



Full wwPDB X-ray Structure Validation Report ⓘ

Aug 9, 2020 – 06:18 PM BST

PDB ID : 2A74
Title : Human Complement Component C3c
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Nilsson-Ekdahl, K.; Nilsson, B.; Gros, P.
Deposited on : 2005-07-04
Resolution : 2.40 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

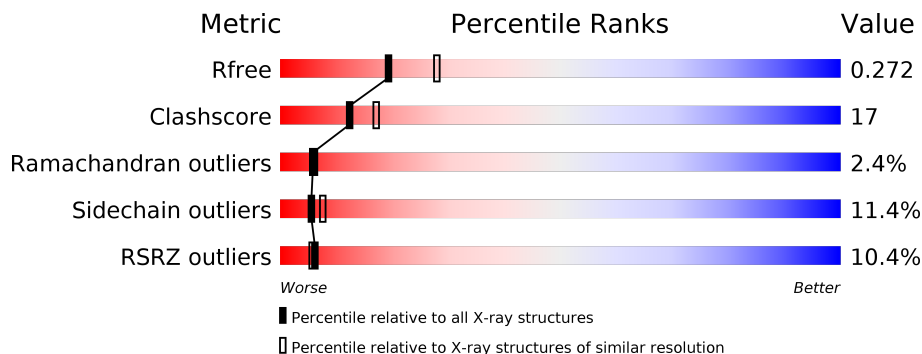
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.40 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.



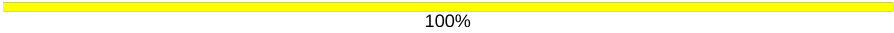

Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	3907 (2.40-2.40)
Clashscore	141614	4398 (2.40-2.40)
Ramachandran outliers	138981	4318 (2.40-2.40)
Sidechain outliers	138945	4319 (2.40-2.40)
RSRZ outliers	127900	3811 (2.40-2.40)

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	643	
1	D	643	
2	B	188	
2	E	188	
3	C	343	
3	F	343	

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Mol	Chain	Length	Quality of chain
4	G	2	 100%
4	H	2	 50% 50%

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
4	NDG	G	2	X	-	-	X
4	NDG	H	2	X	-	-	X
5	GOL	A	712	-	-	X	X
5	GOL	B	702	-	-	-	X
5	GOL	D	711	-	-	X	X
5	GOL	E	705	-	-	-	X
5	GOL	E	706	-	-	-	X
5	GOL	F	707	-	-	-	X
6	NO3	F	802	-	-	-	X

2 Entry composition [i](#)

There are 7 unique types of molecules in this entry. The entry contains 18389 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 Complement Component C3c.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	630	4907	3127	828	937	15	0	0	0
1	D	633	4933	3144	833	941	15	0	0	0

- Molecule 2 is a protein called Complement Component C3c.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	B	183	1480	950	249	276	5	0	0	0
2	E	184	1484	954	250	275	5	0	0	0

- Molecule 3 is a protein called Complement Component C3c.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	C	296	2407	1517	395	475	20	0	0	0
3	F	298	2421	1524	397	480	20	0	0	0

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



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
4	G	2	28	16	2	10	0	0	0

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
4	H	2	28	16	2	10	0	0	0

- Molecule 5 is GLYCEROL (three-letter code: GOL) (formula: C₃H₈O₃).



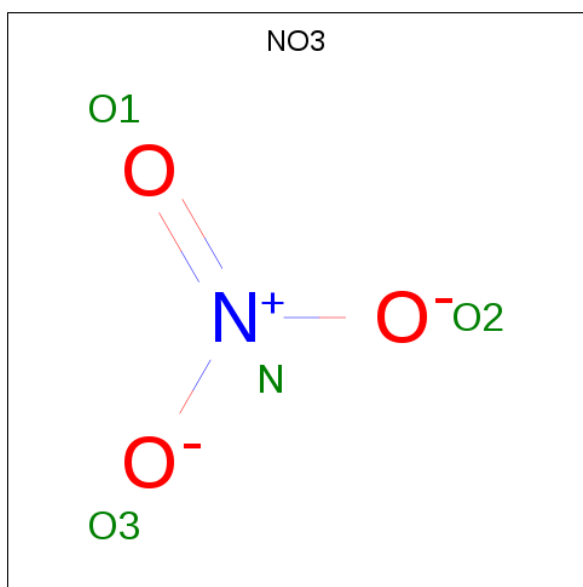
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
			Total	C	O		
5	A	1	6	3	3	0	0
5	A	1	6	3	3	0	0
5	A	1	6	3	3	0	0
5	B	1	6	3	3	0	0
5	B	1	6	3	3	0	0
5	C	1	6	3	3	0	0
5	C	1	6	3	3	0	0
5	D	1	6	3	3	0	0
5	E	1	6	3	3	0	0
5	E	1	6	3	3	0	0

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

- Molecule 6 is NITRATE ION (three-letter code: NO3) (formula: NO₃).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
6	C	1	Total	N	O	0	0
			4	1	3		
6	F	1	Total	N	O	0	0
			4	1	3		
6	F	1	Total	N	O	0	0
			4	1	3		

- Molecule 7 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
7	A	188	Total	O	0	0
			188	188		
7	B	58	Total	O	0	0
			58	58		
7	C	71	Total	O	0	0
			71	71		

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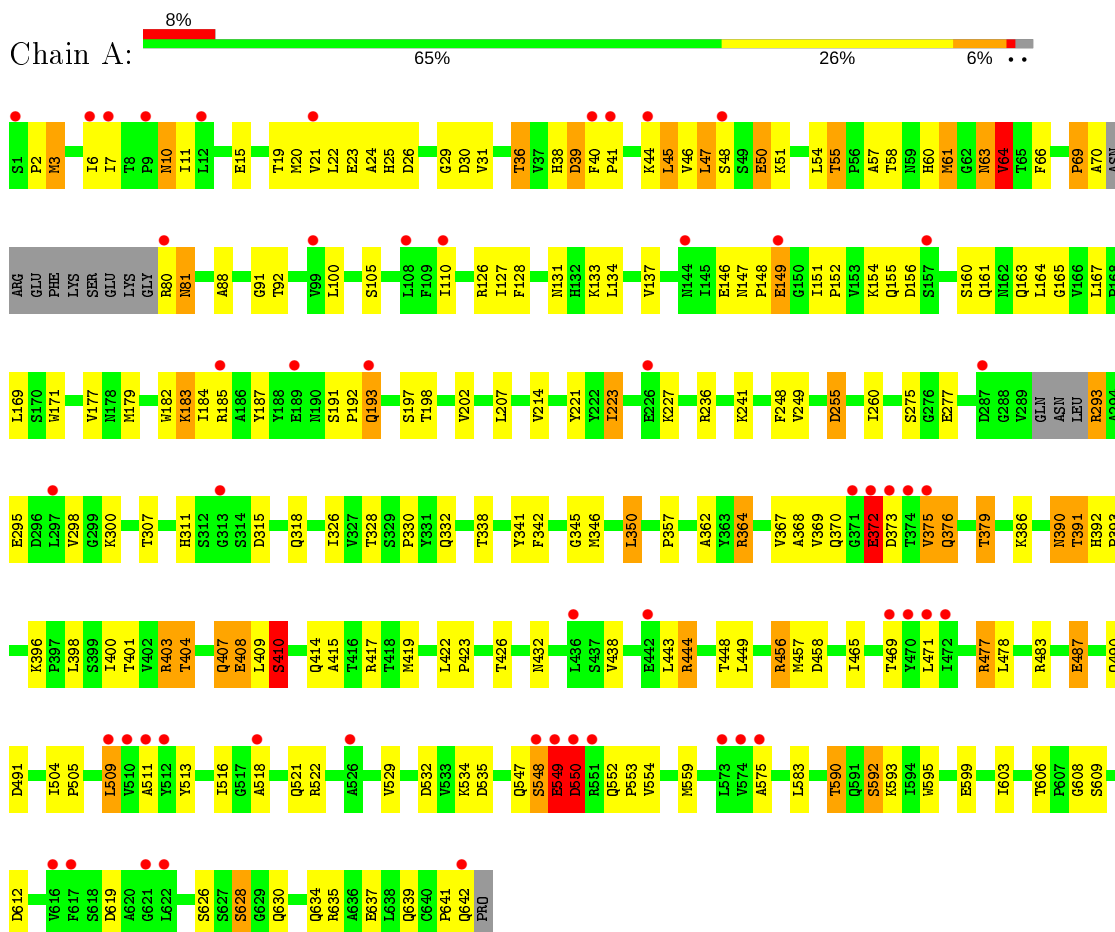
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
7	D	148	Total 148	O 148	0	0
7	E	53	Total 53	O 53	0	0
7	F	93	Total 93	O 93	0	0

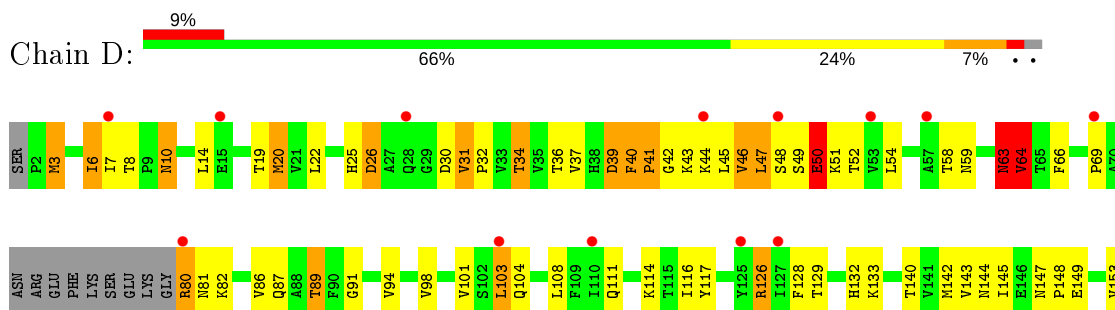
3 Residue-property plots [i](#)

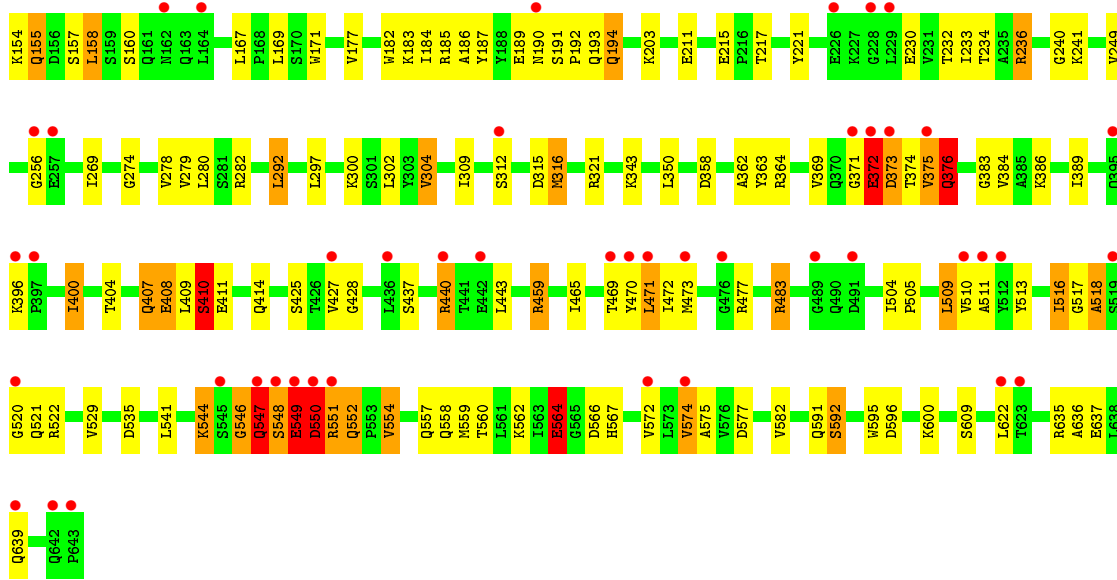
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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: Complement Component C3c

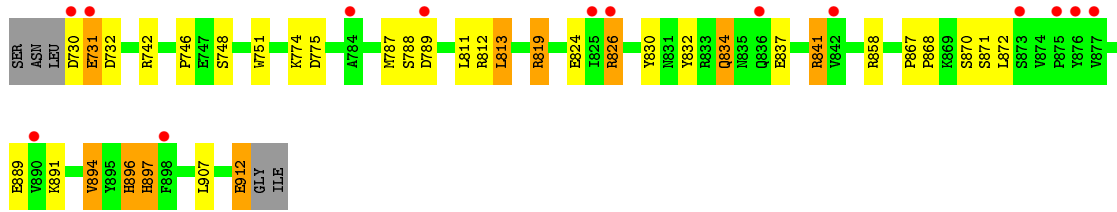
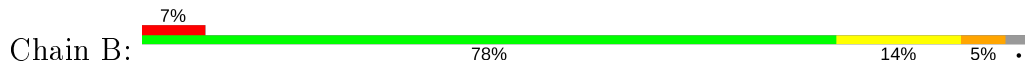


