Full wwPDB X-ray Structure Validation Report (i)

Sep 14, 2023 – 09:59 AM EDT

PDB ID	:	4V43
Title	:	Structural and mechanistic basis for allostery in the bacterial chaperonin GroEL
Authors	:	Wang, J.
Deposited on	:	2002-01-02
Resolution	:	3.52 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 (i) 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 (1)) were used in the production of this report:

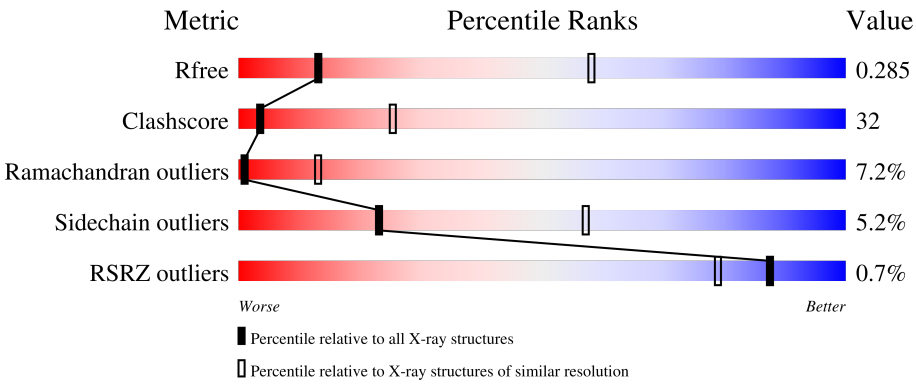
MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.13
EDS	:	2.35.1
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.35.1

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.52 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1161 (3.60-3.44)
Clashscore	141614	1244 (3.60-3.44)
Ramachandran outliers	138981	1206 (3.60-3.44)
Sidechain outliers	138945	1207 (3.60-3.44)
RSRZ outliers	127900	1080 (3.60-3.44)

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

Mol	Chain	Length	Quality of chain
1	1	547	46% 44% 5% • •
1	2	547	47% 43% 6% •
1	A	547	% 46% 44% 6% •
1	B	547	% 47% 44% 6% •
1	C	547	48% 43% 6% •

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Mol	Chain	Length	Quality of chain
1	D	547	47% 43% 6%
1	E	547	.% 48% 42% 6%
1	F	547	.% 47% 43% 6%
1	G	547	.% 47% 43% 6%
1	H	547	.% 47% 43% 7%
1	I	547	48% 42% 6%
1	J	547	48% 41% 6%
1	K	547	48% 42% 5%
1	L	547	.% 45% 44% 6%
1	M	547	46% 43% 7%
1	N	547	47% 43% 6%
1	O	547	.% 46% 43% 6%
1	P	547	47% 43% 6%
1	Q	547	.% 46% 43% 6%
1	R	547	.% 48% 42% 6%
1	S	547	.% 48% 42% 5%
1	T	547	.% 47% 43% 6%
1	U	547	.% 46% 43% 6%
1	V	547	47% 43% 6%
1	W	547	.% 45% 44% 7%
1	X	547	46% 44% 5%
1	Y	547	47% 43% 6%
1	Z	547	2% 46% 44% 6%

2 Entry composition (i)

There is only 1 type of molecule in this entry. The entry contains 107996 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 GROEL PROTEIN.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	525	3857	2400	667	770	20	0	0	0
1	B	525	3857	2400	667	770	20	0	0	0
1	C	525	3857	2400	667	770	20	0	0	0
1	D	525	3857	2400	667	770	20	0	0	0
1	E	525	3857	2400	667	770	20	0	0	0
1	F	525	3857	2400	667	770	20	0	0	0
1	G	525	3857	2400	667	770	20	0	0	0
1	H	525	3857	2400	667	770	20	0	0	0
1	I	525	3857	2400	667	770	20	0	0	0
1	J	525	3857	2400	667	770	20	0	0	0
1	K	525	3857	2400	667	770	20	0	0	0
1	L	525	3857	2400	667	770	20	0	0	0
1	M	525	3857	2400	667	770	20	0	0	0
1	N	525	3857	2400	667	770	20	0	0	0
1	O	525	3857	2400	667	770	20	0	0	0
1	P	525	3857	2400	667	770	20	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	Q	525	3857	2400	667	770	20	0	0	0
1	R	525	3857	2400	667	770	20	0	0	0
1	S	525	3857	2400	667	770	20	0	0	0
1	T	525	3857	2400	667	770	20	0	0	0
1	U	525	3857	2400	667	770	20	0	0	0
1	V	525	3857	2400	667	770	20	0	0	0
1	W	525	3857	2400	667	770	20	0	0	0
1	X	525	3857	2400	667	770	20	0	0	0
1	Y	525	3857	2400	667	770	20	0	0	0
1	Z	525	3857	2400	667	770	20	0	0	0
1	1	525	3857	2400	667	770	20	0	0	0
1	2	525	3857	2400	667	770	20	0	0	0

There are 56 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
A	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
B	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
B	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
C	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
C	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
D	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
D	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
E	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
E	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
F	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
F	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
G	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
G	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
H	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5

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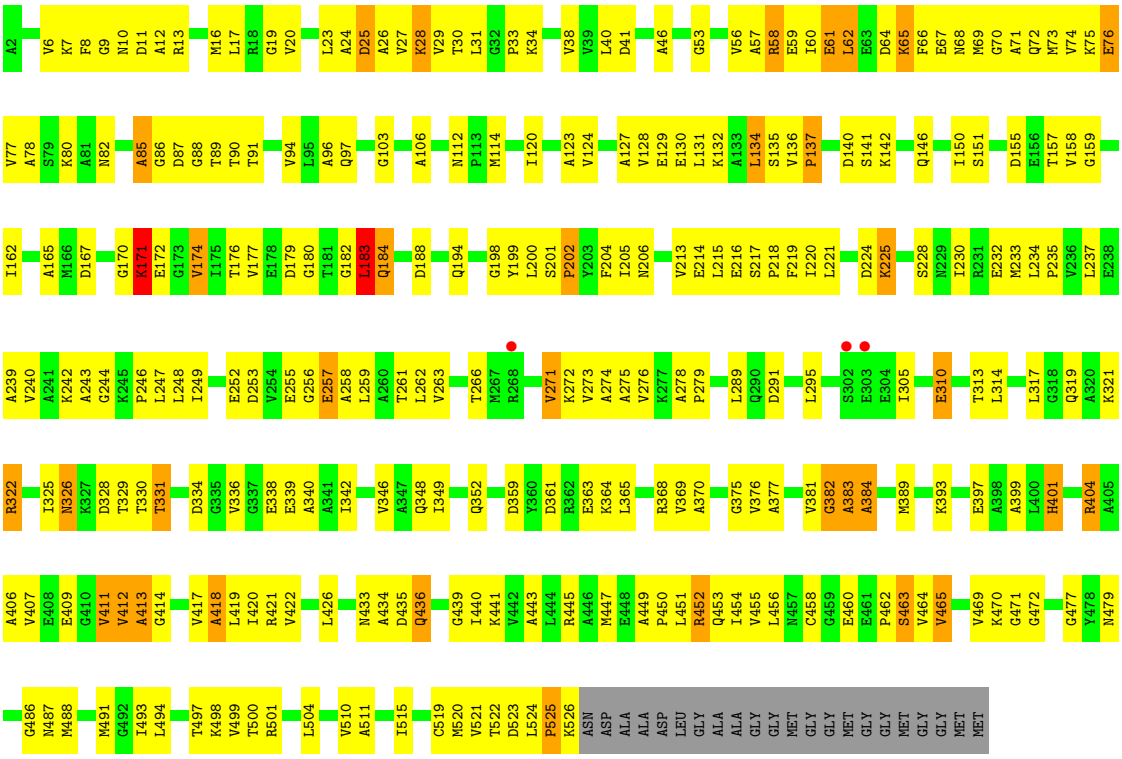
Chain	Residue	Modelled	Actual	Comment	Reference
H	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
I	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
I	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
J	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
J	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
K	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
K	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
L	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
L	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
M	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
M	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
N	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
N	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
O	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
O	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
P	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
P	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
Q	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
Q	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
R	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
R	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
S	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
S	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
T	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
T	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
U	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
U	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
V	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
V	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
W	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
W	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
X	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
X	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
Y	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
Y	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
Z	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
Z	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
1	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
1	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5
2	398	ALA	ASP	SEE REMARK 999	UNP P0A6F5
2	434	ALA	GLU	SEE REMARK 999	UNP P0A6F5

3 Residue-property plots (i)

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

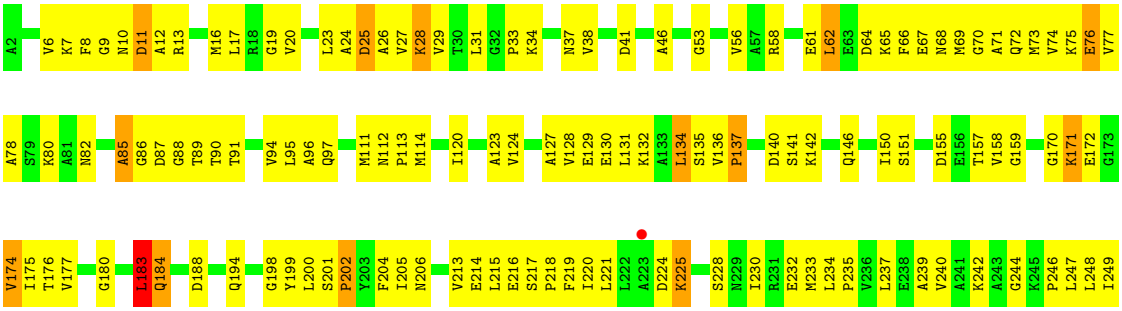
• Molecule 1: GROEL PROTEIN

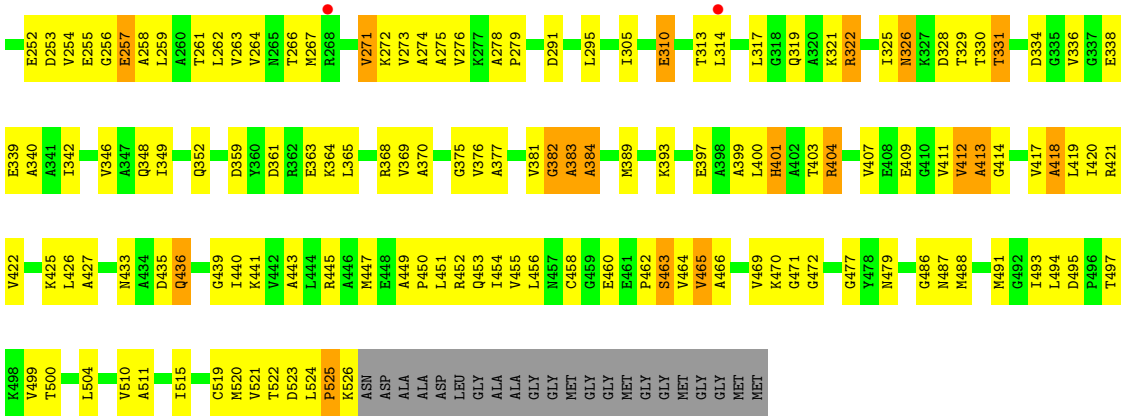
Chain A:



• Molecule 1: GROEL PROTEIN

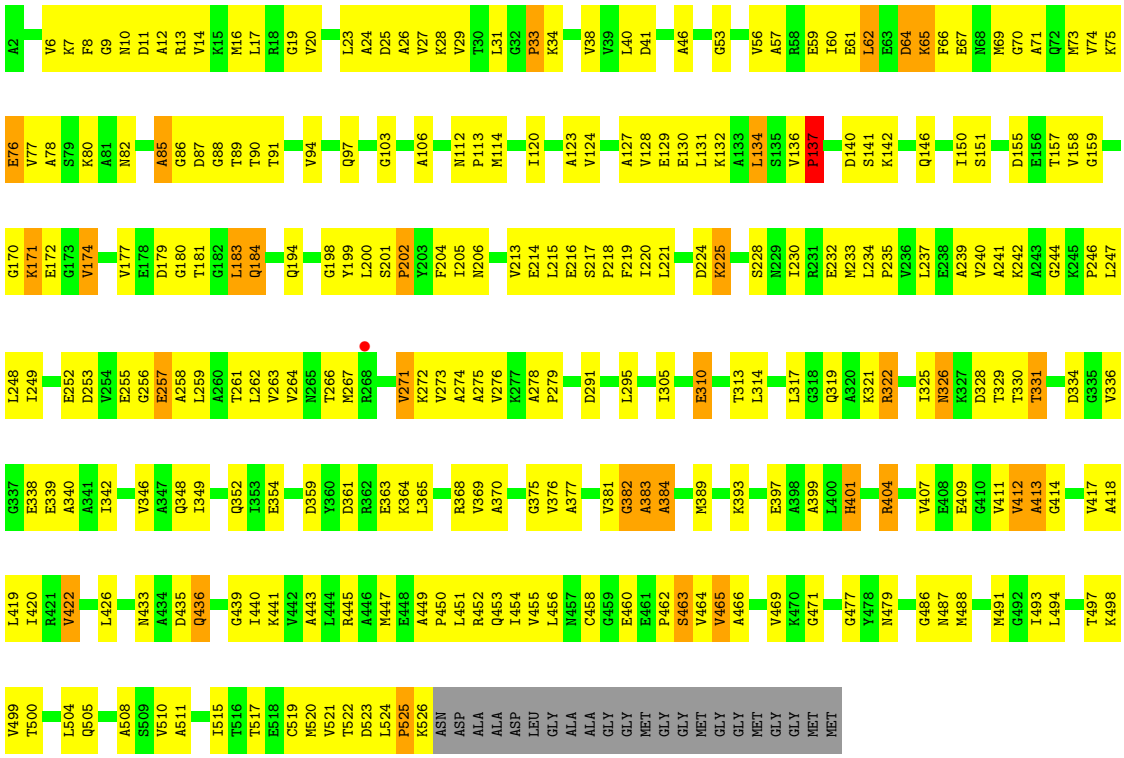
Chain B:





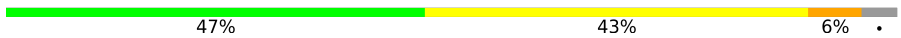
• Molecule 1: GROEL PROTEIN

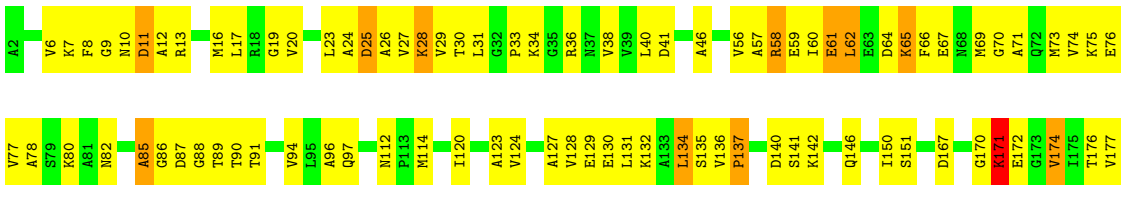
Chain C:

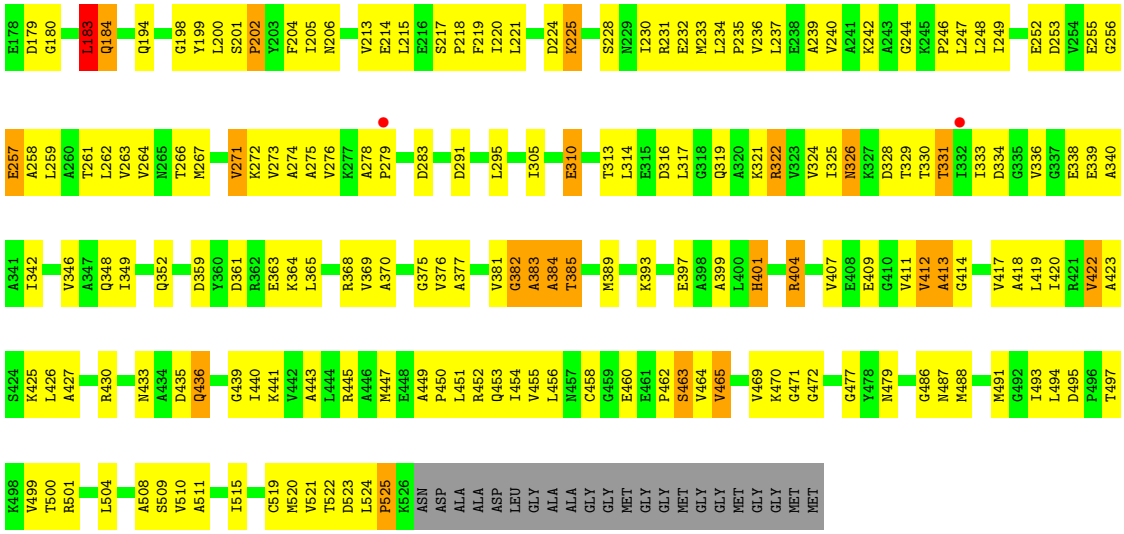


• Molecule 1: GROEL PROTEIN

Chain D:

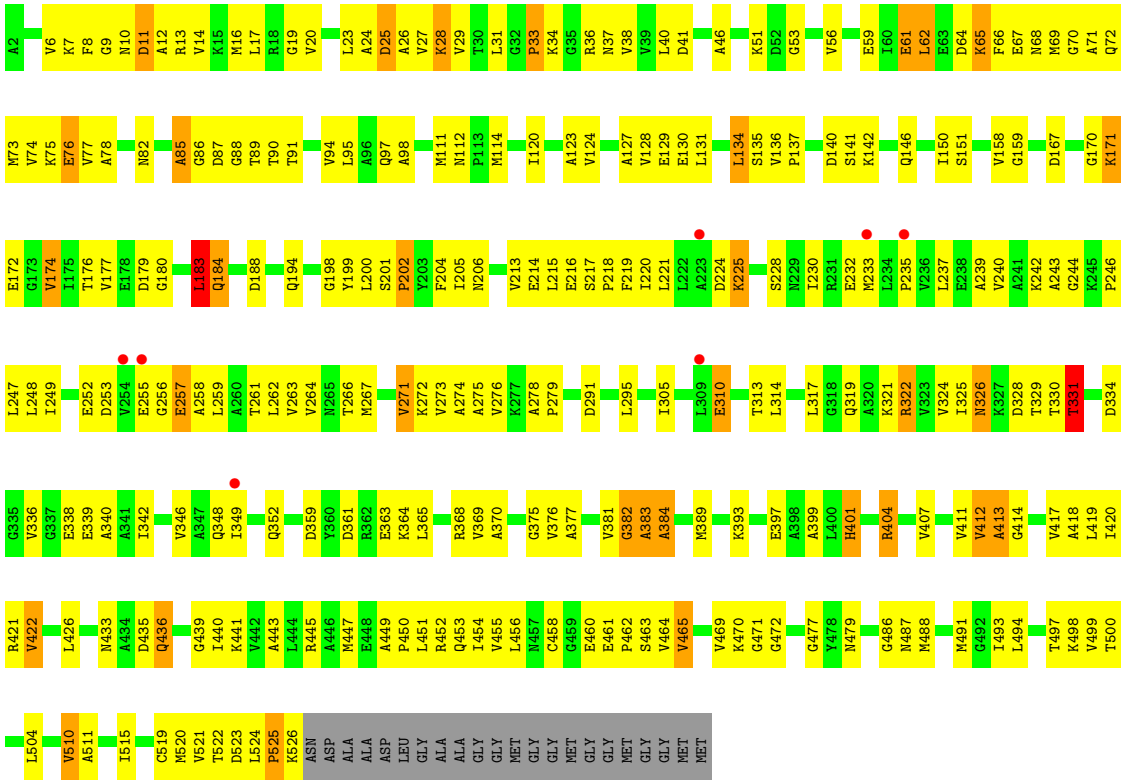






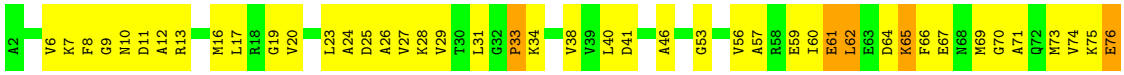
• Molecule 1: GROEL PROTEIN

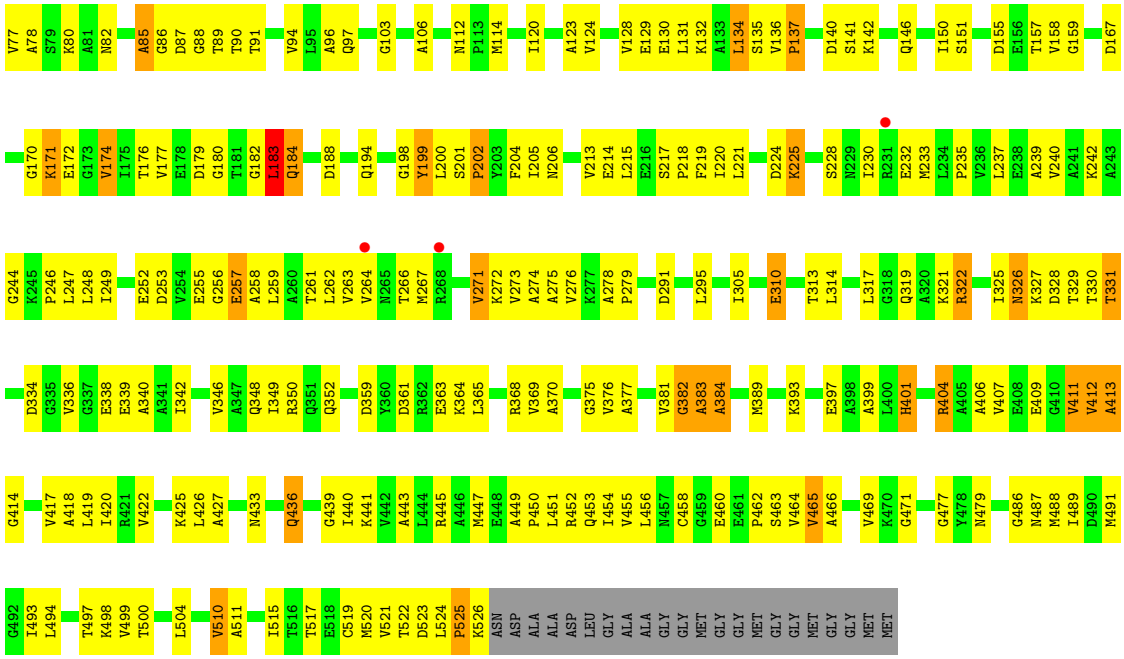
Chain E:



• Molecule 1: GROEL PROTEIN

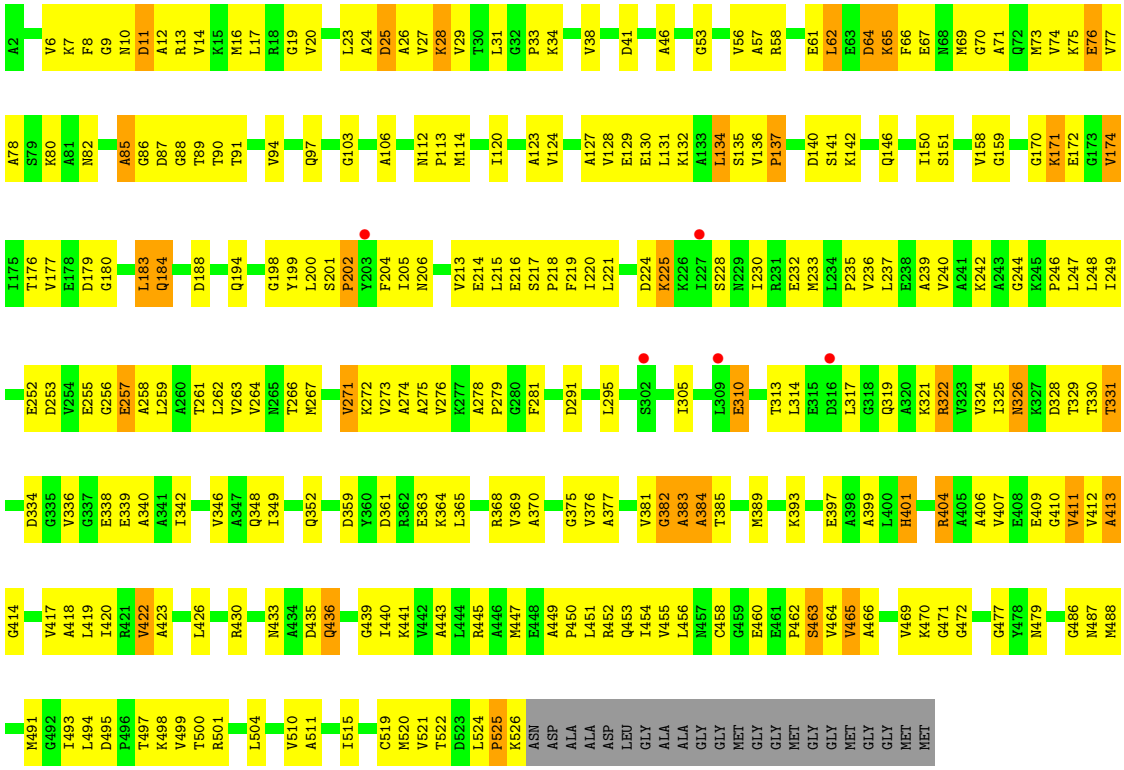
Chain F:





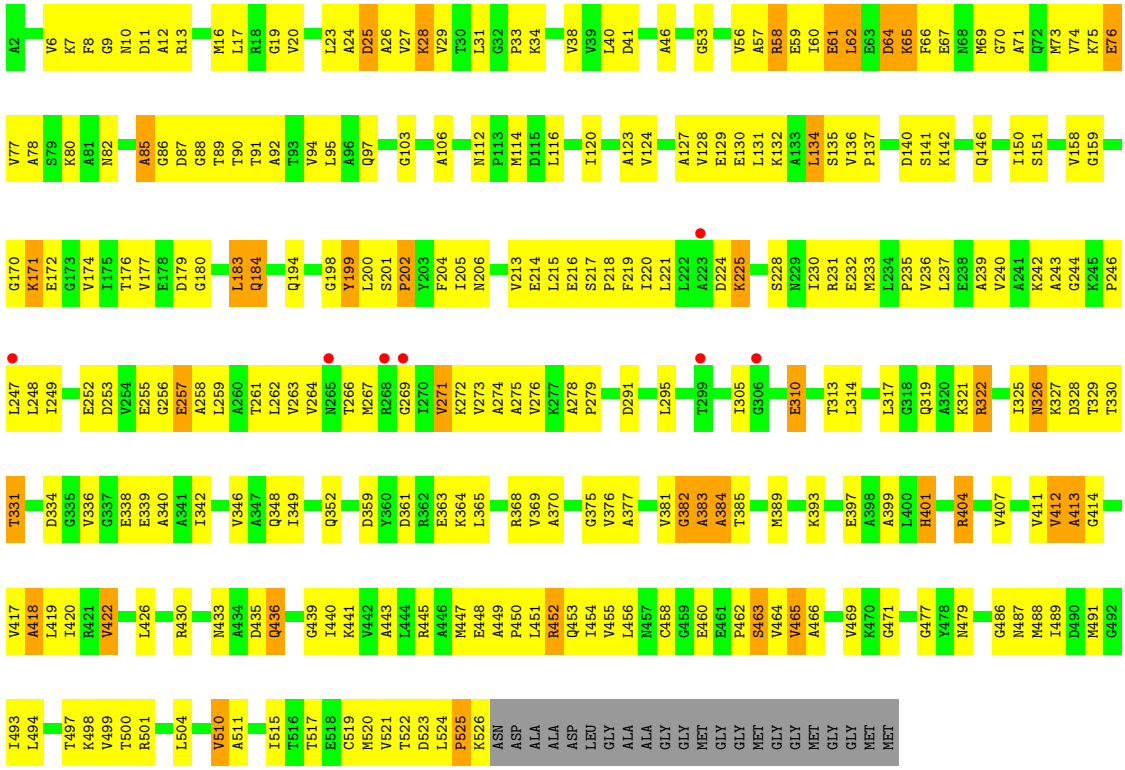
• Molecule 1: GROEL PROTEIN

Chain G:



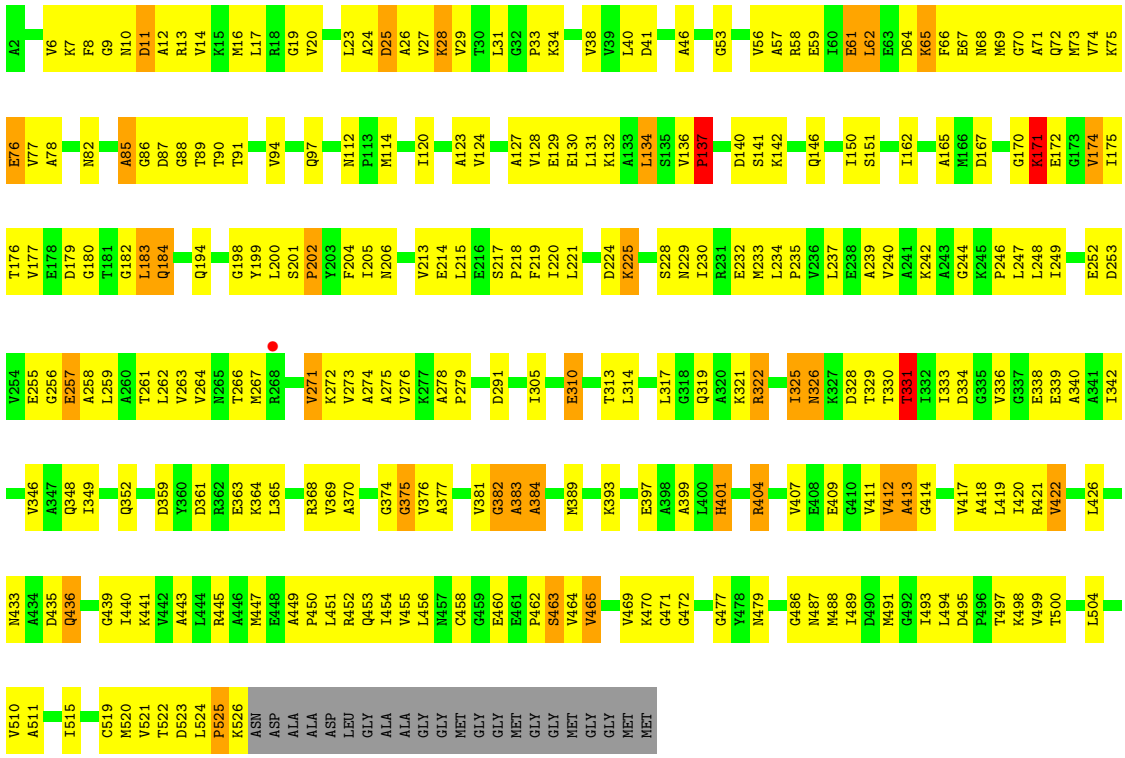
• Molecule 1: GROEL PROTEIN

Chain H:



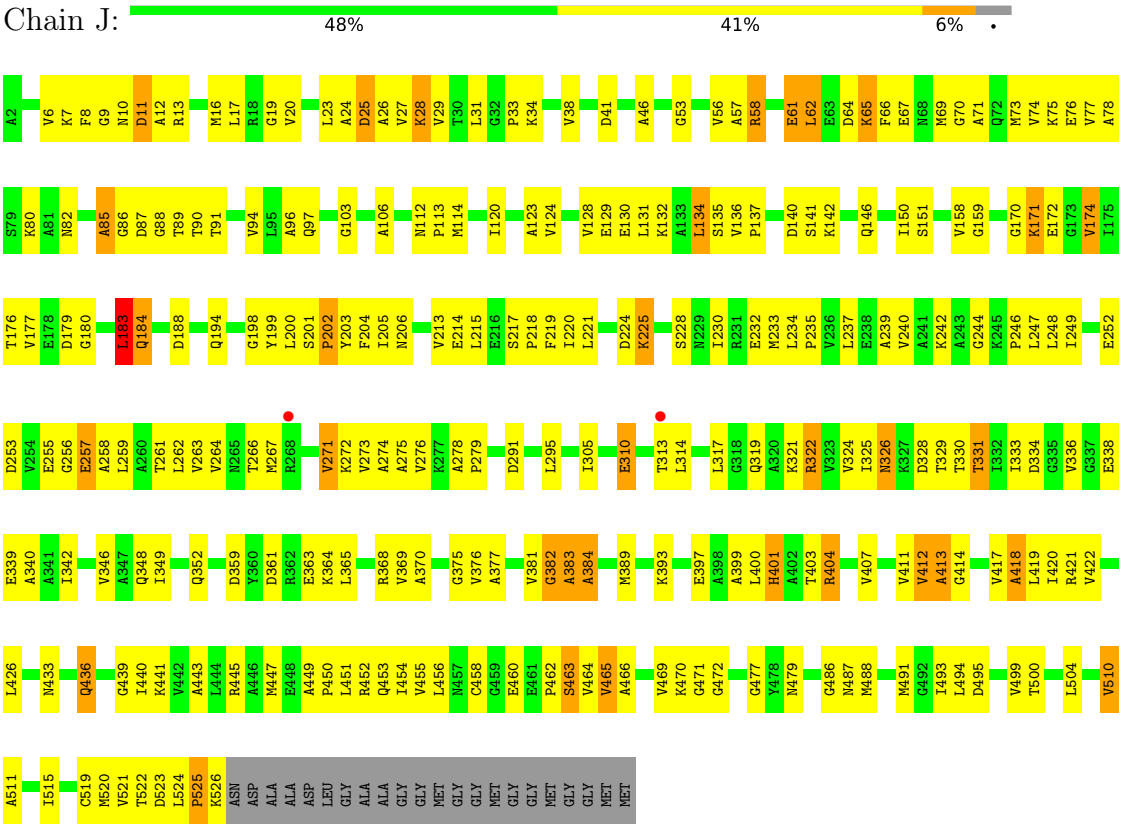
• Molecule 1: GROEL PROTEIN

Chain I: 48% 42% 6%



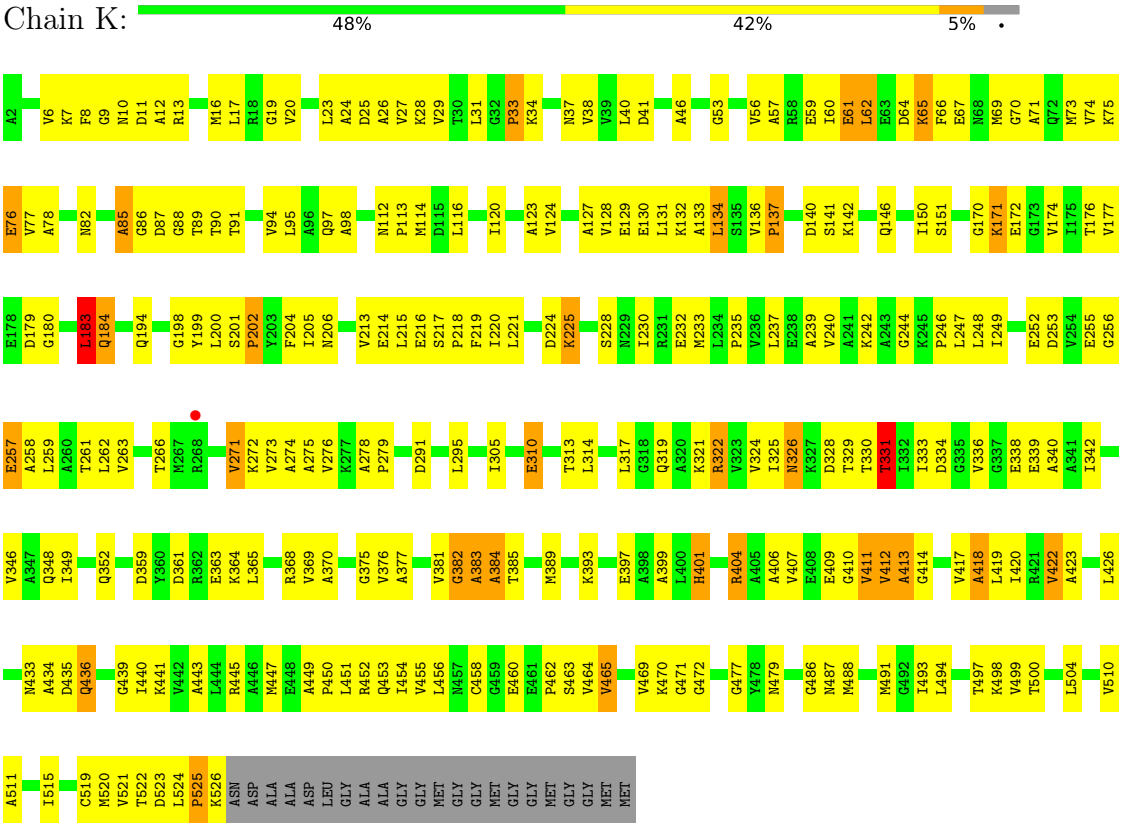
• Molecule 1: GROEL PROTEIN

Chain J:



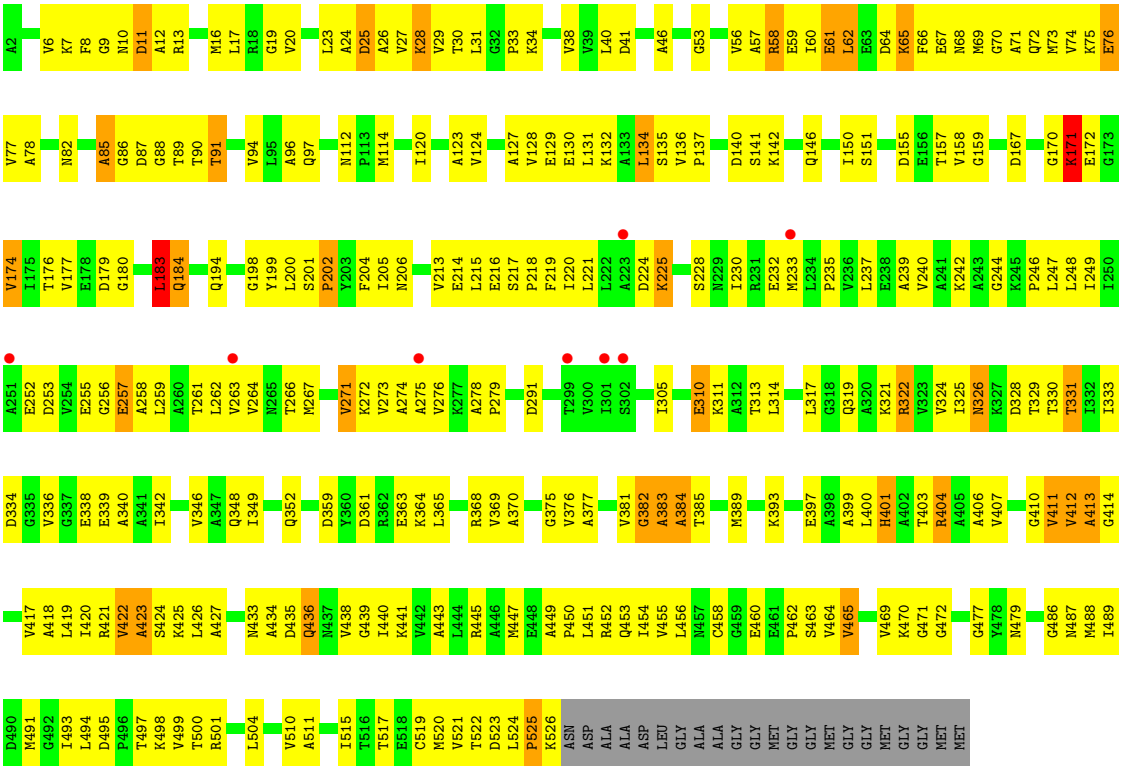
• Molecule 1: GROEL PROTEIN

Chain K:



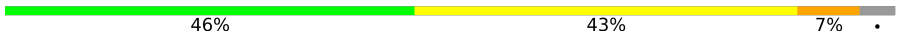
• Molecule 1: GROEL PROTEIN

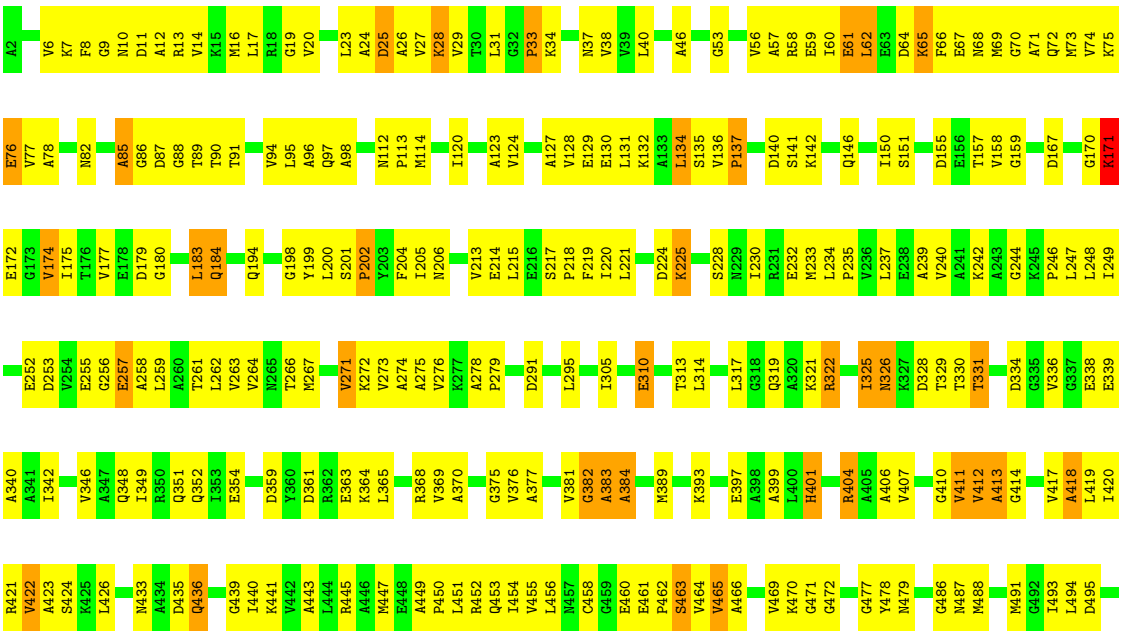
Chain L:



• Molecule 1: GROEL PROTEIN

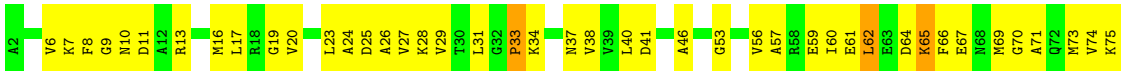
Chain M:

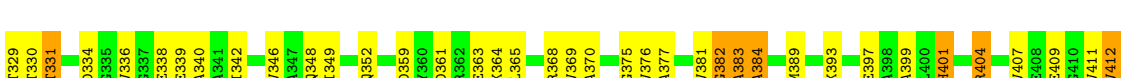


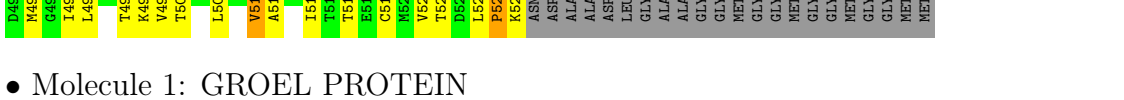


• Molecule 1: GROEL PROTEIN

Chain N:

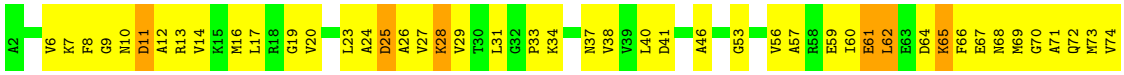


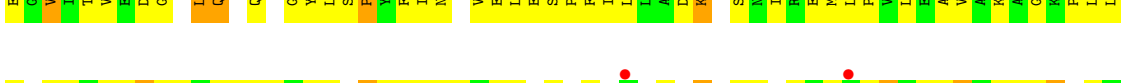


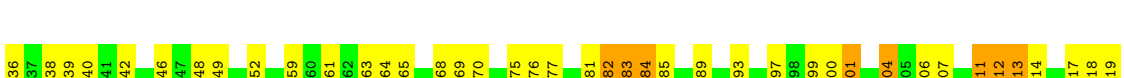


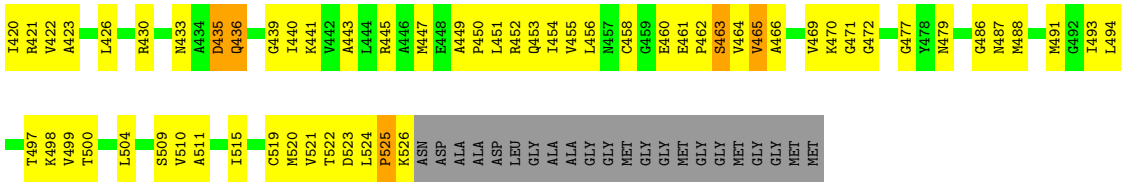
• Molecule 1: GROEL PROTEIN

Chain O:



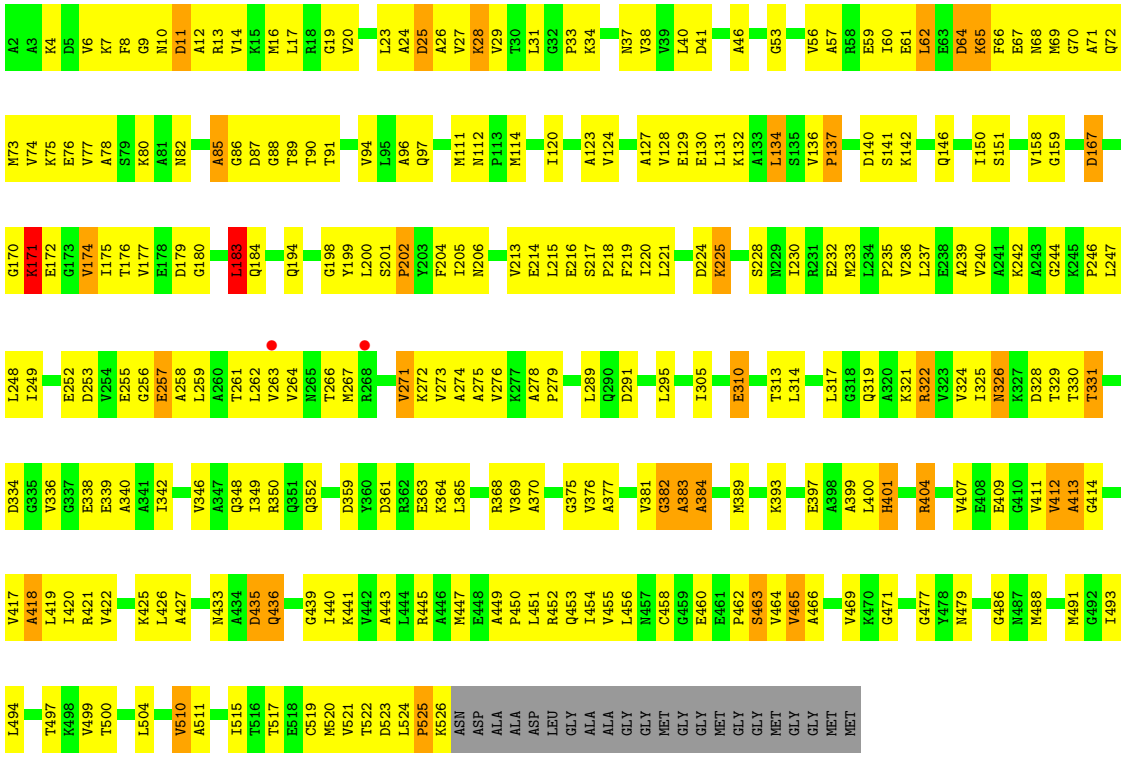






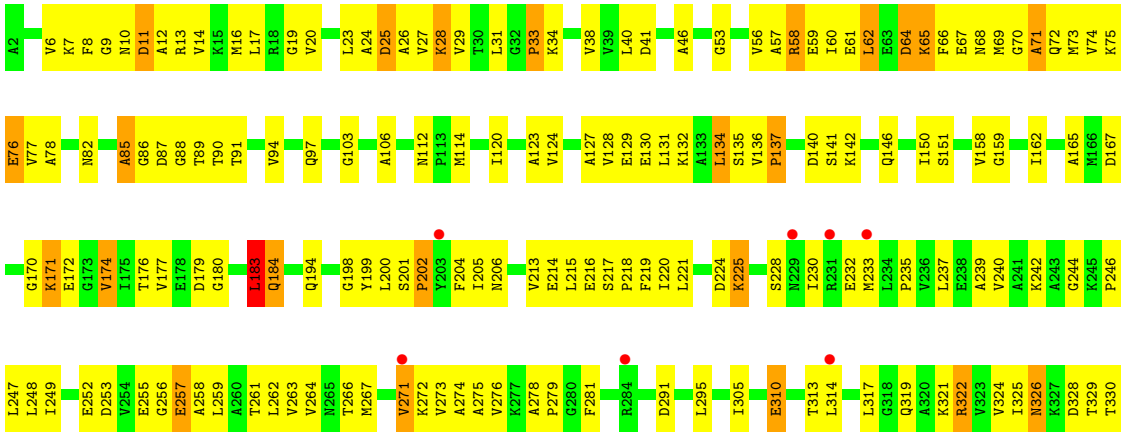
• Molecule 1: GROEL PROTEIN

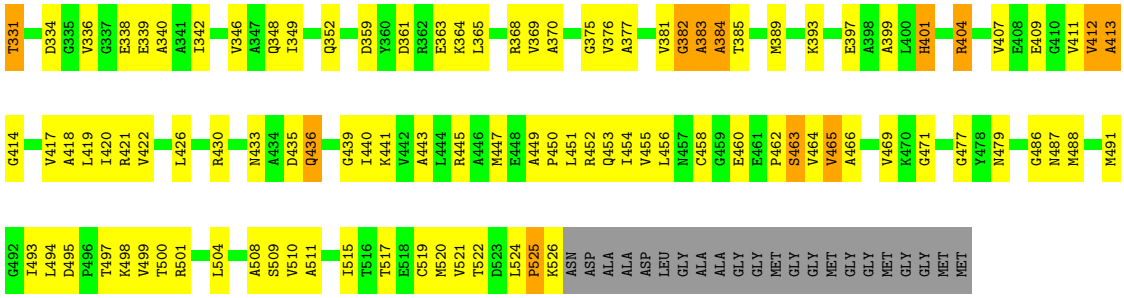
Chain P:



• Molecule 1: GROEL PROTEIN

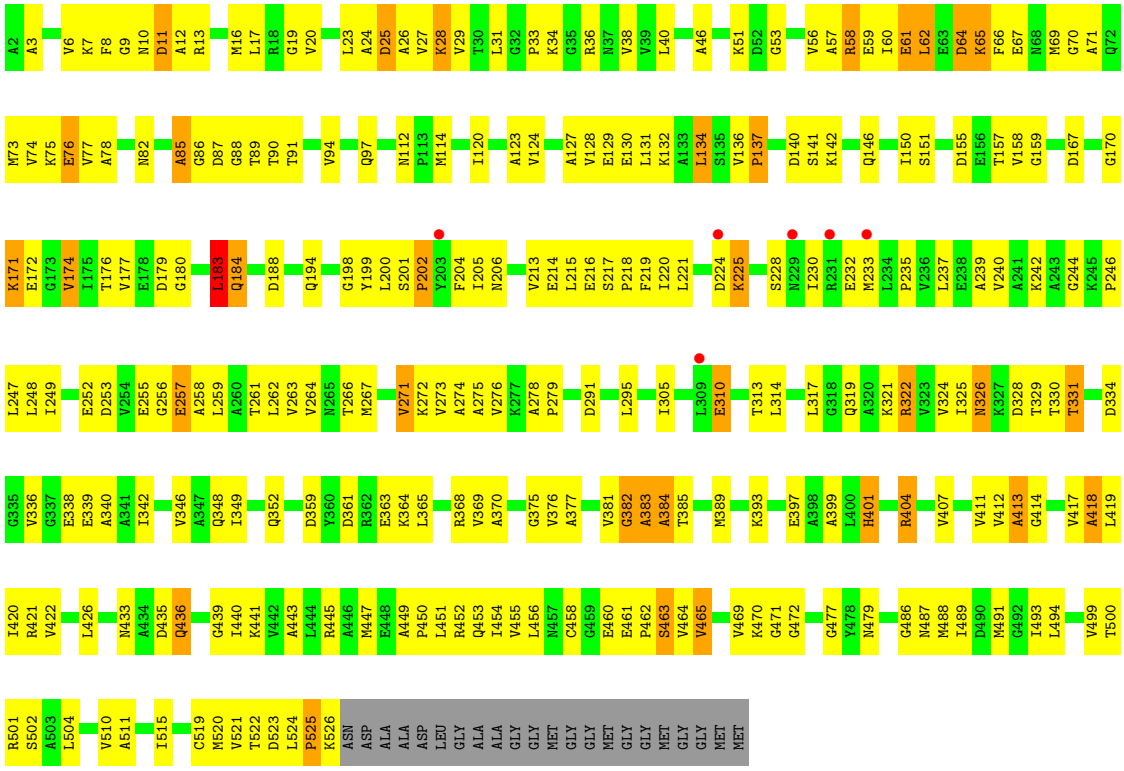
Chain Q:





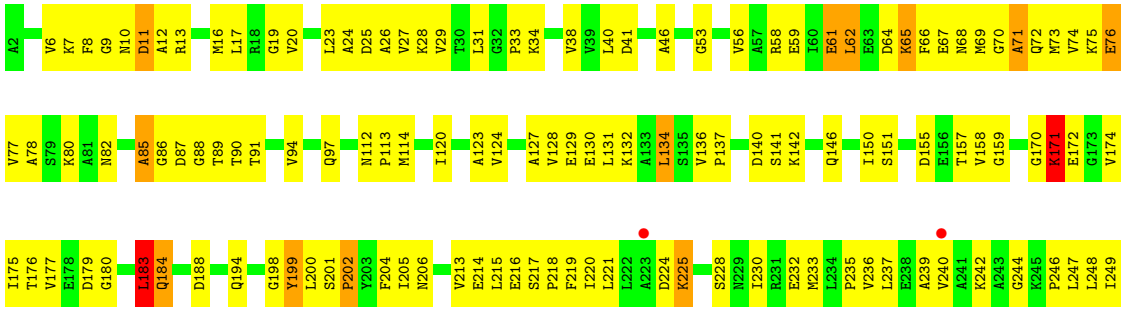
• Molecule 1: GROEL PROTEIN

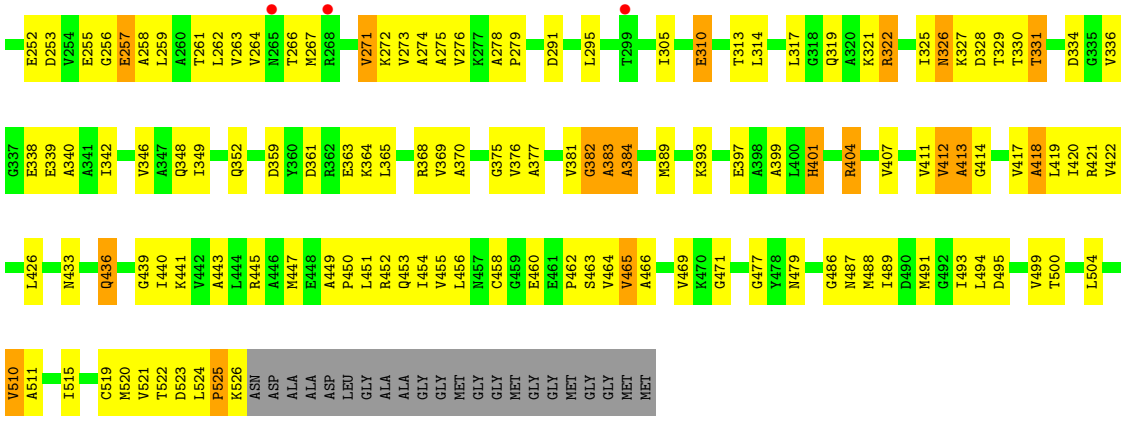
Chain R:



• Molecule 1: GROEL PROTEIN

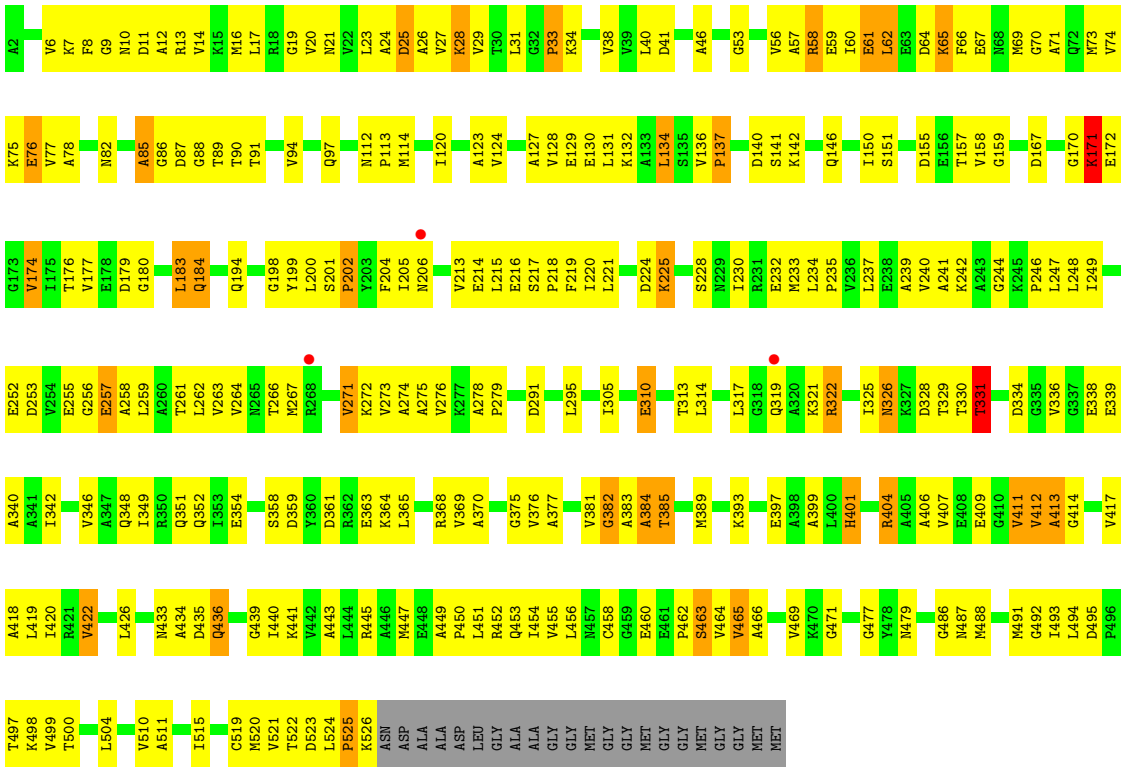
Chain S:





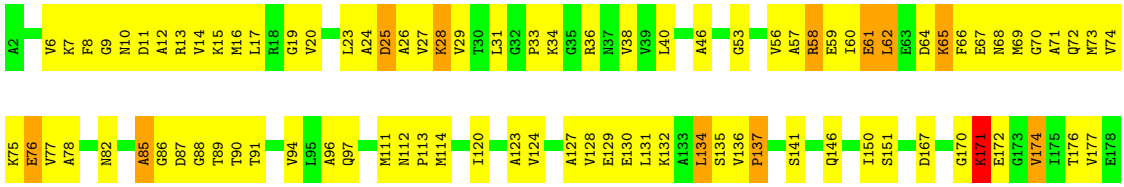
• Molecule 1: GROEL PROTEIN

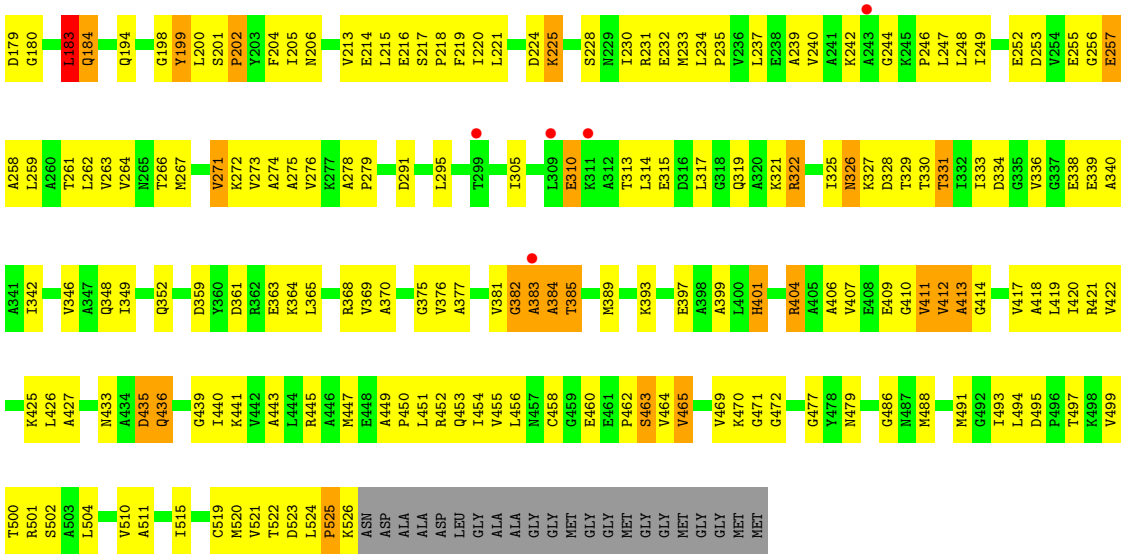
Chain T:



• Molecule 1: GROEL PROTEIN

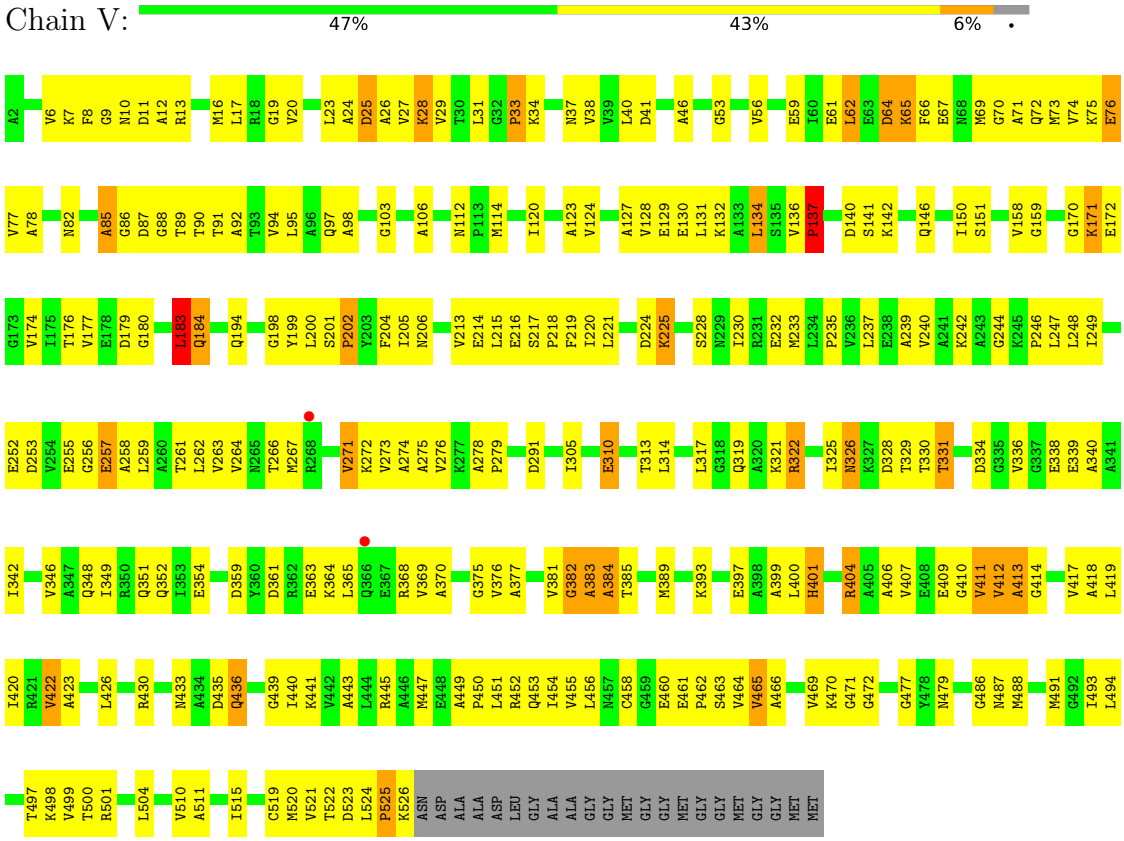
Chain U:





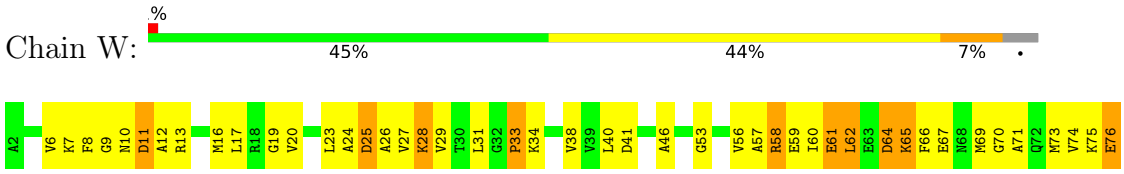
- Molecule 1: GROEL PROTEIN

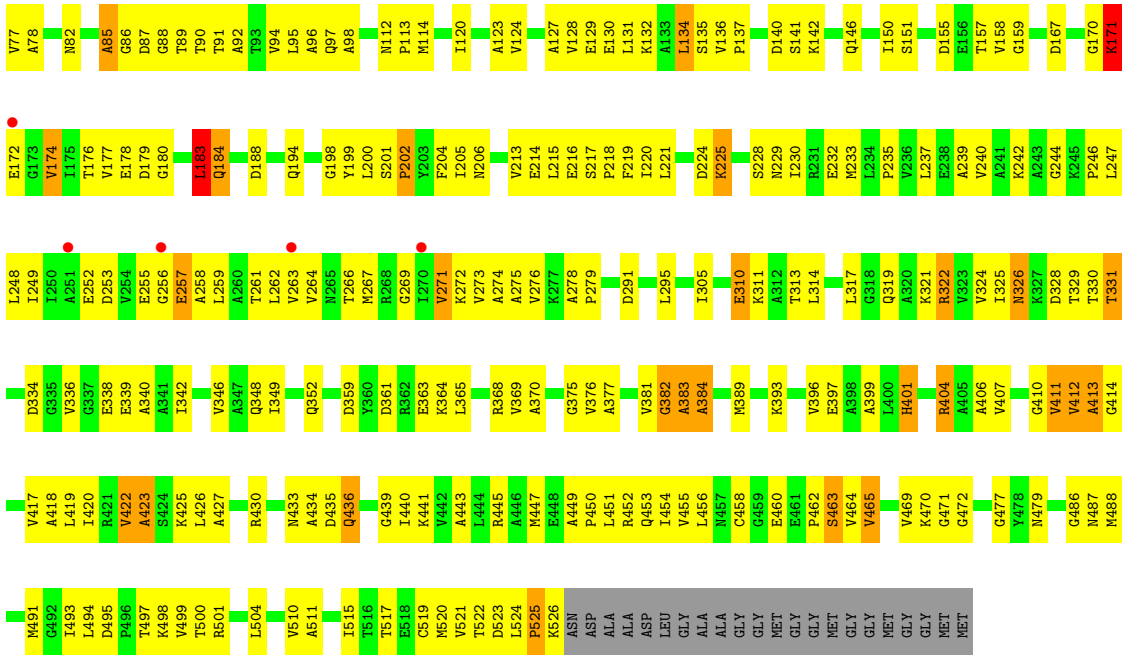
Chain V:



- Molecule 1: GROEL PROTEIN

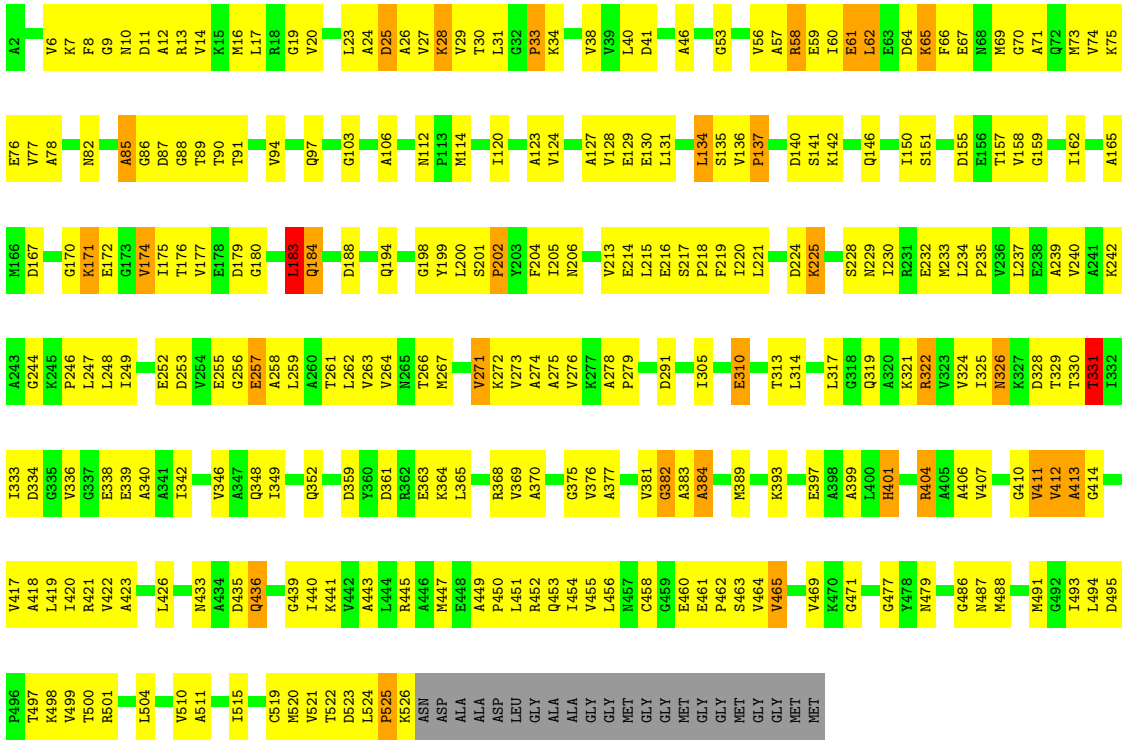
Chain W:





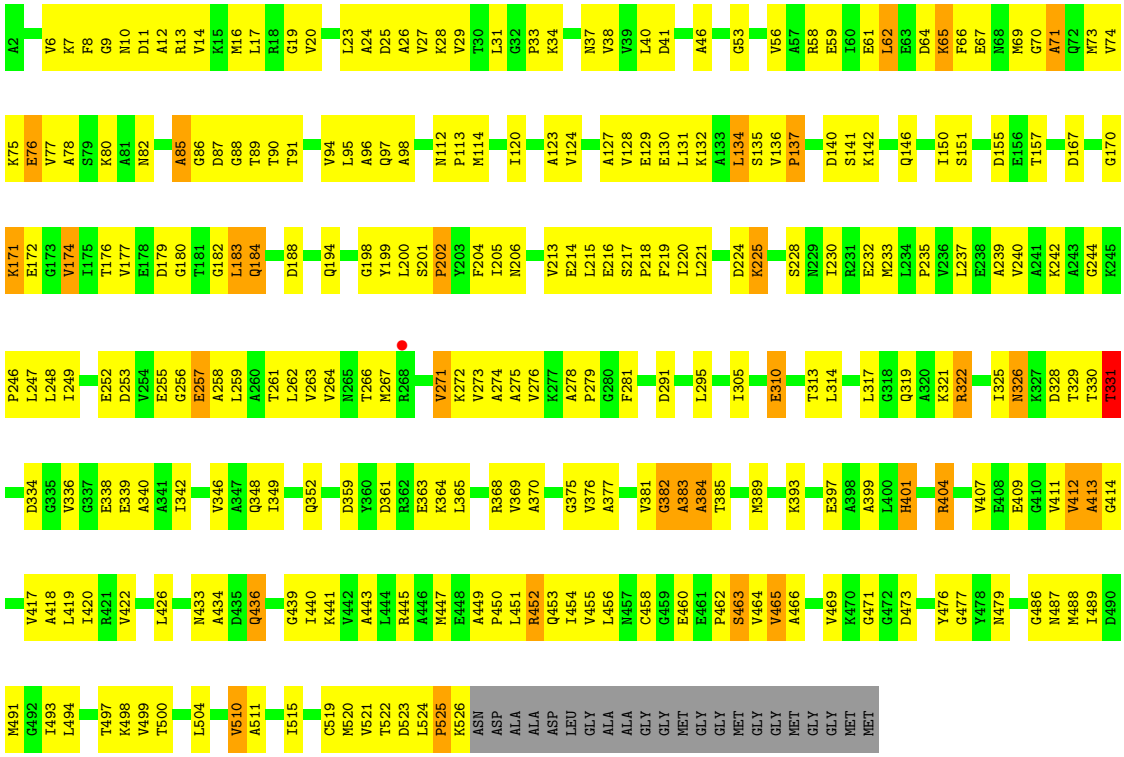
- Molecule 1: GROEL PROTEIN

Chain X: 46% 44% 5% •



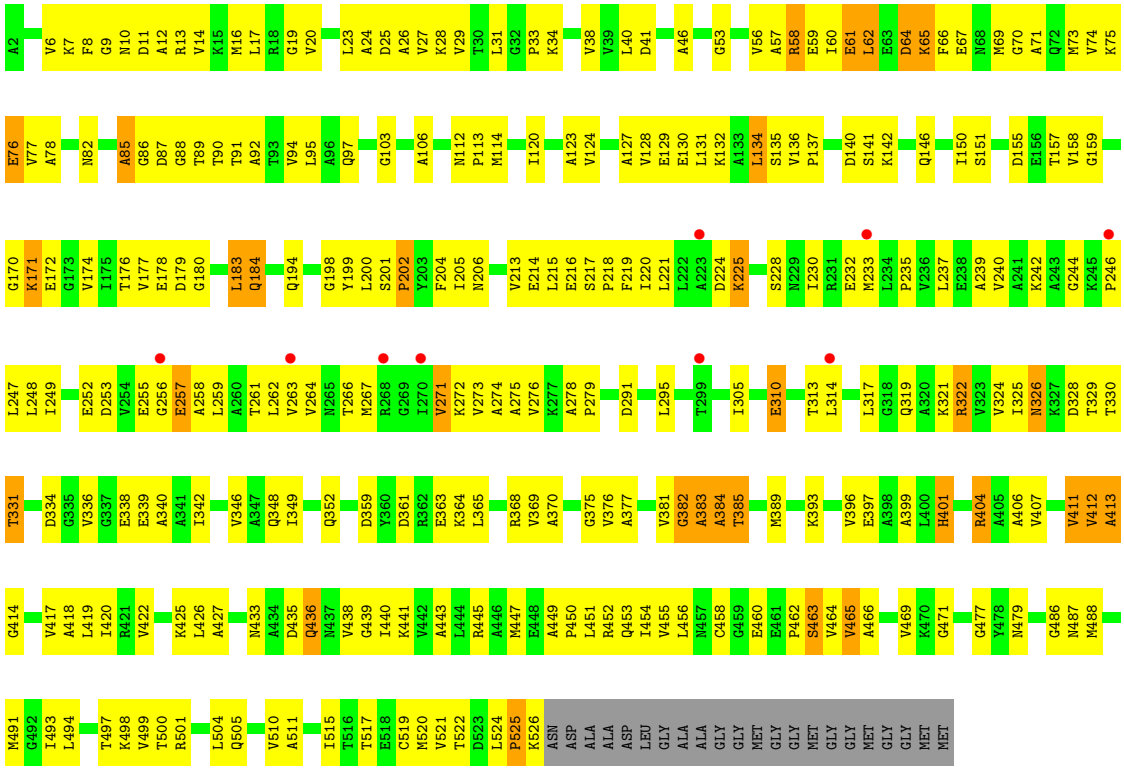
- Molecule 1: GROEL PROTEIN

Chain Y: 47% 43% 6% •



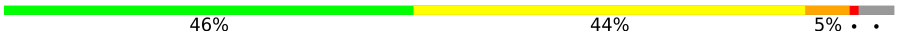
• Molecule 1: GROEL PROTEIN

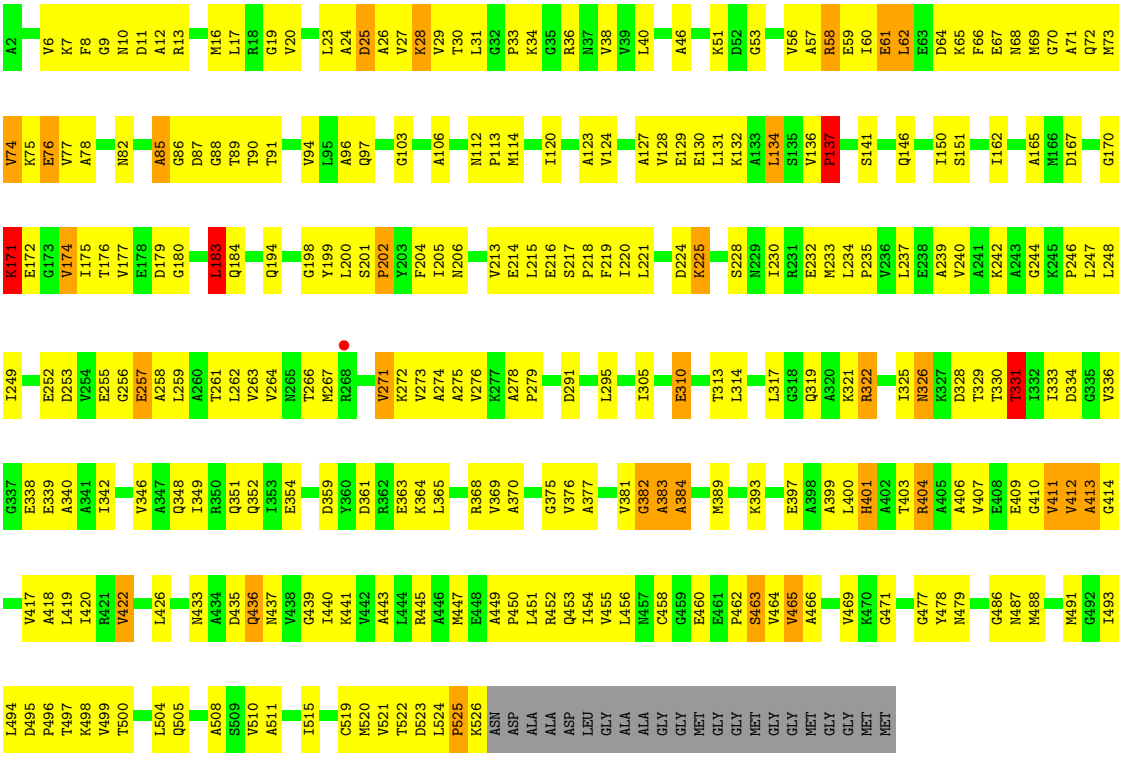
Chain Z:



• Molecule 1: GROEL PROTEIN

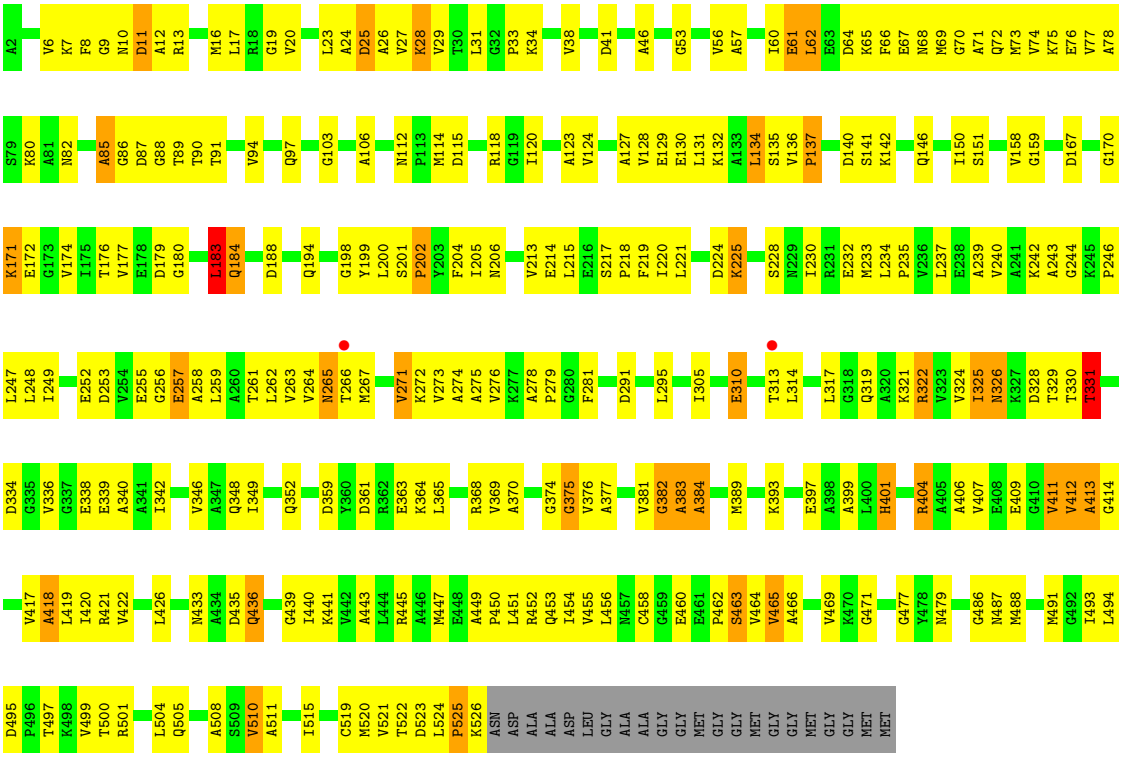
Chain 1:





• Molecule 1: GROEL PROTEIN

Chain 2:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	137.67Å 264.24Å 294.80Å 90.00° 92.39° 90.00°	Depositor
Resolution (Å)	20.00 – 3.52 30.25 – 3.52	Depositor EDS
% Data completeness (in resolution range)	76.5 (20.00-3.52) 76.5 (30.25-3.52)	Depositor EDS
R_{merge}	0.11	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.87 (at 3.56Å)	Xtriage
Refinement program	CNS	Depositor
R, R_{free}	0.291 , 0.298 0.280 , 0.285	Depositor DCC
R_{free} test set	9897 reflections (4.98%)	wwPDB-VP
Wilson B-factor (Å^2)	61.4	Xtriage
Anisotropy	0.684	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.27 , 8.4	EDS
L-test for twinning[2]	$< \|L\| > = 0.46$, $< L^2 > = 0.28$	Xtriage
Estimated twinning fraction	0.069 for h,-k,-l	Xtriage
F_o,F_c correlation	0.85	EDS
Total number of atoms	107996	wwPDB-VP
Average B, all atoms (Å^2)	80.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 4.03% of the height of the origin peak. No significant pseudotranslation is detected.*

[1]Intensities estimated from amplitudes.

[2]Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality (i)

5.1 Standard geometry (i)

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	1	0.51	0/3885	0.67	0/5245
1	2	0.49	0/3885	0.66	0/5245
1	A	0.46	0/3885	0.65	0/5245
1	B	0.48	0/3885	0.65	0/5245
1	C	0.48	0/3885	0.66	0/5245
1	D	0.48	0/3885	0.65	0/5245
1	E	0.47	0/3885	0.66	0/5245
1	F	0.47	0/3885	0.66	0/5245
1	G	0.47	0/3885	0.66	0/5245
1	H	0.48	0/3885	0.66	0/5245
1	I	0.51	0/3885	0.68	0/5245
1	J	0.48	0/3885	0.66	0/5245
1	K	0.49	0/3885	0.66	0/5245
1	L	0.49	0/3885	0.66	0/5245
1	M	0.53	0/3885	0.68	0/5245
1	N	0.52	0/3885	0.67	0/5245
1	O	0.47	0/3885	0.66	0/5245
1	P	0.47	0/3885	0.66	0/5245
1	Q	0.48	0/3885	0.66	0/5245
1	R	0.45	0/3885	0.65	0/5245
1	S	0.47	0/3885	0.65	0/5245
1	T	0.47	0/3885	0.65	0/5245
1	U	0.47	0/3885	0.65	0/5245
1	V	0.50	0/3885	0.67	0/5245
1	W	0.48	0/3885	0.66	0/5245
1	X	0.54	0/3885	0.67	0/5245
1	Y	0.51	0/3885	0.67	0/5245
1	Z	0.47	0/3885	0.66	0/5245
All	All	0.49	0/108780	0.66	0/146860

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand.A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	Y	0	1

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	Y	476	TYR	Sidechain

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1	3857	0	3989	260	0
1	2	3857	0	3989	255	0
1	A	3857	0	3989	264	0
1	B	3857	0	3989	252	0
1	C	3857	0	3989	251	1
1	D	3857	0	3989	261	2
1	E	3857	0	3989	248	0
1	F	3857	0	3989	244	1
1	G	3857	0	3989	261	0
1	H	3857	0	3989	261	0
1	I	3857	0	3989	246	0
1	J	3857	0	3989	254	0
1	K	3857	0	3989	258	0
1	L	3857	0	3989	265	0
1	M	3857	0	3989	259	0
1	N	3857	0	3989	258	0
1	O	3857	0	3989	262	0
1	P	3857	0	3989	254	2
1	Q	3857	0	3989	260	0
1	R	3857	0	3989	246	0
1	S	3857	0	3989	244	0
1	T	3857	0	3989	254	2
1	U	3857	0	3989	264	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	V	3857	0	3989	258	0
1	W	3857	0	3989	265	2
1	X	3857	0	3989	259	0
1	Y	3857	0	3989	260	0
1	Z	3857	0	3989	261	0
All	All	107996	0	111692	7010	5

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 32.

