



# Full wwPDB X-ray Structure Validation Report ⓘ

Oct 23, 2023 – 06:34 PM EDT

PDB ID : 3AOB  
Title : Structures of the multidrug exporter AcrB reveal a proximal multisite drug-binding pocket  
Authors : Nakashima, R.; Sakurai, K.; Yamaguchi, A.  
Deposited on : 2010-09-23  
Resolution : 3.35 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](mailto: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>.

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

MolProbity : 4.02b-467  
Mogul : 1.8.5 (274361), CSD as541be (2020)  
Xtriage (Phenix) : 1.13  
EDS : 2.36  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
Refmac : 5.8.0158  
CCP4 : 7.0.044 (Gargrove)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.36

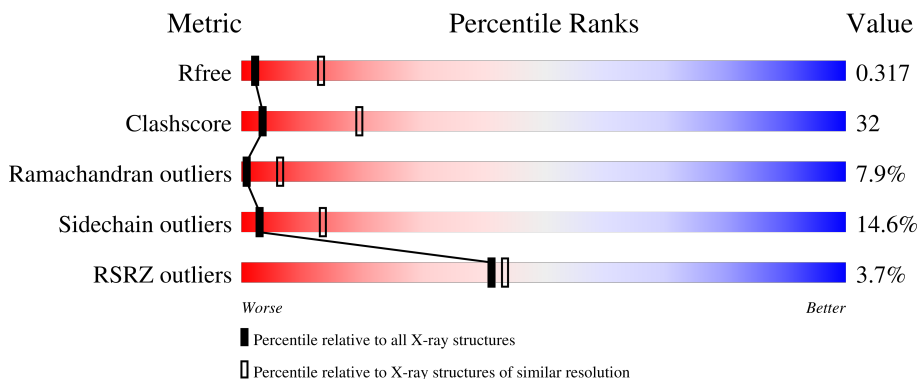
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.35 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))
$R_{free}$	130704	1558 (3.42-3.30)
Clashscore	141614	1627 (3.42-3.30)
Ramachandran outliers	138981	1599 (3.42-3.30)
Sidechain outliers	138945	1598 (3.42-3.30)
RSRZ outliers	127900	1507 (3.42-3.30)

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  $\geq 3$ , 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	1053	<div style="display: flex; align-items: center;"> <div style="width: 3%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 44%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 42%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 10%; height: 10px; background-color: orange; margin-right: 5px;"></div> <div style="width: 5%; height: 10px; background-color: grey; margin-right: 5px;"></div> </div> <p style="margin-left: 30px;">44%      42%      10%    ..</p>
1	B	1053	<div style="display: flex; align-items: center;"> <div style="width: 4%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 39%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 47%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 11%; height: 10px; background-color: orange; margin-right: 5px;"></div> <div style="width: 5%; height: 10px; background-color: grey; margin-right: 5px;"></div> </div> <p style="margin-left: 30px;">39%      47%      11%    .</p>
1	C	1053	<div style="display: flex; align-items: center;"> <div style="width: 4%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 42%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 43%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 11%; height: 10px; background-color: orange; margin-right: 5px;"></div> <div style="width: 5%; height: 10px; background-color: grey; margin-right: 5px;"></div> </div> <p style="margin-left: 30px;">42%      43%      11%    ..</p>

## 2 Entry composition i

There are 3 unique types of molecules in this entry. The entry contains 23385 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.

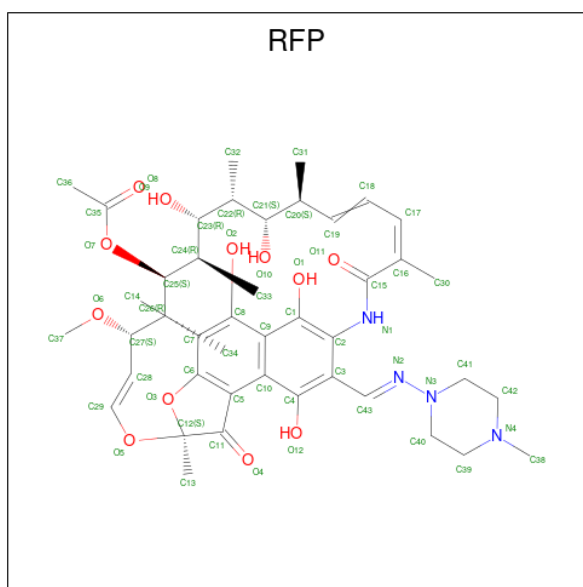
- Molecule 1 is a protein called Acriflavine resistance protein B.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	1022	7774	5003	1283	1444	44	0	0	0
1	B	1022	7774	5003	1283	1444	44	0	0	0
1	C	1022	7774	5003	1283	1444	44	0	0	0

There are 12 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	1050	HIS	-	expression tag	UNP P31224
A	1051	HIS	-	expression tag	UNP P31224
A	1052	HIS	-	expression tag	UNP P31224
A	1053	HIS	-	expression tag	UNP P31224
B	1050	HIS	-	expression tag	UNP P31224
B	1051	HIS	-	expression tag	UNP P31224
B	1052	HIS	-	expression tag	UNP P31224
B	1053	HIS	-	expression tag	UNP P31224
C	1050	HIS	-	expression tag	UNP P31224
C	1051	HIS	-	expression tag	UNP P31224
C	1052	HIS	-	expression tag	UNP P31224
C	1053	HIS	-	expression tag	UNP P31224

- Molecule 2 is RIFAMPICIN (three-letter code: RFP) (formula:  $C_{43}H_{58}N_4O_{12}$ ).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	N	O		
2	C	1	59	43	4	12	0	0

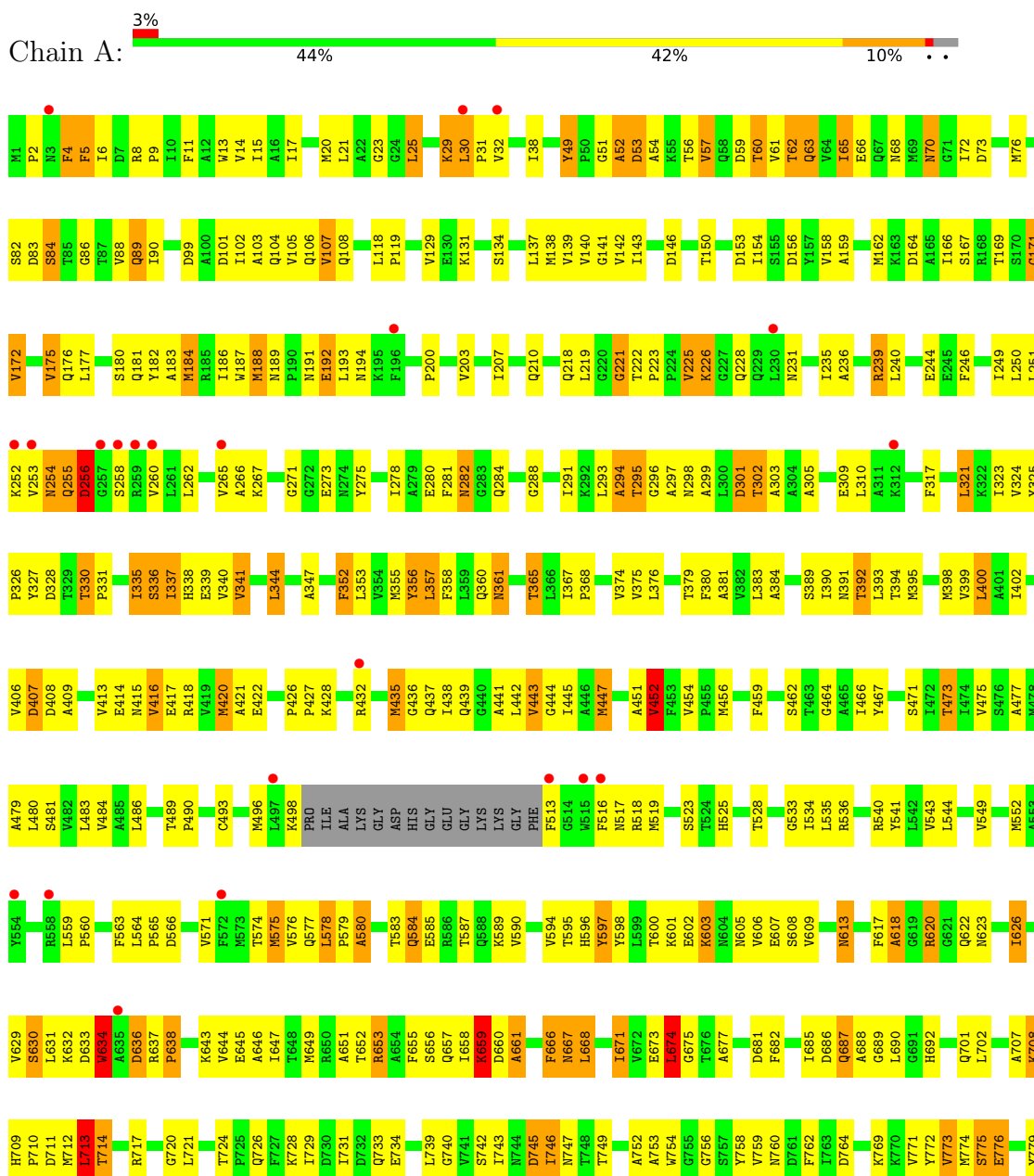
- Molecule 3 is water.

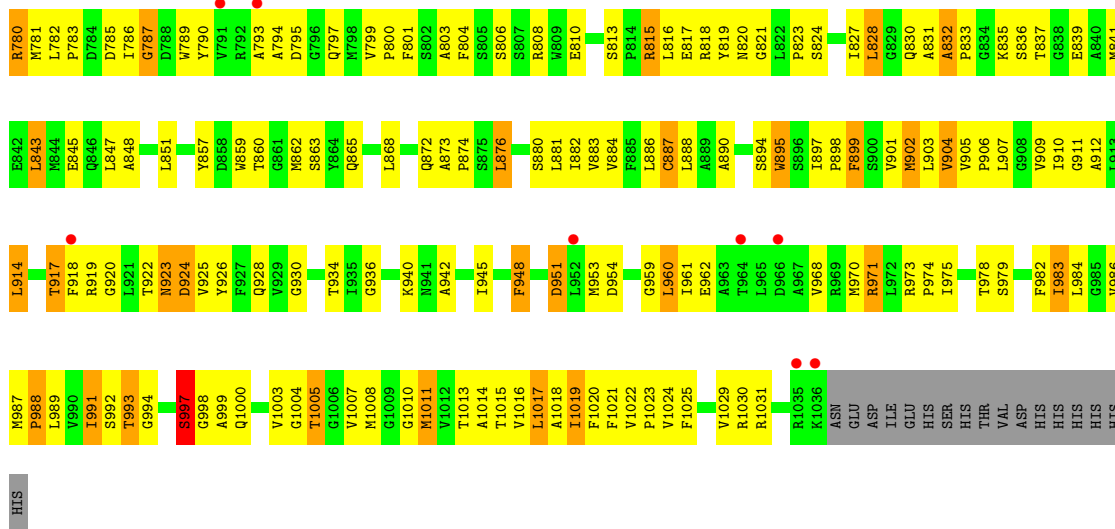
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	1	Total	O	0	0
			1	1		
3	B	2	Total	O	0	0
			2	2		
3	C	1	Total	O	0	0
			1	1		

### 3 Residue-property plots

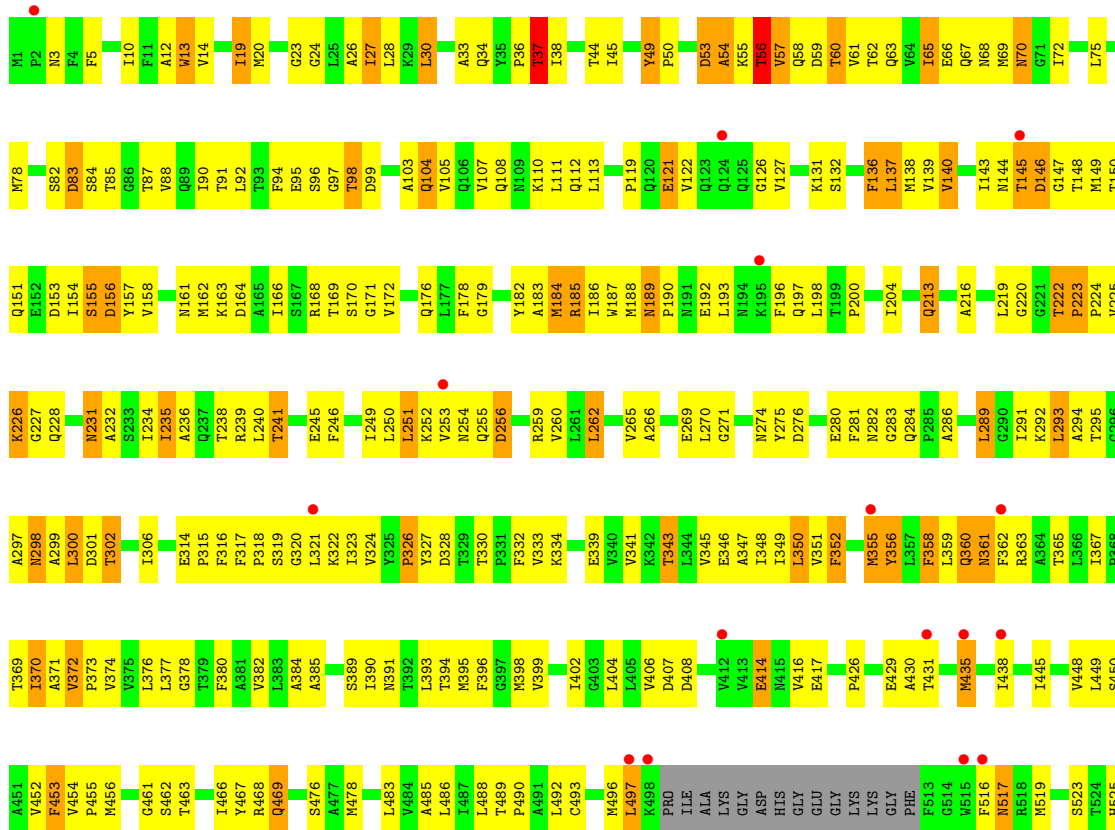
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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.

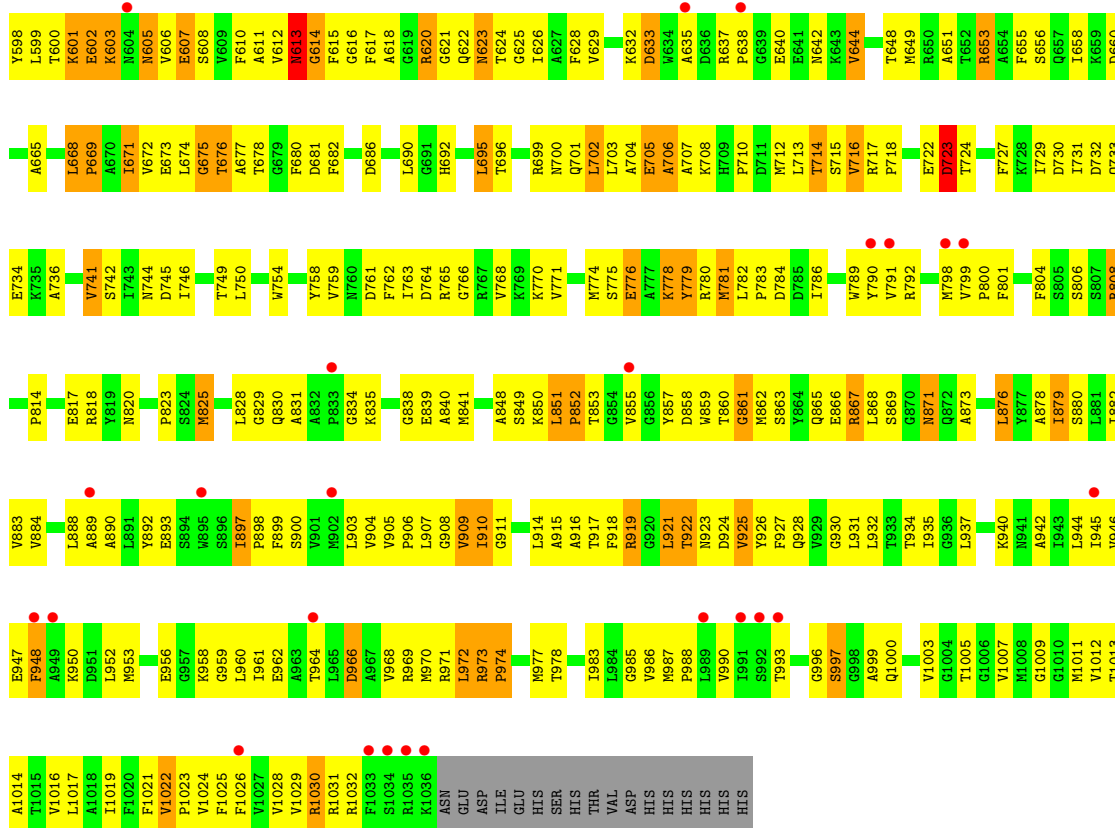
#### • Molecule 1: Acriflavine resistance protein B



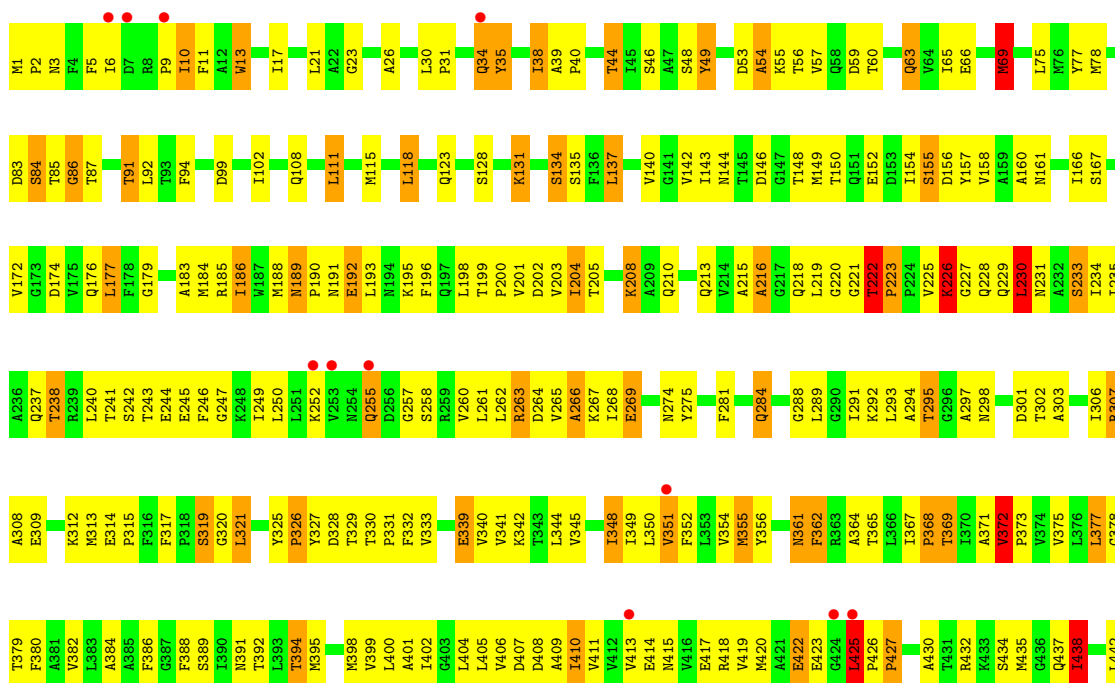


• Molecule 1: Acriflavine resistance protein B





• Molecule 1: Acriflavine resistance protein B



V1029	V443	PHE	Q588	L668	V741	S806	Y882	I961	V1029
R1030	G444	F513	K889	I671	S742	S806	E893	E962	R1030
R1031	I445	G514	V590	V672	I743	S807	S894	A963	R1031
R1035	V448	W515	L591	E673	I746	R808	W895	T964	R1032
K1036	V449	N517	N592	L674	N747	S813	S896	L965	R1035
ASN	V452	R518	E593	G675	T748	R814	I897	D966	K1036
GLU	F453	R519	V594	C676	T749	R815	F899	A967	ASN
ASP	V454	F520	T595	A677	L750	L816	S900	V968	GLU
ILE	P455	E521	H596	G678	L751	R817	V901	R969	ASP
GLU	M456	K522	K601	T678	G752	R818	H902	M970	ILE
HIS	A457	S523	E602	G679	A753	Y819	L903	R971	GLU
HIS	F458	T524	N605	F680	A754	M820	V904	I975	HIS
HIS	P459	H525	F610	E683	G755	S824	L907	L976	HIS
HIS	T463	H526	F610	I684	G756	M825	G908	M977	HIS
HIS	Q464	Y527	F610	S757	G756	G829	G908	T978	HIS
HIS	A465	S530	N613	D686	V758	Q829	V909	T978	HIS
HIS	L466	V531	G614	Q687	V759	Q830	V910	S979	HIS
HIS	Y467	G532	F615	A688	N760	A831	G911	L980	HIS
HIS	Q469	G533	R620	G689	D761	A832	L914	A981	HIS
HIS	I474	I534	T624	L890	F762	P833	A915	F882	HIS
HIS	V475	S537	A627	G691	I763	G834	F918	L983	HIS
HIS	S476	T538	F628	H692	D764	G835	L984	L984	HIS
HIS	A477	G539	L631	E693	R765	K836	L921	G985	HIS
HIS	M478	H540	L631	K694	R766	T837	V925	G986	HIS
HIS	A479	Y541	L631	G694	R767	G838	Y926	S992	HIS
HIS	L480	V543	L634	R694	V768	E839	F927	T993	HIS
HIS	S481	L544	R637	M774	K778	A840	G930	G994	HIS
HIS	V482	Y547	R637	S775	K779	Q846	L931	A995	HIS
HIS	L483	I548	E641	G778	R780	Q846	L932	G996	HIS
HIS	V484	V549	K643	A707	M781	M844	L933	S997	HIS
HIS	A485	V550	D644	H709	M782	Q846	T934	G998	HIS
HIS	L486	Y554	E645	P710	L782	L847	I935	A999	HIS
HIS	L487	L595	A646	D711	P783	A848	G936	Q1000	HIS
HIS	T488	F563	A646	M712	L784	L851	L937	G1004	HIS
HIS	P490	L564	A646	M712	P783	G854	S938	T1005	HIS
HIS	A491	P565	T648	L714	D785	L868	N941	V1007	HIS
HIS	L492	D568	M649	S715	I786	G870	A942	M1008	HIS
HIS	M496	Q569	A651	V716	G787	M871	I943	M1011	HIS
HIS	L497	Q570	T652	V716	G788	Q872	L944	V1012	HIS
HIS	K498	V571	R653	L721	D788	A873	L945	T1013	HIS
HIS	PRD	F572	A654	E722	W789	P874	V946	A1014	HIS
HIS	ALA	M573	S656	Q726	Y790	S875	E947	T1015	HIS
HIS	GLY	T574	Q657	F727	V791	L876	F948	V1016	HIS
HIS	GLY	H575	L668	I731	R792	V884	A949	L1017	HIS
HIS	ASP	R575	K659	D732	A793	F885	L952	A1018	HIS
HIS	HIS	Q577	D660	Q733	G796	L886	M953	V1019	HIS
HIS	GLY	L578	A661	P800	V799	C887	D954	V1022	HIS
HIS	GLY	A580	M662	F801	S802	L888	E956	P1023	HIS
HIS	LYS	R586	A665	Q737	S803	A889	G957	F1025	HIS
HIS	GLY	T587	M667	A738	F804	A890	R968	V1026	HIS
HIS	GLY						G959	V1027	HIS
HIS	GLY						L960	V1028	HIS



## 4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	223.90Å 134.31Å 161.77Å 90.00° 98.10° 90.00°	Depositor
Resolution (Å)	48.91 – 3.35 48.91 – 3.35	Depositor EDS
% Data completeness (in resolution range)	97.7 (48.91-3.35) 97.7 (48.91-3.35)	Depositor EDS
$R_{merge}$	0.06	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	7.64 (at 3.33Å)	Xtrriage
Refinement program	REFMAC	Depositor
R, $R_{free}$	0.261 , 0.326 0.256 , 0.317	Depositor DCC
$R_{free}$ test set	3350 reflections (5.02%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	87.3	Xtrriage
Anisotropy	0.054	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.28 , 71.3	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.53$ , $\langle L^2 \rangle = 0.37$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
$F_o, F_c$ correlation	0.90	EDS
Total number of atoms	23385	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	93.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.80% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

<sup>2</sup>Theoretical 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

Bond lengths and bond angles in the following residue types are not validated in this section: RFP

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	0.62	0/7920	0.75	2/10756 (0.0%)
1	B	0.58	0/7920	0.76	4/10756 (0.0%)
1	C	0.62	0/7920	0.76	5/10756 (0.0%)
All	All	0.61	0/23760	0.76	11/32268 (0.0%)

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	C	0	2

There are no bond length outliers.

