



# Full wwPDB X-ray Structure Validation Report ⓘ

Apr 13, 2022 – 07:11 pm BST

PDB ID : 6SQC  
Title : Crystal structure of complex between nuclear coactivator binding domain of CBP and [1040-1086]ACTR containing alpha-methylated Leu1055 and Leu1076  
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Deposited on : 2019-09-03  
Resolution : 2.28 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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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 : 2.27  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
Refmac : 5.8.0267  
CCP4 : 7.1.010 (Gargrove)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.27

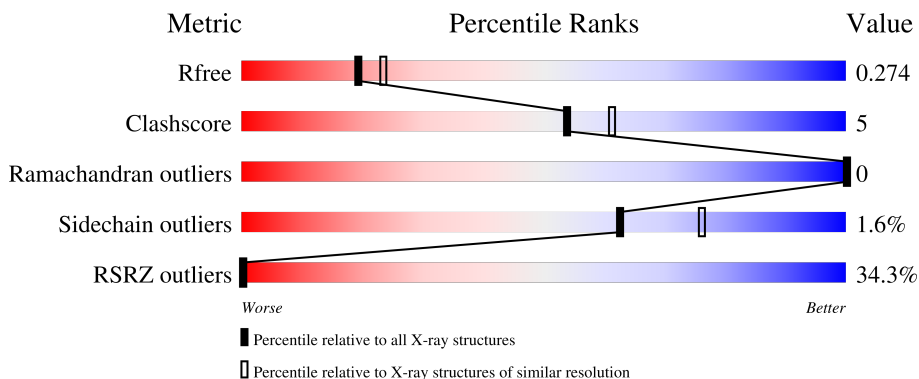
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 2.28 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	6980 (2.30-2.26)
Clashscore	141614	7711 (2.30-2.26)
Ramachandran outliers	138981	7597 (2.30-2.26)
Sidechain outliers	138945	7598 (2.30-2.26)
RSRZ outliers	127900	6849 (2.30-2.26)

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  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	424	 31% 89% 11%
2	B	47	 55% 66% 17% 13%
3	C	2	 100%

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	2ML	B	1076	-	-	-	X

## 2 Entry composition [i](#)

There are 6 unique types of molecules in this entry. The entry contains 3759 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Maltose/maltodextrin-binding periplasmic protein, CREB-binding protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	424	3266	2095	539	623	9	0	2	0

There are 12 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	1689	MET	-	initiating methionine	UNP P0AEX9
A	1771	ALA	ASP	conflict	UNP P0AEX9
A	1772	ALA	LYS	conflict	UNP P0AEX9
A	1928	ALA	LYS	conflict	UNP P0AEX9
A	2048	ALA	GLU	conflict	UNP P0AEX9
A	2051	ALA	LYS	conflict	UNP P0AEX9
A	2052	ALA	ASP	conflict	UNP P0AEX9
A	2056	ASN	ARG	conflict	UNP P0AEX9
A	2057	ALA	ILE	conflict	UNP P0AEX9
A	2058	ALA	THR	conflict	UNP P0AEX9
A	2059	ALA	LYS	conflict	UNP P0AEX9
A	2060	MET	-	linker	UNP P0AEX9

- Molecule 2 is a protein called Nuclear receptor coactivator 3.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
2	B	41	308	188	54	66	0	0	0

- Molecule 3 is an oligosaccharide called alpha-D-glucopyranose-(1-4)-alpha-D-glucopyranose.



