



# Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2022 – 03:11 pm GMT

PDB ID : 7QU2  
Title : Junin virus GP1 glycoprotein in complex with Fab fragment of antibody JUN1  
Authors : Ng, W.M.; Sahin, M.; Krumm, S.A.; Seow, J.; Zeltina, A.; Harlos, K.; Paesen, G.; Pinschewer, D.D.; Doores, K.J.; Bowden, T.A.  
Deposited on : 2022-01-17  
Resolution : 2.50 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.

---

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 : 2.26  
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) : 2.26

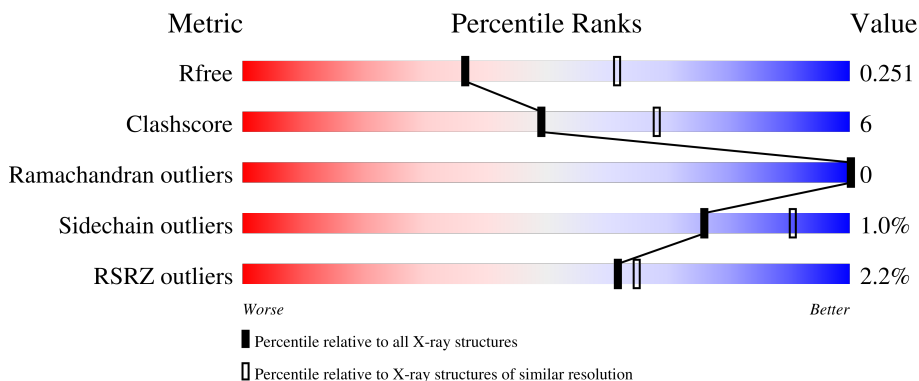
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 2.50 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	4661 (2.50-2.50)
Clashscore	141614	5346 (2.50-2.50)
Ramachandran outliers	138981	5231 (2.50-2.50)
Sidechain outliers	138945	5233 (2.50-2.50)
RSRZ outliers	127900	4559 (2.50-2.50)

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	242	 81% 14% 5%
2	B	217	 82% 17%
3	C	156	 74% 16% 9%
4	D	2	 100%

## 2 Entry composition i

There are 7 unique types of molecules in this entry. The entry contains 4666 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 Fab JUN1 heavy chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	230	1767	1113	299	346	9	0	1	0

- Molecule 2 is a protein called Fab JUN1 light chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	B	214	1658	1034	279	338	7	0	0	0

- Molecule 3 is a protein called Glycoprotein G1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	C	142	1150	740	194	206	10	0	0	0

There are 10 discrepancies between the modelled and reference sequences:

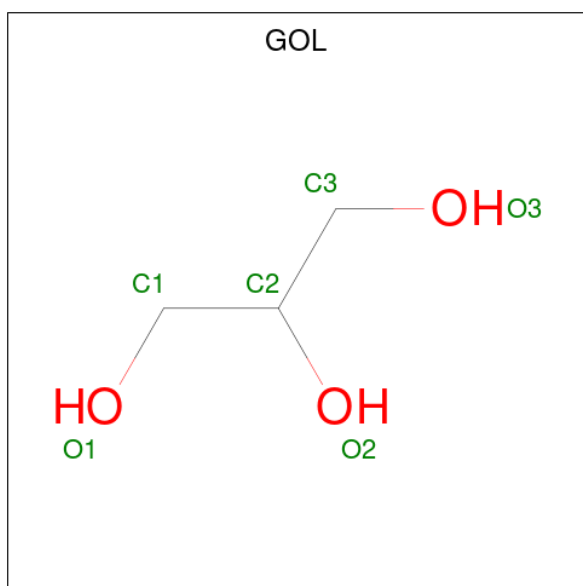
Chain	Residue	Modelled	Actual	Comment	Reference
C	84	GLU	-	expression tag	UNP C1K9J9
C	85	THR	-	expression tag	UNP C1K9J9
C	86	GLY	-	expression tag	UNP C1K9J9
C	233	LYS	-	expression tag	UNP C1K9J9
C	234	HIS	-	expression tag	UNP C1K9J9
C	235	HIS	-	expression tag	UNP C1K9J9
C	236	HIS	-	expression tag	UNP C1K9J9
C	237	HIS	-	expression tag	UNP C1K9J9
C	238	HIS	-	expression tag	UNP C1K9J9
C	239	HIS	-	expression tag	UNP C1K9J9

- Molecule 4 is an oligosaccharide called 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
4	D	2	28	16	2	10	0	0	0

