Full wwPDB X-ray Structure Validation Report ⓘ

Dec 3, 2024 – 03:05 pm GMT

PDB ID	:	9ETJ
Title	:	Mouse CNPase catalytic domain with nanobody 10E
Authors	:	Markusson, S.; Raasakka, A.; Opazo, F.; Kursula, P.
Deposited on	:	2024-03-26
Resolution	:	2.55 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:

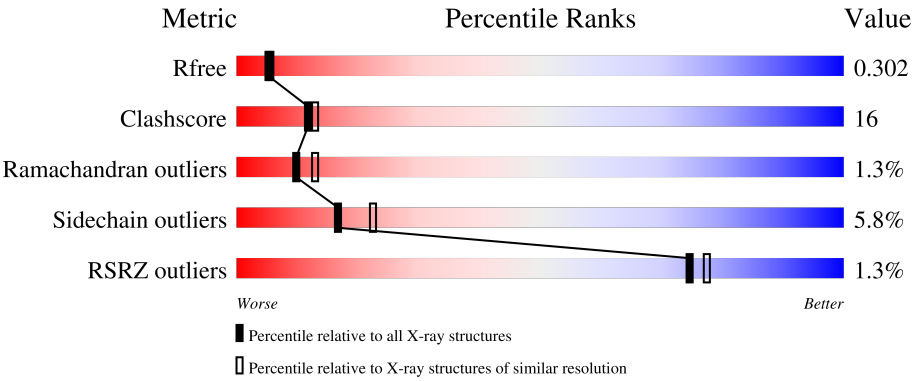
MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.13
EDS	:	3.0
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.003 (Gargrove)
Density-Fitness	:	1.0.11
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation 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 2.55 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	1004 (2.54-2.54)
Clashscore	180529	1055 (2.54-2.54)
Ramachandran outliers	177936	1048 (2.54-2.54)
Sidechain outliers	177891	1048 (2.54-2.54)
RSRZ outliers	164620	1004 (2.54-2.54)

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	220	2% 61% 28% 7%
1	B	220	2% 66% 25% 7%
1	E	220	% 61% 31%
1	G	220	% 67% 26%
2	C	131	57% 36% 5%

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Mol	Chain	Length	Quality of chain
2	D	131	2% 59% 34% 5%
2	F	131	% 64% 31%
2	H	131	62% 34%

2 Entry composition (i)

There are 3 unique types of molecules in this entry. The entry contains 20778 atoms, of which 10284 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 2',3'-cyclic-nucleotide 3'-phosphodiesterase.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	A	204	Total	C	H	N	O	S	0	0	0
			3198	1026	1610	268	289	5			
1	B	205	Total	C	H	N	O	S	0	0	0
			3215	1032	1621	269	288	5			
1	E	211	Total	C	H	N	O	S	0	0	0
			3306	1060	1664	276	301	5			
1	G	211	Total	C	H	N	O	S	0	0	0
			3306	1060	1664	276	301	5			

- Molecule 2 is a protein called Chains: C,D,F,H.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
2	C	130	Total	C	H	N	O	S	0	0	0
			1932	630	929	170	199	4			
2	D	130	Total	C	H	N	O	S	0	0	0
			1932	630	929	170	199	4			
2	F	130	Total	C	H	N	O	S	0	0	0
			1932	630	929	170	199	4			
2	H	131	Total	C	H	N	O	S	0	0	0
			1950	635	938	171	202	4			

- Molecule 3 is CALCIUM ION (three-letter code: CA) (formula: Ca).

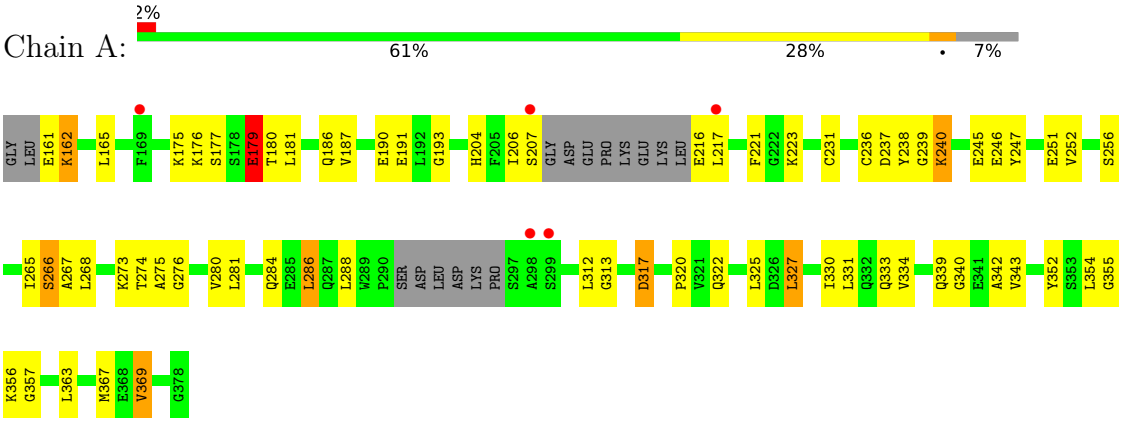
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	C	2	Total	Ca	0	0
			2	2		
3	D	2	Total	Ca	0	0
			2	2		
3	F	1	Total	Ca	0	0
			1	1		
3	H	2	Total	Ca	0	0
			2	2		

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.

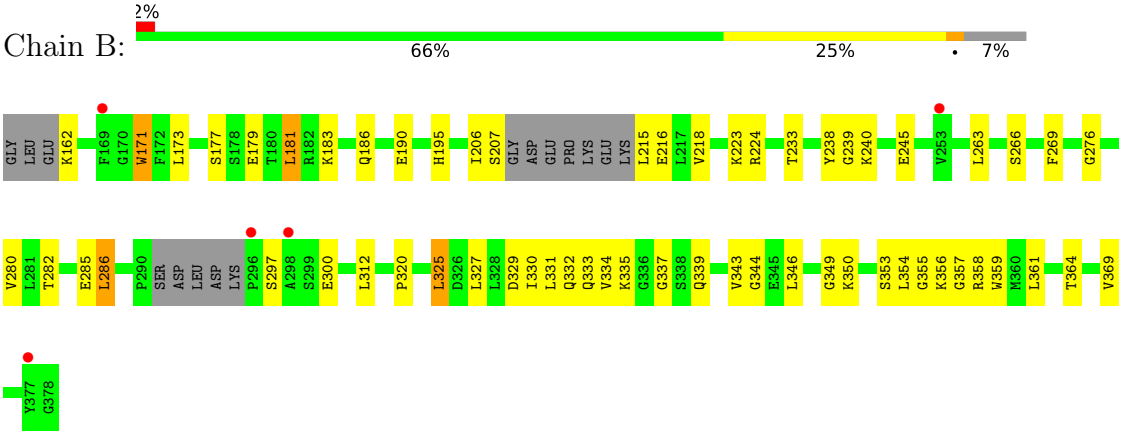
• Molecule 1: 2',3'-cyclic-nucleotide 3'-phosphodiesterase

