Full wwPDB X-ray Structure Validation Report ⓘ

Sep 16, 2024 – 10:24 am BST

PDB ID	:	8QJA
Title	:	T6SS-linked Rhs repeat protein - Advenella mimigardefordensis VgrG-Rhs core
Authors	:	Kielkopf, C.S.; Shneider, M.M.; Leiman, P.G.; Taylor, N.M.I.
Deposited on	:	2023-09-13
Resolution	:	3.36 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:

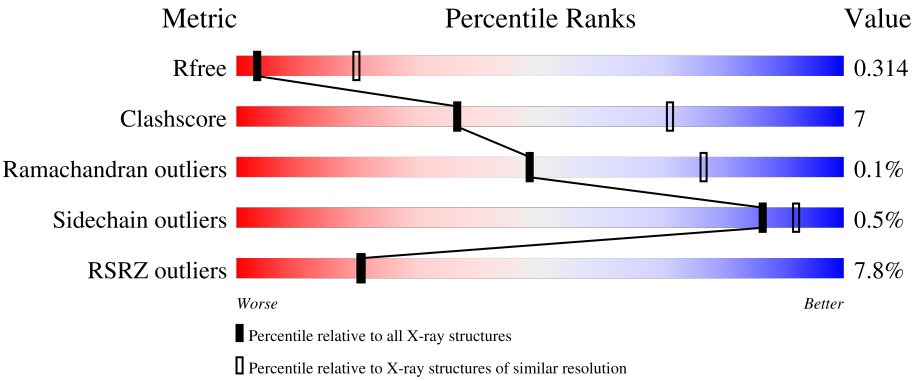
MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.13
EDS	:	3.0
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.002 (Gargrove)
Density-Fitness	:	1.0.11
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.38.2

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 3.36 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	1012 (3.40-3.32)
Clashscore	180529	1035 (3.40-3.32)
Ramachandran outliers	177936	1037 (3.40-3.32)
Sidechain outliers	177891	1037 (3.40-3.32)
RSRZ outliers	164620	1012 (3.40-3.32)

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	1879	5% 43% 11% 46%
1	B	1879	4% 44% 10% 45%
1	C	1879	4% 44% 10% 46%
1	D	1879	5% 44% 10% 46%

2 Entry composition (i)

There is only 1 type of molecule in this entry. The entry contains 33470 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 Putative type VI secretion system YD repeat-containing Rhs element Vgr protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	1021	Total	C	N	O	S	0	0	0
			8365	5240	1479	1631	15			
1	B	1026	Total	C	N	O	S	0	0	0
			8390	5255	1484	1636	15			
1	C	1020	Total	C	N	O	S	0	0	0
			8355	5233	1478	1629	15			
1	D	1021	Total	C	N	O	S	0	0	0
			8360	5236	1479	1630	15			

There are 16 discrepancies between the modelled and reference sequences:

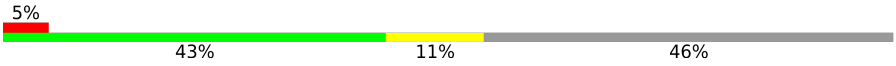
Chain	Residue	Modelled	Actual	Comment	Reference
A	-802	GLY	-	expression tag	UNP W0PIA9
A	-801	SER	-	expression tag	UNP W0PIA9
A	-800	GLY	-	expression tag	UNP W0PIA9
A	-799	SER	-	expression tag	UNP W0PIA9
B	-802	GLY	-	expression tag	UNP W0PIA9
B	-801	SER	-	expression tag	UNP W0PIA9
B	-800	GLY	-	expression tag	UNP W0PIA9
B	-799	SER	-	expression tag	UNP W0PIA9
C	-802	GLY	-	expression tag	UNP W0PIA9
C	-801	SER	-	expression tag	UNP W0PIA9
C	-800	GLY	-	expression tag	UNP W0PIA9
C	-799	SER	-	expression tag	UNP W0PIA9
D	-802	GLY	-	expression tag	UNP W0PIA9
D	-801	SER	-	expression tag	UNP W0PIA9
D	-800	GLY	-	expression tag	UNP W0PIA9
D	-799	SER	-	expression tag	UNP W0PIA9

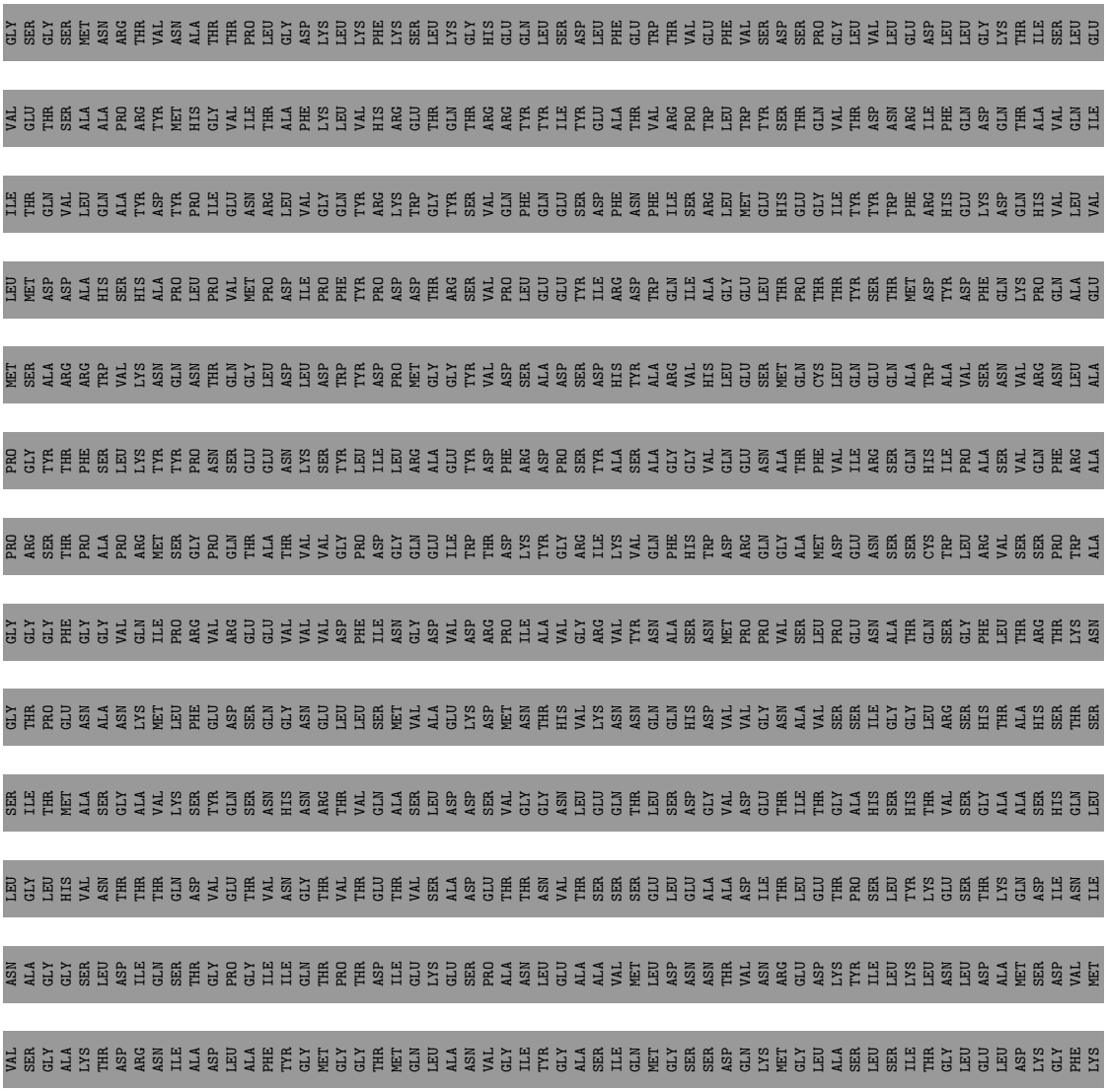
3 Residue-property plots (i)

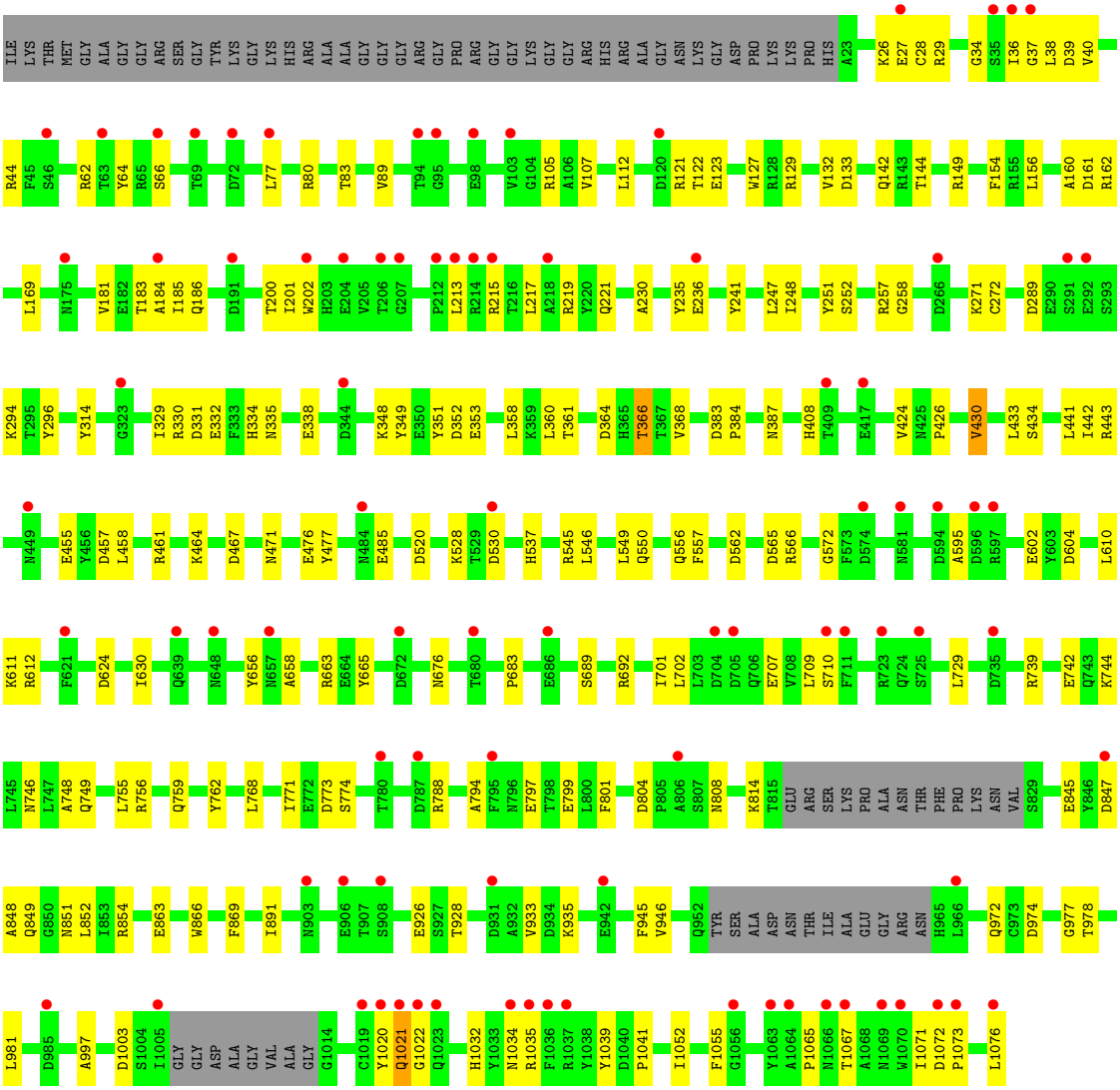
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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: Putative type VI secretion system YD repeat-containing Rhs element Vgr protein

Chain A:

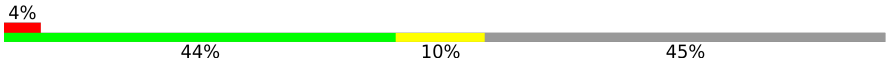


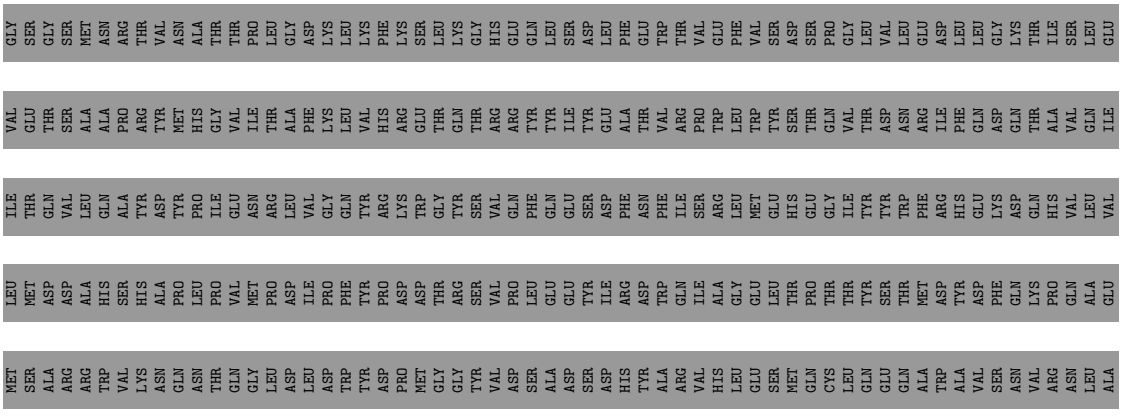


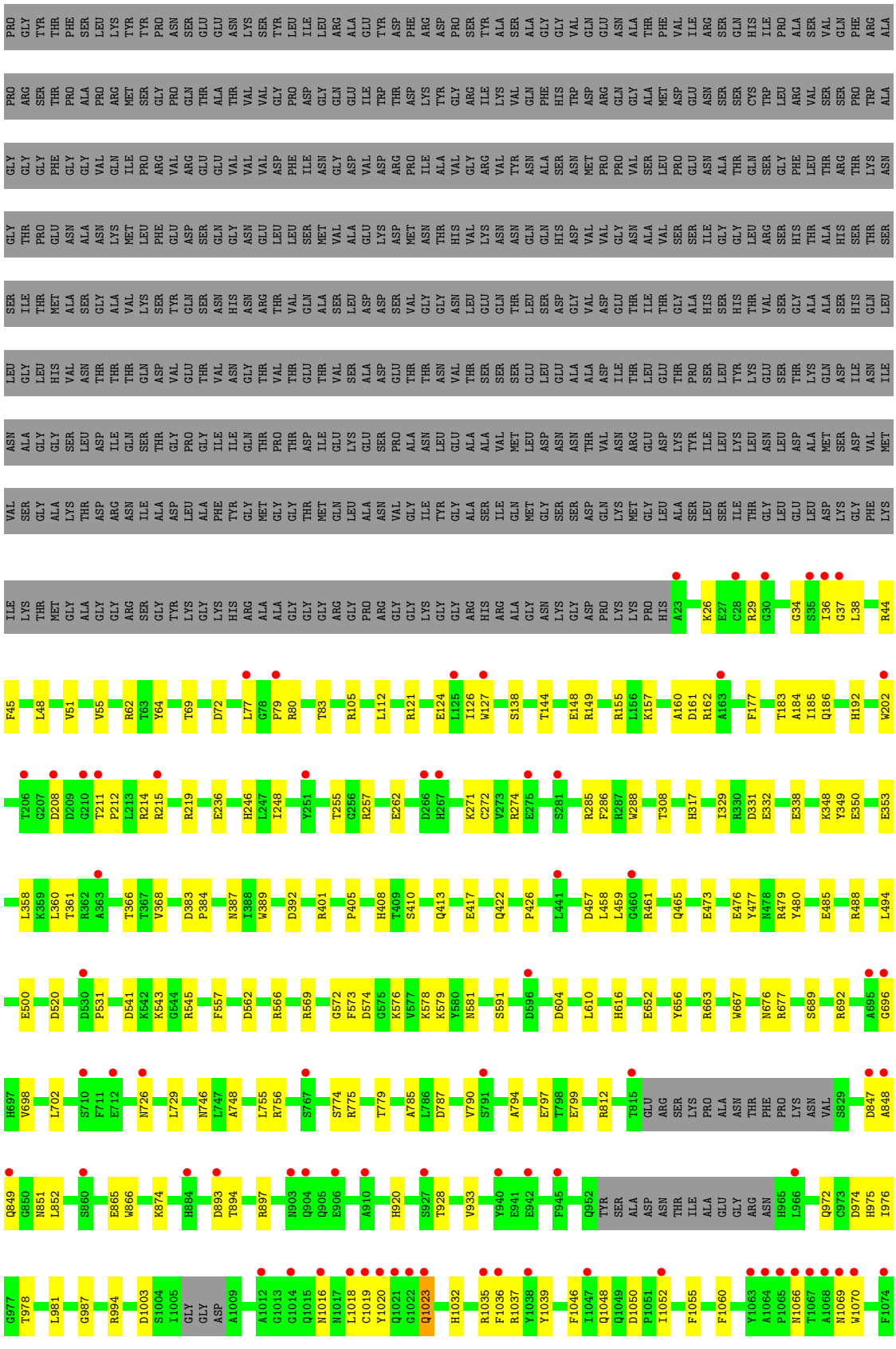


• Molecule 1: Putative type VI secretion system YD repeat-containing Rhs element Vgr protein

Chain B:

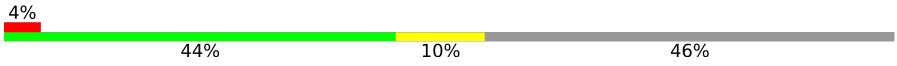


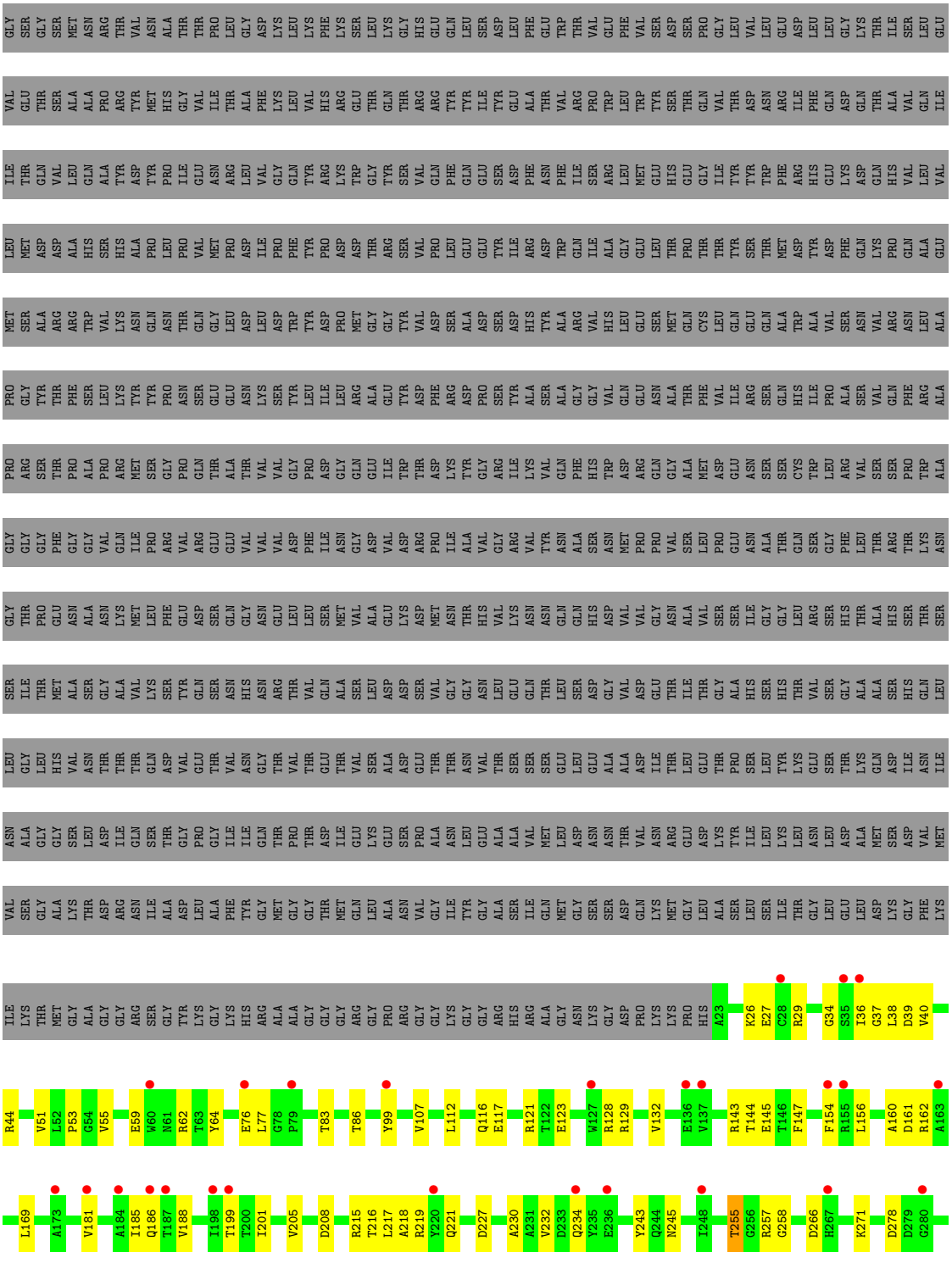


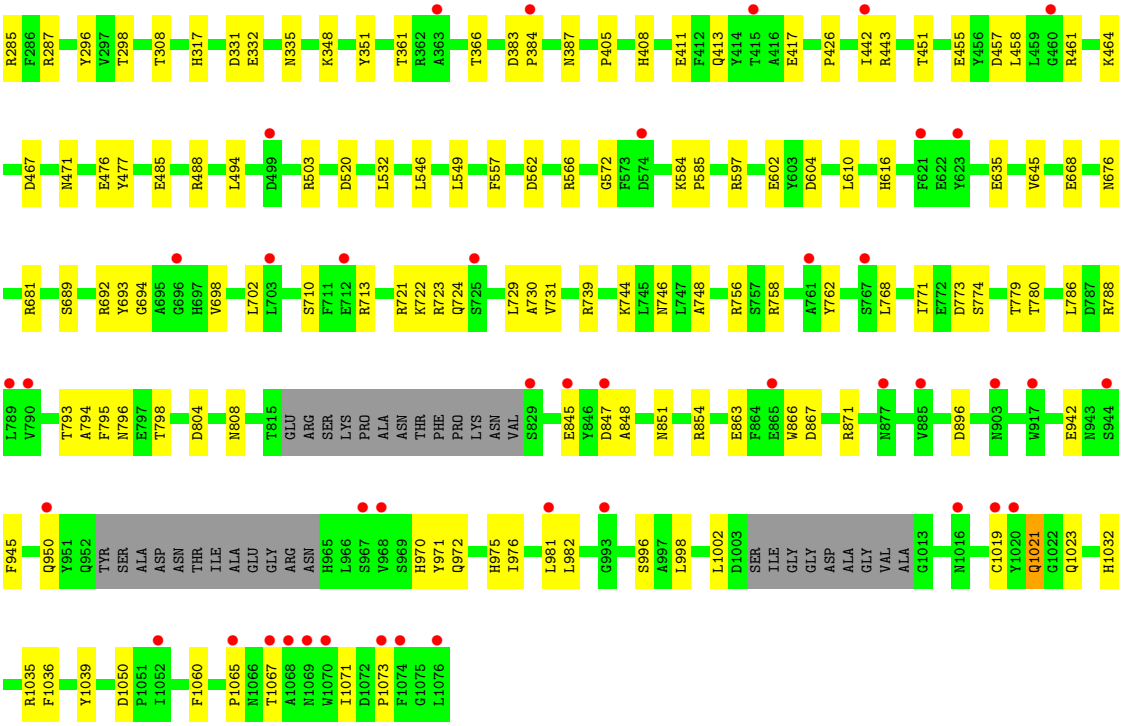

PRO GLY TYR THR PHE SER LEU LYS TYR PRO ASN SER GLU GLU ASN LYS SER TYR LEU ILE LEU ARG ALA GLU TYR ASP PHE ARG ASP PRO GLY GLU ASN ALA THR PHE VAL GLN GLU ILE ARG SER GLN HIS ILE PRO ALA SER ALA GLY GLY VAL GLN GLU ASN ALA THR PHE
PRO ARG SER THR PRO ALA PRO ARG MET SER GLY PRO GLN THR ALA THR VAL VAL GLY PRO ASP PHE ILE ASN GLY GLN GLU ILE TRP THR ASP LYS TYR GLY ARG ILE LYS VAL GLN PHE HIS TRP ASP ARG GLN GLY ALA MET ASP GLU GLN ASN SER SER CYS TRP LEU ARG VAL SER SER PRO TRP ALA
GLY GLY GLY PHE GLY GLY VAL GLN ILE PRO ARG VAL ARG GLU GLU VAL VAL VAL ASP PHE ILE ASN GLY ASP VAL ASP ARG PRO ILE ALA VAL GLY ARG VAL TYR ASN ALA SER ASN MET PRO PRO VAL SER LEU PRO GLU GLN ASN ALA THR GLN LEU GLY PHE LEU THR GLN SER GLY PHE LEU THR ARG THR LYS ASN
GLY THR PRO GLU ASN ALA ASN LYS MET LEU PHE GLU ASP SER GLN GLY ASN GLU LEU LEU SER MET VAL ALA GLU LYS ASP MET ASN THR HIS VAL LYS ASN GLN GLN HIS ASP VAL VAL GLY ASN ALA VAL SER SER ILE GLY GLY LEU ARG SER HIS THR ALA ALA HIS SER THR SER
SER ILE THR MET ALA SER GLY ALA VAL LYS SER TYR GLN SER ASN HIS ASN ARG THR VAL GLN ALA SER LEU ASP SER VAL GLY GLY GLY ASN LEU GLU GLU VAL SER ASP GLY VAL ASP VAL GLU THR ILE THR GLY ALA HIS SER HIS THR VAL SER GLY ALA ALA SER HIS GLN LEU
LEU GLY LEU HIS VAL ASN THR THR THR GLN ASP VAL GLU THR THR VAL THR GLU THR VAL SER ALA ASP GLU THR THR LEU GLU GLU ALA ASP ILE THR LEU GLU THR PRO SER LEU LEU TYR LYS GLU SER SER THR LYS GLN ASP ILE ASN ILE
ASN ALA GLY GLY SER LEU ASP ILE GLN SER THR GLY PRO GLY GLY ILE ILE GLN THR PRO THR ASP ILE GLU LYS GLU SER PRO ALA ASN ASN THR VAL ASN ARG GLU ASP LYS TYR ILE LEU GLU LEU ASN LEU ASP ALA ALA MET LEU ASP ASN ASN THR VAL ASP ILE THR LEU GLU GLU LEU ALA MET SER ASP VAL MET
VAL SER GLY ALA ILE ARG ASN ILE ALA ASP LEU ALA PHE TYR GLY MET GLY GLY THR MET GLN LEU ALA ASN VAL GLY ILE TYR GLY ALA SER SER ASP GLN LYS MET GLY LEU GLY ILE THR ILE SER LEU SER ILE LEU THR ILE LEU ASP ALA LEU GLU LEU ASP ALA LYS GLY PHE LYS
ILE LYS THR MET GLY ALA GLY GLY ARG SER GLY TYR LYS GLY LYS HIS ARG ALA ALA GLY GLY GLY ARG GLY PRO ARG GLY GLY LYS GLY GLY ARG HIS ARG ALA GLY ASN LYS GLY ASP PRO LYS LYS PRO HIS A23 K26 E27 C28 R29 G30 G34 S35 I36 G37 L38 R44
F45 L48 V51 V55 R62 T63 Y64 T69 D72 L77 G78 P79 R80 T83 R105 L112 R121 E124 L125 I126 W127 S138 T144 E148 R149 R155 L156 K157 A160 D161 R162 A163 F177 T183 A184 I185 Q186 H192 W202
T206 G207 D208 D209 G210 T211 P212 L213 R214 R215 R219 E236 H246 L247 I248 Y251 T255 G256 R257 E262 D266 H267 K271 C272 V273 R274 E275 S281 R285 F286 R287 W288 T308 H317 I329 R330 D331 E332 E338 K348 Y349 E350 E353
L358 K359 L360 T361 R362 A363 T366 T367 V368 D383 P384 N387 I388 W389 D392 R401 P405 H408 T409 S410 Q413 E417 Q422 P426 L441 D457 L458 L459 G460 R461 Q465 E473 E476 Y477 N478 R479 Y480 E485 R488 L494
E500 D520 D530 P531 D541 K542 K543 G544 R545 F557 D562 R566 R569 G572 F573 D574 G575 K576 V577 K578 K579 Y580 N581 S591 D596 D604 L610 H616 E652 Y656 R663 W667 N676 R677 S689 R692 A695 G696
H697 V698 L702 S710 F711 E712 N726 L729 N746 L747 A748 L755 R756 S767 S774 R775 T779 A785 L786 D787 V790 S791 A794 E797 T798 E799 R812 T815 GLU ARG SER LYS PRO ALA ASN THR PHE PRO LYS ASN VAL S829 D847 A848
Q849 G850 N851 L852 S860 E865 W866 K874 H884 D893 T894 R897 N903 Q904 Q905 E906 A910 H920 S927 T928 V933 Y940 E941 E942 F945 Q952 TYR SER ALA ASP ASN THR ILE ALA GLU GLY ARG ASN H965 L966 Q972 C973 D974 H975 I976
G977 T978 L981 G987 R994 D1003 S1004 I1005 GLY GLY ASP A1009 A1012 G1013 G1014 Q1015 N1016 N1017 L1018 C1019 Y1020 Q1021 G1022 Q1023 H1032 R1035 F1036 R1037 Y1038 Y1039 F1046 I1047 Q1048 Q1049 D1050 P1051 I1052 F1055 F1060 Y1063 A1064 P1065 N1066 T1067 A1068 N1069 W1070 F1074

• Molecule 1: Putative type VI secretion system YD repeat-containing Rhs element Vgr protein

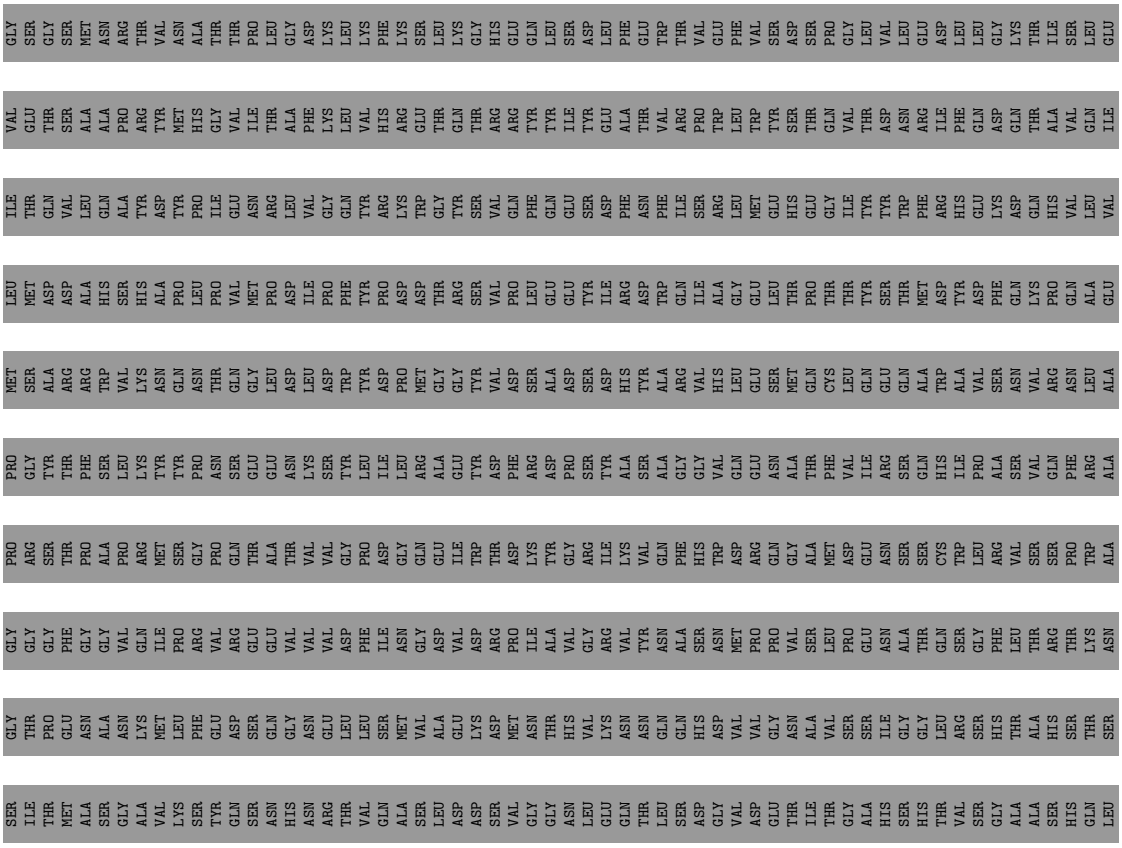
Chain C:

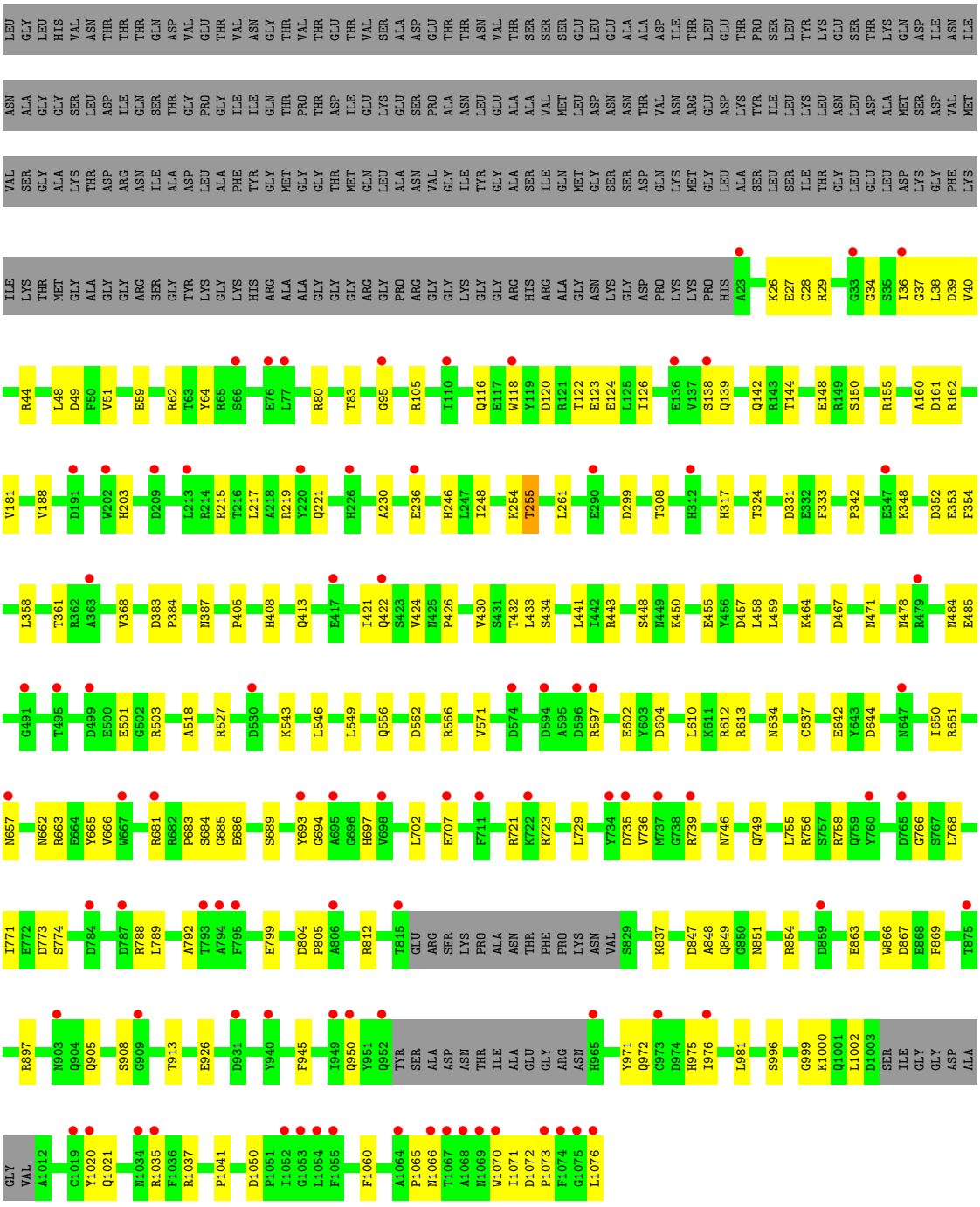






• Molecule 1: Putative type VI secretion system YD repeat-containing Rhs element Vgr protein




