Full wwPDB X-ray Structure Validation Report (i)

Dec 15, 2024 – 06:28 PM EST

PDB ID	:	1T5E
Title	:	The structure of MexA
Authors	:	Higgins, M.K.; Bokma, E.; Koronakis, E.; Hughes, C.; Koronakis, V.
Deposited on	:	2004-05-04
Resolution	:	3.00 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 (i) symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

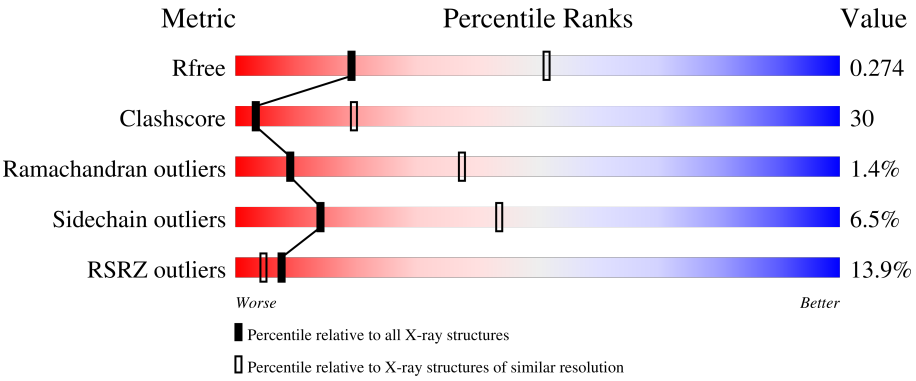
MolProbity	:	4.02b-467
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	1.21
EDS	:	3.0
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.004 (Gargrove)
Density-Fitness	:	1.0.11
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.40

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 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}	164625	2511 (3.00-3.00)
Clashscore	180529	2866 (3.00-3.00)
Ramachandran outliers	177936	2778 (3.00-3.00)
Sidechain outliers	177891	2781 (3.00-3.00)
RSRZ outliers	164620	2523 (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 of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=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	360	15% 36% 25% · 36%
1	B	360	11% 36% 26% · 36%
1	C	360	7% 36% 26% · 36%
1	D	360	10% 35% 26% · 36%
1	E	360	4% 36% 25% · 36%

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Mol	Chain	Length	Quality of chain
1	F	360	11% 33% 28% 36%
1	G	360	13% 34% 27% 36%
1	H	360	8% 34% 27% 36%
1	I	360	8% 34% 28% 36%
1	J	360	2% 33% 28% 36%
1	K	360	6% 33% 28% 36%
1	L	360	4% 32% 29% 36%
1	M	360	16% 36% 26% 36%

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
2	GOL	A	361	-	-	X	X
2	GOL	B	361	-	-	-	X
2	GOL	J	361	-	-	X	-
3	3GR	C	361	-	-	-	X
3	3GR	D	361	-	-	-	X
3	3GR	E	361	-	-	-	X
3	3GR	F	361	-	-	X	X
3	3GR	G	361	-	-	-	X
3	3GR	H	361	-	-	-	X
3	3GR	I	361	-	-	X	-
3	3GR	K	361	-	-	-	X

2 Entry composition (i)

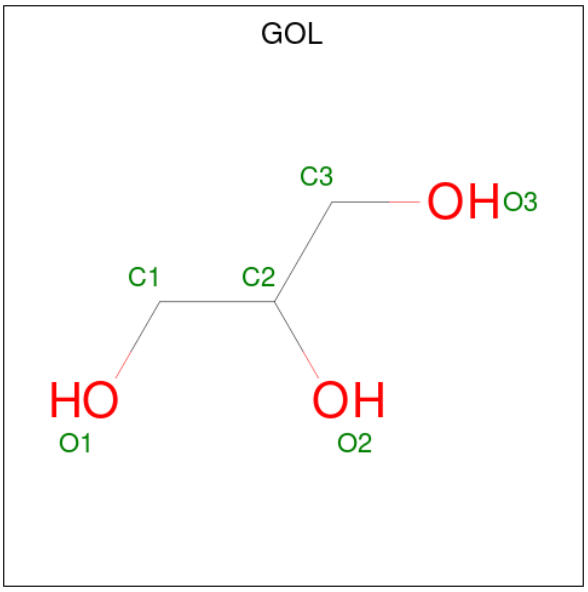
There are 3 unique types of molecules in this entry. The entry contains 23101 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 Multidrug resistance protein mexA.

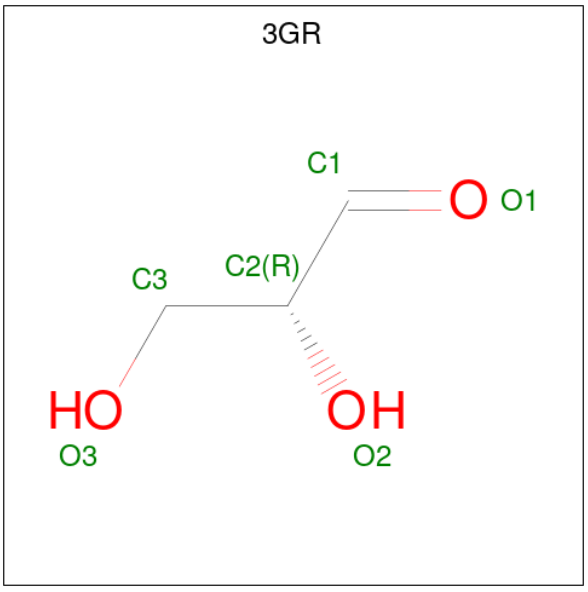
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	231	Total	C	N	O	S	0	0	0
			1771	1101	319	349	2			
1	B	231	Total	C	N	O	S	0	0	0
			1771	1101	319	349	2			
1	C	231	Total	C	N	O	S	0	0	0
			1771	1101	319	349	2			
1	D	231	Total	C	N	O	S	0	0	0
			1771	1101	319	349	2			
1	E	231	Total	C	N	O	S	0	0	0
			1771	1101	319	349	2			
1	F	231	Total	C	N	O	S	0	0	0
			1771	1101	319	349	2			
1	G	231	Total	C	N	O	S	0	0	0
			1771	1101	319	349	2			
1	H	231	Total	C	N	O	S	0	0	0
			1771	1101	319	349	2			
1	I	231	Total	C	N	O	S	0	0	0
			1771	1101	319	349	2			
1	J	231	Total	C	N	O	S	0	0	0
			1771	1101	319	349	2			
1	K	231	Total	C	N	O	S	0	0	0
			1771	1101	319	349	2			
1	L	231	Total	C	N	O	S	0	0	0
			1771	1101	319	349	2			
1	M	231	Total	C	N	O	S	0	0	0
			1771	1101	319	349	2			

- Molecule 2 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
2	A	1	Total	C	O	0	0
			6	3	3		
2	B	1	Total	C	O	0	0
			6	3	3		
2	J	1	Total	C	O	0	0
			6	3	3		
2	M	1	Total	C	O	0	0
			6	3	3		

- Molecule 3 is D-Glyceraldehyde (three-letter code: 3GR) (formula: $C_3H_6O_3$).



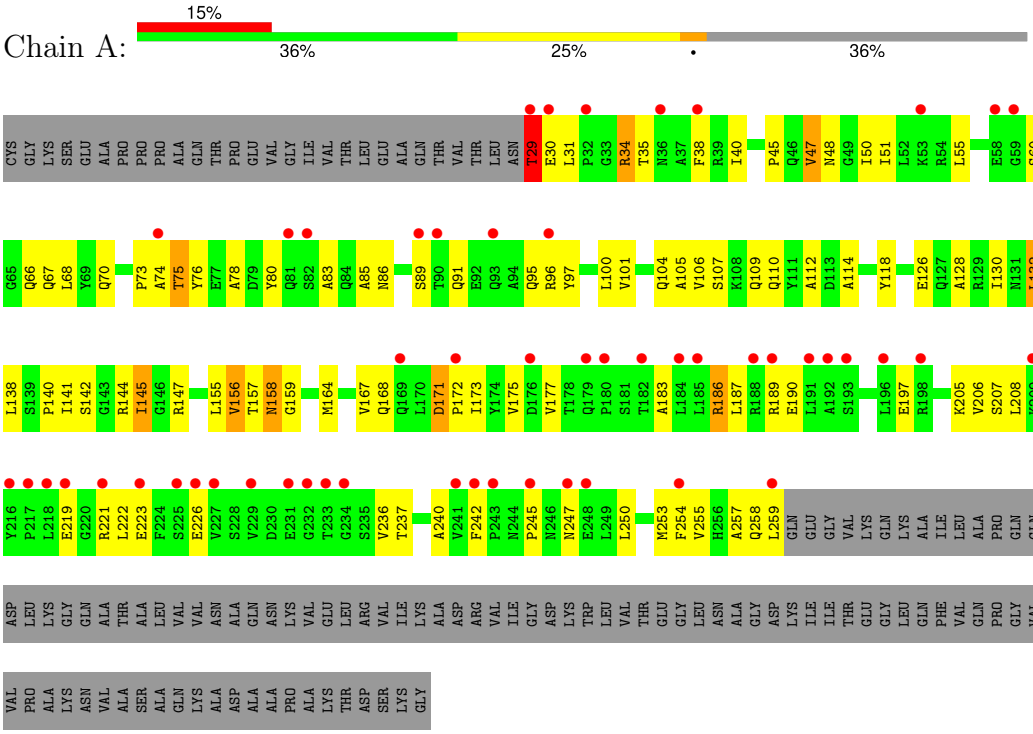
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
3	C	1	Total	C	O	0	0
			6	3	3		
3	D	1	Total	C	O	0	0
			6	3	3		
3	E	1	Total	C	O	0	0
			6	3	3		
3	F	1	Total	C	O	0	0
			6	3	3		
3	G	1	Total	C	O	0	0
			6	3	3		
3	H	1	Total	C	O	0	0
			6	3	3		
3	I	1	Total	C	O	0	0
			6	3	3		
3	K	1	Total	C	O	0	0
			6	3	3		
3	L	1	Total	C	O	0	0
			6	3	3		

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.

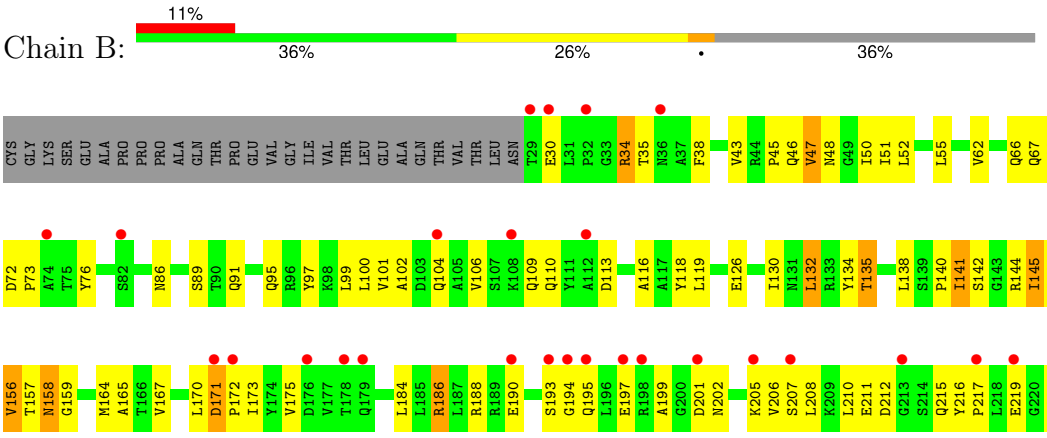
• Molecule 1: Multidrug resistance protein mexA

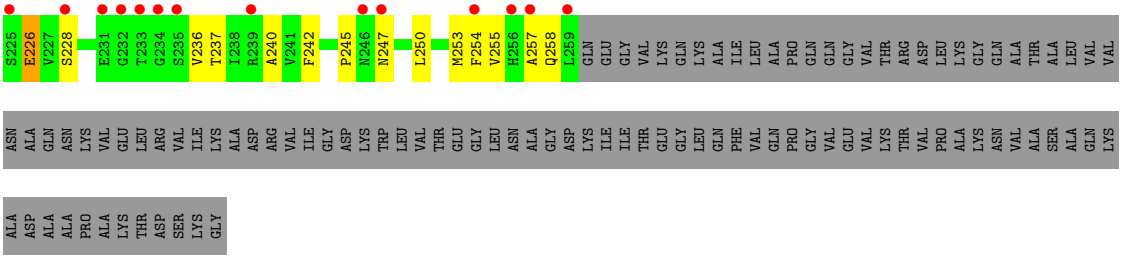
Chain A:



• Molecule 1: Multidrug resistance protein mexA

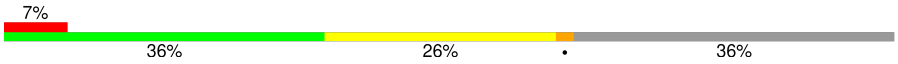
Chain B:

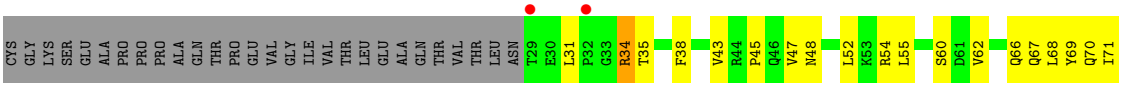


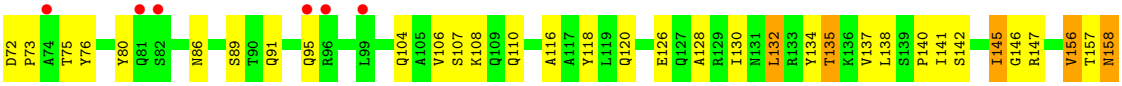


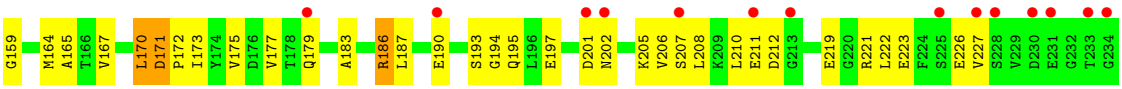
• Molecule 1: Multidrug resistance protein mexA

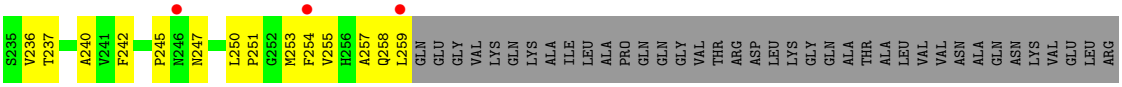
Chain C:





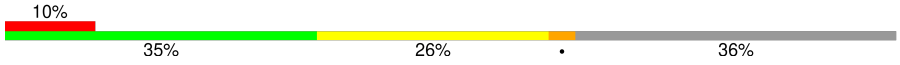


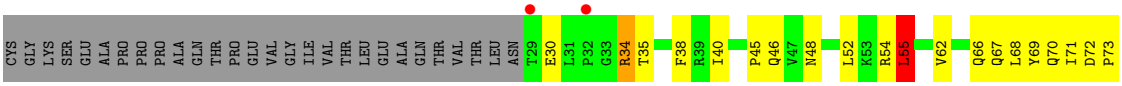


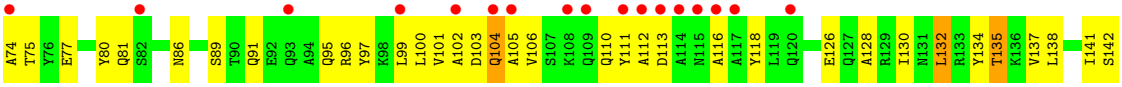


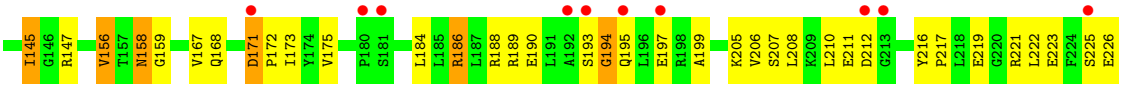
• Molecule 1: Multidrug resistance protein mexA

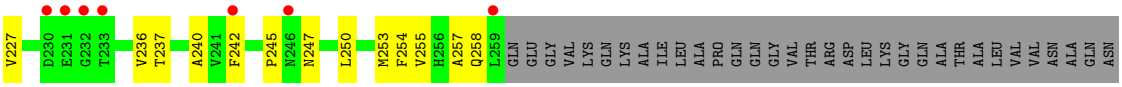
Chain D:

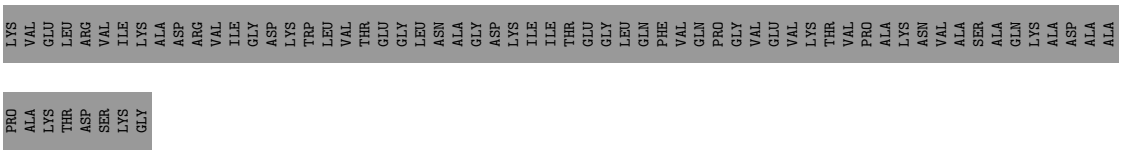






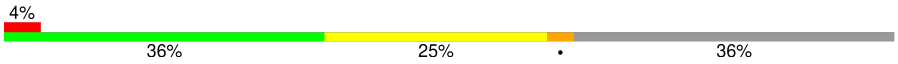


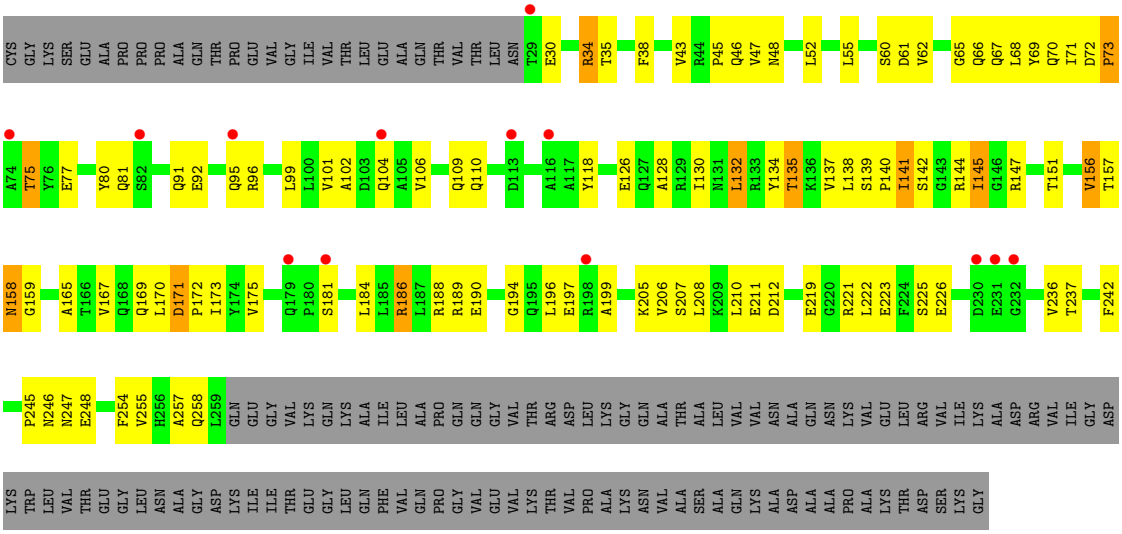




• Molecule 1: Multidrug resistance protein mexA

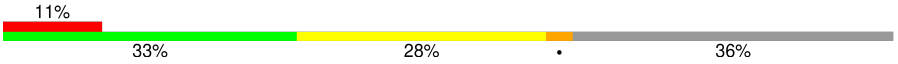
Chain E:

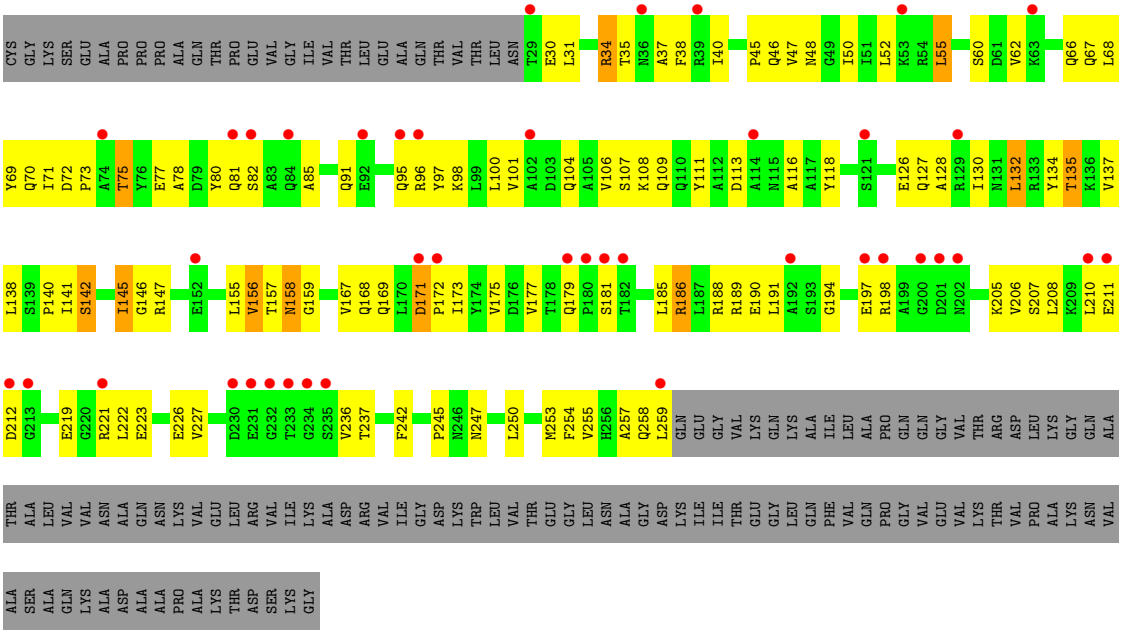




• Molecule 1: Multidrug resistance protein mexA

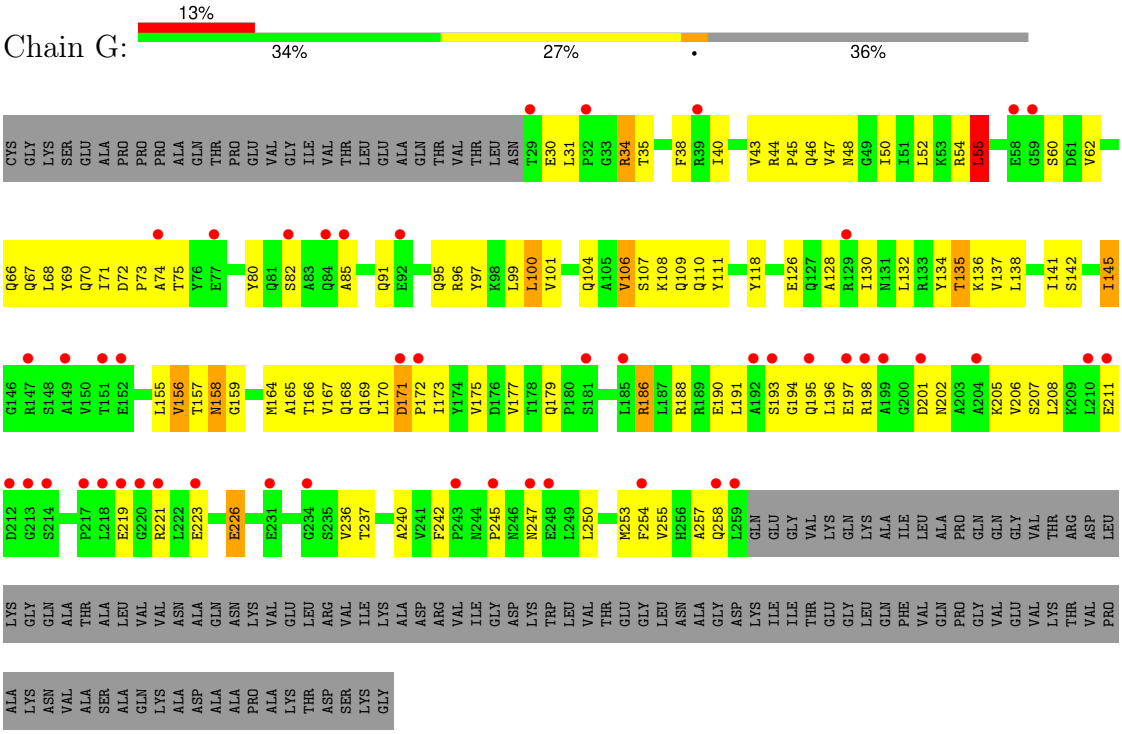
Chain F:





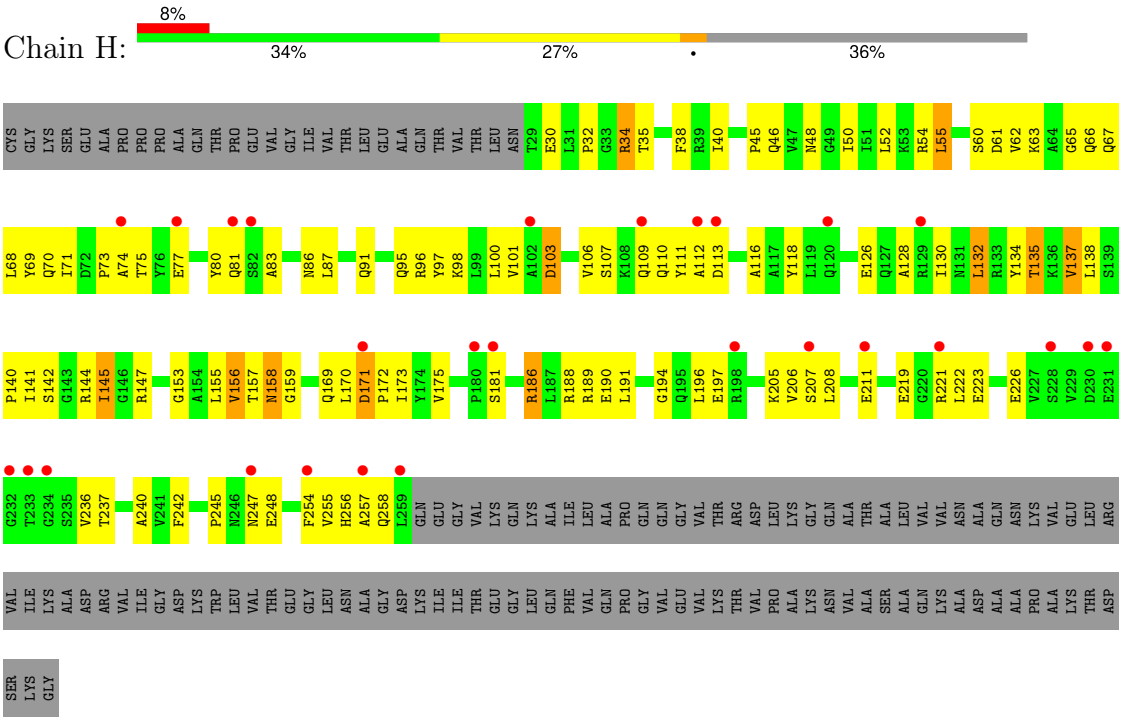
• Molecule 1: Multidrug resistance protein mexA

Chain G:



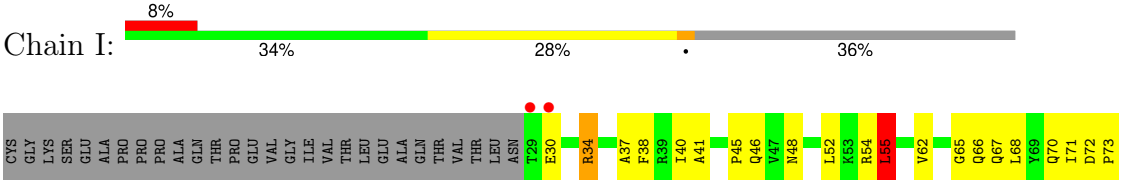
• Molecule 1: Multidrug resistance protein mexA

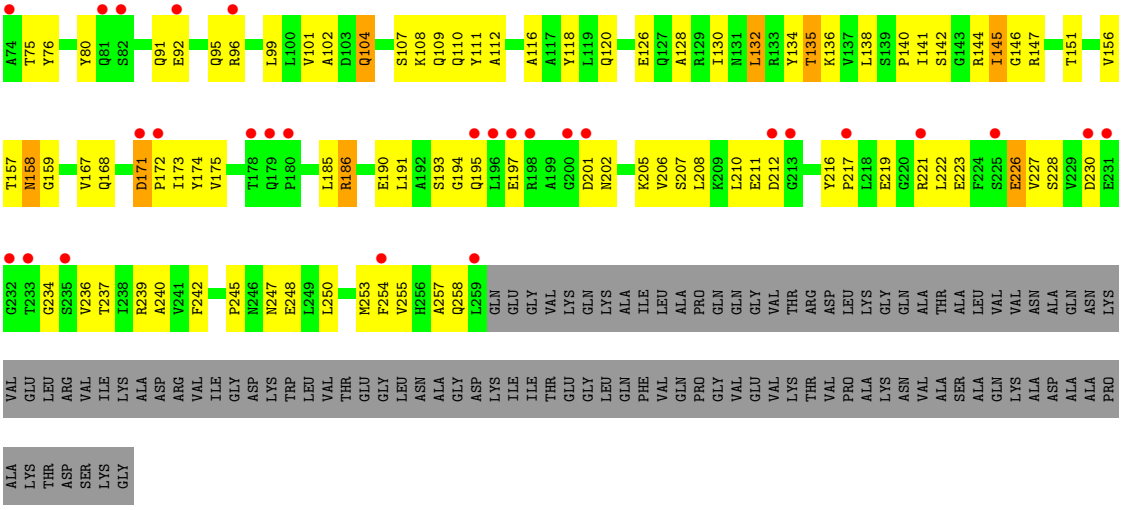
Chain H:



• Molecule 1: Multidrug resistance protein mexA

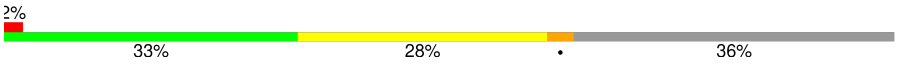
Chain I:

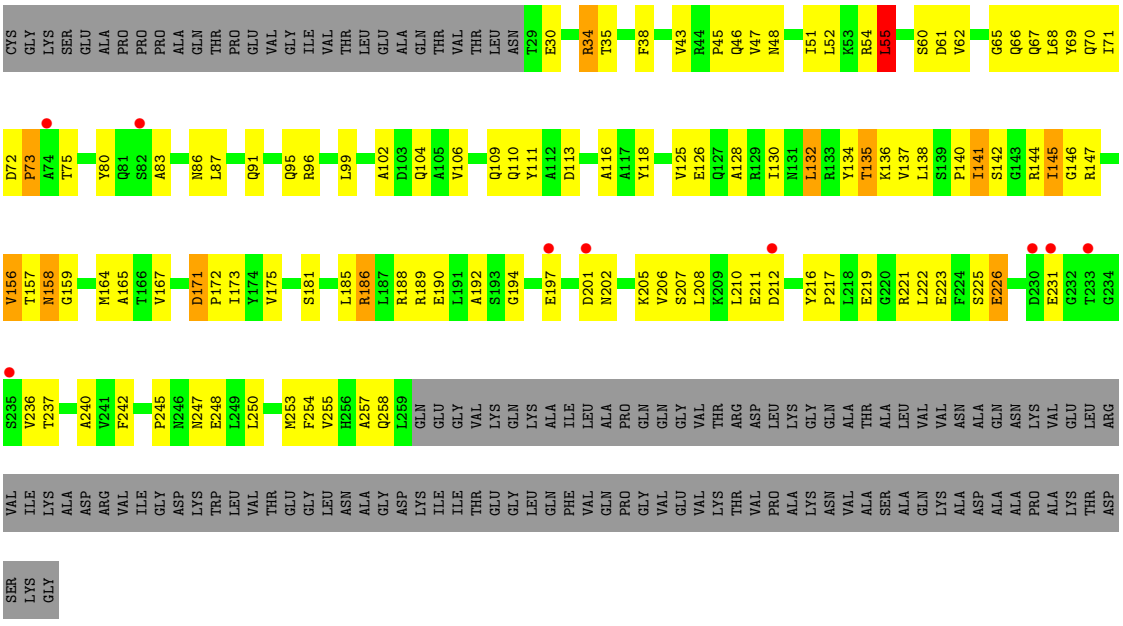




• Molecule 1: Multidrug resistance protein mexA

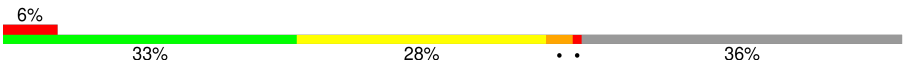
Chain J:

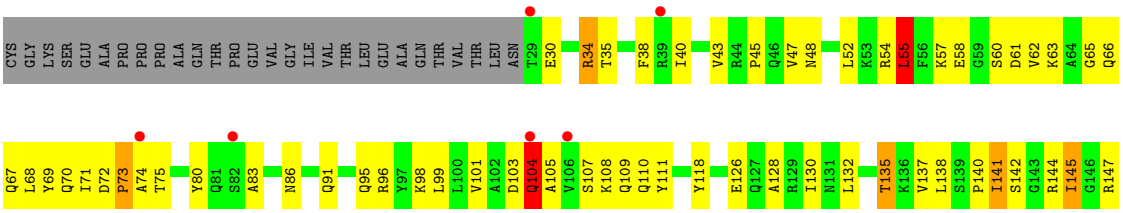


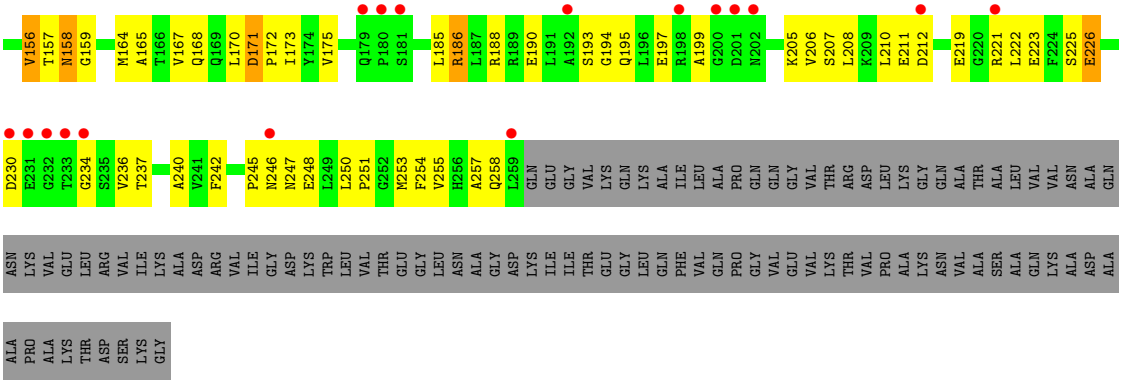


• Molecule 1: Multidrug resistance protein mexA

Chain K:

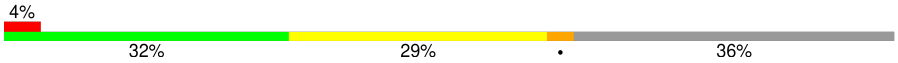


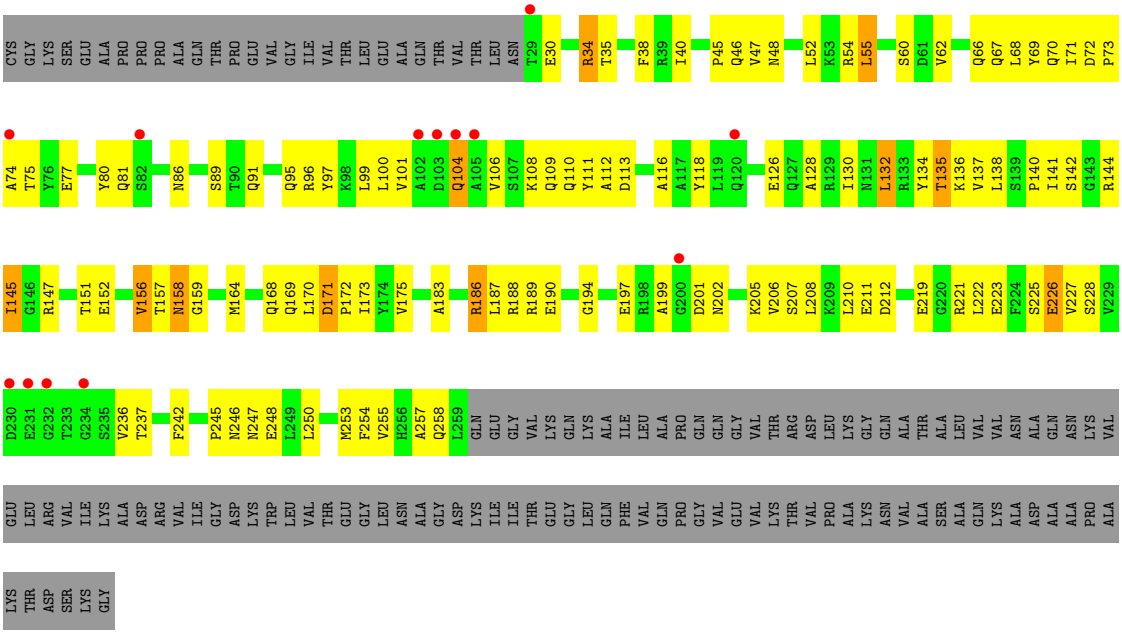




• Molecule 1: Multidrug resistance protein mexA

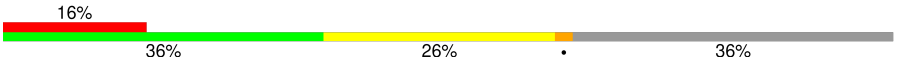
Chain L:

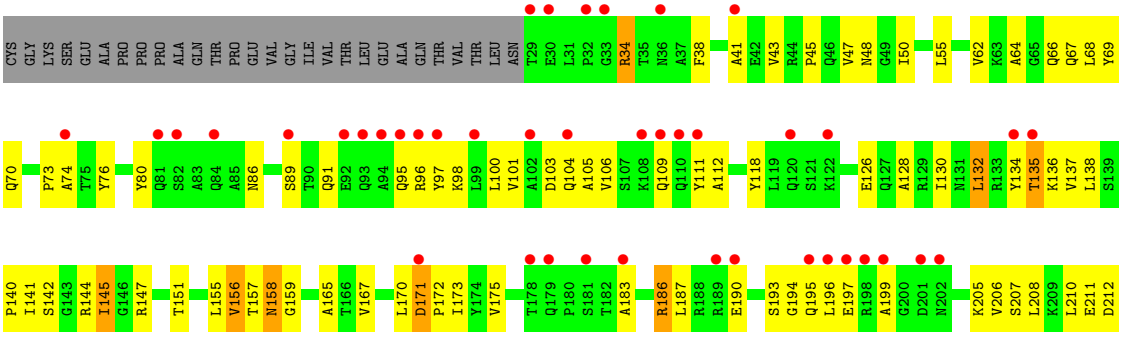


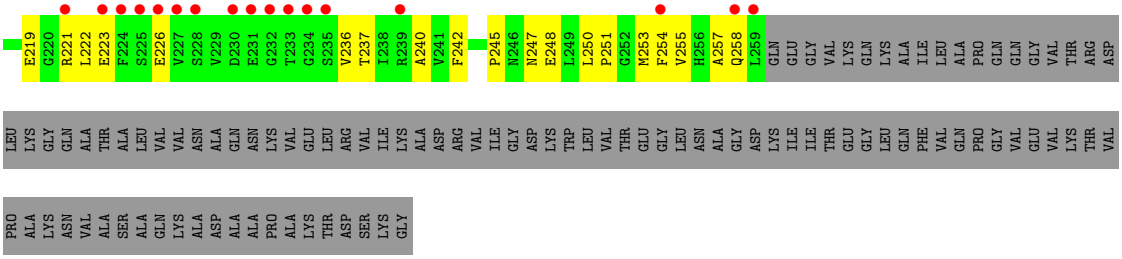


• Molecule 1: Multidrug resistance protein mexA

Chain M:






E219 G220 R221 L222 E223 F224 S225 E226 V227 S228 V229 D230 E231 G232 T233 G234 S235 V236 T237 I238 R239 A240 V241 F242 P245 N246 N247 E248 L249 L250 P251 G252 M253 F254 V255 H256 A257 Q258 L259 GLN GLU GLY VAL LYS GLN LYS ALA ILE LEU ALA PRO GLN GLN GLY VAL THR ARG ASP
LEU LYS GLY GLN ALA THR ALA LEU VAL VAL ASN ALA GLN ASN LYS VAL GLU LEU ARG VAL ILE LYS ALA ASP ARG VAL ILE GLY ASP LYS TRP LEU VAL THR GLU GLY LEU ASN ALA GLY ASP LYS ILE ILE THR GLU GLY LEU GLN PHE VAL GLN PRO GLY VAL GLU VAL LYS THR VAL
PRO ALA LYS ASN VAL ALA SER ALA GLN LYS ALA ASP ALA ALA PRO ALA LYS THR ASP SER LYS GLY

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	130.55Å 183.59Å 213.31Å 90.00° 107.38° 90.00°	Depositor
Resolution (Å)	95.00 – 3.00 95.00 – 3.00	Depositor EDS
% Data completeness (in resolution range)	97.8 (95.00-3.00) 98.9 (95.00-3.00)	Depositor EDS
R_{merge}	0.09	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.64 (at 3.01Å)	Xtriage
Refinement program	CNS	Depositor
R, R_{free}	0.273 , 0.285 0.262 , 0.274	Depositor DCC
R_{free} test set	9310 reflections (4.91%)	wwPDB-VP
Wilson B-factor (Å^2)	75.0	Xtriage
Anisotropy	0.023	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.32 , 65.1	EDS
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.32$	Xtriage
Estimated twinning fraction	0.005 for h,-k,-h-l	Xtriage
F_o,F_c correlation	0.89	EDS
Total number of atoms	23101	wwPDB-VP
Average B, all atoms (Å^2)	74.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 6.83% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: GOL, 3GR

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	0.48	1/1795 (0.1%)	0.62	0/2434
1	B	0.39	0/1795	0.65	0/2434
1	C	0.40	0/1795	0.66	0/2434
1	D	0.42	0/1795	0.69	0/2434
1	E	0.47	0/1795	0.71	0/2434
1	F	0.38	0/1795	0.67	0/2434
1	G	0.37	0/1795	0.63	0/2434
1	H	0.45	0/1795	0.70	0/2434
1	I	0.49	0/1795	0.71	0/2434
1	J	0.56	0/1795	0.75	0/2434
1	K	0.52	0/1795	0.73	0/2434
1	L	0.48	0/1795	0.71	0/2434
1	M	0.39	0/1795	0.66	0/2434
All	All	0.45	1/23335 (0.0%)	0.68	0/31642

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	I	0	1
All	All	0	2

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	29	THR	C-N	-14.50	1.00	1.34

There are no bond angle outliers.

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	29	THR	Mainchain
1	I	111	TYR	Sidechain

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	1771	0	1774	109	1
1	B	1771	0	1775	105	0
1	C	1771	0	1775	98	0
1	D	1771	0	1775	110	1
1	E	1771	0	1775	102	0
1	F	1771	0	1775	109	0
1	G	1771	0	1775	120	0
1	H	1771	0	1775	109	0
1	I	1771	0	1775	115	0
1	J	1771	0	1775	111	0
1	K	1771	0	1775	120	0
1	L	1771	0	1775	127	0
1	M	1771	0	1775	111	0
2	A	6	0	8	5	0
2	B	6	0	5	3	0
2	J	6	0	5	6	0
2	M	6	0	5	3	0
3	C	6	0	5	2	0
3	D	6	0	5	0	0
3	E	6	0	5	2	0
3	F	6	0	5	4	0
3	G	6	0	5	1	0
3	H	6	0	5	2	0
3	I	6	0	5	4	0
3	K	6	0	5	3	0
3	L	6	0	5	1	0
All	All	23101	0	23142	1367	1

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 30.

