

Full wwPDB X-ray Structure Validation Report (i)

Aug 22, 2020 – 02:42 AM BST

PDB ID	:	5KAR
Title	:	Murine acid sphingomyelinase-like phosphodiesterase 3b (SMPDL3B)
Authors	:	Gorelik, A.; Illes, K.; Heinz, L.X.; Superti-Furga, G.; Nagar, B.
Deposited on		
Resolution	:	1.14 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 A user guide is available at https://www.wwpdb.org/validation/2017/XrayValidationReportHelp with specific help available everywhere you see the (i) symbol.

The following versions of software and data (see references (1)) were used in the production of this report:

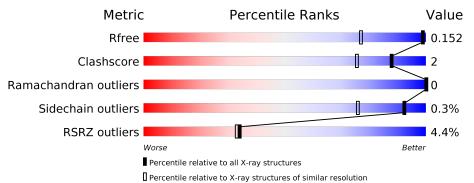
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.13.1
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
$\operatorname{CCP4}$:	$7.0.044 (\mathrm{Gargrove})$
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.13.1

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 1.14 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	$egin{array}{c} { m Whole \ archive} \ (\#{ m Entries}) \end{array}$	${f Similar\ resolution}\ (\#{ m Entries},{ m resolution\ range}({ m \AA}))$
R _{free}	130704	1492 (1.18-1.10)
Clashscore	141614	1537(1.18-1.10)
Ramachandran outliers	138981	1483 (1.18-1.10)
Sidechain outliers	138945	1480 (1.18-1.10)
RSRZ outliers	127900	1464 (1.18-1.10)

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 on 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	А	427	4%	93%	• •				
2	В	2	50%		50%				
3	С	5	40%	40%	20%				
4	D	3		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 crite-



ria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
3	MAN	С	4	-	-	-	Х
3	MAN	С	5	-	-	-	Х
4	NAG	D	2	-	-	-	Х



2 Entry composition (i)

There are 8 unique types of molecules in this entry. The entry contains 7375 atoms, of which 3356 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 Acid sphingomyelinase-like phosphodiesterase 3b.

ľ	Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
	1	А	412	Total 6607	C 2169	H 3227	N 574	O 624	S 13	0	13	0

There are 10 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	9	ASP	-	expression tag	UNP P58242
A	10	ARG	-	expression tag	UNP P58242
A	11	HIS	-	expression tag	UNP P58242
A	12	HIS	-	expression tag	UNP P58242
A	13	HIS	-	expression tag	UNP P58242
A	14	HIS	-	expression tag	UNP P58242
A	15	HIS	-	expression tag	UNP P58242
A	16	HIS	-	expression tag	UNP P58242
А	17	LYS	-	expression tag	UNP P58242
A	18	LEU	_	expression tag	UNP P58242

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



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf	Trace		
2	В	2	Total 55	C 16	Н 27	N 2	O 10	0	0	0

• Molecule 3 is an oligosaccharide called alpha-D-mannopyranose-(1-3)-[alpha-D-mannopyran ose-(1-6)]beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-a cetamido-2-deoxy-beta-D-glucopyranose.





Mol	Chain	Residues	Atoms			ZeroOcc	AltConf	Trace		
3	С	5	Total 118	С 34	Н 57	N 2	O 25	0	0	0

• Molecule 4 is an oligosaccharide called 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-[al pha-L-fucopyranose-(1-6)]2-acetamido-2-deoxy-beta-D-glucopyranose.

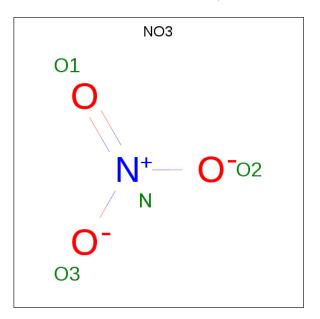


Mol	Chain	Residues	Atoms			ZeroOcc	AltConf	Trace		
4	D	3	Total 75	С 22	Н 37	N 2	O 14	0	0	0

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

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

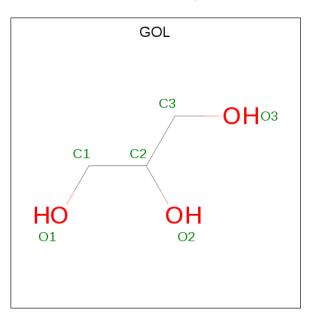
• Molecule 6 is NITRATE ION (three-letter code: NO3) (formula: NO₃).





Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	А	1	Total N O 4 1 3	0	0
6	А	1	Total N O 4 1 3	0	0

• Molecule 7 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
7	А	1	Total C H O 14 3 8 3	0	0

• Molecule 8 is water.

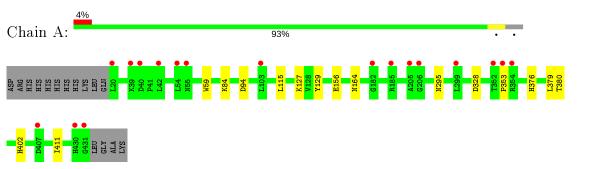
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
8	А	496	Total O 496 496	0	0



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: Acid sphingomyelinase-like phosphodiesterase 3b



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

Chain B:	50%	50%
NAG1 NAG2		

 $\label{eq:mannopyranose-(1-3)-[alpha-D-mannopyranose-(1-6)]} beta-D-mannopyranose-(1-6)] beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2$

Chain C:	40%	40%	20%
NAG1 NAG2 BMA3 MAN4 MAN5			

• Molecule 4: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-[alpha-L-fucopyranose-(1-6)]2-acetamido-2-deoxy-beta-D-glucopyranose

Chain D:	100%
NAG1 FUC3	



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 2 1	Depositor
Cell constants	50.89Å 47.03 Å 93.86 Å	Depositor
a, b, c, α , β , γ	90.00° 98.07° 90.00°	Depositor
Resolution (Å)	36.83 - 1.14	Depositor
	36.83 - 1.14	EDS
% Data completeness	92.6 (36.83 - 1.14)	Depositor
(in resolution range)	83.3 (36.83 - 1.14)	EDS
R _{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) > 1$	$0.60 ~({ m at}~1.14{ m \AA})$	Xtriage
Refinement program	PHENIX 1.10.1_2155	Depositor
R, R_{free}	0.135 , 0.152	Depositor
III, IIIfree	0.135 , 0.152	DCC
R_{free} test set	7410 reflections (5.02%)	wwPDB-VP
Wilson B-factor (Å ²)	12.1	Xtriage
Anisotropy	0.310	Xtriage
Bulk solvent $k_{sol}(e/Å^3), B_{sol}(Å^2)$	0.45 , 46.5	EDS
L-test for twinning ²	$ \langle L \rangle = 0.49, \langle L^2 \rangle = 0.33$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.98	EDS
Total number of atoms	7375	wwPDB-VP
Average B, all atoms $(Å^2)$	21.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: The largest off-origin peak in the Patterson function is 6.97% of the height of the origin peak. No significant pseudotranslation is detected.

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



¹Intensities estimated from amplitudes.

5 Model quality (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: GOL, ZN, BMA, NAG, FUC, NO3, MAN

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	
	Unain	RMSZ	# Z > 5	RMSZ	# Z > 5
1	А	0.45	0/3526	0.66	0/4813

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 (i)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	А	3380	3227	3256	13	0
2	В	28	27	25	0	0
3	С	61	57	52	1	0
4	D	38	37	34	0	0
5	А	2	0	0	0	0
6	А	8	0	0	1	0
7	А	6	8	8	0	0
8	А	496	0	0	8	1
All	All	4019	3356	3375	14	1

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 2.

