



wwPDB X-ray Structure Validation Summary Report ⓘ

Mar 9, 2026 – 09:10 AM UTC

PDB ID : 5EOK / pdb_00005eok
Title : Human Plasma Coagulation Factor XI in complex with peptide P39
Authors : Wong, S.S.; Ostergaard, S.; Hall, G.; Li, C.; Williams, P.M.; Stennicke, H.; Emsley, J.
Deposited on : 2015-11-10
Resolution : 2.80 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 types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity : 4-5-2 with Phenix2.0
Mogul : 2022.3.0, CSD as543be (2022)
Xtriage (Phenix) : 2.0
EDS : 3.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4 : 9.0.010 (Gargrove)
Density-Fitness : 1.0.12
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

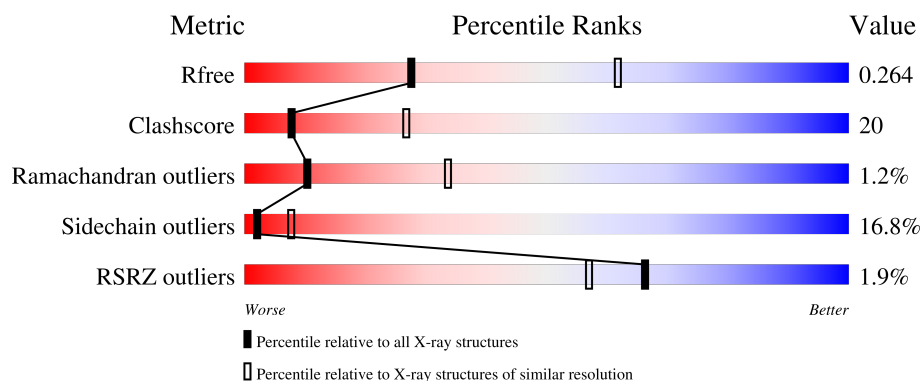
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.80 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}	180053	3866 (2.80-2.80)
Clashscore	190562	4276 (2.80-2.80)
Ramachandran outliers	187476	4196 (2.80-2.80)
Sidechain outliers	187428	4198 (2.80-2.80)
RSRZ outliers	180081	3869 (2.80-2.80)

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 $\leq 5\%$. 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	606	2% 55% 33% 9% ..
2	K	9	78% 22%
3	B	3	33% 67%

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	NAG	B	2	X	-	-	-
4	NAG	A	701	X	-	-	-

2 Entry composition [i](#)

There are 5 unique types of molecules in this entry. The entry contains 4785 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.

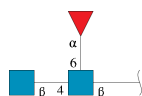
- Molecule 1 is a protein called Coagulation factor XI.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	589	Total	C	N	O	S	100	0	0
			4625	2915	801	869	40			

- Molecule 2 is a protein called P39.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
2	K	9	Total	C	N	O	0	0	0
			78	52	11	15			

- Molecule 3 is an oligosaccharide called 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-[alpha-L-fucopyranose-(1-6)]2-acetamido-2-deoxy-beta-D-glucopyranose.



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
3	B	3	Total	C	N	O	0	0	0
			38	22	2	14			

- Molecule 4 is 2-acetamido-2-deoxy-beta-D-glucopyranose (CCD ID: NAG) (formula: C₈H₁₅NO₆).



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

- Molecule 5 is water.

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



4 Data and refinement statistics

Property	Value	Source
Space group	P 43 21 2	Depositor
Cell constants a, b, c, α , β , γ	81.33Å 81.33Å 252.22Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	47.47 – 2.80 47.47 – 2.80	Depositor EDS
% Data completeness (in resolution range)	95.1 (47.47-2.80) 95.1 (47.47-2.80)	Depositor EDS
R_{merge}	0.09	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.32 (at 2.81Å)	Xtriage
Refinement program	REFMAC 5.6.0117	Depositor
R, R_{free}	0.201 , 0.264 0.200 , 0.264	Depositor DCC
R_{free} test set	1065 reflections (4.89%)	wwPDB-VP
Wilson B-factor (Å ²)	78.7	Xtriage
Anisotropy	0.108	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.32 , 38.7	EDS
L-test for twinning ²	$\langle L \rangle = 0.49$, $\langle L^2 \rangle = 0.31$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.95	EDS
Total number of atoms	4785	wwPDB-VP
Average B, all atoms (Å ²)	74.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.89% 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: FUC, 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	1.49	21/4733 (0.4%)	1.38	42/6410 (0.7%)
2	K	1.01	0/82	1.44	2/113 (1.8%)
All	All	1.48	21/4815 (0.4%)	1.38	44/6523 (0.7%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	1	5