All (1367) 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:F:146:GLY:HA3	3:F:361:3GR:O2	1.37	1.24
1:M:70:GLN:HE22	1:M:135:THR:HG23	1.08	1.15
1:A:70:GLN:HE22	1:A:135:THR:HG23	1.18	1.07
1:F:91:GLN:HG2	1:F:95:GLN:HE21	1.21	1.05
1:J:91:GLN:HG2	1:J:95:GLN:HE21	1.16	1.04
1:J:147:ARG:N	2:J:361:GOL:O2	1.89	1.04
1:B:91:GLN:HG2	1:B:95:GLN:HE21	1.22	1.03
1:B:55:LEU:HD12	1:B:67:GLN:HG2	1.38	1.02
1:G:91:GLN:HG2	1:G:95:GLN:HE21	1.21	1.02
1:I:171:ASP:HB3	1:I:172:PRO:HD3	1.43	1.01
1:F:171:ASP:HB3	1:F:172:PRO:HD3	1.41	1.01
1:K:107:SER:HB3	1:K:110:GLN:HG3	1.42	0.99
1:K:91:GLN:HG2	1:K:95:GLN:HE21	1.22	0.99
1:C:91:GLN:HG2	1:C:95:GLN:HE21	1.27	0.99
1:K:52:LEU:HD13	1:K:72:ASP:HB2	1.44	0.98
1:I:91:GLN:HG2	1:I:95:GLN:HE21	1.25	0.98
1:E:91:GLN:HG2	1:E:95:GLN:HE21	1.25	0.98
1:L:91:GLN:HG2	1:L:95:GLN:HE21	1.26	0.98
1:A:91:GLN:HG2	1:A:95:GLN:HE21	1.26	0.97
1:C:171:ASP:HB3	1:C:172:PRO:HD3	1.44	0.97
1:D:91:GLN:HG2	1:D:95:GLN:HE21	1.26	0.97
1:G:48:ASN:ND2	1:G:158:ASN:H	1.64	0.96
2:A:361:GOL:O1	1:B:228:SER:HB3	1.65	0.96
1:M:91:GLN:HG2	1:M:95:GLN:HE21	1.30	0.95
1:D:171:ASP:HB3	1:D:172:PRO:HD3	1.46	0.95
1:G:107:SER:H	1:G:110:GLN:HE21	1.15	0.95
1:C:146:GLY:HA3	3:C:361:3GR:O1	1.65	0.94
1:A:48:ASN:ND2	1:A:158:ASN:H	1.66	0.94
1:G:132:LEU:O	1:G:135:THR:HB	1.68	0.94
1:E:171:ASP:HB3	1:E:172:PRO:HD3	1.48	0.93
1:B:132:LEU:O	1:B:135:THR:HB	1.68	0.93
1:C:132:LEU:O	1:C:135:THR:HB	1.69	0.92
1:M:48:ASN:ND2	1:M:158:ASN:H	1.68	0.92
1:G:171:ASP:HB3	1:G:172:PRO:CD	2.00	0.92
1:H:91:GLN:HG2	1:H:95:GLN:HE21	1.31	0.92
1:K:132:LEU:O	1:K:135:THR:HB	1.69	0.91
1:L:132:LEU:O	1:L:135:THR:HB	1.71	0.91
1:I:146:GLY:HA3	3:I:361:3GR:O2	1.72	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:108:LYS:HD2	1:L:96:ARG:HD2	1.53	0.90
1:L:48:ASN:ND2	1:L:158:ASN:H	1.70	0.90
1:K:171:ASP:HB3	1:K:172:PRO:CD	2.00	0.90
1:H:48:ASN:ND2	1:H:158:ASN:H	1.70	0.89
1:H:132:LEU:O	1:H:135:THR:HB	1.71	0.89
1:L:62:VAL:HG21	1:L:68:LEU:HD21	1.54	0.89
1:J:132:LEU:O	1:J:135:THR:HB	1.72	0.89
1:M:70:GLN:NE2	1:M:135:THR:HG23	1.87	0.89
1:M:147:ARG:N	2:M:361:GOL:O1	2.04	0.89
1:L:171:ASP:HB3	1:L:172:PRO:CD	2.02	0.89
1:D:132:LEU:O	1:D:135:THR:HB	1.74	0.88
1:A:171:ASP:HB3	1:A:172:PRO:CD	2.03	0.88
1:G:107:SER:OG	1:G:110:GLN:HG3	1.74	0.88
1:K:48:ASN:ND2	1:K:158:ASN:H	1.72	0.88
1:B:171:ASP:HB3	1:B:172:PRO:CD	2.04	0.87
1:D:48:ASN:ND2	1:D:158:ASN:H	1.72	0.87
1:F:171:ASP:HB3	1:F:172:PRO:CD	2.05	0.87
1:I:132:LEU:O	1:I:135:THR:HB	1.75	0.86
1:M:171:ASP:HB3	1:M:172:PRO:CD	2.04	0.86
1:J:52:LEU:HD13	1:J:72:ASP:HB2	1.57	0.86
1:A:70:GLN:NE2	1:A:135:THR:HG23	1.91	0.86
1:B:145:ILE:HG23	1:B:167:VAL:HG22	1.56	0.86
1:H:62:VAL:HG23	1:H:66:GLN:CD	1.96	0.85
1:I:34:ARG:HH11	1:I:34:ARG:HB3	1.41	0.85
1:C:62:VAL:HG21	1:C:68:LEU:HD21	1.57	0.85
1:J:91:GLN:HG2	1:J:95:GLN:NE2	1.92	0.85
1:M:55:LEU:HD12	1:M:67:GLN:HG2	1.56	0.85
1:F:62:VAL:HG21	1:F:68:LEU:HD21	1.57	0.85
1:F:85:ALA:HB2	1:G:82:SER:HB2	1.57	0.85
1:B:48:ASN:ND2	1:B:158:ASN:H	1.74	0.85
1:G:62:VAL:HG21	1:G:68:LEU:HD21	1.58	0.85
1:A:62:VAL:HG21	1:A:68:LEU:HD21	1.57	0.84
1:M:132:LEU:O	1:M:135:THR:HB	1.77	0.84
1:E:62:VAL:HG21	1:E:68:LEU:HD21	1.57	0.84
1:F:146:GLY:HA3	3:F:361:3GR:HA	1.40	0.84
1:E:132:LEU:O	1:E:135:THR:HB	1.76	0.84
1:E:186:ARG:HH11	1:E:186:ARG:HB3	1.41	0.84
1:I:171:ASP:HB3	1:I:172:PRO:CD	2.07	0.84
1:B:34:ARG:HH11	1:B:34:ARG:HB3	1.41	0.83
1:L:52:LEU:HD13	1:L:72:ASP:HB2	1.57	0.83
1:C:34:ARG:HB3	1:C:34:ARG:HH11	1.42	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:70:GLN:HE22	1:B:135:THR:HG23	1.41	0.83
1:G:34:ARG:HH11	1:G:34:ARG:HB3	1.43	0.83
1:H:171:ASP:HB3	1:H:172:PRO:CD	2.07	0.83
1:E:55:LEU:HD12	1:E:67:GLN:HG2	1.61	0.83
1:F:48:ASN:ND2	1:F:158:ASN:H	1.75	0.82
1:F:37:ALA:HB3	1:F:40:ILE:HD11	1.59	0.82
1:C:38:PHE:HB2	1:C:172:PRO:O	1.77	0.82
1:H:62:VAL:HG23	1:H:66:GLN:OE1	1.80	0.82
1:K:91:GLN:HG2	1:K:95:GLN:NE2	1.93	0.82
1:I:186:ARG:HH11	1:I:186:ARG:HB3	1.45	0.82
1:J:62:VAL:HG21	1:J:68:LEU:HD21	1.61	0.82
1:I:91:GLN:HG2	1:I:95:GLN:NE2	1.95	0.81
1:B:62:VAL:HG21	1:B:68:LEU:HD21	1.61	0.81
1:L:158:ASN:HD22	1:L:159:GLY:N	1.77	0.81
1:D:52:LEU:HD13	1:D:72:ASP:HB2	1.62	0.81
1:L:55:LEU:HD12	1:L:67:GLN:HG2	1.60	0.81
1:J:34:ARG:HB3	1:J:34:ARG:HH11	1.44	0.81
1:I:48:ASN:ND2	1:I:158:ASN:H	1.79	0.81
1:J:48:ASN:ND2	1:J:158:ASN:H	1.79	0.81
1:E:171:ASP:HB3	1:E:172:PRO:CD	2.09	0.80
1:H:70:GLN:HE22	1:H:135:THR:HG23	1.47	0.80
1:H:158:ASN:HD22	1:H:159:GLY:N	1.79	0.80
1:I:62:VAL:HG21	1:I:68:LEU:HD21	1.64	0.80
1:A:132:LEU:O	1:A:135:THR:HB	1.81	0.80
1:C:171:ASP:HB3	1:C:172:PRO:CD	2.10	0.80
1:F:91:GLN:HG2	1:F:95:GLN:NE2	1.97	0.80
1:L:34:ARG:HH11	1:L:34:ARG:HB3	1.44	0.80
1:D:62:VAL:HG21	1:D:68:LEU:HD21	1.62	0.80
1:E:48:ASN:ND2	1:E:158:ASN:H	1.78	0.80
1:J:186:ARG:HH11	1:J:186:ARG:HB3	1.47	0.79
1:B:91:GLN:HG2	1:B:95:GLN:NE2	1.97	0.79
1:D:171:ASP:HB3	1:D:172:PRO:CD	2.11	0.79
1:A:34:ARG:HH11	1:A:34:ARG:HB3	1.46	0.79
1:G:91:GLN:HG2	1:G:95:GLN:NE2	1.96	0.79
1:A:55:LEU:HD12	1:A:67:GLN:HG2	1.64	0.79
1:L:130:ILE:HD12	1:M:74:ALA:HB1	1.65	0.79
1:K:62:VAL:HG21	1:K:68:LEU:HD21	1.65	0.78
1:M:34:ARG:HH11	1:M:34:ARG:HB3	1.47	0.78
1:K:34:ARG:HH11	1:K:34:ARG:HB3	1.47	0.78
1:D:34:ARG:HH11	1:D:34:ARG:HB3	1.49	0.78
1:E:34:ARG:HB3	1:E:34:ARG:HH11	1.47	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:106:VAL:HG13	1:B:110:GLN:OE1	1.84	0.78
1:D:46:GLN:HB2	1:D:134:TYR:CD2	2.19	0.78
1:G:109:GLN:OE1	1:H:96:ARG:NH2	2.17	0.78
1:J:171:ASP:HB3	1:J:172:PRO:CD	2.14	0.77
1:L:70:GLN:HE22	1:L:135:THR:HG23	1.48	0.77
1:B:186:ARG:HH11	1:B:186:ARG:HB3	1.48	0.77
1:G:186:ARG:HH11	1:G:186:ARG:HB3	1.48	0.77
1:G:145:ILE:HD12	1:G:145:ILE:H	1.50	0.77
1:M:186:ARG:HB3	1:M:186:ARG:HH11	1.48	0.77
1:L:186:ARG:HH11	1:L:186:ARG:HB3	1.47	0.77
1:E:91:GLN:HG2	1:E:95:GLN:NE2	1.99	0.77
1:C:91:GLN:HG2	1:C:95:GLN:NE2	2.00	0.77
1:C:55:LEU:HD12	1:C:67:GLN:HG2	1.67	0.76
1:E:171:ASP:O	1:E:172:PRO:C	2.18	0.76
1:D:186:ARG:HH11	1:D:186:ARG:HB3	1.48	0.76
1:K:70:GLN:HE22	1:K:135:THR:HG23	1.50	0.76
1:F:52:LEU:HD13	1:F:72:ASP:HB2	1.68	0.76
1:G:171:ASP:O	1:G:172:PRO:C	2.22	0.76
1:H:34:ARG:HH11	1:H:34:ARG:HB3	1.51	0.75
1:E:38:PHE:HB2	1:E:172:PRO:O	1.86	0.75
1:I:206:VAL:HG11	1:I:257:ALA:HB1	1.68	0.75
1:M:62:VAL:HG23	1:M:66:GLN:OE1	1.85	0.75
1:F:145:ILE:HD12	1:F:145:ILE:H	1.49	0.75
1:A:101:VAL:HG13	1:A:106:VAL:HG23	1.69	0.75
1:H:62:VAL:HG21	1:H:68:LEU:HD21	1.68	0.74
1:M:62:VAL:HG23	1:M:66:GLN:CD	2.08	0.74
1:G:171:ASP:HB3	1:G:172:PRO:HD2	1.69	0.74
1:G:107:SER:N	1:G:110:GLN:HE21	1.84	0.74
1:C:145:ILE:HG23	1:C:167:VAL:HG22	1.70	0.74
1:D:158:ASN:HD22	1:D:159:GLY:N	1.85	0.74
1:C:48:ASN:ND2	1:C:158:ASN:H	1.85	0.74
1:D:38:PHE:HB2	1:D:172:PRO:O	1.88	0.74
1:M:38:PHE:HB2	1:M:172:PRO:O	1.87	0.74
1:M:62:VAL:HG21	1:M:68:LEU:HD21	1.68	0.74
1:D:48:ASN:HD21	1:D:158:ASN:H	1.35	0.74
1:B:38:PHE:HB2	1:B:172:PRO:O	1.88	0.74
1:F:62:VAL:HG23	1:F:66:GLN:CD	2.09	0.74
1:G:55:LEU:HD12	1:G:67:GLN:HG2	1.69	0.73
1:I:45:PRO:HG3	1:I:156:VAL:HG22	1.70	0.73
1:I:65:GLY:O	1:I:138:LEU:HD22	1.88	0.73
1:K:147:ARG:HB2	3:K:361:3GR:O3	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:91:GLN:HG2	1:A:95:GLN:NE2	2.03	0.73
1:B:62:VAL:HG23	1:B:66:GLN:CD	2.09	0.73
1:J:106:VAL:HG13	1:J:110:GLN:HB2	1.69	0.73
1:F:34:ARG:HH11	1:F:34:ARG:HB3	1.53	0.73
1:F:101:VAL:HG21	1:F:111:TYR:HB2	1.69	0.73
1:I:70:GLN:HE22	1:I:135:THR:HG23	1.53	0.73
1:H:100:LEU:HB3	1:H:106:VAL:HB	1.70	0.73
1:D:91:GLN:HG2	1:D:95:GLN:NE2	2.03	0.73
1:H:55:LEU:HD12	1:H:67:GLN:HG2	1.70	0.73
2:A:361:GOL:O1	1:B:228:SER:CB	2.36	0.73
1:B:70:GLN:NE2	1:B:135:THR:HG23	2.02	0.73
1:E:158:ASN:HD22	1:E:159:GLY:N	1.86	0.73
1:K:62:VAL:HG23	1:K:66:GLN:CD	2.08	0.73
1:D:62:VAL:HG23	1:D:66:GLN:CD	2.10	0.72
1:H:171:ASP:O	1:H:172:PRO:C	2.21	0.72
1:J:171:ASP:O	1:J:172:PRO:C	2.21	0.72
1:K:188:ARG:NH2	1:L:246:ASN:O	2.17	0.72
1:C:67:GLN:HA	1:C:138:LEU:HD23	1.71	0.72
1:A:158:ASN:HD22	1:A:159:GLY:N	1.88	0.72
1:E:145:ILE:HG23	1:E:167:VAL:HG22	1.71	0.72
1:F:71:ILE:O	1:F:73:PRO:HD3	1.89	0.72
1:G:62:VAL:HG23	1:G:66:GLN:CD	2.09	0.72
1:C:186:ARG:HH11	1:C:186:ARG:HB3	1.54	0.72
1:B:30:GLU:HG2	1:B:258:GLN:HG2	1.72	0.72
1:E:62:VAL:HG23	1:E:66:GLN:CD	2.10	0.72
1:L:147:ARG:N	3:L:361:3GR:O3	2.22	0.72
1:M:70:GLN:HE22	1:M:135:THR:CG2	1.97	0.72
1:A:186:ARG:HB3	1:A:186:ARG:HH11	1.55	0.72
1:I:147:ARG:N	3:I:361:3GR:O2	2.22	0.72
1:J:62:VAL:HG23	1:J:66:GLN:CD	2.10	0.72
1:E:206:VAL:HG11	1:E:257:ALA:HB1	1.72	0.71
1:M:158:ASN:HD22	1:M:159:GLY:N	1.88	0.71
1:H:126:GLU:O	1:H:130:ILE:HG12	1.90	0.71
1:I:171:ASP:O	1:I:172:PRO:C	2.26	0.71
1:L:101:VAL:HG11	1:L:108:LYS:HG2	1.71	0.71
1:L:38:PHE:HB2	1:L:172:PRO:O	1.88	0.71
1:L:62:VAL:HG23	1:L:66:GLN:CD	2.11	0.71
1:A:38:PHE:HB2	1:A:172:PRO:O	1.90	0.71
1:G:38:PHE:HB2	1:G:172:PRO:O	1.90	0.71
1:F:146:GLY:CA	3:F:361:3GR:O2	2.29	0.71
1:H:186:ARG:HB3	1:H:186:ARG:HH11	1.53	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:145:ILE:HD12	1:I:145:ILE:H	1.56	0.70
1:L:91:GLN:HG2	1:L:95:GLN:NE2	2.03	0.70
1:A:104:GLN:HG3	1:G:104:GLN:OE1	1.91	0.70
1:H:91:GLN:HG2	1:H:95:GLN:NE2	2.06	0.70
1:D:52:LEU:HD22	1:D:72:ASP:HA	1.72	0.70
1:L:100:LEU:HB3	1:L:106:VAL:HG23	1.72	0.70
1:B:62:VAL:HG23	1:B:66:GLN:OE1	1.91	0.70
1:K:186:ARG:HH11	1:K:186:ARG:HB3	1.56	0.70
1:M:170:LEU:HD21	1:M:251:PRO:HD3	1.74	0.70
1:I:62:VAL:HG23	1:I:66:GLN:CD	2.12	0.70
1:J:55:LEU:HD12	1:J:67:GLN:HG2	1.73	0.70
1:M:145:ILE:HG23	1:M:167:VAL:HG22	1.72	0.70
1:E:45:PRO:HG3	1:E:156:VAL:HG22	1.73	0.70
1:J:206:VAL:HG11	1:J:257:ALA:HB1	1.71	0.70
1:L:101:VAL:HG21	1:L:111:TYR:HB2	1.73	0.70
1:C:70:GLN:HE22	1:C:135:THR:HG23	1.54	0.69
1:E:70:GLN:HE22	1:E:135:THR:HG23	1.57	0.69
1:H:45:PRO:HG3	1:H:156:VAL:HG22	1.72	0.69
1:D:126:GLU:O	1:D:130:ILE:HG12	1.92	0.69
1:F:206:VAL:HG11	1:F:257:ALA:HB1	1.74	0.69
1:C:45:PRO:HG3	1:C:156:VAL:HG22	1.75	0.69
1:L:171:ASP:O	1:L:172:PRO:C	2.30	0.69
1:M:67:GLN:HA	1:M:138:LEU:HD23	1.75	0.69
1:F:197:GLU:OE2	1:F:205:LYS:HD2	1.93	0.69
1:K:158:ASN:HD22	1:K:159:GLY:N	1.90	0.69
1:H:206:VAL:HG11	1:H:257:ALA:HB1	1.75	0.69
1:K:62:VAL:HG23	1:K:66:GLN:OE1	1.93	0.69
1:K:171:ASP:O	1:K:172:PRO:C	2.28	0.69
1:A:48:ASN:HD21	1:A:158:ASN:H	1.37	0.69
1:B:70:GLN:HE22	1:B:135:THR:CG2	2.05	0.69
1:G:67:GLN:HA	1:G:138:LEU:HD23	1.74	0.69
1:B:206:VAL:HG11	1:B:257:ALA:HB1	1.75	0.69
1:E:104:GLN:HG2	1:K:108:LYS:HB2	1.74	0.69
1:F:186:ARG:HH11	1:F:186:ARG:HB3	1.57	0.69
1:A:45:PRO:HG3	1:A:156:VAL:HG22	1.73	0.69
1:F:132:LEU:O	1:F:135:THR:HB	1.92	0.69
1:B:67:GLN:HA	1:B:138:LEU:HD23	1.75	0.69
1:D:100:LEU:HB3	1:D:106:VAL:HG23	1.75	0.68
1:G:107:SER:H	1:G:110:GLN:NE2	1.90	0.68
1:J:45:PRO:HG3	1:J:156:VAL:HG22	1.74	0.68
1:K:52:LEU:HD22	1:K:72:ASP:HA	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:146:GLY:HA3	2:B:361:GOL:H12	1.75	0.68
1:D:110:GLN:C	1:D:112:ALA:H	1.96	0.68
1:I:109:GLN:NE2	1:J:96:ARG:HH21	1.91	0.68
1:H:145:ILE:HD12	1:H:145:ILE:H	1.58	0.68
1:E:52:LEU:HD13	1:E:72:ASP:HB2	1.76	0.68
1:J:67:GLN:OE1	1:J:136:LYS:HD3	1.92	0.68
1:F:171:ASP:O	1:F:172:PRO:C	2.27	0.68
1:C:62:VAL:HG23	1:C:66:GLN:CD	2.14	0.68
1:K:206:VAL:HG11	1:K:257:ALA:HB1	1.76	0.68
1:L:45:PRO:HG3	1:L:156:VAL:HG22	1.74	0.68
1:B:171:ASP:O	1:B:172:PRO:C	2.28	0.68
1:D:103:ASP:C	1:D:105:ALA:H	1.97	0.68
1:M:91:GLN:HG2	1:M:95:GLN:NE2	2.06	0.68
1:E:99:LEU:O	1:E:102:ALA:HB3	1.94	0.67
1:F:145:ILE:HG23	1:F:167:VAL:HG22	1.75	0.67
1:A:206:VAL:HG11	1:A:257:ALA:HB1	1.77	0.67
1:F:38:PHE:HB2	1:F:172:PRO:O	1.95	0.67
1:A:107:SER:OG	1:A:110:GLN:HG3	1.94	0.67
1:J:38:PHE:HB2	1:J:172:PRO:O	1.95	0.67
1:H:46:GLN:HB2	1:H:134:TYR:CD2	2.30	0.67
1:H:147:ARG:N	3:H:361:3GR:O2	2.26	0.66
1:K:55:LEU:HD12	1:K:67:GLN:HG2	1.77	0.66
1:B:45:PRO:HG3	1:B:156:VAL:HG22	1.77	0.66
1:L:70:GLN:NE2	1:L:135:THR:HG23	2.10	0.66
1:A:171:ASP:HB3	1:A:172:PRO:HD2	1.76	0.66
1:K:70:GLN:NE2	1:K:135:THR:HG23	2.09	0.66
1:I:158:ASN:HD22	1:I:159:GLY:N	1.93	0.66
1:B:126:GLU:O	1:B:130:ILE:HG12	1.95	0.66
1:F:67:GLN:HA	1:F:138:LEU:HD23	1.78	0.66
1:D:97:TYR:O	1:D:101:VAL:HG23	1.96	0.66
1:G:226:GLU:HG3	1:H:144:ARG:HE	1.61	0.66
1:M:147:ARG:HD2	2:M:361:GOL:H12	1.76	0.66
1:G:48:ASN:HD22	1:G:158:ASN:H	1.44	0.66
1:I:38:PHE:HB2	1:I:172:PRO:O	1.95	0.66
1:M:100:LEU:HB3	1:M:106:VAL:HG23	1.77	0.66
1:K:107:SER:HB3	1:K:110:GLN:CG	2.21	0.65
1:D:45:PRO:HG3	1:D:156:VAL:HG22	1.77	0.65
1:J:245:PRO:C	1:J:247:ASN:H	2.00	0.65
1:A:40:ILE:HG12	1:A:168:GLN:HG2	1.76	0.65
1:K:48:ASN:HD21	1:K:158:ASN:H	1.44	0.65
1:C:106:VAL:HG22	1:C:110:GLN:HB2	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:126:GLU:O	1:F:130:ILE:HG12	1.96	0.65
1:H:35:THR:HG22	1:H:175:VAL:HG22	1.79	0.65
1:H:97:TYR:O	1:H:101:VAL:HG23	1.96	0.65
1:A:145:ILE:HG23	1:A:167:VAL:HG22	1.79	0.65
1:G:101:VAL:HG21	1:G:111:TYR:HB2	1.79	0.65
1:J:145:ILE:HG23	1:J:167:VAL:HG22	1.77	0.65
1:L:188:ARG:HH21	1:M:248:GLU:HA	1.61	0.65
1:M:245:PRO:C	1:M:247:ASN:H	2.00	0.65
1:C:48:ASN:ND2	1:C:157:THR:HA	2.12	0.65
1:E:38:PHE:CD2	1:E:169:GLN:NE2	2.65	0.65
1:A:62:VAL:HG23	1:A:66:GLN:CD	2.16	0.65
1:D:97:TYR:HA	1:D:106:VAL:HG21	1.79	0.65
1:A:70:GLN:HE22	1:A:135:THR:CG2	2.04	0.65
1:E:248:GLU:HB3	1:F:185:LEU:HD21	1.79	0.65
1:F:245:PRO:C	1:F:247:ASN:H	2.00	0.64
1:H:48:ASN:HD21	1:H:158:ASN:H	1.45	0.64
1:L:206:VAL:HG11	1:L:257:ALA:HB1	1.79	0.64
1:B:245:PRO:C	1:B:247:ASN:H	2.01	0.64
1:E:186:ARG:O	1:E:190:GLU:HG3	1.97	0.64
1:L:126:GLU:O	1:L:130:ILE:HG12	1.97	0.64
1:A:126:GLU:O	1:A:130:ILE:HG12	1.97	0.64
1:C:52:LEU:HD13	1:C:72:ASP:HB2	1.77	0.64
1:E:38:PHE:HD2	1:E:169:GLN:NE2	1.94	0.64
1:G:145:ILE:HG23	1:G:167:VAL:HG22	1.78	0.64
1:K:186:ARG:HD3	1:K:190:GLU:OE2	1.97	0.64
1:L:35:THR:HG22	1:L:175:VAL:HG22	1.79	0.64
1:C:145:ILE:HD12	1:C:145:ILE:H	1.63	0.64
1:G:245:PRO:C	1:G:247:ASN:H	2.02	0.64
1:J:144:ARG:HG3	1:J:144:ARG:HH11	1.63	0.64
1:L:189:ARG:NH2	1:M:212:ASP:OD1	2.28	0.64
1:C:197:GLU:OE2	1:C:205:LYS:HD2	1.98	0.64
1:D:71:ILE:O	1:D:73:PRO:HD3	1.97	0.64
1:G:206:VAL:HG11	1:G:257:ALA:HB1	1.79	0.64
1:I:52:LEU:HD13	1:I:72:ASP:HB2	1.80	0.64
1:I:245:PRO:C	1:I:247:ASN:H	2.00	0.64
1:L:38:PHE:HD2	1:L:169:GLN:NE2	1.95	0.63
1:E:186:ARG:HH11	1:E:186:ARG:CB	2.11	0.63
1:H:30:GLU:HG2	1:H:258:GLN:HG2	1.79	0.63
1:D:171:ASP:O	1:D:172:PRO:C	2.34	0.63
1:G:186:ARG:HD3	1:G:190:GLU:OE2	1.98	0.63
1:K:67:GLN:HA	1:K:138:LEU:HD23	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:206:VAL:HG11	1:M:257:ALA:HB1	1.81	0.63
1:C:245:PRO:C	1:C:247:ASN:H	2.02	0.63
1:G:40:ILE:HG12	1:G:168:GLN:HG2	1.81	0.63
1:M:197:GLU:OE2	1:M:205:LYS:HD2	1.98	0.63
1:B:186:ARG:O	1:B:190:GLU:HG3	1.98	0.63
1:F:70:GLN:HE22	1:F:135:THR:HG23	1.64	0.63
1:K:54:ARG:HD2	1:K:54:ARG:O	1.99	0.63
1:D:206:VAL:HG11	1:D:257:ALA:HB1	1.80	0.63
1:H:70:GLN:NE2	1:H:135:THR:HG23	2.13	0.63
1:J:52:LEU:HD22	1:J:72:ASP:HA	1.81	0.63
1:M:186:ARG:HH11	1:M:186:ARG:CB	2.12	0.63
1:B:48:ASN:ND2	1:B:157:THR:HA	2.13	0.62
1:C:206:VAL:HG11	1:C:257:ALA:HB1	1.80	0.62
1:C:107:SER:OG	1:C:110:GLN:HG3	1.98	0.62
1:E:126:GLU:O	1:E:130:ILE:HG12	2.00	0.62
1:G:31:LEU:HB3	1:G:177:VAL:CG1	2.29	0.62
1:K:126:GLU:O	1:K:130:ILE:HG12	1.99	0.62
1:M:171:ASP:HB3	1:M:172:PRO:HD2	1.81	0.62
1:E:106:VAL:HG13	1:E:110:GLN:HB2	1.79	0.62
1:F:145:ILE:HD12	1:F:145:ILE:N	2.15	0.62
1:K:38:PHE:HB2	1:K:172:PRO:O	1.99	0.62
1:A:30:GLU:HG2	1:A:258:GLN:HG2	1.80	0.62
1:A:245:PRO:C	1:A:247:ASN:H	2.01	0.62
1:E:62:VAL:HG23	1:E:66:GLN:OE1	2.00	0.62
1:D:221:ARG:HD3	1:D:223:GLU:OE2	2.00	0.62
1:I:96:ARG:O	1:I:99:LEU:HB3	1.98	0.62
1:L:38:PHE:CD2	1:L:169:GLN:NE2	2.68	0.62
1:F:186:ARG:HD3	1:F:190:GLU:OE2	1.99	0.62
1:B:51:ILE:HD11	1:B:164:MET:HE3	1.81	0.62
1:E:30:GLU:HG2	1:E:258:GLN:HG2	1.82	0.62
1:E:48:ASN:HD21	1:E:158:ASN:H	1.47	0.62
1:F:45:PRO:HG3	1:F:156:VAL:HG22	1.82	0.61
1:G:48:ASN:ND2	1:G:158:ASN:N	2.44	0.61
1:F:158:ASN:HD22	1:F:159:GLY:N	1.98	0.61
1:K:43:VAL:HG23	1:K:165:ALA:O	2.00	0.61
1:C:208:LEU:HB2	1:C:242:PHE:CE2	2.36	0.61
1:G:145:ILE:HD12	1:G:145:ILE:N	2.15	0.61
1:I:228:SER:HB3	2:J:361:GOL:H2	1.82	0.61
1:A:186:ARG:O	1:A:190:GLU:HG3	2.01	0.61
1:L:95:GLN:O	1:L:99:LEU:HD13	2.00	0.61
1:H:67:GLN:HA	1:H:138:LEU:HD23	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:186:ARG:O	1:J:190:GLU:HG3	2.00	0.61
1:C:186:ARG:HD3	1:C:190:GLU:OE2	1.99	0.61
1:L:245:PRO:C	1:L:247:ASN:H	2.04	0.61
1:M:48:ASN:HD21	1:M:158:ASN:H	1.43	0.61
1:H:112:ALA:HB1	1:I:92:GLU:HG3	1.83	0.61
1:H:188:ARG:HH21	1:I:248:GLU:HA	1.66	0.61
1:I:145:ILE:HD12	1:I:145:ILE:N	2.15	0.61
1:L:208:LEU:HB2	1:L:242:PHE:CE2	2.36	0.61
1:A:47:VAL:HG22	1:A:76:TYR:CZ	2.36	0.61
1:F:48:ASN:HD21	1:F:158:ASN:H	1.49	0.61
1:I:109:GLN:NE2	1:J:96:ARG:NH2	2.48	0.61
1:J:188:ARG:NH2	1:K:246:ASN:O	2.34	0.61
1:I:197:GLU:OE2	1:I:205:LYS:HD2	2.01	0.61
1:L:40:ILE:O	1:M:151:THR:HB	2.01	0.60
1:B:158:ASN:HD22	1:B:159:GLY:N	1.99	0.60
1:E:221:ARG:HD3	1:E:223:GLU:OE2	2.01	0.60
1:J:144:ARG:HG3	1:J:144:ARG:NH1	2.16	0.60
1:K:186:ARG:O	1:K:190:GLU:HG3	2.00	0.60
1:L:145:ILE:HD12	1:L:145:ILE:H	1.66	0.60
1:M:45:PRO:HG3	1:M:156:VAL:HG22	1.83	0.60
1:C:171:ASP:O	1:C:172:PRO:C	2.37	0.60
1:I:185:LEU:HD21	1:J:248:GLU:HB3	1.83	0.60
1:G:71:ILE:O	1:G:73:PRO:HD3	2.02	0.60
1:M:91:GLN:HG3	1:M:118:TYR:CE1	2.37	0.60
1:B:186:ARG:HD3	1:B:190:GLU:OE2	2.02	0.60
1:D:110:GLN:C	1:D:112:ALA:N	2.55	0.60
1:F:82:SER:HA	1:G:82:SER:OG	2.01	0.60
1:G:145:ILE:HG23	1:G:167:VAL:CG2	2.32	0.60
1:J:146:GLY:HA3	2:J:361:GOL:H12	1.83	0.60
1:I:186:ARG:HH11	1:I:186:ARG:CB	2.13	0.60
1:B:100:LEU:HB3	1:B:106:VAL:HG23	1.83	0.60
1:D:245:PRO:C	1:D:247:ASN:H	2.05	0.60
1:G:158:ASN:HD22	1:G:159:GLY:N	2.00	0.60
1:I:55:LEU:N	1:I:55:LEU:HD23	2.17	0.60
1:L:171:ASP:HB3	1:L:172:PRO:HD2	1.83	0.60
1:G:62:VAL:HG23	1:G:66:GLN:OE1	2.01	0.59
1:H:107:SER:OG	1:H:110:GLN:HG3	2.02	0.59
1:L:101:VAL:CG2	1:L:111:TYR:HB2	2.31	0.59
1:D:100:LEU:HD21	1:K:103:ASP:HB3	1.84	0.59
1:G:48:ASN:HD21	1:G:158:ASN:H	1.45	0.59
1:M:211:GLU:HB3	1:M:254:PHE:O	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:186:ARG:O	1:C:190:GLU:HG3	2.01	0.59
1:D:186:ARG:O	1:D:190:GLU:HG3	2.03	0.59
1:A:208:LEU:HD11	1:A:255:VAL:HG21	1.85	0.59
1:D:55:LEU:HD12	1:D:67:GLN:HG2	1.84	0.59
1:G:126:GLU:O	1:G:130:ILE:HG12	2.03	0.59
1:I:146:GLY:CA	3:I:361:3GR:O2	2.50	0.59
1:L:48:ASN:HD21	1:L:158:ASN:H	1.44	0.59
1:J:231:GLU:HG2	1:K:251:PRO:HB2	1.84	0.59
1:A:29:THR:HG22	1:A:30:GLU:N	2.17	0.59
1:H:140:PRO:O	1:H:141:ILE:HD12	2.03	0.59
1:L:186:ARG:O	1:L:190:GLU:HG3	2.01	0.59
1:C:206:VAL:HG13	1:C:258:GLN:O	2.02	0.59
1:J:62:VAL:HG23	1:J:66:GLN:OE1	2.01	0.59
1:M:101:VAL:CG2	1:M:111:TYR:HB2	2.33	0.59
1:M:186:ARG:O	1:M:190:GLU:HG3	2.03	0.59
1:G:197:GLU:OE2	1:G:205:LYS:HD2	2.03	0.59
1:L:226:GLU:HG3	1:M:144:ARG:HE	1.68	0.59
1:A:145:ILE:HD12	1:A:145:ILE:H	1.66	0.58
1:C:54:ARG:O	1:C:54:ARG:HG2	2.03	0.58
1:E:158:ASN:HD22	1:E:159:GLY:H	1.49	0.58
1:H:189:ARG:NH2	1:I:212:ASP:OD1	2.32	0.58
1:I:70:GLN:NE2	1:I:135:THR:HG23	2.18	0.58
1:I:228:SER:CB	2:J:361:GOL:H2	2.33	0.58
1:J:126:GLU:O	1:J:130:ILE:HG12	2.02	0.58
1:M:101:VAL:HG21	1:M:111:TYR:HB2	1.85	0.58
1:A:144:ARG:NE	1:B:226:GLU:OE2	2.36	0.58
1:A:211:GLU:HB3	1:A:254:PHE:O	2.03	0.58
1:B:208:LEU:HB2	1:B:242:PHE:CE2	2.39	0.58
1:C:170:LEU:HD11	1:C:251:PRO:HD3	1.85	0.58
1:J:185:LEU:HD21	1:K:248:GLU:HB3	1.86	0.58
1:L:91:GLN:HG3	1:L:118:TYR:CE1	2.38	0.58
1:B:221:ARG:HD3	1:B:223:GLU:OE2	2.02	0.58
1:E:95:GLN:O	1:E:99:LEU:HD13	2.02	0.58
1:F:147:ARG:HD2	3:F:361:3GR:O3	2.03	0.58
1:D:96:ARG:HG2	1:D:100:LEU:HD12	1.84	0.58
1:D:158:ASN:HD22	1:D:159:GLY:H	1.49	0.58
1:D:208:LEU:HD11	1:D:255:VAL:HG21	1.85	0.58
1:L:62:VAL:HG23	1:L:66:GLN:NE2	2.18	0.58
1:F:30:GLU:HG2	1:F:258:GLN:HG2	1.84	0.58
1:F:62:VAL:HG23	1:F:66:GLN:NE2	2.18	0.58
1:H:186:ARG:HD3	1:H:190:GLU:OE2	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:62:VAL:HG23	1:I:66:GLN:OE1	2.03	0.58
1:J:109:GLN:OE1	1:K:96:ARG:NH2	2.37	0.58
1:M:208:LEU:HB2	1:M:242:PHE:CE2	2.38	0.58
1:G:206:VAL:HG13	1:G:258:GLN:O	2.04	0.58
