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PROTEIN DATA BANK

Full wwPDB X-ray Structure Validation Report ⓘ

Apr 21, 2024 – 08:51 am BST

PDB ID	:	7QHV
Title	:	Crystal structure of the sulfoquinovosyl binding protein SmoF complexed with sulfoquinovosyl diacylglycerol
Authors	:	Snow, A.; Davies, G.J.
Deposited on	:	2021-12-14
Resolution	:	2.14 Å(reported)

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

|		
MolProbity	:	4.02b-467
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36.2
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36.2

1　Overall quality at a glance ⓘ

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 2.14 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.
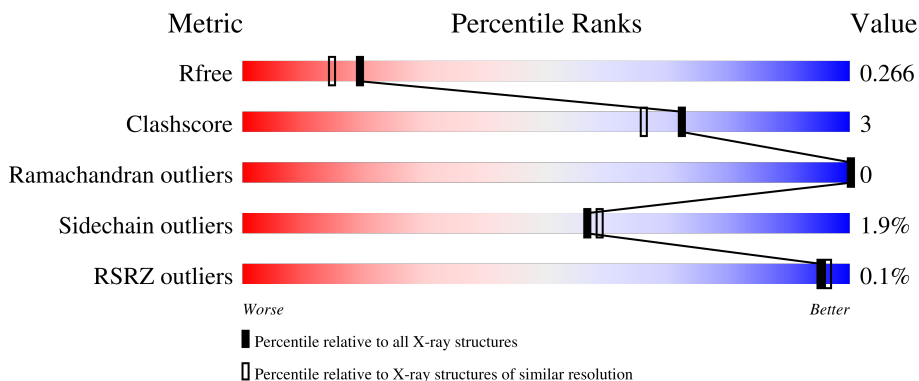
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	2523 (2.16-2.12)
Clashscore	141614	2653 (2.16-2.12)
Ramachandran outliers	138981	2618 (2.16-2.12)
Sidechain outliers	138945	2617 (2.16-2.12)
RSRZ outliers	127900	2485 (2.16-2.12)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	AAA	396	89% ... 9% ·
1	BBB	396	89% ... 8% ··

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
2	CQI	BBB	401	X	-	-	-

2 Entry composition ⓘ

There are 4 unique types of molecules in this entry. The entry contains 11896 atoms, of which 5780 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Sulfoquinovosyl binding protein.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	AAA	390	Total	C	H	N	O	S	98	1	0
			5850	1887	2893	486	575	9			
1	BBB	385	Total	C	H	N	O	S	104	0	0
			5685	1844	2808	464	559	10			

There are 18 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AAA	1	MET	-	initiating methionine	UNP A0A083ZKV5
AAA	389	LEU	-	expression tag	UNP A0A083ZKV5
AAA	390	GLU	-	expression tag	UNP A0A083ZKV5
AAA	391	HIS	-	expression tag	UNP A0A083ZKV5
AAA	392	HIS	-	expression tag	UNP A0A083ZKV5
AAA	393	HIS	-	expression tag	UNP A0A083ZKV5
AAA	394	HIS	-	expression tag	UNP A0A083ZKV5
AAA	395	HIS	-	expression tag	UNP A0A083ZKV5
AAA	396	HIS	-	expression tag	UNP A0A083ZKV5
BBB	1	MET	-	initiating methionine	UNP A0A083ZKV5
BBB	389	LEU	-	expression tag	UNP A0A083ZKV5
BBB	390	GLU	-	expression tag	UNP A0A083ZKV5
BBB	391	HIS	-	expression tag	UNP A0A083ZKV5
BBB	392	HIS	-	expression tag	UNP A0A083ZKV5
BBB	393	HIS	-	expression tag	UNP A0A083ZKV5
BBB	394	HIS	-	expression tag	UNP A0A083ZKV5
BBB	395	HIS	-	expression tag	UNP A0A083ZKV5
BBB	396	HIS	-	expression tag	UNP A0A083ZKV5

