9020	1/1	0.99	0.14	28,28,28,28	0
6	MG	L	9260	1/1	0.99	0.09	41,41,41,41	0
6	MG	L	9271	1/1	0.99	0.09	39,39,39,39	0
6	MG	L	9272	1/1	0.99	0.10	29,29,29,29	0
6	MG	L	9300	1/1	0.99	0.07	58,58,58,58	0
6	MG	C	9022	1/1	0.99	0.12	28,28,28,28	0
6	MG	L	9330	1/1	0.99	0.09	41,41,41,41	0
6	MG	L	9345	1/1	0.99	0.12	42,42,42,42	0
6	MG	A	9024	1/1	0.99	0.10	29,29,29,29	0
6	MG	L	9374	1/1	0.99	0.09	47,47,47,47	0
6	MG	D	9016	1/1	0.99	0.07	38,38,38,38	0
6	MG	L	9471	1/1	0.99	0.10	33,33,33,33	0
6	MG	L	9479	1/1	0.99	0.10	48,48,48,48	0
6	MG	L	9480	1/1	0.99	0.13	36,36,36,36	0
6	MG	D	9017	1/1	0.99	0.07	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
6	MG	C	9025	1/1	0.99	0.10	39,39,39,39	0
6	MG	L	9530	1/1	0.99	0.10	58,58,58,58	0
6	MG	D	9021	1/1	0.99	0.12	34,34,34,34	0
6	MG	C	9028	1/1	0.99	0.07	41,41,41,41	0
6	MG	M	9210	1/1	0.99	0.13	35,35,35,35	0
6	MG	C	9029	1/1	0.99	0.12	36,36,36,36	0
6	MG	M	9216	1/1	0.99	0.12	44,44,44,44	0
6	MG	C	9031	1/1	0.99	0.12	43,43,43,43	0
6	MG	D	9038	1/1	0.99	0.11	35,35,35,35	0
6	MG	M	9222	1/1	0.99	0.09	33,33,33,33	0
6	MG	M	9223	1/1	0.99	0.10	48,48,48,48	0
6	MG	M	9224	1/1	0.99	0.06	38,38,38,38	0
6	MG	C	9044	1/1	0.99	0.08	37,37,37,37	0
6	MG	C	9046	1/1	0.99	0.09	31,31,31,31	0
6	MG	A	9560	1/1	0.99	0.13	49,49,49,49	0
6	MG	D	9049	1/1	0.99	0.14	31,31,31,31	0
6	MG	M	9251	1/1	0.99	0.13	33,33,33,33	0
6	MG	M	9252	1/1	0.99	0.12	37,37,37,37	0
6	MG	M	9254	1/1	0.99	0.08	34,34,34,34	0
6	MG	D	9051	1/1	0.99	0.07	36,36,36,36	0
6	MG	D	9052	1/1	0.99	0.09	36,36,36,36	0
6	MG	C	9056	1/1	0.99	0.06	34,34,34,34	0
6	MG	B	9033	1/1	0.99	0.10	44,44,44,44	0
6	MG	M	9268	1/1	0.99	0.11	37,37,37,37	0