1:C:104:GLN:HB2	1:I:108:LYS:HE3	1.85	0.58
1:E:147:ARG:N	3:E:361:3GR:O2	2.34	0.58
1:H:100:LEU:CB	1:H:106:VAL:HB	2.33	0.58
1:I:71:ILE:O	1:I:73:PRO:HD3	2.03	0.58
1:D:104:GLN:HE22	1:J:104:GLN:HE22	1.50	0.58
1:F:35:THR:HG22	1:F:175:VAL:HG22	1.86	0.58
1:M:48:ASN:O	1:M:76:TYR:OH	2.07	0.58
1:D:62:VAL:CG1	1:D:145:ILE:HG13	2.33	0.58
1:F:186:ARG:O	1:F:190:GLU:HG3	2.02	0.58
1:G:50:ILE:HD13	1:G:155:LEU:HA	1.85	0.58
1:L:206:VAL:HG12	1:L:207:SER:N	2.19	0.58
1:A:171:ASP:O	1:A:172:PRO:C	2.39	0.57
1:E:145:ILE:HD12	1:E:145:ILE:H	1.69	0.57
1:G:52:LEU:HD13	1:G:72:ASP:HB2	1.85	0.57
1:L:186:ARG:HD3	1:L:190:GLU:OE2	2.04	0.57
1:G:31:LEU:HB3	1:G:177:VAL:HG11	1.84	0.57
1:L:197:GLU:OE2	1:L:205:LYS:HD2	2.04	0.57
1:C:70:GLN:NE2	1:C:135:THR:HG23	2.19	0.57
1:H:211:GLU:HB3	1:H:254:PHE:O	2.04	0.57
1:I:107:SER:OG	1:I:110:GLN:HG3	2.04	0.57
1:J:67:GLN:HA	1:J:138:LEU:HD23	1.84	0.57
1:K:245:PRO:C	1:K:247:ASN:H	2.06	0.57
1:L:206:VAL:HG13	1:L:258:GLN:O	2.05	0.57
1:M:98:LYS:HA	1:M:111:TYR:CE1	2.39	0.57
1:A:62:VAL:CG1	1:A:145:ILE:HG13	2.35	0.57
1:A:91:GLN:HG3	1:A:118:TYR:CE1	2.39	0.57
1:H:171:ASP:HB3	1:H:172:PRO:HD2	1.85	0.57
1:H:197:GLU:OE2	1:H:205:LYS:HD2	2.04	0.57
1:I:55:LEU:HD12	1:I:67:GLN:HG2	1.87	0.57
1:K:171:ASP:HB3	1:K:172:PRO:HD3	1.82	0.57
1:E:67:GLN:HA	1:E:138:LEU:HD23	1.87	0.57
1:G:186:ARG:HH11	1:G:186:ARG:CB	2.18	0.57
1:G:141:ILE:HG23	1:G:142:SER:N	2.20	0.57
1:M:101:VAL:HG21	1:M:111:TYR:CG	2.39	0.57
1:E:206:VAL:HG21	1:E:222:LEU:HB2	1.86	0.57
1:F:108:LYS:HE3	1:L:104:GLN:NE2	2.20	0.57
1:I:54:ARG:HD2	1:I:54:ARG:O	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:186:ARG:HH11	1:J:186:ARG:CB	2.17	0.57
1:B:48:ASN:HD21	1:B:158:ASN:H	1.49	0.57
1:C:126:GLU:O	1:C:130:ILE:HG12	2.03	0.57
1:C:211:GLU:HB3	1:C:254:PHE:O	2.04	0.57
1:H:91:GLN:HG3	1:H:118:TYR:CE1	2.40	0.57
1:H:245:PRO:C	1:H:247:ASN:H	2.05	0.57
1:L:101:VAL:HG21	1:L:111:TYR:CB	2.33	0.57
1:L:186:ARG:HH11	1:L:186:ARG:CB	2.18	0.57
1:A:221:ARG:HD3	1:A:223:GLU:OE2	2.04	0.57
1:D:67:GLN:HA	1:D:138:LEU:HD23	1.85	0.57
1:H:71:ILE:O	1:H:73:PRO:HD3	2.04	0.57
1:I:48:ASN:HD21	1:I:157:THR:HG23	1.70	0.57
1:J:145:ILE:HD12	1:J:145:ILE:H	1.69	0.57
1:J:208:LEU:HD11	1:J:255:VAL:HG21	1.87	0.57
1:L:158:ASN:HD22	1:L:158:ASN:C	2.04	0.57
1:A:67:GLN:HA	1:A:138:LEU:HD23	1.87	0.57
1:B:197:GLU:OE2	1:B:205:LYS:HD2	2.04	0.57
1:K:108:LYS:CD	1:L:96:ARG:HD2	2.30	0.57
1:K:171:ASP:HB3	1:K:172:PRO:HD2	1.87	0.56
1:K:221:ARG:HD3	1:K:223:GLU:OE2	2.04	0.56
1:H:109:GLN:NE2	1:H:110:GLN:HG3	2.20	0.56
1:I:186:ARG:O	1:I:190:GLU:HG3	2.04	0.56
1:C:158:ASN:HD22	1:C:159:GLY:N	2.04	0.56
1:E:147:ARG:HG3	1:F:227:VAL:HG12	1.87	0.56
1:L:86:ASN:O	1:L:89:SER:HB3	2.06	0.56
1:B:171:ASP:HB3	1:B:172:PRO:HD2	1.83	0.56
1:C:71:ILE:O	1:C:73:PRO:HD3	2.05	0.56
1:D:145:ILE:HG23	1:D:167:VAL:HG22	1.87	0.56
1:F:78:ALA:HA	1:G:85:ALA:HB1	1.88	0.56
1:I:37:ALA:HB3	1:I:40:ILE:HD11	1.86	0.56
1:D:62:VAL:HG23	1:D:66:GLN:OE1	2.05	0.56
1:G:97:TYR:HD2	1:G:106:VAL:HG11	1.70	0.56
1:I:186:ARG:HD3	1:I:190:GLU:OE2	2.06	0.56
1:M:126:GLU:O	1:M:130:ILE:HG12	2.06	0.56
1:L:211:GLU:HB3	1:L:254:PHE:O	2.06	0.56
1:A:47:VAL:HG22	1:A:76:TYR:OH	2.06	0.56
1:B:211:GLU:HB3	1:B:254:PHE:O	2.05	0.56
1:E:91:GLN:HG3	1:E:118:TYR:CE1	2.41	0.56
1:G:208:LEU:HD11	1:G:255:VAL:HG21	1.88	0.56
1:K:147:ARG:CB	3:K:361:3GR:O3	2.54	0.56
1:B:144:ARG:HG3	1:B:144:ARG:HH11	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:48:ASN:HD22	1:C:157:THR:HA	1.70	0.56
1:D:208:LEU:HB2	1:D:242:PHE:CE2	2.41	0.56
1:E:35:THR:HG22	1:E:175:VAL:HG22	1.87	0.56
1:F:211:GLU:HB3	1:F:254:PHE:O	2.06	0.56
1:I:141:ILE:HG23	1:I:142:SER:N	2.21	0.56
1:J:206:VAL:HG21	1:J:222:LEU:HB2	1.87	0.56
1:M:109:GLN:O	1:M:112:ALA:HB3	2.05	0.56
1:E:245:PRO:C	1:E:247:ASN:H	2.08	0.56
1:G:208:LEU:HB2	1:G:242:PHE:CE2	2.41	0.56
1:J:30:GLU:HG2	1:J:258:GLN:HG2	1.88	0.56
1:C:52:LEU:HD22	1:C:72:ASP:HA	1.88	0.55
1:M:141:ILE:CG2	1:M:142:SER:N	2.70	0.55
1:G:186:ARG:O	1:G:190:GLU:HG3	2.06	0.55
1:J:158:ASN:HD22	1:J:159:GLY:N	2.03	0.55
1:L:221:ARG:HD3	1:L:223:GLU:OE2	2.06	0.55
1:D:250:LEU:O	1:D:253:MET:HG3	2.07	0.55
1:M:250:LEU:O	1:M:253:MET:HG3	2.06	0.55
1:B:55:LEU:CD1	1:B:67:GLN:HG2	2.27	0.55
1:B:206:VAL:HG13	1:B:258:GLN:O	2.06	0.55
1:C:35:THR:HG22	1:C:175:VAL:HG22	1.87	0.55
1:E:48:ASN:ND2	1:E:157:THR:HA	2.21	0.55
1:G:45:PRO:HG3	1:G:156:VAL:HG22	1.87	0.55
1:H:145:ILE:HD12	1:H:145:ILE:N	2.21	0.55
1:K:45:PRO:HG3	1:K:156:VAL:HG22	1.88	0.55
1:J:48:ASN:HD21	1:J:158:ASN:H	1.53	0.55
1:J:171:ASP:HB3	1:J:172:PRO:HD3	1.88	0.55
1:L:71:ILE:O	1:L:73:PRO:HD3	2.06	0.55
1:C:62:VAL:HG23	1:C:66:GLN:OE1	2.06	0.55
1:D:211:GLU:HB3	1:D:254:PHE:O	2.06	0.55
1:A:208:LEU:HD11	1:A:255:VAL:CG2	2.36	0.55
1:C:106:VAL:HG23	1:C:110:GLN:CD	2.27	0.55
1:C:147:ARG:HG3	1:D:227:VAL:HG12	1.87	0.55
1:F:48:ASN:ND2	1:F:157:THR:HA	2.22	0.55
1:J:70:GLN:HE22	1:J:135:THR:HG23	1.72	0.55
1:K:145:ILE:H	1:K:145:ILE:HD12	1.72	0.55
1:M:171:ASP:O	1:M:172:PRO:C	2.41	0.55
1:F:206:VAL:HG12	1:F:207:SER:N	2.20	0.55
1:H:137:VAL:HG12	1:H:137:VAL:O	2.07	0.55
1:J:34:ARG:HH11	1:J:34:ARG:CB	2.18	0.55
1:J:62:VAL:CG1	1:J:145:ILE:HG13	2.37	0.55
1:A:96:ARG:NH2	1:B:109:GLN:NE2	2.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:103:ASP:C	1:D:105:ALA:N	2.58	0.55
1:H:208:LEU:HD11	1:H:255:VAL:HG21	1.88	0.54
1:K:55:LEU:N	1:K:55:LEU:HD23	2.22	0.54
1:K:103:ASP:C	1:K:105:ALA:H	2.10	0.54
1:D:206:VAL:HG13	1:D:258:GLN:O	2.07	0.54
1:E:211:GLU:HB3	1:E:254:PHE:O	2.07	0.54
1:K:98:LYS:O	1:K:101:VAL:HG12	2.07	0.54
1:B:186:ARG:HH11	1:B:186:ARG:CB	2.19	0.54
1:L:40:ILE:HG12	1:L:168:GLN:HG2	1.90	0.54
1:A:101:VAL:CG1	1:A:106:VAL:HG23	2.37	0.54
1:B:35:THR:HG22	1:B:175:VAL:HG22	1.89	0.54
1:I:34:ARG:HH11	1:I:34:ARG:CB	2.15	0.54
1:L:70:GLN:HE22	1:L:135:THR:CG2	2.17	0.54
1:A:197:GLU:OE2	1:A:205:LYS:HD2	2.07	0.54
1:F:60:SER:O	1:F:145:ILE:HD12	2.07	0.54
1:I:48:ASN:HD22	1:I:157:THR:HA	1.73	0.54
1:L:99:LEU:HD12	1:L:99:LEU:N	2.23	0.54
1:E:170:LEU:O	1:E:171:ASP:O	2.26	0.54
1:E:171:ASP:O	1:E:173:ILE:N	2.40	0.54
1:B:48:ASN:HD22	1:B:157:THR:HA	1.73	0.54
1:D:197:GLU:OE2	1:D:205:LYS:HD2	2.07	0.54
1:D:208:LEU:HD11	1:D:255:VAL:CG2	2.38	0.54
1:G:101:VAL:CG2	1:G:111:TYR:HB2	2.38	0.54
1:I:48:ASN:ND2	1:I:157:THR:HG23	2.22	0.54
1:M:141:ILE:HG23	1:M:142:SER:N	2.22	0.54
1:K:71:ILE:O	1:K:73:PRO:HD3	2.08	0.54
1:M:62:VAL:CG1	1:M:145:ILE:HG13	2.38	0.54
1:M:206:VAL:HG12	1:M:207:SER:N	2.23	0.54
1:A:109:GLN:O	1:A:112:ALA:HB3	2.08	0.54
1:C:108:LYS:HG3	1:I:104:GLN:HB3	1.89	0.54
1:C:208:LEU:HD11	1:C:255:VAL:HG21	1.90	0.54
1:D:30:GLU:HG2	1:D:258:GLN:HG2	1.90	0.54
1:D:145:ILE:HD12	1:D:145:ILE:H	1.72	0.54
1:D:186:ARG:HD3	1:D:190:GLU:OE2	2.07	0.54
1:F:206:VAL:O	1:F:219:GLU:HB2	2.08	0.54
1:J:221:ARG:HD3	1:J:223:GLU:OE2	2.08	0.54
1:K:99:LEU:N	1:K:99:LEU:HD12	2.23	0.54
1:M:144:ARG:HG3	1:M:144:ARG:HH11	1.73	0.54
1:A:186:ARG:HD3	1:A:190:GLU:OE2	2.07	0.54
1:L:206:VAL:HG21	1:L:222:LEU:HB2	1.90	0.54
1:M:97:TYR:O	1:M:101:VAL:HG23	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:141:ILE:HG23	1:A:142:SER:N	2.23	0.53
1:D:186:ARG:HH11	1:D:186:ARG:CB	2.20	0.53
1:K:70:GLN:HE22	1:K:135:THR:CG2	2.17	0.53
1:C:221:ARG:HD3	1:C:223:GLU:OE2	2.08	0.53
1:B:140:PRO:O	1:B:141:ILE:HD12	2.09	0.53
1:D:236:VAL:HG12	1:D:237:THR:N	2.24	0.53
1:A:48:ASN:HD22	1:A:158:ASN:H	1.53	0.53
1:A:206:VAL:HG13	1:A:258:GLN:O	2.07	0.53
1:G:236:VAL:HG12	1:G:237:THR:N	2.23	0.53
1:G:221:ARG:HD3	1:G:223:GLU:OE2	2.09	0.53
1:M:101:VAL:HG21	1:M:111:TYR:CB	2.38	0.53
1:I:208:LEU:HD11	1:I:255:VAL:HG21	1.89	0.53
1:K:35:THR:HG22	1:K:175:VAL:HG22	1.91	0.53
1:F:62:VAL:CG1	1:F:145:ILE:HG13	2.39	0.53
1:F:96:ARG:O	1:F:100:LEU:HG	2.09	0.53
1:I:206:VAL:HG12	1:I:207:SER:N	2.24	0.53
1:K:206:VAL:HG12	1:K:207:SER:N	2.24	0.53
1:M:96:ARG:O	1:M:100:LEU:HD13	2.09	0.53
1:E:206:VAL:HG13	1:E:258:GLN:O	2.09	0.53
1:F:98:LYS:HG3	1:F:111:TYR:OH	2.08	0.53
1:I:70:GLN:HE21	1:I:73:PRO:HD3	1.73	0.53
1:J:48:ASN:ND2	1:J:157:THR:HA	2.24	0.53
1:E:144:ARG:HG3	1:E:144:ARG:HH11	1.74	0.52
1:E:197:GLU:OE2	1:E:205:LYS:HD2	2.10	0.52
1:I:206:VAL:HG13	1:I:258:GLN:O	2.08	0.52
1:J:186:ARG:HD3	1:J:190:GLU:OE2	2.09	0.52
1:L:210:LEU:C	1:L:212:ASP:H	2.12	0.52
1:A:147:ARG:HD2	2:A:361:GOL:C1	2.39	0.52
1:D:110:GLN:OE1	1:D:110:GLN:HA	2.09	0.52
1:G:211:GLU:HB3	1:G:254:PHE:O	2.09	0.52
1:H:221:ARG:HD3	1:H:223:GLU:OE2	2.09	0.52
1:M:236:VAL:HG12	1:M:237:THR:N	2.24	0.52
1:A:29:THR:CG2	1:A:30:GLU:N	2.71	0.52
1:D:40:ILE:HG12	1:D:168:GLN:HG2	1.92	0.52
1:F:50:ILE:HD13	1:F:155:LEU:HA	1.91	0.52
1:F:141:ILE:HG23	1:F:142:SER:N	2.25	0.52
1:C:48:ASN:HD21	1:C:157:THR:CG2	2.21	0.52
1:F:80:TYR:HA	1:F:128:ALA:HB1	1.91	0.52
1:H:145:ILE:H	1:H:145:ILE:CD1	2.18	0.52
1:B:48:ASN:ND2	1:B:158:ASN:N	2.52	0.52
1:B:206:VAL:HG12	1:B:207:SER:N	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:141:ILE:CG2	1:C:142:SER:N	2.72	0.52
1:F:38:PHE:HD2	1:F:169:GLN:OE1	1.93	0.52
1:G:208:LEU:HD11	1:G:255:VAL:CG2	2.40	0.52
1:L:48:ASN:ND2	1:L:158:ASN:N	2.50	0.52
1:A:104:GLN:HB2	1:G:108:LYS:CD	2.39	0.52
1:C:70:GLN:HE22	1:C:135:THR:CG2	2.22	0.52
1:E:104:GLN:HE22	1:K:104:GLN:HA	1.75	0.52
1:J:206:VAL:HG13	1:J:258:GLN:O	2.09	0.52
1:L:62:VAL:CG1	1:L:145:ILE:HG13	2.40	0.52
1:A:147:ARG:HD2	2:A:361:GOL:H12	1.92	0.52
1:A:208:LEU:HB2	1:A:242:PHE:CE2	2.45	0.52
1:F:206:VAL:HG13	1:F:258:GLN:O	2.08	0.52
1:G:69:TYR:CD1	1:G:164:MET:HE2	2.45	0.52
1:G:145:ILE:H	1:G:145:ILE:CD1	2.13	0.52
1:L:45:PRO:HD3	1:L:164:MET:SD	2.48	0.52
1:M:221:ARG:HD3	1:M:223:GLU:OE2	2.10	0.52
1:A:206:VAL:HG12	1:A:207:SER:N	2.25	0.52
1:B:208:LEU:HD11	1:B:255:VAL:HG21	1.91	0.52
1:E:46:GLN:HB2	1:E:134:TYR:CD2	2.44	0.52
1:E:52:LEU:HD22	1:E:72:ASP:HA	1.91	0.52
1:F:221:ARG:HD3	1:F:223:GLU:OE2	2.10	0.52
1:K:83:ALA:O	1:K:86:ASN:N	2.43	0.52
1:M:48:ASN:HD22	1:M:158:ASN:H	1.50	0.52
1:C:146:GLY:CA	3:C:361:3GR:O1	2.49	0.52
1:C:206:VAL:HG12	1:C:207:SER:N	2.25	0.52
1:E:144:ARG:HG3	1:E:144:ARG:NH1	2.25	0.52
1:I:208:LEU:HB2	1:I:242:PHE:CE2	2.44	0.52
1:K:208:LEU:HD11	1:K:255:VAL:HG21	1.90	0.52
1:L:67:GLN:HE22	1:L:136:LYS:HD3	1.74	0.52
1:G:106:VAL:HG13	1:G:110:GLN:HB2	1.92	0.52
1:I:48:ASN:ND2	1:I:157:THR:HA	2.25	0.52
1:I:62:VAL:CG1	1:I:145:ILE:HG13	2.40	0.52
1:I:211:GLU:HB3	1:I:254:PHE:O	2.10	0.52
1:L:48:ASN:ND2	1:L:157:THR:HA	2.24	0.52
1:B:144:ARG:HG3	1:B:144:ARG:NH1	2.24	0.51
1:D:141:ILE:HG23	1:D:142:SER:N	2.25	0.51
1:A:147:ARG:HD2	2:A:361:GOL:O1	2.09	0.51
1:D:95:GLN:O	1:D:99:LEU:HD13	2.11	0.51
1:L:130:ILE:CG2	1:L:134:TYR:HE1	2.23	0.51
1:M:206:VAL:HG21	1:M:222:LEU:HB2	1.91	0.51
1:A:175:VAL:HB	1:A:240:ALA:HB3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:208:LEU:HD11	1:E:255:VAL:HG21	1.93	0.51
1:I:141:ILE:CG2	1:I:142:SER:N	2.73	0.51
1:J:140:PRO:O	1:J:141:ILE:HD12	2.11	0.51
1:L:250:LEU:O	1:L:253:MET:HG3	2.09	0.51
1:M:47:VAL:HG22	1:M:76:TYR:CZ	2.44	0.51
1:A:35:THR:HG22	1:A:175:VAL:HG22	1.92	0.51
1:A:104:GLN:CB	1:G:108:LYS:HD2	2.41	0.51
1:C:48:ASN:ND2	1:C:157:THR:HG23	2.26	0.51
1:C:145:ILE:HD12	1:C:145:ILE:N	2.23	0.51
1:D:34:ARG:HH11	1:D:34:ARG:CB	2.22	0.51
1:D:97:TYR:HB3	1:D:106:VAL:HG11	1.92	0.51
1:J:80:TYR:HA	1:J:128:ALA:HB1	1.93	0.51
1:C:250:LEU:O	1:C:253:MET:HG3	2.10	0.51
1:D:55:LEU:N	1:D:55:LEU:HD23	2.25	0.51
1:G:206:VAL:HG12	1:G:207:SER:N	2.25	0.51
1:H:70:GLN:HE22	1:H:135:THR:CG2	2.20	0.51
1:I:208:LEU:HD11	1:I:255:VAL:CG2	2.41	0.51
1:L:158:ASN:C	1:L:158:ASN:ND2	2.63	0.51
1:B:145:ILE:HD12	1:B:145:ILE:H	1.74	0.51
1:D:158:ASN:ND2	1:D:159:GLY:N	2.57	0.51
1:F:97:TYR:O	1:F:101:VAL:HG23	2.10	0.51
1:B:102:ALA:C	1:B:104:GLN:H	2.14	0.51
1:E:206:VAL:HG12	1:E:207:SER:N	2.24	0.51
1:I:70:GLN:NE2	1:I:73:PRO:HD3	2.26	0.51
1:L:140:PRO:O	1:L:141:ILE:HD12	2.10	0.51
1:L:206:VAL:O	1:L:219:GLU:HB2	2.10	0.51
1:M:62:VAL:HG12	1:M:145:ILE:HG13	1.93	0.51
1:A:236:VAL:HG12	1:A:237:THR:N	2.25	0.51
1:C:183:ALA:O	1:C:187:LEU:HG	2.11	0.51
1:E:246:ASN:O	1:F:188:ARG:NH2	2.37	0.51
1:H:69:TYR:HB2	1:H:137:VAL:HB	1.91	0.51
1:A:210:LEU:C	1:A:212:ASP:H	2.14	0.51
1:D:62:VAL:HG12	1:D:145:ILE:HG13	1.92	0.51
1:E:34:ARG:HH11	1:E:34:ARG:CB	2.19	0.51
1:E:151:THR:HB	1:F:40:ILE:O	2.10	0.51
1:F:71:ILE:O	1:F:73:PRO:CD	2.59	0.51
1:F:208:LEU:HB2	1:F:242:PHE:CE2	2.45	0.51
1:K:69:TYR:CD1	1:K:164:MET:HE2	2.46	0.51
1:K:107:SER:CB	1:K:110:GLN:HG3	2.29	0.51
1:M:144:ARG:HG3	1:M:144:ARG:NH1	2.26	0.51
1:M:210:LEU:C	1:M:212:ASP:H	2.14	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:48:ASN:ND2	1:A:158:ASN:N	2.48	0.51
1:E:236:VAL:HG12	1:E:237:THR:N	2.25	0.51
1:I:126:GLU:O	1:I:130:ILE:HG12	2.10	0.51
1:L:171:ASP:HB3	1:L:172:PRO:HD3	1.87	0.51
1:B:141:ILE:HG23	1:B:142:SER:N	2.26	0.50
1:C:48:ASN:HD21	1:C:157:THR:HG23	1.74	0.50
1:D:96:ARG:NH2	1:E:109:GLN:OE1	2.45	0.50
1:D:100:LEU:CD2	1:K:103:ASP:HB3	2.42	0.50
1:D:113:ASP:O	1:D:116:ALA:HB3	2.11	0.50
1:I:145:ILE:H	1:I:145:ILE:CD1	2.17	0.50
1:I:146:GLY:HA3	3:I:361:3GR:HA	1.75	0.50
1:K:197:GLU:OE2	1:K:205:LYS:HD2	2.11	0.50
1:M:64:ALA:HB2	1:M:141:ILE:C	2.32	0.50
1:E:158:ASN:ND2	1:E:159:GLY:N	2.58	0.50
1:F:145:ILE:H	1:F:145:ILE:CD1	2.13	0.50
1:J:171:ASP:O	1:J:173:ILE:N	2.43	0.50
1:K:185:LEU:HD21	1:L:248:GLU:HB3	1.93	0.50
1:M:134:TYR:C	1:M:136:LYS:N	2.65	0.50
1:M:145:ILE:HD12	1:M:145:ILE:H	1.76	0.50
1:M:183:ALA:O	1:M:187:LEU:HG	2.11	0.50
1:F:101:VAL:CG2	1:F:111:TYR:HB2	2.39	0.50
1:B:215:GLN:HE22	1:B:258:GLN:HE22	1.58	0.50
1:E:186:ARG:HD3	1:E:190:GLU:OE2	2.10	0.50
1:K:40:ILE:O	1:L:151:THR:HB	2.12	0.50
1:K:158:ASN:HD22	1:K:159:GLY:H	1.57	0.50
1:C:43:VAL:HG23	1:C:165:ALA:O	2.11	0.50
1:D:206:VAL:HG12	1:D:207:SER:N	2.26	0.50
1:H:208:LEU:HD11	1:H:255:VAL:CG2	2.42	0.50
1:I:116:ALA:O	1:I:120:GLN:HG3	2.11	0.50
1:J:145:ILE:HD12	1:J:145:ILE:N	2.26	0.50
1:E:101:VAL:HG23	1:E:106:VAL:O	2.12	0.50
1:F:186:ARG:HH11	1:F:186:ARG:CB	2.24	0.50
1:H:62:VAL:HG23	1:H:66:GLN:NE2	2.27	0.50
1:H:158:ASN:HD22	1:H:158:ASN:C	2.10	0.50
1:A:51:ILE:HD11	1:A:164:MET:HE3	1.93	0.50
1:C:208:LEU:HD11	1:C:255:VAL:CG2	2.41	0.50
1:F:236:VAL:HG12	1:F:237:THR:N	2.27	0.50
1:H:38:PHE:HB2	1:H:172:PRO:O	2.12	0.50
1:J:35:THR:HG22	1:J:175:VAL:HG22	1.93	0.50
1:K:210:LEU:C	1:K:212:ASP:H	2.14	0.50
1:B:91:GLN:HG3	1:B:118:TYR:CE1	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:55:LEU:N	1:F:55:LEU:HD23	2.27	0.49
1:H:141:ILE:HG23	1:H:142:SER:N	2.27	0.49
1:H:186:ARG:O	1:H:190:GLU:HG3	2.12	0.49
1:I:245:PRO:C	1:I:247:ASN:N	2.65	0.49
1:J:208:LEU:HD11	1:J:255:VAL:CG2	2.41	0.49
1:L:158:ASN:HD22	1:L:159:GLY:H	1.60	0.49
1:M:80:TYR:HA	1:M:128:ALA:HB1	1.94	0.49
1:M:208:LEU:HD11	1:M:255:VAL:HG21	1.94	0.49
1:B:147:ARG:HB2	2:B:361:GOL:O2	2.12	0.49
1:F:101:VAL:HG21	1:F:111:TYR:CB	2.40	0.49
1:K:140:PRO:O	1:K:141:ILE:HD12	2.12	0.49
1:L:170:LEU:O	1:L:171:ASP:O	2.30	0.49
1:M:170:LEU:HD21	1:M:251:PRO:CD	2.42	0.49
1:A:62:VAL:HG23	1:A:66:GLN:OE1	2.12	0.49
1:C:210:LEU:C	1:C:212:ASP:H	2.15	0.49
1:F:208:LEU:HD11	1:F:255:VAL:HG21	1.94	0.49
1:L:34:ARG:HH11	1:L:34:ARG:CB	2.19	0.49
1:L:48:ASN:HD22	1:L:157:THR:HA	1.76	0.49
1:B:236:VAL:HG12	1:B:237:THR:N	2.28	0.49
1:L:201:ASP:O	1:L:202:ASN:HB2	2.13	0.49
1:C:141:ILE:HG23	1:C:142:SER:N	2.27	0.49
1:J:55:LEU:HD23	1:J:55:LEU:N	2.27	0.49
1:J:208:LEU:HB2	1:J:242:PHE:CE2	2.47	0.49
1:K:206:VAL:HG21	1:K:222:LEU:HB2	1.94	0.49
1:K:211:GLU:HB3	1:K:254:PHE:O	2.12	0.49
1:D:110:GLN:O	1:D:112:ALA:N	2.46	0.49
1:G:91:GLN:HG3	1:G:118:TYR:CE1	2.47	0.49
1:G:48:ASN:ND2	1:G:157:THR:HG23	2.27	0.49
1:G:206:VAL:O	1:G:219:GLU:HB2	2.13	0.49
1:H:83:ALA:O	1:H:86:ASN:N	2.46	0.49
1:J:197:GLU:OE2	1:J:205:LYS:HD2	2.12	0.49
1:J:236:VAL:HG21	1:K:250:LEU:HD12	1.94	0.49
1:K:62:VAL:CG1	1:K:145:ILE:HG13	2.43	0.49
1:K:208:LEU:HD11	1:K:255:VAL:CG2	2.43	0.49
1:B:171:ASP:O	1:B:173:ILE:N	2.45	0.49
1:D:103:ASP:O	1:D:104:GLN:HB3	2.12	0.49
1:G:62:VAL:CG1	1:G:145:ILE:HG13	2.43	0.49
1:H:158:ASN:ND2	1:H:159:GLY:N	2.56	0.49
1:H:206:VAL:HG21	1:H:222:LEU:HB2	1.95	0.49
1:I:226:GLU:HG3	1:J:144:ARG:HE	1.78	0.49
1:B:50:ILE:HD13	1:B:155:LEU:HA	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:170:LEU:CD1	1:C:173:ILE:HD12	2.42	0.48
1:E:80:TYR:HA	1:E:128:ALA:HB1	1.93	0.48
1:G:141:ILE:CG2	1:G:142:SER:N	2.76	0.48
1:H:206:VAL:HG13	1:H:258:GLN:O	2.13	0.48
1:L:30:GLU:HG2	1:L:258:GLN:HG2	1.94	0.48
1:A:206:VAL:O	1:A:219:GLU:HB2	2.13	0.48
1:C:91:GLN:HG3	1:C:118:TYR:CE1	2.47	0.48
1:E:70:GLN:NE2	1:E:135:THR:HG23	2.25	0.48
1:K:111:TYR:C	1:K:111:TYR:CD2	2.86	0.48
1:L:46:GLN:HB2	1:L:134:TYR:CD2	2.48	0.48
1:M:140:PRO:O	1:M:141:ILE:HD12	2.13	0.48
1:B:245:PRO:C	1:B:247:ASN:N	2.66	0.48
1:C:245:PRO:C	1:C:247:ASN:N	2.66	0.48
1:E:65:GLY:O	1:E:138:LEU:HD22	2.13	0.48
1:M:245:PRO:C	1:M:247:ASN:N	2.66	0.48
1:K:99:LEU:N	1:K:99:LEU:CD1	2.77	0.48
1:K:145:ILE:HD12	1:K:145:ILE:N	2.28	0.48
1:A:141:ILE:CG2	1:A:142:SER:N	2.76	0.48
1:D:77:GLU:OE2	1:D:81:GLN:NE2	2.47	0.48
1:F:69:TYR:HB2	1:F:137:VAL:HB	1.95	0.48
1:G:69:TYR:HB2	1:G:137:VAL:HB	1.95	0.48
1:M:186:ARG:HD3	1:M:190:GLU:OE2	2.13	0.48
1:A:158:ASN:HD22	1:A:158:ASN:C	2.15	0.48
1:B:97:TYR:O	1:B:101:VAL:HG23	2.14	0.48
1:D:70:GLN:NE2	1:D:135:THR:HG23	2.28	0.48
1:J:236:VAL:CG2	1:K:250:LEU:HD12	2.43	0.48
1:D:91:GLN:HG3	1:D:118:TYR:CE1	2.49	0.48
1:E:96:ARG:NH2	1:F:109:GLN:OE1	2.46	0.48
1:E:147:ARG:H	3:E:361:3GR:HA	1.57	0.48
1:F:37:ALA:HB3	1:F:40:ILE:CD1	2.36	0.48
1:G:188:ARG:HH21	1:H:248:GLU:HA	1.78	0.48
1:H:87:LEU:O	1:H:87:LEU:HD12	2.14	0.48
1:H:158:ASN:HD22	1:H:159:GLY:H	1.58	0.48
1:J:60:SER:O	1:J:145:ILE:HD12	2.14	0.48
1:L:67:GLN:HA	1:L:138:LEU:HD23	1.95	0.48
1:L:110:GLN:C	1:L:112:ALA:N	2.63	0.48
1:D:74:ALA:HB1	1:E:130:ILE:HD12	1.96	0.48
1:H:141:ILE:CG2	1:H:142:SER:N	2.77	0.48
1:K:69:TYR:HB2	1:K:137:VAL:HB	1.96	0.48
1:K:145:ILE:HG23	1:K:167:VAL:HG22	1.95	0.48
1:A:186:ARG:HH11	1:A:186:ARG:CB	2.25	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:116:ALA:O	1:C:120:GLN:HG3	2.13	0.48
1:J:245:PRO:O	1:J:247:ASN:N	2.46	0.48
1:K:141:ILE:HG23	1:K:142:SER:N	2.28	0.48
1:K:230:ASP:O	1:K:234:GLY:N	2.45	0.48
1:L:52:LEU:HD22	1:L:72:ASP:HA	1.96	0.48
1:B:158:ASN:HD22	1:B:159:GLY:H	1.61	0.47
1:G:60:SER:O	1:G:145:ILE:HD12	2.13	0.47
1:H:171:ASP:HB3	1:H:172:PRO:HD3	1.94	0.47
1:H:236:VAL:HG12	1:H:237:THR:N	2.29	0.47
1:K:103:ASP:C	1:K:105:ALA:N	2.68	0.47
1:L:145:ILE:HD12	1:L:145:ILE:N	2.29	0.47
1:L:245:PRO:C	1:L:247:ASN:N	2.67	0.47
1:M:206:VAL:O	1:M:219:GLU:HB2	2.14	0.47
1:E:48:ASN:HD22	1:E:157:THR:HA	1.79	0.47
1:I:236:VAL:HG12	1:I:237:THR:N	2.29	0.47
1:K:250:LEU:O	1:K:253:MET:HG3	2.14	0.47
1:M:103:ASP:O	1:M:105:ALA:N	2.47	0.47
1:C:34:ARG:HH11	1:C:34:ARG:CB	2.20	0.47
1:C:206:VAL:O	1:C:219:GLU:HB2	2.13	0.47
1:J:145:ILE:H	1:J:145:ILE:CD1	2.25	0.47
1:J:206:VAL:HG12	1:J:207:SER:N	2.28	0.47
1:L:69:TYR:HB2	1:L:137:VAL:HB	1.97	0.47
1:A:31:LEU:HB3	1:A:177:VAL:HG11	1.96	0.47
1:F:31:LEU:HB3	1:F:177:VAL:CG1	2.45	0.47
1:G:70:GLN:HE21	1:G:73:PRO:HD3	1.80	0.47
1:H:98:LYS:HB2	1:H:111:TYR:CE1	2.49	0.47
1:J:226:GLU:OE2	1:K:144:ARG:NE	2.48	0.47
1:L:48:ASN:ND2	1:L:157:THR:HG23	2.30	0.47
1:L:110:GLN:O	1:L:113:ASP:N	2.48	0.47
1:A:96:ARG:NH2	1:B:109:GLN:CD	2.67	0.47
1:A:100:LEU:HB3	1:A:105:ALA:HB3	1.97	0.47
1:B:210:LEU:C	1:B:212:ASP:H	2.17	0.47
1:D:70:GLN:HE21	1:D:73:PRO:HD3	1.79	0.47
1:D:141:ILE:CG2	1:D:142:SER:N	2.77	0.47
1:K:186:ARG:HH11	1:K:186:ARG:CB	2.25	0.47
1:A:171:ASP:HB3	1:A:172:PRO:HD3	1.94	0.47
1:C:80:TYR:HA	1:C:128:ALA:HB1	1.97	0.47
1:D:210:LEU:C	1:D:212:ASP:H	2.16	0.47
1:E:145:ILE:HD12	1:E:145:ILE:N	2.29	0.47
1:F:77:GLU:OE2	1:F:81:GLN:NE2	2.47	0.47
1:I:206:VAL:HG21	1:I:222:LEU:HB2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:62:VAL:HG12	1:K:145:ILE:HG13	1.97	0.47
1:K:95:GLN:O	1:K:99:LEU:HD13	2.13	0.47
1:A:210:LEU:C	1:A:212:ASP:N	2.68	0.47
1:B:206:VAL:O	1:B:219:GLU:HB2	2.15	0.47
1:F:70:GLN:NE2	1:F:135:THR:HG23	2.28	0.47
1:F:85:ALA:HB2	1:G:82:SER:CB	2.36	0.47
1:G:166:THR:HB	3:G:361:3GR:O1	2.15	0.47
1:H:206:VAL:HG12	1:H:207:SER:N	2.30	0.47