All (14) close contacts within the same asymmetric unit are listed below, sorted by their clash



Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:513:NO3:O3	8:A:601:HOH:O	2.12	0.66
1:A:328:ASP:OD1	8:A:602:HOH:O	2.17	0.59
1:A:402:HIS:ND1	8:A:605:HOH:O	2.35	0.50
1:A:164:ASN:HB3	3:C:4:MAN:H61	1.96	0.48
1:A:376:HIS:O	1:A:380[B]:THR:HG23	2.14	0.47
1:A:94:ASP:HB3	1:A:115[B]:LEU:HD12	1.97	0.46
1:A:156:GLU:OE2	8:A:603:HOH:O	2.20	0.46
1:A:127:LYS:HG2	1:A:129:TYR:CZ	2.53	0.44
1:A:411[B]:ILE:HG13	8:A:851:HOH:O	2.18	0.44
1:A:380[B]:THR:HG22	8:A:965:HOH:O	2.17	0.43
1:A:59:TRP:CZ2	1:A:353:PRO:HD3	2.54	0.43
1:A:84:LYS:NZ	8:A:610:HOH:O	2.45	0.42
1:A:379:LEU:HD13	1:A:379:LEU:C	2.39	0.42
1:A:376:HIS:HE1	8:A:631:HOH:O	2.03	0.40

magnitude.

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	$\begin{array}{c} {\rm Interatomic}\\ {\rm distance}~({\rm \AA}) \end{array}$	Clash overlap (Å)
8:A:1012:HOH:O	8:A:1036:HOH:O[2_555]	2.07	0.13

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	Percentile
1	А	424/427~(99%)	406~(96%)	18 (4%)	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	А	372/371~(100%)	371~(100%)	1 (0%)	92 76

All (1) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	А	295	ASN

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (2) such sidechains are listed below:

Mol	Chain	Res	Type
1	А	246	GLN
1	А	376	HIS

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

10 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	Turne	Chain	Res	Link	Bo	ond leng	ths	В	ond ang	les
IVIOI	Type	Cham	nes		Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
2	NAG	В	1	1,2	$14,\!14,\!15$	0.27	0	$17,\!19,\!21$	0.52	0
2	NAG	В	2	2	14, 14, 15	0.62	1(7%)	$17,\!19,\!21$	0.51	0
3	NAG	С	1	1,3	14, 14, 15	0.34	0	$17,\!19,\!21$	0.66	0
3	NAG	С	2	3	14, 14, 15	0.52	0	$17,\!19,\!21$	0.49	0
3	BMA	С	3	3	11, 11, 12	0.91	0	$15,\!15,\!17$	0.89	1 (6%)
3	MAN	С	4	3	11,11,12	1.16	1(9%)	$15,\!15,\!17$	1.36	2 (13%)
3	MAN	С	5	3	11,11,12	0.73	0	$15,\!15,\!17$	1.19	1(6%)
4	NAG	D	1	1,4	14, 14, 15	0.76	0	17,19,21	0.71	0
4	NAG	D	2	4	14, 14, 15	0.17	0	$17,\!19,\!21$	0.34	0
4	FUC	D	3	4	10, 10, 11	0.90	0	$14,\!14,\!16$	0.83	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	\mathbf{Res}	\mathbf{Link}	Chirals	Torsions	Rings
2	NAG	В	1	1,2	-	0/6/23/26	0/1/1/1
2	NAG	В	2	2	-	1/6/23/26	0/1/1/1
3	NAG	С	1	$1,\!3$	-	0/6/23/26	0/1/1/1
3	NAG	С	2	3	-	0/6/23/26	0/1/1/1
3	BMA	С	3	3	-	0/2/19/22	0/1/1/1
3	MAN	С	4	3	-	0/2/19/22	0/1/1/1
3	MAN	С	5	3	-	2/2/19/22	0/1/1/1
4	NAG	D	1	1,4	-	0/6/23/26	0/1/1/1
4	NAG	D	2	4	-	0/6/23/26	0/1/1/1
4	FUC	D	3	4	-	-	0/1/1/1

All (2) bond length outliers are listed below:

Mol	Chain	\mathbf{Res}	Type	Atoms	Z	$\operatorname{Observed}(\operatorname{\AA})$	Ideal(Å)
3	С	4	MAN	O5-C5	2.82	1.49	1.43
2	В	2	NAG	O5-C1	-2.26	1.40	1.43

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	$\mathbf{Observed}(^{o})$	$Ideal(^{o})$
3	С	5	MAN	C1-O5-C5	3.33	116.71	112.19
3	С	4	MAN	C3-C4-C5	2.75	115.15	110.24
3	С	4	MAN	C1-O5-C5	2.43	115.48	112.19
3	С	3	BMA	C1-O5-C5	2.12	115.06	112.19



There are no chirality outliers.