All (7010) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:230:ILE:HD12	1:E:261:THR:HG21	1.32	1.10
1:W:230:ILE:HD12	1:W:261:THR:HG21	1.33	1.10
1:D:230:ILE:HD12	1:D:261:THR:HG21	1.33	1.10
1:P:230:ILE:HD12	1:P:261:THR:HG21	1.33	1.10
1:C:230:ILE:HD12	1:C:261:THR:HG21	1.32	1.10
1:A:183:LEU:H	1:A:383:ALA:HB3	1.16	1.09
1:G:230:ILE:HD12	1:G:261:THR:HG21	1.32	1.09
1:K:230:ILE:HD12	1:K:261:THR:HG21	1.33	1.09
1:L:230:ILE:HD12	1:L:261:THR:HG21	1.33	1.09
1:1:230:ILE:HD12	1:1:261:THR:HG21	1.34	1.09
1:M:230:ILE:HD12	1:M:261:THR:HG21	1.33	1.09
1:U:183:LEU:H	1:U:383:ALA:HB3	1.18	1.09
1:Y:183:LEU:H	1:Y:383:ALA:HB3	1.19	1.08
1:Q:183:LEU:H	1:Q:383:ALA:HB3	1.17	1.08
1:T:183:LEU:H	1:T:383:ALA:HB3	1.17	1.08
1:H:183:LEU:H	1:H:383:ALA:HB3	1.19	1.08
1:P:183:LEU:H	1:P:383:ALA:HB3	1.19	1.07
1:Q:230:ILE:HD12	1:Q:261:THR:HG21	1.34	1.07
1:2:230:ILE:HD12	1:2:261:THR:HG21	1.34	1.07
1:A:230:ILE:HD12	1:A:261:THR:HG21	1.34	1.07
1:S:230:ILE:HD12	1:S:261:THR:HG21	1.31	1.07
1:W:183:LEU:H	1:W:383:ALA:HB3	1.20	1.07
1:C:183:LEU:H	1:C:383:ALA:HB3	1.19	1.06
1:H:230:ILE:HD12	1:H:261:THR:HG21	1.34	1.06
1:V:230:ILE:HD12	1:V:261:THR:HG21	1.32	1.06
1:B:183:LEU:H	1:B:383:ALA:HB3	1.18	1.06
1:J:230:ILE:HD12	1:J:261:THR:HG21	1.33	1.06
1:N:183:LEU:H	1:N:383:ALA:HB3	1.18	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:183:LEU:H	1:X:383:ALA:HB3	1.18	1.06
1:F:230:ILE:HD12	1:F:261:THR:HG21	1.32	1.06
1:N:230:ILE:HD12	1:N:261:THR:HG21	1.32	1.06
1:2:183:LEU:H	1:2:383:ALA:HB3	1.20	1.06
1:D:183:LEU:H	1:D:383:ALA:HB3	1.18	1.06
1:G:183:LEU:H	1:G:383:ALA:HB3	1.19	1.06
1:M:183:LEU:H	1:M:383:ALA:HB3	1.18	1.06
1:Z:230:ILE:HD12	1:Z:261:THR:HG21	1.34	1.06
1:I:230:ILE:HD12	1:I:261:THR:HG21	1.33	1.05
1:1:183:LEU:H	1:1:383:ALA:HB3	1.20	1.05
1:B:230:ILE:HD12	1:B:261:THR:HG21	1.34	1.05
1:J:183:LEU:H	1:J:383:ALA:HB3	1.21	1.05
1:V:183:LEU:H	1:V:383:ALA:HB3	1.19	1.05
1:K:183:LEU:H	1:K:383:ALA:HB3	1.21	1.05
1:O:230:ILE:HD12	1:O:261:THR:HG21	1.34	1.05
1:T:230:ILE:HD12	1:T:261:THR:HG21	1.32	1.05
1:R:183:LEU:H	1:R:383:ALA:HB3	1.19	1.05
1:E:183:LEU:H	1:E:383:ALA:HB3	1.17	1.05
1:O:183:LEU:H	1:O:383:ALA:HB3	1.18	1.05
1:R:230:ILE:HD12	1:R:261:THR:HG21	1.33	1.05
1:T:524:LEU:HD12	1:T:525:PRO:HD2	1.39	1.04
1:Y:230:ILE:HD12	1:Y:261:THR:HG21	1.33	1.04
1:X:230:ILE:HD12	1:X:261:THR:HG21	1.33	1.04
1:Z:183:LEU:H	1:Z:383:ALA:HB3	1.20	1.04
1:C:6:VAL:HG22	1:C:521:VAL:HG22	1.41	1.03
1:U:230:ILE:HD12	1:U:261:THR:HG21	1.33	1.03
1:I:183:LEU:H	1:I:383:ALA:HB3	1.19	1.03
1:S:183:LEU:H	1:S:383:ALA:HB3	1.18	1.02
1:Z:6:VAL:HG22	1:Z:521:VAL:HG22	1.41	1.02
1:F:183:LEU:H	1:F:383:ALA:HB3	1.19	1.02
1:L:183:LEU:H	1:L:383:ALA:HB3	1.21	1.02
1:Q:524:LEU:HD12	1:Q:525:PRO:HD2	1.43	1.01
1:U:524:LEU:HD12	1:U:525:PRO:HD2	1.42	1.01
1:A:524:LEU:HD12	1:A:525:PRO:HD2	1.43	1.00
1:D:6:VAL:HG22	1:D:521:VAL:HG22	1.44	1.00
1:W:6:VAL:HG22	1:W:521:VAL:HG22	1.44	1.00
1:G:6:VAL:HG22	1:G:521:VAL:HG22	1.42	1.00
1:H:524:LEU:HD12	1:H:525:PRO:HD2	1.43	1.00
1:I:524:LEU:HD12	1:I:525:PRO:HD2	1.44	1.00
1:N:524:LEU:HD12	1:N:525:PRO:HD2	1.42	1.00
1:1:6:VAL:HG22	1:1:521:VAL:HG22	1.43	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:6:VAL:HG22	1:L:521:VAL:HG22	1.44	0.99
1:O:6:VAL:HG22	1:O:521:VAL:HG22	1.44	0.99
1:D:524:LEU:HD12	1:D:525:PRO:HD2	1.43	0.99
1:V:6:VAL:HG22	1:V:521:VAL:HG22	1.45	0.99
1:P:524:LEU:HD12	1:P:525:PRO:HD2	1.44	0.99
1:Q:6:VAL:HG22	1:Q:521:VAL:HG22	1.41	0.99
1:B:6:VAL:HG22	1:B:521:VAL:HG22	1.42	0.99
1:C:524:LEU:HD12	1:C:525:PRO:HD2	1.45	0.99
1:J:6:VAL:HG22	1:J:521:VAL:HG22	1.42	0.98
1:K:524:LEU:HD12	1:K:525:PRO:HD2	1.45	0.98
1:F:524:LEU:HD12	1:F:525:PRO:HD2	1.45	0.98
1:Z:524:LEU:HD12	1:Z:525:PRO:HD2	1.45	0.98
1:S:524:LEU:HD12	1:S:525:PRO:HD2	1.45	0.98
1:B:524:LEU:HD12	1:B:525:PRO:HD2	1.46	0.98
1:S:6:VAL:HG22	1:S:521:VAL:HG22	1.46	0.98
1:R:524:LEU:HD12	1:R:525:PRO:HD2	1.45	0.98
1:L:524:LEU:HD12	1:L:525:PRO:HD2	1.46	0.98
1:X:6:VAL:HG22	1:X:521:VAL:HG22	1.45	0.97
1:Y:524:LEU:HD12	1:Y:525:PRO:HD2	1.46	0.97
1:M:6:VAL:HG22	1:M:521:VAL:HG22	1.46	0.97
1:T:6:VAL:HG22	1:T:521:VAL:HG22	1.44	0.97
1:G:524:LEU:HD12	1:G:525:PRO:HD2	1.45	0.97
1:H:6:VAL:HG22	1:H:521:VAL:HG22	1.44	0.97
1:O:524:LEU:HD12	1:O:525:PRO:HD2	1.47	0.97
1:U:6:VAL:HG22	1:U:521:VAL:HG22	1.45	0.97
1:W:524:LEU:HD12	1:W:525:PRO:HD2	1.46	0.97
1:E:524:LEU:HD12	1:E:525:PRO:HD2	1.47	0.97
1:F:6:VAL:HG22	1:F:521:VAL:HG22	1.45	0.97
1:2:524:LEU:HD12	1:2:525:PRO:HD2	1.47	0.97
1:J:524:LEU:HD12	1:J:525:PRO:HD2	1.47	0.97
1:2:6:VAL:HG22	1:2:521:VAL:HG22	1.43	0.97
1:1:524:LEU:HD12	1:1:525:PRO:HD2	1.47	0.96
1:H:46:ALA:HB2	1:I:76:GLU:HG3	1.47	0.96
1:A:6:VAL:HG22	1:A:521:VAL:HG22	1.47	0.96
1:X:524:LEU:HD12	1:X:525:PRO:HD2	1.48	0.95
1:B:235:PRO:HG3	1:B:310:GLU:HA	1.49	0.95
1:P:6:VAL:HG22	1:P:521:VAL:HG22	1.47	0.95
1:N:6:VAL:HG22	1:N:521:VAL:HG22	1.45	0.94
1:O:235:PRO:HG3	1:O:310:GLU:HA	1.50	0.94
1:K:6:VAL:HG22	1:K:521:VAL:HG22	1.48	0.94
1:M:524:LEU:HD12	1:M:525:PRO:HD2	1.49	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:6:VAL:HG22	1:E:521:VAL:HG22	1.48	0.93
1:R:235:PRO:HG3	1:R:310:GLU:HA	1.50	0.93
1:V:524:LEU:HD12	1:V:525:PRO:HD2	1.48	0.93
1:S:235:PRO:HG3	1:S:310:GLU:HA	1.51	0.93
1:A:183:LEU:N	1:A:383:ALA:HB3	1.84	0.92
1:R:6:VAL:HG22	1:R:521:VAL:HG22	1.52	0.92
1:U:235:PRO:HG3	1:U:310:GLU:HA	1.52	0.92
1:A:183:LEU:H	1:A:383:ALA:CB	1.81	0.92
1:G:235:PRO:HG3	1:G:310:GLU:HA	1.52	0.92
1:M:183:LEU:H	1:M:383:ALA:CB	1.82	0.92
1:Q:235:PRO:HG3	1:Q:310:GLU:HA	1.51	0.92
1:T:183:LEU:H	1:T:383:ALA:CB	1.82	0.92
1:W:235:PRO:HG3	1:W:310:GLU:HA	1.51	0.92
1:P:183:LEU:H	1:P:383:ALA:CB	1.83	0.92
1:Y:46:ALA:HB2	1:Z:76:GLU:HG3	1.51	0.92
1:H:235:PRO:HG3	1:H:310:GLU:HA	1.52	0.91
1:P:235:PRO:HG3	1:P:310:GLU:HA	1.51	0.91
1:A:235:PRO:HG3	1:A:310:GLU:HA	1.52	0.91
1:T:235:PRO:HG3	1:T:310:GLU:HA	1.51	0.91
1:Y:235:PRO:HG3	1:Y:310:GLU:HA	1.52	0.91
1:E:235:PRO:HG3	1:E:310:GLU:HA	1.50	0.91
1:C:235:PRO:HG3	1:C:310:GLU:HA	1.50	0.91
1:M:183:LEU:N	1:M:383:ALA:HB3	1.85	0.91
1:Y:6:VAL:HG22	1:Y:521:VAL:HG22	1.52	0.91
1:A:76:GLU:HG3	1:G:46:ALA:HB2	1.51	0.91
1:Q:46:ALA:HB2	1:R:76:GLU:HG3	1.53	0.91
1:X:183:LEU:H	1:X:383:ALA:CB	1.82	0.91
1:N:183:LEU:H	1:N:383:ALA:CB	1.83	0.90
1:B:183:LEU:H	1:B:383:ALA:CB	1.83	0.90
1:T:183:LEU:N	1:T:383:ALA:HB3	1.85	0.90
1:C:183:LEU:H	1:C:383:ALA:CB	1.84	0.90
1:H:183:LEU:H	1:H:383:ALA:CB	1.84	0.90
1:D:235:PRO:HG3	1:D:310:GLU:HA	1.53	0.90
1:O:183:LEU:N	1:O:383:ALA:HB3	1.86	0.90
1:U:183:LEU:N	1:U:383:ALA:HB3	1.87	0.90
1:X:183:LEU:N	1:X:383:ALA:HB3	1.85	0.90
1:N:235:PRO:HG3	1:N:310:GLU:HA	1.51	0.90
1:Q:183:LEU:H	1:Q:383:ALA:CB	1.84	0.90
1:H:183:LEU:N	1:H:383:ALA:HB3	1.87	0.90
1:X:235:PRO:HG3	1:X:310:GLU:HA	1.53	0.90
1:Z:46:ALA:HB2	1:1:76:GLU:HG3	1.53	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:183:LEU:N	1:I:383:ALA:HB3	1.87	0.90
1:I:235:PRO:HG3	1:I:310:GLU:HA	1.52	0.90
1:E:183:LEU:N	1:E:383:ALA:HB3	1.86	0.90
1:O:183:LEU:H	1:O:383:ALA:CB	1.84	0.90
1:I:183:LEU:H	1:I:383:ALA:CB	1.84	0.89
1:1:183:LEU:H	1:1:383:ALA:CB	1.85	0.89
1:I:6:VAL:HG22	1:I:521:VAL:HG22	1.51	0.89
1:E:183:LEU:H	1:E:383:ALA:CB	1.84	0.89
1:B:183:LEU:N	1:B:383:ALA:HB3	1.86	0.89
1:G:183:LEU:N	1:G:383:ALA:HB3	1.87	0.89
1:I:85:ALA:HB1	1:I:499:VAL:HG12	1.52	0.89
1:Z:235:PRO:HG3	1:Z:310:GLU:HA	1.53	0.89
1:P:183:LEU:N	1:P:383:ALA:HB3	1.86	0.89
1:F:235:PRO:HG3	1:F:310:GLU:HA	1.52	0.89
1:L:235:PRO:HG3	1:L:310:GLU:HA	1.52	0.89
1:2:183:LEU:H	1:2:383:ALA:CB	1.86	0.89
1:S:183:LEU:H	1:S:383:ALA:CB	1.84	0.89
1:U:183:LEU:H	1:U:383:ALA:CB	1.85	0.89
1:R:183:LEU:H	1:R:383:ALA:CB	1.84	0.89
1:J:235:PRO:HG3	1:J:310:GLU:HA	1.53	0.88
1:Q:183:LEU:N	1:Q:383:ALA:HB3	1.86	0.88
1:W:183:LEU:N	1:W:383:ALA:HB3	1.88	0.88
1:Y:183:LEU:H	1:Y:383:ALA:CB	1.85	0.88
1:1:19:GLY:O	1:1:71:ALA:HB2	1.73	0.88
1:G:19:GLY:O	1:G:71:ALA:HB2	1.71	0.88
1:G:183:LEU:H	1:G:383:ALA:CB	1.85	0.88
1:N:183:LEU:N	1:N:383:ALA:HB3	1.86	0.88
1:S:183:LEU:N	1:S:383:ALA:HB3	1.86	0.88
1:C:183:LEU:N	1:C:383:ALA:HB3	1.87	0.88
1:D:183:LEU:N	1:D:383:ALA:HB3	1.87	0.88
1:R:183:LEU:N	1:R:383:ALA:HB3	1.87	0.88
1:V:235:PRO:HG3	1:V:310:GLU:HA	1.53	0.88
1:H:76:GLU:HG3	1:N:46:ALA:HB2	1.55	0.88
1:D:183:LEU:H	1:D:383:ALA:CB	1.85	0.88
1:F:183:LEU:N	1:F:383:ALA:HB3	1.88	0.88
1:W:183:LEU:H	1:W:383:ALA:CB	1.86	0.88
1:X:19:GLY:O	1:X:71:ALA:HB2	1.72	0.88
1:F:183:LEU:H	1:F:383:ALA:CB	1.86	0.88
1:M:235:PRO:HG3	1:M:310:GLU:HA	1.54	0.88
1:V:183:LEU:H	1:V:383:ALA:CB	1.86	0.88
1:Y:183:LEU:N	1:Y:383:ALA:HB3	1.87	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:183:LEU:H	1:Z:383:ALA:CB	1.85	0.88
1:Z:183:LEU:N	1:Z:383:ALA:HB3	1.88	0.88
1:1:183:LEU:N	1:1:383:ALA:HB3	1.87	0.88
1:J:183:LEU:N	1:J:383:ALA:HB3	1.89	0.88
1:2:235:PRO:HG3	1:2:310:GLU:HA	1.53	0.88
1:E:85:ALA:HB1	1:E:499:VAL:HG12	1.57	0.87
1:S:46:ALA:HB2	1:T:76:GLU:HG3	1.55	0.87
1:C:46:ALA:HB2	1:D:76:GLU:HG3	1.56	0.87
1:M:85:ALA:HB1	1:M:499:VAL:HG12	1.57	0.87
1:2:183:LEU:N	1:2:383:ALA:HB3	1.88	0.87
1:K:235:PRO:HG3	1:K:310:GLU:HA	1.53	0.87
1:Y:19:GLY:O	1:Y:71:ALA:HB2	1.73	0.87
1:I:183:LEU:HD13	1:I:184:GLN:N	1.90	0.87
1:J:85:ALA:HB1	1:J:499:VAL:HG12	1.56	0.87
1:J:183:LEU:H	1:J:383:ALA:CB	1.87	0.87
1:P:19:GLY:O	1:P:71:ALA:HB2	1.75	0.87
1:1:85:ALA:HB1	1:1:499:VAL:HG12	1.57	0.87
1:F:19:GLY:O	1:F:71:ALA:HB2	1.72	0.86
1:T:19:GLY:O	1:T:71:ALA:HB2	1.74	0.86
1:Z:19:GLY:O	1:Z:71:ALA:HB2	1.74	0.86
1:L:183:LEU:N	1:L:383:ALA:HB3	1.89	0.86
1:L:183:LEU:H	1:L:383:ALA:CB	1.87	0.86
1:X:85:ALA:HB1	1:X:499:VAL:HG12	1.53	0.86
1:V:183:LEU:N	1:V:383:ALA:HB3	1.88	0.86
1:F:266:THR:HB	1:F:272:LYS:HA	1.57	0.86
1:G:85:ALA:HB1	1:G:499:VAL:HG12	1.56	0.86
1:G:266:THR:HB	1:G:272:LYS:HA	1.58	0.86
1:F:449:ALA:HB3	1:F:450:PRO:HD3	1.58	0.86
1:K:183:LEU:H	1:K:383:ALA:CB	1.88	0.86
1:1:235:PRO:HG3	1:1:310:GLU:HA	1.54	0.86
1:A:266:THR:HB	1:A:272:LYS:HA	1.58	0.85
1:N:19:GLY:O	1:N:71:ALA:HB2	1.74	0.85
1:F:85:ALA:HB1	1:F:499:VAL:HG12	1.57	0.85
1:1:183:LEU:HD13	1:1:184:GLN:N	1.91	0.85
1:Z:85:ALA:HB1	1:Z:499:VAL:HG12	1.59	0.85
1:Z:511:ALA:O	1:Z:515:ILE:HG13	1.74	0.85
1:K:183:LEU:N	1:K:383:ALA:HB3	1.90	0.85
1:Q:19:GLY:O	1:Q:71:ALA:HB2	1.74	0.85
1:L:46:ALA:HB2	1:M:76:GLU:HG3	1.58	0.85
1:O:85:ALA:HB1	1:O:499:VAL:HG12	1.58	0.85
1:A:19:GLY:O	1:A:71:ALA:HB2	1.76	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:19:GLY:O	1:I:71:ALA:HB2	1.76	0.85
1:M:183:LEU:HD13	1:M:184:GLN:N	1.92	0.85
1:2:85:ALA:HB1	1:2:499:VAL:HG12	1.59	0.85
1:H:183:LEU:HD13	1:H:184:GLN:N	1.92	0.85
1:L:19:GLY:O	1:L:71:ALA:HB2	1.76	0.85
1:Q:85:ALA:HB1	1:Q:499:VAL:HG12	1.59	0.85
1:X:183:LEU:HD13	1:X:184:GLN:N	1.92	0.85
1:K:19:GLY:O	1:K:71:ALA:HB2	1.77	0.85
1:H:19:GLY:O	1:H:71:ALA:HB2	1.74	0.84
1:S:85:ALA:HB1	1:S:499:VAL:HG12	1.58	0.84
1:D:266:THR:HB	1:D:272:LYS:HA	1.58	0.84
1:C:8:PHE:HE1	1:C:519:CYS:HG	1.22	0.84
1:N:266:THR:HB	1:N:272:LYS:HA	1.60	0.84
1:R:85:ALA:HB1	1:R:499:VAL:HG12	1.59	0.84
1:X:266:THR:HB	1:X:272:LYS:HA	1.57	0.84
1:H:266:THR:HB	1:H:272:LYS:HA	1.60	0.84
1:W:46:ALA:HB2	1:X:76:GLU:HG3	1.59	0.84
1:P:131:LEU:HD12	1:P:422:VAL:HG21	1.60	0.84
1:U:266:THR:HB	1:U:272:LYS:HA	1.57	0.84
1:B:266:THR:HB	1:B:272:LYS:HA	1.59	0.84
1:E:19:GLY:O	1:E:71:ALA:HB2	1.76	0.84
1:M:266:THR:HB	1:M:272:LYS:HA	1.58	0.84
1:1:266:THR:HB	1:1:272:LYS:HA	1.58	0.84
1:U:131:LEU:HD12	1:U:422:VAL:HG21	1.60	0.84
1:Z:183:LEU:HD13	1:Z:184:GLN:N	1.93	0.84
1:A:85:ALA:HB1	1:A:499:VAL:HG12	1.57	0.83
1:B:46:ALA:HB2	1:C:76:GLU:HG3	1.59	0.83
1:H:85:ALA:HB1	1:H:499:VAL:HG12	1.58	0.83
1:P:266:THR:HB	1:P:272:LYS:HA	1.58	0.83
1:R:183:LEU:HD13	1:R:184:GLN:N	1.93	0.83
1:T:46:ALA:HB2	1:U:76:GLU:HG3	1.60	0.83
1:W:19:GLY:O	1:W:71:ALA:HB2	1.77	0.83
1:H:511:ALA:O	1:H:515:ILE:HG13	1.79	0.83
1:Q:266:THR:HB	1:Q:272:LYS:HA	1.58	0.83
1:T:511:ALA:O	1:T:515:ILE:HG13	1.77	0.83
1:U:183:LEU:HD13	1:U:184:GLN:N	1.93	0.83
1:C:19:GLY:O	1:C:71:ALA:HB2	1.77	0.83
1:Q:131:LEU:HD12	1:Q:422:VAL:HG21	1.60	0.83
1:A:449:ALA:HB3	1:A:450:PRO:HD3	1.60	0.83
1:L:85:ALA:HB1	1:L:499:VAL:HG12	1.61	0.83
1:H:131:LEU:HD12	1:H:422:VAL:HG21	1.60	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:19:GLY:O	1:R:71:ALA:HB2	1.78	0.83
1:R:266:THR:HB	1:R:272:LYS:HA	1.59	0.83
1:M:511:ALA:O	1:M:515:ILE:HG13	1.78	0.83
1:1:321:LYS:O	1:1:322:ARG:HB2	1.76	0.83
1:I:183:LEU:HD13	1:I:184:GLN:H	1.42	0.83
1:I:321:LYS:O	1:I:322:ARG:HB2	1.78	0.83
1:J:266:THR:HB	1:J:272:LYS:HA	1.59	0.83
1:N:85:ALA:HB1	1:N:499:VAL:HG12	1.58	0.83
1:P:85:ALA:HB1	1:P:499:VAL:HG12	1.61	0.83
1:T:266:THR:HB	1:T:272:LYS:HA	1.60	0.83
1:W:85:ALA:HB1	1:W:499:VAL:HG12	1.59	0.83
1:J:183:LEU:HD13	1:J:184:GLN:N	1.94	0.83
1:N:183:LEU:HD13	1:N:184:GLN:N	1.94	0.83
1:A:183:LEU:HD13	1:A:184:GLN:N	1.93	0.83
1:D:19:GLY:O	1:D:71:ALA:HB2	1.77	0.83
1:E:266:THR:HB	1:E:272:LYS:HA	1.58	0.83
1:F:46:ALA:HB2	1:G:76:GLU:HG3	1.60	0.83
1:M:131:LEU:HD12	1:M:422:VAL:HG21	1.59	0.83
1:M:321:LYS:O	1:M:322:ARG:HB2	1.78	0.83
1:U:19:GLY:O	1:U:71:ALA:HB2	1.79	0.82
1:X:62:LEU:N	1:X:62:LEU:HD23	1.91	0.82
1:1:511:ALA:O	1:1:515:ILE:HG13	1.78	0.82
1:S:266:THR:HB	1:S:272:LYS:HA	1.59	0.82
1:Y:183:LEU:HD13	1:Y:184:GLN:N	1.94	0.82
1:E:511:ALA:O	1:E:515:ILE:HG13	1.78	0.82
1:S:19:GLY:O	1:S:71:ALA:HB2	1.78	0.82
1:X:131:LEU:HD12	1:X:422:VAL:HG21	1.61	0.82
1:2:266:THR:HB	1:2:272:LYS:HA	1.59	0.82
1:2:511:ALA:O	1:2:515:ILE:HG13	1.79	0.82
1:D:511:ALA:O	1:D:515:ILE:HG13	1.78	0.82
1:I:266:THR:HB	1:I:272:LYS:HA	1.60	0.82
1:Y:449:ALA:HB3	1:Y:450:PRO:HD3	1.61	0.82
1:J:62:LEU:N	1:J:62:LEU:HD23	1.93	0.82
1:K:183:LEU:HD13	1:K:184:GLN:N	1.95	0.82
1:O:131:LEU:HD12	1:O:422:VAL:HG21	1.61	0.82
1:Q:511:ALA:O	1:Q:515:ILE:HG13	1.78	0.82
1:S:511:ALA:O	1:S:515:ILE:HG13	1.80	0.82
1:Y:266:THR:HB	1:Y:272:LYS:HA	1.60	0.82
1:Z:266:THR:HB	1:Z:272:LYS:HA	1.59	0.82
1:B:183:LEU:HD13	1:B:184:GLN:N	1.94	0.82
1:O:183:LEU:HD13	1:O:184:GLN:N	1.94	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:183:LEU:HD13	1:S:184:GLN:N	1.95	0.82
1:G:183:LEU:HD13	1:G:184:GLN:N	1.95	0.82
1:M:19:GLY:O	1:M:71:ALA:HB2	1.77	0.82
1:S:449:ALA:HB3	1:S:450:PRO:HD3	1.62	0.82
1:T:449:ALA:HB3	1:T:450:PRO:HD3	1.62	0.82
1:V:183:LEU:HD13	1:V:184:GLN:N	1.94	0.82
1:2:183:LEU:HD13	1:2:184:GLN:N	1.94	0.82
1:D:85:ALA:HB1	1:D:499:VAL:HG12	1.62	0.82
1:P:183:LEU:HD13	1:P:184:GLN:N	1.95	0.82
1:X:183:LEU:HD13	1:X:184:GLN:H	1.43	0.82
1:J:321:LYS:O	1:J:322:ARG:HB2	1.80	0.81
1:L:266:THR:HB	1:L:272:LYS:HA	1.60	0.81
1:R:449:ALA:HB3	1:R:450:PRO:HD3	1.62	0.81
1:V:38:VAL:HG22	1:W:519:CYS:HB3	1.62	0.81
1:2:62:LEU:N	1:2:62:LEU:HD23	1.95	0.81
1:H:183:LEU:HD13	1:H:184:GLN:H	1.43	0.81
1:J:183:LEU:HD13	1:J:184:GLN:H	1.45	0.81
1:V:266:THR:HB	1:V:272:LYS:HA	1.60	0.81
1:X:321:LYS:O	1:X:322:ARG:HB2	1.79	0.81
1:Y:62:LEU:N	1:Y:62:LEU:HD23	1.93	0.81
1:A:321:LYS:O	1:A:322:ARG:HB2	1.80	0.81
1:A:511:ALA:O	1:A:515:ILE:HG13	1.81	0.81
1:D:131:LEU:HD12	1:D:422:VAL:HG21	1.63	0.81
1:F:511:ALA:O	1:F:515:ILE:HG13	1.81	0.81
1:J:511:ALA:O	1:J:515:ILE:HG13	1.78	0.81
1:2:131:LEU:HD12	1:2:422:VAL:HG21	1.62	0.81
1:F:321:LYS:O	1:F:322:ARG:HB2	1.79	0.81
1:K:82:ASN:HB2	1:K:89:THR:CG2	2.10	0.81
1:K:266:THR:HB	1:K:272:LYS:HA	1.61	0.81
1:N:511:ALA:O	1:N:515:ILE:HG13	1.79	0.81
1:I:62:LEU:N	1:I:62:LEU:HD23	1.95	0.81
1:L:183:LEU:HD13	1:L:184:GLN:N	1.95	0.81
1:Z:7:LYS:HD2	1:Z:66:PHE:CE2	2.16	0.81
1:O:511:ALA:O	1:O:515:ILE:HG13	1.80	0.81
1:W:131:LEU:HD12	1:W:422:VAL:HG21	1.62	0.81
1:Z:449:ALA:HB3	1:Z:450:PRO:HD3	1.62	0.81
1:B:131:LEU:HD12	1:B:422:VAL:HG21	1.63	0.81
1:J:19:GLY:O	1:J:71:ALA:HB2	1.80	0.81
1:N:321:LYS:O	1:N:322:ARG:HB2	1.80	0.81
1:W:321:LYS:O	1:W:322:ARG:HB2	1.80	0.81
1:E:62:LEU:N	1:E:62:LEU:HD23	1.96	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:85:ALA:HB1	1:T:499:VAL:HG12	1.62	0.81
1:V:321:LYS:O	1:V:322:ARG:HB2	1.81	0.81
1:Z:62:LEU:HD23	1:Z:62:LEU:N	1.94	0.81
1:C:511:ALA:O	1:C:515:ILE:HG13	1.80	0.81
1:D:46:ALA:HB2	1:E:76:GLU:HG3	1.61	0.81
1:W:266:THR:HB	1:W:272:LYS:HA	1.62	0.81
1:C:82:ASN:HB2	1:C:89:THR:CG2	2.11	0.80
1:C:266:THR:HB	1:C:272:LYS:HA	1.61	0.80
1:E:131:LEU:HD12	1:E:422:VAL:HG21	1.63	0.80
1:H:321:LYS:O	1:H:322:ARG:HB2	1.81	0.80
1:M:62:LEU:N	1:M:62:LEU:HD23	1.95	0.80
1:P:321:LYS:O	1:P:322:ARG:HB2	1.79	0.80
1:V:511:ALA:O	1:V:515:ILE:HG13	1.81	0.80
1:Z:131:LEU:HD12	1:Z:422:VAL:HG21	1.63	0.80
1:1:62:LEU:N	1:1:62:LEU:HD23	1.96	0.80
1:B:511:ALA:O	1:B:515:ILE:HG13	1.79	0.80
1:H:519:CYS:HB3	1:N:38:VAL:HG22	1.63	0.80
1:K:85:ALA:HB1	1:K:499:VAL:HG12	1.64	0.80
1:W:82:ASN:HB2	1:W:89:THR:CG2	2.11	0.80
1:W:183:LEU:HD13	1:W:184:GLN:N	1.94	0.80
1:J:46:ALA:HB2	1:K:76:GLU:HG3	1.63	0.80
1:J:449:ALA:HB3	1:J:450:PRO:HD3	1.64	0.80
1:Q:183:LEU:HD13	1:Q:184:GLN:N	1.96	0.80
1:R:82:ASN:HB2	1:R:89:THR:CG2	2.12	0.80
1:S:131:LEU:HD12	1:S:422:VAL:HG21	1.62	0.80
1:T:183:LEU:HD13	1:T:184:GLN:N	1.96	0.80
1:T:321:LYS:O	1:T:322:ARG:HB2	1.81	0.80
1:W:183:LEU:HD13	1:W:184:GLN:H	1.45	0.80
1:Y:321:LYS:O	1:Y:322:ARG:HB2	1.80	0.80
1:C:183:LEU:HD13	1:C:184:GLN:N	1.96	0.80
1:L:511:ALA:O	1:L:515:ILE:HG13	1.80	0.80
1:O:62:LEU:HD23	1:O:62:LEU:N	1.96	0.80
1:Q:82:ASN:HB2	1:Q:89:THR:CG2	2.11	0.80
1:Z:183:LEU:HD13	1:Z:184:GLN:H	1.45	0.80
1:B:321:LYS:O	1:B:322:ARG:HB2	1.81	0.80
1:F:82:ASN:HB2	1:F:89:THR:CG2	2.11	0.80
1:O:266:THR:HB	1:O:272:LYS:HA	1.61	0.80
1:P:46:ALA:HB2	1:Q:76:GLU:HG3	1.63	0.80
1:1:183:LEU:HD13	1:1:184:GLN:H	1.45	0.80
1:E:183:LEU:HD13	1:E:184:GLN:N	1.96	0.80
1:G:511:ALA:O	1:G:515:ILE:HG13	1.80	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:82:ASN:HB2	1:U:89:THR:CG2	2.12	0.80
1:K:449:ALA:HB3	1:K:450:PRO:HD3	1.61	0.80
1:T:62:LEU:N	1:T:62:LEU:HD23	1.95	0.80
1:V:76:GLU:HG3	1:2:46:ALA:HB2	1.63	0.80
1:V:82:ASN:HB2	1:V:89:THR:CG2	2.12	0.80
1:D:183:LEU:HD13	1:D:184:GLN:N	1.97	0.80
1:H:62:LEU:N	1:H:62:LEU:HD23	1.96	0.80
1:J:82:ASN:HB2	1:J:89:THR:CG2	2.12	0.80
1:O:19:GLY:O	1:O:71:ALA:HB2	1.81	0.80
1:U:449:ALA:HB3	1:U:450:PRO:HD3	1.63	0.80
1:Y:183:LEU:HD13	1:Y:184:GLN:H	1.46	0.80
1:E:321:LYS:O	1:E:322:ARG:HB2	1.81	0.80
1:F:62:LEU:N	1:F:62:LEU:HD23	1.96	0.80
1:F:183:LEU:HD13	1:F:184:GLN:N	1.97	0.80
1:P:511:ALA:O	1:P:515:ILE:HG13	1.81	0.80
1:S:82:ASN:HB2	1:S:89:THR:CG2	2.12	0.80
1:U:511:ALA:O	1:U:515:ILE:HG13	1.81	0.80
1:V:449:ALA:HB3	1:V:450:PRO:HD3	1.64	0.80
1:C:85:ALA:HB1	1:C:499:VAL:HG12	1.64	0.79
1:Y:85:ALA:HB1	1:Y:499:VAL:HG12	1.64	0.79
1:2:82:ASN:HB2	1:2:89:THR:CG2	2.12	0.79
1:J:131:LEU:HD12	1:J:422:VAL:HG21	1.65	0.79
1:L:131:LEU:HD12	1:L:422:VAL:HG21	1.64	0.79
1:P:449:ALA:HB3	1:P:450:PRO:HD3	1.64	0.79
1:W:511:ALA:O	1:W:515:ILE:HG13	1.82	0.79
1:G:183:LEU:HD13	1:G:184:GLN:H	1.46	0.79
1:G:321:LYS:O	1:G:322:ARG:HB2	1.80	0.79
1:K:321:LYS:O	1:K:322:ARG:HB2	1.80	0.79
1:N:131:LEU:HD12	1:N:422:VAL:HG21	1.63	0.79
1:P:82:ASN:HB2	1:P:89:THR:CG2	2.12	0.79
1:U:85:ALA:HB1	1:U:499:VAL:HG12	1.64	0.79
1:K:183:LEU:HD13	1:K:184:GLN:H	1.48	0.79
1:L:321:LYS:O	1:L:322:ARG:HB2	1.81	0.79
1:V:19:GLY:O	1:V:71:ALA:HB2	1.82	0.79
1:Z:321:LYS:O	1:Z:322:ARG:HB2	1.82	0.79
1:X:433:ASN:OD1	1:X:436:GLN:HB2	1.81	0.79
1:Y:131:LEU:HD12	1:Y:422:VAL:HG21	1.64	0.79
1:B:19:GLY:O	1:B:71:ALA:HB2	1.81	0.79
1:P:62:LEU:N	1:P:62:LEU:HD23	1.98	0.79
1:E:449:ALA:HB3	1:E:450:PRO:HD3	1.64	0.79
1:I:131:LEU:HD12	1:I:422:VAL:HG21	1.65	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:183:LEU:HD13	1:S:184:GLN:H	1.46	0.79
1:Y:511:ALA:O	1:Y:515:ILE:HG13	1.83	0.79
1:1:7:LYS:HD2	1:1:66:PHE:CE2	2.18	0.79
1:B:85:ALA:HB1	1:B:499:VAL:HG12	1.64	0.79
1:C:321:LYS:O	1:C:322:ARG:HB2	1.81	0.79
1:R:321:LYS:O	1:R:322:ARG:HB2	1.81	0.79
1:A:183:LEU:HD13	1:A:184:GLN:H	1.45	0.79
1:C:183:LEU:HD13	1:C:184:GLN:H	1.48	0.79
1:N:62:LEU:N	1:N:62:LEU:HD23	1.97	0.78
1:Q:321:LYS:O	1:Q:322:ARG:HB2	1.80	0.78
1:U:183:LEU:HD13	1:U:184:GLN:H	1.46	0.78
1:H:82:ASN:HB2	1:H:89:THR:CG2	2.12	0.78
1:P:433:ASN:OD1	1:P:436:GLN:HB2	1.84	0.78
1:Z:82:ASN:HB2	1:Z:89:THR:CG2	2.12	0.78
1:1:131:LEU:HD12	1:1:422:VAL:HG21	1.66	0.78
1:G:82:ASN:HB2	1:G:89:THR:CG2	2.12	0.78
1:B:82:ASN:HB2	1:B:89:THR:CG2	2.13	0.78
1:G:131:LEU:HD12	1:G:422:VAL:HG21	1.65	0.78
1:H:449:ALA:HB3	1:H:450:PRO:HD3	1.65	0.78
1:K:46:ALA:HB2	1:L:76:GLU:HG3	1.65	0.78
1:O:321:LYS:O	1:O:322:ARG:HB2	1.80	0.78
1:V:7:LYS:HD2	1:V:66:PHE:CE2	2.17	0.78
1:B:433:ASN:OD1	1:B:436:GLN:HB2	1.83	0.78
1:O:183:LEU:HD13	1:O:184:GLN:H	1.47	0.78
1:V:183:LEU:HD13	1:V:184:GLN:H	1.46	0.78
1:M:433:ASN:OD1	1:M:436:GLN:HB2	1.83	0.78
1:V:62:LEU:N	1:V:62:LEU:HD23	1.97	0.78
1:Y:82:ASN:HB2	1:Y:89:THR:CG2	2.14	0.78
1:P:228:SER:O	1:P:257:GLU:HB3	1.84	0.78
1:S:321:LYS:O	1:S:322:ARG:HB2	1.81	0.78
1:2:321:LYS:O	1:2:322:ARG:HB2	1.81	0.78
1:C:7:LYS:HD2	1:C:66:PHE:CE2	2.18	0.78
1:L:82:ASN:HB2	1:L:89:THR:CG2	2.13	0.78
1:O:82:ASN:HB2	1:O:89:THR:CG2	2.12	0.78
1:R:183:LEU:HD13	1:R:184:GLN:H	1.45	0.78
1:X:82:ASN:HB2	1:X:89:THR:CG2	2.13	0.78
1:Y:228:SER:O	1:Y:257:GLU:HB3	1.84	0.78
1:B:62:LEU:N	1:B:62:LEU:HD23	1.98	0.78
1:B:183:LEU:HD13	1:B:184:GLN:H	1.46	0.78
1:C:131:LEU:HD12	1:C:422:VAL:HG21	1.66	0.78
1:M:82:ASN:HB2	1:M:89:THR:CG2	2.13	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:449:ALA:HB3	1:W:450:PRO:HD3	1.66	0.78
1:K:62:LEU:N	1:K:62:LEU:HD23	2.00	0.77
1:T:7:LYS:HD2	1:T:66:PHE:CE2	2.19	0.77
1:T:82:ASN:HB2	1:T:89:THR:CG2	2.14	0.77
1:G:7:LYS:HD2	1:G:66:PHE:CE2	2.19	0.77
1:N:228:SER:O	1:N:257:GLU:HB3	1.84	0.77
1:U:321:LYS:O	1:U:322:ARG:HB2	1.81	0.77
1:A:433:ASN:OD1	1:A:436:GLN:HB2	1.84	0.77
1:E:183:LEU:HD13	1:E:184:GLN:H	1.47	0.77
1:U:62:LEU:N	1:U:62:LEU:HD23	2.00	0.77
1:2:7:LYS:HD2	1:2:66:PHE:CE2	2.19	0.77
1:A:131:LEU:HD12	1:A:422:VAL:HG21	1.66	0.77
1:G:433:ASN:OD1	1:G:436:GLN:HB2	1.84	0.77
1:M:183:LEU:HD13	1:M:184:GLN:H	1.45	0.77
1:W:269:GLY:O	1:X:229:ASN:OD1	2.03	0.77
1:2:433:ASN:OD1	1:2:436:GLN:HB2	1.84	0.77
1:X:511:ALA:O	1:X:515:ILE:HG13	1.84	0.77
1:A:46:ALA:HB2	1:B:76:GLU:HG3	1.66	0.77
1:B:228:SER:O	1:B:257:GLU:HB3	1.85	0.77
1:I:449:ALA:HB3	1:I:450:PRO:HD3	1.66	0.77
1:N:183:LEU:HD13	1:N:184:GLN:H	1.47	0.77
1:T:131:LEU:HD12	1:T:422:VAL:HG21	1.66	0.77
1:H:7:LYS:HD2	1:H:66:PHE:CE2	2.19	0.77
1:L:62:LEU:HD23	1:L:62:LEU:N	2.00	0.77
1:E:7:LYS:HD2	1:E:66:PHE:CE2	2.19	0.77
1:E:433:ASN:OD1	1:E:436:GLN:HB2	1.84	0.77
1:K:131:LEU:HD12	1:K:422:VAL:HG21	1.67	0.77
1:O:76:GLU:HG3	1:U:46:ALA:HB2	1.66	0.77
1:Q:7:LYS:HD2	1:Q:66:PHE:CE2	2.20	0.77
1:D:62:LEU:HD23	1:D:62:LEU:N	2.00	0.77
1:E:82:ASN:HB2	1:E:89:THR:CG2	2.15	0.77
1:G:62:LEU:HD23	1:G:62:LEU:N	2.00	0.77
1:J:7:LYS:HD2	1:J:66:PHE:CE2	2.20	0.77
1:P:7:LYS:HD2	1:P:66:PHE:CE2	2.20	0.77
1:V:85:ALA:HB1	1:V:499:VAL:HG12	1.67	0.77
1:C:228:SER:O	1:C:257:GLU:HB3	1.85	0.77
1:L:183:LEU:HD13	1:L:184:GLN:H	1.46	0.77
1:R:131:LEU:HD12	1:R:422:VAL:HG21	1.66	0.77
1:A:82:ASN:HB2	1:A:89:THR:CG2	2.14	0.76
1:B:7:LYS:HD2	1:B:66:PHE:CE2	2.19	0.76
1:O:7:LYS:HD2	1:O:66:PHE:CE2	2.20	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:7:LYS:HD2	1:U:66:PHE:CE2	2.20	0.76
1:A:62:LEU:N	1:A:62:LEU:HD23	1.98	0.76
1:C:449:ALA:HB3	1:C:450:PRO:HD3	1.67	0.76
1:D:449:ALA:HB3	1:D:450:PRO:HD3	1.66	0.76
1:K:7:LYS:HD2	1:K:66:PHE:CE2	2.20	0.76
1:S:228:SER:O	1:S:257:GLU:HB3	1.85	0.76
1:K:228:SER:O	1:K:257:GLU:HB3	1.86	0.76
1:F:131:LEU:HD12	1:F:422:VAL:HG21	1.66	0.76
1:H:200:LEU:HG	1:H:275:ALA:O	1.86	0.76
1:O:449:ALA:HB3	1:O:450:PRO:HD3	1.68	0.76
1:R:511:ALA:O	1:R:515:ILE:HG13	1.84	0.76
1:V:46:ALA:HB2	1:W:76:GLU:HG3	1.67	0.76
1:D:183:LEU:HD13	1:D:184:GLN:H	1.49	0.76
1:F:433:ASN:OD1	1:F:436:GLN:HB2	1.85	0.76
1:J:228:SER:O	1:J:257:GLU:HB3	1.86	0.76
1:M:228:SER:O	1:M:257:GLU:HB3	1.85	0.76
1:N:7:LYS:HD2	1:N:66:PHE:CE2	2.21	0.76
1:T:183:LEU:HD13	1:T:184:GLN:H	1.48	0.76
1:D:321:LYS:O	1:D:322:ARG:HB2	1.83	0.76
1:I:82:ASN:HB2	1:I:89:THR:CG2	2.15	0.76
1:Q:183:LEU:HD13	1:Q:184:GLN:H	1.47	0.76
1:V:228:SER:O	1:V:257:GLU:HB3	1.86	0.76
1:V:433:ASN:OD1	1:V:436:GLN:HB2	1.85	0.76
1:X:228:SER:O	1:X:257:GLU:HB3	1.85	0.76
1:Y:433:ASN:OD1	1:Y:436:GLN:HB2	1.85	0.76
1:1:82:ASN:HB2	1:1:89:THR:CG2	2.16	0.76
1:2:228:SER:O	1:2:257:GLU:HB3	1.86	0.76
1:N:82:ASN:HB2	1:N:89:THR:CG2	2.15	0.76
1:C:433:ASN:OD1	1:C:436:GLN:HB2	1.86	0.76
1:G:228:SER:O	1:G:257:GLU:HB3	1.86	0.76
1:S:433:ASN:OD1	1:S:436:GLN:HB2	1.85	0.76
1:W:62:LEU:HD23	1:W:62:LEU:N	2.01	0.76
1:D:7:LYS:HD2	1:D:66:PHE:CE2	2.20	0.75
1:F:183:LEU:HD13	1:F:184:GLN:H	1.49	0.75
1:H:433:ASN:OD1	1:H:436:GLN:HB2	1.86	0.75
1:R:200:LEU:HG	1:R:275:ALA:O	1.85	0.75
1:G:449:ALA:HB3	1:G:450:PRO:HD3	1.68	0.75
1:Q:228:SER:O	1:Q:257:GLU:HB3	1.86	0.75
1:D:433:ASN:OD1	1:D:436:GLN:HB2	1.86	0.75
1:K:511:ALA:O	1:K:515:ILE:HG13	1.86	0.75
1:Q:433:ASN:OD1	1:Q:436:GLN:HB2	1.85	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:131:LEU:HD12	1:V:422:VAL:HG21	1.66	0.75
1:V:8:PHE:HE1	1:V:519:CYS:SG	2.09	0.75
1:C:62:LEU:N	1:C:62:LEU:HD23	2.01	0.75
1:D:82:ASN:HB2	1:D:89:THR:CG2	2.16	0.75
1:J:433:ASN:OD1	1:J:436:GLN:HB2	1.86	0.75
1:X:449:ALA:HB3	1:X:450:PRO:HD3	1.68	0.75
1:H:228:SER:O	1:H:257:GLU:HB3	1.86	0.75
1:M:449:ALA:HB3	1:M:450:PRO:HD3	1.69	0.75
1:P:183:LEU:HD13	1:P:184:GLN:H	1.49	0.75
1:1:433:ASN:OD1	1:1:436:GLN:HB2	1.86	0.75
1:F:228:SER:O	1:F:257:GLU:HB3	1.86	0.75
1:W:228:SER:O	1:W:257:GLU:HB3	1.87	0.75
1:O:228:SER:O	1:O:257:GLU:HB3	1.87	0.75
1:R:433:ASN:OD1	1:R:436:GLN:HB2	1.87	0.74
1:Z:433:ASN:OD1	1:Z:436:GLN:HB2	1.87	0.74
1:M:7:LYS:HD2	1:M:66:PHE:CE2	2.21	0.74
1:U:433:ASN:OD1	1:U:436:GLN:HB2	1.87	0.74
1:L:7:LYS:HD2	1:L:66:PHE:CE2	2.22	0.74
1:L:449:ALA:HB3	1:L:450:PRO:HD3	1.69	0.74
1:A:228:SER:O	1:A:257:GLU:HB3	1.87	0.74
1:Q:449:ALA:HB3	1:Q:450:PRO:HD3	1.68	0.74
1:Y:8:PHE:HE1	1:Y:519:CYS:HG	1.32	0.74
1:2:183:LEU:HD13	1:2:184:GLN:H	1.48	0.74
1:I:511:ALA:O	1:I:515:ILE:HG13	1.87	0.74
1:N:449:ALA:HB3	1:N:450:PRO:HD3	1.69	0.74
1:B:449:ALA:HB3	1:B:450:PRO:HD3	1.69	0.74
1:D:228:SER:O	1:D:257:GLU:HB3	1.87	0.74
1:K:200:LEU:HG	1:K:275:ALA:O	1.88	0.74
1:O:433:ASN:OD1	1:O:436:GLN:HB2	1.88	0.74
1:A:7:LYS:HD2	1:A:66:PHE:CE2	2.22	0.74
1:I:228:SER:O	1:I:257:GLU:HB3	1.87	0.74
1:X:278:ALA:HB1	1:X:279:PRO:HD2	1.70	0.74
1:Z:8:PHE:HE1	1:Z:519:CYS:HG	1.35	0.74
1:E:228:SER:O	1:E:257:GLU:HB3	1.86	0.74
1:R:228:SER:O	1:R:257:GLU:HB3	1.87	0.74
1:L:433:ASN:OD1	1:L:436:GLN:HB2	1.88	0.73
1:P:455:VAL:HG11	1:P:462:PRO:HA	1.69	0.73
1:S:7:LYS:HD2	1:S:66:PHE:CE2	2.23	0.73
1:S:62:LEU:N	1:S:62:LEU:HD23	2.00	0.73
1:T:228:SER:O	1:T:257:GLU:HB3	1.88	0.73
1:U:200:LEU:HG	1:U:275:ALA:O	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:228:SER:O	1:L:257:GLU:HB3	1.87	0.73
1:U:228:SER:O	1:U:257:GLU:HB3	1.87	0.73
1:Y:200:LEU:HG	1:Y:275:ALA:O	1.89	0.73
1:J:249:ILE:HB	1:J:275:ALA:HB2	1.71	0.73
1:W:200:LEU:HG	1:W:275:ALA:O	1.88	0.73
1:2:19:GLY:O	1:2:71:ALA:HB2	1.88	0.73
1:I:200:LEU:HG	1:I:275:ALA:O	1.89	0.73
1:I:7:LYS:HD2	1:I:66:PHE:CE2	2.24	0.73
1:L:200:LEU:HG	1:L:275:ALA:O	1.89	0.73
1:N:278:ALA:HB1	1:N:279:PRO:HD2	1.71	0.73
1:Q:62:LEU:N	1:Q:62:LEU:HD23	2.03	0.73
1:Q:200:LEU:HG	1:Q:275:ALA:O	1.88	0.73
1:X:200:LEU:HG	1:X:275:ALA:O	1.89	0.73
1:N:200:LEU:HG	1:N:275:ALA:O	1.89	0.73
1:1:228:SER:O	1:1:257:GLU:HB3	1.87	0.73
1:J:200:LEU:HG	1:J:275:ALA:O	1.88	0.73
1:X:7:LYS:HD2	1:X:66:PHE:CE2	2.24	0.73
1:2:449:ALA:HB3	1:2:450:PRO:HD3	1.71	0.73
1:I:433:ASN:OD1	1:I:436:GLN:HB2	1.89	0.72
1:Z:228:SER:O	1:Z:257:GLU:HB3	1.88	0.72
1:A:200:LEU:HG	1:A:275:ALA:O	1.89	0.72
1:E:200:LEU:HG	1:E:275:ALA:O	1.88	0.72
1:G:200:LEU:HG	1:G:275:ALA:O	1.88	0.72
1:I:319:GLN:O	1:I:336:VAL:HG23	1.89	0.72
1:K:66:PHE:CE1	1:K:522:THR:HG22	2.24	0.72
1:N:230:ILE:HD12	1:N:261:THR:CG2	2.17	0.72
1:R:46:ALA:HB2	1:S:76:GLU:HG3	1.70	0.72
1:W:8:PHE:HE1	1:W:519:CYS:HG	1.38	0.72
1:X:38:VAL:HG22	1:Y:519:CYS:HB3	1.71	0.72
1:1:200:LEU:HG	1:1:275:ALA:O	1.89	0.72
1:K:433:ASN:OD1	1:K:436:GLN:HB2	1.90	0.72
1:R:249:ILE:HB	1:R:275:ALA:HB2	1.71	0.72
1:I:249:ILE:HB	1:I:275:ALA:HB2	1.72	0.72
1:R:7:LYS:HD2	1:R:66:PHE:CE2	2.24	0.72
1:I:38:VAL:HG22	1:J:519:CYS:HB3	1.70	0.72
1:R:62:LEU:N	1:R:62:LEU:HD23	2.04	0.72
1:Y:7:LYS:HD2	1:Y:66:PHE:CE2	2.25	0.72
1:I:66:PHE:CE1	1:I:522:THR:HG22	2.25	0.72
1:N:433:ASN:OD1	1:N:436:GLN:HB2	1.89	0.72
1:W:249:ILE:HB	1:W:275:ALA:HB2	1.72	0.72
1:Z:200:LEU:HG	1:Z:275:ALA:O	1.90	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:235:PRO:CG	1:B:310:GLU:HA	2.20	0.72
1:B:7:LYS:HD2	1:B:66:PHE:HE2	1.56	0.71
1:F:200:LEU:HG	1:F:275:ALA:O	1.90	0.71
1:T:230:ILE:HD12	1:T:261:THR:CG2	2.18	0.71
1:O:27:VAL:HG12	1:O:90:THR:HG23	1.71	0.71
1:S:278:ALA:HB1	1:S:279:PRO:HD2	1.72	0.71
1:B:249:ILE:HB	1:B:275:ALA:HB2	1.73	0.71
1:O:249:ILE:HB	1:O:275:ALA:HB2	1.72	0.71
1:S:200:LEU:HG	1:S:275:ALA:O	1.89	0.71
1:T:433:ASN:OD1	1:T:436:GLN:HB2	1.90	0.71
1:O:200:LEU:HG	1:O:275:ALA:O	1.88	0.71
1:Y:66:PHE:CE1	1:Y:522:THR:HG22	2.26	0.71
1:T:200:LEU:HG	1:T:275:ALA:O	1.91	0.71
1:U:278:ALA:HB1	1:U:279:PRO:HD2	1.72	0.71
1:V:200:LEU:HG	1:V:275:ALA:O	1.90	0.71
1:H:278:ALA:HB1	1:H:279:PRO:HD2	1.73	0.71
1:I:278:ALA:HB1	1:I:279:PRO:HD2	1.72	0.71
1:W:7:LYS:HD2	1:W:66:PHE:CE2	2.26	0.71
1:1:38:VAL:HG22	1:2:519:CYS:HB3	1.73	0.71
1:B:6:VAL:CG2	1:B:521:VAL:HG22	2.20	0.71
1:L:249:ILE:HB	1:L:275:ALA:HB2	1.71	0.71
1:A:27:VAL:HG12	1:A:90:THR:HG23	1.73	0.71
1:E:249:ILE:HB	1:E:275:ALA:HB2	1.72	0.71
1:A:249:ILE:HB	1:A:275:ALA:HB2	1.73	0.71
1:A:278:ALA:HB1	1:A:279:PRO:HD2	1.73	0.71
1:F:7:LYS:HD2	1:F:66:PHE:CE2	2.26	0.71
1:Q:235:PRO:CG	1:Q:310:GLU:HA	2.21	0.71
1:2:200:LEU:HG	1:2:275:ALA:O	1.91	0.71
1:B:278:ALA:HB1	1:B:279:PRO:HD2	1.73	0.70
1:E:27:VAL:HG12	1:E:90:THR:HG23	1.73	0.70
1:D:200:LEU:HG	1:D:275:ALA:O	1.89	0.70
1:I:27:VAL:HG12	1:I:90:THR:HG23	1.71	0.70
1:O:455:VAL:HG11	1:O:462:PRO:HA	1.72	0.70
1:P:200:LEU:HG	1:P:275:ALA:O	1.90	0.70
1:Q:66:PHE:CE1	1:Q:522:THR:HG22	2.25	0.70
1:T:278:ALA:HB1	1:T:279:PRO:HD2	1.73	0.70
1:Y:278:ALA:HB1	1:Y:279:PRO:HD2	1.73	0.70
1:1:449:ALA:HB3	1:1:450:PRO:HD3	1.73	0.70
1:H:7:LYS:HD2	1:H:66:PHE:HE2	1.57	0.70
1:U:230:ILE:HD12	1:U:261:THR:CG2	2.19	0.70
1:J:278:ALA:HB1	1:J:279:PRO:HD2	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:249:ILE:HB	1:Z:275:ALA:HB2	1.73	0.70
1:D:249:ILE:HB	1:D:275:ALA:HB2	1.72	0.70
1:H:235:PRO:CG	1:H:310:GLU:HA	2.22	0.70
1:K:8:PHE:HE1	1:K:519:CYS:SG	2.14	0.70
1:N:249:ILE:HB	1:N:275:ALA:HB2	1.74	0.70
1:O:235:PRO:CG	1:O:310:GLU:HA	2.22	0.70
1:P:235:PRO:CG	1:P:310:GLU:HA	2.21	0.70
1:T:455:VAL:HG11	1:T:462:PRO:HA	1.73	0.70
1:W:433:ASN:OD1	1:W:436:GLN:HB2	1.90	0.70
1:F:66:PHE:CE1	1:F:522:THR:HG22	2.26	0.70
1:N:66:PHE:CE1	1:N:522:THR:HG22	2.27	0.70
1:U:235:PRO:CG	1:U:310:GLU:HA	2.22	0.70
1:V:249:ILE:HB	1:V:275:ALA:HB2	1.73	0.70
1:W:235:PRO:CG	1:W:310:GLU:HA	2.22	0.70
1:Y:235:PRO:CG	1:Y:310:GLU:HA	2.22	0.70
1:2:249:ILE:HB	1:2:275:ALA:HB2	1.72	0.70
1:1:278:ALA:HB1	1:1:279:PRO:HD2	1.72	0.70
1:B:27:VAL:HG12	1:B:90:THR:HG23	1.74	0.70
1:H:249:ILE:HB	1:H:275:ALA:HB2	1.74	0.70
1:I:235:PRO:CG	1:I:310:GLU:HA	2.22	0.70
1:K:278:ALA:HB1	1:K:279:PRO:HD2	1.73	0.70
1:S:235:PRO:CG	1:S:310:GLU:HA	2.21	0.70
1:T:249:ILE:HB	1:T:275:ALA:HB2	1.73	0.70
1:X:249:ILE:HB	1:X:275:ALA:HB2	1.74	0.70
1:X:326:ASN:HD22	1:X:329:THR:HB	1.57	0.70
1:2:8:PHE:HE1	1:2:519:CYS:HG	1.38	0.70
1:A:66:PHE:CE1	1:A:522:THR:HG22	2.27	0.70
1:M:38:VAL:HG22	1:N:519:CYS:HB3	1.73	0.70
1:R:235:PRO:CG	1:R:310:GLU:HA	2.21	0.70
1:V:330:THR:HG22	1:V:331:THR:N	2.06	0.70
1:Y:249:ILE:HB	1:Y:275:ALA:HB2	1.74	0.70
1:D:123:ALA:HB2	1:D:440:ILE:HG23	1.74	0.70
1:E:235:PRO:CG	1:E:310:GLU:HA	2.21	0.70
1:F:455:VAL:HG11	1:F:462:PRO:HA	1.74	0.70
1:N:455:VAL:HG11	1:N:462:PRO:HA	1.74	0.70
1:W:278:ALA:HB1	1:W:279:PRO:HD2	1.74	0.70
1:1:249:ILE:HB	1:1:275:ALA:HB2	1.72	0.70
1:N:123:ALA:HB2	1:N:440:ILE:HG23	1.74	0.69
1:R:278:ALA:HB1	1:R:279:PRO:HD2	1.74	0.69
1:2:27:VAL:HG12	1:2:90:THR:HG23	1.74	0.69
1:F:249:ILE:HB	1:F:275:ALA:HB2	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:235:PRO:CG	1:J:310:GLU:HA	2.22	0.69
1:M:278:ALA:HB1	1:M:279:PRO:HD2	1.72	0.69
1:N:330:THR:HG22	1:N:331:THR:N	2.07	0.69
1:X:235:PRO:CG	1:X:310:GLU:HA	2.22	0.69
1:Z:7:LYS:HD2	1:Z:66:PHE:HE2	1.54	0.69
1:1:330:THR:HG22	1:1:331:THR:N	2.08	0.69
1:G:235:PRO:CG	1:G:310:GLU:HA	2.21	0.69
1:C:235:PRO:CG	1:C:310:GLU:HA	2.22	0.69
1:Y:8:PHE:HE1	1:Y:519:CYS:SG	2.15	0.69
1:Z:6:VAL:CG2	1:Z:521:VAL:HG22	2.21	0.69
1:C:455:VAL:HG11	1:C:462:PRO:HA	1.73	0.69
1:H:82:ASN:HB2	1:H:89:THR:HG21	1.74	0.69
1:L:235:PRO:CG	1:L:310:GLU:HA	2.22	0.69
1:T:235:PRO:CG	1:T:310:GLU:HA	2.22	0.69
1:A:319:GLN:O	1:A:336:VAL:HG23	1.93	0.69
1:B:200:LEU:HG	1:B:275:ALA:O	1.92	0.69
1:M:200:LEU:HG	1:M:275:ALA:O	1.93	0.69
1:P:7:LYS:HD2	1:P:66:PHE:HE2	1.57	0.69
1:P:249:ILE:HB	1:P:275:ALA:HB2	1.73	0.69
1:S:249:ILE:HB	1:S:275:ALA:HB2	1.74	0.69
1:1:319:GLN:O	1:1:336:VAL:HG23	1.92	0.69
1:2:278:ALA:HB1	1:2:279:PRO:HD2	1.73	0.69
1:A:326:ASN:HD22	1:A:329:THR:HB	1.57	0.69
1:Z:235:PRO:CG	1:Z:310:GLU:HA	2.23	0.69
1:A:235:PRO:CG	1:A:310:GLU:HA	2.22	0.69
1:C:27:VAL:HG12	1:C:90:THR:HG23	1.74	0.69
1:C:200:LEU:HG	1:C:275:ALA:O	1.91	0.69
1:F:235:PRO:CG	1:F:310:GLU:HA	2.22	0.69
1:G:66:PHE:CE1	1:G:522:THR:HG22	2.26	0.69
1:K:235:PRO:CG	1:K:310:GLU:HA	2.22	0.69
1:M:326:ASN:HD22	1:M:329:THR:HB	1.55	0.69
1:O:7:LYS:HD2	1:O:66:PHE:HE2	1.58	0.69
1:O:278:ALA:HB1	1:O:279:PRO:HD2	1.74	0.69
1:Q:249:ILE:HB	1:Q:275:ALA:HB2	1.74	0.69
1:T:8:PHE:HE1	1:T:519:CYS:HG	1.37	0.69
1:U:123:ALA:HB2	1:U:440:ILE:HG23	1.74	0.69
1:Y:326:ASN:HD22	1:Y:329:THR:HB	1.57	0.69
1:Z:278:ALA:HB1	1:Z:279:PRO:HD2	1.74	0.69
1:2:455:VAL:HG11	1:2:462:PRO:HA	1.73	0.69
1:H:224:ASP:O	1:H:225:LYS:HB3	1.93	0.69
1:V:8:PHE:HE1	1:V:519:CYS:HG	1.39	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:230:ILE:HD12	1:V:261:THR:CG2	2.18	0.69
1:W:330:THR:HG22	1:W:331:THR:N	2.08	0.69
1:D:235:PRO:CG	1:D:310:GLU:HA	2.23	0.69
1:G:249:ILE:HB	1:G:275:ALA:HB2	1.75	0.69
1:P:326:ASN:HD22	1:P:329:THR:HB	1.58	0.69
1:C:7:LYS:HD2	1:C:66:PHE:HE2	1.56	0.68
1:C:249:ILE:HB	1:C:275:ALA:HB2	1.74	0.68
1:G:278:ALA:HB1	1:G:279:PRO:HD2	1.75	0.68
1:K:330:THR:HG22	1:K:331:THR:N	2.08	0.68
1:S:66:PHE:CE1	1:S:522:THR:HG22	2.27	0.68
1:2:235:PRO:CG	1:2:310:GLU:HA	2.23	0.68
1:K:38:VAL:HG22	1:L:519:CYS:HB3	1.74	0.68
1:K:123:ALA:HB2	1:K:440:ILE:HG23	1.74	0.68
1:H:326:ASN:HD22	1:H:329:THR:HB	1.56	0.68
1:H:330:THR:HG22	1:H:331:THR:N	2.07	0.68
1:L:319:GLN:O	1:L:336:VAL:HG23	1.93	0.68
1:Q:224:ASP:O	1:Q:225:LYS:HB3	1.93	0.68
1:V:278:ALA:HB1	1:V:279:PRO:HD2	1.75	0.68
1:A:123:ALA:HB2	1:A:440:ILE:HG23	1.75	0.68
1:A:330:THR:HG22	1:A:331:THR:N	2.08	0.68
1:H:330:THR:HG22	1:H:331:THR:H	1.59	0.68
1:L:330:THR:HG22	1:L:331:THR:N	2.08	0.68
1:N:235:PRO:CG	1:N:310:GLU:HA	2.23	0.68
1:O:38:VAL:HG22	1:P:519:CYS:HB3	1.73	0.68
1:R:66:PHE:CE1	1:R:522:THR:HG22	2.27	0.68
1:T:330:THR:HG22	1:T:331:THR:N	2.08	0.68
1:E:455:VAL:HG11	1:E:462:PRO:HA	1.74	0.68
1:J:6:VAL:CG2	1:J:521:VAL:HG22	2.21	0.68
1:K:249:ILE:HB	1:K:275:ALA:HB2	1.73	0.68
1:U:249:ILE:HB	1:U:275:ALA:HB2	1.76	0.68
1:V:326:ASN:HD22	1:V:329:THR:HB	1.58	0.68
1:F:326:ASN:HD22	1:F:329:THR:HB	1.57	0.68
1:J:326:ASN:HD22	1:J:329:THR:HB	1.59	0.68
1:K:326:ASN:HD22	1:K:329:THR:HB	1.58	0.68
1:Q:82:ASN:HB2	1:Q:89:THR:HG21	1.76	0.68
1:Y:455:VAL:HG11	1:Y:462:PRO:HA	1.74	0.68
1:A:38:VAL:HG22	1:B:519:CYS:HB3	1.76	0.68
1:G:224:ASP:O	1:G:225:LYS:HB3	1.94	0.68
1:J:66:PHE:CE1	1:J:522:THR:HG22	2.29	0.68
1:V:455:VAL:HG11	1:V:462:PRO:HA	1.75	0.68
1:Z:230:ILE:HD12	1:Z:261:THR:CG2	2.20	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:278:ALA:HB1	1:D:279:PRO:HD2	1.75	0.68
1:F:82:ASN:HB2	1:F:89:THR:HG21	1.76	0.68
1:H:6:VAL:CG2	1:H:521:VAL:HG22	2.23	0.68
1:K:224:ASP:O	1:K:225:LYS:HB3	1.93	0.68
1:K:230:ILE:HD12	1:K:261:THR:CG2	2.19	0.68
1:M:249:ILE:HB	1:M:275:ALA:HB2	1.74	0.68
1:S:330:THR:HG22	1:S:331:THR:N	2.09	0.68
1:Z:330:THR:HG22	1:Z:331:THR:N	2.09	0.68
1:J:82:ASN:HB2	1:J:89:THR:HG21	1.75	0.68
1:Y:46:ALA:CB	1:Z:76:GLU:HG3	2.23	0.68
1:Y:414:GLY:H	1:Y:494:LEU:HA	1.59	0.68
1:B:8:PHE:HE1	1:B:519:CYS:HG	1.40	0.68
1:E:278:ALA:HB1	1:E:279:PRO:HD2	1.74	0.68
1:U:66:PHE:CE1	1:U:522:THR:HG22	2.29	0.68
1:C:330:THR:HG22	1:C:331:THR:N	2.09	0.67
1:H:455:VAL:HG11	1:H:462:PRO:HA	1.76	0.67
1:L:278:ALA:HB1	1:L:279:PRO:HD2	1.74	0.67
1:N:326:ASN:HD22	1:N:329:THR:HB	1.58	0.67
1:O:6:VAL:CG2	1:O:521:VAL:HG22	2.23	0.67
1:V:66:PHE:CE1	1:V:522:THR:HG22	2.29	0.67
1:C:319:GLN:O	1:C:336:VAL:HG23	1.93	0.67
1:G:7:LYS:HD2	1:G:66:PHE:HE2	1.58	0.67
1:K:27:VAL:HG12	1:K:90:THR:HG23	1.75	0.67
1:L:230:ILE:HD12	1:L:261:THR:CG2	2.19	0.67
1:M:414:GLY:O	1:M:417:VAL:HG22	1.94	0.67
1:T:7:LYS:HD2	1:T:66:PHE:HE2	1.57	0.67
1:U:326:ASN:HD22	1:U:329:THR:HB	1.59	0.67
1:1:198:GLY:O	1:1:276:VAL:HG12	1.94	0.67
1:B:224:ASP:O	1:B:225:LYS:HB3	1.94	0.67
1:C:278:ALA:HB1	1:C:279:PRO:HD2	1.75	0.67
1:G:82:ASN:HB2	1:G:89:THR:HG21	1.75	0.67
1:M:34:LYS:HG3	1:M:458:CYS:SG	2.35	0.67
1:N:330:THR:HG22	1:N:331:THR:H	1.59	0.67
1:Q:230:ILE:HD12	1:Q:261:THR:CG2	2.20	0.67
1:X:330:THR:HG22	1:X:331:THR:N	2.09	0.67
1:1:230:ILE:HD12	1:1:261:THR:CG2	2.20	0.67
1:R:82:ASN:HB2	1:R:89:THR:HG21	1.76	0.67
1:R:230:ILE:HD12	1:R:261:THR:CG2	2.19	0.67
1:U:224:ASP:O	1:U:225:LYS:HB3	1.94	0.67
1:V:7:LYS:HD2	1:V:66:PHE:HE2	1.55	0.67
1:X:266:THR:HG21	1:X:273:VAL:H	1.58	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:330:THR:HG22	1:D:331:THR:N	2.10	0.67
1:M:6:VAL:CG2	1:M:521:VAL:HG22	2.22	0.67
1:V:330:THR:HG22	1:V:331:THR:H	1.60	0.67
1:W:224:ASP:O	1:W:225:LYS:HB3	1.94	0.67
1:1:27:VAL:HG12	1:1:90:THR:HG23	1.74	0.67
1:1:235:PRO:CG	1:1:310:GLU:HA	2.24	0.67
1:B:319:GLN:O	1:B:336:VAL:HG23	1.94	0.67
1:F:278:ALA:HB1	1:F:279:PRO:HD2	1.76	0.67
1:S:230:ILE:HD12	1:S:261:THR:CG2	2.17	0.67
1:U:266:THR:HG21	1:U:273:VAL:H	1.59	0.67
1:U:330:THR:HG22	1:U:331:THR:N	2.09	0.67
1:B:123:ALA:HB2	1:B:440:ILE:HG23	1.77	0.67
1:C:123:ALA:HB2	1:C:440:ILE:HG23	1.76	0.67
1:H:66:PHE:CE1	1:H:522:THR:HG22	2.29	0.67
1:A:330:THR:HG22	1:A:331:THR:H	1.60	0.67
1:D:326:ASN:HD22	1:D:329:THR:HB	1.59	0.67
1:J:7:LYS:HD2	1:J:66:PHE:HE2	1.59	0.67
1:Y:224:ASP:O	1:Y:225:LYS:HB3	1.95	0.67
1:G:330:THR:HG22	1:G:331:THR:N	2.10	0.67
1:J:342:ILE:O	1:J:346:VAL:HG23	1.95	0.67
1:M:319:GLN:O	1:M:336:VAL:HG23	1.95	0.67
1:O:34:LYS:HG3	1:O:458:CYS:SG	2.34	0.67
1:Q:319:GLN:O	1:Q:336:VAL:HG23	1.95	0.67
1:R:27:VAL:HG12	1:R:90:THR:HG23	1.75	0.67
1:S:224:ASP:O	1:S:225:LYS:HB3	1.95	0.67
1:U:7:LYS:HD2	1:U:66:PHE:HE2	1.59	0.67
1:1:414:GLY:O	1:1:417:VAL:HG22	1.95	0.67
1:2:82:ASN:HB2	1:2:89:THR:HG21	1.76	0.67
1:A:455:VAL:HG11	1:A:462:PRO:HA	1.77	0.67
1:D:6:VAL:CG2	1:D:521:VAL:HG22	2.23	0.67
1:K:82:ASN:HB2	1:K:89:THR:HG21	1.76	0.67
1:K:342:ILE:O	1:K:346:VAL:HG23	1.94	0.67
1:L:224:ASP:O	1:L:225:LYS:HB3	1.94	0.67
1:S:146:GLN:O	1:S:150:ILE:HG13	1.95	0.67
1:S:330:THR:HG22	1:S:331:THR:H	1.60	0.67
1:V:224:ASP:O	1:V:225:LYS:HB3	1.93	0.67
1:D:319:GLN:O	1:D:336:VAL:HG23	1.95	0.66
1:Q:278:ALA:HB1	1:Q:279:PRO:HD2	1.75	0.66
1:S:326:ASN:HD22	1:S:329:THR:HB	1.59	0.66
1:Z:82:ASN:HB2	1:Z:89:THR:HG21	1.76	0.66
1:A:224:ASP:O	1:A:225:LYS:HB3	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:342:ILE:O	1:G:346:VAL:HG23	1.96	0.66
1:K:8:PHE:HE1	1:K:519:CYS:HG	1.37	0.66
1:M:235:PRO:CG	1:M:310:GLU:HA	2.24	0.66
1:P:330:THR:HG22	1:P:331:THR:N	2.09	0.66
1:S:82:ASN:HB2	1:S:89:THR:HG21	1.77	0.66
1:T:224:ASP:O	1:T:225:LYS:HB3	1.94	0.66
1:W:34:LYS:HG3	1:W:458:CYS:SG	2.34	0.66
1:X:330:THR:HG22	1:X:331:THR:H	1.60	0.66
1:A:34:LYS:HG3	1:A:458:CYS:SG	2.35	0.66
1:C:66:PHE:CE1	1:C:522:THR:HG22	2.30	0.66
1:D:230:ILE:HD12	1:D:261:THR:CG2	2.19	0.66
1:I:230:ILE:HD12	1:I:261:THR:CG2	2.19	0.66
1:J:330:THR:HG22	1:J:331:THR:N	2.11	0.66
1:N:224:ASP:O	1:N:225:LYS:HB3	1.95	0.66
1:Q:123:ALA:HB2	1:Q:440:ILE:HG23	1.77	0.66
1:Q:330:THR:HG22	1:Q:331:THR:N	2.11	0.66
1:R:224:ASP:O	1:R:225:LYS:HB3	1.94	0.66
1:T:27:VAL:HG12	1:T:90:THR:HG23	1.78	0.66
1:T:66:PHE:CE1	1:T:522:THR:HG22	2.30	0.66
1:V:27:VAL:HG12	1:V:90:THR:HG23	1.75	0.66
1:V:82:ASN:HB2	1:V:89:THR:HG21	1.78	0.66
1:V:123:ALA:HB2	1:V:440:ILE:HG23	1.78	0.66
1:V:235:PRO:CG	1:V:310:GLU:HA	2.23	0.66
1:1:342:ILE:O	1:1:346:VAL:HG23	1.95	0.66
1:C:6:VAL:CG2	1:C:521:VAL:HG22	2.22	0.66
1:E:7:LYS:HD2	1:E:66:PHE:HE2	1.58	0.66
1:E:266:THR:HG21	1:E:273:VAL:H	1.61	0.66
1:G:326:ASN:HD22	1:G:329:THR:HB	1.59	0.66
1:R:319:GLN:O	1:R:336:VAL:HG23	1.96	0.66
1:X:66:PHE:CE1	1:X:522:THR:HG22	2.30	0.66
1:X:230:ILE:HD12	1:X:261:THR:CG2	2.18	0.66
1:X:319:GLN:O	1:X:336:VAL:HG23	1.95	0.66
1:Y:319:GLN:O	1:Y:336:VAL:HG23	1.95	0.66
1:2:66:PHE:CE1	1:2:522:THR:HG22	2.30	0.66
1:D:224:ASP:O	1:D:225:LYS:HB3	1.94	0.66
1:G:8:PHE:HE1	1:G:519:CYS:HG	1.43	0.66
1:H:342:ILE:O	1:H:346:VAL:HG23	1.95	0.66
1:O:330:THR:HG22	1:O:331:THR:N	2.10	0.66
1:R:38:VAL:HG22	1:S:519:CYS:HB3	1.77	0.66
1:R:342:ILE:O	1:R:346:VAL:HG23	1.96	0.66
1:S:319:GLN:O	1:S:336:VAL:HG23	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:342:ILE:O	1:U:346:VAL:HG23	1.96	0.66
1:W:66:PHE:CE1	1:W:522:THR:HG22	2.29	0.66
1:W:198:GLY:O	1:W:276:VAL:HG12	1.96	0.66
1:2:123:ALA:HB2	1:2:440:ILE:HG23	1.76	0.66
1:2:326:ASN:HD22	1:2:329:THR:HB	1.59	0.66
1:A:90:THR:O	1:A:94:VAL:HG12	1.96	0.66
1:B:82:ASN:HB2	1:B:89:THR:HG21	1.77	0.66
1:C:326:ASN:HD22	1:C:329:THR:HB	1.60	0.66
1:F:330:THR:HG22	1:F:331:THR:N	2.09	0.66
1:G:319:GLN:O	1:G:336:VAL:HG23	1.95	0.66
1:M:27:VAL:HG12	1:M:90:THR:HG23	1.76	0.66
1:N:319:GLN:O	1:N:336:VAL:HG23	1.95	0.66
1:Q:266:THR:HG21	1:Q:273:VAL:H	1.61	0.66
1:U:82:ASN:HB2	1:U:89:THR:HG21	1.76	0.66
1:U:319:GLN:O	1:U:336:VAL:HG23	1.96	0.66
1:Z:326:ASN:HD22	1:Z:329:THR:HB	1.60	0.66
1:1:7:LYS:HD2	1:1:66:PHE:HE2	1.57	0.66
1:1:455:VAL:HG11	1:1:462:PRO:HA	1.76	0.66
1:2:414:GLY:O	1:2:417:VAL:HG22	1.94	0.66
1:L:123:ALA:HB2	1:L:440:ILE:HG23	1.78	0.66
1:L:342:ILE:O	1:L:346:VAL:HG23	1.96	0.66
1:T:8:PHE:HE1	1:T:519:CYS:SG	2.18	0.66
1:V:65:LYS:O	1:V:69:MET:HG3	1.96	0.66
1:C:230:ILE:HD12	1:C:261:THR:CG2	2.19	0.66
1:H:76:GLU:HG3	1:N:46:ALA:CB	2.25	0.66
1:H:131:LEU:CD1	1:H:422:VAL:HG21	2.25	0.66
1:J:414:GLY:O	1:J:417:VAL:HG22	1.95	0.66
1:J:455:VAL:HG11	1:J:462:PRO:HA	1.77	0.66
1:O:326:ASN:HD22	1:O:329:THR:HB	1.60	0.66
1:Q:7:LYS:HD2	1:Q:66:PHE:HE2	1.60	0.66
1:W:330:THR:HG22	1:W:331:THR:H	1.61	0.66
1:B:326:ASN:HD22	1:B:329:THR:HB	1.61	0.66
1:G:266:THR:HG21	1:G:273:VAL:H	1.59	0.66
1:K:7:LYS:HD2	1:K:66:PHE:HE2	1.58	0.66
1:L:66:PHE:CE1	1:L:522:THR:HG22	2.31	0.66
1:Z:224:ASP:O	1:Z:225:LYS:HB3	1.95	0.66
1:B:342:ILE:O	1:B:346:VAL:HG23	1.96	0.66
1:C:224:ASP:O	1:C:225:LYS:HB3	1.95	0.66
1:H:269:GLY:O	1:I:229:ASN:OD1	2.14	0.66
1:I:198:GLY:O	1:I:276:VAL:HG12	1.95	0.66
1:I:342:ILE:O	1:I:346:VAL:HG23	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:27:VAL:HG12	1:J:90:THR:HG23	1.77	0.66
1:M:330:THR:HG22	1:M:331:THR:N	2.11	0.66
1:O:230:ILE:HD12	1:O:261:THR:CG2	2.20	0.66
1:P:278:ALA:HB1	1:P:279:PRO:HD2	1.77	0.66
1:Q:414:GLY:O	1:Q:417:VAL:HG22	1.96	0.66
1:S:27:VAL:HG12	1:S:90:THR:HG23	1.77	0.66
1:S:414:GLY:O	1:S:417:VAL:HG22	1.95	0.66
1:U:414:GLY:O	1:U:417:VAL:HG22	1.96	0.66
1:Y:146:GLN:O	1:Y:150:ILE:HG13	1.96	0.66
1:B:330:THR:HG22	1:B:331:THR:N	2.10	0.65
1:I:266:THR:HG21	1:I:273:VAL:H	1.61	0.65
1:Q:6:VAL:CG2	1:Q:521:VAL:HG22	2.20	0.65
1:U:27:VAL:HG12	1:U:90:THR:HG23	1.78	0.65
1:W:82:ASN:HB2	1:W:89:THR:HG21	1.76	0.65
1:W:247:LEU:HB3	1:W:273:VAL:HG22	1.79	0.65
1:Z:34:LYS:HG3	1:Z:458:CYS:SG	2.36	0.65
1:2:7:LYS:HD2	1:2:66:PHE:HE2	1.59	0.65
1:D:198:GLY:O	1:D:276:VAL:HG12	1.96	0.65
1:I:330:THR:HG22	1:I:331:THR:N	2.10	0.65
1:J:224:ASP:O	1:J:225:LYS:HB3	1.95	0.65
1:K:417:VAL:HG11	1:K:477:GLY:HA3	1.78	0.65
1:O:46:ALA:HB2	1:P:76:GLU:HG3	1.78	0.65
1:P:330:THR:HG22	1:P:331:THR:H	1.60	0.65
1:S:342:ILE:O	1:S:346:VAL:HG23	1.96	0.65
1:W:342:ILE:O	1:W:346:VAL:HG23	1.96	0.65
1:A:124:VAL:O	1:A:128:VAL:HG23	1.97	0.65
1:A:414:GLY:O	1:A:417:VAL:HG22	1.96	0.65
1:B:266:THR:HG21	1:B:273:VAL:H	1.61	0.65
1:T:241:ALA:HB1	1:U:231:ARG:NH1	2.10	0.65
1:U:330:THR:HG22	1:U:331:THR:H	1.61	0.65
1:Y:330:THR:HG22	1:Y:331:THR:N	2.10	0.65
1:1:6:VAL:CG2	1:1:521:VAL:HG22	2.22	0.65
1:1:224:ASP:O	1:1:225:LYS:HB3	1.96	0.65
1:A:82:ASN:HB2	1:A:89:THR:HG21	1.78	0.65
1:B:414:GLY:H	1:B:494:LEU:HA	1.61	0.65
1:C:82:ASN:HB2	1:C:89:THR:HG21	1.77	0.65
1:F:266:THR:HG21	1:F:273:VAL:H	1.60	0.65
1:M:82:ASN:HB2	1:M:89:THR:HG21	1.79	0.65
1:P:146:GLN:O	1:P:150:ILE:HG13	1.96	0.65
1:Q:326:ASN:HD22	1:Q:329:THR:HB	1.59	0.65
1:Q:342:ILE:O	1:Q:346:VAL:HG23	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:326:ASN:HD22	1:T:329:THR:HB	1.60	0.65
1:W:6:VAL:CG2	1:W:521:VAL:HG22	2.24	0.65
1:X:27:VAL:HG12	1:X:90:THR:HG23	1.78	0.65
1:X:247:LEU:HB3	1:X:273:VAL:HG22	1.78	0.65
1:Z:342:ILE:O	1:Z:346:VAL:HG23	1.96	0.65
1:1:326:ASN:HD22	1:1:329:THR:HB	1.61	0.65
1:E:38:VAL:HG22	1:F:519:CYS:HB3	1.78	0.65
1:H:38:VAL:HG22	1:I:519:CYS:HB3	1.77	0.65
1:L:82:ASN:HB2	1:L:89:THR:HG21	1.78	0.65
1:M:330:THR:HG22	1:M:331:THR:H	1.61	0.65
1:P:224:ASP:O	1:P:225:LYS:HB3	1.95	0.65
1:Y:342:ILE:O	1:Y:346:VAL:HG23	1.97	0.65
1:Z:319:GLN:O	1:Z:336:VAL:HG23	1.96	0.65
1:C:342:ILE:O	1:C:346:VAL:HG23	1.97	0.65
1:E:249:ILE:HB	1:E:275:ALA:CB	2.27	0.65
1:F:330:THR:HG22	1:F:331:THR:H	1.61	0.65
1:M:224:ASP:O	1:M:225:LYS:HB3	1.95	0.65
1:U:414:GLY:H	1:U:494:LEU:HA	1.62	0.65
1:W:455:VAL:HG11	1:W:462:PRO:HA	1.79	0.65
1:1:330:THR:HG22	1:1:331:THR:H	1.61	0.65
1:B:66:PHE:CE1	1:B:522:THR:HG22	2.30	0.65
1:E:224:ASP:O	1:E:225:LYS:HB3	1.96	0.65
1:E:330:THR:HG22	1:E:331:THR:N	2.11	0.65
1:H:414:GLY:O	1:H:417:VAL:HG22	1.95	0.65
1:J:249:ILE:HB	1:J:275:ALA:CB	2.27	0.65
1:K:198:GLY:O	1:K:276:VAL:HG12	1.97	0.65
1:L:414:GLY:H	1:L:494:LEU:HA	1.61	0.65
1:N:146:GLN:O	1:N:150:ILE:HG13	1.97	0.65
1:O:342:ILE:O	1:O:346:VAL:HG23	1.97	0.65
1:Z:414:GLY:H	1:Z:494:LEU:HA	1.62	0.65
1:B:249:ILE:HB	1:B:275:ALA:CB	2.27	0.65
1:C:330:THR:HG22	1:C:331:THR:H	1.61	0.65
1:D:66:PHE:CE1	1:D:522:THR:HG22	2.32	0.65
1:L:330:THR:HG22	1:L:331:THR:H	1.61	0.65
1:O:266:THR:HG21	1:O:273:VAL:H	1.61	0.65
1:Q:27:VAL:HG12	1:Q:90:THR:HG23	1.77	0.65
1:R:266:THR:HG21	1:R:273:VAL:H	1.61	0.65
1:U:524:LEU:CD1	1:U:525:PRO:HD2	2.23	0.65
1:V:77:VAL:HG11	1:V:510:VAL:HG21	1.79	0.65
1:V:414:GLY:O	1:V:417:VAL:HG22	1.97	0.65
1:X:82:ASN:HB2	1:X:89:THR:HG21	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:38:VAL:HG22	1:Z:519:CYS:HB3	1.76	0.65
1:Y:123:ALA:HB2	1:Y:440:ILE:HG23	1.78	0.65
1:Y:266:THR:HG21	1:Y:273:VAL:H	1.61	0.65
1:1:66:PHE:CE1	1:1:522:THR:HG22	2.31	0.65
1:1:124:VAL:O	1:1:128:VAL:HG23	1.97	0.65
1:2:224:ASP:O	1:2:225:LYS:HB3	1.95	0.65
1:B:230:ILE:HD12	1:B:261:THR:CG2	2.20	0.65
1:O:123:ALA:HB2	1:O:440:ILE:HG23	1.79	0.65
1:T:330:THR:HG22	1:T:331:THR:H	1.62	0.65
1:B:414:GLY:O	1:B:417:VAL:HG22	1.97	0.65
1:E:319:GLN:O	1:E:336:VAL:HG23	1.97	0.65
1:H:77:VAL:HG11	1:H:510:VAL:HG21	1.79	0.65
1:I:174:VAL:HB	1:I:376:VAL:HG13	1.79	0.65
1:K:330:THR:HG22	1:K:331:THR:H	1.60	0.65
1:L:266:THR:HG21	1:L:273:VAL:H	1.62	0.65
1:L:326:ASN:HD22	1:L:329:THR:HB	1.62	0.65
1:N:82:ASN:HB2	1:N:89:THR:HG21	1.79	0.65
1:O:8:PHE:HE1	1:O:519:CYS:HG	1.43	0.65
1:P:123:ALA:HB2	1:P:440:ILE:HG23	1.79	0.65
1:P:131:LEU:CD1	1:P:422:VAL:HG21	2.27	0.65
1:X:65:LYS:O	1:X:69:MET:HG3	1.97	0.65
1:G:123:ALA:HB2	1:G:440:ILE:HG23	1.79	0.64
1:G:330:THR:HG22	1:G:331:THR:H	1.62	0.64
1:M:266:THR:HG21	1:M:273:VAL:H	1.62	0.64
1:N:266:THR:HG21	1:N:273:VAL:H	1.61	0.64
1:O:319:GLN:O	1:O:336:VAL:HG23	1.96	0.64
1:P:266:THR:HG21	1:P:273:VAL:H	1.62	0.64
1:R:326:ASN:HD22	1:R:329:THR:HB	1.61	0.64
1:T:319:GLN:O	1:T:336:VAL:HG23	1.97	0.64
1:U:6:VAL:CG2	1:U:521:VAL:HG22	2.26	0.64
1:V:198:GLY:O	1:V:276:VAL:HG12	1.96	0.64
1:W:27:VAL:HG12	1:W:90:THR:HG23	1.79	0.64
1:D:266:THR:HG21	1:D:273:VAL:H	1.63	0.64
1:E:123:ALA:HB2	1:E:440:ILE:HG23	1.78	0.64
1:N:524:LEU:CD1	1:N:525:PRO:HD2	2.22	0.64
1:P:82:ASN:HB2	1:P:89:THR:HG21	1.78	0.64
1:P:524:LEU:CD1	1:P:525:PRO:HD2	2.24	0.64
1:V:342:ILE:O	1:V:346:VAL:HG23	1.97	0.64
1:1:249:ILE:HB	1:1:275:ALA:CB	2.27	0.64
1:H:123:ALA:HB2	1:H:440:ILE:HG23	1.79	0.64
1:Q:146:GLN:O	1:Q:150:ILE:HG13	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:34:LYS:HG3	1:U:458:CYS:SG	2.36	0.64
1:V:266:THR:HG21	1:V:273:VAL:H	1.62	0.64
1:X:224:ASP:O	1:X:225:LYS:HB3	1.97	0.64
1:Y:82:ASN:HB2	1:Y:89:THR:HG21	1.78	0.64
1:Y:330:THR:HG22	1:Y:331:THR:H	1.62	0.64
1:Z:414:GLY:O	1:Z:417:VAL:HG22	1.97	0.64
1:2:266:THR:HG21	1:2:273:VAL:H	1.62	0.64
1:B:146:GLN:O	1:B:150:ILE:HG13	1.97	0.64
1:I:123:ALA:HB2	1:I:440:ILE:HG23	1.80	0.64
1:I:249:ILE:HB	1:I:275:ALA:CB	2.27	0.64
1:L:249:ILE:HB	1:L:275:ALA:CB	2.28	0.64
1:P:27:VAL:HG12	1:P:90:THR:HG23	1.79	0.64
1:S:266:THR:HG21	1:S:273:VAL:H	1.61	0.64
1:X:131:LEU:CD1	1:X:422:VAL:HG21	2.28	0.64
1:C:8:PHE:HE1	1:C:519:CYS:SG	2.20	0.64
1:D:65:LYS:O	1:D:69:MET:HG3	1.97	0.64
1:F:342:ILE:O	1:F:346:VAL:HG23	1.97	0.64
1:J:319:GLN:O	1:J:336:VAL:HG23	1.96	0.64
1:K:319:GLN:O	1:K:336:VAL:HG23	1.98	0.64
1:N:342:ILE:O	1:N:346:VAL:HG23	1.97	0.64
1:S:6:VAL:CG2	1:S:521:VAL:HG22	2.25	0.64
1:X:34:LYS:HG3	1:X:458:CYS:SG	2.37	0.64
1:X:46:ALA:HB2	1:Y:76:GLU:HG3	1.80	0.64
1:X:342:ILE:O	1:X:346:VAL:HG23	1.97	0.64
1:Z:66:PHE:CE1	1:Z:522:THR:HG22	2.32	0.64
1:2:249:ILE:HB	1:2:275:ALA:CB	2.28	0.64
1:E:198:GLY:O	1:E:276:VAL:HG12	1.98	0.64
1:H:319:GLN:O	1:H:336:VAL:HG23	1.96	0.64
1:O:146:GLN:O	1:O:150:ILE:HG13	1.98	0.64
1:O:330:THR:HG22	1:O:331:THR:H	1.62	0.64
1:P:8:PHE:HE1	1:P:519:CYS:SG	2.20	0.64
1:P:414:GLY:O	1:P:417:VAL:HG22	1.98	0.64
1:W:123:ALA:HB2	1:W:440:ILE:HG23	1.80	0.64
1:C:241:ALA:HB1	1:D:231:ARG:NH1	2.13	0.64
1:G:455:VAL:HG11	1:G:462:PRO:HA	1.80	0.64
1:J:266:THR:HG21	1:J:273:VAL:H	1.63	0.64
1:N:27:VAL:HG12	1:N:90:THR:HG23	1.80	0.64
1:R:455:VAL:HG11	1:R:462:PRO:HA	1.79	0.64
1:S:131:LEU:CD1	1:S:422:VAL:HG21	2.28	0.64
1:W:178:GLU:OE2	1:W:322:ARG:HD3	1.97	0.64
1:2:342:ILE:O	1:2:346:VAL:HG23	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:247:LEU:HB3	1:A:273:VAL:HG22	1.79	0.64
1:D:342:ILE:O	1:D:346:VAL:HG23	1.97	0.64
1:F:27:VAL:HG12	1:F:90:THR:HG23	1.79	0.64
1:F:230:ILE:HD12	1:F:261:THR:CG2	2.18	0.64
1:R:330:THR:HG22	1:R:331:THR:N	2.12	0.64
1:S:414:GLY:H	1:S:494:LEU:HA	1.62	0.64
1:A:29:VAL:C	1:A:31:LEU:H	2.02	0.64
1:C:524:LEU:CD1	1:C:525:PRO:HD2	2.26	0.64
1:E:326:ASN:HD22	1:E:329:THR:HB	1.62	0.64
1:E:342:ILE:O	1:E:346:VAL:HG23	1.97	0.64
1:I:455:VAL:HG11	1:I:462:PRO:HA	1.79	0.64
1:K:134:LEU:N	1:K:134:LEU:HD23	2.13	0.64
1:M:131:LEU:CD1	1:M:422:VAL:HG21	2.28	0.64
1:N:77:VAL:HG11	1:N:510:VAL:HG21	1.80	0.64
1:V:319:GLN:O	1:V:336:VAL:HG23	1.97	0.64
1:2:319:GLN:O	1:2:336:VAL:HG23	1.98	0.64
1:A:342:ILE:O	1:A:346:VAL:HG23	1.97	0.64
1:L:7:LYS:HD2	1:L:66:PHE:HE2	1.61	0.64
1:N:414:GLY:O	1:N:417:VAL:HG22	1.97	0.64
1:O:82:ASN:HB2	1:O:89:THR:HG21	1.78	0.64
1:O:249:ILE:HB	1:O:275:ALA:CB	2.28	0.64
1:W:326:ASN:HD22	1:W:329:THR:HB	1.61	0.64
1:1:146:GLN:O	1:1:150:ILE:HG13	1.98	0.64
1:2:146:GLN:O	1:2:150:ILE:HG13	1.98	0.64
1:C:249:ILE:HB	1:C:275:ALA:CB	2.29	0.63
1:I:134:LEU:N	1:I:134:LEU:HD23	2.12	0.63
1:M:66:PHE:CE1	1:M:522:THR:HG22	2.33	0.63
1:N:414:GLY:H	1:N:494:LEU:HA	1.63	0.63
1:Y:230:ILE:HD12	1:Y:261:THR:CG2	2.19	0.63
1:2:330:THR:HG22	1:2:331:THR:N	2.12	0.63
1:B:524:LEU:CD1	1:B:525:PRO:HD2	2.27	0.63
1:D:38:VAL:HG22	1:E:519:CYS:HB3	1.80	0.63
1:F:194:GLN:HG3	1:F:331:THR:HB	1.81	0.63
1:F:224:ASP:O	1:F:225:LYS:HB3	1.97	0.63
1:H:27:VAL:HG12	1:H:90:THR:HG23	1.79	0.63
1:K:146:GLN:O	1:K:150:ILE:HG13	1.98	0.63
1:L:417:VAL:HG11	1:L:477:GLY:HA3	1.81	0.63
1:O:224:ASP:O	1:O:225:LYS:HB3	1.96	0.63
1:1:134:LEU:HD23	1:1:134:LEU:N	2.13	0.63
1:D:249:ILE:HB	1:D:275:ALA:CB	2.28	0.63
1:E:414:GLY:H	1:E:494:LEU:HA	1.62	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:29:VAL:C	1:H:31:LEU:H	2.02	0.63
1:L:6:VAL:CG2	1:L:521:VAL:HG22	2.25	0.63
1:Q:524:LEU:CD1	1:Q:525:PRO:HD2	2.26	0.63
1:W:249:ILE:HB	1:W:275:ALA:CB	2.27	0.63
1:W:319:GLN:O	1:W:336:VAL:HG23	1.98	0.63
1:X:414:GLY:H	1:X:494:LEU:HA	1.63	0.63
1:2:6:VAL:CG2	1:2:521:VAL:HG22	2.22	0.63
1:B:330:THR:HG22	1:B:331:THR:H	1.62	0.63
1:D:82:ASN:HB2	1:D:89:THR:HG21	1.81	0.63
1:G:146:GLN:O	1:G:150:ILE:HG13	1.98	0.63
1:J:146:GLN:O	1:J:150:ILE:HG13	1.99	0.63
1:R:249:ILE:HB	1:R:275:ALA:CB	2.27	0.63
1:U:131:LEU:CD1	1:U:422:VAL:HG21	2.27	0.63
1:V:146:GLN:O	1:V:150:ILE:HG13	1.99	0.63
1:V:519:CYS:HB3	1:2:38:VAL:HG22	1.79	0.63
1:C:266:THR:HG21	1:C:273:VAL:H	1.64	0.63
1:D:146:GLN:O	1:D:150:ILE:HG13	1.99	0.63
1:E:46:ALA:HB2	1:F:76:GLU:HG3	1.80	0.63
1:E:66:PHE:CE1	1:E:522:THR:HG22	2.34	0.63
1:E:131:LEU:CD1	1:E:422:VAL:HG21	2.29	0.63
1:E:230:ILE:HD12	1:E:261:THR:CG2	2.18	0.63
1:O:414:GLY:H	1:O:494:LEU:HA	1.63	0.63
1:O:524:LEU:CD1	1:O:525:PRO:HD2	2.27	0.63
1:P:66:PHE:CE1	1:P:522:THR:HG22	2.33	0.63
1:Q:198:GLY:O	1:Q:276:VAL:HG12	1.99	0.63
1:T:249:ILE:HB	1:T:275:ALA:CB	2.28	0.63
1:Z:249:ILE:HB	1:Z:275:ALA:CB	2.29	0.63
1:1:266:THR:HG21	1:1:273:VAL:H	1.63	0.63
1:A:359:ASP:O	1:A:363:GLU:HG2	1.99	0.63
1:D:455:VAL:HG11	1:D:462:PRO:HA	1.79	0.63
1:E:82:ASN:HB2	1:E:89:THR:HG21	1.80	0.63
1:H:69:MET:HG2	1:N:41:ASP:OD1	1.98	0.63
1:I:224:ASP:O	1:I:225:LYS:HB3	1.97	0.63
1:P:230:ILE:HD12	1:P:261:THR:CG2	2.19	0.63
1:T:123:ALA:HB2	1:T:440:ILE:HG23	1.79	0.63
1:U:198:GLY:O	1:U:276:VAL:HG12	1.98	0.63
1:A:146:GLN:O	1:A:150:ILE:HG13	1.99	0.63
1:B:455:VAL:HG11	1:B:462:PRO:HA	1.80	0.63
1:D:524:LEU:CD1	1:D:525:PRO:HD2	2.25	0.63
1:E:330:THR:HG22	1:E:331:THR:H	1.63	0.63
1:K:455:VAL:HG11	1:K:462:PRO:HA	1.78	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:247:LEU:HB3	1:L:273:VAL:HG22	1.79	0.63
1:W:414:GLY:H	1:W:494:LEU:HA	1.63	0.63
1:X:123:ALA:HB2	1:X:440:ILE:HG23	1.80	0.63
1:X:414:GLY:O	1:X:417:VAL:HG22	1.98	0.63
1:Y:27:VAL:HG12	1:Y:90:THR:HG23	1.81	0.63
1:Z:266:THR:HG21	1:Z:273:VAL:H	1.63	0.63
1:H:131:LEU:HD12	1:H:422:VAL:CG2	2.28	0.63
1:I:7:LYS:HD2	1:I:66:PHE:HE2	1.64	0.63
1:N:249:ILE:HB	1:N:275:ALA:CB	2.29	0.63
1:P:319:GLN:O	1:P:336:VAL:HG23	1.99	0.63
1:U:8:PHE:HE1	1:U:519:CYS:HG	1.46	0.63
1:W:38:VAL:HG22	1:X:519:CYS:HB3	1.81	0.63
1:Y:414:GLY:O	1:Y:417:VAL:HG22	1.98	0.63
1:D:247:LEU:HB3	1:D:273:VAL:HG22	1.80	0.63
1:D:414:GLY:H	1:D:494:LEU:HA	1.64	0.63
1:F:6:VAL:CG2	1:F:521:VAL:HG22	2.25	0.63
1:I:330:THR:HG22	1:I:331:THR:H	1.63	0.63
1:L:146:GLN:O	1:L:150:ILE:HG13	1.99	0.63
1:T:342:ILE:O	1:T:346:VAL:HG23	1.99	0.63
1:2:247:LEU:HB3	1:2:273:VAL:HG22	1.80	0.63
1:A:6:VAL:CG2	1:A:521:VAL:HG22	2.27	0.62
1:A:7:LYS:HD2	1:A:66:PHE:HE2	1.64	0.62
1:D:7:LYS:HD2	1:D:66:PHE:HE2	1.59	0.62
1:I:179:ASP:HB3	1:I:389:MET:HE1	1.81	0.62
1:J:247:LEU:HB3	1:J:273:VAL:HG22	1.81	0.62
1:K:8:PHE:CE1	1:K:519:CYS:SG	2.92	0.62
1:N:7:LYS:HD2	1:N:66:PHE:HE2	1.60	0.62
1:O:486:GLY:CA	1:O:491:MET:HE2	2.28	0.62
1:R:123:ALA:HB2	1:R:440:ILE:HG23	1.81	0.62
1:R:247:LEU:HB3	1:R:273:VAL:HG22	1.80	0.62
1:X:134:LEU:N	1:X:134:LEU:HD23	2.14	0.62
1:Z:146:GLN:O	1:Z:150:ILE:HG13	1.98	0.62
1:D:27:VAL:HG12	1:D:90:THR:HG23	1.80	0.62
1:H:359:ASP:O	1:H:363:GLU:HG2	2.00	0.62
1:J:230:ILE:HD12	1:J:261:THR:CG2	2.19	0.62
1:K:249:ILE:HB	1:K:275:ALA:CB	2.30	0.62
1:L:8:PHE:HE1	1:L:519:CYS:HG	1.47	0.62
1:L:198:GLY:O	1:L:276:VAL:HG12	1.99	0.62
1:M:198:GLY:O	1:M:276:VAL:HG12	1.99	0.62
1:M:342:ILE:O	1:M:346:VAL:HG23	1.99	0.62
1:O:66:PHE:CE1	1:O:522:THR:HG22	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:249:ILE:HB	1:P:275:ALA:CB	2.28	0.62
1:V:249:ILE:HB	1:V:275:ALA:CB	2.29	0.62
1:Z:124:VAL:O	1:Z:128:VAL:HG23	1.98	0.62
1:Z:330:THR:HG22	1:Z:331:THR:H	1.61	0.62
1:D:359:ASP:O	1:D:363:GLU:HG2	1.99	0.62
1:J:330:THR:HG22	1:J:331:THR:H	1.63	0.62
1:M:7:LYS:HD2	1:M:66:PHE:HE2	1.62	0.62
1:N:90:THR:O	1:N:94:VAL:HG12	1.99	0.62
1:O:414:GLY:O	1:O:417:VAL:HG22	1.99	0.62
1:P:247:LEU:HB3	1:P:273:VAL:HG22	1.80	0.62
1:S:455:VAL:HG11	1:S:462:PRO:HA	1.81	0.62
1:V:90:THR:O	1:V:94:VAL:HG12	1.98	0.62
1:Z:77:VAL:HG11	1:Z:510:VAL:HG21	1.82	0.62
1:B:247:LEU:HB3	1:B:273:VAL:HG22	1.81	0.62
1:F:249:ILE:HB	1:F:275:ALA:CB	2.28	0.62
1:H:247:LEU:HB3	1:H:273:VAL:HG22	1.81	0.62
1:M:249:ILE:HB	1:M:275:ALA:CB	2.29	0.62
1:N:247:LEU:HB3	1:N:273:VAL:HG22	1.80	0.62
1:S:249:ILE:HB	1:S:275:ALA:CB	2.29	0.62
1:T:266:THR:HG21	1:T:273:VAL:H	1.63	0.62
1:T:524:LEU:CD1	1:T:525:PRO:HD2	2.20	0.62
1:U:124:VAL:O	1:U:128:VAL:HG23	2.00	0.62
1:W:131:LEU:CD1	1:W:422:VAL:HG21	2.29	0.62
1:X:249:ILE:HB	1:X:275:ALA:CB	2.29	0.62
1:1:29:VAL:C	1:1:31:LEU:H	2.01	0.62
1:E:146:GLN:O	1:E:150:ILE:HG13	2.00	0.62
1:H:198:GLY:O	1:H:276:VAL:HG12	1.99	0.62
1:I:326:ASN:HD22	1:I:329:THR:HB	1.65	0.62
1:K:266:THR:HG21	1:K:273:VAL:H	1.63	0.62
1:M:146:GLN:O	1:M:150:ILE:HG13	2.00	0.62
1:Q:131:LEU:CD1	1:Q:422:VAL:HG21	2.27	0.62
1:S:359:ASP:O	1:S:363:GLU:HG2	2.00	0.62
1:V:8:PHE:CE1	1:V:519:CYS:SG	2.88	0.62
1:V:134:LEU:N	1:V:134:LEU:HD23	2.14	0.62
1:Z:359:ASP:O	1:Z:363:GLU:HG2	1.99	0.62
1:C:247:LEU:HB3	1:C:273:VAL:HG22	1.80	0.62
1:E:359:ASP:O	1:E:363:GLU:HG2	2.00	0.62
1:I:414:GLY:O	1:I:417:VAL:HG22	2.00	0.62
1:K:359:ASP:O	1:K:363:GLU:HG2	2.00	0.62
1:P:124:VAL:O	1:P:128:VAL:HG23	2.00	0.62
1:R:359:ASP:O	1:R:363:GLU:HG2	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:123:ALA:HB2	1:S:440:ILE:HG23	1.80	0.62
1:U:131:LEU:HD12	1:U:422:VAL:CG2	2.30	0.62
1:U:247:LEU:HB3	1:U:273:VAL:HG22	1.82	0.62
1:V:6:VAL:CG2	1:V:521:VAL:HG22	2.25	0.62
1:X:198:GLY:O	1:X:276:VAL:HG12	1.99	0.62
1:2:8:PHE:HE1	1:2:519:CYS:SG	2.22	0.62
1:B:90:THR:O	1:B:94:VAL:HG12	2.00	0.62
1:B:198:GLY:O	1:B:276:VAL:HG12	1.99	0.62
1:D:131:LEU:CD1	1:D:422:VAL:HG21	2.29	0.62
1:D:330:THR:HG22	1:D:331:THR:H	1.63	0.62
1:D:414:GLY:O	1:D:417:VAL:HG22	1.99	0.62
1:J:77:VAL:HG11	1:J:510:VAL:HG21	1.82	0.62
1:N:34:LYS:HG3	1:N:458:CYS:SG	2.39	0.62
1:P:131:LEU:HD12	1:P:422:VAL:CG2	2.28	0.62
1:Q:65:LYS:O	1:Q:69:MET:HG3	2.00	0.62
1:S:198:GLY:O	1:S:276:VAL:HG12	2.00	0.62
1:T:146:GLN:O	1:T:150:ILE:HG13	2.00	0.62
1:W:230:ILE:HD12	1:W:261:THR:CG2	2.19	0.62
1:1:221:LEU:HD23	1:1:249:ILE:HD12	1.81	0.62
1:2:230:ILE:HD12	1:2:261:THR:CG2	2.20	0.62
1:H:414:GLY:H	1:H:494:LEU:HA	1.63	0.62
1:I:146:GLN:O	1:I:150:ILE:HG13	1.99	0.62
1:J:198:GLY:O	1:J:276:VAL:HG12	1.99	0.62
1:M:46:ALA:HB2	1:N:76:GLU:HG3	1.81	0.62
1:M:255:GLU:O	1:M:257:GLU:N	2.32	0.62
1:N:8:PHE:HE1	1:N:519:CYS:SG	2.23	0.62
1:O:124:VAL:O	1:O:128:VAL:HG23	2.00	0.62
1:O:247:LEU:HB3	1:O:273:VAL:HG22	1.82	0.62
1:T:82:ASN:HB2	1:T:89:THR:HG21	1.81	0.62
1:T:198:GLY:O	1:T:276:VAL:HG12	2.00	0.62
1:2:90:THR:O	1:2:94:VAL:HG12	1.99	0.62
1:2:124:VAL:O	1:2:128:VAL:HG23	2.00	0.62
1:2:524:LEU:CD1	1:2:525:PRO:HD2	2.27	0.62
1:A:198:GLY:O	1:A:276:VAL:HG12	1.99	0.62
1:C:414:GLY:O	1:C:417:VAL:HG22	2.00	0.62
1:M:414:GLY:H	1:M:494:LEU:HA	1.64	0.62
1:Q:249:ILE:HB	1:Q:275:ALA:CB	2.29	0.62
1:Q:455:VAL:HG11	1:Q:462:PRO:HA	1.81	0.62
1:Y:24:ALA:HB3	1:Y:97:GLN:HE21	1.63	0.62
1:A:249:ILE:HB	1:A:275:ALA:CB	2.29	0.62
1:D:134:LEU:HD23	1:D:134:LEU:N	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:82:ASN:HB2	1:I:89:THR:HG21	1.81	0.62
1:J:123:ALA:HB2	1:J:440:ILE:HG23	1.82	0.62
1:J:221:LEU:HD23	1:J:249:ILE:HD12	1.82	0.62
1:K:29:VAL:C	1:K:31:LEU:H	2.01	0.62
1:N:6:VAL:CG2	1:N:521:VAL:HG22	2.24	0.62
1:Q:455:VAL:HG12	1:Q:460:GLU:O	1.99	0.62
1:R:146:GLN:O	1:R:150:ILE:HG13	2.00	0.62
1:R:174:VAL:HB	1:R:376:VAL:HG13	1.81	0.62
1:Y:524:LEU:CD1	1:Y:525:PRO:HD2	2.26	0.62
1:H:34:LYS:HG3	1:H:458:CYS:SG	2.40	0.61
1:I:124:VAL:O	1:I:128:VAL:HG23	2.00	0.61
1:M:124:VAL:O	1:M:128:VAL:HG23	2.00	0.61
1:N:124:VAL:O	1:N:128:VAL:HG23	1.99	0.61
1:R:198:GLY:O	1:R:276:VAL:HG12	2.00	0.61
1:T:241:ALA:HB1	1:U:231:ARG:HH12	1.65	0.61
1:T:247:LEU:HB3	1:T:273:VAL:HG22	1.81	0.61
1:U:194:GLN:HG3	1:U:331:THR:HB	1.79	0.61
1:U:359:ASP:O	1:U:363:GLU:HG2	2.00	0.61
1:Z:455:VAL:HG11	1:Z:462:PRO:HA	1.80	0.61
1:B:359:ASP:O	1:B:363:GLU:HG2	2.00	0.61
1:D:77:VAL:HG11	1:D:510:VAL:HG21	1.82	0.61
1:E:414:GLY:O	1:E:417:VAL:HG22	2.00	0.61
1:G:27:VAL:HG12	1:G:90:THR:HG23	1.82	0.61
1:L:34:LYS:HG3	1:L:458:CYS:SG	2.40	0.61
1:O:252:GLU:O	1:O:253:ASP:HB2	2.00	0.61
1:P:342:ILE:O	1:P:346:VAL:HG23	2.00	0.61
1:R:29:VAL:C	1:R:31:LEU:H	2.03	0.61
1:2:198:GLY:O	1:2:276:VAL:HG12	2.00	0.61
1:F:319:GLN:O	1:F:336:VAL:HG23	2.00	0.61
1:F:414:GLY:H	1:F:494:LEU:HA	1.64	0.61
1:G:6:VAL:CG2	1:G:521:VAL:HG22	2.24	0.61
1:H:134:LEU:N	1:H:134:LEU:HD23	2.16	0.61
1:I:247:LEU:HB3	1:I:273:VAL:HG22	1.82	0.61
1:K:451:LEU:O	1:K:453:GLN:N	2.32	0.61
1:L:455:VAL:HG11	1:L:462:PRO:HA	1.81	0.61
1:M:455:VAL:HG11	1:M:462:PRO:HA	1.83	0.61
1:P:6:VAL:CG2	1:P:521:VAL:HG22	2.28	0.61
1:Q:8:PHE:HE1	1:Q:519:CYS:SG	2.24	0.61
