



# Full wwPDB X-ray Structure Validation Report ⓘ

Feb 15, 2017 – 05:02 am GMT

PDB ID : 3M6A  
Title : Crystal structure of Bacillus subtilis Lon C-terminal domain  
Authors : Duman, R.E.; Lowe, J.Y.  
Deposited on : 2010-03-15  
Resolution : 3.40 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

<http://wwpdb.org/validation/2016/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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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 : 1.7.2 (RC1), CSD as538be (2017)  
Xtriage (Phenix) : 1.9-1692  
EDS : trunk28620  
Percentile statistics : 20161228.v01 (using entries in the PDB archive December 28th 2016)  
Refmac : 5.8.0135  
CCP4 : 6.5.0  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : recalc28949

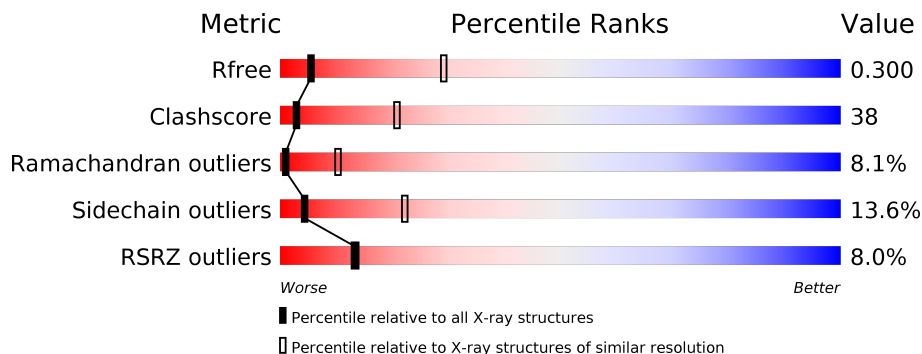
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.40 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))
$R_{free}$	100719	1679 (3.50-3.30)
Clashscore	112137	1832 (3.50-3.30)
Ramachandran outliers	110173	1789 (3.50-3.30)
Sidechain outliers	110143	1789 (3.50-3.30)
RSRZ outliers	101464	1709 (3.50-3.30)

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 on the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. 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	543	
1	B	543	
1	C	543	
1	D	543	
1	E	543	
1	F	543	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

<b>Mol</b>	<b>Type</b>	<b>Chain</b>	<b>Res</b>	<b>Chirality</b>	<b>Geometry</b>	<b>Clashes</b>	<b>Electron density</b>
2	ADP	D	783	-	-	X	-

## 2 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 23196 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 ATP-dependent protease La 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	496	3839	2427	666	736	10	0	0	0
1	B	496	3839	2427	666	736	10	0	0	0
1	C	496	3839	2427	666	736	10	0	0	0
1	D	496	3839	2427	666	736	10	0	0	0
1	E	496	3839	2427	666	736	10	0	0	0
1	F	496	3839	2427	666	736	10	0	0	0

There are 54 discrepancies between the modelled and reference sequences:

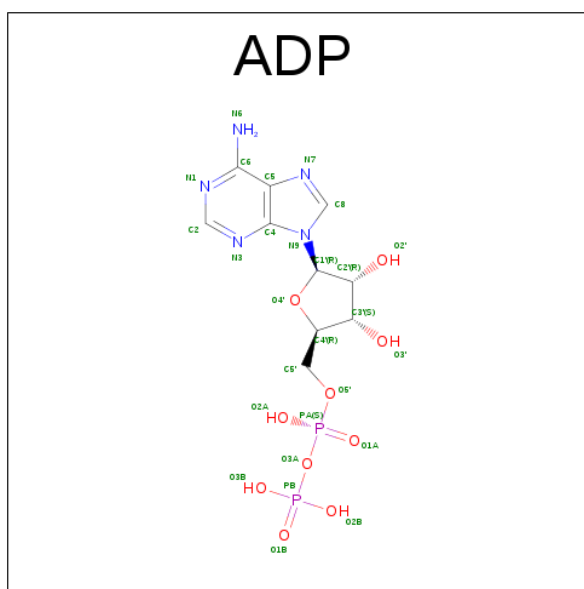
Chain	Residue	Modelled	Actual	Comment	Reference
A	677	ALA	SER	ENGINEERED MUTATION	UNP P37945
A	775	LEU	-	EXPRESSION TAG	UNP P37945
A	776	GLU	-	EXPRESSION TAG	UNP P37945
A	777	HIS	-	EXPRESSION TAG	UNP P37945
A	778	HIS	-	EXPRESSION TAG	UNP P37945
A	779	HIS	-	EXPRESSION TAG	UNP P37945
A	780	HIS	-	EXPRESSION TAG	UNP P37945
A	781	HIS	-	EXPRESSION TAG	UNP P37945
A	782	HIS	-	EXPRESSION TAG	UNP P37945
B	677	ALA	SER	ENGINEERED MUTATION	UNP P37945
B	775	LEU	-	EXPRESSION TAG	UNP P37945
B	776	GLU	-	EXPRESSION TAG	UNP P37945
B	777	HIS	-	EXPRESSION TAG	UNP P37945
B	778	HIS	-	EXPRESSION TAG	UNP P37945
B	779	HIS	-	EXPRESSION TAG	UNP P37945
B	780	HIS	-	EXPRESSION TAG	UNP P37945
B	781	HIS	-	EXPRESSION TAG	UNP P37945

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Chain	Residue	Modelled	Actual	Comment	Reference
B	782	HIS	-	EXPRESSION TAG	UNP P37945
C	677	ALA	SER	ENGINEERED MUTATION	UNP P37945
C	775	LEU	-	EXPRESSION TAG	UNP P37945
C	776	GLU	-	EXPRESSION TAG	UNP P37945
C	777	HIS	-	EXPRESSION TAG	UNP P37945
C	778	HIS	-	EXPRESSION TAG	UNP P37945
C	779	HIS	-	EXPRESSION TAG	UNP P37945
C	780	HIS	-	EXPRESSION TAG	UNP P37945
C	781	HIS	-	EXPRESSION TAG	UNP P37945
C	782	HIS	-	EXPRESSION TAG	UNP P37945
D	677	ALA	SER	ENGINEERED MUTATION	UNP P37945
D	775	LEU	-	EXPRESSION TAG	UNP P37945
D	776	GLU	-	EXPRESSION TAG	UNP P37945
D	777	HIS	-	EXPRESSION TAG	UNP P37945
D	778	HIS	-	EXPRESSION TAG	UNP P37945
D	779	HIS	-	EXPRESSION TAG	UNP P37945
D	780	HIS	-	EXPRESSION TAG	UNP P37945
D	781	HIS	-	EXPRESSION TAG	UNP P37945
D	782	HIS	-	EXPRESSION TAG	UNP P37945
E	677	ALA	SER	ENGINEERED MUTATION	UNP P37945
E	775	LEU	-	EXPRESSION TAG	UNP P37945
E	776	GLU	-	EXPRESSION TAG	UNP P37945
E	777	HIS	-	EXPRESSION TAG	UNP P37945
E	778	HIS	-	EXPRESSION TAG	UNP P37945
E	779	HIS	-	EXPRESSION TAG	UNP P37945
E	780	HIS	-	EXPRESSION TAG	UNP P37945
E	781	HIS	-	EXPRESSION TAG	UNP P37945
E	782	HIS	-	EXPRESSION TAG	UNP P37945
F	677	ALA	SER	ENGINEERED MUTATION	UNP P37945
F	775	LEU	-	EXPRESSION TAG	UNP P37945
F	776	GLU	-	EXPRESSION TAG	UNP P37945
F	777	HIS	-	EXPRESSION TAG	UNP P37945
F	778	HIS	-	EXPRESSION TAG	UNP P37945
F	779	HIS	-	EXPRESSION TAG	UNP P37945
F	780	HIS	-	EXPRESSION TAG	UNP P37945
F	781	HIS	-	EXPRESSION TAG	UNP P37945
F	782	HIS	-	EXPRESSION TAG	UNP P37945

- Molecule 2 is ADENOSINE-5'-DIPHOSPHATE (three-letter code: ADP) (formula:  $C_{10}H_{15}N_5O_{10}P_2$ ).

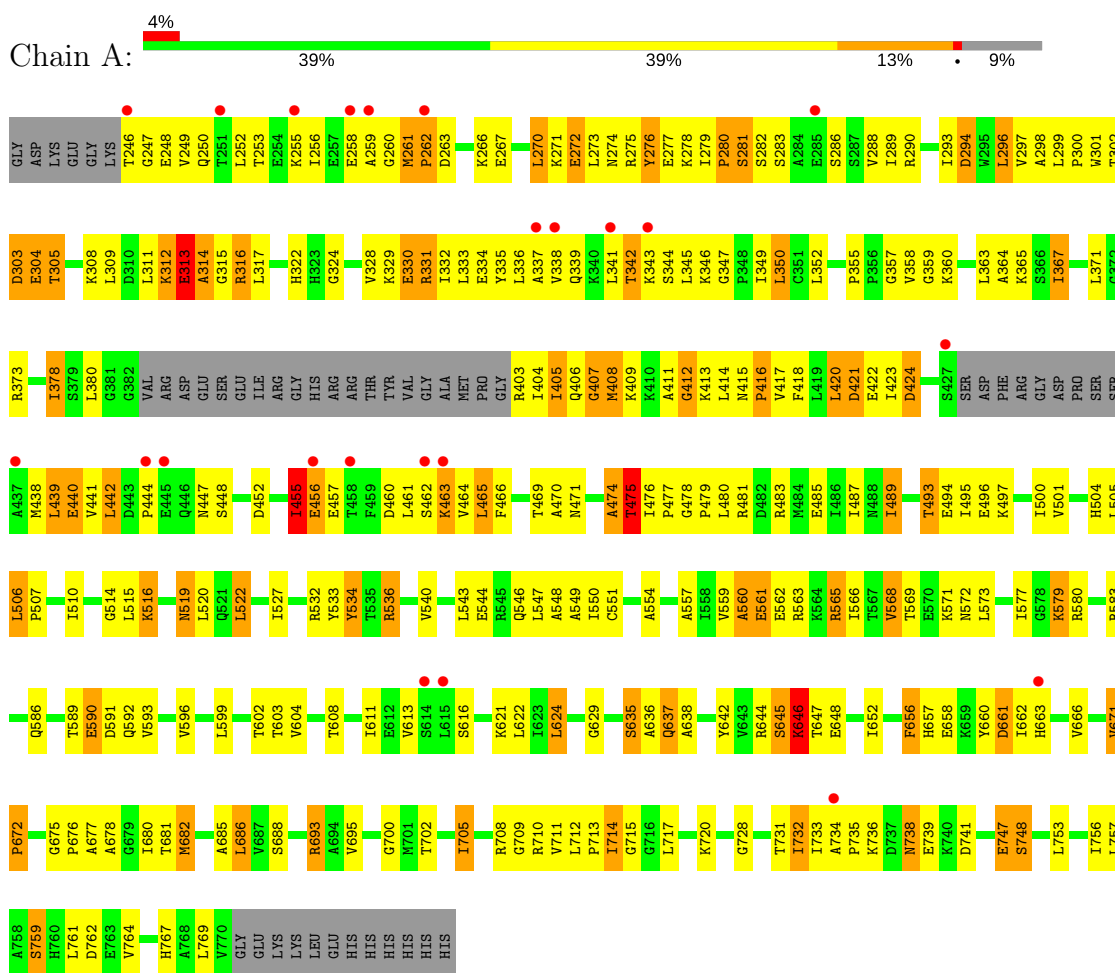


Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
			Total	C	N	O	P		
2	A	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
2	B	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
2	C	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
2	D	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
2	E	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
2	F	1	Total	C	N	O	P	0	0
			27	10	5	10	2		

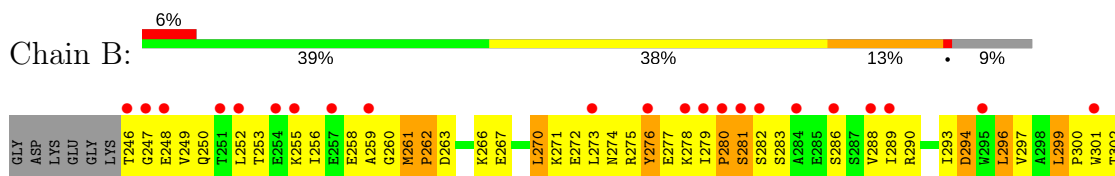
### 3 Residue-property plots i

These plots are drawn for all protein, RNA and DNA 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: ATP-dependent protease La 1



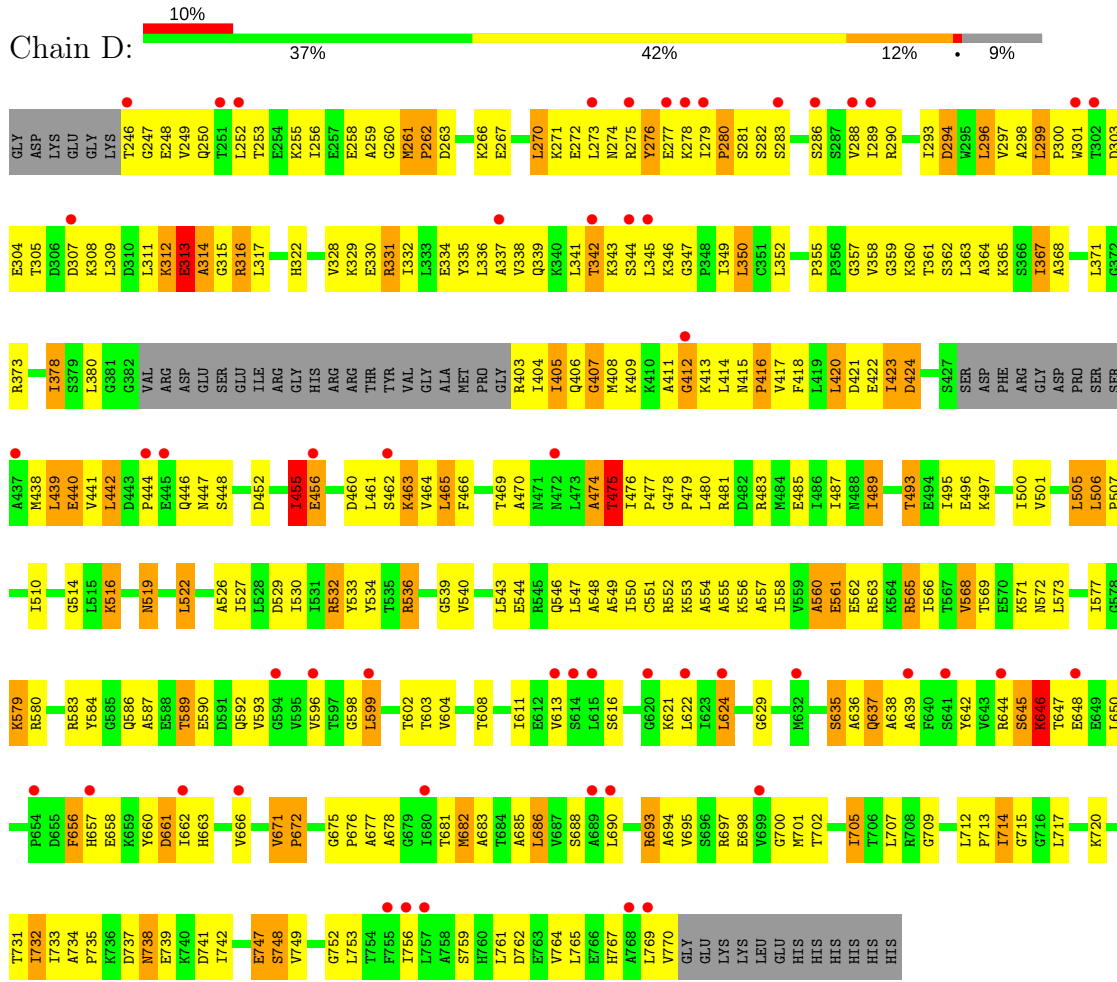
#### • Molecule 1: ATP-dependent protease La 1



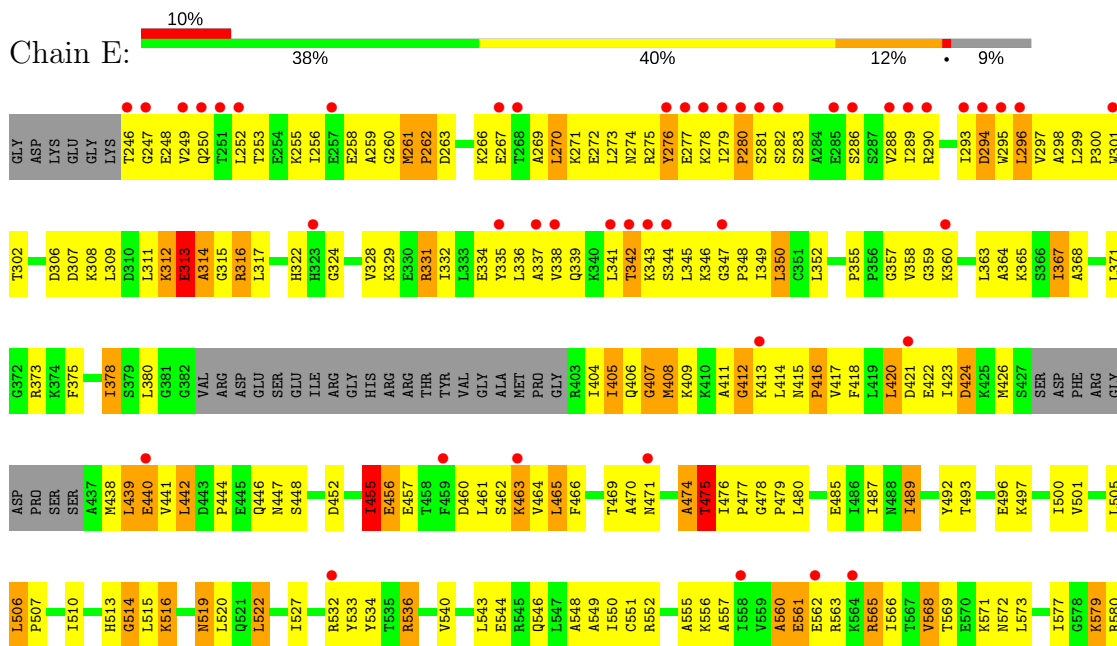


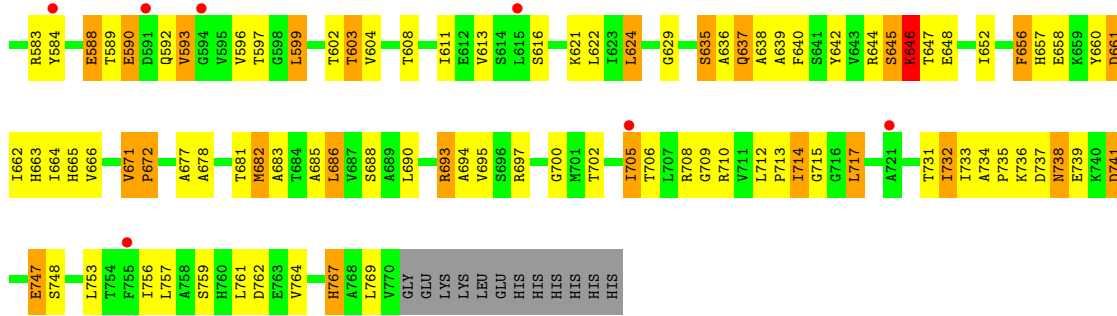


• Molecule 1: ATP-dependent protease La 1

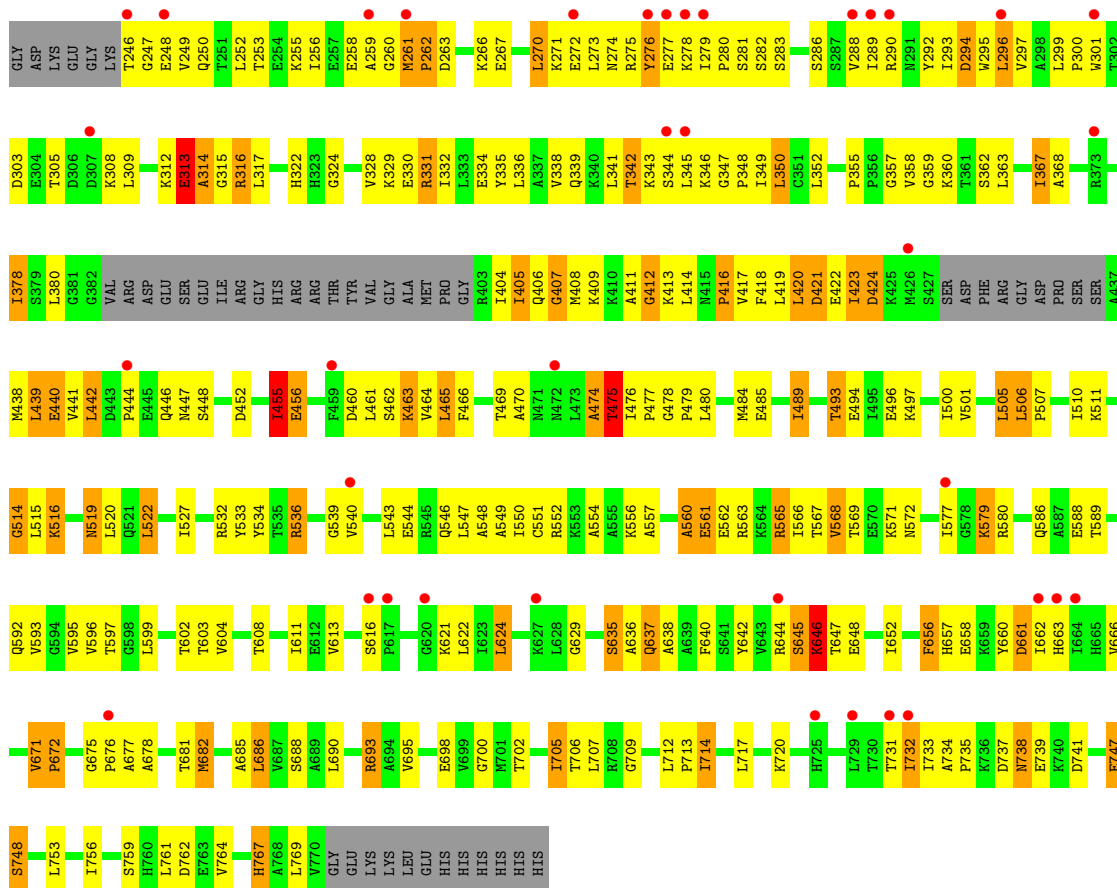


• Molecule 1: ATP-dependent protease La 1





● Molecule 1: ATP-dependent protease La 1



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	103.38Å 127.40Å 148.99Å 90.00° 100.50° 90.00°	Depositor
Resolution (Å)	29.91 – 3.40 58.42 – 3.40	Depositor EDS
% Data completeness (in resolution range)	98.7 (29.91-3.40) 99.6 (58.42-3.40)	Depositor EDS
$R_{merge}$	0.09	Depositor
$R_{sym}$	0.10	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	2.09 (at 3.40Å)	Xtrriage
Refinement program	PHENIX (phenix.refine: 1.6.1_357)	Depositor
R, $R_{free}$	0.265 , 0.313 0.245 , 0.300	Depositor DCC
$R_{free}$ test set	2606 reflections (4.99%)	DCC
Wilson B-factor (Å <sup>2</sup> )	117.1	Xtrriage
Anisotropy	0.202	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.22 , 130.7	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.46$ , $\langle L^2 \rangle = 0.29$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
$F_o, F_c$ correlation	0.89	EDS
Total number of atoms	23196	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	194.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.59% 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 [i](#)

### 5.1 Standard geometry [i](#)

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

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	0.49	0/3892	0.63	0/5246
1	B	0.47	0/3892	0.64	0/5246
1	C	0.45	0/3892	0.62	0/5246
1	D	0.51	0/3892	0.64	1/5246 (0.0%)
1	E	0.46	0/3892	0.63	0/5246
1	F	0.44	0/3892	0.63	1/5246 (0.0%)
All	All	0.47	0/23352	0.63	2/31476 (0.0%)

There are no bond length outliers.

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	505	LEU	CB-CG-CD2	-5.66	101.37	111.00
1	F	505	LEU	CB-CG-CD2	-5.54	101.58	111.00

There are no chirality outliers.

There are no planarity outliers.

### 5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3839	0	3968	297	0
1	B	3839	0	3968	324	0
1	C	3839	0	3968	317	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	D	3839	0	3968	300	1
1	E	3839	0	3968	308	0
1	F	3839	0	3968	287	1
2	A	27	0	12	7	0
2	B	27	0	12	7	0
2	C	27	0	12	6	0
2	D	27	0	12	11	0
2	E	27	0	12	6	0
2	F	27	0	12	7	0
All	All	23196	0	23880	1793	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 38.

