WORLDWIDE wwPDB

PROTEIN DATA BANK

wwPDB X-ray Structure Validation Summary Report (i)

Nov 2, 2023 – 12:34 PM EDT

PDB ID	:	3W13
Title	:	Insulin receptor ectodomain construct comprising domains L1-CR in complex with high-affinity insulin analogue [D-PRO-B26]-DTI-NH2, alphact peptide(693-719) and FAB 83-7
Authors	:	Lawrence, M.C.; Smith, B.J.; Brzozowski, A.M.
Deposited on	:	2012-11-06
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 (i) symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

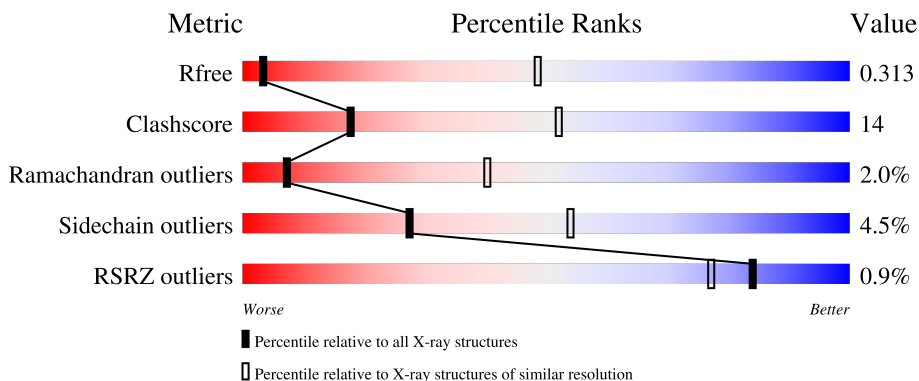|		
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

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	Percentile Ranks	Value
Rfree		0.313
Clashscore		14
Ramachandran outliers		2.0%
Sidechain outliers		4.5%
RSRZ outliers		0.9%

Worse ... *Better*

▌ Percentile relative to all X-ray structures

▯ Percentile relative to X-ray structures of similar resolution

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 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	E	310	70% 21% • 7%
2	C	116	3% 73% 24% •
3	D	114	64% 32% •
4	A	21	57% 33% 5% 5%
5	B	26	50% 8% 42%

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Mol	Chain	Length	Quality of chain
6	F	23	13% 30% · 52%
7	G	4	75% 25%
8	H	3	33% 67%

2 Entry composition ⓘ

There are 9 unique types of molecules in this entry. The entry contains 4571 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 Insulin receptor domains L1-CR.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	E	288	Total 2301	C 1449	N 397	O 423	S 32	0	0	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
E	144	HIS	TYR	SEE REMARK 999	UNP P06213

- Molecule 2 is a protein called monoclonal antibody fab 83-7 fragment - heavy chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	C	116	Total 892	C 562	N 151	O 174	S 5	0	0	0

- Molecule 3 is a protein called monoclonal antibody fab 83-7 fragment - light chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	D	114	Total 891	C 565	N 149	O 173	S 4	0	0	0

- Molecule 4 is a protein called Insulin A chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	A	21	Total 163	C 99	N 25	O 35	S 4	0	0	0

- Molecule 5 is a protein called Insulin B chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	B	15	Total 109	C 69	N 17	O 21	S 2	0	0	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	26	PR9	TYR	SEE REMARK 999	UNP P01308

- Molecule 6 is a protein called Insulin receptor alphact peptide.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
6	F	11	Total 98	C 67	N 14	O 17	0	0	0

- Molecule 7 is an oligosaccharide called alpha-D-mannopyranose-(1-3)-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
7	G	4	Total 50	C 28	N 2	O 20	0	0	0

- Molecule 8 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.
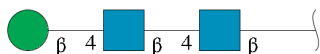
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
8	H	3	Total 39	C 22	N 2	O 15	0	0	0

- Molecule 9 is 2-acetamido-2-deoxy-beta-D-glucopyranose (three-letter code: NAG) (formula: $C_8H_{15}NO_6$).