- Molecule 1: Complement Component C3c

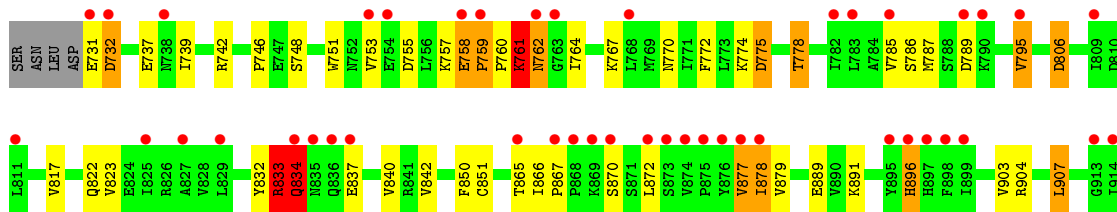




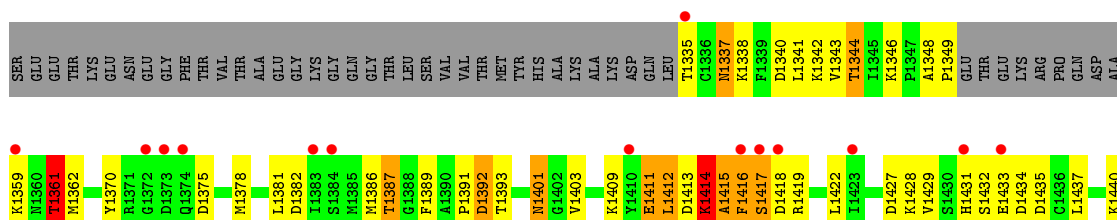
• Molecule 2: Complement Component C3c

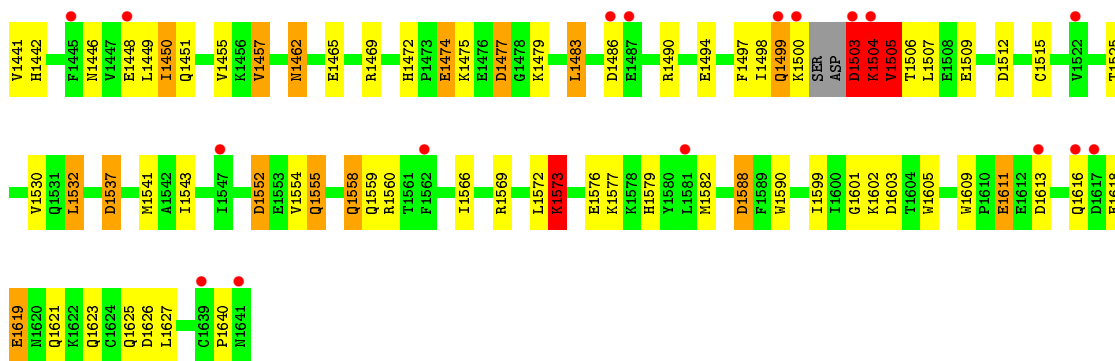


• Molecule 2: Complement Component C3c

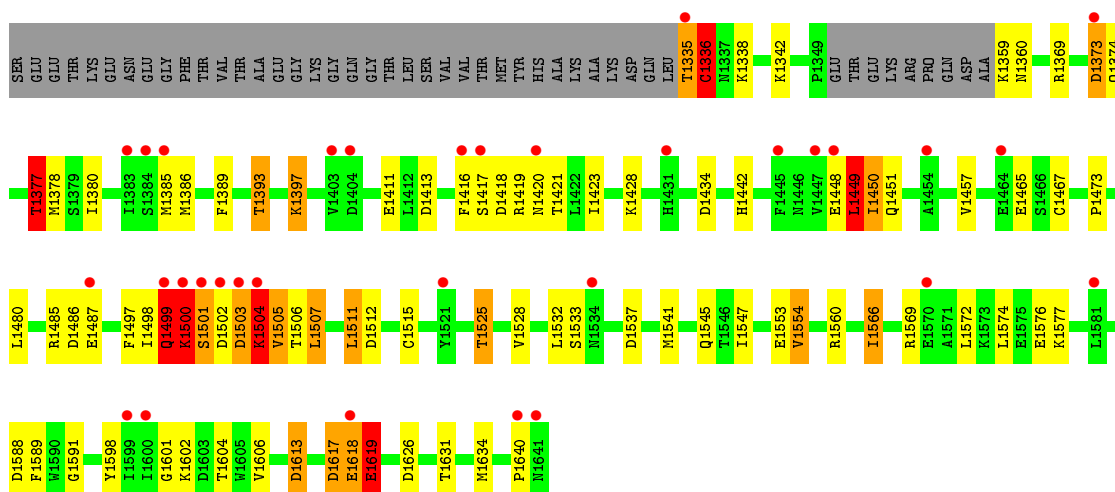


• Molecule 3: Complement Component C3c

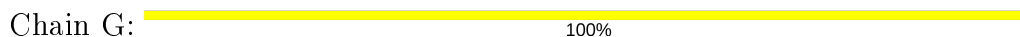




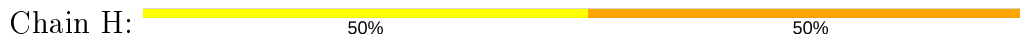
- Molecule 3: Complement Component C3c



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



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



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 2	Depositor
Cell constants a, b, c, α , β , γ	126.87Å 246.86Å 87.38Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	40.00 – 2.40 28.35 – 2.30	Depositor EDS
% Data completeness (in resolution range)	97.4 (40.00-2.40) 95.0 (28.35-2.30)	Depositor EDS
R_{merge}	0.07	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.71 (at 2.31Å)	Xtrriage
Refinement program	REFMAC	Depositor
R, R_{free}	0.215 , 0.275 0.213 , 0.272	Depositor DCC
R_{free} test set	3471 reflections (2.99%)	wwPDB-VP
Wilson B-factor (Å ²)	47.0	Xtrriage
Anisotropy	0.511	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.31 , 48.2	EDS
L-test for twinning ²	$\langle L \rangle = 0.49$, $\langle L^2 \rangle = 0.32$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.94	EDS
Total number of atoms	18389	wwPDB-VP
Average B, all atoms (Å ²)	45.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The analyses of the Patterson function reveals a significant off-origin peak that is 56.48 % of the origin peak, indicating pseudo-translational symmetry. The chance of finding a peak of this or larger height randomly in a structure without pseudo-translational symmetry is equal to 2.7203e-05. The detected translational NCS is most likely also responsible for the elevated intensity ratio.*

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: GOL, NDG, NO3

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	0.45	2/5004 (0.0%)	0.72	11/6799 (0.2%)
1	D	0.65	10/5032 (0.2%)	0.71	10/6839 (0.1%)
2	B	0.49	1/1512 (0.1%)	0.70	1/2055 (0.0%)
2	E	1.21	16/1516 (1.1%)	0.76	6/2060 (0.3%)
3	C	0.40	1/2453 (0.0%)	0.76	16/3305 (0.5%)
3	F	0.59	7/2468 (0.3%)	0.78	11/3327 (0.3%)
All	All	0.62	37/17985 (0.2%)	0.73	55/24385 (0.2%)

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	0	5
1	D	0	8
3	C	0	1
3	F	0	3
All	All	0	17

All (37) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	564	GLU	CG-CD	19.98	1.81	1.51
2	E	837	GLU	CD-OE1	16.09	1.43	1.25
2	E	761	LYS	CE-NZ	13.09	1.81	1.49
2	E	758	GLU	CD-OE2	12.47	1.39	1.25
3	F	1397	LYS	CE-NZ	12.42	1.80	1.49
1	D	544	LYS	CE-NZ	12.09	1.79	1.49
2	E	837	GLU	CD-OE2	11.71	1.38	1.25
2	E	896	HIS	CG-CD2	11.11	1.54	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	E	896	HIS	CE1-NE2	10.37	1.56	1.32
2	E	761	LYS	C-O	10.18	1.42	1.23
1	A	149	GLU	CD-OE2	9.62	1.36	1.25
3	F	1618	GLU	CG-CD	9.11	1.65	1.51
1	D	549	GLU	CD-OE1	8.61	1.35	1.25
2	E	758	GLU	CG-CD	8.04	1.64	1.51
1	A	149	GLU	CD-OE1	7.78	1.34	1.25
2	E	761	LYS	CD-CE	7.71	1.70	1.51
1	D	149	GLU	CD-OE1	7.50	1.33	1.25
1	D	544	LYS	CD-CE	7.49	1.70	1.51
1	D	559	MET	C-O	7.41	1.37	1.23
1	D	562	LYS	CD-CE	7.33	1.69	1.51
1	D	564	GLU	CD-OE1	6.45	1.32	1.25
3	F	1617	ASP	CG-OD1	6.26	1.39	1.25
2	E	896	HIS	CG-ND1	6.19	1.52	1.38
1	D	547	GLN	CG-CD	6.09	1.65	1.51
1	D	546	GLY	C-O	6.06	1.33	1.23
2	E	767	LYS	C-O	6.04	1.34	1.23
2	E	834	GLN	C-O	6.02	1.34	1.23
3	F	1397	LYS	CD-CE	5.80	1.65	1.51
3	C	1409	LYS	CE-NZ	5.76	1.63	1.49
3	F	1617	ASP	CG-OD2	5.55	1.38	1.25
2	E	759	PRO	CA-C	5.52	1.63	1.52
3	F	1618	GLU	CD-OE2	5.51	1.31	1.25
2	B	896	HIS	CE1-NE2	5.29	1.44	1.32
2	E	764	ILE	CB-CG1	5.22	1.68	1.54
2	E	762	ASN	CG-OD1	5.21	1.35	1.24
3	F	1618	GLU	CD-OE1	5.13	1.31	1.25
2	E	762	ASN	C-N	5.07	1.42	1.33

All (55) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	564	GLU	OE1-CD-OE2	7.91	132.80	123.30
2	E	761	LYS	CD-CE-NZ	-7.19	95.16	111.70
3	C	1413	ASP	CB-CG-OD2	6.27	123.94	118.30
3	F	1397	LYS	CD-CE-NZ	-6.14	97.58	111.70
1	A	30	ASP	CB-CG-OD2	5.94	123.65	118.30
2	E	755	ASP	CB-CG-OD2	5.90	123.61	118.30
3	F	1512	ASP	CB-CG-OD2	5.90	123.61	118.30
1	D	315	ASP	CB-CG-OD2	5.84	123.56	118.30
3	C	1435	ASP	CB-CG-OD2	5.79	123.51	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	373	ASP	CB-CG-OD2	5.77	123.49	118.30
3	F	1373	ASP	CB-CG-OD2	5.75	123.47	118.30
3	C	1603	ASP	CB-CG-OD2	5.70	123.43	118.30
3	F	1486	ASP	CB-CG-OD2	5.68	123.42	118.30
1	A	156	ASP	CB-CG-OD2	5.66	123.39	118.30
1	A	149	GLU	OE1-CD-OE2	5.64	130.07	123.30
3	C	1552	ASP	CB-CG-OD2	5.60	123.34	118.30
3	C	1486	ASP	CB-CG-OD2	5.57	123.32	118.30
1	A	612	ASP	CB-CG-OD2	5.53	123.28	118.30
1	A	491	ASP	CB-CG-OD2	5.49	123.24	118.30
2	E	732	ASP	CB-CG-OD2	5.47	123.23	118.30
1	D	39	ASP	CB-CG-OD2	5.46	123.21	118.30
3	C	1340	ASP	CB-CG-OD2	5.44	123.19	118.30
3	F	1503	ASP	CB-CG-OD2	5.43	123.19	118.30
3	F	1626	ASP	CB-CG-OD2	5.42	123.18	118.30
3	C	1427	ASP	CB-CG-OD2	5.42	123.18	118.30
3	C	1434	ASP	CB-CG-OD2	5.42	123.18	118.30
3	C	1588	ASP	CB-CG-OD2	5.40	123.16	118.30
1	A	39	ASP	CB-CG-OD2	5.36	123.12	118.30
3	F	1613	ASP	CB-CG-OD2	5.35	123.12	118.30
2	E	806	ASP	CB-CG-OD2	5.34	123.10	118.30
1	D	26	ASP	CB-CG-OD2	5.30	123.07	118.30
1	A	509	LEU	CA-CB-CG	5.25	127.37	115.30
2	B	789	ASP	CB-CG-OD2	5.25	123.02	118.30
1	D	564	GLU	CG-CD-OE1	-5.25	107.81	118.30
1	D	30	ASP	CB-CG-OD2	5.22	123.00	118.30
3	C	1392	ASP	CB-CG-OD2	5.22	123.00	118.30
3	C	1626	ASP	CB-CG-OD2	5.21	122.99	118.30
3	C	1512	ASP	CB-CG-OD2	5.20	122.98	118.30
1	D	544	LYS	CD-CE-NZ	-5.18	99.78	111.70
3	C	1537	ASP	CB-CG-OD2	5.17	122.96	118.30
3	F	1434	ASP	CB-CG-OD2	5.16	122.95	118.30
1	A	619	ASP	CB-CG-OD2	5.16	122.94	118.30
3	F	1502	ASP	CB-CG-OD2	5.16	122.94	118.30
1	D	566	ASP	CB-CG-OD2	5.13	122.92	118.30
1	A	26	ASP	CB-CG-OD2	5.08	122.88	118.30
3	F	1588	ASP	CB-CG-OD2	5.08	122.87	118.30
1	A	458	ASP	CB-CG-OD2	5.07	122.87	118.30
3	C	1477	ASP	CB-CG-OD2	5.05	122.84	118.30
2	E	775	ASP	CB-CG-OD2	5.04	122.84	118.30
2	E	789	ASP	CB-CG-OD2	5.02	122.82	118.30
3	F	1413	ASP	CB-CG-OD2	5.02	122.82	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed($^{\circ}$)	Ideal($^{\circ}$)
1	A	550	ASP	CB-CG-OD2	5.02	122.82	118.30
3	C	1503	ASP	CB-CG-OD2	5.02	122.81	118.30
1	D	358	ASP	CB-CG-OD2	5.01	122.81	118.30
3	C	1382	ASP	CB-CG-OD2	5.00	122.80	118.30

There are no chirality outliers.

All (17) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	255	ASP	Peptide
1	A	403	ARG	Peptide
1	A	549	GLU	Peptide
1	A	63	ASN	Peptide
1	A	69	PRO	Peptide
3	C	1415	ALA	Peptide
1	D	374	THR	Peptide
1	D	40	PHE	Peptide
1	D	428	GLY	Peptide
1	D	44	LYS	Peptide
1	D	548	SER	Peptide
1	D	549	GLU	Peptide
1	D	63	ASN	Peptide
1	D	80	ARG	Peptide
3	F	1417	SER	Peptide
3	F	1500	LYS	Peptide
3	F	1640	PRO	Peptide

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	4907	0	4970	204	0
1	D	4933	0	4996	195	0
2	B	1480	0	1501	30	0
2	E	1484	0	1511	46	0
3	C	2407	0	2316	97	0
3	F	2421	0	2326	62	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	G	28	0	23	2	0
4	H	28	0	19	1	0
5	A	18	0	24	6	0
5	B	12	0	16	2	0
5	C	12	0	16	0	0
5	D	6	0	8	5	0
5	E	18	0	24	2	0
5	F	12	0	16	4	0
6	C	4	0	0	0	0
6	F	8	0	0	0	0
7	A	188	0	0	11	0
7	B	58	0	0	0	0
7	C	71	0	0	6	0
7	D	148	0	0	3	0
7	E	53	0	0	2	0
7	F	93	0	0	2	0
All	All	18389	0	17766	601	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 17.