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf	Trace
3	C	2	Total	C	O	0	0	0
			23	12	11			

- Molecule 4 is 1,2-ETHANEDIOL (three-letter code: EDO) (formula: C<sub>2</sub>H<sub>6</sub>O<sub>2</sub>).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	A	1	Total	C	O	0	0
			4	2	2		

- Molecule 5 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	2	Total	Zn	0	0
			2	2		

- Molecule 6 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
6	A	150	Total	O	0	0
			150	150		
6	B	6	Total	O	0	0
			6	6		

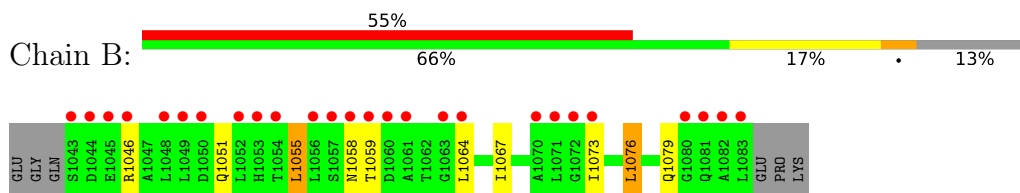
### 3 Residue-property plots [i](#)

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

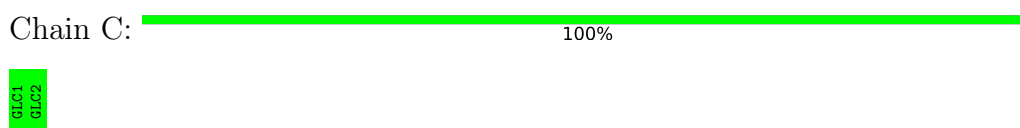
- Molecule 1: Maltose/maltodextrin-binding periplasmic protein, CREB-binding protein



- Molecule 2: Nuclear receptor coactivator 3



- Molecule 3: alpha-D-glucopyranose-(1-4)-alpha-D-glucopyranose



## 4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	103.18Å 42.46Å 113.79Å 90.00° 101.12° 90.00°	Depositor
Resolution (Å)	41.72 – 2.28 43.08 – 2.28	Depositor EDS
% Data completeness (in resolution range)	97.2 (41.72-2.28) 97.3 (43.08-2.28)	Depositor EDS
$R_{merge}$	(Not available)	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.99 (at 2.29Å)	Xtriage
Refinement program	PHENIX 1.14_3260	Depositor
R, $R_{free}$	0.228 , 0.274 0.228 , 0.274	Depositor DCC
$R_{free}$ test set	1100 reflections (5.03%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	33.8	Xtriage
Anisotropy	0.720	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	(Not available) , (Not available)	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.49$ , $\langle L^2 \rangle = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
$F_o, F_c$ correlation	0.92	EDS
Total number of atoms	3759	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	50.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 8.44% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

<sup>2</sup>Theoretical values of  $\langle |L| \rangle$ ,  $\langle L^2 \rangle$  for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

## 5 Model quality

### 5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, 2ML, GLC, EDO

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
1	A	0.24	0/3341	0.40	0/4539
2	B	0.36	0/289	0.52	0/389
All	All	0.26	0/3630	0.41	0/4928

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	A	3266	0	3246	32	0
2	B	308	0	295	9	0
3	C	23	0	21	0	0
4	A	4	0	6	0	0
5	A	2	0	0	0	0
6	A	150	0	0	10	0
6	B	6	0	0	1	0
All	All	3759	0	3568	38	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 5.