6	MG	D	9058	1/1	0.99	0.11	41,41,41,41	0
6	MG	B	9040	1/1	0.99	0.16	29,29,29,29	0
6	MG	D	9060	1/1	0.99	0.11	35,35,35,35	0
6	MG	M	9287	1/1	0.99	0.08	36,36,36,36	0
6	MG	D	9061	1/1	0.99	0.11	35,35,35,35	0
6	MG	D	9064	1/1	0.99	0.11	41,41,41,41	0
6	MG	D	9065	1/1	0.99	0.14	44,44,44,44	0
6	MG	C	9071	1/1	0.99	0.13	39,39,39,39	0
6	MG	C	9074	1/1	0.99	0.13	30,30,30,30	0
6	MG	M	9318	1/1	0.99	0.14	51,51,51,51	0
6	MG	M	9321	1/1	0.99	0.13	40,40,40,40	0
6	MG	M	9323	1/1	0.99	0.10	37,37,37,37	0
6	MG	D	9070	1/1	0.99	0.10	46,46,46,46	0
6	MG	M	9328	1/1	0.99	0.09	48,48,48,48	0
6	MG	D	9073	1/1	0.99	0.15	38,38,38,38	0
6	MG	D	9075	1/1	0.99	0.11	39,39,39,39	0
6	MG	M	9336	1/1	0.99	0.10	31,31,31,31	0
6	MG	M	9340	1/1	0.99	0.10	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
6	MG	D	9077	1/1	0.99	0.10	32,32,32,32	0
6	MG	D	9082	1/1	0.99	0.11	30,30,30,30	0
6	MG	A	9018	1/1	0.99	0.14	31,31,31,31	0
6	MG	M	9361	1/1	0.99	0.10	51,51,51,51	0
6	MG	D	9085	1/1	0.99	0.10	32,32,32,32	0
6	MG	M	9366	1/1	0.99	0.10	41,41,41,41	0
6	MG	M	9369	1/1	0.99	0.09	35,35,35,35	0
6	MG	M	9372	1/1	0.99	0.09	47,47,47,47	0
6	MG	M	9373	1/1	0.99	0.12	38,38,38,38	0
6	MG	D	9090	1/1	0.99	0.11	48,48,48,48	0
6	MG	M	9382	1/1	0.99	0.09	33,33,33,33	0
6	MG	D	9091	1/1	0.99	0.14	47,47,47,47	0
6	MG	M	9384	1/1	0.99	0.10	35,35,35,35	0
6	MG	M	9385	1/1	0.99	0.10	29,29,29,29	0
6	MG	M	9472	1/1	0.99	0.06	51,51,51,51	0
6	MG	D	9093	1/1	0.99	0.11	34,34,34,34	0
6	MG	D	9094	1/1	0.99	0.10	35,35,35,35	0
6	MG	M	9481	1/1	0.99	0.09	37,37,37,37	0
6	MG	A	9173	1/1	0.99	0.10	41,41,41,41	0
6	MG	A	9178	1/1	0.99	0.09	28,28,28,28	0