1:I:30:GLU:HG2	1:I:258:GLN:HG2	1.96	0.47
1:I:221:ARG:HD3	1:I:223:GLU:OE2	2.14	0.47
1:J:130:ILE:HG22	1:J:134:TYR:CE1	2.50	0.47
1:L:60:SER:O	1:L:145:ILE:HD12	2.15	0.47
1:L:245:PRO:O	1:L:247:ASN:N	2.48	0.47
1:M:208:LEU:HD11	1:M:255:VAL:CG2	2.45	0.47
1:C:147:ARG:NH2	1:D:237:THR:HG21	2.29	0.47
1:G:48:ASN:ND2	1:G:157:THR:HA	2.29	0.47
1:H:144:ARG:HG3	1:H:144:ARG:NH1	2.30	0.47
1:I:171:ASP:O	1:I:173:ILE:N	2.47	0.47
1:J:62:VAL:HG23	1:J:66:GLN:NE2	2.30	0.47
1:L:67:GLN:NE2	1:L:136:LYS:HD3	2.30	0.47
1:L:206:VAL:CG1	1:L:207:SER:N	2.78	0.47
1:E:145:ILE:H	1:E:145:ILE:CD1	2.25	0.47
1:F:208:LEU:HD11	1:F:255:VAL:CG2	2.43	0.47
1:G:34:ARG:HH11	1:G:34:ARG:CB	2.19	0.47
1:H:171:ASP:O	1:H:173:ILE:N	2.47	0.47
1:K:65:GLY:O	1:K:138:LEU:HD22	2.14	0.47
1:E:43:VAL:HG23	1:E:165:ALA:O	2.15	0.47
1:E:140:PRO:O	1:E:141:ILE:HD12	2.15	0.47
1:J:211:GLU:HB3	1:J:254:PHE:O	2.14	0.47
1:K:236:VAL:HG12	1:K:237:THR:N	2.30	0.47
1:L:236:VAL:HG12	1:L:237:THR:N	2.30	0.47
1:A:97:TYR:CD1	1:A:114:ALA:HB2	2.50	0.46
1:B:175:VAL:HB	1:B:240:ALA:HB3	1.97	0.46
1:F:245:PRO:C	1:F:247:ASN:N	2.65	0.46
1:I:48:ASN:HD21	1:I:158:ASN:H	1.58	0.46
1:I:245:PRO:O	1:I:247:ASN:N	2.48	0.46
1:L:54:ARG:HD2	1:L:54:ARG:O	2.15	0.46
1:B:208:LEU:HD11	1:B:255:VAL:CG2	2.45	0.46
1:D:54:ARG:HD2	1:D:54:ARG:O	2.15	0.46
1:G:48:ASN:HD21	1:G:158:ASN:N	2.09	0.46
1:G:245:PRO:C	1:G:247:ASN:N	2.67	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:171:ASP:CB	1:H:172:PRO:CD	2.89	0.46
1:I:80:TYR:HA	1:I:128:ALA:HB1	1.96	0.46
1:K:210:LEU:C	1:K:212:ASP:N	2.68	0.46
1:B:147:ARG:HG3	1:C:227:VAL:HG12	1.96	0.46
1:G:38:PHE:HD2	1:G:169:GLN:NE2	2.13	0.46
1:G:250:LEU:O	1:G:253:MET:HG3	2.15	0.46
1:H:48:ASN:ND2	1:H:157:THR:HA	2.30	0.46
1:I:48:ASN:ND2	1:I:158:ASN:N	2.58	0.46
1:J:54:ARG:HD2	1:J:54:ARG:O	2.15	0.46
1:K:175:VAL:HB	1:K:240:ALA:HB3	1.97	0.46
1:M:175:VAL:HB	1:M:240:ALA:HB3	1.96	0.46
1:A:104:GLN:HB2	1:G:108:LYS:HD2	1.97	0.46
1:A:171:ASP:O	1:A:173:ILE:N	2.49	0.46
1:C:107:SER:H	1:C:110:GLN:HE21	1.63	0.46
1:L:208:LEU:HD11	1:L:255:VAL:HG21	1.97	0.46
1:L:210:LEU:C	1:L:212:ASP:N	2.68	0.46
1:M:130:ILE:CG2	1:M:134:TYR:HE1	2.28	0.46
1:D:147:ARG:NH2	1:E:237:THR:HG21	2.29	0.46
1:E:210:LEU:C	1:E:212:ASP:H	2.18	0.46
1:F:106:VAL:HG12	1:F:107:SER:N	2.30	0.46
1:M:158:ASN:ND2	1:M:159:GLY:N	2.62	0.46
1:C:69:TYR:HB2	1:C:137:VAL:HB	1.97	0.46
1:F:141:ILE:CG2	1:F:142:SER:N	2.78	0.46
1:I:210:LEU:C	1:I:212:ASP:H	2.18	0.46
1:L:226:GLU:OE2	1:M:144:ARG:HD3	2.15	0.46
1:M:210:LEU:C	1:M:212:ASP:N	2.69	0.46
1:D:69:TYR:HB2	1:D:137:VAL:HB	1.96	0.46
1:F:62:VAL:HG23	1:F:66:GLN:OE1	2.15	0.46
1:F:167:VAL:HG12	1:F:168:GLN:N	2.31	0.46
1:M:171:ASP:O	1:M:173:ILE:N	2.49	0.46
1:A:245:PRO:C	1:A:247:ASN:N	2.67	0.46
1:F:206:VAL:CG1	1:F:207:SER:N	2.79	0.46
1:I:41:ALA:HB1	1:I:140:PRO:CG	2.46	0.46
1:I:67:GLN:HA	1:I:138:LEU:HD23	1.98	0.46
1:A:62:VAL:HG12	1:A:145:ILE:HG13	1.96	0.46
1:A:80:TYR:HA	1:A:128:ALA:HB1	1.97	0.46
1:D:70:GLN:HE22	1:D:135:THR:HG23	1.80	0.46
1:J:46:GLN:OE1	1:J:134:TYR:CE2	2.69	0.46
1:L:130:ILE:HG22	1:L:134:TYR:CE1	2.50	0.46
1:M:43:VAL:HG23	1:M:165:ALA:O	2.16	0.46
1:M:73:PRO:O	1:M:74:ALA:C	2.54	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:104:GLN:HB2	1:G:108:LYS:HD3	1.98	0.46
1:D:145:ILE:HD12	1:D:145:ILE:N	2.30	0.46
1:D:145:ILE:H	1:D:145:ILE:CD1	2.27	0.46
1:G:46:GLN:OE1	1:G:134:TYR:CE2	2.69	0.46
1:H:245:PRO:C	1:H:247:ASN:N	2.69	0.46
1:K:48:ASN:HD22	1:K:158:ASN:H	1.56	0.46
1:K:206:VAL:O	1:K:219:GLU:HB2	2.16	0.46
1:L:46:GLN:CD	1:L:134:TYR:CE2	2.90	0.46
1:M:100:LEU:HD12	1:M:100:LEU:N	2.31	0.46
1:C:186:ARG:HH11	1:C:186:ARG:CB	2.25	0.45
1:G:135:THR:HG22	1:G:136:LYS:HG3	1.96	0.45
1:K:208:LEU:HB2	1:K:242:PHE:CE2	2.50	0.45
1:L:171:ASP:O	1:L:173:ILE:N	2.49	0.45
1:M:48:ASN:HD21	1:M:158:ASN:N	2.12	0.45
1:A:73:PRO:O	1:A:74:ALA:C	2.53	0.45
1:H:158:ASN:C	1:H:158:ASN:ND2	2.68	0.45
1:L:62:VAL:HG23	1:L:66:GLN:OE1	2.16	0.45
1:M:158:ASN:HD22	1:M:159:GLY:H	1.63	0.45
1:C:107:SER:H	1:C:110:GLN:NE2	2.14	0.45
1:C:206:VAL:HG21	1:C:222:LEU:HB2	1.98	0.45
1:D:80:TYR:HA	1:D:128:ALA:HB1	1.98	0.45
1:E:141:ILE:HG23	1:E:142:SER:N	2.32	0.45
1:G:193:SER:O	1:G:195:GLN:N	2.49	0.45
1:G:193:SER:C	1:G:195:GLN:H	2.20	0.45
1:J:91:GLN:HG3	1:J:118:TYR:CE1	2.51	0.45
1:K:109:GLN:OE1	1:L:96:ARG:NH2	2.50	0.45
1:B:141:ILE:CG2	1:B:142:SER:N	2.79	0.45
1:B:250:LEU:O	1:B:253:MET:HG3	2.17	0.45
1:D:206:VAL:O	1:D:219:GLU:HB2	2.17	0.45
1:D:206:VAL:HG21	1:D:222:LEU:HB2	1.97	0.45
1:J:210:LEU:C	1:J:212:ASP:H	2.18	0.45
1:F:48:ASN:HD22	1:F:158:ASN:H	1.62	0.45
1:G:236:VAL:HG12	1:G:237:THR:H	1.82	0.45
1:J:113:ASP:O	1:J:116:ALA:HB3	2.16	0.45
1:L:158:ASN:ND2	1:L:159:GLY:N	2.55	0.45
1:M:86:ASN:O	1:M:89:SER:HB3	2.15	0.45
1:B:109:GLN:O	1:B:113:ASP:OD2	2.35	0.45
1:G:38:PHE:CD2	1:G:169:GLN:NE2	2.85	0.45
1:G:171:ASP:O	1:G:173:ILE:N	2.49	0.45
1:K:145:ILE:H	1:K:145:ILE:CD1	2.26	0.45
1:A:85:ALA:HB1	1:B:119:LEU:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:130:ILE:CG2	1:E:134:TYR:HE1	2.30	0.45
1:J:245:PRO:C	1:J:247:ASN:N	2.65	0.45
1:K:141:ILE:CG2	1:K:142:SER:N	2.80	0.45
1:C:210:LEU:C	1:C:212:ASP:N	2.69	0.45
1:E:62:VAL:HG23	1:E:66:GLN:NE2	2.32	0.45
1:F:210:LEU:C	1:F:212:ASP:H	2.20	0.45
1:K:206:VAL:HG13	1:K:258:GLN:O	2.17	0.45
1:M:245:PRO:O	1:M:247:ASN:N	2.49	0.45
1:C:31:LEU:HB3	1:C:177:VAL:HG11	1.99	0.45
1:D:73:PRO:O	1:D:74:ALA:C	2.52	0.45
1:I:46:GLN:HB2	1:I:134:TYR:CD2	2.51	0.45
1:I:206:VAL:O	1:I:219:GLU:HB2	2.17	0.45
1:B:100:LEU:O	1:B:106:VAL:N	2.46	0.45
1:B:171:ASP:HB3	1:B:172:PRO:HD3	1.91	0.45
1:H:38:PHE:CD2	1:H:169:GLN:NE2	2.84	0.45
1:I:140:PRO:O	1:I:141:ILE:HD12	2.16	0.45
1:K:60:SER:O	1:K:145:ILE:HD12	2.16	0.45
1:K:171:ASP:O	1:K:173:ILE:N	2.49	0.45
1:A:250:LEU:O	1:A:253:MET:HG3	2.17	0.44
1:D:100:LEU:O	1:D:106:VAL:HB	2.16	0.44
1:D:210:LEU:C	1:D:212:ASP:N	2.71	0.44
1:G:54:ARG:HD2	1:G:54:ARG:O	2.16	0.44
1:H:48:ASN:HD21	1:H:158:ASN:N	2.15	0.44
1:L:48:ASN:HD21	1:L:158:ASN:N	2.14	0.44
1:C:175:VAL:HB	1:C:240:ALA:HB3	1.99	0.44
1:D:100:LEU:HB2	1:D:106:VAL:HG21	1.99	0.44
1:F:48:ASN:HD22	1:F:157:THR:HA	1.81	0.44
1:F:250:LEU:O	1:F:253:MET:HG3	2.17	0.44
1:H:34:ARG:HH11	1:H:34:ARG:CB	2.24	0.44
1:H:40:ILE:O	1:I:151:THR:HB	2.17	0.44
1:H:48:ASN:HD22	1:H:158:ASN:H	1.56	0.44
1:H:245:PRO:O	1:H:247:ASN:N	2.51	0.44
1:E:68:LEU:HD11	1:E:139:SER:HB2	2.00	0.44
1:H:80:TYR:HA	1:H:128:ALA:HB1	1.98	0.44
1:I:195:GLN:O	1:I:195:GLN:HG2	2.17	0.44
1:J:201:ASP:O	1:J:202:ASN:HB2	2.16	0.44
1:A:245:PRO:O	1:A:247:ASN:N	2.50	0.44
1:D:97:TYR:CB	1:D:106:VAL:HG11	2.47	0.44
1:E:245:PRO:O	1:E:247:ASN:N	2.50	0.44
1:F:98:LYS:HG3	1:F:111:TYR:CZ	2.52	0.44
1:F:100:LEU:HB3	1:F:106:VAL:HG23	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:80:TYR:HA	1:G:128:ALA:HB1	1.99	0.44
1:K:73:PRO:O	1:K:74:ALA:C	2.55	0.44
1:K:80:TYR:HA	1:K:128:ALA:HB1	1.99	0.44
1:M:34:ARG:HH11	1:M:34:ARG:CB	2.25	0.44
1:M:134:TYR:C	1:M:136:LYS:H	2.20	0.44
1:M:158:ASN:HD22	1:M:158:ASN:C	2.18	0.44
1:G:35:THR:HG22	1:G:175:VAL:HG22	1.98	0.44
1:A:86:ASN:O	1:A:89:SER:HB3	2.18	0.44
1:A:145:ILE:HG23	1:A:167:VAL:CG2	2.47	0.44
1:B:250:LEU:HD12	1:C:236:VAL:HG21	1.98	0.44
1:I:109:GLN:O	1:I:112:ALA:HB3	2.17	0.44
1:J:236:VAL:HG12	1:J:237:THR:N	2.33	0.44
1:K:34:ARG:HH11	1:K:34:ARG:CB	2.22	0.44
1:K:71:ILE:O	1:K:72:ASP:C	2.55	0.44
1:A:145:ILE:HD12	1:A:145:ILE:N	2.32	0.44
1:B:206:VAL:HG21	1:B:222:LEU:HB2	1.99	0.44
1:C:140:PRO:O	1:C:141:ILE:HD12	2.17	0.44
1:F:206:VAL:HG22	1:F:259:LEU:CD2	2.48	0.44
1:K:52:LEU:HD12	1:K:52:LEU:HA	1.82	0.44
1:C:48:ASN:HD21	1:C:158:ASN:H	1.59	0.44
1:C:206:VAL:HG22	1:C:259:LEU:CD2	2.48	0.44
1:D:35:THR:HG22	1:D:175:VAL:HG22	2.00	0.44
1:D:97:TYR:O	1:D:106:VAL:HG11	2.18	0.44
1:G:158:ASN:ND2	1:G:159:GLY:N	2.66	0.44
1:I:158:ASN:ND2	1:I:159:GLY:N	2.64	0.44
1:J:210:LEU:C	1:J:212:ASP:N	2.71	0.44
1:C:236:VAL:HG12	1:C:237:THR:N	2.33	0.44
1:D:101:VAL:C	1:D:103:ASP:H	2.21	0.44
1:G:191:LEU:C	1:G:191:LEU:HD13	2.38	0.44
1:H:62:VAL:CG2	1:H:66:GLN:OE1	2.59	0.44
1:H:144:ARG:HG3	1:H:144:ARG:HH11	1.83	0.44
1:I:91:GLN:HG3	1:I:118:TYR:CE1	2.53	0.44
1:J:48:ASN:HD22	1:J:157:THR:HA	1.83	0.44
1:J:175:VAL:HB	1:J:240:ALA:HB3	1.99	0.44
1:A:206:VAL:HG21	1:A:222:LEU:HB2	1.99	0.43
1:B:216:TYR:HA	1:B:217:PRO:HD2	1.85	0.43
1:C:145:ILE:H	1:C:145:ILE:CD1	2.22	0.43
1:D:86:ASN:O	1:D:89:SER:HB3	2.18	0.43
1:D:101:VAL:HA	1:D:106:VAL:O	2.17	0.43
1:E:208:LEU:HB2	1:E:242:PHE:CE2	2.53	0.43
1:F:31:LEU:HB3	1:F:177:VAL:HG11	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:46:GLN:HB2	1:F:134:TYR:CD2	2.52	0.43
1:F:91:GLN:HG3	1:F:118:TYR:CE1	2.53	0.43
1:H:48:ASN:ND2	1:H:158:ASN:N	2.52	0.43
1:H:62:VAL:HG22	1:H:63:LYS:N	2.33	0.43
1:I:236:VAL:HG21	1:J:250:LEU:HD12	1.99	0.43
1:K:40:ILE:HG12	1:K:168:GLN:HG2	1.99	0.43
1:A:101:VAL:HG13	1:A:106:VAL:CG2	2.45	0.43
1:A:144:ARG:HE	1:B:226:GLU:HG3	1.83	0.43
1:K:57:LYS:O	1:K:58:GLU:C	2.55	0.43
1:K:245:PRO:C	1:K:247:ASN:N	2.70	0.43
1:L:77:GLU:OE2	1:L:81:GLN:NE2	2.51	0.43
1:B:146:GLY:HA3	2:B:361:GOL:C1	2.46	0.43
1:B:245:PRO:O	1:B:247:ASN:N	2.51	0.43
1:E:69:TYR:HB2	1:E:137:VAL:HB	2.00	0.43
1:H:77:GLU:OE2	1:H:81:GLN:NE2	2.51	0.43
1:J:83:ALA:O	1:J:86:ASN:N	2.51	0.43
1:B:48:ASN:HD22	1:B:158:ASN:H	1.63	0.43
1:J:46:GLN:HB2	1:J:134:TYR:CD2	2.53	0.43
1:M:41:ALA:HB1	1:M:140:PRO:HG2	2.01	0.43
1:M:48:ASN:ND2	1:M:157:THR:HA	2.33	0.43
1:C:47:VAL:HG22	1:C:76:TYR:CZ	2.53	0.43
1:C:69:TYR:CD1	1:C:164:MET:HE1	2.53	0.43
1:E:75:THR:HG23	1:F:127:GLN:HE22	1.83	0.43
1:F:140:PRO:O	1:F:141:ILE:HD12	2.18	0.43
1:H:73:PRO:O	1:H:74:ALA:C	2.56	0.43
1:H:191:LEU:HD13	1:H:191:LEU:C	2.39	0.43
1:I:250:LEU:O	1:I:253:MET:HG3	2.19	0.43
1:K:193:SER:O	1:K:195:GLN:N	2.52	0.43
1:M:206:VAL:CG1	1:M:207:SER:N	2.82	0.43
1:B:99:LEU:N	1:B:99:LEU:HD22	2.34	0.43
1:C:106:VAL:CG2	1:C:110:GLN:HB2	2.47	0.43
1:D:104:GLN:NE2	1:J:104:GLN:HE22	2.13	0.43
1:D:171:ASP:O	1:D:173:ILE:N	2.52	0.43
1:E:184:LEU:HD13	1:E:188:ARG:HG3	2.00	0.43
1:F:104:GLN:HE22	1:L:108:LYS:HB2	1.84	0.43
1:G:44:ARG:HD2	1:H:153:GLY:O	2.18	0.43
1:H:107:SER:OG	1:H:109:GLN:NE2	2.51	0.43
1:B:43:VAL:HG23	1:B:165:ALA:O	2.18	0.43
1:D:175:VAL:HB	1:D:240:ALA:HB3	2.01	0.43
1:E:104:GLN:NE2	1:K:104:GLN:HA	2.33	0.43
1:G:175:VAL:HB	1:G:240:ALA:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:208:LEU:HB2	1:H:242:PHE:CE2	2.54	0.43
1:J:250:LEU:O	1:J:253:MET:HG3	2.19	0.43
1:A:96:ARG:HH22	1:B:109:GLN:NE2	2.17	0.43
1:B:210:LEU:C	1:B:212:ASP:N	2.71	0.43
1:E:71:ILE:O	1:E:72:ASP:C	2.57	0.43
1:E:208:LEU:HD11	1:E:255:VAL:CG2	2.48	0.43
1:G:171:ASP:HB3	1:G:172:PRO:HD3	1.96	0.43
1:G:245:PRO:O	1:G:247:ASN:N	2.52	0.43
1:I:41:ALA:HB1	1:I:140:PRO:HG2	2.00	0.43
1:I:145:ILE:HG23	1:I:167:VAL:HG22	2.01	0.43
1:K:99:LEU:CD1	1:K:99:LEU:H	2.32	0.43
1:K:226:GLU:HG3	1:L:144:ARG:HE	1.84	0.43
1:L:144:ARG:HG3	1:L:144:ARG:HH11	1.83	0.43
1:A:158:ASN:C	1:A:158:ASN:ND2	2.72	0.43
1:B:184:LEU:HD13	1:B:188:ARG:HG3	2.00	0.43
1:E:210:LEU:C	1:E:212:ASP:N	2.72	0.43
1:G:191:LEU:HD11	1:G:198:ARG:NH1	2.34	0.43
1:I:230:ASP:O	1:I:234:GLY:N	2.48	0.43
1:B:158:ASN:ND2	1:B:159:GLY:N	2.65	0.43
1:E:60:SER:O	1:E:145:ILE:HD12	2.19	0.43
1:I:158:ASN:HD22	1:I:159:GLY:H	1.65	0.43
1:I:175:VAL:HB	1:I:240:ALA:HB3	1.99	0.43
1:L:113:ASP:O	1:L:116:ALA:HB3	2.19	0.43
1:L:130:ILE:HG22	1:L:134:TYR:HE1	1.84	0.43
1:B:47:VAL:HG22	1:B:76:TYR:CZ	2.54	0.42
1:B:170:LEU:O	1:B:171:ASP:O	2.37	0.42
1:C:31:LEU:HD22	1:C:179:GLN:CD	2.39	0.42
1:F:245:PRO:O	1:F:247:ASN:N	2.51	0.42
1:G:206:VAL:CG1	1:G:207:SER:N	2.82	0.42
1:I:52:LEU:HD12	1:I:52:LEU:HA	1.92	0.42
1:K:103:ASP:O	1:K:105:ALA:N	2.52	0.42
1:B:46:GLN:HB2	1:B:134:TYR:CD2	2.53	0.42
1:B:51:ILE:CD1	1:B:164:MET:HE3	2.48	0.42
1:D:71:ILE:O	1:D:72:ASP:C	2.57	0.42
1:F:113:ASP:O	1:F:116:ALA:HB3	2.19	0.42
1:K:91:GLN:HG3	1:K:118:TYR:CE1	2.53	0.42
1:K:170:LEU:HD21	1:K:251:PRO:CG	2.49	0.42
1:L:73:PRO:O	1:L:74:ALA:C	2.54	0.42
1:A:158:ASN:ND2	1:A:159:GLY:N	2.63	0.42
1:B:52:LEU:HD12	1:B:52:LEU:HA	1.80	0.42
1:C:245:PRO:O	1:C:247:ASN:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:104:GLN:C	1:D:106:VAL:N	2.72	0.42
1:E:206:VAL:O	1:E:219:GLU:HB2	2.19	0.42
1:F:62:VAL:HG12	1:F:145:ILE:HG13	2.00	0.42
1:H:38:PHE:HD2	1:H:169:GLN:NE2	2.16	0.42
1:H:55:LEU:HD23	1:H:55:LEU:N	2.33	0.42
1:H:101:VAL:HA	1:H:106:VAL:O	2.18	0.42
1:J:62:VAL:HG12	1:J:145:ILE:HG13	2.01	0.42
1:K:193:SER:C	1:K:195:GLN:H	2.23	0.42
1:K:206:VAL:CG1	1:K:207:SER:N	2.83	0.42
1:D:46:GLN:OE1	1:D:134:TYR:CE2	2.73	0.42
1:F:206:VAL:CG1	1:F:258:GLN:H	2.33	0.42
1:H:206:VAL:O	1:H:219:GLU:HB2	2.19	0.42
1:I:191:LEU:HD13	1:I:191:LEU:C	2.39	0.42
1:I:227:VAL:HG12	1:J:147:ARG:HG3	2.01	0.42
1:J:106:VAL:HG13	1:J:110:GLN:CB	2.45	0.42
1:L:97:TYR:O	1:L:101:VAL:HG23	2.20	0.42
1:M:145:ILE:H	1:M:145:ILE:CD1	2.33	0.42
1:A:48:ASN:HD21	1:A:158:ASN:N	2.09	0.42
1:A:50:ILE:HD13	1:A:155:LEU:HA	2.01	0.42
1:A:130:ILE:CG2	1:A:134:TYR:HE1	2.32	0.42
1:C:130:ILE:HG22	1:C:134:TYR:CE1	2.55	0.42
1:E:62:VAL:CG2	1:E:68:LEU:HD21	2.41	0.42
1:E:71:ILE:O	1:E:73:PRO:HD3	2.20	0.42
1:H:147:ARG:N	3:H:361:3GR:HA	2.18	0.42
1:I:48:ASN:O	1:I:76:TYR:OH	2.25	0.42
1:I:144:ARG:NH1	1:I:144:ARG:HG3	2.35	0.42
1:J:206:VAL:O	1:J:219:GLU:HB2	2.19	0.42
1:D:216:TYR:HA	1:D:217:PRO:HD2	1.87	0.42
1:E:245:PRO:O	1:E:246:ASN:HB2	2.20	0.42
1:G:96:ARG:O	1:G:99:LEU:HB2	2.18	0.42
1:G:101:VAL:HG21	1:G:111:TYR:CB	2.47	0.42
1:H:54:ARG:HD2	1:H:54:ARG:O	2.19	0.42
1:I:62:VAL:HG12	1:I:145:ILE:HG13	2.01	0.42
1:I:210:LEU:C	1:I:212:ASP:N	2.73	0.42
1:B:145:ILE:HD12	1:B:145:ILE:N	2.35	0.42
1:I:52:LEU:HD22	1:I:72:ASP:HA	2.00	0.42
1:J:111:TYR:CD2	1:J:111:TYR:C	2.92	0.42
1:L:101:VAL:HG13	1:L:106:VAL:O	2.20	0.42
1:A:31:LEU:HB3	1:A:177:VAL:CG1	2.50	0.42
1:A:34:ARG:HH11	1:A:34:ARG:CB	2.25	0.42
1:A:60:SER:O	1:A:145:ILE:HD12	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:199:ALA:HB2	1:B:205:LYS:N	2.35	0.42
1:C:171:ASP:O	1:C:173:ILE:N	2.53	0.42
1:F:206:VAL:HG21	1:F:222:LEU:HB2	2.02	0.42
1:G:171:ASP:CB	1:G:172:PRO:CD	2.84	0.42
1:H:60:SER:O	1:H:145:ILE:HD12	2.19	0.42
1:H:103:ASP:OD1	1:H:103:ASP:N	2.53	0.42
1:H:175:VAL:HB	1:H:240:ALA:HB3	2.02	0.42
1:L:99:LEU:N	1:L:99:LEU:CD1	2.82	0.42
1:M:158:ASN:ND2	1:M:158:ASN:C	2.72	0.42
1:B:113:ASP:O	1:B:116:ALA:HB3	2.19	0.42
1:E:77:GLU:OE2	1:E:81:GLN:NE2	2.53	0.42
1:G:190:GLU:CB	1:G:196:LEU:HD13	2.50	0.42
1:M:206:VAL:HG13	1:M:258:GLN:O	2.19	0.42
1:G:70:GLN:HE22	1:G:135:THR:HG23	1.85	0.42
1:I:201:ASP:O	1:I:202:ASN:HB2	2.19	0.42
1:M:100:LEU:CB	1:M:106:VAL:HG23	2.47	0.42
1:M:101:VAL:HG21	1:M:111:TYR:CD1	2.55	0.42
1:A:104:GLN:HG2	1:G:104:GLN:HE22	1.84	0.41
1:A:183:ALA:O	1:A:187:LEU:HG	2.20	0.41
1:C:60:SER:O	1:C:145:ILE:HD12	2.19	0.41
1:C:130:ILE:CG2	1:C:134:TYR:HE1	2.33	0.41
1:J:70:GLN:NE2	1:J:135:THR:HG23	2.35	0.41
1:L:145:ILE:H	1:L:145:ILE:CD1	2.25	0.41
1:B:193:SER:O	1:B:195:GLN:N	2.53	0.41
1:E:130:ILE:HG22	1:E:134:TYR:CE1	2.55	0.41
1:E:206:VAL:CG1	1:E:207:SER:N	2.83	0.41
1:F:75:THR:O	1:F:78:ALA:N	2.53	0.41
1:G:31:LEU:HD22	1:G:179:GLN:NE2	2.35	0.41
1:G:226:GLU:CG	1:H:144:ARG:HE	2.29	0.41
1:J:67:GLN:CD	1:J:136:LYS:HD3	2.40	0.41
1:J:91:GLN:CG	1:J:95:GLN:HE21	2.07	0.41
1:J:99:LEU:O	1:J:102:ALA:HB3	2.20	0.41
1:J:146:GLY:HA3	2:J:361:GOL:C1	2.49	0.41
1:K:30:GLU:HG2	1:K:258:GLN:HG2	2.02	0.41
1:M:48:ASN:ND2	1:M:158:ASN:N	2.50	0.41
1:A:75:THR:O	1:A:78:ALA:N	2.54	0.41
1:B:206:VAL:CG1	1:B:207:SER:N	2.83	0.41
1:C:31:LEU:HB3	1:C:177:VAL:CG1	2.49	0.41
1:E:245:PRO:C	1:E:247:ASN:N	2.73	0.41
1:F:191:LEU:HD11	1:F:198:ARG:NH1	2.35	0.41
1:I:216:TYR:HA	1:I:217:PRO:HD2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:70:GLN:HE21	1:J:73:PRO:HD3	1.85	0.41
1:J:146:GLY:HA3	2:J:361:GOL:O2	2.21	0.41
1:K:48:ASN:ND2	1:K:157:THR:HG23	2.35	0.41
1:M:199:ALA:HB2	1:M:205:LYS:N	2.36	0.41
1:B:48:ASN:HD21	1:B:158:ASN:N	2.14	0.41
1:E:92:GLU:OE1	1:E:96:ARG:NH1	2.53	0.41
1:F:210:LEU:C	1:F:212:ASP:N	2.73	0.41
1:H:50:ILE:HD13	1:H:155:LEU:HA	2.02	0.41
1:J:43:VAL:HG23	1:J:165:ALA:O	2.21	0.41
1:K:62:VAL:HG22	1:K:63:LYS:N	2.35	0.41
1:L:48:ASN:HD22	1:L:158:ASN:H	1.59	0.41
1:A:48:ASN:ND2	1:A:157:THR:HA	2.34	0.41
1:C:86:ASN:O	1:C:89:SER:HB3	2.21	0.41
1:C:201:ASP:O	1:C:202:ASN:HB2	2.20	0.41
1:D:100:LEU:O	1:D:106:VAL:N	2.54	0.41
1:D:100:LEU:CB	1:D:106:VAL:CG2	2.99	0.41
1:F:31:LEU:HD22	1:F:179:GLN:CD	2.41	0.41
1:G:30:GLU:HA	1:G:257:ALA:O	2.20	0.41
1:I:135:THR:HG22	1:I:136:LYS:HG3	2.02	0.41
1:L:183:ALA:O	1:L:187:LEU:HG	2.21	0.41
1:A:206:VAL:CG1	1:A:207:SER:N	2.82	0.41
1:G:73:PRO:O	1:G:74:ALA:C	2.59	0.41
1:J:65:GLY:O	1:J:138:LEU:HD22	2.20	0.41
1:J:71:ILE:O	1:J:73:PRO:HD3	2.21	0.41
1:L:80:TYR:HA	1:L:128:ALA:HB1	2.03	0.41
1:A:83:ALA:O	1:A:86:ASN:N	2.54	0.41
1:A:140:PRO:O	1:A:141:ILE:HD12	2.20	0.41
1:D:184:LEU:HD13	1:D:188:ARG:HG3	2.03	0.41
1:J:51:ILE:HD11	1:J:164:MET:HE3	2.03	0.41
1:L:130:ILE:CG2	1:L:134:TYR:CE1	3.04	0.41
1:B:52:LEU:HD22	1:B:72:ASP:HA	2.02	0.41
1:F:109:GLN:HE21	1:F:113:ASP:CG	2.24	0.41
1:G:62:VAL:HG23	1:G:66:GLN:NE2	2.34	0.41
1:G:134:TYR:OH	1:H:74:ALA:HB3	2.20	0.41
1:I:46:GLN:OE1	1:I:134:TYR:CE2	2.73	0.41
1:K:130:ILE:HD12	1:L:74:ALA:HB1	2.03	0.41
1:M:47:VAL:HG22	1:M:76:TYR:OH	2.20	0.41
1:M:69:TYR:HB2	1:M:137:VAL:HB	2.03	0.41
1:M:145:ILE:HD12	1:M:145:ILE:N	2.35	0.41
1:A:206:VAL:HG22	1:A:259:LEU:HD21	2.01	0.41
1:C:206:VAL:CG1	1:C:207:SER:N	2.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:62:VAL:CG2	1:E:66:GLN:OE1	2.68	0.41
1:E:62:VAL:CG1	1:E:145:ILE:HG13	2.51	0.41
1:F:48:ASN:ND2	1:F:157:THR:HG23	2.35	0.41
1:G:170:LEU:O	1:G:171:ASP:O	2.39	0.41
1:H:48:ASN:HD22	1:H:157:THR:HA	1.84	0.41
1:I:193:SER:C	1:I:195:GLN:H	2.23	0.41
1:I:206:VAL:CG1	1:I:207:SER:N	2.83	0.41
1:J:46:GLN:OE1	1:J:134:TYR:HE2	2.02	0.41
1:J:48:ASN:HD21	1:J:157:THR:HG23	1.85	0.41
1:J:87:LEU:CD2	1:J:125:VAL:HG21	2.51	0.41
1:J:87:LEU:HD23	1:J:125:VAL:HG21	2.03	0.41
1:J:189:ARG:O	1:J:192:ALA:N	2.54	0.41
1:L:141:ILE:CG2	1:L:142:SER:N	2.83	0.41
1:L:199:ALA:HB2	1:L:205:LYS:N	2.36	0.41
1:M:41:ALA:HB1	1:M:140:PRO:CG	2.51	0.41
1:M:50:ILE:HD13	1:M:155:LEU:HA	2.03	0.41
1:C:193:SER:C	1:C:195:GLN:H	2.25	0.41
1:D:46:GLN:CD	1:D:134:TYR:CE2	2.94	0.41
1:H:52:LEU:HD12	1:H:52:LEU:HA	1.81	0.41
1:H:170:LEU:O	1:H:171:ASP:O	2.38	0.41
1:I:40:ILE:HD12	1:I:168:GLN:HG2	2.02	0.41
1:I:193:SER:O	1:I:195:GLN:N	2.53	0.41
1:L:228:SER:HB3	2:M:361:GOL:H11	2.03	0.41
1:B:86:ASN:O	1:B:89:SER:HB3	2.22	0.40
1:D:206:VAL:CG1	1:D:207:SER:N	2.83	0.40
1:D:245:PRO:C	1:D:247:ASN:N	2.68	0.40
1:E:199:ALA:HB2	1:E:205:LYS:N	2.36	0.40
1:G:107:SER:N	1:G:110:GLN:NE2	2.58	0.40
1:H:32:PRO:HB3	1:H:256:HIS:CE1	2.56	0.40
1:I:40:ILE:HG22	1:I:41:ALA:N	2.36	0.40
1:J:141:ILE:HG23	1:J:142:SER:N	2.36	0.40
1:J:216:TYR:HA	1:J:217:PRO:HD2	1.87	0.40
1:L:227:VAL:HG12	1:M:147:ARG:HG3	2.03	0.40
1:G:43:VAL:HG23	1:G:165:ALA:O	2.21	0.40
1:G:48:ASN:HD22	1:G:157:THR:HA	1.86	0.40
1:G:52:LEU:HA	1:G:52:LEU:HD12	1.84	0.40
1:I:174:TYR:CD2	1:I:239:ARG:HD3	2.57	0.40
1:K:199:ALA:HB2	1:K:205:LYS:N	2.36	0.40
1:M:193:SER:O	1:M:195:GLN:N	2.54	0.40
1:B:130:ILE:CG2	1:B:134:TYR:HE1	2.35	0.40
1:B:201:ASP:O	1:B:202:ASN:HB2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:193:SER:O	1:D:195:GLN:N	2.54	0.40
1:M:171:ASP:HB3	1:M:172:PRO:HD3	1.92	0.40
1:A:64:ALA:HB2	1:A:141:ILE:C	2.41	0.40
1:A:145:ILE:H	1:A:145:ILE:CD1	2.26	0.40
1:B:47:VAL:HG22	1:B:76:TYR:OH	2.22	0.40
1:F:171:ASP:O	1:F:173:ILE:N	2.54	0.40
1:G:100:LEU:HD12	1:G:100:LEU:HA	1.85	0.40
1:H:65:GLY:O	1:H:138:LEU:HD22	2.21	0.40
1:K:147:ARG:N	3:K:361:3GR:O3	2.53	0.40
1:L:101:VAL:HG11	1:L:108:LYS:CG	2.47	0.40
1:L:109:GLN:HB3	1:M:96:ARG:CD	2.52	0.40
1:D:199:ALA:HB2	1:D:205:LYS:N	2.36	0.40
1:F:48:ASN:ND2	1:F:158:ASN:N	2.55	0.40
1:G:201:ASP:O	1:G:202:ASN:HB2	2.22	0.40
1:H:113:ASP:O	1:H:116:ALA:HB3	2.20	0.40
1:I:101:VAL:CG1	1:I:102:ALA:N	2.84	0.40
1:J:69:TYR:HB2	1:J:137:VAL:HB	2.03	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:189:ARG:NH2	1:D:194:GLY:O[2_656]	2.19	0.01

