Full wwPDB EM Validation Report ⓘ

Oct 23, 2023 – 02:22 PM JST

PDB ID	:	8IMY
EMDB ID	:	EMD-35576
Title	:	Cryo-EM structure of GPI-T (inactive mutant) with GPI and proULBP2, a proprotein substrate
Authors	:	Li, T.; Xu, Y.; Qu, Q.; Li, D.
Deposited on	:	2023-03-07
Resolution	:	3.22 Å(reported)

The following versions of software and data (see references ⓘ) were used in the production of this report:

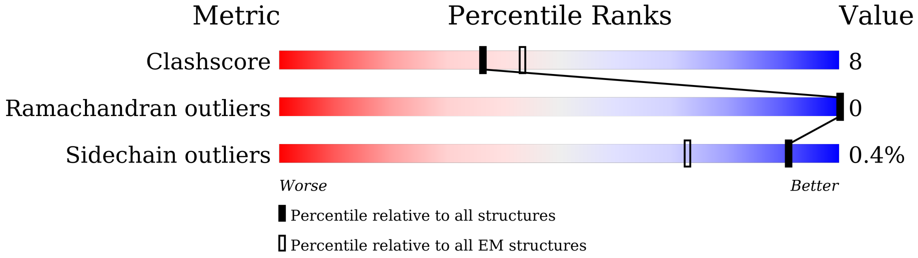
EMDB validation analysis	:	0.0.1.dev70
Mogul	:	1.8.5 (274361), CSD as541be (2020)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

1 Overall quality at a glance ⓘ

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

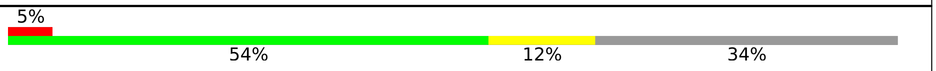
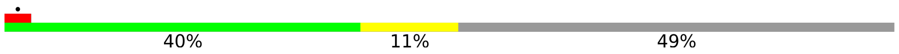
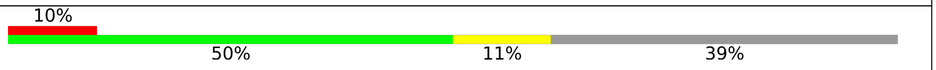
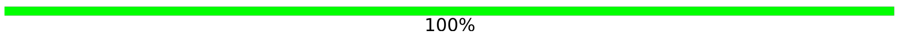
The reported resolution of this entry is 3.22 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the 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 <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion < 40%). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	G	886	
2	K	647	
3	U	712	
4	T	821	
5	S	816	
6	D	258	
7	A	2	

2 Entry composition

There are 19 unique types of molecules in this entry. The entry contains 19986 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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 Glycosylphosphatidylinositol anchor attachment 1 protein,GFP-like fluorescent chromoprotein cFP484.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	G	581	4397	2879	748	751	19	0	0

There are 95 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
G	-1	MET	-	initiating methionine	UNP O43292
G	0	GLY	-	expression tag	UNP O43292
G	1	SER	-	expression tag	UNP O43292
G	622	GLY	-	linker	UNP O43292
G	623	THR	-	linker	UNP O43292
G	624	LEU	-	linker	UNP O43292
G	625	GLU	-	linker	UNP O43292
G	626	VAL	-	linker	UNP O43292
G	627	LEU	-	linker	UNP O43292
G	628	PHE	-	linker	UNP O43292
G	629	GLN	-	linker	UNP O43292
G	630	GLY	-	linker	UNP O43292
G	631	PRO	-	linker	UNP O43292
G	632	GLY	-	linker	UNP O43292
G	633	GLY	-	linker	UNP O43292
G	634	SER	-	linker	UNP O43292
G	635	GLY	-	linker	UNP O43292
G	636	GLY	-	linker	UNP O43292
G	637	SER	-	linker	UNP O43292
G	638	ALA	-	linker	UNP O43292
G	639	SER	-	linker	UNP O43292
G	644	GLU	ASP	conflict	UNP Q9U6Y3
G	650	ARG	LYS	conflict	UNP Q9U6Y3
G	654	ALA	ASN	conflict	UNP Q9U6Y3
G	659	LYS	ALA	conflict	UNP Q9U6Y3
G	667	ILE	GLU	conflict	UNP Q9U6Y3
G	672	GLU	ASP	conflict	UNP Q9U6Y3

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Chain	Residue	Modelled	Actual	Comment	Reference
G	675	GLN	HIS	conflict	UNP Q9U6Y3
G	678	ASP	ASN	conflict	UNP Q9U6Y3
G	680	THR	GLU	conflict	UNP Q9U6Y3
G	682	GLU	LYS	conflict	UNP Q9U6Y3
G	695	THR	SER	conflict	UNP Q9U6Y3
G	696	PRO	ASN	conflict	UNP Q9U6Y3
G	705	PHE	LEU	conflict	UNP Q9U6Y3
G	710	GLU	ASP	conflict	UNP Q9U6Y3
G	713	PRO	ALA	conflict	UNP Q9U6Y3
G	719	ALA	SER	conflict	UNP Q9U6Y3
G	729	SER	THR	conflict	UNP Q9U6Y3
G	732	TYR	PHE	conflict	UNP Q9U6Y3
G	735	GLN	LYS	conflict	UNP Q9U6Y3
G	738	CYS	VAL	conflict	UNP Q9U6Y3
G	739	ILE	LYS	conflict	UNP Q9U6Y3
G	740	ALA	VAL	conflict	UNP Q9U6Y3
G	741	THR	LYS	conflict	UNP Q9U6Y3
G	745	THR	SER	conflict	UNP Q9U6Y3
G	748	GLY	GLU	conflict	UNP Q9U6Y3
G	750	CYS	SER	conflict	UNP Q9U6Y3
G	752	PHE	ILE	conflict	UNP Q9U6Y3
G	760	THR	MET	conflict	UNP Q9U6Y3
G	782	LYS	ILE	conflict	UNP Q9U6Y3
G	786	GLU	ARG	conflict	UNP Q9U6Y3
G	791	LYS	VAL	conflict	UNP Q9U6Y3
G	794	VAL	ILE	conflict	UNP Q9U6Y3
G	795	GLU	SER	conflict	UNP Q9U6Y3
G	796	MET	HIS	conflict	UNP Q9U6Y3
G	797	ALA	SER	conflict	UNP Q9U6Y3
G	812	THR	SER	conflict	UNP Q9U6Y3
G	813	THR	ILE	conflict	UNP Q9U6Y3
G	819	ASP	VAL	conflict	UNP Q9U6Y3
G	821	ARG	LYS	conflict	UNP Q9U6Y3
G	825	ALA	TYR	conflict	UNP Q9U6Y3
G	827	GLU	PHE	conflict	UNP Q9U6Y3
G	836	SER	ASN	conflict	UNP Q9U6Y3
G	845	ARG	THR	conflict	UNP Q9U6Y3
G	849	HIS	ASN	conflict	UNP Q9U6Y3
G	851	GLU	VAL	conflict	UNP Q9U6Y3
G	856	GLY	-	expression tag	UNP Q9U6Y3
G	857	GLY	-	expression tag	UNP Q9U6Y3
G	858	GLY	-	expression tag	UNP Q9U6Y3

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Chain	Residue	Modelled	Actual	Comment	Reference
G	859	SER	-	expression tag	UNP Q9U6Y3
G	860	GLY	-	expression tag	UNP Q9U6Y3
G	861	GLY	-	expression tag	UNP Q9U6Y3
G	862	GLY	-	expression tag	UNP Q9U6Y3
G	863	GLY	-	expression tag	UNP Q9U6Y3
G	864	SER	-	expression tag	UNP Q9U6Y3
G	865	GLY	-	expression tag	UNP Q9U6Y3
G	866	GLY	-	expression tag	UNP Q9U6Y3
G	867	GLY	-	expression tag	UNP Q9U6Y3
G	868	GLY	-	expression tag	UNP Q9U6Y3
G	869	ASP	-	expression tag	UNP Q9U6Y3
G	870	TYR	-	expression tag	UNP Q9U6Y3
G	871	LYS	-	expression tag	UNP Q9U6Y3
G	872	ASP	-	expression tag	UNP Q9U6Y3
G	873	ASP	-	expression tag	UNP Q9U6Y3
G	874	ASP	-	expression tag	UNP Q9U6Y3
G	875	ASP	-	expression tag	UNP Q9U6Y3
G	876	ALA	-	expression tag	UNP Q9U6Y3
G	877	ASP	-	expression tag	UNP Q9U6Y3
G	878	TYR	-	expression tag	UNP Q9U6Y3
G	879	LYS	-	expression tag	UNP Q9U6Y3
G	880	ASP	-	expression tag	UNP Q9U6Y3
G	881	ASP	-	expression tag	UNP Q9U6Y3
G	882	ASP	-	expression tag	UNP Q9U6Y3
G	883	ASP	-	expression tag	UNP Q9U6Y3
G	884	ALA	-	expression tag	UNP Q9U6Y3

- Molecule 2 is a protein called GPI-anchor transamidase,GFP-like fluorescent chromoprotein cFP484.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	K	330	2633	1685	450	484	14	0	0

There are 83 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
K	-1	MET	-	initiating methionine	UNP Q92643
K	0	GLY	-	expression tag	UNP Q92643
K	1	SER	-	expression tag	UNP Q92643
K	206	SER	CYS	conflict	UNP Q92643
K	396	GLY	-	linker	UNP Q92643

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Chain	Residue	Modelled	Actual	Comment	Reference
K	397	THR	-	linker	UNP Q92643
K	398	LEU	-	linker	UNP Q92643
K	399	GLU	-	linker	UNP Q92643
K	400	VAL	-	linker	UNP Q92643
K	401	LEU	-	linker	UNP Q92643
K	402	PHE	-	linker	UNP Q92643
K	403	GLN	-	linker	UNP Q92643
K	404	GLY	-	linker	UNP Q92643
K	405	PRO	-	linker	UNP Q92643
K	406	GLY	-	linker	UNP Q92643
K	407	GLY	-	linker	UNP Q92643
K	408	SER	-	linker	UNP Q92643
K	409	GLY	-	linker	UNP Q92643
K	410	GLY	-	linker	UNP Q92643
K	411	SER	-	linker	UNP Q92643
K	412	ALA	-	linker	UNP Q92643
K	413	SER	-	linker	UNP Q92643
K	418	GLU	ASP	conflict	UNP Q9U6Y3
K	424	ARG	LYS	conflict	UNP Q9U6Y3
K	428	ALA	ASN	conflict	UNP Q9U6Y3
K	433	LYS	ALA	conflict	UNP Q9U6Y3
K	441	ILE	GLU	conflict	UNP Q9U6Y3
K	446	GLU	ASP	conflict	UNP Q9U6Y3
K	449	GLN	HIS	conflict	UNP Q9U6Y3
K	452	ASP	ASN	conflict	UNP Q9U6Y3
K	454	THR	GLU	conflict	UNP Q9U6Y3
K	456	GLU	LYS	conflict	UNP Q9U6Y3
K	469	THR	SER	conflict	UNP Q9U6Y3
K	470	PRO	ASN	conflict	UNP Q9U6Y3
K	479	PHE	LEU	conflict	UNP Q9U6Y3
K	484	GLU	ASP	conflict	UNP Q9U6Y3
K	487	PRO	ALA	conflict	UNP Q9U6Y3
K	493	ALA	SER	conflict	UNP Q9U6Y3
K	503	SER	THR	conflict	UNP Q9U6Y3
K	506	TYR	PHE	conflict	UNP Q9U6Y3
K	509	GLN	LYS	conflict	UNP Q9U6Y3
K	512	CYS	VAL	conflict	UNP Q9U6Y3
K	513	ILE	LYS	conflict	UNP Q9U6Y3
K	514	ALA	VAL	conflict	UNP Q9U6Y3
K	515	THR	LYS	conflict	UNP Q9U6Y3
K	519	THR	SER	conflict	UNP Q9U6Y3
K	522	GLY	GLU	conflict	UNP Q9U6Y3

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Chain	Residue	Modelled	Actual	Comment	Reference
K	524	CYS	SER	conflict	UNP Q9U6Y3
K	526	PHE	ILE	conflict	UNP Q9U6Y3
K	534	THR	MET	conflict	UNP Q9U6Y3
K	556	LYS	ILE	conflict	UNP Q9U6Y3
K	560	GLU	ARG	conflict	UNP Q9U6Y3
K	565	LYS	VAL	conflict	UNP Q9U6Y3
K	568	VAL	ILE	conflict	UNP Q9U6Y3
K	569	GLU	SER	conflict	UNP Q9U6Y3
K	570	MET	HIS	conflict	UNP Q9U6Y3
K	571	ALA	SER	conflict	UNP Q9U6Y3
K	586	THR	SER	conflict	UNP Q9U6Y3
K	587	THR	ILE	conflict	UNP Q9U6Y3
K	593	ASP	VAL	conflict	UNP Q9U6Y3
K	595	ARG	LYS	conflict	UNP Q9U6Y3
K	599	ALA	TYR	conflict	UNP Q9U6Y3
K	601	GLU	PHE	conflict	UNP Q9U6Y3
K	610	SER	ASN	conflict	UNP Q9U6Y3
K	619	ARG	THR	conflict	UNP Q9U6Y3
K	623	HIS	ASN	conflict	UNP Q9U6Y3
K	625	GLU	VAL	conflict	UNP Q9U6Y3
K	630	GLY	-	expression tag	UNP Q9U6Y3
K	631	GLY	-	expression tag	UNP Q9U6Y3
K	632	GLY	-	expression tag	UNP Q9U6Y3
K	633	SER	-	expression tag	UNP Q9U6Y3
K	634	GLY	-	expression tag	UNP Q9U6Y3
K	635	GLY	-	expression tag	UNP Q9U6Y3
K	636	GLY	-	expression tag	UNP Q9U6Y3
K	637	TYR	-	expression tag	UNP Q9U6Y3
K	638	PRO	-	expression tag	UNP Q9U6Y3
K	639	TYR	-	expression tag	UNP Q9U6Y3
K	640	ASP	-	expression tag	UNP Q9U6Y3
K	641	VAL	-	expression tag	UNP Q9U6Y3
K	642	PRO	-	expression tag	UNP Q9U6Y3
K	643	ASP	-	expression tag	UNP Q9U6Y3
K	644	TYR	-	expression tag	UNP Q9U6Y3
K	645	ALA	-	expression tag	UNP Q9U6Y3

- Molecule 3 is a protein called Phosphatidylinositol glycan anchor biosynthesis class U protein,GFP-like fluorescent chromoprotein cFP484.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	U	419	3406	2332	507	553	14	0	0

There are 107 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
U	-1	MET	-	initiating methionine	UNP Q9H490
U	0	GLY	-	expression tag	UNP Q9H490
U	1	SER	-	expression tag	UNP Q9H490
U	436	GLY	-	linker	UNP Q9H490
U	437	THR	-	linker	UNP Q9H490
U	438	LEU	-	linker	UNP Q9H490
U	439	GLU	-	linker	UNP Q9H490
U	440	VAL	-	linker	UNP Q9H490
U	441	LEU	-	linker	UNP Q9H490
U	442	PHE	-	linker	UNP Q9H490
U	443	GLN	-	linker	UNP Q9H490
U	444	GLY	-	linker	UNP Q9H490
U	445	PRO	-	linker	UNP Q9H490
U	446	GLY	-	linker	UNP Q9H490
U	447	GLY	-	linker	UNP Q9H490
U	448	SER	-	linker	UNP Q9H490
U	449	GLY	-	linker	UNP Q9H490
U	450	GLY	-	linker	UNP Q9H490
U	451	SER	-	linker	UNP Q9H490
U	452	ALA	-	linker	UNP Q9H490
U	453	SER	-	linker	UNP Q9H490
U	458	GLU	ASP	conflict	UNP Q9U6Y3
U	464	ARG	LYS	conflict	UNP Q9U6Y3
U	468	ALA	ASN	conflict	UNP Q9U6Y3
U	473	LYS	ALA	conflict	UNP Q9U6Y3
U	481	ILE	GLU	conflict	UNP Q9U6Y3
U	486	GLU	ASP	conflict	UNP Q9U6Y3
U	489	GLN	HIS	conflict	UNP Q9U6Y3
U	492	ASP	ASN	conflict	UNP Q9U6Y3
U	494	THR	GLU	conflict	UNP Q9U6Y3
U	496	GLU	LYS	conflict	UNP Q9U6Y3
U	509	THR	SER	conflict	UNP Q9U6Y3
U	510	PRO	ASN	conflict	UNP Q9U6Y3
U	519	PHE	LEU	conflict	UNP Q9U6Y3
U	524	GLU	ASP	conflict	UNP Q9U6Y3
U	527	PRO	ALA	conflict	UNP Q9U6Y3
U	533	ALA	SER	conflict	UNP Q9U6Y3
U	543	SER	THR	conflict	UNP Q9U6Y3
U	546	TYR	PHE	conflict	UNP Q9U6Y3
U	549	GLN	LYS	conflict	UNP Q9U6Y3
U	552	CYS	VAL	conflict	UNP Q9U6Y3
U	553	ILE	LYS	conflict	UNP Q9U6Y3

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Chain	Residue	Modelled	Actual	Comment	Reference
U	554	ALA	VAL	conflict	UNP Q9U6Y3
U	555	THR	LYS	conflict	UNP Q9U6Y3
U	559	THR	SER	conflict	UNP Q9U6Y3
U	562	GLY	GLU	conflict	UNP Q9U6Y3
U	564	CYS	SER	conflict	UNP Q9U6Y3
U	566	PHE	ILE	conflict	UNP Q9U6Y3
U	574	THR	MET	conflict	UNP Q9U6Y3
U	596	LYS	ILE	conflict	UNP Q9U6Y3
U	600	GLU	ARG	conflict	UNP Q9U6Y3
U	605	LYS	VAL	conflict	UNP Q9U6Y3
U	608	VAL	ILE	conflict	UNP Q9U6Y3
U	609	GLU	SER	conflict	UNP Q9U6Y3
U	610	MET	HIS	conflict	UNP Q9U6Y3
U	611	ALA	SER	conflict	UNP Q9U6Y3
U	626	THR	SER	conflict	UNP Q9U6Y3
U	627	THR	ILE	conflict	UNP Q9U6Y3
U	633	ASP	VAL	conflict	UNP Q9U6Y3
U	635	ARG	LYS	conflict	UNP Q9U6Y3
U	639	ALA	TYR	conflict	UNP Q9U6Y3
U	641	GLU	PHE	conflict	UNP Q9U6Y3
U	650	SER	ASN	conflict	UNP Q9U6Y3
U	659	ARG	THR	conflict	UNP Q9U6Y3
U	663	HIS	ASN	conflict	UNP Q9U6Y3
U	665	GLU	VAL	conflict	UNP Q9U6Y3
U	670	GLY	-	expression tag	UNP Q9U6Y3
U	671	GLY	-	expression tag	UNP Q9U6Y3
U	672	GLY	-	expression tag	UNP Q9U6Y3
U	673	SER	-	expression tag	UNP Q9U6Y3
U	674	GLY	-	expression tag	UNP Q9U6Y3
U	675	GLY	-	expression tag	UNP Q9U6Y3
U	676	GLY	-	expression tag	UNP Q9U6Y3
U	677	LYS	-	expression tag	UNP Q9U6Y3
U	678	LEU	-	expression tag	UNP Q9U6Y3
U	679	GLU	-	expression tag	UNP Q9U6Y3
U	680	PHE	-	expression tag	UNP Q9U6Y3
U	681	SER	-	expression tag	UNP Q9U6Y3
U	682	ALA	-	expression tag	UNP Q9U6Y3
U	683	TRP	-	expression tag	UNP Q9U6Y3
U	684	SER	-	expression tag	UNP Q9U6Y3
U	685	HIS	-	expression tag	UNP Q9U6Y3
U	686	PRO	-	expression tag	UNP Q9U6Y3
U	687	GLN	-	expression tag	UNP Q9U6Y3

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Chain	Residue	Modelled	Actual	Comment	Reference
U	688	PHE	-	expression tag	UNP Q9U6Y3
U	689	GLU	-	expression tag	UNP Q9U6Y3
U	690	LYS	-	expression tag	UNP Q9U6Y3
U	691	GLY	-	expression tag	UNP Q9U6Y3
U	692	GLY	-	expression tag	UNP Q9U6Y3
U	693	GLY	-	expression tag	UNP Q9U6Y3
U	694	SER	-	expression tag	UNP Q9U6Y3
U	695	GLY	-	expression tag	UNP Q9U6Y3
U	696	GLY	-	expression tag	UNP Q9U6Y3
U	697	GLY	-	expression tag	UNP Q9U6Y3
U	698	SER	-	expression tag	UNP Q9U6Y3
U	699	GLY	-	expression tag	UNP Q9U6Y3
U	700	GLY	-	expression tag	UNP Q9U6Y3
U	701	SER	-	expression tag	UNP Q9U6Y3
U	702	ALA	-	expression tag	UNP Q9U6Y3
U	703	TRP	-	expression tag	UNP Q9U6Y3
U	704	SER	-	expression tag	UNP Q9U6Y3
U	705	HIS	-	expression tag	UNP Q9U6Y3
U	706	PRO	-	expression tag	UNP Q9U6Y3
U	707	GLN	-	expression tag	UNP Q9U6Y3
U	708	PHE	-	expression tag	UNP Q9U6Y3
U	709	GLU	-	expression tag	UNP Q9U6Y3
U	710	LYS	-	expression tag	UNP Q9U6Y3

- Molecule 4 is a protein called GPI transamidase component PIG-T,GFP-like fluorescent chromoprotein cFP484.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	T	530	4221	2745	710	752	14	0	0

There are 73 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
T	-1	MET	-	initiating methionine	UNP Q969N2
T	0	GLY	-	expression tag	UNP Q969N2
T	1	SER	-	expression tag	UNP Q969N2
T	579	GLY	-	linker	UNP Q969N2
T	580	THR	-	linker	UNP Q969N2
T	581	LEU	-	linker	UNP Q969N2
T	582	GLU	-	linker	UNP Q969N2
T	583	VAL	-	linker	UNP Q969N2

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Chain	Residue	Modelled	Actual	Comment	Reference
T	584	LEU	-	linker	UNP Q969N2
T	585	PHE	-	linker	UNP Q969N2
T	586	GLN	-	linker	UNP Q969N2
T	587	GLY	-	linker	UNP Q969N2
T	588	PRO	-	linker	UNP Q969N2
T	589	GLY	-	linker	UNP Q969N2
T	590	GLY	-	linker	UNP Q969N2
T	591	SER	-	linker	UNP Q969N2
T	592	GLY	-	linker	UNP Q969N2
T	593	GLY	-	linker	UNP Q969N2
T	594	SER	-	linker	UNP Q969N2
T	595	ALA	-	linker	UNP Q969N2
T	596	SER	-	linker	UNP Q969N2
T	601	GLU	ASP	conflict	UNP Q9U6Y3
T	607	ARG	LYS	conflict	UNP Q9U6Y3
T	611	ALA	ASN	conflict	UNP Q9U6Y3
T	616	LYS	ALA	conflict	UNP Q9U6Y3
T	624	ILE	GLU	conflict	UNP Q9U6Y3
T	629	GLU	ASP	conflict	UNP Q9U6Y3
T	632	GLN	HIS	conflict	UNP Q9U6Y3
T	635	ASP	ASN	conflict	UNP Q9U6Y3
T	637	THR	GLU	conflict	UNP Q9U6Y3
T	639	GLU	LYS	conflict	UNP Q9U6Y3
T	652	THR	SER	conflict	UNP Q9U6Y3
T	653	PRO	ASN	conflict	UNP Q9U6Y3
T	662	PHE	LEU	conflict	UNP Q9U6Y3
T	667	GLU	ASP	conflict	UNP Q9U6Y3
T	670	PRO	ALA	conflict	UNP Q9U6Y3
T	676	ALA	SER	conflict	UNP Q9U6Y3
T	686	SER	THR	conflict	UNP Q9U6Y3
T	689	TYR	PHE	conflict	UNP Q9U6Y3
T	692	GLN	LYS	conflict	UNP Q9U6Y3
T	695	CYS	VAL	conflict	UNP Q9U6Y3
T	696	ILE	LYS	conflict	UNP Q9U6Y3
T	697	ALA	VAL	conflict	UNP Q9U6Y3
T	698	THR	LYS	conflict	UNP Q9U6Y3
T	702	THR	SER	conflict	UNP Q9U6Y3
T	705	GLY	GLU	conflict	UNP Q9U6Y3
T	707	CYS	SER	conflict	UNP Q9U6Y3
T	709	PHE	ILE	conflict	UNP Q9U6Y3
T	717	THR	MET	conflict	UNP Q9U6Y3
T	739	LYS	ILE	conflict	UNP Q9U6Y3

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Chain	Residue	Modelled	Actual	Comment	Reference
T	743	GLU	ARG	conflict	UNP Q9U6Y3
T	748	LYS	VAL	conflict	UNP Q9U6Y3
T	751	VAL	ILE	conflict	UNP Q9U6Y3
T	752	GLU	SER	conflict	UNP Q9U6Y3
T	753	MET	HIS	conflict	UNP Q9U6Y3
T	754	ALA	SER	conflict	UNP Q9U6Y3
T	769	THR	SER	conflict	UNP Q9U6Y3
T	770	THR	ILE	conflict	UNP Q9U6Y3
T	776	ASP	VAL	conflict	UNP Q9U6Y3
T	778	ARG	LYS	conflict	UNP Q9U6Y3
T	782	ALA	TYR	conflict	UNP Q9U6Y3
T	784	GLU	PHE	conflict	UNP Q9U6Y3
T	793	SER	ASN	conflict	UNP Q9U6Y3
T	802	ARG	THR	conflict	UNP Q9U6Y3
T	806	HIS	ASN	conflict	UNP Q9U6Y3
T	808	GLU	VAL	conflict	UNP Q9U6Y3
T	813	GLY	-	expression tag	UNP Q9U6Y3
T	814	GLY	-	expression tag	UNP Q9U6Y3
T	815	GLY	-	expression tag	UNP Q9U6Y3
T	816	SER	-	expression tag	UNP Q9U6Y3
T	817	GLY	-	expression tag	UNP Q9U6Y3
T	818	GLY	-	expression tag	UNP Q9U6Y3
T	819	GLY	-	expression tag	UNP Q9U6Y3

- Molecule 5 is a protein called GPI transamidase component PIG-S,GFP-like fluorescent chromoprotein cFP484.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	S	498	3724	2422	621	669	12	0	0

There are 91 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
S	-1	MET	-	initiating methionine	UNP Q96S52
S	0	GLY	-	expression tag	UNP Q96S52
S	1	SER	-	expression tag	UNP Q96S52
S	556	GLY	-	linker	UNP Q96S52
S	557	THR	-	linker	UNP Q96S52
S	558	LEU	-	linker	UNP Q96S52
S	559	GLU	-	linker	UNP Q96S52
S	560	VAL	-	linker	UNP Q96S52

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Chain	Residue	Modelled	Actual	Comment	Reference
S	561	LEU	-	linker	UNP Q96S52
S	562	PHE	-	linker	UNP Q96S52
S	563	GLN	-	linker	UNP Q96S52
S	564	GLY	-	linker	UNP Q96S52
S	565	PRO	-	linker	UNP Q96S52
S	566	GLY	-	linker	UNP Q96S52
S	567	GLY	-	linker	UNP Q96S52
S	568	SER	-	linker	UNP Q96S52
S	569	GLY	-	linker	UNP Q96S52
S	570	GLY	-	linker	UNP Q96S52
S	571	SER	-	linker	UNP Q96S52
S	572	ALA	-	linker	UNP Q96S52
S	573	SER	-	linker	UNP Q96S52
S	578	GLU	ASP	conflict	UNP Q9U6Y3
S	584	ARG	LYS	conflict	UNP Q9U6Y3
S	588	ALA	ASN	conflict	UNP Q9U6Y3
S	593	LYS	ALA	conflict	UNP Q9U6Y3
S	601	ILE	GLU	conflict	UNP Q9U6Y3
S	606	GLU	ASP	conflict	UNP Q9U6Y3
S	609	GLN	HIS	conflict	UNP Q9U6Y3
S	612	ASP	ASN	conflict	UNP Q9U6Y3
S	614	THR	GLU	conflict	UNP Q9U6Y3
S	616	GLU	LYS	conflict	UNP Q9U6Y3
S	629	THR	SER	conflict	UNP Q9U6Y3
S	630	PRO	ASN	conflict	UNP Q9U6Y3
S	639	PHE	LEU	conflict	UNP Q9U6Y3
S	644	GLU	ASP	conflict	UNP Q9U6Y3
S	647	PRO	ALA	conflict	UNP Q9U6Y3
S	653	ALA	SER	conflict	UNP Q9U6Y3
S	663	SER	THR	conflict	UNP Q9U6Y3
S	666	TYR	PHE	conflict	UNP Q9U6Y3
S	669	GLN	LYS	conflict	UNP Q9U6Y3
S	672	CYS	VAL	conflict	UNP Q9U6Y3
S	673	ILE	LYS	conflict	UNP Q9U6Y3
S	674	ALA	VAL	conflict	UNP Q9U6Y3
S	675	THR	LYS	conflict	UNP Q9U6Y3
S	679	THR	SER	conflict	UNP Q9U6Y3
S	682	GLY	GLU	conflict	UNP Q9U6Y3
S	684	CYS	SER	conflict	UNP Q9U6Y3
S	686	PHE	ILE	conflict	UNP Q9U6Y3
S	694	THR	MET	conflict	UNP Q9U6Y3
S	716	LYS	ILE	conflict	UNP Q9U6Y3

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Chain	Residue	Modelled	Actual	Comment	Reference
S	720	GLU	ARG	conflict	UNP Q9U6Y3
S	725	LYS	VAL	conflict	UNP Q9U6Y3
S	728	VAL	ILE	conflict	UNP Q9U6Y3
S	729	GLU	SER	conflict	UNP Q9U6Y3
S	730	MET	HIS	conflict	UNP Q9U6Y3
S	731	ALA	SER	conflict	UNP Q9U6Y3
S	746	THR	SER	conflict	UNP Q9U6Y3
S	747	THR	ILE	conflict	UNP Q9U6Y3
S	753	ASP	VAL	conflict	UNP Q9U6Y3
S	755	ARG	LYS	conflict	UNP Q9U6Y3
S	759	ALA	TYR	conflict	UNP Q9U6Y3
S	761	GLU	PHE	conflict	UNP Q9U6Y3
S	770	SER	ASN	conflict	UNP Q9U6Y3
S	779	ARG	THR	conflict	UNP Q9U6Y3
S	783	HIS	ASN	conflict	UNP Q9U6Y3
S	785	GLU	VAL	conflict	UNP Q9U6Y3
S	790	GLY	-	expression tag	UNP Q9U6Y3
S	791	GLY	-	expression tag	UNP Q9U6Y3
S	792	GLY	-	expression tag	UNP Q9U6Y3
S	793	SER	-	expression tag	UNP Q9U6Y3
S	794	GLY	-	expression tag	UNP Q9U6Y3
S	795	GLY	-	expression tag	UNP Q9U6Y3
S	796	GLY	-	expression tag	UNP Q9U6Y3
S	797	GLY	-	expression tag	UNP Q9U6Y3
S	798	GLY	-	expression tag	UNP Q9U6Y3
S	799	GLY	-	expression tag	UNP Q9U6Y3
S	800	GLY	-	expression tag	UNP Q9U6Y3
S	801	GLY	-	expression tag	UNP Q9U6Y3
S	802	GLY	-	expression tag	UNP Q9U6Y3
S	803	GLY	-	expression tag	UNP Q9U6Y3
S	804	GLY	-	expression tag	UNP Q9U6Y3
S	805	GLU	-	expression tag	UNP Q9U6Y3
S	806	GLN	-	expression tag	UNP Q9U6Y3
S	807	LYS	-	expression tag	UNP Q9U6Y3
S	808	LEU	-	expression tag	UNP Q9U6Y3
S	809	ILE	-	expression tag	UNP Q9U6Y3
S	810	SER	-	expression tag	UNP Q9U6Y3
S	811	GLU	-	expression tag	UNP Q9U6Y3
S	812	GLU	-	expression tag	UNP Q9U6Y3
S	813	ASP	-	expression tag	UNP Q9U6Y3
S	814	LEU	-	expression tag	UNP Q9U6Y3

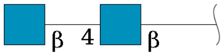
- Molecule 6 is a protein called UL16-binding protein 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	D	35	253	166	39	44	4	0	0

There are 12 discrepancies between the modelled and reference sequences:

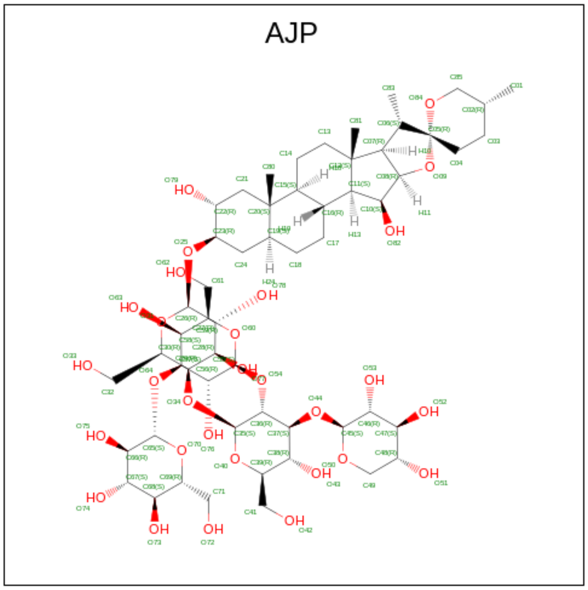
Chain	Residue	Modelled	Actual	Comment	Reference
D	15	GLY	-	insertion	UNP Q9BZM5
D	16	SER	-	insertion	UNP Q9BZM5
D	17	HIS	-	insertion	UNP Q9BZM5
D	18	HIS	-	insertion	UNP Q9BZM5
D	19	HIS	-	insertion	UNP Q9BZM5
D	20	HIS	-	insertion	UNP Q9BZM5
D	21	HIS	-	insertion	UNP Q9BZM5
D	22	HIS	-	insertion	UNP Q9BZM5
D	23	HIS	-	insertion	UNP Q9BZM5
D	24	HIS	-	insertion	UNP Q9BZM5
D	25	GLY	-	insertion	UNP Q9BZM5
D	26	SER	-	insertion	UNP Q9BZM5

- Molecule 7 is an oligosaccharide called 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose.



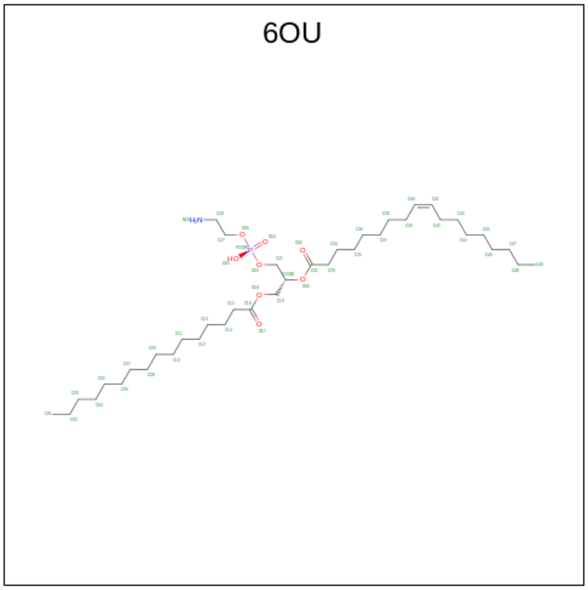
Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
7	A	2	28	16	2	10	0	0

- Molecule 8 is Digitonin (three-letter code: AJP) (formula: $C_{56}H_{92}O_{29}$).



Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
8	G	1	85	56	29	0

- Molecule 9 is [(2 {R})-1-[2-azanylethoxy(oxidanyl)phosphoryl]oxy-3-hexadecanoyloxy-propan-2-yl] ({Z})-octadec-9-enoate (three-letter code: 6OU) (formula: $C_{39}H_{76}NO_8P$).



Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
9	G	1	45	35	1	8	1	0
9	G	1	49	39	1	8	1	0

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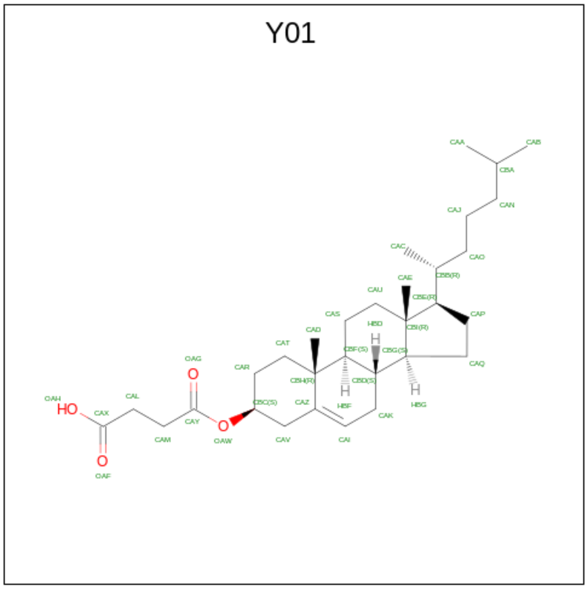
Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
9	G	1	39	29	1	8	1	0
9	U	1	40	30	1	8	1	0
9	U	1	49	39	1	8	1	0
9	S	1	40	30	1	8	1	0

- Molecule 10 is CHOLESTEROL HEMISUCCINATE (three-letter code: Y01) (formula: $C_{31}H_{50}O_4$).



Mol	Chain	Residues	Atoms			AltConf
			Total	C	O	
10	G	1	35	31	4	0
10	G	1	35	31	4	0
10	G	1	35	31	4	0
10	G	1	35	31	4	0
10	G	1	35	31	4	0
10	G	1	35	31	4	0
10	G	1	35	31	4	0

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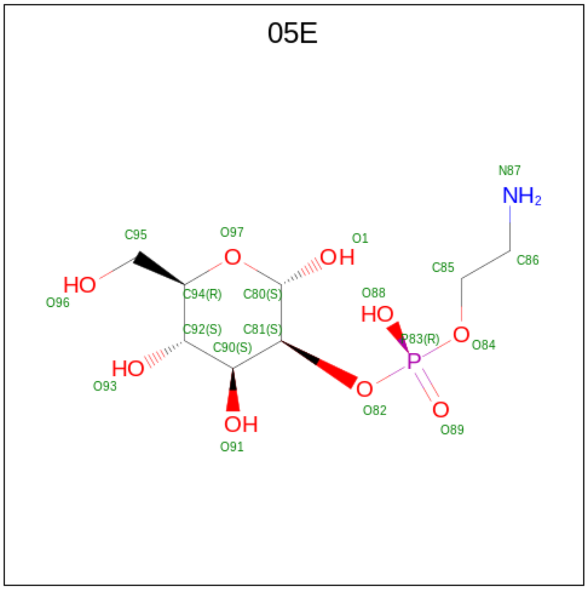
Mol	Chain	Residues	Atoms	AltConf
10	G	1	Total C O 35 31 4	0
10	U	1	Total C O 35 31 4	0
10	U	1	Total C O 35 31 4	0
10	U	1	Total C O 35 31 4	0
10	U	1	Total C O 35 31 4	0
10	U	1	Total C O 35 31 4	0
10	U	1	Total C O 35 31 4	0
10	U	1	Total C O 35 31 4	0
10	U	1	Total C O 35 31 4	0
10	S	1	Total C O 35 31 4	0
10	S	1	Total C O 35 31 4	0
10	D	1	Total C O 35 31 4	0

- Molecule 11 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

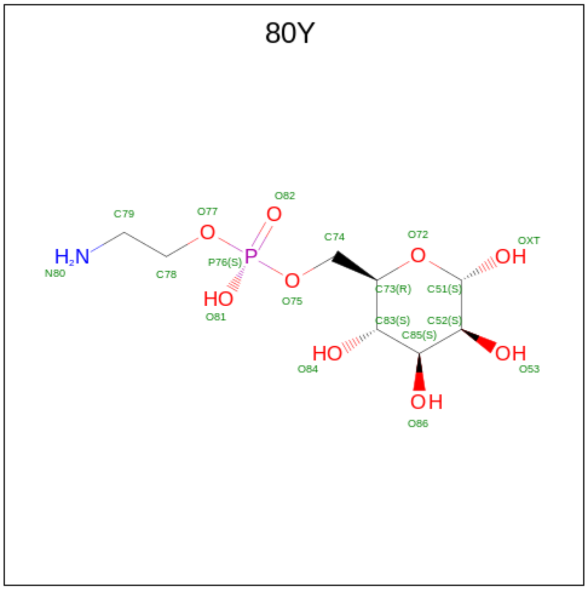
Mol	Chain	Residues	Atoms	AltConf
11	G	1	Total Mg 1 1	0

- Molecule 12 is 2-azanylethyl [(2 {S},3 {S},4 {S},5 {S},6 {R})-6-(hydroxymethyl)-2,4,5-tris(oxidanyl)oxan-3-yl] hydrogen phosphate (three-letter code: 05E) (formula: $C_8H_{18}NO_9P$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
12	G	1	18	8	1	8	1	0

- Molecule 13 is 2-azanylethyl [(2R,3S,4S,5S,6S)-3,4,5,6-tetrakis(oxidanyl)oxan-2-yl]methyl hydrogen phosphate (three-letter code: 80Y) (formula: $C_8H_{18}NO_9P$) (labeled as "Ligand of Interest" by depositor).

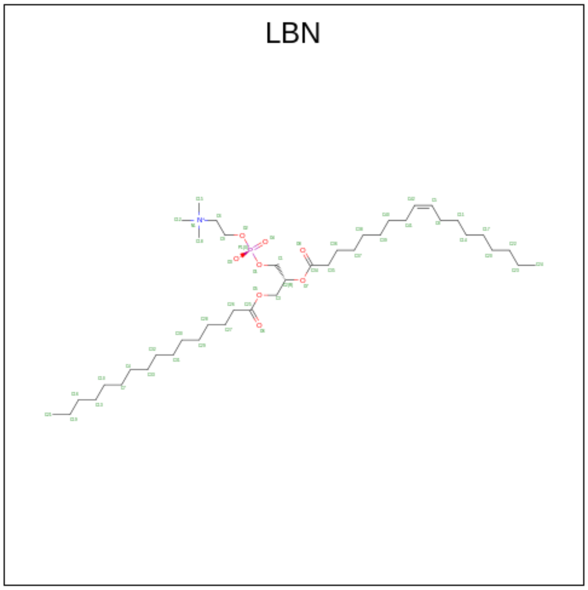


Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
13	G	1	18	8	1	8	1	0
13	D	1	18	8	1	8	1	0

- Molecule 14 is CALCIUM ION (three-letter code: CA) (formula: Ca).

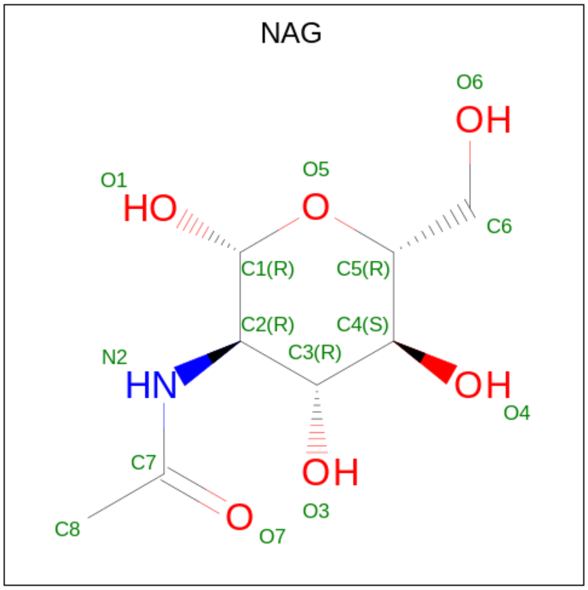
Mol	Chain	Residues	Atoms		AltConf
			Total	Ca	
14	K	1	1	1	0

- Molecule 15 is 1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine (three-letter code: LBN) (formula: $C_{42}H_{82}NO_8P$).



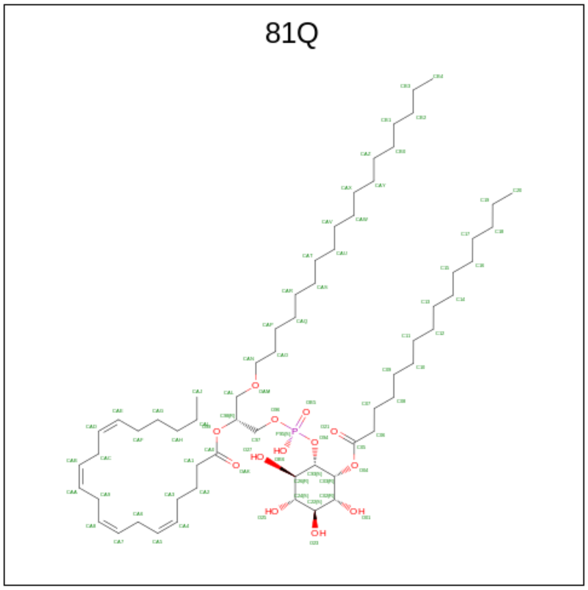
Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
15	U	1	52	42	1	8	1	0

- Molecule 16 is 2-acetamido-2-deoxy-beta-D-glucopyranose (three-letter code: NAG) (formula: $C_8H_{15}NO_6$).



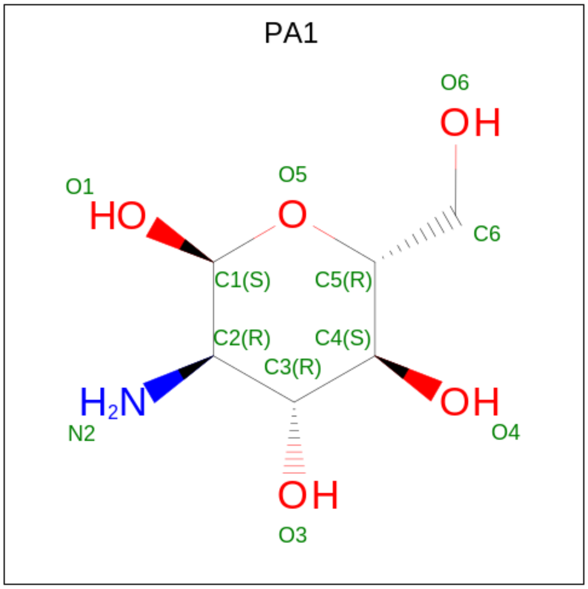
Mol	Chain	Residues	Atoms	AltConf
16	T	1	Total C N O 14 8 1 5	0
16	S	1	Total C N O 14 8 1 5	0

- Molecule 17 is [(2R)-1-[[(1S,2R,3R,4S,5S,6R)-2-hexadecanoyloxy-3,4,5,6-tetrakis(oxidanyl)cyclohexyl]oxy-oxidanyl-phosphoryl]oxy-3-octadecoxy-propan-2-yl] (5Z,8Z,11Z,14Z)-icosa-5,8,11,14-tetraenoate (three-letter code: 81Q) (formula: $C_{63}H_{115}O_{13}P$) (labeled as "Ligand of Interest" by depositor).



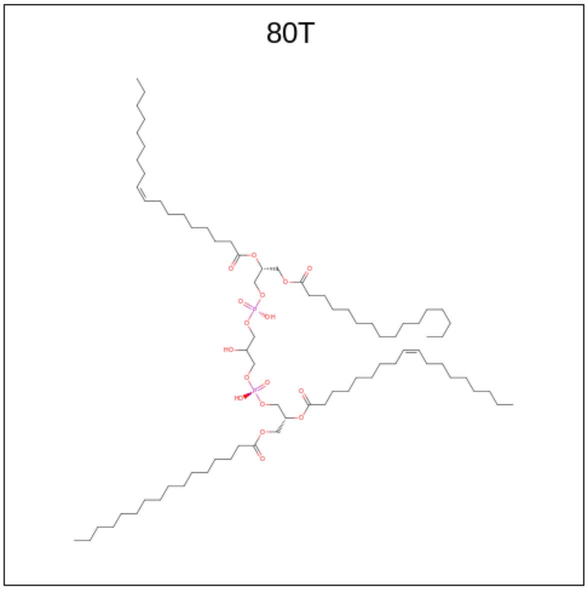
Mol	Chain	Residues	Atoms				AltConf
			Total	C	O	P	
17	T	1	77	63	13	1	0

- Molecule 18 is 2-amino-2-deoxy-alpha-D-glucopyranose (three-letter code: PA1) (formula: $C_6H_{13}NO_5$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
18	T	1	11	6	1	4	0

- Molecule 19 is [(2R)-1-hexadecanoyloxy-3-[[3-[[(2R)-3-hexadecanoyloxy-2-[(Z)-octadec-9-enoyl]oxy-propoxy]-oxidanyl-phosphoryl]oxy-2-oxidanyl-propoxy]-oxidanyl-phosphoryl]oxy-propan-2-yl] (Z)-octadec-9-enoate (three-letter code: 80T) (formula: $C_{77}H_{146}O_{17}P_2$).



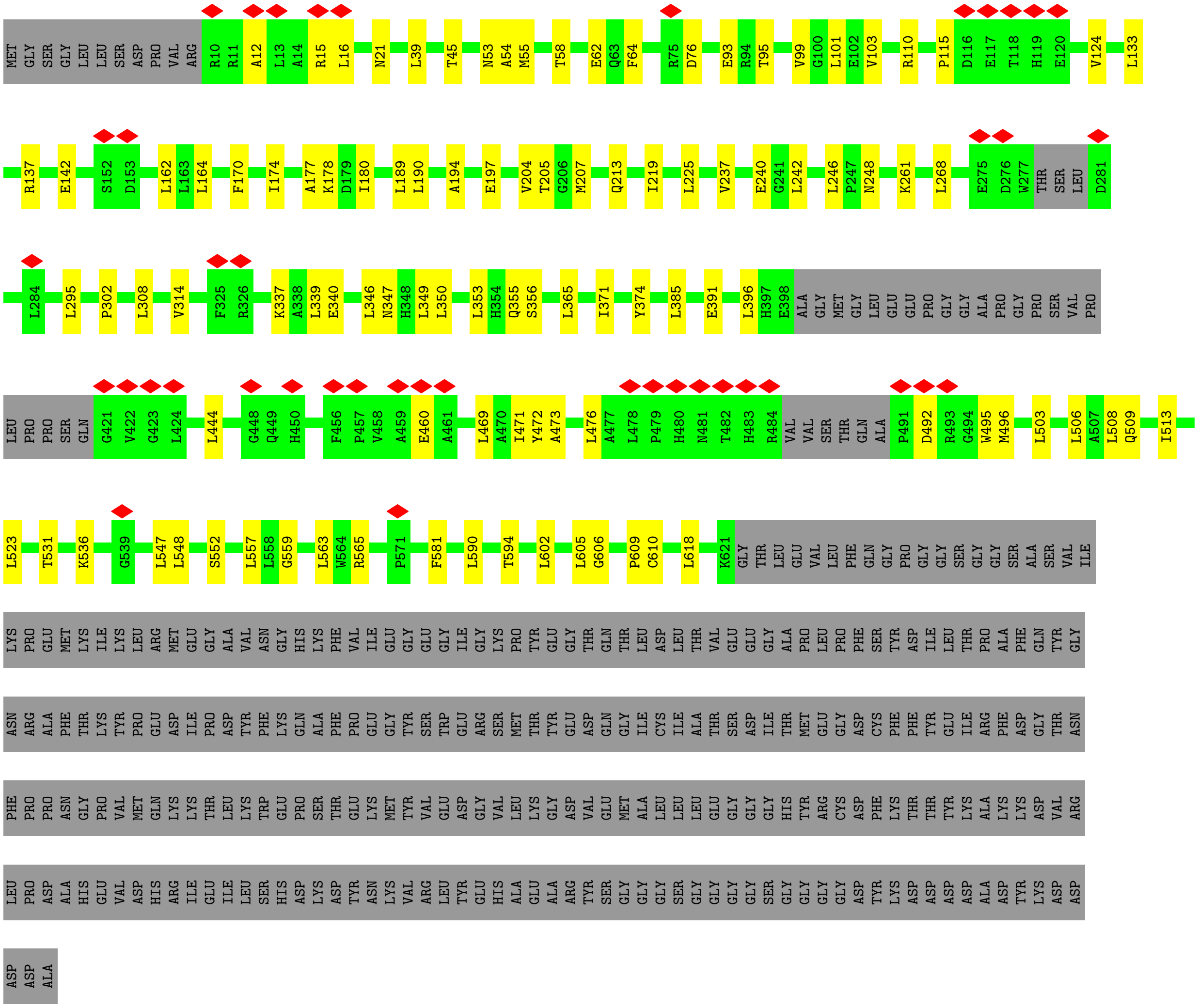
Mol	Chain	Residues	Atoms				AltConf
			Total	C	O	P	
19	S	1	88	69	17	2	0

3 Residue-property plots ⓘ

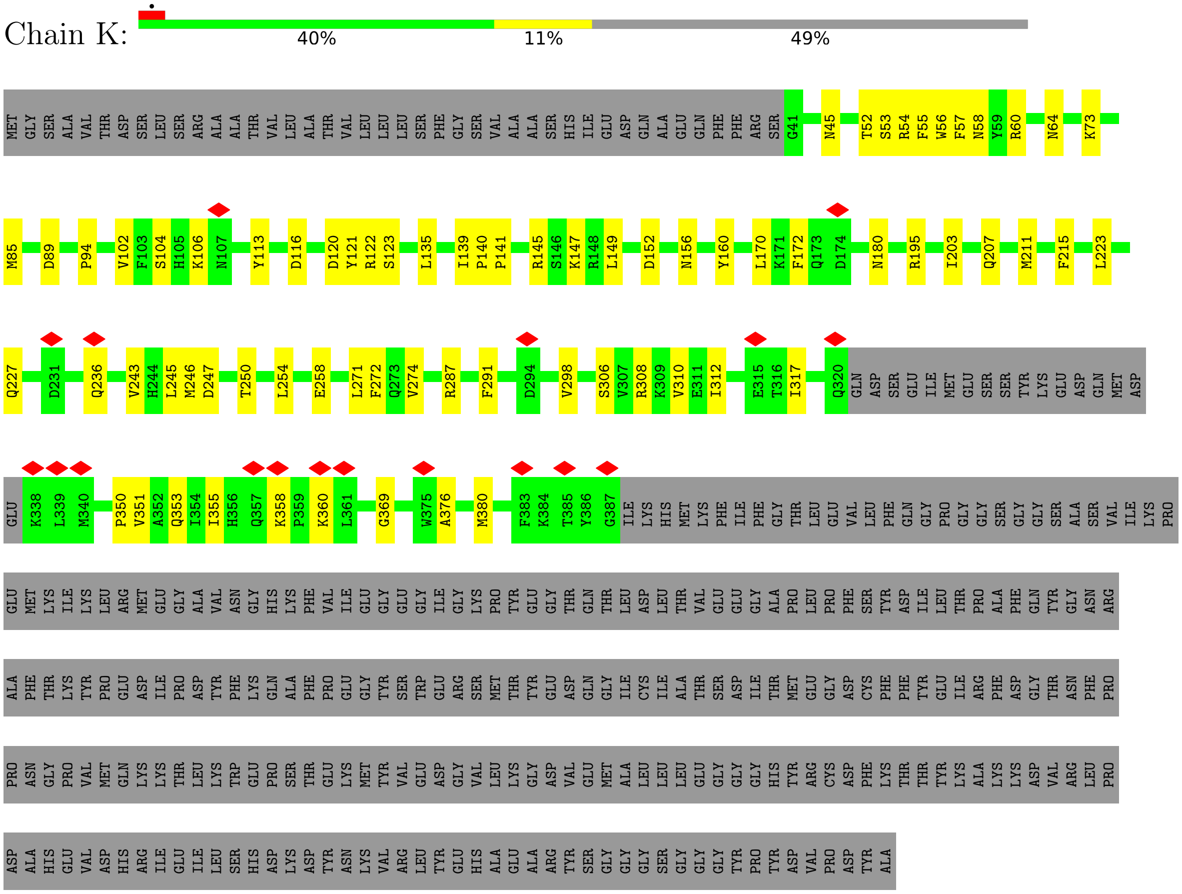
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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: Glycosylphosphatidylinositol anchor attachment 1 protein,GFP-like fluorescent chromoprotein cFP484

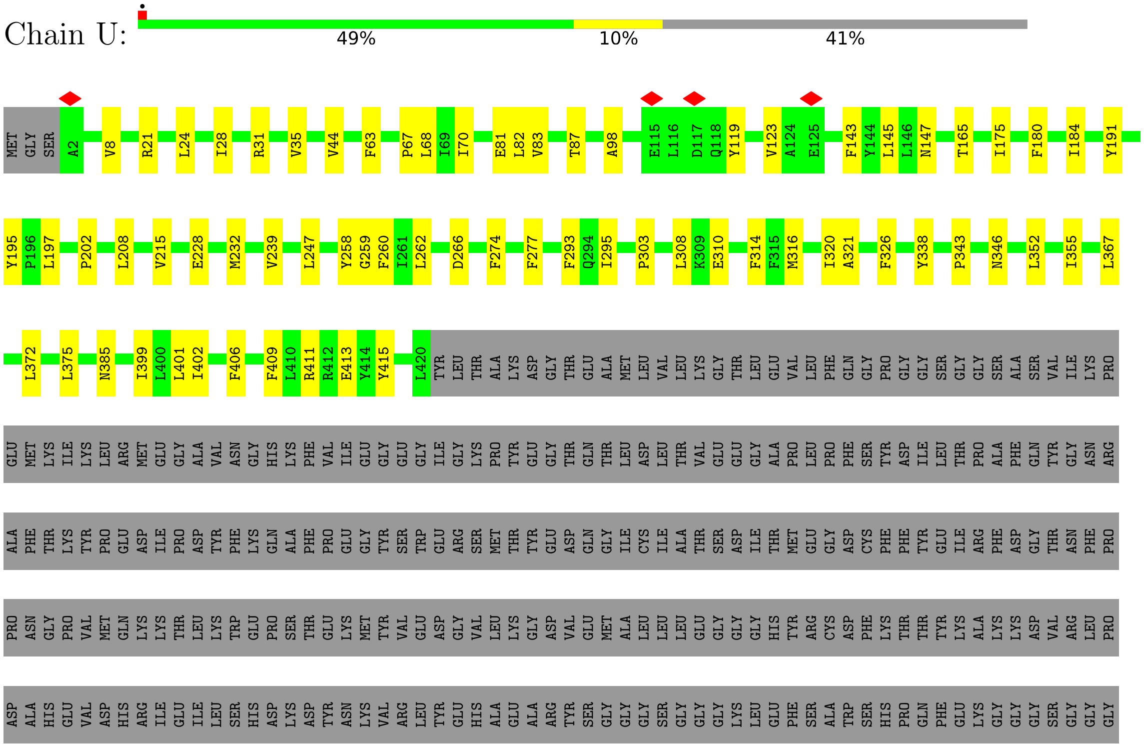
Chain G:



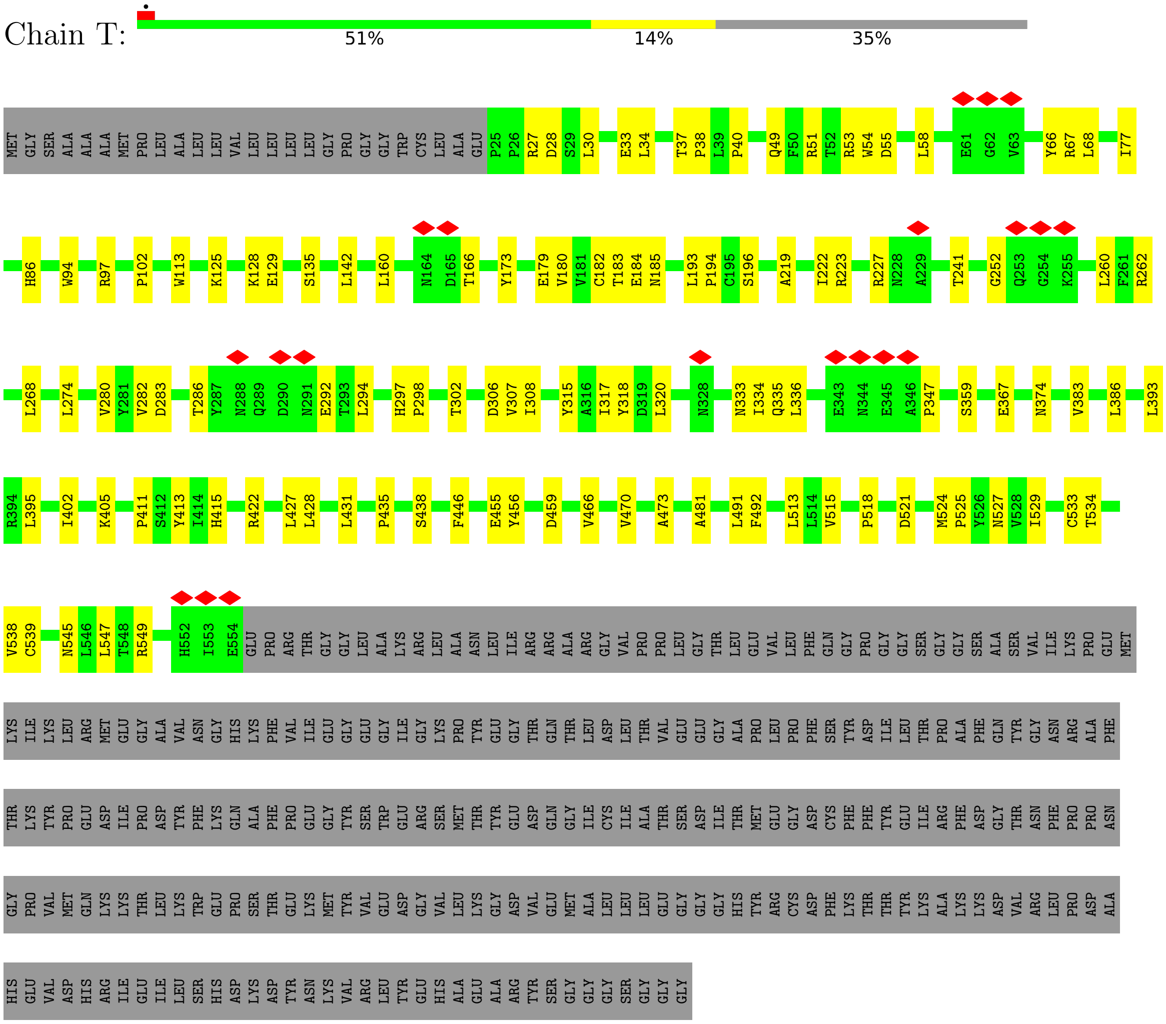
- Molecule 2: GPI-anchor transamidase,GFP-like fluorescent chromoprotein cFP484



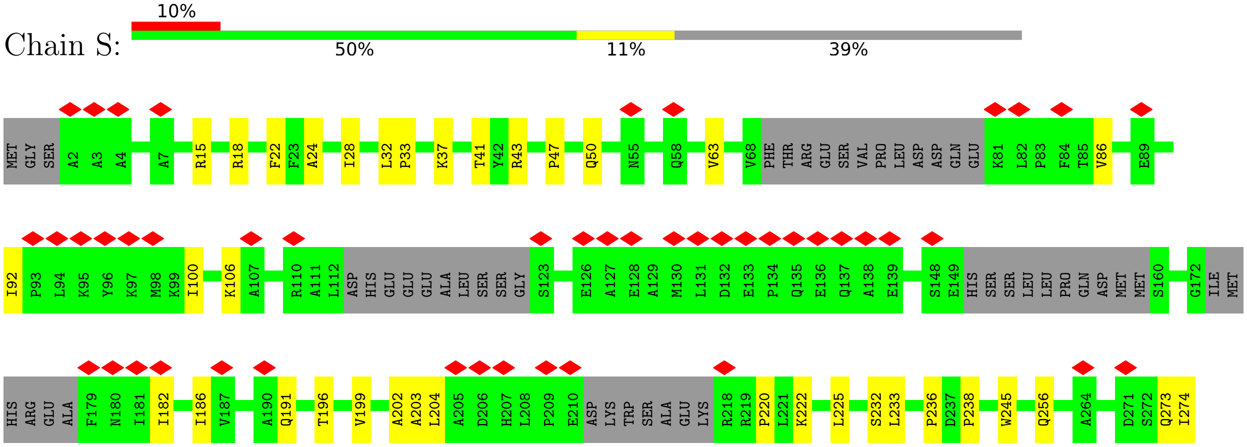
- Molecule 3: Phosphatidylinositol glycan anchor biosynthesis class U protein,GFP-like fluorescent chromoprotein cFP484

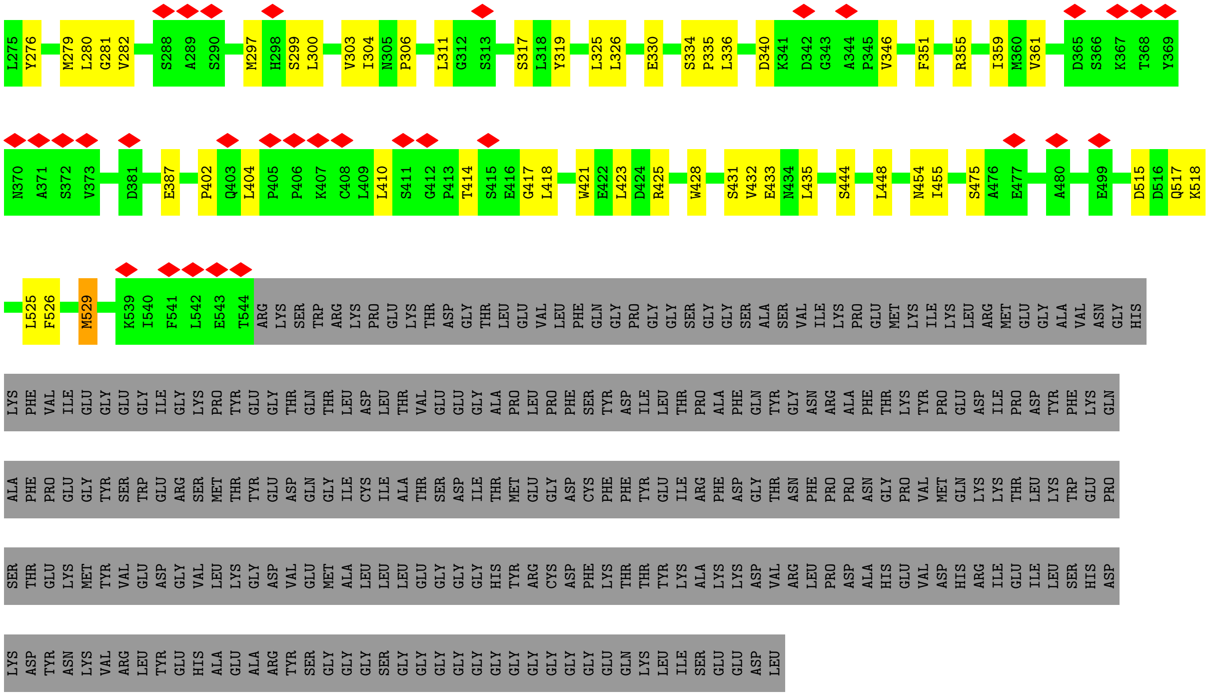


- Molecule 4: GPI transamidase component PIG-T,GFP-like fluorescent chromoprotein cFP484



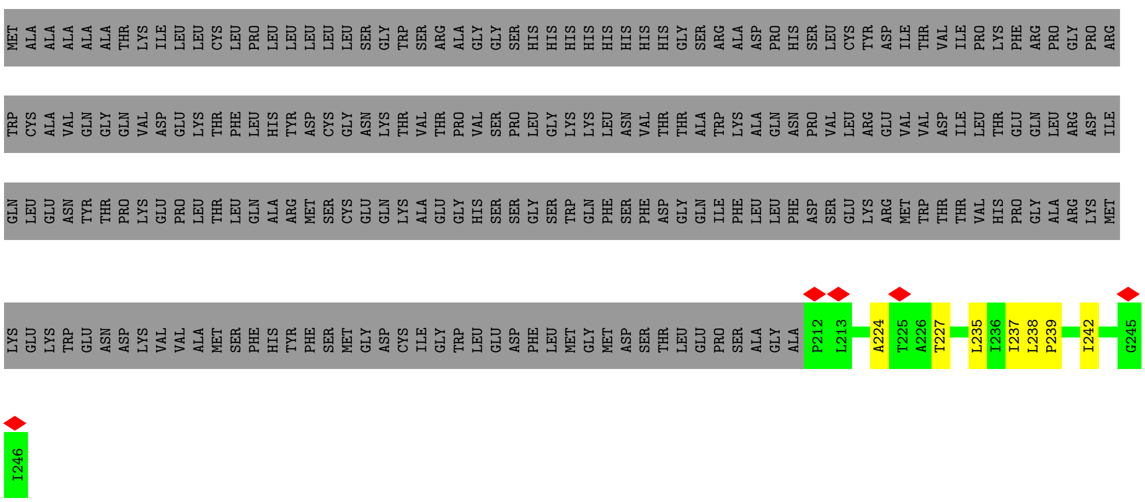
- Molecule 5: GPI transamidase component PIG-S,GFP-like fluorescent chromoprotein cFP484





- Molecule 6: UL16-binding protein 2

Chain D:



- Molecule 7: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose

Chain A:

4 Experimental information ⓘ

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	176889	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{Å}^2$)	52	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	53648	Depositor
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	3.166	Depositor
Minimum map value	-2.044	Depositor
Average map value	0.005	Depositor
Map value standard deviation	0.138	Depositor
Recommended contour level	0.5	Depositor
Map size (Å)	232.96, 232.96, 232.96	wwPDB
Map dimensions	280, 280, 280	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.832, 0.832, 0.832	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: AJP, 80T, 81Q, CA, PA1, NAG, 05E, Y01, 80Y, 6OU, MG, LBN

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	G	0.30	0/4501	0.50	0/6138
2	K	0.28	0/2701	0.50	0/3674
3	U	0.26	0/3518	0.41	0/4808
4	T	0.27	0/4354	0.49	0/5967
5	S	0.28	0/3809	0.48	0/5207
6	D	0.24	0/256	0.51	0/348
All	All	0.28	0/19139	0.48	0/26142

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

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	G	4397	0	4466	69	0
2	K	2633	0	2547	62	0
3	U	3406	0	3467	60	0
4	T	4221	0	4142	86	0
5	S	3724	0	3690	58	0
6	D	253	0	284	6	0
7	A	28	0	25	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
8	G	85	0	0	0	0
9	G	133	0	0	1	0
9	S	40	0	0	0	0
9	U	89	0	0	0	0
10	D	35	0	49	3	0
10	G	280	0	392	26	0
10	S	70	0	98	5	0
10	U	280	0	392	35	0
11	G	1	0	0	0	0
12	G	18	0	0	0	0
13	D	18	0	0	0	0
13	G	18	0	0	0	0
14	K	1	0	0	0	0
15	U	52	0	0	0	0
16	S	14	0	13	0	0
16	T	14	0	13	0	0
17	T	77	0	0	2	0
18	T	11	0	10	1	0
19	S	88	0	0	0	0
All	All	19986	0	19588	334	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 8.

