



wwPDB X-ray Structure Validation Summary Report ⓘ

Aug 21, 2020 – 08:10 AM BST

PDB ID : 4BST
Title : Structure of the ectodomain of LGR5 in complex with R-spondin-1 (Fu1Fu2) in P6122 crystal form
Authors : Peng, W.C.; de Lau, W.; Forneris, F.; Granneman, J.C.M.; Huch, M.; Clevers, H.; Gros, P.
Deposited on : 2013-06-11
Resolution : 4.30 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtrriage (Phenix) : 1.13
EDS : 2.13.1
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) : 2.13.1

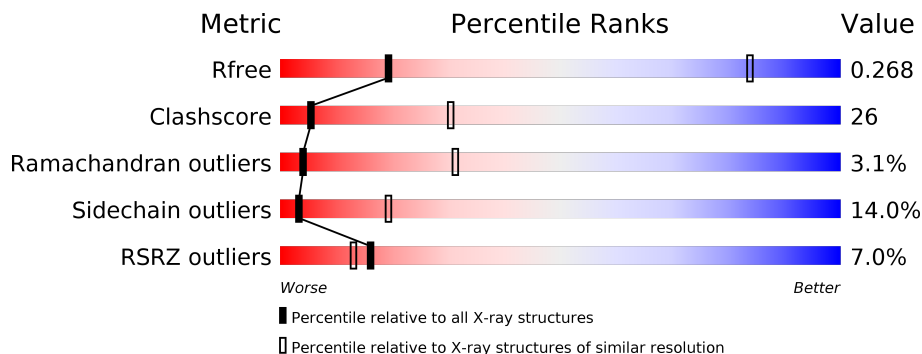
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 4.30 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	1014 (4.80-3.80)
Clashscore	141614	1077 (4.80-3.80)
Ramachandran outliers	138981	1029 (4.80-3.80)
Sidechain outliers	138945	1012 (4.80-3.80)
RSRZ outliers	127900	1075 (4.90-3.70)

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 $\leq 5\%$. 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	539	 3% 42% 33% 8% 15%
1	B	539	 8% 47% 31% 6% 15%
2	C	126	 7% 33% 36% 13% 18%
2	D	126	 10% 40% 30% 10% 17%
3	E	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 criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
3	BMA	E	3	-	-	-	X
4	NAG	A	1077	-	-	-	X
4	NAG	A	1208	X	-	-	-

2 Entry composition i

There are 4 unique types of molecules in this entry. The entry contains 8833 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 LEUCINE-RICH REPEAT-CONTAINING G-PROTEIN COUPLED RECEPTOR 5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	457	3585	2287	616	666	16	0	0	0
1	B	458	3591	2290	617	667	17	0	0	0

There are 34 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	8	HIS	-	expression tag	UNP O75473
A	9	HIS	-	expression tag	UNP O75473
A	10	HIS	-	expression tag	UNP O75473
A	11	HIS	-	expression tag	UNP O75473
A	12	HIS	-	expression tag	UNP O75473
A	13	HIS	-	expression tag	UNP O75473
A	14	GLU	-	expression tag	UNP O75473
A	15	ASN	-	expression tag	UNP O75473
A	16	LEU	-	expression tag	UNP O75473
A	17	TYR	-	expression tag	UNP O75473
A	18	PHE	-	expression tag	UNP O75473
A	19	GLN	-	expression tag	UNP O75473
A	20	GLY	-	expression tag	UNP O75473
A	21	SER	-	expression tag	UNP O75473
A	544	ALA	-	expression tag	UNP O75473
A	545	ALA	-	expression tag	UNP O75473
A	546	ALA	-	expression tag	UNP O75473
B	8	HIS	-	expression tag	UNP O75473
B	9	HIS	-	expression tag	UNP O75473
B	10	HIS	-	expression tag	UNP O75473
B	11	HIS	-	expression tag	UNP O75473
B	12	HIS	-	expression tag	UNP O75473
B	13	HIS	-	expression tag	UNP O75473
B	14	GLU	-	expression tag	UNP O75473

