



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 5, 2026 – 04:03 PM UTC

PDB ID : 2VOE / pdb_00002voe
Title : Crystal structure of Rv2780 from M. tuberculosis H37Rv
Authors : Tripathi, S.M.; Ramachandran, R.
Deposited on : 2008-02-17
Resolution : 2.60 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity	:	4-5-2 with Phenix2.0
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

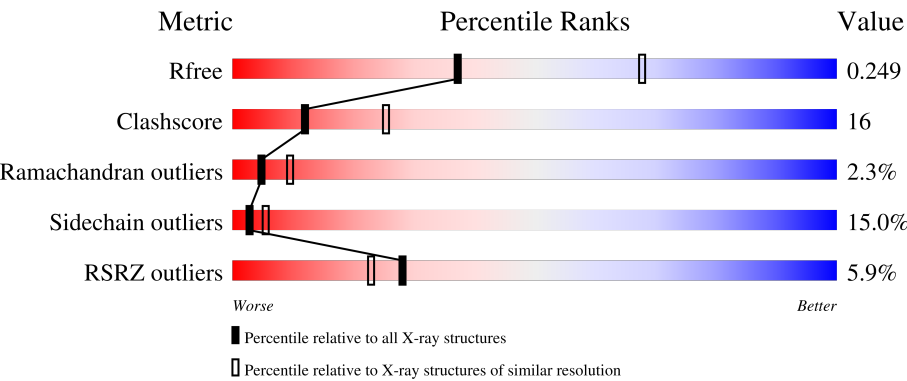
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.60 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}	180053	4008 (2.60-2.60)
Clashscore	190562	4347 (2.60-2.60)
Ramachandran outliers	187476	4277 (2.60-2.60)
Sidechain outliers	187428	4277 (2.60-2.60)
RSRZ outliers	180081	4008 (2.60-2.60)

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 $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	371	<div><div>4%</div><div><div></div><div>67%</div><div>24%</div><div>8%</div><div>.</div></div></div>
1	B	371	<div><div>5%</div><div><div></div><div>72%</div><div>19%</div><div>7%</div><div>.</div></div></div>
1	C	371	<div><div>8%</div><div><div></div><div>66%</div><div>26%</div><div>8%</div><div>.</div></div></div>
1	D	371	<div><div>6%</div><div><div></div><div>69%</div><div>23%</div><div>7%</div><div>.</div></div></div>
1	E	371	<div><div>8%</div><div><div></div><div>68%</div><div>23%</div><div>8%</div><div>.</div></div></div>

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
1	F	371	<div><div></div><div>4%</div><div>69%</div><div>23%</div><div>7%</div><div></div></div>

2 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 16386 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 ALANINE DEHYDROGENASE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	371	Total	C	N	O	S	0	0	0
			2691	1691	473	514	13			
1	B	371	Total	C	N	O	S	0	0	0
			2699	1693	476	517	13			
1	C	371	Total	C	N	O	S	0	0	0
			2687	1688	470	516	13			
1	D	371	Total	C	N	O	S	0	0	0
			2699	1695	476	515	13			
1	E	371	Total	C	N	O	S	0	0	0
			2695	1693	473	516	13			
1	F	371	Total	C	N	O	S	0	0	0
			2691	1689	473	516	13			

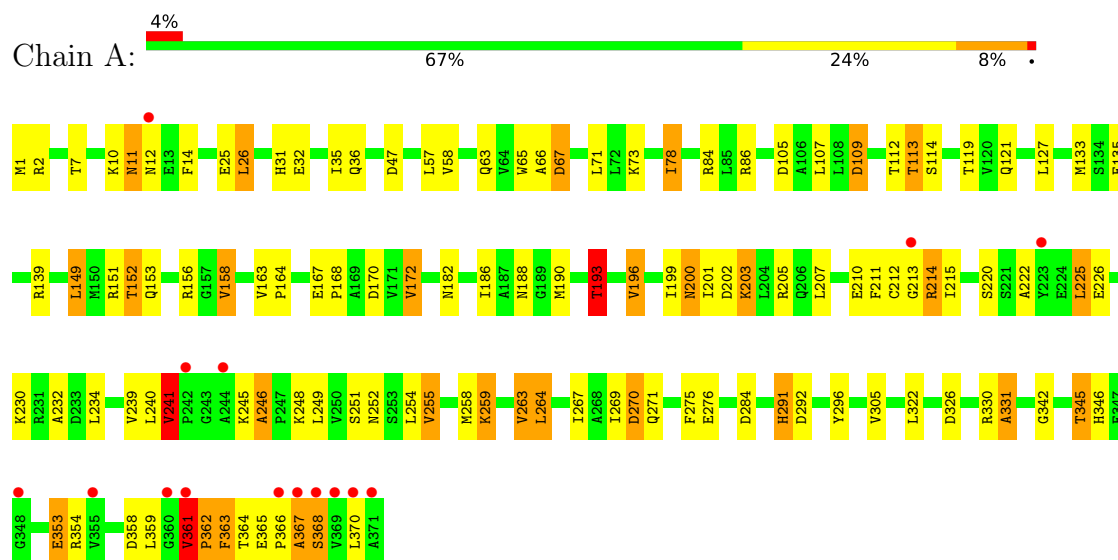
- Molecule 2 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	31	Total	O	0	0
			31	31		
2	B	49	Total	O	0	0
			49	49		
2	C	39	Total	O	0	0
			39	39		
2	D	30	Total	O	0	0
			30	30		
2	E	36	Total	O	0	0
			36	36		
2	F	39	Total	O	0	0
			39	39		

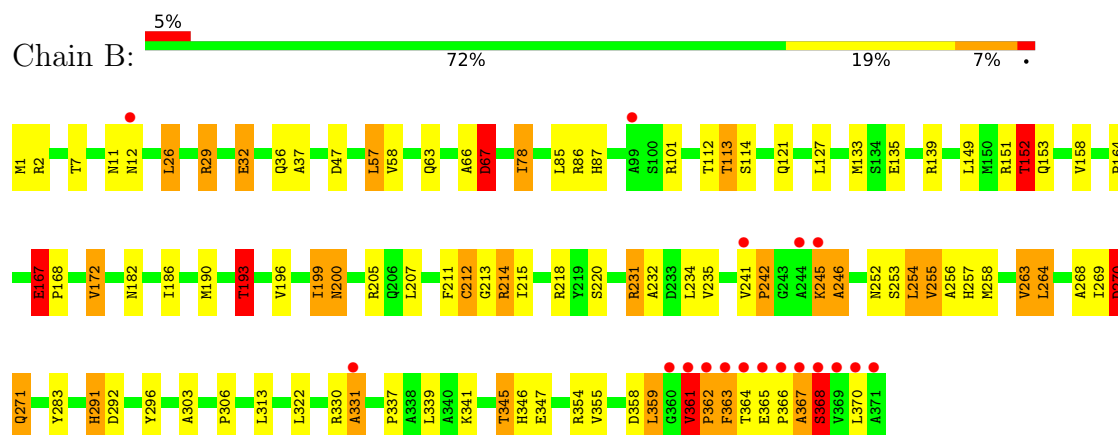
3 Residue-property plots

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.