All (334) 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:G:55:MET:SD	1:G:349:LEU:HD21	1.77	1.23
5:S:418:LEU:HD13	5:S:423:LEU:HD21	1.33	1.11
3:U:259:GLY:CA	10:U:802:Y01:HAD3	1.91	1.00
1:G:55:MET:SD	1:G:349:LEU:CD2	2.59	0.90
3:U:259:GLY:HA3	10:U:802:Y01:HAD3	1.52	0.90
2:K:122:ARG:HH21	4:T:180:VAL:HG12	1.38	0.89
2:K:122:ARG:HH21	4:T:180:VAL:CG1	1.85	0.89
3:U:259:GLY:HA2	10:U:802:Y01:HAD3	1.57	0.86
5:S:325:LEU:HB2	5:S:359:ILE:HG22	1.58	0.86
1:G:248:ASN:HD22	1:G:353:LEU:HB3	1.43	0.83
4:T:252:GLY:HA2	4:T:262:ARG:HH22	1.51	0.76
5:S:18:ARG:HG2	10:S:904:Y01:HAV2	1.65	0.76
10:G:1809:Y01:HAE2	10:G:1810:Y01:HAQ2	1.66	0.76
3:U:259:GLY:HA2	10:U:802:Y01:CAD	2.16	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:T:49:GLN:HG2	4:T:241:THR:HG22	1.71	0.73
10:G:1810:Y01:HAA1	10:G:1810:Y01:HAC2	1.70	0.73
17:T:902:81Q:C11	10:D:301:Y01:HAE3	2.20	0.71
4:T:40:PRO:HB3	4:T:347:PRO:HG2	1.73	0.71
4:T:30:LEU:HB2	4:T:68:LEU:HD11	1.72	0.70
4:T:28:ASP:OD1	4:T:67:ARG:NH2	2.24	0.69
3:U:259:GLY:CA	10:U:802:Y01:CAD	2.69	0.68
3:U:82:LEU:HD11	10:U:806:Y01:HAD3	1.76	0.68
2:K:312:ILE:HG21	5:S:346:VAL:HG11	1.75	0.67
10:U:808:Y01:HBE	10:U:808:Y01:HAA1	1.76	0.67
1:G:444:LEU:HD22	1:G:471:ILE:HD11	1.77	0.67
5:S:402:PRO:HB3	5:S:421:TRP:HH2	1.61	0.67
4:T:38:PRO:HD2	4:T:283:ASP:HB3	1.77	0.66
2:K:104:SER:OG	2:K:246:MET:SD	2.51	0.66
5:S:232:SER:HB2	5:S:325:LEU:HD23	1.76	0.66
5:S:414:THR:HG23	5:S:417:GLY:H	1.61	0.66
5:S:202:ALA:HB1	5:S:220:PRO:HG3	1.77	0.66
3:U:83:VAL:HG13	10:U:808:Y01:HAQ1	1.77	0.65
1:G:472:TYR:CE1	10:G:1810:Y01:HBA	2.31	0.65
2:K:145:ARG:NH2	5:S:319:TYR:O	2.29	0.65
3:U:385:ASN:ND2	4:T:521:ASP:OD2	2.28	0.65
4:T:524:MET:HG2	4:T:527:ASN:HD22	1.60	0.65
3:U:239:VAL:HG13	10:U:809:Y01:HAC3	1.79	0.64
3:U:98:ALA:HB1	3:U:175:ILE:HD12	1.80	0.64
4:T:268:LEU:HD13	4:T:320:LEU:HD21	1.77	0.64
5:S:404:LEU:HD11	5:S:410:LEU:HB2	1.79	0.64
1:G:563:LEU:HB2	10:G:1805:Y01:HAP2	1.78	0.63
5:S:41:THR:HG21	5:S:454:ASN:HA	1.81	0.63
1:G:137:ARG:HD2	1:G:174:ILE:HD11	1.78	0.63
5:S:297:MET:HA	5:S:300:LEU:HG	1.80	0.63
2:K:122:ARG:NH2	4:T:180:VAL:CG1	2.59	0.62
5:S:63:VAL:HG12	5:S:428:TRP:CZ2	2.35	0.62
1:G:268:LEU:HB2	1:G:365:LEU:HD13	1.82	0.61
2:K:122:ARG:NH2	4:T:180:VAL:HG13	2.15	0.61
1:G:472:TYR:HE1	10:G:1810:Y01:HBA	1.66	0.60
2:K:369:GLY:HA3	10:U:809:Y01:HAR2	1.83	0.60
4:T:533:CYS:HB3	5:S:525:LEU:HB2	1.83	0.60
4:T:286:THR:OG1	4:T:292:GLU:O	2.20	0.60
3:U:83:VAL:HA	10:U:808:Y01:HAK1	1.85	0.59
5:S:515:ASP:OD1	5:S:518:LYS:NZ	2.34	0.59
1:G:39:LEU:O	1:G:45:THR:OG1	2.20	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:T:260:LEU:HD12	4:T:333:ASN:HA	1.85	0.59
2:K:308:ARG:HH11	5:S:304:ILE:HD12	1.67	0.58
1:G:170:PHE:HE1	1:G:340:GLU:HG3	1.68	0.58
1:G:177:ALA:HB2	2:K:94:PRO:HB2	1.85	0.58
4:T:383:VAL:HG23	4:T:473:ALA:HB2	1.85	0.58
1:G:213:GLN:HB3	4:T:97:ARG:HH12	1.68	0.58
2:K:85:MET:HG2	2:K:121:TYR:HB2	1.85	0.58
4:T:456:TYR:OH	4:T:518:PRO:O	2.20	0.58
4:T:393:LEU:HD11	4:T:515:VAL:HG21	1.84	0.58
4:T:160:LEU:O	4:T:223:ARG:NH1	2.37	0.57
5:S:86:VAL:HG23	5:S:106:LYS:HE3	1.85	0.57
2:K:113:TYR:HE2	4:T:183:THR:HB	1.69	0.57
10:D:301:Y01:HAE2	10:D:301:Y01:HAC1	1.85	0.57
1:G:346:LEU:HD23	1:G:349:LEU:HD11	1.87	0.57
5:S:233:LEU:HD12	5:S:326:LEU:HD23	1.86	0.57
4:T:308:ILE:HG13	4:T:315:TYR:HE2	1.68	0.56
2:K:120:ASP:O	2:K:147:LYS:NZ	2.37	0.56
3:U:258:TYR:HB2	10:U:802:Y01:HAE3	1.86	0.56
5:S:182:ILE:O	5:S:186:ILE:HG12	2.05	0.56
1:G:189:LEU:HB3	1:G:308:LEU:HD11	1.88	0.56
4:T:405:LYS:HE3	4:T:438:SER:HB3	1.86	0.56
3:U:303:PRO:HB2	4:T:547:LEU:HD13	1.87	0.56
3:U:262:LEU:HB3	10:U:803:Y01:HAD3	1.88	0.56
4:T:298:PRO:HB2	4:T:318:TYR:HE2	1.71	0.56
2:K:160:TYR:HH	2:K:250:THR:HG1	1.53	0.56
2:K:358:LYS:HD3	4:T:413:TYR:HD1	1.71	0.55
10:S:905:Y01:HAC2	10:S:905:Y01:HBA	1.89	0.55
1:G:473:ALA:HA	10:G:1810:Y01:HAA3	1.88	0.55
1:G:508:LEU:HD21	3:U:367:LEU:HG	1.88	0.55
4:T:294:LEU:HD13	4:T:336:LEU:HD11	1.88	0.55
4:T:135:SER:HB2	4:T:142:LEU:HB2	1.88	0.54
1:G:62:GLU:OE2	1:G:261:LYS:NZ	2.40	0.54
2:K:308:ARG:HD2	5:S:304:ILE:HD12	1.89	0.54
4:T:386:LEU:HB3	4:T:470:VAL:HB	1.89	0.54
3:U:385:ASN:ND2	4:T:524:MET:SD	2.81	0.54
2:K:122:ARG:HH12	4:T:185:ASN:HD21	1.56	0.53
1:G:219:ILE:HG22	1:G:314:VAL:HG21	1.91	0.53
1:G:350:LEU:HD21	2:K:56:TRP:H	1.74	0.53
2:K:135:LEU:O	2:K:195:ARG:NH1	2.38	0.53
4:T:374:ASN:ND2	4:T:435:PRO:O	2.41	0.53
5:S:43:ARG:NH1	5:S:455:ILE:O	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:U:239:VAL:HG22	10:U:809:Y01:HAJ2	1.91	0.53
3:U:308:LEU:HD11	3:U:406:PHE:HE1	1.73	0.53
5:S:203:ALA:HB1	5:S:433:GLU:HB2	1.91	0.53
3:U:21:ARG:HH21	10:U:806:Y01:HAK1	1.75	0.52
10:D:301:Y01:HAE2	10:D:301:Y01:CAC	2.39	0.52
17:T:902:81Q:O25	18:T:903:PA1:H5	2.08	0.52
10:G:1809:Y01:CAN	10:G:1810:Y01:HAA2	2.40	0.52
10:S:905:Y01:HAE2	10:S:905:Y01:HAC1	1.90	0.52
2:K:376:ALA:O	2:K:380:MET:HG3	2.10	0.52
5:S:517:GLN:OE1	6:D:224:ALA:N	2.43	0.52
4:T:466:VAL:HB	4:T:513:LEU:HB2	1.92	0.52
2:K:54:ARG:NH1	2:K:123:SER:OG	2.43	0.52
2:K:113:TYR:CE2	4:T:183:THR:HB	2.45	0.52
3:U:82:LEU:CD1	10:U:806:Y01:HAD3	2.41	0.51
3:U:314:PHE:HE2	3:U:406:PHE:HD1	1.59	0.51
1:G:21:ASN:ND2	1:G:391:GLU:HB2	2.26	0.51
4:T:524:MET:N	4:T:525:PRO:HD3	2.26	0.51
2:K:215:PHE:O	2:K:287:ARG:NH2	2.44	0.50
4:T:534:THR:HG23	6:D:237:ILE:HD11	1.93	0.50
4:T:27:ARG:NH1	4:T:55:ASP:O	2.43	0.50
6:D:238:LEU:HD12	6:D:242:ILE:HB	1.93	0.50
6:D:238:LEU:HB3	6:D:239:PRO:HD3	1.93	0.50
1:G:472:TYR:OH	1:G:552:SER:OG	2.29	0.50
3:U:44:VAL:HA	3:U:63:PHE:HE1	1.76	0.50
5:S:238:PRO:HG3	5:S:276:TYR:HD2	1.76	0.50
10:G:1809:Y01:HBA	10:G:1810:Y01:HAB3	1.94	0.50
3:U:295:ILE:HG12	10:U:803:Y01:HAC2	1.92	0.50
5:S:300:LEU:HD22	5:S:351:PHE:CE2	2.46	0.50
3:U:303:PRO:HD3	5:S:22:PHE:CE2	2.46	0.50
1:G:492:ASP:O	1:G:496:MET:HG3	2.12	0.49
5:S:281:GLY:HA3	5:S:306:PRO:HG2	1.94	0.49
2:K:52:THR:HB	2:K:172:PHE:HA	1.93	0.49
2:K:145:ARG:NH2	5:S:317:SER:O	2.45	0.49
5:S:311:LEU:HD21	5:S:325:LEU:HD21	1.92	0.49
2:K:73:LYS:NZ	2:K:116:ASP:OD1	2.45	0.49
2:K:317:ILE:HG22	5:S:387:GLU:HA	1.94	0.49
3:U:8:VAL:HG12	3:U:145:LEU:HD12	1.95	0.49
2:K:45:ASN:OD1	2:K:156:ASN:HB2	2.12	0.49
10:G:1808:Y01:HAD3	10:G:1809:Y01:HAD1	1.94	0.49
3:U:87:THR:HG22	10:U:808:Y01:HAO2	1.95	0.49
2:K:351:VAL:HG13	4:T:431:LEU:HD21	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:548:LEU:HD12	1:G:618:LEU:HD22	1.94	0.49
2:K:89:ASP:OD2	4:T:180:VAL:HG21	2.13	0.49
2:K:64:ASN:HB3	2:K:250:THR:HG21	1.95	0.48
2:K:152:ASP:N	2:K:152:ASP:OD1	2.46	0.48
3:U:119:TYR:HB3	3:U:123:VAL:HG11	1.96	0.48
10:U:803:Y01:HAC1	10:U:803:Y01:HAE2	1.95	0.48
4:T:297:HIS:HB3	4:T:335:GLN:HB2	1.95	0.48
5:S:311:LEU:HD11	5:S:325:LEU:HD21	1.95	0.48
3:U:202:PRO:HB2	3:U:316:MET:HG3	1.95	0.48
1:G:133:LEU:HD23	1:G:180:ILE:HD12	1.94	0.48
4:T:395:LEU:HD23	4:T:446:PHE:HB3	1.95	0.48
1:G:225:LEU:HD13	1:G:339:LEU:HD11	1.95	0.48
5:S:334:SER:HB3	5:S:335:PRO:HD3	1.96	0.48
5:S:431:SER:O	5:S:435:LEU:HD13	2.14	0.48
10:G:1808:Y01:CAE	10:G:1809:Y01:HBD	2.43	0.48
2:K:291:PHE:HE2	2:K:298:VAL:HG21	1.79	0.48
1:G:509:GLN:HE22	1:G:606:GLY:CA	2.27	0.48
4:T:113:TRP:HB3	4:T:173:TYR:HD1	1.79	0.48
4:T:274:LEU:HD21	5:S:276:TYR:CD1	2.49	0.48
1:G:58:THR:HG22	2:K:243:VAL:HG12	1.95	0.47
4:T:30:LEU:HD22	4:T:194:PRO:HG2	1.96	0.47
4:T:37:THR:HG22	4:T:283:ASP:HB2	1.96	0.47
3:U:24:LEU:O	3:U:28:ILE:HG13	2.14	0.47
1:G:371:ILE:HA	1:G:374:TYR:CE2	2.50	0.47
1:G:513:ILE:HD11	1:G:602:LEU:HD21	1.96	0.47
2:K:106:LYS:HE3	2:K:236:GLN:OE1	2.15	0.47
4:T:534:THR:O	4:T:538:VAL:HG23	2.15	0.47
1:G:559:GLY:HA2	10:G:1807:Y01:HAC2	1.97	0.47
4:T:94:TRP:CE2	4:T:102:PRO:HB3	2.49	0.47
5:S:191:GLN:O	5:S:196:THR:OG1	2.33	0.47
2:K:53:SER:HB2	2:K:58:ASN:HB3	1.97	0.46
1:G:242:LEU:HD13	1:G:302:PRO:HG3	1.96	0.46
1:G:531:THR:HG22	1:G:547:LEU:HB3	1.97	0.46
4:T:34:LEU:HB3	4:T:280:VAL:HG22	1.97	0.46
4:T:86:HIS:CE1	4:T:160:LEU:HD12	2.51	0.46
5:S:196:THR:HB	5:S:199:VAL:HG23	1.97	0.46
1:G:12:ALA:HA	1:G:15:ARG:HH11	1.81	0.46
1:G:197:GLU:OE2	1:G:205:THR:OG1	2.28	0.46
10:G:1811:Y01:HAJ2	10:G:1811:Y01:HAB2	1.66	0.46
2:K:351:VAL:O	2:K:355:ILE:HG12	2.14	0.46
3:U:165:THR:HG21	10:U:808:Y01:HAJ1	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:U:258:TYR:CB	10:U:802:Y01:HAE3	2.45	0.46
5:S:236:PRO:HB2	5:S:330:GLU:HG2	1.98	0.46
1:G:194:ALA:HB2	1:G:207:MET:SD	2.56	0.46
4:T:402:ILE:HD13	4:T:411:PRO:HD3	1.97	0.46
3:U:143:PHE:O	3:U:147:ASN:HB2	2.16	0.46
10:G:1805:Y01:HAP1	10:G:1805:Y01:HAO2	1.38	0.45
10:U:808:Y01:HAE2	10:U:808:Y01:HAC1	1.99	0.45
1:G:506:LEU:HB2	1:G:610:CYS:SG	2.57	0.45
2:K:64:ASN:ND2	2:K:247:ASP:OD1	2.50	0.45
10:U:807:Y01:HAC2	10:U:807:Y01:HAJ2	1.72	0.45
2:K:55:PHE:CE1	4:T:459:ASP:HB3	2.52	0.45
4:T:422:ARG:NE	4:T:455:GLU:OE2	2.48	0.45
3:U:180:PHE:O	3:U:184:ILE:HG12	2.16	0.45
4:T:359:SER:HB3	4:T:367:GLU:HB2	1.98	0.45
1:G:177:ALA:CB	2:K:94:PRO:HB2	2.46	0.45
2:K:350:PRO:HB2	2:K:353:GLN:HB3	1.99	0.45
4:T:55:ASP:HB3	4:T:227:ARG:NH1	2.32	0.45
4:T:386:LEU:HD11	4:T:427:LEU:HD11	1.98	0.45
2:K:122:ARG:HH21	4:T:180:VAL:HG13	1.66	0.45
1:G:469:LEU:HD13	10:G:1810:Y01:HAE2	1.99	0.45
10:G:1810:Y01:HAE2	10:G:1810:Y01:HBB	1.86	0.45
4:T:54:TRP:CZ3	4:T:58:LEU:HD21	2.52	0.45
1:G:162:LEU:HD23	1:G:225:LEU:HD21	1.99	0.45
1:G:204:VAL:HG23	1:G:205:THR:HG23	1.98	0.45
10:G:1808:Y01:HAO2	10:G:1808:Y01:HAP1	1.23	0.45
4:T:51:ARG:HH21	4:T:53:ARG:HD3	1.82	0.45
1:G:557:LEU:HB2	9:G:1802:6OU:C49	2.46	0.44
1:G:565:ARG:HD3	1:G:565:ARG:HA	1.83	0.44
10:G:1806:Y01:HAJ2	10:G:1806:Y01:HAB2	1.48	0.44
3:U:67:PRO:HA	3:U:70:ILE:HG12	1.98	0.44
10:G:1810:Y01:HAO2	10:G:1810:Y01:HAP1	1.25	0.44
3:U:326:PHE:HE2	4:T:539:CYS:HG	1.64	0.44
10:U:802:Y01:HAB1	10:U:802:Y01:HAJ2	1.73	0.44
1:G:95:THR:HG21	1:G:164:LEU:HD13	1.99	0.44
5:S:37:LYS:HD3	5:S:37:LYS:HA	1.78	0.44
1:G:590:LEU:O	1:G:594:THR:HG23	2.17	0.44
3:U:195:TYR:O	3:U:197:LEU:N	2.46	0.44
1:G:55:MET:CE	1:G:349:LEU:HD21	2.44	0.44
3:U:87:THR:HG22	10:U:808:Y01:HAP1	1.99	0.44
3:U:411:ARG:NH2	3:U:415:TYR:OH	2.50	0.44
5:S:24:ALA:O	5:S:28:ILE:HG12	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:T:415:HIS:O	4:T:428:LEU:HA	2.18	0.44
1:G:54:ALA:HA	2:K:57:PHE:CD1	2.53	0.44
1:G:64:PHE:HB3	1:G:337:LYS:HG3	2.00	0.44
1:G:240:GLU:HA	1:G:246:LEU:HD23	2.00	0.44
3:U:21:ARG:NH2	3:U:81:GLU:OE1	2.51	0.44
3:U:409:PHE:O	3:U:413:GLU:HG2	2.17	0.44
10:U:805:Y01:HAP1	10:U:805:Y01:HAO2	1.76	0.44
2:K:170:LEU:HD12	2:K:203:ILE:HD11	1.99	0.44
2:K:207:GLN:HA	2:K:227:GLN:O	2.16	0.44
1:G:55:MET:SD	1:G:349:LEU:CG	3.06	0.44
3:U:274:PHE:CZ	3:U:293:PHE:HB3	2.53	0.44
4:T:66:TYR:O	5:S:273:GLN:HA	2.18	0.44
4:T:219:ALA:HB3	4:T:241:THR:OG1	2.18	0.44
5:S:236:PRO:HB3	5:S:279:MET:HG3	1.98	0.44
5:S:280:LEU:HD22	5:S:303:VAL:HG13	2.00	0.44
5:S:282:VAL:HG21	5:S:299:SER:HB3	1.99	0.44
2:K:271:LEU:O	2:K:274:VAL:HG12	2.18	0.43
5:S:204:LEU:HD11	5:S:432:VAL:HG11	1.98	0.43
10:G:1808:Y01:HAC2	10:G:1808:Y01:HAJ1	1.79	0.43
2:K:360:LYS:HD2	2:K:360:LYS:HA	1.79	0.43
3:U:31:ARG:O	3:U:35:VAL:HG22	2.18	0.43
4:T:125:LYS:O	4:T:129:GLU:HG3	2.18	0.43
4:T:193:LEU:HB2	4:T:196:SER:HA	1.99	0.43
1:G:476:LEU:CD2	10:G:1810:Y01:HAB2	2.48	0.43
1:G:557:LEU:HD23	1:G:581:PHE:CE1	2.54	0.43
1:G:605:LEU:O	1:G:609:PRO:HG2	2.18	0.43
5:S:435:LEU:HD11	5:S:475:SER:HB3	2.01	0.43
1:G:492:ASP:HA	1:G:495:TRP:CD1	2.53	0.43
3:U:310:GLU:OE1	5:S:15:ARG:NH1	2.45	0.43
4:T:67:ARG:HD3	5:S:274:ILE:HD12	2.01	0.43
10:G:1812:Y01:HAO2	10:G:1812:Y01:HAP1	1.29	0.43
3:U:352:LEU:HD13	3:U:355:ILE:HD13	1.99	0.43
10:U:809:Y01:HAO2	10:U:809:Y01:HAP1	1.33	0.43
5:S:47:PRO:HB2	5:S:50:GLN:HB2	2.01	0.43
4:T:306:ASP:OD1	4:T:307:VAL:N	2.51	0.43
5:S:222:LYS:HB2	5:S:355:ARG:HH12	1.84	0.43
3:U:401:LEU:HD12	3:U:401:LEU:HA	1.90	0.43
10:G:1807:Y01:HAN1	10:G:1807:Y01:HBB	1.41	0.43
2:K:254:LEU:O	2:K:258:GLU:HG2	2.19	0.43
6:D:235:LEU:HD22	6:D:239:PRO:HG2	2.00	0.42
3:U:67:PRO:HB3	3:U:247:LEU:HD23	2.01	0.42

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Atom-1	**Atom-2**	**Interatomic distance (Å)**	**Clash overlap (Å)**
3:U:68:LEU:HD13	3:U:191:TYR:CE2	2.54	0.42
3:U:228:GLU:O	3:U:232:MET:HG3	2.19	0.42
10:G:1808:Y01:HAE2	10:G:1808:Y01:HBB	1.95	0.42
10:G:1808:Y01:HAE3	10:G:1809:Y01:HBD	1.99	0.42
2:K:45:ASN:HB2	2:K:306:SER:HB2	2.01	0.42
2:K:55:PHE:HE1	4:T:459:ASP:HB3	1.85	0.42
3:U:321:ALA:HB1	3:U:402:ILE:HG13	2.01	0.42
3:U:372:LEU:HD23	3:U:375:LEU:HD12	2.01	0.42
1:G:12:ALA:O	1:G:16:LEU:HD23	2.19	0.42
1:G:93:GLU:HA	1:G:103:VAL:HG21	2.01	0.42
3:U:208:LEU:HD13	3:U:215:VAL:HG22	2.01	0.42
10:G:1805:Y01:HAE2	10:G:1805:Y01:HBB	1.96	0.42
2:K:60:ARG:HA	2:K:245:LEU:O	2.19	0.42
3:U:399:ILE:HD13	4:T:539:CYS:HB2	2.01	0.42
10:U:809:Y01:HAC2	10:U:809:Y01:HAJ1	1.82	0.42
4:T:307:VAL:HG21	4:T:481:ALA:HA	2.01	0.42
1:G:110:ARG:HB3	1:G:207:MET:HG3	2.02	0.42
3:U:343:PRO:HA	3:U:346:ASN:HD22	1.83	0.42
10:U:806:Y01:HAJ1	10:U:806:Y01:HAC3	1.72	0.42
4:T:545:ASN:O	4:T:549:ARG:HB2	2.20	0.42
10:S:905:Y01:HAC3	10:S:905:Y01:HAJ1	1.71	0.42
5:S:336:LEU:HD22	5:S:361:VAL:HG11	2.01	0.42
5:S:444:SER:O	5:S:448:LEU:HG	2.20	0.42
2:K:312:ILE:HD12	5:S:340:ASP:HB3	2.01	0.42
4:T:282:VAL:HG21	4:T:334:ILE:HG21	2.02	0.42
2:K:223:LEU:HD11	2:K:272:PHE:HE1	1.85	0.41
4:T:179:GLU:OE2	4:T:179:GLU:HA	2.19	0.41
1:G:295:LEU:HD23	1:G:523:LEU:HD11	2.02	0.41
5:S:92:ILE:HD13	5:S:100:ILE:HG22	2.01	0.41
1:G:350:LEU:HD22	2:K:55:PHE:HD1	1.84	0.41
2:K:102:VAL:HB	2:K:113:TYR:HB2	2.01	0.41
2:K:180:ASN:HB3	2:K:211:MET:HA	2.02	0.41
2:K:310:VAL:HG11	5:S:300:LEU:HB3	2.03	0.41
10:U:804:Y01:HAO2	10:U:804:Y01:HAP1	1.38	0.41
4:T:179:GLU:OE2	4:T:179:GLU:CA	2.68	0.41
1:G:115:PRO:HD2	1:G:460:GLU:HB2	2.02	0.41
3:U:372:LEU:HD23	3:U:372:LEU:HA	1.85	0.41
4:T:166:THR:HG22	4:T:166:THR:O	2.20	0.41
4:T:302:THR:O	4:T:317:ILE:N	2.54	0.41
2:K:139:ILE:HG13	2:K:140:PRO:HD2	2.03	0.41
3:U:260:PHE:CZ	3:U:266:ASP:HB2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:U:804:Y01:HAB3	10:U:804:Y01:HAJ1	1.45	0.41
4:T:33:GLU:CD	4:T:491:LEU:HB2	2.40	0.41
4:T:182:CYS:HB3	4:T:184:GLU:HG2	2.02	0.41
5:S:32:LEU:HB2	5:S:33:PRO:HD3	2.03	0.41
5:S:225:LEU:HD12	5:S:225:LEU:H	1.85	0.41
5:S:256:GLN:HA	5:S:256:GLN:OE1	2.21	0.41
1:G:536:LYS:HB2	1:G:536:LYS:HE2	1.86	0.41
2:K:355:ILE:HD11	4:T:431:LEU:HD23	2.02	0.41
3:U:277:PHE:HE1	4:T:529:ILE:HA	1.86	0.41
4:T:128:LYS:HB3	4:T:128:LYS:HE2	1.73	0.41
1:G:53:ASN:O	1:G:54:ALA:C	2.59	0.41
1:G:124:VAL:HG21	1:G:190:LEU:HD13	2.03	0.41
4:T:77:ILE:HD11	4:T:222:ILE:HG21	2.02	0.41
4:T:513:LEU:HD23	4:T:513:LEU:HA	1.93	0.41
2:K:140:PRO:HA	2:K:141:PRO:HD3	1.96	0.41
2:K:149:LEU:O	2:K:195:ARG:NH2	2.54	0.41
3:U:87:THR:CG2	10:U:808:Y01:HAP1	2.51	0.41
1:G:385:LEU:HD22	1:G:503:LEU:HD22	2.03	0.40
10:U:803:Y01:HAA1	10:U:803:Y01:HAJ2	1.86	0.40
1:G:99:VAL:HG23	1:G:101:LEU:HG	2.03	0.40
10:U:808:Y01:HAA1	10:U:808:Y01:HAJ2	1.82	0.40
4:T:435:PRO:HG2	4:T:438:SER:OG	2.21	0.40
2:K:122:ARG:NH2	4:T:180:VAL:O	2.54	0.40
3:U:21:ARG:HA	3:U:21:ARG:HD3	1.72	0.40
3:U:262:LEU:HD22	10:U:803:Y01:HAD3	2.03	0.40
1:G:62:GLU:HG3	1:G:337:LYS:HG2	2.04	0.40
1:G:142:GLU:HB2	1:G:178:LYS:HG2	2.03	0.40
3:U:320:ILE:HG22	3:U:338:TYR:HB3	2.03	0.40
4:T:49:GLN:HE22	4:T:492:PHE:HA	1.86	0.40
5:S:526:PHE:HA	5:S:529:MET:HB2	2.03	0.40
10:S:905:Y01:CAI	6:D:227:THR:HG23	2.51	0.40
1:G:237:VAL:HG13	1:G:268:LEU:HD12	2.04	0.40
1:G:396:LEU:HD21	10:G:1811:Y01:HAP2	2.03	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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	G	573/886 (65%)	561 (98%)	12 (2%)	0	100	100
2	K	326/647 (50%)	317 (97%)	9 (3%)	0	100	100
3	U	417/712 (59%)	408 (98%)	9 (2%)	0	100	100
4	T	528/821 (64%)	519 (98%)	9 (2%)	0	100	100
5	S	486/816 (60%)	480 (99%)	6 (1%)	0	100	100
6	D	33/258 (13%)	30 (91%)	3 (9%)	0	100	100
All	All	2363/4140 (57%)	2315 (98%)	48 (2%)	0	100	100

There are no Ramachandran outliers to report.

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 PDB entries followed by that with respect to all EM entries.

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	G	443/714 (62%)	439 (99%)	4 (1%)	78	90
2	K	288/563 (51%)	288 (100%)	0	100	100
3	U	366/609 (60%)	366 (100%)	0	100	100
4	T	464/718 (65%)	464 (100%)	0	100	100
5	S	380/681 (56%)	377 (99%)	3 (1%)	81	92
6	D	30/221 (14%)	30 (100%)	0	100	100
All	All	1971/3506 (56%)	1964 (100%)	7 (0%)	91	95

All (7) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	G	76	ASP
1	G	347	ASN
1	G	355	GLN
1	G	356	SER
5	S	245	TRP
5	S	425	ARG
5	S	529	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (17) such sidechains are listed below:

Mol	Chain	Res	Type
1	G	21	ASN
1	G	173	GLN
1	G	253	ASN
1	G	347	ASN
1	G	579	GLN
2	K	44	ASN
2	K	207	GLN
2	K	235	HIS
2	K	286	HIS
3	U	211	GLN
4	T	143	ASN
4	T	185	ASN
4	T	218	GLN
4	T	355	GLN
4	T	376	HIS
4	T	503	ASN
6	D	221	GLN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates ⓘ

2 monosaccharides 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	$\#\|Z\| > 2$
7	NAG	A	1	7,1	14,14,15	0.23	0	17,19,21	0.45	0
7	NAG	A	2	7	14,14,15	0.21	0	17,19,21	0.42	0

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	NAG	A	1	7,1	-	2/6/23/26	0/1/1/1
7	NAG	A	2	7	-	0/6/23/26	0/1/1/1

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (2) torsion outliers are listed below:

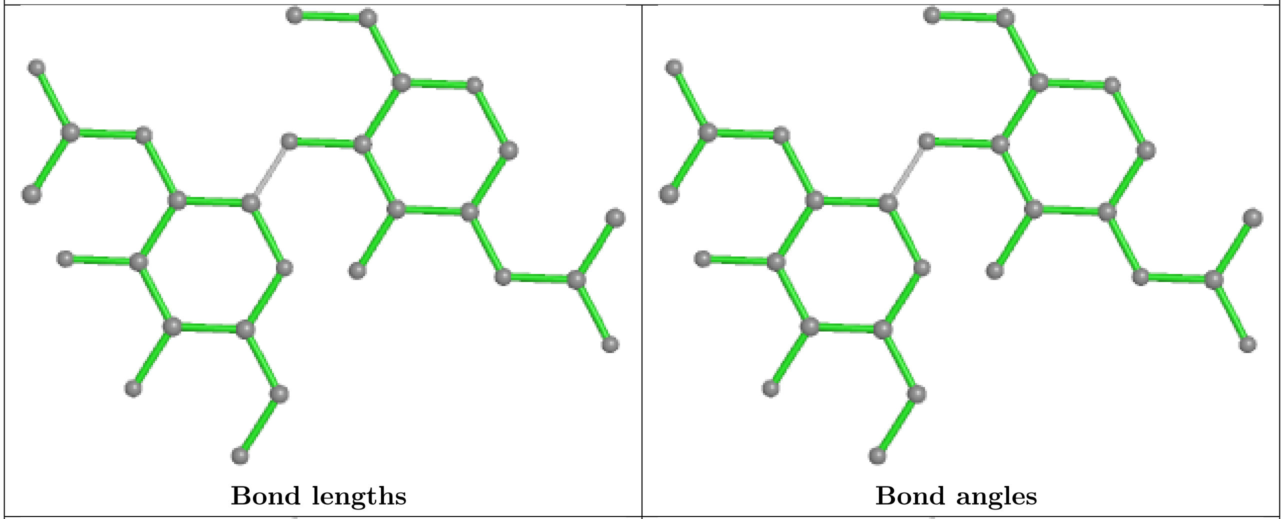
Mol	Chain	Res	Type	Atoms
7	A	1	NAG	C4-C5-C6-O6
7	A	1	NAG	O5-C5-C6-O6

There are no ring outliers.

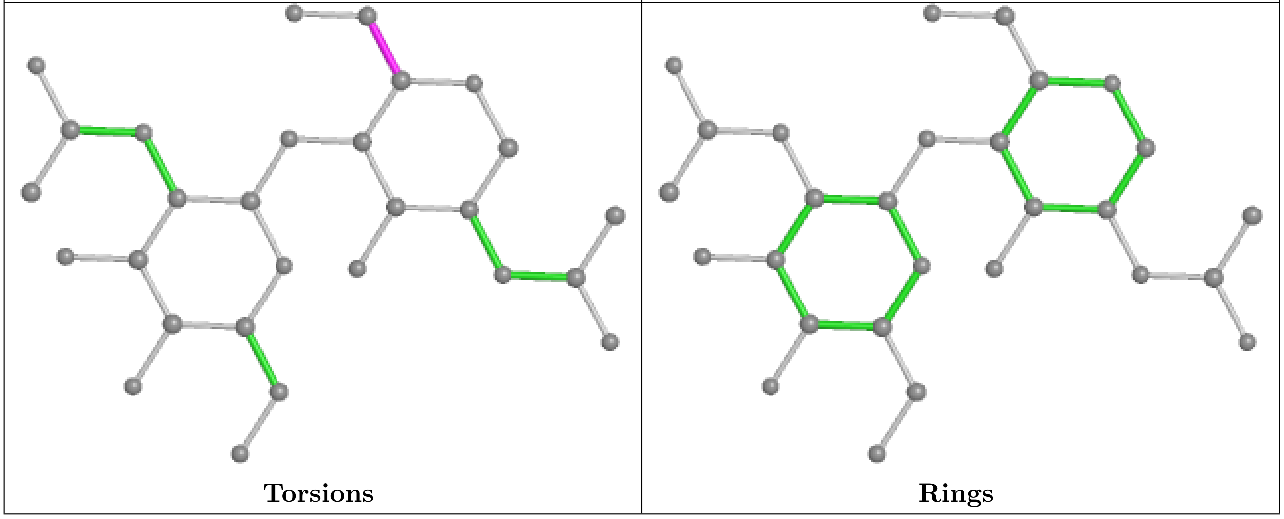
No monomer is involved in short contacts.

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for oligosaccharide.