LEU GLY LEU HIS VAL ASN THR THR THR GLN ASP VAL GLU THR VAL ASN GLY THR VAL THR GLU THR VAL GLN ALA ALA ASP ILE THR LEU GLU THR PRO SER LEU TYR LYS GLU SER SER LYS GLN ASP ILE ASN ILE
ASN ALA GLY GLY SER LEU ASP ILE GLN SER THR GLY PRO GLY ILE ILE GLN THR PRO THR ASP ILE GLU LYS GLU SER PRO ALA ASN LEU GLU ALA ALA VAL MET LEU ASP ASN ASN THR VAL ASN ARG GLU ASP LYS TYR ILE LEU LYS LEU ASN LEU GLU ALA ALA MET SER ASP VAL MET
VAL SER GLY ALA LYS THR ASP ARG ASN ILE ALA ASP LEU ALA ASN VAL GLY ILE TYR GLY ALA SER ILE GLN MET GLY SER SER ASP GLN LYS MET GLY LEU GLU GLU LEU ASP LYS GLY PHE LYS
ILE LYS THR MET GLY ALA GLY GLY ARG SER GLY TYR LYS GLY ALA ALA GLY GLY GLY ARG GLY PRO ARG GLY GLY LYS GLY GLY ARG HIS ARG ALA GLY ASN LYS GLY ASP PRO LYS LYS PRO HIS A23 K26 E27 C28 R29 G33 G34 S35 I36 G37 L38 D39 V40
B44 L48 D49 F50 V51 E59 R62 T63 Y64 R65 S66 E76 L77 R80 T83 G95 R105 I110 Q116 E117 W118 Y119 D120 R121 T122 E123 E124 L125 I126 E136 V137 S138 Q139 Q142 R143 T144 E148 R149 S150 R155 A160 D161 R162
V181 V188 D191 W202 H203 D209 L213 R214 R215 T216 L217 A218 R219 Y220 Q221 H226 A230 E236 H246 L247 I248 K254 T255 L261 E290 D299 T308 H312 H317 T324 D331 E332 F333 P342 E347 K348 D352 E353 F354
L358 T361 R362 A363 V368 D383 P384 N387 P405 H408 Q413 E417 I421 Q422 S423 V424 W425 P426 V430 S431 T432 L433 S434 L441 I442 R443 S448 N449 K450 E455 Y456 D457 L458 L459 K464 D467 N471 N478 R479 N484 E485
G491 T495 D499 E500 E501 G502 R503 A518 R527 D530 K643 L546 L549 Q556 D562 R566 V571 D574 D594 A595 D596 R597 E602 Y603 D604 L610 K611 R612 R613 N634 C637 E642 Y643 D644 N647 I650 R651
N657 N662 R663 E664 Y665 V666 W667 R681 R682 P683 S684 G685 E686 S689 Y693 G694 A695 G696 H697 V698 L702 E707 F711 R721 K722 R723 L729 Y734 D735 V736 M737 G738 R739 N746 Q749 L755 R756 S757 R758 Q759 Y760 D765 G766 S767 L768
I771 E772 D773 S774 D784 D787 R788 L789 A792 T793 A794 F795 E799 D804 P805 A806 R812 T815 GLU ARG SER LYS PRO ALA ASN THR PHE PRO LYS ASN VAL S829 K837 D847 A848 Q849 G850 N851 R854 D859 E863 W866 D867 E868 F869 T875
B897 N903 Q904 Q905 S908 G909 T913 E926 D931 Y940 F945 I949 Q950 Y951 Q952 TYR SER ALA ASP ASN THR ILE ALA GLU GLY ARG ASN H965 Y971 Q972 C973 D974 H975 I976 L981 S996 G999 K1000 Q1001 L1002 D1003 SER ILE GLY GLY ASP ALA
GLY VAL A1012 C1019 Y1020 Q1021 N1034 R1035 F1036 R1037 P1041 D1050 P1051 I1052 G1053 L1054 F1055 F1060 A1064 P1065 N1066 T1067 A1068 N1069 W1070 I1071 D1072 P1073 F1074 G1075 L1076

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1	Depositor
Cell constants a, b, c, α, β, γ	66.24Å 97.78Å 215.01Å 85.69° 89.99° 76.89°	Depositor
Resolution (Å)	48.48 – 3.36 48.48 – 3.36	Depositor EDS
% Data completeness (in resolution range)	91.2 (48.48-3.36) 93.9 (48.48-3.36)	Depositor EDS
R_{merge}	0.16	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.24 (at 3.33Å)	Xtriage
Refinement program	PHENIX 1.18.2_3874, PHENIX 1.20.1_4487, BUSTER	Depositor
R, R_{free}	0.257 , 0.317 0.258 , 0.314	Depositor DCC
R_{free} test set	3730 reflections (5.00%)	wwPDB-VP
Wilson B-factor (Å^2)	53.4	Xtriage
Anisotropy	0.874	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.32 , 47.3	EDS
L-test for twinning[2]	$< \|L\| > = 0.48$, $< L^2 > = 0.30$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.87	EDS
Total number of atoms	33470	wwPDB-VP
Average B, all atoms (Å^2)	65.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.44% 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

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	0.25	0/8565	0.53	0/11607
1	B	0.25	0/8590	0.54	0/11641
1	C	0.25	0/8555	0.53	0/11593
1	D	0.25	0/8560	0.53	0/11600
All	All	0.25	0/34270	0.53	0/46441

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

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	8365	0	7857	122	0
1	B	8390	0	7882	114	0
1	C	8355	0	7844	115	0
1	D	8360	0	7849	113	0
All	All	33470	0	31432	458	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 7.