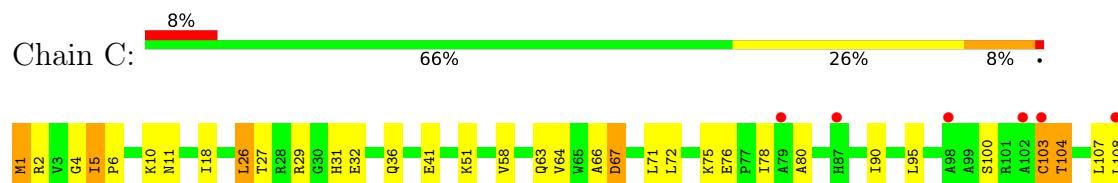
• Molecule 1: ALANINE DEHYDROGENASE

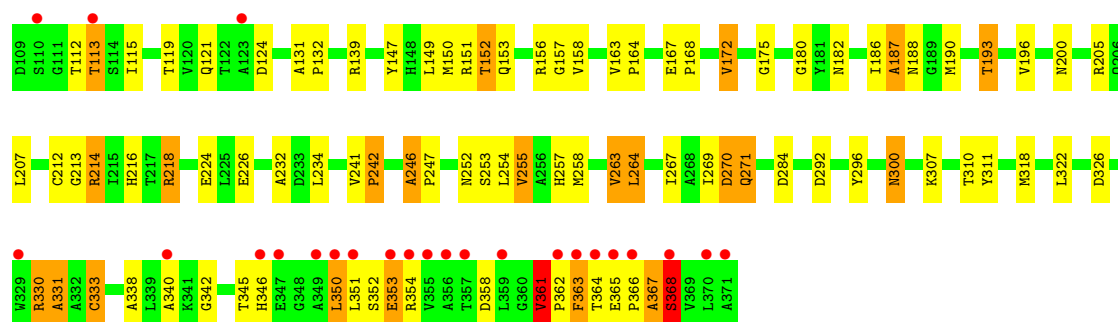


• Molecule 1: ALANINE DEHYDROGENASE

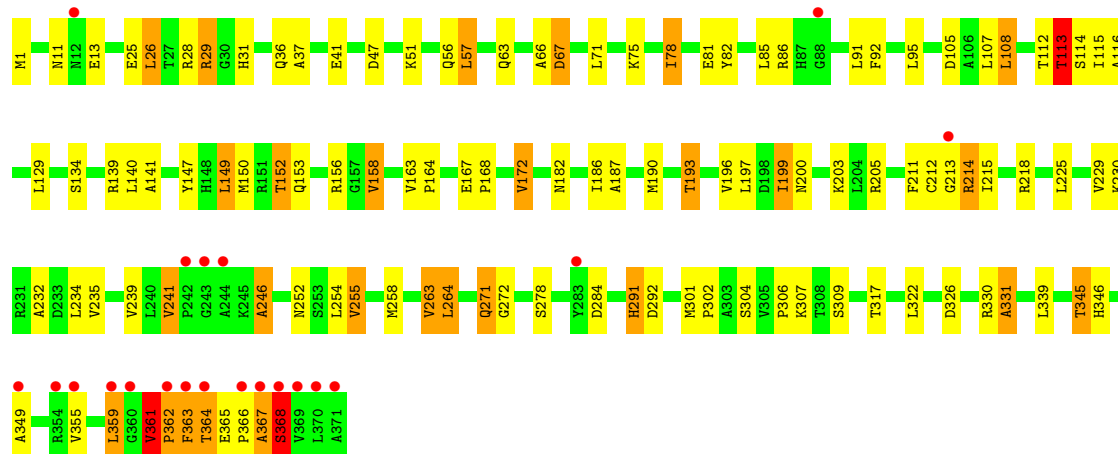


• Molecule 1: ALANINE DEHYDROGENASE

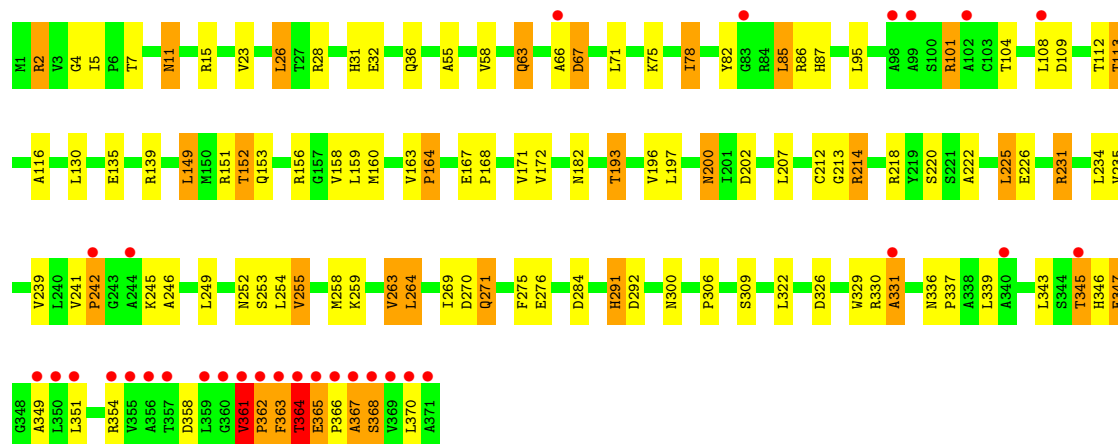




• Molecule 1: ALANINE DEHYDROGENASE

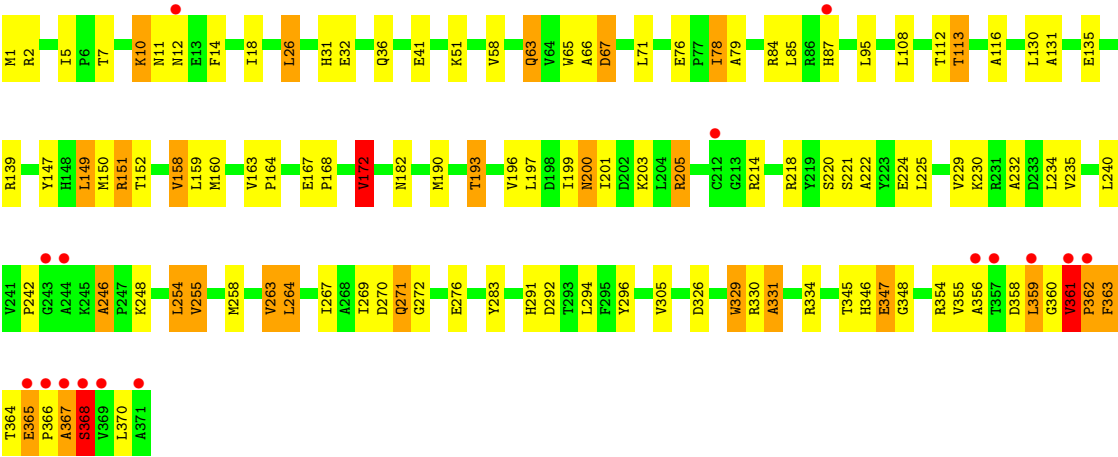


• Molecule 1: ALANINE DEHYDROGENASE



• Molecule 1: ALANINE DEHYDROGENASE





4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α , β , γ	173.89Å 127.08Å 135.95Å 90.00° 115.04° 90.00°	Depositor
Resolution (Å)	123.09 – 2.60 123.09 – 2.60	Depositor EDS
% Data completeness (in resolution range)	97.2 (123.09-2.60) 97.2 (123.09-2.60)	Depositor EDS
R_{merge}	0.11	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.13 (at 2.61Å)	Xtriage
Refinement program	REFMAC 5.2.0005	Depositor
R, R_{free}	0.196 , 0.251 0.195 , 0.249	Depositor DCC
R_{free} test set	4005 reflections (4.90%)	wwPDB-VP
Wilson B-factor (Å ²)	38.3	Xtriage
Anisotropy	0.098	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.31 , 41.6	EDS
L-test for twinning ²	$\langle L \rangle = 0.50$, $\langle L^2 \rangle = 0.34$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.94	EDS
Total number of atoms	16386	wwPDB-VP
Average B, all atoms (Å ²)	38.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.48% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

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	0.97	0/2740	1.15	11/3736 (0.3%)
1	B	1.00	2/2747 (0.1%)	1.16	12/3743 (0.3%)
1	C	1.08	1/2735 (0.0%)	1.20	13/3729 (0.3%)
1	D	0.99	1/2748 (0.0%)	1.17	6/3746 (0.2%)
1	E	1.04	2/2744 (0.1%)	1.22	13/3741 (0.3%)
1	F	1.03	2/2739 (0.1%)	1.18	9/3733 (0.2%)
All	All	1.02	8/16453 (0.0%)	1.18	64/22428 (0.3%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1
1	B	0	2
1	C	0	1
1	D	0	4
1	E	0	1
1	F	0	1
All	All	0	10

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	F	158	VAL	CA-CB	9.34	1.66	1.54
1	E	364	THR	CA-CB	7.27	1.64	1.53
1	D	141	ALA	CA-CB	-5.68	1.44	1.53
1	C	187	ALA	CA-CB	-5.54	1.44	1.53
1	B	167	GLU	CA-C	5.43	1.58	1.53
1	F	172	VAL	CA-CB	5.40	1.60	1.54
1	B	263	VAL	CA-CB	5.29	1.61	1.54
1	E	361	VAL	CA-CB	5.08	1.60	1.54

All (64) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	5	ILE	CA-C-N	7.93	128.55	120.14
1	F	5	ILE	C-N-CA	7.93	128.55	120.14
1	F	242	PRO	N-CA-CB	7.42	111.05	103.25
1	D	291	HIS	CA-C-N	-7.28	113.56	126.45
1	D	291	HIS	C-N-CA	-7.28	113.56	126.45
1	D	368	SER	N-CA-C	-7.23	95.39	110.80
1	C	270	ASP	N-CA-C	-7.06	101.06	110.24
1	E	368	SER	N-CA-C	-6.90	96.11	110.80
1	A	368	SER	N-CA-C	-6.88	96.15	110.80
1	C	368	SER	N-CA-C	-6.74	96.45	110.80
1	F	368	SER	N-CA-C	-6.70	96.54	110.80
1	B	368	SER	N-CA-C	-6.69	96.55	110.80
1	A	270	ASP	N-CA-C	-6.56	101.43	110.35
1	C	271	GLN	N-CA-C	6.43	120.71	112.86
1	E	11	ASN	CB-CA-C	6.29	120.17	109.53
1	A	291	HIS	CA-C-N	-6.27	115.34	126.45
1	A	291	HIS	C-N-CA	-6.27	115.34	126.45
1	B	269	ILE	N-CA-C	6.27	116.44	110.42
1	B	242	PRO	N-CA-CB	6.23	109.79	103.25
1	D	291	HIS	CB-CA-C	-6.16	103.14	111.89
1	B	291	HIS	CB-CA-C	-6.13	102.64	112.09
1	B	241	VAL	CA-C-N	6.12	127.49	119.84
1	B	241	VAL	C-N-CA	6.12	127.49	119.84
1	B	270	ASP	N-CA-C	-6.10	102.31	110.24
1	A	291	HIS	CB-CA-C	-6.02	102.61	112.06
1	C	167	GLU	N-CA-C	5.99	116.49	109.60
1	C	242	PRO	N-CA-CB	5.96	109.51	103.25
1	C	167	GLU	CA-C-N	-5.95	114.61	120.98
1	C	167	GLU	C-N-CA	-5.95	114.61	120.98
1	C	241	VAL	CA-C-N	5.95	127.28	119.84
1	C	241	VAL	C-N-CA	5.95	127.28	119.84
1	B	167	GLU	CA-C-N	-5.88	114.69	120.98
1	B	167	GLU	C-N-CA	-5.88	114.69	120.98
1	E	270	ASP	N-CA-C	-5.84	102.00	110.24
1	A	241	VAL	CA-C-N	5.62	126.86	119.84
1	A	241	VAL	C-N-CA	5.62	126.86	119.84
1	E	329	TRP	N-CA-C	5.62	117.20	111.14
1	F	269	ILE	N-CA-C	5.60	115.80	110.42
1	E	167	GLU	CA-C-N	-5.57	115.01	120.52
1	E	167	GLU	C-N-CA	-5.57	115.01	120.52
1	B	193	THR	CB-CA-C	5.51	118.84	109.80
1	B	220	SER	N-CA-C	5.51	118.34	110.68

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	151	ARG	N-CA-CB	5.49	118.67	110.22
1	F	329	TRP	N-CA-C	5.44	116.90	110.97
1	E	259	LYS	CA-C-N	-5.43	114.17	119.76
1	E	259	LYS	C-N-CA	-5.43	114.17	119.76
1	C	318	MET	CA-C-N	-5.43	113.43	119.19
1	C	318	MET	C-N-CA	-5.43	113.43	119.19
1	F	270	ASP	N-CA-C	-5.34	102.72	110.24
1	C	5	ILE	CA-C-N	5.32	125.78	120.14
1	C	5	ILE	C-N-CA	5.32	125.78	120.14
1	B	152	THR	N-CA-CB	-5.29	101.14	110.39
1	E	291	HIS	CA-C-N	-5.28	115.72	125.02
1	E	291	HIS	C-N-CA	-5.28	115.72	125.02
1	D	272	GLY	N-CA-C	5.24	119.92	113.79
1	D	113	THR	CB-CA-C	5.21	118.63	110.19
1	A	269	ILE	N-CA-C	5.21	115.43	110.53
1	E	171	VAL	CA-C-N	-5.21	115.87	123.06
1	E	171	VAL	C-N-CA	-5.21	115.87	123.06
1	F	272	GLY	N-CA-C	5.21	119.88	113.79
1	E	220	SER	N-CA-C	5.18	117.88	110.68
1	A	220	SER	N-CA-C	5.01	117.65	110.68
1	A	193	THR	CB-CA-C	5.00	118.58	110.22
1	A	259	LYS	N-CA-CB	5.00	117.84	109.98

There are no chirality outliers.