- Molecule 2 is [(2 {S},3 {S},4 {S},5 {R},6 {S})-6-[(2 {S})-3-butanoyloxy-2-heptanoyloxy-propoxy]-3,4,5-tris(oxidanyl)oxan-2-yl]methanesulfonic acid (three-letter code: CQI) (formula: $C_{32}H_{60}O_{12}S$) (labeled as "Ligand of Interest" by depositor).
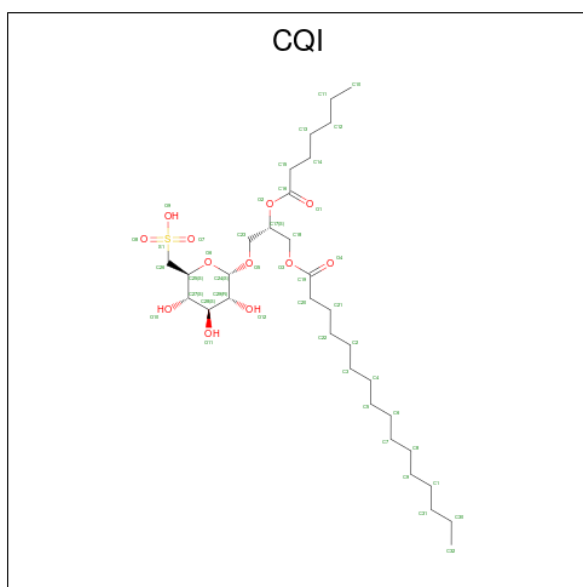
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	AAA	1	Total	C	H	O	S	5	0
			68	20	35	12	1		
2	BBB	1	Total	C	H	O	S	5	0
			74	22	39	12	1		

- Molecule 3 is GLYCINE (three-letter code: GLY) (formula: $C_2H_5NO_2$).
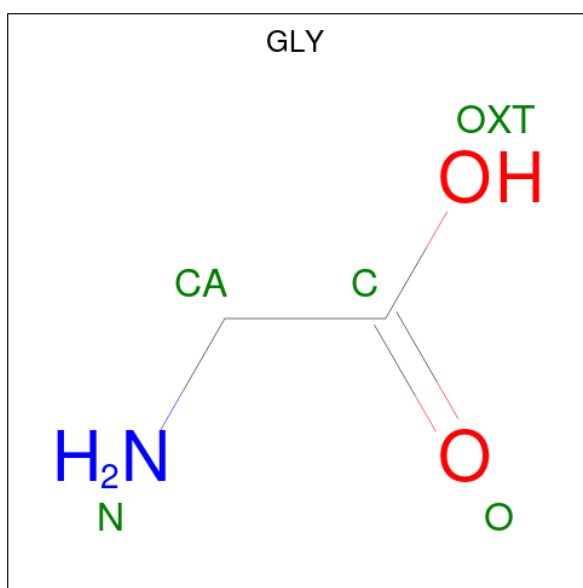
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	AAA	1	Total	C	H	N	O	0	0
			10	2	5	1	2		

- Molecule 4 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	AAA	104	Total 105	O 105	0	1
4	BBB	104	Total 104	O 104	0	0

3 Residue-property plots ⓘ

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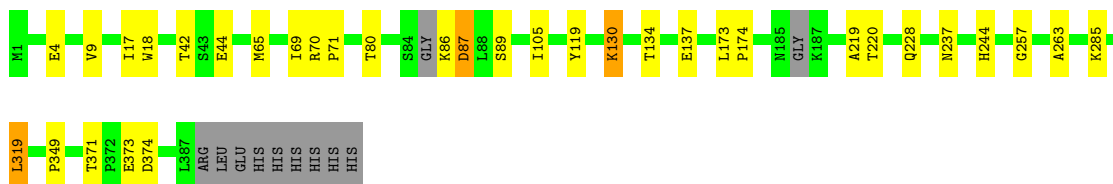
• Molecule 1: Sulfoquinovosyl binding protein

Chain AAA:
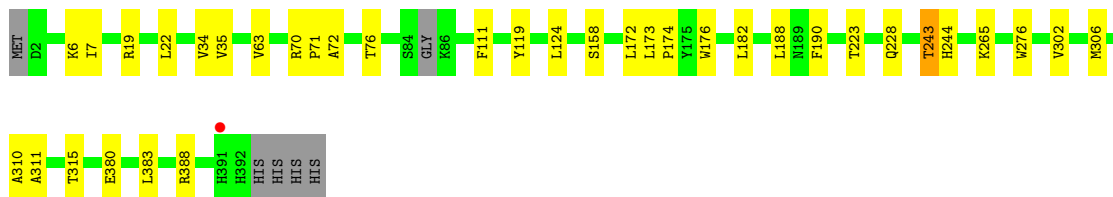
• Molecule 1: Sulfoquinovosyl binding protein

Chain BBB:

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	53.22Å 69.59Å 104.57Å 90.00° 91.54° 90.00°	Depositor
Resolution (Å)	57.99 – 2.14 57.93 – 2.14	Depositor EDS
% Data completeness (in resolution range)	99.9 (57.99-2.14) 99.1 (57.93-2.14)	Depositor EDS
R_{merge}	0.09	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.81 (at 2.14Å)	Xtriage
Refinement program	REFMAC 5.8.0267, REFMAC 5.8.0267	Depositor
R, R_{free}	0.203 , 0.260 0.211 , 0.266	Depositor DCC
R_{free} test set	2109 reflections (5.03%)	wwPDB-VP
Wilson B-factor (Å^2)	19.5	Xtriage
Anisotropy	0.988	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.38 , 49.0	EDS
L-test for twinning[2]	$< |L| > = 0.48, < L^2 > = 0.31$	Xtriage
Estimated twinning fraction	0.028 for h,-k,-l	Xtriage
F_o,F_c correlation	0.93	EDS
Total number of atoms	11896	wwPDB-VP
Average B, all atoms (Å^2)	26.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 4.90% of the height of the origin peak. No significant pseudotranslation is detected.*

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[1]Intensities estimated from amplitudes.
[2]Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: CQI

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	AAA	0.70	0/3020	0.80	0/4113
1	BBB	0.69	0/2938	0.79	0/4004
All	All	0.70	0/5958	0.80	0/8117

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	AAA	2957	2893	2836	19	0
1	BBB	2877	2808	2735	19	0
2	AAA	33	35	0	1	0
2	BBB	35	39	0	3	0
3	AAA	5	5	2	0	0
4	AAA	105	0	0	0	0
4	BBB	104	0	0	1	0
All	All	6116	5780	5573	39	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 3.

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All (39) 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:BBB:371:THR:HG23	1:BBB:374:ASP:H	1.48	0.79
1:BBB:173:LEU:HB2	1:BBB:174:PRO:HD3	1.72	0.71
1:AAA:173:LEU:HB2	1:AAA:174:PRO:HD3	1.84	0.59
1:BBB:130:LYS:HE2	1:BBB:137:GLU:OE1	2.03	0.58
1:BBB:228:GLN:OE1	1:BBB:244:HIS:HB3	2.04	0.57
1:AAA:72:ALA:O	1:AAA:76:THR:HG23	2.04	0.56
1:AAA:70:ARG:N	1:AAA:71:PRO:CD	2.74	0.51
1:AAA:119:TYR:CD1	1:AAA:124:LEU:HD22	2.46	0.51
1:AAA:111:PHE:HA	1:AAA:315:THR:HG23	1.93	0.51
1:AAA:188:LEU:HD22	1:AAA:383:LEU:HB3	1.93	0.51
1:BBB:9:VAL:HG23	1:BBB:65:MET:SD	2.51	0.50
1:AAA:228:GLN:OE1	1:AAA:244:HIS:HB3	2.12	0.50
1:BBB:42:THR:HG22	2:BBB:401:CQI:C12	2.42	0.49
1:AAA:182:LEU:O	1:AAA:188:LEU:HD12	2.14	0.48
1:BBB:69:ILE:CD1	1:BBB:70:ARG:CZ	2.91	0.48
1:BBB:220:THR:HB	2:BBB:401:CQI:C11	2.43	0.47
1:BBB:17:ILE:HG22	1:BBB:18:TRP:CE3	2.50	0.47
1:BBB:4:GLU:CB	4:BBB:603:HOH:O	2.63	0.46
2:AAA:401:CQI:C23	2:AAA:401:CQI:C25	2.93	0.46
1:AAA:111:PHE:CZ	1:AAA:276:TRP:CD1	3.04	0.45
1:BBB:134:THR:HA	1:BBB:263:ALA:O	2.16	0.45
1:BBB:70:ARG:N	1:BBB:71:PRO:CD	2.79	0.45
1:AAA:22:LEU:HD22	1:AAA:34:VAL:HG11	1.98	0.44
1:BBB:219:ALA:HB1	2:BBB:401:CQI:C10	2.48	0.44
1:AAA:172:LEU:HD13	1:AAA:176:TRP:CZ2	2.52	0.44
1:BBB:119:TYR:CZ	1:BBB:257:GLY:HA3	2.54	0.43
1:AAA:243:THR:HG21	1:AAA:310:ALA:C	2.39	0.43
1:AAA:7:ILE:HA	1:AAA:63:VAL:O	2.18	0.43
1:BBB:373:GLU:OE1	1:BBB:373:GLU:N	2.42	0.43
1:BBB:86:LYS:O	1:BBB:105:ILE:CD1	2.67	0.42
1:AAA:243:THR:HG22	1:AAA:311:ALA:HB2	2.01	0.42
1:BBB:319:LEU:HD12	1:BBB:319:LEU:HA	1.91	0.42
1:AAA:190:PHE:CE2	1:AAA:380:GLU:HB2	2.54	0.42
1:BBB:42:THR:OG1	1:BBB:44:GLU:OE2	2.33	0.42
1:AAA:6:LYS:HG2	1:AAA:35:VAL:HG23	2.02	0.41
1:AAA:158:SER:HB3	1:AAA:223:THR:HG23	2.02	0.41
1:AAA:302:VAL:O	1:AAA:306:MET:HG3	2.21	0.41
1:BBB:87:ASP:OD1	1:BBB:89:SER:CB	2.68	0.41
1:AAA:6:LYS:HG2	1:AAA:35:VAL:CG2	2.51	0.41