All (3) torsion outliers are listed below:

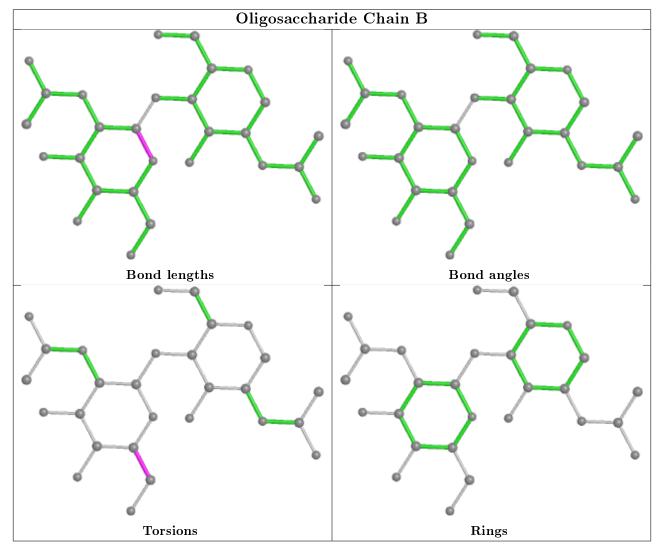
Mol	Chain	Res	Type	Atoms
3	С	5	MAN	O5-C5-C6-O6
3	С	5	MAN	C4-C5-C6-O6
2	В	2	NAG	C4-C5-C6-O6

There are no ring outliers.

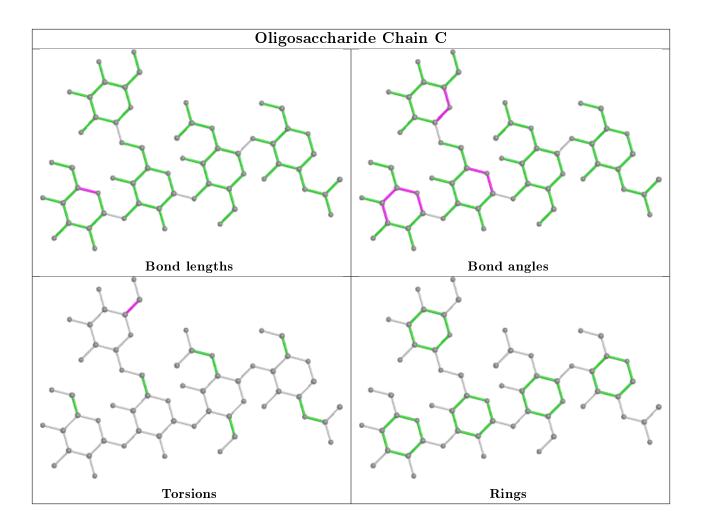
1 monomer is involved in 1 short contact:

Mol	Chain	\mathbf{Res}	Type	Clashes	Symm-Clashes
3	С	4	MAN	1	0

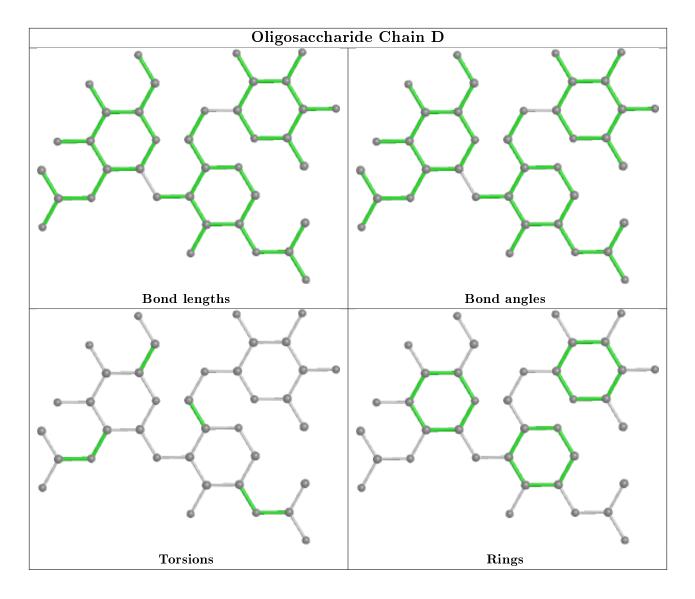
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for oligosaccharide.











5.6 Ligand geometry (i)

Of 5 ligands modelled in this entry, 2 are monoatomic - leaving 3 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			В	ond ang	gles
			nes		Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z >2
6	NO3	А	514	-	$1,\!3,\!3$	0.64	0	$_{0,3,3}$	0.00	-
7	GOL	А	515	-	5, 5, 5	0.51	0	$5,\!5,\!5$	0.57	0
6	NO3	А	513	-	1,3,3	0.52	0	$_{0,3,3}$	0.00	-



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	GOL	А	515	-	-	0/4/4/4	-

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.

1 monomer is involved in 1 short contact:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
6	А	513	NO3	1	0

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, 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		$\mathbf{OWAB}(\mathrm{\AA}^2)$	Q<0.9	
1	А	412/427~(96%)	0.08	18 (4%)	34	33	11, 16, 30, 46	0

All (18) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	А	431	GLY	8.4
1	А	55	ASN	8.1
1	А	430	HIS	5.5
1	А	353	PRO	5.0
1	А	185	ARG	4.4
1	А	205	ALA	3.3
1	А	352	THR	3.3
1	А	54	LEU	3.1
1	А	39	LYS	3.0
1	А	182	GLY	2.9
1	А	354	ARG	2.8
1	А	103	LEU	2.8
1	А	42	LEU	2.7
1	А	20	LEU	2.6
1	А	206	GLY	2.2
1	А	40	ASP	2.0
1	А	407	ASP	2.0
1	А	299	LEU	2.0