All (10) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	361	VAL	Peptide
1	B	361	VAL	Peptide
1	B	368	SER	Peptide
1	C	361	VAL	Peptide
1	D	241	VAL	Peptide
1	D	361	VAL	Peptide
1	D	364	THR	Peptide
1	D	368	SER	Peptide
1	E	361	VAL	Peptide
1	F	361	VAL	Peptide

5.2 Too-close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2691	0	2680	101	0
1	B	2699	0	2687	82	0
1	C	2687	0	2667	91	0
1	D	2699	0	2696	92	0
1	E	2695	0	2684	86	0
1	F	2691	0	2671	82	0
2	A	31	0	0	2	0
2	B	49	0	0	0	0
2	C	39	0	0	0	0
2	D	30	0	0	2	0
2	E	36	0	0	1	0
2	F	39	0	0	1	0
All	All	16386	0	16085	505	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 16.

All (505) 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:B:258:MET:HE1	1:B:264:LEU:HD11	1.25	1.11
1:E:231:ARG:HH11	1:E:231:ARG:HG3	1.17	1.08
1:C:213:GLY:HA3	1:F:214:ARG:NH2	1.71	1.06
1:A:214:ARG:HH22	1:E:213:GLY:HA3	1.16	1.03
1:F:113:THR:HB	1:F:346:HIS:HD2	1.23	1.02
1:B:66:ALA:O	1:B:67:ASP:HB2	1.55	1.01
1:B:47:ASP:HB3	1:B:57:LEU:HD11	1.41	1.01
1:A:252:ASN:ND2	1:A:276:GLU:HG3	1.80	0.97
1:A:66:ALA:O	1:A:67:ASP:HB2	1.64	0.96
1:C:29:ARG:HG3	1:C:29:ARG:HH11	1.31	0.94
1:D:291:HIS:O	1:D:292:ASP:HB2	1.66	0.94
1:F:113:THR:HB	1:F:346:HIS:CD2	2.02	0.94
1:A:156:ARG:HD3	2:A:2026:HOH:O	1.67	0.93
1:C:66:ALA:O	1:C:67:ASP:HB2	1.69	0.92
1:E:112:THR:O	1:E:345:THR:HG22	1.68	0.92