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	AAA	387/396 (98%)	377 (97%)	10 (3%)	0	100	100
1	BBB	379/396 (96%)	369 (97%)	10 (3%)	0	100	100
All	All	766/792 (97%)	746 (97%)	20 (3%)	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 X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	AAA	302/332 (91%)	298 (99%)	4 (1%)	69	73
1	BBB	286/332 (86%)	279 (98%)	7 (2%)	49	49
All	All	588/664 (89%)	577 (98%)	11 (2%)	57	59

All (11) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	AAA	19	ARG
1	AAA	243	THR
1	AAA	265	LYS
1	AAA	388	ARG
1	BBB	80	THR

Continued on next page...

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Mol	Chain	Res	Type
1	BBB	87	ASP
1	BBB	130	LYS
1	BBB	237	ASN
1	BBB	285	LYS
1	BBB	319	LEU
1	BBB	349	PRO

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. There are no such sidechains identified.

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 ⓘ

There are no monosaccharides in this entry.

5.6   Ligand geometry ⓘ

3 ligands 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	#$|Z| > 2$
2	CQI	AAA	401	-	32,33,45	0.68	0	41,44,56	1.36	4 (9%)
3	GLY	AAA	402	-	4,4,4	1.14	1 (25%)	3,4,4	1.44	0
2	CQI	BBB	401	-	33,34,45	0.76	1 (3%)	41,44,56	1.76	9 (21%)

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
2	CQI	AAA	401	-	-	16/28/48/60	0/1/1/1
3	GLY	AAA	402	-	-	2/2/2/2	-
2	CQI	BBB	401	-	4/4/9/9	16/28/48/60	0/1/1/1

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	BBB	401	CQI	C27-C25	-2.18	1.48	1.53
3	AAA	402	GLY	OXT-C	-2.18	1.23	1.30

All (13) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	BBB	401	CQI	O9-S1-C26	-5.83	96.45	105.74
2	BBB	401	CQI	O2-C16-C15	4.19	120.52	111.50
2	BBB	401	CQI	C24-O6-C25	3.99	121.52	113.69
2	AAA	401	CQI	O2-C17-C23	3.96	122.74	108.40
2	AAA	401	CQI	O7-S1-C26	-3.24	103.09	106.94
2	BBB	401	CQI	O8-S1-C26	3.22	110.76	106.94
2	AAA	401	CQI	O5-C24-C29	2.99	112.97	108.30
2	BBB	401	CQI	O6-C24-C29	2.50	115.63	110.35
2	BBB	401	CQI	O7-S1-C26	-2.29	104.22	106.94
2	AAA	401	CQI	O2-C16-C15	2.29	116.44	111.50
2	BBB	401	CQI	C24-C29-C28	2.26	114.71	110.00
2	BBB	401	CQI	C28-C27-C25	-2.23	106.27	110.24
2	BBB	401	CQI	O9-S1-O8	2.23	116.71	111.27

All (4) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
2	BBB	401	CQI	C17
2	BBB	401	CQI	C28
2	BBB	401	CQI	C25
2	BBB	401	CQI	C27

