



Full wwPDB X-ray Structure Validation Report

Feb 27, 2014 – 10:11 PM GMT

PDB ID : 2C6N
Title : Structure of human somatic angiotensin-I converting enzyme N domain with lisinopril
Authors : Corradi, H.R.; Schwager, S.L.U.; Nichinda, A.; Sturrock, E.D.; Acharya, K.R.
Deposited on : 2005-11-10
Resolution : 3.00 Å(reported)

This is a full wwPDB validation report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at <http://wwpdb.org/ValidationPDFNotes.html>

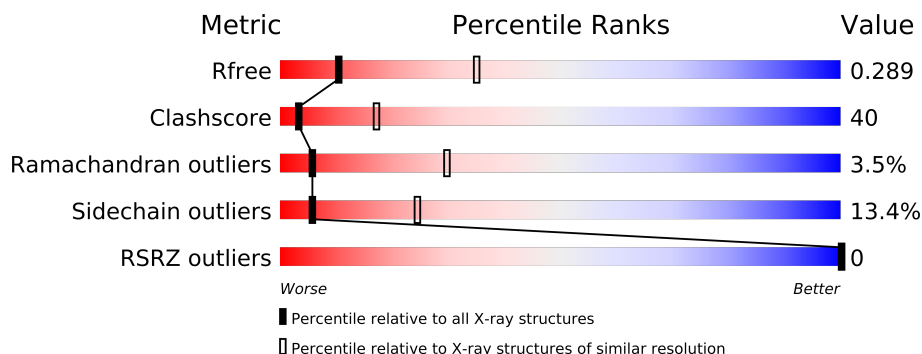
The following versions of software and data (see [references](#)) were used in the production of this report:

MolProbity : 4.02b-467
Mogul : 1.15 2013
Xtriage (Phenix) : dev-1323
EDS : stable22639
Percentile statistics : 21963
Refmac : 5.8.0049
CCP4 : 6.3.0 (Settle)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : stable22683

1 Overall quality at a glance

The reported resolution of this entry is 3.00 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}	66092	1216 (3.00-3.00)
Clashscore	79885	1594 (3.00-3.00)
Ramachandran outliers	78287	1537 (3.00-3.00)
Sidechain outliers	78261	1540 (3.00-3.00)
RSRZ outliers	66119	1217 (3.00-3.00)

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. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density.

Mol	Chain	Length	Quality of chain
1	A	612	
1	B	612	

The following table lists non-polymeric compounds that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Geometry	Electron density
3	NAG	A	695	-	X
3	NAG	B	695	-	X
6	LPR	A	705	-	X
7	GOL	A	2433	-	X
7	GOL	A	2434	-	X

2 Entry composition i

There are 10 unique types of molecules in this entry. The entry contains 9621 atoms, of which 0 are hydrogen and 0 are deuterium.

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.

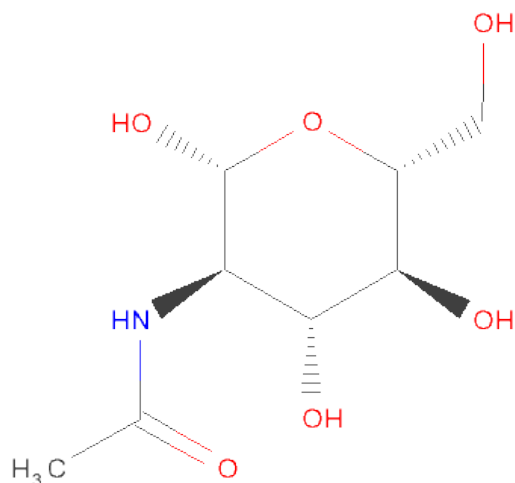
- Molecule 1 is a protein called ANGIOTENSIN-CONVERTINGENZYME, SOMATIC ISOFORM.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	612	Total	C	N	O	S	7	0	0
			4747	3057	811	861	18			
1	B	609	Total	C	N	O	S	9	0	0
			4665	3005	797	845	18			

- Molecule 2 is a polymer of unknown type called SUGAR (2-MER).

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
2	A	2	Total	C	N	O	0	0
			28	16	2	10		
2	B	2	Total	C	N	O	0	0
			28	16	2	10		

- Molecule 3 is SUGAR (N-ACETYL-D-GLUCOSAMINE) (three-letter code: NAG) (formula: $C_8H_{15}NO_6$).



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

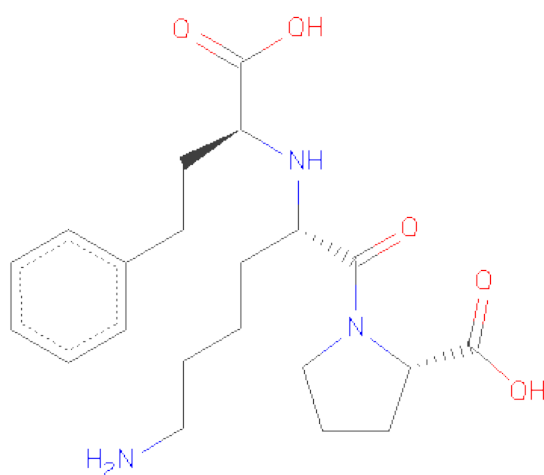
- Molecule 4 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	B	1	Total	Zn	0	0
			1	1		
4	A	1	Total	Zn	0	0
			1	1		

- Molecule 5 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	B	1	Total	Cl	0	0
			1	1		
5	A	1	Total	Cl	0	0
			1	1		

- Molecule 6 is [N2-[(S)-1-CARBOXY-3-PHENYLPROPYL]-L-LYSYL-L-PROLINE (three-letter code: LPR) (formula: C₂₁H₃₁N₃O₅).



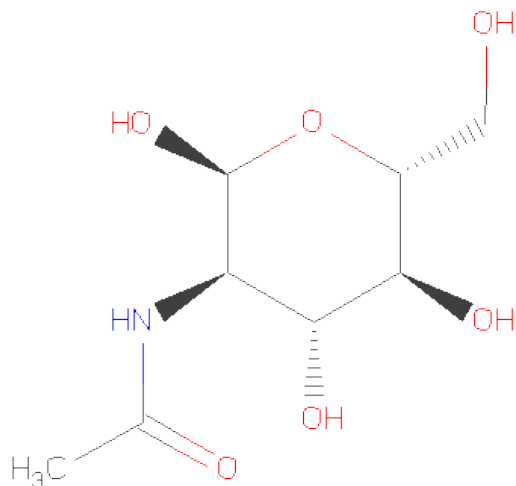
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
6	A	1	Total	C	N	O	0	0
			29	21	3	5		
6	B	1	Total	C	N	O	0	0
			29	21	3	5		

- Molecule 7 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$).



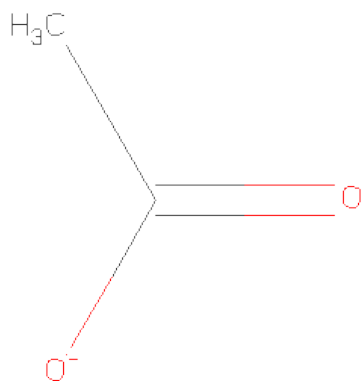
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
7	A	1	Total	C	O	0	0
			6	3	3		
7	A	1	Total	C	O	0	0
			6	3	3		

- Molecule 8 is SUGAR (2-(ACETYLAMINO)-2-DEOXY-A-D-GLUCOPYRANOSE) (three-letter code: NDG) (formula: $C_8H_{15}NO_6$).



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

- Molecule 9 is ACETATE ION (three-letter code: ACT) (formula: $C_2H_3O_2$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
9	B	1	Total	C	O	0	0
			4	2	2		

- Molecule 10 is water.

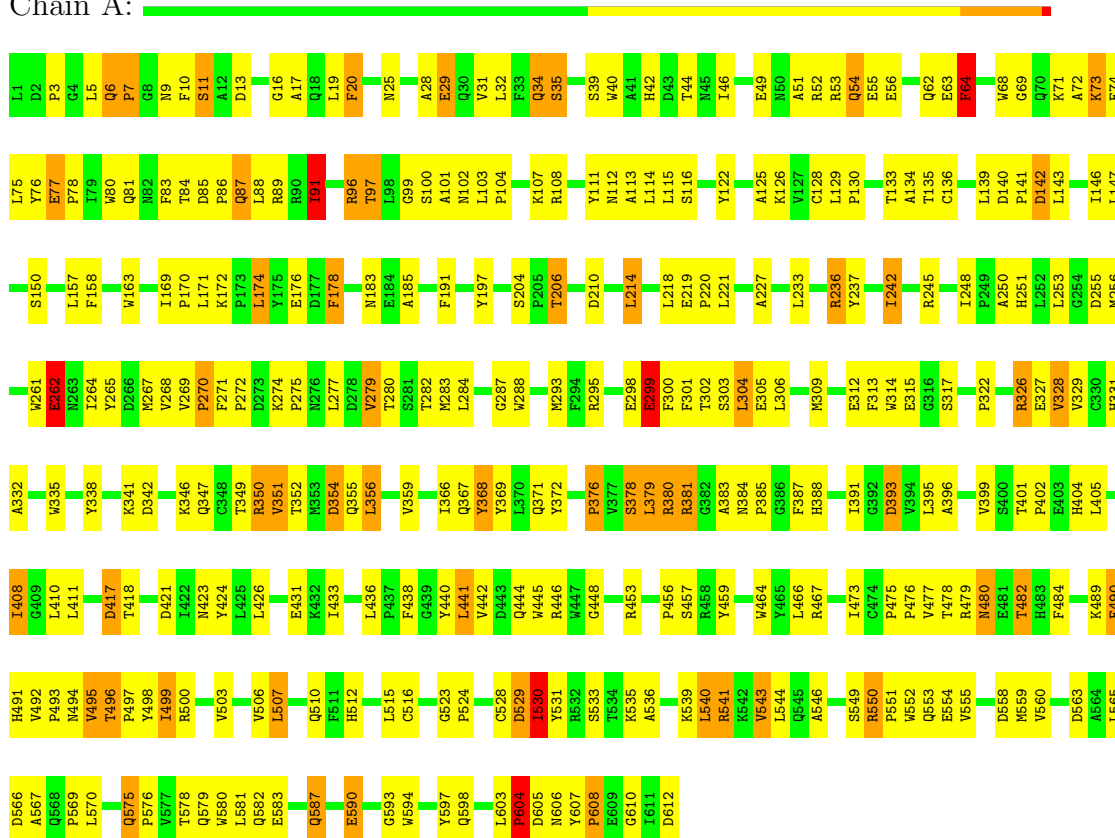
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
10	A	8	Total 8	O 8	0	0
10	B	11	Total 11	O 11	0	0

3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors 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.

