Full wwPDB X-ray Structure Validation Report ⓘ

Aug 8, 2020 – 01:10 PM BST

PDB ID	:	4BQB
Title	:	Crystal structure of the FN5 and FN6 domains of NEO1, form 2
Authors	:	Bell, C.H.; Healey, E.; van Erp, S.; Bishop, B.; Tang, C.; Gilbert, R.J.C.; Aricescu, A.R.; Pasterkamp, R.J.; Siebold, C.
Deposited on	:	2013-05-30
Resolution	:	2.70 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 ⓘ symbol.

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

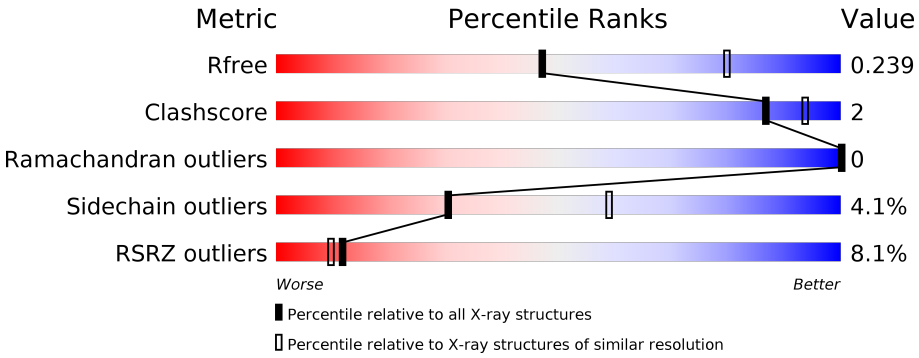
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.13.1
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry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

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 2.70 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	2808 (2.70-2.70)
Clashscore	141614	3122 (2.70-2.70)
Ramachandran outliers	138981	3069 (2.70-2.70)
Sidechain outliers	138945	3069 (2.70-2.70)
RSRZ outliers	127900	2737 (2.70-2.70)

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 <=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	264	8% 68% 5% 26%
1	B	264	3% 68% 6% 26%
1	C	264	9% 67% 7% 25%
1	D	264	4% 71% 5% 23%

2 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 6337 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 NEOGENIN.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	195	Total	C	N	O	S	0	0	0
			1543	985	262	290	6			
1	B	195	Total	C	N	O	S	0	0	0
			1545	986	263	290	6			
1	C	199	Total	C	N	O	S	0	0	0
			1584	1010	272	296	6			
1	D	203	Total	C	N	O	S	0	0	0
			1609	1027	276	300	6			

There are 52 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	880	GLU	-	expression tag	UNP P97798
A	881	THR	-	expression tag	UNP P97798
A	882	GLY	-	expression tag	UNP P97798
A	1134	ASN	-	expression tag	UNP P97798
A	1135	GLY	-	expression tag	UNP P97798
A	1136	THR	-	expression tag	UNP P97798
A	1137	LYS	-	expression tag	UNP P97798
A	1138	HIS	-	expression tag	UNP P97798
A	1139	HIS	-	expression tag	UNP P97798
A	1140	HIS	-	expression tag	UNP P97798
A	1141	HIS	-	expression tag	UNP P97798
A	1142	HIS	-	expression tag	UNP P97798
A	1143	HIS	-	expression tag	UNP P97798
B	880	GLU	-	expression tag	UNP P97798
B	881	THR	-	expression tag	UNP P97798
B	882	GLY	-	expression tag	UNP P97798
B	1134	ASN	-	expression tag	UNP P97798
B	1135	GLY	-	expression tag	UNP P97798
B	1136	THR	-	expression tag	UNP P97798
B	1137	LYS	-	expression tag	UNP P97798
B	1138	HIS	-	expression tag	UNP P97798