1:2:77:VAL:HG11	1:2:510:VAL:HG21	1.82	0.61
1:H:249:ILE:HB	1:H:275:ALA:CB	2.29	0.61
1:K:34:LYS:HG3	1:K:458:CYS:SG	2.40	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:194:GLN:HG3	1:Q:331:THR:HB	1.82	0.61
1:S:247:LEU:HB3	1:S:273:VAL:HG22	1.82	0.61
1:T:6:VAL:CG2	1:T:521:VAL:HG22	2.27	0.61
1:Y:249:ILE:HB	1:Y:275:ALA:CB	2.29	0.61
1:F:146:GLN:O	1:F:150:ILE:HG13	2.01	0.61
1:G:198:GLY:O	1:G:276:VAL:HG12	2.00	0.61
1:G:455:VAL:HG12	1:G:460:GLU:O	2.00	0.61
1:I:214:GLU:O	1:I:215:LEU:HD23	2.00	0.61
1:M:134:LEU:N	1:M:134:LEU:HD23	2.15	0.61
1:R:414:GLY:O	1:R:417:VAL:HG22	2.00	0.61
1:S:46:ALA:CB	1:T:76:GLU:HG3	2.28	0.61
1:T:381:VAL:HG21	1:T:393:LYS:HA	1.83	0.61
1:C:146:GLN:O	1:C:150:ILE:HG13	2.00	0.61
1:F:409:GLU:O	1:F:497:THR:HB	2.01	0.61
1:I:221:LEU:HD23	1:I:249:ILE:HD12	1.83	0.61
1:J:90:THR:O	1:J:94:VAL:HG12	2.01	0.61
1:T:488:MET:CE	1:T:493:ILE:HG21	2.30	0.61
1:W:146:GLN:O	1:W:150:ILE:HG13	2.00	0.61
1:W:266:THR:HG21	1:W:273:VAL:H	1.64	0.61
1:X:202:PRO:O	1:X:204:PHE:N	2.33	0.61
1:Z:417:VAL:HG11	1:Z:477:GLY:HA3	1.83	0.61
1:1:77:VAL:HG11	1:1:510:VAL:HG21	1.82	0.61
1:C:90:THR:O	1:C:94:VAL:HG12	2.00	0.61
1:G:247:LEU:HB3	1:G:273:VAL:HG22	1.82	0.61
1:K:414:GLY:H	1:K:494:LEU:HA	1.65	0.61
1:L:27:VAL:HG12	1:L:90:THR:HG23	1.80	0.61
1:M:65:LYS:O	1:M:69:MET:HG3	2.01	0.61
1:Q:359:ASP:O	1:Q:363:GLU:HG2	2.00	0.61
1:Q:417:VAL:HG11	1:Q:477:GLY:HA3	1.83	0.61
1:V:77:VAL:HG11	1:V:510:VAL:CG2	2.31	0.61
1:Y:198:GLY:O	1:Y:276:VAL:HG12	2.00	0.61
1:Y:247:LEU:HB3	1:Y:273:VAL:HG22	1.83	0.61
1:Y:359:ASP:O	1:Y:363:GLU:HG2	2.01	0.61
1:Z:27:VAL:HG12	1:Z:90:THR:HG23	1.81	0.61
1:Z:131:LEU:CD1	1:Z:422:VAL:HG21	2.30	0.61
1:Z:247:LEU:HB3	1:Z:273:VAL:HG22	1.83	0.61
1:C:124:VAL:O	1:C:128:VAL:HG23	2.00	0.61
1:E:247:LEU:HB3	1:E:273:VAL:HG22	1.81	0.61
1:G:252:GLU:O	1:G:253:ASP:HB2	2.00	0.61
1:G:414:GLY:O	1:G:417:VAL:HG22	2.01	0.61
1:G:414:GLY:H	1:G:494:LEU:HA	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:524:LEU:CD1	1:H:525:PRO:HD2	2.25	0.61
1:I:90:THR:O	1:I:94:VAL:HG12	2.01	0.61
1:I:134:LEU:HD23	1:I:134:LEU:H	1.66	0.61
1:N:131:LEU:CD1	1:N:422:VAL:HG21	2.31	0.61
1:P:414:GLY:H	1:P:494:LEU:HA	1.65	0.61
1:Q:247:LEU:HB3	1:Q:273:VAL:HG22	1.81	0.61
1:Q:330:THR:HG22	1:Q:331:THR:H	1.63	0.61
1:R:134:LEU:N	1:R:134:LEU:HD23	2.15	0.61
1:R:330:THR:HG22	1:R:331:THR:H	1.65	0.61
1:S:7:LYS:HD2	1:S:66:PHE:HE2	1.63	0.61
1:V:131:LEU:CD1	1:V:422:VAL:HG21	2.31	0.61
1:V:451:LEU:O	1:V:453:GLN:N	2.34	0.61
1:Y:124:VAL:O	1:Y:128:VAL:HG23	2.00	0.61
1:2:417:VAL:HG11	1:2:477:GLY:HA3	1.83	0.61
1:B:77:VAL:HG11	1:B:510:VAL:HG21	1.81	0.61
1:D:29:VAL:C	1:D:31:LEU:H	2.02	0.61
1:H:252:GLU:O	1:H:253:ASP:HB2	2.01	0.61
1:I:417:VAL:O	1:I:418:ALA:C	2.38	0.61
1:K:90:THR:O	1:K:94:VAL:HG12	2.01	0.61
1:L:29:VAL:C	1:L:31:LEU:H	2.03	0.61
1:M:247:LEU:HB3	1:M:273:VAL:HG22	1.82	0.61
1:O:131:LEU:CD1	1:O:422:VAL:HG21	2.29	0.61
1:P:198:GLY:O	1:P:276:VAL:HG12	2.01	0.61
1:S:417:VAL:HG11	1:S:477:GLY:HA3	1.82	0.61
1:U:29:VAL:C	1:U:31:LEU:H	2.04	0.61
1:X:7:LYS:HD2	1:X:66:PHE:HE2	1.66	0.61
1:2:330:THR:HG22	1:2:331:THR:H	1.64	0.61
1:E:65:LYS:O	1:E:69:MET:HG3	2.01	0.61
1:G:134:LEU:N	1:G:134:LEU:HD23	2.15	0.61
1:G:230:ILE:HD12	1:G:261:THR:CG2	2.18	0.61
1:G:249:ILE:HB	1:G:275:ALA:CB	2.31	0.61
1:M:451:LEU:O	1:M:453:GLN:N	2.34	0.61
1:N:77:VAL:HG11	1:N:510:VAL:CG2	2.31	0.61
1:W:29:VAL:C	1:W:31:LEU:H	2.04	0.61
1:W:134:LEU:HD23	1:W:134:LEU:N	2.15	0.61
1:X:455:VAL:HG11	1:X:462:PRO:HA	1.83	0.61
1:Y:7:LYS:HD2	1:Y:66:PHE:HE2	1.65	0.61
1:1:34:LYS:HG3	1:1:458:CYS:SG	2.41	0.61
1:B:70:GLY:HA2	1:B:73:MET:HE3	1.83	0.60
1:C:194:GLN:HG3	1:C:331:THR:HB	1.83	0.60
1:E:194:GLN:HG3	1:E:331:THR:HB	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:146:GLN:O	1:H:150:ILE:HG13	2.00	0.60
1:H:230:ILE:HD12	1:H:261:THR:CG2	2.20	0.60
1:H:266:THR:HG21	1:H:273:VAL:H	1.64	0.60
1:K:66:PHE:HE1	1:K:522:THR:HG22	1.66	0.60
1:K:247:LEU:HB3	1:K:273:VAL:HG22	1.82	0.60
1:L:414:GLY:O	1:L:417:VAL:HG22	2.00	0.60
1:P:38:VAL:HG22	1:Q:519:CYS:HB3	1.81	0.60
1:V:41:ASP:OD1	1:W:69:MET:HG2	2.01	0.60
1:W:7:LYS:HD2	1:W:66:PHE:HE2	1.66	0.60
1:Z:198:GLY:O	1:Z:276:VAL:HG12	2.01	0.60
1:2:381:VAL:HG21	1:2:393:LYS:HA	1.83	0.60
1:H:77:VAL:HG11	1:H:510:VAL:CG2	2.31	0.60
1:J:29:VAL:C	1:J:31:LEU:H	2.03	0.60
1:K:201:SER:O	1:K:202:PRO:O	2.20	0.60
1:L:124:VAL:O	1:L:128:VAL:HG23	2.01	0.60
1:M:77:VAL:HG11	1:M:510:VAL:HG21	1.83	0.60
1:O:359:ASP:O	1:O:363:GLU:HG2	2.01	0.60
1:R:443:ALA:O	1:R:447:MET:HG3	2.01	0.60
1:T:124:VAL:O	1:T:128:VAL:HG23	2.01	0.60
1:U:218:PRO:HB3	1:U:246:PRO:HG2	1.83	0.60
1:Z:524:LEU:CD1	1:Z:525:PRO:HD2	2.26	0.60
1:1:123:ALA:HB2	1:1:440:ILE:HG23	1.83	0.60
1:A:266:THR:HG21	1:A:273:VAL:H	1.63	0.60
1:B:8:PHE:HE1	1:B:519:CYS:SG	2.23	0.60
1:C:221:LEU:HD23	1:C:249:ILE:HD12	1.83	0.60
1:G:124:VAL:O	1:G:128:VAL:HG23	2.01	0.60
1:I:255:GLU:O	1:I:257:GLU:N	2.34	0.60
1:J:24:ALA:HB3	1:J:97:GLN:HE21	1.66	0.60
1:J:131:LEU:CD1	1:J:422:VAL:HG21	2.29	0.60
1:J:414:GLY:H	1:J:494:LEU:HA	1.66	0.60
1:K:131:LEU:CD1	1:K:422:VAL:HG21	2.31	0.60
1:N:455:VAL:HG12	1:N:460:GLU:O	2.01	0.60
1:Q:131:LEU:HD12	1:Q:422:VAL:CG2	2.30	0.60
1:S:252:GLU:O	1:S:253:ASP:HB2	2.01	0.60
1:T:221:LEU:HD23	1:T:249:ILE:HD12	1.82	0.60
1:X:134:LEU:HD23	1:X:134:LEU:H	1.65	0.60
1:Y:451:LEU:O	1:Y:453:GLN:N	2.34	0.60
1:Z:29:VAL:C	1:Z:31:LEU:H	2.03	0.60
1:1:201:SER:O	1:1:202:PRO:O	2.19	0.60
1:A:221:LEU:HD23	1:A:249:ILE:HD12	1.82	0.60
1:D:34:LYS:HG3	1:D:458:CYS:SG	2.41	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:38:VAL:HG22	1:K:519:CYS:HB3	1.83	0.60
1:J:359:ASP:O	1:J:363:GLU:HG2	2.01	0.60
1:M:230:ILE:HD12	1:M:261:THR:CG2	2.19	0.60
1:O:198:GLY:O	1:O:276:VAL:HG12	2.01	0.60
1:P:359:ASP:O	1:P:363:GLU:HG2	2.02	0.60
1:R:417:VAL:O	1:R:418:ALA:C	2.40	0.60
1:S:194:GLN:HG3	1:S:331:THR:HB	1.82	0.60
1:U:455:VAL:HG11	1:U:462:PRO:HA	1.83	0.60
1:1:194:GLN:HG3	1:1:331:THR:HB	1.83	0.60
1:1:242:LYS:C	1:1:244:GLY:H	2.05	0.60
1:2:131:LEU:CD1	1:2:422:VAL:HG21	2.32	0.60
1:C:29:VAL:C	1:C:31:LEU:H	2.03	0.60
1:C:198:GLY:O	1:C:276:VAL:HG12	2.02	0.60
1:D:194:GLN:HG3	1:D:331:THR:HB	1.82	0.60
1:F:451:LEU:O	1:F:453:GLN:N	2.34	0.60
1:L:359:ASP:O	1:L:363:GLU:HG2	2.02	0.60
1:M:221:LEU:HD23	1:M:249:ILE:HD12	1.82	0.60
1:N:198:GLY:O	1:N:276:VAL:HG12	2.01	0.60
1:R:7:LYS:HD2	1:R:66:PHE:HE2	1.65	0.60
1:T:17:LEU:O	1:T:20:VAL:HG22	2.01	0.60
1:U:146:GLN:O	1:U:150:ILE:HG13	2.01	0.60
1:X:381:VAL:HG21	1:X:393:LYS:HA	1.84	0.60
1:Z:123:ALA:HB2	1:Z:440:ILE:HG23	1.83	0.60
1:E:34:LYS:HG3	1:E:458:CYS:SG	2.42	0.60
1:L:524:LEU:CD1	1:L:525:PRO:HD2	2.27	0.60
1:N:221:LEU:HD23	1:N:249:ILE:HD12	1.83	0.60
1:Q:134:LEU:N	1:Q:134:LEU:HD23	2.16	0.60
1:R:131:LEU:CD1	1:R:422:VAL:HG21	2.31	0.60
1:T:414:GLY:O	1:T:417:VAL:HG22	2.00	0.60
1:Y:134:LEU:HD23	1:Y:134:LEU:H	1.65	0.60
1:2:359:ASP:O	1:2:363:GLU:HG2	2.01	0.60
1:C:202:PRO:O	1:C:204:PHE:N	2.33	0.60
1:G:34:LYS:HG3	1:G:458:CYS:SG	2.42	0.60
1:G:359:ASP:O	1:G:363:GLU:HG2	2.01	0.60
1:G:417:VAL:O	1:G:418:ALA:C	2.39	0.60
1:H:124:VAL:O	1:H:128:VAL:HG23	2.02	0.60
1:H:417:VAL:HG11	1:H:477:GLY:HA3	1.83	0.60
1:J:194:GLN:HG3	1:J:331:THR:HB	1.83	0.60
1:O:218:PRO:HB3	1:O:246:PRO:HG2	1.84	0.60
1:P:255:GLU:O	1:P:257:GLU:N	2.35	0.60
1:T:414:GLY:H	1:T:494:LEU:HA	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:252:GLU:O	1:Z:253:ASP:HB2	2.01	0.60
1:1:82:ASN:HB2	1:1:89:THR:HG21	1.83	0.60
1:2:65:LYS:O	1:2:69:MET:HG3	2.01	0.60
1:2:202:PRO:O	1:2:204:PHE:N	2.33	0.60
1:B:46:ALA:CB	1:C:76:GLU:HG3	2.32	0.60
1:B:381:VAL:HG21	1:B:393:LYS:HA	1.84	0.60
1:D:242:LYS:C	1:D:244:GLY:H	2.06	0.60
1:I:66:PHE:HE1	1:I:522:THR:HG22	1.66	0.60
1:K:24:ALA:HB3	1:K:97:GLN:HE21	1.65	0.60
1:L:194:GLN:HG3	1:L:331:THR:HB	1.83	0.60
1:P:65:LYS:O	1:P:69:MET:HG3	2.02	0.60
1:P:417:VAL:HG11	1:P:477:GLY:HA3	1.84	0.60
1:W:359:ASP:O	1:W:363:GLU:HG2	2.02	0.60
1:1:134:LEU:HD23	1:1:134:LEU:H	1.66	0.60
1:2:29:VAL:C	1:2:31:LEU:H	2.04	0.60
1:F:198:GLY:O	1:F:276:VAL:HG12	2.02	0.60
1:I:524:LEU:CD1	1:I:525:PRO:HD2	2.25	0.60
1:M:201:SER:O	1:M:202:PRO:O	2.19	0.60
1:Q:38:VAL:HG22	1:R:519:CYS:HB3	1.82	0.60
1:Q:218:PRO:HB3	1:Q:246:PRO:HG2	1.83	0.60
1:U:65:LYS:O	1:U:69:MET:HG3	2.02	0.60
1:V:247:LEU:HB3	1:V:273:VAL:HG22	1.83	0.60
1:Y:8:PHE:CE1	1:Y:519:CYS:SG	2.92	0.60
1:Y:252:GLU:O	1:Y:253:ASP:HB2	2.02	0.60
1:A:134:LEU:HD23	1:A:134:LEU:N	2.17	0.60
1:A:230:ILE:HD12	1:A:261:THR:CG2	2.20	0.60
1:B:255:GLU:O	1:B:257:GLU:N	2.35	0.60
1:F:7:LYS:HD2	1:F:66:PHE:HE2	1.64	0.60
1:F:417:VAL:HG11	1:F:477:GLY:HA3	1.84	0.60
1:H:134:LEU:HD23	1:H:134:LEU:H	1.67	0.60
1:H:218:PRO:HB3	1:H:246:PRO:HG2	1.84	0.60
1:N:359:ASP:O	1:N:363:GLU:HG2	2.01	0.60
1:P:451:LEU:O	1:P:453:GLN:N	2.34	0.60
1:R:90:THR:O	1:R:94:VAL:HG12	2.01	0.60
1:R:524:LEU:CD1	1:R:525:PRO:HD2	2.26	0.60
1:V:194:GLN:HG3	1:V:331:THR:HB	1.84	0.60
1:V:381:VAL:HG21	1:V:393:LYS:HA	1.84	0.60
1:Y:221:LEU:HD23	1:Y:249:ILE:HD12	1.84	0.60
1:Z:194:GLN:HG3	1:Z:331:THR:HB	1.83	0.60
1:1:214:GLU:O	1:1:215:LEU:HD23	2.02	0.60
1:B:252:GLU:O	1:B:253:ASP:HB2	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:131:LEU:HD12	1:D:422:VAL:CG2	2.31	0.59
1:D:218:PRO:HB3	1:D:246:PRO:HG2	1.84	0.59
1:M:134:LEU:HD23	1:M:134:LEU:H	1.66	0.59
1:O:131:LEU:HD12	1:O:422:VAL:CG2	2.32	0.59
1:R:194:GLN:HG3	1:R:331:THR:HB	1.84	0.59
1:R:414:GLY:H	1:R:494:LEU:HA	1.67	0.59
1:S:65:LYS:O	1:S:69:MET:HG3	2.02	0.59
1:T:29:VAL:C	1:T:31:LEU:H	2.05	0.59
1:X:131:LEU:HD12	1:X:422:VAL:CG2	2.30	0.59
1:X:255:GLU:O	1:X:257:GLU:N	2.35	0.59
1:1:136:VAL:O	1:1:137:PRO:O	2.19	0.59
1:F:90:THR:O	1:F:94:VAL:HG12	2.02	0.59
1:F:255:GLU:O	1:F:257:GLU:N	2.35	0.59
1:K:65:LYS:O	1:K:69:MET:HG3	2.01	0.59
1:L:242:LYS:C	1:L:244:GLY:H	2.05	0.59
1:M:29:VAL:C	1:M:31:LEU:H	2.05	0.59
1:N:194:GLN:HG3	1:N:331:THR:HB	1.84	0.59
1:N:255:GLU:O	1:N:257:GLU:N	2.36	0.59
1:S:255:GLU:O	1:S:257:GLU:N	2.36	0.59
1:V:359:ASP:O	1:V:363:GLU:HG2	2.03	0.59
1:X:242:LYS:C	1:X:244:GLY:H	2.06	0.59
1:A:77:VAL:HG11	1:A:510:VAL:HG21	1.83	0.59
1:K:414:GLY:O	1:K:417:VAL:HG22	2.03	0.59
1:O:451:LEU:O	1:O:453:GLN:N	2.35	0.59
1:P:381:VAL:HG21	1:P:393:LYS:HA	1.84	0.59
1:R:124:VAL:O	1:R:128:VAL:HG23	2.02	0.59
1:W:131:LEU:HD12	1:W:422:VAL:CG2	2.31	0.59
1:Y:29:VAL:C	1:Y:31:LEU:H	2.04	0.59
1:Z:218:PRO:HB3	1:Z:246:PRO:HG2	1.84	0.59
1:B:38:VAL:HG22	1:C:519:CYS:HB3	1.84	0.59
1:E:134:LEU:N	1:E:134:LEU:HD23	2.17	0.59
1:F:414:GLY:O	1:F:417:VAL:HG22	2.03	0.59
1:I:29:VAL:C	1:I:31:LEU:H	2.05	0.59
1:I:65:LYS:O	1:I:69:MET:HG3	2.02	0.59
1:I:131:LEU:CD1	1:I:422:VAL:HG21	2.32	0.59
1:K:272:LYS:NZ	1:L:228:SER:HB3	2.17	0.59
1:M:194:GLN:HG3	1:M:331:THR:HB	1.84	0.59
1:P:409:GLU:O	1:P:497:THR:HB	2.03	0.59
1:U:77:VAL:HG11	1:U:510:VAL:HG21	1.82	0.59
1:X:240:VAL:O	1:X:240:VAL:HG12	2.00	0.59
1:Z:90:THR:O	1:Z:94:VAL:HG12	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:134:LEU:N	1:Z:134:LEU:HD23	2.17	0.59
1:2:221:LEU:HD23	1:2:249:ILE:HD12	1.84	0.59
1:C:38:VAL:HG22	1:D:519:CYS:HB3	1.85	0.59
1:H:194:GLN:HG3	1:H:331:THR:HB	1.83	0.59
1:H:221:LEU:HD23	1:H:249:ILE:HD12	1.84	0.59
1:I:381:VAL:HG21	1:I:393:LYS:HA	1.85	0.59
1:K:6:VAL:CG2	1:K:521:VAL:HG22	2.26	0.59
1:K:381:VAL:HG21	1:K:393:LYS:HA	1.83	0.59
1:L:221:LEU:HD23	1:L:249:ILE:HD12	1.84	0.59
1:L:311:LYS:NZ	1:U:242:LYS:HD3	2.17	0.59
1:R:34:LYS:HG3	1:R:458:CYS:SG	2.41	0.59
1:R:134:LEU:HD23	1:R:134:LEU:H	1.68	0.59
1:U:249:ILE:HB	1:U:275:ALA:CB	2.32	0.59
1:W:417:VAL:HG11	1:W:477:GLY:HA3	1.85	0.59
1:C:414:GLY:H	1:C:494:LEU:HA	1.68	0.59
1:E:255:GLU:O	1:E:257:GLU:N	2.35	0.59
1:L:131:LEU:CD1	1:L:422:VAL:HG21	2.31	0.59
1:Q:29:VAL:C	1:Q:31:LEU:H	2.04	0.59
1:R:252:GLU:O	1:R:253:ASP:HB2	2.02	0.59
1:T:194:GLN:HG3	1:T:331:THR:HB	1.85	0.59
1:W:218:PRO:HB3	1:W:246:PRO:HG2	1.84	0.59
1:1:247:LEU:HB3	1:1:273:VAL:HG22	1.83	0.59
1:2:414:GLY:H	1:2:494:LEU:HA	1.66	0.59
1:B:131:LEU:CD1	1:B:422:VAL:HG21	2.31	0.59
1:B:194:GLN:HG3	1:B:331:THR:HB	1.82	0.59
1:C:381:VAL:HG21	1:C:393:LYS:HA	1.85	0.59
1:G:194:GLN:HG3	1:G:331:THR:HB	1.84	0.59
1:H:77:VAL:CG1	1:H:510:VAL:HG21	2.33	0.59
1:I:242:LYS:C	1:I:244:GLY:H	2.06	0.59
1:I:252:GLU:O	1:I:253:ASP:HB2	2.02	0.59
1:L:240:VAL:O	1:L:240:VAL:HG12	2.02	0.59
1:P:417:VAL:O	1:P:418:ALA:C	2.40	0.59
1:S:90:THR:O	1:S:94:VAL:HG12	2.03	0.59
1:S:131:LEU:HD12	1:S:422:VAL:CG2	2.30	0.59
1:W:194:GLN:HG3	1:W:331:THR:HB	1.83	0.59
1:Y:202:PRO:O	1:Y:204:PHE:N	2.34	0.59
1:B:240:VAL:O	1:B:240:VAL:HG12	2.03	0.59
1:F:488:MET:CE	1:F:493:ILE:HG21	2.33	0.59
1:G:131:LEU:CD1	1:G:422:VAL:HG21	2.32	0.59
1:L:134:LEU:HD23	1:L:134:LEU:N	2.18	0.59
1:M:240:VAL:O	1:M:240:VAL:HG12	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:214:GLU:O	1:N:215:LEU:HD23	2.03	0.59
1:O:465:VAL:O	1:O:469:VAL:HG23	2.02	0.59
1:W:242:LYS:C	1:W:244:GLY:H	2.06	0.59
1:Y:381:VAL:HG21	1:Y:393:LYS:HA	1.84	0.59
1:2:252:GLU:O	1:2:253:ASP:HB2	2.02	0.59
1:B:131:LEU:HD12	1:B:422:VAL:CG2	2.32	0.59
1:H:381:VAL:HG21	1:H:393:LYS:HA	1.84	0.59
1:I:414:GLY:H	1:I:494:LEU:HA	1.67	0.59
1:V:77:VAL:CG1	1:V:510:VAL:HG21	2.33	0.59
1:V:453:GLN:O	1:V:456:LEU:N	2.34	0.59
1:X:6:VAL:CG2	1:X:521:VAL:HG22	2.26	0.59
1:Y:134:LEU:HD23	1:Y:134:LEU:N	2.18	0.59
1:1:46:ALA:HB2	1:2:76:GLU:HG3	1.85	0.59
1:2:240:VAL:O	1:2:240:VAL:HG12	2.02	0.59
1:C:451:LEU:O	1:C:453:GLN:N	2.36	0.59
1:F:8:PHE:HE1	1:F:519:CYS:SG	2.26	0.59
1:H:488:MET:CE	1:H:493:ILE:HG21	2.33	0.59
1:J:65:LYS:O	1:J:69:MET:HG3	2.03	0.59
1:J:218:PRO:HB3	1:J:246:PRO:HG2	1.85	0.59
1:J:255:GLU:O	1:J:257:GLU:N	2.36	0.59
1:K:252:GLU:O	1:K:253:ASP:HB2	2.03	0.59
1:L:252:GLU:O	1:L:253:ASP:HB2	2.02	0.59
1:O:194:GLN:HG3	1:O:331:THR:HB	1.83	0.59
1:A:443:ALA:O	1:A:447:MET:HG3	2.03	0.58
1:B:65:LYS:O	1:B:69:MET:HG3	2.02	0.58
1:B:124:VAL:O	1:B:128:VAL:HG23	2.03	0.58
1:F:221:LEU:HD23	1:F:249:ILE:HD12	1.84	0.58
1:G:218:PRO:HB3	1:G:246:PRO:HG2	1.85	0.58
1:H:90:THR:O	1:H:94:VAL:HG12	2.02	0.58
1:I:240:VAL:O	1:I:240:VAL:HG12	2.03	0.58
1:P:404:ARG:HG2	1:P:404:ARG:HH11	1.68	0.58
1:Q:66:PHE:HE1	1:Q:522:THR:HG22	1.68	0.58
1:S:29:VAL:C	1:S:31:LEU:H	2.04	0.58
1:U:221:LEU:HD23	1:U:249:ILE:HD12	1.85	0.58
1:U:381:VAL:HG21	1:U:393:LYS:HA	1.84	0.58
1:V:130:GLU:HB3	1:V:422:VAL:HG13	1.85	0.58
1:V:221:LEU:HD23	1:V:249:ILE:HD12	1.85	0.58
1:X:90:THR:O	1:X:94:VAL:HG12	2.03	0.58
1:1:255:GLU:O	1:1:257:GLU:N	2.35	0.58
1:2:214:GLU:O	1:2:215:LEU:HD23	2.02	0.58
1:F:359:ASP:O	1:F:363:GLU:HG2	2.01	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:221:LEU:HD23	1:G:249:ILE:HD12	1.84	0.58
1:N:131:LEU:HD12	1:N:422:VAL:CG2	2.32	0.58
1:N:252:GLU:O	1:N:253:ASP:HB2	2.03	0.58
1:O:417:VAL:HG11	1:O:477:GLY:HA3	1.85	0.58
1:P:202:PRO:O	1:P:204:PHE:N	2.35	0.58
1:Q:242:LYS:C	1:Q:244:GLY:H	2.06	0.58
1:U:242:LYS:C	1:U:244:GLY:H	2.06	0.58
1:Z:255:GLU:O	1:Z:257:GLU:N	2.37	0.58
1:C:218:PRO:HB3	1:C:246:PRO:HG2	1.84	0.58
1:D:221:LEU:HD23	1:D:249:ILE:HD12	1.84	0.58
1:F:134:LEU:N	1:F:134:LEU:HD23	2.18	0.58
1:J:131:LEU:HD12	1:J:422:VAL:CG2	2.31	0.58
1:J:381:VAL:HG21	1:J:393:LYS:HA	1.85	0.58
1:K:77:VAL:HG11	1:K:510:VAL:HG21	1.85	0.58
1:M:123:ALA:HB2	1:M:440:ILE:HG23	1.83	0.58
1:M:242:LYS:C	1:M:244:GLY:H	2.07	0.58
1:N:381:VAL:HG21	1:N:393:LYS:HA	1.85	0.58
1:P:201:SER:O	1:P:202:PRO:O	2.22	0.58
1:P:214:GLU:O	1:P:215:LEU:HD23	2.03	0.58
1:S:404:ARG:HG2	1:S:404:ARG:HH11	1.68	0.58
1:T:24:ALA:HB3	1:T:97:GLN:HE21	1.68	0.58
1:T:90:THR:O	1:T:94:VAL:HG12	2.02	0.58
1:V:414:GLY:H	1:V:494:LEU:HA	1.68	0.58
1:X:359:ASP:O	1:X:363:GLU:HG2	2.04	0.58
1:Z:381:VAL:HG21	1:Z:393:LYS:HA	1.84	0.58
1:2:247:LEU:O	1:2:273:VAL:HG13	2.02	0.58
1:B:218:PRO:HB3	1:B:246:PRO:HG2	1.86	0.58
1:C:77:VAL:HG11	1:C:510:VAL:HG21	1.84	0.58
1:D:8:PHE:HE1	1:D:519:CYS:SG	2.27	0.58
1:D:419:LEU:HD21	1:D:500:THR:HG22	1.84	0.58
1:G:417:VAL:HG11	1:G:477:GLY:HA3	1.85	0.58
1:H:455:VAL:HG12	1:H:460:GLU:O	2.03	0.58
1:S:201:SER:O	1:S:202:PRO:O	2.21	0.58
1:U:8:PHE:HE1	1:U:519:CYS:SG	2.26	0.58
1:U:134:LEU:N	1:U:134:LEU:HD23	2.18	0.58
1:W:124:VAL:O	1:W:128:VAL:HG23	2.04	0.58
1:W:465:VAL:O	1:W:469:VAL:HG23	2.03	0.58
1:X:417:VAL:O	1:X:418:ALA:C	2.41	0.58
1:Y:131:LEU:CD1	1:Y:422:VAL:HG21	2.32	0.58
1:Z:221:LEU:HD23	1:Z:249:ILE:HD12	1.85	0.58
1:F:524:LEU:CD1	1:F:525:PRO:HD2	2.25	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:255:GLU:O	1:H:257:GLU:N	2.36	0.58
1:J:451:LEU:O	1:J:453:GLN:N	2.36	0.58
1:M:524:LEU:CD1	1:M:525:PRO:HD2	2.30	0.58
1:N:77:VAL:CG1	1:N:510:VAL:HG21	2.33	0.58
1:P:29:VAL:C	1:P:31:LEU:H	2.06	0.58
1:Q:202:PRO:O	1:Q:204:PHE:N	2.35	0.58
1:S:77:VAL:HG11	1:S:510:VAL:HG21	1.84	0.58
1:T:242:LYS:C	1:T:244:GLY:H	2.06	0.58
1:T:404:ARG:HG2	1:T:404:ARG:HH11	1.67	0.58
1:T:417:VAL:O	1:T:418:ALA:C	2.42	0.58
1:Z:24:ALA:HB3	1:Z:97:GLN:HE21	1.68	0.58
1:1:414:GLY:H	1:1:494:LEU:HA	1.68	0.58
1:1:447:MET:HE3	1:1:504:LEU:HD21	1.86	0.58
1:A:252:GLU:O	1:A:253:ASP:HB2	2.03	0.58
1:B:219:PHE:O	1:B:247:LEU:HD12	2.04	0.58
1:C:201:SER:O	1:C:202:PRO:O	2.21	0.58
1:E:131:LEU:HD12	1:E:422:VAL:CG2	2.32	0.58
1:E:417:VAL:O	1:E:418:ALA:C	2.41	0.58
1:F:124:VAL:O	1:F:128:VAL:HG23	2.03	0.58
1:F:252:GLU:O	1:F:253:ASP:HB2	2.03	0.58
1:L:201:SER:O	1:L:202:PRO:O	2.22	0.58
1:L:404:ARG:HG2	1:L:404:ARG:HH11	1.68	0.58
1:M:90:THR:O	1:M:94:VAL:HG12	2.04	0.58
1:O:8:PHE:HE1	1:O:519:CYS:SG	2.26	0.58
1:Q:252:GLU:O	1:Q:253:ASP:HB2	2.02	0.58
1:Q:381:VAL:HG21	1:Q:393:LYS:HA	1.86	0.58
1:S:417:VAL:O	1:S:418:ALA:C	2.41	0.58
1:T:230:ILE:CD1	1:T:261:THR:HG21	2.22	0.58
1:V:252:GLU:O	1:V:253:ASP:HB2	2.03	0.58
1:W:134:LEU:HD23	1:W:134:LEU:H	1.68	0.58
1:W:214:GLU:O	1:W:215:LEU:HD23	2.04	0.58
1:X:252:GLU:O	1:X:253:ASP:HB2	2.03	0.58
1:Y:61:GLU:C	1:Y:62:LEU:HD23	2.24	0.58
1:1:131:LEU:CD1	1:1:422:VAL:HG21	2.33	0.58
1:1:417:VAL:O	1:1:418:ALA:C	2.41	0.58
1:C:417:VAL:O	1:C:418:ALA:C	2.41	0.58
1:G:201:SER:O	1:G:202:PRO:O	2.22	0.58
1:I:447:MET:HE3	1:I:504:LEU:HD21	1.86	0.58
1:M:62:LEU:N	1:M:62:LEU:CD2	2.66	0.58
1:M:455:VAL:HG12	1:M:460:GLU:O	2.04	0.58
1:N:247:LEU:O	1:N:273:VAL:HG13	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:417:VAL:O	1:O:418:ALA:C	2.41	0.58
1:P:134:LEU:N	1:P:134:LEU:HD23	2.18	0.58
1:Q:134:LEU:HD23	1:Q:134:LEU:H	1.68	0.58
1:Q:404:ARG:HG2	1:Q:404:ARG:HH11	1.69	0.58
1:Q:451:LEU:O	1:Q:453:GLN:N	2.36	0.58
1:R:131:LEU:HD12	1:R:422:VAL:CG2	2.33	0.58
1:T:23:LEU:HD22	1:T:75:LYS:HB2	1.86	0.58
1:T:134:LEU:HD23	1:T:134:LEU:N	2.18	0.58
1:T:218:PRO:HB3	1:T:246:PRO:HG2	1.84	0.58
1:X:29:VAL:C	1:X:31:LEU:H	2.06	0.58
1:X:221:LEU:HD23	1:X:249:ILE:HD12	1.85	0.58
1:2:201:SER:O	1:2:202:PRO:O	2.22	0.58
1:B:77:VAL:CG1	1:B:510:VAL:HG21	2.34	0.58
1:E:242:LYS:C	1:E:244:GLY:H	2.06	0.58
1:F:134:LEU:HD23	1:F:134:LEU:H	1.69	0.58
1:G:134:LEU:HD23	1:G:134:LEU:H	1.69	0.58
1:G:255:GLU:O	1:G:257:GLU:N	2.37	0.58
1:K:221:LEU:HD23	1:K:249:ILE:HD12	1.86	0.58
1:O:242:LYS:C	1:O:244:GLY:H	2.07	0.58
1:P:194:GLN:HG3	1:P:331:THR:HB	1.85	0.58
1:Q:221:LEU:HD23	1:Q:249:ILE:HD12	1.86	0.58
1:S:524:LEU:CD1	1:S:525:PRO:HD2	2.26	0.58
1:V:29:VAL:C	1:V:31:LEU:H	2.05	0.58
1:W:381:VAL:HG21	1:W:393:LYS:HA	1.84	0.58
1:W:524:LEU:CD1	1:W:525:PRO:HD2	2.28	0.58
1:X:266:THR:HG22	1:X:271:VAL:O	2.04	0.58
1:Y:77:VAL:HG11	1:Y:510:VAL:HG21	1.86	0.58
1:2:194:GLN:HG3	1:2:331:THR:HB	1.85	0.58
1:E:417:VAL:HG12	1:E:469:VAL:HG11	1.85	0.58
1:G:404:ARG:HG2	1:G:404:ARG:HH11	1.69	0.58
1:I:8:PHE:HE1	1:I:519:CYS:HG	1.52	0.58
1:J:417:VAL:HG11	1:J:477:GLY:HA3	1.86	0.58
1:K:255:GLU:O	1:K:257:GLU:N	2.36	0.58
1:O:219:PHE:O	1:O:247:LEU:HD12	2.04	0.58
1:Q:409:GLU:O	1:Q:497:THR:HB	2.03	0.58
1:S:219:PHE:O	1:S:247:LEU:HD12	2.04	0.58
1:U:90:THR:O	1:U:94:VAL:HG12	2.04	0.58
1:U:451:LEU:O	1:U:453:GLN:N	2.37	0.58
1:V:24:ALA:O	1:V:26:ALA:N	2.37	0.58
1:V:348:GLN:O	1:V:352:GLN:HG2	2.04	0.58
1:V:417:VAL:HG11	1:V:477:GLY:HA3	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:455:VAL:HG12	1:X:460:GLU:O	2.04	0.58
1:Y:194:GLN:HG3	1:Y:331:THR:HB	1.85	0.58
1:A:194:GLN:HG3	1:A:331:THR:HB	1.85	0.58
1:A:414:GLY:H	1:A:494:LEU:HA	1.68	0.58
1:A:417:VAL:O	1:A:418:ALA:C	2.42	0.58
1:B:201:SER:O	1:B:202:PRO:O	2.21	0.58
1:C:131:LEU:CD1	1:C:422:VAL:HG21	2.34	0.58
1:E:90:THR:O	1:E:94:VAL:HG12	2.04	0.58
1:E:221:LEU:HD23	1:E:249:ILE:HD12	1.84	0.58
1:E:486:GLY:CA	1:E:491:MET:HE2	2.34	0.58
1:F:247:LEU:HB3	1:F:273:VAL:HG22	1.85	0.58
1:I:194:GLN:HG3	1:I:331:THR:HB	1.85	0.58
1:J:134:LEU:N	1:J:134:LEU:HD23	2.18	0.58
1:L:381:VAL:HG21	1:L:393:LYS:HA	1.85	0.58
1:O:221:LEU:HD23	1:O:249:ILE:HD12	1.86	0.58
1:R:65:LYS:O	1:R:69:MET:HG3	2.04	0.58
1:S:218:PRO:HB3	1:S:246:PRO:HG2	1.86	0.58
1:T:255:GLU:O	1:T:257:GLU:N	2.37	0.58
1:U:240:VAL:O	1:U:240:VAL:HG12	2.03	0.58
1:U:417:VAL:O	1:U:418:ALA:C	2.41	0.58
1:X:247:LEU:O	1:X:273:VAL:HG13	2.04	0.58
1:Z:77:VAL:HG11	1:Z:510:VAL:CG2	2.34	0.58
1:Z:417:VAL:HG21	1:Z:488:MET:HG3	1.86	0.58
1:1:240:VAL:O	1:1:240:VAL:HG12	2.04	0.58
1:2:255:GLU:O	1:2:257:GLU:N	2.36	0.58
1:E:214:GLU:O	1:E:215:LEU:HD23	2.04	0.57
1:F:201:SER:O	1:F:202:PRO:O	2.22	0.57
1:F:381:VAL:HG21	1:F:393:LYS:HA	1.85	0.57
1:G:242:LYS:C	1:G:244:GLY:H	2.07	0.57
1:J:242:LYS:C	1:J:244:GLY:H	2.08	0.57
1:K:194:GLN:HG3	1:K:331:THR:HB	1.86	0.57
1:M:131:LEU:HD12	1:M:422:VAL:CG2	2.30	0.57
1:M:404:ARG:HG2	1:M:404:ARG:HH11	1.69	0.57
1:O:348:GLN:O	1:O:352:GLN:HG2	2.04	0.57
1:P:455:VAL:HG12	1:P:460:GLU:O	2.04	0.57
1:Q:255:GLU:O	1:Q:257:GLU:N	2.37	0.57
1:S:134:LEU:N	1:S:134:LEU:HD23	2.19	0.57
1:U:404:ARG:HG2	1:U:404:ARG:HH11	1.68	0.57
1:V:179:ASP:HB3	1:V:389:MET:HE1	1.86	0.57
1:W:65:LYS:O	1:W:69:MET:HG3	2.03	0.57
1:W:221:LEU:HD23	1:W:249:ILE:HD12	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:417:VAL:HG12	1:1:469:VAL:HG11	1.86	0.57
1:2:70:GLY:HA2	1:2:73:MET:CE	2.34	0.57
1:2:134:LEU:N	1:2:134:LEU:HD23	2.19	0.57
1:A:131:LEU:CD1	1:A:422:VAL:HG21	2.34	0.57
1:A:348:GLN:O	1:A:352:GLN:HG2	2.04	0.57
1:B:77:VAL:HG11	1:B:510:VAL:CG2	2.34	0.57
1:D:252:GLU:O	1:D:253:ASP:HB2	2.03	0.57
1:E:252:GLU:O	1:E:253:ASP:HB2	2.02	0.57
1:H:242:LYS:C	1:H:244:GLY:H	2.08	0.57
1:J:70:GLY:HA2	1:J:73:MET:CE	2.33	0.57
1:J:77:VAL:HG11	1:J:510:VAL:CG2	2.34	0.57
1:J:252:GLU:O	1:J:253:ASP:HB2	2.03	0.57
1:M:381:VAL:HG21	1:M:393:LYS:HA	1.85	0.57
1:N:443:ALA:O	1:N:447:MET:HG3	2.04	0.57
1:O:24:ALA:HB3	1:O:97:GLN:HE21	1.69	0.57
1:O:202:PRO:O	1:O:204:PHE:N	2.34	0.57
1:O:381:VAL:HG21	1:O:393:LYS:HA	1.87	0.57
1:Q:16:MET:SD	1:Q:73:MET:HE1	2.44	0.57
1:Q:201:SER:O	1:Q:202:PRO:O	2.22	0.57
1:R:8:PHE:HE1	1:R:519:CYS:HG	1.52	0.57
1:T:240:VAL:O	1:T:240:VAL:HG12	2.05	0.57
1:U:255:GLU:O	1:U:257:GLU:N	2.37	0.57
1:Y:218:PRO:HB3	1:Y:246:PRO:HG2	1.87	0.57
1:Y:273:VAL:HG12	1:Y:274:ALA:N	2.19	0.57
1:Z:8:PHE:HE1	1:Z:519:CYS:SG	2.27	0.57
1:Z:242:LYS:C	1:Z:244:GLY:H	2.08	0.57
1:Z:417:VAL:O	1:Z:418:ALA:C	2.42	0.57
1:A:242:LYS:C	1:A:244:GLY:H	2.07	0.57
1:A:451:LEU:O	1:A:453:GLN:N	2.38	0.57
1:C:255:GLU:O	1:C:257:GLU:N	2.37	0.57
1:C:359:ASP:O	1:C:363:GLU:HG2	2.04	0.57
1:E:201:SER:O	1:E:202:PRO:O	2.22	0.57
1:H:65:LYS:O	1:H:69:MET:HG3	2.04	0.57
1:H:214:GLU:O	1:H:215:LEU:HD23	2.04	0.57
1:H:240:VAL:O	1:H:240:VAL:HG12	2.03	0.57
1:J:8:PHE:HE1	1:J:519:CYS:SG	2.28	0.57
1:J:348:GLN:O	1:J:352:GLN:HG2	2.05	0.57
1:R:240:VAL:O	1:R:240:VAL:HG12	2.03	0.57
1:R:348:GLN:O	1:R:352:GLN:HG2	2.04	0.57
1:T:417:VAL:HG11	1:T:477:GLY:HA3	1.86	0.57
1:X:201:SER:O	1:X:202:PRO:O	2.22	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:451:LEU:O	1:X:453:GLN:N	2.37	0.57
1:A:255:GLU:O	1:A:257:GLU:N	2.36	0.57
1:F:65:LYS:O	1:F:69:MET:HG3	2.05	0.57
1:J:240:VAL:O	1:J:240:VAL:HG12	2.04	0.57
1:K:272:LYS:HZ1	1:L:228:SER:HB3	1.68	0.57
1:M:218:PRO:HB3	1:M:246:PRO:HG2	1.86	0.57
1:P:218:PRO:HB3	1:P:246:PRO:HG2	1.86	0.57
1:R:404:ARG:HG2	1:R:404:ARG:HH11	1.70	0.57
1:W:202:PRO:O	1:W:204:PHE:N	2.34	0.57
1:X:194:GLN:HG3	1:X:331:THR:HB	1.85	0.57
1:Y:34:LYS:HG3	1:Y:458:CYS:SG	2.44	0.57
1:Y:240:VAL:O	1:Y:240:VAL:HG12	2.03	0.57
1:Z:240:VAL:HG12	1:Z:240:VAL:O	2.04	0.57
1:1:381:VAL:HG21	1:1:393:LYS:HA	1.85	0.57
1:2:70:GLY:HA2	1:2:73:MET:HE3	1.85	0.57
1:2:131:LEU:HD12	1:2:422:VAL:CG2	2.33	0.57
1:B:417:VAL:HG11	1:B:477:GLY:HA3	1.87	0.57
1:C:179:ASP:HB3	1:C:389:MET:HE1	1.86	0.57
1:C:417:VAL:HG11	1:C:477:GLY:HA3	1.87	0.57
1:D:240:VAL:O	1:D:240:VAL:HG12	2.04	0.57
1:G:381:VAL:HG21	1:G:393:LYS:HA	1.85	0.57
1:K:202:PRO:O	1:K:204:PHE:N	2.36	0.57
1:K:404:ARG:HG2	1:K:404:ARG:HH11	1.69	0.57
1:L:420:ILE:HD12	1:L:451:LEU:HD22	1.86	0.57
1:N:24:ALA:HB3	1:N:97:GLN:HE21	1.70	0.57
1:T:417:VAL:HG12	1:T:469:VAL:HG11	1.85	0.57
1:V:201:SER:O	1:V:202:PRO:O	2.22	0.57
1:1:77:VAL:HG11	1:1:510:VAL:CG2	2.35	0.57
1:1:252:GLU:O	1:1:253:ASP:HB2	2.03	0.57
1:2:77:VAL:HG11	1:2:510:VAL:CG2	2.35	0.57
1:A:240:VAL:O	1:A:240:VAL:HG12	2.05	0.57
1:A:417:VAL:HG11	1:A:477:GLY:HA3	1.87	0.57
1:D:266:THR:HG22	1:D:271:VAL:O	2.04	0.57
1:D:404:ARG:HH11	1:D:404:ARG:HG2	1.68	0.57
1:F:46:ALA:CB	1:G:76:GLU:HG3	2.32	0.57
1:G:214:GLU:O	1:G:215:LEU:HD23	2.05	0.57
1:G:240:VAL:HG12	1:G:240:VAL:O	2.04	0.57
1:J:417:VAL:O	1:J:418:ALA:C	2.42	0.57
1:K:242:LYS:C	1:K:244:GLY:H	2.07	0.57
1:K:455:VAL:HG12	1:K:460:GLU:O	2.04	0.57
1:L:417:VAL:O	1:L:418:ALA:C	2.42	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:201:SER:O	1:N:202:PRO:O	2.22	0.57
1:N:273:VAL:HG12	1:N:274:ALA:N	2.19	0.57
1:P:90:THR:O	1:P:94:VAL:HG12	2.04	0.57
1:Q:240:VAL:O	1:Q:240:VAL:HG12	2.04	0.57
1:S:124:VAL:O	1:S:128:VAL:HG23	2.04	0.57
1:S:240:VAL:O	1:S:240:VAL:HG12	2.03	0.57
1:U:24:ALA:HB3	1:U:97:GLN:HE21	1.69	0.57
1:W:252:GLU:O	1:W:253:ASP:HB2	2.04	0.57
1:X:77:VAL:HG11	1:X:510:VAL:HG21	1.86	0.57
1:X:230:ILE:CD1	1:X:261:THR:HG21	2.23	0.57
1:X:369:VAL:HG23	1:X:370:ALA:N	2.20	0.57
1:Y:488:MET:CE	1:Y:493:ILE:HG21	2.34	0.57
1:2:62:LEU:N	1:2:62:LEU:CD2	2.67	0.57
1:B:417:VAL:O	1:B:418:ALA:C	2.41	0.57
1:B:455:VAL:HG12	1:B:460:GLU:O	2.05	0.57
1:E:29:VAL:C	1:E:31:LEU:H	2.06	0.57
1:E:524:LEU:CD1	1:E:525:PRO:HD2	2.28	0.57
1:F:455:VAL:HG12	1:F:460:GLU:O	2.04	0.57
1:H:8:PHE:HE1	1:H:519:CYS:SG	2.28	0.57
1:M:359:ASP:O	1:M:363:GLU:HG2	2.04	0.57
1:N:240:VAL:O	1:N:240:VAL:HG12	2.03	0.57
1:N:404:ARG:HG2	1:N:404:ARG:HH11	1.70	0.57
1:O:486:GLY:HA3	1:O:491:MET:HE2	1.87	0.57
1:R:214:GLU:O	1:R:215:LEU:HD23	2.05	0.57
1:R:218:PRO:HB3	1:R:246:PRO:HG2	1.86	0.57
1:S:242:LYS:C	1:S:244:GLY:H	2.08	0.57
1:S:348:GLN:O	1:S:352:GLN:HG2	2.05	0.57
1:V:404:ARG:HG2	1:V:404:ARG:HH11	1.68	0.57
1:W:240:VAL:O	1:W:240:VAL:HG12	2.04	0.57
1:X:465:VAL:O	1:X:469:VAL:HG23	2.04	0.57
1:F:123:ALA:HB2	1:F:440:ILE:HG23	1.86	0.57
1:F:348:GLN:O	1:F:352:GLN:HG2	2.05	0.57
1:K:41:ASP:OD1	1:L:69:MET:HG2	2.05	0.57
1:K:447:MET:HE3	1:K:504:LEU:HD21	1.86	0.57
1:L:131:LEU:HD12	1:L:422:VAL:CG2	2.34	0.57
1:M:443:ALA:O	1:M:447:MET:HG3	2.05	0.57
1:O:65:LYS:O	1:O:69:MET:HG3	2.04	0.57
1:O:134:LEU:HD23	1:O:134:LEU:N	2.20	0.57
1:T:348:GLN:O	1:T:352:GLN:HG2	2.04	0.57
1:U:214:GLU:O	1:U:215:LEU:HD23	2.04	0.57
1:V:112:ASN:OD1	1:V:114:MET:N	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:230:ILE:CD1	1:V:261:THR:HG21	2.22	0.57
1:Y:120:ILE:HG13	1:Y:439:GLY:O	2.05	0.57
1:Y:242:LYS:C	1:Y:244:GLY:H	2.07	0.57
1:Y:255:GLU:O	1:Y:257:GLU:N	2.38	0.57
1:Y:419:LEU:HD21	1:Y:500:THR:HG22	1.86	0.57
1:2:219:PHE:O	1:2:247:LEU:HD12	2.04	0.57
1:C:240:VAL:O	1:C:240:VAL:HG12	2.04	0.57
1:E:218:PRO:HB3	1:E:246:PRO:HG2	1.85	0.57
1:F:29:VAL:C	1:F:31:LEU:H	2.07	0.57
1:I:201:SER:O	1:I:202:PRO:O	2.22	0.57
1:I:409:GLU:O	1:I:497:THR:HB	2.05	0.57
1:J:524:LEU:CD1	1:J:525:PRO:HD2	2.27	0.57
1:K:348:GLN:O	1:K:352:GLN:HG2	2.05	0.57
1:M:369:VAL:HG23	1:M:370:ALA:N	2.20	0.57
1:M:383:ALA:O	1:M:384:ALA:HB3	2.05	0.57
1:N:451:LEU:O	1:N:453:GLN:N	2.38	0.57
1:P:8:PHE:HE1	1:P:519:CYS:HG	1.45	0.57
1:P:252:GLU:O	1:P:253:ASP:HB2	2.03	0.57
1:P:419:LEU:HD21	1:P:500:THR:HG22	1.85	0.57
1:R:417:VAL:HG11	1:R:477:GLY:HA3	1.87	0.57
1:S:202:PRO:O	1:S:204:PHE:N	2.33	0.57
1:U:417:VAL:HG11	1:U:477:GLY:HA3	1.87	0.57
1:Y:201:SER:O	1:Y:202:PRO:O	2.21	0.57
1:2:419:LEU:HD21	1:2:500:THR:HG22	1.85	0.57
1:F:404:ARG:HG2	1:F:404:ARG:HH11	1.70	0.57
1:I:120:ILE:HG13	1:I:439:GLY:O	2.04	0.57
1:N:61:GLU:C	1:N:62:LEU:HD23	2.26	0.57
1:S:66:PHE:HE1	1:S:522:THR:HG22	1.70	0.57
1:V:218:PRO:HB3	1:V:246:PRO:HG2	1.86	0.57
1:V:242:LYS:C	1:V:244:GLY:H	2.08	0.57
1:V:255:GLU:O	1:V:257:GLU:N	2.37	0.57
1:2:17:LEU:O	1:2:20:VAL:HG22	2.04	0.57
1:2:24:ALA:HB3	1:2:97:GLN:HE21	1.69	0.57
1:2:266:THR:HG22	1:2:271:VAL:O	2.05	0.57
1:2:361:ASP:O	1:2:365:LEU:HG	2.05	0.57
1:A:218:PRO:HB3	1:A:246:PRO:HG2	1.87	0.56
1:B:202:PRO:O	1:B:204:PHE:N	2.35	0.56
1:C:242:LYS:C	1:C:244:GLY:H	2.08	0.56
1:C:272:LYS:NZ	1:D:228:SER:HB3	2.20	0.56
1:E:124:VAL:O	1:E:128:VAL:HG23	2.04	0.56
1:E:404:ARG:HG2	1:E:404:ARG:HH11	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:214:GLU:O	1:J:215:LEU:HD23	2.05	0.56
1:K:124:VAL:O	1:K:128:VAL:HG23	2.05	0.56
1:L:488:MET:CE	1:L:493:ILE:HG21	2.34	0.56
1:M:77:VAL:HG11	1:M:510:VAL:CG2	2.35	0.56
1:M:266:THR:HG22	1:M:271:VAL:O	2.05	0.56
1:M:417:VAL:HG11	1:M:477:GLY:HA3	1.88	0.56
1:N:218:PRO:HB3	1:N:246:PRO:HG2	1.87	0.56
1:N:383:ALA:O	1:N:384:ALA:HB3	2.05	0.56
1:O:255:GLU:O	1:O:257:GLU:N	2.38	0.56
1:O:455:VAL:HG12	1:O:460:GLU:O	2.05	0.56
1:Q:34:LYS:HG3	1:Q:458:CYS:SG	2.44	0.56
1:Q:417:VAL:O	1:Q:418:ALA:C	2.42	0.56
1:S:381:VAL:HG21	1:S:393:LYS:HA	1.87	0.56
1:S:488:MET:CE	1:S:493:ILE:HG21	2.34	0.56
1:T:201:SER:O	1:T:202:PRO:O	2.22	0.56
1:T:359:ASP:O	1:T:363:GLU:HG2	2.04	0.56
1:U:252:GLU:O	1:U:253:ASP:HB2	2.04	0.56
1:W:201:SER:O	1:W:202:PRO:O	2.23	0.56
1:X:146:GLN:O	1:X:150:ILE:HG13	2.05	0.56
1:X:383:ALA:O	1:X:384:ALA:HB3	2.05	0.56
1:Y:455:VAL:HG12	1:Y:460:GLU:O	2.05	0.56
1:2:447:MET:HE3	1:2:504:LEU:HD21	1.87	0.56
1:B:134:LEU:N	1:B:134:LEU:HD23	2.19	0.56
1:B:404:ARG:HG2	1:B:404:ARG:HH11	1.68	0.56
1:C:443:ALA:O	1:C:447:MET:HG3	2.05	0.56
1:D:465:VAL:O	1:D:469:VAL:HG23	2.05	0.56
1:G:65:LYS:O	1:G:69:MET:HG3	2.05	0.56
1:M:252:GLU:O	1:M:253:ASP:HB2	2.04	0.56
1:O:29:VAL:C	1:O:31:LEU:H	2.06	0.56
1:Q:124:VAL:O	1:Q:128:VAL:HG23	2.04	0.56
1:T:252:GLU:O	1:T:253:ASP:HB2	2.05	0.56
1:T:417:VAL:HG21	1:T:488:MET:HG3	1.87	0.56
1:U:202:PRO:O	1:U:204:PHE:N	2.36	0.56
1:V:131:LEU:HD12	1:V:422:VAL:CG2	2.34	0.56
1:X:124:VAL:O	1:X:128:VAL:HG23	2.05	0.56
1:X:417:VAL:HG12	1:X:469:VAL:HG11	1.86	0.56
1:Z:348:GLN:O	1:Z:352:GLN:HG2	2.05	0.56
1:2:443:ALA:O	1:2:447:MET:HG3	2.05	0.56
1:A:266:THR:HG22	1:A:271:VAL:O	2.06	0.56
1:A:381:VAL:HG21	1:A:393:LYS:HA	1.86	0.56
1:B:70:GLY:HA2	1:B:73:MET:CE	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:214:GLU:O	1:B:215:LEU:HD23	2.05	0.56
1:B:242:LYS:C	1:B:244:GLY:H	2.08	0.56
1:C:252:GLU:O	1:C:253:ASP:HB2	2.03	0.56
1:D:77:VAL:HG11	1:D:510:VAL:CG2	2.35	0.56
1:D:417:VAL:O	1:D:418:ALA:C	2.43	0.56
1:E:240:VAL:O	1:E:240:VAL:HG12	2.05	0.56
1:H:8:PHE:HE1	1:H:519:CYS:HG	1.51	0.56
1:H:9:GLY:O	1:H:10:ASN:C	2.43	0.56
1:H:41:ASP:HB2	1:I:69:MET:CE	2.35	0.56
1:J:16:MET:SD	1:J:73:MET:HE1	2.46	0.56
1:J:247:LEU:O	1:J:273:VAL:HG13	2.04	0.56
1:J:273:VAL:HG12	1:J:274:ALA:N	2.20	0.56
1:J:487:ASN:O	1:J:491:MET:HG3	2.04	0.56
1:K:417:VAL:O	1:K:418:ALA:C	2.43	0.56
1:L:17:LEU:O	1:L:20:VAL:HG22	2.05	0.56
1:L:218:PRO:HB3	1:L:246:PRO:HG2	1.86	0.56
1:M:77:VAL:CG1	1:M:510:VAL:HG21	2.36	0.56
1:N:134:LEU:HD23	1:N:134:LEU:H	1.70	0.56
1:O:201:SER:O	1:O:202:PRO:O	2.22	0.56
1:O:240:VAL:HG12	1:O:240:VAL:O	2.04	0.56
1:P:70:GLY:HA2	1:P:73:MET:HE3	1.86	0.56
1:P:77:VAL:HG11	1:P:510:VAL:HG21	1.86	0.56
1:P:242:LYS:C	1:P:244:GLY:H	2.08	0.56
1:Q:8:PHE:HE1	1:Q:519:CYS:HG	1.53	0.56
1:Q:348:GLN:O	1:Q:352:GLN:HG2	2.06	0.56
1:Q:443:ALA:O	1:Q:447:MET:HG3	2.05	0.56
1:R:201:SER:O	1:R:202:PRO:O	2.24	0.56
1:R:219:PHE:O	1:R:247:LEU:HD12	2.06	0.56
1:R:221:LEU:HD23	1:R:249:ILE:HD12	1.86	0.56
1:U:77:VAL:CG1	1:U:510:VAL:HG21	2.36	0.56
1:U:219:PHE:O	1:U:247:LEU:HD12	2.06	0.56
1:U:230:ILE:CD1	1:U:261:THR:HG21	2.23	0.56
1:U:419:LEU:HD21	1:U:500:THR:HG22	1.87	0.56
1:V:124:VAL:O	1:V:128:VAL:HG23	2.04	0.56
1:V:455:VAL:HG12	1:V:460:GLU:O	2.04	0.56
1:V:524:LEU:CD1	1:V:525:PRO:HD2	2.29	0.56
1:W:17:LEU:O	1:W:20:VAL:HG22	2.05	0.56
1:W:419:LEU:HD21	1:W:500:THR:HG22	1.88	0.56
1:Y:6:VAL:CG2	1:Y:521:VAL:HG22	2.32	0.56
1:Y:41:ASP:OD1	1:Z:69:MET:HG2	2.05	0.56
1:Y:90:THR:O	1:Y:94:VAL:HG12	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:201:SER:O	1:Z:202:PRO:O	2.22	0.56
1:Z:214:GLU:O	1:Z:215:LEU:HD23	2.05	0.56
1:1:202:PRO:O	1:1:204:PHE:N	2.35	0.56
1:2:77:VAL:CG1	1:2:510:VAL:HG21	2.35	0.56
1:A:66:PHE:HE1	1:A:522:THR:HG22	1.69	0.56
1:A:202:PRO:O	1:A:204:PHE:N	2.37	0.56
1:C:65:LYS:O	1:C:69:MET:HG3	2.06	0.56
1:D:255:GLU:O	1:D:257:GLU:N	2.38	0.56
1:F:218:PRO:HB3	1:F:246:PRO:HG2	1.86	0.56
1:H:41:ASP:OD1	1:I:69:MET:HG2	2.05	0.56
1:I:202:PRO:O	1:I:204:PHE:N	2.36	0.56
1:I:383:ALA:O	1:I:384:ALA:HB3	2.05	0.56
1:J:134:LEU:HD23	1:J:134:LEU:H	1.70	0.56
1:K:77:VAL:HG11	1:K:510:VAL:CG2	2.36	0.56
1:N:8:PHE:CE1	1:N:519:CYS:SG	2.98	0.56
1:O:419:LEU:HD21	1:O:500:THR:HG22	1.86	0.56
1:P:8:PHE:CE1	1:P:519:CYS:SG	2.97	0.56
1:P:348:GLN:O	1:P:352:GLN:HG2	2.05	0.56
1:Q:41:ASP:OD1	1:R:69:MET:HG2	2.05	0.56
1:W:348:GLN:O	1:W:352:GLN:HG2	2.06	0.56
1:1:348:GLN:O	1:1:352:GLN:HG2	2.05	0.56
1:2:487:ASN:O	1:2:491:MET:HG3	2.05	0.56
1:A:201:SER:O	1:A:202:PRO:O	2.23	0.56
1:B:451:LEU:O	1:B:453:GLN:N	2.39	0.56
1:C:348:GLN:O	1:C:352:GLN:HG2	2.06	0.56
1:D:348:GLN:O	1:D:352:GLN:HG2	2.06	0.56
1:D:443:ALA:O	1:D:447:MET:HG3	2.06	0.56
1:F:230:ILE:CD1	1:F:261:THR:HG21	2.22	0.56
1:F:417:VAL:O	1:F:418:ALA:C	2.43	0.56
1:H:404:ARG:HG2	1:H:404:ARG:HH11	1.70	0.56
1:I:131:LEU:HD12	1:I:422:VAL:CG2	2.35	0.56
1:I:218:PRO:HB3	1:I:246:PRO:HG2	1.88	0.56
1:I:417:VAL:HG12	1:I:469:VAL:HG11	1.86	0.56
1:I:419:LEU:HD21	1:I:500:THR:HG22	1.86	0.56
1:O:443:ALA:O	1:O:447:MET:HG3	2.06	0.56
1:P:247:LEU:O	1:P:273:VAL:HG13	2.04	0.56
1:P:499:VAL:CG2	1:P:500:THR:N	2.69	0.56
1:S:24:ALA:HB3	1:S:97:GLN:HE21	1.69	0.56
1:V:34:LYS:HG3	1:V:458:CYS:SG	2.46	0.56
1:V:134:LEU:HD23	1:V:134:LEU:H	1.69	0.56
1:A:134:LEU:HD23	1:A:134:LEU:H	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:247:LEU:O	1:A:273:VAL:HG13	2.06	0.56
1:B:221:LEU:HD23	1:B:249:ILE:HD12	1.86	0.56
1:C:214:GLU:O	1:C:215:LEU:HD23	2.04	0.56
1:E:77:VAL:HG11	1:E:510:VAL:HG21	1.87	0.56
1:F:242:LYS:C	1:F:244:GLY:H	2.08	0.56
1:G:66:PHE:HE1	1:G:522:THR:HG22	1.68	0.56
1:J:202:PRO:O	1:J:204:PHE:N	2.35	0.56
1:L:214:GLU:O	1:L:215:LEU:HD23	2.05	0.56
1:M:417:VAL:O	1:M:418:ALA:C	2.44	0.56
1:R:455:VAL:HG12	1:R:460:GLU:O	2.05	0.56
1:W:417:VAL:HG12	1:W:469:VAL:HG11	1.86	0.56
1:1:90:THR:O	1:1:94:VAL:HG12	2.05	0.56
1:1:174:VAL:HB	1:1:376:VAL:HG13	1.87	0.56
1:A:77:VAL:CG1	1:A:510:VAL:HG21	2.36	0.56
1:C:417:VAL:HG12	1:C:469:VAL:HG11	1.86	0.56
1:E:348:GLN:O	1:E:352:GLN:HG2	2.06	0.56
1:F:449:ALA:HB3	1:F:450:PRO:CD	2.33	0.56
1:G:219:PHE:O	1:G:247:LEU:HD12	2.06	0.56
1:H:177:VAL:HG21	1:H:397:GLU:CG	2.36	0.56
1:N:29:VAL:C	1:N:31:LEU:H	2.07	0.56
1:N:66:PHE:HE1	1:N:522:THR:HG22	1.69	0.56
1:Q:266:THR:HG22	1:Q:271:VAL:O	2.06	0.56
1:R:242:LYS:C	1:R:244:GLY:H	2.09	0.56
1:R:255:GLU:O	1:R:257:GLU:N	2.39	0.56
1:S:70:GLY:HA2	1:S:73:MET:CE	2.35	0.56
1:S:77:VAL:CG1	1:S:510:VAL:HG21	2.36	0.56
1:S:134:LEU:HD23	1:S:134:LEU:H	1.71	0.56
1:T:131:LEU:CD1	1:T:422:VAL:HG21	2.34	0.56
1:T:214:GLU:O	1:T:215:LEU:HD23	2.05	0.56
1:W:455:VAL:HG12	1:W:460:GLU:O	2.06	0.56
1:Y:348:GLN:O	1:Y:352:GLN:HG2	2.06	0.56
1:Z:202:PRO:O	1:Z:204:PHE:N	2.36	0.56
1:Z:417:VAL:HG12	1:Z:469:VAL:HG11	1.87	0.56
1:1:443:ALA:O	1:1:447:MET:HG3	2.06	0.56
1:A:404:ARG:HG2	1:A:404:ARG:HH11	1.71	0.56
1:B:29:VAL:C	1:B:31:LEU:H	2.09	0.56
1:B:266:THR:HG22	1:B:271:VAL:O	2.05	0.56
1:C:134:LEU:N	1:C:134:LEU:HD23	2.20	0.56
1:D:451:LEU:O	1:D:453:GLN:N	2.38	0.56
1:F:266:THR:HG22	1:F:271:VAL:O	2.06	0.56
1:G:90:THR:O	1:G:94:VAL:HG12	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:443:ALA:O	1:J:447:MET:HG3	2.06	0.56
1:L:255:GLU:O	1:L:257:GLU:N	2.38	0.56
1:L:417:VAL:HG12	1:L:469:VAL:HG11	1.87	0.56
1:O:61:GLU:C	1:O:62:LEU:HD23	2.26	0.56
1:P:221:LEU:HD23	1:P:249:ILE:HD12	1.88	0.56
1:S:413:ALA:O	1:S:417:VAL:HG23	2.06	0.56
1:T:451:LEU:O	1:T:453:GLN:N	2.38	0.56
1:T:499:VAL:CG2	1:T:500:THR:N	2.69	0.56
1:U:134:LEU:HD23	1:U:134:LEU:H	1.71	0.56
1:V:214:GLU:O	1:V:215:LEU:HD23	2.06	0.56
1:V:240:VAL:O	1:V:240:VAL:HG12	2.05	0.56
1:Y:66:PHE:HE1	1:Y:522:THR:HG22	1.71	0.56
1:Y:77:VAL:HG11	1:Y:510:VAL:CG2	2.36	0.56
1:Y:417:VAL:O	1:Y:418:ALA:C	2.43	0.56
1:Z:77:VAL:CG1	1:Z:510:VAL:HG21	2.35	0.56
1:Z:404:ARG:HG2	1:Z:404:ARG:HH11	1.70	0.56
1:1:8:PHE:HE1	1:1:519:CYS:HG	1.53	0.56
1:1:218:PRO:HB3	1:1:246:PRO:HG2	1.86	0.56
1:1:455:VAL:HG12	1:1:460:GLU:O	2.06	0.56
1:B:34:LYS:HG3	1:B:458:CYS:SG	2.46	0.56
1:D:130:GLU:HB3	1:D:422:VAL:HG13	1.88	0.56
1:D:417:VAL:HG12	1:D:469:VAL:HG11	1.87	0.56
1:D:455:VAL:HG12	1:D:460:GLU:O	2.06	0.56
1:E:134:LEU:HD23	1:E:134:LEU:H	1.69	0.56
1:F:131:LEU:CD1	1:F:422:VAL:HG21	2.33	0.56
1:G:266:THR:HG22	1:G:271:VAL:O	2.06	0.56
1:H:417:VAL:HG12	1:H:469:VAL:HG11	1.86	0.56
1:H:417:VAL:O	1:H:418:ALA:C	2.43	0.56
1:I:46:ALA:HB2	1:J:76:GLU:HG3	1.88	0.56
1:I:359:ASP:O	1:I:363:GLU:HG2	2.06	0.56
1:J:77:VAL:CG1	1:J:510:VAL:HG21	2.35	0.56
1:K:486:GLY:CA	1:K:491:MET:HE2	2.35	0.56
1:L:38:VAL:HG22	1:M:519:CYS:HB3	1.87	0.56
1:P:134:LEU:HD23	1:P:134:LEU:H	1.69	0.56
1:S:455:VAL:HG12	1:S:460:GLU:O	2.04	0.56
1:U:77:VAL:HG11	1:U:510:VAL:CG2	2.35	0.56
1:V:129:GLU:O	1:V:132:LYS:N	2.39	0.56
1:W:90:THR:O	1:W:94:VAL:HG12	2.06	0.56
1:X:8:PHE:HE1	1:X:519:CYS:HG	1.54	0.56
1:Y:230:ILE:CD1	1:Y:261:THR:HG21	2.23	0.56
1:Y:247:LEU:O	1:Y:273:VAL:HG13	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:17:LEU:O	1:Z:20:VAL:HG22	2.06	0.56
1:1:77:VAL:CG1	1:1:510:VAL:HG21	2.35	0.56
1:1:417:VAL:HG11	1:1:477:GLY:HA3	1.88	0.56
1:A:8:PHE:HE1	1:A:519:CYS:SG	2.29	0.56
1:C:404:ARG:HG2	1:C:404:ARG:HH11	1.69	0.56
1:D:381:VAL:HG21	1:D:393:LYS:HA	1.87	0.56
1:E:24:ALA:HB3	1:E:97:GLN:HE21	1.71	0.56
1:F:174:VAL:HB	1:F:376:VAL:HG13	1.87	0.56
1:F:499:VAL:CG2	1:F:500:THR:N	2.69	0.56
1:H:219:PHE:O	1:H:247:LEU:HD12	2.06	0.56
1:T:447:MET:HE3	1:T:504:LEU:HD21	1.88	0.56
1:U:266:THR:HG22	1:U:271:VAL:O	2.05	0.56
1:W:488:MET:CE	1:W:493:ILE:HG21	2.36	0.56
1:X:218:PRO:HB3	1:X:246:PRO:HG2	1.88	0.56
1:X:272:LYS:NZ	1:Y:228:SER:HB3	2.20	0.56
1:Z:219:PHE:O	1:Z:247:LEU:HD12	2.06	0.56
1:A:131:LEU:HD12	1:A:422:VAL:CG2	2.35	0.55
1:C:77:VAL:HG11	1:C:510:VAL:CG2	2.36	0.55
1:F:214:GLU:O	1:F:215:LEU:HD23	2.06	0.55
1:I:130:GLU:HB3	1:I:422:VAL:HG13	1.86	0.55
1:I:176:THR:HG21	1:I:333:ILE:HD11	1.88	0.55
1:L:266:THR:HG22	1:L:271:VAL:O	2.06	0.55
1:N:242:LYS:C	1:N:244:GLY:H	2.08	0.55
1:R:88:GLY:O	1:R:91:THR:N	2.39	0.55
1:V:266:THR:HG22	1:V:271:VAL:O	2.06	0.55
1:W:414:GLY:O	1:W:417:VAL:HG22	2.05	0.55
1:Y:443:ALA:O	1:Y:447:MET:HG3	2.06	0.55
1:Z:65:LYS:O	1:Z:69:MET:HG3	2.06	0.55
1:C:41:ASP:OD1	1:D:69:MET:HG2	2.06	0.55
1:C:361:ASP:O	1:C:365:LEU:HG	2.06	0.55
1:C:488:MET:CE	1:C:493:ILE:HG21	2.37	0.55
1:E:130:GLU:HB3	1:E:422:VAL:HG13	1.89	0.55
1:E:381:VAL:HG21	1:E:393:LYS:HA	1.87	0.55
1:F:417:VAL:HG12	1:F:469:VAL:HG11	1.89	0.55
1:G:29:VAL:C	1:G:31:LEU:H	2.07	0.55
1:H:201:SER:O	1:H:202:PRO:O	2.23	0.55
1:I:417:VAL:HG11	1:I:477:GLY:HA3	1.89	0.55
1:J:201:SER:O	1:J:202:PRO:O	2.23	0.55
1:K:134:LEU:HD23	1:K:134:LEU:H	1.69	0.55
1:K:218:PRO:HB3	1:K:246:PRO:HG2	1.87	0.55
1:R:465:VAL:O	1:R:469:VAL:HG23	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:70:GLY:HA2	1:X:73:MET:HE3	1.87	0.55
1:X:174:VAL:HB	1:X:376:VAL:HG13	1.87	0.55
1:X:404:ARG:HG2	1:X:404:ARG:HH11	1.71	0.55
1:X:443:ALA:O	1:X:447:MET:HG3	2.06	0.55
1:2:242:LYS:C	1:2:244:GLY:H	2.09	0.55
1:G:131:LEU:HD12	1:G:422:VAL:CG2	2.36	0.55
1:G:348:GLN:O	1:G:352:GLN:HG2	2.06	0.55
1:I:77:VAL:HG11	1:I:510:VAL:HG21	1.88	0.55
1:J:266:THR:HG22	1:J:271:VAL:O	2.06	0.55
1:M:247:LEU:O	1:M:273:VAL:HG13	2.06	0.55
1:N:17:LEU:O	1:N:20:VAL:HG22	2.06	0.55
1:S:214:GLU:O	1:S:215:LEU:HD23	2.06	0.55
1:U:348:GLN:O	1:U:352:GLN:HG2	2.05	0.55
1:U:369:VAL:HG23	1:U:370:ALA:N	2.21	0.55
1:W:179:ASP:HB3	1:W:389:MET:HE1	1.89	0.55
1:W:417:VAL:HG21	1:W:488:MET:HG3	1.89	0.55
1:Y:417:VAL:HG11	1:Y:477:GLY:HA3	1.89	0.55
1:1:247:LEU:O	1:1:273:VAL:HG13	2.05	0.55
1:1:359:ASP:O	1:1:363:GLU:HG2	2.06	0.55
1:A:449:ALA:HB3	1:A:450:PRO:CD	2.36	0.55
1:D:201:SER:O	1:D:202:PRO:O	2.24	0.55
1:G:179:ASP:HB3	1:G:389:MET:HE1	1.88	0.55
1:M:219:PHE:O	1:M:247:LEU:HD12	2.06	0.55
1:N:417:VAL:O	1:N:418:ALA:C	2.45	0.55
1:O:404:ARG:HH11	1:O:404:ARG:HG2	1.70	0.55
1:P:134:LEU:O	1:P:136:VAL:HG23	2.07	0.55
1:R:381:VAL:HG21	1:R:393:LYS:HA	1.88	0.55
1:S:383:ALA:O	1:S:384:ALA:HB3	2.06	0.55
1:U:361:ASP:O	1:U:365:LEU:HG	2.07	0.55
1:U:443:ALA:O	1:U:447:MET:HG3	2.06	0.55
1:V:219:PHE:O	1:V:247:LEU:HD12	2.06	0.55
1:V:488:MET:CE	1:V:493:ILE:HG21	2.36	0.55
1:X:417:VAL:HG11	1:X:477:GLY:HA3	1.89	0.55
1:1:369:VAL:HG23	1:1:370:ALA:N	2.21	0.55
1:A:417:VAL:HG12	1:A:469:VAL:HG11	1.87	0.55
1:B:443:ALA:O	1:B:447:MET:HG3	2.07	0.55
1:C:112:ASN:OD1	1:C:114:MET:N	2.39	0.55
1:D:219:PHE:O	1:D:247:LEU:HD12	2.06	0.55
1:E:455:VAL:HG12	1:E:460:GLU:O	2.06	0.55
1:G:451:LEU:O	1:G:453:GLN:N	2.40	0.55
1:H:202:PRO:O	1:H:204:PHE:N	2.35	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:230:ILE:CD1	1:I:261:THR:HG21	2.23	0.55
1:I:273:VAL:HG12	1:I:274:ALA:N	2.22	0.55
1:I:488:MET:CE	1:I:493:ILE:HG21	2.36	0.55
1:J:419:LEU:HD21	1:J:500:THR:HG22	1.88	0.55
1:O:214:GLU:O	1:O:215:LEU:HD23	2.06	0.55
1:O:417:VAL:HG12	1:O:469:VAL:HG11	1.87	0.55
1:P:240:VAL:O	1:P:240:VAL:HG12	2.05	0.55
1:R:488:MET:CE	1:R:493:ILE:HG21	2.36	0.55
1:T:65:LYS:O	1:T:69:MET:HG3	2.06	0.55
1:V:61:GLU:C	1:V:62:LEU:HD23	2.27	0.55
1:Y:214:GLU:O	1:Y:215:LEU:HD23	2.05	0.55
1:Z:70:GLY:HA2	1:Z:73:MET:HE3	1.88	0.55
1:Z:413:ALA:O	1:Z:417:VAL:HG23	2.06	0.55
1:1:266:THR:HG22	1:1:271:VAL:O	2.07	0.55
1:2:383:ALA:O	1:2:384:ALA:HB3	2.06	0.55
1:A:77:VAL:HG11	1:A:510:VAL:CG2	2.36	0.55
1:A:465:VAL:O	1:A:469:VAL:HG23	2.07	0.55
1:C:17:LEU:O	1:C:20:VAL:HG22	2.06	0.55
1:E:134:LEU:O	1:E:136:VAL:HG23	2.06	0.55
1:E:465:VAL:O	1:E:469:VAL:HG23	2.06	0.55
1:F:273:VAL:HG12	1:F:274:ALA:N	2.21	0.55
1:F:417:VAL:HG21	1:F:488:MET:HG3	1.89	0.55
1:F:419:LEU:HD21	1:F:500:THR:HG22	1.88	0.55
1:G:8:PHE:HE1	1:G:519:CYS:SG	2.29	0.55
1:G:112:ASN:OD1	1:G:114:MET:N	2.40	0.55
1:H:70:GLY:HA2	1:H:73:MET:HE3	1.87	0.55
1:L:77:VAL:HG11	1:L:510:VAL:HG21	1.88	0.55
1:N:420:ILE:HD12	1:N:451:LEU:HD22	1.89	0.55
1:S:8:PHE:HE1	1:S:519:CYS:HG	1.52	0.55
1:S:420:ILE:HD12	1:S:451:LEU:HD22	1.89	0.55
1:S:443:ALA:O	1:S:447:MET:HG3	2.06	0.55
1:T:70:GLY:HA2	1:T:73:MET:HE3	1.87	0.55
1:T:134:LEU:HD23	1:T:134:LEU:H	1.72	0.55
1:V:244:GLY:HA2	1:W:229:ASN:ND2	2.21	0.55
1:V:413:ALA:O	1:V:417:VAL:HG23	2.07	0.55
1:W:383:ALA:O	1:W:384:ALA:HB3	2.07	0.55
1:Y:404:ARG:HG2	1:Y:404:ARG:HH11	1.71	0.55
1:B:417:VAL:HG23	1:B:418:ALA:H	1.72	0.55
1:C:134:LEU:O	1:C:136:VAL:HG23	2.07	0.55
1:F:240:VAL:O	1:F:240:VAL:HG12	2.07	0.55
1:H:465:VAL:O	1:H:469:VAL:HG23	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:443:ALA:O	1:I:447:MET:HG3	2.07	0.55
1:J:417:VAL:HG12	1:J:469:VAL:HG11	1.87	0.55
1:K:240:VAL:O	1:K:240:VAL:HG12	2.06	0.55
1:L:77:VAL:CG1	1:L:78:ALA:N	2.70	0.55
1:L:348:GLN:O	1:L:352:GLN:HG2	2.07	0.55
1:M:134:LEU:O	1:M:136:VAL:HG23	2.06	0.55
1:N:417:VAL:HG11	1:N:477:GLY:HA3	1.88	0.55
1:O:383:ALA:O	1:O:384:ALA:HB3	2.05	0.55
1:P:266:THR:HG22	1:P:271:VAL:O	2.05	0.55
1:R:266:THR:HG22	1:R:271:VAL:O	2.07	0.55
1:T:273:VAL:HG12	1:T:274:ALA:N	2.22	0.55
1:U:17:LEU:O	1:U:20:VAL:HG22	2.07	0.55
1:U:488:MET:CE	1:U:493:ILE:HG21	2.37	0.55
1:Y:174:VAL:HB	1:Y:376:VAL:HG13	1.88	0.55
1:2:273:VAL:HG12	1:2:274:ALA:N	2.21	0.55
1:D:383:ALA:O	1:D:384:ALA:HB3	2.07	0.55
1:E:266:THR:HG22	1:E:271:VAL:O	2.07	0.55
1:F:34:LYS:HG3	1:F:458:CYS:SG	2.47	0.55
1:F:131:LEU:HD12	1:F:422:VAL:CG2	2.36	0.55
1:M:417:VAL:HG12	1:M:469:VAL:HG11	1.88	0.55
1:N:134:LEU:HD23	1:N:134:LEU:N	2.21	0.55
1:N:180:GLY:H	1:N:389:MET:HE2	1.72	0.55
1:O:247:LEU:O	1:O:273:VAL:HG13	2.06	0.55
1:Q:90:THR:O	1:Q:94:VAL:HG12	2.07	0.55
1:Q:417:VAL:HG12	1:Q:469:VAL:HG11	1.89	0.55
1:W:443:ALA:O	1:W:447:MET:HG3	2.05	0.55
1:X:419:LEU:HD21	1:X:500:THR:HG22	1.89	0.55
1:Z:131:LEU:HD12	1:Z:422:VAL:CG2	2.33	0.55
1:Z:179:ASP:HB3	1:Z:389:MET:HE1	1.89	0.55
1:Z:369:VAL:HG23	1:Z:370:ALA:N	2.21	0.55
1:Z:488:MET:CE	1:Z:493:ILE:HG21	2.37	0.55
1:1:65:LYS:O	1:1:69:MET:HG3	2.07	0.55
1:1:131:LEU:HD12	1:1:422:VAL:CG2	2.36	0.55
1:2:488:MET:CE	1:2:493:ILE:HG21	2.37	0.55
1:A:519:CYS:HB3	1:G:38:VAL:HG22	1.88	0.55
1:F:24:ALA:HB3	1:F:97:GLN:HE21	1.71	0.55
1:H:66:PHE:HE1	1:H:522:THR:HG22	1.70	0.55
1:I:404:ARG:HG2	1:I:404:ARG:HH11	1.71	0.55
1:J:404:ARG:HG2	1:J:404:ARG:HH11	1.71	0.55
1:K:87:ASP:CG	1:K:88:GLY:H	2.10	0.55
1:K:453:GLN:O	1:K:456:LEU:N	2.35	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:130:GLU:HB3	1:M:422:VAL:HG13	1.89	0.55
1:N:70:GLY:HA2	1:N:73:MET:HE3	1.88	0.55
1:N:419:LEU:HD21	1:N:500:THR:HG22	1.88	0.55
1:N:499:VAL:CG2	1:N:500:THR:N	2.69	0.55
1:P:130:GLU:HB3	1:P:422:VAL:HG13	1.88	0.55
1:Q:414:GLY:H	1:Q:494:LEU:HA	1.72	0.55
1:S:221:LEU:HD23	1:S:249:ILE:HD12	1.87	0.55
1:U:201:SER:O	1:U:202:PRO:O	2.24	0.55
1:U:455:VAL:HG12	1:U:460:GLU:O	2.07	0.55
1:V:24:ALA:HB3	1:V:97:GLN:HE21	1.72	0.55
1:V:37:ASN:O	1:W:517:THR:HG23	2.07	0.55
1:X:77:VAL:HG11	1:X:510:VAL:CG2	2.37	0.55
1:X:179:ASP:HB3	1:X:389:MET:HE1	1.89	0.55
1:X:266:THR:HG21	1:X:273:VAL:N	2.22	0.55
1:X:488:MET:CE	1:X:493:ILE:HG21	2.36	0.55
1:Y:131:LEU:HD12	1:Y:422:VAL:CG2	2.34	0.55
1:Y:383:ALA:O	1:Y:384:ALA:HB3	2.06	0.55
1:Z:273:VAL:HG12	1:Z:274:ALA:N	2.22	0.55
1:1:179:ASP:HB3	1:1:389:MET:HE1	1.89	0.55
1:2:130:GLU:HB3	1:2:422:VAL:HG13	1.89	0.55
1:2:218:PRO:HB3	1:2:246:PRO:HG2	1.88	0.55
1:A:383:ALA:O	1:A:384:ALA:HB3	2.07	0.55
1:A:420:ILE:HD12	1:A:451:LEU:HD22	1.89	0.55
1:D:417:VAL:HG11	1:D:477:GLY:HA3	1.88	0.55
1:E:419:LEU:HD21	1:E:500:THR:HG22	1.88	0.55
1:F:443:ALA:O	1:F:447:MET:HG3	2.07	0.55
1:I:266:THR:HG22	1:I:271:VAL:O	2.07	0.55
1:J:124:VAL:O	1:J:128:VAL:HG23	2.07	0.55
1:J:219:PHE:O	1:J:247:LEU:HD12	2.06	0.55
1:J:361:ASP:O	1:J:365:LEU:HG	2.07	0.55
1:K:266:THR:HG22	1:K:271:VAL:O	2.07	0.55
1:L:24:ALA:HB3	1:L:97:GLN:HE21	1.72	0.55
1:N:488:MET:CE	1:N:493:ILE:HG21	2.37	0.55
1:O:266:THR:HG22	1:O:271:VAL:O	2.07	0.55
1:P:62:LEU:N	1:P:62:LEU:CD2	2.70	0.55
1:P:177:VAL:HG21	1:P:397:GLU:CG	2.37	0.55
1:Q:273:VAL:HG12	1:Q:274:ALA:N	2.22	0.55
1:S:130:GLU:HB3	1:S:422:VAL:HG13	1.89	0.55
1:T:8:PHE:CE1	1:T:519:CYS:SG	2.97	0.55
1:T:420:ILE:HD12	1:T:451:LEU:HD22	1.89	0.55
1:T:455:VAL:HG12	1:T:460:GLU:O	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:66:PHE:HE1	1:V:522:THR:HG22	1.70	0.55
1:W:77:VAL:CG1	1:W:78:ALA:N	2.70	0.55
1:W:417:VAL:O	1:W:418:ALA:C	2.44	0.55
1:Z:134:LEU:HD23	1:Z:134:LEU:H	1.71	0.55
1:2:348:GLN:O	1:2:352:GLN:HG2	2.06	0.55
1:D:214:GLU:O	1:D:215:LEU:HD23	2.06	0.54
1:E:219:PHE:O	1:E:247:LEU:HD12	2.06	0.54
1:G:129:GLU:C	1:G:131:LEU:N	2.58	0.54
1:H:417:VAL:HG21	1:H:488:MET:HG3	1.89	0.54
1:J:383:ALA:O	1:J:384:ALA:HB3	2.06	0.54
1:K:524:LEU:CD1	1:K:525:PRO:HD2	2.28	0.54
1:L:273:VAL:HG12	1:L:274:ALA:N	2.22	0.54
1:M:419:LEU:HD21	1:M:500:THR:HG22	1.89	0.54
1:N:348:GLN:O	1:N:352:GLN:HG2	2.07	0.54
1:R:420:ILE:HD12	1:R:451:LEU:HD22	1.90	0.54
1:S:177:VAL:HG21	1:S:397:GLU:CG	2.37	0.54
1:T:23:LEU:CD2	1:T:75:LYS:HB2	2.37	0.54
1:U:465:VAL:O	1:U:469:VAL:HG23	2.07	0.54
1:V:202:PRO:O	1:V:204:PHE:N	2.35	0.54
1:W:255:GLU:O	1:W:257:GLU:N	2.39	0.54
1:Y:17:LEU:O	1:Y:20:VAL:HG22	2.07	0.54
1:2:455:VAL:HG12	1:2:460:GLU:O	2.07	0.54
1:A:524:LEU:CD1	1:A:525:PRO:HD2	2.26	0.54
1:B:23:LEU:HD22	1:B:75:LYS:HB2	1.89	0.54
1:B:420:ILE:HD11	1:B:451:LEU:HB3	1.90	0.54
1:D:77:VAL:CG1	1:D:510:VAL:HG21	2.36	0.54
1:E:383:ALA:O	1:E:384:ALA:HB3	2.07	0.54
1:E:443:ALA:O	1:E:447:MET:HG3	2.07	0.54
1:F:130:GLU:HB3	1:F:422:VAL:HG13	1.90	0.54
1:I:77:VAL:CG1	1:I:78:ALA:N	2.70	0.54
1:K:417:VAL:HG12	1:K:469:VAL:HG11	1.89	0.54
1:M:348:GLN:O	1:M:352:GLN:HG2	2.07	0.54
1:O:9:GLY:O	1:O:10:ASN:C	2.46	0.54
1:P:174:VAL:HB	1:P:376:VAL:HG13	1.89	0.54
1:P:383:ALA:O	1:P:384:ALA:HB3	2.07	0.54
1:R:247:LEU:O	1:R:273:VAL:HG13	2.08	0.54
1:V:465:VAL:O	1:V:469:VAL:HG23	2.07	0.54
1:W:130:GLU:HB3	1:W:422:VAL:HG13	1.88	0.54
1:X:130:GLU:HB3	1:X:422:VAL:HG13	1.88	0.54
1:Y:219:PHE:O	1:Y:247:LEU:HD12	2.08	0.54
1:Y:420:ILE:HD12	1:Y:451:LEU:HD22	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:62:LEU:N	1:Z:62:LEU:CD2	2.67	0.54
1:1:409:GLU:O	1:1:497:THR:HB	2.07	0.54
1:B:273:VAL:HG12	1:B:274:ALA:N	2.23	0.54
1:C:266:THR:HG22	1:C:271:VAL:O	2.08	0.54
1:D:41:ASP:OD1	1:E:69:MET:HG2	2.07	0.54
1:G:524:LEU:CD1	1:G:525:PRO:HD2	2.28	0.54
1:H:180:GLY:H	1:H:389:MET:HE2	1.73	0.54
1:H:383:ALA:O	1:H:384:ALA:HB3	2.08	0.54
1:K:214:GLU:O	1:K:215:LEU:HD23	2.07	0.54
1:N:70:GLY:HA2	1:N:73:MET:CE	2.37	0.54
1:N:266:THR:HG22	1:N:271:VAL:O	2.07	0.54
1:O:77:VAL:CG1	1:O:78:ALA:N	2.70	0.54
1:Q:134:LEU:O	1:Q:136:VAL:HG23	2.07	0.54
1:Q:214:GLU:O	1:Q:215:LEU:HD23	2.06	0.54
1:R:130:GLU:HB3	1:R:422:VAL:HG13	1.89	0.54
1:S:266:THR:HG22	1:S:271:VAL:O	2.07	0.54
1:T:77:VAL:CG1	1:T:78:ALA:N	2.71	0.54
1:T:443:ALA:O	1:T:447:MET:HG3	2.07	0.54
1:V:417:VAL:O	1:V:418:ALA:C	2.46	0.54
1:V:417:VAL:HG12	1:V:469:VAL:HG11	1.90	0.54
1:W:361:ASP:O	1:W:365:LEU:HG	2.07	0.54
1:Y:177:VAL:HG21	1:Y:397:GLU:CG	2.38	0.54
1:1:230:ILE:CD1	1:1:261:THR:HG21	2.24	0.54
1:1:465:VAL:O	1:1:469:VAL:HG23	2.07	0.54
1:2:417:VAL:O	1:2:418:ALA:C	2.45	0.54
1:2:453:GLN:O	1:2:456:LEU:N	2.36	0.54
1:A:214:GLU:O	1:A:215:LEU:HD23	2.06	0.54
1:B:13:ARG:O	1:B:16:MET:N	2.41	0.54
1:B:24:ALA:HB3	1:B:97:GLN:HE21	1.73	0.54
1:B:177:VAL:HG21	1:B:397:GLU:CG	2.38	0.54
1:B:361:ASP:O	1:B:365:LEU:HG	2.08	0.54
1:D:90:THR:O	1:D:94:VAL:HG12	2.07	0.54
1:E:488:MET:CE	1:E:493:ILE:HG21	2.38	0.54
1:H:348:GLN:O	1:H:352:GLN:HG2	2.07	0.54
1:I:9:GLY:O	1:I:10:ASN:C	2.46	0.54
1:I:136:VAL:O	1:I:137:PRO:O	2.25	0.54
1:K:23:LEU:CD2	1:K:75:LYS:HB2	2.38	0.54
1:K:417:VAL:HG21	1:K:488:MET:HG3	1.89	0.54
1:N:409:GLU:O	1:N:497:THR:HB	2.07	0.54
1:P:273:VAL:HG12	1:P:274:ALA:N	2.22	0.54
1:U:70:GLY:HA2	1:U:73:MET:HE3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:134:LEU:O	1:V:136:VAL:HG23	2.06	0.54
1:X:77:VAL:CG1	1:X:510:VAL:HG21	2.38	0.54
1:X:120:ILE:HG13	1:X:439:GLY:O	2.06	0.54
1:X:214:GLU:O	1:X:215:LEU:HD23	2.07	0.54
1:Z:41:ASP:HB2	1:1:69:MET:CE	2.37	0.54
1:1:130:GLU:HB3	1:1:422:VAL:HG13	1.90	0.54
1:E:61:GLU:C	1:E:62:LEU:HD23	2.27	0.54
1:E:112:ASN:OD1	1:E:114:MET:N	2.40	0.54
1:E:361:ASP:O	1:E:365:LEU:HG	2.07	0.54
1:F:219:PHE:O	1:F:247:LEU:HD12	2.08	0.54
1:F:266:THR:HG21	1:F:273:VAL:N	2.23	0.54
1:G:383:ALA:O	1:G:384:ALA:HB3	2.07	0.54
1:I:112:ASN:OD1	1:I:114:MET:N	2.40	0.54
1:K:273:VAL:HG12	1:K:274:ALA:N	2.21	0.54
1:L:90:THR:O	1:L:94:VAL:HG12	2.07	0.54
1:L:130:GLU:HB3	1:L:422:VAL:HG13	1.90	0.54
1:N:65:LYS:O	1:N:69:MET:HG3	2.08	0.54
1:N:134:LEU:O	1:N:136:VAL:HG23	2.08	0.54
1:O:77:VAL:HG11	1:O:510:VAL:HG21	1.89	0.54
1:O:205:ILE:HA	1:O:213:VAL:HG22	1.90	0.54
1:Q:77:VAL:HG11	1:Q:510:VAL:HG21	1.89	0.54
1:T:202:PRO:O	1:T:204:PHE:N	2.35	0.54
1:T:266:THR:HG22	1:T:271:VAL:O	2.07	0.54
1:T:419:LEU:HD21	1:T:500:THR:HG22	1.90	0.54
1:V:273:VAL:HG12	1:V:274:ALA:N	2.23	0.54
1:X:453:GLN:O	1:X:456:LEU:N	2.37	0.54
1:Y:9:GLY:O	1:Y:10:ASN:C	2.46	0.54
1:1:73:MET:O	1:1:76:GLU:N	2.41	0.54
1:2:369:VAL:HG23	1:2:370:ALA:N	2.22	0.54
1:B:134:LEU:HD23	1:B:134:LEU:H	1.73	0.54
1:B:180:GLY:H	1:B:389:MET:HE2	1.72	0.54
1:C:417:VAL:HG21	1:C:488:MET:HG3	1.89	0.54
1:D:134:LEU:HD23	1:D:134:LEU:H	1.71	0.54
1:G:206:ASN:HD21	1:G:214:GLU:H	1.56	0.54
1:J:34:LYS:HG3	1:J:458:CYS:SG	2.46	0.54
1:K:26:ALA:O	1:K:56:VAL:HG11	2.07	0.54
1:K:465:VAL:O	1:K:469:VAL:HG23	2.07	0.54
1:M:177:VAL:HG21	1:M:397:GLU:CG	2.37	0.54
1:M:273:VAL:HG12	1:M:274:ALA:N	2.23	0.54
1:N:305:ILE:HG22	1:N:305:ILE:O	2.08	0.54
1:O:519:CYS:HB3	1:U:38:VAL:HG22	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:34:LYS:HG3	1:P:458:CYS:SG	2.47	0.54
1:P:61:GLU:C	1:P:62:LEU:HD23	2.28	0.54
1:Q:112:ASN:OD1	1:Q:114:MET:N	2.41	0.54
1:Q:383:ALA:O	1:Q:384:ALA:HB3	2.07	0.54
1:R:417:VAL:HG12	1:R:469:VAL:HG11	1.88	0.54
1:S:179:ASP:HB3	1:S:389:MET:HE1	1.90	0.54
1:T:219:PHE:O	1:T:247:LEU:HD12	2.08	0.54
1:T:361:ASP:O	1:T:365:LEU:HG	2.08	0.54
1:W:404:ARG:HH11	1:W:404:ARG:HG2	1.71	0.54
1:W:406:ALA:HB1	1:W:411:VAL:HG12	1.88	0.54
1:W:451:LEU:O	1:W:453:GLN:N	2.41	0.54
1:Y:24:ALA:O	1:Y:26:ALA:N	2.40	0.54
1:Y:266:THR:HG22	1:Y:271:VAL:O	2.08	0.54
1:Z:465:VAL:O	1:Z:469:VAL:HG23	2.08	0.54
1:1:205:ILE:HA	1:1:213:VAL:HG22	1.88	0.54
1:2:134:LEU:HD23	1:2:134:LEU:H	1.72	0.54
1:B:419:LEU:HD21	1:B:500:THR:HG22	1.90	0.54
1:C:455:VAL:HG12	1:C:460:GLU:O	2.08	0.54
1:D:129:GLU:C	1:D:131:LEU:N	2.59	0.54
1:E:179:ASP:HB3	1:E:389:MET:HE1	1.90	0.54
1:F:77:VAL:HG11	1:F:510:VAL:HG21	1.89	0.54
1:H:130:GLU:HB3	1:H:422:VAL:HG13	1.89	0.54
1:H:266:THR:HG22	1:H:271:VAL:O	2.07	0.54
1:I:348:GLN:O	1:I:352:GLN:HG2	2.07	0.54
1:I:465:VAL:O	1:I:469:VAL:HG23	2.08	0.54
1:J:369:VAL:HG23	1:J:370:ALA:N	2.22	0.54
1:L:247:LEU:O	1:L:273:VAL:HG13	2.07	0.54
1:N:325:ILE:HG22	1:N:330:THR:HA	1.90	0.54
1:S:77:VAL:HG11	1:S:510:VAL:CG2	2.37	0.54
1:U:383:ALA:O	1:U:384:ALA:HB3	2.07	0.54
1:V:443:ALA:O	1:V:447:MET:HG3	2.07	0.54
1:C:131:LEU:HD12	1:C:422:VAL:CG2	2.36	0.54
1:C:177:VAL:HG21	1:C:397:GLU:CG	2.38	0.54
1:E:369:VAL:HG23	1:E:370:ALA:N	2.22	0.54
1:G:77:VAL:CG1	1:G:78:ALA:N	2.71	0.54
1:G:361:ASP:O	1:G:365:LEU:HG	2.07	0.54
1:H:419:LEU:HD21	1:H:500:THR:HG22	1.90	0.54
1:I:247:LEU:O	1:I:273:VAL:HG13	2.07	0.54
1:I:258:ALA:O	1:I:262:LEU:HG	2.08	0.54
1:L:361:ASP:O	1:L:365:LEU:HG	2.07	0.54
1:L:455:VAL:HG12	1:L:460:GLU:O	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:487:ASN:O	1:N:491:MET:HG3	2.08	0.54
1:P:443:ALA:O	1:P:447:MET:HG3	2.07	0.54
1:R:77:VAL:HG11	1:R:510:VAL:HG21	1.90	0.54
1:R:361:ASP:O	1:R:365:LEU:HG	2.08	0.54
1:T:77:VAL:HG11	1:T:510:VAL:HG21	1.88	0.54
1:X:524:LEU:CD1	1:X:525:PRO:HD2	2.29	0.54
1:Y:130:GLU:HB3	1:Y:422:VAL:HG13	1.89	0.54
1:Z:266:THR:HG22	1:Z:271:VAL:O	2.07	0.54
1:2:112:ASN:OD1	1:2:114:MET:N	2.41	0.54
1:B:130:GLU:HB3	1:B:422:VAL:HG13	1.88	0.54
1:F:8:PHE:HE1	1:F:519:CYS:HG	1.53	0.54
1:G:134:LEU:O	1:G:136:VAL:HG23	2.08	0.54
1:H:112:ASN:OD1	1:H:114:MET:N	2.41	0.54
1:H:479:ASN:OD1	1:H:493:ILE:HD11	2.08	0.54
1:J:230:ILE:CD1	1:J:261:THR:HG21	2.23	0.54
1:K:488:MET:CE	1:K:493:ILE:HG21	2.37	0.54
1:M:70:GLY:HA2	1:M:73:MET:HE3	1.90	0.54
1:O:134:LEU:O	1:O:136:VAL:HG23	2.08	0.54
1:O:273:VAL:HG12	1:O:274:ALA:N	2.22	0.54
1:R:273:VAL:HG12	1:R:274:ALA:N	2.23	0.54
1:U:266:THR:HG21	1:U:273:VAL:N	2.23	0.54
1:V:26:ALA:O	1:V:56:VAL:HG11	2.07	0.54
1:1:77:VAL:CG1	1:1:78:ALA:N	2.71	0.54
1:A:8:PHE:HE1	1:A:519:CYS:HG	1.55	0.54
1:B:247:LEU:O	1:B:273:VAL:HG13	2.08	0.54
1:D:369:VAL:HG23	1:D:370:ALA:N	2.23	0.54
1:F:177:VAL:HG21	1:F:397:GLU:CG	2.37	0.54
1:G:453:GLN:O	1:G:456:LEU:N	2.38	0.54
1:H:228:SER:HB3	1:N:272:LYS:NZ	2.23	0.54
1:L:219:PHE:O	1:L:247:LEU:HD12	2.08	0.54
1:N:24:ALA:O	1:N:26:ALA:N	2.41	0.54
1:O:26:ALA:O	1:O:56:VAL:HG11	2.08	0.54
1:O:70:GLY:HA2	1:O:73:MET:HE3	1.89	0.54
1:O:82:ASN:HB2	1:O:89:THR:HG22	1.90	0.54
1:Q:130:GLU:HB3	1:Q:422:VAL:HG13	1.90	0.54
1:S:87:ASP:CG	1:S:88:GLY:H	2.11	0.54
1:S:217:SER:N	1:S:218:PRO:CD	2.71	0.54
1:T:131:LEU:HD12	1:T:422:VAL:CG2	2.36	0.54
1:U:273:VAL:HG12	1:U:274:ALA:N	2.23	0.54
1:U:413:ALA:O	1:U:417:VAL:HG23	2.08	0.54
1:W:273:VAL:HG12	1:W:274:ALA:N	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:369:VAL:HG23	1:Y:370:ALA:N	2.23	0.54
1:1:61:GLU:C	1:1:62:LEU:HD23	2.27	0.54
1:1:273:VAL:HG12	1:1:274:ALA:N	2.21	0.54
1:B:417:VAL:HG12	1:B:469:VAL:HG11	1.89	0.53
1:C:130:GLU:HB3	1:C:422:VAL:HG13	1.89	0.53
1:D:77:VAL:CG1	1:D:78:ALA:N	2.71	0.53
1:D:177:VAL:HG21	1:D:397:GLU:CG	2.38	0.53
1:E:77:VAL:CG1	1:E:78:ALA:N	2.71	0.53
1:G:443:ALA:O	1:G:447:MET:HG3	2.07	0.53
1:I:6:VAL:CG2	1:I:521:VAL:HG22	2.33	0.53
1:I:272:LYS:NZ	1:J:228:SER:HB3	2.23	0.53
1:K:443:ALA:O	1:K:447:MET:HG3	2.08	0.53
1:M:26:ALA:O	1:M:56:VAL:HG11	2.08	0.53
1:R:69:MET:O	1:R:73:MET:HG3	2.08	0.53
1:X:348:GLN:O	1:X:352:GLN:HG2	2.08	0.53
1:1:8:PHE:HE1	1:1:519:CYS:SG	2.31	0.53
1:1:383:ALA:O	1:1:384:ALA:HB3	2.08	0.53
1:A:136:VAL:O	1:A:137:PRO:O	2.27	0.53
1:C:499:VAL:CG2	1:C:500:THR:N	2.70	0.53
1:D:124:VAL:O	1:D:128:VAL:HG23	2.07	0.53
1:E:6:VAL:CG2	1:E:521:VAL:HG22	2.30	0.53
1:E:12:ALA:HB1	1:E:520:MET:HG3	1.90	0.53
1:F:66:PHE:HE1	1:F:522:THR:HG22	1.70	0.53
1:G:266:THR:HG21	1:G:273:VAL:N	2.23	0.53
1:H:17:LEU:O	1:H:20:VAL:HG22	2.08	0.53
1:L:134:LEU:HD23	1:L:134:LEU:H	1.71	0.53
1:M:61:GLU:C	1:M:62:LEU:HD23	2.27	0.53
1:N:177:VAL:HG21	1:N:397:GLU:CG	2.38	0.53
1:O:134:LEU:HD23	1:O:134:LEU:H	1.73	0.53
1:O:487:ASN:O	1:O:491:MET:HG3	2.07	0.53
1:Q:77:VAL:CG1	1:Q:78:ALA:N	2.72	0.53
1:Q:219:PHE:O	1:Q:247:LEU:HD12	2.08	0.53
1:T:369:VAL:HG23	1:T:370:ALA:N	2.23	0.53
1:W:77:VAL:HG11	1:W:510:VAL:HG21	1.89	0.53
1:W:217:SER:N	1:W:218:PRO:CD	2.71	0.53
1:1:404:ARG:HG2	1:1:404:ARG:HH11	1.71	0.53
1:2:77:VAL:CG1	1:2:78:ALA:N	2.71	0.53
1:A:65:LYS:O	1:A:69:MET:HG3	2.09	0.53
1:A:174:VAL:HB	1:A:376:VAL:HG13	1.90	0.53
1:A:419:LEU:HD21	1:A:500:THR:HG22	1.89	0.53
1:A:488:MET:CE	1:A:493:ILE:HG21	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:417:VAL:HG23	1:B:418:ALA:N	2.24	0.53
1:C:46:ALA:CB	1:D:76:GLU:HG3	2.35	0.53
1:C:369:VAL:HG23	1:C:370:ALA:N	2.24	0.53
1:E:177:VAL:HG21	1:E:397:GLU:CG	2.38	0.53
1:H:205:ILE:HA	1:H:213:VAL:HG22	1.90	0.53
1:H:273:VAL:HG12	1:H:274:ALA:N	2.22	0.53
1:H:443:ALA:O	1:H:447:MET:HG3	2.08	0.53
1:K:23:LEU:HD22	1:K:75:LYS:HB2	1.90	0.53
1:K:131:LEU:HD12	1:K:422:VAL:CG2	2.35	0.53
1:M:487:ASN:O	1:M:491:MET:HG3	2.08	0.53
1:N:112:ASN:OD1	1:N:114:MET:N	2.41	0.53
1:O:228:SER:HB3	1:U:272:LYS:HZ1	1.73	0.53
1:P:488:MET:CE	1:P:493:ILE:HG21	2.39	0.53
1:R:447:MET:HE3	1:R:504:LEU:HD21	1.90	0.53
1:S:369:VAL:HG23	1:S:370:ALA:N	2.23	0.53
1:T:247:LEU:O	1:T:273:VAL:HG13	2.09	0.53
1:W:66:PHE:HE1	1:W:522:THR:HG22	1.74	0.53
1:Y:65:LYS:O	1:Y:69:MET:HG3	2.07	0.53
1:Y:134:LEU:O	1:Y:136:VAL:HG23	2.08	0.53
1:Y:449:ALA:HB3	1:Y:450:PRO:CD	2.36	0.53
1:Z:177:VAL:HG21	1:Z:397:GLU:CG	2.38	0.53
1:Z:447:MET:HE3	1:Z:504:LEU:HD21	1.88	0.53
1:1:70:GLY:HA2	1:1:73:MET:HE3	1.89	0.53
1:A:205:ILE:HA	1:A:213:VAL:HG22	1.91	0.53
1:A:369:VAL:HG23	1:A:370:ALA:N	2.24	0.53
1:B:66:PHE:HE1	1:B:522:THR:HG22	1.73	0.53
1:C:230:ILE:CD1	1:C:261:THR:HG21	2.22	0.53
1:D:176:THR:HG21	1:D:333:ILE:HD11	1.91	0.53
1:E:26:ALA:O	1:E:56:VAL:HG11	2.08	0.53
1:E:273:VAL:HG12	1:E:274:ALA:N	2.23	0.53
1:G:465:VAL:O	1:G:469:VAL:HG23	2.09	0.53
1:H:87:ASP:CG	1:H:88:GLY:H	2.12	0.53
1:H:447:MET:HE3	1:H:504:LEU:HD21	1.90	0.53
1:K:177:VAL:HG21	1:K:397:GLU:CG	2.38	0.53
1:K:258:ALA:O	1:K:262:LEU:HG	2.08	0.53
1:L:406:ALA:HB1	1:L:411:VAL:HG12	1.90	0.53
1:P:77:VAL:HG11	1:P:510:VAL:CG2	2.38	0.53
1:S:77:VAL:CG1	1:S:78:ALA:N	2.72	0.53
1:T:129:GLU:C	1:T:131:LEU:N	2.61	0.53
1:U:88:GLY:O	1:U:91:THR:N	2.40	0.53
1:Y:77:VAL:CG1	1:Y:510:VAL:HG21	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:272:LYS:HZ1	1:Z:228:SER:HB3	1.72	0.53
1:Z:419:LEU:HD21	1:Z:500:THR:HG22	1.89	0.53
1:B:305:ILE:O	1:B:305:ILE:HG22	2.09	0.53
1:B:348:GLN:O	1:B:352:GLN:HG2	2.08	0.53
1:B:488:MET:CE	1:B:493:ILE:HG21	2.39	0.53
1:D:77:VAL:HG13	1:D:78:ALA:N	2.23	0.53
1:F:13:ARG:HA	1:F:16:MET:HE2	1.90	0.53
1:F:120:ILE:HG13	1:F:439:GLY:O	2.09	0.53
1:F:361:ASP:O	1:F:365:LEU:HG	2.09	0.53
1:K:361:ASP:O	1:K:365:LEU:HG	2.08	0.53
1:N:23:LEU:CD2	1:N:75:LYS:HB2	2.38	0.53
1:O:90:THR:O	1:O:94:VAL:HG12	2.08	0.53
1:O:361:ASP:O	1:O:365:LEU:HG	2.09	0.53
1:P:112:ASN:OD1	1:P:114:MET:N	2.42	0.53
1:Q:465:VAL:O	1:Q:469:VAL:HG23	2.08	0.53
1:R:120:ILE:HG13	1:R:439:GLY:O	2.08	0.53
1:R:217:SER:N	1:R:218:PRO:CD	2.71	0.53
1:S:206:ASN:HD21	1:S:214:GLU:H	1.57	0.53
1:V:129:GLU:C	1:V:131:LEU:N	2.62	0.53
1:V:417:VAL:HG21	1:V:488:MET:HG3	1.91	0.53
1:V:419:LEU:HD21	1:V:500:THR:HG22	1.90	0.53
1:Y:325:ILE:HG22	1:Y:330:THR:HA	1.90	0.53
1:Z:205:ILE:HA	1:Z:213:VAL:HG22	1.91	0.53
1:1:488:MET:CE	1:1:493:ILE:HG21	2.39	0.53
1:C:77:VAL:CG1	1:C:510:VAL:HG21	2.38	0.53
1:E:8:PHE:HE1	1:E:519:CYS:SG	2.31	0.53
1:F:61:GLU:C	1:F:62:LEU:HD23	2.28	0.53
1:F:202:PRO:O	1:F:204:PHE:N	2.36	0.53
1:G:177:VAL:HG21	1:G:397:GLU:CG	2.39	0.53
1:H:413:ALA:O	1:H:417:VAL:HG23	2.08	0.53
1:J:130:GLU:HB3	1:J:422:VAL:HG13	1.89	0.53
1:L:383:ALA:O	1:L:384:ALA:HB3	2.09	0.53