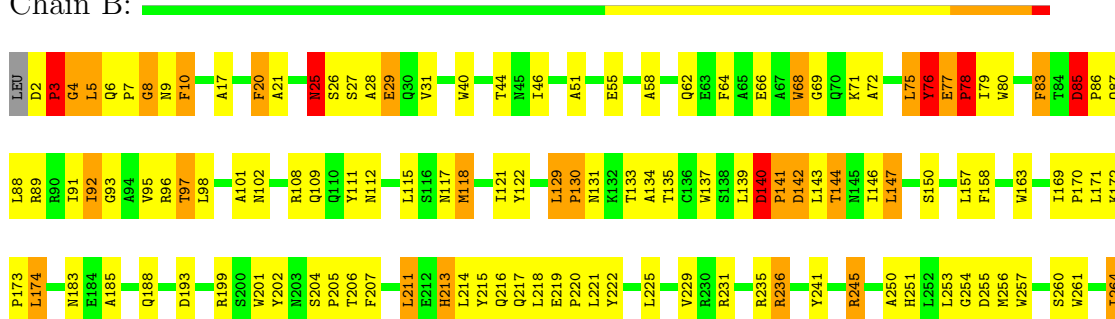
• Molecule 1: ANGIOTENSIN-CONVERTINGENZYME, SOMATIC ISOFORM

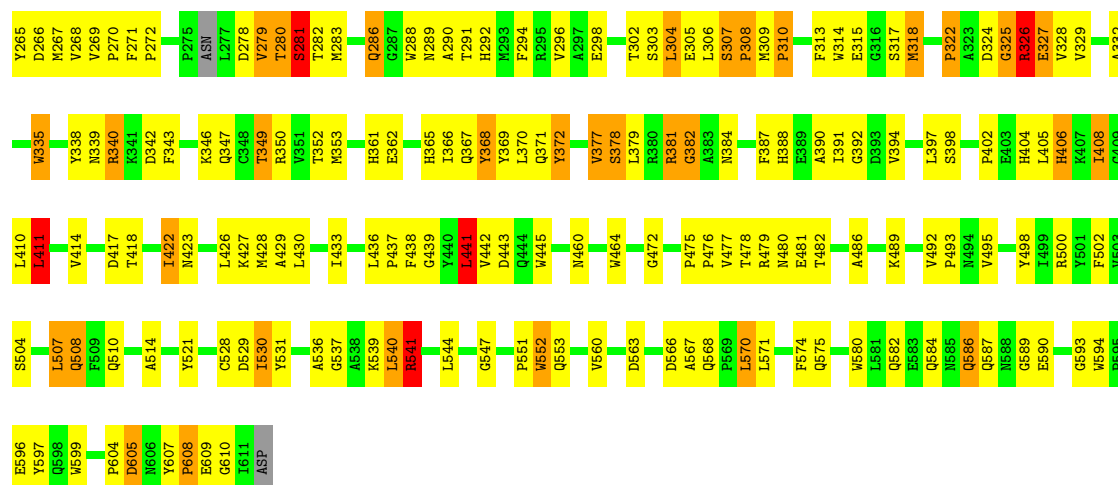
Chain A:



• Molecule 1: ANGIOTENSIN-CONVERTINGENZYME, SOMATIC ISOFORM

Chain B:





4 Data and refinement statistics

Property	Value	Source
Space group	C 2 2 21	Depositor
Cell constants a, b, c, α , β , γ	101.30Å 210.90Å 171.00Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	28.76 – 3.00 89.76 – 3.00	Depositor EDS
% Data completeness (in resolution range)	95.1 (28.76-3.00) 95.0 (89.76-3.00)	Depositor EDS
R_{merge}	0.12	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.04 (at 3.01Å)	Xtriage
Refinement program	CNS 1.1	Depositor
R, R_{free}	0.294 , 0.308 0.282 , 0.289	Depositor DCC
R_{free} test set	1088 reflections (3.19%)	DCC
Wilson B-factor (Å ²)	42.6	Xtriage
Anisotropy	0.576	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.35 , 30.3	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle L \rangle = 0.48$, $\langle L^2 \rangle = 0.31$	Xtriage
Outliers	1 of 35236 reflections (0.003%)	Xtriage
F_o, F_c correlation	0.84	EDS
Total number of atoms	9621	wwPDB-VP
Average B, all atoms (Å ²)	38.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 4.13% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: GOL, ZN, NAG, CL, LPR, NDG, ACT

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	0.60	4/4901 (0.1%)	0.89	23/6707 (0.3%)
1	B	0.58	3/4819 (0.1%)	0.92	26/6608 (0.4%)
All	All	0.59	7/9720 (0.1%)	0.90	49/13315 (0.4%)

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	1
1	B	1	8
2	B	1	0
All	All	2	9

All (7) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	381	ARG	CB-CG	8.17	1.74	1.52
1	B	25	ASN	CB-CG	-6.37	1.36	1.51
1	B	541	ARG	CB-CG	6.19	1.69	1.52
1	A	381	ARG	CG-CD	6.03	1.67	1.51
1	A	351	VAL	CB-CG1	-5.53	1.41	1.52
1	B	350	ARG	CA-CB	5.24	1.65	1.53
1	A	350	ARG	CB-CG	5.18	1.66	1.52

All (49) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	307	SER	C-N-CD	-10.95	96.50	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	305	GLU	N-CA-C	9.82	137.53	111.00
1	B	77	GLU	C-N-CD	-8.88	101.06	120.60
1	A	523	GLY	N-CA-C	-8.38	92.16	113.10
1	B	76	TYR	N-CA-C	8.24	133.24	111.00
1	B	3	PRO	N-CA-C	8.04	133.02	112.10
1	A	351	VAL	N-CA-CB	-7.77	94.41	111.50
1	B	349	THR	C-N-CA	-7.49	102.99	121.70
1	B	441	LEU	CA-CB-CG	7.18	131.82	115.30
1	A	280	THR	N-CA-C	-6.80	92.64	111.00
1	A	380	ARG	N-CA-C	-6.79	92.67	111.00
1	A	62	GLN	C-N-CA	-6.77	104.78	121.70
1	B	540	LEU	C-N-CA	-6.75	104.82	121.70
1	A	381	ARG	CB-CA-C	6.37	123.13	110.40
1	A	380	ARG	CA-C-N	-6.24	103.48	117.20
1	A	349	THR	N-CA-C	6.23	127.83	111.00
1	B	5	LEU	N-CA-C	-6.21	94.24	111.00
1	A	174	LEU	CA-CB-CG	6.19	129.54	115.30
1	A	550	ARG	CA-CB-CG	6.12	126.87	113.40
1	B	326	ARG	N-CA-C	5.77	126.57	111.00
1	B	9	ASN	N-CA-C	5.68	126.35	111.00
1	B	417	ASP	N-CA-C	-5.61	95.85	111.00
1	A	64	PHE	N-CA-C	-5.60	95.87	111.00
1	B	305	GLU	C-N-CA	-5.58	107.76	121.70
1	B	4	GLY	N-CA-C	-5.52	99.29	113.10
1	A	606	ASN	N-CA-C	-5.51	96.11	111.00
1	B	29	GLU	OE1-CD-OE2	-5.48	116.72	123.30
1	B	75	LEU	N-CA-C	-5.45	96.29	111.00
1	A	381	ARG	N-CA-C	-5.42	96.37	111.00
1	A	550	ARG	CB-CG-CD	-5.37	97.64	111.60
1	A	91	ILE	N-CA-C	-5.37	96.51	111.00
1	A	288	TRP	N-CA-C	5.36	125.47	111.00
1	B	78	PRO	N-CA-C	-5.34	98.20	112.10
1	B	610	GLY	C-N-CA	5.31	134.97	121.70
1	B	135	THR	N-CA-C	-5.30	96.70	111.00
1	A	350	ARG	N-CA-CB	5.28	120.10	110.60
1	A	142	ASP	CB-CG-OD2	5.26	123.03	118.30
1	B	335	TRP	N-CA-C	5.26	125.21	111.00
1	B	85	ASP	CB-CG-OD2	5.25	123.03	118.30
1	B	140	ASP	CB-CG-OD2	5.25	123.03	118.30
1	A	529	ASP	CB-CG-OD2	5.23	123.01	118.30
1	A	549	SER	C-N-CA	-5.23	108.63	121.70
1	A	417	ASP	CB-CG-OD2	5.22	123.00	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	605	ASP	CB-CG-OD2	5.20	122.98	118.30
1	B	142	ASP	CB-CG-OD2	5.18	122.97	118.30
1	B	325	GLY	N-CA-C	5.18	126.06	113.10
1	A	279	VAL	N-CA-C	-5.17	97.04	111.00
1	A	350	ARG	CA-C-N	-5.16	105.85	117.20
1	B	8	GLY	N-CA-C	-5.05	100.48	113.10

All (2) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	B	530	ILE	CB
2	B	696	NAG	C2

All (9) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	380	ARG	Mainchain
1	B	140	ASP	Peptide
1	B	215	TYR	Sidechain
1	B	541	ARG	Mainchain
1	B	609	GLU	Peptide
1	B	76	TYR	Sidechain
1	B	83	PHE	Peptide
1	B	85	ASP	Peptide
1	B	86	PRO	Peptide

5.2 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 hydrogens added by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, and the number in parentheses is this value normalized per 1000 atoms of the molecule in the chain. The Symm-Clashes column gives symmetry related clashes, in the same way as for the Clashes column.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	4747	0	4318	390	0
1	B	4665	0	4155	332	0
2	A	28	0	25	2	0
2	B	28	0	25	6	0
3	A	28	0	26	7	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	B	14	0	13	1	0
4	A	1	0	0	0	0
4	B	1	0	0	0	0
5	A	1	0	0	0	0
5	B	1	0	0	1	0
6	A	29	0	27	2	0
6	B	29	0	27	0	0
7	A	12	0	14	5	0
8	B	14	0	13	12	0
9	B	4	0	3	1	0
10	A	8	0	0	1	0
10	B	11	0	0	1	0
All	All	9621	0	8646	732	0

Clashscore is defined as the number of clashes calculated for the entry per 1000 atoms (including hydrogens) of the entry. The overall clashscore for this entry is 40.

All (732) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:381:ARG:CG	1:A:381:ARG:CB	1.74	1.63
8:B:693:NDG:C3	8:B:693:NDG:H8C1	1.42	1.39
1:B:482:THR:CG2	2:B:691:NAG:H82	1.56	1.33
1:A:6:GLN:HG3	1:A:7:PRO:CD	1.78	1.11
3:A:693:NAG:O7	3:A:693:NAG:H3	1.48	1.10
1:B:98:LEU:HB2	1:B:102:ASN:ND2	1.66	1.09
1:B:236:ARG:HE	1:B:267:MET:HE2	1.11	1.09
1:B:482:THR:HG21	2:B:691:NAG:H82	1.12	1.08
1:B:174:LEU:H	1:B:174:LEU:HD23	1.16	1.08
1:B:482:THR:HG21	2:B:691:NAG:C8	1.83	1.07
8:B:693:NDG:H3	8:B:693:NDG:C8	1.79	1.06
1:A:279:VAL:CG1	1:A:282:THR:HG22	1.85	1.05
1:A:279:VAL:HG13	1:A:282:THR:HG22	1.12	1.05
1:A:99:GLY:O	1:A:185:ALA:HB1	1.57	1.05
8:B:693:NDG:C3	8:B:693:NDG:C8	2.30	1.04
1:B:586:GLN:HG3	1:B:587:GLN:N	1.74	1.00
1:A:20:PHE:C	1:A:20:PHE:HD2	1.65	1.00
8:B:693:NDG:O3	8:B:693:NDG:H8C1	1.57	1.00
1:B:98:LEU:HB2	1:B:102:ASN:HD21	1.17	1.00
1:A:279:VAL:HG11	1:A:410:LEU:CB	1.91	1.00
8:B:693:NDG:H8C1	8:B:693:NDG:H3	1.02	1.00
1:A:6:GLN:CG	1:A:7:PRO:HD2	1.93	0.99
1:B:58:ALA:O	1:B:62:GLN:HG3	1.61	0.99

