



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 30, 2026 – 09:41 AM UTC

PDB ID : 4YLN / pdb_00004yln
Title : E. coli Transcription Initiation Complex - 17-bp spacer and 4-nt RNA
Authors : Zuo, Y.; Steitz, T.A.
Deposited on : 2015-03-05
Resolution : 5.50 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

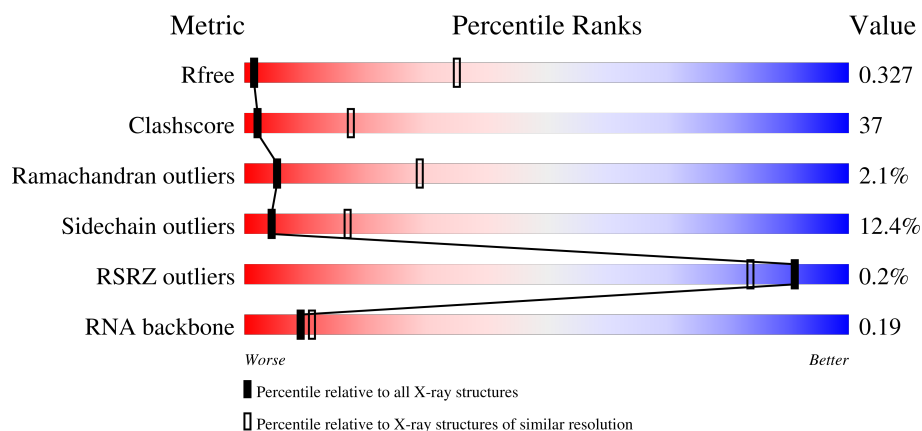
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 5.50 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1088 (7.00-4.00)
Clashscore	190562	1147 (7.00-4.00)
Ramachandran outliers	187476	1012 (7.02-3.98)
Sidechain outliers	187428	1023 (7.04-3.96)
RSRZ outliers	180081	1081 (7.00-4.00)
RNA backbone	3983	1052 (7.80-3.10)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	242	
1	B	242	
1	G	242	
1	H	242	

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Mol	Chain	Length	Quality of chain
1	M	242	
1	N	242	
2	C	1342	
2	I	1342	
2	O	1342	
3	D	1407	
3	J	1407	
3	P	1407	
4	E	90	
4	K	90	
4	Q	90	
5	F	628	
5	L	628	
5	R	628	
6	1	49	
6	4	49	
6	7	49	
7	2	49	
7	5	49	
7	8	49	
8	3	4	
8	6	4	
8	9	4	

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:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
9	ZN	J	1502	-	-	X	-

2 Entry composition

There are 10 unique types of molecules in this entry. The entry contains 94608 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 DNA-directed RNA polymerase subunit alpha.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	230	Total	C	N	O	S	0	0	0
			1787	1112	317	352	6			
1	B	228	Total	C	N	O	S	0	0	0
			1767	1100	312	349	6			
1	G	230	Total	C	N	O	S	0	0	0
			1787	1112	317	352	6			
1	H	228	Total	C	N	O	S	0	0	0
			1767	1100	312	349	6			
1	M	230	Total	C	N	O	S	0	0	0
			1787	1112	317	352	6			
1	N	228	Total	C	N	O	S	0	0	0
			1767	1100	312	349	6			

There are 42 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-6	ALA	-	expression tag	UNP A7ZSI4
A	-5	HIS	-	expression tag	UNP A7ZSI4
A	-4	HIS	-	expression tag	UNP A7ZSI4
A	-3	HIS	-	expression tag	UNP A7ZSI4
A	-2	HIS	-	expression tag	UNP A7ZSI4
A	-1	HIS	-	expression tag	UNP A7ZSI4
A	0	HIS	-	expression tag	UNP A7ZSI4
B	-6	ALA	-	expression tag	UNP A7ZSI4
B	-5	HIS	-	expression tag	UNP A7ZSI4
B	-4	HIS	-	expression tag	UNP A7ZSI4
B	-3	HIS	-	expression tag	UNP A7ZSI4
B	-2	HIS	-	expression tag	UNP A7ZSI4
B	-1	HIS	-	expression tag	UNP A7ZSI4
B	0	HIS	-	expression tag	UNP A7ZSI4
G	-6	ALA	-	expression tag	UNP A7ZSI4
G	-5	HIS	-	expression tag	UNP A7ZSI4
G	-4	HIS	-	expression tag	UNP A7ZSI4

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Chain	Residue	Modelled	Actual	Comment	Reference
G	-3	HIS	-	expression tag	UNP A7ZSI4
G	-2	HIS	-	expression tag	UNP A7ZSI4
G	-1	HIS	-	expression tag	UNP A7ZSI4
G	0	HIS	-	expression tag	UNP A7ZSI4
H	-6	ALA	-	expression tag	UNP A7ZSI4
H	-5	HIS	-	expression tag	UNP A7ZSI4
H	-4	HIS	-	expression tag	UNP A7ZSI4
H	-3	HIS	-	expression tag	UNP A7ZSI4
H	-2	HIS	-	expression tag	UNP A7ZSI4
H	-1	HIS	-	expression tag	UNP A7ZSI4
H	0	HIS	-	expression tag	UNP A7ZSI4
M	-6	ALA	-	expression tag	UNP A7ZSI4
M	-5	HIS	-	expression tag	UNP A7ZSI4
M	-4	HIS	-	expression tag	UNP A7ZSI4
M	-3	HIS	-	expression tag	UNP A7ZSI4
M	-2	HIS	-	expression tag	UNP A7ZSI4
M	-1	HIS	-	expression tag	UNP A7ZSI4
M	0	HIS	-	expression tag	UNP A7ZSI4
N	-6	ALA	-	expression tag	UNP A7ZSI4
N	-5	HIS	-	expression tag	UNP A7ZSI4
N	-4	HIS	-	expression tag	UNP A7ZSI4
N	-3	HIS	-	expression tag	UNP A7ZSI4
N	-2	HIS	-	expression tag	UNP A7ZSI4
N	-1	HIS	-	expression tag	UNP A7ZSI4
N	0	HIS	-	expression tag	UNP A7ZSI4

- Molecule 2 is a protein called DNA-directed RNA polymerase subunit beta.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	C	1341	Total	C	N	O	S	0	0	0
			10576	6636	1842	2055	43			
2	I	1341	Total	C	N	O	S	0	0	0
			10576	6636	1842	2055	43			
2	O	1341	Total	C	N	O	S	0	0	0
			10576	6636	1842	2055	43			

- Molecule 3 is a protein called DNA-directed RNA polymerase subunit beta'.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	D	1362	Total	C	N	O	S	0	0	0
			10568	6633	1887	1998	50			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	J	1362	Total	C	N	O	S	0	0	0
			10568	6633	1887	1998	50			
3	P	1362	Total	C	N	O	S	0	0	0
			10568	6633	1887	1998	50			

- Molecule 4 is a protein called DNA-directed RNA polymerase subunit omega.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	E	90	Total	C	N	O	S	0	0	0
			708	430	136	141	1			
4	K	90	Total	C	N	O	S	0	0	0
			708	430	136	141	1			
4	Q	90	Total	C	N	O	S	0	0	0
			708	430	136	141	1			

- Molecule 5 is a protein called RNA polymerase sigma factor RpoD.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	F	497	Total	C	N	O	S	0	0	0
			4022	2512	719	768	23			
5	L	497	Total	C	N	O	S	0	0	0
			4022	2512	719	768	23			
5	R	497	Total	C	N	O	S	0	0	0
			4022	2512	719	768	23			

There are 45 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
F	-14	MET	-	expression tag	UNP P00579
F	-13	ARG	-	expression tag	UNP P00579
F	-12	GLY	-	expression tag	UNP P00579
F	-11	SER	-	expression tag	UNP P00579
F	-10	HIS	-	expression tag	UNP P00579
F	-9	HIS	-	expression tag	UNP P00579
F	-8	HIS	-	expression tag	UNP P00579
F	-7	HIS	-	expression tag	UNP P00579
F	-6	HIS	-	expression tag	UNP P00579
F	-5	HIS	-	expression tag	UNP P00579
F	-4	THR	-	expression tag	UNP P00579
F	-3	ASP	-	expression tag	UNP P00579
F	-2	GLN	-	expression tag	UNP P00579
F	-1	PHE	-	expression tag	UNP P00579

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Chain	Residue	Modelled	Actual	Comment	Reference
F	0	THR	-	expression tag	UNP P00579
L	-14	MET	-	expression tag	UNP P00579
L	-13	ARG	-	expression tag	UNP P00579
L	-12	GLY	-	expression tag	UNP P00579
L	-11	SER	-	expression tag	UNP P00579
L	-10	HIS	-	expression tag	UNP P00579
L	-9	HIS	-	expression tag	UNP P00579
L	-8	HIS	-	expression tag	UNP P00579
L	-7	HIS	-	expression tag	UNP P00579
L	-6	HIS	-	expression tag	UNP P00579
L	-5	HIS	-	expression tag	UNP P00579
L	-4	THR	-	expression tag	UNP P00579
L	-3	ASP	-	expression tag	UNP P00579
L	-2	GLN	-	expression tag	UNP P00579
L	-1	PHE	-	expression tag	UNP P00579
L	0	THR	-	expression tag	UNP P00579
R	-14	MET	-	expression tag	UNP P00579
R	-13	ARG	-	expression tag	UNP P00579
R	-12	GLY	-	expression tag	UNP P00579
R	-11	SER	-	expression tag	UNP P00579
R	-10	HIS	-	expression tag	UNP P00579
R	-9	HIS	-	expression tag	UNP P00579
R	-8	HIS	-	expression tag	UNP P00579
R	-7	HIS	-	expression tag	UNP P00579
R	-6	HIS	-	expression tag	UNP P00579
R	-5	HIS	-	expression tag	UNP P00579
R	-4	THR	-	expression tag	UNP P00579
R	-3	ASP	-	expression tag	UNP P00579
R	-2	GLN	-	expression tag	UNP P00579
R	-1	PHE	-	expression tag	UNP P00579
R	0	THR	-	expression tag	UNP P00579

- Molecule 6 is a DNA chain called NT strand DNA (49-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	1	49	Total	C	N	O	P	0	0	0
			996	476	178	294	48			
6	4	49	Total	C	N	O	P	0	0	0
			996	476	178	294	48			
6	7	49	Total	C	N	O	P	0	0	0
			996	476	178	294	48			

- Molecule 7 is a DNA chain called T strand DNA (49-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	2	49	Total	C	N	O	P	0	0	0
			1012	481	191	292	48			
7	5	49	Total	C	N	O	P	0	0	0
			1012	481	191	292	48			
7	8	49	Total	C	N	O	P	0	0	0
			1012	481	191	292	48			

- Molecule 8 is a RNA chain called RNA (5'-D(*(GTP))-R(P*AP*GP*U)-3').

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	3	4	Total	C	N	O	P	0	0	0
			97	39	17	35	6			
8	6	4	Total	C	N	O	P	0	0	0
			97	39	17	35	6			
8	9	4	Total	C	N	O	P	0	0	0
			97	39	17	35	6			

- Molecule 9 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
9	D	2	Total	Zn	0	0
			2	2		
9	J	2	Total	Zn	0	0
			2	2		
9	P	2	Total	Zn	0	0
			2	2		

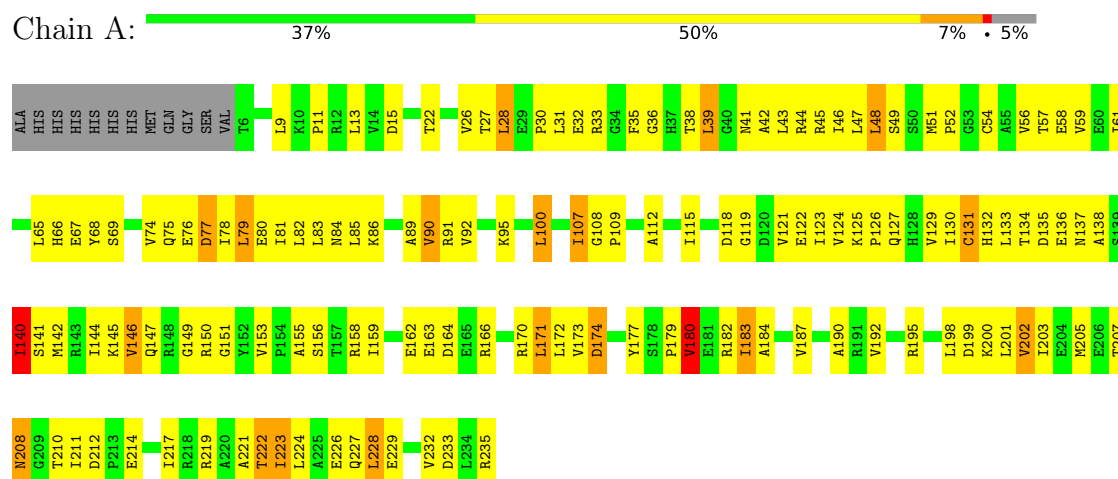
- Molecule 10 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
10	D	1	Total	Mg	0	0
			1	1		
10	6	1	Total	Mg	0	0
			1	1		
10	P	1	Total	Mg	0	0
			1	1		

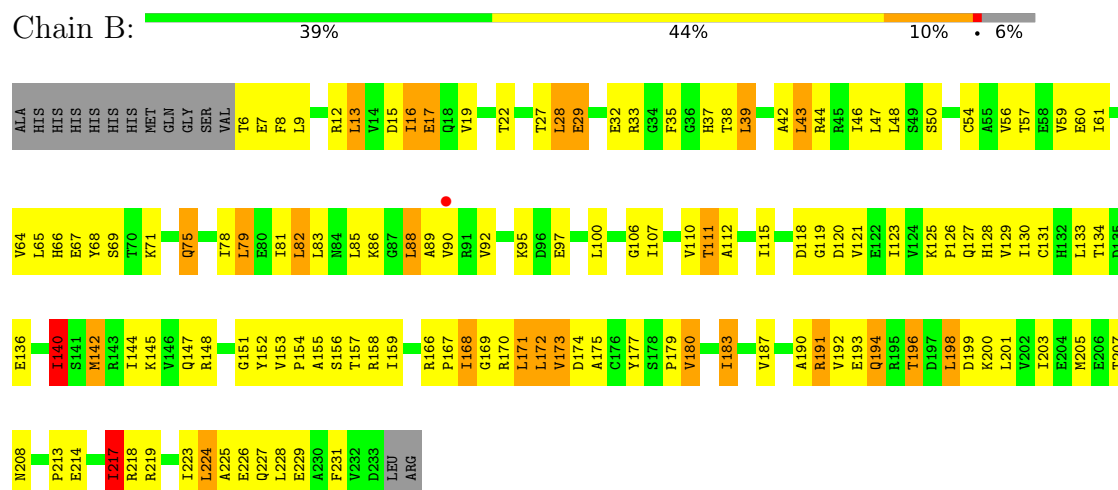
3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

• Molecule 1: DNA-directed RNA polymerase subunit alpha

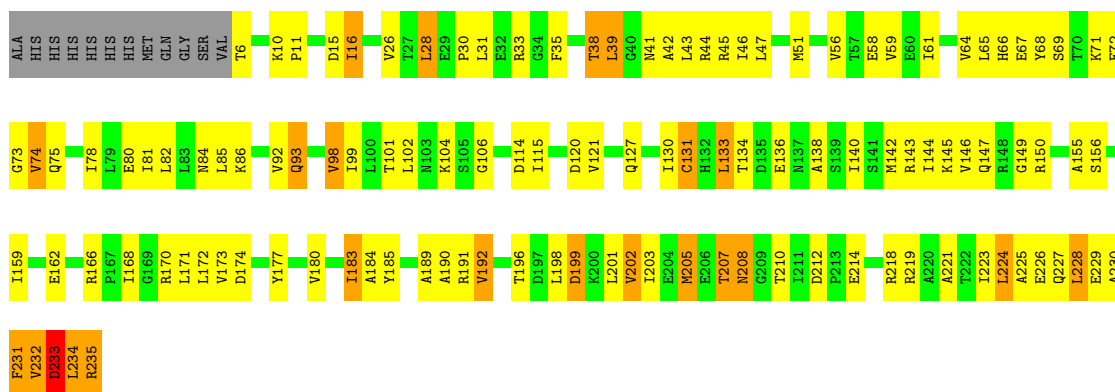


• Molecule 1: DNA-directed RNA polymerase subunit alpha



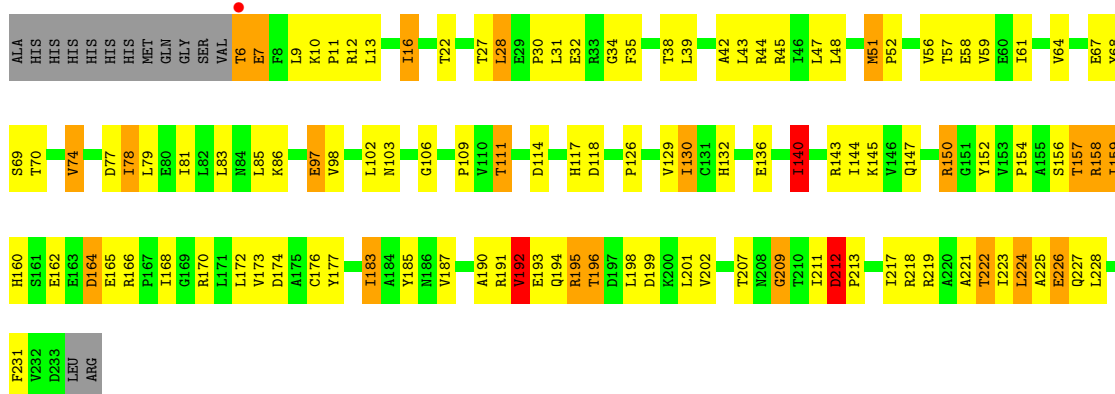
• Molecule 1: DNA-directed RNA polymerase subunit alpha





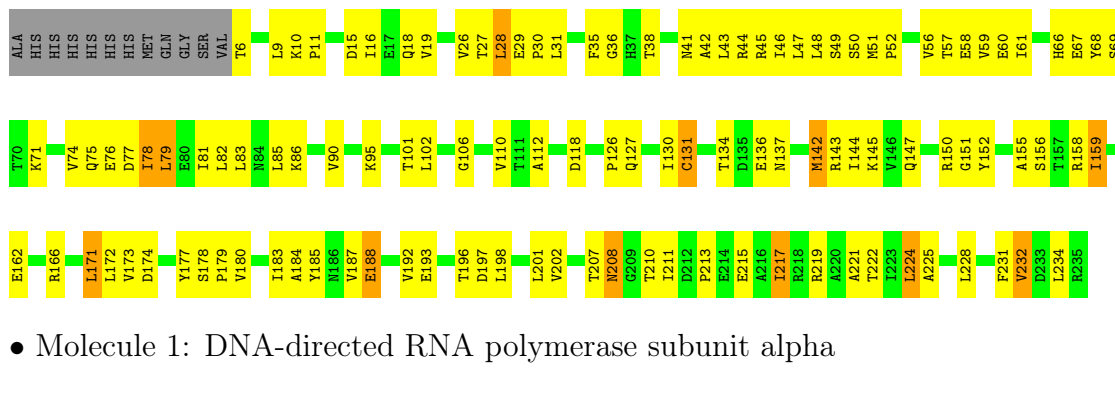
• Molecule 1: DNA-directed RNA polymerase subunit alpha

Chain H: 47% 37% 9% 6%



• Molecule 1: DNA-directed RNA polymerase subunit alpha

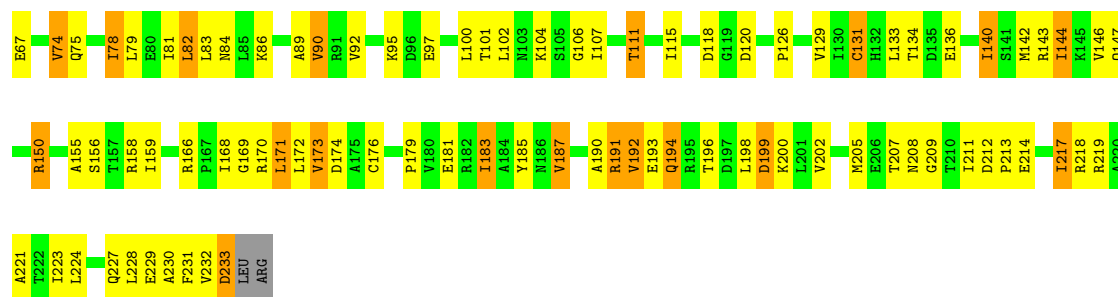
Chain M: 47% 43% 5% 5%



• Molecule 1: DNA-directed RNA polymerase subunit alpha

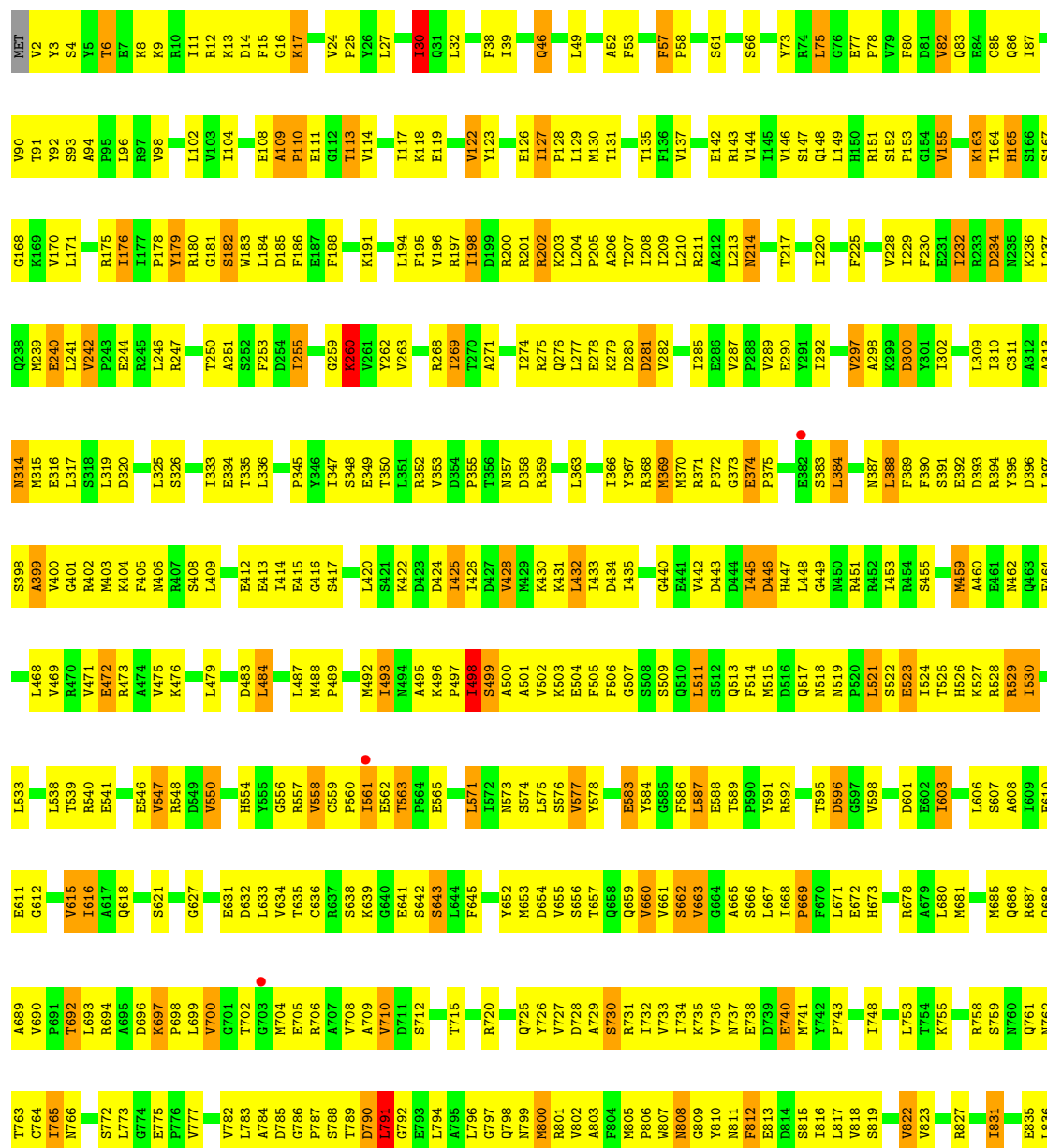
Chain N: 45% 40% 10% 6%

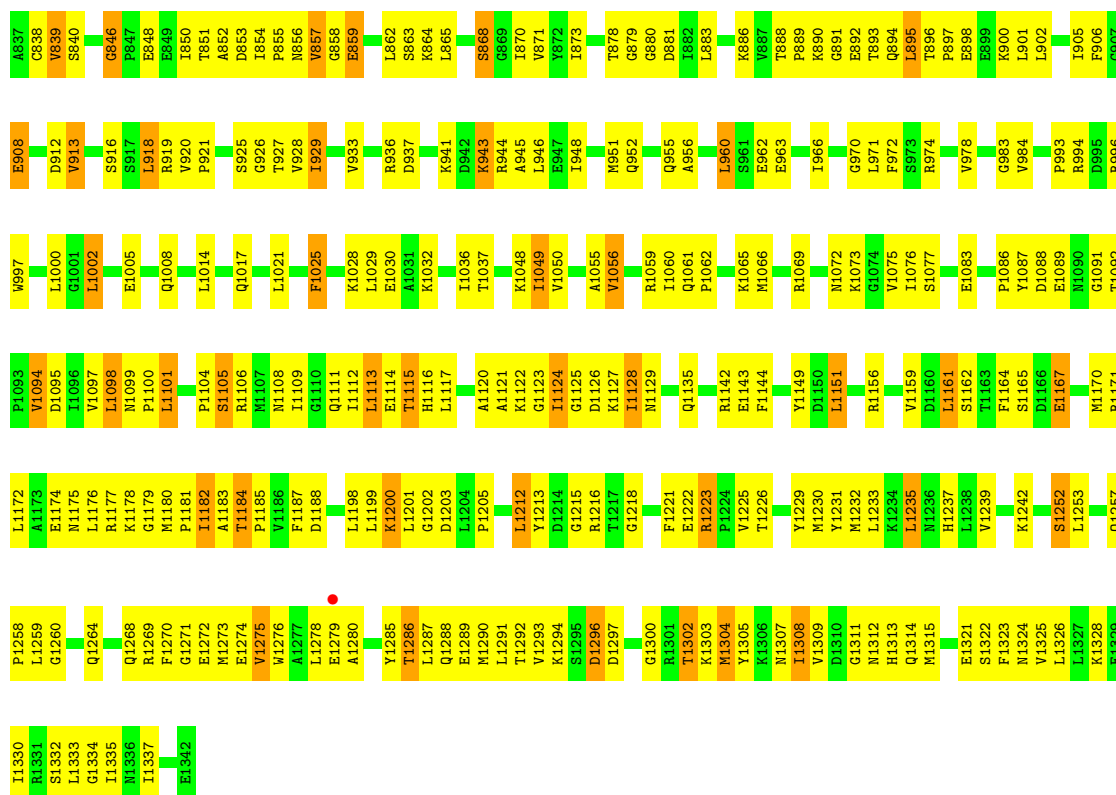




• Molecule 2: DNA-directed RNA polymerase subunit beta

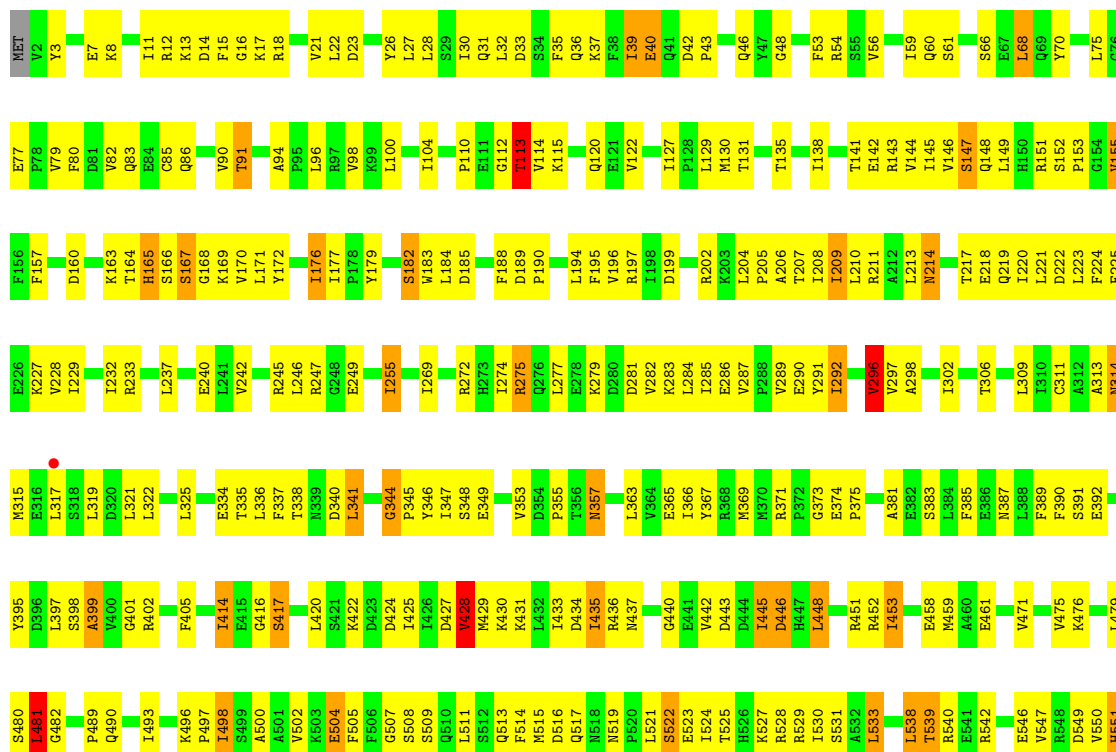
Chain C: 44% 46% 9%

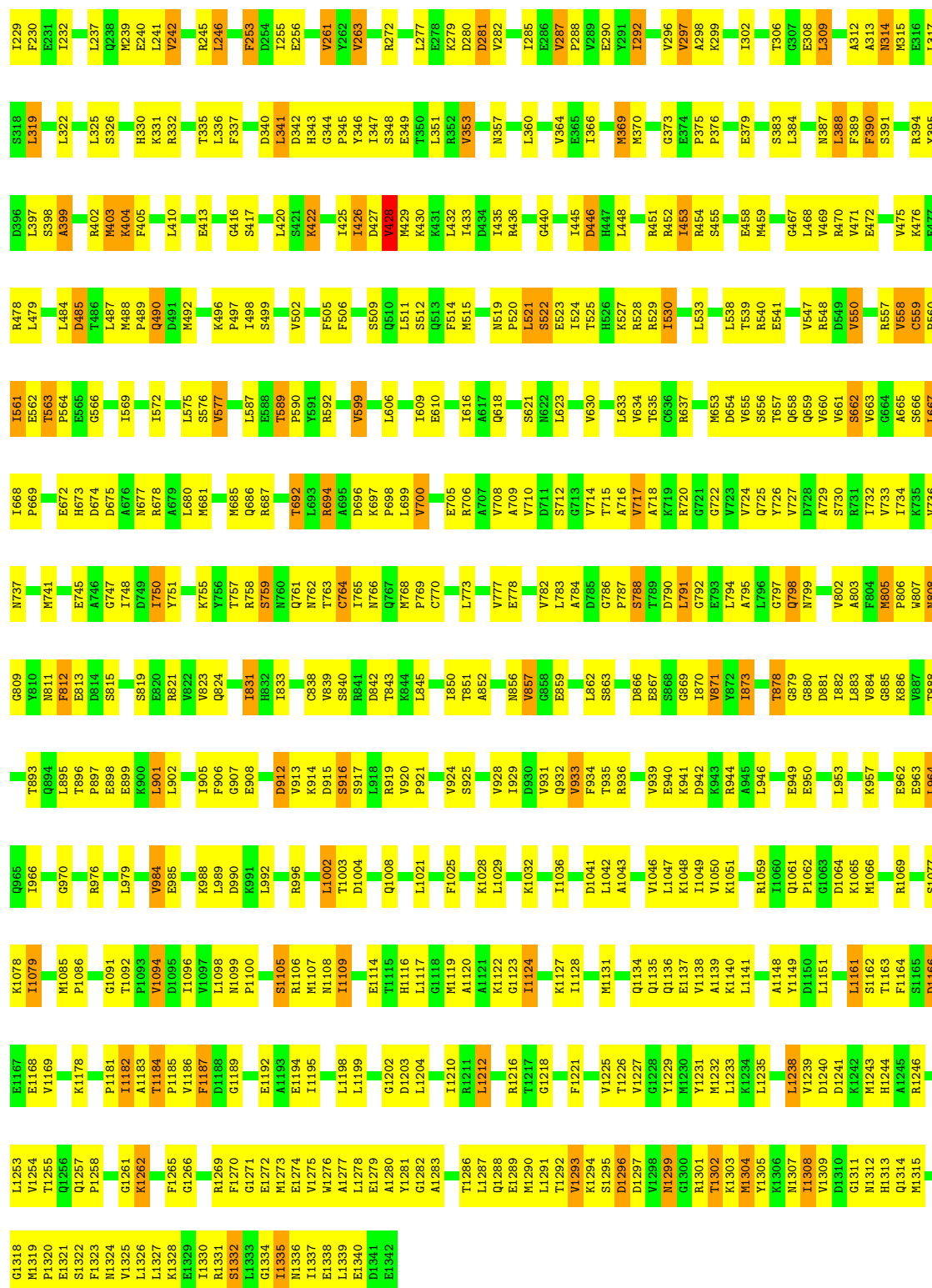




• Molecule 2: DNA-directed RNA polymerase subunit beta

Chain I: 46% 46% 7%

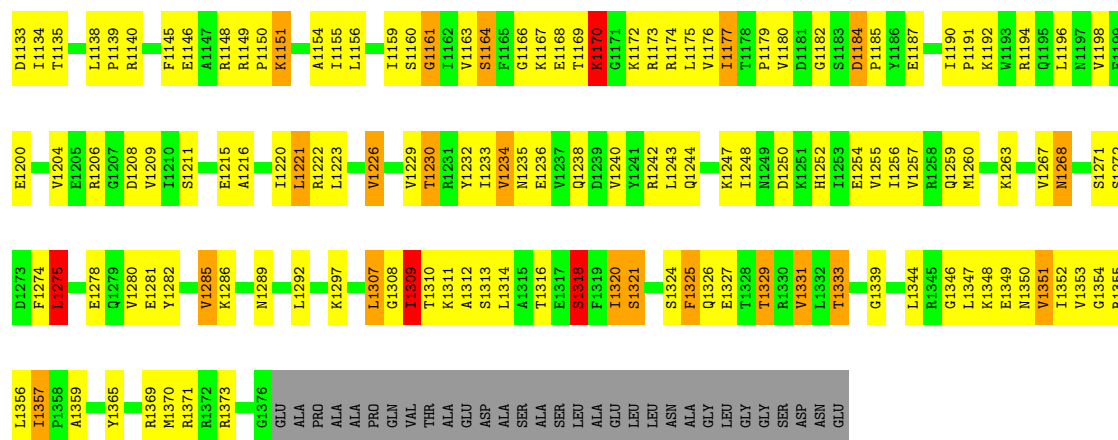




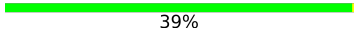
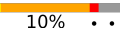
• Molecule 3: DNA-directed RNA polymerase subunit beta'

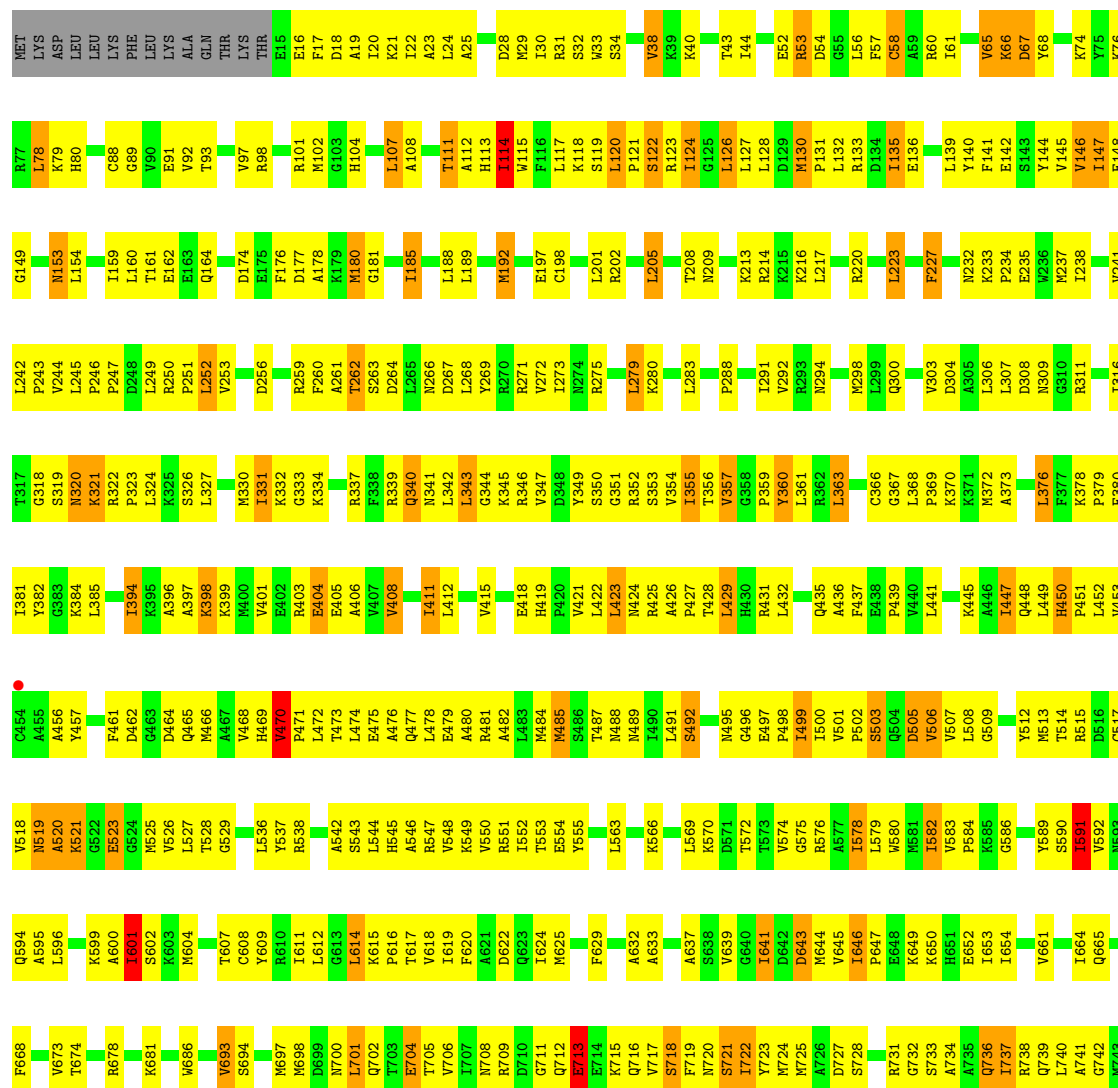
Chain D: 43% 46% 8%

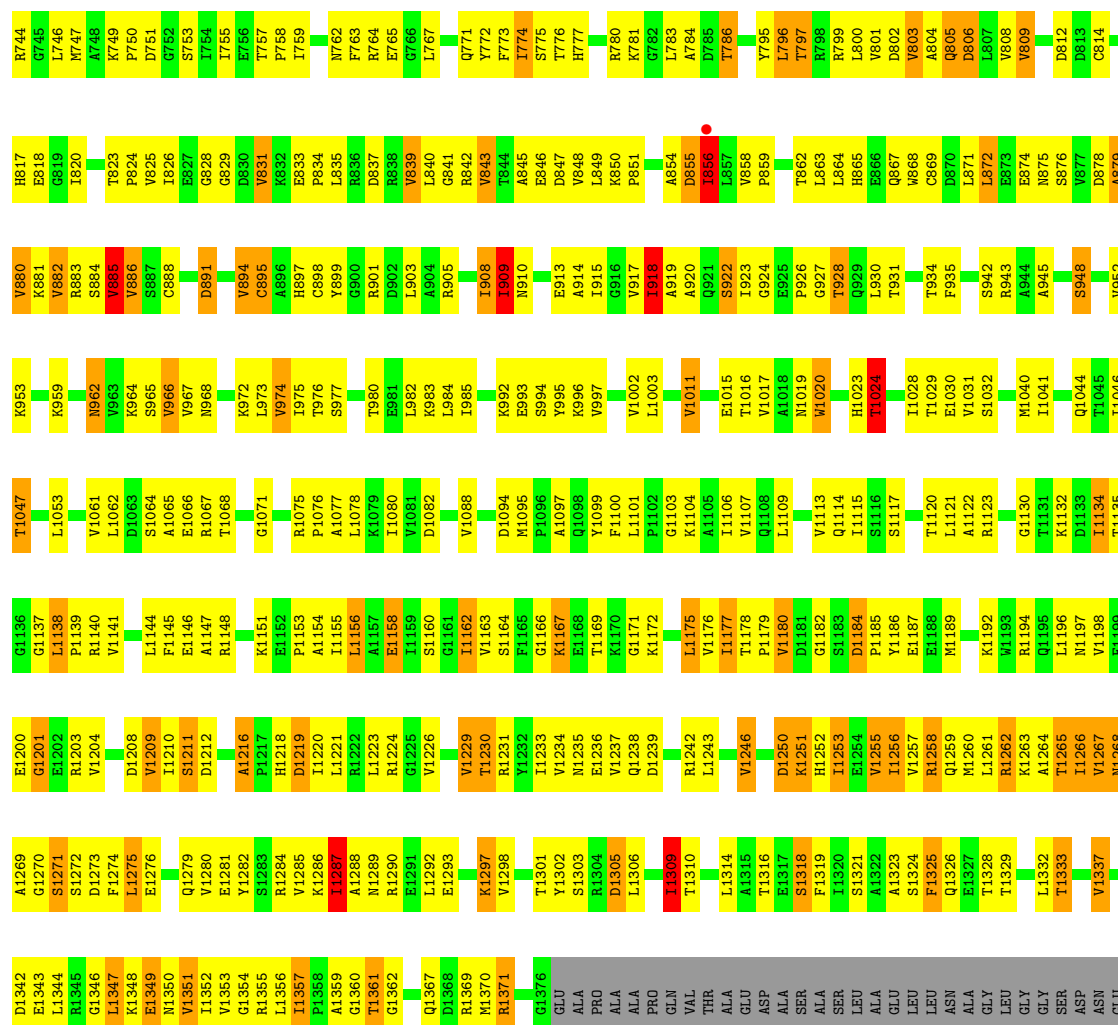




• Molecule 3: DNA-directed RNA polymerase subunit beta'

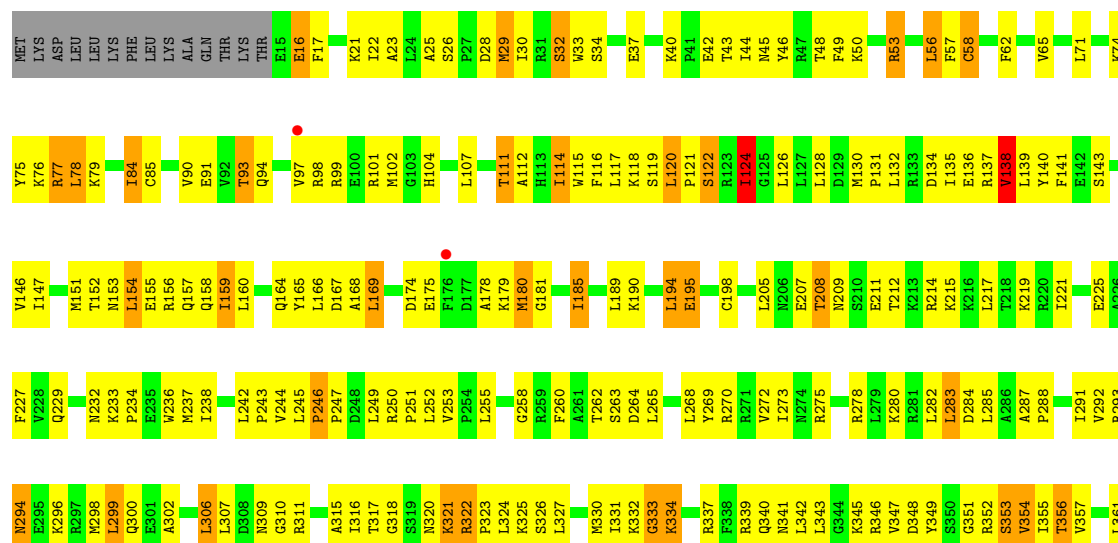
Chain J:  39%  46%  10% ..





● Molecule 3: DNA-directed RNA polymerase subunit beta'

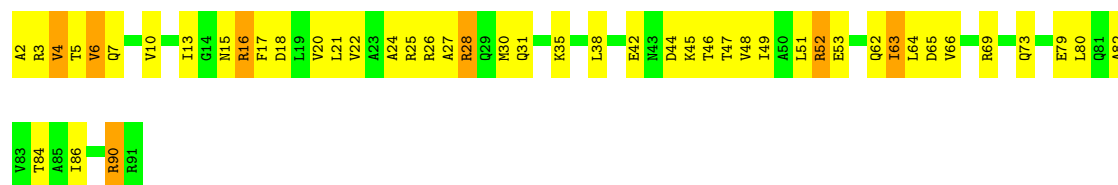
Chain P: 43% 42% 10% ..



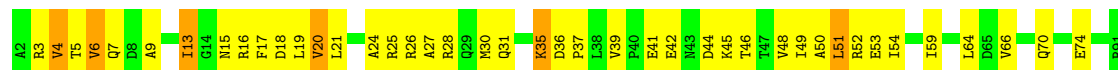
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• Molecule 4: DNA-directed RNA polymerase subunit omega

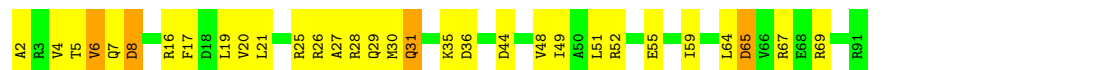
Chain E:  48% 44% 8%



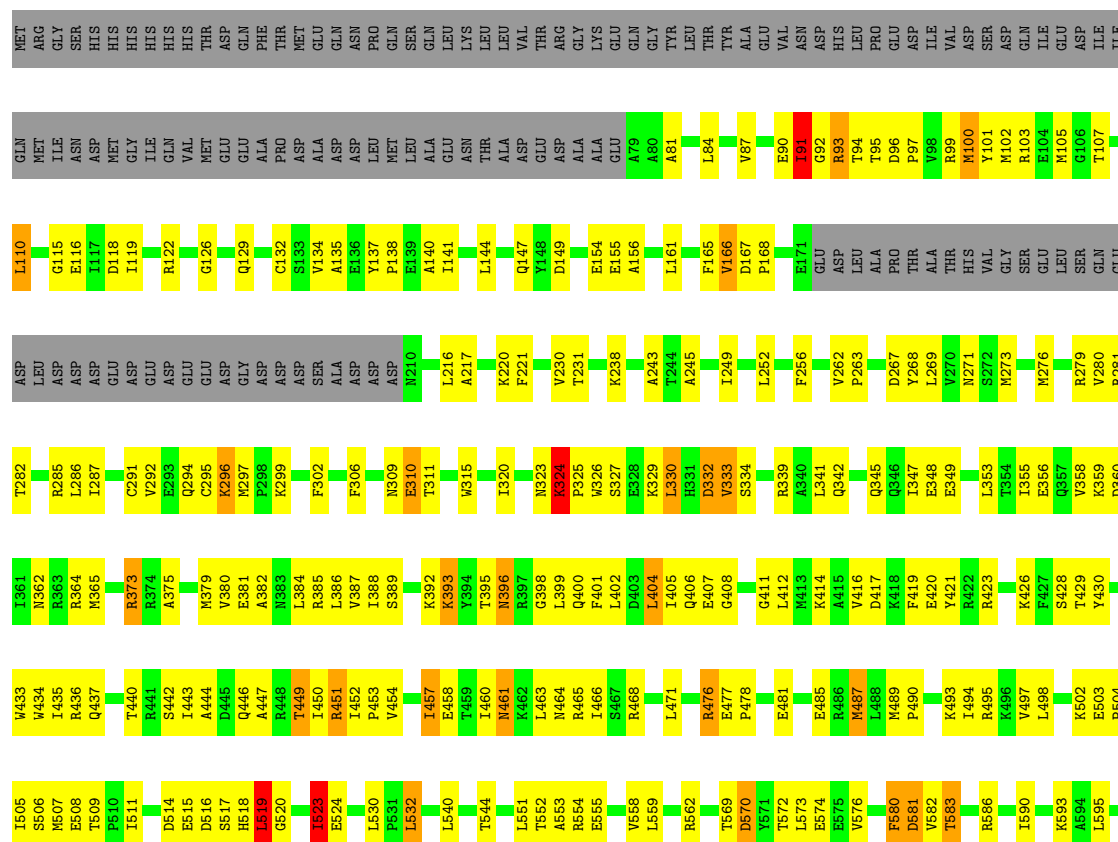
- Molecule 4: DNA-directed RNA polymerase subunit omega

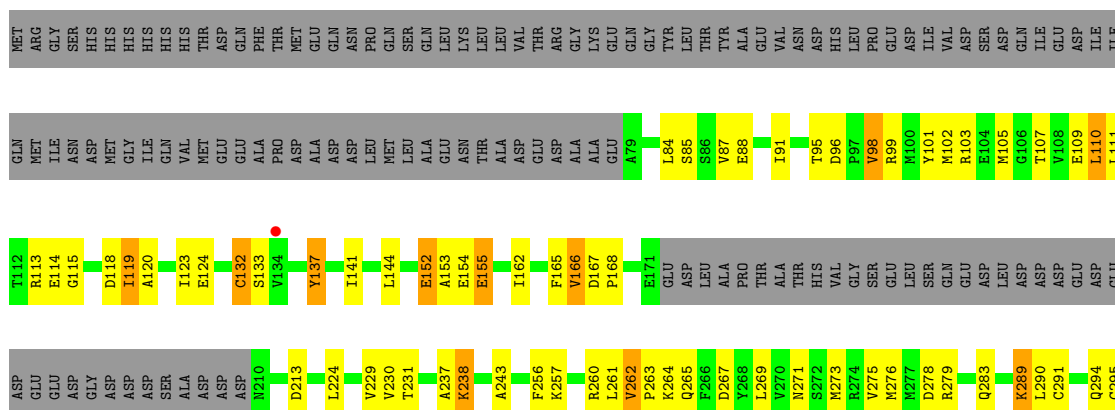


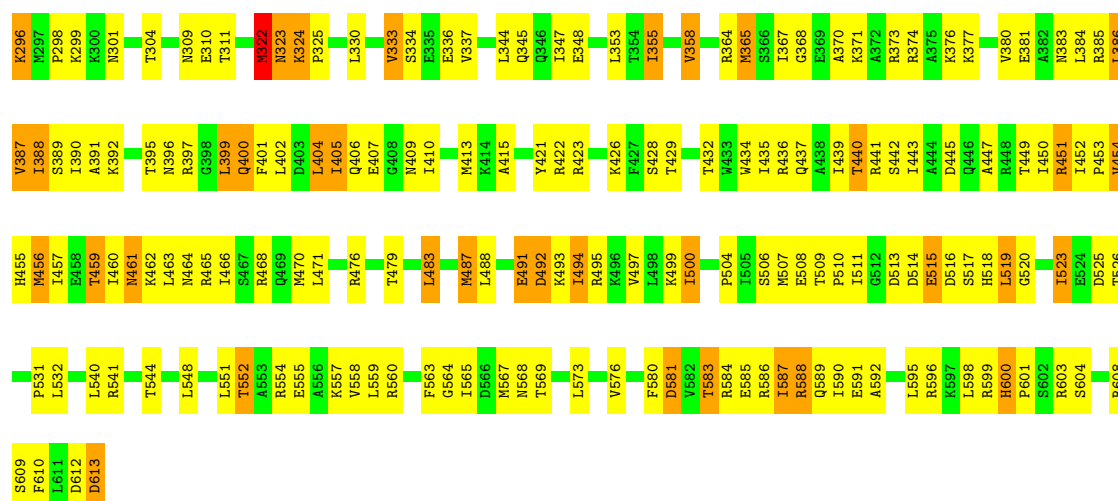
- Molecule 4: DNA-directed RNA polymerase subunit omega



- Molecule 5: RNA polymerase sigma factor RpoD







• Molecule 6: NT strand DNA (49-MER)



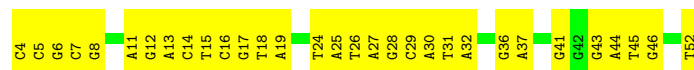
• Molecule 6: NT strand DNA (49-MER)



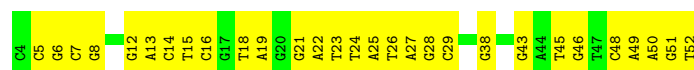
• Molecule 6: NT strand DNA (49-MER)



• Molecule 7: T strand DNA (49-MER)

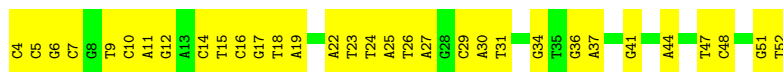


• Molecule 7: T strand DNA (49-MER)

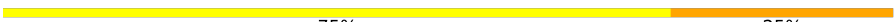


- Molecule 7: T strand DNA (49-MER)

Chain 8:  35% 65%



- Molecule 8: RNA (5'-D(*(GTP))-R(P*AP*GP*U)-3')

Chain 3:  75% 25%



- Molecule 8: RNA (5'-D(*(GTP))-R(P*AP*GP*U)-3')

Chain 6:  50% 50%



- Molecule 8: RNA (5'-D(*(GTP))-R(P*AP*GP*U)-3')

Chain 9:  75% 25%



4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	237.40Å 206.05Å 248.69Å 90.00° 116.55° 90.00°	Depositor
Resolution (Å)	39.90 – 5.50 39.90 – 5.50	Depositor EDS
% Data completeness (in resolution range)	99.3 (39.90-5.50) 99.3 (39.90-5.50)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.20 (at 5.37Å)	Xtriage
Refinement program	REFMAC 5.8.0073	Depositor
R, R_{free}	0.245 , 0.328 0.245 , 0.327	Depositor DCC
R_{free} test set	3459 reflections (4.96%)	wwPDB-VP
Wilson B-factor (Å ²)	268.1	Xtriage
Anisotropy	0.597	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.28 , 190.5	EDS
L-test for twinning ²	$\langle L \rangle = 0.40$, $\langle L^2 \rangle = 0.23$	Xtriage
Estimated twinning fraction	0.045 for h,-k,-h-l	Xtriage
F_o, F_c correlation	0.92	EDS
Total number of atoms	94608	wwPDB-VP
Average B, all atoms (Å ²)	219.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.48% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: GTP, MG, ZN

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	0.82	0/1809	1.23	6/2450 (0.2%)
1	B	0.77	0/1789	1.18	3/2425 (0.1%)
1	G	0.80	0/1809	1.17	6/2450 (0.2%)
1	H	0.78	0/1789	1.20	7/2425 (0.3%)
1	M	0.75	0/1809	1.13	4/2450 (0.2%)
1	N	0.80	1/1789 (0.1%)	1.18	5/2425 (0.2%)
2	C	0.75	0/10745	1.17	42/14499 (0.3%)
2	I	0.73	0/10745	1.15	46/14499 (0.3%)
2	O	0.72	0/10745	1.12	35/14499 (0.2%)
3	D	0.77	1/10729 (0.0%)	1.14	37/14487 (0.3%)
3	J	0.82	1/10729 (0.0%)	1.19	52/14487 (0.4%)
3	P	0.77	2/10729 (0.0%)	1.15	55/14487 (0.4%)
4	E	0.71	0/710	1.08	1/956 (0.1%)
4	K	0.75	0/710	1.11	1/956 (0.1%)
4	Q	0.71	0/710	1.05	0/956
5	F	0.67	0/4076	1.05	9/5482 (0.2%)
5	L	0.71	0/4076	1.09	14/5482 (0.3%)
5	R	0.72	1/4076 (0.0%)	1.10	11/5482 (0.2%)
6	1	0.40	0/1115	0.67	0/1718
6	4	0.35	0/1112	0.64	0/1706
6	7	0.37	0/1114	0.64	0/1714
7	2	0.37	0/1134	0.62	0/1744
7	5	0.34	0/1134	0.59	0/1744
7	8	0.37	0/1136	0.60	0/1752
8	3	0.51	0/72	0.82	0/110
8	6	0.47	0/72	0.90	0/110
8	9	0.52	0/72	0.88	0/110
All	All	0.74	6/96535 (0.0%)	1.11	334/131605 (0.3%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected

by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
3	D	0	1

All (6) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	P	1340	LYS	CB-CG	6.02	1.70	1.52
1	N	233	ASP	CG-OD1	5.58	1.35	1.25
3	P	1046	ILE	N-CA	5.48	1.52	1.46
5	R	322	MET	SD-CE	5.44	1.93	1.79
3	D	468	VAL	CA-C	-5.25	1.46	1.52
3	J	470	VAL	N-CA	-5.01	1.40	1.46

All (334) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	J	737	ILE	CB-CA-C	-12.69	95.64	111.88
3	D	737	ILE	CB-CA-C	-11.39	97.30	111.88
3	J	803	VAL	CB-CA-C	-11.18	97.38	112.02
3	D	774	ILE	CB-CA-C	-10.28	98.58	112.04
3	P	803	VAL	CB-CA-C	-9.86	99.11	112.02
1	G	212	ASP	CA-C-N	9.48	131.69	119.84
1	G	212	ASP	C-N-CA	9.48	131.69	119.84
2	O	1308	ILE	CB-CA-C	-9.40	99.93	111.97
3	D	591	ILE	N-CA-C	8.95	119.01	110.42
3	J	601	ILE	CB-CA-C	-8.94	100.44	111.88
3	J	499	ILE	CB-CA-C	-8.92	100.35	112.04
2	C	1161	LEU	N-CA-C	8.66	120.41	110.97
3	P	124	ILE	CB-CA-C	-8.60	100.97	111.97
3	D	506	VAL	CB-CA-C	-8.58	100.72	111.70
5	F	324	LYS	CA-C-N	8.49	130.46	119.84
5	F	324	LYS	C-N-CA	8.49	130.46	119.84
3	J	591	ILE	N-CA-C	8.49	118.54	110.30
5	R	523	ILE	N-CA-C	8.11	120.32	109.37
2	I	992	LEU	CA-C-N	8.09	129.95	119.84
2	I	992	LEU	C-N-CA	8.09	129.95	119.84
3	P	751	ASP	CA-C-O	7.98	124.32	119.77
5	R	137	TYR	N-CA-C	7.96	120.30	109.24
2	O	263	VAL	N-CA-C	7.93	119.11	107.37
2	I	603	ILE	CB-CA-C	-7.79	100.30	110.98
3	P	591	ILE	N-CA-C	7.75	117.86	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	P	932	MET	N-CA-C	7.72	119.39	110.97
2	I	1161	LEU	N-CA-C	7.65	119.53	111.03
3	D	801	VAL	CB-CA-C	-7.65	102.09	111.88
1	H	140	ILE	N-CA-C	7.55	119.19	108.17
2	I	577	VAL	N-CA-C	7.52	118.05	110.23
3	J	1287	ILE	CB-CA-C	-7.38	99.19	111.29
3	J	1216	ALA	CA-C-N	7.35	126.61	118.97
3	J	1216	ALA	C-N-CA	7.35	126.61	118.97
3	J	713	GLU	N-CA-C	7.34	117.70	108.45
2	C	179	TYR	N-CA-C	-7.25	102.98	111.03
3	P	1046	ILE	N-CA-C	7.20	120.47	108.81
3	P	918	ILE	CB-CA-C	-7.14	102.74	111.88
3	P	707	ILE	CB-CA-C	-7.11	102.22	111.25
1	N	217	ILE	CB-CA-C	-7.09	102.62	111.70
2	O	57	PHE	C-N-CD	-7.09	105.00	120.60
3	J	1255	VAL	CB-CA-C	-7.08	102.63	111.70
2	C	260	LYS	N-CA-C	7.07	120.25	110.35
3	P	1141	VAL	CB-CA-C	-7.06	102.66	111.70
3	P	120	LEU	C-N-CD	-7.03	105.14	120.60
3	J	945	ALA	N-CA-C	6.99	119.35	110.61
3	P	702	GLN	CA-C-N	-6.97	115.68	123.13
3	P	702	GLN	C-N-CA	-6.97	115.68	123.13
2	O	559	CYS	CA-C-N	6.96	126.57	119.19
2	O	559	CYS	C-N-CA	6.96	126.57	119.19
3	P	737	ILE	CB-CA-C	-6.93	102.78	112.14
3	P	506	VAL	CB-CA-C	-6.93	102.83	111.70
2	I	77	GLU	CA-C-N	6.93	127.34	119.93
2	I	77	GLU	C-N-CA	6.93	127.34	119.93
3	J	578	ILE	CB-CA-C	-6.91	103.13	111.97
2	O	399	ALA	N-CA-C	-6.89	103.77	111.28
3	P	1115	ILE	N-CA-C	6.88	117.97	108.89
1	A	74	VAL	CB-CA-C	-6.83	101.07	110.77
2	O	577	VAL	N-CA-C	6.82	117.32	110.23
3	D	578	ILE	CB-CA-C	-6.81	102.94	112.14
3	J	885	VAL	CB-CA-C	-6.81	103.12	112.04
5	R	454	VAL	N-CA-CB	-6.79	103.49	110.62
5	L	137	TYR	N-CA-C	6.79	119.46	109.42
2	C	498	ILE	CB-CA-C	-6.73	103.39	111.81
3	P	253	VAL	N-CA-C	6.72	115.30	107.84
2	C	57	PHE	C-N-CD	-6.71	105.83	120.60
3	J	704	GLU	N-CA-C	6.67	120.74	111.74
5	F	523	ILE	N-CA-C	6.66	117.64	108.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	J	1229	VAL	CB-CA-C	-6.66	103.15	112.14
2	C	577	VAL	N-CA-C	6.64	116.74	110.30
2	I	292	ILE	N-CA-C	6.63	117.39	110.62
2	I	399	ALA	N-CA-C	-6.61	104.10	111.71
1	B	140	ILE	N-CA-C	6.57	117.30	108.11
1	N	29	GLU	C-N-CD	-6.57	106.16	120.60
3	P	138	VAL	CB-CA-C	-6.52	103.47	112.02
3	P	1309	ILE	N-CA-C	6.52	122.90	109.34
2	I	823	VAL	CB-CA-C	-6.49	103.52	112.02
2	I	1308	ILE	CB-CA-C	-6.48	103.40	112.14
2	I	166	SER	N-CA-C	-6.38	105.47	113.18
2	O	1041	ASP	N-CA-C	6.37	119.18	108.23
1	G	231	PHE	CB-CA-C	-6.36	100.11	110.79
3	D	65	VAL	CB-CA-C	-6.33	103.86	111.97
2	C	242	VAL	CA-C-N	6.32	127.74	119.84
2	C	242	VAL	C-N-CA	6.32	127.74	119.84
2	O	498	ILE	CB-CA-C	-6.32	103.92	111.81
2	I	498	ILE	CB-CA-C	-6.30	103.93	111.81
3	J	1351	VAL	CB-CA-C	-6.29	103.83	111.88
3	J	1309	ILE	N-CA-C	6.26	122.37	109.34
2	C	176	ILE	CB-CA-C	-6.26	102.55	111.31
2	I	428	VAL	CB-CA-C	-6.25	103.97	111.97
5	L	530	LEU	CA-C-N	6.24	126.44	119.32
5	L	530	LEU	C-N-CA	6.24	126.44	119.32
3	J	856	ILE	N-CA-C	6.24	118.61	109.63
2	C	765	ILE	CB-CA-C	-6.22	104.94	111.23
3	D	601	ILE	CB-CA-C	-6.21	104.02	111.97
5	L	330	LEU	N-CA-C	-6.20	103.41	111.71
3	J	646	ILE	CA-C-N	6.19	126.21	119.90
3	J	646	ILE	C-N-CA	6.19	126.21	119.90
3	J	120	LEU	C-N-CD	-6.19	106.99	120.60
3	D	211	GLU	N-CA-C	6.18	118.56	111.02
3	J	803	VAL	N-CA-C	6.17	116.33	110.53
2	C	660	VAL	CB-CA-C	-6.15	102.14	112.16
3	P	317	THR	N-CA-C	6.13	119.56	110.48
1	M	178	SER	CA-C-N	6.11	125.81	119.64
1	M	178	SER	C-N-CA	6.11	125.81	119.64
2	I	445	ILE	CB-CA-C	-6.11	104.06	111.88
2	C	588	GLU	N-CA-C	6.10	118.69	109.23
2	C	259	GLY	O-C-N	6.10	125.27	121.85
1	G	207	THR	CA-C-N	-6.10	113.84	123.12
1	G	207	THR	C-N-CA	-6.10	113.84	123.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	399	ALA	N-CA-C	-6.09	104.70	111.71
3	D	1216	ALA	CA-C-N	6.09	126.26	119.32
3	D	1216	ALA	C-N-CA	6.09	126.26	119.32
2	I	577	VAL	CB-CA-C	-6.06	103.95	111.70
5	R	355	ILE	N-CA-C	6.05	118.62	111.05
2	I	663	VAL	CB-CA-C	-6.05	104.23	111.97
3	P	1357	ILE	CA-C-N	-6.05	114.66	120.83
3	P	1357	ILE	C-N-CA	-6.05	114.66	120.83
3	J	331	ILE	CB-CA-C	-6.04	104.08	111.87
5	L	523	ILE	N-CA-C	6.03	116.80	108.84
3	D	967	VAL	N-CA-C	6.02	116.83	109.30
2	I	917	SER	N-CA-C	6.02	118.96	110.23
2	O	798	GLN	CA-C-N	-6.01	113.93	122.94
2	O	798	GLN	C-N-CA	-6.01	113.93	122.94
2	I	854	ILE	CB-CA-C	-6.00	105.38	111.08
2	I	291	TYR	N-CA-C	6.00	117.49	111.07
3	D	1309	ILE	N-CA-C	5.98	121.78	109.34
5	L	395	THR	N-CA-C	5.96	117.45	111.07
2	C	1094	VAL	CB-CA-C	-5.96	105.03	111.59
2	C	374	GLU	CA-C-N	5.96	126.52	120.38
2	C	374	GLU	C-N-CA	5.96	126.52	120.38
3	D	240	THR	N-CA-C	-5.96	105.01	112.93
2	I	348	SER	N-CA-C	-5.96	104.79	111.28
2	C	1124	ILE	CB-CA-C	-5.92	104.30	111.88
2	I	522	SER	CA-C-N	5.92	129.01	120.79
2	I	522	SER	C-N-CA	5.92	129.01	120.79
2	O	348	SER	N-CA-C	-5.91	104.75	111.07
5	L	358	VAL	N-CA-C	5.90	116.08	110.42
3	P	826	ILE	CB-CA-C	-5.90	103.73	111.81
3	P	470	VAL	CB-CA-C	-5.87	104.08	110.37
3	P	959	LYS	N-CA-C	5.87	117.01	107.32
3	J	591	ILE	CB-CA-C	-5.86	104.48	111.81
2	I	846	GLY	CA-C-N	5.86	125.62	119.76
2	I	846	GLY	C-N-CA	5.86	125.62	119.76
3	P	703	THR	CA-C-O	5.86	122.02	118.33
2	O	292	ILE	N-CA-C	5.85	116.63	110.72
2	C	109	ALA	CA-C-N	5.84	127.14	119.84
2	C	109	ALA	C-N-CA	5.84	127.14	119.84
2	C	710	VAL	CB-CA-C	-5.84	104.41	111.88
2	O	992	LEU	CA-C-N	5.82	127.12	119.84
2	O	992	LEU	C-N-CA	5.82	127.12	119.84
3	J	40	LYS	CA-C-N	5.82	125.44	119.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	J	40	LYS	C-N-CA	5.82	125.44	119.56
3	P	501	VAL	CA-C-N	5.82	125.82	119.89
3	P	501	VAL	C-N-CA	5.82	125.82	119.89
5	L	503	GLU	CA-C-N	5.80	127.09	119.84
5	L	503	GLU	C-N-CA	5.80	127.09	119.84
3	P	1226	VAL	N-CA-C	5.80	116.26	110.23
3	J	831	VAL	N-CA-C	5.79	112.40	106.21
5	F	149	ASP	N-CA-C	5.78	118.33	111.33
1	A	140	ILE	N-CA-C	5.78	116.20	108.11
3	D	1161	GLY	N-CA-C	5.78	117.44	111.95
3	J	146	VAL	CB-CA-C	-5.77	104.33	111.08
1	A	180	VAL	CB-CA-C	-5.77	105.06	111.35
2	O	297	VAL	N-CA-C	5.76	116.17	108.11
3	P	416	ILE	CB-CA-C	-5.76	103.23	112.16
3	P	1168	GLU	N-CA-C	5.74	118.16	107.99
3	J	506	VAL	CB-CA-C	-5.72	104.38	111.70
5	L	262	VAL	CA-C-N	5.71	126.98	119.84
5	L	262	VAL	C-N-CA	5.71	126.98	119.84
3	J	968	ASN	N-CA-C	5.70	118.13	109.63
2	C	1308	ILE	CB-CA-C	-5.69	104.69	111.97
2	C	616	ILE	N-CA-C	5.68	116.13	108.17
1	N	140	ILE	N-CA-C	5.68	116.25	107.78
3	J	450	HIS	CA-C-N	5.68	124.88	118.97
3	J	450	HIS	C-N-CA	5.68	124.88	118.97
2	O	1161	LEU	N-CA-C	5.68	117.34	111.03
2	I	344	GLY	CA-C-N	5.68	126.94	119.84
2	I	344	GLY	C-N-CA	5.68	126.94	119.84
3	P	1216	ALA	CA-C-N	5.67	125.78	119.32
3	P	1216	ALA	C-N-CA	5.67	125.78	119.32
1	M	78	ILE	CB-CA-C	-5.66	102.01	111.29
3	J	751	ASP	CA-C-O	5.65	122.99	119.77
3	J	114	ILE	CB-CA-C	-5.65	104.64	112.04
3	P	523	GLU	N-CA-C	5.65	118.42	110.23
2	C	30	ILE	CB-CA-C	-5.65	104.65	111.88
3	J	355	ILE	CB-CA-C	-5.63	103.29	111.68
3	D	567	THR	N-CA-C	5.62	119.62	107.49
3	D	529	GLY	CA-C-N	5.62	124.97	118.85
3	D	529	GLY	C-N-CA	5.62	124.97	118.85
3	D	1110	GLU	N-CA-C	5.61	117.15	110.19
2	O	242	VAL	CA-C-N	5.61	126.85	119.84
2	O	242	VAL	C-N-CA	5.61	126.85	119.84
3	P	1198	VAL	N-CA-C	5.59	116.28	108.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	D	856	ILE	N-CA-C	5.58	116.91	109.37
2	O	1184	THR	CA-C-N	5.58	126.05	120.14
2	O	1184	THR	C-N-CA	5.58	126.05	120.14
3	D	1351	VAL	CB-CA-C	-5.57	102.16	111.29
2	C	445	ILE	CB-CA-C	-5.56	104.75	112.04
2	O	137	VAL	CB-CA-C	-5.55	104.20	111.81
2	O	138	ILE	CB-CA-C	-5.54	104.62	111.32
1	N	199	ASP	N-CA-C	5.52	117.80	109.41
1	H	51	MET	CA-C-N	5.51	125.78	119.83
1	H	51	MET	C-N-CA	5.51	125.78	119.83
2	C	348	SER	N-CA-C	-5.50	105.18	111.07
1	A	121	VAL	N-CA-C	5.50	116.91	108.71
3	J	529	GLY	CA-C-N	5.50	124.85	118.85
3	J	529	GLY	C-N-CA	5.50	124.85	118.85
5	L	583	THR	N-CA-C	5.50	118.56	110.30
1	B	217	ILE	CB-CA-C	-5.49	104.67	111.70
2	C	77	GLU	CA-C-N	5.48	126.69	119.84
2	C	77	GLU	C-N-CA	5.48	126.69	119.84
3	D	1318	SER	N-CA-C	-5.48	97.89	107.20
3	J	523	GLU	N-CA-C	5.47	118.38	110.28
3	P	668	PHE	N-CA-C	5.47	117.11	111.03
3	D	1046	ILE	N-CA-C	5.46	117.97	108.90
3	J	38	VAL	CB-CA-C	-5.46	106.46	112.68
2	I	884	VAL	CB-CA-C	-5.46	102.36	110.33
3	P	40	LYS	CA-C-N	5.44	125.06	119.56
3	P	40	LYS	C-N-CA	5.44	125.06	119.56
5	F	580	PHE	N-CA-C	-5.44	105.00	111.03
1	H	212	ASP	CA-C-N	5.44	124.89	119.24
1	H	212	ASP	C-N-CA	5.44	124.89	119.24
3	P	803	VAL	N-CA-C	5.44	115.64	110.53
3	J	839	VAL	CB-CA-C	-5.42	106.29	111.06
3	J	411	ILE	CB-CA-C	-5.40	105.06	111.97
1	M	142	MET	N-CA-C	5.40	116.73	108.42
3	P	65	VAL	CB-CA-C	-5.40	104.85	112.14
2	I	296	VAL	N-CA-C	5.39	116.25	108.48
5	R	262	VAL	CA-C-N	5.39	124.85	119.24
5	R	262	VAL	C-N-CA	5.39	124.85	119.24
2	I	290	GLU	CA-C-N	5.38	127.44	120.44
2	I	290	GLU	C-N-CA	5.38	127.44	120.44
2	C	1184	THR	CA-C-N	5.37	125.57	120.31
2	C	1184	THR	C-N-CA	5.37	125.57	120.31
3	P	902	ASP	N-CA-C	-5.37	99.77	108.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	L	460	ILE	CB-CA-C	-5.36	105.11	111.97
3	D	1064	SER	N-CA-C	5.36	117.81	111.33
2	O	933	VAL	N-CA-C	5.35	115.57	107.75
3	J	1209	VAL	CA-C-N	-5.35	115.80	121.84
3	J	1209	VAL	C-N-CA	-5.35	115.80	121.84
3	P	246	PRO	CA-C-N	5.35	124.99	119.05
3	P	246	PRO	C-N-CA	5.35	124.99	119.05
2	C	234	ASP	CB-CA-C	-5.33	110.44	116.63
3	P	469	HIS	CA-C-N	-5.33	117.56	123.43
3	P	469	HIS	C-N-CA	-5.33	117.56	123.43
2	O	522	SER	CA-C-N	5.31	128.17	120.79
2	O	522	SER	C-N-CA	5.31	128.17	120.79
2	O	428	VAL	CB-CA-C	-5.30	105.08	112.02
5	R	98	VAL	CB-CA-C	-5.30	104.91	111.70
2	C	846	GLY	CA-C-N	5.30	125.55	119.83
2	C	846	GLY	C-N-CA	5.30	125.55	119.83
5	R	358	VAL	N-CA-C	5.30	115.92	110.36
2	C	615	VAL	CB-CA-C	-5.28	105.06	111.88
2	I	481	LEU	N-CA-C	5.28	122.05	110.80
5	R	299	LYS	N-CA-C	-5.28	106.10	112.54
3	P	468	VAL	CB-CA-C	-5.26	101.61	110.71
2	O	599	VAL	N-CA-C	5.26	114.87	106.88
2	I	176	ILE	CB-CA-C	-5.25	103.78	110.98
1	A	212	ASP	CA-C-N	5.25	124.43	118.97
1	A	212	ASP	C-N-CA	5.25	124.43	118.97
3	D	627	THR	CB-CA-C	-5.24	102.43	110.81
3	P	354	VAL	CB-CA-C	-5.24	103.30	111.26
2	O	109	ALA	CA-C-N	5.23	126.38	119.84
2	O	109	ALA	C-N-CA	5.23	126.38	119.84
3	D	949	SER	N-CA-C	5.22	118.00	109.59
3	J	918	ILE	CB-CA-C	-5.22	105.19	111.88
2	C	259	GLY	N-CA-C	-5.21	105.47	110.21
3	J	185	ILE	CB-CA-C	-5.21	105.11	112.14
3	P	1029	THR	N-CA-C	5.21	118.23	110.52
2	C	1275	VAL	CB-CA-C	-5.20	105.22	111.88
2	I	401	GLY	N-CA-C	-5.19	106.48	112.50
3	D	84	ILE	CB-CA-C	-5.19	105.04	111.32
3	J	894	VAL	CB-CA-C	-5.19	104.64	111.70
2	I	920	VAL	CB-CA-C	-5.18	105.92	111.00
2	C	918	LEU	N-CA-C	5.18	116.92	108.63
2	I	209	ILE	CB-CA-C	-5.18	105.15	112.14
5	L	583	THR	CB-CA-C	-5.17	102.87	110.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	H	192	VAL	N-CA-C	-5.17	102.91	109.58
5	R	523	ILE	CB-CA-C	-5.17	103.17	111.59
5	F	311	THR	N-CA-C	5.17	116.99	111.36
2	C	571	LEU	CA-C-N	-5.16	116.79	123.19
2	C	571	LEU	C-N-CA	-5.16	116.79	123.19
3	P	801	VAL	CB-CA-C	-5.16	105.17	112.14
5	R	583	THR	CB-CA-C	-5.16	102.88	110.06
3	D	1177	ILE	CB-CA-C	-5.16	104.70	111.25
1	H	56	VAL	CB-CA-C	-5.16	104.42	111.33
3	P	855	ASP	N-CA-C	5.16	117.47	111.02
2	I	357	ASN	CA-C-O	5.16	122.70	119.55
1	G	140	ILE	N-CA-C	5.15	115.39	108.17
3	J	1347	LEU	CB-CA-C	-5.15	102.97	110.95
2	I	1184	THR	CA-C-N	5.14	125.59	120.14
2	I	1184	THR	C-N-CA	5.14	125.59	120.14
1	N	142	MET	N-CA-C	5.13	116.64	108.79
3	D	320	ASN	N-CA-C	5.12	116.55	111.07
2	O	577	VAL	CB-CA-C	-5.12	105.15	111.70
5	F	297	MET	CA-C-N	5.12	125.40	119.93
5	F	297	MET	C-N-CA	5.12	125.40	119.93
3	P	749	LYS	CA-C-N	5.11	126.22	119.84
3	P	749	LYS	C-N-CA	5.11	126.22	119.84
3	J	357	VAL	CB-CA-C	-5.10	103.51	111.26
3	P	1110	GLU	N-CA-C	5.10	116.51	110.19
2	O	388	LEU	CA-C-N	-5.09	114.23	122.23
2	O	388	LEU	C-N-CA	-5.09	114.23	122.23
2	I	179	TYR	N-CA-C	-5.09	105.62	111.07
2	I	317	LEU	N-CA-C	5.09	117.91	109.46
2	I	798	GLN	CA-C-N	-5.08	115.56	122.93
2	I	798	GLN	C-N-CA	-5.08	115.56	122.93
2	I	242	VAL	CA-C-N	5.08	126.19	119.84
2	I	242	VAL	C-N-CA	5.08	126.19	119.84
3	D	618	VAL	CB-CA-C	-5.08	105.20	111.70
5	F	552	THR	CB-CA-C	-5.07	102.96	110.67
2	I	742	TYR	N-CA-C	5.07	116.06	109.72
3	P	980	THR	N-CA-C	5.06	116.86	108.20
3	P	470	VAL	N-CA-C	5.06	113.41	107.89
4	K	51	LEU	CB-CA-C	-5.06	102.71	110.81
3	D	1168	GLU	N-CA-C	5.06	116.99	109.25
3	D	1086	ASN	N-CA-C	5.05	117.76	110.28
2	C	655	VAL	CB-CA-C	-5.04	105.41	112.02
2	O	1079	ILE	CB-CA-C	-5.04	104.25	111.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	J	909	ILE	CB-CA-C	-5.04	104.33	111.28
3	D	495	ASN	N-CA-C	-5.04	102.74	110.14
3	J	1198	VAL	N-CA-C	5.03	116.52	108.87
3	P	1163	VAL	N-CA-C	5.03	116.91	109.17
3	D	1151	LYS	N-CA-C	5.02	116.75	111.28
4	E	90	ARG	N-CA-C	5.02	117.14	111.11
3	D	1198	VAL	N-CA-C	5.02	116.19	108.71
2	C	577	VAL	CB-CA-C	-5.01	105.55	111.81
3	J	879	ALA	CA-C-N	-5.01	115.49	122.75
3	J	879	ALA	C-N-CA	-5.01	115.49	122.75
2	O	873	ILE	CB-CA-C	-5.01	103.88	111.69
1	B	168	ILE	CB-CA-C	-5.01	103.72	111.08
3	D	646	ILE	CA-C-N	5.01	124.92	119.76
3	D	646	ILE	C-N-CA	5.01	124.92	119.76
2	C	428	VAL	CB-CA-C	-5.00	105.56	111.97

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	D	671	GLY	Peptide

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1787	0	1813	218	0
1	B	1767	0	1789	179	0
1	G	1787	0	1812	176	0
1	H	1767	0	1789	150	0
1	M	1787	0	1813	179	0
1	N	1767	0	1789	143	0
2	C	10576	0	10591	878	0
2	I	10576	0	10591	865	0
2	O	10576	0	10591	792	0
3	D	10568	0	10782	874	3
3	J	10568	0	10780	1095	2

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	P	10568	0	10780	924	0
4	E	708	0	719	42	0
4	K	708	0	719	49	0
4	Q	708	0	719	37	0
5	F	4022	0	4083	250	0
5	L	4022	0	4083	272	0
5	R	4022	0	4083	287	0
6	1	996	0	554	70	1
6	4	996	0	557	74	0
6	7	996	0	555	75	0
7	2	1012	0	556	62	0
7	5	1012	0	556	59	0
7	8	1012	0	554	64	0
8	3	97	0	44	8	0
8	6	97	0	44	8	0
8	9	97	0	44	6	0
9	D	2	0	0	0	0
9	J	2	0	0	2	0
9	P	2	0	0	0	0
10	6	1	0	0	0	0
10	D	1	0	0	0	0
10	P	1	0	0	0	0
All	All	94608	0	92790	6951	3

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 37.