All (11) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	356	TYR	N-CA-CB	-12.26	88.53	110.60
1	B	355	MET	CB-CA-C	10.91	132.23	110.40
1	C	321	LEU	CA-CB-CG	8.34	134.48	115.30
1	B	960	LEU	CA-CB-CG	6.20	129.56	115.30
1	B	352	PHE	CB-CA-C	6.12	122.65	110.40
1	C	425	LEU	CA-CB-CG	5.95	128.98	115.30
1	C	752	ALA	N-CA-C	-5.36	96.53	111.00
1	C	720	GLY	N-CA-C	5.34	126.45	113.10
1	A	828	LEU	CA-CB-CG	5.27	127.42	115.30
1	C	578	LEU	CA-CB-CG	5.21	127.27	115.30
1	A	674	LEU	CA-CB-CG	5.19	127.24	115.30

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	C	221	GLY	Peptide
1	C	222	THR	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	7774	0	7931	460	0
1	B	7774	0	7931	536	0
1	C	7774	0	7931	577	0
2	C	59	0	57	10	0
3	A	1	0	0	0	0
3	B	2	0	0	0	0
3	C	1	0	0	0	0
All	All	23385	0	23850	1518	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 32.

All (1518) 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:A:447:MET:HB3	1:A:887:CYS:SG	1.82	1.20
1:C:222:THR:HG23	1:C:223:PRO:CD	1.73	1.17
1:C:815:ARG:HG2	1:C:815:ARG:HH11	1.09	1.17
1:C:146:ASP:HB3	1:C:148:THR:HG23	1.31	1.12
1:A:379:THR:HG21	1:A:477:ALA:HA	1.27	1.12
1:B:200:PRO:HD2	1:B:749:THR:HG22	1.32	1.11
1:C:222:THR:HG23	1:C:223:PRO:HD2	1.07	1.06
1:A:275:TYR:HB3	1:C:223:PRO:HD3	1.38	1.06
1:B:456:MET:HG3	1:B:467:TYR:HB3	1.29	1.05
1:B:367:ILE:HG13	1:B:492:LEU:HB3	1.37	1.03
1:C:564:LEU:HD13	1:C:671:ILE:HD12	1.38	1.01
1:B:219:LEU:HG	1:B:234:ILE:HD11	1.40	0.99
1:C:222:THR:CG2	1:C:223:PRO:HD2	1.93	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:860:THR:HG22	1:B:861:GLY:H	1.24	0.99
1:A:400:LEU:HD11	1:A:930:GLY:HA2	1.41	0.98
1:A:414:GLU:HG2	1:A:974:PRO:HG3	1.47	0.97
1:C:1:MET:HB2	1:C:2:PRO:HD2	1.44	0.97
1:B:95:GLU:O	1:B:98:THR:HG22	1.64	0.96
1:A:139:VAL:HG12	1:A:327:TYR:HB3	1.48	0.95
1:B:222:THR:HB	1:B:223:PRO:CD	1.95	0.95
1:A:167:SER:OG	1:A:175:VAL:HG21	1.64	0.95
1:A:674:LEU:HD22	1:A:675:GLY:H	1.33	0.93
1:C:367:ILE:HD11	1:C:492:LEU:HB3	1.50	0.93
1:C:911:GLY:HA3	1:C:1013:THR:HG21	1.47	0.93
1:C:832:ALA:HB3	1:C:833:PRO:HD3	1.49	0.92
1:C:267:LYS:HE3	1:C:269:GLU:HG2	1.52	0.92
1:A:713:LEU:HD23	1:A:833:PRO:HD3	1.50	0.92
1:B:255:GLN:HG3	1:B:256:ASP:OD1	1.70	0.91
1:B:65:ILE:HG22	1:B:69:MET:HE1	1.48	0.91
1:C:372:VAL:HG12	1:C:373:PRO:HD3	1.50	0.91
1:A:221:GLY:HA2	1:B:622:GLN:NE2	1.86	0.91
1:A:383:LEU:HD21	1:A:473:THR:HG23	1.53	0.90
1:A:407:ASP:OD2	1:A:978:THR:HG21	1.71	0.90
1:B:136:PHE:HE1	1:B:617:PHE:CZ	1.90	0.90
1:C:146:ASP:CB	1:C:148:THR:HG23	2.01	0.90
1:B:222:THR:HB	1:B:223:PRO:HD3	1.53	0.90
1:C:57:VAL:HG21	1:C:86:GLY:HA2	1.55	0.89
1:A:221:GLY:HA2	1:B:622:GLN:HE22	1.37	0.89
1:A:901:VAL:O	1:A:904:VAL:HG23	1.74	0.88
1:A:993:THR:HB	1:A:997:SER:HB3	1.54	0.88
1:A:904:VAL:HG21	1:A:942:ALA:HB2	1.54	0.88
1:B:355:MET:O	1:B:359:LEU:CB	2.22	0.88
1:C:55:LYS:HE2	1:C:59:ASP:OD1	1.74	0.88
1:B:185:ARG:HG3	1:B:185:ARG:HH11	1.36	0.88
1:A:275:TYR:CB	1:C:223:PRO:HD3	2.02	0.88
1:B:463:THR:HG21	1:B:869:SER:HB2	1.56	0.87
1:B:867:ARG:HG2	1:B:868:LEU:HD22	1.57	0.87
1:A:559:LEU:HD12	1:A:560:PRO:HD2	1.54	0.87
1:C:713:LEU:HD23	1:C:831:ALA:HA	1.57	0.86
1:B:876:LEU:O	1:B:880:SER:HB2	1.74	0.86
1:C:815:ARG:HG2	1:C:815:ARG:NH1	1.90	0.86
1:C:146:ASP:HB3	1:C:148:THR:CG2	2.05	0.85
1:B:139:VAL:HG12	1:B:139:VAL:O	1.74	0.85
1:C:345:VAL:O	1:C:348:ILE:HG22	1.76	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:131:LYS:HB2	1:C:295:THR:HG21	1.59	0.84
1:C:246:PHE:O	1:C:249:ILE:HG13	1.76	0.84
1:C:911:GLY:HA3	1:C:1013:THR:CG2	2.07	0.84
1:C:53:ASP:O	1:C:84:SER:HA	1.75	0.84
1:C:968:VAL:HG11	1:C:1023:PRO:HG3	1.57	0.84
1:B:918:PHE:HD1	1:B:919:ARG:HD3	1.41	0.84
1:C:953:MET:SD	1:C:963:ALA:HB2	2.18	0.84
1:B:200:PRO:HD2	1:B:749:THR:CG2	2.08	0.84
1:C:190:PRO:HG3	1:C:789:TRP:CZ2	2.13	0.84
1:B:171:GLY:HA3	1:B:302:THR:HB	1.59	0.84
1:B:729:ILE:HG13	1:B:730:ASP:H	1.44	0.83
1:A:393:LEU:HD13	1:A:466:ILE:HG23	1.58	0.83
1:B:274:ASN:HD22	1:B:276:ASP:HB2	1.43	0.83
1:C:131:LYS:HB2	1:C:295:THR:CG2	2.09	0.82
1:B:835:LYS:HB2	1:B:839:GLU:OE2	1.77	0.82
1:B:226:LYS:NZ	1:B:226:LYS:HA	1.95	0.82
1:B:552:MET:SD	1:B:909:VAL:HG23	2.20	0.81
1:A:961:ILE:HD11	1:A:1031:ARG:NH1	1.95	0.81
1:B:892:TYR:HB2	1:B:897:ILE:HD11	1.61	0.81
1:C:375:VAL:HG11	1:C:405:LEU:HD22	1.61	0.81
1:A:389:SER:O	1:A:394:THR:HG21	1.80	0.81
1:B:355:MET:O	1:B:359:LEU:HB2	1.80	0.81
1:C:889:ALA:HB2	1:C:898:PRO:HG3	1.61	0.81
1:A:60:THR:HG23	1:A:119:PRO:HG3	1.62	0.81
1:A:873:ALA:HB3	1:A:874:PRO:HD3	1.61	0.81
1:A:993:THR:HG21	1:A:1000:GLN:OE1	1.80	0.81
1:C:568:ASP:OD2	1:C:644:VAL:HG23	1.80	0.81
1:A:781:MET:HE2	1:C:225:VAL:H	1.46	0.81
1:A:180:SER:O	1:A:181:GLN:HB3	1.81	0.81
1:A:728:LYS:HD3	1:C:235:ILE:HG22	1.62	0.81
1:B:298:ASN:HB2	1:B:301:ASP:HB2	1.62	0.80
1:A:60:THR:CG2	1:A:119:PRO:HG3	2.10	0.80
1:A:60:THR:HG22	1:A:61:VAL:HG23	1.63	0.80
1:B:94:PHE:HB3	1:B:98:THR:HG21	1.62	0.80
1:B:226:LYS:HA	1:B:226:LYS:HZ3	1.46	0.80
1:C:355:MET:CE	1:C:355:MET:HA	2.10	0.80
1:C:190:PRO:HD2	1:C:779:TYR:CD1	2.17	0.80
1:A:713:LEU:HD12	1:A:830:GLN:HB2	1.64	0.79
1:C:31:PRO:O	1:C:389:SER:HB2	1.81	0.79
1:C:459:PHE:HD1	1:C:459:PHE:N	1.81	0.79
1:B:72:ILE:HD11	1:B:110:LYS:HG3	1.65	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:831:ALA:HB2	1:B:840:ALA:HB2	1.63	0.79
1:A:379:THR:CG2	1:A:477:ALA:HA	2.09	0.79
1:A:108:GLN:NE2	1:B:112:GLN:HB3	1.97	0.79
1:B:987:MET:HB3	1:B:988:PRO:HD3	1.63	0.79
1:A:267:LYS:HE2	1:A:776:GLU:OE2	1.83	0.79
1:B:668:LEU:HB3	1:B:676:THR:HG23	1.65	0.78
1:A:375:VAL:O	1:A:379:THR:HG23	1.83	0.78
1:B:250:LEU:HD12	1:B:259:ARG:HH21	1.48	0.78
1:C:355:MET:SD	1:C:410:ILE:HD11	2.23	0.78
1:B:23:GLY:HA3	1:B:377:LEU:O	1.83	0.78
1:B:1026:PHE:O	1:B:1030:ARG:HB2	1.83	0.78
1:B:905:VAL:HG13	1:B:906:PRO:HD3	1.63	0.77
1:A:437:GLN:HB3	1:A:948:PHE:HE2	1.50	0.77
1:C:246:PHE:O	1:C:249:ILE:CG1	2.32	0.77
1:A:720:GLY:O	1:A:721:LEU:HD23	1.85	0.77
1:B:919:ARG:HG3	1:B:1005:THR:HG21	1.67	0.77
1:B:910:ILE:O	1:B:914:LEU:HB2	1.84	0.76
1:B:252:LYS:HB3	1:B:260:VAL:CG1	2.15	0.76
1:B:416:VAL:CG2	1:B:431:THR:HA	2.15	0.76
1:C:184:MET:HB3	1:C:771:VAL:HG13	1.66	0.76
1:C:186:ILE:HG12	1:C:262:LEU:HD21	1.68	0.76
1:C:767:ARG:HH11	1:C:767:ARG:HG3	1.49	0.76
1:B:394:THR:HG23	1:B:469:GLN:HG3	1.68	0.76
1:A:418:ARG:HH12	1:A:973:ARG:HB3	1.49	0.76
1:A:56:THR:O	1:A:60:THR:HB	1.85	0.76
1:B:780:ARG:O	1:B:781:MET:HE2	1.86	0.76
1:A:961:ILE:HD11	1:A:1031:ARG:HH12	1.51	0.76
1:B:327:TYR:HB2	1:B:628:PHE:HB3	1.68	0.76
1:B:360:GLN:O	1:B:361:ASN:HB3	1.86	0.76
1:A:52:ALA:HB3	1:A:86:GLY:HA2	1.68	0.75
1:A:435:MET:SD	1:A:490:PRO:HB3	2.26	0.75
1:A:733:GLN:HE21	1:C:210:GLN:HG2	1.50	0.75
1:B:1021:PHE:O	1:B:1024:VAL:HB	1.86	0.75
1:A:13:TRP:O	1:A:17:ILE:HG13	1.86	0.75
1:C:712:MET:O	1:C:714:THR:HG23	1.85	0.75
1:B:574:THR:HG23	1:B:665:ALA:HB2	1.67	0.74
1:C:34:GLN:H	1:C:34:GLN:HE21	1.35	0.74
1:B:324:VAL:HG23	1:B:326:PRO:HD3	1.68	0.74
1:C:459:PHE:N	1:C:459:PHE:CD1	2.54	0.74
1:B:722:GLU:O	1:B:723:ASP:O	2.04	0.74
1:B:10:ILE:HD12	1:C:893:GLU:O	1.86	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:908:GLY:HA2	1:C:1014:ALA:HB2	1.68	0.74
1:B:225:VAL:H	1:C:781:MET:HE3	1.53	0.74
1:C:242:SER:HB3	1:C:245:GLU:HG3	1.70	0.74
1:C:767:ARG:HH11	1:C:767:ARG:CG	1.99	0.74
1:A:464:GLY:HA2	1:A:467:TYR:HB2	1.69	0.74
1:B:314:GLU:HG2	1:B:317:PHE:CE2	2.23	0.74
1:A:73:ASP:H	1:A:106:GLN:HE22	1.36	0.74
1:B:241:THR:HG22	1:B:763:ILE:O	1.88	0.74
1:B:699:ARG:HH11	1:B:699:ARG:HB3	1.52	0.74
1:C:202:ASP:OD2	1:C:792:ARG:NH2	2.21	0.74
1:A:14:VAL:HG21	1:B:890:ALA:HB2	1.70	0.73
1:A:574:THR:HG21	1:A:594:VAL:HG11	1.69	0.73
1:B:370:ILE:HG22	1:B:370:ILE:O	1.87	0.73
1:C:414:GLU:HA	1:C:417:GLU:HG2	1.67	0.73
1:C:575:MET:SD	1:C:575:MET:N	2.61	0.73
1:B:185:ARG:HH11	1:B:185:ARG:CG	2.01	0.73
1:B:26:ALA:O	1:B:30:LEU:HB2	1.88	0.73
1:B:730:ASP:HB3	1:B:806:SER:HB3	1.71	0.73
1:B:355:MET:O	1:B:359:LEU:HB3	1.88	0.73
1:C:38:ILE:HG21	1:C:466:ILE:HD11	1.71	0.73
1:A:317:PHE:HB3	1:A:321:LEU:CD2	2.17	0.73
1:C:345:VAL:O	1:C:348:ILE:CG2	2.37	0.73
1:C:686:ASP:OD1	1:C:690:LEU:HB2	1.89	0.73
1:B:188:MET:HB2	1:B:775:SER:HA	1.70	0.73
1:C:425:LEU:HB2	1:C:426:PRO:HD3	1.70	0.73
1:A:2:PRO:O	1:A:6:ILE:HG23	1.89	0.72
1:A:682:PHE:CZ	1:A:857:TYR:HB2	2.24	0.72
1:A:945:ILE:HG13	1:A:971:ARG:HG2	1.71	0.72
1:A:447:MET:CB	1:A:887:CYS:SG	2.72	0.72
1:A:101:ASP:O	1:A:105:VAL:HG23	1.88	0.72
1:A:393:LEU:CD1	1:A:466:ILE:HG23	2.19	0.72
1:A:471:SER:O	1:A:475:VAL:HG12	1.87	0.72
1:B:274:ASN:ND2	1:B:276:ASP:HB2	2.03	0.72
1:C:945:ILE:C	1:C:947:GLU:H	1.93	0.72
1:C:983:ILE:HG23	1:C:1008:MET:HG3	1.69	0.72
1:A:923:ASN:C	1:A:923:ASN:HD22	1.92	0.72
1:B:452:VAL:O	1:B:453:PHE:HB2	1.89	0.72
1:C:420:MET:HB2	1:C:498:LYS:HE2	1.71	0.72
1:A:4:PHE:O	1:A:8:ARG:NH2	2.23	0.72
1:C:463:THR:HG23	1:C:563:PHE:HE1	1.54	0.72
1:B:399:VAL:O	1:B:402:ILE:HG22	1.89	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:416:VAL:HG22	1:B:431:THR:HA	1.72	0.71
1:C:643:LYS:O	1:C:647:ILE:HG12	1.88	0.71
1:B:197:GLN:O	1:B:792:ARG:NH2	2.22	0.71
1:C:832:ALA:CB	1:C:833:PRO:HD3	2.21	0.71
1:A:375:VAL:HG21	1:A:481:SER:HA	1.73	0.71
1:C:456:MET:HA	1:C:459:PHE:CE1	2.25	0.71
1:C:456:MET:HA	1:C:459:PHE:HE1	1.55	0.71
1:C:694:LYS:O	1:C:697:GLN:HB2	1.91	0.71
1:C:5:PHE:HE2	1:C:11:PHE:CD2	2.08	0.71
1:C:350:LEU:HD12	1:C:985:GLY:HA2	1.73	0.71
1:A:139:VAL:HG12	1:A:327:TYR:CB	2.21	0.71
1:B:904:VAL:HG21	1:B:942:ALA:HB2	1.71	0.71
1:C:815:ARG:HH11	1:C:815:ARG:CG	1.94	0.71
1:C:351:VAL:HG13	1:C:981:ALA:HB1	1.73	0.71
1:B:136:PHE:CE1	1:B:617:PHE:CZ	2.77	0.71
1:B:328:ASP:OD2	1:B:330:THR:HG22	1.90	0.71
1:A:707:ALA:O	1:A:710:PRO:HD3	1.91	0.70
1:B:171:GLY:HA3	1:B:302:THR:CB	2.20	0.70
1:B:36:PRO:O	1:B:38:ILE:HG12	1.90	0.70
1:C:534:ILE:O	1:C:539:GLY:HA3	1.90	0.70
1:A:383:LEU:HD21	1:A:473:THR:CG2	2.20	0.70
1:B:911:GLY:HA3	1:B:1013:THR:HG21	1.74	0.70
1:C:601:LYS:O	1:C:602:GLU:HG2	1.91	0.70
1:A:337:ILE:HD11	1:A:395:MET:HG3	1.73	0.70
1:C:713:LEU:HD22	1:C:713:LEU:O	1.92	0.70
1:C:713:LEU:HD23	1:C:830:GLN:O	1.91	0.70
1:B:762:PHE:CE1	1:B:764:ASP:HB2	2.26	0.70
1:B:911:GLY:CA	1:B:1013:THR:HG21	2.22	0.70
1:C:1:MET:HB2	1:C:2:PRO:CD	2.22	0.70
1:C:952:LEU:HA	1:C:956:GLU:HB3	1.73	0.70
1:B:445:ILE:HG23	1:B:940:LYS:HG3	1.74	0.69
1:C:911:GLY:CA	1:C:1013:THR:HG21	2.21	0.69
1:C:265:VAL:O	1:C:265:VAL:HG23	1.92	0.69
1:A:360:GLN:HB2	1:A:513:PHE:HB2	1.72	0.69
1:A:418:ARG:NH1	1:A:973:ARG:HB3	2.06	0.69
1:C:65:ILE:HD13	1:C:111:LEU:HD21	1.73	0.69
1:B:851:LEU:N	1:B:852:PRO:HD3	2.08	0.69
1:B:291:ILE:HG21	1:B:306:ILE:CD1	2.23	0.69
1:A:904:VAL:HG21	1:A:942:ALA:CB	2.23	0.69
1:B:68:ASN:O	1:B:110:LYS:HE3	1.93	0.69
1:C:722:GLU:OE1	1:C:722:GLU:HA	1.91	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:2002:RFP:H311	2:C:2002:RFP:H323	1.75	0.69
1:C:380:PHE:CE1	1:C:398:MET:SD	2.86	0.69
1:A:888:LEU:HB3	1:A:898:PRO:HB3	1.75	0.69
1:C:155:SER:OG	1:C:179:GLY:HA3	1.93	0.69
1:A:753:ALA:O	1:A:775:SER:HB3	1.94	0.68
1:B:860:THR:HG22	1:B:861:GLY:N	2.03	0.68
1:A:658:ILE:HG22	1:A:659:LYS:HD2	1.74	0.68
1:C:756:GLY:CA	1:C:774:MET:HG3	2.23	0.68
1:C:762:PHE:CE2	1:C:764:ASP:HB2	2.29	0.68
1:C:34:GLN:HG3	1:C:333:VAL:HG11	1.74	0.68
1:B:680:PHE:HD1	1:B:859:TRP:HZ3	1.41	0.68
1:B:699:ARG:HB3	1:B:699:ARG:NH1	2.09	0.68
1:C:523:SER:HA	1:C:526:HIS:HB2	1.75	0.68
1:A:579:PRO:HG3	1:A:660:ASP:HB2	1.75	0.68
1:C:727:PHE:CZ	1:C:807:SER:HB2	2.28	0.68
1:B:136:PHE:CE1	1:B:617:PHE:HZ	2.12	0.68
1:B:372:VAL:HB	1:B:402:ILE:HD11	1.76	0.68
1:A:51:GLY:O	1:C:215:ALA:HB1	1.93	0.68
1:B:1024:VAL:O	1:B:1028:VAL:HG23	1.94	0.68
1:C:244:GLU:HA	1:C:263:ARG:NH2	2.09	0.68
1:C:459:PHE:HD1	1:C:459:PHE:H	1.42	0.68
1:B:84:SER:HB3	1:B:814:PRO:HA	1.74	0.67
1:B:222:THR:CB	1:B:223:PRO:HD3	2.23	0.67
1:A:924:ASP:O	1:A:928:GLN:HG3	1.94	0.67
1:B:314:GLU:HG2	1:B:317:PHE:HE2	1.56	0.67
1:B:252:LYS:HB3	1:B:260:VAL:HG12	1.76	0.67
1:C:476:SER:O	1:C:477:ALA:HB3	1.94	0.67
1:A:418:ARG:HH12	1:A:973:ARG:CB	2.08	0.67
1:B:343:THR:HG21	1:B:1000:GLN:OE1	1.93	0.67
1:B:171:GLY:HA3	1:B:302:THR:CG2	2.24	0.67
1:C:754:TRP:CH2	1:C:780:ARG:HA	2.30	0.67
1:A:613:ASN:C	1:A:613:ASN:HD22	1.98	0.67
1:A:1025:PHE:O	1:A:1029:VAL:HG23	1.95	0.67
1:A:138:MET:HB2	1:A:327:TYR:O	1.95	0.67
1:B:14:VAL:HG21	1:C:890:ALA:HB2	1.77	0.67
1:C:824:SER:OG	1:C:825:MET:N	2.26	0.67
1:B:298:ASN:CB	1:B:301:ASP:HB2	2.25	0.67
1:B:778:LYS:H	1:B:778:LYS:HD3	1.59	0.67
1:C:56:THR:O	1:C:60:THR:HB	1.93	0.67
1:B:706:ALA:C	1:B:708:LYS:H	1.97	0.67
1:C:210:GLN:HE22	1:C:250:LEU:H	1.42	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:339:GLU:OE2	1:C:995:ALA:HB3	1.95	0.67
1:A:795:ASP:OD1	1:A:797:GLN:HG2	1.95	0.66
1:A:780:ARG:HG2	1:A:780:ARG:HH11	1.61	0.66
1:A:880:SER:O	1:A:884:VAL:HG23	1.94	0.66
1:C:200:PRO:O	1:C:204:ILE:HG12	1.95	0.66
1:C:521:GLU:HA	1:C:524:THR:OG1	1.95	0.66
1:B:961:ILE:HD11	1:B:1031:ARG:HH12	1.60	0.66
1:C:355:MET:HB3	1:C:365:THR:HG23	1.77	0.66
1:A:781:MET:HE2	1:C:225:VAL:N	2.09	0.66
1:C:824:SER:O	1:C:825:MET:HB2	1.95	0.66
1:B:860:THR:CG2	1:B:861:GLY:H	2.05	0.66
1:A:1029:VAL:HG12	1:A:1030:ARG:H	1.60	0.66
1:B:144:ASN:HD21	1:B:148:THR:H	1.44	0.66
1:B:736:ALA:HB1	1:B:741:VAL:HG12	1.77	0.66
1:B:880:SER:O	1:B:884:VAL:HG23	1.96	0.66
1:C:252:LYS:O	1:C:260:VAL:HG12	1.95	0.66
1:A:188:MET:HA	1:A:266:ALA:HB2	1.76	0.66
1:B:225:VAL:H	1:C:781:MET:CE	2.08	0.66
1:B:65:ILE:HG22	1:B:69:MET:CE	2.23	0.66
1:C:39:ALA:CB	1:C:673:GLU:HG2	2.25	0.66
1:C:367:ILE:CD1	1:C:492:LEU:HB3	2.26	0.66
1:A:707:ALA:C	1:A:709:HIS:H	1.97	0.65
1:B:727:PHE:HE1	1:B:786:ILE:HD11	1.61	0.65
1:B:818:ARG:HG3	1:B:818:ARG:HH11	1.60	0.65
1:A:445:ILE:HG21	1:A:940:LYS:HD2	1.78	0.65
1:A:782:LEU:O	1:A:785:ASP:HB2	1.97	0.65
1:B:734:GLU:C	1:B:736:ALA:H	1.99	0.65
1:A:57:VAL:HG13	1:A:88:VAL:HG22	1.77	0.65
1:A:886:LEU:HD21	1:C:17:ILE:HG22	1.77	0.65
1:C:9:PRO:HD2	1:C:10:ILE:HD13	1.78	0.65
1:B:326:PRO:HG3	1:B:610:PHE:CD1	2.32	0.65
1:A:911:GLY:HA2	1:A:914:LEU:HB2	1.77	0.65
1:A:979:SER:O	1:A:983:ILE:HG23	1.97	0.65
1:B:213:GLN:HE21	1:B:239:ARG:HD2	1.60	0.65
1:B:601:LYS:O	1:B:602:GLU:HG2	1.97	0.65
1:B:57:VAL:HG13	1:B:82:SER:OG	1.97	0.65
1:C:355:MET:HA	1:C:355:MET:HE3	1.76	0.65
1:C:518:ARG:HA	1:C:518:ARG:HH21	1.62	0.65
1:A:584:GLN:N	1:A:622:GLN:HB3	2.11	0.64
1:B:103:ALA:O	1:B:107:VAL:HG23	1.97	0.64
1:C:848:ALA:HA	1:C:851:LEU:CD2	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:222:THR:CB	1:B:223:PRO:CD	2.74	0.64
1:A:221:GLY:CA	1:B:622:GLN:HE22	2.10	0.64
1:A:335:ILE:HG13	1:A:336:SER:N	2.12	0.64
1:A:989:LEU:HB3	1:A:993:THR:HG23	1.79	0.64
1:C:448:VAL:HG22	1:C:884:VAL:HG22	1.79	0.64
1:B:613:ASN:O	1:B:615:PHE:N	2.30	0.64
1:B:314:GLU:N	1:B:315:PRO:CD	2.61	0.64
1:B:879:ILE:O	1:B:883:VAL:HG23	1.96	0.64
1:B:905:VAL:CG1	1:B:906:PRO:HD3	2.27	0.64
1:C:57:VAL:CG2	1:C:86:GLY:HA2	2.26	0.64
1:A:330:THR:H	1:A:331:PRO:HD2	1.63	0.64
1:B:231:ASN:C	1:B:231:ASN:ND2	2.51	0.64
1:C:137:LEU:O	1:C:329:THR:HG22	1.98	0.64
1:C:956:GLU:CD	1:C:957:GLY:H	2.00	0.64
1:C:1025:PHE:O	1:C:1029:VAL:HG23	1.97	0.64
1:A:632:LYS:O	1:A:637:ARG:HD3	1.98	0.64
1:B:904:VAL:HG13	1:B:907:LEU:HD12	1.80	0.64
1:A:154:ILE:O	1:A:158:VAL:HG23	1.97	0.64
1:B:527:TYR:HA	1:B:530:SER:HB2	1.80	0.63
1:A:597:TYR:CD1	1:A:597:TYR:C	2.71	0.63
1:B:699:ARG:HG2	1:B:700:ASN:H	1.63	0.63
1:A:317:PHE:HB3	1:A:321:LEU:HD21	1.79	0.63
1:C:1032:ARG:O	1:C:1035:ARG:HG2	1.97	0.63
1:A:11:PHE:CD1	1:B:890:ALA:HB1	2.32	0.63
1:A:712:MET:HA	1:A:832:ALA:HB2	1.81	0.63
1:B:294:ALA:HB3	1:B:297:ALA:HB2	1.79	0.63
1:B:754:TRP:CZ3	1:B:780:ARG:HA	2.33	0.63
1:B:918:PHE:CD1	1:B:919:ARG:HD3	2.30	0.63
1:C:144:ASN:ND2	1:C:148:THR:H	1.95	0.63
1:C:188:MET:HE1	1:C:193:LEU:HD11	1.78	0.63
1:C:911:GLY:HA3	1:C:1013:THR:CB	2.27	0.63
1:C:720:GLY:HA3	2:C:2002:RFP:H17C	1.81	0.63
1:C:925:VAL:O	1:C:927:PHE:N	2.32	0.63
1:B:1025:PHE:O	1:B:1029:VAL:HG12	1.98	0.63
1:C:435:MET:HA	1:C:438:ILE:HG22	1.81	0.63
1:C:646:ALA:HA	1:C:649:MET:HB2	1.81	0.63
1:C:897:ILE:N	1:C:898:PRO:HD2	2.13	0.63
1:A:218:GLN:O	1:A:219:LEU:HG	1.98	0.63
1:C:406:VAL:C	1:C:408:ASP:H	2.02	0.63
1:A:552:MET:HE1	1:A:906:PRO:CA	2.28	0.63
1:B:62:THR:O	1:B:66:GLU:HG3	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:254:ASN:ND2	1:A:258:SER:OG	2.31	0.62
1:A:781:MET:HB3	1:C:228:GLN:OE1	1.99	0.62
1:B:605:ASN:HD22	1:B:605:ASN:H	1.47	0.62
1:C:265:VAL:O	1:C:266:ALA:HB2	1.99	0.62
1:C:394:THR:HG22	1:C:395:MET:HE2	1.80	0.62
1:C:34:GLN:HG3	1:C:333:VAL:CG1	2.29	0.62
1:C:1030:ARG:HH11	1:C:1030:ARG:HG2	1.65	0.62
1:C:1035:ARG:HE	1:C:1035:ARG:HA	1.64	0.62
1:C:23:GLY:HA3	1:C:377:LEU:O	1.99	0.62
1:C:688:ALA:O	1:C:689:GLY:O	2.16	0.62
1:A:686:ASP:HB3	1:A:823:PRO:HG2	1.81	0.62
1:C:26:ALA:O	1:C:30:LEU:HB2	1.99	0.62
1:B:136:PHE:HD1	1:B:136:PHE:H	1.47	0.62
1:B:137:LEU:HD13	1:B:293:LEU:HG	1.81	0.62
1:C:204:ILE:CD1	1:C:773:VAL:HG21	2.30	0.62
1:C:712:MET:SD	1:C:843:LEU:HD22	2.40	0.62
1:C:901:VAL:O	1:C:904:VAL:HG23	1.98	0.62
1:B:249:ILE:HB	1:B:262:LEU:HB2	1.82	0.62
1:A:391:ASN:H	1:A:394:THR:HG22	1.64	0.62
1:B:155:SER:OG	1:B:179:GLY:HA3	1.99	0.62