- Molecule 5 is GLYCEROL (three-letter code: GOL) (formula:  $C_3H_8O_3$ ).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
			Total	C	O		
5	B	1	6	3	3	0	0
5	C	1	6	3	3	0	0

- Molecule 6 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		
6	C	1	14	8	1	5	0	0

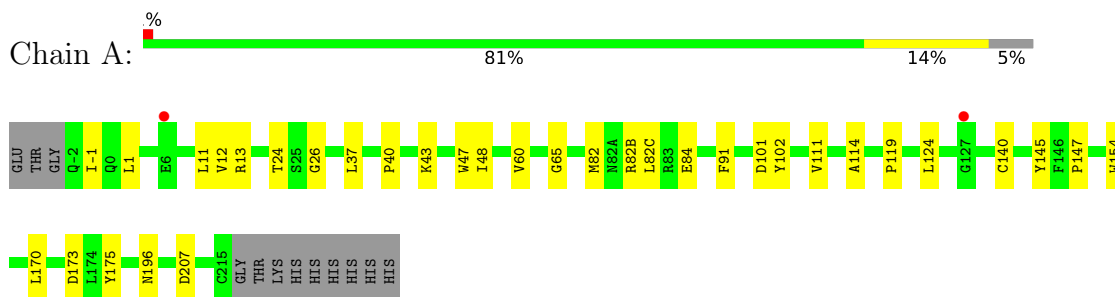
- Molecule 7 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
7	A	20	Total	O	0	0
			20	20		
7	B	13	Total	O	0	0
			13	13		
7	C	4	Total	O	0	0
			4	4		

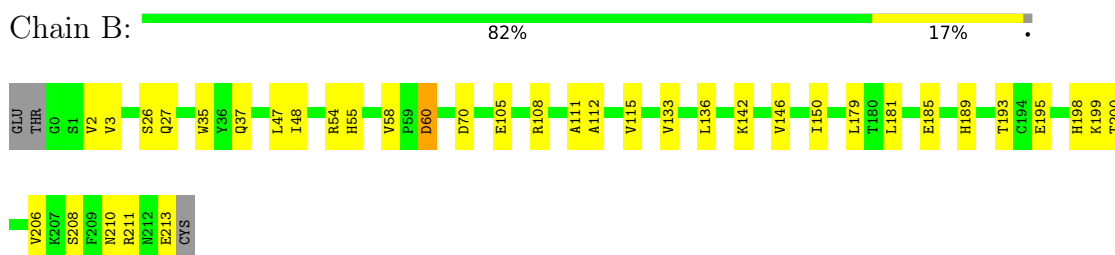
### 3 Residue-property plots i

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.