All (6951) 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)
3:D:608:CYS:SG	3:D:617:THR:HG22	1.31	1.67
3:D:501:VAL:CG1	3:D:502:PRO:HD2	1.33	1.55
3:J:349:TYR:O	3:J:470:VAL:HG23	1.24	1.30
3:D:645:VAL:CG2	3:D:701:LEU:HD13	1.59	1.30
5:L:573:LEU:HB2	7:5:46:DG:OP2	1.15	1.28
3:P:373:ALA:HA	3:P:376:LEU:CD1	1.64	1.28
2:O:75:LEU:CD2	2:O:127:ILE:HD12	1.63	1.27
2:I:661:VAL:CG1	2:I:665:ALA:HB3	1.65	1.27
3:J:814:CYS:SG	9:J:1502:ZN:ZN	1.23	1.26
1:M:47:LEU:HD13	1:M:183:ILE:CD1	1.65	1.26
3:J:135:ILE:O	3:J:139:LEU:HG	1.31	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1294:LYS:HD3	3:P:347:VAL:CG1	1.66	1.25
3:P:233:LYS:HE2	3:P:236:TRP:NE1	1.48	1.25
3:J:1164:SER:O	3:J:1175:LEU:CD1	1.84	1.25
3:D:251:PRO:O	5:F:507:MET:HE1	1.35	1.25
2:C:206:ALA:O	2:C:209:ILE:HG22	1.32	1.24
3:D:608:CYS:SG	3:D:617:THR:CG2	2.25	1.23
3:J:1175:LEU:HD12	3:J:1176:VAL:N	1.52	1.23
3:J:1282:TYR:O	3:J:1285:VAL:HG12	1.36	1.23
2:C:1104:PRO:HG3	3:D:725:MET:CE	1.66	1.22
3:D:139:LEU:CD2	3:D:185:ILE:CD1	2.16	1.22
3:P:339:ARG:NH2	3:P:1325:PHE:O	1.71	1.22
3:P:1266:ILE:HD12	3:P:1278:GLU:CB	1.69	1.22
2:C:819:SER:O	2:C:822:VAL:HG23	1.39	1.21
3:D:135:ILE:O	3:D:139:LEU:HG	1.38	1.21
2:C:1287:LEU:HD23	3:D:1357:ILE:HD11	1.25	1.18
5:R:449:THR:OG1	5:R:504:PRO:HG3	1.40	1.18
2:O:838:CYS:SG	2:O:886:LYS:HE3	1.84	1.18
2:C:539:THR:HG22	2:C:540:ARG:H	1.03	1.17
3:D:501:VAL:CG1	3:D:502:PRO:CD	2.21	1.17
2:I:1286:THR:OG1	3:J:479:GLU:OE2	1.64	1.16
3:J:1163:VAL:CG2	3:J:1177:ILE:HG23	1.74	1.16
3:J:1145:PHE:CE1	3:J:1256:ILE:HD12	1.81	1.16
2:C:149:LEU:HD11	2:C:451:ARG:HB3	1.20	1.16
3:P:449:LEU:HD12	3:P:450:HIS:H	1.07	1.16
3:D:645:VAL:HG22	3:D:701:LEU:CD1	1.76	1.16
2:O:1282:GLY:HA3	4:Q:17:PHE:CE1	1.80	1.16
1:H:158:ARG:O	1:H:160:HIS:N	1.78	1.15
2:C:886:LYS:HD2	2:C:916:SER:HB2	1.27	1.15
3:J:242:LEU:HD12	3:J:243:PRO:HD2	1.15	1.15
5:F:97:PRO:HA	5:F:100:MET:HG3	1.29	1.14
3:J:1318:SER:OG	3:J:1321:SER:HB3	1.43	1.14
1:N:179:PRO:HG3	1:N:211:ILE:HD12	1.29	1.14
3:D:556:GLU:HB3	3:D:564:VAL:HB	1.23	1.14
1:M:79:LEU:HA	1:M:82:LEU:HD12	1.24	1.14
3:P:1318:SER:OG	3:P:1321:SER:HB3	1.45	1.14
3:D:416:ILE:HD13	3:D:441:LEU:HD21	1.28	1.14
3:D:501:VAL:HG12	3:D:502:PRO:CD	1.78	1.14
2:I:206:ALA:O	2:I:209:ILE:HG22	1.44	1.14
5:R:520:GLY:HA2	5:R:523:ILE:HD12	1.28	1.14
1:G:189:ALA:HA	1:G:199:ASP:HB3	1.26	1.14
1:A:35:PHE:O	1:A:39:LEU:HG	1.47	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:88:LEU:HD22	1:B:128:HIS:CD2	1.84	1.13
3:D:749:LYS:HB3	3:D:750:PRO:CD	1.75	1.13
2:I:1124:ILE:HD11	2:I:1198:LEU:HD11	1.28	1.12
3:J:1145:PHE:O	3:J:1309:ILE:HG13	1.46	1.12
2:O:886:LYS:HD2	2:O:916:SER:HB2	1.17	1.12
3:D:1169:THR:HB	3:D:1172:LYS:HB2	1.32	1.12
1:G:47:LEU:HD13	1:G:183:ILE:CD1	1.79	1.12
2:I:1061:GLN:HB2	2:I:1062:PRO:HD2	1.30	1.12
3:J:746:LEU:HG	3:J:758:PRO:HB3	1.30	1.12
3:J:1164:SER:O	3:J:1175:LEU:HD11	1.50	1.12
2:O:204:LEU:HB3	2:O:205:PRO:HD2	1.32	1.12
2:I:1332:SER:OG	3:J:245:LEU:HD13	1.48	1.11
2:C:197:ARG:HB3	2:C:200:ARG:HA	1.31	1.11
3:D:282:LEU:HD22	3:D:287:ALA:CB	1.79	1.11
2:O:569:ILE:HD13	3:P:784:ALA:HB2	1.24	1.11
1:A:140:ILE:HD11	1:A:142:MET:HE3	1.27	1.11
2:C:1225:VAL:HG22	3:D:638:SER:HB3	1.23	1.11
1:A:100:LEU:HD13	1:A:115:ILE:HG21	1.32	1.11
3:D:664:ILE:HG21	3:D:681:LYS:HD3	1.31	1.11
1:B:158:ARG:HH21	1:B:175:ALA:HB2	1.07	1.11
2:C:557:ARG:HD3	2:C:587:LEU:HB3	1.32	1.11
1:G:44:ARG:HA	1:G:47:LEU:HD12	1.26	1.11
2:O:344:GLY:HA3	2:O:346:TYR:CE2	1.85	1.11
1:B:47:LEU:HD13	1:B:183:ILE:HD12	1.29	1.10
3:P:521:LYS:HD2	3:P:543:SER:HB2	1.11	1.10
3:D:139:LEU:HD23	3:D:185:ILE:HD11	1.11	1.10
3:D:1046:ILE:HD12	3:D:1059:LEU:HD22	1.31	1.10
2:O:75:LEU:HD21	2:O:127:ILE:CD1	1.81	1.10
1:A:79:LEU:HA	1:A:82:LEU:HD12	1.15	1.10
3:D:502:PRO:HG2	3:D:601:ILE:CG2	1.82	1.10
3:J:749:LYS:HB3	3:J:750:PRO:HD2	1.30	1.10
3:J:1175:LEU:HD12	3:J:1176:VAL:H	0.95	1.10
3:D:1318:SER:OG	3:D:1321:SER:HB3	1.49	1.09
5:F:84:LEU:HG	5:F:107:THR:HG21	1.14	1.09
2:I:1042:LEU:HD13	2:I:1049:ILE:CD1	1.81	1.09
3:J:734:ALA:HA	3:J:737:ILE:CD1	1.82	1.09
3:D:720:ASN:O	3:D:724:MET:HG3	1.52	1.09
1:M:47:LEU:HD13	1:M:183:ILE:HD13	1.33	1.09
3:D:1274:PHE:O	3:D:1275:LEU:HB2	1.51	1.08
3:P:544:LEU:HD22	3:P:578:ILE:HD11	1.35	1.08
3:P:1266:ILE:HD12	3:P:1278:GLU:HB3	1.28	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:178:PRO:HG3	2:O:395:TYR:OH	1.52	1.08
2:O:589:THR:HG22	2:O:590:PRO:HD2	1.32	1.08
5:R:102:MET:HE3	6:7:42:DG:H21	1.10	1.08
5:R:295:CYS:O	5:R:296:LYS:HB2	1.54	1.08
3:D:644:MET:O	3:D:764:ARG:NH1	1.85	1.08
1:M:180:VAL:HA	1:M:207:THR:HG22	1.35	1.08
2:C:353:VAL:O	2:C:355:PRO:HD3	1.51	1.08
1:H:31:LEU:HD11	1:H:39:LEU:HD12	1.29	1.08
1:M:41:ASN:O	1:M:45:ARG:HG3	1.53	1.08
3:P:268:LEU:HD21	3:P:324:LEU:HD13	1.25	1.08
3:P:502:PRO:HG2	3:P:601:ILE:HG21	1.29	1.08
2:C:524:ILE:HD11	2:C:712:SER:HB3	1.30	1.08
3:D:353:SER:HB2	3:D:372:MET:HE1	1.09	1.08
3:D:501:VAL:HG12	3:D:502:PRO:HD2	1.11	1.08
3:D:646:ILE:CD1	3:D:764:ARG:HD3	1.83	1.08
2:I:890:LYS:HG2	2:I:891:GLY:H	1.04	1.08
3:P:1101:LEU:CD2	3:P:1122:ALA:HB3	1.84	1.08
3:D:1163:VAL:HG11	3:D:1175:LEU:HD21	1.31	1.07
5:F:583:THR:CG2	5:F:586:ARG:HB3	1.84	1.07
2:I:1085:MET:HE2	2:I:1085:MET:HA	1.35	1.07
5:L:401:PHE:O	5:L:405:ILE:HG13	1.52	1.07
2:O:92:TYR:HB2	2:O:137:VAL:HG21	1.34	1.07
3:D:282:LEU:HD22	3:D:287:ALA:HB2	1.25	1.07
1:G:228:LEU:HD21	1:H:224:LEU:CD2	1.84	1.07
3:J:115:TRP:CZ2	3:J:1329:THR:HG22	1.88	1.07
3:J:1145:PHE:HE1	3:J:1256:ILE:HD12	1.11	1.07
1:M:184:ALA:HB2	2:O:1091:GLY:HA3	1.36	1.07
1:A:180:VAL:HA	1:A:207:THR:HG22	1.29	1.07
3:P:398:LYS:HZ1	5:R:532:LEU:HG	1.10	1.06
6:1:47:DC:H6	6:1:47:DC:H5"	1.13	1.06
1:G:229:GLU:O	1:G:233:ASP:HB2	1.55	1.06
1:H:31:LEU:CD1	1:H:39:LEU:HD12	1.86	1.06
3:D:261:ALA:HA	5:F:505:ILE:O	1.52	1.06
3:D:501:VAL:HG13	3:D:502:PRO:HD2	1.11	1.06
1:G:228:LEU:HD21	1:H:224:LEU:HD21	1.38	1.06
3:J:349:TYR:O	3:J:470:VAL:CG2	2.03	1.06
2:I:839:VAL:O	2:I:886:LYS:HE2	1.52	1.05
1:M:30:PRO:HB2	1:M:198:LEU:HD22	1.34	1.05
2:O:599:VAL:HG21	2:O:623:LEU:CD2	1.85	1.05
2:O:1278:LEU:CD2	2:O:1283:ALA:HB3	1.86	1.05
3:D:1357:ILE:H	3:D:1357:ILE:HD12	1.14	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1282:GLY:HA3	4:Q:17:PHE:HE1	1.11	1.05
2:I:170:VAL:HG23	3:J:1065:ALA:O	1.56	1.05
2:I:661:VAL:HG11	2:I:665:ALA:HB3	1.35	1.05
5:L:457:ILE:HA	5:L:460:ILE:HD12	1.36	1.05
5:R:457:ILE:HA	5:R:460:ILE:HD12	1.33	1.05
2:O:897:PRO:HB2	5:R:565:ILE:HG12	1.36	1.04
3:J:136:GLU:O	3:J:140:TYR:HD2	1.40	1.04
3:J:363:LEU:CD2	3:J:618:VAL:HG13	1.86	1.04
5:F:583:THR:HG23	5:F:586:ARG:HB3	1.35	1.04
3:P:130:MET:HG2	3:P:135:ILE:CG1	1.87	1.04
1:B:47:LEU:HD13	1:B:183:ILE:CD1	1.87	1.04
3:D:139:LEU:CD2	3:D:185:ILE:HD12	1.88	1.04
3:P:1289:ASN:O	3:P:1293:GLU:HG3	1.58	1.04
1:B:100:LEU:HD13	1:B:115:ILE:HG21	1.37	1.03
2:C:1061:GLN:HB2	2:C:1062:PRO:HD2	1.36	1.03
2:C:1086:PRO:O	2:C:1094:VAL:HG23	1.57	1.03
2:O:92:TYR:HB2	2:O:137:VAL:CG2	1.86	1.03
3:P:373:ALA:CA	3:P:376:LEU:HD12	1.88	1.03
2:I:1042:LEU:HD13	2:I:1049:ILE:HD11	1.36	1.03
3:D:139:LEU:CD2	3:D:185:ILE:HD11	1.80	1.03
3:J:450:HIS:CE1	3:J:625:MET:HE1	1.93	1.03
3:P:130:MET:HG2	3:P:135:ILE:HG12	1.32	1.03
2:I:673:HIS:ND1	3:J:763:PHE:O	1.90	1.03
3:J:421:VAL:HG13	3:J:469:HIS:O	1.55	1.03
3:J:644:MET:O	3:J:764:ARG:NH1	1.92	1.03
2:O:75:LEU:CD2	2:O:127:ILE:CD1	2.36	1.03
3:P:905:ARG:HD2	4:Q:16:ARG:HD2	1.38	1.03
1:A:129:VAL:HG11	1:A:132:HIS:CE1	1.94	1.03
2:I:211:ARG:HD3	2:I:357:ASN:O	1.59	1.03
2:I:448:LEU:HD21	2:I:553:THR:OG1	1.58	1.03
5:L:84:LEU:HD11	5:L:107:THR:HG21	1.39	1.03
1:M:47:LEU:O	1:M:51:MET:HB2	1.58	1.03
3:P:233:LYS:HE2	3:P:236:TRP:HE1	0.92	1.03
1:A:45:ARG:HH12	2:C:1216:ARG:HA	1.16	1.02
2:C:205:PRO:O	2:C:208:ILE:HG22	1.58	1.02
2:C:1109:ILE:HG21	3:D:644:MET:HE1	1.40	1.02
3:D:320:ASN:O	3:D:321:LYS:HB2	1.57	1.02
3:D:668:PHE:HA	3:D:673:VAL:HG21	1.37	1.02
3:D:1357:ILE:H	3:D:1357:ILE:CD1	1.68	1.02
1:M:48:LEU:HD21	1:M:183:ILE:HG22	1.37	1.02
2:O:96:LEU:HB2	2:O:127:ILE:HD11	1.40	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:599:VAL:HG21	2:O:623:LEU:HD21	1.39	1.02
2:I:806:PRO:HG2	3:J:632:ALA:O	1.58	1.02
2:O:1305:TYR:HA	2:O:1308:ILE:HD12	1.39	1.02
3:P:506:VAL:O	3:P:510:LEU:HG	1.57	1.02
2:I:504:GLU:HA	2:I:504:GLU:OE2	1.52	1.02
3:J:192:MET:HE1	3:J:197:GLU:OE1	1.60	1.02
3:J:1163:VAL:HG22	3:J:1177:ILE:HG23	1.35	1.02
5:R:585:GLU:OE2	5:R:588:ARG:HG2	1.58	1.02
1:A:41:ASN:HD21	2:C:1218:GLY:HA3	1.22	1.02
2:C:345:PRO:O	2:C:349:GLU:HG2	1.58	1.02
3:J:972:LYS:HB3	3:J:1002:VAL:HG13	1.38	1.02
3:D:963:VAL:HG23	3:D:977:SER:OG	1.60	1.02
1:G:43:LEU:O	1:G:47:LEU:HG	1.58	1.02
3:J:734:ALA:HA	3:J:737:ILE:HD12	1.05	1.01
3:P:1140:ARG:O	3:P:1144:LEU:HG	1.60	1.01
2:C:661:VAL:HG12	2:C:665:ALA:HB3	1.41	1.01
3:D:1101:LEU:HD22	3:D:1122:ALA:HB3	1.42	1.01
2:I:708:VAL:HG11	2:I:794:LEU:HD22	1.37	1.01
2:O:205:PRO:O	2:O:208:ILE:HG22	1.60	1.01
3:P:795:TYR:CD1	7:8:12:DG:H5'	1.95	1.01
3:D:543:SER:O	3:D:574:VAL:HG21	1.61	1.01
3:J:368:LEU:HD12	3:J:369:PRO:HD2	1.37	1.01
3:J:1163:VAL:HG13	3:J:1176:VAL:O	1.60	1.01
2:C:859:GLU:HG2	2:C:862:LEU:HD12	1.40	1.01
3:D:139:LEU:HD23	3:D:185:ILE:CD1	1.85	1.01
5:F:135:ALA:HB2	5:F:256:PHE:CB	1.91	1.01
1:M:11:PRO:O	1:N:230:ALA:CB	2.08	1.01
5:L:452:ILE:CG2	5:L:457:ILE:CD1	2.39	1.00
5:L:452:ILE:CG2	5:L:457:ILE:HD11	1.89	1.00
1:N:214:GLU:HA	1:N:217:ILE:HD12	1.40	1.00
2:O:225:PHE:HE2	2:O:347:ILE:HB	1.23	1.00
2:O:1288:GLN:O	2:O:1292:THR:HG22	1.59	1.00
2:C:155:VAL:O	2:C:404:LYS:NZ	1.93	1.00
2:C:962:GLU:O	2:C:966:ILE:HG13	1.60	1.00
2:I:143:ARG:NH1	2:I:507:GLY:O	1.94	1.00
3:P:697:MET:HE1	3:P:738:ARG:HA	1.44	1.00
1:A:45:ARG:NH1	2:C:1216:ARG:HA	1.75	1.00
5:L:573:LEU:CB	7:5:46:DG:OP2	2.08	1.00
2:I:1235:LEU:N	2:I:1235:LEU:HD23	1.76	1.00
2:I:1288:GLN:O	2:I:1292:THR:HG22	1.59	1.00
2:I:1292:THR:HG23	2:I:1293:VAL:H	1.25	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:398:LYS:NZ	5:R:532:LEU:HG	1.76	1.00
2:C:1086:PRO:CB	2:C:1212:LEU:HD13	1.92	1.00
5:F:320:ILE:HG23	5:F:327:SER:HB3	1.40	1.00
1:M:75:GLN:HE22	2:O:727:VAL:HB	1.26	1.00
3:P:233:LYS:CE	3:P:236:TRP:HE1	1.73	1.00
3:P:544:LEU:CD2	3:P:578:ILE:HD11	1.91	1.00
3:J:1262:ARG:HD3	3:J:1316:THR:HG22	1.44	0.99
3:P:783:LEU:O	3:P:786:THR:HG22	1.62	0.99
1:B:100:LEU:HD13	1:B:115:ILE:CG2	1.91	0.99
2:O:1109:ILE:HD11	3:P:740:LEU:HD22	1.44	0.99
3:P:423:LEU:HB2	3:P:466:MET:HE1	1.44	0.99
3:D:139:LEU:HD21	3:D:185:ILE:CD1	1.88	0.99
3:J:826:ILE:HG12	3:J:831:VAL:HG13	1.42	0.98
5:R:591:GLU:O	5:R:595:LEU:HG	1.64	0.98
1:B:190:ALA:HB2	1:B:199:ASP:C	1.88	0.98
3:J:1328:THR:HG22	3:J:1332:LEU:HD11	1.41	0.98
3:P:449:LEU:HD12	3:P:450:HIS:N	1.78	0.98
3:D:749:LYS:HB3	3:D:750:PRO:HD2	1.01	0.98
3:P:795:TYR:CE1	7:8:12:DG:H5'	1.99	0.98
5:R:120:ALA:HA	5:R:123:ILE:HD12	1.44	0.98
2:O:1269:ARG:N	7:8:16:DC:OP1	1.95	0.98
3:D:747:MET:CE	3:D:775:SER:HA	1.93	0.98
3:D:749:LYS:CB	3:D:750:PRO:HD2	1.92	0.98
6:7:44:DG:H2''	6:7:45:DT:O4'	1.64	0.98
3:D:770:LEU:O	3:D:774:ILE:HG13	1.64	0.98
3:J:608:CYS:SG	3:J:617:THR:HG22	2.03	0.98
3:P:121:PRO:HB2	3:P:126:LEU:HD11	1.43	0.98
3:P:826:ILE:HG12	3:P:831:VAL:HG22	1.42	0.98
2:I:661:VAL:HG11	2:I:665:ALA:CB	1.92	0.98
1:B:35:PHE:O	1:B:39:LEU:HG	1.62	0.98
2:C:528:ARG:HD2	2:C:663:VAL:HG21	1.46	0.98
3:J:1289:ASN:O	3:J:1293:GLU:HG3	1.64	0.98
5:L:496:LYS:O	5:L:500:ILE:HG13	1.61	0.98
1:M:28:LEU:HD11	1:N:231:PHE:CE1	1.99	0.97
5:R:84:LEU:HG	5:R:107:THR:HG21	1.41	0.97
3:J:1101:LEU:HD22	3:J:1122:ALA:HB3	1.43	0.97
3:J:601:ILE:HG22	3:J:602:SER:N	1.76	0.97
3:J:709:ARG:HG3	3:J:709:ARG:O	1.64	0.97
3:J:1226:VAL:O	3:J:1229:VAL:CG1	2.11	0.97
3:D:251:PRO:O	5:F:507:MET:CE	2.11	0.97
3:D:1357:ILE:HD12	3:D:1357:ILE:N	1.75	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:583:THR:HG23	5:L:586:ARG:HB3	1.46	0.97
1:M:232:VAL:CG1	1:N:218:ARG:HA	1.95	0.97
3:D:502:PRO:HG2	3:D:601:ILE:HG21	1.44	0.97
3:J:797:THR:HG23	3:J:924:GLY:HA3	1.47	0.97
5:R:457:ILE:HA	5:R:460:ILE:CD1	1.95	0.97
1:G:58:GLU:HB2	1:G:145:LYS:HB3	1.45	0.97
1:M:232:VAL:HG13	1:N:218:ARG:HA	1.47	0.97
2:O:1294:LYS:HD3	3:P:347:VAL:HG11	1.43	0.97
3:P:501:VAL:CG1	3:P:502:PRO:HD2	1.94	0.97
5:F:393:LYS:O	5:F:396:ASN:ND2	1.97	0.97
1:H:68:TYR:CE1	1:H:79:LEU:HD21	1.98	0.97
3:P:268:LEU:CD2	3:P:324:LEU:HD13	1.95	0.97
2:I:227:LYS:NZ	2:I:334:GLU:OE1	1.97	0.96
1:G:44:ARG:CA	1:G:47:LEU:HD12	1.94	0.96
1:H:31:LEU:HD11	1:H:39:LEU:CD1	1.94	0.96
3:P:1256:ILE:HG22	3:P:1260:MET:HE2	1.47	0.96
1:G:47:LEU:HD13	1:G:183:ILE:HD12	1.44	0.96
3:J:1146:GLU:OE1	3:J:1309:ILE:HB	1.64	0.96
1:A:129:VAL:HG11	1:A:132:HIS:HE1	1.29	0.96
1:B:86:LYS:HE2	1:B:173:VAL:HG12	1.47	0.96
7:2:36:DG:H2''	7:2:37:DA:OP2	1.59	0.96
2:C:211:ARG:HD3	2:C:357:ASN:O	1.66	0.96
5:F:511:ILE:HG21	5:F:519:LEU:HD13	1.46	0.96
2:I:690:VAL:CG1	2:I:691:PRO:HD2	1.95	0.96
3:D:1327:GLU:O	3:D:1331:VAL:HG23	1.66	0.95
5:F:388:ILE:HG12	5:F:392:LYS:HE3	1.48	0.95
3:J:1101:LEU:HD22	3:J:1122:ALA:CB	1.96	0.95
1:A:54:CYS:HB2	1:A:90:VAL:HG23	1.47	0.95
3:D:318:GLY:N	3:D:322:ARG:O	1.99	0.95
1:N:100:LEU:HD13	1:N:115:ILE:HG21	1.47	0.95
1:G:184:ALA:HB2	2:I:1091:GLY:HA3	1.47	0.95
2:I:854:ILE:CG2	2:I:857:VAL:HG21	1.94	0.95
3:J:135:ILE:O	3:J:139:LEU:CG	2.15	0.95
3:P:797:THR:HG23	3:P:924:GLY:HA3	1.47	0.95
2:C:389:PHE:HB3	2:C:420:LEU:HD12	1.46	0.95
3:J:814:CYS:HG	9:J:1502:ZN:ZN	0.72	0.95
2:I:167:SER:O	3:J:1064:SER:HB2	1.66	0.95
3:J:797:THR:CG2	3:J:924:GLY:HA3	1.95	0.95
2:I:560:PRO:HB2	3:J:776:THR:HG21	1.46	0.95
3:J:840:LEU:HD13	3:J:869:CYS:SG	2.05	0.95
3:J:1252:HIS:O	3:J:1255:VAL:HB	1.67	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1353:VAL:HG21	3:D:1355:ARG:HD2	1.48	0.95
2:I:91:THR:HG23	2:I:138:ILE:HA	1.47	0.95
3:J:349:TYR:CD2	3:J:472:LEU:HD11	2.00	0.95
3:J:600:ALA:O	3:J:604:MET:HG3	1.67	0.95
5:L:476:ARG:HG3	5:L:477:GLU:N	1.82	0.95
2:O:178:PRO:HG3	2:O:395:TYR:CZ	2.01	0.94
2:O:524:ILE:HD11	2:O:712:SER:HB3	1.46	0.94
2:O:1304:MET:HE3	2:O:1308:ILE:HD11	1.46	0.94
3:J:868:TRP:O	3:J:872:LEU:HG	1.66	0.94
5:L:84:LEU:CD1	5:L:107:THR:HG21	1.97	0.94
3:P:620:PHE:O	3:P:624:ILE:HG13	1.67	0.94
3:J:408:VAL:HA	3:J:411:ILE:HD12	1.48	0.94
2:C:700:VAL:HG13	2:C:1117:LEU:HD23	1.49	0.94
2:O:1290:MET:SD	2:O:1294:LYS:HD2	2.08	0.94
2:I:690:VAL:HG13	2:I:691:PRO:HD2	1.49	0.94
5:L:355:ILE:HG22	5:L:359:LYS:HE3	1.48	0.94
2:C:539:THR:CG2	2:C:540:ARG:H	1.81	0.94
2:C:1086:PRO:HB3	2:C:1212:LEU:HD13	1.48	0.94
2:I:1289:GLU:O	2:I:1294:LYS:HG3	1.66	0.94
2:O:1281:TYR:OH	3:P:431:ARG:O	1.84	0.94
3:P:703:THR:HG21	3:P:715:LYS:NZ	1.83	0.94
2:I:448:LEU:HD11	2:I:553:THR:C	1.92	0.94
3:P:1266:ILE:CD1	3:P:1278:GLU:HB3	1.97	0.94
3:D:740:LEU:N	3:D:740:LEU:HD23	1.82	0.94
3:D:749:LYS:HD2	3:D:753:SER:HB2	1.49	0.94
3:J:242:LEU:HD12	3:J:243:PRO:CD	1.97	0.94
2:O:1309:VAL:HG13	3:P:383:GLY:HA2	1.48	0.94
3:P:501:VAL:HG13	3:P:502:PRO:HD2	1.49	0.94
5:R:265:GLN:O	5:R:269:LEU:HG	1.67	0.94
3:J:1333:THR:O	3:J:1337:VAL:HG23	1.68	0.94
2:O:675:ASP:HB2	2:O:1107:MET:HE2	1.47	0.94
3:J:1226:VAL:O	3:J:1229:VAL:HG12	1.67	0.94
2:O:228:VAL:HG22	2:O:245:ARG:HH12	1.30	0.94
1:A:48:LEU:CD1	1:A:183:ILE:CG2	2.46	0.93
3:D:609:TYR:HA	3:D:617:THR:HG21	1.51	0.93
3:J:700:ASN:O	3:J:704:GLU:HB2	1.67	0.93
3:J:967:VAL:HG22	3:J:973:LEU:CD1	1.98	0.93
1:B:158:ARG:NH2	1:B:175:ALA:HB2	1.83	0.93
2:C:539:THR:HG22	2:C:540:ARG:N	1.80	0.93
3:P:885:VAL:HG12	3:P:894:VAL:HG11	1.50	0.93
3:J:1164:SER:C	3:J:1175:LEU:HD11	1.92	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:42:ALA:HA	1:B:38:THR:HG23	1.48	0.93
2:I:205:PRO:O	2:I:208:ILE:HG22	1.69	0.93
3:J:645:VAL:CG2	3:J:701:LEU:HD13	1.98	0.93
2:O:428:VAL:HG12	2:O:429:MET:HG3	1.51	0.93
3:P:373:ALA:HA	3:P:376:LEU:HD12	0.94	0.93
3:P:1146:GLU:HG2	3:P:1309:ILE:HD12	1.47	0.93
3:D:373:ALA:HA	3:D:376:LEU:HD12	1.48	0.93
3:P:385:LEU:CD2	3:P:411:ILE:HD13	1.98	0.93
3:J:645:VAL:HG22	3:J:701:LEU:HD13	1.49	0.93
3:J:1266:ILE:HD12	3:J:1274:PHE:CD1	2.04	0.93
2:O:75:LEU:HD21	2:O:127:ILE:HD12	0.94	0.93
2:O:164:THR:HG21	2:O:171:LEU:HD12	1.50	0.93
4:Q:27:ALA:HA	4:Q:30:MET:SD	2.08	0.93
1:B:156:SER:O	1:B:159:ILE:HG22	1.67	0.93
6:1:47:DC:H5''	6:1:47:DC:C6	2.04	0.93
2:I:448:LEU:N	2:I:448:LEU:HD23	1.81	0.93
5:R:102:MET:CE	6:7:42:DG:H21	1.81	0.93
3:J:421:VAL:HG12	3:J:422:LEU:H	1.30	0.93
3:D:481:ARG:NH1	4:E:3:ARG:O	2.02	0.93
2:C:163:LYS:HD3	2:C:164:THR:HG22	1.51	0.92
3:J:421:VAL:CG1	3:J:469:HIS:O	2.16	0.92
3:P:139:LEU:HD21	3:P:185:ILE:HD12	1.51	0.92
2:C:46:GLN:HG3	2:C:46:GLN:O	1.66	0.92
2:I:960:LEU:HB3	2:I:1025:PHE:HE1	1.34	0.92
2:I:1275:VAL:HG12	2:I:1279:GLU:OE2	1.68	0.92
2:O:661:VAL:CG1	2:O:665:ALA:HB3	1.99	0.92
2:I:1278:LEU:CB	2:I:1287:LEU:HD22	1.99	0.92
2:I:1086:PRO:O	2:I:1094:VAL:HG23	1.68	0.92
3:P:349:TYR:CD2	3:P:472:LEU:HD11	2.05	0.92
3:P:431:ARG:NH1	3:P:493:PRO:HB3	1.85	0.92
5:R:166:VAL:HG12	5:R:168:PRO:HD3	1.50	0.92
1:A:13:LEU:HA	1:A:28:LEU:CD2	1.98	0.92
3:P:26:SER:HB3	3:P:29:MET:SD	2.08	0.92
3:P:1274:PHE:O	3:P:1275:LEU:HB2	1.70	0.92
5:R:583:THR:CG2	5:R:586:ARG:HB3	1.99	0.92
1:G:42:ALA:HA	1:H:38:THR:CG2	2.00	0.92
3:J:115:TRP:HE3	3:J:1333:THR:CG2	1.81	0.92
3:P:1101:LEU:HD22	3:P:1122:ALA:HB3	1.50	0.92
1:B:158:ARG:HH21	1:B:175:ALA:CB	1.82	0.92
2:O:885:GLY:HA2	2:O:917:SER:OG	1.70	0.92
2:C:653:MET:HE3	2:C:654:ASP:O	1.69	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:454:VAL:HG23	5:R:455:HIS:N	1.84	0.92
2:C:1183:ALA:O	2:C:1185:PRO:HD3	1.69	0.92
2:O:118:LYS:NZ	2:O:485:ASP:O	2.03	0.92
3:P:372:MET:O	3:P:376:LEU:HG	1.70	0.92
5:F:518:HIS:O	5:F:520:GLY:N	2.03	0.92
3:J:432:LEU:HD12	3:J:499:ILE:HD13	1.51	0.92
3:J:1287:ILE:HG22	3:J:1288:ALA:N	1.84	0.91
2:O:211:ARG:HD3	2:O:357:ASN:O	1.70	0.91
5:L:583:THR:CG2	5:L:586:ARG:HB3	2.00	0.91
2:O:1105:SER:HA	3:P:736:GLN:HE21	1.34	0.91
2:C:178:PRO:HA	2:C:397:LEU:HD23	1.52	0.91
5:F:84:LEU:HG	5:F:107:THR:CG2	2.01	0.91
5:F:310:GLU:OE2	5:F:355:ILE:HG21	1.70	0.91
2:I:196:VAL:HG23	2:I:206:ALA:HA	1.51	0.91
3:P:574:VAL:O	3:P:578:ILE:HG13	1.70	0.91
3:P:212:THR:HG22	3:P:215:LYS:NZ	1.83	0.91
3:J:115:TRP:CE3	3:J:1333:THR:HG23	2.06	0.91
6:4:53:DG:H2"	6:4:54:DA:OP2	1.70	0.91
2:I:1124:ILE:CD1	2:I:1198:LEU:HD11	2.00	0.91
1:M:81:ILE:HD13	1:M:131:CYS:HB2	1.50	0.91
5:L:407:GLU:HA	5:L:410:ILE:HD12	1.51	0.91
1:B:224:LEU:O	1:B:224:LEU:HD22	1.69	0.90
3:J:734:ALA:CA	3:J:737:ILE:HD12	1.98	0.90
2:C:1309:VAL:HG13	3:D:383:GLY:HA2	1.52	0.90
5:R:84:LEU:HG	5:R:107:THR:CG2	2.01	0.90
2:C:726:TYR:HB3	2:C:733:VAL:CG2	2.01	0.90
3:D:427:PRO:HG2	3:D:429:LEU:CD2	2.01	0.90
2:O:1241:ASP:O	2:O:1262:LYS:NZ	2.03	0.90
3:D:130:MET:HG3	3:D:134:ASP:OD2	1.70	0.90
3:P:621:ALA:HA	3:P:624:ILE:HD12	1.53	0.90
2:I:1200:LYS:HE3	2:I:1206:THR:HG21	1.52	0.90
1:M:47:LEU:CD1	1:M:183:ILE:CD1	2.49	0.90
2:O:205:PRO:HB2	2:O:207:THR:HG22	1.54	0.90
3:P:544:LEU:HD22	3:P:578:ILE:CD1	2.01	0.90
1:B:57:THR:HG23	1:B:158:ARG:NH2	1.87	0.90
3:J:432:LEU:CD1	3:J:499:ILE:HD13	2.02	0.90
2:O:202:ARG:NH2	7:8:7:DC:OP1	2.05	0.90
1:A:75:GLN:HE22	2:C:727:VAL:HG12	1.37	0.90
2:I:890:LYS:CG	2:I:891:GLY:H	1.85	0.90
3:J:518:VAL:HA	3:J:547:ARG:NH1	1.87	0.90
2:O:207:THR:OG1	2:O:351:LEU:HD21	1.70	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:423:LEU:CB	3:P:466:MET:HE1	2.01	0.90
1:A:166:ARG:HD2	1:A:170:ARG:HG2	1.54	0.90
2:O:425:ILE:O	2:O:428:VAL:HG12	1.71	0.90
3:P:749:LYS:HB3	3:P:750:PRO:HD2	1.54	0.90
1:G:42:ALA:HA	1:H:38:THR:HG21	1.53	0.90
3:J:421:VAL:HG12	3:J:422:LEU:N	1.84	0.90
5:L:295:CYS:O	5:L:296:LYS:HB2	1.69	0.90
2:O:277:LEU:HD11	2:O:282:VAL:HG21	1.53	0.90
2:O:666:SER:HA	2:O:1186:VAL:HG21	1.54	0.90
2:C:213:LEU:O	2:C:214:ASN:CB	2.19	0.89
3:D:795:TYR:CD1	7:2:12:DG:H5'	2.07	0.89
3:J:373:ALA:O	3:J:376:LEU:HB2	1.72	0.89
3:J:1162:ILE:HD12	3:J:1180:VAL:HG12	1.54	0.89
2:O:708:VAL:HG11	2:O:794:LEU:HD22	1.51	0.89
3:D:646:ILE:HD11	3:D:764:ARG:HD3	1.50	0.89
3:P:417:ARG:HG2	3:P:418:GLU:HG2	1.54	0.89
1:A:48:LEU:HD11	1:A:183:ILE:CG2	2.01	0.89
2:C:3:TYR:O	2:C:8:LYS:HE3	1.71	0.89
3:J:136:GLU:O	3:J:140:TYR:CD2	2.26	0.89
2:I:425:ILE:O	2:I:429:MET:HG3	1.72	0.89
2:I:667:LEU:HD11	2:I:794:LEU:HD23	1.54	0.89
3:J:1259:GLN:OE1	3:J:1262:ARG:NH1	2.05	0.89
3:J:1284:ARG:O	3:J:1287:ILE:HB	1.72	0.89
2:O:1124:ILE:CD1	2:O:1198:LEU:HD11	2.02	0.89
3:P:115:TRP:CZ2	3:P:1329:THR:HG22	2.06	0.89
3:P:1101:LEU:HD21	3:P:1122:ALA:HB3	1.53	0.89
2:C:1314:GLN:HG3	4:E:28:ARG:NH2	1.87	0.89
2:I:813:GLU:HB2	3:J:461:PHE:HD2	1.35	0.89
3:P:1282:TYR:O	3:P:1285:VAL:HG12	1.72	0.89
5:F:102:MET:HE3	6:1:42:DG:N3	1.88	0.89
5:F:502:LYS:HE3	5:F:503:GLU:O	1.72	0.89
3:J:1269:ALA:HB2	3:J:1274:PHE:HB2	1.54	0.89
1:A:67:GLU:HA	1:A:78:ILE:HG21	1.54	0.89
3:D:427:PRO:HG2	3:D:429:LEU:HD21	1.53	0.89
3:D:807:LEU:HD22	3:D:1255:VAL:HG13	1.54	0.89
1:G:47:LEU:CD1	1:G:183:ILE:CD1	2.50	0.89
2:C:657:THR:O	2:C:660:VAL:HG23	1.71	0.89
3:D:1163:VAL:HG11	3:D:1175:LEU:CD2	2.02	0.89
2:I:1280:ALA:CB	3:J:431:ARG:HB3	2.02	0.89
2:C:912:ASP:O	2:C:913:VAL:HG23	1.72	0.89
3:J:1323:ALA:CB	3:J:1332:LEU:HD21	2.02	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1347:LEU:HD22	3:P:1357:ILE:HG23	1.54	0.89
1:B:158:ARG:HD3	1:B:172:LEU:HD11	1.53	0.88
3:D:749:LYS:CG	3:D:755:ILE:HG12	2.04	0.88
1:G:41:ASN:O	1:G:45:ARG:HG3	1.73	0.88
2:I:345:PRO:O	2:I:349:GLU:HG2	1.72	0.88
3:J:1163:VAL:HG21	3:J:1177:ILE:HG23	1.51	0.88
1:M:45:ARG:NE	1:N:38:THR:OG1	2.07	0.88
2:I:953:LEU:HD13	2:I:954:LYS:NZ	1.87	0.88
3:J:464:ASP:OD1	8:6:15:G:O2'	1.90	0.88
5:L:573:LEU:HD22	7:5:45:DT:H2'	1.53	0.88
2:O:661:VAL:HG13	2:O:665:ALA:HB3	1.54	0.88
2:I:255:ILE:HG12	2:I:285:ILE:HG21	1.54	0.88
1:M:85:LEU:HD13	1:M:144:ILE:HD13	1.55	0.88
3:P:521:LYS:HD2	3:P:543:SER:CB	2.02	0.88
3:P:824:PRO:HD3	3:P:878:ASP:O	1.73	0.88
3:J:1344:LEU:HA	3:J:1349:GLU:OE1	1.72	0.88
5:L:102:MET:HE1	6:4:43:DT:H1'	1.55	0.88
2:O:870:ILE:HG21	2:O:944:ARG:HE	1.37	0.88
2:C:661:VAL:CG1	2:C:665:ALA:HB3	2.02	0.88
2:C:698:PRO:HA	2:C:1231:TYR:CE1	2.07	0.88
3:D:115:TRP:CZ2	3:D:1329:THR:HG22	2.09	0.88
2:I:798:GLN:HB2	2:I:828:PHE:CZ	2.09	0.88
3:P:502:PRO:HG2	3:P:601:ILE:CG2	2.04	0.88
3:J:909:ILE:HG12	3:J:910:ASN:N	1.88	0.88
3:D:747:MET:HE1	3:D:775:SER:HA	1.52	0.88
5:F:84:LEU:CG	5:F:107:THR:HG21	2.04	0.88
2:O:897:PRO:HG2	2:O:898:GLU:OE1	1.73	0.88
2:C:870:ILE:HG13	2:C:944:ARG:HG2	1.56	0.88
3:D:1146:GLU:HG2	3:D:1309:ILE:HD12	1.55	0.88
2:I:1268:GLN:NE2	3:J:351:GLY:O	2.06	0.88
3:J:53:ARG:O	3:J:58:CYS:HB2	1.74	0.88
2:O:153:PRO:HA	2:O:177:ILE:HG22	1.56	0.88
1:A:15:ASP:HB3	1:A:27:THR:OG1	1.73	0.88
3:D:972:LYS:HB3	3:D:1002:VAL:HG13	1.56	0.88
3:D:1230:THR:HA	3:D:1233:ILE:HD12	1.54	0.88
2:O:228:VAL:HG22	2:O:245:ARG:NH1	1.88	0.88
2:O:539:THR:HG22	2:O:540:ARG:H	1.39	0.88
3:D:107:LEU:HD21	3:D:242:LEU:HB2	1.53	0.87
2:I:577:VAL:HG23	2:I:661:VAL:O	1.74	0.87
3:J:115:TRP:CH2	3:J:1329:THR:HA	2.08	0.87
3:J:823:THR:HB	3:J:824:PRO:CD	2.03	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:117:LEU:CD1	3:P:124:ILE:HD12	2.04	0.87
3:D:353:SER:HB2	3:D:372:MET:CE	1.99	0.87
2:O:897:PRO:HB2	5:R:565:ILE:CG1	2.04	0.87
3:P:458:ASN:ND2	8:9:16:U:O3'	2.07	0.87
3:P:482:ALA:O	3:P:488:ASN:ND2	2.08	0.87
4:Q:5:THR:HG22	4:Q:7:GLN:H	1.39	0.87
2:I:1278:LEU:HB3	2:I:1287:LEU:HD22	1.56	0.87
3:J:382:TYR:HA	3:J:385:LEU:HD12	1.57	0.87
2:O:569:ILE:HD13	3:P:784:ALA:CB	2.04	0.87
2:O:1124:ILE:HD11	2:O:1198:LEU:HD11	1.56	0.87
1:A:9:LEU:HD21	1:A:198:LEU:HD13	1.57	0.87
5:F:392:LYS:HA	5:F:395:THR:HG23	1.57	0.87
3:J:869:CYS:HA	3:J:872:LEU:HD12	1.56	0.87
1:M:47:LEU:CD1	1:M:183:ILE:HD13	2.03	0.87
2:I:1100:PRO:HB3	3:J:639:VAL:HG23	1.55	0.87
3:J:130:MET:SD	3:J:135:ILE:HG12	2.14	0.87
3:J:322:ARG:HB2	3:J:323:PRO:HD2	1.56	0.87
3:P:749:LYS:CB	3:P:750:PRO:HD2	2.04	0.87
5:R:456:MET:O	5:R:460:ILE:HG13	1.73	0.87
1:B:61:ILE:HB	1:B:64:VAL:HB	1.55	0.87
1:M:59:VAL:HG22	1:M:144:ILE:HG23	1.55	0.87
3:P:1266:ILE:HD12	3:P:1278:GLU:HB2	1.53	0.87
3:D:1163:VAL:HG22	3:D:1177:ILE:HG23	1.54	0.87
5:F:458:GLU:HA	5:F:461:ASN:ND2	1.89	0.87
3:J:1167:LYS:HE3	3:J:1187:GLU:OE1	1.73	0.87
2:O:878:THR:CG2	2:O:879:GLY:N	2.37	0.87
1:A:100:LEU:CD1	1:A:115:ILE:HG21	2.05	0.87
1:A:109:PRO:HB3	1:A:132:HIS:CD2	2.09	0.87
3:D:502:PRO:HG2	3:D:601:ILE:HG23	1.54	0.87
3:D:1282:TYR:O	3:D:1285:VAL:HG12	1.75	0.87
2:I:448:LEU:HD11	2:I:553:THR:O	1.75	0.87
2:I:1271:GLY:O	2:I:1275:VAL:HG23	1.74	0.87
1:M:11:PRO:O	1:N:230:ALA:HB2	1.74	0.87
5:L:386:LEU:HA	6:4:41:DT:O4'	1.75	0.86
3:P:1177:ILE:HD12	3:P:1186:TYR:O	1.74	0.86
3:D:514:THR:HG21	3:D:596:LEU:HG	1.57	0.86
3:D:1101:LEU:CD2	3:D:1122:ALA:HB3	2.05	0.86
2:C:871:VAL:HG23	2:C:883:LEU:O	1.74	0.86
2:I:890:LYS:HG2	2:I:891:GLY:N	1.87	0.86
2:O:589:THR:CG2	2:O:590:PRO:HD2	2.05	0.86
3:P:251:PRO:O	5:R:507:MET:HE1	1.75	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:525:THR:HG21	2:C:687:ARG:HD3	1.55	0.86
2:C:1104:PRO:HG3	3:D:725:MET:HE3	1.57	0.86
5:L:429:THR:HG1	6:4:39:DA:H8	0.90	0.86
2:O:667:LEU:HD22	2:O:705:GLU:OE2	1.76	0.86
2:C:372:PRO:O	5:F:94:THR:OG1	1.92	0.86
2:C:812:PHE:CE2	2:C:813:GLU:HG3	2.10	0.86
2:C:831:ILE:H	2:C:831:ILE:HD12	1.41	0.86
3:D:483:LEU:HD11	4:E:20:VAL:HG21	1.58	0.86
2:I:686:GLN:CD	2:I:1069:ARG:HG2	2.01	0.86
3:J:1233:ILE:O	3:J:1237:VAL:HG23	1.75	0.86
3:P:521:LYS:CD	3:P:543:SER:HB2	2.03	0.86
3:D:288:PRO:O	3:D:292:VAL:HG23	1.76	0.86
3:D:1140:ARG:NH2	3:D:1236:GLU:OE2	2.08	0.86
2:I:60:GLN:O	2:I:476:LYS:NZ	2.07	0.86
2:I:122:VAL:HG11	2:I:493:ILE:HD12	1.58	0.86
3:J:519:ASN:HA	3:J:523:GLU:HB2	1.58	0.86
7:5:25:DA:H2"	7:5:26:DT:OP2	1.74	0.86
3:D:501:VAL:HG13	3:D:502:PRO:CD	1.96	0.86
3:D:608:CYS:HG	3:D:617:THR:HG22	1.38	0.86
3:D:805:GLN:HB2	3:D:1347:LEU:HD12	1.57	0.86
3:J:673:VAL:CG1	3:J:678:ARG:HB2	2.05	0.86
1:M:42:ALA:HA	1:N:38:THR:HG23	1.55	0.86
2:O:806:PRO:HG2	3:P:632:ALA:O	1.76	0.86
2:C:1257:GLN:HG2	2:C:1296:ASP:OD1	1.76	0.86
1:M:44:ARG:HG3	1:M:183:ILE:HG12	1.57	0.86
1:G:106:GLY:HA2	1:G:136:GLU:HA	1.57	0.86
3:J:527:LEU:HB2	3:J:550:VAL:HG22	1.55	0.86
2:O:1278:LEU:HD22	2:O:1283:ALA:HB3	1.56	0.86
3:P:930:LEU:HB2	3:P:1134:ILE:HD11	1.58	0.86
2:C:807:TRP:CD1	2:C:817:LEU:HD11	2.11	0.85
2:O:1086:PRO:O	2:O:1094:VAL:HG23	1.74	0.85
5:R:454:VAL:HG23	5:R:455:HIS:H	1.37	0.85
2:I:719:LYS:O	2:I:779:ARG:NH1	2.09	0.85
3:J:823:THR:HB	3:J:824:PRO:HD2	1.58	0.85
5:L:452:ILE:CB	5:L:457:ILE:HD11	2.05	0.85
3:P:1145:PHE:CB	3:P:1309:ILE:HD11	2.06	0.85
2:C:528:ARG:HD2	2:C:663:VAL:CG2	2.05	0.85
2:I:871:VAL:HG23	2:I:883:LEU:O	1.76	0.85
3:J:1162:ILE:CD1	3:J:1180:VAL:HG12	2.06	0.85
5:L:310:GLU:OE1	5:L:355:ILE:HG21	1.77	0.85
2:C:164:THR:O	2:C:165:HIS:HB2	1.75	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1005:GLU:HG2	2:I:1006:GLU:H	1.40	0.85
2:I:1268:GLN:HE22	3:J:351:GLY:C	1.84	0.85
2:O:178:PRO:HG3	2:O:395:TYR:HH	1.40	0.85
3:P:111:THR:HG23	3:P:112:ALA:H	1.41	0.85
5:R:96:ASP:HB3	5:R:99:ARG:HG2	1.57	0.85
1:B:92:VAL:HG22	1:B:121:VAL:HG22	1.58	0.85
3:D:416:ILE:HD12	3:D:441:LEU:HD11	1.57	0.85
1:N:37:HIS:NE2	1:N:187:VAL:HG21	1.91	0.85
2:O:478:ARG:NH2	2:O:492:MET:O	2.09	0.85
2:C:1311:GLY:O	4:E:31:GLN:HG3	1.75	0.85
3:D:771:GLN:HA	3:D:774:ILE:CD1	2.07	0.85
3:D:1179:PRO:HD2	3:D:1184:ASP:O	1.77	0.85
5:F:530:LEU:H	5:F:530:LEU:HD12	1.40	0.85
2:I:1289:GLU:C	2:I:1294:LYS:HG3	2.02	0.85
5:L:452:ILE:HG22	5:L:457:ILE:HD11	1.56	0.85
2:O:70:TYR:HA	2:O:100:LEU:HD23	1.56	0.85
3:P:974:VAL:HG11	3:P:1028:ILE:HG21	1.57	0.85
2:I:562:GLU:C	2:I:563:THR:HG22	2.00	0.85
2:I:813:GLU:O	3:J:461:PHE:HB2	1.76	0.85
3:J:363:LEU:HD23	3:J:618:VAL:CG1	2.07	0.85
1:B:57:THR:HG23	1:B:158:ARG:HH22	1.41	0.85
2:C:816:ILE:HG22	2:C:818:VAL:HG13	1.58	0.85
3:D:664:ILE:HG12	3:D:681:LYS:NZ	1.91	0.85
2:I:1275:VAL:O	2:I:1279:GLU:HG3	1.77	0.85
3:J:519:ASN:HB3	3:J:523:GLU:OE1	1.77	0.85
5:L:452:ILE:HG22	5:L:457:ILE:CD1	2.07	0.85
2:C:149:LEU:HD21	2:C:451:ARG:HE	1.39	0.85
5:L:452:ILE:HG21	5:L:457:ILE:HD13	1.58	0.85
2:C:201:ARG:HB3	2:C:369:MET:HE1	1.57	0.85
2:C:859:GLU:CG	2:C:862:LEU:HD12	2.07	0.85
2:C:1104:PRO:HG3	3:D:725:MET:HE1	1.56	0.85
1:G:28:LEU:HD11	1:H:231:PHE:CE1	2.10	0.85
2:I:854:ILE:HG22	2:I:857:VAL:HG21	1.59	0.85
2:I:1234:LYS:C	2:I:1235:LEU:HD23	2.02	0.85
3:J:43:THR:HG21	5:L:449:THR:HG22	1.56	0.85
5:L:451:ARG:CZ	6:4:32:DA:OP1	2.25	0.85
2:O:120:GLN:HG2	2:O:489:PRO:HG2	1.59	0.85
3:P:131:PRO:O	3:P:135:ILE:HG13	1.76	0.85
3:P:139:LEU:HD21	3:P:185:ILE:CD1	2.07	0.85
3:P:385:LEU:HD23	3:P:411:ILE:HD13	1.56	0.85
3:P:475:GLU:O	3:P:479:GLU:HG2	1.75	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:975:ILE:HD13	3:P:980:THR:HG21	1.59	0.85
2:O:204:LEU:HB3	2:O:205:PRO:CD	2.06	0.84
3:P:759:ILE:HD11	3:P:771:GLN:HB3	1.58	0.84
3:P:1075:ARG:HG3	3:P:1192:LYS:HD3	1.59	0.84
5:R:520:GLY:HA2	5:R:523:ILE:CD1	2.07	0.84
3:D:398:LYS:HD3	5:F:532:LEU:HG	1.59	0.84
5:L:452:ILE:HB	5:L:457:ILE:HD11	1.58	0.84
5:L:507:MET:O	5:L:519:LEU:HB3	1.76	0.84
5:L:453:PRO:O	5:L:457:ILE:HG12	1.76	0.84
5:R:464:ASN:CG	7:8:25:DA:N6	2.36	0.84
2:C:263:VAL:HG22	2:C:269:ILE:HD11	1.60	0.84
3:J:868:TRP:O	3:J:872:LEU:CG	2.25	0.84
3:J:1309:ILE:HG22	3:J:1310:THR:N	1.92	0.84
3:D:450:HIS:CD2	3:D:452:LEU:HB2	2.13	0.84
3:J:829:GLY:HA2	3:J:994:SER:O	1.77	0.84
5:L:585:GLU:HG3	7:5:48:DC:N4	1.92	0.84
2:C:1232:MET:HE2	2:C:1232:MET:HA	1.59	0.84
2:O:520:PRO:O	2:O:524:ILE:HG13	1.78	0.84
2:O:838:CYS:SG	2:O:886:LYS:CE	2.65	0.84
1:B:217:ILE:HG22	1:B:218:ARG:N	1.91	0.84
3:D:797:THR:HG23	3:D:924:GLY:HA3	1.58	0.84
5:F:381:GLU:O	5:F:384:LEU:HG	1.77	0.84
5:F:573:LEU:HB2	7:2:46:DG:OP2	1.77	0.84
3:P:130:MET:CG	3:P:135:ILE:HG12	2.07	0.84
1:A:9:LEU:HD21	1:A:198:LEU:CD1	2.07	0.84
2:C:1225:VAL:CG2	3:D:638:SER:HB3	2.07	0.84
3:D:512:TYR:CE2	3:D:635:SER:HB2	2.13	0.84
3:P:320:ASN:O	3:P:321:LYS:CB	2.26	0.84
3:D:703:THR:O	3:D:718:SER:HB3	1.78	0.84
3:D:797:THR:CG2	3:D:924:GLY:HA3	2.07	0.84
1:G:228:LEU:HD11	1:H:224:LEU:HD11	1.60	0.84
1:M:38:THR:HG23	1:N:42:ALA:HA	1.59	0.84
3:D:210:SER:HB3	3:D:213:LYS:HD2	1.57	0.84
3:P:930:LEU:HD11	3:P:1246:VAL:CG2	2.07	0.84
2:O:21:VAL:HG11	2:O:592:ARG:HD3	1.58	0.83
2:O:1100:PRO:HB3	3:P:639:VAL:HG23	1.58	0.83
3:P:1145:PHE:O	3:P:1309:ILE:HG13	1.77	0.83
5:F:520:GLY:HA2	5:F:523:ILE:HD11	1.61	0.83
1:G:232:VAL:HG22	1:H:221:ALA:HB1	1.59	0.83
2:I:1269:ARG:NH1	3:J:340:GLN:HA	1.93	0.83
2:O:1064:ASP:OD1	2:O:1238:LEU:HD22	1.78	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:518:VAL:HG21	3:P:707:ILE:HD12	1.59	0.83
3:J:918:ILE:CG2	3:J:919:ALA:N	2.39	0.83
2:C:974:ARG:O	2:C:978:VAL:HG23	1.78	0.83
3:D:268:LEU:HB3	3:D:306:LEU:HD13	1.60	0.83
3:D:1081:VAL:HB	3:D:1085:GLY:O	1.78	0.83
3:J:746:LEU:CG	3:J:758:PRO:HB3	2.08	0.83
2:O:164:THR:CG2	2:O:171:LEU:HD12	2.08	0.83
3:P:97:VAL:HG12	3:P:101:ARG:HG3	1.61	0.83
2:I:953:LEU:HD13	2:I:954:LYS:HZ2	1.42	0.83
3:J:609:TYR:HA	3:J:617:THR:HG21	1.59	0.83
3:J:918:ILE:HG22	3:J:919:ALA:N	1.93	0.83
6:4:44:DG:H2''	6:4:45:DT:O4'	1.77	0.83
5:R:87:VAL:HG11	5:R:103:ARG:HD3	1.60	0.83
2:C:1030:GLU:OE1	2:C:1030:GLU:HA	1.76	0.83
2:I:431:LYS:O	2:I:435:ILE:HG13	1.77	0.83
3:J:1226:VAL:O	3:J:1230:THR:OG1	1.95	0.83
2:C:1077:SER:HA	3:D:356:THR:CG2	2.08	0.83
2:I:813:GLU:HB2	3:J:461:PHE:CD2	2.12	0.83
3:J:828:GLY:HA2	3:J:996:LYS:HG2	1.61	0.83
5:L:386:LEU:HB2	6:4:41:DT:C2	2.14	0.83
1:N:47:LEU:HD22	1:N:205:MET:HE1	1.59	0.83
7:8:5:DC:H2''	7:8:6:DG:H5'	1.60	0.83
1:A:48:LEU:CD1	1:A:183:ILE:HG23	2.08	0.83
2:C:1117:LEU:HD21	2:C:1182:ILE:CD1	2.08	0.83
2:C:1117:LEU:HD21	2:C:1182:ILE:HD13	1.61	0.83
5:F:401:PHE:O	5:F:405:ILE:HG13	1.79	0.83
1:G:28:LEU:HD11	1:H:231:PHE:CZ	2.14	0.83
2:I:1104:PRO:HG2	3:J:725:MET:HE1	1.61	0.83
3:J:736:GLN:HA	3:J:736:GLN:HE21	1.42	0.83
5:L:244:THR:HG22	5:L:248:GLU:OE2	1.78	0.83
5:L:518:HIS:O	5:L:520:GLY:N	2.12	0.83
2:O:1288:GLN:HB3	2:O:1315:MET:HE1	1.60	0.83
3:P:1158:GLU:O	3:P:1223:LEU:HD21	1.79	0.83
5:F:395:THR:HA	5:F:404:LEU:CD1	2.09	0.83
1:G:225:ALA:HB2	1:H:228:LEU:HD13	1.58	0.83
2:I:1061:GLN:HB2	2:I:1062:PRO:CD	2.09	0.83
2:O:277:LEU:CD1	2:O:282:VAL:HG21	2.09	0.83
2:O:1309:VAL:HG13	3:P:383:GLY:CA	2.08	0.83
5:F:137:TYR:CE1	5:F:353:LEU:HD11	2.13	0.83
2:I:873:ILE:HG13	2:I:944:ARG:HH22	1.43	0.83
3:J:363:LEU:HD21	3:J:618:VAL:HG13	1.58	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:817:HIS:O	3:J:845:ALA:HB1	1.78	0.83
2:O:225:PHE:CE2	2:O:347:ILE:HB	2.12	0.83
3:P:146:VAL:CG2	3:P:154:LEU:HD13	2.09	0.83
7:5:51:DG:O3'	7:5:52:DT:P	2.37	0.82
1:M:81:ILE:CD1	1:M:131:CYS:HB2	2.09	0.82
2:O:255:ILE:HD12	2:O:263:VAL:HG11	1.61	0.82
2:O:1047:LEU:C	2:O:1048:LYS:HG3	2.04	0.82
2:C:1269:ARG:HA	3:D:346:ARG:HA	1.59	0.82
3:J:964:LYS:HD2	3:J:977:SER:CB	2.09	0.82
1:A:13:LEU:HA	1:A:28:LEU:HD21	1.61	0.82
3:J:115:TRP:CE3	3:J:1333:THR:CG2	2.61	0.82
3:P:26:SER:CB	3:P:29:MET:SD	2.67	0.82
1:A:44:ARG:HA	1:A:183:ILE:HD11	1.60	0.82
1:A:45:ARG:NH1	2:C:1215:GLY:O	2.12	0.82
2:I:1042:LEU:HD13	2:I:1049:ILE:HD12	1.61	0.82
3:P:799:ARG:O	3:P:803:VAL:HG23	1.79	0.82
3:P:1226:VAL:O	3:P:1230:THR:OG1	1.97	0.82
3:D:601:ILE:HG22	3:D:602:SER:N	1.94	0.82
3:D:824:PRO:HG3	3:D:835:LEU:HB2	1.60	0.82
3:J:580:TRP:CZ3	3:J:583:VAL:HG11	2.14	0.82
2:C:483:ASP:O	2:C:487:LEU:HG	1.79	0.82
2:C:1109:ILE:HG21	3:D:644:MET:CE	2.09	0.82
2:I:363:LEU:HD21	2:I:385:PHE:CB	2.08	0.82
3:J:1011:VAL:HG11	3:J:1017:VAL:CG1	2.10	0.82
2:O:178:PRO:HA	2:O:397:LEU:HD23	1.62	0.82
3:P:212:THR:HG22	3:P:215:LYS:HZ1	1.44	0.82
3:P:1145:PHE:HB3	3:P:1309:ILE:HD11	1.59	0.82
1:B:59:VAL:HG22	1:B:144:ILE:HG23	1.59	0.82
2:C:75:LEU:HD21	2:C:94:ALA:HB3	1.62	0.82
3:D:790:THR:HG22	3:D:931:THR:HB	1.62	0.82
5:F:166:VAL:HG12	5:F:168:PRO:HD3	1.61	0.82
3:J:373:ALA:HA	3:J:376:LEU:CD1	2.09	0.82
3:J:848:VAL:HG21	3:J:880:VAL:HG13	1.59	0.82
3:J:918:ILE:O	3:J:922:SER:OG	1.95	0.82
3:J:931:THR:O	3:J:935:PHE:CD2	2.32	0.82
2:O:569:ILE:CD1	3:P:784:ALA:HB2	2.10	0.82
2:C:206:ALA:O	2:C:209:ILE:CG2	2.24	0.82
2:C:706:ARG:O	2:C:710:VAL:HG23	1.79	0.82
2:C:1305:TYR:HA	2:C:1308:ILE:HD12	1.61	0.82
5:F:511:ILE:HD13	5:F:519:LEU:HA	1.62	0.82
2:O:292:ILE:HG21	2:O:322:LEU:HD11	1.60	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:645:VAL:HG22	3:D:701:LEU:HD13	0.85	0.82
2:I:363:LEU:HD21	2:I:385:PHE:HB3	1.62	0.82
3:J:373:ALA:HA	3:J:376:LEU:HD12	1.61	0.82
3:J:915:ILE:O	3:J:918:ILE:HG22	1.79	0.82
3:P:311:ARG:NH2	3:P:1329:THR:HG21	1.95	0.82
5:R:269:LEU:O	5:R:273:MET:CE	2.28	0.82
3:D:234:PRO:O	3:D:237:MET:HG2	1.80	0.82
3:J:664:ILE:HG21	3:J:681:LYS:HD3	1.61	0.82
2:O:496:LYS:HB3	2:O:497:PRO:HD3	1.61	0.82
1:B:219:ARG:O	1:B:223:ILE:HG13	1.80	0.81
2:C:251:ALA:HB2	2:C:263:VAL:HG11	1.63	0.81
2:C:557:ARG:HB3	2:C:587:LEU:HD13	1.60	0.81
3:D:105:ILE:HD12	3:D:242:LEU:HD23	1.60	0.81
3:D:251:PRO:C	5:F:507:MET:HE1	2.05	0.81
2:O:1061:GLN:HB2	2:O:1062:PRO:HD2	1.59	0.81
3:D:478:LEU:CD1	4:E:24:ALA:HB2	2.10	0.81
3:D:749:LYS:HG3	3:D:755:ILE:HG12	1.62	0.81
3:D:1226:VAL:O	3:D:1230:THR:OG1	1.98	0.81
2:I:373:GLY:HA3	5:L:91:ILE:HG12	1.61	0.81
2:O:790:ASP:O	2:O:792:GLY:N	2.14	0.81
2:C:96:LEU:HB2	2:C:127:ILE:HD11	1.62	0.81
2:C:311:CYS:SG	2:C:325:LEU:HD21	2.20	0.81
2:C:402:ARG:NH1	2:C:424:ASP:OD2	2.13	0.81
2:C:912:ASP:O	2:C:913:VAL:CG2	2.28	0.81
2:I:75:LEU:HD21	2:I:127:ILE:HD12	1.60	0.81
5:L:530:LEU:HB3	5:L:532:LEU:HD13	1.62	0.81
3:P:908:ILE:CD1	3:P:908:ILE:H	1.93	0.81
3:P:997:VAL:HG11	3:P:1003:LEU:HD21	1.62	0.81
2:C:702:THR:HG22	2:C:1184:THR:O	1.80	0.81
3:D:1046:ILE:HD12	3:D:1059:LEU:CD2	2.10	0.81
2:I:531:SER:OG	2:I:533:LEU:HG	1.79	0.81
2:I:886:LYS:H	2:I:917:SER:HG	1.25	0.81
2:O:681:MET:O	2:O:685:MET:HG2	1.79	0.81
2:I:1278:LEU:HD22	2:I:1283:ALA:HB3	1.61	0.81
3:J:247:PRO:HG3	3:J:250:ARG:NH2	1.95	0.81
5:L:452:ILE:CG2	5:L:457:ILE:HD13	2.11	0.81
3:D:665:GLN:O	3:D:668:PHE:HB3	1.80	0.81
3:D:1167:LYS:HB2	3:D:1174:ARG:HD2	1.61	0.81
3:J:700:ASN:O	3:J:704:GLU:CB	2.27	0.81
3:J:1328:THR:HG22	3:J:1332:LEU:CD1	2.09	0.81
4:K:13:ILE:HD12	4:K:19:LEU:HA	1.61	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:262:VAL:HG13	5:R:263:PRO:HD2	1.63	0.81
1:A:41:ASN:ND2	2:C:1218:GLY:HA3	1.95	0.81
3:J:421:VAL:CG1	3:J:422:LEU:H	1.93	0.81
3:J:967:VAL:HG22	3:J:973:LEU:HD11	1.63	0.81
5:L:573:LEU:HB3	7:5:45:DT:H3'	1.62	0.81
2:O:921:PRO:HB2	2:O:924:VAL:HB	1.61	0.81
3:J:614:LEU:O	3:J:618:VAL:HG23	1.80	0.81
5:R:102:MET:HE3	6:7:42:DG:N2	1.94	0.81
3:D:497:GLU:HB3	3:D:498:PRO:HD2	1.62	0.81
3:D:1163:VAL:CG1	3:D:1175:LEU:HD21	2.11	0.81
5:F:135:ALA:HB2	5:F:256:PHE:HB2	1.61	0.81
3:D:134:ASP:OD1	3:D:134:ASP:N	2.10	0.80
2:I:1299:ASN:O	2:I:1302:THR:HG22	1.81	0.80
3:J:665:GLN:O	3:J:668:PHE:HB3	1.80	0.80
1:N:32:GLU:HB3	1:N:35:PHE:HD2	1.45	0.80
2:O:548:ARG:NH1	3:P:788:LEU:HD11	1.96	0.80
2:C:1105:SER:HB3	3:D:731:ARG:HG3	1.63	0.80
2:C:1286:THR:OG1	3:D:479:GLU:OE2	1.97	0.80
2:I:661:VAL:CG1	2:I:665:ALA:CB	2.50	0.80
1:N:61:ILE:HB	1:N:64:VAL:HB	1.62	0.80
2:O:428:VAL:CG1	2:O:429:MET:N	2.44	0.80
1:A:61:ILE:HG23	1:A:142:MET:HE2	1.63	0.80
3:D:353:SER:CB	3:D:372:MET:HE1	2.03	0.80
2:I:255:ILE:HG22	2:I:255:ILE:O	1.82	0.80
2:I:790:ASP:O	2:I:792:GLY:N	2.12	0.80
3:J:139:LEU:CD2	3:J:185:ILE:HD11	2.11	0.80
2:O:1275:VAL:HG21	3:P:343:LEU:O	1.81	0.80
3:P:45:ASN:HB3	3:P:48:THR:O	1.80	0.80
3:P:245:LEU:HD12	3:P:246:PRO:HD2	1.63	0.80
3:P:839:VAL:HG13	3:P:864:LEU:HD12	1.62	0.80
3:P:1263:LYS:HB2	3:P:1307:LEU:CD1	2.11	0.80
2:C:1113:LEU:N	2:C:1113:LEU:HD23	1.94	0.80
2:C:1288:GLN:O	2:C:1292:THR:HG22	1.81	0.80
1:N:191:ARG:HG3	1:N:196:THR:HG22	1.63	0.80
2:O:1274:GLU:OE2	3:P:424:ASN:ND2	2.14	0.80
3:D:1161:GLY:HA2	3:D:1180:VAL:HG22	1.62	0.80
2:O:1278:LEU:HD23	2:O:1283:ALA:HB3	1.64	0.80
3:D:267:ASP:OD1	3:D:270:ARG:NH2	2.15	0.80
3:D:572:THR:OG1	3:D:576:ARG:HB2	1.80	0.80
3:D:1310:THR:O	3:D:1314:LEU:HG	1.82	0.80
2:I:148:GLN:NE2	2:I:533:LEU:O	2.10	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:797:THR:HG23	3:J:924:GLY:CA	2.11	0.80
3:J:959:LYS:HD2	3:J:985:ILE:HG13	1.61	0.80
5:L:105:MET:SD	5:L:385:ARG:HG2	2.22	0.80
1:M:106:GLY:HA2	1:M:136:GLU:HA	1.64	0.80
1:A:48:LEU:HD12	1:A:183:ILE:CG2	2.11	0.80
3:D:1179:PRO:CD	3:D:1184:ASP:O	2.30	0.80
7:2:24:DT:H2"	7:2:25:DA:OP1	1.80	0.80
2:I:176:ILE:HD12	2:I:184:LEU:HB2	1.63	0.80
2:I:1270:PHE:N	3:J:345:LYS:O	2.15	0.80
2:I:1327:LEU:N	2:I:1327:LEU:HD23	1.96	0.80
3:J:153:ASN:HB2	3:J:154:LEU:HD12	1.63	0.80
5:L:548:LEU:HD11	5:L:560:ARG:HE	1.47	0.80
2:O:390:PHE:N	2:O:390:PHE:CD2	2.48	0.80
3:J:1155:ILE:C	3:J:1156:LEU:HD23	2.05	0.80
2:O:1258:PRO:HG2	3:P:346:ARG:CB	2.12	0.80
3:P:749:LYS:HB3	3:P:750:PRO:CD	2.12	0.80
3:P:1220:ILE:HG23	3:P:1224:ARG:HD2	1.64	0.80
5:R:391:ALA:O	5:R:395:THR:HG23	1.81	0.80
5:R:514:ASP:O	5:R:516:ASP:N	2.15	0.80
1:A:91:ARG:HB2	1:A:122:GLU:HB3	1.62	0.80
3:J:1282:TYR:O	3:J:1285:VAL:CG1	2.25	0.80
3:P:930:LEU:CD1	3:P:1246:VAL:HG21	2.12	0.80
2:I:681:MET:O	2:I:685:MET:HG2	1.82	0.79
2:O:155:VAL:HG22	2:O:405:PHE:CD2	2.17	0.79
3:P:367:GLY:O	3:P:447:ILE:HG23	1.81	0.79
3:D:1011:VAL:HG11	3:D:1017:VAL:HG11	1.64	0.79
3:J:111:THR:HG23	3:J:300:GLN:HG3	1.63	0.79
2:O:60:GLN:O	2:O:476:LYS:HE3	1.82	0.79
3:D:771:GLN:HA	3:D:774:ILE:HD12	1.64	0.79
2:I:402:ARG:HG2	2:I:416:GLY:HA3	1.64	0.79
1:M:41:ASN:HD21	2:O:1218:GLY:HA3	1.47	0.79
1:M:50:SER:OG	1:N:35:PHE:HZ	1.65	0.79
3:P:974:VAL:HG11	3:P:1028:ILE:CG2	2.12	0.79
3:D:110:PRO:HD2	3:D:183:GLU:OE2	1.82	0.79
3:D:926:PRO:O	3:D:930:LEU:HG	1.82	0.79
3:J:839:VAL:O	3:J:842:ARG:HG3	1.82	0.79
5:L:476:ARG:HG3	5:L:477:GLU:H	1.45	0.79
2:O:197:ARG:NH1	2:O:201:ARG:O	2.16	0.79
2:O:232:ILE:HG21	2:O:326:SER:HB2	1.64	0.79
2:O:672:GLU:HG3	2:O:1187:PHE:HA	1.64	0.79
2:O:1124:ILE:HD11	2:O:1198:LEU:CD1	2.13	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1137:GLY:O	3:P:1141:VAL:HG23	1.81	0.79
2:C:1287:LEU:CD2	3:D:1357:ILE:HD11	2.09	0.79
3:D:720:ASN:HD22	3:D:723:TYR:H	1.27	0.79
3:D:1356:LEU:HD12	3:D:1365:TYR:CD1	2.18	0.79
5:L:390:ILE:HD13	5:L:432:THR:HG23	1.64	0.79
5:R:381:GLU:O	5:R:384:LEU:HG	1.83	0.79
3:J:514:THR:HB	3:J:595:ALA:HA	1.64	0.79
1:A:35:PHE:HZ	1:B:50:SER:HG	1.31	0.79
2:C:807:TRP:CG	2:C:817:LEU:HD11	2.18	0.79
3:D:1154:ALA:HB1	3:D:1211:SER:HB2	1.65	0.79
3:P:849:LEU:CD2	3:P:857:LEU:HD23	2.12	0.79
5:L:471:LEU:HG	5:L:476:ARG:O	1.81	0.79
3:P:180:MET:HE1	3:P:293:ARG:CZ	2.13	0.79
3:P:242:LEU:HD12	3:P:243:PRO:HD2	1.65	0.79
1:A:214:GLU:HA	1:A:217:ILE:HD12	1.65	0.79
2:C:1073:LYS:NZ	8:3:15:G:O5'	2.14	0.79
2:C:1104:PRO:CG	3:D:725:MET:CE	2.57	0.79
5:F:395:THR:HA	5:F:404:LEU:HD13	1.62	0.79
2:I:1280:ALA:HB1	3:J:431:ARG:HB3	1.62	0.79
2:O:448:LEU:HD12	2:O:557:ARG:HD2	1.65	0.79
2:C:217:THR:HG21	2:C:313:ALA:HB1	1.65	0.79
2:C:1086:PRO:HB2	2:C:1212:LEU:HD13	1.64	0.79
5:F:465:ARG:HG2	5:F:468:ARG:NH2	1.98	0.79
1:H:195:ARG:HB3	1:H:198:LEU:HD13	1.62	0.79
3:J:809:VAL:CG2	3:J:915:ILE:HD11	2.13	0.79
3:J:891:ASP:N	3:J:891:ASP:OD1	2.14	0.79
3:J:1145:PHE:CB	3:J:1309:ILE:HD11	2.13	0.79
2:O:1275:VAL:HG12	2:O:1279:GLU:OE2	1.82	0.79
1:A:28:LEU:HD11	1:B:231:PHE:CE1	2.17	0.78
1:A:59:VAL:HG22	1:A:144:ILE:HG23	1.64	0.78
1:B:88:LEU:CD2	1:B:128:HIS:CD2	2.64	0.78
1:B:224:LEU:HD22	1:B:224:LEU:C	2.06	0.78
3:D:544:LEU:HA	3:D:574:VAL:HB	1.64	0.78
3:J:367:GLY:O	3:J:447:ILE:HG22	1.83	0.78
2:O:92:TYR:CB	2:O:137:VAL:HG21	2.14	0.78
1:A:47:LEU:HD13	1:A:183:ILE:CD1	2.13	0.78
2:C:210:LEU:HB3	2:C:220:ILE:HD11	1.64	0.78
3:D:598:LYS:HD2	3:D:729:GLY:O	1.83	0.78
3:D:1267:VAL:O	3:D:1268:ASN:HB2	1.80	0.78
2:I:689:ALA:HB1	2:I:1233:LEU:HD22	1.65	0.78
2:I:743:PRO:HA	2:I:974:ARG:HH12	1.49	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:869:CYS:HA	3:J:872:LEU:CD1	2.13	0.78
5:L:374:ARG:NH1	5:L:374:ARG:HB2	1.98	0.78
3:P:217:LEU:O	3:P:221:ILE:HG13	1.82	0.78
2:I:1107:MET:HE1	3:J:739:GLN:CB	2.13	0.78
3:J:747:MET:HE3	3:J:775:SER:HA	1.65	0.78
3:J:1172:LYS:HD3	3:J:1189:MET:HE3	1.65	0.78
2:O:92:TYR:CB	2:O:137:VAL:CG2	2.61	0.78
3:D:363:LEU:HG	3:D:487:THR:HG22	1.65	0.78
3:D:664:ILE:HG12	3:D:681:LYS:HZ3	1.46	0.78
4:E:46:THR:HA	4:E:49:ILE:HD12	1.65	0.78
2:I:876:GLU:HG3	2:I:927:THR:HG23	1.65	0.78
3:J:131:PRO:O	3:J:135:ILE:HG13	1.84	0.78
1:A:28:LEU:HD11	1:B:231:PHE:HE1	1.46	0.78
2:C:819:SER:O	2:C:822:VAL:CG2	2.28	0.78
3:J:1163:VAL:HG22	3:J:1177:ILE:CG2	2.13	0.78
3:J:1280:VAL:HG12	3:J:1281:GLU:H	1.48	0.78
3:J:1220:ILE:HG23	3:J:1224:ARG:HD2	1.66	0.78
1:M:47:LEU:HD13	1:M:183:ILE:HD12	1.63	0.78
1:A:109:PRO:HB3	1:A:132:HIS:HD2	1.47	0.78
2:C:1273:MET:HB3	3:D:428:THR:HB	1.66	0.78
3:D:515:ARG:HH21	3:D:717:VAL:HB	1.48	0.78
3:J:363:LEU:HD23	3:J:618:VAL:HG13	1.65	0.78
3:J:839:VAL:HG12	3:J:864:LEU:HD12	1.64	0.78
7:8:18:DT:H2'	7:8:19:DA:H5''	1.64	0.78
1:G:228:LEU:HD21	1:H:224:LEU:HD23	1.65	0.78
1:H:190:ALA:H	1:H:199:ASP:HA	1.47	0.78
2:I:255:ILE:HD13	2:I:285:ILE:HD13	1.65	0.78
3:J:349:TYR:CE2	3:J:472:LEU:HD11	2.18	0.78
3:J:974:VAL:HG11	3:J:1028:ILE:HG21	1.66	0.78
7:5:25:DA:H1'	7:5:26:DT:H5'	1.65	0.78
2:O:886:LYS:CD	2:O:916:SER:HB2	2.09	0.78
2:O:897:PRO:HB3	5:R:563:PHE:O	1.84	0.78
3:P:1328:THR:O	3:P:1332:LEU:HG	1.83	0.78
1:A:39:LEU:HD23	1:A:39:LEU:N	1.98	0.78
2:C:563:THR:CG2	2:C:680:LEU:HD11	2.13	0.78
2:C:704:MET:O	2:C:708:VAL:HG23	1.84	0.78
1:G:56:VAL:HG13	1:G:144:ILE:CG2	2.13	0.78
2:I:184:LEU:HD21	2:I:389:PHE:CZ	2.19	0.78
3:J:664:ILE:HG12	3:J:681:LYS:HZ1	1.48	0.78
3:J:1109:LEU:HD13	3:J:1115:ILE:HG22	1.66	0.78
3:J:1145:PHE:HB3	3:J:1309:ILE:HD11	1.66	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1278:LEU:CD2	2:O:1283:ALA:CB	2.62	0.78
3:P:483:LEU:HD21	4:Q:16:ARG:HB3	1.66	0.78
2:I:700:VAL:HG21	2:I:1114:GLU:HG3	1.66	0.78
3:J:795:TYR:O	3:J:799:ARG:HG3	1.83	0.78
2:O:870:ILE:HG13	2:O:944:ARG:HG2	1.66	0.78
3:P:503:SER:O	3:P:506:VAL:HG23	1.83	0.78
3:D:549:LYS:HD3	3:D:569:LEU:HD22	1.66	0.77
1:H:129:VAL:HG11	1:H:132:HIS:HE1	1.49	0.77
3:J:555:TYR:HB3	3:J:563:LEU:HD22	1.67	0.77
3:J:1164:SER:C	3:J:1175:LEU:CD1	2.53	0.77
1:M:30:PRO:HB2	1:M:198:LEU:CD2	2.13	0.77
2:O:75:LEU:HD23	2:O:127:ILE:CD1	2.13	0.77
5:R:291:CYS:O	5:R:295:CYS:HB2	1.84	0.77
5:R:387:VAL:HG11	5:R:409:ASN:OD1	1.83	0.77
5:R:551:LEU:HD13	5:R:559:LEU:HD12	1.66	0.77
5:R:583:THR:HG21	5:R:586:ARG:HB3	1.64	0.77
6:1:47:DC:H6	6:1:47:DC:C5'	1.95	0.77
2:I:886:LYS:N	2:I:917:SER:HG	1.81	0.77
2:I:937:ASP:HB2	2:I:1039:GLY:HA3	1.67	0.77
3:J:492:SER:HG	3:J:495:ASN:H	1.29	0.77
5:L:548:LEU:CD1	5:L:560:ARG:HE	1.97	0.77
2:O:599:VAL:CG2	2:O:623:LEU:CD2	2.62	0.77
2:O:886:LYS:HD2	2:O:916:SER:CB	2.08	0.77
1:B:158:ARG:CD	1:B:172:LEU:HD11	2.14	0.77
2:C:213:LEU:O	2:C:214:ASN:HB2	1.82	0.77
2:C:798:GLN:HB3	2:C:827:ARG:NH2	1.98	0.77
3:D:112:ALA:HA	3:D:238:ILE:CD1	2.14	0.77
1:H:168:ILE:HD11	3:P:867:GLN:HB3	1.64	0.77
3:J:449:LEU:HD12	3:J:450:HIS:N	2.00	0.77
2:O:197:ARG:HB3	2:O:200:ARG:HA	1.66	0.77
2:O:488:MET:HB3	2:O:489:PRO:HD2	1.67	0.77
2:O:902:LEU:HA	2:O:905:ILE:HD12	1.66	0.77
2:O:934:PHE:O	2:O:1049:ILE:N	2.17	0.77
2:O:1004:ASP:OD1	2:O:1008:GLN:HG2	1.85	0.77
7:8:18:DT:H2'	7:8:19:DA:C5'	2.14	0.77
3:D:139:LEU:HD21	3:D:185:ILE:HD12	1.57	0.77
5:F:306:PHE:O	5:F:310:GLU:HG3	1.83	0.77
2:I:718:ALA:HB2	2:I:783:LEU:HD21	1.67	0.77
2:I:960:LEU:HD13	2:I:1028:LYS:HB3	1.66	0.77
3:J:482:ALA:O	3:J:488:ASN:ND2	2.17	0.77
3:J:1137:GLY:O	3:J:1141:VAL:HG23	1.84	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:171:LEU:HD22	2:O:188:PHE:O	1.83	0.77
3:P:698:MET:O	3:P:702:GLN:HB3	1.85	0.77
2:C:1273:MET:O	3:D:428:THR:HG21	1.85	0.77
3:D:706:VAL:HA	3:D:714:GLU:O	1.84	0.77
5:F:381:GLU:HA	5:F:384:LEU:HD21	1.63	0.77
2:I:189:ASP:CG	2:I:190:PRO:HD2	2.09	0.77
3:J:629:PHE:O	3:J:632:ALA:HB3	1.82	0.77
5:L:583:THR:HG22	5:L:587:ILE:HG12	1.64	0.77
1:M:46:ILE:HG23	1:M:50:SER:HB2	1.66	0.77
1:N:75:GLN:HG3	1:N:134:THR:HG23	1.65	0.77
2:O:33:ASP:O	2:O:37:LYS:HG3	1.84	0.77
2:O:137:VAL:C	2:O:138:ILE:HD13	2.08	0.77
2:O:170:VAL:HG12	2:O:172:TYR:CE2	2.19	0.77
3:P:1286:LYS:HA	3:P:1289:ASN:HD22	1.49	0.77
2:I:481:LEU:HG	2:I:482:GLY:N	1.96	0.77
3:D:146:VAL:HG21	3:D:158:GLN:HB3	1.67	0.77
1:G:101:THR:HG22	1:G:143:ARG:HG2	1.67	0.77
2:I:560:PRO:O	3:J:780:ARG:NH2	2.12	0.77
2:I:873:ILE:CG1	2:I:944:ARG:HH22	1.98	0.77
2:I:1278:LEU:HB2	2:I:1287:LEU:HD22	1.66	0.77
3:J:54:ASP:OD1	3:J:60:ARG:NH2	2.17	0.77
1:M:75:GLN:HE21	1:M:134:THR:CG2	1.98	0.77
2:O:183:TRP:CZ3	6:7:48:DA:N6	2.53	0.77
2:C:262:TYR:HE1	2:C:276:GLN:CD	1.92	0.77
3:J:1144:LEU:HD13	3:J:1237:VAL:HG22	1.65	0.77
1:M:67:GLU:HA	1:M:78:ILE:HG21	1.67	0.77
1:N:179:PRO:HG3	1:N:211:ILE:CD1	2.11	0.77
1:A:150:ARG:NH1	1:B:7:GLU:O	2.17	0.77
1:A:192:VAL:HG11	1:A:195:ARG:HB2	1.66	0.77
5:F:362:ASN:O	5:F:365:MET:HE2	1.85	0.77
5:F:580:PHE:O	5:F:581:ASP:HB2	1.83	0.77
1:N:32:GLU:HB3	1:N:35:PHE:CD2	2.20	0.77
3:P:1267:VAL:O	3:P:1268:ASN:HB2	1.84	0.77
2:C:13:LYS:NZ	2:C:1151:LEU:HB3	1.99	0.77
3:D:1154:ALA:CB	3:D:1211:SER:HB2	2.14	0.77
1:G:38:THR:HG23	1:H:45:ARG:HD3	1.67	0.77
1:G:44:ARG:O	1:G:47:LEU:HB2	1.84	0.77
2:I:686:GLN:NE2	2:I:1069:ARG:HG2	2.00	0.77
2:I:1282:GLY:O	3:J:1361:THR:OG1	2.02	0.77
3:J:363:LEU:CD2	3:J:618:VAL:CG1	2.62	0.77
3:J:964:LYS:HD2	3:J:977:SER:HB3	1.64	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1323:ALA:HB2	3:J:1332:LEU:HD21	1.68	0.77
2:C:1184:THR:O	2:C:1184:THR:CG2	2.34	0.76
3:D:378:LYS:HA	3:D:381:ILE:HD12	1.67	0.76
1:G:189:ALA:HA	1:G:199:ASP:CB	2.11	0.76
2:I:1286:THR:O	2:I:1290:MET:HG2	1.85	0.76
3:J:601:ILE:CG2	3:J:602:SER:N	2.46	0.76
3:J:1226:VAL:O	3:J:1229:VAL:HG13	1.85	0.76
5:L:507:MET:HA	5:L:519:LEU:HD23	1.66	0.76
1:H:44:ARG:HH12	3:J:538:ARG:HD2	1.50	0.76
2:I:878:THR:HG22	2:I:879:GLY:N	1.98	0.76
2:I:972:PHE:HA	2:I:975:ILE:HD12	1.67	0.76
3:J:749:LYS:HB3	3:J:750:PRO:CD	2.13	0.76
5:L:532:LEU:CD1	5:L:532:LEU:H	1.98	0.76
2:O:700:VAL:O	2:O:1069:ARG:NH2	2.18	0.76
3:P:1321:SER:O	3:P:1324:SER:OG	2.01	0.76
3:J:352:ARG:NH2	3:J:465:GLN:HB2	2.00	0.76
3:J:385:LEU:CD1	3:J:397:ALA:HB1	2.16	0.76
3:J:664:ILE:HG12	3:J:681:LYS:NZ	2.00	0.76
7:5:25:DA:H1'	7:5:26:DT:C5'	2.15	0.76
1:M:48:LEU:HD21	1:M:183:ILE:CG2	2.16	0.76
2:O:539:THR:HG22	2:O:540:ARG:N	1.99	0.76
4:E:42:GLU:OE1	4:E:52:ARG:NH2	2.17	0.76
2:I:1124:ILE:HD11	2:I:1198:LEU:CD1	2.12	0.76
2:O:302:ILE:HG22	2:O:309:LEU:HD22	1.68	0.76
3:P:515:ARG:NH2	3:P:717:VAL:O	2.17	0.76
3:P:1159:ILE:HA	3:P:1206:ARG:HG2	1.66	0.76
5:R:384:LEU:O	5:R:388:ILE:HG22	1.85	0.76
2:I:1288:GLN:HB3	2:I:1315:MET:HE1	1.67	0.76
3:J:411:ILE:O	3:J:415:VAL:HG23	1.86	0.76
1:M:74:VAL:HG12	1:M:76:GLU:O	1.85	0.76
3:P:826:ILE:HG12	3:P:831:VAL:CG2	2.16	0.76
3:P:1291:GLU:O	3:P:1295:ASN:ND2	2.19	0.76
3:D:485:MET:SD	3:D:486:SER:N	2.58	0.76
2:I:60:GLN:O	2:I:476:LYS:CE	2.33	0.76
2:I:363:LEU:HD22	2:I:381:ALA:O	1.86	0.76
2:I:1289:GLU:HG2	2:I:1293:VAL:HG21	1.68	0.76
3:J:139:LEU:HD23	3:J:185:ILE:HD11	1.65	0.76
3:J:709:ARG:O	3:J:709:ARG:CG	2.33	0.76
1:M:86:LYS:HE2	1:M:173:VAL:CG1	2.16	0.76
2:O:96:LEU:HB2	2:O:127:ILE:CD1	2.16	0.76
2:O:726:TYR:HB3	2:O:733:VAL:HG22	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1347:LEU:CD2	3:P:1357:ILE:HG23	2.14	0.76
5:R:487:MET:O	5:R:488:LEU:HB3	1.85	0.76
5:R:610:PHE:HB3	5:R:613:ASP:OD2	1.86	0.76
1:B:64:VAL:O	1:B:64:VAL:HG12	1.84	0.76
1:G:228:LEU:CD2	1:H:224:LEU:HD21	2.16	0.76
5:L:456:MET:O	5:L:460:ILE:HG13	1.85	0.76
1:A:47:LEU:HD13	1:A:183:ILE:HD12	1.68	0.76
2:C:1297:ASP:OD2	2:C:1300:GLY:HA3	1.84	0.76
3:D:720:ASN:ND2	3:D:723:TYR:H	1.84	0.76
3:D:1353:VAL:CG2	3:D:1355:ARG:HD2	2.16	0.76
2:I:551:HIS:HD1	2:I:553:THR:HG1	1.20	0.76
2:I:1332:SER:O	3:J:243:PRO:HG2	1.86	0.76
3:J:470:VAL:O	3:J:472:LEU:HD23	1.86	0.76
3:J:1145:PHE:C	3:J:1309:ILE:HG13	2.10	0.76
1:M:30:PRO:HB3	1:M:198:LEU:HD13	1.68	0.76
2:I:1242:LYS:HE2	3:J:465:GLN:HE21	1.51	0.76
3:J:352:ARG:HH21	3:J:465:GLN:HB2	1.50	0.76
3:J:845:ALA:O	3:J:846:GLU:HB3	1.85	0.76
2:C:374:GLU:OE2	6:1:42:DG:N2	2.19	0.76
2:C:422:LYS:HE2	2:I:996:ARG:HG2	1.67	0.76
2:I:206:ALA:O	2:I:209:ILE:CG2	2.32	0.76
3:J:132:LEU:HA	3:J:135:ILE:HD12	1.68	0.76
3:J:398:LYS:NZ	5:L:532:LEU:HG	2.00	0.76
5:L:593:LYS:O	5:L:597:LYS:HG2	1.86	0.76
1:M:85:LEU:CD1	1:M:144:ILE:HD13	2.16	0.76
2:O:1258:PRO:HG2	3:P:346:ARG:HB2	1.68	0.76
2:C:1101:LEU:HD22	3:D:505:ASP:OD1	1.85	0.75
2:C:1311:GLY:O	4:E:31:GLN:CG	2.34	0.75
3:D:26:SER:HB3	3:D:29:MET:HB2	1.68	0.75
4:E:38:LEU:HD12	4:E:53:GLU:HG2	1.67	0.75
2:I:164:THR:O	2:I:165:HIS:HB2	1.86	0.75
2:I:168:GLY:O	3:J:1065:ALA:HA	1.85	0.75
3:J:234:PRO:O	3:J:237:MET:HG2	1.85	0.75
3:P:318:GLY:N	3:P:322:ARG:O	2.19	0.75
3:P:795:TYR:CD1	7:8:12:DG:C5'	2.69	0.75
5:R:84:LEU:CG	5:R:107:THR:HG21	2.15	0.75
3:D:282:LEU:CD2	3:D:287:ALA:HB2	2.13	0.75
2:I:722:GLY:HA2	2:I:737:ASN:OD1	1.85	0.75
5:L:166:VAL:HG11	5:L:212:ILE:HG13	1.68	0.75
1:M:179:PRO:HA	1:M:208:ASN:HD21	1.49	0.75
2:O:90:VAL:HG12	2:O:91:THR:H	1.48	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:146:VAL:HG21	3:P:154:LEU:HD13	1.68	0.75
3:P:320:ASN:O	3:P:321:LYS:HB3	1.84	0.75
1:A:35:PHE:HZ	1:B:50:SER:CB	1.99	0.75
1:B:224:LEU:HD13	1:B:225:ALA:N	2.02	0.75
2:C:929:ILE:O	2:C:929:ILE:HD13	1.87	0.75
3:D:918:ILE:HG22	3:D:919:ALA:N	2.01	0.75
3:J:1175:LEU:CD1	3:J:1176:VAL:H	1.89	0.75
7:8:30:DA:H2''	7:8:31:DT:OP2	1.85	0.75
2:C:700:VAL:HG13	2:C:1117:LEU:CD2	2.15	0.75
2:I:871:VAL:CG2	2:I:883:LEU:HA	2.16	0.75
5:L:401:PHE:O	5:L:405:ILE:CG1	2.33	0.75
5:L:493:LYS:O	5:L:497:VAL:HG23	1.87	0.75
5:L:559:LEU:HD11	5:L:594:ALA:HB1	1.67	0.75
5:R:460:ILE:O	5:R:464:ASN:ND2	2.19	0.75
6:7:45:DT:H3'	6:7:46:DG:H5''	1.69	0.75
1:A:48:LEU:HD12	1:A:183:ILE:HG23	1.67	0.75
2:C:402:ARG:HG2	2:C:416:GLY:N	2.02	0.75
2:C:1100:PRO:HB3	3:D:639:VAL:HG23	1.66	0.75
3:D:767:LEU:HD13	3:D:771:GLN:HB3	1.67	0.75
5:F:333:VAL:HG13	5:F:333:VAL:O	1.85	0.75
1:G:224:LEU:HD21	1:H:228:LEU:HD11	1.68	0.75
3:J:450:HIS:HE1	3:J:625:MET:HE1	1.44	0.75
3:J:1357:ILE:O	3:J:1362:GLY:HA3	1.85	0.75
3:P:518:VAL:O	3:P:520:ALA:N	2.20	0.75
7:8:24:DT:H2''	7:8:25:DA:OP1	1.85	0.75
1:A:41:ASN:HD21	2:C:1218:GLY:CA	1.97	0.75
5:F:460:ILE:HA	5:F:463:LEU:HD12	1.67	0.75
3:P:703:THR:HG21	3:P:715:LYS:HZ1	1.50	0.75
3:P:909:ILE:HG12	3:P:910:ASN:N	2.00	0.75
4:E:79:GLU:HG2	4:E:82:ALA:HB3	1.69	0.75
5:F:514:ASP:O	5:F:516:ASP:N	2.19	0.75
1:G:228:LEU:HA	1:G:231:PHE:CD2	2.22	0.75
2:I:60:GLN:O	2:I:476:LYS:HE3	1.86	0.75
3:J:79:LYS:HD3	3:J:80:HIS:CE1	2.22	0.75
3:J:475:GLU:N	3:J:475:GLU:OE1	2.18	0.75
2:O:96:LEU:CB	2:O:127:ILE:HD11	2.15	0.75
2:I:593:LYS:NZ	2:I:595:THR:OG1	2.19	0.75
3:J:368:LEU:HD12	3:J:369:PRO:CD	2.16	0.75
1:N:214:GLU:O	1:N:217:ILE:HB	1.87	0.75
3:P:76:LYS:HG3	3:P:77:ARG:HG3	1.69	0.75
3:P:926:PRO:HG2	3:P:1248:ILE:HD11	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1140:ARG:NH2	3:P:1236:GLU:OE2	2.20	0.75
3:D:267:ASP:O	3:D:271:ARG:HG3	1.85	0.75
3:D:1263:LYS:HD3	3:D:1281:GLU:HA	1.68	0.75
3:P:1282:TYR:O	3:P:1285:VAL:CG1	2.33	0.75
2:C:459:MET:HE3	2:C:462:ASN:HD22	1.52	0.74
2:C:1225:VAL:HG22	3:D:638:SER:CB	2.10	0.74
2:I:275:ARG:HH11	2:I:275:ARG:HG3	1.51	0.74
5:L:402:LEU:HA	5:L:405:ILE:HD12	1.69	0.74
3:P:431:ARG:HH11	3:P:493:PRO:HB3	1.50	0.74
1:A:13:LEU:HA	1:A:28:LEU:HD22	1.69	0.74
2:C:515:MET:HE3	2:C:517:GLN:HG2	1.69	0.74
2:C:927:THR:O	2:C:1055:ALA:N	2.17	0.74
2:C:1121:ALA:HB2	2:C:1182:ILE:HD11	1.69	0.74
2:I:1289:GLU:OE2	3:J:472:LEU:HB2	1.86	0.74
5:L:84:LEU:HG	5:L:107:THR:CG2	2.17	0.74
4:E:2:ALA:N	4:E:5:THR:O	2.20	0.74
5:F:295:CYS:O	5:F:296:LYS:HB2	1.85	0.74
2:I:839:VAL:O	2:I:886:LYS:CE	2.33	0.74
2:I:1332:SER:OG	3:J:245:LEU:CD1	2.31	0.74
3:J:1349:GLU:O	3:J:1353:VAL:HG13	1.87	0.74
2:O:1243:MET:CG	3:P:372:MET:HE2	2.18	0.74
3:P:518:VAL:HG21	3:P:707:ILE:CD1	2.17	0.74
3:P:1093:THR:HG22	3:P:1200:GLU:OE1	1.87	0.74
5:R:449:THR:CB	5:R:504:PRO:HG3	2.18	0.74
2:C:1294:LYS:HB3	3:D:347:VAL:HG13	1.69	0.74
3:D:654:ILE:HD13	3:D:760:THR:HB	1.70	0.74
1:M:66:HIS:CE1	2:O:929:ILE:HG13	2.22	0.74
3:P:111:THR:CG2	3:P:112:ALA:N	2.50	0.74
3:P:367:GLY:O	3:P:447:ILE:CG2	2.36	0.74
2:C:167:SER:HA	3:D:1064:SER:HB3	1.70	0.74
2:C:698:PRO:HG3	2:C:1231:TYR:CZ	2.22	0.74
1:G:66:HIS:CE1	1:G:69:SER:HB3	2.22	0.74
2:I:551:HIS:H	2:I:554:HIS:CE1	2.05	0.74
3:P:117:LEU:HD12	3:P:124:ILE:HD12	1.68	0.74
3:P:1190:ILE:HG22	3:P:1191:PRO:O	1.88	0.74
2:C:94:ALA:HB2	2:C:129:LEU:HD11	1.68	0.74
3:D:795:TYR:CE1	7:2:12:DG:H5'	2.22	0.74
5:L:554:ARG:O	5:L:558:VAL:HG23	1.86	0.74
1:M:50:SER:OG	1:N:35:PHE:CZ	2.40	0.74
2:O:658:GLN:HE21	2:O:1186:VAL:HG23	1.52	0.74
2:O:878:THR:HG23	2:O:879:GLY:H	1.53	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:353:LEU:HB3	5:R:358:VAL:CG2	2.17	0.74
2:C:577:VAL:HG23	2:C:661:VAL:O	1.88	0.74
2:C:1309:VAL:HG13	3:D:383:GLY:CA	2.17	0.74
3:D:160:LEU:HD22	3:D:164:GLN:HB3	1.69	0.74
3:D:891:ASP:N	3:D:891:ASP:OD1	2.19	0.74
5:F:392:LYS:HA	5:F:395:THR:CG2	2.16	0.74
2:I:960:LEU:HB3	2:I:1025:PHE:CE1	2.21	0.74
2:I:1312:ASN:CG	2:I:1314:GLN:HB2	2.13	0.74
3:P:121:PRO:CB	3:P:126:LEU:HD11	2.17	0.74
5:R:580:PHE:O	5:R:581:ASP:CB	2.36	0.74
3:D:475:GLU:HA	3:D:478:LEU:HD12	1.69	0.74
3:P:116:PHE:O	3:P:124:ILE:HG13	1.88	0.74
3:P:212:THR:HA	3:P:215:LYS:HE3	1.70	0.74
5:R:464:ASN:OD1	7:8:25:DA:N6	2.21	0.74
7:5:5:DC:H2''	7:5:6:DG:H5'	1.70	0.74
1:A:44:ARG:HA	1:A:47:LEU:HD12	1.69	0.74
1:A:92:VAL:HG11	1:A:95:LYS:O	1.88	0.74
1:A:140:ILE:C	1:A:140:ILE:HD13	2.12	0.74
2:C:653:MET:HG2	2:C:654:ASP:N	2.03	0.74
2:C:925:SER:O	2:C:1056:VAL:HG13	1.88	0.74
1:G:43:LEU:O	1:G:47:LEU:CG	2.34	0.74
2:I:96:LEU:HB2	2:I:127:ILE:HD11	1.69	0.74
3:J:1321:SER:O	3:J:1324:SER:OG	2.06	0.74
2:O:201:ARG:CB	2:O:369:MET:HE1	2.18	0.74
2:O:722:GLY:HA2	2:O:737:ASN:OD1	1.88	0.74
2:O:1120:ALA:HB2	2:O:1199:LEU:HG	1.69	0.74
2:C:524:ILE:HD11	2:C:712:SER:CB	2.15	0.73
2:C:951:MET:O	2:C:955:GLN:HG2	1.88	0.73
3:D:471:PRO:HB2	3:D:476:ALA:HB1	1.70	0.73
3:D:1326:GLN:HE21	7:2:11:DA:H4'	1.53	0.73
3:J:1163:VAL:CG1	3:J:1176:VAL:O	2.35	0.73
3:P:117:LEU:HD13	3:P:124:ILE:HD12	1.68	0.73
5:R:260:ARG:HH12	5:R:422:ARG:HH22	1.34	0.73
2:C:686:GLN:NE2	2:C:1069:ARG:HG2	2.03	0.73
2:O:1077:SER:HA	3:P:356:THR:HG21	1.70	0.73
3:P:78:LEU:HD23	3:P:78:LEU:N	2.03	0.73
3:P:849:LEU:HD22	3:P:857:LEU:HA	1.68	0.73
7:8:25:DA:H1'	7:8:26:DT:H5'	1.70	0.73
1:B:191:ARG:HG2	1:B:191:ARG:O	1.88	0.73
3:J:303:VAL:O	3:J:307:LEU:HG	1.88	0.73
5:L:585:GLU:HG3	7:5:48:DC:H41	1.50	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:585:GLU:OE2	5:R:588:ARG:CG	2.37	0.73
1:G:42:ALA:O	1:G:46:ILE:HG13	1.89	0.73
1:H:166:ARG:HD2	1:H:170:ARG:HG2	1.68	0.73
2:I:886:LYS:HD2	2:I:916:SER:HB2	1.69	0.73
3:J:1156:LEU:HD22	3:J:1209:VAL:HA	1.69	0.73
1:N:104:LYS:O	1:N:140:ILE:HG22	1.88	0.73
2:O:1184:THR:OG1	2:O:1189:GLY:HA3	1.89	0.73
2:C:1324:ASN:O	2:C:1328:LYS:HG2	1.89	0.73
3:D:536:LEU:CD2	3:D:541:LEU:HB3	2.19	0.73
2:I:196:VAL:CG2	2:I:206:ALA:HA	2.18	0.73
2:I:524:ILE:HD11	2:I:712:SER:HB3	1.70	0.73
3:J:373:ALA:HA	3:J:376:LEU:CG	2.19	0.73
3:J:1318:SER:OG	3:J:1321:SER:CB	2.30	0.73
1:B:88:LEU:HD22	1:B:128:HIS:HD2	1.52	0.73
2:C:1098:LEU:HD23	2:C:1099:ASN:H	1.52	0.73
7:2:25:DA:H2''	7:2:26:DT:OP2	1.87	0.73
2:I:539:THR:CG2	2:I:540:ARG:N	2.51	0.73
3:J:749:LYS:CB	3:J:750:PRO:HD2	2.13	0.73
2:O:1273:MET:HG2	7:8:14:DC:H4'	1.70	0.73
3:P:1207:GLY:HA2	3:P:1223:LEU:HD13	1.69	0.73
4:E:47:THR:O	4:E:51:LEU:HG	1.88	0.73
6:1:43:DT:H2'	6:1:44:DG:H5''	1.71	0.73
3:J:247:PRO:HA	3:J:250:ARG:HG3	1.70	0.73
1:N:100:LEU:HB3	1:N:115:ILE:HD12	1.71	0.73
2:O:445:ILE:HB	2:O:446:ASP:OD1	1.89	0.73
2:O:599:VAL:HG21	2:O:623:LEU:HD22	1.69	0.73
2:O:839:VAL:O	2:O:886:LYS:HE2	1.88	0.73
2:I:211:ARG:CD	2:I:357:ASN:O	2.36	0.73
2:I:508:SER:OG	7:5:21:DG:N2	2.21	0.73
5:L:166:VAL:HG12	5:L:168:PRO:HD3	1.71	0.73
2:O:91:THR:HG23	2:O:137:VAL:O	1.88	0.73
2:O:1275:VAL:CG1	2:O:1279:GLU:OE2	2.36	0.73
3:D:514:THR:HB	3:D:595:ALA:HA	1.71	0.73
3:J:30:ILE:HD13	3:J:243:PRO:HD3	1.71	0.73
5:L:385:ARG:O	5:L:388:ILE:HG22	1.89	0.73
2:O:448:LEU:CD1	2:O:557:ARG:HD2	2.19	0.73
2:O:1232:MET:HE2	2:O:1232:MET:HA	1.70	0.73
2:C:661:VAL:CG1	2:C:665:ALA:CB	2.67	0.73
2:I:30:ILE:HD11	2:I:575:LEU:HD22	1.71	0.73
2:I:809:GLY:O	3:J:357:VAL:HG11	1.88	0.73
1:M:11:PRO:O	1:N:230:ALA:HB1	1.89	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:190:ALA:CB	1:B:199:ASP:HA	2.18	0.72
2:C:217:THR:CG2	2:C:313:ALA:HB1	2.18	0.72
5:F:494:ILE:O	5:F:498:LEU:HG	1.89	0.72
2:I:255:ILE:O	2:I:255:ILE:CG2	2.37	0.72
3:J:1234:VAL:HG12	3:J:1235:ASN:N	2.03	0.72
3:P:808:VAL:HG22	3:P:914:ALA:HA	1.70	0.72
3:D:146:VAL:CG2	3:D:158:GLN:HB3	2.19	0.72
3:D:600:ALA:O	3:D:604:MET:HG3	1.89	0.72
3:J:330:MET:SD	3:J:337:ARG:NH2	2.62	0.72
3:J:673:VAL:HG11	3:J:678:ARG:HB2	1.69	0.72
3:J:983:LYS:NZ	3:J:985:ILE:HD11	2.04	0.72
5:L:489:MET:HB3	5:L:490:PRO:HD2	1.71	0.72
2:O:120:GLN:CD	2:O:490:GLN:HB3	2.14	0.72
3:P:575:GLY:HA2	3:P:578:ILE:HD12	1.71	0.72
2:C:186:PHE:HB3	2:C:194:LEU:HD11	1.69	0.72
6:1:18:DA:C2	7:2:46:DG:N2	2.58	0.72
3:J:1328:THR:O	3:J:1332:LEU:HG	1.89	0.72
3:P:121:PRO:O	3:P:122:SER:HB3	1.86	0.72
5:R:132:CYS:SG	5:R:257:LYS:NZ	2.60	0.72
5:R:353:LEU:HB3	5:R:358:VAL:HG23	1.71	0.72
5:R:386:LEU:O	5:R:390:ILE:HG13	1.88	0.72
2:C:563:THR:HG23	2:C:680:LEU:HD11	1.71	0.72
3:D:121:PRO:O	3:D:122:SER:HB3	1.87	0.72
3:D:1321:SER:O	3:D:1324:SER:OG	2.08	0.72
3:J:452:LEU:HB3	3:J:500:ILE:HG22	1.71	0.72
3:J:1164:SER:O	3:J:1175:LEU:HD13	1.84	0.72
1:M:30:PRO:CB	1:M:198:LEU:HD13	2.19	0.72
2:C:83:GLN:O	2:C:87:ILE:HG13	1.90	0.72
2:I:1269:ARG:NE	7:5:15:DT:OP1	2.17	0.72
3:J:964:LYS:HB2	3:J:977:SER:HB3	1.70	0.72
4:K:48:VAL:HA	4:K:51:LEU:HG	1.70	0.72
1:M:42:ALA:O	1:M:46:ILE:HD13	1.88	0.72
2:O:387:ASN:HA	2:O:391:SER:HB2	1.71	0.72
3:P:840:LEU:HD13	3:P:869:CYS:SG	2.30	0.72
3:P:908:ILE:CD1	3:P:908:ILE:N	2.53	0.72
1:A:69:SER:O	1:A:78:ILE:HG13	1.89	0.72
2:I:155:VAL:HG22	2:I:405:PHE:CD2	2.24	0.72
2:I:805:MET:HE2	2:I:806:PRO:O	1.89	0.72
2:I:1269:ARG:HA	3:J:346:ARG:HA	1.70	0.72
3:J:449:LEU:HD12	3:J:450:HIS:H	1.53	0.72
3:J:396:ALA:HA	3:J:399:LYS:HD2	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1179:PRO:CD	3:J:1184:ASP:O	2.38	0.72
1:B:158:ARG:HD3	1:B:172:LEU:CD1	2.20	0.72
3:D:795:TYR:CD1	7:2:12:DG:C5'	2.71	0.72
2:I:901:LEU:HG	2:I:902:LEU:N	2.04	0.72
3:J:1226:VAL:C	3:J:1229:VAL:HG12	2.15	0.72
3:J:1323:ALA:HB1	3:J:1332:LEU:HD21	1.72	0.72
2:O:335:THR:HG22	2:O:336:LEU:N	2.03	0.72
1:A:46:ILE:HG12	1:B:35:PHE:CE1	2.25	0.72
2:C:522:SER:O	2:C:525:THR:HG22	1.90	0.72
2:C:548:ARG:NH1	3:D:788:LEU:HD11	2.04	0.72
2:C:672:GLU:CG	2:C:1187:PHE:HA	2.19	0.72
3:D:747:MET:HE3	3:D:775:SER:HA	1.71	0.72
1:G:224:LEU:CD2	1:H:228:LEU:HD11	2.20	0.72
1:G:232:VAL:HG22	1:H:221:ALA:CB	2.19	0.72
2:O:298:ALA:O	2:O:313:ALA:CB	2.37	0.72
1:A:35:PHE:CZ	1:B:50:SER:OG	2.42	0.72
1:B:79:LEU:O	1:B:83:LEU:HD23	1.90	0.72
2:C:153:PRO:HD2	2:C:400:VAL:HG11	1.72	0.72
3:J:120:LEU:HD23	3:J:121:PRO:HA	1.72	0.72
3:J:139:LEU:CD2	3:J:185:ILE:CD1	2.68	0.72
3:J:261:ALA:HA	5:L:505:ILE:O	1.90	0.72
1:M:9:LEU:HD21	1:M:198:LEU:HD21	1.71	0.72
2:O:1100:PRO:HB3	3:P:639:VAL:CG2	2.18	0.72
5:R:132:CYS:SG	5:R:257:LYS:CE	2.78	0.72
1:B:82:LEU:HD22	1:B:173:VAL:HG21	1.71	0.71
2:C:1116:HIS:CE1	2:C:1226:THR:HG23	2.24	0.71
3:D:963:VAL:CG2	3:D:975:ILE:HG23	2.19	0.71
6:4:50:DT:H5'	6:4:51:DC:C6	2.24	0.71
2:O:1282:GLY:O	3:P:1361:THR:OG1	2.06	0.71
1:B:57:THR:HG23	1:B:158:ARG:CZ	2.21	0.71
3:D:839:VAL:O	3:D:842:ARG:HG3	1.89	0.71
1:H:51:MET:SD	1:H:52:PRO:HD2	2.29	0.71
3:P:121:PRO:HB2	3:P:126:LEU:CD1	2.20	0.71
5:R:518:HIS:O	5:R:520:GLY:N	2.23	0.71
2:C:155:VAL:HG22	2:C:405:PHE:CD2	2.26	0.71
2:C:1101:LEU:CD1	2:C:1101:LEU:N	2.52	0.71
3:D:790:THR:HG22	3:D:931:THR:CB	2.21	0.71
3:D:1134:ILE:CG2	3:D:1138:LEU:HD13	2.19	0.71
2:I:1185:PRO:HD2	2:I:1189:GLY:HA2	1.70	0.71
1:M:67:GLU:C	1:M:78:ILE:HD12	2.15	0.71
2:O:1314:GLN:HA	4:Q:28:ARG:NH2	2.06	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:334:LYS:O	3:P:339:ARG:HB2	1.90	0.71
3:P:423:LEU:N	3:P:423:LEU:HD23	2.05	0.71
2:C:525:THR:HG21	2:C:687:ARG:CD	2.20	0.71
2:C:743:PRO:HA	2:C:974:ARG:HH12	1.55	0.71
5:F:119:ILE:HD12	5:F:379:MET:HE2	1.72	0.71
2:I:732:ILE:HD11	2:I:753:LEU:HD11	1.73	0.71
3:P:908:ILE:N	3:P:908:ILE:HD12	2.06	0.71
1:G:180:VAL:HG13	1:G:207:THR:HG22	1.72	0.71
1:H:39:LEU:O	1:H:43:LEU:HD12	1.91	0.71
4:K:48:VAL:O	4:K:51:LEU:HB2	1.89	0.71
1:M:232:VAL:HG21	1:N:221:ALA:HB1	1.72	0.71
2:O:228:VAL:HG11	2:O:239:MET:HE3	1.72	0.71
1:A:79:LEU:O	1:A:82:LEU:HB2	1.91	0.71
2:C:80:PHE:HB3	2:C:85:CYS:SG	2.31	0.71
1:G:228:LEU:HA	1:G:231:PHE:CE2	2.24	0.71
2:I:448:LEU:CD1	2:I:553:THR:O	2.38	0.71
3:J:580:TRP:HZ3	3:J:583:VAL:HG11	1.52	0.71
3:J:885:VAL:O	3:J:1258:ARG:HD2	1.90	0.71
5:R:383:ASN:HD22	6:7:41:DT:H3	1.36	0.71
1:G:155:ALA:O	1:G:159:ILE:HG13	1.90	0.71
6:7:42:DG:H4'	6:7:43:DT:OP2	1.91	0.71
2:C:1161:LEU:O	2:C:1164:PHE:HD2	1.74	0.71
3:D:646:ILE:CG1	3:D:764:ARG:HD3	2.20	0.71
2:I:498:ILE:O	2:I:502:VAL:HG23	1.90	0.71
2:I:720:ARG:HD3	2:I:736:VAL:HG11	1.72	0.71
5:L:310:GLU:OE1	5:L:355:ILE:HD13	1.91	0.71
1:M:42:ALA:HA	1:N:38:THR:CG2	2.20	0.71
2:O:92:TYR:H	2:O:137:VAL:HB	1.56	0.71
1:A:9:LEU:CD2	1:A:198:LEU:CD1	2.69	0.71
2:C:1124:ILE:HD13	2:C:1180:MET:HB3	1.71	0.71
3:J:721:SER:O	3:J:725:MET:HG3	1.89	0.71
3:J:1075:ARG:HD3	3:J:1076:PRO:HD2	1.72	0.71
2:O:881:ASP:O	2:O:920:VAL:HG23	1.90	0.71
2:C:262:TYR:CE1	2:C:276:GLN:CD	2.69	0.71
2:C:368:ARG:HD3	5:F:90:GLU:HG2	1.73	0.71
2:C:533:LEU:HD21	2:C:571:LEU:HD13	1.71	0.71
3:D:518:VAL:HA	3:D:547:ARG:NH1	2.05	0.71
2:I:424:ASP:O	2:I:428:VAL:HG23	1.91	0.71
2:O:325:LEU:HD22	2:O:330:HIS:HB2	1.73	0.71
2:O:402:ARG:NH2	2:O:417:SER:O	2.21	0.71
3:P:42:GLU:OE1	5:R:451:ARG:HG2	1.91	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:115:TRP:CH2	3:P:1329:THR:HA	2.26	0.71
5:R:87:VAL:O	5:R:91:ILE:HG13	1.90	0.71
2:C:263:VAL:CG2	2:C:269:ILE:HD11	2.20	0.70
2:C:726:TYR:HB3	2:C:733:VAL:HG22	1.71	0.70
2:C:1292:THR:HG23	2:C:1293:VAL:H	1.55	0.70
3:D:275:ARG:HH11	3:D:302:ALA:HB2	1.56	0.70
3:D:620:PHE:O	3:D:624:ILE:HG13	1.91	0.70
3:D:963:VAL:HG21	3:D:975:ILE:HG23	1.73	0.70
3:D:1138:LEU:HB3	3:D:1139:PRO:HD3	1.72	0.70
2:I:170:VAL:HG12	2:I:172:TYR:CZ	2.25	0.70
2:I:182:SER:HB3	2:I:199:ASP:OD2	1.91	0.70
3:J:58:CYS:SG	3:J:61:ILE:N	2.64	0.70
3:J:1040:MET:HE3	3:J:1046:ILE:HG21	1.73	0.70
3:J:1175:LEU:HD12	3:J:1175:LEU:C	2.08	0.70
1:M:145:LYS:HD3	1:M:147:GLN:HE21	1.56	0.70
3:P:292:VAL:HG12	3:P:296:LYS:HE3	1.72	0.70
3:P:510:LEU:HD12	3:P:601:ILE:HD11	1.73	0.70
3:P:601:ILE:HA	3:P:604:MET:SD	2.31	0.70
3:P:930:LEU:CD1	3:P:1246:VAL:CG2	2.68	0.70
1:A:35:PHE:HZ	1:B:50:SER:OG	1.74	0.70
2:C:715:THR:HG22	2:C:786:GLY:H	1.56	0.70
3:D:416:ILE:CD1	3:D:441:LEU:HD21	2.15	0.70
1:G:230:ALA:CB	1:H:11:PRO:O	2.39	0.70
2:I:346:TYR:OH	2:I:436:ARG:HG3	1.91	0.70
3:J:736:GLN:HE21	3:J:736:GLN:CA	2.01	0.70
2:O:1077:SER:HA	3:P:356:THR:CG2	2.20	0.70
2:O:1273:MET:O	3:P:428:THR:HG21	1.91	0.70
3:P:421:VAL:HG23	3:P:439:PRO:HG2	1.73	0.70
3:P:828:GLY:HA2	3:P:994:SER:O	1.89	0.70
5:R:87:VAL:CG1	5:R:103:ARG:HD3	2.20	0.70
2:C:672:GLU:HG2	2:C:1187:PHE:HA	1.72	0.70
2:C:808:ASN:ND2	3:D:633:ALA:HB2	2.06	0.70
2:C:1272:GLU:OE2	3:D:1348:LYS:NZ	2.21	0.70
5:F:493:LYS:O	5:F:497:VAL:HG23	1.91	0.70
3:J:60:ARG:HG3	3:J:89:GLY:O	1.91	0.70
3:J:288:PRO:HG2	5:L:380:VAL:HG11	1.72	0.70
3:J:673:VAL:HG13	3:J:678:ARG:HB2	1.73	0.70
2:O:757:THR:O	2:O:833:ILE:HD12	1.90	0.70
2:O:878:THR:HG23	2:O:879:GLY:N	2.06	0.70
2:O:1292:THR:HG23	2:O:1293:VAL:H	1.55	0.70
2:C:78:PRO:HG3	2:C:129:LEU:HD12	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:176:ILE:HB	2:C:184:LEU:HB2	1.72	0.70
2:I:1323:PHE:CE2	3:J:1353:VAL:HA	2.27	0.70
3:J:121:PRO:O	3:J:122:SER:HB3	1.88	0.70
6:4:53:DG:H1'	6:4:54:DA:H5'	1.73	0.70
1:N:115:ILE:HD11	1:N:144:ILE:CD1	2.22	0.70
3:P:835:LEU:HD11	3:P:839:VAL:HG21	1.72	0.70
2:C:1061:GLN:CB	2:C:1062:PRO:HD2	2.17	0.70
2:I:82:VAL:HG23	2:I:83:GLN:N	2.07	0.70
2:I:445:ILE:HD12	2:I:546:GLU:OE1	1.91	0.70
2:I:1107:MET:HE1	3:J:739:GLN:HB2	1.73	0.70
3:J:1229:VAL:HG13	3:J:1230:THR:N	2.07	0.70
1:M:75:GLN:NE2	2:O:727:VAL:HB	2.05	0.70
3:P:1252:HIS:O	3:P:1255:VAL:HB	1.91	0.70
1:A:179:PRO:HA	1:A:208:ASN:HD21	1.55	0.70
1:B:97:GLU:OE2	1:B:145:LYS:HD3	1.91	0.70
1:B:156:SER:O	1:B:159:ILE:CG2	2.38	0.70
2:C:1184:THR:O	2:C:1184:THR:HG23	1.91	0.70
3:J:518:VAL:HA	3:J:547:ARG:HH12	1.54	0.70
3:J:521:LYS:HB2	3:J:543:SER:HB2	1.71	0.70
5:L:355:ILE:CG2	5:L:359:LYS:HE3	2.19	0.70
3:P:385:LEU:HD21	3:P:411:ILE:HD13	1.72	0.70
3:P:703:THR:HG21	3:P:715:LYS:CE	2.22	0.70
3:P:759:ILE:CD1	3:P:771:GLN:HB3	2.21	0.70
2:C:75:LEU:HD21	2:C:94:ALA:CB	2.21	0.70
2:C:725:GLN:O	2:C:773:LEU:HD11	1.92	0.70
2:C:1121:ALA:HA	2:C:1124:ILE:HD12	1.72	0.70
3:D:471:PRO:CB	3:D:476:ALA:HB1	2.21	0.70
1:A:183:ILE:HG12	1:A:183:ILE:O	1.91	0.70
2:C:883:LEU:HD11	2:C:920:VAL:HG22	1.72	0.70
2:C:936:ARG:NH1	5:F:495:ARG:HE	1.90	0.70
1:G:224:LEU:HG	1:G:225:ALA:N	2.07	0.70
2:I:1104:PRO:HG3	3:J:725:MET:SD	2.31	0.70
2:I:1108:ASN:OD1	2:I:1108:ASN:N	2.23	0.70
5:L:506:SER:O	5:L:519:LEU:HD23	1.92	0.70
2:O:178:PRO:CG	2:O:395:TYR:CZ	2.73	0.70
3:P:116:PHE:CE1	3:P:1333:THR:HG22	2.26	0.70
3:P:795:TYR:OH	3:P:1326:GLN:NE2	2.25	0.70
3:P:909:ILE:HD11	3:P:913:GLU:HB3	1.71	0.70
1:A:45:ARG:NH2	1:B:37:HIS:HB2	2.07	0.70
5:F:460:ILE:O	5:F:463:LEU:HB2	1.90	0.70
2:I:237:LEU:O	2:I:287:VAL:HG22	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:448:LEU:N	2:I:448:LEU:CD2	2.53	0.70
2:I:1287:LEU:O	2:I:1291:LEU:HG	1.92	0.70
3:J:342:LEU:HB3	3:J:1352:ILE:HG12	1.74	0.70
3:J:698:MET:O	3:J:702:GLN:HB2	1.91	0.70
3:J:1145:PHE:HE1	3:J:1256:ILE:CD1	1.97	0.70
2:O:886:LYS:N	2:O:917:SER:OG	2.24	0.70
3:P:544:LEU:CD2	3:P:578:ILE:CD1	2.67	0.70
2:C:422:LYS:O	2:C:426:ILE:HG13	1.92	0.70
2:I:808:ASN:OD1	2:I:1216:ARG:NH1	2.23	0.70
2:I:886:LYS:CD	2:I:916:SER:HB2	2.22	0.70
2:I:1085:MET:HA	2:I:1085:MET:CE	2.18	0.70
3:J:425:ARG:HD2	3:J:457:TYR:HB3	1.74	0.70
1:M:45:ARG:HH12	2:O:1216:ARG:HA	1.56	0.70
2:O:155:VAL:HG22	2:O:405:PHE:HD2	1.55	0.70
3:P:1226:VAL:O	3:P:1229:VAL:CG1	2.39	0.70
2:C:499:SER:O	2:C:503:LYS:HD2	1.91	0.69
2:C:1105:SER:OG	3:D:731:ARG:HD2	1.91	0.69
2:I:1161:LEU:O	2:I:1163:THR:N	2.24	0.69
5:L:92:GLY:O	5:L:93:ARG:HG2	1.91	0.69
2:O:335:THR:HG22	2:O:336:LEU:H	1.57	0.69
2:O:901:LEU:O	2:O:905:ILE:HG13	1.92	0.69
2:O:964:LEU:HD11	2:O:1021:LEU:HD22	1.73	0.69
2:C:153:PRO:HD2	2:C:400:VAL:CG1	2.22	0.69
2:C:559:CYS:SG	2:C:561:ILE:HG13	2.32	0.69
2:C:823:VAL:HG13	2:C:1059:ARG:HD3	1.74	0.69
2:C:1120:ALA:O	2:C:1124:ILE:HG13	1.92	0.69
3:D:475:GLU:OE1	3:D:475:GLU:N	2.23	0.69
5:F:530:LEU:HD12	5:F:530:LEU:N	2.07	0.69
1:H:68:TYR:CD1	1:H:79:LEU:HD21	2.27	0.69
2:I:1085:MET:HE2	2:I:1085:MET:CA	2.20	0.69
3:J:1286:LYS:O	3:J:1290:ARG:HG3	1.92	0.69
1:N:86:LYS:HE2	1:N:174:ASP:HB2	1.74	0.69
3:P:242:LEU:HD12	3:P:243:PRO:CD	2.22	0.69
3:P:427:PRO:HD3	8:9:16:U:O2	1.91	0.69
3:P:807:LEU:CD2	3:P:1255:VAL:HG13	2.23	0.69
1:B:156:SER:C	1:B:159:ILE:HG22	2.16	0.69
3:D:361:LEU:N	3:D:361:LEU:HD23	2.06	0.69
3:D:363:LEU:CD2	3:D:487:THR:HG22	2.22	0.69
3:D:734:ALA:HA	3:D:737:ILE:HD12	1.72	0.69
3:D:824:PRO:HD3	3:D:878:ASP:O	1.92	0.69
4:E:16:ARG:HH11	4:E:16:ARG:CG	2.04	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:237:LEU:HD11	2:I:289:VAL:HG13	1.74	0.69
3:J:22:ILE:HG13	3:J:1319:PHE:CZ	2.27	0.69
2:O:720:ARG:NH2	2:O:745:GLU:OE2	2.25	0.69
5:R:493:LYS:NZ	6:7:30:DG:OP1	2.25	0.69
2:C:996:ARG:O	2:C:997:TRP:HD1	1.74	0.69
3:D:556:GLU:HB3	3:D:564:VAL:CB	2.14	0.69
2:I:806:PRO:CG	3:J:632:ALA:O	2.38	0.69
3:J:1138:LEU:HB3	3:J:1139:PRO:HD3	1.72	0.69
2:O:201:ARG:HB2	2:O:369:MET:HE1	1.74	0.69
3:P:146:VAL:CG2	3:P:158:GLN:HB3	2.23	0.69
5:R:402:LEU:HA	5:R:405:ILE:HD12	1.72	0.69
7:8:27:DA:H2'	7:8:27:DA:OP2	1.92	0.69
1:A:228:LEU:HD22	1:B:224:LEU:HD12	1.74	0.69
2:C:558:VAL:HG13	2:C:559:CYS:O	1.92	0.69
2:I:434:ASP:HA	2:I:437:ASN:ND2	2.07	0.69
2:I:653:MET:HE3	2:I:654:ASP:O	1.93	0.69
2:I:661:VAL:HG12	2:I:665:ALA:HB3	1.70	0.69
3:J:800:LEU:O	3:J:803:VAL:HB	1.93	0.69
3:J:839:VAL:CG1	3:J:864:LEU:HD12	2.22	0.69
3:J:1179:PRO:HB2	3:J:1182:GLY:CA	2.23	0.69
5:L:84:LEU:HG	5:L:107:THR:HG22	1.75	0.69
1:M:47:LEU:O	1:M:51:MET:CB	2.38	0.69
2:O:667:LEU:HD22	2:O:705:GLU:CD	2.16	0.69
2:O:727:VAL:HG23	2:O:773:LEU:HD13	1.73	0.69
2:C:349:GLU:OE1	2:C:349:GLU:HA	1.92	0.69
3:D:268:LEU:CB	3:D:306:LEU:HD13	2.22	0.69
5:F:295:CYS:O	5:F:296:LYS:CB	2.41	0.69
2:I:146:VAL:HG13	2:I:529:ARG:O	1.91	0.69
3:J:115:TRP:HZ2	3:J:1329:THR:HG22	1.50	0.69
5:L:580:PHE:O	5:L:581:ASP:CB	2.41	0.69
1:M:184:ALA:HB2	2:O:1091:GLY:CA	2.19	0.69
2:O:797:GLY:HA3	2:O:1233:LEU:HD23	1.75	0.69
3:P:395:LYS:O	3:P:399:LYS:HG3	1.91	0.69
5:R:451:ARG:NH2	6:7:32:DA:P	2.65	0.69
2:C:179:TYR:HB3	2:C:396:ASP:O	1.93	0.69
2:C:694:ARG:O	2:C:798:GLN:NE2	2.24	0.69
2:C:1017:GLN:O	2:C:1021:LEU:HG	1.93	0.69
2:C:1289:GLU:HA	2:C:1293:VAL:HG22	1.74	0.69
1:G:166:ARG:HD2	1:G:170:ARG:HG2	1.74	0.69
3:J:509:GLY:O	3:J:513:MET:HG3	1.93	0.69
2:O:1127:LYS:NZ	2:O:1203:ASP:OD2	2.18	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1295:SER:O	2:O:1301:ARG:NH1	2.26	0.69
2:O:1305:TYR:CD2	5:R:531:PRO:HB2	2.28	0.69
3:P:46:TYR:OH	6:7:31:DT:OP1	2.09	0.69
1:B:224:LEU:C	1:B:224:LEU:HD13	2.17	0.69
2:C:183:TRP:HZ3	6:1:47:DC:N4	1.91	0.69
2:C:1104:PRO:CG	3:D:725:MET:HE1	2.20	0.69
3:D:77:ARG:NH2	5:F:570:ASP:OD1	2.26	0.69
3:D:511:TYR:OH	3:D:727:ASP:OD2	2.08	0.69
3:D:704:GLU:O	3:D:704:GLU:HG3	1.93	0.69
3:D:1078:LEU:HD13	3:D:1121:LEU:HD22	1.73	0.69
2:I:689:ALA:CB	2:I:1233:LEU:HD13	2.23	0.69
2:I:700:VAL:HG13	2:I:1117:LEU:HD23	1.74	0.69
2:I:1200:LYS:HE3	2:I:1206:THR:CG2	2.23	0.69
3:J:114:ILE:HD13	3:J:308:ASP:HB3	1.73	0.69
3:J:574:VAL:O	3:J:578:ILE:HG13	1.93	0.69
3:J:739:GLN:HG2	3:J:744:ARG:HG3	1.75	0.69
3:J:1158:GLU:HA	3:J:1223:LEU:HD11	1.75	0.69
7:5:18:DT:H2'	7:5:19:DA:H5''	1.73	0.69
2:O:165:HIS:NE2	2:O:190:PRO:HB3	2.08	0.69
2:O:425:ILE:O	2:O:429:MET:HG3	1.91	0.69
3:P:849:LEU:CD1	3:P:857:LEU:HD23	2.23	0.69
3:P:1251:LYS:O	3:P:1255:VAL:HG23	1.93	0.69
5:R:580:PHE:O	5:R:581:ASP:HB2	1.91	0.69
2:I:1235:LEU:N	2:I:1235:LEU:CD2	2.47	0.69
2:I:1246:ARG:HD2	2:I:1265:PHE:O	1.93	0.69
2:I:1325:VAL:O	2:I:1329:GLU:HG3	1.92	0.69
3:J:320:ASN:OD1	3:J:320:ASN:N	2.26	0.69
3:J:1145:PHE:HZ	3:J:1253:ILE:HG23	1.58	0.69
3:J:1220:ILE:CG2	3:J:1224:ARG:HD2	2.23	0.69
5:L:88:GLU:HG2	5:L:91:ILE:HD12	1.75	0.69
2:O:1131:MET:HE1	2:O:1141:LEU:HA	1.75	0.69
3:P:233:LYS:HB3	3:P:236:TRP:CE2	2.27	0.69
1:A:9:LEU:CD2	1:A:198:LEU:HD13	2.23	0.69
2:C:1165:SER:OG	2:C:1167:GLU:HG3	1.93	0.69
3:D:262:THR:C	5:F:507:MET:HB3	2.18	0.69
3:D:433:GLY:O	3:D:457:TYR:HE1	1.76	0.69
5:F:269:LEU:O	5:F:273:MET:HE2	1.92	0.69
5:F:511:ILE:CG2	5:F:519:LEU:HD13	2.19	0.69
6:1:51:DC:OP2	6:1:51:DC:H2'	1.92	0.69
2:I:170:VAL:CG2	3:J:1065:ALA:O	2.39	0.69
3:J:806:ASP:O	3:J:808:VAL:HG23	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:972:LYS:HB3	3:J:1002:VAL:CG1	2.20	0.69
3:P:797:THR:O	3:P:801:VAL:HG23	1.91	0.69
3:P:895:CYS:SG	3:P:898:CYS:N	2.59	0.69
3:D:244:VAL:HG13	3:D:269:TYR:CE1	2.28	0.68
3:D:492:SER:O	3:D:495:ASN:O	2.11	0.68
1:G:190:ALA:H	1:G:199:ASP:HA	1.57	0.68
1:H:57:THR:HG22	1:H:58:GLU:HG3	1.73	0.68
2:I:878:THR:CG2	2:I:879:GLY:N	2.56	0.68
3:J:24:LEU:HD12	3:J:232:ASN:HB3	1.75	0.68
3:J:909:ILE:CG1	3:J:910:ASN:N	2.56	0.68
3:J:1163:VAL:HG12	3:J:1164:SER:N	2.08	0.68
5:L:399:LEU:O	5:L:400:GLN:HB2	1.92	0.68
3:P:288:PRO:O	3:P:292:VAL:HG23	1.94	0.68
3:D:364:HIS:HB3	3:D:487:THR:HG23	1.75	0.68
1:G:78:ILE:O	1:G:82:LEU:HG	1.93	0.68
2:I:593:LYS:CE	2:I:595:THR:OG1	2.41	0.68
2:O:349:GLU:O	2:O:353:VAL:HG23	1.92	0.68
2:O:1282:GLY:CA	4:Q:17:PHE:HE1	1.97	0.68
1:B:191:ARG:HG3	1:B:196:THR:HG22	1.75	0.68
2:C:9:LYS:HG2	2:C:1171:ARG:HD3	1.75	0.68
2:C:149:LEU:HD21	2:C:451:ARG:NE	2.09	0.68
2:C:592:ARG:HG3	2:C:653:MET:HE2	1.75	0.68
2:C:1304:MET:O	2:C:1308:ILE:HG13	1.94	0.68
3:D:923:ILE:HD11	3:D:1252:HIS:HB3	1.75	0.68
5:F:583:THR:HG21	5:F:586:ARG:HB3	1.75	0.68
5:L:295:CYS:O	5:L:296:LYS:CB	2.40	0.68
2:O:10:ARG:CZ	2:O:697:LYS:HD3	2.23	0.68
2:O:539:THR:CG2	2:O:540:ARG:H	2.05	0.68
2:O:1109:ILE:HD11	3:P:740:LEU:CD2	2.21	0.68
3:P:84:ILE:CG2	3:P:84:ILE:O	2.40	0.68
5:R:540:LEU:O	5:R:544:THR:HG23	1.93	0.68
2:C:297:VAL:HG13	2:C:317:LEU:HD21	1.74	0.68
2:C:1117:LEU:CD2	2:C:1182:ILE:HD13	2.22	0.68
3:D:974:VAL:HG11	3:D:1028:ILE:HG21	1.75	0.68
2:I:559:CYS:SG	2:I:661:VAL:HG13	2.33	0.68
2:I:921:PRO:HB2	2:I:924:VAL:HB	1.73	0.68
1:M:36:GLY:O	1:M:201:LEU:HD11	1.93	0.68
3:P:433:GLY:O	3:P:457:TYR:HE1	1.76	0.68
3:P:492:SER:O	3:P:495:ASN:O	2.12	0.68
3:P:930:LEU:HD11	3:P:1246:VAL:HG21	1.75	0.68
3:P:1179:PRO:HG2	3:P:1184:ASP:O	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:454:VAL:CG2	5:R:455:HIS:H	2.06	0.68
2:C:521:LEU:CD2	2:C:686:GLN:HB3	2.24	0.68
4:E:45:LYS:O	4:E:49:ILE:HG13	1.94	0.68
5:F:451:ARG:NH2	6:1:32:DA:OP1	2.26	0.68
3:J:471:PRO:HB2	3:J:476:ALA:HB1	1.75	0.68
5:L:506:SER:O	5:L:519:LEU:CD2	2.42	0.68
2:O:428:VAL:HG13	2:O:429:MET:N	2.09	0.68
3:P:42:GLU:CD	5:R:451:ARG:HG2	2.18	0.68
3:P:146:VAL:HG21	3:P:158:GLN:HB3	1.74	0.68
1:B:43:LEU:C	1:B:47:LEU:HD12	2.18	0.68
5:F:449:THR:OG1	5:F:504:PRO:HG3	1.94	0.68
2:I:821:ARG:O	2:I:825:GLU:CD	2.37	0.68
3:J:298:MET:SD	5:L:406:GLN:HG3	2.34	0.68
3:J:795:TYR:OH	3:J:1326:GLN:NE2	2.24	0.68
1:M:59:VAL:O	1:M:171:LEU:HG	1.94	0.68
1:N:82:LEU:CD2	1:N:173:VAL:HG22	2.24	0.68
2:O:692:THR:OG1	2:O:798:GLN:NE2	2.27	0.68
2:I:1243:MET:SD	3:J:445:LYS:HB3	2.33	0.68
3:J:478:LEU:HB3	4:K:20:VAL:HG22	1.75	0.68
3:P:501:VAL:HG12	3:P:502:PRO:HD2	1.75	0.68
3:P:1138:LEU:O	3:P:1141:VAL:HB	1.93	0.68
5:R:386:LEU:HD13	6:7:41:DT:O4'	1.94	0.68
5:R:592:ALA:HA	5:R:595:LEU:HD12	1.76	0.68
1:A:48:LEU:HD11	1:A:183:ILE:HG22	1.75	0.68
1:B:56:VAL:HG13	1:B:144:ILE:CG2	2.24	0.68
1:B:85:LEU:HD13	1:B:144:ILE:CD1	2.24	0.68
2:C:4:SER:O	2:C:8:LYS:HG3	1.93	0.68
2:C:960:LEU:HD13	2:C:1029:LEU:HD12	1.74	0.68
3:D:114:ILE:CG2	3:D:307:LEU:HD12	2.24	0.68
5:F:385:ARG:O	5:F:388:ILE:HG22	1.93	0.68
2:I:539:THR:HG23	2:I:540:ARG:H	1.59	0.68
3:J:147:ILE:HG13	3:J:178:ALA:HA	1.75	0.68
3:J:161:THR:N	3:J:164:GLN:OE1	2.21	0.68
3:J:343:LEU:HD11	3:J:1348:LYS:HD3	1.76	0.68
3:P:146:VAL:HG21	3:P:154:LEU:CD1	2.24	0.68
2:C:667:LEU:HD22	2:C:705:GLU:OE2	1.93	0.68
3:D:363:LEU:CD2	3:D:618:VAL:HG13	2.24	0.68
3:D:363:LEU:CG	3:D:487:THR:HG22	2.24	0.68
3:D:795:TYR:OH	3:D:1326:GLN:NE2	2.26	0.68
3:J:115:TRP:HE3	3:J:1333:THR:HG23	1.49	0.68
3:J:242:LEU:CD1	3:J:243:PRO:HD2	2.10	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:214:ASN:CG	2:O:214:ASN:O	2.35	0.68
2:O:1289:GLU:OE2	3:P:472:LEU:HB2	1.94	0.68
3:P:398:LYS:NZ	5:R:532:LEU:CG	2.56	0.68
3:P:796:LEU:O	3:P:800:LEU:HG	1.94	0.68
6:7:54:DA:H2"	6:7:55:DC:C6	2.28	0.68
3:D:261:ALA:HB1	5:F:507:MET:HA	1.74	0.68
3:D:1286:LYS:HA	3:D:1289:ASN:HD22	1.57	0.68
2:I:75:LEU:CD2	2:I:127:ILE:HD12	2.24	0.68
2:I:519:ASN:OD1	2:I:522:SER:HB2	1.94	0.68
2:I:1276:TRP:HE1	3:J:1348:LYS:HZ1	1.40	0.68
3:J:797:THR:HG21	3:J:924:GLY:HA3	1.74	0.68
3:J:872:LEU:HD23	3:J:872:LEU:N	2.09	0.68
3:J:899:TYR:CE1	3:J:915:ILE:HG21	2.29	0.68
3:J:1284:ARG:HA	3:J:1287:ILE:HG13	1.76	0.68
5:L:585:GLU:CG	7:5:48:DC:H41	2.07	0.68
2:O:519:ASN:OD1	2:O:522:SER:HB2	1.94	0.68
2:C:414:ILE:HG13	2:C:415:GLU:N	2.09	0.67
2:C:1117:LEU:CG	2:C:1182:ILE:HD13	2.24	0.67
3:D:107:LEU:HD21	3:D:242:LEU:CB	2.24	0.67
2:I:36:GLN:HA	2:I:39:ILE:HD12	1.75	0.67
3:J:154:LEU:HD13	3:J:176:PHE:HE1	1.59	0.67
3:J:582:ILE:HD13	3:J:582:ILE:N	2.09	0.67
1:N:47:LEU:CD1	1:N:183:ILE:HD12	2.25	0.67
2:C:1104:PRO:HG3	3:D:725:MET:HE2	1.74	0.67
3:D:553:THR:HA	3:D:566:LYS:O	1.94	0.67
3:D:997:VAL:HG13	3:D:1020:TRP:CZ3	2.29	0.67
2:I:1312:ASN:OD1	2:I:1314:GLN:HB2	1.94	0.67
5:R:132:CYS:SG	5:R:257:LYS:HE2	2.34	0.67
1:A:151:GLY:O	1:A:177:TYR:HB2	1.93	0.67
1:A:232:VAL:HA	1:B:218:ARG:HG2	1.76	0.67