All (1793) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:552:ARG:HG3	1:E:338:VAL:HG21	1.31	1.08
1:F:493:THR:HG21	1:F:748:SER:HB2	1.26	1.08
1:C:350:LEU:HD12	1:C:350:LEU:H	1.18	1.02
1:B:337:ALA:CB	1:F:556:LYS:HA	1.89	1.02
1:A:501:VAL:HG11	1:A:527:ILE:HD13	1.39	1.01
1:F:501:VAL:HG11	1:F:527:ILE:HD13	1.42	0.97
1:B:350:LEU:HD12	1:B:350:LEU:H	1.28	0.96
1:B:501:VAL:HG11	1:B:527:ILE:HD13	1.48	0.95
1:D:501:VAL:HG11	1:D:527:ILE:HD13	1.49	0.95
1:F:586:GLN:HG2	1:F:698:GLU:HG2	1.46	0.93
1:C:569:THR:HG23	1:C:571:LYS:H	1.33	0.93
1:A:350:LEU:HD12	1:A:350:LEU:H	1.31	0.93
1:A:378:ILE:O	1:A:378:ILE:HG12	1.69	0.93
1:A:596:VAL:HG22	1:A:695:VAL:HG21	1.48	0.92
1:E:671:VAL:HG22	1:E:672:PRO:HD2	1.51	0.91
1:F:671:VAL:HG22	1:F:672:PRO:HD2	1.49	0.91
1:B:493:THR:HG21	1:B:748:SER:HB2	1.50	0.91
1:B:378:ILE:HG12	1:B:378:ILE:O	1.69	0.91
1:E:501:VAL:HG11	1:E:527:ILE:HD13	1.51	0.91
1:E:350:LEU:HD12	1:E:350:LEU:H	1.32	0.91
1:F:586:GLN:HE21	1:F:698:GLU:HA	1.38	0.89
1:E:536:ARG:HH11	1:E:536:ARG:HG3	1.35	0.89
1:D:350:LEU:H	1:D:350:LEU:HD12	1.36	0.88
1:C:501:VAL:HG11	1:C:527:ILE:HD13	1.55	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:404:ILE:HG23	1:D:418:PHE:CE2	2.08	0.88
1:C:536:ARG:HG3	1:C:536:ARG:HH11	1.37	0.88
1:C:671:VAL:HG22	1:C:672:PRO:HD2	1.55	0.88
1:A:569:THR:HG23	1:A:571:LYS:H	1.37	0.88
1:C:337:ALA:CB	1:E:556:LYS:HA	2.03	0.87
1:B:536:ARG:HH11	1:B:536:ARG:HG3	1.40	0.87
1:C:596:VAL:HG22	1:C:695:VAL:HG21	1.56	0.87
1:D:359:GLY:HA2	2:D:783:ADP:C5'	2.04	0.87
1:F:569:THR:HG23	1:F:571:LYS:H	1.37	0.87
1:D:688:SER:HB2	1:D:769:LEU:HD21	1.55	0.87
1:E:569:THR:HG23	1:E:571:LYS:H	1.39	0.87
1:A:536:ARG:HG3	1:A:536:ARG:HH11	1.40	0.86
1:D:671:VAL:HG22	1:D:672:PRO:HD2	1.57	0.86
1:B:569:THR:HG23	1:B:571:LYS:H	1.39	0.86
1:D:378:ILE:HG12	1:D:378:ILE:O	1.74	0.86
1:D:536:ARG:HH11	1:D:536:ARG:HG3	1.39	0.86
1:D:493:THR:HG21	1:D:748:SER:HB2	1.58	0.85
1:E:688:SER:HB2	1:E:769:LEU:HD21	1.56	0.85
1:F:536:ARG:HG3	1:F:536:ARG:HH11	1.42	0.85
1:F:596:VAL:HG22	1:F:695:VAL:HG21	1.58	0.85
1:E:378:ILE:HG12	1:E:378:ILE:O	1.77	0.84
1:B:522:LEU:HD12	1:B:527:ILE:HG12	1.60	0.84
1:D:596:VAL:HG22	1:D:695:VAL:HG21	1.60	0.84
1:A:671:VAL:HG22	1:A:672:PRO:HD2	1.60	0.83
1:D:569:THR:HG23	1:D:571:LYS:H	1.40	0.83
1:C:688:SER:HB2	1:C:769:LEU:HD21	1.59	0.83
1:E:596:VAL:HG22	1:E:695:VAL:HG21	1.60	0.83
1:F:516:LYS:HA	1:F:516:LYS:NZ	1.93	0.83
1:F:360:LYS:HD2	1:F:469:THR:HG23	1.60	0.83
1:B:733:ILE:HG21	1:B:764:VAL:HG13	1.58	0.82
1:A:733:ILE:HG21	1:A:764:VAL:HG13	1.62	0.82
1:D:733:ILE:HG21	1:D:764:VAL:HG13	1.62	0.81
1:F:378:ILE:HG12	1:F:378:ILE:O	1.80	0.81
1:B:516:LYS:O	1:B:519:ASN:HB2	1.80	0.81
1:C:536:ARG:CG	1:C:536:ARG:HH11	1.93	0.81
1:A:411:ALA:O	1:A:413:LYS:N	2.14	0.81
1:F:404:ILE:HG23	1:F:418:PHE:CE2	2.16	0.81
1:F:688:SER:HB2	1:F:769:LEU:HD21	1.63	0.81
1:C:501:VAL:HA	1:C:505:LEU:HB2	1.62	0.81
1:F:516:LYS:O	1:F:519:ASN:HB2	1.81	0.80
1:A:522:LEU:HD12	1:A:527:ILE:HG12	1.60	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:522:LEU:HB3	1:C:568:VAL:HG13	1.62	0.80
1:F:522:LEU:HB3	1:F:568:VAL:HG13	1.64	0.80
1:F:733:ILE:HG21	1:F:764:VAL:HG13	1.63	0.80
1:E:439:LEU:H	1:E:439:LEU:HD22	1.44	0.79
1:F:522:LEU:HD12	1:F:527:ILE:HG12	1.65	0.79
1:D:536:ARG:HH11	1:D:536:ARG:CG	1.96	0.79
1:F:506:LEU:HD21	1:F:522:LEU:HD21	1.65	0.79
1:A:337:ALA:CB	1:C:556:LYS:HA	2.12	0.79
1:C:404:ILE:HG23	1:C:418:PHE:CE2	2.17	0.79
1:C:439:LEU:HD22	1:C:439:LEU:H	1.47	0.79
1:C:506:LEU:HD21	1:C:522:LEU:HD21	1.65	0.79
1:D:522:LEU:HD12	1:D:527:ILE:HG12	1.65	0.79
1:E:536:ARG:HH11	1:E:536:ARG:CG	1.96	0.79
1:F:411:ALA:O	1:F:413:LYS:N	2.17	0.78
1:C:337:ALA:HB1	1:E:556:LYS:HA	1.64	0.78
1:A:338:VAL:HG21	1:C:552:ARG:HG3	1.63	0.78
1:A:536:ARG:CG	1:A:536:ARG:HH11	1.97	0.78
1:B:501:VAL:HA	1:B:505:LEU:HB2	1.65	0.78
1:E:404:ILE:HG23	1:E:418:PHE:CE2	2.19	0.78
1:B:536:ARG:HH11	1:B:536:ARG:CG	1.96	0.78
1:B:688:SER:HB2	1:B:769:LEU:HD21	1.64	0.78
1:E:414:LEU:O	1:E:416:PRO:HD3	1.83	0.78
1:B:337:ALA:HB1	1:F:556:LYS:HA	1.63	0.78
1:F:359:GLY:HA2	2:F:783:ADP:O5'	1.84	0.78
1:E:411:ALA:O	1:E:413:LYS:N	2.18	0.77
1:D:411:ALA:O	1:D:413:LYS:N	2.18	0.77
1:B:282:SER:HB2	1:E:276:TYR:OH	1.82	0.77
1:B:671:VAL:HG22	1:B:672:PRO:HD2	1.66	0.77
1:E:584:TYR:O	1:E:584:TYR:CD1	2.37	0.77
1:B:411:ALA:O	1:B:413:LYS:N	2.17	0.77
1:C:414:LEU:O	1:C:416:PRO:HD3	1.85	0.77
1:D:522:LEU:HB3	1:D:568:VAL:HG13	1.65	0.77
1:A:456:GLU:CD	1:C:291:ASN:HD21	1.88	0.77
1:A:404:ILE:HG23	1:A:418:PHE:CE2	2.20	0.76
1:C:270:LEU:HD21	1:C:296:LEU:HD22	1.66	0.76
1:D:359:GLY:HA2	2:D:783:ADP:O5'	1.85	0.76
1:B:596:VAL:HG22	1:B:695:VAL:HG21	1.66	0.76
1:B:303:ASP:O	1:B:304:GLU:HB2	1.86	0.76
1:A:272:GLU:HB3	1:C:248:GLU:OE1	1.85	0.76
1:B:506:LEU:HB3	1:B:507:PRO:HD3	1.68	0.75
1:C:411:ALA:O	1:C:413:LYS:N	2.18	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:273:LEU:HD11	1:C:290:ARG:HH12	1.50	0.75
1:B:439:LEU:H	1:B:439:LEU:HD22	1.51	0.75
1:B:506:LEU:HD21	1:B:522:LEU:HD21	1.68	0.75
1:E:516:LYS:O	1:E:519:ASN:HB2	1.86	0.75
1:D:359:GLY:HA2	2:D:783:ADP:H5'2	1.69	0.75
1:E:733:ILE:HG21	1:E:764:VAL:HG13	1.67	0.75
1:D:439:LEU:HD22	1:D:439:LEU:H	1.50	0.75
1:A:439:LEU:H	1:A:439:LEU:HD22	1.51	0.74
1:C:733:ILE:HG21	1:C:764:VAL:HG13	1.68	0.74
1:F:350:LEU:H	1:F:350:LEU:HD12	1.51	0.74
1:F:439:LEU:H	1:F:439:LEU:HD22	1.53	0.74
1:D:505:LEU:HD22	1:D:544:GLU:HG3	1.70	0.74
1:F:536:ARG:CG	1:F:536:ARG:HH11	1.99	0.74
1:C:493:THR:HG21	1:C:748:SER:HB2	1.70	0.74
1:E:270:LEU:HD21	1:E:296:LEU:HD22	1.70	0.74
1:B:359:GLY:HA2	2:B:783:ADP:O5'	1.88	0.74
1:E:738:ASN:O	1:E:741:ASP:HB2	1.88	0.74
1:A:505:LEU:HD22	1:A:544:GLU:HG3	1.68	0.73
1:C:516:LYS:NZ	1:C:516:LYS:HA	2.02	0.73
1:C:522:LEU:HD12	1:C:527:ILE:HG12	1.70	0.73
1:A:688:SER:HB2	1:A:769:LEU:HD21	1.69	0.73
1:E:583:ARG:HD3	1:E:588:GLU:CD	2.08	0.73
1:A:270:LEU:HD21	1:A:296:LEU:HD22	1.70	0.73
1:A:516:LYS:O	1:A:519:ASN:HB2	1.89	0.73
1:D:404:ILE:HG23	1:D:418:PHE:HE2	1.53	0.73
1:E:506:LEU:HD21	1:E:522:LEU:HD21	1.70	0.73
1:C:602:THR:HG22	1:C:604:VAL:H	1.54	0.72
1:D:738:ASN:O	1:D:741:ASP:HB2	1.89	0.72
1:F:501:VAL:CG1	1:F:527:ILE:HD13	2.19	0.72
1:A:501:VAL:CG1	1:A:527:ILE:HD13	2.17	0.72
1:F:516:LYS:HA	1:F:516:LYS:CE	2.19	0.72
1:A:522:LEU:HB3	1:A:568:VAL:HG13	1.72	0.72
1:F:493:THR:HG21	1:F:748:SER:CB	2.15	0.72
1:B:420:LEU:H	1:B:420:LEU:HD22	1.54	0.72
1:B:347:GLY:HA3	1:B:444:PRO:HG3	1.72	0.72
1:B:404:ILE:HG23	1:B:418:PHE:CE2	2.25	0.72
1:C:359:GLY:HA2	2:C:783:ADP:O5'	1.90	0.72
1:C:332:ILE:HD12	1:C:367:ILE:HD11	1.72	0.72
1:D:270:LEU:HD21	1:D:296:LEU:HD22	1.71	0.71
1:E:501:VAL:HA	1:E:505:LEU:HB2	1.72	0.71
1:F:270:LEU:HD21	1:F:296:LEU:HD22	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:677:ALA:HA	1:A:714:ILE:HD11	1.72	0.71
1:D:677:ALA:HA	1:D:714:ILE:HD11	1.72	0.71
1:B:501:VAL:CG1	1:B:527:ILE:HD13	2.20	0.71
1:C:677:ALA:HA	1:C:714:ILE:HD11	1.72	0.71
1:D:586:GLN:OE1	1:D:586:GLN:HA	1.90	0.71
1:A:559:VAL:HG21	1:D:337:ALA:HB1	1.72	0.71
1:F:347:GLY:HA3	1:F:444:PRO:HG3	1.71	0.71
1:C:506:LEU:HB3	1:C:507:PRO:HD3	1.72	0.71
1:D:347:GLY:HA3	1:D:444:PRO:HG3	1.71	0.71
1:D:501:VAL:HA	1:D:505:LEU:HB2	1.71	0.71
1:E:300:PRO:HB2	1:E:414:LEU:HB3	1.71	0.71
1:F:506:LEU:HB3	1:F:507:PRO:HD3	1.71	0.71
1:B:505:LEU:HD22	1:B:544:GLU:HG3	1.72	0.71
1:C:267:GLU:HA	1:C:270:LEU:HD12	1.73	0.70
1:B:274:ASN:C	1:B:276:TYR:H	1.94	0.70
1:D:506:LEU:HD21	1:D:522:LEU:HD21	1.72	0.70
1:E:506:LEU:HB3	1:E:507:PRO:HD3	1.72	0.70
1:E:352:LEU:HD22	1:E:489:ILE:HD11	1.73	0.70
1:A:271:LYS:HA	1:A:274:ASN:HB3	1.74	0.70
1:E:522:LEU:HD12	1:E:527:ILE:HG12	1.73	0.70
1:B:267:GLU:HA	1:B:270:LEU:HD12	1.72	0.70
1:B:602:THR:HG22	1:B:604:VAL:H	1.56	0.70
1:C:378:ILE:O	1:C:378:ILE:HG12	1.92	0.70
1:E:271:LYS:HA	1:E:274:ASN:HB3	1.72	0.70
1:D:506:LEU:HB3	1:D:507:PRO:HD3	1.74	0.70
1:D:602:THR:HG22	1:D:604:VAL:H	1.56	0.70
1:C:505:LEU:HD22	1:C:544:GLU:HG3	1.74	0.70
1:F:271:LYS:HA	1:F:274:ASN:HB3	1.73	0.70
1:A:347:GLY:HA3	1:A:444:PRO:HG3	1.73	0.70
1:D:271:LYS:HA	1:D:274:ASN:HB3	1.74	0.70
1:D:420:LEU:HD22	1:D:420:LEU:H	1.57	0.70
1:A:337:ALA:HB1	1:C:556:LYS:HA	1.71	0.70
1:D:702:THR:O	1:D:735:PRO:HD3	1.90	0.70
1:B:569:THR:H	1:B:572:ASN:HB2	1.56	0.70
1:C:271:LYS:HA	1:C:274:ASN:HB3	1.74	0.70
1:C:347:GLY:HA3	1:C:444:PRO:HG3	1.73	0.70
1:F:441:VAL:HG13	1:F:442:LEU:HG	1.73	0.70
1:F:671:VAL:CG2	1:F:672:PRO:HD2	2.22	0.70
1:C:350:LEU:N	1:C:350:LEU:HD12	1.98	0.69
1:D:266:LYS:HG3	1:D:267:GLU:N	2.07	0.69
1:C:349:ILE:HD12	1:C:349:ILE:O	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:516:LYS:O	1:C:519:ASN:HB2	1.92	0.69
1:C:737:ASP:HB3	1:E:583:ARG:HH12	1.57	0.69
1:F:501:VAL:HA	1:F:505:LEU:HB2	1.73	0.69
1:B:338:VAL:HG21	1:F:552:ARG:HG3	1.74	0.69
1:A:441:VAL:HG13	1:A:442:LEU:HG	1.75	0.69
1:B:271:LYS:HA	1:B:274:ASN:HB3	1.74	0.69
1:B:421:ASP:O	1:B:469:THR:HB	1.92	0.69
1:E:274:ASN:C	1:E:276:TYR:H	1.96	0.69
1:A:506:LEU:HD12	1:A:510:ILE:HG12	1.74	0.69
1:B:677:ALA:HA	1:B:714:ILE:HD11	1.72	0.69
1:F:267:GLU:HA	1:F:270:LEU:HD12	1.75	0.69
1:D:274:ASN:C	1:D:276:TYR:H	1.96	0.69
1:C:266:LYS:HG3	1:C:267:GLU:N	2.08	0.69
1:F:464:VAL:O	1:F:466:PHE:HD1	1.76	0.69
1:B:516:LYS:HA	1:B:516:LYS:NZ	2.08	0.69
1:D:464:VAL:O	1:D:466:PHE:HD1	1.76	0.69
1:D:516:LYS:NZ	1:D:516:LYS:HA	2.07	0.69
1:E:347:GLY:HA3	1:E:444:PRO:HG3	1.73	0.69
1:D:414:LEU:O	1:D:416:PRO:HD3	1.93	0.69
1:D:421:ASP:O	1:D:469:THR:HB	1.92	0.69
1:F:274:ASN:C	1:F:276:TYR:H	1.96	0.69
1:B:464:VAL:O	1:B:466:PHE:HD1	1.76	0.69
1:B:522:LEU:HB3	1:B:568:VAL:HG13	1.73	0.68
1:D:532:ARG:HG2	1:D:584:TYR:CE2	2.28	0.68
1:C:274:ASN:C	1:C:276:TYR:H	1.97	0.68
1:A:501:VAL:HA	1:A:505:LEU:HB2	1.74	0.68
1:C:256:ILE:HD11	1:C:293:ILE:HD11	1.76	0.68
1:B:556:LYS:HA	1:E:337:ALA:HB1	1.75	0.68
1:E:516:LYS:NZ	1:E:516:LYS:HA	2.08	0.68
1:F:424:ASP:HB2	1:F:475:THR:HG23	1.76	0.68
1:F:266:LYS:HG3	1:F:267:GLU:N	2.08	0.68
1:F:295:TRP:CZ3	1:F:405:ILE:HG21	2.28	0.68
1:B:337:ALA:HB3	1:F:556:LYS:HA	1.75	0.68
1:E:335:TYR:HE2	1:E:465:LEU:HD21	1.57	0.68
1:E:420:LEU:H	1:E:420:LEU:HD22	1.58	0.68
1:A:516:LYS:HA	1:A:516:LYS:NZ	2.09	0.68
1:C:506:LEU:HD12	1:C:510:ILE:HG12	1.76	0.68
1:E:505:LEU:HD22	1:E:544:GLU:HG3	1.75	0.68
1:E:421:ASP:O	1:E:469:THR:HB	1.94	0.67
1:E:646:LYS:H	1:E:646:LYS:HD2	1.58	0.67
1:E:702:THR:O	1:E:735:PRO:HD3	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:738:ASN:O	1:F:741:ASP:HB2	1.94	0.67
1:A:464:VAL:O	1:A:466:PHE:HD1	1.76	0.67
1:E:266:LYS:HG3	1:E:267:GLU:N	2.09	0.67
1:F:420:LEU:HD22	1:F:420:LEU:H	1.58	0.67
1:F:506:LEU:HD12	1:F:510:ILE:HG12	1.77	0.67
1:A:267:GLU:HA	1:A:270:LEU:HD12	1.75	0.67
1:A:274:ASN:C	1:A:276:TYR:H	1.96	0.67
1:A:420:LEU:HD21	1:A:466:PHE:HD2	1.59	0.67
1:F:505:LEU:HD22	1:F:544:GLU:HG3	1.77	0.67
1:A:266:LYS:HG3	1:A:267:GLU:N	2.09	0.67
1:C:317:LEU:HD23	1:C:317:LEU:O	1.94	0.67
1:B:556:LYS:HA	1:E:337:ALA:CB	2.24	0.67
1:B:270:LEU:HD21	1:B:296:LEU:HD22	1.75	0.67
1:E:464:VAL:O	1:E:466:PHE:HD1	1.77	0.67
1:B:702:THR:O	1:B:735:PRO:HD3	1.94	0.67
1:E:267:GLU:HA	1:E:270:LEU:HD12	1.77	0.67
1:E:671:VAL:CG2	1:E:672:PRO:HD2	2.23	0.67
1:D:441:VAL:HG13	1:D:442:LEU:HG	1.76	0.67
1:D:267:GLU:HA	1:D:270:LEU:HD12	1.76	0.66
1:D:501:VAL:CG1	1:D:527:ILE:HD13	2.24	0.66
1:A:506:LEU:HB3	1:A:507:PRO:HD3	1.75	0.66
1:C:424:ASP:HB2	1:C:475:THR:HG23	1.77	0.66
1:C:702:THR:O	1:C:735:PRO:HD3	1.95	0.66
1:E:441:VAL:HG13	1:E:442:LEU:HG	1.78	0.66
1:A:702:THR:O	1:A:735:PRO:HD3	1.96	0.66
1:F:702:THR:O	1:F:735:PRO:HD3	1.96	0.66
1:B:266:LYS:HG3	1:B:267:GLU:N	2.09	0.66
1:F:421:ASP:O	1:F:469:THR:HB	1.96	0.66
2:C:783:ADP:O1B	2:C:783:ADP:O1A	2.14	0.66
1:D:646:LYS:H	1:D:646:LYS:HD2	1.60	0.66
1:B:414:LEU:O	1:B:416:PRO:HD3	1.96	0.66
1:C:258:GLU:HG2	1:C:260:GLY:H	1.60	0.66
1:C:501:VAL:CG1	1:C:527:ILE:HD13	2.26	0.66
1:D:569:THR:H	1:D:572:ASN:HB2	1.61	0.66
1:F:677:ALA:HA	1:F:714:ILE:HD11	1.78	0.66
1:D:505:LEU:CD2	1:D:544:GLU:HG3	2.25	0.66
1:E:506:LEU:HD12	1:E:510:ILE:HG12	1.76	0.66
1:D:424:ASP:HB2	1:D:475:THR:HG23	1.77	0.65
1:F:474:ALA:O	1:F:476:ILE:N	2.29	0.65
1:A:252:LEU:O	1:A:256:ILE:HG13	1.97	0.65
1:A:258:GLU:HG2	1:A:260:GLY:H	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:644:ARG:HD2	1:C:616:SER:OG	1.96	0.65
1:B:345:LEU:HD23	1:B:346:LYS:N	2.12	0.65
1:E:345:LEU:HD11	1:E:465:LEU:HD22	1.78	0.65
1:E:474:ALA:O	1:E:476:ILE:N	2.28	0.65
1:E:522:LEU:HB3	1:E:568:VAL:HG13	1.77	0.65
1:E:677:ALA:HA	1:E:714:ILE:HD11	1.77	0.65
1:A:602:THR:HG22	1:A:604:VAL:H	1.61	0.65
1:C:335:TYR:HE2	1:C:465:LEU:HD21	1.61	0.65
1:F:292:TYR:CZ	1:F:455:ILE:HA	2.31	0.65
1:F:646:LYS:HD2	1:F:646:LYS:H	1.61	0.65
1:C:474:ALA:O	1:C:476:ILE:N	2.30	0.65
1:F:300:PRO:HB2	1:F:414:LEU:HB3	1.79	0.65
1:F:579:LYS:O	1:F:579:LYS:HE2	1.96	0.65
1:A:421:ASP:O	1:A:469:THR:HB	1.96	0.65
1:C:420:LEU:HD21	1:C:466:PHE:HD2	1.61	0.65
1:A:579:LYS:HE2	1:A:579:LYS:O	1.96	0.65
1:F:352:LEU:HD22	1:F:489:ILE:HD11	1.77	0.65
1:A:332:ILE:HD12	1:A:367:ILE:HD11	1.79	0.65
1:B:352:LEU:HD22	1:B:489:ILE:HD11	1.79	0.65
1:C:464:VAL:O	1:C:466:PHE:HD1	1.80	0.65
1:E:349:ILE:HD12	1:E:349:ILE:O	1.97	0.65
1:F:252:LEU:O	1:F:256:ILE:HG13	1.97	0.65
1:B:299:LEU:HD12	1:B:301:TRP:HE1	1.62	0.64
1:C:362:SER:HB2	2:C:783:ADP:H5'1	1.78	0.64
1:A:424:ASP:HB2	1:A:475:THR:HG23	1.77	0.64
1:C:646:LYS:HD2	1:C:646:LYS:H	1.61	0.64
1:A:414:LEU:O	1:A:416:PRO:HD3	1.96	0.64
1:C:599:LEU:HD22	1:C:599:LEU:H	1.62	0.64
1:E:252:LEU:O	1:E:256:ILE:HG13	1.98	0.64
1:F:345:LEU:HD11	1:F:465:LEU:HD22	1.79	0.64
1:A:477:PRO:HB2	1:A:480:LEU:HD23	1.79	0.64
1:A:506:LEU:HD21	1:A:522:LEU:HD21	1.78	0.64
1:C:644:ARG:HE	1:C:657:HIS:CG	2.16	0.64
1:D:252:LEU:O	1:D:256:ILE:HG13	1.98	0.64
1:F:569:THR:H	1:F:572:ASN:HB2	1.62	0.64
1:B:258:GLU:HG2	1:B:259:ALA:N	2.13	0.64
1:D:256:ILE:HD11	1:D:293:ILE:HD11	1.79	0.64
1:B:252:LEU:O	1:B:256:ILE:HG13	1.98	0.64
1:B:258:GLU:HG2	1:B:260:GLY:H	1.62	0.64
1:E:644:ARG:HE	1:E:657:HIS:CG	2.16	0.64
1:F:414:LEU:O	1:F:416:PRO:HD3	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:644:ARG:HE	1:F:657:HIS:CG	2.15	0.64
1:A:646:LYS:H	1:A:646:LYS:HD2	1.62	0.64
1:B:267:GLU:O	1:B:270:LEU:HB2	1.98	0.64
1:B:424:ASP:HB2	1:B:475:THR:HG23	1.79	0.64
1:E:588:GLU:HG2	1:E:589:THR:N	2.13	0.64
1:E:569:THR:H	1:E:572:ASN:HB2	1.62	0.64
1:F:258:GLU:HG2	1:F:260:GLY:H	1.61	0.64
1:B:493:THR:HG21	1:B:748:SER:CB	2.27	0.64
1:C:267:GLU:O	1:C:270:LEU:HB2	1.97	0.64
1:C:360:LYS:HD2	1:C:469:THR:HG23	1.80	0.64
1:B:644:ARG:HE	1:B:657:HIS:CG	2.16	0.63
1:C:671:VAL:CG2	1:C:672:PRO:HD2	2.26	0.63
1:D:258:GLU:HG2	1:D:260:GLY:H	1.61	0.63
1:D:345:LEU:HD11	1:D:465:LEU:HD22	1.79	0.63
1:D:506:LEU:HD12	1:D:510:ILE:HG12	1.79	0.63
1:E:258:GLU:HG2	1:E:260:GLY:H	1.62	0.63
1:E:253:THR:HA	1:E:256:ILE:HD12	1.79	0.63
1:E:256:ILE:HD11	1:E:293:ILE:HD11	1.80	0.63
1:E:249:VAL:HG12	1:E:278:LYS:HG2	1.81	0.63
1:E:501:VAL:CG1	1:E:527:ILE:HD13	2.26	0.63
1:A:644:ARG:HE	1:A:657:HIS:CG	2.16	0.63
1:B:296:LEU:HA	1:B:299:LEU:HD21	1.79	0.63
1:B:583:ARG:NH1	1:E:737:ASP:OD1	2.31	0.63
1:A:493:THR:HG21	1:A:748:SER:HB2	1.81	0.63
1:E:424:ASP:HB2	1:E:475:THR:HG23	1.81	0.63
1:A:412:GLY:O	1:A:413:LYS:HG2	1.98	0.63
1:B:412:GLY:O	1:B:413:LYS:HG2	1.99	0.63
1:B:444:PRO:HA	1:B:447:ASN:HD21	1.64	0.63
1:C:420:LEU:H	1:C:420:LEU:HD22	1.64	0.63
1:F:253:THR:HA	1:F:256:ILE:HD12	1.81	0.63
1:A:444:PRO:HA	1:A:447:ASN:HD21	1.64	0.63
1:B:493:THR:CG2	1:B:748:SER:HB2	2.25	0.63
1:E:412:GLY:O	1:E:413:LYS:HG2	1.99	0.63
1:C:421:ASP:O	1:C:469:THR:HB	1.98	0.63
1:D:300:PRO:HB3	1:D:412:GLY:C	2.20	0.63
1:F:256:ILE:HD11	1:F:293:ILE:HD11	1.80	0.63
1:F:412:GLY:O	1:F:413:LYS:HG2	1.98	0.63
1:A:256:ILE:HD11	1:A:293:ILE:HD11	1.81	0.62
1:C:258:GLU:HG2	1:C:259:ALA:N	2.14	0.62
1:C:350:LEU:CD1	1:C:350:LEU:H	1.98	0.62
1:A:317:LEU:O	1:A:317:LEU:HD23	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:253:THR:HA	1:A:256:ILE:HD12	1.80	0.62
1:A:360:LYS:HD2	1:A:469:THR:HG23	1.80	0.62
1:A:345:LEU:HD11	1:A:465:LEU:HD22	1.82	0.62
1:B:332:ILE:HD12	1:B:367:ILE:HD11	1.80	0.62
1:B:506:LEU:HD12	1:B:506:LEU:C	2.20	0.62
1:D:332:ILE:HD12	1:D:367:ILE:HD11	1.80	0.62
1:F:477:PRO:HB2	1:F:480:LEU:HD23	1.82	0.62
1:A:738:ASN:O	1:A:741:ASP:HB2	2.00	0.62
1:B:315:GLY:C	1:B:316:ARG:HD2	2.20	0.62
1:C:252:LEU:O	1:C:256:ILE:HG13	1.99	0.62
1:C:345:LEU:HD23	1:C:346:LYS:N	2.15	0.62
1:E:477:PRO:HB2	1:E:480:LEU:HD23	1.81	0.62
1:A:352:LEU:HD22	1:A:489:ILE:HD11	1.81	0.62
1:B:277:GLU:HB3	1:B:279:ILE:O	1.99	0.62
1:B:299:LEU:CD1	1:B:301:TRP:HE1	2.12	0.62
1:D:412:GLY:O	1:D:413:LYS:HG2	1.99	0.62
1:D:249:VAL:HG12	1:D:278:LYS:HG2	1.81	0.62
1:D:345:LEU:HD23	1:D:346:LYS:N	2.15	0.62
1:F:613:VAL:HA	1:F:663:HIS:O	2.00	0.62
1:C:253:THR:HA	1:C:256:ILE:HD12	1.82	0.62
1:A:315:GLY:C	1:A:316:ARG:HD2	2.20	0.61
1:A:569:THR:H	1:A:572:ASN:HB2	1.64	0.61
1:A:734:ALA:HB1	1:A:735:PRO:HD2	1.82	0.61
1:B:256:ILE:HD11	1:B:293:ILE:HD11	1.82	0.61
1:D:258:GLU:HG2	1:D:259:ALA:N	2.15	0.61
1:F:602:THR:HG22	1:F:604:VAL:H	1.64	0.61
1:B:474:ALA:O	1:B:476:ILE:N	2.33	0.61
1:C:412:GLY:O	1:C:413:LYS:HG2	1.99	0.61
1:D:671:VAL:CG2	1:D:672:PRO:HD2	2.28	0.61
1:E:734:ALA:HB1	1:E:735:PRO:HD2	1.82	0.61
1:F:444:PRO:HA	1:F:447:ASN:HD21	1.66	0.61
1:B:360:LYS:HD2	1:B:469:THR:HG23	1.82	0.61
1:B:646:LYS:HD2	1:B:646:LYS:H	1.64	0.61
1:D:644:ARG:HE	1:D:657:HIS:CG	2.17	0.61
1:F:368:ALA:HB2	1:F:417:VAL:HG21	1.82	0.61
1:A:258:GLU:HG2	1:A:259:ALA:N	2.14	0.61
1:B:441:VAL:HG13	1:B:442:LEU:HG	1.81	0.61
1:B:253:THR:HA	1:B:256:ILE:HD12	1.80	0.61
1:C:249:VAL:HG12	1:C:278:LYS:HG2	1.81	0.61
1:D:277:GLU:HB3	1:D:279:ILE:O	2.01	0.61
1:F:516:LYS:HZ1	1:F:516:LYS:HA	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:686:LEU:O	1:C:686:LEU:HD22	2.01	0.61
1:A:474:ALA:O	1:A:476:ILE:N	2.33	0.61
1:D:315:GLY:C	1:D:316:ARG:HD2	2.21	0.61
1:D:565:ARG:HG2	1:D:566:ILE:N	2.14	0.61
1:E:444:PRO:HA	1:E:447:ASN:HD21	1.66	0.61
1:B:506:LEU:HD12	1:B:510:ILE:HG12	1.81	0.61
1:A:249:VAL:HG12	1:A:278:LYS:HG2	1.82	0.61
1:B:565:ARG:HG2	1:B:566:ILE:N	2.14	0.61
1:C:277:GLU:HB3	1:C:279:ILE:O	2.01	0.61
1:E:533:TYR:HB3	1:E:580:ARG:HD2	1.83	0.61
1:B:613:VAL:HA	1:B:663:HIS:O	2.01	0.61
1:C:315:GLY:C	1:C:316:ARG:HD2	2.21	0.61
1:C:345:LEU:HD11	1:C:465:LEU:HD22	1.82	0.61
1:E:602:THR:HG22	1:E:604:VAL:H	1.64	0.61
1:D:253:THR:HA	1:D:256:ILE:HD12	1.81	0.60
1:D:474:ALA:O	1:D:476:ILE:N	2.34	0.60
1:E:258:GLU:HG2	1:E:259:ALA:N	2.15	0.60
1:F:258:GLU:HG2	1:F:259:ALA:N	2.14	0.60
1:F:345:LEU:HD23	1:F:346:LYS:N	2.16	0.60
1:F:540:VAL:HG23	2:F:783:ADP:H1'	1.82	0.60
1:A:300:PRO:HG3	1:A:412:GLY:C	2.22	0.60
1:D:349:ILE:O	1:D:349:ILE:HD12	2.01	0.60
1:F:277:GLU:HB3	1:F:279:ILE:O	2.02	0.60
1:A:560:ALA:O	1:A:562:GLU:HG3	2.01	0.60
1:B:261:MET:H	1:B:262:PRO:HD3	1.66	0.60
1:B:360:LYS:N	2:B:783:ADP:O1B	2.34	0.60
1:C:477:PRO:HB2	1:C:480:LEU:HD23	1.82	0.60
1:C:738:ASN:O	1:C:741:ASP:HB2	2.00	0.60
1:D:560:ALA:O	1:D:562:GLU:HG3	2.01	0.60
1:F:249:VAL:HG12	1:F:278:LYS:HG2	1.82	0.60
1:C:579:LYS:O	1:C:579:LYS:HE2	2.01	0.60
1:D:361:THR:HB	2:D:783:ADP:O1A	2.01	0.60
1:E:315:GLY:C	1:E:316:ARG:HD2	2.22	0.60
1:B:345:LEU:HD11	1:B:465:LEU:HD22	1.82	0.60
1:B:738:ASN:O	1:B:741:ASP:HB2	2.00	0.60
1:D:444:PRO:HA	1:D:447:ASN:HD21	1.67	0.60
1:F:565:ARG:HG2	1:F:566:ILE:N	2.16	0.60
1:F:586:GLN:N	1:F:586:GLN:OE1	2.34	0.60
1:B:359:GLY:HA2	2:B:783:ADP:C5'	2.31	0.60
1:B:560:ALA:O	1:B:562:GLU:HG3	2.02	0.60
1:D:260:GLY:O	1:D:261:MET:HB2	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:335:TYR:HE2	1:D:465:LEU:HD21	1.65	0.60
1:F:261:MET:H	1:F:262:PRO:HD3	1.67	0.60
1:A:345:LEU:HD23	1:A:346:LYS:N	2.16	0.60
1:B:260:GLY:O	1:B:261:MET:HB2	2.02	0.60
1:D:261:MET:N	1:D:262:PRO:HD3	2.17	0.60
1:F:357:GLY:O	1:F:539:GLY:CA	2.49	0.60