NAG

O6
OH

O5
O1
HO O
C6

C1(R) C5(R)

C2(R) C4(S)
N2 C3(R)
HN OH
O4

C7
OH

C8 O O3

O7

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
9	E	1	Total	C	N	O	0	0
			14	8	1	5		
9	E	1	Total	C	N	O	0	0
			14	8	1	5		

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.
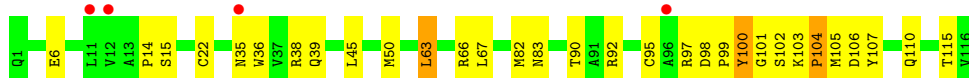
• Molecule 1: Insulin receptor domains L1-CR
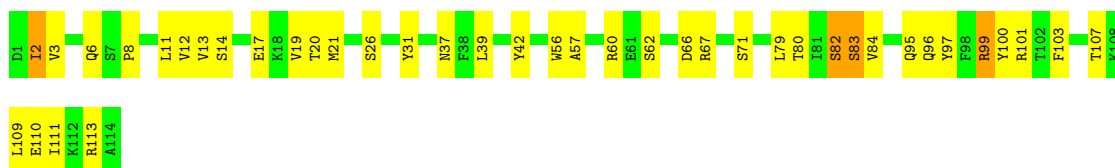
Chain E:
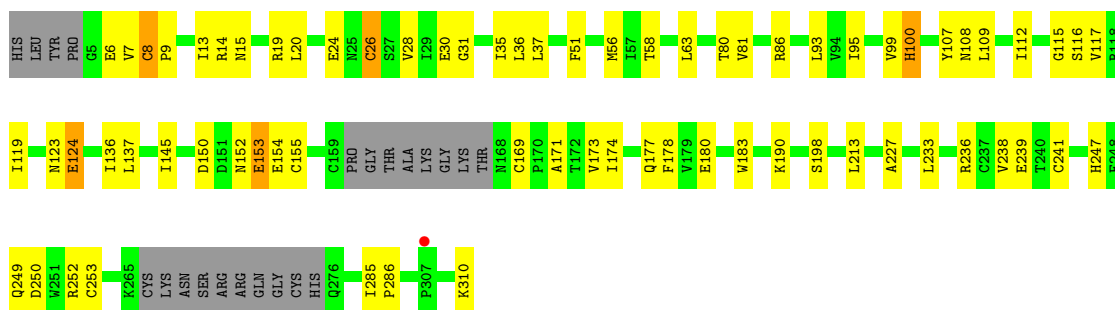
• Molecule 2: monoclonal antibody fab 83-7 fragment - heavy chain

Chain C:

• Molecule 3: monoclonal antibody fab 83-7 fragment - light chain

Chain D:

• Molecule 4: Insulin A chain

Chain A:

• Molecule 5: Insulin B chain

Chain B:

50%   8%   42%

PHE VAL ASN GLN HIS LEU C7 G8 E21 ARG GLY PHE PR9

• Molecule 6: Insulin receptor alphact peptide

Chain F:

13%   30%   •   52%

GLU GLU SER SER PHE ARG LYS THR F705 E706 D707 Y708 L709 H710 N711 V712 V713 F714 V715 PRO ARG PRO SER

• Molecule 7: alpha-D-mannopyranose-(1-3)-beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose

Chain G:

75%   25%

NAG1 NAG2 BMA3 MAN4

• Molecule 8: beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose

Chain H:

33%   67%

NAG1 NAG2 BMA3

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 2 3	Depositor
Cell constants a, b, c, α, β, γ	169.23Å 169.23Å 169.23Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	29.48 – 4.30 29.46 – 4.30	Depositor EDS
% Data completeness (in resolution range)	98.0 (29.48-4.30) 98.4 (29.46-4.30)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.10	Depositor
$< I/\sigma(I) >$ [1]	1.47 (at 4.26Å)	Xtriage
Refinement program	REFMAC 5.7.0029	Depositor
R, R_{free}	0.289 , 0.335 0.264 , 0.313	Depositor DCC
R_{free} test set	530 reflections (4.81%)	wwPDB-VP
Wilson B-factor (Å^2)	209.3	Xtriage
Anisotropy	0.000	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.28 , 242.1	EDS
L-test for twinning[2]	$< |L| > = 0.42, < L^2 > = 0.25$	Xtriage
Estimated twinning fraction	0.078 for l,-k,h	Xtriage
F_o,F_c correlation	0.91	EDS
Total number of atoms	4571	wwPDB-VP
Average B, all atoms (Å^2)	226.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.38% 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: MAN, 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	E	0.48	0/2355	0.73	0/3192
2	C	0.49	0/914	0.65	0/1242
3	D	0.57	0/910	0.78	0/1228
4	A	0.60	0/164	0.94	0/220
5	B	0.56	0/110	0.91	0/148
6	F	1.24	1/101 (1.0%)	0.94	0/137
All	All	0.54	1/4554 (0.0%)	0.74	0/6167

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	F	715	VAL	N-CA	7.34	1.61	1.46

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	E	2301	0	2202	55	0
2	C	892	0	869	33	0
3	D	891	0	882	31	0
4	A	163	0	149	9	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	B	109	0	102	1	0
6	F	98	0	87	8	0
7	G	50	0	43	1	0
8	H	39	0	34	0	0
9	E	28	0	26	2	0
All	All	4571	0	4394	122	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 14.

The worst 5 of 122 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)
6:F:709:LEU:O	6:F:713:VAL:HG23	1.34	1.26
3:D:67:ARG:HD3	3:D:82:SER:O	1.35	1.22
2:C:99:PRO:HG2	2:C:103:LYS:HB2	1.18	1.10
3:D:2:ILE:HG22	3:D:26:SER:OG	1.63	0.99
1:E:285:ILE:HG13	1:E:286:PRO:HD2	1.48	0.94

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	E	282/310 (91%)	256 (91%)	21 (7%)	5 (2%)	8	42
2	C	114/116 (98%)	103 (90%)	9 (8%)	2 (2%)	8	42
3	D	112/114 (98%)	103 (92%)	7 (6%)	2 (2%)	8	42
4	A	19/21 (90%)	16 (84%)	2 (10%)	1 (5%)	2	22
5	B	13/26 (50%)	11 (85%)	1 (8%)	1 (8%)	1	15

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
6	F	9/23 (39%)	6 (67%)	3 (33%)	0	100	100
All	All	549/610 (90%)	495 (90%)	43 (8%)	11 (2%)	7	40

5 of 11 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	C	104	PRO
1	E	115	GLY
4	A	13	LEU
5	B	8	GLY
1	E	100	HIS

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	E	268/286 (94%)	261 (97%)	7 (3%)	46	67
2	C	99/99 (100%)	96 (97%)	3 (3%)	41	64
3	D	100/100 (100%)	93 (93%)	7 (7%)	15	42
4	A	20/20 (100%)	15 (75%)	5 (25%)	0	4
5	B	12/21 (57%)	12 (100%)	0	100	100
6	F	11/23 (48%)	10 (91%)	1 (9%)	9	32
All	All	510/549 (93%)	487 (96%)	23 (4%)	27	54

5 of 23 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	D	82	SER
4	A	7	CYS
3	D	113	ARG
4	A	13	LEU
1	E	310	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 6 such sidechains are listed below:

Mol	Chain	Res	Type
1	E	263	HIS
3	D	95	GLN
4	A	21	ASN
1	E	34	GLN
1	E	15	ASN

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 ⓘ

7 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	G	1	1,7	14,14,15	0.49	0	17,19,21	1.64	3 (17%)
7	NAG	G	2	7	14,14,15	0.54	0	17,19,21	1.49	2 (11%)
7	BMA	G	3	7	11,11,12	1.00	0	15,15,17	2.28	3 (20%)
7	MAN	G	4	7	11,11,12	0.76	0	15,15,17	1.69	2 (13%)
8	NAG	H	1	1,8	14,14,15	0.64	0	17,19,21	1.14	0
8	NAG	H	2	8	14,14,15	0.81	0	17,19,21	3.06	5 (29%)
8	BMA	H	3	8	11,11,12	0.72	0	15,15,17	2.40	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
7	NAG	G	1	1,7	-	0/6/23/26	0/1/1/1
7	NAG	G	2	7	-	2/6/23/26	0/1/1/1
7	BMA	G	3	7	-	1/2/19/22	0/1/1/1
7	MAN	G	4	7	-	2/2/19/22	0/1/1/1
8	NAG	H	1	1,8	-	2/6/23/26	0/1/1/1
8	NAG	H	2	8	-	2/6/23/26	0/1/1/1
8	BMA	H	3	8	-	2/2/19/22	0/1/1/1

There are no bond length outliers.

The worst 5 of 19 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
8	H	2	NAG	C1-O5-C5	8.77	124.08	112.19
8	H	3	BMA	C1-O5-C5	7.66	122.56	112.19
7	G	3	BMA	C1-O5-C5	6.88	121.52	112.19
8	H	2	NAG	O5-C1-C2	5.40	119.82	111.29
7	G	4	MAN	C1-C2-C3	4.78	115.54	109.67

There are no chirality outliers.

5 of 11 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
8	H	3	BMA	O5-C5-C6-O6
7	G	4	MAN	O5-C5-C6-O6
8	H	3	BMA	C4-C5-C6-O6
7	G	4	MAN	C4-C5-C6-O6
7	G	2	NAG	C4-C5-C6-O6

There are no ring outliers.

1 monomer is involved in 1 short contact:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
7	G	1	NAG	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.

Oligosaccharide Chain G

Bond lengths

Bond angles

Torsions

Rings

Oligosaccharide Chain H

Bond lengths

Bond angles

Torsions

Rings
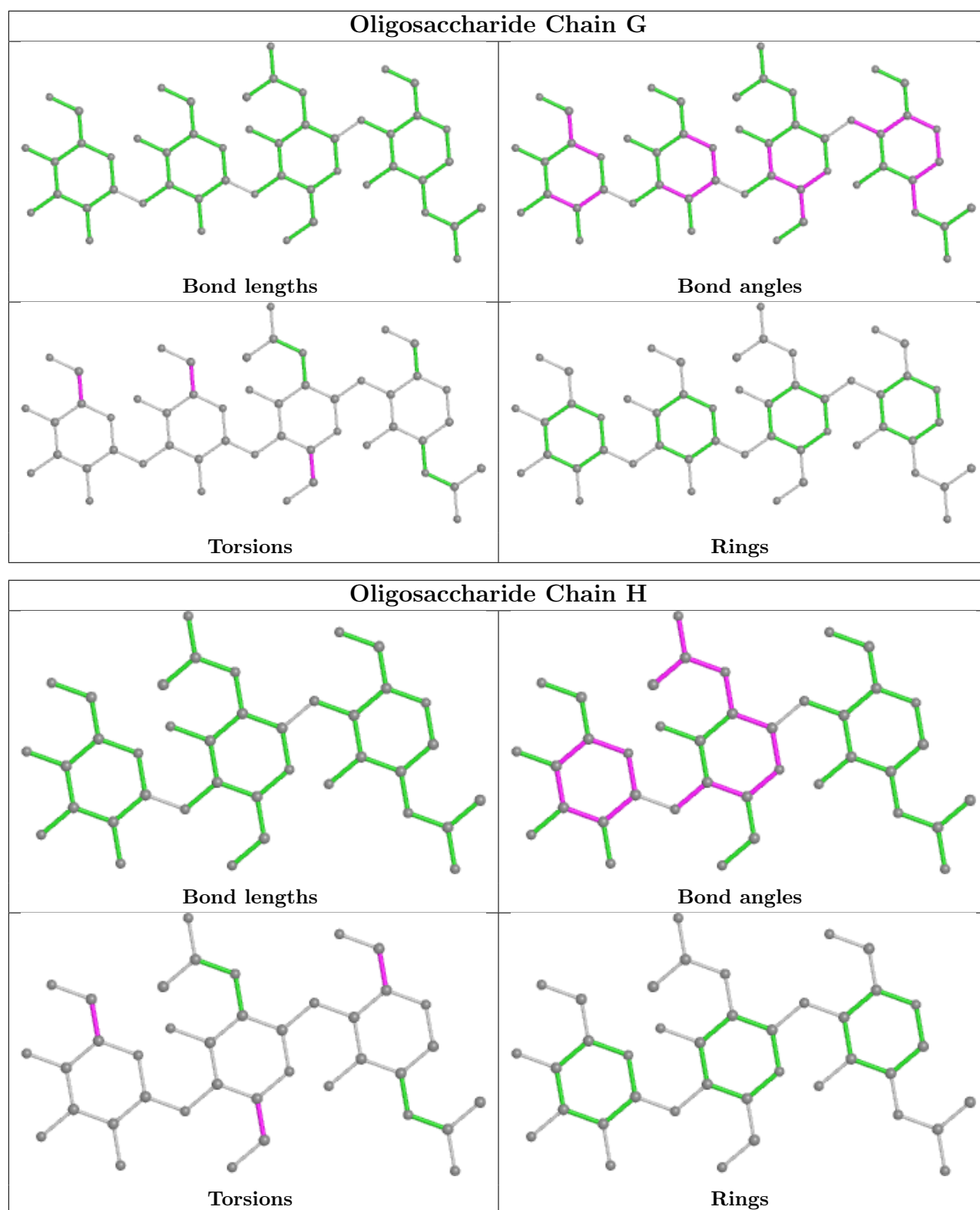
5.6 Ligand geometry (i)