3:D:923:ILE:HD11	3:D:1252:HIS:CB	2.25	0.67
3:D:1161:GLY:CA	3:D:1180:VAL:HG22	2.24	0.67
2:I:690:VAL:HG12	2:I:691:PRO:HD2	1.76	0.67
2:I:821:ARG:HB3	2:I:825:GLU:OE2	1.93	0.67
2:I:873:ILE:HD11	2:I:944:ARG:HH12	1.58	0.67
2:O:8:LYS:HD3	2:O:1168:GLU:OE1	1.94	0.67
2:O:870:ILE:CG2	2:O:944:ARG:HE	2.05	0.67
3:P:1357:ILE:H	3:P:1357:ILE:HD12	1.59	0.67
1:A:228:LEU:HD13	1:B:224:LEU:HD11	1.77	0.67
2:C:369:MET:HG3	2:C:370:MET:N	2.09	0.67
5:F:115:GLY:O	5:F:118:ASP:HB2	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:539:THR:CG2	2:I:540:ARG:H	2.08	0.67
1:N:190:ALA:H	1:N:199:ASP:HA	1.59	0.67
2:O:870:ILE:HG21	2:O:944:ARG:NE	2.08	0.67
2:O:871:VAL:HG11	2:O:928:VAL:HG21	1.77	0.67
3:P:915:ILE:O	3:P:918:ILE:HB	1.95	0.67
2:C:686:GLN:HE21	2:C:1069:ARG:HG2	1.59	0.67
3:D:826:ILE:O	3:D:826:ILE:HG22	1.95	0.67
5:F:520:GLY:HA2	5:F:523:ILE:CD1	2.24	0.67
5:F:554:ARG:O	5:F:558:VAL:HG23	1.94	0.67
5:F:580:PHE:O	5:F:581:ASP:CB	2.42	0.67
1:G:75:GLN:O	2:I:729:ALA:HB2	1.93	0.67
2:I:344:GLY:O	2:I:346:TYR:CD2	2.48	0.67
2:I:1142:ARG:HG3	2:I:1161:LEU:HD23	1.76	0.67
2:I:1270:PHE:HB2	3:J:347:VAL:CG2	2.25	0.67
3:J:759:ILE:HG23	3:J:771:GLN:NE2	2.09	0.67
3:J:1179:PRO:HD3	3:J:1184:ASP:O	1.93	0.67
3:P:325:LYS:HE2	3:P:330:MET:HG2	1.77	0.67
5:R:269:LEU:O	5:R:273:MET:HE2	1.93	0.67
3:D:740:LEU:N	3:D:740:LEU:CD2	2.52	0.67
3:D:747:MET:HE1	3:D:775:SER:CA	2.23	0.67
5:F:135:ALA:HB2	5:F:256:PHE:CG	2.30	0.67
2:I:387:ASN:HA	2:I:391:SER:HB2	1.76	0.67
2:I:689:ALA:HB2	2:I:1233:LEU:HD13	1.75	0.67
2:I:1098:LEU:HD23	2:I:1099:ASN:H	1.60	0.67
2:I:1273:MET:SD	3:J:428:THR:HB	2.34	0.67
3:J:537:TYR:CZ	3:J:544:LEU:HD11	2.30	0.67
3:J:645:VAL:HG21	3:J:701:LEU:HD13	1.77	0.67
3:J:1272:SER:HB3	3:J:1274:PHE:CE2	2.29	0.67
3:P:53:ARG:O	3:P:58:CYS:HB2	1.93	0.67
5:R:493:LYS:O	5:R:497:VAL:HG23	1.95	0.67
2:C:851:THR:HG22	2:C:852:ALA:N	2.10	0.67
2:C:1101:LEU:N	2:C:1101:LEU:HD12	2.09	0.67
5:F:110:LEU:HD12	5:F:110:LEU:N	2.08	0.67
2:I:157:PHE:HB2	2:I:443:ASP:OD1	1.94	0.67
2:I:1244:HIS:O	3:J:372:MET:HE2	1.94	0.67
3:J:262:THR:C	5:L:507:MET:HB3	2.19	0.67
3:J:492:SER:O	3:J:495:ASN:O	2.13	0.67
2:O:839:VAL:HG13	2:O:1046:VAL:HG13	1.77	0.67
2:O:1257:GLN:HB3	2:O:1258:PRO:HD2	1.77	0.67
3:P:339:ARG:NH1	3:P:798:ARG:NH2	2.42	0.67
3:P:797:THR:CG2	3:P:924:GLY:HA3	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:885:VAL:CG1	3:P:894:VAL:HG11	2.24	0.67
3:D:233:LYS:HG3	3:D:234:PRO:HD2	1.77	0.67
3:D:762:ASN:OD1	3:D:764:ARG:HB3	1.95	0.67
3:J:1145:PHE:O	3:J:1309:ILE:CG1	2.35	0.67
3:J:1267:VAL:O	3:J:1268:ASN:HB2	1.94	0.67
5:L:84:LEU:CG	5:L:107:THR:CG2	2.72	0.67
5:L:464:ASN:OD1	7:5:25:DA:N6	2.27	0.67
3:P:744:ARG:HB3	3:P:759:ILE:HG21	1.77	0.67
7:8:26:DT:H2"	7:8:27:DA:OP1	1.92	0.67
1:A:57:THR:HG21	1:A:147:GLN:NE2	2.10	0.67
1:A:129:VAL:CG1	1:A:132:HIS:CE1	2.76	0.67
2:I:232:ILE:O	2:I:233:ARG:HG3	1.95	0.67
2:O:92:TYR:HB2	2:O:137:VAL:CB	2.25	0.67
2:O:452:ARG:NH2	2:O:458:GLU:OE1	2.28	0.67
3:P:339:ARG:NH1	3:P:798:ARG:HH22	1.92	0.67
3:P:1146:GLU:CG	3:P:1309:ILE:HD12	2.23	0.67
2:C:871:VAL:CG2	2:C:883:LEU:HA	2.25	0.67
3:D:609:TYR:CA	3:D:617:THR:HG21	2.25	0.67
4:E:16:ARG:HH11	4:E:16:ARG:HG3	1.58	0.67
2:I:1305:TYR:OH	3:J:398:LYS:NZ	2.28	0.67
3:J:43:THR:CG2	5:L:449:THR:HG22	2.25	0.67
2:O:1294:LYS:HB3	3:P:347:VAL:HG13	1.77	0.67
3:P:143:SER:OG	3:P:159:ILE:CG2	2.43	0.67
3:P:306:LEU:O	3:P:326:SER:HB2	1.94	0.67
2:C:12:ARG:NH1	2:C:1182:ILE:O	2.27	0.66
3:D:370:LYS:HE2	3:D:443:GLU:HA	1.78	0.66
5:F:554:ARG:HG3	5:F:555:GLU:N	2.10	0.66
2:I:1109:ILE:HD11	3:J:740:LEU:CD1	2.25	0.66
2:O:878:THR:HG22	2:O:879:GLY:N	2.08	0.66
2:C:280:ASP:O	2:C:281:ASP:HB2	1.95	0.66
3:D:482:ALA:O	3:D:488:ASN:ND2	2.28	0.66
1:G:230:ALA:HB2	1:H:11:PRO:O	1.95	0.66
2:I:100:LEU:HD12	2:I:122:VAL:HB	1.75	0.66
2:I:169:LYS:HG2	2:I:171:LEU:HD21	1.75	0.66
2:I:302:ILE:HG22	2:I:309:LEU:HD23	1.76	0.66
2:I:964:LEU:HD13	2:I:1025:PHE:HB2	1.76	0.66
2:I:1109:ILE:HD11	3:J:740:LEU:HD13	1.75	0.66
3:J:537:TYR:CD2	3:J:544:LEU:HD21	2.30	0.66
3:J:952:VAL:CG1	3:J:984:LEU:HD13	2.25	0.66
3:P:385:LEU:HD21	3:P:411:ILE:CD1	2.25	0.66
3:P:1146:GLU:OE1	3:P:1309:ILE:HB	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1286:LYS:O	3:P:1289:ASN:HB2	1.95	0.66
5:R:415:ALA:HB2	5:R:434:TRP:HB2	1.77	0.66
3:D:347:VAL:HG12	3:D:348:ASP:O	1.95	0.66
3:D:910:ASN:OD1	3:D:910:ASN:N	2.28	0.66
5:F:353:LEU:HB3	5:F:358:VAL:CG2	2.25	0.66
2:I:182:SER:HA	2:I:183:TRP:CE3	2.30	0.66
5:L:392:LYS:HA	5:L:395:THR:HG23	1.77	0.66
1:N:81:ILE:HD13	1:N:131:CYS:SG	2.35	0.66
3:P:909:ILE:HG12	3:P:910:ASN:H	1.59	0.66
3:P:1138:LEU:CG	3:P:1139:PRO:HD3	2.25	0.66
1:B:38:THR:HB	1:B:39:LEU:HD23	1.76	0.66
2:C:1272:GLU:O	2:C:1275:VAL:HB	1.94	0.66
1:G:234:LEU:HG	1:H:13:LEU:HD23	1.78	0.66
3:J:209:ASN:HB2	3:J:214:ARG:HD3	1.78	0.66
3:J:886:VAL:HA	3:J:1258:ARG:HG3	1.78	0.66
2:O:1294:LYS:HD3	3:P:347:VAL:HG12	1.70	0.66
3:P:1145:PHE:HB2	3:P:1309:ILE:HD11	1.78	0.66
3:D:1159:ILE:HG22	3:D:1160:SER:H	1.61	0.66
3:D:1318:SER:OG	3:D:1321:SER:CB	2.36	0.66
5:F:299:LYS:O	5:F:302:PHE:HB3	1.95	0.66
2:I:962:GLU:O	2:I:966:ILE:HG13	1.94	0.66
3:J:647:PRO:HA	3:J:700:ASN:HD22	1.60	0.66
3:J:868:TRP:O	3:J:872:LEU:CD2	2.43	0.66
3:J:918:ILE:HG22	3:J:919:ALA:H	1.61	0.66
4:K:50:ALA:O	4:K:54:ILE:HG13	1.95	0.66
5:L:84:LEU:CG	5:L:107:THR:HG21	2.24	0.66
5:L:532:LEU:H	5:L:532:LEU:HD12	1.59	0.66
1:M:45:ARG:HD3	1:N:38:THR:HG23	1.76	0.66
2:O:144:VAL:HG23	2:O:515:MET:HB2	1.78	0.66
3:P:485:MET:SD	3:P:486:SER:N	2.69	0.66
2:C:890:LYS:HG2	2:C:891:GLY:H	1.58	0.66
3:D:360:TYR:CE1	3:D:361:LEU:HD21	2.31	0.66
1:M:28:LEU:CD1	1:N:231:PHE:CE1	2.77	0.66
1:B:155:ALA:HA	1:B:158:ARG:HD2	1.77	0.66
2:C:667:LEU:HD22	2:C:705:GLU:CD	2.21	0.66
2:C:997:TRP:HA	2:C:1000:LEU:HD13	1.77	0.66
5:F:91:ILE:HD11	5:F:103:ARG:NH1	2.11	0.66
3:J:251:PRO:HG2	5:L:507:MET:HE1	1.76	0.66
4:K:25:ARG:HD3	4:K:64:LEU:HD13	1.78	0.66
5:L:374:ARG:HB2	5:L:374:ARG:HH11	1.60	0.66
5:L:429:THR:OG1	6:4:39:DA:H8	1.71	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:61:SER:HB2	2:O:66:SER:OG	1.96	0.66
3:P:1271:SER:HB3	3:P:1297:LYS:NZ	2.10	0.66
3:P:1333:THR:O	3:P:1337:VAL:HG23	1.96	0.66
5:R:451:ARG:NH2	6:7:32:DA:OP2	2.28	0.66
2:C:831:ILE:HD12	2:C:831:ILE:N	2.09	0.66
3:D:544:LEU:HD21	3:D:578:ILE:HD11	1.76	0.66
3:D:803:VAL:HG23	3:D:1313:SER:OG	1.95	0.66
3:D:1078:LEU:HD12	3:D:1121:LEU:HB3	1.76	0.66
3:J:128:LEU:HD13	3:J:188:LEU:HD23	1.78	0.66
3:J:247:PRO:HA	3:J:250:ARG:CG	2.25	0.66
5:L:514:ASP:O	5:L:516:ASP:N	2.28	0.66
2:O:168:GLY:O	3:P:1065:ALA:CB	2.44	0.66
3:P:272:VAL:HG22	3:P:302:ALA:HB1	1.77	0.66
1:B:140:ILE:HG12	1:B:142:MET:HE1	1.77	0.66
2:C:1275:VAL:O	2:C:1279:GLU:HG3	1.96	0.66
3:D:846:GLU:HA	3:D:860:ARG:HD3	1.78	0.66
1:G:47:LEU:O	1:G:51:MET:HG2	1.96	0.66
1:H:48:LEU:HD21	1:H:183:ILE:HG22	1.77	0.66
2:I:148:GLN:HB2	2:I:511:LEU:HD11	1.76	0.66
2:I:616:ILE:HG12	2:I:652:TYR:HB2	1.78	0.66
2:I:1058:ARG:HD3	2:I:1238:LEU:HD13	1.77	0.66
3:J:647:PRO:HA	3:J:700:ASN:ND2	2.10	0.66
3:J:845:ALA:O	3:J:846:GLU:CB	2.43	0.66
2:O:1337:ILE:HD12	3:P:22:ILE:HD11	1.77	0.66
3:P:146:VAL:HG12	3:P:155:GLU:O	1.95	0.66
3:P:885:VAL:HG12	3:P:894:VAL:CG1	2.25	0.66
1:A:41:ASN:O	1:A:45:ARG:HG3	1.95	0.66
1:G:69:SER:O	1:G:78:ILE:HG13	1.96	0.66
2:I:363:LEU:HD21	2:I:385:PHE:HB2	1.78	0.66
3:J:1101:LEU:CD2	3:J:1122:ALA:CB	2.74	0.66
2:C:1077:SER:HA	3:D:356:THR:HG23	1.77	0.65
3:D:227:PHE:HE1	3:D:234:PRO:HD3	1.60	0.65
3:D:363:LEU:HD23	3:D:618:VAL:HG13	1.78	0.65
3:D:645:VAL:CG2	3:D:701:LEU:CD1	2.53	0.65
3:D:946:ALA:O	3:D:948:SER:N	2.28	0.65
1:G:10:LYS:HE2	1:H:226:GLU:HG3	1.78	0.65
3:J:609:TYR:CD1	3:J:609:TYR:C	2.74	0.65
3:J:899:TYR:O	3:J:1251:LYS:NZ	2.23	0.65
3:J:1221:LEU:HD22	3:J:1306:LEU:HB2	1.77	0.65
3:P:720:ASN:O	3:P:724:MET:HG3	1.96	0.65
5:R:87:VAL:HG11	5:R:103:ARG:CD	2.25	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:48:LEU:CD2	1:A:180:VAL:HB	2.26	0.65
2:C:46:GLN:O	2:C:46:GLN:CG	2.40	0.65
2:C:335:THR:HG22	2:C:336:LEU:N	2.10	0.65
2:C:1287:LEU:HD23	3:D:1357:ILE:CD1	2.15	0.65
3:D:58:CYS:SG	3:D:61:ILE:N	2.69	0.65
5:F:135:ALA:CB	5:F:256:PHE:HB2	2.26	0.65
1:G:106:GLY:O	1:G:133:LEU:HB3	1.96	0.65
1:H:191:ARG:HG3	1:H:196:THR:HA	1.77	0.65
2:I:726:TYR:HB3	2:I:733:VAL:HG22	1.79	0.65
2:O:700:VAL:HG12	2:O:1117:LEU:HD23	1.78	0.65
3:P:1233:ILE:O	3:P:1237:VAL:HG23	1.97	0.65
2:I:1273:MET:O	3:J:428:THR:HG21	1.96	0.65
2:I:1291:LEU:O	3:J:345:LYS:NZ	2.29	0.65
3:J:1172:LYS:HD3	3:J:1189:MET:CE	2.25	0.65
1:M:69:SER:O	1:M:78:ILE:CD1	2.43	0.65
2:O:10:ARG:NH2	2:O:790:ASP:OD2	2.29	0.65
2:O:1278:LEU:HD22	2:O:1283:ALA:CB	2.24	0.65
2:O:1304:MET:O	2:O:1308:ILE:HG13	1.95	0.65
1:A:69:SER:O	1:A:78:ILE:CD1	2.44	0.65
1:B:59:VAL:HG13	1:B:144:ILE:HG12	1.78	0.65
2:C:595:THR:HG22	2:C:596:ASP:OD1	1.96	0.65
2:C:797:GLY:HA3	2:C:1233:LEU:CD2	2.27	0.65
3:D:58:CYS:SG	3:D:60:ARG:N	2.69	0.65
3:D:572:THR:HG1	3:D:576:ARG:HB2	1.60	0.65
5:F:402:LEU:HA	5:F:405:ILE:HD12	1.77	0.65
2:I:82:VAL:CG2	2:I:83:GLN:N	2.59	0.65
2:I:1275:VAL:HG21	3:J:343:LEU:O	1.96	0.65
3:J:1263:LYS:HZ2	3:J:1280:VAL:HA	1.59	0.65
1:N:61:ILE:HD12	1:N:64:VAL:HG11	1.78	0.65
1:B:44:ARG:NH1	3:D:538:ARG:HD3	2.10	0.65
1:B:47:LEU:CD1	1:B:183:ILE:CD1	2.72	0.65
1:B:198:LEU:N	1:B:198:LEU:CD1	2.59	0.65
2:I:249:GLU:O	2:I:269:ILE:HG12	1.96	0.65
3:J:1032:SER:OG	3:J:1117:SER:HB3	1.95	0.65
3:J:1194:ARG:NH1	3:J:1212:ASP:O	2.29	0.65
2:O:228:VAL:CG1	2:O:239:MET:HE3	2.27	0.65
3:P:377:PHE:O	3:P:381:ILE:HG13	1.96	0.65
5:R:370:ALA:HB1	5:R:374:ARG:HH22	1.61	0.65
2:C:167:SER:HA	3:D:1064:SER:CB	2.26	0.65
2:C:251:ALA:HB2	2:C:263:VAL:CG1	2.27	0.65
1:G:61:ILE:HB	1:G:64:VAL:HB	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:75:GLN:O	2:O:729:ALA:HB2	1.97	0.65
1:N:212:ASP:CG	1:N:213:PRO:HD2	2.22	0.65
2:O:732:ILE:HD11	2:O:769:PRO:HB3	1.79	0.65
3:P:339:ARG:CZ	3:P:798:ARG:HH22	2.10	0.65
3:P:816:THR:HG21	3:P:818:GLU:HG3	1.77	0.65
3:P:959:LYS:NZ	3:P:985:ILE:HD11	2.11	0.65
2:I:1292:THR:HG23	2:I:1293:VAL:N	2.06	0.65
3:J:294:ASN:HD22	5:L:406:GLN:HE21	1.45	0.65
2:O:185:ASP:CG	2:O:200:ARG:HG2	2.22	0.65
3:P:141:PHE:HD1	3:P:180:MET:HE3	1.61	0.65
2:C:1143:GLU:OE1	2:C:1144:PHE:N	2.30	0.65
4:E:44:ASP:HB3	4:E:48:VAL:HB	1.79	0.65
2:I:319:LEU:HA	2:I:322:LEU:HD12	1.78	0.65
2:I:353:VAL:O	2:I:355:PRO:HD3	1.96	0.65
5:L:573:LEU:CD2	7:5:45:DT:H2'	2.26	0.65
2:O:838:CYS:HG	2:O:886:LYS:HE3	1.59	0.65
2:O:888:THR:O	2:O:913:VAL:HG13	1.97	0.65
2:O:1273:MET:CG	7:8:14:DC:H4'	2.26	0.65
2:O:1326:LEU:O	2:O:1330:ILE:HG13	1.96	0.65
3:P:111:THR:HG23	3:P:112:ALA:N	2.11	0.65
3:P:128:LEU:HD11	3:P:189:LEU:HD21	1.78	0.65
3:P:403:ARG:O	3:P:404:GLU:HB2	1.94	0.65
3:P:886:VAL:CG2	3:P:1254:GLU:O	2.44	0.65
3:P:1286:LYS:HA	3:P:1289:ASN:ND2	2.11	0.65
5:R:459:THR:O	5:R:463:LEU:HG	1.97	0.65
2:C:912:ASP:C	2:C:913:VAL:HG23	2.22	0.65
3:D:186:GLN:HA	3:D:189:LEU:HD12	1.77	0.65
3:D:1351:VAL:HG12	3:D:1352:ILE:N	2.11	0.65
2:I:1044:PRO:HG3	5:L:498:LEU:HD22	1.76	0.65
2:I:1241:ASP:HA	2:I:1262:LYS:NZ	2.12	0.65
3:J:22:ILE:CD1	3:J:1319:PHE:CE1	2.80	0.65
3:J:373:ALA:HA	3:J:376:LEU:HG	1.79	0.65
2:O:550:VAL:HG22	3:P:780:ARG:NE	2.12	0.65
3:P:265:LEU:O	3:P:269:TYR:HD2	1.79	0.65
3:P:395:LYS:HG2	3:P:399:LYS:HE3	1.79	0.65
3:P:572:THR:OG1	3:P:576:ARG:HB2	1.97	0.65
3:P:1256:ILE:CG2	3:P:1260:MET:HE2	2.24	0.65
5:R:598:LEU:O	5:R:604:SER:OG	2.15	0.65
1:A:75:GLN:NE2	2:C:727:VAL:HG12	2.08	0.65
2:C:6:THR:HG22	2:C:791:LEU:HD22	1.79	0.65
2:C:811:ASN:ND2	2:C:1099:ASN:HA	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:927:THR:N	2:C:1055:ALA:O	2.27	0.65
5:F:437:GLN:OE1	7:2:27:DA:N6	2.30	0.65
3:J:1263:LYS:NZ	3:J:1280:VAL:HA	2.11	0.65
5:L:598:LEU:O	5:L:604:SER:OG	2.15	0.65
1:M:232:VAL:CG2	1:N:221:ALA:CB	2.75	0.65
2:O:280:ASP:O	2:O:281:ASP:HB2	1.97	0.65
5:R:456:MET:HE2	5:R:456:MET:N	2.10	0.65
1:B:151:GLY:O	1:B:177:TYR:HB2	1.97	0.64
2:C:230:PHE:CE1	2:C:292:ILE:HD11	2.32	0.64
3:D:1146:GLU:CD	3:D:1309:ILE:HB	2.22	0.64
3:D:1163:VAL:HG12	3:D:1164:SER:N	2.12	0.64
2:I:1281:TYR:HE1	3:J:489:ASN:HD21	1.45	0.64
1:N:82:LEU:HD21	1:N:173:VAL:HG22	1.78	0.64
2:O:653:MET:HG2	2:O:654:ASP:O	1.97	0.64
2:O:1119:MET:SD	2:O:1210:ILE:HD11	2.37	0.64
3:P:111:THR:CG2	3:P:112:ALA:H	2.07	0.64
3:P:423:LEU:CB	3:P:466:MET:CE	2.74	0.64
5:R:457:ILE:O	5:R:461:ASN:OD1	2.15	0.64
1:B:57:THR:CG2	1:B:158:ARG:HH12	2.11	0.64
2:C:983:GLY:HA3	2:C:1002:LEU:HD11	1.78	0.64
2:C:1086:PRO:HB2	2:C:1212:LEU:CD1	2.27	0.64
3:D:421:VAL:HB	3:D:439:PRO:HG3	1.80	0.64
3:D:501:VAL:HG12	3:D:502:PRO:N	2.11	0.64
3:D:647:PRO:HG3	3:D:697:MET:HB2	1.78	0.64
2:I:15:PHE:O	2:I:17:LYS:HE3	1.96	0.64
2:I:275:ARG:HH22	2:I:279:LYS:HD3	1.61	0.64
2:I:1291:LEU:HA	3:J:345:LYS:HD2	1.79	0.64
2:I:1307:ASN:HB3	2:I:1312:ASN:HB3	1.79	0.64
1:N:190:ALA:HB2	1:N:200:LYS:HG3	1.80	0.64
2:O:957:LYS:HG2	2:O:1029:LEU:HD11	1.79	0.64
3:P:33:TRP:HE3	3:P:102:MET:HE1	1.62	0.64
3:P:352:ARG:O	3:P:353:SER:HB2	1.96	0.64
5:R:401:PHE:O	5:R:405:ILE:HG13	1.97	0.64
2:C:1258:PRO:O	3:D:346:ARG:HD2	1.97	0.64
3:D:173:GLY:O	3:D:175:GLU:N	2.29	0.64
3:D:398:LYS:HD3	5:F:532:LEU:CG	2.27	0.64
3:D:1169:THR:HG22	3:D:1170:LYS:HG3	1.78	0.64
5:F:423:ARG:HG3	6:1:37:DA:N1	2.11	0.64
1:G:224:LEU:HD12	1:G:224:LEU:C	2.22	0.64
1:G:224:LEU:CG	1:H:228:LEU:HD11	2.27	0.64
2:I:969:ALA:O	2:I:973:SER:HB2	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:744:ARG:HD2	3:J:763:PHE:CE2	2.32	0.64
3:J:1101:LEU:CD2	3:J:1122:ALA:HB3	2.22	0.64
3:J:1163:VAL:HG13	3:J:1176:VAL:C	2.21	0.64
1:M:67:GLU:O	1:M:78:ILE:HB	1.97	0.64
2:O:83:GLN:O	2:O:87:ILE:HG13	1.97	0.64
3:P:609:TYR:CD1	3:P:609:TYR:C	2.75	0.64
3:P:1344:LEU:HA	3:P:1349:GLU:OE1	1.97	0.64
2:C:808:ASN:ND2	3:D:633:ALA:CB	2.60	0.64
5:F:598:LEU:O	5:F:604:SER:OG	2.15	0.64
1:G:47:LEU:CD1	1:G:183:ILE:HD11	2.28	0.64
1:G:224:LEU:HD12	1:G:224:LEU:O	1.97	0.64
1:H:78:ILE:HA	1:H:81:ILE:HD12	1.79	0.64
1:H:129:VAL:HG11	1:H:132:HIS:CE1	2.31	0.64
2:I:805:MET:CE	2:I:806:PRO:HD2	2.27	0.64
3:J:428:THR:O	3:J:428:THR:HG22	1.96	0.64
3:J:1040:MET:HG2	3:J:1046:ILE:CG2	2.27	0.64
5:L:395:THR:HA	5:L:404:LEU:CD1	2.28	0.64
2:O:298:ALA:O	2:O:313:ALA:HB1	1.96	0.64
2:O:658:GLN:NE2	2:O:1186:VAL:HG23	2.11	0.64
2:O:708:VAL:HG11	2:O:794:LEU:CD2	2.26	0.64
3:P:1101:LEU:CD2	3:P:1122:ALA:CB	2.69	0.64
5:R:96:ASP:CG	5:R:98:VAL:HB	2.22	0.64
5:R:167:ASP:N	5:R:168:PRO:HD3	2.12	0.64
2:C:449:GLY:O	2:C:586:PHE:HE1	1.79	0.64
3:D:182:ALA:HA	3:D:185:ILE:HG13	1.78	0.64
5:F:481:GLU:O	5:F:485:GLU:HG3	1.98	0.64
1:G:223:ILE:O	1:G:227:GLN:HG2	1.97	0.64
2:I:593:LYS:HE2	2:I:595:THR:OG1	1.98	0.64
3:J:502:PRO:HB2	3:J:601:ILE:HD13	1.80	0.64
3:J:1246:VAL:HG12	3:J:1246:VAL:O	1.98	0.64
1:M:69:SER:O	1:M:78:ILE:HD11	1.97	0.64
1:N:115:ILE:HD11	1:N:144:ILE:HD12	1.78	0.64
2:O:700:VAL:CG1	2:O:1117:LEU:HD23	2.28	0.64
2:O:1124:ILE:HD12	2:O:1198:LEU:HD11	1.77	0.64
3:P:620:PHE:CE2	3:P:624:ILE:HD11	2.33	0.64
1:A:179:PRO:CA	1:A:208:ASN:HD21	2.10	0.64
2:C:550:VAL:HG22	3:D:780:ARG:HD2	1.78	0.64
3:D:1179:PRO:O	3:D:1182:GLY:O	2.16	0.64
3:D:1370:MET:HE1	3:D:1373:ARG:CZ	2.28	0.64
2:I:1280:ALA:HB3	3:J:431:ARG:HB3	1.80	0.64
2:I:1290:MET:SD	2:I:1294:LYS:HD2	2.37	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:645:VAL:HG22	3:J:701:LEU:CD1	2.26	0.64
1:N:155:ALA:H	1:N:174:ASP:CG	2.04	0.64
2:O:496:LYS:HE2	7:8:24:DT:C5'	2.27	0.64
3:P:759:ILE:O	3:P:759:ILE:HG22	1.94	0.64
3:P:966:VAL:HG11	3:P:1030:GLU:HA	1.79	0.64
2:C:1292:THR:HG23	2:C:1293:VAL:N	2.12	0.64
3:D:71:LEU:HB2	3:D:90:VAL:HG21	1.80	0.64
3:D:114:ILE:HG22	3:D:307:LEU:HD12	1.79	0.64
3:D:1230:THR:HG23	3:D:1257:VAL:HG11	1.80	0.64
5:F:502:LYS:HD2	5:F:503:GLU:N	2.13	0.64
2:I:17:LYS:HG2	2:I:1154:ASP:O	1.98	0.64
2:I:35:PHE:O	2:I:39:ILE:HG13	1.97	0.64
2:I:886:LYS:N	2:I:917:SER:OG	2.21	0.64
3:J:337:ARG:HD3	3:J:341:ASN:HD22	1.62	0.64
2:O:661:VAL:CG1	2:O:665:ALA:CB	2.75	0.64
3:P:141:PHE:HA	3:P:180:MET:HG2	1.80	0.64
3:P:517:CYS:SG	3:P:518:VAL:N	2.71	0.64
3:D:102:MET:CE	3:D:246:PRO:HD3	2.28	0.64
3:J:644:MET:CE	3:J:764:ARG:HB2	2.27	0.64
2:O:1127:LYS:O	2:O:1131:MET:HG3	1.98	0.64
1:B:198:LEU:N	1:B:198:LEU:HD13	2.13	0.64
3:D:412:LEU:CD1	3:D:416:ILE:HD11	2.27	0.64
5:F:135:ALA:HB2	5:F:256:PHE:HB3	1.79	0.64
2:I:1323:PHE:O	2:I:1327:LEU:HG	1.97	0.64
3:J:97:VAL:CG1	3:J:101:ARG:HG3	2.28	0.64
3:J:131:PRO:O	3:J:135:ILE:CG1	2.45	0.64
3:J:246:PRO:O	3:J:250:ARG:HG2	1.98	0.64
3:J:625:MET:HG2	3:J:629:PHE:HE2	1.63	0.64
3:J:824:PRO:HD3	3:J:878:ASP:O	1.98	0.64
3:J:1011:VAL:HG11	3:J:1017:VAL:HG11	1.79	0.64
5:L:452:ILE:HG21	5:L:457:ILE:CD1	2.16	0.64
2:O:634:VAL:HG12	2:O:635:THR:N	2.13	0.64
3:D:364:HIS:HB3	3:D:487:THR:CG2	2.28	0.64
2:I:1104:PRO:CG	3:J:725:MET:HE1	2.28	0.64
3:J:97:VAL:HG12	3:J:101:ARG:HG3	1.80	0.64
3:J:355:ILE:HG13	3:J:355:ILE:O	1.97	0.64
5:L:235:ILE:HG23	5:L:240:ARG:HA	1.79	0.64
5:L:455:HIS:CD2	6:4:31:DT:H72	2.33	0.64
1:N:44:ARG:HG3	1:N:183:ILE:HG23	1.79	0.64
3:P:1357:ILE:HD12	3:P:1357:ILE:N	2.13	0.64
2:C:228:VAL:HG11	2:C:239:MET:HE3	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:457:ILE:HA	5:F:460:ILE:HD12	1.80	0.63
1:G:31:LEU:CD1	1:G:201:LEU:HB3	2.28	0.63
2:I:528:ARG:HD2	2:I:663:VAL:CG2	2.28	0.63
5:L:457:ILE:O	5:L:461:ASN:OD1	2.15	0.63
1:M:231:PHE:CE1	1:N:28:LEU:HG	2.32	0.63
1:B:190:ALA:HB2	1:B:200:LYS:N	2.12	0.63
2:C:408:SER:O	2:C:431:LYS:NZ	2.23	0.63
3:D:121:PRO:O	3:D:122:SER:CB	2.45	0.63
1:G:227:GLN:HG3	1:H:35:PHE:CE1	2.34	0.63
3:J:418:GLU:OE2	4:K:3:ARG:HG3	1.97	0.63
3:J:746:LEU:HG	3:J:758:PRO:CB	2.18	0.63
3:J:1272:SER:HB3	3:J:1274:PHE:HE2	1.62	0.63
5:L:306:PHE:O	5:L:310:GLU:HG3	1.98	0.63
2:O:164:THR:HG21	2:O:171:LEU:CD1	2.24	0.63
2:O:1295:SER:OG	3:P:346:ARG:O	2.16	0.63
3:P:709:ARG:O	3:P:710:ASP:CB	2.45	0.63
3:P:782:GLY:O	3:P:935:PHE:HB3	1.98	0.63
3:P:1230:THR:HG23	3:P:1257:VAL:HG11	1.81	0.63
1:B:57:THR:HG23	1:B:158:ARG:NH1	2.13	0.63
2:C:558:VAL:HG13	2:C:559:CYS:C	2.24	0.63
2:C:1030:GLU:OE1	2:C:1030:GLU:CA	2.46	0.63
2:C:1280:ALA:HB1	3:D:431:ARG:HD2	1.81	0.63
3:D:1160:SER:HB2	3:D:1204:VAL:O	1.98	0.63
6:1:44:DG:H4'	6:1:44:DG:OP1	1.99	0.63
2:I:936:ARG:HH21	2:I:1047:LEU:HD23	1.63	0.63
3:J:720:ASN:O	3:J:724:MET:HG3	1.98	0.63
3:J:839:VAL:CG1	3:J:864:LEU:CD1	2.76	0.63
5:L:410:ILE:O	5:L:413:MET:HB2	1.98	0.63
1:M:134:THR:HG21	2:O:727:VAL:O	1.98	0.63
1:M:210:THR:HG22	1:M:211:ILE:HD13	1.80	0.63
2:O:726:TYR:CB	2:O:733:VAL:HG22	2.28	0.63
3:P:76:LYS:O	3:P:77:ARG:HB2	1.98	0.63
5:R:464:ASN:CG	7:8:25:DA:H62	2.07	0.63
7:8:24:DT:H4'	7:8:24:DT:OP1	1.97	0.63
1:A:67:GLU:O	1:A:78:ILE:HB	1.98	0.63
2:C:164:THR:O	2:C:165:HIS:CB	2.47	0.63
2:C:389:PHE:CB	2:C:420:LEU:HD12	2.25	0.63
3:D:364:HIS:CD2	4:E:4:VAL:HG13	2.33	0.63
3:D:450:HIS:HD2	3:D:452:LEU:HB2	1.60	0.63
3:D:1286:LYS:HA	3:D:1289:ASN:ND2	2.13	0.63
2:I:724:VAL:CG1	2:I:727:VAL:HG22	2.28	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1290:ARG:HA	3:J:1293:GLU:CD	2.23	0.63
2:O:164:THR:O	2:O:165:HIS:HB2	1.98	0.63
2:O:564:PRO:HG2	2:O:572:ILE:HD12	1.79	0.63
3:P:138:VAL:HG12	3:P:139:LEU:N	2.12	0.63
5:R:441:ARG:O	5:R:445:ASP:HB2	1.98	0.63
1:A:56:VAL:HG21	1:A:85:LEU:HB3	1.79	0.63
2:C:1142:ARG:HG3	2:C:1161:LEU:HD23	1.78	0.63
3:D:428:THR:HG22	3:D:428:THR:O	1.97	0.63
3:D:918:ILE:CG2	3:D:919:ALA:N	2.62	0.63
2:I:131:THR:HG23	2:I:135:THR:O	1.99	0.63
2:I:1252:SER:HA	2:I:1259:LEU:HD21	1.80	0.63
1:M:46:ILE:N	1:M:46:ILE:HD12	2.14	0.63
1:M:232:VAL:HG21	1:N:221:ALA:CB	2.27	0.63
2:O:188:PHE:CE2	2:O:436:ARG:HB2	2.34	0.63
2:O:292:ILE:CG2	2:O:322:LEU:HD11	2.27	0.63
2:O:519:ASN:OD1	2:O:522:SER:N	2.31	0.63
2:O:741:MET:SD	2:O:747:GLY:HA3	2.39	0.63
3:P:734:ALA:HA	3:P:737:ILE:HD12	1.81	0.63
5:R:452:ILE:HB	5:R:457:ILE:HD11	1.81	0.63
1:A:131:CYS:SG	1:A:132:HIS:N	2.71	0.63
1:B:190:ALA:CB	1:B:199:ASP:CA	2.76	0.63
2:C:414:ILE:HG13	2:C:415:GLU:H	1.61	0.63
3:D:999:TYR:HB3	3:D:1025:MET:HE2	1.80	0.63
1:H:59:VAL:HG22	1:H:144:ILE:HG23	1.80	0.63
2:I:642:SER:O	2:I:643:SER:HB3	1.97	0.63
2:I:680:LEU:O	2:I:684:ASN:ND2	2.31	0.63
2:I:1199:LEU:HD23	2:I:1204:LEU:HD13	1.80	0.63
3:J:1231:ARG:O	3:J:1234:VAL:HB	1.97	0.63
5:L:137:TYR:HE2	5:L:139:GLU:HB2	1.64	0.63
7:5:18:DT:H2'	7:5:19:DA:C5'	2.27	0.63
2:O:729:ALA:O	2:O:755:LYS:HE3	1.99	0.63
2:O:1243:MET:HG3	3:P:372:MET:HE2	1.78	0.63
3:P:849:LEU:CD2	3:P:857:LEU:HA	2.29	0.63
1:B:71:LYS:NZ	1:B:140:ILE:HG13	2.13	0.63
2:C:1117:LEU:CD2	2:C:1182:ILE:CD1	2.77	0.63
3:D:416:ILE:CD1	3:D:441:LEU:HD11	2.28	0.63
3:D:1134:ILE:HG22	3:D:1134:ILE:O	1.98	0.63
5:F:231:THR:HG21	5:F:252:LEU:HD22	1.81	0.63
2:I:708:VAL:CG1	2:I:794:LEU:HD22	2.23	0.63
2:I:870:ILE:HG13	2:I:944:ARG:HG2	1.81	0.63
3:J:33:TRP:CE3	3:J:102:MET:HE1	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:275:ARG:HD3	3:J:298:MET:HB3	1.80	0.63
3:J:964:LYS:HD2	3:J:977:SER:HB2	1.81	0.63
2:O:297:VAL:HG22	2:O:315:MET:O	1.98	0.63
5:R:460:ILE:HA	5:R:463:LEU:CD1	2.29	0.63
2:C:550:VAL:O	3:D:777:HIS:CE1	2.52	0.63
2:C:612:GLY:O	2:C:639:LYS:HA	1.98	0.63
2:C:1232:MET:C	2:C:1233:LEU:HG	2.23	0.63
3:D:79:LYS:HG3	5:F:569:THR:HG22	1.81	0.63
3:D:135:ILE:O	3:D:139:LEU:CG	2.32	0.63
3:D:309:ASN:OD1	3:D:315:ALA:HB1	1.98	0.63
3:D:342:LEU:HD22	3:D:1352:ILE:HG23	1.80	0.63
5:F:97:PRO:CA	5:F:100:MET:HG3	2.19	0.63
5:F:511:ILE:CD1	5:F:519:LEU:HA	2.28	0.63
2:I:104:ILE:O	2:I:115:LYS:HB3	1.99	0.63
3:J:294:ASN:HD22	5:L:406:GLN:NE2	1.97	0.63
5:L:377:LYS:O	5:L:381:GLU:HG3	1.99	0.63
2:O:505:PHE:O	2:O:509:SER:HB3	1.99	0.63
2:O:1319:MET:HE3	2:O:1324:ASN:OD1	1.99	0.63
3:P:146:VAL:HG11	3:P:154:LEU:HD22	1.80	0.63
3:P:726:ALA:HB2	3:P:737:ILE:HD11	1.81	0.63
1:A:45:ARG:HH12	2:C:1216:ARG:CA	2.02	0.63
3:D:130:MET:CG	3:D:134:ASP:OD2	2.45	0.63
3:D:930:LEU:HB2	3:D:1134:ILE:HG13	1.81	0.63
3:D:1308:GLY:O	3:D:1311:LYS:HE3	1.98	0.63
5:F:450:ILE:O	5:F:450:ILE:HG13	1.98	0.63
3:J:1285:VAL:HG13	3:J:1286:LYS:N	2.14	0.63
2:O:163:LYS:HD3	2:O:164:THR:HB	1.81	0.63
2:O:313:ALA:O	2:O:314:ASN:HB3	1.98	0.63
3:P:288:PRO:HG2	5:R:380:VAL:HG11	1.81	0.63
3:P:337:ARG:HD3	3:P:341:ASN:HD22	1.62	0.63
3:P:385:LEU:CD2	3:P:411:ILE:CD1	2.74	0.63
3:P:1101:LEU:HD13	3:P:1107:VAL:HG22	1.81	0.63
3:P:1169:THR:O	3:P:1170:LYS:HB2	1.97	0.63
2:C:448:LEU:CD1	2:C:557:ARG:HD2	2.29	0.62
3:D:614:LEU:O	3:D:618:VAL:HG23	1.99	0.62
2:I:335:THR:HG22	2:I:336:LEU:N	2.13	0.62
2:I:1107:MET:HE1	3:J:739:GLN:HB3	1.80	0.62
2:I:1284:ALA:HA	3:J:1357:ILE:CD1	2.29	0.62
2:I:1334:GLY:O	3:J:25:ALA:HB3	1.99	0.62
3:J:29:MET:O	3:J:32:SER:HB3	1.98	0.62
2:O:1322:SER:O	2:O:1325:VAL:HB	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:71:LYS:HZ3	1:B:140:ILE:HA	1.64	0.62
2:I:496:LYS:HB3	2:I:497:PRO:HD3	1.82	0.62
2:I:1276:TRP:HE1	3:J:1348:LYS:NZ	1.95	0.62
3:J:1029:THR:HG22	3:J:1099:TYR:CE1	2.34	0.62
1:M:67:GLU:OE1	1:M:79:LEU:HD21	1.99	0.62
1:M:234:LEU:HB3	1:N:13:LEU:HD23	1.79	0.62
2:O:934:PHE:HE2	2:O:1051:LYS:HD2	1.65	0.62
3:P:747:MET:HE3	3:P:775:SER:HA	1.81	0.62
3:D:575:GLY:O	3:D:579:LEU:HG	2.00	0.62
3:D:759:ILE:HD13	3:D:767:LEU:CD1	2.29	0.62
5:F:97:PRO:HA	5:F:100:MET:CG	2.19	0.62
1:G:162:GLU:O	1:G:162:GLU:HG2	1.98	0.62
2:I:562:GLU:C	2:I:563:THR:CG2	2.70	0.62
2:I:807:TRP:CD1	2:I:817:LEU:HD11	2.34	0.62
5:L:84:LEU:HD23	5:L:103:ARG:HG2	1.80	0.62
5:L:167:ASP:N	5:L:168:PRO:HD3	2.14	0.62
6:4:12:DC:H2''	6:4:13:DT:OP2	1.99	0.62
7:5:51:DG:C2'	7:5:52:DT:H71	2.29	0.62
2:O:335:THR:C	2:O:336:LEU:HD23	2.24	0.62
2:O:1064:ASP:OD1	2:O:1238:LEU:CD2	2.47	0.62
3:P:421:VAL:CG2	3:P:439:PRO:HG2	2.28	0.62
3:P:838:ARG:NH2	3:P:1234:VAL:HG11	2.14	0.62
5:R:576:VAL:O	5:R:580:PHE:HB2	1.99	0.62
2:C:13:LYS:O	2:C:1183:ALA:N	2.31	0.62
2:C:846:GLY:O	2:C:889:PRO:HG2	1.98	0.62
2:C:1060:ILE:HD11	2:C:1076:ILE:HD11	1.81	0.62
5:F:457:ILE:O	5:F:461:ASN:OD1	2.15	0.62
2:I:695:ALA:HB1	2:I:795:ALA:HB3	1.80	0.62
2:I:709:ALA:O	2:I:712:SER:OG	2.16	0.62
2:I:1312:ASN:ND2	2:I:1314:GLN:HB2	2.13	0.62
3:J:543:SER:O	3:J:574:VAL:HG21	1.99	0.62
3:J:923:ILE:O	3:J:926:PRO:HD2	1.99	0.62
1:M:112:ALA:HB3	1:M:126:PRO:HA	1.81	0.62
2:O:109:ALA:HB1	2:O:110:PRO:HD2	1.81	0.62
2:C:502:VAL:O	2:C:506:PHE:HD2	1.83	0.62
2:C:808:ASN:HD21	3:D:633:ALA:CB	2.13	0.62
2:I:1292:THR:HG23	2:I:1293:VAL:HG22	1.81	0.62
3:J:57:PHE:HB3	3:J:98:ARG:HH22	1.63	0.62
3:J:114:ILE:CD1	3:J:308:ASP:HB3	2.28	0.62
5:L:476:ARG:CG	5:L:477:GLU:H	2.13	0.62
2:O:192:ASP:HB3	2:O:346:TYR:HD1	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:435:ILE:HG12	2:O:440:GLY:HA3	1.79	0.62
2:O:698:PRO:HA	2:O:1231:TYR:CE1	2.35	0.62
3:P:146:VAL:CG1	3:P:155:GLU:O	2.47	0.62
3:P:1045:THR:HG22	3:P:1067:ARG:HD3	1.81	0.62
3:P:1253:ILE:O	3:P:1257:VAL:HG23	1.99	0.62
3:D:922:SER:O	3:D:926:PRO:HD3	2.00	0.62
3:J:521:LYS:HB2	3:J:543:SER:CB	2.29	0.62
5:L:92:GLY:C	5:L:93:ARG:HG2	2.25	0.62
1:M:45:ARG:CD	1:N:38:THR:OG1	2.48	0.62
1:M:145:LYS:CD	1:M:147:GLN:HE21	2.12	0.62
3:P:56:LEU:HD23	3:P:56:LEU:N	2.15	0.62
3:P:322:ARG:HE	5:R:510:PRO:HD3	1.65	0.62
1:A:43:LEU:C	1:A:47:LEU:HD12	2.25	0.62
2:C:563:THR:HG22	2:C:680:LEU:HD11	1.81	0.62
2:C:732:ILE:HG21	2:C:783:LEU:HD13	1.81	0.62
2:C:952:GLN:O	2:C:955:GLN:HB2	1.99	0.62
2:C:972:PHE:HE2	2:C:994:ARG:O	1.83	0.62
2:C:1294:LYS:HD3	3:D:347:VAL:CG1	2.29	0.62
5:F:471:LEU:HG	5:F:476:ARG:O	2.00	0.62
7:2:29:DC:H2"	7:2:30:DA:C8	2.34	0.62
2:I:163:LYS:HD3	2:I:164:THR:HG22	1.80	0.62
2:I:539:THR:HG22	2:I:540:ARG:N	2.14	0.62
2:I:1077:SER:HA	3:J:356:THR:HG23	1.80	0.62
2:I:1342:GLU:HA	3:J:18:ASP:HB2	1.81	0.62
3:J:216:LYS:HZ1	3:J:220:ARG:HG3	1.64	0.62
3:J:615:LYS:CB	3:J:616:PRO:HD3	2.29	0.62
3:J:1280:VAL:HG12	3:J:1281:GLU:N	2.13	0.62
2:O:120:GLN:HG2	2:O:489:PRO:CG	2.30	0.62
3:P:233:LYS:HB2	3:P:236:TRP:CZ2	2.34	0.62
3:P:575:GLY:HA2	3:P:578:ILE:CD1	2.30	0.62
3:P:932:MET:HE1	8:9:16:U:H3'	1.81	0.62
5:R:262:VAL:CG1	5:R:263:PRO:HD2	2.30	0.62
2:C:451:ARG:CZ	2:C:547:VAL:HG11	2.29	0.62
2:C:698:PRO:CA	2:C:1231:TYR:CE1	2.81	0.62
2:C:720:ARG:HD3	2:C:740:GLU:HB3	1.80	0.62
2:C:936:ARG:HG2	2:C:937:ASP:N	2.14	0.62
2:C:1199:LEU:HD13	2:C:1205:PRO:O	2.00	0.62
3:D:835:LEU:HD21	3:D:880:VAL:HG23	1.81	0.62
5:F:540:LEU:O	5:F:544:THR:HG23	1.99	0.62
2:I:686:GLN:NE2	2:I:1069:ARG:CG	2.62	0.62
2:I:1304:MET:O	2:I:1308:ILE:HG13	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:930:LEU:HB3	3:J:1134:ILE:HD11	1.80	0.62
6:4:48:DA:H2'	6:4:49:DG:O4'	1.98	0.62
1:M:26:VAL:HG11	1:M:217:ILE:CD1	2.30	0.62
2:O:228:VAL:CG2	2:O:245:ARG:HH12	2.10	0.62
2:O:857:VAL:HG21	2:O:882:ILE:HD11	1.81	0.62
2:O:1292:THR:HG23	2:O:1293:VAL:HG22	1.81	0.62
5:R:451:ARG:NH1	5:R:453:PRO:HA	2.15	0.62
2:C:128:PRO:HB2	2:C:506:PHE:CE1	2.34	0.62
2:C:228:VAL:HG11	2:C:239:MET:CE	2.30	0.62
2:C:753:LEU:HD11	2:C:784:ALA:HB2	1.81	0.62
3:D:76:LYS:HG3	3:D:77:ARG:N	2.14	0.62
3:D:805:GLN:O	3:D:1347:LEU:HD11	2.00	0.62
2:I:592:ARG:HG3	2:I:653:MET:HE2	1.82	0.62
3:J:370:LYS:HA	3:J:441:LEU:CD2	2.30	0.62
5:L:455:HIS:O	5:L:458:GLU:HB2	2.00	0.62
8:6:13:GTP:H2'	8:6:14:A:H8	1.65	0.62
2:O:1105:SER:HA	3:P:736:GLN:NE2	2.11	0.62
5:R:385:ARG:O	5:R:388:ILE:HG23	2.00	0.62
1:A:226:GLU:O	1:A:229:GLU:HB2	2.00	0.62
2:C:144:VAL:HG23	2:C:515:MET:HB2	1.82	0.62
2:C:335:THR:CG2	2:C:336:LEU:N	2.63	0.62
3:D:502:PRO:HB3	3:D:506:VAL:HG11	1.82	0.62
3:D:796:LEU:HG	3:D:797:THR:N	2.15	0.62
3:D:1346:GLY:N	3:D:1349:GLU:OE1	2.33	0.62
3:J:307:LEU:HA	3:J:327:LEU:HD12	1.82	0.62
3:J:519:ASN:CA	3:J:523:GLU:HB2	2.30	0.62
1:M:208:ASN:H	1:M:208:ASN:HD22	1.48	0.62
2:O:366:ILE:O	2:O:369:MET:HG3	2.00	0.62
2:O:1239:VAL:HG23	3:P:354:VAL:HG23	1.82	0.62
3:P:849:LEU:HD22	3:P:857:LEU:HD23	1.81	0.62
1:A:51:MET:CE	1:A:52:PRO:HD2	2.30	0.61
3:D:263:SER:OG	3:D:265:LEU:HG	2.00	0.61
3:D:744:ARG:HB3	3:D:759:ILE:CG2	2.29	0.61
1:H:30:PRO:HG3	1:H:192:VAL:HG21	1.81	0.61
3:J:592:VAL:HG22	3:J:592:VAL:O	2.00	0.61
1:M:179:PRO:CA	1:M:208:ASN:HD21	2.12	0.61
2:O:1291:LEU:HA	3:P:345:LYS:HD2	1.82	0.61
3:P:44:ILE:HD12	3:P:49:PHE:HA	1.82	0.61
3:P:1103:GLY:O	3:P:1104:LYS:HB2	1.99	0.61
3:P:1349:GLU:O	3:P:1353:VAL:HG13	2.00	0.61
3:P:1360:GLY:HA3	4:Q:17:PHE:CZ	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:11:PRO:HG2	1:B:231:PHE:CZ	2.34	0.61
2:C:1333:LEU:HB2	2:C:1335:ILE:HD12	1.80	0.61
3:D:128:LEU:HD22	3:D:157:GLN:NE2	2.15	0.61
3:D:833:GLU:HB2	3:D:1242:ARG:CZ	2.29	0.61
2:I:189:ASP:OD1	2:I:190:PRO:HD2	2.00	0.61
2:I:275:ARG:HH11	2:I:275:ARG:CG	2.13	0.61
2:I:870:ILE:HG21	2:I:944:ARG:HG2	1.82	0.61
3:J:353:SER:C	3:J:447:ILE:HD11	2.25	0.61
3:J:712:GLN:C	3:J:713:GLU:HG3	2.25	0.61
3:J:1355:ARG:CZ	3:J:1369:ARG:HH12	2.14	0.61
2:O:197:ARG:CB	2:O:200:ARG:HA	2.31	0.61
2:O:529:ARG:C	2:O:530:ILE:HG13	2.25	0.61
3:P:395:LYS:HE2	3:P:399:LYS:CE	2.30	0.61
3:P:1330:ARG:O	3:P:1334:GLU:HG3	2.00	0.61
2:C:681:MET:O	2:C:685:MET:HG2	1.99	0.61
2:C:1290:MET:SD	2:C:1294:LYS:HD2	2.40	0.61
3:D:1348:LYS:O	3:D:1351:VAL:HB	1.99	0.61
6:1:11:DA:N1	7:2:52:DT:O2	2.33	0.61
1:G:86:LYS:HE2	1:G:174:ASP:HB2	1.81	0.61
2:I:1148:ALA:O	2:I:1151:LEU:HB2	2.01	0.61
2:I:1289:GLU:OE2	3:J:473:THR:HG23	2.00	0.61
3:J:111:THR:CG2	3:J:300:GLN:HG3	2.30	0.61
2:O:397:LEU:O	2:O:398:SER:HB3	1.99	0.61
2:O:577:VAL:HG23	2:O:661:VAL:O	2.00	0.61
2:O:1258:PRO:HG2	3:P:346:ARG:HB3	1.80	0.61
3:P:233:LYS:CB	3:P:236:TRP:CE2	2.82	0.61
3:P:793:SER:O	3:P:796:LEU:HB3	1.99	0.61
5:R:509:THR:HG21	7:8:22:DA:N6	2.16	0.61
2:C:607:SER:H	2:C:610:GLU:CD	2.09	0.61
2:I:550:VAL:O	3:J:777:HIS:CE1	2.54	0.61
2:I:661:VAL:HG11	2:I:665:ALA:HB1	1.80	0.61
2:I:937:ASP:CB	2:I:1039:GLY:HA3	2.29	0.61
3:J:360:TYR:CD1	3:J:360:TYR:C	2.77	0.61
3:J:435:GLN:HB3	3:J:437:PHE:HE1	1.66	0.61
3:J:512:TYR:CE1	3:J:545:HIS:CE1	2.88	0.61
3:J:930:LEU:CB	3:J:1134:ILE:HD11	2.31	0.61
3:P:421:VAL:HG23	3:P:439:PRO:CG	2.30	0.61
3:P:1031:VAL:HG23	3:P:1080:ILE:HG21	1.83	0.61
3:P:1226:VAL:O	3:P:1229:VAL:HG13	2.00	0.61
2:C:213:LEU:O	2:C:214:ASN:HB3	2.01	0.61
2:C:1061:GLN:HB2	2:C:1062:PRO:CD	2.21	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:146:VAL:HG23	3:D:158:GLN:O	2.01	0.61
5:F:490:PRO:HG2	5:F:493:LYS:HB2	1.80	0.61
2:I:255:ILE:HD13	2:I:285:ILE:CD1	2.30	0.61
2:I:298:ALA:HB2	2:I:336:LEU:HD21	1.82	0.61
2:O:153:PRO:HA	2:O:177:ILE:CG2	2.30	0.61
3:P:135:ILE:O	3:P:138:VAL:HB	2.00	0.61
3:P:483:LEU:CD2	4:Q:16:ARG:HB3	2.29	0.61
3:P:968:ASN:HB3	3:P:1117:SER:O	2.01	0.61
1:B:112:ALA:HB1	1:B:123:ILE:HG21	1.83	0.61
2:C:642:SER:O	2:C:643:SER:HB3	2.01	0.61
3:D:1256:ILE:HG22	3:D:1260:MET:HE2	1.83	0.61
5:F:392:LYS:O	5:F:395:THR:OG1	2.17	0.61
2:I:429:MET:O	2:I:433:ILE:HG13	2.01	0.61
3:J:474:LEU:HD12	4:K:28:ARG:HD3	1.81	0.61
5:L:555:GLU:OE2	5:L:590:ILE:HG23	2.01	0.61
2:O:1272:GLU:HB3	2:O:1276:TRP:CZ2	2.35	0.61
3:P:1230:THR:HA	3:P:1233:ILE:HD12	1.83	0.61
2:C:996:ARG:C	2:C:997:TRP:HD1	2.09	0.61
3:D:544:LEU:CD2	3:D:578:ILE:HD11	2.31	0.61
1:G:81:ILE:HA	1:G:84:ASN:HD22	1.66	0.61
2:I:363:LEU:O	2:I:366:ILE:HB	2.00	0.61
2:I:448:LEU:CD2	2:I:553:THR:OG1	2.41	0.61
3:J:280:LYS:HA	3:J:283:LEU:HD12	1.83	0.61
3:J:693:VAL:HG12	3:J:694:SER:N	2.15	0.61
3:J:839:VAL:HG12	3:J:864:LEU:CD1	2.31	0.61
2:O:428:VAL:CG1	2:O:429:MET:HG3	2.27	0.61
2:O:759:SER:HB2	2:O:765:ILE:HD11	1.81	0.61
2:O:985:GLU:HB3	2:O:989:LEU:HG	1.82	0.61
3:P:209:ASN:HB2	3:P:214:ARG:HG3	1.80	0.61
3:P:786:THR:CG2	3:P:787:ALA:N	2.62	0.61
3:D:135:ILE:HG22	3:D:139:LEU:HD11	1.82	0.61
3:D:646:ILE:HG13	3:D:764:ARG:CD	2.30	0.61
1:H:31:LEU:HD13	1:H:39:LEU:HD12	1.78	0.61
3:J:139:LEU:HD21	3:J:185:ILE:CD1	2.31	0.61
3:J:432:LEU:HD11	3:J:499:ILE:HD13	1.81	0.61
2:O:207:THR:OG1	2:O:351:LEU:CD2	2.45	0.61
2:O:217:THR:HA	2:O:220:ILE:HD12	1.81	0.61
2:O:373:GLY:HA2	5:R:91:ILE:HG12	1.82	0.61
2:O:634:VAL:HG12	2:O:635:THR:H	1.66	0.61
2:O:1032:LYS:O	2:O:1036:ILE:HD12	2.00	0.61
2:O:1166:ASP:OD1	2:O:1166:ASP:N	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1225:VAL:CG1	2:O:1226:THR:N	2.64	0.61
3:P:26:SER:HB2	3:P:29:MET:SD	2.39	0.61
3:P:1079:LYS:HE3	3:P:1087:ASP:OD1	1.99	0.61
2:C:242:VAL:HG12	2:C:244:GLU:HG2	1.83	0.61
3:D:966:VAL:HG11	3:D:1030:GLU:HA	1.81	0.61
5:F:466:ILE:HD12	5:F:487:MET:SD	2.41	0.61
5:F:530:LEU:H	5:F:530:LEU:CD1	2.13	0.61
1:H:77:ASP:O	1:H:81:ILE:HD12	2.01	0.61
2:I:1268:GLN:NE2	3:J:351:GLY:C	2.56	0.61
1:M:49:SER:CB	1:N:33:ARG:HH12	2.13	0.61
2:O:569:ILE:HD11	3:P:780:ARG:HG2	1.81	0.61
2:O:807:TRP:O	2:O:809:GLY:N	2.34	0.61
5:R:166:VAL:CG1	5:R:168:PRO:HD3	2.27	0.61
1:A:44:ARG:CA	1:A:47:LEU:HD12	2.31	0.61
3:D:1309:ILE:HG22	3:D:1310:THR:N	2.15	0.61
1:G:102:LEU:HD13	1:G:115:ILE:HG12	1.82	0.61
3:J:759:ILE:HG12	3:J:771:GLN:HG2	1.83	0.61
3:J:1216:ALA:O	3:J:1220:ILE:HG13	2.01	0.61
6:4:26:DT:H1'	6:4:27:DC:H5'	1.83	0.61
6:4:58:DG:N2	7:5:6:DG:N3	2.48	0.61
1:M:38:THR:HG21	1:N:46:ILE:HD11	1.82	0.61
2:O:120:GLN:OE1	2:O:490:GLN:HB3	2.01	0.61
3:P:886:VAL:HG22	3:P:1254:GLU:O	2.00	0.61
5:R:387:VAL:HG12	5:R:388:ILE:N	2.14	0.61
6:7:12:DC:H2''	6:7:13:DT:OP2	2.00	0.61
2:C:6:THR:HG22	2:C:791:LEU:CD2	2.31	0.60
2:C:82:VAL:CG2	2:C:83:GLN:N	2.63	0.60
2:C:1289:GLU:HA	2:C:1293:VAL:CG2	2.31	0.60
8:3:14:A:H5'	8:3:15:G:OP2	2.00	0.60
2:I:1258:PRO:HG2	3:J:346:ARG:HB3	1.81	0.60
3:J:512:TYR:CE1	3:J:545:HIS:HE1	2.19	0.60
3:J:762:ASN:OD1	3:J:764:ARG:HB3	2.00	0.60
2:O:1192:GLU:HA	2:O:1195:ILE:HD12	1.82	0.60
3:P:32:SER:HG	3:P:33:TRP:CD1	2.19	0.60
5:R:152:GLU:HG2	5:R:162:ILE:HD11	1.83	0.60
3:D:434:ILE:HG22	3:D:484:MET:HE1	1.83	0.60
3:D:646:ILE:HG13	3:D:764:ARG:HD3	1.82	0.60
1:G:78:ILE:HA	1:G:81:ILE:HD12	1.83	0.60
2:I:160:ASP:HB3	2:I:163:LYS:HG3	1.83	0.60
2:I:448:LEU:HG	2:I:553:THR:HB	1.83	0.60
2:I:530:ILE:HD11	2:I:575:LEU:HB2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:871:VAL:HG23	2:I:883:LEU:HA	1.82	0.60
3:J:620:PHE:CZ	3:J:624:ILE:HD11	2.36	0.60
3:P:822:MET:HE1	3:P:842:ARG:HH11	1.66	0.60
2:C:39:ILE:O	2:C:39:ILE:HG22	2.00	0.60
2:C:148:GLN:NE2	2:C:533:LEU:O	2.28	0.60
2:C:1124:ILE:CD1	2:C:1180:MET:HB3	2.30	0.60
3:D:220:ARG:HA	3:D:223:LEU:HD12	1.84	0.60
3:D:370:LYS:HE2	3:D:443:GLU:CA	2.32	0.60
3:D:805:GLN:NE2	3:D:1347:LEU:H	1.97	0.60
2:I:194:LEU:HD12	2:I:195:PHE:N	2.16	0.60
2:I:1130:ALA:O	2:I:1134:GLN:HB2	2.02	0.60
5:L:563:PHE:HB2	5:L:565:ILE:HD11	1.82	0.60
2:O:256:GLU:HA	2:O:261:VAL:HG13	1.84	0.60
2:O:548:ARG:HH11	3:P:788:LEU:HD11	1.65	0.60
2:O:1049:ILE:CG2	2:O:1050:VAL:N	2.64	0.60
3:P:1063:ASP:OD2	3:P:1104:LYS:HE3	2.00	0.60
5:R:407:GLU:HG2	5:R:442:SER:HB3	1.82	0.60
1:B:223:ILE:O	1:B:227:GLN:HG2	2.01	0.60
3:D:1094:ASP:O	3:D:1096:PRO:HD3	2.02	0.60
1:G:28:LEU:CD1	1:H:231:PHE:CZ	2.84	0.60
1:G:38:THR:HG22	1:H:42:ALA:HA	1.84	0.60
2:I:335:THR:C	2:I:336:LEU:HD23	2.25	0.60
2:I:1273:MET:HB3	3:J:428:THR:HB	1.83	0.60
2:I:1321:GLU:O	2:I:1325:VAL:HG23	2.02	0.60
3:J:972:LYS:HD3	3:J:1002:VAL:HG21	1.84	0.60
5:L:102:MET:HB3	6:4:42:DG:N2	2.15	0.60
5:L:137:TYR:CE2	5:L:139:GLU:HB2	2.36	0.60
5:L:495:ARG:O	5:L:498:LEU:HB2	2.01	0.60
2:O:1272:GLU:O	2:O:1275:VAL:HB	2.02	0.60
1:A:38:THR:HG23	1:B:42:ALA:HA	1.83	0.60
1:A:67:GLU:HA	1:A:78:ILE:CG2	2.30	0.60
3:D:883:ARG:NE	3:D:898:CYS:SG	2.75	0.60
4:E:80:LEU:O	4:E:84:THR:HG23	2.01	0.60
6:1:46:DG:C5'	6:1:46:DG:H8	2.15	0.60
7:2:18:DT:H2'	7:2:19:DA:H5''	1.83	0.60
2:I:148:GLN:HB2	2:I:511:LEU:CD1	2.32	0.60
2:I:569:ILE:HD13	3:J:784:ALA:HB2	1.82	0.60
2:I:700:VAL:HG13	2:I:1117:LEU:CD2	2.31	0.60
2:I:794:LEU:HG	2:I:796:LEU:HG	1.84	0.60
3:J:546:ALA:O	3:J:548:VAL:HG23	2.02	0.60
3:J:975:ILE:HD13	3:J:980:THR:HG21	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:595:LEU:O	5:L:599:ARG:HG3	2.00	0.60
1:M:102:LEU:HD21	1:M:110:VAL:HG11	1.82	0.60
2:O:1278:LEU:HD21	2:O:1286:THR:OG1	2.01	0.60
3:P:62:PHE:HB3	3:P:98:ARG:HG2	1.82	0.60
2:C:451:ARG:NH2	2:C:547:VAL:HG11	2.17	0.60
3:D:395:LYS:HG3	3:D:399:LYS:HE2	1.83	0.60
5:F:137:TYR:HE1	5:F:353:LEU:HD11	1.63	0.60
1:G:45:ARG:HD3	1:H:38:THR:HG23	1.83	0.60
2:I:13:LYS:HG2	2:I:14:ASP:N	2.17	0.60
2:I:448:LEU:HD23	2:I:448:LEU:H	1.63	0.60
2:I:1109:ILE:CG1	3:J:740:LEU:HD22	2.32	0.60
2:O:8:LYS:HD3	2:O:1168:GLU:CD	2.26	0.60
2:O:206:ALA:O	2:O:209:ILE:HG22	2.00	0.60
6:7:50:DT:H5'	6:7:51:DC:C6	2.37	0.60
1:A:48:LEU:HA	1:A:180:VAL:HG21	1.81	0.60
2:C:505:PHE:O	2:C:509:SER:HB3	2.02	0.60
2:C:1280:ALA:CB	3:D:431:ARG:HB3	2.32	0.60
2:I:850:ILE:HG23	2:I:885:GLY:O	2.01	0.60
3:J:426:ALA:HB1	7:5:14:DC:H1'	1.82	0.60
3:J:809:VAL:HG21	3:J:909:ILE:HD13	1.82	0.60
3:P:1309:ILE:HG22	3:P:1310:THR:N	2.16	0.60
1:A:9:LEU:CD2	1:A:198:LEU:HD11	2.32	0.60
1:A:190:ALA:H	1:A:199:ASP:HA	1.66	0.60
1:B:226:GLU:O	1:B:229:GLU:HB2	2.02	0.60
3:D:20:ILE:HG13	3:D:1344:LEU:HD11	1.84	0.60
3:D:615:LYS:N	3:D:616:PRO:CD	2.65	0.60
3:D:749:LYS:HG2	3:D:755:ILE:HG12	1.81	0.60
2:I:113:THR:O	2:I:113:THR:OG1	2.20	0.60
2:I:1114:GLU:OE1	2:I:1230:MET:HG3	2.02	0.60
3:J:357:VAL:HG12	3:J:359:PRO:HD3	1.82	0.60
3:J:369:PRO:HD3	3:J:447:ILE:HG23	1.84	0.60
3:J:385:LEU:HD13	3:J:397:ALA:HB1	1.82	0.60
3:J:450:HIS:CD2	3:J:451:PRO:HD2	2.36	0.60
3:P:378:LYS:HG2	3:P:382:TYR:OH	2.02	0.60
5:R:452:ILE:CG2	5:R:456:MET:HB3	2.32	0.60
1:B:190:ALA:HB2	1:B:199:ASP:CA	2.31	0.60
1:B:190:ALA:CB	1:B:199:ASP:C	2.71	0.60
3:D:36:GLY:HA3	3:D:61:ILE:HG12	1.83	0.60
2:I:854:ILE:HG21	2:I:857:VAL:HG21	1.81	0.60
2:I:881:ASP:O	2:I:920:VAL:HG23	2.02	0.60
3:J:517:CYS:HB3	3:J:545:HIS:HB2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1101:LEU:HD22	3:P:1122:ALA:CB	2.25	0.60
1:A:224:LEU:O	1:A:228:LEU:HD12	2.02	0.60
2:C:297:VAL:HG21	2:C:311:CYS:HB2	1.82	0.60
2:C:316:GLU:HG3	2:C:352:ARG:NH2	2.17	0.60
2:C:838:CYS:SG	2:C:918:LEU:HB2	2.41	0.60
3:D:1040:MET:HE3	3:D:1046:ILE:HG21	1.84	0.60
1:H:70:THR:HG23	1:H:70:THR:O	2.02	0.60
2:I:183:TRP:CZ3	6:4:48:DA:N6	2.70	0.60
2:I:213:LEU:O	2:I:214:ASN:CB	2.48	0.60
2:I:397:LEU:O	2:I:398:SER:HB3	2.00	0.60
3:J:705:THR:HG21	3:J:716:GLN:CG	2.32	0.60
3:J:1040:MET:HG2	3:J:1046:ILE:HG21	1.83	0.60
1:M:101:THR:HG22	1:M:143:ARG:HG2	1.82	0.60
3:P:99:ARG:HG3	3:P:249:LEU:HD21	1.84	0.60
3:P:322:ARG:HD3	5:R:510:PRO:HG3	1.84	0.60
3:P:332:LYS:HD2	3:P:1329:THR:HG23	1.84	0.60
3:P:908:ILE:H	3:P:908:ILE:HD13	1.64	0.60
7:8:4:DC:C4	7:8:5:DC:N4	2.70	0.60
2:C:1309:VAL:CG1	3:D:383:GLY:HA2	2.28	0.59
2:C:1323:PHE:CE2	3:D:1353:VAL:HG12	2.37	0.59
3:D:759:ILE:HD13	3:D:767:LEU:HD11	1.84	0.59
4:E:15:ASN:OD1	4:E:16:ARG:N	2.35	0.59
5:F:407:GLU:OE2	5:F:442:SER:HB3	2.01	0.59
1:H:35:PHE:O	1:H:39:LEU:HG	2.02	0.59
2:I:436:ARG:HH22	3:J:1068:THR:HG22	1.67	0.59
2:I:662:SER:OG	2:I:663:VAL:N	2.28	0.59
3:J:385:LEU:HD13	3:J:397:ALA:CB	2.32	0.59
3:J:915:ILE:O	3:J:918:ILE:CG2	2.48	0.59
6:4:47:DC:OP1	6:4:47:DC:H4'	2.02	0.59
2:O:530:ILE:HD11	2:O:575:LEU:HB2	1.83	0.59
2:C:209:ILE:HG23	2:C:210:LEU:N	2.17	0.59
3:D:749:LYS:HD2	3:D:753:SER:CB	2.30	0.59
5:F:92:GLY:O	5:F:93:ARG:HG3	2.02	0.59
5:F:276:MET:O	5:F:280:VAL:HG23	2.02	0.59
3:J:360:TYR:C	3:J:360:TYR:HD1	2.10	0.59
3:J:527:LEU:HG	3:J:548:VAL:CG1	2.32	0.59
3:J:772:TYR:O	3:J:775:SER:OG	2.20	0.59
3:J:983:LYS:HZ1	3:J:985:ILE:HD11	1.67	0.59
2:O:232:ILE:HG21	2:O:326:SER:CB	2.31	0.59
3:P:527:LEU:HB2	3:P:550:VAL:HG22	1.84	0.59
3:P:1274:PHE:O	3:P:1275:LEU:CB	2.47	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:49:DG:H3'	6:7:49:DG:H8	1.67	0.59
2:C:198:ILE:CD1	2:C:389:PHE:HE1	2.15	0.59
2:C:432:LEU:HG	2:C:433:ILE:N	2.05	0.59
2:C:759:SER:CA	2:C:765:ILE:HD11	2.32	0.59
3:D:698:MET:O	3:D:702:GLN:HB2	2.03	0.59
3:D:714:GLU:HG2	3:D:715:LYS:N	2.17	0.59
6:1:47:DC:H4'	6:1:47:DC:OP1	2.02	0.59
2:I:213:LEU:O	2:I:214:ASN:HB3	2.02	0.59
2:I:697:LYS:HB3	2:I:790:ASP:OD2	2.02	0.59
2:I:1073:LYS:NZ	8:6:15:G:O5'	2.35	0.59
3:J:34:SER:CB	3:J:104:HIS:HB3	2.32	0.59
3:J:450:HIS:CE1	3:J:625:MET:CE	2.80	0.59
3:J:1145:PHE:HB2	3:J:1309:ILE:HD11	1.83	0.59
3:J:1253:ILE:O	3:J:1256:ILE:HG13	2.03	0.59
5:L:580:PHE:O	5:L:581:ASP:HB3	2.02	0.59
2:O:1078:LYS:HG2	2:O:1079:ILE:N	2.16	0.59
3:P:269:TYR:O	3:P:273:ILE:HG13	2.01	0.59
3:P:1027:VAL:CG2	3:P:1124:ILE:HD11	2.31	0.59
1:A:208:ASN:HD22	1:A:208:ASN:H	1.48	0.59
2:C:182:SER:OG	2:C:388:LEU:HD23	2.02	0.59
2:C:237:LEU:HD11	2:C:289:VAL:HG22	1.83	0.59
2:C:890:LYS:HG2	2:C:891:GLY:N	2.17	0.59
3:D:259:ARG:CZ	5:F:502:LYS:HD3	2.32	0.59
3:D:424:ASN:N	3:D:466:MET:HE2	2.17	0.59
5:F:451:ARG:HG3	5:F:451:ARG:O	2.00	0.59
2:I:1288:GLN:NE2	3:J:1354:GLY:O	2.35	0.59
3:J:398:LYS:HZ3	5:L:532:LEU:HG	1.64	0.59
3:J:405:GLU:O	3:J:408:VAL:HB	2.02	0.59
1:N:47:LEU:HD13	1:N:183:ILE:HD12	1.84	0.59
2:O:1304:MET:CE	2:O:1308:ILE:HD11	2.27	0.59
3:P:251:PRO:O	5:R:507:MET:CE	2.50	0.59
1:A:158:ARG:NE	1:A:172:LEU:HD11	2.18	0.59
3:D:734:ALA:O	3:D:737:ILE:HB	2.03	0.59
3:D:1134:ILE:O	3:D:1138:LEU:HB2	2.03	0.59
1:H:68:TYR:CE1	1:H:79:LEU:CD2	2.82	0.59
2:I:176:ILE:HD12	2:I:184:LEU:CB	2.32	0.59
2:I:698:PRO:HG3	2:I:1231:TYR:CZ	2.37	0.59
2:I:764:CYS:O	2:I:764:CYS:SG	2.61	0.59
2:I:810:TYR:CE2	2:I:1078:LYS:HD3	2.37	0.59
2:I:1281:TYR:HE1	3:J:489:ASN:ND2	1.99	0.59
3:J:115:TRP:CZ3	3:J:1333:THR:HG23	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:39:ILE:O	2:O:39:ILE:CG2	2.49	0.59
2:O:478:ARG:NH1	2:O:492:MET:HA	2.18	0.59
3:P:379:PRO:HA	3:P:382:TYR:CD2	2.37	0.59
3:P:1264:ALA:HB1	3:P:1303:SER:O	2.03	0.59
1:B:107:ILE:HG13	1:B:136:GLU:HB3	1.84	0.59
2:C:808:ASN:ND2	2:C:808:ASN:N	2.49	0.59
3:D:268:LEU:HD13	3:D:306:LEU:HA	1.83	0.59
3:D:427:PRO:HG2	3:D:429:LEU:HD23	1.83	0.59
3:D:797:THR:HA	3:D:800:LEU:HD12	1.83	0.59
5:F:380:VAL:HG22	5:F:416:VAL:HG21	1.85	0.59
1:G:173:VAL:HG12	1:G:174:ASP:N	2.17	0.59
1:H:102:LEU:HD12	1:H:103:ASN:N	2.16	0.59
2:I:26:TYR:CE2	2:I:28:LEU:HB2	2.38	0.59
2:I:75:LEU:HD21	2:I:127:ILE:CD1	2.31	0.59
2:I:160:ASP:HB3	2:I:163:LYS:HB2	1.84	0.59
2:I:225:PHE:CE2	2:I:347:ILE:HB	2.37	0.59
2:I:435:ILE:HG23	2:I:440:GLY:O	2.03	0.59
3:J:972:LYS:HD3	3:J:1002:VAL:HG11	1.83	0.59
3:J:1208:ASP:O	3:J:1210:ILE:HD12	2.02	0.59
5:L:100:MET:O	5:L:104:GLU:HG3	2.03	0.59
2:O:1061:GLN:HB2	2:O:1062:PRO:CD	2.30	0.59
3:P:772:TYR:O	3:P:775:SER:OG	2.20	0.59
2:C:448:LEU:HD13	2:C:557:ARG:HD2	1.83	0.59
2:C:554:HIS:HB3	2:C:558:VAL:HG12	1.84	0.59
2:C:905:ILE:HA	5:F:595:LEU:HD23	1.83	0.59
3:D:327:LEU:HA	3:D:330:MET:HG3	1.85	0.59
3:D:425:ARG:HD2	3:D:457:TYR:HB3	1.84	0.59
3:D:435:GLN:NE2	3:D:486:SER:HA	2.17	0.59
3:D:497:GLU:HB3	3:D:498:PRO:CD	2.32	0.59
2:I:1044:PRO:HB3	5:L:498:LEU:HD13	1.84	0.59
2:I:1246:ARG:NH2	2:I:1249:GLY:N	2.51	0.59
3:J:267:ASP:O	3:J:271:ARG:HG3	2.03	0.59
3:J:385:LEU:HD12	3:J:397:ALA:HB1	1.83	0.59
3:J:697:MET:HE1	3:J:738:ARG:HA	1.83	0.59
5:L:457:ILE:HA	5:L:460:ILE:CD1	2.24	0.59
1:N:95:LYS:HE3	1:N:120:ASP:OD2	2.03	0.59
3:P:237:MET:C	3:P:238:ILE:HD13	2.28	0.59
3:P:1024:THR:HG21	3:P:1123:ARG:HE	1.67	0.59
2:C:728:ASP:HB3	2:C:731:ARG:H	1.67	0.59
2:C:943:LYS:HG3	2:C:944:ARG:N	2.16	0.59
3:D:647:PRO:HB3	3:D:697:MET:HA	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:384:LYS:HZ2	3:J:415:VAL:HG22	1.66	0.59
3:J:425:ARG:HD3	3:J:457:TYR:O	2.02	0.59
3:J:783:LEU:O	3:J:786:THR:HG22	2.03	0.59
3:J:796:LEU:HA	3:J:799:ARG:HE	1.67	0.59
1:M:26:VAL:HG21	1:M:217:ILE:HD11	1.85	0.59
3:P:1364:ALA:O	3:P:1367:GLN:HG3	2.03	0.59
2:C:373:GLY:HA2	5:F:91:ILE:HA	1.83	0.59
2:C:936:ARG:HG2	2:C:937:ASP:H	1.67	0.59
2:C:1117:LEU:HD21	2:C:1182:ILE:HD12	1.84	0.59
2:C:1257:GLN:CG	2:C:1296:ASP:OD1	2.49	0.59
3:D:885:VAL:HG13	3:D:894:VAL:HG11	1.84	0.59
6:1:43:DT:C2'	6:1:44:DG:H5''	2.32	0.59
1:H:64:VAL:HG11	1:H:78:ILE:HD13	1.85	0.59
2:I:667:LEU:CD2	2:I:705:GLU:OE2	2.51	0.59
3:J:130:MET:HG2	3:J:135:ILE:HG12	1.85	0.59
3:J:422:LEU:C	3:J:423:LEU:HG	2.26	0.59
3:J:424:ASN:O	3:J:466:MET:HE2	2.02	0.59
3:J:514:THR:O	3:J:576:ARG:NH2	2.36	0.59
3:J:686:TRP:CE3	3:J:758:PRO:HG3	2.38	0.59
3:J:828:GLY:CA	3:J:996:LYS:HG2	2.32	0.59
3:J:848:VAL:H	3:J:858:VAL:HB	1.67	0.59
3:J:1011:VAL:HG11	3:J:1017:VAL:HG12	1.83	0.59
1:M:67:GLU:CA	1:M:78:ILE:HG21	2.32	0.59
2:O:335:THR:CG2	2:O:336:LEU:H	2.16	0.59
3:P:330:MET:HE2	3:P:337:ARG:HH22	1.68	0.59
3:P:709:ARG:O	3:P:710:ASP:HB3	2.03	0.59
3:P:1159:ILE:HG22	3:P:1160:SER:H	1.68	0.59
3:P:1226:VAL:O	3:P:1229:VAL:HG12	2.02	0.59
1:B:82:LEU:HD22	1:B:173:VAL:CG2	2.32	0.59
2:C:302:ILE:HG22	2:C:309:LEU:CD2	2.33	0.59
2:C:1171:ARG:O	2:C:1175:ASN:ND2	2.35	0.59
3:D:950:ILE:HD11	3:D:997:VAL:HG22	1.83	0.59
1:G:47:LEU:HD13	1:G:183:ILE:HD11	1.81	0.59
1:H:74:VAL:O	1:H:74:VAL:HG12	2.02	0.59
2:I:144:VAL:HG11	2:I:527:LYS:HA	1.85	0.59
2:I:1289:GLU:OE1	3:J:472:LEU:HG	2.02	0.59
3:J:154:LEU:HD13	3:J:176:PHE:CE1	2.38	0.59
3:J:492:SER:HG	3:J:495:ASN:N	1.97	0.59
3:J:609:TYR:CA	3:J:617:THR:HG21	2.33	0.59
3:J:965:SER:OG	3:J:966:VAL:N	2.31	0.59
5:L:392:LYS:HE2	5:L:401:PHE:CE1	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:6:14:A:H3'	8:6:15:G:C8	2.37	0.59
1:N:228:LEU:O	1:N:232:VAL:HG23	2.02	0.59
2:O:185:ASP:C	2:O:186:PHE:HD2	2.11	0.59
2:O:237:LEU:CB	2:O:287:VAL:HG22	2.33	0.59
2:O:288:PRO:HB2	2:O:290:GLU:HB3	1.84	0.59
2:O:1294:LYS:HD3	3:P:347:VAL:HG13	1.74	0.59
3:P:515:ARG:NH1	3:P:724:MET:HG2	2.18	0.59
3:P:783:LEU:HD11	3:P:936:HIS:HB2	1.84	0.59
3:P:1075:ARG:CG	3:P:1192:LYS:HD3	2.31	0.59
5:R:507:MET:O	5:R:519:LEU:HB3	2.02	0.59
5:R:584:ARG:O	5:R:587:ILE:HG12	2.03	0.59
1:A:107:ILE:HG23	1:A:134:THR:O	2.02	0.58
1:A:208:ASN:HD22	1:A:208:ASN:N	2.00	0.58
1:B:86:LYS:HE2	1:B:173:VAL:CG1	2.29	0.58
2:C:171:LEU:HD22	2:C:188:PHE:O	2.03	0.58
2:C:397:LEU:O	2:C:398:SER:HB3	2.03	0.58
3:D:200:GLN:O	3:D:204:GLU:HG3	2.03	0.58
2:I:667:LEU:HD22	2:I:705:GLU:OE2	2.03	0.58
3:J:888:CYS:SG	3:J:898:CYS:SG	3.01	0.58
5:L:428:SER:OG	6:4:41:DT:H73	2.03	0.58
5:L:532:LEU:HD12	5:L:532:LEU:N	2.18	0.58
2:O:709:ALA:O	2:O:712:SER:OG	2.20	0.58
2:O:1064:ASP:CG	2:O:1238:LEU:HD22	2.27	0.58
2:O:1243:MET:HG3	3:P:372:MET:CE	2.33	0.58
3:P:589:TYR:CE2	3:P:593:ASN:ND2	2.71	0.58
1:B:71:LYS:HZ3	1:B:140:ILE:HG13	1.68	0.58
2:C:297:VAL:CG1	2:C:317:LEU:HD21	2.33	0.58
2:C:375:PRO:HB3	5:F:87:VAL:HG21	1.84	0.58
2:C:1268:GLN:HE22	3:D:351:GLY:CA	2.16	0.58
3:D:502:PRO:CG	3:D:601:ILE:HG21	2.25	0.58
5:F:216:LEU:O	5:F:220:LYS:HG2	2.04	0.58
2:I:1241:ASP:HA	2:I:1262:LYS:HZ1	1.68	0.58
3:J:797:THR:HA	3:J:800:LEU:HD12	1.85	0.58
3:J:895:CYS:SG	3:J:898:CYS:N	2.65	0.58
5:L:119:ILE:HG23	5:L:122:ARG:HH21	1.67	0.58
5:L:388:ILE:CG2	5:L:389:SER:N	2.66	0.58
3:P:42:GLU:CD	5:R:451:ARG:HB3	2.28	0.58
3:P:416:ILE:HD13	3:P:441:LEU:HG	1.85	0.58
3:P:1024:THR:HG21	3:P:1123:ARG:CD	2.32	0.58
3:P:1266:ILE:CD1	3:P:1278:GLU:CB	2.60	0.58
4:Q:8:ASP:OD1	4:Q:8:ASP:N	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:217:THR:HG21	2:C:313:ALA:CB	2.33	0.58
2:C:431:LYS:O	2:C:434:ASP:HB2	2.03	0.58
2:C:1313:HIS:HB2	3:D:474:LEU:CD1	2.33	0.58
3:D:367:GLY:HA3	3:D:448:GLN:HB2	1.85	0.58
3:D:1356:LEU:HD12	3:D:1365:TYR:CG	2.38	0.58
7:2:31:DT:H2''	7:2:32:DA:OP2	2.03	0.58
2:I:504:GLU:OE2	2:I:504:GLU:CA	2.42	0.58
5:L:269:LEU:O	5:L:273:MET:HE2	2.03	0.58
5:L:332:ASP:OD1	5:L:333:VAL:N	2.36	0.58
1:N:58:GLU:OE2	1:N:166:ARG:HD3	2.03	0.58
2:O:228:VAL:HG11	2:O:239:MET:CE	2.32	0.58
2:O:387:ASN:O	2:O:394:ARG:HD3	2.03	0.58
2:O:426:ILE:HG22	2:O:427:ASP:OD1	2.03	0.58
2:O:1109:ILE:HD13	2:O:1109:ILE:N	2.17	0.58
2:O:1116:HIS:CD2	3:P:641:ILE:HG13	2.38	0.58
3:P:121:PRO:O	3:P:122:SER:CB	2.51	0.58
3:P:275:ARG:HG2	3:P:278:ARG:HH22	1.67	0.58
3:P:501:VAL:CG1	3:P:502:PRO:CD	2.77	0.58
5:R:449:THR:OG1	5:R:504:PRO:CG	2.33	0.58
2:C:30:ILE:HD11	2:C:575:LEU:CD2	2.33	0.58
2:C:495:ALA:O	2:C:498:ILE:HB	2.02	0.58
2:C:618:GLN:O	2:C:621:SER:OG	2.22	0.58
2:C:1116:HIS:CD2	3:D:641:ILE:HG12	2.39	0.58
2:C:1235:LEU:HB3	2:C:1237:HIS:H	1.69	0.58
3:D:803:VAL:CG2	3:D:1313:SER:OG	2.50	0.58
4:E:2:ALA:N	4:E:6:VAL:HA	2.17	0.58
2:I:82:VAL:O	2:I:86:GLN:HG3	2.03	0.58
2:I:496:LYS:HD3	5:L:468:ARG:HH21	1.68	0.58
2:I:519:ASN:HD22	2:I:796:LEU:CD2	2.16	0.58
5:L:365:MET:O	5:L:369:GLU:HG3	2.04	0.58
5:L:386:LEU:HD22	6:4:41:DT:C4	2.38	0.58
2:O:403:MET:HE3	2:O:404:LYS:HA	1.84	0.58
2:O:678:ARG:CZ	2:O:1106:ARG:HB3	2.33	0.58
3:P:233:LYS:HE2	3:P:236:TRP:CE2	2.33	0.58
5:R:508:GLU:O	5:R:518:HIS:HB3	2.03	0.58
1:A:47:LEU:HD13	1:A:183:ILE:HD11	1.84	0.58
2:C:53:PHE:O	2:C:57:PHE:HB2	2.03	0.58
2:C:402:ARG:HG2	2:C:416:GLY:CA	2.33	0.58
2:C:709:ALA:O	2:C:712:SER:OG	2.20	0.58
2:C:823:VAL:CG1	2:C:1059:ARG:HD3	2.34	0.58
2:C:1108:ASN:OD1	2:C:1108:ASN:N	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1273:MET:HB3	3:D:428:THR:CB	2.32	0.58
3:D:24:LEU:HD12	3:D:232:ASN:HB3	1.85	0.58
3:D:515:ARG:NH2	3:D:718:SER:O	2.34	0.58
6:1:50:DT:O5'	6:1:51:DC:C5	2.56	0.58
1:H:158:ARG:C	1:H:160:HIS:N	2.60	0.58
1:H:162:GLU:HG2	1:H:164:ASP:HB3	1.84	0.58
2:I:561:ILE:HD11	2:I:661:VAL:HG21	1.85	0.58
3:J:306:LEU:O	3:J:326:SER:HB2	2.02	0.58
4:K:28:ARG:HG3	4:K:28:ARG:NH1	2.19	0.58
5:L:386:LEU:HD13	6:4:41:DT:O4'	2.03	0.58
3:P:166:LEU:HD23	3:P:169:LEU:CD2	2.33	0.58
3:P:786:THR:HG23	3:P:787:ALA:N	2.18	0.58
5:R:96:ASP:OD2	5:R:98:VAL:HB	2.03	0.58
5:R:267:ASP:O	5:R:271:ASN:CG	2.47	0.58
7:8:51:DG:C2'	7:8:52:DT:H71	2.32	0.58
1:A:43:LEU:O	1:A:47:LEU:HG	2.03	0.58
2:C:275:ARG:NH1	2:C:278:GLU:CD	2.62	0.58
2:C:371:ARG:HB3	5:F:99:ARG:NH1	2.18	0.58
2:C:560:PRO:HB2	3:D:776:THR:HG21	1.85	0.58
2:C:808:ASN:N	2:C:808:ASN:HD22	2.01	0.58
6:1:15:DG:H2''	6:1:16:DA:OP2	2.02	0.58
1:H:44:ARG:NH1	3:J:538:ARG:HD2	2.15	0.58
1:H:102:LEU:HD11	1:H:114:ASP:HB3	1.85	0.58
2:I:634:VAL:HG12	2:I:635:THR:N	2.18	0.58
3:J:130:MET:CG	3:J:135:ILE:HG12	2.33	0.58
5:R:166:VAL:HG12	5:R:167:ASP:H	1.66	0.58
5:R:279:ARG:HH21	5:R:347:ILE:HD13	1.68	0.58
5:R:451:ARG:NH2	6:7:32:DA:OP1	2.36	0.58
1:A:86:LYS:HE3	1:A:173:VAL:CG1	2.33	0.58
1:B:67:GLU:O	1:B:78:ILE:HB	2.04	0.58
2:C:895:LEU:HD13	2:C:900:LYS:HG2	1.84	0.58
3:D:412:LEU:HD11	3:D:416:ILE:HD11	1.84	0.58
3:D:551:ARG:O	3:D:552:ILE:HD13	2.03	0.58
4:E:27:ALA:HA	4:E:30:MET:HG3	1.86	0.58
5:F:292:VAL:HG21	5:F:299:LYS:HE2	1.86	0.58
2:I:1309:VAL:HG12	2:I:1310:ASP:OD1	2.04	0.58
3:J:233:LYS:HG2	3:J:235:GLU:HG3	1.85	0.58
2:C:27:LEU:HD23	2:C:528:ARG:NH2	2.18	0.58
2:C:720:ARG:HD2	2:C:736:VAL:HG21	1.85	0.58
2:C:1087:TYR:HE1	2:C:1215:GLY:HA2	1.69	0.58
3:D:587:LEU:HD21	3:D:612:LEU:HD21	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2:5:DC:H2''	7:2:6:DG:H5'	1.86	0.58
1:H:85:LEU:HD21	1:H:130:ILE:HG21	1.84	0.58
2:I:275:ARG:NH2	2:I:279:LYS:HD3	2.18	0.58
2:I:898:GLU:HB2	5:L:544:THR:HG21	1.86	0.58
3:J:644:MET:HG3	3:J:722:ILE:HD11	1.85	0.58
5:L:171:GLU:OE1	5:L:258:GLN:NE2	2.37	0.58
7:5:23:DT:H71	7:5:24:DT:H72	1.84	0.58
1:N:101:THR:HG22	1:N:143:ARG:HG2	1.85	0.58
3:P:1229:VAL:O	3:P:1233:ILE:HG13	2.04	0.58
1:B:154:PRO:HD2	1:B:157:THR:HB	1.86	0.58
2:C:700:VAL:CG1	2:C:1117:LEU:HD23	2.29	0.58
3:D:30:ILE:HD13	3:D:243:PRO:HD3	1.86	0.58
3:D:424:ASN:C	3:D:466:MET:HE2	2.28	0.58
3:D:536:LEU:HD22	3:D:541:LEU:HB3	1.85	0.58
3:D:739:GLN:HG2	3:D:744:ARG:HA	1.86	0.58
3:D:826:ILE:HG12	3:D:831:VAL:HG22	1.86	0.58
2:I:151:ARG:HD2	2:I:445:ILE:CG2	2.33	0.58
2:I:964:LEU:HD11	2:I:1021:LEU:HD22	1.84	0.58
2:I:1312:ASN:O	2:I:1313:HIS:HB2	2.03	0.58
3:J:127:LEU:HD11	3:J:227:PHE:HE2	1.67	0.58
3:J:841:GLY:C	3:J:863:LEU:HD11	2.28	0.58
2:O:120:GLN:CG	2:O:489:PRO:HG2	2.33	0.58
2:O:232:ILE:HD13	2:O:326:SER:HB3	1.85	0.58
2:O:1331:ARG:HD3	3:P:33:TRP:CE3	2.38	0.58
3:P:275:ARG:NH2	5:R:400:GLN:OE1	2.36	0.58
5:R:451:ARG:HH22	6:7:32:DA:P	2.27	0.58
5:R:552:THR:O	5:R:555:GLU:HB2	2.04	0.58
2:C:251:ALA:CB	2:C:263:VAL:CG1	2.82	0.58
2:C:1105:SER:HB3	3:D:731:ARG:CG	2.33	0.58
2:C:1116:HIS:HE1	2:C:1226:THR:HG23	1.68	0.58
3:D:232:ASN:HA	3:D:236:TRP:CZ3	2.39	0.58
2:I:1269:ARG:HH12	3:J:340:GLN:HA	1.66	0.58
3:J:620:PHE:O	3:J:624:ILE:HG13	2.03	0.58
5:L:583:THR:HB	5:L:587:ILE:HD11	1.85	0.58
1:M:56:VAL:HG13	1:M:144:ILE:CG2	2.34	0.58
2:O:90:VAL:HG12	2:O:91:THR:N	2.19	0.58
2:O:1137:GLU:HG2	2:O:1139:ALA:H	1.69	0.58
2:C:49:LEU:HD13	2:C:73:TYR:CZ	2.38	0.57
2:C:809:GLY:HA3	3:D:629:PHE:CE1	2.39	0.57
2:C:851:THR:CG2	2:C:852:ALA:N	2.66	0.57
3:D:1221:LEU:HG	3:D:1222:ARG:N	2.16	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:122:VAL:HG11	2:I:493:ILE:CD1	2.32	0.57
2:I:146:VAL:HG12	2:I:147:SER:O	2.04	0.57
2:I:661:VAL:HG13	2:I:665:ALA:HB3	1.79	0.57
2:O:197:ARG:HB3	2:O:200:ARG:CA	2.34	0.57
2:O:589:THR:HG22	2:O:590:PRO:CD	2.19	0.57
2:O:812:PHE:O	2:O:1099:ASN:ND2	2.37	0.57
3:P:117:LEU:HD13	3:P:124:ILE:CD1	2.33	0.57
3:P:661:VAL:HG12	3:P:665:GLN:HE21	1.68	0.57
3:P:888:CYS:SG	3:P:898:CYS:SG	3.02	0.57
3:P:1282:TYR:C	3:P:1285:VAL:HG12	2.28	0.57
1:A:47:LEU:CD1	1:A:183:ILE:HD11	2.35	0.57
2:C:425:ILE:HG22	2:C:426:ILE:N	2.18	0.57
3:D:97:VAL:HG12	3:D:101:ARG:HG3	1.86	0.57
3:D:471:PRO:HB2	3:D:476:ALA:CB	2.33	0.57
3:D:797:THR:HG21	3:D:924:GLY:HA3	1.85	0.57
5:F:502:LYS:HD2	5:F:503:GLU:H	1.69	0.57
2:I:15:PHE:HE2	2:I:1182:ILE:HD13	1.69	0.57
2:I:505:PHE:O	2:I:509:SER:HB3	2.03	0.57
2:I:525:THR:HG21	2:I:687:ARG:HD2	1.86	0.57
2:I:528:ARG:HD2	2:I:663:VAL:HG23	1.86	0.57
2:I:878:THR:CG2	2:I:879:GLY:H	2.17	0.57
3:J:823:THR:CB	3:J:824:PRO:CD	2.76	0.57
3:J:868:TRP:O	3:J:872:LEU:HD21	2.04	0.57
3:J:899:TYR:CZ	3:J:915:ILE:CG2	2.87	0.57
3:J:1138:LEU:CB	3:J:1139:PRO:HD3	2.33	0.57
2:O:706:ARG:O	2:O:710:VAL:HG23	2.04	0.57
3:P:307:LEU:HA	3:P:327:LEU:HD12	1.86	0.57
3:P:406:ALA:HA	3:P:409:TRP:HD1	1.67	0.57
5:R:345:GLN:O	5:R:348:GLU:HB2	2.04	0.57
6:7:13:DT:C2	6:7:14:DT:C5	2.93	0.57
6:7:47:DC:H2'	6:7:48:DA:C8	2.39	0.57
6:7:52:DT:OP2	6:7:52:DT:H2'	2.04	0.57
6:1:21:DC:O2	7:2:43:DG:N2	2.37	0.57
6:1:43:DT:C3'	6:1:44:DG:H5''	2.34	0.57
6:1:46:DG:C5'	6:1:46:DG:C8	2.87	0.57
2:I:1278:LEU:HD11	2:I:1286:THR:HB	1.87	0.57
3:J:108:ALA:HB3	3:J:279:LEU:HD21	1.86	0.57
3:J:927:GLY:O	3:J:931:THR:HG23	2.04	0.57
3:J:1163:VAL:HG12	3:J:1164:SER:H	1.68	0.57
3:J:1194:ARG:HD3	3:J:1211:SER:HB3	1.84	0.57
5:L:573:LEU:HD22	7:5:45:DT:C2'	2.30	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:759:SER:CB	2:O:765:ILE:HD11	2.34	0.57
3:P:143:SER:OG	3:P:159:ILE:HG22	2.05	0.57
5:R:494:ILE:HG22	5:R:495:ARG:N	2.19	0.57
1:A:69:SER:O	1:A:78:ILE:CG1	2.52	0.57
1:B:43:LEU:O	1:B:47:LEU:HD12	2.04	0.57
2:C:1225:VAL:CG1	2:C:1226:THR:N	2.67	0.57
3:D:303:VAL:O	3:D:307:LEU:HG	2.04	0.57
3:D:883:ARG:HG2	3:D:898:CYS:HA	1.86	0.57
3:D:1078:LEU:CD1	3:D:1121:LEU:HB3	2.34	0.57
1:G:150:ARG:NH1	1:H:7:GLU:O	2.37	0.57
3:J:353:SER:HB2	3:J:372:MET:HE1	1.86	0.57
3:J:644:MET:HE1	3:J:764:ARG:HB2	1.86	0.57
5:L:271:ASN:O	5:L:275:VAL:HG23	2.04	0.57
1:N:95:LYS:CE	1:N:120:ASP:OD2	2.52	0.57
2:O:168:GLY:O	3:P:1065:ALA:HB1	2.04	0.57
2:O:1064:ASP:CG	2:O:1238:LEU:CD2	2.77	0.57
2:O:1305:TYR:CA	2:O:1308:ILE:HD12	2.26	0.57
3:P:285:LEU:HD13	5:R:413:MET:HG3	1.85	0.57
3:P:339:ARG:CZ	3:P:798:ARG:NH2	2.67	0.57
4:Q:26:ARG:O	4:Q:30:MET:HG3	2.04	0.57
1:A:136:GLU:HG3	1:A:137:ASN:N	2.18	0.57
1:H:27:THR:HG22	1:H:202:VAL:HG13	1.86	0.57
3:J:802:ASP:OD1	3:J:1325:PHE:HB2	2.04	0.57
3:J:1229:VAL:O	3:J:1233:ILE:HG13	2.05	0.57
5:L:479:THR:HB	5:L:480:PRO:HD2	1.87	0.57
7:5:6:DG:C2'	7:5:7:DC:O5'	2.52	0.57
2:O:164:THR:CG2	2:O:171:LEU:CD1	2.82	0.57
2:O:201:ARG:HB3	2:O:369:MET:HE1	1.85	0.57
2:O:757:THR:C	2:O:833:ILE:HD12	2.30	0.57
2:O:1305:TYR:HA	2:O:1308:ILE:CD1	2.26	0.57
3:P:932:MET:CE	8:9:16:U:H3'	2.34	0.57
5:R:471:LEU:HD23	5:R:476:ARG:O	2.04	0.57
2:C:402:ARG:HG2	2:C:416:GLY:HA3	1.85	0.57
2:C:1232:MET:O	2:C:1233:LEU:HG	2.04	0.57
2:C:1268:GLN:OE1	2:C:1268:GLN:N	2.38	0.57
5:F:91:ILE:HG22	5:F:91:ILE:O	2.03	0.57
5:F:339:ARG:O	5:F:342:GLN:HB2	2.04	0.57
2:I:883:LEU:HD21	2:I:920:VAL:CG2	2.34	0.57
2:I:1174:GLU:O	2:I:1177:ARG:HB3	2.04	0.57
5:L:507:MET:O	5:L:519:LEU:CB	2.49	0.57
5:L:581:ASP:OD1	5:L:582:VAL:HG23	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:26:VAL:HG11	1:M:217:ILE:HD13	1.87	0.57
1:N:35:PHE:O	1:N:39:LEU:HG	2.03	0.57
2:O:292:ILE:HD13	2:O:322:LEU:HD21	1.85	0.57
2:O:672:GLU:CG	2:O:1187:PHE:HA	2.35	0.57
2:O:1282:GLY:HA3	4:Q:17:PHE:CZ	2.34	0.57
2:C:168:GLY:O	3:D:1065:ALA:CB	2.53	0.57
2:C:689:ALA:HB1	2:C:1233:LEU:HD22	1.86	0.57
2:C:1198:LEU:HG	2:C:1198:LEU:O	2.02	0.57
2:I:1246:ARG:CZ	2:I:1249:GLY:CA	2.82	0.57
2:I:1275:VAL:O	2:I:1279:GLU:CG	2.52	0.57
1:N:27:THR:HG22	1:N:202:VAL:HG13	1.87	0.57
2:O:32:LEU:HD23	2:O:130:MET:HE1	1.86	0.57
2:C:387:ASN:HA	2:C:391:SER:HB2	1.86	0.57
3:D:433:GLY:O	3:D:457:TYR:CE1	2.57	0.57
3:D:839:VAL:O	3:D:839:VAL:CG1	2.53	0.57
1:G:134:THR:HG21	2:I:727:VAL:O	2.05	0.57
2:I:202:ARG:H	2:I:369:MET:HE1	1.70	0.57
2:I:976:ARG:O	2:I:980:VAL:HG23	2.05	0.57
3:J:599:LYS:HG3	3:J:600:ALA:H	1.70	0.57
3:J:608:CYS:SG	3:J:617:THR:CG2	2.86	0.57
3:J:625:MET:HG2	3:J:629:PHE:CE2	2.39	0.57
3:J:673:VAL:HG12	3:J:674:THR:O	2.04	0.57
3:J:875:ASN:O	3:J:876:SER:HB2	2.04	0.57
3:J:1109:LEU:CD1	3:J:1115:ILE:HG22	2.34	0.57
3:J:1145:PHE:CZ	3:J:1253:ILE:HG23	2.39	0.57
2:O:1043:ALA:HB3	2:O:1046:VAL:HG21	1.86	0.57
2:O:1294:LYS:CB	3:P:347:VAL:HG13	2.34	0.57
3:P:275:ARG:HD3	3:P:298:MET:HB3	1.85	0.57
3:P:490:ILE:HG12	3:P:500:ILE:HD12	1.87	0.57
3:P:932:MET:HE1	8:9:16:U:C3'	2.34	0.57
5:R:166:VAL:HG12	5:R:167:ASP:N	2.19	0.57
1:B:48:LEU:HD11	1:B:183:ILE:HG22	1.87	0.57
2:C:185:ASP:CG	2:C:200:ARG:HG2	2.30	0.57
2:C:1252:SER:HB3	2:C:1257:GLN:O	2.05	0.57
3:D:352:ARG:CZ	7:2:16:DC:H4'	2.34	0.57
3:D:1060:VAL:HG22	3:D:1106:ILE:HG12	1.87	0.57
1:G:230:ALA:HB1	1:H:11:PRO:O	2.04	0.57
2:I:26:TYR:CE2	2:I:32:LEU:HD12	2.40	0.57
2:I:61:SER:HB2	2:I:66:SER:OG	2.04	0.57
2:I:514:PHE:HE2	7:5:19:DA:N3	2.02	0.57
3:J:201:LEU:HD11	3:J:220:ARG:HH11	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:245:LEU:O	3:J:250:ARG:NE	2.26	0.57
2:O:342:ASP:HB3	2:O:343:HIS:CD2	2.40	0.57
2:O:470:ARG:HH22	5:R:397:ARG:NH1	2.03	0.57
2:O:770:CYS:HB2	2:O:783:LEU:O	2.04	0.57
6:7:49:DG:H3'	6:7:49:DG:C8	2.40	0.57
1:A:109:PRO:CB	1:A:132:HIS:CD2	2.86	0.57
1:B:37:HIS:CE1	1:B:187:VAL:HG21	2.40	0.57
2:C:1273:MET:HA	2:C:1276:TRP:CE3	2.40	0.57
3:D:178:ALA:O	3:D:179:LYS:HG3	2.05	0.57
3:D:464:ASP:OD1	8:3:15:G:O2'	2.22	0.57
5:F:353:LEU:HB3	5:F:358:VAL:HG22	1.87	0.57
1:G:227:GLN:HG3	1:H:35:PHE:HE1	1.70	0.57
1:H:158:ARG:O	1:H:159:ILE:C	2.47	0.57
2:I:209:ILE:HG23	2:I:210:LEU:N	2.20	0.57
2:I:436:ARG:NH2	3:J:1068:THR:HG22	2.20	0.57
2:I:953:LEU:HD13	2:I:954:LYS:HZ3	1.67	0.57
2:I:1294:LYS:HD3	3:J:347:VAL:CG1	2.35	0.57
3:J:233:LYS:HG3	3:J:234:PRO:HD2	1.85	0.57
3:J:437:PHE:O	3:J:439:PRO:HD3	2.05	0.57
3:J:521:LYS:CB	3:J:543:SER:HB2	2.34	0.57
2:O:716:ALA:HB3	2:O:784:ALA:HB3	1.85	0.57
2:O:870:ILE:HG22	2:O:871:VAL:O	2.04	0.57
3:P:246:PRO:HB2	3:P:249:LEU:CD1	2.35	0.57
6:7:28:DA:C2	7:8:36:DG:N2	2.73	0.57
3:D:270:ARG:HE	5:F:449:THR:HG23	1.68	0.56
5:F:583:THR:OG1	6:1:13:DT:OP2	2.19	0.56
2:I:22:LEU:HG	2:I:23:ASP:N	2.20	0.56
3:J:712:GLN:CD	3:J:712:GLN:N	2.63	0.56
3:J:1275:LEU:HG	3:J:1276:GLU:H	1.69	0.56
5:L:392:LYS:HA	5:L:395:THR:CG2	2.35	0.56
2:O:729:ALA:C	2:O:755:LYS:HE3	2.30	0.56
2:O:1314:GLN:HA	4:Q:28:ARG:HH21	1.69	0.56
3:P:97:VAL:CG1	3:P:101:ARG:HG3	2.33	0.56
3:P:1138:LEU:HG	3:P:1139:PRO:HD3	1.87	0.56
1:A:51:MET:SD	1:A:52:PRO:HD2	2.45	0.56
2:C:57:PHE:CD1	2:C:58:PRO:HA	2.40	0.56
2:C:198:ILE:HD13	2:C:389:PHE:HE1	1.70	0.56
3:D:207:GLU:O	3:D:208:THR:HG23	2.04	0.56
1:G:224:LEU:HG	1:H:228:LEU:HD11	1.86	0.56
2:I:1242:LYS:HE2	3:J:465:GLN:NE2	2.18	0.56
2:I:1282:GLY:HA3	4:K:17:PHE:CE1	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:237:MET:C	3:J:238:ILE:HD13	2.30	0.56
1:N:192:VAL:HG11	1:N:198:LEU:HD22	1.85	0.56
3:P:262:THR:C	5:R:507:MET:HE3	2.30	0.56
3:P:363:LEU:HA	3:P:450:HIS:CE1	2.39	0.56
3:P:423:LEU:HB3	3:P:466:MET:HE1	1.86	0.56
3:P:1024:THR:HG21	3:P:1123:ARG:NE	2.20	0.56
3:P:1271:SER:HB3	3:P:1297:LYS:HZ2	1.68	0.56
5:R:595:LEU:O	5:R:599:ARG:HG3	2.05	0.56
1:A:83:LEU:HA	1:A:86:LYS:HD2	1.86	0.56
1:A:140:ILE:HD13	1:A:141:SER:N	2.19	0.56
1:B:190:ALA:HB3	1:B:199:ASP:HA	1.87	0.56
1:B:227:GLN:O	1:B:231:PHE:CE2	2.58	0.56
3:D:57:PHE:CD1	3:D:247:PRO:HB3	2.41	0.56
3:D:513:MET:SD	3:D:631:TYR:CD2	2.98	0.56
2:I:96:LEU:HB2	2:I:127:ILE:CD1	2.33	0.56
2:I:374:GLU:OE1	5:L:99:ARG:NH1	2.38	0.56
2:I:1120:ALA:O	2:I:1124:ILE:HG13	2.04	0.56
3:J:65:VAL:HB	3:J:66:LYS:HG3	1.87	0.56
3:J:521:LYS:HB3	3:J:543:SER:N	2.20	0.56
3:J:698:MET:O	3:J:702:GLN:CB	2.54	0.56
3:J:747:MET:HE1	3:J:774:ILE:HG22	1.87	0.56
3:J:1323:ALA:HB2	3:J:1332:LEU:CD2	2.35	0.56
5:L:216:LEU:O	5:L:220:LYS:HG2	2.05	0.56
5:L:532:LEU:O	5:L:536:THR:OG1	2.17	0.56
1:M:225:ALA:HA	1:M:228:LEU:HD12	1.86	0.56
2:O:897:PRO:CB	5:R:565:ILE:HG12	2.23	0.56
2:O:1109:ILE:CD1	3:P:740:LEU:HD22	2.29	0.56
2:O:1184:THR:HG23	2:O:1184:THR:O	2.05	0.56
2:O:1294:LYS:HB3	3:P:347:VAL:CG1	2.35	0.56
3:P:50:LYS:HE2	3:P:71:LEU:HD22	1.86	0.56
3:P:146:VAL:HG22	3:P:154:LEU:HD13	1.85	0.56
5:R:452:ILE:HG22	5:R:457:ILE:HG12	1.87	0.56
1:A:203:ILE:HG22	1:A:205:MET:HE2	1.88	0.56
1:B:59:VAL:CG1	1:B:144:ILE:HG12	2.36	0.56
2:C:196:VAL:HG23	2:C:206:ALA:HA	1.87	0.56
3:D:107:LEU:HG	3:D:240:THR:O	2.04	0.56
2:I:715:THR:HG22	2:I:786:GLY:H	1.70	0.56
2:I:764:CYS:HA	2:I:833:ILE:HD11	1.88	0.56
3:J:736:GLN:CA	3:J:736:GLN:NE2	2.68	0.56
3:J:1350:ASN:HA	3:J:1353:VAL:HG22	1.88	0.56
3:J:1367:GLN:O	3:J:1370:MET:HB2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:L:563:PHE:HB2	5:L:565:ILE:CG1	2.34	0.56
1:N:158:ARG:HD2	1:N:172:LEU:HD11	1.88	0.56
1:A:149:GLY:O	1:A:177:TYR:HB3	2.06	0.56
1:A:155:ALA:HA	1:A:172:LEU:HD21	1.88	0.56
2:C:499:SER:HB3	2:C:503:LYS:HZ2	1.71	0.56
2:C:607:SER:OG	2:C:610:GLU:HG3	2.05	0.56
2:C:660:VAL:HB	2:C:661:VAL:HG23	1.87	0.56
1:G:15:ASP:C	1:G:16:ILE:HG13	2.26	0.56
2:I:32:LEU:HA	2:I:130:MET:HE1	1.87	0.56
2:I:1172:LEU:O	2:I:1176:LEU:HG	2.05	0.56
2:I:1313:HIS:CE1	3:J:380:PHE:HE1	2.24	0.56
3:J:435:GLN:HB3	3:J:437:PHE:CE1	2.40	0.56
3:J:594:GLN:HE21	3:J:600:ALA:HB2	1.69	0.56
3:J:964:LYS:CB	3:J:977:SER:HB3	2.34	0.56
3:J:1310:THR:O	3:J:1314:LEU:HG	2.06	0.56
4:K:48:VAL:HA	4:K:51:LEU:CG	2.35	0.56
1:M:81:ILE:HG23	1:M:130:ILE:CG2	2.35	0.56
2:O:113:THR:O	2:O:113:THR:OG1	2.24	0.56
3:P:309:ASN:HD21	3:P:316:ILE:HB	1.70	0.56
3:P:614:LEU:HD23	4:Q:7:GLN:CD	2.31	0.56
3:P:797:THR:HA	3:P:800:LEU:HD12	1.86	0.56
2:C:251:ALA:CB	2:C:263:VAL:HG11	2.35	0.56
2:C:1014:LEU:O	2:C:1017:GLN:HB3	2.05	0.56
2:C:1098:LEU:HD23	2:C:1099:ASN:N	2.21	0.56
3:D:555:TYR:HB3	3:D:586:GLY:HA2	1.88	0.56
3:D:1032:SER:OG	3:D:1117:SER:HB3	2.06	0.56
2:I:153:PRO:HA	2:I:177:ILE:HG22	1.87	0.56
2:I:542:ARG:NH1	6:4:49:DG:C8	2.74	0.56
3:J:591:ILE:HG22	3:J:592:VAL:N	2.19	0.56
3:J:1263:LYS:HD3	3:J:1280:VAL:C	2.30	0.56
3:J:1285:VAL:CG1	3:J:1286:LYS:N	2.67	0.56
1:M:79:LEU:O	1:M:82:LEU:HB2	2.05	0.56
1:N:42:ALA:O	1:N:46:ILE:HD12	2.05	0.56
2:O:661:VAL:HG13	2:O:665:ALA:CB	2.32	0.56
2:O:805:MET:HE2	2:O:806:PRO:HD2	1.87	0.56
2:O:1253:LEU:HD13	5:R:525:ASP:HA	1.88	0.56
3:P:233:LYS:CE	3:P:236:TRP:NE1	2.42	0.56
3:P:407:VAL:O	3:P:411:ILE:HG13	2.04	0.56
1:B:100:LEU:CD1	1:B:115:ILE:HG21	2.23	0.56
3:D:1031:VAL:HG13	3:D:1091:PRO:HD3	1.86	0.56
2:I:149:LEU:CD2	2:I:451:ARG:NH2	2.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1184:THR:HG23	2:I:1184:THR:O	2.06	0.56
3:J:142:GLU:HG3	5:L:88:GLU:OE1	2.05	0.56
3:J:309:ASN:HD21	3:J:316:ILE:H	1.54	0.56
4:K:45:LYS:O	4:K:49:ILE:HG13	2.06	0.56
5:L:381:GLU:O	5:L:384:LEU:HG	2.05	0.56
6:4:43:DT:C3'	6:4:44:DG:H5''	2.36	0.56
7:5:25:DA:H1'	7:5:26:DT:H5''	1.88	0.56
1:N:12:ARG:NH1	1:N:12:ARG:HB3	2.21	0.56
2:O:204:LEU:CB	2:O:205:PRO:HD2	2.22	0.56
2:O:662:SER:OG	2:O:663:VAL:N	2.38	0.56
2:O:896:THR:HB	2:O:898:GLU:OE2	2.06	0.56
3:P:783:LEU:CD1	3:P:936:HIS:HB2	2.36	0.56
3:P:1138:LEU:HG	3:P:1139:PRO:CD	2.36	0.56
3:P:1326:GLN:NE2	7:8:11:DA:H4'	2.21	0.56
5:R:462:LYS:O	5:R:466:ILE:HG13	2.06	0.56
1:A:224:LEU:O	1:A:224:LEU:HD12	2.06	0.56
1:B:106:GLY:HA2	1:B:136:GLU:HA	1.87	0.56
3:D:512:TYR:CD2	3:D:635:SER:HB2	2.41	0.56
3:D:812:ASP:N	3:D:812:ASP:OD1	2.36	0.56
3:J:132:LEU:HA	3:J:135:ILE:CD1	2.35	0.56
3:J:762:ASN:OD1	3:J:765:GLU:N	2.34	0.56
5:L:583:THR:HG21	5:L:586:ARG:HB3	1.83	0.56
1:M:71:LYS:O	1:M:74:VAL:HB	2.05	0.56
2:O:428:VAL:HG12	2:O:429:MET:N	2.20	0.56
3:P:1096:PRO:O	3:P:1098:GLN:N	2.38	0.56
5:R:110:LEU:H	5:R:110:LEU:HD12	1.70	0.56
1:A:192:VAL:HB	1:A:195:ARG:O	2.05	0.56
2:C:168:GLY:O	3:D:1065:ALA:HA	2.06	0.56
2:C:523:GLU:HG3	2:C:527:LYS:HE3	1.88	0.56
3:D:115:TRP:CH2	3:D:1329:THR:HA	2.40	0.56
3:D:427:PRO:O	3:D:429:LEU:HG	2.05	0.56
1:G:11:PRO:HB3	1:G:31:LEU:HD23	1.88	0.56
2:I:1104:PRO:HG2	3:J:725:MET:CE	2.33	0.56
2:I:1164:PHE:CD2	2:I:1164:PHE:N	2.74	0.56
3:J:508:LEU:HD12	3:J:508:LEU:O	2.06	0.56
5:L:483:LEU:O	5:L:487:MET:HG3	2.06	0.56
1:N:74:VAL:HG22	1:N:133:LEU:CD2	2.36	0.56
2:O:1311:GLY:O	4:Q:31:GLN:HG2	2.06	0.56
3:P:1330:ARG:NH2	7:8:9:DT:O3'	2.39	0.56
5:R:402:LEU:N	5:R:402:LEU:HD23	2.20	0.56
1:A:235:ARG:HA	1:B:218:ARG:CZ	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:190:ALA:HB2	1:B:199:ASP:HA	1.88	0.56
2:C:476:LYS:HA	2:C:479:LEU:HD12	1.87	0.56
2:C:499:SER:CB	2:C:503:LYS:HZ2	2.18	0.56
3:D:741:ALA:C	3:D:762:ASN:HD22	2.14	0.56
3:D:1314:LEU:HD21	3:D:1325:PHE:HD2	1.69	0.56
5:F:506:SER:O	5:F:509:THR:OG1	2.21	0.56
2:I:695:ALA:HB1	2:I:795:ALA:CB	2.36	0.56
3:J:322:ARG:NH2	5:L:508:GLU:C	2.64	0.56
1:M:75:GLN:HE22	2:O:727:VAL:CB	2.11	0.56
2:O:12:ARG:HD3	2:O:1183:ALA:HB2	1.87	0.56
3:P:294:ASN:HD21	5:R:101:TYR:HB2	1.70	0.56
3:P:975:ILE:HD11	3:P:1003:LEU:HD11	1.88	0.56
3:P:1152:GLU:HB3	3:P:1194:ARG:HH12	1.71	0.56
5:R:506:SER:O	5:R:509:THR:OG1	2.22	0.56
2:C:759:SER:HA	2:C:765:ILE:HD11	1.88	0.55
3:D:310:GLY:CA	3:D:315:ALA:HB2	2.36	0.55
1:G:75:GLN:NE2	2:I:727:VAL:HB	2.21	0.55
2:I:720:ARG:CD	2:I:736:VAL:HG21	2.37	0.55
2:I:1212:LEU:HD12	2:I:1225:VAL:HB	1.88	0.55
3:J:378:LYS:HE2	3:J:382:TYR:OH	2.05	0.55
5:L:333:VAL:O	5:L:337:VAL:HG23	2.06	0.55
5:L:457:ILE:O	5:L:461:ASN:CG	2.49	0.55
5:L:461:ASN:OD1	5:L:461:ASN:N	2.36	0.55
2:O:335:THR:CG2	2:O:336:LEU:N	2.68	0.55
5:R:407:GLU:HG2	5:R:442:SER:CB	2.35	0.55
3:D:886:VAL:HG21	3:D:1230:THR:HG21	1.87	0.55
5:F:102:MET:HE2	6:1:43:DT:O2	2.06	0.55
1:G:39:LEU:O	1:G:43:LEU:HD12	2.07	0.55
1:G:86:LYS:HE3	1:G:173:VAL:HG12	1.88	0.55
1:G:185:TYR:CD2	1:G:185:TYR:O	2.59	0.55
2:I:402:ARG:NH2	2:I:417:SER:O	2.27	0.55
2:I:790:ASP:HB2	2:I:795:ALA:HB2	1.87	0.55
2:I:1294:LYS:HB3	3:J:347:VAL:HG13	1.87	0.55
3:J:711:GLY:O	3:P:1302:TYR:CE2	2.60	0.55
1:N:44:ARG:HE	1:N:185:TYR:HE1	1.53	0.55
2:O:136:PHE:HB3	2:O:138:ILE:HD11	1.87	0.55
2:O:426:ILE:HG22	2:O:427:ASP:N	2.20	0.55
2:O:1334:GLY:O	3:P:25:ALA:HB2	2.05	0.55
3:P:166:LEU:HD23	3:P:169:LEU:HD22	1.87	0.55
3:P:678:ARG:HG2	3:P:678:ARG:HH11	1.71	0.55
3:P:839:VAL:CG1	3:P:864:LEU:HD12	2.33	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:894:VAL:HG21	3:P:915:ILE:HD12	1.88	0.55
1:B:169:GLY:O	1:B:171:LEU:HG	2.06	0.55
2:C:501:ALA:O	2:C:504:GLU:HB2	2.06	0.55
2:C:521:LEU:HD21	2:C:686:GLN:HB3	1.87	0.55
2:C:798:GLN:HG2	2:C:827:ARG:HH21	1.72	0.55
2:C:810:TYR:CE1	3:D:359:PRO:HG3	2.41	0.55
2:C:886:LYS:HD2	2:C:916:SER:CB	2.18	0.55
3:D:282:LEU:HD11	3:D:291:ILE:HG22	1.88	0.55
3:D:368:LEU:HG	3:D:373:ALA:HB2	1.88	0.55
3:D:502:PRO:CB	3:D:601:ILE:HD13	2.35	0.55
3:D:931:THR:O	3:D:935:PHE:CD2	2.60	0.55
3:D:1226:VAL:O	3:D:1229:VAL:HG12	2.07	0.55
1:G:145:LYS:HD3	1:G:147:GLN:HE21	1.70	0.55
1:G:230:ALA:CB	1:H:11:PRO:HB2	2.36	0.55
2:I:94:ALA:HB2	2:I:129:LEU:HD11	1.89	0.55
2:I:812:PHE:O	2:I:1099:ASN:ND2	2.39	0.55
2:I:1257:GLN:HG2	2:I:1296:ASP:OD1	2.06	0.55
3:J:33:TRP:HE3	3:J:102:MET:HE1	1.70	0.55
2:O:15:PHE:HE2	2:O:1182:ILE:HD13	1.71	0.55
2:O:678:ARG:NE	2:O:1106:ARG:HB3	2.20	0.55
2:O:1122:LYS:HG3	2:O:1229:TYR:CZ	2.41	0.55
3:P:118:LYS:NZ	3:P:132:LEU:HD21	2.21	0.55
3:P:378:LYS:HE2	3:P:382:TYR:OH	2.05	0.55
3:P:478:LEU:HB3	4:Q:20:VAL:HG13	1.87	0.55
3:P:570:LYS:HD2	3:P:589:TYR:CD2	2.42	0.55
5:R:290:LEU:O	5:R:294:GLN:HB3	2.07	0.55
2:C:902:LEU:HD12	2:C:905:ILE:HD12	1.87	0.55
2:C:1104:PRO:HD3	3:D:725:MET:HE1	1.89	0.55
3:D:255:LEU:HD22	3:D:256:ASP:OD1	2.06	0.55
3:D:421:VAL:CG1	3:D:468:VAL:HG12	2.36	0.55
3:D:1191:PRO:HD2	3:D:1194:ARG:HD2	1.88	0.55
5:F:315:TRP:CH2	5:F:341:LEU:HD11	2.41	0.55
7:2:4:DC:C4	7:2:5:DC:N4	2.75	0.55
1:H:97:GLU:HB2	1:H:147:GLN:HG2	1.88	0.55
2:I:363:LEU:CD2	2:I:385:PHE:HB2	2.37	0.55
3:J:470:VAL:O	3:J:472:LEU:CD2	2.51	0.55
3:J:572:THR:OG1	3:J:576:ARG:HB2	2.07	0.55
3:J:865:HIS:HB3	3:J:868:TRP:HD1	1.71	0.55
1:N:179:PRO:CG	1:N:211:ILE:HD12	2.20	0.55
2:O:237:LEU:O	2:O:287:VAL:HG13	2.06	0.55
2:O:344:GLY:CA	2:O:346:TYR:CE2	2.77	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:373:GLY:CA	5:R:91:ILE:HG12	2.37	0.55
2:O:599:VAL:CG2	2:O:623:LEU:HD22	2.30	0.55
3:P:398:LYS:HZ3	5:R:532:LEU:HB3	1.71	0.55
3:P:508:LEU:HD12	3:P:508:LEU:O	2.06	0.55
3:P:599:LYS:HG3	3:P:600:ALA:H	1.71	0.55
3:P:1135:THR:O	3:P:1139:PRO:HD2	2.07	0.55
1:B:9:LEU:HD23	1:B:32:GLU:N	2.20	0.55
1:B:57:THR:CG2	1:B:158:ARG:NH1	2.69	0.55
2:C:528:ARG:CD	2:C:663:VAL:HG21	2.30	0.55
2:C:685:MET:HE2	2:C:1073:LYS:HB3	1.88	0.55
2:C:725:GLN:O	2:C:773:LEU:CD1	2.53	0.55
3:D:76:LYS:O	3:D:80:HIS:ND1	2.39	0.55
3:D:966:VAL:O	3:D:966:VAL:HG13	2.06	0.55
3:D:1176:VAL:HG22	3:D:1187:GLU:HG2	1.89	0.55
2:I:160:ASP:HB3	2:I:163:LYS:CG	2.37	0.55
3:J:114:ILE:HG22	3:J:307:LEU:HD12	1.87	0.55
3:J:353:SER:HB3	3:J:447:ILE:HD11	1.88	0.55
3:J:450:HIS:NE2	3:J:625:MET:SD	2.79	0.55
5:L:586:ARG:HB2	6:4:13:DT:H72	1.88	0.55
1:M:86:LYS:HE2	1:M:173:VAL:HG12	1.87	0.55
2:O:136:PHE:CB	2:O:138:ILE:HD11	2.37	0.55
3:P:104:HIS:HA	3:P:244:VAL:HG23	1.89	0.55
5:R:454:VAL:CG2	5:R:455:HIS:N	2.55	0.55
1:B:39:LEU:HD23	1:B:39:LEU:N	2.22	0.55
2:C:201:ARG:HB3	2:C:369:MET:CE	2.33	0.55
2:C:229:ILE:HB	2:C:240:GLU:HB2	1.87	0.55
3:D:397:ALA:O	3:D:401:VAL:HG23	2.06	0.55
3:D:431:ARG:HH21	3:D:904:ALA:CB	2.20	0.55
5:F:502:LYS:NZ	5:F:505:ILE:HD11	2.22	0.55
3:J:381:ILE:HD11	3:J:412:LEU:HD13	1.89	0.55
3:J:519:ASN:HB3	3:J:523:GLU:CD	2.31	0.55
3:J:1257:VAL:HA	3:J:1260:MET:HE2	1.88	0.55
5:L:166:VAL:HG12	5:L:167:ASP:H	1.71	0.55
7:5:22:DA:O3'	7:5:23:DT:C6	2.56	0.55
1:M:49:SER:HB2	1:N:33:ARG:HH12	1.71	0.55
2:O:840:SER:OG	2:O:1048:LYS:N	2.40	0.55
2:O:950:GLU:HA	2:O:953:LEU:CD1	2.37	0.55
3:P:997:VAL:CG1	3:P:1003:LEU:HD21	2.35	0.55
5:R:84:LEU:CD1	5:R:107:THR:HG21	2.37	0.55
1:A:109:PRO:CB	1:A:132:HIS:HD2	2.19	0.55
1:B:61:ILE:HB	1:B:64:VAL:CB	2.33	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:113:THR:O	2:C:113:THR:OG1	2.19	0.55
2:C:208:ILE:HG23	2:C:209:ILE:N	2.21	0.55
2:C:232:ILE:HG23	2:C:237:LEU:CD2	2.37	0.55
2:C:402:ARG:HD2	2:C:406:ASN:HD21	1.70	0.55
2:C:424:ASP:O	2:C:428:VAL:HG23	2.07	0.55
2:C:808:ASN:HD22	3:D:633:ALA:HB2	1.70	0.55
2:C:1286:THR:O	2:C:1289:GLU:HB2	2.06	0.55
3:D:102:MET:HE3	3:D:246:PRO:HD3	1.88	0.55
3:D:555:TYR:CB	3:D:586:GLY:HA2	2.36	0.55
5:F:101:TYR:CE2	5:F:388:ILE:HD12	2.41	0.55
1:G:44:ARG:HA	1:G:183:ILE:HD13	1.88	0.55
2:I:448:LEU:CD1	2:I:553:THR:HB	2.36	0.55
2:I:617:ALA:HA	2:I:636:CYS:SG	2.47	0.55
2:I:785:ASP:HB3	2:I:789:THR:OG1	2.06	0.55
3:J:759:ILE:HG23	3:J:771:GLN:CD	2.32	0.55
3:J:1259:GLN:OE1	3:J:1262:ARG:CZ	2.55	0.55
5:L:119:ILE:O	5:L:123:ILE:HG13	2.07	0.55
2:O:60:GLN:O	2:O:476:LYS:CE	2.54	0.55
2:O:898:GLU:CD	2:O:898:GLU:H	2.14	0.55
3:P:258:GLY:HA3	5:R:499:LYS:NZ	2.21	0.55
3:P:342:LEU:HB3	3:P:1352:ILE:HG23	1.89	0.55
3:P:351:GLY:O	3:P:468:VAL:HG23	2.06	0.55
5:R:98:VAL:HG12	5:R:99:ARG:HD3	1.88	0.55
2:C:426:ILE:O	2:C:430:LYS:HG3	2.06	0.55
3:D:481:ARG:O	3:D:485:MET:HB2	2.07	0.55
2:I:392:GLU:CD	2:I:392:GLU:H	2.13	0.55
2:I:805:MET:HE3	2:I:806:PRO:HD2	1.88	0.55
3:J:309:ASN:HD21	3:J:316:ILE:N	2.04	0.55
3:J:829:GLY:HA2	3:J:995:TYR:CD1	2.41	0.55
3:J:1230:THR:O	3:J:1234:VAL:HG23	2.07	0.55
4:K:44:ASP:OD2	4:K:48:VAL:HG11	2.06	0.55
7:5:51:DG:H2"	7:5:52:DT:H71	1.89	0.55
2:O:696:ASP:HB2	2:O:798:GLN:HG2	1.88	0.55
2:O:1269:ARG:NH1	3:P:340:GLN:HG3	2.22	0.55
2:O:1286:THR:O	2:O:1290:MET:HG2	2.07	0.55
3:P:1184:ASP:OD1	3:P:1184:ASP:N	2.37	0.55
3:D:1134:ILE:HG21	3:D:1138:LEU:HD13	1.89	0.55
4:E:25:ARG:NH1	4:E:65:ASP:OD1	2.40	0.55
2:I:112:GLY:C	2:I:114:VAL:H	2.13	0.55
2:I:402:ARG:HG2	2:I:416:GLY:CA	2.36	0.55
2:I:514:PHE:CE2	7:5:19:DA:N3	2.74	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:121:PRO:O	3:J:122:SER:CB	2.53	0.55
3:J:354:VAL:CG1	3:J:355:ILE:N	2.70	0.55
3:J:378:LYS:HG2	3:J:382:TYR:OH	2.07	0.55
5:L:153:ALA:O	5:L:155:GLU:N	2.39	0.55
5:L:532:LEU:CD1	5:L:532:LEU:N	2.70	0.55
1:M:31:LEU:CD1	1:M:201:LEU:HB2	2.37	0.55
2:O:213:LEU:O	2:O:214:ASN:HB3	2.07	0.55
2:O:1271:GLY:O	2:O:1275:VAL:HG23	2.06	0.55
3:P:546:ALA:O	3:P:548:VAL:HG23	2.07	0.55
3:P:768:ASN:ND2	3:P:771:GLN:HG3	2.22	0.55
5:R:141:ILE:HD13	5:R:224:LEU:HD11	1.88	0.55
1:B:214:GLU:O	1:B:217:ILE:HB	2.07	0.55
2:C:16:GLY:O	2:C:1156:ARG:HB3	2.06	0.55
2:C:797:GLY:HA3	2:C:1233:LEU:HD21	1.89	0.55
2:C:1312:ASN:HD21	2:C:1314:GLN:HB3	1.71	0.55
3:D:839:VAL:O	3:D:839:VAL:HG12	2.05	0.55
5:F:574:GLU:OE1	5:F:574:GLU:HA	2.07	0.55
2:I:1107:MET:HE3	3:J:740:LEU:HG	1.89	0.55
3:J:198:CYS:O	3:J:202:ARG:HG3	2.07	0.55
3:J:432:LEU:HD11	3:J:499:ILE:CD1	2.37	0.55
3:J:922:SER:O	3:J:926:PRO:HD3	2.07	0.55
3:J:1163:VAL:HG12	3:J:1175:LEU:HD11	1.88	0.55
2:O:657:THR:O	2:O:660:VAL:HG23	2.06	0.55
3:P:1288:ALA:O	3:P:1292:LEU:HG	2.06	0.55
5:R:440:THR:HA	5:R:443:ILE:HG22	1.87	0.55
2:C:180:ARG:HG2	2:C:394:ARG:O	2.06	0.54
2:C:400:VAL:HG12	2:C:401:GLY:N	2.22	0.54
2:C:502:VAL:HG13	2:C:506:PHE:CE2	2.41	0.54
2:C:678:ARG:CZ	2:C:1106:ARG:HD2	2.37	0.54
3:D:537:TYR:CD1	3:D:544:LEU:HG	2.42	0.54
3:D:556:GLU:CB	3:D:564:VAL:HB	2.16	0.54
5:F:388:ILE:HG23	5:F:392:LYS:NZ	2.22	0.54
5:F:407:GLU:CD	5:F:442:SER:CB	2.80	0.54
6:1:58:DG:N2	7:2:6:DG:C2	2.75	0.54
1:G:191:ARG:HH12	3:P:1372:ARG:HG2	1.72	0.54
1:H:223:ILE:O	1:H:227:GLN:HG2	2.07	0.54
2:I:448:LEU:CG	2:I:553:THR:HB	2.37	0.54
2:I:1242:LYS:HD3	3:J:354:VAL:HG23	1.88	0.54
3:J:367:GLY:HA3	3:J:448:GLN:HB2	1.88	0.54
3:J:551:ARG:O	3:J:552:ILE:HD13	2.07	0.54
2:O:1277:ALA:O	2:O:1280:ALA:HB3	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:46:TYR:HD2	5:R:500:ILE:HD13	1.72	0.54
3:P:1090:ILE:HG23	3:P:1091:PRO:HD2	1.89	0.54
5:R:102:MET:HB3	6:7:42:DG:N2	2.22	0.54
5:R:564:GLY:HA2	5:R:567:MET:HB2	1.89	0.54
1:A:9:LEU:O	1:B:227:GLN:OE1	2.26	0.54
1:A:187:VAL:HG22	1:A:201:LEU:CD1	2.37	0.54
2:C:13:LYS:HE3	2:C:1149:TYR:O	2.07	0.54
2:C:282:VAL:HG11	2:C:285:ILE:HD11	1.89	0.54
3:D:709:ARG:HG3	3:D:709:ARG:O	2.07	0.54
3:D:1350:ASN:HA	3:D:1353:VAL:HG22	1.90	0.54
6:1:50:DT:H3'	6:1:51:DC:H5'	1.88	0.54
2:I:40:GLU:HG2	2:I:42:ASP:HB2	1.88	0.54
2:I:496:LYS:CB	2:I:497:PRO:HD3	2.37	0.54
2:I:897:PRO:CB	5:L:565:ILE:HA	2.37	0.54
2:I:1072:ASN:OD1	2:I:1072:ASN:N	2.36	0.54
2:I:1270:PHE:HB2	3:J:347:VAL:HG21	1.87	0.54
1:M:45:ARG:HD3	1:N:38:THR:OG1	2.06	0.54
2:O:138:ILE:HD13	2:O:138:ILE:N	2.21	0.54
2:O:313:ALA:O	2:O:314:ASN:CB	2.56	0.54
2:O:851:THR:HG22	2:O:852:ALA:N	2.22	0.54
2:O:906:PHE:C	2:O:908:GLU:H	2.15	0.54
2:O:949:GLU:O	2:O:953:LEU:HG	2.06	0.54
3:P:294:ASN:HB3	5:R:406:GLN:HE22	1.71	0.54
3:P:621:ALA:O	3:P:624:ILE:HB	2.07	0.54
4:Q:44:ASP:CG	4:Q:52:ARG:NH2	2.65	0.54
1:A:47:LEU:CD1	1:A:183:ILE:CD1	2.84	0.54
2:C:559:CYS:HB2	2:C:662:SER:HB3	1.88	0.54
3:D:714:GLU:HG2	3:D:715:LYS:H	1.70	0.54
3:D:793:SER:HB2	3:D:1138:LEU:HD21	1.89	0.54
3:D:959:LYS:HD2	3:D:985:ILE:HG13	1.89	0.54
5:F:420:GLU:HB2	5:F:423:ARG:HG2	1.89	0.54
2:I:549:ASP:OD2	3:J:781:LYS:HD3	2.07	0.54
2:I:813:GLU:CB	3:J:461:PHE:HD2	2.16	0.54
2:I:953:LEU:HB3	2:I:954:LYS:HD2	1.89	0.54
3:J:828:GLY:O	3:J:994:SER:C	2.50	0.54
5:L:288:MET:HA	5:L:291:CYS:HB2	1.89	0.54
7:5:5:DC:C2'	7:5:6:DG:H5'	2.36	0.54
2:O:803:ALA:HB2	2:O:1094:VAL:HG11	1.88	0.54
2:O:1232:MET:C	2:O:1233:LEU:HG	2.32	0.54
3:P:518:VAL:HG13	3:P:714:GLU:OE1	2.07	0.54
3:P:749:LYS:HG3	3:P:755:ILE:HG12	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:87:VAL:CG1	5:R:103:ARG:CD	2.84	0.54
1:A:11:PRO:CD	1:B:227:GLN:HA	2.38	0.54
1:B:86:LYS:CE	1:B:173:VAL:HG12	2.30	0.54
3:D:378:LYS:HB3	3:D:379:PRO:HD3	1.88	0.54
3:D:744:ARG:HH11	3:D:763:PHE:HZ	1.55	0.54
5:F:96:ASP:HB3	5:F:99:ARG:HG2	1.89	0.54
5:F:262:VAL:HG13	5:F:263:PRO:HD2	1.90	0.54
6:1:34:DG:N2	7:2:30:DA:C2	2.75	0.54
1:G:44:ARG:N	1:G:47:LEU:HD12	2.21	0.54
2:I:807:TRP:CG	2:I:817:LEU:HD11	2.43	0.54
2:I:1044:PRO:HB3	5:L:498:LEU:HB3	1.89	0.54
3:J:601:ILE:HG22	3:J:602:SER:CA	2.37	0.54
3:J:899:TYR:CG	3:J:915:ILE:HD13	2.43	0.54
3:J:952:VAL:HG13	3:J:984:LEU:HD13	1.88	0.54
3:J:967:VAL:HG22	3:J:973:LEU:HD12	1.82	0.54
3:J:1082:ASP:HB3	3:J:1088:VAL:CG2	2.38	0.54
1:M:208:ASN:HD22	1:M:208:ASN:N	2.04	0.54
2:O:130:MET:HB2	2:O:136:PHE:CZ	2.43	0.54
2:O:734:ILE:HG22	2:O:751:TYR:HE2	1.72	0.54
2:O:1340:GLU:O	3:P:17:PHE:HB2	2.08	0.54
3:P:497:GLU:HB3	3:P:498:PRO:HD2	1.87	0.54
3:P:822:MET:HE3	3:P:838:ARG:HE	1.72	0.54
3:P:1024:THR:HG21	3:P:1123:ARG:HD3	1.89	0.54
3:P:1040:MET:HE3	3:P:1046:ILE:HG21	1.89	0.54
1:A:208:ASN:H	1:A:208:ASN:ND2	2.05	0.54
2:C:102:LEU:HD21	2:C:104:ILE:HD11	1.90	0.54
2:C:211:ARG:NH1	2:C:357:ASN:O	2.40	0.54
2:C:230:PHE:CD1	2:C:292:ILE:HD11	2.42	0.54
2:C:596:ASP:OD1	2:C:596:ASP:N	2.41	0.54
2:C:906:PHE:HE1	5:F:608:ARG:HH22	1.56	0.54
2:C:1087:TYR:CE2	2:C:1213:TYR:HB2	2.43	0.54
3:D:1285:VAL:CG1	3:D:1286:LYS:N	2.70	0.54
5:F:353:LEU:HB3	5:F:358:VAL:HG23	1.89	0.54
6:1:23:DA:C2	7:2:41:DG:N2	2.76	0.54
2:I:870:ILE:HG21	2:I:944:ARG:HE	1.72	0.54
2:I:1164:PHE:H	2:I:1164:PHE:HD2	1.55	0.54
3:J:471:PRO:CB	3:J:476:ALA:HB1	2.37	0.54
3:J:474:LEU:CD1	4:K:28:ARG:HD3	2.38	0.54
5:L:242:HIS:O	5:L:244:THR:N	2.41	0.54
7:5:27:DA:H8	7:5:27:DA:OP2	1.90	0.54
8:6:14:A:H5'	8:6:15:G:OP2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:45:ARG:HD3	1:N:38:THR:CG2	2.36	0.54
3:P:1159:ILE:HG22	3:P:1160:SER:N	2.21	0.54
3:P:1230:THR:O	3:P:1234:VAL:HG23	2.08	0.54
3:P:1357:ILE:H	3:P:1357:ILE:CD1	2.21	0.54