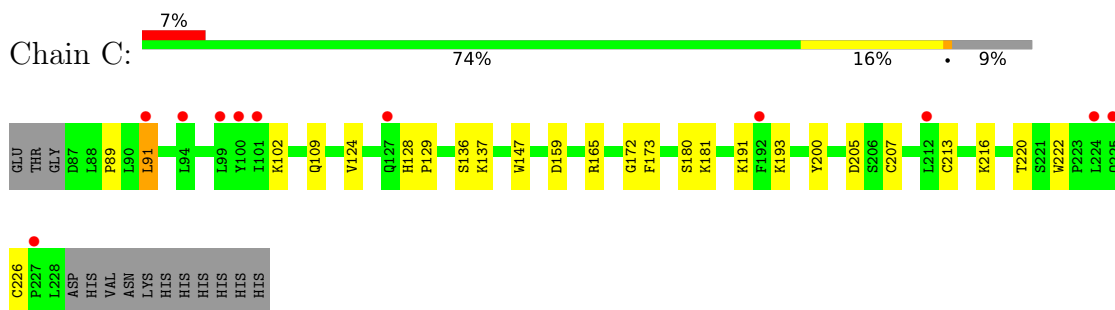
- Molecule 1: Fab JUN1 heavy chain



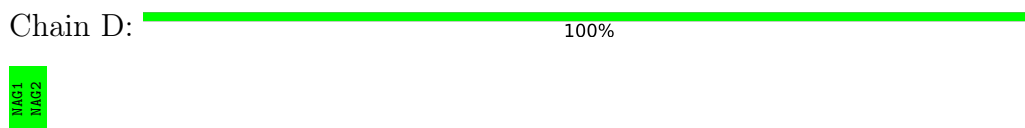
- Molecule 2: Fab JUN1 light chain



- Molecule 3: Glycoprotein G1



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



## 4 Data and refinement statistics i

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	69.85Å 66.75Å 73.10Å 90.00° 103.50° 90.00°	Depositor
Resolution (Å)	67.92 – 2.50 67.92 – 2.50	Depositor EDS
% Data completeness (in resolution range)	99.5 (67.92-2.50) 99.7 (67.92-2.50)	Depositor EDS
$R_{merge}$	0.13	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.00 (at 2.48Å)	Xtrriage
Refinement program	PHENIX 1.18.2_3874	Depositor
R, $R_{free}$	0.223 , 0.254 0.220 , 0.251	Depositor DCC
$R_{free}$ test set	1181 reflections (5.17%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	55.9	Xtrriage
Anisotropy	0.796	Xtrriage
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>	$\langle  L  \rangle = 0.49$ , $\langle L^2 \rangle = 0.32$	Xtrriage
Estimated twinning fraction	0.028 for l,-k,h	Xtrriage
$F_o, F_c$ correlation	0.95	EDS
Total number of atoms	4666	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	75.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.63% 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 [i](#)

### 5.1 Standard geometry [i](#)

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

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	0.25	0/1811	0.44	0/2470
2	B	0.24	0/1694	0.45	0/2301
3	C	0.25	0/1186	0.41	0/1612
All	All	0.25	0/4691	0.44	0/6383

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	A	1767	0	1722	20	0
2	B	1658	0	1595	21	0
3	C	1150	0	1107	14	0
4	D	28	0	25	0	0
5	B	6	0	8	0	0
5	C	6	0	8	0	0
6	C	14	0	13	1	0
7	A	20	0	0	1	0
7	B	13	0	0	0	0
7	C	4	0	0	0	0
All	All	4666	0	4478	54	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 6.

All (54) 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:37:LEU:HD23	1:A:47:TRP:HA	1.69	0.74
2:B:35:TRP:HD1	2:B:48:ILE:HD11	1.60	0.67
3:C:180:SER:HB3	3:C:213:CYS:H	1.63	0.63
2:B:47:LEU:HA	2:B:58:VAL:HG21	1.83	0.59
1:A:65:GLY:O	1:A:82(B)[B]:ARG:NH1	2.40	0.55
2:B:210:ASN:HB2	2:B:213:GLU:HG2	1.89	0.55
1:A:37:LEU:O	1:A:91:PHE:N	2.31	0.55
1:A:124:LEU:HD13	2:B:133:VAL:HG21	1.89	0.54
2:B:105:GLU:OE2	2:B:142:LYS:NZ	2.41	0.54
2:B:189:HIS:O	2:B:211:ARG:NH1	2.42	0.52
2:B:195:GLU:HG2	2:B:206:VAL:HG22	1.89	0.52
2:B:55:HIS:HB3	2:B:58:VAL:HG23	1.91	0.52
2:B:60:ASP:N	2:B:60:ASP:OD1	2.44	0.50
1:A:1:LEU:HG	1:A:24:THR:HG22	1.95	0.49
1:A:119:PRO:HB3	1:A:145:TYR:HB3	1.93	0.49
2:B:3:VAL:HG22	2:B:26:SER:HB3	1.93	0.48
2:B:136:LEU:HD11	2:B:146:VAL:HG12	1.96	0.48
1:A:196:ASN:ND2	1:A:207:ASP:OD2	2.41	0.48
3:C:193:LYS:HD3	3:C:205:ASP:OD1	2.14	0.48
1:A:84:GLU:HA	1:A:111:VAL:HG13	1.95	0.48
2:B:112:ALA:HA	2:B:200:THR:HG21	1.95	0.48
2:B:115:VAL:HG22	2:B:136:LEU:HD22	1.96	0.48
3:C:109:GLN:HB2	3:C:220:THR:HG21	1.95	0.47
2:B:48:ILE:HG22	2:B:54:ARG:HA	1.97	0.47
2:B:150:ILE:HD11	2:B:179:LEU:HD21	1.97	0.47
2:B:193:THR:HG22	2:B:208:SER:HB3	1.96	0.47
1:A:40:PRO:HB2	1:A:43:LYS:HB2	1.97	0.47
1:A:82:MET:HB3	1:A:82(C):LEU:HD21	1.97	0.46
2:B:2:VAL:HG22	2:B:27:GLN:HB2	1.98	0.46
3:C:91:LEU:HB2	3:C:200:TYR:CE2	2.50	0.46
3:C:124:VAL:HG22	6:C:301:NAG:H82	1.97	0.46
1:A:140:CYS:HB2	1:A:154:TRP:CH2	2.52	0.45
1:A:48:ILE:O	1:A:60:VAL:HG23	2.16	0.45
3:C:136:SER:HB2	3:C:173:PHE:CD2	2.52	0.45
1:A:114:ALA:HB2	1:A:173:ASP:HB3	1.98	0.45
1:A:-1:ILE:H	1:A:26:GLY:HA3	1.83	0.44
3:C:159:ASP:OD2	3:C:191:LYS:NZ	2.35	0.44