2 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	#$\|Z\| > 2$
9	NAG	E	401	1	14,14,15	0.80	0	17,19,21	2.52	3 (17%)
9	NAG	E	406	1	14,14,15	0.50	0	17,19,21	1.68	3 (17%)

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
9	NAG	E	401	1	-	2/6/23/26	0/1/1/1
9	NAG	E	406	1	-	1/6/23/26	0/1/1/1

There are no bond length outliers.

The worst 5 of 6 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
9	E	401	NAG	C1-O5-C5	8.33	123.47	112.19
9	E	406	NAG	C2-N2-C7	4.03	128.64	122.90
9	E	406	NAG	O5-C1-C2	-3.12	106.36	111.29
9	E	401	NAG	O7-C7-C8	-3.06	116.38	122.06
9	E	401	NAG	C2-N2-C7	2.82	126.92	122.90

There are no chirality outliers.

All (3) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
9	E	401	NAG	C4-C5-C6-O6
9	E	401	NAG	O5-C5-C6-O6
9	E	406	NAG	C3-C2-N2-C7

There are no ring outliers.

2 monomers are involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
9	E	401	NAG	1	0
9	E	406	NAG	1	0

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	E	288/310 (92%)	-0.45	1 (0%)	94	90	133, 206, 307, 357	0
2	C	116/116 (100%)	-0.06	4 (3%)	45	36	152, 255, 326, 362	0
3	D	114/114 (100%)	-0.53	0	100	100	174, 227, 294, 316	0
4	A	21/21 (100%)	-0.22	0	100	100	180, 227, 290, 307	0
5	B	15/26 (57%)	-0.98	0	100	100	180, 194, 236, 247	0
6	F	11/23 (47%)	-0.70	0	100	100	162, 177, 227, 228	0
All	All	565/610 (92%)	-0.39	5 (0%)	84	77	133, 219, 312, 362	0

All (5) RSRZ outliers are listed below:

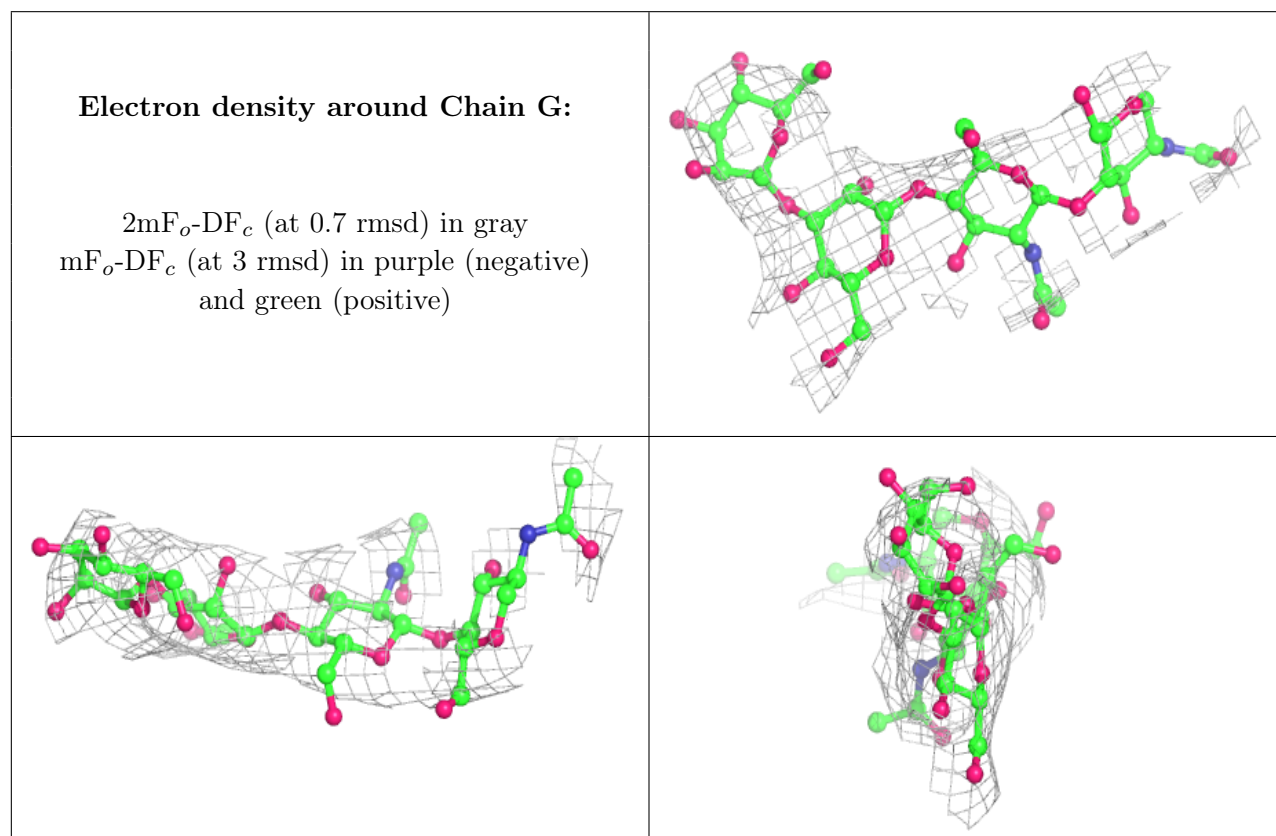| Mol	Chain	Res	Type	RSRZ
2	C	11	LEU	2.8
2	C	12	VAL	2.7
1	E	307	PRO	2.4
2	C	35	ASN	2.2
2	C	96	ALA	2.1