5:R:333:VAL:O	5:R:337:VAL:HG23	2.07	0.54
2:C:797:GLY:N	2:C:1233:LEU:HD21	2.23	0.54
2:C:1117:LEU:HD11	2:C:1182:ILE:HD13	1.89	0.54
3:D:1272:SER:HB2	3:D:1274:PHE:CE2	2.43	0.54
2:I:725:GLN:HB3	2:I:733:VAL:HG23	1.89	0.54
2:I:1289:GLU:OE1	2:I:1294:LYS:HE3	2.08	0.54
3:J:615:LYS:HB2	3:J:616:PRO:HD3	1.89	0.54
3:J:849:LEU:HA	3:J:856:ILE:O	2.07	0.54
3:J:883:ARG:HG2	3:J:898:CYS:HA	1.88	0.54
5:L:469:GLN:O	5:L:472:GLN:HG2	2.07	0.54
2:O:112:GLY:C	2:O:114:VAL:H	2.15	0.54
2:O:764:CYS:CB	2:O:831:ILE:HB	2.37	0.54
2:O:907:GLY:O	2:O:908:GLU:C	2.51	0.54
2:O:953:LEU:O	2:O:957:LYS:HG3	2.07	0.54
2:O:1065:LYS:O	2:O:1235:LEU:HG	2.08	0.54
3:P:130:MET:SD	3:P:135:ILE:HG12	2.48	0.54
3:P:139:LEU:CD2	3:P:185:ILE:CD1	2.84	0.54
3:P:826:ILE:CG1	3:P:831:VAL:HG22	2.26	0.54
3:P:1023:HIS:O	3:P:1024:THR:CB	2.56	0.54
5:R:373:ARG:HG2	5:R:377:LYS:HE3	1.90	0.54
1:A:57:THR:HG22	1:A:58:GLU:HG3	1.88	0.54
1:A:78:ILE:HA	1:A:81:ILE:HD12	1.89	0.54
1:B:44:ARG:HH12	3:D:538:ARG:HD3	1.72	0.54
2:C:82:VAL:HG23	2:C:83:GLN:N	2.22	0.54
2:C:890:LYS:CG	2:C:891:GLY:H	2.20	0.54
2:C:1061:GLN:HE22	3:D:445:LYS:HG3	1.73	0.54
3:D:222:LYS:HE2	3:D:1278:GLU:HG2	1.88	0.54
3:D:592:VAL:O	3:D:592:VAL:HG22	2.08	0.54
3:D:739:GLN:C	3:D:740:LEU:HD23	2.32	0.54
3:D:772:TYR:O	3:D:775:SER:OG	2.23	0.54
1:G:56:VAL:HG13	1:G:144:ILE:HG22	1.86	0.54
1:G:73:GLY:HA3	1:G:138:ALA:HB2	1.90	0.54
2:I:27:LEU:HD22	2:I:528:ARG:NH2	2.23	0.54
2:I:1246:ARG:NH2	2:I:1249:GLY:C	2.64	0.54
3:J:366:CYS:SG	3:J:439:PRO:HA	2.47	0.54
3:J:452:LEU:HB3	3:J:500:ILE:CG2	2.36	0.54
3:J:1323:ALA:O	3:J:1328:THR:HG23	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:4:52:DT:H2"	6:4:53:DG:N7	2.23	0.54
1:M:69:SER:O	1:M:78:ILE:HG13	2.07	0.54
1:N:217:ILE:HG22	1:N:218:ARG:N	2.22	0.54
2:O:344:GLY:HA3	2:O:346:TYR:HE2	1.58	0.54
3:P:1360:GLY:HA2	4:Q:17:PHE:CE2	2.43	0.54
5:R:596:ARG:HA	5:R:599:ARG:HD2	1.88	0.54
1:A:235:ARG:HA	1:B:218:ARG:NH1	2.23	0.54
2:C:402:ARG:NH2	2:C:417:SER:O	2.40	0.54
2:C:790:ASP:O	2:C:792:GLY:N	2.40	0.54
2:C:797:GLY:CA	2:C:1233:LEU:HD21	2.37	0.54
2:C:1294:LYS:HD3	3:D:347:VAL:HG13	1.90	0.54
5:F:137:TYR:HE1	5:F:353:LEU:CD1	2.20	0.54
2:I:146:VAL:O	2:I:511:LEU:HD13	2.07	0.54
2:I:555:TYR:CD1	2:I:637:ARG:NH2	2.76	0.54
2:I:1246:ARG:NH2	2:I:1249:GLY:H	2.06	0.54
3:J:384:LYS:CD	3:J:415:VAL:HG22	2.37	0.54
3:J:492:SER:OG	3:J:495:ASN:N	2.37	0.54
3:J:909:ILE:HD11	3:J:913:GLU:HB3	1.89	0.54
1:M:232:VAL:CG2	1:N:221:ALA:HB1	2.35	0.54
1:N:47:LEU:CD1	1:N:183:ILE:CD1	2.86	0.54
2:O:384:LEU:O	2:O:388:LEU:HG	2.07	0.54
3:P:398:LYS:HZ1	5:R:532:LEU:CG	2.00	0.54
5:R:355:ILE:HA	5:R:358:VAL:HB	1.89	0.54
5:R:586:ARG:O	5:R:590:ILE:HG13	2.08	0.54
1:A:11:PRO:HD3	1:B:227:GLN:HA	1.90	0.54
3:D:1075:ARG:HH21	3:D:1192:LYS:HD3	1.73	0.54
3:D:1087:ASP:HB3	3:D:1096:PRO:HB3	1.90	0.54
5:F:96:ASP:OD2	6:1:44:DG:N2	2.35	0.54
1:H:158:ARG:C	1:H:160:HIS:H	2.15	0.54
2:I:184:LEU:HD11	2:I:389:PHE:CE2	2.43	0.54
2:I:871:VAL:HG12	2:I:872:TYR:O	2.07	0.54
2:I:1227:VAL:HG12	2:I:1228:GLY:N	2.23	0.54
3:J:113:HIS:CD2	3:J:115:TRP:HB2	2.43	0.54
2:O:725:GLN:HB3	2:O:733:VAL:HG23	1.89	0.54
3:P:369:PRO:HB2	3:P:372:MET:HE3	1.89	0.54
3:P:795:TYR:O	3:P:799:ARG:HG3	2.08	0.54
2:C:300:ASP:OD1	2:C:300:ASP:N	2.41	0.54
2:C:1072:ASN:OD1	2:C:1072:ASN:N	2.40	0.54
2:C:1232:MET:HE2	2:C:1232:MET:CA	2.36	0.54
3:D:1067:ARG:HD3	3:D:1071:GLY:O	2.08	0.54
3:J:318:GLY:N	3:J:322:ARG:O	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:734:ALA:O	3:J:737:ILE:HB	2.08	0.54
4:K:26:ARG:O	4:K:30:MET:HG3	2.07	0.54
4:K:53:GLU:HB3	4:K:59:ILE:HG12	1.89	0.54
1:N:102:LEU:HB2	1:N:144:ILE:HD11	1.88	0.54
2:O:563:THR:HG23	2:O:680:LEU:HD11	1.90	0.54
2:O:1161:LEU:O	2:O:1164:PHE:HD2	1.91	0.54
5:R:385:ARG:HA	5:R:388:ILE:CG2	2.37	0.54
3:D:450:HIS:CD2	3:D:452:LEU:H	2.26	0.53
5:F:355:ILE:HA	5:F:358:VAL:HB	1.90	0.53
7:2:24:DT:H72	7:2:25:DA:N6	2.23	0.53
2:I:297:VAL:HG22	2:I:315:MET:O	2.08	0.53
2:I:346:TYR:OH	2:I:436:ARG:CG	2.56	0.53
3:J:322:ARG:HH22	5:L:508:GLU:C	2.16	0.53
5:L:387:VAL:HG12	5:L:388:ILE:N	2.22	0.53
5:L:554:ARG:NH2	6:4:12:DC:OP2	2.32	0.53
1:M:179:PRO:HA	1:M:208:ASN:ND2	2.22	0.53
2:O:514:PHE:HE2	7:8:19:DA:O4'	1.90	0.53
2:O:1278:LEU:CD2	2:O:1286:THR:OG1	2.56	0.53
3:P:99:ARG:HG2	3:P:99:ARG:O	2.09	0.53
3:P:363:LEU:HA	3:P:450:HIS:ND1	2.23	0.53
2:C:798:GLN:HB3	2:C:827:ARG:CZ	2.39	0.53
3:D:1156:LEU:HD12	3:D:1223:LEU:HD12	1.90	0.53
3:D:1308:GLY:H	3:D:1311:LYS:HZ2	1.56	0.53
1:G:28:LEU:HD11	1:H:231:PHE:HE1	1.68	0.53
1:H:102:LEU:CD1	1:H:114:ASP:HB3	2.38	0.53
2:I:366:ILE:HG22	2:I:367:TYR:N	2.23	0.53
2:I:1122:LYS:HG3	2:I:1229:TYR:CE2	2.43	0.53
3:J:120:LEU:CD2	3:J:121:PRO:HA	2.37	0.53
3:J:514:THR:O	3:J:576:ARG:NE	2.40	0.53
3:J:814:CYS:SG	3:J:883:ARG:NH2	2.81	0.53
3:J:817:HIS:O	3:J:845:ALA:CB	2.53	0.53
5:L:361:ILE:O	5:L:365:MET:HB2	2.08	0.53
1:M:51:MET:HE2	1:M:211:ILE:HG13	1.90	0.53
1:N:74:VAL:HG22	1:N:133:LEU:HD21	1.91	0.53
2:O:1289:GLU:OE2	3:P:473:THR:N	2.41	0.53
3:P:75:TYR:CD2	3:P:85:CYS:SG	3.01	0.53
3:P:1319:PHE:CZ	3:P:1342:ASP:HB2	2.43	0.53
2:C:1237:HIS:HB3	2:C:1242:LYS:HE3	1.89	0.53
3:D:363:LEU:HB2	3:D:622:ASP:OD1	2.08	0.53
1:G:11:PRO:HG2	1:H:231:PHE:CZ	2.44	0.53
1:G:44:ARG:HA	1:G:47:LEU:CD1	2.18	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:36:GLN:HA	2:I:39:ILE:CD1	2.38	0.53
5:L:280:VAL:HG12	5:L:284:GLU:OE2	2.08	0.53
6:4:37:DA:P	6:4:37:DA:H8	2.31	0.53
2:O:309:LEU:N	2:O:309:LEU:HD23	2.24	0.53
2:O:812:PHE:O	3:P:504:GLN:OE1	2.26	0.53
2:O:1299:ASN:O	2:O:1302:THR:HG22	2.09	0.53
3:P:768:ASN:C	3:P:768:ASN:OD1	2.52	0.53
3:P:882:VAL:O	3:P:882:VAL:CG2	2.56	0.53
5:R:153:ALA:O	5:R:155:GLU:N	2.41	0.53
1:A:32:GLU:HA	1:A:198:LEU:HD22	1.91	0.53
1:A:59:VAL:O	1:A:171:LEU:HG	2.09	0.53
1:G:56:VAL:CG1	1:G:144:ILE:CG2	2.84	0.53
1:H:43:LEU:C	1:H:47:LEU:HD12	2.33	0.53
2:I:953:LEU:HD22	2:I:957:LYS:NZ	2.23	0.53
2:I:1252:SER:CA	2:I:1259:LEU:HD21	2.37	0.53
3:J:739:GLN:CG	3:J:744:ARG:HG3	2.38	0.53
1:N:65:LEU:HA	1:N:169:GLY:HA2	1.90	0.53
2:O:237:LEU:HB2	2:O:287:VAL:HG22	1.90	0.53
2:O:476:LYS:HA	2:O:479:LEU:HD12	1.90	0.53
2:O:1235:LEU:N	2:O:1235:LEU:HD23	2.23	0.53
3:P:291:ILE:HG23	5:R:409:ASN:HD22	1.73	0.53
5:R:410:ILE:HA	5:R:413:MET:HG2	1.89	0.53
6:7:30:DG:C2	7:8:34:DG:C2	2.97	0.53
7:8:5:DC:C2'	7:8:6:DG:H5'	2.34	0.53
1:B:65:LEU:HD22	1:B:168:ILE:HG22	1.89	0.53
2:C:2:VAL:CG1	2:C:3:TYR:N	2.72	0.53
2:C:57:PHE:HD1	2:C:58:PRO:HA	1.71	0.53
3:D:357:VAL:HG12	3:D:359:PRO:HD3	1.89	0.53
3:D:452:LEU:HB3	3:D:500:ILE:CG2	2.39	0.53
3:D:518:VAL:HA	3:D:547:ARG:CZ	2.39	0.53
3:D:1154:ALA:CA	3:D:1211:SER:HB2	2.38	0.53
5:F:291:CYS:O	5:F:295:CYS:HB2	2.07	0.53
1:G:86:LYS:HE3	1:G:173:VAL:CG1	2.39	0.53
2:I:398:SER:OG	2:I:399:ALA:N	2.41	0.53
3:J:24:LEU:CD1	3:J:232:ASN:HB3	2.39	0.53
3:J:497:GLU:HB3	3:J:498:PRO:HD2	1.90	0.53
3:J:809:VAL:HG21	3:J:915:ILE:HD11	1.89	0.53
5:L:554:ARG:HH12	6:4:12:DC:P	2.31	0.53
1:M:68:TYR:CB	2:O:929:ILE:HD12	2.38	0.53
2:O:120:GLN:OE1	2:O:489:PRO:HG2	2.09	0.53
2:O:869:GLY:C	2:O:870:ILE:HD13	2.34	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:901:LEU:O	2:O:901:LEU:HD12	2.08	0.53
2:O:931:VAL:HG12	2:O:932:GLN:N	2.24	0.53
3:P:822:MET:HE3	3:P:838:ARG:HG2	1.89	0.53
5:R:390:ILE:HD13	5:R:432:THR:HA	1.90	0.53
1:A:46:ILE:HD11	1:B:38:THR:HG21	1.90	0.53
2:C:271:ALA:HA	2:C:274:ILE:HD12	1.89	0.53
2:C:558:VAL:O	2:C:560:PRO:HD3	2.09	0.53
3:D:718:SER:OG	3:D:719:PHE:N	2.40	0.53
3:D:1244:GLN:HA	3:D:1244:GLN:OE1	2.08	0.53
5:F:355:ILE:HG22	5:F:359:LYS:HE3	1.90	0.53
1:G:33:ARG:HB3	1:G:33:ARG:NH1	2.23	0.53
2:I:1286:THR:CB	3:J:479:GLU:OE2	2.56	0.53
3:J:706:VAL:O	3:J:706:VAL:HG12	2.08	0.53
3:J:1259:GLN:NE2	3:J:1259:GLN:HA	2.24	0.53
2:O:177:ILE:HG22	2:O:177:ILE:O	2.08	0.53
2:O:1183:ALA:O	2:O:1185:PRO:HD3	2.07	0.53
3:P:614:LEU:O	3:P:618:VAL:HG23	2.08	0.53
3:P:814:CYS:HB3	3:P:890:THR:OG1	2.09	0.53
3:P:1138:LEU:CB	3:P:1139:PRO:HD3	2.37	0.53
2:C:207:THR:HB	2:C:350:THR:HG22	1.91	0.53
2:C:859:GLU:HG2	2:C:862:LEU:CD1	2.27	0.53
3:D:108:ALA:HB3	3:D:279:LEU:HD23	1.90	0.53
3:D:154:LEU:HD13	3:D:158:GLN:HG2	1.90	0.53
3:D:822:MET:HE1	3:D:842:ARG:HH11	1.72	0.53
1:G:80:GLU:O	1:G:84:ASN:ND2	2.41	0.53
2:I:149:LEU:HD21	2:I:451:ARG:HH21	1.73	0.53
2:I:690:VAL:CG1	2:I:691:PRO:CD	2.79	0.53
2:I:1005:GLU:HG2	2:I:1006:GLU:N	2.17	0.53
2:I:1183:ALA:O	2:I:1185:PRO:HD3	2.08	0.53
3:J:91:GLU:HG2	3:J:92:VAL:N	2.22	0.53
3:J:382:TYR:OH	3:J:398:LYS:HE3	2.08	0.53
3:J:521:LYS:HD3	3:J:543:SER:HB2	1.89	0.53
3:J:1208:ASP:O	3:J:1210:ILE:CD1	2.55	0.53
2:O:839:VAL:HG22	2:O:1049:ILE:HG12	1.91	0.53
2:O:950:GLU:HA	2:O:953:LEU:HG	1.89	0.53
1:B:47:LEU:HD13	1:B:183:ILE:HD11	1.85	0.53
2:C:806:PRO:HD3	3:D:637:ALA:O	2.09	0.53
2:C:809:GLY:O	3:D:357:VAL:HG11	2.09	0.53
2:C:871:VAL:HG23	2:C:883:LEU:HA	1.89	0.53
2:C:1333:LEU:HD11	3:D:331:ILE:CD1	2.39	0.53
3:D:248:ASP:O	3:D:251:PRO:HD3	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:16:GLY:HA3	2:I:1185:PRO:HG2	1.90	0.53
2:I:1258:PRO:HG2	3:J:346:ARG:CB	2.38	0.53
3:J:269:TYR:O	3:J:273:ILE:HG13	2.09	0.53
3:J:673:VAL:CG1	3:J:674:THR:O	2.57	0.53
3:J:1220:ILE:HG23	3:J:1224:ARG:CD	2.38	0.53
4:K:42:GLU:OE1	4:K:52:ARG:NH1	2.41	0.53
1:N:74:VAL:HG11	1:N:131:CYS:SG	2.49	0.53
2:O:209:ILE:CG2	2:O:210:LEU:N	2.72	0.53
2:O:757:THR:HG22	2:O:758:ARG:N	2.23	0.53
3:P:379:PRO:HA	3:P:382:TYR:HD2	1.74	0.53
3:P:541:LEU:O	3:P:542:ALA:HB2	2.09	0.53
3:P:620:PHE:CD2	3:P:624:ILE:HD11	2.43	0.53
3:P:644:MET:HB3	3:P:741:ALA:HB2	1.90	0.53
3:P:848:VAL:CG2	3:P:880:VAL:HG13	2.39	0.53
3:P:1023:HIS:O	3:P:1024:THR:HB	2.08	0.53
5:R:267:ASP:O	5:R:271:ASN:ND2	2.41	0.53
1:B:166:ARG:HG2	1:B:167:PRO:HD2	1.90	0.53
2:C:241:LEU:HD23	2:C:285:ILE:HD12	1.90	0.53
3:D:201:LEU:HD23	3:D:204:GLU:OE1	2.08	0.53
3:D:497:GLU:CB	3:D:498:PRO:HD2	2.36	0.53
7:2:29:DC:H2''	7:2:30:DA:N7	2.24	0.53
1:H:168:ILE:CD1	3:P:867:GLN:HB3	2.34	0.53
2:I:634:VAL:CG1	2:I:635:THR:N	2.72	0.53
3:J:1259:GLN:HE22	3:J:1262:ARG:NH2	2.06	0.53
5:L:407:GLU:HG2	5:L:442:SER:HB3	1.91	0.53
2:C:225:PHE:HE2	2:C:347:ILE:HB	1.73	0.53
2:C:529:ARG:C	2:C:530:ILE:HG13	2.34	0.53
2:C:1101:LEU:HD23	3:D:504:GLN:CG	2.38	0.53
2:C:1286:THR:O	2:C:1290:MET:HG2	2.09	0.53
3:D:664:ILE:HD13	3:D:681:LYS:HE2	1.90	0.53
3:D:958:ILE:HG13	3:D:1011:VAL:HG13	1.91	0.53
3:D:1040:MET:HE1	3:D:1107:VAL:HG21	1.91	0.53
3:D:1179:PRO:HD3	3:D:1184:ASP:O	2.07	0.53
5:F:511:ILE:HG13	5:F:517:SER:OG	2.09	0.53
3:J:412:LEU:HD23	3:J:441:LEU:HD11	1.91	0.53
3:J:450:HIS:NE2	3:J:625:MET:HE1	2.23	0.53
3:J:1163:VAL:HG11	3:J:1175:LEU:HG	1.91	0.53
5:L:460:ILE:O	5:L:464:ASN:ND2	2.42	0.53
2:O:17:LYS:NZ	2:O:1194:GLU:OE1	2.26	0.53
2:O:113:THR:HG23	2:O:114:VAL:HG13	1.90	0.53
3:P:320:ASN:O	3:P:321:LYS:HB2	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:386:LEU:HD22	6:7:41:DT:N3	2.24	0.53
1:A:11:PRO:HG2	1:B:231:PHE:CE2	2.43	0.52
2:C:616:ILE:HG12	2:C:652:TYR:HB2	1.91	0.52
2:C:805:MET:HG2	2:C:1097:VAL:HG13	1.90	0.52
2:C:816:ILE:CG2	2:C:818:VAL:HG13	2.34	0.52
3:D:470:VAL:O	3:D:472:LEU:HD23	2.09	0.52
3:D:549:LYS:NZ	3:D:569:LEU:HD13	2.25	0.52
3:D:743:MET:HG3	3:D:759:ILE:O	2.09	0.52
3:J:141:PHE:HA	3:J:180:MET:HG2	1.91	0.52
3:J:425:ARG:NH1	3:J:427:PRO:HD2	2.24	0.52
3:J:1239:ASP:O	3:J:1243:LEU:HG	2.09	0.52
1:N:219:ARG:O	1:N:223:ILE:HG13	2.09	0.52
2:O:34:SER:OG	2:O:455:SER:HB2	2.09	0.52
2:O:255:ILE:HG23	2:O:285:ILE:HG21	1.91	0.52
2:O:373:GLY:HA2	5:R:91:ILE:CG1	2.39	0.52
2:O:428:VAL:HG12	2:O:429:MET:H	1.74	0.52
2:O:1309:VAL:HG22	3:P:379:PRO:O	2.08	0.52
3:P:128:LEU:HD11	3:P:189:LEU:CD2	2.39	0.52
7:8:14:DC:H2'	7:8:15:DT:C6	2.44	0.52
1:B:39:LEU:O	1:B:43:LEU:HD12	2.09	0.52
1:B:168:ILE:HG22	1:B:169:GLY:N	2.23	0.52
5:F:135:ALA:CB	5:F:256:PHE:CB	2.76	0.52
2:I:854:ILE:HG22	2:I:857:VAL:CG2	2.36	0.52
3:J:1019:ASN:O	3:J:1020:TRP:HB3	2.10	0.52
3:J:1229:VAL:HG22	3:J:1233:ILE:HD11	1.91	0.52
4:Q:6:VAL:HG13	4:Q:51:LEU:HD22	1.91	0.52
5:R:381:GLU:HA	5:R:384:LEU:HD21	1.91	0.52
1:B:190:ALA:HB3	1:B:199:ASP:CA	2.40	0.52
2:C:1121:ALA:HA	2:C:1124:ILE:CD1	2.40	0.52
3:D:372:MET:O	3:D:376:LEU:HG	2.09	0.52
3:D:836:ARG:HD2	3:D:873:GLU:OE2	2.10	0.52
1:H:97:GLU:HG3	1:H:147:GLN:HE21	1.74	0.52
2:I:169:LYS:O	2:I:171:LEU:HG	2.09	0.52
2:I:209:ILE:HD11	2:I:425:ILE:HD13	1.91	0.52
2:I:805:MET:HE2	2:I:806:PRO:HD2	1.90	0.52
2:I:1085:MET:CE	2:I:1085:MET:CA	2.86	0.52
2:I:1111:GLN:O	2:I:1115:THR:OG1	2.27	0.52
3:J:700:ASN:O	3:J:704:GLU:HB3	2.09	0.52
6:4:55:DC:H2''	6:4:56:DG:OP2	2.09	0.52
1:M:60:GLU:O	1:M:142:MET:HB2	2.09	0.52
2:O:150:HIS:CE1	2:O:454:ARG:HD2	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:178:PRO:CG	2:O:395:TYR:CE1	2.93	0.52
2:O:1289:GLU:OE1	3:P:472:LEU:HG	2.09	0.52
3:P:966:VAL:HG13	3:P:966:VAL:O	2.10	0.52
1:B:152:TYR:OH	1:B:174:ASP:HB3	2.09	0.52
2:C:202:ARG:HB2	2:C:369:MET:CE	2.40	0.52
2:C:275:ARG:NH1	2:C:278:GLU:OE1	2.42	0.52
2:C:359:ARG:HG2	2:C:363:LEU:HD12	1.92	0.52
2:C:1296:ASP:OD2	3:D:345:LYS:NZ	2.36	0.52
3:D:245:LEU:HD12	3:D:246:PRO:HD2	1.90	0.52
3:D:549:LYS:HZ3	3:D:569:LEU:HD13	1.74	0.52
3:D:932:MET:HE1	8:3:16:U:H2'	1.91	0.52
5:F:466:ILE:CD1	5:F:487:MET:SD	2.98	0.52
6:1:58:DG:N2	7:2:6:DG:N3	2.57	0.52
2:I:14:ASP:HA	2:I:1183:ALA:HB3	1.91	0.52
2:I:427:ASP:O	2:I:430:LYS:HB2	2.10	0.52
2:I:797:GLY:CA	2:I:1233:LEU:HD21	2.39	0.52
2:I:851:THR:HG22	2:I:852:ALA:N	2.25	0.52
3:J:22:ILE:HD12	3:J:1319:PHE:CE1	2.44	0.52
3:J:1151:LYS:O	3:J:1153:PRO:HD3	2.10	0.52
5:L:119:ILE:HG23	5:L:122:ARG:NH2	2.23	0.52
1:M:46:ILE:N	1:M:46:ILE:CD1	2.73	0.52
2:O:1047:LEU:O	2:O:1048:LYS:HG3	2.09	0.52
3:P:118:LYS:HZ2	3:P:132:LEU:HD21	1.72	0.52
3:P:746:LEU:HD23	3:P:758:PRO:HB3	1.92	0.52
5:R:461:ASN:O	5:R:465:ARG:HG3	2.09	0.52
2:C:275:ARG:NH1	2:C:278:GLU:OE2	2.41	0.52
2:C:696:ASP:HB2	2:C:798:GLN:HG2	1.92	0.52
7:2:36:DG:C2'	7:2:37:DA:OP2	2.45	0.52
2:I:452:ARG:NH2	2:I:458:GLU:OE1	2.41	0.52
2:I:796:LEU:C	2:I:1233:LEU:HD21	2.34	0.52
2:I:1325:VAL:HG13	3:J:249:LEU:HD22	1.91	0.52
3:J:502:PRO:HB3	3:J:506:VAL:HG11	1.91	0.52
3:J:843:VAL:HB	3:J:897:HIS:O	2.10	0.52
5:L:386:LEU:N	6:4:41:DT:H1'	2.24	0.52
3:P:280:LYS:HA	3:P:283:LEU:HD12	1.91	0.52
5:R:91:ILE:O	5:R:91:ILE:HG22	2.08	0.52
7:8:24:DT:OP1	7:8:24:DT:C4'	2.58	0.52
7:8:51:DG:H2'	7:8:52:DT:H71	1.90	0.52
1:A:100:LEU:HD13	1:A:115:ILE:HD13	1.91	0.52
2:C:250:THR:OG1	2:C:268:ARG:NE	2.43	0.52
2:C:309:LEU:C	2:C:310:ILE:HG13	2.34	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:558:VAL:HG22	2:C:574:SER:O	2.09	0.52
2:C:800:MET:HE1	2:C:822:VAL:HG13	1.91	0.52
2:C:1275:VAL:HG12	2:C:1279:GLU:OE2	2.09	0.52
3:D:378:LYS:O	3:D:381:ILE:HB	2.10	0.52
3:D:407:VAL:HG23	3:D:408:VAL:N	2.24	0.52
3:D:620:PHE:O	3:D:624:ILE:CG1	2.57	0.52
1:G:228:LEU:HD11	1:H:224:LEU:HD21	1.91	0.52
2:I:70:TYR:HA	2:I:100:LEU:HD23	1.90	0.52
2:I:598:VAL:HG13	2:I:627:GLY:HA2	1.90	0.52
3:J:611:ILE:HG22	3:J:612:LEU:HD23	1.92	0.52
3:J:846:GLU:HG2	3:J:847:ASP:N	2.25	0.52
6:4:50:DT:H5'	6:4:51:DC:C5	2.44	0.52
2:O:452:ARG:NH2	2:O:458:GLU:CD	2.67	0.52
2:O:528:ARG:NH1	2:O:575:LEU:O	2.40	0.52
2:O:797:GLY:O	2:O:798:GLN:HG3	2.10	0.52
3:P:140:TYR:O	3:P:141:PHE:HB2	2.10	0.52
2:C:375:PRO:HD3	5:F:87:VAL:HG11	1.92	0.52
2:C:408:SER:C	2:C:409:LEU:HD23	2.35	0.52
2:C:514:PHE:CE2	7:2:19:DA:H1'	2.45	0.52
2:C:857:VAL:HG12	2:C:858:GLY:O	2.10	0.52
3:J:419:HIS:CE1	3:J:477:GLN:NE2	2.78	0.52
3:J:555:TYR:CB	3:J:563:LEU:HD22	2.37	0.52
3:J:812:ASP:O	3:J:897:HIS:ND1	2.37	0.52
4:K:28:ARG:HG3	4:K:28:ARG:HH11	1.72	0.52
6:4:18:DA:C2	7:5:46:DG:N2	2.78	0.52
6:4:31:DT:H2''	6:4:32:DA:OP2	2.10	0.52
1:M:49:SER:HB2	1:N:33:ARG:NH1	2.24	0.52
2:O:192:ASP:HB3	2:O:346:TYR:CD1	2.44	0.52
2:O:487:LEU:HB3	2:O:492:MET:SD	2.50	0.52
2:O:674:ASP:O	3:P:772:TYR:CE1	2.63	0.52
3:P:422:LEU:C	3:P:423:LEU:HD23	2.34	0.52
3:P:580:TRP:CD1	3:P:580:TRP:O	2.63	0.52
3:P:839:VAL:HG13	3:P:864:LEU:CD1	2.38	0.52
3:P:1075:ARG:HB2	3:P:1192:LYS:HD3	1.92	0.52
1:B:37:HIS:NE2	1:B:187:VAL:HG21	2.25	0.52
2:C:878:THR:HG22	2:C:879:GLY:N	2.25	0.52
2:C:941:LYS:HB2	2:C:946:LEU:HD13	1.90	0.52
2:C:1105:SER:CB	3:D:731:ARG:HD2	2.39	0.52
3:D:360:TYR:CD1	3:D:361:LEU:CD2	2.92	0.52
3:D:492:SER:HG	3:D:495:ASN:H	1.56	0.52
2:I:618:GLN:O	2:I:621:SER:OG	2.22	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:871:VAL:HG11	2:I:928:VAL:HG21	1.92	0.52
5:L:452:ILE:HB	5:L:457:ILE:CD1	2.36	0.52
5:L:572:THR:O	5:L:576:VAL:HG23	2.10	0.52
6:4:36:DT:H3'	6:4:37:DA:P	2.50	0.52
2:O:592:ARG:NH2	2:O:599:VAL:HG12	2.24	0.52
2:O:675:ASP:OD2	2:O:677:ASN:ND2	2.32	0.52
2:O:1272:GLU:HG2	3:P:343:LEU:HB3	1.90	0.52
3:P:242:LEU:CD1	3:P:243:PRO:HD2	2.35	0.52
3:P:264:ASP:HB3	3:P:324:LEU:CD2	2.40	0.52
3:P:370:LYS:HD3	3:P:409:TRP:CZ3	2.45	0.52
1:B:59:VAL:CG2	1:B:144:ILE:HG23	2.34	0.52
2:C:1101:LEU:HD23	3:D:504:GLN:HG3	1.91	0.52
3:D:704:GLU:O	3:D:704:GLU:CG	2.58	0.52
5:F:464:ASN:CG	7:2:25:DA:H62	2.17	0.52
5:F:562:ARG:NH2	7:2:46:DG:OP1	2.42	0.52
6:1:49:DG:H2'	6:1:50:DT:H1'	1.92	0.52
7:2:16:DC:H2'	7:2:17:DG:C8	2.45	0.52
2:I:7:GLU:O	2:I:11:ILE:HG12	2.10	0.52
2:I:213:LEU:HG	2:I:385:PHE:CZ	2.44	0.52
2:I:363:LEU:HB3	2:I:381:ALA:HB1	1.92	0.52
2:I:1020:GLU:O	2:I:1024:GLU:N	2.32	0.52
2:I:1113:LEU:HG	3:J:641:ILE:HD12	1.92	0.52
2:I:1305:TYR:HA	2:I:1308:ILE:HD12	1.90	0.52
3:J:245:LEU:HD12	3:J:246:PRO:HD2	1.90	0.52
3:J:805:GLN:HB3	3:J:1347:LEU:HD12	1.92	0.52
3:J:851:PRO:HA	3:J:855:ASP:HA	1.91	0.52
3:J:872:LEU:N	3:J:872:LEU:CD2	2.65	0.52
1:N:156:SER:HA	1:N:159:ILE:HG22	1.92	0.52
2:O:1225:VAL:HG22	3:P:638:SER:HB3	1.92	0.52
5:R:368:GLY:HA2	5:R:371:LYS:HD2	1.91	0.52
2:C:149:LEU:CD2	2:C:451:ARG:HH21	2.23	0.52
2:C:205:PRO:HB2	2:C:207:THR:HG22	1.92	0.52
2:C:851:THR:HG22	2:C:853:ASP:H	1.74	0.52
2:C:1332:SER:OG	3:D:245:LEU:HD13	2.09	0.52
3:D:138:VAL:HG12	3:D:185:ILE:HD11	1.92	0.52
3:D:599:LYS:HG3	3:D:600:ALA:H	1.74	0.52
3:D:646:ILE:HD12	3:D:764:ARG:HD3	1.85	0.52
3:D:805:GLN:HB2	3:D:1347:LEU:CD1	2.37	0.52
1:G:104:LYS:HE3	1:G:114:ASP:OD2	2.09	0.52
2:I:217:THR:HA	2:I:220:ILE:HD12	1.92	0.52
2:I:727:VAL:HG13	2:I:732:ILE:HG23	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:764:CYS:HA	2:I:833:ILE:CD1	2.40	0.52
2:I:964:LEU:CD1	2:I:1021:LEU:HD22	2.39	0.52
3:J:111:THR:CG2	3:J:112:ALA:N	2.73	0.52
3:J:123:ARG:O	3:J:127:LEU:HG	2.09	0.52
3:J:1046:ILE:HG22	3:J:1061:VAL:HA	1.92	0.52
3:J:1047:THR:HG23	3:J:1047:THR:O	2.10	0.52
2:O:1338:GLU:HG2	3:P:21:LYS:HE2	1.92	0.52
3:P:146:VAL:HG23	3:P:158:GLN:O	2.09	0.52
3:P:212:THR:HG22	3:P:215:LYS:CE	2.40	0.52
3:P:797:THR:HA	3:P:800:LEU:CD1	2.40	0.52
3:P:959:LYS:HZ2	3:P:985:ILE:HD11	1.74	0.52
4:Q:44:ASP:OD2	4:Q:52:ARG:NH2	2.43	0.52
6:7:23:DA:C2	7:8:41:DG:N2	2.78	0.52
1:A:76:GLU:N	1:A:76:GLU:OE1	2.43	0.51
1:A:124:VAL:HG12	1:A:125:LYS:HG3	1.92	0.51
1:B:17:GLU:HG2	1:B:19:VAL:HG23	1.92	0.51
2:C:82:VAL:O	2:C:86:GLN:HG3	2.09	0.51
2:C:143:ARG:NH1	2:C:507:GLY:O	2.42	0.51
2:C:634:VAL:HG12	2:C:635:THR:N	2.26	0.51
3:D:425:ARG:HG2	3:D:425:ARG:HH11	1.75	0.51
3:D:698:MET:O	3:D:702:GLN:CB	2.58	0.51
5:F:323:ASN:O	5:F:324:LYS:HB2	2.10	0.51
1:G:28:LEU:HD21	1:H:231:PHE:CE1	2.46	0.51
1:H:48:LEU:HD21	1:H:183:ILE:CG2	2.40	0.51
3:J:704:GLU:HG3	3:J:704:GLU:O	2.10	0.51
3:J:871:LEU:O	3:J:874:GLU:HB2	2.10	0.51
5:L:148:TYR:CZ	5:L:152:GLU:HG3	2.45	0.51
1:M:234:LEU:HB3	1:N:13:LEU:CD2	2.40	0.51
1:N:47:LEU:CD2	1:N:205:MET:HE1	2.35	0.51
2:O:92:TYR:HB2	2:O:137:VAL:HB	1.91	0.51
2:O:878:THR:HA	2:O:925:SER:HB2	1.92	0.51
2:O:1281:TYR:OH	3:P:432:LEU:HD23	2.10	0.51
3:P:207:GLU:O	3:P:208:THR:HG23	2.09	0.51
3:P:433:GLY:O	3:P:457:TYR:CE1	2.59	0.51
5:R:599:ARG:O	5:R:601:PRO:HD3	2.10	0.51
2:C:149:LEU:HD23	2:C:451:ARG:HH21	1.75	0.51
2:C:1268:GLN:NE2	3:D:351:GLY:C	2.68	0.51
1:G:68:TYR:HD2	2:I:929:ILE:HD11	1.74	0.51
2:I:183:TRP:CH2	6:4:48:DA:N6	2.79	0.51
2:I:542:ARG:NH1	6:4:49:DG:H8	2.08	0.51
2:I:805:MET:HB2	2:I:806:PRO:CD	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1179:PRO:HB2	3:J:1182:GLY:HA3	1.93	0.51
1:M:31:LEU:HD12	1:M:201:LEU:HB2	1.91	0.51
1:M:224:LEU:CD2	1:N:228:LEU:HD21	2.40	0.51
1:N:111:THR:OG1	1:N:126:PRO:O	2.29	0.51
1:N:192:VAL:HG12	1:N:198:LEU:HB2	1.92	0.51
2:O:870:ILE:CG1	2:O:944:ARG:HG2	2.39	0.51
3:P:347:VAL:HG12	3:P:348:ASP:N	2.25	0.51
3:P:378:LYS:HA	3:P:381:ILE:HD12	1.92	0.51
3:P:530:PRO:HB2	3:P:581:MET:CG	2.40	0.51
3:P:749:LYS:CB	3:P:750:PRO:CD	2.75	0.51
3:P:1162:ILE:HG13	3:P:1180:VAL:CG1	2.40	0.51
6:7:34:DG:N2	7:8:29:DC:O2	2.41	0.51
2:C:313:ALA:O	2:C:314:ASN:HB3	2.10	0.51
2:C:732:ILE:CD1	2:C:753:LEU:HD11	2.40	0.51
2:C:809:GLY:CA	3:D:629:PHE:CD1	2.94	0.51
2:C:1098:LEU:CD2	2:C:1099:ASN:H	2.23	0.51
2:C:1312:ASN:CG	2:C:1314:GLN:H	2.18	0.51
3:D:254:PRO:HB3	3:D:260:PHE:CZ	2.45	0.51
3:D:807:LEU:CD2	3:D:1255:VAL:HG13	2.35	0.51
5:F:414:LYS:HD3	5:F:434:TRP:CZ3	2.46	0.51
2:I:202:ARG:HH22	7:5:7:DC:H3'	1.76	0.51
3:J:424:ASN:O	3:J:466:MET:CE	2.58	0.51
5:R:231:THR:HG22	5:R:231:THR:O	2.09	0.51
5:R:311:THR:HG22	5:R:348:GLU:OE1	2.10	0.51
2:C:732:ILE:HD11	2:C:753:LEU:HD11	1.92	0.51
2:C:801:ARG:HG2	2:C:1229:TYR:CZ	2.45	0.51
2:C:807:TRP:O	2:C:809:GLY:N	2.42	0.51
2:C:1104:PRO:CD	3:D:725:MET:HE1	2.39	0.51
3:D:424:ASN:C	3:D:466:MET:CE	2.84	0.51
1:H:39:LEU:O	1:H:43:LEU:CD1	2.58	0.51
2:I:519:ASN:ND2	2:I:686:GLN:O	2.43	0.51
2:I:871:VAL:HG23	2:I:883:LEU:C	2.34	0.51
2:I:884:VAL:O	2:I:917:SER:HB3	2.10	0.51
2:I:1156:ARG:NH1	2:I:1157:GLN:HB2	2.25	0.51
2:I:1332:SER:O	3:J:243:PRO:CG	2.58	0.51
3:J:251:PRO:HG2	5:L:507:MET:CE	2.40	0.51
1:M:11:PRO:HA	1:M:30:PRO:HD2	1.92	0.51
2:O:143:ARG:NH1	2:O:512:SER:O	2.44	0.51
2:O:402:ARG:HG2	2:O:416:GLY:CA	2.40	0.51
3:P:902:ASP:HB2	3:P:909:ILE:HG13	1.91	0.51
5:R:491:GLU:O	5:R:494:ILE:HB	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:47:DC:H2"	6:7:48:DA:OP1	2.09	0.51
1:A:48:LEU:CD1	1:A:183:ILE:HG21	2.38	0.51
1:A:158:ARG:O	1:A:162:GLU:HB2	2.11	0.51
3:D:190:LYS:HB2	3:D:235:GLU:HG2	1.93	0.51
3:D:478:LEU:HD13	4:E:24:ALA:HB2	1.93	0.51
2:I:538:LEU:N	2:I:538:LEU:HD23	2.25	0.51
2:I:805:MET:O	2:I:811:ASN:ND2	2.43	0.51
2:I:1198:LEU:HD12	2:I:1198:LEU:O	2.10	0.51
2:I:1225:VAL:CG1	2:I:1226:THR:N	2.73	0.51
3:J:899:TYR:CD2	3:J:915:ILE:HD13	2.45	0.51
1:N:81:ILE:CD1	1:N:131:CYS:SG	2.98	0.51
2:O:297:VAL:HG13	2:O:317:LEU:HG	1.92	0.51
3:P:130:MET:HE3	3:P:135:ILE:HG23	1.91	0.51
3:P:421:VAL:HG12	3:P:469:HIS:O	2.10	0.51
3:P:1302:TYR:CD1	3:P:1302:TYR:N	2.77	0.51
3:P:1328:THR:HG22	3:P:1332:LEU:HD11	1.92	0.51
1:A:44:ARG:O	1:A:47:LEU:HB2	2.10	0.51
2:C:3:TYR:OH	2:C:1159:VAL:HG22	2.11	0.51
2:C:513:GLN:CD	2:C:526:HIS:NE2	2.68	0.51
3:D:474:LEU:O	3:D:478:LEU:HG	2.10	0.51
3:D:746:LEU:HG	3:D:758:PRO:HB3	1.93	0.51
2:I:805:MET:HB2	2:I:806:PRO:HD2	1.92	0.51
3:J:491:LEU:HD22	3:J:496:GLY:O	2.10	0.51
3:J:1346:GLY:C	3:J:1349:GLU:HG3	2.36	0.51
7:5:28:DG:H2"	7:5:29:DC:OP2	2.11	0.51
2:O:805:MET:CE	2:O:806:PRO:HD2	2.40	0.51
2:O:1281:TYR:OH	3:P:431:ARG:C	2.49	0.51
2:O:1289:GLU:OE2	3:P:473:THR:HG23	2.11	0.51
3:P:263:SER:N	5:R:507:MET:HE3	2.25	0.51
5:R:506:SER:HB3	5:R:509:THR:OG1	2.11	0.51
6:7:48:DA:C8	6:7:48:DA:H5"	2.46	0.51
1:B:110:VAL:HG21	1:B:131:CYS:HB2	1.93	0.51
3:D:975:ILE:HD11	3:D:1003:LEU:HG	1.92	0.51
3:D:1154:ALA:HA	3:D:1211:SER:HB2	1.93	0.51
1:H:109:PRO:HB3	1:H:132:HIS:NE2	2.24	0.51
2:I:228:VAL:HG21	2:I:337:PHE:HB2	1.93	0.51
2:I:1269:ARG:HH11	3:J:340:GLN:HA	1.74	0.51
3:J:117:LEU:HG	3:J:118:LYS:HD3	1.93	0.51
3:J:705:THR:HG21	3:J:716:GLN:HG2	1.93	0.51
3:J:1346:GLY:O	3:J:1349:GLU:HG3	2.10	0.51
1:N:67:GLU:O	1:N:78:ILE:HB	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:13:LYS:HB3	2:O:1182:ILE:HG12	1.93	0.51
2:O:39:ILE:O	2:O:39:ILE:HG22	2.09	0.51
2:O:1122:LYS:HG3	2:O:1229:TYR:CE2	2.45	0.51
5:R:376:LYS:O	5:R:380:VAL:HG23	2.11	0.51
1:A:48:LEU:HD12	1:A:183:ILE:HG21	1.90	0.51
1:A:184:ALA:HB2	2:C:1091:GLY:CA	2.41	0.51
1:B:71:LYS:HD3	1:B:140:ILE:HD12	1.92	0.51
2:C:736:VAL:HG12	2:C:737:ASN:O	2.11	0.51
2:C:838:CYS:HB2	2:C:918:LEU:HD22	1.93	0.51
3:D:1134:ILE:HG22	3:D:1138:LEU:HD13	1.90	0.51
1:H:6:THR:O	1:H:6:THR:HG22	2.10	0.51
2:I:653:MET:HG2	2:I:654:ASP:N	2.25	0.51
2:I:1289:GLU:CD	3:J:472:LEU:HB2	2.36	0.51
3:J:192:MET:CE	3:J:197:GLU:OE1	2.47	0.51
3:J:733:SER:O	3:J:737:ILE:HG13	2.10	0.51
1:M:232:VAL:HG22	1:N:221:ALA:CB	2.39	0.51
1:N:82:LEU:HD22	1:N:173:VAL:CG2	2.41	0.51
1:N:97:GLU:OE1	1:N:147:GLN:NE2	2.43	0.51
2:O:228:VAL:HG13	2:O:245:ARG:NH1	2.25	0.51
2:O:390:PHE:N	2:O:390:PHE:HD2	2.02	0.51
3:P:128:LEU:HB3	3:P:157:GLN:HE22	1.76	0.51
3:P:501:VAL:HG12	3:P:502:PRO:CD	2.41	0.51
3:P:959:LYS:HD2	3:P:985:ILE:CG1	2.41	0.51
1:A:84:ASN:ND2	1:A:130:ILE:O	2.37	0.51
2:C:797:GLY:CA	2:C:1233:LEU:CD2	2.89	0.51
2:C:851:THR:CG2	2:C:852:ALA:H	2.24	0.51
2:C:853:ASP:C	2:C:854:ILE:HG13	2.34	0.51
2:C:1062:PRO:HA	2:C:1076:ILE:HB	1.93	0.51
2:C:1099:ASN:HD21	2:C:1101:LEU:HB2	1.76	0.51
3:D:79:LYS:HG3	5:F:569:THR:CG2	2.40	0.51
3:D:1145:PHE:O	3:D:1309:ILE:HG13	2.10	0.51
2:I:43:PRO:O	2:I:54:ARG:NH1	2.38	0.51
2:I:311:CYS:HB3	2:I:321:LEU:HD13	1.91	0.51
2:I:690:VAL:HG12	2:I:691:PRO:CD	2.40	0.51
3:J:515:ARG:NH2	3:J:718:SER:O	2.44	0.51
3:J:802:ASP:OD1	3:J:1325:PHE:CD1	2.64	0.51
1:M:228:LEU:HD21	1:N:224:LEU:HD23	1.93	0.51
2:O:61:SER:CB	2:O:66:SER:OG	2.58	0.51
2:O:151:ARG:HG2	2:O:451:ARG:NH1	2.26	0.51
3:P:390:LEU:HD13	3:P:411:ILE:HD11	1.92	0.51
3:P:982:LEU:HD23	3:P:995:TYR:HD2	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1002:VAL:O	3:P:1019:ASN:N	2.42	0.51
3:P:1347:LEU:CD2	3:P:1357:ILE:CG2	2.88	0.51
3:P:1360:GLY:HA3	4:Q:17:PHE:CE1	2.46	0.51
5:R:256:PHE:HZ	5:R:261:LEU:HD11	1.76	0.51
5:R:260:ARG:HH12	5:R:422:ARG:NH2	2.06	0.51
2:C:178:PRO:HA	2:C:397:LEU:CD2	2.35	0.51
3:D:370:LYS:HG3	3:D:442:ILE:O	2.12	0.51
3:D:1080:ILE:HB	3:D:1097:ALA:HB3	1.93	0.51
2:I:33:ASP:O	2:I:37:LYS:HG3	2.10	0.51
2:I:120:GLN:OE1	2:I:489:PRO:HG2	2.10	0.51
2:I:313:ALA:O	2:I:314:ASN:CB	2.59	0.51
2:I:525:THR:HG21	2:I:687:ARG:CD	2.41	0.51
2:I:980:VAL:O	2:I:980:VAL:HG12	2.09	0.51
3:J:1109:LEU:HD12	3:J:1120:THR:O	2.11	0.51
5:L:460:ILE:HG22	7:5:26:DT:H72	1.93	0.51
1:M:36:GLY:CA	1:M:201:LEU:HD13	2.41	0.51
2:O:82:VAL:HG23	2:O:83:GLN:N	2.25	0.51
2:O:96:LEU:CA	2:O:127:ILE:HD11	2.40	0.51
2:O:524:ILE:CD1	2:O:712:SER:HB3	2.29	0.51
2:O:870:ILE:HD13	2:O:870:ILE:N	2.25	0.51
2:O:920:VAL:HG13	2:O:921:PRO:HD2	1.92	0.51
3:P:111:THR:HG21	3:P:300:GLN:HA	1.93	0.51
3:P:363:LEU:CD2	3:P:487:THR:HG22	2.41	0.51
5:R:373:ARG:O	5:R:377:LYS:HG3	2.11	0.51
2:C:153:PRO:HB2	2:C:401:GLY:CA	2.41	0.50
2:C:557:ARG:NH2	2:C:608:ALA:HA	2.25	0.50
2:C:1321:GLU:O	2:C:1325:VAL:HG23	2.11	0.50
3:D:470:VAL:O	3:D:472:LEU:CD2	2.59	0.50
3:D:580:TRP:O	3:D:580:TRP:CG	2.64	0.50
2:I:808:ASN:ND2	3:J:633:ALA:HB2	2.27	0.50
2:I:1220:GLN:HG2	2:I:1221:PHE:O	2.11	0.50
3:J:1163:VAL:HG13	3:J:1177:ILE:HA	1.93	0.50
3:J:1230:THR:HG23	3:J:1257:VAL:HG11	1.93	0.50
4:K:48:VAL:HA	4:K:51:LEU:CD1	2.40	0.50
5:L:419:PHE:HA	5:L:430:TYR:CE2	2.46	0.50
2:O:242:VAL:O	2:O:245:ARG:HB2	2.11	0.50
2:O:569:ILE:HD13	3:P:784:ALA:CA	2.40	0.50
3:P:275:ARG:HG2	3:P:278:ARG:NH2	2.25	0.50
3:P:377:PHE:C	3:P:379:PRO:HD2	2.37	0.50
3:P:982:LEU:HD23	3:P:995:TYR:CD2	2.46	0.50
3:P:1279:GLN:HE22	3:P:1307:LEU:HD21	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1318:SER:HB2	3:P:1349:GLU:OE2	2.11	0.50
1:A:44:ARG:HG3	1:A:183:ILE:HG12	1.93	0.50
2:C:73:TYR:CB	2:C:98:VAL:HG22	2.40	0.50
2:C:260:LYS:HE2	2:C:262:TYR:CE2	2.47	0.50
2:C:409:LEU:HD23	2:C:409:LEU:N	2.25	0.50
2:C:521:LEU:HD12	2:C:521:LEU:O	2.12	0.50
2:C:1117:LEU:HG	2:C:1117:LEU:O	2.10	0.50
2:C:1260:GLY:O	2:C:1264:GLN:HG2	2.11	0.50
3:D:112:ALA:CA	3:D:238:ILE:CD1	2.89	0.50
3:D:268:LEU:O	3:D:272:VAL:HG23	2.11	0.50
3:D:744:ARG:HB3	3:D:759:ILE:HG21	1.92	0.50
3:D:1074:LEU:O	3:D:1076:PRO:HD3	2.11	0.50
2:I:149:LEU:HD23	2:I:451:ARG:NH2	2.26	0.50
2:I:871:VAL:HG23	2:I:883:LEU:CA	2.41	0.50
2:I:1098:LEU:HD23	2:I:1099:ASN:N	2.24	0.50
3:J:826:ILE:CG1	3:J:831:VAL:HG13	2.30	0.50
3:J:1164:SER:CA	3:J:1175:LEU:HD11	2.42	0.50
6:4:11:DA:H1'	6:4:12:DC:H5'	1.92	0.50
1:M:192:VAL:HG12	1:M:193:GLU:H	1.76	0.50
2:O:211:ARG:CD	2:O:357:ASN:O	2.52	0.50
2:O:1244:HIS:NE2	2:O:1266:GLY:O	2.38	0.50
2:O:1297:ASP:OD2	2:O:1318:GLY:N	2.45	0.50
6:7:49:DG:C8	6:7:49:DG:C3'	2.94	0.50
2:C:662:SER:OG	2:C:663:VAL:N	2.44	0.50
3:D:797:THR:HG23	3:D:924:GLY:CA	2.37	0.50
3:D:1029:THR:HG21	3:D:1080:ILE:HD11	1.93	0.50
7:2:25:DA:H1'	7:2:26:DT:H5'	1.94	0.50
1:H:70:THR:O	1:H:70:THR:CG2	2.59	0.50
2:I:169:LYS:CG	2:I:171:LEU:HD21	2.42	0.50
2:I:641:GLU:HG2	2:I:642:SER:N	2.26	0.50
2:I:729:ALA:O	2:I:730:SER:HB3	2.12	0.50
2:I:1340:GLU:O	3:J:17:PHE:HB2	2.10	0.50
3:J:512:TYR:CD1	3:J:545:HIS:HE1	2.30	0.50
3:J:1155:ILE:O	3:J:1156:LEU:HD23	2.10	0.50
3:J:1229:VAL:HG13	3:J:1230:THR:H	1.74	0.50
5:L:102:MET:HB3	6:4:42:DG:C2	2.46	0.50
1:N:106:GLY:HA2	1:N:136:GLU:HA	1.93	0.50
2:O:674:ASP:O	3:P:772:TYR:HE1	1.95	0.50
3:P:530:PRO:HB2	3:P:581:MET:HG2	1.94	0.50
5:R:120:ALA:HA	5:R:123:ILE:CD1	2.31	0.50
5:R:460:ILE:HA	5:R:463:LEU:HG	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:748:ALA:HB2	3:D:941:ALA:HB3	1.93	0.50
5:F:407:GLU:CD	5:F:442:SER:HB3	2.37	0.50
5:F:428:SER:HB2	6:1:40:DA:OP2	2.11	0.50
7:2:25:DA:C2'	7:2:26:DT:OP2	2.58	0.50
2:I:149:LEU:CD2	2:I:451:ARG:HH21	2.24	0.50
2:I:436:ARG:O	2:I:436:ARG:HD2	2.11	0.50
2:I:1184:THR:O	2:I:1184:THR:CG2	2.59	0.50
2:I:1288:GLN:OE1	3:J:1356:LEU:HG	2.10	0.50
3:J:452:LEU:HG	3:J:625:MET:SD	2.52	0.50
3:J:704:GLU:O	3:J:704:GLU:CG	2.59	0.50
1:M:38:THR:HG23	1:N:42:ALA:CA	2.38	0.50
1:M:67:GLU:O	1:M:78:ILE:CB	2.60	0.50
1:N:82:LEU:CD2	1:N:173:VAL:CG2	2.89	0.50
2:O:525:THR:HG21	2:O:687:ARG:CD	2.40	0.50
2:O:675:ASP:CB	2:O:1107:MET:HE2	2.32	0.50
5:R:167:ASP:N	5:R:168:PRO:CD	2.73	0.50
1:A:61:ILE:HG12	1:A:142:MET:HE2	1.94	0.50
2:C:638:SER:O	2:C:639:LYS:HB3	2.11	0.50
2:C:1142:ARG:CG	2:C:1161:LEU:HD23	2.41	0.50
3:D:238:ILE:C	3:D:239:LEU:HD23	2.37	0.50
3:D:355:ILE:HD12	3:D:461:PHE:CE1	2.45	0.50
3:D:378:LYS:HB3	3:D:379:PRO:CD	2.42	0.50
3:D:615:LYS:O	3:D:618:VAL:HB	2.12	0.50
3:D:841:GLY:O	3:D:863:LEU:HD11	2.11	0.50
3:D:1370:MET:HE1	3:D:1373:ARG:NH2	2.26	0.50
4:E:7:GLN:O	4:E:10:VAL:HB	2.12	0.50
1:G:226:GLU:O	1:G:229:GLU:HB2	2.12	0.50
2:I:516:ASP:HB3	2:I:522:SER:OG	2.11	0.50
2:I:528:ARG:HD2	2:I:663:VAL:HG21	1.93	0.50
3:J:67:ASP:OD1	3:J:67:ASP:N	2.45	0.50
1:M:15:ASP:HB3	1:M:27:THR:OG1	2.11	0.50
2:O:336:LEU:N	2:O:336:LEU:HD23	2.26	0.50
2:O:496:LYS:HE2	7:8:24:DT:H5''	1.92	0.50
3:P:334:LYS:NZ	7:8:14:DC:OP1	2.44	0.50
3:P:783:LEU:HD13	3:P:936:HIS:CB	2.41	0.50
3:P:1229:VAL:HG13	3:P:1230:THR:N	2.27	0.50
3:P:1319:PHE:HD2	3:P:1340:LYS:HD3	1.76	0.50
6:7:32:DA:H2''	6:7:33:DT:OP2	2.12	0.50
2:C:373:GLY:CA	5:F:91:ILE:HG12	2.42	0.50
2:C:798:GLN:CB	2:C:827:ARG:NH2	2.71	0.50
2:C:840:SER:OG	2:C:1048:LYS:N	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:109:SER:HB3	3:D:299:LEU:HD22	1.93	0.50
3:D:202:ARG:HA	3:D:205:LEU:HD12	1.92	0.50
2:I:912:ASP:C	2:I:913:VAL:HG23	2.37	0.50
3:J:473:THR:O	3:J:476:ALA:HB3	2.11	0.50
3:J:644:MET:HG3	3:J:722:ILE:CD1	2.41	0.50
3:J:910:ASN:ND2	4:K:15:ASN:HA	2.26	0.50
3:J:1287:ILE:HG22	3:J:1288:ALA:CA	2.42	0.50
3:J:1350:ASN:ND2	3:J:1356:LEU:O	2.44	0.50
5:L:563:PHE:HB2	5:L:565:ILE:CD1	2.41	0.50
1:N:89:ALA:HB2	1:N:208:ASN:HD21	1.77	0.50
2:O:135:THR:HG21	2:O:515:MET:CE	2.41	0.50
2:O:165:HIS:HB3	2:O:167:SER:HB2	1.93	0.50
2:O:805:MET:HE2	2:O:806:PRO:O	2.12	0.50
3:P:178:ALA:O	3:P:179:LYS:HD2	2.11	0.50
3:P:237:MET:O	3:P:238:ILE:HD13	2.11	0.50
3:P:450:HIS:HD2	3:P:452:LEU:H	1.60	0.50
3:P:589:TYR:O	3:P:592:VAL:HG12	2.11	0.50
3:P:849:LEU:HD21	3:P:857:LEU:HD23	1.92	0.50
3:P:1318:SER:HG	3:P:1321:SER:HB3	1.71	0.50
5:R:283:GLN:CB	5:R:344:LEU:HD21	2.42	0.50
5:R:333:VAL:O	5:R:333:VAL:HG13	2.10	0.50
5:R:437:GLN:CD	6:7:35:DC:N4	2.70	0.50
6:7:30:DG:N2	7:8:34:DG:C2	2.80	0.50
1:A:75:GLN:HG2	1:A:134:THR:CG2	2.42	0.50
2:C:237:LEU:O	2:C:287:VAL:HG22	2.11	0.50
3:D:1079:LYS:HE3	3:D:1087:ASP:OD1	2.11	0.50
3:D:1151:LYS:HD3	3:D:1151:LYS:N	2.26	0.50
5:F:137:TYR:CE1	5:F:353:LEU:CD1	2.90	0.50
6:1:47:DC:C6	6:1:47:DC:C5'	2.80	0.50
7:2:18:DT:H2''	7:2:19:DA:OP1	2.11	0.50
1:G:30:PRO:HB3	1:G:198:LEU:HD13	1.94	0.50
1:G:65:LEU:HD22	1:G:168:ILE:HG22	1.94	0.50
2:I:448:LEU:HD11	2:I:553:THR:HB	1.93	0.50
2:I:448:LEU:HD11	2:I:553:THR:CB	2.42	0.50
2:I:757:THR:O	2:I:833:ILE:HD12	2.12	0.50
3:J:746:LEU:CD2	3:J:758:PRO:HB3	2.42	0.50
8:6:14:A:H3'	8:6:15:G:H8	1.76	0.50
2:O:915:ASP:C	2:O:915:ASP:OD1	2.52	0.50
3:P:116:PHE:HE1	3:P:1333:THR:HG22	1.72	0.50
3:P:544:LEU:HA	3:P:574:VAL:HB	1.93	0.50
3:P:790:THR:HG21	3:P:932:MET:HG3	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1177:ARG:O	2:C:1177:ARG:HG2	2.10	0.50
3:D:891:ASP:O	3:D:892:PHE:HB2	2.11	0.50
3:D:1169:THR:HG21	3:D:1172:LYS:HD2	1.92	0.50
7:2:14:DC:H2'	7:2:15:DT:C6	2.47	0.50
2:I:383:SER:O	2:I:387:ASN:CG	2.55	0.50
2:I:987:GLU:H	2:I:987:GLU:CD	2.18	0.50
2:I:1061:GLN:CB	2:I:1062:PRO:HD2	2.20	0.50
2:I:1142:ARG:CG	2:I:1161:LEU:HD23	2.42	0.50
2:I:1243:MET:SD	3:J:445:LYS:CB	2.99	0.50
3:J:580:TRP:CZ3	3:J:583:VAL:CG1	2.90	0.50
3:J:848:VAL:CG2	3:J:880:VAL:HG13	2.36	0.50
1:N:90:VAL:HG11	1:N:146:VAL:HG11	1.94	0.50
2:O:470:ARG:NH2	5:R:397:ARG:NH1	2.60	0.50
2:O:750:ILE:HD13	2:O:963:GLU:CG	2.42	0.50
2:O:1151:LEU:CD2	2:O:1198:LEU:HA	2.41	0.50
3:P:492:SER:HG	3:P:495:ASN:H	1.58	0.50
3:P:783:LEU:HD13	3:P:936:HIS:HB3	1.94	0.50
3:P:1207:GLY:CA	3:P:1223:LEU:HD13	2.38	0.50
5:R:454:VAL:HG21	6:7:32:DA:N7	2.26	0.50
2:C:488:MET:HB3	2:C:489:PRO:HD2	1.93	0.50
2:C:698:PRO:HG3	2:C:1231:TYR:OH	2.11	0.50
3:D:356:THR:OG1	3:D:446:ALA:HB1	2.12	0.50
3:D:1234:VAL:HG12	3:D:1235:ASN:N	2.27	0.50
1:G:156:SER:HA	1:G:159:ILE:HD12	1.92	0.50
2:I:285:ILE:HG22	2:I:286:GLU:O	2.12	0.50
2:I:337:PHE:O	2:I:338:THR:HG23	2.12	0.50
2:I:869:GLY:C	2:I:870:ILE:HD13	2.37	0.50
2:I:870:ILE:CG1	2:I:944:ARG:HG2	2.42	0.50
3:J:28:ASP:HA	3:J:31:ARG:HD2	1.93	0.50
3:P:381:ILE:O	3:P:385:LEU:HG	2.12	0.50
1:A:76:GLU:HG3	1:A:80:GLU:CD	2.37	0.49
1:B:44:ARG:HA	1:B:183:ILE:HD13	1.93	0.49
2:C:75:LEU:CD2	2:C:94:ALA:CB	2.88	0.49
2:C:335:THR:CG2	2:C:336:LEU:H	2.24	0.49
2:C:811:ASN:ND2	2:C:1099:ASN:CA	2.74	0.49
3:D:76:LYS:O	3:D:77:ARG:HB2	2.11	0.49
3:D:366:CYS:SG	3:D:439:PRO:HA	2.52	0.49
1:G:202:VAL:O	1:G:202:VAL:HG12	2.12	0.49
2:I:424:ASP:O	2:I:428:VAL:CG2	2.60	0.49
2:I:1182:ILE:HG22	2:I:1183:ALA:N	2.27	0.49
2:I:1273:MET:HA	2:I:1276:TRP:CE3	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:475:GLU:HG3	4:K:24:ALA:CB	2.41	0.49
5:L:166:VAL:HG12	5:L:167:ASP:N	2.26	0.49
5:L:388:ILE:HG23	5:L:389:SER:N	2.27	0.49
1:M:11:PRO:HG3	1:N:227:GLN:HB3	1.94	0.49
1:M:67:GLU:O	1:M:78:ILE:HD12	2.11	0.49
2:O:347:ILE:HG22	2:O:351:LEU:CD1	2.41	0.49
2:O:840:SER:OG	2:O:840:SER:O	2.28	0.49
2:O:866:ASP:CG	2:O:867:GLU:H	2.19	0.49
3:P:363:LEU:HD23	3:P:487:THR:HG22	1.93	0.49
3:P:747:MET:HE3	3:P:775:SER:CA	2.42	0.49
7:8:23:DT:H2'	7:8:24:DT:O4'	2.11	0.49
2:C:61:SER:HB2	2:C:66:SER:OG	2.12	0.49
2:C:809:GLY:CA	3:D:629:PHE:CE1	2.94	0.49
3:D:360:TYR:CD1	3:D:361:LEU:HD23	2.46	0.49
3:D:762:ASN:CG	3:D:764:ARG:HB3	2.36	0.49
3:D:1024:THR:O	3:D:1024:THR:HG22	2.13	0.49
1:G:43:LEU:C	1:G:47:LEU:HD12	2.36	0.49
1:H:129:VAL:CG1	1:H:132:HIS:CE1	2.95	0.49
2:I:143:ARG:HG2	2:I:513:GLN:C	2.37	0.49
2:I:700:VAL:CG2	2:I:1114:GLU:HG3	2.38	0.49
2:I:796:LEU:O	2:I:1233:LEU:HD21	2.12	0.49
2:I:810:TYR:HE2	2:I:1078:LYS:HD3	1.76	0.49
7:5:51:DG:H2''	7:5:52:DT:OP2	2.11	0.49
1:N:51:MET:HE1	1:N:219:ARG:HD2	1.94	0.49
2:O:185:ASP:OD2	2:O:200:ARG:HD3	2.11	0.49
2:O:1278:LEU:HD22	2:O:1283:ALA:O	2.12	0.49
3:P:395:LYS:NZ	5:R:610:PHE:HA	2.27	0.49
3:P:847:ASP:OD1	3:P:860:ARG:HB3	2.12	0.49
3:P:1138:LEU:HG	3:P:1139:PRO:N	2.27	0.49
5:R:492:ASP:N	5:R:492:ASP:OD1	2.35	0.49
6:7:42:DG:C4'	6:7:43:DT:OP2	2.60	0.49
1:A:38:THR:HG21	1:B:46:ILE:HD11	1.94	0.49
1:A:42:ALA:CA	1:B:38:THR:HG23	2.32	0.49
1:A:48:LEU:HG	1:A:180:VAL:CG1	2.43	0.49
1:A:222:THR:HG22	1:A:223:ILE:N	2.28	0.49
2:C:1223:ARG:HG2	3:D:635:SER:O	2.12	0.49
2:C:1273:MET:SD	3:D:428:THR:HB	2.51	0.49
3:D:746:LEU:C	3:D:747:MET:HG3	2.37	0.49
3:D:1024:THR:HG21	3:D:1123:ARG:HE	1.77	0.49
3:D:1312:ALA:O	3:D:1316:THR:HG23	2.12	0.49
1:G:43:LEU:C	1:G:47:LEU:CD1	2.85	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:1124:ILE:HD11	2:I:1198:LEU:HD21	1.93	0.49
3:J:300:GLN:HG2	3:J:304:ASP:OD2	2.12	0.49
3:J:436:ALA:C	3:J:437:PHE:CD1	2.91	0.49
3:J:589:TYR:O	3:J:591:ILE:N	2.45	0.49
3:J:846:GLU:HG2	3:J:847:ASP:H	1.77	0.49
3:J:884:SER:OG	3:J:886:VAL:HG23	2.12	0.49
3:J:1156:LEU:HD23	3:J:1156:LEU:N	2.27	0.49
3:J:1164:SER:O	3:J:1175:LEU:HD12	1.98	0.49
1:M:36:GLY:O	1:M:201:LEU:CD1	2.58	0.49
2:O:402:ARG:HG2	2:O:416:GLY:HA3	1.93	0.49
2:O:658:GLN:HE21	2:O:1186:VAL:CG2	2.23	0.49
2:O:895:LEU:HD12	2:O:899:GLU:OE1	2.11	0.49
3:P:886:VAL:HA	3:P:1258:ARG:HB2	1.95	0.49
3:P:1093:THR:CG2	3:P:1200:GLU:OE1	2.60	0.49
2:C:225:PHE:CE2	2:C:347:ILE:HB	2.47	0.49
2:C:1008:GLN:OE1	2:C:1008:GLN:HA	2.11	0.49
3:D:1163:VAL:CG1	3:D:1177:ILE:HG12	2.42	0.49
1:G:30:PRO:CB	1:G:198:LEU:HD13	2.42	0.49
2:I:155:VAL:HG22	2:I:405:PHE:CE2	2.47	0.49
2:I:841:ARG:HG2	2:I:1046:VAL:HA	1.93	0.49
2:I:1101:LEU:HD11	3:J:508:LEU:HD22	1.93	0.49
3:J:263:SER:HB2	5:L:507:MET:SD	2.52	0.49
3:J:403:ARG:O	3:J:404:GLU:HB2	2.12	0.49
3:J:544:LEU:HD22	3:J:578:ILE:CD1	2.42	0.49
3:J:1251:LYS:O	3:J:1255:VAL:HG23	2.13	0.49
1:N:155:ALA:CB	1:N:174:ASP:OD1	2.61	0.49
2:O:213:LEU:HD13	2:O:422:LYS:HB3	1.95	0.49
3:P:843:VAL:HB	3:P:897:HIS:O	2.12	0.49
2:C:75:LEU:CD2	2:C:94:ALA:HB1	2.43	0.49
2:C:253:PHE:CE1	2:C:255:ILE:HG23	2.48	0.49
3:D:544:LEU:HA	3:D:574:VAL:CB	2.38	0.49
3:D:647:PRO:HD3	3:D:697:MET:HG3	1.94	0.49
3:D:786:THR:OG1	3:D:932:MET:HA	2.12	0.49
3:D:1156:LEU:CD2	3:D:1209:VAL:HA	2.43	0.49
3:D:1267:VAL:O	3:D:1268:ASN:CB	2.57	0.49
1:G:98:VAL:HG22	1:G:146:VAL:HB	1.94	0.49
2:I:888:THR:HB	2:I:914:LYS:HB2	1.94	0.49
2:I:1087:TYR:N	2:I:1087:TYR:CD1	2.80	0.49
3:J:553:THR:O	3:J:553:THR:HG22	2.11	0.49
3:J:739:GLN:HG2	3:J:744:ARG:HA	1.94	0.49
3:J:1229:VAL:CG1	3:J:1230:THR:N	2.74	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1347:LEU:O	3:J:1351:VAL:HG23	2.12	0.49
3:J:1360:GLY:HA2	4:K:17:PHE:CE2	2.48	0.49
5:L:573:LEU:CB	7:5:45:DT:H3'	2.40	0.49
2:O:24:VAL:HG12	2:O:27:LEU:HD21	1.93	0.49
2:O:696:ASP:CB	2:O:798:GLN:HG2	2.42	0.49
2:O:1292:THR:HG23	2:O:1293:VAL:N	2.24	0.49
3:P:580:TRP:O	3:P:580:TRP:CG	2.65	0.49
3:P:1078:LEU:HD13	3:P:1121:LEU:HD22	1.95	0.49
3:P:1100:PHE:HB2	3:P:1193:TRP:HA	1.93	0.49
5:R:113:ARG:HD3	5:R:426:LYS:HZ2	1.77	0.49
6:7:42:DG:H3'	6:7:42:DG:P	2.52	0.49
1:A:190:ALA:HB2	1:A:200:LYS:HB3	1.94	0.49
2:C:128:PRO:CD	2:C:502:VAL:HG11	2.42	0.49
2:C:176:ILE:O	2:C:176:ILE:HG22	2.11	0.49
2:C:660:VAL:HG21	3:D:769:VAL:HG13	1.94	0.49
2:C:698:PRO:HA	2:C:1231:TYR:CD1	2.44	0.49
3:D:139:LEU:HD22	3:D:185:ILE:HD12	1.88	0.49
3:D:1027:VAL:CG2	3:D:1124:ILE:HD11	2.43	0.49
1:G:224:LEU:HD11	1:G:228:LEU:HD12	1.93	0.49
1:G:225:ALA:CB	1:H:228:LEU:HD13	2.36	0.49
2:I:275:ARG:HH22	2:I:279:LYS:CD	2.25	0.49
2:I:529:ARG:C	2:I:530:ILE:HG13	2.36	0.49
2:I:663:VAL:O	2:I:666:SER:OG	2.27	0.49
2:I:1061:GLN:NE2	2:I:1240:ASP:OD1	2.45	0.49
2:I:1107:MET:HE3	3:J:740:LEU:CD2	2.43	0.49
7:5:23:DT:C2'	7:5:24:DT:OP1	2.60	0.49
1:N:155:ALA:HB2	1:N:174:ASP:OD1	2.12	0.49
2:O:12:ARG:HG3	2:O:1181:PRO:O	2.11	0.49
2:O:22:LEU:HG	2:O:23:ASP:N	2.27	0.49
2:O:256:GLU:CA	2:O:261:VAL:HG13	2.42	0.49
2:O:533:LEU:HD22	2:O:538:LEU:O	2.13	0.49
3:P:166:LEU:HA	3:P:169:LEU:HB3	1.95	0.49
3:P:600:ALA:O	3:P:604:MET:HG3	2.13	0.49
3:P:744:ARG:O	3:P:744:ARG:HG3	2.12	0.49
5:R:493:LYS:NZ	6:7:30:DG:P	2.86	0.49
1:B:140:ILE:HG12	1:B:142:MET:CE	2.42	0.49
2:C:232:ILE:HD13	2:C:326:SER:CB	2.43	0.49
2:C:796:LEU:C	2:C:1233:LEU:HD21	2.37	0.49
2:C:993:PRO:HG2	2:C:996:ARG:NH1	2.28	0.49
3:D:352:ARG:O	3:D:372:MET:HE1	2.13	0.49
3:D:395:LYS:CG	3:D:399:LYS:HE2	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:423:LEU:CD2	3:D:468:VAL:HG13	2.42	0.49
3:D:495:ASN:OD1	3:D:495:ASN:N	2.46	0.49
3:D:816:THR:HG22	3:D:818:GLU:H	1.76	0.49
1:G:45:ARG:HD3	1:H:38:THR:CG2	2.43	0.49
1:G:229:GLU:O	1:G:233:ASP:CB	2.46	0.49
1:H:219:ARG:O	1:H:223:ILE:HG13	2.12	0.49
2:I:1064:ASP:OD1	2:I:1239:VAL:HG12	2.13	0.49
2:I:1323:PHE:CE1	2:I:1327:LEU:HD21	2.47	0.49
3:J:909:ILE:HG12	3:J:910:ASN:O	2.12	0.49
5:L:237:ALA:O	5:L:238:LYS:HB2	2.12	0.49
1:M:102:LEU:HD21	1:M:110:VAL:CG1	2.42	0.49
2:O:253:PHE:N	2:O:253:PHE:CD2	2.81	0.49
2:O:1108:ASN:OD1	2:O:1108:ASN:N	2.41	0.49
3:P:84:ILE:O	3:P:84:ILE:HG23	2.12	0.49
3:P:809:VAL:CG2	3:P:915:ILE:HD11	2.42	0.49
3:P:1283:SER:HA	3:P:1286:LYS:HD3	1.95	0.49
7:8:4:DC:N3	7:8:5:DC:C4	2.81	0.49
1:A:48:LEU:HG	1:A:180:VAL:HG11	1.94	0.49
1:A:56:VAL:HG23	1:A:85:LEU:O	2.12	0.49
2:C:149:LEU:HD11	2:C:451:ARG:CB	2.15	0.49
2:C:435:ILE:HG12	2:C:440:GLY:HA3	1.95	0.49
2:C:446:ASP:OD1	2:C:446:ASP:N	2.45	0.49
2:C:667:LEU:CD1	2:C:794:LEU:HD23	2.42	0.49
2:C:668:ILE:HG21	2:C:671:LEU:HD13	1.93	0.49
2:C:1278:LEU:HD13	2:C:1287:LEU:HA	1.95	0.49
2:C:1302:THR:O	2:C:1305:TYR:HB3	2.13	0.49
6:1:53:DG:H2"	6:1:54:DA:OP2	2.11	0.49
2:I:96:LEU:CB	2:I:127:ILE:HD11	2.42	0.49
2:I:884:VAL:O	2:I:917:SER:CB	2.60	0.49
2:I:1284:ALA:HB1	3:J:1357:ILE:HD12	1.95	0.49
3:J:133:ARG:HH21	5:L:93:ARG:HH11	1.60	0.49
3:J:382:TYR:O	3:J:385:LEU:HB2	2.13	0.49
3:J:427:PRO:O	3:J:429:LEU:HG	2.13	0.49
4:K:15:ASN:HB3	4:K:18:ASP:HB2	1.93	0.49
5:L:91:ILE:HG22	5:L:91:ILE:O	2.11	0.49
5:L:266:PHE:O	5:L:270:VAL:HG23	2.13	0.49
5:L:395:THR:HG22	5:L:404:LEU:HD12	1.95	0.49
1:M:28:LEU:CD1	1:N:231:PHE:CZ	2.95	0.49
1:M:188:GLU:OE2	1:M:202:VAL:HG21	2.13	0.49
3:P:147:ILE:HG13	3:P:178:ALA:HA	1.95	0.49
4:Q:26:ARG:HH11	4:Q:64:LEU:HD21	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:53:DG:H2''	6:7:54:DA:H5'	1.93	0.49
1:B:190:ALA:HB3	1:B:198:LEU:C	2.38	0.49
2:C:1100:PRO:HB3	3:D:639:VAL:CG2	2.39	0.49
3:D:412:LEU:HG	3:D:416:ILE:CD1	2.43	0.49
3:D:1229:VAL:HG13	3:D:1230:THR:N	2.28	0.49
2:I:736:VAL:HG12	2:I:737:ASN:N	2.27	0.49
2:I:840:SER:O	2:I:840:SER:OG	2.29	0.49
2:I:1278:LEU:HD22	2:I:1283:ALA:CB	2.37	0.49
3:J:370:LYS:HA	3:J:441:LEU:HD22	1.95	0.49
3:J:759:ILE:HG21	3:J:767:LEU:HD22	1.95	0.49
3:J:899:TYR:CZ	3:J:915:ILE:HG23	2.48	0.49
3:J:1255:VAL:HG12	3:J:1256:ILE:N	2.27	0.49
1:M:208:ASN:H	1:M:208:ASN:ND2	2.10	0.49
2:O:82:VAL:HG23	2:O:83:GLN:H	1.78	0.49
2:O:398:SER:OG	2:O:399:ALA:N	2.43	0.49
2:O:514:PHE:CE2	7:8:19:DA:O4'	2.66	0.49
2:O:660:VAL:HG21	3:P:769:VAL:HG12	1.94	0.49
2:O:1278:LEU:HD13	2:O:1287:LEU:CA	2.43	0.49
5:R:383:ASN:ND2	6:7:41:DT:H3	2.06	0.49
1:B:35:PHE:CD2	1:B:35:PHE:N	2.79	0.49
1:B:83:LEU:O	3:D:528:THR:HG21	2.12	0.49
2:C:94:ALA:CB	2:C:129:LEU:HD11	2.42	0.49
3:D:749:LYS:HG2	3:D:755:ILE:CG1	2.43	0.49
3:D:909:ILE:HD13	3:D:915:ILE:HG12	1.94	0.49
3:D:1163:VAL:CG1	3:D:1175:LEU:CD2	2.82	0.49
5:F:279:ARG:NH2	5:F:347:ILE:HG12	2.28	0.49
1:G:45:ARG:HD3	1:H:38:THR:OG1	2.12	0.49
2:I:90:VAL:CG1	2:I:91:THR:N	2.75	0.49
2:I:844:LYS:HG2	2:I:845:LEU:HD23	1.94	0.49
2:I:1210:ILE:CG2	2:I:1211:ARG:N	2.76	0.49
2:I:1281:TYR:CE1	3:J:489:ASN:ND2	2.81	0.49
3:J:133:ARG:HH21	5:L:93:ARG:NH1	2.10	0.49
3:J:294:ASN:ND2	5:L:406:GLN:HE21	2.09	0.49
3:J:311:ARG:NH2	3:J:1329:THR:HG21	2.28	0.49
3:J:492:SER:OG	3:J:495:ASN:OD1	2.22	0.49
3:J:984:LEU:HD22	3:J:993:GLU:OE1	2.12	0.49
3:J:994:SER:O	3:J:995:TYR:CG	2.66	0.49
3:J:1264:ALA:HB1	3:J:1303:SER:O	2.13	0.49
1:M:179:PRO:O	1:M:208:ASN:ND2	2.46	0.49
1:N:75:GLN:HG3	1:N:134:THR:CG2	2.38	0.49
2:O:150:HIS:CE1	2:O:454:ARG:CD	2.96	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:748:ILE:HD11	2:O:970:GLY:HA3	1.93	0.49
3:P:930:LEU:CB	3:P:1134:ILE:HD11	2.38	0.49
5:R:102:MET:HE2	6:7:43:DT:O2	2.12	0.49
7:8:47:DT:H2''	7:8:48:DC:H5''	1.95	0.49
1:A:224:LEU:HD11	1:A:228:LEU:HD11	1.94	0.48
2:C:25:PRO:HD3	2:C:578:TYR:CD1	2.47	0.48
2:C:253:PHE:HE1	2:C:255:ILE:HG23	1.78	0.48
2:C:1123:GLY:O	2:C:1127:LYS:HG2	2.12	0.48
3:D:97:VAL:CG1	3:D:101:ARG:HG3	2.43	0.48
3:D:1156:LEU:HD23	3:D:1209:VAL:HA	1.95	0.48
3:D:1280:VAL:CG1	3:D:1281:GLU:N	2.75	0.48
2:I:228:VAL:CG2	2:I:337:PHE:HB2	2.43	0.48
3:J:136:GLU:C	3:J:140:TYR:HD2	2.16	0.48
3:J:1272:SER:CB	3:J:1274:PHE:HE2	2.24	0.48
5:L:353:LEU:HD23	5:L:353:LEU:HA	1.65	0.48
6:4:43:DT:H3'	6:4:44:DG:H5''	1.94	0.48
6:4:52:DT:H1'	6:4:53:DG:C5	2.47	0.48
1:M:225:ALA:HB2	1:N:228:LEU:HD13	1.94	0.48
1:M:228:LEU:O	1:M:232:VAL:HG23	2.13	0.48
1:N:52:PRO:HB3	1:N:150:ARG:HB3	1.95	0.48
2:O:525:THR:HG21	2:O:687:ARG:HD3	1.94	0.48
3:P:23:ALA:HB1	3:P:232:ASN:HD21	1.78	0.48
3:P:306:LEU:HG	3:P:307:LEU:N	2.14	0.48
3:P:423:LEU:HB3	3:P:466:MET:CE	2.42	0.48
3:P:653:ILE:HD13	3:P:692:ARG:HB3	1.94	0.48
5:R:461:ASN:OD1	5:R:461:ASN:N	2.44	0.48
1:B:33:ARG:O	1:B:35:PHE:HD2	1.96	0.48
1:B:48:LEU:CD2	1:B:180:VAL:HB	2.43	0.48
1:B:110:VAL:HB	1:B:131:CYS:H	1.78	0.48
2:C:606:LEU:HA	2:C:610:GLU:OE1	2.13	0.48
2:C:811:ASN:HD22	2:C:1099:ASN:CA	2.26	0.48
3:D:557:LYS:HG2	3:D:558:ASP:O	2.13	0.48
1:H:187:VAL:HG23	1:H:187:VAL:O	2.14	0.48
2:I:1131:MET:HE2	2:I:1141:LEU:HD23	1.95	0.48
2:I:1334:GLY:O	3:J:25:ALA:CB	2.62	0.48
3:J:544:LEU:CD2	3:J:578:ILE:HD11	2.43	0.48
3:J:1011:VAL:CG1	3:J:1017:VAL:HG12	2.43	0.48
4:K:5:THR:HG22	4:K:7:GLN:H	1.78	0.48
4:K:6:VAL:HG11	4:K:51:LEU:HD22	1.96	0.48
5:L:426:LYS:HG2	6:4:39:DA:H3'	1.95	0.48
2:O:694:ARG:O	2:O:798:GLN:NE2	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:1326:LEU:HD13	3:P:342:LEU:HD11	1.96	0.48
3:P:252:LEU:HD11	3:P:260:PHE:HB3	1.95	0.48
3:P:373:ALA:CA	3:P:376:LEU:CD1	2.60	0.48
3:P:405:GLU:HB2	3:P:408:VAL:HG23	1.95	0.48
1:A:156:SER:HA	1:A:159:ILE:HG22	1.94	0.48
1:A:187:VAL:HG22	1:A:201:LEU:HD12	1.93	0.48
1:B:88:LEU:CD2	1:B:128:HIS:HD2	2.16	0.48
2:C:425:ILE:O	2:C:428:VAL:HB	2.14	0.48
2:C:812:PHE:CD2	2:C:813:GLU:HG3	2.48	0.48
2:C:871:VAL:HG23	2:C:883:LEU:C	2.37	0.48
3:D:310:GLY:HA2	3:D:315:ALA:HB2	1.95	0.48
5:F:458:GLU:OE2	7:2:28:DG:C8	2.66	0.48
1:G:33:ARG:CB	1:G:33:ARG:CZ	2.89	0.48
1:G:192:VAL:HG12	4:Q:69:ARG:NH2	2.27	0.48
1:H:69:SER:OG	1:H:78:ILE:HD11	2.13	0.48
1:H:83:LEU:HB3	3:J:528:THR:HG22	1.95	0.48
2:I:798:GLN:OE1	2:I:827:ARG:HB3	2.14	0.48
3:J:58:CYS:SG	3:J:60:ARG:N	2.86	0.48
3:J:398:LYS:HZ1	5:L:532:LEU:HG	1.77	0.48
3:J:425:ARG:HB2	3:J:466:MET:HE3	1.94	0.48
3:J:584:PRO:HD3	3:J:620:PHE:CD1	2.48	0.48
3:J:742:GLY:O	3:J:762:ASN:HB3	2.14	0.48
3:J:975:ILE:CD1	3:J:980:THR:HG21	2.44	0.48
3:J:1148:ARG:HG2	6:4:55:DC:OP1	2.13	0.48
6:4:56:DG:C2	7:5:8:DG:C2	3.01	0.48
1:M:81:ILE:HG23	1:M:130:ILE:HG23	1.95	0.48
2:O:1269:ARG:HB2	3:P:346:ARG:HD3	1.96	0.48
3:P:84:ILE:O	3:P:84:ILE:HG22	2.12	0.48
3:P:744:ARG:HB3	3:P:759:ILE:CG2	2.43	0.48
3:P:849:LEU:CD1	3:P:857:LEU:CD2	2.90	0.48
3:P:1174:ARG:HG3	3:P:1189:MET:HB3	1.95	0.48
1:A:100:LEU:HD13	1:A:115:ILE:CG2	2.23	0.48
1:B:69:SER:O	1:B:78:ILE:HG13	2.14	0.48
1:B:179:PRO:O	1:B:208:ASN:HB2	2.12	0.48
2:C:232:ILE:HD13	2:C:326:SER:HB3	1.95	0.48
2:C:562:GLU:O	2:C:562:GLU:CG	2.56	0.48
3:D:923:ILE:O	3:D:926:PRO:HD2	2.12	0.48
6:1:50:DT:H5'	6:1:51:DC:C6	2.48	0.48
1:G:232:VAL:HG12	1:H:218:ARG:HG2	1.95	0.48
1:H:166:ARG:CZ	1:H:166:ARG:HB2	2.42	0.48
2:I:80:PHE:HB2	2:I:85:CYS:SG	2.53	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:936:ARG:HH21	2:I:1047:LEU:CD2	2.26	0.48
2:I:1164:PHE:N	2:I:1164:PHE:HD2	2.11	0.48
3:J:141:PHE:CE1	3:J:181:GLY:HA3	2.48	0.48
3:J:424:ASN:C	3:J:466:MET:HE3	2.38	0.48
3:J:708:ASN:HA	3:J:713:GLU:HA	1.94	0.48
3:J:1031:VAL:HG23	3:J:1080:ILE:HG21	1.95	0.48
3:J:1062:LEU:HD22	3:J:1066:GLU:OE1	2.13	0.48
4:K:50:ALA:O	4:K:54:ILE:CG1	2.61	0.48
5:L:449:THR:OG1	5:L:504:PRO:HG3	2.13	0.48
1:M:224:LEU:HD21	1:N:228:LEU:HD21	1.96	0.48
2:O:1324:ASN:O	2:O:1328:LYS:HG2	2.12	0.48
3:P:134:ASP:CG	3:P:159:ILE:HD11	2.38	0.48
3:P:591:ILE:HG21	3:P:604:MET:HG2	1.93	0.48
3:P:843:VAL:HG11	3:P:883:ARG:HD3	1.95	0.48
6:7:53:DG:H1'	6:7:54:DA:H5'	1.95	0.48
8:9:14:A:H5'	8:9:15:G:OP2	2.12	0.48
2:C:511:LEU:N	2:C:511:LEU:HD23	2.28	0.48
2:C:1025:PHE:HA	2:C:1028:LYS:HB2	1.95	0.48
3:D:53:ARG:O	3:D:58:CYS:HB2	2.13	0.48
3:D:805:GLN:NE2	3:D:1347:LEU:N	2.61	0.48
5:F:345:GLN:O	5:F:348:GLU:HB2	2.14	0.48
6:1:50:DT:C5'	6:1:51:DC:C6	2.96	0.48
1:G:192:VAL:HG21	1:G:198:LEU:HB2	1.95	0.48
1:H:168:ILE:CG1	3:P:867:GLN:HB3	2.44	0.48
2:I:237:LEU:HB2	2:I:287:VAL:CG2	2.43	0.48
2:I:807:TRP:CG	2:I:808:ASN:H	2.32	0.48
2:I:1072:ASN:ND2	2:I:1111:GLN:OE1	2.47	0.48
2:I:1289:GLU:HA	2:I:1293:VAL:HG22	1.96	0.48
2:I:1294:LYS:CB	3:J:347:VAL:HG13	2.42	0.48
5:L:126:GLY:O	5:L:130:VAL:HG23	2.12	0.48
5:L:309:ASN:OD1	5:L:312:SER:HB3	2.14	0.48
1:M:43:LEU:C	1:M:47:LEU:HD12	2.38	0.48
1:M:185:TYR:CD2	1:M:185:TYR:O	2.66	0.48
2:O:153:PRO:CA	2:O:177:ILE:HG22	2.38	0.48
2:O:155:VAL:HG13	2:O:176:ILE:HG12	1.95	0.48
3:P:1301:THR:HG22	3:P:1302:TYR:H	1.79	0.48
5:R:402:LEU:HA	5:R:405:ILE:CD1	2.42	0.48
7:8:36:DG:H2''	7:8:37:DA:H5'	1.95	0.48
1:A:43:LEU:O	1:A:47:LEU:HD12	2.13	0.48
1:B:95:LYS:HD2	1:B:120:ASP:OD2	2.14	0.48
1:B:111:THR:OG1	1:B:126:PRO:O	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:14:ASP:HA	2:C:1183:ALA:HB3	1.94	0.48
2:C:390:PHE:CD2	2:C:390:PHE:N	2.81	0.48
3:D:320:ASN:HB2	3:D:322:ARG:HG2	1.95	0.48
3:D:807:LEU:HD13	3:D:1259:GLN:HE21	1.78	0.48
3:D:923:ILE:HD11	3:D:1252:HIS:HB2	1.94	0.48
4:E:26:ARG:HB2	4:E:64:LEU:HD11	1.95	0.48
5:F:381:GLU:O	5:F:384:LEU:CG	2.57	0.48
6:1:50:DT:C3'	6:1:51:DC:H5'	2.43	0.48
7:2:6:DG:H2'	7:2:7:DC:C6	2.48	0.48
1:G:71:LYS:O	1:G:74:VAL:HG23	2.13	0.48
1:G:224:LEU:HD23	1:H:228:LEU:HD21	1.94	0.48
2:I:217:THR:HG22	2:I:221:LEU:HD12	1.95	0.48
2:I:337:PHE:C	2:I:338:THR:HG23	2.38	0.48
2:I:448:LEU:CD2	2:I:448:LEU:H	2.22	0.48
2:I:808:ASN:N	2:I:808:ASN:HD22	2.10	0.48
3:J:397:ALA:O	3:J:401:VAL:HG23	2.13	0.48
3:J:425:ARG:HH22	8:6:16:U:C1'	2.26	0.48
3:J:1144:LEU:HD13	3:J:1237:VAL:CG2	2.41	0.48
3:J:1163:VAL:CG1	3:J:1164:SER:N	2.77	0.48
2:O:15:PHE:CE2	2:O:1182:ILE:HD13	2.48	0.48
2:O:26:TYR:HE2	2:O:28:LEU:HB2	1.79	0.48
2:O:708:VAL:CG1	2:O:794:LEU:HD22	2.34	0.48
2:O:811:ASN:HB2	2:O:1099:ASN:HB2	1.95	0.48
2:O:897:PRO:CB	5:R:563:PHE:O	2.59	0.48
3:P:865:HIS:H	3:P:868:TRP:HD1	1.62	0.48
5:R:279:ARG:HH21	5:R:347:ILE:CD1	2.26	0.48
1:A:179:PRO:O	1:A:208:ASN:ND2	2.46	0.48
2:C:373:GLY:CA	5:F:91:ILE:HA	2.43	0.48
3:D:116:PHE:CE1	3:D:1333:THR:HG22	2.48	0.48
3:D:250:ARG:HB3	3:D:265:LEU:HD12	1.95	0.48
3:D:352:ARG:O	3:D:372:MET:CE	2.62	0.48
3:D:474:LEU:HD13	4:E:28:ARG:HG2	1.96	0.48
3:D:1044:GLN:O	3:D:1067:ARG:HG2	2.14	0.48
1:H:106:GLY:HA2	1:H:136:GLU:HA	1.96	0.48
1:H:190:ALA:N	1:H:199:ASP:HA	2.21	0.48
2:I:32:LEU:HD23	2:I:130:MET:CE	2.44	0.48
2:I:515:MET:HE3	2:I:517:GLN:CG	2.44	0.48
3:J:350:SER:HB3	3:J:469:HIS:ND1	2.29	0.48
3:J:899:TYR:CZ	3:J:915:ILE:HG21	2.48	0.48
3:J:984:LEU:N	3:J:993:GLU:O	2.47	0.48
3:J:1140:ARG:HH21	3:J:1236:GLU:HG2	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1226:VAL:HA	3:J:1229:VAL:CG1	2.43	0.48
3:J:1355:ARG:CZ	3:J:1369:ARG:NH1	2.76	0.48
5:L:110:LEU:H	5:L:110:LEU:HD12	1.79	0.48
5:L:386:LEU:HD22	6:4:41:DT:C5	2.49	0.48
5:L:441:ARG:HG3	5:L:442:SER:N	2.29	0.48
2:O:104:ILE:HD12	2:O:116:ASP:HB2	1.95	0.48
2:O:920:VAL:CG1	2:O:921:PRO:HD2	2.43	0.48
3:P:262:THR:CA	5:R:507:MET:HE3	2.43	0.48
3:P:768:ASN:OD1	3:P:770:LEU:N	2.47	0.48
5:R:452:ILE:HG21	5:R:460:ILE:HD11	1.96	0.48
2:C:279:LYS:HE3	5:L:474:MET:HG2	1.94	0.48
2:C:496:LYS:HB2	2:C:497:PRO:HD3	1.95	0.48
2:C:634:VAL:HG12	2:C:635:THR:H	1.77	0.48
2:C:871:VAL:HG21	2:C:883:LEU:HA	1.94	0.48
2:C:933:VAL:HG11	2:C:945:ALA:HB2	1.96	0.48
2:C:1257:GLN:NE2	3:D:345:LYS:HB3	2.29	0.48
3:D:746:LEU:HD23	3:D:758:PRO:HA	1.96	0.48
5:F:110:LEU:HD12	5:F:110:LEU:H	1.77	0.48
1:G:56:VAL:HG21	1:G:85:LEU:HB3	1.96	0.48
1:H:223:ILE:HG22	1:H:227:GLN:HE21	1.79	0.48
2:I:32:LEU:HD23	2:I:130:MET:HE1	1.95	0.48
2:I:61:SER:HA	2:I:479:LEU:HD13	1.95	0.48
2:I:167:SER:HA	3:J:1064:SER:HB3	1.96	0.48
3:J:139:LEU:HD21	3:J:185:ILE:HD11	1.90	0.48
5:L:470:MET:HG2	5:L:486:ARG:HH11	1.79	0.48
1:M:156:SER:O	1:M:159:ILE:HG22	2.13	0.48
2:O:13:LYS:HE3	2:O:1149:TYR:O	2.14	0.48
2:O:232:ILE:O	2:O:331:LYS:HB3	2.13	0.48
2:O:550:VAL:HG13	3:P:780:ARG:NH2	2.29	0.48
2:O:885:GLY:HA2	2:O:917:SER:HG	1.76	0.48
2:O:934:PHE:HB2	2:O:1049:ILE:HB	1.96	0.48
2:O:1294:LYS:CD	3:P:347:VAL:HG11	2.30	0.48
3:P:56:LEU:O	3:P:250:ARG:NH2	2.37	0.48
3:P:130:MET:HG2	3:P:135:ILE:HG13	1.90	0.48
3:P:352:ARG:HH21	3:P:465:GLN:HB2	1.78	0.48
3:P:406:ALA:HA	3:P:409:TRP:CD1	2.48	0.48
3:P:742:GLY:O	3:P:762:ASN:HB3	2.14	0.48
3:P:978:ARG:HD2	3:P:1212:ASP:OD2	2.14	0.48
1:A:133:LEU:HD21	1:A:140:ILE:HG22	1.96	0.48
1:A:150:ARG:CZ	1:B:7:GLU:O	2.62	0.48
1:B:82:LEU:CD2	1:B:173:VAL:HG21	2.42	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:656:SER:O	2:C:659:GLN:HG2	2.14	0.48
2:C:743:PRO:HA	2:C:974:ARG:NH1	2.26	0.48
3:D:481:ARG:HG2	4:E:6:VAL:HG21	1.95	0.48
5:F:134:VAL:HG13	5:F:140:ALA:HB1	1.96	0.48
1:H:43:LEU:O	1:H:47:LEU:HD12	2.14	0.48
2:I:56:VAL:HG12	2:I:59:ILE:HG12	1.94	0.48
2:I:1284:ALA:HA	3:J:1357:ILE:HD13	1.96	0.48
3:J:976:THR:HG21	3:J:1030:GLU:HG2	1.95	0.48
1:M:49:SER:HB3	1:N:33:ARG:HH12	1.78	0.48
2:O:56:VAL:HG21	2:O:468:LEU:HB3	1.96	0.48
2:O:618:GLN:O	2:O:621:SER:OG	2.21	0.48
2:O:667:LEU:HD23	2:O:667:LEU:HA	1.61	0.48
2:O:672:GLU:CD	2:O:672:GLU:H	2.22	0.48
2:O:1186:VAL:O	2:O:1187:PHE:HB2	2.13	0.48
2:O:1239:VAL:HG23	3:P:354:VAL:CG2	2.44	0.48
2:O:1293:VAL:O	2:O:1301:ARG:CB	2.62	0.48
3:P:536:LEU:HB3	3:P:542:ALA:HB3	1.96	0.48
7:8:51:DG:C8	7:8:52:DT:H71	2.48	0.48
1:A:13:LEU:CA	1:A:28:LEU:HD21	2.38	0.48
2:C:92:TYR:CE2	2:C:129:LEU:HB2	2.48	0.48
2:C:748:ILE:HG13	2:C:970:GLY:HA3	1.95	0.48
2:C:759:SER:OG	2:C:763:THR:N	2.47	0.48
3:D:131:PRO:O	3:D:134:ASP:CG	2.57	0.48
3:D:1263:LYS:HB2	3:D:1307:LEU:HD11	1.95	0.48
5:F:95:THR:O	5:F:97:PRO:HD3	2.14	0.48
2:I:336:LEU:N	2:I:336:LEU:HD23	2.29	0.48
2:I:698:PRO:HG3	2:I:1231:TYR:CE2	2.48	0.48
3:J:107:LEU:HD11	3:J:242:LEU:HB2	1.96	0.48
3:J:131:PRO:O	3:J:135:ILE:CD1	2.62	0.48
3:J:544:LEU:HA	3:J:574:VAL:HB	1.96	0.48
5:L:401:PHE:O	5:L:405:ILE:CD1	2.61	0.48
5:L:592:ALA:HA	5:L:595:LEU:HD12	1.95	0.48
1:M:69:SER:O	1:M:78:ILE:CG1	2.62	0.48
2:O:819:SER:OG	2:O:821:ARG:HB2	2.14	0.48
2:O:1269:ARG:HA	3:P:346:ARG:HA	1.96	0.48
3:P:137:ARG:NH1	5:R:88:GLU:O	2.45	0.48
3:P:395:LYS:HE2	3:P:399:LYS:NZ	2.28	0.48
3:P:398:LYS:HZ3	5:R:532:LEU:CB	2.27	0.48
3:P:823:THR:HG22	3:P:879:ALA:HB2	1.95	0.48
3:P:1263:LYS:HD3	3:P:1280:VAL:C	2.39	0.48
5:R:456:MET:HE2	5:R:456:MET:H	1.76	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:460:ILE:CA	5:R:463:LEU:HG	2.43	0.48
1:A:43:LEU:O	1:A:47:LEU:CG	2.62	0.47
1:A:61:ILE:CG2	1:A:142:MET:HE2	2.40	0.47
1:A:109:PRO:HA	1:A:132:HIS:CD2	2.48	0.47
2:C:639:LYS:O	2:C:639:LYS:HG2	2.14	0.47
2:C:697:LYS:HB3	2:C:790:ASP:OD2	2.14	0.47
2:C:1230:MET:HG2	2:C:1232:MET:HE3	1.95	0.47
2:C:1312:ASN:O	2:C:1313:HIS:HB2	2.14	0.47
3:D:217:LEU:O	3:D:221:ILE:HG13	2.14	0.47
3:D:318:GLY:CA	3:D:322:ARG:O	2.61	0.47
3:D:973:LEU:O	3:D:1003:LEU:HB2	2.14	0.47
5:F:429:THR:OG1	6:1:39:DA:H8	1.98	0.47
2:I:720:ARG:HD3	2:I:736:VAL:HG21	1.96	0.47
2:I:724:VAL:HG11	2:I:727:VAL:HG22	1.94	0.47
2:I:1005:GLU:OE1	2:I:1007:LYS:HG2	2.14	0.47
3:J:474:LEU:HD12	4:K:28:ARG:CD	2.43	0.47
3:J:1280:VAL:CG1	3:J:1281:GLU:H	2.24	0.47
4:K:41:GLU:HG3	4:K:49:ILE:CD1	2.44	0.47
4:K:44:ASP:O	4:K:49:ILE:HD11	2.14	0.47
2:O:35:PHE:CD2	2:O:130:MET:HB3	2.49	0.47
2:O:80:PHE:HB2	2:O:85:CYS:SG	2.54	0.47
2:O:1135:GLN:O	2:O:1136:GLN:HB2	2.14	0.47
3:P:262:THR:C	5:R:507:MET:HB3	2.39	0.47
3:P:968:ASN:CB	3:P:1117:SER:O	2.62	0.47
3:P:1067:ARG:NH1	3:P:1074:LEU:O	2.47	0.47
1:A:135:ASP:O	1:A:138:ALA:HB3	2.13	0.47
1:A:203:ILE:CG2	1:A:205:MET:HE2	2.44	0.47
1:B:190:ALA:O	1:B:191:ARG:C	2.57	0.47
2:C:239:MET:SD	2:C:241:LEU:HD13	2.54	0.47
2:C:559:CYS:SG	2:C:561:ILE:CG1	3.02	0.47
2:C:800:MET:HE3	2:C:827:ARG:NH1	2.29	0.47
2:C:1117:LEU:CD1	2:C:1182:ILE:HD13	2.43	0.47
3:D:30:ILE:HG23	3:D:243:PRO:HB3	1.95	0.47
3:D:269:TYR:O	3:D:272:VAL:HB	2.13	0.47
3:D:318:GLY:HA2	3:D:324:LEU:HD21	1.96	0.47
3:D:749:LYS:CB	3:D:750:PRO:CD	2.56	0.47
3:D:833:GLU:HB2	3:D:1242:ARG:NH1	2.28	0.47
5:F:414:LYS:HD3	5:F:434:TRP:CE3	2.49	0.47
5:F:433:TRP:CZ3	5:F:436:ARG:HD3	2.48	0.47
6:1:46:DG:C8	6:1:46:DG:H5"	2.49	0.47
1:G:68:TYR:CD2	2:I:929:ILE:HD11	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:149:GLY:HA3	1:G:177:TYR:CE2	2.49	0.47
1:G:180:VAL:HA	1:G:207:THR:HG22	1.95	0.47
1:G:205:MET:HE3	1:G:205:MET:HB2	1.73	0.47
1:H:57:THR:O	1:H:172:LEU:HD12	2.14	0.47
2:I:1186:VAL:O	2:I:1187:PHE:HB2	2.14	0.47
2:I:1273:MET:HG3	7:5:14:DC:C5'	2.43	0.47
2:I:1302:THR:HG23	2:I:1303:LYS:N	2.29	0.47
3:J:425:ARG:HH12	3:J:427:PRO:HD2	1.78	0.47
3:J:879:ALA:C	3:J:880:VAL:CG2	2.86	0.47
5:L:123:ILE:HG23	5:L:376:LYS:HE3	1.96	0.47
5:L:159:SER:HA	5:L:163:THR:HG23	1.96	0.47
6:4:34:DG:H2''	6:4:35:DC:C5	2.49	0.47
2:O:135:THR:HG22	2:O:144:VAL:HG22	1.95	0.47
2:O:202:ARG:NH2	7:8:7:DC:H5''	2.29	0.47
2:O:1107:MET:HE3	3:P:763:PHE:CE2	2.50	0.47
3:P:332:LYS:NZ	3:P:1329:THR:OG1	2.47	0.47
3:P:367:GLY:O	3:P:447:ILE:HG22	2.13	0.47
3:P:1155:ILE:H	3:P:1211:SER:HB2	1.80	0.47
3:P:1174:ARG:HG3	3:P:1189:MET:HA	1.96	0.47
3:P:1355:ARG:O	3:P:1357:ILE:HD12	2.13	0.47
1:A:190:ALA:HB2	1:A:200:LYS:N	2.29	0.47
1:A:219:ARG:O	1:A:222:THR:HB	2.14	0.47
1:B:88:LEU:HD12	1:B:89:ALA:H	1.80	0.47
3:D:407:VAL:O	3:D:411:ILE:HG13	2.15	0.47
3:D:485:MET:O	3:D:489:ASN:ND2	2.46	0.47
3:D:798:ARG:O	3:D:801:VAL:HB	2.14	0.47
3:D:1077:ALA:HB1	3:D:1098:GLN:HG2	1.94	0.47
5:F:147:GLN:HG2	5:F:161:LEU:HD21	1.96	0.47
5:F:388:ILE:CG2	5:F:389:SER:N	2.77	0.47
5:F:452:ILE:HG22	5:F:453:PRO:O	2.14	0.47
1:G:120:ASP:OD1	1:G:120:ASP:N	2.45	0.47
1:G:191:ARG:NH2	3:P:1375:ALA:HB3	2.29	0.47
2:I:219:GLN:O	2:I:223:LEU:HG	2.15	0.47
2:I:511:LEU:HD23	2:I:511:LEU:HA	1.51	0.47
2:I:720:ARG:HD2	2:I:736:VAL:HG21	1.95	0.47
2:I:873:ILE:HG13	2:I:944:ARG:NH2	2.20	0.47
3:J:871:LEU:O	3:J:875:ASN:ND2	2.48	0.47
3:J:908:ILE:O	3:J:908:ILE:HG22	2.10	0.47
1:M:41:ASN:HD21	2:O:1218:GLY:CA	2.23	0.47
2:O:1185:PRO:HD2	2:O:1189:GLY:HA2	1.97	0.47
3:P:886:VAL:HG13	3:P:1258:ARG:HA	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:389:SER:HA	5:R:392:LYS:HD2	1.96	0.47
5:R:588:ARG:O	5:R:591:GLU:HB3	2.14	0.47
6:7:29:DC:H2"	6:7:30:DG:C8	2.49	0.47
7:8:51:DG:C8	7:8:52:DT:C7	2.97	0.47
2:C:92:TYR:HB3	2:C:137:VAL:HB	1.96	0.47
2:C:538:LEU:N	2:C:538:LEU:HD23	2.29	0.47
2:C:727:VAL:HG21	2:C:773:LEU:N	2.28	0.47
2:C:761:GLN:O	2:C:762:ASN:CB	2.63	0.47
2:C:1098:LEU:CD2	2:C:1099:ASN:N	2.77	0.47
2:C:1177:ARG:HD2	2:C:1178:LYS:HZ2	1.80	0.47
3:D:435:GLN:HB2	3:D:457:TYR:OH	2.14	0.47
1:G:59:VAL:HG22	1:G:144:ILE:HG12	1.96	0.47
2:I:196:VAL:HG23	2:I:206:ALA:CA	2.33	0.47
2:I:896:THR:OG1	2:I:899:GLU:HG3	2.14	0.47
2:I:1272:GLU:OE1	3:J:339:ARG:HG2	2.15	0.47
2:I:1330:ILE:HD13	2:I:1337:ILE:HD13	1.95	0.47
3:J:146:VAL:HA	3:J:178:ALA:HB2	1.96	0.47
3:J:424:ASN:C	3:J:466:MET:CE	2.87	0.47
3:J:723:TYR:CE1	3:J:727:ASP:HB2	2.50	0.47
3:J:919:ALA:HB2	3:J:1255:VAL:HG21	1.96	0.47
7:5:12:DG:O3'	7:5:13:DA:P	2.72	0.47
1:M:232:VAL:HG12	1:N:218:ARG:HA	1.87	0.47
2:O:145:ILE:HD11	2:O:506:PHE:CD1	2.49	0.47
2:O:560:PRO:HG2	2:O:561:ILE:HG12	1.96	0.47
2:O:1337:ILE:HA	3:P:21:LYS:O	2.14	0.47
3:P:701:LEU:HG	3:P:723:TYR:HB2	1.95	0.47
3:P:749:LYS:CG	3:P:750:PRO:HD2	2.44	0.47
3:P:849:LEU:HD13	3:P:857:LEU:HD23	1.94	0.47
5:R:269:LEU:O	5:R:273:MET:HE1	2.12	0.47
5:R:440:THR:O	5:R:443:ILE:HG22	2.13	0.47
5:R:554:ARG:O	5:R:558:VAL:HG23	2.14	0.47
1:A:90:VAL:HG11	1:A:146:VAL:HG11	1.96	0.47
2:C:122:VAL:HG21	2:C:493:ILE:HD12	1.96	0.47
2:C:130:MET:HG2	2:C:131:THR:N	2.28	0.47
2:C:785:ASP:HB3	2:C:789:THR:OG1	2.14	0.47
2:C:797:GLY:HA3	2:C:1233:LEU:HD23	1.97	0.47
2:C:996:ARG:C	2:C:997:TRP:CD1	2.92	0.47
5:F:332:ASP:OD1	5:F:332:ASP:N	2.47	0.47
5:F:583:THR:HG23	5:F:586:ARG:CB	2.25	0.47
1:G:38:THR:CG2	1:H:42:ALA:HA	2.44	0.47
2:I:142:GLU:OE2	2:I:515:MET:HE1	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:363:LEU:HD23	3:J:618:VAL:HG12	1.93	0.47
3:J:515:ARG:NH2	3:J:719:PHE:CD1	2.82	0.47
3:J:649:LYS:HG3	3:J:653:ILE:HG13	1.96	0.47
3:J:661:VAL:CG1	3:J:665:GLN:NE2	2.77	0.47
3:J:1146:GLU:CD	3:J:1309:ILE:HB	2.38	0.47
5:L:287:ILE:HD11	5:L:344:LEU:HD13	1.97	0.47
5:L:298:PRO:HB2	5:L:301:ASN:ND2	2.29	0.47
5:L:368:GLY:O	5:L:371:LYS:HB2	2.15	0.47
5:L:548:LEU:HD21	5:L:560:ARG:HG3	1.97	0.47
2:O:124:MET:HE2	2:O:124:MET:HB3	1.76	0.47
2:O:197:ARG:HB3	2:O:200:ARG:C	2.39	0.47
2:O:502:VAL:O	2:O:506:PHE:HD2	1.98	0.47
2:O:634:VAL:CG1	2:O:635:THR:H	2.27	0.47
3:P:264:ASP:HB3	3:P:324:LEU:HD23	1.97	0.47
3:P:369:PRO:HB3	3:P:444:GLY:O	2.15	0.47
3:P:668:PHE:HD2	3:P:673:VAL:HB	1.79	0.47
3:P:839:VAL:CG1	3:P:864:LEU:CD1	2.93	0.47
5:R:387:VAL:CG2	5:R:435:ILE:HD13	2.44	0.47
5:R:557:LYS:HE2	5:R:560:ARG:NH1	2.29	0.47
1:B:60:GLU:O	1:B:142:MET:HB2	2.15	0.47
2:C:1176:LEU:HD13	2:C:1180:MET:HE2	1.95	0.47
3:D:1027:VAL:HG23	3:D:1124:ILE:HD11	1.97	0.47
5:F:245:ALA:O	5:F:249:ILE:HG13	2.15	0.47
5:F:476:ARG:HG3	5:F:477:GLU:N	2.29	0.47
6:1:46:DG:H8	6:1:46:DG:H5'	1.80	0.47
1:G:16:ILE:HG23	1:G:26:VAL:HG13	1.95	0.47
2:I:878:THR:HA	2:I:925:SER:HB2	1.96	0.47
2:I:929:ILE:CG2	2:I:930:ASP:N	2.75	0.47
2:I:960:LEU:CB	2:I:1025:PHE:HE1	2.15	0.47
2:I:1290:MET:HA	2:I:1294:LYS:CG	2.44	0.47
3:J:802:ASP:CG	3:J:1325:PHE:HB2	2.39	0.47
3:J:1162:ILE:CD1	3:J:1180:VAL:CG1	2.87	0.47
1:M:185:TYR:CD2	1:M:185:TYR:C	2.92	0.47
2:O:70:TYR:HA	2:O:100:LEU:CD2	2.38	0.47
2:O:337:PHE:HE2	2:O:343:HIS:CD2	2.32	0.47
3:P:101:ARG:O	3:P:246:PRO:HG3	2.14	0.47
3:P:311:ARG:NH1	7:8:10:DC:OP1	2.48	0.47
3:P:452:LEU:HD21	3:P:625:MET:HG3	1.96	0.47
6:7:47:DC:OP1	6:7:47:DC:H4'	2.14	0.47
7:8:23:DT:C2'	7:8:24:DT:OP1	2.62	0.47
1:A:48:LEU:HD11	1:A:183:ILE:HG23	1.81	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:56:VAL:CG2	1:A:85:LEU:O	2.61	0.47
1:A:92:VAL:CG1	1:A:95:LYS:O	2.58	0.47
1:A:107:ILE:HG12	1:A:136:GLU:HA	1.95	0.47
1:A:184:ALA:HB2	2:C:1091:GLY:HA2	1.97	0.47
1:A:224:LEU:HD12	1:A:224:LEU:C	2.39	0.47
2:C:371:ARG:HB3	5:F:99:ARG:HH12	1.80	0.47
2:C:475:VAL:HG13	2:C:492:MET:CE	2.45	0.47
2:C:528:ARG:CD	2:C:663:VAL:CG2	2.86	0.47
2:C:557:ARG:HB3	2:C:587:LEU:CD1	2.37	0.47
2:C:729:ALA:O	2:C:730:SER:HB3	2.15	0.47
2:C:1334:GLY:O	3:D:25:ALA:HB3	2.15	0.47
3:D:261:ALA:HB1	5:F:507:MET:CA	2.42	0.47
3:D:403:ARG:O	3:D:404:GLU:HB2	2.14	0.47
3:D:749:LYS:CG	3:D:755:ILE:CG1	2.86	0.47
5:F:407:GLU:HG2	5:F:442:SER:OG	2.15	0.47
1:G:75:GLN:HE22	2:I:727:VAL:HB	1.80	0.47
1:G:190:ALA:N	1:G:199:ASP:HA	2.26	0.47
1:H:64:VAL:HG11	1:H:78:ILE:CD1	2.45	0.47
2:I:48:GLY:HA2	2:I:461:GLU:HG3	1.97	0.47
2:I:207:THR:HA	2:I:210:LEU:HD12	1.96	0.47
2:I:208:ILE:HD11	2:I:365:GLU:HB3	1.97	0.47
2:I:220:ILE:O	2:I:224:PHE:HD2	1.97	0.47
2:I:724:VAL:HG23	2:I:775:GLU:O	2.14	0.47
2:I:1104:PRO:CG	3:J:725:MET:CE	2.93	0.47
2:I:1269:ARG:NH1	3:J:339:ARG:O	2.43	0.47
2:I:1292:THR:CG2	2:I:1293:VAL:H	2.03	0.47
3:J:38:VAL:HG21	3:J:244:VAL:HG11	1.96	0.47
3:J:107:LEU:HD11	3:J:242:LEU:CB	2.43	0.47
3:J:189:LEU:HB3	3:J:234:PRO:HB2	1.95	0.47
3:J:288:PRO:O	3:J:292:VAL:HG23	2.15	0.47
3:J:521:LYS:HB3	3:J:543:SER:H	1.77	0.47
3:J:1318:SER:HG	3:J:1321:SER:HB3	1.69	0.47
4:K:42:GLU:HB2	4:K:52:ARG:HH12	1.79	0.47
5:L:237:ALA:O	5:L:238:LYS:CB	2.63	0.47
5:L:426:LYS:HE2	6:4:40:DA:OP2	2.15	0.47
1:M:9:LEU:CD2	1:M:198:LEU:HD21	2.44	0.47
2:O:488:MET:CB	2:O:489:PRO:HD2	2.40	0.47
2:O:550:VAL:HG22	3:P:780:ARG:CZ	2.43	0.47
3:P:146:VAL:HG11	3:P:154:LEU:HB3	1.97	0.47
3:P:499:ILE:HG22	3:P:500:ILE:N	2.29	0.47
3:P:614:LEU:CD2	4:Q:7:GLN:CD	2.87	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:783:LEU:CD1	3:P:936:HIS:CB	2.93	0.47
3:P:952:VAL:HG23	3:P:1017:VAL:HG22	1.95	0.47
3:P:1270:GLY:HA2	3:P:1298:VAL:O	2.14	0.47
4:Q:25:ARG:NH2	4:Q:65:ASP:OD1	2.48	0.47
5:R:460:ILE:HA	5:R:463:LEU:HD11	1.96	0.47
1:B:125:LYS:HD3	1:B:128:HIS:HB2	1.96	0.47
2:C:16:GLY:O	2:C:1156:ARG:CB	2.63	0.47
2:C:110:PRO:HB2	2:C:111:GLU:H	1.57	0.47
2:C:146:VAL:HG23	2:C:511:LEU:O	2.15	0.47
2:C:661:VAL:HG11	2:C:665:ALA:CB	2.41	0.47
2:C:836:LEU:HD23	2:C:836:LEU:HA	1.74	0.47
2:C:996:ARG:O	2:C:997:TRP:CD1	2.62	0.47
2:C:1112:ILE:HG23	2:C:1116:HIS:NE2	2.29	0.47
2:C:1127:LYS:HE3	2:C:1202:GLY:O	2.15	0.47
3:D:115:TRP:CE3	3:D:1333:THR:HG23	2.50	0.47
3:D:163:GLU:CD	5:F:81:ALA:CB	2.88	0.47
3:D:349:TYR:O	3:D:470:VAL:HG23	2.15	0.47
5:F:395:THR:HA	5:F:404:LEU:HD11	1.95	0.47
6:1:18:DA:C2	6:1:19:DT:C2	3.02	0.47
6:1:43:DT:C3'	6:1:44:DG:C5'	2.92	0.47
3:J:725:MET:HE2	3:J:732:GLY:H	1.79	0.47
3:J:1040:MET:CE	3:J:1046:ILE:HG21	2.45	0.47
3:J:1163:VAL:HG12	3:J:1175:LEU:CD1	2.44	0.47
1:M:42:ALA:CA	1:N:38:THR:HG23	2.37	0.47
1:M:192:VAL:HG12	1:M:193:GLU:N	2.29	0.47
2:O:21:VAL:HG21	2:O:592:ARG:HH11	1.79	0.47
2:O:237:LEU:HB3	2:O:287:VAL:HG22	1.97	0.47
2:O:871:VAL:HG23	2:O:883:LEU:O	2.15	0.47
2:C:13:LYS:HE2	2:C:15:PHE:CE2	2.49	0.47
2:C:671:LEU:HD12	2:C:671:LEU:HA	1.63	0.47
3:D:401:VAL:O	3:D:404:GLU:HG3	2.15	0.47
3:D:497:GLU:CB	3:D:498:PRO:CD	2.91	0.47
2:I:112:GLY:O	2:I:114:VAL:N	2.44	0.47
2:I:806:PRO:HD3	3:J:637:ALA:O	2.15	0.47
2:I:883:LEU:HD21	2:I:920:VAL:HG23	1.97	0.47
2:I:1246:ARG:CZ	2:I:1249:GLY:HA3	2.45	0.47
3:J:526:VAL:C	3:J:527:LEU:HD23	2.40	0.47
3:J:622:ASP:HA	3:J:625:MET:HE2	1.97	0.47
1:M:162:GLU:OE1	1:M:166:ARG:NH1	2.48	0.47
2:O:298:ALA:HB2	2:O:336:LEU:HD21	1.96	0.47
2:O:757:THR:CG2	2:O:758:ARG:N	2.77	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:75:TYR:HD2	3:P:85:CYS:SG	2.38	0.47
3:P:130:MET:CG	3:P:135:ILE:CG1	2.75	0.47
3:P:442:ILE:HD13	3:P:448:GLN:NE2	2.30	0.47
3:P:1145:PHE:HB3	3:P:1309:ILE:CD1	2.38	0.47
3:P:1306:LEU:C	3:P:1307:LEU:HG	2.39	0.47
7:8:17:DG:H2'	7:8:18:DT:O4'	2.15	0.47
1:A:77:ASP:OD1	2:C:755:LYS:NZ	2.48	0.47
3:D:450:HIS:HD2	3:D:452:LEU:H	1.63	0.47
3:D:747:MET:HE1	3:D:774:ILE:C	2.40	0.47
3:D:805:GLN:HG3	3:D:806:ASP:N	2.30	0.47
5:F:324:LYS:O	5:F:326:TRP:N	2.48	0.47
1:G:31:LEU:CD1	1:G:201:LEU:CB	2.92	0.47
2:I:31:GLN:NE2	2:I:145:ILE:O	2.47	0.47
2:I:160:ASP:HB3	2:I:163:LYS:CB	2.45	0.47
2:I:335:THR:CG2	2:I:336:LEU:N	2.78	0.47
2:I:757:THR:HG22	2:I:758:ARG:N	2.30	0.47
2:I:1025:PHE:O	2:I:1028:LYS:HB2	2.15	0.47
3:J:115:TRP:O	3:J:119:SER:HB3	2.15	0.47
3:J:368:LEU:HD21	3:J:376:LEU:HD11	1.96	0.47
3:J:801:VAL:HG23	3:J:920:ALA:HB1	1.95	0.47
5:L:355:ILE:HA	5:L:358:VAL:HB	1.97	0.47
2:O:26:TYR:CE2	2:O:28:LEU:HB2	2.49	0.47
2:O:428:VAL:CG1	2:O:429:MET:CG	2.93	0.47
2:O:851:THR:HG22	2:O:852:ALA:H	1.79	0.47
3:P:242:LEU:HD12	3:P:243:PRO:N	2.30	0.47
3:P:310:GLY:HA2	3:P:315:ALA:HB2	1.98	0.47
3:P:395:LYS:HE2	3:P:399:LYS:HZ1	1.80	0.47
3:P:591:ILE:CG2	3:P:604:MET:HG2	2.45	0.47
3:P:808:VAL:CG1	3:P:809:VAL:N	2.77	0.47
3:P:927:GLY:O	3:P:1134:ILE:HD12	2.13	0.47
3:P:1169:THR:O	3:P:1169:THR:HG22	2.15	0.47
2:C:131:THR:HG23	2:C:135:THR:O	2.14	0.46
2:C:700:VAL:HG21	2:C:1114:GLU:HG3	1.98	0.46
3:D:298:MET:HE3	5:F:402:LEU:HB2	1.96	0.46
3:D:366:CYS:SG	3:D:437:PHE:HB2	2.55	0.46
3:D:495:ASN:ND2	3:D:1247:LYS:O	2.48	0.46
1:G:44:ARG:HG3	1:G:183:ILE:HG12	1.96	0.46
2:I:591:TYR:HE1	2:I:659:GLN:HE22	1.63	0.46
2:I:811:ASN:O	2:I:1099:ASN:HB2	2.14	0.46
2:I:1306:LYS:NZ	5:L:538:GLU:HG3	2.30	0.46
3:J:131:PRO:O	3:J:135:ILE:HD11	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:492:SER:CB	3:J:495:ASN:OD1	2.63	0.46
3:J:1171:GLY:O	3:J:1192:LYS:HG3	2.14	0.46
1:N:47:LEU:HD13	1:N:205:MET:CE	2.45	0.46
2:O:90:VAL:CG1	2:O:91:THR:H	2.24	0.46
2:O:255:ILE:HG23	2:O:285:ILE:CG2	2.44	0.46
2:O:312:ALA:HB3	2:O:315:MET:HE2	1.97	0.46
2:O:1184:THR:O	2:O:1184:THR:CG2	2.62	0.46
3:P:589:TYR:CD2	3:P:593:ASN:ND2	2.83	0.46
3:P:722:ILE:O	3:P:725:MET:HB2	2.15	0.46
3:P:1229:VAL:HG13	3:P:1230:THR:H	1.80	0.46
5:R:456:MET:HE3	6:7:31:DT:OP2	2.14	0.46
6:7:48:DA:H3'	6:7:49:DG:H5''	1.97	0.46
2:C:80:PHE:CB	2:C:85:CYS:SG	3.03	0.46
2:C:631:GLU:HG3	2:C:632:ASP:N	2.31	0.46
2:C:661:VAL:HG11	2:C:665:ALA:HB1	1.97	0.46
2:C:708:VAL:HG11	2:C:794:LEU:HD22	1.97	0.46
2:C:805:MET:O	2:C:811:ASN:ND2	2.48	0.46
2:C:835:GLU:O	2:C:836:LEU:HD23	2.15	0.46
2:C:972:PHE:CE2	2:C:994:ARG:HB3	2.49	0.46
3:D:78:LEU:O	3:D:81:ARG:HG3	2.15	0.46
3:D:343:LEU:HD11	3:D:1324:SER:HB2	1.97	0.46
4:E:64:LEU:HD23	4:E:64:LEU:HA	1.68	0.46
5:F:110:LEU:HD23	5:F:382:ALA:O	2.15	0.46
5:F:353:LEU:CB	5:F:358:VAL:CG2	2.92	0.46
1:H:31:LEU:CD1	1:H:39:LEU:CD1	2.68	0.46
1:H:52:PRO:HA	1:H:150:ARG:HB3	1.97	0.46
2:I:149:LEU:HA	2:I:453:ILE:HD13	1.96	0.46
3:J:337:ARG:HD3	3:J:341:ASN:ND2	2.30	0.46
3:J:1238:GLN:O	3:J:1242:ARG:HG3	2.15	0.46
3:J:1284:ARG:HA	3:J:1287:ILE:CG1	2.45	0.46
1:N:193:GLU:O	1:N:194:GLN:HB2	2.16	0.46
2:O:758:ARG:HB2	2:O:833:ILE:CG2	2.45	0.46
2:O:1161:LEU:O	2:O:1163:THR:N	2.48	0.46
2:O:1225:VAL:HG13	2:O:1226:THR:N	2.29	0.46
3:P:258:GLY:HA3	5:R:499:LYS:HZ1	1.78	0.46
3:P:842:ARG:O	3:P:864:LEU:HG	2.16	0.46
5:R:166:VAL:HG12	5:R:168:PRO:CD	2.33	0.46
1:A:182:ARG:C	1:A:183:ILE:HG22	2.40	0.46
2:C:78:PRO:HB3	2:C:93:SER:O	2.16	0.46
2:C:472:GLU:HG2	2:C:473:ARG:N	2.30	0.46
2:C:1061:GLN:CB	2:C:1062:PRO:CD	2.87	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1225:VAL:HG13	2:C:1226:THR:N	2.31	0.46
3:D:385:LEU:HD23	3:D:390:LEU:HB2	1.98	0.46
3:D:513:MET:SD	3:D:631:TYR:CG	3.09	0.46
5:F:155:GLU:HG3	5:F:156:ALA:N	2.29	0.46
5:F:461:ASN:OD1	7:2:26:DT:H72	2.15	0.46
1:G:10:LYS:HE2	1:H:226:GLU:CG	2.45	0.46
1:G:173:VAL:CG1	1:G:174:ASP:N	2.78	0.46
2:I:519:ASN:ND2	2:I:521:LEU:HB3	2.30	0.46
2:I:1252:SER:HB2	2:I:1259:LEU:CD2	2.45	0.46
2:I:1273:MET:HG3	7:5:14:DC:C4'	2.44	0.46
2:I:1283:ALA:HB1	3:J:479:GLU:OE2	2.14	0.46
3:J:115:TRP:CZ2	3:J:1329:THR:CG2	2.80	0.46
3:J:536:LEU:HD23	3:J:536:LEU:HA	1.71	0.46
3:J:809:VAL:CG2	3:J:915:ILE:CD1	2.88	0.46
3:J:975:ILE:HD11	3:J:1003:LEU:HD11	1.96	0.46
5:L:540:LEU:HD13	5:L:540:LEU:C	2.41	0.46
2:O:912:ASP:C	2:O:913:VAL:HG23	2.41	0.46
2:O:1077:SER:HA	3:P:356:THR:HG22	1.95	0.46
2:O:1151:LEU:HD21	2:O:1198:LEU:HA	1.98	0.46
2:O:1305:TYR:CD2	5:R:531:PRO:CB	2.97	0.46
2:O:1336:ASN:O	3:P:22:ILE:HA	2.16	0.46
3:P:1206:ARG:HB3	3:P:1223:LEU:HD22	1.96	0.46
5:R:483:LEU:HD12	5:R:483:LEU:O	2.16	0.46
2:C:73:TYR:CD1	2:C:73:TYR:C	2.93	0.46
2:C:550:VAL:CG2	3:D:777:HIS:HA	2.46	0.46
2:C:589:THR:CG2	2:C:591:TYR:CZ	2.98	0.46
2:C:1270:PHE:CE1	2:C:1274:GLU:HB3	2.50	0.46
2:C:1285:TYR:O	2:C:1289:GLU:HG3	2.15	0.46
2:C:1289:GLU:N	2:C:1315:MET:HE1	2.30	0.46
3:D:518:VAL:HG12	3:D:519:ASN:N	2.30	0.46
3:D:1035:VAL:HG22	3:D:1121:LEU:HD21	1.97	0.46
3:D:1163:VAL:CG1	3:D:1164:SER:N	2.77	0.46
3:D:1320:ILE:H	3:D:1320:ILE:HG13	1.52	0.46
5:F:282:THR:HG23	5:F:285:ARG:NH2	2.30	0.46
5:F:315:TRP:CZ2	5:F:341:LEU:HD11	2.51	0.46
6:1:49:DG:H3'	6:1:49:DG:H8	1.81	0.46
1:G:31:LEU:HD12	1:G:201:LEU:HB3	1.97	0.46
1:G:35:PHE:HA	1:G:38:THR:OG1	2.15	0.46
1:G:64:VAL:HG11	1:G:78:ILE:HD13	1.97	0.46
1:G:130:ILE:HG22	1:G:131:CYS:N	2.31	0.46
2:I:782:VAL:HG11	2:I:792:GLY:HA2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:848:GLU:HG2	2:I:888:THR:HG23	1.97	0.46
2:I:1289:GLU:O	2:I:1293:VAL:CG2	2.64	0.46
2:I:1323:PHE:CE2	3:J:1352:ILE:HG22	2.51	0.46
3:J:154:LEU:HD22	3:J:160:LEU:HD11	1.97	0.46
3:J:646:ILE:CD1	3:J:764:ARG:HD3	2.45	0.46
3:J:646:ILE:HG13	3:J:764:ARG:HD3	1.98	0.46
3:J:997:VAL:HG11	3:J:1003:LEU:HD21	1.96	0.46
3:J:1044:GLN:O	3:J:1067:ARG:HG2	2.16	0.46
3:J:1082:ASP:HB3	3:J:1088:VAL:HG23	1.97	0.46
5:L:401:PHE:CZ	6:4:44:DG:H1'	2.51	0.46
8:6:13:GTP:C2'	8:6:14:A:H5''	2.45	0.46
1:M:180:VAL:CA	1:M:207:THR:HG22	2.26	0.46
2:O:857:VAL:HG21	2:O:882:ILE:CD1	2.45	0.46
2:O:1339:LEU:HB3	3:P:17:PHE:CD2	2.50	0.46
3:P:146:VAL:HG23	3:P:158:GLN:HB3	1.96	0.46
3:P:510:LEU:CD1	3:P:601:ILE:HD11	2.44	0.46
3:P:872:LEU:HD22	3:P:877:VAL:HB	1.97	0.46
3:P:959:LYS:HD2	3:P:985:ILE:HG13	1.97	0.46
3:P:1040:MET:CE	3:P:1046:ILE:HG21	2.45	0.46
3:P:1356:LEU:HD13	3:P:1365:TYR:CE1	2.50	0.46
3:P:1364:ALA:O	3:P:1367:GLN:CG	2.64	0.46
5:R:466:ILE:HG22	5:R:470:MET:SD	2.55	0.46
2:C:52:ALA:HB1	2:C:468:LEU:HD12	1.98	0.46
2:C:402:ARG:NE	2:C:416:GLY:HA3	2.31	0.46
2:C:1111:GLN:O	2:C:1115:THR:OG1	2.32	0.46
2:C:1273:MET:HG3	7:2:14:DC:H4'	1.96	0.46
2:C:1313:HIS:HB2	3:D:474:LEU:HD11	1.98	0.46
3:D:297:ARG:NH1	5:F:100:MET:HB2	2.30	0.46
3:D:960:LEU:CD2	3:D:982:LEU:HD12	2.46	0.46
3:D:991:THR:O	3:D:991:THR:HG22	2.15	0.46
5:F:166:VAL:HG12	5:F:167:ASP:N	2.31	0.46
2:I:209:ILE:HD13	2:I:425:ILE:HG21	1.97	0.46
2:I:742:TYR:HA	2:I:743:PRO:HD3	1.85	0.46
3:J:34:SER:HG	3:J:104:HIS:CG	2.30	0.46
2:O:1296:ASP:HB2	2:O:1320:PRO:HA	1.97	0.46
2:O:1332:SER:OG	3:P:245:LEU:HD13	2.15	0.46
3:P:139:LEU:CD2	3:P:185:ILE:HD11	2.46	0.46
3:P:156:ARG:HB3	3:P:157:GLN:HG3	1.97	0.46
3:P:382:TYR:OH	3:P:398:LYS:HE3	2.15	0.46
3:P:385:LEU:HD12	3:P:397:ALA:HB1	1.96	0.46
3:P:840:LEU:HD11	3:P:866:GLU:HA	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:115:GLY:O	5:R:119:ILE:HD12	2.16	0.46
2:C:239:MET:HG3	2:C:241:LEU:HB2	1.97	0.46
2:C:808:ASN:HA	3:D:629:PHE:HB3	1.97	0.46
2:C:1198:LEU:HD12	2:C:1201:LEU:HB2	1.97	0.46
2:C:1231:TYR:O	2:C:1232:MET:HE2	2.16	0.46
3:D:370:LYS:CE	3:D:443:GLU:HA	2.44	0.46
3:D:507:VAL:HG13	3:D:601:ILE:HD12	1.96	0.46
3:D:510:LEU:HD12	3:D:601:ILE:HD11	1.97	0.46
3:D:512:TYR:CZ	3:D:635:SER:HB2	2.51	0.46
3:D:1049:GLN:HE22	3:D:1060:VAL:HG21	1.81	0.46
7:2:12:DG:O3'	7:2:13:DA:P	2.74	0.46
1:G:43:LEU:O	1:G:47:LEU:CD1	2.64	0.46
1:G:224:LEU:CD1	1:G:228:LEU:HD12	2.46	0.46
2:I:519:ASN:HD22	2:I:796:LEU:HD22	1.81	0.46
2:I:562:GLU:O	2:I:563:THR:HG22	2.15	0.46
2:I:821:ARG:O	2:I:825:GLU:CG	2.64	0.46
3:J:38:VAL:CG2	3:J:244:VAL:HG21	2.46	0.46
3:J:79:LYS:HZ3	3:J:80:HIS:CE1	2.27	0.46
3:J:1103:GLY:O	3:J:1104:LYS:CB	2.63	0.46
3:J:1103:GLY:O	3:J:1104:LYS:HB2	2.14	0.46
3:J:1272:SER:CB	3:J:1274:PHE:CE2	2.97	0.46
5:L:562:ARG:NH2	7:5:46:DG:OP1	2.48	0.46
6:4:42:DG:H3'	6:4:42:DG:P	2.55	0.46
7:5:19:DA:OP1	7:5:19:DA:H4'	2.15	0.46
1:N:12:ARG:HB3	1:N:12:ARG:CZ	2.44	0.46
2:O:112:GLY:C	2:O:114:VAL:N	2.74	0.46
2:O:186:PHE:HD2	2:O:186:PHE:N	2.14	0.46
2:O:263:VAL:O	2:O:263:VAL:HG12	2.13	0.46
3:P:114:ILE:O	3:P:114:ILE:HG12	2.13	0.46
3:P:115:TRP:O	3:P:119:SER:HB3	2.15	0.46
3:P:421:VAL:CG1	3:P:469:HIS:O	2.64	0.46
3:P:517:CYS:HB3	3:P:545:HIS:CB	2.44	0.46
3:P:800:LEU:O	3:P:803:VAL:HB	2.16	0.46
3:P:1280:VAL:CG1	3:P:1281:GLU:N	2.78	0.46
3:P:1301:THR:HG22	3:P:1302:TYR:N	2.30	0.46
1:A:89:ALA:HB3	1:A:124:VAL:HB	1.97	0.46
1:B:66:HIS:CE1	1:B:69:SER:HB3	2.51	0.46
2:C:108:GLU:HG3	2:C:109:ALA:H	1.81	0.46
2:C:800:MET:HE3	2:C:827:ARG:HH11	1.80	0.46
2:C:955:GLN:OE1	2:C:955:GLN:HA	2.15	0.46
2:C:1066:MET:HE2	2:C:1066:MET:HB3	1.70	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1237:HIS:HB3	2:C:1242:LYS:HZ2	1.80	0.46
2:C:1273:MET:HE3	7:2:14:DC:C4'	2.46	0.46
3:D:113:HIS:CE1	3:D:307:LEU:HD13	2.51	0.46
3:D:253:VAL:HG21	5:F:523:ILE:HG21	1.97	0.46
3:D:259:ARG:CD	5:F:502:LYS:HG2	2.46	0.46
6:1:18:DA:C2	7:2:46:DG:C2	3.04	0.46
6:1:56:DG:C2	7:2:8:DG:N2	2.84	0.46
2:I:436:ARG:O	2:I:436:ARG:NH1	2.42	0.46
2:I:570:GLY:HA2	3:J:780:ARG:HH11	1.80	0.46
2:I:596:ASP:OD1	2:I:596:ASP:N	2.49	0.46
2:I:886:LYS:HD3	2:I:916:SER:HB2	1.95	0.46
2:I:939:VAL:HG21	2:I:1047:LEU:HD22	1.98	0.46
2:I:971:LEU:HD13	2:I:1017:GLN:HG2	1.98	0.46
3:J:30:ILE:CD1	3:J:243:PRO:HD3	2.44	0.46
3:J:213:LYS:HG2	3:J:216:LYS:CB	2.46	0.46
3:J:705:THR:OG1	3:J:716:GLN:HG3	2.15	0.46
5:L:497:VAL:HA	5:L:500:ILE:HD12	1.96	0.46
2:O:390:PHE:HD2	2:O:390:PHE:H	1.64	0.46
2:O:1269:ARG:HH11	3:P:340:GLN:HG3	1.80	0.46
3:P:62:PHE:O	3:P:98:ARG:HG3	2.16	0.46
3:P:1075:ARG:CB	3:P:1192:LYS:HD3	2.45	0.46
5:R:295:CYS:O	5:R:296:LYS:CB	2.40	0.46
5:R:460:ILE:HG13	5:R:460:ILE:H	1.54	0.46
1:B:78:ILE:HA	1:B:81:ILE:HD12	1.98	0.46
2:C:12:ARG:HA	2:C:1181:PRO:O	2.16	0.46
2:C:298:ALA:CB	2:C:334:GLU:O	2.64	0.46
2:C:1116:HIS:CE1	2:C:1226:THR:CG2	2.95	0.46
3:D:239:LEU:HD23	3:D:239:LEU:N	2.31	0.46
3:D:431:ARG:HG3	3:D:432:LEU:HD23	1.98	0.46
3:D:1031:VAL:HG23	3:D:1080:ILE:HG21	1.97	0.46
3:D:1061:VAL:O	3:D:1104:LYS:N	2.49	0.46
5:F:400:GLN:HG2	5:F:401:PHE:H	1.79	0.46
7:2:17:DG:C2	8:3:13:GTP:C2	3.03	0.46
1:G:225:ALA:O	1:G:228:LEU:HB2	2.15	0.46
2:I:228:VAL:HG22	2:I:245:ARG:NH1	2.30	0.46
2:I:700:VAL:O	2:I:1069:ARG:NH2	2.48	0.46
2:I:836:LEU:HD13	2:I:918:LEU:HD11	1.97	0.46
3:J:905:ARG:HD2	4:K:16:ARG:HH11	1.81	0.46
3:J:1270:GLY:HA2	3:J:1298:VAL:O	2.16	0.46
1:M:35:PHE:CD2	1:M:35:PHE:N	2.84	0.46
2:O:298:ALA:O	2:O:313:ALA:HA	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:885:GLY:CA	2:O:917:SER:OG	2.53	0.46
3:P:452:LEU:HD11	3:P:625:MET:HB2	1.98	0.46
3:P:483:LEU:HD21	4:Q:16:ARG:CB	2.42	0.46
3:P:725:MET:HB2	3:P:725:MET:HE2	1.53	0.46
3:P:1101:LEU:HD13	3:P:1107:VAL:CG2	2.46	0.46
1:A:31:LEU:HD23	1:A:31:LEU:HA	1.67	0.46
1:A:52:PRO:O	1:A:211:ILE:HD11	2.16	0.46
1:A:66:HIS:CE1	2:C:929:ILE:HG12	2.51	0.46
2:C:530:ILE:HD12	2:C:573:ASN:O	2.15	0.46
2:C:802:VAL:HG12	2:C:803:ALA:N	2.30	0.46
2:C:868:SER:HB2	2:C:944:ARG:HB2	1.96	0.46
3:D:110:PRO:HD2	3:D:183:GLU:CD	2.41	0.46
3:D:518:VAL:CG1	3:D:519:ASN:N	2.78	0.46
3:D:646:ILE:HG13	3:D:764:ARG:HD2	1.97	0.46
3:D:819:GLY:N	3:D:881:LYS:HE2	2.31	0.46
3:D:833:GLU:CD	3:D:1242:ARG:NE	2.74	0.46
5:F:399:LEU:HD23	5:F:399:LEU:HA	1.55	0.46
6:1:51:DC:H2"	6:1:52:DT:C6	2.51	0.46
1:G:92:VAL:HG12	1:G:93:GLN:N	2.31	0.46
1:H:212:ASP:CG	1:H:213:PRO:HD2	2.41	0.46
2:I:297:VAL:HG23	2:I:315:MET:H	1.81	0.46
2:I:337:PHE:O	2:I:338:THR:CG2	2.64	0.46
2:I:552:PRO:HA	3:J:773:PHE:CZ	2.51	0.46
2:I:873:ILE:HG13	2:I:873:ILE:H	1.52	0.46
3:J:44:ILE:HD13	3:J:252:LEU:HD21	1.97	0.46