1:C:444:PRO:HA	1:C:447:ASN:HD21	1.66	0.60
1:C:469:THR:HG22	1:C:470:ALA:N	2.17	0.60
1:F:380:LEU:HB2	1:F:422:GLU:O	2.02	0.60
1:A:642:TYR:CD2	1:A:761:LEU:HD12	2.37	0.60
1:A:565:ARG:HG2	1:A:566:ILE:N	2.16	0.59
1:D:357:GLY:O	1:D:540:VAL:N	2.33	0.59
1:F:315:GLY:C	1:F:316:ARG:HD2	2.23	0.59
1:A:267:GLU:O	1:A:270:LEU:HB2	2.02	0.59
1:A:420:LEU:H	1:A:420:LEU:HD22	1.66	0.59
1:C:441:VAL:HG13	1:C:442:LEU:HG	1.83	0.59
1:E:345:LEU:HD23	1:E:346:LYS:N	2.17	0.59
1:F:357:GLY:N	2:F:783:ADP:O2B	2.35	0.59
1:A:277:GLU:HB3	1:A:279:ILE:O	2.01	0.59
1:C:380:LEU:HB2	1:C:422:GLU:O	2.02	0.59
1:C:496:GLU:O	1:C:500:ILE:HG13	2.03	0.59
1:C:602:THR:HG21	1:C:604:VAL:HG22	1.83	0.59
1:E:416:PRO:HD2	1:E:464:VAL:HG13	1.84	0.59
1:A:261:MET:N	1:A:262:PRO:HD3	2.17	0.59
1:B:267:GLU:HA	1:B:270:LEU:CG	2.32	0.59
1:E:261:MET:H	1:E:262:PRO:HD3	1.67	0.59
1:F:261:MET:N	1:F:262:PRO:HD3	2.18	0.59
1:F:328:VAL:O	1:F:332:ILE:HG12	2.02	0.59
1:B:249:VAL:HG12	1:B:278:LYS:HG2	1.82	0.59
1:B:380:LEU:HD12	1:B:423:ILE:HG23	1.83	0.59
1:A:341:LEU:HB3	1:C:514:GLY:O	2.03	0.59
1:C:516:LYS:CE	1:C:516:LYS:HA	2.33	0.59
1:E:261:MET:N	1:E:262:PRO:HD3	2.17	0.59
1:F:267:GLU:O	1:F:270:LEU:HB2	2.03	0.59
1:B:267:GLU:HA	1:B:270:LEU:CD1	2.33	0.59
1:D:261:MET:H	1:D:262:PRO:HD3	1.66	0.59
1:D:357:GLY:O	1:D:539:GLY:CA	2.51	0.59
1:F:260:GLY:O	1:F:261:MET:HB2	2.03	0.59
1:A:335:TYR:HE2	1:A:465:LEU:HD21	1.67	0.59
1:B:261:MET:N	1:B:262:PRO:HD3	2.17	0.59
1:C:260:GLY:O	1:C:261:MET:HB2	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:357:GLY:N	2:D:783:ADP:O1B	2.34	0.59
1:E:420:LEU:HD21	1:E:466:PHE:HD2	1.68	0.59
1:A:300:PRO:HB2	1:A:414:LEU:HB3	1.85	0.59
1:C:569:THR:H	1:C:572:ASN:HB2	1.67	0.59
1:C:506:LEU:CD2	1:C:522:LEU:HD21	2.32	0.58
1:C:533:TYR:HB3	1:C:580:ARG:HD2	1.84	0.58
1:E:277:GLU:HB3	1:E:279:ILE:O	2.03	0.58
1:D:352:LEU:HD22	1:D:489:ILE:HD11	1.83	0.58
1:B:276:TYR:CZ	1:F:246:THR:HB	2.38	0.58
1:B:349:ILE:O	1:B:349:ILE:HD12	2.03	0.58
1:C:261:MET:N	1:C:262:PRO:HD3	2.18	0.58
1:C:565:ARG:HG2	1:C:566:ILE:N	2.16	0.58
1:E:380:LEU:HB2	1:E:422:GLU:O	2.03	0.58
1:C:506:LEU:HD12	1:C:506:LEU:C	2.24	0.58
1:D:420:LEU:HD21	1:D:466:PHE:HD2	1.68	0.58
1:E:589:THR:O	1:E:697:ARG:HD2	2.04	0.58
1:F:335:TYR:HE2	1:F:465:LEU:HD21	1.67	0.58
1:F:550:ILE:O	1:F:551:CYS:C	2.42	0.58
1:A:261:MET:H	1:A:262:PRO:HD3	1.66	0.58
1:A:461:LEU:O	1:A:464:VAL:HG23	2.04	0.58
1:B:593:VAL:HB	1:E:708:ARG:NH2	2.18	0.58
1:C:336:LEU:O	1:C:339:GLN:N	2.37	0.58
1:C:602:THR:CG2	1:C:604:VAL:HG22	2.33	0.58
1:E:317:LEU:O	1:E:317:LEU:HD23	2.04	0.58
1:A:671:VAL:CG2	1:A:672:PRO:HD2	2.33	0.58
1:E:590:GLU:HA	1:E:697:ARG:CD	2.33	0.58
1:F:506:LEU:CD2	1:F:522:LEU:HD21	2.33	0.58
1:A:267:GLU:HA	1:A:270:LEU:CG	2.34	0.58
1:C:584:TYR:CD1	1:C:584:TYR:C	2.76	0.58
1:D:477:PRO:HB2	1:D:480:LEU:HD23	1.85	0.58
1:E:613:VAL:HG23	1:E:685:ALA:HB1	1.86	0.58
1:A:260:GLY:O	1:A:261:MET:HB2	2.03	0.58
1:B:316:ARG:HD2	1:B:316:ARG:N	2.19	0.58
1:B:341:LEU:HD13	1:F:514:GLY:O	2.04	0.58
1:B:477:PRO:HB2	1:B:480:LEU:HD23	1.86	0.58
1:C:267:GLU:HA	1:C:270:LEU:CG	2.33	0.58
1:C:261:MET:H	1:C:262:PRO:HD3	1.68	0.58
1:E:260:GLY:O	1:E:261:MET:HB2	2.02	0.58
1:E:700:GLY:O	1:E:732:ILE:HA	2.04	0.58
1:C:705:ILE:HD11	1:C:761:LEU:HD21	1.86	0.57
1:B:336:LEU:O	1:B:339:GLN:N	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:557:ALA:HB3	1:C:566:ILE:HD11	1.87	0.57
1:D:267:GLU:O	1:D:270:LEU:HB2	2.03	0.57
1:D:368:ALA:HB2	1:D:417:VAL:HG21	1.84	0.57
1:F:294:ASP:HA	1:F:297:VAL:HG23	1.86	0.57
1:B:335:TYR:HE2	1:B:465:LEU:HD21	1.68	0.57
1:B:439:LEU:O	1:B:441:VAL:N	2.37	0.57
1:A:420:LEU:HD21	1:A:466:PHE:CD2	2.40	0.57
1:E:439:LEU:O	1:E:441:VAL:N	2.38	0.57
1:B:536:ARG:NH1	1:B:536:ARG:CG	2.65	0.57
1:F:420:LEU:HD21	1:F:466:PHE:HD2	1.70	0.57
1:F:461:LEU:O	1:F:464:VAL:HG23	2.05	0.57
1:D:250:GLN:HA	1:D:253:THR:OG1	2.05	0.57
1:D:267:GLU:HA	1:D:270:LEU:CG	2.34	0.57
1:E:613:VAL:HA	1:E:663:HIS:O	2.03	0.57
1:A:316:ARG:N	1:A:316:ARG:HD2	2.19	0.57
1:B:250:GLN:HA	1:B:253:THR:OG1	2.05	0.57
1:B:586:GLN:HE22	1:B:729:LEU:HA	1.70	0.57
1:B:734:ALA:HB1	1:B:735:PRO:HD2	1.87	0.57
1:C:516:LYS:HZ1	1:C:516:LYS:HA	1.69	0.57
1:E:497:LYS:HG2	1:E:540:VAL:HG12	1.86	0.57
1:A:506:LEU:HD12	1:A:506:LEU:C	2.24	0.57
1:B:317:LEU:HD23	1:B:317:LEU:O	2.04	0.57
1:C:267:GLU:HA	1:C:270:LEU:CD1	2.34	0.57
1:E:262:PRO:HD2	1:E:301:TRP:CB	2.35	0.57
1:B:276:TYR:OH	1:F:247:GLY:N	2.37	0.57
1:A:439:LEU:O	1:A:441:VAL:N	2.38	0.57
1:C:506:LEU:HD21	1:C:522:LEU:CD2	2.34	0.57
1:C:734:ALA:HB1	1:C:735:PRO:HD2	1.86	0.56
1:E:250:GLN:HA	1:E:253:THR:OG1	2.05	0.56
1:E:350:LEU:N	1:E:350:LEU:HD12	2.07	0.56
1:D:602:THR:HG21	1:D:604:VAL:HG22	1.87	0.56
1:E:565:ARG:HG2	1:E:566:ILE:N	2.20	0.56
1:F:332:ILE:HD12	1:F:367:ILE:HD11	1.86	0.56
1:C:250:GLN:HA	1:C:253:THR:OG1	2.05	0.56
1:B:350:LEU:HD23	1:B:487:ILE:HD11	1.87	0.56
1:B:290:ARG:O	1:B:293:ILE:HG22	2.05	0.56
1:B:294:ASP:HA	1:B:297:VAL:HG23	1.88	0.56
1:C:294:ASP:HA	1:C:297:VAL:HG23	1.87	0.56
1:D:469:THR:O	1:D:470:ALA:HB2	2.05	0.56
1:D:596:VAL:HG23	1:D:685:ALA:HB2	1.87	0.56
1:E:438:MET:O	1:E:439:LEU:C	2.44	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:362:SER:CB	2:D:783:ADP:H5'1	2.35	0.56
1:E:267:GLU:O	1:E:270:LEU:HB2	2.04	0.56
1:F:586:GLN:HG2	1:F:698:GLU:CG	2.27	0.56
1:A:559:VAL:CG2	1:D:337:ALA:HB1	2.35	0.56
1:F:602:THR:HG21	1:F:604:VAL:HG22	1.86	0.56
1:A:294:ASP:HA	1:A:297:VAL:HG23	1.88	0.56
1:A:557:ALA:HB3	1:A:566:ILE:HD11	1.88	0.56
1:C:352:LEU:HD22	1:C:489:ILE:HD11	1.86	0.56
1:E:294:ASP:HA	1:E:297:VAL:HG23	1.88	0.56
1:F:267:GLU:HA	1:F:270:LEU:CG	2.36	0.56
1:F:602:THR:CG2	1:F:604:VAL:HG22	2.36	0.56
1:B:700:GLY:O	1:B:732:ILE:HA	2.06	0.56
1:C:439:LEU:O	1:C:441:VAL:N	2.39	0.56
1:D:636:ALA:C	1:D:638:ALA:H	2.08	0.56
1:F:250:GLN:HA	1:F:253:THR:OG1	2.04	0.56
1:A:350:LEU:N	1:A:350:LEU:HD12	2.11	0.56
1:D:380:LEU:HB2	1:D:422:GLU:O	2.05	0.56
1:E:316:ARG:N	1:E:316:ARG:HD2	2.21	0.56
1:E:579:LYS:O	1:E:579:LYS:HE2	2.06	0.56
1:F:560:ALA:O	1:F:562:GLU:HG3	2.05	0.56
1:A:250:GLN:HA	1:A:253:THR:OG1	2.05	0.56
1:A:328:VAL:O	1:A:332:ILE:HG12	2.05	0.55
1:A:336:LEU:O	1:A:339:GLN:N	2.39	0.55
1:B:756:ILE:HG13	1:B:767:HIS:CD2	2.41	0.55
1:C:290:ARG:O	1:C:293:ILE:HG22	2.06	0.55
1:D:316:ARG:N	1:D:316:ARG:HD2	2.20	0.55
1:E:267:GLU:HA	1:E:270:LEU:CG	2.37	0.55
1:F:267:GLU:HA	1:F:270:LEU:CD1	2.36	0.55
1:D:328:VAL:O	1:D:332:ILE:HG12	2.05	0.55
1:F:593:VAL:HG13	1:F:693:ARG:O	2.06	0.55
1:A:756:ILE:HG13	1:A:767:HIS:CD2	2.42	0.55
1:B:420:LEU:HD21	1:B:466:PHE:HD2	1.71	0.55
1:D:534:TYR:N	1:D:534:TYR:CD1	2.74	0.55
1:B:579:LYS:O	1:B:579:LYS:HE2	2.05	0.55
2:B:783:ADP:O4'	2:B:783:ADP:O2A	2.24	0.55
1:D:579:LYS:HE2	1:D:579:LYS:O	2.05	0.55
1:D:613:VAL:HA	1:D:663:HIS:O	2.05	0.55
1:A:469:THR:HG22	1:A:470:ALA:N	2.21	0.55
1:C:316:ARG:N	1:C:316:ARG:HD2	2.20	0.55
1:D:350:LEU:N	1:D:350:LEU:HD12	2.14	0.55
1:D:439:LEU:O	1:D:441:VAL:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:357:GLY:N	2:A:783:ADP:O2B	2.26	0.55
1:B:516:LYS:HA	1:B:516:LYS:CE	2.36	0.55
1:A:267:GLU:HA	1:A:270:LEU:CD1	2.36	0.55
1:D:290:ARG:O	1:D:293:ILE:HG22	2.06	0.55
1:E:290:ARG:O	1:E:293:ILE:HG22	2.06	0.55
1:E:548:ALA:O	1:E:549:ALA:C	2.45	0.55
1:F:317:LEU:HD23	1:F:317:LEU:O	2.07	0.55
1:F:596:VAL:HG23	1:F:685:ALA:HB2	1.87	0.55
1:A:380:LEU:HB2	1:A:422:GLU:O	2.06	0.55
1:B:355:PRO:O	1:B:358:VAL:HG22	2.07	0.55
1:C:613:VAL:HA	1:C:663:HIS:O	2.07	0.55
1:D:336:LEU:O	1:D:339:GLN:N	2.39	0.55
1:D:635:SER:O	1:D:638:ALA:HB3	2.07	0.55
1:E:624:LEU:H	1:E:624:LEU:HD12	1.72	0.55
2:A:783:ADP:O2A	2:A:783:ADP:O4'	2.24	0.55
1:C:378:ILE:HD13	1:C:420:LEU:CD1	2.37	0.55
1:F:316:ARG:N	1:F:316:ARG:HD2	2.21	0.55
1:F:349:ILE:HD12	1:F:349:ILE:O	2.06	0.55
1:F:734:ALA:HB1	1:F:735:PRO:HD2	1.88	0.55
1:B:599:LEU:H	1:B:599:LEU:HD22	1.71	0.54
1:D:461:LEU:O	1:D:464:VAL:HG23	2.07	0.54
1:E:756:ILE:HG13	1:E:767:HIS:CD2	2.42	0.54
1:B:328:VAL:O	1:B:332:ILE:HG12	2.07	0.54
1:C:270:LEU:HD21	1:C:296:LEU:CD2	2.37	0.54
1:D:573:LEU:HG	1:D:577:ILE:HD11	1.88	0.54
1:E:380:LEU:HD12	1:E:423:ILE:HG23	1.89	0.54
1:E:378:ILE:HD13	1:E:420:LEU:CD1	2.37	0.54
1:F:408:MET:HE2	1:F:408:MET:H	1.72	0.54
1:D:602:THR:CG2	1:D:604:VAL:HG22	2.38	0.54
1:D:700:GLY:O	1:D:732:ILE:HA	2.08	0.54
1:F:557:ALA:HB3	1:F:566:ILE:HD11	1.89	0.54
1:F:569:THR:CG2	1:F:572:ASN:H	2.20	0.54
1:C:560:ALA:O	1:C:562:GLU:HG3	2.07	0.54
1:D:362:SER:HB3	2:D:783:ADP:H5'1	1.89	0.54
1:D:516:LYS:O	1:D:519:ASN:HB2	2.07	0.54
1:E:360:LYS:HD2	1:E:469:THR:HG23	1.89	0.54
1:A:273:LEU:HD13	1:A:289:ILE:HD12	1.90	0.54
1:B:282:SER:HA	1:B:286:SER:HB3	1.89	0.54
1:D:267:GLU:HA	1:D:270:LEU:CD1	2.37	0.54
1:D:579:LYS:H	1:D:579:LYS:NZ	2.05	0.54
1:E:282:SER:HA	1:E:286:SER:HB3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:290:ARG:O	1:F:293:ILE:HG22	2.07	0.54
1:F:522:LEU:HB3	1:F:568:VAL:CG1	2.36	0.54
1:B:708:ARG:HD3	1:F:613:VAL:O	2.07	0.54
1:A:700:GLY:O	1:A:732:ILE:HA	2.07	0.54
1:B:404:ILE:O	1:B:405:ILE:C	2.45	0.54
1:C:420:LEU:HD21	1:C:466:PHE:CD2	2.41	0.54
1:C:536:ARG:CG	1:C:536:ARG:NH1	2.62	0.54
1:D:294:ASP:HA	1:D:297:VAL:HG23	1.90	0.54
1:C:569:THR:CG2	1:C:572:ASN:H	2.21	0.54
1:D:516:LYS:HA	1:D:516:LYS:CE	2.37	0.54
1:A:613:VAL:HA	1:A:663:HIS:O	2.08	0.54
1:B:347:GLY:CA	1:B:444:PRO:HG3	2.38	0.54
1:B:350:LEU:HD12	1:B:350:LEU:N	2.10	0.54
1:A:583:ARG:NH1	1:D:737:ASP:HB3	2.22	0.54
1:E:267:GLU:HA	1:E:270:LEU:CD1	2.38	0.54
1:B:469:THR:HG22	1:B:470:ALA:N	2.23	0.54
1:C:282:SER:HA	1:C:286:SER:HB3	1.90	0.54
1:D:250:GLN:HA	1:D:253:THR:HG1	1.73	0.54
1:E:424:ASP:N	1:E:424:ASP:OD1	2.41	0.54
1:C:250:GLN:HA	1:C:253:THR:HG1	1.74	0.53
1:D:416:PRO:HD2	1:D:464:VAL:HG13	1.89	0.53
1:D:536:ARG:NH1	1:D:536:ARG:HG3	2.16	0.53
1:D:599:LEU:H	1:D:599:LEU:HD22	1.73	0.53
1:E:332:ILE:HD12	1:E:367:ILE:HD11	1.89	0.53
1:E:506:LEU:C	1:E:506:LEU:HD12	2.28	0.53
1:C:338:VAL:HG21	1:E:552:ARG:HG3	1.90	0.53
1:E:560:ALA:O	1:E:562:GLU:HG3	2.08	0.53
1:F:510:ILE:HG22	1:F:515:LEU:O	2.08	0.53
1:A:540:VAL:CG2	2:A:783:ADP:C8	2.90	0.53
1:A:636:ALA:C	1:A:638:ALA:H	2.10	0.53
1:E:506:LEU:CD2	1:E:522:LEU:HD21	2.37	0.53
1:F:516:LYS:HE2	1:F:516:LYS:HA	1.90	0.53
1:A:282:SER:HA	1:A:286:SER:HB3	1.90	0.53
1:C:700:GLY:O	1:C:732:ILE:HA	2.07	0.53
1:D:438:MET:O	1:D:439:LEU:C	2.47	0.53
1:E:492:TYR:OH	2:E:783:ADP:N6	2.41	0.53
1:A:250:GLN:HA	1:A:253:THR:HG1	1.74	0.53
1:B:438:MET:O	1:B:439:LEU:C	2.45	0.53
1:C:368:ALA:HB2	1:C:417:VAL:HG21	1.90	0.53
1:C:599:LEU:HD22	1:C:599:LEU:N	2.23	0.53
1:C:644:ARG:NE	1:C:657:HIS:CG	2.77	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:590:GLU:HA	1:D:697:ARG:CD	2.38	0.53
1:A:705:ILE:HD11	1:A:761:LEU:HD21	1.91	0.53
1:A:747:GLU:H	1:A:747:GLU:CD	2.12	0.53
1:B:300:PRO:HB2	1:B:414:LEU:HB3	1.90	0.53
1:B:305:THR:HB	1:B:415:ASN:HD22	1.74	0.53
1:D:536:ARG:CG	1:D:536:ARG:NH1	2.64	0.53
1:E:461:LEU:O	1:E:464:VAL:HG23	2.09	0.53
1:E:534:TYR:N	1:E:534:TYR:CD1	2.77	0.53
1:F:362:SER:HB2	2:F:783:ADP:H5'1	1.89	0.53
1:A:347:GLY:CA	1:A:444:PRO:HG3	2.39	0.53
1:D:317:LEU:O	1:D:317:LEU:HD23	2.09	0.53
1:F:347:GLY:CA	1:F:444:PRO:HG3	2.37	0.53
1:B:557:ALA:HB3	1:B:566:ILE:HD11	1.90	0.53
1:C:438:MET:O	1:C:439:LEU:C	2.46	0.53
1:E:611:ILE:HD12	1:E:681:THR:CG2	2.39	0.53
1:F:644:ARG:NE	1:F:657:HIS:CG	2.77	0.53
1:A:380:LEU:HD12	1:A:423:ILE:HG23	1.91	0.53
1:B:380:LEU:HB2	1:B:422:GLU:O	2.08	0.53
1:D:533:TYR:HB3	1:D:580:ARG:HD2	1.91	0.53
1:E:307:ASP:HB3	1:E:309:LEU:HD21	1.91	0.53
1:E:569:THR:CG2	1:E:572:ASN:H	2.22	0.53
1:A:408:MET:H	1:A:408:MET:HE2	1.74	0.53
1:B:277:GLU:C	1:B:279:ILE:N	2.62	0.53
1:E:599:LEU:HD22	1:E:599:LEU:H	1.74	0.53
1:F:439:LEU:O	1:F:441:VAL:N	2.41	0.53
1:A:438:MET:O	1:A:439:LEU:C	2.46	0.53
1:A:635:SER:O	1:A:638:ALA:HB3	2.09	0.53
1:B:404:ILE:HG23	1:B:418:PHE:HE2	1.73	0.53
1:E:328:VAL:O	1:E:332:ILE:HG12	2.09	0.53
1:B:276:TYR:CE2	1:F:246:THR:HG21	2.43	0.53
1:F:334:GLU:O	1:F:338:VAL:HB	2.09	0.53
1:B:636:ALA:C	1:B:638:ALA:H	2.12	0.52
1:B:644:ARG:NE	1:B:657:HIS:CG	2.77	0.52
1:B:671:VAL:CG2	1:B:672:PRO:HD2	2.37	0.52
1:E:506:LEU:HD21	1:E:522:LEU:CD2	2.38	0.52
1:E:593:VAL:HG13	1:E:693:ARG:O	2.08	0.52
1:F:506:LEU:HD21	1:F:522:LEU:CD2	2.37	0.52
1:B:747:GLU:H	1:B:747:GLU:CD	2.10	0.52
1:C:313:GLU:O	1:C:315:GLY:N	2.43	0.52
1:D:497:LYS:HG2	1:D:540:VAL:HG12	1.91	0.52
1:D:734:ALA:HB1	1:D:735:PRO:HD2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:282:SER:HA	1:F:286:SER:HB3	1.90	0.52
1:A:313:GLU:O	1:A:315:GLY:N	2.42	0.52
1:E:536:ARG:NH1	1:E:536:ARG:CG	2.64	0.52
1:B:336:LEU:HA	1:B:339:GLN:HB3	1.92	0.52
1:A:644:ARG:HB3	1:C:616:SER:HB2	1.92	0.52
1:E:469:THR:HG22	1:E:470:ALA:N	2.25	0.52
1:E:505:LEU:CD2	1:E:544:GLU:HG3	2.37	0.52
1:F:247:GLY:C	1:F:249:VAL:H	2.13	0.52
1:F:493:THR:O	1:F:494:GLU:C	2.48	0.52
1:A:644:ARG:NE	1:A:657:HIS:CG	2.77	0.52
1:B:461:LEU:O	1:B:464:VAL:HG23	2.10	0.52
1:B:635:SER:O	1:B:638:ALA:HB3	2.10	0.52
1:C:347:GLY:CA	1:C:444:PRO:HG3	2.40	0.52
1:C:636:ALA:C	1:C:638:ALA:H	2.12	0.52
1:E:336:LEU:O	1:E:339:GLN:N	2.43	0.52
1:F:250:GLN:HA	1:F:253:THR:HG1	1.73	0.52
1:A:404:ILE:O	1:A:405:ILE:C	2.47	0.52
1:B:548:ALA:O	1:B:549:ALA:C	2.47	0.52
1:C:406:GLN:O	1:C:407:GLY:C	2.48	0.52
1:F:378:ILE:HD13	1:F:420:LEU:CD1	2.39	0.52
1:F:448:SER:O	1:F:460:ASP:HA	2.08	0.52
1:F:469:THR:HG22	1:F:470:ALA:N	2.24	0.52
1:A:290:ARG:O	1:A:293:ILE:HG22	2.10	0.52
1:A:406:GLN:O	1:A:407:GLY:C	2.48	0.52
1:A:469:THR:O	1:A:470:ALA:HB2	2.09	0.52
1:B:448:SER:O	1:B:460:ASP:HA	2.10	0.52
1:D:378:ILE:HD13	1:D:420:LEU:CD1	2.40	0.52
1:A:274:ASN:C	1:A:276:TYR:N	2.64	0.52
1:C:328:VAL:O	1:C:332:ILE:HG12	2.10	0.52
1:E:516:LYS:CE	1:E:516:LYS:HA	2.40	0.52
1:E:747:GLU:H	1:E:747:GLU:CD	2.13	0.52
1:B:414:LEU:C	1:B:416:PRO:HD3	2.30	0.52
1:D:347:GLY:CA	1:D:444:PRO:HG3	2.38	0.52
1:D:569:THR:CG2	1:D:572:ASN:H	2.22	0.52
1:E:496:GLU:O	1:E:500:ILE:HG13	2.10	0.52
1:F:599:LEU:HD22	1:F:599:LEU:H	1.75	0.52
1:F:611:ILE:HD12	1:F:681:THR:CG2	2.39	0.52
1:F:686:LEU:O	1:F:686:LEU:HD22	2.10	0.52
1:F:714:ILE:HB	1:F:735:PRO:HG2	1.91	0.52
1:B:569:THR:HG22	1:B:572:ASN:OD1	2.10	0.51
1:B:706:THR:OG1	1:B:710:ARG:HB2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:506:LEU:HB3	1:C:507:PRO:CD	2.40	0.51
1:C:522:LEU:HB3	1:C:568:VAL:CG1	2.36	0.51
1:D:274:ASN:C	1:D:276:TYR:N	2.63	0.51
1:D:548:ALA:O	1:D:549:ALA:C	2.49	0.51
1:D:557:ALA:HB3	1:D:566:ILE:HD11	1.92	0.51
1:D:613:VAL:HG23	1:D:685:ALA:HB1	1.92	0.51
1:A:414:LEU:C	1:A:416:PRO:HD3	2.31	0.51
1:A:602:THR:HG21	1:A:604:VAL:HG22	1.90	0.51
1:A:624:LEU:HD12	1:A:624:LEU:H	1.74	0.51
1:B:408:MET:H	1:B:408:MET:HE2	1.75	0.51
1:C:656:PHE:C	1:C:658:GLU:H	2.13	0.51
1:D:522:LEU:HB3	1:D:568:VAL:CG1	2.39	0.51
1:F:277:GLU:C	1:F:279:ILE:N	2.63	0.51
1:A:308:LYS:O	1:A:309:LEU:HD23	2.11	0.51
1:A:516:LYS:HA	1:A:516:LYS:CE	2.41	0.51
1:A:714:ILE:HG23	1:A:715:GLY:N	2.24	0.51
1:B:506:LEU:HD12	1:B:506:LEU:O	2.10	0.51
1:E:273:LEU:HD13	1:E:289:ILE:HD12	1.92	0.51
1:E:404:ILE:O	1:E:405:ILE:C	2.49	0.51
1:F:362:SER:HB2	2:F:783:ADP:C5'	2.40	0.51
1:F:438:MET:O	1:F:439:LEU:C	2.48	0.51
1:A:569:THR:CG2	1:A:572:ASN:H	2.22	0.51
1:B:409:LYS:C	1:B:411:ALA:H	2.13	0.51
1:B:624:LEU:H	1:B:624:LEU:HD12	1.75	0.51
1:D:282:SER:HA	1:D:286:SER:HB3	1.91	0.51
1:B:274:ASN:C	1:B:276:TYR:N	2.62	0.51
1:B:380:LEU:HD12	1:B:423:ILE:CG2	2.40	0.51
1:C:334:GLU:O	1:C:338:VAL:HB	2.11	0.51
1:C:624:LEU:H	1:C:624:LEU:HD12	1.76	0.51
1:D:273:LEU:HD13	1:D:289:ILE:HD12	1.92	0.51
1:F:506:LEU:C	1:F:506:LEU:HD12	2.30	0.51
1:F:569:THR:HG22	1:F:572:ASN:OD1	2.11	0.51
1:F:533:TYR:HB3	1:F:580:ARG:HD2	1.92	0.51
1:A:448:SER:O	1:A:460:ASP:HA	2.11	0.51
1:A:462:SER:HB2	1:A:463:LYS:HD2	1.93	0.51
1:A:533:TYR:HB3	1:A:580:ARG:HD2	1.92	0.51
1:B:247:GLY:C	1:B:249:VAL:H	2.14	0.51
1:C:448:SER:O	1:C:460:ASP:HA	2.11	0.51
1:D:308:LYS:O	1:D:309:LEU:HD23	2.11	0.51
1:D:420:LEU:HD21	1:D:466:PHE:CD2	2.46	0.51
1:E:247:GLY:C	1:E:249:VAL:H	2.14	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:262:PRO:CD	1:E:301:TRP:HB2	2.40	0.51
1:E:274:ASN:C	1:E:276:TYR:N	2.64	0.51
1:F:273:LEU:HD13	1:F:289:ILE:HD12	1.93	0.51
1:A:322:HIS:CE1	1:A:363:LEU:HD23	2.46	0.51
1:A:438:MET:O	1:A:440:GLU:N	2.44	0.51
1:C:747:GLU:H	1:C:747:GLU:CD	2.13	0.51
1:D:404:ILE:O	1:D:405:ILE:C	2.49	0.51
1:E:569:THR:HG22	1:E:572:ASN:OD1	2.11	0.51
1:F:406:GLN:O	1:F:407:GLY:C	2.49	0.51
1:A:286:SER:O	1:A:290:ARG:HB2	2.11	0.51
1:A:350:LEU:HD23	1:A:487:ILE:HD11	1.92	0.51
1:B:305:THR:HB	1:B:415:ASN:ND2	2.25	0.51
1:C:308:LYS:O	1:C:309:LEU:HD23	2.11	0.51
1:C:404:ILE:HG23	1:C:418:PHE:HE2	1.71	0.51
1:D:300:PRO:O	1:D:301:TRP:CD2	2.64	0.51
1:D:438:MET:O	1:D:440:GLU:N	2.44	0.51
2:D:783:ADP:O2A	2:D:783:ADP:C4'	2.59	0.51
1:E:420:LEU:HD21	1:E:466:PHE:CD2	2.45	0.51
1:E:584:TYR:O	1:E:584:TYR:HD1	1.91	0.51
1:A:599:LEU:HD22	1:A:599:LEU:H	1.76	0.51
1:B:368:ALA:HB2	1:B:417:VAL:HG21	1.92	0.51
1:B:506:LEU:HD21	1:B:522:LEU:CD2	2.40	0.51
1:B:516:LYS:HA	1:B:516:LYS:HZ1	1.76	0.51
1:D:644:ARG:NE	1:D:657:HIS:CG	2.78	0.51
1:E:347:GLY:CA	1:E:444:PRO:HG3	2.40	0.51
1:E:602:THR:HG22	1:E:603:THR:N	2.26	0.51
1:F:438:MET:O	1:F:440:GLU:N	2.44	0.51
1:F:497:LYS:HG2	1:F:540:VAL:HG12	1.92	0.51
1:A:334:GLU:O	1:A:338:VAL:HB	2.11	0.51
1:B:250:GLN:HA	1:B:253:THR:HG1	1.74	0.51
1:B:286:SER:O	1:B:290:ARG:HB2	2.11	0.51
1:B:273:LEU:HD13	1:B:289:ILE:HD12	1.93	0.51
1:C:336:LEU:HA	1:C:339:GLN:HB3	1.93	0.51
1:D:611:ILE:HD12	1:D:681:THR:CG2	2.41	0.51
1:C:337:ALA:HB3	1:E:556:LYS:HA	1.92	0.51
1:E:644:ARG:NE	1:E:657:HIS:CG	2.78	0.51
1:F:624:LEU:HD12	1:F:624:LEU:H	1.75	0.51
1:F:586:GLN:NE2	1:F:698:GLU:HA	2.16	0.51
1:F:700:GLY:O	1:F:732:ILE:HA	2.10	0.51
1:F:705:ILE:HD11	1:F:761:LEU:HD21	1.92	0.51
1:B:274:ASN:O	1:B:276:TYR:N	2.43	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:506:LEU:CD2	1:B:522:LEU:HD21	2.38	0.50
1:D:550:ILE:O	1:D:551:CYS:C	2.47	0.50
1:E:557:ALA:HB3	1:E:566:ILE:HD11	1.93	0.50
1:A:277:GLU:C	1:A:279:ILE:N	2.63	0.50
1:B:322:HIS:CE1	1:B:363:LEU:HD23	2.46	0.50
1:B:621:LYS:O	1:B:661:ASP:OD1	2.29	0.50
1:D:277:GLU:C	1:D:279:ILE:N	2.63	0.50
1:D:313:GLU:O	1:D:315:GLY:N	2.44	0.50
1:D:448:SER:O	1:D:460:ASP:HA	2.10	0.50
1:D:536:ARG:HH11	1:D:536:ARG:CB	2.25	0.50
1:D:532:ARG:HG2	1:D:584:TYR:CD2	2.46	0.50
1:E:573:LEU:HG	1:E:577:ILE:HD11	1.93	0.50
1:C:548:ALA:O	1:C:549:ALA:C	2.46	0.50
1:D:714:ILE:HG23	1:D:715:GLY:N	2.25	0.50
1:F:549:ALA:HA	1:F:552:ARG:NH2	2.26	0.50
1:B:317:LEU:HD23	1:B:317:LEU:C	2.32	0.50
1:C:274:ASN:C	1:C:276:TYR:N	2.65	0.50
1:C:329:LYS:C	1:C:331:ARG:N	2.64	0.50
1:C:414:LEU:C	1:C:416:PRO:HD3	2.31	0.50
1:C:536:ARG:CB	1:C:536:ARG:HH11	2.24	0.50
1:D:589:THR:O	1:D:697:ARG:HD2	2.12	0.50
1:D:624:LEU:HD12	1:D:624:LEU:H	1.76	0.50
1:F:286:SER:O	1:F:290:ARG:HB2	2.12	0.50
1:A:247:GLY:C	1:A:249:VAL:H	2.14	0.50
1:B:299:LEU:O	1:B:299:LEU:HD12	2.11	0.50
1:C:300:PRO:HG3	1:C:412:GLY:HA2	1.94	0.50
1:D:406:GLN:O	1:D:407:GLY:C	2.50	0.50
1:D:462:SER:HB2	1:D:463:LYS:HD2	1.94	0.50
1:D:686:LEU:HD22	1:D:686:LEU:O	2.11	0.50
1:E:448:SER:O	1:E:460:ASP:HA	2.12	0.50
1:F:546:GLN:OE1	1:F:577:ILE:HB	2.11	0.50
1:A:329:LYS:O	1:A:331:ARG:N	2.44	0.50
1:A:637:GLN:HG2	1:A:637:GLN:O	2.11	0.50
1:B:438:MET:O	1:B:440:GLU:N	2.45	0.50
1:C:313:GLU:O	1:C:314:ALA:C	2.50	0.50
1:C:439:LEU:CD2	1:C:439:LEU:H	2.20	0.50
1:A:534:TYR:CD1	1:A:534:TYR:N	2.80	0.50
1:D:313:GLU:O	1:D:314:ALA:C	2.50	0.50
1:D:593:VAL:HG13	1:D:693:ARG:O	2.12	0.50
1:E:438:MET:O	1:E:440:GLU:N	2.43	0.50
1:F:404:ILE:O	1:F:405:ILE:C	2.50	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:424:ASP:HB2	1:A:475:THR:CG2	2.42	0.50
1:B:334:GLU:O	1:B:338:VAL:HB	2.11	0.50
1:C:317:LEU:HD23	1:C:317:LEU:C	2.31	0.50
1:C:350:LEU:HD23	1:C:487:ILE:HD11	1.93	0.50
1:D:247:GLY:C	1:D:249:VAL:H	2.15	0.50