1:B:456:MET:HG3	1:B:467:TYR:CB	2.19	0.62
1:A:883:VAL:O	1:A:887:CYS:HB2	1.99	0.61
1:C:987:MET:HB3	1:C:988:PRO:HD3	1.80	0.61
1:B:729:ILE:HG13	1:B:730:ASP:N	2.16	0.61
1:B:778:LYS:C	1:B:780:ARG:H	2.04	0.61
1:C:756:GLY:HA2	1:C:774:MET:HG3	1.81	0.61
1:A:83:ASP:HB3	1:A:815:ARG:HG3	1.82	0.61
1:A:713:LEU:HD22	1:A:714:THR:H	1.64	0.61
1:A:1013:THR:O	1:A:1017:LEU:HB3	1.99	0.61
1:B:921:LEU:HD22	1:B:1005:THR:HB	1.82	0.61
1:C:327:TYR:HB2	1:C:628:PHE:HB3	1.82	0.61
1:C:692:HIS:CE1	1:C:721:LEU:HD21	2.34	0.61
1:A:643:LYS:O	1:A:647:ILE:HG13	2.00	0.61
1:A:667:ASN:HD22	1:A:668:LEU:N	1.99	0.61
1:B:906:PRO:HA	1:B:909:VAL:HG22	1.83	0.61
1:B:251:LEU:HD12	1:B:262:LEU:HA	1.82	0.61
1:A:620:ARG:H	1:A:620:ARG:HD2	1.64	0.61
1:B:790:TYR:CD1	1:B:800:PRO:HA	2.36	0.61
1:B:925:VAL:HA	1:B:928:GLN:OE1	2.00	0.61
1:C:39:ALA:HB1	1:C:673:GLU:HG2	1.82	0.61
1:C:1004:GLY:O	1:C:1006:GLY:N	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:736:ALA:HB1	1:C:741:VAL:HG23	1.83	0.61
1:B:300:LEU:HD11	1:B:334:LYS:HE2	1.82	0.61
1:B:651:ALA:HB1	1:B:655:PHE:HE2	1.65	0.61
1:C:309:GLU:HG3	1:C:313:MET:CE	2.31	0.61
1:A:317:PHE:HB3	1:A:321:LEU:HD23	1.82	0.60
1:B:291:ILE:HG21	1:B:306:ILE:HD11	1.80	0.60
1:B:736:ALA:HB2	1:B:804:PHE:CB	2.31	0.60
1:C:1:MET:HG3	1:C:3:ASN:H	1.66	0.60
1:C:423:GLU:HB3	1:C:426:PRO:HD2	1.82	0.60
1:C:291:ILE:HD13	1:C:306:ILE:HD13	1.83	0.60
1:C:144:ASN:ND2	1:C:148:THR:N	2.48	0.60
1:A:280:GLU:HB2	1:A:284:GLN:O	2.01	0.60
1:C:790:TYR:CE1	1:C:800:PRO:HB3	2.36	0.60
1:B:598:TYR:HB3	1:B:606:VAL:HG21	1.83	0.60
1:C:57:VAL:HG21	1:C:86:GLY:CA	2.29	0.60
1:C:298:ASN:HB3	1:C:301:ASP:HB2	1.83	0.60
1:A:108:GLN:HG2	1:A:129:VAL:HB	1.84	0.60
1:B:911:GLY:HA3	1:B:1013:THR:CG2	2.31	0.60
1:C:99:ASP:OD2	1:C:102:ILE:HG12	2.02	0.60
1:C:176:GLN:HE22	1:C:620:ARG:HH12	1.49	0.60
1:B:591:LEU:O	1:B:595:THR:HG22	2.02	0.60
1:B:616:GLY:HA3	1:B:624:THR:CG2	2.32	0.60
1:A:6:ILE:CG2	1:A:490:PRO:HB2	2.31	0.60
1:B:741:VAL:HG21	1:B:791:VAL:HG23	1.83	0.60
1:A:1018:ALA:O	1:A:1022:VAL:HG22	2.01	0.59
1:B:736:ALA:HB2	1:B:804:PHE:HB3	1.83	0.59
1:B:911:GLY:HA2	1:B:914:LEU:HB3	1.84	0.59
1:C:415:ASN:CG	1:C:434:SER:HB2	2.23	0.59
1:C:592:ASN:O	1:C:593:GLU:HB2	2.01	0.59
1:A:443:VAL:HG22	1:A:486:LEU:HD11	1.84	0.59
1:B:919:ARG:CG	1:B:1005:THR:HG21	2.30	0.59
1:A:57:VAL:HG13	1:A:88:VAL:CG2	2.32	0.59
1:C:9:PRO:HB3	1:C:491:ALA:HB1	1.84	0.59
1:C:365:THR:HG22	1:C:365:THR:O	2.02	0.59
1:B:921:LEU:CD2	1:B:1005:THR:HB	2.32	0.59
1:B:213:GLN:HB2	1:B:239:ARG:HD2	1.84	0.59
1:B:850:LYS:C	1:B:852:PRO:HD3	2.23	0.59
1:C:326:PRO:HG3	1:C:610:PHE:CD1	2.38	0.59
1:C:835:LYS:HB3	1:C:839:GLU:OE2	2.01	0.59
1:A:600:THR:HG23	1:A:601:LYS:N	2.18	0.59
1:A:671:ILE:HB	1:A:674:LEU:HB3	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:144:ASN:HD21	1:B:148:THR:N	2.00	0.59
1:A:713:LEU:HB2	1:A:832:ALA:HA	1.83	0.59
1:B:276:ASP:O	1:B:614:GLY:HA3	2.03	0.59
1:C:367:ILE:N	1:C:368:PRO:CD	2.66	0.59
1:C:547:ILE:HA	1:C:550:VAL:HG12	1.85	0.59
1:C:713:LEU:HD12	1:C:835:LYS:H	1.66	0.59
1:B:362:PHE:HA	1:B:365:THR:HG22	1.84	0.59
1:C:375:VAL:HG13	1:C:480:LEU:HB2	1.82	0.59
1:C:379:THR:HG21	1:C:398:MET:HE3	1.84	0.59
1:B:552:MET:SD	1:B:909:VAL:CG2	2.88	0.58
1:C:220:GLY:HA3	1:C:231:ASN:ND2	2.18	0.58
1:C:914:LEU:O	1:C:915:ALA:HB3	2.03	0.58
1:C:938:SER:O	1:C:941:ASN:ND2	2.36	0.58
1:A:441:ALA:O	1:A:445:ILE:HG23	2.02	0.58
1:A:667:ASN:HD22	1:A:667:ASN:C	2.06	0.58
1:B:104:GLN:HE22	1:B:108:GLN:NE2	2.01	0.58
1:B:523:SER:HA	1:B:526:HIS:HD2	1.67	0.58
1:C:340:VAL:HG12	1:C:340:VAL:O	2.04	0.58
1:C:401:ALA:O	1:C:405:LEU:HG	2.03	0.58
1:A:1015:THR:C	1:A:1017:LEU:H	2.05	0.58
1:C:945:ILE:O	1:C:947:GLU:N	2.35	0.58
1:A:6:ILE:HD11	1:A:432:ARG:HG2	1.85	0.58
1:A:668:LEU:CD2	1:A:668:LEU:H	2.15	0.58
1:A:108:GLN:HE22	1:B:112:GLN:HB3	1.67	0.58
1:A:415:ASN:HD21	1:A:948:PHE:HZ	1.50	0.58
1:A:776:GLU:HB3	1:A:779:TYR:HD1	1.68	0.58
1:B:651:ALA:O	1:B:655:PHE:CD2	2.57	0.58
1:B:680:PHE:CD1	1:B:859:TRP:HZ3	2.20	0.58
1:C:746:ILE:HD13	1:C:791:VAL:HG11	1.86	0.58
1:A:578:LEU:CD2	1:A:587:THR:HG23	2.34	0.58
1:B:326:PRO:HG3	1:B:610:PHE:HD1	1.68	0.58
1:A:38:ILE:HD11	1:A:674:LEU:HG	1.85	0.58
1:A:210:GLN:HE22	1:A:250:LEU:H	1.51	0.58
1:A:360:GLN:HB2	1:A:513:PHE:CB	2.33	0.58
1:A:578:LEU:HB3	1:A:579:PRO:HD2	1.86	0.58
1:A:813:SER:HB3	1:A:816:LEU:CD2	2.33	0.58
1:C:378:GLY:O	1:C:382:VAL:HG23	2.04	0.58
1:C:497:LEU:HD12	1:C:498:LYS:HG3	1.85	0.58
1:A:253:VAL:HG13	1:A:253:VAL:O	2.04	0.58
1:A:400:LEU:HD22	1:A:1003:VAL:HG13	1.86	0.58
1:B:200:PRO:CD	1:B:749:THR:HG22	2.22	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:30:LEU:HD23	1:C:31:PRO:HD2	1.84	0.58
1:C:186:ILE:O	1:C:186:ILE:HG22	2.03	0.58
1:C:564:LEU:HD13	1:C:671:ILE:CD1	2.23	0.58
1:C:946:VAL:HG12	1:C:946:VAL:O	2.04	0.58
1:B:69:MET:HG2	1:B:92:LEU:HD11	1.86	0.58
1:B:231:ASN:C	1:B:231:ASN:HD22	2.06	0.58
1:B:346:GLU:O	1:B:350:LEU:HB2	2.04	0.58
1:B:1022:VAL:HA	1:B:1025:PHE:CD1	2.38	0.58
1:B:528:THR:OG1	1:B:969:ARG:HB2	2.04	0.58
1:B:911:GLY:N	1:B:1013:THR:HG21	2.19	0.58
1:C:713:LEU:HD23	1:C:831:ALA:CA	2.32	0.58
1:B:445:ILE:CG2	1:B:940:LYS:HG3	2.33	0.57
1:B:888:LEU:C	1:B:890:ALA:H	2.06	0.57
1:B:897:ILE:HD13	1:B:898:PRO:HD3	1.86	0.57
1:A:707:ALA:O	1:A:709:HIS:N	2.36	0.57
1:A:740:GLY:CA	1:A:793:ALA:HB1	2.34	0.57
1:B:143:ILE:CG2	1:B:286:ALA:HB2	2.34	0.57
1:C:485:ALA:O	1:C:490:PRO:HD3	2.04	0.57
1:C:695:LEU:HD22	1:C:825:MET:SD	2.44	0.57
1:B:166:ILE:HG21	1:B:291:ILE:HD12	1.86	0.57
1:C:578:LEU:HD21	1:C:590:VAL:HG21	1.84	0.57
1:B:53:ASP:HB2	1:B:56:THR:OG1	2.04	0.57
1:B:416:VAL:HG21	1:B:431:THR:HA	1.86	0.57
1:B:523:SER:HA	1:B:526:HIS:CD2	2.39	0.57
1:B:911:GLY:H	1:B:1013:THR:HG21	1.68	0.57
1:B:934:THR:HA	1:B:937:LEU:HD12	1.86	0.57
1:C:713:LEU:CD2	1:C:831:ALA:HA	2.31	0.57
1:B:104:GLN:HE22	1:B:108:GLN:HE21	1.50	0.57
1:C:406:VAL:O	1:C:408:ASP:N	2.37	0.57
1:C:1018:ALA:O	1:C:1022:VAL:HG23	2.04	0.57
1:A:418:ARG:HH21	1:A:970:MET:C	2.07	0.57
1:B:158:VAL:HA	1:B:162:MET:CG	2.34	0.57
1:B:449:LEU:HD23	1:B:478:MET:CE	2.34	0.57
1:A:297:ALA:HB1	1:A:302:THR:HG21	1.87	0.57
1:C:143:ILE:HD11	1:C:281:PHE:HB3	1.85	0.57
1:A:775:SER:O	1:A:780:ARG:NH1	2.38	0.57
1:A:800:PRO:O	1:A:803:ALA:HB3	2.04	0.57
1:B:271:GLY:HA3	1:B:275:TYR:OH	2.05	0.57
1:C:952:LEU:O	1:C:953:MET:HG3	2.04	0.57
1:C:894:SER:O	1:C:898:PRO:HD3	2.04	0.56
1:A:54:ALA:HB1	1:A:816:LEU:HG	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:24:GLY:H	1:B:27:ILE:HG23	1.69	0.56
1:C:10:ILE:HD13	1:C:10:ILE:H	1.69	0.56
1:A:872:GLN:O	1:A:876:LEU:HB2	2.06	0.56
1:B:332:PHE:CD1	1:B:569:GLN:HA	2.39	0.56
1:B:699:ARG:O	1:B:701:GLN:N	2.34	0.56
1:B:914:LEU:O	1:B:917:THR:HB	2.05	0.56
1:C:137:LEU:HD13	1:C:293:LEU:HD13	1.86	0.56
1:C:144:ASN:ND2	1:C:149:MET:H	2.04	0.56
1:C:395:MET:O	1:C:398:MET:N	2.38	0.56
1:C:686:ASP:C	1:C:686:ASP:OD2	2.43	0.56
1:B:300:LEU:HD12	1:B:300:LEU:O	2.06	0.56
1:C:463:THR:HG22	1:C:464:GLY:H	1.71	0.56
1:A:746:ILE:HG12	1:A:804:PHE:CE1	2.41	0.56
1:A:991:ILE:HD11	1:A:1005:THR:N	2.21	0.56
1:B:10:ILE:CD1	1:C:893:GLU:O	2.53	0.56
1:B:391:ASN:O	1:B:395:MET:HG2	2.04	0.56
1:C:3:ASN:HD21	1:C:432:ARG:HG3	1.70	0.56
1:B:736:ALA:HB1	1:B:741:VAL:CG1	2.35	0.56
1:C:680:PHE:CZ	1:C:829:GLY:HA3	2.40	0.56
1:C:888:LEU:C	1:C:890:ALA:H	2.09	0.56
1:B:57:VAL:O	1:B:61:VAL:HG12	2.05	0.56
1:B:67:GLN:O	1:B:70:ASN:ND2	2.34	0.56
1:A:65:ILE:HD11	1:A:90:ILE:HD13	1.88	0.56
1:B:435:MET:HA	1:B:435:MET:CE	2.36	0.56
1:C:294:ALA:HB3	1:C:297:ALA:HB2	1.87	0.56
1:C:444:GLY:HA3	1:C:891:LEU:HD13	1.86	0.56
1:C:641:GLU:O	1:C:650:ARG:NH1	2.38	0.56
1:C:643:LYS:O	1:C:647:ILE:CG1	2.54	0.56
1:A:379:THR:HG21	1:A:477:ALA:CA	2.18	0.56
1:A:552:MET:HE1	1:A:906:PRO:HB3	1.87	0.56
1:B:30:LEU:HD22	1:B:390:ILE:HG13	1.87	0.56
1:B:281:PHE:CE1	1:B:608:SER:HB2	2.41	0.56
1:B:404:LEU:HD22	1:B:449:LEU:HD21	1.88	0.56
1:A:62:THR:O	1:A:66:GLU:HG2	2.05	0.56
1:A:246:PHE:O	1:A:249:ILE:HG13	2.05	0.56
1:A:740:GLY:HA3	1:A:793:ALA:HB1	1.88	0.56
1:C:134:SER:O	1:C:292:LYS:HE2	2.06	0.56
1:C:379:THR:OG1	1:C:477:ALA:HB2	2.06	0.56
1:A:584:GLN:H	1:A:622:GLN:HB3	1.71	0.55
1:B:59:ASP:HA	1:B:63:GLN:HG2	1.88	0.55
1:B:282:ASN:O	1:B:284:GLN:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:742:SER:HB3	1:B:745:ASP:OD2	2.05	0.55
1:B:1009:GLY:O	1:B:1012:VAL:HG22	2.06	0.55
1:C:199:THR:OG1	1:C:201:VAL:N	2.39	0.55
1:C:888:LEU:O	1:C:890:ALA:N	2.33	0.55
1:C:979:SER:O	1:C:983:ILE:HG13	2.07	0.55
1:C:228:GLN:HG3	1:C:229:GLN:O	2.06	0.55
1:C:379:THR:HG21	1:C:398:MET:CE	2.36	0.55
1:B:360:GLN:O	1:B:361:ASN:CB	2.53	0.55
1:B:734:GLU:C	1:B:736:ALA:N	2.59	0.55
1:C:166:ILE:HG21	1:C:291:ILE:HD11	1.88	0.55
1:C:477:ALA:C	1:C:479:ALA:H	2.10	0.55
1:A:552:MET:HB2	1:A:910:ILE:HG23	1.86	0.55
1:A:775:SER:HB2	1:A:789:TRP:CZ2	2.42	0.55
1:C:242:SER:OG	1:C:244:GLU:HB3	2.06	0.55
1:C:692:HIS:HE1	1:C:721:LEU:HD21	1.70	0.55
1:A:668:LEU:H	1:A:668:LEU:HD23	1.71	0.55
1:B:193:LEU:HG	1:B:265:VAL:HG22	1.88	0.55
1:B:370:ILE:O	1:B:370:ILE:CG2	2.55	0.55
1:B:448:VAL:O	1:B:452:VAL:HG23	2.05	0.55
1:B:1012:VAL:HG23	1:B:1013:THR:N	2.22	0.55
1:C:1024:VAL:O	1:C:1028:VAL:HG23	2.06	0.55
1:B:87:THR:HG21	1:B:620:ARG:NH1	2.21	0.55
1:C:350:LEU:C	1:C:352:PHE:H	2.10	0.55
1:C:746:ILE:HD12	1:C:804:PHE:CZ	2.42	0.55
1:C:818:ARG:HA	1:C:824:SER:H	1.70	0.55
1:B:53:ASP:O	1:B:54:ALA:HB2	2.06	0.55
1:C:953:MET:SD	1:C:963:ALA:CB	2.92	0.55
1:B:219:LEU:HG	1:B:234:ILE:CD1	2.26	0.55
1:B:239:ARG:NH2	1:B:761:ASP:HB2	2.22	0.55
1:B:649:MET:O	1:B:653:ARG:HB2	2.07	0.55
1:B:790:TYR:HE1	1:B:800:PRO:HB3	1.71	0.55
1:B:986:VAL:O	1:B:990:VAL:HG23	2.07	0.55
1:C:65:ILE:HD13	1:C:111:LEU:CD2	2.37	0.55
1:C:908:GLY:CA	1:C:1014:ALA:HB2	2.34	0.55
1:A:278:ILE:HB	1:A:613:ASN:HB3	1.88	0.54
1:A:451:ALA:O	1:A:452:VAL:HG22	2.06	0.54
1:A:159:ALA:HB2	1:A:177:LEU:CD2	2.37	0.54
1:B:808:ARG:HH21	1:B:808:ARG:HB2	1.71	0.54
1:B:731:ILE:HG21	1:B:746:ILE:HG21	1.89	0.54
1:B:997:SER:C	1:B:999:ALA:H	2.10	0.54
1:C:38:ILE:CG2	1:C:466:ILE:HD11	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:727:PHE:CZ	1:C:807:SER:CB	2.90	0.54
1:A:894:SER:OG	1:A:897:ILE:HB	2.07	0.54
1:B:1012:VAL:HG23	1:B:1013:THR:H	1.73	0.54
1:A:1022:VAL:HG23	1:A:1023:PRO:HD3	1.89	0.54
1:A:1029:VAL:O	1:A:1030:ARG:HB2	2.07	0.54
1:B:605:ASN:H	1:B:605:ASN:ND2	2.05	0.54
1:C:188:MET:HE1	1:C:200:PRO:HA	1.89	0.54
1:C:1013:THR:O	1:C:1017:LEU:HB3	2.06	0.54
1:A:688:ALA:C	1:A:690:LEU:H	2.10	0.54
1:B:859:TRP:HB3	1:B:863:SER:HB3	1.90	0.54
1:C:775:SER:HG	1:C:789:TRP:HZ2	1.56	0.54
1:A:659:LYS:HG2	1:A:660:ASP:N	2.23	0.54
1:B:139:VAL:O	1:B:140:VAL:C	2.44	0.54
1:B:404:LEU:HD21	1:B:937:LEU:HD23	1.89	0.54
1:B:544:LEU:O	1:B:548:ILE:HG12	2.07	0.54
1:C:895:TRP:CE3	1:C:895:TRP:HA	2.43	0.54
1:A:442:LEU:C	1:A:444:GLY:H	2.12	0.54
1:A:606:VAL:HA	1:A:631:LEU:HD23	1.90	0.54
1:B:185:ARG:CG	1:B:185:ARG:NH1	2.66	0.54
1:B:416:VAL:HG11	1:B:431:THR:HG22	1.90	0.54
1:B:452:VAL:O	1:B:453:PHE:CB	2.56	0.54
1:B:613:ASN:O	1:B:625:GLY:HA2	2.08	0.54
1:B:1022:VAL:HG23	1:B:1023:PRO:CD	2.37	0.54
1:C:131:LYS:HB2	1:C:295:THR:HG22	1.90	0.54
1:C:782:LEU:HB3	1:C:783:PRO:HD2	1.90	0.54
1:A:340:VAL:HG13	1:A:399:VAL:CG2	2.38	0.54
1:B:578:LEU:HB3	1:B:579:PRO:HD2	1.89	0.54
1:B:945:ILE:HG13	1:B:946:VAL:N	2.23	0.54
1:C:741:VAL:HG13	1:C:793:ALA:HB2	1.90	0.54
1:C:904:VAL:HA	1:C:907:LEU:HD23	1.90	0.54
1:A:563:PHE:O	1:A:564:LEU:HD23	2.08	0.54
1:A:685:ILE:HG22	1:A:687:GLN:NE2	2.23	0.54
1:A:172:VAL:O	1:A:172:VAL:HG23	2.08	0.53
1:A:210:GLN:O	1:A:240:LEU:HD11	2.08	0.53
1:A:479:ALA:O	1:A:483:LEU:HD23	2.07	0.53
1:A:634:TRP:H	1:A:634:TRP:HD1	1.50	0.53
1:B:916:ALA:HA	1:B:919:ARG:HG2	1.90	0.53
1:C:158:VAL:HG12	1:C:177:LEU:HD21	1.91	0.53
1:A:552:MET:HE1	1:A:906:PRO:CB	2.38	0.53
1:A:832:ALA:HB3	1:A:835:LYS:HB2	1.90	0.53
1:B:905:VAL:HG13	1:B:906:PRO:CD	2.36	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:188:MET:HG3	1:C:774:MET:O	2.09	0.53
1:C:190:PRO:CD	1:C:779:TYR:CD1	2.91	0.53
1:C:605:ASN:ND2	1:C:637:ARG:HG2	2.24	0.53
1:A:31:PRO:HB3	1:A:296:GLY:HA2	1.90	0.53
1:A:552:MET:HE1	1:A:906:PRO:HA	1.90	0.53
1:A:783:PRO:HD3	1:C:219:LEU:HD13	1.90	0.53
1:C:319:SER:OG	1:C:320:GLY:N	2.39	0.53
1:C:452:VAL:HG12	1:C:932:LEU:HD22	1.89	0.53
1:C:801:PHE:O	1:C:803:ALA:N	2.40	0.53
1:B:158:VAL:HA	1:B:162:MET:HG2	1.89	0.53
1:B:841:MET:SD	1:B:866:GLU:OE2	2.66	0.53
1:A:32:VAL:HG22	1:A:390:ILE:HB	1.90	0.53
1:B:671:ILE:C	1:B:673:GLU:N	2.61	0.53
1:C:361:ASN:HB3	1:C:364:ALA:HB3	1.89	0.53
1:C:590:VAL:O	1:C:594:VAL:HG23	2.09	0.53
1:A:709:HIS:N	1:A:710:PRO:HD3	2.24	0.53
1:B:178:PHE:CD1	1:B:612:VAL:HG11	2.43	0.53
1:B:220:GLY:HA2	1:C:781:MET:SD	2.49	0.53
1:B:314:GLU:HA	1:B:317:PHE:CE2	2.42	0.53
1:C:371:ALA:HB2	1:C:488:LEU:HD23	1.91	0.53
1:C:246:PHE:O	1:C:249:ILE:HG12	2.09	0.53
1:C:837:THR:O	1:C:841:MET:HB2	2.09	0.53
1:C:1026:PHE:CE1	1:C:1030:ARG:HD2	2.44	0.53
2:C:2002:RFP:H401	2:C:2002:RFP:C18	2.39	0.53
1:A:708:LYS:O	1:A:709:HIS:CD2	2.62	0.53
1:B:485:ALA:HA	1:B:489:THR:OG1	2.08	0.53
1:B:983:ILE:HD12	1:B:1012:VAL:HG13	1.89	0.53
1:B:985:GLY:O	1:B:988:PRO:HD2	2.09	0.53
1:C:49:TYR:HE1	1:C:60:THR:HG21	1.74	0.53
1:B:291:ILE:HG21	1:B:306:ILE:HD13	1.90	0.53
1:B:426:PRO:HB3	1:B:430:ALA:CB	2.39	0.53
1:B:600:THR:OG1	1:B:601:LYS:N	2.42	0.53
1:B:732:ASP:O	1:B:734:GLU:N	2.42	0.53
1:B:924:ASP:HB3	1:B:926:TYR:H	1.75	0.53
1:C:225:VAL:O	1:C:226:LYS:C	2.46	0.53
1:C:317:PHE:CD1	1:C:321:LEU:HD12	2.44	0.53
1:A:1021:PHE:O	1:A:1024:VAL:HB	2.10	0.52
1:C:204:ILE:HD13	1:C:773:VAL:HG21	1.90	0.52
1:C:442:LEU:O	1:C:445:ILE:HG13	2.09	0.52
1:A:159:ALA:HB2	1:A:177:LEU:HD22	1.92	0.52
1:A:688:ALA:O	1:A:690:LEU:N	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2:PRO:HB2	1:C:6:ILE:HD11	1.91	0.52
1:C:176:GLN:HE22	1:C:620:ARG:NH1	2.08	0.52
1:C:514:GLY:C	1:C:516:PHE:H	2.12	0.52
1:A:105:VAL:CG2	1:B:105:VAL:HG13	2.39	0.52
1:A:352:PHE:HA	1:A:365:THR:HB	1.92	0.52
1:B:316:PHE:HD1	1:C:854:GLY:HA2	1.74	0.52
1:C:157:TYR:O	1:C:161:ASN:HB2	2.09	0.52
1:C:351:VAL:HG11	1:C:406:VAL:HG21	1.91	0.52
1:C:351:VAL:HG22	1:C:981:ALA:O	2.09	0.52
1:C:767:ARG:HD3	1:C:769:LYS:HE3	1.91	0.52
1:A:139:VAL:HG13	1:A:139:VAL:O	2.09	0.52
1:A:172:VAL:HG12	1:A:291:ILE:HG21	1.91	0.52
1:A:575:MET:HA	1:A:626:ILE:HD13	1.91	0.52
1:A:923:ASN:C	1:A:923:ASN:ND2	2.61	0.52
1:C:966:ASP:O	1:C:970:MET:HG3	2.09	0.52
1:A:194:ASN:ND2	1:A:790:TYR:CD2	2.77	0.52
1:A:832:ALA:O	1:A:833:PRO:C	2.48	0.52
1:C:192:GLU:HB3	1:C:265:VAL:HB	1.91	0.52
1:C:222:THR:CG2	1:C:223:PRO:CD	2.66	0.52
1:A:337:ILE:CD1	1:A:395:MET:HG3	2.39	0.52
1:A:560:PRO:HB2	1:A:922:THR:HG22	1.92	0.52
1:A:746:ILE:HG22	1:A:747:ASN:N	2.24	0.52
1:B:183:ALA:O	1:B:185:ARG:N	2.42	0.52
1:B:356:TYR:O	1:B:360:GLN:N	2.38	0.52
1:B:675:GLY:O	1:B:677:ALA:N	2.43	0.52
1:B:682:PHE:HD1	1:B:859:TRP:CH2	2.28	0.52
1:C:308:ALA:O	1:C:312:LYS:HG3	2.10	0.52
1:A:919:ARG:HG3	1:A:920:GLY:N	2.24	0.52
1:B:404:LEU:HD21	1:B:937:LEU:CD2	2.39	0.52
1:C:230:LEU:C	1:C:230:LEU:HD13	2.30	0.52
1:C:249:ILE:O	1:C:261:LEU:HA	2.10	0.52
1:C:415:ASN:HA	1:C:418:ARG:HH21	1.73	0.52
1:A:23:GLY:HA2	1:A:381:ALA:HB2	1.92	0.52
1:A:240:LEU:HD12	1:A:240:LEU:N	2.25	0.52
1:A:299:ALA:O	1:A:303:ALA:HB2	2.10	0.52
1:A:790:TYR:CE1	1:A:800:PRO:HB3	2.44	0.52
1:C:592:ASN:HA	1:C:595:THR:OG1	2.10	0.52
1:B:699:ARG:HH11	1:B:699:ARG:CB	2.19	0.52
1:C:531:VAL:O	1:C:533:GLY:N	2.42	0.52
1:C:945:ILE:C	1:C:947:GLU:N	2.62	0.52
1:A:890:ALA:HB1	1:C:11:PHE:CD1	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:78:MET:HA	1:B:91:THR:O	2.10	0.52
1:B:282:ASN:C	1:B:284:GLN:H	2.12	0.52
1:C:463:THR:HA	1:C:466:ILE:HG12	1.91	0.52
1:A:65:ILE:HG22	1:A:118:LEU:HD11	1.92	0.51
1:A:525:HIS:HA	1:A:528:THR:HG22	1.91	0.51
1:A:600:THR:O	1:A:603:LYS:HD3	2.09	0.51
1:B:973:ARG:HB3	1:B:974:PRO:HD3	1.93	0.51
1:C:400:LEU:HD11	1:C:930:GLY:HA2	1.92	0.51
1:C:482:VAL:O	1:C:486:LEU:HG	2.10	0.51
1:C:760:ASN:O	1:C:771:VAL:HG23	2.09	0.51
1:A:30:LEU:HD21	1:A:384:ALA:HB2	1.90	0.51
1:A:909:VAL:O	1:A:912:ALA:HB3	2.10	0.51
1:A:911:GLY:CA	1:A:914:LEU:HB2	2.41	0.51
1:A:1010:GLY:O	1:A:1014:ALA:HB2	2.11	0.51
1:B:189:ASN:HD22	1:B:190:PRO:HD2	1.76	0.51
1:B:462:SER:OG	1:B:865:GLN:HG2	2.10	0.51
1:B:919:ARG:HB2	1:B:921:LEU:HD13	1.91	0.51
1:C:527:TYR:OH	1:C:968:VAL:HG12	2.09	0.51
1:C:574:THR:HG23	1:C:665:ALA:HB2	1.92	0.51
1:A:158:VAL:HA	1:A:162:MET:HG2	1.92	0.51
1:B:525:HIS:O	1:B:528:THR:HG22	2.09	0.51
1:C:193:LEU:HB3	1:C:198:LEU:O	2.10	0.51
1:C:368:PRO:HD2	1:C:369:THR:H	1.75	0.51
1:C:420:MET:SD	1:C:498:LYS:HD3	2.51	0.51
1:C:983:ILE:CG2	1:C:1008:MET:HG3	2.38	0.51
1:A:862:MET:HA	1:A:865:GLN:HB3	1.93	0.51
1:C:361:ASN:HD22	1:C:362:PHE:N	2.08	0.51
1:A:38:ILE:CD1	1:A:674:LEU:HG	2.40	0.51
1:B:146:ASP:O	1:B:148:THR:N	2.44	0.51
1:C:400:LEU:CD1	1:C:930:GLY:HA2	2.41	0.51
1:C:415:ASN:HA	1:C:418:ARG:NH2	2.25	0.51
1:C:564:LEU:HD23	1:C:565:PRO:HD2	1.93	0.51
1:C:944:LEU:HB3	1:C:971:ARG:HD2	1.92	0.51
1:A:649:MET:HB3	1:A:653:ARG:HH22	1.75	0.51
1:B:166:ILE:HG21	1:B:291:ILE:CD1	2.41	0.51
1:C:1013:THR:HG23	1:C:1014:ALA:N	2.26	0.51