All (601) 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:D:564:GLU:CG	1:D:564:GLU:CD	1.81	1.49
3:F:1397:LYS:CE	3:F:1397:LYS:NZ	1.80	1.44
1:D:544:LYS:NZ	1:D:544:LYS:CE	1.79	1.43
2:E:761:LYS:CE	2:E:761:LYS:NZ	1.81	1.42
1:A:6:ILE:HD11	1:A:20:MET:CG	1.53	1.39
1:A:6:ILE:CD1	1:A:20:MET:HG3	1.50	1.38
1:D:292:LEU:CD2	1:D:292:LEU:H	1.42	1.27
1:D:375:VAL:HG23	1:D:376:GLN:H	1.12	1.14
1:A:403:ARG:HB3	1:A:404:THR:HG22	1.16	1.14
1:D:6:ILE:HD11	1:D:20:MET:SD	1.88	1.14
1:A:404:THR:HG23	1:A:414:GLN:HB3	1.26	1.14
1:A:372:GLU:HA	1:A:373:ASP:HB3	1.13	1.12
1:D:292:LEU:N	1:D:292:LEU:HD23	1.63	1.11
1:D:20:MET:CE	1:D:86:VAL:CG1	2.29	1.10
1:A:375:VAL:HG12	1:A:376:GLN:H	0.99	1.09
1:D:20:MET:HE3	1:D:86:VAL:CG1	1.84	1.08
1:D:80:ARG:HD3	1:D:637:GLU:HA	1.13	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:36:THR:HG21	1:A:38:HIS:CE1	1.91	1.06
3:C:1525:THR:OG1	3:C:1541:MET:HE2	1.57	1.05
3:F:1533:SER:O	3:F:1566:ILE:HD11	1.56	1.04
1:A:606:THR:HG21	7:A:652:HOH:O	1.58	1.03
3:C:1411:GLU:HG2	3:C:1422:LEU:HD12	1.42	1.01
3:F:1504:LYS:HG2	3:F:1505:VAL:H	1.25	1.01
1:A:409:LEU:O	1:A:410:SER:HB3	1.61	1.00
1:D:20:MET:CE	1:D:86:VAL:HG11	1.90	1.00
3:C:1391:PRO:HG2	3:C:1419:ARG:HD2	1.40	1.00
3:F:1504:LYS:HG2	3:F:1505:VAL:N	1.77	1.00
1:D:160:SER:HB3	1:D:167:LEU:HD11	1.44	0.99
1:A:36:THR:HG21	1:A:38:HIS:HE1	1.27	0.98
1:A:315:ASP:HA	5:A:703:GOL:H31	1.41	0.98
1:A:293:ARG:HH21	1:A:295:GLU:HB2	1.30	0.97
1:D:292:LEU:H	1:D:292:LEU:HD23	0.81	0.97
1:A:372:GLU:HA	1:A:373:ASP:CB	1.90	0.97
1:D:63:ASN:HA	7:D:781:HOH:O	1.65	0.97
1:A:36:THR:CG2	1:A:38:HIS:CE1	2.48	0.96
3:C:1525:THR:CB	3:C:1541:MET:HE2	1.96	0.96
1:D:535:ASP:HB3	5:D:711:GOL:H32	1.48	0.96
1:D:473:MET:CE	1:D:622:LEU:HD21	1.96	0.96
1:A:426:THR:CG2	7:A:829:HOH:O	2.15	0.95
3:F:1386:MET:HB3	3:F:1450:ILE:HD12	1.48	0.95
1:D:20:MET:HE3	1:D:86:VAL:HG11	1.44	0.95
1:A:375:VAL:HG12	1:A:376:GLN:N	1.82	0.95
1:A:404:THR:CG2	1:A:414:GLN:HB3	1.96	0.94
3:F:1448:GLU:O	3:F:1449:LEU:HB2	1.68	0.93
1:A:403:ARG:CB	1:A:404:THR:HG22	1.98	0.93
3:F:1386:MET:HB3	3:F:1450:ILE:CD1	1.98	0.93
1:A:372:GLU:CA	1:A:373:ASP:HB3	1.99	0.93
1:D:160:SER:HB3	1:D:167:LEU:CD1	1.98	0.92
1:A:6:ILE:HD13	1:A:20:MET:HE3	1.53	0.91
1:A:404:THR:HG21	1:A:415:ALA:O	1.71	0.89
1:D:404:THR:HG22	1:D:414:GLN:OE1	1.73	0.89
3:F:1591:GLY:H	5:F:707:GOL:H31	1.35	0.88
1:A:248:PHE:HD1	3:C:1378:MET:HE3	1.39	0.88
1:A:248:PHE:HD1	3:C:1378:MET:CE	1.87	0.87
1:A:548:SER:O	1:A:549:GLU:HB2	1.73	0.86
1:A:375:VAL:CG1	1:A:376:GLN:H	1.84	0.86
1:A:362:ALA:O	1:A:379:THR:HG21	1.73	0.85
1:A:369:VAL:O	1:A:372:GLU:HG2	1.75	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:375:VAL:HG23	1:D:376:GLN:N	1.90	0.85
3:C:1415:ALA:HB3	3:C:1417:SER:HB3	1.56	0.85
1:D:375:VAL:CG2	1:D:376:GLN:H	1.88	0.85
1:D:549:GLU:HB3	1:D:550:ASP:CA	2.07	0.85
1:D:577:ASP:OD1	2:E:778:THR:HG21	1.77	0.85
1:A:31:VAL:HG13	1:A:54:LEU:HB2	1.59	0.85
1:A:248:PHE:CD1	3:C:1378:MET:HE3	2.13	0.84
1:D:6:ILE:CD1	1:D:20:MET:SD	2.65	0.84
1:A:477:ARG:HH11	1:A:477:ARG:CG	1.90	0.83
3:C:1387:THR:CG2	3:C:1451:GLN:H	1.91	0.83
1:D:80:ARG:HD3	1:D:637:GLU:CA	2.04	0.83
1:A:128:PHE:HB3	2:B:787:MET:HE1	1.59	0.82
1:D:47:LEU:HD13	1:D:66:PHE:HB2	1.59	0.82
3:C:1348:ALA:HB1	3:C:1349:PRO:HD2	1.62	0.82
1:D:549:GLU:CB	1:D:550:ASP:HB2	2.08	0.82
2:B:824:GLU:OE1	2:B:826:ARG:NH1	2.12	0.81
1:D:3:MET:HE2	1:D:522:ARG:HG2	1.61	0.81
1:A:404:THR:CG2	1:A:415:ALA:O	2.28	0.80
1:A:403:ARG:HB3	1:A:404:THR:CG2	2.08	0.80
1:D:473:MET:HE1	1:D:622:LEU:HD21	1.62	0.80
1:A:393:PRO:HD3	7:A:722:HOH:O	1.80	0.80
3:C:1525:THR:OG1	3:C:1541:MET:CE	2.30	0.80
1:D:47:LEU:CD1	1:D:66:PHE:HB2	2.10	0.80
1:A:20:MET:CE	1:A:88:ALA:HB2	2.10	0.80
1:D:372:GLU:HG3	1:D:375:VAL:HG22	1.63	0.80
1:D:292:LEU:CD2	1:D:292:LEU:N	2.24	0.78
1:A:362:ALA:O	1:A:379:THR:CG2	2.32	0.78
1:A:20:MET:HE1	1:A:88:ALA:HB2	1.64	0.78
1:A:606:THR:HG22	1:A:608:GLY:H	1.48	0.78
1:A:6:ILE:CD1	1:A:20:MET:CG	2.30	0.77
1:A:6:ILE:CD1	1:A:20:MET:HE3	2.15	0.77
3:C:1498:ILE:HG22	3:C:1499:GLN:HG2	1.67	0.77
2:E:889:GLU:HG3	2:E:904:ARG:HB3	1.65	0.77
1:D:386:LYS:HB3	1:D:440:ARG:HD2	1.65	0.77
1:A:426:THR:HG22	7:A:829:HOH:O	1.78	0.76
1:D:144:ASN:ND2	1:D:155:GLN:HG3	2.01	0.76
1:D:386:LYS:CB	1:D:440:ARG:HD2	2.15	0.76
1:D:473:MET:HE3	1:D:622:LEU:HD21	1.65	0.76
1:A:426:THR:HG23	7:A:829:HOH:O	1.78	0.76
2:B:819:ARG:HH11	2:B:819:ARG:HB3	1.51	0.76
1:D:6:ILE:HD11	1:D:20:MET:CG	2.16	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:549:GLU:OE1	1:D:549:GLU:HA	1.85	0.75
1:D:58:THR:O	1:D:58:THR:HG23	1.86	0.75
1:A:372:GLU:CA	1:A:373:ASP:CB	2.63	0.75
1:A:372:GLU:HB3	1:A:375:VAL:HB	1.67	0.75
1:A:404:THR:O	1:A:404:THR:HG23	1.86	0.74
1:D:6:ILE:HD13	1:D:7:ILE:N	2.02	0.74
3:C:1341:LEU:HD22	3:C:1457:VAL:HG22	1.68	0.74
1:D:80:ARG:CD	1:D:637:GLU:HA	2.07	0.74
3:C:1525:THR:CB	3:C:1541:MET:CE	2.65	0.74
3:C:1361:THR:HA	3:C:1441:VAL:O	1.86	0.73
3:C:1490:ARG:NE	7:C:526:HOH:O	2.16	0.73
1:A:29:GLY:O	1:A:60:HIS:HE1	1.70	0.73
1:D:371:GLY:O	1:D:372:GLU:HB2	1.88	0.73
1:D:3:MET:HE3	1:D:522:ARG:HD2	1.69	0.73
3:F:1448:GLU:O	3:F:1449:LEU:CB	2.35	0.73
3:F:1576:GLU:O	3:F:1577:LYS:HB2	1.87	0.73
1:D:549:GLU:HB3	1:D:550:ASP:HB2	1.71	0.73
1:D:20:MET:HE3	1:D:86:VAL:HG13	1.70	0.73
2:B:896:HIS:C	2:B:897:HIS:HD1	1.91	0.73
1:A:6:ILE:HG12	1:A:20:MET:CE	2.18	0.72
1:A:191:SER:HA	1:A:193:GLN:HE21	1.54	0.72
2:B:837:GLU:HB3	2:B:868:PRO:HD3	1.70	0.71
1:A:367:VAL:HG12	1:A:404:THR:H	1.53	0.71
1:D:312:SER:O	7:D:786:HOH:O	2.07	0.71
1:A:350:LEU:HD21	1:A:400:ILE:HG21	1.73	0.71
1:D:111:GLN:OE1	1:D:126:ARG:HD3	1.90	0.71
1:D:473:MET:CE	1:D:622:LEU:CD2	2.69	0.71
2:B:858:ARG:NH2	3:C:1494:GLU:HA	2.07	0.70
1:D:549:GLU:HB3	1:D:550:ASP:HA	1.73	0.70
1:A:370:GLN:CG	1:A:401:THR:HB	2.22	0.70
1:D:549:GLU:HB3	1:D:550:ASP:CB	2.21	0.70
3:F:1449:LEU:N	3:F:1449:LEU:HD23	2.07	0.70
1:A:592:SER:HA	5:A:712:GOL:H32	1.74	0.70
1:D:3:MET:CE	1:D:522:ARG:HG2	2.21	0.70
2:B:819:ARG:CB	2:B:819:ARG:HH11	2.05	0.70
2:E:822:GLN:HE22	3:F:1480:LEU:H	1.38	0.69
1:A:477:ARG:HG2	1:A:477:ARG:HH11	1.57	0.69
1:A:69:PRO:HA	1:A:70:ALA:HB3	1.73	0.69
3:C:1337:ASN:HD22	3:C:1337:ASN:H	1.41	0.69
1:D:473:MET:HE1	1:D:622:LEU:CD2	2.22	0.69
1:A:154:LYS:HD2	1:A:171:TRP:CD1	2.26	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:47:LEU:CD1	1:A:66:PHE:HB2	2.23	0.68
1:A:370:GLN:HG2	1:A:401:THR:HB	1.76	0.68
3:C:1572:LEU:O	3:C:1573:LYS:HD2	1.94	0.68
3:F:1428:LYS:HE3	7:F:68:HOH:O	1.93	0.68
3:C:1465:GLU:HG3	3:C:1465:GLU:O	1.91	0.68
3:C:1525:THR:HB	3:C:1541:MET:CE	2.23	0.68
3:C:1411:GLU:HG2	3:C:1422:LEU:CD1	2.19	0.68
1:D:592:SER:HB3	5:D:711:GOL:H11	1.74	0.67
1:D:6:ILE:CG1	1:D:20:MET:SD	2.82	0.67
2:B:819:ARG:HH11	2:B:819:ARG:CG	2.07	0.66
1:D:369:VAL:HG22	1:D:400:ILE:HD11	1.77	0.66
3:C:1381:LEU:CD2	3:C:1457:VAL:HG13	2.25	0.66
1:A:23:GLU:HG2	1:A:61:MET:HG2	1.77	0.66
1:D:541:LEU:HD22	2:E:786:SER:HB3	1.78	0.66
3:C:1499:GLN:HG3	3:C:1500:LYS:N	2.10	0.66
1:D:409:LEU:O	1:D:410:SER:HB3	1.96	0.66
3:F:1525:THR:CG2	3:F:1541:MET:SD	2.84	0.65
1:D:6:ILE:HD13	1:D:7:ILE:H	1.61	0.65
1:A:147:ASN:HB2	1:A:148:PRO:CD	2.27	0.65
1:A:345:GLY:H	1:A:391:THR:HG22	1.62	0.65
2:E:761:LYS:NZ	2:E:761:LYS:CD	2.60	0.65
1:A:6:ILE:HD12	1:A:21:VAL:O	1.95	0.64
1:A:80:ARG:O	1:A:81:ASN:HB2	1.96	0.64
1:D:103:LEU:H	1:D:103:LEU:HD22	1.62	0.64
1:D:160:SER:CB	1:D:167:LEU:HD11	2.24	0.64
1:A:350:LEU:HD23	1:A:419:MET:CE	2.27	0.64
2:B:894:VAL:CG2	2:B:897:HIS:HB2	2.27	0.64
2:B:819:ARG:NH1	2:B:912:GLU:OE2	2.31	0.64
1:D:549:GLU:CB	1:D:550:ASP:CB	2.76	0.64
3:F:1397:LYS:CD	3:F:1397:LYS:NZ	2.60	0.64
3:C:1448:GLU:O	3:C:1449:LEU:HB2	1.97	0.64
1:D:40:PHE:CD2	1:D:41:PRO:HD3	2.33	0.64
1:D:20:MET:CE	1:D:86:VAL:HG12	2.27	0.63
2:E:785:VAL:HG22	2:E:795:VAL:HB	1.79	0.63
1:D:3:MET:CE	1:D:522:ARG:CG	2.77	0.63
1:D:6:ILE:HD11	1:D:20:MET:HG2	1.81	0.63
1:A:6:ILE:HG12	1:A:20:MET:SD	2.38	0.63
2:B:858:ARG:HH22	3:C:1494:GLU:HA	1.64	0.63
1:D:3:MET:HE3	1:D:522:ARG:CD	2.29	0.62
1:A:147:ASN:HB2	1:A:148:PRO:HD2	1.81	0.62
1:A:7:ILE:HG21	1:A:471:LEU:HD22	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:1537:ASP:OD2	3:C:1569:ARG:HD3	2.00	0.62
3:F:1386:MET:HB3	3:F:1450:ILE:HD11	1.82	0.62
1:A:293:ARG:HH21	1:A:295:GLU:CB	2.10	0.61
1:D:472:ILE:HD13	1:D:509:LEU:HD22	1.82	0.61
1:D:309:ILE:HG12	1:D:316:MET:HG3	1.82	0.61
3:C:1515:CYS:SG	3:C:1640:PRO:HD3	2.40	0.61
1:D:20:MET:HE2	1:D:86:VAL:HG11	1.80	0.61
1:A:404:THR:CG2	1:A:404:THR:O	2.48	0.61
1:D:547:GLN:H	1:D:547:GLN:HE21	1.47	0.61
1:D:233:ILE:HD13	1:D:269:ILE:HD11	1.83	0.61
1:D:472:ILE:CD1	1:D:509:LEU:HD22	2.31	0.61
1:A:535:ASP:HB3	5:A:712:GOL:H11	1.83	0.60
1:A:47:LEU:HD13	1:A:66:PHE:HB2	1.82	0.60
1:A:6:ILE:HD11	1:A:20:MET:SD	2.40	0.60
2:B:811:LEU:HG	2:B:813:LEU:HD13	1.84	0.60
3:C:1381:LEU:HD23	3:C:1457:VAL:HG13	1.83	0.60
3:C:1359:LYS:NZ	3:C:1446:ASN:HB2	2.17	0.60
3:C:1525:THR:HB	3:C:1541:MET:HE2	1.76	0.60