All (38) 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)
2:B:1055:2ML:O	2:B:1059:THR:HG22	1.80	0.80
1:A:1768:ILE:HG22	1:A:1770:PRO:HD3	1.68	0.74
1:A:1808:LYS:NZ	6:A:2302:HOH:O	2.22	0.72
1:A:1828:LEU:HD23	1:A:1831:LYS:HE3	1.72	0.71
1:A:1689[B]:MET:SD	2:B:1051:GLN:NE2	2.65	0.69
1:A:2042:GLY:N	6:A:2309:HOH:O	2.27	0.67
1:A:2067:LEU:C	6:A:2318:HOH:O	2.33	0.66
2:B:1076:2ML:HB23	2:B:1079:GLN:HB2	1.79	0.65
1:A:2069:ASP:N	6:A:2318:HOH:O	2.31	0.64
1:A:1891:LYS:NZ	6:A:2323:HOH:O	2.35	0.59
2:B:1064:LEU:HD23	2:B:1067:ILE:HD12	1.88	0.55
1:A:1921:TRP:HB2	1:A:1987:PRO:HG2	1.90	0.52
1:A:2068:GLN:N	6:A:2318:HOH:O	2.42	0.52
1:A:1894:ASN:HB2	1:A:1897:THR:HG23	1.94	0.50
1:A:1931:TYR:OH	1:A:2005:ARG:NH1	2.41	0.50
1:A:1806:TYR:CE2	1:A:1808:LYS:HG2	2.47	0.50
1:A:2003:ASP:N	6:A:2333:HOH:O	2.45	0.49
1:A:1757:GLY:HA3	1:A:2021:ASN:O	2.13	0.49
1:A:1841:GLN:HA	1:A:2037:ILE:HD11	1.95	0.48
2:B:1055:2ML:HB21	2:B:1055:2ML:HG	1.60	0.47
1:A:1885:VAL:HG12	1:A:1889:LYS:HE3	1.97	0.47
1:A:1690:LYS:HB3	1:A:1690:LYS:HE2	1.69	0.46
1:A:2111:ASN:O	1:A:2112:GLN:HG3	2.16	0.46
1:A:1798:ALA:HA	1:A:1991:VAL:HA	1.97	0.45
1:A:2003:ASP:HB2	6:A:2333:HOH:O	2.17	0.45
1:A:1729:PRO:HD2	1:A:1732:LEU:HD13	1.97	0.45
1:A:1695:LYS:O	1:A:1961:ASN:ND2	2.50	0.44
1:A:1918:PRO:HA	1:A:1921:TRP:CE2	2.53	0.43
1:A:1823:ALA:HA	1:A:1826:LYS:HG2	2.01	0.43
1:A:1689[A]:MET:N	1:A:1689[A]:MET:SD	2.92	0.43
1:A:1709:LEU:O	1:A:1712:VAL:HG22	2.18	0.43
1:A:2105:THR:HG22	2:B:1073:ILE:HG23	2.02	0.42
1:A:2087:LEU:HD21	2:B:1067:ILE:HG23	2.00	0.42
1:A:2070:LEU:N	6:A:2318:HOH:O	2.35	0.41
1:A:2076:SER:O	6:A:2301:HOH:O	2.21	0.41
2:B:1058:ASN:OD1	2:B:1058:ASN:N	2.54	0.41
2:B:1046:ARG:NH1	6:B:1101:HOH:O	2.32	0.41
1:A:1823:ALA:HA	1:A:1826:LYS:HE3	2.04	0.41

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	422/424 (100%)	414 (98%)	8 (2%)	0	100	100
2	B	37/47 (79%)	35 (95%)	2 (5%)	0	100	100
All	All	459/471 (98%)	449 (98%)	10 (2%)	0	100	100

There are no Ramachandran outliers to report.

### 5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	336/337 (100%)	329 (98%)	7 (2%)	53	68
2	B	30/37 (81%)	30 (100%)	0	100	100
All	All	366/374 (98%)	359 (98%)	7 (2%)	62	71

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

Mol	Chain	Res	Type
1	A	1689[A]	MET
1	A	1689[B]	MET
1	A	1712	VAL
1	A	1925	ASP
1	A	1947	PHE
1	A	2075	LYS
1	A	2081	GLN

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

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

2 non-standard protein/DNA/RNA residues are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 2$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
2	2ML	B	1055	2	5,8,9	2.32	1 (20%)	6,11,13	1.15	0
2	2ML	B	1076	2	5,8,9	2.95	2 (40%)	6,11,13	0.93	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
2	2ML	B	1055	2	-	1/6/8/11	-
2	2ML	B	1076	2	-	1/6/8/11	-

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	1076	2ML	O-C	6.13	1.40	1.19
2	B	1055	2ML	O-C	4.92	1.36	1.19
2	B	1076	2ML	CB1-CA	2.17	1.57	1.54

There are no bond angle outliers.

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	B	1076	2ML	C-CA-CB1-CG
2	B	1055	2ML	CB2-CA-CB1-CG

There are no ring outliers.