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

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

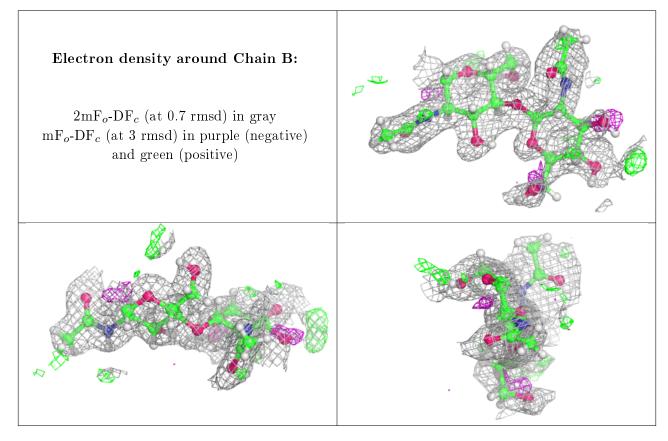


6.3 Carbohydrates (i)

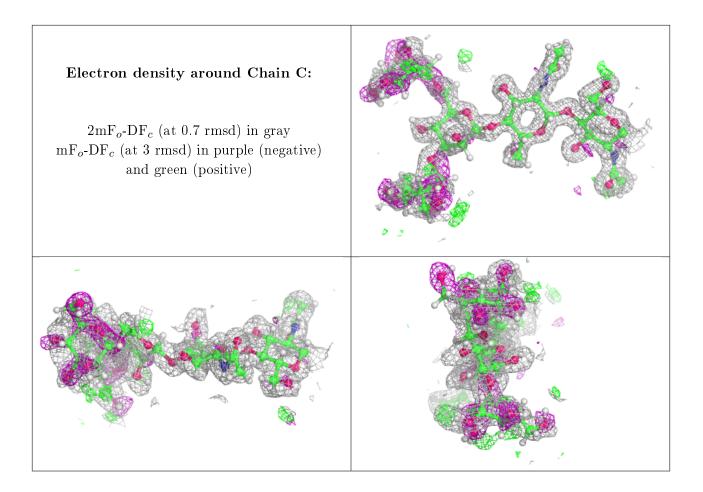
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9'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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	$\mathbf{B} ext{-factors}(\mathbf{A}^2)$	Q<0.9
3	MAN	С	4	11/12	0.53	0.49	$32,\!39,\!44,\!48$	0
3	MAN	С	5	11/12	0.60	0.56	$35,\!38,\!45,\!46$	0
4	NAG	D	2	14/15	0.71	0.41	$39,\!47,\!56,\!56$	0
3	BMA	С	3	11/12	0.72	0.34	$37,\!40,\!48,\!50$	0
4	FUC	D	3	10/11	0.77	0.34	$31,\!37,\!40,\!44$	0
2	NAG	В	2	14/15	0.81	0.33	$36,\!45,\!54,\!56$	0
4	NAG	D	1	14/15	0.91	0.16	$24,\!30,\!35,\!37$	0
2	NAG	В	1	14/15	0.94	0.09	$21,\!30,\!37,\!37$	0
3	NAG	С	1	14/15	0.94	0.10	$17,\!21,\!26,\!30$	0
3	NAG	С	2	14/15	0.96	0.21	22,29,38,41	0

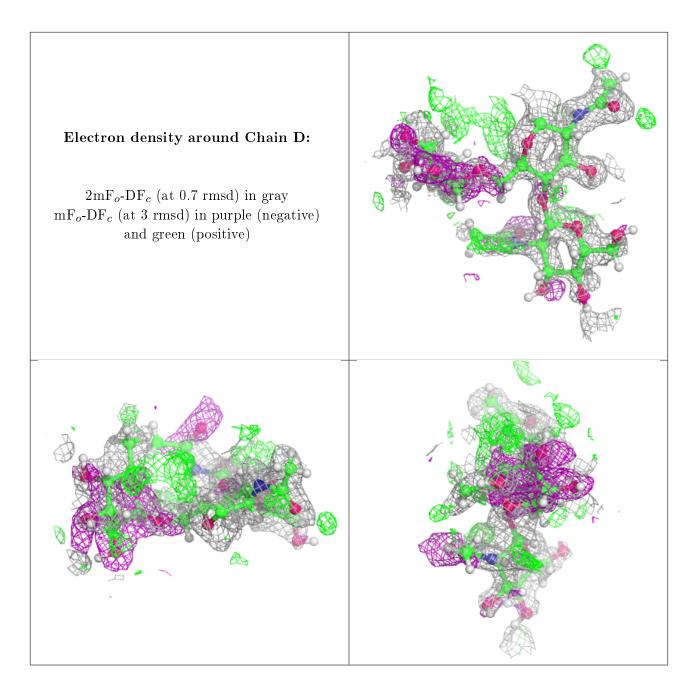
The following is a graphical depiction of the model fit to experimental electron density for oligosaccharide. Each fit is shown from different orientation to approximate a three-dimensional view.











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^{th} 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
7	GOL	А	515	6/6	0.80	0.16	$29,\!35,\!39,\!40$	0
6	NO3	А	514	4/4	0.92	0.15	$33,\!38,\!39,\!42$	0
6	NO3	А	513	4/4	0.98	0.08	$28,\!30,\!33,\!35$	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	$\mathbf{B} ext{-factors}(\mathbf{\AA}^2)$	Q<0.9
5	ZN	А	502	1/1	1.00	0.05	$11,\!11,\!11,\!11$	0
5	ZN	А	501	1/1	1.00	0.06	12,12,12,12	0

6.5 Other polymers (i)

There are no such residues in this entry.