Oligosaccharide Chain A



Bond lengths Bond angles



Torsions Rings

5.6 Ligand geometry ⓘ

Of 37 ligands modelled in this entry, 2 are monoatomic - leaving 35 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	$\#\|Z\| > 2$
10	Y01	U	807	-	38,38,38	0.66	2 (5%)	57,57,57	0.68	2 (3%)
10	Y01	U	803	-	38,38,38	0.65	2 (5%)	57,57,57	0.70	2 (3%)
9	6OU	G	1802	-	44,44,48	0.89	3 (6%)	47,49,53	1.31	5 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#|Z| > 2	Counts	RMSZ	#|Z| > 2
10	Y01	S	905	-	38,38,38	0.67	2 (5%)	57,57,57	0.79	2 (3%)
16	NAG	S	902	5	14,14,15	0.24	0	17,19,21	0.47	0
12	05E	G	1814	13,18,11	18,18,19	1.35	3 (16%)	22,25,27	1.04	2 (9%)
15	LBN	U	811	-	51,51,51	1.09	7 (13%)	57,59,59	0.95	3 (5%)
9	6OU	U	810	-	48,48,48	0.89	2 (4%)	51,53,53	0.98	4 (7%)
9	6OU	G	1804	-	38,38,48	0.99	4 (10%)	41,43,53	1.06	2 (4%)
10	Y01	U	802	-	38,38,38	0.67	2 (5%)	57,57,57	0.72	2 (3%)
10	Y01	U	806	-	38,38,38	0.67	2 (5%)	57,57,57	0.81	2 (3%)
9	6OU	S	903	-	39,39,48	0.96	4 (10%)	42,44,53	1.01	2 (4%)
10	Y01	G	1808	-	38,38,38	0.68	2 (5%)	57,57,57	0.69	2 (3%)
9	6OU	U	801	-	39,39,48	0.95	3 (7%)	42,44,53	1.14	2 (4%)
13	80Y	D	302	13	18,18,19	1.31	1 (5%)	24,25,27	0.82	1 (4%)
10	Y01	U	808	-	38,38,38	0.75	2 (5%)	57,57,57	0.99	4 (7%)
10	Y01	G	1807	-	38,38,38	0.70	2 (5%)	57,57,57	0.80	2 (3%)
9	6OU	G	1803	-	48,48,48	0.93	2 (4%)	51,53,53	1.04	3 (5%)
10	Y01	U	809	-	38,38,38	0.65	2 (5%)	57,57,57	0.82	2 (3%)
18	PA1	T	903	17,12	11,11,12	1.61	4 (36%)	12,15,17	1.21	0
10	Y01	G	1806	-	38,38,38	0.68	2 (5%)	57,57,57	0.72	2 (3%)
13	80Y	G	1815	13,12	18,18,19	1.64	2 (11%)	24,25,27	1.14	2 (8%)
10	Y01	U	804	-	38,38,38	0.67	2 (5%)	57,57,57	0.66	2 (3%)
10	Y01	G	1812	-	38,38,38	0.68	2 (5%)	57,57,57	0.66	2 (3%)
8	AJP	G	1801	-	95,95,95	0.13	0	143,149,149	0.35	0
16	NAG	T	901	4	14,14,15	0.24	0	17,19,21	0.51	0
19	80T	S	901	-	87,87,95	1.41	12 (13%)	93,99,107	1.02	4 (4%)
10	Y01	G	1805	-	38,38,38	0.68	2 (5%)	57,57,57	0.71	2 (3%)
10	Y01	D	301	-	38,38,38	0.67	2 (5%)	57,57,57	0.95	4 (7%)
10	Y01	G	1810	-	38,38,38	0.69	2 (5%)	57,57,57	0.83	3 (5%)
10	Y01	U	805	-	38,38,38	0.65	2 (5%)	57,57,57	0.62	2 (3%)
10	Y01	S	904	-	38,38,38	0.66	2 (5%)	57,57,57	0.62	2 (3%)
10	Y01	G	1809	-	38,38,38	0.66	2 (5%)	57,57,57	0.78	2 (3%)
10	Y01	G	1811	-	38,38,38	0.69	2 (5%)	57,57,57	0.83	3 (5%)
17	81Q	T	902	18	77,77,77	1.17	7 (9%)	87,89,89	1.40	6 (6%)

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
10	Y01	U	807	-	-	13/19/77/77	0/4/4/4
10	Y01	U	803	-	-	10/19/77/77	0/4/4/4
9	6OU	G	1802	-	-	29/48/48/52	-
10	Y01	S	905	-	-	9/19/77/77	0/4/4/4
16	NAG	S	902	5	-	2/6/23/26	0/1/1/1
12	05E	G	1814	13,18,11	-	9/12/29/32	0/1/1/1
15	LBN	U	811	-	-	27/55/55/55	-
9	6OU	U	810	-	-	22/52/52/52	-
9	6OU	G	1804	-	-	24/42/42/52	-
10	Y01	U	802	-	-	11/19/77/77	0/4/4/4
10	Y01	U	806	-	-	12/19/77/77	0/4/4/4
9	6OU	S	903	-	-	25/43/43/52	-
10	Y01	G	1808	-	-	17/19/77/77	0/4/4/4
9	6OU	U	801	-	-	26/43/43/52	-
13	80Y	D	302	13	-	8/11/28/31	0/1/1/1
10	Y01	U	808	-	-	9/19/77/77	0/4/4/4
10	Y01	G	1807	-	-	11/19/77/77	0/4/4/4
9	6OU	G	1803	-	-	34/52/52/52	-
10	Y01	U	809	-	-	12/19/77/77	0/4/4/4
18	PA1	T	903	17,12	-	2/2/19/22	0/1/1/1
10	Y01	G	1806	-	-	10/19/77/77	0/4/4/4
13	80Y	G	1815	13,12	-	8/11/28/31	0/1/1/1
10	Y01	U	804	-	-	16/19/77/77	0/4/4/4
10	Y01	G	1812	-	-	14/19/77/77	0/4/4/4
8	AJP	G	1801	-	-	8/28/220/220	0/11/11/11
16	NAG	T	901	4	-	1/6/23/26	0/1/1/1
19	80T	S	901	-	-	53/98/98/106	-
10	Y01	G	1805	-	-	11/19/77/77	0/4/4/4
10	Y01	D	301	-	-	15/19/77/77	0/4/4/4
10	Y01	G	1810	-	-	12/19/77/77	0/4/4/4
10	Y01	U	805	-	-	17/19/77/77	0/4/4/4
10	Y01	S	904	-	-	14/19/77/77	0/4/4/4
10	Y01	G	1809	-	-	14/19/77/77	0/4/4/4
10	Y01	G	1811	-	-	8/19/77/77	0/4/4/4

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
17	81Q	T	902	18	-	34/73/97/97	0/1/1/1

All (92) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	G	1815	80Y	C52-C85	-4.61	1.45	1.52
17	T	902	81Q	P95-O94	4.24	1.71	1.60
19	S	901	80T	O23-C24	3.99	1.45	1.33
17	T	902	81Q	O04-C05	3.71	1.44	1.34
19	S	901	80T	O72-C52	-3.67	1.37	1.46
19	S	901	80T	O20-C02	3.66	1.44	1.34
9	G	1803	6OU	O30-C20	-3.58	1.37	1.46
19	S	901	80T	O54-C55	3.30	1.43	1.33
13	D	302	80Y	C52-C85	-3.25	1.47	1.52
18	T	903	PA1	C3-C2	-3.18	1.46	1.53
9	U	810	6OU	O30-C20	-3.16	1.38	1.46
15	U	811	LBN	O7-C2	-2.99	1.39	1.46
19	S	901	80T	O20-C21	-2.98	1.39	1.46
10	G	1812	Y01	OAH-CAX	-2.90	1.21	1.30
10	S	904	Y01	OAH-CAX	-2.86	1.21	1.30
12	G	1814	05E	C90-C81	-2.86	1.47	1.53
10	G	1806	Y01	OAH-CAX	-2.85	1.21	1.30
10	G	1807	Y01	OAH-CAX	-2.83	1.21	1.30
19	S	901	80T	P43-O42	2.80	1.70	1.59
10	U	804	Y01	OAH-CAX	-2.79	1.21	1.30
10	U	803	Y01	OAH-CAX	-2.76	1.21	1.30
10	G	1811	Y01	OAH-CAX	-2.76	1.21	1.30
9	G	1803	6OU	O18-C19	-2.76	1.38	1.45
9	G	1804	6OU	O30-C20	-2.75	1.39	1.46
10	G	1809	Y01	OAH-CAX	-2.75	1.21	1.30
13	G	1815	80Y	O72-C51	2.75	1.48	1.43
10	G	1810	Y01	OAF-CAX	2.74	1.31	1.22
10	U	805	Y01	OAH-CAX	-2.74	1.21	1.30
10	G	1808	Y01	OAF-CAX	2.74	1.31	1.22
10	G	1808	Y01	OAH-CAX	-2.72	1.21	1.30
19	S	901	80T	O72-C73	2.70	1.41	1.34
10	U	804	Y01	OAF-CAX	2.70	1.31	1.22
19	S	901	80T	P43-O44	2.69	1.70	1.59
10	G	1811	Y01	OAF-CAX	2.69	1.31	1.22
10	D	301	Y01	OAH-CAX	-2.68	1.21	1.30
10	U	807	Y01	OAH-CAX	-2.68	1.21	1.30
10	U	807	Y01	OAF-CAX	2.68	1.31	1.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	U	811	LBN	O5-C25	2.68	1.41	1.33
10	U	806	Y01	OAF-CAX	2.67	1.31	1.22
10	U	806	Y01	OAH-CAX	-2.67	1.21	1.30
10	U	808	Y01	OAF-CAX	2.67	1.31	1.22
10	S	905	Y01	OAF-CAX	2.67	1.31	1.22
10	S	905	Y01	OAH-CAX	-2.67	1.21	1.30
10	U	809	Y01	OAF-CAX	2.66	1.31	1.22
10	U	805	Y01	OAF-CAX	2.65	1.30	1.22
10	U	808	Y01	OAH-CAX	-2.65	1.21	1.30
10	S	904	Y01	OAF-CAX	2.65	1.30	1.22
10	U	809	Y01	OAH-CAX	-2.64	1.21	1.30
10	G	1805	Y01	OAF-CAX	2.63	1.30	1.22
10	U	802	Y01	OAF-CAX	2.63	1.30	1.22
10	G	1812	Y01	OAF-CAX	2.63	1.30	1.22
10	U	802	Y01	OAH-CAX	-2.63	1.21	1.30
10	G	1810	Y01	OAH-CAX	-2.63	1.21	1.30
10	G	1806	Y01	OAF-CAX	2.62	1.30	1.22
10	G	1805	Y01	OAH-CAX	-2.60	1.22	1.30
10	G	1809	Y01	OAF-CAX	2.60	1.30	1.22
9	U	801	6OU	O30-C20	-2.59	1.40	1.46
10	D	301	Y01	OAF-CAX	2.59	1.30	1.22
17	T	902	81Q	O04-C03	-2.57	1.40	1.44
10	G	1807	Y01	OAF-CAX	2.57	1.30	1.22
10	U	803	Y01	OAF-CAX	2.50	1.30	1.22
9	S	903	6OU	O30-C20	-2.48	1.40	1.46
9	U	810	6OU	O18-C19	-2.47	1.39	1.45
9	G	1802	6OU	O30-C20	-2.46	1.40	1.46
9	U	801	6OU	O18-C19	-2.46	1.39	1.45
15	U	811	LBN	C15-N1	-2.45	1.42	1.50
18	T	903	PA1	O5-C5	2.42	1.48	1.43
9	S	903	6OU	O18-C19	-2.40	1.39	1.45
17	T	902	81Q	CAL-C98	2.36	1.57	1.50
9	G	1802	6OU	O30-C31	2.36	1.41	1.34
9	G	1804	6OU	O18-C19	-2.33	1.39	1.45
19	S	901	80T	P49-O50	2.33	1.68	1.59
9	S	903	6OU	O18-C16	2.28	1.40	1.33
9	G	1804	6OU	O18-C16	2.28	1.40	1.33
17	T	902	81Q	O99-CA0	2.24	1.40	1.34
18	T	903	PA1	O5-C1	2.23	1.47	1.43
17	T	902	81Q	P95-O96	2.23	1.68	1.59
9	G	1802	6OU	O18-C19	-2.22	1.40	1.45
19	S	901	80T	P49-O48	2.20	1.68	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	S	901	80T	C03-C02	2.19	1.57	1.50
9	S	903	6OU	O30-C31	2.19	1.40	1.34
17	T	902	81Q	C97-C98	2.16	1.57	1.50
12	G	1814	05E	O97-C80	2.13	1.47	1.43
15	U	811	LBN	C18-N1	-2.13	1.43	1.50
9	U	801	6OU	O30-C31	2.12	1.40	1.34
12	G	1814	05E	O97-C94	2.12	1.47	1.43
15	U	811	LBN	C6-N1	-2.11	1.44	1.51
15	U	811	LBN	O7-C34	2.09	1.40	1.34
9	G	1804	6OU	O30-C31	2.07	1.40	1.34
18	T	903	PA1	C4-C3	-2.07	1.47	1.52
19	S	901	80T	C25-C24	2.04	1.56	1.50
15	U	811	LBN	O5-C3	-2.02	1.40	1.45

All (80) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	T	902	81Q	C03-O04-C05	-5.85	107.78	117.53
17	T	902	81Q	O04-C05-C06	5.45	123.24	111.50
9	G	1802	6OU	O30-C31-C33	4.76	121.76	111.50
9	U	801	6OU	O30-C31-C33	4.68	121.60	111.50
9	G	1804	6OU	O30-C31-C33	4.34	120.85	111.50
17	T	902	81Q	O99-CA0-CA1	4.26	120.69	111.50
19	S	901	80T	O72-C73-C74	4.15	120.44	111.50
9	S	903	6OU	O30-C31-C33	4.08	120.29	111.50
19	S	901	80T	O20-C02-C03	4.06	120.26	111.50
15	U	811	LBN	O7-C34-C35	4.03	120.18	111.50
9	G	1803	6OU	O30-C31-C33	3.96	120.03	111.50
17	T	902	81Q	O04-C03-C93	3.87	115.98	108.25
9	G	1802	6OU	O18-C16-C15	3.71	123.55	111.91
10	G	1810	Y01	CAP-CAQ-CBG	-3.53	98.14	105.13
10	U	808	Y01	CAP-CAQ-CBG	-3.44	98.32	105.13
9	U	810	6OU	O18-C16-C15	3.35	122.42	111.91
10	G	1805	Y01	OAF-CAX-CAL	-3.20	112.79	123.08
10	U	808	Y01	OAF-CAX-CAL	-3.14	112.99	123.08
9	U	810	6OU	O30-C31-C33	3.09	118.15	111.50
10	G	1807	Y01	OAF-CAX-CAL	-3.07	113.22	123.08
13	G	1815	80Y	C51-C52-C85	3.06	113.42	109.67
10	U	809	Y01	OAF-CAX-CAL	-3.05	113.28	123.08
10	U	802	Y01	OAF-CAX-CAL	-3.04	113.32	123.08
10	U	805	Y01	OAF-CAX-CAL	-3.04	113.33	123.08
10	S	905	Y01	OAF-CAX-CAL	-3.03	113.35	123.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	G	1809	Y01	OAF-CAX-CAL	-3.02	113.38	123.08
10	G	1808	Y01	OAF-CAX-CAL	-3.02	113.39	123.08
19	S	901	80T	O23-C24-C25	3.00	121.33	111.91
10	G	1806	Y01	OAF-CAX-CAL	-3.00	113.45	123.08
10	D	301	Y01	OAF-CAX-CAL	-2.96	113.57	123.08
10	G	1810	Y01	OAF-CAX-CAL	-2.95	113.60	123.08
10	G	1805	Y01	OAH-CAX-CAL	2.95	123.51	114.03
10	U	808	Y01	OAH-CAX-CAL	2.94	123.49	114.03
9	G	1804	6OU	O18-C16-C15	2.93	121.11	111.91
10	U	807	Y01	OAF-CAX-CAL	-2.93	113.66	123.08
10	U	806	Y01	OAF-CAX-CAL	-2.91	113.74	123.08
10	U	803	Y01	OAF-CAX-CAL	-2.90	113.76	123.08
10	U	802	Y01	OAH-CAX-CAL	2.89	123.31	114.03
10	G	1811	Y01	OAF-CAX-CAL	-2.89	113.80	123.08
10	G	1806	Y01	OAH-CAX-CAL	2.88	123.28	114.03
10	G	1807	Y01	OAH-CAX-CAL	2.87	123.26	114.03
10	G	1810	Y01	OAH-CAX-CAL	2.87	123.25	114.03
10	G	1811	Y01	OAH-CAX-CAL	2.87	123.23	114.03
10	U	804	Y01	OAF-CAX-CAL	-2.86	113.89	123.08
10	U	805	Y01	OAH-CAX-CAL	2.85	123.20	114.03
9	G	1803	6OU	C21-C20-C19	-2.84	105.06	111.79
10	U	803	Y01	OAH-CAX-CAL	2.83	123.14	114.03
10	S	905	Y01	OAH-CAX-CAL	2.83	123.11	114.03
15	U	811	LBN	O5-C25-C26	2.83	120.78	111.91
10	G	1809	Y01	OAH-CAX-CAL	2.82	123.09	114.03
10	U	809	Y01	OAH-CAX-CAL	2.82	123.09	114.03
10	G	1812	Y01	OAF-CAX-CAL	-2.82	114.04	123.08
13	D	302	80Y	C51-O72-C73	-2.81	108.38	112.19
10	D	301	Y01	OAH-CAX-CAL	2.81	123.04	114.03
10	S	904	Y01	OAF-CAX-CAL	-2.79	114.12	123.08
10	G	1808	Y01	OAH-CAX-CAL	2.79	122.99	114.03
10	U	806	Y01	OAH-CAX-CAL	2.76	122.91	114.03
10	U	804	Y01	OAH-CAX-CAL	2.75	122.87	114.03
10	U	807	Y01	OAH-CAX-CAL	2.75	122.86	114.03
10	S	904	Y01	OAH-CAX-CAL	2.70	122.72	114.03
10	G	1812	Y01	OAH-CAX-CAL	2.67	122.61	114.03
9	G	1803	6OU	O18-C16-C15	2.65	120.22	111.91
9	S	903	6OU	O18-C16-C15	2.56	119.95	111.91
13	G	1815	80Y	C74-C73-C83	-2.51	106.85	112.09
12	G	1814	05E	C95-C94-C92	-2.40	107.37	113.00
19	S	901	80T	O54-C55-C56	2.39	119.41	111.91
17	T	902	81Q	C26-C93-C03	-2.38	106.22	111.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
9	U	801	6OU	C21-C20-C19	-2.34	106.25	111.79
9	U	810	6OU	O18-C16-O17	-2.30	117.78	123.59
9	G	1802	6OU	O18-C16-O17	-2.29	117.81	123.59
9	G	1802	6OU	C19-O18-C16	-2.25	108.79	117.12
9	G	1802	6OU	C21-C20-C19	-2.24	106.48	111.79
10	U	808	Y01	CAU-CAS-CBF	2.18	116.89	113.11
10	D	301	Y01	CAE-CBI-CBG	-2.13	107.75	111.71
15	U	811	LBN	C3-C2-C1	-2.11	106.79	111.79
10	G	1811	Y01	CAT-CAR-CBC	2.10	113.91	110.33
10	D	301	Y01	CBI-CBE-CBB	2.09	122.76	119.49
12	G	1814	05E	O97-C94-C95	2.07	110.45	107.20
9	U	810	6OU	C21-C20-C19	-2.06	106.92	111.79
17	T	902	81Q	C24-C26-C93	-2.06	104.98	109.68

There are no chirality outliers.

All (547) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
9	G	1802	6OU	C21-O22-P23-O24
9	G	1802	6OU	C21-O22-P23-O25
9	G	1802	6OU	C21-O22-P23-O26
9	G	1802	6OU	C27-O26-P23-O24
9	G	1802	6OU	O32-C31-O30-C20
9	G	1803	6OU	C21-O22-P23-O24
9	G	1803	6OU	C21-O22-P23-O25
9	G	1803	6OU	C27-O26-P23-O22
9	G	1803	6OU	C27-O26-P23-O25
9	G	1803	6OU	O26-C27-C28-N29
9	G	1804	6OU	C21-O22-P23-O24
9	G	1804	6OU	C21-O22-P23-O25
9	G	1804	6OU	O26-C27-C28-N29
9	G	1804	6OU	O32-C31-O30-C20
9	U	801	6OU	C15-C16-O18-C19
9	U	801	6OU	O17-C16-O18-C19
9	U	801	6OU	O30-C20-C21-O22
9	U	801	6OU	C21-O22-P23-O24
9	U	801	6OU	C21-O22-P23-O25
9	U	801	6OU	O26-C27-C28-N29
9	U	801	6OU	C33-C31-O30-C20
9	U	810	6OU	C21-O22-P23-O24
9	U	810	6OU	O26-C27-C28-N29
9	S	903	6OU	C21-O22-P23-O24

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Mol	Chain	Res	Type	Atoms
9	S	903	6OU	C21-O22-P23-O25
9	S	903	6OU	C21-O22-P23-O26
9	S	903	6OU	C27-O26-P23-O22
9	S	903	6OU	C27-O26-P23-O24
9	S	903	6OU	O32-C31-O30-C20
9	S	903	6OU	C33-C31-O30-C20
10	G	1806	Y01	CAM-CAY-OAW-CBC
10	G	1808	Y01	CAO-CBB-CBE-CAP
10	G	1808	Y01	CAC-CBB-CBE-CBI
10	G	1808	Y01	CAM-CAY-OAW-CBC
10	G	1809	Y01	CAO-CBB-CBE-CAP
10	G	1809	Y01	CAO-CBB-CBE-CBI
10	G	1809	Y01	CAC-CBB-CBE-CAP
10	G	1809	Y01	CAC-CBB-CBE-CBI
10	G	1810	Y01	CAO-CBB-CBE-CBI
10	G	1810	Y01	CAC-CBB-CBE-CAP
10	G	1810	Y01	CAC-CBB-CBE-CBI
10	G	1810	Y01	CAX-CAL-CAM-CAY
10	G	1812	Y01	CAV-CBC-OAW-CAY
10	G	1812	Y01	CAM-CAY-OAW-CBC
10	U	802	Y01	OAG-CAY-OAW-CBC
10	U	802	Y01	CAM-CAY-OAW-CBC
10	U	804	Y01	CAM-CAY-OAW-CBC
10	U	805	Y01	OAG-CAY-OAW-CBC
10	U	805	Y01	CAM-CAY-OAW-CBC
10	U	806	Y01	CAM-CAY-OAW-CBC
10	U	807	Y01	CAR-CBC-OAW-CAY
10	U	808	Y01	CAR-CBC-OAW-CAY
10	U	808	Y01	CAM-CAY-OAW-CBC
10	U	808	Y01	CAX-CAL-CAM-CAY
10	U	809	Y01	CAO-CBB-CBE-CAP
10	U	809	Y01	CAC-CBB-CBE-CBI
10	U	809	Y01	CAV-CBC-OAW-CAY
10	S	904	Y01	OAG-CAY-OAW-CBC
10	S	904	Y01	CAM-CAY-OAW-CBC
10	D	301	Y01	CAO-CBB-CBE-CAP
10	D	301	Y01	CAC-CBB-CBE-CBI
10	D	301	Y01	CAR-CBC-OAW-CAY
12	G	1814	05E	O84-C85-C86-N87
12	G	1814	05E	C81-O82-P83-O88
12	G	1814	05E	C85-O84-P83-O82
12	G	1814	05E	C85-O84-P83-O88

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Mol	Chain	Res	Type	Atoms
12	G	1814	05E	C85-O84-P83-O89
13	G	1815	80Y	O72-C73-C74-O75
13	G	1815	80Y	C83-C73-C74-O75
13	G	1815	80Y	C74-O75-P76-O77
13	G	1815	80Y	C74-O75-P76-O81
13	G	1815	80Y	C74-O75-P76-O82
13	G	1815	80Y	C78-O77-P76-O81
13	D	302	80Y	O72-C73-C74-O75
13	D	302	80Y	C83-C73-C74-O75
13	D	302	80Y	C74-O75-P76-O81
13	D	302	80Y	O77-C78-C79-N80
15	U	811	LBN	C1-O1-P1-O4
15	U	811	LBN	C9-O2-P1-O3
15	U	811	LBN	C9-O2-P1-O4
15	U	811	LBN	N1-C6-C9-O2
17	T	902	81Q	C93-O94-P95-OB5
17	T	902	81Q	C93-O94-P95-OB6
19	S	901	80T	C51-O50-P49-O93
19	S	901	80T	O91-C73-O72-C52
8	G	1801	AJP	O50-C45-O44-C37
10	G	1806	Y01	CAJ-CAO-CBB-CAC
15	U	811	LBN	O6-C25-O5-C3
10	G	1805	Y01	CAC-CBB-CBE-CAP
10	G	1808	Y01	CAC-CBB-CBE-CAP
10	U	809	Y01	CAC-CBB-CBE-CAP
10	G	1805	Y01	CAC-CBB-CBE-CBI
10	G	1808	Y01	CAO-CBB-CBE-CBI
10	U	809	Y01	CAO-CBB-CBE-CBI
10	G	1807	Y01	CAN-CAJ-CAO-CBB
9	U	801	6OU	O32-C31-O30-C20
10	G	1806	Y01	OAG-CAY-OAW-CBC
10	G	1808	Y01	OAG-CAY-OAW-CBC
10	U	804	Y01	OAG-CAY-OAW-CBC
10	U	806	Y01	OAG-CAY-OAW-CBC
10	U	807	Y01	OAG-CAY-OAW-CBC
10	U	808	Y01	OAG-CAY-OAW-CBC
10	S	905	Y01	OAG-CAY-OAW-CBC
8	G	1801	AJP	C46-C45-O44-C37
15	U	811	LBN	C26-C25-O5-C3
9	G	1802	6OU	C33-C31-O30-C20
9	G	1804	6OU	C33-C31-O30-C20
10	U	807	Y01	CAM-CAY-OAW-CBC

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Mol	Chain	Res	Type	Atoms
19	S	901	80T	C74-C73-O72-C52
10	G	1805	Y01	CAJ-CAO-CBB-CAC
10	G	1808	Y01	CAJ-CAO-CBB-CAC
10	G	1809	Y01	CAJ-CAO-CBB-CAC
10	G	1810	Y01	CAJ-CAO-CBB-CAC
10	G	1812	Y01	CAJ-CAO-CBB-CAC
10	U	804	Y01	CAJ-CAO-CBB-CAC
10	U	807	Y01	CAJ-CAO-CBB-CAC
8	G	1801	AJP	O60-C59-C61-O62
10	U	806	Y01	CAC-CBB-CBE-CAP
10	G	1810	Y01	CAO-CBB-CBE-CAP
10	G	1805	Y01	CAO-CBB-CBE-CBI
10	U	806	Y01	CAO-CBB-CBE-CBI
10	S	904	Y01	CAO-CBB-CBE-CBI
10	U	802	Y01	CAX-CAL-CAM-CAY
9	G	1802	6OU	C33-C34-C35-C36
9	G	1804	6OU	C44-C45-C46-C47
9	S	903	6OU	C35-C36-C37-C38
10	G	1812	Y01	OAG-CAY-OAW-CBC
9	S	903	6OU	O17-C16-O18-C19
10	D	301	Y01	CAC-CBB-CBE-CAP
10	G	1805	Y01	CAO-CBB-CBE-CAP
10	D	301	Y01	CAO-CBB-CBE-CBI
10	G	1808	Y01	CAJ-CAO-CBB-CBE
9	S	903	6OU	C15-C16-O18-C19
10	G	1805	Y01	CAM-CAY-OAW-CBC
10	U	809	Y01	CAM-CAY-OAW-CBC
10	S	905	Y01	CAM-CAY-OAW-CBC
9	U	810	6OU	C04-C05-C06-C07
19	S	901	80T	C74-C75-C76-C77
10	U	805	Y01	CAV-CBC-OAW-CAY
9	U	801	6OU	C12-C13-C14-C15
9	S	903	6OU	C12-C13-C14-C15
17	T	902	81Q	C16-C17-C18-C19
19	S	901	80T	C29-C30-C31-C32
12	G	1814	05E	O97-C94-C95-O96
10	U	806	Y01	CAC-CBB-CBE-CBI
9	G	1802	6OU	C45-C46-C47-C48
9	U	801	6OU	C03-C04-C05-C06
10	G	1809	Y01	CAJ-CAO-CBB-CBE
10	G	1810	Y01	CAJ-CAO-CBB-CBE
10	G	1812	Y01	CAJ-CAO-CBB-CBE

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Mol	Chain	Res	Type	Atoms
10	D	301	Y01	CAJ-CAO-CBB-CBE
10	U	809	Y01	OAG-CAY-OAW-CBC
8	G	1801	AJP	C58-C59-C61-O62
9	U	801	6OU	C10-C11-C12-C13
19	S	901	80T	C76-C77-C78-C79
9	U	810	6OU	C10-C11-C12-C13
9	S	903	6OU	C33-C34-C35-C36
15	U	811	LBN	C13-C10-C7-C4
10	U	805	Y01	CAJ-CAO-CBB-CAC
10	U	806	Y01	CAJ-CAO-CBB-CAC
10	U	809	Y01	CAJ-CAO-CBB-CAC
19	S	901	80T	O71-C55-O54-C53
19	S	901	80T	C56-C55-O54-C53
17	T	902	81Q	C12-C13-C14-C15
10	U	806	Y01	CAO-CBB-CBE-CAP
10	U	804	Y01	CAJ-CAO-CBB-CBE
10	U	805	Y01	CAJ-CAO-CBB-CBE
10	U	809	Y01	CAJ-CAO-CBB-CBE
10	G	1805	Y01	OAG-CAY-OAW-CBC
10	S	905	Y01	CAJ-CAO-CBB-CAC
9	G	1804	6OU	C15-C16-O18-C19
9	G	1804	6OU	C42-C43-C44-C45
10	S	904	Y01	CAC-CBB-CBE-CAP
10	S	904	Y01	CAC-CBB-CBE-CBI
10	G	1812	Y01	CAO-CBB-CBE-CBI
10	U	804	Y01	CAO-CBB-CBE-CBI
10	D	301	Y01	CAO-CAJ-CAN-CBA
10	G	1807	Y01	CAJ-CAO-CBB-CBE
10	G	1811	Y01	CAJ-CAO-CBB-CBE
19	S	901	80T	O20-C21-C41-O42
17	T	902	81Q	C10-C11-C12-C13
10	S	905	Y01	CAN-CAJ-CAO-CBB
10	D	301	Y01	CAJ-CAO-CBB-CAC
17	T	902	81Q	O99-C98-CAL-OAM
10	G	1811	Y01	CAO-CAJ-CAN-CBA
10	G	1812	Y01	CAC-CBB-CBE-CAP
10	U	804	Y01	CAC-CBB-CBE-CAP
10	G	1805	Y01	CAN-CAJ-CAO-CBB
10	G	1805	Y01	CAJ-CAO-CBB-CBE
10	G	1807	Y01	CAJ-CAO-CBB-CAC
10	G	1806	Y01	CAO-CAJ-CAN-CBA
10	U	802	Y01	CAN-CAJ-CAO-CBB

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Mol	Chain	Res	Type	Atoms
10	U	808	Y01	CAO-CAJ-CAN-CBA
9	G	1803	6OU	C05-C06-C07-C08
19	S	901	80T	C24-C25-C26-C27
18	T	903	PA1	C4-C5-C6-O6
17	T	902	81Q	CAN-CAO-CAP-CAQ
10	G	1810	Y01	CAO-CAJ-CAN-CBA
10	G	1810	Y01	CAN-CAJ-CAO-CBB
10	U	807	Y01	CAO-CAJ-CAN-CBA
9	G	1802	6OU	C13-C14-C15-C16
9	G	1803	6OU	C13-C14-C15-C16
9	G	1804	6OU	C31-C33-C34-C35
10	G	1807	Y01	CAX-CAL-CAM-CAY
10	S	904	Y01	CAX-CAL-CAM-CAY
10	G	1806	Y01	CAJ-CAO-CBB-CBE
10	U	807	Y01	CAJ-CAO-CBB-CBE
10	G	1811	Y01	CAJ-CAO-CBB-CAC
10	G	1807	Y01	CAO-CAJ-CAN-CBA
9	G	1802	6OU	C31-C33-C34-C35
10	G	1812	Y01	CAC-CBB-CBE-CBI
10	G	1812	Y01	CAO-CBB-CBE-CAP
10	S	904	Y01	CAO-CBB-CBE-CAP
10	G	1812	Y01	CAO-CAJ-CAN-CBA
9	G	1804	6OU	O17-C16-O18-C19
10	U	804	Y01	CAO-CAJ-CAN-CBA
10	G	1811	Y01	CAN-CAJ-CAO-CBB
17	T	902	81Q	CB0-CB1-CB2-CB3
10	U	804	Y01	CAC-CBB-CBE-CBI
10	G	1809	Y01	CAX-CAL-CAM-CAY
10	S	905	Y01	CAX-CAL-CAM-CAY
10	G	1809	Y01	CAN-CAJ-CAO-CBB
10	S	904	Y01	CAO-CAJ-CAN-CBA
19	S	901	80T	C03-C02-O20-C21
9	G	1804	6OU	C36-C37-C38-C39
10	U	803	Y01	CAN-CAJ-CAO-CBB
10	S	904	Y01	CAN-CAJ-CAO-CBB
9	G	1803	6OU	C21-O22-P23-O26
9	G	1804	6OU	C21-O22-P23-O26
9	G	1804	6OU	C27-O26-P23-O22
9	U	801	6OU	C21-O22-P23-O26
9	U	810	6OU	C21-O22-P23-O26
13	G	1815	80Y	C78-O77-P76-O75
13	D	302	80Y	C74-O75-P76-O77

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Mol	Chain	Res	Type	Atoms
15	U	811	LBN	C9-O2-P1-O1
19	S	901	80T	C51-O50-P49-O48
8	G	1801	AJP	O31-C26-O25-C23
9	U	810	6OU	C12-C13-C14-C15
17	T	902	81Q	OAM-CAN-CAO-CAP
19	S	901	80T	C55-C56-C57-C58
19	S	901	80T	O01-C02-O20-C21
10	U	806	Y01	CAN-CAJ-CAO-CBB
9	G	1803	6OU	C03-C04-C05-C06
10	U	808	Y01	CAJ-CAN-CBA-CAB
12	G	1814	05E	C92-C94-C95-O96
10	U	805	Y01	CAR-CBC-OAW-CAY
15	U	811	LBN	C14-C11-C8-C5
9	G	1802	6OU	C07-C08-C09-C10
10	G	1806	Y01	CAX-CAL-CAM-CAY
10	U	804	Y01	CAX-CAL-CAM-CAY
10	U	805	Y01	CAX-CAL-CAM-CAY
10	G	1807	Y01	CAJ-CAN-CBA-CAA
10	S	904	Y01	CAJ-CAN-CBA-CAB
9	U	801	6OU	C08-C09-C10-C11
9	G	1803	6OU	C10-C11-C12-C13
17	T	902	81Q	C09-C10-C11-C12
9	G	1802	6OU	C44-C45-C46-C47
10	U	803	Y01	CAC-CBB-CBE-CBI
15	U	811	LBN	C17-C20-C22-C23
9	G	1803	6OU	C08-C09-C10-C11
19	S	901	80T	C35-C36-C37-C38
19	S	901	80T	C57-C58-C59-C60
10	U	802	Y01	CAJ-CAN-CBA-CAA
9	U	801	6OU	C13-C14-C15-C16
9	G	1802	6OU	C34-C35-C36-C37
9	G	1804	6OU	C34-C35-C36-C37
9	U	801	6OU	C36-C37-C38-C39
9	S	903	6OU	C09-C10-C11-C12
15	U	811	LBN	C35-C34-O7-C2
9	G	1802	6OU	C09-C10-C11-C12
9	U	810	6OU	C33-C34-C35-C36
9	G	1804	6OU	C41-C42-C43-C44
9	G	1803	6OU	C42-C43-C44-C45
15	U	811	LBN	C38-C39-C40-C41
10	G	1809	Y01	CAJ-CAN-CBA-CAA
10	D	301	Y01	CAJ-CAN-CBA-CAA