1:A:47:LEU:HD21	1:A:50:GLU:HG2	1.81	0.60
1:D:558:GLN:NE2	2:E:770:ASN:OD1	2.33	0.60
1:A:6:ILE:CD1	1:A:20:MET:SD	2.89	0.60
3:C:1483:LEU:HD23	3:C:1599:ILE:HD12	1.82	0.60
1:D:6:ILE:HG12	1:D:22:LEU:HD23	1.83	0.60
1:D:19:THR:HG21	4:H:1:NDG:H8C1	1.83	0.60
3:F:1507:LEU:HD22	3:F:1511:LEU:HD22	1.84	0.59
1:A:477:ARG:HH11	1:A:477:ARG:HG3	1.66	0.59
1:D:45:LEU:HD21	1:D:48:SER:OG	2.02	0.59
3:F:1386:MET:SD	3:F:1473:PRO:HD3	2.42	0.59
1:D:549:GLU:HB2	1:D:550:ASP:HB2	1.83	0.59
1:A:6:ILE:HD12	1:A:7:ILE:H	1.68	0.59
3:F:1537:ASP:OD2	3:F:1569:ARG:HG2	2.02	0.59
1:D:409:LEU:O	1:D:410:SER:CB	2.50	0.59
1:D:473:MET:HE3	1:D:622:LEU:CD2	2.33	0.59
1:A:350:LEU:HD23	1:A:419:MET:HE2	1.84	0.59
1:D:80:ARG:HB3	1:D:636:ALA:O	2.02	0.59
1:D:108:LEU:CD2	1:D:129:THR:HG22	2.33	0.59
1:A:477:ARG:NH1	1:A:477:ARG:HG2	2.18	0.59
1:D:20:MET:HE1	1:D:86:VAL:CG1	2.28	0.58
1:A:367:VAL:O	1:A:376:GLN:HA	2.03	0.58
1:D:143:VAL:HG11	1:D:169:LEU:CD1	2.33	0.58
3:C:1613:ASP:HA	3:C:1616:GLN:HE21	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:6:ILE:HD11	1:A:20:MET:HG3	0.68	0.57
1:A:3:MET:HE3	1:A:522:ARG:CG	2.33	0.57
3:C:1387:THR:HG23	3:C:1451:GLN:H	1.66	0.57
1:A:15:GLU:HG2	1:A:70:ALA:HB2	1.85	0.57
1:D:8:THR:HG22	1:D:20:MET:HG2	1.86	0.57
3:C:1555:GLN:HG2	7:C:579:HOH:O	2.05	0.57
2:E:867:PRO:HG2	2:E:870:SER:OG	2.05	0.57
2:E:877:VAL:HG13	3:F:1451:GLN:CG	2.35	0.57
3:C:1588:ASP:OD2	7:C:561:HOH:O	2.17	0.57
2:E:877:VAL:HG13	3:F:1451:GLN:HG2	1.87	0.57
1:D:386:LYS:H	1:D:440:ARG:CZ	2.17	0.57
1:D:50:GLU:HB3	1:D:64:VAL:HB	1.86	0.57
1:D:386:LYS:HB2	1:D:440:ARG:HD2	1.87	0.56
1:D:577:ASP:CG	2:E:778:THR:HG21	2.25	0.56
3:C:1391:PRO:CG	3:C:1419:ARG:HD2	2.26	0.56
3:F:1634:MET:HE2	3:F:1634:MET:HA	1.87	0.56
3:C:1543:ILE:HD12	3:C:1554:VAL:HG21	1.88	0.56
1:D:544:LYS:NZ	1:D:544:LYS:CD	2.66	0.56
1:A:6:ILE:CD1	1:A:20:MET:CE	2.83	0.56
1:A:255:ASP:HB2	1:A:300:LYS:HG2	1.88	0.56
2:E:907:LEU:H	2:E:907:LEU:HD12	1.70	0.56
1:A:404:THR:HG21	1:A:415:ALA:N	2.20	0.56
1:A:487:GLU:H	1:A:490:GLN:NE2	2.04	0.56
1:A:69:PRO:CA	1:A:70:ALA:HB3	2.35	0.56
1:A:6:ILE:CG1	1:A:20:MET:CE	2.83	0.56
2:B:837:GLU:HB2	2:B:867:PRO:HA	1.88	0.56
3:F:1338:LYS:HG3	3:F:1465:GLU:HB3	1.87	0.56
1:A:61:MET:HG3	1:A:483:ARG:CZ	2.36	0.55
1:D:504:ILE:CG2	1:D:505:PRO:HA	2.35	0.55
1:D:147:ASN:HB2	1:D:148:PRO:CD	2.36	0.55
3:F:1335:THR:O	3:F:1335:THR:OG1	2.21	0.55
1:A:590:THR:HG23	7:A:724:HOH:O	2.06	0.55
3:C:1346:LYS:O	3:C:1362:MET:HB3	2.06	0.55
1:A:6:ILE:CG1	1:A:20:MET:HE3	2.37	0.55
2:B:834:GLN:HE21	2:B:834:GLN:HA	1.72	0.55
1:D:6:ILE:HG13	1:D:20:MET:CE	2.37	0.55
1:A:338:THR:HG21	1:A:419:MET:CE	2.37	0.55
2:B:858:ARG:CZ	3:C:1449:LEU:HD11	2.37	0.55
1:A:409:LEU:O	1:A:410:SER:CB	2.44	0.55
1:A:444:ARG:NH2	1:A:534:LYS:HE2	2.21	0.55
1:A:504:ILE:HG23	1:A:505:PRO:HA	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:903:VAL:HG21	5:E:705:GOL:H11	1.88	0.55
3:F:1515:CYS:SG	3:F:1634:MET:HE3	2.47	0.55
3:C:1419:ARG:HD3	3:C:1422:LEU:HD13	1.89	0.55
3:C:1621:GLN:O	3:C:1625:GLN:HG3	2.07	0.54
3:F:1499:GLN:CG	3:F:1500:LYS:H	2.21	0.54
1:A:20:MET:HE2	1:A:88:ALA:HB2	1.89	0.54
3:C:1499:GLN:CG	3:C:1500:LYS:H	2.20	0.54
1:D:128:PHE:HD1	2:E:787:MET:CE	2.19	0.54
1:D:160:SER:HB3	1:D:167:LEU:HD13	1.89	0.54
1:A:346:MET:O	1:A:391:THR:HB	2.07	0.54
3:F:1525:THR:HG23	3:F:1541:MET:SD	2.48	0.54
1:A:315:ASP:HA	5:A:703:GOL:C3	2.28	0.54
1:D:25:HIS:O	1:D:26:ASP:HB2	2.07	0.54
3:C:1370:TYR:HB2	3:C:1429:VAL:HG22	1.89	0.54
1:D:596:ASP:O	1:D:600:LYS:HG2	2.08	0.54
3:C:1506:THR:OG1	3:C:1509:GLU:HG2	2.06	0.54
1:D:504:ILE:HG23	1:D:505:PRO:HA	1.90	0.54
1:A:504:ILE:CG2	1:A:505:PRO:HA	2.38	0.53
3:C:1391:PRO:HG2	3:C:1419:ARG:CD	2.27	0.53
1:D:548:SER:O	1:D:549:GLU:HB2	2.06	0.53
3:C:1504:LYS:O	3:C:1505:VAL:HG23	2.07	0.53
1:A:595:TRP:HD1	5:A:712:GOL:H12	1.72	0.53
3:C:1375:ASP:OD1	3:C:1431:HIS:HD2	1.91	0.53
1:A:487:GLU:H	1:A:490:GLN:HE21	1.56	0.53
1:A:634:GLN:HG3	7:A:795:HOH:O	2.09	0.53
3:C:1401:ASN:N	3:C:1401:ASN:HD22	2.05	0.53
2:E:834:GLN:HG3	7:E:577:HOH:O	2.08	0.53
1:D:230:GLU:HG2	1:D:279:VAL:HG22	1.91	0.53
1:A:177:VAL:HG22	1:A:182:TRP:HZ2	1.73	0.53
3:C:1337:ASN:H	3:C:1337:ASN:ND2	2.04	0.53
1:D:103:LEU:N	1:D:103:LEU:HD22	2.23	0.53
1:D:407:GLN:O	1:D:408:GLU:HG2	2.08	0.53
1:D:37:VAL:N	1:D:47:LEU:O	2.32	0.53
1:A:69:PRO:HA	1:A:70:ALA:CB	2.38	0.53
1:A:20:MET:CE	1:A:22:LEU:HD21	2.38	0.53
3:C:1490:ARG:HD2	3:C:1590:TRP:CZ3	2.44	0.53
1:A:3:MET:CE	1:A:522:ARG:HG2	2.38	0.52
3:C:1344:THR:CG2	3:C:1346:LYS:HE2	2.38	0.52
1:D:554:VAL:HG12	1:D:557:GLN:HB2	1.91	0.52
1:D:58:THR:O	1:D:58:THR:CG2	2.57	0.52
1:A:248:PHE:CD1	3:C:1378:MET:CE	2.76	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:574:VAL:HG13	2:E:751:TRP:HE3	1.75	0.52
1:A:444:ARG:HH22	1:A:534:LYS:HE2	1.73	0.52
1:A:628:SER:HB2	1:A:630:GLN:OE1	2.10	0.52
3:C:1359:LYS:NZ	3:C:1446:ASN:CB	2.72	0.52
1:D:104:GLN:HE21	1:D:132:HIS:CE1	2.27	0.52
3:C:1381:LEU:HD21	3:C:1457:VAL:HG13	1.90	0.52
1:D:128:PHE:HB3	2:E:787:MET:HE1	1.91	0.52
1:D:564:GLU:CD	1:D:564:GLU:CB	2.71	0.52
3:C:1462:ASN:HD22	3:C:1465:GLU:H	1.57	0.52
1:D:187:TYR:CD1	1:D:192:PRO:HA	2.44	0.52
1:A:469:THR:O	1:A:511:ALA:HA	2.10	0.52
3:C:1344:THR:HG21	3:C:1346:LYS:HE2	1.91	0.52
1:A:187:TYR:CD1	1:A:192:PRO:HA	2.45	0.52
1:A:223:ILE:HD11	1:A:328:THR:HG22	1.90	0.52
3:C:1530:VAL:HG12	3:C:1532:LEU:HD13	1.92	0.52
3:F:1499:GLN:O	3:F:1500:LYS:HB3	2.08	0.51
3:C:1386:MET:HB3	3:C:1450:ILE:CD1	2.40	0.51
1:D:221:TYR:OH	1:D:282:ARG:HG3	2.10	0.51
3:C:1483:LEU:HD23	3:C:1599:ILE:CD1	2.40	0.51
1:D:104:GLN:HE21	1:D:132:HIS:HE1	1.57	0.51
1:D:372:GLU:HA	1:D:372:GLU:OE1	2.09	0.51
3:F:1498:ILE:HG22	3:F:1499:GLN:HG3	1.93	0.51
1:A:19:THR:HG21	4:G:1:NDG:H8C1	1.91	0.51
2:E:746:PRO:CG	2:E:774:LYS:HG2	2.40	0.51
2:E:889:GLU:CG	2:E:904:ARG:HB3	2.39	0.51
1:A:149:GLU:OE2	1:D:363:TYR:OH	2.24	0.51
1:A:403:ARG:CA	1:A:404:THR:HG22	2.40	0.51
3:F:1525:THR:HG21	3:F:1541:MET:SD	2.50	0.51
3:F:1591:GLY:N	5:F:707:GOL:H31	2.15	0.51
1:D:470:TYR:C	1:D:471:LEU:HG	2.32	0.51
1:A:160:SER:HA	1:A:167:LEU:HD21	1.91	0.51
1:D:591:GLN:NE2	2:E:795:VAL:H	2.08	0.51
2:E:822:GLN:NE2	3:F:1480:LEU:H	2.08	0.51
1:D:104:GLN:HG3	1:D:194:GLN:OE1	2.10	0.51
1:A:45:LEU:CG	1:A:48:SER:HB3	2.41	0.50
1:D:550:ASP:O	1:D:552:GLN:N	2.40	0.50
1:A:338:THR:HG21	1:A:419:MET:HE1	1.92	0.50
3:F:1537:ASP:OD2	3:F:1569:ARG:CG	2.60	0.50
3:C:1552:ASP:OD2	3:C:1560:ARG:HD2	2.12	0.50
1:A:128:PHE:HA	1:A:165:GLY:O	2.11	0.50
1:A:20:MET:HE2	1:A:22:LEU:HD21	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:20:MET:HE1	1:D:86:VAL:HG12	1.92	0.50
1:A:375:VAL:CG1	1:A:376:GLN:N	2.55	0.50
3:F:1606:VAL:O	5:F:710:GOL:H12	2.11	0.50
1:A:575:ALA:O	2:B:748:SER:HA	2.11	0.50
1:D:40:PHE:CD2	1:D:41:PRO:CD	2.95	0.50
3:F:1416:PHE:HZ	3:F:1442:HIS:HB2	1.77	0.50
3:C:1499:GLN:CG	3:C:1500:LYS:N	2.70	0.50
1:D:126:ARG:HA	1:D:167:LEU:O	2.12	0.50
1:A:133:LYS:O	1:A:134:LEU:HB2	2.11	0.50
1:A:547:GLN:OE1	1:A:559:MET:HB2	2.12	0.50
1:D:45:LEU:CD2	1:D:48:SER:OG	2.59	0.50
1:A:177:VAL:HG22	1:A:182:TRP:CZ2	2.47	0.49
2:B:819:ARG:HH11	2:B:819:ARG:HG2	1.76	0.49
3:C:1386:MET:HB3	3:C:1450:ILE:HD13	1.93	0.49
1:D:564:GLU:OE1	1:D:564:GLU:CG	2.55	0.49
1:D:592:SER:CB	5:D:711:GOL:H11	2.43	0.49
2:B:841:ARG:HD2	5:B:701:GOL:O2	2.13	0.49
3:C:1582:MET:HA	3:C:1605:TRP:O	2.12	0.49
1:A:407:GLN:O	1:A:409:LEU:N	2.46	0.49
1:A:3:MET:HE3	1:A:522:ARG:HG2	1.94	0.49
1:D:211:GLU:HB3	1:D:582:VAL:HG22	1.95	0.49
3:C:1344:THR:HG22	7:C:505:HOH:O	2.13	0.49
1:D:595:TRP:HD1	5:D:711:GOL:H31	1.78	0.49
1:A:370:GLN:HG3	1:A:401:THR:HB	1.92	0.49
1:A:375:VAL:O	1:A:376:GLN:HB2	2.12	0.49
3:F:1504:LYS:O	3:F:1505:VAL:HB	2.13	0.49
1:D:558:GLN:HB3	2:E:772:PHE:CE2	2.47	0.48
1:A:332:GLN:HE21	1:A:357:PRO:HA	1.78	0.48
1:A:595:TRP:CD1	5:A:712:GOL:H12	2.48	0.48
1:D:375:VAL:CG2	1:D:376:GLN:N	2.58	0.48
1:A:407:GLN:C	1:A:409:LEU:H	2.17	0.48
1:A:47:LEU:CD2	1:A:66:PHE:HB2	2.43	0.48
3:C:1359:LYS:HZ3	3:C:1446:ASN:HB2	1.78	0.48
3:C:1509:GLU:HB2	7:C:494:HOH:O	2.12	0.48
1:D:36:THR:HG22	1:D:48:SER:HA	1.95	0.48
1:A:599:GLU:HG3	7:A:690:HOH:O	2.13	0.48
3:C:1609:TRP:CG	3:C:1627:LEU:HD13	2.49	0.48
3:F:1393:THR:CG2	3:F:1419:ARG:HH12	2.25	0.48
1:A:183:LYS:HD3	1:A:197:SER:HB3	1.94	0.48
1:A:6:ILE:HD13	1:A:22:LEU:HD23	1.94	0.48
1:D:6:ILE:CD1	1:D:7:ILE:N	2.76	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:55:THR:HG22	1:A:58:THR:H	1.79	0.48
3:C:1504:LYS:O	3:C:1505:VAL:CG2	2.62	0.48
1:D:350:LEU:HD21	1:D:400:ILE:HG12	1.94	0.48
1:D:241:LYS:HG3	2:E:832:TYR:CE1	2.49	0.48
1:A:63:ASN:O	1:A:64:VAL:HG22	2.14	0.48
3:C:1525:THR:HB	3:C:1541:MET:HE3	1.94	0.48
1:D:177:VAL:CG2	1:D:182:TRP:CZ2	2.97	0.48
1:D:47:LEU:HD11	1:D:66:PHE:HB2	1.95	0.48
3:F:1385:MET:HE3	7:F:183:HOH:O	2.14	0.48
3:F:1532:LEU:HD22	3:F:1569:ARG:HD3	1.95	0.48
3:F:1497:PHE:HA	3:F:1601:GLY:O	2.14	0.48
1:D:249:VAL:HG11	1:D:278:VAL:HG11	1.96	0.47
1:A:3:MET:HE1	1:A:630:GLN:OE1	2.14	0.47