2 monomers are involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	B	1055	2ML	2	0
2	B	1076	2ML	1	0

## 5.5 Carbohydrates [i](#)

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	$\# Z  > 2$
3	GLC	C	1	3	12,12,12	0.53	0	17,17,17	0.59	0
3	GLC	C	2	3	11,11,12	0.60	0	15,15,17	0.72	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
3	GLC	C	1	3	-	0/2/22/22	0/1/1/1
3	GLC	C	2	3	-	0/2/19/22	0/1/1/1

There are no bond length outliers.

There are no bond angle outliers.

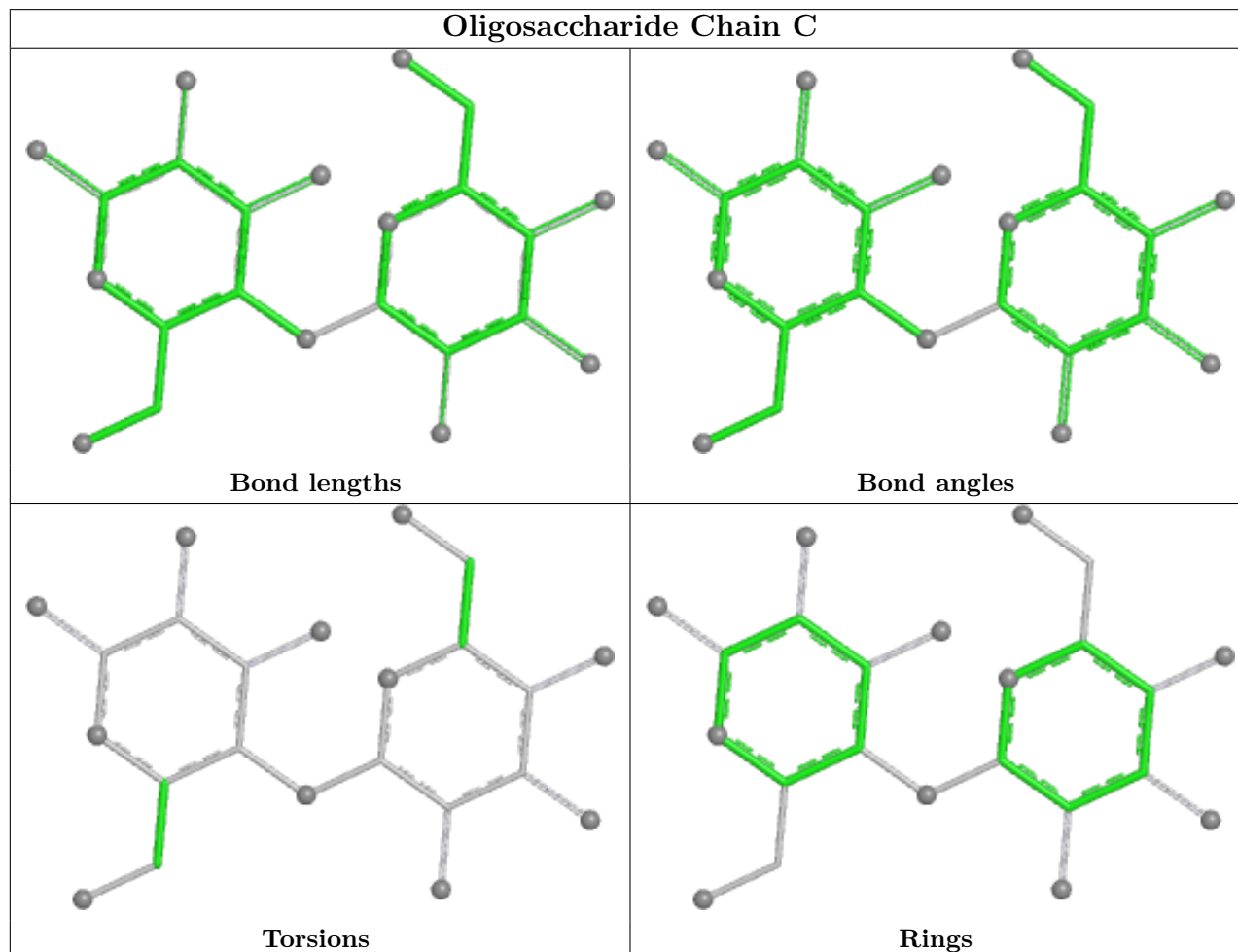
There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