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

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

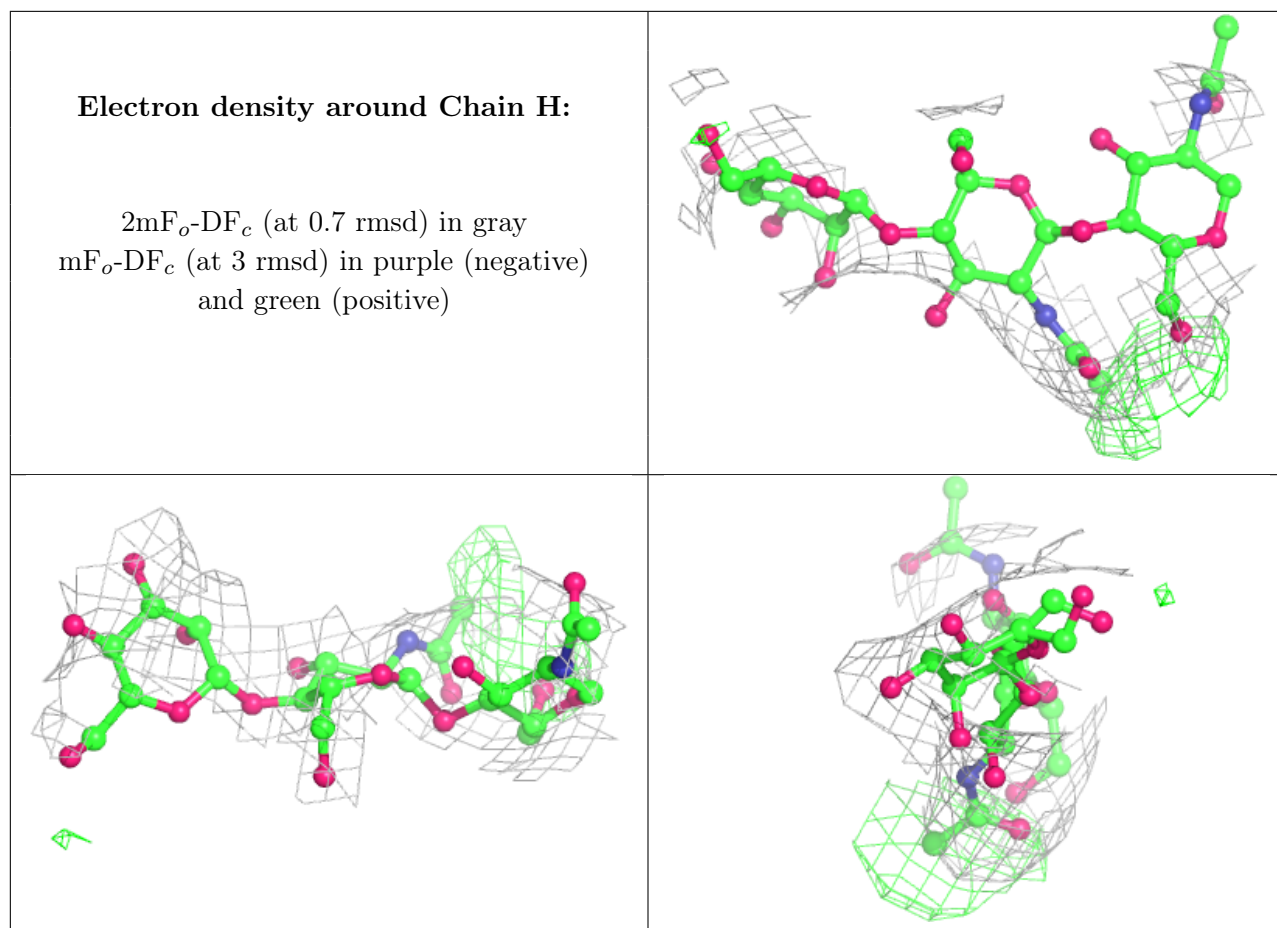## 6.3 Carbohydrates ⓘ

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
8	BMA	H	3	11/12	0.61	0.37	266,330,339,349	0
8	NAG	H	2	14/15	0.76	0.26	218,290,342,360	0
7	BMA	G	3	11/12	0.82	0.35	251,268,285,291	0
7	MAN	G	4	11/12	0.85	0.45	232,285,316,322	0
7	NAG	G	1	14/15	0.89	0.19	175,190,196,209	0
8	NAG	H	1	14/15	0.94	0.14	243,256,265,266	0
7	NAG	G	2	14/15	0.95	0.35	195,209,232,243	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.

Electron density around Chain G:

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

Electron density around Chain H:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

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(Å^2)	Q<0.9
9	NAG	E	401	14/15	0.83	0.33	225,261,274,280	0
9	NAG	E	406	14/15	0.93	0.23	210,232,249,258	0

6.5 Other polymers (i)

There are no such residues in this entry.