1:E:733:ILE:HA	1:E:756:ILE:O	2.12	0.50
1:A:602:THR:CG2	1:A:604:VAL:HG22	2.42	0.50
1:C:277:GLU:C	1:C:279:ILE:N	2.63	0.50
1:C:424:ASP:HB2	1:C:475:THR:CG2	2.42	0.50
1:C:461:LEU:O	1:C:464:VAL:HG23	2.11	0.50
1:E:469:THR:O	1:E:470:ALA:HB2	2.11	0.50
1:F:424:ASP:HB2	1:F:475:THR:CG2	2.42	0.50
1:A:732:ILE:HG21	1:A:753:LEU:HD13	1.94	0.49
1:C:362:SER:CB	2:C:783:ADP:H5'1	2.41	0.49
1:C:438:MET:O	1:C:440:GLU:N	2.45	0.49
1:C:593:VAL:O	1:C:595:VAL:HG23	2.11	0.49
1:E:439:LEU:CD2	1:E:439:LEU:H	2.19	0.49
1:A:313:GLU:O	1:A:314:ALA:C	2.49	0.49
1:A:424:ASP:N	1:A:424:ASP:OD1	2.45	0.49
1:B:596:VAL:HG23	1:B:685:ALA:HB2	1.93	0.49
1:B:687:VAL:O	1:B:691:THR:HG23	2.12	0.49
1:C:408:MET:H	1:C:408:MET:HE2	1.77	0.49
1:C:702:THR:CG2	1:C:702:THR:O	2.60	0.49
1:D:569:THR:HG23	1:D:572:ASN:H	1.78	0.49
1:F:336:LEU:O	1:F:339:GLN:N	2.45	0.49
1:B:462:SER:HB2	1:B:463:LYS:HD2	1.95	0.49
1:D:424:ASP:HB2	1:D:475:THR:CG2	2.41	0.49
1:E:313:GLU:O	1:E:315:GLY:N	2.44	0.49
1:E:359:GLY:HA2	2:E:783:ADP:C5'	2.42	0.49
1:E:407:GLY:HA3	1:E:418:PHE:CZ	2.47	0.49
1:A:520:LEU:HA	1:A:566:ILE:O	2.12	0.49
1:B:299:LEU:HD13	1:B:301:TRP:CZ2	2.47	0.49
1:F:404:ILE:HG23	1:F:418:PHE:HE2	1.70	0.49
1:A:686:LEU:O	1:A:686:LEU:HD22	2.12	0.49
1:B:550:ILE:O	1:B:551:CYS:C	2.49	0.49
1:C:506:LEU:HD12	1:C:506:LEU:O	2.13	0.49
1:D:359:GLY:CA	2:D:783:ADP:O5'	2.58	0.49
1:E:255:LYS:NZ	1:E:255:LYS:HB3	2.28	0.49
1:E:406:GLN:O	1:E:407:GLY:C	2.51	0.49
1:F:455:ILE:O	1:F:456:GLU:C	2.51	0.49
1:A:464:VAL:O	1:A:466:PHE:CD1	2.63	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:637:GLN:HG2	1:D:637:GLN:O	2.11	0.49
1:D:739:GLU:C	1:D:741:ASP:H	2.15	0.49
1:D:742:ILE:O	1:D:742:ILE:HG22	2.13	0.49
1:E:637:GLN:HG2	1:E:637:GLN:O	2.12	0.49
1:A:506:LEU:HD21	1:A:522:LEU:CD2	2.42	0.49
1:B:313:GLU:O	1:B:315:GLY:N	2.46	0.49
1:F:308:LYS:O	1:F:309:LEU:HD23	2.12	0.49
1:F:548:ALA:O	1:F:549:ALA:C	2.51	0.49
1:A:404:ILE:HG23	1:A:418:PHE:HE2	1.72	0.49
1:A:596:VAL:HG23	1:A:685:ALA:HB2	1.94	0.49
1:A:734:ALA:HB1	1:A:735:PRO:CD	2.42	0.49
1:B:378:ILE:HD13	1:B:420:LEU:CD1	2.43	0.49
1:B:533:TYR:HB3	1:B:580:ARG:HD2	1.94	0.49
1:B:602:THR:HG21	1:B:604:VAL:HG22	1.94	0.49
1:D:286:SER:O	1:D:290:ARG:HB2	2.12	0.49
1:E:286:SER:O	1:E:290:ARG:HB2	2.13	0.49
1:E:734:ALA:HB1	1:E:735:PRO:CD	2.42	0.49
1:F:246:THR:HG23	1:F:250:GLN:NE2	2.28	0.49
1:F:255:LYS:NZ	1:F:255:LYS:HB3	2.28	0.49
1:A:407:GLY:HA3	1:A:418:PHE:CZ	2.48	0.49
1:A:708:ARG:NH2	1:C:593:VAL:HB	2.27	0.49
1:C:584:TYR:O	1:C:584:TYR:HD1	1.95	0.49
1:D:705:ILE:HD11	1:D:761:LEU:HD21	1.94	0.49
1:B:573:LEU:HG	1:B:577:ILE:HD11	1.95	0.48
1:D:317:LEU:C	1:D:317:LEU:HD23	2.33	0.48
1:E:313:GLU:O	1:E:314:ALA:C	2.51	0.48
1:A:336:LEU:HA	1:A:339:GLN:HB3	1.95	0.48
1:B:705:ILE:HD11	1:B:761:LEU:HD21	1.95	0.48
1:C:506:LEU:O	1:C:507:PRO:C	2.49	0.48
1:C:756:ILE:HG13	1:C:767:HIS:CD2	2.48	0.48
1:D:255:LYS:HB3	1:D:255:LYS:NZ	2.28	0.48
1:E:455:ILE:O	1:E:456:GLU:C	2.51	0.48
1:F:551:CYS:O	1:F:554:ALA:HB3	2.13	0.48
1:B:444:PRO:HA	1:B:447:ASN:ND2	2.28	0.48
1:B:714:ILE:HB	1:B:735:PRO:HG2	1.94	0.48
1:C:247:GLY:C	1:C:249:VAL:H	2.15	0.48
1:C:501:VAL:HG13	1:C:547:LEU:HD11	1.95	0.48
1:C:635:SER:O	1:C:638:ALA:HB3	2.13	0.48
1:D:329:LYS:C	1:D:331:ARG:N	2.63	0.48
1:D:656:PHE:CE2	1:D:690:LEU:HD11	2.48	0.48
1:E:262:PRO:HG3	1:E:302:THR:OG1	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:602:THR:HG21	1:E:604:VAL:HG22	1.95	0.48
1:C:536:ARG:HG3	1:C:536:ARG:NH1	2.16	0.48
1:C:550:ILE:O	1:C:551:CYS:C	2.51	0.48
1:E:602:THR:C	1:E:604:VAL:H	2.16	0.48
1:F:313:GLU:O	1:F:315:GLY:N	2.47	0.48
1:A:304:GLU:O	1:A:305:THR:C	2.50	0.48
1:A:506:LEU:CD2	1:A:522:LEU:HD21	2.44	0.48
1:A:599:LEU:O	1:A:720:LYS:HE2	2.13	0.48
1:B:642:TYR:CE1	1:B:709:GLY:HA3	2.48	0.48
1:C:642:TYR:CD2	1:C:761:LEU:HD12	2.49	0.48
1:E:686:LEU:O	1:E:686:LEU:HD22	2.14	0.48
1:A:349:ILE:HD12	1:A:349:ILE:O	2.14	0.48
1:A:621:LYS:O	1:A:661:ASP:OD1	2.31	0.48
1:B:350:LEU:H	1:B:350:LEU:CD1	2.10	0.48
1:C:404:ILE:O	1:C:405:ILE:C	2.51	0.48
1:C:705:ILE:HD11	1:C:761:LEU:CD2	2.44	0.48
1:E:424:ASP:HB2	1:E:475:THR:CG2	2.42	0.48
1:F:331:ARG:HH22	1:F:485:GLU:CD	2.17	0.48
1:F:656:PHE:CG	1:F:657:HIS:N	2.80	0.48
1:A:329:LYS:C	1:A:331:ARG:N	2.65	0.48
1:C:462:SER:HB2	1:C:463:LYS:HD2	1.94	0.48
1:E:262:PRO:HD2	1:E:301:TRP:HB3	1.94	0.48
1:E:656:PHE:CG	1:E:657:HIS:N	2.82	0.48
1:F:274:ASN:C	1:F:276:TYR:N	2.64	0.48
1:F:407:GLY:HA3	1:F:418:PHE:CZ	2.49	0.48
1:F:756:ILE:HG13	1:F:767:HIS:CD2	2.49	0.48
1:B:296:LEU:HD23	1:B:299:LEU:HD11	1.95	0.48
1:B:406:GLN:O	1:B:407:GLY:C	2.51	0.48
1:B:536:ARG:HH11	1:B:536:ARG:CB	2.27	0.48
1:C:273:LEU:HD13	1:C:289:ILE:HD12	1.95	0.48
1:C:712:LEU:HB3	1:C:713:PRO:CD	2.43	0.48
1:E:408:MET:H	1:E:408:MET:HE2	1.79	0.48
1:E:462:SER:HB2	1:E:463:LYS:HD2	1.95	0.48
1:E:590:GLU:HA	1:E:697:ARG:HD3	1.96	0.48
1:F:547:LEU:HA	1:F:547:LEU:HD23	1.75	0.48
1:F:642:TYR:CE1	1:F:709:GLY:HA3	2.49	0.48
1:F:739:GLU:C	1:F:741:ASP:H	2.17	0.48
1:D:656:PHE:C	1:D:658:GLU:H	2.16	0.48
1:E:579:LYS:H	1:E:579:LYS:NZ	2.12	0.48
1:E:635:SER:O	1:E:638:ALA:HB3	2.14	0.48
1:F:336:LEU:HA	1:F:339:GLN:HB3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:526:ALA:O	1:B:530:ILE:HG13	2.14	0.48
1:C:286:SER:O	1:C:290:ARG:HB2	2.14	0.48
1:E:270:LEU:HD21	1:E:296:LEU:CD2	2.43	0.48
1:E:334:GLU:O	1:E:338:VAL:HB	2.14	0.48
1:E:357:GLY:H	2:E:783:ADP:PB	2.37	0.48
1:F:621:LYS:O	1:F:661:ASP:OD1	2.32	0.48
1:A:350:LEU:CD1	1:A:350:LEU:H	2.07	0.47
1:B:246:THR:HG23	1:B:250:GLN:NE2	2.29	0.47
1:C:656:PHE:CG	1:C:657:HIS:N	2.82	0.47
1:D:678:ALA:O	1:D:682:MET:HG2	2.14	0.47
1:F:536:ARG:HG3	1:F:536:ARG:NH1	2.21	0.47
1:C:255:LYS:NZ	1:C:255:LYS:HB3	2.28	0.47
1:C:329:LYS:O	1:C:331:ARG:N	2.47	0.47
1:D:336:LEU:HA	1:D:339:GLN:HB3	1.96	0.47
1:E:277:GLU:C	1:E:279:ILE:N	2.64	0.47
1:E:416:PRO:HG2	1:E:464:VAL:HG13	1.96	0.47
1:F:420:LEU:HD21	1:F:466:PHE:CD2	2.47	0.47
1:F:642:TYR:CD2	1:F:761:LEU:HD12	2.49	0.47
1:F:362:SER:CB	2:F:783:ADP:H5'2	2.44	0.47
1:B:359:GLY:O	1:B:360:LYS:C	2.52	0.47
1:B:536:ARG:NH1	1:B:536:ARG:HG3	2.18	0.47
1:C:613:VAL:HG23	1:C:685:ALA:HB1	1.95	0.47
1:C:636:ALA:O	1:C:638:ALA:N	2.45	0.47
1:C:734:ALA:HB1	1:C:735:PRO:CD	2.45	0.47
1:C:733:ILE:HA	1:C:756:ILE:O	2.15	0.47
1:D:408:MET:H	1:D:408:MET:HE2	1.79	0.47
1:D:360:LYS:HD2	1:D:469:THR:HG23	1.95	0.47
1:D:529:ASP:O	1:D:530:ILE:C	2.51	0.47
1:E:276:TYR:CD1	1:E:277:GLU:N	2.83	0.47
1:B:424:ASP:HB2	1:B:475:THR:CG2	2.43	0.47
1:C:534:TYR:N	1:C:534:TYR:CD1	2.81	0.47
1:C:569:THR:HG23	1:C:571:LYS:N	2.16	0.47
1:E:317:LEU:HD23	1:E:317:LEU:C	2.34	0.47
1:E:414:LEU:C	1:E:416:PRO:HD3	2.33	0.47
1:E:546:GLN:O	1:E:549:ALA:HB3	2.15	0.47
1:E:717:LEU:O	1:E:717:LEU:HD22	2.14	0.47
1:B:313:GLU:O	1:B:314:ALA:C	2.52	0.47
1:B:656:PHE:C	1:B:658:GLU:H	2.16	0.47
1:B:739:GLU:C	1:B:741:ASP:H	2.17	0.47
1:D:604:VAL:O	1:D:604:VAL:HG23	2.12	0.47
1:E:336:LEU:HA	1:E:339:GLN:HB3	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:602:THR:C	1:E:604:VAL:N	2.67	0.47
1:E:656:PHE:C	1:E:658:GLU:H	2.17	0.47
1:F:546:GLN:O	1:F:549:ALA:HB3	2.14	0.47
1:A:478:GLY:N	1:A:479:PRO:HD2	2.30	0.47
1:C:407:GLY:HA3	1:C:418:PHE:CZ	2.49	0.47
1:C:546:GLN:O	1:C:549:ALA:HB3	2.15	0.47
1:C:733:ILE:CD1	1:C:768:ALA:HB2	2.45	0.47
1:D:464:VAL:O	1:D:466:PHE:CD1	2.64	0.47
1:E:364:ALA:O	1:E:365:LYS:C	2.53	0.47
1:F:313:GLU:O	1:F:314:ALA:C	2.53	0.47
1:F:536:ARG:CG	1:F:536:ARG:NH1	2.67	0.47
1:F:599:LEU:HD22	1:F:599:LEU:N	2.29	0.47
1:A:246:THR:HG23	1:A:250:GLN:NE2	2.29	0.47
1:A:270:LEU:HD21	1:A:296:LEU:CD2	2.44	0.47
1:A:452:ASP:O	1:A:455:ILE:HG22	2.15	0.47
1:C:611:ILE:HD12	1:C:681:THR:CG2	2.45	0.47
1:D:334:GLU:O	1:D:338:VAL:HB	2.15	0.47
1:E:308:LYS:O	1:E:309:LEU:HD23	2.14	0.47
1:E:705:ILE:HD11	1:E:761:LEU:HD21	1.96	0.47
1:F:613:VAL:HG23	1:F:685:ALA:HB1	1.97	0.47
1:F:656:PHE:C	1:F:658:GLU:H	2.17	0.47
1:A:647:THR:HG22	1:A:648:GLU:N	2.30	0.47
1:B:255:LYS:HB3	1:B:255:LYS:NZ	2.30	0.47
1:C:469:THR:O	1:C:470:ALA:HB2	2.15	0.47
1:E:705:ILE:HD12	1:E:705:ILE:HA	1.61	0.47
1:F:462:SER:HB2	1:F:463:LYS:HD2	1.95	0.47
1:F:645:SER:O	1:F:647:THR:N	2.47	0.47
1:F:493:THR:CG2	1:F:748:SER:HB2	2.20	0.47
1:B:452:ASP:O	1:B:455:ILE:HG22	2.15	0.47
1:B:331:ARG:HH22	1:B:485:GLU:CD	2.17	0.47
1:B:584:TYR:CE2	1:B:728:GLY:HA3	2.49	0.47
1:B:656:PHE:CG	1:B:657:HIS:N	2.83	0.47
1:C:520:LEU:HA	1:C:566:ILE:O	2.15	0.47
1:D:414:LEU:C	1:D:416:PRO:HD3	2.35	0.47
1:D:455:ILE:O	1:D:456:GLU:C	2.54	0.47
1:D:506:LEU:HD21	1:D:522:LEU:CD2	2.42	0.47
1:E:739:GLU:C	1:E:741:ASP:H	2.17	0.47
1:F:534:TYR:CD2	1:F:577:ILE:HD12	2.50	0.47
1:A:506:LEU:O	1:A:506:LEU:HD12	2.15	0.47
1:A:572:ASN:O	1:A:573:LEU:C	2.53	0.47
1:A:656:PHE:CG	1:A:657:HIS:N	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:680:ILE:HG22	1:A:705:ILE:HD13	1.97	0.47
1:B:255:LYS:O	1:B:258:GLU:HB3	2.15	0.47
1:B:260:GLY:O	1:B:261:MET:CB	2.63	0.47
1:B:276:TYR:CD1	1:B:277:GLU:N	2.83	0.47
1:B:282:SER:HB2	1:E:276:TYR:HH	1.80	0.47
1:B:455:ILE:O	1:B:456:GLU:C	2.53	0.47
1:B:569:THR:CG2	1:B:572:ASN:H	2.27	0.47
1:B:599:LEU:HD21	1:B:700:GLY:C	2.35	0.47
1:C:712:LEU:HB3	1:C:713:PRO:HD2	1.97	0.47
1:E:274:ASN:O	1:E:276:TYR:N	2.44	0.47
1:F:656:PHE:CE2	1:F:690:LEU:HD11	2.50	0.47
1:A:255:LYS:HB3	1:A:255:LYS:NZ	2.29	0.47
1:A:645:SER:O	1:A:647:THR:N	2.48	0.47
1:B:579:LYS:H	1:B:579:LYS:NZ	2.13	0.47
1:B:732:ILE:HD13	1:B:732:ILE:O	2.15	0.47
1:E:329:LYS:C	1:E:331:ARG:N	2.68	0.47
1:E:645:SER:O	1:E:647:THR:N	2.48	0.47
1:E:621:LYS:O	1:E:661:ASP:OD1	2.33	0.47
1:A:255:LYS:O	1:A:258:GLU:HB3	2.16	0.46
1:A:317:LEU:C	1:A:317:LEU:HD23	2.34	0.46
1:A:331:ARG:HH22	1:A:485:GLU:CD	2.18	0.46
2:A:783:ADP:PA	2:A:783:ADP:O4'	2.71	0.46
1:B:636:ALA:O	1:B:638:ALA:N	2.46	0.46
1:C:732:ILE:HG21	1:C:753:LEU:HD13	1.97	0.46
1:D:355:PRO:O	1:D:358:VAL:HG22	2.15	0.46
1:D:444:PRO:HA	1:D:447:ASN:ND2	2.30	0.46
1:D:702:THR:HG23	1:D:702:THR:O	2.16	0.46
1:E:331:ARG:HH22	1:E:485:GLU:CD	2.17	0.46
1:F:593:VAL:O	1:F:595:VAL:HG23	2.15	0.46
1:F:712:LEU:HB3	1:F:713:PRO:HD2	1.97	0.46
1:F:540:VAL:CG2	2:F:783:ADP:H1'	2.45	0.46
1:A:586:GLN:NE2	1:A:728:GLY:O	2.49	0.46
1:B:341:LEU:O	1:B:343:LYS:N	2.48	0.46
1:B:534:TYR:N	1:B:534:TYR:CD1	2.82	0.46
1:C:307:ASP:HB3	1:C:309:LEU:HD21	1.97	0.46
1:C:341:LEU:O	1:C:343:LYS:N	2.48	0.46
1:C:331:ARG:HH22	1:C:485:GLU:CD	2.18	0.46
1:D:246:THR:HG23	1:D:250:GLN:NE2	2.30	0.46
1:E:341:LEU:O	1:E:343:LYS:N	2.48	0.46
1:E:404:ILE:HG23	1:E:418:PHE:HE2	1.72	0.46
1:F:260:GLY:O	1:F:261:MET:CB	2.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:360:LYS:CD	1:F:469:THR:HG23	2.41	0.46
1:F:496:GLU:O	1:F:500:ILE:HG13	2.14	0.46
1:B:678:ALA:O	1:B:682:MET:HG2	2.15	0.46
1:C:380:LEU:HD12	1:C:423:ILE:CG2	2.46	0.46
1:C:444:PRO:HA	1:C:447:ASN:ND2	2.30	0.46
1:C:714:ILE:HG23	1:C:715:GLY:N	2.29	0.46
1:D:266:LYS:HG3	1:D:267:GLU:H	1.78	0.46
1:E:246:THR:HG23	1:E:250:GLN:NE2	2.30	0.46
1:E:307:ASP:O	1:E:309:LEU:HG	2.16	0.46
1:E:732:ILE:HG21	1:E:753:LEU:HD13	1.96	0.46
1:F:329:LYS:O	1:F:331:ARG:N	2.48	0.46
1:F:329:LYS:C	1:F:331:ARG:N	2.67	0.46
1:A:439:LEU:H	1:A:439:LEU:CD2	2.25	0.46
1:A:444:PRO:HA	1:A:447:ASN:ND2	2.28	0.46
1:A:536:ARG:CB	1:A:536:ARG:HH11	2.28	0.46
1:B:439:LEU:H	1:B:439:LEU:CD2	2.26	0.46
1:C:579:LYS:NZ	1:C:579:LYS:H	2.14	0.46
1:D:569:THR:HG22	1:D:572:ASN:OD1	2.15	0.46
1:D:636:ALA:O	1:D:638:ALA:N	2.40	0.46
1:E:636:ALA:C	1:E:638:ALA:H	2.17	0.46
1:A:409:LYS:C	1:A:411:ALA:H	2.17	0.46
1:A:380:LEU:HD12	1:A:423:ILE:CG2	2.46	0.46
1:A:642:TYR:CE1	1:A:709:GLY:HA3	2.50	0.46
1:B:424:ASP:OD1	1:B:424:ASP:N	2.49	0.46
1:B:637:GLN:O	1:B:637:GLN:HG2	2.15	0.46
1:C:656:PHE:C	1:C:658:GLU:N	2.68	0.46
1:D:478:GLY:N	1:D:479:PRO:HD2	2.31	0.46
1:E:260:GLY:O	1:E:261:MET:CB	2.63	0.46
1:F:352:LEU:HB3	1:F:360:LYS:HG2	1.96	0.46
1:F:637:GLN:HG2	1:F:637:GLN:O	2.16	0.46
1:F:734:ALA:HB1	1:F:735:PRO:CD	2.46	0.46
1:A:274:ASN:O	1:A:276:TYR:N	2.46	0.46
1:C:536:ARG:CB	1:C:536:ARG:NH1	2.79	0.46
1:C:596:VAL:HG23	1:C:685:ALA:HB2	1.97	0.46
1:D:331:ARG:HH22	1:D:485:GLU:CD	2.18	0.46
1:E:368:ALA:HB2	1:E:417:VAL:HG21	1.97	0.46
1:E:478:GLY:N	1:E:479:PRO:HD2	2.30	0.46
1:F:444:PRO:HA	1:F:447:ASN:ND2	2.29	0.46
1:F:569:THR:HG23	1:F:572:ASN:H	1.79	0.46
1:A:311:LEU:O	1:A:312:LYS:C	2.54	0.46
1:A:569:THR:HG22	1:A:572:ASN:OD1	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:710:ARG:HG2	1:B:710:ARG:HH21	1.81	0.46
1:B:734:ALA:HB1	1:B:735:PRO:CD	2.45	0.46
2:B:783:ADP:H2'	2:B:783:ADP:N3	2.30	0.46
1:C:246:THR:HG23	1:C:250:GLN:NE2	2.30	0.46
1:C:645:SER:O	1:C:647:THR:N	2.49	0.46
1:E:322:HIS:CE1	1:E:363:LEU:HD23	2.51	0.46
1:E:409:LYS:C	1:E:411:ALA:H	2.19	0.46
1:E:444:PRO:HA	1:E:447:ASN:ND2	2.30	0.46
1:F:322:HIS:CE1	1:F:363:LEU:HD23	2.50	0.46
1:F:409:LYS:C	1:F:411:ALA:H	2.18	0.46
1:A:260:GLY:O	1:A:261:MET:CB	2.64	0.46
1:A:505:LEU:CD2	1:A:544:GLU:HG3	2.44	0.46
1:A:604:VAL:HG23	1:A:604:VAL:O	2.16	0.46
1:B:329:LYS:C	1:B:331:ARG:N	2.66	0.46
1:C:266:LYS:HG3	1:C:267:GLU:H	1.80	0.46
1:D:407:GLY:HA3	1:D:418:PHE:CZ	2.50	0.46
1:D:481:ARG:O	1:D:481:ARG:HG2	2.16	0.46
1:D:656:PHE:CG	1:D:657:HIS:N	2.84	0.46
1:E:355:PRO:O	1:E:358:VAL:HG22	2.15	0.46
1:E:506:LEU:HD12	1:E:506:LEU:O	2.15	0.46
1:E:642:TYR:CE1	1:E:709:GLY:HA3	2.51	0.46
1:A:456:GLU:OE2	1:C:291:ASN:ND2	2.49	0.46
1:A:636:ALA:O	1:A:638:ALA:N	2.43	0.46
1:B:290:ARG:HH12	1:E:273:LEU:HD21	1.80	0.46
1:C:260:GLY:O	1:C:261:MET:CB	2.64	0.46
1:C:510:ILE:HG22	1:C:515:LEU:O	2.15	0.46
1:C:569:THR:HG22	1:C:572:ASN:OD1	2.16	0.46
1:D:329:LYS:O	1:D:331:ARG:N	2.48	0.46
1:D:367:ILE:HG22	1:D:368:ALA:N	2.28	0.46
1:D:350:LEU:HD23	1:D:487:ILE:HD11	1.97	0.46
1:E:714:ILE:HG23	1:E:715:GLY:N	2.30	0.46
1:F:534:TYR:N	1:F:534:TYR:CD1	2.84	0.46
1:F:622:LEU:HB2	1:F:662:ILE:HG12	1.98	0.46
1:A:341:LEU:O	1:A:343:LYS:N	2.49	0.46
2:A:783:ADP:O1A	2:A:783:ADP:O1B	2.34	0.46
1:C:546:GLN:OE1	1:C:577:ILE:HB	2.15	0.46
1:C:736:LYS:C	1:C:738:ASN:H	2.17	0.46
1:D:307:ASP:HB3	1:D:309:LEU:HD21	1.98	0.46
1:D:645:SER:O	1:D:647:THR:N	2.48	0.46
1:D:656:PHE:C	1:D:658:GLU:N	2.70	0.46
1:D:733:ILE:HA	1:D:756:ILE:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:380:LEU:HD12	1:F:423:ILE:HG23	1.97	0.46
1:A:378:ILE:HD13	1:A:420:LEU:CD1	2.45	0.45
1:A:496:GLU:O	1:A:500:ILE:HG13	2.16	0.45
1:B:276:TYR:CE2	1:F:246:THR:CG2	3.00	0.45
1:D:341:LEU:O	1:D:343:LYS:N	2.49	0.45
1:D:496:GLU:O	1:D:497:LYS:C	2.55	0.45
1:F:636:ALA:C	1:F:638:ALA:H	2.19	0.45
1:A:656:PHE:C	1:A:658:GLU:H	2.17	0.45
1:A:680:ILE:HG22	1:A:705:ILE:CD1	2.46	0.45
1:B:311:LEU:O	1:B:312:LYS:C	2.54	0.45
1:B:497:LYS:HG2	1:B:540:VAL:HG12	1.99	0.45
1:C:455:ILE:O	1:C:456:GLU:C	2.54	0.45
1:C:469:THR:HG22	1:C:470:ALA:H	1.81	0.45
1:D:260:GLY:O	1:D:261:MET:CB	2.63	0.45
1:D:350:LEU:HA	1:D:485:GLU:O	2.16	0.45
1:D:489:ILE:H	1:D:489:ILE:HG12	1.58	0.45
1:F:255:LYS:O	1:F:258:GLU:HB3	2.16	0.45
1:F:675:GLY:N	1:F:676:PRO:CD	2.79	0.45
1:B:478:GLY:N	1:B:479:PRO:HD2	2.31	0.45
1:B:604:VAL:HG23	1:B:604:VAL:O	2.15	0.45
1:B:656:PHE:C	1:B:658:GLU:N	2.70	0.45
1:B:711:VAL:N	1:B:759:SER:O	2.47	0.45
1:D:452:ASP:O	1:D:455:ILE:HG22	2.17	0.45
1:A:455:ILE:O	1:A:456:GLU:C	2.53	0.45
1:B:645:SER:O	1:B:647:THR:N	2.49	0.45
1:C:380:LEU:HD12	1:C:423:ILE:HG23	1.98	0.45
1:D:357:GLY:H	2:D:783:ADP:PB	2.39	0.45
1:B:276:TYR:OH	1:F:247:GLY:CA	2.64	0.45
1:A:562:GLU:O	1:A:563:ARG:C	2.55	0.45
1:B:308:LYS:O	1:B:309:LEU:HD23	2.17	0.45
1:B:373:ARG:NE	1:B:415:ASN:OD1	2.50	0.45
1:B:505:LEU:CD2	1:B:544:GLU:HG3	2.45	0.45
1:C:714:ILE:HB	1:C:735:PRO:HG2	1.98	0.45
1:D:506:LEU:O	1:D:507:PRO:C	2.55	0.45
1:C:341:LEU:HB3	1:E:514:GLY:O	2.17	0.45
1:E:706:THR:OG1	1:E:710:ARG:HB2	2.15	0.45
1:E:642:TYR:CD2	1:E:761:LEU:HD12	2.52	0.45
1:F:597:THR:O	1:F:700:GLY:HA2	2.16	0.45
1:F:635:SER:O	1:F:638:ALA:HB3	2.16	0.45
1:A:276:TYR:CD1	1:A:277:GLU:N	2.84	0.45
1:A:579:LYS:C	1:A:579:LYS:HE2	2.37	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:441:VAL:O	1:B:441:VAL:HG22	2.16	0.45
1:C:274:ASN:O	1:C:276:TYR:N	2.48	0.45
1:C:276:TYR:CD1	1:C:277:GLU:N	2.84	0.45
1:C:424:ASP:OD1	1:C:424:ASP:N	2.50	0.45
1:D:276:TYR:CD1	1:D:277:GLU:N	2.85	0.45
1:E:311:LEU:O	1:E:312:LYS:C	2.55	0.45
1:F:292:TYR:OH	1:F:455:ILE:HA	2.17	0.45
1:F:414:LEU:C	1:F:416:PRO:HD3	2.37	0.45
1:B:560:ALA:O	1:B:562:GLU:N	2.50	0.45
1:C:255:LYS:O	1:C:258:GLU:HB3	2.16	0.45
1:C:714:ILE:HA	1:C:714:ILE:HD12	1.79	0.45
1:D:621:LYS:O	1:D:661:ASP:OD1	2.35	0.45
1:E:452:ASP:O	1:E:455:ILE:HG22	2.17	0.45
1:E:647:THR:HG22	1:E:648:GLU:N	2.32	0.45
1:E:656:PHE:C	1:E:658:GLU:N	2.70	0.45
1:F:276:TYR:CD1	1:F:277:GLU:N	2.84	0.45
1:F:295:TRP:HZ3	1:F:405:ILE:HG21	1.81	0.45
1:A:493:THR:HG21	1:A:748:SER:CB	2.46	0.45
1:B:364:ALA:O	1:B:365:LYS:C	2.55	0.45
1:B:439:LEU:O	1:B:440:GLU:C	2.55	0.45
1:B:464:VAL:O	1:B:466:PHE:CD1	2.63	0.45
1:B:495:ILE:HA	1:B:495:ILE:HD13	1.78	0.45
1:C:373:ARG:NE	1:C:415:ASN:OD1	2.50	0.45
1:C:439:LEU:O	1:C:440:GLU:C	2.55	0.45
1:D:423:ILE:HD13	1:D:423:ILE:HG21	1.62	0.45
1:D:424:ASP:OD1	1:D:424:ASP:N	2.50	0.45
1:D:598:GLY:HA2	1:D:701:MET:O	2.17	0.45
1:D:747:GLU:CD	1:D:747:GLU:H	2.18	0.45
1:A:280:PRO:HB2	1:A:281:SER:H	1.67	0.45
1:B:613:VAL:HG23	1:B:685:ALA:HB1	1.99	0.45
1:D:298:ALA:O	1:D:299:LEU:O	2.35	0.45
1:D:506:LEU:CD2	1:D:522:LEU:HD21	2.44	0.45
1:D:599:LEU:N	1:D:599:LEU:HD22	2.32	0.45
1:F:266:LYS:HG3	1:F:267:GLU:H	1.81	0.45
1:F:412:GLY:C	1:F:413:LYS:HG2	2.37	0.45
1:A:536:ARG:CG	1:A:536:ARG:NH1	2.65	0.45
1:A:569:THR:HG23	1:A:571:LYS:N	2.19	0.45
1:B:505:LEU:HD23	1:B:505:LEU:HA	1.38	0.45
1:B:599:LEU:HD22	1:B:599:LEU:N	2.31	0.45
1:B:714:ILE:HG23	1:B:715:GLY:N	2.31	0.45
1:C:616:SER:O	1:C:661:ASP:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:647:THR:HG22	1:C:648:GLU:N	2.31	0.45
1:F:419:LEU:O	1:F:421:ASP:N	2.50	0.45
1:F:732:ILE:HD13	1:F:732:ILE:O	2.17	0.45
1:B:266:LYS:HG3	1:B:267:GLU:H	1.82	0.44
1:B:414:LEU:HD12	1:B:414:LEU:C	2.37	0.44
1:D:439:LEU:O	1:D:440:GLU:C	2.55	0.44
1:E:712:LEU:HB3	1:E:713:PRO:HD2	1.99	0.44
1:F:478:GLY:N	1:F:479:PRO:HD2	2.31	0.44
1:F:505:LEU:HD23	1:F:505:LEU:HA	1.38	0.44
1:A:493:THR:O	1:A:494:GLU:C	2.54	0.44
1:B:296:LEU:O	1:B:299:LEU:HD11	2.16	0.44
1:B:496:GLU:O	1:B:497:LYS:C	2.54	0.44
1:C:265:VAL:O	1:C:457:GLU:OE1	2.35	0.44
1:C:478:GLY:N	1:C:479:PRO:HD2	2.31	0.44
1:C:322:HIS:HA	2:C:783:ADP:N1	2.32	0.44
1:D:274:ASN:O	1:D:276:TYR:N	2.45	0.44
1:D:602:THR:C	1:D:604:VAL:N	2.71	0.44
1:D:616:SER:O	1:D:661:ASP:N	2.49	0.44
1:D:732:ILE:HG21	1:D:753:LEU:HD13	1.99	0.44
1:E:536:ARG:HH11	1:E:536:ARG:CB	2.30	0.44
1:E:546:GLN:OE1	1:E:577:ILE:HB	2.17	0.44
1:F:380:LEU:HD12	1:F:423:ILE:CG2	2.47	0.44
1:F:732:ILE:HG21	1:F:753:LEU:HD13	1.99	0.44
1:A:550:ILE:O	1:A:551:CYS:C	2.54	0.44
1:A:736:LYS:C	1:A:738:ASN:H	2.20	0.44
1:B:267:GLU:HA	1:B:270:LEU:HG	1.98	0.44
1:B:569:THR:HG23	1:B:571:LYS:N	2.21	0.44
1:C:346:LYS:HG3	1:C:348:PRO:HD2	1.99	0.44
1:C:416:PRO:HD2	1:C:464:VAL:HG13	1.99	0.44
1:D:364:ALA:O	1:D:365:LYS:C	2.56	0.44
1:D:599:LEU:O	1:D:720:LYS:HE2	2.17	0.44
1:D:702:THR:CG2	1:D:702:THR:O	2.65	0.44
1:D:714:ILE:HB	1:D:735:PRO:HG2	2.00	0.44
1:D:362:SER:HB3	2:D:783:ADP:C5'	2.47	0.44
1:E:710:ARG:HH21	1:E:710:ARG:HG2	1.82	0.44
1:F:452:ASP:O	1:F:455:ILE:HG22	2.17	0.44
1:F:520:LEU:HA	1:F:566:ILE:O	2.17	0.44
1:B:280:PRO:HB2	1:B:281:SER:H	1.67	0.44
1:B:350:LEU:HA	1:B:485:GLU:O	2.18	0.44
1:B:407:GLY:HA3	1:B:418:PHE:CZ	2.52	0.44
1:B:420:LEU:HD21	1:B:466:PHE:CD2	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:520:LEU:HA	1:B:566:ILE:O	2.17	0.44
1:C:423:ILE:HG21	1:C:423:ILE:HD13	1.76	0.44
1:C:637:GLN:HA	1:C:640:PHE:HB3	1.99	0.44
1:C:621:LYS:O	1:C:661:ASP:OD1	2.35	0.44
1:D:590:GLU:HA	1:D:697:ARG:HD3	1.99	0.44
1:A:495:ILE:HA	1:A:495:ILE:HD13	1.82	0.44
1:A:497:LYS:HG2	1:A:540:VAL:HG12	2.00	0.44