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Mol	Chain	Res	Type	Atoms
15	U	811	LBN	C26-C27-C28-C29
17	T	902	81Q	CAV-CAW-CAX-CAY
19	S	901	80T	C05-C06-C07-C08
19	S	901	80T	C31-C32-C33-C34
9	U	810	6OU	C06-C07-C08-C09
9	U	801	6OU	C04-C05-C06-C07
10	U	807	Y01	CAN-CAJ-CAO-CBB
10	U	802	Y01	CAO-CBB-CBE-CBI
10	S	904	Y01	CAJ-CAN-CBA-CAA
19	S	901	80T	C83-C84-C85-C86
15	U	811	LBN	O8-C34-O7-C2
9	G	1803	6OU	C11-C12-C13-C14
17	T	902	81Q	CAW-CAX-CAY-CAZ
9	U	801	6OU	C31-C33-C34-C35
10	G	1811	Y01	CAM-CAY-OAW-CBC
9	G	1803	6OU	C44-C45-C46-C47
9	G	1803	6OU	C12-C13-C14-C15
9	G	1804	6OU	C37-C38-C39-C40
10	G	1808	Y01	CAJ-CAN-CBA-CAB
9	G	1802	6OU	C08-C09-C10-C11
19	S	901	80T	O44-C45-C46-C47
10	U	804	Y01	CAO-CBB-CBE-CAP
17	T	902	81Q	CAS-CAT-CAU-CAV
9	U	810	6OU	C31-C33-C34-C35
10	G	1809	Y01	CAM-CAY-OAW-CBC
17	T	902	81Q	C11-C12-C13-C14
9	G	1803	6OU	C46-C47-C48-C49
9	U	801	6OU	C01-C02-C03-C04
10	U	802	Y01	CAC-CBB-CBE-CAP
9	S	903	6OU	C01-C02-C03-C04
10	G	1812	Y01	CAN-CAJ-CAO-CBB
10	G	1806	Y01	CAJ-CAN-CBA-CAA
9	G	1803	6OU	C41-C42-C43-C44
17	T	902	81Q	CA1-CA2-CA3-CA4
10	G	1811	Y01	OAG-CAY-OAW-CBC
9	S	903	6OU	C37-C38-C39-C40
15	U	811	LBN	C7-C10-C13-C16
19	S	901	80T	C15-C16-C17-C18
10	U	802	Y01	CAC-CBB-CBE-CBI
9	G	1802	6OU	C35-C36-C37-C38
9	G	1803	6OU	C33-C31-O30-C20
10	G	1810	Y01	CAM-CAY-OAW-CBC

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Mol	Chain	Res	Type	Atoms
15	U	811	LBN	O1-C1-C2-O7
19	S	901	80T	C56-C57-C58-C59
10	G	1810	Y01	OAG-CAY-OAW-CBC
9	G	1803	6OU	C04-C05-C06-C07
10	U	809	Y01	CAJ-CAN-CBA-CAB
9	G	1802	6OU	C41-C42-C43-C44
17	T	902	81Q	CAE-CAF-CAG-CAH
9	G	1804	6OU	C45-C46-C47-C48
9	U	801	6OU	C37-C38-C39-C40
9	U	810	6OU	C35-C36-C37-C38
17	T	902	81Q	C15-C16-C17-C18
8	G	1801	AJP	O31-C30-C32-O33
10	U	804	Y01	CAJ-CAN-CBA-CAA
10	D	301	Y01	CAJ-CAN-CBA-CAB
10	G	1809	Y01	OAG-CAY-OAW-CBC
9	G	1802	6OU	C27-O26-P23-O22
15	U	811	LBN	C1-O1-P1-O2
10	U	809	Y01	CAN-CAJ-CAO-CBB
9	S	903	6OU	C06-C07-C08-C09
9	S	903	6OU	C31-C33-C34-C35
10	G	1809	Y01	CAJ-CAN-CBA-CAB
9	G	1802	6OU	C37-C38-C39-C40
9	G	1803	6OU	O32-C31-O30-C20
19	S	901	80T	C13-C14-C15-C16
10	G	1808	Y01	CAV-CBC-OAW-CAY
10	U	806	Y01	CAJ-CAN-CBA-CAB
9	G	1802	6OU	O18-C19-C20-C21
19	S	901	80T	C41-C21-C22-O23
10	U	802	Y01	CAO-CBB-CBE-CAP
10	U	805	Y01	CAO-CBB-CBE-CBI
12	G	1814	05E	C81-O82-P83-O84
17	T	902	81Q	C93-O94-P95-O96
18	T	903	PA1	O5-C5-C6-O6
19	S	901	80T	C86-C87-C88-C89
19	S	901	80T	C02-C03-C04-C05
10	G	1807	Y01	CAJ-CAN-CBA-CAB
10	U	808	Y01	CAN-CAJ-CAO-CBB
10	G	1808	Y01	CAN-CAJ-CAO-CBB
9	G	1802	6OU	C05-C06-C07-C08
9	G	1803	6OU	C43-C44-C45-C46
15	U	811	LBN	C8-C11-C14-C17
9	G	1803	6OU	C09-C10-C11-C12

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Mol	Chain	Res	Type	Atoms
9	S	903	6OU	C05-C06-C07-C08
10	U	805	Y01	CAC-CBB-CBE-CAP
10	U	805	Y01	CAC-CBB-CBE-CBI
9	G	1804	6OU	O18-C19-C20-O30
19	S	901	80T	C85-C86-C87-C88
10	U	805	Y01	CAO-CBB-CBE-CAP
19	S	901	80T	C16-C17-C18-C19
9	U	801	6OU	C05-C06-C07-C08
17	T	902	81Q	CAY-CAZ-CB0-CB1
10	U	809	Y01	CAJ-CAN-CBA-CAA
15	U	811	LBN	O1-C1-C2-C3
19	S	901	80T	C22-C21-C41-O42
9	G	1803	6OU	C06-C07-C08-C09
9	U	810	6OU	C15-C16-O18-C19
9	G	1804	6OU	C11-C12-C13-C14
9	S	903	6OU	C04-C05-C06-C07
9	G	1803	6OU	C45-C46-C47-C48
19	S	901	80T	C33-C34-C35-C36
10	U	805	Y01	CAO-CAJ-CAN-CBA
19	S	901	80T	C25-C24-O23-C22
9	G	1804	6OU	O18-C19-C20-C21
17	T	902	81Q	C97-C98-CAL-OAM
15	U	811	LBN	C29-C30-C31-C32
12	G	1814	05E	C81-O82-P83-O89
9	G	1802	6OU	C42-C43-C44-C45
10	U	802	Y01	CAJ-CAN-CBA-CAB
17	T	902	81Q	C98-CAL-OAM-CAN
9	G	1802	6OU	C36-C37-C38-C39
17	T	902	81Q	C08-C09-C10-C11
10	U	803	Y01	CAJ-CAN-CBA-CAA
10	G	1808	Y01	CAX-CAL-CAM-CAY
9	G	1802	6OU	O18-C19-C20-O30
10	G	1808	Y01	CAR-CBC-OAW-CAY
10	G	1808	Y01	CAJ-CAN-CBA-CAA
10	U	803	Y01	CAJ-CAN-CBA-CAB
10	U	806	Y01	CAJ-CAN-CBA-CAA
15	U	811	LBN	C37-C38-C39-C40
19	S	901	80T	C77-C78-C79-C80
9	G	1802	6OU	C06-C07-C08-C09
17	T	902	81Q	C17-C18-C19-C20
19	S	901	80T	C87-C88-C89-C90
8	G	1801	AJP	C36-C37-O44-C45

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Mol	Chain	Res	Type	Atoms
9	G	1804	6OU	C35-C36-C37-C38
10	U	804	Y01	CAJ-CAN-CBA-CAB
10	U	808	Y01	CAJ-CAN-CBA-CAA
9	S	903	6OU	C11-C12-C13-C14
9	G	1803	6OU	C33-C34-C35-C36
10	G	1808	Y01	CAO-CAJ-CAN-CBA
9	U	801	6OU	C19-C20-C21-O22
9	G	1804	6OU	C12-C13-C14-C15
17	T	902	81Q	CAT-CAU-CAV-CAW
10	G	1806	Y01	CAJ-CAN-CBA-CAB
10	G	1810	Y01	CAJ-CAN-CBA-CAB
10	U	803	Y01	CAO-CBB-CBE-CAP
8	G	1801	AJP	C38-C37-O44-C45
9	U	801	6OU	O18-C19-C20-C21
9	G	1803	6OU	O30-C20-C21-O22
10	S	905	Y01	CAO-CAJ-CAN-CBA
17	T	902	81Q	CAG-CAH-CAI-CAJ
19	S	901	80T	O40-C24-O23-C22
9	U	801	6OU	O18-C19-C20-O30
19	S	901	80T	O72-C52-C53-O54
15	U	811	LBN	C28-C29-C30-C31
9	U	810	6OU	O17-C16-O18-C19
10	D	301	Y01	OAG-CAY-OAW-CBC
17	T	902	81Q	CAO-CAN-OAM-CAL
13	D	302	80Y	C73-C74-O75-P76
9	G	1803	6OU	C27-O26-P23-O24
9	G	1804	6OU	C27-O26-P23-O24
13	G	1815	80Y	C78-O77-P76-O82
13	D	302	80Y	C74-O75-P76-O82
19	S	901	80T	C51-O50-P49-O92
10	U	805	Y01	CAJ-CAN-CBA-CAA
9	G	1803	6OU	C19-C20-C21-O22
17	T	902	81Q	CAX-CAY-CAZ-CB0
9	U	810	6OU	C01-C02-C03-C04
10	U	807	Y01	CAC-CBB-CBE-CBI
19	S	901	80T	C36-C37-C38-C39
19	S	901	80T	C51-C52-C53-O54
9	U	810	6OU	C36-C37-C38-C39
10	G	1812	Y01	CAX-CAL-CAM-CAY
9	S	903	6OU	C03-C04-C05-C06
10	U	807	Y01	CAO-CBB-CBE-CAP
15	U	811	LBN	C35-C36-C37-C38

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Mol	Chain	Res	Type	Atoms
10	U	803	Y01	CAC-CBB-CBE-CAP
10	U	807	Y01	CAC-CBB-CBE-CAP
19	S	901	80T	C12-C13-C14-C15
15	U	811	LBN	C13-C16-C19-C21
9	U	801	6OU	C20-C21-O22-P23
19	S	901	80T	C30-C31-C32-C33
10	U	807	Y01	CAO-CBB-CBE-CBI
10	U	802	Y01	CAO-CAJ-CAN-CBA
9	U	810	6OU	C11-C12-C13-C14
19	S	901	80T	O20-C21-C22-O23
9	U	810	6OU	C27-O26-P23-O22
9	S	903	6OU	C13-C14-C15-C16
19	S	901	80T	C26-C27-C28-C29
17	T	902	81Q	C13-C14-C15-C16
9	G	1803	6OU	C07-C08-C09-C10
16	T	901	NAG	C3-C2-N2-C7
9	G	1802	6OU	C20-C21-O22-P23
19	S	901	80T	C34-C35-C36-C37
15	U	811	LBN	C10-C13-C16-C19
9	S	903	6OU	C02-C03-C04-C05
19	S	901	80T	C10-C11-C12-C13
10	U	803	Y01	CAL-CAM-CAY-OAW
9	U	801	6OU	C02-C03-C04-C05
10	U	808	Y01	CAJ-CAO-CBB-CBE
10	G	1805	Y01	CAM-CAL-CAX-OAH
10	G	1807	Y01	CAM-CAL-CAX-OAF
10	G	1811	Y01	CAM-CAL-CAX-OAH
10	U	805	Y01	CAN-CAJ-CAO-CBB
10	U	805	Y01	CAJ-CAN-CBA-CAB
10	G	1805	Y01	CAM-CAL-CAX-OAF
10	D	301	Y01	CAM-CAL-CAX-OAF
10	D	301	Y01	CAM-CAL-CAX-OAH
17	T	902	81Q	C06-C07-C08-C09
9	U	810	6OU	C14-C15-C16-O18
10	G	1811	Y01	CAM-CAL-CAX-OAF
9	U	810	6OU	C42-C43-C44-C45
10	G	1807	Y01	CAM-CAL-CAX-OAH
17	T	902	81Q	C14-C15-C16-C17
10	G	1808	Y01	CAM-CAL-CAX-OAF
10	G	1808	Y01	CAM-CAL-CAX-OAH
10	U	803	Y01	OAG-CAY-OAW-CBC
9	U	810	6OU	C05-C06-C07-C08

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Mol	Chain	Res	Type	Atoms
10	G	1809	Y01	CAM-CAL-CAX-OAH
10	G	1812	Y01	CAM-CAL-CAX-OAF
10	G	1812	Y01	CAM-CAL-CAX-OAH
9	G	1803	6OU	O18-C19-C20-C21
15	U	811	LBN	C34-C35-C36-C37
10	U	804	Y01	CAM-CAL-CAX-OAH
17	T	902	81Q	CA2-CA3-CA4-CA5
9	G	1802	6OU	C46-C47-C48-C49
10	G	1809	Y01	CAM-CAL-CAX-OAF
10	U	804	Y01	CAM-CAL-CAX-OAF
10	U	805	Y01	CAM-CAL-CAX-OAH
10	S	905	Y01	CAJ-CAN-CBA-CAB
16	S	902	NAG	C4-C5-C6-O6
10	G	1807	Y01	CAL-CAM-CAY-OAW
9	U	810	6OU	C38-C39-C40-C41
9	S	903	6OU	C10-C11-C12-C13
9	U	810	6OU	C40-C41-C42-C43
17	T	902	81Q	CAD-CAE-CAF-CAG
10	U	805	Y01	CAM-CAL-CAX-OAF
9	U	801	6OU	C35-C36-C37-C38
19	S	901	80T	O54-C55-C56-C57
17	T	902	81Q	O99-CA0-CA1-CA2
9	G	1804	6OU	C38-C39-C40-C41
9	S	903	6OU	C08-C09-C10-C11
10	U	807	Y01	CAM-CAL-CAX-OAH
10	U	806	Y01	CAL-CAM-CAY-OAW
10	S	905	Y01	CAM-CAL-CAX-OAH
9	G	1803	6OU	C14-C15-C16-O18
9	G	1803	6OU	C35-C36-C37-C38
9	G	1802	6OU	C38-C39-C40-C41
10	D	301	Y01	CAM-CAY-OAW-CBC
10	G	1807	Y01	CAL-CAM-CAY-OAG
19	S	901	80T	C45-C46-C47-O48
10	U	803	Y01	CAM-CAY-OAW-CBC
10	U	803	Y01	CAO-CAJ-CAN-CBA
19	S	901	80T	O71-C55-C56-C57
10	U	807	Y01	CAM-CAL-CAX-OAF
10	S	904	Y01	CAM-CAL-CAX-OAF
16	S	902	NAG	O5-C5-C6-O6
19	S	901	80T	C41-O42-P43-O95
19	S	901	80T	C45-O44-P43-O95
19	S	901	80T	C47-O48-P49-O93

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Mol	Chain	Res	Type	Atoms
17	T	902	81Q	OAK-CA0-CA1-CA2
9	G	1803	6OU	O17-C16-O18-C19
10	U	804	Y01	CAL-CAM-CAY-OAW
13	D	302	80Y	C79-C78-O77-P76
15	U	811	LBN	C6-C9-O2-P1
10	G	1806	Y01	CAL-CAM-CAY-OAW
9	G	1803	6OU	C15-C16-O18-C19
19	S	901	80T	C08-C09-C10-C11
19	S	901	80T	C79-C80-C81-C82
9	U	810	6OU	C43-C44-C45-C46
10	S	905	Y01	CAM-CAL-CAX-OAF
10	U	806	Y01	CAL-CAM-CAY-OAG
19	S	901	80T	C58-C59-C60-C61
10	S	904	Y01	CAL-CAM-CAY-OAW
10	D	301	Y01	CAL-CAM-CAY-OAW
10	U	804	Y01	CAL-CAM-CAY-OAG
10	G	1806	Y01	CAL-CAM-CAY-OAG
9	G	1802	6OU	C40-C41-C42-C43
10	S	904	Y01	CAM-CAL-CAX-OAH

There are no ring outliers.

22 monomers are involved in 71 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
10	U	807	Y01	1	0
10	U	803	Y01	5	0
9	G	1802	6OU	1	0
10	S	905	Y01	4	0
10	U	802	Y01	8	0
10	U	806	Y01	4	0
10	G	1808	Y01	6	0
10	U	808	Y01	9	0
10	G	1807	Y01	2	0
10	U	809	Y01	5	0
18	T	903	PA1	1	0
10	G	1806	Y01	1	0
10	U	804	Y01	2	0
10	G	1812	Y01	1	0
10	G	1805	Y01	3	0
10	D	301	Y01	3	0
10	G	1810	Y01	11	0
10	U	805	Y01	1	0

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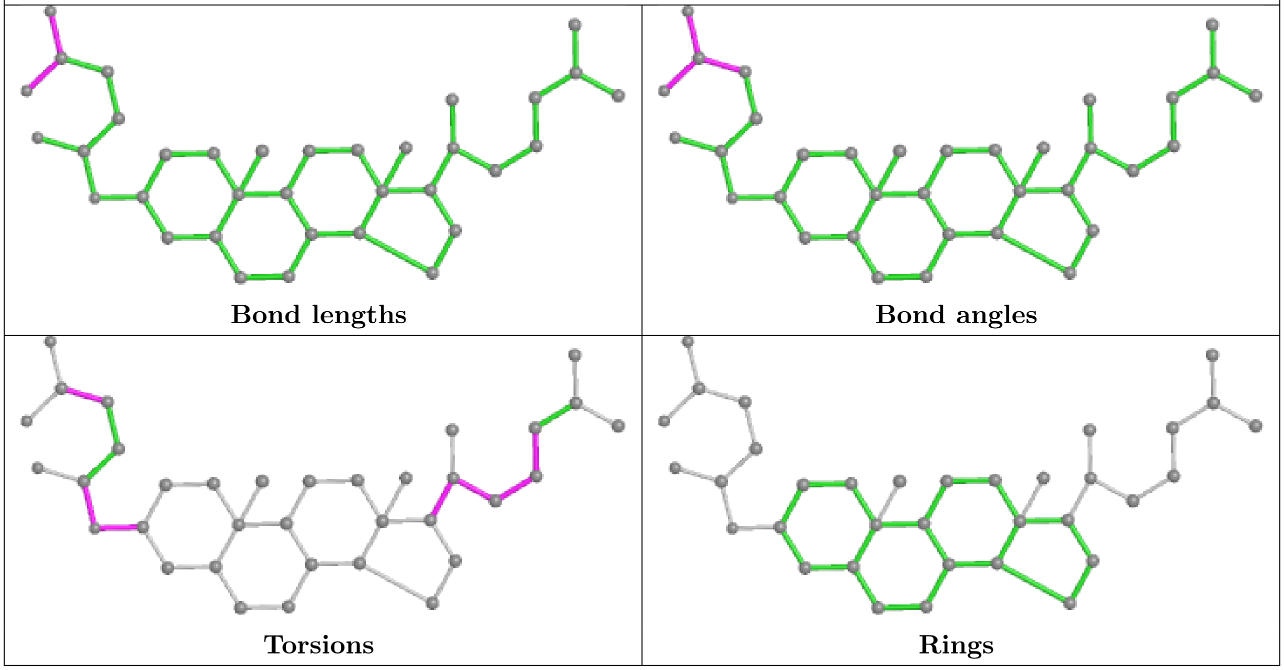
Mol	Chain	Res	Type	Clashes	Symm-Clashes
10	S	904	Y01	1	0
10	G	1809	Y01	6	0
10	G	1811	Y01	2	0
17	T	902	81Q	2	0

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 then 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.