1:L:419:LEU:HD21	1:L:500:THR:HG22	1.89	0.53
1:N:369:VAL:HG23	1:N:370:ALA:N	2.24	0.53
1:O:177:VAL:HG21	1:O:397:GLU:CG	2.38	0.53
1:P:361:ASP:O	1:P:365:LEU:HG	2.09	0.53
1:Q:206:ASN:HD21	1:Q:214:GLU:H	1.56	0.53
1:S:266:THR:HG21	1:S:273:VAL:N	2.24	0.53
1:V:177:VAL:HG21	1:V:397:GLU:CG	2.39	0.53
1:W:247:LEU:O	1:W:273:VAL:HG13	2.08	0.53
1:X:77:VAL:CG1	1:X:78:ALA:N	2.71	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:206:ASN:HD21	1:X:214:GLU:H	1.57	0.53
1:A:46:ALA:CB	1:B:76:GLU:HG3	2.38	0.53
1:F:465:VAL:O	1:F:469:VAL:HG23	2.08	0.53
1:H:198:GLY:HA3	1:H:328:ASP:HA	1.90	0.53
1:H:361:ASP:O	1:H:365:LEU:HG	2.08	0.53
1:K:129:GLU:C	1:K:131:LEU:N	2.59	0.53
1:L:9:GLY:O	1:L:10:ASN:C	2.47	0.53
1:L:177:VAL:HG21	1:L:397:GLU:CG	2.39	0.53
1:L:202:PRO:O	1:L:204:PHE:N	2.36	0.53
1:L:230:ILE:CD1	1:L:261:THR:HG21	2.22	0.53
1:L:313:THR:HG21	1:U:315:GLU:HB2	1.89	0.53
1:L:443:ALA:O	1:L:447:MET:HG3	2.09	0.53
1:M:70:GLY:HA2	1:M:73:MET:CE	2.39	0.53
1:N:219:PHE:O	1:N:247:LEU:HD12	2.08	0.53
1:O:17:LEU:O	1:O:20:VAL:HG22	2.08	0.53
1:O:112:ASN:OD1	1:O:114:MET:N	2.42	0.53
1:R:451:LEU:O	1:R:453:GLN:N	2.42	0.53
1:S:273:VAL:HG12	1:S:274:ALA:N	2.24	0.53
1:T:179:ASP:HB3	1:T:389:MET:HE1	1.91	0.53
1:W:219:PHE:O	1:W:247:LEU:HD12	2.09	0.53
1:Z:443:ALA:O	1:Z:447:MET:HG3	2.09	0.53
1:2:66:PHE:HE1	1:2:522:THR:HG22	1.74	0.53
1:A:177:VAL:HG21	1:A:397:GLU:CG	2.38	0.53
1:A:273:VAL:HG12	1:A:274:ALA:N	2.24	0.53
1:A:361:ASP:O	1:A:365:LEU:HG	2.09	0.53
1:A:447:MET:HE3	1:A:504:LEU:HD21	1.90	0.53
1:A:455:VAL:HG12	1:A:460:GLU:O	2.09	0.53
1:D:273:VAL:HG12	1:D:274:ALA:N	2.23	0.53
1:D:361:ASP:O	1:D:365:LEU:HG	2.09	0.53
1:E:120:ILE:HG13	1:E:439:GLY:O	2.09	0.53
1:F:77:VAL:CG1	1:F:78:ALA:N	2.72	0.53
1:F:134:LEU:O	1:F:136:VAL:HG23	2.09	0.53
1:G:24:ALA:HB3	1:G:97:GLN:HE21	1.74	0.53
1:H:77:VAL:CG1	1:H:78:ALA:N	2.72	0.53
1:J:488:MET:CE	1:J:493:ILE:HG21	2.39	0.53
1:K:413:ALA:O	1:K:417:VAL:HG23	2.08	0.53
1:L:26:ALA:O	1:L:56:VAL:HG11	2.08	0.53
1:M:77:VAL:CG1	1:M:78:ALA:N	2.72	0.53
1:O:230:ILE:CD1	1:O:261:THR:HG21	2.24	0.53
1:Q:361:ASP:O	1:Q:365:LEU:HG	2.08	0.53
1:Q:413:ALA:O	1:Q:417:VAL:HG23	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:417:VAL:HG12	1:S:469:VAL:HG11	1.91	0.53
1:S:451:LEU:O	1:S:453:GLN:N	2.42	0.53
1:T:134:LEU:O	1:T:136:VAL:HG23	2.08	0.53
1:U:247:LEU:O	1:U:273:VAL:HG13	2.09	0.53
1:V:383:ALA:O	1:V:384:ALA:HB3	2.09	0.53
1:W:266:THR:HG22	1:W:271:VAL:O	2.09	0.53
1:X:273:VAL:HG12	1:X:274:ALA:N	2.24	0.53
1:Y:409:GLU:O	1:Y:497:THR:HB	2.08	0.53
1:A:130:GLU:HB3	1:A:422:VAL:HG13	1.90	0.53
1:B:217:SER:N	1:B:218:PRO:CD	2.71	0.53
1:C:198:GLY:HA3	1:C:328:ASP:HA	1.91	0.53
1:C:205:ILE:HA	1:C:213:VAL:HG22	1.90	0.53
1:C:383:ALA:O	1:C:384:ALA:HB3	2.08	0.53
1:F:383:ALA:O	1:F:384:ALA:HB3	2.09	0.53
1:I:61:GLU:C	1:I:62:LEU:HD23	2.29	0.53
1:J:77:VAL:CG1	1:J:78:ALA:N	2.71	0.53
1:K:24:ALA:O	1:K:26:ALA:N	2.42	0.53
1:K:129:GLU:O	1:K:132:LYS:N	2.42	0.53
1:M:488:MET:CE	1:M:493:ILE:HG21	2.38	0.53
1:O:413:ALA:O	1:O:417:VAL:HG23	2.09	0.53
1:S:112:ASN:OD1	1:S:114:MET:N	2.42	0.53
1:T:177:VAL:HG21	1:T:397:GLU:CG	2.39	0.53
1:T:183:LEU:CA	1:T:383:ALA:HB3	2.39	0.53
1:U:26:ALA:O	1:U:56:VAL:HG11	2.09	0.53
1:U:129:GLU:C	1:U:131:LEU:N	2.59	0.53
1:V:70:GLY:HA2	1:V:73:MET:CE	2.38	0.53
1:V:77:VAL:CG1	1:V:78:ALA:N	2.72	0.53
1:X:217:SER:N	1:X:218:PRO:CD	2.72	0.53
1:X:383:ALA:HB1	1:Y:281:PHE:HZ	1.74	0.53
1:Z:77:VAL:CG1	1:Z:78:ALA:N	2.71	0.53
1:2:305:ILE:O	1:2:305:ILE:HG22	2.09	0.53
1:2:404:ARG:HG2	1:2:404:ARG:HH11	1.73	0.53
1:A:9:GLY:O	1:A:10:ASN:C	2.47	0.53
1:C:66:PHE:HE1	1:C:522:THR:HG22	1.72	0.53
1:D:205:ILE:HA	1:D:213:VAL:HG22	1.90	0.53
1:E:417:VAL:HG11	1:E:477:GLY:HA3	1.91	0.53
1:G:413:ALA:O	1:G:417:VAL:HG23	2.08	0.53
1:H:61:GLU:C	1:H:62:LEU:HD23	2.29	0.53
1:I:24:ALA:HB3	1:I:97:GLN:HE21	1.74	0.53
1:L:77:VAL:HG13	1:L:78:ALA:N	2.25	0.53
1:L:179:ASP:HB3	1:L:389:MET:HE1	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:230:ILE:CD1	1:M:261:THR:HG21	2.23	0.53
1:N:130:GLU:HB3	1:N:422:VAL:HG13	1.91	0.53
1:N:198:GLY:HA3	1:N:328:ASP:HA	1.91	0.53
1:N:202:PRO:O	1:N:204:PHE:N	2.35	0.53
1:N:217:SER:N	1:N:218:PRO:CD	2.72	0.53
1:P:70:GLY:HA2	1:P:73:MET:CE	2.39	0.53
1:P:206:ASN:HD21	1:P:214:GLU:H	1.56	0.53
1:P:219:PHE:O	1:P:247:LEU:HD12	2.08	0.53
1:P:417:VAL:HG21	1:P:488:MET:HG3	1.91	0.53
1:R:13:ARG:HA	1:R:16:MET:HE2	1.89	0.53
1:R:413:ALA:O	1:R:417:VAL:HG23	2.09	0.53
1:S:134:LEU:O	1:S:136:VAL:HG23	2.09	0.53
1:S:419:LEU:HD21	1:S:500:THR:HG22	1.90	0.53
1:S:499:VAL:CG2	1:S:500:THR:N	2.71	0.53
1:U:77:VAL:CG1	1:U:78:ALA:N	2.72	0.53
1:V:23:LEU:CD2	1:V:75:LYS:HB2	2.39	0.53
1:V:305:ILE:HG22	1:V:305:ILE:O	2.09	0.53
1:W:479:ASN:OD1	1:W:493:ILE:HD11	2.09	0.53
1:X:61:GLU:C	1:X:62:LEU:HD23	2.29	0.53
1:Y:24:ALA:CB	1:Y:97:GLN:HE21	2.22	0.53
1:Y:499:VAL:CG2	1:Y:500:THR:N	2.71	0.53
1:1:112:ASN:OD1	1:1:114:MET:N	2.42	0.53
1:1:419:LEU:HD21	1:1:500:THR:HG22	1.89	0.53
1:2:8:PHE:CE1	1:2:519:CYS:SG	2.98	0.53
1:B:17:LEU:O	1:B:20:VAL:HG22	2.09	0.52
1:B:205:ILE:HA	1:B:213:VAL:HG22	1.91	0.52
1:C:87:ASP:CG	1:C:88:GLY:H	2.12	0.52
1:C:465:VAL:O	1:C:469:VAL:HG23	2.08	0.52
1:F:26:ALA:O	1:F:56:VAL:HG11	2.09	0.52
1:F:369:VAL:HG23	1:F:370:ALA:N	2.24	0.52
1:G:202:PRO:O	1:G:204:PHE:N	2.35	0.52
1:H:217:SER:N	1:H:218:PRO:CD	2.72	0.52
1:I:77:VAL:HG11	1:I:510:VAL:CG2	2.40	0.52
1:I:369:VAL:HG23	1:I:370:ALA:N	2.24	0.52
1:J:206:ASN:HD21	1:J:214:GLU:H	1.56	0.52
1:K:77:VAL:CG1	1:K:78:ALA:N	2.71	0.52
1:K:112:ASN:OD1	1:K:114:MET:N	2.42	0.52
1:L:447:MET:HE3	1:L:504:LEU:HD21	1.90	0.52
1:M:23:LEU:CD2	1:M:75:LYS:HB2	2.39	0.52
1:N:206:ASN:HD21	1:N:214:GLU:H	1.57	0.52
1:O:488:MET:CE	1:O:493:ILE:HG21	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:369:VAL:HG23	1:R:370:ALA:N	2.24	0.52
1:W:77:VAL:HG13	1:W:78:ALA:N	2.24	0.52
1:W:447:MET:HE3	1:W:504:LEU:HD21	1.91	0.52
1:X:486:GLY:C	1:X:491:MET:HE2	2.29	0.52
1:1:77:VAL:HG13	1:1:78:ALA:N	2.24	0.52
1:1:406:ALA:HB1	1:1:411:VAL:HG12	1.91	0.52
1:A:183:LEU:CA	1:A:383:ALA:HB3	2.40	0.52
1:B:8:PHE:CE1	1:B:519:CYS:SG	3.00	0.52
1:B:369:VAL:HG23	1:B:370:ALA:N	2.24	0.52
1:C:134:LEU:HD23	1:C:134:LEU:H	1.74	0.52
1:C:273:VAL:HG12	1:C:274:ALA:N	2.24	0.52
1:D:202:PRO:O	1:D:204:PHE:N	2.38	0.52
1:E:9:GLY:O	1:E:10:ASN:C	2.47	0.52
1:G:247:LEU:O	1:G:273:VAL:HG13	2.10	0.52
1:G:406:ALA:HB1	1:G:411:VAL:HG12	1.90	0.52
1:O:130:GLU:HB3	1:O:422:VAL:HG13	1.90	0.52
1:Q:129:GLU:C	1:Q:131:LEU:N	2.60	0.52
1:S:9:GLY:O	1:S:10:ASN:C	2.47	0.52
1:S:88:GLY:O	1:S:91:THR:N	2.42	0.52
1:T:449:ALA:HB3	1:T:450:PRO:CD	2.37	0.52
1:U:66:PHE:HE1	1:U:522:THR:HG22	1.72	0.52
1:V:361:ASP:O	1:V:365:LEU:HG	2.09	0.52
1:W:129:GLU:C	1:W:131:LEU:N	2.62	0.52
1:W:177:VAL:HG21	1:W:397:GLU:CG	2.40	0.52
1:X:88:GLY:O	1:X:91:THR:N	2.41	0.52
1:X:177:VAL:HG21	1:X:397:GLU:CG	2.39	0.52
1:Y:361:ASP:O	1:Y:365:LEU:HG	2.08	0.52
1:Z:455:VAL:HG12	1:Z:460:GLU:O	2.09	0.52
1:2:417:VAL:HG12	1:2:469:VAL:HG11	1.90	0.52
1:A:70:GLY:HA2	1:A:73:MET:CE	2.39	0.52
1:B:134:LEU:O	1:B:136:VAL:HG23	2.08	0.52
1:D:417:VAL:HG21	1:D:488:MET:HG3	1.91	0.52
1:E:62:LEU:N	1:E:62:LEU:CD2	2.68	0.52
1:E:230:ILE:CD1	1:E:261:THR:HG21	2.22	0.52
1:E:451:LEU:O	1:E:453:GLN:N	2.42	0.52
1:F:420:ILE:HD12	1:F:451:LEU:HD22	1.92	0.52
1:G:417:VAL:HG12	1:G:469:VAL:HG11	1.90	0.52
1:H:134:LEU:O	1:H:136:VAL:HG23	2.09	0.52
1:H:499:VAL:CG2	1:H:500:THR:N	2.73	0.52
1:I:499:VAL:CG2	1:I:500:THR:N	2.72	0.52
1:J:61:GLU:C	1:J:62:LEU:HD23	2.30	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:417:VAL:HG23	1:J:418:ALA:H	1.74	0.52
1:K:17:LEU:O	1:K:20:VAL:HG22	2.09	0.52
1:K:77:VAL:CG1	1:K:510:VAL:HG21	2.38	0.52
1:L:420:ILE:CD1	1:L:451:LEU:HD22	2.39	0.52
1:M:440:ILE:O	1:M:443:ALA:N	2.42	0.52
1:O:217:SER:N	1:O:218:PRO:CD	2.71	0.52
1:P:120:ILE:HG13	1:P:439:GLY:O	2.09	0.52
1:P:465:VAL:O	1:P:469:VAL:HG23	2.09	0.52
1:Q:91:THR:O	1:Q:94:VAL:CG1	2.58	0.52
1:S:34:LYS:HG3	1:S:458:CYS:SG	2.50	0.52
1:S:198:GLY:HA3	1:S:328:ASP:HA	1.92	0.52
1:S:420:ILE:HD11	1:S:451:LEU:HB3	1.91	0.52
1:Y:272:LYS:NZ	1:Z:228:SER:HB3	2.24	0.52
1:2:417:VAL:HG23	1:2:418:ALA:H	1.75	0.52
1:B:16:MET:SD	1:B:73:MET:HE1	2.49	0.52
1:B:266:THR:HG21	1:B:273:VAL:N	2.24	0.52
1:E:217:SER:N	1:E:218:PRO:CD	2.72	0.52
1:F:305:ILE:O	1:F:305:ILE:HG22	2.09	0.52
1:G:273:VAL:HG12	1:G:274:ALA:N	2.22	0.52
1:G:417:VAL:HG21	1:G:488:MET:HG3	1.91	0.52
1:H:24:ALA:HB3	1:H:97:GLN:HE21	1.75	0.52
1:K:66:PHE:CE1	1:K:522:THR:CG2	2.92	0.52
1:K:449:ALA:HB3	1:K:450:PRO:CD	2.35	0.52
1:M:220:ILE:HG23	1:M:248:LEU:HB3	1.92	0.52
1:M:361:ASP:O	1:M:365:LEU:HG	2.09	0.52
1:Q:13:ARG:O	1:Q:16:MET:N	2.42	0.52
1:Q:417:VAL:HG21	1:Q:488:MET:HG3	1.92	0.52
1:R:9:GLY:O	1:R:10:ASN:C	2.46	0.52
1:V:258:ALA:O	1:V:262:LEU:HG	2.10	0.52
1:X:24:ALA:HB3	1:X:97:GLN:HE21	1.73	0.52
1:Z:88:GLY:O	1:Z:91:THR:N	2.43	0.52
1:Z:230:ILE:CD1	1:Z:261:THR:HG21	2.24	0.52
1:2:230:ILE:CD1	1:2:261:THR:HG21	2.24	0.52
1:2:451:LEU:O	1:2:453:GLN:N	2.42	0.52
1:A:219:PHE:O	1:A:247:LEU:HD12	2.10	0.52
1:A:420:ILE:CD1	1:A:451:LEU:HD22	2.39	0.52
1:B:183:LEU:CA	1:B:383:ALA:HB3	2.40	0.52
1:C:82:ASN:HB2	1:C:89:THR:HG22	1.91	0.52
1:G:419:LEU:HD21	1:G:500:THR:HG22	1.92	0.52
1:H:451:LEU:O	1:H:453:GLN:N	2.42	0.52
1:J:305:ILE:O	1:J:305:ILE:HG22	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:217:SER:N	1:K:218:PRO:CD	2.72	0.52
1:K:369:VAL:HG23	1:K:370:ALA:N	2.25	0.52
1:L:70:GLY:HA2	1:L:73:MET:HE3	1.91	0.52
1:L:198:GLY:HA3	1:L:328:ASP:HA	1.92	0.52
1:L:417:VAL:HG21	1:L:488:MET:HG3	1.92	0.52
1:M:88:GLY:O	1:M:91:THR:N	2.43	0.52
1:P:217:SER:N	1:P:218:PRO:CD	2.71	0.52
1:R:77:VAL:CG1	1:R:78:ALA:N	2.72	0.52
1:R:383:ALA:O	1:R:384:ALA:HB3	2.10	0.52
1:R:419:LEU:HD21	1:R:500:THR:HG22	1.91	0.52
1:S:41:ASP:OD1	1:T:69:MET:HG2	2.09	0.52
1:S:247:LEU:O	1:S:273:VAL:HG13	2.10	0.52
1:T:383:ALA:O	1:T:384:ALA:HB3	2.10	0.52
1:V:217:SER:N	1:V:218:PRO:CD	2.72	0.52
1:X:198:GLY:HA3	1:X:328:ASP:HA	1.92	0.52
1:Z:66:PHE:HE1	1:Z:522:THR:HG22	1.75	0.52
1:Z:177:VAL:HG21	1:Z:397:GLU:HG2	1.91	0.52
1:1:24:ALA:HB3	1:1:97:GLN:HE21	1.75	0.52
1:A:77:VAL:CG1	1:A:78:ALA:N	2.73	0.52
1:A:112:ASN:OD1	1:A:114:MET:N	2.43	0.52
1:B:447:MET:HE3	1:B:504:LEU:HD21	1.91	0.52
1:C:129:GLU:C	1:C:131:LEU:N	2.61	0.52
1:D:17:LEU:O	1:D:20:VAL:HG22	2.09	0.52
1:D:70:GLY:HA2	1:D:73:MET:CE	2.40	0.52
1:E:77:VAL:HG11	1:E:510:VAL:CG2	2.39	0.52
1:E:202:PRO:O	1:E:204:PHE:N	2.37	0.52
1:F:77:VAL:CG1	1:F:510:VAL:HG21	2.40	0.52
1:F:129:GLU:C	1:F:131:LEU:N	2.63	0.52
1:F:383:ALA:HB1	1:G:281:PHE:HZ	1.72	0.52
1:G:420:ILE:HD11	1:G:451:LEU:HB3	1.92	0.52
1:I:266:THR:HG21	1:I:273:VAL:N	2.24	0.52
1:P:46:ALA:CB	1:Q:76:GLU:HG3	2.35	0.52
1:P:77:VAL:CG1	1:P:510:VAL:HG21	2.39	0.52
1:Q:177:VAL:HG21	1:Q:397:GLU:CG	2.40	0.52
1:S:120:ILE:HG13	1:S:439:GLY:O	2.10	0.52
1:S:177:VAL:HG21	1:S:397:GLU:HG2	1.92	0.52
1:S:447:MET:HE3	1:S:504:LEU:HD21	1.92	0.52
1:T:61:GLU:C	1:T:62:LEU:HD23	2.29	0.52
1:V:70:GLY:HA2	1:V:73:MET:HE3	1.91	0.52
1:V:77:VAL:HG13	1:V:78:ALA:N	2.25	0.52
1:V:369:VAL:HG23	1:V:370:ALA:N	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:420:ILE:HD12	1:W:451:LEU:HD22	1.92	0.52
1:X:151:SER:HB3	1:X:399:ALA:HA	1.90	0.52
1:Y:177:VAL:HG21	1:Y:397:GLU:HG2	1.92	0.52
1:1:17:LEU:O	1:1:20:VAL:HG22	2.09	0.52
1:1:217:SER:N	1:1:218:PRO:CD	2.72	0.52
1:2:420:ILE:HD12	1:2:451:LEU:HD22	1.92	0.52
1:A:25:ASP:OD1	1:A:28:LYS:HE2	2.10	0.52
1:A:413:ALA:O	1:A:417:VAL:HG23	2.09	0.52
1:B:23:LEU:CD2	1:B:75:LYS:HB2	2.40	0.52
1:D:247:LEU:O	1:D:273:VAL:HG13	2.08	0.52
1:E:66:PHE:O	1:E:67:GLU:C	2.47	0.52
1:F:177:VAL:HG21	1:F:397:GLU:HG2	1.92	0.52
1:H:258:ALA:O	1:H:262:LEU:HG	2.10	0.52
1:K:46:ALA:CB	1:L:76:GLU:HG3	2.37	0.52
1:M:174:VAL:HB	1:M:376:VAL:HG13	1.91	0.52
1:M:214:GLU:O	1:M:215:LEU:HD23	2.09	0.52
1:M:305:ILE:O	1:M:305:ILE:HG22	2.10	0.52
1:N:420:ILE:HD11	1:N:451:LEU:HB3	1.90	0.52
1:S:417:VAL:HG23	1:S:418:ALA:H	1.74	0.52
1:T:66:PHE:HE1	1:T:522:THR:HG22	1.74	0.52
1:T:112:ASN:OD1	1:T:114:MET:N	2.43	0.52
1:V:330:THR:CG2	1:V:331:THR:N	2.73	0.52
1:W:369:VAL:HG23	1:W:370:ALA:N	2.24	0.52
1:Y:198:GLY:HA3	1:Y:328:ASP:HA	1.92	0.52
1:Y:205:ILE:HA	1:Y:213:VAL:HG22	1.92	0.52
1:Y:417:VAL:HG12	1:Y:469:VAL:HG11	1.90	0.52
1:Y:510:VAL:O	1:Y:511:ALA:C	2.46	0.52
1:Z:217:SER:N	1:Z:218:PRO:CD	2.72	0.52
1:Z:361:ASP:O	1:Z:365:LEU:HG	2.09	0.52
1:2:413:ALA:O	1:2:417:VAL:HG23	2.10	0.52
1:A:61:GLU:C	1:A:62:LEU:HD23	2.30	0.52
1:B:61:GLU:C	1:B:62:LEU:HD23	2.30	0.52
1:C:62:LEU:N	1:C:62:LEU:CD2	2.73	0.52
1:F:77:VAL:HG13	1:F:78:ALA:N	2.25	0.52
1:F:198:GLY:HA3	1:F:328:ASP:HA	1.91	0.52
1:G:369:VAL:HG23	1:G:370:ALA:N	2.24	0.52
1:J:17:LEU:O	1:J:20:VAL:HG22	2.10	0.52
1:J:120:ILE:HG13	1:J:439:GLY:O	2.09	0.52
1:M:13:ARG:O	1:M:16:MET:N	2.43	0.52
1:M:499:VAL:CG2	1:M:500:THR:N	2.73	0.52
1:P:9:GLY:O	1:P:10:ASN:C	2.47	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:420:ILE:CD1	1:R:451:LEU:HD22	2.39	0.52
1:T:217:SER:N	1:T:218:PRO:CD	2.73	0.52
1:U:177:VAL:HG21	1:U:397:GLU:CG	2.40	0.52
1:V:87:ASP:CG	1:V:88:GLY:H	2.12	0.52
1:W:26:ALA:O	1:W:56:VAL:HG11	2.10	0.52
1:W:205:ILE:HA	1:W:213:VAL:HG22	1.92	0.52
1:X:417:VAL:HG23	1:X:418:ALA:H	1.74	0.52
1:Y:266:THR:HG21	1:Y:273:VAL:N	2.25	0.52
1:A:524:LEU:O	1:A:526:LYS:N	2.36	0.52
1:B:112:ASN:OD1	1:B:114:MET:N	2.43	0.52
1:C:34:LYS:HG3	1:C:458:CYS:SG	2.49	0.52
1:C:77:VAL:CG1	1:C:78:ALA:N	2.72	0.52
1:E:77:VAL:CG1	1:E:510:VAL:HG21	2.40	0.52
1:F:38:VAL:HG22	1:G:519:CYS:HB3	1.91	0.52
1:G:26:ALA:O	1:G:56:VAL:HG11	2.10	0.52
1:G:230:ILE:CD1	1:G:261:THR:HG21	2.22	0.52
1:H:23:LEU:CD2	1:H:75:LYS:HB2	2.40	0.52
1:H:369:VAL:HG23	1:H:370:ALA:N	2.24	0.52
1:J:8:PHE:HE1	1:J:519:CYS:HG	1.55	0.52
1:L:465:VAL:O	1:L:469:VAL:HG23	2.10	0.52
1:N:177:VAL:HG21	1:N:397:GLU:HG2	1.92	0.52
1:N:417:VAL:HG12	1:N:469:VAL:HG11	1.92	0.52
1:R:179:ASP:HB3	1:R:389:MET:HE1	1.92	0.52
1:R:266:THR:HG21	1:R:273:VAL:N	2.25	0.52
1:S:26:ALA:O	1:S:56:VAL:HG11	2.10	0.52
1:S:183:LEU:CA	1:S:383:ALA:HB3	2.40	0.52
1:T:205:ILE:HA	1:T:213:VAL:HG22	1.91	0.52
1:T:420:ILE:HD11	1:T:451:LEU:HB3	1.92	0.52
1:Y:23:LEU:CD2	1:Y:75:LYS:HB2	2.40	0.52
1:Z:9:GLY:O	1:Z:10:ASN:C	2.49	0.52
1:1:66:PHE:HE1	1:1:522:THR:HG22	1.73	0.52
1:1:499:VAL:CG2	1:1:500:THR:N	2.73	0.52
1:A:120:ILE:HG13	1:A:439:GLY:O	2.10	0.52
1:A:179:ASP:HB3	1:A:389:MET:HE1	1.92	0.52
1:A:217:SER:N	1:A:218:PRO:CD	2.72	0.52
1:B:413:ALA:O	1:B:417:VAL:HG23	2.10	0.52
1:C:272:LYS:HZ1	1:D:228:SER:HB3	1.75	0.52
1:E:8:PHE:HE1	1:E:519:CYS:HG	1.57	0.52
1:E:17:LEU:O	1:E:20:VAL:HG22	2.10	0.52
1:G:305:ILE:O	1:G:305:ILE:HG22	2.10	0.52
1:I:82:ASN:HB2	1:I:89:THR:HG22	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:305:ILE:O	1:I:305:ILE:HG22	2.10	0.52
1:O:369:VAL:HG23	1:O:370:ALA:N	2.24	0.52
1:T:120:ILE:HG13	1:T:439:GLY:O	2.09	0.52
1:U:206:ASN:HD21	1:U:214:GLU:H	1.58	0.52
1:U:417:VAL:HG12	1:U:469:VAL:HG11	1.91	0.52
1:B:198:GLY:HA3	1:B:328:ASP:HA	1.92	0.51
1:B:206:ASN:HD21	1:B:214:GLU:H	1.58	0.51
1:C:183:LEU:CA	1:C:383:ALA:HB3	2.39	0.51
1:H:177:VAL:HG21	1:H:397:GLU:HG2	1.92	0.51
1:I:205:ILE:HA	1:I:213:VAL:HG22	1.92	0.51
1:M:183:LEU:CA	1:M:383:ALA:HB3	2.40	0.51
1:M:413:ALA:O	1:M:417:VAL:HG23	2.09	0.51
1:N:13:ARG:O	1:N:16:MET:N	2.43	0.51
1:N:62:LEU:N	1:N:62:LEU:CD2	2.70	0.51
1:N:205:ILE:HA	1:N:213:VAL:HG22	1.91	0.51
1:P:198:GLY:HA3	1:P:328:ASP:HA	1.91	0.51
1:Q:453:GLN:O	1:Q:456:LEU:N	2.36	0.51
1:R:8:PHE:HE1	1:R:519:CYS:SG	2.33	0.51
1:S:361:ASP:O	1:S:365:LEU:HG	2.09	0.51
1:T:198:GLY:HA3	1:T:328:ASP:HA	1.92	0.51
1:X:487:ASN:O	1:X:491:MET:HG3	2.10	0.51
1:Z:112:ASN:OD1	1:Z:114:MET:N	2.43	0.51
1:1:417:VAL:HG23	1:1:418:ALA:H	1.74	0.51
1:E:77:VAL:HG13	1:E:78:ALA:N	2.25	0.51
1:G:488:MET:CE	1:G:493:ILE:HG21	2.40	0.51
1:H:305:ILE:HG22	1:H:305:ILE:O	2.10	0.51
1:I:77:VAL:CG1	1:I:510:VAL:HG21	2.40	0.51
1:I:77:VAL:HG13	1:I:78:ALA:N	2.23	0.51
1:J:177:VAL:HG21	1:J:397:GLU:CG	2.41	0.51
1:J:266:THR:HG21	1:J:273:VAL:N	2.25	0.51
1:J:477:GLY:HA3	1:J:488:MET:SD	2.50	0.51
1:L:205:ILE:HA	1:L:213:VAL:HG22	1.91	0.51
1:M:112:ASN:OD1	1:M:114:MET:N	2.43	0.51
1:M:206:ASN:HD21	1:M:214:GLU:H	1.57	0.51
1:N:417:VAL:HG21	1:N:488:MET:HG3	1.92	0.51
1:O:77:VAL:HG13	1:O:78:ALA:N	2.24	0.51
1:O:488:MET:HE3	1:O:493:ILE:HB	1.93	0.51
1:S:23:LEU:CD2	1:S:75:LYS:HB2	2.40	0.51
1:T:77:VAL:HG13	1:T:78:ALA:N	2.26	0.51
1:U:87:ASP:CG	1:U:88:GLY:H	2.14	0.51
1:V:409:GLU:O	1:V:497:THR:HB	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:206:ASN:HD21	1:W:214:GLU:H	1.57	0.51
1:X:417:VAL:HG23	1:X:418:ALA:N	2.26	0.51
1:Y:26:ALA:O	1:Y:56:VAL:HG11	2.09	0.51
1:Y:305:ILE:O	1:Y:305:ILE:HG22	2.10	0.51
1:Y:440:ILE:O	1:Y:443:ALA:N	2.43	0.51
1:Y:456:LEU:C	1:Y:458:CYS:H	2.14	0.51
1:Z:206:ASN:HD21	1:Z:214:GLU:H	1.58	0.51
1:Z:247:LEU:O	1:Z:273:VAL:HG13	2.10	0.51
1:1:9:GLY:O	1:1:10:ASN:C	2.49	0.51
1:2:69:MET:O	1:2:73:MET:HG3	2.10	0.51
1:2:77:VAL:HG13	1:2:78:ALA:N	2.24	0.51
1:A:26:ALA:O	1:A:56:VAL:HG11	2.10	0.51
1:B:383:ALA:O	1:B:384:ALA:HB3	2.09	0.51
1:B:486:GLY:C	1:B:491:MET:HE2	2.31	0.51
1:E:486:GLY:HA3	1:E:491:MET:HE2	1.91	0.51
1:F:70:GLY:HA2	1:F:73:MET:CE	2.40	0.51
1:F:77:VAL:HG11	1:F:510:VAL:CG2	2.40	0.51
1:F:417:VAL:HG23	1:F:418:ALA:N	2.25	0.51
1:I:66:PHE:CE1	1:I:522:THR:CG2	2.93	0.51
1:K:24:ALA:CB	1:K:97:GLN:HE21	2.23	0.51
1:K:247:LEU:O	1:K:273:VAL:HG13	2.09	0.51
1:L:77:VAL:CG1	1:L:510:VAL:HG21	2.40	0.51
1:L:479:ASN:OD1	1:L:493:ILE:HD11	2.10	0.51
1:O:66:PHE:O	1:O:67:GLU:C	2.48	0.51
1:O:206:ASN:HD21	1:O:214:GLU:H	1.58	0.51
1:P:24:ALA:HB3	1:P:97:GLN:HE21	1.75	0.51
1:P:183:LEU:CA	1:P:383:ALA:HB3	2.39	0.51
1:Q:77:VAL:HG11	1:Q:510:VAL:CG2	2.40	0.51
1:Q:77:VAL:HG13	1:Q:78:ALA:N	2.26	0.51
1:Q:217:SER:N	1:Q:218:PRO:CD	2.73	0.51
1:R:177:VAL:HG21	1:R:397:GLU:CG	2.41	0.51
1:R:349:ILE:HA	1:R:352:GLN:CG	2.40	0.51
1:S:17:LEU:O	1:S:20:VAL:HG22	2.10	0.51
1:S:417:VAL:HG23	1:S:418:ALA:N	2.25	0.51
1:S:420:ILE:CD1	1:S:451:LEU:HD22	2.40	0.51
1:S:449:ALA:HB3	1:S:450:PRO:CD	2.37	0.51
1:S:487:ASN:O	1:S:491:MET:HG3	2.11	0.51
1:U:217:SER:N	1:U:218:PRO:CD	2.72	0.51
1:V:449:ALA:HB3	1:V:450:PRO:CD	2.37	0.51
1:Y:217:SER:N	1:Y:218:PRO:CD	2.73	0.51
1:Y:420:ILE:HD11	1:Y:451:LEU:HB3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:87:ASP:CG	1:Z:88:GLY:H	2.14	0.51
1:B:338:GLU:C	1:B:340:ALA:H	2.14	0.51
1:D:349:ILE:HA	1:D:352:GLN:CG	2.40	0.51
1:F:217:SER:N	1:F:218:PRO:CD	2.74	0.51
1:H:88:GLY:O	1:H:91:THR:N	2.44	0.51
1:H:206:ASN:HD21	1:H:214:GLU:H	1.58	0.51
1:J:26:ALA:O	1:J:56:VAL:HG11	2.09	0.51
1:J:198:GLY:HA3	1:J:328:ASP:HA	1.92	0.51
1:J:413:ALA:O	1:J:417:VAL:HG23	2.09	0.51
1:K:134:LEU:O	1:K:136:VAL:HG23	2.10	0.51
1:K:383:ALA:O	1:K:384:ALA:HB3	2.10	0.51
1:L:77:VAL:HG11	1:L:510:VAL:CG2	2.41	0.51
1:L:420:ILE:HD11	1:L:451:LEU:HB3	1.91	0.51
1:L:451:LEU:O	1:L:453:GLN:N	2.43	0.51
1:N:361:ASP:O	1:N:365:LEU:HG	2.11	0.51
1:P:230:ILE:CD1	1:P:261:THR:HG21	2.23	0.51
1:Q:129:GLU:O	1:Q:132:LYS:N	2.44	0.51
1:Q:247:LEU:O	1:Q:273:VAL:HG13	2.09	0.51
1:T:77:VAL:HG11	1:T:510:VAL:CG2	2.40	0.51
1:V:247:LEU:O	1:V:273:VAL:HG13	2.11	0.51
1:X:73:MET:O	1:X:76:GLU:N	2.44	0.51
1:X:219:PHE:O	1:X:247:LEU:HD12	2.10	0.51
1:X:413:ALA:O	1:X:417:VAL:HG23	2.11	0.51
1:Z:383:ALA:O	1:Z:384:ALA:HB3	2.09	0.51
1:1:57:ALA:O	1:1:60:ILE:N	2.40	0.51
1:1:66:PHE:O	1:1:67:GLU:C	2.49	0.51
1:1:451:LEU:O	1:1:453:GLN:N	2.43	0.51
1:2:61:GLU:C	1:2:62:LEU:HD23	2.30	0.51
1:C:23:LEU:CD2	1:C:75:LYS:HB2	2.39	0.51
1:I:177:VAL:HG21	1:I:397:GLU:CG	2.40	0.51
1:I:217:SER:N	1:I:218:PRO:CD	2.72	0.51
1:J:66:PHE:HE1	1:J:522:THR:HG22	1.73	0.51
1:K:406:ALA:HA	1:K:410:GLY:O	2.11	0.51
1:N:414:GLY:N	1:N:494:LEU:HA	2.25	0.51
1:O:12:ALA:HB1	1:O:520:MET:HG3	1.92	0.51
1:O:77:VAL:HG11	1:O:510:VAL:CG2	2.41	0.51
1:Q:77:VAL:CG1	1:Q:510:VAL:HG21	2.40	0.51
1:Q:87:ASP:CG	1:Q:88:GLY:H	2.13	0.51
1:R:66:PHE:HE1	1:R:522:THR:HG22	1.72	0.51
1:R:136:VAL:O	1:R:137:PRO:O	2.28	0.51
1:R:198:GLY:HA3	1:R:328:ASP:HA	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:453:GLN:O	1:R:456:LEU:N	2.39	0.51
1:U:70:GLY:HA2	1:U:73:MET:CE	2.40	0.51
1:Y:70:GLY:HA2	1:Y:73:MET:CE	2.40	0.51
1:Y:206:ASN:HD21	1:Y:214:GLU:H	1.58	0.51
1:Y:524:LEU:O	1:Y:526:LYS:N	2.36	0.51
1:Z:61:GLU:C	1:Z:62:LEU:HD23	2.31	0.51
1:1:62:LEU:N	1:1:62:LEU:CD2	2.68	0.51
1:2:206:ASN:HD21	1:2:214:GLU:H	1.57	0.51
1:A:17:LEU:O	1:A:20:VAL:HG22	2.11	0.51
1:C:217:SER:N	1:C:218:PRO:CD	2.73	0.51
1:D:217:SER:N	1:D:218:PRO:CD	2.73	0.51
1:E:177:VAL:HG21	1:E:397:GLU:HG2	1.92	0.51
1:E:440:ILE:O	1:E:443:ALA:N	2.43	0.51
1:F:40:LEU:HD13	1:F:59:GLU:HG3	1.91	0.51
1:F:112:ASN:OD1	1:F:114:MET:N	2.43	0.51
1:G:77:VAL:HG13	1:G:78:ALA:N	2.25	0.51
1:J:524:LEU:O	1:J:526:LYS:N	2.36	0.51
1:K:77:VAL:HG13	1:K:78:ALA:N	2.25	0.51
1:K:206:ASN:HD21	1:K:214:GLU:H	1.58	0.51
1:L:61:GLU:C	1:L:62:LEU:HD23	2.29	0.51
1:L:369:VAL:HG23	1:L:370:ALA:N	2.26	0.51
1:O:13:ARG:O	1:O:16:MET:N	2.44	0.51
1:P:205:ILE:HA	1:P:213:VAL:HG22	1.92	0.51
1:Q:499:VAL:CG2	1:Q:500:THR:N	2.74	0.51
1:R:305:ILE:O	1:R:305:ILE:HG22	2.11	0.51
1:T:258:ALA:O	1:T:262:LEU:HG	2.11	0.51
1:U:112:ASN:OD1	1:U:114:MET:N	2.44	0.51
1:U:176:THR:HG21	1:U:333:ILE:HD11	1.93	0.51
1:U:305:ILE:O	1:U:305:ILE:HG22	2.10	0.51
1:V:136:VAL:O	1:V:137:PRO:O	2.28	0.51
1:X:112:ASN:OD1	1:X:114:MET:N	2.44	0.51
1:Z:129:GLU:C	1:Z:131:LEU:N	2.62	0.51
1:1:177:VAL:HG21	1:1:397:GLU:CG	2.39	0.51
1:A:230:ILE:CD1	1:A:261:THR:HG21	2.24	0.51
1:B:88:GLY:O	1:B:91:THR:N	2.44	0.51
1:B:487:ASN:O	1:B:491:MET:HG3	2.10	0.51
1:C:177:VAL:HG21	1:C:397:GLU:HG2	1.93	0.51
1:C:409:GLU:O	1:C:497:THR:HB	2.10	0.51
1:D:120:ILE:HG13	1:D:439:GLY:O	2.11	0.51
1:G:205:ILE:HA	1:G:213:VAL:HG22	1.92	0.51
1:G:217:SER:N	1:G:218:PRO:CD	2.73	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:447:MET:HE3	1:G:504:LEU:HD21	1.92	0.51
1:I:455:VAL:HG12	1:I:460:GLU:O	2.09	0.51
1:J:381:VAL:HG12	1:J:382:GLY:N	2.26	0.51
1:K:70:GLY:HA2	1:K:73:MET:HE3	1.92	0.51
1:K:305:ILE:HG22	1:K:305:ILE:O	2.10	0.51
1:L:217:SER:N	1:L:218:PRO:CD	2.73	0.51
1:M:325:ILE:HG22	1:M:330:THR:HA	1.93	0.51
1:M:465:VAL:O	1:M:469:VAL:HG23	2.10	0.51
1:N:23:LEU:HD22	1:N:75:LYS:HB2	1.92	0.51
1:O:183:LEU:CA	1:O:383:ALA:HB3	2.41	0.51
1:P:17:LEU:O	1:P:20:VAL:HG22	2.11	0.51
1:P:404:ARG:HH11	1:P:404:ARG:CG	2.23	0.51
1:S:23:LEU:HD22	1:S:75:LYS:HB2	1.92	0.51
1:T:305:ILE:O	1:T:305:ILE:HG22	2.11	0.51
1:T:465:VAL:O	1:T:469:VAL:HG23	2.11	0.51
1:W:453:GLN:O	1:W:456:LEU:N	2.37	0.51
1:2:34:LYS:HG3	1:2:458:CYS:SG	2.51	0.51
1:B:177:VAL:HG21	1:B:397:GLU:HG2	1.93	0.51
1:D:62:LEU:N	1:D:62:LEU:CD2	2.72	0.51
1:H:77:VAL:HG13	1:H:78:ALA:N	2.26	0.51
1:I:23:LEU:HD22	1:I:75:LYS:HB2	1.93	0.51
1:I:206:ASN:HD21	1:I:214:GLU:H	1.59	0.51
1:K:179:ASP:HB3	1:K:389:MET:HE1	1.93	0.51
1:L:381:VAL:HG12	1:L:382:GLY:N	2.26	0.51
1:O:62:LEU:N	1:O:62:LEU:CD2	2.68	0.51
1:O:179:ASP:HB3	1:O:389:MET:HE1	1.92	0.51
1:O:305:ILE:O	1:O:305:ILE:HG22	2.11	0.51
1:P:417:VAL:HG12	1:P:469:VAL:HG11	1.91	0.51
1:Q:198:GLY:HA3	1:Q:328:ASP:HA	1.92	0.51
1:Q:205:ILE:HA	1:Q:213:VAL:HG22	1.92	0.51
1:Q:230:ILE:CD1	1:Q:261:THR:HG21	2.24	0.51
1:R:129:GLU:C	1:R:131:LEU:N	2.64	0.51
1:R:499:VAL:CG2	1:R:500:THR:N	2.74	0.51
1:S:305:ILE:HG22	1:S:305:ILE:O	2.11	0.51
1:T:404:ARG:HH11	1:T:404:ARG:CG	2.23	0.51
1:U:25:ASP:OD1	1:U:28:LYS:HE2	2.11	0.51
1:U:198:GLY:HA3	1:U:328:ASP:HA	1.93	0.51
1:X:183:LEU:CA	1:X:383:ALA:HB3	2.40	0.51
1:X:440:ILE:O	1:X:443:ALA:N	2.44	0.51
1:2:16:MET:SD	1:2:73:MET:HE1	2.50	0.51
1:2:198:GLY:HA3	1:2:328:ASP:HA	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:66:PHE:O	1:A:67:GLU:C	2.49	0.51
1:B:26:ALA:O	1:B:56:VAL:HG11	2.10	0.51
1:D:9:GLY:O	1:D:10:ASN:C	2.49	0.51
1:D:440:ILE:O	1:D:443:ALA:N	2.44	0.51
1:F:338:GLU:C	1:F:340:ALA:H	2.14	0.51
1:G:198:GLY:HA3	1:G:328:ASP:HA	1.93	0.51
1:H:330:THR:CG2	1:H:331:THR:N	2.74	0.51
1:I:413:ALA:O	1:I:417:VAL:HG23	2.10	0.51
1:L:65:LYS:O	1:L:69:MET:HG3	2.11	0.51
1:L:414:GLY:N	1:L:494:LEU:HA	2.25	0.51
1:M:198:GLY:HA3	1:M:328:ASP:HA	1.93	0.51
1:M:202:PRO:O	1:M:204:PHE:N	2.37	0.51
1:M:266:THR:HG21	1:M:273:VAL:N	2.24	0.51
1:Q:369:VAL:HG23	1:Q:370:ALA:N	2.25	0.51
1:R:325:ILE:HG22	1:R:330:THR:HA	1.92	0.51
1:S:205:ILE:HA	1:S:213:VAL:HG22	1.93	0.51
1:S:440:ILE:O	1:S:443:ALA:N	2.44	0.51
1:U:417:VAL:HG21	1:U:488:MET:HG3	1.93	0.51
1:V:206:ASN:HD21	1:V:214:GLU:H	1.58	0.51
1:V:499:VAL:CG2	1:V:500:THR:N	2.74	0.51
1:Y:88:GLY:O	1:Y:91:THR:N	2.43	0.51
1:Y:414:GLY:N	1:Y:494:LEU:HA	2.25	0.51
1:Z:26:ALA:O	1:Z:56:VAL:HG11	2.10	0.51
1:Z:198:GLY:HA3	1:Z:328:ASP:HA	1.92	0.51
1:1:134:LEU:O	1:1:136:VAL:HG23	2.10	0.51
1:1:325:ILE:HG22	1:1:330:THR:HA	1.93	0.51
1:1:486:GLY:CA	1:1:491:MET:HE2	2.41	0.51
1:A:499:VAL:CG2	1:A:500:THR:N	2.73	0.51
1:C:64:ASP:C	1:C:64:ASP:OD1	2.49	0.51
1:E:266:THR:HG21	1:E:273:VAL:N	2.24	0.51
1:F:510:VAL:O	1:F:511:ALA:C	2.47	0.51
1:G:61:GLU:C	1:G:62:LEU:HD23	2.31	0.51
1:H:183:LEU:CA	1:H:383:ALA:HB3	2.41	0.51
1:H:230:ILE:CD1	1:H:261:THR:HG21	2.24	0.51
1:K:61:GLU:C	1:K:62:LEU:HD23	2.31	0.51
1:K:230:ILE:CD1	1:K:261:THR:HG21	2.23	0.51
1:R:6:VAL:CG2	1:R:521:VAL:HG22	2.35	0.51
1:R:23:LEU:HD22	1:R:75:LYS:HB2	1.93	0.51
1:R:205:ILE:HA	1:R:213:VAL:HG22	1.92	0.51
1:U:23:LEU:HD22	1:U:75:LYS:HB2	1.93	0.51
1:U:205:ILE:HA	1:U:213:VAL:HG22	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:66:PHE:O	1:W:67:GLU:C	2.47	0.51
1:X:325:ILE:HG22	1:X:330:THR:HA	1.93	0.51
1:Z:258:ALA:O	1:Z:262:LEU:HG	2.11	0.51
1:2:205:ILE:HA	1:2:213:VAL:HG22	1.92	0.51
1:A:134:LEU:O	1:A:136:VAL:HG23	2.11	0.50
1:A:206:ASN:HD21	1:A:214:GLU:H	1.58	0.50
1:C:417:VAL:HG23	1:C:418:ALA:H	1.76	0.50
1:D:179:ASP:HB3	1:D:389:MET:HE1	1.93	0.50
1:D:447:MET:HE3	1:D:504:LEU:HD21	1.91	0.50
1:E:305:ILE:HG22	1:E:305:ILE:O	2.11	0.50
1:G:183:LEU:CA	1:G:383:ALA:HB3	2.41	0.50
1:I:17:LEU:O	1:I:20:VAL:HG22	2.11	0.50
1:I:417:VAL:HG23	1:I:418:ALA:N	2.26	0.50
1:K:198:GLY:HA3	1:K:328:ASP:HA	1.93	0.50
1:K:420:ILE:HD11	1:K:451:LEU:HB3	1.93	0.50
1:L:311:LYS:HZ1	1:U:242:LYS:HD3	1.74	0.50
1:M:177:VAL:HG21	1:M:397:GLU:HG2	1.94	0.50
1:N:266:THR:HG21	1:N:273:VAL:N	2.25	0.50
1:O:174:VAL:HB	1:O:376:VAL:HG13	1.93	0.50
1:R:524:LEU:O	1:R:526:LYS:N	2.37	0.50
1:S:77:VAL:HG13	1:S:78:ALA:N	2.26	0.50
1:T:77:VAL:CG1	1:T:510:VAL:HG21	2.41	0.50
1:U:9:GLY:O	1:U:10:ASN:C	2.50	0.50
1:U:61:GLU:C	1:U:62:LEU:HD23	2.32	0.50
1:V:23:LEU:HD22	1:V:75:LYS:HB2	1.92	0.50
1:V:325:ILE:HG22	1:V:330:THR:HA	1.93	0.50
1:X:12:ALA:HB1	1:X:520:MET:HG3	1.94	0.50
1:X:77:VAL:HG13	1:X:78:ALA:N	2.26	0.50
1:X:258:ALA:O	1:X:262:LEU:HG	2.12	0.50
1:Z:23:LEU:CD2	1:Z:75:LYS:HB2	2.41	0.50
1:2:217:SER:N	1:2:218:PRO:CD	2.73	0.50
1:B:440:ILE:O	1:B:443:ALA:N	2.44	0.50
1:B:499:VAL:CG2	1:B:500:THR:N	2.73	0.50
1:D:479:ASN:OD1	1:D:493:ILE:HD11	2.12	0.50
1:E:205:ILE:HA	1:E:213:VAL:HG22	1.91	0.50
1:G:420:ILE:HD12	1:G:451:LEU:HD22	1.93	0.50
1:H:247:LEU:O	1:H:273:VAL:HG13	2.11	0.50
1:J:112:ASN:OD1	1:J:114:MET:N	2.45	0.50
1:L:305:ILE:O	1:L:305:ILE:HG22	2.11	0.50
1:M:205:ILE:HA	1:M:213:VAL:HG22	1.92	0.50
1:M:417:VAL:HG23	1:M:418:ALA:H	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:258:ALA:O	1:O:262:LEU:HG	2.11	0.50
1:P:179:ASP:HB3	1:P:389:MET:HE1	1.93	0.50
1:R:313:THR:O	1:R:317:LEU:HD13	2.11	0.50
1:R:420:ILE:HD11	1:R:451:LEU:HB3	1.93	0.50
1:S:16:MET:SD	1:S:73:MET:HE1	2.50	0.50
1:T:130:GLU:HB3	1:T:422:VAL:HG13	1.93	0.50
1:V:76:GLU:HG3	1:2:46:ALA:CB	2.37	0.50
1:V:404:ARG:HH11	1:V:404:ARG:CG	2.23	0.50
1:X:499:VAL:CG2	1:X:500:THR:N	2.74	0.50
1:Y:70:GLY:HA2	1:Y:73:MET:HE3	1.93	0.50
1:Y:129:GLU:C	1:Y:131:LEU:N	2.63	0.50
1:Y:420:ILE:CD1	1:Y:451:LEU:HD22	2.41	0.50
1:Z:325:ILE:HG22	1:Z:330:THR:HA	1.93	0.50
1:Z:499:VAL:CG2	1:Z:500:THR:N	2.73	0.50
1:1:413:ALA:O	1:1:417:VAL:HG23	2.10	0.50
1:2:23:LEU:HD22	1:2:75:LYS:HB2	1.93	0.50
1:2:266:THR:HG21	1:2:273:VAL:N	2.25	0.50
1:A:77:VAL:HG13	1:A:78:ALA:N	2.26	0.50
1:A:313:THR:O	1:A:317:LEU:HD13	2.11	0.50
1:C:219:PHE:O	1:C:247:LEU:HD12	2.10	0.50
1:C:419:LEU:HD21	1:C:500:THR:HG22	1.93	0.50
1:D:258:ALA:O	1:D:262:LEU:HG	2.11	0.50
1:K:180:GLY:H	1:K:389:MET:HE2	1.77	0.50
1:K:219:PHE:O	1:K:247:LEU:HD12	2.10	0.50
1:K:406:ALA:HB1	1:K:411:VAL:HG12	1.92	0.50
1:L:325:ILE:HG22	1:L:330:THR:HA	1.94	0.50
1:O:77:VAL:CG1	1:O:510:VAL:HG21	2.41	0.50
1:Q:420:ILE:HD12	1:Q:451:LEU:HD22	1.93	0.50
1:R:26:ALA:O	1:R:56:VAL:HG11	2.11	0.50
1:R:449:ALA:HB3	1:R:450:PRO:CD	2.38	0.50
1:W:417:VAL:HG23	1:W:418:ALA:N	2.26	0.50
1:X:134:LEU:O	1:X:136:VAL:HG23	2.10	0.50
1:X:305:ILE:HG22	1:X:305:ILE:O	2.12	0.50
1:Y:66:PHE:CE1	1:Y:522:THR:CG2	2.93	0.50
1:1:258:ALA:O	1:1:262:LEU:HG	2.11	0.50
1:1:361:ASP:O	1:1:365:LEU:HG	2.11	0.50
1:A:23:LEU:HD22	1:A:75:LYS:HB2	1.94	0.50
1:C:73:MET:O	1:C:76:GLU:N	2.44	0.50
1:C:77:VAL:HG13	1:C:78:ALA:N	2.25	0.50
1:C:305:ILE:HG22	1:C:305:ILE:O	2.12	0.50
1:D:24:ALA:HB3	1:D:97:GLN:HE21	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:198:GLY:HA3	1:D:328:ASP:HA	1.93	0.50
1:E:206:ASN:HD21	1:E:214:GLU:H	1.59	0.50
1:E:499:VAL:CG2	1:E:500:THR:N	2.74	0.50
1:F:9:GLY:O	1:F:10:ASN:C	2.49	0.50
1:F:17:LEU:O	1:F:20:VAL:HG22	2.11	0.50
1:F:180:GLY:H	1:F:389:MET:HE2	1.77	0.50
1:I:417:VAL:HG23	1:I:418:ALA:H	1.77	0.50
1:I:420:ILE:HD11	1:I:451:LEU:HB3	1.93	0.50
1:J:217:SER:N	1:J:218:PRO:CD	2.73	0.50
1:J:325:ILE:HG22	1:J:330:THR:HA	1.94	0.50
1:J:455:VAL:HG12	1:J:460:GLU:O	2.11	0.50
1:K:419:LEU:HD21	1:K:500:THR:HG22	1.93	0.50
1:L:453:GLN:O	1:L:456:LEU:N	2.41	0.50
1:N:349:ILE:HA	1:N:352:GLN:CG	2.42	0.50
1:O:120:ILE:HG13	1:O:439:GLY:O	2.11	0.50
1:O:499:VAL:CG2	1:O:500:THR:N	2.74	0.50
1:P:417:VAL:HG23	1:P:418:ALA:H	1.76	0.50
1:P:420:ILE:HD12	1:P:451:LEU:HD22	1.92	0.50
1:R:417:VAL:HG23	1:R:418:ALA:N	2.27	0.50
1:U:77:VAL:HG13	1:U:78:ALA:N	2.25	0.50
1:U:129:GLU:O	1:U:132:LYS:N	2.44	0.50
1:W:134:LEU:O	1:W:136:VAL:HG23	2.11	0.50
1:W:305:ILE:O	1:W:305:ILE:HG22	2.11	0.50
1:Z:305:ILE:O	1:Z:305:ILE:HG22	2.11	0.50
1:B:82:ASN:HB2	1:B:89:THR:HG22	1.93	0.50
1:C:417:VAL:HG23	1:C:418:ALA:N	2.26	0.50
1:D:417:VAL:HG23	1:D:418:ALA:N	2.27	0.50
1:F:23:LEU:CD2	1:F:75:LYS:HB2	2.41	0.50
1:G:87:ASP:CG	1:G:88:GLY:H	2.14	0.50
1:J:23:LEU:HD22	1:J:75:LYS:HB2	1.94	0.50
1:J:420:ILE:HD12	1:J:451:LEU:HD22	1.93	0.50
1:J:499:VAL:CG2	1:J:500:THR:N	2.74	0.50
1:K:330:THR:CG2	1:K:331:THR:H	2.25	0.50
1:K:417:VAL:HG23	1:K:418:ALA:H	1.77	0.50
1:L:88:GLY:O	1:L:91:THR:N	2.44	0.50
1:L:180:GLY:H	1:L:389:MET:HE2	1.77	0.50
1:M:23:LEU:HD22	1:M:75:LYS:HB2	1.92	0.50
1:M:24:ALA:HB3	1:M:97:GLN:HE21	1.76	0.50
1:M:77:VAL:HG13	1:M:78:ALA:N	2.26	0.50
1:M:179:ASP:HB3	1:M:389:MET:HE1	1.94	0.50
1:N:413:ALA:O	1:N:417:VAL:HG23	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:521:VAL:O	1:N:521:VAL:HG12	2.10	0.50
1:O:417:VAL:HG23	1:O:418:ALA:H	1.77	0.50
1:P:13:ARG:O	1:P:16:MET:N	2.45	0.50
1:P:305:ILE:HG22	1:P:305:ILE:O	2.12	0.50
1:P:381:VAL:HG12	1:P:382:GLY:N	2.27	0.50
1:Q:180:GLY:H	1:Q:389:MET:HE2	1.77	0.50
1:Q:447:MET:HE3	1:Q:504:LEU:HD21	1.91	0.50
1:U:130:GLU:HB3	1:U:422:VAL:HG13	1.92	0.50
1:U:258:ALA:O	1:U:262:LEU:HG	2.11	0.50
1:V:266:THR:HG21	1:V:273:VAL:N	2.26	0.50
1:W:258:ALA:O	1:W:262:LEU:HG	2.12	0.50
1:W:414:GLY:N	1:W:494:LEU:HA	2.26	0.50
1:Y:77:VAL:CG1	1:Y:78:ALA:N	2.75	0.50
1:Y:338:GLU:C	1:Y:340:ALA:H	2.15	0.50
1:Y:465:VAL:O	1:Y:469:VAL:HG23	2.11	0.50
1:Z:38:VAL:HG22	1:1:519:CYS:HB3	1.93	0.50
1:2:417:VAL:HG23	1:2:418:ALA:N	2.27	0.50
1:A:198:GLY:HA3	1:A:328:ASP:HA	1.92	0.50
1:B:9:GLY:O	1:B:10:ASN:C	2.50	0.50
1:B:129:GLU:C	1:B:131:LEU:N	2.63	0.50
1:D:66:PHE:O	1:D:67:GLU:C	2.49	0.50
1:D:420:ILE:HD12	1:D:451:LEU:HD22	1.93	0.50
1:D:488:MET:CE	1:D:493:ILE:HG21	2.42	0.50
1:F:381:VAL:HG12	1:F:382:GLY:N	2.26	0.50
1:G:17:LEU:O	1:G:20:VAL:HG22	2.12	0.50
1:J:129:GLU:C	1:J:131:LEU:N	2.63	0.50
1:K:62:LEU:N	1:K:62:LEU:CD2	2.71	0.50
1:K:325:ILE:HG22	1:K:330:THR:HA	1.94	0.50
1:K:404:ARG:HH11	1:K:404:ARG:CG	2.25	0.50
1:L:129:GLU:C	1:L:131:LEU:N	2.63	0.50
1:N:258:ALA:O	1:N:262:LEU:HG	2.12	0.50
1:T:338:GLU:C	1:T:340:ALA:H	2.14	0.50
1:U:406:ALA:HB1	1:U:411:VAL:HG12	1.93	0.50
1:V:205:ILE:HA	1:V:213:VAL:HG22	1.94	0.50
1:Z:77:VAL:HG13	1:Z:78:ALA:N	2.25	0.50
1:1:26:ALA:O	1:1:56:VAL:HG11	2.11	0.50
1:2:134:LEU:O	1:2:136:VAL:HG23	2.10	0.50
1:B:77:VAL:CG1	1:B:78:ALA:N	2.74	0.50
1:D:87:ASP:CG	1:D:88:GLY:H	2.15	0.50
1:D:151:SER:HB3	1:D:399:ALA:HA	1.92	0.50
1:E:70:GLY:HA2	1:E:73:MET:CE	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:69:MET:O	1:F:73:MET:HG3	2.12	0.50
1:F:247:LEU:O	1:F:273:VAL:HG13	2.12	0.50
1:G:77:VAL:HG11	1:G:510:VAL:CG2	2.42	0.50
1:G:88:GLY:O	1:G:91:THR:N	2.44	0.50
1:G:381:VAL:HG12	1:G:382:GLY:N	2.27	0.50
1:I:8:PHE:HE1	1:I:519:CYS:SG	2.34	0.50
1:I:198:GLY:HA3	1:I:328:ASP:HA	1.92	0.50
1:J:420:ILE:HD11	1:J:451:LEU:HB3	1.93	0.50
1:K:488:MET:HE3	1:K:493:ILE:HB	1.94	0.50
1:L:112:ASN:OD1	1:L:114:MET:N	2.45	0.50
1:L:510:VAL:O	1:L:511:ALA:C	2.49	0.50
1:N:26:ALA:O	1:N:56:VAL:HG11	2.11	0.50
1:O:87:ASP:CG	1:O:88:GLY:H	2.14	0.50
1:O:198:GLY:HA3	1:O:328:ASP:HA	1.93	0.50
1:P:77:VAL:CG1	1:P:78:ALA:N	2.73	0.50
1:Q:305:ILE:O	1:Q:305:ILE:HG22	2.12	0.50
1:Q:488:MET:CE	1:Q:493:ILE:HG21	2.42	0.50
1:S:349:ILE:HA	1:S:352:GLN:CG	2.42	0.50
1:U:174:VAL:HB	1:U:376:VAL:HG13	1.93	0.50
1:X:23:LEU:CD2	1:X:75:LYS:HB2	2.42	0.50
1:X:23:LEU:HD22	1:X:75:LYS:HB2	1.94	0.50
1:Y:112:ASN:OD1	1:Y:114:MET:N	2.44	0.50
1:Z:266:THR:HG21	1:Z:273:VAL:N	2.26	0.50
1:1:120:ILE:HG13	1:1:439:GLY:O	2.12	0.50
1:1:175:ILE:HA	1:1:377:ALA:HB3	1.94	0.50
1:1:206:ASN:HD21	1:1:214:GLU:H	1.59	0.50
1:A:305:ILE:O	1:A:305:ILE:HG22	2.11	0.50
1:B:233:MET:C	1:B:235:PRO:HD2	2.32	0.50
1:C:24:ALA:HB3	1:C:97:GLN:HE21	1.77	0.50
1:D:417:VAL:HG23	1:D:418:ALA:H	1.77	0.50
1:E:417:VAL:HG21	1:E:488:MET:HG3	1.94	0.50
1:F:87:ASP:CG	1:F:88:GLY:H	2.15	0.50
1:G:499:VAL:CG2	1:G:500:THR:N	2.74	0.50
1:G:524:LEU:O	1:G:526:LYS:N	2.36	0.50
1:J:77:VAL:HG13	1:J:78:ALA:N	2.26	0.50
1:J:486:GLY:C	1:J:491:MET:HE2	2.31	0.50
1:K:130:GLU:HB3	1:K:422:VAL:HG13	1.93	0.50
1:K:205:ILE:HA	1:K:213:VAL:HG22	1.92	0.50
1:L:258:ALA:O	1:L:262:LEU:HG	2.12	0.50
1:M:217:SER:N	1:M:218:PRO:CD	2.75	0.50
1:N:510:VAL:O	1:N:511:ALA:C	2.50	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:61:GLU:C	1:S:62:LEU:HD23	2.32	0.50
1:S:325:ILE:HG22	1:S:330:THR:HA	1.93	0.50
1:S:338:GLU:C	1:S:340:ALA:H	2.15	0.50
1:U:180:GLY:H	1:U:389:MET:HE2	1.75	0.50
1:W:417:VAL:HG23	1:W:418:ALA:H	1.76	0.50
1:X:26:ALA:O	1:X:56:VAL:HG11	2.11	0.50
1:1:477:GLY:HA3	1:1:488:MET:SD	2.51	0.50
1:C:23:LEU:HD22	1:C:75:LYS:HB2	1.94	0.50
1:D:177:VAL:HG21	1:D:397:GLU:HG2	1.94	0.50
1:D:414:GLY:N	1:D:494:LEU:HA	2.27	0.50
1:E:325:ILE:HG22	1:E:330:THR:HA	1.93	0.50
1:F:183:LEU:CA	1:F:383:ALA:HB3	2.41	0.50
1:I:219:PHE:O	1:I:247:LEU:HD12	2.12	0.50
1:J:417:VAL:HG23	1:J:418:ALA:N	2.26	0.50
1:L:170:GLY:C	1:L:172:GLU:H	2.16	0.50
1:M:404:ARG:HH11	1:M:404:ARG:CG	2.24	0.50
1:N:87:ASP:CG	1:N:88:GLY:H	2.15	0.50
1:N:449:ALA:O	1:N:450:PRO:C	2.50	0.50
1:O:524:LEU:O	1:O:526:LYS:N	2.36	0.50
1:Q:419:LEU:HD21	1:Q:500:THR:HG22	1.93	0.50
1:R:206:ASN:HD21	1:R:214:GLU:H	1.58	0.50
1:R:258:ALA:O	1:R:262:LEU:HG	2.11	0.50
1:S:13:ARG:O	1:S:16:MET:N	2.45	0.50
1:S:381:VAL:HG12	1:S:382:GLY:N	2.26	0.50
1:T:87:ASP:CG	1:T:88:GLY:H	2.15	0.50
1:1:87:ASP:CG	1:1:88:GLY:H	2.14	0.50
1:2:26:ALA:O	1:2:56:VAL:HG11	2.12	0.50
1:2:129:GLU:O	1:2:132:LYS:N	2.45	0.50
1:A:66:PHE:CE1	1:A:522:THR:CG2	2.95	0.49
1:A:258:ALA:O	1:A:262:LEU:HG	2.12	0.49
1:A:266:THR:HG21	1:A:273:VAL:N	2.27	0.49
1:D:88:GLY:O	1:D:91:THR:N	2.44	0.49
1:E:349:ILE:HA	1:E:352:GLN:CG	2.42	0.49
1:F:8:PHE:CE1	1:F:519:CYS:SG	3.04	0.49
1:F:325:ILE:HG22	1:F:330:THR:HA	1.94	0.49
1:H:453:GLN:O	1:H:456:LEU:N	2.37	0.49
1:I:272:LYS:HZ1	1:J:228:SER:HB3	1.76	0.49
1:J:349:ILE:HA	1:J:352:GLN:CG	2.42	0.49
1:J:465:VAL:O	1:J:469:VAL:HG23	2.13	0.49
1:L:66:PHE:HE1	1:L:522:THR:HG22	1.73	0.49
1:L:313:THR:O	1:L:317:LEU:HD13	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:129:GLU:C	1:P:131:LEU:N	2.62	0.49
1:P:170:GLY:C	1:P:172:GLU:H	2.16	0.49
1:P:313:THR:O	1:P:317:LEU:HD13	2.12	0.49
1:Q:26:ALA:O	1:Q:56:VAL:HG11	2.11	0.49
1:Q:313:THR:O	1:Q:317:LEU:HD13	2.12	0.49
1:S:258:ALA:O	1:S:262:LEU:HG	2.12	0.49
1:T:26:ALA:O	1:T:56:VAL:HG11	2.11	0.49
1:T:266:THR:HG21	1:T:273:VAL:N	2.27	0.49
1:T:325:ILE:HG22	1:T:330:THR:HA	1.94	0.49
1:T:417:VAL:HG23	1:T:418:ALA:H	1.77	0.49
1:U:66:PHE:O	1:U:67:GLU:C	2.49	0.49
1:U:170:GLY:C	1:U:172:GLU:H	2.15	0.49
1:V:69:MET:O	1:V:73:MET:HG3	2.12	0.49
1:W:77:VAL:HG11	1:W:510:VAL:CG2	2.42	0.49
1:W:112:ASN:OD1	1:W:114:MET:N	2.45	0.49
1:X:361:ASP:O	1:X:365:LEU:HG	2.11	0.49
1:Y:313:THR:O	1:Y:317:LEU:HD13	2.12	0.49
1:Z:70:GLY:HA2	1:Z:73:MET:CE	2.42	0.49
1:Z:134:LEU:O	1:Z:136:VAL:HG23	2.12	0.49
1:Z:313:THR:O	1:Z:317:LEU:HD13	2.11	0.49
1:1:23:LEU:HD22	1:1:75:LYS:HB2	1.94	0.49
1:1:233:MET:C	1:1:235:PRO:HD2	2.33	0.49
1:1:417:VAL:HG23	1:1:418:ALA:N	2.27	0.49
1:A:330:THR:CG2	1:A:331:THR:N	2.75	0.49
1:B:69:MET:O	1:B:73:MET:HG3	2.12	0.49
1:C:151:SER:HB3	1:C:399:ALA:HA	1.94	0.49
1:D:26:ALA:O	1:D:56:VAL:HG11	2.11	0.49
1:D:206:ASN:HD21	1:D:214:GLU:H	1.60	0.49
1:E:258:ALA:O	1:E:262:LEU:HG	2.11	0.49
1:F:64:ASP:C	1:F:64:ASP:OD1	2.50	0.49
1:F:206:ASN:HD21	1:F:214:GLU:H	1.58	0.49
1:I:183:LEU:CA	1:I:383:ALA:HB3	2.42	0.49
1:J:259:LEU:O	1:J:263:VAL:HG23	2.12	0.49
1:O:8:PHE:CE1	1:O:519:CYS:SG	3.03	0.49
1:P:180:GLY:H	1:P:389:MET:HE2	1.77	0.49
1:P:369:VAL:HG23	1:P:370:ALA:N	2.26	0.49
1:P:417:VAL:HG23	1:P:418:ALA:N	2.27	0.49
1:Q:66:PHE:CE1	1:Q:522:THR:CG2	2.94	0.49
1:Q:455:VAL:HG12	1:Q:455:VAL:O	2.12	0.49
1:T:34:LYS:HG3	1:T:458:CYS:SG	2.52	0.49
1:W:449:ALA:HB3	1:W:450:PRO:CD	2.41	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:417:VAL:HG21	1:Y:488:MET:HG3	1.94	0.49
1:Z:66:PHE:O	1:Z:67:GLU:C	2.51	0.49
1:D:230:ILE:CD1	1:D:261:THR:HG21	2.23	0.49
1:D:381:VAL:HG12	1:D:382:GLY:N	2.28	0.49
1:F:66:PHE:O	1:F:67:GLU:C	2.49	0.49
1:F:205:ILE:HA	1:F:213:VAL:HG22	1.93	0.49
1:G:177:VAL:HG21	1:G:397:GLU:HG2	1.94	0.49
1:G:404:ARG:HH11	1:G:404:ARG:CG	2.25	0.49
1:H:69:MET:SD	1:N:41:ASP:HB2	2.52	0.49
1:H:349:ILE:HA	1:H:352:GLN:CG	2.42	0.49
1:H:517:THR:HG23	1:N:37:ASN:O	2.11	0.49
1:O:233:MET:C	1:O:235:PRO:HD2	2.33	0.49
1:Q:12:ALA:HB1	1:Q:520:MET:HG3	1.95	0.49
1:Q:17:LEU:O	1:Q:20:VAL:HG22	2.12	0.49
1:Q:177:VAL:HG21	1:Q:397:GLU:HG2	1.94	0.49
1:Q:266:THR:HG21	1:Q:273:VAL:N	2.24	0.49
1:R:87:ASP:CG	1:R:88:GLY:H	2.16	0.49
1:S:69:MET:O	1:S:73:MET:HG3	2.12	0.49
1:S:417:VAL:HG21	1:S:488:MET:HG3	1.94	0.49
1:T:88:GLY:O	1:T:91:THR:N	2.44	0.49
1:U:499:VAL:CG2	1:U:500:THR:N	2.75	0.49
1:V:198:GLY:HA3	1:V:328:ASP:HA	1.93	0.49
1:V:338:GLU:C	1:V:340:ALA:H	2.15	0.49
1:W:413:ALA:O	1:W:417:VAL:HG23	2.12	0.49
1:X:177:VAL:HG21	1:X:397:GLU:HG2	1.95	0.49
1:1:330:THR:CG2	1:1:331:THR:N	2.75	0.49
1:2:129:GLU:C	1:2:131:LEU:N	2.65	0.49
1:A:453:GLN:O	1:A:456:LEU:N	2.39	0.49
1:C:70:GLY:HA2	1:C:73:MET:CE	2.43	0.49
1:C:241:ALA:HB1	1:D:231:ARG:HH12	1.76	0.49
1:C:325:ILE:HG22	1:C:330:THR:HA	1.94	0.49
1:D:170:GLY:C	1:D:172:GLU:H	2.16	0.49
1:D:413:ALA:O	1:D:417:VAL:HG23	2.12	0.49
1:F:417:VAL:HG23	1:F:418:ALA:H	1.77	0.49
1:J:41:ASP:OD1	1:K:69:MET:HG2	2.12	0.49
1:J:134:LEU:O	1:J:136:VAL:HG23	2.12	0.49
1:J:205:ILE:HA	1:J:213:VAL:HG22	1.94	0.49
1:K:9:GLY:O	1:K:10:ASN:C	2.51	0.49
1:L:177:VAL:HG21	1:L:397:GLU:HG2	1.95	0.49
1:M:82:ASN:HB2	1:M:89:THR:HG22	1.91	0.49
1:N:13:ARG:HA	1:N:16:MET:HE2	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:77:VAL:CG1	1:N:78:ALA:N	2.74	0.49
1:N:129:GLU:C	1:N:131:LEU:N	2.64	0.49
1:O:338:GLU:C	1:O:340:ALA:H	2.16	0.49
1:Q:183:LEU:CA	1:Q:383:ALA:HB3	2.41	0.49
1:R:77:VAL:HG13	1:R:78:ALA:N	2.26	0.49
1:R:381:VAL:HG12	1:R:382:GLY:N	2.27	0.49
1:U:23:LEU:CD2	1:U:75:LYS:HB2	2.42	0.49
1:W:77:VAL:CG1	1:W:510:VAL:HG21	2.42	0.49
1:W:183:LEU:CA	1:W:383:ALA:HB3	2.42	0.49
1:W:330:THR:CG2	1:W:331:THR:N	2.75	0.49
1:X:272:LYS:HZ1	1:Y:228:SER:HB3	1.78	0.49
1:Y:27:VAL:C	1:Y:29:VAL:H	2.16	0.49
1:Y:349:ILE:HA	1:Y:352:GLN:CG	2.41	0.49
1:1:13:ARG:O	1:1:16:MET:N	2.45	0.49
1:1:129:GLU:C	1:1:131:LEU:N	2.63	0.49
1:A:129:GLU:C	1:A:131:LEU:N	2.62	0.49
1:C:70:GLY:HA2	1:C:73:MET:HE3	1.94	0.49
1:C:404:ARG:HH11	1:C:404:ARG:CG	2.25	0.49
1:F:88:GLY:O	1:F:91:THR:N	2.45	0.49
1:I:325:ILE:HG22	1:I:330:THR:HA	1.95	0.49
1:I:338:GLU:C	1:I:340:ALA:H	2.16	0.49
1:J:46:ALA:CB	1:K:76:GLU:HG3	2.39	0.49
1:K:120:ILE:HG13	1:K:439:GLY:O	2.13	0.49
1:K:338:GLU:C	1:K:340:ALA:H	2.15	0.49
1:L:10:ASN:O	1:L:13:ARG:N	2.43	0.49
1:L:57:ALA:O	1:L:60:ILE:N	2.43	0.49
1:N:404:ARG:HH11	1:N:404:ARG:CG	2.25	0.49
1:P:510:VAL:O	1:P:511:ALA:C	2.51	0.49
1:R:77:VAL:CG1	1:R:510:VAL:HG21	2.42	0.49
1:S:12:ALA:HB1	1:S:520:MET:HG3	1.93	0.49
1:T:70:GLY:HA2	1:T:73:MET:CE	2.41	0.49
1:T:349:ILE:HA	1:T:352:GLN:CG	2.42	0.49
1:U:313:THR:O	1:U:317:LEU:HD13	2.13	0.49
1:V:177:VAL:HG21	1:V:397:GLU:HG2	1.95	0.49
1:W:338:GLU:C	1:W:340:ALA:H	2.16	0.49
1:X:313:THR:O	1:X:317:LEU:HD13	2.12	0.49
1:X:381:VAL:HG12	1:X:382:GLY:N	2.26	0.49
1:X:510:VAL:O	1:X:511:ALA:C	2.51	0.49
1:Z:404:ARG:HH11	1:Z:404:ARG:CG	2.25	0.49
1:2:177:VAL:HG21	1:2:397:GLU:CG	2.42	0.49
1:A:330:THR:CG2	1:A:331:THR:H	2.24	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:325:ILE:HG22	1:B:330:THR:HA	1.93	0.49
1:B:404:ARG:HH11	1:B:404:ARG:CG	2.25	0.49
1:B:420:ILE:HD12	1:B:451:LEU:HD22	1.93	0.49
1:D:70:GLY:HA2	1:D:73:MET:HE3	1.93	0.49
1:F:24:ALA:O	1:F:26:ALA:N	2.46	0.49
1:F:313:THR:O	1:F:317:LEU:HD13	2.12	0.49
1:F:349:ILE:HA	1:F:352:GLN:CG	2.43	0.49
1:I:26:ALA:O	1:I:56:VAL:HG11	2.11	0.49
1:I:134:LEU:N	1:I:134:LEU:CD2	2.76	0.49
1:I:361:ASP:O	1:I:365:LEU:HG	2.12	0.49
1:L:23:LEU:HD22	1:L:75:LYS:HB2	1.95	0.49
1:M:151:SER:HB3	1:M:399:ALA:HA	1.93	0.49
1:N:456:LEU:C	1:N:458:CYS:H	2.15	0.49
1:O:177:VAL:HG21	1:O:397:GLU:HG2	1.94	0.49
1:P:338:GLU:C	1:P:340:ALA:H	2.14	0.49
1:Q:9:GLY:O	1:Q:10:ASN:C	2.50	0.49
1:W:61:GLU:C	1:W:62:LEU:HD23	2.33	0.49
1:Y:183:LEU:CA	1:Y:383:ALA:HB3	2.42	0.49
1:Z:183:LEU:CA	1:Z:383:ALA:HB3	2.41	0.49
1:Z:381:VAL:HG12	1:Z:382:GLY:N	2.27	0.49
1:1:305:ILE:O	1:1:305:ILE:HG22	2.12	0.49
1:2:325:ILE:HG22	1:2:330:THR:HA	1.95	0.49
1:2:420:ILE:HD11	1:2:451:LEU:HB3	1.93	0.49
1:2:499:VAL:CG2	1:2:500:THR:N	2.76	0.49
1:A:24:ALA:HB3	1:A:97:GLN:HE21	1.76	0.49
1:A:70:GLY:HA2	1:A:73:MET:HE3	1.95	0.49
1:C:456:LEU:C	1:C:458:CYS:H	2.14	0.49
1:D:8:PHE:CE1	1:D:519:CYS:SG	3.04	0.49
1:D:404:ARG:HH11	1:D:404:ARG:CG	2.25	0.49
1:D:499:VAL:CG2	1:D:500:THR:N	2.76	0.49
1:E:25:ASP:OD1	1:E:28:LYS:HE2	2.12	0.49
1:E:198:GLY:HA3	1:E:328:ASP:HA	1.94	0.49
1:E:420:ILE:HD11	1:E:451:LEU:HB3	1.93	0.49
1:E:487:ASN:O	1:E:491:MET:HG3	2.13	0.49
1:G:77:VAL:HG11	1:G:510:VAL:HG21	1.92	0.49
1:G:130:GLU:HB3	1:G:422:VAL:HG13	1.94	0.49
1:I:70:GLY:HA2	1:I:73:MET:HE3	1.95	0.49
1:K:66:PHE:O	1:K:67:GLU:C	2.51	0.49
1:L:404:ARG:HH11	1:L:404:ARG:CG	2.25	0.49
1:M:10:ASN:O	1:M:13:ARG:N	2.45	0.49
1:N:183:LEU:CA	1:N:383:ALA:HB3	2.41	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:230:ILE:CD1	1:N:261:THR:HG21	2.22	0.49
1:Q:91:THR:O	1:Q:94:VAL:HG13	2.13	0.49
1:T:420:ILE:CD1	1:T:451:LEU:HD22	2.41	0.49
1:V:349:ILE:HA	1:V:352:GLN:CG	2.43	0.49
1:W:349:ILE:HA	1:W:352:GLN:CG	2.43	0.49
1:X:205:ILE:HA	1:X:213:VAL:HG22	1.94	0.49
1:Y:87:ASP:CG	1:Y:88:GLY:H	2.15	0.49
1:B:258:ALA:O	1:B:262:LEU:HG	2.12	0.49
1:B:465:VAL:O	1:B:469:VAL:HG23	2.13	0.49
1:C:338:GLU:C	1:C:340:ALA:H	2.15	0.49
1:C:381:VAL:HG12	1:C:382:GLY:N	2.28	0.49
1:C:420:ILE:HD12	1:C:451:LEU:HD22	1.93	0.49
1:D:23:LEU:HD22	1:D:75:LYS:HB2	1.95	0.49
1:D:313:THR:O	1:D:317:LEU:HD13	2.12	0.49
1:G:77:VAL:CG1	1:G:510:VAL:HG21	2.43	0.49
1:G:129:GLU:O	1:G:132:LYS:N	2.46	0.49
1:G:338:GLU:C	1:G:340:ALA:H	2.15	0.49
1:H:26:ALA:O	1:H:56:VAL:HG11	2.13	0.49
1:H:151:SER:HB3	1:H:399:ALA:HA	1.95	0.49
1:I:451:LEU:O	1:I:453:GLN:N	2.46	0.49
1:L:206:ASN:HD21	1:L:214:GLU:H	1.58	0.49
1:M:73:MET:O	1:M:76:GLU:N	2.46	0.49
1:M:258:ALA:O	1:M:262:LEU:HG	2.13	0.49
1:M:313:THR:O	1:M:317:LEU:HD13	2.12	0.49
1:O:70:GLY:HA2	1:O:73:MET:CE	2.43	0.49
1:O:325:ILE:HG22	1:O:330:THR:HA	1.93	0.49
1:R:112:ASN:OD1	1:R:114:MET:N	2.46	0.49
1:R:417:VAL:HG21	1:R:488:MET:HG3	1.95	0.49
1:T:456:LEU:C	1:T:458:CYS:H	2.16	0.49
1:U:414:GLY:N	1:U:494:LEU:HA	2.26	0.49
1:W:24:ALA:HB3	1:W:97:GLN:HE21	1.77	0.49
1:W:88:GLY:O	1:W:91:THR:N	2.44	0.49
1:W:198:GLY:HA3	1:W:328:ASP:HA	1.94	0.49
1:W:381:VAL:HG12	1:W:382:GLY:N	2.28	0.49
1:X:64:ASP:C	1:X:64:ASP:OD1	2.50	0.49
1:Z:180:GLY:H	1:Z:389:MET:HE2	1.78	0.49
1:Z:440:ILE:O	1:Z:443:ALA:N	2.46	0.49
1:1:330:THR:CG2	1:1:331:THR:H	2.26	0.49
1:1:524:LEU:CD1	1:1:525:PRO:HD2	2.30	0.49
1:C:349:ILE:HA	1:C:352:GLN:CG	2.42	0.49
1:D:266:THR:HG21	1:D:273:VAL:N	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:174:VAL:HB	1:E:376:VAL:HG13	1.94	0.49
1:G:9:GLY:O	1:G:10:ASN:C	2.50	0.49
1:G:258:ALA:O	1:G:262:LEU:HG	2.13	0.49
1:H:313:THR:O	1:H:317:LEU:HD13	2.13	0.49
1:J:338:GLU:C	1:J:340:ALA:H	2.16	0.49
1:K:73:MET:O	1:K:76:GLU:N	2.46	0.49
1:L:259:LEU:O	1:L:263:VAL:HG23	2.13	0.49
1:M:381:VAL:HG12	1:M:382:GLY:N	2.27	0.49
1:M:464:VAL:O	1:M:465:VAL:C	2.50	0.49
1:N:381:VAL:HG12	1:N:382:GLY:N	2.27	0.49
1:O:129:GLU:C	1:O:131:LEU:N	2.65	0.49
1:O:171:LYS:HB2	1:O:407:VAL:HG11	1.95	0.49
1:P:325:ILE:HG22	1:P:330:THR:HA	1.94	0.49
1:R:24:ALA:HB3	1:R:97:GLN:HE21	1.78	0.49
1:S:66:PHE:O	1:S:67:GLU:C	2.50	0.49
1:S:230:ILE:CD1	1:S:261:THR:HG21	2.22	0.49
1:S:404:ARG:HH11	1:S:404:ARG:CG	2.25	0.49
1:S:465:VAL:O	1:S:469:VAL:HG23	2.13	0.49
1:V:73:MET:O	1:V:76:GLU:N	2.45	0.49
1:X:349:ILE:HA	1:X:352:GLN:CG	2.42	0.49
1:1:214:GLU:C	1:1:215:LEU:HD23	2.33	0.49
1:2:10:ASN:O	1:2:13:ARG:N	2.45	0.49
1:A:420:ILE:HD11	1:A:451:LEU:HB3	1.95	0.49
1:B:417:VAL:HG21	1:B:488:MET:HG3	1.95	0.49
1:C:61:GLU:C	1:C:62:LEU:HD23	2.33	0.49
1:C:330:THR:CG2	1:C:331:THR:H	2.26	0.49
1:D:112:ASN:OD1	1:D:114:MET:N	2.46	0.49
1:G:13:ARG:O	1:G:16:MET:N	2.46	0.49
1:H:330:THR:CG2	1:H:331:THR:H	2.24	0.49
1:I:34:LYS:HG3	1:I:458:CYS:SG	2.51	0.49
1:I:134:LEU:O	1:I:136:VAL:HG23	2.12	0.49
1:I:313:THR:O	1:I:317:LEU:HD13	2.13	0.49
1:J:453:GLN:O	1:J:456:LEU:N	2.40	0.49
1:K:456:LEU:C	1:K:458:CYS:H	2.15	0.49
1:M:64:ASP:C	1:M:64:ASP:OD1	2.52	0.49
1:M:349:ILE:HA	1:M:352:GLN:CG	2.43	0.49
1:P:77:VAL:HG13	1:P:78:ALA:N	2.26	0.49
1:P:266:THR:HG21	1:P:273:VAL:N	2.26	0.49
1:Q:57:ALA:O	1:Q:60:ILE:N	2.43	0.49
1:Q:258:ALA:O	1:Q:262:LEU:HG	2.12	0.49
1:R:417:VAL:HG23	1:R:418:ALA:H	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:24:ALA:O	1:T:26:ALA:N	2.46	0.49
1:U:134:LEU:O	1:U:136:VAL:HG23	2.13	0.49
1:U:183:LEU:CA	1:U:383:ALA:HB3	2.43	0.49
1:U:440:ILE:O	1:U:443:ALA:N	2.46	0.49
1:V:330:THR:CG2	1:V:331:THR:H	2.24	0.49
1:V:381:VAL:HG12	1:V:382:GLY:N	2.27	0.49
1:W:330:THR:CG2	1:W:331:THR:H	2.25	0.49
1:Y:381:VAL:HG12	1:Y:382:GLY:N	2.27	0.49
1:A:69:MET:O	1:A:73:MET:HG3	2.12	0.48
1:A:510:VAL:O	1:A:511:ALA:C	2.51	0.48
1:D:23:LEU:CD2	1:D:75:LYS:HB2	2.43	0.48
1:E:13:ARG:HA	1:E:16:MET:HE2	1.94	0.48
1:G:313:THR:O	1:G:317:LEU:HD13	2.13	0.48
1:G:455:VAL:HG12	1:G:455:VAL:O	2.13	0.48
1:H:266:THR:HG21	1:H:273:VAL:N	2.28	0.48
1:I:73:MET:O	1:I:76:GLU:N	2.46	0.48
1:I:88:GLY:O	1:I:91:THR:N	2.46	0.48
1:I:479:ASN:OD1	1:I:493:ILE:HD11	2.13	0.48
1:K:134:LEU:N	1:K:134:LEU:CD2	2.76	0.48
1:K:420:ILE:HD12	1:K:451:LEU:HD22	1.94	0.48
1:K:510:VAL:O	1:K:511:ALA:C	2.52	0.48
1:M:25:ASP:OD1	1:M:28:LYS:HE2	2.13	0.48
1:M:129:GLU:C	1:M:131:LEU:N	2.66	0.48
1:N:66:PHE:CE1	1:N:522:THR:CG2	2.95	0.48
1:N:330:THR:CG2	1:N:331:THR:H	2.24	0.48
1:N:465:VAL:O	1:N:469:VAL:HG23	2.12	0.48
1:O:266:THR:HG21	1:O:273:VAL:N	2.25	0.48
1:P:87:ASP:CG	1:P:88:GLY:H	2.17	0.48
1:P:258:ALA:O	1:P:262:LEU:HG	2.12	0.48
1:R:77:VAL:HG11	1:R:510:VAL:CG2	2.42	0.48
1:R:134:LEU:O	1:R:136:VAL:HG23	2.13	0.48
1:R:338:GLU:C	1:R:340:ALA:H	2.16	0.48
1:S:453:GLN:O	1:S:456:LEU:N	2.39	0.48
1:V:420:ILE:HD12	1:V:451:LEU:HD22	1.95	0.48
1:W:16:MET:O	1:W:20:VAL:HG13	2.13	0.48
1:W:325:ILE:HG22	1:W:330:THR:HA	1.94	0.48
1:W:487:ASN:O	1:W:491:MET:HG3	2.13	0.48
1:X:46:ALA:CB	1:Y:76:GLU:HG3	2.43	0.48
1:X:404:ARG:HH11	1:X:404:ARG:CG	2.25	0.48
1:Z:24:ALA:CB	1:Z:97:GLN:HE21	2.26	0.48
1:Z:330:THR:CG2	1:Z:331:THR:H	2.26	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:180:GLY:H	1:2:389:MET:HE2	1.78	0.48
1:2:258:ALA:O	1:2:262:LEU:HG	2.13	0.48
1:A:64:ASP:OD1	1:A:64:ASP:C	2.51	0.48
1:A:349:ILE:HA	1:A:352:GLN:CG	2.42	0.48
1:A:404:ARG:HH11	1:A:404:ARG:CG	2.26	0.48
1:E:338:GLU:C	1:E:340:ALA:H	2.16	0.48
1:F:23:LEU:HD22	1:F:75:LYS:HB2	1.95	0.48
1:F:486:GLY:C	1:F:491:MET:HE2	2.33	0.48
1:H:381:VAL:HG12	1:H:382:GLY:N	2.28	0.48
1:H:404:ARG:HH11	1:H:404:ARG:CG	2.25	0.48
1:I:85:ALA:HB1	1:I:499:VAL:CG1	2.36	0.48
1:J:176:THR:HG21	1:J:333:ILE:HD11	1.95	0.48
1:L:62:LEU:N	1:L:62:LEU:CD2	2.72	0.48
1:L:134:LEU:O	1:L:136:VAL:HG23	2.12	0.48
1:L:330:THR:CG2	1:L:331:THR:N	2.76	0.48
1:M:9:GLY:O	1:M:10:ASN:C	2.50	0.48
1:N:338:GLU:C	1:N:340:ALA:H	2.15	0.48
1:R:183:LEU:CA	1:R:383:ALA:HB3	2.43	0.48
1:S:38:VAL:HG22	1:T:519:CYS:HB3	1.94	0.48
1:T:27:VAL:C	1:T:29:VAL:H	2.17	0.48
1:T:413:ALA:O	1:T:417:VAL:HG23	2.13	0.48
1:U:404:ARG:HH11	1:U:404:ARG:CG	2.25	0.48
1:V:493:ILE:O	1:V:493:ILE:HG22	2.13	0.48
1:W:27:VAL:C	1:W:29:VAL:H	2.17	0.48
1:X:57:ALA:O	1:X:60:ILE:N	2.44	0.48
1:Y:447:MET:HE3	1:Y:504:LEU:HD21	1.94	0.48
1:Z:449:ALA:HB3	1:Z:450:PRO:CD	2.38	0.48
1:1:266:THR:HG21	1:1:273:VAL:N	2.27	0.48
1:2:13:ARG:O	1:2:16:MET:N	2.45	0.48
1:2:465:VAL:O	1:2:469:VAL:HG23	2.13	0.48
1:2:486:GLY:C	1:2:491:MET:HE2	2.33	0.48
1:A:88:GLY:O	1:A:91:THR:N	2.46	0.48
1:A:177:VAL:HG21	1:A:397:GLU:HG2	1.96	0.48
1:A:325:ILE:HG22	1:A:330:THR:HA	1.94	0.48
1:C:120:ILE:HG13	1:C:439:GLY:O	2.13	0.48
1:C:330:THR:CG2	1:C:331:THR:N	2.76	0.48
1:D:134:LEU:O	1:D:136:VAL:HG23	2.12	0.48
1:D:330:THR:CG2	1:D:331:THR:H	2.26	0.48
1:D:330:THR:CG2	1:D:331:THR:N	2.76	0.48
1:D:453:GLN:O	1:D:456:LEU:N	2.36	0.48
1:E:23:LEU:HD22	1:E:75:LYS:HB2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:313:THR:O	1:E:317:LEU:HD13	2.13	0.48
1:H:62:LEU:N	1:H:62:LEU:CD2	2.68	0.48
1:I:25:ASP:OD1	1:I:28:LYS:HE2	2.13	0.48
1:I:129:GLU:C	1:I:131:LEU:N	2.64	0.48
1:J:70:GLY:HA2	1:J:73:MET:HE2	1.94	0.48
1:K:127:ALA:HB1	1:K:422:VAL:HG11	1.96	0.48
1:K:381:VAL:HG12	1:K:382:GLY:N	2.28	0.48
1:K:499:VAL:CG2	1:K:500:THR:N	2.77	0.48
1:N:499:VAL:HG22	1:N:500:THR:N	2.29	0.48
1:O:313:THR:O	1:O:317:LEU:HD13	2.13	0.48
1:O:349:ILE:HA	1:O:352:GLN:CG	2.43	0.48
1:O:464:VAL:O	1:O:465:VAL:C	2.52	0.48
1:P:214:GLU:C	1:P:215:LEU:HD23	2.34	0.48
1:Q:259:LEU:O	1:Q:263:VAL:HG23	2.13	0.48
1:U:420:ILE:HD12	1:U:451:LEU:HD22	1.94	0.48
1:V:456:LEU:C	1:V:458:CYS:H	2.15	0.48
1:W:8:PHE:HE1	1:W:519:CYS:SG	2.35	0.48
1:W:486:GLY:C	1:W:491:MET:HE2	2.34	0.48
1:W:524:LEU:O	1:W:526:LYS:N	2.38	0.48
1:Y:258:ALA:O	1:Y:262:LEU:HG	2.13	0.48
1:1:198:GLY:HA3	1:1:328:ASP:HA	1.94	0.48
1:2:338:GLU:C	1:2:340:ALA:H	2.15	0.48
1:2:417:VAL:HG21	1:2:488:MET:HG3	1.95	0.48
1:A:417:VAL:HG23	1:A:418:ALA:H	1.78	0.48
1:B:414:GLY:N	1:B:494:LEU:HA	2.28	0.48
1:C:453:GLN:O	1:C:456:LEU:N	2.39	0.48
1:D:338:GLU:C	1:D:340:ALA:H	2.16	0.48
1:E:129:GLU:C	1:E:131:LEU:N	2.65	0.48
1:E:247:LEU:O	1:E:273:VAL:HG13	2.12	0.48
1:G:349:ILE:HA	1:G:352:GLN:CG	2.43	0.48
1:H:40:LEU:HD13	1:H:59:GLU:HG3	1.94	0.48
1:J:24:ALA:O	1:J:26:ALA:N	2.46	0.48
1:J:180:GLY:H	1:J:389:MET:HE2	1.78	0.48
1:K:330:THR:CG2	1:K:331:THR:N	2.75	0.48
1:M:338:GLU:C	1:M:340:ALA:H	2.16	0.48
1:N:27:VAL:C	1:N:29:VAL:H	2.17	0.48
1:N:77:VAL:HG13	1:N:78:ALA:N	2.27	0.48
1:P:26:ALA:O	1:P:56:VAL:HG11	2.14	0.48
1:P:383:ALA:HB1	1:Q:281:PHE:HZ	1.77	0.48
1:Q:179:ASP:HB3	1:Q:389:MET:HE1	1.95	0.48
1:Q:404:ARG:HH11	1:Q:404:ARG:CG	2.25	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:456:LEU:C	1:S:458:CYS:H	2.16	0.48
1:V:82:ASN:HB2	1:V:89:THR:HG22	1.92	0.48
1:V:259:LEU:O	1:V:263:VAL:HG23	2.13	0.48
1:W:13:ARG:O	1:W:16:MET:N	2.47	0.48
1:W:120:ILE:HG13	1:W:439:GLY:O	2.13	0.48
1:W:230:ILE:CD1	1:W:261:THR:HG21	2.23	0.48
1:Z:479:ASN:OD1	1:Z:493:ILE:HD11	2.13	0.48
1:1:82:ASN:HB2	1:1:89:THR:HG22	1.92	0.48
1:1:440:ILE:O	1:1:443:ALA:N	2.46	0.48
1:2:120:ILE:HG13	1:2:439:GLY:O	2.14	0.48
1:2:440:ILE:O	1:2:443:ALA:N	2.45	0.48
1:C:9:GLY:O	1:C:10:ASN:C	2.51	0.48
1:C:233:MET:C	1:C:235:PRO:HD2	2.34	0.48
1:C:247:LEU:O	1:C:273:VAL:HG13	2.12	0.48
1:C:420:ILE:HD11	1:C:451:LEU:HB3	1.96	0.48
1:D:61:GLU:C	1:D:62:LEU:HD23	2.33	0.48
1:D:129:GLU:O	1:D:132:LYS:N	2.47	0.48
1:G:330:THR:CG2	1:G:331:THR:N	2.77	0.48
1:H:420:ILE:HD12	1:H:451:LEU:HD22	1.95	0.48
1:J:449:ALA:HB3	1:J:450:PRO:CD	2.40	0.48
1:K:88:GLY:O	1:K:91:THR:N	2.46	0.48
1:N:440:ILE:O	1:N:443:ALA:N	2.46	0.48
1:O:417:VAL:HG23	1:O:418:ALA:N	2.28	0.48
1:O:417:VAL:HG21	1:O:488:MET:HG3	1.96	0.48
1:Q:70:GLY:HA2	1:Q:73:MET:HE3	1.94	0.48
1:Q:349:ILE:HA	1:Q:352:GLN:CG	2.43	0.48
1:T:259:LEU:O	1:T:263:VAL:HG23	2.13	0.48
1:V:17:LEU:O	1:V:20:VAL:HG22	2.14	0.48
1:V:40:LEU:HD13	1:V:59:GLU:HG3	1.95	0.48
1:V:66:PHE:CE1	1:V:522:THR:CG2	2.95	0.48
1:V:420:ILE:HD11	1:V:451:LEU:HB3	1.94	0.48
1:W:170:GLY:C	1:W:172:GLU:H	2.16	0.48
1:W:510:VAL:O	1:W:511:ALA:C	2.51	0.48
1:Y:179:ASP:HB3	1:Y:389:MET:HE1	1.95	0.48
1:Z:417:VAL:HG23	1:Z:418:ALA:H	1.79	0.48
1:1:183:LEU:O	1:1:184:GLN:HB2	2.14	0.48
1:2:464:VAL:O	1:2:466:ALA:N	2.46	0.48
1:A:338:GLU:C	1:A:340:ALA:H	2.16	0.48
1:C:420:ILE:CD1	1:C:451:LEU:HD22	2.44	0.48
1:D:183:LEU:CA	1:D:383:ALA:HB3	2.42	0.48
1:E:420:ILE:HD12	1:E:451:LEU:HD22	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:479:ASN:OD1	1:E:493:ILE:HD11	2.13	0.48
1:H:23:LEU:HD22	1:H:75:LYS:HB2	1.96	0.48
1:I:177:VAL:HG21	1:I:397:GLU:HG2	1.96	0.48
1:L:266:THR:HG21	1:L:273:VAL:N	2.27	0.48
1:L:338:GLU:C	1:L:340:ALA:H	2.16	0.48
1:M:464:VAL:O	1:M:466:ALA:N	2.47	0.48
1:N:9:GLY:O	1:N:10:ASN:C	2.50	0.48
1:O:259:LEU:O	1:O:263:VAL:HG23	2.13	0.48
1:O:453:GLN:O	1:O:456:LEU:N	2.38	0.48
1:O:479:ASN:OD1	1:O:493:ILE:HD11	2.14	0.48
1:S:12:ALA:O	1:S:520:MET:SD	2.72	0.48
1:T:9:GLY:O	1:T:10:ASN:C	2.52	0.48
1:W:177:VAL:HG21	1:W:397:GLU:HG2	1.95	0.48
1:W:313:THR:O	1:W:317:LEU:HD13	2.13	0.48
1:W:420:ILE:HD11	1:W:451:LEU:HB3	1.94	0.48
1:1:23:LEU:CD2	1:1:75:LYS:HB2	2.43	0.48
1:1:219:PHE:O	1:1:247:LEU:HD12	2.12	0.48
1:1:417:VAL:HG21	1:1:488:MET:HG3	1.96	0.48
1:2:233:MET:C	1:2:235:PRO:HD2	2.34	0.48
1:B:68:ASN:HD21	1:B:72:GLN:HG3	1.78	0.48
1:B:381:VAL:HG12	1:B:382:GLY:N	2.27	0.48
1:D:420:ILE:HD11	1:D:451:LEU:HB3	1.96	0.48
1:J:69:MET:O	1:J:73:MET:HG3	2.12	0.48
1:J:170:GLY:C	1:J:172:GLU:H	2.17	0.48
1:J:313:THR:O	1:J:317:LEU:HD13	2.14	0.48
1:K:349:ILE:HA	1:K:352:GLN:CG	2.43	0.48
1:L:406:ALA:HA	1:L:410:GLY:O	2.14	0.48
1:N:73:MET:O	1:N:76:GLU:N	2.45	0.48
1:N:420:ILE:CD1	1:N:451:LEU:HD22	2.43	0.48
1:P:177:VAL:HG21	1:P:397:GLU:HG2	1.93	0.48
1:R:477:GLY:HA3	1:R:488:MET:SD	2.53	0.48
1:V:417:VAL:HG23	1:V:418:ALA:N	2.29	0.48
1:W:266:THR:HG21	1:W:273:VAL:N	2.28	0.48
1:X:66:PHE:HE1	1:X:522:THR:HG22	1.75	0.48
1:Z:420:ILE:HD12	1:Z:451:LEU:HD22	1.94	0.48
1:Z:451:LEU:O	1:Z:453:GLN:N	2.47	0.48
1:1:10:ASN:O	1:1:13:ARG:N	2.45	0.48
1:D:488:MET:HE3	1:D:493:ILE:HB	1.96	0.48
1:E:183:LEU:CA	1:E:383:ALA:HB3	2.42	0.48
1:H:338:GLU:C	1:H:340:ALA:H	2.17	0.48
1:J:171:LYS:HB2	1:J:407:VAL:HG11	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:66:PHE:O	1:L:67:GLU:C	2.52	0.48
1:M:220:ILE:HG23	1:M:248:LEU:HD23	1.95	0.48
1:O:464:VAL:O	1:O:466:ALA:N	2.47	0.48
1:O:510:VAL:O	1:O:511:ALA:C	2.51	0.48
1:Q:325:ILE:HG22	1:Q:330:THR:HA	1.96	0.48
1:S:66:PHE:CE1	1:S:522:THR:CG2	2.95	0.48
1:W:174:VAL:HB	1:W:376:VAL:HG13	1.96	0.48
1:Y:13:ARG:O	1:Y:16:MET:N	2.47	0.48
1:Y:23:LEU:HD22	1:Y:75:LYS:HB2	1.96	0.48
1:1:88:GLY:O	1:1:91:THR:N	2.47	0.48
1:2:88:GLY:O	1:2:91:THR:N	2.47	0.48
1:2:313:THR:O	1:2:317:LEU:HD13	2.14	0.48
1:2:524:LEU:O	1:2:526:LYS:N	2.40	0.48
1:C:266:THR:HG21	1:C:273:VAL:N	2.27	0.48
1:H:325:ILE:HG22	1:H:330:THR:HA	1.95	0.48
1:H:488:MET:HE3	1:H:493:ILE:HB	1.95	0.48
1:I:449:ALA:HB3	1:I:450:PRO:CD	2.42	0.48
1:J:456:LEU:C	1:J:458:CYS:H	2.16	0.48
1:L:16:MET:SD	1:L:73:MET:HE1	2.53	0.48
1:N:8:PHE:HE1	1:N:519:CYS:HG	1.49	0.48
1:O:23:LEU:HD22	1:O:75:LYS:HB2	1.96	0.48
1:P:420:ILE:HD11	1:P:451:LEU:HB3	1.96	0.48
1:Q:8:PHE:CE1	1:Q:519:CYS:SG	3.04	0.48
1:Q:24:ALA:HB3	1:Q:97:GLN:HE21	1.78	0.48
1:Q:88:GLY:O	1:Q:91:THR:N	2.46	0.48
1:Q:381:VAL:HG12	1:Q:382:GLY:N	2.29	0.48
1:Q:524:LEU:O	1:Q:526:LYS:N	2.36	0.48
1:R:82:ASN:HB2	1:R:89:THR:HG22	1.92	0.48
1:S:41:ASP:HB2	1:T:69:MET:CE	2.44	0.48
1:U:13:ARG:O	1:U:16:MET:N	2.47	0.48
1:U:325:ILE:HG22	1:U:330:THR:HA	1.95	0.48
1:U:330:THR:CG2	1:U:331:THR:H	2.26	0.48
1:U:449:ALA:HB3	1:U:450:PRO:CD	2.39	0.48
1:X:330:THR:CG2	1:X:331:THR:H	2.25	0.48
1:2:349:ILE:HA	1:2:352:GLN:CG	2.43	0.48
1:C:24:ALA:O	1:C:26:ALA:N	2.47	0.48
1:E:233:MET:C	1:E:235:PRO:HD2	2.35	0.48
1:F:66:PHE:CE1	1:F:522:THR:CG2	2.95	0.48
1:G:477:GLY:HA3	1:G:488:MET:SD	2.54	0.48
1:I:381:VAL:HG12	1:I:382:GLY:N	2.28	0.48
1:J:70:GLY:HA2	1:J:73:MET:HE3	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:417:VAL:HG21	1:J:488:MET:HG3	1.96	0.48
1:L:174:VAL:HB	1:L:376:VAL:HG13	1.96	0.48
1:M:12:ALA:HB1	1:M:520:MET:HG3	1.96	0.48
1:N:313:THR:O	1:N:317:LEU:HD13	2.14	0.48
1:O:88:GLY:O	1:O:91:THR:N	2.46	0.48
1:P:349:ILE:HA	1:P:352:GLN:CG	2.43	0.48
1:R:486:GLY:C	1:R:491:MET:HE2	2.34	0.48
1:S:64:ASP:C	1:S:64:ASP:OD1	2.52	0.48
1:S:129:GLU:C	1:S:131:LEU:N	2.64	0.48
1:T:12:ALA:HB1	1:T:520:MET:HG3	1.96	0.48
1:T:177:VAL:HG21	1:T:397:GLU:HG2	1.96	0.48
1:T:417:VAL:HG23	1:T:418:ALA:N	2.29	0.48
1:U:177:VAL:HG21	1:U:397:GLU:HG2	1.96	0.48
1:U:349:ILE:HA	1:U:352:GLN:CG	2.42	0.48
1:U:420:ILE:HD11	1:U:451:LEU:HB3	1.96	0.48
1:W:82:ASN:HB2	1:W:89:THR:HG22	1.91	0.48
1:Z:73:MET:O	1:Z:76:GLU:N	2.47	0.48
1:1:40:LEU:HD13	1:1:59:GLU:HG3	1.96	0.48
1:1:313:THR:O	1:1:317:LEU:HD13	2.14	0.48
1:D:25:ASP:OD1	1:D:28:LYS:HE2	2.13	0.47
1:D:305:ILE:O	1:D:305:ILE:HG22	2.14	0.47
1:E:510:VAL:O	1:E:511:ALA:C	2.52	0.47
1:F:70:GLY:HA2	1:F:73:MET:HE3	1.94	0.47
1:F:330:THR:CG2	1:F:331:THR:H	2.26	0.47
1:F:404:ARG:HH11	1:F:404:ARG:CG	2.26	0.47
1:G:325:ILE:HG22	1:G:330:THR:HA	1.96	0.47
1:H:239:ALA:O	1:H:314:LEU:HD11	2.14	0.47
1:I:383:ALA:O	1:I:384:ALA:CB	2.62	0.47
1:I:486:GLY:C	1:I:491:MET:HE2	2.34	0.47
1:J:447:MET:HE3	1:J:504:LEU:HD21	1.94	0.47
1:L:310:GLU:OE1	1:L:310:GLU:N	2.47	0.47
1:M:330:THR:CG2	1:M:331:THR:H	2.27	0.47
1:N:136:VAL:O	1:N:137:PRO:O	2.31	0.47
1:N:140:ASP:O	1:N:142:LYS:N	2.47	0.47
1:O:27:VAL:CG1	1:O:90:THR:HG23	2.42	0.47
1:P:88:GLY:O	1:P:91:THR:N	2.47	0.47
1:P:259:LEU:O	1:P:263:VAL:HG23	2.14	0.47
1:P:330:THR:CG2	1:P:331:THR:H	2.26	0.47
1:S:330:THR:CG2	1:S:331:THR:H	2.26	0.47
1:T:206:ASN:HD21	1:T:214:GLU:H	1.61	0.47
1:U:73:MET:O	1:U:76:GLU:N	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:417:VAL:HG23	1:V:418:ALA:H	1.78	0.47
1:X:9:GLY:O	1:X:10:ASN:C	2.52	0.47
1:Y:521:VAL:O	1:Y:521:VAL:HG12	2.14	0.47
1:1:404:ARG:HH11	1:1:404:ARG:CG	2.27	0.47
1:A:57:ALA:O	1:A:60:ILE:N	2.44	0.47
1:C:206:ASN:HD21	1:C:214:GLU:H	1.60	0.47
1:C:259:LEU:O	1:C:263:VAL:HG23	2.14	0.47
1:D:174:VAL:HB	1:D:376:VAL:HG13	1.96	0.47
1:F:82:ASN:HB2	1:F:89:THR:HG22	1.92	0.47
1:F:129:GLU:O	1:F:132:LYS:N	2.47	0.47
1:F:258:ALA:O	1:F:262:LEU:HG	2.13	0.47
1:F:414:GLY:N	1:F:494:LEU:HA	2.29	0.47
1:I:13:ARG:O	1:I:16:MET:N	2.47	0.47
1:J:23:LEU:CD2	1:J:75:LYS:HB2	2.44	0.47
1:J:62:LEU:N	1:J:62:LEU:CD2	2.66	0.47
1:J:87:ASP:CG	1:J:88:GLY:H	2.18	0.47
1:J:183:LEU:CA	1:J:383:ALA:HB3	2.43	0.47
1:L:40:LEU:HD13	1:L:59:GLU:HG3	1.96	0.47
1:M:486:GLY:C	1:M:491:MET:HE2	2.34	0.47
1:O:10:ASN:O	1:O:13:ARG:N	2.43	0.47
1:O:330:THR:CG2	1:O:331:THR:H	2.27	0.47
1:P:486:GLY:C	1:P:491:MET:HE2	2.34	0.47
1:Q:70:GLY:HA2	1:Q:73:MET:CE	2.44	0.47
1:Q:330:THR:CG2	1:Q:331:THR:H	2.27	0.47
1:R:13:ARG:O	1:R:16:MET:N	2.47	0.47
1:R:23:LEU:CD2	1:R:75:LYS:HB2	2.44	0.47
1:T:487:ASN:O	1:T:491:MET:HG3	2.14	0.47
1:U:338:GLU:C	1:U:340:ALA:H	2.17	0.47
1:V:134:LEU:N	1:V:134:LEU:CD2	2.77	0.47
1:X:17:LEU:O	1:X:20:VAL:HG22	2.14	0.47
1:Y:180:GLY:H	1:Y:389:MET:HE2	1.79	0.47
1:Y:310:GLU:OE1	1:Y:310:GLU:N	2.47	0.47
1:Z:330:THR:CG2	1:Z:331:THR:N	2.76	0.47
1:Z:349:ILE:HA	1:Z:352:GLN:CG	2.43	0.47
1:2:73:MET:O	1:2:76:GLU:N	2.47	0.47
1:A:16:MET:SD	1:A:73:MET:HE1	2.55	0.47
1:A:87:ASP:CG	1:A:88:GLY:H	2.18	0.47
1:F:464:VAL:HG22	1:N:464:VAL:HG22	1.97	0.47
1:G:62:LEU:N	1:G:62:LEU:CD2	2.71	0.47
1:H:228:SER:HB3	1:N:272:LYS:HZ1	1.80	0.47
1:J:24:ALA:CB	1:J:97:GLN:HE21	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:8:PHE:HE1	1:L:519:CYS:SG	2.37	0.47
1:L:413:ALA:O	1:L:417:VAL:HG23	2.13	0.47
1:N:171:LYS:HB2	1:N:407:VAL:HG11	1.96	0.47