All (34) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	AAA	401	CQI	C15-C16-O2-C17
2	AAA	401	CQI	O6-C24-O5-C23
2	BBB	401	CQI	O6-C24-O5-C23
2	BBB	401	CQI	O6-C25-C26-S1
2	BBB	401	CQI	C17-C18-O3-C19
2	AAA	401	CQI	O1-C16-O2-C17
2	BBB	401	CQI	C11-C12-C13-C14
2	BBB	401	CQI	C20-C19-O3-C18
2	BBB	401	CQI	O4-C19-O3-C18
2	BBB	401	CQI	C15-C16-O2-C17
3	AAA	402	GLY	OXT-C-CA-N
2	BBB	401	CQI	O1-C16-O2-C17
2	AAA	401	CQI	C13-C14-C15-C16
2	BBB	401	CQI	C18-C17-O2-C16
2	AAA	401	CQI	C11-C12-C13-C14
3	AAA	402	GLY	O-C-CA-N
2	BBB	401	CQI	C12-C13-C14-C15
2	AAA	401	CQI	C12-C13-C14-C15
2	BBB	401	CQI	C23-C17-C18-O3
2	AAA	401	CQI	C19-C20-C21-C22
2	AAA	401	CQI	C20-C19-O3-C18
2	BBB	401	CQI	O3-C19-C20-C21
2	AAA	401	CQI	C23-C17-C18-O3
2	BBB	401	CQI	O2-C17-C18-O3
2	AAA	401	CQI	C10-C11-C12-C13
2	AAA	401	CQI	O4-C19-O3-C18
2	BBB	401	CQI	C14-C15-C16-O2
2	AAA	401	CQI	O2-C17-C18-O3
2	BBB	401	CQI	C10-C11-C12-C13
2	BBB	401	CQI	O4-C19-C20-C21
2	AAA	401	CQI	O3-C19-C20-C21
2	AAA	401	CQI	C14-C15-C16-O2
2	AAA	401	CQI	O4-C19-C20-C21
2	AAA	401	CQI	C14-C15-C16-O1

There are no ring outliers.

2 monomers are involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	AAA	401	CQI	1	0
2	BBB	401	CQI	3	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths,

bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less 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 CQI AAA 401