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:29:ARG:HH11	1:B:29:ARG:HG3	1.34	0.90
1:F:66:ALA:O	1:F:67:ASP:HB2	1.70	0.90
1:D:66:ALA:O	1:D:67:ASP:HB2	1.71	0.89
1:A:11:ASN:H	1:A:11:ASN:ND2	1.61	0.89
1:C:152:THR:HG22	1:C:153:GLN:HE21	1.37	0.89
1:D:139:ARG:HE	1:D:182:ASN:ND2	1.71	0.88
1:C:255:VAL:HA	1:C:258:MET:HE3	1.57	0.87
1:A:112:THR:O	1:A:345:THR:HG23	1.73	0.87
1:B:231:ARG:HG3	1:B:231:ARG:HH11	1.38	0.87
1:D:29:ARG:HG3	1:D:29:ARG:HH11	1.40	0.86
1:A:11:ASN:H	1:A:11:ASN:HD22	1.26	0.84
1:A:291:HIS:O	1:A:292:ASP:HB2	1.76	0.84
1:D:349:ALA:HB1	1:D:365:GLU:OE2	1.79	0.83
1:B:354:ARG:O	1:B:358:ASP:HB2	1.78	0.82
1:C:139:ARG:HE	1:C:182:ASN:HD22	1.27	0.82
1:E:231:ARG:HH11	1:E:231:ARG:CG	1.91	0.82
1:D:139:ARG:HE	1:D:182:ASN:HD22	1.23	0.82
1:D:152:THR:HG22	1:D:153:GLN:HE21	1.42	0.82
1:D:112:THR:O	1:D:345:THR:HG22	1.81	0.81
1:E:66:ALA:O	1:E:67:ASP:HB2	1.81	0.81
1:F:201:ILE:HG22	1:F:205:ARG:HH21	1.44	0.81
1:B:362:PRO:O	1:B:363:PHE:CB	2.28	0.80
1:E:149:LEU:HD13	1:E:263:VAL:HG13	1.64	0.80
1:E:214:ARG:HH11	1:E:214:ARG:CG	1.93	0.79
1:B:214:ARG:HH22	1:D:213:GLY:HA3	1.47	0.79
1:B:29:ARG:HH11	1:B:29:ARG:CG	1.95	0.79
1:A:214:ARG:NH2	1:E:213:GLY:HA3	1.97	0.79
1:F:355:VAL:HG13	1:F:359:LEU:HD12	1.64	0.79
1:E:200:ASN:C	1:E:200:ASN:HD22	1.91	0.79
1:F:31:HIS:HE1	1:F:326:ASP:OD1	1.65	0.79
1:B:255:VAL:HB	1:B:258:MET:HE3	1.65	0.79
1:D:66:ALA:HA	1:D:86:ARG:HE	1.47	0.79
1:E:271:GLN:O	1:E:271:GLN:HG2	1.83	0.78
1:C:253:SER:O	1:C:257:HIS:HD2	1.66	0.78
1:A:255:VAL:HA	1:A:258:MET:HE3	1.65	0.77
1:C:213:GLY:HA3	1:F:214:ARG:HH22	1.46	0.77
1:A:330:ARG:O	1:A:331:ALA:CB	2.33	0.77
1:C:139:ARG:HE	1:C:182:ASN:ND2	1.82	0.76
1:A:353:GLU:OE2	1:A:364:THR:HG21	1.84	0.76
1:F:255:VAL:HA	1:F:258:MET:HE3	1.67	0.76
1:C:186:ILE:HG22	1:C:190:MET:HE2	1.67	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:213:GLY:CA	1:F:214:ARG:NH2	2.49	0.76
1:E:291:HIS:O	1:E:292:ASP:HB2	1.84	0.76
1:B:330:ARG:O	1:B:331:ALA:CB	2.33	0.75
1:D:112:THR:O	1:D:345:THR:CG2	2.35	0.75
1:A:213:GLY:HA3	1:E:214:ARG:NH2	2.02	0.75
1:A:31:HIS:HE1	1:A:326:ASP:OD1	1.70	0.75
1:A:112:THR:O	1:A:345:THR:CG2	2.35	0.75
1:E:139:ARG:HE	1:E:182:ASN:ND2	1.84	0.74
1:B:330:ARG:O	1:B:331:ALA:HB3	1.86	0.74
1:E:2:ARG:HG3	1:E:32:GLU:HB3	1.69	0.74
1:D:229:VAL:CG1	1:D:258:MET:HE2	2.18	0.74
1:D:255:VAL:HA	1:D:258:MET:HE3	1.70	0.74
1:E:255:VAL:HB	1:E:258:MET:HE3	1.70	0.74
1:A:66:ALA:O	1:A:67:ASP:CB	2.36	0.74
1:C:353:GLU:OE2	1:C:364:THR:HG21	1.87	0.73
1:A:149:LEU:HD13	1:A:263:VAL:CG1	2.19	0.72
1:C:330:ARG:O	1:C:331:ALA:HB3	1.90	0.72
1:D:330:ARG:O	1:D:331:ALA:HB3	1.88	0.72
1:A:200:ASN:HD22	1:A:203:LYS:H	1.37	0.71
1:A:330:ARG:O	1:A:331:ALA:HB3	1.88	0.71
1:B:139:ARG:HE	1:B:182:ASN:ND2	1.88	0.71
1:B:218:ARG:HH21	1:D:167:GLU:CD	1.99	0.71
1:D:149:LEU:HD13	1:D:263:VAL:HG13	1.71	0.71
1:F:354:ARG:O	1:F:358:ASP:HB2	1.91	0.71
1:E:104:THR:O	1:E:108:LEU:HG	1.91	0.70
1:F:201:ILE:CG2	1:F:205:ARG:HH21	2.03	0.70
1:E:152:THR:HG22	1:E:153:GLN:HE21	1.56	0.70
1:C:10:LYS:HE3	1:C:76:GLU:OE2	1.92	0.70
1:C:255:VAL:HB	1:C:258:MET:HE3	1.74	0.70
1:F:200:ASN:C	1:F:200:ASN:HD22	2.00	0.69
1:C:29:ARG:HG3	1:C:29:ARG:NH1	2.00	0.69
1:F:355:VAL:O	1:F:359:LEU:HB2	1.91	0.69
1:F:334:ARG:HG2	1:F:370:LEU:HD23	1.75	0.69
1:D:47:ASP:HB3	1:D:57:LEU:HD11	1.74	0.69
1:F:258:MET:HE1	1:F:264:LEU:HD11	1.75	0.69
1:C:152:THR:HG22	1:C:153:GLN:NE2	2.08	0.68
1:B:235:VAL:HB	1:B:264:LEU:HD13	1.75	0.68
1:B:255:VAL:HA	1:B:258:MET:HG3	1.76	0.68
1:B:271:GLN:O	1:B:271:GLN:HG3	1.93	0.67
1:A:240:LEU:HD11	1:A:267:ILE:HG22	1.76	0.67
1:E:139:ARG:HE	1:E:182:ASN:HD22	1.42	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:199:ILE:HD13	1:D:199:ILE:H	1.59	0.67
1:E:255:VAL:HA	1:E:258:MET:HE3	1.76	0.66
1:D:330:ARG:O	1:D:331:ALA:CB	2.42	0.66
1:A:114:SER:H	1:A:345:THR:HG22	1.60	0.66
1:A:258:MET:HE1	1:A:264:LEU:HD11	1.76	0.66
1:C:258:MET:HE1	1:C:264:LEU:HD11	1.76	0.66
1:B:66:ALA:O	1:B:67:ASP:CB	2.37	0.66
1:B:113:THR:HB	1:B:346:HIS:HD2	1.61	0.66
1:D:114:SER:OG	1:D:345:THR:HB	1.96	0.66
1:D:205:ARG:HD3	1:F:135:GLU:OE2	1.96	0.66
1:A:252:ASN:ND2	1:A:276:GLU:CG	2.58	0.65
1:F:291:HIS:O	1:F:292:ASP:HB2	1.96	0.65
1:C:100:SER:OG	1:C:103:CYS:HB2	1.96	0.65
1:D:152:THR:CG2	1:D:153:GLN:HE21	2.10	0.65
1:C:364:THR:HG22	1:C:365:GLU:N	2.12	0.65
1:B:113:THR:HB	1:B:346:HIS:CD2	2.32	0.65
1:C:254:LEU:HD13	1:C:254:LEU:C	2.22	0.65
1:D:66:ALA:O	1:D:67:ASP:CB	2.44	0.65
1:F:271:GLN:CG	1:F:271:GLN:O	2.45	0.65
1:A:11:ASN:HD22	1:A:11:ASN:N	1.93	0.64
1:C:119:THR:OG1	1:C:342:GLY:HA2	1.97	0.64
1:F:330:ARG:O	1:F:331:ALA:HB3	1.97	0.64
1:A:200:ASN:ND2	1:A:203:LYS:H	1.95	0.64
1:E:214:ARG:HH11	1:E:214:ARG:HG2	1.62	0.64
1:A:31:HIS:CE1	1:A:326:ASP:OD1	2.50	0.64
1:C:152:THR:CG2	1:C:153:GLN:HE21	2.09	0.64
1:C:330:ARG:O	1:C:331:ALA:CB	2.44	0.64
1:A:149:LEU:HD13	1:A:263:VAL:HG13	1.79	0.64
1:A:152:THR:HG22	1:A:153:GLN:NE2	2.13	0.64
1:C:267:ILE:HG22	1:C:267:ILE:O	1.98	0.64
1:B:7:THR:H	1:B:36:GLN:NE2	1.96	0.63
1:D:291:HIS:O	1:D:292:ASP:CB	2.37	0.63
1:A:251:SER:HA	1:A:276:GLU:HG2	1.81	0.63
1:B:366:PRO:O	1:B:367:ALA:HB2	1.99	0.63
1:D:31:HIS:HE1	1:D:326:ASP:OD1	1.80	0.63
1:D:26:LEU:HD13	1:D:322:LEU:HD23	1.79	0.63
1:E:26:LEU:CD1	1:E:322:LEU:HD23	2.28	0.63
1:B:112:THR:O	1:B:345:THR:CG2	2.46	0.63
1:C:271:GLN:HG3	1:C:271:GLN:O	1.96	0.63
1:D:186:ILE:HG22	1:D:190:MET:HE2	1.79	0.63
1:A:107:LEU:HD22	1:A:112:THR:HG21	1.80	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:147:TYR:O	1:D:150:MET:HG3	1.99	0.62
1:D:235:VAL:HB	1:D:264:LEU:HD13	1.81	0.62
1:A:196:VAL:HG11	1:A:207:LEU:HD23	1.81	0.62
1:F:10:LYS:HE3	1:F:76:GLU:OE2	1.98	0.62
1:A:86:ARG:HH11	1:A:86:ARG:HB3	1.65	0.62
1:C:188:ASN:HD21	1:C:214:ARG:HD2	1.65	0.61
1:A:186:ILE:HG22	1:A:190:MET:HE2	1.83	0.61
1:C:255:VAL:CA	1:C:258:MET:HE3	2.27	0.61
1:E:152:THR:HG22	1:E:153:GLN:NE2	2.15	0.61
1:F:330:ARG:O	1:F:331:ALA:CB	2.48	0.61
1:F:95:LEU:HD12	1:F:116:ALA:HB2	1.82	0.61
1:A:354:ARG:O	1:A:358:ASP:HB2	2.00	0.61
1:B:211:PHE:CD1	1:B:215:ILE:HD12	2.36	0.61
1:E:112:THR:O	1:E:345:THR:CG2	2.44	0.61
1:F:87:HIS:HE1	1:F:347:GLU:OE2	1.82	0.61
1:A:113:THR:HB	1:A:346:HIS:HD2	1.64	0.61
1:B:231:ARG:HG3	1:B:231:ARG:NH1	2.08	0.61
1:A:152:THR:HG22	1:A:153:GLN:HE21	1.65	0.61
1:E:82:TYR:HA	1:E:85:LEU:HD22	1.83	0.61
1:B:139:ARG:HE	1:B:182:ASN:HD22	1.46	0.61
1:D:113:THR:HB	1:D:346:HIS:HD2	1.64	0.61
1:C:75:LYS:NZ	1:C:300:ASN:HD21	1.99	0.60
1:A:139:ARG:HE	1:A:182:ASN:ND2	1.98	0.60
1:A:168:PRO:HG2	1:A:193:THR:HG22	1.83	0.60
1:C:149:LEU:HD13	1:C:263:VAL:HG13	1.83	0.60
1:F:271:GLN:O	1:F:271:GLN:HG3	2.02	0.60
1:D:271:GLN:O	1:D:271:GLN:HG3	2.01	0.60
1:B:29:ARG:HG3	1:B:29:ARG:NH1	2.07	0.60
1:B:152:THR:CG2	1:B:153:GLN:HE21	2.14	0.60
1:E:168:PRO:HG2	1:E:193:THR:HG22	1.84	0.60
1:E:362:PRO:O	1:E:363:PHE:CB	2.50	0.59
1:F:139:ARG:HE	1:F:182:ASN:ND2	1.99	0.59
1:C:252:ASN:HA	1:C:255:VAL:HG13	1.83	0.59
1:C:255:VAL:CB	1:C:258:MET:HE3	2.32	0.59
1:D:29:ARG:HG3	1:D:29:ARG:NH1	2.12	0.59
1:A:105:ASP:O	1:A:109:ASP:HB2	2.03	0.59
1:F:230:LYS:HE2	2:F:2031:HOH:O	2.02	0.59
1:E:66:ALA:O	1:E:67:ASP:CB	2.48	0.59
1:A:291:HIS:O	1:A:292:ASP:CB	2.47	0.59
1:B:168:PRO:HG2	1:B:193:THR:HG22	1.83	0.58
1:C:333:CYS:SG	1:C:340:ALA:HA	2.43	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:135:GLU:OE2	1:B:205:ARG:HD3	2.02	0.58
1:A:252:ASN:HD22	1:A:276:GLU:CD	2.10	0.58
1:C:200:ASN:C	1:C:200:ASN:HD22	2.10	0.58
1:A:205:ARG:HG2	1:E:164:PRO:HG2	1.85	0.58
1:D:172:VAL:HG13	1:D:232:ALA:HB2	1.85	0.58
1:C:253:SER:O	1:C:257:HIS:CD2	2.54	0.58
1:E:366:PRO:O	1:E:367:ALA:HB2	2.04	0.58
1:F:31:HIS:CE1	1:F:326:ASP:OD1	2.53	0.58
1:F:139:ARG:HE	1:F:182:ASN:HD22	1.50	0.58
1:A:26:LEU:CD1	1:A:322:LEU:HD23	2.34	0.58
1:A:10:LYS:HG3	1:A:78:ILE:HD11	1.85	0.57
1:E:235:VAL:HB	1:E:264:LEU:HD13	1.85	0.57
1:B:26:LEU:HD13	1:B:322:LEU:HD23	1.85	0.57
1:D:241:VAL:HG11	1:D:246:ALA:H	1.68	0.57
1:F:168:PRO:HG2	1:F:193:THR:HG22	1.85	0.57
1:E:258:MET:HE1	1:E:264:LEU:HD11	1.87	0.57
1:F:334:ARG:CG	1:F:370:LEU:HD23	2.34	0.57
1:B:291:HIS:O	1:B:292:ASP:HB2	2.03	0.57
1:C:2:ARG:HG3	1:C:32:GLU:HB2	1.86	0.57
1:C:267:ILE:O	1:C:267:ILE:CG2	2.51	0.57
1:D:366:PRO:O	1:D:367:ALA:HB2	2.04	0.57
1:E:7:THR:H	1:E:36:GLN:NE2	2.03	0.57
1:E:330:ARG:O	1:E:331:ALA:HB3	2.05	0.57
1:E:349:ALA:HB1	1:E:365:GLU:HG3	1.86	0.57
1:C:168:PRO:HG2	1:C:193:THR:HG22	1.86	0.57
1:B:87:HIS:NE2	1:B:347:GLU:HG2	2.19	0.57
1:A:107:LEU:CD2	1:A:112:THR:HG21	2.35	0.57
1:C:103:CYS:O	1:C:107:LEU:HD23	2.05	0.57
1:E:31:HIS:HE1	1:E:326:ASP:OD1	1.87	0.57
1:A:7:THR:H	1:A:36:GLN:NE2	2.02	0.57
1:A:26:LEU:HD13	1:A:322:LEU:HD23	1.87	0.57
1:E:200:ASN:HD21	1:E:202:ASP:HB2	1.70	0.57
1:E:214:ARG:HH11	1:E:214:ARG:HG3	1.69	0.56
1:E:330:ARG:O	1:E:331:ALA:CB	2.53	0.56
1:F:87:HIS:CE1	1:F:347:GLU:OE2	2.58	0.56
1:A:2:ARG:NH2	1:A:32:GLU:CB	2.69	0.56
1:D:355:VAL:O	1:D:359:LEU:HB2	2.05	0.56
1:B:213:GLY:HA3	1:D:214:ARG:NH2	2.21	0.56
1:A:139:ARG:HE	1:A:182:ASN:HD22	1.51	0.56
1:E:255:VAL:CB	1:E:258:MET:HE3	2.36	0.56
1:C:31:HIS:HE1	1:C:326:ASP:OD1	1.89	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:252:ASN:HA	1:E:255:VAL:HG13	1.88	0.56
1:F:113:THR:CB	1:F:346:HIS:HD2	2.10	0.56
1:A:107:LEU:HD22	1:A:112:THR:CG2	2.36	0.55
1:A:113:THR:HB	1:A:346:HIS:CD2	2.40	0.55
1:F:354:ARG:O	1:F:358:ASP:CB	2.53	0.55
1:A:10:LYS:HG3	1:A:78:ILE:CD1	2.37	0.55
1:C:66:ALA:O	1:C:67:ASP:CB	2.49	0.55
1:D:187:ALA:HA	1:D:190:MET:HE3	1.88	0.55
1:A:114:SER:N	1:A:345:THR:HG22	2.21	0.55
1:E:26:LEU:HD13	1:E:322:LEU:HD23	1.88	0.55
1:E:284:ASP:OD1	1:E:284:ASP:N	2.27	0.55
1:B:199:ILE:HD13	1:B:199:ILE:H	1.71	0.55
1:A:362:PRO:O	1:A:363:PHE:CB	2.55	0.55
1:F:364:THR:HG22	1:F:365:GLU:N	2.22	0.54
1:B:133:MET:HE3	1:B:313:LEU:HB2	1.90	0.54
1:D:229:VAL:HG11	1:D:258:MET:HE2	1.88	0.54
1:F:149:LEU:HD13	1:F:263:VAL:CG1	2.36	0.54
1:D:271:GLN:O	1:D:271:GLN:CG	2.55	0.54
1:B:12:ASN:HB3	1:B:283:TYR:CE1	2.43	0.54
1:B:152:THR:HG23	1:B:153:GLN:HE21	1.73	0.54
1:E:271:GLN:O	1:E:271:GLN:CG	2.56	0.54
1:A:364:THR:HG22	1:A:365:GLU:N	2.22	0.54
1:F:7:THR:H	1:F:36:GLN:NE2	2.06	0.53
1:E:354:ARG:O	1:E:358:ASP:HB2	2.08	0.53
1:A:158:VAL:HG12	1:D:307:LYS:HG2	1.90	0.53
1:A:365:GLU:O	1:A:366:PRO:C	2.51	0.53
1:D:218:ARG:NH1	2:D:2023:HOH:O	2.40	0.53
1:F:172:VAL:CG1	1:F:232:ALA:HB2	2.38	0.53
1:B:114:SER:OG	1:B:345:THR:HB	2.09	0.53
1:C:364:THR:CG2	1:C:365:GLU:N	2.72	0.53
1:B:200:ASN:C	1:B:200:ASN:HD22	2.17	0.52
1:D:113:THR:HB	1:D:346:HIS:CD2	2.44	0.52
1:D:252:ASN:HA	1:D:255:VAL:HG13	1.89	0.52
1:C:32:GLU:N	1:C:32:GLU:OE1	2.42	0.52
1:A:270:ASP:O	1:A:271:GLN:HG2	2.09	0.52
1:D:349:ALA:CB	1:D:365:GLU:OE2	2.56	0.52
1:F:108:LEU:HD22	1:F:348:GLY:O	2.10	0.52
1:A:172:VAL:HG13	1:A:232:ALA:HB2	1.92	0.52
1:D:362:PRO:O	1:D:363:PHE:CB	2.58	0.52
1:E:364:THR:C	1:E:365:GLU:HG2	2.33	0.52
1:B:164:PRO:HG2	1:D:205:ARG:HG2	1.92	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:26:LEU:CD1	1:D:322:LEU:HD23	2.38	0.52