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	229/360 (64%)	207 (90%)	21 (9%)	1 (0%)	30	66
1	B	229/360 (64%)	203 (89%)	24 (10%)	2 (1%)	14	49
1	C	229/360 (64%)	209 (91%)	18 (8%)	2 (1%)	14	49

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	D	229/360 (64%)	200 (87%)	24 (10%)	5 (2%)	5 27
1	E	229/360 (64%)	211 (92%)	15 (7%)	3 (1%)	10 39
1	F	229/360 (64%)	209 (91%)	17 (7%)	3 (1%)	10 39
1	G	229/360 (64%)	205 (90%)	20 (9%)	4 (2%)	7 33
1	H	229/360 (64%)	205 (90%)	19 (8%)	5 (2%)	5 27
1	I	229/360 (64%)	210 (92%)	16 (7%)	3 (1%)	10 39
1	J	229/360 (64%)	208 (91%)	17 (7%)	4 (2%)	7 33
1	K	229/360 (64%)	205 (90%)	20 (9%)	4 (2%)	7 33
1	L	229/360 (64%)	205 (90%)	20 (9%)	4 (2%)	7 33
1	M	229/360 (64%)	204 (89%)	22 (10%)	3 (1%)	10 39
All	All	2977/4680 (64%)	2681 (90%)	253 (8%)	43 (1%)	9 37