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



## 5.6 Ligand geometry [i](#)

Of 3 ligands modelled in this entry, 2 are monoatomic - leaving 1 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	$\# Z  > 2$
4	EDO	A	2201	-	3,3,3	0.46	0	2,2,2	0.35	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
4	EDO	A	2201	-	-	0/1/1/1	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

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

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

In the following table, the column labelled ‘#RSRZ > 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
1	A	424/424 (100%)	1.78	133 (31%) 0 0	25, 45, 76, 106	0
2	B	39/47 (82%)	3.11	26 (66%) 0 0	57, 78, 110, 114	0
All	All	463/471 (98%)	1.90	159 (34%) 0 0	25, 46, 86, 114	0

All (159) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	2061	SER	8.5
1	A	1771	ALA	8.4
2	B	1083	LEU	8.3
2	B	1043	SER	8.0
1	A	2060	MET	7.5
1	A	2094	PRO	7.0
2	B	1044	ASP	6.7
1	A	2063	SER	6.6
1	A	1830	ALA	6.5
1	A	2062	ILE	6.4
1	A	2058	ALA	6.2
1	A	2096	LEU	6.2
2	B	1082	ALA	6.1
2	B	1063	GLY	5.8
1	A	2098	ALA	5.7
1	A	1769	THR	5.7
1	A	1689[A]	MET	5.3
2	B	1081	GLN	4.9
2	B	1056	LEU	4.6
1	A	2059	ALA	4.5
1	A	1870	VAL	4.4
1	A	1867	ILE	4.4
1	A	2108	TYR	4.4
1	A	2066	ALA	4.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	A	2087	LEU	4.3
2	B	1045	GLU	4.2
1	A	2092	SER	4.2
1	A	2037	ILE	4.1
2	B	1080	GLY	4.1
2	B	1057	SER	4.1
2	B	1052	LEU	4.0
1	A	1774	PHE	4.0
1	A	1781	PHE	4.0
1	A	1930	ASN	4.0
2	B	1070	ALA	3.9
2	B	1046	ARG	3.8
1	A	2101	ILE	3.8
1	A	2093	ASN	3.8
1	A	2086	VAL	3.8
2	B	1049	LEU	3.8
1	A	1926	THR	3.7
1	A	1710	ALA	3.7
2	B	1060	ASP	3.7
1	A	1795	TYR	3.7
1	A	1872	VAL	3.7
1	A	1770	PRO	3.6
1	A	2097	MET	3.6
1	A	2064	PRO	3.6
1	A	1862	ASN	3.6
1	A	2100	PHE	3.5
1	A	1786	VAL	3.5
1	A	2041	SER	3.4