6	MG	M	9489	1/1	0.99	0.09	43,43,43,43	0
6	MG	M	9497	1/1	0.99	0.12	43,43,43,43	0
6	MG	M	9500	1/1	0.99	0.09	46,46,46,46	0
6	MG	M	9535	1/1	0.99	0.12	40,40,40,40	0
6	MG	M	9537	1/1	0.99	0.13	38,38,38,38	0
6	MG	C	9086	1/1	0.99	0.10	34,34,34,34	0
6	MG	D	9100	1/1	0.99	0.07	31,31,31,31	0
6	MG	C	9088	1/1	0.99	0.12	36,36,36,36	0
6	MG	D	9105	1/1	0.99	0.07	48,48,48,48	0
6	MG	N	9215	1/1	0.99	0.10	40,40,40,40	0
6	MG	N	9218	1/1	0.99	0.12	32,32,32,32	0
6	MG	N	9221	1/1	0.99	0.10	30,30,30,30	0
6	MG	N	9225	1/1	0.99	0.08	40,40,40,40	0
6	MG	N	9226	1/1	0.99	0.07	30,30,30,30	0
6	MG	C	9098	1/1	0.99	0.09	52,52,52,52	0
6	MG	C	9113	1/1	0.99	0.16	47,47,47,47	0
6	MG	C	9121	1/1	0.99	0.15	43,43,43,43	0
6	MG	B	9103	1/1	0.99	0.09	37,37,37,37	0
6	MG	N	9237	1/1	0.99	0.14	40,40,40,40	0
6	MG	N	9238	1/1	0.99	0.16	29,29,29,29	0
6	MG	D	9114	1/1	0.99	0.10	32,32,32,32	0
6	MG	D	9118	1/1	0.99	0.12	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
6	MG	D	9119	1/1	0.99	0.09	44,44,44,44	0
6	MG	D	9120	1/1	0.99	0.07	34,34,34,34	0
6	MG	D	9122	1/1	0.99	0.10	31,31,31,31	0
6	MG	N	9248	1/1	0.99	0.06	47,47,47,47	0
6	MG	C	9130	1/1	0.99	0.14	42,42,42,42	0
6	MG	D	9125	1/1	0.99	0.10	35,35,35,35	0
6	MG	N	9256	1/1	0.99	0.09	41,41,41,41	0
6	MG	D	9128	1/1	0.99	0.11	35,35,35,35	0
6	MG	N	9263	1/1	0.99	0.08	37,37,37,37	0
6	MG	D	9129	1/1	0.99	0.09	38,38,38,38	0
6	MG	N	9270	1/1	0.99	0.13	47,47,47,47	0
6	MG	N	9273	1/1	0.99	0.17	30,30,30,30	0
6	MG	N	9277	1/1	0.99	0.09	37,37,37,37	0
6	MG	N	9280	1/1	0.99	0.09	34,34,34,34	0
6	MG	D	9132	1/1	0.99	0.10	33,33,33,33	0
6	MG	N	9282	1/1	0.99	0.06	38,38,38,38	0