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:352:THR:HG22	1:A:354:ASP:OD2	1.63	0.99
1:B:306:LEU:H	1:B:541:ARG:HH11	0.99	0.98
1:B:369:TYR:HA	1:B:372:TYR:HE2	1.29	0.97
1:B:102:ASN:HB3	1:B:188:GLN:NE2	1.79	0.97
1:B:236:ARG:HE	1:B:267:MET:CE	1.76	0.97
1:A:6:GLN:HG3	1:A:7:PRO:HD2	0.99	0.96
1:B:306:LEU:H	1:B:541:ARG:NH1	1.63	0.96
1:A:356:LEU:O	1:A:356:LEU:HD12	1.65	0.96
1:B:406:HIS:HB2	1:B:411:LEU:O	1.64	0.95
1:A:17:ALA:HA	1:A:76:TYR:CZ	2.02	0.94
1:B:26:SER:HA	8:B:693:NDG:O6	1.68	0.94
1:B:202:TYR:O	1:B:552:TRP:CZ2	2.21	0.93
1:A:530:ILE:HG23	1:A:530:ILE:O	1.67	0.92
1:A:279:VAL:HG13	1:A:282:THR:CG2	2.00	0.92
1:B:129:LEU:N	1:B:129:LEU:HD12	1.83	0.92
1:B:4:GLY:O	1:B:6:GLN:N	2.03	0.92
1:B:552:TRP:CD1	1:B:553:GLN:N	2.37	0.91
1:A:91:ILE:HG23	1:A:378:SER:OG	1.71	0.91
1:A:72:ALA:O	1:A:76:TYR:HB2	1.70	0.90
1:A:84:THR:O	1:A:86:PRO:HD3	1.69	0.90
1:A:31:VAL:HG21	1:A:64:PHE:HD1	1.37	0.90
1:B:118:MET:HG2	1:B:171:LEU:HD11	1.53	0.90
1:B:384:ASN:ND2	1:B:552:TRP:HE3	1.68	0.89
1:A:300:PHE:CE2	1:A:304:LEU:CD1	2.55	0.89
1:B:20:PHE:HD2	1:B:20:PHE:C	1.75	0.89
1:A:369:TYR:HD2	1:A:372:TYR:OH	1.54	0.89
1:B:236:ARG:NE	1:B:267:MET:CE	2.34	0.89
1:A:550:ARG:HB3	1:A:551:PRO:HD3	1.54	0.88
1:A:86:PRO:C	1:A:88:LEU:H	1.74	0.88
7:A:2433:GOL:O1	1:B:593:GLY:HA3	1.73	0.88
1:B:129:LEU:C	1:B:131:ASN:H	1.76	0.87
1:A:20:PHE:C	1:A:20:PHE:CD2	2.42	0.87
1:A:369:TYR:CD2	1:A:372:TYR:OH	2.27	0.87
1:B:482:THR:HG22	2:B:691:NAG:H82	1.52	0.87
1:B:129:LEU:O	1:B:131:ASN:N	2.08	0.87
1:B:27:SER:HG	1:B:68:TRP:HH2	1.23	0.87
1:B:306:LEU:N	1:B:541:ARG:HH11	1.73	0.87
1:B:279:VAL:HG13	1:B:279:VAL:O	1.72	0.86
1:B:326:ARG:O	1:B:328:VAL:HG13	1.75	0.86
1:A:147:LEU:HD23	1:A:256:MET:N	1.88	0.86
1:B:174:LEU:N	1:B:174:LEU:HD23	1.90	0.85
1:A:350:ARG:HG3	1:A:351:VAL:HB	1.59	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:352:THR:CG2	1:A:354:ASP:OD2	2.23	0.85
1:A:191:PHE:CE1	1:A:197:TYR:HD1	1.95	0.85
1:B:129:LEU:H	1:B:129:LEU:HD12	1.40	0.85
1:A:515:LEU:C	1:A:530:ILE:HD11	1.97	0.84
1:A:300:PHE:CE2	1:A:304:LEU:HD13	2.11	0.84
1:A:191:PHE:CE1	1:A:197:TYR:CD1	2.66	0.84
1:B:309:MET:HE1	1:B:370:LEU:HD11	1.60	0.84
1:A:550:ARG:HB3	1:A:551:PRO:CD	2.06	0.84
1:A:20:PHE:HD2	1:A:20:PHE:O	1.60	0.83
1:B:213:HIS:O	1:B:216:GLN:HB2	1.77	0.83
1:A:402:PRO:HA	1:A:411:LEU:HD12	1.62	0.82
1:A:399:VAL:O	1:A:405:LEU:HD21	1.79	0.82
1:B:279:VAL:CG1	1:B:279:VAL:O	2.27	0.82
1:A:270:PRO:HD3	1:A:426:LEU:HD22	1.62	0.82
1:B:552:TRP:N	1:B:552:TRP:CD1	2.45	0.81
1:B:202:TYR:O	1:B:552:TRP:CH2	2.34	0.81
1:B:20:PHE:CD2	1:B:20:PHE:C	2.52	0.81
1:A:139:LEU:HD22	1:A:163:TRP:CZ2	2.16	0.81
3:B:695:NAG:C1	3:B:695:NAG:O7	2.30	0.80
1:A:31:VAL:CG2	1:A:64:PHE:HD1	1.95	0.79
1:A:20:PHE:CB	1:A:76:TYR:HE1	1.94	0.79
1:A:507:LEU:HG	1:A:507:LEU:O	1.80	0.79
1:A:16:GLY:O	1:A:76:TYR:OH	1.99	0.79
1:A:550:ARG:CB	1:A:551:PRO:CD	2.59	0.79
1:A:49:GLU:O	1:A:53:ARG:HG3	1.83	0.79
1:B:147:LEU:HD22	1:B:256:MET:HA	1.63	0.79
1:B:280:THR:C	1:B:282:THR:H	1.84	0.79
1:B:236:ARG:NE	1:B:267:MET:HE2	1.90	0.78
1:A:332:ALA:CB	1:A:347:GLN:HG3	2.14	0.78
1:A:441:LEU:O	1:A:444:GLN:HB2	1.83	0.78
1:A:46:ILE:HG22	1:A:327:GLU:O	1.84	0.78
1:B:174:LEU:CD2	1:B:174:LEU:H	1.95	0.78
1:A:96:ARG:HG2	1:A:96:ARG:O	1.82	0.78
1:A:402:PRO:CA	1:A:411:LEU:HD12	2.14	0.78
1:A:597:TYR:O	1:A:598:GLN:HB3	1.84	0.78
1:A:262:GLU:HG2	1:A:431:GLU:HB2	1.66	0.77
1:B:369:TYR:HA	1:B:372:TYR:CE2	2.18	0.77
1:A:535:LYS:HD2	1:A:535:LYS:H	1.49	0.77
1:B:482:THR:CG2	2:B:691:NAG:C8	2.47	0.76
1:B:280:THR:O	1:B:283:MET:N	2.18	0.76
1:B:384:ASN:HD22	1:B:552:TRP:HE3	0.88	0.76
1:A:86:PRO:C	1:A:88:LEU:N	2.35	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:20:PHE:HE1	1:A:72:ALA:CA	1.99	0.76
1:A:332:ALA:HB2	1:A:347:GLN:HG3	1.67	0.75
1:B:2:ASP:CB	1:B:3:PRO:O	2.34	0.75
1:B:289:ASN:HB3	1:B:292:HIS:H	1.52	0.75
1:A:125:ALA:C	1:A:126:LYS:HG3	2.06	0.75
1:B:507:LEU:HA	1:B:510:GLN:HG3	1.69	0.75
1:B:304:LEU:N	1:B:304:LEU:HD23	2.00	0.75
1:A:530:ILE:CG2	1:A:530:ILE:O	2.33	0.75
1:A:441:LEU:HD23	1:A:442:VAL:N	2.01	0.75
1:A:221:LEU:HD23	1:A:433:ILE:HD12	1.69	0.75
8:B:693:NDG:O3	8:B:693:NDG:C8	2.30	0.75
1:B:216:GLN:HE21	1:B:216:GLN:HA	1.51	0.75
1:B:44:THR:O	1:B:328:VAL:HG12	1.87	0.75
1:B:464:TRP:CE3	1:B:475:PRO:HD3	2.22	0.75
1:A:274:LYS:HB3	1:A:275:PRO:HD2	1.69	0.74
1:A:64:PHE:CE2	1:A:68:TRP:CD1	2.75	0.74
1:B:77:GLU:O	1:B:77:GLU:HG3	1.87	0.74
1:B:391:ILE:HD12	1:B:544:LEU:HD21	1.70	0.74
1:A:351:VAL:HG12	1:A:351:VAL:O	1.88	0.74
1:B:235:ARG:NH1	10:B:2004:HOH:O	2.10	0.74
1:B:174:LEU:CD2	1:B:174:LEU:N	2.51	0.73
1:B:102:ASN:HB3	1:B:188:GLN:HE22	1.49	0.73
1:B:291:THR:CG2	1:B:314:TRP:HZ3	2.02	0.73
1:A:9:ASN:OD1	1:A:10:PHE:N	2.22	0.73
1:B:540:LEU:O	1:B:540:LEU:HD23	1.88	0.73
1:A:395:LEU:O	1:A:399:VAL:HG23	1.89	0.72
1:B:530:ILE:O	1:B:530:ILE:HG23	1.88	0.72
3:A:693:NAG:O7	3:A:693:NAG:C3	2.30	0.72
1:A:178:PHE:CE1	1:A:495:VAL:HG21	2.24	0.72
1:B:310:PRO:O	1:B:313:PHE:HB3	1.90	0.72
1:A:332:ALA:HB3	6:A:705:LPR:H101	1.72	0.72
1:A:453:ARG:HD3	9:B:710:ACT:OXT	1.90	0.72
1:A:368:TYR:O	1:A:372:TYR:CD2	2.43	0.72
1:B:10:PHE:CD1	1:B:10:PHE:N	2.56	0.72
1:A:440:TYR:O	1:A:444:GLN:HG2	1.88	0.72
1:A:381:ARG:CD	1:A:381:ARG:CB	2.67	0.71
1:A:515:LEU:CB	1:A:530:ILE:HD13	2.20	0.71
1:A:31:VAL:O	1:A:34:GLN:HG3	1.89	0.71
1:B:271:PHE:CE1	1:B:422:ILE:HG21	2.25	0.71
1:A:300:PHE:CD2	1:A:304:LEU:HD13	2.26	0.71
1:A:20:PHE:HE1	1:A:72:ALA:HA	1.55	0.71
1:A:446:ARG:NH2	1:A:496:THR:O	2.23	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:29:GLU:HG3	1:B:338:TYR:O	1.91	0.70
1:B:171:LEU:HD21	1:B:493:PRO:HB3	1.73	0.70
1:A:191:PHE:CD1	1:A:197:TYR:HB2	2.26	0.70
1:A:31:VAL:HG21	1:A:64:PHE:CD1	2.24	0.70
1:B:4:GLY:C	1:B:6:GLN:N	2.40	0.70
1:A:456:PRO:HA	1:A:459:TYR:CD2	2.26	0.70
1:A:20:PHE:HB2	1:A:76:TYR:HE1	1.56	0.70
1:B:280:THR:C	1:B:282:THR:N	2.42	0.70
1:A:146:ILE:O	1:A:150:SER:HB3	1.92	0.70
1:A:91:ILE:HG12	1:A:379:LEU:HD21	1.74	0.70
1:A:147:LEU:CD2	1:A:256:MET:HA	2.21	0.70
1:A:350:ARG:HG3	1:A:351:VAL:CB	2.22	0.70
1:B:142:ASP:O	1:B:146:ILE:HG13	1.92	0.69
1:B:265:TYR:CE1	1:B:427:LYS:HB2	2.26	0.69
1:B:366:ILE:O	1:B:369:TYR:N	2.25	0.69
1:B:280:THR:HG22	1:B:281:SER:N	2.07	0.69
1:B:332:ALA:HB2	1:B:347:GLN:HG3	1.74	0.69
1:A:63:GLU:HB2	1:A:108:ARG:HH12	1.57	0.69
1:B:7:PRO:HG3	1:B:68:TRP:CD2	2.28	0.69
1:B:118:MET:HG2	1:B:171:LEU:CD1	2.23	0.69
7:A:2433:GOL:O1	1:B:593:GLY:CA	2.40	0.69
1:A:593:GLY:HA3	7:A:2434:GOL:O1	1.93	0.69
1:A:69:GLY:O	1:A:73:LYS:HG3	1.93	0.69
1:A:75:LEU:HD23	1:A:75:LEU:H	1.57	0.69
1:B:173:PRO:HG2	1:B:174:LEU:CD2	2.24	0.68
1:A:20:PHE:CD2	1:A:20:PHE:O	2.43	0.68
1:A:157:LEU:HD11	1:A:477:VAL:HG13	1.74	0.68
1:B:384:ASN:ND2	1:B:552:TRP:CE3	2.48	0.68
1:A:404:HIS:ND1	1:A:529:ASP:OD2	2.24	0.68
1:A:75:LEU:N	1:A:75:LEU:HD23	2.09	0.68
1:B:406:HIS:CA	1:B:411:LEU:HB3	2.23	0.68
1:B:552:TRP:HD1	1:B:552:TRP:N	1.90	0.67
1:B:29:GLU:OE1	8:B:693:NDG:H6C2	1.93	0.67
1:B:62:GLN:NE2	1:B:108:ARG:HD3	2.09	0.67
1:B:118:MET:CG	1:B:171:LEU:HD11	2.25	0.67
1:B:402:PRO:O	1:B:411:LEU:HD12	1.95	0.67
1:A:129:LEU:N	1:A:129:LEU:HD12	2.10	0.67
1:B:563:ASP:OD1	1:B:563:ASP:O	2.13	0.66
1:A:253:LEU:HD22	1:A:253:LEU:N	2.10	0.66
1:A:20:PHE:CE1	1:A:72:ALA:HA	2.30	0.66
1:B:221:LEU:HD12	1:B:433:ILE:HD13	1.78	0.66
1:B:406:HIS:CB	1:B:411:LEU:HB3	2.25	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:515:LEU:CB	1:A:530:ILE:CD1	2.74	0.66
1:B:207:PHE:O	1:B:211:LEU:HD12	1.96	0.66
1:A:492:VAL:N	1:A:493:PRO:HD2	2.10	0.66
1:B:278:ASP:OD2	1:B:353:MET:CB	2.44	0.66
1:B:25:ASN:OD1	8:B:693:NDG:H5	1.95	0.66
1:A:147:LEU:CD2	1:A:256:MET:N	2.59	0.66
1:A:529:ASP:C	1:A:529:ASP:OD1	2.34	0.65
1:B:26:SER:HA	8:B:693:NDG:C6	2.26	0.65
1:A:279:VAL:CG1	1:A:282:THR:CG2	2.68	0.65
1:A:480:ASN:OD1	1:A:482:THR:HG23	1.97	0.65
1:B:76:TYR:O	1:B:80:TRP:HB3	1.95	0.65
1:B:216:GLN:NE2	1:B:216:GLN:HA	2.11	0.65
1:A:46:ILE:O	1:A:46:ILE:HG23	1.96	0.65
1:B:133:THR:O	1:B:134:ALA:HB3	1.96	0.65
1:B:140:ASP:OD1	1:B:140:ASP:C	2.35	0.65
1:A:236:ARG:HG2	1:A:267:MET:CE	2.27	0.65
1:B:406:HIS:CB	1:B:411:LEU:O	2.43	0.65
1:A:515:LEU:O	1:A:530:ILE:HD11	1.97	0.64
1:A:529:ASP:OD1	1:A:531:TYR:HB2	1.98	0.64
1:A:91:ILE:CG2	1:A:378:SER:OG	2.44	0.64
1:A:87:GLN:HG2	1:A:87:GLN:O	1.97	0.64
1:A:34:GLN:HG3	1:A:35:SER:H	1.63	0.64
1:B:279:VAL:O	1:B:283:MET:HG3	1.97	0.64
1:A:122:TYR:CD1	1:A:493:PRO:HG3	2.33	0.64
1:B:329:VAL:O	1:B:346:LYS:CE	2.46	0.63
1:A:17:ALA:HA	1:A:76:TYR:CE1	2.32	0.63
1:B:306:LEU:CB	1:B:541:ARG:HG3	2.28	0.63
1:B:464:TRP:CZ3	1:B:475:PRO:HD3	2.34	0.63
1:A:206:THR:CG2	1:A:210:ASP:OD2	2.46	0.63
1:B:64:PHE:CE1	1:B:68:TRP:NE1	2.66	0.63
1:B:279:VAL:HG22	1:B:410:LEU:O	1.99	0.63
1:A:147:LEU:HD21	1:A:256:MET:HA	1.80	0.63
1:A:31:VAL:CB	1:A:64:PHE:HD1	2.11	0.63
1:A:300:PHE:CE2	1:A:304:LEU:HD11	2.32	0.63
1:B:329:VAL:O	1:B:346:LYS:HE3	1.98	0.63
1:A:283:MET:HE1	1:A:356:LEU:HB2	1.81	0.63
1:B:489:LYS:O	1:B:493:PRO:HD2	1.98	0.63
1:B:280:THR:O	1:B:282:THR:N	2.32	0.63
1:B:139:LEU:HD22	1:B:163:TRP:CZ2	2.34	0.63
1:A:399:VAL:O	1:A:405:LEU:CD2	2.46	0.62
1:B:29:GLU:CG	1:B:338:TYR:O	2.47	0.62
1:A:401:THR:O	1:A:405:LEU:HG	2.00	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:183:ASN:HD21	1:B:193:ASP:HB2	1.65	0.62
1:B:570:LEU:HD23	1:B:574:PHE:HD1	1.63	0.62
1:A:312:GLU:CD	1:A:341:LYS:O	2.38	0.62
1:A:402:PRO:HA	1:A:411:LEU:CD1	2.28	0.61
1:A:125:ALA:O	1:A:126:LYS:HG3	2.00	0.61
1:B:77:GLU:OE2	1:B:96:ARG:NH2	2.32	0.61
1:A:236:ARG:HG2	1:A:267:MET:HE3	1.81	0.61
1:A:251:HIS:CE1	1:A:476:PRO:HB3	2.35	0.61
1:A:369:TYR:HA	1:A:372:TYR:CZ	2.35	0.61
1:A:20:PHE:CE1	1:A:72:ALA:HB2	2.36	0.61
1:A:122:TYR:CD2	1:A:122:TYR:C	2.74	0.61
1:B:286:GLN:CG	1:B:286:GLN:O	2.48	0.61
1:A:530:ILE:HG12	1:A:536:ALA:CB	2.31	0.61
1:B:146:ILE:O	1:B:150:SER:HB3	2.00	0.61
1:A:86:PRO:HA	1:A:89:ARG:H	1.65	0.61
1:A:489:LYS:O	1:A:493:PRO:HD2	2.01	0.61
1:B:29:GLU:OE2	1:B:339:ASN:HA	2.01	0.61
1:B:372:TYR:HD2	1:B:372:TYR:H	1.49	0.60
1:A:402:PRO:O	1:A:411:LEU:HD12	2.01	0.60
1:A:157:LEU:HD13	1:A:476:PRO:HB2	1.82	0.60
1:B:264:ILE:HG23	1:B:264:ILE:O	1.99	0.60
1:A:31:VAL:HB	1:A:64:PHE:CD1	2.36	0.60
1:A:31:VAL:CB	1:A:64:PHE:CD1	2.84	0.60
1:B:441:LEU:HD23	1:B:442:VAL:N	2.16	0.60
1:B:97:THR:HG22	1:B:97:THR:O	2.01	0.60
1:A:270:PRO:HD3	1:A:426:LEU:CD2	2.30	0.60
1:A:16:GLY:HA2	1:A:19:LEU:HB2	1.84	0.60