1	A	1928	ALA	3.4
2	B	1053	HIS	3.3
2	B	1048	LEU	3.3
1	A	1815	PRO	3.3
1	A	2049	ALA	3.2
1	A	2036	VAL	3.2
1	A	1768	ILE	3.2
1	A	2112	GLN	3.2
2	B	1054	THR	3.1
1	A	1814	PRO	3.1
1	A	2080	PRO	3.1
1	A	1745	GLY	3.1
1	A	2057	ALA	3.1
1	A	2026	SER	3.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	A	1700	ILE	3.0
1	A	2055	THR	3.0
1	A	1696	LEU	2.9
1	A	1882	THR	2.9
1	A	1852	ALA	2.9
1	A	1821	ILE	2.9
1	A	1955	ILE	2.9
2	B	1071	LEU	2.9
1	A	1880	GLY	2.8
1	A	1849	LEU	2.8
1	A	2065	SER	2.8
1	A	1860	TYR	2.8
1	A	1690	LYS	2.8
1	A	1972	TYR	2.8
1	A	2103	GLN	2.8
1	A	2030	TYR	2.8
1	A	1885	VAL	2.7
1	A	2039	ALA	2.7
1	A	1866	ASP	2.7
1	A	2068	GLN	2.7
1	A	2052	ALA	2.7
1	A	1929	VAL	2.7
1	A	1721	GLY	2.7
1	A	1712	VAL	2.7
2	B	1073	ILE	2.7
1	A	1881	LEU	2.7
1	A	2000	LEU	2.7
2	B	1072	GLY	2.6
1	A	1726	VAL	2.6
1	A	1936	LEU	2.6
1	A	1844	TYR	2.6
1	A	1944	SER	2.6
1	A	1744	ASP	2.6
1	A	1957	ALA	2.6
1	A	2095	GLN	2.5
2	B	1059	THR	2.5
1	A	1856	TYR	2.5
1	A	1877	ALA	2.5
1	A	1691	ILE	2.5
1	A	1827	GLU	2.5
1	A	2078	SER	2.5
1	A	2046	VAL	2.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	A	1748	ILE	2.5
1	A	1968	PHE	2.4
1	A	1868	LYS	2.4
1	A	2081	GLN	2.4
1	A	1861	GLU	2.4
1	A	2070	LEU	2.4
1	A	1720	THR	2.4
2	B	1058	ASN	2.4
1	A	2090	LEU	2.4
1	A	2067	LEU	2.3
1	A	1884	LEU	2.3
1	A	2050	LEU	2.3
2	B	1061	ALA	2.3
1	A	1725	THR	2.3
1	A	2056	ASN	2.3
1	A	1927	SER	2.3
2	B	1064	LEU	2.3
2	B	1050	ASP	2.3
1	A	1888	ILE	2.3
1	A	1863	GLY	2.3
1	A	1933	VAL	2.3
1	A	1742	THR	2.3
1	A	2109	VAL	2.3
1	A	2079	SER	2.2
1	A	1953	ALA	2.2
1	A	1965	ALA	2.2
1	A	1737	PRO	2.2
1	A	1702	GLY	2.2
1	A	1869	ASP	2.2
1	A	1959	SER	2.2
1	A	1789	ASN	2.1
1	A	1765	LEU	2.1
1	A	1876	GLY	2.1
1	A	1907	ASN	2.1
1	A	1693	GLU	2.1
1	A	2040	ALA	2.1
1	A	1805	ILE	2.1
1	A	1709	LEU	2.1
1	A	1973	LEU	2.1
1	A	1728	HIS	2.1
1	A	1739	VAL	2.1
1	A	1833	LYS	2.1