1:O:420:ILE:HD11	1:O:451:LEU:HB3	1.97	0.47
1:P:440:ILE:O	1:P:441:LYS:C	2.53	0.47
1:P:449:ALA:HB3	1:P:450:PRO:CD	2.39	0.47
1:Q:174:VAL:HB	1:Q:376:VAL:HG13	1.97	0.47
1:Q:220:ILE:HG23	1:Q:248:LEU:HD23	1.95	0.47
1:R:200:LEU:HD21	1:R:276:VAL:HA	1.97	0.47
1:U:120:ILE:HG13	1:U:439:GLY:O	2.14	0.47
1:V:9:GLY:O	1:V:10:ASN:C	2.52	0.47
1:X:66:PHE:O	1:X:67:GLU:C	2.52	0.47
1:X:338:GLU:C	1:X:340:ALA:H	2.16	0.47
1:Y:330:THR:CG2	1:Y:331:THR:H	2.27	0.47
1:Y:413:ALA:O	1:Y:417:VAL:HG23	2.14	0.47
1:Y:417:VAL:HG23	1:Y:418:ALA:N	2.30	0.47
1:Z:41:ASP:OD1	1:1:69:MET:HG2	2.14	0.47
1:1:338:GLU:C	1:1:340:ALA:H	2.16	0.47
1:A:73:MET:O	1:A:76:GLU:N	2.47	0.47
1:C:8:PHE:CE1	1:C:519:CYS:SG	3.00	0.47
1:D:325:ILE:HG22	1:D:330:THR:HA	1.95	0.47
1:F:420:ILE:CD1	1:F:451:LEU:HD22	2.44	0.47
1:H:310:GLU:N	1:H:310:GLU:OE1	2.47	0.47
1:H:510:VAL:O	1:H:511:ALA:C	2.52	0.47
1:I:214:GLU:C	1:I:215:LEU:HD23	2.35	0.47
1:I:233:MET:C	1:I:235:PRO:HD2	2.35	0.47
1:I:417:VAL:HG21	1:I:488:MET:HG3	1.97	0.47
1:J:66:PHE:CE1	1:J:522:THR:CG2	2.97	0.47
1:J:88:GLY:O	1:J:91:THR:N	2.48	0.47
1:K:451:LEU:C	1:K:453:GLN:N	2.66	0.47
1:L:129:GLU:O	1:L:132:LYS:N	2.47	0.47
1:M:120:ILE:HG13	1:M:439:GLY:O	2.15	0.47
1:M:417:VAL:HG23	1:M:418:ALA:N	2.30	0.47
1:O:414:GLY:N	1:O:494:LEU:HA	2.28	0.47
1:P:64:ASP:C	1:P:64:ASP:OD1	2.52	0.47
1:P:233:MET:C	1:P:235:PRO:HD2	2.35	0.47
1:T:38:VAL:HG22	1:U:519:CYS:HB3	1.96	0.47
1:T:64:ASP:C	1:T:64:ASP:OD1	2.52	0.47
1:T:486:GLY:C	1:T:491:MET:HE2	2.35	0.47
1:U:10:ASN:O	1:U:13:ARG:N	2.44	0.47
1:U:233:MET:C	1:U:235:PRO:HD2	2.35	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:310:GLU:OE1	1:V:310:GLU:N	2.48	0.47
1:W:479:ASN:CG	1:W:493:ILE:HD11	2.34	0.47
1:A:310:GLU:OE1	1:A:310:GLU:N	2.47	0.47
1:A:477:GLY:HA3	1:A:488:MET:SD	2.55	0.47
1:B:66:PHE:CE1	1:B:522:THR:CG2	2.98	0.47
1:B:77:VAL:HG13	1:B:78:ALA:N	2.28	0.47
1:E:404:ARG:HH11	1:E:404:ARG:CG	2.27	0.47
1:E:453:GLN:O	1:E:456:LEU:N	2.38	0.47
1:I:66:PHE:O	1:I:67:GLU:C	2.53	0.47
1:J:13:ARG:O	1:J:16:MET:N	2.47	0.47
1:K:70:GLY:HA2	1:K:73:MET:CE	2.44	0.47
1:K:259:LEU:O	1:K:263:VAL:HG23	2.14	0.47
1:L:25:ASP:OD1	1:L:28:LYS:HE2	2.14	0.47
1:M:259:LEU:O	1:M:263:VAL:HG23	2.15	0.47
1:N:453:GLN:O	1:N:456:LEU:N	2.41	0.47
1:O:383:ALA:O	1:O:384:ALA:CB	2.63	0.47
1:T:241:ALA:CB	1:U:231:ARG:HH12	2.25	0.47
1:T:488:MET:HE3	1:T:493:ILE:HB	1.96	0.47
1:T:499:VAL:HG22	1:T:500:THR:N	2.29	0.47
1:U:8:PHE:CE1	1:U:519:CYS:SG	3.05	0.47
1:U:220:ILE:HG23	1:U:248:LEU:HD23	1.95	0.47
1:Y:451:LEU:C	1:Y:453:GLN:N	2.67	0.47
1:1:349:ILE:HA	1:1:352:GLN:CG	2.44	0.47
1:1:420:ILE:HD12	1:1:451:LEU:HD22	1.97	0.47
1:2:381:VAL:HG12	1:2:382:GLY:N	2.30	0.47
1:A:13:ARG:HA	1:A:16:MET:HE2	1.96	0.47
1:A:228:SER:CB	1:G:272:LYS:HZ3	2.28	0.47
1:B:170:GLY:C	1:B:172:GLU:H	2.18	0.47
1:B:310:GLU:OE1	1:B:310:GLU:N	2.47	0.47
1:B:456:LEU:C	1:B:458:CYS:H	2.17	0.47
1:G:66:PHE:CE1	1:G:522:THR:CG2	2.94	0.47
1:G:423:ALA:HB2	1:G:447:MET:SD	2.55	0.47
1:I:87:ASP:CG	1:I:88:GLY:H	2.17	0.47
1:I:151:SER:HB3	1:I:399:ALA:HA	1.95	0.47
1:J:440:ILE:O	1:J:443:ALA:N	2.48	0.47
1:K:40:LEU:HD13	1:K:59:GLU:HG3	1.96	0.47
1:L:330:THR:CG2	1:L:331:THR:H	2.26	0.47
1:N:64:ASP:C	1:N:64:ASP:OD1	2.53	0.47
1:N:174:VAL:HB	1:N:376:VAL:HG13	1.96	0.47
1:O:66:PHE:HE1	1:O:522:THR:HG22	1.80	0.47
1:O:420:ILE:HD12	1:O:451:LEU:HD22	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:23:LEU:CD2	1:P:75:LYS:HB2	2.44	0.47
1:P:488:MET:HE3	1:P:493:ILE:HB	1.97	0.47
1:P:499:VAL:HG22	1:P:500:THR:N	2.30	0.47
1:R:202:PRO:O	1:R:204:PHE:N	2.38	0.47
1:V:46:ALA:CB	1:W:76:GLU:HG3	2.40	0.47
1:V:120:ILE:HG13	1:V:439:GLY:O	2.14	0.47
1:V:440:ILE:O	1:V:441:LYS:C	2.52	0.47
1:W:151:SER:HB3	1:W:399:ALA:HA	1.96	0.47
1:X:134:LEU:N	1:X:134:LEU:CD2	2.78	0.47
1:X:272:LYS:H	1:X:272:LYS:HD2	1.80	0.47
1:Z:64:ASP:C	1:Z:64:ASP:OD1	2.52	0.47
1:2:9:GLY:O	1:2:10:ASN:C	2.52	0.47
1:A:259:LEU:O	1:A:263:VAL:HG23	2.15	0.47
1:A:381:VAL:HG12	1:A:382:GLY:N	2.29	0.47
1:A:417:VAL:HG23	1:A:418:ALA:N	2.29	0.47
1:D:127:ALA:HB1	1:D:422:VAL:HG11	1.97	0.47
1:D:409:GLU:O	1:D:497:THR:HB	2.15	0.47
1:E:23:LEU:CD2	1:E:75:LYS:HB2	2.45	0.47
1:E:127:ALA:HB1	1:E:422:VAL:HG11	1.97	0.47
1:E:421:ARG:NH2	1:E:469:VAL:O	2.47	0.47
1:F:27:VAL:C	1:F:29:VAL:H	2.18	0.47
1:F:259:LEU:O	1:F:263:VAL:HG23	2.15	0.47
1:F:499:VAL:HG22	1:F:500:THR:N	2.29	0.47
1:G:27:VAL:C	1:G:29:VAL:H	2.18	0.47
1:H:70:GLY:HA2	1:H:73:MET:CE	2.44	0.47
1:H:129:GLU:C	1:H:131:LEU:N	2.63	0.47
1:I:23:LEU:CD2	1:I:75:LYS:HB2	2.44	0.47
1:I:510:VAL:O	1:I:511:ALA:C	2.50	0.47
1:J:200:LEU:HD21	1:J:276:VAL:HA	1.95	0.47
1:J:310:GLU:OE1	1:J:310:GLU:N	2.48	0.47
1:J:451:LEU:C	1:J:453:GLN:N	2.68	0.47
1:K:27:VAL:C	1:K:29:VAL:H	2.16	0.47
1:K:29:VAL:C	1:K:31:LEU:N	2.68	0.47
1:K:176:THR:HG21	1:K:333:ILE:HD11	1.96	0.47
1:K:414:GLY:N	1:K:494:LEU:HA	2.29	0.47
1:P:24:ALA:O	1:P:26:ALA:N	2.47	0.47
1:P:200:LEU:HD21	1:P:276:VAL:HA	1.97	0.47
1:P:330:THR:CG2	1:P:331:THR:N	2.77	0.47
1:P:464:VAL:O	1:P:465:VAL:C	2.53	0.47
1:Q:41:ASP:HB2	1:R:69:MET:CE	2.45	0.47
1:Q:420:ILE:HD11	1:Q:451:LEU:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:70:GLY:HA2	1:R:73:MET:CE	2.45	0.47
1:R:259:LEU:O	1:R:263:VAL:HG23	2.15	0.47
1:R:456:LEU:C	1:R:458:CYS:H	2.18	0.47
1:S:70:GLY:HA2	1:S:73:MET:HE3	1.94	0.47
1:S:170:GLY:C	1:S:172:GLU:H	2.16	0.47
1:S:217:SER:N	1:S:218:PRO:HD3	2.30	0.47
1:T:330:THR:CG2	1:T:331:THR:H	2.26	0.47
1:U:259:LEU:O	1:U:263:VAL:HG23	2.15	0.47
1:U:381:VAL:HG12	1:U:382:GLY:N	2.29	0.47
1:U:488:MET:HE3	1:U:493:ILE:HB	1.97	0.47
1:V:10:ASN:O	1:V:13:ARG:N	2.43	0.47
1:V:233:MET:HB3	1:V:237:LEU:HG	1.97	0.47
1:W:220:ILE:HG23	1:W:248:LEU:HD23	1.96	0.47
1:X:140:ASP:O	1:X:142:LYS:N	2.48	0.47
1:X:200:LEU:HD21	1:X:276:VAL:HA	1.96	0.47
1:X:220:ILE:HG23	1:X:248:LEU:HD23	1.96	0.47
1:X:447:MET:HE3	1:X:504:LEU:HD21	1.97	0.47
1:Y:417:VAL:HG23	1:Y:418:ALA:H	1.79	0.47
1:Z:40:LEU:HD13	1:Z:59:GLU:HG3	1.97	0.47
1:1:25:ASP:OD1	1:1:28:LYS:HE2	2.13	0.47
1:1:29:VAL:C	1:1:31:LEU:N	2.68	0.47
1:1:134:LEU:N	1:1:134:LEU:CD2	2.77	0.47
1:2:177:VAL:HG21	1:2:397:GLU:HG2	1.97	0.47
1:2:214:GLU:C	1:2:215:LEU:HD23	2.34	0.47
1:2:420:ILE:CD1	1:2:451:LEU:HD22	2.44	0.47
1:A:488:MET:HE3	1:A:493:ILE:HB	1.97	0.47
1:D:69:MET:O	1:D:73:MET:HG3	2.15	0.47
1:E:27:VAL:CG1	1:E:90:THR:HG23	2.45	0.47
1:E:381:VAL:HG12	1:E:382:GLY:N	2.29	0.47
1:E:524:LEU:O	1:E:526:LYS:N	2.39	0.47
1:F:440:ILE:O	1:F:441:LYS:C	2.52	0.47
1:G:259:LEU:O	1:G:263:VAL:HG23	2.15	0.47
1:G:272:LYS:H	1:G:272:LYS:HD2	1.80	0.47
1:G:414:GLY:N	1:G:494:LEU:HA	2.30	0.47
1:H:10:ASN:O	1:H:13:ARG:N	2.43	0.47
1:H:66:PHE:O	1:H:67:GLU:C	2.52	0.47
1:H:171:LYS:HB2	1:H:407:VAL:HG11	1.97	0.47
1:H:414:GLY:N	1:H:494:LEU:HA	2.29	0.47
1:I:330:THR:CG2	1:I:331:THR:H	2.28	0.47
1:J:404:ARG:HH11	1:J:404:ARG:CG	2.27	0.47
1:K:177:VAL:HG21	1:K:397:GLU:HG2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:266:THR:HG21	1:K:273:VAL:N	2.27	0.47
1:M:140:ASP:O	1:M:142:LYS:N	2.47	0.47
1:M:200:LEU:HD21	1:M:276:VAL:HA	1.97	0.47
1:P:412:VAL:CG2	1:P:413:ALA:N	2.78	0.47
1:P:420:ILE:CD1	1:P:451:LEU:HD22	2.45	0.47
1:Q:239:ALA:O	1:Q:314:LEU:HD11	2.15	0.47
1:R:64:ASP:C	1:R:64:ASP:OD1	2.52	0.47
1:S:171:LYS:HB2	1:S:407:VAL:HG11	1.97	0.47
1:V:16:MET:SD	1:V:73:MET:HE1	2.55	0.47
1:V:451:LEU:C	1:V:453:GLN:N	2.66	0.47
1:W:23:LEU:HD22	1:W:75:LYS:HB2	1.97	0.47
1:X:91:THR:O	1:X:94:VAL:CG1	2.63	0.47
1:X:129:GLU:C	1:X:131:LEU:N	2.65	0.47
1:Z:420:ILE:HD11	1:Z:451:LEU:HB3	1.96	0.47
1:1:70:GLY:HA2	1:1:73:MET:CE	2.44	0.47
1:1:91:THR:O	1:1:94:VAL:CG1	2.63	0.47
1:2:220:ILE:HG23	1:2:248:LEU:HD23	1.97	0.47
1:C:214:GLU:C	1:C:215:LEU:HD23	2.36	0.47
1:D:12:ALA:HB1	1:D:520:MET:HG3	1.96	0.47
1:D:91:THR:O	1:D:94:VAL:CG1	2.63	0.47
1:E:200:LEU:HD21	1:E:276:VAL:HA	1.97	0.47
1:E:310:GLU:OE1	1:E:310:GLU:N	2.47	0.47
1:H:129:GLU:O	1:H:132:LYS:N	2.48	0.47
1:H:417:VAL:HG23	1:H:418:ALA:H	1.79	0.47
1:H:456:LEU:C	1:H:458:CYS:H	2.17	0.47
1:I:85:ALA:CB	1:I:499:VAL:HG12	2.36	0.47
1:J:9:GLY:O	1:J:10:ASN:C	2.53	0.47
1:J:233:MET:C	1:J:235:PRO:HD2	2.35	0.47
1:K:233:MET:HB3	1:K:237:LEU:HG	1.97	0.47
1:K:417:VAL:HG23	1:K:418:ALA:N	2.29	0.47
1:L:13:ARG:HA	1:L:16:MET:HE2	1.96	0.47
1:M:521:VAL:HG12	1:M:521:VAL:O	2.15	0.47
1:N:233:MET:C	1:N:235:PRO:HD2	2.35	0.47
1:N:451:LEU:C	1:N:453:GLN:N	2.68	0.47
1:O:404:ARG:HH11	1:O:404:ARG:CG	2.26	0.47
1:Q:120:ILE:HG13	1:Q:439:GLY:O	2.15	0.47
1:S:82:ASN:HB2	1:S:89:THR:HG22	1.93	0.47
1:S:486:GLY:C	1:S:491:MET:HE2	2.34	0.47
1:U:16:MET:SD	1:U:73:MET:HE1	2.55	0.47
1:U:34:LYS:CG	1:U:458:CYS:SG	3.03	0.47
1:V:64:ASP:C	1:V:64:ASP:OD1	2.53	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:57:ALA:O	1:W:58:ARG:C	2.54	0.47
1:W:73:MET:O	1:W:76:GLU:N	2.48	0.47
1:X:70:GLY:HA2	1:X:73:MET:CE	2.44	0.47
1:Y:449:ALA:O	1:Y:450:PRO:C	2.51	0.47
1:Z:23:LEU:HD22	1:Z:75:LYS:HB2	1.97	0.47
1:Z:310:GLU:OE1	1:Z:310:GLU:N	2.48	0.47
1:1:27:VAL:C	1:1:29:VAL:H	2.19	0.47
1:1:170:GLY:C	1:1:172:GLU:H	2.17	0.47
1:1:510:VAL:O	1:1:511:ALA:C	2.53	0.47
1:B:73:MET:O	1:B:76:GLU:N	2.48	0.47
1:B:87:ASP:CG	1:B:88:GLY:H	2.19	0.47
1:C:12:ALA:HB1	1:C:520:MET:HG3	1.96	0.47
1:C:13:ARG:O	1:C:16:MET:N	2.48	0.47
1:D:73:MET:O	1:D:76:GLU:N	2.48	0.47
1:E:87:ASP:CG	1:E:88:GLY:H	2.18	0.47
1:I:220:ILE:HG23	1:I:248:LEU:HB3	1.95	0.47
1:J:330:THR:CG2	1:J:331:THR:H	2.27	0.47
1:K:313:THR:O	1:K:317:LEU:HD13	2.15	0.47
1:L:23:LEU:CD2	1:L:75:LYS:HB2	2.45	0.47
1:L:87:ASP:CG	1:L:88:GLY:H	2.19	0.47
1:L:176:THR:HG21	1:L:333:ILE:HD11	1.97	0.47
1:M:180:GLY:H	1:M:389:MET:HE2	1.80	0.47
1:M:310:GLU:OE1	1:M:310:GLU:N	2.48	0.47
1:N:170:GLY:C	1:N:172:GLU:H	2.17	0.47
1:N:220:ILE:HG23	1:N:248:LEU:HB3	1.96	0.47
1:O:381:VAL:HG12	1:O:382:GLY:N	2.29	0.47
1:Q:486:GLY:C	1:Q:491:MET:HE2	2.35	0.47
1:R:233:MET:C	1:R:235:PRO:HD2	2.35	0.47
1:R:404:ARG:HH11	1:R:404:ARG:CG	2.26	0.47
1:U:417:VAL:HG23	1:U:418:ALA:N	2.30	0.47
1:W:66:PHE:CE1	1:W:522:THR:CG2	2.97	0.47
1:W:310:GLU:OE1	1:W:310:GLU:N	2.48	0.47
1:Y:13:ARG:HA	1:Y:16:MET:HE2	1.97	0.47
1:Y:77:VAL:HG13	1:Y:78:ALA:N	2.30	0.47
1:Y:259:LEU:O	1:Y:263:VAL:HG23	2.14	0.47
1:Y:383:ALA:O	1:Y:384:ALA:CB	2.63	0.47
1:Y:404:ARG:HH11	1:Y:404:ARG:CG	2.27	0.47
1:1:177:VAL:HG21	1:1:397:GLU:HG2	1.96	0.47
1:2:259:LEU:O	1:2:263:VAL:HG23	2.15	0.47
1:2:404:ARG:HH11	1:2:404:ARG:CG	2.28	0.47
1:2:456:LEU:C	1:2:458:CYS:H	2.18	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:464:VAL:O	1:B:465:VAL:C	2.52	0.46
1:C:26:ALA:O	1:C:56:VAL:HG11	2.14	0.46
1:C:41:ASP:HB2	1:D:69:MET:CE	2.46	0.46
1:D:220:ILE:HG23	1:D:248:LEU:HD23	1.96	0.46
1:E:70:GLY:HA2	1:E:73:MET:HE3	1.95	0.46
1:E:151:SER:HB3	1:E:399:ALA:HA	1.97	0.46
1:E:259:LEU:O	1:E:263:VAL:HG23	2.15	0.46
1:E:417:VAL:HG23	1:E:418:ALA:H	1.81	0.46
1:H:420:ILE:HD11	1:H:451:LEU:HB3	1.97	0.46
1:I:220:ILE:HG23	1:I:248:LEU:HD23	1.96	0.46
1:N:383:ALA:O	1:N:384:ALA:CB	2.63	0.46
1:P:413:ALA:O	1:P:417:VAL:HG23	2.14	0.46
1:P:456:LEU:C	1:P:458:CYS:H	2.17	0.46
1:Q:61:GLU:C	1:Q:62:LEU:HD23	2.34	0.46
1:Q:171:LYS:HB2	1:Q:407:VAL:HG11	1.97	0.46
1:Q:330:THR:CG2	1:Q:331:THR:N	2.77	0.46
1:Q:338:GLU:C	1:Q:340:ALA:H	2.17	0.46
1:R:66:PHE:CE1	1:R:522:THR:CG2	2.97	0.46
1:R:177:VAL:HG21	1:R:397:GLU:HG2	1.97	0.46
1:U:440:ILE:O	1:U:441:LYS:C	2.54	0.46
1:W:259:LEU:O	1:W:263:VAL:HG23	2.14	0.46
1:X:170:GLY:C	1:X:172:GLU:H	2.18	0.46
1:Y:64:ASP:C	1:Y:64:ASP:OD1	2.54	0.46
1:Z:239:ALA:O	1:Z:314:LEU:HD11	2.14	0.46
1:2:87:ASP:CG	1:2:88:GLY:H	2.19	0.46
1:2:200:LEU:HD21	1:2:276:VAL:HA	1.97	0.46
1:A:417:VAL:HG21	1:A:488:MET:HG3	1.97	0.46
1:B:330:THR:CG2	1:B:331:THR:H	2.28	0.46
1:C:413:ALA:O	1:C:417:VAL:HG23	2.14	0.46
1:D:12:ALA:O	1:D:520:MET:SD	2.73	0.46
1:D:412:VAL:CG2	1:D:413:ALA:N	2.78	0.46
1:G:136:VAL:O	1:G:137:PRO:O	2.33	0.46
1:G:151:SER:HB3	1:G:399:ALA:HA	1.97	0.46
1:G:449:ALA:HB3	1:G:450:PRO:CD	2.43	0.46
1:H:449:ALA:HB3	1:H:450:PRO:CD	2.41	0.46
1:I:64:ASP:OD1	1:I:64:ASP:C	2.54	0.46
1:I:213:VAL:HB	1:I:325:ILE:CG1	2.44	0.46
1:J:177:VAL:HG21	1:J:397:GLU:HG2	1.97	0.46
1:J:213:VAL:HB	1:J:325:ILE:CG1	2.45	0.46
1:J:220:ILE:HG23	1:J:248:LEU:HD23	1.97	0.46
1:K:486:GLY:HA3	1:K:491:MET:HE2	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:183:LEU:CA	1:L:383:ALA:HB3	2.44	0.46
1:L:291:ASP:OD2	1:L:368:ARG:HD2	2.15	0.46
1:L:349:ILE:HA	1:L:352:GLN:CG	2.44	0.46
1:M:175:ILE:HA	1:M:377:ALA:HB3	1.97	0.46
1:M:233:MET:C	1:M:235:PRO:HD2	2.35	0.46
1:M:451:LEU:C	1:M:453:GLN:N	2.67	0.46
1:P:272:LYS:H	1:P:272:LYS:HD2	1.81	0.46
1:P:412:VAL:HG23	1:P:413:ALA:N	2.30	0.46
1:S:313:THR:O	1:S:317:LEU:HD13	2.15	0.46
1:U:521:VAL:O	1:U:521:VAL:HG12	2.15	0.46
1:V:66:PHE:O	1:V:67:GLU:C	2.51	0.46
1:V:183:LEU:CA	1:V:383:ALA:HB3	2.44	0.46
1:V:233:MET:C	1:V:235:PRO:HD2	2.35	0.46
1:V:313:THR:O	1:V:317:LEU:HD13	2.15	0.46
1:W:214:GLU:C	1:W:215:LEU:HD23	2.36	0.46
1:X:383:ALA:O	1:X:384:ALA:CB	2.63	0.46
1:Z:171:LYS:HB2	1:Z:407:VAL:HG11	1.97	0.46
1:Z:259:LEU:O	1:Z:263:VAL:HG23	2.15	0.46
1:1:13:ARG:HA	1:1:16:MET:HE2	1.97	0.46
1:1:453:GLN:O	1:1:456:LEU:N	2.42	0.46
1:1:464:VAL:O	1:1:466:ALA:N	2.49	0.46
1:2:369:VAL:HG23	1:2:370:ALA:H	1.80	0.46
1:C:66:PHE:O	1:C:67:GLU:C	2.54	0.46
1:C:88:GLY:O	1:C:91:THR:N	2.48	0.46
1:D:29:VAL:C	1:D:31:LEU:N	2.69	0.46
1:D:180:GLY:H	1:D:389:MET:HE2	1.80	0.46
1:D:383:ALA:O	1:D:384:ALA:CB	2.64	0.46
1:G:23:LEU:HD22	1:G:75:LYS:HB2	1.97	0.46
1:H:66:PHE:CE1	1:H:522:THR:CG2	2.97	0.46
1:H:220:ILE:HG23	1:H:248:LEU:HB3	1.97	0.46
1:I:171:LYS:HB2	1:I:407:VAL:HG11	1.96	0.46
1:K:406:ALA:O	1:K:410:GLY:N	2.48	0.46
1:L:233:MET:C	1:L:235:PRO:HD2	2.36	0.46
1:M:16:MET:SD	1:M:73:MET:HE1	2.55	0.46
1:M:406:ALA:HA	1:M:410:GLY:O	2.16	0.46
1:N:412:VAL:CG2	1:N:413:ALA:N	2.79	0.46
1:P:23:LEU:HD22	1:P:75:LYS:HB2	1.97	0.46
1:T:310:GLU:OE1	1:T:310:GLU:N	2.48	0.46
1:V:430:ARG:HG2	1:V:430:ARG:HH11	1.80	0.46
1:W:217:SER:N	1:W:218:PRO:HD3	2.31	0.46
1:X:369:VAL:HG23	1:X:370:ALA:H	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:151:SER:HB3	1:Y:399:ALA:HA	1.96	0.46
1:Y:233:MET:C	1:Y:235:PRO:HD2	2.36	0.46
1:Y:477:GLY:HA3	1:Y:488:MET:SD	2.55	0.46
1:Z:488:MET:HE3	1:Z:493:ILE:HB	1.96	0.46
1:1:183:LEU:CA	1:1:383:ALA:HB3	2.43	0.46
1:1:259:LEU:O	1:1:263:VAL:HG23	2.15	0.46
1:1:420:ILE:HD11	1:1:451:LEU:HB3	1.96	0.46
1:A:23:LEU:CD2	1:A:75:LYS:HB2	2.45	0.46
1:C:258:ALA:O	1:C:262:LEU:HG	2.14	0.46
1:C:499:VAL:HG22	1:C:500:THR:N	2.30	0.46
1:D:134:LEU:N	1:D:134:LEU:CD2	2.78	0.46
1:E:171:LYS:HB2	1:E:407:VAL:HG11	1.97	0.46
1:G:174:VAL:HB	1:G:376:VAL:HG13	1.96	0.46
1:K:37:ASN:O	1:L:517:THR:HG23	2.15	0.46
1:K:170:GLY:C	1:K:172:GLU:H	2.17	0.46
1:K:213:VAL:HB	1:K:325:ILE:CG1	2.45	0.46
1:L:171:LYS:HB2	1:L:407:VAL:HG11	1.96	0.46
1:M:27:VAL:C	1:M:29:VAL:H	2.18	0.46
1:M:383:ALA:HB1	1:N:281:PHE:HZ	1.80	0.46
1:N:477:GLY:HA3	1:N:488:MET:SD	2.56	0.46
1:O:330:THR:CG2	1:O:331:THR:N	2.77	0.46
1:P:451:LEU:C	1:P:453:GLN:N	2.67	0.46
1:R:57:ALA:O	1:R:60:ILE:N	2.42	0.46
1:R:66:PHE:O	1:R:67:GLU:C	2.54	0.46
1:S:180:GLY:H	1:S:389:MET:HE2	1.81	0.46
1:T:381:VAL:HG12	1:T:382:GLY:N	2.30	0.46
1:V:213:VAL:HB	1:V:325:ILE:CG1	2.46	0.46
1:W:404:ARG:HH11	1:W:404:ARG:CG	2.28	0.46
1:Y:464:VAL:O	1:Y:465:VAL:C	2.54	0.46
1:1:24:ALA:O	1:1:26:ALA:N	2.48	0.46
1:1:381:VAL:HG12	1:1:382:GLY:N	2.31	0.46
1:2:170:GLY:C	1:2:172:GLU:H	2.19	0.46
1:A:151:SER:HB3	1:A:399:ALA:HA	1.97	0.46
1:B:524:LEU:O	1:B:526:LYS:N	2.38	0.46
1:C:91:THR:O	1:C:94:VAL:CG1	2.64	0.46
1:C:272:LYS:H	1:C:272:LYS:HD2	1.80	0.46
1:E:449:ALA:HB3	1:E:450:PRO:CD	2.40	0.46
1:F:456:LEU:C	1:F:458:CYS:H	2.18	0.46
1:G:13:ARG:HA	1:G:16:MET:HE2	1.97	0.46
1:K:13:ARG:O	1:K:16:MET:N	2.48	0.46
1:K:417:VAL:HG11	1:K:477:GLY:CA	2.44	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:488:MET:HE3	1:L:493:ILE:HB	1.98	0.46
1:M:406:ALA:HB1	1:M:411:VAL:HG12	1.97	0.46
1:N:16:MET:SD	1:N:73:MET:HE1	2.56	0.46
1:N:91:THR:O	1:N:94:VAL:HG13	2.16	0.46
1:O:217:SER:N	1:O:218:PRO:HD3	2.30	0.46
1:R:310:GLU:OE1	1:R:310:GLU:N	2.48	0.46
1:T:233:MET:C	1:T:235:PRO:HD2	2.35	0.46
1:T:330:THR:CG2	1:T:331:THR:N	2.75	0.46
1:U:12:ALA:HB1	1:U:520:MET:HG3	1.98	0.46
1:U:330:THR:CG2	1:U:331:THR:N	2.76	0.46
1:V:406:ALA:HB1	1:V:411:VAL:HG12	1.97	0.46
1:V:487:ASN:O	1:V:491:MET:HG3	2.15	0.46
1:X:330:THR:CG2	1:X:331:THR:N	2.76	0.46
1:Z:120:ILE:HG13	1:Z:439:GLY:O	2.15	0.46
1:Z:170:GLY:C	1:Z:172:GLU:H	2.19	0.46
1:Z:524:LEU:O	1:Z:526:LYS:N	2.38	0.46
1:A:200:LEU:HD21	1:A:276:VAL:HA	1.98	0.46
1:B:313:THR:O	1:B:317:LEU:HD13	2.16	0.46
1:C:170:GLY:C	1:C:172:GLU:H	2.19	0.46
1:D:479:ASN:CG	1:D:493:ILE:HD11	2.36	0.46
1:G:417:VAL:HG23	1:G:418:ALA:N	2.30	0.46
1:H:73:MET:O	1:H:76:GLU:N	2.49	0.46
1:H:259:LEU:O	1:H:263:VAL:HG23	2.16	0.46
1:I:27:VAL:CG1	1:I:90:THR:HG23	2.42	0.46
1:I:404:ARG:HH11	1:I:404:ARG:CG	2.28	0.46
1:I:456:LEU:C	1:I:458:CYS:H	2.19	0.46
1:J:8:PHE:CE1	1:J:519:CYS:SG	3.06	0.46
1:J:330:THR:CG2	1:J:331:THR:N	2.78	0.46
1:M:8:PHE:HE1	1:M:519:CYS:HG	1.63	0.46
1:M:17:LEU:O	1:M:20:VAL:HG22	2.16	0.46
1:M:462:PRO:O	1:M:463:SER:C	2.53	0.46
1:N:233:MET:HB3	1:N:237:LEU:HG	1.98	0.46
1:N:524:LEU:O	1:N:526:LYS:N	2.38	0.46
1:O:451:LEU:C	1:O:453:GLN:N	2.69	0.46
1:Q:46:ALA:CB	1:R:76:GLU:HG3	2.36	0.46
1:Q:134:LEU:N	1:Q:134:LEU:CD2	2.78	0.46
1:Q:233:MET:C	1:Q:235:PRO:HD2	2.36	0.46
1:R:25:ASP:OD1	1:R:28:LYS:HE2	2.15	0.46
1:R:217:SER:N	1:R:218:PRO:HD3	2.30	0.46
1:S:24:ALA:O	1:S:26:ALA:N	2.49	0.46
1:S:330:THR:CG2	1:S:331:THR:N	2.76	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:46:ALA:CB	1:U:76:GLU:HG3	2.37	0.46
1:T:151:SER:HB3	1:T:399:ALA:HA	1.96	0.46
1:T:510:VAL:O	1:T:511:ALA:C	2.54	0.46
1:U:200:LEU:HD21	1:U:276:VAL:HA	1.98	0.46
1:U:420:ILE:CD1	1:U:451:LEU:HD22	2.45	0.46
1:W:9:GLY:O	1:W:10:ASN:C	2.54	0.46
1:W:87:ASP:CG	1:W:88:GLY:H	2.19	0.46
1:W:417:VAL:HG11	1:W:477:GLY:CA	2.46	0.46
1:X:10:ASN:O	1:X:13:ARG:N	2.45	0.46
1:X:451:LEU:C	1:X:453:GLN:N	2.69	0.46
1:Y:113:PRO:HB3	1:Y:515:ILE:O	2.16	0.46
1:Y:272:LYS:H	1:Y:272:LYS:HD2	1.81	0.46
1:Z:151:SER:HB3	1:Z:399:ALA:HA	1.97	0.46
1:Z:456:LEU:C	1:Z:458:CYS:H	2.18	0.46
1:2:213:VAL:HB	1:2:325:ILE:CG1	2.46	0.46
1:2:383:ALA:O	1:2:384:ALA:CB	2.64	0.46
1:2:421:ARG:NH2	1:2:469:VAL:O	2.48	0.46
1:A:171:LYS:HB2	1:A:407:VAL:HG11	1.98	0.46
1:C:220:ILE:HG23	1:C:248:LEU:HD23	1.98	0.46
1:C:313:THR:O	1:C:317:LEU:HD13	2.16	0.46
1:F:453:GLN:O	1:F:456:LEU:N	2.42	0.46
1:H:82:ASN:HB2	1:H:89:THR:HG22	1.93	0.46
1:H:103:GLY:O	1:H:106:ALA:HB3	2.16	0.46
1:I:183:LEU:O	1:I:184:GLN:HB2	2.15	0.46
1:I:349:ILE:HA	1:I:352:GLN:CG	2.45	0.46
1:M:383:ALA:O	1:M:384:ALA:CB	2.63	0.46
1:M:510:VAL:O	1:M:511:ALA:C	2.53	0.46
1:N:239:ALA:O	1:N:314:LEU:HD11	2.16	0.46
1:N:273:VAL:CG1	1:N:274:ALA:N	2.79	0.46
1:P:453:GLN:O	1:P:456:LEU:N	2.42	0.46
1:Q:151:SER:HB3	1:Q:399:ALA:HA	1.96	0.46
1:Q:488:MET:HE3	1:Q:493:ILE:HB	1.97	0.46
1:R:349:ILE:HA	1:R:352:GLN:HG3	1.98	0.46
1:S:8:PHE:HE1	1:S:519:CYS:SG	2.38	0.46
1:U:383:ALA:O	1:U:384:ALA:CB	2.64	0.46
1:V:447:MET:HE3	1:V:504:LEU:HD21	1.98	0.46
1:W:10:ASN:O	1:W:13:ARG:N	2.47	0.46
1:X:449:ALA:HB3	1:X:450:PRO:CD	2.44	0.46
1:X:479:ASN:OD1	1:X:493:ILE:HD11	2.16	0.46
1:Y:200:LEU:HD21	1:Y:276:VAL:HA	1.97	0.46
1:1:272:LYS:NZ	1:2:228:SER:HB3	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:464:VAL:O	1:1:465:VAL:C	2.54	0.46
1:1:479:ASN:OD1	1:1:493:ILE:HD11	2.15	0.46
1:2:64:ASP:C	1:2:64:ASP:OD1	2.54	0.46
1:2:310:GLU:OE1	1:2:310:GLU:N	2.49	0.46
1:2:330:THR:CG2	1:2:331:THR:H	2.29	0.46
1:A:8:PHE:CE1	1:A:519:CYS:SG	3.07	0.46
1:A:233:MET:C	1:A:235:PRO:HD2	2.35	0.46
1:B:213:VAL:HB	1:B:325:ILE:CG1	2.46	0.46
1:F:171:LYS:H	1:F:171:LYS:HG2	1.53	0.46
1:F:213:VAL:HB	1:F:325:ILE:CG1	2.46	0.46
1:F:451:LEU:C	1:F:453:GLN:N	2.66	0.46
1:G:82:ASN:HB2	1:G:89:THR:HG22	1.95	0.46
1:G:510:VAL:O	1:G:511:ALA:C	2.54	0.46
1:H:200:LEU:HD21	1:H:276:VAL:HA	1.97	0.46
1:H:448:GLU:O	1:H:452:ARG:HB2	2.16	0.46
1:I:412:VAL:HG23	1:I:413:ALA:N	2.31	0.46
1:I:440:ILE:O	1:I:443:ALA:N	2.49	0.46
1:K:233:MET:C	1:K:235:PRO:HD2	2.36	0.46
1:K:433:ASN:O	1:K:434:ALA:C	2.54	0.46
1:L:120:ILE:HG13	1:L:439:GLY:O	2.15	0.46
1:M:479:ASN:OD1	1:M:493:ILE:HD11	2.15	0.46
1:N:412:VAL:HG23	1:N:413:ALA:N	2.31	0.46
1:N:449:ALA:HB3	1:N:450:PRO:CD	2.44	0.46
1:P:69:MET:O	1:P:73:MET:HG3	2.15	0.46
1:Q:11:ASP:OD1	1:Q:11:ASP:N	2.48	0.46
1:Q:64:ASP:C	1:Q:64:ASP:OD1	2.53	0.46
1:S:70:GLY:HA2	1:S:73:MET:HE2	1.97	0.46
1:S:233:MET:C	1:S:235:PRO:HD2	2.36	0.46
1:U:151:SER:HB3	1:U:399:ALA:HA	1.96	0.46
1:V:12:ALA:HB1	1:V:520:MET:HG3	1.98	0.46
1:V:27:VAL:C	1:V:29:VAL:H	2.19	0.46
1:V:440:ILE:O	1:V:443:ALA:N	2.48	0.46
1:V:464:VAL:O	1:V:465:VAL:C	2.52	0.46
1:W:129:GLU:O	1:W:132:LYS:N	2.49	0.46
1:W:220:ILE:HG23	1:W:248:LEU:HB3	1.98	0.46
1:W:233:MET:C	1:W:235:PRO:HD2	2.35	0.46
1:W:269:GLY:O	1:X:229:ASN:CG	2.53	0.46
1:X:41:ASP:OD1	1:Y:69:MET:HG2	2.16	0.46
1:X:310:GLU:N	1:X:310:GLU:OE1	2.49	0.46
1:Y:140:ASP:O	1:Y:142:LYS:N	2.48	0.46
1:Y:330:THR:CG2	1:Y:331:THR:N	2.77	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:134:LEU:O	1:Z:135:SER:C	2.54	0.46
1:1:129:GLU:O	1:1:132:LYS:N	2.49	0.46
1:2:66:PHE:O	1:2:67:GLU:C	2.53	0.46
1:A:10:ASN:O	1:A:13:ARG:N	2.44	0.46
1:A:440:ILE:O	1:A:443:ALA:N	2.48	0.46
1:B:10:ASN:O	1:B:13:ARG:N	2.47	0.46
1:C:488:MET:HE3	1:C:493:ILE:HB	1.98	0.46
1:D:440:ILE:O	1:D:441:LYS:C	2.54	0.46
1:E:330:THR:CG2	1:E:331:THR:H	2.28	0.46
1:F:200:LEU:HD21	1:F:276:VAL:HA	1.98	0.46
1:G:486:GLY:C	1:G:491:MET:HE2	2.37	0.46
1:H:64:ASP:C	1:H:64:ASP:OD1	2.54	0.46
1:H:120:ILE:HG13	1:H:439:GLY:O	2.16	0.46
1:H:464:VAL:O	1:H:465:VAL:C	2.53	0.46
1:K:140:ASP:O	1:K:142:LYS:N	2.49	0.46
1:L:73:MET:O	1:L:76:GLU:N	2.49	0.46
1:L:417:VAL:HG11	1:L:477:GLY:CA	2.44	0.46
1:M:183:LEU:O	1:M:184:GLN:HB2	2.16	0.46
1:N:10:ASN:O	1:N:13:ARG:N	2.47	0.46
1:N:66:PHE:O	1:N:67:GLU:C	2.52	0.46
1:N:151:SER:HB3	1:N:399:ALA:HA	1.97	0.46
1:N:200:LEU:HD21	1:N:276:VAL:HA	1.97	0.46
1:N:417:VAL:HG23	1:N:418:ALA:H	1.80	0.46
1:O:170:GLY:C	1:O:172:GLU:H	2.19	0.46
1:O:228:SER:CB	1:U:272:LYS:NZ	2.79	0.46
1:P:524:LEU:O	1:P:526:LYS:N	2.39	0.46
1:Q:310:GLU:OE1	1:Q:310:GLU:N	2.49	0.46
1:T:13:ARG:O	1:T:14:VAL:C	2.52	0.46
1:V:414:GLY:N	1:V:494:LEU:HA	2.31	0.46
1:Y:40:LEU:HD13	1:Y:59:GLU:HG3	1.97	0.46
1:Z:134:LEU:N	1:Z:134:LEU:CD2	2.79	0.46
1:1:180:GLY:H	1:1:389:MET:HE2	1.81	0.46
1:2:82:ASN:HB2	1:2:89:THR:HG22	1.94	0.46
1:2:183:LEU:CA	1:2:383:ALA:HB3	2.44	0.46
1:2:239:ALA:O	1:2:314:LEU:HD11	2.16	0.46
1:B:66:PHE:O	1:B:67:GLU:C	2.55	0.46
1:B:349:ILE:HA	1:B:352:GLN:CG	2.45	0.46
1:C:230:ILE:O	1:C:230:ILE:HG12	2.16	0.46
1:D:412:VAL:HG23	1:D:413:ALA:N	2.31	0.46
1:D:420:ILE:CD1	1:D:451:LEU:HD22	2.46	0.46
1:D:486:GLY:C	1:D:491:MET:HE2	2.37	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:330:THR:CG2	1:E:331:THR:N	2.78	0.46
1:E:412:VAL:CG2	1:E:413:ALA:N	2.78	0.46
1:F:140:ASP:O	1:F:142:LYS:N	2.49	0.46
1:F:233:MET:C	1:F:235:PRO:HD2	2.36	0.46
1:F:440:ILE:O	1:F:443:ALA:N	2.49	0.46
1:I:524:LEU:O	1:I:526:LYS:N	2.39	0.46
1:K:12:ALA:HB1	1:K:520:MET:HG3	1.97	0.46
1:K:151:SER:HB3	1:K:399:ALA:HA	1.97	0.46
1:K:200:LEU:HD21	1:K:276:VAL:HA	1.97	0.46
1:L:456:LEU:C	1:L:458:CYS:H	2.18	0.46
1:M:330:THR:CG2	1:M:331:THR:N	2.78	0.46
1:M:369:VAL:HG23	1:M:370:ALA:H	1.80	0.46
1:N:24:ALA:CB	1:N:97:GLN:HE21	2.28	0.46
1:N:127:ALA:HB1	1:N:422:VAL:HG11	1.97	0.46
1:N:140:ASP:C	1:N:142:LYS:H	2.19	0.46
1:N:417:VAL:HG23	1:N:418:ALA:N	2.31	0.46
1:Q:430:ARG:HG2	1:Q:430:ARG:HH11	1.80	0.46
1:R:134:LEU:N	1:R:134:LEU:CD2	2.78	0.46
1:T:73:MET:O	1:T:76:GLU:N	2.49	0.46
1:U:217:SER:N	1:U:218:PRO:HD3	2.31	0.46
1:U:220:ILE:HG23	1:U:248:LEU:HB3	1.98	0.46
1:W:134:LEU:N	1:W:134:LEU:CD2	2.78	0.46
1:X:127:ALA:HB1	1:X:422:VAL:HG11	1.98	0.46
1:X:440:ILE:O	1:X:441:LYS:C	2.54	0.46
1:Z:220:ILE:HG23	1:Z:248:LEU:HD23	1.98	0.46
1:Z:338:GLU:C	1:Z:340:ALA:H	2.18	0.46
1:B:217:SER:N	1:B:218:PRO:HD3	2.31	0.45
1:B:451:LEU:C	1:B:453:GLN:N	2.70	0.45
1:B:464:VAL:O	1:B:466:ALA:N	2.49	0.45
1:C:486:GLY:C	1:C:491:MET:HE2	2.37	0.45
1:D:10:ASN:O	1:D:13:ARG:N	2.46	0.45
1:E:82:ASN:HB2	1:E:89:THR:HG22	1.93	0.45
1:E:214:GLU:C	1:E:215:LEU:HD23	2.37	0.45
1:E:414:GLY:N	1:E:494:LEU:HA	2.28	0.45
1:F:73:MET:O	1:F:76:GLU:N	2.49	0.45
1:G:12:ALA:HB1	1:G:520:MET:HG3	1.97	0.45
1:G:233:MET:HB3	1:G:237:LEU:HG	1.99	0.45
1:G:464:VAL:O	1:G:465:VAL:C	2.53	0.45
1:H:134:LEU:N	1:H:134:LEU:CD2	2.78	0.45
1:H:524:LEU:O	1:H:526:LYS:N	2.41	0.45
1:J:258:ALA:O	1:J:262:LEU:HG	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:273:VAL:CG1	1:J:274:ALA:N	2.79	0.45
1:J:383:ALA:O	1:J:384:ALA:CB	2.64	0.45
1:L:220:ILE:HG23	1:L:248:LEU:HD23	1.98	0.45
1:L:239:ALA:O	1:L:314:LEU:HD11	2.15	0.45
1:N:66:PHE:O	1:N:69:MET:N	2.48	0.45
1:N:82:ASN:HB2	1:N:89:THR:HG22	1.95	0.45
1:N:310:GLU:OE1	1:N:310:GLU:N	2.49	0.45
1:P:217:SER:N	1:P:218:PRO:HD3	2.31	0.45
1:Q:82:ASN:HB2	1:Q:89:THR:HG22	1.93	0.45
1:S:233:MET:HB3	1:S:237:LEU:HG	1.98	0.45
1:T:82:ASN:HB2	1:T:89:THR:HG22	1.92	0.45
1:T:453:GLN:O	1:T:456:LEU:N	2.42	0.45
1:V:510:VAL:O	1:V:511:ALA:C	2.52	0.45
1:W:477:GLY:HA3	1:W:488:MET:SD	2.55	0.45
1:W:499:VAL:CG2	1:W:500:THR:N	2.79	0.45
1:X:501:ARG:O	1:X:504:LEU:N	2.49	0.45
1:Y:499:VAL:HG22	1:Y:500:THR:N	2.31	0.45
1:Z:103:GLY:O	1:Z:106:ALA:N	2.44	0.45
1:Z:200:LEU:HD21	1:Z:276:VAL:HA	1.97	0.45
1:1:310:GLU:OE1	1:1:310:GLU:N	2.49	0.45
1:2:24:ALA:CB	1:2:97:GLN:HE21	2.28	0.45
1:A:34:LYS:CG	1:A:458:CYS:SG	3.05	0.45
1:A:170:GLY:C	1:A:172:GLU:H	2.18	0.45
1:D:220:ILE:HG23	1:D:248:LEU:HB3	1.97	0.45
1:E:170:GLY:C	1:E:172:GLU:H	2.20	0.45
1:E:383:ALA:O	1:E:384:ALA:CB	2.64	0.45
1:E:477:GLY:HA3	1:E:488:MET:SD	2.56	0.45
1:F:412:VAL:CG2	1:F:413:ALA:N	2.78	0.45
1:G:176:THR:HG22	1:G:177:VAL:N	2.32	0.45
1:G:200:LEU:HD21	1:G:276:VAL:HA	1.98	0.45
1:H:8:PHE:CE1	1:H:519:CYS:SG	3.07	0.45
1:H:233:MET:C	1:H:235:PRO:HD2	2.36	0.45
1:H:233:MET:HB3	1:H:237:LEU:HG	1.99	0.45
1:J:73:MET:O	1:J:76:GLU:N	2.49	0.45
1:K:34:LYS:CG	1:K:458:CYS:SG	3.05	0.45
1:O:140:ASP:O	1:O:142:LYS:N	2.49	0.45
1:Q:170:GLY:C	1:Q:172:GLU:H	2.19	0.45
1:Q:213:VAL:HB	1:Q:325:ILE:CG1	2.46	0.45
1:R:17:LEU:O	1:R:20:VAL:HG22	2.16	0.45
1:R:510:VAL:O	1:R:511:ALA:C	2.51	0.45
1:T:66:PHE:CE1	1:T:522:THR:CG2	2.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:23:LEU:CD2	1:W:75:LYS:HB2	2.47	0.45
1:W:34:LYS:CG	1:W:458:CYS:SG	3.04	0.45
1:Y:412:VAL:HG23	1:Y:413:ALA:N	2.31	0.45
1:Y:440:ILE:O	1:Y:441:LYS:C	2.55	0.45
1:Z:213:VAL:HB	1:Z:325:ILE:CG1	2.47	0.45
1:1:217:SER:N	1:1:218:PRO:HD3	2.31	0.45
1:A:421:ARG:NH2	1:A:469:VAL:O	2.48	0.45
1:A:479:ASN:OD1	1:A:493:ILE:HD11	2.16	0.45
1:C:27:VAL:C	1:C:29:VAL:H	2.20	0.45
1:C:181:THR:HB	1:D:283:ASP:OD2	2.16	0.45
1:C:200:LEU:HD21	1:C:276:VAL:HA	1.99	0.45
1:C:510:VAL:O	1:C:511:ALA:C	2.54	0.45
1:D:272:LYS:NZ	1:E:228:SER:HB3	2.31	0.45
1:E:13:ARG:O	1:E:16:MET:N	2.49	0.45
1:E:369:VAL:HG23	1:E:370:ALA:H	1.82	0.45
1:F:10:ASN:O	1:F:13:ARG:N	2.48	0.45
1:I:170:GLY:C	1:I:172:GLU:H	2.19	0.45
1:L:29:VAL:C	1:L:31:LEU:N	2.69	0.45
1:L:417:VAL:HG23	1:L:418:ALA:N	2.32	0.45
1:N:440:ILE:O	1:N:441:LYS:C	2.54	0.45
1:R:233:MET:HB3	1:R:237:LEU:HG	1.99	0.45
1:S:213:VAL:HB	1:S:325:ILE:CG1	2.46	0.45
1:T:213:VAL:HB	1:T:325:ILE:CG1	2.46	0.45
1:U:69:MET:O	1:U:73:MET:HG3	2.15	0.45
1:U:213:VAL:HB	1:U:325:ILE:CG1	2.47	0.45
1:U:272:LYS:H	1:U:272:LYS:HD2	1.82	0.45
1:V:171:LYS:HB2	1:V:407:VAL:HG11	1.98	0.45
1:V:412:VAL:CG2	1:V:413:ALA:N	2.79	0.45
1:V:486:GLY:C	1:V:491:MET:HE2	2.36	0.45
1:W:180:GLY:H	1:W:389:MET:HE2	1.81	0.45
1:X:87:ASP:CG	1:X:88:GLY:H	2.20	0.45
1:X:259:LEU:O	1:X:263:VAL:HG23	2.17	0.45
1:Y:233:MET:HB3	1:Y:237:LEU:HG	1.98	0.45
1:1:151:SER:HB3	1:1:399:ALA:HA	1.98	0.45
1:1:456:LEU:C	1:1:458:CYS:H	2.18	0.45
1:2:27:VAL:CG1	1:2:90:THR:HG23	2.46	0.45
1:2:140:ASP:O	1:2:142:LYS:N	2.50	0.45
1:A:13:ARG:O	1:A:16:MET:N	2.50	0.45
1:C:310:GLU:N	1:C:310:GLU:OE1	2.49	0.45
1:C:464:VAL:O	1:C:465:VAL:C	2.54	0.45
1:D:171:LYS:HB2	1:D:407:VAL:HG11	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:455:VAL:HG12	1:E:455:VAL:O	2.16	0.45
1:H:217:SER:N	1:H:218:PRO:HD3	2.31	0.45
1:I:330:THR:CG2	1:I:331:THR:N	2.77	0.45
1:J:64:ASP:C	1:J:64:ASP:OD1	2.54	0.45
1:K:217:SER:N	1:K:218:PRO:HD3	2.31	0.45
1:L:70:GLY:HA2	1:L:73:MET:CE	2.46	0.45
1:L:82:ASN:HB2	1:L:89:THR:HG22	1.93	0.45
1:M:46:ALA:CB	1:N:76:GLU:HG3	2.45	0.45
1:M:453:GLN:O	1:M:456:LEU:N	2.39	0.45
1:P:77:VAL:O	1:P:80:LYS:HB2	2.17	0.45
1:P:414:GLY:N	1:P:494:LEU:HA	2.31	0.45
1:R:12:ALA:HB1	1:R:520:MET:HG3	1.98	0.45
1:R:61:GLU:C	1:R:62:LEU:HD23	2.36	0.45
1:R:220:ILE:HG23	1:R:248:LEU:HD23	1.98	0.45
1:S:40:LEU:HD13	1:S:59:GLU:HG3	1.97	0.45
1:S:175:ILE:HA	1:S:377:ALA:HB3	1.98	0.45
1:S:239:ALA:O	1:S:314:LEU:HD11	2.16	0.45
1:S:510:VAL:O	1:S:511:ALA:C	2.54	0.45
1:U:24:ALA:CB	1:U:97:GLN:HE21	2.30	0.45
1:W:171:LYS:HB2	1:W:407:VAL:HG11	1.97	0.45
1:W:213:VAL:HB	1:W:325:ILE:CG1	2.46	0.45
1:W:239:ALA:O	1:W:314:LEU:HD11	2.17	0.45
1:X:406:ALA:HB1	1:X:411:VAL:HG12	1.98	0.45
1:Y:69:MET:O	1:Y:73:MET:HG3	2.15	0.45
1:Y:176:THR:HG22	1:Y:177:VAL:N	2.31	0.45
1:A:220:ILE:HG23	1:A:248:LEU:HD23	1.97	0.45
1:B:330:THR:CG2	1:B:331:THR:N	2.78	0.45
1:B:420:ILE:CD1	1:B:451:LEU:HD22	2.47	0.45
1:C:129:GLU:O	1:C:132:LYS:N	2.49	0.45
1:D:349:ILE:HA	1:D:352:GLN:HG3	1.98	0.45
1:D:419:LEU:HD21	1:D:500:THR:CG2	2.47	0.45
1:E:46:ALA:CB	1:F:76:GLU:HG3	2.47	0.45
1:G:12:ALA:O	1:G:520:MET:SD	2.75	0.45
1:G:23:LEU:CD2	1:G:75:LYS:HB2	2.47	0.45
1:H:220:ILE:HG23	1:H:248:LEU:HD23	1.97	0.45
1:L:66:PHE:CE1	1:L:522:THR:CG2	2.99	0.45
1:M:440:ILE:O	1:M:441:LYS:C	2.54	0.45
1:N:214:GLU:C	1:N:215:LEU:HD23	2.36	0.45
1:N:272:LYS:H	1:N:272:LYS:HD2	1.81	0.45
1:O:68:ASN:HD21	1:O:72:GLN:HG3	1.82	0.45
1:O:239:ALA:O	1:O:314:LEU:HD11	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:470:LYS:C	1:O:472:GLY:H	2.20	0.45
1:P:68:ASN:HD21	1:P:72:GLN:HG3	1.81	0.45
1:P:213:VAL:HB	1:P:325:ILE:CG1	2.47	0.45
1:S:383:ALA:O	1:S:384:ALA:CB	2.64	0.45
1:T:66:PHE:O	1:T:67:GLU:C	2.54	0.45
1:T:313:THR:O	1:T:317:LEU:HD13	2.16	0.45
1:U:239:ALA:O	1:U:314:LEU:HD11	2.17	0.45
1:V:13:ARG:O	1:V:16:MET:N	2.50	0.45
1:V:220:ILE:HG23	1:V:248:LEU:HD23	1.98	0.45
1:W:16:MET:SD	1:W:73:MET:HE1	2.57	0.45
1:W:440:ILE:O	1:W:441:LYS:C	2.55	0.45
1:Z:129:GLU:O	1:Z:132:LYS:N	2.49	0.45
1:Z:369:VAL:HG23	1:Z:370:ALA:H	1.81	0.45
1:Z:464:VAL:O	1:Z:465:VAL:C	2.55	0.45
1:B:27:VAL:C	1:B:29:VAL:H	2.20	0.45
1:C:479:ASN:OD1	1:C:493:ILE:HD11	2.16	0.45
1:D:57:ALA:O	1:D:60:ILE:N	2.45	0.45
1:D:310:GLU:OE1	1:D:310:GLU:N	2.50	0.45
1:D:456:LEU:C	1:D:458:CYS:H	2.19	0.45
1:E:140:ASP:O	1:E:142:LYS:N	2.50	0.45
1:F:57:ALA:O	1:F:60:ILE:N	2.47	0.45
1:F:272:LYS:H	1:F:272:LYS:HD2	1.82	0.45
1:F:330:THR:CG2	1:F:331:THR:N	2.76	0.45
1:F:420:ILE:HD11	1:F:451:LEU:HB3	1.98	0.45
1:G:73:MET:O	1:G:76:GLU:N	2.49	0.45
1:G:103:GLY:O	1:G:106:ALA:HB3	2.17	0.45
1:H:417:VAL:HG23	1:H:418:ALA:N	2.32	0.45
1:K:64:ASP:C	1:K:64:ASP:OD1	2.54	0.45
1:K:449:ALA:O	1:K:450:PRO:C	2.54	0.45
1:M:34:LYS:CG	1:M:458:CYS:SG	3.04	0.45
1:M:40:LEU:HD13	1:M:59:GLU:HG3	1.99	0.45
1:M:420:ILE:HD12	1:M:451:LEU:HD22	1.99	0.45
1:N:217:SER:N	1:N:218:PRO:HD3	2.32	0.45
1:N:259:LEU:O	1:N:263:VAL:HG23	2.16	0.45
1:O:24:ALA:CB	1:O:97:GLN:HE21	2.30	0.45
1:O:180:GLY:H	1:O:389:MET:HE2	1.82	0.45
1:Q:417:VAL:HG23	1:Q:418:ALA:N	2.32	0.45
1:R:171:LYS:HB2	1:R:407:VAL:HG11	1.99	0.45
1:S:310:GLU:N	1:S:310:GLU:OE1	2.50	0.45
1:S:417:VAL:HG11	1:S:477:GLY:CA	2.47	0.45
1:T:41:ASP:OD1	1:U:69:MET:HG2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:171:LYS:HB2	1:T:407:VAL:HG11	1.98	0.45
1:T:440:ILE:O	1:T:443:ALA:N	2.50	0.45
1:U:127:ALA:HB1	1:U:422:VAL:HG11	1.99	0.45
1:U:501:ARG:O	1:U:504:LEU:N	2.49	0.45
1:U:524:LEU:O	1:U:526:LYS:N	2.39	0.45
1:V:127:ALA:HB1	1:V:422:VAL:HG11	1.99	0.45
1:W:40:LEU:HD13	1:W:59:GLU:HG3	1.97	0.45
1:W:200:LEU:HD21	1:W:276:VAL:HA	1.97	0.45
1:W:383:ALA:O	1:W:384:ALA:CB	2.64	0.45
1:W:412:VAL:HG23	1:W:413:ALA:N	2.31	0.45
1:W:420:ILE:CD1	1:W:451:LEU:HD22	2.46	0.45
1:X:171:LYS:HB2	1:X:407:VAL:HG11	1.99	0.45
1:X:259:LEU:C	1:X:261:THR:H	2.19	0.45
1:Y:213:VAL:HB	1:Y:325:ILE:CG1	2.47	0.45
1:Y:497:THR:O	1:Y:498:LYS:C	2.55	0.45
1:Z:414:GLY:N	1:Z:494:LEU:HA	2.28	0.45
1:2:183:LEU:O	1:2:184:GLN:HB2	2.17	0.45
1:A:233:MET:HB3	1:A:237:LEU:HG	1.99	0.45
1:A:417:VAL:HG11	1:A:477:GLY:CA	2.47	0.45
1:G:233:MET:C	1:G:235:PRO:HD2	2.37	0.45
1:I:13:ARG:O	1:I:14:VAL:C	2.54	0.45
1:I:414:GLY:N	1:I:494:LEU:HA	2.30	0.45
1:I:453:GLN:O	1:I:456:LEU:N	2.42	0.45
1:K:95:LEU:O	1:K:98:ALA:HB3	2.17	0.45
1:K:171:LYS:HB2	1:K:407:VAL:HG11	1.98	0.45
1:K:220:ILE:HG23	1:K:248:LEU:HD23	1.98	0.45
1:K:273:VAL:CG1	1:K:274:ALA:N	2.80	0.45
1:K:310:GLU:N	1:K:310:GLU:OE1	2.49	0.45
1:L:127:ALA:HB1	1:L:422:VAL:HG11	1.99	0.45
1:M:447:MET:HE3	1:M:504:LEU:HD21	1.98	0.45
1:M:488:MET:HE3	1:M:493:ILE:HB	1.98	0.45
1:N:57:ALA:O	1:N:60:ILE:N	2.46	0.45
1:N:88:GLY:O	1:N:91:THR:N	2.49	0.45
1:P:171:LYS:HB2	1:P:407:VAL:HG11	1.98	0.45
1:Q:13:ARG:O	1:Q:14:VAL:C	2.55	0.45
1:Q:127:ALA:HB1	1:Q:422:VAL:HG11	1.99	0.45
1:Q:220:ILE:HG23	1:Q:248:LEU:HB3	1.98	0.45
1:Q:464:VAL:O	1:Q:465:VAL:C	2.55	0.45
1:R:170:GLY:C	1:R:172:GLU:H	2.19	0.45
1:R:214:GLU:C	1:R:215:LEU:HD23	2.37	0.45
1:S:151:SER:HB3	1:S:399:ALA:HA	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:414:GLY:N	1:S:494:LEU:HA	2.29	0.45
1:T:13:ARG:O	1:T:16:MET:N	2.50	0.45
1:T:170:GLY:C	1:T:172:GLU:H	2.18	0.45
1:T:233:MET:HB3	1:T:237:LEU:HG	1.99	0.45
1:T:417:VAL:HG11	1:T:477:GLY:CA	2.46	0.45
1:V:140:ASP:O	1:V:142:LYS:N	2.50	0.45
1:W:488:MET:HE3	1:W:493:ILE:HB	1.98	0.45
1:X:217:SER:N	1:X:218:PRO:HD3	2.32	0.45
1:X:220:ILE:HG23	1:X:248:LEU:HB3	1.98	0.45
1:Y:66:PHE:O	1:Y:67:GLU:C	2.55	0.45
1:Y:170:GLY:C	1:Y:172:GLU:H	2.19	0.45
1:Z:233:MET:C	1:Z:235:PRO:HD2	2.37	0.45
1:Z:486:GLY:C	1:Z:491:MET:HE2	2.37	0.45
1:1:91:THR:O	1:1:94:VAL:HG13	2.16	0.45
1:A:349:ILE:HA	1:A:352:GLN:HG3	1.99	0.45
1:A:521:VAL:O	1:A:521:VAL:HG12	2.16	0.45
1:B:24:ALA:O	1:B:26:ALA:N	2.50	0.45
1:B:259:LEU:O	1:B:263:VAL:HG23	2.17	0.45
1:C:449:ALA:HB3	1:C:450:PRO:CD	2.42	0.45
1:E:12:ALA:O	1:E:520:MET:SD	2.74	0.45
1:E:69:MET:O	1:E:73:MET:HG3	2.17	0.45
1:E:217:SER:N	1:E:218:PRO:HD3	2.31	0.45
1:F:417:VAL:HG11	1:F:477:GLY:CA	2.46	0.45
1:H:383:ALA:O	1:H:384:ALA:CB	2.65	0.45
1:I:242:LYS:C	1:I:244:GLY:N	2.71	0.45
1:J:217:SER:N	1:J:218:PRO:HD3	2.32	0.45
1:J:420:ILE:CD1	1:J:451:LEU:HD22	2.47	0.45
1:K:82:ASN:HB2	1:K:89:THR:HG22	1.91	0.45
1:K:183:LEU:O	1:K:184:GLN:HB2	2.17	0.45
1:M:57:ALA:O	1:M:60:ILE:N	2.45	0.45
1:M:68:ASN:HD21	1:M:72:GLN:HG3	1.82	0.45
1:M:170:GLY:C	1:M:172:GLU:H	2.19	0.45
1:N:103:GLY:O	1:N:106:ALA:HB3	2.16	0.45
1:O:421:ARG:NH2	1:O:469:VAL:O	2.49	0.45
1:Q:417:VAL:HG23	1:Q:418:ALA:H	1.82	0.45
1:R:376:VAL:HG12	1:R:377:ALA:N	2.32	0.45
1:S:27:VAL:C	1:S:29:VAL:H	2.20	0.45
1:S:259:LEU:O	1:S:263:VAL:HG23	2.16	0.45
1:U:66:PHE:CE1	1:U:522:THR:CG2	2.97	0.45
1:U:171:LYS:HB2	1:U:407:VAL:HG11	1.99	0.45
1:V:180:GLY:H	1:V:389:MET:HE2	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:242:LYS:C	1:X:244:GLY:N	2.70	0.45
1:Y:136:VAL:O	1:Y:137:PRO:O	2.35	0.45
1:Y:171:LYS:HB2	1:Y:407:VAL:HG11	1.99	0.45
1:Z:217:SER:N	1:Z:218:PRO:HD3	2.31	0.45
1:1:68:ASN:HD21	1:1:72:GLN:HG3	1.82	0.45
1:2:23:LEU:CD2	1:2:75:LYS:HB2	2.47	0.45
1:2:493:ILE:O	1:2:493:ILE:HG22	2.16	0.45
1:2:510:VAL:O	1:2:511:ALA:C	2.55	0.45
1:B:12:ALA:HB1	1:B:520:MET:HG3	1.98	0.45
1:B:449:ALA:HB3	1:B:450:PRO:CD	2.44	0.45
1:C:127:ALA:HB1	1:C:422:VAL:HG11	1.99	0.45
1:F:13:ARG:O	1:F:16:MET:N	2.49	0.45
1:H:272:LYS:H	1:H:272:LYS:HD2	1.82	0.45
1:I:129:GLU:O	1:I:132:LYS:N	2.50	0.45
1:K:220:ILE:HG23	1:K:248:LEU:HB3	1.99	0.45
1:K:487:ASN:O	1:K:491:MET:HG3	2.16	0.45
1:L:464:VAL:O	1:L:465:VAL:C	2.54	0.45
1:N:183:LEU:O	1:N:184:GLN:HB2	2.17	0.45
1:O:213:VAL:HB	1:O:325:ILE:CG1	2.47	0.45
1:O:449:ALA:HB3	1:O:450:PRO:CD	2.43	0.45
1:P:73:MET:O	1:P:76:GLU:N	2.49	0.45
1:P:91:THR:O	1:P:94:VAL:CG1	2.65	0.45
1:Q:140:ASP:O	1:Q:142:LYS:N	2.50	0.45
1:Q:217:SER:N	1:Q:218:PRO:HD3	2.32	0.45
1:R:239:ALA:O	1:R:314:LEU:HD21	2.17	0.45
1:S:73:MET:O	1:S:76:GLU:N	2.50	0.45
1:S:220:ILE:HG23	1:S:248:LEU:HD23	1.98	0.45
1:T:451:LEU:C	1:T:453:GLN:N	2.70	0.45
1:U:233:MET:HB3	1:U:237:LEU:HG	1.99	0.45
1:U:310:GLU:OE1	1:U:310:GLU:N	2.50	0.45
1:U:417:VAL:HG23	1:U:418:ALA:H	1.80	0.45
1:V:170:GLY:C	1:V:172:GLU:H	2.18	0.45
1:W:66:PHE:O	1:W:69:MET:N	2.50	0.45
1:W:70:GLY:HA2	1:W:73:MET:CE	2.46	0.45
1:W:456:LEU:C	1:W:458:CYS:H	2.20	0.45
1:X:85:ALA:CB	1:X:499:VAL:HG12	2.37	0.45
1:X:176:THR:HG21	1:X:333:ILE:HD11	1.97	0.45
1:Y:487:ASN:O	1:Y:491:MET:HG3	2.16	0.45
1:Z:13:ARG:O	1:Z:16:MET:N	2.50	0.45
1:Z:57:ALA:O	1:Z:58:ARG:C	2.55	0.45
1:Z:417:VAL:HG23	1:Z:418:ALA:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:66:PHE:CE1	1:2:522:THR:CG2	2.99	0.45
1:2:91:THR:O	1:2:94:VAL:HG13	2.17	0.45
1:2:171:LYS:HB2	1:2:407:VAL:HG11	1.98	0.45
1:A:134:LEU:N	1:A:134:LEU:CD2	2.80	0.45
1:A:406:ALA:HB1	1:A:411:VAL:HG12	1.98	0.45
1:B:409:GLU:O	1:B:497:THR:HB	2.17	0.45
1:C:412:VAL:HG23	1:C:413:ALA:N	2.32	0.45
1:C:447:MET:HE3	1:C:504:LEU:HD21	1.98	0.45
1:D:66:PHE:HE1	1:D:522:THR:HG22	1.77	0.45
1:D:510:VAL:O	1:D:511:ALA:C	2.56	0.45
1:E:220:ILE:HG23	1:E:248:LEU:HD23	1.99	0.45
1:E:417:VAL:HG23	1:E:418:ALA:N	2.32	0.45
1:E:456:LEU:C	1:E:458:CYS:H	2.19	0.45
1:G:220:ILE:HG23	1:G:248:LEU:HB3	1.98	0.45
1:I:232:GLU:HA	1:I:310:GLU:OE1	2.17	0.45
1:J:214:GLU:C	1:J:215:LEU:HD23	2.37	0.45
1:K:420:ILE:CD1	1:K:451:LEU:HD22	2.47	0.45
1:L:214:GLU:C	1:L:215:LEU:HD23	2.38	0.45
1:M:134:LEU:N	1:M:134:LEU:CD2	2.78	0.45
1:N:91:THR:O	1:N:94:VAL:CG1	2.65	0.45
1:N:220:ILE:HG23	1:N:248:LEU:HD23	1.97	0.45
1:O:46:ALA:CB	1:P:76:GLU:HG3	2.45	0.45
1:O:214:GLU:C	1:O:215:LEU:HD23	2.38	0.45
1:O:440:ILE:O	1:O:443:ALA:N	2.50	0.45
1:P:310:GLU:N	1:P:310:GLU:OE1	2.50	0.45
1:P:383:ALA:O	1:P:384:ALA:CB	2.65	0.45
1:Q:239:ALA:O	1:Q:314:LEU:HD21	2.17	0.45
1:Q:272:LYS:H	1:Q:272:LYS:HD2	1.81	0.45
1:R:24:ALA:O	1:R:26:ALA:N	2.50	0.45
1:R:151:SER:HB3	1:R:399:ALA:HA	1.97	0.45
1:U:134:LEU:N	1:U:134:LEU:CD2	2.80	0.45
1:X:13:ARG:O	1:X:16:MET:N	2.50	0.45
1:X:151:SER:CB	1:X:399:ALA:HA	2.47	0.45
1:Z:66:PHE:CE1	1:Z:522:THR:CG2	3.00	0.45
1:A:220:ILE:HG23	1:A:248:LEU:HB3	2.00	0.44
1:A:239:ALA:O	1:A:314:LEU:HD11	2.16	0.44
1:C:91:THR:O	1:C:94:VAL:HG13	2.17	0.44
1:D:449:ALA:HB3	1:D:450:PRO:CD	2.42	0.44
1:G:91:THR:O	1:G:94:VAL:HG13	2.18	0.44
1:G:217:SER:N	1:G:218:PRO:HD3	2.32	0.44
1:H:417:VAL:HG11	1:H:477:GLY:CA	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:488:MET:HE3	1:I:493:ILE:HB	1.99	0.44
1:L:499:VAL:CG2	1:L:500:THR:N	2.81	0.44
1:M:414:GLY:N	1:M:494:LEU:HA	2.31	0.44
1:N:213:VAL:HB	1:N:325:ILE:CG1	2.47	0.44
1:O:220:ILE:HG23	1:O:248:LEU:HD23	1.98	0.44
1:P:66:PHE:HE1	1:P:522:THR:HG22	1.78	0.44
1:T:464:VAL:O	1:T:465:VAL:C	2.55	0.44
1:U:179:ASP:HB3	1:U:389:MET:HE1	1.99	0.44
1:V:217:SER:N	1:V:218:PRO:HD3	2.32	0.44
1:X:278:ALA:HB1	1:X:279:PRO:CD	2.43	0.44
1:Y:217:SER:N	1:Y:218:PRO:HD3	2.32	0.44
1:Y:273:VAL:CG1	1:Y:274:ALA:N	2.79	0.44
1:Y:464:VAL:O	1:Y:466:ALA:N	2.51	0.44
1:Z:417:VAL:HG11	1:Z:477:GLY:CA	2.45	0.44
1:A:383:ALA:O	1:A:384:ALA:CB	2.65	0.44
1:B:230:ILE:CD1	1:B:261:THR:HG21	2.25	0.44
1:E:413:ALA:O	1:E:417:VAL:HG23	2.17	0.44
1:E:447:MET:HE3	1:E:504:LEU:HD21	1.98	0.44
1:F:170:GLY:C	1:F:172:GLU:H	2.19	0.44
1:F:233:MET:HB3	1:F:237:LEU:HG	2.00	0.44
1:G:417:VAL:HG23	1:G:418:ALA:H	1.80	0.44
1:H:486:GLY:C	1:H:491:MET:HE2	2.38	0.44
1:I:259:LEU:O	1:I:263:VAL:HG23	2.17	0.44
1:J:239:ALA:O	1:J:314:LEU:HD11	2.16	0.44
1:J:272:LYS:H	1:J:272:LYS:HD2	1.82	0.44
1:J:510:VAL:O	1:J:511:ALA:C	2.53	0.44
1:K:412:VAL:CG2	1:K:413:ALA:N	2.80	0.44
1:L:27:VAL:C	1:L:29:VAL:H	2.20	0.44
1:L:200:LEU:HD21	1:L:276:VAL:HA	1.99	0.44
1:L:501:ARG:O	1:L:504:LEU:N	2.50	0.44
1:M:420:ILE:HD11	1:M:451:LEU:HB3	1.98	0.44
1:M:499:VAL:HG22	1:M:500:THR:N	2.33	0.44
1:N:40:LEU:HD13	1:N:59:GLU:HG3	1.98	0.44
1:N:120:ILE:HG13	1:N:439:GLY:O	2.16	0.44
1:O:23:LEU:CD2	1:O:75:LYS:HB2	2.46	0.44
1:O:440:ILE:O	1:O:441:LYS:C	2.54	0.44
1:Q:10:ASN:O	1:Q:13:ARG:N	2.47	0.44
1:R:70:GLY:HA2	1:R:73:MET:HE3	1.97	0.44
1:R:230:ILE:O	1:R:230:ILE:HG12	2.18	0.44
1:R:272:LYS:H	1:R:272:LYS:HD2	1.82	0.44
1:T:24:ALA:CB	1:T:97:GLN:HE21	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:414:GLY:N	1:T:494:LEU:HA	2.32	0.44
1:T:524:LEU:O	1:T:526:LYS:N	2.42	0.44
1:U:111:MET:HG2	1:U:435:ASP:OD1	2.17	0.44
1:U:214:GLU:C	1:U:215:LEU:HD23	2.37	0.44
1:U:369:VAL:HG23	1:U:370:ALA:H	1.82	0.44
1:U:456:LEU:C	1:U:458:CYS:H	2.19	0.44
1:V:220:ILE:HG23	1:V:248:LEU:HB3	2.00	0.44
1:V:501:ARG:O	1:V:504:LEU:N	2.50	0.44
1:W:291:ASP:OD2	1:W:368:ARG:HD2	2.17	0.44
1:X:34:LYS:CG	1:X:458:CYS:SG	3.05	0.44
1:X:488:MET:HE3	1:X:493:ILE:HB	1.98	0.44
1:Y:91:THR:O	1:Y:94:VAL:HG13	2.18	0.44
1:Y:96:ALA:O	1:Y:97:GLN:C	2.53	0.44
1:Y:129:GLU:O	1:Y:132:LYS:N	2.51	0.44
1:Z:16:MET:SD	1:Z:73:MET:HE1	2.57	0.44
1:1:103:GLY:O	1:1:106:ALA:N	2.47	0.44
1:1:272:LYS:H	1:1:272:LYS:HD2	1.82	0.44
1:2:273:VAL:CG1	1:2:274:ALA:N	2.80	0.44
1:A:479:ASN:CG	1:A:493:ILE:HD11	2.38	0.44
1:B:214:GLU:C	1:B:215:LEU:HD23	2.37	0.44
1:C:29:VAL:C	1:C:31:LEU:N	2.70	0.44
1:C:112:ASN:HA	1:C:113:PRO:HD3	1.86	0.44
1:C:383:ALA:O	1:C:384:ALA:CB	2.66	0.44
1:E:412:VAL:HG23	1:E:413:ALA:N	2.32	0.44
1:F:214:GLU:C	1:F:215:LEU:HD23	2.38	0.44
1:F:291:ASP:OD2	1:F:368:ARG:HD2	2.17	0.44
1:F:425:LYS:O	1:F:427:ALA:N	2.50	0.44
1:G:8:PHE:CE1	1:G:519:CYS:SG	3.09	0.44
1:G:91:THR:O	1:G:94:VAL:CG1	2.65	0.44
1:G:220:ILE:HG23	1:G:248:LEU:HD23	1.98	0.44
1:H:16:MET:SD	1:H:73:MET:HE1	2.57	0.44
1:H:464:VAL:O	1:H:466:ALA:N	2.50	0.44
1:J:129:GLU:O	1:J:132:LYS:N	2.50	0.44
1:J:369:VAL:HG23	1:J:370:ALA:H	1.81	0.44
1:K:136:VAL:O	1:K:137:PRO:O	2.34	0.44
1:M:213:VAL:HB	1:M:325:ILE:CG1	2.47	0.44
1:O:200:LEU:HD21	1:O:276:VAL:HA	1.99	0.44
1:O:291:ASP:OD2	1:O:368:ARG:HD2	2.17	0.44
1:P:27:VAL:C	1:P:29:VAL:H	2.20	0.44
1:P:129:GLU:O	1:P:132:LYS:N	2.50	0.44
1:Q:176:THR:HG22	1:Q:177:VAL:N	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:200:LEU:HD21	1:Q:276:VAL:HA	2.00	0.44
1:R:239:ALA:O	1:R:314:LEU:HD11	2.17	0.44
1:S:220:ILE:HG23	1:S:248:LEU:HB3	1.98	0.44
1:S:349:ILE:HA	1:S:352:GLN:HG3	1.99	0.44
1:T:10:ASN:O	1:T:13:ARG:N	2.50	0.44
1:V:91:THR:O	1:V:92:ALA:C	2.56	0.44
1:V:488:MET:HE3	1:V:493:ILE:HB	1.99	0.44
1:W:233:MET:HB3	1:W:237:LEU:HG	2.00	0.44
1:X:213:VAL:HB	1:X:325:ILE:CG1	2.47	0.44
1:Y:134:LEU:N	1:Y:134:LEU:CD2	2.80	0.44
1:Y:140:ASP:C	1:Y:142:LYS:H	2.20	0.44
1:Z:29:VAL:C	1:Z:31:LEU:N	2.71	0.44
1:Z:69:MET:O	1:Z:73:MET:HG3	2.16	0.44
1:Z:214:GLU:C	1:Z:215:LEU:HD23	2.37	0.44
1:Z:239:ALA:O	1:Z:314:LEU:HD21	2.18	0.44
1:Z:259:LEU:C	1:Z:261:THR:H	2.21	0.44
1:Z:440:ILE:O	1:Z:441:LYS:C	2.56	0.44
1:1:220:ILE:HG23	1:1:248:LEU:HB3	2.00	0.44
1:A:409:GLU:O	1:A:497:THR:HB	2.16	0.44
1:A:487:ASN:O	1:A:491:MET:HG3	2.18	0.44
1:C:217:SER:N	1:C:218:PRO:HD3	2.33	0.44
1:D:233:MET:C	1:D:235:PRO:HD2	2.38	0.44
1:E:24:ALA:O	1:E:26:ALA:N	2.51	0.44
1:F:376:VAL:HG12	1:F:377:ALA:N	2.31	0.44
1:F:413:ALA:O	1:F:417:VAL:HG23	2.16	0.44
1:F:487:ASN:OD1	1:F:489:ILE:N	2.50	0.44
1:G:134:LEU:N	1:G:134:LEU:CD2	2.78	0.44
1:G:330:THR:CG2	1:G:331:THR:H	2.27	0.44
1:H:12:ALA:HB1	1:H:520:MET:HG3	1.99	0.44
1:H:27:VAL:C	1:H:29:VAL:H	2.21	0.44
1:H:57:ALA:O	1:H:60:ILE:N	2.47	0.44
1:H:214:GLU:C	1:H:215:LEU:HD23	2.37	0.44
1:H:412:VAL:CG2	1:H:413:ALA:N	2.80	0.44
1:I:272:LYS:H	1:I:272:LYS:HD2	1.82	0.44
1:J:176:THR:HG22	1:J:177:VAL:N	2.31	0.44
1:J:464:VAL:O	1:J:465:VAL:C	2.55	0.44
1:L:497:THR:O	1:L:498:LYS:C	2.55	0.44
1:M:136:VAL:O	1:M:137:PRO:O	2.35	0.44
1:N:259:LEU:C	1:N:261:THR:H	2.21	0.44
1:N:464:VAL:O	1:N:465:VAL:C	2.55	0.44
1:O:69:MET:O	1:O:73:MET:HG3	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:73:MET:O	1:O:76:GLU:N	2.49	0.44
1:O:259:LEU:C	1:O:261:THR:H	2.20	0.44
1:P:140:ASP:O	1:P:142:LYS:N	2.51	0.44
1:Q:23:LEU:HD22	1:Q:75:LYS:HB2	2.00	0.44
1:Q:29:VAL:C	1:Q:31:LEU:N	2.70	0.44
1:R:180:GLY:H	1:R:389:MET:HE2	1.82	0.44
1:R:259:LEU:C	1:R:261:THR:H	2.21	0.44
1:R:330:THR:CG2	1:R:331:THR:H	2.29	0.44
1:S:24:ALA:CB	1:S:97:GLN:HE21	2.30	0.44
1:S:29:VAL:C	1:S:31:LEU:N	2.71	0.44
1:X:233:MET:C	1:X:235:PRO:HD2	2.38	0.44
1:X:420:ILE:HD11	1:X:451:LEU:HB3	1.99	0.44
1:Z:220:ILE:HG23	1:Z:248:LEU:HB3	1.98	0.44
1:1:16:MET:SD	1:1:73:MET:HE1	2.57	0.44
1:2:25:ASP:OD1	1:2:28:LYS:HE2	2.17	0.44
1:2:330:THR:CG2	1:2:331:THR:N	2.79	0.44
1:2:479:ASN:CG	1:2:493:ILE:HD11	2.37	0.44
1:A:29:VAL:C	1:A:31:LEU:N	2.69	0.44
1:B:477:GLY:HA3	1:B:488:MET:SD	2.58	0.44
1:C:40:LEU:HD13	1:C:59:GLU:HG3	1.99	0.44
1:C:69:MET:O	1:C:73:MET:HG3	2.17	0.44
1:C:77:VAL:O	1:C:80:LYS:HB2	2.17	0.44
1:E:239:ALA:O	1:E:314:LEU:HD11	2.17	0.44
1:F:12:ALA:HB1	1:F:520:MET:HG3	1.99	0.44
1:F:449:ALA:O	1:F:450:PRO:C	2.56	0.44
1:G:417:VAL:HG11	1:G:477:GLY:CA	2.47	0.44
1:I:12:ALA:HB1	1:I:520:MET:HG3	1.99	0.44
1:I:230:ILE:O	1:I:230:ILE:HG12	2.18	0.44
1:I:310:GLU:OE1	1:I:310:GLU:N	2.50	0.44
1:J:29:VAL:C	1:J:31:LEU:N	2.70	0.44
1:J:259:LEU:C	1:J:261:THR:H	2.21	0.44
1:J:440:ILE:O	1:J:441:LYS:C	2.55	0.44
1:L:12:ALA:HB1	1:L:520:MET:HG3	1.99	0.44
1:L:64:ASP:C	1:L:64:ASP:OD1	2.55	0.44
1:L:183:LEU:O	1:L:184:GLN:HB2	2.17	0.44
1:L:213:VAL:HB	1:L:325:ILE:CG1	2.48	0.44
1:L:417:VAL:HG23	1:L:418:ALA:H	1.82	0.44
1:L:524:LEU:O	1:L:526:LYS:N	2.41	0.44
1:M:95:LEU:O	1:M:98:ALA:HB3	2.17	0.44
1:M:449:ALA:HB3	1:M:450:PRO:CD	2.44	0.44
1:P:91:THR:O	1:P:94:VAL:HG13	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:140:ASP:C	1:P:142:LYS:H	2.21	0.44
1:Q:273:VAL:CG1	1:Q:274:ALA:N	2.81	0.44
1:Q:383:ALA:O	1:Q:384:ALA:CB	2.65	0.44
1:R:330:THR:CG2	1:R:331:THR:N	2.79	0.44
1:S:230:ILE:O	1:S:230:ILE:HG12	2.18	0.44
1:S:291:ASP:OD2	1:S:368:ARG:HD2	2.18	0.44
1:U:134:LEU:O	1:U:135:SER:C	2.56	0.44
1:V:151:SER:HB3	1:V:399:ALA:HA	1.99	0.44
1:X:91:THR:O	1:X:94:VAL:HG13	2.17	0.44
1:X:175:ILE:HA	1:X:377:ALA:HB3	1.99	0.44
1:Y:220:ILE:HG23	1:Y:248:LEU:HB3	1.98	0.44
1:Z:273:VAL:CG1	1:Z:274:ALA:N	2.81	0.44
1:Z:406:ALA:HB1	1:Z:411:VAL:HG12	2.00	0.44
1:1:383:ALA:O	1:1:384:ALA:CB	2.66	0.44
1:1:414:GLY:N	1:1:494:LEU:HA	2.31	0.44
1:2:13:ARG:HA	1:2:16:MET:HE2	1.98	0.44
1:2:464:VAL:O	1:2:465:VAL:C	2.53	0.44
1:A:217:SER:N	1:A:218:PRO:HD3	2.32	0.44
1:A:291:ASP:OD2	1:A:368:ARG:HD2	2.18	0.44
1:A:462:PRO:O	1:A:463:SER:C	2.56	0.44
1:B:25:ASP:OD1	1:B:28:LYS:HE2	2.18	0.44
1:B:510:VAL:O	1:B:511:ALA:C	2.54	0.44
1:F:524:LEU:O	1:F:526:LYS:N	2.38	0.44
1:G:129:GLU:C	1:G:131:LEU:H	2.21	0.44
1:G:310:GLU:OE1	1:G:310:GLU:N	2.51	0.44
1:H:13:ARG:O	1:H:16:MET:N	2.50	0.44
1:I:70:GLY:HA2	1:I:73:MET:CE	2.47	0.44
1:K:272:LYS:H	1:K:272:LYS:HD2	1.82	0.44
1:L:13:ARG:O	1:L:16:MET:N	2.51	0.44
1:L:151:SER:HB3	1:L:399:ALA:HA	1.98	0.44
1:P:16:MET:SD	1:P:73:MET:HE1	2.58	0.44
1:P:66:PHE:O	1:P:69:MET:HB2	2.17	0.44
1:P:134:LEU:N	1:P:134:LEU:CD2	2.81	0.44
1:P:447:MET:HE3	1:P:504:LEU:HD21	1.99	0.44
1:Q:70:GLY:O	1:Q:72:GLN:N	2.50	0.44
1:S:200:LEU:HD21	1:S:276:VAL:HA	2.00	0.44
1:S:499:VAL:HG22	1:S:500:THR:N	2.31	0.44
1:T:140:ASP:O	1:T:142:LYS:N	2.50	0.44
1:V:479:ASN:OD1	1:V:493:ILE:HD11	2.17	0.44
1:W:269:GLY:O	1:X:229:ASN:ND2	2.51	0.44
1:X:25:ASP:OD1	1:X:28:LYS:HE2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:171:LYS:H	1:1:171:LYS:HG2	1.52	0.44
1:1:200:LEU:HD21	1:1:276:VAL:HA	1.99	0.44
1:A:213:VAL:HB	1:A:325:ILE:CG1	2.48	0.44
1:B:16:MET:O	1:B:20:VAL:HG13	2.18	0.44
1:B:239:ALA:O	1:B:314:LEU:HD11	2.18	0.44
1:C:451:LEU:C	1:C:453:GLN:N	2.70	0.44
1:C:462:PRO:O	1:C:463:SER:C	2.56	0.44
1:C:487:ASN:O	1:C:491:MET:HG3	2.17	0.44
1:D:66:PHE:O	1:D:69:MET:N	2.51	0.44
1:D:233:MET:HB3	1:D:237:LEU:HG	1.98	0.44
1:E:242:LYS:C	1:E:244:GLY:N	2.71	0.44
1:E:470:LYS:C	1:E:472:GLY:H	2.22	0.44
1:F:273:VAL:CG1	1:F:274:ALA:N	2.80	0.44
1:F:310:GLU:OE1	1:F:310:GLU:N	2.50	0.44
1:F:488:MET:HE3	1:F:493:ILE:HB	1.98	0.44
1:G:171:LYS:HB2	1:G:407:VAL:HG11	2.00	0.44
1:G:214:GLU:C	1:G:215:LEU:HD23	2.37	0.44
1:H:170:GLY:C	1:H:172:GLU:H	2.20	0.44
1:H:479:ASN:CG	1:H:493:ILE:HD11	2.38	0.44
1:I:40:LEU:HD13	1:I:59:GLU:HG3	1.98	0.44
1:I:499:VAL:HG22	1:I:500:THR:N	2.33	0.44
1:K:479:ASN:OD1	1:K:493:ILE:HD11	2.17	0.44
1:K:497:THR:O	1:K:498:LYS:C	2.55	0.44
1:L:134:LEU:N	1:L:134:LEU:CD2	2.80	0.44
1:L:220:ILE:HG23	1:L:248:LEU:HB3	1.99	0.44
1:L:233:MET:HB3	1:L:237:LEU:HG	1.99	0.44
1:L:383:ALA:O	1:L:384:ALA:CB	2.65	0.44
1:M:13:ARG:HA	1:M:16:MET:HE2	1.98	0.44
1:M:127:ALA:HB1	1:M:422:VAL:HG11	2.00	0.44
1:O:230:ILE:HG12	1:O:230:ILE:O	2.18	0.44
1:O:376:VAL:HG12	1:O:377:ALA:N	2.33	0.44
1:P:233:MET:HB3	1:P:237:LEU:HG	1.99	0.44
1:P:464:VAL:O	1:P:466:ALA:N	2.51	0.44
1:Q:242:LYS:C	1:Q:244:GLY:N	2.71	0.44
1:R:91:THR:O	1:R:94:VAL:CG1	2.66	0.44
1:R:417:VAL:HG11	1:R:477:GLY:CA	2.47	0.44
1:R:470:LYS:C	1:R:472:GLY:H	2.21	0.44
1:S:77:VAL:O	1:S:80:LYS:HB2	2.18	0.44
1:T:40:LEU:HD13	1:T:59:GLU:HG3	1.99	0.44
1:U:57:ALA:O	1:U:59:GLU:N	2.51	0.44
1:U:64:ASP:C	1:U:64:ASP:OD1	2.55	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:29:VAL:C	1:V:31:LEU:N	2.71	0.44
1:V:176:THR:HG22	1:V:177:VAL:N	2.32	0.44
1:Z:57:ALA:O	1:Z:60:ILE:N	2.43	0.44
1:1:272:LYS:HZ1	1:2:228:SER:HB3	1.83	0.44
1:A:464:VAL:O	1:A:465:VAL:C	2.55	0.44
1:B:13:ARG:HA	1:B:16:MET:HE2	2.00	0.44
1:B:129:GLU:O	1:B:132:LYS:N	2.51	0.44
1:C:136:VAL:O	1:C:137:PRO:O	2.35	0.44
1:D:11:ASP:OD1	1:D:11:ASP:N	2.48	0.44
1:E:488:MET:HE3	1:E:493:ILE:HB	2.00	0.44
1:G:383:ALA:O	1:G:384:ALA:CB	2.64	0.44
1:H:230:ILE:O	1:H:230:ILE:HG12	2.18	0.44
1:I:259:LEU:C	1:I:261:THR:H	2.20	0.44
1:I:420:ILE:HD12	1:I:451:LEU:HD22	2.00	0.44
1:J:134:LEU:N	1:J:134:LEU:CD2	2.80	0.44
1:K:13:ARG:HA	1:K:16:MET:HE2	2.00	0.44
1:M:272:LYS:H	1:M:272:LYS:HD2	1.82	0.44
1:M:501:ARG:O	1:M:504:LEU:N	2.51	0.44
1:O:136:VAL:O	1:O:137:PRO:O	2.35	0.44
1:O:310:GLU:OE1	1:O:310:GLU:N	2.51	0.44
1:P:230:ILE:O	1:P:230:ILE:HG12	2.18	0.44
1:P:239:ALA:O	1:P:314:LEU:HD11	2.18	0.44
1:Q:233:MET:HB3	1:Q:237:LEU:HG	1.99	0.44
1:R:230:ILE:CD1	1:R:261:THR:HG21	2.24	0.44
1:S:112:ASN:HA	1:S:113:PRO:HD3	1.90	0.44
1:T:291:ASP:OD2	1:T:368:ARG:HD2	2.18	0.44
1:V:239:ALA:O	1:V:314:LEU:HD11	2.18	0.44
1:W:25:ASP:OD1	1:W:28:LYS:HE2	2.18	0.44
1:W:41:ASP:OD1	1:X:69:MET:HG2	2.18	0.44
1:W:273:VAL:CG1	1:W:274:ALA:N	2.81	0.44
1:X:239:ALA:O	1:X:314:LEU:HD11	2.18	0.44
1:Y:349:ILE:HA	1:Y:352:GLN:HG3	1.99	0.44
1:Z:13:ARG:HA	1:Z:16:MET:HE2	2.00	0.44
1:1:230:ILE:O	1:1:230:ILE:HG12	2.18	0.44
1:1:406:ALA:HA	1:1:410:GLY:O	2.17	0.44
1:1:420:ILE:CD1	1:1:451:LEU:HD22	2.48	0.44
1:1:486:GLY:HA3	1:1:491:MET:HE2	2.00	0.44
1:1:499:VAL:HG22	1:1:500:THR:N	2.33	0.44
1:2:179:ASP:HB3	1:2:389:MET:HE1	2.00	0.44
1:2:230:ILE:O	1:2:230:ILE:HG12	2.18	0.44
1:2:414:GLY:N	1:2:494:LEU:HA	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:278:ALA:HB1	1:A:279:PRO:CD	2.46	0.44
1:A:486:GLY:C	1:A:491:MET:HE2	2.38	0.44
1:B:41:ASP:OD1	1:C:69:MET:HG2	2.18	0.44
1:B:155:ASP:OD1	1:B:157:THR:HB	2.18	0.44
1:B:220:ILE:HG23	1:B:248:LEU:HD23	1.99	0.44
1:C:16:MET:SD	1:C:73:MET:HE1	2.57	0.44
1:C:66:PHE:CE1	1:C:522:THR:CG2	2.98	0.44
1:C:213:VAL:HB	1:C:325:ILE:CG1	2.48	0.44
1:C:412:VAL:CG2	1:C:413:ALA:N	2.80	0.44
1:D:259:LEU:O	1:D:263:VAL:HG23	2.17	0.44
1:E:41:ASP:OD1	1:F:69:MET:HG2	2.18	0.44
1:E:479:ASN:CG	1:E:493:ILE:HD11	2.38	0.44
1:F:464:VAL:O	1:F:465:VAL:C	2.55	0.44
1:G:127:ALA:HB1	1:G:422:VAL:HG11	1.99	0.44
1:G:440:ILE:O	1:G:441:LYS:C	2.56	0.44
1:H:69:MET:HE1	1:N:41:ASP:N	2.33	0.44
1:H:239:ALA:O	1:H:314:LEU:HD21	2.18	0.44
1:I:217:SER:N	1:I:218:PRO:HD3	2.32	0.44
1:K:259:LEU:C	1:K:261:THR:H	2.19	0.44
1:L:440:ILE:O	1:L:441:LYS:C	2.55	0.44
1:M:13:ARG:O	1:M:14:VAL:C	2.57	0.44
1:M:112:ASN:HA	1:M:113:PRO:HD3	1.90	0.44
1:O:151:SER:HB3	1:O:399:ALA:HA	1.99	0.44
1:O:406:ALA:HB1	1:O:411:VAL:HG12	1.99	0.44
1:O:456:LEU:C	1:O:458:CYS:H	2.20	0.44
1:P:40:LEU:HD13	1:P:59:GLU:HG3	1.99	0.44
1:Q:27:VAL:C	1:Q:29:VAL:H	2.21	0.44
1:S:155:ASP:OD1	1:S:157:THR:HB	2.18	0.44
1:T:217:SER:N	1:T:218:PRO:HD3	2.33	0.44
1:T:349:ILE:HA	1:T:352:GLN:HG3	2.00	0.44
1:T:406:ALA:HB1	1:T:411:VAL:HG12	1.99	0.44
1:U:479:ASN:OD1	1:U:493:ILE:HD11	2.18	0.44
1:V:464:VAL:O	1:V:466:ALA:N	2.51	0.44
1:X:8:PHE:HE1	1:X:519:CYS:SG	2.40	0.44
1:X:264:VAL:O	1:X:267:MET:HB3	2.18	0.44
1:X:349:ILE:HA	1:X:352:GLN:HG3	2.00	0.44
1:X:455:VAL:HG12	1:X:455:VAL:O	2.17	0.44
1:Z:383:ALA:O	1:Z:384:ALA:CB	2.66	0.44
1:Z:412:VAL:CG2	1:Z:413:ALA:N	2.80	0.44
1:1:239:ALA:O	1:1:314:LEU:HD11	2.18	0.44
1:1:497:THR:O	1:1:498:LYS:C	2.56	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:27:VAL:C	1:2:29:VAL:H	2.22	0.44
1:2:477:GLY:HA3	1:2:488:MET:SD	2.58	0.44
1:A:27:VAL:C	1:A:29:VAL:H	2.22	0.43
1:A:134:LEU:O	1:A:135:SER:C	2.57	0.43
1:A:440:ILE:O	1:A:441:LYS:C	2.56	0.43
1:A:501:ARG:O	1:A:504:LEU:N	2.51	0.43
1:B:264:VAL:O	1:B:267:MET:HB3	2.18	0.43
1:B:499:VAL:HG22	1:B:500:THR:N	2.32	0.43
1:C:103:GLY:O	1:C:106:ALA:HB3	2.18	0.43
1:C:239:ALA:O	1:C:314:LEU:HD11	2.17	0.43
1:D:16:MET:SD	1:D:73:MET:HE1	2.58	0.43
1:D:214:GLU:C	1:D:215:LEU:HD23	2.39	0.43
1:D:217:SER:N	1:D:218:PRO:HD3	2.33	0.43
1:D:272:LYS:H	1:D:272:LYS:HD2	1.83	0.43
1:D:272:LYS:HZ3	1:E:228:SER:CB	2.31	0.43
1:E:10:ASN:O	1:E:13:ARG:N	2.49	0.43
1:E:272:LYS:H	1:E:272:LYS:HD2	1.83	0.43
1:E:349:ILE:HA	1:E:352:GLN:HG3	2.00	0.43
1:F:151:SER:HB3	1:F:399:ALA:HA	1.99	0.43
1:F:487:ASN:O	1:F:491:MET:HG3	2.18	0.43
1:G:25:ASP:OD1	1:G:28:LYS:HE2	2.19	0.43
1:G:170:GLY:C	1:G:172:GLU:H	2.20	0.43
1:G:213:VAL:HB	1:G:325:ILE:CG1	2.48	0.43
1:G:232:GLU:HA	1:G:310:GLU:OE1	2.18	0.43
1:G:464:VAL:O	1:G:466:ALA:N	2.51	0.43
1:G:479:ASN:OD1	1:G:493:ILE:HD11	2.18	0.43
1:H:259:LEU:C	1:H:261:THR:H	2.21	0.43
1:H:278:ALA:HB1	1:H:279:PRO:CD	2.46	0.43
1:H:499:VAL:HG22	1:H:500:THR:N	2.33	0.43
1:K:183:LEU:CA	1:K:383:ALA:HB3	2.46	0.43
1:L:440:ILE:O	1:L:443:ALA:N	2.51	0.43
1:N:278:ALA:HB1	1:N:279:PRO:CD	2.44	0.43
1:N:464:VAL:O	1:N:466:ALA:N	2.50	0.43
1:O:13:ARG:O	1:O:14:VAL:C	2.54	0.43
1:P:12:ALA:HB1	1:P:520:MET:HG3	2.00	0.43
1:P:183:LEU:O	1:P:184:GLN:HB2	2.18	0.43
1:P:213:VAL:HG12	1:P:214:GLU:N	2.33	0.43
1:P:449:ALA:O	1:P:450:PRO:C	2.53	0.43
1:Q:449:ALA:HB3	1:Q:450:PRO:CD	2.43	0.43
1:Q:510:VAL:O	1:Q:511:ALA:C	2.56	0.43
1:R:16:MET:SD	1:R:73:MET:HE1	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:464:VAL:O	1:R:465:VAL:C	2.56	0.43
1:U:13:ARG:HA	1:U:16:MET:HE2	1.99	0.43
1:U:486:GLY:C	1:U:491:MET:HE2	2.38	0.43
1:V:103:GLY:O	1:V:106:ALA:HB3	2.18	0.43
1:V:214:GLU:C	1:V:215:LEU:HD23	2.38	0.43
1:V:412:VAL:HG23	1:V:413:ALA:N	2.33	0.43
1:V:449:ALA:O	1:V:450:PRO:C	2.56	0.43
1:W:259:LEU:C	1:W:261:THR:H	2.21	0.43
1:W:349:ILE:HA	1:W:352:GLN:HG3	2.00	0.43
1:Y:112:ASN:HA	1:Y:113:PRO:HD3	1.84	0.43
1:Z:27:VAL:C	1:Z:29:VAL:H	2.21	0.43
1:1:171:LYS:HB2	1:1:407:VAL:HG11	1.98	0.43
1:1:273:VAL:CG1	1:1:274:ALA:N	2.81	0.43
1:1:369:VAL:HG23	1:1:370:ALA:H	1.83	0.43
1:2:291:ASP:OD2	1:2:368:ARG:HD2	2.19	0.43
1:A:82:ASN:HB2	1:A:89:THR:HG22	1.93	0.43
1:B:180:GLY:N	1:B:389:MET:HE2	2.33	0.43
1:C:180:GLY:H	1:C:389:MET:HE2	1.84	0.43
1:C:264:VAL:O	1:C:267:MET:HB3	2.19	0.43
1:D:91:THR:O	1:D:94:VAL:HG13	2.17	0.43
1:E:291:ASP:OD2	1:E:368:ARG:HD2	2.17	0.43
1:F:349:ILE:HA	1:F:352:GLN:HG3	2.00	0.43
1:G:13:ARG:O	1:G:14:VAL:C	2.53	0.43
1:H:213:VAL:HB	1:H:325:ILE:CG1	2.48	0.43
1:H:349:ILE:HA	1:H:352:GLN:HG3	2.00	0.43
1:I:175:ILE:HA	1:I:377:ALA:HB3	1.99	0.43
1:I:440:ILE:O	1:I:441:LYS:C	2.57	0.43
1:J:220:ILE:HG23	1:J:248:LEU:HB3	1.99	0.43
1:J:232:GLU:HA	1:J:310:GLU:OE1	2.18	0.43
1:K:140:ASP:C	1:K:142:LYS:H	2.21	0.43
1:L:16:MET:O	1:L:20:VAL:HG13	2.18	0.43
1:L:41:ASP:HB2	1:M:69:MET:CE	2.48	0.43
1:L:239:ALA:O	1:L:314:LEU:HD21	2.18	0.43
1:L:486:GLY:C	1:L:491:MET:HE2	2.39	0.43
1:M:91:THR:O	1:M:94:VAL:CG1	2.66	0.43
1:O:479:ASN:CG	1:O:493:ILE:HD11	2.38	0.43
1:O:486:GLY:C	1:O:491:MET:HE2	2.38	0.43
1:Q:73:MET:O	1:Q:76:GLU:N	2.51	0.43
1:S:449:ALA:O	1:S:450:PRO:C	2.56	0.43
1:T:214:GLU:C	1:T:215:LEU:HD23	2.38	0.43
1:U:57:ALA:O	1:U:60:ILE:N	2.45	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:510:VAL:O	1:U:511:ALA:C	2.54	0.43
1:V:183:LEU:O	1:V:184:GLN:HB2	2.18	0.43
1:V:272:LYS:H	1:V:272:LYS:HD2	1.83	0.43
1:V:349:ILE:HA	1:V:352:GLN:HG3	2.00	0.43
1:W:41:ASP:HB2	1:X:69:MET:CE	2.48	0.43
1:W:430:ARG:HG2	1:W:430:ARG:HH11	1.81	0.43
1:W:497:THR:O	1:W:498:LYS:C	2.56	0.43
1:Y:220:ILE:HG23	1:Y:248:LEU:HD23	2.00	0.43
1:Y:259:LEU:C	1:Y:261:THR:H	2.21	0.43
1:Y:291:ASP:OD2	1:Y:368:ARG:HD2	2.18	0.43
1:Z:140:ASP:O	1:Z:142:LYS:N	2.51	0.43
1:2:77:VAL:O	1:2:80:LYS:HB2	2.18	0.43
1:A:180:GLY:H	1:A:389:MET:HE2	1.83	0.43
1:B:230:ILE:O	1:B:230:ILE:HG12	2.18	0.43
1:C:10:ASN:O	1:C:13:ARG:N	2.48	0.43
1:C:291:ASP:OD2	1:C:368:ARG:HD2	2.17	0.43
1:D:213:VAL:HB	1:D:325:ILE:CG1	2.48	0.43
1:E:13:ARG:O	1:E:14:VAL:C	2.57	0.43
1:E:134:LEU:N	1:E:134:LEU:CD2	2.80	0.43
1:E:461:GLU:HA	1:E:462:PRO:HD3	1.90	0.43
1:F:220:ILE:HG23	1:F:248:LEU:HD23	1.99	0.43
1:F:412:VAL:HG23	1:F:413:ALA:N	2.32	0.43
1:G:69:MET:O	1:G:73:MET:HG3	2.18	0.43
1:H:29:VAL:C	1:H:31:LEU:N	2.69	0.43
1:H:497:THR:O	1:H:498:LYS:C	2.57	0.43
1:J:27:VAL:C	1:J:29:VAL:H	2.21	0.43
1:L:57:ALA:O	1:L:58:ARG:C	2.57	0.43
1:L:217:SER:N	1:L:218:PRO:HD3	2.32	0.43
1:M:140:ASP:C	1:M:142:LYS:H	2.20	0.43
1:M:233:MET:HB3	1:M:237:LEU:HG	2.01	0.43
1:M:417:VAL:HG21	1:M:488:MET:HG3	2.00	0.43
1:N:95:LEU:O	1:N:98:ALA:HB3	2.18	0.43
1:N:447:MET:HE3	1:N:504:LEU:HD21	2.00	0.43
1:O:34:LYS:CG	1:O:458:CYS:SG	3.04	0.43
1:P:259:LEU:C	1:P:261:THR:H	2.20	0.43
1:P:376:VAL:HG12	1:P:377:ALA:N	2.32	0.43
1:Q:291:ASP:OD2	1:Q:368:ARG:HD2	2.18	0.43
1:Q:440:ILE:O	1:Q:441:LYS:C	2.56	0.43
1:R:220:ILE:HG23	1:R:248:LEU:HB3	1.99	0.43
1:T:242:LYS:C	1:T:244:GLY:N	2.71	0.43
1:T:273:VAL:CG1	1:T:274:ALA:N	2.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:82:ASN:HB2	1:U:89:THR:HG22	1.93	0.43
1:U:451:LEU:C	1:U:453:GLN:N	2.72	0.43
1:V:499:VAL:HG22	1:V:500:THR:N	2.34	0.43
1:X:524:LEU:O	1:X:526:LYS:N	2.37	0.43
1:Y:230:ILE:O	1:Y:230:ILE:HG12	2.18	0.43
1:Y:239:ALA:O	1:Y:314:LEU:HD11	2.18	0.43
1:Z:178:GLU:OE2	1:Z:322:ARG:HD3	2.18	0.43
1:Z:412:VAL:HG23	1:Z:413:ALA:N	2.33	0.43
1:2:24:ALA:O	1:2:26:ALA:N	2.51	0.43
1:2:29:VAL:C	1:2:31:LEU:N	2.70	0.43
1:2:217:SER:N	1:2:218:PRO:HD3	2.33	0.43
1:2:220:ILE:HG23	1:2:248:LEU:HB3	1.99	0.43
1:A:12:ALA:HB1	1:A:520:MET:HG3	2.00	0.43
1:B:12:ALA:O	1:B:520:MET:SD	2.76	0.43
1:B:326:ASN:HB2	1:B:329:THR:HB	2.00	0.43
1:B:412:VAL:CG2	1:B:413:ALA:N	2.80	0.43
1:B:493:ILE:O	1:B:493:ILE:HG22	2.17	0.43
1:C:259:LEU:C	1:C:261:THR:H	2.20	0.43
1:D:291:ASP:OD2	1:D:368:ARG:HD2	2.19	0.43
1:E:88:GLY:O	1:E:91:THR:N	2.51	0.43
1:E:171:LYS:H	1:E:171:LYS:HG2	1.54	0.43
1:E:233:MET:HB3	1:E:237:LEU:HG	2.00	0.43
1:G:406:ALA:HA	1:G:410:GLY:O	2.19	0.43
1:G:451:LEU:C	1:G:453:GLN:N	2.72	0.43
1:H:273:VAL:CG1	1:H:274:ALA:N	2.81	0.43
1:I:421:ARG:NH2	1:I:469:VAL:O	2.51	0.43
1:J:233:MET:HB3	1:J:237:LEU:HG	1.99	0.43
1:K:129:GLU:C	1:K:131:LEU:H	2.22	0.43
1:K:440:ILE:O	1:K:441:LYS:C	2.57	0.43
1:K:470:LYS:C	1:K:472:GLY:H	2.22	0.43
1:K:479:ASN:CG	1:K:493:ILE:HD11	2.38	0.43
1:L:272:LYS:H	1:L:272:LYS:HD2	1.84	0.43
1:M:239:ALA:O	1:M:314:LEU:HD11	2.18	0.43
1:O:140:ASP:C	1:O:142:LYS:H	2.22	0.43
1:O:232:GLU:HA	1:O:310:GLU:OE1	2.18	0.43
1:O:239:ALA:O	1:O:314:LEU:HD21	2.19	0.43
1:O:420:ILE:CD1	1:O:451:LEU:HD22	2.48	0.43
1:Q:140:ASP:C	1:Q:142:LYS:H	2.22	0.43
1:R:12:ALA:O	1:R:520:MET:SD	2.76	0.43
1:R:27:VAL:C	1:R:29:VAL:H	2.22	0.43
1:R:213:VAL:HB	1:R:325:ILE:CG1	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:10:ASN:O	1:S:11:ASP:C	2.56	0.43
1:T:174:VAL:HB	1:T:376:VAL:HG13	1.99	0.43
1:T:295:LEU:C	1:T:295:LEU:HD13	2.39	0.43
1:U:57:ALA:O	1:U:58:ARG:C	2.56	0.43
1:U:349:ILE:HA	1:U:352:GLN:HG3	1.99	0.43
1:V:420:ILE:CD1	1:V:451:LEU:HD22	2.48	0.43
1:W:69:MET:O	1:W:73:MET:HG3	2.18	0.43
1:W:96:ALA:O	1:W:97:GLN:C	2.56	0.43
1:X:82:ASN:HB2	1:X:89:THR:HG22	1.93	0.43
1:Y:16:MET:SD	1:Y:73:MET:HE1	2.58	0.43
1:Y:412:VAL:CG2	1:Y:413:ALA:N	2.80	0.43
1:Z:453:GLN:O	1:Z:456:LEU:N	2.44	0.43
1:1:462:PRO:O	1:1:463:SER:C	2.55	0.43
1:2:440:ILE:O	1:2:441:LYS:C	2.56	0.43
1:B:291:ASP:OD2	1:B:368:ARG:HD2	2.18	0.43
1:B:383:ALA:O	1:B:384:ALA:CB	2.66	0.43
1:D:501:ARG:O	1:D:504:LEU:N	2.51	0.43
1:E:440:ILE:O	1:E:441:LYS:C	2.57	0.43
1:G:70:GLY:HA2	1:G:73:MET:CE	2.48	0.43
1:G:140:ASP:O	1:G:142:LYS:N	2.51	0.43
1:G:449:ALA:O	1:G:450:PRO:C	2.56	0.43
1:G:456:LEU:C	1:G:458:CYS:H	2.21	0.43
1:G:487:ASN:O	1:G:491:MET:HG3	2.19	0.43
1:H:77:VAL:O	1:H:80:LYS:HB2	2.19	0.43
1:J:417:VAL:HG11	1:J:477:GLY:CA	2.46	0.43
1:K:16:MET:SD	1:K:73:MET:HE1	2.58	0.43
1:K:214:GLU:C	1:K:215:LEU:HD23	2.38	0.43