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Chain	Residue	Modelled	Actual	Comment	Reference
B	15	ASN	-	expression tag	UNP O75473
B	16	LEU	-	expression tag	UNP O75473
B	17	TYR	-	expression tag	UNP O75473
B	18	PHE	-	expression tag	UNP O75473
B	19	GLN	-	expression tag	UNP O75473
B	20	GLY	-	expression tag	UNP O75473
B	21	SER	-	expression tag	UNP O75473
B	544	ALA	-	expression tag	UNP O75473
B	545	ALA	-	expression tag	UNP O75473
B	546	ALA	-	expression tag	UNP O75473

- Molecule 2 is a protein called R-SPONDIN-1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	C	103	Total	C	N	O	S	0	0	0
			778	480	137	143	18			
2	D	104	Total	C	N	O	S	0	0	0
			784	483	138	145	18			

There are 20 discrepancies between the modelled and reference sequences:

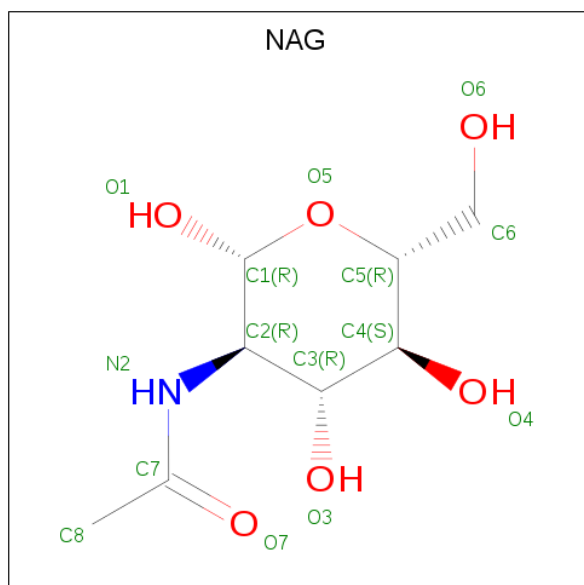
Chain	Residue	Modelled	Actual	Comment	Reference
C	29	GLY	-	expression tag	UNP Q2MKA7
C	30	SER	-	expression tag	UNP Q2MKA7
C	147	ALA	-	expression tag	UNP Q2MKA7
C	148	ALA	-	expression tag	UNP Q2MKA7
C	149	HIS	-	expression tag	UNP Q2MKA7
C	150	HIS	-	expression tag	UNP Q2MKA7
C	151	HIS	-	expression tag	UNP Q2MKA7
C	152	HIS	-	expression tag	UNP Q2MKA7
C	153	HIS	-	expression tag	UNP Q2MKA7
C	154	HIS	-	expression tag	UNP Q2MKA7
D	29	GLY	-	expression tag	UNP Q2MKA7
D	30	SER	-	expression tag	UNP Q2MKA7
D	147	ALA	-	expression tag	UNP Q2MKA7
D	148	ALA	-	expression tag	UNP Q2MKA7
D	149	HIS	-	expression tag	UNP Q2MKA7
D	150	HIS	-	expression tag	UNP Q2MKA7
D	151	HIS	-	expression tag	UNP Q2MKA7
D	152	HIS	-	expression tag	UNP Q2MKA7
D	153	HIS	-	expression tag	UNP Q2MKA7
D	154	HIS	-	expression tag	UNP Q2MKA7

- Molecule 3 is an oligosaccharide called beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose.