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Mol	Chain	Res	Type	RSRZ
1	A	1703	ASP	2.1
1	A	2010	MET	2.1
1	A	1847	TRP	2.1
1	A	2018	ILE	2.0
1	A	1893	MET	2.0
1	A	1851	ALA	2.0
1	A	1895	ALA	2.0
1	A	1887	LEU	2.0
1	A	2099	ALA	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95<sup>th</sup> 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.

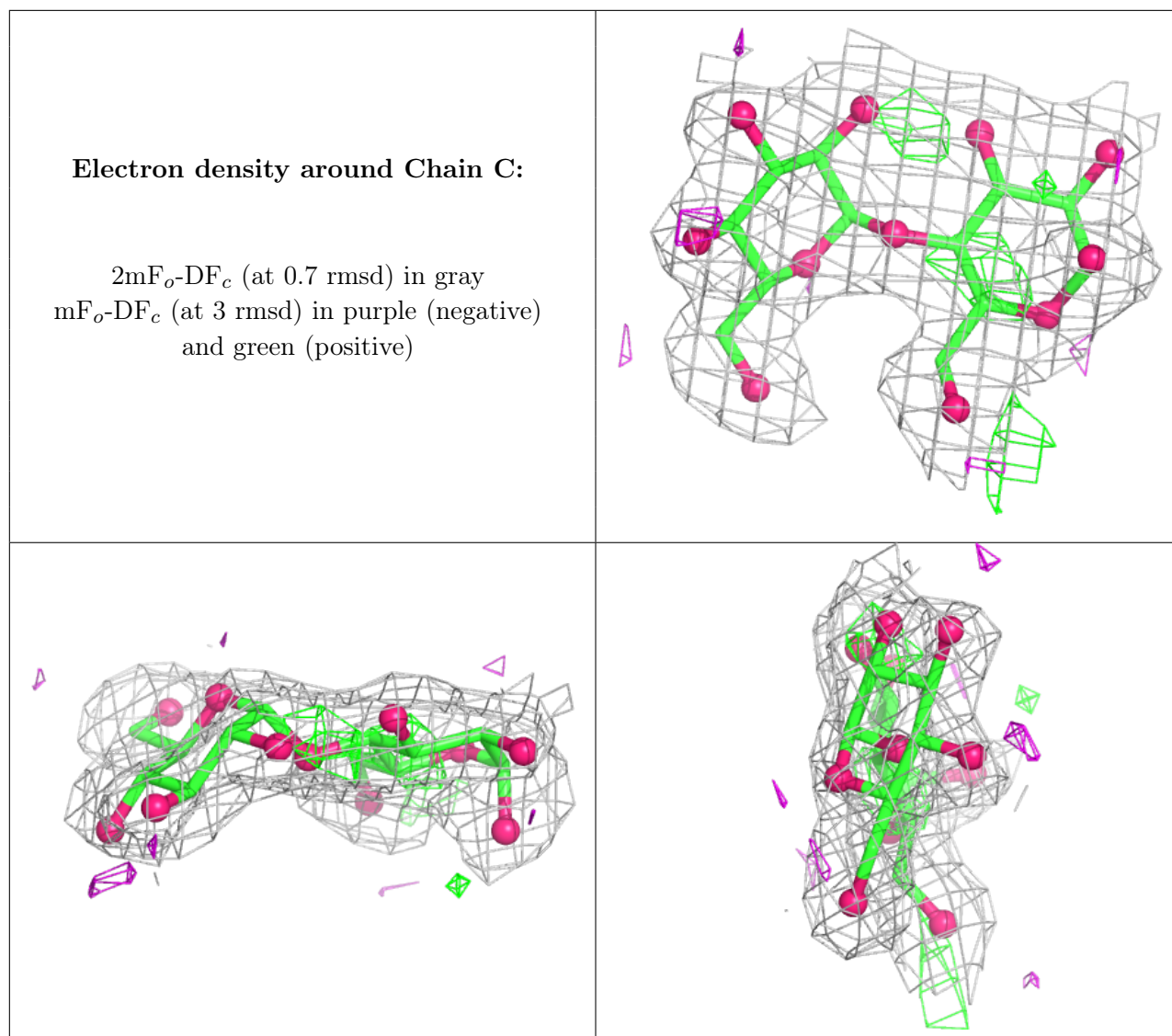
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
2	2ML	B	1055	9/10	0.69	0.31	61,70,74,79	0
2	2ML	B	1076	9/10	0.77	0.41	71,76,93,95	0

## 6.3 Carbohydrates [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
3	GLC	C	2	11/12	0.80	0.24	26,32,35,36	0
3	GLC	C	1	12/12	0.89	0.20	23,28,31,34	0

The following is a graphical depiction of the model fit to experimental electron density for oligosaccharide. Each fit is shown from different orientation to approximate a three-dimensional view.



## 6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95<sup>th</sup> 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( $\text{\AA}^2$ )	Q<0.9
4	EDO	A	2201	4/4	0.23	0.35	60,61,62,63	0
5	ZN	A	2203	1/1	0.91	0.07	60,60,60,60	0
5	ZN	A	2202	1/1	0.94	0.06	61,61,61,61	0

## 6.5 Other polymers [i](#)

There are no such residues in this entry.