Chain A:



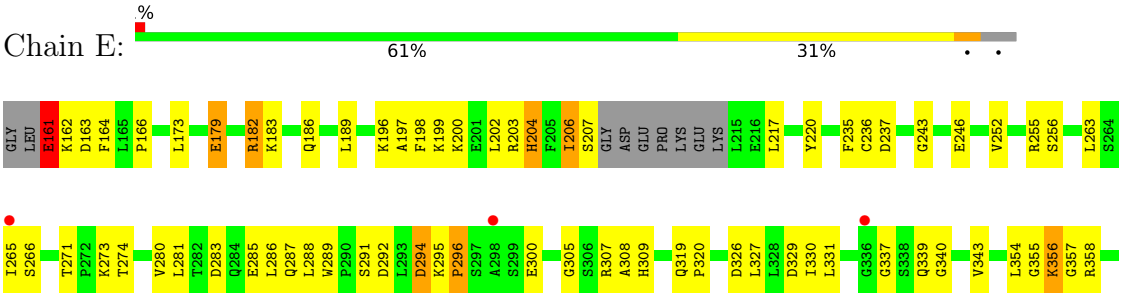
• Molecule 1: 2',3'-cyclic-nucleotide 3'-phosphodiesterase

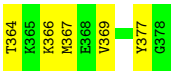
Chain B:



• Molecule 1: 2',3'-cyclic-nucleotide 3'-phosphodiesterase

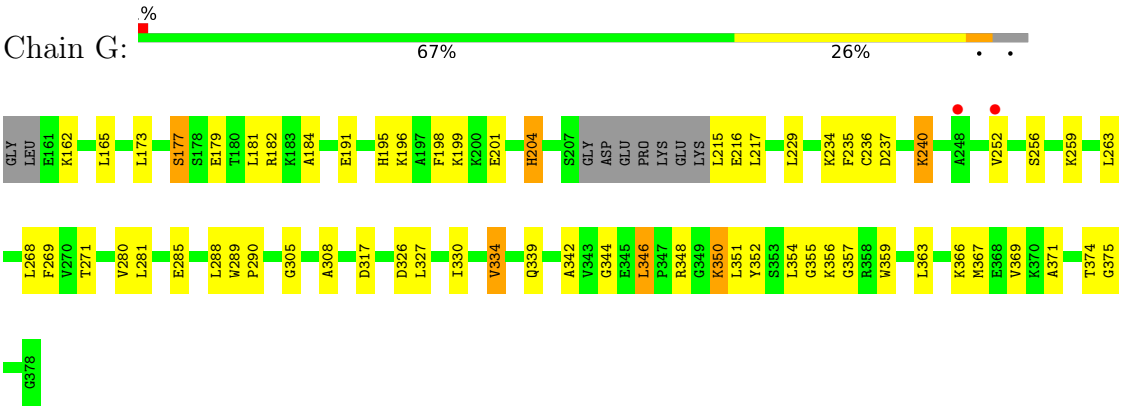
Chain E:





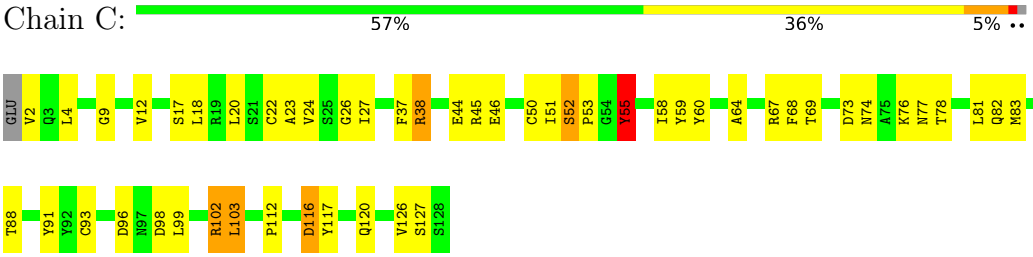
• Molecule 1: 2',3'-cyclic-nucleotide 3'-phosphodiesterase

Chain G:



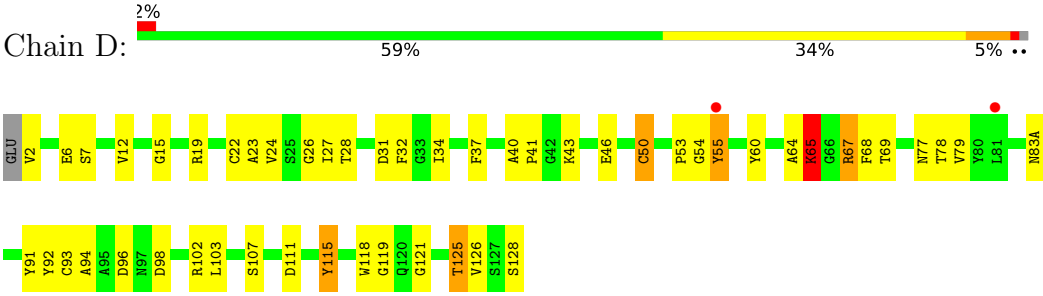
• Molecule 2: Chains: C,D,F,H

Chain C:



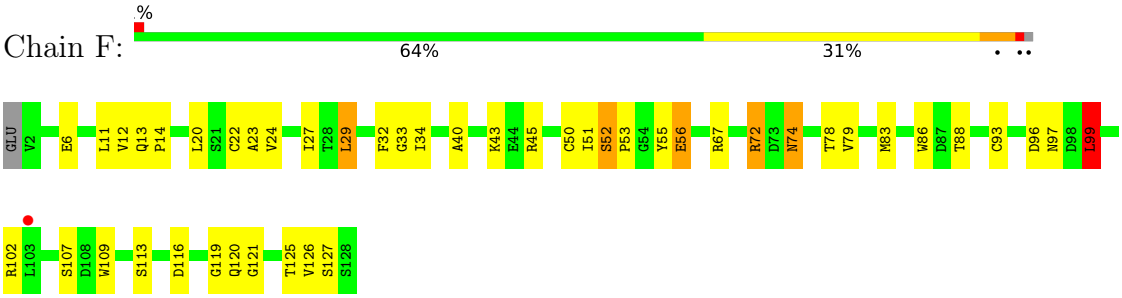
• Molecule 2: Chains: C,D,F,H

Chain D:



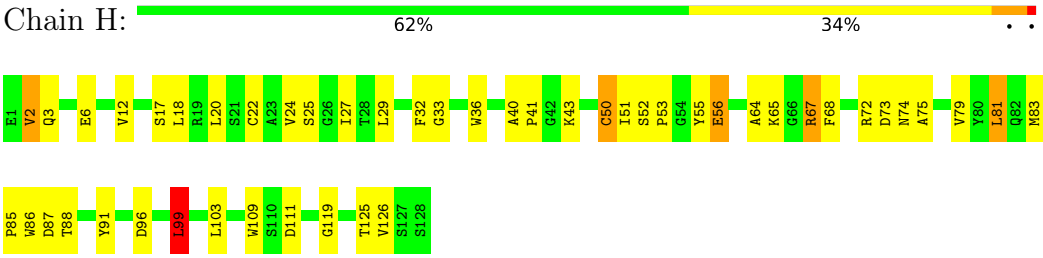
• Molecule 2: Chains: C,D,F,H

Chain F:



• Molecule 2: Chains: C,D,F,H

Chain H:


62%
34%
E1 V2 Q3 E6 V12 S17 L18 R19 L20 S21 C22 A23 V24 S25 C26 I27 T28 L29 F32 G33 W36 A40 P41 G42 K43 C50 I51 S52 P53 G54 Y55 E56 A64 K65 G66 R67 F68 R72 D73 N74 A75 V79 Y80 L81 Q82 M83 N83A N83B L83C K84
P85 W86 D87 T88 Y91 D96 L99 L103 W109 S110 D111 G119 T125 V126 S127 S128

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	101.73Å 118.25Å 122.45Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	47.95 – 2.55 47.95 – 2.55	Depositor EDS
% Data completeness (in resolution range)	99.6 (47.95-2.55) 86.8 (47.95-2.55)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.43 (at 2.54Å)	Xtriage
Refinement program	PHENIX 1.21rc1_5127	Depositor
R, R_{free}	0.252 , 0.304 0.252 , 0.302	Depositor DCC
R_{free} test set	46732 reflections (4.13%)	wwPDB-VP
Wilson B-factor (Å^2)	66.2	Xtriage
Anisotropy	0.387	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.36 , 64.3	EDS
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.32$	Xtriage
Estimated twinning fraction	0.000 for -h,l,k	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	20778	wwPDB-VP
Average B, all atoms (Å^2)	113.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 18.32% 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: CA

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	1.09	7/1623 (0.4%)	0.96	3/2182 (0.1%)
1	B	0.90	1/1630 (0.1%)	0.85	0/2192
1	E	0.96	4/1679 (0.2%)	0.92	3/2260 (0.1%)
1	G	0.86	1/1679 (0.1%)	0.85	0/2260
2	C	1.19	9/1031 (0.9%)	1.03	3/1404 (0.2%)
2	D	1.13	5/1031 (0.5%)	0.94	1/1404 (0.1%)
2	F	1.08	5/1031 (0.5%)	1.04	3/1404 (0.2%)
2	H	0.97	1/1040 (0.1%)	0.97	3/1416 (0.2%)
All	All	1.01	33/10744 (0.3%)	0.94	16/14522 (0.1%)

All (33) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	52	SER	CB-OG	-7.91	1.31	1.42
1	E	179	GLU	CD-OE2	7.60	1.34	1.25
1	E	179	GLU	CB-CG	-7.48	1.38	1.52
2	F	109	TRP	CE3-CZ3	7.21	1.50	1.38
2	H	50	CYS	CB-SG	-7.10	1.70	1.82
1	A	161	GLU	CD-OE2	6.83	1.33	1.25
2	D	93	CYS	CB-SG	-6.75	1.70	1.82
2	C	59	TYR	CD1-CE1	-6.58	1.29	1.39
2	D	50	CYS	CB-SG	-6.39	1.71	1.82
2	C	50	CYS	CB-SG	-6.22	1.71	1.82
1	A	247	TYR	CE1-CZ	6.19	1.46	1.38
2	D	46	GLU	CD-OE2	6.17	1.32	1.25
2	C	22	CYS	CB-SG	-6.16	1.71	1.82
2	F	50	CYS	CB-SG	-6.09	1.71	1.82
2	C	93	CYS	CB-SG	-5.95	1.72	1.81
1	A	238	TYR	CD1-CE1	-5.76	1.30	1.39
2	C	44	GLU	CG-CD	5.72	1.60	1.51
2	D	115	TYR	CD2-CE2	-5.72	1.30	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	F	86	TRP	CB-CG	-5.71	1.40	1.50
2	C	38	ARG	CB-CG	-5.58	1.37	1.52
1	G	240	LYS	CD-CE	5.54	1.65	1.51
2	C	44	GLU	CD-OE1	5.43	1.31	1.25
1	E	161	GLU	CG-CD	5.40	1.60	1.51
2	D	46	GLU	CG-CD	5.38	1.60	1.51
1	B	171	TRP	CE3-CZ3	-5.34	1.29	1.38
1	A	251	GLU	CD-OE1	5.32	1.31	1.25
1	E	220	TYR	CD2-CE2	-5.23	1.31	1.39
2	F	51	ILE	C-N	-5.23	1.22	1.34
2	C	98	ASP	C-N	-5.21	1.22	1.34
1	A	231	CYS	CB-SG	5.12	1.91	1.82
1	A	246	GLU	CD-OE1	5.06	1.31	1.25
2	F	93	CYS	CB-SG	-5.06	1.73	1.81
1	A	179	GLU	CG-CD	5.01	1.59	1.51

All (16) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	F	99	LEU	CB-CG-CD2	7.46	123.69	111.00
2	F	116	ASP	CB-CG-OD1	7.28	124.85	118.30
2	C	102	ARG	CG-CD-NE	-6.28	98.62	111.80
1	E	182	ARG	NE-CZ-NH1	6.05	123.33	120.30
2	C	116	ASP	CB-CG-OD1	6.02	123.72	118.30
2	H	96	ASP	CB-CG-OD2	-5.83	113.05	118.30
1	E	163	ASP	CB-CG-OD2	-5.71	113.16	118.30
2	C	98	ASP	CB-CG-OD1	-5.52	113.34	118.30
2	F	45	ARG	NE-CZ-NH2	-5.48	117.56	120.30
1	A	317	ASP	CB-CG-OD1	-5.46	113.39	118.30
2	H	103	LEU	CB-CG-CD1	5.43	120.22	111.00
2	D	88	THR	CA-CB-CG2	-5.42	104.81	112.40
2	H	99	LEU	CB-CG-CD2	-5.35	101.91	111.00
1	E	199	LYS	CD-CE-NZ	5.35	124.00	111.70
1	A	288	LEU	CA-CB-CG	5.31	127.50	115.30
1	A	327	LEU	CB-CG-CD2	-5.06	102.39	111.00

There are no chirality outliers.

There are no planarity outliers.