1:A:298:ASN:HB2	1:A:301:ASP:H	1.76	0.51
1:B:171:GLY:HA3	1:B:302:THR:HG21	1.93	0.51
1:C:946:VAL:HG13	1:C:1026:PHE:CD1	2.46	0.51
1:C:1016:VAL:O	1:C:1018:ALA:N	2.42	0.51
1:A:328:ASP:OD1	1:A:330:THR:HB	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:143:ILE:HD11	1:C:281:PHE:CB	2.40	0.51
1:C:819:TYR:N	1:C:824:SER:HB3	2.26	0.51
1:A:282:ASN:ND2	1:A:609:VAL:H	2.09	0.51
1:A:776:GLU:HB3	1:A:779:TYR:CD1	2.46	0.51
1:A:959:GLY:HA3	1:A:962:GLU:HB3	1.92	0.51
1:B:10:ILE:HD12	1:C:893:GLU:HG3	1.92	0.51
1:B:651:ALA:HB1	1:B:655:PHE:CE2	2.45	0.51
1:B:768:VAL:HG23	1:C:63:GLN:NE2	2.25	0.51
1:C:520:PHE:O	1:C:524:THR:HG23	2.10	0.51
1:C:662:MET:H	1:C:662:MET:CE	2.24	0.51
1:C:832:ALA:HB3	1:C:833:PRO:CD	2.33	0.51
1:B:250:LEU:HD12	1:B:259:ARG:NH2	2.21	0.51
1:C:131:LYS:O	1:C:295:THR:HG22	2.11	0.51
1:C:144:ASN:HD21	1:C:148:THR:H	1.57	0.51
1:C:615:PHE:C	1:C:615:PHE:CD2	2.85	0.51
1:A:400:LEU:HD11	1:A:930:GLY:CA	2.28	0.50
1:A:454:VAL:O	1:A:456:MET:N	2.44	0.50
1:A:813:SER:HB3	1:A:816:LEU:HD21	1.93	0.50
1:B:818:ARG:HG3	1:B:818:ARG:NH1	2.25	0.50
1:B:1028:VAL:O	1:B:1032:ARG:HB2	2.11	0.50
1:C:176:GLN:NE2	1:C:620:ARG:NH1	2.58	0.50
1:C:184:MET:HG2	1:C:246:PHE:CE1	2.46	0.50
1:C:474:ILE:O	1:C:478:MET:HB2	2.11	0.50
1:C:624:THR:HB	2:C:2002:RFP:H381	1.92	0.50
1:A:102:ILE:O	1:A:106:GLN:HG3	2.11	0.50
1:A:251:LEU:CD1	1:A:265:VAL:HG21	2.41	0.50
1:A:418:ARG:NH2	1:A:970:MET:O	2.44	0.50
1:A:987:MET:N	1:A:988:PRO:CD	2.74	0.50
1:B:213:GLN:HG2	1:C:56:THR:HG23	1.94	0.50
1:B:708:LYS:C	1:B:710:PRO:HD3	2.31	0.50
1:C:713:LEU:O	1:C:713:LEU:CD2	2.59	0.50
1:A:104:GLN:OE1	1:A:131:LYS:HE3	2.11	0.50
1:A:252:LYS:HE3	1:A:254:ASN:HB3	1.93	0.50
1:A:905:VAL:HB	1:A:906:PRO:HD3	1.92	0.50
1:B:13:TRP:HA	1:B:13:TRP:CE3	2.46	0.50
1:B:166:ILE:C	1:B:168:ARG:H	2.14	0.50
1:C:140:VAL:O	1:C:288:GLY:HA3	2.10	0.50
1:C:193:LEU:HD23	1:C:265:VAL:HG21	1.93	0.50
1:C:204:ILE:HD11	1:C:773:VAL:HG21	1.92	0.50
1:C:459:PHE:O	1:C:464:GLY:HA3	2.11	0.50
1:C:541:TYR:C	1:C:543:VAL:H	2.13	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:643:LYS:HE2	1:C:645:GLU:HB3	1.92	0.50
1:C:732:ASP:N	1:C:804:PHE:O	2.36	0.50
1:A:235:ILE:CD1	1:B:53:ASP:HB3	2.42	0.50
1:A:574:THR:HG21	1:A:594:VAL:CG1	2.39	0.50
1:B:414:GLU:CD	1:B:974:PRO:HG3	2.32	0.50
1:C:188:MET:CE	1:C:200:PRO:HA	2.42	0.50
1:C:391:ASN:H	1:C:394:THR:HB	1.77	0.50
1:C:655:PHE:C	1:C:657:GLN:N	2.65	0.50
1:C:1007:VAL:O	1:C:1011:MET:HB2	2.11	0.50
1:A:1019:ILE:HG12	1:A:1020:PHE:CD1	2.46	0.50
1:B:198:LEU:HD23	1:B:792:ARG:HH22	1.76	0.50
1:C:204:ILE:HG22	1:C:208:LYS:HD2	1.92	0.50
1:C:688:ALA:O	1:C:689:GLY:C	2.50	0.50
1:C:941:ASN:HD22	1:C:942:ALA:N	2.10	0.50
1:A:59:ASP:HB3	1:C:763:ILE:HD11	1.94	0.50
1:A:481:SER:O	1:A:484:VAL:HG22	2.11	0.50
1:A:713:LEU:HB2	1:A:832:ALA:CA	2.42	0.50
1:B:376:LEU:HD11	1:B:402:ILE:HD13	1.94	0.50
1:B:560:PRO:HB3	1:B:839:GLU:OE1	2.12	0.50
1:C:352:PHE:HA	1:C:369:THR:HG21	1.92	0.50
1:A:6:ILE:HG22	1:A:490:PRO:HB2	1.93	0.50
1:B:143:ILE:HG23	1:B:286:ALA:HB2	1.93	0.50
1:B:987:MET:HB3	1:B:988:PRO:CD	2.37	0.50
1:A:235:ILE:HD13	1:B:53:ASP:HB3	1.93	0.50
1:A:780:ARG:HG2	1:A:780:ARG:NH1	2.26	0.50
1:C:786:ILE:HD12	1:C:786:ILE:H	1.77	0.50
1:A:108:GLN:NE2	1:B:112:GLN:CB	2.70	0.49
1:A:897:ILE:N	1:A:898:PRO:HD2	2.27	0.49
1:B:616:GLY:HA3	1:B:624:THR:HG21	1.93	0.49
1:B:1013:THR:HA	1:B:1017:LEU:HD13	1.93	0.49
1:C:156:ASP:O	1:C:157:TYR:C	2.51	0.49
1:C:476:SER:O	1:C:477:ALA:CB	2.59	0.49
1:C:949:ALA:HB1	1:C:1026:PHE:CZ	2.47	0.49
1:B:714:THR:HG23	1:B:830:GLN:HG3	1.92	0.49
1:C:158:VAL:HG13	1:C:289:LEU:HD21	1.93	0.49
1:C:199:THR:OG1	1:C:201:VAL:HB	2.12	0.49
1:C:489:THR:N	1:C:490:PRO:HD2	2.27	0.49
1:A:301:ASP:C	1:A:303:ALA:H	2.16	0.49
1:A:442:LEU:O	1:A:445:ILE:HG13	2.11	0.49
1:A:707:ALA:C	1:A:709:HIS:N	2.65	0.49
1:C:190:PRO:HG3	1:C:789:TRP:CH2	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:380:PHE:HE1	1:C:398:MET:SD	2.32	0.49
1:C:757:SER:O	1:C:772:TYR:HA	2.12	0.49
1:A:585:GLU:OE2	1:C:227:GLY:HA2	2.12	0.49
1:A:590:VAL:O	1:A:594:VAL:HG23	2.13	0.49
1:B:55:LYS:O	1:B:57:VAL:N	2.37	0.49
1:B:138:MET:HG2	1:B:139:VAL:N	2.27	0.49
1:B:669:PRO:HG3	1:B:678:THR:HA	1.94	0.49
1:C:115:MET:HA	1:C:118:LEU:HD22	1.95	0.49
1:C:945:ILE:HG13	1:C:971:ARG:HG3	1.93	0.49
1:A:171:GLY:HA3	1:A:302:THR:HG21	1.95	0.49
1:A:228:GLN:HG2	1:B:781:MET:HG3	1.94	0.49
1:A:240:LEU:N	1:A:240:LEU:CD1	2.76	0.49
1:B:493:CYS:HA	1:B:497:LEU:HB2	1.94	0.49
1:C:314:GLU:HB2	1:C:315:PRO:HD3	1.94	0.49
1:C:349:ILE:O	1:C:352:PHE:HB3	2.13	0.49
1:C:382:VAL:HG11	1:C:476:SER:HB2	1.94	0.49
1:A:53:ASP:HA	1:A:84:SER:HA	1.93	0.49
1:A:447:MET:HB3	1:A:887:CYS:HG	1.73	0.49
1:A:578:LEU:HD21	1:A:587:THR:HG23	1.95	0.49
1:A:713:LEU:HD13	1:A:714:THR:N	2.27	0.49
1:B:450:SER:O	1:B:452:VAL:O	2.31	0.49
1:C:332:PHE:CD2	1:C:569:GLN:HA	2.47	0.49
1:C:437:GLN:O	1:C:438:ILE:HB	2.13	0.49
1:A:70:ASN:HB3	1:C:167:SER:HB3	1.95	0.49
1:A:634:TRP:CD1	1:A:634:TRP:N	2.66	0.49
1:C:985:GLY:O	1:C:988:PRO:HD2	2.12	0.49
1:A:578:LEU:HD23	1:A:587:THR:HG23	1.94	0.49
1:B:555:LEU:HA	1:B:558:ARG:HE	1.77	0.49
1:C:150:THR:O	1:C:154:ILE:HG13	2.12	0.49
1:C:586:ARG:O	1:C:590:VAL:HG23	2.13	0.49
1:C:685:ILE:O	1:C:685:ILE:CG1	2.61	0.49
1:C:752:ALA:O	1:C:774:MET:HA	2.13	0.49
1:A:780:ARG:HD2	1:A:780:ARG:O	2.13	0.49
1:A:813:SER:CB	1:A:816:LEU:HD23	2.42	0.49
1:A:899:PHE:HA	1:A:902:MET:HG3	1.94	0.49
1:B:139:VAL:O	1:B:139:VAL:CG1	2.47	0.49
1:C:345:VAL:O	1:C:348:ILE:N	2.40	0.49
1:C:355:MET:HG2	1:C:368:PRO:HG2	1.94	0.49
1:C:564:LEU:CD1	1:C:671:ILE:HD12	2.27	0.49
1:C:847:LEU:HD23	1:C:847:LEU:H	1.78	0.49
1:A:786:ILE:O	1:A:787:GLY:C	2.52	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:843:LEU:O	1:A:843:LEU:HD22	2.13	0.49
1:B:605:ASN:ND2	1:B:605:ASN:N	2.60	0.49
1:C:815:ARG:NH1	1:C:815:ARG:CG	2.62	0.49
1:B:382:VAL:HG11	1:B:476:SER:OG	2.13	0.48
1:B:922:THR:OG1	1:B:923:ASN:N	2.45	0.48
1:C:40:PRO:HB2	1:C:94:PHE:O	2.12	0.48
1:C:655:PHE:O	1:C:657:GLN:N	2.46	0.48
1:A:61:VAL:HG22	1:A:118:LEU:HD22	1.93	0.48
1:B:184:MET:H	1:B:762:PHE:HE2	1.59	0.48
1:B:339:GLU:HG3	1:B:996:GLY:H	1.77	0.48
1:C:53:ASP:O	1:C:54:ALA:HB2	2.13	0.48
1:C:577:GLN:HG2	2:C:2002:RFP:C39	2.44	0.48
1:B:780:ARG:O	1:B:781:MET:HB2	2.13	0.48
1:C:344:LEU:HD23	1:C:399:VAL:HG22	1.94	0.48
1:A:239:ARG:HD3	1:A:762:PHE:HA	1.95	0.48
1:A:713:LEU:HD13	1:A:714:THR:H	1.78	0.48
1:C:399:VAL:O	1:C:402:ILE:HB	2.13	0.48
1:C:404:LEU:HD23	1:C:449:LEU:HD13	1.96	0.48
1:A:1015:THR:O	1:A:1017:LEU:N	2.47	0.48
1:B:776:GLU:OE1	1:B:778:LYS:HE2	2.13	0.48
1:C:419:VAL:HG23	1:C:430:ALA:HB1	1.94	0.48
1:C:841:MET:O	1:C:845:GLU:HG3	2.13	0.48
1:B:449:LEU:HD23	1:B:478:MET:HE2	1.96	0.48
1:B:531:VAL:O	1:B:535:LEU:HD23	2.13	0.48
1:B:723:ASP:HA	1:B:814:PRO:HD3	1.95	0.48
1:B:940:LYS:NZ	1:B:978:THR:HG22	2.29	0.48
1:C:907:LEU:HD12	1:C:1017:LEU:HG	1.95	0.48
1:A:188:MET:SD	1:A:200:PRO:HB3	2.53	0.48
1:A:301:ASP:OD2	1:A:301:ASP:N	2.46	0.48
1:A:340:VAL:HG13	1:A:399:VAL:HG23	1.96	0.48
1:B:947:GLU:O	1:B:947:GLU:HG3	2.14	0.48
1:C:672:VAL:HG13	1:C:676:THR:H	1.78	0.48
1:C:801:PHE:CD1	1:C:804:PHE:HE1	2.32	0.48
1:B:348:ILE:HG23	1:B:372:VAL:HG21	1.96	0.48
1:B:600:THR:C	1:B:602:GLU:H	2.17	0.48
1:B:888:LEU:O	1:B:890:ALA:N	2.47	0.48
1:C:184:MET:HG2	1:C:246:PHE:CD1	2.49	0.48
1:C:624:THR:CB	2:C:2002:RFP:H381	2.44	0.48
1:A:21:LEU:O	1:A:25:LEU:HB2	2.14	0.48
1:A:142:VAL:CG1	1:A:321:LEU:HD12	2.43	0.48
1:A:605:ASN:OD1	1:A:637:ARG:HG2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:692:HIS:CE1	1:A:813:SER:HB2	2.49	0.48
1:C:158:VAL:CG1	1:C:177:LEU:HD21	2.43	0.48
1:C:968:VAL:HG11	1:C:1023:PRO:CG	2.38	0.48
1:A:108:GLN:HB3	1:B:112:GLN:HE22	1.79	0.48
1:B:1017:LEU:HD12	1:B:1017:LEU:H	1.79	0.48
1:C:192:GLU:HG2	1:C:264:ASP:O	2.13	0.48
1:C:265:VAL:O	1:C:265:VAL:CG2	2.62	0.48
1:C:402:ILE:O	1:C:406:VAL:HG23	2.13	0.48
1:C:644:VAL:CG1	1:C:667:ASN:HB2	2.43	0.48
1:B:224:PRO:HA	1:C:781:MET:HE3	1.95	0.47
1:C:216:ALA:HB3	1:C:234:ILE:O	2.14	0.47
1:C:409:ALA:O	1:C:413:VAL:HG22	2.14	0.47
1:C:968:VAL:CG1	1:C:1023:PRO:HG3	2.36	0.47
1:C:997:SER:HA	1:C:1000:GLN:OE1	2.14	0.47
1:A:108:GLN:HB3	1:B:112:GLN:NE2	2.29	0.47
1:A:674:LEU:HD22	1:A:675:GLY:N	2.15	0.47
1:B:58:GLN:NE2	1:B:818:ARG:NH1	2.62	0.47
1:B:136:PHE:CD1	1:B:136:PHE:N	2.78	0.47
1:B:676:THR:HG22	1:B:676:THR:O	2.15	0.47
1:C:326:PRO:O	1:C:327:TYR:C	2.52	0.47
1:C:572:PHE:HE2	1:C:631:LEU:HD21	1.79	0.47
1:C:895:TRP:HA	1:C:895:TRP:HE3	1.77	0.47
1:B:19:ILE:HG22	1:B:378:GLY:HA3	1.97	0.47
1:B:556:PHE:C	1:B:558:ARG:H	2.17	0.47
1:A:30:LEU:CD2	1:A:384:ALA:HB2	2.45	0.47
1:A:668:LEU:N	1:A:668:LEU:HD23	2.29	0.47
1:B:222:THR:HB	1:B:223:PRO:HD2	1.90	0.47
1:B:225:VAL:N	1:C:781:MET:HE3	2.25	0.47
1:B:372:VAL:HB	1:B:402:ILE:CD1	2.41	0.47
1:B:715:SER:O	1:B:716:VAL:C	2.53	0.47
1:B:1022:VAL:HG23	1:B:1023:PRO:HD3	1.95	0.47
1:C:210:GLN:NE2	1:C:250:LEU:H	2.11	0.47
1:C:708:LYS:C	1:C:710:PRO:HD3	2.35	0.47
1:C:801:PHE:HA	1:C:804:PHE:CZ	2.49	0.47
1:C:873:ALA:C	1:C:875:SER:H	2.18	0.47
1:A:275:TYR:CB	1:C:223:PRO:CD	2.86	0.47
1:B:75:LEU:HD12	1:B:75:LEU:HA	1.75	0.47
1:B:156:ASP:OD2	1:B:182:TYR:HB2	2.15	0.47
1:B:568:ASP:HA	1:B:644:VAL:HG21	1.96	0.47
1:B:860:THR:O	1:B:861:GLY:C	2.52	0.47
1:C:195:LYS:HE3	1:C:196:PHE:CE1	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:303:ALA:O	1:C:307:ARG:HG2	2.14	0.47
1:C:467:TYR:CE2	1:C:925:VAL:HG12	2.50	0.47
1:C:655:PHE:C	1:C:657:GLN:H	2.16	0.47
1:A:6:ILE:HD11	1:A:432:ARG:CG	2.44	0.47
1:B:240:LEU:HB2	1:B:246:PHE:CE2	2.50	0.47
1:B:696:THR:HA	1:B:699:ARG:NH1	2.30	0.47
1:B:713:LEU:HD23	1:B:716:VAL:HG21	1.96	0.47
1:B:852:PRO:HB2	1:B:853:THR:H	1.54	0.47
1:B:915:ALA:O	1:B:917:THR:N	2.44	0.47
1:C:692:HIS:NE2	1:C:813:SER:HB2	2.30	0.47
1:C:785:ASP:C	1:C:787:GLY:H	2.18	0.47
1:A:192:GLU:O	1:A:265:VAL:HG12	2.15	0.47
1:A:843:LEU:HD22	1:A:847:LEU:HG	1.96	0.47
1:B:23:GLY:HA2	1:B:26:ALA:HB3	1.97	0.47
1:B:219:LEU:CG	1:B:234:ILE:HD11	2.30	0.47
1:B:256:ASP:OD1	1:B:256:ASP:N	2.44	0.47
1:B:858:ASP:OD1	1:B:867:ARG:NH2	2.48	0.47
1:C:465:ALA:O	1:C:469:GLN:HG2	2.14	0.47
1:A:324:VAL:HG12	1:A:325:TYR:H	1.80	0.47
1:B:225:VAL:HG22	1:C:781:MET:CE	2.44	0.47
1:B:528:THR:O	1:B:531:VAL:HG12	2.15	0.47
1:B:782:LEU:O	1:B:784:ASP:N	2.47	0.47
1:B:873:ALA:HB2	1:B:928:GLN:HE21	1.80	0.47
1:C:83:ASP:HB2	1:C:87:THR:HB	1.97	0.47
1:A:435:MET:HE2	1:A:438:ILE:HD11	1.96	0.47
1:A:543:VAL:O	1:A:544:LEU:HB3	2.14	0.47
1:A:747:ASN:HD21	1:C:237:GLN:NE2	2.13	0.47
1:A:813:SER:HB3	1:A:816:LEU:HD23	1.96	0.47
1:C:672:VAL:HG13	1:C:675:GLY:H	1.79	0.47
1:C:706:ALA:HB3	1:C:716:VAL:HG21	1.97	0.47
1:A:73:ASP:H	1:A:106:GLN:NE2	2.09	0.47
1:A:752:ALA:O	1:A:756:GLY:HA2	2.15	0.47
1:B:582:ALA:HB3	1:B:623:ASN:HB3	1.97	0.47
1:B:764:ASP:O	1:B:766:GLY:N	2.48	0.47
1:C:188:MET:CE	1:C:193:LEU:HD11	2.44	0.47
1:C:329:THR:C	1:C:331:PRO:HD2	2.35	0.47
1:C:463:THR:O	1:C:465:ALA:N	2.41	0.47
1:C:748:THR:O	1:C:752:ALA:HB2	2.15	0.47
1:C:764:ASP:OD1	1:C:765:ARG:HG3	2.14	0.47
1:C:992:SER:HB3	1:C:997:SER:HB2	1.97	0.47
1:A:682:PHE:HD1	1:A:859:TRP:CH2	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:729:ILE:HD11	1:A:786:ILE:HD11	1.97	0.46
1:B:367:ILE:CG2	1:B:489:THR:HG23	2.45	0.46
1:B:566:ASP:C	1:B:567:GLU:HG2	2.35	0.46
1:C:30:LEU:HD11	1:C:380:PHE:O	2.15	0.46
1:C:230:LEU:HD13	1:C:230:LEU:O	2.15	0.46
1:C:379:THR:CG2	1:C:398:MET:HE3	2.45	0.46
1:C:915:ALA:HB1	1:C:1005:THR:HG22	1.96	0.46
1:B:49:TYR:O	1:B:50:PRO:C	2.54	0.46
1:B:143:ILE:HD12	1:B:322:LYS:HB3	1.97	0.46
1:B:193:LEU:HG	1:B:265:VAL:CG2	2.45	0.46
1:B:762:PHE:HD2	1:B:771:VAL:HG22	1.79	0.46
1:A:143:ILE:HG21	1:A:281:PHE:CD2	2.51	0.46
1:A:231:ASN:OD1	1:B:622:GLN:NE2	2.49	0.46
1:A:281:PHE:O	1:A:282:ASN:C	2.54	0.46
1:B:704:ALA:O	1:B:705:GLU:HB2	2.14	0.46
1:C:410:ILE:HG23	1:C:977:MET:HE3	1.98	0.46
1:C:911:GLY:HA3	1:C:1013:THR:HB	1.97	0.46
1:C:958:LYS:HD2	1:C:958:LYS:N	2.31	0.46
1:A:153:ASP:HA	1:A:182:TYR:OH	2.16	0.46
1:A:598:TYR:O	1:A:602:GLU:HB2	2.15	0.46
1:B:198:LEU:HD13	1:B:251:LEU:HD22	1.97	0.46
1:B:235:ILE:HD12	1:B:235:ILE:N	2.30	0.46
1:B:561:SER:O	1:B:838:GLY:HA3	2.16	0.46
1:C:813:SER:HB3	1:C:816:LEU:HD21	1.96	0.46
1:A:600:THR:HG23	1:A:601:LYS:H	1.78	0.46
1:A:740:GLY:O	1:A:794:ALA:N	2.41	0.46
1:B:36:PRO:O	1:B:37:THR:C	2.53	0.46
1:B:137:LEU:HG	1:B:137:LEU:O	2.14	0.46
1:C:174:ASP:HB3	1:C:292:LYS:HB2	1.96	0.46
1:C:897:ILE:N	1:C:898:PRO:CD	2.79	0.46
1:A:255:GLN:O	1:A:256:ASP:HB3	2.15	0.46
1:A:726:GLN:HB2	1:C:235:ILE:HD13	1.98	0.46
1:B:398:MET:O	1:B:402:ILE:HB	2.15	0.46
1:B:435:MET:HA	1:B:435:MET:HE2	1.96	0.46
1:B:648:THR:HG23	1:B:665:ALA:O	2.15	0.46
1:B:706:ALA:C	1:B:708:LYS:N	2.66	0.46
1:B:892:TYR:HB2	1:B:897:ILE:CD1	2.41	0.46
1:B:937:LEU:HD22	1:B:1011:MET:HE2	1.97	0.46
1:B:964:THR:O	1:B:968:VAL:HG23	2.15	0.46
1:C:38:ILE:HG21	1:C:466:ILE:CD1	2.42	0.46
1:C:344:LEU:HD22	1:C:402:ILE:HD11	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:577:GLN:CD	1:C:578:LEU:H	2.18	0.46
1:A:99:ASP:OD1	1:A:101:ASP:N	2.46	0.46
1:A:186:ILE:HB	1:A:773:VAL:HG23	1.97	0.46
1:A:781:MET:HE3	1:C:228:GLN:OE1	2.16	0.46
1:B:61:VAL:HG13	1:B:88:VAL:HG21	1.98	0.46
1:B:316:PHE:CD1	1:C:854:GLY:HA2	2.51	0.46
1:C:712:MET:O	1:C:713:LEU:C	2.54	0.46
1:C:758:TYR:CE1	1:C:770:LYS:HD3	2.51	0.46
1:A:253:VAL:O	1:A:253:VAL:CG1	2.64	0.46
1:A:324:VAL:HG12	1:A:325:TYR:N	2.30	0.46
1:A:584:GLN:H	1:A:622:GLN:HE21	1.62	0.46
1:B:345:VAL:HA	1:B:348:ILE:HD12	1.97	0.46
1:B:927:PHE:CE2	1:B:931:LEU:HD11	2.51	0.46
1:C:142:VAL:C	1:C:143:ILE:HD12	2.36	0.46
1:C:160:ALA:HB1	1:C:767:ARG:HD2	1.98	0.46
1:C:213:GLN:NE2	1:C:238:THR:HA	2.31	0.46
1:C:263:ARG:HD3	1:C:268:ILE:HD12	1.98	0.46
1:A:180:SER:HB3	1:A:273:GLU:H	1.81	0.46
1:A:330:THR:N	1:A:331:PRO:HD2	2.31	0.46
1:A:406:VAL:C	1:A:408:ASP:H	2.19	0.46
1:A:454:VAL:C	1:A:456:MET:H	2.19	0.46
1:B:111:LEU:O	1:B:113:LEU:N	2.49	0.46
1:B:224:PRO:HA	1:C:781:MET:CE	2.45	0.46
1:B:695:LEU:HD12	1:B:825:MET:CE	2.46	0.46
1:B:700:ASN:C	1:B:702:LEU:H	2.19	0.46
1:A:540:ARG:HD2	1:A:541:TYR:CZ	2.51	0.46
1:C:261:LEU:O	1:C:264:ASP:HB2	2.16	0.46
1:C:367:ILE:H	1:C:368:PRO:HD3	1.81	0.46
1:C:415:ASN:O	1:C:419:VAL:HG22	2.16	0.46
1:C:780:ARG:O	1:C:780:ARG:HG3	2.16	0.46
1:A:894:SER:CB	1:A:897:ILE:HD13	2.45	0.45
1:B:343:THR:HA	1:B:346:GLU:HG2	1.98	0.45
1:C:183:ALA:O	1:C:185:ARG:HG2	2.16	0.45
1:C:786:ILE:HD12	1:C:786:ILE:N	2.31	0.45
1:A:189:ASN:O	1:A:191:ASN:N	2.50	0.45
1:A:368:PRO:HB3	1:A:409:ALA:HB1	1.98	0.45
1:A:742:SER:O	1:A:743:ILE:C	2.54	0.45
1:A:917:THR:O	1:A:919:ARG:N	2.49	0.45
1:B:27:ILE:HG13	1:B:28:LEU:N	2.31	0.45
1:B:775:SER:OG	1:B:789:TRP:HZ2	1.99	0.45
1:C:518:ARG:HA	1:C:518:ARG:NH2	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:706:ALA:CB	1:C:716:VAL:HG21	2.46	0.45
1:C:894:SER:O	1:C:898:PRO:CD	2.64	0.45
1:A:626:ILE:HD13	1:A:626:ILE:HA	1.77	0.45
1:A:799:VAL:HG13	1:A:800:PRO:HD2	1.97	0.45
1:B:78:MET:HB3	1:B:92:LEU:HD13	1.98	0.45
1:B:235:ILE:N	1:B:235:ILE:CD1	2.78	0.45
1:C:344:LEU:HD23	1:C:399:VAL:CG2	2.47	0.45
1:A:841:MET:O	1:A:845:GLU:HG3	2.17	0.45
1:B:70:ASN:ND2	1:B:70:ASN:N	2.65	0.45
1:B:537:SER:HA	1:B:540:ARG:NH2	2.31	0.45
1:B:930:GLY:O	1:B:934:THR:HG23	2.17	0.45
1:C:39:ALA:HB2	1:C:673:GLU:HG2	1.97	0.45
1:C:189:ASN:ND2	1:C:191:ASN:H	2.14	0.45
1:C:342:LYS:C	1:C:344:LEU:H	2.18	0.45
1:C:713:LEU:HD12	1:C:835:LYS:N	2.31	0.45
1:C:843:LEU:O	1:C:847:LEU:HD23	2.17	0.45
1:A:105:VAL:HG21	1:B:105:VAL:HG13	1.98	0.45
1:A:713:LEU:CD2	1:A:714:THR:H	2.30	0.45
1:B:49:TYR:HE1	1:B:60:THR:HG21	1.82	0.45
1:C:888:LEU:HD13	1:C:901:VAL:HG23	1.99	0.45
1:C:934:THR:O	1:C:936:GLY:N	2.50	0.45
1:A:298:ASN:O	1:A:302:THR:HG23	2.16	0.45
1:A:355:MET:HB3	1:A:365:THR:HB	1.97	0.45
1:A:395:MET:HE2	1:A:395:MET:HA	1.98	0.45
1:B:193:LEU:HD22	1:B:198:LEU:O	2.17	0.45
1:B:318:PRO:HD2	1:B:321:LEU:HD22	1.99	0.45
1:B:454:VAL:O	1:B:455:PRO:C	2.54	0.45
1:B:462:SER:OG	1:B:865:GLN:CG	2.64	0.45
1:A:579:PRO:O	1:A:580:ALA:O	2.34	0.45
1:B:463:THR:HG21	1:B:869:SER:CB	2.39	0.45
1:B:516:PHE:CG	1:B:517:ASN:N	2.84	0.45
1:B:945:ILE:HD11	1:B:1022:VAL:HB	1.99	0.45
1:B:966:ASP:O	1:B:970:MET:CG	2.65	0.45
1:C:77:TYR:N	1:C:77:TYR:CD2	2.85	0.45
1:C:160:ALA:HA	1:C:767:ARG:NE	2.32	0.45
1:C:666:PHE:CZ	2:C:2002:RFP:H28C	2.52	0.45
1:A:252:LYS:HB3	1:A:260:VAL:HB	1.99	0.45
1:A:682:PHE:CZ	1:A:857:TYR:CB	2.98	0.45
1:A:713:LEU:HB2	1:A:832:ALA:N	2.31	0.45
1:B:44:THR:OG1	1:B:132:SER:CB	2.65	0.45
1:B:169:THR:HG22	1:B:170:SER:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:326:PRO:HB2	1:B:327:TYR:H	1.63	0.45
1:A:219:LEU:HD23	1:B:754:TRP:CZ3	2.52	0.45
1:A:681:ASP:HB3	1:A:860:THR:O	2.16	0.45
1:B:13:TRP:CE3	1:B:488:LEU:HD21	2.52	0.45
1:B:651:ALA:O	1:B:655:PHE:HD2	1.99	0.45
1:B:680:PHE:O	1:B:828:LEU:HD23	2.17	0.45
1:C:35:TYR:CE1	1:C:671:ILE:HG12	2.51	0.45
1:C:44:THR:HB	1:C:91:THR:HB	1.99	0.45
1:C:78:MET:O	1:C:78:MET:HG3	2.16	0.45
1:C:354:VAL:HG21	1:C:980:LEU:O	2.17	0.45
1:C:548:ILE:HD13	1:C:1017:LEU:HD21	1.98	0.45
1:C:577:GLN:HG2	2:C:2002:RFP:H391	1.99	0.45
1:C:591:LEU:HD23	1:C:613:ASN:HB2	1.98	0.45
1:C:914:LEU:O	1:C:915:ALA:CB	2.64	0.45