3:J:238:ILE:HD13	3:J:238:ILE:N	2.30	0.46
3:J:381:ILE:O	3:J:385:LEU:HG	2.15	0.46
3:J:747:MET:CE	3:J:774:ILE:HG22	2.46	0.46
3:J:849:LEU:HD23	3:J:850:LYS:N	2.30	0.46
3:J:1176:VAL:HG13	3:J:1187:GLU:HG2	1.97	0.46
5:L:470:MET:HG2	5:L:486:ARG:NH1	2.31	0.46
1:N:190:ALA:CB	1:N:200:LYS:HG3	2.45	0.46
2:O:375:PRO:HA	2:O:376:PRO:HD3	1.84	0.46
3:P:369:PRO:HB2	3:P:372:MET:HB2	1.97	0.46
3:P:395:LYS:HE2	3:P:399:LYS:HE2	1.97	0.46
3:P:963:VAL:HG23	3:P:980:THR:OG1	2.16	0.46
3:P:1347:LEU:HD21	3:P:1357:ILE:CG2	2.46	0.46
5:R:353:LEU:CB	5:R:358:VAL:CG2	2.90	0.46
2:C:90:VAL:HG12	2:C:91:THR:N	2.31	0.46
2:C:128:PRO:HD3	2:C:502:VAL:HG11	1.98	0.46
2:C:1259:LEU:HD11	5:F:524:GLU:HB3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:131:PRO:O	3:D:135:ILE:HG13	2.16	0.46
3:D:181:GLY:O	3:D:185:ILE:HG13	2.16	0.46
3:D:1031:VAL:CG1	3:D:1091:PRO:HD3	2.44	0.46
3:D:1134:ILE:CG2	3:D:1134:ILE:O	2.64	0.46
3:D:1163:VAL:HG13	3:D:1177:ILE:HG12	1.97	0.46
3:D:1163:VAL:HG13	3:D:1177:ILE:HA	1.98	0.46
5:F:353:LEU:CB	5:F:358:VAL:HG22	2.46	0.46
1:G:201:LEU:HD12	1:G:202:VAL:N	2.31	0.46
3:J:124:ILE:H	3:J:124:ILE:HG13	1.48	0.46
3:J:1155:ILE:HG22	3:J:1156:LEU:N	2.31	0.46
3:J:1178:THR:HA	3:J:1179:PRO:HD3	1.80	0.46
5:L:395:THR:HA	5:L:404:LEU:HD12	1.98	0.46
2:O:241:LEU:HD11	2:O:246:LEU:HG	1.98	0.46
2:O:369:MET:HB2	2:O:369:MET:HE3	1.79	0.46
3:P:875:ASN:O	3:P:876:SER:HB2	2.15	0.46
3:P:1291:GLU:O	3:P:1295:ASN:CG	2.59	0.46
1:A:48:LEU:HD23	1:A:180:VAL:HB	1.96	0.45
2:C:1125:GLY:HA3	2:C:1179:GLY:HA2	1.98	0.45
3:D:109:SER:HB3	3:D:299:LEU:CD2	2.45	0.45
5:F:119:ILE:HA	5:F:122:ARG:HG3	1.98	0.45
5:F:329:LYS:HE2	5:F:329:LYS:HB3	1.70	0.45
5:F:429:THR:OG1	6:1:39:DA:H2'	2.15	0.45
1:G:67:GLU:O	1:G:78:ILE:HB	2.16	0.45
1:H:22:THR:O	1:H:207:THR:HG22	2.16	0.45
1:H:83:LEU:HD12	3:J:528:THR:HG23	1.97	0.45
2:O:178:PRO:HG2	2:O:395:TYR:CE1	2.50	0.45
2:O:182:SER:O	2:O:395:TYR:HE1	1.99	0.45
2:O:186:PHE:N	2:O:186:PHE:CD2	2.83	0.45
2:O:634:VAL:CG1	2:O:635:THR:N	2.78	0.45
2:O:678:ARG:NH2	2:O:1106:ARG:HG3	2.31	0.45
2:O:898:GLU:OE1	5:R:565:ILE:HG23	2.16	0.45
2:O:1166:ASP:O	2:O:1169:VAL:HB	2.16	0.45
3:P:368:LEU:HD23	3:P:373:ALA:HB2	1.98	0.45
3:P:1000:GLY:HA2	3:P:1028:ILE:HD12	1.98	0.45
3:P:1225:GLY:O	3:P:1229:VAL:HG12	2.16	0.45
3:P:1250:ASP:OD1	3:P:1250:ASP:N	2.49	0.45
3:P:1257:VAL:O	3:P:1261:LEU:HG	2.15	0.45
5:R:111:LEU:HD22	5:R:115:GLY:HA3	1.98	0.45
5:R:322:MET:O	5:R:323:ASN:HB2	2.15	0.45
2:C:17:LYS:HG3	2:C:1188:ASP:OD1	2.16	0.45
2:C:27:LEU:CD2	2:C:528:ARG:NH2	2.78	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:123:TYR:OH	2:C:126:GLU:HG3	2.16	0.45
2:C:1077:SER:HA	3:D:356:THR:HG22	1.95	0.45
3:D:603:LYS:O	3:D:607:THR:OG1	2.34	0.45
3:D:708:ASN:ND2	3:D:711:GLY:O	2.49	0.45
3:D:768:ASN:C	3:D:768:ASN:OD1	2.58	0.45
3:D:909:ILE:CD1	3:D:915:ILE:HG12	2.46	0.45
5:F:360:ASP:O	5:F:364:ARG:HB2	2.16	0.45
5:F:406:GLN:OE1	5:F:406:GLN:HA	2.16	0.45
2:I:453:ILE:HD13	2:I:453:ILE:HA	1.66	0.45
2:I:920:VAL:HG12	2:I:921:PRO:O	2.16	0.45
2:I:1104:PRO:CG	3:J:725:MET:SD	3.03	0.45
2:I:1245:ALA:HA	3:J:351:GLY:HA2	1.98	0.45
2:I:1246:ARG:NH2	2:I:1249:GLY:CA	2.80	0.45
3:J:480:ALA:HA	3:J:484:MET:CG	2.46	0.45
3:J:959:LYS:CD	3:J:985:ILE:HG13	2.40	0.45
5:L:548:LEU:CD1	5:L:560:ARG:NE	2.75	0.45
1:M:59:VAL:O	1:M:171:LEU:CG	2.63	0.45
1:N:65:LEU:HD22	1:N:168:ILE:HG22	1.98	0.45
2:O:56:VAL:HG13	2:O:472:GLU:OE1	2.17	0.45
2:O:802:VAL:HG22	2:O:1096:ILE:HD12	1.98	0.45
3:P:78:LEU:HD23	3:P:78:LEU:H	1.77	0.45
3:P:332:LYS:O	3:P:333:GLY:C	2.59	0.45
1:A:38:THR:CG2	1:B:42:ALA:HA	2.46	0.45
2:C:12:ARG:HD3	2:C:1183:ALA:HB2	1.97	0.45
2:C:168:GLY:O	3:D:1065:ALA:CA	2.64	0.45
2:C:539:THR:CG2	2:C:540:ARG:N	2.51	0.45
2:C:810:TYR:CB	2:C:817:LEU:HD21	2.46	0.45
2:C:1237:HIS:HB3	2:C:1242:LYS:NZ	2.31	0.45
3:D:115:TRP:HE3	3:D:1333:THR:HG23	1.81	0.45
3:D:423:LEU:HB3	3:D:466:MET:HE1	1.98	0.45
3:D:449:LEU:HG	3:D:450:HIS:N	2.32	0.45
3:D:548:VAL:HG12	3:D:550:VAL:HG23	1.97	0.45
3:D:958:ILE:HG13	3:D:1011:VAL:CG1	2.47	0.45
7:2:24:DT:H72	7:2:25:DA:H61	1.79	0.45
1:G:44:ARG:HA	1:G:183:ILE:CD1	2.46	0.45
1:G:228:LEU:HD23	1:G:231:PHE:HD2	1.81	0.45
1:G:235:ARG:NH2	1:H:16:ILE:HD13	2.32	0.45
1:H:31:LEU:HD13	1:H:35:PHE:HB3	1.98	0.45
1:H:162:GLU:OE2	1:H:164:ASP:HB3	2.16	0.45
2:I:1246:ARG:CZ	2:I:1249:GLY:N	2.79	0.45
3:J:508:LEU:HD12	3:J:508:LEU:C	2.41	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:826:ILE:HD13	3:J:831:VAL:HG22	1.97	0.45
3:J:1163:VAL:CG1	3:J:1175:LEU:HG	2.46	0.45
5:L:434:TRP:CD2	6:4:36:DT:C7	2.99	0.45
1:M:47:LEU:O	1:M:51:MET:CG	2.64	0.45
2:O:169:LYS:HG2	2:O:171:LEU:HD21	1.97	0.45
2:O:530:ILE:HD11	2:O:575:LEU:N	2.32	0.45
2:O:667:LEU:CD2	2:O:705:GLU:CD	2.87	0.45
2:O:729:ALA:HB1	2:O:755:LYS:NZ	2.31	0.45
3:P:332:LYS:O	3:P:333:GLY:O	2.35	0.45
3:P:1284:ARG:HA	3:P:1287:ILE:HD12	1.98	0.45
3:P:1347:LEU:O	3:P:1351:VAL:HG23	2.16	0.45
5:R:426:LYS:HG2	6:7:39:DA:H3'	1.98	0.45
5:R:462:LYS:HA	5:R:465:ARG:HE	1.81	0.45
5:R:586:ARG:HB2	6:7:13:DT:H72	1.99	0.45
5:R:600:HIS:HA	5:R:601:PRO:HD2	1.79	0.45
6:7:51:DC:OP1	6:7:51:DC:H3'	2.17	0.45
7:8:51:DG:C4	7:8:52:DT:C5	3.05	0.45
1:A:57:THR:O	1:A:172:LEU:HD12	2.16	0.45
2:C:202:ARG:NH2	7:2:7:DC:H5''	2.32	0.45
2:C:615:VAL:HG22	2:C:638:SER:HB2	1.99	0.45
2:C:699:LEU:HD23	2:C:699:LEU:HA	1.65	0.45
2:C:972:PHE:CE2	2:C:994:ARG:O	2.68	0.45
2:C:1268:GLN:HE22	3:D:351:GLY:HA2	1.82	0.45
3:D:368:LEU:HD12	3:D:369:PRO:HD2	1.99	0.45
3:D:749:LYS:HG3	3:D:755:ILE:CG1	2.41	0.45
1:G:28:LEU:CD1	1:H:231:PHE:HZ	2.30	0.45
2:I:13:LYS:HB2	2:I:1149:TYR:CD1	2.50	0.45
2:I:761:GLN:O	2:I:762:ASN:HB2	2.16	0.45
2:I:960:LEU:HD22	2:I:1028:LYS:HD3	1.99	0.45
2:I:1314:GLN:HA	4:K:28:ARG:NH2	2.31	0.45
3:J:379:PRO:HG2	3:J:380:PHE:H	1.81	0.45
3:J:450:HIS:CD2	3:J:452:LEU:H	2.35	0.45
5:L:147:GLN:HA	5:L:150:ARG:HD2	1.98	0.45
5:L:563:PHE:HB2	5:L:565:ILE:HG12	1.97	0.45
1:N:198:LEU:N	1:N:198:LEU:HD12	2.31	0.45
2:O:521:LEU:CD2	2:O:686:GLN:HB3	2.47	0.45
2:O:1243:MET:HG2	3:P:372:MET:HE2	1.97	0.45
3:P:26:SER:O	3:P:30:ILE:HG13	2.16	0.45
5:R:344:LEU:HD23	5:R:347:ILE:HD12	1.99	0.45
5:R:557:LYS:HE2	5:R:560:ARG:HH11	1.81	0.45
6:7:47:DC:C2'	6:7:48:DA:H5''	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:73:TYR:HB3	2:C:98:VAL:HG22	1.99	0.45
2:C:78:PRO:HG3	2:C:129:LEU:CD1	2.45	0.45
2:C:811:ASN:HD22	2:C:1099:ASN:HA	1.79	0.45
3:D:156:ARG:C	3:D:157:GLN:HG3	2.41	0.45
3:D:163:GLU:CD	5:F:81:ALA:HB3	2.40	0.45
3:D:977:SER:HG	3:D:980:THR:HG1	1.65	0.45
4:E:18:ASP:O	4:E:22:VAL:HG23	2.17	0.45
5:F:412:LEU:O	5:F:416:VAL:HG23	2.16	0.45
2:I:673:HIS:CG	3:J:763:PHE:O	2.67	0.45
2:I:808:ASN:ND2	2:I:808:ASN:N	2.62	0.45
2:I:1184:THR:OG1	2:I:1190:ALA:N	2.39	0.45
2:I:1243:MET:HG2	3:J:372:MET:HE3	1.98	0.45
2:I:1270:PHE:HB2	3:J:347:VAL:HG23	1.96	0.45
3:J:130:MET:HG2	3:J:131:PRO:O	2.17	0.45
3:J:357:VAL:HG22	3:J:461:PHE:CE2	2.52	0.45
3:J:797:THR:CG2	3:J:924:GLY:CA	2.78	0.45
3:J:903:LEU:HD23	3:J:903:LEU:HA	1.69	0.45
3:J:1154:ALA:HA	3:J:1211:SER:HB2	1.98	0.45
4:K:44:ASP:HB2	4:K:49:ILE:HG12	1.98	0.45
1:N:192:VAL:O	1:N:193:GLU:C	2.60	0.45
2:O:345:PRO:O	2:O:349:GLU:HG2	2.16	0.45
2:O:524:ILE:HD11	2:O:712:SER:CB	2.32	0.45
3:P:34:SER:CB	3:P:104:HIS:HB3	2.47	0.45
3:P:131:PRO:O	3:P:135:ILE:CG1	2.56	0.45
3:P:178:ALA:C	3:P:179:LYS:HD2	2.41	0.45
3:P:255:LEU:HD11	5:R:519:LEU:HD21	1.97	0.45
3:P:589:TYR:HE2	3:P:593:ASN:ND2	2.11	0.45
1:A:108:GLY:HA2	1:A:109:PRO:HD3	1.78	0.45
1:B:193:GLU:O	1:B:194:GLN:HB2	2.16	0.45
2:C:149:LEU:HD13	2:C:453:ILE:HD11	1.99	0.45
2:C:155:VAL:HG23	2:C:405:PHE:HA	1.98	0.45
2:C:236:LYS:O	2:C:237:LEU:HD23	2.16	0.45
2:C:1333:LEU:CD1	3:D:331:ILE:CD1	2.94	0.45
3:D:664:ILE:HG12	3:D:681:LYS:HZ2	1.76	0.45
3:D:1223:LEU:HA	3:D:1223:LEU:HD23	1.61	0.45
2:I:1021:LEU:HA	2:I:1024:GLU:HB3	1.97	0.45
2:I:1278:LEU:HD13	2:I:1283:ALA:O	2.17	0.45
2:I:1290:MET:HA	2:I:1294:LYS:HG3	1.99	0.45
2:I:1339:LEU:H	2:I:1339:LEU:HG	1.66	0.45
3:J:653:ILE:HG21	3:J:693:VAL:HG23	1.98	0.45
3:J:795:TYR:O	3:J:799:ARG:CG	2.57	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1246:VAL:O	3:J:1246:VAL:CG1	2.62	0.45
5:L:567:MET:HE3	5:L:568:ASN:H	1.82	0.45
7:5:24:DT:C7	7:5:25:DA:N6	2.80	0.45
2:O:764:CYS:HB3	2:O:831:ILE:HB	1.99	0.45
2:O:866:ASP:CG	2:O:867:GLU:N	2.74	0.45
2:O:1293:VAL:O	2:O:1301:ARG:HB3	2.17	0.45
3:P:130:MET:HE3	3:P:135:ILE:HG12	1.97	0.45
3:P:215:LYS:O	3:P:219:LYS:HG3	2.17	0.45
3:P:367:GLY:HA3	3:P:448:GLN:HB2	1.98	0.45
3:P:1331:VAL:HA	3:P:1334:GLU:OE1	2.17	0.45
3:P:1348:LYS:O	3:P:1352:ILE:HD12	2.17	0.45
7:8:23:DT:H2''	7:8:24:DT:OP1	2.17	0.45
2:C:209:ILE:CG2	2:C:210:LEU:N	2.79	0.45
2:C:898:GLU:H	2:C:898:GLU:CD	2.24	0.45
1:H:191:ARG:HG3	1:H:196:THR:HG22	1.98	0.45
2:I:39:ILE:HG13	2:I:39:ILE:H	1.58	0.45
2:I:830:THR:HG23	2:I:1234:LYS:HZ2	1.82	0.45
3:J:160:LEU:HD23	3:J:160:LEU:HA	1.87	0.45
3:J:826:ILE:HG23	3:J:831:VAL:HA	1.98	0.45
3:J:1273:ASP:C	3:J:1274:PHE:CG	2.95	0.45
5:L:166:VAL:CG1	5:L:212:ILE:HG13	2.43	0.45
1:M:85:LEU:CD1	1:M:144:ILE:CD1	2.92	0.45
1:M:151:GLY:O	1:M:177:TYR:HB2	2.17	0.45
2:O:1123:GLY:HA3	2:O:1204:LEU:HD11	1.99	0.45
3:P:931:THR:O	3:P:935:PHE:CD2	2.70	0.45
5:R:423:ARG:HG3	6:7:37:DA:N1	2.32	0.45
1:A:47:LEU:O	1:A:51:MET:HB2	2.17	0.45
2:C:920:VAL:HG13	2:C:921:PRO:HD2	1.99	0.45
2:C:1253:LEU:HB2	5:F:523:ILE:HB	1.98	0.45
3:D:431:ARG:HE	3:D:493:PRO:HG3	1.82	0.45
3:D:1191:PRO:HB2	3:D:1194:ARG:HB2	1.98	0.45
5:F:110:LEU:HD21	5:F:385:ARG:HG3	1.99	0.45
5:F:165:PHE:HB3	5:F:166:VAL:H	1.64	0.45
5:F:573:LEU:CB	7:2:45:DT:H3'	2.46	0.45
5:F:573:LEU:HB3	7:2:45:DT:H3'	1.99	0.45
1:H:10:LYS:HA	1:H:11:PRO:HD3	1.71	0.45
2:I:804:PHE:C	2:I:1100:PRO:HG3	2.41	0.45
2:I:1141:LEU:O	2:I:1145:ILE:HG13	2.17	0.45
2:I:1302:THR:CG2	2:I:1303:LYS:N	2.80	0.45
3:J:435:GLN:CB	3:J:437:PHE:HE1	2.28	0.45
3:J:823:THR:HG22	3:J:879:ALA:HB2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1258:ARG:HG2	3:J:1258:ARG:NH1	2.32	0.45
2:O:130:MET:SD	2:O:134:GLY:HA2	2.57	0.45
2:O:880:GLY:O	2:O:919:ARG:HD3	2.17	0.45
2:O:979:LEU:HD22	2:O:1002:LEU:HD12	1.99	0.45
2:O:1296:ASP:OD1	2:O:1296:ASP:N	2.47	0.45
3:P:104:HIS:CA	3:P:244:VAL:HG23	2.46	0.45
3:P:139:LEU:HA	3:P:181:GLY:HA2	1.99	0.45
3:P:339:ARG:NH2	3:P:798:ARG:HH12	2.14	0.45
3:P:517:CYS:HB2	3:P:719:PHE:CZ	2.52	0.45
3:P:809:VAL:HG22	3:P:915:ILE:HD11	1.97	0.45
3:P:972:LYS:HD3	3:P:1002:VAL:HG21	1.99	0.45
5:R:390:ILE:HD12	5:R:435:ILE:HD12	1.98	0.45
1:B:65:LEU:HD22	1:B:168:ILE:CG2	2.47	0.45
2:C:313:ALA:O	2:C:314:ASN:CB	2.64	0.45
2:C:1174:GLU:O	2:C:1177:ARG:HB3	2.17	0.45
2:C:1212:LEU:HA	2:C:1212:LEU:HD23	1.60	0.45
2:C:1275:VAL:CG1	2:C:1279:GLU:OE2	2.65	0.45
3:D:111:THR:C	3:D:238:ILE:HD12	2.41	0.45
3:D:112:ALA:HA	3:D:238:ILE:HD13	1.94	0.45
3:D:138:VAL:HG12	3:D:139:LEU:N	2.32	0.45
3:D:744:ARG:O	3:D:744:ARG:HG3	2.17	0.45
6:1:43:DT:O4'	6:1:43:DT:OP2	2.35	0.45
2:I:1178:LYS:O	2:I:1178:LYS:HG2	2.17	0.45
3:J:262:THR:HA	5:L:507:MET:HE3	1.99	0.45
3:J:503:SER:C	3:J:507:VAL:HG23	2.41	0.45
3:J:1047:THR:O	3:J:1047:THR:CG2	2.65	0.45
3:J:1147:ALA:O	3:J:1218:HIS:HE1	2.00	0.45
2:O:203:LYS:O	2:O:204:LEU:HD23	2.17	0.45
2:O:523:GLU:HG2	2:O:527:LYS:HE3	1.99	0.45
2:O:736:VAL:HG23	2:O:747:GLY:O	2.17	0.45
2:O:807:TRP:CG	2:O:808:ASN:H	2.34	0.45
6:7:45:DT:C5'	6:7:46:DG:OP2	2.65	0.45
1:A:9:LEU:HD22	1:A:198:LEU:HD11	1.98	0.45
1:A:112:ALA:HB3	1:A:126:PRO:HA	1.99	0.45
2:C:170:VAL:HG23	3:D:1065:ALA:O	2.17	0.45
2:C:464:PHE:C	2:C:464:PHE:CD2	2.95	0.45
2:C:738:GLU:HA	2:C:741:MET:HE3	1.99	0.45
2:C:848:GLU:HG2	2:C:888:THR:HA	1.99	0.45
3:D:154:LEU:CD1	3:D:158:GLN:HG2	2.47	0.45
3:D:332:LYS:O	3:D:333:GLY:C	2.60	0.45
3:D:1250:ASP:O	3:D:1254:GLU:HG3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1:43:DT:H2'	6:1:44:DG:O4'	2.17	0.45
7:2:5:DC:C2	7:2:6:DG:C8	3.05	0.45
7:2:5:DC:C2'	7:2:6:DG:H5'	2.47	0.45
2:I:143:ARG:HG2	2:I:513:GLN:O	2.16	0.45
2:I:808:ASN:HD21	3:J:633:ALA:CB	2.30	0.45
2:I:870:ILE:CG2	2:I:944:ARG:HE	2.29	0.45
3:J:952:VAL:HG21	3:J:1017:VAL:HG11	1.99	0.45
5:L:502:LYS:HD2	5:L:502:LYS:HA	1.45	0.45
2:O:34:SER:HA	2:O:37:LYS:HD2	1.98	0.45
2:O:389:PHE:HB2	2:O:390:PHE:CE2	2.52	0.45
2:O:939:VAL:HG12	2:O:940:GLU:N	2.32	0.45
2:O:1120:ALA:HB2	2:O:1199:LEU:CG	2.44	0.45
2:O:1246:ARG:HD2	2:O:1265:PHE:O	2.17	0.45
3:P:22:ILE:HG22	3:P:1336:ALA:HA	1.99	0.45
3:P:506:VAL:HG12	3:P:510:LEU:HD11	1.98	0.45
3:P:835:LEU:O	3:P:835:LEU:HG	2.09	0.45
5:R:392:LYS:O	5:R:395:THR:OG1	2.34	0.45
5:R:491:GLU:HA	5:R:494:ILE:HD13	1.99	0.45
6:7:30:DG:N3	7:8:34:DG:N2	2.65	0.45
2:C:30:ILE:H	2:C:30:ILE:HG13	1.52	0.44
2:C:168:GLY:O	3:D:1065:ALA:HB1	2.17	0.44
2:C:1099:ASN:HD21	3:D:504:GLN:HE21	1.64	0.44
3:D:146:VAL:HG23	3:D:158:GLN:HB3	1.97	0.44
3:D:1173:ARG:O	3:D:1190:ILE:HD12	2.17	0.44
6:1:30:DG:C8	6:1:31:DT:H72	2.53	0.44
6:1:44:DG:H2''	6:1:45:DT:O4'	2.17	0.44
1:H:30:PRO:HG3	1:H:192:VAL:CG2	2.47	0.44
1:H:35:PHE:O	1:H:39:LEU:CG	2.64	0.44
2:I:335:THR:HG22	2:I:336:LEU:H	1.82	0.44
2:I:798:GLN:NE2	2:I:827:ARG:HG2	2.32	0.44
3:J:126:LEU:HD23	3:J:126:LEU:O	2.16	0.44
3:J:360:TYR:HE1	3:J:361:LEU:CD2	2.29	0.44
3:J:363:LEU:HG	3:J:487:THR:HG22	1.99	0.44
3:J:644:MET:O	3:J:764:ARG:CZ	2.63	0.44
1:M:35:PHE:CE1	1:N:46:ILE:HG12	2.51	0.44
1:M:221:ALA:O	1:M:224:LEU:HB3	2.18	0.44
2:O:590:PRO:O	2:O:655:VAL:HG23	2.17	0.44
2:O:677:ASN:OD1	3:P:783:LEU:HD21	2.17	0.44
3:P:43:THR:OG1	3:P:44:ILE:N	2.51	0.44
3:P:549:LYS:HG2	3:P:571:ASP:OD1	2.16	0.44
3:P:849:LEU:HD11	3:P:857:LEU:CD2	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:1224:ARG:HB3	3:P:1228:ALA:HB3	1.98	0.44
3:P:1272:SER:HB3	3:P:1274:PHE:CE2	2.52	0.44
5:R:213:ASP:N	5:R:213:ASP:OD1	2.50	0.44
1:A:89:ALA:CB	1:A:124:VAL:HB	2.48	0.44
1:A:158:ARG:HE	1:A:172:LEU:HD11	1.82	0.44
1:B:224:LEU:HD13	1:B:225:ALA:CA	2.47	0.44
2:C:214:ASN:ND2	2:I:999:GLU:HG2	2.32	0.44
2:C:557:ARG:NH2	2:C:611:GLU:OE1	2.50	0.44
2:C:1143:GLU:CD	2:C:1143:GLU:C	2.84	0.44
2:C:1177:ARG:HD2	2:C:1178:LYS:NZ	2.32	0.44
3:D:145:VAL:HA	3:D:158:GLN:O	2.18	0.44
3:D:262:THR:O	5:F:507:MET:N	2.39	0.44
3:D:744:ARG:NH1	3:D:763:PHE:HZ	2.15	0.44
3:D:963:VAL:HG22	3:D:964:LYS:N	2.32	0.44
5:F:268:TYR:HA	5:F:271:ASN:HD22	1.82	0.44
6:1:43:DT:C2'	6:1:44:DG:O4'	2.66	0.44
7:2:24:DT:OP1	7:2:24:DT:H4'	2.18	0.44
1:G:219:ARG:O	1:G:223:ILE:HD12	2.16	0.44
2:I:371:ARG:HB3	5:L:99:ARG:NH2	2.32	0.44
2:I:1075:VAL:CG1	2:I:1076:ILE:N	2.80	0.44
3:J:130:MET:SD	3:J:135:ILE:CG1	2.97	0.44
3:J:291:ILE:H	3:J:291:ILE:HG13	1.64	0.44
3:J:724:MET:O	3:J:728:SER:OG	2.26	0.44
3:J:744:ARG:HD2	3:J:763:PHE:HE2	1.77	0.44
3:J:1078:LEU:HD13	3:J:1121:LEU:HD22	2.00	0.44
4:K:44:ASP:C	4:K:49:ILE:HD11	2.42	0.44
5:L:552:THR:O	5:L:554:ARG:N	2.50	0.44
2:O:149:LEU:HD13	2:O:453:ILE:HD11	1.99	0.44
2:O:715:THR:HG22	2:O:786:GLY:H	1.83	0.44
2:O:812:PHE:HZ	3:P:503:SER:OG	2.01	0.44
2:O:1326:LEU:HD13	3:P:342:LEU:CD1	2.47	0.44
3:P:355:ILE:O	3:P:355:ILE:HG13	2.18	0.44
3:P:398:LYS:NZ	5:R:532:LEU:CB	2.80	0.44
3:P:669:GLN:H	3:P:669:GLN:HG3	1.42	0.44
3:P:746:LEU:H	3:P:746:LEU:HG	1.50	0.44
5:R:584:ARG:HG3	5:R:585:GLU:N	2.31	0.44
6:7:54:DA:H2''	6:7:55:DC:C5	2.52	0.44
1:B:22:THR:O	1:B:207:THR:HG22	2.17	0.44
1:B:85:LEU:HD13	1:B:144:ILE:HD11	1.98	0.44
2:C:38:PHE:CD1	2:C:460:ALA:HB3	2.51	0.44
2:C:525:THR:CG2	2:C:526:HIS:N	2.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:692:THR:OG1	2:C:693:LEU:N	2.48	0.44
2:C:840:SER:OG	2:C:840:SER:O	2.28	0.44
2:C:1313:HIS:HE1	3:D:380:PHE:CE1	2.36	0.44
5:F:502:LYS:HZ3	5:F:505:ILE:HD11	1.80	0.44
7:2:26:DT:H2"	7:2:27:DA:OP1	2.16	0.44
1:G:67:GLU:HB3	1:G:171:LEU:HD22	1.99	0.44
2:I:53:PHE:CZ	2:I:98:VAL:HG21	2.53	0.44
2:I:443:ASP:OD1	2:I:443:ASP:N	2.50	0.44
2:I:702:THR:HA	2:I:1184:THR:O	2.18	0.44
2:I:929:ILE:HG22	2:I:930:ASP:N	2.32	0.44
2:I:994:ARG:HD3	2:I:994:ARG:HA	1.73	0.44
3:J:68:TYR:CD2	3:J:78:LEU:HD23	2.52	0.44
3:J:127:LEU:O	3:J:220:ARG:NH2	2.49	0.44
3:J:501:VAL:HG13	3:J:502:PRO:HD2	1.99	0.44
3:J:812:ASP:N	3:J:812:ASP:OD1	2.47	0.44
5:L:434:TRP:CE2	6:4:36:DT:C7	3.00	0.44
5:L:583:THR:HG23	5:L:586:ARG:CB	2.32	0.44
5:L:583:THR:CG2	5:L:586:ARG:CB	2.85	0.44
6:4:47:DC:H2"	6:4:48:DA:OP1	2.16	0.44
2:O:99:LYS:CG	2:O:121:GLU:HG3	2.48	0.44
2:O:364:VAL:HG13	2:O:376:PRO:HG2	1.99	0.44
2:O:566:GLY:O	2:O:569:ILE:HG22	2.18	0.44
2:O:1043:ALA:HB3	2:O:1046:VAL:CG2	2.47	0.44
2:O:1323:PHE:O	2:O:1326:LEU:HB3	2.17	0.44
3:P:120:LEU:CD2	3:P:121:PRO:HA	2.47	0.44
3:P:233:LYS:HB2	3:P:236:TRP:CE2	2.51	0.44
3:P:580:TRP:CD1	3:P:580:TRP:C	2.94	0.44
3:P:901:ARG:HD3	3:P:906:GLY:HA2	2.00	0.44
3:P:1174:ARG:HG3	3:P:1189:MET:CB	2.48	0.44
3:P:1224:ARG:HD3	3:P:1228:ALA:HB1	1.98	0.44
3:P:1240:VAL:O	3:P:1243:LEU:HB2	2.16	0.44
5:R:452:ILE:HG23	5:R:456:MET:HB3	2.00	0.44
1:A:11:PRO:HG3	1:B:227:GLN:HB3	1.98	0.44
1:A:118:ASP:OD1	1:A:119:GLY:N	2.48	0.44
2:C:176:ILE:HD12	2:C:184:LEU:CD1	2.47	0.44
2:C:194:LEU:HG	2:C:206:ALA:HB2	1.99	0.44
2:C:208:ILE:CG2	2:C:209:ILE:N	2.81	0.44
2:C:550:VAL:HG21	3:D:777:HIS:HA	2.00	0.44
2:C:758:ARG:HG2	2:C:759:SER:O	2.18	0.44
3:D:360:TYR:C	3:D:361:LEU:HD23	2.42	0.44
3:D:412:LEU:O	3:D:416:ILE:HG13	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:1148:ARG:HG2	6:1:55:DC:OP1	2.16	0.44
6:1:49:DG:H3'	6:1:49:DG:C8	2.52	0.44
7:2:43:DG:H2''	7:2:44:DA:OP2	2.17	0.44
1:H:129:VAL:CG1	1:H:132:HIS:HE1	2.22	0.44
1:H:158:ARG:NH2	1:H:177:TYR:OH	2.50	0.44
2:I:14:ASP:OD1	2:I:1185:PRO:HG3	2.17	0.44
2:I:82:VAL:CG2	2:I:83:GLN:H	2.27	0.44
2:I:296:VAL:O	2:I:336:LEU:HG	2.18	0.44
2:I:840:SER:OG	2:I:1048:LYS:N	2.51	0.44
2:I:1063:GLY:C	2:I:1075:VAL:HG13	2.43	0.44
2:I:1283:ALA:HB1	3:J:479:GLU:CD	2.43	0.44
3:J:303:VAL:O	3:J:306:LEU:HB3	2.18	0.44
3:J:367:GLY:O	3:J:447:ILE:CG2	2.59	0.44
3:J:833:GLU:OE1	3:J:1242:ARG:NH2	2.51	0.44
3:J:1015:GLU:HG2	3:J:1016:THR:H	1.83	0.44
4:K:26:ARG:HG3	4:K:30:MET:SD	2.58	0.44
4:K:35:LYS:HD2	4:K:35:LYS:HA	1.53	0.44
1:N:100:LEU:HD23	1:N:100:LEU:HA	1.86	0.44
2:O:4:SER:CB	2:O:778:GLU:OE1	2.66	0.44
2:O:75:LEU:HD23	2:O:75:LEU:HA	1.76	0.44
2:O:185:ASP:OD2	2:O:200:ARG:CD	2.65	0.44
2:O:347:ILE:HG22	2:O:351:LEU:HD12	1.99	0.44
2:O:467:GLY:O	2:O:471:VAL:HG23	2.16	0.44
2:O:1337:ILE:HD12	3:P:22:ILE:CD1	2.44	0.44
3:P:431:ARG:HD3	3:P:493:PRO:HG3	1.99	0.44
3:P:554:GLU:N	3:P:566:LYS:O	2.44	0.44
3:P:589:TYR:HE2	3:P:593:ASN:CG	2.24	0.44
3:P:950:ILE:O	3:P:950:ILE:HG22	2.16	0.44
6:7:45:DT:H5'	6:7:46:DG:OP2	2.16	0.44
7:8:26:DT:C2'	7:8:27:DA:OP1	2.63	0.44
1:A:61:ILE:HD12	1:A:171:LEU:CD1	2.48	0.44
2:C:163:LYS:HD3	2:C:164:THR:CG2	2.34	0.44
2:C:198:ILE:HD13	2:C:389:PHE:CE1	2.51	0.44
2:C:583:GLU:HG3	2:C:584:TYR:CD2	2.52	0.44
2:C:598:VAL:HG22	2:C:627:GLY:C	2.42	0.44
3:D:423:LEU:HD23	3:D:423:LEU:HA	1.54	0.44
3:D:450:HIS:HA	3:D:451:PRO:HD3	1.84	0.44
3:D:578:ILE:O	3:D:581:MET:HB2	2.17	0.44
3:D:647:PRO:HA	3:D:700:ASN:HD22	1.82	0.44
4:E:46:THR:HA	4:E:49:ILE:CD1	2.41	0.44
4:E:86:ILE:HG22	4:E:90:ARG:NH1	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:39:LEU:O	1:G:43:LEU:HG	2.18	0.44
1:G:221:ALA:HB1	1:H:228:LEU:CD2	2.47	0.44
1:G:232:VAL:CG2	1:H:221:ALA:HB1	2.39	0.44
1:H:219:ARG:O	1:H:222:THR:HB	2.18	0.44
2:I:22:LEU:HG	2:I:23:ASP:H	1.81	0.44
2:I:255:ILE:CD1	2:I:285:ILE:HD13	2.42	0.44
2:I:609:ILE:H	2:I:609:ILE:HG13	1.32	0.44
2:I:755:LYS:NZ	2:I:769:PRO:HD3	2.32	0.44
2:I:810:TYR:O	2:I:815:SER:HB2	2.18	0.44
3:J:22:ILE:HD11	3:J:1319:PHE:CE1	2.53	0.44
3:J:201:LEU:HD11	3:J:220:ARG:NH1	2.31	0.44
3:J:205:LEU:HD21	3:J:214:ARG:HG3	1.98	0.44
3:J:505:ASP:O	3:J:508:LEU:HB3	2.17	0.44
3:J:818:GLU:HA	3:J:881:LYS:NZ	2.33	0.44
3:J:1290:ARG:HA	3:J:1293:GLU:OE2	2.17	0.44
3:J:1328:THR:CG2	3:J:1332:LEU:HD11	2.30	0.44
3:J:1371:ARG:H	3:J:1371:ARG:HG2	1.68	0.44
5:L:440:THR:O	5:L:443:ILE:HG22	2.18	0.44
6:4:43:DT:O4'	6:4:43:DT:OP2	2.36	0.44
1:M:83:LEU:HA	1:M:86:LYS:HE3	2.00	0.44
2:O:1304:MET:HE3	2:O:1308:ILE:CD1	2.34	0.44
3:P:79:LYS:CD	5:R:569:THR:HG22	2.48	0.44
3:P:321:LYS:O	3:P:321:LYS:HG2	2.17	0.44
6:7:34:DG:C5	6:7:35:DC:N4	2.85	0.44
7:8:18:DT:C2'	7:8:19:DA:H5''	2.41	0.44
1:A:190:ALA:HB2	1:A:200:LYS:CB	2.47	0.44
1:A:192:VAL:CG1	1:A:195:ARG:HB2	2.43	0.44
3:D:478:LEU:HD13	4:E:20:VAL:O	2.17	0.44
3:D:757:THR:HA	3:D:758:PRO:HD3	1.75	0.44
3:D:1274:PHE:O	3:D:1275:LEU:CB	2.38	0.44
4:E:27:ALA:HB1	4:E:46:THR:HB	1.99	0.44
2:I:155:VAL:HG13	2:I:176:ILE:HG12	2.00	0.44
2:I:594:VAL:HG22	2:I:599:VAL:HG22	2.00	0.44
2:I:1005:GLU:CG	2:I:1006:GLU:H	2.19	0.44
3:J:22:ILE:HD11	3:J:1319:PHE:HE1	1.82	0.44
3:J:233:LYS:CG	3:J:234:PRO:HD2	2.46	0.44
3:J:801:VAL:CG2	3:J:920:ALA:HB1	2.46	0.44
3:J:1162:ILE:HD11	3:J:1180:VAL:HG12	1.96	0.44
3:J:1285:VAL:HG13	3:J:1286:LYS:HG3	2.00	0.44
4:K:45:LYS:HD2	4:K:45:LYS:HA	1.82	0.44
5:L:261:LEU:HD13	5:L:266:PHE:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:191:LYS:O	2:O:192:ASP:HB2	2.16	0.44
2:O:200:ARG:NH1	6:7:50:DT:O2	2.51	0.44
2:O:298:ALA:O	2:O:313:ALA:CA	2.66	0.44
2:O:496:LYS:HD2	5:R:468:ARG:HH21	1.81	0.44
2:O:727:VAL:HG23	2:O:773:LEU:CD1	2.43	0.44
2:O:1049:ILE:HG22	2:O:1050:VAL:N	2.29	0.44
2:O:1086:PRO:HB3	2:O:1221:PHE:HE2	1.83	0.44
3:P:76:LYS:O	3:P:77:ARG:CB	2.63	0.44
3:P:997:VAL:HG12	3:P:1001:ALA:HB3	1.98	0.44
3:P:1158:GLU:O	3:P:1223:LEU:CD2	2.60	0.44
3:P:1280:VAL:HG12	3:P:1281:GLU:N	2.32	0.44
3:P:1368:ASP:O	3:P:1372:ARG:HG3	2.17	0.44
7:8:30:DA:C2'	7:8:31:DT:OP2	2.63	0.44
1:A:39:LEU:O	1:A:43:LEU:HD12	2.17	0.44
1:A:100:LEU:CD1	1:A:115:ILE:HD13	2.48	0.44
1:B:28:LEU:HD13	1:B:29:GLU:N	2.33	0.44
2:C:2:VAL:C	2:C:3:TYR:CD2	2.96	0.44
2:C:13:LYS:CE	2:C:1149:TYR:O	2.66	0.44
2:C:367:TYR:CD1	2:C:384:LEU:HD22	2.52	0.44
2:C:631:GLU:HG3	2:C:633:LEU:H	1.82	0.44
2:C:1123:GLY:O	2:C:1126:ASP:HB2	2.17	0.44
3:D:478:LEU:HB3	4:E:20:VAL:HG13	2.00	0.44
3:D:1357:ILE:HG22	3:D:1359:ALA:H	1.83	0.44
5:F:395:THR:HG22	5:F:404:LEU:HD13	1.98	0.44
1:G:39:LEU:O	1:G:43:LEU:CD1	2.65	0.44
2:I:213:LEU:HG	2:I:385:PHE:HZ	1.81	0.44
2:I:297:VAL:CG2	2:I:315:MET:H	2.30	0.44
2:I:523:GLU:O	2:I:527:LYS:HG3	2.18	0.44
2:I:897:PRO:HB2	5:L:565:ILE:HA	2.00	0.44
2:I:1304:MET:HE3	2:I:1308:ILE:HD11	2.00	0.44
3:J:21:LYS:HE3	3:J:23:ALA:HB2	2.00	0.44
3:J:57:PHE:O	3:J:98:ARG:NH2	2.51	0.44
3:J:147:ILE:HD12	3:J:177:ASP:HB3	2.00	0.44
3:J:260:PHE:O	5:L:505:ILE:HB	2.18	0.44
3:J:379:PRO:HA	3:J:382:TYR:CD2	2.52	0.44
3:J:394:ILE:HD11	5:L:539:SER:HB2	1.99	0.44
3:J:554:GLU:N	3:J:566:LYS:O	2.51	0.44
1:M:46:ILE:CD1	1:M:46:ILE:H	2.30	0.44
1:M:166:ARG:CZ	1:M:172:LEU:HB2	2.46	0.44
3:P:225:GLU:OE2	3:P:229:GLN:NE2	2.50	0.44
5:R:429:THR:OG1	6:7:39:DA:H8	2.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:R:588:ARG:HG3	5:R:589:GLN:N	2.29	0.44
2:C:499:SER:CB	2:C:503:LYS:NZ	2.80	0.44
2:C:1286:THR:N	3:D:479:GLU:OE2	2.40	0.44
1:H:194:GLN:NE2	3:J:406:ALA:HB1	2.33	0.44
2:I:184:LEU:CD2	2:I:389:PHE:CZ	2.96	0.44
2:I:589:THR:HG23	2:I:590:PRO:HD2	2.00	0.44
2:I:667:LEU:HD11	2:I:794:LEU:CD2	2.36	0.44
3:J:475:GLU:N	3:J:475:GLU:CD	2.75	0.44
3:J:485:MET:HG3	3:J:487:THR:OG1	2.18	0.44
3:J:723:TYR:O	3:J:723:TYR:CD1	2.70	0.44
3:J:1164:SER:C	3:J:1175:LEU:HD13	2.38	0.44
3:J:1179:PRO:HB2	3:J:1182:GLY:O	2.18	0.44
5:L:231:THR:O	5:L:231:THR:HG22	2.17	0.44
6:4:58:DG:C2	7:5:6:DG:C2	3.06	0.44
1:M:155:ALA:HA	1:M:172:LEU:HD21	1.99	0.44
2:O:47:TYR:H	2:O:50:GLU:HB2	1.83	0.44
2:O:146:VAL:HG23	2:O:511:LEU:O	2.18	0.44
2:O:1025:PHE:O	2:O:1028:LYS:HB2	2.18	0.44
2:O:1278:LEU:HD13	2:O:1287:LEU:N	2.33	0.44
2:O:1299:ASN:OD1	2:O:1299:ASN:N	2.41	0.44
3:P:234:PRO:O	3:P:237:MET:HG2	2.18	0.44
3:P:514:THR:HB	3:P:595:ALA:HA	1.98	0.44
3:P:786:THR:O	3:P:790:THR:HG23	2.18	0.44
3:P:1367:GLN:HG3	3:P:1368:ASP:N	2.33	0.44
5:R:583:THR:CG2	5:R:586:ARG:CB	2.86	0.44
1:B:83:LEU:O	3:D:528:THR:CG2	2.66	0.44
2:C:373:GLY:HA3	5:F:91:ILE:HG12	1.99	0.44
2:C:678:ARG:NH2	2:C:1106:ARG:HD2	2.32	0.44
2:C:736:VAL:HG12	2:C:737:ASN:N	2.32	0.44
3:D:160:LEU:HD23	3:D:160:LEU:HA	1.72	0.44
3:D:314:ARG:HH21	5:F:96:ASP:HB2	1.83	0.44
3:D:502:PRO:HB3	3:D:601:ILE:HD13	1.98	0.44
3:D:888:CYS:SG	3:D:894:VAL:HA	2.58	0.44
3:D:930:LEU:HB2	3:D:1134:ILE:CG1	2.46	0.44
1:H:67:GLU:OE2	1:H:79:LEU:HD23	2.17	0.44
2:I:149:LEU:HD13	2:I:453:ILE:HD11	2.00	0.44
2:I:202:ARG:HB2	2:I:369:MET:CE	2.48	0.44
2:I:346:TYR:CZ	2:I:436:ARG:HG2	2.53	0.44
2:I:724:VAL:O	2:I:773:LEU:HD12	2.18	0.44
2:I:737:ASN:HB2	2:I:739:ASP:HB2	1.99	0.44
3:J:262:THR:OG1	3:J:266:ASN:ND2	2.45	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1219:ASP:OD1	3:J:1219:ASP:N	2.51	0.44
4:K:50:ALA:O	4:K:54:ILE:CD1	2.66	0.44
5:L:562:ARG:HD3	5:L:576:VAL:HG21	2.00	0.44
1:M:30:PRO:HB2	1:M:198:LEU:HD13	1.97	0.44
1:N:82:LEU:HD22	1:N:173:VAL:HG22	1.95	0.44
2:O:112:GLY:O	2:O:114:VAL:N	2.49	0.44
2:O:722:GLY:HA2	2:O:737:ASN:CG	2.42	0.44
2:O:758:ARG:HG3	2:O:833:ILE:O	2.18	0.44
2:O:768:MET:HE2	2:O:769:PRO:O	2.18	0.44
3:P:57:PHE:HB3	3:P:98:ARG:NH2	2.33	0.44
3:P:282:LEU:HD22	3:P:287:ALA:HB2	2.00	0.44
3:P:376:LEU:HB2	3:P:377:PHE:CD2	2.53	0.44
3:P:678:ARG:HB3	3:P:678:ARG:CZ	2.47	0.44
3:P:1138:LEU:HD23	3:P:1139:PRO:HD3	1.98	0.44
3:P:1233:ILE:HG13	3:P:1233:ILE:H	1.47	0.44
3:P:1271:SER:HB3	3:P:1297:LYS:HZ1	1.81	0.44
5:R:449:THR:HG1	5:R:504:PRO:HG3	1.68	0.44
1:A:65:LEU:HD22	2:C:873:ILE:CG2	2.48	0.43
1:A:208:ASN:N	1:A:208:ASN:ND2	2.64	0.43
1:B:156:SER:HA	1:B:159:ILE:HG22	2.00	0.43
2:C:39:ILE:O	2:C:39:ILE:CG2	2.65	0.43
2:C:164:THR:HG23	2:C:165:HIS:ND1	2.32	0.43
2:C:663:VAL:O	2:C:666:SER:OG	2.28	0.43
2:C:1073:LYS:NZ	8:3:15:G:P	2.91	0.43
2:C:1237:HIS:HB3	2:C:1242:LYS:CE	2.47	0.43
2:C:1239:VAL:HG23	3:D:354:VAL:HG23	2.00	0.43
3:D:79:LYS:CG	5:F:569:THR:HG22	2.45	0.43
3:D:412:LEU:HG	3:D:416:ILE:HD12	2.01	0.43
3:D:484:MET:HB3	3:D:484:MET:HE2	1.60	0.43
3:D:1238:GLN:NE2	3:D:1248:ILE:O	2.50	0.43
6:1:34:DG:C2	7:2:30:DA:C2	3.06	0.43
6:1:58:DG:C2	7:2:6:DG:C2	3.06	0.43
1:G:191:ARG:HH21	3:P:1375:ALA:HB3	1.83	0.43
1:H:67:GLU:O	1:H:78:ILE:HB	2.18	0.43
2:I:390:PHE:CD2	2:I:390:PHE:N	2.85	0.43
2:I:720:ARG:HB3	2:I:736:VAL:HG13	1.99	0.43
3:J:153:ASN:CB	3:J:154:LEU:HD12	2.43	0.43
3:J:279:LEU:O	3:J:283:LEU:HG	2.18	0.43
3:J:332:LYS:O	3:J:333:GLY:C	2.59	0.43
3:J:384:LYS:HZ2	3:J:415:VAL:HG13	1.83	0.43
3:J:614:LEU:HD23	4:K:5:THR:HG21	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1250:ASP:N	3:J:1250:ASP:OD1	2.51	0.43
3:J:1318:SER:HG	3:J:1321:SER:CB	2.29	0.43
4:K:48:VAL:CA	4:K:51:LEU:HG	2.44	0.43
6:4:50:DT:O3'	6:4:51:DC:H6	2.01	0.43
1:M:225:ALA:O	1:M:228:LEU:HB2	2.17	0.43
2:O:30:ILE:H	2:O:30:ILE:HG13	1.54	0.43
2:O:135:THR:HG21	2:O:515:MET:HE1	2.00	0.43
2:O:1327:LEU:HD21	2:O:1339:LEU:HD21	2.00	0.43
3:P:975:ILE:HD11	3:P:1003:LEU:CD1	2.47	0.43
4:Q:21:LEU:HA	4:Q:21:LEU:HD23	1.77	0.43
6:7:30:DG:N2	7:8:34:DG:N3	2.66	0.43
1:A:61:ILE:HD12	1:A:171:LEU:HD13	1.99	0.43
2:C:523:GLU:HG2	2:C:524:ILE:N	2.31	0.43
2:C:673:HIS:HB3	3:D:763:PHE:O	2.18	0.43
2:C:1161:LEU:O	2:C:1164:PHE:CD2	2.63	0.43
3:D:43:THR:C	3:D:44:ILE:HG23	2.42	0.43
3:D:767:LEU:HD22	3:D:771:GLN:OE1	2.17	0.43
3:D:1040:MET:HG2	3:D:1046:ILE:CG2	2.48	0.43
6:1:51:DC:OP2	6:1:51:DC:C2'	2.63	0.43
1:H:194:GLN:HE22	3:J:406:ALA:CB	2.31	0.43
2:I:1284:ALA:CA	3:J:1357:ILE:HD12	2.48	0.43
3:J:216:LYS:C	3:J:216:LYS:HD3	2.43	0.43
3:J:346:ARG:NH1	7:5:16:DC:OP1	2.51	0.43
3:J:379:PRO:HG2	3:J:380:PHE:N	2.33	0.43
3:J:579:LEU:O	3:J:583:VAL:HG23	2.18	0.43
3:J:859:PRO:O	3:J:862:THR:OG1	2.35	0.43
5:L:434:TRP:CE2	6:4:36:DT:H73	2.53	0.43
5:L:471:LEU:CG	5:L:476:ARG:O	2.60	0.43
1:M:184:ALA:CB	2:O:1091:GLY:HA3	2.27	0.43
1:M:224:LEU:HD21	1:N:228:LEU:HD11	1.99	0.43
1:M:232:VAL:O	1:N:218:ARG:HG2	2.17	0.43
1:N:95:LYS:NZ	1:N:120:ASP:OD2	2.51	0.43
2:O:129:LEU:HD23	2:O:129:LEU:HA	1.83	0.43
2:O:150:HIS:HE1	2:O:454:ARG:HG3	1.83	0.43
2:O:370:MET:HE3	2:O:370:MET:HB3	1.86	0.43
2:O:698:PRO:HA	2:O:1231:TYR:CD1	2.53	0.43
2:O:1278:LEU:HD13	2:O:1287:LEU:HB2	1.99	0.43
2:O:1334:GLY:O	3:P:25:ALA:CB	2.66	0.43
3:P:190:LYS:O	3:P:190:LYS:HG3	2.12	0.43
3:P:272:VAL:HG22	3:P:302:ALA:CB	2.48	0.43
3:P:351:GLY:C	3:P:468:VAL:HG23	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:435:GLN:HB2	3:P:457:TYR:OH	2.18	0.43
3:P:974:VAL:CG1	3:P:1028:ILE:HG21	2.39	0.43
3:P:1134:ILE:O	3:P:1138:LEU:HB3	2.18	0.43
5:R:137:TYR:CE1	5:R:353:LEU:HD11	2.54	0.43
2:C:46:GLN:HE21	2:C:46:GLN:HB2	1.67	0.43
2:C:809:GLY:N	3:D:629:PHE:CD1	2.86	0.43
2:C:854:ILE:HA	2:C:855:PRO:HD2	1.80	0.43
3:D:312:ARG:NH2	5:F:95:THR:OG1	2.52	0.43
3:D:423:LEU:HD21	3:D:468:VAL:HG13	2.01	0.43
3:D:425:ARG:CD	3:D:457:TYR:O	2.66	0.43
3:D:427:PRO:CG	3:D:429:LEU:HD21	2.38	0.43
4:E:63:ILE:HA	4:E:66:VAL:HB	2.00	0.43
4:E:69:ARG:HG2	4:E:73:GLN:HE21	1.82	0.43
1:G:71:LYS:HG3	1:G:72:GLU:H	1.82	0.43
1:G:225:ALA:HA	1:G:228:LEU:HB2	2.01	0.43
1:H:109:PRO:HG3	1:H:132:HIS:CD2	2.53	0.43
2:I:414:ILE:H	2:I:414:ILE:HG12	1.64	0.43
2:I:768:MET:HA	2:I:769:PRO:HD3	1.85	0.43
2:I:879:GLY:HA2	2:I:920:VAL:HG12	1.99	0.43
2:I:1239:VAL:HA	2:I:1242:LYS:HB2	1.99	0.43
3:J:144:TYR:HA	3:J:180:MET:HG3	2.01	0.43
3:J:554:GLU:OE2	3:J:570:LYS:CE	2.67	0.43
3:J:592:VAL:O	3:J:592:VAL:CG2	2.66	0.43
3:J:712:GLN:N	3:J:712:GLN:OE1	2.50	0.43
3:J:840:LEU:CD1	3:J:869:CYS:SG	2.93	0.43
3:J:843:VAL:O	3:J:882:VAL:HG23	2.19	0.43
7:5:27:DA:OP2	7:5:27:DA:C8	2.71	0.43
2:O:3:TYR:O	2:O:8:LYS:HE3	2.18	0.43
2:O:209:ILE:HG23	2:O:210:LEU:N	2.33	0.43
2:O:341:LEU:HB2	2:O:342:ASP:H	1.63	0.43
2:O:962:GLU:O	2:O:966:ILE:HG13	2.19	0.43
2:O:984:VAL:O	2:O:984:VAL:HG12	2.18	0.43
3:P:29:MET:O	3:P:32:SER:HB3	2.17	0.43
3:P:262:THR:HG23	3:P:262:THR:O	2.18	0.43
3:P:544:LEU:O	3:P:573:THR:HB	2.18	0.43
3:P:1073:ASP:O	3:P:1075:ARG:HG2	2.18	0.43
5:R:385:ARG:C	5:R:388:ILE:HG23	2.43	0.43
1:A:223:ILE:O	1:A:227:GLN:HG2	2.18	0.43
2:C:155:VAL:CG2	2:C:405:PHE:HA	2.48	0.43
2:C:202:ARG:NH2	7:2:7:DC:H3'	2.34	0.43
2:C:562:GLU:O	2:C:562:GLU:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:956:ALA:O	2:C:960:LEU:HD12	2.18	0.43
2:C:1330:ILE:CG2	2:C:1335:ILE:HB	2.48	0.43
3:D:506:VAL:HG12	3:D:507:VAL:N	2.33	0.43
3:D:746:LEU:HD23	3:D:746:LEU:HA	1.51	0.43
3:D:1179:PRO:HB2	3:D:1182:GLY:O	2.17	0.43
5:F:100:MET:H	5:F:100:MET:HG2	1.55	0.43
5:F:147:GLN:HE21	5:F:161:LEU:HD11	1.84	0.43
5:F:267:ASP:O	5:F:271:ASN:CG	2.61	0.43
1:G:230:ALA:HB3	1:H:11:PRO:HB2	1.99	0.43
2:I:515:MET:SD	2:I:523:GLU:HG3	2.59	0.43
2:I:1289:GLU:O	2:I:1293:VAL:HG22	2.19	0.43
3:J:264:ASP:HB3	3:J:324:LEU:HD22	1.99	0.43
3:J:513:MET:HE2	3:J:513:MET:HB3	1.93	0.43
3:J:514:THR:HG21	3:J:596:LEU:HG	2.00	0.43
3:J:650:LYS:O	3:J:654:ILE:HG13	2.19	0.43
3:J:982:LEU:HB3	3:J:995:TYR:HB2	2.01	0.43
3:J:1355:ARG:NE	3:J:1369:ARG:HH12	2.16	0.43
5:L:387:VAL:HG11	5:L:409:ASN:OD1	2.18	0.43
5:L:487:MET:HE2	5:L:487:MET:HB3	1.94	0.43
7:5:49:DA:H2''	7:5:50:DA:H5''	2.00	0.43
1:M:81:ILE:HD11	1:M:131:CYS:HB2	1.96	0.43
1:N:212:ASP:OD1	1:N:213:PRO:HD2	2.18	0.43
2:O:402:ARG:HG2	2:O:416:GLY:N	2.33	0.43
2:O:1269:ARG:HG3	3:P:345:LYS:C	2.44	0.43
3:P:812:ASP:O	3:P:897:HIS:ND1	2.43	0.43
3:P:1011:VAL:HG11	3:P:1017:VAL:HG11	2.00	0.43
5:R:275:VAL:O	5:R:278:ASP:HB2	2.18	0.43
5:R:385:ARG:HA	5:R:388:ILE:HG23	1.99	0.43
5:R:584:ARG:CG	5:R:585:GLU:N	2.81	0.43
5:R:587:ILE:HG12	5:R:587:ILE:H	1.55	0.43
5:R:601:PRO:HB3	5:R:608:ARG:HH21	1.84	0.43
1:A:202:VAL:O	1:A:202:VAL:HG12	2.17	0.43
1:B:8:PHE:CD1	1:B:8:PHE:C	2.96	0.43
2:C:80:PHE:O	2:C:92:TYR:CE1	2.72	0.43
2:C:802:VAL:CG1	2:C:803:ALA:N	2.81	0.43
2:C:878:THR:O	2:C:881:ASP:HB2	2.18	0.43
2:C:941:LYS:CB	2:C:946:LEU:HD13	2.48	0.43
2:C:1200:LYS:HB2	2:C:1200:LYS:HE3	1.60	0.43
3:D:456:ALA:HB2	3:D:499:ILE:HG21	2.00	0.43
3:D:686:TRP:CE2	3:D:758:PRO:HD3	2.54	0.43
6:1:48:DA:H3'	6:1:49:DG:H5''	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2:4:DC:N3	7:2:5:DC:C4	2.87	0.43
1:H:32:GLU:O	1:H:35:PHE:HB2	2.19	0.43
2:I:155:VAL:CG2	2:I:405:PHE:CD2	2.99	0.43
2:I:764:CYS:HB3	2:I:831:ILE:HB	2.00	0.43
2:I:1242:LYS:CE	3:J:465:GLN:HE21	2.28	0.43
3:J:34:SER:HB2	3:J:104:HIS:HB3	2.00	0.43
3:J:485:MET:HB3	3:J:488:ASN:HB2	2.01	0.43
3:J:537:TYR:CE1	3:J:544:LEU:HG	2.54	0.43
4:K:36:ASP:HA	4:K:37:PRO:HD2	1.84	0.43
4:K:70:GLN:O	4:K:74:GLU:HG3	2.18	0.43
1:M:11:PRO:CD	1:N:227:GLN:HA	2.48	0.43
1:N:48:LEU:HD21	1:N:183:ILE:HG22	2.00	0.43
1:N:83:LEU:HD13	1:N:86:LYS:HE3	2.01	0.43
2:O:15:PHE:HE2	2:O:1182:ILE:CD1	2.31	0.43
2:O:101:ARG:HG2	2:O:119:GLU:HB3	1.99	0.43
3:P:26:SER:H	3:P:29:MET:HE2	1.83	0.43
3:P:107:LEU:HD11	3:P:242:LEU:HB2	2.01	0.43
3:P:470:VAL:O	3:P:472:LEU:HD23	2.18	0.43
3:P:517:CYS:HB3	3:P:545:HIS:HB2	1.99	0.43
3:P:849:LEU:HA	3:P:856:ILE:O	2.18	0.43
5:R:237:ALA:O	5:R:238:LYS:HB2	2.19	0.43
5:R:262:VAL:HA	5:R:263:PRO:HD3	1.90	0.43
5:R:410:ILE:O	5:R:413:MET:HB2	2.18	0.43
1:B:13:LEU:HD11	1:B:16:ILE:HG12	2.00	0.43
1:B:54:CYS:SG	1:B:148:ARG:HB2	2.58	0.43
1:B:82:LEU:HD13	1:B:173:VAL:HG13	2.01	0.43
2:C:500:ALA:O	2:C:504:GLU:HG2	2.17	0.43
2:C:1291:LEU:HD13	3:D:1354:GLY:HA2	2.00	0.43
2:C:1294:LYS:CB	3:D:347:VAL:HG13	2.46	0.43
2:C:1337:ILE:HD12	3:D:22:ILE:HD11	2.01	0.43
3:D:483:LEU:H	3:D:483:LEU:HG	1.54	0.43
3:D:1167:LYS:HE3	3:D:1187:GLU:OE2	2.18	0.43
4:E:35:LYS:HA	4:E:35:LYS:HD3	1.66	0.43
1:H:111:THR:OG1	1:H:126:PRO:O	2.32	0.43
2:I:112:GLY:C	2:I:114:VAL:N	2.76	0.43
2:I:561:ILE:HG22	3:J:776:THR:HG23	1.99	0.43
2:I:726:TYR:HB3	2:I:733:VAL:CG2	2.49	0.43
2:I:980:VAL:O	2:I:980:VAL:CG1	2.66	0.43
2:I:1225:VAL:HG12	2:I:1226:THR:N	2.33	0.43
3:J:450:HIS:HD2	3:J:452:LEU:H	1.67	0.43
3:J:555:TYR:HB2	3:J:586:GLY:HA2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:924:GLY:O	3:J:928:THR:OG1	2.34	0.43
3:J:1130:GLY:C	3:J:1132:LYS:H	2.25	0.43
5:L:102:MET:CB	6:4:42:DG:N2	2.82	0.43
5:L:145:LEU:HD23	5:L:221:PHE:CE2	2.54	0.43
5:L:500:ILE:HG13	5:L:500:ILE:H	1.66	0.43
1:M:217:ILE:H	1:M:217:ILE:HG13	1.66	0.43
2:O:325:LEU:HD23	2:O:325:LEU:HA	1.81	0.43
2:O:453:ILE:HG13	2:O:587:LEU:HD21	2.00	0.43
2:O:563:THR:H	2:O:680:LEU:HD11	1.84	0.43
2:O:697:LYS:HZ2	2:O:1181:PRO:HG3	1.83	0.43
2:O:717:VAL:CG1	2:O:718:ALA:N	2.77	0.43
2:O:859:GLU:HA	2:O:862:LEU:HD12	1.99	0.43
3:P:16:GLU:O	3:P:16:GLU:HG2	2.18	0.43
3:P:382:TYR:CZ	3:P:398:LYS:HE3	2.53	0.43
3:P:1176:VAL:HG22	3:P:1187:GLU:HG2	2.01	0.43
4:Q:5:THR:HG22	4:Q:7:GLN:N	2.21	0.43
5:R:460:ILE:HA	5:R:463:LEU:CG	2.48	0.43
6:7:32:DA:H1'	6:7:33:DT:H5'	2.00	0.43
7:8:4:DC:N4	7:8:5:DC:N4	2.66	0.43
1:A:174:ASP:OD2	2:C:1059:ARG:NH2	2.52	0.43
2:C:75:LEU:HD22	2:C:94:ALA:HB1	2.01	0.43
2:C:149:LEU:CD1	2:C:451:ARG:HB3	2.15	0.43
2:C:191:LYS:HB2	2:C:191:LYS:HE3	1.63	0.43
2:C:868:SER:CB	2:C:944:ARG:HB2	2.48	0.43
2:C:880:GLY:O	2:C:919:ARG:NH1	2.52	0.43
2:C:1049:ILE:HG23	2:C:1050:VAL:N	2.34	0.43
2:C:1143:GLU:OE1	2:C:1144:PHE:CA	2.66	0.43
3:D:259:ARG:HD3	5:F:502:LYS:HE2	2.00	0.43
3:D:769:VAL:O	3:D:773:PHE:HB2	2.19	0.43
3:D:1149:ARG:HA	3:D:1150:PRO:HD3	1.88	0.43
7:2:6:DG:C5	7:2:7:DC:C4	3.07	0.43
1:G:228:LEU:CG	1:H:224:LEU:HD21	2.48	0.43
1:H:195:ARG:CB	1:H:198:LEU:HD13	2.43	0.43
2:I:16:GLY:CA	2:I:1185:PRO:HG2	2.49	0.43
2:I:169:LYS:NZ	2:I:190:PRO:O	2.42	0.43
2:I:531:SER:HB2	2:I:572:ILE:HG12	2.01	0.43
2:I:897:PRO:HB3	5:L:565:ILE:HA	2.00	0.43
2:I:1103:VAL:HB	2:I:1104:PRO:HD3	2.00	0.43
2:I:1230:MET:HG2	2:I:1231:TYR:N	2.34	0.43
3:J:139:LEU:HD21	3:J:185:ILE:HD12	1.98	0.43
3:J:555:TYR:N	3:J:555:TYR:CD1	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:867:GLN:O	3:J:871:LEU:HG	2.18	0.43
3:J:1141:VAL:HA	3:J:1144:LEU:HD12	1.99	0.43
3:J:1226:VAL:CA	3:J:1229:VAL:HG12	2.49	0.43
5:L:548:LEU:HD11	5:L:560:ARG:NE	2.25	0.43
1:M:50:SER:O	1:M:52:PRO:HD3	2.19	0.43
1:M:75:GLN:NE2	2:O:727:VAL:O	2.52	0.43
1:N:84:ASN:OD1	3:P:551:ARG:NH1	2.50	0.43
2:O:158:ASP:HB3	2:O:173:ASN:OD1	2.18	0.43
2:O:337:PHE:C	2:O:337:PHE:CD2	2.97	0.43
2:O:936:ARG:N	2:O:1042:LEU:HD12	2.34	0.43
2:O:976:ARG:HD2	2:O:990:ASP:OD1	2.17	0.43
3:P:136:GLU:OE1	3:P:140:TYR:HE2	2.01	0.43
5:R:370:ALA:HB1	5:R:374:ARG:NH2	2.32	0.43
1:A:58:GLU:HB2	1:A:145:LYS:HB3	2.01	0.43
1:A:66:HIS:O	1:A:78:ILE:CD1	2.67	0.43
2:C:2:VAL:HG12	2:C:3:TYR:N	2.34	0.43
2:C:447:HIS:HD2	2:C:449:GLY:H	1.67	0.43
2:C:720:ARG:NH1	2:C:741:MET:HA	2.34	0.43
2:C:759:SER:HG	2:C:763:THR:CB	2.29	0.43
2:C:1128:ILE:HG22	2:C:1177:ARG:HA	2.00	0.43
2:C:1221:PHE:CD1	3:D:633:ALA:O	2.71	0.43
2:C:1271:GLY:O	2:C:1275:VAL:HG23	2.18	0.43
3:D:141:PHE:HA	3:D:180:MET:HG2	2.00	0.43
3:D:230:SER:HB2	3:D:1339:GLY:HA3	2.01	0.43
3:D:264:ASP:OD1	5:F:508:GLU:HB2	2.19	0.43
3:D:1252:HIS:O	3:D:1255:VAL:HB	2.18	0.43
5:F:507:MET:O	5:F:519:LEU:HB3	2.19	0.43
1:G:155:ALA:HA	1:G:172:LEU:HD21	2.01	0.43
1:H:61:ILE:CG2	1:H:140:ILE:HD11	2.49	0.43
2:I:194:LEU:HG	2:I:206:ALA:HB2	1.99	0.43
2:I:272:ARG:H	2:I:272:ARG:HD2	1.83	0.43
2:I:287:VAL:O	2:I:287:VAL:HG23	2.19	0.43
2:I:340:ASP:CG	2:I:341:LEU:H	2.27	0.43
2:I:810:TYR:CE2	2:I:1078:LYS:CB	3.02	0.43
2:I:1100:PRO:CB	3:J:639:VAL:HG23	2.37	0.43
3:J:372:MET:O	3:J:376:LEU:HG	2.18	0.43
3:J:421:VAL:CG1	3:J:422:LEU:N	2.51	0.43
3:J:834:PRO:HD2	3:J:837:ASP:OD2	2.19	0.43
5:L:386:LEU:CA	6:4:41:DT:O4'	2.57	0.43
6:4:25:DC:H42	7:5:38:DG:H1	1.67	0.43
6:4:43:DT:H2'	6:4:44:DG:H5''	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:158:ARG:CD	1:N:172:LEU:HD11	2.48	0.43
2:O:149:LEU:HD11	2:O:451:ARG:HB3	2.01	0.43
2:O:856:ASN:OD1	5:R:612:ASP:O	2.37	0.43
2:O:1302:THR:CG2	2:O:1303:LYS:N	2.82	0.43
3:P:361:LEU:O	3:P:626:TYR:OH	2.34	0.43
5:R:115:GLY:O	5:R:119:ILE:CD1	2.67	0.43
5:R:289:LYS:HB2	5:R:289:LYS:HE3	1.72	0.43
2:C:207:THR:HB	2:C:350:THR:CG2	2.49	0.43
2:C:297:VAL:HG22	2:C:315:MET:O	2.18	0.43
2:C:405:PHE:O	2:C:409:LEU:HG	2.19	0.43
2:C:518:ASN:OD1	2:C:761:GLN:HG2	2.19	0.43
2:C:587:LEU:HA	2:C:587:LEU:HD23	1.17	0.43
2:C:759:SER:N	2:C:765:ILE:HD11	2.33	0.43
3:D:114:ILE:CD1	3:D:308:ASP:HB3	2.48	0.43
3:D:295:GLU:OE1	3:D:295:GLU:HA	2.18	0.43
3:D:424:ASN:O	3:D:466:MET:HE2	2.18	0.43
3:D:749:LYS:HG2	3:D:755:ILE:CD1	2.49	0.43
3:D:950:ILE:CD1	3:D:997:VAL:HG22	2.46	0.43
3:D:1240:VAL:O	3:D:1243:LEU:HB2	2.19	0.43
5:F:443:ILE:HG23	5:F:444:ALA:N	2.33	0.43
5:F:489:MET:HB3	5:F:490:PRO:HD2	2.00	0.43
6:1:43:DT:H3'	6:1:44:DG:H5''	2.00	0.43
1:G:228:LEU:CD2	1:H:224:LEU:CD2	2.74	0.43
2:I:237:LEU:CD1	2:I:289:VAL:HG22	2.49	0.43
2:I:699:LEU:N	2:I:699:LEU:HD23	2.33	0.43
2:I:724:VAL:HG12	2:I:727:VAL:HG22	2.00	0.43
2:I:1010:GLN:O	2:I:1014:LEU:HG	2.18	0.43
2:I:1273:MET:HB3	3:J:428:THR:CB	2.48	0.43
3:J:544:LEU:HD22	3:J:578:ILE:HD11	1.99	0.43
3:J:872:LEU:HG	3:J:872:LEU:H	1.33	0.43
3:J:1040:MET:HG2	3:J:1046:ILE:HG23	1.99	0.43
3:J:1067:ARG:HD3	3:J:1071:GLY:O	2.19	0.43
3:J:1265:THR:HG23	3:J:1305:ASP:OD2	2.19	0.43
5:L:554:ARG:CG	5:L:555:GLU:N	2.80	0.43
1:M:57:THR:HG22	1:M:58:GLU:HG3	2.00	0.43
2:O:606:LEU:HD22	2:O:610:GLU:HB2	2.01	0.43
3:P:265:LEU:O	3:P:269:TYR:CD2	2.67	0.43
3:P:702:GLN:HG2	3:P:703:THR:HG23	2.01	0.43
3:P:747:MET:HE2	3:P:747:MET:HB2	1.66	0.43
3:P:845:ALA:O	3:P:846:GLU:CB	2.66	0.43
5:R:275:VAL:O	5:R:279:ARG:HG3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:7:20:DC:O2	7:8:44:DA:H2	2.02	0.43
1:A:49:SER:HB3	2:C:1083:GLU:OE2	2.19	0.43
1:B:22:THR:OG1	1:B:207:THR:O	2.36	0.43
1:B:191:ARG:O	1:B:191:ARG:CG	2.62	0.43
2:C:871:VAL:HG23	2:C:883:LEU:CA	2.48	0.43
2:C:929:ILE:HD13	2:C:929:ILE:C	2.44	0.43
2:C:1032:LYS:O	2:C:1036:ILE:HD12	2.19	0.43
3:D:70:CYS:HB2	3:D:90:VAL:HB	2.00	0.43
3:D:110:PRO:HB3	3:D:238:ILE:CG2	2.49	0.43
3:D:620:PHE:O	3:D:623:GLN:HB2	2.19	0.43
3:D:736:GLN:H	3:D:736:GLN:HG2	1.50	0.43
3:D:1314:LEU:HD21	3:D:1325:PHE:CD2	2.50	0.43
5:F:281:ARG:HD2	5:F:281:ARG:HA	1.93	0.43
5:F:514:ASP:O	5:F:516:ASP:HB2	2.18	0.43
5:F:523:ILE:H	5:F:523:ILE:HG13	1.41	0.43
6:1:46:DG:H2'	6:1:47:DC:O4'	2.18	0.43
1:H:193:GLU:O	1:H:194:GLN:HB2	2.18	0.43
2:I:830:THR:HG23	2:I:1234:LYS:NZ	2.32	0.43
2:I:1246:ARG:HH22	2:I:1249:GLY:C	2.25	0.43
3:J:368:LEU:HD21	3:J:376:LEU:CD1	2.49	0.43
3:J:1163:VAL:O	3:J:1201:GLY:HA2	2.18	0.43
3:J:1271:SER:HB3	3:J:1297:LYS:NZ	2.34	0.43
3:J:1328:THR:O	3:J:1332:LEU:CG	2.65	0.43
2:O:73:TYR:CB	2:O:98:VAL:HG22	2.48	0.43
3:P:165:TYR:O	3:P:168:ALA:HB3	2.19	0.43
3:P:316:ILE:HG22	3:P:324:LEU:HD12	2.00	0.43
3:P:678:ARG:HH11	3:P:678:ARG:CG	2.31	0.43
3:P:901:ARG:HG3	3:P:907:HIS:O	2.18	0.43
3:P:1095:MET:HE3	3:P:1095:MET:HB3	1.92	0.43
3:P:1284:ARG:O	3:P:1287:ILE:HB	2.18	0.43
1:B:158:ARG:NH2	1:B:175:ALA:CB	2.62	0.42
2:C:403:MET:HB3	2:C:403:MET:HE2	1.81	0.42
2:C:686:GLN:NE2	2:C:1069:ARG:CG	2.77	0.42
2:C:890:LYS:HE2	2:C:892:GLU:HB2	2.01	0.42
2:C:1172:LEU:HA	2:C:1175:ASN:HD22	1.84	0.42
3:D:194:LEU:O	3:D:198:CYS:SG	2.76	0.42
3:D:749:LYS:O	3:D:750:PRO:C	2.62	0.42
5:F:102:MET:CE	6:1:42:DG:N3	2.70	0.42
5:F:572:THR:O	5:F:576:VAL:HG23	2.18	0.42
1:G:11:PRO:HB2	1:G:28:LEU:HD12	2.00	0.42
1:G:155:ALA:N	1:G:174:ASP:OD1	2.27	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:34:GLY:O	1:H:38:THR:OG1	2.34	0.42
1:H:154:PRO:HD2	1:H:157:THR:OG1	2.18	0.42
3:J:38:VAL:HG21	3:J:244:VAL:HG21	2.01	0.42
3:J:686:TRP:CE3	3:J:758:PRO:CG	3.02	0.42
3:J:983:LYS:HZ2	3:J:985:ILE:HD11	1.79	0.42
3:J:1155:ILE:CG2	3:J:1156:LEU:N	2.81	0.42
5:L:167:ASP:HB2	5:L:262:VAL:HG21	2.01	0.42
5:L:386:LEU:CD1	6:4:41:DT:O4'	2.66	0.42
6:4:30:DG:H2'	6:4:31:DT:H71	2.01	0.42
2:O:70:TYR:CZ	2:O:72:SER:HA	2.54	0.42
3:P:130:MET:HG2	3:P:135:ILE:CD1	2.45	0.42
3:P:376:LEU:HG	3:P:376:LEU:H	1.62	0.42
3:P:603:LYS:O	3:P:607:THR:OG1	2.36	0.42
3:P:844:THR:HG23	3:P:864:LEU:HD21	2.01	0.42
5:R:119:ILE:O	5:R:123:ILE:HG13	2.18	0.42
2:C:688:GLN:NE2	8:3:13:GTP:O3'	2.52	0.42
2:C:1087:TYR:O	2:C:1212:LEU:CD2	2.67	0.42
2:C:1292:THR:CG2	2:C:1293:VAL:N	2.81	0.42
3:D:332:LYS:O	3:D:333:GLY:O	2.37	0.42
3:D:572:THR:OG1	3:D:576:ARG:CB	2.61	0.42
3:D:591:ILE:HG23	3:D:604:MET:HG2	2.00	0.42
5:F:430:TYR:CE1	5:F:434:TRP:NE1	2.81	0.42
5:F:461:ASN:HA	7:2:26:DT:H71	2.00	0.42
5:F:558:VAL:HG12	5:F:559:LEU:HD23	2.02	0.42
5:F:593:LYS:HE2	5:F:593:LYS:HB2	1.89	0.42
6:1:26:DT:H1'	6:1:27:DC:H5'	2.00	0.42
6:1:51:DC:C5	6:1:52:DT:H73	2.54	0.42
2:I:227:LYS:HZ1	2:I:298:ALA:HB1	1.83	0.42
2:I:838:CYS:HB2	2:I:918:LEU:CB	2.49	0.42
2:I:1199:LEU:CD2	2:I:1204:LEU:HD13	2.46	0.42
2:I:1271:GLY:HA2	3:J:344:GLY:HA3	2.01	0.42
2:I:1278:LEU:HD11	2:I:1286:THR:CB	2.49	0.42
3:J:56:LEU:HD23	3:J:56:LEU:HA	1.86	0.42
3:J:322:ARG:HB2	3:J:323:PRO:CD	2.39	0.42
3:J:422:LEU:HD23	3:J:422:LEU:HA	1.67	0.42
3:J:429:LEU:HG	3:J:429:LEU:H	1.69	0.42
3:J:614:LEU:O	3:J:617:THR:OG1	2.33	0.42
3:J:849:LEU:HD21	3:J:855:ASP:OD2	2.19	0.42
5:L:87:VAL:O	5:L:91:ILE:HG13	2.19	0.42
5:L:506:SER:O	5:L:519:LEU:HD22	2.18	0.42
6:4:36:DT:C3'	6:4:37:DA:P	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:4:36:DT:O3'	6:4:37:DA:P	2.77	0.42
6:4:52:DT:H2''	6:4:53:DG:C8	2.54	0.42
1:M:77:ASP:OD2	2:O:755:LYS:HD2	2.18	0.42
2:O:44:GLU:O	2:O:46:GLN:N	2.52	0.42
2:O:724:VAL:HG11	2:O:727:VAL:HG22	2.00	0.42
2:O:807:TRP:CD1	2:O:808:ASN:H	2.36	0.42
2:O:1186:VAL:HG12	2:O:1187:PHE:CD2	2.54	0.42
2:O:1296:ASP:HB3	2:O:1321:GLU:H	1.84	0.42
2:O:1313:HIS:CE1	3:P:380:PHE:HE1	2.36	0.42
3:P:309:ASN:ND2	3:P:316:ILE:HB	2.32	0.42
3:P:703:THR:HG21	3:P:715:LYS:HE2	1.96	0.42
4:Q:59:ILE:HD13	4:Q:59:ILE:HA	1.91	0.42
5:R:460:ILE:C	5:R:463:LEU:HG	2.43	0.42
1:B:207:THR:HG22	1:B:213:PRO:HG3	2.01	0.42
2:C:13:LYS:HZ1	2:C:1151:LEU:HB3	1.82	0.42
2:C:398:SER:OG	2:C:399:ALA:N	2.52	0.42
2:C:667:LEU:HD23	2:C:667:LEU:HA	1.86	0.42
2:C:668:ILE:HA	2:C:669:PRO:HD3	1.86	0.42
2:C:1122:LYS:HG3	2:C:1229:TYR:CE1	2.54	0.42
2:C:1292:THR:CG2	2:C:1293:VAL:H	2.28	0.42
3:D:330:MET:O	3:D:337:ARG:HG2	2.19	0.42
3:D:425:ARG:NH2	3:D:464:ASP:OD2	2.52	0.42
3:D:592:VAL:O	3:D:592:VAL:CG2	2.66	0.42
3:D:1101:LEU:HD13	3:D:1122:ALA:CB	2.49	0.42
8:3:13:GTP:H8	8:3:13:GTP:O2A	2.01	0.42
2:I:12:ARG:HE	2:I:793:GLU:CD	2.27	0.42
2:I:313:ALA:O	2:I:314:ASN:HB3	2.19	0.42
2:I:634:VAL:CG1	2:I:635:THR:H	2.32	0.42
3:J:148:GLU:CG	3:J:149:GLY:N	2.82	0.42
3:J:495:ASN:C	3:J:903:LEU:HD13	2.44	0.42
3:J:809:VAL:HG22	3:J:894:VAL:CG2	2.50	0.42
3:J:899:TYR:CE1	3:J:915:ILE:CG2	2.99	0.42
3:J:1175:LEU:HD13	3:J:1175:LEU:HA	1.62	0.42
1:N:10:LYS:HA	1:N:11:PRO:HD3	1.94	0.42
2:O:184:LEU:HA	2:O:184:LEU:HD23	1.80	0.42
2:O:230:PHE:CE1	2:O:292:ILE:HD11	2.54	0.42
2:O:515:MET:SD	2:O:527:LYS:HE3	2.59	0.42
2:O:759:SER:OG	2:O:763:THR:OG1	2.32	0.42
2:O:1202:GLY:O	2:O:1203:ASP:HB2	2.18	0.42
2:O:1330:ILE:HG22	2:O:1335:ILE:HB	2.01	0.42
3:P:205:LEU:HD23	3:P:205:LEU:HA	1.74	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:518:VAL:O	3:P:519:ASN:C	2.62	0.42
3:P:718:SER:O	3:P:720:ASN:N	2.44	0.42
3:P:1263:LYS:HB2	3:P:1307:LEU:HD13	1.97	0.42
6:7:12:DC:C2	6:7:13:DT:C7	3.01	0.42
6:7:52:DT:H1'	6:7:53:DG:C5	2.55	0.42
6:7:58:DG:C6	6:7:59:DG:C6	3.07	0.42
1:A:76:GLU:HB3	1:A:81:ILE:HG13	2.01	0.42
2:C:202:ARG:HH21	7:2:7:DC:H3'	1.83	0.42
2:C:764:CYS:SG	2:C:831:ILE:HD13	2.58	0.42
2:C:1311:GLY:O	4:E:31:GLN:HG2	2.19	0.42
3:D:664:ILE:CD1	3:D:681:LYS:HE2	2.49	0.42
3:D:748:ALA:CB	3:D:941:ALA:HB3	2.49	0.42
3:D:856:ILE:HG13	3:D:875:ASN:HB3	2.02	0.42
5:F:419:PHE:CZ	5:F:421:TYR:HA	2.54	0.42
2:I:1182:ILE:CG2	2:I:1183:ALA:N	2.82	0.42
3:J:126:LEU:HB3	3:J:223:LEU:CD1	2.49	0.42
3:J:135:ILE:O	3:J:139:LEU:CD1	2.65	0.42
3:J:384:LYS:HD3	3:J:415:VAL:HG22	2.01	0.42
3:J:519:ASN:O	3:J:520:ALA:C	2.62	0.42
3:J:720:ASN:HB3	3:J:723:TYR:HB3	2.01	0.42
3:J:806:ASP:OD1	3:J:806:ASP:N	2.51	0.42
6:4:12:DC:C2'	6:4:13:DT:OP2	2.66	0.42
1:M:29:GLU:HB2	1:M:30:PRO:HA	2.01	0.42
1:M:56:VAL:HG21	1:M:85:LEU:O	2.18	0.42
2:O:21:VAL:HG11	2:O:592:ARG:CD	2.39	0.42
2:O:1337:ILE:HG23	2:O:1337:ILE:O	2.19	0.42
3:P:151:MET:C	3:P:153:ASN:H	2.27	0.42
3:P:195:GLU:H	3:P:195:GLU:HG2	1.42	0.42
3:P:1253:ILE:H	3:P:1253:ILE:HG13	1.51	0.42
3:P:1360:GLY:CA	4:Q:17:PHE:CZ	3.02	0.42
5:R:386:LEU:HD22	6:7:41:DT:C2	2.55	0.42
5:R:548:LEU:HA	5:R:551:LEU:HD12	2.00	0.42
1:A:43:LEU:O	1:A:47:LEU:CD1	2.67	0.42
2:C:155:VAL:HG22	2:C:405:PHE:HD2	1.80	0.42
2:C:277:LEU:HD11	2:C:282:VAL:HG21	2.02	0.42
2:C:484:LEU:H	2:C:484:LEU:HG	1.41	0.42
2:C:738:GLU:HA	2:C:741:MET:HB2	2.02	0.42
2:C:753:LEU:CD1	2:C:784:ALA:CB	2.97	0.42
2:C:929:ILE:HB	2:C:1055:ALA:HB2	2.00	0.42
2:C:1117:LEU:HG	2:C:1182:ILE:HD13	1.99	0.42
3:D:196:GLN:HB3	3:D:200:GLN:HE21	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:420:PRO:HG3	3:D:481:ARG:HB2	2.01	0.42
3:D:824:PRO:CD	3:D:878:ASP:O	2.67	0.42
3:D:1271:SER:OG	3:D:1292:LEU:HD21	2.20	0.42
5:F:333:VAL:O	5:F:333:VAL:CG1	2.57	0.42
1:G:46:ILE:HD12	1:G:224:LEU:HB2	2.01	0.42
1:H:28:LEU:HB3	1:H:201:LEU:HB3	2.02	0.42
1:H:152:TYR:HE1	1:H:176:CYS:SG	2.42	0.42
2:I:277:LEU:HD12	2:I:282:VAL:HG21	2.02	0.42
2:I:389:PHE:CD2	2:I:420:LEU:HD12	2.54	0.42
2:I:1064:ASP:OD1	2:I:1239:VAL:N	2.48	0.42
3:J:575:GLY:O	3:J:578:ILE:HB	2.20	0.42
3:J:643:ASP:OD1	3:J:643:ASP:N	2.51	0.42
3:J:952:VAL:HG11	3:J:984:LEU:CD1	2.50	0.42
3:J:1288:ALA:O	3:J:1292:LEU:HG	2.19	0.42
5:L:476:ARG:HE	5:L:477:GLU:HG3	1.85	0.42
2:O:337:PHE:CE2	2:O:343:HIS:CD2	3.07	0.42
2:O:661:VAL:CG1	2:O:662:SER:N	2.82	0.42
2:O:1002:LEU:HB3	2:O:1003:THR:H	1.66	0.42
3:P:17:PHE:CD1	3:P:17:PHE:N	2.87	0.42
3:P:840:LEU:HD22	3:P:869:CYS:SG	2.58	0.42
3:P:848:VAL:HG21	3:P:880:VAL:HG22	2.00	0.42
5:R:115:GLY:O	5:R:118:ASP:HB2	2.20	0.42
1:B:142:MET:HB3	1:B:142:MET:HE2	1.69	0.42
2:C:513:GLN:HG3	2:C:526:HIS:CE1	2.54	0.42
2:C:557:ARG:HD3	2:C:587:LEU:CB	2.24	0.42
2:C:871:VAL:HG11	2:C:928:VAL:HG21	2.01	0.42
2:C:912:ASP:O	2:C:913:VAL:HG22	2.15	0.42
3:D:582:ILE:CG2	3:D:623:GLN:HB3	2.48	0.42
5:F:388:ILE:HG23	5:F:392:LYS:HZ2	1.84	0.42
5:F:502:LYS:HD2	5:F:502:LYS:HA	1.79	0.42
2:I:204:LEU:HB3	2:I:205:PRO:HD2	2.00	0.42
2:I:446:ASP:OD1	2:I:446:ASP:N	2.52	0.42
2:I:717:VAL:CG1	2:I:718:ALA:N	2.82	0.42
2:I:810:TYR:HE2	2:I:1078:LYS:CD	2.32	0.42
2:I:1109:ILE:CD1	3:J:740:LEU:HD13	2.47	0.42
2:I:1278:LEU:HD12	2:I:1287:LEU:HD13	2.01	0.42
3:J:19:ALA:C	3:J:20:ILE:HG13	2.44	0.42
3:J:259:ARG:HH22	7:5:21:DG:C5'	2.33	0.42
1:M:61:ILE:HG12	1:M:142:MET:SD	2.59	0.42
1:M:136:GLU:HG3	1:M:137:ASN:N	2.35	0.42
1:N:57:THR:OG1	1:N:147:GLN:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:672:GLU:HB2	2:O:673:HIS:CD2	2.54	0.42
2:O:1238:LEU:HD23	2:O:1238:LEU:HA	1.77	0.42
3:P:372:MET:HE3	3:P:372:MET:HB2	1.87	0.42
3:P:373:ALA:HA	3:P:376:LEU:HD11	1.82	0.42
3:P:499:ILE:HG22	3:P:500:ILE:HG12	2.01	0.42
3:P:1271:SER:CB	3:P:1297:LYS:NZ	2.82	0.42
1:A:31:LEU:HD13	1:A:36:GLY:HA2	2.02	0.42
1:A:129:VAL:CG1	1:A:130:ILE:N	2.80	0.42
1:B:168:ILE:CG2	1:B:169:GLY:N	2.83	0.42
2:C:698:PRO:HD3	2:C:794:LEU:O	2.19	0.42
2:C:888:THR:OG1	2:C:916:SER:HB3	2.19	0.42
2:C:936:ARG:NH1	5:F:495:ARG:NE	2.64	0.42
2:C:1294:LYS:CD	3:D:347:VAL:CG1	2.97	0.42
2:C:1303:LYS:O	2:C:1307:ASN:ND2	2.53	0.42
3:D:144:TYR:CD2	3:D:180:MET:HB2	2.55	0.42
3:D:232:ASN:HA	3:D:236:TRP:HZ3	1.85	0.42
5:F:217:ALA:O	5:F:221:PHE:HD1	2.03	0.42
6:1:26:DT:H2"	6:1:27:DC:OP2	2.20	0.42
1:G:191:ARG:HH21	3:P:1375:ALA:CB	2.32	0.42
2:I:225:PHE:HE2	2:I:347:ILE:HB	1.83	0.42
2:I:519:ASN:OD1	2:I:519:ASN:N	2.51	0.42
2:I:672:GLU:CD	2:I:672:GLU:H	2.26	0.42
2:I:672:GLU:CG	2:I:1187:PHE:HA	2.50	0.42
2:I:960:LEU:CD1	2:I:1028:LYS:HB3	2.45	0.42
3:J:139:LEU:HG	3:J:139:LEU:H	1.44	0.42
3:J:974:VAL:HG11	3:J:1028:ILE:CG2	2.44	0.42
3:J:983:LYS:HA	3:J:994:SER:HA	2.01	0.42
3:J:1101:LEU:HD13	3:J:1107:VAL:HG22	2.01	0.42
5:L:399:LEU:O	5:L:400:GLN:CB	2.64	0.42
5:L:551:LEU:CD1	5:L:559:LEU:HD12	2.50	0.42
6:4:37:DA:H8	6:4:37:DA:OP2	2.03	0.42
1:N:83:LEU:CD1	1:N:86:LYS:HE3	2.50	0.42
2:O:155:VAL:CG2	2:O:405:PHE:HA	2.48	0.42
2:O:448:LEU:HD23	2:O:448:LEU:HA	1.56	0.42
2:O:548:ARG:HH12	3:P:788:LEU:HD11	1.76	0.42
2:O:812:PHE:CD2	2:O:813:GLU:HG3	2.55	0.42
2:O:1261:GLY:HA2	7:8:17:DG:OP1	2.19	0.42
3:P:78:LEU:H	3:P:78:LEU:CD2	2.28	0.42
3:P:93:THR:HB	3:P:94:GLN:H	1.62	0.42
3:P:390:LEU:H	3:P:390:LEU:HG	1.64	0.42
3:P:823:THR:HB	3:P:824:PRO:CD	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:902:ASP:OD2	3:P:905:ARG:HB2	2.20	0.42
3:P:950:ILE:HG21	3:P:995:TYR:CG	2.54	0.42
3:P:959:LYS:HZ3	3:P:985:ILE:HD11	1.84	0.42
3:P:1314:LEU:N	3:P:1314:LEU:HD23	2.34	0.42
5:R:273:MET:HA	5:R:276:MET:HB2	2.02	0.42
1:A:86:LYS:CE	1:A:173:VAL:CG1	2.97	0.42
1:B:224:LEU:C	1:B:224:LEU:CD2	2.77	0.42
2:C:468:LEU:O	2:C:471:VAL:HB	2.19	0.42
2:C:525:THR:HG23	2:C:526:HIS:N	2.35	0.42
2:C:1029:LEU:O	2:C:1030:GLU:C	2.63	0.42
3:D:57:PHE:HD1	3:D:98:ARG:HH21	1.67	0.42
3:D:75:TYR:HE2	3:D:85:CYS:HG	1.57	0.42
3:D:245:LEU:HD11	3:D:249:LEU:HD13	2.02	0.42
3:D:587:LEU:CD2	3:D:612:LEU:HD21	2.48	0.42
3:D:823:THR:O	3:D:838:ARG:NH1	2.51	0.42
3:D:886:VAL:HG21	3:D:1230:THR:CG2	2.50	0.42
3:D:1132:LYS:HB3	3:D:1133:ASP:H	1.60	0.42
3:D:1215:GLU:HB2	3:D:1220:ILE:HD11	2.02	0.42
5:F:386:LEU:HA	6:1:41:DT:O4'	2.19	0.42
2:I:185:ASP:HB2	2:I:197:ARG:HB2	2.02	0.42
2:I:269:ILE:HG22	2:I:274:ILE:HD11	2.02	0.42
2:I:589:THR:CG2	2:I:590:PRO:HD2	2.50	0.42
3:J:885:VAL:HG11	3:J:1255:VAL:HA	2.01	0.42
3:J:1109:LEU:HD22	3:J:1113:VAL:HG11	2.02	0.42
3:J:1279:GLN:C	3:J:1280:VAL:HG23	2.44	0.42
5:L:387:VAL:HG23	5:L:435:ILE:HD13	2.01	0.42
2:O:230:PHE:O	2:O:332:ARG:HA	2.20	0.42
2:O:319:LEU:H	2:O:319:LEU:HG	1.46	0.42
2:O:522:SER:O	2:O:525:THR:HG22	2.19	0.42
2:O:761:GLN:O	2:O:762:ASN:HB2	2.19	0.42
3:P:194:LEU:O	3:P:198:CYS:SG	2.76	0.42
3:P:437:PHE:O	3:P:439:PRO:HD3	2.20	0.42
5:R:429:THR:HA	6:7:40:DA:N7	2.35	0.42
1:A:149:GLY:HA3	1:A:177:TYR:CD2	2.55	0.42
1:B:48:LEU:N	1:B:48:LEU:HD23	2.34	0.42
1:B:193:GLU:O	1:B:194:GLN:CB	2.67	0.42
2:C:13:LYS:HZ3	2:C:1151:LEU:HB3	1.82	0.42
2:C:153:PRO:HB2	2:C:401:GLY:HA2	2.02	0.42
2:C:839:VAL:O	2:C:886:LYS:NZ	2.47	0.42
3:D:364:HIS:CD2	3:D:364:HIS:H	2.37	0.42
3:D:1286:LYS:O	3:D:1289:ASN:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:137:TYR:CD1	5:F:138:PRO:HD2	2.55	0.42
5:F:518:HIS:C	5:F:520:GLY:N	2.74	0.42
1:H:185:TYR:CD2	1:H:185:TYR:O	2.73	0.42
2:I:939:VAL:CG2	2:I:1047:LEU:HD22	2.49	0.42
2:I:1109:ILE:HD13	2:I:1109:ILE:N	2.35	0.42
2:I:1323:PHE:HD2	3:J:1352:ILE:O	2.03	0.42
3:J:251:PRO:O	5:L:507:MET:HE1	2.19	0.42
3:J:262:THR:O	5:L:507:MET:HB3	2.19	0.42
3:J:456:ALA:HB2	3:J:499:ILE:HG21	2.00	0.42
3:J:952:VAL:CG1	3:J:984:LEU:CD1	2.96	0.42
1:N:47:LEU:HD13	1:N:205:MET:HE1	2.01	0.42
2:O:207:THR:HA	2:O:210:LEU:HD12	2.01	0.42
2:O:422:LYS:H	2:O:422:LYS:HG2	1.57	0.42
2:O:1066:MET:HE2	2:O:1066:MET:HB3	1.69	0.42
2:O:1313:HIS:CD2	2:O:1313:HIS:N	2.88	0.42
3:P:268:LEU:HD21	3:P:324:LEU:CD1	2.19	0.42
3:P:1138:LEU:CD2	3:P:1139:PRO:HD3	2.50	0.42
3:P:1356:LEU:HD13	3:P:1365:TYR:CD1	2.55	0.42
1:A:67:GLU:H	1:A:67:GLU:HG2	1.54	0.42
1:B:97:GLU:OE2	1:B:147:GLN:NE2	2.52	0.42
2:C:122:VAL:HG21	2:C:493:ILE:CD1	2.50	0.42
2:C:228:VAL:CG1	2:C:239:MET:HE3	2.48	0.42
2:C:672:GLU:HG3	2:C:1187:PHE:HA	1.99	0.42
2:C:810:TYR:CE1	3:D:359:PRO:CG	3.03	0.42
2:C:1323:PHE:O	2:C:1326:LEU:HB3	2.19	0.42
3:D:255:LEU:HD22	3:D:256:ASP:N	2.34	0.42
3:D:359:PRO:O	3:D:626:TYR:CE1	2.73	0.42
3:D:518:VAL:O	3:D:520:ALA:N	2.53	0.42
3:D:548:VAL:CG1	3:D:549:LYS:N	2.82	0.42
3:D:587:LEU:HD23	3:D:587:LEU:HA	1.63	0.42
3:D:759:ILE:O	3:D:759:ILE:HG22	2.19	0.42
1:G:16:ILE:HG21	1:G:214:GLU:HG3	2.02	0.42
1:H:207:THR:HG23	1:H:209:GLY:H	1.85	0.42
2:I:100:LEU:HD12	2:I:122:VAL:CB	2.45	0.42
2:I:428:VAL:HG23	2:I:428:VAL:H	1.57	0.42
3:J:268:LEU:HB2	3:J:306:LEU:HD12	2.01	0.42
3:J:930:LEU:HB2	3:J:1134:ILE:HD11	2.01	0.42
3:J:1077:ALA:HB2	3:J:1100:PHE:CD1	2.55	0.42
4:K:64:LEU:HA	4:K:64:LEU:HD23	1.82	0.42
6:4:21:DC:O2	7:5:43:DG:N2	2.53	0.42
2:O:220:ILE:H	2:O:220:ILE:HG13	1.70	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:558:VAL:HG13	2:O:559:CYS:O	2.19	0.42
2:O:668:ILE:HA	2:O:669:PRO:HD3	1.87	0.42
2:O:1270:PHE:HB2	3:P:347:VAL:CG2	2.50	0.42
3:P:99:ARG:O	3:P:99:ARG:CG	2.67	0.42
3:P:394:ILE:H	3:P:394:ILE:HG13	1.26	0.42
3:P:782:GLY:HA3	3:P:935:PHE:O	2.19	0.42
5:R:453:PRO:HG2	5:R:456:MET:HE3	2.02	0.42
1:A:26:VAL:HG21	1:A:217:ILE:HD11	2.02	0.41
2:C:151:ARG:H	2:C:151:ARG:HG3	1.62	0.41
2:C:368:ARG:CD	5:F:90:GLU:HG2	2.47	0.41
2:C:873:ILE:H	2:C:873:ILE:HG13	1.48	0.41
2:C:1112:ILE:HG22	2:C:1113:LEU:HD23	2.02	0.41
3:D:1036:ARG:HD2	3:D:1081:VAL:HG11	2.02	0.41
1:G:47:LEU:CD1	1:G:183:ILE:HD13	2.44	0.41
1:H:31:LEU:HA	1:H:31:LEU:HD23	1.78	0.41
2:I:1284:ALA:CB	3:J:1357:ILE:HD12	2.50	0.41
3:J:644:MET:HB3	3:J:741:ALA:HB2	2.02	0.41
3:J:1257:VAL:HA	3:J:1260:MET:CE	2.49	0.41
5:L:250:LEU:HD23	5:L:250:LEU:HA	1.92	0.41
5:L:374:ARG:HB2	5:L:374:ARG:CZ	2.48	0.41
1:M:67:GLU:O	1:M:78:ILE:HG21	2.19	0.41
1:N:44:ARG:HA	1:N:47:LEU:HD12	2.02	0.41
2:O:123:TYR:CZ	2:O:125:GLY:HA2	2.55	0.41
2:O:170:VAL:HG12	2:O:172:TYR:CZ	2.55	0.41
2:O:520:PRO:O	2:O:524:ILE:CG1	2.59	0.41
2:O:1288:GLN:HA	2:O:1291:LEU:HD12	2.02	0.41
3:P:369:PRO:CB	3:P:372:MET:HE3	2.50	0.41
3:P:1101:LEU:HD11	3:P:1122:ALA:HB2	2.01	0.41
3:P:1180:VAL:HG23	3:P:1181:ASP:N	2.35	0.41
3:P:1231:ARG:O	3:P:1234:VAL:HB	2.19	0.41
5:R:144:LEU:HD12	5:R:165:PHE:CE2	2.55	0.41
5:R:395:THR:HG22	5:R:404:LEU:HD13	2.01	0.41
1:A:36:GLY:HA2	1:A:201:LEU:HD13	2.01	0.41
1:A:45:ARG:HA	2:C:1083:GLU:HG2	2.02	0.41
1:B:85:LEU:HD21	1:B:130:ILE:HG23	2.01	0.41
1:B:228:LEU:HA	1:B:231:PHE:HD2	1.85	0.41
2:C:196:VAL:CG2	2:C:206:ALA:HA	2.50	0.41
2:C:392:GLU:HG3	2:C:393:ASP:N	2.35	0.41
2:C:556:GLY:HA2	2:C:659:GLN:O	2.20	0.41
2:C:616:ILE:HG23	2:C:653:MET:HA	2.02	0.41
2:C:809:GLY:HA3	3:D:629:PHE:CD1	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1268:GLN:NE2	3:D:351:GLY:CA	2.83	0.41
3:D:268:LEU:HD23	3:D:268:LEU:HA	1.63	0.41
3:D:530:PRO:HD3	3:D:552:ILE:CD1	2.50	0.41
3:D:706:VAL:HG13	3:D:714:GLU:O	2.20	0.41
3:D:875:ASN:O	3:D:876:SER:HB2	2.19	0.41
3:D:1159:ILE:HG22	3:D:1160:SER:N	2.30	0.41
3:D:1226:VAL:O	3:D:1229:VAL:CG1	2.67	0.41
5:F:408:GLY:O	5:F:435:ILE:HG23	2.21	0.41
6:I:57:DC:H2''	6:I:58:DG:H8	1.85	0.41
2:I:275:ARG:O	2:I:275:ARG:HG2	2.20	0.41
2:I:517:GLN:HB2	2:I:761:GLN:OE1	2.21	0.41
2:I:676:ALA:HA	2:I:679:ALA:HB3	2.02	0.41
2:I:1112:ILE:CG2	3:J:641:ILE:HG12	2.49	0.41
3:J:148:GLU:CG	3:J:149:GLY:H	2.33	0.41
3:J:505:ASP:OD1	3:J:505:ASP:N	2.52	0.41
3:J:1360:GLY:HA2	4:K:17:PHE:CD2	2.55	0.41
5:L:362:ASN:HA	5:L:365:MET:HE2	2.01	0.41
1:N:52:PRO:HA	1:N:150:ARG:HA	2.02	0.41
1:N:61:ILE:HD12	1:N:64:VAL:HG21	2.01	0.41
2:O:4:SER:HB3	2:O:778:GLU:OE1	2.20	0.41
2:O:559:CYS:SG	2:O:560:PRO:HD2	2.61	0.41
2:O:761:GLN:O	2:O:762:ASN:CB	2.68	0.41
2:O:788:SER:OG	2:O:795:ALA:O	2.29	0.41
2:O:850:ILE:HG23	2:O:885:GLY:O	2.21	0.41
3:P:212:THR:HG22	3:P:215:LYS:HZ2	1.78	0.41
3:P:950:ILE:HG21	3:P:995:TYR:CD1	2.55	0.41
3:P:1032:SER:O	3:P:1080:ILE:CG2	2.68	0.41
4:Q:5:THR:HG22	4:Q:7:GLN:CB	2.51	0.41
5:R:364:ARG:O	5:R:367:ILE:HB	2.21	0.41
1:B:48:LEU:HD22	1:B:180:VAL:HB	2.01	0.41
2:C:13:LYS:NZ	2:C:1149:TYR:O	2.53	0.41
2:C:175:ARG:HG2	2:C:185:ASP:OD1	2.20	0.41
2:C:1087:TYR:O	2:C:1212:LEU:HD22	2.19	0.41
2:C:1225:VAL:HG13	3:D:638:SER:CB	2.51	0.41
2:C:1312:ASN:HD21	2:C:1314:GLN:CB	2.33	0.41
3:D:116:PHE:O	3:D:124:ILE:HG13	2.20	0.41
3:D:555:TYR:HB2	3:D:586:GLY:N	2.35	0.41
3:D:1101:LEU:HD13	3:D:1107:VAL:HG22	2.03	0.41
5:F:137:TYR:CG	5:F:138:PRO:HD2	2.55	0.41
5:F:573:LEU:CB	7:2:46:DG:OP2	2.59	0.41
7:2:24:DT:C2'	7:2:25:DA:OP1	2.60	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:97:GLU:CG	1:H:147:GLN:HE21	2.33	0.41
2:I:325:LEU:HD23	2:I:325:LEU:HA	1.93	0.41
2:I:796:LEU:HB3	2:I:1233:LEU:HD11	2.02	0.41
3:J:53:ARG:O	3:J:58:CYS:CB	2.58	0.41
3:J:527:LEU:HG	3:J:548:VAL:HG12	2.02	0.41
3:J:865:HIS:CE1	3:J:901:ARG:NH2	2.88	0.41
3:J:1177:ILE:HG13	3:J:1186:TYR:O	2.20	0.41
3:J:1179:PRO:HB2	3:J:1182:GLY:N	2.34	0.41
2:O:428:VAL:HG12	2:O:429:MET:CG	2.34	0.41
2:O:697:LYS:NZ	2:O:1181:PRO:HG3	2.35	0.41
2:O:1148:ALA:O	2:O:1151:LEU:HB2	2.19	0.41
3:P:146:VAL:CG2	3:P:154:LEU:CD1	2.86	0.41
3:P:307:LEU:HD23	3:P:327:LEU:CD1	2.51	0.41
3:P:644:MET:HE2	3:P:764:ARG:HB2	2.02	0.41
4:Q:29:GLN:HB3	4:Q:35:LYS:HG3	2.02	0.41
5:R:333:VAL:HG22	5:R:336:GLU:HB2	2.02	0.41
5:R:464:ASN:CB	7:8:25:DA:H62	2.33	0.41
1:A:142:MET:HE2	1:A:142:MET:HB3	1.63	0.41
1:B:205:MET:HE3	1:B:205:MET:HB2	1.89	0.41
2:C:181:GLY:HA3	2:C:395:TYR:CD1	2.55	0.41
2:C:412:GLU:HG3	2:C:413:GLU:N	2.36	0.41
2:C:603:ILE:H	2:C:603:ILE:HG13	1.55	0.41
2:C:840:SER:HG	2:C:1048:LYS:H	1.68	0.41
3:D:360:TYR:CE1	3:D:361:LEU:CD2	3.02	0.41
3:D:708:ASN:OD1	3:D:713:GLU:HG2	2.21	0.41
3:D:975:ILE:HD13	3:D:980:THR:HG21	2.02	0.41
3:D:1156:LEU:HB2	3:D:1223:LEU:HD12	2.03	0.41
3:D:1173:ARG:H	3:D:1173:ARG:HG2	1.56	0.41
3:D:1175:LEU:HA	3:D:1175:LEU:HD12	1.83	0.41
5:F:389:SER:HA	5:F:392:LYS:HD2	2.00	0.41
1:G:42:ALA:HA	1:H:38:THR:HG22	1.96	0.41
2:I:524:ILE:HD11	2:I:712:SER:CB	2.44	0.41
2:I:871:VAL:HG21	2:I:883:LEU:HA	1.98	0.41
2:I:1156:ARG:HH12	2:I:1157:GLN:HB2	1.86	0.41
2:I:1284:ALA:HA	3:J:1357:ILE:HD12	2.02	0.41
2:I:1294:LYS:HB3	3:J:347:VAL:CG1	2.50	0.41
3:J:502:PRO:HB3	3:J:506:VAL:CG1	2.49	0.41
3:J:803:VAL:HG12	3:J:804:ALA:N	2.27	0.41
3:J:1343:GLU:O	3:J:1344:LEU:HB2	2.21	0.41
5:L:333:VAL:O	5:L:333:VAL:HG22	2.20	0.41
6:4:18:DA:C2	6:4:19:DT:C2	3.07	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:109:ALA:O	2:O:110:PRO:C	2.63	0.41
2:O:802:VAL:HG22	2:O:1096:ILE:HB	2.02	0.41
3:P:270:ARG:HA	3:P:273:ILE:HD12	2.01	0.41
3:P:509:GLY:O	3:P:513:MET:HG3	2.20	0.41
5:R:279:ARG:O	5:R:283:GLN:HG2	2.19	0.41
6:7:45:DT:H2'	6:7:46:DG:O4'	2.21	0.41
7:8:51:DG:N9	7:8:52:DT:H71	2.34	0.41
1:A:107:ILE:HD11	1:A:136:GLU:HB3	2.02	0.41
2:C:519:ASN:OD1	2:C:519:ASN:N	2.52	0.41
2:C:862:LEU:HA	2:C:865:LEU:HD12	2.02	0.41
2:C:1065:LYS:HD2	2:C:1242:LYS:HZ1	1.86	0.41
2:C:1117:LEU:HG	2:C:1182:ILE:CD1	2.51	0.41
2:C:1312:ASN:ND2	2:C:1314:GLN:HB3	2.35	0.41
3:D:624:ILE:HG13	3:D:624:ILE:H	1.48	0.41
3:D:795:TYR:CD1	7:2:12:DG:H5''	2.52	0.41
3:D:1062:LEU:HD22	3:D:1066:GLU:OE2	2.20	0.41
3:D:1229:VAL:O	3:D:1233:ILE:HG13	2.19	0.41
2:I:149:LEU:HD21	2:I:451:ARG:NH2	2.34	0.41
2:I:375:PRO:HG3	5:L:103:ARG:HG3	2.01	0.41
2:I:558:VAL:HG22	2:I:575:LEU:HA	2.02	0.41
2:I:758:ARG:HA	2:I:833:ILE:HD12	2.03	0.41
2:I:1061:GLN:CB	2:I:1062:PRO:CD	2.85	0.41
3:J:521:LYS:CD	3:J:543:SER:HB2	2.51	0.41
3:J:965:SER:O	3:J:966:VAL:HB	2.21	0.41
4:K:6:VAL:HG12	4:K:9:ALA:CB	2.51	0.41
6:4:53:DG:C2'	6:4:54:DA:OP2	2.50	0.41
1:M:59:VAL:HG13	1:M:144:ILE:HG12	2.02	0.41
2:O:562:GLU:OE1	2:O:662:SER:OG	2.36	0.41
3:P:1101:LEU:CD1	3:P:1122:ALA:HB2	2.50	0.41
1:A:149:GLY:HA3	1:A:177:TYR:CE2	2.56	0.41
1:B:201:LEU:HG	1:B:203:ILE:HG13	2.02	0.41
2:C:204:LEU:HD13	2:C:208:ILE:HD13	2.03	0.41
2:C:448:LEU:HA	2:C:448:LEU:HD23	1.77	0.41
2:C:753:LEU:HD11	2:C:784:ALA:CB	2.50	0.41
2:C:806:PRO:HA	2:C:811:ASN:HD21	1.86	0.41
2:C:1288:GLN:HA	2:C:1291:LEU:HD12	2.02	0.41
2:C:1322:SER:O	2:C:1325:VAL:HB	2.21	0.41
3:D:644:MET:H	3:D:644:MET:HG3	1.64	0.41
3:D:926:PRO:HD2	3:D:927:GLY:H	1.85	0.41
3:D:999:TYR:HE2	3:D:1027:VAL:HA	1.84	0.41
5:F:411:GLY:HA3	5:F:435:ILE:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:168:ILE:H	1:G:168:ILE:HG13	1.72	0.41
1:G:224:LEU:C	1:G:224:LEU:CD1	2.82	0.41
2:I:240:GLU:HG2	2:I:284:LEU:CD2	2.50	0.41
2:I:275:ARG:CG	2:I:275:ARG:NH1	2.77	0.41
2:I:906:PHE:CE2	5:L:607:LEU:HB3	2.56	0.41
2:I:927:THR:C	2:I:1054:LEU:HD23	2.46	0.41
2:I:1042:LEU:CD1	2:I:1049:ILE:HD11	2.28	0.41
2:I:1200:LYS:CE	2:I:1206:THR:HG21	2.37	0.41
3:J:130:MET:HG2	3:J:135:ILE:CG1	2.48	0.41
3:J:188:LEU:O	3:J:188:LEU:HG	2.19	0.41
3:J:334:LYS:NZ	7:5:13:DA:OP1	2.54	0.41
3:J:471:PRO:HB2	3:J:476:ALA:CB	2.47	0.41
3:J:1162:ILE:HD11	3:J:1180:VAL:CG1	2.50	0.41
3:J:1279:GLN:C	3:J:1280:VAL:CG2	2.94	0.41
1:M:152:TYR:CE1	2:O:824:GLN:HA	2.56	0.41
1:N:100:LEU:HD21	1:N:118:ASP:HB2	2.03	0.41
2:O:369:MET:C	2:O:369:MET:HE2	2.46	0.41
2:O:888:THR:O	2:O:914:LYS:N	2.54	0.41
3:P:322:ARG:NH1	3:P:323:PRO:O	2.54	0.41
5:R:124:GLU:CD	5:R:421:TYR:HE1	2.29	0.41
5:R:387:VAL:HG22	5:R:435:ILE:HD13	2.03	0.41
6:7:29:DC:H2"	6:7:30:DG:H8	1.84	0.41
1:A:11:PRO:HA	1:A:30:PRO:HD2	2.02	0.41
1:A:61:ILE:HG12	1:A:142:MET:CE	2.50	0.41
1:B:15:ASP:CB	1:B:27:THR:OG1	2.68	0.41
2:C:528:ARG:HD2	2:C:663:VAL:HG23	1.95	0.41
2:C:1101:LEU:CD2	3:D:505:ASP:OD1	2.64	0.41
2:C:1326:LEU:O	2:C:1330:ILE:HG13	2.20	0.41
3:D:201:LEU:HD21	3:D:220:ARG:NH1	2.36	0.41
3:D:1163:VAL:HG12	3:D:1164:SER:H	1.83	0.41
1:G:45:ARG:CD	1:H:38:THR:HG23	2.50	0.41
1:H:102:LEU:HD12	1:H:103:ASN:H	1.84	0.41
2:I:21:VAL:HG21	2:I:592:ARG:NH1	2.35	0.41
2:I:167:SER:O	3:J:1064:SER:CB	2.53	0.41
2:I:558:VAL:CG1	2:I:559:CYS:N	2.84	0.41
2:I:801:ARG:HG3	2:I:1229:TYR:CZ	2.56	0.41
2:I:1073:LYS:HE3	3:J:462:ASP:HB2	2.01	0.41
3:J:123:ARG:HA	3:J:123:ARG:HD3	1.77	0.41
3:J:128:LEU:HD11	3:J:189:LEU:HD21	2.03	0.41
3:J:148:GLU:HG2	3:J:149:GLY:N	2.36	0.41
3:J:268:LEU:O	3:J:272:VAL:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:456:ALA:HB2	3:J:499:ILE:CG2	2.50	0.41
3:J:507:VAL:HG23	3:J:507:VAL:H	1.59	0.41
3:J:537:TYR:CE2	3:J:544:LEU:HD21	2.56	0.41
3:J:952:VAL:CG2	3:J:1017:VAL:CG1	2.98	0.41
5:L:364:ARG:O	5:L:367:ILE:HB	2.20	0.41
5:L:572:THR:HB	7:5:45:DT:H5''	2.02	0.41
2:O:1021:LEU:HD23	2:O:1021:LEU:HA	1.81	0.41
3:P:111:THR:HG22	3:P:112:ALA:N	2.31	0.41
3:P:982:LEU:O	3:P:983:LYS:HG3	2.21	0.41
3:P:1177:ILE:O	3:P:1179:PRO:HD3	2.21	0.41
6:7:43:DT:OP2	6:7:43:DT:O4'	2.37	0.41
1:A:135:ASP:HB3	1:A:138:ALA:HB2	2.02	0.41
1:B:82:LEU:CD2	1:B:173:VAL:CG2	2.99	0.41
2:C:167:SER:HA	3:D:1064:SER:HB2	2.01	0.41
2:C:589:THR:HB	2:C:591:TYR:CZ	2.55	0.41
2:C:635:THR:O	2:C:635:THR:HG23	2.21	0.41
2:C:926:GLY:HA3	2:C:1056:VAL:HA	2.02	0.41
3:D:377:PHE:O	3:D:381:ILE:HG13	2.21	0.41
3:D:513:MET:CE	3:D:579:LEU:HD21	2.51	0.41
3:D:740:LEU:O	3:D:762:ASN:HB2	2.20	0.41
3:D:1145:PHE:HB3	3:D:1309:ILE:HD11	2.02	0.41
3:D:1250:ASP:OD1	3:D:1250:ASP:N	2.53	0.41
4:E:16:ARG:CG	4:E:16:ARG:NH1	2.73	0.41
5:F:92:GLY:O	5:F:93:ARG:CG	2.69	0.41
5:F:119:ILE:HG23	5:F:375:ALA:HB1	2.02	0.41
5:F:126:GLY:O	5:F:129:GLN:HB3	2.21	0.41
5:F:373:ARG:HE	5:F:373:ARG:HB3	1.42	0.41
1:G:228:LEU:HD11	1:H:224:LEU:CD1	2.40	0.41
1:H:224:LEU:HG	1:H:225:ALA:N	2.36	0.41
2:I:12:ARG:HG3	2:I:1181:PRO:O	2.21	0.41
2:I:971:LEU:O	2:I:975:ILE:HG13	2.21	0.41
2:I:1328:LYS:HD3	2:I:1328:LYS:HA	1.82	0.41
3:J:332:LYS:O	3:J:333:GLY:O	2.39	0.41
3:J:514:THR:O	3:J:576:ARG:CZ	2.68	0.41
3:J:519:ASN:HA	3:J:523:GLU:CB	2.41	0.41
3:J:526:VAL:HA	3:J:549:LYS:O	2.21	0.41
3:J:649:LYS:O	3:J:649:LYS:CG	2.69	0.41
3:J:914:ALA:HB2	3:J:1359:ALA:HB1	2.03	0.41
4:K:6:VAL:HG12	4:K:9:ALA:HB3	2.03	0.41
4:K:31:GLN:OE1	4:K:46:THR:HG21	2.21	0.41
5:L:402:LEU:HD23	5:L:402:LEU:N	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:4:44:DG:OP1	6:4:44:DG:H4'	2.20	0.41
1:M:38:THR:CG2	1:N:42:ALA:HB1	2.50	0.41
1:M:95:LYS:HD2	1:M:95:LYS:H	1.86	0.41
2:O:39:ILE:HD13	2:O:75:LEU:CD1	2.50	0.41
2:O:563:THR:CG2	2:O:680:LEU:HD11	2.50	0.41
3:P:268:LEU:O	3:P:272:VAL:HG23	2.20	0.41
3:P:428:THR:O	3:P:428:THR:HG22	2.21	0.41
3:P:474:LEU:H	3:P:474:LEU:HG	1.50	0.41
3:P:855:ASP:O	3:P:857:LEU:HG	2.20	0.41
3:P:1271:SER:OG	3:P:1297:LYS:HD2	2.21	0.41
5:R:460:ILE:O	5:R:463:LEU:HG	2.21	0.41
1:A:100:LEU:HD23	1:A:100:LEU:HA	1.58	0.41
1:B:75:GLN:HG3	1:B:134:THR:CG2	2.51	0.41
2:C:96:LEU:CB	2:C:127:ILE:HD11	2.40	0.41
2:C:635:THR:C	2:C:636:CYS:SG	3.03	0.41
2:C:663:VAL:HG23	2:C:663:VAL:H	1.54	0.41
2:C:672:GLU:HG3	2:C:1187:PHE:CD1	2.56	0.41
2:C:870:ILE:HG21	2:C:944:ARG:HE	1.86	0.41
2:C:1108:ASN:C	2:C:1109:ILE:HD13	2.46	0.41
2:C:1128:ILE:HG22	2:C:1129:ASN:N	2.36	0.41
3:D:114:ILE:HD11	3:D:308:ASP:HB3	2.03	0.41
3:D:201:LEU:HA	3:D:204:GLU:CD	2.45	0.41
3:D:361:LEU:O	3:D:626:TYR:OH	2.35	0.41
3:D:388:ARG:HB3	3:D:390:LEU:HG	2.03	0.41
3:D:449:LEU:HA	3:D:449:LEU:HD12	1.79	0.41
3:D:510:LEU:HD23	3:D:510:LEU:HA	1.75	0.41
3:D:599:LYS:CG	3:D:600:ALA:H	2.34	0.41
3:D:724:MET:HE2	3:D:724:MET:HB3	1.84	0.41
5:F:102:MET:HB3	6:1:42:DG:N2	2.35	0.41
5:F:116:GLU:HA	5:F:379:MET:HE1	2.03	0.41
5:F:419:PHE:HA	5:F:430:TYR:HE2	1.86	0.41
5:F:586:ARG:O	5:F:590:ILE:HG13	2.20	0.41
1:G:61:ILE:HG23	1:G:142:MET:HB3	2.02	0.41
1:G:234:LEU:HD23	1:H:13:LEU:HB3	2.02	0.41
1:H:58:GLU:CD	1:H:145:LYS:NZ	2.79	0.41
1:H:86:LYS:CE	1:H:174:ASP:HB2	2.51	0.41
1:H:156:SER:O	1:H:160:HIS:HB2	2.21	0.41
2:I:170:VAL:HG11	2:I:172:TYR:OH	2.21	0.41
2:I:500:ALA:HB1	7:5:23:DT:H5'	2.02	0.41
2:I:806:PRO:HG3	3:J:637:ALA:HB3	2.03	0.41
2:I:819:SER:O	2:I:822:VAL:HG23	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:131:PRO:C	3:J:135:ILE:HD11	2.45	0.41
3:J:185:ILE:O	3:J:189:LEU:HD12	2.20	0.41
3:J:205:LEU:HG	3:J:217:LEU:HD13	2.03	0.41
3:J:227:PHE:CD1	3:J:232:ASN:O	2.74	0.41
3:J:322:ARG:NE	5:L:510:PRO:HD3	2.35	0.41
3:J:369:PRO:CD	3:J:447:ILE:HG23	2.49	0.41
3:J:537:TYR:CG	3:J:544:LEU:HD21	2.56	0.41
3:J:697:MET:HE2	3:J:697:MET:HB3	1.88	0.41
3:J:711:GLY:O	3:P:1302:TYR:CZ	2.74	0.41
3:J:1284:ARG:C	3:J:1287:ILE:HB	2.43	0.41
4:K:27:ALA:HA	4:K:30:MET:SD	2.61	0.41
5:L:102:MET:CE	6:4:43:DT:H1'	2.38	0.41
5:L:470:MET:SD	5:L:486:ARG:HD2	2.60	0.41
5:L:593:LYS:CG	5:L:597:LYS:HE2	2.51	0.41
1:M:11:PRO:HB3	1:M:31:LEU:HD23	2.02	0.41
1:M:26:VAL:HG11	1:M:217:ILE:HD11	2.03	0.41
1:M:67:GLU:O	1:M:78:ILE:CG2	2.69	0.41
1:M:174:ASP:OD2	2:O:1059:ARG:NH1	2.54	0.41
1:M:215:GLU:HG2	1:M:219:ARG:HD2	2.03	0.41
1:M:232:VAL:CG2	1:N:221:ALA:HB3	2.51	0.41
1:N:107:ILE:HG13	1:N:136:GLU:HB3	2.03	0.41
2:O:389:PHE:HB3	2:O:420:LEU:HD12	2.02	0.41
2:O:403:MET:HE2	2:O:404:LYS:N	2.36	0.41
2:O:528:ARG:HD2	2:O:663:VAL:HG23	2.03	0.41
2:O:563:THR:O	2:O:680:LEU:HD11	2.21	0.41
2:O:1286:THR:N	3:P:479:GLU:OE2	2.47	0.41
3:P:166:LEU:HD23	3:P:169:LEU:HD23	2.01	0.41
3:P:180:MET:HE1	3:P:293:ARG:NH2	2.36	0.41
3:P:212:THR:HA	3:P:215:LYS:CE	2.47	0.41
3:P:233:LYS:HB3	3:P:236:TRP:NE1	2.36	0.41
3:P:246:PRO:HA	3:P:247:PRO:HD3	1.83	0.41
3:P:418:GLU:OE1	4:Q:48:VAL:HG21	2.21	0.41
3:P:560:ASN:OD1	3:P:560:ASN:N	2.54	0.41
3:P:1101:LEU:HD21	3:P:1122:ALA:CB	2.38	0.41
3:P:1154:ALA:HA	3:P:1211:SER:HB2	2.03	0.41
3:P:1284:ARG:HG2	3:P:1287:ILE:HD12	2.01	0.41
5:R:559:LEU:HD23	5:R:559:LEU:HA	1.92	0.41
7:8:18:DT:C2'	7:8:19:DA:C5'	2.95	0.41
1:A:67:GLU:HG3	1:A:68:TYR:CE2	2.56	0.41
1:B:28:LEU:HB3	1:B:201:LEU:HB3	2.03	0.41
1:B:68:TYR:HA	1:B:79:LEU:HD21	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:153:VAL:HA	1:B:154:PRO:HD3	1.85	0.41
2:C:262:TYR:HE1	2:C:276:GLN:CG	2.33	0.41
2:C:743:PRO:HA	2:C:974:ARG:HH22	1.85	0.41
2:C:870:ILE:HG22	2:C:871:VAL:O	2.21	0.41
2:C:971:LEU:HD13	2:C:1017:GLN:HG2	2.03	0.41
2:C:1094:VAL:HG12	2:C:1095:ASP:N	2.36	0.41
2:C:1117:LEU:CG	2:C:1182:ILE:CD1	2.97	0.41
3:D:109:SER:HA	3:D:183:GLU:OE2	2.20	0.41
3:D:113:HIS:CD2	3:D:115:TRP:HB2	2.55	0.41
3:D:127:LEU:HD23	3:D:127:LEU:HA	1.70	0.41
3:D:423:LEU:O	3:D:434:ILE:HA	2.21	0.41
3:D:1179:PRO:HB2	3:D:1182:GLY:CA	2.50	0.41
5:F:398:GLY:O	5:F:399:LEU:HD23	2.20	0.41
1:G:31:LEU:HD11	1:G:201:LEU:HB3	2.01	0.41
2:I:395:TYR:CZ	2:I:420:LEU:HD11	2.56	0.41
2:I:705:GLU:HG3	2:I:794:LEU:HB3	2.03	0.41
2:I:851:THR:CG2	2:I:852:ALA:N	2.83	0.41
2:I:1109:ILE:HG12	3:J:740:LEU:HD22	2.01	0.41
3:J:104:HIS:HB2	3:J:241:VAL:CG1	2.51	0.41
3:J:1160:SER:HA	3:J:1204:VAL:O	2.20	0.41
3:J:1280:VAL:CG1	3:J:1281:GLU:N	2.82	0.41
1:N:37:HIS:CD2	1:N:187:VAL:HG21	2.55	0.41
1:N:231:PHE:N	1:N:231:PHE:CD1	2.87	0.41
2:O:446:ASP:OD1	2:O:446:ASP:N	2.54	0.41
2:O:888:THR:O	2:O:913:VAL:CG1	2.67	0.41
3:P:33:TRP:CD1	3:P:33:TRP:N	2.88	0.41
3:P:79:LYS:CE	5:R:569:THR:HG22	2.51	0.41
3:P:160:LEU:HD22	3:P:164:GLN:HB3	2.03	0.41
3:P:296:LYS:O	3:P:299:LEU:HB3	2.21	0.41
3:P:515:ARG:CZ	3:P:717:VAL:HG23	2.51	0.41
5:R:324:LYS:HA	5:R:325:PRO:HD3	1.81	0.41
7:8:16:DC:H2''	7:8:17:DG:H5'	2.03	0.41
1:B:107:ILE:HG12	1:B:134:THR:O	2.21	0.40
1:B:198:LEU:HD13	1:B:198:LEU:H	1.85	0.40
2:C:616:ILE:O	2:C:636:CYS:HB3	2.21	0.40
2:C:636:CYS:HB2	2:C:645:PHE:CD2	2.56	0.40
2:C:1334:GLY:O	3:D:25:ALA:CB	2.68	0.40
3:D:913:GLU:HG3	4:E:17:PHE:HZ	1.86	0.40
3:D:1135:THR:O	3:D:1139:PRO:HD2	2.20	0.40
4:E:15:ASN:HB3	4:E:18:ASP:OD2	2.21	0.40
4:E:38:LEU:HG	4:E:53:GLU:OE2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:476:ARG:HG3	5:F:477:GLU:H	1.87	0.40
5:F:506:SER:HB3	5:F:509:THR:OG1	2.21	0.40
7:2:24:DT:OP1	7:2:24:DT:C4'	2.69	0.40
1:G:208:ASN:O	1:G:208:ASN:CG	2.64	0.40
2:I:68:LEU:HD12	2:I:68:LEU:HA	1.64	0.40
2:I:209:ILE:HG23	2:I:210:LEU:H	1.86	0.40
2:I:700:VAL:HG22	2:I:1117:LEU:HD23	2.04	0.40
3:J:147:ILE:HG13	3:J:147:ILE:H	1.62	0.40
3:J:646:ILE:HD11	3:J:764:ARG:HD3	2.02	0.40
3:J:952:VAL:HG11	3:J:984:LEU:HD13	2.00	0.40
3:J:1023:HIS:O	3:J:1024:THR:CB	2.69	0.40
3:J:1204:VAL:O	3:J:1204:VAL:HG23	2.22	0.40
3:J:1210:ILE:HD12	3:J:1210:ILE:N	2.36	0.40
5:L:280:VAL:CG1	5:L:284:GLU:OE2	2.68	0.40
7:5:5:DC:C2	7:5:6:DG:C8	3.09	0.40
1:N:51:MET:HE1	1:N:219:ARG:CD	2.51	0.40
2:O:213:LEU:HD13	2:O:422:LYS:CB	2.51	0.40
2:O:403:MET:O	2:O:403:MET:HG2	2.20	0.40
2:O:1086:PRO:CB	2:O:1212:LEU:HD22	2.51	0.40
2:O:1122:LYS:HD3	2:O:1122:LYS:HA	1.82	0.40
2:O:1307:ASN:HB3	2:O:1312:ASN:HB3	2.02	0.40
3:P:17:PHE:CE1	3:P:1355:ARG:NH1	2.90	0.40
3:P:284:ASP:N	3:P:284:ASP:OD1	2.54	0.40
3:P:614:LEU:HD23	4:Q:7:GLN:HB2	2.03	0.40
3:P:833:GLU:OE1	3:P:1242:ARG:NH2	2.53	0.40
4:Q:2:ALA:HB2	4:Q:55:GLU:OE1	2.22	0.40
1:A:85:LEU:HA	1:A:85:LEU:HD23	1.80	0.40
1:A:221:ALA:O	1:A:224:LEU:HB3	2.22	0.40
1:B:28:LEU:HD13	1:B:28:LEU:C	2.45	0.40
2:C:11:ILE:HG22	2:C:12:ARG:N	2.35	0.40
2:C:180:ARG:O	2:C:395:TYR:HA	2.21	0.40
2:C:183:TRP:CZ3	6:1:47:DC:N4	2.79	0.40
2:C:831:ILE:H	2:C:831:ILE:CD1	2.20	0.40
2:C:1105:SER:HB3	3:D:731:ARG:HD2	2.03	0.40
3:D:45:ASN:HB3	3:D:48:THR:O	2.21	0.40
3:D:227:PHE:CE1	3:D:232:ASN:O	2.74	0.40
3:D:744:ARG:HB3	3:D:759:ILE:HG22	2.02	0.40
3:D:761:ALA:HB3	3:D:767:LEU:CD2	2.51	0.40
3:D:1031:VAL:CG1	3:D:1090:ILE:HA	2.52	0.40
1:G:75:GLN:HG2	1:G:134:THR:HG23	2.02	0.40
2:I:28:LEU:HD21	2:I:524:ILE:HG23	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:170:VAL:CG1	2:I:172:TYR:OH	2.69	0.40
2:I:240:GLU:HA	2:I:283:LYS:O	2.21	0.40
2:I:514:PHE:CZ	7:5:19:DA:H1'	2.57	0.40
2:I:558:VAL:HG11	2:I:573:ASN:HB3	2.04	0.40
2:I:599:VAL:HG21	2:I:623:LEU:HD21	2.04	0.40
2:I:755:LYS:NZ	2:I:767:GLN:O	2.53	0.40
3:J:481:ARG:NH1	4:K:3:ARG:O	2.54	0.40
3:J:749:LYS:O	3:J:750:PRO:C	2.63	0.40
3:J:1024:THR:HG21	3:J:1123:ARG:HD3	2.04	0.40
3:J:1226:VAL:HA	3:J:1229:VAL:HG12	2.03	0.40
6:4:50:DT:C5'	6:4:51:DC:C5	3.03	0.40
6:4:53:DG:H1'	6:4:54:DA:C5'	2.47	0.40
7:5:6:DG:H2''	7:5:7:DC:O5'	2.21	0.40
1:N:18:GLN:HG3	1:N:24:ALA:HB2	2.03	0.40
1:N:22:THR:OG1	1:N:207:THR:O	2.36	0.40
2:O:164:THR:O	2:O:165:HIS:CB	2.68	0.40
2:O:700:VAL:HG21	2:O:1114:GLU:HG3	2.04	0.40
2:O:896:THR:HB	2:O:897:PRO:HD2	2.02	0.40
2:O:1273:MET:HB3	3:P:428:THR:HB	2.02	0.40
3:P:368:LEU:HA	3:P:369:PRO:HD3	1.92	0.40
3:P:1263:LYS:HB2	3:P:1307:LEU:HD11	1.98	0.40
5:R:98:VAL:HG12	5:R:99:ARG:N	2.37	0.40
5:R:103:ARG:CZ	5:R:103:ARG:HB3	2.52	0.40
5:R:113:ARG:HB2	5:R:114:GLU:H	1.64	0.40
2:C:366:ILE:HG22	2:C:384:LEU:CD2	2.52	0.40
2:C:616:ILE:CG1	2:C:652:TYR:HB2	2.50	0.40
2:C:927:THR:O	2:C:1055:ALA:HB3	2.21	0.40
2:C:1239:VAL:HG23	3:D:354:VAL:CG2	2.51	0.40
2:C:1294:LYS:HE2	3:D:472:LEU:HD11	2.03	0.40
3:D:40:LYS:NZ	3:D:53:ARG:HE	2.19	0.40
3:D:44:ILE:HD12	3:D:49:PHE:HA	2.03	0.40
3:D:396:ALA:HA	3:D:399:LYS:HD2	2.02	0.40
3:D:483:LEU:N	3:D:483:LEU:HD23	2.36	0.40
3:D:582:ILE:HG23	3:D:623:GLN:HB3	2.03	0.40
3:D:747:MET:HE1	3:D:775:SER:N	2.36	0.40
3:D:847:ASP:N	3:D:847:ASP:OD1	2.55	0.40
5:F:551:LEU:HD21	5:F:598:LEU:HD21	2.03	0.40
6:1:46:DG:C8	6:1:46:DG:C3'	3.04	0.40
1:H:83:LEU:O	3:J:528:THR:HG21	2.21	0.40
2:I:668:ILE:HA	2:I:669:PRO:HD3	1.77	0.40
2:I:685:MET:HE1	2:I:1073:LYS:HD3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:702:THR:HG22	2:I:1184:THR:O	2.21	0.40
2:I:798:GLN:HB2	2:I:828:PHE:CE1	2.55	0.40
2:I:1273:MET:HG3	7:5:14:DC:H4'	2.03	0.40
3:J:354:VAL:HG13	3:J:355:ILE:N	2.36	0.40
3:J:796:LEU:HD11	3:J:800:LEU:HD11	2.03	0.40
3:J:918:ILE:HG23	3:J:919:ALA:N	2.29	0.40
3:J:1167:LYS:H	3:J:1167:LYS:HG3	1.39	0.40
1:M:18:GLN:CD	1:M:213:PRO:HG2	2.46	0.40
1:M:56:VAL:HG13	1:M:144:ILE:HG22	2.03	0.40
1:N:74:VAL:CG1	1:N:131:CYS:SG	3.10	0.40
2:O:99:LYS:HG3	2:O:121:GLU:HG3	2.03	0.40
2:O:302:ILE:HB	2:O:308:GLU:O	2.22	0.40
2:O:805:MET:HB2	2:O:805:MET:HE3	1.31	0.40
2:O:1290:MET:SD	2:O:1290:MET:N	2.95	0.40
2:O:1290:MET:SD	2:O:1294:LYS:CD	2.94	0.40
3:P:42:GLU:CD	5:R:451:ARG:CB	2.95	0.40
3:P:42:GLU:OE2	5:R:451:ARG:HG2	2.21	0.40
3:P:485:MET:SD	3:P:485:MET:C	3.03	0.40
3:P:848:VAL:HG21	3:P:880:VAL:HG13	2.02	0.40
3:P:1026:PRO:HA	3:P:1123:ARG:HA	2.03	0.40
6:7:36:DT:H6	6:7:36:DT:H2'	1.71	0.40
6:7:48:DA:C8	6:7:48:DA:C5'	3.05	0.40
6:7:48:DA:C5'	6:7:48:DA:H8	2.35	0.40
2:C:184:LEU:HG	2:C:389:PHE:CZ	2.57	0.40
2:C:195:PHE:HD1	2:C:203:LYS:C	2.29	0.40
2:C:253:PHE:CD2	2:C:253:PHE:N	2.90	0.40
2:C:262:TYR:CE1	2:C:276:GLN:NE2	2.89	0.40
2:C:367:TYR:HD1	2:C:384:LEU:HD22	1.87	0.40
2:C:558:VAL:O	2:C:560:PRO:CD	2.70	0.40
2:C:725:GLN:OE1	2:C:735:LYS:HE3	2.22	0.40
3:D:648:GLU:HG3	3:D:700:ASN:ND2	2.36	0.40
3:D:701:LEU:HD12	3:D:701:LEU:HA	1.82	0.40
5:F:426:LYS:HA	5:F:426:LYS:HD2	1.77	0.40
5:F:429:THR:HG23	6:1:39:DA:C8	2.57	0.40
2:I:18:ARG:HA	2:I:18:ARG:HD3	1.90	0.40
2:I:452:ARG:CZ	2:I:458:GLU:OE1	2.69	0.40
2:I:775:GLU:HA	2:I:776:PRO:HD3	1.92	0.40
2:I:851:THR:HG22	2:I:853:ASP:H	1.86	0.40
3:J:514:THR:CB	3:J:595:ALA:HA	2.42	0.40
3:J:701:LEU:HA	3:J:701:LEU:HD12	1.28	0.40
3:J:1154:ALA:HB1	3:J:1211:SER:HB2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1169:THR:O	3:J:1169:THR:HG22	2.21	0.40
3:J:1179:PRO:HB2	3:J:1182:GLY:C	2.46	0.40
5:L:419:PHE:HA	5:L:430:TYR:HE2	1.86	0.40
6:4:34:DG:H2''	6:4:35:DC:C6	2.56	0.40
1:N:61:ILE:HG13	1:N:171:LEU:HD11	2.03	0.40
1:N:75:GLN:HE21	1:N:134:THR:HG22	1.85	0.40
2:O:32:LEU:HD23	2:O:130:MET:CE	2.51	0.40
2:O:92:TYR:N	2:O:137:VAL:HB	2.31	0.40
2:O:448:LEU:HD13	2:O:557:ARG:HD2	2.02	0.40
2:O:656:SER:O	2:O:659:GLN:HG2	2.21	0.40
3:P:90:VAL:HG12	3:P:91:GLU:O	2.21	0.40
3:P:155:GLU:HB3	3:P:156:ARG:H	1.67	0.40
3:P:975:ILE:HD12	3:P:997:VAL:HG11	2.03	0.40
3:P:999:TYR:HE2	3:P:1027:VAL:HA	1.86	0.40
3:P:1216:ALA:O	3:P:1220:ILE:HG13	2.21	0.40
3:P:1320:ILE:H	3:P:1320:ILE:HG13	1.44	0.40
5:R:133:SER:HB3	5:R:365:MET:SD	2.61	0.40
5:R:399:LEU:HB3	5:R:400:GLN:H	1.48	0.40
5:R:405:ILE:HG13	5:R:405:ILE:H	1.47	0.40
6:7:30:DG:C2	7:8:34:DG:N2	2.89	0.40
7:8:4:DC:C4	7:8:5:DC:C4	3.10	0.40
1:A:44:ARG:HA	1:A:183:ILE:CD1	2.41	0.40
1:A:48:LEU:HD21	1:A:180:VAL:O	2.21	0.40
1:A:184:ALA:HB2	2:C:1091:GLY:HA3	2.02	0.40
1:A:190:ALA:N	1:A:199:ASP:HA	2.35	0.40
3:D:154:LEU:HD22	3:D:158:GLN:HG2	2.04	0.40
3:D:246:PRO:HA	3:D:247:PRO:HD3	1.88	0.40
3:D:390:LEU:HG	3:D:390:LEU:H	1.64	0.40
3:D:1173:ARG:HG3	3:D:1196:LEU:HD11	2.03	0.40
3:D:1232:TYR:CD2	3:D:1232:TYR:C	3.00	0.40
5:F:385:ARG:HB2	6:1:41:DT:H1'	2.03	0.40
2:I:3:TYR:O	2:I:8:LYS:HE3	2.21	0.40
2:I:550:VAL:O	3:J:777:HIS:HE1	2.02	0.40
2:I:800:MET:O	2:I:802:VAL:HG23	2.20	0.40
2:I:1233:LEU:HA	2:I:1233:LEU:HD23	1.81	0.40
2:I:1323:PHE:HE2	3:J:1352:ILE:HG22	1.87	0.40
3:J:24:LEU:HG	3:J:232:ASN:ND2	2.36	0.40
3:J:450:HIS:HA	3:J:451:PRO:HD3	1.79	0.40
3:J:962:ASN:HD22	3:J:964:LYS:NZ	2.20	0.40
3:J:1305:ASP:N	3:J:1305:ASP:OD1	2.54	0.40
3:J:1319:PHE:CE2	3:J:1342:ASP:HB2	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:68:TYR:HB2	2:O:929:ILE:CD1	2.52	0.40
2:O:170:VAL:HG23	3:P:1065:ALA:O	2.21	0.40
3:P:423:LEU:HD11	3:P:437:PHE:CD1	2.56	0.40
3:P:481:ARG:O	3:P:485:MET:HB2	2.21	0.40
3:P:668:PHE:CD1	3:P:668:PHE:C	2.97	0.40
3:P:835:LEU:HD11	3:P:839:VAL:CG2	2.45	0.40
3:P:1209:VAL:HG12	3:P:1211:SER:O	2.21	0.40
4:Q:30:MET:HE1	4:Q:49:ILE:HB	2.03	0.40
5:R:298:PRO:HB2	5:R:301:ASN:CG	2.47	0.40
5:R:432:THR:O	5:R:436:ARG:HB2	2.22	0.40
6:7:43:DT:C6	6:7:43:DT:H3'	2.56	0.40