The worst 5 of 21 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	321	CYS	C-N	-38.91	0.82	1.33
1	A	323	GLU	CA-C	-33.31	1.10	1.52
1	A	253	LYS	CA-C	-20.78	1.25	1.52
1	A	253	LYS	C-N	-20.30	1.06	1.33
1	A	317	ALA	C-N	-19.68	1.06	1.33

The worst 5 of 44 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	366	ILE	O-C-N	-24.37	97.84	123.18
1	A	317	ALA	O-C-N	-23.19	91.75	122.59
1	A	323	GLU	CB-CA-C	22.07	144.48	109.61
1	A	321	CYS	O-C-N	-17.54	101.42	122.11
1	A	317	ALA	CA-C-N	14.50	142.91	121.31

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	A	323	GLU	CA

All (5) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	253	LYS	Mainchain
1	A	317	ALA	Peptide,Mainchain
1	A	321	CYS	Mainchain
1	A	366	ILE	Mainchain

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	4625	0	4490	182	0
2	K	78	0	67	0	0
3	B	38	0	34	2	0
4	A	42	0	39	1	0
5	A	2	0	0	0	0
All	All	4785	0	4630	183	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 20.

The worst 5 of 183 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:360:ASN:ND2	1:A:362:CYS:SG	2.30	1.02
1:A:103:LYS:HG3	1:A:159:ARG:HB3	1.50	0.93
1:A:93:ASN:HD21	1:A:95:ASP:HB2	1.36	0.90
1:A:189:ASN:HD22	1:A:254:SER:HA	1.39	0.88
1:A:355:LEU:HA	1:A:358:MET:HE3	1.55	0.88

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	A	581/606 (96%)	528 (91%)	46 (8%)	7 (1%)	10	34
2	K	7/9 (78%)	6 (86%)	1 (14%)	0	100	100
All	All	588/615 (96%)	534 (91%)	47 (8%)	7 (1%)	10	34

5 of 7 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	253	LYS
1	A	354	ARG
1	A	317	ALA
1	A	413	HIS
1	A	520	PRO

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	A	522/534 (98%)	434 (83%)	88 (17%)	2	7
2	K	9/9 (100%)	8 (89%)	1 (11%)	6	20
All	All	531/543 (98%)	442 (83%)	89 (17%)	2	8

5 of 89 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	376	SER

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Mol	Chain	Res	Type
1	A	499	THR
1	A	387	LEU
1	A	450	ILE
1	A	522	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 24 such sidechains are listed below:

Mol	Chain	Res	Type
1	A	305	ASN
1	A	388	HIS
1	A	384	GLN
1	A	405	ASN
1	A	106	ASN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

6 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
4	NAG	A	705	1	14,14,15	0.86	1 (7%)	17,19,21	2.74	4 (23%)
3	NAG	B	2	3	14,14,15	1.20	1 (7%)	17,19,21	3.12	6 (35%)
4	NAG	A	701	1	14,14,15	0.74	0	17,19,21	1.69	3 (17%)
3	FUC	B	3	3	10,10,11	0.72	0	14,14,16	1.27	2 (14%)
3	NAG	B	1	1,3	14,14,15	0.72	0	17,19,21	1.95	4 (23%)
4	NAG	A	706	1	14,14,15	0.71	0	17,19,21	2.58	4 (23%)

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	705	1	-	2/6/23/26	0/1/1/1
3	NAG	B	2	3	1/1/5/7	2/6/23/26	0/1/1/1
4	NAG	A	701	1	1/1/5/7	0/6/23/26	0/1/1/1
3	FUC	B	3	3	-	-	0/1/1/1
3	NAG	B	1	1,3	-	2/6/23/26	0/1/1/1
4	NAG	A	706	1	-	2/6/23/26	0/1/1/1

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	B	2	NAG	C7-N2	2.78	1.43	1.34
4	A	705	NAG	C1-C2	2.19	1.55	1.52

The worst 5 of 23 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	B	2	NAG	C2-N2-C7	9.75	135.97	122.90
4	A	705	NAG	C1-O5-C5	8.74	123.91	112.19
4	A	706	NAG	C2-N2-C7	7.80	133.36	122.90
3	B	2	NAG	O5-C1-C2	-6.38	101.42	111.29
4	A	706	NAG	C1-O5-C5	5.87	120.05	112.19

All (2) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
4	A	701	NAG	C1
3	B	2	NAG	C1

5 of 8 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	B	2	NAG	C1-C2-N2-C7
3	B	2	NAG	C8-C7-N2-C2
4	A	705	NAG	O5-C5-C6-O6
4	A	705	NAG	C4-C5-C6-O6
3	B	1	NAG	C8-C7-N2-C2

There are no ring outliers.