1:B:62:GLN:OE1	1:B:112:ASN:ND2	2.35	0.60
1:B:404:HIS:HB2	1:B:529:ASP:OD2	2.01	0.60
1:A:236:ARG:HE	1:A:267:MET:CE	2.14	0.60
1:A:51:ALA:O	1:A:55:GLU:HG3	2.00	0.60
1:B:315:GLU:C	1:B:317:SER:H	2.04	0.60
1:A:20:PHE:HB2	1:A:76:TYR:CE1	2.37	0.60
1:A:86:PRO:O	1:A:88:LEU:N	2.33	0.60
1:A:261:TRP:O	1:A:264:ILE:HG12	2.02	0.60
1:A:29:GLU:OE1	3:A:693:NAG:C2	2.50	0.59
1:A:279:VAL:CG1	1:A:410:LEU:CB	2.76	0.59
1:B:279:VAL:CG2	1:B:410:LEU:O	2.50	0.59
1:B:97:THR:O	1:B:97:THR:CG2	2.50	0.59
2:A:691:NAG:H62	2:A:696:NAG:O5	2.02	0.59
1:A:277:LEU:CD1	1:A:424:TYR:HA	2.33	0.59
1:A:139:LEU:HD22	1:A:163:TRP:CH2	2.38	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:100:SER:O	1:A:103:LEU:N	2.35	0.59
1:B:309:MET:CE	1:B:370:LEU:HD11	2.30	0.59
1:A:147:LEU:CD2	1:A:256:MET:CA	2.81	0.59
1:A:283:MET:HE1	1:A:356:LEU:CD2	2.32	0.59
1:A:304:LEU:O	1:A:306:LEU:HG	2.02	0.59
1:A:69:GLY:O	1:A:73:LYS:CG	2.50	0.59
1:A:478:THR:O	1:A:479:ARG:HD2	2.03	0.59
1:B:335:TRP:HA	1:B:335:TRP:CE3	2.37	0.59
1:B:157:LEU:HD13	1:B:476:PRO:HB2	1.83	0.58
1:B:83:PHE:CB	1:B:85:ASP:H	2.16	0.58
1:A:64:PHE:CE2	1:A:68:TRP:NE1	2.72	0.58
1:A:551:PRO:O	1:A:555:VAL:HG23	2.04	0.58
1:B:17:ALA:HA	1:B:76:TYR:CE1	2.37	0.58
1:B:7:PRO:HG3	1:B:68:TRP:CG	2.37	0.58
1:A:368:TYR:C	1:A:372:TYR:CE2	2.76	0.58
1:B:251:HIS:CE1	1:B:476:PRO:HB3	2.37	0.58
1:A:11:SER:O	1:A:76:TYR:HE2	1.86	0.58
1:B:291:THR:CG2	1:B:314:TRP:CZ3	2.86	0.58
1:A:515:LEU:C	1:A:530:ILE:CD1	2.70	0.58
1:A:248:ILE:O	1:A:473:ILE:HA	2.03	0.58
1:B:580:TRP:O	1:B:584:GLN:HG2	2.04	0.58
1:A:206:THR:HG23	1:A:210:ASP:CG	2.25	0.58
1:B:173:PRO:HG2	1:B:174:LEU:HD23	1.86	0.57
1:B:75:LEU:HB3	1:B:76:TYR:CD2	2.40	0.57
1:A:40:TRP:O	1:A:44:THR:HG23	2.04	0.57
1:A:99:GLY:C	1:A:185:ALA:HB1	2.22	0.57
1:A:178:PHE:CD2	1:A:178:PHE:C	2.77	0.57
1:B:504:SER:O	1:B:508:GLN:HB3	2.05	0.57
1:A:100:SER:O	1:A:103:LEU:HB2	2.04	0.57
1:A:17:ALA:HA	1:A:76:TYR:OH	2.04	0.57
1:A:402:PRO:CA	1:A:411:LEU:CD1	2.83	0.57
1:B:426:LEU:O	1:B:429:ALA:HB3	2.05	0.57
1:A:64:PHE:HE2	1:A:68:TRP:CD1	2.21	0.56
1:B:288:TRP:CH2	1:B:296:VAL:HG21	2.40	0.56
1:B:291:THR:HG22	1:B:314:TRP:HZ3	1.69	0.56
1:B:379:LEU:C	1:B:381:ARG:H	2.08	0.56
1:B:379:LEU:O	1:B:381:ARG:N	2.30	0.56
1:B:291:THR:HG22	1:B:314:TRP:CZ3	2.41	0.56
1:A:28:ALA:HA	1:A:64:PHE:CE1	2.39	0.56
1:B:552:TRP:CG	1:B:553:GLN:N	2.72	0.56
1:A:147:LEU:HD23	1:A:255:ASP:C	2.25	0.56
1:A:261:TRP:N	1:A:261:TRP:CD1	2.73	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:493:PRO:HG2	1:A:494:ASN:HD22	1.69	0.56
1:A:108:ARG:O	1:A:112:ASN:ND2	2.39	0.56
1:A:399:VAL:HA	1:A:404:HIS:CD2	2.41	0.56
1:B:318:MET:SD	1:B:322:PRO:HD3	2.46	0.56
1:B:17:ALA:O	1:B:20:PHE:HB3	2.05	0.56
1:A:253:LEU:N	1:A:253:LEU:CD2	2.69	0.55
1:A:464:TRP:CE3	1:A:475:PRO:HD3	2.41	0.55
1:A:31:VAL:HA	1:A:34:GLN:HG2	1.89	0.55
1:A:11:SER:O	1:A:76:TYR:CE2	2.59	0.55
1:A:326:ARG:O	1:A:328:VAL:HG12	2.06	0.55
1:A:29:GLU:OE1	3:A:693:NAG:N2	2.39	0.55
1:B:98:LEU:CB	1:B:102:ASN:HD21	2.05	0.55
1:A:139:LEU:HA	1:A:143:LEU:HB2	1.88	0.55
1:B:438:PHE:HA	1:B:441:LEU:HD13	1.88	0.55
1:A:32:LEU:HD13	1:A:338:TYR:CD2	2.41	0.55
1:A:236:ARG:HE	1:A:267:MET:HE2	1.72	0.55
1:A:283:MET:CE	1:A:356:LEU:CD2	2.84	0.55
1:A:350:ARG:HG3	1:A:351:VAL:CG2	2.37	0.55
1:A:299:GLU:HG3	1:A:299:GLU:O	2.05	0.55
1:A:368:TYR:O	1:A:372:TYR:CE2	2.60	0.55
1:B:289:ASN:HB3	1:B:292:HIS:CB	2.37	0.55
1:B:530:ILE:CG2	1:B:530:ILE:O	2.55	0.55
1:A:383:ALA:HB1	1:A:552:TRP:CB	2.37	0.55
1:B:478:THR:O	1:B:479:ARG:HD2	2.06	0.55
1:A:383:ALA:HB1	1:A:552:TRP:HB3	1.88	0.54
1:A:381:ARG:CG	1:A:381:ARG:CA	2.80	0.54
1:B:27:SER:CB	1:B:68:TRP:CZ2	2.90	0.54
1:B:92:ILE:HG13	1:B:92:ILE:O	2.07	0.54
1:A:140:ASP:OD2	1:A:141:PRO:CA	2.54	0.54
1:A:206:THR:HG23	1:A:210:ASP:OD2	2.08	0.54
1:A:87:GLN:CG	1:A:87:GLN:O	2.56	0.54
1:B:26:SER:HA	8:B:693:NDG:H6	1.69	0.54
1:A:3:PRO:C	1:A:5:LEU:H	2.10	0.54
1:A:393:ASP:O	1:A:396:ALA:HB3	2.08	0.54
1:A:490:PHE:C	1:A:490:PHE:CD2	2.80	0.54
1:B:225:LEU:O	1:B:229:VAL:HG23	2.07	0.54
1:A:64:PHE:HD2	1:A:64:PHE:C	2.11	0.54
1:A:283:MET:CE	1:A:356:LEU:HD23	2.38	0.54
1:A:367:GLN:O	1:A:371:GLN:HG2	2.07	0.54
1:B:540:LEU:CD2	1:B:544:LEU:HG	2.39	0.53
1:B:406:HIS:HB2	1:B:411:LEU:HB3	1.89	0.53
1:B:27:SER:OG	1:B:68:TRP:CH2	2.61	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:27:SER:OG	1:B:68:TRP:HH2	1.89	0.53
1:A:550:ARG:NH1	1:A:554:GLU:HB3	2.23	0.53
1:B:271:PHE:HE1	1:B:422:ILE:HG21	1.70	0.53
1:A:206:THR:HG23	1:A:210:ASP:OD1	2.09	0.53
1:B:379:LEU:C	1:B:381:ARG:N	2.61	0.53
1:B:77:GLU:N	1:B:78:PRO:CD	2.71	0.53
1:B:326:ARG:O	1:B:327:GLU:C	2.47	0.53
1:A:593:GLY:HA3	7:A:2434:GOL:HO1	1.73	0.53
1:B:270:PRO:O	1:B:272:PRO:HD3	2.08	0.53
1:B:253:LEU:HD12	1:B:261:TRP:CD2	2.43	0.53
1:A:99:GLY:O	1:A:185:ALA:CB	2.45	0.53
1:A:550:ARG:CB	1:A:551:PRO:HD3	2.24	0.53
1:A:233:LEU:HB3	1:A:242:ILE:CD1	2.37	0.53
1:B:143:LEU:O	1:B:146:ILE:N	2.41	0.53
1:A:80:TRP:HA	1:A:83:PHE:CE1	2.44	0.53
1:B:270:PRO:HD3	1:B:426:LEU:HD22	1.91	0.53
8:B:693:NDG:H8C1	8:B:693:NDG:HB	1.70	0.53
1:B:405:LEU:O	1:B:408:ILE:HG12	2.08	0.53
1:B:147:LEU:HD22	1:B:256:MET:CA	2.36	0.53
1:A:402:PRO:C	1:A:411:LEU:HD12	2.29	0.53
1:A:384:ASN:HB2	1:A:385:PRO:HD2	1.91	0.53
1:A:499:ILE:HG13	1:A:499:ILE:O	2.09	0.53
1:B:372:TYR:HD1	1:B:547:GLY:CA	2.21	0.53
1:A:64:PHE:CD2	1:A:64:PHE:C	2.82	0.52
1:B:540:LEU:O	1:B:540:LEU:CD2	2.56	0.52
1:A:306:LEU:HD21	1:A:541:ARG:HB2	1.91	0.52
1:A:53:ARG:O	1:A:56:GLU:N	2.38	0.52
1:A:122:TYR:O	1:A:122:TYR:CD2	2.63	0.52
1:B:306:LEU:H	1:B:541:ARG:CZ	2.18	0.52
1:B:44:THR:O	1:B:328:VAL:CG1	2.57	0.52
1:A:29:GLU:OE1	3:A:693:NAG:H2	2.10	0.52
1:A:417:ASP:O	1:A:421:ASP:HB2	2.09	0.52
1:A:302:THR:OG1	1:A:303:SER:N	2.42	0.52
1:B:306:LEU:N	1:B:541:ARG:HE	2.08	0.52
1:B:329:VAL:HB	1:B:346:LYS:HE3	1.91	0.52
1:A:214:LEU:HD21	1:A:506:VAL:HG11	1.92	0.52
1:B:495:VAL:O	1:B:495:VAL:HG12	2.09	0.52
1:A:265:TYR:CZ	1:A:269:VAL:HG23	2.45	0.52
1:A:268:VAL:O	1:A:269:VAL:C	2.48	0.52
1:B:514:ALA:HB2	1:B:560:VAL:HG22	1.91	0.52
1:B:27:SER:HB2	1:B:68:TRP:CZ2	2.45	0.51
1:A:63:GLU:O	1:A:63:GLU:HG2	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:68:TRP:O	1:B:71:LYS:N	2.42	0.51
1:B:329:VAL:O	1:B:346:LYS:HE2	2.10	0.51
1:A:271:PHE:HB2	1:A:423:ASN:HD21	1.75	0.51
1:A:331:HIS:CD2	1:A:490:PHE:CE2	2.98	0.51
1:A:6:GLN:CG	1:A:7:PRO:CD	2.70	0.51
1:A:510:GLN:OE1	1:A:566:ASP:N	2.41	0.51
1:A:25:ASN:O	1:A:29:GLU:HG3	2.10	0.51
1:B:332:ALA:CB	1:B:347:GLN:HG3	2.41	0.51
1:A:233:LEU:HB3	1:A:242:ILE:HD12	1.91	0.51
1:B:372:TYR:HD1	1:B:547:GLY:HA2	1.76	0.51
1:A:283:MET:HE1	1:A:356:LEU:HD23	1.92	0.51
1:B:44:THR:C	1:B:328:VAL:HG12	2.31	0.51
1:A:269:VAL:HG13	1:A:269:VAL:O	2.09	0.51
1:A:20:PHE:CE1	1:A:72:ALA:CB	2.93	0.51
1:A:104:PRO:HG2	1:A:107:LYS:HD2	1.92	0.51
1:A:100:SER:O	1:A:102:ASN:N	2.44	0.51
1:A:140:ASP:OD2	1:A:141:PRO:HA	2.10	0.51
1:A:46:ILE:O	1:A:46:ILE:CG2	2.59	0.50
1:A:597:TYR:O	1:A:598:GLN:CB	2.54	0.50
1:B:398:SER:HB3	1:B:529:ASP:HA	1.92	0.50
1:A:80:TRP:O	1:A:81:GLN:CB	2.59	0.50
1:A:583:GLU:O	1:A:587:GLN:HG3	2.11	0.50
1:B:482:THR:HG21	2:B:691:NAG:C7	2.40	0.50
1:B:202:TYR:HB3	1:B:552:TRP:CH2	2.45	0.50
1:A:541:ARG:HG3	1:A:541:ARG:O	2.10	0.50
1:B:302:THR:CG2	1:B:308:PRO:HB3	2.41	0.50
1:B:307:SER:HB3	1:B:367:GLN:OE1	2.11	0.50
1:A:20:PHE:HB3	1:A:76:TYR:HE1	1.73	0.50
1:B:372:TYR:CD1	1:B:547:GLY:HA2	2.46	0.50
1:B:387:PHE:O	1:B:391:ILE:HG12	2.12	0.50
1:A:441:LEU:CD1	1:A:467:ARG:HA	2.42	0.50
1:A:328:VAL:CG2	1:A:329:VAL:N	2.75	0.50
1:B:339:ASN:C	1:B:340:ARG:HG3	2.32	0.50
1:A:20:PHE:CE2	1:A:68:TRP:HE3	2.29	0.50
1:A:531:TYR:O	1:A:533:SER:N	2.45	0.50
1:B:10:PHE:HD1	1:B:10:PHE:H	1.57	0.50
1:A:279:VAL:HG21	1:A:410:LEU:CB	2.42	0.50
1:B:129:LEU:N	1:B:129:LEU:CD1	2.56	0.50
1:B:264:ILE:CG2	1:B:264:ILE:O	2.59	0.50
1:B:313:PHE:C	1:B:313:PHE:CD2	2.85	0.50
1:B:20:PHE:HD2	1:B:20:PHE:O	1.95	0.50
1:A:206:THR:HG22	1:A:210:ASP:OD2	2.10	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:29:GLU:HB3	1:A:338:TYR:O	2.11	0.50
1:A:366:ILE:HA	1:A:369:TYR:CD1	2.46	0.50
1:B:294:PHE:HE1	1:B:349:THR:HG1	1.60	0.50
1:A:408:ILE:O	1:A:408:ILE:CG1	2.59	0.49
1:A:309:MET:SD	1:A:366:ILE:HG21	2.52	0.49
1:B:172:LYS:N	1:B:173:PRO:HD2	2.26	0.49
1:B:111:TYR:CE2	1:B:115:LEU:HD11	2.48	0.49
1:B:236:ARG:NE	1:B:267:MET:HE1	2.25	0.49
1:A:77:GLU:N	1:A:78:PRO:HD2	2.27	0.49
1:B:265:TYR:OH	1:B:423:ASN:HB3	2.13	0.49
1:B:147:LEU:O	1:B:254:GLY:HA2	2.12	0.49
1:A:302:THR:O	1:A:305:GLU:N	2.46	0.49
1:A:575:GLN:HB3	1:A:576:PRO:HD3	1.93	0.49
1:A:313:PHE:O	1:A:317:SER:HB2	2.13	0.49
1:A:20:PHE:HE1	1:A:72:ALA:CB	2.26	0.49
1:B:500:ARG:HB3	5:B:702:CL:CL	2.49	0.49
1:B:89:ARG:HA	1:B:92:ILE:HG23	1.94	0.49
1:B:309:MET:CE	1:B:366:ILE:HG21	2.43	0.49
1:B:72:ALA:O	1:B:76:TYR:HB2	2.13	0.49
1:B:507:LEU:O	1:B:507:LEU:HG	2.13	0.49
1:A:495:VAL:O	1:A:495:VAL:HG12	2.12	0.49
1:B:570:LEU:HD23	1:B:574:PHE:CD1	2.45	0.49
1:B:536:ALA:O	1:B:539:LYS:N	2.46	0.49
1:A:100:SER:C	1:A:102:ASN:H	2.17	0.49
1:B:270:PRO:HD3	1:B:426:LEU:CD2	2.43	0.49
1:A:315:GLU:C	1:A:317:SER:H	2.16	0.49
1:B:302:THR:HG22	1:B:308:PRO:HB3	1.94	0.48
1:B:118:MET:CG	1:B:171:LEU:CD1	2.89	0.48
1:A:122:TYR:CE1	1:A:490:PHE:HA	2.48	0.48
1:B:92:ILE:O	1:B:96:ARG:HG2	2.12	0.48
1:A:456:PRO:HA	1:A:459:TYR:CE2	2.48	0.48
1:B:308:PRO:O	1:B:310:PRO:HD3	2.12	0.48
1:A:448:GLY:HA3	1:A:453:ARG:NH1	2.29	0.48
1:A:13:ASP:O	1:A:17:ALA:N	2.47	0.48
1:A:84:THR:O	1:A:86:PRO:CD	2.52	0.48
1:A:300:PHE:CD2	1:A:395:LEU:HD23	2.48	0.48
1:A:42:HIS:HD2	1:A:46:ILE:HA	1.79	0.48
1:A:204:SER:C	1:A:206:THR:H	2.15	0.48
1:A:284:LEU:HD23	1:A:351:VAL:HG11	1.96	0.48
1:B:362:GLU:O	1:B:365:HIS:HB2	2.14	0.48
1:A:539:LYS:HE3	1:A:559:MET:O	2.14	0.48
1:A:408:ILE:O	1:A:408:ILE:HG12	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:218:LEU:O	1:B:221:LEU:HB2	2.14	0.48
1:A:445:TRP:HB2	1:A:466:LEU:HD12	1.96	0.48
1:A:178:PHE:CZ	1:A:495:VAL:HG21	2.48	0.47
1:B:439:GLY:O	1:B:502:PHE:HB2	2.14	0.47
1:A:218:LEU:HD13	1:A:436:LEU:HD13	1.97	0.47
1:A:331:HIS:CD2	1:A:490:PHE:CD2	3.02	0.47
1:B:241:TYR:O	1:B:599:TRP:HH2	1.96	0.47
1:B:286:GLN:O	1:B:286:GLN:HG3	2.14	0.47
1:B:40:TRP:HZ3	1:B:335:TRP:HD1	1.62	0.47
1:A:550:ARG:CB	1:A:551:PRO:HD2	2.42	0.47
1:A:11:SER:C	1:A:13:ASP:H	2.17	0.47
1:B:372:TYR:CD2	1:B:372:TYR:N	2.78	0.47
1:B:68:TRP:O	1:B:69:GLY:C	2.51	0.47