1:A:380:PHE:CZ	1:A:398:MET:HE1	2.52	0.45
1:B:455:PRO:HG3	1:B:880:SER:HA	1.99	0.45
1:C:365:THR:O	1:C:365:THR:CG2	2.66	0.45
1:A:103:ALA:O	1:A:107:VAL:HG23	2.17	0.44
1:A:762:PHE:CE1	1:A:764:ASP:HB2	2.51	0.44
1:A:808:ARG:HG2	1:A:808:ARG:HH11	1.83	0.44
1:B:185:ARG:HH22	1:B:774:MET:CE	2.29	0.44
1:B:240:LEU:HD22	1:B:245:GLU:OE1	2.16	0.44
1:B:983:ILE:CD1	1:B:1012:VAL:HG13	2.47	0.44
1:C:53:ASP:O	1:C:54:ALA:CB	2.65	0.44
1:B:213:GLN:HE21	1:B:213:GLN:HB2	1.69	0.44
1:B:561:SER:HB3	1:B:563:PHE:CE1	2.52	0.44
1:B:680:PHE:CD1	1:B:859:TRP:CZ3	3.03	0.44
1:B:966:ASP:O	1:B:970:MET:HG2	2.17	0.44
1:C:172:VAL:O	1:C:172:VAL:HG12	2.18	0.44
1:C:454:VAL:N	1:C:455:PRO:HD2	2.32	0.44
1:C:894:SER:C	1:C:896:SER:H	2.20	0.44
1:C:971:ARG:HB3	1:C:975:ILE:HD13	2.00	0.44
1:A:416:VAL:O	1:A:420:MET:HB2	2.17	0.44
1:A:1022:VAL:HA	1:A:1025:PHE:CD1	2.52	0.44
1:B:83:ASP:OD1	1:B:87:THR:HB	2.17	0.44
1:B:671:ILE:C	1:B:673:GLU:H	2.20	0.44
1:C:10:ILE:HG12	1:C:11:PHE:H	1.82	0.44
1:C:314:GLU:N	1:C:315:PRO:CD	2.80	0.44
1:C:415:ASN:OD1	1:C:418:ARG:NE	2.42	0.44
1:A:339:GLU:O	1:A:341:VAL:N	2.49	0.44
1:A:413:VAL:HG23	1:A:493:CYS:SG	2.57	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:187:TRP:O	1:B:266:ALA:HB1	2.17	0.44
1:B:314:GLU:OE2	1:B:323:ILE:HD12	2.18	0.44
1:C:696:THR:O	1:C:699:ARG:HG3	2.17	0.44
1:A:166:ILE:O	1:A:172:VAL:HG21	2.17	0.44
1:A:587:THR:OG1	1:A:622:GLN:O	2.26	0.44
1:A:884:VAL:O	1:A:888:LEU:HB2	2.17	0.44
1:A:901:VAL:HG13	1:A:942:ALA:HB3	1.99	0.44
1:B:49:TYR:CE1	1:B:60:THR:HG21	2.52	0.44
1:B:231:ASN:HD22	1:B:232:ALA:N	2.15	0.44
1:C:203:VAL:HG13	1:C:262:LEU:HD11	1.98	0.44
1:C:653:ARG:O	1:C:655:PHE:O	2.36	0.44
1:A:171:GLY:O	1:A:172:VAL:C	2.56	0.44
1:A:926:TYR:CE1	1:A:999:ALA:HB1	2.52	0.44
1:B:166:ILE:HA	1:B:169:THR:OG1	2.17	0.44
1:B:192:GLU:OE1	1:B:196:PHE:HE2	1.99	0.44
1:B:289:LEU:CD1	1:B:289:LEU:N	2.79	0.44
1:B:332:PHE:HB2	1:B:569:GLN:O	2.18	0.44
1:B:356:TYR:O	1:B:358:PHE:N	2.47	0.44
1:B:402:ILE:HD12	1:B:402:ILE:HA	1.80	0.44
1:B:673:GLU:HG2	1:B:861:GLY:HA2	2.00	0.44
1:C:92:LEU:HD12	1:C:92:LEU:H	1.83	0.44
1:C:307:ARG:HE	1:C:307:ARG:HB3	1.57	0.44
1:A:255:GLN:O	1:A:256:ASP:CB	2.65	0.44
1:C:5:PHE:CE2	1:C:11:PHE:CD2	2.96	0.44
1:C:394:THR:HG22	1:C:395:MET:CE	2.47	0.44
1:C:406:VAL:C	1:C:408:ASP:N	2.69	0.44
1:C:415:ASN:ND2	1:C:434:SER:HB2	2.33	0.44
1:A:225:VAL:HB	1:B:781:MET:HE3	2.00	0.44
1:A:375:VAL:CG2	1:A:481:SER:HA	2.45	0.44
1:A:525:HIS:O	1:A:528:THR:HG22	2.18	0.44
1:A:731:ILE:HG12	1:A:746:ILE:HG21	2.00	0.44
1:A:1015:THR:C	1:A:1017:LEU:N	2.71	0.44
1:B:20:MET:CG	1:B:374:VAL:HA	2.48	0.44
1:C:687:GLN:HE21	1:C:687:GLN:HB3	1.48	0.44
1:A:235:ILE:HG22	1:A:235:ILE:O	2.16	0.44
1:A:907:LEU:HG	1:A:1017:LEU:HD22	2.00	0.44
1:B:682:PHE:CZ	1:B:857:TYR:HB2	2.53	0.44
1:B:878:ALA:O	1:B:882:ILE:HG12	2.18	0.44
1:C:220:GLY:HA3	1:C:231:ASN:HD22	1.82	0.44
1:C:427:PRO:HB3	1:C:498:LYS:HD2	1.99	0.44
1:B:5:PHE:HB3	1:B:12:ALA:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:33:ALA:O	1:B:391:ASN:HA	2.18	0.43
1:B:143:ILE:CD1	1:B:322:LYS:HB3	2.48	0.43
1:B:190:PRO:HB3	1:B:789:TRP:CD2	2.53	0.43
1:B:562:SER:O	1:B:924:ASP:HA	2.18	0.43
1:B:674:LEU:HD23	1:B:674:LEU:HA	1.83	0.43
1:B:706:ALA:HA	1:B:713:LEU:HD22	2.00	0.43
1:C:579:PRO:O	1:C:580:ALA:O	2.36	0.43
1:A:347:ALA:HB3	1:A:402:ILE:HD13	2.00	0.43
1:A:882:ILE:O	1:A:886:LEU:HB2	2.18	0.43
1:B:932:LEU:HA	1:B:935:ILE:HD12	2.00	0.43
1:C:368:PRO:CD	1:C:369:THR:H	2.30	0.43
1:C:372:VAL:HG12	1:C:373:PRO:CD	2.34	0.43
1:C:662:MET:H	1:C:662:MET:HE2	1.83	0.43
1:C:931:LEU:O	1:C:935:ILE:HD13	2.18	0.43
1:A:225:VAL:O	1:A:226:LYS:C	2.56	0.43
1:A:747:ASN:HD21	1:C:237:GLN:HE22	1.66	0.43
1:C:265:VAL:O	1:C:266:ALA:CB	2.63	0.43
1:C:445:ILE:O	1:C:448:VAL:N	2.51	0.43
1:A:184:MET:HB3	1:A:771:VAL:HG13	2.00	0.43
1:A:578:LEU:HD11	1:A:590:VAL:HG21	1.99	0.43
1:B:222:THR:CG2	1:B:223:PRO:HD3	2.48	0.43
1:B:367:ILE:HD11	1:B:496:MET:HB2	2.00	0.43
1:C:683:GLU:HG3	1:C:819:TYR:CD2	2.52	0.43
1:C:815:ARG:NH2	2:C:2002:RFP:H302	2.34	0.43
1:C:982:PHE:HD2	1:C:982:PHE:HA	1.77	0.43
1:A:156:ASP:OD1	1:A:769:LYS:NZ	2.49	0.43
1:A:338:HIS:O	1:A:341:VAL:HG12	2.18	0.43
1:A:406:VAL:O	1:A:408:ASP:N	2.51	0.43
1:A:644:VAL:C	1:A:646:ALA:H	2.21	0.43
1:B:97:GLY:O	1:B:98:THR:O	2.37	0.43
1:B:144:ASN:ND2	1:B:149:MET:H	2.16	0.43
1:B:703:LEU:HD21	1:B:718:PRO:HD3	2.01	0.43
1:A:328:ASP:CG	1:A:330:THR:HB	2.39	0.43
1:A:742:SER:OG	1:A:745:ASP:HB2	2.19	0.43
1:A:754:TRP:CE3	1:A:780:ARG:HB2	2.53	0.43
1:A:817:GLU:HB2	1:A:824:SER:O	2.18	0.43
1:A:894:SER:OG	1:A:898:PRO:HD2	2.19	0.43
1:A:934:THR:C	1:A:936:GLY:N	2.72	0.43
1:C:367:ILE:N	1:C:368:PRO:HD3	2.33	0.43
1:A:60:THR:HG23	1:A:119:PRO:CG	2.42	0.43
1:A:819:TYR:H	1:A:824:SER:HB3	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:225:VAL:HG11	1:C:778:LYS:HB3	2.00	0.43
1:B:606:VAL:CG1	1:B:607:GLU:N	2.82	0.43
1:C:229:GLN:O	1:C:230:LEU:HB3	2.17	0.43
1:C:713:LEU:O	1:C:830:GLN:O	2.37	0.43
1:C:792:ARG:HG3	1:C:796:GLY:HA2	2.00	0.43
1:A:187:TRP:O	1:A:188:MET:O	2.37	0.43
1:A:356:TYR:C	1:A:358:PHE:H	2.22	0.43
1:A:636:ASP:O	1:A:638:PRO:HD3	2.18	0.43
1:A:848:ALA:HA	1:A:851:LEU:HD12	2.01	0.43
1:B:145:THR:HG23	1:B:320:GLY:CA	2.48	0.43
1:B:449:LEU:HD23	1:B:478:MET:SD	2.59	0.43
1:B:544:LEU:HB3	1:B:1021:PHE:HZ	1.82	0.43
1:C:34:GLN:CG	1:C:333:VAL:HG21	2.48	0.43
1:A:29:LYS:CG	1:A:30:LEU:H	2.32	0.43
1:A:899:PHE:O	1:A:903:LEU:HG	2.19	0.43
1:B:119:PRO:HB2	1:B:122:VAL:HG23	2.01	0.43
1:B:183:ALA:N	1:B:271:GLY:O	2.48	0.43
1:B:952:LEU:HG	1:B:956:GLU:OE1	2.18	0.43
1:C:247:GLY:CA	1:C:263:ARG:HD3	2.49	0.43
1:C:713:LEU:CD2	1:C:830:GLN:O	2.65	0.43
1:A:352:PHE:HD1	1:A:353:LEU:HD12	1.84	0.43
1:B:768:VAL:HG23	1:C:63:GLN:CD	2.39	0.43
1:C:577:GLN:CD	1:C:578:LEU:N	2.72	0.43
1:A:166:ILE:HD13	1:A:166:ILE:N	2.34	0.42
1:B:94:PHE:CB	1:B:98:THR:HG21	2.41	0.42
1:B:157:TYR:HA	1:B:161:ASN:ND2	2.34	0.42
1:B:169:THR:HB	1:B:172:VAL:HG21	2.00	0.42
1:B:962:GLU:O	1:B:966:ASP:HB2	2.18	0.42
1:C:66:GLU:HA	1:C:69:MET:HB2	2.00	0.42
1:C:186:ILE:O	1:C:186:ILE:CG2	2.66	0.42
1:C:241:THR:HG22	1:C:245:GLU:OE2	2.19	0.42
1:C:341:VAL:O	1:C:344:LEU:HB3	2.19	0.42
1:C:569:GLN:C	1:C:634:TRP:HZ2	2.23	0.42
1:C:697:GLN:O	1:C:700:ASN:HB2	2.19	0.42
1:C:736:ALA:C	1:C:738:ALA:H	2.22	0.42
1:A:758:TYR:HB2	1:A:772:TYR:CE2	2.54	0.42
1:B:351:VAL:O	1:B:352:PHE:C	2.57	0.42
1:B:790:TYR:HD1	1:B:800:PRO:HA	1.84	0.42
1:C:331:PRO:O	1:C:332:PHE:C	2.57	0.42
1:C:731:ILE:HG12	1:C:746:ILE:HG21	2.01	0.42
1:C:785:ASP:C	1:C:787:GLY:N	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:335:ILE:O	1:A:339:GLU:HG3	2.19	0.42
1:A:426:PRO:HB3	1:A:427:PRO:HD2	2.00	0.42
1:A:660:ASP:O	1:A:661:ALA:HB2	2.18	0.42
1:B:314:GLU:N	1:B:315:PRO:HD3	2.34	0.42
1:B:393:LEU:HD13	1:B:466:ILE:HG23	2.01	0.42
1:B:708:LYS:O	1:B:708:LYS:HG2	2.19	0.42
1:B:828:LEU:HB3	1:B:829:GLY:H	1.76	0.42
1:B:961:ILE:HG22	1:B:961:ILE:O	2.19	0.42
1:C:131:LYS:O	1:C:131:LYS:HG3	2.18	0.42
1:C:886:LEU:O	1:C:890:ALA:HB2	2.19	0.42
1:A:571:VAL:HG12	1:A:630:SER:HB3	2.00	0.42
1:A:596:HIS:O	1:A:597:TYR:C	2.58	0.42
1:A:617:PHE:O	1:A:618:ALA:HB3	2.20	0.42
1:A:655:PHE:O	1:A:658:ILE:HG13	2.19	0.42
1:B:372:VAL:HG22	1:B:373:PRO:HD3	2.00	0.42
1:B:669:PRO:HB2	1:B:862:MET:CE	2.50	0.42
1:B:897:ILE:N	1:B:898:PRO:CD	2.83	0.42
1:C:328:ASP:OD1	1:C:328:ASP:C	2.58	0.42
1:C:591:LEU:HD13	1:C:591:LEU:HA	1.90	0.42
1:C:767:ARG:CG	1:C:767:ARG:NH1	2.69	0.42
1:A:355:MET:HG2	1:A:365:THR:HA	2.02	0.42
1:B:99:ASP:C	1:B:99:ASP:OD2	2.57	0.42
1:B:250:LEU:HD11	1:B:253:VAL:HG23	2.01	0.42
1:B:780:ARG:O	1:B:780:ARG:HG2	2.19	0.42
1:C:331:PRO:HG2	1:C:332:PHE:H	1.85	0.42
1:A:323:ILE:O	1:A:323:ILE:HG13	2.20	0.42
1:A:655:PHE:O	1:A:657:GLN:N	2.41	0.42
1:A:702:LEU:HB2	1:A:851:LEU:HD11	2.01	0.42
1:B:990:VAL:HG13	1:B:1005:THR:OG1	2.19	0.42
1:C:30:LEU:HD21	1:C:384:ALA:HA	2.01	0.42
1:C:355:MET:HA	1:C:355:MET:HE2	1.96	0.42
1:C:372:VAL:HG21	1:C:406:VAL:HG22	2.02	0.42
1:C:466:ILE:HD13	1:C:466:ILE:N	2.35	0.42
1:A:141:GLY:N	1:A:324:VAL:O	2.46	0.42
1:A:187:TRP:HA	1:A:774:MET:O	2.19	0.42
1:A:400:LEU:HD12	1:A:400:LEU:O	2.20	0.42
1:A:780:ARG:NH1	1:A:780:ARG:CG	2.82	0.42
1:B:343:THR:O	1:B:347:ALA:HB2	2.20	0.42
1:C:644:VAL:HG12	1:C:667:ASN:HB2	2.02	0.42
1:A:565:PRO:HG2	1:A:999:ALA:HA	2.01	0.42
1:A:701:GLN:HE21	1:A:701:GLN:HB2	1.61	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1007:VAL:O	1:A:1011:MET:HB2	2.20	0.42
1:B:568:ASP:HA	1:B:644:VAL:CG2	2.49	0.42
1:B:692:HIS:O	1:B:692:HIS:ND1	2.53	0.42
1:B:701:GLN:HB3	1:B:851:LEU:CD1	2.50	0.42
1:B:848:ALA:C	1:B:850:LYS:H	2.23	0.42
1:B:972:LEU:HD21	1:B:1019:ILE:HD12	2.02	0.42
1:C:672:VAL:HG13	1:C:675:GLY:N	2.34	0.42
1:C:869:SER:HB2	1:C:870:GLY:H	1.71	0.42
1:C:941:ASN:HA	1:C:944:LEU:HD12	2.02	0.42
1:A:203:VAL:O	1:A:207:ILE:HG13	2.20	0.42
1:A:395:MET:HA	1:A:395:MET:CE	2.48	0.42
1:A:552:MET:CE	1:A:906:PRO:HB3	2.50	0.42
1:A:897:ILE:HD11	1:A:1030:ARG:HD3	2.01	0.42
1:B:204:ILE:HG23	1:B:759:VAL:HG13	2.02	0.42
1:B:216:ALA:HB2	1:B:236:ALA:HB2	2.02	0.42
1:C:137:LEU:N	1:C:291:ILE:O	2.52	0.42
1:C:577:GLN:O	1:C:661:ALA:HB1	2.19	0.42
1:A:49:TYR:O	1:A:52:ALA:HB2	2.20	0.42
1:A:295:THR:O	1:A:295:THR:HG22	2.20	0.42
1:A:367:ILE:HG13	1:A:368:PRO:HD3	2.02	0.42
1:A:589:LYS:HA	1:A:589:LYS:HD3	1.81	0.42
1:B:704:ALA:O	1:B:705:GLU:CB	2.68	0.42
1:B:970:MET:HA	1:B:970:MET:CE	2.50	0.42
1:B:970:MET:HA	1:B:970:MET:HE2	2.02	0.42
1:C:574:THR:HB	1:C:627:ALA:HB3	2.02	0.42
1:C:668:LEU:H	1:C:668:LEU:HD23	1.85	0.42
1:C:897:ILE:O	1:C:900:SER:OG	2.31	0.42
1:A:20:MET:HG3	1:A:374:VAL:HG22	2.02	0.41
1:A:63:GLN:OE1	1:C:767:ARG:HA	2.20	0.41
1:A:713:LEU:CG	1:A:714:THR:H	2.33	0.41
1:B:391:ASN:OD1	1:B:394:THR:N	2.35	0.41
1:B:580:ALA:O	1:B:581:GLY:C	2.58	0.41
1:C:35:TYR:CD1	1:C:671:ILE:HG12	2.55	0.41
1:C:189:ASN:C	1:C:189:ASN:HD22	2.23	0.41
1:C:240:LEU:HB3	1:C:245:GLU:HB2	2.02	0.41
1:C:426:PRO:HA	1:C:427:PRO:HD3	1.64	0.41
1:A:72:ILE:HG23	1:A:106:GLN:HE21	1.84	0.41
1:A:282:ASN:HD22	1:A:282:ASN:HA	1.62	0.41
1:A:578:LEU:O	1:A:623:ASN:ND2	2.53	0.41
1:A:895:TRP:HZ2	1:C:13:TRP:HE3	1.67	0.41
1:B:34:GLN:HE21	1:B:332:PHE:HE2	1.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:38:ILE:HG23	1:B:462:SER:HB2	2.01	0.41
1:B:186:ILE:HD13	1:B:262:LEU:HD11	2.02	0.41
1:B:204:ILE:H	1:B:204:ILE:HG12	1.74	0.41
1:B:280:GLU:HG2	1:B:611:ALA:HB3	2.01	0.41
1:B:367:ILE:HG13	1:B:492:LEU:CB	2.28	0.41
1:B:700:ASN:O	1:B:704:ALA:CB	2.68	0.41
1:B:852:PRO:HA	1:B:855:VAL:HB	2.02	0.41
1:B:983:ILE:HD12	1:B:1012:VAL:CG1	2.50	0.41
1:C:284:GLN:HE21	1:C:284:GLN:HB2	1.65	0.41
1:C:388:PHE:N	1:C:388:PHE:CD1	2.87	0.41
1:A:340:VAL:O	1:A:344:LEU:HB2	2.20	0.41
1:A:533:GLY:C	1:A:535:LEU:H	2.24	0.41
1:A:575:MET:HG2	1:A:626:ILE:HD11	2.02	0.41
1:A:818:ARG:NH2	1:A:821:GLY:O	2.52	0.41
1:A:983:ILE:HG13	1:A:984:LEU:N	2.35	0.41
1:A:1029:VAL:HG12	1:A:1030:ARG:N	2.33	0.41
1:B:55:LYS:C	1:B:57:VAL:H	2.20	0.41
1:B:58:GLN:HE22	1:B:818:ARG:NH1	2.18	0.41
1:C:222:THR:O	1:C:223:PRO:C	2.58	0.41
1:C:445:ILE:O	1:C:448:VAL:HG12	2.19	0.41
1:A:194:ASN:ND2	1:A:790:TYR:CE2	2.88	0.41
1:B:10:ILE:H	1:B:10:ILE:HG13	1.62	0.41
1:B:154:ILE:HD11	1:B:286:ALA:HA	2.02	0.41
1:B:216:ALA:HB3	1:B:234:ILE:O	2.21	0.41
1:B:396:PHE:CD2	1:B:1003:VAL:HG21	2.54	0.41
1:C:34:GLN:HA	1:C:333:VAL:HG13	2.01	0.41
1:C:873:ALA:C	1:C:875:SER:N	2.74	0.41
2:C:2002:RFP:O4	2:C:2002:RFP:O12	2.35	0.41
1:A:6:ILE:HG21	1:A:490:PRO:HB2	2.02	0.41
1:A:89:GLN:HE21	1:A:89:GLN:HB2	1.62	0.41
1:A:301:ASP:O	1:A:305:ALA:N	2.49	0.41
1:A:836:SER:O	1:A:839:GLU:HG2	2.21	0.41
1:A:895:TRP:HZ2	1:C:13:TRP:CE3	2.38	0.41
1:B:545:TYR:C	1:B:547:ILE:H	2.24	0.41
1:B:564:LEU:HA	1:B:565:PRO:HD3	1.71	0.41
1:B:680:PHE:HZ	1:B:716:VAL:HG22	1.84	0.41
1:B:1017:LEU:HD12	1:B:1017:LEU:N	2.35	0.41
1:C:2:PRO:O	1:C:6:ILE:HG12	2.21	0.41
1:C:21:LEU:HD23	1:C:21:LEU:HA	1.83	0.41
1:C:456:MET:CA	1:C:459:PHE:HE1	2.28	0.41
1:C:467:TYR:CZ	1:C:925:VAL:HG12	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:748:THR:O	1:C:752:ALA:CB	2.69	0.41
1:C:901:VAL:HG11	1:C:943:ILE:HA	2.01	0.41
1:A:183:ALA:N	1:A:271:GLY:O	2.53	0.41
1:A:200:PRO:CD	1:A:749:THR:HG23	2.51	0.41
1:A:685:ILE:HD11	1:A:819:TYR:HD1	1.86	0.41
1:A:733:GLN:O	1:A:734:GLU:C	2.59	0.41
1:B:14:VAL:HG21	1:C:886:LEU:O	2.21	0.41
1:B:121:GLU:H	1:B:121:GLU:HG2	1.42	0.41
1:B:317:PHE:HB3	1:B:321:LEU:HB3	2.03	0.41
1:B:369:THR:C	1:B:371:ALA:H	2.24	0.41
1:B:462:SER:O	1:B:466:ILE:HG12	2.20	0.41
1:B:613:ASN:C	1:B:615:PHE:H	2.23	0.41
1:C:34:GLN:O	1:C:392:THR:HG23	2.20	0.41
1:C:92:LEU:HD12	1:C:92:LEU:N	2.35	0.41
1:C:189:ASN:HA	1:C:190:PRO:HD3	1.80	0.41
1:C:592:ASN:O	1:C:593:GLU:CB	2.65	0.41
1:A:66:GLU:C	1:A:68:ASN:H	2.24	0.41
1:A:222:THR:O	1:A:223:PRO:C	2.59	0.41
1:A:579:PRO:CG	1:A:660:ASP:HB2	2.47	0.41
1:A:600:THR:C	1:A:602:GLU:H	2.23	0.41
1:A:655:PHE:C	1:A:657:GLN:H	2.22	0.41
1:A:733:GLN:HE22	1:A:743:ILE:HG12	1.85	0.41
1:B:200:PRO:O	1:B:204:ILE:HG12	2.20	0.41
1:B:406:VAL:O	1:B:407:ASP:C	2.59	0.41
1:B:695:LEU:HD12	1:B:825:MET:HE3	2.01	0.41
1:B:997:SER:C	1:B:999:ALA:N	2.73	0.41
1:A:186:ILE:HD13	1:A:262:LEU:HD21	2.02	0.41
1:A:845:GLU:O	1:A:848:ALA:HB3	2.21	0.41
1:A:895:TRP:HA	1:A:895:TRP:CE3	2.55	0.41
1:B:34:GLN:HB2	1:B:333:VAL:HG22	2.03	0.41
1:B:45:ILE:HB	1:B:90:ILE:HB	2.03	0.41
1:B:190:PRO:HB3	1:B:789:TRP:CE3	2.55	0.41
1:B:213:GLN:HE21	1:B:239:ARG:CD	2.30	0.41
1:B:527:TYR:HA	1:B:530:SER:CB	2.49	0.41
1:B:790:TYR:CE1	1:B:800:PRO:HB3	2.55	0.41
1:B:899:PHE:O	1:B:903:LEU:HG	2.21	0.41
1:C:83:ASP:HB3	1:C:85:THR:H	1.86	0.41
1:C:262:LEU:HD23	1:C:268:ILE:HD11	2.03	0.41
1:C:801:PHE:CD1	1:C:804:PHE:CE1	3.09	0.41
1:A:294:ALA:O	1:A:295:THR:CB	2.69	0.41
1:A:391:ASN:O	1:A:392:THR:C	2.58	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:467:TYR:CE1	1:A:925:VAL:HG13	2.56	0.41
1:A:516:PHE:O	1:A:519:MET:N	2.50	0.41
1:A:519:MET:O	1:A:523:SER:HB2	2.20	0.41
1:A:607:GLU:HB3	1:A:630:SER:O	2.20	0.41
1:B:973:ARG:O	1:B:977:MET:HG2	2.21	0.41
1:C:1:MET:CB	1:C:2:PRO:CD	2.97	0.41
1:C:5:PHE:HE2	1:C:11:PHE:HD2	1.60	0.41
1:C:218:GLN:HG3	1:C:233:SER:HA	2.03	0.41
1:C:832:ALA:CB	1:C:833:PRO:CD	2.93	0.41
1:C:934:THR:O	1:C:935:ILE:C	2.59	0.41
1:A:651:ALA:O	1:A:652:THR:C	2.58	0.41
1:B:686:ASP:HB3	1:B:823:PRO:HG2	2.01	0.41
1:B:723:ASP:O	1:B:724:THR:HB	2.21	0.41
1:B:908:GLY:HA2	1:B:1014:ALA:HB2	2.03	0.41
1:B:908:GLY:CA	1:B:1014:ALA:HB2	2.50	0.41
1:B:948:PHE:HB2	1:B:971:ARG:NH2	2.36	0.41
1:C:474:ILE:O	1:C:476:SER:O	2.38	0.41
1:A:66:GLU:C	1:A:68:ASN:N	2.74	0.40
1:A:83:ASP:HA	1:A:815:ARG:HA	2.03	0.40
1:A:139:VAL:O	1:A:326:PRO:HD2	2.21	0.40
1:A:516:PHE:O	1:A:518:ARG:N	2.54	0.40
1:B:356:TYR:CD2	1:B:365:THR:HG21	2.56	0.40
1:C:34:GLN:HB2	1:C:35:TYR:CD1	2.55	0.40
1:C:144:ASN:HD22	1:C:149:MET:H	1.66	0.40
1:C:325:TYR:O	1:C:326:PRO:O	2.39	0.40
1:C:888:LEU:C	1:C:890:ALA:N	2.72	0.40
1:A:150:THR:O	1:A:154:ILE:HG13	2.21	0.40
1:A:617:PHE:O	1:A:618:ALA:CB	2.69	0.40
1:A:633:ASP:O	1:A:636:ASP:N	2.46	0.40
1:A:659:LYS:CG	1:A:660:ASP:N	2.83	0.40
1:A:951:ASP:C	1:A:953:MET:H	2.25	0.40
1:B:635:ALA:C	1:B:637:ARG:H	2.24	0.40
1:C:541:TYR:C	1:C:543:VAL:N	2.73	0.40
1:C:658:ILE:C	1:C:659:LYS:HD2	2.42	0.40
1:A:559:LEU:HA	1:A:560:PRO:HD3	1.92	0.40
1:A:666:PHE:CD1	1:A:666:PHE:N	2.90	0.40
1:A:759:VAL:HG12	1:A:760:ASN:N	2.37	0.40
1:B:346:GLU:HG3	1:B:988:PRO:HG3	2.03	0.40
1:B:598:TYR:HH	1:B:655:PHE:HE2	1.67	0.40
1:B:632:LYS:O	1:B:633:ASP:O	2.40	0.40
1:B:705:GLU:O	1:B:708:LYS:N	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:203:VAL:HG13	1:C:262:LEU:CD1	2.51	0.40
1:C:220:GLY:HA2	1:C:228:GLN:HE21	1.84	0.40
1:C:610:PHE:HB3	1:C:628:PHE:HB2	2.04	0.40
1:C:885:PHE:CE2	1:C:899:PHE:CE1	3.09	0.40
1:A:140:VAL:HG12	1:A:141:GLY:N	2.37	0.40
1:A:169:THR:CG2	1:A:309:GLU:HG3	2.52	0.40
1:A:281:PHE:CZ	1:A:608:SER:HB2	2.57	0.40
1:A:456:MET:HG2	1:A:471:SER:HB2	2.04	0.40
1:A:707:ALA:O	1:A:710:PRO:CD	2.66	0.40
1:B:110:LYS:HD2	1:B:110:LYS:HA	1.92	0.40
1:B:197:GLN:HB3	1:B:798:MET:HE3	2.03	0.40
1:B:445:ILE:HD11	1:B:944:LEU:HD21	2.01	0.40
1:B:703:LEU:H	1:B:703:LEU:HD12	1.85	0.40
1:C:226:LYS:HB3	1:C:227:GLY:H	1.74	0.40
1:C:398:MET:HE2	1:C:398:MET:HA	2.03	0.40
1:C:754:TRP:CE3	1:C:780:ARG:HB2	2.57	0.40
1:C:1016:VAL:HG23	1:C:1017:LEU:H	1.86	0.40
1:A:658:ILE:HG22	1:A:659:LYS:H	1.86	0.40
1:B:183:ALA:O	1:B:184:MET:C	2.59	0.40
1:B:185:ARG:HH2	1:B:774:MET:HE2	1.87	0.40
1:B:192:GLU:OE1	1:B:196:PHE:CE2	2.74	0.40
1:B:450:SER:OG	1:B:478:MET:HB2	2.20	0.40
1:B:576:VAL:HG11	1:B:591:LEU:HD22	2.02	0.40
1:B:594:VAL:HA	1:B:655:PHE:CE1	2.56	0.40
1:C:314:GLU:HA	1:C:317:PHE:CE2	2.57	0.40
1:C:388:PHE:N	1:C:388:PHE:HD1	2.19	0.40
1:C:425:LEU:CB	1:C:426:PRO:HD3	2.47	0.40
1:C:732:ASP:O	1:C:733:GLN:C	2.58	0.40
1:C:1015:THR:O	1:C:1019:ILE:HB	2.21	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	1018/1053 (97%)	769 (76%)	174 (17%)	75 (7%)	1	7
1	B	1018/1053 (97%)	742 (73%)	193 (19%)	83 (8%)	1	6
1	C	1018/1053 (97%)	754 (74%)	182 (18%)	82 (8%)	1	6
All	All	3054/3159 (97%)	2265 (74%)	549 (18%)	240 (8%)	1	6