All (43) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	171	ASP
1	B	171	ASP
1	C	171	ASP
1	D	171	ASP
1	E	171	ASP
1	F	171	ASP
1	G	171	ASP
1	H	171	ASP
1	I	171	ASP
1	J	171	ASP
1	K	171	ASP
1	L	171	ASP
1	M	104	GLN
1	M	171	ASP
1	G	194	GLY
1	I	194	GLY
1	K	55	LEU
1	K	194	GLY
1	D	55	LEU
1	D	102	ALA
1	F	194	GLY
1	G	55	LEU
1	J	181	SER

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Mol	Chain	Res	Type
1	J	194	GLY
1	L	55	LEU
1	B	194	GLY
1	C	194	GLY
1	D	111	TYR
1	F	181	SER
1	H	137	VAL
1	I	55	LEU
1	J	55	LEU
1	L	104	GLN
1	L	194	GLY
1	M	194	GLY
1	E	194	GLY
1	H	55	LEU
1	H	181	SER
1	D	194	GLY
1	E	181	SER
1	G	106	VAL
1	K	104	GLN
1	H	194	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	186/287 (65%)	176 (95%)	10 (5%)	18 50
1	B	186/287 (65%)	175 (94%)	11 (6%)	16 47
1	C	186/287 (65%)	176 (95%)	10 (5%)	18 50
1	D	186/287 (65%)	173 (93%)	13 (7%)	12 41
1	E	186/287 (65%)	170 (91%)	16 (9%)	8 32
1	F	186/287 (65%)	173 (93%)	13 (7%)	12 41
1	G	186/287 (65%)	175 (94%)	11 (6%)	16 47
1	H	186/287 (65%)	174 (94%)	12 (6%)	14 43

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	I	186/287 (65%)	176 (95%)	10 (5%)	18 50
1	J	186/287 (65%)	171 (92%)	15 (8%)	9 34
1	K	186/287 (65%)	171 (92%)	15 (8%)	9 34
1	L	186/287 (65%)	174 (94%)	12 (6%)	14 43
1	M	186/287 (65%)	177 (95%)	9 (5%)	21 55
All	All	2418/3731 (65%)	2261 (94%)	157 (6%)	14 43

All (157) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	34	ARG
1	A	47	VAL
1	A	75	THR
1	A	132	LEU
1	A	135	THR
1	A	145	ILE
1	A	156	VAL
1	A	158	ASN
1	A	186	ARG
1	A	226	GLU
1	B	34	ARG
1	B	47	VAL
1	B	73	PRO
1	B	132	LEU
1	B	135	THR
1	B	141	ILE
1	B	145	ILE
1	B	156	VAL
1	B	158	ASN
1	B	186	ARG
1	B	226	GLU
1	C	34	ARG
1	C	75	THR
1	C	132	LEU
1	C	135	THR
1	C	145	ILE
1	C	156	VAL
1	C	158	ASN
1	C	170	LEU
1	C	186	ARG

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Mol	Chain	Res	Type
1	C	226	GLU
1	D	34	ARG
1	D	55	LEU
1	D	75	THR
1	D	104	GLN
1	D	132	LEU
1	D	135	THR
1	D	145	ILE
1	D	156	VAL
1	D	158	ASN
1	D	186	ARG
1	D	189	ARG
1	D	225	SER
1	D	226	GLU
1	E	34	ARG
1	E	47	VAL
1	E	61	ASP
1	E	73	PRO
1	E	75	THR
1	E	132	LEU
1	E	135	THR
1	E	141	ILE
1	E	145	ILE
1	E	156	VAL
1	E	158	ASN
1	E	186	ARG
1	E	189	ARG
1	E	196	LEU
1	E	225	SER
1	E	226	GLU
1	F	34	ARG
1	F	47	VAL
1	F	55	LEU
1	F	75	THR
1	F	132	LEU
1	F	135	THR
1	F	142	SER
1	F	145	ILE
1	F	156	VAL
1	F	158	ASN
1	F	186	ARG
1	F	189	ARG

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Mol	Chain	Res	Type
1	F	226	GLU
1	G	34	ARG
1	G	47	VAL
1	G	55	LEU
1	G	75	THR
1	G	100	LEU
1	G	135	THR
1	G	145	ILE
1	G	156	VAL
1	G	158	ASN
1	G	186	ARG
1	G	226	GLU
1	H	34	ARG
1	H	61	ASP
1	H	75	THR
1	H	103	ASP
1	H	132	LEU
1	H	135	THR
1	H	145	ILE
1	H	156	VAL
1	H	158	ASN
1	H	186	ARG
1	H	196	LEU
1	H	226	GLU
1	I	34	ARG
1	I	55	LEU
1	I	75	THR
1	I	104	GLN
1	I	132	LEU
1	I	135	THR
1	I	145	ILE
1	I	158	ASN
1	I	186	ARG
1	I	226	GLU
1	J	34	ARG
1	J	47	VAL
1	J	55	LEU
1	J	61	ASP
1	J	73	PRO
1	J	75	THR
1	J	132	LEU
1	J	135	THR

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Mol	Chain	Res	Type
1	J	141	ILE
1	J	145	ILE
1	J	156	VAL
1	J	158	ASN
1	J	186	ARG
1	J	225	SER
1	J	226	GLU
1	K	34	ARG
1	K	47	VAL
1	K	55	LEU
1	K	61	ASP
1	K	73	PRO
1	K	75	THR
1	K	104	GLN
1	K	135	THR
1	K	141	ILE
1	K	145	ILE
1	K	156	VAL
1	K	158	ASN
1	K	186	ARG
1	K	225	SER
1	K	226	GLU
1	L	34	ARG
1	L	47	VAL
1	L	75	THR
1	L	132	LEU
1	L	135	THR
1	L	145	ILE
1	L	152	GLU
1	L	156	VAL
1	L	158	ASN
1	L	186	ARG
1	L	225	SER
1	L	226	GLU
1	M	34	ARG
1	M	132	LEU
1	M	135	THR
1	M	145	ILE
1	M	156	VAL
1	M	158	ASN
1	M	186	ARG
1	M	196	LEU

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Mol	Chain	Res	Type
1	M	226	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (97) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	48	ASN
1	A	70	GLN
1	A	84	GLN
1	A	95	GLN
1	A	158	ASN
1	A	169	GLN
1	A	215	GLN
1	B	36	ASN
1	B	48	ASN
1	B	70	GLN
1	B	95	GLN
1	B	158	ASN
1	B	215	GLN
1	C	48	ASN
1	C	84	GLN
1	C	95	GLN
1	C	110	GLN
1	C	158	ASN
1	C	169	GLN
1	C	215	GLN
1	D	36	ASN
1	D	48	ASN
1	D	84	GLN
1	D	95	GLN
1	D	104	GLN
1	D	127	GLN
1	D	158	ASN
1	D	169	GLN
1	D	215	GLN
1	E	48	ASN
1	E	84	GLN
1	E	95	GLN
1	E	104	GLN
1	E	158	ASN
1	E	169	GLN
1	E	215	GLN
1	F	48	ASN

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Mol	Chain	Res	Type
1	F	84	GLN
1	F	95	GLN
1	F	104	GLN
1	F	127	GLN
1	F	158	ASN
1	G	48	ASN
1	G	84	GLN
1	G	95	GLN
1	G	110	GLN
1	G	158	ASN
1	G	162	ASN
1	G	168	GLN
1	G	169	GLN
1	G	215	GLN
1	H	36	ASN
1	H	48	ASN
1	H	84	GLN
1	H	95	GLN
1	H	109	GLN
1	H	158	ASN
1	H	169	GLN
1	H	215	GLN
1	I	36	ASN
1	I	48	ASN
1	I	84	GLN
1	I	95	GLN
1	I	109	GLN
1	I	115	ASN
1	I	158	ASN
1	I	169	GLN
1	I	215	GLN
1	J	36	ASN
1	J	48	ASN
1	J	91	GLN
1	J	95	GLN
1	J	158	ASN
1	J	215	GLN
1	K	36	ASN
1	K	48	ASN
1	K	95	GLN
1	K	104	GLN
1	K	158	ASN

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Mol	Chain	Res	Type
1	K	215	GLN
1	L	48	ASN
1	L	70	GLN
1	L	95	GLN
1	L	104	GLN
1	L	158	ASN
1	L	169	GLN
1	L	215	GLN
1	M	36	ASN
1	M	48	ASN
1	M	70	GLN
1	M	84	GLN
1	M	95	GLN
1	M	109	GLN
1	M	110	GLN
1	M	158	ASN
1	M	168	GLN
1	M	215	GLN

5.3.3 RNA

There are no RNA molecules 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

There are no oligosaccharides in this entry.