Ligand Y01 U 807



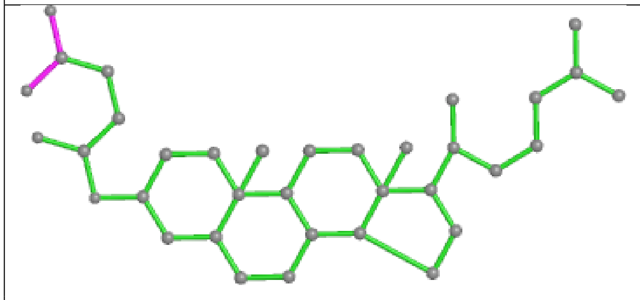
Bond lengths

Bond angles

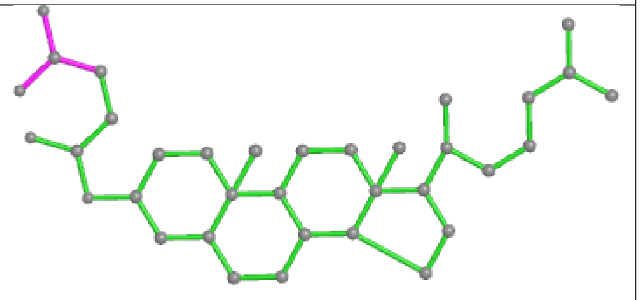
Torsions

Rings

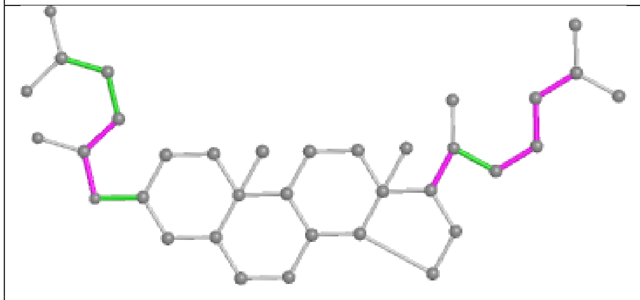
Ligand Y01 U 803



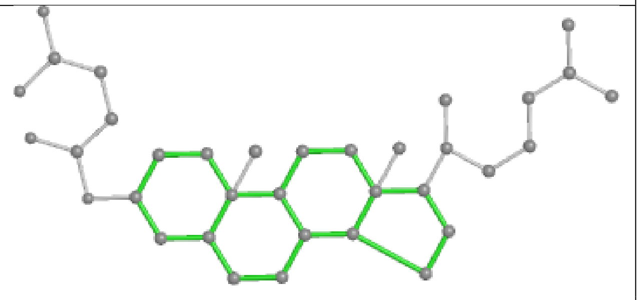
Bond lengths



Bond angles

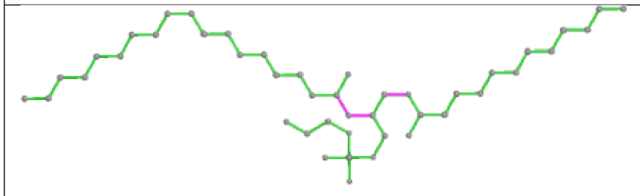


Torsions

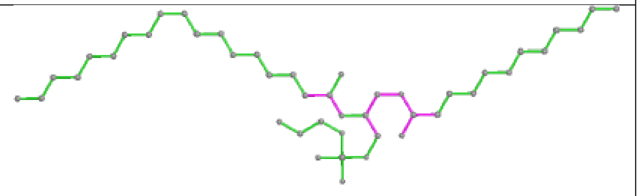


Rings

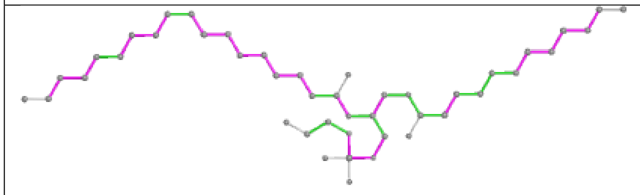
Ligand 6OU G 1802



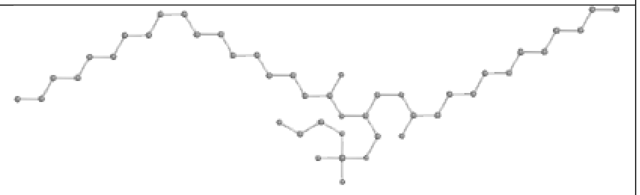
Bond lengths



Bond angles

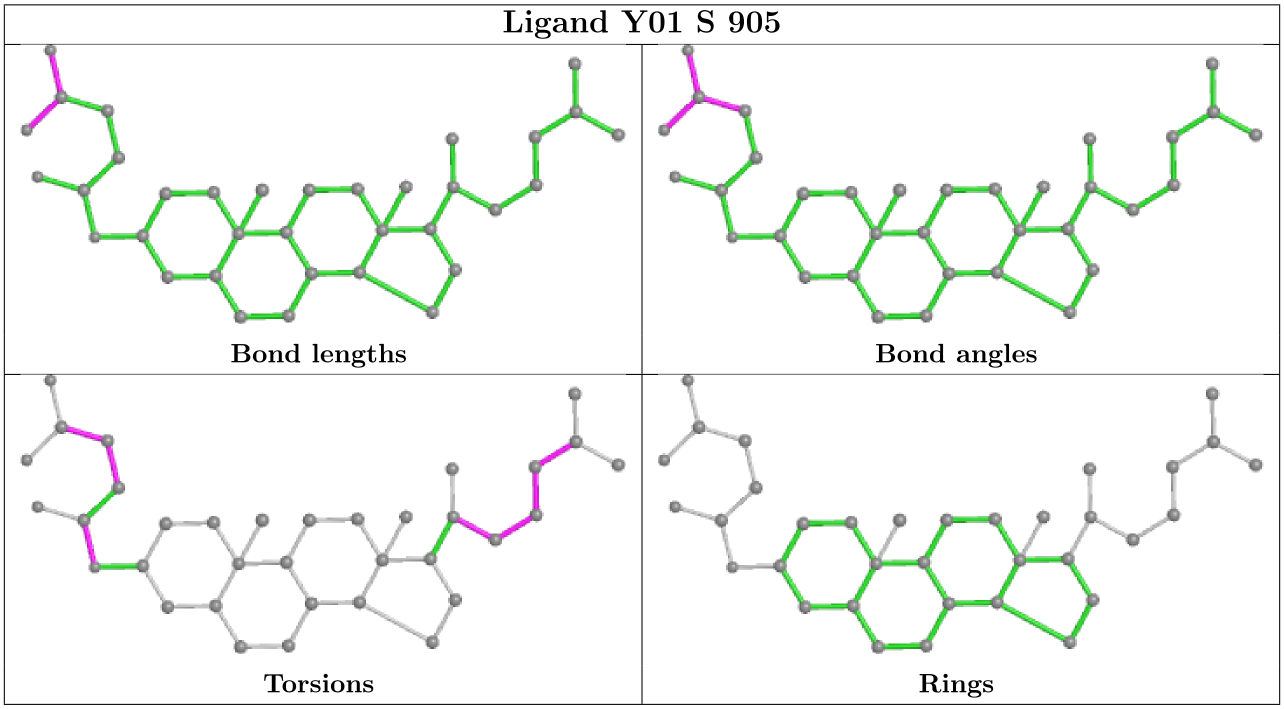


Torsions



Rings

Ligand Y01 S 905



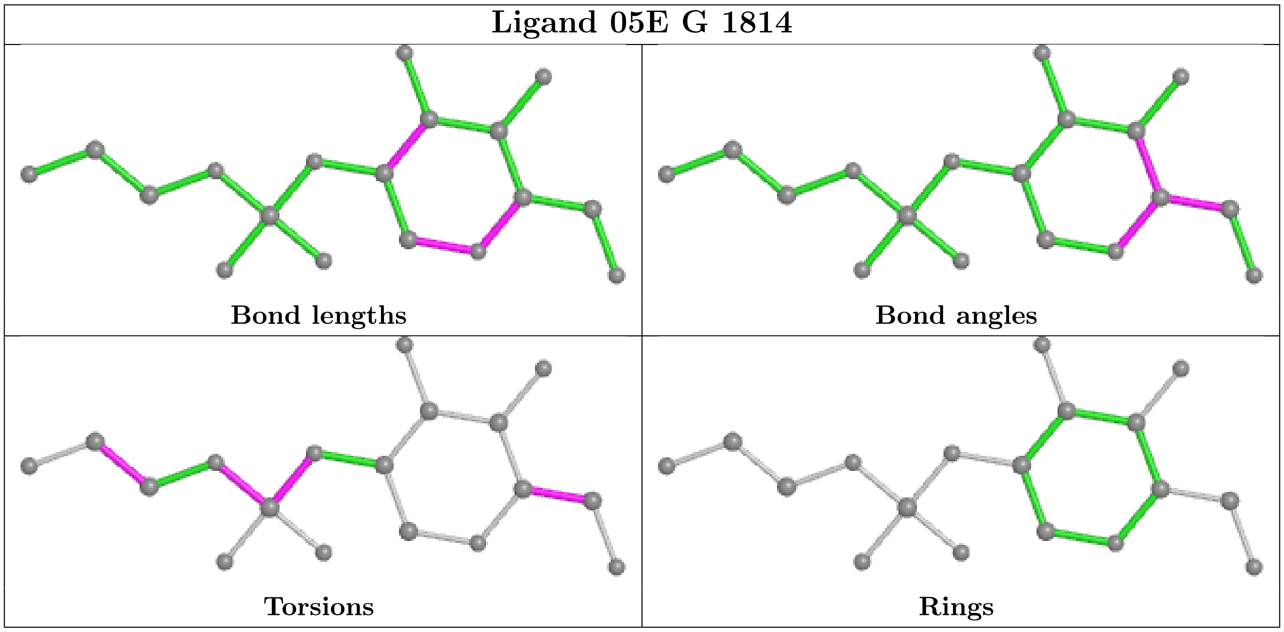
Bond lengths

Bond angles

Torsions

Rings

Ligand 05E G 1814



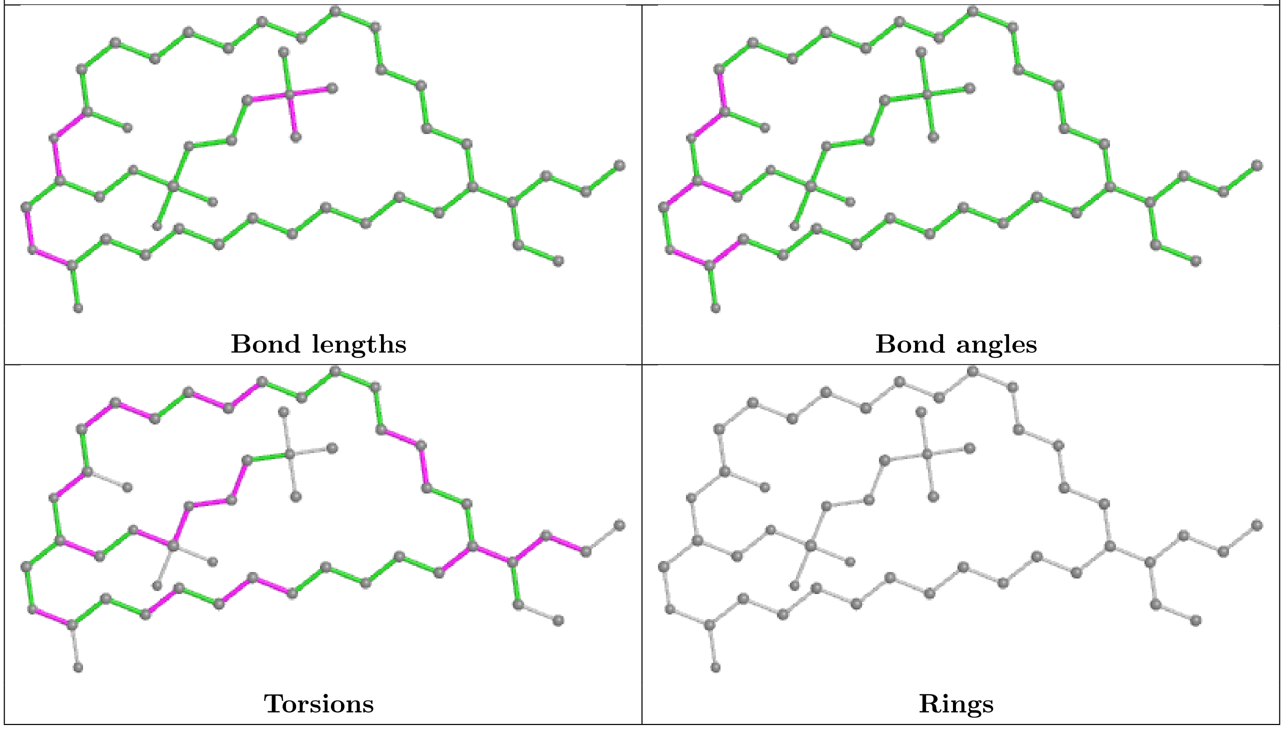
Bond lengths

Bond angles

Torsions

Rings

Ligand LBN U 811



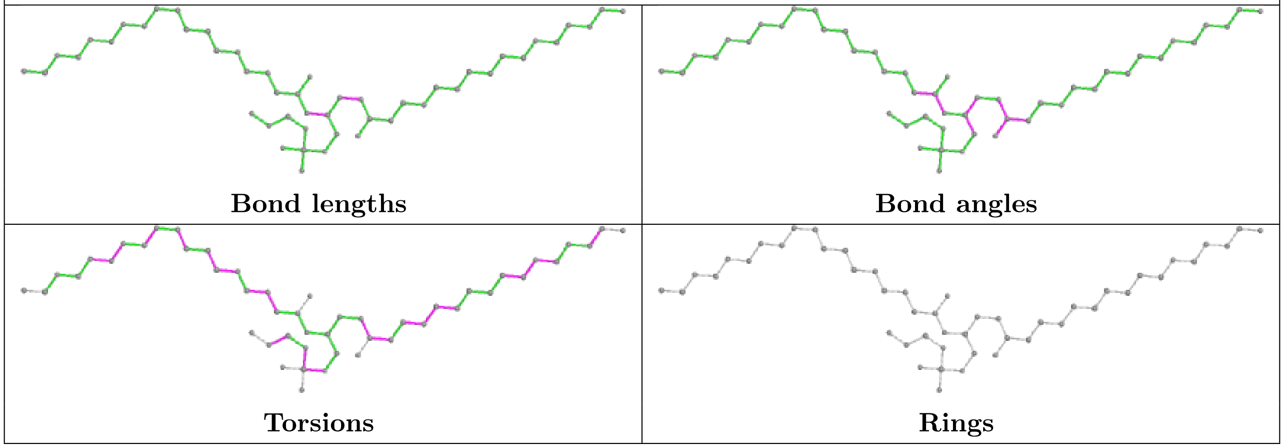
Bond lengths

Bond angles

Torsions

Rings

Ligand 6OU U 810



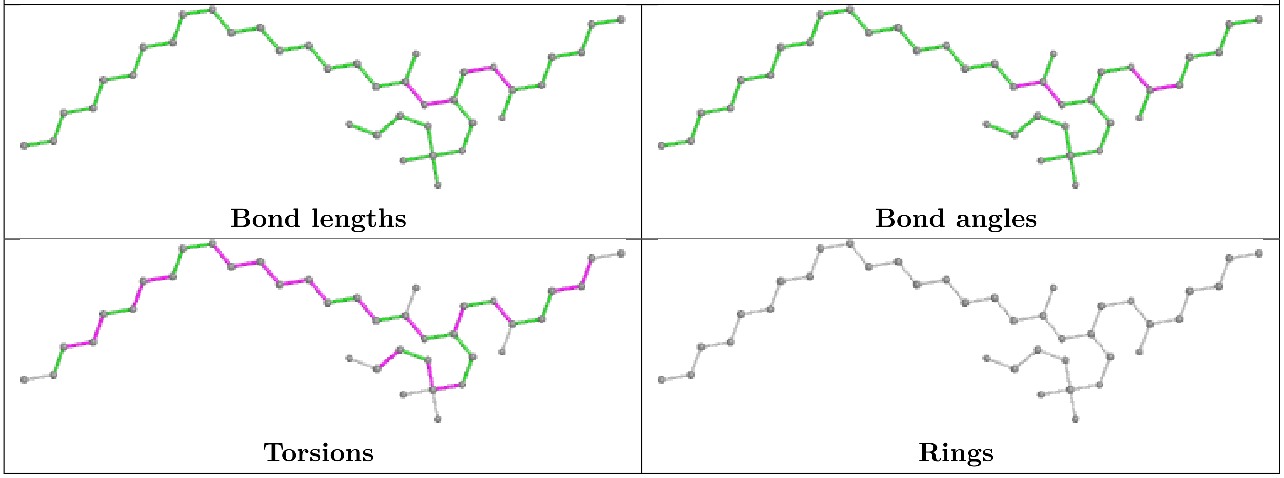
Bond lengths

Bond angles

Torsions

Rings

Ligand 6OU G 1804



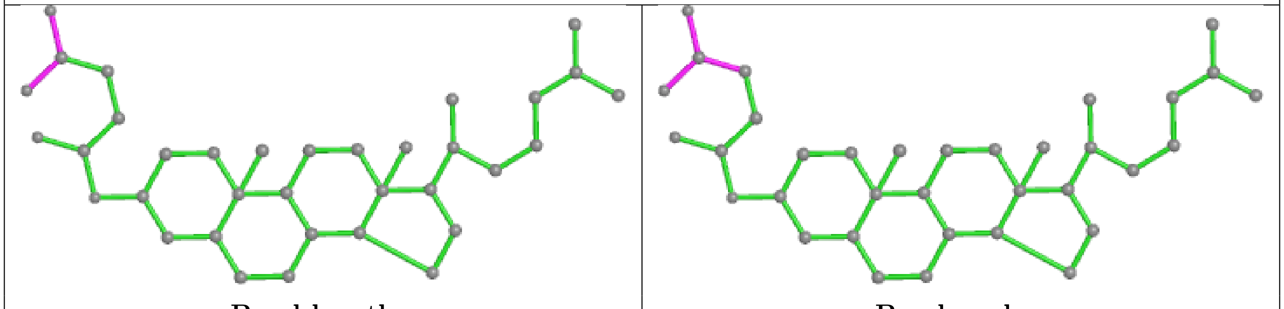
Bond lengths

Bond angles

Torsions

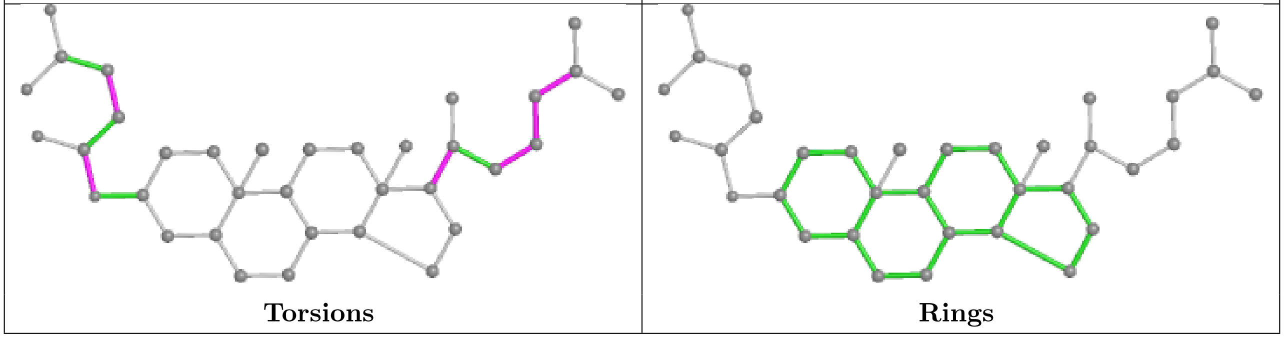
Rings

Ligand Y01 U 802



Bond lengths

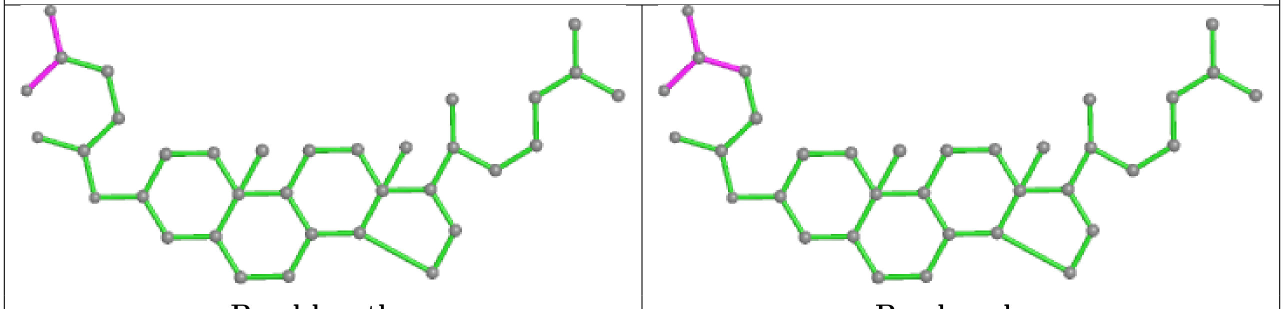
Bond angles



Torsions

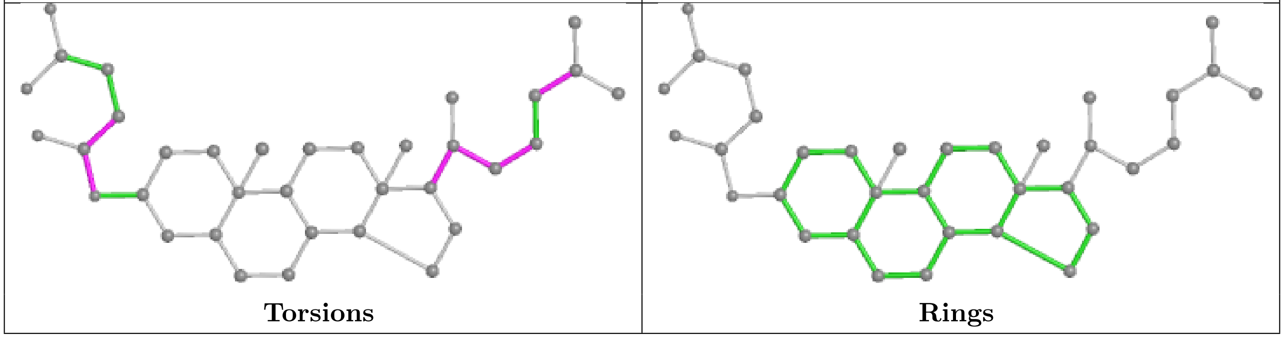
Rings

Ligand Y01 U 806



Bond lengths

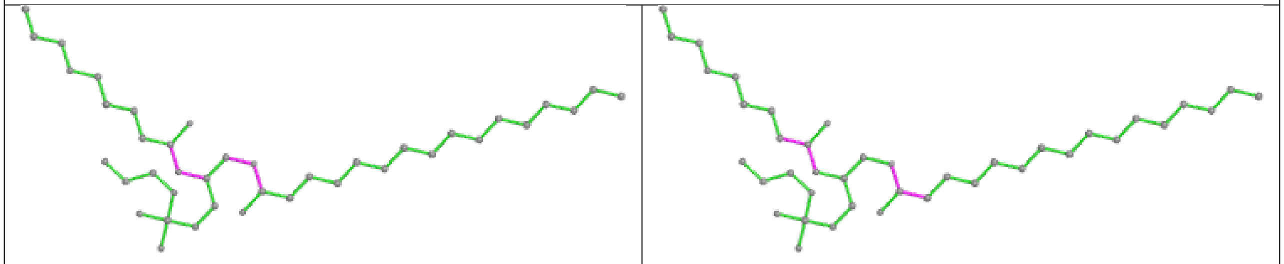
Bond angles



Torsions

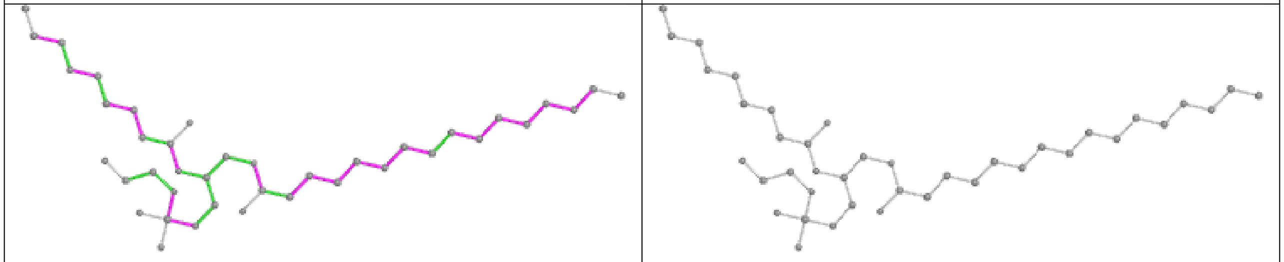
Rings

Ligand 6OU S 903



Bond lengths

Bond angles



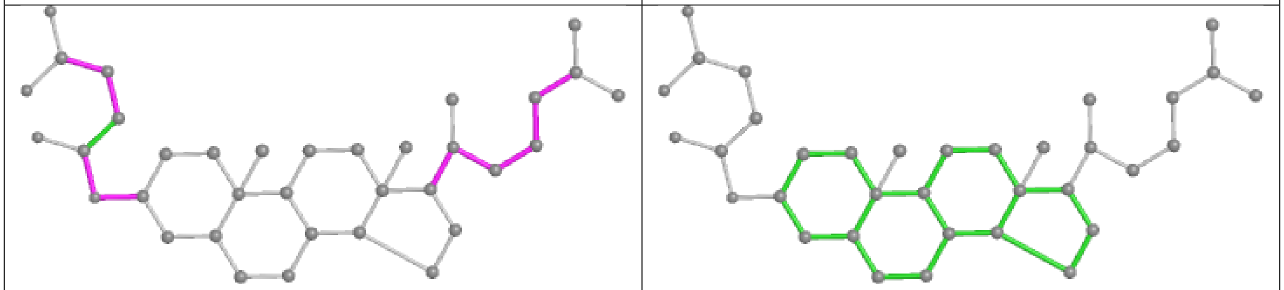
Torsions

Rings

Ligand Y01 G 1808

Bond lengths

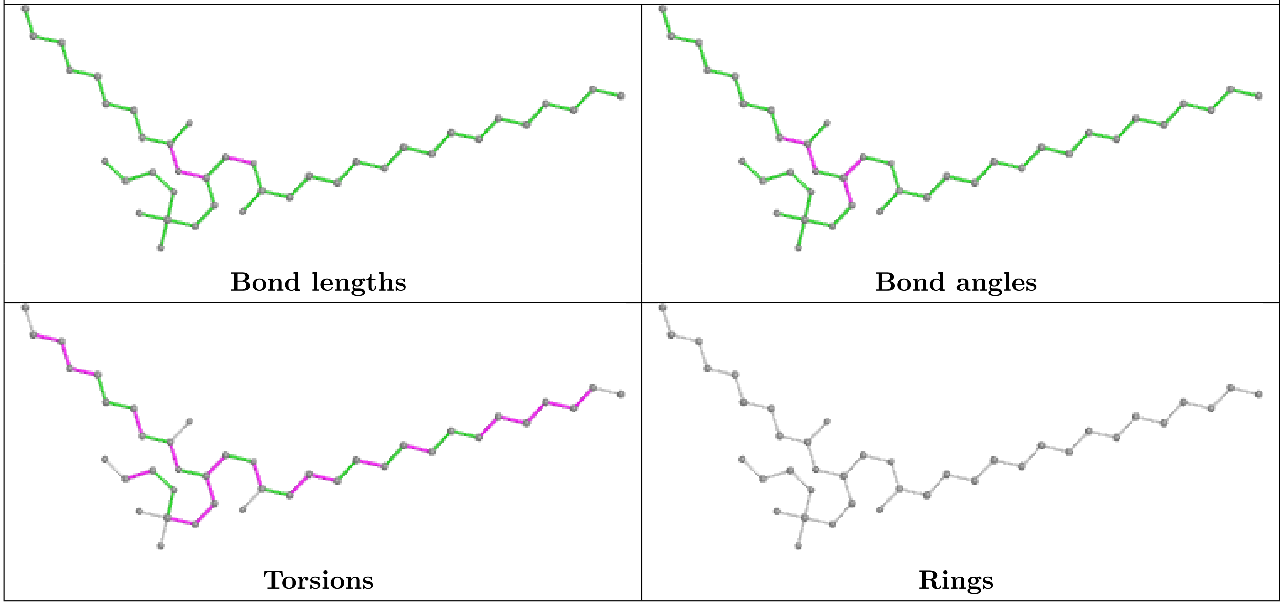
Bond angles



Torsions

Rings

Ligand 6OU U 801



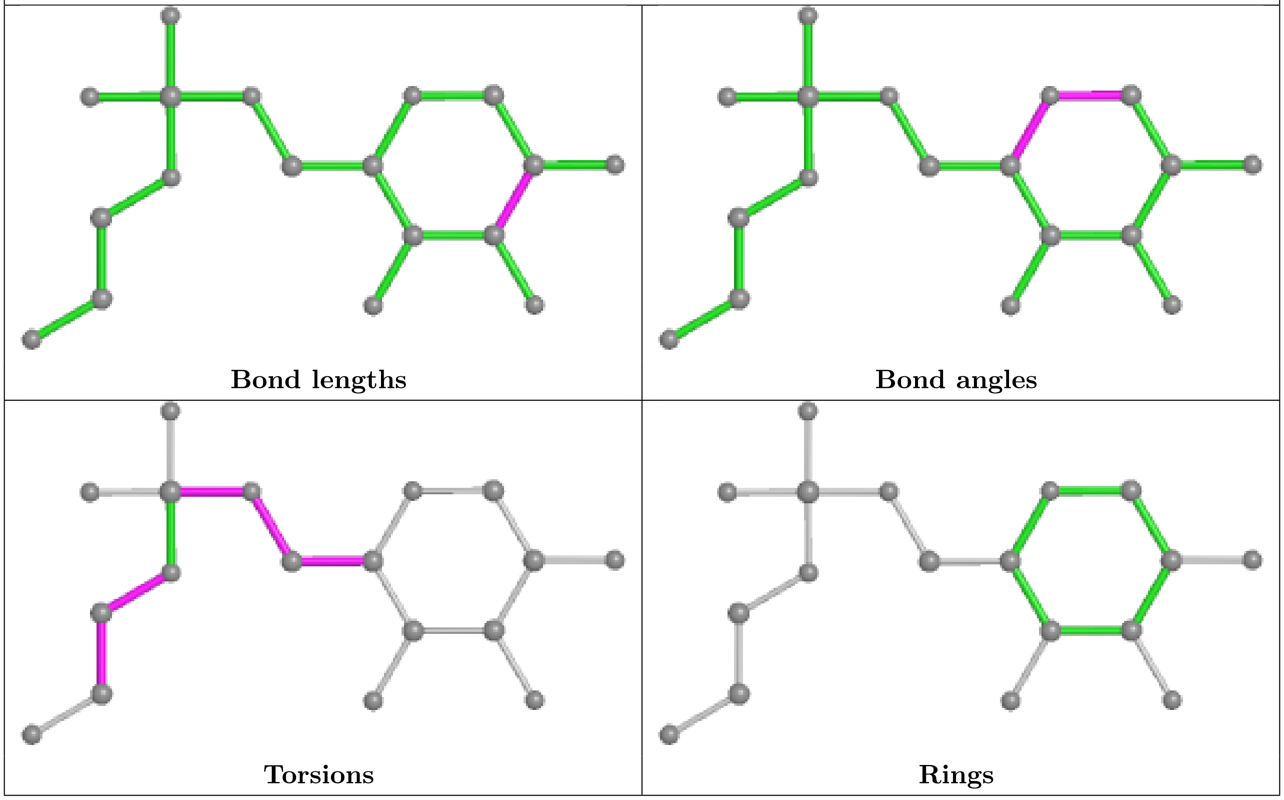
Bond lengths

Bond angles

Torsions

Rings

Ligand 80Y D 302



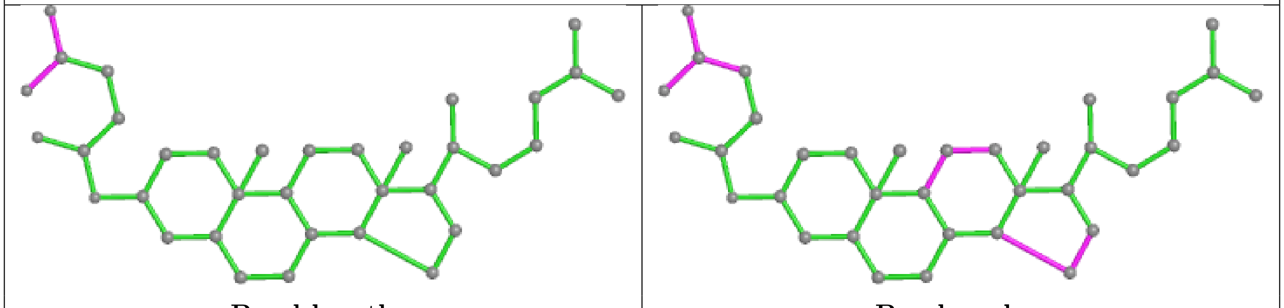
Bond lengths

Bond angles

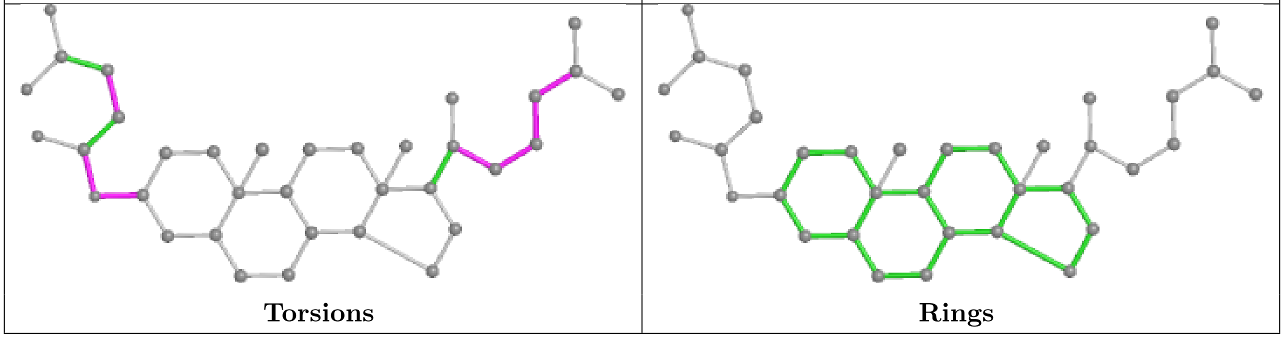
Torsions

Rings

Ligand Y01 U 808

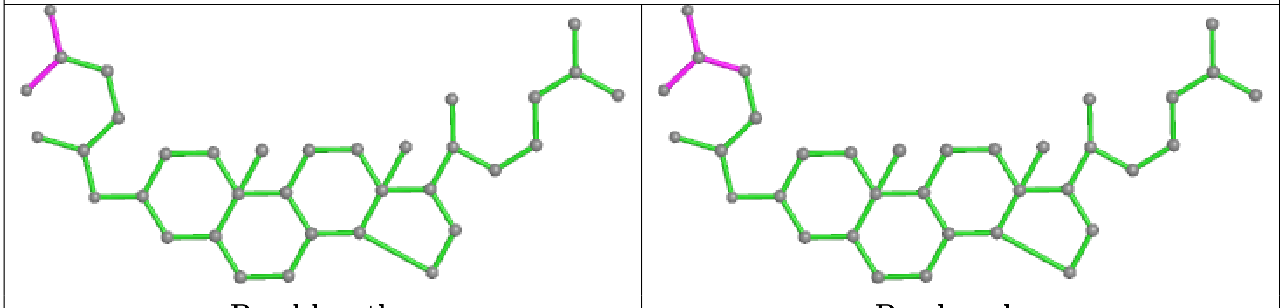


Bond lengths Bond angles

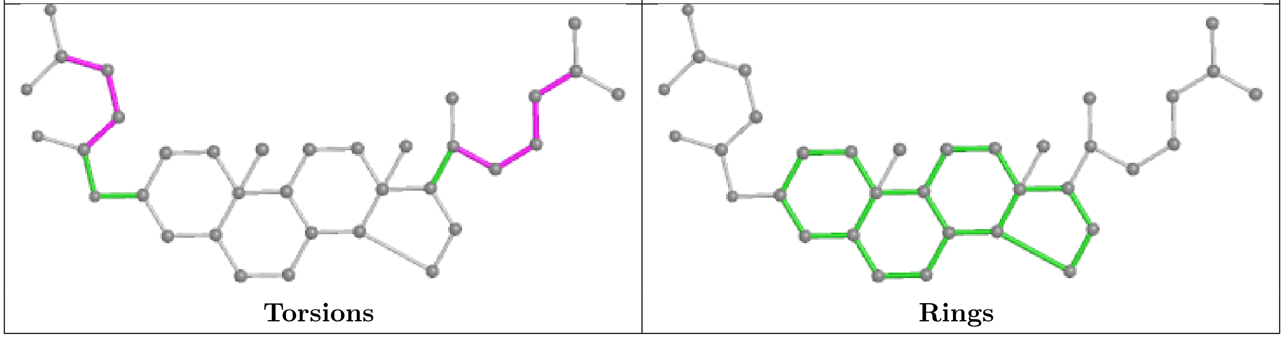


Torsions Rings

Ligand Y01 G 1807

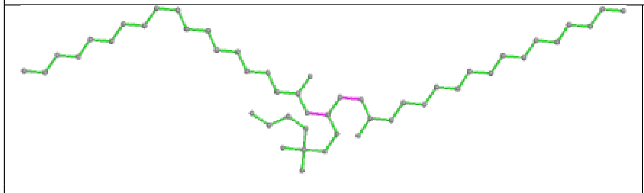


Bond lengths Bond angles

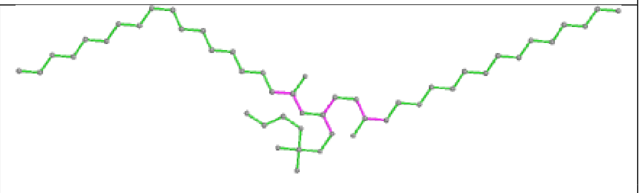


Torsions Rings

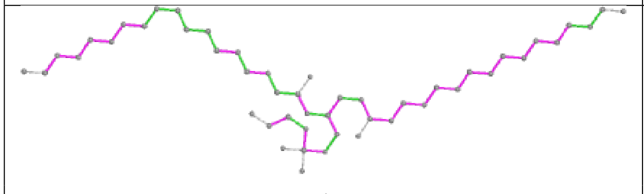
Ligand 6OU G 1803



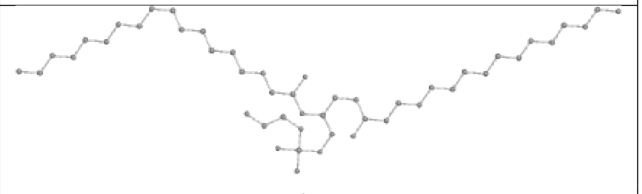
Bond lengths



Bond angles

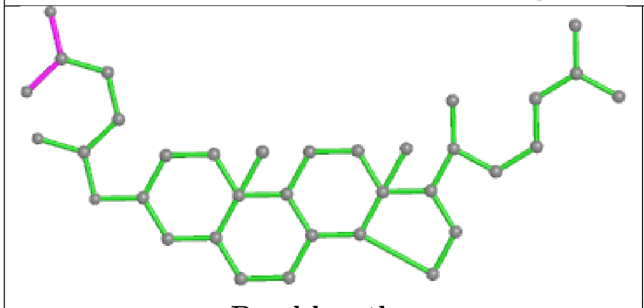


Torsions



Rings

Ligand Y01 U 809



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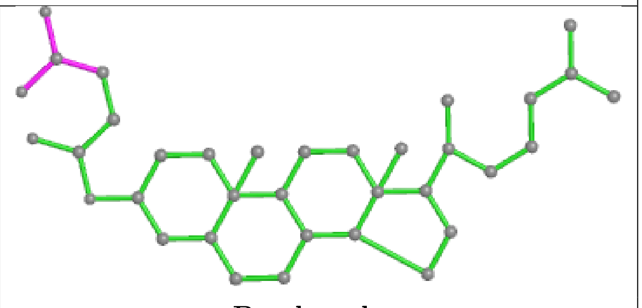
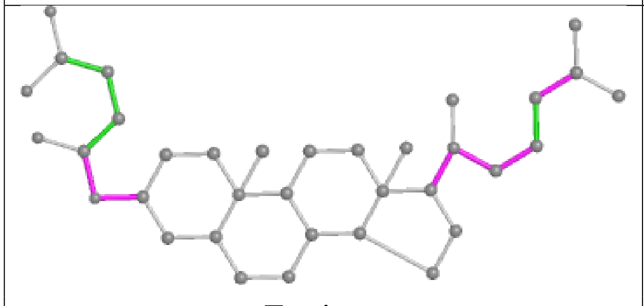
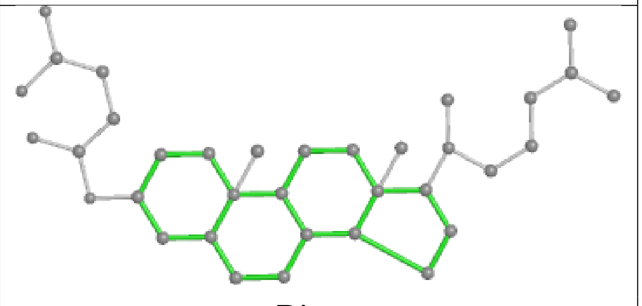