All (240) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	172	VAL
1	A	188	MET
1	A	239	ARG
1	A	256	ASP
1	A	293	LEU
1	A	295	THR
1	A	357	LEU
1	A	421	ALA
1	A	517	ASN
1	A	534	ILE
1	A	580	ALA
1	A	618	ALA
1	A	659	LYS
1	A	677	ALA
1	A	713	LEU
1	A	832	ALA
1	A	998	GLY
1	A	1008	MET
1	A	1016	VAL
1	B	98	THR
1	B	147	GLY
1	B	184	MET
1	B	222	THR
1	B	270	LEU
1	B	326	PRO
1	B	358	PHE
1	B	517	ASN
1	B	519	MET
1	B	633	ASP
1	B	669	PRO
1	B	676	THR
1	B	705	GLU
1	B	716	VAL
1	B	723	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	733	GLN
1	B	781	MET
1	B	871	ASN
1	C	54	ALA
1	C	223	PRO
1	C	226	LYS
1	C	258	SER
1	C	266	ALA
1	C	319	SER
1	C	326	PRO
1	C	407	ASP
1	C	425	LEU
1	C	427	PRO
1	C	438	ILE
1	C	457	ALA
1	C	463	THR
1	C	532	GLY
1	C	580	ALA
1	C	656	SER
1	C	678	THR
1	C	820	ASN
1	C	825	MET
1	C	869	SER
1	C	946	VAL
1	C	1018	ALA
1	A	5	PHE
1	A	134	SER
1	A	146	ASP
1	A	221	GLY
1	A	236	ALA
1	A	288	GLY
1	A	352	PHE
1	A	407	ASP
1	A	452	VAL
1	A	462	SER
1	A	496	MET
1	A	566	ASP
1	A	634	TRP
1	A	656	SER
1	A	689	GLY
1	A	708	LYS
1	A	787	GLY