3 monomers are involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	B	3	FUC	1	0
3	B	1	NAG	1	0
4	A	706	NAG	1	0

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	B	1	1,3	14,14,15	0.72	0	17,19,21	1.95	4 (23%)
3	NAG	B	2	3	14,14,15	1.20	1 (7%)	17,19,21	3.12	6 (35%)
3	FUC	B	3	3	10,10,11	0.72	0	14,14,16	1.27	2 (14%)

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	B	1	1,3	-	2/6/23/26	0/1/1/1
3	NAG	B	2	3	1/1/5/7	2/6/23/26	0/1/1/1
3	FUC	B	3	3	-	-	0/1/1/1

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	B	2	NAG	C7-N2	2.78	1.43	1.34

The worst 5 of 12 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	B	2	NAG	C2-N2-C7	9.75	135.97	122.90
3	B	2	NAG	O5-C1-C2	-6.38	101.42	111.29
3	B	1	NAG	C8-C7-N2	4.25	123.17	116.12
3	B	1	NAG	O5-C1-C2	-3.80	105.41	111.29
3	B	1	NAG	O7-C7-C8	-2.94	116.82	122.05

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
3	B	2	NAG	C1

All (4) torsion outliers are listed below:

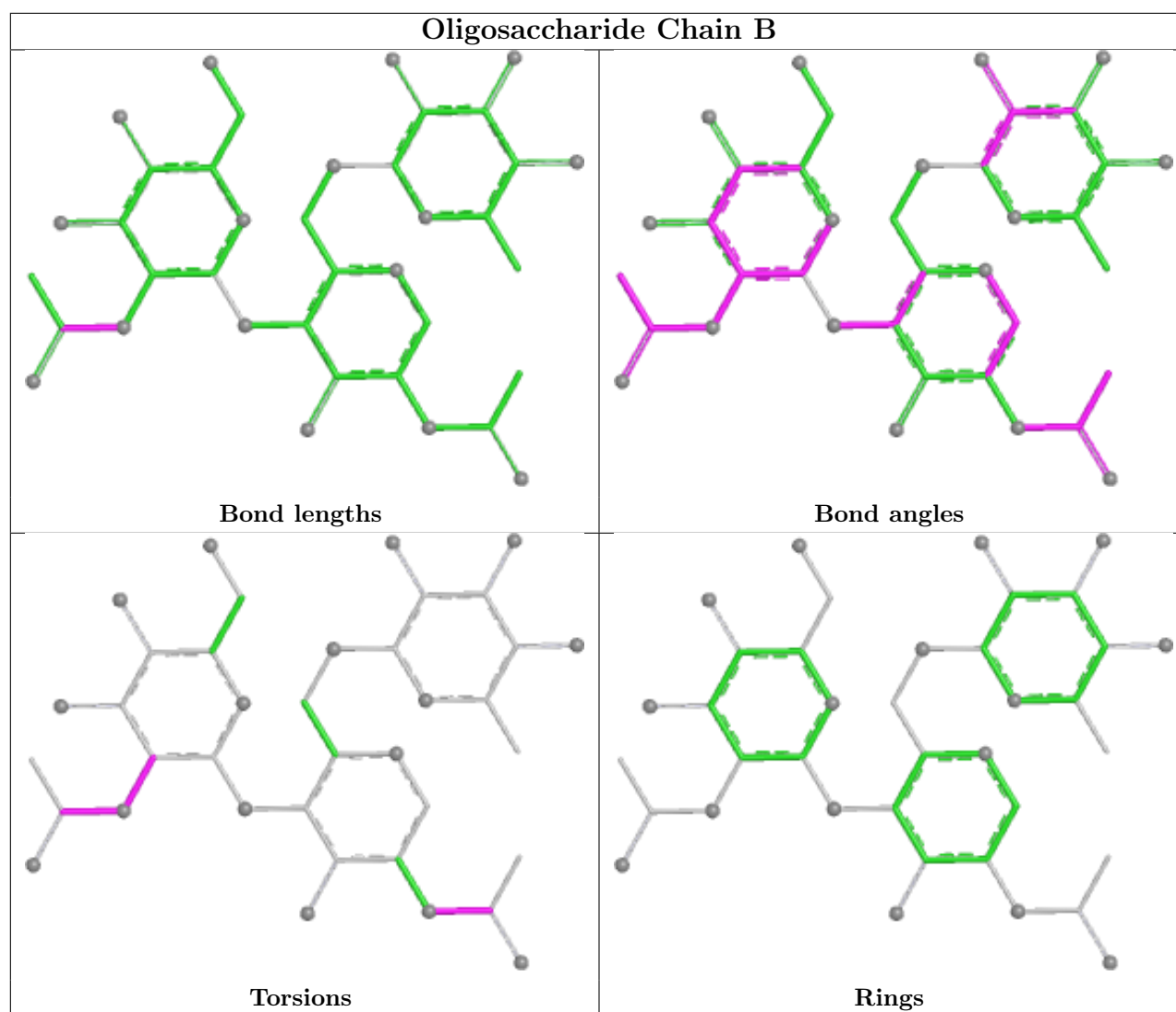
Mol	Chain	Res	Type	Atoms
3	B	2	NAG	C1-C2-N2-C7
3	B	2	NAG	C8-C7-N2-C2
3	B	1	NAG	C8-C7-N2-C2
3	B	1	NAG	O7-C7-N2-C2