All (458) 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:29:ARG:NH2	1:B:121:ARG:O	2.09	0.85
1:B:55:VAL:HG11	1:B:417:GLU:HB3	1.57	0.84
1:D:299:ASP:HB2	1:D:543:LYS:HE3	1.59	0.83
1:A:219:ARG:HH22	1:A:236:GLU:HG2	1.47	0.80
1:C:117:GLU:HG2	1:C:128:ARG:HG2	1.65	0.79
1:C:29:ARG:NH2	1:C:121:ARG:O	2.16	0.77
1:B:257:ARG:NH1	1:B:520:ASP:O	2.18	0.77
1:B:692:ARG:HG2	1:B:698:VAL:HA	1.66	0.77
1:A:257:ARG:NH1	1:A:520:ASP:O	2.18	0.76
1:C:257:ARG:NH1	1:C:520:ASP:O	2.18	0.76
1:D:144:THR:HB	1:D:160:ALA:HB3	1.66	0.76
1:C:635:GLU:HG3	1:D:571:VAL:HG21	1.67	0.76
1:C:143:ARG:NH1	1:C:145:GLU:OE2	2.18	0.76
1:B:994:ARG:HE	1:B:1003:ASP:HB2	1.48	0.75
1:C:219:ARG:HB2	1:C:232:VAL:HB	1.66	0.75
1:A:144:THR:HB	1:A:160:ALA:HB3	1.68	0.75
1:B:26:LYS:HD2	1:B:105:ARG:HH21	1.52	0.74
1:B:729:LEU:HB2	1:B:748:ALA:HB2	1.68	0.74
1:A:1065:PRO:HD3	1:A:1076:LEU:HD11	1.70	0.73
1:A:213:LEU:HB3	1:A:215:ARG:HH12	1.53	0.73
1:A:348:LYS:HB3	1:A:361:THR:HB	1.71	0.72
1:B:579:LYS:NZ	1:B:581:ASN:OD1	2.23	0.71
1:D:972:GLN:HB3	1:D:981:LEU:HB2	1.72	0.71
1:B:656:TYR:HB2	1:B:663:ARG:HB2	1.73	0.70
1:C:758:ARG:HH21	1:C:771:ILE:HD13	1.54	0.70
1:A:364:ASP:OD1	1:A:366:THR:OG1	2.09	0.70
1:B:652:GLU:HB2	1:B:667:TRP:HB2	1.72	0.69
1:B:692:ARG:HD2	1:B:696:GLY:O	1.93	0.69
1:A:1021:GLN:HB3	1:A:1073:PRO:HD3	1.73	0.69
1:B:185:ILE:HG13	1:B:186:GLN:HG2	1.73	0.69
1:D:644:ASP:HB3	1:D:650:ILE:HD11	1.75	0.69
1:C:616:HIS:HD2	1:D:556:GLN:HB2	1.56	0.68
1:B:208:ASP:HA	1:B:211:THR:HG22	1.75	0.68
1:D:602:GLU:OE2	1:D:613:ARG:NH1	2.26	0.68
1:C:871:ARG:NH1	1:C:896:ASP:OD1	2.26	0.68
1:D:597:ARG:NH1	1:D:867:ASP:O	2.26	0.68
1:C:62:ARG:HD2	1:C:77:LEU:HD13	1.75	0.67
1:A:62:ARG:HD2	1:A:77:LEU:HD13	1.77	0.66
1:B:865:GLU:HB2	1:B:874:LYS:HB3	1.78	0.66
1:C:996:SER:HB3	1:C:1002:LEU:HD21	1.78	0.66
1:D:518:ALA:HB3	1:D:527:ARG:HB3	1.75	0.66
1:A:185:ILE:HG13	1:A:186:GLN:HG3	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:787:ASP:O	1:B:1066:ASN:HB3	1.96	0.66
1:B:1069:ASN:OD1	1:B:1070:TRP:N	2.30	0.65
1:C:729:LEU:HB2	1:C:748:ALA:HB2	1.76	0.65
1:A:121:ARG:NH1	1:A:353:GLU:O	2.29	0.65
1:C:26:LYS:HD3	1:C:123:GLU:HG2	1.79	0.65
1:C:616:HIS:CD2	1:D:556:GLN:HB2	2.32	0.65
1:A:433:LEU:HD22	1:A:441:LEU:HD11	1.79	0.64
1:C:185:ILE:HG13	1:C:186:GLN:HG3	1.80	0.64
1:C:945:PHE:HB2	1:C:1021:GLN:HG2	1.80	0.64
1:C:1067:THR:HA	1:C:1071:ILE:HD11	1.79	0.64
1:C:144:THR:HB	1:C:160:ALA:HB3	1.80	0.64
1:B:408:HIS:HB3	1:B:426:PRO:HB3	1.80	0.64
1:A:112:LEU:HD11	1:A:127:TRP:HB3	1.79	0.63
1:B:62:ARG:HD2	1:B:77:LEU:HD13	1.80	0.63
1:D:484:ASN:OD1	1:D:485:GLU:N	2.32	0.63
1:D:221:GLN:HB3	1:D:230:ALA:HB3	1.80	0.63
1:A:1067:THR:HA	1:A:1071:ILE:HD11	1.81	0.63
1:C:602:GLU:OE1	1:D:837:LYS:NZ	2.32	0.62
1:C:1021:GLN:HB3	1:C:1073:PRO:HG3	1.79	0.62
1:C:597:ARG:NH1	1:C:867:ASP:O	2.33	0.62
1:A:221:GLN:HB3	1:A:230:ALA:HB3	1.81	0.62
1:D:368:VAL:HG22	1:D:384:PRO:HD3	1.80	0.62
1:D:422:GLN:HE21	1:D:430:VAL:HG13	1.63	0.62
1:D:142:GLN:HA	1:D:162:ARG:HD3	1.81	0.62
1:D:26:LYS:HG3	1:D:105:ARG:NH2	2.15	0.62
1:C:245:ASN:ND2	1:C:266:ASP:O	2.30	0.62
1:A:729:LEU:HB2	1:A:748:ALA:HB2	1.82	0.61
1:A:701:ILE:HD12	1:A:709:LEU:HD11	1.83	0.61
1:B:677:ARG:C	1:B:692:ARG:HH22	2.03	0.61
1:C:34:GLY:HA2	1:C:38:LEU:HG	1.82	0.61
1:D:478:ASN:HB3	1:D:484:ASN:HB3	1.82	0.60
1:A:972:GLN:HB3	1:A:981:LEU:HB2	1.82	0.60
1:A:545:ARG:NH1	1:A:565:ASP:OD1	2.34	0.60
1:B:255:THR:HG22	1:B:500:GLU:HB2	1.82	0.60
1:C:722:LYS:HB2	1:C:730:ALA:HB3	1.83	0.60
1:A:66:SER:O	1:A:80:ARG:NH1	2.33	0.60
1:A:1072:ASP:HB2	1:A:1073:PRO:HD2	1.82	0.60
1:D:945:PHE:HB2	1:D:1021:GLN:HG2	1.82	0.60
1:A:794:ALA:O	1:A:797:GLU:HG2	2.02	0.60
1:D:905:GLN:OE1	1:D:908:SER:OG	2.19	0.60
1:B:349:TYR:HE1	1:B:360:LEU:HD13	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:129:ARG:NH2	1:C:132:VAL:O	2.33	0.60
1:B:1032:HIS:HB2	1:B:1039:TYR:HB3	1.84	0.60
1:C:793:THR:HG22	1:C:798:THR:HG23	1.83	0.59
1:C:692:ARG:NH2	1:C:942:GLU:OE2	2.35	0.59
1:B:726:ASN:OD1	1:B:987:GLY:N	2.34	0.59
1:A:602:GLU:HB2	1:A:611:LYS:HB2	1.83	0.59
1:C:99:TYR:HB3	1:C:107:VAL:HB	1.85	0.59
1:D:735:ASP:OD1	1:D:736:VAL:N	2.36	0.59
1:B:689:SER:HB2	1:B:702:LEU:HB2	1.83	0.59
1:C:1023:GLN:HB3	1:C:1032:HIS:HB3	1.84	0.58
1:C:383:ASP:OD1	1:C:387:ASN:N	2.36	0.58
1:D:62:ARG:HA	1:D:83:THR:HG22	1.85	0.58
1:B:34:GLY:HA2	1:B:38:LEU:HG	1.85	0.58
1:C:710:SER:HB3	1:C:723:ARG:HG2	1.84	0.58
1:A:331:ASP:OD1	1:A:332:GLU:N	2.36	0.58
1:B:604:ASP:HB3	1:B:610:LEU:HD11	1.85	0.58
1:B:457:ASP:OD1	1:B:458:LEU:N	2.36	0.58
1:B:1052:ILE:HD12	1:B:1076:LEU:HB3	1.86	0.58
1:C:181:VAL:HG22	1:C:188:VAL:HB	1.85	0.58
1:A:556:GLN:HB2	1:B:616:HIS:ND1	2.18	0.58
1:A:368:VAL:HG22	1:A:384:PRO:HD3	1.86	0.57
1:D:181:VAL:HG22	1:D:188:VAL:HB	1.87	0.57
1:D:348:LYS:HB2	1:D:361:THR:HB	1.87	0.57
1:C:348:LYS:HB3	1:C:361:THR:HB	1.87	0.57
1:A:424:VAL:HG22	1:A:430:VAL:HG12	1.87	0.57
1:C:1050:ASP:H	1:C:1060:PHE:HB3	1.70	0.57
1:C:62:ARG:HA	1:C:83:THR:HG22	1.86	0.57
1:A:213:LEU:HB3	1:A:215:ARG:NH1	2.18	0.56
1:A:457:ASP:OD1	1:A:458:LEU:N	2.38	0.56
1:B:465:GLN:HG2	1:B:473:GLU:HB3	1.87	0.56
1:B:562:ASP:OD1	1:B:566:ARG:N	2.36	0.56
1:B:1050:ASP:H	1:B:1060:PHE:HB3	1.69	0.56
1:C:845:GLU:HB3	1:C:854:ARG:HB3	1.86	0.56
1:C:972:GLN:HB3	1:C:981:LEU:HB2	1.88	0.56
1:A:707:GLU:OE2	1:A:710:SER:OG	2.22	0.56
1:D:975:HIS:CD2	1:D:976:ILE:HG23	2.41	0.56
1:D:413:GLN:NE2	1:D:422:GLN:OE1	2.38	0.56
1:C:331:ASP:OD1	1:C:332:GLU:N	2.39	0.56
1:B:80:ARG:HE	1:B:246:HIS:HB2	1.72	0.55
1:A:467:ASP:OD1	1:A:471:ASN:N	2.37	0.55
1:B:1037:ARG:HA	1:B:1048:GLN:NE2	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:34:GLY:HA2	1:D:38:LEU:HG	1.88	0.55
1:C:779:THR:HG23	1:C:794:ALA:HB2	1.88	0.55
1:D:457:ASP:OD1	1:D:458:LEU:N	2.39	0.55
1:A:34:GLY:HA2	1:A:38:LEU:HG	1.88	0.55
1:A:945:PHE:CD2	1:A:1073:PRO:HG3	2.42	0.55
1:D:248:ILE:HG23	1:D:261:LEU:HD12	1.88	0.55
1:A:289:ASP:HB2	1:A:296:TYR:HE1	1.71	0.55
1:A:29:ARG:NH2	1:A:121:ARG:O	2.39	0.55
1:A:62:ARG:HA	1:A:83:THR:HG22	1.88	0.55
1:D:1037:ARG:NH2	1:D:1060:PHE:O	2.38	0.55
1:A:408:HIS:HB3	1:A:426:PRO:HB3	1.87	0.55
1:D:408:HIS:HB3	1:D:426:PRO:HB3	1.87	0.55
1:D:756:ARG:HD2	1:D:774:SER:HB3	1.87	0.54
1:D:116:GLN:HE21	1:D:118:TRP:HE1	1.55	0.54
1:B:45:PHE:HE1	1:B:248:ILE:HG13	1.72	0.54
1:B:488:ARG:HH12	1:B:494:LEU:HG	1.72	0.54
1:B:851:ASN:HB3	1:B:866:TRP:CE2	2.42	0.54
1:D:851:ASN:HB3	1:D:866:TRP:CE2	2.43	0.54
1:A:804:ASP:OD1	1:A:808:ASN:N	2.33	0.54
1:C:107:VAL:HG13	1:C:123:GLU:OE1	2.07	0.54
1:D:48:LEU:HD21	1:D:51:VAL:HG23	1.88	0.54
1:D:254:LYS:HB2	1:D:501:GLU:HG2	1.90	0.54
1:D:255:THR:OG1	1:D:503:ARG:NH2	2.41	0.54
1:A:289:ASP:HB3	1:A:294:LYS:HB2	1.90	0.54
1:B:852:LEU:O	1:B:866:TRP:NE1	2.29	0.54
1:A:213:LEU:HD13	1:A:215:ARG:HH22	1.72	0.54
1:C:51:VAL:HG13	1:C:59:GLU:HG2	1.89	0.54
1:D:768:LEU:HD21	1:D:771:ILE:HD11	1.90	0.54
1:C:467:ASP:OD1	1:C:471:ASN:N	2.40	0.54
1:C:744:LYS:HE2	1:C:746:ASN:HD22	1.71	0.54