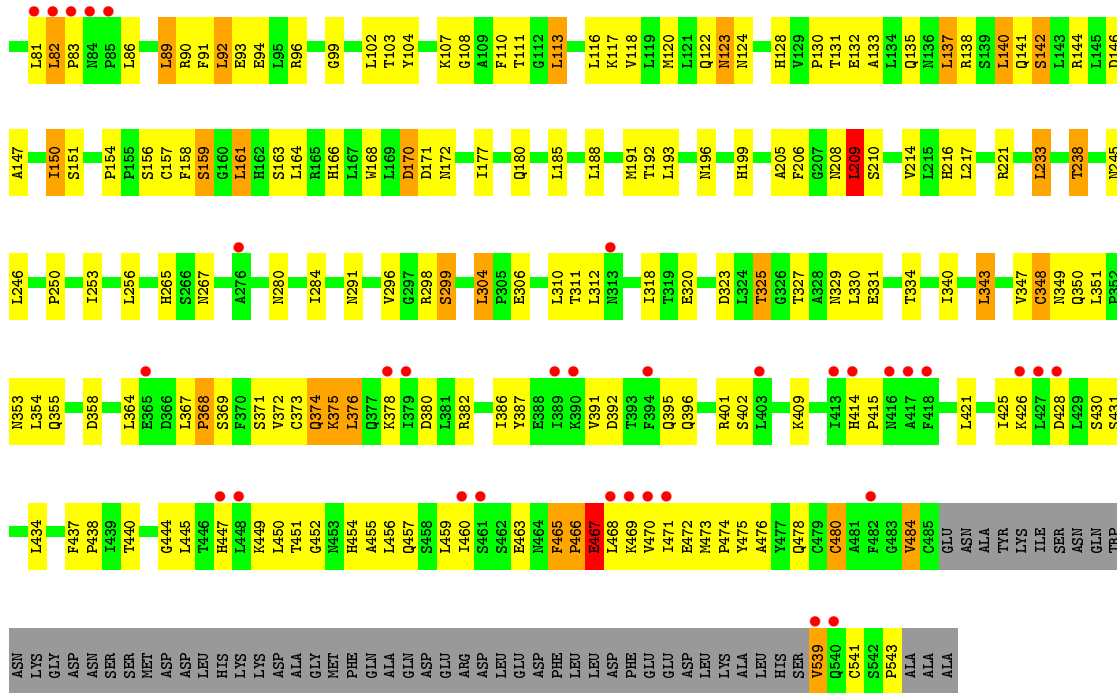


Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
3	E	3	39	22	2	15	0	0	0

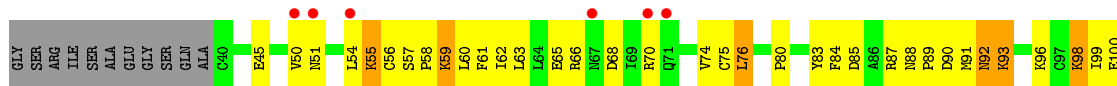
- Molecule 4 is 2-acetamido-2-deoxy-beta-D-glucopyranose (three-letter code: NAG) (formula: $C_8H_{15}NO_6$).



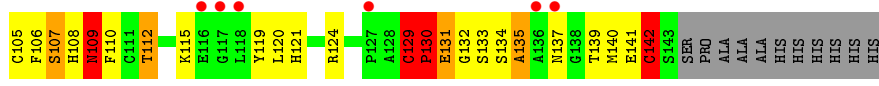
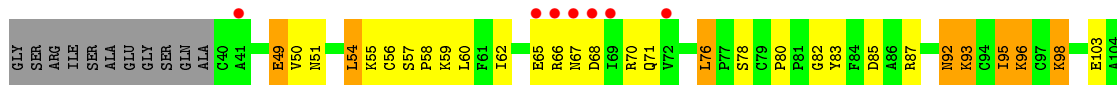
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	N	O		
4	A	1	14	8	1	5	0	0
4	A	1	14	8	1	5	0	0
4	A	1	14	8	1	5	0	0
4	B	1	14	8	1	5	0	0