6	MG	N	9286	1/1	0.99	0.12	46,46,46,46	0
6	MG	D	9134	1/1	0.99	0.10	40,40,40,40	0
6	MG	N	9289	1/1	0.99	0.09	35,35,35,35	0
6	MG	N	9291	1/1	0.99	0.15	55,55,55,55	0
6	MG	D	9136	1/1	0.99	0.10	41,41,41,41	0
6	MG	N	9294	1/1	0.99	0.07	49,49,49,49	0
6	MG	D	9138	1/1	0.99	0.12	38,38,38,38	0
6	MG	B	9137	1/1	0.99	0.09	35,35,35,35	0
6	MG	D	9142	1/1	0.99	0.11	40,40,40,40	0
6	MG	N	9303	1/1	0.99	0.12	35,35,35,35	0
6	MG	N	9305	1/1	0.99	0.09	42,42,42,42	0
6	MG	N	9306	1/1	0.99	0.13	30,30,30,30	0
6	MG	N	9307	1/1	0.99	0.09	38,38,38,38	0
6	MG	C	9144	1/1	0.99	0.09	39,39,39,39	0
6	MG	B	9146	1/1	0.99	0.09	44,44,44,44	0
6	MG	D	9154	1/1	0.99	0.12	31,31,31,31	0
6	MG	A	9194	1/1	0.99	0.09	40,40,40,40	0
6	MG	N	9316	1/1	0.99	0.09	32,32,32,32	0
6	MG	D	9158	1/1	0.99	0.08	31,31,31,31	0
6	MG	N	9320	1/1	0.99	0.11	41,41,41,41	0
6	MG	N	9324	1/1	0.99	0.08	39,39,39,39	0
6	MG	D	9159	1/1	0.99	0.11	35,35,35,35	0
6	MG	N	9335	1/1	0.99	0.10	33,33,33,33	0
6	MG	D	9162	1/1	0.99	0.11	44,44,44,44	0
6	MG	N	9339	1/1	0.99	0.11	34,34,34,34	0
6	MG	D	9166	1/1	0.99	0.08	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
6	MG	C	9161	1/1	0.99	0.07	40,40,40,40	0
6	MG	N	9343	1/1	0.99	0.09	45,45,45,45	0
6	MG	D	9169	1/1	0.99	0.12	45,45,45,45	0
6	MG	N	9352	1/1	0.99	0.05	44,44,44,44	0
6	MG	C	9170	1/1	0.99	0.10	36,36,36,36	0
6	MG	N	9356	1/1	0.99	0.14	29,29,29,29	0
6	MG	N	9357	1/1	0.99	0.09	41,41,41,41	0
6	MG	D	9174	1/1	0.99	0.10	35,35,35,35	0
6	MG	D	9175	1/1	0.99	0.09	40,40,40,40	0
6	MG	N	9368	1/1	0.99	0.09	41,41,41,41	0
6	MG	N	9371	1/1	0.99	0.10	30,30,30,30	0
6	MG	N	9375	1/1	0.99	0.10	43,43,43,43	0
6	MG	N	9376	1/1	0.99	0.13	31,31,31,31	0