1:B:126:ILE:HB	1:B:138:SER:HB3	1.90	0.53
1:C:55:VAL:HG11	1:C:417:GLU:HB3	1.90	0.53
1:D:666:VAL:H	1:D:683:PRO:HB3	1.72	0.53
1:D:1050:ASP:H	1:D:1060:PHE:HB3	1.72	0.53
1:C:676:ASN:HB3	1:C:692:ARG:NH1	2.23	0.53
1:C:366:THR:HG21	1:C:384:PRO:HB3	1.91	0.53
1:D:148:GLU:O	1:D:155:ARG:N	2.42	0.53
1:A:26:LYS:HE3	1:A:123:GLU:O	2.09	0.53
1:A:62:ARG:NH2	1:A:241:TYR:OH	2.41	0.53
1:A:604:ASP:HB3	1:A:610:LEU:HD11	1.91	0.53
1:D:455:GLU:HB2	1:D:464:LYS:HB3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:161:ASP:OD1	1:D:162:ARG:N	2.40	0.52
1:D:352:ASP:HB3	1:D:358:LEU:HD11	1.91	0.52
1:D:432:THR:OG1	1:D:443:ARG:NH2	2.38	0.52
1:B:144:THR:HB	1:B:160:ALA:HB3	1.91	0.52
1:D:684:SER:HB2	1:D:686:GLU:OE1	2.09	0.52
1:D:29:ARG:NH1	1:D:124:GLU:OE2	2.36	0.52
1:D:604:ASP:HB3	1:D:610:LEU:HD11	1.92	0.52
1:D:1066:ASN:HD21	1:D:1070:TRP:HD1	1.55	0.52
1:C:756:ARG:HD3	1:C:981:LEU:HD21	1.91	0.52
1:C:851:ASN:HB3	1:C:866:TRP:CE2	2.44	0.52
1:B:48:LEU:HD21	1:B:51:VAL:HG23	1.92	0.52
1:D:324:THR:HB	1:D:342:PRO:HG2	1.91	0.52
1:C:476:GLU:HB3	1:C:485:GLU:HG2	1.90	0.51
1:A:476:GLU:HB3	1:A:485:GLU:HG2	1.92	0.51
1:B:1016:ASN:ND2	1:B:1018:LEU:O	2.42	0.51
1:C:457:ASP:OD1	1:C:458:LEU:N	2.39	0.51
1:A:562:ASP:OD1	1:A:566:ARG:N	2.38	0.51
1:B:1052:ILE:HG13	1:B:1076:LEU:HD22	1.93	0.51
1:B:219:ARG:NH2	1:B:236:GLU:OE1	2.26	0.51
1:B:392:ASP:OD2	1:B:401:ARG:NH2	2.40	0.51
1:B:1037:ARG:NH2	1:B:1060:PHE:O	2.41	0.51
1:D:26:LYS:HD2	1:D:123:GLU:HG3	1.93	0.51
1:A:689:SER:HB2	1:A:702:LEU:HB2	1.91	0.51
1:B:476:GLU:HB3	1:B:485:GLU:HG2	1.93	0.51
1:B:331:ASP:OD1	1:B:332:GLU:N	2.44	0.51
1:B:974:ASP:OD1	1:B:978:THR:N	2.41	0.51
1:A:121:ARG:HH12	1:A:353:GLU:C	2.14	0.51
1:B:410:SER:HB3	1:B:426:PRO:HD3	1.93	0.50
1:B:413:GLN:OE1	1:B:422:GLN:NE2	2.42	0.50
1:C:53:PRO:O	1:C:186:GLN:NE2	2.44	0.50
1:B:383:ASP:OD1	1:B:387:ASN:N	2.43	0.50
1:A:978:THR:HG23	1:A:1020:TYR:H	1.76	0.50
1:A:1052:ILE:HG12	1:A:1055:PHE:HB2	1.93	0.50
1:C:287:ARG:HB3	1:C:296:TYR:HB2	1.94	0.50
1:C:562:ASP:OD1	1:C:566:ARG:N	2.42	0.50
1:A:546:LEU:HD21	1:A:549:LEU:HD21	1.94	0.50
1:B:348:LYS:HB2	1:B:361:THR:HB	1.94	0.50
1:B:893:ASP:OD1	1:B:894:THR:N	2.43	0.50
1:D:897:ARG:HD3	1:D:1035:ARG:HH21	1.76	0.50
1:D:353:GLU:HG3	1:D:354:PHE:HD1	1.77	0.49
1:D:681:ARG:NH1	1:D:685:GLY:O	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:794:ALA:O	1:B:797:GLU:HG2	2.12	0.49
1:C:847:ASP:OD1	1:C:848:ALA:N	2.44	0.49
1:D:799:GLU:OE2	1:D:812:ARG:NH2	2.45	0.49
1:C:768:LEU:HD21	1:C:771:ILE:HD11	1.94	0.49
1:D:203:HIS:CD2	1:D:217:LEU:HD13	2.46	0.49
1:D:1000:LYS:HB2	1:D:1041:PRO:HB2	1.95	0.49
1:A:26:LYS:HD2	1:A:123:GLU:HG3	1.92	0.49
1:A:133:ASP:OD1	1:A:149:ARG:NH1	2.44	0.49
1:B:368:VAL:HG22	1:B:384:PRO:HD3	1.94	0.49
1:D:847:ASP:OD1	1:D:848:ALA:N	2.45	0.49
1:D:126:ILE:HB	1:D:138:SER:HB2	1.95	0.49
1:D:434:SER:HB2	1:D:443:ARG:HG2	1.94	0.49
1:A:656:TYR:HB2	1:A:663:ARG:HB2	1.94	0.49
1:C:998:LEU:O	1:C:1039:TYR:OH	2.26	0.49
1:A:122:THR:HG23	1:A:334:HIS:CE1	2.47	0.49
1:A:595:ALA:O	1:A:849:GLN:NE2	2.44	0.49
1:C:1019:CYS:O	1:C:1023:GLN:HB2	2.13	0.49
1:A:768:LEU:HD21	1:A:771:ILE:HD11	1.95	0.49
1:A:926:GLU:HB2	1:A:935:LYS:HD3	1.93	0.49
1:D:26:LYS:HD3	1:D:28:CYS:SG	2.53	0.49
1:D:1072:ASP:HB3	1:D:1076:LEU:HG	1.94	0.49
1:A:89:VAL:HB	1:A:154:PHE:HB2	1.94	0.48
1:A:235:TYR:OH	1:A:461:ARG:NH1	2.45	0.48
1:A:352:ASP:HB3	1:A:358:LEU:HD11	1.95	0.48
1:B:994:ARG:HB3	1:B:1003:ASP:HB2	1.95	0.48
1:C:780:THR:HB	1:C:793:THR:OG1	2.13	0.48
1:D:139:GLN:O	1:D:142:GLN:HG2	2.12	0.48
1:D:707:GLU:OE1	1:D:723:ARG:NH2	2.45	0.48
1:A:773:ASP:OD1	1:A:774:SER:N	2.45	0.48
1:B:1037:ARG:HA	1:B:1048:GLN:HE21	1.78	0.48
1:D:999:GLY:HA3	1:D:1020:TYR:HE1	1.76	0.48
1:A:161:ASP:OD1	1:A:162:ARG:N	2.45	0.48
1:B:285:ARG:NH1	1:B:286:PHE:O	2.47	0.48
1:A:847:ASP:OD1	1:A:848:ALA:N	2.44	0.48
1:B:26:LYS:HD2	1:B:105:ARG:NH2	2.24	0.48
1:C:532:LEU:HD12	1:C:786:LEU:HD12	1.96	0.48
1:D:739:ARG:HH11	1:D:766:GLY:HA2	1.78	0.48
1:C:308:THR:HB	1:C:317:HIS:HB2	1.96	0.48
1:B:308:THR:HB	1:B:317:HIS:HB2	1.94	0.48
1:C:455:GLU:HB2	1:C:464:LYS:HB2	1.96	0.48
1:D:467:ASP:OD1	1:D:471:ASN:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:99:TYR:N	1:C:107:VAL:O	2.35	0.48
1:A:746:ASN:ND2	1:A:755:LEU:HB3	2.28	0.47
1:B:676:ASN:HB3	1:B:692:ARG:NH2	2.28	0.47
1:A:851:ASN:HB3	1:A:866:TRP:CE2	2.48	0.47
1:B:928:THR:HG22	1:B:933:VAL:HG22	1.96	0.47
1:C:461:ARG:HB3	1:C:477:TYR:CZ	2.49	0.47
1:A:105:ARG:NH1	1:A:107:VAL:HG22	2.30	0.47
1:A:799:GLU:HG2	1:A:814:LYS:HB3	1.96	0.47
1:B:121:ARG:NH2	1:B:353:GLU:HB2	2.29	0.47
1:B:161:ASP:OD1	1:B:162:ARG:N	2.46	0.47
1:C:44:ARG:HA	1:C:64:TYR:O	2.15	0.47
1:A:742:GLU:HG3	1:A:759:GLN:HG3	1.96	0.47
1:A:928:THR:HG22	1:A:933:VAL:HG22	1.96	0.47
1:B:779:THR:HG23	1:B:794:ALA:HB2	1.96	0.47
1:B:148:GLU:HG2	1:B:157:LYS:HB2	1.96	0.47
1:B:1052:ILE:HG23	1:B:1055:PHE:HB2	1.97	0.47
1:D:433:LEU:HD22	1:D:441:LEU:HD11	1.95	0.47
1:A:434:SER:HB3	1:A:443:ARG:HG2	1.96	0.47
1:B:112:LEU:HD11	1:B:127:TRP:HB3	1.96	0.47
1:B:920:HIS:HA	1:B:1035:ARG:HH11	1.79	0.47
1:A:852:LEU:O	1:A:866:TRP:NE1	2.35	0.47
1:B:202:TRP:CE3	1:B:214:ARG:HB3	2.50	0.47
1:D:693:TYR:OH	1:D:697:HIS:ND1	2.48	0.47
1:A:36:ILE:HG13	1:A:37:GLY:N	2.30	0.47
1:A:202:TRP:HA	1:A:215:ARG:O	2.15	0.46
1:A:665:TYR:HB3	1:A:683:PRO:HG2	1.96	0.46
1:C:147:PHE:HB3	1:C:154:PHE:HB3	1.97	0.46
1:C:161:ASP:OD1	1:C:162:ARG:N	2.47	0.46
1:C:676:ASN:HB3	1:C:692:ARG:HH11	1.79	0.46
1:C:975:HIS:CD2	1:C:976:ILE:HG23	2.51	0.46
1:A:213:LEU:HB3	1:A:215:ARG:HH22	1.80	0.46
1:C:335:ASN:HB3	1:C:351:TYR:CZ	2.51	0.46
1:B:29:ARG:NH1	1:B:124:GLU:OE2	2.38	0.46
1:B:1020:TYR:HB2	1:B:1023:GLN:HG3	1.97	0.46
1:C:721:ARG:HG2	1:C:729:LEU:HD11	1.98	0.46
1:A:248:ILE:HD11	1:A:251:TYR:HB3	1.98	0.46
1:B:36:ILE:HG13	1:B:37:GLY:N	2.31	0.46
1:C:488:ARG:HH12	1:C:494:LEU:HG	1.80	0.46
1:C:804:ASP:OD1	1:C:808:ASN:N	2.38	0.46
1:B:799:GLU:OE2	1:B:812:ARG:NH1	2.49	0.46
1:C:443:ARG:HG3	1:C:451:THR:HG23	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:946:VAL:HG22	1:A:977:GLY:HA3	1.98	0.46
1:A:329:ILE:HB	1:A:338:GLU:HB3	1.98	0.46
1:B:62:ARG:HA	1:B:83:THR:HG22	1.97	0.45
1:A:612:ARG:HG2	1:A:869:PHE:CZ	2.51	0.45
1:D:383:ASP:HB2	1:D:384:PRO:HD2	1.98	0.45
1:D:546:LEU:HD21	1:D:549:LEU:HD21	1.97	0.45
1:A:845:GLU:HB3	1:A:854:ARG:HB3	1.98	0.45
1:B:72:ASP:HA	1:B:79:PRO:HA	1.98	0.45
1:C:201:ILE:HB	1:C:218:ALA:HB3	1.99	0.45
1:A:183:THR:HG22	1:A:184:ALA:H	1.82	0.45
1:A:974:ASP:OD1	1:A:978:THR:N	2.47	0.45
1:C:36:ILE:HG13	1:C:37:GLY:N	2.32	0.45
1:C:584:LYS:HB3	1:C:585:PRO:HD3	1.99	0.45
1:A:945:PHE:HE2	1:A:1035:ARG:HG3	1.82	0.45
1:C:405:PRO:HB2	1:C:645:VAL:HG21	1.98	0.45
1:A:105:ARG:CZ	1:A:107:VAL:HG22	2.47	0.45
1:A:528:LYS:NZ	1:A:530:ASP:OD1	2.49	0.45
1:B:756:ARG:HD2	1:B:774:SER:OG	2.16	0.45
1:B:975:HIS:CD2	1:B:976:ILE:HG23	2.51	0.45
1:D:120:ASP:C	1:D:122:THR:H	2.20	0.45
1:D:1071:ILE:HG22	1:D:1073:PRO:HD3	1.98	0.45