1:B:303:SER:C	1:B:304:LEU:HD23	2.35	0.47
1:A:401:THR:OG1	1:A:404:HIS:HB2	2.15	0.47
1:A:583:GLU:O	1:A:587:GLN:CG	2.63	0.47
1:B:25:ASN:ND2	1:B:26:SER:N	2.63	0.47
1:A:25:ASN:O	1:A:29:GLU:CG	2.63	0.47
1:A:20:PHE:CE1	1:A:72:ALA:CA	2.87	0.47
1:B:129:LEU:HD21	1:B:137:TRP:CZ2	2.50	0.47
1:A:64:PHE:CD2	1:A:68:TRP:CD1	3.02	0.47
1:A:304:LEU:O	1:A:306:LEU:N	2.48	0.47
1:B:199:ARG:C	1:B:201:TRP:H	2.18	0.47
1:A:510:GLN:HE21	1:A:560:VAL:HG11	1.80	0.46
1:B:98:LEU:HB3	1:B:101:ALA:HB3	1.98	0.46
1:B:202:TYR:HD2	1:B:552:TRP:HZ3	1.63	0.46
1:A:191:PHE:HE1	1:A:197:TYR:CD1	2.30	0.46
1:B:315:GLU:C	1:B:317:SER:N	2.69	0.46
1:A:544:LEU:C	1:A:546:ALA:H	2.19	0.46
1:B:292:HIS:O	1:B:296:VAL:HG23	2.15	0.46
1:A:329:VAL:O	1:A:346:LYS:HE3	2.15	0.46
1:A:19:LEU:HD23	1:A:19:LEU:HA	1.72	0.46
1:B:304:LEU:N	1:B:304:LEU:CD2	2.71	0.46
1:A:39:SER:OG	1:A:54:GLN:NE2	2.41	0.46
1:A:298:GLU:O	1:A:301:PHE:N	2.48	0.46
1:B:158:PHE:HA	1:B:607:TYR:OH	2.14	0.46
1:B:406:HIS:N	1:B:411:LEU:HB3	2.31	0.46
1:A:129:LEU:N	1:A:129:LEU:CD1	2.77	0.46
1:A:100:SER:C	1:A:102:ASN:N	2.69	0.46
1:B:80:TRP:CE3	1:B:92:ILE:HG12	2.51	0.46
1:A:529:ASP:OD1	1:A:531:TYR:N	2.46	0.46
1:B:171:LEU:HD21	1:B:493:PRO:CB	2.45	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:441:LEU:HD11	1:A:467:ARG:HA	1.96	0.46
1:A:441:LEU:C	1:A:441:LEU:HD23	2.36	0.46
1:B:377:VAL:C	1:B:379:LEU:H	2.19	0.46
1:A:498:TYR:C	1:A:500:ARG:H	2.19	0.46
1:B:217:GLN:O	1:B:220:PRO:HD2	2.16	0.46
1:B:326:ARG:H	1:B:326:ARG:HG3	1.16	0.46
1:A:115:LEU:HD21	1:A:178:PHE:CD1	2.51	0.46
1:B:85:ASP:OD1	1:B:87:GLN:N	2.31	0.46
1:B:510:GLN:OE1	1:B:566:ASP:N	2.49	0.46
1:A:218:LEU:O	1:A:221:LEU:HB2	2.16	0.46
1:A:494:ASN:HD22	1:A:494:ASN:N	2.14	0.46
1:B:441:LEU:CD2	1:B:442:VAL:N	2.78	0.46
1:B:219:GLU:N	1:B:220:PRO:CD	2.80	0.45
1:A:567:ALA:O	1:A:570:LEU:HB3	2.16	0.45
1:A:143:LEU:HD13	1:A:163:TRP:HB2	1.98	0.45
1:A:329:VAL:O	1:A:346:LYS:CE	2.63	0.45
1:A:100:SER:O	1:A:103:LEU:CB	2.64	0.45
1:B:62:GLN:OE1	1:B:112:ASN:OD1	2.34	0.45
1:A:507:LEU:HB2	1:A:565:LEU:HD23	1.98	0.45
1:B:122:TYR:CE1	1:B:163:TRP:HZ2	2.34	0.45
1:B:51:ALA:O	1:B:55:GLU:HG3	2.17	0.45
1:B:486:ALA:O	1:B:492:VAL:HG21	2.17	0.45
1:A:498:TYR:O	1:A:500:ARG:N	2.50	0.45
1:A:91:ILE:HD11	1:A:376:PRO:HG2	1.98	0.45
1:A:300:PHE:HD2	1:A:395:LEU:HD23	1.80	0.45
1:A:404:HIS:O	1:A:408:ILE:HG23	2.16	0.45
1:A:507:LEU:HB2	1:A:565:LEU:CD2	2.46	0.45
1:A:610:GLY:C	1:A:612:ASP:H	2.01	0.45
1:B:406:HIS:O	1:B:408:ILE:O	2.33	0.45
1:A:73:LYS:HB3	1:A:73:LYS:HE3	1.73	0.45
1:B:199:ARG:O	1:B:201:TRP:N	2.50	0.45
1:B:133:THR:O	1:B:134:ALA:CB	2.62	0.45
1:B:442:VAL:O	1:B:445:TRP:HB3	2.16	0.45
1:B:390:ALA:O	1:B:391:ILE:C	2.54	0.45
1:B:381:ARG:O	1:B:382:GLY:C	2.54	0.45
1:B:307:SER:HA	1:B:308:PRO:HD3	1.60	0.45
1:B:20:PHE:HE1	1:B:72:ALA:HA	1.82	0.45
1:A:492:VAL:N	1:A:493:PRO:CD	2.79	0.45
1:B:411:LEU:HA	1:B:411:LEU:HD23	1.63	0.45
1:A:491:HIS:CE1	6:A:705:LPR:O1	2.70	0.45
1:A:142:ASP:O	1:A:146:ILE:HG13	2.17	0.45
1:A:114:LEU:HG	3:A:695:NAG:H82	1.98	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:262:GLU:HG3	1:A:262:GLU:H	1.43	0.44
1:A:459:TYR:CD1	1:A:484:PHE:CE1	3.05	0.44
1:A:482:THR:HG21	2:A:691:NAG:HN2	1.82	0.44
1:A:603:LEU:O	1:A:604:PRO:O	2.35	0.44
1:A:438:PHE:CE1	1:A:467:ARG:NH2	2.85	0.44
1:A:9:ASN:OD1	1:A:10:PHE:O	2.36	0.44
1:A:277:LEU:HD11	1:A:424:TYR:HB2	1.98	0.44
1:B:169:ILE:N	1:B:170:PRO:HD2	2.33	0.44
1:A:607:TYR:HA	1:A:608:PRO:HA	1.59	0.44
1:B:77:GLU:HA	1:B:80:TRP:CD1	2.52	0.44
1:A:579:GLN:OE1	1:B:571:LEU:HD22	2.18	0.44
1:B:279:VAL:CG1	1:B:283:MET:HG3	2.48	0.44
1:B:289:ASN:O	1:B:290:ALA:C	2.55	0.44
1:B:253:LEU:HG	1:B:261:TRP:CE2	2.52	0.44
1:A:580:TRP:CZ3	1:A:581:LEU:HD23	2.53	0.44
1:B:306:LEU:O	1:B:307:SER:HB2	2.17	0.44
1:A:214:LEU:CD2	1:A:506:VAL:HG11	2.48	0.44
1:B:568:GLN:HA	1:B:571:LEU:HD12	1.99	0.44
1:B:472:GLY:HA3	1:B:594:TRP:CH2	2.53	0.44
1:B:245:ARG:HB3	1:B:596:GLU:HG3	2.00	0.44
1:B:604:PRO:O	1:B:605:ASP:C	2.55	0.44
1:B:80:TRP:CZ3	1:B:93:GLY:CA	3.00	0.44
1:A:270:PRO:O	1:A:272:PRO:HD3	2.18	0.44
1:A:283:MET:CE	1:A:356:LEU:HD22	2.47	0.44
1:A:75:LEU:N	1:A:75:LEU:CD2	2.76	0.44
1:B:140:ASP:HA	1:B:141:PRO:HA	1.80	0.44
1:A:236:ARG:HE	1:A:267:MET:HE3	1.83	0.44
1:A:269:VAL:O	1:A:269:VAL:CG1	2.65	0.44
1:A:298:GLU:O	1:A:301:PHE:HB2	2.18	0.44
1:A:158:PHE:HA	1:A:607:TYR:OH	2.18	0.44
1:B:460:ASN:N	1:B:481:GLU:OE2	2.30	0.44
1:A:100:SER:HA	1:A:185:ALA:HB1	1.99	0.43
1:B:586:GLN:O	1:B:589:GLY:N	2.47	0.43
1:B:6:GLN:HA	1:B:7:PRO:HD3	1.72	0.43
1:A:233:LEU:HD22	1:A:237:TYR:HE1	1.83	0.43
1:B:204:SER:HA	1:B:205:PRO:HD3	1.86	0.43
1:A:34:GLN:HG3	1:A:35:SER:N	2.32	0.43
1:A:96:ARG:NH2	1:A:97:THR:OG1	2.51	0.43
1:B:207:PHE:CZ	1:B:211:LEU:HD11	2.54	0.43
1:B:551:PRO:C	1:B:552:TRP:HD1	2.21	0.43
1:A:368:TYR:CE2	1:A:544:LEU:HA	2.53	0.43
1:B:147:LEU:HD13	1:B:256:MET:CE	2.49	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:2:ASP:CB	1:B:3:PRO:C	2.86	0.43
1:B:183:ASN:HD21	1:B:193:ASP:CB	2.30	0.43
1:A:293:MET:HG2	1:A:356:LEU:HD22	2.00	0.43
1:A:369:TYR:HD2	1:A:372:TYR:HH	0.70	0.43
1:B:377:VAL:C	1:B:379:LEU:N	2.72	0.43
1:B:117:ASN:O	1:B:121:ILE:HG13	2.19	0.43
1:B:492:VAL:HB	1:B:493:PRO:CD	2.49	0.43
1:B:280:THR:C	1:B:283:MET:H	2.16	0.43
1:A:570:LEU:HD12	1:A:570:LEU:O	2.19	0.43
1:B:204:SER:C	1:B:206:THR:H	2.21	0.43
1:B:537:GLY:O	1:B:541:ARG:HG2	2.17	0.43
1:A:221:LEU:HD23	1:A:433:ILE:CD1	2.42	0.43
1:B:265:TYR:HE1	1:B:427:LYS:HB2	1.81	0.43
1:A:31:VAL:HB	1:A:64:PHE:CE1	2.52	0.43
1:B:77:GLU:CD	1:B:96:ARG:NH2	2.72	0.43
1:B:255:ASP:OD1	1:B:257:TRP:N	2.45	0.43
1:A:510:GLN:HG2	1:A:569:PRO:HG3	2.00	0.43
1:B:436:LEU:HB2	1:B:437:PRO:CD	2.48	0.43
1:A:512:HIS:O	1:A:516:CYS:SG	2.77	0.43
1:B:89:ARG:HA	1:B:92:ILE:CG2	2.49	0.43
1:A:503:VAL:HG13	1:A:565:LEU:HD11	2.00	0.43
1:B:256:MET:HB3	1:B:257:TRP:CE3	2.54	0.43
1:A:528:CYS:SG	1:A:529:ASP:N	2.92	0.43
1:A:597:TYR:CD1	1:A:597:TYR:C	2.92	0.43
1:A:31:VAL:HG11	1:A:64:PHE:CD1	2.54	0.42
1:A:366:ILE:HA	1:A:369:TYR:HD1	1.84	0.42
1:B:261:TRP:N	1:B:261:TRP:CD1	2.86	0.42
1:B:607:TYR:HA	1:B:608:PRO:HA	1.64	0.42
1:A:113:ALA:HB1	3:A:695:NAG:HN2	1.84	0.42
1:A:524:PRO:HA	10:A:2008:HOH:O	2.18	0.42
1:A:411:LEU:HD23	1:A:411:LEU:HA	1.58	0.42
1:A:507:LEU:O	1:A:507:LEU:CG	2.57	0.42
1:B:207:PHE:CE1	1:B:211:LEU:HD11	2.54	0.42
1:A:418:THR:O	1:A:421:ASP:N	2.52	0.42
1:B:324:ASP:OD1	1:B:325:GLY:N	2.52	0.42
1:B:75:LEU:HB3	1:B:76:TYR:CE2	2.54	0.42
1:A:402:PRO:HB3	1:A:411:LEU:CD1	2.49	0.42
1:A:550:ARG:HB3	1:A:551:PRO:HD2	1.92	0.42
1:A:610:GLY:C	1:A:612:ASP:N	2.67	0.42
1:B:368:TYR:O	1:B:372:TYR:CD2	2.72	0.42
1:B:143:LEU:O	1:B:144:THR:C	2.57	0.42
1:B:71:LYS:O	1:B:72:ALA:C	2.56	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:129:LEU:HD12	1:A:129:LEU:H	1.82	0.42
1:B:441:LEU:HD23	1:B:441:LEU:C	2.39	0.42
1:A:441:LEU:HD23	1:A:442:VAL:CA	2.48	0.42
1:A:140:ASP:HA	1:A:141:PRO:HA	1.75	0.42
1:B:335:TRP:O	1:B:343:PHE:HA	2.19	0.42
1:B:85:ASP:HB3	1:B:88:LEU:CB	2.49	0.42
1:A:510:GLN:HE21	1:A:510:GLN:HB3	1.61	0.42
1:B:567:ALA:O	1:B:568:GLN:C	2.58	0.42
1:A:64:PHE:HD2	1:A:64:PHE:O	2.03	0.42
1:A:227:ALA:HB1	1:A:590:GLU:HG2	2.01	0.42
1:B:268:VAL:O	1:B:269:VAL:C	2.58	0.42
1:A:253:LEU:HD12	1:A:261:TRP:CD2	2.55	0.42
1:B:529:ASP:OD1	1:B:531:TYR:HB2	2.20	0.42
1:A:71:LYS:O	1:A:74:GLU:N	2.52	0.42
1:B:367:GLN:O	1:B:371:GLN:HG2	2.19	0.42
1:B:20:PHE:CD2	1:B:21:ALA:N	2.87	0.42
1:A:300:PHE:CD2	1:A:304:LEU:CD1	2.96	0.42
1:A:128:CYS:CB	1:A:136:CYS:HG	2.26	0.42
1:B:361:HIS:HA	1:B:392:GLY:HA3	2.02	0.42
1:A:219:GLU:HB3	1:A:220:PRO:HD3	2.02	0.42
1:B:139:LEU:HD13	1:B:163:TRP:CD2	2.55	0.42
1:A:54:GLN:HE21	1:A:54:GLN:HB2	1.73	0.42
1:A:103:LEU:O	1:A:108:ARG:HG3	2.20	0.42
1:B:265:TYR:O	1:B:267:MET:N	2.53	0.41
7:A:2433:GOL:HO1	1:B:593:GLY:CA	2.32	0.41
1:B:251:HIS:CE1	1:B:476:PRO:CB	3.02	0.41
1:B:406:HIS:N	1:B:411:LEU:CB	2.84	0.41
1:A:328:VAL:HG23	1:A:329:VAL:N	2.34	0.41
1:A:603:LEU:C	1:A:604:PRO:O	2.57	0.41
1:B:521:TYR:CE2	1:B:528:CYS:HB2	2.55	0.41
1:A:478:THR:HG22	1:A:479:ARG:N	2.35	0.41
1:B:222:TYR:HH	1:B:261:TRP:HZ2	1.67	0.41
1:B:268:VAL:HG21	1:B:430:LEU:HD11	2.02	0.41
1:A:335:TRP:N	1:A:335:TRP:CD1	2.87	0.41
1:A:369:TYR:HA	1:A:372:TYR:CE2	2.56	0.41
1:B:147:LEU:CD2	1:B:256:MET:HA	2.42	0.41
1:A:274:LYS:HB3	1:A:275:PRO:CD	2.46	0.41
1:B:438:PHE:HE2	1:B:498:TYR:HH	1.67	0.41
1:B:394:VAL:O	1:B:397:LEU:HB2	2.21	0.41
1:B:384:ASN:OD1	1:B:387:PHE:HD1	2.04	0.41
1:B:137:TRP:HB3	1:B:142:ASP:HB2	2.02	0.41
1:A:125:ALA:O	1:A:126:LYS:CG	2.67	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:540:LEU:O	1:A:543:VAL:HG22	2.21	0.41
1:B:265:TYR:CE1	1:B:427:LYS:CB	3.00	0.41
1:B:129:LEU:HB3	1:B:130:PRO:HD2	2.03	0.41
1:B:279:VAL:HG12	1:B:283:MET:HG3	2.02	0.41
1:A:191:PHE:CZ	1:A:197:TYR:HD1	2.37	0.41
1:A:236:ARG:NE	1:A:267:MET:HE3	2.36	0.41
1:A:575:GLN:O	1:A:578:THR:HB	2.21	0.41
1:A:100:SER:HA	1:A:185:ALA:CB	2.51	0.41
1:A:529:ASP:C	1:A:531:TYR:H	2.22	0.41
1:A:369:TYR:CE2	1:A:372:TYR:OH	2.73	0.41
1:A:355:GLN:O	1:A:359:VAL:HG23	2.21	0.41
1:B:586:GLN:HG3	1:B:587:GLN:H	1.74	0.41
1:B:77:GLU:N	1:B:78:PRO:HD2	2.36	0.41
1:B:7:PRO:O	1:B:8:GLY:C	2.59	0.41
1:A:331:HIS:CD2	1:A:490:PHE:CZ	3.08	0.41
1:A:492:VAL:H	1:A:493:PRO:HD2	1.84	0.41
1:B:498:TYR:C	1:B:500:ARG:N	2.73	0.41
1:A:401:THR:HA	1:A:402:PRO:HD3	1.65	0.41
1:A:141:PRO:O	1:A:142:ASP:C	2.59	0.41
1:A:169:ILE:N	1:A:170:PRO:HD2	2.36	0.41
1:A:204:SER:C	1:A:206:THR:N	2.73	0.40
1:A:172:LYS:O	1:A:176:GLU:HG3	2.21	0.40
1:A:387:PHE:CE1	1:A:552:TRP:HB2	2.56	0.40
1:B:265:TYR:CD1	1:B:427:LYS:HG3	2.55	0.40
1:A:332:ALA:CA	1:A:347:GLN:HG3	2.51	0.40
1:A:277:LEU:CD1	1:A:424:TYR:CA	2.99	0.40
1:A:277:LEU:HD12	1:A:424:TYR:HA	2.03	0.40
1:B:28:ALA:HA	1:B:31:VAL:HG12	2.03	0.40
1:B:340:ARG:HB2	1:B:340:ARG:HE	1.50	0.40
1:A:496:THR:HA	1:A:497:PRO:HD3	1.92	0.40
1:B:377:VAL:O	1:B:379:LEU:N	2.54	0.40
1:B:46:ILE:H	1:B:46:ILE:HG13	1.65	0.40
1:A:134:ALA:O	1:A:135:THR:C	2.60	0.40
1:A:350:ARG:HG3	1:A:351:VAL:N	2.33	0.40
1:A:73:LYS:HB3	1:A:77:GLU:HG3	2.02	0.40
1:B:352:THR:HG22	1:B:353:MET:N	2.36	0.40
1:B:140:ASP:OD1	1:B:140:ASP:O	2.39	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	610/612 (100%)	506 (83%)	83 (14%)	21 (3%)	6	31
1	B	605/612 (99%)	514 (85%)	70 (12%)	21 (4%)	6	30
All	All	1215/1224 (99%)	1020 (84%)	153 (13%)	42 (4%)	6	30