1:L:24:ALA:CB	1:L:97:GLN:HE21	2.31	0.43
1:L:433:ASN:O	1:L:434:ALA:C	2.56	0.43
1:M:87:ASP:CG	1:M:88:GLY:H	2.21	0.43
1:M:242:LYS:C	1:M:244:GLY:N	2.72	0.43
1:N:180:GLY:N	1:N:389:MET:HE2	2.33	0.43
1:O:64:ASP:C	1:O:64:ASP:OD1	2.57	0.43
1:O:417:VAL:HG11	1:O:477:GLY:CA	2.47	0.43
1:Q:23:LEU:CD2	1:Q:75:LYS:HB2	2.48	0.43
1:Q:25:ASP:OD1	1:Q:28:LYS:HE2	2.18	0.43
1:Q:103:GLY:O	1:Q:106:ALA:HB3	2.19	0.43
1:Q:214:GLU:C	1:Q:215:LEU:HD23	2.39	0.43
1:R:264:VAL:O	1:R:267:MET:HB3	2.19	0.43
1:R:487:ASN:O	1:R:491:MET:HG3	2.19	0.43
1:S:369:VAL:HG23	1:S:370:ALA:H	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:447:MET:HE3	1:U:504:LEU:HD21	1.99	0.43
1:W:171:LYS:H	1:W:171:LYS:HG2	1.53	0.43
1:W:278:ALA:HB1	1:W:279:PRO:CD	2.47	0.43
1:X:214:GLU:C	1:X:215:LEU:HD23	2.38	0.43
1:X:383:ALA:HB1	1:Y:281:PHE:CZ	2.54	0.43
1:Z:34:LYS:CG	1:Z:458:CYS:SG	3.03	0.43
1:1:12:ALA:HB1	1:1:520:MET:HG3	2.00	0.43
1:1:232:GLU:HA	1:1:310:GLU:OE1	2.19	0.43
1:1:400:LEU:O	1:1:403:THR:HB	2.19	0.43
1:1:412:VAL:HG23	1:1:413:ALA:N	2.34	0.43
1:1:479:ASN:CG	1:1:493:ILE:HD11	2.39	0.43
1:2:259:LEU:C	1:2:261:THR:H	2.21	0.43
1:A:214:GLU:C	1:A:215:LEU:HD23	2.39	0.43
1:B:158:VAL:O	1:B:159:GLY:C	2.57	0.43
1:F:425:LYS:C	1:F:427:ALA:H	2.21	0.43
1:G:273:VAL:CG1	1:G:274:ALA:N	2.82	0.43
1:G:349:ILE:HA	1:G:352:GLN:HG3	2.01	0.43
1:I:162:ILE:O	1:I:165:ALA:N	2.52	0.43
1:I:412:VAL:CG2	1:I:413:ALA:N	2.79	0.43
1:J:151:SER:HB3	1:J:399:ALA:HA	2.00	0.43
1:K:464:VAL:O	1:K:465:VAL:C	2.56	0.43
1:M:66:PHE:HE1	1:M:522:THR:HG22	1.79	0.43
1:M:349:ILE:HA	1:M:352:GLN:HG3	2.00	0.43
1:N:113:PRO:HB3	1:N:515:ILE:O	2.18	0.43
1:N:349:ILE:HA	1:N:352:GLN:HG3	2.01	0.43
1:O:220:ILE:HG23	1:O:248:LEU:HB3	2.00	0.43
1:O:233:MET:HB3	1:O:237:LEU:HG	2.00	0.43
1:P:273:VAL:CG1	1:P:274:ALA:N	2.81	0.43
1:Q:136:VAL:O	1:Q:137:PRO:O	2.35	0.43
1:Q:232:GLU:HA	1:Q:310:GLU:OE1	2.19	0.43
1:Q:264:VAL:O	1:Q:267:MET:HB3	2.19	0.43
1:R:414:GLY:N	1:R:494:LEU:HA	2.33	0.43
1:R:488:MET:HE3	1:R:493:ILE:HB	1.99	0.43
1:S:278:ALA:HB1	1:S:279:PRO:CD	2.46	0.43
1:S:326:ASN:HB2	1:S:329:THR:HB	2.00	0.43
1:T:129:GLU:O	1:T:132:LYS:N	2.52	0.43
1:T:383:ALA:O	1:T:384:ALA:CB	2.66	0.43
1:T:477:GLY:HA3	1:T:488:MET:SD	2.58	0.43
1:U:183:LEU:O	1:U:184:GLN:HB2	2.18	0.43
1:U:477:GLY:HA3	1:U:488:MET:SD	2.57	0.43
1:V:88:GLY:O	1:V:91:THR:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:324:VAL:HB	1:X:331:THR:HG23	2.01	0.43
1:X:414:GLY:N	1:X:494:LEU:HA	2.31	0.43
1:X:449:ALA:O	1:X:450:PRO:C	2.57	0.43
1:X:464:VAL:O	1:X:465:VAL:C	2.57	0.43
1:Y:183:LEU:O	1:Y:184:GLN:HB2	2.18	0.43
1:Y:242:LYS:C	1:Y:244:GLY:N	2.72	0.43
1:2:213:VAL:HG12	1:2:214:GLU:N	2.33	0.43
1:A:242:LYS:C	1:A:244:GLY:N	2.72	0.43
1:B:462:PRO:O	1:B:463:SER:C	2.57	0.43
1:C:479:ASN:CG	1:C:493:ILE:HD11	2.38	0.43
1:D:242:LYS:C	1:D:244:GLY:N	2.71	0.43
1:E:8:PHE:CE1	1:E:519:CYS:SG	3.09	0.43
1:E:176:THR:HG22	1:E:177:VAL:N	2.34	0.43
1:E:213:VAL:HB	1:E:325:ILE:CG1	2.48	0.43
1:E:464:VAL:O	1:E:465:VAL:C	2.55	0.43
1:F:171:LYS:HB2	1:F:407:VAL:HG11	2.00	0.43
1:G:66:PHE:O	1:G:67:GLU:C	2.56	0.43
1:G:120:ILE:HG13	1:G:439:GLY:O	2.18	0.43
1:G:239:ALA:O	1:G:314:LEU:HD11	2.18	0.43
1:H:57:ALA:O	1:H:58:ARG:C	2.56	0.43
1:H:69:MET:CE	1:N:41:ASP:HB2	2.47	0.43
1:H:179:ASP:HB3	1:H:389:MET:HE1	2.01	0.43
1:H:493:ILE:O	1:H:493:ILE:HG22	2.17	0.43
1:I:10:ASN:O	1:I:13:ARG:N	2.46	0.43
1:I:91:THR:O	1:I:94:VAL:HG13	2.18	0.43
1:J:120:ILE:CG1	1:J:439:GLY:O	2.67	0.43
1:J:179:ASP:HB3	1:J:389:MET:HE1	2.00	0.43
1:K:412:VAL:HG23	1:K:413:ALA:N	2.34	0.43
1:L:404:ARG:CG	1:L:404:ARG:NH1	2.82	0.43
1:N:330:THR:CG2	1:N:331:THR:N	2.74	0.43
1:O:41:ASP:OD1	1:P:69:MET:HG2	2.19	0.43
1:O:127:ALA:HB1	1:O:422:VAL:HG11	2.01	0.43
1:O:455:VAL:HG12	1:O:455:VAL:O	2.18	0.43
1:P:66:PHE:O	1:P:67:GLU:C	2.57	0.43
1:P:171:LYS:H	1:P:171:LYS:HG2	1.52	0.43
1:P:493:ILE:O	1:P:493:ILE:HG22	2.19	0.43
1:Q:497:THR:O	1:Q:498:LYS:C	2.56	0.43
1:R:291:ASP:OD2	1:R:368:ARG:HD2	2.19	0.43
1:S:214:GLU:C	1:S:215:LEU:HD23	2.39	0.43
1:S:464:VAL:O	1:S:465:VAL:C	2.54	0.43
1:T:409:GLU:O	1:T:497:THR:HB	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:91:THR:O	1:W:94:VAL:CG1	2.67	0.43
1:W:230:ILE:O	1:W:230:ILE:HG12	2.18	0.43
1:W:239:ALA:O	1:W:314:LEU:HD21	2.18	0.43
1:W:242:LYS:C	1:W:244:GLY:N	2.71	0.43
1:X:140:ASP:C	1:X:142:LYS:H	2.21	0.43
1:X:176:THR:HG22	1:X:177:VAL:N	2.33	0.43
1:Y:453:GLN:O	1:Y:456:LEU:N	2.40	0.43
1:Z:127:ALA:HB1	1:Z:422:VAL:HG11	2.01	0.43
1:1:66:PHE:CE1	1:1:522:THR:CG2	3.00	0.43
1:2:91:THR:O	1:2:94:VAL:CG1	2.67	0.43
1:2:272:LYS:H	1:2:272:LYS:HD2	1.84	0.43
1:2:419:LEU:HD21	1:2:500:THR:CG2	2.48	0.43
1:2:488:MET:HE3	1:2:493:ILE:HB	1.99	0.43
1:A:451:LEU:C	1:A:453:GLN:N	2.72	0.43
1:B:64:ASP:C	1:B:64:ASP:OD1	2.56	0.43
1:D:239:ALA:O	1:D:314:LEU:HD11	2.18	0.43
1:D:369:VAL:HG23	1:D:370:ALA:H	1.84	0.43
1:E:451:LEU:C	1:E:453:GLN:N	2.72	0.43
1:F:134:LEU:N	1:F:134:LEU:CD2	2.80	0.43
1:F:230:ILE:O	1:F:230:ILE:HG12	2.17	0.43
1:F:232:GLU:HA	1:F:310:GLU:OE1	2.19	0.43
1:F:242:LYS:C	1:F:244:GLY:N	2.72	0.43
1:H:501:ARG:O	1:H:504:LEU:N	2.51	0.43
1:I:239:ALA:O	1:I:314:LEU:HD11	2.18	0.43
1:J:96:ALA:O	1:J:97:GLN:C	2.57	0.43
1:J:486:GLY:CA	1:J:491:MET:HE2	2.49	0.43
1:K:57:ALA:O	1:K:60:ILE:N	2.47	0.43
1:L:230:ILE:O	1:L:230:ILE:HG12	2.18	0.43
1:M:66:PHE:CE1	1:M:522:THR:CG2	3.02	0.43
1:O:134:LEU:N	1:O:134:LEU:CD2	2.82	0.43
1:O:419:LEU:HD21	1:O:500:THR:CG2	2.49	0.43
1:O:499:VAL:HG22	1:O:500:THR:N	2.34	0.43
1:P:29:VAL:C	1:P:31:LEU:N	2.72	0.43
1:P:220:ILE:HG23	1:P:248:LEU:HD23	2.01	0.43
1:Q:464:VAL:O	1:Q:466:ALA:N	2.51	0.43
1:R:127:ALA:HB1	1:R:422:VAL:HG11	2.01	0.43
1:R:369:VAL:HG23	1:R:370:ALA:H	1.84	0.43
1:S:68:ASN:HD21	1:S:72:GLN:HG3	1.84	0.43
1:S:134:LEU:N	1:S:134:LEU:CD2	2.81	0.43
1:S:524:LEU:O	1:S:526:LYS:N	2.40	0.43
1:T:134:LEU:N	1:T:134:LEU:CD2	2.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:150:ILE:HG21	1:T:492:GLY:O	2.19	0.43
1:T:158:VAL:O	1:T:159:GLY:C	2.57	0.43
1:T:272:LYS:H	1:T:272:LYS:HD2	1.83	0.43
1:U:29:VAL:C	1:U:31:LEU:N	2.71	0.43
1:U:259:LEU:C	1:U:261:THR:H	2.22	0.43
1:U:291:ASP:OD2	1:U:368:ARG:HD2	2.18	0.43
1:V:16:MET:O	1:V:20:VAL:HG13	2.18	0.43
1:V:376:VAL:HG12	1:V:377:ALA:N	2.33	0.43
1:V:383:ALA:O	1:V:384:ALA:CB	2.66	0.43
1:W:272:LYS:H	1:W:272:LYS:HD2	1.84	0.43
1:W:412:VAL:CG2	1:W:413:ALA:N	2.78	0.43
1:W:464:VAL:O	1:W:465:VAL:C	2.57	0.43
1:W:501:ARG:O	1:W:504:LEU:N	2.51	0.43
1:X:233:MET:HB3	1:X:237:LEU:HG	2.01	0.43
1:X:479:ASN:CG	1:X:493:ILE:HD11	2.39	0.43
1:X:497:THR:O	1:X:498:LYS:C	2.57	0.43
1:Y:29:VAL:C	1:Y:31:LEU:N	2.70	0.43
1:Y:37:ASN:O	1:Z:517:THR:HG23	2.19	0.43
1:Y:91:THR:O	1:Y:94:VAL:CG1	2.67	0.43
1:Y:214:GLU:C	1:Y:215:LEU:HD23	2.38	0.43
1:Z:82:ASN:HB2	1:Z:89:THR:HG22	1.92	0.43
1:Z:477:GLY:HA3	1:Z:488:MET:SD	2.59	0.43
1:Z:499:VAL:HG22	1:Z:500:THR:N	2.33	0.43
1:1:69:MET:O	1:1:73:MET:HG3	2.19	0.43
1:1:412:VAL:CG2	1:1:413:ALA:N	2.81	0.43
1:1:440:ILE:O	1:1:441:LYS:C	2.57	0.43
1:A:16:MET:O	1:A:20:VAL:HG13	2.19	0.43
1:A:259:LEU:C	1:A:261:THR:H	2.21	0.43
1:A:272:LYS:H	1:A:272:LYS:HD2	1.84	0.43
1:B:77:VAL:O	1:B:80:LYS:HB2	2.19	0.43
1:B:120:ILE:HG13	1:B:439:GLY:O	2.18	0.43
1:B:134:LEU:N	1:B:134:LEU:CD2	2.82	0.43
1:B:240:VAL:O	1:B:240:VAL:CG1	2.67	0.43
1:D:239:ALA:O	1:D:314:LEU:HD21	2.19	0.43
1:E:64:ASP:C	1:E:64:ASP:OD1	2.56	0.43
1:F:176:THR:HG22	1:F:177:VAL:N	2.34	0.43
1:H:440:ILE:O	1:H:441:LYS:C	2.57	0.43
1:I:200:LEU:HD21	1:I:276:VAL:HA	2.00	0.43
1:I:462:PRO:O	1:I:463:SER:C	2.58	0.43
1:J:499:VAL:HG22	1:J:500:THR:N	2.34	0.43
1:K:259:LEU:C	1:K:261:THR:N	2.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:404:ARG:CG	1:K:404:ARG:NH1	2.82	0.43
1:L:273:VAL:CG1	1:L:274:ALA:N	2.82	0.43
1:M:8:PHE:HE1	1:M:519:CYS:SG	2.42	0.43
1:N:291:ASP:OD2	1:N:368:ARG:HD2	2.19	0.43
1:O:447:MET:HE3	1:O:504:LEU:HD21	2.01	0.43
1:S:140:ASP:O	1:S:142:LYS:N	2.52	0.43
1:S:451:LEU:C	1:S:453:GLN:N	2.72	0.43
1:U:412:VAL:HG23	1:U:413:ALA:N	2.34	0.43
1:V:13:ARG:HA	1:V:16:MET:HE2	1.99	0.43
1:V:95:LEU:O	1:V:98:ALA:HB3	2.18	0.43
1:V:417:VAL:HG11	1:V:477:GLY:CA	2.49	0.43
1:W:406:ALA:HA	1:W:410:GLY:O	2.19	0.43
1:X:240:VAL:O	1:X:240:VAL:CG1	2.65	0.43
1:Y:240:VAL:O	1:Y:240:VAL:CG1	2.67	0.43
1:Y:369:VAL:HG23	1:Y:370:ALA:H	1.83	0.43
1:Z:85:ALA:HB1	1:Z:499:VAL:CG1	2.41	0.43
1:1:36:ARG:O	1:1:51:LYS:HG2	2.18	0.43
1:1:264:VAL:O	1:1:267:MET:HB3	2.19	0.43
1:A:24:ALA:O	1:A:26:ALA:N	2.51	0.43
1:A:376:VAL:HG12	1:A:377:ALA:N	2.33	0.43
1:B:449:ALA:O	1:B:450:PRO:C	2.57	0.43
1:C:171:LYS:HB2	1:C:407:VAL:HG11	2.00	0.43
1:C:174:VAL:HB	1:C:376:VAL:HG13	2.01	0.43
1:E:273:VAL:CG1	1:E:274:ALA:N	2.82	0.43
1:F:217:SER:N	1:F:218:PRO:HD3	2.33	0.43
1:F:259:LEU:C	1:F:261:THR:H	2.21	0.43
1:F:295:LEU:HD13	1:F:295:LEU:C	2.40	0.43
1:H:242:LYS:C	1:H:244:GLY:N	2.72	0.43
1:J:10:ASN:O	1:J:13:ARG:N	2.49	0.43
1:J:272:LYS:NZ	1:K:228:SER:HB2	2.34	0.43
1:K:230:ILE:O	1:K:230:ILE:HG12	2.18	0.43
1:M:69:MET:O	1:M:73:MET:HG3	2.19	0.43
1:M:291:ASP:OD2	1:M:368:ARG:HD2	2.19	0.43
1:N:230:ILE:O	1:N:230:ILE:HG12	2.18	0.43
1:N:369:VAL:HG23	1:N:370:ALA:H	1.83	0.43
1:N:425:LYS:C	1:N:427:ALA:H	2.22	0.43
1:O:273:VAL:CG1	1:O:274:ALA:N	2.81	0.43
1:P:66:PHE:O	1:P:69:MET:N	2.51	0.43
1:P:151:SER:HB3	1:P:399:ALA:HA	2.00	0.43
1:Q:66:PHE:O	1:Q:67:GLU:C	2.57	0.43
1:Q:487:ASN:O	1:Q:491:MET:HG3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:29:VAL:C	1:R:31:LEU:N	2.71	0.43
1:R:462:PRO:O	1:R:463:SER:C	2.57	0.43
1:S:239:ALA:O	1:S:314:LEU:HD21	2.19	0.43
1:S:272:LYS:HD2	1:S:272:LYS:H	1.84	0.43
1:T:112:ASN:HA	1:T:113:PRO:HD3	1.87	0.43
1:T:220:ILE:HG23	1:T:248:LEU:HD23	1.99	0.43
1:T:259:LEU:C	1:T:261:THR:H	2.21	0.43
1:U:278:ALA:HB1	1:U:279:PRO:CD	2.45	0.43
1:U:417:VAL:HG11	1:U:477:GLY:CA	2.48	0.43
1:V:461:GLU:HA	1:V:462:PRO:HD3	1.88	0.43
1:W:29:VAL:C	1:W:31:LEU:N	2.71	0.43
1:X:13:ARG:HA	1:X:16:MET:HE2	2.01	0.43
1:X:326:ASN:HB2	1:X:329:THR:HB	2.01	0.43
1:Z:57:ALA:O	1:Z:59:GLU:N	2.52	0.43
1:Z:233:MET:HB3	1:Z:237:LEU:HG	2.00	0.43
1:Z:242:LYS:C	1:Z:244:GLY:N	2.72	0.43
1:Z:291:ASP:OD2	1:Z:368:ARG:HD2	2.19	0.43
1:Z:420:ILE:CD1	1:Z:451:LEU:HD22	2.48	0.43
1:2:158:VAL:O	1:2:159:GLY:C	2.56	0.43
1:2:232:GLU:HA	1:2:310:GLU:OE1	2.18	0.43
1:A:183:LEU:O	1:A:184:GLN:HB2	2.19	0.42
1:A:456:LEU:C	1:A:458:CYS:H	2.22	0.42
1:B:140:ASP:O	1:B:142:LYS:N	2.51	0.42
1:B:421:ARG:NH2	1:B:469:VAL:O	2.49	0.42
1:E:40:LEU:HD13	1:E:59:GLU:HG3	2.00	0.42
1:E:239:ALA:O	1:E:314:LEU:HD21	2.18	0.42
1:F:179:ASP:HB3	1:F:389:MET:HE1	2.01	0.42
1:F:383:ALA:O	1:F:384:ALA:CB	2.66	0.42
1:H:291:ASP:OD2	1:H:368:ARG:HD2	2.19	0.42
1:I:16:MET:SD	1:I:73:MET:HE1	2.58	0.42
1:I:27:VAL:C	1:I:29:VAL:H	2.22	0.42
1:I:486:GLY:CA	1:I:491:MET:HE2	2.49	0.42
1:J:239:ALA:O	1:J:314:LEU:HD21	2.18	0.42
1:J:462:PRO:O	1:J:463:SER:C	2.58	0.42
1:K:349:ILE:HA	1:K:352:GLN:HG3	2.00	0.42
1:L:10:ASN:O	1:L:11:ASP:C	2.57	0.42
1:P:176:THR:HG22	1:P:177:VAL:N	2.34	0.42
1:Q:57:ALA:O	1:Q:58:ARG:C	2.58	0.42
1:R:40:LEU:HD13	1:R:59:GLU:HG3	2.00	0.42
1:T:230:ILE:O	1:T:230:ILE:HG12	2.18	0.42
1:U:240:VAL:O	1:U:240:VAL:CG1	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:412:VAL:CG2	1:U:413:ALA:N	2.80	0.42
1:U:479:ASN:CG	1:U:493:ILE:HD11	2.40	0.42
1:V:25:ASP:OD1	1:V:28:LYS:HE2	2.19	0.42
1:V:479:ASN:CG	1:V:493:ILE:HD11	2.40	0.42
1:X:183:LEU:O	1:X:184:GLN:HB2	2.18	0.42
1:Z:12:ALA:HB1	1:Z:520:MET:HG3	2.00	0.42
1:Z:462:PRO:O	1:Z:463:SER:C	2.57	0.42
1:1:127:ALA:HB1	1:1:422:VAL:HG11	2.01	0.42
1:1:291:ASP:OD2	1:1:368:ARG:HD2	2.19	0.42
1:1:437:ASN:O	1:1:440:ILE:HB	2.19	0.42
1:1:487:ASN:O	1:1:491:MET:HG3	2.19	0.42
1:2:12:ALA:HB1	1:2:520:MET:HG3	2.00	0.42
1:B:151:SER:HB3	1:B:399:ALA:HA	2.00	0.42
1:B:376:VAL:HG12	1:B:377:ALA:N	2.34	0.42
1:C:140:ASP:O	1:C:142:LYS:N	2.52	0.42
1:C:259:LEU:C	1:C:261:THR:N	2.73	0.42
1:D:10:ASN:O	1:D:11:ASP:C	2.58	0.42
1:F:85:ALA:HB1	1:F:499:VAL:CG1	2.41	0.42
1:F:369:VAL:HG23	1:F:370:ALA:H	1.83	0.42
1:F:479:ASN:CG	1:F:493:ILE:HD11	2.40	0.42
1:G:70:GLY:HA2	1:G:73:MET:HE3	1.99	0.42
1:G:369:VAL:HG23	1:G:370:ALA:H	1.84	0.42
1:G:420:ILE:CD1	1:G:451:LEU:HD22	2.47	0.42
1:H:91:THR:O	1:H:94:VAL:CG1	2.67	0.42
1:I:41:ASP:OD1	1:J:69:MET:HG2	2.19	0.42
1:I:240:VAL:O	1:I:240:VAL:CG1	2.67	0.42
1:I:477:GLY:HA3	1:I:488:MET:SD	2.59	0.42
1:J:242:LYS:C	1:J:244:GLY:N	2.72	0.42
1:J:376:VAL:HG12	1:J:377:ALA:N	2.34	0.42
1:J:412:VAL:CG2	1:J:413:ALA:N	2.82	0.42
1:K:383:ALA:O	1:K:384:ALA:CB	2.67	0.42
1:L:12:ALA:O	1:L:520:MET:SD	2.77	0.42
1:M:17:LEU:O	1:M:20:VAL:N	2.53	0.42
1:M:24:ALA:O	1:M:26:ALA:N	2.52	0.42
1:M:273:VAL:CG1	1:M:274:ALA:N	2.82	0.42
1:N:69:MET:O	1:N:73:MET:HG3	2.19	0.42
1:N:134:LEU:O	1:N:135:SER:C	2.56	0.42
1:N:479:ASN:CG	1:N:493:ILE:HD11	2.40	0.42
1:O:216:GLU:C	1:O:218:PRO:HD3	2.39	0.42
1:P:232:GLU:HA	1:P:310:GLU:OE1	2.19	0.42
1:P:264:VAL:O	1:P:267:MET:HB3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:326:ASN:HB2	1:P:329:THR:HB	2.00	0.42
1:Q:40:LEU:HD13	1:Q:59:GLU:HG3	2.00	0.42
1:Q:129:GLU:C	1:Q:131:LEU:H	2.23	0.42
1:Q:499:VAL:HG22	1:Q:500:THR:N	2.34	0.42
1:R:479:ASN:CG	1:R:493:ILE:HD11	2.39	0.42
1:S:232:GLU:HA	1:S:310:GLU:OE1	2.19	0.42
1:S:264:VAL:O	1:S:267:MET:HB3	2.19	0.42
1:U:36:ARG:HH11	1:U:36:ARG:HG3	1.84	0.42
1:V:66:PHE:O	1:V:69:MET:N	2.52	0.42
1:V:140:ASP:C	1:V:142:LYS:H	2.22	0.42
1:W:369:VAL:HG23	1:W:370:ALA:H	1.84	0.42
1:W:493:ILE:O	1:W:493:ILE:HG22	2.19	0.42
1:X:162:ILE:O	1:X:165:ALA:N	2.52	0.42
1:Y:73:MET:O	1:Y:76:GLU:N	2.52	0.42
1:Y:462:PRO:O	1:Y:463:SER:C	2.56	0.42
1:Z:230:ILE:HG12	1:Z:230:ILE:O	2.18	0.42
1:Z:479:ASN:CG	1:Z:493:ILE:HD11	2.39	0.42
1:1:259:LEU:C	1:1:261:THR:H	2.22	0.42
1:2:134:LEU:N	1:2:134:LEU:CD2	2.81	0.42
1:2:176:THR:HG22	1:2:177:VAL:N	2.34	0.42
1:2:417:VAL:HG11	1:2:477:GLY:CA	2.48	0.42
1:A:40:LEU:HD13	1:A:59:GLU:HG3	2.00	0.42
1:A:369:VAL:HG23	1:A:370:ALA:H	1.83	0.42
1:B:24:ALA:CB	1:B:97:GLN:HE21	2.33	0.42
1:B:171:LYS:HB2	1:B:407:VAL:HG11	2.00	0.42
1:B:233:MET:HB3	1:B:237:LEU:HG	2.01	0.42
1:B:369:VAL:HG23	1:B:370:ALA:H	1.84	0.42
1:B:412:VAL:HG23	1:B:413:ALA:N	2.34	0.42
1:C:158:VAL:O	1:C:159:GLY:C	2.56	0.42
1:C:233:MET:HB3	1:C:237:LEU:HG	2.01	0.42
1:C:239:ALA:O	1:C:314:LEU:HD21	2.19	0.42
1:C:349:ILE:HA	1:C:352:GLN:HG3	2.00	0.42
1:E:66:PHE:HE1	1:E:522:THR:HG22	1.82	0.42
1:F:259:LEU:C	1:F:261:THR:N	2.73	0.42
1:H:34:LYS:CG	1:H:458:CYS:SG	3.06	0.42
1:H:140:ASP:O	1:H:142:LYS:N	2.52	0.42
1:J:349:ILE:HA	1:J:352:GLN:HG3	1.99	0.42
1:J:421:ARG:NH2	1:J:469:VAL:O	2.51	0.42
1:L:479:ASN:CG	1:L:493:ILE:HD11	2.39	0.42
1:M:171:LYS:H	1:M:171:LYS:HG2	1.54	0.42
1:M:477:GLY:HA3	1:M:488:MET:SD	2.60	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:272:LYS:H	1:O:272:LYS:HD2	1.82	0.42
1:P:259:LEU:C	1:P:261:THR:N	2.72	0.42
1:Q:216:GLU:C	1:Q:218:PRO:HD3	2.40	0.42
1:Q:230:ILE:O	1:Q:230:ILE:HG12	2.19	0.42
1:Q:417:VAL:HG11	1:Q:477:GLY:CA	2.48	0.42
1:R:479:ASN:OD1	1:R:493:ILE:HD11	2.19	0.42
1:T:180:GLY:H	1:T:389:MET:HE2	1.84	0.42
1:T:239:ALA:O	1:T:314:LEU:HD11	2.19	0.42
1:T:239:ALA:O	1:T:314:LEU:HD21	2.19	0.42
1:V:171:LYS:H	1:V:171:LYS:HG2	1.54	0.42
1:W:64:ASP:C	1:W:64:ASP:OD1	2.57	0.42
1:W:376:VAL:HG12	1:W:377:ALA:N	2.34	0.42
1:X:57:ALA:O	1:X:58:ARG:C	2.57	0.42
1:X:406:ALA:HA	1:X:410:GLY:O	2.19	0.42
1:X:421:ARG:NH2	1:X:469:VAL:O	2.51	0.42
1:Y:27:VAL:O	1:Y:29:VAL:N	2.52	0.42
1:Y:487:ASN:OD1	1:Y:489:ILE:N	2.51	0.42
1:2:233:MET:HB3	1:2:237:LEU:HG	2.01	0.42
1:2:449:ALA:HB3	1:2:450:PRO:CD	2.46	0.42
1:A:27:VAL:CG1	1:A:90:THR:HG23	2.46	0.42
1:A:91:THR:O	1:A:94:VAL:HG13	2.18	0.42
1:A:127:ALA:HB1	1:A:422:VAL:HG11	2.00	0.42
1:A:216:GLU:C	1:A:218:PRO:HD3	2.40	0.42
1:B:10:ASN:O	1:B:11:ASP:C	2.57	0.42
1:B:140:ASP:C	1:B:142:LYS:H	2.23	0.42
1:B:272:LYS:NZ	1:C:228:SER:HB2	2.35	0.42
1:B:273:VAL:CG1	1:B:274:ALA:N	2.82	0.42
1:C:16:MET:O	1:C:20:VAL:HG13	2.19	0.42
1:C:134:LEU:N	1:C:134:LEU:CD2	2.83	0.42
1:C:242:LYS:C	1:C:244:GLY:N	2.72	0.42
1:C:413:ALA:O	1:C:418:ALA:HB2	2.19	0.42
1:D:66:PHE:CE1	1:D:522:THR:CG2	3.00	0.42
1:D:273:VAL:CG1	1:D:274:ALA:N	2.82	0.42
1:E:11:ASP:OD1	1:E:11:ASP:N	2.50	0.42
1:E:91:THR:O	1:E:94:VAL:HG13	2.20	0.42
1:F:77:VAL:O	1:F:80:LYS:HB2	2.19	0.42
1:G:64:ASP:C	1:G:64:ASP:OD1	2.57	0.42
1:G:230:ILE:O	1:G:230:ILE:HG12	2.19	0.42
1:G:259:LEU:C	1:G:261:THR:H	2.23	0.42
1:H:134:LEU:O	1:H:135:SER:C	2.58	0.42
1:H:216:GLU:C	1:H:218:PRO:HD3	2.40	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:369:VAL:HG23	1:H:370:ALA:H	1.84	0.42
1:J:140:ASP:C	1:J:142:LYS:H	2.23	0.42
1:J:183:LEU:O	1:J:184:GLN:HB2	2.19	0.42
1:J:295:LEU:C	1:J:295:LEU:HD13	2.40	0.42
1:K:216:GLU:C	1:K:218:PRO:HD3	2.40	0.42
1:L:41:ASP:OD1	1:M:69:MET:HG2	2.18	0.42
1:L:91:THR:O	1:L:94:VAL:CG1	2.67	0.42
1:M:91:THR:O	1:M:94:VAL:HG13	2.19	0.42
1:M:151:SER:CB	1:M:399:ALA:HA	2.49	0.42
1:M:214:GLU:C	1:M:215:LEU:HD23	2.39	0.42
1:N:134:LEU:N	1:N:134:LEU:CD2	2.82	0.42
1:N:232:GLU:HA	1:N:310:GLU:OE1	2.19	0.42
1:N:242:LYS:C	1:N:244:GLY:N	2.73	0.42
1:O:57:ALA:O	1:O:60:ILE:N	2.46	0.42
1:O:412:VAL:CG2	1:O:413:ALA:N	2.82	0.42
1:P:111:MET:HG2	1:P:435:ASP:OD1	2.19	0.42
1:R:36:ARG:O	1:R:51:LYS:HG2	2.20	0.42
1:R:383:ALA:O	1:R:384:ALA:CB	2.67	0.42
1:S:259:LEU:C	1:S:261:THR:H	2.22	0.42
1:T:433:ASN:O	1:T:434:ALA:C	2.58	0.42
1:U:409:GLU:O	1:U:497:THR:HB	2.19	0.42
1:U:464:VAL:O	1:U:465:VAL:C	2.58	0.42
1:V:273:VAL:CG1	1:V:274:ALA:N	2.82	0.42
1:W:205:ILE:H	1:W:205:ILE:HG13	1.64	0.42
1:Z:140:ASP:C	1:Z:142:LYS:H	2.22	0.42
1:Z:176:THR:HG22	1:Z:177:VAL:N	2.34	0.42
1:1:383:ALA:HB1	1:2:281:PHE:CZ	2.55	0.42
1:2:239:ALA:O	1:2:314:LEU:HD21	2.20	0.42
1:2:412:VAL:CG2	1:2:413:ALA:N	2.81	0.42
1:A:77:VAL:O	1:A:80:LYS:HB2	2.19	0.42
1:A:239:ALA:O	1:A:314:LEU:HD21	2.19	0.42
1:B:66:PHE:O	1:B:69:MET:HB2	2.19	0.42
1:B:259:LEU:C	1:B:261:THR:H	2.22	0.42
1:D:200:LEU:HD21	1:D:276:VAL:HA	2.01	0.42
1:E:140:ASP:C	1:E:142:LYS:H	2.23	0.42
1:E:259:LEU:C	1:E:261:THR:H	2.22	0.42
1:E:420:ILE:CD1	1:E:451:LEU:HD22	2.49	0.42
1:G:264:VAL:O	1:G:267:MET:HB3	2.19	0.42
1:G:291:ASP:OD2	1:G:368:ARG:HD2	2.19	0.42
1:G:376:VAL:HG12	1:G:377:ALA:N	2.35	0.42
1:G:462:PRO:O	1:G:463:SER:C	2.58	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:326:ASN:HB2	1:H:329:THR:HB	2.02	0.42
1:J:134:LEU:O	1:J:135:SER:C	2.57	0.42
1:J:414:GLY:N	1:J:494:LEU:HA	2.33	0.42
1:K:129:GLU:O	1:K:131:LEU:N	2.52	0.42
1:M:264:VAL:O	1:M:267:MET:HB3	2.19	0.42
1:M:404:ARG:CG	1:M:404:ARG:NH1	2.82	0.42
1:M:412:VAL:CG2	1:M:413:ALA:N	2.82	0.42
1:O:183:LEU:O	1:O:184:GLN:HB2	2.19	0.42
1:O:349:ILE:HA	1:O:352:GLN:HG3	2.00	0.42
1:O:399:ALA:O	1:O:400:LEU:C	2.58	0.42
1:P:10:ASN:O	1:P:13:ARG:N	2.47	0.42
1:P:175:ILE:HA	1:P:377:ALA:HB3	2.02	0.42
1:Q:68:ASN:HD21	1:Q:72:GLN:HG3	1.85	0.42
1:R:73:MET:O	1:R:76:GLU:N	2.53	0.42
1:R:91:THR:O	1:R:94:VAL:HG13	2.19	0.42
1:R:499:VAL:HG22	1:R:500:THR:N	2.33	0.42
1:U:242:LYS:C	1:U:244:GLY:N	2.71	0.42
1:V:70:GLY:O	1:V:72:GLN:N	2.52	0.42
1:W:183:LEU:O	1:W:184:GLN:HB2	2.18	0.42
1:W:423:ALA:HB2	1:W:447:MET:SD	2.60	0.42
1:W:425:LYS:C	1:W:427:ALA:H	2.23	0.42
1:X:259:LEU:C	1:X:261:THR:N	2.72	0.42
1:X:291:ASP:OD2	1:X:368:ARG:HD2	2.19	0.42
1:Z:103:GLY:O	1:Z:106:ALA:HB3	2.19	0.42
1:Z:205:ILE:H	1:Z:205:ILE:HG13	1.65	0.42
1:1:64:ASP:C	1:1:64:ASP:OD1	2.56	0.42
1:1:451:LEU:C	1:1:453:GLN:N	2.73	0.42
1:1:505:GLN:O	1:1:508:ALA:HB3	2.20	0.42
1:2:140:ASP:C	1:2:142:LYS:H	2.22	0.42
1:A:69:MET:HG2	1:G:41:ASP:OD1	2.20	0.42
1:A:414:GLY:N	1:A:494:LEU:HA	2.32	0.42
1:A:433:ASN:O	1:A:434:ALA:C	2.58	0.42
1:B:175:ILE:HA	1:B:377:ALA:HB3	2.02	0.42
1:B:400:LEU:O	1:B:403:THR:HB	2.19	0.42
1:C:220:ILE:HG23	1:C:248:LEU:HB3	2.01	0.42
1:D:8:PHE:HE1	1:D:519:CYS:HG	1.60	0.42
1:D:77:VAL:O	1:D:80:LYS:HB2	2.20	0.42
1:E:73:MET:O	1:E:76:GLU:N	2.53	0.42
1:E:499:VAL:HG22	1:E:500:THR:N	2.34	0.42
1:F:158:VAL:O	1:F:159:GLY:C	2.57	0.42
1:F:479:ASN:OD1	1:F:493:ILE:HD11	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:440:ILE:O	1:G:443:ALA:N	2.52	0.42
1:I:176:THR:HG21	1:I:333:ILE:CD1	2.50	0.42
1:I:420:ILE:CD1	1:I:451:LEU:HD22	2.49	0.42
1:I:470:LYS:C	1:I:472:GLY:H	2.23	0.42
1:J:12:ALA:HB1	1:J:520:MET:HG3	2.01	0.42
1:L:369:VAL:HG23	1:L:370:ALA:H	1.85	0.42
1:L:425:LYS:C	1:L:427:ALA:H	2.21	0.42
1:M:456:LEU:C	1:M:458:CYS:H	2.23	0.42
1:O:37:ASN:O	1:P:517:THR:HG23	2.20	0.42
1:R:129:GLU:O	1:R:132:LYS:N	2.52	0.42
1:S:412:VAL:CG2	1:S:413:ALA:N	2.83	0.42
1:T:216:GLU:C	1:T:218:PRO:HD3	2.40	0.42
1:U:232:GLU:HA	1:U:310:GLU:OE1	2.19	0.42
1:U:499:VAL:HG22	1:U:500:THR:N	2.35	0.42
1:V:24:ALA:CB	1:V:97:GLN:HE21	2.32	0.42
1:V:200:LEU:HD21	1:V:276:VAL:HA	2.01	0.42
1:W:57:ALA:O	1:W:59:GLU:N	2.53	0.42
1:W:176:THR:HG22	1:W:177:VAL:N	2.34	0.42
1:X:69:MET:O	1:X:73:MET:HG3	2.19	0.42
1:X:136:VAL:O	1:X:137:PRO:O	2.37	0.42
1:X:232:GLU:HA	1:X:310:GLU:OE1	2.19	0.42
1:Y:155:ASP:OD1	1:Y:157:THR:HB	2.20	0.42
1:Z:130:GLU:HB3	1:Z:422:VAL:HG13	2.00	0.42
1:Z:272:LYS:H	1:Z:272:LYS:HD2	1.84	0.42
1:Z:510:VAL:O	1:Z:511:ALA:C	2.57	0.42
1:1:213:VAL:HG12	1:1:214:GLU:N	2.34	0.42
1:1:216:GLU:C	1:1:218:PRO:HD3	2.40	0.42
1:C:464:VAL:O	1:C:466:ALA:N	2.52	0.42
1:C:524:LEU:O	1:C:526:LYS:N	2.39	0.42
1:D:324:VAL:HB	1:D:331:THR:CG2	2.50	0.42
1:D:464:VAL:O	1:D:465:VAL:C	2.57	0.42
1:E:158:VAL:O	1:E:159:GLY:C	2.56	0.42
1:E:295:LEU:C	1:E:295:LEU:HD13	2.40	0.42
1:F:497:THR:O	1:F:498:LYS:C	2.56	0.42
1:G:16:MET:SD	1:G:73:MET:HE1	2.59	0.42
1:G:134:LEU:O	1:G:135:SER:C	2.58	0.42
1:H:232:GLU:HA	1:H:310:GLU:OE1	2.20	0.42
1:J:158:VAL:O	1:J:159:GLY:C	2.58	0.42
1:J:230:ILE:O	1:J:230:ILE:HG12	2.19	0.42
1:K:12:ALA:O	1:K:520:MET:SD	2.77	0.42
1:K:384:ALA:C	1:K:385:THR:HG23	2.40	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:34:LYS:CG	1:L:458:CYS:SG	3.07	0.42
1:L:264:VAL:O	1:L:267:MET:HB3	2.20	0.42
1:M:421:ARG:O	1:M:424:SER:OG	2.32	0.42
1:M:524:LEU:O	1:M:526:LYS:N	2.40	0.42
1:N:264:VAL:O	1:N:267:MET:HB3	2.19	0.42
1:O:25:ASP:OD1	1:O:28:LYS:HE2	2.20	0.42
1:O:176:THR:HG22	1:O:177:VAL:N	2.34	0.42
1:P:127:ALA:HB1	1:P:422:VAL:HG11	2.02	0.42
1:Q:205:ILE:H	1:Q:205:ILE:HG13	1.63	0.42
1:Q:420:ILE:CD1	1:Q:451:LEU:HD22	2.50	0.42
1:Q:479:ASN:OD1	1:Q:493:ILE:HD11	2.19	0.42
1:R:461:GLU:HA	1:R:462:PRO:HD3	1.92	0.42
1:S:183:LEU:O	1:S:184:GLN:HB2	2.20	0.42
1:T:113:PRO:HB3	1:T:515:ILE:O	2.20	0.42
1:T:200:LEU:HD21	1:T:276:VAL:HA	2.02	0.42
1:T:412:VAL:HG12	1:T:497:THR:OG1	2.20	0.42
1:U:176:THR:HG22	1:U:177:VAL:N	2.35	0.42
1:U:239:ALA:O	1:U:314:LEU:HD21	2.20	0.42
1:U:453:GLN:O	1:U:456:LEU:N	2.39	0.42
1:V:202:PRO:HB3	1:V:205:ILE:HD11	2.01	0.42
1:W:158:VAL:O	1:W:159:GLY:C	2.57	0.42
1:1:34:LYS:CG	1:1:458:CYS:SG	3.08	0.42
1:1:113:PRO:HB3	1:1:515:ILE:O	2.20	0.42
1:1:176:THR:HG21	1:1:333:ILE:HD11	2.01	0.42
1:1:213:VAL:HB	1:1:325:ILE:CG1	2.50	0.42
1:1:220:ILE:HG23	1:1:248:LEU:HD23	2.02	0.42
1:1:488:MET:HE3	1:1:493:ILE:HB	2.01	0.42
1:B:220:ILE:HG23	1:B:248:LEU:HB3	2.01	0.42
1:B:488:MET:HE3	1:B:493:ILE:HB	2.02	0.42
1:C:497:THR:O	1:C:498:LYS:C	2.58	0.42
1:D:183:LEU:O	1:D:184:GLN:HB2	2.20	0.42
1:D:259:LEU:C	1:D:261:THR:H	2.21	0.42
1:E:232:GLU:HA	1:E:310:GLU:OE1	2.20	0.42
1:E:259:LEU:C	1:E:261:THR:N	2.73	0.42
1:F:140:ASP:C	1:F:142:LYS:H	2.22	0.42
1:G:112:ASN:HA	1:G:113:PRO:HD3	1.86	0.42
1:G:140:ASP:C	1:G:142:LYS:H	2.23	0.42
1:G:242:LYS:C	1:G:244:GLY:N	2.71	0.42
1:H:158:VAL:O	1:H:159:GLY:C	2.58	0.42
1:H:176:THR:HG22	1:H:177:VAL:N	2.35	0.42
1:I:12:ALA:O	1:I:520:MET:SD	2.78	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:374:GLY:O	1:I:375:GLY:O	2.37	0.42
1:K:176:THR:HG22	1:K:177:VAL:N	2.35	0.42
1:K:239:ALA:O	1:K:314:LEU:HD11	2.20	0.42
1:L:57:ALA:O	1:L:59:GLU:N	2.53	0.42
1:L:487:ASN:O	1:L:491:MET:HG3	2.19	0.42
1:N:171:LYS:H	1:N:171:LYS:HG2	1.54	0.42
1:N:487:ASN:OD1	1:N:489:ILE:N	2.52	0.42
1:O:66:PHE:CE1	1:O:522:THR:CG2	3.01	0.42
1:P:37:ASN:O	1:Q:517:THR:HG23	2.20	0.42
1:P:66:PHE:CE1	1:P:522:THR:CG2	3.01	0.42
1:P:242:LYS:C	1:P:244:GLY:N	2.73	0.42
1:P:440:ILE:O	1:P:443:ALA:N	2.53	0.42
1:R:171:LYS:H	1:R:171:LYS:HG2	1.54	0.42
1:R:259:LEU:C	1:R:261:THR:N	2.73	0.42
1:R:487:ASN:OD1	1:R:489:ILE:N	2.52	0.42
1:R:501:ARG:O	1:R:504:LEU:N	2.51	0.42
1:T:29:VAL:C	1:T:31:LEU:N	2.71	0.42
1:T:127:ALA:HB1	1:T:422:VAL:HG11	2.01	0.42
1:U:404:ARG:CG	1:U:404:ARG:NH1	2.82	0.42
1:V:216:GLU:C	1:V:218:PRO:HD3	2.40	0.42
1:V:291:ASP:OD2	1:V:368:ARG:HD2	2.19	0.42
1:W:216:GLU:C	1:W:218:PRO:HD3	2.40	0.42
1:X:27:VAL:C	1:X:29:VAL:H	2.23	0.42
1:X:66:PHE:CE1	1:X:522:THR:CG2	2.99	0.42
1:X:423:ALA:HB2	1:X:447:MET:SD	2.60	0.42
1:X:456:LEU:C	1:X:458:CYS:H	2.23	0.42
1:Y:259:LEU:C	1:Y:261:THR:N	2.73	0.42
1:Z:113:PRO:HB3	1:Z:515:ILE:O	2.19	0.42
1:1:351:GLN:HA	1:1:354:GLU:HG2	2.02	0.42
1:2:10:ASN:O	1:2:11:ASP:C	2.58	0.42
1:2:127:ALA:HB1	1:2:422:VAL:HG11	2.02	0.42
1:2:479:ASN:OD1	1:2:493:ILE:HD11	2.20	0.42
1:2:501:ARG:O	1:2:504:LEU:N	2.53	0.42
1:A:176:THR:HG22	1:A:177:VAL:N	2.35	0.42
1:A:499:VAL:HG22	1:A:500:THR:N	2.34	0.42
1:B:112:ASN:HA	1:B:113:PRO:HD3	1.90	0.42
1:C:13:ARG:HA	1:C:16:MET:HE2	2.01	0.42
1:C:41:ASP:HB2	1:D:69:MET:SD	2.59	0.42
1:C:87:ASP:CG	1:C:88:GLY:N	2.73	0.42
1:C:216:GLU:C	1:C:218:PRO:HD3	2.40	0.42
1:C:241:ALA:CB	1:D:231:ARG:HH12	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:151:SER:CB	1:D:399:ALA:HA	2.50	0.42
1:F:24:ALA:CB	1:F:97:GLN:HE21	2.32	0.42
1:G:129:GLU:O	1:G:131:LEU:N	2.53	0.42
1:G:239:ALA:O	1:G:314:LEU:HD21	2.20	0.42
1:H:25:ASP:OD1	1:H:28:LYS:HE2	2.20	0.42
1:I:29:VAL:C	1:I:31:LEU:N	2.72	0.42
1:I:70:GLY:O	1:I:72:GLN:N	2.53	0.42
1:J:112:ASN:HA	1:J:113:PRO:HD3	1.88	0.42
1:J:140:ASP:O	1:J:142:LYS:N	2.53	0.42
1:K:232:GLU:HA	1:K:310:GLU:OE1	2.20	0.42
1:K:493:ILE:O	1:K:493:ILE:HG22	2.19	0.42
1:L:213:VAL:HG12	1:L:214:GLU:N	2.34	0.42
1:L:425:LYS:O	1:L:427:ALA:N	2.51	0.42
1:L:487:ASN:OD1	1:L:489:ILE:N	2.51	0.42
1:M:470:LYS:C	1:M:472:GLY:H	2.23	0.42
1:O:13:ARG:HA	1:O:16:MET:HE2	2.02	0.42
1:O:40:LEU:HD13	1:O:59:GLU:HG3	2.02	0.42
1:O:91:THR:O	1:O:94:VAL:CG1	2.67	0.42
1:P:11:ASP:OD1	1:P:11:ASP:N	2.52	0.42
1:Q:24:ALA:O	1:Q:26:ALA:N	2.52	0.42
1:Q:69:MET:O	1:Q:73:MET:HG3	2.19	0.42
1:S:273:VAL:CG1	1:S:274:ALA:N	2.83	0.42
1:S:479:ASN:OD1	1:S:493:ILE:HD11	2.20	0.42
1:S:493:ILE:O	1:S:493:ILE:HG22	2.20	0.42
1:T:440:ILE:O	1:T:441:LYS:C	2.58	0.42
1:T:488:MET:CE	1:T:493:ILE:CG2	2.97	0.42
1:V:230:ILE:O	1:V:230:ILE:HG12	2.19	0.42
1:V:524:LEU:O	1:V:526:LYS:N	2.40	0.42
1:W:127:ALA:HB1	1:W:422:VAL:HG11	2.02	0.42
1:W:324:VAL:HB	1:W:331:THR:CG2	2.50	0.42
1:W:326:ASN:HB2	1:W:329:THR:HB	2.02	0.42
1:X:461:GLU:HA	1:X:462:PRO:HD3	1.89	0.42
1:Y:205:ILE:H	1:Y:205:ILE:HG13	1.64	0.42
1:Z:464:VAL:O	1:Z:466:ALA:N	2.52	0.42
1:2:134:LEU:O	1:2:135:SER:C	2.58	0.42
1:2:349:ILE:HA	1:2:352:GLN:HG3	2.01	0.42
1:2:412:VAL:HG23	1:2:413:ALA:N	2.35	0.42
1:A:273:VAL:CG1	1:A:274:ALA:N	2.83	0.42
1:C:272:LYS:HD2	1:C:272:LYS:N	2.35	0.42
1:E:134:LEU:O	1:E:135:SER:C	2.58	0.42
1:E:220:ILE:HG23	1:E:248:LEU:HB3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:404:ARG:CG	1:F:404:ARG:NH1	2.83	0.42
1:H:13:ARG:HA	1:H:16:MET:HE2	2.02	0.42
1:H:69:MET:O	1:H:73:MET:HG3	2.19	0.42
1:I:91:THR:O	1:I:94:VAL:CG1	2.68	0.42
1:I:233:MET:HB3	1:I:237:LEU:HG	2.02	0.42
1:I:273:VAL:CG1	1:I:274:ALA:N	2.82	0.42
1:J:66:PHE:O	1:J:67:GLU:C	2.58	0.42
1:J:91:THR:O	1:J:94:VAL:HG13	2.20	0.42
1:J:464:VAL:O	1:J:466:ALA:N	2.53	0.42
1:J:479:ASN:CG	1:J:493:ILE:HD11	2.39	0.42
1:K:499:VAL:HG22	1:K:500:THR:N	2.35	0.42
1:L:68:ASN:HD21	1:L:72:GLN:HG3	1.84	0.42
1:L:449:ALA:HB3	1:L:450:PRO:CD	2.44	0.42
1:M:232:GLU:HA	1:M:310:GLU:OE1	2.20	0.42
1:M:259:LEU:C	1:M:261:THR:N	2.73	0.42
1:M:259:LEU:C	1:M:261:THR:H	2.21	0.42
1:M:455:VAL:HG12	1:M:455:VAL:O	2.20	0.42
1:N:259:LEU:C	1:N:261:THR:N	2.73	0.42
1:N:479:ASN:OD1	1:N:493:ILE:HD11	2.19	0.42
1:N:497:THR:O	1:N:498:LYS:C	2.58	0.42
1:O:497:THR:O	1:O:498:LYS:C	2.58	0.42
1:P:96:ALA:O	1:P:97:GLN:C	2.58	0.42
1:P:349:ILE:HA	1:P:352:GLN:HG3	2.01	0.42
1:P:425:LYS:C	1:P:427:ALA:H	2.23	0.42
1:Q:12:ALA:O	1:Q:520:MET:SD	2.78	0.42
1:Q:456:LEU:C	1:Q:458:CYS:H	2.22	0.42
1:S:129:GLU:O	1:S:132:LYS:N	2.53	0.42
1:S:376:VAL:HG12	1:S:377:ALA:N	2.35	0.42
1:T:20:VAL:HG23	1:T:21:ASN:N	2.35	0.42
1:T:264:VAL:O	1:T:267:MET:HB3	2.19	0.42
1:U:68:ASN:HD21	1:U:72:GLN:HG3	1.84	0.42
1:V:242:LYS:C	1:V:244:GLY:N	2.72	0.42
1:X:412:VAL:CG2	1:X:413:ALA:N	2.81	0.42
1:X:417:VAL:HG11	1:X:477:GLY:CA	2.49	0.42
1:X:499:VAL:HG22	1:X:500:THR:N	2.35	0.42
1:Y:278:ALA:HB1	1:Y:279:PRO:CD	2.46	0.42
1:Z:24:ALA:O	1:Z:26:ALA:N	2.53	0.42
1:Z:92:ALA:O	1:Z:95:LEU:HB2	2.20	0.42
1:Z:438:VAL:C	1:Z:440:ILE:N	2.74	0.42
1:Z:487:ASN:O	1:Z:491:MET:HG3	2.19	0.42
1:1:176:THR:HG22	1:1:177:VAL:N	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:242:LYS:C	1:1:244:GLY:N	2.70	0.42
1:1:321:LYS:O	1:1:322:ARG:CB	2.55	0.42
1:1:447:MET:CE	1:1:504:LEU:HD21	2.50	0.42
1:2:171:LYS:H	1:2:171:LYS:HG2	1.53	0.42
1:2:449:ALA:O	1:2:450:PRO:C	2.57	0.42
1:A:158:VAL:O	1:A:159:GLY:C	2.59	0.41
1:A:228:SER:HB3	1:G:272:LYS:NZ	2.35	0.41
1:C:140:ASP:C	1:C:142:LYS:H	2.24	0.41
1:D:57:ALA:O	1:D:58:ARG:C	2.58	0.41
1:D:417:VAL:HG11	1:D:477:GLY:CA	2.50	0.41
1:G:470:LYS:C	1:G:472:GLY:H	2.23	0.41
1:H:412:VAL:HG23	1:H:413:ALA:N	2.34	0.41
1:H:420:ILE:CD1	1:H:451:LEU:HD22	2.50	0.41
1:H:440:ILE:O	1:H:443:ALA:N	2.53	0.41
1:H:487:ASN:OD1	1:H:489:ILE:N	2.53	0.41
1:I:180:GLY:H	1:I:389:MET:HE2	1.84	0.41
1:I:213:VAL:HB	1:I:325:ILE:HG13	2.02	0.41
1:I:264:VAL:O	1:I:267:MET:HB3	2.20	0.41
1:I:291:ASP:OD2	1:I:368:ARG:HD2	2.20	0.41
1:I:421:ARG:O	1:I:422:VAL:C	2.56	0.41
1:J:57:ALA:O	1:J:58:ARG:C	2.59	0.41
1:J:77:VAL:O	1:J:80:LYS:HB2	2.20	0.41
1:J:174:VAL:HB	1:J:376:VAL:HG13	2.01	0.41
1:J:213:VAL:HG12	1:J:214:GLU:N	2.35	0.41
1:J:234:LEU:N	1:J:235:PRO:HD2	2.35	0.41
1:K:291:ASP:OD2	1:K:368:ARG:HD2	2.20	0.41
1:K:295:LEU:HD13	1:K:295:LEU:C	2.39	0.41
1:M:376:VAL:HG12	1:M:377:ALA:N	2.35	0.41
1:N:96:ALA:O	1:N:97:GLN:C	2.58	0.41
1:N:162:ILE:O	1:N:165:ALA:N	2.53	0.41
1:N:488:MET:HE3	1:N:493:ILE:HB	2.01	0.41
1:O:10:ASN:O	1:O:11:ASP:C	2.59	0.41
1:O:91:THR:O	1:O:94:VAL:HG13	2.20	0.41
1:O:240:VAL:O	1:O:240:VAL:CG1	2.68	0.41
1:O:259:LEU:C	1:O:261:THR:N	2.72	0.41
1:Q:66:PHE:O	1:Q:69:MET:HB2	2.21	0.41
1:Q:451:LEU:C	1:Q:453:GLN:N	2.70	0.41
1:R:10:ASN:O	1:R:13:ARG:N	2.49	0.41
1:R:216:GLU:C	1:R:218:PRO:HD3	2.40	0.41
1:S:10:ASN:O	1:S:13:ARG:N	2.48	0.41
1:S:87:ASP:CG	1:S:88:GLY:N	2.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:158:VAL:O	1:S:159:GLY:C	2.59	0.41
1:S:440:ILE:O	1:S:441:LYS:C	2.58	0.41
1:S:455:VAL:HG12	1:S:455:VAL:O	2.19	0.41
1:T:449:ALA:O	1:T:450:PRO:C	2.58	0.41
1:U:129:GLU:C	1:U:131:LEU:H	2.23	0.41
1:V:232:GLU:HA	1:V:310:GLU:OE1	2.20	0.41
1:V:326:ASN:HB2	1:V:329:THR:HB	2.01	0.41
1:W:112:ASN:HA	1:W:113:PRO:HD3	1.89	0.41
1:W:213:VAL:HG12	1:W:214:GLU:N	2.35	0.41
1:W:324:VAL:HB	1:W:331:THR:HG23	2.02	0.41
1:X:40:LEU:HD13	1:X:59:GLU:HG3	2.01	0.41
1:X:134:LEU:O	1:X:135:SER:C	2.59	0.41
1:X:417:VAL:HG21	1:X:488:MET:HG3	2.02	0.41
1:Z:10:ASN:O	1:Z:13:ARG:N	2.47	0.41
1:Z:12:ALA:O	1:Z:520:MET:SD	2.78	0.41
1:Z:216:GLU:C	1:Z:218:PRO:HD3	2.40	0.41
1:Z:264:VAL:O	1:Z:267:MET:HB3	2.20	0.41
1:Z:447:MET:CE	1:Z:504:LEU:CD2	2.98	0.41
1:Z:447:MET:CE	1:Z:504:LEU:HD21	2.50	0.41
1:1:57:ALA:O	1:1:58:ARG:C	2.58	0.41
1:2:259:LEU:C	1:2:261:THR:N	2.74	0.41
1:2:406:ALA:HB1	1:2:411:VAL:HG12	2.02	0.41
1:2:451:LEU:C	1:2:453:GLN:N	2.71	0.41
1:A:69:MET:CE	1:G:41:ASP:HB2	2.51	0.41
1:A:259:LEU:C	1:A:261:THR:N	2.74	0.41
1:A:412:VAL:HG23	1:A:413:ALA:N	2.34	0.41
1:D:82:ASN:HB2	1:D:89:THR:HG22	1.95	0.41
1:D:236:VAL:O	1:D:240:VAL:HG23	2.21	0.41
1:D:384:ALA:C	1:D:385:THR:HG23	2.40	0.41
1:E:180:GLY:H	1:E:389:MET:HE2	1.85	0.41
1:F:406:ALA:HB1	1:F:411:VAL:HG12	2.01	0.41
1:G:501:ARG:O	1:G:504:LEU:N	2.52	0.41
1:H:430:ARG:HG2	1:H:430:ARG:HH11	1.83	0.41
1:J:240:VAL:HG11	1:J:247:LEU:HB2	2.03	0.41
1:K:87:ASP:CG	1:K:88:GLY:N	2.73	0.41
1:K:112:ASN:HA	1:K:113:PRO:HD3	1.85	0.41
1:K:324:VAL:HB	1:K:331:THR:HG23	2.02	0.41
1:L:216:GLU:C	1:L:218:PRO:HD3	2.40	0.41
1:M:217:SER:N	1:M:218:PRO:HD3	2.35	0.41
1:N:421:ARG:O	1:N:422:VAL:C	2.59	0.41
1:O:326:ASN:HB2	1:O:329:THR:HB	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:13:ARG:O	1:P:14:VAL:C	2.58	0.41
1:Q:259:LEU:C	1:Q:261:THR:H	2.22	0.41
1:Q:349:ILE:HA	1:Q:352:GLN:HG3	2.01	0.41
1:R:273:VAL:CG1	1:R:274:ALA:N	2.82	0.41
1:S:488:MET:HE3	1:S:493:ILE:HB	2.02	0.41
1:T:259:LEU:C	1:T:261:THR:N	2.74	0.41
1:T:272:LYS:NZ	1:U:228:SER:HB3	2.36	0.41
1:U:470:LYS:C	1:U:472:GLY:H	2.23	0.41
1:V:24:ALA:C	1:V:26:ALA:N	2.74	0.41
1:V:259:LEU:C	1:V:261:THR:H	2.22	0.41
1:W:57:ALA:O	1:W:60:ILE:N	2.47	0.41
1:W:70:GLY:HA2	1:W:73:MET:HE3	2.01	0.41
1:W:259:LEU:C	1:W:261:THR:N	2.74	0.41
1:X:234:LEU:N	1:X:235:PRO:HD2	2.35	0.41
1:X:420:ILE:HD12	1:X:451:LEU:HD22	2.02	0.41
1:Y:295:LEU:HD13	1:Y:295:LEU:C	2.41	0.41
1:Y:473:ASP:OD2	1:Y:473:ASP:N	2.53	0.41
1:Z:91:THR:O	1:Z:94:VAL:HG13	2.20	0.41
1:Z:349:ILE:HA	1:Z:352:GLN:HG3	2.01	0.41
1:Z:376:VAL:HG12	1:Z:377:ALA:N	2.35	0.41
1:1:162:ILE:O	1:1:165:ALA:N	2.51	0.41
1:1:234:LEU:N	1:1:235:PRO:HD2	2.35	0.41
1:2:499:VAL:HG22	1:2:500:THR:N	2.35	0.41
1:A:57:ALA:O	1:A:58:ARG:C	2.58	0.41
1:A:129:GLU:O	1:A:132:LYS:N	2.53	0.41
1:B:183:LEU:O	1:B:184:GLN:HB2	2.19	0.41
1:C:273:VAL:CG1	1:C:274:ALA:N	2.83	0.41
1:C:295:LEU:HD13	1:C:295:LEU:C	2.41	0.41
1:D:27:VAL:C	1:D:29:VAL:H	2.23	0.41
1:D:36:ARG:HG3	1:D:36:ARG:HH11	1.85	0.41
1:G:24:ALA:O	1:G:26:ALA:N	2.53	0.41
1:G:180:GLY:H	1:G:389:MET:HE2	1.86	0.41
1:H:376:VAL:HG12	1:H:377:ALA:N	2.36	0.41
1:J:91:THR:O	1:J:94:VAL:CG1	2.68	0.41
1:K:447:MET:CE	1:K:504:LEU:CD2	2.99	0.41
1:M:417:VAL:HG11	1:M:477:GLY:CA	2.49	0.41
1:M:479:ASN:CG	1:M:493:ILE:HD11	2.41	0.41
1:N:129:GLU:O	1:N:132:LYS:N	2.53	0.41
1:O:129:GLU:O	1:O:132:LYS:N	2.54	0.41
1:O:155:ASP:OD1	1:O:157:THR:HB	2.20	0.41
1:P:479:ASN:CG	1:P:493:ILE:HD11	2.40	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:404:ARG:CG	1:T:404:ARG:NH1	2.80	0.41
1:U:136:VAL:O	1:U:137:PRO:O	2.39	0.41
1:U:180:GLY:N	1:U:389:MET:HE2	2.36	0.41
1:U:264:VAL:O	1:U:267:MET:HB3	2.21	0.41
1:U:462:PRO:O	1:U:463:SER:C	2.58	0.41
1:V:239:ALA:O	1:V:314:LEU:HD21	2.19	0.41
1:V:369:VAL:HG23	1:V:370:ALA:H	1.85	0.41
1:X:103:GLY:O	1:X:106:ALA:HB3	2.19	0.41
1:X:216:GLU:C	1:X:218:PRO:HD3	2.41	0.41
1:Y:13:ARG:O	1:Y:14:VAL:C	2.56	0.41
1:Y:134:LEU:O	1:Y:135:SER:C	2.58	0.41
1:Z:295:LEU:C	1:Z:295:LEU:HD13	2.41	0.41
1:Z:384:ALA:C	1:Z:385:THR:HG23	2.41	0.41
1:1:349:ILE:HA	1:1:352:GLN:HG3	2.01	0.41
1:2:242:LYS:O	1:2:243:ALA:HB3	2.20	0.41
1:A:41:ASP:OD1	1:B:69:MET:HG2	2.20	0.41
1:A:91:THR:HA	1:A:94:VAL:CG1	2.50	0.41
1:A:155:ASP:OD1	1:A:157:THR:HB	2.21	0.41
1:A:228:SER:CB	1:G:272:LYS:NZ	2.82	0.41
1:A:326:ASN:HB2	1:A:329:THR:HB	2.02	0.41
1:A:412:VAL:CG2	1:A:413:ALA:N	2.81	0.41
1:B:200:LEU:HD21	1:B:276:VAL:HA	2.03	0.41
1:B:232:GLU:HA	1:B:310:GLU:OE1	2.19	0.41
1:C:505:GLN:O	1:C:508:ALA:HB3	2.20	0.41
1:D:34:LYS:CG	1:D:458:CYS:SG	3.09	0.41
1:D:96:ALA:O	1:D:97:GLN:C	2.58	0.41
1:D:171:LYS:H	1:D:171:LYS:HG2	1.52	0.41
1:D:230:ILE:O	1:D:230:ILE:HG12	2.19	0.41
1:D:499:VAL:HG22	1:D:500:THR:N	2.36	0.41
1:E:24:ALA:CB	1:E:97:GLN:HE21	2.33	0.41
1:E:230:ILE:O	1:E:230:ILE:HG12	2.19	0.41
1:E:497:THR:O	1:E:498:LYS:C	2.58	0.41
1:F:220:ILE:HG23	1:F:248:LEU:HB3	2.03	0.41
1:G:10:ASN:O	1:G:11:ASP:C	2.58	0.41
1:G:272:LYS:HD2	1:G:272:LYS:N	2.36	0.41
1:J:10:ASN:O	1:J:11:ASP:C	2.59	0.41
1:K:131:LEU:C	1:K:133:ALA:H	2.21	0.41
1:L:438:VAL:C	1:L:440:ILE:N	2.74	0.41
1:M:66:PHE:O	1:M:69:MET:HB2	2.20	0.41
1:M:406:ALA:O	1:M:410:GLY:N	2.53	0.41
1:O:242:LYS:C	1:O:244:GLY:N	2.72	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:324:VAL:HB	1:O:331:THR:CG2	2.50	0.41
1:P:25:ASP:OD1	1:P:28:LYS:HE2	2.20	0.41
1:P:289:LEU:HD23	1:P:289:LEU:C	2.40	0.41
1:P:291:ASP:OD2	1:P:368:ARG:HD2	2.20	0.41
1:Q:462:PRO:O	1:Q:463:SER:C	2.57	0.41
1:R:500:THR:HG22	1:R:500:THR:O	2.20	0.41
1:S:13:ARG:HA	1:S:16:MET:HE2	2.02	0.41
1:S:236:VAL:O	1:S:240:VAL:HG23	2.20	0.41
1:S:242:LYS:C	1:S:244:GLY:N	2.72	0.41
1:S:404:ARG:CG	1:S:404:ARG:NH1	2.82	0.41
1:S:421:ARG:NH2	1:S:469:VAL:O	2.51	0.41
1:T:278:ALA:HB1	1:T:279:PRO:CD	2.46	0.41
1:T:464:VAL:O	1:T:466:ALA:N	2.54	0.41
1:T:479:ASN:OD1	1:T:493:ILE:HD11	2.19	0.41
1:U:27:VAL:C	1:U:29:VAL:H	2.23	0.41
1:U:96:ALA:O	1:U:97:GLN:C	2.58	0.41
1:U:376:VAL:HG12	1:U:377:ALA:N	2.35	0.41
1:V:259:LEU:C	1:V:261:THR:N	2.74	0.41
1:V:264:VAL:O	1:V:267:MET:HB3	2.19	0.41
1:V:351:GLN:HA	1:V:354:GLU:HG2	2.03	0.41
1:V:399:ALA:O	1:V:400:LEU:C	2.59	0.41
1:V:406:ALA:O	1:V:410:GLY:N	2.53	0.41
1:W:264:VAL:O	1:W:267:MET:HB3	2.19	0.41
1:X:180:GLY:H	1:X:389:MET:HE2	1.85	0.41
1:Y:41:ASP:HB2	1:Z:69:MET:CE	2.50	0.41
1:Z:158:VAL:O	1:Z:159:GLY:C	2.59	0.41
1:Z:451:LEU:C	1:Z:453:GLN:N	2.74	0.41
1:2:264:VAL:O	1:2:267:MET:HB3	2.20	0.41
1:2:376:VAL:HG12	1:2:377:ALA:N	2.34	0.41
1:2:505:GLN:O	1:2:508:ALA:HB3	2.21	0.41
1:A:228:SER:HB2	1:G:272:LYS:HZ3	1.85	0.41
1:A:230:ILE:O	1:A:230:ILE:HG12	2.19	0.41
1:B:91:THR:O	1:B:94:VAL:HG13	2.20	0.41
1:B:272:LYS:H	1:B:272:LYS:HD2	1.85	0.41
1:C:376:VAL:HG12	1:C:377:ALA:N	2.35	0.41
1:D:123:ALA:CB	1:D:440:ILE:HG23	2.48	0.41
1:D:264:VAL:O	1:D:267:MET:HB3	2.20	0.41
1:D:324:VAL:HB	1:D:331:THR:HG23	2.03	0.41
1:E:36:ARG:O	1:E:51:LYS:HG2	2.21	0.41
1:E:376:VAL:HG12	1:E:377:ALA:N	2.34	0.41
1:F:447:MET:HE3	1:F:504:LEU:HD21	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:497:THR:O	1:G:498:LYS:C	2.59	0.41
1:H:199:TYR:CZ	1:H:327:LYS:HA	2.56	0.41
1:J:324:VAL:HB	1:J:331:THR:CG2	2.51	0.41
1:J:449:ALA:O	1:J:450:PRO:C	2.59	0.41
1:K:27:VAL:CG1	1:K:90:THR:HG23	2.48	0.41
1:L:96:ALA:O	1:L:97:GLN:C	2.57	0.41
1:L:470:LYS:C	1:L:472:GLY:H	2.24	0.41
1:M:171:LYS:HB2	1:M:407:VAL:HG11	2.01	0.41
1:M:272:LYS:NZ	1:N:228:SER:HB3	2.35	0.41
1:N:376:VAL:HG12	1:N:377:ALA:N	2.35	0.41
1:O:455:VAL:CG1	1:O:462:PRO:HA	2.47	0.41
1:Q:70:GLY:C	1:Q:72:GLN:N	2.74	0.41
1:Q:129:GLU:O	1:Q:131:LEU:N	2.53	0.41
1:Q:158:VAL:O	1:Q:159:GLY:C	2.59	0.41
1:Q:404:ARG:CG	1:Q:404:ARG:NH1	2.82	0.41
1:R:232:GLU:HA	1:R:310:GLU:OE1	2.20	0.41
1:R:470:LYS:O	1:R:472:GLY:N	2.54	0.41
1:R:501:ARG:O	1:R:502:SER:C	2.59	0.41
1:S:127:ALA:HB1	1:S:422:VAL:HG11	2.03	0.41
1:S:199:TYR:CZ	1:S:327:LYS:HA	2.56	0.41
1:S:216:GLU:C	1:S:218:PRO:HD3	2.41	0.41
1:T:140:ASP:C	1:T:142:LYS:H	2.23	0.41
1:T:155:ASP:OD1	1:T:157:THR:HB	2.21	0.41
1:U:40:LEU:HD13	1:U:59:GLU:HG3	2.01	0.41
1:U:199:TYR:CZ	1:U:327:LYS:HA	2.56	0.41
1:V:129:GLU:C	1:V:131:LEU:H	2.24	0.41
1:V:404:ARG:CG	1:V:404:ARG:NH1	2.81	0.41
1:V:470:LYS:C	1:V:472:GLY:H	2.24	0.41
1:W:521:VAL:O	1:W:521:VAL:HG12	2.20	0.41
1:X:155:ASP:OD1	1:X:157:THR:HB	2.19	0.41
1:X:213:VAL:HG12	1:X:214:GLU:N	2.35	0.41
1:X:376:VAL:HG12	1:X:377:ALA:N	2.35	0.41
1:Y:82:ASN:HB2	1:Y:89:THR:HG22	1.95	0.41
1:Y:216:GLU:C	1:Y:218:PRO:HD3	2.41	0.41
1:Z:183:LEU:O	1:Z:184:GLN:HB2	2.21	0.41
1:Z:213:VAL:HG12	1:Z:214:GLU:N	2.35	0.41
1:1:16:MET:O	1:1:20:VAL:HG13	2.20	0.41
1:1:259:LEU:C	1:1:261:THR:N	2.74	0.41
1:2:115:ASP:O	1:2:118:ARG:N	2.54	0.41
1:C:13:ARG:O	1:C:14:VAL:C	2.58	0.41
1:D:40:LEU:HD13	1:D:59:GLU:HG3	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:91:THR:O	1:E:94:VAL:CG1	2.68	0.41
1:E:264:VAL:O	1:E:267:MET:HB3	2.21	0.41
1:G:77:VAL:O	1:G:80:LYS:HB2	2.21	0.41
1:H:213:VAL:HG12	1:H:214:GLU:N	2.35	0.41
1:H:295:LEU:HD13	1:H:295:LEU:C	2.41	0.41
1:I:69:MET:O	1:I:73:MET:HG3	2.20	0.41
1:I:140:ASP:O	1:I:142:LYS:N	2.54	0.41
1:I:419:LEU:HD21	1:I:500:THR:CG2	2.49	0.41
1:J:264:VAL:O	1:J:267:MET:HB3	2.19	0.41
1:J:488:MET:HE3	1:J:493:ILE:HB	2.02	0.41
1:K:455:VAL:HG12	1:K:455:VAL:O	2.21	0.41
1:L:240:VAL:O	1:L:240:VAL:CG1	2.67	0.41
1:L:259:LEU:C	1:L:261:THR:H	2.23	0.41
1:L:349:ILE:HA	1:L:352:GLN:HG3	2.02	0.41
1:M:66:PHE:O	1:M:67:GLU:C	2.58	0.41
1:M:433:ASN:OD1	1:M:433:ASN:N	2.53	0.41
1:O:12:ALA:O	1:O:520:MET:SD	2.79	0.41
1:O:228:SER:HB3	1:U:272:LYS:NZ	2.36	0.41
1:O:234:LEU:N	1:O:235:PRO:HD2	2.36	0.41
1:P:272:LYS:HD2	1:P:272:LYS:N	2.36	0.41
1:P:421:ARG:NH2	1:P:469:VAL:O	2.50	0.41
1:Q:326:ASN:HB2	1:Q:329:THR:HB	2.02	0.41
1:R:140:ASP:O	1:R:142:LYS:N	2.53	0.41
1:R:183:LEU:O	1:R:184:GLN:HB2	2.21	0.41
1:R:441:LYS:HD3	1:R:441:LYS:HA	1.89	0.41
1:T:91:THR:O	1:T:94:VAL:HG13	2.21	0.41
1:U:273:VAL:CG1	1:U:274:ALA:N	2.82	0.41
1:U:295:LEU:C	1:U:295:LEU:HD13	2.41	0.41
1:U:501:ARG:O	1:U:502:SER:C	2.59	0.41
1:W:232:GLU:HA	1:W:310:GLU:OE1	2.20	0.41
1:W:451:LEU:C	1:W:453:GLN:N	2.73	0.41
1:X:477:GLY:HA3	1:X:488:MET:SD	2.60	0.41
1:Z:240:VAL:O	1:Z:240:VAL:CG1	2.69	0.41
1:Z:259:LEU:C	1:Z:261:THR:N	2.73	0.41
1:1:233:MET:HB3	1:1:237:LEU:HG	2.02	0.41
1:2:103:GLY:O	1:2:106:ALA:HB3	2.21	0.41
1:2:462:PRO:O	1:2:463:SER:C	2.58	0.41
1:A:76:GLU:HG3	1:G:46:ALA:CB	2.35	0.41
1:A:91:THR:O	1:A:94:VAL:CG1	2.68	0.41
1:A:404:ARG:CG	1:A:404:ARG:NH1	2.83	0.41
1:B:470:LYS:C	1:B:472:GLY:H	2.23	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:369:VAL:HG23	1:C:370:ALA:H	1.85	0.41
1:D:129:GLU:C	1:D:131:LEU:H	2.24	0.41
1:D:134:LEU:O	1:D:135:SER:C	2.59	0.41
1:D:425:LYS:C	1:D:427:ALA:H	2.23	0.41
1:D:430:ARG:HG2	1:D:430:ARG:HH11	1.85	0.41
1:F:464:VAL:O	1:F:466:ALA:N	2.54	0.41
1:G:278:ALA:HB1	1:G:279:PRO:CD	2.48	0.41
1:G:326:ASN:HB2	1:G:329:THR:HB	2.02	0.41
1:G:479:ASN:CG	1:G:493:ILE:HD11	2.41	0.41
1:G:488:MET:HE3	1:G:493:ILE:HB	2.01	0.41
1:H:87:ASP:CG	1:H:88:GLY:N	2.74	0.41
1:H:264:VAL:O	1:H:267:MET:HB3	2.20	0.41
1:H:384:ALA:C	1:H:385:THR:HG23	2.41	0.41
1:H:404:ARG:CG	1:H:404:ARG:NH1	2.82	0.41
1:I:68:ASN:HD21	1:I:72:GLN:HG3	1.86	0.41
1:I:278:ALA:HB1	1:I:279:PRO:CD	2.45	0.41
1:I:497:THR:O	1:I:498:LYS:C	2.59	0.41
1:J:200:LEU:CD2	1:J:276:VAL:HA	2.50	0.41
1:J:477:GLY:HA3	1:J:488:MET:CG	2.51	0.41
1:L:412:VAL:CG2	1:L:413:ALA:N	2.83	0.41
1:M:240:VAL:O	1:M:240:VAL:CG1	2.67	0.41
1:O:66:PHE:O	1:O:69:MET:N	2.54	0.41
1:P:413:ALA:O	1:P:418:ALA:HB2	2.21	0.41
1:P:521:VAL:O	1:P:521:VAL:HG12	2.21	0.41
1:Q:449:ALA:O	1:Q:450:PRO:C	2.58	0.41
1:Q:508:ALA:O	1:Q:509:SER:C	2.59	0.41
1:R:404:ARG:CG	1:R:404:ARG:NH1	2.83	0.41
1:S:295:LEU:HD13	1:S:295:LEU:C	2.40	0.41
1:T:25:ASP:OD1	1:T:28:LYS:HE2	2.20	0.41
1:T:220:ILE:HG23	1:T:248:LEU:HB3	2.02	0.41
1:U:230:ILE:O	1:U:230:ILE:HG12	2.20	0.41
1:U:326:ASN:HB2	1:U:329:THR:HB	2.03	0.41
1:U:406:ALA:HA	1:U:410:GLY:O	2.20	0.41
1:V:12:ALA:O	1:V:520:MET:SD	2.79	0.41
1:W:140:ASP:O	1:W:142:LYS:N	2.54	0.41
1:W:433:ASN:O	1:W:434:ALA:C	2.59	0.41
1:Y:12:ALA:HB1	1:Y:520:MET:HG3	2.02	0.41
1:Y:77:VAL:O	1:Y:80:LYS:HB2	2.20	0.41
1:Y:264:VAL:O	1:Y:267:MET:HB3	2.21	0.41
1:Z:501:ARG:NH1	1:Z:505:GLN:OE1	2.53	0.41
1:2:240:VAL:O	1:2:240:VAL:CG1	2.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2:265:ASN:HD22	1:2:265:ASN:HA	1.67	0.41
1:B:242:LYS:C	1:B:244:GLY:N	2.72	0.41
1:D:451:LEU:C	1:D:453:GLN:N	2.73	0.41
1:E:29:VAL:C	1:E:31:LEU:N	2.73	0.41
1:E:216:GLU:C	1:E:218:PRO:HD3	2.41	0.41
1:F:41:ASP:OD1	1:G:69:MET:HG2	2.20	0.41
1:F:239:ALA:O	1:F:314:LEU:HD11	2.20	0.41
1:G:216:GLU:C	1:G:218:PRO:HD3	2.41	0.41
1:G:404:ARG:CG	1:G:404:ARG:NH1	2.82	0.41
1:G:409:GLU:O	1:G:497:THR:HB	2.21	0.41
1:G:499:VAL:HG22	1:G:500:THR:N	2.34	0.41
1:H:57:ALA:O	1:H:59:GLU:N	2.54	0.41
1:I:259:LEU:C	1:I:261:THR:N	2.72	0.41
1:I:369:VAL:HG23	1:I:370:ALA:H	1.85	0.41
1:I:417:VAL:HG11	1:I:477:GLY:CA	2.50	0.41
1:J:25:ASP:OD1	1:J:28:LYS:HE2	2.20	0.41
1:J:240:VAL:O	1:J:240:VAL:CG1	2.68	0.41
1:K:376:VAL:HG12	1:K:377:ALA:N	2.34	0.41
1:M:158:VAL:O	1:M:159:GLY:C	2.58	0.41
1:M:239:ALA:O	1:M:314:LEU:HD21	2.20	0.41
1:M:421:ARG:NH2	1:M:469:VAL:O	2.49	0.41
1:O:158:VAL:O	1:O:159:GLY:C	2.59	0.41
1:O:470:LYS:O	1:O:472:GLY:N	2.53	0.41
1:P:127:ALA:O	1:P:131:LEU:HB2	2.21	0.41
1:P:399:ALA:O	1:P:400:LEU:C	2.59	0.41
1:Q:16:MET:O	1:Q:20:VAL:HG13	2.21	0.41
1:Q:384:ALA:C	1:Q:385:THR:HG23	2.41	0.41
1:T:12:ALA:O	1:T:520:MET:SD	2.79	0.41
1:T:369:VAL:HG23	1:T:370:ALA:H	1.84	0.41
1:W:11:ASP:OD1	1:W:11:ASP:N	2.50	0.41
1:W:240:VAL:HG11	1:W:247:LEU:HB2	2.03	0.41
1:W:295:LEU:C	1:W:295:LEU:HD13	2.41	0.41
1:X:404:ARG:CG	1:X:404:ARG:NH1	2.83	0.41
1:Z:8:PHE:CE1	1:Z:519:CYS:SG	3.07	0.41
1:Z:497:THR:O	1:Z:498:LYS:C	2.58	0.41
1:1:12:ALA:O	1:1:520:MET:SD	2.79	0.41
1:1:73:MET:O	1:1:74:VAL:C	2.58	0.41
1:A:240:VAL:O	1:A:240:VAL:CG1	2.69	0.41
1:A:470:LYS:C	1:A:472:GLY:H	2.24	0.41
1:A:477:GLY:HA3	1:A:488:MET:CG	2.50	0.41
1:B:70:GLY:O	1:B:72:GLN:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:127:ALA:HB1	1:B:422:VAL:HG11	2.03	0.41
1:B:136:VAL:O	1:B:137:PRO:O	2.38	0.41
1:B:176:THR:HG22	1:B:177:VAL:N	2.35	0.41
1:B:417:VAL:HG11	1:B:477:GLY:CA	2.50	0.41
1:B:440:ILE:O	1:B:441:LYS:C	2.59	0.41
1:C:155:ASP:OD1	1:C:157:THR:HB	2.21	0.41
1:C:232:GLU:HA	1:C:310:GLU:OE1	2.20	0.41
1:D:17:LEU:O	1:D:20:VAL:N	2.54	0.41
1:D:136:VAL:O	1:D:137:PRO:O	2.38	0.41
1:D:140:ASP:O	1:D:142:LYS:N	2.54	0.41
1:E:68:ASN:HD21	1:E:72:GLN:HG3	1.86	0.41
1:E:404:ARG:CG	1:E:404:ARG:NH1	2.84	0.41
1:F:213:VAL:HG12	1:F:214:GLU:N	2.36	0.41
1:F:264:VAL:O	1:F:267:MET:HB3	2.20	0.41
1:F:326:ASN:HB2	1:F:329:THR:HB	2.02	0.41
1:H:91:THR:O	1:H:94:VAL:HG13	2.21	0.41
1:H:112:ASN:O	1:H:116:LEU:HG	2.21	0.41
1:H:236:VAL:O	1:H:240:VAL:HG23	2.21	0.41
1:H:462:PRO:O	1:H:463:SER:C	2.60	0.41
1:I:10:ASN:O	1:I:11:ASP:C	2.59	0.41
1:I:182:GLY:O	1:I:183:LEU:O	2.39	0.41
1:I:464:VAL:O	1:I:465:VAL:C	2.58	0.41
1:J:103:GLY:O	1:J:106:ALA:HB3	2.20	0.41
1:J:291:ASP:OD2	1:J:368:ARG:HD2	2.20	0.41
1:J:470:LYS:C	1:J:472:GLY:H	2.24	0.41
1:K:202:PRO:HB3	1:K:205:ILE:HD11	2.03	0.41
1:K:326:ASN:HB2	1:K:329:THR:HB	2.02	0.41
1:K:447:MET:CE	1:K:504:LEU:HD21	2.50	0.41
1:L:134:LEU:O	1:L:135:SER:C	2.58	0.41
1:L:140:ASP:C	1:L:142:LYS:H	2.24	0.41
1:L:155:ASP:OD1	1:L:157:THR:HB	2.21	0.41
1:L:205:ILE:H	1:L:205:ILE:HG13	1.64	0.41
1:L:232:GLU:HA	1:L:310:GLU:OE1	2.20	0.41
1:L:242:LYS:C	1:L:244:GLY:N	2.70	0.41
1:L:324:VAL:HB	1:L:331:THR:CG2	2.50	0.41
1:L:376:VAL:HG12	1:L:377:ALA:N	2.35	0.41
1:L:384:ALA:C	1:L:385:THR:HG23	2.40	0.41
1:L:455:VAL:HG12	1:L:455:VAL:O	2.21	0.41
1:L:477:GLY:HA3	1:L:488:MET:SD	2.61	0.41
1:L:521:VAL:O	1:L:521:VAL:HG12	2.21	0.41
1:M:29:VAL:C	1:M:31:LEU:N	2.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:278:ALA:HB1	1:M:279:PRO:CD	2.45	0.41
1:M:326:ASN:HB2	1:M:329:THR:HB	2.02	0.41
1:M:351:GLN:HA	1:M:354:GLU:HG2	2.03	0.41
1:N:29:VAL:C	1:N:31:LEU:N	2.74	0.41
1:N:326:ASN:HB2	1:N:329:THR:HB	2.02	0.41
1:O:59:GLU:O	1:P:4:LYS:HG3	2.20	0.41
1:O:111:MET:HG2	1:O:435:ASP:OD1	2.21	0.41
1:O:240:VAL:HG11	1:O:247:LEU:HB2	2.03	0.41
1:O:295:LEU:C	1:O:295:LEU:HD13	2.41	0.41
1:O:462:PRO:O	1:O:463:SER:C	2.59	0.41
1:P:41:ASP:OD1	1:Q:69:MET:HG2	2.21	0.41
1:P:216:GLU:C	1:P:218:PRO:HD3	2.41	0.41
1:P:220:ILE:HG23	1:P:248:LEU:HB3	2.02	0.41
1:P:236:VAL:O	1:P:240:VAL:HG23	2.21	0.41
1:P:417:VAL:HG11	1:P:477:GLY:CA	2.49	0.41
1:Q:57:ALA:O	1:Q:59:GLU:N	2.54	0.41
1:Q:213:VAL:HG12	1:Q:214:GLU:N	2.36	0.41
1:Q:414:GLY:N	1:Q:494:LEU:HA	2.35	0.41
1:Q:421:ARG:NH2	1:Q:469:VAL:O	2.53	0.41
1:R:10:ASN:O	1:R:11:ASP:C	2.59	0.41
1:R:155:ASP:OD1	1:R:157:THR:HB	2.21	0.41
1:R:176:THR:HG22	1:R:177:VAL:N	2.35	0.41
1:R:213:VAL:HG12	1:R:214:GLU:N	2.35	0.41
1:S:479:ASN:CG	1:S:493:ILE:HD11	2.42	0.41
1:T:232:GLU:HA	1:T:310:GLU:OE1	2.20	0.41
1:T:272:LYS:HZ1	1:U:228:SER:HB3	1.86	0.41
1:T:462:PRO:O	1:T:463:SER:C	2.59	0.41
1:U:213:VAL:HG12	1:U:214:GLU:N	2.36	0.41
1:U:384:ALA:C	1:U:385:THR:HG23	2.42	0.41
1:V:123:ALA:CB	1:V:440:ILE:HG23	2.49	0.41
1:W:95:LEU:O	1:W:98:ALA:HB3	2.20	0.41
1:W:134:LEU:O	1:W:135:SER:C	2.59	0.41
1:W:470:LYS:C	1:W:472:GLY:H	2.24	0.41
1:X:200:LEU:CD2	1:X:276:VAL:HA	2.51	0.41
1:Y:120:ILE:CG1	1:Y:439:GLY:O	2.68	0.41
1:Y:240:VAL:HG11	1:Y:247:LEU:HB2	2.03	0.41
1:Y:451:LEU:O	1:Y:452:ARG:C	2.59	0.41
1:Z:232:GLU:HA	1:Z:310:GLU:OE1	2.21	0.41
1:1:8:PHE:CE1	1:1:519:CYS:SG	3.09	0.41
1:1:406:ALA:O	1:1:410:GLY:N	2.54	0.41
1:2:68:ASN:HD21	1:2:72:GLN:HG3	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:96:ALA:O	1:A:97:GLN:C	2.58	0.41
1:A:103:GLY:O	1:A:106:ALA:N	2.48	0.41
1:A:182:GLY:O	1:A:183:LEU:O	2.39	0.41
1:A:232:GLU:HA	1:A:310:GLU:OE1	2.21	0.41
1:A:240:VAL:HG11	1:A:247:LEU:HB2	2.03	0.41
1:B:111:MET:HG2	1:B:435:ASP:OD1	2.21	0.41
1:B:134:LEU:O	1:B:135:SER:C	2.59	0.41
1:B:278:ALA:HB1	1:B:279:PRO:CD	2.47	0.41
1:C:23:LEU:O	1:C:27:VAL:HG23	2.21	0.41
1:D:232:GLU:HA	1:D:310:GLU:OE1	2.20	0.41
1:D:349:ILE:HA	1:D:352:GLN:HG2	2.02	0.41
1:E:417:VAL:HG11	1:E:477:GLY:CA	2.51	0.41
1:F:155:ASP:OD1	1:F:157:THR:HB	2.21	0.41
1:F:183:LEU:O	1:F:184:GLN:HB2	2.21	0.41
1:G:24:ALA:CB	1:G:97:GLN:HE21	2.34	0.41
1:G:103:GLY:O	1:G:106:ALA:N	2.50	0.41
1:G:295:LEU:C	1:G:295:LEU:HD13	2.42	0.41
1:H:259:LEU:C	1:H:261:THR:N	2.74	0.41
1:H:451:LEU:C	1:H:453:GLN:N	2.74	0.41
1:K:239:ALA:O	1:K:314:LEU:HD21	2.20	0.41
1:K:321:LYS:O	1:K:322:ARG:CB	2.58	0.41
1:L:400:LEU:O	1:L:403:THR:HB	2.21	0.41
1:L:412:VAL:HG23	1:L:413:ALA:N	2.36	0.41
1:M:96:ALA:O	1:M:97:GLN:C	2.59	0.41
1:M:230:ILE:O	1:M:230:ILE:HG12	2.19	0.41
1:N:158:VAL:O	1:N:159:GLY:C	2.59	0.41
1:N:216:GLU:C	1:N:218:PRO:HD3	2.41	0.41
1:N:240:VAL:O	1:N:240:VAL:CG1	2.68	0.41
1:O:24:ALA:O	1:O:26:ALA:N	2.54	0.41
1:O:29:VAL:C	1:O:31:LEU:N	2.73	0.41
1:P:57:ALA:O	1:P:60:ILE:N	2.47	0.41
1:Q:10:ASN:O	1:Q:11:ASP:C	2.60	0.41
1:Q:430:ARG:HG2	1:Q:430:ARG:NH1	2.36	0.41
1:R:158:VAL:O	1:R:159:GLY:C	2.59	0.41
1:R:242:LYS:C	1:R:244:GLY:N	2.74	0.41
1:R:272:LYS:HD2	1:R:272:LYS:N	2.37	0.41
1:R:324:VAL:HB	1:R:331:THR:CG2	2.51	0.41
1:R:349:ILE:HA	1:R:352:GLN:HG2	2.03	0.41
1:R:420:ILE:HD11	1:R:451:LEU:CB	2.50	0.41
1:S:420:ILE:HD11	1:S:451:LEU:CB	2.51	0.41
1:T:171:LYS:H	1:T:171:LYS:HG2	1.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:421:ARG:NH2	1:U:469:VAL:O	2.53	0.41
1:V:87:ASP:CG	1:V:88:GLY:N	2.74	0.41
1:V:384:ALA:C	1:V:385:THR:HG23	2.41	0.41
1:W:12:ALA:HB1	1:W:520:MET:HG3	2.03	0.41
1:W:155:ASP:OD1	1:W:157:THR:HB	2.21	0.41
1:X:273:VAL:CG1	1:X:274:ALA:N	2.83	0.41
1:Y:127:ALA:HB1	1:Y:422:VAL:HG11	2.03	0.41
1:Y:272:LYS:HD2	1:Y:272:LYS:N	2.35	0.41
1:Z:13:ARG:O	1:Z:14:VAL:C	2.58	0.41
1:Z:91:THR:O	1:Z:94:VAL:CG1	2.69	0.41
1:Z:324:VAL:HB	1:Z:331:THR:CG2	2.50	0.41
1:Z:324:VAL:HB	1:Z:331:THR:HG23	2.03	0.41
1:Z:425:LYS:C	1:Z:427:ALA:H	2.23	0.41
1:2:57:ALA:O	1:2:60:ILE:N	2.49	0.41
1:A:289:LEU:HD23	1:A:289:LEU:C	2.42	0.40
1:A:295:LEU:HD13	1:A:295:LEU:C	2.42	0.40
1:A:497:THR:O	1:A:498:LYS:C	2.59	0.40
1:B:216:GLU:C	1:B:218:PRO:HD3	2.41	0.40
1:B:425:LYS:C	1:B:427:ALA:H	2.23	0.40
1:B:479:ASN:CG	1:B:493:ILE:HD11	2.41	0.40
1:C:57:ALA:O	1:C:60:ILE:N	2.49	0.40
1:D:295:LEU:C	1:D:295:LEU:HD13	2.42	0.40
1:D:376:VAL:HG12	1:D:377:ALA:N	2.36	0.40
1:D:470:LYS:C	1:D:472:GLY:H	2.23	0.40
1:F:199:TYR:CZ	1:F:327:LYS:HA	2.55	0.40
1:G:324:VAL:HB	1:G:331:THR:HG23	2.04	0.40
1:G:384:ALA:C	1:G:385:THR:HG23	2.41	0.40
1:H:205:ILE:H	1:H:205:ILE:HG13	1.65	0.40
1:I:487:ASN:OD1	1:I:489:ILE:N	2.54	0.40
1:J:324:VAL:HB	1:J:331:THR:HG23	2.03	0.40
1:J:479:ASN:OD1	1:J:493:ILE:HD11	2.22	0.40
1:M:155:ASP:OD1	1:M:157:THR:HB	2.21	0.40
1:M:234:LEU:N	1:M:235:PRO:HD2	2.35	0.40
1:M:423:ALA:HB2	1:M:447:MET:SD	2.61	0.40
1:O:423:ALA:HB2	1:O:447:MET:SD	2.61	0.40
1:P:295:LEU:HD13	1:P:295:LEU:C	2.42	0.40
1:Q:369:VAL:HG23	1:Q:370:ALA:H	1.85	0.40
1:Q:412:VAL:HG12	1:Q:497:THR:OG1	2.21	0.40
1:S:487:ASN:OD1	1:S:489:ILE:N	2.53	0.40
1:T:27:VAL:O	1:T:29:VAL:N	2.53	0.40
1:T:57:ALA:O	1:T:60:ILE:N	2.46	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:376:VAL:HG12	1:T:377:ALA:N	2.35	0.40
1:U:15:LYS:O	1:U:67:GLU:HA	2.22	0.40
1:U:234:LEU:N	1:U:235:PRO:HD2	2.37	0.40
1:W:91:THR:O	1:W:92:ALA:C	2.59	0.40
1:W:449:ALA:O	1:W:450:PRO:C	2.59	0.40
1:X:13:ARG:O	1:X:14:VAL:C	2.58	0.40
1:Y:384:ALA:C	1:Y:385:THR:HG23	2.41	0.40
1:Y:417:VAL:HG11	1:Y:477:GLY:CA	2.51	0.40
1:1:404:ARG:CG	1:1:404:ARG:NH1	2.84	0.40
1:2:151:SER:HB3	1:2:399:ALA:HA	2.01	0.40
1:2:295:LEU:HD13	1:2:295:LEU:C	2.42	0.40
1:2:326:ASN:HB2	1:2:329:THR:HB	2.02	0.40
1:A:162:ILE:O	1:A:165:ALA:N	2.54	0.40
1:B:95:LEU:O	1:B:96:ALA:C	2.60	0.40
1:B:295:LEU:HD13	1:B:295:LEU:C	2.41	0.40
1:C:417:VAL:HG11	1:C:477:GLY:CA	2.49	0.40
1:D:205:ILE:H	1:D:205:ILE:HG13	1.63	0.40
1:E:37:ASN:O	1:F:517:THR:HG23	2.21	0.40
1:E:213:VAL:HG12	1:E:214:GLU:N	2.36	0.40
1:E:242:LYS:O	1:E:243:ALA:HB3	2.21	0.40
1:F:103:GLY:O	1:F:106:ALA:HB3	2.22	0.40
1:F:134:LEU:O	1:F:135:SER:C	2.60	0.40
1:G:57:ALA:O	1:G:58:ARG:C	2.59	0.40
1:H:127:ALA:HB1	1:H:422:VAL:HG11	2.03	0.40
1:H:200:LEU:CD2	1:H:276:VAL:HA	2.52	0.40
1:H:449:ALA:O	1:H:450:PRO:C	2.60	0.40
1:H:488:MET:CE	1:H:493:ILE:CG2	2.99	0.40
1:I:449:ALA:O	1:I:450:PRO:C	2.60	0.40
1:J:400:LEU:O	1:J:403:THR:HB	2.22	0.40
1:K:10:ASN:O	1:K:13:ARG:N	2.51	0.40
1:K:27:VAL:O	1:K:29:VAL:N	2.55	0.40
1:L:91:THR:O	1:L:94:VAL:HG13	2.21	0.40
1:L:123:ALA:CB	1:L:440:ILE:HG23	2.50	0.40
1:M:37:ASN:O	1:N:517:THR:HG23	2.20	0.40
1:O:77:VAL:O	1:O:80:LYS:HB2	2.21	0.40
1:O:134:LEU:O	1:O:135:SER:C	2.59	0.40
1:O:369:VAL:HG23	1:O:370:ALA:H	1.84	0.40
1:O:384:ALA:C	1:O:385:THR:HG23	2.42	0.40
1:P:136:VAL:O	1:P:137:PRO:O	2.39	0.40
1:Q:501:ARG:O	1:Q:504:LEU:N	2.54	0.40
1:R:140:ASP:C	1:R:142:LYS:H	2.24	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:295:LEU:HD13	1:R:295:LEU:C	2.40	0.40
1:R:324:VAL:HB	1:R:331:THR:HG23	2.04	0.40
1:R:451:LEU:C	1:R:453:GLN:N	2.73	0.40
1:S:85:ALA:HB1	1:S:499:VAL:CG1	2.42	0.40
1:S:477:GLY:HA3	1:S:488:MET:SD	2.61	0.40
1:T:479:ASN:CG	1:T:493:ILE:HD11	2.41	0.40
1:T:497:THR:O	1:T:498:LYS:C	2.59	0.40
1:V:69:MET:HG2	1:2:41:ASP:OD1	2.21	0.40
1:V:497:THR:O	1:V:498:LYS:C	2.60	0.40
1:W:140:ASP:C	1:W:142:LYS:H	2.23	0.40
1:W:177:VAL:HG11	1:W:396:VAL:HG12	2.03	0.40
1:W:213:VAL:HB	1:W:325:ILE:HG13	2.03	0.40
1:X:158:VAL:O	1:X:159:GLY:C	2.60	0.40
1:X:324:VAL:HB	1:X:331:THR:CG2	2.51	0.40
1:Y:349:ILE:HA	1:Y:352:GLN:HG2	2.03	0.40
1:Y:488:MET:HE3	1:Y:493:ILE:HB	2.02	0.40
1:2:136:VAL:O	1:2:137:PRO:O	2.39	0.40
1:2:234:LEU:N	1:2:235:PRO:HD2	2.36	0.40
1:2:324:VAL:HB	1:2:331:THR:CG2	2.51	0.40
1:A:68:ASN:HD21	1:A:72:GLN:HG3	1.86	0.40
1:A:234:LEU:N	1:A:235:PRO:HD2	2.36	0.40
1:A:451:LEU:O	1:A:452:ARG:C	2.59	0.40
1:B:27:VAL:CG1	1:B:90:THR:HG23	2.46	0.40
1:B:37:ASN:O	1:C:517:THR:HG23	2.21	0.40
1:D:176:THR:HG22	1:D:177:VAL:N	2.36	0.40
1:D:462:PRO:O	1:D:463:SER:C	2.59	0.40
1:D:508:ALA:O	1:D:509:SER:C	2.59	0.40
1:E:85:ALA:HB1	1:E:499:VAL:CG1	2.39	0.40
1:E:324:VAL:HB	1:E:331:THR:CG2	2.51	0.40
1:F:136:VAL:O	1:F:137:PRO:O	2.39	0.40
1:G:321:LYS:O	1:G:322:ARG:CB	2.58	0.40
1:H:92:ALA:O	1:H:95:LEU:HB2	2.21	0.40
1:H:140:ASP:C	1:H:142:LYS:H	2.24	0.40
1:I:57:ALA:O	1:I:58:ARG:C	2.59	0.40
1:I:349:ILE:HA	1:I:352:GLN:HG3	2.03	0.40
1:J:82:ASN:HB2	1:J:89:THR:HG22	1.95	0.40
1:K:112:ASN:O	1:K:116:LEU:HG	2.22	0.40
1:K:113:PRO:HB3	1:K:515:ILE:O	2.22	0.40
1:K:409:GLU:O	1:K:497:THR:HB	2.22	0.40
1:L:140:ASP:O	1:L:142:LYS:N	2.54	0.40
1:L:171:LYS:H	1:L:171:LYS:HG2	1.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:259:LEU:C	1:L:261:THR:N	2.75	0.40
1:L:421:ARG:O	1:L:424:SER:OG	2.36	0.40
1:M:295:LEU:C	1:M:295:LEU:HD13	2.42	0.40
1:N:34:LYS:CG	1:N:458:CYS:SG	3.08	0.40
1:N:176:THR:HG22	1:N:177:VAL:N	2.36	0.40
1:N:417:VAL:HG11	1:N:477:GLY:CA	2.51	0.40
1:P:158:VAL:O	1:P:159:GLY:C	2.59	0.40
1:Q:272:LYS:HD2	1:Q:272:LYS:N	2.37	0.40
1:Q:295:LEU:HD13	1:Q:295:LEU:C	2.41	0.40
1:Q:324:VAL:HB	1:Q:331:THR:CG2	2.51	0.40
1:Q:324:VAL:HB	1:Q:331:THR:HG23	2.03	0.40
1:R:421:ARG:NH2	1:R:469:VAL:O	2.50	0.40
1:R:440:ILE:O	1:R:441:LYS:C	2.59	0.40
1:S:91:THR:O	1:S:94:VAL:HG13	2.22	0.40
1:S:464:VAL:O	1:S:466:ALA:N	2.54	0.40
1:T:57:ALA:O	1:T:58:ARG:C	2.59	0.40
1:T:91:THR:O	1:T:94:VAL:CG1	2.69	0.40
1:T:234:LEU:N	1:T:235:PRO:HD2	2.36	0.40
1:T:351:GLN:HA	1:T:354:GLU:HG2	2.03	0.40
1:T:384:ALA:C	1:T:385:THR:HG23	2.41	0.40
1:U:112:ASN:HA	1:U:113:PRO:HD3	1.90	0.40
1:W:91:THR:O	1:W:94:VAL:HG13	2.22	0.40
1:W:462:PRO:O	1:W:463:SER:C	2.58	0.40
1:X:230:ILE:O	1:X:230:ILE:HG12	2.22	0.40
1:X:240:VAL:HG11	1:X:247:LEU:HB2	2.03	0.40
1:X:412:VAL:HG23	1:X:413:ALA:N	2.36	0.40
1:Y:376:VAL:HG12	1:Y:377:ALA:N	2.37	0.40
1:Z:155:ASP:OD1	1:Z:157:THR:HB	2.22	0.40
1:1:383:ALA:HB1	1:2:281:PHE:HZ	1.86	0.40
1:1:455:VAL:HG12	1:1:455:VAL:O	2.22	0.40
1:A:140:ASP:O	1:A:142:LYS:N	2.55	0.40
1:A:213:VAL:HG12	1:A:214:GLU:N	2.37	0.40
1:B:234:LEU:N	1:B:235:PRO:HD2	2.36	0.40
1:B:254:VAL:HG12	1:B:259:LEU:HB2	2.04	0.40
1:C:326:ASN:HB2	1:C:329:THR:HB	2.02	0.40
1:C:440:ILE:O	1:C:441:LYS:C	2.57	0.40
1:D:487:ASN:O	1:D:491:MET:HG3	2.21	0.40
1:F:129:GLU:C	1:F:131:LEU:H	2.25	0.40
1:G:29:VAL:C	1:G:31:LEU:N	2.74	0.40
1:G:158:VAL:O	1:G:159:GLY:C	2.59	0.40
1:H:231:ARG:NH1	1:N:241:ALA:HB1	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:242:LYS:O	1:H:243:ALA:HB3	2.22	0.40
1:I:127:ALA:HB1	1:I:422:VAL:HG11	2.04	0.40
1:I:213:VAL:HG12	1:I:214:GLU:N	2.36	0.40
1:I:234:LEU:N	1:I:235:PRO:HD2	2.37	0.40
1:J:66:PHE:O	1:J:69:MET:HB2	2.22	0.40
1:J:259:LEU:C	1:J:261:THR:N	2.74	0.40
1:J:412:VAL:HG23	1:J:413:ALA:N	2.37	0.40
1:K:131:LEU:C	1:K:133:ALA:N	2.75	0.40
1:K:171:LYS:H	1:K:171:LYS:HG2	1.54	0.40
1:K:240:VAL:HG11	1:K:247:LEU:HB2	2.02	0.40
1:L:423:ALA:HB2	1:L:447:MET:SD	2.61	0.40
1:M:129:GLU:O	1:M:132:LYS:N	2.54	0.40
1:M:134:LEU:O	1:M:135:SER:C	2.60	0.40
1:N:470:LYS:C	1:N:472:GLY:H	2.25	0.40
1:O:264:VAL:O	1:O:267:MET:HB3	2.20	0.40
1:O:430:ARG:HH11	1:O:430:ARG:HG2	1.85	0.40
1:O:461:GLU:HA	1:O:462:PRO:HD3	1.92	0.40
1:P:324:VAL:HB	1:P:331:THR:HG23	2.04	0.40
1:P:462:PRO:O	1:P:463:SER:C	2.59	0.40
1:Q:376:VAL:HG12	1:Q:377:ALA:N	2.35	0.40
1:S:140:ASP:C	1:S:142:LYS:H	2.24	0.40
1:S:176:THR:HG22	1:S:177:VAL:N	2.36	0.40
1:S:240:VAL:HG11	1:S:247:LEU:HB2	2.03	0.40
1:S:349:ILE:HA	1:S:352:GLN:HG2	2.03	0.40
1:T:13:ARG:HA	1:T:16:MET:HE2	2.03	0.40
1:T:240:VAL:O	1:T:240:VAL:CG1	2.69	0.40
1:U:13:ARG:O	1:U:14:VAL:C	2.59	0.40
1:U:425:LYS:C	1:U:427:ALA:H	2.25	0.40
1:U:455:VAL:HG12	1:U:455:VAL:O	2.20	0.40
1:V:158:VAL:O	1:V:159:GLY:C	2.58	0.40
1:V:240:VAL:O	1:V:240:VAL:CG1	2.69	0.40
1:V:455:VAL:HG12	1:V:455:VAL:O	2.21	0.40
1:W:91:THR:HA	1:W:94:VAL:CG1	2.50	0.40
1:W:200:LEU:CD2	1:W:276:VAL:HA	2.51	0.40
1:X:239:ALA:O	1:X:314:LEU:HD21	2.22	0.40
1:Y:95:LEU:O	1:Y:98:ALA:HB3	2.21	0.40
1:Z:177:VAL:HG11	1:Z:396:VAL:HG12	2.03	0.40
1:1:240:VAL:O	1:1:240:VAL:CG1	2.68	0.40
1:1:399:ALA:O	1:1:400:LEU:C	2.60	0.40
1:1:524:LEU:O	1:1:526:LYS:N	2.40	0.40
1:A:242:LYS:O	1:A:243:ALA:HB3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:174:VAL:HB	1:B:376:VAL:HG13	2.03	0.40
1:B:213:VAL:HG12	1:B:214:GLU:N	2.36	0.40
1:B:259:LEU:C	1:B:261:THR:N	2.75	0.40
1:C:151:SER:CB	1:C:399:ALA:HA	2.52	0.40
1:C:234:LEU:N	1:C:235:PRO:HD2	2.36	0.40
1:D:13:ARG:O	1:D:16:MET:N	2.54	0.40
1:D:234:LEU:N	1:D:235:PRO:HD2	2.37	0.40
1:D:259:LEU:C	1:D:261:THR:N	2.74	0.40
1:E:95:LEU:O	1:E:98:ALA:HB3	2.22	0.40
1:E:111:MET:HG2	1:E:435:ASP:OD1	2.21	0.40
1:E:420:ILE:HD11	1:E:451:LEU:CB	2.51	0.40
1:E:421:ARG:O	1:E:422:VAL:C	2.58	0.40
1:F:96:ALA:O	1:F:97:GLN:C	2.59	0.40
1:F:182:GLY:O	1:F:183:LEU:O	2.39	0.40
1:G:236:VAL:O	1:G:240:VAL:HG23	2.22	0.40
1:G:420:ILE:HD11	1:G:451:LEU:CB	2.52	0.40
1:G:430:ARG:HG2	1:G:430:ARG:HH11	1.86	0.40
1:H:412:VAL:HG12	1:H:497:THR:OG1	2.21	0.40
1:J:13:ARG:HA	1:J:16:MET:HE2	2.03	0.40
1:J:203:TYR:C	1:J:205:ILE:N	2.75	0.40
1:K:524:LEU:O	1:K:526:LYS:N	2.42	0.40
1:L:158:VAL:O	1:L:159:GLY:C	2.59	0.40
1:L:324:VAL:HB	1:L:331:THR:HG23	2.04	0.40
1:L:399:ALA:O	1:L:400:LEU:C	2.58	0.40
1:L:406:ALA:O	1:L:410:GLY:N	2.54	0.40
1:M:461:GLU:HA	1:M:462:PRO:HD3	1.93	0.40
1:N:155:ASP:OD1	1:N:157:THR:HB	2.21	0.40
1:N:272:LYS:HD2	1:N:272:LYS:N	2.36	0.40
1:P:324:VAL:HB	1:P:331:THR:CG2	2.51	0.40
1:Q:134:LEU:O	1:Q:135:SER:C	2.60	0.40
1:Q:162:ILE:O	1:Q:165:ALA:N	2.55	0.40
1:Q:259:LEU:C	1:Q:261:THR:N	2.74	0.40
1:R:57:ALA:O	1:R:58:ARG:C	2.59	0.40
1:T:176:THR:HG22	1:T:177:VAL:N	2.36	0.40
1:U:123:ALA:CB	1:U:440:ILE:HG23	2.48	0.40
1:U:216:GLU:C	1:U:218:PRO:HD3	2.42	0.40
1:V:213:VAL:HB	1:V:325:ILE:HG13	2.03	0.40
1:V:278:ALA:HB1	1:V:279:PRO:CD	2.48	0.40
1:X:29:VAL:C	1:X:31:LEU:N	2.74	0.40
1:Y:10:ASN:O	1:Y:13:ARG:N	2.49	0.40
1:Y:182:GLY:O	1:Y:183:LEU:O	2.40	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:232:GLU:HA	1:Y:310:GLU:OE1	2.21	0.40
1:Y:433:ASN:O	1:Y:434:ALA:C	2.60	0.40
1:Y:479:ASN:CG	1:Y:493:ILE:HD11	2.42	0.40
1:Y:486:GLY:C	1:Y:491:MET:HE2	2.42	0.40
1:Z:213:VAL:HB	1:Z:325:ILE:HG13	2.04	0.40
1:1:71:ALA:O	1:1:75:LYS:HB2	2.22	0.40
1:1:96:ALA:O	1:1:97:GLN:C	2.59	0.40
1:1:295:LEU:HD13	1:1:295:LEU:C	2.42	0.40
1:1:495:ASP:O	1:1:496:PRO:C	2.60	0.40
1:2:12:ALA:O	1:2:520:MET:SD	2.80	0.40
1:2:374:GLY:O	1:2:375:GLY:C	2.60	0.40
1:2:409:GLU:O	1:2:497:THR:HB	2.21	0.40