All (3) 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)
3:D:1169:THR:OG1	6:1:16:DA:OP1[2_657]	1.85	0.35
3:D:710:ASP:OD2	3:J:1282:TYR:OH[2_547]	1.93	0.27
3:D:710:ASP:CA	3:J:1302:TYR:OH[2_547]	2.07	0.13

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	228/242 (94%)	214 (94%)	11 (5%)	3 (1%)	9	41
1	B	226/242 (93%)	204 (90%)	17 (8%)	5 (2%)	5	28
1	G	228/242 (94%)	209 (92%)	16 (7%)	3 (1%)	9	41
1	H	226/242 (93%)	207 (92%)	13 (6%)	6 (3%)	4	25
1	M	228/242 (94%)	214 (94%)	14 (6%)	0	100	100
1	N	226/242 (93%)	209 (92%)	14 (6%)	3 (1%)	9	41

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	C	1339/1342 (100%)	1218 (91%)	98 (7%)	23 (2%)	7	35
2	I	1339/1342 (100%)	1214 (91%)	105 (8%)	20 (2%)	8	39
2	O	1339/1342 (100%)	1234 (92%)	90 (7%)	15 (1%)	11	45
3	D	1360/1407 (97%)	1220 (90%)	109 (8%)	31 (2%)	5	27
3	J	1360/1407 (97%)	1227 (90%)	99 (7%)	34 (2%)	4	25
3	P	1360/1407 (97%)	1226 (90%)	99 (7%)	35 (3%)	4	25
4	E	88/90 (98%)	83 (94%)	5 (6%)	0	100	100
4	K	88/90 (98%)	84 (96%)	3 (3%)	1 (1%)	11	45
4	Q	88/90 (98%)	84 (96%)	4 (4%)	0	100	100
5	F	493/628 (78%)	444 (90%)	27 (6%)	22 (4%)	2	16
5	L	493/628 (78%)	447 (91%)	28 (6%)	18 (4%)	2	19
5	R	493/628 (78%)	449 (91%)	30 (6%)	14 (3%)	4	24
All	All	11202/11853 (94%)	10187 (91%)	782 (7%)	233 (2%)	5	29