All (42) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	7	PRO
1	A	85	ASP
1	B	3	PRO
1	B	130	PRO
1	B	308	PRO
1	B	608	PRO
1	A	287	GLY
1	A	299	GLU
1	A	604	PRO
1	B	141	PRO
1	A	101	ALA
1	A	130	PRO
1	A	262	GLU
1	A	490	PHE
1	A	499	ILE
1	A	530	ILE
1	B	144	THR
1	B	266	ASP
1	B	281	SER
1	A	133	THR
1	A	322	PRO
1	A	608	PRO
1	B	5	LEU
1	B	382	GLY
1	B	411	LEU
1	A	111	TYR
1	A	250	ALA

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Mol	Chain	Res	Type
1	A	376	PRO
1	A	391	ILE
1	B	185	ALA
1	B	250	ALA
1	B	378	SER
1	A	87	GLN
1	B	597	TYR
1	B	279	VAL
1	A	495	VAL
1	B	310	PRO
1	B	377	VAL
1	B	78	PRO
1	B	530	ILE
1	B	79	ILE
1	A	270	PRO

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution. The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	458/526 (87%)	398 (87%)	60 (13%)	6	25
1	B	437/526 (83%)	377 (86%)	60 (14%)	5	24
All	All	895/1052 (85%)	775 (87%)	120 (13%)	6	24