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	1588	1610	1608	40	0
1	B	1594	1621	1621	45	0
1	E	1642	1664	1664	53	0
1	G	1642	1664	1664	47	0
2	C	1003	929	929	40	0
2	D	1003	929	929	39	0
2	F	1003	929	929	26	0
2	H	1012	938	938	45	0
3	C	2	0	0	0	0
3	D	2	0	0	0	0
3	F	1	0	0	0	0
3	H	2	0	0	0	0
All	All	10494	10284	10282	325	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 (325) 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)
2:H:40:ALA:HB3	2:H:43:LYS:HD3	1.47	0.97
2:D:23:ALA:HA	2:D:78:THR:HG22	1.52	0.92
2:F:27:ILE:HD11	2:F:32:PHE:CE1	2.04	0.92
2:F:11:LEU:HD23	2:F:125:THR:OG1	1.77	0.85
2:F:40:ALA:HB3	2:F:43:LYS:HD3	1.58	0.85
2:C:96:ASP:OD2	2:C:102:ARG:NH1	2.11	0.83
1:B:300:GLU:O	1:B:332:GLN:NE2	2.16	0.78
1:B:355:GLY:O	1:B:357:GLY:N	2.17	0.78
1:A:355:GLY:O	1:A:357:GLY:N	2.18	0.76
1:A:177:SER:HB3	1:A:369:VAL:HG12	1.69	0.73
2:F:6:GLU:OE2	2:F:119:GLY:HA3	1.89	0.72
2:D:128:SER:O	1:E:295:LYS:HB3	1.90	0.71
2:C:2:VAL:HG23	2:C:27:ILE:HD13	1.73	0.71
1:G:173:LEU:HD23	1:G:371:ALA:HB2	1.72	0.70
2:D:40:ALA:HB3	2:D:43:LYS:HD2	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:330:ILE:HG23	1:E:354:LEU:CD1	2.24	0.67
2:C:85:PRO:HA	2:C:126:VAL:HB	1.77	0.67
2:H:53:PRO:HA	2:H:72:ARG:HH22	1.60	0.67
2:D:6:GLU:O	2:D:7:SER:OG	2.10	0.67
1:G:334:VAL:HG22	1:G:339:GLN:HB2	1.76	0.66
2:C:23:ALA:HA	2:C:78:THR:HG22	1.76	0.66
1:B:269:PHE:CE1	1:B:327:LEU:HD13	2.30	0.65
1:A:162:LYS:HG3	1:A:245:GLU:OE2	1.96	0.65
2:D:102:ARG:NH1	2:D:107:SER:OG	2.29	0.64
1:A:165:LEU:HD22	1:A:239:GLY:HA2	1.80	0.64
2:D:6:GLU:OE2	2:D:119:GLY:HA3	1.98	0.64
1:G:355:GLY:O	1:G:357:GLY:N	2.30	0.64
2:C:9:GLY:HA2	2:C:18:LEU:HD21	1.80	0.63
1:G:215:LEU:HD13	1:G:216:GLU:N	2.12	0.63
1:B:179:GLU:O	1:B:183:LYS:HG2	1.99	0.63
1:G:281:LEU:HD11	1:G:308:ALA:CB	2.28	0.63
1:B:349:GLY:HA2	1:B:364:THR:HG23	1.81	0.63
2:H:53:PRO:HA	2:H:72:ARG:NH2	2.15	0.62
1:A:334:VAL:HG22	1:A:339:GLN:HG3	1.81	0.62
2:D:24:VAL:CG1	2:D:27:ILE:HG22	2.29	0.61
2:H:67:ARG:NH2	2:H:87:ASP:OD2	2.22	0.61
2:F:34:ILE:HG21	2:F:79:VAL:HG11	1.82	0.61
2:D:88:THR:HG23	2:D:125:THR:HA	1.83	0.61
1:G:281:LEU:HD12	1:G:281:LEU:N	2.15	0.61
1:E:243:GLY:HA2	1:E:246:GLU:OE1	2.01	0.60
1:E:281:LEU:HD11	1:E:308:ALA:CB	2.30	0.60
1:B:263:LEU:HD23	1:B:285:GLU:OE2	2.01	0.60
2:C:4:LEU:CD2	2:C:24:VAL:HG22	2.32	0.60
1:A:187:VAL:O	1:A:191:GLU:HG3	2.01	0.60
2:C:20:LEU:HD22	2:C:83:MET:CE	2.32	0.59
2:H:22:CYS:HB3	2:H:79:VAL:HG12	1.85	0.59
1:B:162:LYS:HG3	1:B:245:GLU:HG2	1.83	0.59
1:G:363:LEU:HD13	1:G:367:MET:HG3	1.85	0.59
2:H:85:PRO:HA	2:H:126:VAL:HB	1.85	0.59
1:G:173:LEU:HD11	1:G:181:LEU:CD2	2.32	0.58
2:D:37:PHE:O	2:D:91:TYR:HA	2.04	0.58
1:G:196:LYS:HD3	1:G:199:LYS:HD2	1.86	0.58
2:H:17:SER:C	2:H:18:LEU:HD12	2.24	0.58
1:E:173:LEU:CD2	1:E:369:VAL:HG11	2.34	0.58
2:C:64:ALA:HB1	2:C:68:PHE:CD2	2.39	0.57
1:B:171:TRP:CB	1:B:263:LEU:HD11	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:72:ARG:HH12	2:F:74:ASN:CB	2.17	0.57
1:A:333:GLN:HB3	1:A:354:LEU:HD23	1.85	0.57
1:A:281:LEU:HB2	1:A:286:LEU:HD12	1.86	0.57
2:C:52:SER:HB3	2:C:53:PRO:HD2	1.86	0.57
2:C:68:PHE:HA	2:C:82:GLN:O	2.05	0.57
1:G:173:LEU:CD1	1:G:181:LEU:HD23	2.35	0.57
1:G:216:GLU:OE1	1:G:216:GLU:HA	2.05	0.56
2:D:22:CYS:HB3	2:D:79:VAL:HG12	1.87	0.56
2:F:23:ALA:HA	2:F:78:THR:HG22	1.88	0.56
2:F:72:ARG:HH12	2:F:74:ASN:CG	2.09	0.56
1:B:216:GLU:HG3	1:B:218:VAL:HG22	1.88	0.56
2:C:55:TYR:HD1	2:C:55:TYR:O	1.88	0.56
2:C:64:ALA:HB1	2:C:68:PHE:CG	2.41	0.55
1:A:281:LEU:CB	1:A:286:LEU:HD12	2.37	0.55
1:A:276:GLY:HA2	1:A:312:LEU:HG	1.88	0.55
1:E:274:THR:OG1	1:E:326:ASP:OD2	2.20	0.55
2:C:76:LYS:O	2:C:77:ASN:OD1	2.24	0.55