All (233) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	164	ASP
1	B	118	ASP
2	C	110	PRO
2	C	214	ASN
2	C	247	ARG
2	C	281	ASP
2	C	730	SER
2	C	791	LEU
2	C	812	PHE
2	C	1162	SER
3	D	53	ARG
3	D	174	ASP
3	D	519	ASN
3	D	590	SER
3	D	1200	GLU
3	D	1275	LEU
3	D	1309	ILE
5	F	243	ALA
5	F	296	LYS
5	F	325	PRO
5	F	330	LEU

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Mol	Chain	Res	Type
5	F	396	ASN
5	F	446	GLN
5	F	515	GLU
5	F	519	LEU
5	F	553	ALA
5	F	581	ASP
1	G	210	THR
1	G	233	ASP
1	H	117	HIS
1	H	158	ARG
1	H	159	ILE
2	I	481	LEU
2	I	625	GLU
2	I	791	LEU
2	I	1162	SER
3	J	53	ARG
3	J	321	LYS
3	J	519	ASN
3	J	590	SER
3	J	966	VAL
3	J	1024	THR
3	J	1201	GLY
3	J	1275	LEU
3	J	1297	LYS
3	J	1309	ILE
5	L	243	ALA
5	L	296	LYS
5	L	396	ASN
5	L	515	GLU
5	L	519	LEU
5	L	553	ALA
5	L	581	ASP
1	N	209	GLY
2	O	110	PRO
2	O	791	LEU
2	O	808	ASN
2	O	812	PHE
2	O	1162	SER
3	P	53	ARG
3	P	519	ASN
3	P	590	SER
3	P	828	GLY