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	831	ALA
1	A	918	PHE
1	A	951	ASP
1	A	960	LEU
1	A	991	ILE
1	B	37	THR
1	B	53	ASP
1	B	54	ALA
1	B	56	THR
1	B	57	VAL
1	B	227	GLY
1	B	228	GLN
1	B	283	GLY
1	B	361	ASN
1	B	370	ILE
1	B	384	ALA
1	B	453	PHE
1	B	461	GLY
1	B	486	LEU
1	B	557	VAL
1	B	580	ALA
1	B	581	GLY
1	B	613	ASN
1	B	614	GLY
1	B	638	PRO
1	B	656	SER
1	B	671	ILE
1	B	675	GLY
1	B	706	ALA
1	B	765	ARG
1	B	849	SER
1	B	852	PRO
1	B	889	ALA
1	B	953	MET
1	C	216	ALA
1	C	689	GLY
1	C	713	LEU
1	C	720	GLY
1	C	752	ALA
1	C	802	SER
1	C	815	ARG
1	C	832	ALA

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	889	ALA
1	C	926	TYR
1	C	935	ILE
1	C	953	MET
1	C	958	LYS
1	C	961	ILE
1	C	993	THR
1	C	1017	LEU
1	A	30	LEU
1	A	53	ASP
1	A	171	GLY
1	A	226	LYS
1	A	282	ASN
1	A	330	THR
1	A	392	THR
1	A	436	GLY
1	A	439	GLN
1	A	443	VAL
1	A	638	PRO
1	A	661	ALA
1	A	914	LEU
1	A	917	THR
1	A	988	PRO
1	A	997	SER
1	B	140	VAL
1	B	269	GLU
1	B	299	ALA
1	B	319	SER
1	B	363	ARG
1	B	385	ALA
1	B	583	THR
1	B	601	LYS
1	B	602	GLU
1	B	672	VAL
1	B	707	ALA
1	B	779	TYR
1	B	851	LEU
1	B	893	GLU
1	B	909	VAL
1	B	921	LEU
1	B	959	GLY
1	C	243	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	255	GLN
1	C	368	PRO
1	C	478	MET
1	C	520	PHE
1	C	530	SER
1	C	579	PRO
1	C	602	GLU
1	C	690	LEU
1	C	711	ASP
1	C	721	LEU
1	C	778	LYS
1	C	806	SER
1	C	925	VAL
1	C	994	GLY
1	A	9	PRO
1	A	52	ALA
1	A	184	MET
1	A	193	LEU
1	A	294	ALA
1	A	992	SER
1	B	153	ASP
1	B	618	ALA
1	B	690	LEU
1	B	820	ASN
1	B	997	SER
1	B	1016	VAL
1	C	69	MET
1	C	257	GLY
1	C	351	VAL
1	C	422	GLU
1	C	514	GLY
1	C	516	PHE
1	C	554	TYR
1	C	601	LYS
1	C	671	ILE
1	C	915	ALA
1	C	952	LEU
1	C	965	LEU
1	A	361	ASN
1	A	459	PHE
1	B	126	GLY
1	B	127	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	360	GLN
1	B	603	LYS
1	B	640	GLU
1	C	230	LEU
1	C	372	VAL
1	C	464	GLY
1	C	803	ALA
1	C	982	PHE
1	C	995	ALA
1	A	29	LYS
1	A	192	GLU
1	A	584	GLN
1	A	806	SER
1	A	994	GLY
1	A	1004	GLY
1	B	490	PRO
1	B	542	LEU
1	B	621	GLY
1	B	861	GLY
1	C	86	GLY
1	C	534	ILE
1	C	1005	THR
1	A	15	ILE
1	A	746	ILE
1	A	975	ILE
1	B	783	PRO
1	B	834	GLY
1	B	974	PRO
1	C	539	GLY
1	C	998	GLY
1	A	107	VAL
1	C	743	ILE
1	B	223	PRO
1	C	658	ILE
1	C	756	GLY
1	C	759	VAL
1	C	411	VAL
1	C	716	VAL