1:B:269:PHE:CD1	1:B:327:LEU:HD13	2.41	0.55
1:A:186:GLN:O	1:A:190:GLU:HG2	2.07	0.55
2:H:88:THR:HG23	2:H:125:THR:HA	1.88	0.55
2:H:55:TYR:HD2	2:H:56:GLU:OE2	1.90	0.54
2:F:96:ASP:OD2	2:F:99:LEU:HD23	2.07	0.54
2:H:27:ILE:HD11	2:H:32:PHE:CZ	2.43	0.54
1:B:334:VAL:HG23	1:B:339:GLN:HG3	1.89	0.54
2:D:24:VAL:O	2:D:77:ASN:ND2	2.40	0.54
1:E:179:GLU:OE1	1:E:183:LYS:CD	2.55	0.54
1:B:266:SER:OG	1:B:280:VAL:HG13	2.08	0.54
1:E:294:ASP:C	1:E:296:PRO:HD3	2.27	0.54
2:H:36:TRP:NE1	2:H:81:LEU:HB2	2.22	0.54
1:E:161:GLU:OE1	1:E:161:GLU:N	2.41	0.54
1:G:179:GLU:OE1	1:G:182:ARG:NH1	2.41	0.54
1:B:334:VAL:HG23	1:B:339:GLN:CG	2.37	0.53
2:C:45:ARG:HH12	2:H:86:TRP:HB2	1.73	0.53
1:E:291:SER:O	1:E:294:ASP:OD2	2.27	0.53
1:E:179:GLU:OE1	1:E:183:LYS:HD2	2.09	0.53
2:F:12:VAL:O	2:F:126:VAL:HA	2.08	0.53
1:A:342:ALA:HA	1:A:352:TYR:CD1	2.44	0.53
1:B:350:LYS:O	1:B:361:LEU:HD12	2.07	0.53
2:C:26:GLY:O	2:C:27:ILE:HD12	2.09	0.53
2:C:64:ALA:CB	2:C:68:PHE:CD2	2.91	0.53
2:D:67:ARG:HB3	2:D:83(A):ASN:O	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:52:SER:HB2	2:F:99:LEU:HB3	1.91	0.53
2:D:27:ILE:HD11	2:D:32:PHE:CZ	2.44	0.53
2:C:51:ILE:HG13	2:C:58:ILE:HG12	1.89	0.53
1:B:329:ASP:OD1	1:B:358:ARG:NH1	2.42	0.52
2:D:28:THR:CG2	2:D:31:ASP:OD2	2.57	0.52
1:G:173:LEU:HD22	1:G:369:VAL:HG12	1.91	0.52
1:G:173:LEU:HD13	1:G:369:VAL:HG11	1.90	0.52
1:E:355:GLY:O	1:E:357:GLY:N	2.39	0.52
1:B:177:SER:HB3	1:B:369:VAL:HG13	1.91	0.52
1:B:162:LYS:CG	1:B:245:GLU:HG2	2.39	0.52
2:H:6:GLU:OE2	2:H:119:GLY:HA3	2.09	0.52
1:E:273:LYS:HE2	1:E:326:ASP:OD1	2.10	0.52
2:H:83(B):ASN:O	2:H:84:LYS:NZ	2.43	0.52
1:A:333:GLN:CB	1:A:354:LEU:HD23	2.40	0.52
2:D:27:ILE:HG13	2:D:32:PHE:CD1	2.46	0.51
2:F:102:ARG:NH1	2:F:107:SER:OG	2.42	0.51
2:D:40:ALA:HB1	2:D:41:PRO:HD2	1.91	0.51
2:C:60:TYR:OH	2:C:69:THR:HA	2.11	0.51
2:H:20:LEU:HB3	2:H:36:TRP:CH2	2.46	0.51
1:A:342:ALA:HB2	1:A:352:TYR:HE1	1.76	0.51
1:E:182:ARG:O	1:E:186:GLN:OE1	2.28	0.51
2:D:64:ALA:CB	2:D:68:PHE:CD2	2.94	0.50
1:G:217:LEU:N	1:G:217:LEU:HD12	2.25	0.50
1:E:266:SER:OG	1:E:280:VAL:HG23	2.10	0.50
1:B:331:LEU:HA	1:B:334:VAL:HG12	1.92	0.50
1:E:173:LEU:HD21	1:E:369:VAL:HG11	1.94	0.50
1:G:252:VAL:HG13	1:G:288:LEU:HD23	1.94	0.50
2:H:64:ALA:HB1	2:H:68:PHE:HB2	1.94	0.50
2:F:24:VAL:CG1	2:F:27:ILE:HG22	2.42	0.50
1:A:181:LEU:HD13	1:A:367:MET:HE1	1.94	0.49
2:H:27:ILE:HD11	2:H:32:PHE:CE1	2.47	0.49
1:A:179:GLU:OE1	1:A:180:THR:N	2.45	0.49
1:E:196:LYS:O	1:E:200:LYS:HG2	2.12	0.49
1:A:236:CYS:O	1:A:237:ASP:C	2.50	0.49
2:C:45:ARG:NH1	2:H:86:TRP:HB2	2.26	0.49
1:E:255:ARG:C	1:E:255:ARG:HD2	2.33	0.49
2:D:96:ASP:HB2	2:D:115:TYR:CD2	2.48	0.49
2:D:102:ARG:HB2	2:D:107:SER:HB3	1.95	0.49
1:E:206:ILE:HG12	1:E:207:SER:N	2.28	0.49
2:C:76:LYS:O	2:C:78:THR:HG23	2.13	0.49
1:E:309:HIS:HB3	1:E:327:LEU:HD22	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:27:ILE:HD11	2:F:32:PHE:CZ	2.47	0.48
2:H:73:ASP:OD2	2:H:75:ALA:HB3	2.12	0.48
1:B:218:VAL:O	1:B:224:ARG:NH2	2.47	0.48
2:D:94:ALA:HB2	2:D:118:TRP:CE3	2.48	0.48
1:G:330:ILE:HG23	1:G:354:LEU:HD22	1.95	0.48
2:H:24:VAL:CG1	2:H:27:ILE:HG22	2.44	0.48
1:B:282:THR:O	1:B:286:LEU:HD12	2.13	0.48
1:G:201:GLU:HB3	1:G:204:HIS:NE2	2.28	0.48
1:A:265:ILE:HB	1:A:367:MET:HB3	1.96	0.48
2:C:2:VAL:HG21	2:C:117:TYR:CE1	2.48	0.48
2:D:2:VAL:HA	2:D:26:GLY:HA3	1.95	0.48
1:E:295:LYS:N	1:E:296:PRO:HD3	2.28	0.48
2:F:13:GLN:HG2	2:F:127:SER:OG	2.14	0.48
1:G:281:LEU:HD11	1:G:308:ALA:HB1	1.96	0.48
2:H:27:ILE:CG1	2:H:32:PHE:CE1	2.96	0.48
1:A:162:LYS:HA	1:A:165:LEU:HD13	1.95	0.47
2:H:83:MET:HE3	2:H:91:TYR:CE2	2.49	0.47
1:B:177:SER:HB3	1:B:369:VAL:CG1	2.44	0.47
1:B:297:SER:O	1:B:300:GLU:HG2	2.14	0.47