1:F:12:ASN:HD22	1:F:283:TYR:HD1	1.58	0.52
1:A:225:LEU:C	1:A:225:LEU:HD12	2.35	0.52
1:C:205:ARG:HG2	1:F:164:PRO:HG2	1.92	0.52
1:E:149:LEU:HD13	1:E:263:VAL:CG1	2.36	0.52
1:E:87:HIS:NE2	1:E:347:GLU:HG3	2.24	0.51
1:F:366:PRO:O	1:F:367:ALA:HB2	2.10	0.51
1:B:214:ARG:NH2	1:D:213:GLY:HA3	2.20	0.51
1:E:2:ARG:HG3	1:E:32:GLU:CB	2.38	0.51
1:F:63:GLN:O	1:F:66:ALA:O	2.29	0.51
1:F:255:VAL:HB	1:F:258:MET:HE3	1.93	0.50
1:B:256:ALA:HB2	1:B:291:HIS:CD2	2.46	0.50
1:F:149:LEU:HD13	1:F:263:VAL:HG13	1.91	0.50
1:E:231:ARG:HG3	1:E:231:ARG:NH1	1.98	0.50
1:E:231:ARG:CG	1:E:231:ARG:NH1	2.58	0.50
1:C:270:ASP:O	1:C:271:GLN:HG2	2.12	0.50
1:C:366:PRO:O	1:C:367:ALA:HB2	2.12	0.50
1:F:163:VAL:O	1:F:164:PRO:C	2.52	0.50
1:B:112:THR:O	1:B:345:THR:HG22	2.11	0.50
1:B:366:PRO:O	1:B:367:ALA:CB	2.59	0.50
1:E:135:GLU:OE2	1:F:205:ARG:HD3	2.12	0.50
1:E:255:VAL:CA	1:E:258:MET:HE3	2.42	0.50
1:B:214:ARG:HH12	1:D:213:GLY:H	1.59	0.49
1:E:214:ARG:HG2	1:E:214:ARG:NH1	2.27	0.49
1:E:78:ILE:HG13	2:E:2014:HOH:O	2.12	0.49
1:F:229:VAL:CG1	1:F:258:MET:HE2	2.42	0.49
1:A:214:ARG:HH22	1:E:213:GLY:CA	2.06	0.49
1:C:29:ARG:NH1	1:C:29:ARG:CG	2.73	0.49
1:C:350:LEU:HD12	1:C:352:SER:H	1.77	0.49
1:F:201:ILE:CG2	1:F:205:ARG:NH2	2.75	0.49
1:C:254:LEU:HD13	1:C:254:LEU:O	2.12	0.49
1:D:304:SER:C	1:D:306:PRO:HD3	2.37	0.49
1:F:361:VAL:O	1:F:363:PHE:N	2.45	0.49
1:E:15:ARG:NH2	1:E:300:ASN:HD21	2.10	0.49
1:F:255:VAL:CA	1:F:258:MET:HE3	2.39	0.49
1:D:26:LEU:HD13	1:D:322:LEU:CD2	2.42	0.48
1:C:112:THR:O	1:C:345:THR:HG22	2.13	0.48
1:F:201:ILE:HG22	1:F:205:ARG:NH2	2.21	0.48
1:A:200:ASN:HD21	1:A:202:ASP:HB2	1.78	0.48
1:E:200:ASN:C	1:E:200:ASN:ND2	2.65	0.48
1:C:58:VAL:CG1	1:C:63:GLN:HB3	2.44	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:95:LEU:HD12	1:E:116:ALA:HB2	1.94	0.48
1:F:200:ASN:C	1:F:200:ASN:ND2	2.71	0.48
1:D:113:THR:HA	1:D:345:THR:O	2.13	0.48
1:A:47:ASP:HB3	1:A:57:LEU:CD1	2.43	0.48
1:A:255:VAL:CB	1:A:258:MET:HE3	2.44	0.48
1:F:362:PRO:O	1:F:363:PHE:CB	2.61	0.48
1:E:255:VAL:HA	1:E:258:MET:HG3	1.96	0.48
1:F:65:TRP:CD1	1:F:84:ARG:HD3	2.49	0.48
1:B:121:GLN:HB2	1:B:127:LEU:HD23	1.96	0.48
1:B:135:GLU:CD	1:C:205:ARG:HH11	2.22	0.48
1:C:164:PRO:HG2	1:F:205:ARG:HG3	1.96	0.48
1:D:47:ASP:CB	1:D:57:LEU:HD11	2.41	0.48
1:D:149:LEU:HD13	1:D:263:VAL:CG1	2.42	0.48
1:D:366:PRO:O	1:D:367:ALA:CB	2.61	0.48
1:A:255:VAL:CA	1:A:258:MET:HE3	2.38	0.47
1:A:170:ASP:OD2	1:A:170:ASP:C	2.57	0.47
1:B:47:ASP:HB3	1:B:57:LEU:CD1	2.28	0.47
1:B:172:VAL:HG13	1:B:232:ALA:HB2	1.96	0.47
1:E:66:ALA:HA	1:E:86:ARG:HE	1.79	0.47
1:E:225:LEU:C	1:E:225:LEU:HD12	2.38	0.47
1:E:241:VAL:CG2	1:E:242:PRO:HD2	2.44	0.47
1:B:303:ALA:O	1:B:306:PRO:HD3	2.15	0.47
1:F:229:VAL:HG11	1:F:254:LEU:HD13	1.96	0.47
1:B:245:LYS:O	1:B:245:LYS:HG3	2.14	0.47
1:B:253:SER:O	1:B:257:HIS:HD2	1.98	0.47
1:F:329:TRP:CZ2	1:F:346:HIS:CE1	3.03	0.47
1:F:365:GLU:O	1:F:366:PRO:C	2.58	0.47
1:A:255:VAL:HB	1:A:258:MET:HE3	1.97	0.47
1:A:366:PRO:O	1:A:367:ALA:HB2	2.14	0.47
1:B:86:ARG:O	1:B:112:THR:HB	2.15	0.47
1:C:1:MET:HG3	1:C:2:ARG:N	2.30	0.47
1:B:214:ARG:HG2	1:D:214:ARG:HG3	1.98	0.46
1:E:15:ARG:HH22	1:E:300:ASN:HD21	1.63	0.46
1:E:365:GLU:O	1:E:366:PRO:C	2.58	0.46
1:F:2:ARG:HG2	1:F:32:GLU:HB3	1.97	0.46
1:C:152:THR:CG2	1:C:153:GLN:NE2	2.74	0.46
1:E:361:VAL:O	1:E:363:PHE:N	2.49	0.46
1:E:241:VAL:HG23	1:E:242:PRO:HD2	1.98	0.46
1:C:218:ARG:HG2	1:C:224:GLU:HG3	1.98	0.46
1:C:307:LYS:O	1:C:311:TYR:HD1	1.99	0.46
1:F:58:VAL:HG11	1:F:63:GLN:HB3	1.97	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:112:THR:O	1:F:345:THR:HG22	2.15	0.46
1:F:355:VAL:CG1	1:F:359:LEU:HD12	2.41	0.46
1:D:78:ILE:HG22	1:D:81:GLU:HG3	1.98	0.46
1:D:82:TYR:HA	1:D:85:LEU:HD13	1.97	0.46
1:D:105:ASP:HA	1:D:108:LEU:HD11	1.98	0.46
1:B:361:VAL:O	1:B:363:PHE:N	2.48	0.45
1:A:121:GLN:HG3	1:A:127:LEU:CD2	2.46	0.45
1:A:200:ASN:HD22	1:A:200:ASN:C	2.25	0.45
1:C:121:GLN:O	1:C:338:ALA:HA	2.16	0.45
1:A:264:LEU:HB3	1:A:275:PHE:CE1	2.51	0.45
1:B:212:CYS:HB3	1:B:213:GLY:H	1.65	0.45
1:C:1:MET:HG3	1:C:2:ARG:H	1.82	0.45
1:C:131:ALA:HB3	1:C:132:PRO:HD3	1.98	0.45
1:C:350:LEU:HD12	1:C:350:LEU:C	2.42	0.45
1:D:85:LEU:CD2	1:D:107:LEU:HD23	2.46	0.45
1:D:241:VAL:CG1	1:D:246:ALA:H	2.29	0.45
1:A:188:ASN:HD21	1:A:214:ARG:HD3	1.81	0.45
1:A:255:VAL:HA	1:A:258:MET:HG3	1.98	0.45
1:C:36:GLN:HB2	1:C:64:VAL:HG21	1.98	0.45
1:D:25:GLU:OE1	1:D:25:GLU:HA	2.17	0.45
1:A:133:MET:HE2	1:A:133:MET:HA	1.97	0.45
1:A:211:PHE:CD1	1:A:215:ILE:HD12	2.52	0.45
1:C:104:THR:O	1:C:107:LEU:HB2	2.17	0.45
1:D:28:ARG:HE	1:D:28:ARG:HB2	1.59	0.45
1:E:163:VAL:O	1:E:164:PRO:C	2.58	0.45
1:B:186:ILE:HG22	1:B:190:MET:HE2	1.99	0.45
1:C:124:ASP:C	1:C:124:ASP:OD1	2.59	0.45
1:F:255:VAL:CB	1:F:258:MET:HE3	2.46	0.45
1:B:245:LYS:O	1:B:246:ALA:HB3	2.16	0.45
1:D:211:PHE:CD1	1:D:215:ILE:HD12	2.52	0.45
1:E:222:ALA:O	1:E:226:GLU:HG3	2.17	0.45
1:B:213:GLY:H	1:D:214:ARG:HH12	1.65	0.44
1:B:337:PRO:O	1:B:341:LYS:HG2	2.17	0.44
1:C:163:VAL:O	1:C:164:PRO:C	2.59	0.44
1:B:152:THR:HG22	1:B:153:GLN:HE21	1.82	0.44
1:A:121:GLN:HG3	1:A:127:LEU:HD23	2.00	0.44
1:C:269:ILE:HG23	1:C:270:ASP:H	1.82	0.44
1:D:200:ASN:C	1:D:200:ASN:HD22	2.24	0.44
1:D:239:VAL:O	1:D:239:VAL:HG12	2.18	0.44
1:A:119:THR:OG1	1:A:342:GLY:HA2	2.17	0.44
1:A:200:ASN:ND2	1:A:200:ASN:C	2.76	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:271:GLN:O	1:C:271:GLN:CG	2.65	0.44
1:B:214:ARG:CG	1:D:214:ARG:HG3	2.47	0.44
1:D:13:GLU:HG2	1:D:75:LYS:HG3	1.98	0.44
1:A:361:VAL:O	1:A:363:PHE:N	2.50	0.44
1:D:129:LEU:HD13	1:D:317:THR:HG22	1.99	0.44
1:F:235:VAL:HB	1:F:264:LEU:HD13	1.99	0.44
1:A:225:LEU:HD12	1:A:225:LEU:O	2.17	0.44
1:A:239:VAL:HG21	1:A:249:LEU:HD11	1.99	0.44
1:E:101:ARG:HA	1:E:101:ARG:HD2	1.39	0.44
1:E:366:PRO:O	1:E:367:ALA:CB	2.66	0.44
1:F:221:SER:OG	1:F:224:GLU:HB2	2.18	0.44
1:C:361:VAL:O	1:C:363:PHE:N	2.50	0.44
1:D:168:PRO:HG2	1:D:193:THR:CG2	2.48	0.44
1:E:291:HIS:O	1:E:292:ASP:CB	2.52	0.44
1:A:156:ARG:HG2	1:A:158:VAL:HG13	2.00	0.44
1:C:246:ALA:HA	1:C:247:PRO:HD3	1.85	0.44
1:C:269:ILE:HG23	1:C:270:ASP:N	2.32	0.44
1:F:78:ILE:CG2	1:F:79:ALA:N	2.79	0.44
1:B:167:GLU:OE1	1:D:218:ARG:NE	2.51	0.43
1:B:355:VAL:O	1:B:359:LEU:HB2	2.18	0.43
1:C:5:ILE:HA	1:C:6:PRO:HD2	1.84	0.43
1:F:147:TYR:O	1:F:150:MET:HG3	2.18	0.43
1:B:36:GLN:O	1:B:37:ALA:C	2.61	0.43
1:B:368:SER:C	1:B:370:LEU:N	2.77	0.43
1:D:163:VAL:HB	1:D:164:PRO:CD	2.49	0.43
1:C:113:THR:HB	1:C:346:HIS:CD2	2.53	0.43
1:E:23:VAL:HG11	1:E:55:ALA:HB2	2.00	0.43
1:C:187:ALA:HA	1:C:190:MET:HE3	1.99	0.43
1:A:222:ALA:O	1:A:226:GLU:HG3	2.18	0.43
1:B:365:GLU:O	1:B:366:PRO:C	2.62	0.43
1:D:95:LEU:HD12	1:D:116:ALA:HB2	2.01	0.43
1:F:240:LEU:HD11	1:F:267:ILE:HG22	2.01	0.43
1:F:356:ALA:O	1:F:360:GLY:O	2.37	0.43
1:E:159:LEU:O	1:E:160:MET:C	2.59	0.43
1:E:239:VAL:HG21	1:E:249:LEU:CD1	2.49	0.43
1:C:172:VAL:HG13	1:C:232:ALA:HB2	2.01	0.43
1:C:200:ASN:C	1:C:200:ASN:ND2	2.77	0.43
1:A:113:THR:HA	1:A:345:THR:O	2.18	0.42
1:A:163:VAL:O	1:A:164:PRO:C	2.61	0.42
1:B:2:ARG:HG3	1:B:32:GLU:HB2	2.00	0.42
1:C:5:ILE:HG13	1:C:72:LEU:HB2	2.00	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:29:ARG:CG	1:B:29:ARG:NH1	2.64	0.42
1:D:63:GLN:O	1:D:66:ALA:O	2.37	0.42
1:B:139:ARG:HH21	1:B:182:ASN:HD21	1.67	0.42
1:C:353:GLU:OE2	1:C:364:THR:CG2	2.64	0.42
1:C:354:ARG:O	1:C:358:ASP:HB2	2.18	0.42
1:A:210:GLU:HG2	1:A:211:PHE:CE1	2.54	0.42
1:C:365:GLU:O	1:C:366:PRO:C	2.62	0.42
1:D:168:PRO:HG2	1:D:193:THR:HG22	2.00	0.42
1:F:12:ASN:HA	1:F:14:PHE:CE2	2.55	0.42
1:A:248:LYS:HD2	1:A:276:GLU:HA	2.02	0.42
1:E:82:TYR:HA	1:E:85:LEU:CD2	2.49	0.42
1:E:113:THR:HB	1:E:346:HIS:CD2	2.54	0.42
1:F:246:ALA:HB2	1:F:271:GLN:HE21	1.84	0.42
1:B:113:THR:HA	1:B:345:THR:O	2.20	0.42
1:D:75:LYS:HE2	1:D:75:LYS:HA	2.02	0.42
1:E:28:ARG:NH2	1:F:222:ALA:HB3	2.35	0.42
1:A:239:VAL:HG21	1:A:249:LEU:CD1	2.50	0.42
1:A:241:VAL:HG23	1:A:246:ALA:HA	2.02	0.42
1:C:254:LEU:HD22	1:C:254:LEU:HA	1.87	0.42
1:C:296:TYR:C	1:C:296:TYR:CD2	2.98	0.42
1:D:92:PHE:CD1	1:D:115:ILE:HB	2.55	0.42
1:B:78:ILE:HD12	1:B:78:ILE:HA	1.75	0.41
1:D:301:MET:N	1:D:302:PRO:CD	2.83	0.41
1:C:1:MET:O	1:C:31:HIS:HD2	2.03	0.41
1:A:26:LEU:HD13	1:A:322:LEU:CD2	2.49	0.41
1:A:63:GLN:O	1:A:66:ALA:O	2.38	0.41
1:A:296:TYR:CD2	1:A:296:TYR:C	2.97	0.41
1:B:205:ARG:HG2	1:D:164:PRO:HG2	2.01	0.41
1:B:296:TYR:C	1:B:296:TYR:CD2	2.99	0.41
1:D:163:VAL:O	1:D:164:PRO:C	2.62	0.41
1:D:200:ASN:C	1:D:200:ASN:ND2	2.78	0.41
1:E:343:LEU:HA	1:E:343:LEU:HD23	1.70	0.41
1:A:65:TRP:CD1	1:A:84:ARG:HD3	2.56	0.41
1:B:268:ALA:O	1:B:270:ASP:O	2.39	0.41
1:B:271:GLN:O	1:B:271:GLN:CG	2.67	0.41
1:C:115:ILE:HG23	1:C:342:GLY:C	2.45	0.41
1:D:211:PHE:HB2	2:D:2021:HOH:O	2.19	0.41
1:B:252:ASN:HA	1:B:255:VAL:HG13	2.01	0.41
1:C:100:SER:O	1:C:104:THR:OG1	2.37	0.41
1:D:67:ASP:H	1:D:86:ARG:HH21	1.68	0.41
1:E:336:ASN:HA	1:E:337:PRO:HD2	1.88	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:130:LEU:O	1:F:131:ALA:C	2.62	0.41
1:E:4:GLY:C	1:E:5:ILE:HD12	2.46	0.41
1:A:12:ASN:HA	1:A:14:PHE:CZ	2.56	0.41
1:C:26:LEU:HD13	1:C:322:LEU:HD23	2.02	0.41
1:A:66:ALA:HA	1:A:86:ARG:HE	1.84	0.41
1:A:271:GLN:HG3	1:A:271:GLN:O	2.21	0.41
1:C:90:ILE:HA	1:C:113:THR:O	2.21	0.41
1:C:147:TYR:O	1:C:150:MET:HG3	2.20	0.41
1:C:157:GLY:HA3	1:E:306:PRO:HD2	2.03	0.41
1:D:140:LEU:HD23	1:D:140:LEU:HA	1.91	0.41
1:E:7:THR:H	1:E:36:GLN:HE21	1.68	0.41
1:E:343:LEU:HD13	1:E:351:LEU:HD13	2.03	0.41
1:F:26:LEU:HD12	1:F:26:LEU:HA	1.94	0.41
1:F:78:ILE:HG23	1:F:79:ALA:N	2.36	0.41
1:F:197:LEU:HD23	1:F:220:SER:HA	2.03	0.41
1:F:248:LYS:HD3	1:F:276:GLU:HA	2.03	0.41
1:F:331:ALA:H	1:F:334:ARG:HG3	1.86	0.41
1:A:47:ASP:HB3	1:A:57:LEU:HD13	2.03	0.41
1:C:4:GLY:C	1:C:5:ILE:HD12	2.46	0.41
1:A:25:GLU:HG2	2:A:2006:HOH:O	2.21	0.40
1:A:86:ARG:HB3	1:A:86:ARG:NH1	2.33	0.40
1:C:175:GLY:O	1:C:180:GLY:HA3	2.20	0.40
1:D:36:GLN:O	1:D:37:ALA:C	2.62	0.40
1:D:156:ARG:HG2	1:D:158:VAL:HG12	2.03	0.40
1:F:159:LEU:O	1:F:160:MET:C	2.63	0.40
1:F:172:VAL:HG13	1:F:232:ALA:HB2	2.02	0.40
1:B:254:LEU:O	1:B:254:LEU:HD22	2.22	0.40
1:C:95:LEU:HD23	1:C:95:LEU:HA	1.62	0.40
1:D:211:PHE:CE1	1:D:215:ILE:HD12	2.56	0.40
1:D:361:VAL:O	1:D:363:PHE:N	2.54	0.40
1:E:86:ARG:HH11	1:E:86:ARG:HB3	1.86	0.40
1:B:213:GLY:HA3	1:D:214:ARG:HH22	1.85	0.40
1:A:11:ASN:ND2	1:A:11:ASN:N	2.40	0.40
1:B:63:GLN:O	1:B:66:ALA:O	2.40	0.40
1:B:101:ARG:NH2	1:B:359:LEU:O	2.54	0.40
1:D:105:ASP:O	1:D:108:LEU:HD12	2.21	0.40
1:E:63:GLN:O	1:E:66:ALA:O	2.40	0.40
1:E:275:PHE:CD2	1:E:275:PHE:N	2.88	0.40
1:F:296:TYR:C	1:F:296:TYR:CD2	3.00	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	369/371 (100%)	343 (93%)	18 (5%)	8 (2%)	5	10
1	B	369/371 (100%)	349 (95%)	11 (3%)	9 (2%)	4	9
1	C	369/371 (100%)	342 (93%)	17 (5%)	10 (3%)	4	7
1	D	369/371 (100%)	348 (94%)	13 (4%)	8 (2%)	5	10
1	E	369/371 (100%)	343 (93%)	17 (5%)	9 (2%)	4	9
1	F	369/371 (100%)	347 (94%)	14 (4%)	8 (2%)	5	10
All	All	2214/2226 (100%)	2072 (94%)	90 (4%)	52 (2%)	5	9