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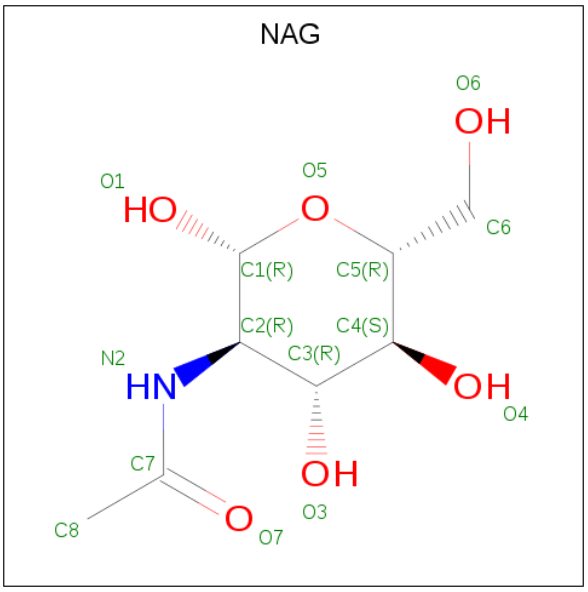
Chain	Residue	Modelled	Actual	Comment	Reference
B	1139	HIS	-	expression tag	UNP P97798
B	1140	HIS	-	expression tag	UNP P97798
B	1141	HIS	-	expression tag	UNP P97798
B	1142	HIS	-	expression tag	UNP P97798
B	1143	HIS	-	expression tag	UNP P97798
C	880	GLU	-	expression tag	UNP P97798
C	881	THR	-	expression tag	UNP P97798
C	882	GLY	-	expression tag	UNP P97798
C	1134	ASN	-	expression tag	UNP P97798
C	1135	GLY	-	expression tag	UNP P97798
C	1136	THR	-	expression tag	UNP P97798
C	1137	LYS	-	expression tag	UNP P97798
C	1138	HIS	-	expression tag	UNP P97798
C	1139	HIS	-	expression tag	UNP P97798
C	1140	HIS	-	expression tag	UNP P97798
C	1141	HIS	-	expression tag	UNP P97798
C	1142	HIS	-	expression tag	UNP P97798
C	1143	HIS	-	expression tag	UNP P97798
D	880	GLU	-	expression tag	UNP P97798
D	881	THR	-	expression tag	UNP P97798
D	882	GLY	-	expression tag	UNP P97798
D	1134	ASN	-	expression tag	UNP P97798
D	1135	GLY	-	expression tag	UNP P97798
D	1136	THR	-	expression tag	UNP P97798
D	1137	LYS	-	expression tag	UNP P97798
D	1138	HIS	-	expression tag	UNP P97798
D	1139	HIS	-	expression tag	UNP P97798
D	1140	HIS	-	expression tag	UNP P97798
D	1141	HIS	-	expression tag	UNP P97798
D	1142	HIS	-	expression tag	UNP P97798
D	1143	HIS	-	expression tag	UNP P97798

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



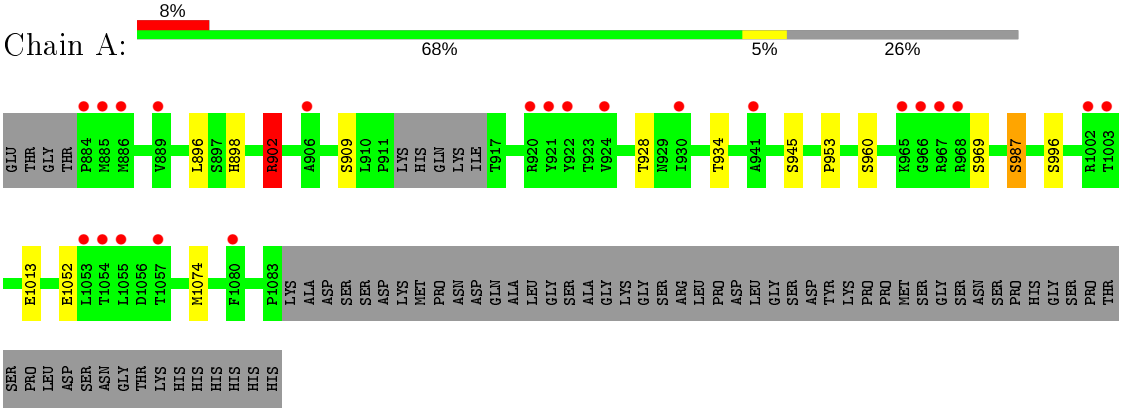
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	A	1	Total C N O 14 8 1 5	0	0
2	B	1	Total C N O 14 8 1 5	0	0
2	C	1	Total C N O 14 8 1 5	0	0
2	D	1	Total C N O 14 8 1 5	0	0

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.