All (120) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	6	GLN
1	A	11	SER
1	A	20	PHE
1	A	29	GLU
1	A	34	GLN
1	A	35	SER
1	A	52	ARG
1	A	54	GLN
1	A	64	PHE
1	A	73	LYS

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Mol	Chain	Res	Type
1	A	77	GLU
1	A	91	ILE
1	A	96	ARG
1	A	97	THR
1	A	116	SER
1	A	171	LEU
1	A	174	LEU
1	A	178	PHE
1	A	183	ASN
1	A	206	THR
1	A	214	LEU
1	A	236	ARG
1	A	242	ILE
1	A	245	ARG
1	A	262	GLU
1	A	295	ARG
1	A	299	GLU
1	A	304	LEU
1	A	314	TRP
1	A	326	ARG
1	A	328	VAL
1	A	342	ASP
1	A	354	ASP
1	A	356	LEU
1	A	368	TYR
1	A	378	SER
1	A	379	LEU
1	A	388	HIS
1	A	393	ASP
1	A	408	ILE
1	A	441	LEU
1	A	457	SER
1	A	480	ASN
1	A	482	THR
1	A	496	THR
1	A	507	LEU
1	A	530	ILE
1	A	540	LEU
1	A	541	ARG
1	A	543	VAL
1	A	553	GLN
1	A	558	ASP

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Mol	Chain	Res	Type
1	A	563	ASP
1	A	575	GLN
1	A	582	GLN
1	A	587	GLN
1	A	590	GLU
1	A	594	TRP
1	A	604	PRO
1	A	605	ASP
1	B	3	PRO
1	B	10	PHE
1	B	20	PHE
1	B	25	ASN
1	B	66	GLU
1	B	68	TRP
1	B	78	PRO
1	B	85	ASP
1	B	91	ILE
1	B	92	ILE
1	B	95	VAL
1	B	97	THR
1	B	109	GLN
1	B	118	MET
1	B	129	LEU
1	B	147	LEU
1	B	174	LEU
1	B	211	LEU
1	B	213	HIS
1	B	214	LEU
1	B	231	ARG
1	B	236	ARG
1	B	245	ARG
1	B	260	SER
1	B	264	ILE
1	B	280	THR
1	B	281	SER
1	B	286	GLN
1	B	298	GLU
1	B	304	LEU
1	B	318	MET
1	B	322	PRO
1	B	326	ARG
1	B	327	GLU

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Mol	Chain	Res	Type
1	B	340	ARG
1	B	342	ASP
1	B	368	TYR
1	B	372	TYR
1	B	378	SER
1	B	381	ARG
1	B	388	HIS
1	B	406	HIS
1	B	408	ILE
1	B	411	LEU
1	B	414	VAL
1	B	418	THR
1	B	422	ILE
1	B	428	MET
1	B	441	LEU
1	B	443	ASP
1	B	477	VAL
1	B	480	ASN
1	B	507	LEU
1	B	508	GLN
1	B	552	TRP
1	B	570	LEU
1	B	575	GLN
1	B	582	GLN
1	B	586	GLN
1	B	590	GLU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (29) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	6	GLN
1	A	42	HIS
1	A	50	ASN
1	A	54	GLN
1	A	87	GLN
1	A	331	HIS
1	A	406	HIS
1	A	491	HIS
1	A	494	ASN
1	A	575	GLN
1	A	598	GLN
1	B	50	ASN

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Mol	Chain	Res	Type
1	B	102	ASN
1	B	109	GLN
1	B	112	ASN
1	B	131	ASN
1	B	183	ASN
1	B	188	GLN
1	B	216	GLN
1	B	286	GLN
1	B	331	HIS
1	B	347	GLN
1	B	406	HIS
1	B	416	ASN
1	B	494	ASN
1	B	575	GLN
1	B	579	GLN
1	B	582	GLN
1	B	587	GLN

5.3.3 RNA ⓘ

There are no RNA chains in this entry.