6	MG	N	9379	1/1	0.99	0.06	56,56,56,56	0
6	MG	D	9181	1/1	0.99	0.06	36,36,36,36	0
6	MG	N	9386	1/1	0.99	0.08	46,46,46,46	0
6	MG	N	9387	1/1	0.99	0.07	28,28,28,28	0
6	MG	D	9188	1/1	0.99	0.09	37,37,37,37	0
6	MG	N	9475	1/1	0.99	0.07	43,43,43,43	0
6	MG	N	9476	1/1	0.99	0.06	44,44,44,44	0
6	MG	N	9482	1/1	0.99	0.14	52,52,52,52	0
6	MG	D	9189	1/1	0.99	0.10	34,34,34,34	0
6	MG	C	9171	1/1	0.99	0.09	33,33,33,33	0
6	MG	D	9203	1/1	0.99	0.09	46,46,46,46	0
6	MG	D	9392	1/1	0.99	0.09	46,46,46,46	0
6	MG	N	9501	1/1	0.99	0.08	47,47,47,47	0
6	MG	D	9393	1/1	0.99	0.13	35,35,35,35	0
6	MG	A	9200	1/1	0.99	0.10	49,49,49,49	0
6	MG	A	9394	1/1	0.99	0.10	46,46,46,46	0
6	MG	D	9403	1/1	0.99	0.16	30,30,30,30	0
6	MG	N	9509	1/1	0.99	0.11	31,31,31,31	0
6	MG	D	9405	1/1	0.99	0.10	38,38,38,38	0
6	MG	N	9528	1/1	0.99	0.10	40,40,40,40	0
6	MG	D	9416	1/1	0.99	0.09	48,48,48,48	0
6	MG	N	9533	1/1	0.99	0.12	33,33,33,33	0
6	MG	D	9417	1/1	0.99	0.11	35,35,35,35	0
6	MG	D	9418	1/1	0.99	0.08	47,47,47,47	0
6	MG	C	9185	1/1	0.99	0.18	60,60,60,60	0
6	MG	N	9550	1/1	0.99	0.09	34,34,34,34	0
6	MG	B	9180	1/1	0.99	0.09	36,36,36,36	0
6	MG	N	9552	1/1	0.99	0.11	46,46,46,46	0
6	MG	D	9425	1/1	0.99	0.09	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
6	MG	A	9411	1/1	0.99	0.10	31,31,31,31	0
6	MG	D	9433	1/1	0.99	0.12	46,46,46,46	0
6	MG	O	9355	1/1	0.99	0.14	36,36,36,36	0
6	MG	D	9436	1/1	0.99	0.09	46,46,46,46	0
6	MG	A	9412	1/1	0.99	0.12	33,33,33,33	0
6	MG	P	9240	1/1	0.99	0.11	38,38,38,38	0
6	MG	P	9269	1/1	0.99	0.09	41,41,41,41	0
6	MG	P	9274	1/1	0.99	0.11	45,45,45,45	0
6	MG	P	9275	1/1	0.99	0.09	32,32,32,32	0