Bond lengths

Bond angles

Torsions

Rings

Ligand CQI BBB 401

Bond lengths

Bond angles

Torsions

Rings
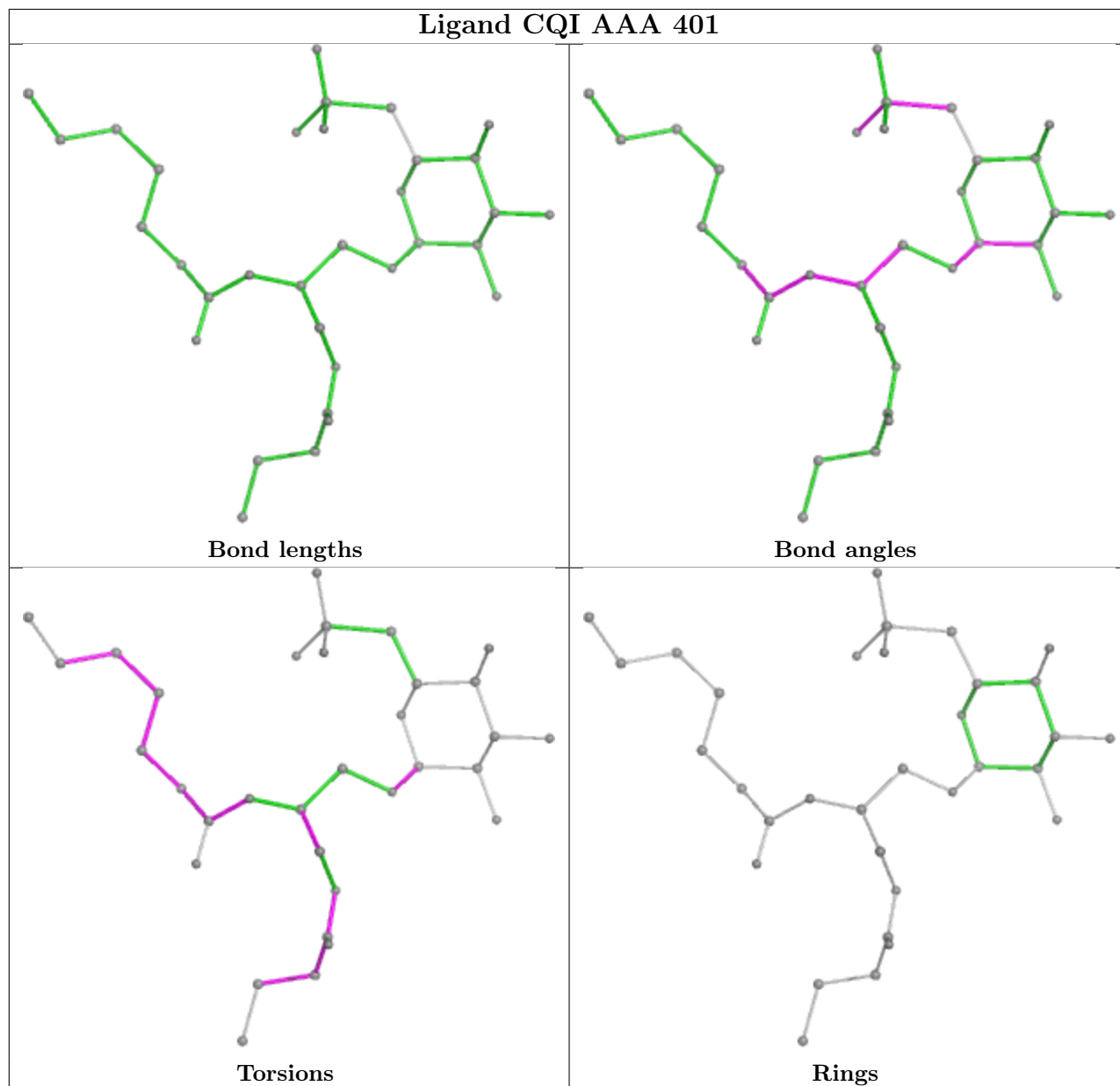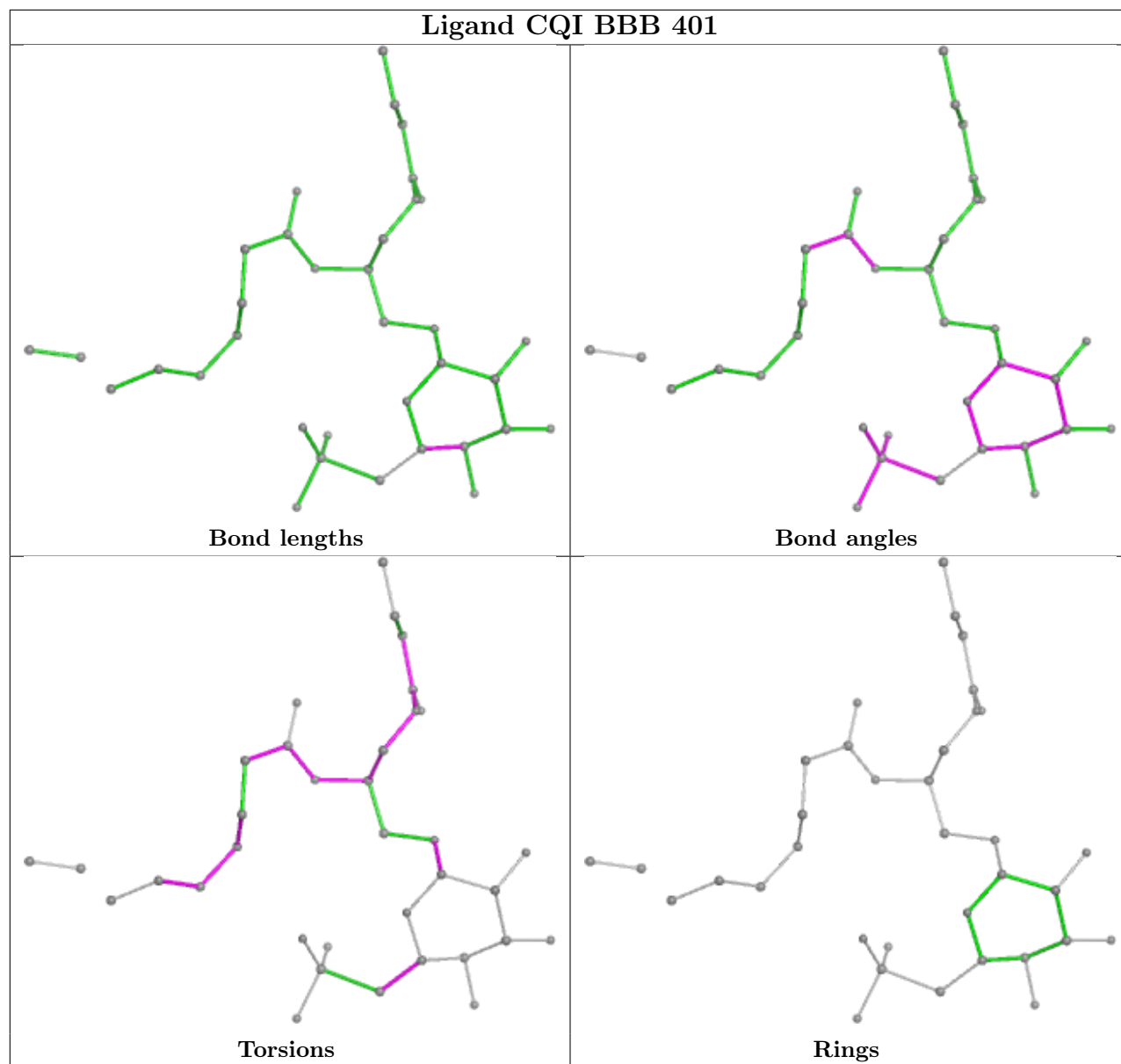
5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å^2)	Q<0.9
1	AAA	390/396 (98%)	-0.24	1 (0%)	94	95	14, 23, 38, 60	0
1	BBB	385/396 (97%)	-0.20	0	100	100	15, 27, 44, 61	0
All	All	775/792 (97%)	-0.22	1 (0%)	95	96	14, 26, 43, 61	0