All (5) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:313:THR:N	1:W:311:LYS:NZ[1_556]	1.94	0.26
1:C:354:GLU:OE1	1:F:350:ARG:NH1[1_455]	2.10	0.10
1:P:167:ASP:OD2	1:T:358:SER:OG[1_455]	2.15	0.05
1:P:350:ARG:NH1	1:T:354:GLU:OE1[1_455]	2.17	0.03
1:D:316:ASP:OD2	1:W:311:LYS:CE[1_556]	2.18	0.02

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	1	523/547 (96%)	393 (75%)	93 (18%)	37 (7%)	1 13
1	2	523/547 (96%)	397 (76%)	90 (17%)	36 (7%)	1 14
1	A	523/547 (96%)	397 (76%)	87 (17%)	39 (8%)	1 12
1	B	523/547 (96%)	398 (76%)	91 (17%)	34 (6%)	1 15

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	C	523/547 (96%)	400 (76%)	87 (17%)	36 (7%)	1	14
1	D	523/547 (96%)	394 (75%)	88 (17%)	41 (8%)	1	11
1	E	523/547 (96%)	393 (75%)	94 (18%)	36 (7%)	1	14
1	F	523/547 (96%)	397 (76%)	91 (17%)	35 (7%)	1	15
1	G	523/547 (96%)	399 (76%)	88 (17%)	36 (7%)	1	14
1	H	523/547 (96%)	393 (75%)	90 (17%)	40 (8%)	1	11
1	I	523/547 (96%)	391 (75%)	95 (18%)	37 (7%)	1	13
1	J	523/547 (96%)	398 (76%)	88 (17%)	37 (7%)	1	13
1	K	523/547 (96%)	396 (76%)	89 (17%)	38 (7%)	1	13
1	L	523/547 (96%)	399 (76%)	84 (16%)	40 (8%)	1	11
1	M	523/547 (96%)	397 (76%)	87 (17%)	39 (8%)	1	12
1	N	523/547 (96%)	399 (76%)	88 (17%)	36 (7%)	1	14
1	O	523/547 (96%)	394 (75%)	92 (18%)	37 (7%)	1	13
1	P	523/547 (96%)	392 (75%)	94 (18%)	37 (7%)	1	13
1	Q	523/547 (96%)	395 (76%)	91 (17%)	37 (7%)	1	13
1	R	523/547 (96%)	395 (76%)	88 (17%)	40 (8%)	1	11
1	S	523/547 (96%)	400 (76%)	84 (16%)	39 (8%)	1	12
1	T	523/547 (96%)	401 (77%)	84 (16%)	38 (7%)	1	13
1	U	523/547 (96%)	394 (75%)	91 (17%)	38 (7%)	1	13
1	V	523/547 (96%)	392 (75%)	94 (18%)	37 (7%)	1	13
1	W	523/547 (96%)	396 (76%)	87 (17%)	40 (8%)	1	11
1	X	523/547 (96%)	400 (76%)	87 (17%)	36 (7%)	1	14
1	Y	523/547 (96%)	400 (76%)	87 (17%)	36 (7%)	1	14
1	Z	523/547 (96%)	391 (75%)	94 (18%)	38 (7%)	1	13
All	All	14644/15316 (96%)	11091 (76%)	2503 (17%)	1050 (7%)	1	13