• Molecule 2: R-SPONDIN-1



• Molecule 2: R-SPONDIN-1



• Molecule 3: beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose



4 Data and refinement statistics

Property	Value	Source
Space group	P 61 2 2	Depositor
Cell constants a, b, c, α , β , γ	131.10Å 131.10Å 531.97Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	48.17 – 4.30 48.17 – 4.30	Depositor EDS
% Data completeness (in resolution range)	99.6 (48.17-4.30) 99.6 (48.17-4.30)	Depositor EDS
R_{merge}	0.09	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.85 (at 4.29Å)	Xtrriage
Refinement program	PHENIX (PHENIX.REFINE)	Depositor
R, R_{free}	0.243 , 0.268 0.244 , 0.268	Depositor DCC
R_{free} test set	991 reflections (5.12%)	wwPDB-VP
Wilson B-factor (Å ²)	180.2	Xtrriage
Anisotropy	0.032	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.35 , 203.5	EDS
L-test for twinning ²	$\langle L \rangle = 0.40$, $\langle L^2 \rangle = 0.22$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.88	EDS
Total number of atoms	8833	wwPDB-VP
Average B, all atoms (Å ²)	213.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.23% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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

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	0.37	0/3665	0.74	9/4991 (0.2%)
1	B	0.35	0/3671	0.65	3/4999 (0.1%)
2	C	0.45	0/794	0.83	1/1066 (0.1%)
2	D	0.50	0/800	0.82	4/1074 (0.4%)
All	All	0.38	0/8930	0.72	17/12130 (0.1%)

There are no bond length outliers.

The worst 5 of 17 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	70	TYR	CA-CB-CG	8.05	128.70	113.40
1	A	195	LEU	CA-CB-CG	7.31	132.12	115.30
1	A	198	ILE	CG1-CB-CG2	-6.96	96.08	111.40
1	A	81	LEU	CA-CB-CG	6.61	130.50	115.30
2	D	132	GLY	N-CA-C	-6.52	96.81	113.10

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3585	0	3593	202	0
1	B	3591	0	3597	156	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	C	778	0	744	55	0
2	D	784	0	749	57	0
3	E	39	0	34	5	0
4	A	42	0	39	1	0
4	B	14	0	13	0	0
All	All	8833	0	8769	457	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 26.

The worst 5 of 457 close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:421:LEU:HG	1:A:424:LEU:HB2	1.34	1.05
1:B:104:TYR:OH	1:B:107:LYS:NZ	1.94	1.00
1:A:448:LEU:HD13	1:A:468:LEU:HD21	1.48	0.93
2:D:70:ARG:NH1	2:D:71:GLN:O	2.02	0.92
1:A:123:ASN:H	1:A:147:ALA:HB3	1.40	0.86

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	453/539 (84%)	388 (86%)	57 (13%)	8 (2%)	8 42
1	B	454/539 (84%)	378 (83%)	63 (14%)	13 (3%)	4 32
2	C	101/126 (80%)	82 (81%)	14 (14%)	5 (5%)	2 23
2	D	102/126 (81%)	82 (80%)	12 (12%)	8 (8%)	1 15
All	All	1110/1330 (84%)	930 (84%)	146 (13%)	34 (3%)	4 31

5 of 34 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	43	ASP
1	A	90	ARG
1	A	209	LEU
1	A	353	ASN
1	B	66	VAL

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	414/484 (86%)	350 (84%)	64 (16%)	2 16
1	B	415/484 (86%)	368 (89%)	47 (11%)	6 25
2	C	89/105 (85%)	72 (81%)	17 (19%)	1 9
2	D	90/105 (86%)	77 (86%)	13 (14%)	3 18
All	All	1008/1178 (86%)	867 (86%)	141 (14%)	3 19

5 of 141 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	478	GLN
1	B	131	THR
2	D	68	ASP
1	B	60	LEU
1	B	89	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 9 such sidechains are listed below:

Mol	Chain	Res	Type
1	B	135	GLN
2	C	71	GLN
1	B	478	GLN
1	A	265	HIS
1	B	313	ASN

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](#)

3 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	NAG	E	1	1,3	14,14,15	0.88	1 (7%)	17,19,21	1.68	3 (17%)
3	NAG	E	2	3	14,14,15	1.91	1 (7%)	17,19,21	1.07	1 (5%)
3	BMA	E	3	3	11,11,12	1.41	3 (27%)	15,15,17	2.42	4 (26%)

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	NAG	E	1	1,3	-	3/6/23/26	0/1/1/1
3	NAG	E	2	3	-	0/6/23/26	0/1/1/1
3	BMA	E	3	3	-	1/2/19/22	0/1/1/1

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	E	2	NAG	O5-C1	-6.99	1.32	1.43
3	E	3	BMA	O5-C5	2.62	1.48	1.43
3	E	3	BMA	C1-C2	2.47	1.57	1.52
3	E	1	NAG	C1-C2	2.39	1.55	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	E	3	BMA	O5-C1	2.13	1.47	1.43

The worst 5 of 8 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	3	BMA	C1-O5-C5	6.92	121.57	112.19
3	E	1	NAG	C2-N2-C7	3.86	128.40	122.90
3	E	3	BMA	O5-C1-C2	3.80	116.63	110.77
3	E	1	NAG	O4-C4-C3	3.71	118.92	110.35
3	E	3	BMA	C1-C2-C3	3.36	113.80	109.67

There are no chirality outliers.

All (4) torsion outliers are listed below:

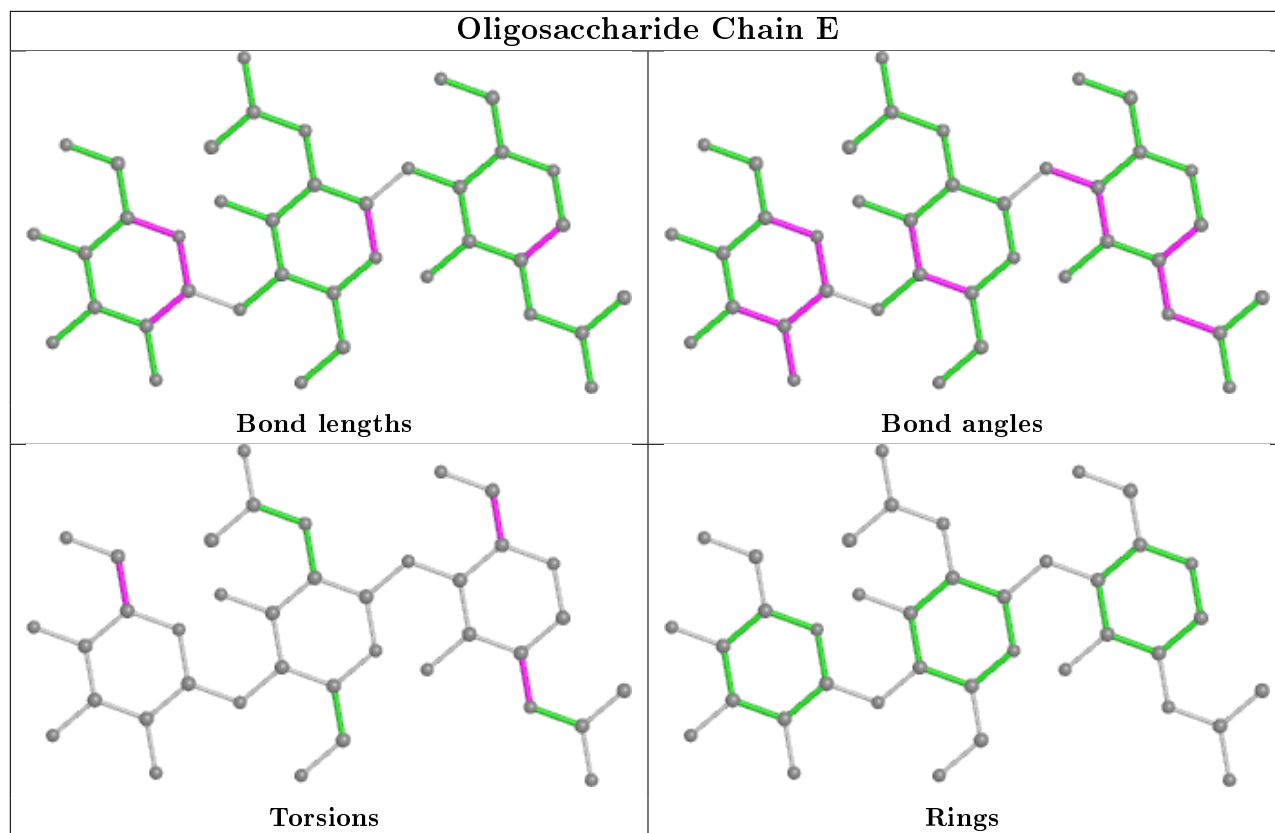
Mol	Chain	Res	Type	Atoms
3	E	1	NAG	C1-C2-N2-C7
3	E	1	NAG	C4-C5-C6-O6
3	E	1	NAG	O5-C5-C6-O6
3	E	3	BMA	O5-C5-C6-O6