All (52) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	67	ASP
1	A	331	ALA
1	A	362	PRO
1	A	363	PHE
1	A	367	ALA
1	A	368	SER
1	B	242	PRO
1	B	331	ALA
1	B	362	PRO
1	B	363	PHE
1	B	367	ALA
1	B	368	SER
1	C	242	PRO
1	C	331	ALA
1	C	362	PRO
1	C	367	ALA
1	C	368	SER
1	D	67	ASP
1	D	331	ALA
1	D	362	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	D	367	ALA
1	D	368	SER
1	E	331	ALA
1	E	362	PRO
1	E	363	PHE
1	E	367	ALA
1	E	368	SER
1	F	331	ALA
1	F	362	PRO
1	F	367	ALA
1	F	368	SER
1	B	67	ASP
1	C	67	ASP
1	C	363	PHE
1	D	363	PHE
1	E	67	ASP
1	F	67	ASP
1	F	363	PHE
1	A	246	ALA
1	B	246	ALA
1	C	246	ALA
1	D	246	ALA
1	E	246	ALA
1	F	246	ALA
1	D	361	VAL
1	C	80	ALA
1	B	361	VAL
1	C	361	VAL
1	E	361	VAL
1	A	361	VAL
1	E	242	PRO
1	F	361	VAL