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

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

5.5 Carbohydrates ⓘ

4 carbohydrates 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	A	691	1,2	12,14,15	2.80	3 (25%)	15,19,21	2.76	4 (26%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
2	NAG	A	696	2	12,14,15	2.40	1 (8%)	15,19,21	1.24	2 (13%)
2	NAG	B	691	1,2	12,14,15	0.44	0	15,19,21	1.40	2 (13%)
2	NAG	B	696	2	12,14,15	2.52	1 (8%)	15,19,21	1.41	2 (13%)

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	A	691	1,2	-	0/6/23/26	0/1/1/1
2	NAG	A	696	2	-	0/6/23/26	0/1/1/1
2	NAG	B	691	1,2	-	0/6/23/26	0/1/1/1
2	NAG	B	696	2	1/1/5/7	0/6/23/26	0/1/1/1

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	696	NAG	C8-C7	-8.59	1.32	1.50
2	A	691	NAG	C8-C7	-8.52	1.32	1.50
2	A	696	NAG	C8-C7	-8.08	1.33	1.50
2	A	691	NAG	C2-N2	-2.56	1.43	1.46
2	A	691	NAG	C4-C3	-2.36	1.46	1.52

All (10) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	691	NAG	C3-C2-N2	-8.43	98.93	111.76
2	B	691	NAG	C3-C2-N2	-4.43	105.02	111.76
2	B	696	NAG	C3-C2-N2	-4.39	105.07	111.76
2	A	691	NAG	O5-C5-C6	4.11	111.29	106.98
2	A	696	NAG	O5-C5-C6	3.15	110.29	106.98
2	A	691	NAG	C6-C5-C4	-2.96	105.84	113.00
2	A	691	NAG	O5-C5-C4	-2.74	107.18	110.65
2	A	696	NAG	O5-C5-C4	-2.47	107.52	110.65
2	B	691	NAG	O5-C5-C6	2.36	109.45	106.98
2	B	696	NAG	O5-C5-C6	2.35	109.45	106.98

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
2	B	696	NAG	C2

There are no torsion outliers.

There are no ring outliers.

5.6 Ligand geometry ⓘ

Of 13 ligands modelled in this entry, 4 are monoatomic - leaving 9 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# $ Z > 2$	Counts	RMSZ	# $ Z > 2$
7	GOL	A	2433	-	5,5,5	3.24	3 (60%)	5,5,5	1.97	1 (20%)
7	GOL	A	2434	-	5,5,5	3.38	3 (60%)	5,5,5	1.44	1 (20%)
3	NAG	A	693	1	12,14,15	0.42	0	15,19,21	1.39	2 (13%)
3	NAG	A	695	1	12,14,15	0.43	0	15,19,21	1.40	2 (13%)
6	LPR	A	705	4	30,30,30	2.86	15 (50%)	39,39,39	2.13	9 (23%)
8	NDG	B	693	1	12,14,15	0.42	0	15,19,21	1.08	2 (13%)
3	NAG	B	695	1	12,14,15	0.43	0	15,19,21	1.40	2 (13%)
6	LPR	B	705	4	30,30,30	2.95	13 (43%)	39,39,39	1.95	8 (20%)
9	ACT	B	710	-	1,3,3	3.33	1 (100%)	0,3,3	0.00	-

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the chemical component dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
7	GOL	A	2433	-	-	0/4/4/4	0/0/0/0
7	GOL	A	2434	-	-	0/4/4/4	0/0/0/0
3	NAG	A	693	1	-	0/6/23/26	0/1/1/1
3	NAG	A	695	1	-	0/6/23/26	0/1/1/1
6	LPR	A	705	4	-	0/30/40/40	0/2/2/2
8	NDG	B	693	1	-	1/6/23/26	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	NAG	B	695	1	-	0/6/23/26	0/1/1/1
6	LPR	B	705	4	-	0/30/40/40	0/2/2/2
9	ACT	B	710	-	-	0/0/0/0	0/0/0/0

All (35) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	B	705	LPR	C4-N1	-10.85	1.17	1.46
6	A	705	LPR	C4-N1	-10.14	1.19	1.46
7	A	2434	GOL	O2-C2	-6.28	1.24	1.43
7	A	2433	GOL	O2-C2	-4.48	1.29	1.43
6	A	705	LPR	C17-C16	4.09	1.48	1.38
7	A	2433	GOL	O3-C3	4.02	1.59	1.42
6	B	705	LPR	C5-C9	3.72	1.59	1.52
7	A	2433	GOL	C3-C2	3.62	1.67	1.52
6	B	705	LPR	C14-C4	-3.62	1.45	1.53
6	A	705	LPR	C7-C6	-3.60	1.36	1.51
6	B	705	LPR	C17-C16	3.53	1.46	1.38
6	B	705	LPR	C21-C16	3.41	1.46	1.38
6	A	705	LPR	C21-C16	3.39	1.46	1.38
6	B	705	LPR	O1-C1	3.36	1.28	1.22
6	A	705	LPR	C5-N2	3.35	1.53	1.47
6	B	705	LPR	C20-C19	3.35	1.47	1.37
6	A	705	LPR	C19-C18	3.34	1.47	1.37
9	B	710	ACT	CH3-C	3.33	1.53	1.48
6	A	705	LPR	C2-C1	3.31	1.60	1.53
6	B	705	LPR	C7-C6	-3.29	1.37	1.51
7	A	2434	GOL	C3-C2	3.24	1.65	1.52
6	A	705	LPR	C20-C19	3.18	1.47	1.37
6	B	705	LPR	C19-C18	3.16	1.47	1.37
6	B	705	LPR	C2-C1	3.06	1.59	1.53
6	A	705	LPR	O1-C1	3.01	1.27	1.22
6	A	705	LPR	C20-C21	2.93	1.45	1.39
6	B	705	LPR	C20-C21	2.88	1.45	1.39
6	B	705	LPR	C5-N2	2.80	1.52	1.47
6	A	705	LPR	C18-C17	2.53	1.44	1.39
6	A	705	LPR	C5-C9	2.40	1.57	1.52
6	A	705	LPR	C14-C4	-2.37	1.48	1.53
6	B	705	LPR	C18-C17	2.33	1.44	1.39
7	A	2434	GOL	O3-C3	2.30	1.52	1.42
6	A	705	LPR	C1-N2	2.22	1.39	1.34
6	A	705	LPR	C12-C13	-2.08	1.40	1.51

All (27) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	705	LPR	C4-N1-C2	7.93	129.54	114.75
6	A	705	LPR	C4-N1-C2	7.71	129.13	114.75
6	A	705	LPR	C15-C14-C4	5.44	121.32	112.52
6	A	705	LPR	C14-C4-C3	-4.84	100.31	110.71
3	B	695	NAG	C3-C2-N2	-4.43	105.01	111.76
3	A	695	NAG	C3-C2-N2	-4.43	105.02	111.76
3	A	693	NAG	C3-C2-N2	-4.42	105.03	111.76
6	B	705	LPR	C14-C4-C3	-4.25	101.58	110.71
6	B	705	LPR	C15-C14-C4	3.97	118.94	112.52
7	A	2433	GOL	O3-C3-C2	-3.88	90.80	109.71
6	A	705	LPR	C11-C10-C2	3.32	124.69	114.03
6	A	705	LPR	C7-C6-C5	3.16	110.86	104.26
6	B	705	LPR	C7-C6-C5	3.15	110.84	104.26
7	A	2434	GOL	O3-C3-C2	-2.94	95.39	109.71
6	A	705	LPR	C6-C7-C8	2.81	113.57	105.35
6	A	705	LPR	C14-C15-C16	2.67	123.53	113.17
6	A	705	LPR	C6-C5-C9	-2.63	107.05	111.54
6	B	705	LPR	C6-C7-C8	2.60	112.97	105.35
6	B	705	LPR	C11-C10-C2	2.59	122.36	114.03
6	A	705	LPR	C14-C4-N1	2.45	128.32	110.69
6	B	705	LPR	C14-C15-C16	2.43	122.61	113.17
3	A	693	NAG	O5-C5-C6	2.36	109.46	106.98
3	B	695	NAG	O5-C5-C6	2.36	109.46	106.98
3	A	695	NAG	O5-C5-C6	2.35	109.45	106.98
8	B	693	NDG	O-C5-C6	2.35	109.44	106.98
6	B	705	LPR	C14-C4-N1	2.16	126.28	110.69
8	B	693	NDG	C3-C2-N2	-2.14	108.50	111.76

There are no chirality outliers.

All (1) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
8	B	693	NDG	C3-C2-N2-C7

There are no ring outliers.

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	612/612 (100%)	0.10	0 100 100	5, 39, 64, 72	4 (0%)
1	B	609/612 (99%)	0.08	0 100 100	4, 41, 67, 81	4 (0%)
All	All	1221/1224 (99%)	0.09	0 100 100	4, 40, 66, 81	8 (0%)

There are no RSRZ outliers to report.

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

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

6.3 Carbohydrates ⓘ

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. 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	RSR	LLDF	B-factors(Å ²)	Q<0.9
2	NAG	A	691	14/15	0.31	5.40	29,32,35,37	0
2	NAG	B	691	14/15	0.26	2.16	32,35,37,38	0
2	NAG	A	696	14/15	0.38	-	100,101,103,103	0
2	NAG	B	696	14/15	0.36	-	90,92,93,94	0

6.4 Ligands ⓘ

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. LLDF column lists the quality of electron

density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. 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	RSR	LLDF	B-factors(Å ²)	Q<0.9
3	NAG	B	695	14/15	0.50	19.35	77,78,81,83	0
7	GOL	A	2434	6/6	0.35	5.72	28,29,30,31	0
7	GOL	A	2433	6/6	0.32	4.03	25,27,27,27	0
6	LPR	A	705	29/29	0.38	3.49	43,47,49,49	0
3	NAG	A	695	14/15	0.34	3.20	73,74,75,76	0
8	NDG	B	693	14/15	0.48	1.57	66,69,70,70	0
9	ACT	B	710	4/4	0.26	1.18	29,30,30,32	0
6	LPR	B	705	29/29	0.34	0.71	35,40,43,45	0
3	NAG	A	693	14/15	0.32	0.01	69,72,74,75	0
5	CL	A	703	1/1	0.17	-1.84	31,31,31,31	0
4	ZN	B	701	1/1	0.08	-2.81	31,31,31,31	0
5	CL	B	702	1/1	0.14	-3.32	25,25,25,25	0
4	ZN	A	701	1/1	0.09	-3.82	33,33,33,33	0

6.5 Other polymers ⓘ

There are no such residues in this entry.