1:A:546:GLN:O	1:A:549:ALA:HB3	2.17	0.44
1:A:656:PHE:C	1:A:658:GLU:N	2.71	0.44
1:B:299:LEU:O	1:B:301:TRP:CD1	2.70	0.44
1:B:642:TYR:CD2	1:B:761:LEU:HD12	2.53	0.44
1:C:267:GLU:HG3	1:C:270:LEU:HD12	1.99	0.44
1:C:569:THR:HG23	1:C:572:ASN:H	1.82	0.44
1:E:506:LEU:HB3	1:E:507:PRO:CD	2.45	0.44
1:E:569:THR:HG23	1:E:571:LYS:N	2.21	0.44
1:E:736:LYS:C	1:E:738:ASN:H	2.19	0.44
1:F:368:ALA:CB	1:F:417:VAL:HG21	2.47	0.44
1:A:579:LYS:NZ	1:A:579:LYS:H	2.16	0.44
1:B:562:GLU:O	1:B:563:ARG:C	2.56	0.44
1:C:283:SER:N	1:C:286:SER:HB3	2.33	0.44
1:C:298:ALA:O	1:C:299:LEU:C	2.55	0.44
1:C:342:THR:HG22	1:C:344:SER:O	2.18	0.44
1:C:409:LYS:C	1:C:411:ALA:H	2.21	0.44
1:E:562:GLU:O	1:E:563:ARG:C	2.56	0.44
2:E:783:ADP:H5'2	2:E:783:ADP:C8	2.53	0.44
1:F:705:ILE:HD11	1:F:761:LEU:CD2	2.47	0.44
1:A:505:LEU:HA	1:A:505:LEU:HD23	1.45	0.44
1:A:548:ALA:O	1:A:549:ALA:C	2.54	0.44
1:B:262:PRO:HG2	1:B:302:THR:OG1	2.17	0.44
1:B:522:LEU:HB3	1:B:568:VAL:CG1	2.43	0.44
1:E:423:ILE:HG22	1:E:426:MET:HE1	1.99	0.44
1:E:455:ILE:HG23	1:E:455:ILE:O	2.18	0.44
1:E:597:THR:O	1:E:700:GLY:HA2	2.17	0.44
1:E:604:VAL:HG23	1:E:604:VAL:O	2.17	0.44
1:F:317:LEU:HD23	1:F:317:LEU:C	2.38	0.44
1:B:480:LEU:O	1:B:483:ARG:N	2.50	0.44
1:C:602:THR:C	1:C:604:VAL:N	2.70	0.44
1:D:342:THR:HG22	1:D:344:SER:O	2.17	0.44
1:D:586:GLN:HG3	1:D:698:GLU:HG2	2.00	0.44
1:E:255:LYS:O	1:E:258:GLU:HB3	2.18	0.44
1:E:295:TRP:O	1:E:299:LEU:HG	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:298:ALA:O	1:A:299:LEU:C	2.54	0.44
1:A:569:THR:HG23	1:A:572:ASN:H	1.82	0.44
1:A:675:GLY:N	1:A:676:PRO:CD	2.81	0.44
1:A:711:VAL:N	1:A:759:SER:O	2.47	0.44
1:B:736:LYS:C	1:B:738:ASN:H	2.20	0.44
1:C:532:ARG:HG2	1:C:584:TYR:CE2	2.53	0.44
1:C:675:GLY:N	1:C:676:PRO:CD	2.81	0.44
1:D:255:LYS:O	1:D:258:GLU:HB3	2.17	0.44
1:D:441:VAL:HG22	1:D:441:VAL:O	2.17	0.44
1:D:506:LEU:HD12	1:D:506:LEU:C	2.38	0.44
1:E:300:PRO:HG3	1:E:413:LYS:N	2.32	0.44
1:F:579:LYS:NZ	1:F:579:LYS:H	2.15	0.44
1:A:267:GLU:HA	1:A:270:LEU:HG	1.99	0.43
1:A:271:LYS:CA	1:A:274:ASN:HB3	2.46	0.43
1:A:439:LEU:O	1:A:440:GLU:C	2.55	0.43
1:A:602:THR:C	1:A:604:VAL:H	2.21	0.43
1:A:493:THR:CG2	1:A:748:SER:HB2	2.47	0.43
1:B:546:GLN:O	1:B:549:ALA:HB3	2.18	0.43
1:C:333:LEU:HD23	1:C:336:LEU:HD12	2.00	0.43
1:D:506:LEU:HD12	1:D:510:ILE:CG1	2.48	0.43
1:D:756:ILE:HG13	1:D:767:HIS:CD2	2.54	0.43
1:E:569:THR:HG23	1:E:572:ASN:H	1.82	0.43
1:F:346:LYS:HG3	1:F:348:PRO:HD2	2.00	0.43
1:A:357:GLY:H	2:A:783:ADP:PB	2.38	0.43
1:A:469:THR:HG22	1:A:470:ALA:H	1.83	0.43
1:B:335:TYR:O	1:B:335:TYR:CD2	2.71	0.43
1:C:557:ALA:CB	1:C:566:ILE:HD11	2.48	0.43
1:D:712:LEU:HB3	1:D:713:PRO:CD	2.47	0.43
1:E:367:ILE:O	1:E:371:LEU:HD13	2.17	0.43
1:E:637:GLN:HA	1:E:640:PHE:HB3	2.00	0.43
1:A:496:GLU:O	1:A:497:LYS:C	2.56	0.43
1:B:514:GLY:O	1:E:341:LEU:HD13	2.17	0.43
1:C:350:LEU:HA	1:C:485:GLU:O	2.18	0.43
1:C:642:TYR:CE1	1:C:709:GLY:HA3	2.52	0.43
1:E:350:LEU:H	1:E:350:LEU:CD1	2.09	0.43
1:A:412:GLY:C	1:A:413:LYS:HG2	2.37	0.43
1:A:536:ARG:CB	1:A:536:ARG:NH1	2.82	0.43
1:C:452:ASP:O	1:C:455:ILE:HG22	2.18	0.43
1:C:562:GLU:O	1:C:563:ARG:C	2.56	0.43
1:C:637:GLN:O	1:C:637:GLN:HG2	2.18	0.43
1:E:602:THR:CG2	1:E:604:VAL:HG22	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:616:SER:O	1:E:661:ASP:N	2.52	0.43
1:F:455:ILE:O	1:F:455:ILE:HG23	2.18	0.43
1:A:350:LEU:HA	1:A:485:GLU:O	2.19	0.43
1:C:493:THR:O	1:C:494:GLU:C	2.57	0.43
1:C:589:THR:O	1:C:697:ARG:NE	2.52	0.43
1:D:322:HIS:CE1	1:D:363:LEU:HD23	2.53	0.43
1:D:439:LEU:H	1:D:439:LEU:CD2	2.24	0.43
1:E:342:THR:HG22	1:E:344:SER:O	2.18	0.43
1:E:439:LEU:O	1:E:440:GLU:C	2.57	0.43
1:E:639:ALA:HB1	1:E:683:ALA:HB2	2.00	0.43
1:F:439:LEU:CD2	1:F:439:LEU:H	2.26	0.43
1:A:455:ILE:HG23	1:A:455:ILE:O	2.18	0.43
1:A:714:ILE:HB	1:A:735:PRO:HG2	2.00	0.43
1:A:739:GLU:C	1:A:741:ASP:H	2.21	0.43
1:B:602:THR:HG22	1:B:603:THR:N	2.33	0.43
1:B:613:VAL:O	1:E:708:ARG:HD3	2.17	0.43
1:B:735:PRO:O	1:B:738:ASN:HB2	2.18	0.43
1:C:270:LEU:CD2	1:C:296:LEU:HD22	2.44	0.43
1:C:412:GLY:C	1:C:413:LYS:HG2	2.39	0.43
1:C:693:ARG:O	1:C:694:ALA:HB2	2.19	0.43
1:C:752:GLY:O	1:C:753:LEU:HD23	2.19	0.43
1:D:409:LYS:C	1:D:411:ALA:H	2.20	0.43
1:D:546:GLN:O	1:D:549:ALA:HB3	2.18	0.43
1:E:732:ILE:HD13	1:E:732:ILE:O	2.19	0.43
2:E:783:ADP:C8	2:E:783:ADP:C5'	3.01	0.43
1:A:602:THR:C	1:A:604:VAL:N	2.72	0.43
1:B:267:GLU:HG3	1:B:270:LEU:HD12	2.01	0.43
1:B:299:LEU:CD1	1:B:301:TRP:NE1	2.82	0.43
1:B:493:THR:O	1:B:494:GLU:C	2.57	0.43
1:B:552:ARG:O	1:B:553:LYS:C	2.57	0.43
1:B:362:SER:HB3	2:B:783:ADP:H5'2	2.01	0.43
1:D:311:LEU:O	1:D:312:LYS:C	2.57	0.43
1:E:300:PRO:HB2	1:E:414:LEU:CB	2.46	0.43
1:E:359:GLY:O	1:E:360:LYS:C	2.55	0.43
1:F:357:GLY:O	1:F:539:GLY:HA2	2.18	0.43
1:F:656:PHE:C	1:F:658:GLU:N	2.71	0.43
1:B:416:PRO:HD2	1:B:464:VAL:HG13	2.01	0.43
1:C:338:VAL:HG23	1:E:555:ALA:HB3	2.00	0.43
1:C:732:ILE:O	1:C:732:ILE:HD13	2.18	0.43
1:D:293:ILE:O	1:D:297:VAL:HG23	2.19	0.43
1:E:602:THR:O	1:E:604:VAL:N	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:611:ILE:HG23	1:E:665:HIS:O	2.19	0.43
1:F:579:LYS:C	1:F:579:LYS:HE2	2.38	0.43
1:A:599:LEU:HD22	1:A:599:LEU:N	2.32	0.43
1:B:602:THR:CG2	1:B:604:VAL:HG22	2.48	0.43
1:C:378:ILE:HD13	1:C:420:LEU:HD12	1.99	0.43
1:C:572:ASN:O	1:C:573:LEU:C	2.57	0.43
1:D:332:ILE:CG2	1:D:367:ILE:HD11	2.49	0.43
1:D:647:THR:HG22	1:D:648:GLU:N	2.34	0.43
1:E:416:PRO:CD	1:E:464:VAL:HG13	2.49	0.43
1:F:274:ASN:O	1:F:276:TYR:N	2.46	0.43
1:F:439:LEU:O	1:F:440:GLU:C	2.57	0.43
1:F:350:LEU:HA	1:F:485:GLU:O	2.19	0.43
1:A:283:SER:N	1:A:286:SER:HB3	2.34	0.43
1:A:476:ILE:HG21	1:A:481:ARG:HB2	2.00	0.43
1:E:269:ALA:CB	1:E:457:GLU:OE1	2.67	0.43
1:F:411:ALA:O	1:F:412:GLY:C	2.57	0.43
1:F:712:LEU:HB3	1:F:713:PRO:CD	2.48	0.43
1:F:747:GLU:CD	1:F:747:GLU:H	2.20	0.43
1:A:333:LEU:HD23	1:A:336:LEU:HD12	2.01	0.42
1:A:656:PHE:CD2	1:A:657:HIS:N	2.87	0.42
1:B:273:LEU:O	1:B:276:TYR:HB2	2.19	0.42
1:B:301:TRP:O	1:B:414:LEU:HD21	2.19	0.42
1:B:593:VAL:HG13	1:B:693:ARG:O	2.19	0.42
1:B:622:LEU:HB2	1:B:662:ILE:HG12	2.01	0.42
1:B:637:GLN:HA	1:B:640:PHE:HB3	2.01	0.42
1:B:686:LEU:HD22	1:B:686:LEU:O	2.19	0.42
1:B:733:ILE:HA	1:B:756:ILE:O	2.19	0.42
1:D:267:GLU:HA	1:D:270:LEU:HG	2.00	0.42
1:D:329:LYS:C	1:D:331:ARG:H	2.22	0.42
1:D:411:ALA:O	1:D:412:GLY:C	2.57	0.42
1:D:642:TYR:CE1	1:D:709:GLY:HA3	2.54	0.42
1:E:300:PRO:HG3	1:E:412:GLY:C	2.40	0.42
1:E:373:ARG:NE	1:E:415:ASN:OD1	2.52	0.42
1:E:489:ILE:H	1:E:489:ILE:HG12	1.65	0.42
1:E:682:MET:HE3	1:E:682:MET:HB3	1.68	0.42
1:F:569:THR:HG23	1:F:571:LYS:N	2.19	0.42
1:F:622:LEU:HB2	1:F:662:ILE:CG1	2.49	0.42
1:F:678:ALA:O	1:F:682:MET:HG2	2.19	0.42
1:A:329:LYS:C	1:A:331:ARG:H	2.22	0.42
1:A:546:GLN:OE1	1:A:577:ILE:HB	2.19	0.42
1:B:277:GLU:OE1	1:F:246:THR:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:293:ILE:O	1:B:297:VAL:HG23	2.19	0.42
1:B:546:GLN:OE1	1:B:577:ILE:HB	2.20	0.42
1:B:579:LYS:C	1:B:579:LYS:HE2	2.40	0.42
1:B:647:THR:HG23	1:B:652:ILE:HG23	2.00	0.42
1:C:505:LEU:HD23	1:C:505:LEU:HA	1.43	0.42
1:C:505:LEU:CD2	1:C:544:GLU:HG3	2.47	0.42
1:D:329:LYS:O	1:D:330:GLU:C	2.57	0.42
1:D:403:ARG:O	1:D:403:ARG:CG	2.67	0.42
1:E:516:LYS:HZ1	1:E:516:LYS:HA	1.82	0.42
1:E:550:ILE:O	1:E:551:CYS:C	2.58	0.42
1:E:656:PHE:CD2	1:E:657:HIS:N	2.87	0.42
1:F:464:VAL:CG1	1:F:466:PHE:CE1	3.02	0.42
1:A:342:THR:HG22	1:A:344:SER:O	2.20	0.42
1:B:290:ARG:NH1	1:E:273:LEU:HD21	2.34	0.42
1:B:455:ILE:HG23	1:B:455:ILE:O	2.19	0.42
1:B:712:LEU:HB3	1:B:713:PRO:HD2	2.01	0.42
1:C:464:VAL:O	1:C:466:PHE:CD1	2.68	0.42
1:C:597:THR:O	1:C:700:GLY:HA2	2.19	0.42
1:D:256:ILE:CD1	1:D:293:ILE:HD11	2.48	0.42
1:D:439:LEU:HD13	1:D:480:LEU:HD13	2.00	0.42
1:D:712:LEU:HB3	1:D:713:PRO:HD2	2.01	0.42
1:E:346:LYS:HG3	1:E:348:PRO:HD2	2.01	0.42
1:C:346:LYS:HZ1	1:E:513:HIS:CE1	2.36	0.42
1:F:562:GLU:O	1:F:563:ARG:C	2.58	0.42
1:F:647:THR:HG22	1:F:648:GLU:N	2.34	0.42
1:A:373:ARG:NE	1:A:415:ASN:OD1	2.52	0.42
1:A:456:GLU:O	1:A:457:GLU:HB2	2.20	0.42
1:A:593:VAL:HG13	1:A:693:ARG:O	2.19	0.42
1:B:359:GLY:HA2	2:B:783:ADP:H5'2	2.01	0.42
1:B:569:THR:HG23	1:B:572:ASN:H	1.84	0.42
1:C:455:ILE:O	1:C:455:ILE:HG23	2.18	0.42
1:C:646:LYS:CD	1:C:646:LYS:H	2.32	0.42
1:D:270:LEU:HD21	1:D:296:LEU:CD2	2.45	0.42
1:D:536:ARG:NH1	1:D:536:ARG:CB	2.82	0.42
1:E:298:ALA:O	1:E:299:LEU:C	2.57	0.42
1:B:283:SER:N	1:B:286:SER:HB3	2.34	0.42
1:B:408:MET:N	1:B:408:MET:HE2	2.35	0.42
1:C:305:THR:O	1:C:307:ASP:N	2.52	0.42
1:D:562:GLU:O	1:D:563:ARG:C	2.56	0.42
1:E:299:LEU:O	1:E:301:TRP:CE2	2.73	0.42
1:E:596:VAL:HG23	1:E:685:ALA:HB2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:378:ILE:HD13	1:F:420:LEU:HD12	2.02	0.42
1:F:440:GLU:HG3	1:F:446:GLN:OE1	2.19	0.42
1:A:506:LEU:O	1:A:507:PRO:C	2.58	0.42
1:A:522:LEU:HB3	1:A:568:VAL:CG1	2.45	0.42
1:A:561:GLU:O	1:A:562:GLU:HB2	2.19	0.42
1:A:733:ILE:HA	1:A:756:ILE:O	2.19	0.42
1:B:656:PHE:CD2	1:B:657:HIS:N	2.88	0.42
1:C:279:ILE:HA	1:C:280:PRO:HA	1.86	0.42
1:C:311:LEU:O	1:C:312:LYS:C	2.56	0.42
1:C:536:ARG:NH1	1:C:536:ARG:HB2	2.34	0.42
1:C:627:LYS:O	1:C:627:LYS:HG3	2.20	0.42
1:D:602:THR:C	1:D:604:VAL:H	2.23	0.42
1:E:365:LYS:HG3	1:E:375:PHE:CZ	2.55	0.42
1:E:505:LEU:HD23	1:E:505:LEU:HA	1.38	0.42
1:E:561:GLU:O	1:E:562:GLU:HB2	2.19	0.42
1:E:599:LEU:N	1:E:599:LEU:HD22	2.34	0.42
1:E:714:ILE:HB	1:E:735:PRO:HG2	2.00	0.42
1:F:283:SER:N	1:F:286:SER:HB3	2.35	0.42
1:F:342:THR:HG22	1:F:344:SER:O	2.20	0.42
1:F:599:LEU:O	1:F:720:LYS:HE2	2.20	0.42
1:A:262:PRO:HD2	1:A:301:TRP:HB3	2.01	0.42
1:A:266:LYS:HG3	1:A:267:GLU:H	1.82	0.42
1:B:460:ASP:O	1:B:461:LEU:HD23	2.18	0.42
1:C:271:LYS:CA	1:C:274:ASN:HB3	2.48	0.42
1:D:279:ILE:HA	1:D:280:PRO:HA	1.86	0.42
1:D:283:SER:N	1:D:286:SER:HB3	2.34	0.42
1:E:622:LEU:HB2	1:E:662:ILE:HG12	2.02	0.42
1:F:256:ILE:CD1	1:F:293:ILE:HD11	2.49	0.42
1:F:299:LEU:HA	1:F:300:PRO:HD3	1.69	0.42
1:F:496:GLU:O	1:F:497:LYS:C	2.58	0.42
1:F:705:ILE:HA	1:F:705:ILE:HD12	1.74	0.42
1:A:480:LEU:O	1:A:483:ARG:N	2.53	0.42
1:A:747:GLU:N	1:A:747:GLU:CD	2.72	0.42
1:B:271:LYS:CA	1:B:274:ASN:HB3	2.46	0.42
1:B:329:LYS:O	1:B:331:ARG:N	2.53	0.42
1:C:602:THR:C	1:C:604:VAL:H	2.22	0.42
1:C:706:THR:OG1	1:C:710:ARG:HB2	2.19	0.42
1:D:469:THR:HG22	1:D:470:ALA:N	2.34	0.42
1:A:573:LEU:HA	1:A:573:LEU:HD12	1.93	0.42
1:B:423:ILE:HG22	1:B:426:MET:HE1	2.00	0.42
1:B:561:GLU:O	1:B:562:GLU:HB2	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:335:TYR:CD2	1:C:335:TYR:O	2.73	0.42
1:C:593:VAL:HG13	1:C:693:ARG:O	2.19	0.42
1:D:579:LYS:HE2	1:D:579:LYS:C	2.39	0.42
1:D:705:ILE:HD11	1:D:761:LEU:CD2	2.50	0.42
1:E:283:SER:N	1:E:286:SER:HB3	2.34	0.42
1:E:411:ALA:O	1:E:412:GLY:C	2.58	0.42
1:A:441:VAL:HG22	1:A:441:VAL:O	2.19	0.42
1:A:611:ILE:HD12	1:A:681:THR:CG2	2.50	0.42
1:B:342:THR:HG22	1:B:344:SER:O	2.20	0.42
1:B:486:ILE:CG2	1:B:487:ILE:N	2.82	0.42
1:C:293:ILE:O	1:C:297:VAL:HG23	2.18	0.42
1:D:505:LEU:HA	1:D:505:LEU:HD23	1.37	0.42
1:D:739:GLU:C	1:D:741:ASP:N	2.73	0.42
1:E:412:GLY:C	1:E:413:LYS:HG2	2.39	0.42
1:E:589:THR:O	1:E:697:ARG:CD	2.68	0.42
1:F:293:ILE:O	1:F:297:VAL:HG23	2.20	0.42
1:F:682:MET:HE3	1:F:682:MET:HB3	1.77	0.42
1:A:293:ILE:O	1:A:297:VAL:HG23	2.20	0.41
1:A:294:ASP:C	1:A:296:LEU:N	2.72	0.41
1:A:300:PRO:HG3	1:A:412:GLY:HA2	2.02	0.41
1:A:516:LYS:HZ1	1:A:516:LYS:HA	1.82	0.41
1:A:547:LEU:HA	1:A:547:LEU:HD23	1.78	0.41
1:B:732:ILE:HG21	1:B:753:LEU:HD13	2.02	0.41
1:B:747:GLU:N	1:B:747:GLU:CD	2.73	0.41
1:C:329:LYS:O	1:C:332:ILE:N	2.41	0.41
1:C:355:PRO:O	1:C:358:VAL:HG22	2.20	0.41
1:C:680:ILE:HG22	1:C:705:ILE:HD13	2.02	0.41
1:C:747:GLU:N	1:C:747:GLU:CD	2.73	0.41
1:D:368:ALA:CB	1:D:417:VAL:HG21	2.48	0.41
1:D:495:ILE:HA	1:D:495:ILE:HD13	1.87	0.41
1:D:573:LEU:CG	1:D:577:ILE:HD11	2.50	0.41
1:E:423:ILE:C	1:E:424:ASP:OD1	2.58	0.41
1:E:506:LEU:O	1:E:507:PRO:C	2.58	0.41
1:F:267:GLU:HA	1:F:270:LEU:HG	2.02	0.41
1:F:294:ASP:C	1:F:296:LEU:N	2.73	0.41
1:F:329:LYS:O	1:F:330:GLU:C	2.58	0.41
1:F:341:LEU:O	1:F:343:LYS:N	2.53	0.41
1:F:519:ASN:HD22	1:F:519:ASN:HA	1.53	0.41
1:F:536:ARG:CB	1:F:536:ARG:HH11	2.32	0.41
1:F:737:ASP:N	1:F:737:ASP:OD2	2.53	0.41
1:B:705:ILE:HA	1:B:705:ILE:HD12	1.75	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:656:PHE:CD2	1:C:657:HIS:N	2.88	0.41
1:D:496:GLU:O	1:D:500:ILE:HG13	2.18	0.41
1:D:734:ALA:HB1	1:D:735:PRO:CD	2.51	0.41
1:E:579:LYS:HE2	1:E:579:LYS:C	2.41	0.41
1:A:336:LEU:CD2	1:A:371:LEU:HD11	2.51	0.41
1:A:622:LEU:HB2	1:A:662:ILE:HG12	2.03	0.41
1:B:693:ARG:O	1:B:694:ALA:HB2	2.19	0.41
1:B:705:ILE:HD11	1:B:761:LEU:CD2	2.49	0.41
1:C:529:ASP:O	1:C:530:ILE:C	2.58	0.41
1:D:547:LEU:HA	1:D:547:LEU:HD23	1.79	0.41
1:D:558:ILE:H	1:D:558:ILE:HG12	1.65	0.41
1:D:675:GLY:N	1:D:676:PRO:CD	2.83	0.41
1:E:350:LEU:HD23	1:E:487:ILE:HD11	2.02	0.41
1:E:736:LYS:HA	1:E:757:LEU:HB3	2.03	0.41
1:F:423:ILE:HG21	1:F:423:ILE:HD13	1.78	0.41
1:A:355:PRO:O	1:A:358:VAL:HG22	2.20	0.41
1:A:710:ARG:HG2	1:A:710:ARG:HH21	1.85	0.41
1:C:440:GLU:HG3	1:C:446:GLN:OE1	2.20	0.41
1:C:506:LEU:HD12	1:C:510:ILE:CG1	2.49	0.41
1:D:455:ILE:O	1:D:455:ILE:HG23	2.19	0.41
1:D:622:LEU:HB2	1:D:662:ILE:HG12	2.02	0.41
1:D:636:ALA:C	1:D:638:ALA:N	2.73	0.41
1:D:707:LEU:HD23	1:D:707:LEU:HA	1.92	0.41
1:E:329:LYS:O	1:E:331:ARG:N	2.54	0.41
1:F:424:ASP:OD1	1:F:424:ASP:N	2.53	0.41
1:A:359:GLY:O	1:A:360:LYS:C	2.59	0.41
1:A:417:VAL:HG22	1:A:465:LEU:HB3	2.02	0.41
1:B:412:GLY:C	1:B:413:LYS:HG2	2.39	0.41
1:B:419:LEU:O	1:B:421:ASP:N	2.53	0.41
1:B:352:LEU:CD2	1:B:489:ILE:HD11	2.50	0.41
1:C:267:GLU:HA	1:C:270:LEU:HB2	2.02	0.41
1:C:551:CYS:O	1:C:554:ALA:HB3	2.20	0.41
1:C:561:GLU:O	1:C:562:GLU:HB2	2.20	0.41
1:C:579:LYS:HE2	1:C:579:LYS:C	2.40	0.41
1:C:584:TYR:CD1	1:C:584:TYR:O	2.73	0.41
1:D:474:ALA:O	1:D:476:ILE:O	2.38	0.41
1:E:262:PRO:HD2	1:E:301:TRP:HB2	2.03	0.41
1:E:266:LYS:HG3	1:E:267:GLU:H	1.81	0.41
1:A:735:PRO:O	1:A:738:ASN:HB2	2.19	0.41
1:C:267:GLU:HA	1:C:270:LEU:HG	2.01	0.41
1:C:364:ALA:O	1:C:365:LYS:C	2.58	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:412:GLY:C	1:D:413:LYS:HG2	2.39	0.41
1:D:555:ALA:O	1:D:556:LYS:C	2.58	0.41
1:E:464:VAL:O	1:E:466:PHE:CD1	2.64	0.41
1:E:352:LEU:CD2	1:E:489:ILE:HD11	2.47	0.41
1:E:536:ARG:NH1	1:E:536:ARG:HG3	2.14	0.41
1:E:573:LEU:CG	1:E:577:ILE:HD11	2.51	0.41
1:E:717:LEU:HA	1:E:717:LEU:HD23	1.87	0.41
1:A:414:LEU:HD12	1:A:414:LEU:C	2.41	0.41
1:A:712:LEU:HB3	1:A:713:PRO:HD2	2.03	0.41
1:A:736:LYS:HA	1:A:757:LEU:HB3	2.03	0.41
1:B:276:TYR:HD1	1:B:277:GLU:N	2.17	0.41
1:C:476:ILE:HG21	1:C:481:ARG:HB2	2.02	0.41
1:C:569:THR:HG22	1:C:572:ASN:H	1.86	0.41
1:C:599:LEU:O	1:C:720:LYS:HE2	2.21	0.41
1:D:367:ILE:O	1:D:371:LEU:HD13	2.21	0.41
1:D:460:ASP:O	1:D:461:LEU:HD23	2.20	0.41
1:D:639:ALA:HB1	1:D:683:ALA:HA	2.03	0.41
1:E:273:LEU:O	1:E:276:TYR:HB2	2.20	0.41
1:E:678:ALA:O	1:E:682:MET:HG2	2.20	0.41
1:F:637:GLN:HA	1:F:640:PHE:HB3	2.02	0.41
1:F:739:GLU:C	1:F:741:ASP:N	2.74	0.41
1:A:551:CYS:O	1:A:554:ALA:HB3	2.21	0.41
1:B:341:LEU:HB3	1:F:514:GLY:O	2.20	0.41
1:B:506:LEU:CD1	1:B:506:LEU:C	2.88	0.41
1:C:411:ALA:O	1:C:412:GLY:C	2.59	0.41
1:C:678:ALA:O	1:C:682:MET:HG2	2.21	0.41
1:D:506:LEU:HB3	1:D:507:PRO:CD	2.48	0.41
1:F:567:THR:HG22	1:F:567:THR:O	2.21	0.41
1:A:304:GLU:O	1:A:304:GLU:HG2	2.20	0.41
1:A:364:ALA:O	1:A:365:LYS:C	2.56	0.41
1:A:616:SER:O	1:A:661:ASP:N	2.54	0.41
1:B:305:THR:CG2	1:B:306:ASP:N	2.83	0.41
1:B:332:ILE:CG2	1:B:367:ILE:HD11	2.51	0.41
1:B:440:GLU:HG3	1:B:446:GLN:OE1	2.21	0.41
1:B:478:GLY:N	1:B:479:PRO:CD	2.84	0.41
1:B:761:LEU:HA	1:B:761:LEU:HD23	1.95	0.41
1:C:469:THR:CG2	1:C:470:ALA:N	2.82	0.41
1:C:602:THR:HG22	1:C:603:THR:N	2.35	0.41
1:C:711:VAL:N	1:C:759:SER:O	2.51	0.41
1:D:298:ALA:O	1:D:299:LEU:C	2.59	0.41
1:D:572:ASN:O	1:D:573:LEU:C	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:642:TYR:CD2	1:D:761:LEU:HD12	2.56	0.41
1:E:359:GLY:HA2	2:E:783:ADP:H5'1	2.03	0.41
1:E:705:ILE:HD11	1:E:761:LEU:CD2	2.51	0.41
1:F:561:GLU:O	1:F:562:GLU:HB2	2.21	0.41
1:F:707:LEU:HA	1:F:707:LEU:HD23	1.90	0.41
1:A:589:THR:O	1:A:590:GLU:CD	2.59	0.41
1:A:761:LEU:HD23	1:A:761:LEU:HA	1.83	0.41
1:B:489:ILE:H	1:B:489:ILE:HG12	1.49	0.41
1:B:598:GLY:HA2	1:B:701:MET:O	2.21	0.41
1:D:650:LEU:HD11	1:D:765:LEU:HD13	2.03	0.41
1:E:271:LYS:CA	1:E:274:ASN:HB3	2.45	0.41
1:E:520:LEU:HA	1:E:566:ILE:O	2.21	0.41
1:E:693:ARG:HB3	1:E:694:ALA:H	1.73	0.41
1:F:271:LYS:CA	1:F:274:ASN:HB3	2.46	0.41
1:F:656:PHE:CD2	1:F:657:HIS:N	2.89	0.41
1:A:403:ARG:N	1:A:405:ILE:HG13	2.36	0.41
1:A:536:ARG:HG3	1:A:536:ARG:NH1	2.20	0.41
1:A:536:ARG:NH1	1:A:536:ARG:HB2	2.36	0.41
1:B:622:LEU:HB2	1:B:662:ILE:CG1	2.51	0.41
1:C:276:TYR:HD1	1:C:277:GLU:N	2.19	0.41
1:C:710:ARG:HG2	1:C:710:ARG:HH21	1.86	0.41
1:D:403:ARG:HG2	1:D:403:ARG:O	2.21	0.41
1:D:551:CYS:O	1:D:554:ALA:HB3	2.21	0.41
1:D:752:GLY:O	1:D:753:LEU:HD23	2.21	0.41
1:E:267:GLU:HA	1:E:270:LEU:HG	2.01	0.41
1:E:279:ILE:HA	1:E:280:PRO:HA	1.87	0.41
1:F:602:THR:C	1:F:604:VAL:N	2.75	0.41
1:A:557:ALA:CB	1:A:566:ILE:HD11	2.50	0.40
1:B:294:ASP:C	1:B:296:LEU:N	2.72	0.40
1:B:602:THR:C	1:B:604:VAL:N	2.74	0.40
1:B:656:PHE:CE2	1:B:690:LEU:HD11	2.56	0.40
1:C:256:ILE:CD1	1:C:293:ILE:HD11	2.46	0.40
1:C:639:ALA:HB1	1:C:683:ALA:HA	2.04	0.40
1:E:536:ARG:NH2	1:E:583:ARG:O	2.47	0.40
1:F:367:ILE:HG22	1:F:368:ALA:N	2.35	0.40
1:F:557:ALA:CB	1:F:566:ILE:HD11	2.50	0.40
1:A:329:LYS:O	1:A:330:GLU:C	2.59	0.40
1:A:341:LEU:HD13	1:C:514:GLY:O	2.21	0.40
1:A:678:ALA:O	1:A:682:MET:HG2	2.21	0.40
1:A:359:GLY:HA2	2:A:783:ADP:O5'	2.21	0.40
1:B:536:ARG:NH1	1:B:536:ARG:CB	2.84	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:329:LYS:C	1:C:331:ARG:H	2.22	0.40
1:C:555:ALA:O	1:C:556:LYS:C	2.57	0.40
1:C:586:GLN:HB3	1:C:697:ARG:HE	1.86	0.40
1:D:373:ARG:NE	1:D:415:ASN:OD1	2.54	0.40
1:D:331:ARG:NH1	1:D:485:GLU:OE1	2.46	0.40
1:D:693:ARG:O	1:D:694:ALA:HB2	2.21	0.40
1:C:708:ARG:NH2	1:E:593:VAL:HB	2.36	0.40
1:F:349:ILE:O	1:F:484:MET:HB2	2.21	0.40
1:A:270:LEU:CD2	1:A:296:LEU:HD22	2.48	0.40
1:A:714:ILE:HD12	1:A:714:ILE:HA	1.79	0.40
1:B:367:ILE:HG22	1:B:368:ALA:N	2.36	0.40
1:B:547:LEU:HD23	1:B:547:LEU:HA	1.76	0.40
1:B:572:ASN:O	1:B:573:LEU:C	2.60	0.40
1:C:537:GLU:HG3	1:C:539:GLY:O	2.22	0.40
1:C:533:TYR:CB	1:C:580:ARG:HD2	2.50	0.40
1:C:687:VAL:O	1:C:691:THR:HG23	2.21	0.40
1:D:267:GLU:HG3	1:D:270:LEU:HD12	2.04	0.40
1:D:307:ASP:O	1:D:309:LEU:HG	2.21	0.40
1:D:440:GLU:HG3	1:D:446:GLN:OE1	2.21	0.40
1:D:534:TYR:CD2	1:D:577:ILE:HD12	2.56	0.40
1:D:646:LYS:H	1:D:646:LYS:CD	2.31	0.40
1:E:656:PHE:CE2	1:E:690:LEU:HD11	2.56	0.40
1:F:355:PRO:O	1:F:358:VAL:HG22	2.21	0.40
1:B:645:SER:HA	1:F:616:SER:HA	2.03	0.40
1:A:262:PRO:HD2	1:A:301:TRP:CB	2.52	0.40
1:A:478:GLY:N	1:A:479:PRO:CD	2.84	0.40
1:B:464:VAL:CG1	1:B:466:PHE:CE1	3.04	0.40
1:B:560:ALA:O	1:B:561:GLU:C	2.59	0.40
1:D:483:ARG:HB3	1:D:483:ARG:NH2	2.37	0.40
1:D:526:ALA:O	1:D:530:ILE:HG13	2.21	0.40
1:E:267:GLU:HG3	1:E:270:LEU:HD12	2.03	0.40
1:E:478:GLY:N	1:E:479:PRO:CD	2.85	0.40
1:F:300:PRO:C	1:F:301:TRP:CG	2.94	0.40
1:A:302:THR:O	1:A:303:ASP:O	2.40	0.40
1:A:408:MET:O	1:A:411:ALA:N	2.50	0.40
1:A:510:ILE:HG22	1:A:515:LEU:O	2.21	0.40
1:B:305:THR:HG22	1:B:306:ASP:N	2.36	0.40
1:B:403:ARG:N	1:B:405:ILE:HG13	2.36	0.40
1:C:362:SER:HB2	2:C:783:ADP:C5'	2.49	0.40
1:C:493:THR:CG2	1:C:748:SER:HB2	2.47	0.40
1:D:552:ARG:O	1:D:553:LYS:C	2.60	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:561:GLU:O	1:D:562:GLU:HB2	2.21	0.40
1:E:440:GLU:HG3	1:E:446:GLN:OE1	2.20	0.40
1:E:611:ILE:HD12	1:E:681:THR:HG22	2.02	0.40
1:E:622:LEU:HB2	1:E:662:ILE:CG1	2.51	0.40
1:E:613:VAL:HG13	1:E:664:ILE:HG12	2.02	0.40
1:F:276:TYR:HD1	1:F:277:GLU:N	2.19	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:555:ALA:O	1:F:511:LYS:NZ[2_646]	2.14	0.06