*Continued on next page...*

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:181:LYS:HE3	3:C:207:CYS:HB2	1.99	0.44
3:C:165:ARG:HD2	3:C:172:GLY:O	2.17	0.43
3:C:102:LYS:HB2	3:C:222:TRP:CZ3	2.53	0.43
1:A:47:TRP:O	1:A:60:VAL:HG21	2.19	0.43
3:C:89:PRO:HG2	3:C:147:TRP:CD2	2.54	0.42
1:A:101:ASP:HB3	1:A:102:TYR:CD1	2.54	0.42
2:B:37:GLN:HB2	2:B:47:LEU:HD11	2.01	0.42
1:A:11:LEU:HD22	1:A:147:PRO:HG3	2.02	0.42
2:B:181:LEU:HB3	2:B:185:GLU:HG3	2.02	0.42
3:C:128:HIS:CG	3:C:129:PRO:HD2	2.55	0.42
1:A:12:VAL:O	1:A:111:VAL:HA	2.19	0.41
1:A:13:ARG:NH2	7:A:301:HOH:O	2.30	0.41
1:A:170:LEU:HB2	1:A:175:TYR:CE1	2.55	0.41
2:B:198:HIS:CD2	2:B:199:LYS:H	2.38	0.41
3:C:216:LYS:HE2	3:C:216:LYS:HB2	1.93	0.41
3:C:102:LYS:HB2	3:C:222:TRP:CE3	2.56	0.41
2:B:108:ARG:HH12	2:B:111:ALA:HB2	1.86	0.40

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	229/242 (95%)	222 (97%)	7 (3%)	0	100	100
2	B	212/217 (98%)	204 (96%)	8 (4%)	0	100	100
3	C	140/156 (90%)	137 (98%)	3 (2%)	0	100	100
All	All	581/615 (94%)	563 (97%)	18 (3%)	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	200/209 (96%)	200 (100%)	0	100	100
2	B	189/192 (98%)	187 (99%)	2 (1%)	73	89
3	C	129/142 (91%)	126 (98%)	3 (2%)	50	76
All	All	518/543 (95%)	513 (99%)	5 (1%)	76	90

All (5) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	B	60	ASP
2	B	70	ASP
3	C	91	LEU
3	C	137	LYS
3	C	226	CYS

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](#)

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

## 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
4	NAG	D	1	4,3	14,14,15	0.25	0	17,19,21	0.43	0
4	NAG	D	2	4	14,14,15	0.29	0	17,19,21	0.38	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	D	1	4,3	-	2/6/23/26	0/1/1/1
4	NAG	D	2	4	-	1/6/23/26	0/1/1/1