1:E:266:SER:OG	1:E:280:VAL:CG2	2.63	0.47
2:H:27:ILE:HG13	2:H:32:PHE:CD1	2.50	0.47
1:B:320:PRO:HB2	2:D:103:LEU:O	2.14	0.47
1:A:266:SER:OG	1:A:280:VAL:CG1	2.63	0.47
1:B:276:GLY:HA2	1:B:312:LEU:HG	1.96	0.47
2:D:92:TYR:CE1	2:D:121:GLY:HA3	2.49	0.47
2:F:20:LEU:HD13	2:F:83:MET:CE	2.44	0.47
2:C:55:TYR:O	2:C:55:TYR:CD1	2.67	0.47
1:B:337:GLY:C	1:B:339:GLN:H	2.18	0.47
1:A:176:LYS:O	1:A:179:GLU:HG3	2.15	0.47
1:E:327:LEU:O	1:E:331:LEU:HG	2.14	0.47
1:A:193:GLY:HA3	1:A:217:LEU:HD13	1.97	0.47
1:A:320:PRO:HG2	2:C:103:LEU:HB3	1.97	0.47
1:B:162:LYS:HG3	1:B:245:GLU:CG	2.45	0.47
1:G:162:LYS:HA	1:G:165:LEU:HD13	1.97	0.47
1:G:289:TRP:CE2	1:G:305:GLY:HA2	2.50	0.47
1:G:281:LEU:N	1:G:281:LEU:CD1	2.78	0.46
1:A:317:ASP:N	1:A:317:ASP:OD1	2.41	0.46
2:D:86:TRP:HH2	1:E:300:GLU:HB3	1.80	0.46
2:F:72:ARG:NH2	2:F:74:ASN:OD1	2.49	0.46
1:E:255:ARG:HD2	1:E:255:ARG:O	2.15	0.46
2:F:33:GLY:CA	2:F:53:PRO:HD3	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:50:CYS:HB2	2:H:109:TRP:CE3	2.50	0.46
1:G:173:LEU:CD1	1:G:369:VAL:HG11	2.45	0.46
1:B:333:GLN:NE2	1:B:358:ARG:HH22	2.13	0.46
1:B:186:GLN:O	1:B:190:GLU:HG3	2.15	0.46
2:D:53:PRO:O	2:D:55:TYR:N	2.49	0.46
2:D:60:TYR:OH	2:D:69:THR:HA	2.16	0.46
1:E:179:GLU:HA	1:E:182:ARG:HB3	1.97	0.46
2:H:68:PHE:CE2	2:H:83:MET:HE2	2.51	0.46
2:H:83(B):ASN:O	2:H:84:LYS:HD2	2.16	0.46
2:H:68:PHE:CZ	2:H:83:MET:HE2	2.51	0.46
1:G:269:PHE:CE1	1:G:327:LEU:HD13	2.51	0.46
1:A:181:LEU:HD13	1:A:367:MET:CE	2.45	0.46
1:A:281:LEU:N	1:A:281:LEU:HD12	2.31	0.46
2:D:37:PHE:O	2:D:92:TYR:N	2.45	0.46
2:F:120:GLN:NE2	2:F:121:GLY:O	2.48	0.46
1:G:173:LEU:HD11	1:G:181:LEU:HD23	1.97	0.46
2:F:22:CYS:HB3	2:F:79:VAL:HG12	1.98	0.46
1:A:221:PHE:HB3	1:A:313:GLY:HA3	1.98	0.45
1:E:295:LYS:N	1:E:296:PRO:CD	2.78	0.45
2:C:73:ASP:OD2	2:C:76:LYS:HG3	2.16	0.45
2:H:51:ILE:HG23	2:H:51:ILE:O	2.17	0.45
1:E:263:LEU:HD23	1:E:285:GLU:OE2	2.17	0.45
1:E:366:LYS:N	1:E:366:LYS:HD3	2.31	0.45
2:H:72:ARG:HD2	2:H:74:ASN:CG	2.37	0.45
1:B:238:TYR:OH	2:D:98:ASP:OD1	2.23	0.45
2:D:28:THR:HG21	2:D:31:ASP:OD2	2.15	0.45
2:F:32:PHE:CZ	2:F:97:ASN:HB2	2.52	0.45
2:C:38:ARG:HD3	2:C:91:TYR:CZ	2.51	0.45
1:E:271:THR:HG21	1:E:326:ASP:HB3	1.98	0.45
1:A:267:ALA:C	1:A:268:LEU:HD12	2.37	0.45
1:B:195:HIS:CE1	1:B:344:GLY:HA3	2.52	0.45
1:E:330:ILE:HG23	1:E:354:LEU:HD11	1.98	0.45
1:A:343:VAL:HG22	1:A:343:VAL:O	2.17	0.45
1:G:173:LEU:CD1	1:G:181:LEU:CD2	2.94	0.45
1:A:221:PHE:CE2	1:A:275:ALA:HB2	2.52	0.45
1:A:273:LYS:HE3	1:A:322:GLN:NE2	2.32	0.45
1:A:342:ALA:HA	1:A:352:TYR:HD1	1.81	0.45
1:E:203:ARG:HG3	1:E:204:HIS:N	2.31	0.45
2:H:2:VAL:HG13	2:H:2:VAL:O	2.17	0.44
2:H:40:ALA:HB1	2:H:41:PRO:HD2	1.98	0.44
2:C:38:ARG:NH1	2:C:46:GLU:OE2	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:45:ARG:NH1	2:H:86:TRP:CG	2.86	0.44
2:H:29:LEU:HB3	2:H:74:ASN:ND2	2.33	0.44
1:B:216:GLU:HG3	1:B:218:VAL:CG2	2.48	0.44
1:E:283:ASP:HA	1:E:286:LEU:HD12	2.00	0.44
2:H:3:GLN:HB2	2:H:25:SER:OG	2.17	0.44
1:A:237:ASP:OD2	1:A:240:LYS:CD	2.66	0.44
2:C:20:LEU:HD13	2:C:83:MET:CE	2.48	0.44
2:D:64:ALA:O	2:D:65:LYS:C	2.56	0.44
1:E:189:LEU:HB3	1:E:217:LEU:HB3	2.00	0.44
2:F:88:THR:HG23	2:F:125:THR:HA	2.00	0.44
1:G:177:SER:HB3	1:G:369:VAL:HG13	1.99	0.44
1:B:181:LEU:HD23	1:B:181:LEU:O	2.17	0.43
1:G:259:LYS:HA	1:G:259:LYS:HE2	2.00	0.43
1:A:268:LEU:HD13	1:A:363:LEU:HD21	1.99	0.43
1:B:346:LEU:HD22	1:B:361:LEU:HD22	2.01	0.43
2:D:64:ALA:HB1	2:D:68:PHE:CG	2.54	0.43
2:F:24:VAL:CG1	2:F:27:ILE:CG2	2.97	0.43
2:F:32:PHE:CE2	2:F:97:ASN:HB2	2.52	0.43
1:G:191:GLU:OE1	1:G:346:LEU:HD23	2.18	0.43
1:E:307:ARG:O	1:E:327:LEU:HD23	2.19	0.43
1:E:289:TRP:NE1	1:E:305:GLY:HA2	2.33	0.43