## 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	490/543 (90%)	350 (71%)	97 (20%)	43 (9%)	1	9
1	B	490/543 (90%)	354 (72%)	94 (19%)	42 (9%)	1	9
1	C	490/543 (90%)	347 (71%)	104 (21%)	39 (8%)	1	10
1	D	490/543 (90%)	350 (71%)	102 (21%)	38 (8%)	1	11
1	E	490/543 (90%)	350 (71%)	102 (21%)	38 (8%)	1	11
1	F	490/543 (90%)	352 (72%)	99 (20%)	39 (8%)	1	10
All	All	2940/3258 (90%)	2103 (72%)	598 (20%)	239 (8%)	1	10

All (239) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	276	TYR
1	A	288	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	303	ASP
1	A	304	GLU
1	A	314	ALA
1	A	407	GLY
1	A	412	GLY
1	A	424	ASP
1	A	439	LEU
1	A	440	GLU
1	A	455	ILE
1	A	475	THR
1	A	560	ALA
1	A	646	LYS
1	A	693	ARG
1	B	276	TYR
1	B	288	VAL
1	B	314	ALA
1	B	405	ILE
1	B	407	GLY
1	B	412	GLY
1	B	424	ASP
1	B	439	LEU
1	B	440	GLU
1	B	455	ILE
1	B	475	THR
1	B	560	ALA
1	B	646	LYS
1	B	693	ARG
1	C	276	TYR
1	C	288	VAL
1	C	306	ASP
1	C	314	ALA
1	C	407	GLY
1	C	412	GLY
1	C	424	ASP
1	C	439	LEU
1	C	440	GLU
1	C	455	ILE
1	C	475	THR
1	C	646	LYS
1	C	693	ARG
1	D	276	TYR
1	D	288	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	D	314	ALA
1	D	407	GLY
1	D	412	GLY
1	D	424	ASP
1	D	439	LEU
1	D	440	GLU
1	D	455	ILE
1	D	475	THR
1	D	560	ALA
1	D	646	LYS
1	D	693	ARG
1	E	276	TYR
1	E	288	VAL
1	E	314	ALA
1	E	407	GLY
1	E	412	GLY
1	E	424	ASP
1	E	439	LEU
1	E	440	GLU
1	E	455	ILE
1	E	475	THR
1	E	560	ALA
1	E	646	LYS
1	E	693	ARG
1	F	276	TYR
1	F	288	VAL
1	F	314	ALA
1	F	407	GLY
1	F	412	GLY
1	F	424	ASP
1	F	439	LEU
1	F	440	GLU
1	F	455	ILE
1	F	475	THR
1	F	560	ALA
1	F	646	LYS
1	F	693	ARG
1	A	275	ARG
1	A	281	SER
1	A	313	GLU
1	A	405	ILE
1	A	474	ALA