1:D:595:TRP:HD1	5:D:711:GOL:C3	2.27	0.47
1:A:364:ARG:HH11	1:A:364:ARG:HG2	1.79	0.47
1:A:341:TYR:HA	1:A:422:LEU:O	2.14	0.47
1:D:3:MET:HE3	1:D:522:ARG:CG	2.44	0.47
3:C:1555:GLN:HB2	3:C:1558:GLN:NE2	2.29	0.47
1:A:606:THR:HG22	1:A:608:GLY:N	2.24	0.47
1:D:157:SER:C	1:D:158:LEU:HG	2.35	0.47
3:F:1572:LEU:HB3	3:F:1574:LEU:HG	1.95	0.47
1:A:477:ARG:NH1	1:A:477:ARG:CG	2.60	0.47
1:D:215:GLU:HG2	7:D:712:HOH:O	2.14	0.47
1:A:532:ASP:OD1	7:A:812:HOH:O	2.20	0.47
3:C:1497:PHE:HA	3:C:1601:GLY:O	2.15	0.47
1:D:31:VAL:HG13	1:D:54:LEU:HB2	1.96	0.47
3:F:1547:ILE:HG12	3:F:1631:THR:HG23	1.96	0.47
1:D:183:LYS:HD2	1:D:185:ARG:CZ	2.44	0.47
1:A:330:PRO:O	1:A:357:PRO:HD3	2.15	0.46
1:D:547:GLN:N	1:D:547:GLN:HE21	2.13	0.46
3:C:1465:GLU:O	3:C:1465:GLU:CG	2.60	0.46
1:A:20:MET:HE3	1:A:22:LEU:CD2	2.45	0.46
1:A:3:MET:HG3	1:A:628:SER:OG	2.15	0.46
1:A:126:ARG:HG3	2:B:751:TRP:CZ2	2.50	0.46
1:D:126:ARG:HD2	2:E:751:TRP:CZ2	2.50	0.46
1:A:182:TRP:CD1	1:A:202:VAL:HG23	2.51	0.46
1:A:6:ILE:CG1	1:A:20:MET:SD	3.02	0.46
1:A:45:LEU:HG	1:A:48:SER:HB3	1.98	0.46
1:A:590:THR:HG22	1:A:593:LYS:H	1.81	0.46
1:D:59:ASN:O	1:D:483:ARG:NH2	2.49	0.46
1:D:369:VAL:O	1:D:372:GLU:HG2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:1499:GLN:O	3:F:1500:LYS:CB	2.63	0.46
1:D:34:THR:O	1:D:34:THR:HG22	2.15	0.46
1:D:465:ILE:HD12	1:D:513:TYR:CD1	2.49	0.46
3:C:1579:HIS:HD2	3:C:1611:GLU:OE1	1.99	0.46
1:D:517:GLY:O	1:D:518:ALA:C	2.54	0.46
1:A:6:ILE:HD13	1:A:20:MET:CG	2.35	0.45
1:A:45:LEU:HD21	1:A:48:SER:HB3	1.98	0.45
1:D:46:VAL:HG12	1:D:69:PRO:HD2	1.97	0.45
1:A:11:ILE:HG12	1:A:100:LEU:HD23	1.98	0.45
2:B:841:ARG:CD	5:B:701:GOL:O2	2.64	0.45
1:D:304:VAL:HG13	1:D:321:ARG:HB3	1.98	0.45
1:D:567:HIS:CE1	2:E:760:PRO:HD3	2.51	0.45
3:F:1420:ASN:OD1	3:F:1421:THR:HG23	2.17	0.45
3:F:1554:VAL:HG13	3:F:1560:ARG:HE	1.81	0.45
1:A:641:PRO:O	1:A:642:GLN:HB2	2.15	0.45
3:C:1462:ASN:ND2	3:C:1465:GLU:H	2.13	0.45
3:F:1589:PHE:HE1	3:F:1598:TYR:CE2	2.34	0.45
1:A:3:MET:CE	1:A:630:GLN:OE1	2.65	0.45
1:D:10:ASN:HD22	1:D:10:ASN:HA	1.59	0.45
1:A:338:THR:HG23	1:A:350:LEU:HA	1.98	0.45
1:A:50:GLU:HB3	1:A:64:VAL:HB	1.99	0.45
1:D:145:ILE:HG12	1:D:184:ILE:HG12	1.99	0.45
1:D:6:ILE:HG13	1:D:20:MET:HE2	1.97	0.45
2:E:823:VAL:HG23	2:E:878:ILE:HG23	1.99	0.45
2:B:742:ARG:HB3	2:B:775:ASP:HB3	1.99	0.45
1:A:110:ILE:HB	1:A:198:THR:OG1	2.16	0.45
1:D:116:ILE:HD11	1:D:203:LYS:HD2	1.99	0.45
1:D:574:VAL:HG13	2:E:751:TRP:CE3	2.52	0.45
1:D:126:ARG:HD2	2:E:751:TRP:CH2	2.52	0.45
2:E:732:ASP:OD1	2:E:896:HIS:HA	2.15	0.45
3:F:1501:SER:HB2	3:F:1503:ASP:O	2.17	0.45
1:A:2:PRO:HA	1:A:25:HIS:O	2.17	0.45
1:A:184:ILE:O	1:A:197:SER:HA	2.17	0.45
1:A:40:PHE:HA	1:A:41:PRO:HA	1.72	0.45
3:F:1499:GLN:HG3	3:F:1500:LYS:H	1.81	0.45
1:A:147:ASN:CB	1:A:148:PRO:CD	2.94	0.44
1:A:260:ILE:HD12	2:E:762:ASN:CG	2.37	0.44
1:D:516:ILE:HD11	1:D:520:GLY:HA2	1.97	0.44
2:E:737:GLU:CD	2:E:737:GLU:H	2.20	0.44
3:F:1393:THR:HG23	3:F:1419:ARG:HH12	1.81	0.44
1:A:3:MET:SD	1:A:626:SER:HB2	2.57	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:1362:MET:HE2	3:C:1389:PHE:CZ	2.53	0.44
2:B:746:PRO:CG	2:B:774:LYS:HG3	2.47	0.44
2:B:819:ARG:HG2	2:B:819:ARG:NH1	2.33	0.44
3:F:1497:PHE:HB2	3:F:1604:THR:O	2.17	0.44
1:A:368:ALA:N	1:A:403:ARG:O	2.40	0.44
1:A:55:THR:CG2	1:A:57:ALA:H	2.31	0.44
1:A:61:MET:HE3	1:A:61:MET:HB3	1.75	0.44
3:C:1472:HIS:CE1	3:C:1474:GLU:HG2	2.53	0.44
1:D:50:GLU:HA	1:D:50:GLU:OE1	2.17	0.44
1:A:422:LEU:HB3	1:A:423:PRO:HD2	2.00	0.44
2:E:851:CYS:HB3	2:E:879:VAL:HB	2.00	0.44
2:B:830:TYR:CD1	2:B:871:SER:HB3	2.53	0.44
3:C:1503:ASP:O	3:C:1504:LYS:HB3	2.18	0.44
1:D:142:MET:HG3	1:D:187:TYR:CE1	2.53	0.44
1:D:49:SER:HB2	1:D:50:GLU:OE2	2.17	0.44
3:C:1504:LYS:HG2	3:C:1505:VAL:N	2.32	0.43
2:E:806:ASP:HB3	2:E:833:ARG:HG2	2.00	0.43
3:F:1617:ASP:O	3:F:1619:GLU:N	2.50	0.43
1:A:603:ILE:HA	7:A:757:HOH:O	2.17	0.43
3:C:1415:ALA:CB	3:C:1417:SER:H	2.31	0.43
1:D:143:VAL:HG11	1:D:169:LEU:HD11	2.00	0.43
1:D:148:PRO:HD3	1:D:182:TRP:CE2	2.53	0.43
1:D:546:GLY:HA3	1:D:560:THR:HG22	2.01	0.43
1:D:575:ALA:O	2:E:748:SER:HA	2.18	0.43
3:C:1343:VAL:HG21	3:C:1455:VAL:HB	2.00	0.43
2:E:817:VAL:HG22	2:E:907:LEU:HD22	2.01	0.43
1:D:236:ARG:HH12	1:D:240:GLY:HA2	1.83	0.43
3:F:1485:ARG:HD2	5:F:707:GOL:O3	2.18	0.43
4:G:1:NDG:H6C1	4:G:2:NDG:C7	2.48	0.43
1:A:160:SER:CA	1:A:167:LEU:HD21	2.49	0.43
1:D:154:LYS:HD2	1:D:171:TRP:CD1	2.54	0.43
1:D:292:LEU:H	1:D:292:LEU:HD22	1.63	0.43
1:D:39:ASP:OD1	1:D:39:ASP:N	2.51	0.43
1:A:177:VAL:CG2	1:A:182:TRP:CZ2	3.02	0.43
1:A:50:GLU:OE2	1:A:50:GLU:HA	2.18	0.43
1:D:14:LEU:HD21	1:D:101:VAL:HG11	1.99	0.43
1:D:193:GLN:H	1:D:193:GLN:CD	2.22	0.43
1:D:234:THR:HA	1:D:274:GLY:O	2.18	0.43
1:A:443:LEU:HD11	1:A:449:LEU:HD22	2.00	0.43
1:A:21:VAL:HG23	1:A:478:LEU:HD13	2.01	0.43
1:A:10:ASN:HB3	1:A:635:ARG:HD3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:160:SER:CB	1:D:167:LEU:CD1	2.85	0.43
2:B:731:GLU:H	2:B:731:GLU:CD	2.20	0.43
1:A:241:LYS:HG3	2:B:832:TYR:CE2	2.54	0.43
1:A:151:ILE:HA	1:A:152:PRO:HD3	1.93	0.43
3:C:1472:HIS:HB3	3:C:1475:LYS:HB2	2.00	0.43
1:D:427:VAL:HG12	1:D:521:GLN:NE2	2.34	0.43
1:A:432:ASN:OD1	1:A:457:MET:CB	2.67	0.42
1:D:89:THR:HB	1:D:94:VAL:HG22	2.02	0.42
2:E:907:LEU:HD12	2:E:907:LEU:N	2.32	0.42
3:F:1385:MET:HE2	3:F:1389:PHE:C	2.39	0.42
3:C:1387:THR:CG2	3:C:1451:GLN:N	2.72	0.42
1:D:126:ARG:CZ	1:D:572:VAL:HB	2.49	0.42
1:A:24:ALA:HB3	1:A:60:HIS:HB3	2.01	0.42
1:A:552:GLN:HA	1:A:553:PRO:HD2	1.86	0.42
3:C:1359:LYS:HZ2	3:C:1446:ASN:HB2	1.84	0.42
1:D:6:ILE:HG13	1:D:20:MET:SD	2.57	0.42
3:C:1414:LYS:HB3	3:C:1415:ALA:H	1.76	0.42
1:A:127:ILE:CD1	1:A:169:LEU:HD12	2.50	0.42
2:E:739:ILE:HB	2:E:891:LYS:HD3	2.01	0.42
2:E:742:ARG:HB3	2:E:775:ASP:HB3	2.02	0.42
1:A:105:SER:O	1:A:131:ASN:HA	2.20	0.42
1:D:177:VAL:CG2	1:D:182:TRP:HZ2	2.32	0.42
1:D:279:VAL:HG12	1:D:280:LEU:C	2.40	0.42
1:D:469:THR:O	1:D:511:ALA:HA	2.19	0.42
1:D:509:LEU:C	1:D:509:LEU:CD1	2.88	0.42
3:F:1450:ILE:HG13	3:F:1450:ILE:O	2.16	0.42
1:A:214:VAL:CG2	1:A:214:VAL:O	2.68	0.42
1:A:390:ASN:HD22	1:A:391:THR:H	1.66	0.42
1:A:342:PHE:HD1	1:A:391:THR:HG21	1.83	0.42
5:E:705:GOL:H32	7:E:510:HOH:O	2.20	0.42
1:A:191:SER:HA	1:A:193:GLN:NE2	2.28	0.42
1:A:307:THR:OG1	1:A:318:GLN:NE2	2.47	0.42
3:C:1387:THR:HG21	3:C:1451:GLN:H	1.79	0.42
2:E:746:PRO:CD	2:E:774:LYS:HG2	2.50	0.42
1:A:465:ILE:HD12	1:A:513:TYR:CD1	2.55	0.41
3:C:1504:LYS:CG	3:C:1506:THR:HG23	2.50	0.41
1:A:146:GLU:OE1	1:A:185:ARG:HD3	2.20	0.41
1:A:392:HIS:HA	1:A:393:PRO:HD3	1.91	0.41
1:D:236:ARG:NH1	1:D:240:GLY:HA2	2.35	0.41
3:F:1335:THR:O	3:F:1336:CYS:C	2.57	0.41
1:A:221:TYR:O	1:A:326:ILE:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:345:GLY:O	1:A:456:ARG:NH2	2.53	0.41
3:C:1341:LEU:HD22	3:C:1457:VAL:CG2	2.43	0.41
1:D:10:ASN:HB3	1:D:635:ARG:HD3	2.02	0.41
1:D:142:MET:O	1:D:186:ALA:HA	2.20	0.41
1:D:63:ASN:O	1:D:64:VAL:HG22	2.20	0.41
1:D:128:PHE:CD1	2:E:787:MET:HE1	2.55	0.41
2:E:866:ILE:HA	2:E:867:PRO:HD2	1.90	0.41
1:A:154:LYS:HD2	1:A:171:TRP:HD1	1.81	0.41
1:A:223:ILE:HG12	1:A:298:VAL:HG22	2.02	0.41
2:B:897:HIS:N	2:B:897:HIS:HD1	2.17	0.41
3:C:1387:THR:HG23	3:C:1451:GLN:N	2.34	0.41
3:C:1392:ASP:HB2	3:C:1442:HIS:HE2	1.86	0.41
3:C:1412:LEU:HD12	3:C:1412:LEU:HA	1.89	0.41
1:D:49:SER:CB	1:D:50:GLU:OE2	2.68	0.41
2:E:758:GLU:CD	2:E:758:GLU:H	2.24	0.41
1:A:39:ASP:OD1	1:A:44:LYS:N	2.53	0.41
1:D:147:ASN:HB2	1:D:148:PRO:HD2	2.01	0.41
2:E:833:ARG:O	2:E:834:GLN:C	2.59	0.41
3:F:1336:CYS:HB3	3:F:1467:CYS:HB2	1.89	0.41
3:C:1576:GLU:O	3:C:1577:LYS:HB2	2.21	0.41
1:D:241:LYS:HD3	1:D:241:LYS:HA	1.88	0.41
2:B:837:GLU:CB	2:B:868:PRO:HD3	2.44	0.41
1:D:114:LYS:HE3	1:D:117:TYR:CE1	2.56	0.41
1:D:362:ALA:O	1:D:383:GLY:HA2	2.20	0.41
1:A:148:PRO:HD3	1:A:182:TRP:CE2	2.55	0.41
1:A:592:SER:HB2	7:A:724:HOH:O	2.20	0.41
1:A:164:LEU:O	2:B:787:MET:HG2	2.21	0.41
1:D:3:MET:CE	1:D:522:ARG:CD	2.99	0.41
1:A:407:GLN:C	1:A:408:GLU:HG3	2.41	0.41
2:E:877:VAL:HG13	3:F:1451:GLN:CD	2.41	0.41
3:F:1385:MET:CE	3:F:1389:PHE:HB3	2.52	0.41
1:A:10:ASN:HA	1:A:10:ASN:HD22	1.69	0.40
1:D:459:ARG:HG2	1:D:459:ARG:H	1.62	0.40
1:A:47:LEU:HD21	1:A:50:GLU:CG	2.48	0.40
1:A:15:GLU:CG	1:A:70:ALA:HB2	2.52	0.40
3:C:1337:ASN:N	3:C:1337:ASN:ND2	2.67	0.40
3:C:1437:LEU:HD12	3:C:1437:LEU:C	2.41	0.40
2:E:850:PHE:CE1	2:E:878:ILE:HD11	2.56	0.40
3:F:1377:THR:HB	3:F:1378:MET:H	1.70	0.40
2:B:889:GLU:OE2	2:B:891:LYS:HE3	2.22	0.40
1:A:45:LEU:HD21	1:A:48:SER:CB	2.50	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:1450:ILE:HG13	3:C:1450:ILE:O	2.22	0.40
1:D:31:VAL:HA	1:D:32:PRO:HD2	1.98	0.40
1:D:42:GLY:O	1:D:43:LYS:HG3	2.22	0.40
3:F:1560:ARG:HA	3:F:1560:ARG:HD3	1.92	0.40
3:C:1403:VAL:HA	7:C:499:HOH:O	2.21	0.40
3:C:1541:MET:O	3:C:1559:GLN:HA	2.21	0.40
1:D:343:LYS:HD2	1:D:343:LYS:N	2.36	0.40
1:D:45:LEU:HG	1:D:48:SER:OG	2.21	0.40
3:F:1380:ILE:HG23	3:F:1423:ILE:HG23	2.04	0.40
3:F:1380:ILE:O	3:F:1457:VAL:HA	2.21	0.40