There are no ring outliers.

2 monomers are involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	B	1	NAG	1	0
3	B	3	FUC	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](#)

3 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
4	NAG	A	705	1	14,14,15	0.86	1 (7%)	17,19,21	2.74	4 (23%)
4	NAG	A	706	1	14,14,15	0.71	0	17,19,21	2.58	4 (23%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
4	NAG	A	701	1	14,14,15	0.74	0	17,19,21	1.69	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
4	NAG	A	705	1	-	2/6/23/26	0/1/1/1
4	NAG	A	706	1	-	2/6/23/26	0/1/1/1
4	NAG	A	701	1	1/1/5/7	0/6/23/26	0/1/1/1

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	705	NAG	C1-C2	2.19	1.55	1.52

The worst 5 of 11 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	705	NAG	C1-O5-C5	8.74	123.91	112.19
4	A	706	NAG	C2-N2-C7	7.80	133.36	122.90
4	A	706	NAG	C1-O5-C5	5.87	120.05	112.19
4	A	701	NAG	C2-N2-C7	4.79	129.32	122.90
4	A	705	NAG	C4-C3-C2	-3.81	105.43	111.02

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
4	A	701	NAG	C1

All (4) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	A	705	NAG	O5-C5-C6-O6
4	A	705	NAG	C4-C5-C6-O6
4	A	706	NAG	O5-C5-C6-O6
4	A	706	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	706	NAG	1	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	A	7

The worst 5 of 7 chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A	373:GLY	C	374:THR	N	1.19
1	A	78:SER	C	79:GLY	N	1.13
1	A	294:LYS	C	295:SER	N	1.13
1	A	366:ILE	C	367:LYS	N	1.07
1	A	253:LYS	C	254:SER	N	1.06

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	577/606 (95%)	-0.23	11 (1%) 66 57	23, 68, 106, 155	4 (0%)
2	K	9/9 (100%)	0.55	0 100 100	85, 94, 125, 127	0
All	All	586/615 (95%)	-0.22	11 (1%) 66 57	23, 69, 106, 155	4 (0%)

The worst 5 of 11 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	323	GLU	8.9
1	A	78	SER	7.2
1	A	253	LYS	5.6
1	A	366	ILE	5.4
1	A	581	CYS	3.2

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, 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.