6	MG	D	9443	1/1	0.99	0.07	47,47,47,47	0
6	MG	P	9296	1/1	0.99	0.07	42,42,42,42	0
6	MG	C	9193	1/1	0.99	0.09	37,37,37,37	0
6	MG	D	9446	1/1	0.99	0.10	36,36,36,36	0
6	MG	C	9196	1/1	0.99	0.13	30,30,30,30	0
6	MG	P	9326	1/1	0.99	0.08	39,39,39,39	0
6	MG	P	9329	1/1	0.99	0.07	46,46,46,46	0
6	MG	P	9333	1/1	0.99	0.07	28,28,28,28	0
6	MG	P	9353	1/1	0.99	0.11	44,44,44,44	0
6	MG	P	9388	1/1	0.99	0.08	45,45,45,45	0
6	MG	P	9494	1/1	0.99	0.10	50,50,50,50	0
6	MG	P	9502	1/1	0.99	0.07	43,43,43,43	0
6	MG	P	9536	1/1	0.99	0.07	41,41,41,41	0
6	MG	C	9198	1/1	0.99	0.11	36,36,36,36	0
6	MG	C	9201	1/1	0.99	0.08	45,45,45,45	0
6	MG	D	9452	1/1	0.99	0.10	32,32,32,32	0
6	MG	D	9454	1/1	0.99	0.08	42,42,42,42	0
6	MG	D	9459	1/1	0.99	0.10	33,33,33,33	0
8	ZN	D	7112	1/1	0.99	0.13	72,72,72,72	0
8	ZN	N	7113	1/1	0.99	0.11	79,79,79,79	0
6	MG	N	9527	1/1	1.00	0.14	42,42,42,42	0
6	MG	C	9390	1/1	1.00	0.12	30,30,30,30	0
6	MG	K	9477	1/1	1.00	0.11	38,38,38,38	0
6	MG	N	9531	1/1	1.00	0.10	38,38,38,38	0
6	MG	D	9043	1/1	1.00	0.11	28,28,28,28	0
6	MG	B	9176	1/1	1.00	0.09	41,41,41,41	0
6	MG	D	9179	1/1	1.00	0.09	30,30,30,30	0
6	MG	F	9421	1/1	1.00	0.13	30,30,30,30	0
6	MG	D	9510	1/1	1.00	0.12	51,51,51,51	0
6	MG	E	9511	1/1	1.00	0.12	42,42,42,42	0
6	MG	D	9143	1/1	1.00	0.14	35,35,35,35	0
6	MG	F	9030	1/1	1.00	0.11	36,36,36,36	0
6	MG	D	9182	1/1	1.00	0.07	46,46,46,46	0

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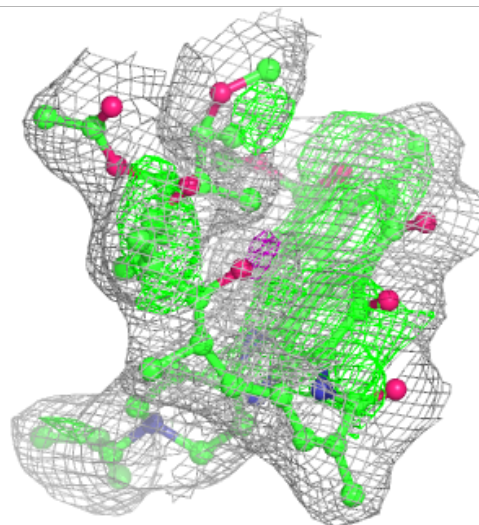
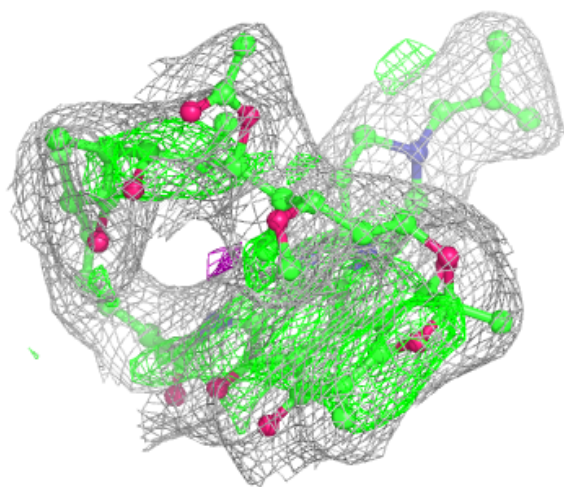
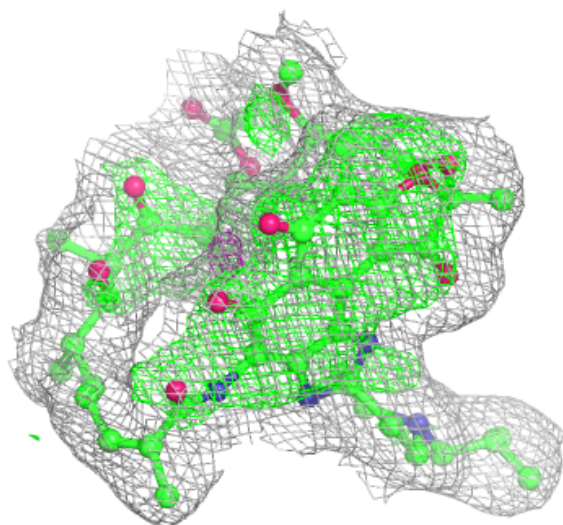
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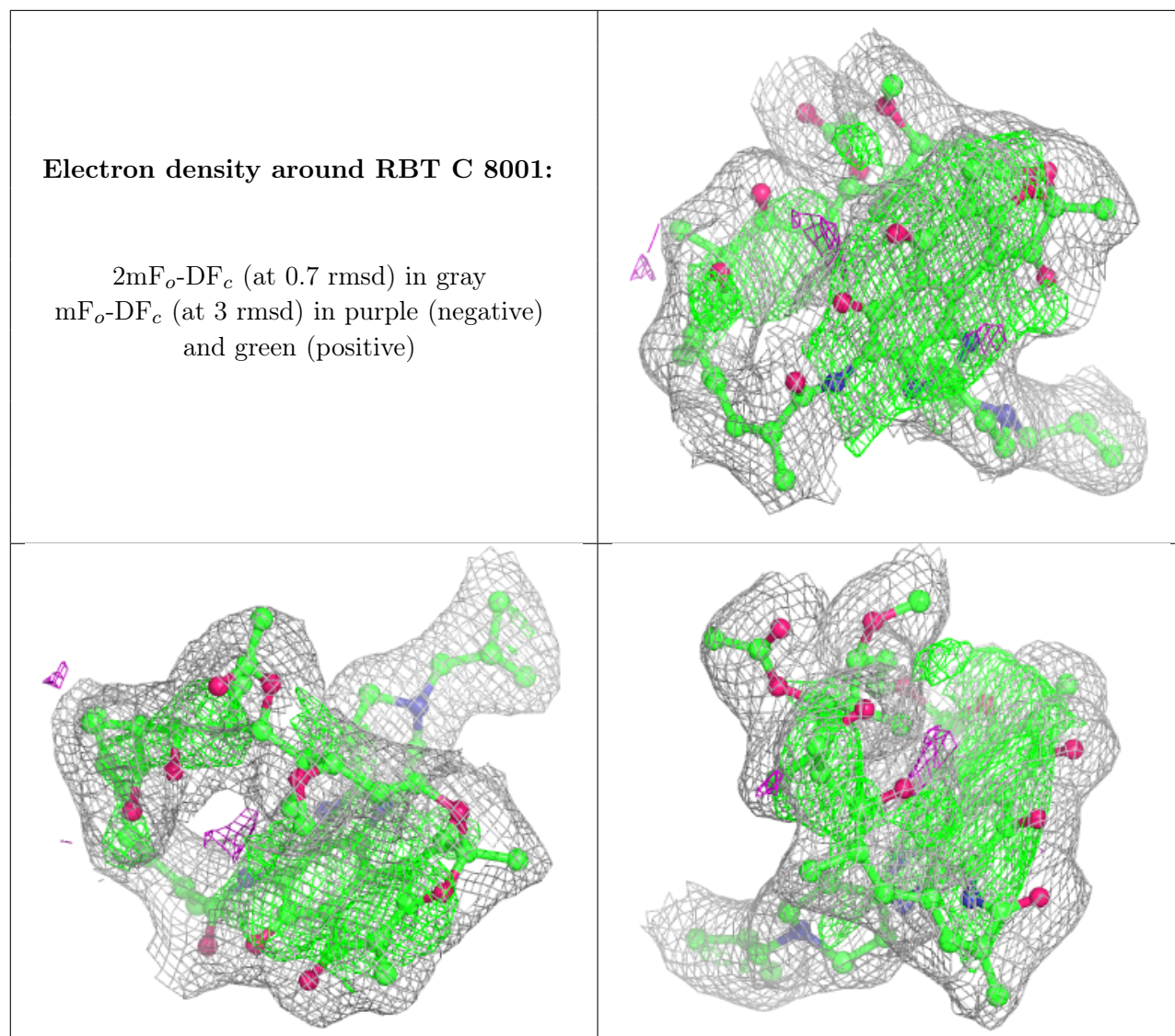