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	624/643 (97%)	582 (93%)	27 (4%)	15 (2%)	6 6
1	D	629/643 (98%)	593 (94%)	21 (3%)	15 (2%)	6 6
2	B	181/188 (96%)	172 (95%)	8 (4%)	1 (1%)	25 36
2	E	182/188 (97%)	167 (92%)	13 (7%)	2 (1%)	14 20
3	C	290/343 (84%)	270 (93%)	9 (3%)	11 (4%)	3 2
3	F	294/343 (86%)	274 (93%)	11 (4%)	9 (3%)	4 3
All	All	2200/2348 (94%)	2058 (94%)	89 (4%)	53 (2%)	6 6

All (53) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	410	SER
1	A	550	ASP

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Mol	Chain	Res	Type
3	C	1361	THR
1	D	41	PRO
1	D	372	GLU
1	D	549	GLU
1	D	550	ASP
2	E	834	GLN
3	F	1336	CYS
3	F	1500	LYS
1	A	91	GLY
1	A	375	VAL
1	A	518	ALA
2	B	732	ASP
3	C	1414	LYS
3	C	1504	LYS
3	C	1505	VAL
1	D	50	GLU
1	D	64	VAL
1	D	256	GLY
1	D	375	VAL
1	D	518	ALA
1	D	551	ARG
1	D	609	SER
2	E	833	ARG
3	F	1449	LEU
3	F	1499	GLN
3	F	1618	GLU
3	F	1619	GLU
1	A	50	GLU
1	A	64	VAL
1	A	372	GLU
1	A	404	THR
1	A	407	GLN
1	A	548	SER
1	A	549	GLU
3	C	1477	ASP
3	C	1499	GLN
3	C	1619	GLU
1	D	410	SER
1	D	376	GLN
3	F	1504	LYS
3	F	1505	VAL
1	A	81	ASN

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Mol	Chain	Res	Type
1	A	609	SER
3	C	1416	PHE
3	C	1417	SER
3	C	1573	LYS
3	C	1618	GLU
1	D	552	GLN
3	F	1377	THR
1	A	376	GLN
1	D	91	GLY

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	555/567 (98%)	498 (90%)	57 (10%)	7	10
1	D	558/567 (98%)	487 (87%)	71 (13%)	4	5
2	B	171/175 (98%)	156 (91%)	15 (9%)	10	15
2	E	171/175 (98%)	155 (91%)	16 (9%)	8	13
3	C	270/309 (87%)	232 (86%)	38 (14%)	3	4
3	F	272/309 (88%)	242 (89%)	30 (11%)	6	8
All	All	1997/2102 (95%)	1770 (89%)	227 (11%)	5	7

All (227) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	3	MET
1	A	10	ASN
1	A	36	THR
1	A	45	LEU
1	A	46	VAL
1	A	47	LEU
1	A	51	LYS
1	A	55	THR
1	A	61	MET

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Mol	Chain	Res	Type
1	A	64	VAL
1	A	92	THR
1	A	137	VAL
1	A	155	GLN
1	A	161	GLN
1	A	163	GLN
1	A	179	MET
1	A	183	LYS
1	A	193	GLN
1	A	207	LEU
1	A	223	ILE
1	A	227	LYS
1	A	236	ARG
1	A	249	VAL
1	A	275	SER
1	A	277	GLU
1	A	293	ARG
1	A	311	HIS
1	A	350	LEU
1	A	364	ARG
1	A	372	GLU
1	A	379	THR
1	A	386	LYS
1	A	390	ASN
1	A	391	THR
1	A	396	LYS
1	A	398	LEU
1	A	408	GLU
1	A	410	SER
1	A	417	ARG
1	A	438	VAL
1	A	444	ARG
1	A	448	THR
1	A	456	ARG
1	A	477	ARG
1	A	487	GLU
1	A	509	LEU
1	A	516	ILE
1	A	521	GLN
1	A	529	VAL
1	A	550	ASP
1	A	554	VAL

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Mol	Chain	Res	Type
1	A	583	LEU
1	A	590	THR
1	A	592	SER
1	A	628	SER
1	A	637	GLU
1	A	639	GLN
2	B	730	ASP
2	B	731	GLU
2	B	788	SER
2	B	812	ARG
2	B	813	LEU
2	B	819	ARG
2	B	826	ARG
2	B	834	GLN
2	B	841	ARG
2	B	870	SER
2	B	872	LEU
2	B	894	VAL
2	B	897	HIS
2	B	907	LEU
2	B	912	GLU
3	C	1335	THR
3	C	1337	ASN
3	C	1338	LYS
3	C	1342	LYS
3	C	1344	THR
3	C	1361	THR
3	C	1387	THR
3	C	1393	THR
3	C	1401	ASN
3	C	1411	GLU
3	C	1412	LEU
3	C	1414	LYS
3	C	1416	PHE
3	C	1418	ASP
3	C	1428	LYS
3	C	1432	SER
3	C	1433	GLU
3	C	1440	LYS
3	C	1450	ILE
3	C	1457	VAL
3	C	1462	ASN

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Mol	Chain	Res	Type
3	C	1469	ARG
3	C	1474	GLU
3	C	1479	LYS
3	C	1483	LEU
3	C	1503	ASP
3	C	1504	LYS
3	C	1505	VAL
3	C	1507	LEU
3	C	1532	LEU
3	C	1555	GLN
3	C	1558	GLN
3	C	1566	ILE
3	C	1573	LYS
3	C	1602	LYS
3	C	1611	GLU
3	C	1619	GLU
3	C	1623	GLN
1	D	3	MET
1	D	6	ILE
1	D	10	ASN
1	D	20	MET
1	D	31	VAL
1	D	34	THR
1	D	46	VAL
1	D	47	LEU
1	D	50	GLU
1	D	51	LYS
1	D	52	THR
1	D	63	ASN
1	D	64	VAL
1	D	81	ASN
1	D	82	LYS
1	D	87	GLN
1	D	89	THR
1	D	98	VAL
1	D	103	LEU
1	D	126	ARG
1	D	133	LYS
1	D	140	THR
1	D	153	VAL
1	D	155	GLN
1	D	158	LEU

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Mol	Chain	Res	Type
1	D	189	GLU
1	D	190	ASN
1	D	191	SER
1	D	194	GLN
1	D	217	THR
1	D	232	THR
1	D	236	ARG
1	D	292	LEU
1	D	297	LEU
1	D	300	LYS
1	D	302	LEU
1	D	304	VAL
1	D	316	MET
1	D	364	ARG
1	D	372	GLU
1	D	373	ASP
1	D	376	GLN
1	D	384	VAL
1	D	389	ILE
1	D	396	LYS
1	D	400	ILE
1	D	407	GLN
1	D	408	GLU
1	D	410	SER
1	D	411	GLU
1	D	425	SER
1	D	437	SER
1	D	440	ARG
1	D	443	LEU
1	D	459	ARG
1	D	471	LEU
1	D	477	ARG
1	D	483	ARG
1	D	509	LEU
1	D	510	VAL
1	D	516	ILE
1	D	529	VAL
1	D	547	GLN
1	D	549	GLU
1	D	550	ASP
1	D	551	ARG
1	D	554	VAL

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Mol	Chain	Res	Type
1	D	564	GLU
1	D	574	VAL
1	D	592	SER
1	D	639	GLN
2	E	731	GLU
2	E	753	VAL
2	E	757	LYS
2	E	759	PRO
2	E	761	LYS
2	E	778	THR
2	E	795	VAL
2	E	833	ARG
2	E	834	GLN
2	E	840	VAL
2	E	842	VAL
2	E	865	THR
2	E	872	LEU
2	E	877	VAL
2	E	878	ILE
2	E	907	LEU
3	F	1335	THR
3	F	1336	CYS
3	F	1342	LYS
3	F	1359	LYS
3	F	1360	ASN
3	F	1369	ARG
3	F	1373	ASP
3	F	1374	GLN
3	F	1377	THR
3	F	1393	THR
3	F	1411	GLU
3	F	1418	ASP
3	F	1449	LEU
3	F	1450	ILE
3	F	1487	GLU
3	F	1499	GLN
3	F	1501	SER
3	F	1504	LYS
3	F	1506	THR
3	F	1507	LEU
3	F	1511	LEU
3	F	1525	THR

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Mol	Chain	Res	Type
3	F	1528	VAL
3	F	1545	GLN
3	F	1553	GLU
3	F	1554	VAL
3	F	1566	ILE
3	F	1602	LYS
3	F	1613	ASP
3	F	1619	GLU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (49) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	10	ASN
1	A	38	HIS
1	A	60	HIS
1	A	87	GLN
1	A	104	GLN
1	A	155	GLN
1	A	163	GLN
1	A	193	GLN
1	A	318	GLN
1	A	332	GLN
1	A	334	HIS
1	A	390	ASN
1	A	490	GLN
1	A	639	GLN
2	B	738	ASN
2	B	820	ASN
2	B	834	GLN
2	B	836	GLN
3	C	1337	ASN
3	C	1401	ASN
3	C	1431	HIS
3	C	1451	GLN
3	C	1462	ASN
3	C	1531	GLN
3	C	1579	HIS
3	C	1616	GLN
3	C	1620	ASN
1	D	10	ASN
1	D	38	HIS
1	D	81	ASN

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Mol	Chain	Res	Type
1	D	132	HIS
1	D	144	ASN
1	D	155	GLN
1	D	190	ASN
1	D	291	ASN
1	D	318	GLN
1	D	356	ASN
1	D	376	GLN
1	D	521	GLN
1	D	547	GLN
1	D	558	GLN
1	D	591	GLN
2	E	770	ASN
2	E	805	GLN
2	E	822	GLN
2	E	834	GLN
3	F	1431	HIS
3	F	1620	ASN
3	F	1641	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](#)