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	269/276 (98%)	229 (85%)	40 (15%)	3	5
1	B	270/276 (98%)	233 (86%)	37 (14%)	3	7
1	C	268/276 (97%)	228 (85%)	40 (15%)	3	5
1	D	271/276 (98%)	231 (85%)	40 (15%)	3	6
1	E	270/276 (98%)	223 (83%)	47 (17%)	2	3
1	F	268/276 (97%)	229 (85%)	39 (15%)	3	6
All	All	1616/1656 (98%)	1373 (85%)	243 (15%)	3	5

All (243) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	1	MET
1	A	11	ASN
1	A	26	LEU
1	A	35	ILE
1	A	58	VAL
1	A	71	LEU
1	A	73	LYS
1	A	78	ILE
1	A	109	ASP
1	A	113	THR
1	A	149	LEU
1	A	151	ARG
1	A	152	THR
1	A	158	VAL
1	A	167	GLU
1	A	172	VAL
1	A	193	THR
1	A	196	VAL
1	A	199	ILE
1	A	200	ASN
1	A	201	ILE
1	A	203	LYS
1	A	212	CYS
1	A	214	ARG
1	A	225	LEU
1	A	230	LYS
1	A	234	LEU
1	A	241	VAL
1	A	245	LYS
1	A	254	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	255	VAL
1	A	259	LYS
1	A	263	VAL
1	A	264	LEU
1	A	284	ASP
1	A	305	VAL
1	A	345	THR
1	A	353	GLU
1	A	359	LEU
1	A	370	LEU
1	B	1	MET
1	B	11	ASN
1	B	26	LEU
1	B	29	ARG
1	B	32	GLU
1	B	57	LEU
1	B	58	VAL
1	B	67	ASP
1	B	78	ILE
1	B	85	LEU
1	B	113	THR
1	B	149	LEU
1	B	151	ARG
1	B	152	THR
1	B	158	VAL
1	B	167	GLU
1	B	172	VAL
1	B	193	THR
1	B	196	VAL
1	B	199	ILE
1	B	200	ASN
1	B	207	LEU
1	B	212	CYS
1	B	214	ARG
1	B	231	ARG
1	B	234	LEU
1	B	245	LYS
1	B	254	LEU
1	B	255	VAL
1	B	263	VAL
1	B	264	LEU
1	B	270	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	B	271	GLN
1	B	339	LEU
1	B	345	THR
1	B	359	LEU
1	B	364	THR
1	C	1	MET
1	C	11	ASN
1	C	18	ILE
1	C	26	LEU
1	C	27	THR
1	C	41	GLU
1	C	51	LYS
1	C	71	LEU
1	C	78	ILE
1	C	103	CYS
1	C	104	THR
1	C	108	LEU
1	C	113	THR
1	C	151	ARG
1	C	152	THR
1	C	156	ARG
1	C	158	VAL
1	C	172	VAL
1	C	193	THR
1	C	196	VAL
1	C	207	LEU
1	C	212	CYS
1	C	214	ARG
1	C	216	HIS
1	C	218	ARG
1	C	226	GLU
1	C	234	LEU
1	C	255	VAL
1	C	263	VAL
1	C	264	LEU
1	C	284	ASP
1	C	292	ASP
1	C	300	ASN
1	C	310	THR
1	C	330	ARG
1	C	333	CYS
1	C	350	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	C	351	LEU
1	C	353	GLU
1	C	368	SER
1	D	1	MET
1	D	11	ASN
1	D	26	LEU
1	D	29	ARG
1	D	41	GLU
1	D	51	LYS
1	D	56	GLN
1	D	57	LEU
1	D	71	LEU
1	D	78	ILE
1	D	91	LEU
1	D	108	LEU
1	D	113	THR
1	D	134	SER
1	D	149	LEU
1	D	152	THR
1	D	158	VAL
1	D	172	VAL
1	D	193	THR
1	D	196	VAL
1	D	197	LEU
1	D	199	ILE
1	D	203	LYS
1	D	212	CYS
1	D	214	ARG
1	D	225	LEU
1	D	230	LYS
1	D	234	LEU
1	D	254	LEU
1	D	255	VAL
1	D	263	VAL
1	D	264	LEU
1	D	271	GLN
1	D	278	SER
1	D	284	ASP
1	D	309	SER
1	D	339	LEU
1	D	345	THR
1	D	359	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	D	364	THR
1	E	2	ARG
1	E	11	ASN
1	E	26	LEU
1	E	58	VAL
1	E	63	GLN
1	E	71	LEU
1	E	75	LYS
1	E	78	ILE
1	E	85	LEU
1	E	101	ARG
1	E	109	ASP
1	E	113	THR
1	E	130	LEU
1	E	149	LEU
1	E	151	ARG
1	E	152	THR
1	E	156	ARG
1	E	158	VAL
1	E	164	PRO
1	E	172	VAL
1	E	193	THR
1	E	196	VAL
1	E	197	LEU
1	E	200	ASN
1	E	207	LEU
1	E	212	CYS
1	E	214	ARG
1	E	218	ARG
1	E	225	LEU
1	E	231	ARG
1	E	234	LEU
1	E	245	LYS
1	E	253	SER
1	E	254	LEU
1	E	255	VAL
1	E	263	VAL
1	E	264	LEU
1	E	269	ILE
1	E	271	GLN
1	E	276	GLU
1	E	309	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	E	339	LEU
1	E	345	THR
1	E	347	GLU
1	E	364	THR
1	E	365	GLU
1	E	370	LEU
1	F	1	MET
1	F	10	LYS
1	F	11	ASN
1	F	18	ILE
1	F	26	LEU
1	F	41	GLU
1	F	51	LYS
1	F	63	GLN
1	F	71	LEU
1	F	78	ILE
1	F	85	LEU
1	F	113	THR
1	F	149	LEU
1	F	151	ARG
1	F	152	THR
1	F	158	VAL
1	F	167	GLU
1	F	172	VAL
1	F	190	MET
1	F	193	THR
1	F	196	VAL
1	F	199	ILE
1	F	200	ASN
1	F	203	LYS
1	F	205	ARG
1	F	218	ARG
1	F	225	LEU
1	F	234	LEU
1	F	254	LEU
1	F	255	VAL
1	F	263	VAL
1	F	264	LEU
1	F	271	GLN
1	F	294	LEU
1	F	305	VAL
1	F	347	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	F	359	LEU
1	F	365	GLU
1	F	368	SER