All (1) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	AAA	391	HIS	2.0

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

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

6.3 Carbohydrates ⓘ
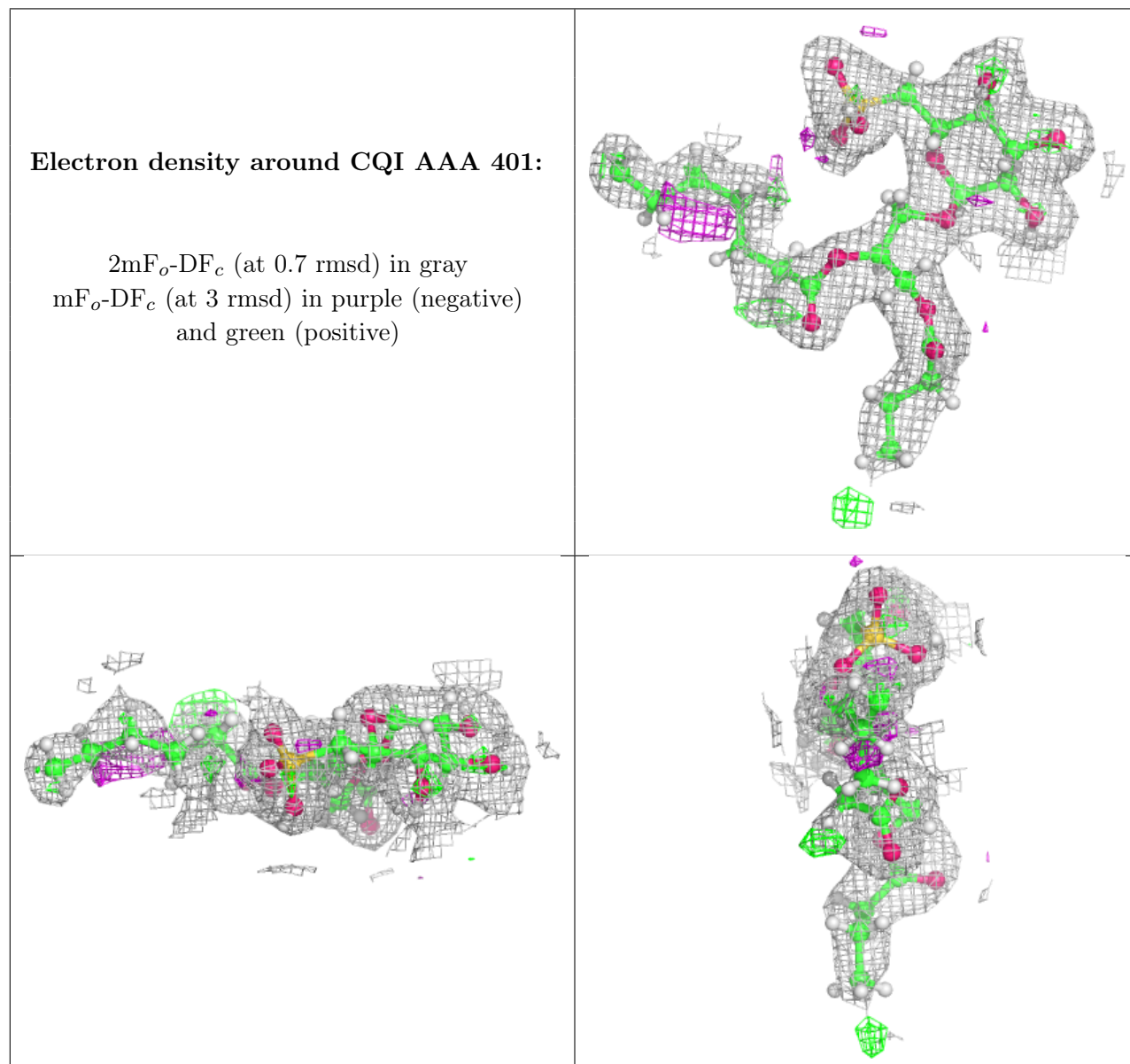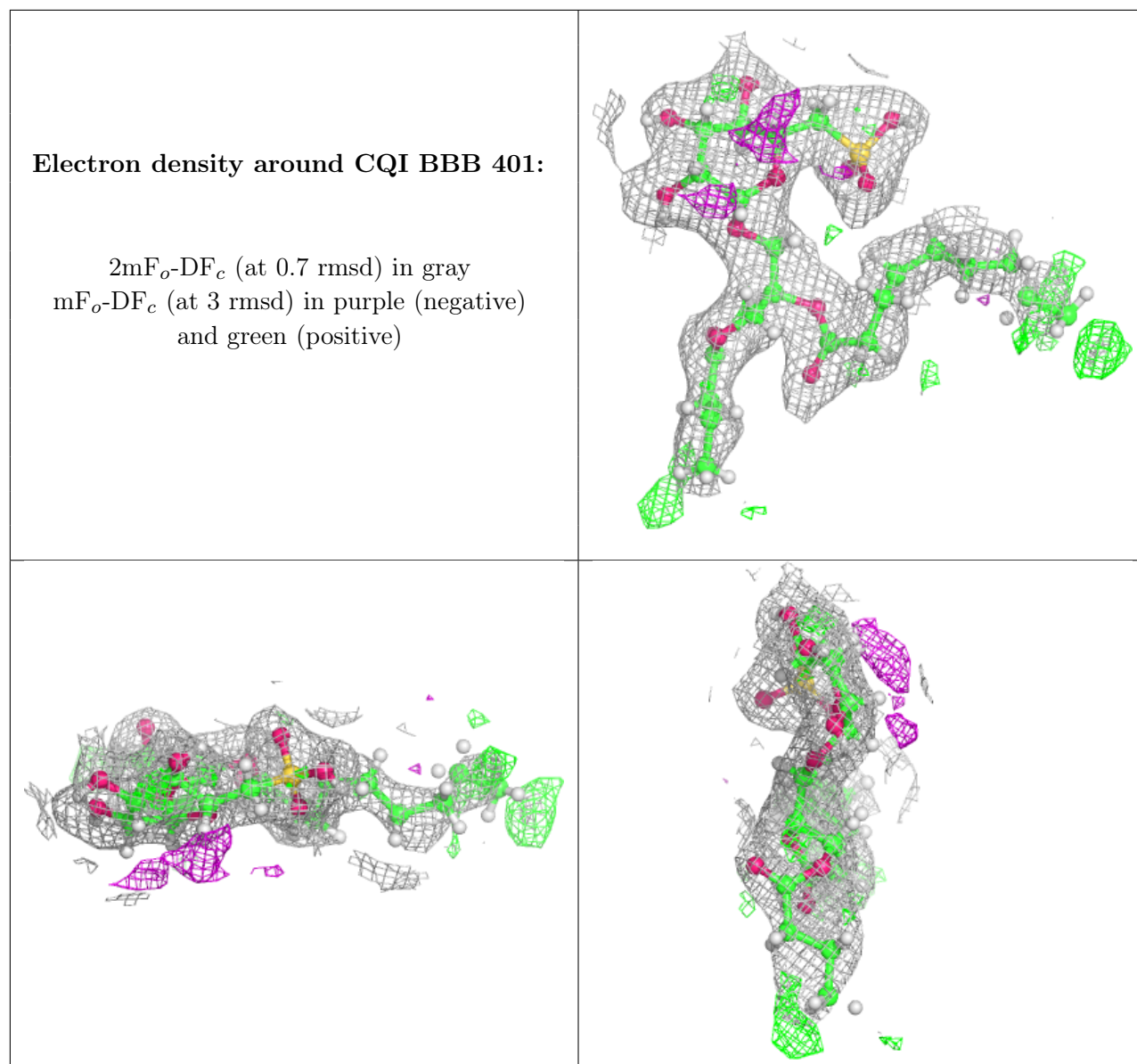
There are no monosaccharides in this entry.

6.4 Ligands ⓘ

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
3	GLY	AAA	402	5/5	0.87	0.11	40,44,45,45	0
2	CQI	AAA	401	33/45	0.93	0.16	13,25,33,34	5
2	CQI	BBB	401	35/45	0.94	0.15	16,25,31,32	10

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

Electron density around CQI AAA 401:

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

Electron density around CQI BBB 401:

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

6.5 Other polymers ⓘ

There are no such residues in this entry.