4 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	NDG	G	1	4	14,14,15	0.62	0	17,19,21	0.65	0
4	NDG	G	2	4	14,14,15	0.54	0	17,19,21	0.77	0
4	NDG	H	1	4	14,14,15	0.55	0	17,19,21	1.06	1 (5%)
4	NDG	H	2	4	14,14,15	0.87	1 (7%)	17,19,21	0.73	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	NDG	G	1	4	-	0/6/23/26	0/1/1/1
4	NDG	G	2	4	1/1/5/7	2/6/23/26	0/1/1/1
4	NDG	H	1	4	-	2/6/23/26	0/1/1/1
4	NDG	H	2	4	1/1/5/7	4/6/23/26	0/1/1/1

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	H	2	NDG	C1-C2	-2.64	1.48	1.52

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	H	1	NDG	O4-C4-C5	2.70	116.00	109.30

All (2) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
4	G	2	NDG	C1
4	H	2	NDG	C1

All (8) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	H	2	NDG	C8-C7-N2-C2
4	H	2	NDG	O7-C7-N2-C2
4	G	2	NDG	O5-C5-C6-O6
4	H	1	NDG	O5-C5-C6-O6
4	H	2	NDG	O5-C5-C6-O6

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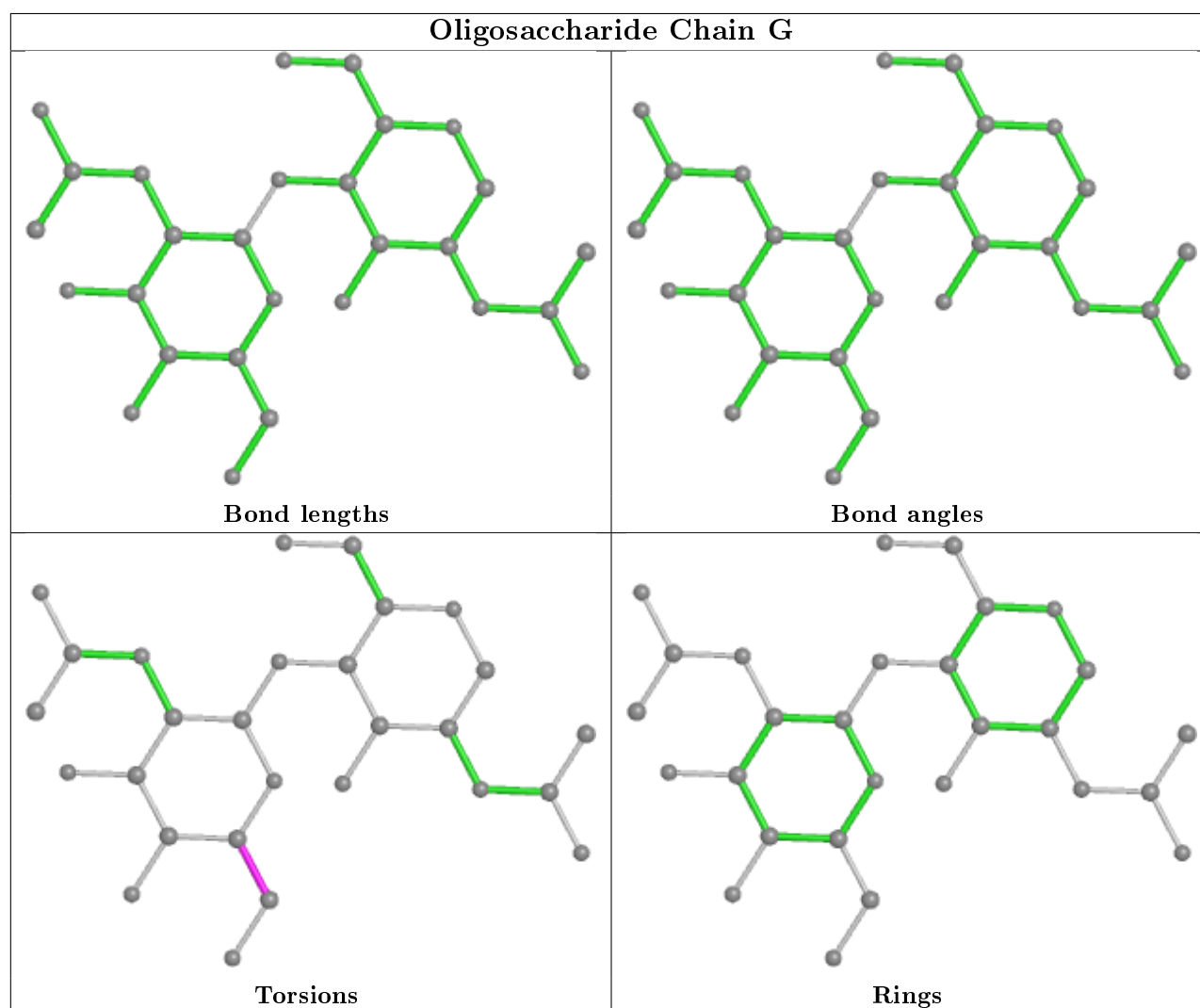
Mol	Chain	Res	Type	Atoms
4	H	2	NDG	C4-C5-C6-O6
4	H	1	NDG	C4-C5-C6-O6
4	G	2	NDG	C4-C5-C6-O6

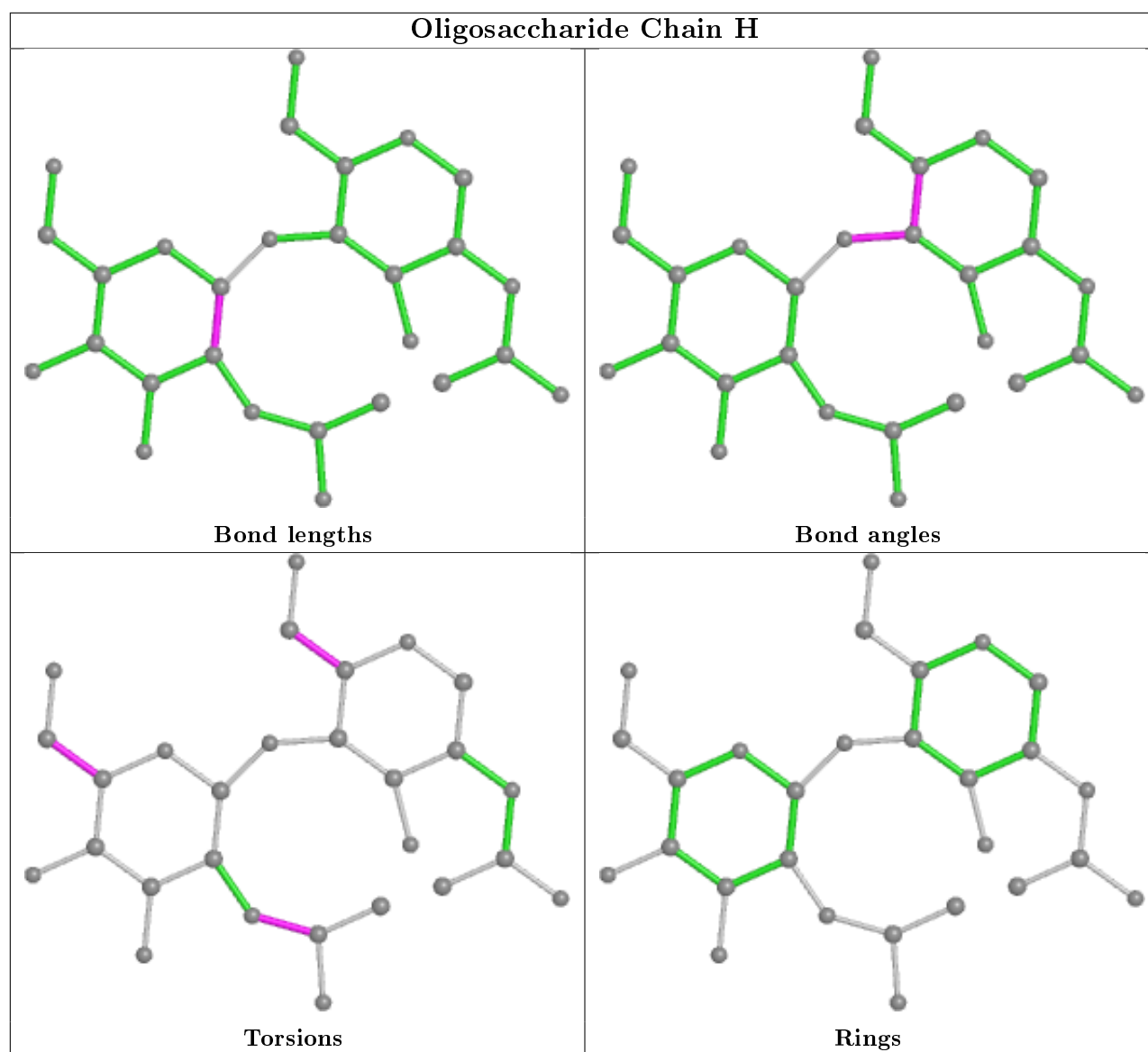
There are no ring outliers.

3 monomers are involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	G	1	NDG	2	0
4	G	2	NDG	1	0
4	H	1	NDG	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](#)

16 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	B	702	-	5,5,5	0.40	0	5,5,5	0.22	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
5	GOL	D	711	-	5,5,5	0.38	0	5,5,5	0.35	0
5	GOL	A	713	-	5,5,5	0.43	0	5,5,5	0.37	0
5	GOL	A	703	-	5,5,5	0.34	0	5,5,5	0.20	0
5	GOL	F	707	-	5,5,5	0.37	0	5,5,5	0.27	0
6	NO3	F	803	-	1,3,3	3.54	1 (100%)	0,3,3	0.00	-
5	GOL	C	709	-	5,5,5	0.31	0	5,5,5	0.40	0
5	GOL	F	710	-	5,5,5	0.35	0	5,5,5	0.22	0
5	GOL	E	706	-	5,5,5	0.36	0	5,5,5	0.47	0
5	GOL	E	704	-	5,5,5	0.42	0	5,5,5	0.46	0
6	NO3	C	801	-	1,3,3	3.61	1 (100%)	0,3,3	0.00	-
5	GOL	C	708	-	5,5,5	0.30	0	5,5,5	0.42	0
5	GOL	A	712	-	5,5,5	0.32	0	5,5,5	0.38	0
5	GOL	B	701	-	5,5,5	0.40	0	5,5,5	0.49	0
6	NO3	F	802	-	1,3,3	3.61	1 (100%)	0,3,3	0.00	-
5	GOL	E	705	-	5,5,5	0.37	0	5,5,5	0.34	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. '2' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	GOL	B	702	-	-	3/4/4/4	-
5	GOL	D	711	-	-	0/4/4/4	-
5	GOL	A	713	-	-	1/4/4/4	-
5	GOL	A	703	-	-	2/4/4/4	-
5	GOL	F	707	-	-	4/4/4/4	-
5	GOL	C	709	-	-	0/4/4/4	-
5	GOL	F	710	-	-	3/4/4/4	-
5	GOL	E	706	-	-	3/4/4/4	-
5	GOL	E	704	-	-	2/4/4/4	-
5	GOL	C	708	-	-	2/4/4/4	-
5	GOL	A	712	-	-	0/4/4/4	-
5	GOL	B	701	-	-	4/4/4/4	-
5	GOL	E	705	-	-	2/4/4/4	-

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	C	801	NO3	O1-N	3.61	1.40	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	F	802	NO3	O1-N	3.61	1.40	1.24
6	F	803	NO3	O1-N	3.54	1.40	1.24

There are no bond angle outliers.

There are no chirality outliers.

All (26) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	B	702	GOL	O1-C1-C2-C3
5	A	703	GOL	C1-C2-C3-O3
5	F	707	GOL	O1-C1-C2-C3
5	F	710	GOL	O1-C1-C2-C3
5	E	705	GOL	O1-C1-C2-C3
5	C	708	GOL	C1-C2-C3-O3
5	B	701	GOL	O1-C1-C2-C3
5	B	701	GOL	C1-C2-C3-O3
5	B	701	GOL	O2-C2-C3-O3
5	B	702	GOL	O1-C1-C2-O2
5	F	707	GOL	O1-C1-C2-O2
5	E	705	GOL	O1-C1-C2-O2
5	A	703	GOL	O2-C2-C3-O3
5	F	710	GOL	O1-C1-C2-O2
5	C	708	GOL	O2-C2-C3-O3
5	B	701	GOL	O1-C1-C2-O2
5	E	706	GOL	O2-C2-C3-O3
5	F	707	GOL	O2-C2-C3-O3
5	E	704	GOL	O1-C1-C2-O2
5	E	706	GOL	C1-C2-C3-O3
5	A	713	GOL	O2-C2-C3-O3
5	B	702	GOL	C1-C2-C3-O3
5	E	706	GOL	O1-C1-C2-C3
5	F	710	GOL	C1-C2-C3-O3
5	F	707	GOL	C1-C2-C3-O3
5	E	704	GOL	O1-C1-C2-C3

There are no ring outliers.