1:G:173:LEU:HD12	1:G:181:LEU:HD23	2.01	0.43
2:D:34:ILE:O	2:D:50:CYS:HA	2.19	0.43
1:B:171:TRP:HB2	1:B:263:LEU:HD11	2.01	0.43
1:B:206:ILE:HG13	1:B:207:SER:N	2.34	0.43
1:B:215:LEU:C	1:B:215:LEU:HD13	2.39	0.43
1:B:330:ILE:HG23	1:B:354:LEU:CD1	2.49	0.43
1:G:268:LEU:N	1:G:268:LEU:HD12	2.33	0.43
2:H:25:SER:C	2:H:27:ILE:H	2.21	0.43
1:B:334:VAL:HG13	1:B:335:LYS:N	2.32	0.43
2:D:68:PHE:N	2:D:68:PHE:CD1	2.85	0.43
1:E:198:PHE:CE2	1:E:202:LEU:HD21	2.53	0.43
1:E:291:SER:HA	1:E:294:ASP:OD2	2.19	0.43
2:H:33:GLY:HA3	2:H:99:LEU:HD23	2.01	0.43
1:E:197:ALA:HB1	1:E:343:VAL:CG1	2.49	0.42
1:G:237:ASP:OD2	1:G:240:LYS:HG3	2.19	0.42
2:H:27:ILE:HG13	2:H:32:PHE:CE1	2.54	0.42
2:D:12:VAL:O	2:D:126:VAL:HA	2.19	0.42
1:A:252:VAL:O	1:A:256:SER:OG	2.27	0.42
2:C:84:LYS:O	2:C:126:VAL:HG21	2.19	0.42
2:H:40:ALA:HB1	2:H:41:PRO:CD	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:329:ASP:OD1	1:E:358:ARG:NH1	2.53	0.42
1:G:237:ASP:OD2	1:G:240:LYS:CG	2.68	0.42
1:G:271:THR:HG21	1:G:326:ASP:HB3	2.02	0.42
1:A:327:LEU:O	1:A:331:LEU:HG	2.20	0.42
2:C:38:ARG:NH2	2:C:46:GLU:OE2	2.53	0.42
1:E:252:VAL:HG11	1:E:287:GLN:HB3	2.02	0.42
2:C:86:TRP:CE3	2:C:86:TRP:N	2.88	0.42
1:B:162:LYS:HE2	1:B:239:GLY:C	2.40	0.42
1:E:319:GLN:HA	1:E:320:PRO:HD3	1.87	0.42
1:B:325:LEU:N	1:B:325:LEU:CD1	2.83	0.42
1:E:337:GLY:C	1:E:339:GLN:H	2.23	0.42
1:G:195:HIS:NE2	1:G:344:GLY:HA3	2.35	0.42
2:H:111:ASP:C	2:H:111:ASP:OD1	2.58	0.42
1:A:206:ILE:HG13	1:A:207:SER:N	2.35	0.42
1:B:325:LEU:N	1:B:325:LEU:HD12	2.35	0.42
2:C:12:VAL:O	2:C:126:VAL:HA	2.20	0.41
2:D:111:ASP:C	2:D:111:ASP:OD1	2.59	0.41
2:C:17:SER:HB2	2:D:15:GLY:O	2.20	0.41
1:E:173:LEU:HD23	1:E:369:VAL:HG11	2.03	0.41
2:C:87:ASP:O	2:C:88:THR:C	2.58	0.41
2:F:29:LEU:CD2	2:F:72:ARG:HD2	2.50	0.41
1:A:281:LEU:HB2	1:A:286:LEU:CD1	2.50	0.41
1:E:179:GLU:OE1	1:E:183:LYS:HG3	2.21	0.41
1:E:366:LYS:HD3	1:E:366:LYS:H	1.84	0.41
1:G:263:LEU:HD23	1:G:285:GLU:OE2	2.20	0.41
1:G:342:ALA:HB1	1:G:350:LYS:HG2	2.01	0.41
1:G:366:LYS:HD3	1:G:366:LYS:N	2.35	0.41
1:G:374:THR:OG1	1:G:375:GLY:N	2.52	0.41
2:H:29:LEU:HD12	2:H:29:LEU:HA	1.85	0.41
2:C:20:LEU:HD22	2:C:83:MET:HE1	2.00	0.41
1:E:164:PHE:N	1:E:164:PHE:CD1	2.88	0.41
1:B:353:SER:HB2	1:B:359:TRP:CZ3	2.55	0.41
2:H:55:TYR:CD2	2:H:56:GLU:OE2	2.71	0.41
2:C:96:ASP:HA	2:C:116:ASP:OD2	2.20	0.41
1:E:166:PRO:O	1:E:236:CYS:HB2	2.20	0.41
1:E:256:SER:OG	1:E:288:LEU:HD21	2.21	0.41
1:B:173:LEU:HD23	1:B:369:VAL:HG11	2.03	0.41
2:H:17:SER:O	2:H:18:LEU:HD12	2.20	0.41
2:D:41:PRO:O	2:D:43:LYS:N	2.53	0.41
1:E:235:PHE:CE2	1:E:237:ASP:HB2	2.55	0.41
1:B:349:GLY:O	1:B:361:LEU:HD11	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:13:GLN:HB3	2:F:14:PRO:CD	2.51	0.40
1:G:317:ASP:N	1:G:317:ASP:OD1	2.53	0.40
1:A:330:ILE:O	1:A:333:GLN:HB2	2.21	0.40
2:C:37:PHE:CE2	2:C:112:PRO:HB3	2.57	0.40
1:B:327:LEU:O	1:B:331:LEU:HG	2.21	0.40
1:E:265:ILE:HB	1:E:367:MET:HB2	2.02	0.40
1:G:165:LEU:HD23	1:G:236:CYS:HB3	2.02	0.40
1:G:173:LEU:HD11	1:G:181:LEU:HD22	2.01	0.40
1:G:184:ALA:HB1	1:G:348:ARG:HH12	1.86	0.40
1:G:198:PHE:HA	1:G:359:TRP:CH2	2.56	0.40
2:H:67:ARG:H	2:H:67:ARG:HG2	1.70	0.40
1:A:181:LEU:CD1	1:A:367:MET:HE1	2.51	0.40
2:C:38:ARG:HD3	2:C:91:TYR:OH	2.22	0.40
1:E:166:PRO:HB3	1:E:377:TYR:CZ	2.57	0.40
2:C:51:ILE:HG23	2:C:51:ILE:O	2.22	0.40
2:C:103:LEU:N	2:C:103:LEU:CD1	2.85	0.40
2:D:40:ALA:O	2:D:41:PRO:C	2.60	0.40
2:D:128:SER:O	1:E:295:LYS:CB	2.66	0.40
1:G:234:LYS:HG3	1:G:235:PHE:O	2.21	0.40
1:G:289:TRP:CD2	1:G:290:PRO:HD2	2.56	0.40
1:G:342:ALA:HA	1:G:352:TYR:HD1	1.87	0.40
2:H:64:ALA:CB	2:H:68:PHE:CD2	3.04	0.40
2:H:68:PHE:N	2:H:68:PHE:CD1	2.90	0.40