There are no ring outliers.

3 monomers are involved in 5 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	E	3	BMA	2	0
3	E	1	NAG	3	0
3	E	2	NAG	4	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](#)

4 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	$\# Z > 2$
4	NAG	A	1077	1	14,14,15	0.44	0	17,19,21	0.47	0
4	NAG	B	1077	1	14,14,15	0.64	1 (7%)	17,19,21	0.63	0
4	NAG	A	1063	1	14,14,15	0.21	0	17,19,21	0.39	0
4	NAG	A	1208	1	14,14,15	0.53	0	17,19,21	0.51	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	NAG	A	1077	1	-	0/6/23/26	0/1/1/1
4	NAG	B	1077	1	-	2/6/23/26	0/1/1/1
4	NAG	A	1063	1	-	0/6/23/26	0/1/1/1
4	NAG	A	1208	1	1/1/5/7	3/6/23/26	0/1/1/1

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	B	1077	NAG	C1-C2	2.06	1.55	1.52

There are no bond angle outliers.

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
4	A	1208	NAG	C1

All (5) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	B	1077	NAG	O5-C5-C6-O6
4	A	1208	NAG	O5-C5-C6-O6
4	B	1077	NAG	C4-C5-C6-O6
4	A	1208	NAG	C4-C5-C6-O6
4	A	1208	NAG	C3-C2-N2-C7

There are no ring outliers.

1 monomer is involved in 1 short contact:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	A	1077	NAG	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	OWAB(Å ²)	Q < 0.9
1	A	457/539 (84%)	0.10	16 (3%) 44 35	131, 205, 257, 372	0
1	B	458/539 (84%)	0.37	41 (8%) 9 8	135, 205, 259, 373	0
2	C	103/126 (81%)	0.39	9 (8%) 10 9	165, 243, 334, 392	0
2	D	104/126 (82%)	0.68	13 (12%) 3 5	176, 245, 333, 390	0
All	All	1122/1330 (84%)	0.29	79 (7%) 16 13	131, 210, 288, 392	0

The worst 5 of 79 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	539	VAL	5.6
1	A	83	PRO	5.5
2	D	67	ASN	4.9
1	B	82	LEU	4.8
1	B	59	GLU	4.7

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, 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.