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	514	GLY
1	A	603	THR
1	A	629	GLY
1	A	645	SER
1	B	275	ARG
1	B	281	SER
1	B	304	GLU
1	B	313	GLU
1	B	420	LEU
1	B	474	ALA
1	B	514	GLY
1	B	629	GLY
1	B	645	SER
1	C	275	ARG
1	C	281	SER
1	C	313	GLU
1	C	405	ILE
1	C	474	ALA
1	C	514	GLY
1	C	560	ALA
1	C	629	GLY
1	C	645	SER
1	D	275	ARG
1	D	281	SER
1	D	313	GLU
1	D	405	ILE
1	D	474	ALA
1	D	514	GLY
1	D	587	ALA
1	D	629	GLY
1	D	645	SER
1	E	275	ARG
1	E	281	SER
1	E	313	GLU
1	E	405	ILE
1	E	474	ALA
1	E	514	GLY
1	E	629	GLY
1	F	275	ARG
1	F	281	SER
1	F	303	ASP
1	F	313	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	F	405	ILE
1	F	420	LEU
1	F	514	GLY
1	F	629	GLY
1	F	645	SER
1	A	262	PRO
1	A	342	THR
1	A	416	PRO
1	A	420	LEU
1	A	456	GLU
1	A	637	GLN
1	B	262	PRO
1	B	303	ASP
1	B	342	THR
1	B	456	GLU
1	B	561	GLU
1	B	637	GLN
1	B	672	PRO
1	C	262	PRO
1	C	342	THR
1	C	416	PRO
1	C	456	GLU
1	C	672	PRO
1	D	262	PRO
1	D	299	LEU
1	D	342	THR
1	D	416	PRO
1	D	456	GLU
1	D	561	GLU
1	D	603	THR
1	D	637	GLN
1	D	672	PRO
1	E	262	PRO
1	E	306	ASP
1	E	342	THR
1	E	416	PRO
1	E	456	GLU
1	E	637	GLN
1	E	645	SER
1	E	672	PRO
1	F	262	PRO
1	F	342	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	F	416	PRO
1	F	456	GLU
1	F	474	ALA
1	F	603	THR
1	F	672	PRO
1	A	280	PRO
1	A	305	THR
1	A	330	GLU
1	A	561	GLU
1	A	672	PRO
1	B	280	PRO
1	B	416	PRO
1	B	694	ALA
1	C	280	PRO
1	C	420	LEU
1	C	561	GLU
1	C	637	GLN
1	D	280	PRO
1	E	280	PRO
1	E	420	LEU
1	E	603	THR
1	F	280	PRO
1	F	421	ASP
1	F	637	GLN
1	A	248	GLU
1	A	272	GLU
1	A	591	ASP
1	B	248	GLU
1	B	270	LEU
1	B	272	GLU
1	B	323	HIS
1	B	603	THR
1	C	248	GLU
1	C	270	LEU
1	C	272	GLU
1	C	421	ASP
1	D	248	GLU
1	D	270	LEU
1	D	272	GLU
1	D	304	GLU
1	D	420	LEU
1	E	248	GLU