1:B:1019:CYS:O	1:B:1023:GLN:HB2	2.17	0.45
1:D:80:ARG:HE	1:D:246:HIS:HB2	1.82	0.45
1:C:604:ASP:HB3	1:C:610:LEU:HD11	1.99	0.45
1:D:36:ILE:HG13	1:D:37:GLY:N	2.32	0.45
1:A:112:LEU:O	1:A:129:ARG:NH1	2.50	0.45
1:B:581:ASN:HB2	1:B:591:SER:OG	2.17	0.45
1:D:308:THR:HB	1:D:317:HIS:HB2	1.99	0.45
1:D:27:GLU:OE2	1:D:44:ARG:NH1	2.50	0.45
1:D:657:ASN:ND2	1:D:662:ASN:OD1	2.50	0.45
1:C:221:GLN:HB3	1:C:230:ALA:HB3	1.98	0.44
1:C:692:ARG:HG2	1:C:698:VAL:HG22	1.98	0.44
1:A:105:ARG:HH12	1:A:123:GLU:HG2	1.82	0.44
1:A:335:ASN:HB3	1:A:351:TYR:CZ	2.52	0.44
1:B:1037:ARG:NH1	1:B:1075:GLY:O	2.46	0.44
1:C:201:ILE:O	1:C:217:LEU:N	2.40	0.44
1:D:634:ASN:OD1	1:D:637:CYS:N	2.51	0.44
1:A:156:LEU:O	1:A:169:LEU:HD12	2.16	0.44
1:D:804:ASP:OD1	1:D:805:PRO:HD2	2.18	0.44
1:C:40:VAL:O	1:C:271:LYS:HG2	2.18	0.44
1:C:83:THR:H	1:C:86:THR:HG1	1.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:80:ARG:HH12	1:A:247:LEU:HD23	1.83	0.44
1:B:271:LYS:HD3	1:B:288:TRP:CD1	2.52	0.44
1:C:76:GLU:OE1	1:C:86:THR:HG22	2.18	0.44
1:D:387:ASN:HB3	1:D:405:PRO:HG2	2.00	0.44
1:D:788:ARG:HA	1:D:1065:PRO:O	2.18	0.44
1:D:597:ARG:HH21	1:D:849:GLN:HG3	1.81	0.44
1:D:663:ARG:NH1	1:D:926:GLU:OE1	2.50	0.44
1:B:262:GLU:OE1	1:B:274:ARG:NH2	2.46	0.44
1:B:329:ILE:HB	1:B:338:GLU:HB3	2.00	0.44
1:D:562:ASP:OD1	1:D:566:ARG:N	2.41	0.44
1:A:383:ASP:OD1	1:A:387:ASN:N	2.49	0.44
1:A:658:ALA:HB1	1:A:891:ILE:HD12	1.99	0.44
1:C:408:HIS:HB3	1:C:426:PRO:HB3	2.00	0.44
1:D:422:GLN:HE22	1:D:424:VAL:CG2	2.31	0.44
1:A:461:ARG:HB3	1:A:477:TYR:CZ	2.53	0.43
1:B:541:ASP:OD1	1:B:545:ARG:N	2.51	0.43
1:B:972:GLN:HB3	1:B:981:LEU:HB2	1.99	0.43
1:D:215:ARG:NH1	1:D:459:LEU:HD22	2.33	0.43
1:A:455:GLU:HB2	1:A:464:LYS:HB3	1.99	0.43
1:A:557:PHE:CD2	1:A:572:GLY:HA2	2.54	0.43
1:B:847:ASP:OD1	1:B:848:ALA:N	2.52	0.43
1:C:546:LEU:HD21	1:C:549:LEU:HD21	2.01	0.43
1:B:1035:ARG:HE	1:B:1036:PHE:HE1	1.67	0.43
1:A:121:ARG:HH22	1:A:353:GLU:HA	1.84	0.43
1:A:854:ARG:NH1	1:A:863:GLU:OE2	2.52	0.43
1:B:155:ARG:HD3	1:B:155:ARG:HA	1.88	0.43
1:B:177:PHE:HB3	1:B:192:HIS:CE1	2.54	0.43
1:B:576:LYS:NZ	1:B:849:GLN:O	2.38	0.43
1:C:39:ASP:OD1	1:C:40:VAL:N	2.52	0.43
1:D:331:ASP:HB3	1:D:333:PHE:H	1.83	0.43
1:D:689:SER:HB2	1:D:702:LEU:HB2	2.00	0.43
1:D:999:GLY:HA3	1:D:1020:TYR:CE1	2.54	0.43
1:B:1046:PHE:CZ	1:B:1075:GLY:HA2	2.54	0.43
1:C:689:SER:HB2	1:C:702:LEU:HB2	2.01	0.43
1:D:49:ASP:OD2	1:D:62:ARG:NH1	2.52	0.43
1:D:746:ASN:OD1	1:D:755:LEU:HA	2.17	0.43
1:B:215:ARG:CZ	1:B:459:LEU:HD11	2.50	0.42
1:C:668:GLU:HB2	1:C:681:ARG:HB2	2.01	0.42
1:C:721:ARG:HG3	1:C:731:VAL:HG22	2.00	0.42
1:D:150:SER:HB3	1:D:155:ARG:HG2	2.02	0.42
1:D:219:ARG:HH22	1:D:236:GLU:HG2	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:211:THR:OG1	1:B:212:PRO:HD3	2.19	0.42
1:A:739:ARG:HD2	1:A:762:TYR:CG	2.54	0.42
1:B:183:THR:HG22	1:B:184:ALA:H	1.83	0.42
1:D:1020:TYR:HB3	1:D:1021:GLN:H	1.60	0.42
1:A:27:GLU:OE2	1:A:44:ARG:NH1	2.52	0.42
1:A:40:VAL:O	1:A:271:LYS:HG2	2.18	0.42
1:C:693:TYR:OH	1:C:713:ARG:HD2	2.19	0.42
1:C:1035:ARG:HG2	1:C:1036:PHE:CD2	2.55	0.42
1:D:721:ARG:HB3	1:D:729:LEU:HD11	2.01	0.42
1:A:201:ILE:O	1:A:217:LEU:N	2.49	0.42
1:B:461:ARG:HB3	1:B:477:TYR:CZ	2.54	0.42
1:C:780:THR:HB	1:C:793:THR:HG1	1.85	0.42
1:A:537:HIS:HB2	1:A:550:GLN:HB3	2.01	0.42
1:A:749:GLN:O	1:D:749:GLN:NE2	2.53	0.42
1:B:677:ARG:O	1:B:692:ARG:NH2	2.48	0.42
1:D:44:ARG:HA	1:D:64:TYR:O	2.20	0.42
1:D:996:SER:HB3	1:D:1002:LEU:HD21	2.01	0.42
1:B:1052:ILE:CD1	1:B:1076:LEU:HB3	2.49	0.42
1:C:411:GLU:OE2	1:C:413:GLN:NE2	2.53	0.42
1:D:421:ILE:HD13	1:D:421:ILE:HA	1.90	0.42
1:A:169:LEU:HD23	1:A:181:VAL:HG13	2.01	0.42
1:A:756:ARG:HD2	1:A:774:SER:HB2	2.02	0.42
1:B:574:ASP:OD1	1:B:574:ASP:N	2.53	0.42
1:D:612:ARG:HG2	1:D:869:PHE:CZ	2.55	0.42
1:B:557:PHE:HB2	1:B:573:PHE:CE1	2.55	0.42
1:C:758:ARG:HE	1:C:771:ILE:HG21	1.84	0.42
1:D:758:ARG:NH1	1:D:773:ASP:OD2	2.50	0.42
1:B:531:PRO:HB2	1:B:785:ALA:HB1	2.02	0.41
1:C:227:ASP:HB3	1:C:243:TYR:CE1	2.55	0.41
1:C:710:SER:HB3	1:C:723:ARG:CG	2.49	0.41
1:A:39:ASP:OD1	1:A:40:VAL:N	2.52	0.41
1:A:624:ASP:HB3	1:A:630:ILE:HG13	2.03	0.41
1:A:1034:ASN:ND2	1:A:1039:TYR:HB2	2.35	0.41
1:A:36:ILE:HD12	1:A:272:CYS:HB3	2.01	0.41
1:A:742:GLU:OE1	1:A:744:LYS:NZ	2.52	0.41
1:C:215:ARG:HH12	1:C:234:GLN:HB2	1.85	0.41
1:C:950:GLN:HB2	1:C:971:TYR:CE2	2.55	0.41
1:A:26:LYS:NZ	1:A:28:CYS:HB3	2.35	0.41
1:A:314:TYR:HB3	1:A:330:ARG:CZ	2.50	0.41
1:B:350:GLU:O	1:B:358:LEU:N	2.49	0.41
1:D:448:SER:HB2	1:D:450:LYS:HG2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:788:ARG:HG2	1:A:1065:PRO:HB3	2.02	0.41
1:D:383:ASP:OD1	1:D:387:ASN:N	2.48	0.41
1:C:112:LEU:HD22	1:C:116:GLN:HB3	2.02	0.41
1:C:156:LEU:O	1:C:169:LEU:HD12	2.21	0.41
1:C:285:ARG:HB3	1:C:298:THR:HB	2.03	0.41
1:B:44:ARG:HA	1:B:64:TYR:O	2.20	0.41
1:B:389:TRP:CE2	1:B:405:PRO:HD3	2.55	0.41
1:C:255:THR:OG1	1:C:503:ARG:NH2	2.54	0.41
1:D:642:GLU:HB2	1:D:651:ARG:HB3	2.02	0.41
1:B:479:ARG:NH1	1:B:480:TYR:OH	2.54	0.41
1:B:543:LYS:HA	1:B:543:LYS:HD2	1.84	0.41
1:B:746:ASN:ND2	1:B:755:LEU:HB3	2.36	0.41
1:C:724:GLN:HB3	1:C:970:HIS:CE1	2.56	0.41
1:C:971:TYR:CE1	1:C:982:LEU:HD13	2.55	0.41
1:A:142:GLN:HA	1:A:162:ARG:HG2	2.03	0.41
1:A:252:SER:HA	1:A:258:GLY:HA2	2.03	0.41
1:A:945:PHE:HD2	1:A:1022:GLY:HA3	1.86	0.41
1:A:1032:HIS:CE1	1:A:1041:PRO:HG3	2.56	0.41
1:B:557:PHE:CD2	1:B:572:GLY:HA2	2.56	0.41
1:B:569:ARG:HG3	1:B:578:LYS:O	2.21	0.41
1:B:897:ARG:HD3	1:B:1035:ARG:NH1	2.35	0.41
1:C:773:ASP:OD1	1:C:774:SER:N	2.54	0.41
1:C:854:ARG:NH1	1:C:863:GLU:OE2	2.54	0.41
1:D:51:VAL:HG13	1:D:59:GLU:HG2	2.02	0.41
1:D:789:LEU:HD11	1:D:792:ALA:HB2	2.03	0.41
1:D:854:ARG:NH1	1:D:863:GLU:OE2	2.53	0.41
1:B:36:ILE:HD12	1:B:272:CYS:HB3	2.03	0.41
1:B:729:LEU:N	1:B:746:ASN:O	2.42	0.41
1:C:205:VAL:HG12	1:C:208:ASP:H	1.86	0.41
1:C:488:ARG:NH1	1:C:494:LEU:HG	2.36	0.41
1:C:557:PHE:CD2	1:C:572:GLY:HA2	2.56	0.41
1:D:913:THR:HA	1:D:926:GLU:O	2.21	0.41
1:C:795:PHE:CG	1:C:796:ASN:N	2.85	0.40
1:D:950:GLN:HB2	1:D:971:TYR:CE2	2.56	0.40
1:C:27:GLU:OE2	1:C:44:ARG:NH1	2.53	0.40
1:C:258:GLY:N	1:C:278:ASP:OD2	2.52	0.40
1:D:116:GLN:NE2	1:D:118:TRP:HE1	2.17	0.40
1:A:676:ASN:HB3	1:A:692:ARG:NH1	2.36	0.40
1:C:739:ARG:HD2	1:C:762:TYR:CD2	2.57	0.40
1:A:1003:ASP:N	1:A:1003:ASP:OD1	2.52	0.40
1:A:44:ARG:HA	1:A:64:TYR:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:349:TYR:CE1	1:A:360:LEU:HD13	2.57	0.40
1:A:801:PHE:HZ	1:A:997:ALA:HB3	1.86	0.40
1:B:488:ARG:HH12	1:B:494:LEU:CG	2.35	0.40
1:C:788:ARG:HA	1:C:1065:PRO:O	2.21	0.40
1:D:39:ASP:OD1	1:D:40:VAL:N	2.54	0.40
1:D:665:TYR:HB3	1:D:683:PRO:HG3	2.03	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	1013/1879 (54%)	969 (96%)	44 (4%)	0	100	100
1	B	1018/1879 (54%)	971 (95%)	47 (5%)	0	100	100
1	C	1012/1879 (54%)	966 (96%)	45 (4%)	1 (0%)	48	77
1	D	1013/1879 (54%)	968 (96%)	43 (4%)	2 (0%)	44	71
All	All	4056/7516 (54%)	3874 (96%)	179 (4%)	3 (0%)	48	77