There are no symmetry-related clashes.

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	198/220 (90%)	188 (95%)	8 (4%)	2 (1%)	13	18
1	B	199/220 (90%)	187 (94%)	11 (6%)	1 (0%)	25	34

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	E	207/220 (94%)	191 (92%)	11 (5%)	5 (2%)	5 4
1	G	207/220 (94%)	197 (95%)	9 (4%)	1 (0%)	25 34
2	C	128/131 (98%)	119 (93%)	7 (6%)	2 (2%)	8 10
2	D	128/131 (98%)	119 (93%)	7 (6%)	2 (2%)	8 10
2	F	128/131 (98%)	116 (91%)	10 (8%)	2 (2%)	8 10
2	H	129/131 (98%)	118 (92%)	9 (7%)	2 (2%)	8 10
All	All	1324/1404 (94%)	1235 (93%)	72 (5%)	17 (1%)	10 13

All (17) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	356	LYS
2	D	65	LYS
1	G	356	LYS
2	H	2	VAL
2	H	65	LYS
1	B	356	LYS
2	D	54	GLY
1	E	292	ASP
1	E	296	PRO
2	F	55	TYR
2	C	55	TYR
1	E	294	ASP
2	F	56	GLU
2	C	127	SER
1	E	356	LYS
1	A	340	GLY
1	E	340	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.

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	166/180 (92%)	153 (92%)	13 (8%)	10	13
1	B	167/180 (93%)	160 (96%)	7 (4%)	25	37
1	E	173/180 (96%)	167 (96%)	6 (4%)	31	46
1	G	173/180 (96%)	164 (95%)	9 (5%)	19	27
2	C	105/106 (99%)	96 (91%)	9 (9%)	8	10
2	D	105/106 (99%)	99 (94%)	6 (6%)	17	23
2	F	105/106 (99%)	97 (92%)	8 (8%)	11	14
2	H	106/106 (100%)	100 (94%)	6 (6%)	17	23
All	All	1100/1144 (96%)	1036 (94%)	64 (6%)	17	22

All (64) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	162	LYS
1	A	175	LYS
1	A	179	GLU
1	A	204	HIS
1	A	216	GLU
1	A	223	LYS
1	A	240	LYS
1	A	266	SER
1	A	274	THR
1	A	284	GLN
1	A	286	LEU
1	A	325	LEU
1	A	369	VAL
2	C	55	TYR
2	C	67	ARG
2	C	74	ASN
2	C	81	LEU
2	C	84	LYS
2	C	86	TRP
2	C	99	LEU
2	C	103	LEU
2	C	120	GLN
1	B	181	LEU
1	B	223	LYS

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Mol	Chain	Res	Type
1	B	233	THR
1	B	240	LYS
1	B	286	LEU
1	B	325	LEU
1	B	343	VAL
2	D	19	ARG
2	D	55	TYR
2	D	65	LYS
2	D	67	ARG
2	D	86	TRP
2	D	125	THR
1	E	161	GLU
1	E	162	LYS
1	E	204	HIS
1	E	206	ILE
1	E	356	LYS
1	E	364	THR
2	F	29	LEU
2	F	52	SER
2	F	56	GLU
2	F	67	ARG
2	F	72	ARG
2	F	74	ASN
2	F	99	LEU
2	F	113	SER
1	G	177	SER
1	G	204	HIS
1	G	229	LEU
1	G	256	SER
1	G	280	VAL
1	G	334	VAL
1	G	346	LEU
1	G	350	LYS
1	G	351	LEU
2	H	12	VAL
2	H	52	SER
2	H	56	GLU
2	H	67	ARG
2	H	81	LEU
2	H	99	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (2) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	322	GLN
2	F	120	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

Of 7 ligands modelled in this entry, 7 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 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	204/220 (92%)	0.37	5 (2%) 58 63	73, 103, 148, 185	0
1	B	205/220 (93%)	0.22	5 (2%) 59 64	79, 121, 185, 214	0
1	E	211/220 (95%)	0.17	3 (1%) 73 76	74, 112, 150, 181	0
1	G	211/220 (95%)	0.10	2 (0%) 81 83	77, 121, 178, 216	0
2	C	130/131 (99%)	0.15	0 100 100	69, 94, 136, 177	0
2	D	130/131 (99%)	0.14	2 (1%) 71 75	69, 96, 123, 136	0
2	F	130/131 (99%)	0.15	1 (0%) 82 85	70, 110, 147, 169	0
2	H	131/131 (100%)	0.10	0 100 100	70, 109, 153, 166	0
All	All	1352/1404 (96%)	0.18	18 (1%) 74 77	69, 108, 164, 216	0

All (18) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	G	248	ALA	3.3
1	E	336	GLY	3.1
1	B	377	TYR	2.8
1	A	298	ALA	2.8
1	A	207	SER	2.6
1	A	217	LEU	2.6
1	A	299	SER	2.6
1	B	296	PRO	2.5
1	B	298	ALA	2.4
2	F	103	LEU	2.4
1	B	253	VAL	2.3
2	D	55	TYR	2.3
2	D	81	LEU	2.2
1	A	169	PHE	2.2
1	E	265	ILE	2.2
1	E	298	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
1	G	252	VAL	2.1
1	B	169	PHE	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
3	CA	H	201	1/1	0.82	0.13	156,156,156,156	0
3	CA	D	201	1/1	0.84	0.15	80,80,80,80	0
3	CA	D	202	1/1	0.86	0.12	88,88,88,88	0
3	CA	C	202	1/1	0.88	0.11	73,73,73,73	0
3	CA	F	201	1/1	0.89	0.10	76,76,76,76	0
3	CA	H	202	1/1	0.90	0.12	95,95,95,95	0
3	CA	C	201	1/1	0.94	0.07	88,88,88,88	0

6.5 Other polymers (i)

There are no such residues in this entry.