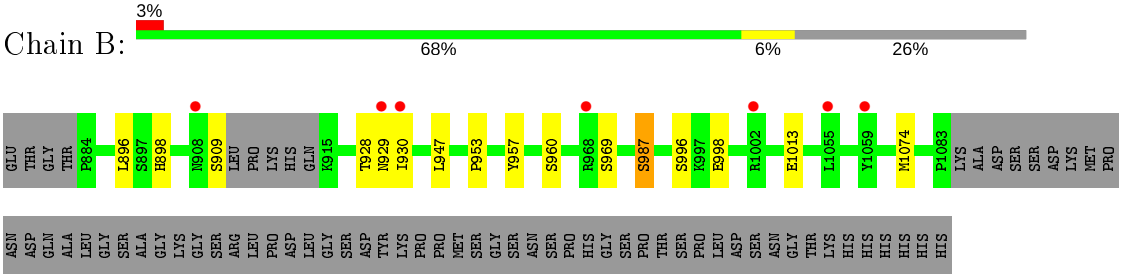
- Molecule 1: NEOGENIN

Chain A:



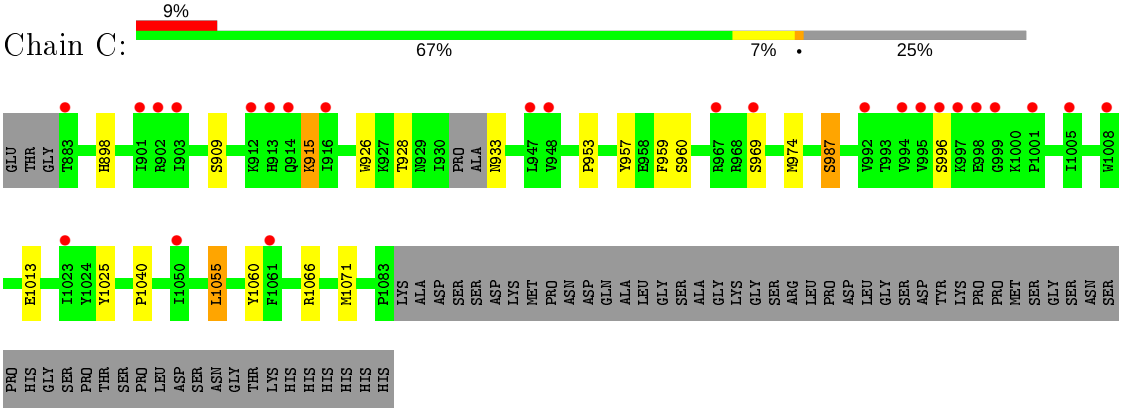
- Molecule 1: NEOGENIN

Chain B:



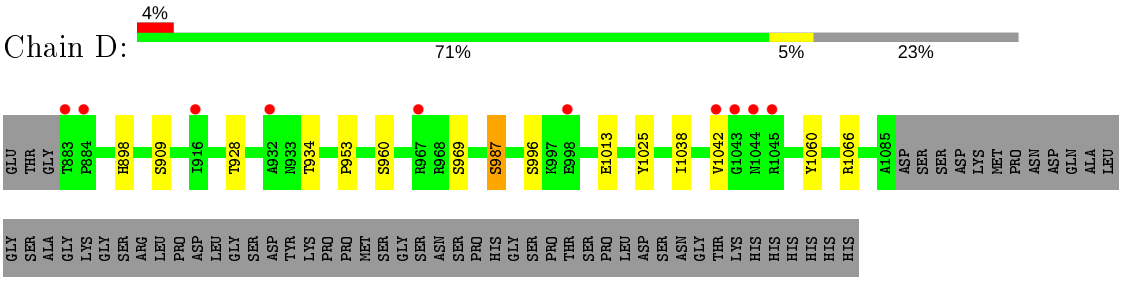
- Molecule 1: NEOGENIN

Chain C:



- Molecule 1: NEOGENIN

Chain D:


4%
71%
5%
23%
GLU THR GLY T883 P884 H898 S909 I916 T928 A932 N933 T934 P953 S960 R967 R968 S969 S987 S996 K997 E998 E1013 Y1025 I1038 V1042 G1043 N1044 R1045 Y1060 R1066 A1085 ASP SER SER ASP LYS MET PRO ASN ASP GLN ALA LEU
GLY SER ALA GLY LYS GLY SER ARG LEU PRO ASP LEU GLY SER ASP TYR LYS PRO PRO MET SER GLY SER ASN SER PRO HIS GLY SER PRO THR SER PRO LEU ASP SER ASN GLY THR LYS HIS HIS HIS HIS HIS HIS

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	58.90Å 97.39Å 91.34Å 90.00° 106.41° 90.00°	Depositor
Resolution (Å)	30.00 – 2.70 48.70 – 2.70	Depositor EDS
% Data completeness (in resolution range)	97.6 (30.00-2.70) 97.3 (48.70-2.70)	Depositor EDS
R_{merge}	0.08	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.16 (at 2.69Å)	Xtriage
Refinement program	BUSTER 2.11.2	Depositor
R, R_{free}	0.200 , 0.223 0.214 , 0.239	Depositor DCC
R_{free} test set	1338 reflections (5.02%)	wwPDB-VP
Wilson B-factor (Å^2)	68.9	Xtriage
Anisotropy	0.426	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.30 , 54.6	EDS
L-test for twinning[2]	$< \|L\| > = 0.48$, $< L^2 > = 0.31$	Xtriage
Estimated twinning fraction	0.037 for h,-k,-h-l	Xtriage
F_o,F_c correlation	0.93	EDS
Total number of atoms	6337	wwPDB-VP
Average B, all atoms (Å^2)	89.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.39% of the height of the origin peak. No significant pseudotranslation is detected.*

[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: 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	0.51	0/1585	0.68	1/2165 (0.0%)
1	B	0.53	0/1586	0.68	0/2164
1	C	0.50	0/1626	0.70	0/2219
1	D	0.51	0/1653	0.69	0/2257
All	All	0.51	0/6450	0.69	1/8805 (0.0%)

There are no bond length outliers.

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	902	ARG	CB-CG-CD	5.19	125.08	111.60

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	A	1543	0	1534	9	0
1	B	1545	0	1540	6	0
1	C	1584	0	1582	12	0
1	D	1609	0	1611	6	0
2	A	14	0	13	0	0
2	B	14	0	13	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	C	14	0	13	0	0
2	D	14	0	13	0	0
All	All	6337	0	6319	27	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 2.