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
6	MG	N	9360	1/1	1.00	0.05	39,39,39,39	0
6	MG	O	9231	1/1	1.00	0.15	41,41,41,41	0
6	MG	O	9337	1/1	1.00	0.08	34,34,34,34	0
6	MG	M	9331	1/1	1.00	0.08	49,49,49,49	0
6	MG	D	9006	1/1	1.00	0.14	30,30,30,30	0
6	MG	D	9149	1/1	1.00	0.13	42,42,42,42	0
6	MG	P	9239	1/1	1.00	0.11	33,33,33,33	0
6	MG	D	9195	1/1	1.00	0.08	32,32,32,32	0
6	MG	D	9069	1/1	1.00	0.12	32,32,32,32	0
6	MG	F	9547	1/1	1.00	0.09	52,52,52,52	0
6	MG	K	9212	1/1	1.00	0.08	33,33,33,33	0
6	MG	M	9241	1/1	1.00	0.09	35,35,35,35	0
6	MG	N	9302	1/1	1.00	0.14	48,48,48,48	0
6	MG	N	9468	1/1	1.00	0.11	35,35,35,35	0
6	MG	N	9470	1/1	1.00	0.15	27,27,27,27	0
6	MG	C	9127	1/1	1.00	0.10	41,41,41,41	0
6	MG	L	9278	1/1	1.00	0.08	46,46,46,46	0
6	MG	L	9299	1/1	1.00	0.07	36,36,36,36	0
6	MG	C	9160	1/1	1.00	0.12	46,46,46,46	0
6	MG	N	9308	1/1	1.00	0.12	31,31,31,31	0
6	MG	C	9106	1/1	1.00	0.09	37,37,37,37	0
6	MG	N	9491	1/1	1.00	0.11	43,43,43,43	0
6	MG	K	9264	1/1	1.00	0.09	36,36,36,36	0
6	MG	D	9037	1/1	1.00	0.08	31,31,31,31	0
6	MG	M	9380	1/1	1.00	0.08	32,32,32,32	0
6	MG	D	9013	1/1	1.00	0.09	34,34,34,34	0
6	MG	C	9027	1/1	1.00	0.12	28,28,28,28	0
6	MG	D	9453	1/1	1.00	0.12	31,31,31,31	0
6	MG	A	9404	1/1	1.00	0.16	55,55,55,55	0
6	MG	M	9469	1/1	1.00	0.14	39,39,39,39	0
8	ZN	N	7059	1/1	1.00	0.12	83,83,83,83	0
6	MG	D	9087	1/1	1.00	0.09	27,27,27,27	0

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

Electron density around RBT M 8002:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





6.5 Other polymers [i](#)

There are no such residues in this entry.