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

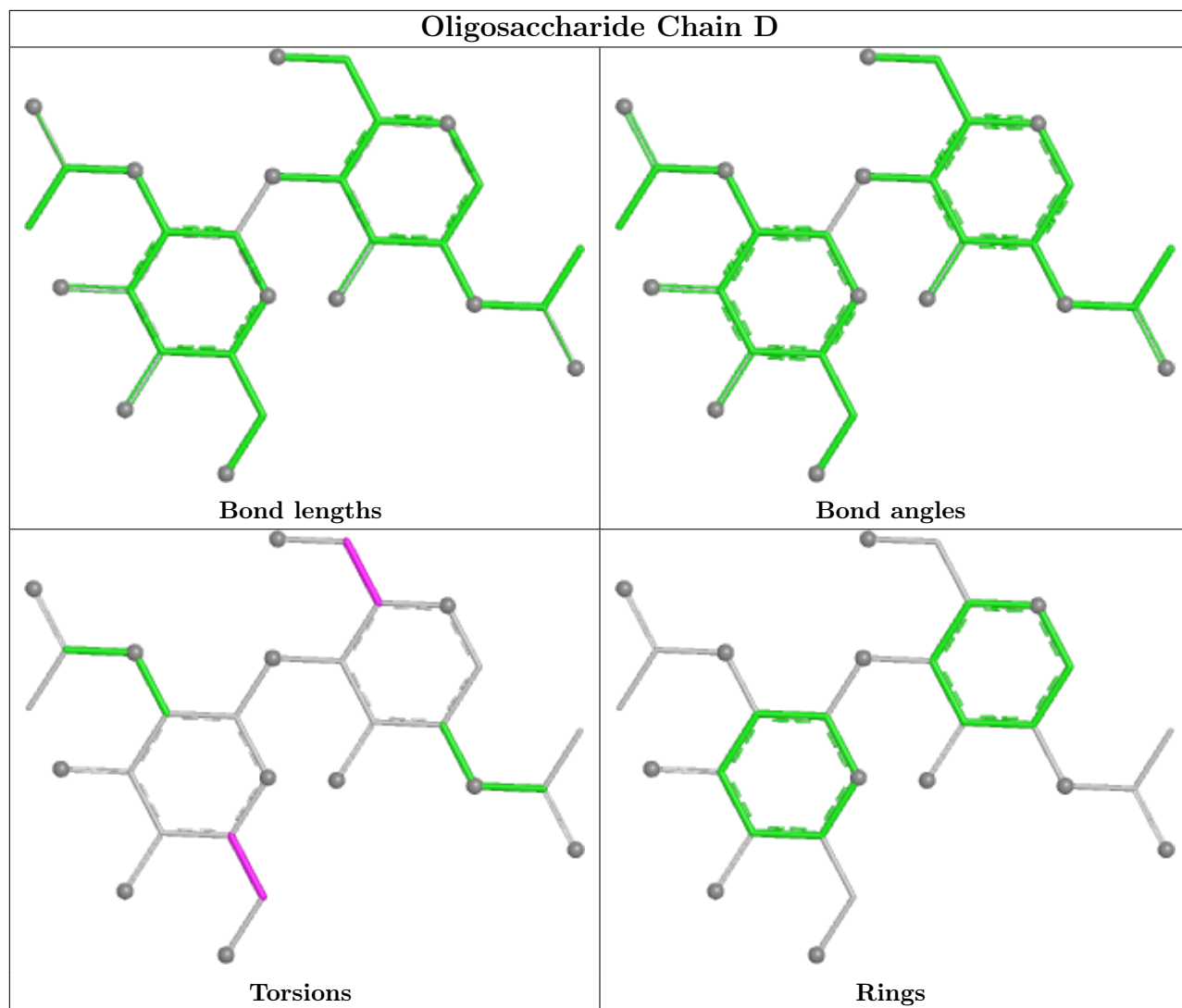
All (3) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	D	2	NAG	O5-C5-C6-O6
4	D	1	NAG	C4-C5-C6-O6
4	D	1	NAG	O5-C5-C6-O6

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](#)

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	$\# Z  > 2$
5	GOL	C	302	-	5,5,5	0.91	0	5,5,5	0.98	0
5	GOL	B	301	-	5,5,5	0.91	0	5,5,5	0.99	0
6	NAG	C	301	3	14,14,15	0.34	0	17,19,21	0.49	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
5	GOL	C	302	-	-	2/4/4/4	-
5	GOL	B	301	-	-	2/4/4/4	-
6	NAG	C	301	3	-	2/6/23/26	0/1/1/1

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (6) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	B	301	GOL	O1-C1-C2-O2
5	B	301	GOL	O1-C1-C2-C3
5	C	302	GOL	O1-C1-C2-C3
6	C	301	NAG	O5-C5-C6-O6
6	C	301	NAG	C4-C5-C6-O6
5	C	302	GOL	O1-C1-C2-O2

There are no ring outliers.

1 monomer is involved in 1 short contact:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
6	C	301	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, 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	230/242 (95%)	0.37	2 (0%) 84 86	48, 69, 103, 141	0
2	B	214/217 (98%)	0.25	0 100 100	50, 73, 102, 135	0
3	C	142/156 (91%)	0.60	11 (7%) 13 13	47, 75, 116, 149	0
All	All	586/615 (95%)	0.38	13 (2%) 62 65	47, 72, 109, 149	0

All (13) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
3	C	227	PRO	3.8
3	C	99	LEU	2.8
1	A	6	GLU	2.7
3	C	127	GLN	2.7
3	C	225	GLN	2.6
3	C	94	LEU	2.6
3	C	224	LEU	2.5
3	C	212	LEU	2.5
3	C	100	TYR	2.4
3	C	91	LEU	2.3
1	A	127	GLY	2.1
3	C	192	PHE	2.1
3	C	101	ILE	2.0