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (71) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	11	ASN
1	A	12	ASN
1	A	31	HIS
1	A	36	GLN
1	A	56	GLN
1	A	63	GLN
1	A	89	GLN
1	A	121	GLN
1	A	153	GLN
1	A	182	ASN
1	A	200	ASN
1	A	252	ASN
1	A	257	HIS
1	A	346	HIS
1	B	12	ASN
1	B	31	HIS
1	B	36	GLN
1	B	56	GLN
1	B	63	GLN
1	B	121	GLN
1	B	153	GLN
1	B	182	ASN
1	B	200	ASN
1	B	257	HIS
1	B	271	GLN
1	B	285	HIS
1	B	300	ASN
1	B	336	ASN
1	B	346	HIS
1	C	11	ASN
1	C	31	HIS
1	C	36	GLN
1	C	89	GLN
1	C	121	GLN
1	C	153	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	C	182	ASN
1	C	188	ASN
1	C	200	ASN
1	C	257	HIS
1	C	291	HIS
1	C	300	ASN
1	C	327	HIS
1	C	346	HIS
1	D	11	ASN
1	D	31	HIS
1	D	63	GLN
1	D	143	GLN
1	D	153	GLN
1	D	182	ASN
1	D	200	ASN
1	D	300	ASN
1	D	346	HIS
1	E	31	HIS
1	E	36	GLN
1	E	89	GLN
1	E	153	GLN
1	E	182	ASN
1	E	200	ASN
1	E	300	ASN
1	F	31	HIS
1	F	36	GLN
1	F	63	GLN
1	F	87	HIS
1	F	143	GLN
1	F	182	ASN
1	F	200	ASN
1	F	257	HIS
1	F	271	GLN
1	F	291	HIS
1	F	300	ASN
1	F	346	HIS

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
1	A	371/371 (100%)	-0.04	15 (4%)	42	37	16, 37, 62, 77	0
1	B	371/371 (100%)	0.03	18 (4%)	35	29	16, 36, 61, 77	0
1	C	371/371 (100%)	0.26	30 (8%)	18	14	15, 37, 62, 77	0
1	D	371/371 (100%)	0.05	21 (5%)	29	24	16, 37, 62, 77	0
1	E	371/371 (100%)	0.25	31 (8%)	17	13	15, 36, 62, 77	0
1	F	371/371 (100%)	-0.05	16 (4%)	40	34	15, 37, 62, 77	0
All	All	2226/2226 (100%)	0.08	131 (5%)	28	23	15, 37, 62, 77	0

All (131) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	E	361	VAL	6.9
1	E	363	PHE	6.8
1	E	362	PRO	5.9
1	E	364	THR	5.2
1	C	371	ALA	5.1
1	E	371	ALA	4.8
1	A	371	ALA	4.8
1	B	364	THR	4.7
1	B	371	ALA	4.6
1	F	371	ALA	4.6
1	B	360	GLY	4.5
1	D	363	PHE	4.5
1	E	365	GLU	4.4
1	B	367	ALA	4.3
1	A	360	GLY	4.1
1	E	359	LEU	4.1
1	E	369	VAL	4.0
1	E	350	LEU	4.0
1	E	366	PRO	3.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	E	356	ALA	3.9
1	C	108	LEU	3.9
1	D	370	LEU	3.7
1	D	371	ALA	3.7
1	B	363	PHE	3.7
1	E	360	GLY	3.6
1	B	361	VAL	3.6
1	E	370	LEU	3.5
1	A	244	ALA	3.4
1	F	369	VAL	3.4
1	B	366	PRO	3.4
1	C	363	PHE	3.4
1	C	366	PRO	3.3
1	A	367	ALA	3.3
1	B	362	PRO	3.3
1	D	12	ASN	3.3
1	D	242	PRO	3.2
1	A	361	VAL	3.2
1	C	98	ALA	3.2
1	C	355	VAL	3.2
1	E	357	THR	3.1
1	C	349	ALA	3.0
1	A	366	PRO	3.0
1	C	359	LEU	3.0
1	C	87	HIS	3.0
1	E	368	SER	3.0
1	B	244	ALA	3.0
1	C	351	LEU	2.9
1	C	354	ARG	2.9
1	C	364	THR	2.9
1	F	366	PRO	2.9
1	D	367	ALA	2.9
1	F	356	ALA	2.9
1	B	369	VAL	2.9
1	F	12	ASN	2.8
1	E	108	LEU	2.8
1	C	370	LEU	2.8
1	D	366	PRO	2.8
1	D	244	ALA	2.8
1	D	88	GLY	2.7
1	C	357	THR	2.7
1	E	66	ALA	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	D	360	GLY	2.7
1	E	102	ALA	2.7
1	E	349	ALA	2.7
1	E	242	PRO	2.7
1	E	367	ALA	2.7
1	C	362	PRO	2.7
1	E	354	ARG	2.6
1	C	365	GLU	2.6
1	B	365	GLU	2.6
1	E	355	VAL	2.6
1	F	361	VAL	2.6
1	F	367	ALA	2.6
1	D	369	VAL	2.5
1	C	356	ALA	2.5
1	C	346	HIS	2.5
1	E	331	ALA	2.5
1	D	213	GLY	2.5
1	F	244	ALA	2.5
1	D	354	ARG	2.4
1	B	370	LEU	2.4
1	C	113	THR	2.4
1	D	368	SER	2.4
1	F	365	GLU	2.4
1	E	244	ALA	2.4
1	C	350	LEU	2.4
1	E	351	LEU	2.4
1	D	349	ALA	2.4
1	A	12	ASN	2.4
1	F	212	CYS	2.4
1	B	368	SER	2.3
1	C	103	CYS	2.3
1	E	345	THR	2.3
1	A	368	SER	2.3
1	F	368	SER	2.3
1	F	362	PRO	2.3
1	D	355	VAL	2.3
1	C	102	ALA	2.3
1	A	223	TYR	2.3
1	A	348	GLY	2.3
1	D	359	LEU	2.3
1	B	99	ALA	2.3
1	E	98	ALA	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	D	364	THR	2.2
1	A	242	PRO	2.2
1	D	362	PRO	2.2
1	D	243	GLY	2.2
1	B	245	LYS	2.2
1	A	370	LEU	2.2
1	B	331	ALA	2.2
1	C	123	ALA	2.2
1	C	340	ALA	2.2
1	B	12	ASN	2.2
1	A	369	VAL	2.2
1	C	368	SER	2.2
1	C	329	TRP	2.1
1	C	353	GLU	2.1
1	F	357	THR	2.1
1	F	359	LEU	2.1
1	C	79	ALA	2.1
1	D	283	TYR	2.1
1	E	83	GLY	2.1
1	A	355	VAL	2.1
1	C	110	SER	2.1
1	C	347	GLU	2.1
1	E	99	ALA	2.1
1	F	87	HIS	2.1
1	F	243	GLY	2.1
1	B	241	VAL	2.0
1	E	340	ALA	2.0
1	A	213	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 oligosaccharides in this entry.

6.4 Ligands [i](#)

There are no ligands in this entry.

6.5 Other polymers [i](#)

There are no such residues in this entry.