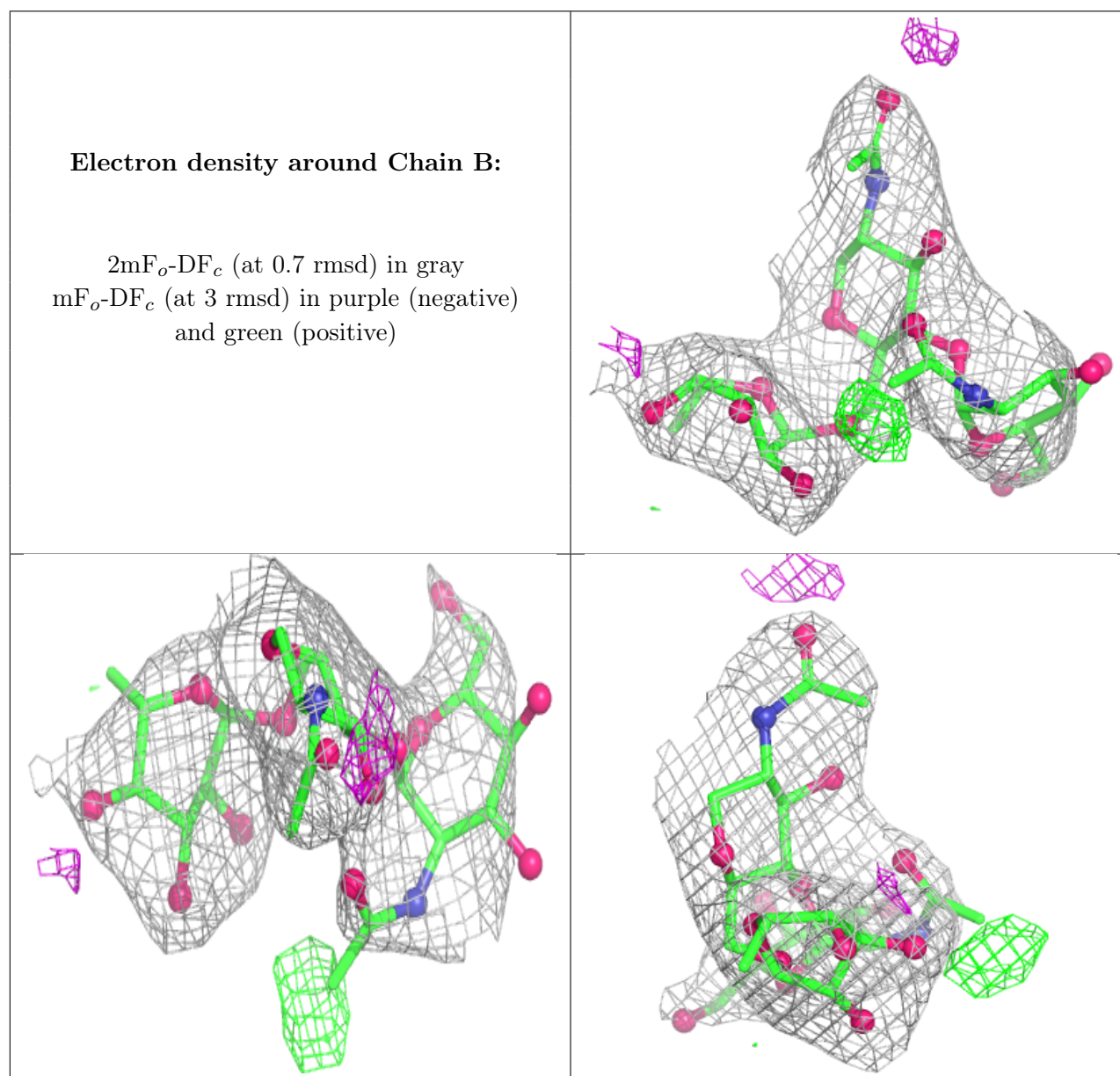
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
4	NAG	A	706	14/15	0.61	0.12	99,128,133,136	0
3	NAG	B	1	14/15	-	-	86,93,103,108	0
4	NAG	A	705	14/15	0.78	0.10	88,113,125,127	0
4	NAG	A	701	14/15	0.78	0.10	108,120,139,141	0
3	NAG	B	2	14/15	-	-	102,126,135,138	0
3	FUC	B	3	10/11	-	-	72,82,89,103	0

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, 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	NAG	B	1	14/15	-	-	86,93,103,108	0
3	NAG	B	2	14/15	-	-	102,126,135,138	0
3	FUC	B	3	10/11	-	-	72,82,89,103	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(Å ²)	Q<0.9
4	NAG	A	706	14/15	0.61	0.12	99,128,133,136	0
4	NAG	A	705	14/15	0.78	0.10	88,113,125,127	0
4	NAG	A	701	14/15	0.78	0.10	108,120,139,141	0

6.5 Other polymers [i](#)

There are no such residues in this entry.