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

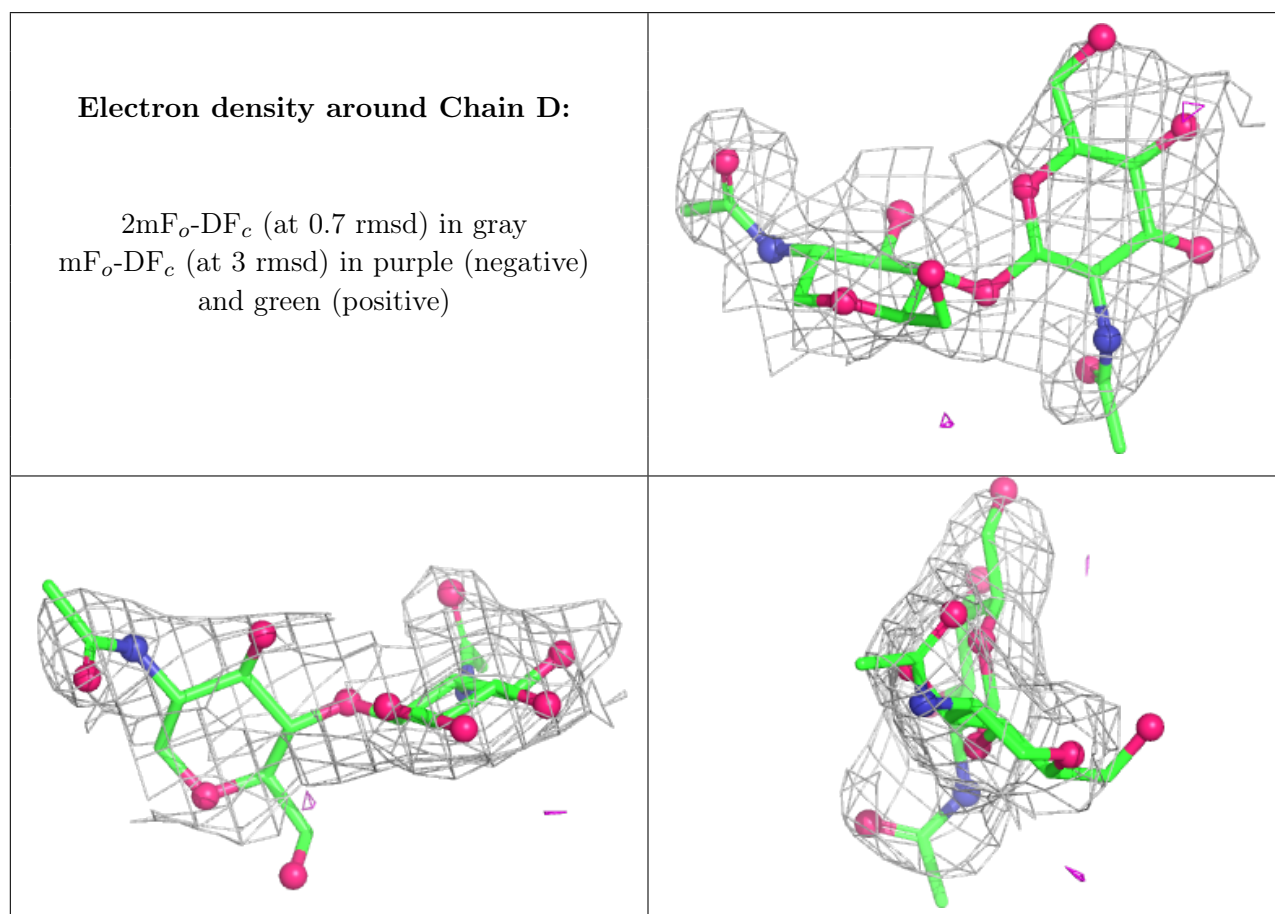
There are no non-standard protein/DNA/RNA residues in this entry.

### 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<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
4	NAG	D	1	14/15	0.85	0.26	72,94,107,116	0
4	NAG	D	2	14/15	0.89	0.15	124,133,137,138	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
5	GOL	C	302	6/6	0.83	0.34	66,72,76,78	0
5	GOL	B	301	6/6	0.93	0.40	77,78,82,84	0
6	NAG	C	301	14/15	0.93	0.17	57,66,75,76	0

## 6.5 Other polymers [i](#)

There are no such residues in this entry.