Bond angles

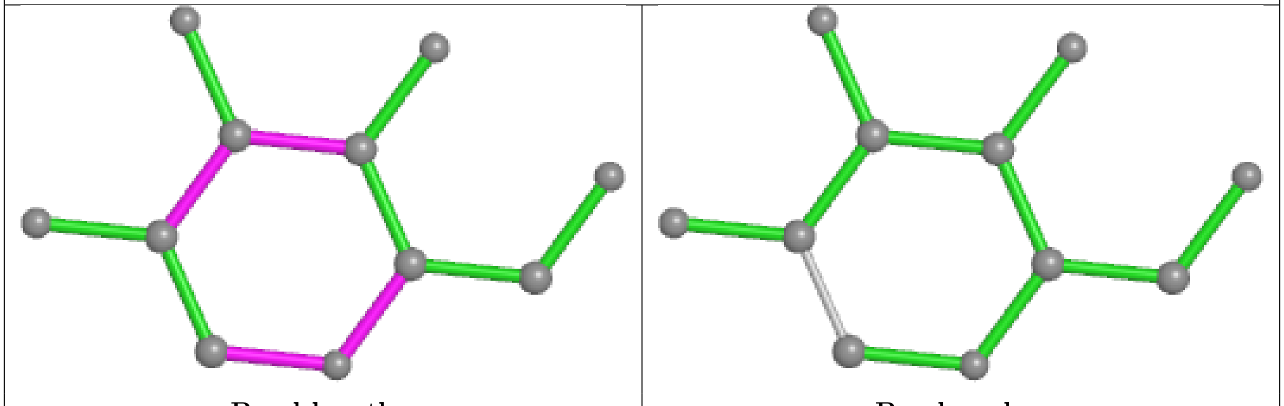


Torsions

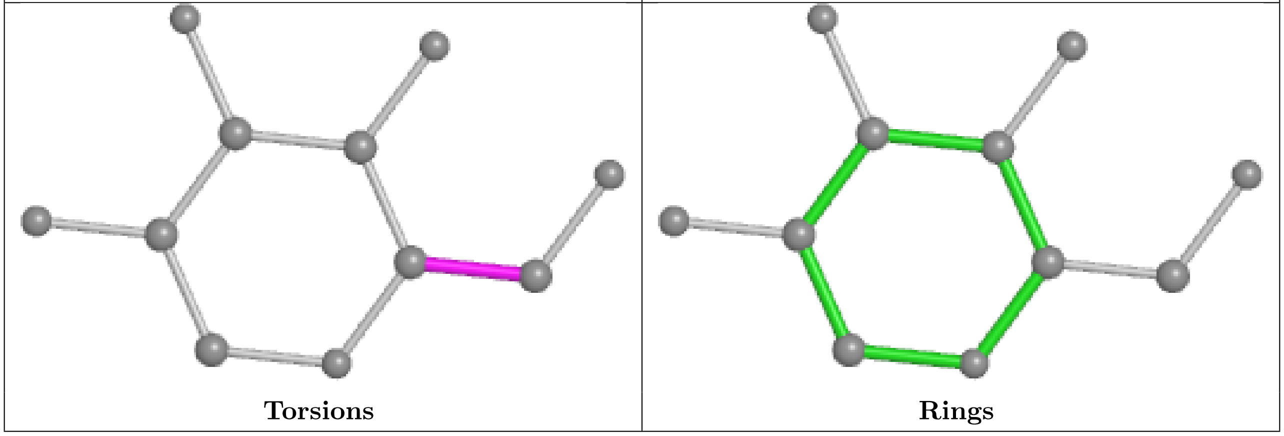


Rings

Ligand PA1 T 903

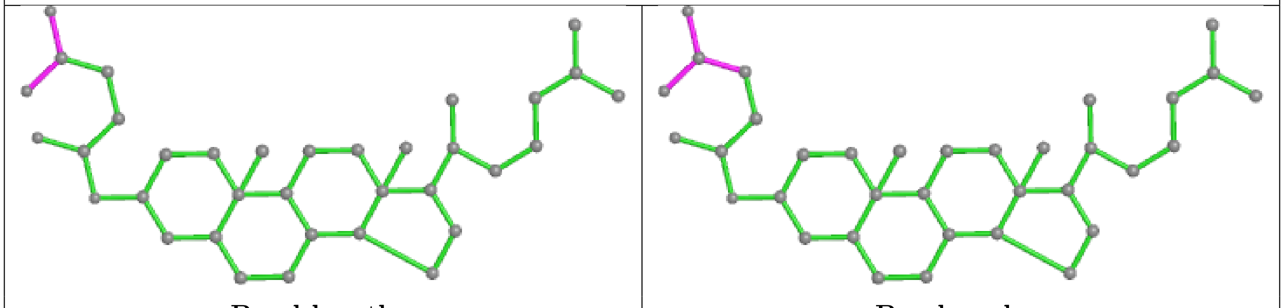


Bond lengths Bond angles

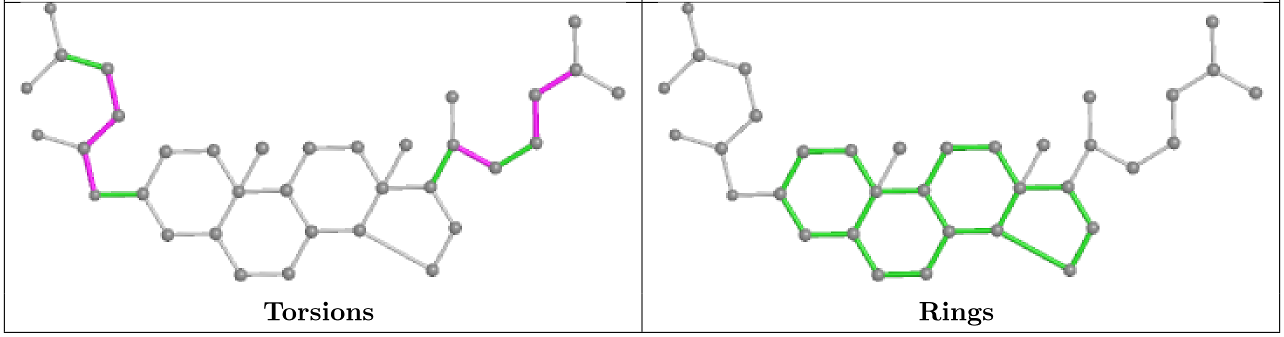


Torsions Rings

Ligand Y01 G 1806

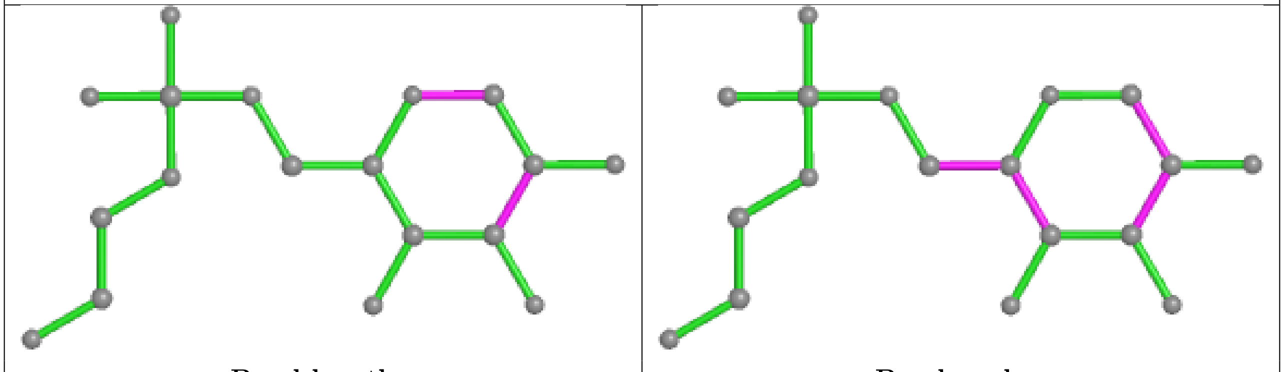


Bond lengths Bond angles



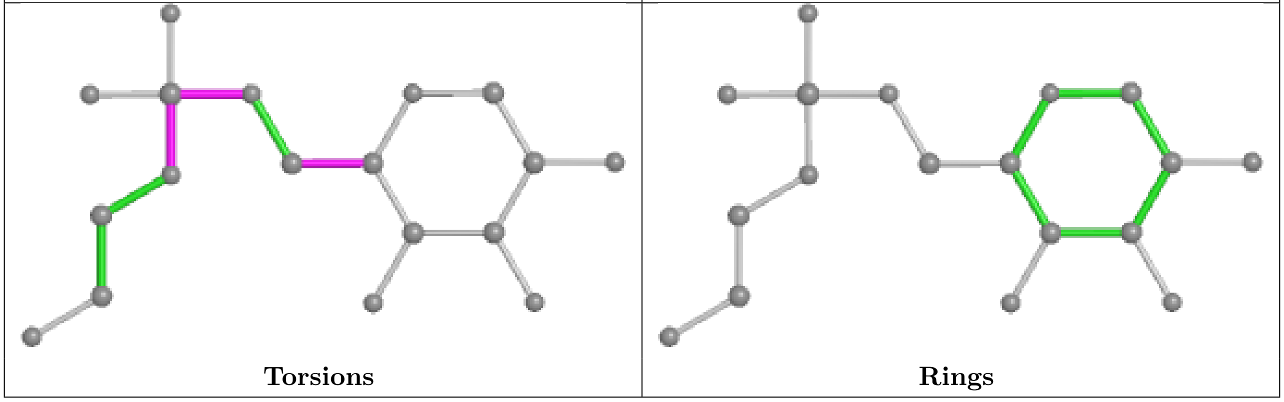
Torsions Rings

Ligand 80Y G 1815



Bond lengths

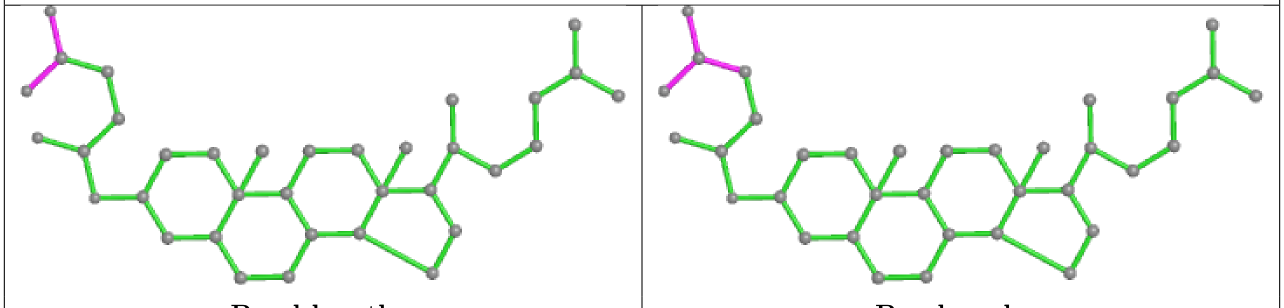
Bond angles



Torsions

Rings

Ligand Y01 U 804



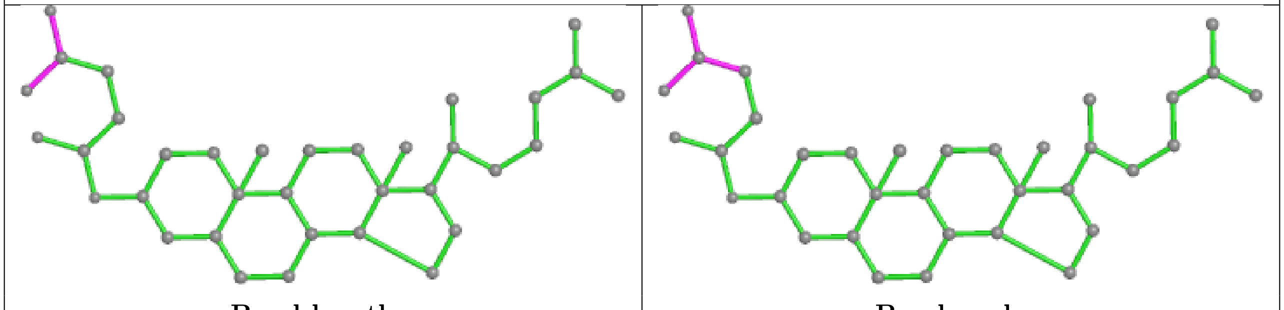
Bond lengths

Bond angles

Torsions

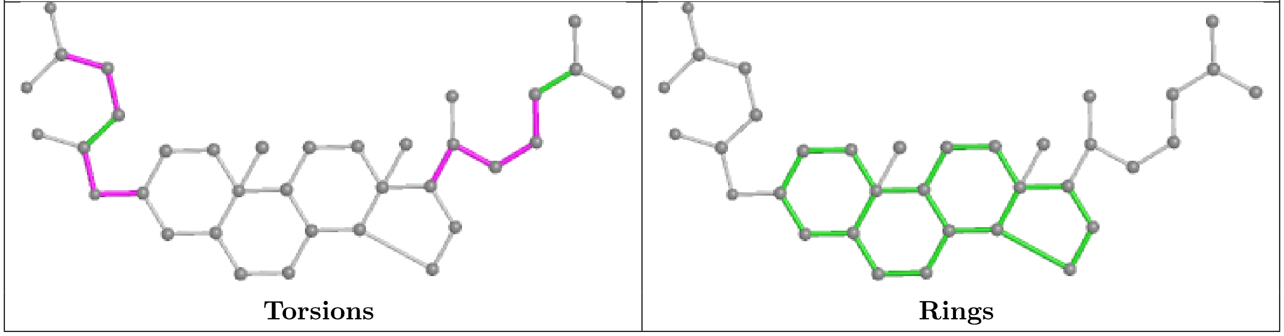
Rings

Ligand Y01 G 1812



Bond lengths

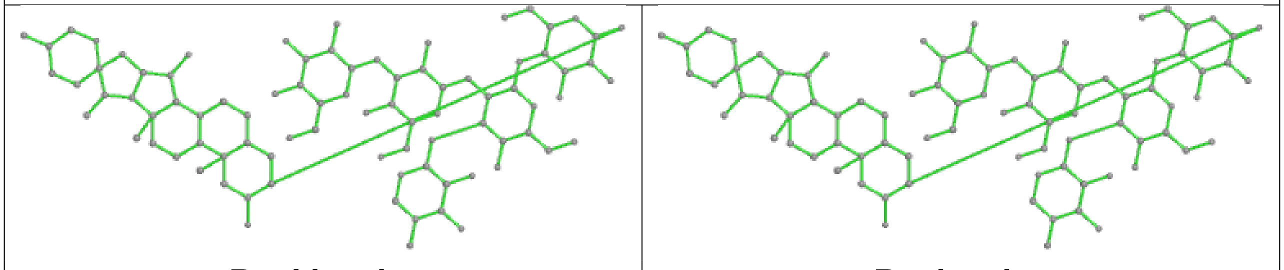
Bond angles



Torsions

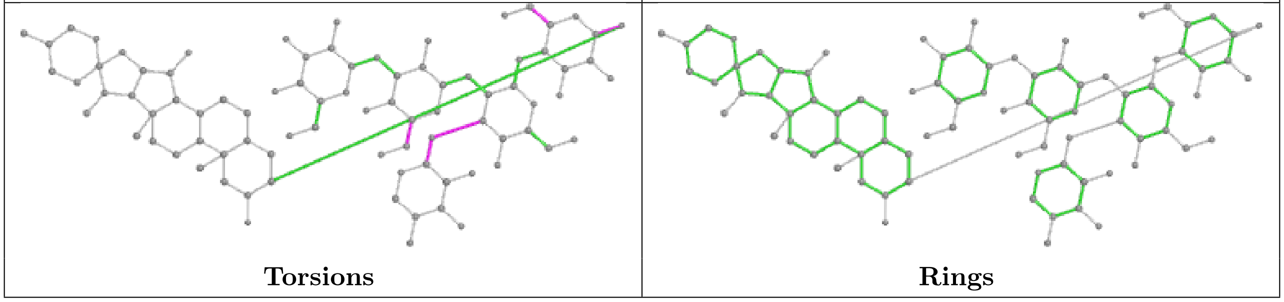
Rings

Ligand AJP G 1801



Bond lengths

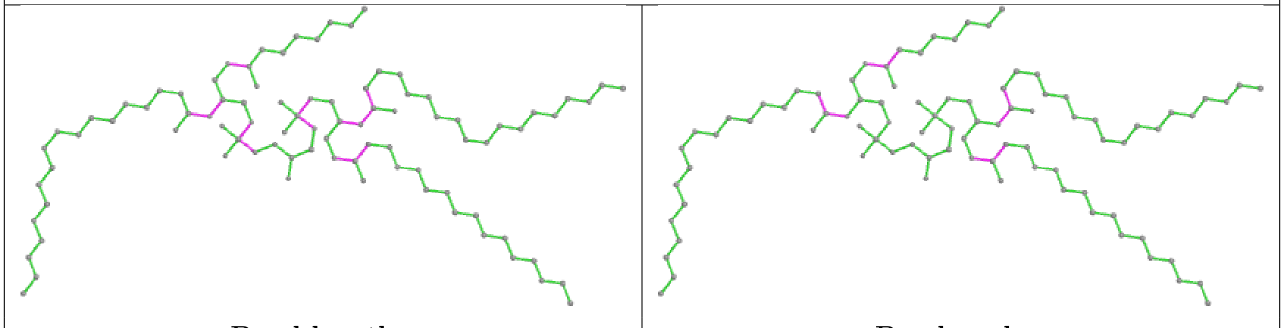
Bond angles



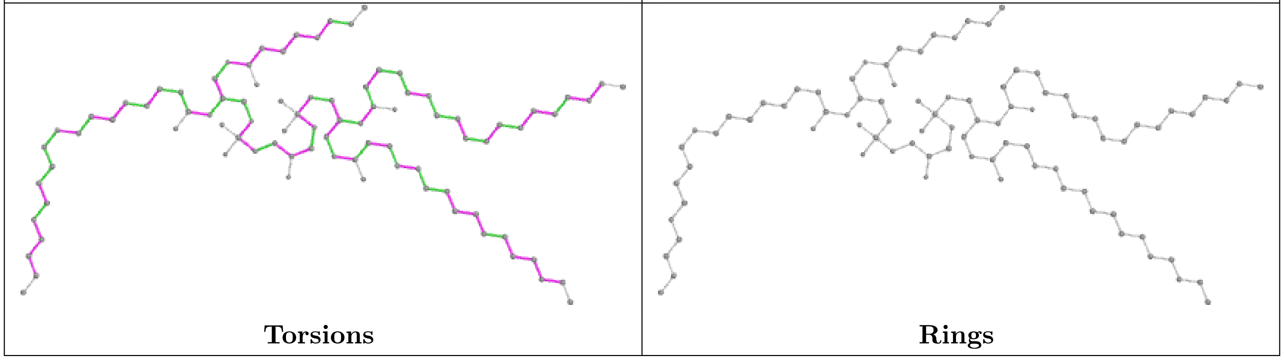
Torsions

Rings

Ligand 80T S 901

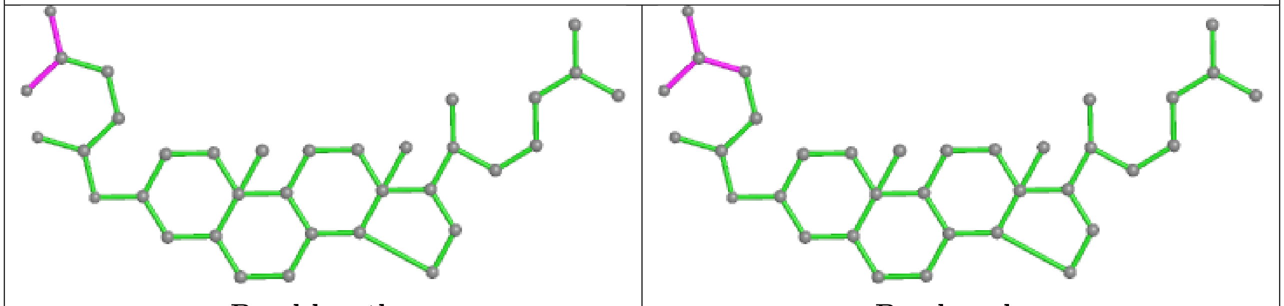


Bond lengths Bond angles

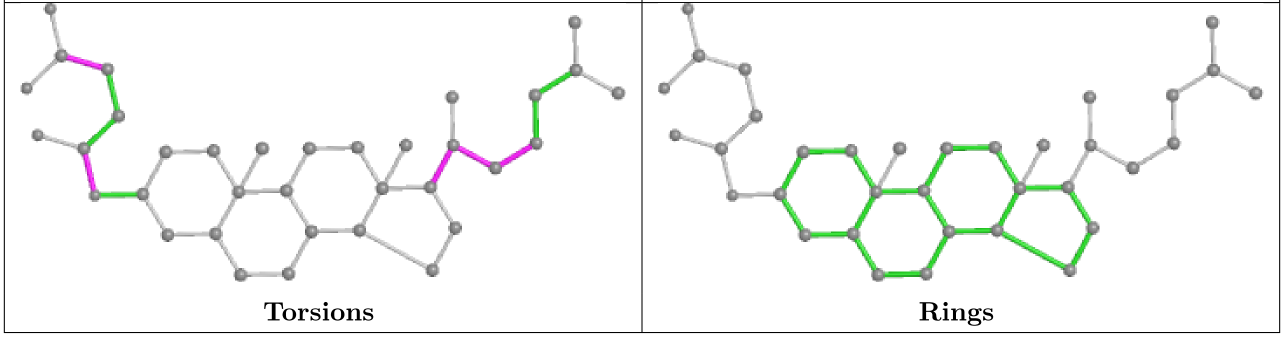


Torsions Rings

Ligand Y01 G 1805

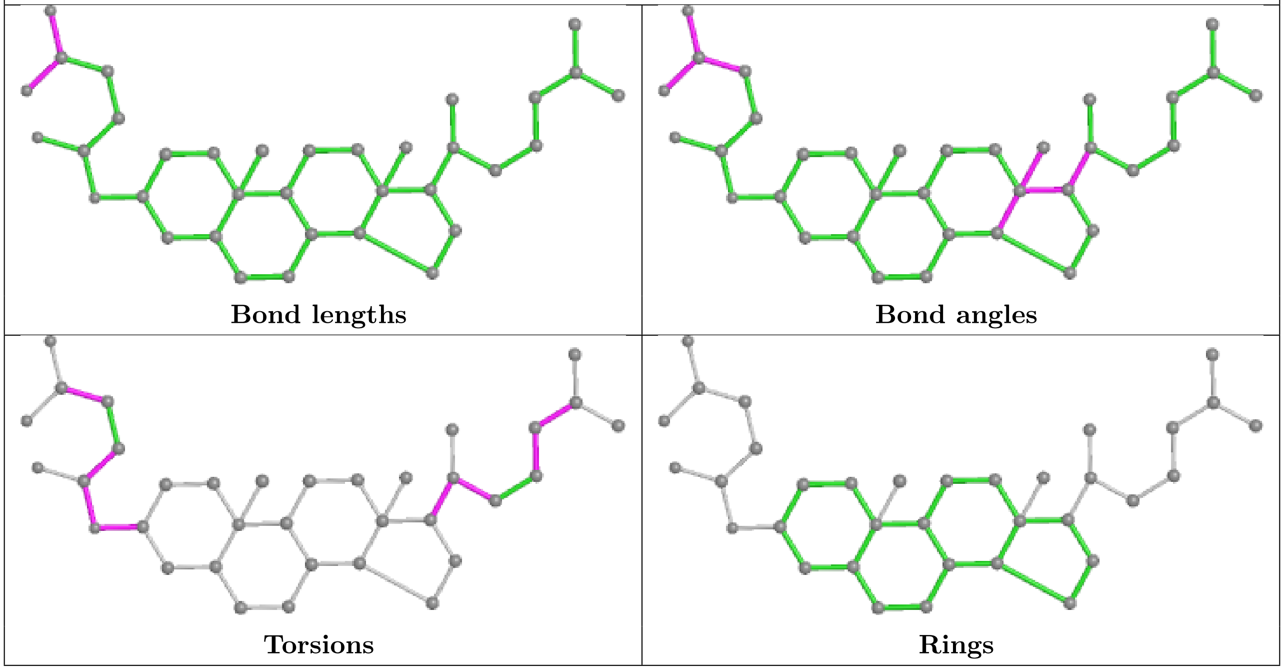


Bond lengths Bond angles



Torsions Rings

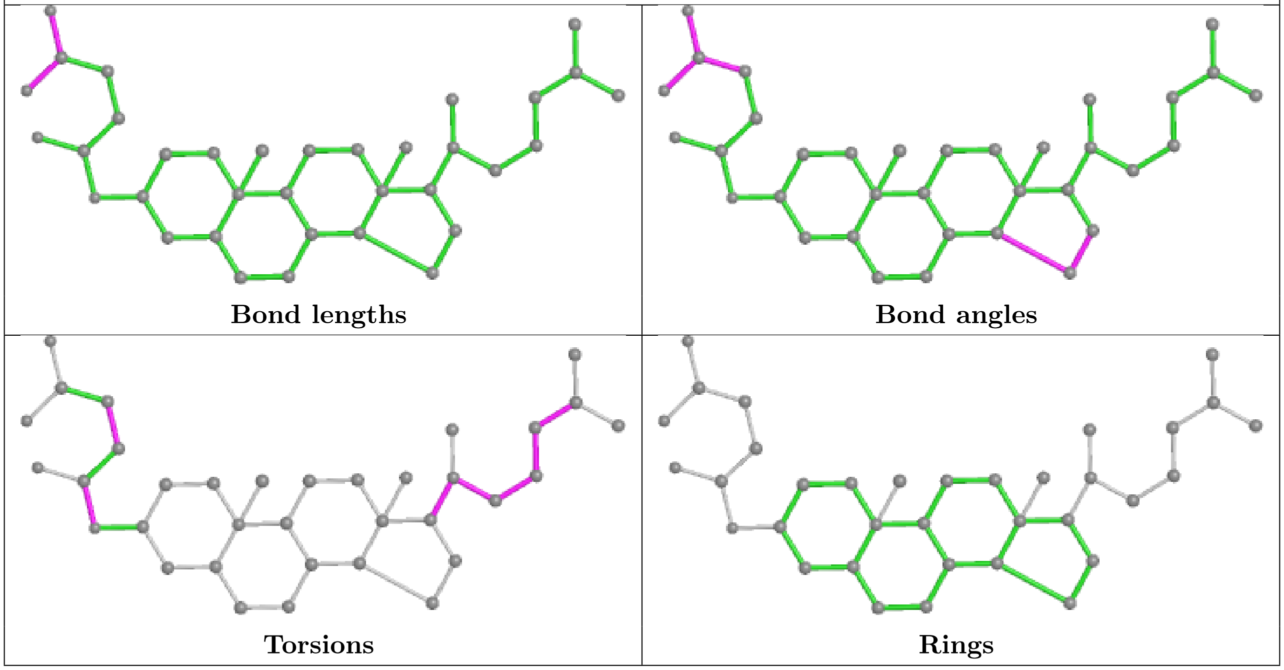
Ligand Y01 D 301



Bond lengths **Bond angles**

Torsions **Rings**

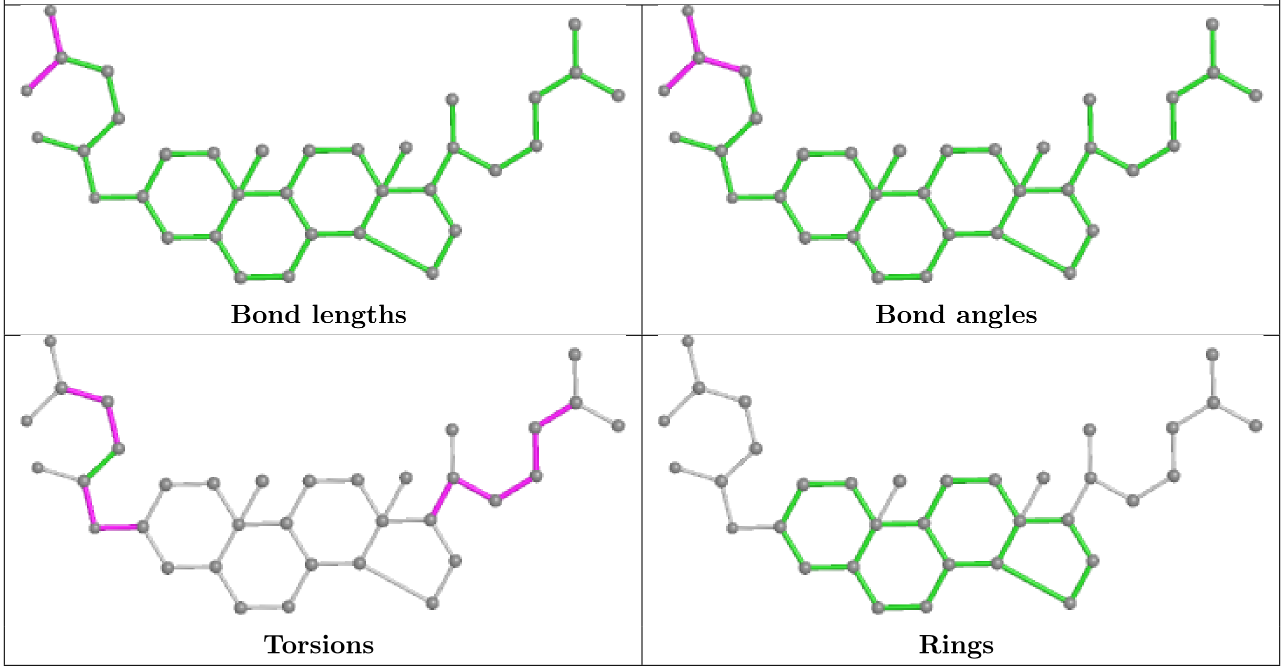
Ligand Y01 G 1810



Bond lengths **Bond angles**

Torsions **Rings**

Ligand Y01 U 805



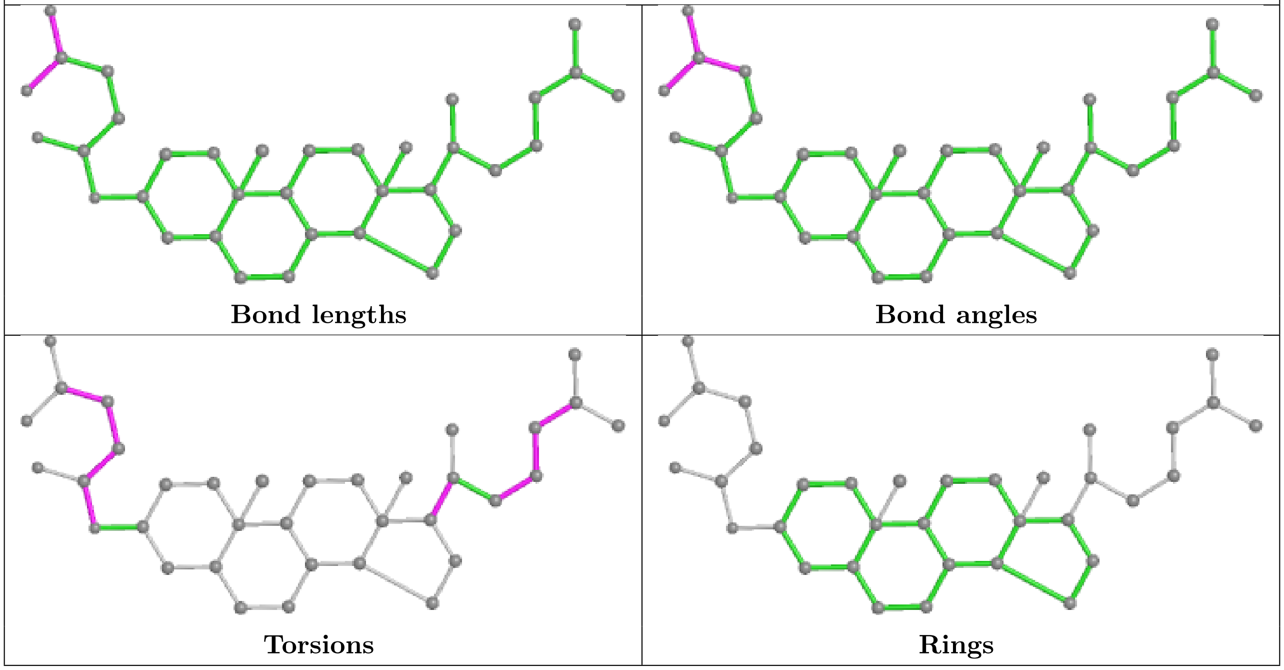
Bond lengths

Bond angles

Torsions

Rings

Ligand Y01 S 904



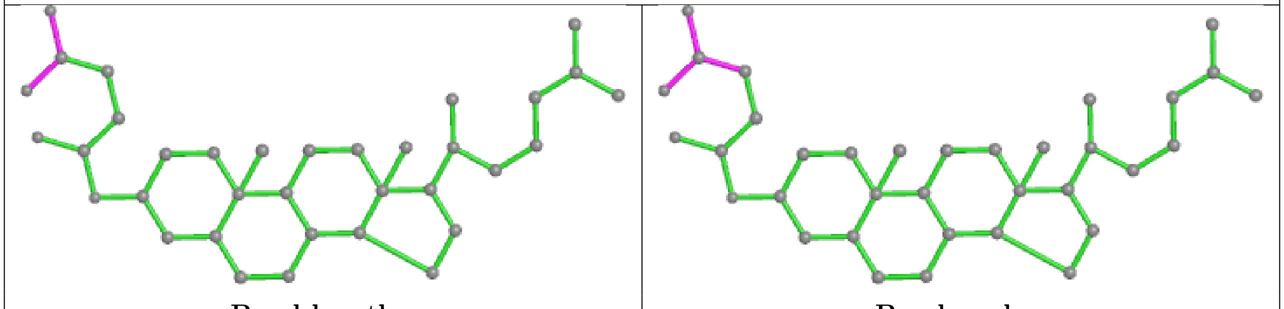
Bond lengths

Bond angles

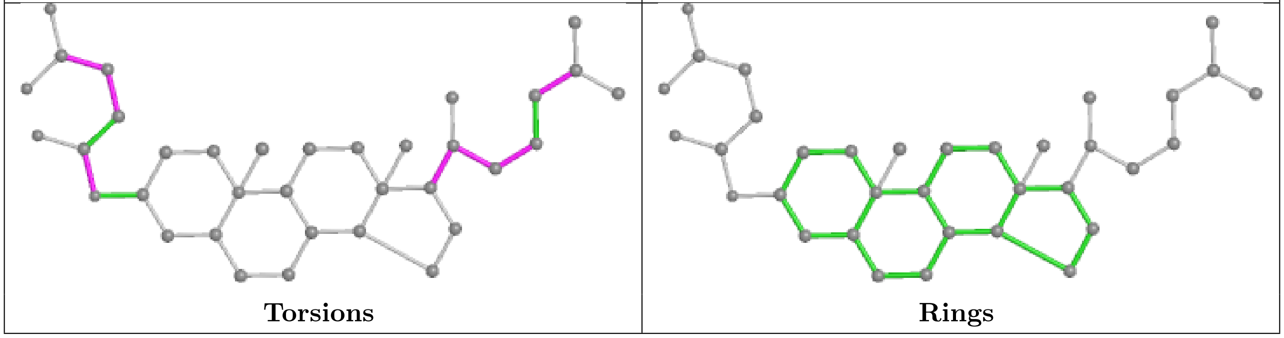
Torsions

Rings

Ligand Y01 G 1809

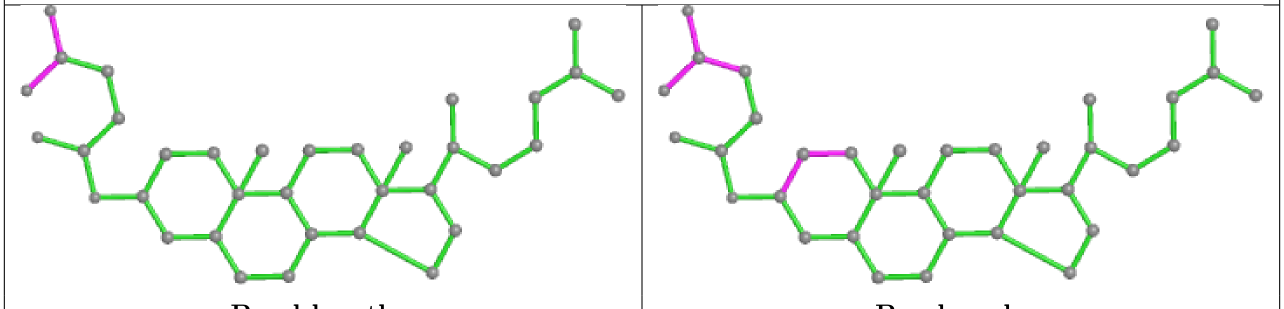


Bond lengths **Bond angles**

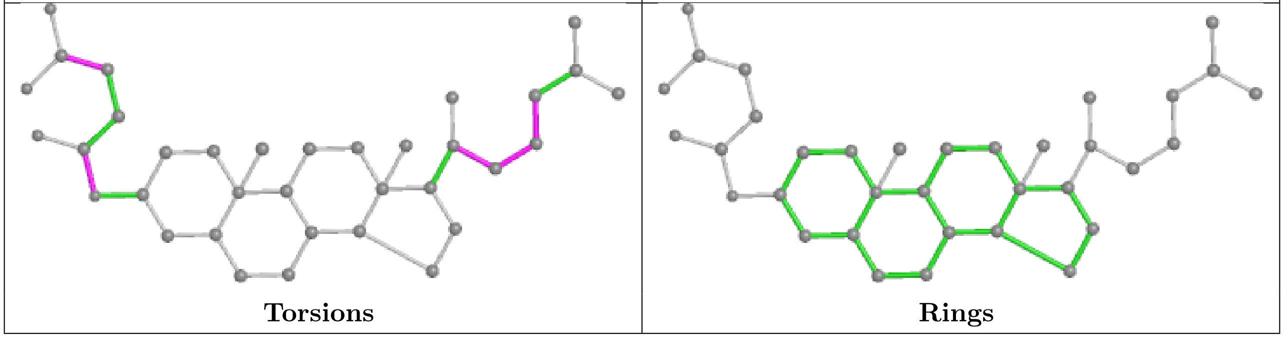


Torsions **Rings**

Ligand Y01 G 1811

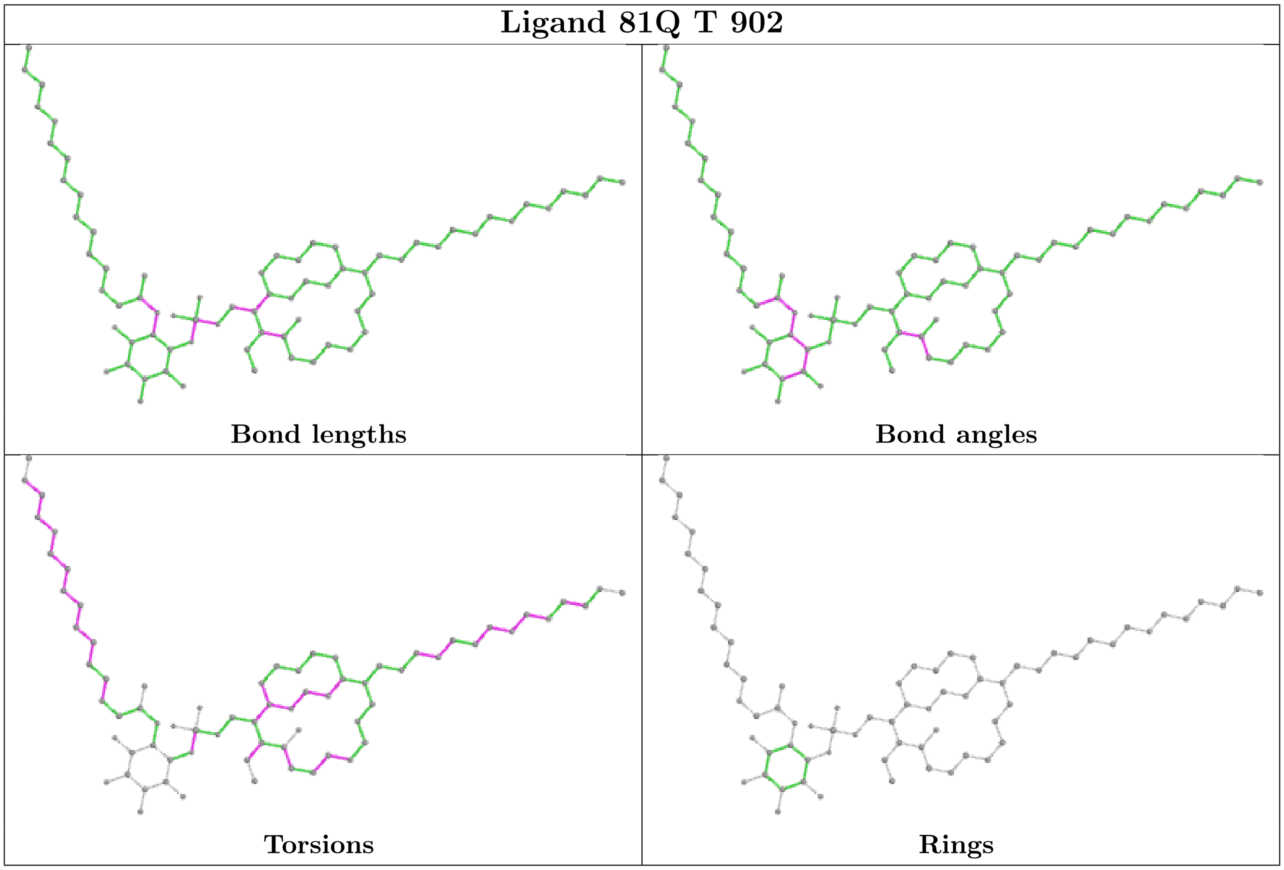


Bond lengths **Bond angles**



Torsions **Rings**

Ligand 81Q T 902



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.

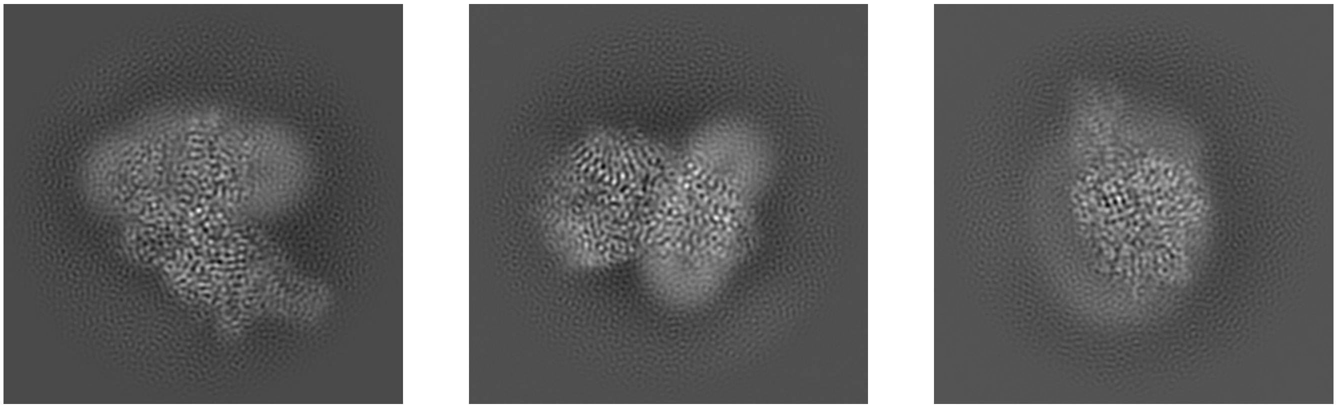
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-35576. These allow visual inspection of the internal detail of the map and identification of artifacts.

Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

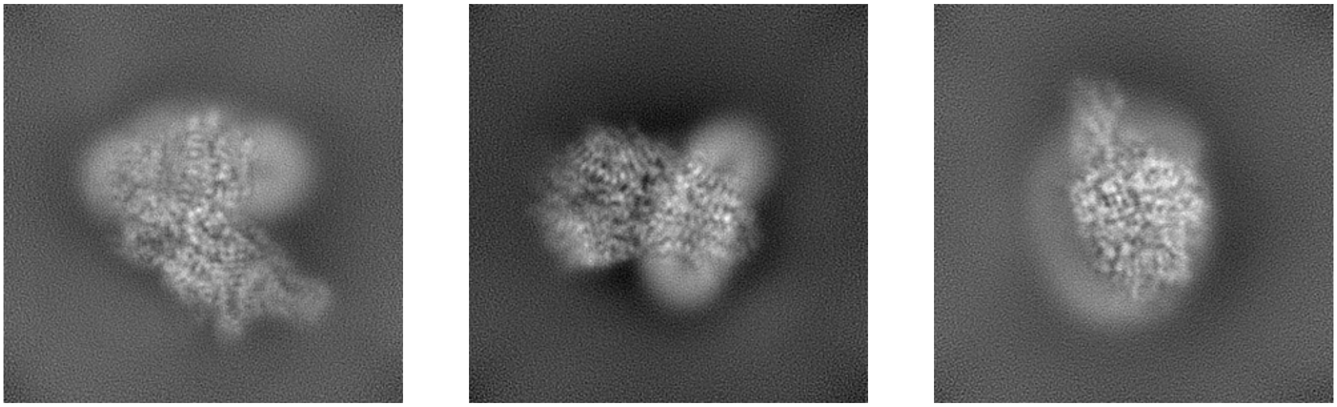
6.1 Orthogonal projections

6.1.1 Primary map



X Y Z

6.1.2 Raw map

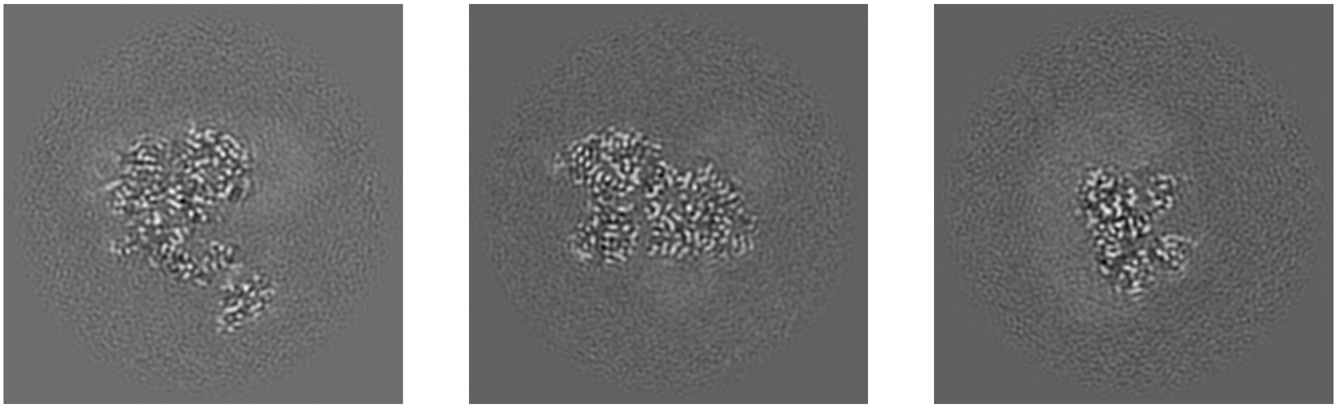


X Y Z

The images above show the map projected in three orthogonal directions.