### 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	833/859 (97%)	712 (86%)	121 (14%)	3	14
1	B	833/859 (97%)	705 (85%)	128 (15%)	2	12
1	C	833/859 (97%)	718 (86%)	115 (14%)	3	15
All	All	2499/2577 (97%)	2135 (85%)	364 (15%)	3	13

All (364) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	4	PHE
1	A	5	PHE
1	A	25	LEU
1	A	49	TYR
1	A	57	VAL
1	A	60	THR
1	A	62	THR
1	A	63	GLN
1	A	65	ILE
1	A	70	ASN
1	A	76	MET
1	A	82	SER
1	A	84	SER
1	A	89	GLN
1	A	137	LEU
1	A	164	ASP
1	A	175	VAL
1	A	176	GLN
1	A	225	VAL
1	A	244	GLU
1	A	254	ASN
1	A	255	GLN
1	A	256	ASP
1	A	301	ASP
1	A	302	THR
1	A	310	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	321	LEU
1	A	335	ILE
1	A	336	SER
1	A	337	ILE
1	A	341	VAL
1	A	344	LEU
1	A	356	TYR
1	A	357	LEU
1	A	361	ASN
1	A	365	THR
1	A	376	LEU
1	A	400	LEU
1	A	416	VAL
1	A	417	GLU
1	A	420	MET
1	A	422	GLU
1	A	428	LYS
1	A	435	MET
1	A	447	MET
1	A	452	VAL
1	A	473	THR
1	A	480	LEU
1	A	489	THR
1	A	498	LYS
1	A	536	ARG
1	A	549	VAL
1	A	575	MET
1	A	576	VAL
1	A	577	GLN
1	A	578	LEU
1	A	583	THR
1	A	595	THR
1	A	597	TYR
1	A	603	LYS
1	A	613	ASN
1	A	620	ARG
1	A	626	ILE
1	A	629	VAL
1	A	630	SER
1	A	634	TRP
1	A	636	ASP
1	A	645	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	653	ARG
1	A	659	LYS
1	A	666	PHE
1	A	667	ASN
1	A	668	LEU
1	A	671	ILE
1	A	673	GLU
1	A	674	LEU
1	A	687	GLN
1	A	711	ASP
1	A	713	LEU
1	A	714	THR
1	A	717	ARG
1	A	724	THR
1	A	739	LEU
1	A	745	ASP
1	A	773	VAL
1	A	775	SER
1	A	776	GLU
1	A	780	ARG
1	A	801	PHE
1	A	810	GLU
1	A	815	ARG
1	A	820	ASN
1	A	827	ILE
1	A	828	LEU
1	A	837	THR
1	A	843	LEU
1	A	863	SER
1	A	868	LEU
1	A	876	LEU
1	A	881	LEU
1	A	887	CYS
1	A	895	TRP
1	A	899	PHE
1	A	902	MET
1	A	904	VAL
1	A	923	ASN
1	A	924	ASP
1	A	948	PHE
1	A	954	ASP
1	A	960	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	968	VAL
1	A	971	ARG
1	A	982	PHE
1	A	983	ILE
1	A	986	VAL
1	A	993	THR
1	A	997	SER
1	A	1005	THR
1	A	1011	MET
1	A	1017	LEU
1	A	1019	ILE
1	B	3	ASN
1	B	13	TRP
1	B	19	ILE
1	B	27	ILE
1	B	30	LEU
1	B	37	THR
1	B	49	TYR
1	B	56	THR
1	B	60	THR
1	B	65	ILE
1	B	70	ASN
1	B	83	ASP
1	B	85	THR
1	B	96	SER
1	B	104	GLN
1	B	121	GLU
1	B	131	LYS
1	B	136	PHE
1	B	137	LEU
1	B	145	THR
1	B	146	ASP
1	B	150	THR
1	B	151	GLN
1	B	155	SER
1	B	156	ASP
1	B	163	LYS
1	B	164	ASP
1	B	176	GLN
1	B	185	ARG
1	B	189	ASN
1	B	213	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	226	LYS
1	B	231	ASN
1	B	235	ILE
1	B	238	THR
1	B	241	THR
1	B	251	LEU
1	B	254	ASN
1	B	256	ASP
1	B	262	LEU
1	B	289	LEU
1	B	292	LYS
1	B	293	LEU
1	B	295	THR
1	B	298	ASN
1	B	300	LEU
1	B	302	THR
1	B	341	VAL
1	B	343	THR
1	B	349	ILE
1	B	350	LEU
1	B	372	VAL
1	B	380	PHE
1	B	389	SER
1	B	408	ASP
1	B	414	GLU
1	B	417	GLU
1	B	429	GLU
1	B	435	MET
1	B	438	ILE
1	B	468	ARG
1	B	469	GLN
1	B	483	LEU
1	B	497	LEU
1	B	530	SER
1	B	540	ARG
1	B	544	LEU
1	B	546	LEU
1	B	554	TYR
1	B	562	SER
1	B	566	ASP
1	B	571	VAL
1	B	589	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	599	LEU
1	B	603	LYS
1	B	605	ASN
1	B	607	GLU
1	B	613	ASN
1	B	620	ARG
1	B	623	ASN
1	B	626	ILE
1	B	629	VAL
1	B	642	ASN
1	B	644	VAL
1	B	653	ARG
1	B	658	ILE
1	B	660	ASP
1	B	668	LEU
1	B	681	ASP
1	B	695	LEU
1	B	702	LEU
1	B	712	MET
1	B	714	THR
1	B	717	ARG
1	B	723	ASP
1	B	741	VAL
1	B	744	ASN
1	B	750	LEU
1	B	758	TYR
1	B	770	LYS
1	B	776	GLU
1	B	778	LYS
1	B	779	TYR
1	B	799	VAL
1	B	801	PHE
1	B	808	ARG
1	B	817	GLU
1	B	825	MET
1	B	867	ARG
1	B	871	ASN
1	B	876	LEU
1	B	879	ILE
1	B	897	ILE
1	B	900	SER
1	B	910	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	919	ARG
1	B	922	THR
1	B	925	VAL
1	B	948	PHE
1	B	950	LYS
1	B	958	LYS
1	B	966	ASP
1	B	972	LEU
1	B	973	ARG
1	B	993	THR
1	B	1007	VAL
1	B	1022	VAL
1	B	1030	ARG
1	C	10	ILE
1	C	13	TRP
1	C	34	GLN
1	C	35	TYR
1	C	38	ILE
1	C	44	THR
1	C	46	SER
1	C	48	SER
1	C	49	TYR
1	C	63	GLN
1	C	69	MET
1	C	75	LEU
1	C	84	SER
1	C	91	THR
1	C	108	GLN
1	C	111	LEU
1	C	118	LEU
1	C	123	GLN
1	C	128	SER
1	C	131	LYS
1	C	134	SER
1	C	135	SER
1	C	137	LEU
1	C	152	GLU
1	C	155	SER
1	C	177	LEU
1	C	186	ILE
1	C	189	ASN
1	C	192	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	204	ILE
1	C	205	THR
1	C	208	LYS
1	C	222	THR
1	C	226	LYS
1	C	230	LEU
1	C	233	SER
1	C	238	THR
1	C	255	GLN
1	C	263	ARG
1	C	269	GLU
1	C	274	ASN
1	C	275	TYR
1	C	284	GLN
1	C	295	THR
1	C	302	THR
1	C	307	ARG
1	C	330	THR
1	C	339	GLU
1	C	348	ILE
1	C	355	MET
1	C	356	TYR
1	C	361	ASN
1	C	362	PHE
1	C	369	THR
1	C	372	VAL
1	C	377	LEU
1	C	386	PHE
1	C	394	THR
1	C	410	ILE
1	C	422	GLU
1	C	438	ILE
1	C	454	VAL
1	C	456	MET
1	C	459	PHE
1	C	463	THR
1	C	483	LEU
1	C	496	MET
1	C	497	LEU
1	C	515	TRP
1	C	520	PHE
1	C	544	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	555	LEU
1	C	571	VAL
1	C	575	MET
1	C	578	LEU
1	C	588	GLN
1	C	591	LEU
1	C	596	HIS
1	C	624	THR
1	C	652	THR
1	C	659	LYS
1	C	662	MET
1	C	678	THR
1	C	685	ILE
1	C	686	ASP
1	C	687	GLN
1	C	693	GLU
1	C	695	LEU
1	C	696	THR
1	C	699	ARG
1	C	713	LEU
1	C	717	ARG
1	C	726	GLN
1	C	731	ILE
1	C	741	VAL
1	C	750	LEU
1	C	767	ARG
1	C	799	VAL
1	C	808	ARG
1	C	815	ARG
1	C	851	LEU
1	C	868	LEU
1	C	876	LEU
1	C	895	TRP
1	C	901	VAL
1	C	903	LEU
1	C	910	ILE
1	C	921	LEU
1	C	941	ASN
1	C	954	ASP
1	C	956	GLU
1	C	982	PHE
1	C	984	LEU

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Mol	Chain	Res	Type
1	C	993	THR
1	C	1035	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (78) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	89	GLN
1	A	106	GLN
1	A	108	GLN
1	A	109	ASN
1	A	125	GLN
1	A	191	ASN
1	A	210	GLN
1	A	229	GLN
1	A	254	ASN
1	A	282	ASN
1	A	361	ASN
1	A	415	ASN
1	A	577	GLN
1	A	584	GLN
1	A	588	GLN
1	A	592	ASN
1	A	613	ASN
1	A	622	GLN
1	A	667	ASN
1	A	687	GLN
1	A	692	HIS
1	A	701	GLN
1	A	709	HIS
1	A	719	ASN
1	A	733	GLN
1	A	846	GLN
1	A	923	ASN
1	B	58	GLN
1	B	67	GLN
1	B	74	ASN
1	B	106	GLN
1	B	108	GLN
1	B	109	ASN
1	B	112	GLN
1	B	144	ASN
1	B	151	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	161	ASN
1	B	189	ASN
1	B	210	GLN
1	B	213	GLN
1	B	231	ASN
1	B	274	ASN
1	B	437	GLN
1	B	526	HIS
1	B	605	ASN
1	B	613	ASN
1	B	622	GLN
1	B	700	ASN
1	B	744	ASN
1	B	846	GLN
1	B	865	GLN
1	B	923	ASN
1	C	3	ASN
1	C	34	GLN
1	C	58	GLN
1	C	63	GLN
1	C	144	ASN
1	C	151	GLN
1	C	176	GLN
1	C	189	ASN
1	C	197	GLN
1	C	210	GLN
1	C	211	ASN
1	C	213	GLN
1	C	231	ASN
1	C	237	GLN
1	C	274	ASN
1	C	284	GLN
1	C	338	HIS
1	C	360	GLN
1	C	361	ASN
1	C	588	GLN
1	C	700	ASN
1	C	846	GLN
1	C	865	GLN
1	C	872	GLN
1	C	941	ASN
1	C	1001	ASN

### 5.3.3 RNA [i](#)

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 monosaccharides in this entry.

## 5.6 Ligand geometry [i](#)

1 ligand is modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
2	RFP	C	2002	-	63,63,63	1.98	3 (4%)	94,94,94	1.83	14 (14%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	RFP	C	2002	-	-	16/60/85/85	0/5/5/5

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	2002	RFP	O4-C11	13.30	1.43	1.21
2	C	2002	RFP	O7-C35	5.55	1.47	1.35
2	C	2002	RFP	O5-C29	3.39	1.48	1.39

All (14) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	2002	RFP	O4-C11-C5	-8.76	115.09	131.81
2	C	2002	RFP	C41-C42-N4	5.45	116.96	110.80
2	C	2002	RFP	O7-C35-C36	4.49	119.35	111.09
2	C	2002	RFP	O4-C11-C12	-4.08	112.25	120.56
2	C	2002	RFP	O3-C6-C7	3.96	127.95	121.14
2	C	2002	RFP	C12-O5-C29	3.74	127.07	117.84
2	C	2002	RFP	C42-N4-C39	3.32	114.17	109.52
2	C	2002	RFP	C12-C11-C5	-3.20	101.03	107.30
2	C	2002	RFP	C40-C39-N4	3.05	114.25	110.80
2	C	2002	RFP	C30-C16-C17	-2.92	116.36	123.42
2	C	2002	RFP	C3-C43-N2	2.82	125.64	121.54
2	C	2002	RFP	O7-C25-C26	2.77	113.96	107.50
2	C	2002	RFP	C20-C21-C22	2.75	120.56	114.96
2	C	2002	RFP	C42-C41-N3	2.36	114.34	110.51

There are no chirality outliers.

All (16) torsion outliers are listed below:

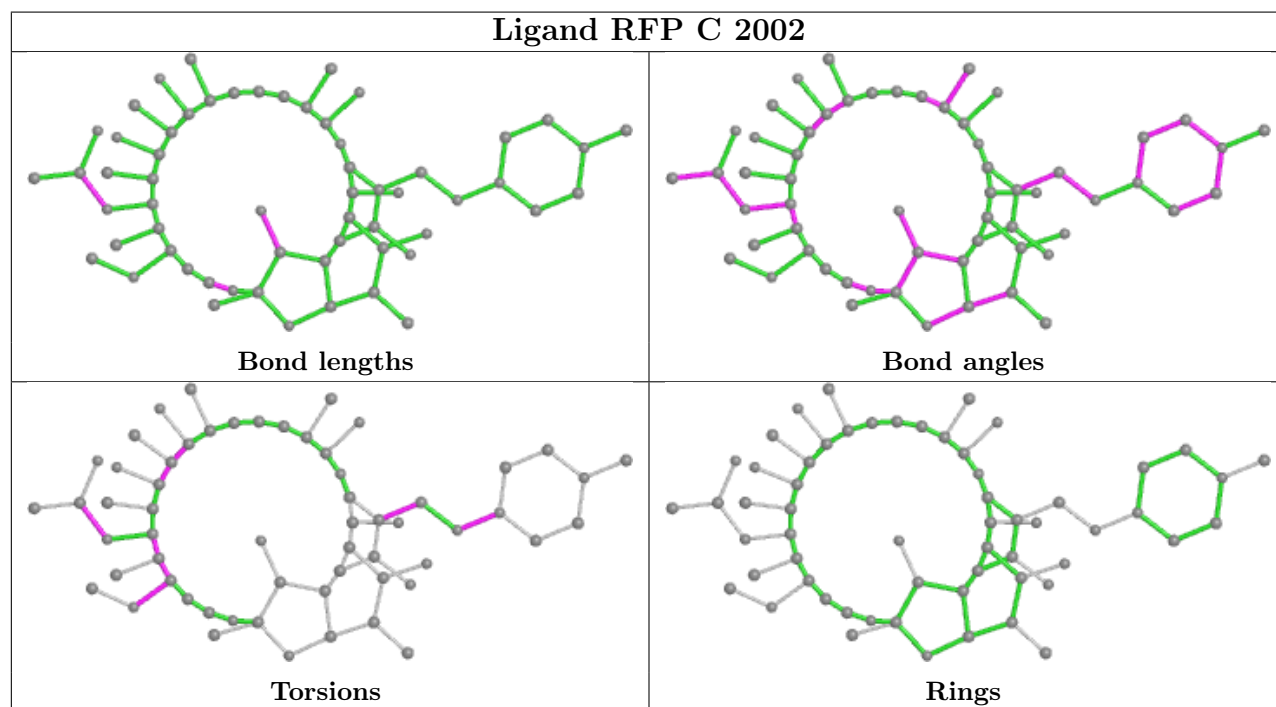
Mol	Chain	Res	Type	Atoms
2	C	2002	RFP	C2-C3-C43-N2
2	C	2002	RFP	C4-C3-C43-N2
2	C	2002	RFP	C26-C27-O6-C37
2	C	2002	RFP	C28-C27-O6-C37
2	C	2002	RFP	C36-C35-O7-C25
2	C	2002	RFP	C43-N2-N3-C40
2	C	2002	RFP	O8-C35-O7-C25
2	C	2002	RFP	C32-C22-C23-O9
2	C	2002	RFP	C32-C22-C23-C24
2	C	2002	RFP	C21-C22-C23-C24
2	C	2002	RFP	O10-C21-C22-C32
2	C	2002	RFP	C21-C22-C23-O9
2	C	2002	RFP	O7-C25-C26-C27
2	C	2002	RFP	O7-C25-C26-C34
2	C	2002	RFP	C34-C26-C27-O6
2	C	2002	RFP	C25-C26-C27-O6

There are no ring outliers.

1 monomer is involved in 10 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	C	2002	RFP	10	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.



## 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, 95<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
1	A	1022/1053 (97%)	0.06	30 (2%) 51 54	40, 90, 124, 144	0
1	B	1022/1053 (97%)	0.21	45 (4%) 34 37	57, 97, 133, 162	0
1	C	1022/1053 (97%)	0.09	38 (3%) 41 43	35, 89, 138, 167	0
All	All	3066/3159 (97%)	0.12	113 (3%) 41 43	35, 92, 134, 167	0

All (113) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	1036	LYS	6.1
1	C	538	THR	5.7
1	C	870	GLY	5.0
1	B	1034	SER	4.9
1	A	515	TRP	4.9
1	C	871	ASN	4.4
1	C	965	LEU	4.4
1	A	497	LEU	4.3
1	B	1035	ARG	4.0
1	B	791	VAL	3.9
1	C	964	THR	3.8
1	B	516	PHE	3.6
1	A	259	ARG	3.5
1	B	604	ASN	3.4
1	B	438	ILE	3.4
1	B	355	MET	3.4
1	C	516	PHE	3.4
1	A	432	ARG	3.3
1	C	962	GLU	3.3
1	C	497	LEU	3.3
1	B	948	PHE	3.2
1	B	993	THR	3.2
1	C	7	ASP	3.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	B	638	PRO	3.1
1	C	671	ILE	3.1
1	B	541	TYR	3.1
1	B	1033	PHE	3.1
1	C	966	ASP	3.1
1	A	1036	LYS	3.1
1	B	635	ALA	3.1
1	C	515	TRP	3.0
1	C	425	LEU	3.0
1	A	253	VAL	2.9
1	B	949	ALA	2.9
1	B	498	LYS	2.9
1	B	497	LEU	2.9
1	B	991	ILE	2.9
1	C	351	VAL	2.9
1	B	253	VAL	2.8
1	C	963	ALA	2.8
1	B	528	THR	2.8
1	A	258	SER	2.8
1	A	572	PHE	2.7
1	C	424	GLY	2.7
1	B	833	PRO	2.7
1	C	959	GLY	2.7
1	A	32	VAL	2.7
1	B	902	MET	2.7
1	C	539	GLY	2.6
1	C	921	LEU	2.6
1	C	413	VAL	2.6
1	A	196	PHE	2.6
1	C	537	SER	2.6
1	A	3	ASN	2.6
1	C	960	LEU	2.6
1	A	793	ALA	2.5
1	B	362	PHE	2.5
1	A	966	ASP	2.5
1	B	2	PRO	2.5
1	A	257	GLY	2.5
1	A	952	LEU	2.5
1	B	321	LEU	2.4
1	B	535	LEU	2.4
1	C	9	PRO	2.4
1	A	312	LYS	2.4

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Mol	Chain	Res	Type	RSRZ
1	B	790	TYR	2.4
1	C	961	ILE	2.4
1	B	964	THR	2.4
1	B	527	TYR	2.4
1	B	435	MET	2.4
1	A	516	PHE	2.3
1	B	945	ILE	2.3
1	C	252	LYS	2.3
1	C	6	ILE	2.3
1	C	741	VAL	2.3
1	A	635	ALA	2.3
1	A	260	VAL	2.3
1	A	1035	ARG	2.3
1	B	124	GLN	2.3
1	A	252	LYS	2.3
1	A	558	ARG	2.3
1	C	982	PHE	2.3
1	B	195	LYS	2.2
1	B	515	TRP	2.2
1	C	918	PHE	2.2
1	A	30	LEU	2.2
1	C	496	MET	2.2
1	C	958	LYS	2.2
1	C	253	VAL	2.2
1	B	889	ALA	2.2
1	A	265	VAL	2.2
1	C	542	LEU	2.1
1	B	412	VAL	2.1
1	C	832	ALA	2.1
1	C	1023	PRO	2.1
1	A	230	LEU	2.1
1	B	799	VAL	2.1
1	C	543	VAL	2.1
1	B	989	LEU	2.1
1	C	255	GLN	2.1
1	B	1026	PHE	2.1
1	B	992	SER	2.1
1	A	918	PHE	2.1
1	C	34	GLN	2.1
1	B	145	THR	2.1
1	B	895	TRP	2.0
1	A	791	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
1	B	855	VAL	2.0
1	A	964	THR	2.0
1	B	431	THR	2.0
1	A	513	PHE	2.0
1	B	798	MET	2.0
1	A	554	TYR	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.

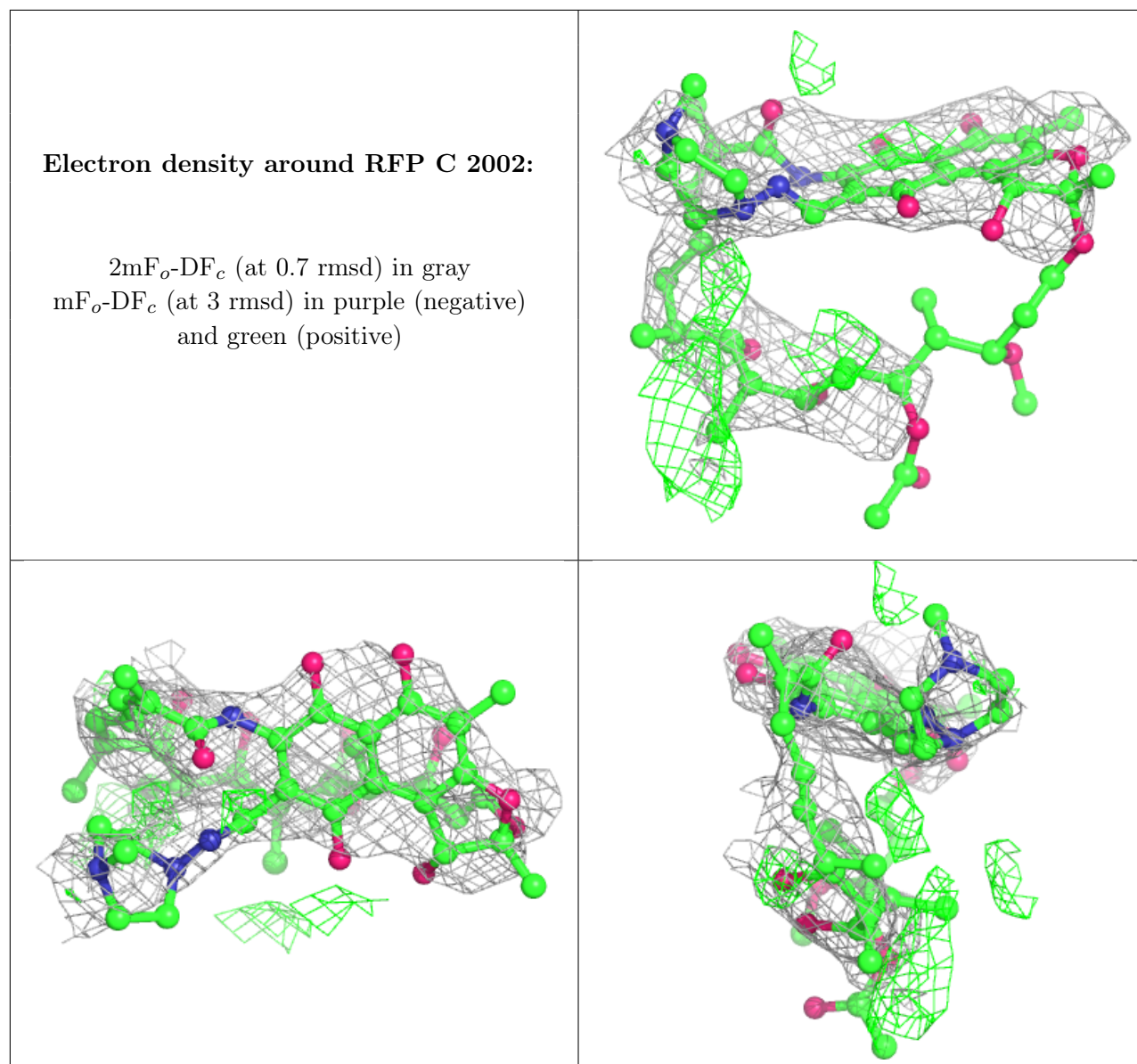
## 6.4 Ligands [i](#)

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<sup>th</sup> 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( $\text{\AA}^2$ )	Q<0.9
2	RFP	C	2002	59/59	0.83	0.34	100,104,105,105	59

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.





## 6.5 Other polymers [i](#)

There are no such residues in this entry.