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Mol	Chain	Res	Type
3	P	1024	THR
3	P	1097	ALA
3	P	1200	GLU
3	P	1275	LEU
3	P	1309	ILE
5	R	154	GLU
5	R	243	ALA
5	R	296	LYS
5	R	396	ASN
5	R	515	GLU
5	R	519	LEU
5	R	581	ASP
1	A	210	THR
1	B	119	GLY
1	B	191	ARG
2	C	165	HIS
2	C	314	ASN
2	C	546	GLU
2	C	643	SER
2	C	895	LEU
2	C	984	VAL
2	C	1005	GLU
3	D	321	LYS
3	D	404	GLU
3	D	769	VAL
3	D	947	GLU
3	D	1024	THR
3	D	1170	LYS
3	D	1268	ASN
5	F	154	GLU
5	F	310	GLU
1	G	93	GLN
1	H	118	ASP
2	I	40	GLU
2	I	113	THR
2	I	247	ARG
2	I	314	ASN
2	I	730	SER
2	I	908	GLU
3	J	520	ALA
3	J	948	SER
3	J	1053	LEU

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Mol	Chain	Res	Type
3	J	1114	GLN
4	K	4	VAL
5	L	154	GLU
5	L	310	GLU
1	N	194	GLN
2	O	45	GLY
2	O	113	THR
2	O	314	ASN
2	O	730	SER
3	P	174	ASP
3	P	321	LYS
3	P	404	GLU
3	P	542	ALA
3	P	719	PHE
3	P	1268	ASN
5	R	310	GLU
5	R	323	ASN
5	R	447	ALA
1	B	17	GLU
2	C	787	PRO
2	C	1135	GLN
3	D	962	ASN
3	D	1087	ASP
3	D	1097	ALA
3	D	1106	ILE
3	D	1114	GLN
3	D	1166	GLY
3	D	1325	PHE
5	F	166	VAL
1	H	164	ASP
2	I	165	HIS
2	I	341	LEU
2	I	643	SER
2	I	787	PRO
2	I	891	GLY
3	J	16	GLU
3	J	122	SER
3	J	731	ARG
3	J	953	LYS
3	J	1200	GLU
3	J	1268	ASN
5	L	166	VAL

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Mol	Chain	Res	Type
5	L	238	LYS
5	L	400	GLN
5	L	478	PRO
2	O	281	ASP
2	O	787	PRO
3	P	16	GLU
3	P	122	SER
3	P	152	THR
3	P	353	SER
3	P	1114	GLN
3	P	1201	GLY
3	P	1318	SER
3	P	1325	PHE
5	R	166	VAL
5	R	238	LYS
1	A	233	ASP
1	B	194	GLN
2	C	163	LYS
2	C	897	PRO
2	C	908	GLU
3	D	122	SER
3	D	333	GLY
3	D	1022	PRO
3	D	1297	LYS
5	F	324	LYS
5	F	476	ARG
2	I	110	PRO
2	I	246	LEU
3	J	174	ASP
3	J	376	LEU
3	J	404	GLU
3	J	854	ALA
3	J	1020	TRP
3	J	1097	ALA
3	J	1325	PHE
5	L	155	GLU
5	L	324	LYS
5	L	447	ALA
1	N	191	ARG
2	O	43	PRO
2	O	165	HIS
2	O	341	LEU

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Mol	Chain	Res	Type
3	P	333	GLY
3	P	710	ASP
3	P	953	LYS
3	P	1117	SER
3	P	1185	PRO
5	R	155	GLU
2	C	246	LEU
2	C	669	PRO
2	C	913	VAL
3	D	1100	PHE
5	F	144	LEU
5	F	447	ALA
2	I	214	ASN
3	J	943	ARG
3	J	1262	ARG
2	O	1187	PHE
3	P	77	ARG
3	P	420	PRO
3	P	731	ARG
3	P	769	VAL
3	D	828	GLY
3	D	854	ALA
3	D	1052	GLU
5	F	238	LYS
5	F	478	PRO
5	F	583	THR
2	I	993	PRO
3	J	542	ALA
3	J	1106	ILE
3	P	750	PRO
5	F	91	ILE
3	P	378	LYS
5	R	324	LYS
1	H	209	GLY
2	I	983	GLY
3	J	1166	GLY
3	J	1185	PRO
3	J	1287	ILE
5	L	504	PRO
3	D	749	LYS
3	D	1185	PRO
5	F	582	VAL

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Mol	Chain	Res	Type
5	L	91	ILE
3	P	1106	ILE

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	198/208 (95%)	172 (87%)	26 (13%)	4	16
1	B	196/208 (94%)	166 (85%)	30 (15%)	3	12
1	G	198/208 (95%)	171 (86%)	27 (14%)	3	14
1	H	196/208 (94%)	168 (86%)	28 (14%)	3	14
1	M	198/208 (95%)	175 (88%)	23 (12%)	5	18
1	N	196/208 (94%)	167 (85%)	29 (15%)	3	13
2	C	1156/1157 (100%)	1014 (88%)	142 (12%)	4	17
2	I	1156/1157 (100%)	1030 (89%)	126 (11%)	6	21
2	O	1156/1157 (100%)	1012 (88%)	144 (12%)	4	17
3	D	1135/1168 (97%)	998 (88%)	137 (12%)	5	18
3	J	1135/1168 (97%)	980 (86%)	155 (14%)	3	14
3	P	1135/1168 (97%)	983 (87%)	152 (13%)	4	15
4	E	74/74 (100%)	65 (88%)	9 (12%)	5	17
4	K	74/74 (100%)	66 (89%)	8 (11%)	6	21
4	Q	74/74 (100%)	66 (89%)	8 (11%)	6	21
5	F	439/554 (79%)	403 (92%)	36 (8%)	10	30
5	L	439/554 (79%)	386 (88%)	53 (12%)	5	18
5	R	439/554 (79%)	383 (87%)	56 (13%)	4	16
All	All	9594/10107 (95%)	8405 (88%)	1189 (12%)	4	17

All (1189) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	22	THR
1	A	28	LEU
1	A	33	ARG
1	A	39	LEU
1	A	48	LEU
1	A	77	ASP
1	A	79	LEU
1	A	90	VAL
1	A	100	LEU
1	A	107	ILE
1	A	123	ILE
1	A	127	GLN
1	A	131	CYS
1	A	140	ILE
1	A	146	VAL
1	A	153	VAL
1	A	163	GLU
1	A	171	LEU
1	A	174	ASP
1	A	180	VAL
1	A	183	ILE
1	A	202	VAL
1	A	208	ASN
1	A	222	THR
1	A	223	ILE
1	A	228	LEU
1	B	6	THR
1	B	12	ARG
1	B	13	LEU
1	B	16	ILE
1	B	28	LEU
1	B	29	GLU
1	B	39	LEU
1	B	43	LEU
1	B	75	GLN
1	B	79	LEU
1	B	82	LEU
1	B	88	LEU
1	B	90	VAL
1	B	111	THR
1	B	127	GLN
1	B	129	VAL
1	B	133	LEU

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Mol	Chain	Res	Type
1	B	140	ILE
1	B	142	MET
1	B	170	ARG
1	B	171	LEU
1	B	172	LEU
1	B	173	VAL
1	B	180	VAL
1	B	183	ILE
1	B	192	VAL
1	B	196	THR
1	B	198	LEU
1	B	217	ILE
1	B	224	LEU
2	C	6	THR
2	C	17	LYS
2	C	24	VAL
2	C	30	ILE
2	C	32	LEU
2	C	46	GLN
2	C	75	LEU
2	C	82	VAL
2	C	113	THR
2	C	114	VAL
2	C	117	ILE
2	C	118	LYS
2	C	119	GLU
2	C	122	VAL
2	C	127	ILE
2	C	142	GLU
2	C	147	SER
2	C	152	SER
2	C	155	VAL
2	C	182	SER
2	C	198	ILE
2	C	202	ARG
2	C	232	ILE
2	C	234	ASP
2	C	240	GLU
2	C	255	ILE
2	C	260	LYS
2	C	269	ILE
2	C	290	GLU

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Mol	Chain	Res	Type
2	C	297	VAL
2	C	300	ASP
2	C	319	LEU
2	C	320	ASP
2	C	333	ILE
2	C	358	ASP
2	C	369	MET
2	C	383	SER
2	C	384	LEU
2	C	388	LEU
2	C	425	ILE
2	C	432	LEU
2	C	442	VAL
2	C	443	ASP
2	C	445	ILE
2	C	446	ASP
2	C	455	SER
2	C	459	MET
2	C	469	VAL
2	C	472	GLU
2	C	484	LEU
2	C	493	ILE
2	C	498	ILE
2	C	499	SER
2	C	511	LEU
2	C	521	LEU
2	C	523	GLU
2	C	529	ARG
2	C	530	ILE
2	C	541	GLU
2	C	547	VAL
2	C	550	VAL
2	C	558	VAL
2	C	561	ILE
2	C	563	THR
2	C	565	GLU
2	C	576	SER
2	C	583	GLU
2	C	587	LEU
2	C	596	ASP
2	C	601	ASP
2	C	603	ILE

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Mol	Chain	Res	Type
2	C	641	GLU
2	C	662	SER
2	C	663	VAL
2	C	690	VAL
2	C	692	THR
2	C	697	LYS
2	C	700	VAL
2	C	734	ILE
2	C	740	GLU
2	C	766	ASN
2	C	772	SER
2	C	775	GLU
2	C	777	VAL
2	C	782	VAL
2	C	788	SER
2	C	790	ASP
2	C	791	LEU
2	C	799	ASN
2	C	800	MET
2	C	808	ASN
2	C	815	SER
2	C	822	VAL
2	C	831	ILE
2	C	839	VAL
2	C	850	ILE
2	C	856	ASN
2	C	857	VAL
2	C	859	GLU
2	C	863	SER
2	C	864	LYS
2	C	868	SER
2	C	893	THR
2	C	894	GLN
2	C	896	THR
2	C	901	LEU
2	C	908	GLU
2	C	929	ILE
2	C	943	LYS
2	C	948	ILE
2	C	960	LEU
2	C	963	GLU
2	C	1002	LEU

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Mol	Chain	Res	Type
2	C	1025	PHE
2	C	1037	THR
2	C	1049	ILE
2	C	1056	VAL
2	C	1075	VAL
2	C	1088	ASP
2	C	1089	GLU
2	C	1092	THR
2	C	1098	LEU
2	C	1101	LEU
2	C	1105	SER
2	C	1113	LEU
2	C	1115	THR
2	C	1128	ILE
2	C	1151	LEU
2	C	1167	GLU
2	C	1170	MET
2	C	1182	ILE
2	C	1200	LYS
2	C	1203	ASP
2	C	1212	LEU
2	C	1222	GLU
2	C	1223	ARG
2	C	1235	LEU
2	C	1252	SER
2	C	1286	THR
2	C	1296	ASP
2	C	1302	THR
2	C	1304	MET
3	D	15	GLU
3	D	58	CYS
3	D	69	GLU
3	D	76	LYS
3	D	78	LEU
3	D	84	ILE
3	D	93	THR
3	D	95	THR
3	D	102	MET
3	D	114	ILE
3	D	120	LEU
3	D	127	LEU
3	D	133	ARG

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Mol	Chain	Res	Type
3	D	134	ASP
3	D	138	VAL
3	D	146	VAL
3	D	153	ASN
3	D	159	ILE
3	D	185	ILE
3	D	192	MET
3	D	195	GLU
3	D	208	THR
3	D	212	THR
3	D	238	ILE
3	D	253	VAL
3	D	255	LEU
3	D	330	MET
3	D	354	VAL
3	D	372	MET
3	D	374	LEU
3	D	387	LEU
3	D	388	ARG
3	D	394	ILE
3	D	395	LYS
3	D	410	ASP
3	D	411	ILE
3	D	421	VAL
3	D	429	LEU
3	D	442	ILE
3	D	443	GLU
3	D	492	SER
3	D	495	ASN
3	D	503	SER
3	D	507	VAL
3	D	534	GLU
3	D	539	SER
3	D	541	LEU
3	D	563	LEU
3	D	573	THR
3	D	574	VAL
3	D	596	LEU
3	D	601	ILE
3	D	607	THR
3	D	608	CYS
3	D	614	LEU

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Mol	Chain	Res	Type
3	D	615	LYS
3	D	619	ILE
3	D	624	ILE
3	D	641	ILE
3	D	644	MET
3	D	653	ILE
3	D	674	THR
3	D	683	ILE
3	D	705	THR
3	D	706	VAL
3	D	717	VAL
3	D	721	SER
3	D	736	GLN
3	D	740	LEU
3	D	743	MET
3	D	747	MET
3	D	753	SER
3	D	755	ILE
3	D	764	ARG
3	D	769	VAL
3	D	776	THR
3	D	786	THR
3	D	796	LEU
3	D	803	VAL
3	D	807	LEU
3	D	808	VAL
3	D	810	THR
3	D	812	ASP
3	D	814	CYS
3	D	825	VAL
3	D	830	ASP
3	D	849	LEU
3	D	882	VAL
3	D	891	ASP
3	D	895	CYS
3	D	910	ASN
3	D	918	ILE
3	D	925	GLU
3	D	928	THR
3	D	934	THR
3	D	936	HIS
3	D	937	ILE

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Mol	Chain	Res	Type
3	D	948	SER
3	D	973	LEU
3	D	974	VAL
3	D	980	THR
3	D	985	ILE
3	D	986	ASP
3	D	987	GLU
3	D	994	SER
3	D	997	VAL
3	D	1021	ASP
3	D	1024	THR
3	D	1029	THR
3	D	1031	VAL
3	D	1053	LEU
3	D	1057	SER
3	D	1086	ASN
3	D	1088	VAL
3	D	1119	ASP
3	D	1155	ILE
3	D	1164	SER
3	D	1170	LYS
3	D	1184	ASP
3	D	1206	ARG
3	D	1208	ASP
3	D	1221	LEU
3	D	1226	VAL
3	D	1230	THR
3	D	1234	VAL
3	D	1275	LEU
3	D	1285	VAL
3	D	1307	LEU
3	D	1318	SER
3	D	1320	ILE
3	D	1321	SER
3	D	1329	THR
3	D	1331	VAL
3	D	1333	THR
3	D	1357	ILE
3	D	1369	ARG
3	D	1371	ARG
4	E	4	VAL
4	E	6	VAL

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Mol	Chain	Res	Type
4	E	13	ILE
4	E	16	ARG
4	E	21	LEU
4	E	28	ARG
4	E	52	ARG
4	E	62	GLN
4	E	63	ILE
5	F	91	ILE
5	F	93	ARG
5	F	100	MET
5	F	105	MET
5	F	110	LEU
5	F	132	CYS
5	F	141	ILE
5	F	230	VAL
5	F	286	LEU
5	F	287	ILE
5	F	294	GLN
5	F	309	ASN
5	F	330	LEU
5	F	332	ASP
5	F	333	VAL
5	F	334	SER
5	F	349	GLU
5	F	356	GLU
5	F	373	ARG
5	F	387	VAL
5	F	393	LYS
5	F	404	LEU
5	F	417	ASP
5	F	440	THR
5	F	449	THR
5	F	451	ARG
5	F	454	VAL
5	F	457	ILE
5	F	461	ASN
5	F	487	MET
5	F	519	LEU
5	F	523	ILE
5	F	532	LEU
5	F	570	ASP
5	F	602	SER

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Mol	Chain	Res	Type
5	F	603	ARG
1	G	6	THR
1	G	16	ILE
1	G	28	LEU
1	G	38	THR
1	G	39	LEU
1	G	74	VAL
1	G	98	VAL
1	G	99	ILE
1	G	121	VAL
1	G	127	GLN
1	G	131	CYS
1	G	133	LEU
1	G	183	ILE
1	G	192	VAL
1	G	196	THR
1	G	199	ASP
1	G	202	VAL
1	G	203	ILE
1	G	205	MET
1	G	208	ASN
1	G	218	ARG
1	G	224	LEU
1	G	228	LEU
1	G	232	VAL
1	G	233	ASP
1	G	234	LEU
1	G	235	ARG
1	H	6	THR
1	H	7	GLU
1	H	9	LEU
1	H	12	ARG
1	H	16	ILE
1	H	28	LEU
1	H	74	VAL
1	H	78	ILE
1	H	97	GLU
1	H	98	VAL
1	H	111	THR
1	H	130	ILE
1	H	140	ILE
1	H	143	ARG

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Mol	Chain	Res	Type
1	H	150	ARG
1	H	157	THR
1	H	165	GLU
1	H	173	VAL
1	H	183	ILE
1	H	192	VAL
1	H	195	ARG
1	H	196	THR
1	H	211	ILE
1	H	212	ASP
1	H	217	ILE
1	H	222	THR
1	H	224	LEU
1	H	226	GLU
2	I	39	ILE
2	I	46	GLN
2	I	68	LEU
2	I	79	VAL
2	I	91	THR
2	I	113	THR
2	I	141	THR
2	I	147	SER
2	I	152	SER
2	I	155	VAL
2	I	167	SER
2	I	182	SER
2	I	188	PHE
2	I	218	GLU
2	I	222	ASP
2	I	229	ILE
2	I	255	ILE
2	I	275	ARG
2	I	281	ASP
2	I	292	ILE
2	I	296	VAL
2	I	306	THR
2	I	414	ILE
2	I	417	SER
2	I	422	LYS
2	I	428	VAL
2	I	435	ILE
2	I	442	VAL

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Mol	Chain	Res	Type
2	I	446	ASP
2	I	448	LEU
2	I	453	ILE
2	I	459	MET
2	I	471	VAL
2	I	475	VAL
2	I	480	SER
2	I	490	GLN
2	I	504	GLU
2	I	533	LEU
2	I	538	LEU
2	I	539	THR
2	I	547	VAL
2	I	551	HIS
2	I	558	VAL
2	I	563	THR
2	I	565	GLU
2	I	576	SER
2	I	596	ASP
2	I	600	THR
2	I	609	ILE
2	I	618	GLN
2	I	624	ASP
2	I	642	SER
2	I	662	SER
2	I	692	THR
2	I	694	ARG
2	I	714	VAL
2	I	727	VAL
2	I	732	ILE
2	I	733	VAL
2	I	740	GLU
2	I	750	ILE
2	I	764	CYS
2	I	765	ILE
2	I	766	ASN
2	I	772	SER
2	I	782	VAL
2	I	788	SER
2	I	799	ASN
2	I	800	MET
2	I	802	VAL

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Mol	Chain	Res	Type
2	I	815	SER
2	I	818	VAL
2	I	823	VAL
2	I	831	ILE
2	I	843	THR
2	I	844	LYS
2	I	854	ILE
2	I	863	SER
2	I	873	ILE
2	I	901	LEU
2	I	916	SER
2	I	929	ILE
2	I	931	VAL
2	I	946	LEU
2	I	953	LEU
2	I	973	SER
2	I	984	VAL
2	I	1000	LEU
2	I	1013	GLN
2	I	1040	ASP
2	I	1052	VAL
2	I	1053	TYR
2	I	1072	ASN
2	I	1079	ILE
2	I	1085	MET
2	I	1090	ASN
2	I	1092	THR
2	I	1094	VAL
2	I	1098	LEU
2	I	1108	ASN
2	I	1115	THR
2	I	1128	ILE
2	I	1150	ASP
2	I	1164	PHE
2	I	1186	VAL
2	I	1191	LYS
2	I	1210	ILE
2	I	1226	THR
2	I	1235	LEU
2	I	1253	LEU
2	I	1255	THR
2	I	1265	PHE

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Mol	Chain	Res	Type
2	I	1278	LEU
2	I	1286	THR
2	I	1287	LEU
2	I	1289	GLU
2	I	1292	THR
2	I	1294	LYS
2	I	1296	ASP
2	I	1299	ASN
2	I	1304	MET
2	I	1309	VAL
2	I	1327	LEU
2	I	1332	SER
2	I	1339	LEU
2	I	1340	GLU
3	J	52	GLU
3	J	58	CYS
3	J	65	VAL
3	J	66	LYS
3	J	67	ASP
3	J	74	LYS
3	J	76	LYS
3	J	78	LEU
3	J	88	CYS
3	J	93	THR
3	J	107	LEU
3	J	111	THR
3	J	114	ILE
3	J	124	ILE
3	J	126	LEU
3	J	130	MET
3	J	135	ILE
3	J	145	VAL
3	J	147	ILE
3	J	153	ASN
3	J	159	ILE
3	J	162	GLU
3	J	180	MET
3	J	192	MET
3	J	205	LEU
3	J	208	THR
3	J	223	LEU
3	J	227	PHE

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Mol	Chain	Res	Type
3	J	252	LEU
3	J	253	VAL
3	J	256	ASP
3	J	262	THR
3	J	279	LEU
3	J	319	SER
3	J	320	ASN
3	J	321	LYS
3	J	331	ILE
3	J	340	GLN
3	J	343	LEU
3	J	360	TYR
3	J	363	LEU
3	J	394	ILE
3	J	398	LYS
3	J	408	VAL
3	J	423	LEU
3	J	429	LEU
3	J	447	ILE
3	J	453	VAL
3	J	468	VAL
3	J	470	VAL
3	J	485	MET
3	J	492	SER
3	J	503	SER
3	J	505	ASP
3	J	521	LYS
3	J	525	MET
3	J	569	LEU
3	J	582	ILE
3	J	591	ILE
3	J	601	ILE
3	J	607	THR
3	J	614	LEU
3	J	619	ILE
3	J	641	ILE
3	J	643	ASP
3	J	652	GLU
3	J	693	VAL
3	J	701	LEU
3	J	713	GLU
3	J	715	LYS

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Mol	Chain	Res	Type
3	J	717	VAL
3	J	718	SER
3	J	721	SER
3	J	722	ILE
3	J	736	GLN
3	J	753	SER
3	J	755	ILE
3	J	757	THR
3	J	774	ILE
3	J	786	THR
3	J	796	LEU
3	J	797	THR
3	J	805	GLN
3	J	806	ASP
3	J	809	VAL
3	J	820	ILE
3	J	825	VAL
3	J	835	LEU
3	J	843	VAL
3	J	855	ASP
3	J	856	ILE
3	J	872	LEU
3	J	880	VAL
3	J	882	VAL
3	J	885	VAL
3	J	886	VAL
3	J	891	ASP
3	J	895	CYS
3	J	908	ILE
3	J	909	ILE
3	J	917	VAL
3	J	918	ILE
3	J	922	SER
3	J	928	THR
3	J	934	THR
3	J	942	SER
3	J	948	SER
3	J	962	ASN
3	J	974	VAL
3	J	992	LYS
3	J	1011	VAL
3	J	1024	THR

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Mol	Chain	Res	Type
3	J	1041	ILE
3	J	1047	THR
3	J	1094	ASP
3	J	1095	MET
3	J	1134	ILE
3	J	1135	THR
3	J	1138	LEU
3	J	1156	LEU
3	J	1158	GLU
3	J	1162	ILE
3	J	1167	LYS
3	J	1175	LEU
3	J	1177	ILE
3	J	1180	VAL
3	J	1184	ASP
3	J	1196	LEU
3	J	1197	ASN
3	J	1203	ARG
3	J	1211	SER
3	J	1219	ASP
3	J	1230	THR
3	J	1246	VAL
3	J	1250	ASP
3	J	1251	LYS
3	J	1253	ILE
3	J	1256	ILE
3	J	1258	ARG
3	J	1261	LEU
3	J	1265	THR
3	J	1266	ILE
3	J	1267	VAL
3	J	1271	SER
3	J	1287	ILE
3	J	1301	THR
3	J	1305	ASP
3	J	1309	ILE
3	J	1318	SER
3	J	1333	THR
3	J	1337	VAL
3	J	1349	GLU
3	J	1357	ILE
3	J	1361	THR

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Mol	Chain	Res	Type
3	J	1371	ARG
4	K	4	VAL
4	K	6	VAL
4	K	13	ILE
4	K	20	VAL
4	K	21	LEU
4	K	35	LYS
4	K	39	VAL
4	K	66	VAL
5	L	93	ARG
5	L	95	THR
5	L	102	MET
5	L	105	MET
5	L	109	GLU
5	L	110	LEU
5	L	127	ILE
5	L	130	VAL
5	L	162	ILE
5	L	219	GLU
5	L	229	VAL
5	L	230	VAL
5	L	261	LEU
5	L	264	LYS
5	L	288	MET
5	L	294	GLN
5	L	300	LYS
5	L	309	ASN
5	L	322	MET
5	L	330	LEU
5	L	334	SER
5	L	343	LYS
5	L	364	ARG
5	L	374	ARG
5	L	387	VAL
5	L	400	GLN
5	L	402	LEU
5	L	418	LYS
5	L	440	THR
5	L	445	ASP
5	L	449	THR
5	L	450	ILE
5	L	459	THR

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Mol	Chain	Res	Type
5	L	461	ASN
5	L	472	GLN
5	L	492	ASP
5	L	496	LYS
5	L	500	ILE
5	L	515	GLU
5	L	517	SER
5	L	519	LEU
5	L	523	ILE
5	L	532	LEU
5	L	533	ASP
5	L	547	VAL
5	L	548	LEU
5	L	565	ILE
5	L	569	THR
5	L	587	ILE
5	L	600	HIS
5	L	604	SER
5	L	607	LEU
5	L	608	ARG
1	M	6	THR
1	M	10	LYS
1	M	16	ILE
1	M	19	VAL
1	M	28	LEU
1	M	79	LEU
1	M	90	VAL
1	M	118	ASP
1	M	127	GLN
1	M	131	CYS
1	M	150	ARG
1	M	158	ARG
1	M	159	ILE
1	M	171	LEU
1	M	187	VAL
1	M	188	GLU
1	M	196	THR
1	M	197	ASP
1	M	208	ASN
1	M	217	ILE
1	M	222	THR
1	M	224	LEU

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Mol	Chain	Res	Type
1	M	232	VAL
1	N	6	THR
1	N	7	GLU
1	N	10	LYS
1	N	19	VAL
1	N	22	THR
1	N	26	VAL
1	N	28	LEU
1	N	61	ILE
1	N	74	VAL
1	N	78	ILE
1	N	79	LEU
1	N	82	LEU
1	N	90	VAL
1	N	92	VAL
1	N	111	THR
1	N	129	VAL
1	N	131	CYS
1	N	144	ILE
1	N	150	ARG
1	N	170	ARG
1	N	171	LEU
1	N	173	VAL
1	N	176	CYS
1	N	181	GLU
1	N	183	ILE
1	N	187	VAL
1	N	192	VAL
1	N	229	GLU
1	N	233	ASP
2	O	21	VAL
2	O	44	GLU
2	O	46	GLN
2	O	75	LEU
2	O	111	GLU
2	O	113	THR
2	O	124	MET
2	O	127	ILE
2	O	138	ILE
2	O	147	SER
2	O	152	SER
2	O	155	VAL

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Mol	Chain	Res	Type
2	O	176	ILE
2	O	177	ILE
2	O	182	SER
2	O	218	GLU
2	O	220	ILE
2	O	228	VAL
2	O	229	ILE
2	O	240	GLU
2	O	246	LEU
2	O	253	PHE
2	O	261	VAL
2	O	272	ARG
2	O	279	LYS
2	O	287	VAL
2	O	296	VAL
2	O	299	LYS
2	O	306	THR
2	O	309	LEU
2	O	319	LEU
2	O	340	ASP
2	O	353	VAL
2	O	360	LEU
2	O	369	MET
2	O	379	GLU
2	O	383	SER
2	O	390	PHE
2	O	403	MET
2	O	404	LYS
2	O	410	LEU
2	O	413	GLU
2	O	422	LYS
2	O	426	ILE
2	O	428	VAL
2	O	430	LYS
2	O	432	LEU
2	O	433	ILE
2	O	446	ASP
2	O	453	ILE
2	O	459	MET
2	O	469	VAL
2	O	475	VAL
2	O	484	LEU

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Mol	Chain	Res	Type
2	O	485	ASP
2	O	490	GLN
2	O	499	SER
2	O	521	LEU
2	O	530	ILE
2	O	541	GLU
2	O	547	VAL
2	O	550	VAL
2	O	558	VAL
2	O	561	ILE
2	O	563	THR
2	O	576	SER
2	O	589	THR
2	O	609	ILE
2	O	616	ILE
2	O	630	VAL
2	O	633	LEU
2	O	637	ARG
2	O	662	SER
2	O	667	LEU
2	O	692	THR
2	O	694	ARG
2	O	699	LEU
2	O	700	VAL
2	O	714	VAL
2	O	717	VAL
2	O	750	ILE
2	O	759	SER
2	O	764	CYS
2	O	766	ASN
2	O	777	VAL
2	O	782	VAL
2	O	788	SER
2	O	791	LEU
2	O	799	ASN
2	O	805	MET
2	O	815	SER
2	O	823	VAL
2	O	831	ILE
2	O	842	ASP
2	O	843	THR
2	O	845	LEU

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Mol	Chain	Res	Type
2	O	857	VAL
2	O	863	SER
2	O	871	VAL
2	O	873	ILE
2	O	878	THR
2	O	884	VAL
2	O	893	THR
2	O	901	LEU
2	O	912	ASP
2	O	916	SER
2	O	933	VAL
2	O	935	THR
2	O	941	LYS
2	O	942	ASP
2	O	946	LEU
2	O	964	LEU
2	O	984	VAL
2	O	988	LYS
2	O	996	ARG
2	O	1002	LEU
2	O	1085	MET
2	O	1092	THR
2	O	1094	VAL
2	O	1098	LEU
2	O	1105	SER
2	O	1109	ILE
2	O	1124	ILE
2	O	1128	ILE
2	O	1134	GLN
2	O	1138	VAL
2	O	1140	LYS
2	O	1166	ASP
2	O	1178	LYS
2	O	1182	ILE
2	O	1212	LEU
2	O	1227	VAL
2	O	1238	LEU
2	O	1240	ASP
2	O	1254	VAL
2	O	1255	THR
2	O	1262	LYS
2	O	1293	VAL

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Mol	Chain	Res	Type
2	O	1296	ASP
2	O	1299	ASN
2	O	1302	THR
2	O	1304	MET
2	O	1332	SER
2	O	1335	ILE
3	P	28	ASP
3	P	29	MET
3	P	32	SER
3	P	37	GLU
3	P	56	LEU
3	P	58	CYS
3	P	74	LYS
3	P	78	LEU
3	P	84	ILE
3	P	93	THR
3	P	111	THR
3	P	114	ILE
3	P	124	ILE
3	P	138	VAL
3	P	154	LEU
3	P	159	ILE
3	P	167	ASP
3	P	169	LEU
3	P	175	GLU
3	P	180	MET
3	P	185	ILE
3	P	194	LEU
3	P	195	GLU
3	P	208	THR
3	P	211	GLU
3	P	227	PHE
3	P	283	LEU
3	P	294	ASN
3	P	299	LEU
3	P	306	LEU
3	P	322	ARG
3	P	331	ILE
3	P	334	LYS
3	P	356	THR
3	P	357	VAL
3	P	368	LEU

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Mol	Chain	Res	Type
3	P	371	LYS
3	P	372	MET
3	P	394	ILE
3	P	398	LYS
3	P	407	VAL
3	P	423	LEU
3	P	429	LEU
3	P	431	ARG
3	P	442	ILE
3	P	447	ILE
3	P	449	LEU
3	P	453	VAL
3	P	468	VAL
3	P	474	LEU
3	P	478	LEU
3	P	479	GLU
3	P	492	SER
3	P	499	ILE
3	P	500	ILE
3	P	503	SER
3	P	518	VAL
3	P	519	ASN
3	P	526	VAL
3	P	539	SER
3	P	560	ASN
3	P	563	LEU
3	P	568	SER
3	P	581	MET
3	P	590	SER
3	P	607	THR
3	P	611	ILE
3	P	617	THR
3	P	622	ASP
3	P	648	GLU
3	P	649	LYS
3	P	669	GLN
3	P	673	VAL
3	P	674	THR
3	P	707	ILE
3	P	716	GLN
3	P	721	SER
3	P	743	MET

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Mol	Chain	Res	Type
3	P	746	LEU
3	P	747	MET
3	P	753	SER
3	P	759	ILE
3	P	768	ASN
3	P	769	VAL
3	P	770	LEU
3	P	774	ILE
3	P	785	ASP
3	P	786	THR
3	P	796	LEU
3	P	800	LEU
3	P	805	GLN
3	P	825	VAL
3	P	830	ASP
3	P	839	VAL
3	P	840	LEU
3	P	849	LEU
3	P	869	CYS
3	P	882	VAL
3	P	885	VAL
3	P	908	ILE
3	P	909	ILE
3	P	913	GLU
3	P	931	THR
3	P	934	THR
3	P	948	SER
3	P	958	ILE
3	P	974	VAL
3	P	994	SER
3	P	997	VAL
3	P	1024	THR
3	P	1032	SER
3	P	1052	GLU
3	P	1131	THR
3	P	1134	ILE
3	P	1138	LEU
3	P	1155	ILE
3	P	1159	ILE
3	P	1163	VAL
3	P	1167	LYS
3	P	1177	ILE

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Mol	Chain	Res	Type
3	P	1183	SER
3	P	1184	ASP
3	P	1189	MET
3	P	1204	VAL
3	P	1221	LEU
3	P	1226	VAL
3	P	1229	VAL
3	P	1230	THR
3	P	1233	ILE
3	P	1236	GLU
3	P	1243	LEU
3	P	1250	ASP
3	P	1256	ILE
3	P	1262	ARG
3	P	1265	THR
3	P	1267	VAL
3	P	1271	SER
3	P	1272	SER
3	P	1284	ARG
3	P	1303	SER
3	P	1307	LEU
3	P	1318	SER
3	P	1320	ILE
3	P	1321	SER
3	P	1333	THR
3	P	1345	ARG
3	P	1347	LEU
3	P	1353	VAL
3	P	1356	LEU
3	P	1361	THR
3	P	1366	HIS
3	P	1369	ARG
4	Q	4	VAL
4	Q	6	VAL
4	Q	8	ASP
4	Q	19	LEU
4	Q	31	GLN
4	Q	36	ASP
4	Q	65	ASP
4	Q	67	ARG
5	R	85	SER
5	R	95	THR

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Mol	Chain	Res	Type
5	R	105	MET
5	R	109	GLU
5	R	110	LEU
5	R	119	ILE
5	R	132	CYS
5	R	152	GLU
5	R	229	VAL
5	R	230	VAL
5	R	264	LYS
5	R	289	LYS
5	R	304	THR
5	R	309	ASN
5	R	322	MET
5	R	330	LEU
5	R	333	VAL
5	R	334	SER
5	R	365	MET
5	R	386	LEU
5	R	387	VAL
5	R	388	ILE
5	R	399	LEU
5	R	400	GLN
5	R	404	LEU
5	R	405	ILE
5	R	428	SER
5	R	439	ILE
5	R	440	THR
5	R	450	ILE
5	R	451	ARG
5	R	456	MET
5	R	459	THR
5	R	461	ASN
5	R	479	THR
5	R	483	LEU
5	R	487	MET
5	R	491	GLU
5	R	492	ASP
5	R	494	ILE
5	R	500	ILE
5	R	511	ILE
5	R	513	ASP
5	R	515	GLU

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Mol	Chain	Res	Type
5	R	517	SER
5	R	526	THR
5	R	541	ARG
5	R	552	THR
5	R	568	ASN
5	R	573	LEU
5	R	587	ILE
5	R	588	ARG
5	R	600	HIS
5	R	603	ARG
5	R	609	SER
5	R	613	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (174) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	41	ASN
1	A	75	GLN
1	A	132	HIS
1	A	147	GLN
1	A	208	ASN
1	A	227	GLN
1	B	66	HIS
2	C	46	GLN
2	C	69	GLN
2	C	150	HIS
2	C	214	ASN
2	C	447	HIS
2	C	573	ASN
2	C	658	GLN
2	C	659	GLN
2	C	688	GLN
2	C	762	ASN
2	C	799	ASN
2	C	808	ASN
2	C	1061	GLN
2	C	1116	HIS
2	C	1136	GLN
2	C	1175	ASN
2	C	1209	GLN
2	C	1220	GLN
2	C	1257	GLN

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Mol	Chain	Res	Type
2	C	1313	HIS
3	D	157	GLN
3	D	200	GLN
3	D	206	ASN
3	D	274	ASN
3	D	364	HIS
3	D	450	HIS
3	D	477	GLN
3	D	489	ASN
3	D	504	GLN
3	D	690	ASN
3	D	700	ASN
3	D	720	ASN
3	D	736	GLN
3	D	777	HIS
3	D	792	ASN
3	D	865	HIS
3	D	921	GLN
3	D	929	GLN
3	D	1019	ASN
3	D	1049	GLN
3	D	1098	GLN
3	D	1114	GLN
3	D	1218	HIS
3	D	1259	GLN
3	D	1326	GLN
3	D	1366	HIS
4	E	43	ASN
4	E	73	GLN
5	F	242	HIS
5	F	271	ASN
5	F	383	ASN
5	F	472	GLN
1	G	23	HIS
1	G	66	HIS
1	G	84	ASN
1	G	147	GLN
1	H	132	HIS
1	H	147	GLN
1	H	194	GLN
1	H	227	GLN
2	I	150	HIS

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Mol	Chain	Res	Type
2	I	437	ASN
2	I	513	GLN
2	I	554	HIS
2	I	568	ASN
2	I	573	ASN
2	I	684	ASN
2	I	922	ASN
2	I	1061	GLN
2	I	1116	HIS
2	I	1146	GLN
2	I	1220	GLN
2	I	1268	GLN
3	J	309	ASN
3	J	341	ASN
3	J	364	HIS
3	J	465	GLN
3	J	477	GLN
3	J	489	ASN
3	J	545	HIS
3	J	594	GLN
3	J	665	GLN
3	J	690	ASN
3	J	700	ASN
3	J	720	ASN
3	J	736	GLN
3	J	865	HIS
3	J	875	ASN
3	J	921	GLN
3	J	962	ASN
3	J	979	ASN
3	J	1098	GLN
3	J	1114	GLN
3	J	1218	HIS
3	J	1235	ASN
3	J	1244	GLN
3	J	1326	GLN
4	K	43	ASN
4	K	60	ASN
5	L	169	ASN
5	L	210	ASN
5	L	406	GLN
5	L	472	GLN

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Mol	Chain	Res	Type
1	M	23	HIS
1	M	41	ASN
1	M	66	HIS
1	M	75	GLN
1	M	147	GLN
1	M	208	ASN
1	N	18	GLN
1	N	41	ASN
1	N	75	GLN
1	N	137	ASN
1	N	208	ASN
2	O	46	GLN
2	O	150	HIS
2	O	343	HIS
2	O	437	ASN
2	O	447	HIS
2	O	462	ASN
2	O	494	ASN
2	O	513	GLN
2	O	620	ASN
2	O	658	GLN
2	O	725	GLN
2	O	798	GLN
2	O	824	GLN
2	O	1008	GLN
2	O	1209	GLN
2	O	1220	GLN
2	O	1268	GLN
2	O	1313	HIS
3	P	153	ASN
3	P	157	GLN
3	P	229	GLN
3	P	232	ASN
3	P	266	ASN
3	P	277	ASN
3	P	294	ASN
3	P	309	ASN
3	P	341	ASN
3	P	419	HIS
3	P	424	ASN
3	P	450	HIS
3	P	458	ASN

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Mol	Chain	Res	Type
3	P	465	GLN
3	P	593	ASN
3	P	665	GLN
3	P	680	ASN
3	P	690	ASN
3	P	736	GLN
3	P	929	GLN
3	P	936	HIS
3	P	1098	GLN
3	P	1114	GLN
3	P	1259	GLN
3	P	1279	GLN
3	P	1289	ASN
3	P	1295	ASN
3	P	1326	GLN
4	Q	43	ASN
5	R	383	ASN
5	R	406	GLN
5	R	455	HIS
5	R	464	ASN
5	R	472	GLN
5	R	518	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
8	3	2/4 (50%)	1 (50%)	0
8	6	3/4 (75%)	1 (33%)	1 (33%)
8	9	3/4 (75%)	1 (33%)	1 (33%)
All	All	8/12 (66%)	3 (37%)	2 (25%)

All (3) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
8	3	15	G
8	6	15	G
8	9	15	G

All (2) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
8	6	13	GTP
8	9	13	GTP

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 9 ligands modelled in this entry, 9 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
6	4	3
7	2	3
7	5	3
6	7	1
7	8	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	4	45:DT	O3'	46:DG	P	5.04
1	7	50:DT	O3'	51:DC	P	4.24
1	8	22:DA	O3'	23:DT	P	3.80
1	2	22:DA	O3'	23:DT	P	3.79
1	5	22:DA	O3'	23:DT	P	3.79
1	4	50:DT	O3'	51:DC	P	3.32
1	2	51:DG	O3'	52:DT	P	2.84
1	4	36:DT	O3'	37:DA	P	2.77
1	2	12:DG	O3'	13:DA	P	2.74
1	5	12:DG	O3'	13:DA	P	2.72
1	5	51:DG	O3'	52:DT	P	2.37

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	230/242 (95%)	-0.75	0 100 100	153, 175, 210, 235	0
1	B	228/242 (94%)	-0.70	1 (0%) 88 78	162, 194, 217, 238	0
1	G	230/242 (95%)	-0.60	0 100 100	157, 185, 216, 248	0
1	H	228/242 (94%)	-0.65	1 (0%) 88 78	160, 191, 229, 261	0
1	M	230/242 (95%)	-0.70	0 100 100	166, 200, 233, 252	0
1	N	228/242 (94%)	-0.48	0 100 100	186, 233, 258, 273	0
2	C	1341/1342 (99%)	-0.66	4 (0%) 90 81	119, 186, 244, 277	0
2	I	1341/1342 (99%)	-0.68	2 (0%) 92 87	130, 195, 278, 377	0
2	O	1341/1342 (99%)	-0.66	1 (0%) 92 87	144, 183, 235, 270	0
3	D	1362/1407 (96%)	-0.59	6 (0%) 88 78	128, 214, 296, 349	0
3	J	1362/1407 (96%)	-0.59	2 (0%) 92 87	132, 194, 280, 314	0
3	P	1362/1407 (96%)	-0.58	5 (0%) 88 78	148, 208, 292, 330	0
4	E	90/90 (100%)	-0.45	0 100 100	169, 206, 407, 461	0
4	K	90/90 (100%)	-0.48	0 100 100	144, 199, 394, 442	0
4	Q	90/90 (100%)	-0.62	0 100 100	167, 222, 416, 460	0
5	F	497/628 (79%)	-0.53	0 100 100	182, 294, 404, 418	0
5	L	497/628 (79%)	-0.50	1 (0%) 91 84	168, 262, 400, 406	0
5	R	497/628 (79%)	-0.52	1 (0%) 91 84	172, 259, 413, 444	0
6	1	49/49 (100%)	-0.37	0 100 100	201, 272, 311, 317	0
6	4	49/49 (100%)	-0.32	0 100 100	209, 264, 308, 350	0
6	7	49/49 (100%)	-0.23	0 100 100	211, 255, 278, 300	0
7	2	49/49 (100%)	-0.36	0 100 100	210, 278, 312, 343	0
7	5	49/49 (100%)	-0.34	0 100 100	195, 270, 339, 341	0
7	8	49/49 (100%)	-0.32	0 100 100	194, 260, 296, 335	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
8	3	3/4 (75%)	-0.74	0 100 100	255, 255, 281, 321	0
8	6	3/4 (75%)	-0.62	0 100 100	263, 263, 272, 282	0
8	9	3/4 (75%)	-0.47	0 100 100	262, 262, 277, 295	0
All	All	11547/12159 (94%)	-0.60	24 (0%) 91 84	119, 203, 358, 461	0

All (24) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
3	D	282	LEU	5.9
3	D	772	TYR	5.3
5	L	304	THR	3.5
3	P	971	GLY	3.4
1	B	90	VAL	2.8
2	C	561	ILE	2.7
3	P	686	TRP	2.7
3	P	176	PHE	2.7
3	J	856	ILE	2.6
2	O	146	VAL	2.5
3	D	770	LEU	2.5
2	C	382	GLU	2.4
3	D	286	ALA	2.3
2	C	1279	GLU	2.2
3	J	454	CYS	2.1
2	I	317	LEU	2.1
2	I	1187	PHE	2.1
3	D	960	LEU	2.1
5	R	134	VAL	2.1
3	D	285	LEU	2.1
3	P	97	VAL	2.1
2	C	703	GLY	2.0
1	H	6	THR	2.0
3	P	1068	THR	2.0

6.2 Non-standard residues in protein, DNA, RNA chains ⓘ

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

6.3 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
10	MG	6	101	1/1	0.96	0.23	189,189,189,189	0
9	ZN	D	1502	1/1	0.99	0.02	212,212,212,212	0
9	ZN	J	1501	1/1	0.99	0.06	200,200,200,200	0
9	ZN	D	1501	1/1	0.99	0.04	228,228,228,228	0
10	MG	P	1503	1/1	0.99	0.03	194,194,194,194	0
9	ZN	P	1502	1/1	1.00	0.06	187,187,187,187	0
10	MG	D	1503	1/1	1.00	0.02	176,176,176,176	0
9	ZN	J	1502	1/1	1.00	0.06	174,174,174,174	0
9	ZN	P	1501	1/1	1.00	0.02	214,214,214,214	0

6.5 Other polymers [i](#)

There are no such residues in this entry.