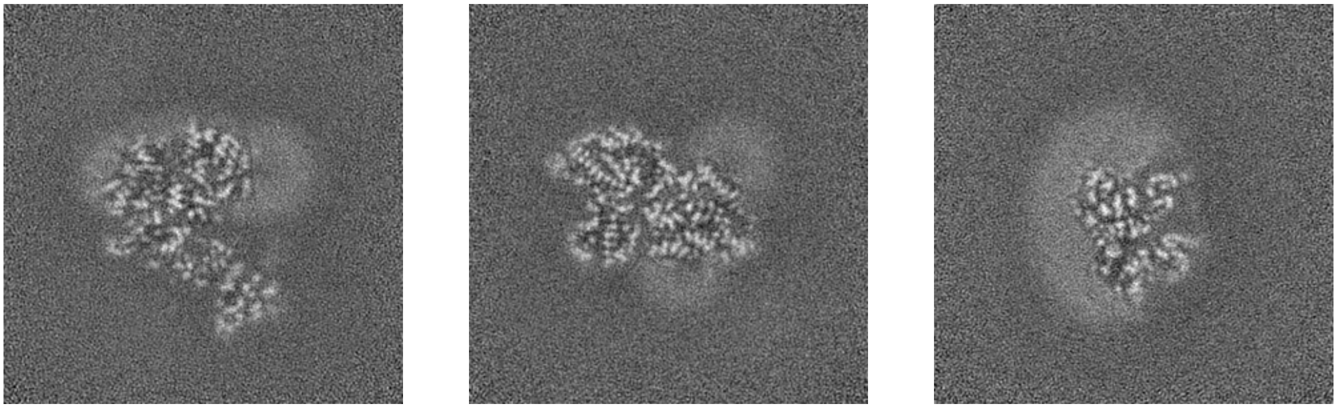
6.2 Central slices ⓘ

6.2.1 Primary map



X Index: 140 Y Index: 140 Z Index: 140

6.2.2 Raw map

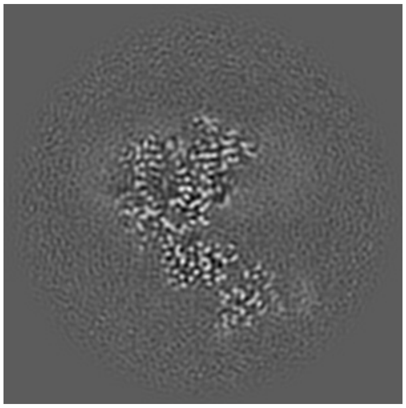


X Index: 140 Y Index: 140 Z Index: 140

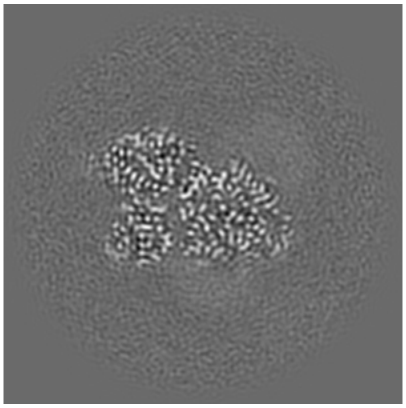
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

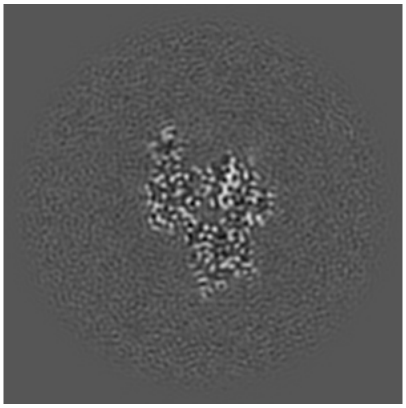
6.3.1 Primary map



X Index: 130

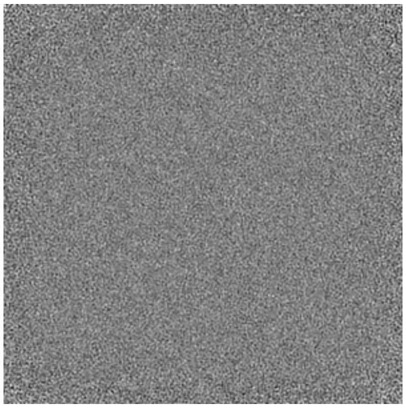


Y Index: 141

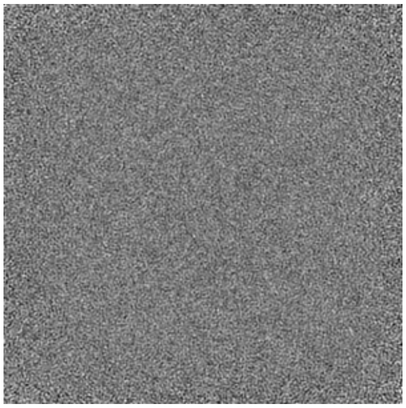


Z Index: 107

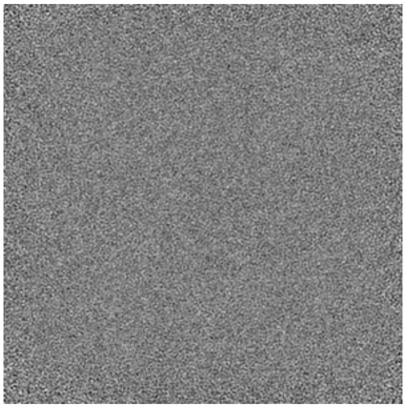
6.3.2 Raw map



X Index: 0



Y Index: 0

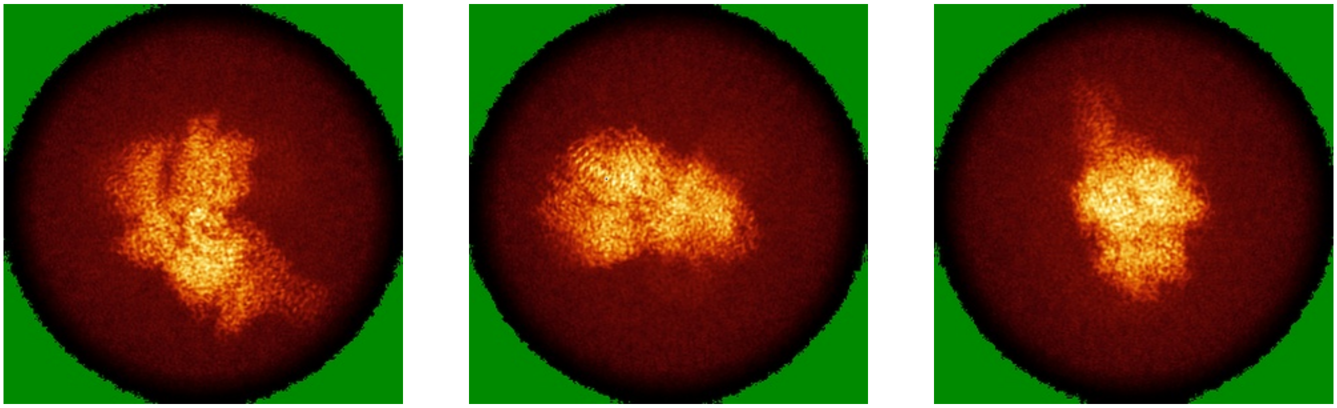


Z Index: 279

The images above show the largest variance slices of the map in three orthogonal directions.

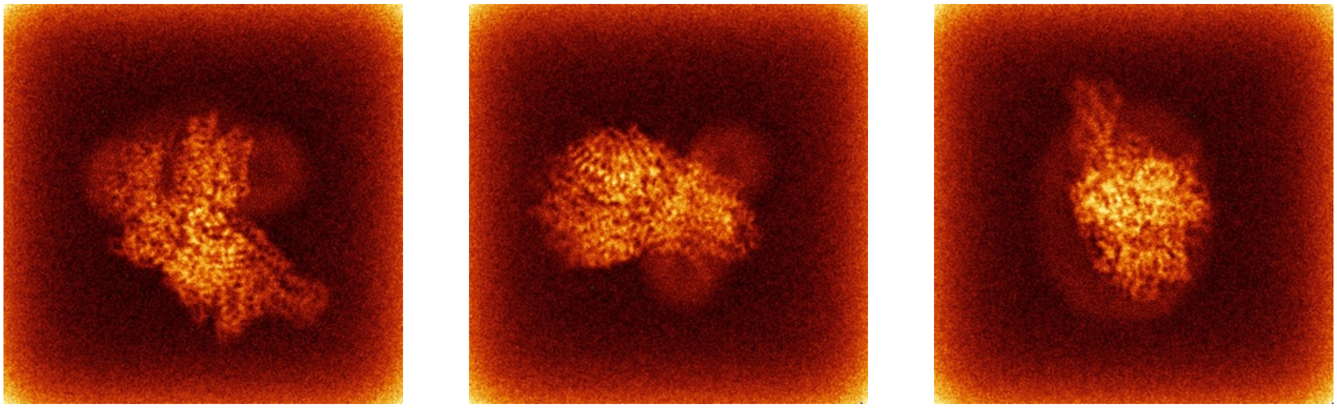
6.4 Orthogonal standard-deviation projections (False-color)

6.4.1 Primary map



X Y Z

6.4.2 Raw map



X Y Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views ⓘ

6.5.1 Primary map

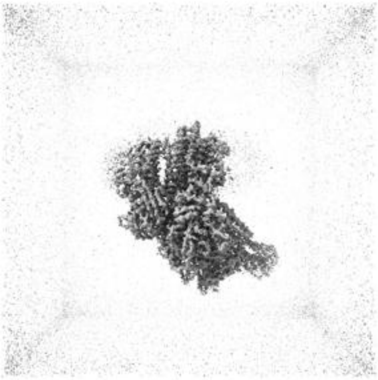
X

Y

Z

The images above show the 3D surface view of the map at the recommended contour level 0.5. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



X

Y

Z

These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

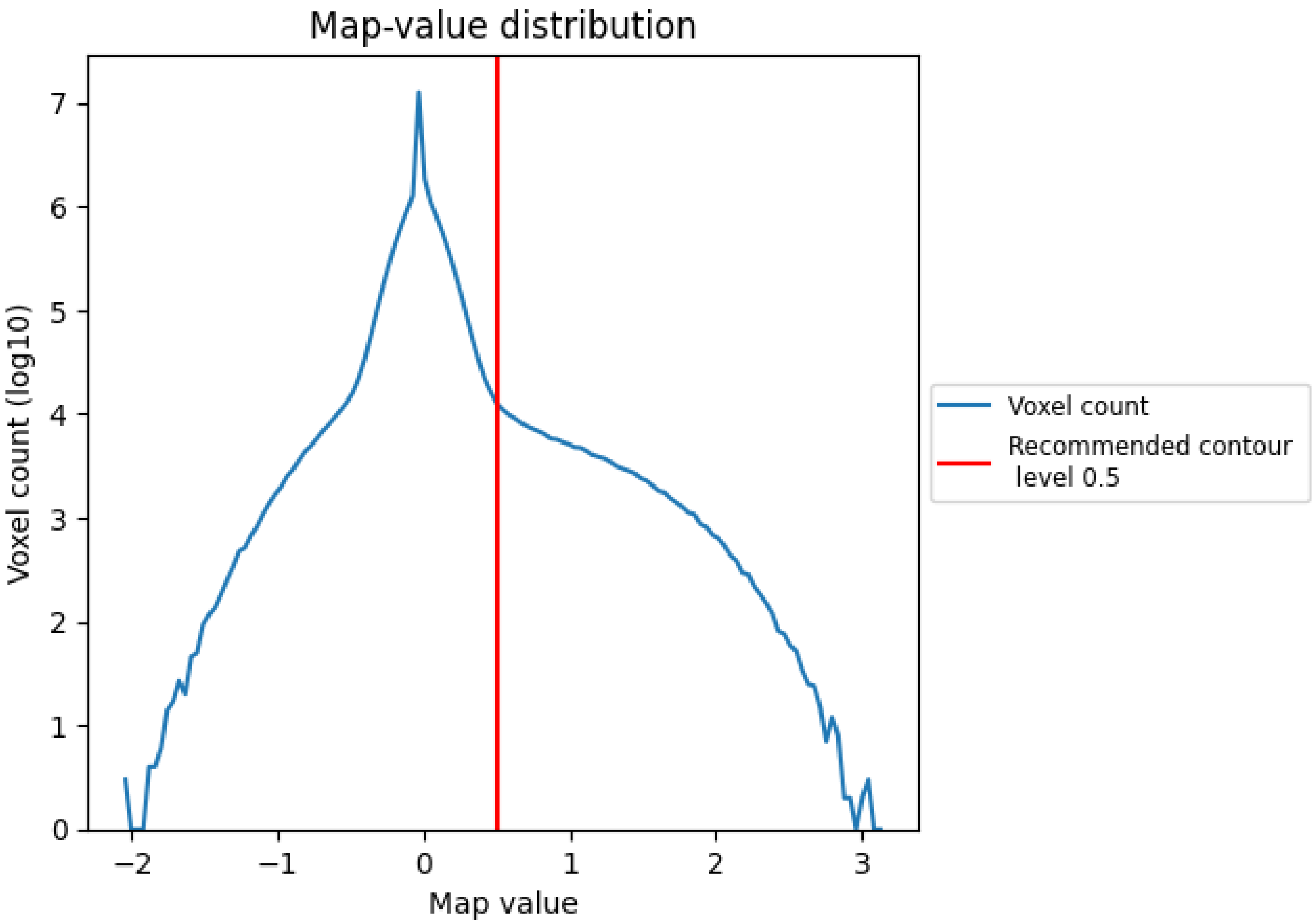
6.6 Mask visualisation ⓘ

This section was not generated. No masks/segmentation were deposited.

7 Map analysis ⓘ

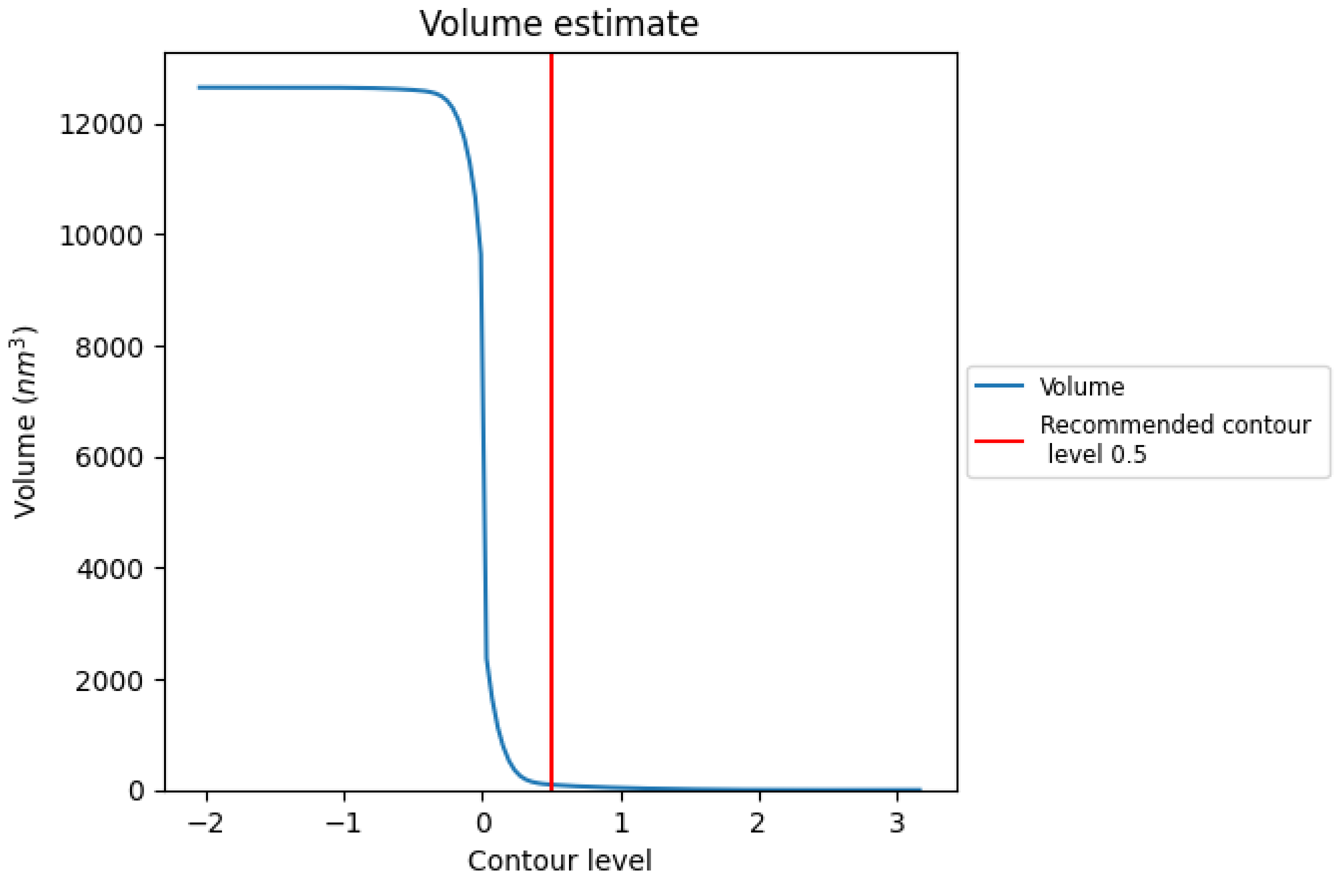
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution ⓘ



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

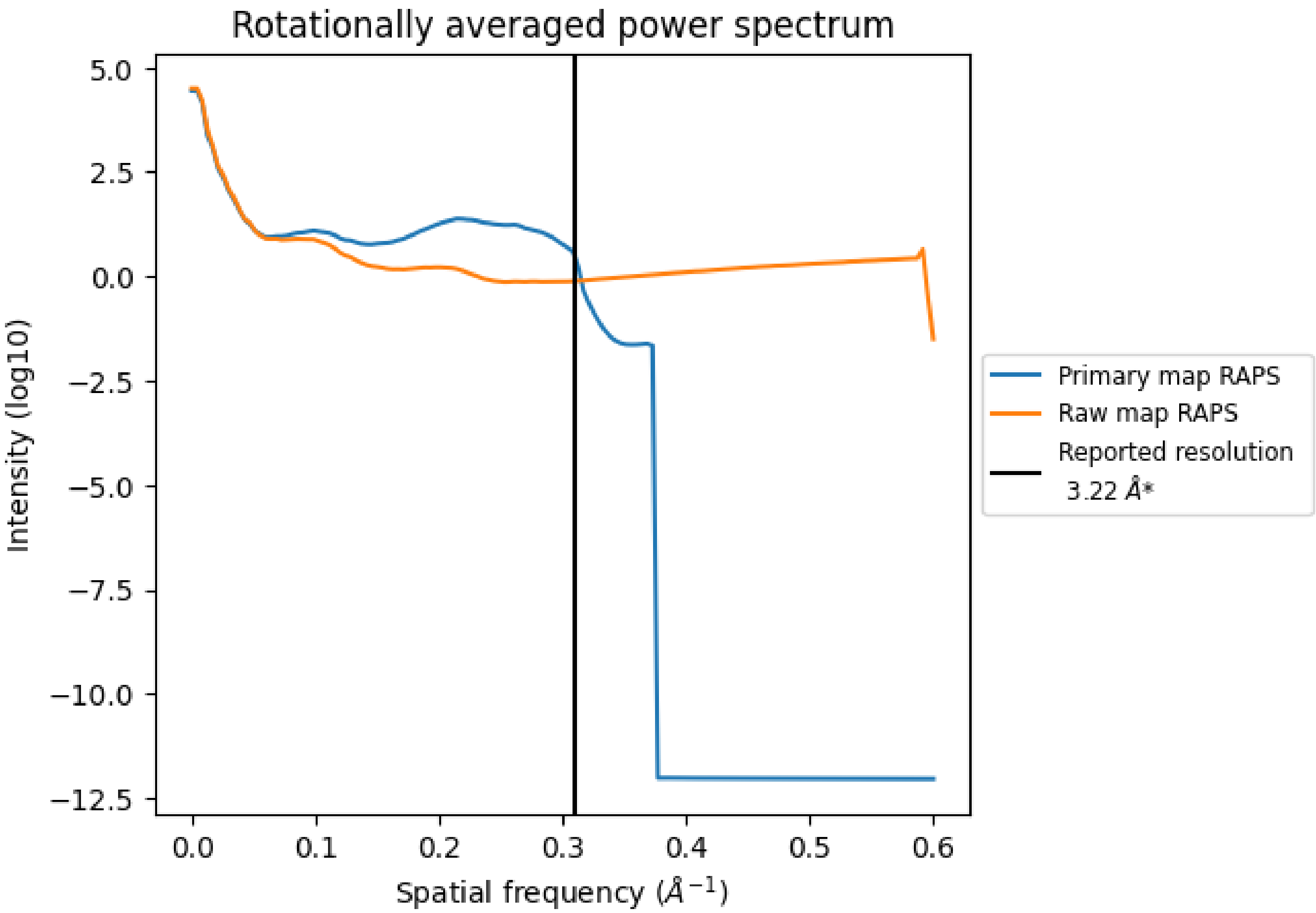
7.2 Volume estimate ⓘ



The volume at the recommended contour level is 95 nm^3; this corresponds to an approximate mass of 86 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum ⓘ

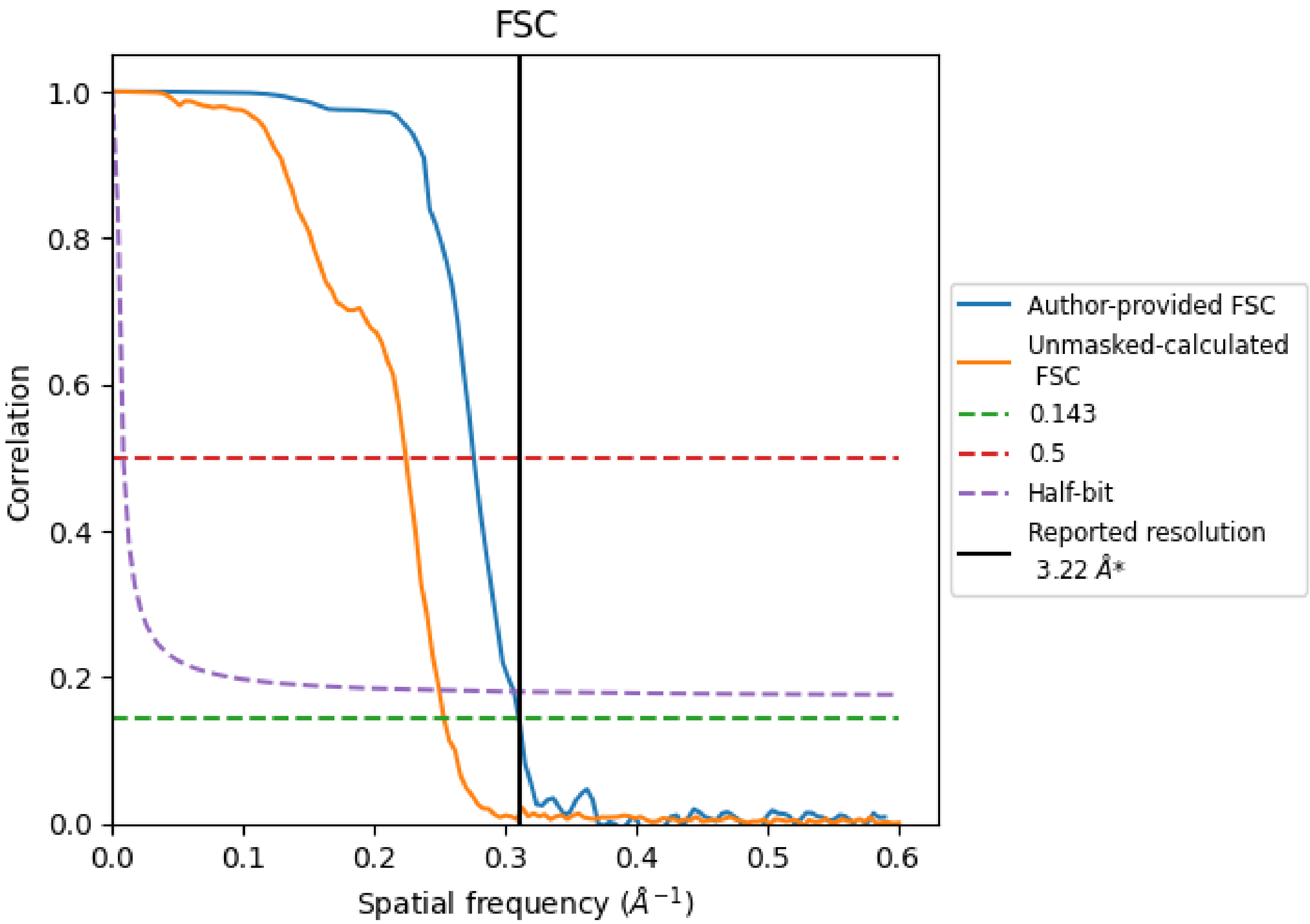


*Reported resolution corresponds to spatial frequency of 0.311 Å^{-1}

8 Fourier-Shell correlation ⓘ

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC ⓘ



*Reported resolution corresponds to spatial frequency of 0.311 $Å^{-1}$

8.2 Resolution estimates ⓘ

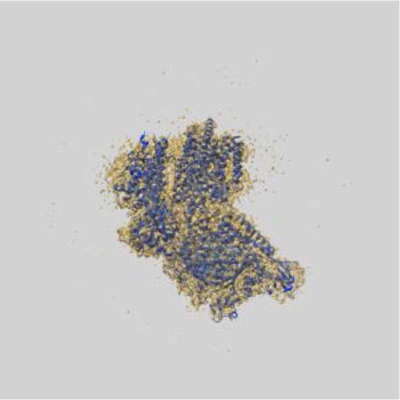
Resolution estimate (Å)	**Estimation criterion (FSC cut-off)**		
	0.143	0.5	Half-bit
Reported by author	3.22	-	-
Author-provided FSC curve	3.22	3.62	3.26
Unmasked-calculated*	3.95	4.46	4.00

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 3.95 differs from the reported value 3.22 by more than 10 %

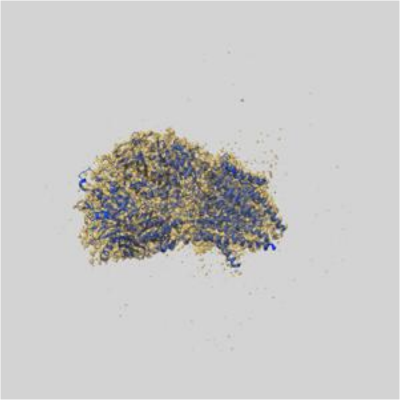
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-35576 and PDB model 8IMY. Per-residue inclusion information can be found in section 3 on page 24.

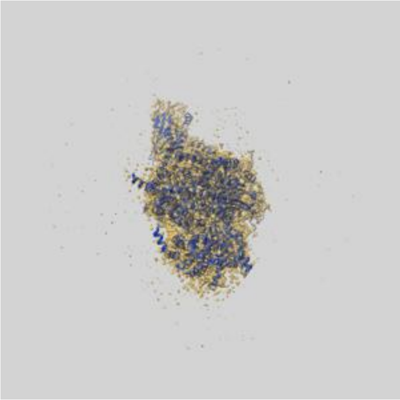
9.1 Map-model overlay



X



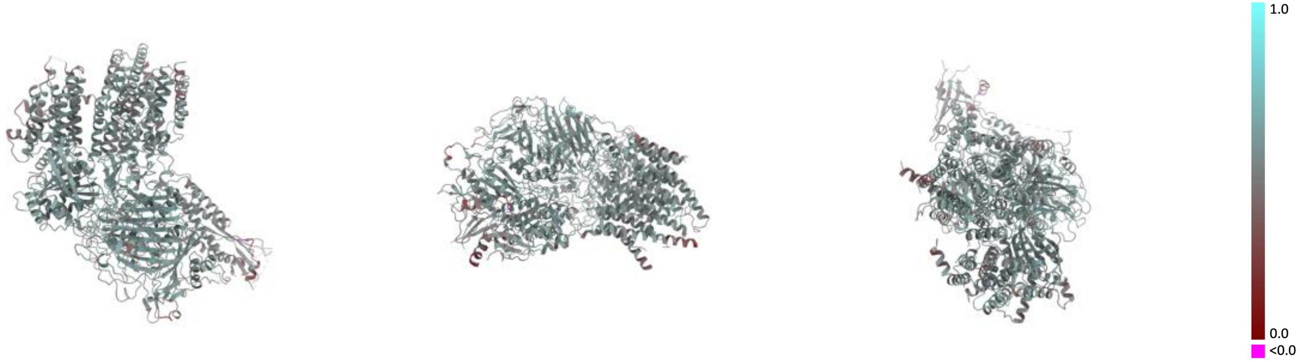
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.5 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

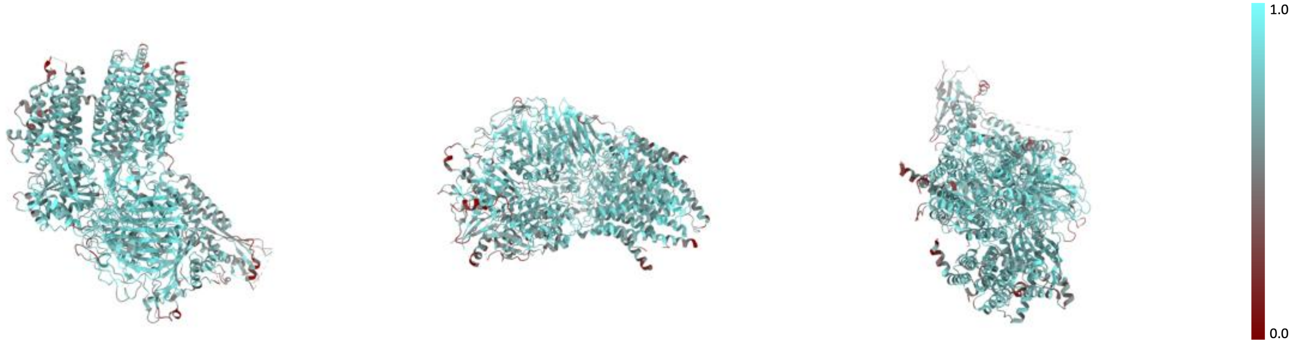
9.2 Q-score mapped to coordinate model ⓘ



X Y Z

The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

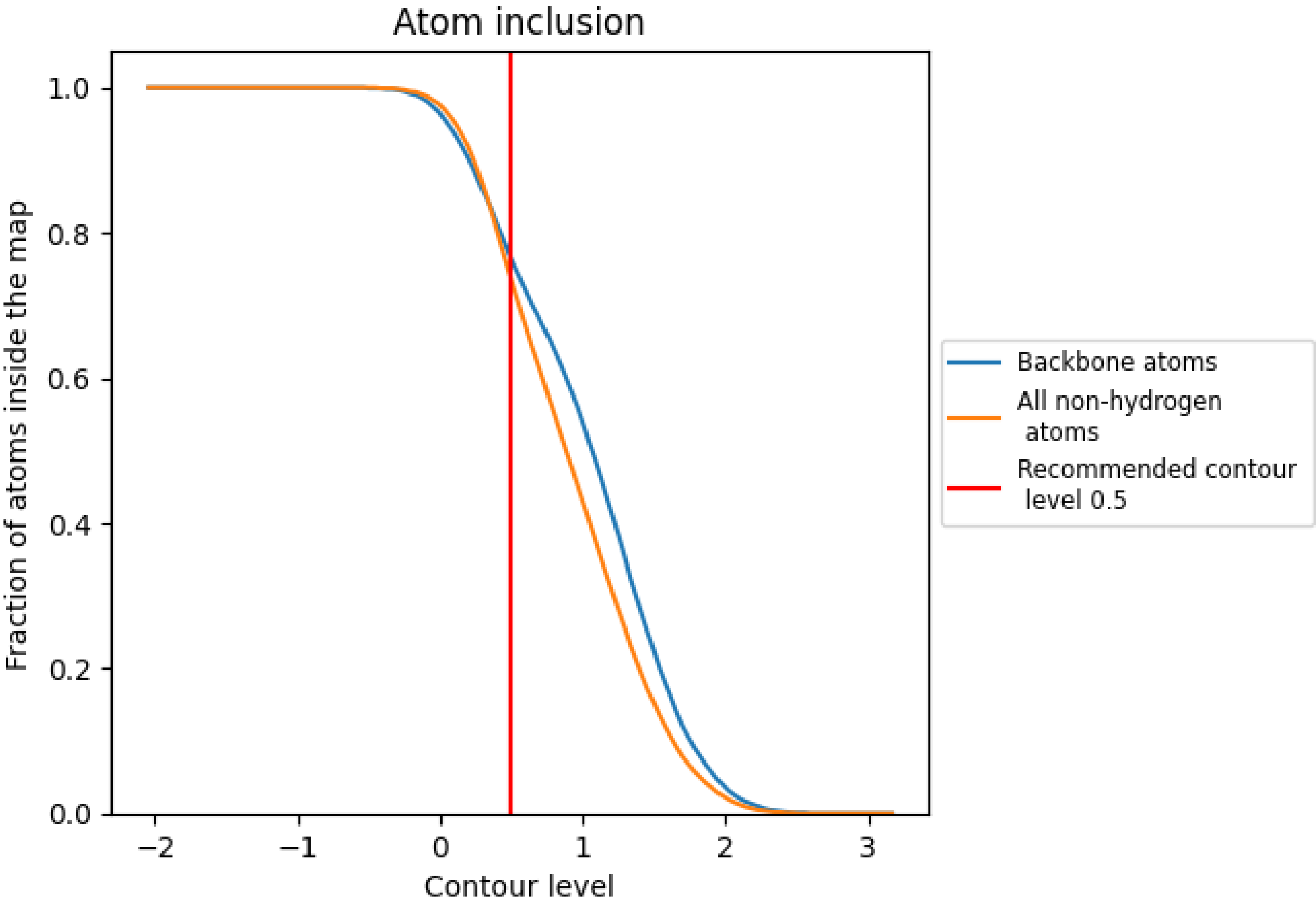
9.3 Atom inclusion mapped to coordinate model ⓘ



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.5).

9.4 Atom inclusion ⓘ



At the recommended contour level, 76% of all backbone atoms, 74% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.5) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	▬ 0.7350	▬ 0.5360
A	▬ 0.6070	▬ 0.4450
D	▬ 0.6090	▬ 0.4860
G	▬ 0.7310	▬ 0.5370
K	▬ 0.7610	▬ 0.5470
S	▬ 0.6480	▬ 0.5100
T	▬ 0.7890	▬ 0.5550
U	▬ 0.7640	▬ 0.5390