All (27) 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:C:1055:LEU:HD13	1:C:1055:LEU:H	1.61	0.64
1:B:928:THR:HG22	1:B:957:TYR:CE1	2.34	0.63
1:C:898:HIS:HB2	1:C:953:PRO:HB3	1.82	0.61
1:C:1066:ARG:HG2	1:C:1071:MET:HE1	1.83	0.60
1:A:898:HIS:HB2	1:A:953:PRO:HB3	1.83	0.59
1:C:928:THR:HG22	1:C:957:TYR:CE1	2.40	0.57
1:B:898:HIS:HB2	1:B:953:PRO:HB3	1.88	0.56
1:C:1066:ARG:HG2	1:C:1071:MET:CE	2.38	0.53
1:D:898:HIS:HB2	1:D:953:PRO:HB3	1.91	0.53
1:B:987:SER:HB3	1:B:1013:GLU:HB2	1.91	0.52
1:A:896:LEU:HD23	1:C:1066:ARG:NH1	2.27	0.50
1:B:896:LEU:O	1:D:1066:ARG:NH1	2.46	0.49
1:A:902:ARG:HH11	1:A:945:SER:CB	2.25	0.49
1:A:928:THR:HG22	1:A:934:THR:HG21	1.96	0.48
1:D:987:SER:HB3	1:D:1013:GLU:HB2	1.94	0.48
1:D:928:THR:HG22	1:D:934:THR:HG21	1.96	0.46
1:A:987:SER:HB3	1:A:1013:GLU:HB2	1.99	0.44
1:C:987:SER:HB3	1:C:1013:GLU:HB2	2.00	0.44
1:A:896:LEU:HD23	1:C:1066:ARG:HH11	1.84	0.43
1:A:902:ARG:NH1	1:A:945:SER:CB	2.83	0.42
1:B:947:LEU:HD22	1:D:1038:ILE:HD13	2.02	0.42
1:B:929:ASN:HB3	1:B:930:ILE:HD12	2.01	0.42
1:C:1025:TYR:HA	1:C:1060:TYR:O	2.20	0.42
1:A:1052:GLU:HG3	1:C:915:LYS:NZ	2.35	0.41
1:A:902:ARG:HH21	1:C:1040:PRO:HG2	1.85	0.41
1:D:1025:TYR:HA	1:D:1060:TYR:O	2.21	0.41
1:C:926:TRP:HB3	1:C:959:PHE:CD1	2.56	0.41

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	191/264 (72%)	186 (97%)	5 (3%)	0	100	100
1	B	191/264 (72%)	187 (98%)	4 (2%)	0	100	100
1	C	195/264 (74%)	191 (98%)	4 (2%)	0	100	100
1	D	201/264 (76%)	195 (97%)	6 (3%)	0	100	100
All	All	778/1056 (74%)	759 (98%)	19 (2%)	0	100	100

There are no Ramachandran outliers to report.

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	174/232 (75%)	167 (96%)	7 (4%)	31	60
1	B	174/232 (75%)	167 (96%)	7 (4%)	31	60
1	C	179/232 (77%)	170 (95%)	9 (5%)	24	51
1	D	181/232 (78%)	175 (97%)	6 (3%)	38	67
All	All	708/928 (76%)	679 (96%)	29 (4%)	30	59

All (29) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	902	ARG
1	A	909	SER

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Mol	Chain	Res	Type
1	A	960	SER
1	A	969	SER
1	A	987	SER
1	A	996	SER
1	A	1074	MET
1	B	909	SER
1	B	960	SER
1	B	969	SER
1	B	987	SER
1	B	996	SER
1	B	998	GLU
1	B	1074	MET
1	C	909	SER
1	C	915	LYS
1	C	933	ASN
1	C	960	SER
1	C	969	SER
1	C	974	MET
1	C	987	SER
1	C	996	SER
1	C	1055	LEU
1	D	909	SER
1	D	960	SER
1	D	969	SER
1	D	987	SER
1	D	996	SER
1	D	1042	VAL

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (4) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	1015	ASN
1	B	1015	ASN
1	C	1015	ASN
1	C	1034	HIS

5.3.3 RNA

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)

There are no monosaccharides in this entry.

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	$\#\|Z\| > 2$
2	NAG	C	2084	1	14,14,15	0.29	0	17,19,21	1.28	1 (5%)
2	NAG	B	2084	1	14,14,15	0.40	0	17,19,21	1.28	2 (11%)
2	NAG	A	2084	1	14,14,15	0.34	0	17,19,21	0.69	0
2	NAG	D	2086	1	14,14,15	0.31	0	17,19,21	0.90	1 (5%)

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
2	NAG	C	2084	1	-	2/6/23/26	0/1/1/1
2	NAG	B	2084	1	-	2/6/23/26	0/1/1/1
2	NAG	A	2084	1	-	0/6/23/26	0/1/1/1
2	NAG	D	2086	1	-	2/6/23/26	0/1/1/1

There are no bond length outliers.