5.6 Ligand geometry

13 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	$\#\|Z\| > 2$
3	3GR	C	361	-	4,5,5	6.16	2 (50%)	4,5,5	14.98	1 (25%)
2	GOL	J	361	-	5,5,5	4.79	1 (20%)	5,5,5	4.47	1 (20%)
3	3GR	D	361	-	4,5,5	6.15	2 (50%)	4,5,5	14.97	1 (25%)
3	3GR	K	361	-	4,5,5	6.15	2 (50%)	4,5,5	14.97	1 (25%)
2	GOL	M	361	-	5,5,5	4.79	1 (20%)	5,5,5	4.47	1 (20%)
3	3GR	F	361	-	4,5,5	6.15	2 (50%)	4,5,5	14.96	1 (25%)
3	3GR	E	361	-	4,5,5	6.16	2 (50%)	4,5,5	14.96	1 (25%)
3	3GR	G	361	-	4,5,5	6.16	2 (50%)	4,5,5	14.96	1 (25%)
3	3GR	H	361	-	4,5,5	6.16	2 (50%)	4,5,5	14.97	1 (25%)
3	3GR	L	361	-	4,5,5	6.16	2 (50%)	4,5,5	14.97	1 (25%)
2	GOL	A	361	-	5,5,5	0.23	0	5,5,5	0.49	0
2	GOL	B	361	-	5,5,5	4.79	1 (20%)	5,5,5	4.47	1 (20%)
3	3GR	I	361	-	4,5,5	6.16	2 (50%)	4,5,5	14.96	1 (25%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	3GR	C	361	-	-	1/3/4/4	-
2	GOL	J	361	-	-	0/4/4/4	-
3	3GR	D	361	-	-	1/3/4/4	-
3	3GR	K	361	-	-	1/3/4/4	-
2	GOL	M	361	-	-	0/4/4/4	-
3	3GR	F	361	-	-	1/3/4/4	-
3	3GR	E	361	-	-	1/3/4/4	-
3	3GR	G	361	-	-	1/3/4/4	-
3	3GR	H	361	-	-	1/3/4/4	-
3	3GR	L	361	-	-	1/3/4/4	-
2	GOL	A	361	-	-	0/4/4/4	-
2	GOL	B	361	-	-	0/4/4/4	-
3	3GR	I	361	-	-	1/3/4/4	-

All (21) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	361	3GR	O3-C3	-10.68	0.97	1.42
3	I	361	3GR	O3-C3	-10.67	0.97	1.42
3	H	361	3GR	O3-C3	-10.67	0.97	1.42
3	L	361	3GR	O3-C3	-10.67	0.97	1.42
2	M	361	GOL	O3-C3	-10.66	0.97	1.42
3	E	361	3GR	O3-C3	-10.66	0.97	1.42
3	C	361	3GR	O3-C3	-10.66	0.97	1.42
3	D	361	3GR	O3-C3	-10.66	0.97	1.42
2	B	361	GOL	O3-C3	-10.66	0.97	1.42
3	K	361	3GR	O3-C3	-10.66	0.97	1.42
2	J	361	GOL	O3-C3	-10.65	0.97	1.42
3	F	361	3GR	O3-C3	-10.65	0.97	1.42
3	C	361	3GR	O1-C1	6.06	1.43	1.20
3	E	361	3GR	O1-C1	6.06	1.43	1.20
3	L	361	3GR	O1-C1	6.06	1.43	1.20
3	H	361	3GR	O1-C1	6.06	1.43	1.20
3	I	361	3GR	O1-C1	6.06	1.43	1.20
3	G	361	3GR	O1-C1	6.05	1.42	1.20
3	F	361	3GR	O1-C1	6.04	1.42	1.20
3	D	361	3GR	O1-C1	6.04	1.42	1.20
3	K	361	3GR	O1-C1	6.03	1.42	1.20

All (12) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	C	361	3GR	O3-C3-C2	29.94	155.34	112.39
3	K	361	3GR	O3-C3-C2	29.93	155.32	112.39
3	D	361	3GR	O3-C3-C2	29.92	155.32	112.39
3	H	361	3GR	O3-C3-C2	29.92	155.32	112.39
3	L	361	3GR	O3-C3-C2	29.92	155.31	112.39
3	G	361	3GR	O3-C3-C2	29.90	155.29	112.39
3	E	361	3GR	O3-C3-C2	29.90	155.29	112.39
3	F	361	3GR	O3-C3-C2	29.90	155.28	112.39
3	I	361	3GR	O3-C3-C2	29.89	155.28	112.39
2	M	361	GOL	O3-C3-C2	9.99	155.36	110.38
2	J	361	GOL	O3-C3-C2	9.99	155.34	110.38
2	B	361	GOL	O3-C3-C2	9.98	155.32	110.38

There are no chirality outliers.

All (9) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	C	361	3GR	O2-C2-C3-O3

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Mol	Chain	Res	Type	Atoms
3	D	361	3GR	O2-C2-C3-O3
3	E	361	3GR	O2-C2-C3-O3
3	F	361	3GR	O2-C2-C3-O3
3	G	361	3GR	O2-C2-C3-O3
3	H	361	3GR	O2-C2-C3-O3
3	I	361	3GR	O2-C2-C3-O3
3	K	361	3GR	O2-C2-C3-O3
3	L	361	3GR	O2-C2-C3-O3

There are no ring outliers.

12 monomers are involved in 36 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	C	361	3GR	2	0
2	J	361	GOL	6	0
3	K	361	3GR	3	0
2	M	361	GOL	3	0
3	F	361	3GR	4	0
3	E	361	3GR	2	0
3	G	361	3GR	1	0
3	H	361	3GR	2	0
3	L	361	3GR	1	0
2	A	361	GOL	5	0
2	B	361	GOL	3	0
3	I	361	3GR	4	0

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	A	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A	29:THR	C	30:GLU	N	1.00

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	A	231/360 (64%)	1.26	54 (23%) 2 2	29, 93, 132, 143	2 (0%)
1	B	231/360 (64%)	0.95	40 (17%) 5 3	22, 80, 110, 123	2 (0%)
1	C	231/360 (64%)	0.81	25 (10%) 12 7	22, 77, 111, 116	2 (0%)
1	D	231/360 (64%)	0.85	36 (15%) 6 4	16, 82, 109, 123	2 (0%)
1	E	231/360 (64%)	0.45	13 (5%) 31 18	21, 61, 95, 111	2 (0%)
1	F	231/360 (64%)	1.10	41 (17%) 4 3	31, 80, 106, 111	2 (0%)
1	G	231/360 (64%)	1.25	48 (20%) 3 2	31, 86, 118, 126	2 (0%)
1	H	231/360 (64%)	0.73	27 (11%) 10 6	24, 64, 98, 109	2 (0%)
1	I	231/360 (64%)	0.64	30 (12%) 9 5	17, 62, 96, 109	2 (0%)
1	J	231/360 (64%)	0.18	9 (3%) 44 26	8, 48, 84, 100	2 (0%)
1	K	231/360 (64%)	0.59	23 (9%) 14 8	11, 59, 92, 107	2 (0%)
1	L	231/360 (64%)	0.45	13 (5%) 31 18	14, 63, 102, 115	2 (0%)
1	M	231/360 (64%)	1.34	59 (25%) 2 2	25, 93, 117, 130	2 (0%)
All	All	3003/4680 (64%)	0.81	418 (13%) 7 4	8, 75, 114, 143	26 (0%)

All (418) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	M	82	SER	10.0
1	C	82	SER	10.0
1	A	82	SER	9.7
1	B	82	SER	8.7
1	D	82	SER	8.7
1	B	74	ALA	8.3
1	G	82	SER	7.9
1	L	82	SER	7.8
1	M	227	VAL	7.8

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Mol	Chain	Res	Type	RSRZ
1	H	82	SER	7.3
1	I	82	SER	7.3
1	C	74	ALA	7.3
1	J	82	SER	6.8
1	K	82	SER	6.7
1	E	82	SER	6.7
1	I	74	ALA	6.3
1	M	225	SER	6.2
1	F	82	SER	6.1
1	H	74	ALA	6.1
1	L	74	ALA	5.9
1	A	74	ALA	5.8
1	M	74	ALA	5.4
1	A	259	LEU	5.2
1	G	74	ALA	5.2
1	E	231	GLU	5.2
1	C	29	THR	5.2
1	A	225	SER	5.2
1	C	231	GLU	5.1
1	D	113	ASP	5.1
1	K	230	ASP	5.1
1	M	226	GLU	4.9
1	J	231	GLU	4.8
1	K	74	ALA	4.7
1	M	202	ASN	4.7
1	M	29	THR	4.6
1	F	81	GLN	4.6
1	A	193	SER	4.6
1	B	195	GLN	4.5
1	M	109	GLN	4.3
1	E	74	ALA	4.3
1	E	230	ASP	4.3
1	F	74	ALA	4.2
1	D	105	ALA	4.2
1	F	29	THR	4.2
1	G	212	ASP	4.1
1	A	29	THR	4.1
1	J	74	ALA	4.1
1	I	231	GLU	4.0
1	D	74	ALA	4.0
1	G	234	GLY	4.0
1	A	32	PRO	4.0

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Mol	Chain	Res	Type	RSRZ
1	A	231	GLU	4.0
1	G	193	SER	4.0
1	M	223	GLU	3.9
1	G	231	GLU	3.9
1	D	114	ALA	3.8
1	F	231	GLU	3.8
1	F	192	ALA	3.8
1	A	185	LEU	3.8
1	G	198	ARG	3.8
1	M	99	LEU	3.8
1	G	192	ALA	3.7
1	I	29	THR	3.7
1	M	30	GLU	3.7
1	H	234	GLY	3.7
1	G	197	GLU	3.7
1	K	29	THR	3.7
1	D	108	LYS	3.7
1	B	190	GLU	3.7
1	M	224	PHE	3.7
1	M	108	LYS	3.7
1	B	219	GLU	3.6
1	M	228	SER	3.6
1	K	231	GLU	3.6
1	F	210	LEU	3.6
1	G	259	LEU	3.6
1	B	225	SER	3.6
1	K	212	ASP	3.5
1	F	92	GLU	3.5
1	E	104	GLN	3.5
1	K	104	GLN	3.5
1	D	231	GLU	3.4
1	G	85	ALA	3.4
1	L	234	GLY	3.4
1	I	259	LEU	3.4
1	F	211	GLU	3.4
1	I	81	GLN	3.4
1	M	81	GLN	3.4
1	C	259	LEU	3.4
1	J	230	ASP	3.4
1	C	225	SER	3.4
1	B	36	ASN	3.4
1	G	92	GLU	3.4

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Mol	Chain	Res	Type	RSRZ
1	G	29	THR	3.4
1	I	198	ARG	3.3
1	B	29	THR	3.3
1	A	254	PHE	3.3
1	G	211	GLU	3.3
1	B	179	GLN	3.3
1	B	198	ARG	3.3
1	F	230	ASP	3.3
1	I	221	ARG	3.3
1	M	198	ARG	3.3
1	F	171	ASP	3.2
1	M	199	ALA	3.2
1	F	198	ARG	3.2
1	J	212	ASP	3.2
1	A	217	PRO	3.2
1	D	246	ASN	3.2
1	M	179	GLN	3.2
1	M	259	LEU	3.2
1	H	129	ARG	3.2
1	C	233	THR	3.2
1	H	180	PRO	3.1
1	B	246	ASN	3.1
1	H	113	ASP	3.1
1	I	225	SER	3.1
1	D	192	ALA	3.1
1	G	147	ARG	3.1
1	A	192	ALA	3.1
1	K	198	ARG	3.1
1	D	232	GLY	3.1
1	M	195	GLN	3.1
1	D	102	ALA	3.1
1	B	213	GLY	3.0
1	C	179	GLN	3.0
1	G	258	GLN	3.0
1	H	112	ALA	3.0
1	G	172	PRO	3.0
1	G	217	PRO	3.0
1	A	93	GLN	3.0
1	G	219	GLU	3.0
1	I	230	ASP	3.0
1	D	225	SER	3.0
1	C	95	GLN	3.0

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Mol	Chain	Res	Type	RSRZ
1	L	102	ALA	3.0
1	H	231	GLU	3.0
1	C	213	GLY	3.0
1	A	189	ARG	3.0
1	K	259	LEU	3.0
1	B	254	PHE	3.0
1	G	32	PRO	3.0
1	M	189	ARG	3.0
1	F	233	THR	3.0
1	I	30	GLU	2.9
1	A	233	THR	2.9
1	C	230	ASP	2.9
1	D	104	GLN	2.9
1	F	232	GLY	2.9
1	F	259	LEU	2.9
1	D	230	ASP	2.9
1	H	230	ASP	2.9
1	F	179	GLN	2.9
1	G	181	SER	2.9
1	A	172	PRO	2.9
1	E	95	GLN	2.9
1	F	201	ASP	2.9
1	M	32	PRO	2.9
1	B	178	THR	2.8
1	G	210	LEU	2.8
1	M	95	GLN	2.8
1	D	259	LEU	2.8
1	F	95	GLN	2.8
1	I	96	ARG	2.8
1	A	81	GLN	2.8
1	D	181	SER	2.8
1	G	223	GLU	2.8
1	L	29	THR	2.8
1	B	232	GLY	2.8
1	E	113	ASP	2.8
1	K	201	ASP	2.8
1	A	218	LEU	2.8
1	G	221	ARG	2.7
1	A	180	PRO	2.7
1	G	84	GLN	2.7
1	L	104	GLN	2.7
1	M	122	LYS	2.7

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Mol	Chain	Res	Type	RSRZ
1	D	193	SER	2.7
1	E	181	SER	2.7
1	A	219	GLU	2.7
1	A	248	GLU	2.7
1	K	221	ARG	2.7
1	D	213	GLY	2.7
1	M	33	GLY	2.7
1	A	182	THR	2.7
1	A	242	PHE	2.7
1	M	110	GLN	2.7
1	I	201	ASP	2.7
1	A	223	GLU	2.7
1	A	198	ARG	2.7
1	D	180	PRO	2.7
1	A	179	GLN	2.7
1	G	201	ASP	2.7
1	L	231	GLU	2.7
1	A	247	ASN	2.7
1	A	234	GLY	2.7
1	H	81	GLN	2.7
1	H	221	ARG	2.7
1	G	152	GLU	2.6
1	M	201	ASP	2.6
1	I	179	GLN	2.6
1	D	111	TYR	2.6
1	B	247	ASN	2.6
1	I	233	THR	2.6
1	D	120	GLN	2.6
1	F	221	ARG	2.6
1	M	96	ARG	2.6
1	F	53	LYS	2.6
1	A	232	GLY	2.6
1	M	92	GLU	2.6
1	B	32	PRO	2.6
1	J	201	ASP	2.6
1	A	229	VAL	2.6
1	H	120	GLN	2.6
1	L	120	GLN	2.6
1	B	205	LYS	2.6
1	G	254	PHE	2.6
1	F	197	GLU	2.6
1	A	243	PRO	2.6

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Mol	Chain	Res	Type	RSRZ
1	D	32	PRO	2.6
1	B	193	SER	2.6
1	I	171	ASP	2.6
1	I	195	GLN	2.6
1	G	213	GLY	2.6
1	B	197	GLU	2.6
1	F	96	ARG	2.6
1	F	180	PRO	2.6
1	G	245	PRO	2.6
1	K	39	ARG	2.6
1	F	63	LYS	2.6
1	B	233	THR	2.6
1	H	247	ASN	2.6
1	M	234	GLY	2.5
1	L	103	ASP	2.5
1	B	259	LEU	2.5
1	C	99	LEU	2.5
1	A	30	GLU	2.5
1	B	217	PRO	2.5
1	I	180	PRO	2.5
1	D	233	THR	2.5
1	M	233	THR	2.5
1	M	235	SER	2.5
1	D	212	ASP	2.5
1	H	259	LEU	2.5
1	M	97	TYR	2.5
1	M	134	TYR	2.5
1	M	232	GLY	2.5
1	A	53	LYS	2.5
1	J	197	GLU	2.5
1	I	196	LEU	2.5
1	D	109	GLN	2.5
1	B	234	GLY	2.5
1	B	112	ALA	2.5
1	A	241	VAL	2.5
1	G	58	GLU	2.5
1	B	108	LYS	2.5
1	B	235	SER	2.5
1	F	213	GLY	2.5
1	H	232	GLY	2.5
1	D	112	ALA	2.5
1	G	218	LEU	2.4

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Mol	Chain	Res	Type	RSRZ
1	F	39	ARG	2.4
1	H	228	SER	2.4
1	A	216	TYR	2.4
1	M	111	TYR	2.4
1	K	233	THR	2.4
1	M	178	THR	2.4
1	B	194	GLY	2.4
1	A	169	GLN	2.4
1	D	116	ALA	2.4
1	F	102	ALA	2.4
1	M	94	ALA	2.4
1	M	230	ASP	2.4
1	D	99	LEU	2.4
1	M	254	PHE	2.4
1	F	235	SER	2.4
1	G	243	PRO	2.4
1	I	235	SER	2.4
1	F	212	ASP	2.4
1	A	63	LYS	2.4
1	F	200	GLY	2.4
1	M	102	ALA	2.4
1	M	104	GLN	2.4
1	F	181	SER	2.4
1	I	212	ASP	2.4
1	M	36	ASN	2.4
1	M	231	GLU	2.4
1	C	234	GLY	2.4
1	K	234	GLY	2.4
1	G	149	ALA	2.4
1	D	29	THR	2.4
1	M	221	ARG	2.4
1	K	180	PRO	2.3
1	A	89	SER	2.3
1	C	228	SER	2.3
1	G	214	SER	2.3
1	L	230	ASP	2.3
1	G	204	ALA	2.3
1	I	232	GLY	2.3
1	K	200	GLY	2.3
1	A	96	ARG	2.3
1	M	239	ARG	2.3
1	K	181	SER	2.3

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Mol	Chain	Res	Type	RSRZ
1	D	171	ASP	2.3
1	A	59	GLY	2.3
1	F	114	ALA	2.3
1	K	192	ALA	2.3
1	L	105	ALA	2.3
1	G	195	GLN	2.3
1	C	190	GLU	2.3
1	D	197	GLU	2.3
1	F	36	ASN	2.3
1	F	152	GLU	2.3
1	G	248	GLU	2.3
1	A	209	LYS	2.3
1	C	32	PRO	2.3
1	I	254	PHE	2.3
1	L	200	GLY	2.3
1	M	190	GLU	2.3
1	A	196	LEU	2.3
1	G	171	ASP	2.3
1	H	102	ALA	2.3
1	K	106	VAL	2.3
1	L	232	GLY	2.3
1	A	226	GLU	2.3
1	H	77	GLU	2.3
1	B	171	ASP	2.2
1	C	201	ASP	2.2
1	C	246	ASN	2.2
1	K	246	ASN	2.2
1	M	171	ASP	2.2
1	A	90	THR	2.2
1	H	233	THR	2.2
1	M	84	GLN	2.2
1	F	129	ARG	2.2
1	A	184	LEU	2.2
1	M	181	SER	2.2
1	D	242	PHE	2.2
1	E	29	THR	2.2
1	A	221	ARG	2.2
1	B	104	GLN	2.2
1	C	81	GLN	2.2
1	H	109	GLN	2.2
1	F	234	GLY	2.2
1	C	211	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
1	M	197	GLU	2.2
1	H	171	ASP	2.2
1	F	84	GLN	2.2
1	M	196	LEU	2.2
1	B	207	SER	2.2
1	C	227	VAL	2.2
1	D	93	GLN	2.2
1	M	93	GLN	2.2
1	I	213	GLY	2.2
1	B	239	ARG	2.2
1	I	92	GLU	2.2
1	C	254	PHE	2.2
1	M	89	SER	2.2
1	G	247	ASN	2.2
1	B	257	ALA	2.1
1	D	117	ALA	2.1
1	G	199	ALA	2.1
1	K	179	GLN	2.2
1	A	188	ARG	2.1
1	H	254	PHE	2.1
1	F	172	PRO	2.1
1	C	207	SER	2.1
1	F	121	SER	2.1
1	J	233	THR	2.1
1	E	116	ALA	2.1
1	M	41	ALA	2.1
1	G	220	GLY	2.1
1	I	200	GLY	2.1
1	G	39	ARG	2.1
1	A	58	GLU	2.1
1	B	256	HIS	2.1
1	H	181	SER	2.1
1	H	207	SER	2.1
1	F	182	THR	2.1
1	H	257	ALA	2.1
1	M	135	THR	2.1
1	M	183	ALA	2.1
1	C	202	ASN	2.1
1	A	176	ASP	2.1
1	A	191	LEU	2.1
1	A	227	VAL	2.1
1	G	151	THR	2.1

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Mol	Chain	Res	Type	RSRZ
1	D	195	GLN	2.1
1	M	258	GLN	2.1
1	B	172	PRO	2.1
1	I	172	PRO	2.1
1	I	178	THR	2.1
1	K	232	GLY	2.1
1	M	120	GLN	2.1
1	K	202	ASN	2.1
1	B	30	GLU	2.1
1	G	77	GLU	2.1
1	H	211	GLU	2.1
1	E	198	ARG	2.0
1	G	129	ARG	2.0
1	H	198	ARG	2.0
1	J	235	SER	2.0
1	A	36	ASN	2.0
1	F	202	ASN	2.0
1	B	176	ASP	2.0
1	B	201	ASP	2.0
1	G	185	LEU	2.0
1	I	217	PRO	2.0
1	C	96	ARG	2.0
1	I	197	GLU	2.0
1	E	232	GLY	2.0
1	A	38	PHE	2.0
1	E	179	GLN	2.0
1	B	228	SER	2.0
1	D	115	ASN	2.0
1	A	245	PRO	2.0
1	B	231	GLU	2.0
1	G	59	GLY	2.0

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

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

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
2	GOL	A	361	6/6	0.42	0.40	97,98,99,102	0
3	3GR	F	361	6/6	0.48	0.41	99,100,101,103	0
2	GOL	B	361	6/6	0.53	0.45	95,96,96,96	0
3	3GR	E	361	6/6	0.58	0.51	93,95,98,102	0
3	3GR	G	361	6/6	0.59	0.41	103,104,105,106	0
3	3GR	H	361	6/6	0.60	0.41	87,88,89,90	0
2	GOL	M	361	6/6	0.67	0.33	99,100,101,101	0
3	3GR	D	361	6/6	0.67	0.52	93,93,94,95	0
3	3GR	C	361	6/6	0.68	0.46	100,100,101,102	0
3	3GR	K	361	6/6	0.71	0.43	79,80,83,84	0
3	3GR	I	361	6/6	0.76	0.35	87,87,88,88	0
2	GOL	J	361	6/6	0.76	0.39	92,94,94,96	0
3	3GR	L	361	6/6	0.77	0.36	81,82,83,86	0

6.5 Other polymers (i)

There are no such residues in this entry.