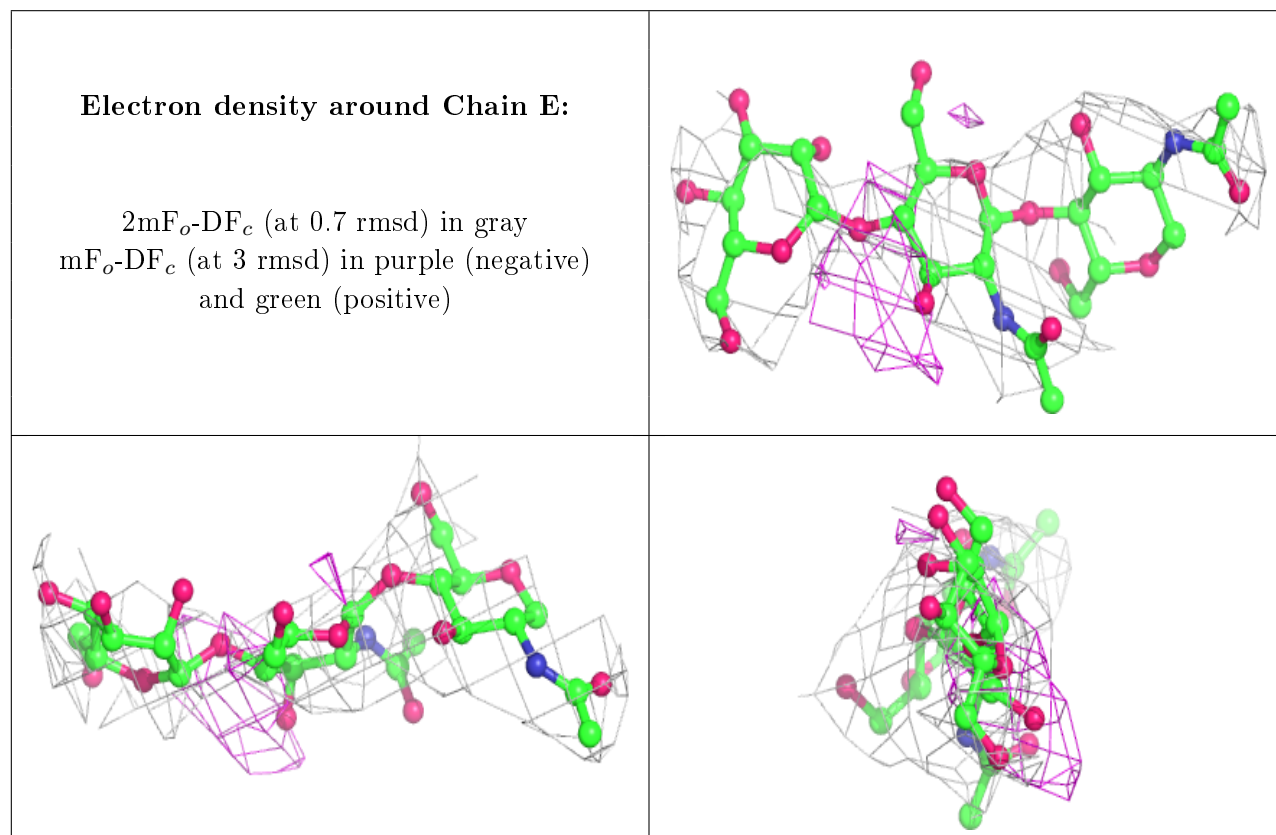
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q < 0.9
3	BMA	E	3	11/12	0.51	0.93	206,247,350,359	0
3	NAG	E	2	14/15	0.82	0.32	179,259,273,274	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
3	NAG	E	1	14/15	0.91	0.34	120,232,277,284	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, 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(\AA^2)	Q<0.9
4	NAG	A	1063	14/15	0.67	0.24	182,291,310,317	0
4	NAG	B	1077	14/15	0.71	0.25	216,285,322,322	0
4	NAG	A	1077	14/15	0.73	0.70	199,261,288,316	0
4	NAG	A	1208	14/15	0.88	0.27	227,283,330,353	0

6.5 Other polymers

There are no such residues in this entry.