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	C	2084	NAG	C1-O5-C5	4.88	118.80	112.19
2	B	2084	NAG	C1-O5-C5	3.19	116.51	112.19
2	B	2084	NAG	O5-C1-C2	-2.50	107.34	111.29
2	D	2086	NAG	C1-O5-C5	2.36	115.39	112.19

There are no chirality outliers.

All (6) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	B	2084	NAG	O5-C5-C6-O6
2	B	2084	NAG	C4-C5-C6-O6
2	D	2086	NAG	C4-C5-C6-O6
2	D	2086	NAG	O5-C5-C6-O6
2	C	2084	NAG	C4-C5-C6-O6
2	C	2084	NAG	O5-C5-C6-O6

There are no ring outliers.

No monomer is involved in short contacts.

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

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, 95^{th} 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	195/264 (73%)	0.53	22 (11%) 5 4	47, 77, 130, 169	0
1	B	195/264 (73%)	0.22	7 (3%) 42 42	47, 71, 124, 151	0
1	C	199/264 (75%)	0.60	25 (12%) 3 3	69, 101, 159, 180	0
1	D	203/264 (76%)	0.32	10 (4%) 29 28	59, 81, 125, 171	0
All	All	792/1056 (75%)	0.42	64 (8%) 12 10	47, 83, 143, 180	0

All (64) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	D	883	THR	6.1
1	C	996	SER	5.8
1	C	1061	PHE	5.4
1	A	968	ARG	5.1
1	C	998	GLU	4.7
1	A	965	LYS	4.7
1	C	947	LEU	4.6
1	B	968	ARG	4.0
1	C	994	VAL	3.9
1	A	1002	ARG	3.9
1	D	1045	ARG	3.9
1	C	997	LYS	3.8
1	A	884	PRO	3.8
1	D	1044	ASN	3.7
1	A	967	ARG	3.7
1	B	1002	ARG	3.7
1	C	883	THR	3.6
1	C	995	VAL	3.5
1	A	920	ARG	3.3
1	C	912	LYS	3.2
1	C	999	GLY	3.2

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Mol	Chain	Res	Type	RSRZ
1	A	966	GLY	3.2
1	A	1053	LEU	3.1
1	A	906	ALA	3.1
1	A	941	ALA	3.1
1	C	903	ILE	3.0
1	C	1001	PRO	3.0
1	C	901	ILE	2.9
1	A	921	TYR	2.9
1	C	967	ARG	2.8
1	C	992	VAL	2.8
1	C	913	HIS	2.8
1	D	998	GLU	2.8
1	D	967	ARG	2.7
1	A	1057	THR	2.7
1	A	886	MET	2.7
1	B	929	ASN	2.7
1	C	1005	ILE	2.7
1	B	908	ASN	2.7
1	D	884	PRO	2.5
1	C	916	ILE	2.5
1	D	916	ILE	2.5
1	B	930	ILE	2.4
1	C	1023	ILE	2.4
1	C	914	GLN	2.4
1	C	969	SER	2.3
1	A	889	VAL	2.3
1	A	924	VAL	2.3
1	C	948	VAL	2.3
1	A	1055	LEU	2.2
1	C	1008	TRP	2.2
1	C	902	ARG	2.2
1	D	1042	VAL	2.1
1	D	932	ALA	2.1
1	C	1050	ILE	2.1
1	A	930	ILE	2.1
1	B	1055	LEU	2.1
1	A	1003	THR	2.1
1	D	1043	GLY	2.0
1	A	1080	PHE	2.0
1	A	922	TYR	2.0
1	B	1059	TYR	2.0
1	A	1054	THR	2.0

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Mol	Chain	Res	Type	RSRZ
1	A	885	MET	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)

There are no monosaccharides in this entry.

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
2	NAG	C	2084	14/15	0.88	0.16	111,118,121,121	0
2	NAG	D	2086	14/15	0.92	0.14	91,95,100,105	0
2	NAG	A	2084	14/15	0.93	0.13	129,132,134,135	0
2	NAG	B	2084	14/15	0.96	0.15	88,92,97,97	0

6.5 Other polymers (i)

There are no such residues in this entry.