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Mol	Chain	Res	Type
1	E	270	LEU
1	E	561	GLU
1	F	248	GLU
1	F	270	LEU
1	F	272	GLU
1	F	561	GLU
1	A	261	MET
1	A	270	LEU
1	A	421	ASP
1	B	261	MET
1	B	421	ASP
1	C	261	MET
1	C	330	GLU
1	D	261	MET
1	E	261	MET
1	E	272	GLU
1	F	261	MET
1	C	324	GLY
1	E	324	GLY
1	F	652	ILE
1	B	324	GLY
1	B	652	ILE
1	F	324	GLY
1	C	652	ILE
1	A	324	GLY
1	A	652	ILE
1	E	652	ILE

### 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	415/454 (91%)	361 (87%)	54 (13%)	5 24
1	B	415/454 (91%)	358 (86%)	57 (14%)	4 22
1	C	415/454 (91%)	357 (86%)	58 (14%)	4 21

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	D	415/454 (91%)	358 (86%)	57 (14%)	4	22
1	E	415/454 (91%)	357 (86%)	58 (14%)	4	21
1	F	415/454 (91%)	360 (87%)	55 (13%)	4	23
All	All	2490/2724 (91%)	2151 (86%)	339 (14%)	4	22

All (339) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	263	ASP
1	A	294	ASP
1	A	296	LEU
1	A	312	LYS
1	A	313	GLU
1	A	316	ARG
1	A	331	ARG
1	A	350	LEU
1	A	367	ILE
1	A	378	ILE
1	A	408	MET
1	A	442	LEU
1	A	455	ILE
1	A	463	LYS
1	A	465	LEU
1	A	471	ASN
1	A	475	THR
1	A	489	ILE
1	A	493	THR
1	A	504	HIS
1	A	506	LEU
1	A	516	LYS
1	A	519	ASN
1	A	522	LEU
1	A	532	ARG
1	A	534	TYR
1	A	536	ARG
1	A	543	LEU
1	A	565	ARG
1	A	568	VAL
1	A	579	LYS
1	A	590	GLU
1	A	592	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	608	THR
1	A	624	LEU
1	A	635	SER
1	A	646	LYS
1	A	656	PHE
1	A	660	TYR
1	A	661	ASP
1	A	666	VAL
1	A	671	VAL
1	A	682	MET
1	A	686	LEU
1	A	705	ILE
1	A	714	ILE
1	A	717	LEU
1	A	731	THR
1	A	732	ILE
1	A	738	ASN
1	A	747	GLU
1	A	748	SER
1	A	759	SER
1	A	762	ASP
1	B	263	ASP
1	B	294	ASP
1	B	296	LEU
1	B	299	LEU
1	B	312	LYS
1	B	313	GLU
1	B	316	ARG
1	B	331	ARG
1	B	350	LEU
1	B	367	ILE
1	B	378	ILE
1	B	408	MET
1	B	423	ILE
1	B	442	LEU
1	B	455	ILE
1	B	463	LYS
1	B	465	LEU
1	B	475	THR
1	B	489	ILE
1	B	493	THR
1	B	504	HIS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	506	LEU
1	B	516	LYS
1	B	519	ASN
1	B	522	LEU
1	B	536	ARG
1	B	543	LEU
1	B	565	ARG
1	B	568	VAL
1	B	579	LYS
1	B	589	THR
1	B	590	GLU
1	B	592	GLN
1	B	599	LEU
1	B	608	THR
1	B	624	LEU
1	B	635	SER
1	B	646	LYS
1	B	656	PHE
1	B	660	TYR
1	B	661	ASP
1	B	666	VAL
1	B	671	VAL
1	B	682	MET
1	B	686	LEU
1	B	705	ILE
1	B	714	ILE
1	B	717	LEU
1	B	731	THR
1	B	732	ILE
1	B	738	ASN
1	B	747	GLU
1	B	748	SER
1	B	759	SER
1	B	762	ASP
1	B	767	HIS
1	B	770	VAL
1	C	263	ASP
1	C	294	ASP
1	C	296	LEU
1	C	300	PRO
1	C	303	ASP
1	C	305	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	312	LYS
1	C	313	GLU
1	C	316	ARG
1	C	331	ARG
1	C	350	LEU
1	C	367	ILE
1	C	378	ILE
1	C	408	MET
1	C	442	LEU
1	C	455	ILE
1	C	463	LYS
1	C	465	LEU
1	C	475	THR
1	C	489	ILE
1	C	493	THR
1	C	504	HIS
1	C	506	LEU
1	C	516	LYS
1	C	519	ASN
1	C	522	LEU
1	C	532	ARG
1	C	536	ARG
1	C	543	LEU
1	C	565	ARG
1	C	568	VAL
1	C	579	LYS
1	C	583	ARG
1	C	592	GLN
1	C	599	LEU
1	C	608	THR
1	C	624	LEU
1	C	635	SER
1	C	646	LYS
1	C	656	PHE
1	C	660	TYR
1	C	661	ASP
1	C	666	VAL
1	C	671	VAL
1	C	682	MET
1	C	686	LEU
1	C	705	ILE
1	C	714	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	717	LEU
1	C	731	THR
1	C	732	ILE
1	C	738	ASN
1	C	741	ASP
1	C	747	GLU
1	C	748	SER
1	C	759	SER
1	C	762	ASP
1	C	767	HIS
1	D	263	ASP
1	D	294	ASP
1	D	296	LEU
1	D	303	ASP
1	D	305	THR
1	D	312	LYS
1	D	313	GLU
1	D	316	ARG
1	D	331	ARG
1	D	350	LEU
1	D	367	ILE
1	D	378	ILE
1	D	423	ILE
1	D	442	LEU
1	D	455	ILE
1	D	463	LYS
1	D	465	LEU
1	D	475	THR
1	D	489	ILE
1	D	493	THR
1	D	506	LEU
1	D	516	LYS
1	D	519	ASN
1	D	522	LEU
1	D	532	ARG
1	D	536	ARG
1	D	543	LEU
1	D	565	ARG
1	D	568	VAL
1	D	579	LYS
1	D	583	ARG
1	D	589	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	D	592	GLN
1	D	599	LEU
1	D	608	THR
1	D	624	LEU
1	D	635	SER
1	D	646	LYS
1	D	656	PHE
1	D	660	TYR
1	D	661	ASP
1	D	666	VAL
1	D	671	VAL
1	D	682	MET
1	D	686	LEU
1	D	705	ILE
1	D	714	ILE
1	D	717	LEU
1	D	731	THR
1	D	732	ILE
1	D	738	ASN
1	D	747	GLU
1	D	748	SER
1	D	749	VAL
1	D	759	SER
1	D	762	ASP
1	D	770	VAL
1	E	263	ASP
1	E	294	ASP
1	E	296	LEU
1	E	312	LYS
1	E	313	GLU
1	E	316	ARG
1	E	331	ARG
1	E	350	LEU
1	E	367	ILE
1	E	378	ILE
1	E	408	MET
1	E	442	LEU
1	E	455	ILE
1	E	463	LYS
1	E	465	LEU
1	E	471	ASN
1	E	475	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	E	489	ILE
1	E	493	THR
1	E	506	LEU
1	E	515	LEU
1	E	516	LYS
1	E	519	ASN
1	E	522	LEU
1	E	532	ARG
1	E	536	ARG
1	E	543	LEU
1	E	565	ARG
1	E	568	VAL
1	E	579	LYS
1	E	588	GLU
1	E	590	GLU
1	E	592	GLN
1	E	593	VAL
1	E	599	LEU
1	E	608	THR
1	E	624	LEU
1	E	635	SER
1	E	646	LYS
1	E	656	PHE
1	E	660	TYR
1	E	661	ASP
1	E	666	VAL
1	E	671	VAL
1	E	682	MET
1	E	686	LEU
1	E	705	ILE
1	E	714	ILE
1	E	717	LEU
1	E	731	THR
1	E	732	ILE
1	E	738	ASN
1	E	741	ASP
1	E	747	GLU
1	E	748	SER
1	E	759	SER
1	E	762	ASP
1	E	767	HIS
1	F	263	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	F	294	ASP
1	F	296	LEU
1	F	305	THR
1	F	312	LYS
1	F	313	GLU
1	F	316	ARG
1	F	331	ARG
1	F	350	LEU
1	F	367	ILE
1	F	378	ILE
1	F	423	ILE
1	F	442	LEU
1	F	455	ILE
1	F	463	LYS
1	F	465	LEU
1	F	475	THR
1	F	489	ILE
1	F	493	THR
1	F	506	LEU
1	F	516	LYS
1	F	519	ASN
1	F	522	LEU
1	F	532	ARG
1	F	536	ARG
1	F	543	LEU
1	F	565	ARG
1	F	568	VAL
1	F	579	LYS
1	F	588	GLU
1	F	589	THR
1	F	592	GLN
1	F	608	THR
1	F	624	LEU
1	F	635	SER
1	F	646	LYS
1	F	656	PHE
1	F	660	TYR
1	F	661	ASP
1	F	666	VAL
1	F	671	VAL
1	F	682	MET
1	F	686	LEU

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Mol	Chain	Res	Type
1	F	705	ILE
1	F	706	THR
1	F	714	ILE
1	F	717	LEU
1	F	731	THR
1	F	732	ILE
1	F	738	ASN
1	F	747	GLU
1	F	748	SER
1	F	759	SER
1	F	762	ASP
1	F	767	HIS

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (18) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	250	GLN
1	A	767	HIS
1	B	250	GLN
1	B	446	GLN
1	B	586	GLN
1	B	767	HIS
1	C	250	GLN
1	C	291	ASN
1	C	446	GLN
1	C	586	GLN
1	C	767	HIS
1	D	250	GLN
1	D	767	HIS
1	E	250	GLN
1	E	767	HIS
1	F	250	GLN
1	F	446	GLN
1	F	767	HIS

### 5.3.3 RNA

There are no RNA molecules in this entry.



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

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

## 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 5.6 Ligand geometry [i](#)

6 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
2	ADP	A	783	-	25,29,29	1.37	3 (12%)	24,45,45	1.95	8 (33%)
2	ADP	B	783	-	25,29,29	1.15	2 (8%)	24,45,45	2.04	5 (20%)
2	ADP	C	783	-	25,29,29	1.26	2 (8%)	24,45,45	2.35	9 (37%)
2	ADP	D	783	-	25,29,29	1.37	3 (12%)	24,45,45	1.97	7 (29%)
2	ADP	E	783	-	25,29,29	1.22	3 (12%)	24,45,45	2.23	9 (37%)
2	ADP	F	783	-	25,29,29	1.11	2 (8%)	24,45,45	2.23	9 (37%)

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	ADP	A	783	-	-	0/12/32/32	0/3/3/3
2	ADP	B	783	-	-	0/12/32/32	0/3/3/3
2	ADP	C	783	-	-	0/12/32/32	0/3/3/3
2	ADP	D	783	-	-	0/12/32/32	0/3/3/3
2	ADP	E	783	-	-	0/12/32/32	0/3/3/3
2	ADP	F	783	-	-	0/12/32/32	0/3/3/3

All (15) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	783	ADP	C2'-C1'	-3.28	1.48	1.53
2	D	783	ADP	C2'-C1'	-3.07	1.48	1.53
2	A	783	ADP	C2'-C1'	-2.87	1.49	1.53
2	C	783	ADP	C2'-C1'	-2.80	1.49	1.53
2	F	783	ADP	C2'-C1'	-2.61	1.49	1.53
2	E	783	ADP	C2'-C1'	-2.47	1.49	1.53
2	D	783	ADP	C5-N7	-2.07	1.32	1.39
2	A	783	ADP	C2-N3	2.17	1.35	1.32
2	E	783	ADP	C2-N3	2.45	1.36	1.32
2	B	783	ADP	C5-C4	2.75	1.46	1.40
2	F	783	ADP	C5-C4	3.07	1.47	1.40
2	E	783	ADP	C5-C4	3.40	1.48	1.40
2	D	783	ADP	C5-C4	3.56	1.48	1.40
2	C	783	ADP	C5-C4	3.93	1.49	1.40
2	A	783	ADP	C5-C4	4.29	1.50	1.40

All (47) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	783	ADP	N3-C2-N1	-6.25	123.42	128.86
2	E	783	ADP	C4-C5-N7	-5.76	103.85	109.41
2	F	783	ADP	N3-C2-N1	-5.62	123.96	128.86
2	A	783	ADP	C4-C5-N7	-5.05	104.53	109.41
2	F	783	ADP	O2'-C2'-C1'	-4.97	96.08	111.61
2	D	783	ADP	N3-C2-N1	-4.92	124.57	128.86
2	C	783	ADP	N3-C2-N1	-4.65	124.80	128.86
2	B	783	ADP	O2'-C2'-C1'	-4.51	97.52	111.61
2	C	783	ADP	O2'-C2'-C1'	-4.05	98.94	111.61
2	E	783	ADP	N3-C2-N1	-4.01	125.37	128.86
2	C	783	ADP	C4-C5-N7	-3.70	105.83	109.41
2	D	783	ADP	C4-C5-N7	-3.70	105.83	109.41
2	F	783	ADP	C2'-C3'-C4'	-3.58	95.65	102.62
2	E	783	ADP	C4'-O4'-C1'	-3.55	105.99	109.77
2	A	783	ADP	O2'-C2'-C1'	-3.27	101.39	111.61
2	C	783	ADP	C2'-C3'-C4'	-3.24	96.31	102.62
2	F	783	ADP	C4-C5-N7	-2.89	106.62	109.41
2	B	783	ADP	C4-C5-N7	-2.76	106.74	109.41
2	C	783	ADP	O5'-C5'-C4'	-2.73	99.34	109.00
2	E	783	ADP	O5'-C5'-C4'	-2.66	99.57	109.00
2	B	783	ADP	O2'-C2'-C3'	-2.64	103.37	111.83
2	E	783	ADP	O4'-C4'-C5'	-2.55	100.80	109.40
2	F	783	ADP	O2'-C2'-C3'	-2.47	103.93	111.83
2	A	783	ADP	O3A-PB-O1B	-2.36	96.90	111.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	783	ADP	O5'-C5'-C4'	-2.29	100.86	109.00
2	D	783	ADP	O2'-C2'-C1'	-2.25	104.58	111.61
2	B	783	ADP	O3A-PB-O1B	-2.24	97.66	111.44
2	E	783	ADP	O5'-PA-O1A	-2.19	100.40	109.25
2	C	783	ADP	O2'-C2'-C3'	-2.19	104.82	111.83
2	A	783	ADP	N3-C2-N1	-2.18	126.96	128.86
2	E	783	ADP	O2'-C2'-C1'	-2.07	105.15	111.61
2	A	783	ADP	O2A-PA-O1A	2.04	122.86	112.28
2	F	783	ADP	O2A-PA-O1A	2.05	122.87	112.28
2	F	783	ADP	C1'-N9-C4	2.05	130.18	126.64
2	A	783	ADP	C5-C6-N6	2.09	124.74	120.47
2	D	783	ADP	C5-C6-N6	2.13	124.82	120.47
2	D	783	ADP	O5'-C5'-C4'	2.16	116.67	109.00
2	A	783	ADP	O3B-PB-O1B	2.23	119.21	110.50
2	E	783	ADP	O2A-PA-O1A	2.33	124.36	112.28
2	E	783	ADP	O3B-PB-O2B	2.37	117.19	107.61
2	F	783	ADP	O3B-PB-O2B	2.38	117.20	107.61
2	D	783	ADP	C2-N1-C6	2.44	123.03	118.77
2	C	783	ADP	O2A-PA-O1A	2.81	126.84	112.28
2	C	783	ADP	O3B-PB-O2B	3.09	120.09	107.61
2	D	783	ADP	C1'-N9-C4	3.45	132.59	126.64
2	A	783	ADP	C1'-N9-C4	4.04	133.62	126.64
2	C	783	ADP	C1'-N9-C4	4.22	133.93	126.64

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

6 monomers are involved in 44 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	A	783	ADP	7	0
2	B	783	ADP	7	0
2	C	783	ADP	6	0
2	D	783	ADP	11	0
2	E	783	ADP	6	0
2	F	783	ADP	7	0

## 5.7 Other polymers

There are no such residues in this entry.

## 5.8 Polymer linkage issues

There are no chain breaks in this entry.

## 6 Fit of model and data

### 6.1 Protein, DNA and RNA chains

In the following table, the column labelled ‘#RSRZ > 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95<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	496/543 (91%)	0.18	23 (4%) 33 30	69, 145, 461, 643	0
1	B	496/543 (91%)	0.22	30 (6%) 23 22	75, 143, 456, 637	0
1	C	496/543 (91%)	0.37	41 (8%) 12 13	71, 145, 458, 683	0
1	D	496/543 (91%)	0.45	53 (10%) 7 7	65, 145, 463, 696	0
1	E	496/543 (91%)	0.47	53 (10%) 7 7	75, 146, 466, 682	0
1	F	496/543 (91%)	0.29	37 (7%) 15 15	78, 148, 457, 672	0
All	All	2976/3258 (91%)	0.33	237 (7%) 13 13	65, 145, 464, 696	0

All (237) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	C	287	SER	15.1
1	E	246	THR	13.4
1	B	246	THR	10.5
1	F	278	LYS	10.3
1	B	282	SER	10.1
1	C	288	VAL	8.7
1	A	246	THR	8.7
1	C	257	GLU	8.6
1	B	251	THR	8.3
1	B	248	GLU	8.2
1	E	251	THR	7.2
1	C	249	VAL	7.1
1	E	282	SER	6.6
1	D	278	LYS	6.4
1	D	246	THR	6.3
1	E	247	GLY	6.1
1	C	246	THR	5.9
1	A	259	ALA	5.7
1	C	247	GLY	5.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	E	250	GLN	5.5
1	C	289	ILE	5.5
1	F	307	ASP	5.4
1	B	254	GLU	5.4
1	C	286	SER	5.4
1	D	252	LEU	5.2
1	D	615	LEU	5.2
1	E	281	SER	4.8
1	C	301	TRP	4.7
1	A	463	LYS	4.7
1	B	278	LYS	4.7
1	C	250	GLN	4.7
1	C	300	PRO	4.7
1	E	290	ARG	4.6
1	C	337	ALA	4.5
1	E	276	TYR	4.5
1	B	289	ILE	4.4
1	D	302	THR	4.4
1	E	459	PHE	4.4
1	D	342	THR	4.3
1	C	427	SER	4.3
1	E	293	ILE	4.3
1	C	256	ILE	4.3
1	F	277	GLU	4.3
1	E	277	GLU	4.3
1	B	279	ILE	4.3
1	B	307	ASP	4.2
1	C	282	SER	4.2
1	D	279	ILE	4.2
1	D	620	GLY	4.2
1	E	285	GLU	4.1
1	F	644	ARG	4.1
1	F	288	VAL	4.0
1	E	347	GLY	4.0
1	F	472	ASN	4.0
1	F	627	LYS	4.0
1	D	757	LEU	3.9
1	B	252	LEU	3.9
1	D	289	ILE	3.9
1	D	689	ALA	3.9
1	D	286	SER	3.8
1	F	279	ILE	3.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	D	662	ILE	3.8
1	F	289	ILE	3.8
1	C	290	ARG	3.8
1	F	345	LEU	3.7
1	E	615	LEU	3.7
1	A	456	GLU	3.7
1	D	614	SER	3.7
1	E	295	TRP	3.7
1	B	247	GLY	3.7
1	A	251	THR	3.6
1	A	337	ALA	3.6
1	D	456	GLU	3.6
1	F	676	PRO	3.5
1	F	272	GLU	3.5
1	B	337	ALA	3.5
1	F	459	PHE	3.5
1	B	257	GLU	3.5
1	F	246	THR	3.5
1	A	338	VAL	3.5
1	C	248	GLU	3.4
1	C	283	SER	3.4
1	E	344	SER	3.4
1	B	286	SER	3.3
1	C	414	LEU	3.3
1	E	471	ASN	3.3
1	D	344	SER	3.3
1	A	663	HIS	3.3
1	C	455	ILE	3.3
1	E	289	ILE	3.3
1	D	641	SER	3.2
1	D	624	LEU	3.2
1	B	342	THR	3.2
1	C	662	ILE	3.2
1	F	344	SER	3.2
1	F	664	ILE	3.2
1	D	657	HIS	3.2
1	B	281	SER	3.2
1	A	285	GLU	3.1
1	E	338	VAL	3.1
1	B	276	TYR	3.1
1	E	278	LYS	3.0
1	E	564	LYS	3.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	A	444	PRO	3.0
1	D	644	ARG	3.0
1	F	725	HIS	3.0
1	C	338	VAL	3.0
1	E	288	VAL	3.0
1	D	472	ASN	3.0
1	D	756	ILE	2.9
1	D	594	GLY	2.9
1	E	279	ILE	2.9
1	F	290	ARG	2.9
1	F	663	HIS	2.9
1	B	341	LEU	2.8
1	D	301	TRP	2.8
1	E	532	ARG	2.8
1	C	284	ALA	2.8
1	D	699	VAL	2.8
1	E	296	LEU	2.8
1	E	343	LYS	2.8
1	B	255	LYS	2.8
1	F	373	ARG	2.8
1	B	444	PRO	2.7
1	D	596	VAL	2.7
1	A	341	LEU	2.7
1	B	295	TRP	2.7
1	A	343	LYS	2.7
1	E	342	THR	2.7
1	E	591	ASP	2.7
1	F	732	ILE	2.7
1	A	734	ALA	2.7
1	F	731	THR	2.7
1	C	663	HIS	2.7
1	D	288	VAL	2.6
1	E	755	PHE	2.6
1	E	413	LYS	2.6
1	F	540	VAL	2.6
1	D	639	ALA	2.6
1	A	462	SER	2.6
1	C	558	ILE	2.6
1	D	755	PHE	2.6
1	D	613	VAL	2.6
1	E	257	GLU	2.6
1	B	284	ALA	2.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	D	251	THR	2.6
1	D	444	PRO	2.6
1	F	577	ILE	2.5
1	B	259	ALA	2.5
1	E	249	VAL	2.5
1	F	261	MET	2.5
1	C	565	ARG	2.5
1	F	617	PRO	2.5
1	C	566	ILE	2.5
1	E	584	TYR	2.5
1	D	337	ALA	2.5
1	C	278	LYS	2.5
1	D	648	GLU	2.5
1	F	248	GLU	2.5
1	C	465	LEU	2.5
1	D	277	GLU	2.5
1	C	341	LEU	2.5
1	E	360	LYS	2.5
1	F	301	TRP	2.4
1	C	456	GLU	2.4
1	D	345	LEU	2.4
1	F	620	GLY	2.4
1	A	262	PRO	2.4
1	C	307	ASP	2.4
1	A	427	SER	2.4
1	E	286	SER	2.4
1	E	558	ILE	2.4
1	D	622	LEU	2.4
1	E	337	ALA	2.4
1	F	259	ALA	2.4
1	B	288	VAL	2.4
1	F	276	TYR	2.4
1	D	654	PRO	2.3
1	F	662	ILE	2.3
1	E	301	TRP	2.3
1	D	768	ALA	2.3
1	A	445	GLU	2.3
1	B	301	TRP	2.3
1	D	690	LEU	2.3
1	D	412	GLY	2.3
1	C	342	THR	2.3
1	D	283	SER	2.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	A	258	GLU	2.2
1	E	335	TYR	2.2
1	E	267	GLU	2.2
1	D	445	GLU	2.2
1	F	616	SER	2.2
1	A	458	THR	2.2
1	E	294	ASP	2.2
1	A	437	ALA	2.2
1	E	440	GLU	2.2
1	E	721	ALA	2.2
1	E	252	LEU	2.2
1	C	445	GLU	2.2
1	C	251	THR	2.2
1	B	440	GLU	2.2
1	C	344	SER	2.2
1	D	275	ARG	2.2
1	E	341	LEU	2.2
1	C	615	LEU	2.2
1	D	666	VAL	2.2
1	D	769	LEU	2.2
1	D	462	SER	2.2
1	F	444	PRO	2.2
1	E	268	THR	2.2
1	E	323	HIS	2.2
1	C	345	LEU	2.1
1	B	454	TYR	2.1
1	A	255	LYS	2.1
1	F	426	MET	2.1
1	E	421	ASP	2.1
1	C	454	TYR	2.1
1	D	437	ALA	2.1
1	E	705	ILE	2.1
1	B	273	LEU	2.1
1	B	280	PRO	2.1
1	F	729	LEU	2.1
1	E	280	PRO	2.1
1	A	615	LEU	2.1
1	C	291	ASN	2.1
1	A	614	SER	2.1
1	D	307	ASP	2.1
1	E	562	GLU	2.1
1	C	564	LYS	2.0

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Mol	Chain	Res	Type	RSRZ
1	D	632	MET	2.1
1	D	680	ILE	2.0
1	F	296	LEU	2.0
1	D	273	LEU	2.0
1	E	463	LYS	2.0
1	B	462	SER	2.0
1	D	599	LEU	2.0
1	E	594	GLY	2.0

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

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

## 6.3 Carbohydrates [i](#)

There are no carbohydrates 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. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. 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	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
2	ADP	D	783	27/27	0.73	0.31	0.96	30,142,369,458	0
2	ADP	C	783	27/27	0.89	0.30	0.65	57,125,341,462	0
2	ADP	B	783	27/27	0.91	0.25	0.11	73,123,341,499	0
2	ADP	A	783	27/27	0.91	0.22	-0.04	55,104,341,499	0
2	ADP	F	783	27/27	0.92	0.22	-0.20	57,123,341,482	0
2	ADP	E	783	27/27	0.93	0.19	-0.79	53,114,341,491	0

## 6.5 Other polymers [i](#)

There are no such residues in this entry.