7 monomers are involved in 19 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	D	711	GOL	5	0
5	A	703	GOL	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	F	707	GOL	3	0
5	F	710	GOL	1	0
5	A	712	GOL	4	0
5	B	701	GOL	2	0
5	E	705	GOL	2	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

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	A	630/643 (97%)	0.49	53 (8%) 11 10	30, 44, 55, 73	0
1	D	633/643 (98%)	0.56	58 (9%) 9 8	33, 44, 56, 78	0
2	B	183/188 (97%)	0.48	14 (7%) 13 12	32, 44, 52, 59	0
2	E	184/188 (97%)	1.14	44 (23%) 0 0	37, 44, 51, 71	0
3	C	296/343 (86%)	0.65	31 (10%) 6 5	33, 45, 56, 65	0
3	F	298/343 (86%)	0.73	32 (10%) 6 5	30, 45, 57, 68	0
All	All	2224/2348 (94%)	0.62	232 (10%) 6 6	30, 44, 55, 78	0

All (232) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
3	F	1502	ASP	11.1
3	C	1416	PHE	10.8
3	F	1501	SER	10.2
2	E	899	ILE	7.5
1	D	551	ARG	7.5
3	F	1503	ASP	7.5
1	A	374	THR	7.5
2	E	759	PRO	7.2
2	E	913	GLY	7.0
1	D	550	ASP	6.8
1	D	549	GLU	6.6
1	D	373	ASP	6.6
3	C	1503	ASP	6.3
1	A	548	SER	6.3
2	E	896	HIS	6.2
3	F	1335	THR	6.2
1	D	643	PRO	6.0
3	F	1641	ASN	6.0
2	E	834	GLN	5.9

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Mol	Chain	Res	Type	RSRZ
2	E	914	ILE	5.8
3	C	1417	SER	5.7
3	C	1641	ASN	5.6
1	D	642	GLN	5.5
1	A	550	ASP	5.5
3	F	1499	GLN	5.4
2	E	763	GLY	5.2
1	D	545	SER	4.9
2	E	835	ASN	4.9
1	D	440	ARG	4.7
1	D	548	SER	4.7
1	A	642	GLN	4.6
1	D	257	GLU	4.5
3	F	1504	LYS	4.5
2	E	768	LEU	4.4
1	A	297	LEU	4.3
1	A	442	GLU	4.3
1	D	80	ARG	4.3
1	D	162	ASN	4.2
1	A	549	GLU	4.2
1	D	371	GLY	4.2
1	A	373	ASP	4.1
1	A	551	ARG	4.1
2	E	731	GLU	4.0
1	A	6	ILE	4.0
1	A	622	LEU	4.0
2	E	868	PRO	4.0
3	F	1373	ASP	3.9
1	A	1	SER	3.9
3	C	1499	GLN	3.9
3	C	1372	GLY	3.8
2	E	869	LYS	3.8
1	A	510	VAL	3.7
2	B	731	GLU	3.7
3	C	1335	THR	3.7
3	F	1445	PHE	3.7
2	E	790	LYS	3.6
1	D	471	LEU	3.6
1	D	427	VAL	3.6
1	A	371	GLY	3.6
1	D	190	ASN	3.6
3	F	1464	GLU	3.6

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Mol	Chain	Res	Type	RSRZ
1	D	622	LEU	3.6
2	B	898	PHE	3.6
2	E	732	ASP	3.5
3	F	1534	ASN	3.5
2	E	876	TYR	3.4
2	B	836	GLN	3.4
3	C	1445	PHE	3.4
1	D	57	ALA	3.4
3	C	1410	TYR	3.4
1	A	157	SER	3.3
2	E	825	ILE	3.3
1	D	519	SER	3.3
1	A	470	TYR	3.3
1	D	48	SER	3.3
1	D	512	TYR	3.3
1	D	164	LEU	3.2
1	A	469	THR	3.2
3	F	1447	VAL	3.2
3	C	1522	VAL	3.2
2	E	783	LEU	3.2
3	F	1416	PHE	3.2
1	D	469	THR	3.2
1	A	44	LYS	3.2
3	C	1418	ASP	3.2
2	E	738	ASN	3.1
2	E	895	TYR	3.1
1	A	7	ILE	3.1
2	E	865	THR	3.1
2	E	875	PRO	3.1
1	A	471	LEU	3.1
2	E	811	LEU	3.1
1	A	48	SER	3.1
2	B	873	SER	3.1
1	D	7	ILE	3.0
3	C	1374	GLN	3.0
1	A	511	ALA	3.0
2	E	870	SER	3.0
1	D	510	VAL	3.0
1	A	472	ILE	3.0
1	A	574	VAL	2.9
1	D	110	ILE	2.9
2	E	867	PRO	2.9

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Mol	Chain	Res	Type	RSRZ
3	F	1570	GLU	2.9
3	F	1500	LYS	2.9
3	F	1384	SER	2.9
1	A	512	TYR	2.9
3	F	1618	GLU	2.9
1	D	547	GLN	2.9
1	D	228	GLY	2.9
1	A	12	LEU	2.8
3	C	1448	GLU	2.8
2	E	827	ALA	2.8
2	B	876	TYR	2.8
3	F	1487	GLU	2.8
2	E	874	VAL	2.8
2	E	898	PHE	2.8
2	E	795	VAL	2.8
1	D	476	GLY	2.8
2	B	730	ASP	2.8
1	A	80	ARG	2.7
1	D	511	ALA	2.7
3	F	1431	HIS	2.7
2	E	785	VAL	2.7
1	D	572	VAL	2.7
3	C	1547	ILE	2.7
1	D	125	TYR	2.7
2	E	897	HIS	2.7
3	F	1420	ASN	2.7
1	D	53	VAL	2.7
3	F	1403	VAL	2.6
1	D	470	TYR	2.6
2	E	789	ASP	2.6
2	B	842	VAL	2.6
3	C	1384	SER	2.6
1	A	287	ASP	2.6
1	A	518	ALA	2.6
1	D	375	VAL	2.6
2	E	877	VAL	2.6
1	D	397	PRO	2.6
2	E	782	ILE	2.6
3	F	1417	SER	2.6
3	F	1404	ASP	2.6
2	B	875	PRO	2.6
3	C	1616	GLN	2.6

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Mol	Chain	Res	Type	RSRZ
3	C	1383	ILE	2.5
1	D	312	SER	2.5
1	D	574	VAL	2.5
1	D	489	GLY	2.5
1	A	226	GLU	2.5
2	E	754	GLU	2.5
2	E	837	GLU	2.5
1	D	15	GLU	2.5
1	D	442	GLU	2.5
2	E	758	GLU	2.5
1	D	639	GLN	2.5
2	E	836	GLN	2.5
3	F	1448	GLU	2.5
1	A	144	ASN	2.5
1	A	9	PRO	2.5
1	A	40	PHE	2.4
3	C	1562	PHE	2.4
1	A	189	GLU	2.4
2	B	890	VAL	2.4
2	B	825	ILE	2.4
3	F	1640	PRO	2.4
1	A	573	LEU	2.4
1	A	110	ILE	2.4
3	F	1600	ILE	2.4
1	A	436	LEU	2.4
1	A	616	VAL	2.4
3	F	1385	MET	2.4
1	A	575	ALA	2.4
1	A	108	LEU	2.4
3	C	1613	ASP	2.4
1	A	526	ALA	2.4
3	C	1581	LEU	2.4
1	A	313	GLY	2.3
2	E	762	ASN	2.3
2	E	753	VAL	2.3
2	E	878	ILE	2.3
3	C	1359	LYS	2.3
3	F	1454	ALA	2.3
1	D	623	THR	2.3
1	A	149	GLU	2.3
1	A	617	PHE	2.3
3	F	1581	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
2	E	809	ILE	2.3
2	B	784	ALA	2.3
1	A	193	GLN	2.3
1	A	509	LEU	2.3
1	D	395	GLN	2.3
1	D	491	ASP	2.3
1	D	103	LEU	2.3
3	C	1504	LYS	2.2
1	A	372	GLU	2.2
2	B	789	ASP	2.2
1	A	21	VAL	2.2
3	F	1383	ILE	2.2
1	D	396	LYS	2.2
1	D	436	LEU	2.2
2	E	873	SER	2.2
2	E	829	LEU	2.2
3	C	1639	CYS	2.2
1	D	226	GLU	2.2
3	C	1431	HIS	2.2
1	D	520	GLY	2.2
1	D	69	PRO	2.2
2	B	826	ARG	2.2
3	F	1599	ILE	2.1
3	F	1521	TYR	2.1
3	C	1487	GLU	2.1
1	D	256	GLY	2.1
1	A	99	VAL	2.1
1	D	127	ILE	2.1
3	C	1486	ASP	2.1
1	A	41	PRO	2.1
3	C	1433	GLU	2.1
3	C	1373	ASP	2.1
3	C	1617	ASP	2.1
1	D	473	MET	2.1
1	A	185	ARG	2.1
1	D	372	GLU	2.1
1	A	375	VAL	2.1
2	B	877	VAL	2.1
1	D	28	GLN	2.1
2	E	872	LEU	2.0
1	A	621	GLY	2.0
1	D	44	LYS	2.0

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Mol	Chain	Res	Type	RSRZ
3	C	1423	ILE	2.0
3	C	1500	LYS	2.0
1	D	229	LEU	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](#)

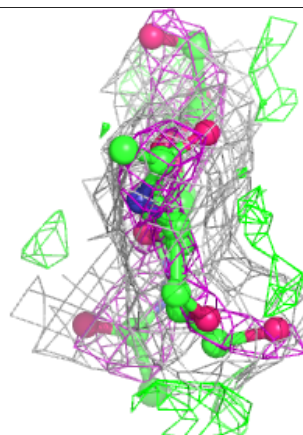
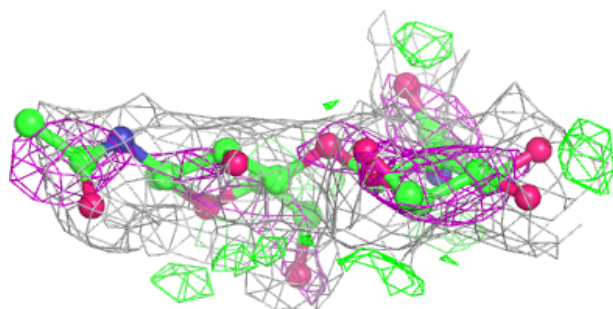
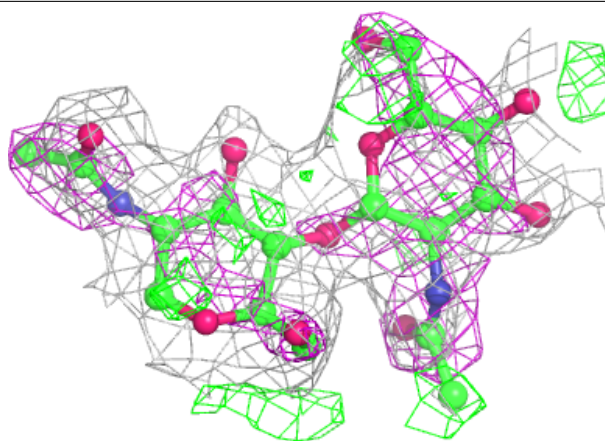
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

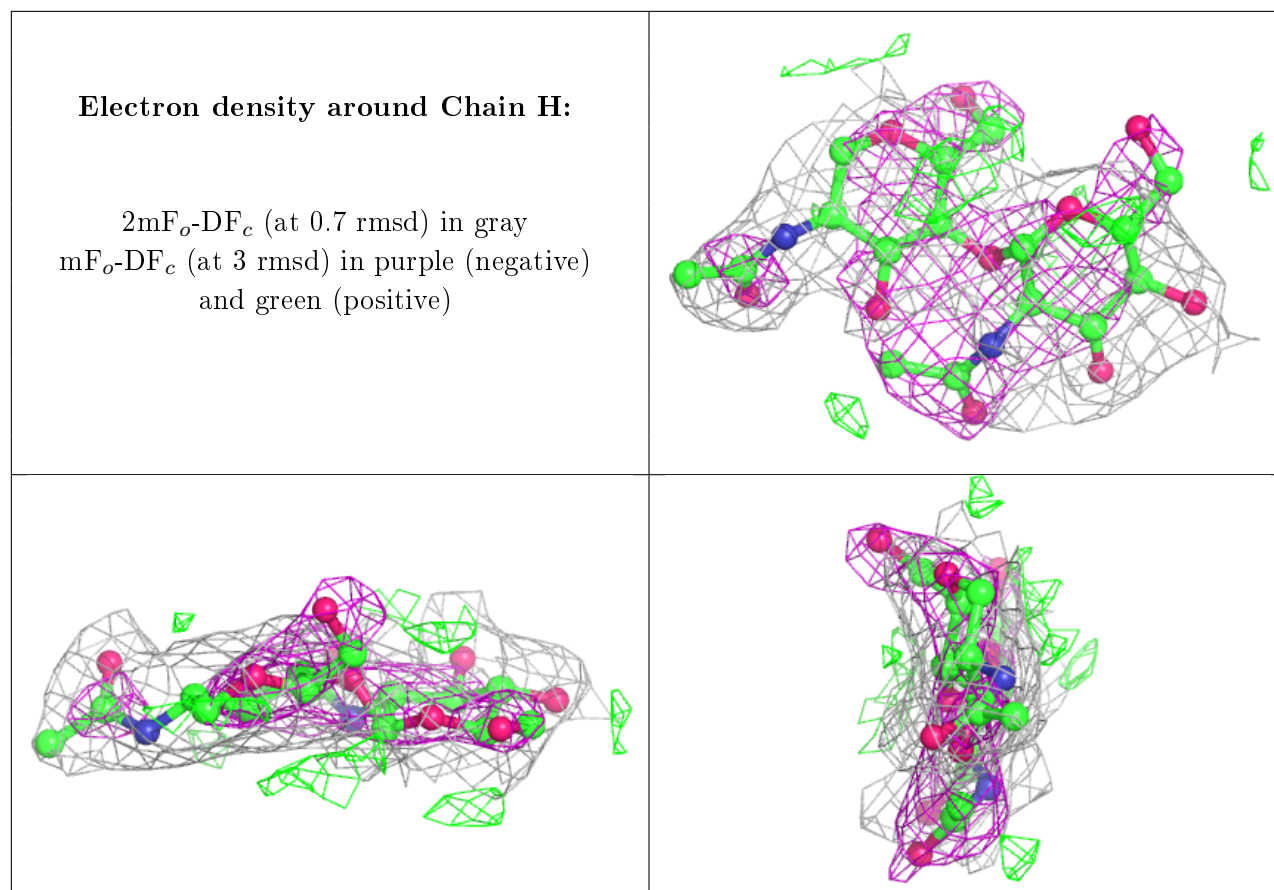
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
4	NDG	G	2	14/15	0.64	0.47	64,66,69,69	0
4	NDG	H	2	14/15	0.68	0.56	75,76,78,79	0
4	NDG	H	1	14/15	0.73	0.40	61,66,70,73	0
4	NDG	G	1	14/15	0.86	0.29	54,57,59,62	0

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:

$2mF_o-DF_c$ (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
5	GOL	A	713	6/6	0.45	0.29	61,65,66,68	0
5	GOL	E	706	6/6	0.48	0.57	57,60,63,64	0
5	GOL	F	707	6/6	0.61	0.54	86,88,88,89	0
5	GOL	A	712	6/6	0.64	0.68	78,81,82,85	0
6	NO3	F	802	4/4	0.64	0.58	89,89,89,90	0
5	GOL	E	705	6/6	0.65	0.48	62,66,66,67	0
5	GOL	B	702	6/6	0.68	0.56	87,88,88,89	0
6	NO3	F	803	4/4	0.69	0.37	73,73,73,73	0
5	GOL	D	711	6/6	0.73	0.77	81,83,84,88	0
5	GOL	A	703	6/6	0.73	0.32	60,62,63,65	0
5	GOL	F	710	6/6	0.77	0.20	72,73,73,74	0
6	NO3	C	801	4/4	0.79	0.32	77,77,77,77	0
5	GOL	C	708	6/6	0.79	0.22	66,72,73,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
5	GOL	C	709	6/6	0.80	0.28	90,90,91,91	0
5	GOL	E	704	6/6	0.86	0.24	45,49,51,52	0
5	GOL	B	701	6/6	0.93	0.12	45,46,48,48	0

6.5 Other polymers [i](#)

There are no such residues in this entry.