All (3) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	C	694	GLY
1	D	694	GLY
1	D	95	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	889/1607 (55%)	883 (99%)	6 (1%)	81	89
1	B	890/1607 (55%)	884 (99%)	6 (1%)	81	89
1	C	887/1607 (55%)	882 (99%)	5 (1%)	84	91
1	D	887/1607 (55%)	886 (100%)	1 (0%)	92	97
All	All	3553/6428 (55%)	3535 (100%)	18 (0%)	86	92

All (18) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	132	VAL
1	A	200	THR
1	A	366	THR
1	A	430	VAL
1	A	442	ILE
1	A	1021	GLN
1	B	69	THR
1	B	149	ARG
1	B	366	THR
1	B	775	ARG
1	B	790	VAL
1	B	1023	GLN
1	C	199	THR
1	C	216	THR
1	C	255	THR
1	C	442	ILE
1	C	1021	GLN
1	D	255	THR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (7) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	1023	GLN
1	B	648	ASN
1	B	1048	GLN
1	C	186	GLN
1	C	754	ASN
1	C	970	HIS
1	D	1069	ASN

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

There are no ligands in this entry.

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	1021/1879 (54%)	0.74	89 (8%)	17	18	30, 56, 98, 228	0
1	B	1026/1879 (54%)	0.68	75 (7%)	22	22	30, 56, 99, 175	0
1	C	1020/1879 (54%)	0.78	69 (6%)	25	24	39, 68, 108, 156	0
1	D	1021/1879 (54%)	0.81	86 (8%)	18	19	38, 69, 111, 201	0
All	All	4088/7516 (54%)	0.75	319 (7%)	20	20	30, 62, 107, 228	0

All (319) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	1035	ARG	6.6
1	D	1020	TYR	5.6
1	D	1067	THR	5.5
1	A	1073	PRO	5.3
1	A	1020	TYR	4.9
1	D	1054	LEU	4.7
1	C	1068	ALA	4.6
1	A	574	ASP	4.6
1	B	1020	TYR	4.5
1	A	213	LEU	4.5
1	D	735	ASP	4.5
1	B	206	THR	4.5
1	A	903	ASN	4.3
1	D	202	TRP	4.3
1	D	594	ASP	4.3
1	A	1034	ASN	4.2
1	D	574	ASP	4.2
1	D	693	TYR	4.1
1	C	1067	THR	4.0
1	B	1064	ALA	3.9
1	B	1035	ARG	3.9

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Mol	Chain	Res	Type	RSRZ
1	A	530	ASP	3.9
1	C	460	GLY	3.9
1	C	76	GLU	3.9
1	D	1052	ILE	3.9
1	A	95	GLY	3.8
1	B	163	ALA	3.8
1	B	1075	GLY	3.8
1	B	275	GLU	3.7
1	D	95	GLY	3.7
1	D	793	THR	3.7
1	D	597	ARG	3.7
1	C	1019	CYS	3.7
1	D	236	GLU	3.6
1	B	210	GLY	3.6
1	B	1067	THR	3.6
1	C	79	PRO	3.6
1	D	1019	CYS	3.5
1	A	1066	ASN	3.5
1	B	966	LEU	3.5
1	D	794	ALA	3.5
1	D	499	ASP	3.5
1	A	215	ARG	3.5
1	C	877	ASN	3.4
1	A	704	ASP	3.4
1	A	1036	PHE	3.4
1	A	1022	GLY	3.4
1	A	94	THR	3.4
1	A	1070	TRP	3.4
1	D	1068	ALA	3.4
1	A	1067	THR	3.4
1	A	1019	CYS	3.3
1	D	707	GLU	3.3
1	D	1066	ASN	3.3
1	D	23	ALA	3.3
1	C	28	CYS	3.3
1	D	815	THR	3.2
1	B	710	SER	3.2
1	D	1064	ALA	3.2
1	C	1073	PRO	3.2
1	B	1065	PRO	3.2
1	D	1070	TRP	3.2
1	D	931	ASP	3.1

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Mol	Chain	Res	Type	RSRZ
1	A	1064	ALA	3.1
1	C	1076	LEU	3.1
1	D	1053	GLY	3.1
1	B	904	GLN	3.1
1	D	806	ALA	3.1
1	A	906	GLU	3.0
1	C	944	SER	3.0
1	A	103	VAL	3.0
1	B	1076	LEU	3.0
1	A	191	ASP	3.0
1	A	266	ASP	3.0
1	D	363	ALA	3.0
1	A	1063	TYR	3.0
1	D	1073	PRO	3.0
1	C	186	GLN	3.0
1	B	1063	TYR	3.0
1	A	292	GLU	3.0
1	D	667	TRP	3.0
1	D	795	PHE	3.0
1	A	1037	ARG	2.9
1	B	849	GLN	2.9
1	A	594	ASP	2.9
1	C	903	ASN	2.9
1	B	1052	ILE	2.9
1	B	695	ALA	2.9
1	A	705	ASP	2.9
1	A	985	ASP	2.9
1	C	829	SER	2.9
1	B	712	GLU	2.8
1	A	806	ALA	2.8
1	B	28	CYS	2.8
1	A	1021	GLN	2.8
1	A	417	GLU	2.8
1	D	213	LEU	2.8
1	A	1072	ASP	2.8
1	C	993	GLY	2.8
1	D	347	GLU	2.8
1	C	36	ILE	2.8
1	C	574	ASP	2.8
1	C	1074	PHE	2.8
1	B	767	SER	2.8
1	B	1019	CYS	2.8

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Mol	Chain	Res	Type	RSRZ
1	B	36	ILE	2.8
1	B	1038	TYR	2.8
1	B	1066	ASN	2.8
1	D	1035	ARG	2.7
1	D	1055	PHE	2.8
1	C	173	ALA	2.7
1	A	672	ASP	2.7
1	B	208	ASP	2.7
1	C	1020	TYR	2.7
1	D	698	VAL	2.7
1	A	206	THR	2.7
1	C	917	TRP	2.7
1	A	37	GLY	2.7
1	C	1052	ILE	2.7
1	B	211	THR	2.7
1	D	596	ASP	2.7
1	A	1005	ILE	2.7
1	D	1075	GLY	2.7
1	D	950	GLN	2.7
1	A	597	ARG	2.7
1	D	36	ILE	2.7
1	B	945	PHE	2.7
1	D	491	GLY	2.7
1	A	1076	LEU	2.7
1	D	940	TYR	2.7
1	A	204	GLU	2.6
1	A	780	THR	2.6
1	B	815	THR	2.6
1	C	363	ALA	2.6
1	C	60	TRP	2.6
1	D	220	TYR	2.6
1	A	46	SER	2.6
1	B	1069	ASN	2.6
1	D	118	TRP	2.6
1	C	1069	ASN	2.6
1	B	267	HIS	2.6
1	C	1070	TRP	2.6
1	A	291	SER	2.6
1	B	726	ASN	2.6
1	B	903	ASN	2.6
1	B	1016	ASN	2.6
1	B	1070	TRP	2.6

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Mol	Chain	Res	Type	RSRZ
1	A	1056	GLY	2.6
1	D	695	ALA	2.6
1	B	847	ASP	2.6
1	C	267	HIS	2.6
1	B	1023	GLN	2.5
1	B	848	ALA	2.5
1	A	66	SER	2.5
1	B	893	ASP	2.5
1	D	952	GLN	2.5
1	D	760	TYR	2.5
1	A	35	SER	2.5
1	C	248	ILE	2.5
1	A	36	ILE	2.5
1	D	949	ILE	2.5
1	A	710	SER	2.5
1	D	138	SER	2.5
1	A	120	ASP	2.5
1	A	1023	GLN	2.5
1	B	1012	ALA	2.5
1	B	884	HIS	2.5
1	C	280	GLY	2.5
1	C	712	GLU	2.5
1	C	154	PHE	2.4
1	D	965	HIS	2.4
1	A	908	SER	2.4
1	B	596	ASP	2.4
1	B	940	TYR	2.4
1	B	79	PRO	2.4
1	C	384	PRO	2.4
1	C	136	GLU	2.4
1	A	69	THR	2.4
1	A	218	ALA	2.4
1	B	23	ALA	2.4
1	D	209	ASP	2.4
1	D	530	ASP	2.4
1	A	966	LEU	2.4
1	B	1068	ALA	2.4
1	C	181	VAL	2.4
1	C	950	GLN	2.4
1	D	1076	LEU	2.4
1	A	207	GLY	2.4
1	B	1021	GLN	2.4

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Mol	Chain	Res	Type	RSRZ
1	C	35	SER	2.4
1	A	344	ASP	2.4
1	C	621	PHE	2.4
1	A	409	THR	2.4
1	C	981	LEU	2.3
1	D	1074	PHE	2.3
1	A	735	ASP	2.3
1	B	266	ASP	2.3
1	D	903	ASN	2.3
1	A	686	GLU	2.3
1	B	37	GLY	2.3
1	C	184	ALA	2.3
1	C	199	THR	2.3
1	C	1065	PRO	2.3
1	A	581	ASN	2.3
1	C	847	ASP	2.3
1	D	765	ASP	2.3
1	A	236	GLU	2.3
1	C	137	VAL	2.3
1	D	77	LEU	2.3
1	C	767	SER	2.3
1	A	596	ASP	2.3
1	A	648	ASN	2.3
1	A	847	ASP	2.3
1	D	33	GLY	2.3
1	D	909	GLY	2.3
1	A	621	PHE	2.3
1	A	942	GLU	2.3
1	D	875	THR	2.3
1	B	1074	PHE	2.3
1	D	417	GLU	2.3
1	A	787	ASP	2.2
1	D	1069	ASN	2.2
1	A	711	PHE	2.2
1	C	99	TYR	2.2
1	C	220	TYR	2.2
1	C	234	GLN	2.2
1	C	155	ARG	2.2
1	D	737	MET	2.2
1	C	761	ALA	2.2
1	B	530	ASP	2.2
1	C	1016	ASN	2.2

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Mol	Chain	Res	Type	RSRZ
1	D	647	ASN	2.2
1	C	415	THR	2.2
1	D	734	TYR	2.2
1	C	885	VAL	2.2
1	A	323	GLY	2.2
1	B	1047	ILE	2.2
1	C	442	ILE	2.2
1	D	76	GLU	2.2
1	B	281	SER	2.2
1	A	657	ASN	2.2
1	B	127	TRP	2.2
1	B	1036	PHE	2.2
1	B	215	ARG	2.2
1	A	77	LEU	2.2
1	C	789	LEU	2.2
1	C	499	ASP	2.2
1	B	125	LEU	2.2
1	B	251	TYR	2.2
1	C	790	VAL	2.2
1	A	214	ARG	2.2
1	C	236	GLU	2.2
1	A	795	PHE	2.2
1	B	791	SER	2.2
1	B	927	SER	2.2
1	A	63	THR	2.2
1	C	623	TYR	2.2
1	D	422	GLN	2.2
1	B	942	GLU	2.1
1	D	290	GLU	2.1
1	A	202	TRP	2.1
1	B	441	LEU	2.1
1	C	967	SER	2.1
1	C	968	VAL	2.1
1	D	66	SER	2.1
1	D	495	THR	2.1
1	B	910	ALA	2.1
1	D	722	LYS	2.1
1	B	906	GLU	2.1
1	B	1018	LEU	2.1
1	A	680	THR	2.1
1	C	187	THR	2.1
1	A	449	ASN	2.1

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Mol	Chain	Res	Type	RSRZ
1	D	1034	ASN	2.1
1	A	931	ASP	2.1
1	B	460	GLY	2.1
1	D	479	ARG	2.1
1	A	27	GLU	2.1
1	D	226	HIS	2.1
1	A	725	SER	2.1
1	B	860	SER	2.1
1	C	198	ILE	2.1
1	C	725	SER	2.1
1	B	1014	GLY	2.1
1	B	1022	GLY	2.1
1	D	739	ARG	2.1
1	A	484	ASN	2.1
1	A	1069	ASN	2.1
1	D	657	ASN	2.1
1	A	72	ASP	2.1
1	D	191	ASP	2.1
1	D	136	GLU	2.1
1	C	127	TRP	2.1
1	D	976	ILE	2.1
1	B	35	SER	2.1
1	D	711	PHE	2.1
1	D	784	ASP	2.1
1	D	859	ASP	2.1
1	A	212	PRO	2.1
1	D	312	HIS	2.1
1	A	184	ALA	2.0
1	C	703	LEU	2.0
1	A	98	GLU	2.0
1	A	723	ARG	2.0
1	C	845	GLU	2.0
1	C	865	GLU	2.0
1	C	163	ALA	2.0
1	D	110	ILE	2.0
1	A	639	GLN	2.0
1	B	77	LEU	2.0
1	A	175	ASN	2.0
1	D	787	ASP	2.0
1	D	681	ARG	2.0
1	B	202	TRP	2.0
1	B	363	ALA	2.0

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Mol	Chain	Res	Type	RSRZ
1	B	30	GLY	2.0
1	B	696	GLY	2.0
1	C	696	GLY	2.0
1	D	973	CYS	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)

There are no ligands in this entry.

6.5 Other polymers (i)

There are no such residues in this entry.