All (1050) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	137	PRO
1	A	202	PRO
1	A	256	GLY
1	A	334	ASP
1	A	384	ALA

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Mol	Chain	Res	Type
1	B	137	PRO
1	B	202	PRO
1	B	256	GLY
1	B	334	ASP
1	B	384	ALA
1	C	137	PRO
1	C	202	PRO
1	C	256	GLY
1	C	334	ASP
1	C	384	ALA
1	D	137	PRO
1	D	202	PRO
1	D	256	GLY
1	D	334	ASP
1	D	384	ALA
1	E	137	PRO
1	E	202	PRO
1	E	256	GLY
1	E	334	ASP
1	E	384	ALA
1	F	137	PRO
1	F	202	PRO
1	F	256	GLY
1	F	334	ASP
1	F	384	ALA
1	G	137	PRO
1	G	202	PRO
1	G	256	GLY
1	G	334	ASP
1	G	384	ALA
1	H	137	PRO
1	H	202	PRO
1	H	256	GLY
1	H	334	ASP
1	H	384	ALA
1	I	137	PRO
1	I	202	PRO
1	I	256	GLY
1	I	334	ASP
1	I	384	ALA
1	J	202	PRO
1	J	256	GLY

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Mol	Chain	Res	Type
1	J	334	ASP
1	J	384	ALA
1	K	137	PRO
1	K	202	PRO
1	K	256	GLY
1	K	334	ASP
1	K	384	ALA
1	L	202	PRO
1	L	256	GLY
1	L	334	ASP
1	L	384	ALA
1	M	137	PRO
1	M	202	PRO
1	M	256	GLY
1	M	334	ASP
1	M	384	ALA
1	N	137	PRO
1	N	202	PRO
1	N	256	GLY
1	N	384	ALA
1	O	137	PRO
1	O	202	PRO
1	O	256	GLY
1	O	334	ASP
1	O	384	ALA
1	O	452	ARG
1	P	137	PRO
1	P	202	PRO
1	P	256	GLY
1	P	334	ASP
1	P	384	ALA
1	Q	137	PRO
1	Q	202	PRO
1	Q	256	GLY
1	Q	334	ASP
1	Q	384	ALA
1	R	137	PRO
1	R	202	PRO
1	R	256	GLY
1	R	334	ASP
1	R	384	ALA
1	S	137	PRO

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Mol	Chain	Res	Type
1	S	202	PRO
1	S	256	GLY
1	S	334	ASP
1	S	384	ALA
1	T	137	PRO
1	T	202	PRO
1	T	256	GLY
1	T	334	ASP
1	T	384	ALA
1	U	137	PRO
1	U	202	PRO
1	U	256	GLY
1	U	334	ASP
1	U	384	ALA
1	V	137	PRO
1	V	202	PRO
1	V	256	GLY
1	V	334	ASP
1	V	384	ALA
1	W	202	PRO
1	W	256	GLY
1	W	334	ASP
1	W	384	ALA
1	X	137	PRO
1	X	202	PRO
1	X	256	GLY
1	X	334	ASP
1	X	384	ALA
1	Y	137	PRO
1	Y	202	PRO
1	Y	256	GLY
1	Y	384	ALA
1	Z	137	PRO
1	Z	202	PRO
1	Z	256	GLY
1	Z	334	ASP
1	Z	384	ALA
1	1	137	PRO
1	1	202	PRO
1	1	256	GLY
1	1	334	ASP
1	1	384	ALA

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Mol	Chain	Res	Type
1	2	137	PRO
1	2	202	PRO
1	2	256	GLY
1	2	334	ASP
1	2	384	ALA
1	A	25	ASP
1	A	141	SER
1	A	183	LEU
1	A	322	ARG
1	A	326	ASN
1	A	375	GLY
1	A	413	ALA
1	A	426	LEU
1	A	452	ARG
1	B	25	ASP
1	B	141	SER
1	B	183	LEU
1	B	225	LYS
1	B	322	ARG
1	B	375	GLY
1	B	413	ALA
1	B	426	LEU
1	B	452	ARG
1	C	25	ASP
1	C	141	SER
1	C	183	LEU
1	C	322	ARG
1	C	375	GLY
1	C	413	ALA
1	C	426	LEU
1	C	452	ARG
1	D	141	SER
1	D	183	LEU
1	D	322	ARG
1	D	326	ASN
1	D	375	GLY
1	D	413	ALA
1	D	426	LEU
1	D	452	ARG
1	E	25	ASP
1	E	141	SER
1	E	183	LEU

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Mol	Chain	Res	Type
1	E	322	ARG
1	E	326	ASN
1	E	375	GLY
1	E	413	ALA
1	E	426	LEU
1	E	452	ARG
1	F	25	ASP
1	F	141	SER
1	F	183	LEU
1	F	322	ARG
1	F	375	GLY
1	F	413	ALA
1	F	426	LEU
1	F	452	ARG
1	G	141	SER
1	G	183	LEU
1	G	322	ARG
1	G	326	ASN
1	G	375	GLY
1	G	413	ALA
1	G	426	LEU
1	G	452	ARG
1	H	141	SER
1	H	183	LEU
1	H	322	ARG
1	H	326	ASN
1	H	375	GLY
1	H	413	ALA
1	H	426	LEU
1	H	452	ARG
1	I	141	SER
1	I	183	LEU
1	I	322	ARG
1	I	326	ASN
1	I	375	GLY
1	I	413	ALA
1	I	426	LEU
1	I	452	ARG
1	J	25	ASP
1	J	137	PRO
1	J	141	SER
1	J	183	LEU

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Mol	Chain	Res	Type
1	J	322	ARG
1	J	375	GLY
1	J	413	ALA
1	J	426	LEU
1	J	452	ARG
1	K	25	ASP
1	K	28	LYS
1	K	141	SER
1	K	183	LEU
1	K	225	LYS
1	K	322	ARG
1	K	375	GLY
1	K	413	ALA
1	K	426	LEU
1	K	452	ARG
1	L	137	PRO
1	L	141	SER
1	L	183	LEU
1	L	225	LYS
1	L	322	ARG
1	L	326	ASN
1	L	375	GLY
1	L	413	ALA
1	L	426	LEU
1	L	452	ARG
1	M	25	ASP
1	M	141	SER
1	M	183	LEU
1	M	322	ARG
1	M	326	ASN
1	M	375	GLY
1	M	413	ALA
1	M	426	LEU
1	M	452	ARG
1	N	25	ASP
1	N	28	LYS
1	N	141	SER
1	N	183	LEU
1	N	322	ARG
1	N	334	ASP
1	N	375	GLY
1	N	413	ALA

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Mol	Chain	Res	Type
1	N	426	LEU
1	N	452	ARG
1	O	25	ASP
1	O	141	SER
1	O	183	LEU
1	O	322	ARG
1	O	375	GLY
1	O	413	ALA
1	O	426	LEU
1	P	25	ASP
1	P	28	LYS
1	P	141	SER
1	P	183	LEU
1	P	225	LYS
1	P	322	ARG
1	P	326	ASN
1	P	375	GLY
1	P	413	ALA
1	P	426	LEU
1	P	452	ARG
1	Q	141	SER
1	Q	183	LEU
1	Q	225	LYS
1	Q	322	ARG
1	Q	326	ASN
1	Q	375	GLY
1	Q	413	ALA
1	Q	426	LEU
1	Q	452	ARG
1	R	25	ASP
1	R	141	SER
1	R	183	LEU
1	R	322	ARG
1	R	326	ASN
1	R	375	GLY
1	R	413	ALA
1	R	426	LEU
1	R	452	ARG
1	S	25	ASP
1	S	141	SER
1	S	183	LEU
1	S	225	LYS

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Mol	Chain	Res	Type
1	S	322	ARG
1	S	375	GLY
1	S	413	ALA
1	S	426	LEU
1	S	452	ARG
1	T	25	ASP
1	T	28	LYS
1	T	141	SER
1	T	183	LEU
1	T	225	LYS
1	T	322	ARG
1	T	326	ASN
1	T	375	GLY
1	T	413	ALA
1	T	426	LEU
1	T	452	ARG
1	U	141	SER
1	U	183	LEU
1	U	225	LYS
1	U	322	ARG
1	U	326	ASN
1	U	375	GLY
1	U	413	ALA
1	U	426	LEU
1	U	452	ARG
1	V	25	ASP
1	V	141	SER
1	V	183	LEU
1	V	225	LYS
1	V	322	ARG
1	V	375	GLY
1	V	413	ALA
1	V	426	LEU
1	V	452	ARG
1	W	137	PRO
1	W	141	SER
1	W	183	LEU
1	W	322	ARG
1	W	375	GLY
1	W	413	ALA
1	W	426	LEU
1	W	452	ARG

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Mol	Chain	Res	Type
1	X	25	ASP
1	X	141	SER
1	X	183	LEU
1	X	225	LYS
1	X	322	ARG
1	X	326	ASN
1	X	375	GLY
1	X	413	ALA
1	X	426	LEU
1	X	452	ARG
1	Y	25	ASP
1	Y	28	LYS
1	Y	141	SER
1	Y	183	LEU
1	Y	225	LYS
1	Y	322	ARG
1	Y	334	ASP
1	Y	375	GLY
1	Y	413	ALA
1	Y	426	LEU
1	Y	452	ARG
1	Z	25	ASP
1	Z	141	SER
1	Z	183	LEU
1	Z	322	ARG
1	Z	326	ASN
1	Z	375	GLY
1	Z	413	ALA
1	Z	426	LEU
1	Z	452	ARG
1	1	25	ASP
1	1	141	SER
1	1	183	LEU
1	1	322	ARG
1	1	326	ASN
1	1	375	GLY
1	1	413	ALA
1	1	426	LEU
1	1	452	ARG
1	2	25	ASP
1	2	141	SER
1	2	183	LEU

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Mol	Chain	Res	Type
1	2	322	ARG
1	2	375	GLY
1	2	413	ALA
1	2	426	LEU
1	2	452	ARG
1	A	225	LYS
1	A	339	GLU
1	A	364	LYS
1	A	471	GLY
1	B	28	LYS
1	B	326	ASN
1	B	339	GLU
1	B	471	GLY
1	C	28	LYS
1	C	225	LYS
1	C	326	ASN
1	C	339	GLU
1	C	364	LYS
1	D	25	ASP
1	D	225	LYS
1	D	339	GLU
1	D	364	LYS
1	E	65	LYS
1	E	225	LYS
1	E	339	GLU
1	E	364	LYS
1	E	401	HIS
1	E	471	GLY
1	F	28	LYS
1	F	53	GLY
1	F	65	LYS
1	F	225	LYS
1	F	257	GLU
1	F	326	ASN
1	F	339	GLU
1	F	364	LYS
1	G	28	LYS
1	G	225	LYS
1	G	339	GLU
1	G	364	LYS
1	G	525	PRO
1	H	25	ASP

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Mol	Chain	Res	Type
1	H	28	LYS
1	H	53	GLY
1	H	65	LYS
1	H	225	LYS
1	H	339	GLU
1	H	364	LYS
1	H	471	GLY
1	I	25	ASP
1	I	225	LYS
1	I	339	GLU
1	I	364	LYS
1	I	401	HIS
1	I	471	GLY
1	J	28	LYS
1	J	225	LYS
1	J	326	ASN
1	J	339	GLU
1	J	364	LYS
1	J	401	HIS
1	K	326	ASN
1	K	339	GLU
1	K	364	LYS
1	K	423	ALA
1	L	339	GLU
1	L	364	LYS
1	M	28	LYS
1	M	225	LYS
1	M	471	GLY
1	N	225	LYS
1	N	326	ASN
1	N	339	GLU
1	N	364	LYS
1	O	225	LYS
1	O	326	ASN
1	O	339	GLU
1	O	364	LYS
1	O	465	VAL
1	O	471	GLY
1	P	85	ALA
1	P	339	GLU
1	P	364	LYS
1	Q	28	LYS

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Mol	Chain	Res	Type
1	Q	65	LYS
1	Q	339	GLU
1	R	65	LYS
1	R	225	LYS
1	R	339	GLU
1	R	435	ASP
1	R	471	GLY
1	S	28	LYS
1	S	326	ASN
1	S	339	GLU
1	T	339	GLU
1	T	364	LYS
1	U	25	ASP
1	U	28	LYS
1	U	339	GLU
1	U	364	LYS
1	U	401	HIS
1	U	435	ASP
1	V	28	LYS
1	V	326	ASN
1	V	339	GLU
1	V	364	LYS
1	W	25	ASP
1	W	28	LYS
1	W	225	LYS
1	W	326	ASN
1	W	339	GLU
1	W	364	LYS
1	W	471	GLY
1	X	257	GLU
1	X	339	GLU
1	X	364	LYS
1	X	401	HIS
1	X	525	PRO
1	Y	85	ALA
1	Y	326	ASN
1	Y	339	GLU
1	Y	382	GLY
1	Z	28	LYS
1	Z	225	LYS
1	Z	364	LYS
1	1	28	LYS

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Mol	Chain	Res	Type
1	1	225	LYS
1	1	364	LYS
1	1	471	GLY
1	2	28	LYS
1	2	225	LYS
1	2	326	ASN
1	2	339	GLU
1	2	364	LYS
1	2	401	HIS
1	2	465	VAL
1	A	28	LYS
1	A	61	GLU
1	A	257	GLU
1	A	271	VAL
1	A	401	HIS
1	A	525	PRO
1	B	257	GLU
1	B	271	VAL
1	B	364	LYS
1	B	401	HIS
1	B	525	PRO
1	C	65	LYS
1	C	257	GLU
1	C	401	HIS
1	C	435	ASP
1	C	525	PRO
1	D	28	LYS
1	D	61	GLU
1	D	65	LYS
1	D	257	GLU
1	D	382	GLY
1	D	401	HIS
1	D	435	ASP
1	D	525	PRO
1	E	28	LYS
1	E	257	GLU
1	E	525	PRO
1	F	85	ALA
1	F	271	VAL
1	F	331	THR
1	F	401	HIS
1	F	525	PRO

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Mol	Chain	Res	Type
1	G	25	ASP
1	G	65	LYS
1	G	257	GLU
1	G	382	GLY
1	G	401	HIS
1	H	61	GLU
1	H	64	ASP
1	H	85	ALA
1	H	257	GLU
1	H	271	VAL
1	H	401	HIS
1	H	435	ASP
1	H	465	VAL
1	H	525	PRO
1	I	28	LYS
1	I	61	GLU
1	I	65	LYS
1	I	85	ALA
1	I	257	GLU
1	I	271	VAL
1	I	525	PRO
1	J	61	GLU
1	J	257	GLU
1	J	471	GLY
1	J	525	PRO
1	K	85	ALA
1	K	257	GLU
1	K	401	HIS
1	K	525	PRO
1	L	25	ASP
1	L	28	LYS
1	L	30	THR
1	L	61	GLU
1	L	257	GLU
1	L	271	VAL
1	L	382	GLY
1	L	435	ASP
1	L	525	PRO
1	M	61	GLU
1	M	257	GLU
1	M	271	VAL
1	M	331	THR

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Mol	Chain	Res	Type
1	M	339	GLU
1	M	364	LYS
1	M	401	HIS
1	M	525	PRO
1	N	85	ALA
1	N	257	GLU
1	N	382	GLY
1	N	401	HIS
1	N	525	PRO
1	O	28	LYS
1	O	257	GLU
1	O	401	HIS
1	O	525	PRO
1	P	53	GLY
1	P	257	GLU
1	P	401	HIS
1	P	525	PRO
1	Q	25	ASP
1	Q	71	ALA
1	Q	85	ALA
1	Q	257	GLU
1	Q	364	LYS
1	Q	382	GLY
1	Q	401	HIS
1	Q	435	ASP
1	Q	525	PRO
1	R	28	LYS
1	R	58	ARG
1	R	61	GLU
1	R	64	ASP
1	R	257	GLU
1	R	364	LYS
1	R	382	GLY
1	R	401	HIS
1	R	525	PRO
1	S	257	GLU
1	S	364	LYS
1	S	401	HIS
1	S	471	GLY
1	S	525	PRO
1	T	53	GLY
1	T	257	GLU

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Mol	Chain	Res	Type
1	T	401	HIS
1	T	435	ASP
1	T	525	PRO
1	U	58	ARG
1	U	61	GLU
1	U	257	GLU
1	U	271	VAL
1	U	382	GLY
1	U	525	PRO
1	V	65	LYS
1	V	85	ALA
1	V	257	GLU
1	V	471	GLY
1	V	525	PRO
1	W	257	GLU
1	W	382	GLY
1	W	401	HIS
1	W	435	ASP
1	W	525	PRO
1	X	28	LYS
1	X	53	GLY
1	X	61	GLU
1	X	65	LYS
1	X	331	THR
1	Y	53	GLY
1	Y	257	GLU
1	Y	364	LYS
1	Y	401	HIS
1	Y	471	GLY
1	Y	525	PRO
1	Z	58	ARG
1	Z	61	GLU
1	Z	85	ALA
1	Z	257	GLU
1	Z	271	VAL
1	Z	339	GLU
1	Z	382	GLY
1	Z	401	HIS
1	Z	435	ASP
1	Z	465	VAL
1	Z	525	PRO
1	1	58	ARG

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Mol	Chain	Res	Type
1	1	61	GLU
1	1	171	LYS
1	1	257	GLU
1	1	339	GLU
1	1	401	HIS
1	1	435	ASP
1	1	465	VAL
1	1	525	PRO
1	2	257	GLU
1	2	271	VAL
1	2	382	GLY
1	2	435	ASP
1	2	471	GLY
1	2	525	PRO
1	A	65	LYS
1	A	85	ALA
1	A	184	GLN
1	A	331	THR
1	A	382	GLY
1	A	418	ALA
1	A	435	ASP
1	B	53	GLY
1	B	58	ARG
1	B	85	ALA
1	B	184	GLN
1	B	331	THR
1	B	382	GLY
1	B	383	ALA
1	B	418	ALA
1	B	465	VAL
1	C	64	ASP
1	C	85	ALA
1	C	184	GLN
1	C	271	VAL
1	C	331	THR
1	C	382	GLY
1	C	383	ALA
1	C	471	GLY
1	D	58	ARG
1	D	85	ALA
1	D	271	VAL
1	D	383	ALA

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Mol	Chain	Res	Type
1	E	53	GLY
1	E	61	GLU
1	E	85	ALA
1	E	184	GLN
1	E	271	VAL
1	E	331	THR
1	E	382	GLY
1	E	383	ALA
1	F	61	GLU
1	F	382	GLY
1	F	383	ALA
1	F	471	GLY
1	G	53	GLY
1	G	64	ASP
1	G	85	ALA
1	G	184	GLN
1	G	271	VAL
1	G	331	THR
1	G	383	ALA
1	G	435	ASP
1	G	465	VAL
1	G	471	GLY
1	H	33	PRO
1	H	58	ARG
1	H	184	GLN
1	H	331	THR
1	H	382	GLY
1	I	331	THR
1	I	382	GLY
1	I	435	ASP
1	I	465	VAL
1	J	58	ARG
1	J	65	LYS
1	J	85	ALA
1	J	184	GLN
1	J	271	VAL
1	J	331	THR
1	J	382	GLY
1	J	465	VAL
1	K	61	GLU
1	K	271	VAL
1	K	331	THR

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Mol	Chain	Res	Type
1	K	382	GLY
1	K	383	ALA
1	K	435	ASP
1	L	58	ARG
1	L	85	ALA
1	L	171	LYS
1	L	401	HIS
1	L	423	ALA
1	L	471	GLY
1	M	58	ARG
1	M	65	LYS
1	M	85	ALA
1	M	418	ALA
1	M	465	VAL
1	N	65	LYS
1	N	184	GLN
1	N	271	VAL
1	N	331	THR
1	N	435	ASP
1	N	465	VAL
1	N	471	GLY
1	O	53	GLY
1	O	61	GLU
1	O	271	VAL
1	O	331	THR
1	O	382	GLY
1	O	435	ASP
1	P	65	LYS
1	P	171	LYS
1	P	271	VAL
1	P	331	THR
1	P	418	ALA
1	P	471	GLY
1	Q	58	ARG
1	Q	64	ASP
1	Q	184	GLN
1	Q	271	VAL
1	Q	471	GLY
1	R	85	ALA
1	R	184	GLN
1	R	271	VAL
1	R	383	ALA

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Mol	Chain	Res	Type
1	R	418	ALA
1	S	53	GLY
1	S	65	LYS
1	S	71	ALA
1	S	85	ALA
1	S	184	GLN
1	S	271	VAL
1	S	331	THR
1	S	382	GLY
1	S	418	ALA
1	S	465	VAL
1	T	58	ARG
1	T	61	GLU
1	T	65	LYS
1	T	85	ALA
1	T	184	GLN
1	T	271	VAL
1	T	382	GLY
1	U	65	LYS
1	U	85	ALA
1	U	331	THR
1	U	383	ALA
1	U	471	GLY
1	V	64	ASP
1	V	184	GLN
1	V	271	VAL
1	V	331	THR
1	V	383	ALA
1	V	401	HIS
1	V	423	ALA
1	V	435	ASP
1	V	465	VAL
1	W	33	PRO
1	W	58	ARG
1	W	61	GLU
1	W	64	ASP
1	W	65	LYS
1	W	85	ALA
1	W	271	VAL
1	W	423	ALA
1	X	30	THR
1	X	58	ARG

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Mol	Chain	Res	Type
1	X	85	ALA
1	X	184	GLN
1	X	271	VAL
1	X	382	GLY
1	X	435	ASP
1	X	471	GLY
1	Y	58	ARG
1	Y	65	LYS
1	Y	184	GLN
1	Y	271	VAL
1	Y	331	THR
1	Y	383	ALA
1	Y	465	VAL
1	Z	53	GLY
1	Z	64	ASP
1	Z	65	LYS
1	Z	331	THR
1	1	30	THR
1	1	85	ALA
1	1	271	VAL
1	1	331	THR
1	1	382	GLY
1	1	383	ALA
1	2	61	GLU
1	2	85	ALA
1	2	331	THR
1	2	383	ALA
1	A	30	THR
1	A	33	PRO
1	A	58	ARG
1	A	171	LYS
1	A	383	ALA
1	C	53	GLY
1	C	465	VAL
1	D	30	THR
1	D	64	ASP
1	D	171	LYS
1	D	184	GLN
1	D	331	THR
1	D	385	THR
1	D	423	ALA
1	D	471	GLY

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Mol	Chain	Res	Type
1	E	33	PRO
1	F	33	PRO
1	F	86	GLY
1	F	184	GLN
1	F	465	VAL
1	G	33	PRO
1	H	383	ALA
1	H	418	ALA
1	I	33	PRO
1	I	86	GLY
1	I	171	LYS
1	I	184	GLN
1	I	383	ALA
1	J	33	PRO
1	J	53	GLY
1	J	383	ALA
1	J	418	ALA
1	K	33	PRO
1	K	65	LYS
1	K	184	GLN
1	K	418	ALA
1	K	422	VAL
1	K	471	GLY
1	L	33	PRO
1	L	53	GLY
1	L	65	LYS
1	L	184	GLN
1	L	331	THR
1	L	383	ALA
1	L	465	VAL
1	M	33	PRO
1	M	53	GLY
1	M	171	LYS
1	M	184	GLN
1	M	382	GLY
1	M	383	ALA
1	M	435	ASP
1	N	33	PRO
1	N	383	ALA
1	O	33	PRO
1	O	65	LYS
1	O	85	ALA

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Mol	Chain	Res	Type
1	O	171	LYS
1	O	184	GLN
1	O	383	ALA
1	O	509	SER
1	P	64	ASP
1	P	86	GLY
1	P	382	GLY
1	P	383	ALA
1	P	435	ASP
1	P	465	VAL
1	Q	331	THR
1	Q	383	ALA
1	Q	465	VAL
1	R	3	ALA
1	R	331	THR
1	R	385	THR
1	S	58	ARG
1	S	61	GLU
1	S	171	LYS
1	S	383	ALA
1	T	33	PRO
1	T	171	LYS
1	T	331	THR
1	T	385	THR
1	T	465	VAL
1	T	471	GLY
1	U	53	GLY
1	U	171	LYS
1	U	184	GLN
1	U	385	THR
1	V	382	GLY
1	W	171	LYS
1	W	184	GLN
1	W	331	THR
1	W	383	ALA
1	W	465	VAL
1	X	33	PRO
1	X	465	VAL
1	Y	33	PRO
1	Y	71	ALA
1	Z	184	GLN
1	Z	383	ALA

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Mol	Chain	Res	Type
1	Z	385	THR
1	Z	471	GLY
1	1	33	PRO
1	2	184	GLN
1	2	418	ALA
1	A	465	VAL
1	C	33	PRO
1	E	86	GLY
1	H	86	GLY
1	J	86	GLY
1	J	510	VAL
1	K	86	GLY
1	K	465	VAL
1	L	86	GLY
1	N	53	GLY
1	N	86	GLY
1	P	33	PRO
1	Q	33	PRO
1	Q	86	GLY
1	R	33	PRO
1	R	86	GLY
1	S	33	PRO
1	S	86	GLY
1	U	33	PRO
1	V	33	PRO
1	V	86	GLY
1	W	86	GLY
1	X	86	GLY
1	Y	86	GLY
1	Y	510	VAL
1	Z	33	PRO
1	Z	86	GLY
1	1	86	GLY
1	2	33	PRO
1	2	86	GLY
1	A	86	GLY
1	B	33	PRO
1	B	86	GLY
1	C	86	GLY
1	D	33	PRO
1	D	86	GLY
1	E	465	VAL

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Mol	Chain	Res	Type
1	G	86	GLY
1	K	53	GLY
1	M	86	GLY
1	O	86	GLY
1	Q	53	GLY
1	R	53	GLY
1	R	465	VAL
1	T	86	GLY
1	U	86	GLY
1	U	465	VAL
1	W	53	GLY
1	W	422	VAL
1	F	510	VAL
1	G	422	VAL
1	H	510	VAL
1	I	53	GLY
1	I	422	VAL
1	L	422	VAL
1	N	510	VAL
1	V	422	VAL
1	1	422	VAL
1	A	53	GLY
1	D	422	VAL
1	E	510	VAL
1	N	422	VAL
1	V	53	GLY
1	1	53	GLY
1	2	53	GLY
1	2	510	VAL
1	C	422	VAL
1	D	465	VAL
1	E	422	VAL
1	H	422	VAL
1	M	422	VAL
1	P	510	VAL
1	S	510	VAL
1	T	422	VAL

5.3.2 Protein sidechains (i)

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

resolution.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	1	403/412 (98%)	380 (94%)	23 (6%)	20	54
1	2	403/412 (98%)	379 (94%)	24 (6%)	19	53
1	A	403/412 (98%)	382 (95%)	21 (5%)	23	57
1	B	403/412 (98%)	382 (95%)	21 (5%)	23	57
1	C	403/412 (98%)	383 (95%)	20 (5%)	24	58
1	D	403/412 (98%)	383 (95%)	20 (5%)	24	58
1	E	403/412 (98%)	380 (94%)	23 (6%)	20	54
1	F	403/412 (98%)	381 (94%)	22 (6%)	21	55
1	G	403/412 (98%)	384 (95%)	19 (5%)	26	60
1	H	403/412 (98%)	385 (96%)	18 (4%)	27	62
1	I	403/412 (98%)	380 (94%)	23 (6%)	20	54
1	J	403/412 (98%)	383 (95%)	20 (5%)	24	58
1	K	403/412 (98%)	382 (95%)	21 (5%)	23	57
1	L	403/412 (98%)	381 (94%)	22 (6%)	21	55
1	M	403/412 (98%)	380 (94%)	23 (6%)	20	54
1	N	403/412 (98%)	381 (94%)	22 (6%)	21	55
1	O	403/412 (98%)	385 (96%)	18 (4%)	27	62
1	P	403/412 (98%)	384 (95%)	19 (5%)	26	60
1	Q	403/412 (98%)	382 (95%)	21 (5%)	23	57
1	R	403/412 (98%)	382 (95%)	21 (5%)	23	57
1	S	403/412 (98%)	382 (95%)	21 (5%)	23	57
1	T	403/412 (98%)	380 (94%)	23 (6%)	20	54
1	U	403/412 (98%)	382 (95%)	21 (5%)	23	57
1	V	403/412 (98%)	382 (95%)	21 (5%)	23	57
1	W	403/412 (98%)	380 (94%)	23 (6%)	20	54
1	X	403/412 (98%)	380 (94%)	23 (6%)	20	54
1	Y	403/412 (98%)	382 (95%)	21 (5%)	23	57
1	Z	403/412 (98%)	386 (96%)	17 (4%)	30	63
All	All	11284/11536 (98%)	10693 (95%)	591 (5%)	23	57

All (591) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	11	ASP
1	A	62	LEU
1	A	74	VAL
1	A	76	GLU
1	A	134	LEU
1	A	167	ASP
1	A	171	LYS
1	A	174	VAL
1	A	183	LEU
1	A	188	ASP
1	A	199	TYR
1	A	310	GLU
1	A	401	HIS
1	A	404	ARG
1	A	411	VAL
1	A	412	VAL
1	A	436	GLN
1	A	445	ARG
1	A	454	ILE
1	A	463	SER
1	A	523	ASP
1	B	11	ASP
1	B	62	LEU
1	B	74	VAL
1	B	76	GLU
1	B	134	LEU
1	B	171	LYS
1	B	174	VAL
1	B	183	LEU
1	B	188	ASP
1	B	199	TYR
1	B	310	GLU
1	B	401	HIS
1	B	404	ARG
1	B	411	VAL
1	B	412	VAL
1	B	436	GLN
1	B	445	ARG
1	B	454	ILE
1	B	463	SER
1	B	495	ASP
1	B	523	ASP

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Mol	Chain	Res	Type
1	C	11	ASP
1	C	33	PRO
1	C	62	LEU
1	C	74	VAL
1	C	76	GLU
1	C	134	LEU
1	C	137	PRO
1	C	171	LYS
1	C	174	VAL
1	C	199	TYR
1	C	310	GLU
1	C	401	HIS
1	C	404	ARG
1	C	411	VAL
1	C	412	VAL
1	C	436	GLN
1	C	445	ARG
1	C	454	ILE
1	C	463	SER
1	C	523	ASP
1	D	11	ASP
1	D	62	LEU
1	D	74	VAL
1	D	134	LEU
1	D	167	ASP
1	D	171	LYS
1	D	174	VAL
1	D	183	LEU
1	D	199	TYR
1	D	310	GLU
1	D	401	HIS
1	D	404	ARG
1	D	411	VAL
1	D	412	VAL
1	D	436	GLN
1	D	445	ARG
1	D	454	ILE
1	D	463	SER
1	D	495	ASP
1	D	523	ASP
1	E	11	ASP
1	E	33	PRO

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Mol	Chain	Res	Type
1	E	62	LEU
1	E	74	VAL
1	E	76	GLU
1	E	134	LEU
1	E	167	ASP
1	E	171	LYS
1	E	174	VAL
1	E	183	LEU
1	E	188	ASP
1	E	199	TYR
1	E	310	GLU
1	E	331	THR
1	E	401	HIS
1	E	404	ARG
1	E	411	VAL
1	E	412	VAL
1	E	436	GLN
1	E	445	ARG
1	E	454	ILE
1	E	463	SER
1	E	523	ASP
1	F	11	ASP
1	F	33	PRO
1	F	62	LEU
1	F	74	VAL
1	F	76	GLU
1	F	134	LEU
1	F	167	ASP
1	F	171	LYS
1	F	174	VAL
1	F	183	LEU
1	F	188	ASP
1	F	199	TYR
1	F	310	GLU
1	F	401	HIS
1	F	404	ARG
1	F	411	VAL
1	F	412	VAL
1	F	436	GLN
1	F	445	ARG
1	F	454	ILE
1	F	463	SER

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Mol	Chain	Res	Type
1	F	523	ASP
1	G	11	ASP
1	G	62	LEU
1	G	74	VAL
1	G	76	GLU
1	G	134	LEU
1	G	171	LYS
1	G	174	VAL
1	G	188	ASP
1	G	199	TYR
1	G	310	GLU
1	G	401	HIS
1	G	404	ARG
1	G	411	VAL
1	G	412	VAL
1	G	436	GLN
1	G	445	ARG
1	G	454	ILE
1	G	463	SER
1	G	495	ASP
1	H	11	ASP
1	H	62	LEU
1	H	74	VAL
1	H	76	GLU
1	H	134	LEU
1	H	171	LYS
1	H	174	VAL
1	H	199	TYR
1	H	310	GLU
1	H	401	HIS
1	H	404	ARG
1	H	411	VAL
1	H	412	VAL
1	H	436	GLN
1	H	445	ARG
1	H	454	ILE
1	H	463	SER
1	H	523	ASP
1	I	11	ASP
1	I	62	LEU
1	I	74	VAL
1	I	76	GLU

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Mol	Chain	Res	Type
1	I	134	LEU
1	I	137	PRO
1	I	167	ASP
1	I	171	LYS
1	I	174	VAL
1	I	199	TYR
1	I	310	GLU
1	I	325	ILE
1	I	331	THR
1	I	401	HIS
1	I	404	ARG
1	I	411	VAL
1	I	412	VAL
1	I	436	GLN
1	I	445	ARG
1	I	454	ILE
1	I	463	SER
1	I	495	ASP
1	I	523	ASP
1	J	11	ASP
1	J	62	LEU
1	J	74	VAL
1	J	134	LEU
1	J	171	LYS
1	J	174	VAL
1	J	183	LEU
1	J	188	ASP
1	J	199	TYR
1	J	310	GLU
1	J	401	HIS
1	J	404	ARG
1	J	411	VAL
1	J	412	VAL
1	J	436	GLN
1	J	445	ARG
1	J	454	ILE
1	J	463	SER
1	J	495	ASP
1	J	523	ASP
1	K	11	ASP
1	K	33	PRO
1	K	62	LEU

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Mol	Chain	Res	Type
1	K	74	VAL
1	K	76	GLU
1	K	134	LEU
1	K	171	LYS
1	K	174	VAL
1	K	183	LEU
1	K	199	TYR
1	K	310	GLU
1	K	331	THR
1	K	401	HIS
1	K	404	ARG
1	K	411	VAL
1	K	412	VAL
1	K	436	GLN
1	K	445	ARG
1	K	454	ILE
1	K	463	SER
1	K	523	ASP
1	L	11	ASP
1	L	62	LEU
1	L	74	VAL
1	L	76	GLU
1	L	91	THR
1	L	134	LEU
1	L	167	ASP
1	L	171	LYS
1	L	174	VAL
1	L	183	LEU
1	L	199	TYR
1	L	310	GLU
1	L	401	HIS
1	L	404	ARG
1	L	411	VAL
1	L	412	VAL
1	L	436	GLN
1	L	445	ARG
1	L	454	ILE
1	L	463	SER
1	L	495	ASP
1	L	523	ASP
1	M	11	ASP
1	M	33	PRO

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Mol	Chain	Res	Type
1	M	62	LEU
1	M	74	VAL
1	M	76	GLU
1	M	134	LEU
1	M	167	ASP
1	M	171	LYS
1	M	174	VAL
1	M	199	TYR
1	M	310	GLU
1	M	325	ILE
1	M	401	HIS
1	M	404	ARG
1	M	411	VAL
1	M	412	VAL
1	M	436	GLN
1	M	445	ARG
1	M	454	ILE
1	M	463	SER
1	M	478	TYR
1	M	495	ASP
1	M	523	ASP
1	N	11	ASP
1	N	33	PRO
1	N	62	LEU
1	N	74	VAL
1	N	76	GLU
1	N	91	THR
1	N	134	LEU
1	N	137	PRO
1	N	167	ASP
1	N	171	LYS
1	N	174	VAL
1	N	188	ASP
1	N	199	TYR
1	N	310	GLU
1	N	401	HIS
1	N	404	ARG
1	N	411	VAL
1	N	412	VAL
1	N	436	GLN
1	N	445	ARG
1	N	454	ILE

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Mol	Chain	Res	Type
1	N	463	SER
1	O	11	ASP
1	O	62	LEU
1	O	74	VAL
1	O	76	GLU
1	O	134	LEU
1	O	171	LYS
1	O	174	VAL
1	O	199	TYR
1	O	310	GLU
1	O	401	HIS
1	O	404	ARG
1	O	411	VAL
1	O	412	VAL
1	O	436	GLN
1	O	445	ARG
1	O	454	ILE
1	O	463	SER
1	O	523	ASP
1	P	11	ASP
1	P	62	LEU
1	P	74	VAL
1	P	134	LEU
1	P	167	ASP
1	P	171	LYS
1	P	174	VAL
1	P	183	LEU
1	P	199	TYR
1	P	310	GLU
1	P	401	HIS
1	P	404	ARG
1	P	411	VAL
1	P	412	VAL
1	P	436	GLN
1	P	445	ARG
1	P	454	ILE
1	P	463	SER
1	P	523	ASP
1	Q	11	ASP
1	Q	33	PRO
1	Q	62	LEU
1	Q	74	VAL

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Mol	Chain	Res	Type
1	Q	76	GLU
1	Q	134	LEU
1	Q	167	ASP
1	Q	171	LYS
1	Q	174	VAL
1	Q	183	LEU
1	Q	199	TYR
1	Q	310	GLU
1	Q	401	HIS
1	Q	404	ARG
1	Q	411	VAL
1	Q	412	VAL
1	Q	436	GLN
1	Q	445	ARG
1	Q	454	ILE
1	Q	463	SER
1	Q	495	ASP
1	R	11	ASP
1	R	62	LEU
1	R	74	VAL
1	R	76	GLU
1	R	134	LEU
1	R	167	ASP
1	R	171	LYS
1	R	174	VAL
1	R	183	LEU
1	R	188	ASP
1	R	199	TYR
1	R	310	GLU
1	R	401	HIS
1	R	404	ARG
1	R	411	VAL
1	R	412	VAL
1	R	436	GLN
1	R	445	ARG
1	R	454	ILE
1	R	463	SER
1	R	523	ASP
1	S	11	ASP
1	S	62	LEU
1	S	74	VAL
1	S	76	GLU

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Mol	Chain	Res	Type
1	S	134	LEU
1	S	171	LYS
1	S	174	VAL
1	S	183	LEU
1	S	188	ASP
1	S	199	TYR
1	S	310	GLU
1	S	401	HIS
1	S	404	ARG
1	S	411	VAL
1	S	412	VAL
1	S	436	GLN
1	S	445	ARG
1	S	454	ILE
1	S	463	SER
1	S	495	ASP
1	S	523	ASP
1	T	11	ASP
1	T	33	PRO
1	T	62	LEU
1	T	74	VAL
1	T	76	GLU
1	T	134	LEU
1	T	137	PRO
1	T	167	ASP
1	T	171	LYS
1	T	174	VAL
1	T	199	TYR
1	T	310	GLU
1	T	331	THR
1	T	401	HIS
1	T	404	ARG
1	T	411	VAL
1	T	412	VAL
1	T	436	GLN
1	T	445	ARG
1	T	454	ILE
1	T	463	SER
1	T	495	ASP
1	T	523	ASP
1	U	11	ASP
1	U	62	LEU

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Mol	Chain	Res	Type
1	U	74	VAL
1	U	76	GLU
1	U	134	LEU
1	U	167	ASP
1	U	171	LYS
1	U	174	VAL
1	U	183	LEU
1	U	199	TYR
1	U	310	GLU
1	U	401	HIS
1	U	404	ARG
1	U	411	VAL
1	U	412	VAL
1	U	436	GLN
1	U	445	ARG
1	U	454	ILE
1	U	463	SER
1	U	495	ASP
1	U	523	ASP
1	V	11	ASP
1	V	33	PRO
1	V	62	LEU
1	V	74	VAL
1	V	76	GLU
1	V	134	LEU
1	V	137	PRO
1	V	171	LYS
1	V	174	VAL
1	V	183	LEU
1	V	199	TYR
1	V	310	GLU
1	V	401	HIS
1	V	404	ARG
1	V	411	VAL
1	V	412	VAL
1	V	436	GLN
1	V	445	ARG
1	V	454	ILE
1	V	463	SER
1	V	523	ASP
1	W	11	ASP
1	W	33	PRO

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Mol	Chain	Res	Type
1	W	62	LEU
1	W	74	VAL
1	W	76	GLU
1	W	134	LEU
1	W	167	ASP
1	W	171	LYS
1	W	174	VAL
1	W	183	LEU
1	W	188	ASP
1	W	199	TYR
1	W	310	GLU
1	W	401	HIS
1	W	404	ARG
1	W	411	VAL
1	W	412	VAL
1	W	436	GLN
1	W	445	ARG
1	W	454	ILE
1	W	463	SER
1	W	495	ASP
1	W	523	ASP
1	X	11	ASP
1	X	33	PRO
1	X	62	LEU
1	X	74	VAL
1	X	134	LEU
1	X	167	ASP
1	X	171	LYS
1	X	174	VAL
1	X	183	LEU
1	X	188	ASP
1	X	199	TYR
1	X	310	GLU
1	X	331	THR
1	X	401	HIS
1	X	404	ARG
1	X	411	VAL
1	X	412	VAL
1	X	436	GLN
1	X	445	ARG
1	X	454	ILE
1	X	463	SER

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Mol	Chain	Res	Type
1	X	495	ASP
1	X	523	ASP
1	Y	11	ASP
1	Y	62	LEU
1	Y	74	VAL
1	Y	76	GLU
1	Y	134	LEU
1	Y	167	ASP
1	Y	171	LYS
1	Y	174	VAL
1	Y	188	ASP
1	Y	199	TYR
1	Y	310	GLU
1	Y	331	THR
1	Y	401	HIS
1	Y	404	ARG
1	Y	411	VAL
1	Y	412	VAL
1	Y	436	GLN
1	Y	445	ARG
1	Y	454	ILE
1	Y	463	SER
1	Y	523	ASP
1	Z	11	ASP
1	Z	62	LEU
1	Z	74	VAL
1	Z	76	GLU
1	Z	134	LEU
1	Z	171	LYS
1	Z	174	VAL
1	Z	199	TYR
1	Z	310	GLU
1	Z	401	HIS
1	Z	404	ARG
1	Z	411	VAL
1	Z	412	VAL
1	Z	436	GLN
1	Z	445	ARG
1	Z	454	ILE
1	Z	463	SER
1	1	11	ASP
1	1	62	LEU

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Mol	Chain	Res	Type
1	1	74	VAL
1	1	76	GLU
1	1	134	LEU
1	1	137	PRO
1	1	167	ASP
1	1	171	LYS
1	1	174	VAL
1	1	183	LEU
1	1	199	TYR
1	1	310	GLU
1	1	331	THR
1	1	401	HIS
1	1	404	ARG
1	1	411	VAL
1	1	412	VAL
1	1	436	GLN
1	1	445	ARG
1	1	454	ILE
1	1	463	SER
1	1	478	TYR
1	1	523	ASP
1	2	11	ASP
1	2	62	LEU
1	2	74	VAL
1	2	134	LEU
1	2	167	ASP
1	2	171	LYS
1	2	174	VAL
1	2	183	LEU
1	2	188	ASP
1	2	199	TYR
1	2	265	ASN
1	2	310	GLU
1	2	325	ILE
1	2	331	THR
1	2	401	HIS
1	2	404	ARG
1	2	411	VAL
1	2	412	VAL
1	2	436	GLN
1	2	445	ARG
1	2	454	ILE

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Mol	Chain	Res	Type
1	2	463	SER
1	2	495	ASP
1	2	523	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (263) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	10	ASN
1	A	97	GLN
1	A	146	GLN
1	A	194	GLN
1	A	265	ASN
1	A	326	ASN
1	A	351	GLN
1	A	366	GLN
1	A	453	GLN
1	B	10	ASN
1	B	97	GLN
1	B	146	GLN
1	B	194	GLN
1	B	229	ASN
1	B	265	ASN
1	B	326	ASN
1	B	351	GLN
1	B	366	GLN
1	B	453	GLN
1	C	10	ASN
1	C	97	GLN
1	C	146	GLN
1	C	194	GLN
1	C	265	ASN
1	C	326	ASN
1	C	351	GLN
1	C	366	GLN
1	C	453	GLN
1	D	10	ASN
1	D	97	GLN
1	D	146	GLN
1	D	194	GLN
1	D	265	ASN
1	D	326	ASN
1	D	351	GLN

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Mol	Chain	Res	Type
1	D	366	GLN
1	D	453	GLN
1	D	475	ASN
1	E	10	ASN
1	E	97	GLN
1	E	146	GLN
1	E	194	GLN
1	E	265	ASN
1	E	326	ASN
1	E	351	GLN
1	E	366	GLN
1	E	453	GLN
1	E	475	ASN
1	F	10	ASN
1	F	97	GLN
1	F	146	GLN
1	F	194	GLN
1	F	265	ASN
1	F	326	ASN
1	F	351	GLN
1	F	366	GLN
1	F	453	GLN
1	G	10	ASN
1	G	97	GLN
1	G	146	GLN
1	G	194	GLN
1	G	265	ASN
1	G	326	ASN
1	G	351	GLN
1	G	366	GLN
1	G	453	GLN
1	H	10	ASN
1	H	97	GLN
1	H	146	GLN
1	H	194	GLN
1	H	265	ASN
1	H	326	ASN
1	H	351	GLN
1	H	366	GLN
1	H	453	GLN
1	H	475	ASN
1	I	10	ASN

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Mol	Chain	Res	Type
1	I	97	GLN
1	I	146	GLN
1	I	194	GLN
1	I	229	ASN
1	I	265	ASN
1	I	326	ASN
1	I	351	GLN
1	I	366	GLN
1	I	453	GLN
1	I	475	ASN
1	J	10	ASN
1	J	97	GLN
1	J	146	GLN
1	J	194	GLN
1	J	265	ASN
1	J	326	ASN
1	J	351	GLN
1	J	366	GLN
1	J	453	GLN
1	K	10	ASN
1	K	97	GLN
1	K	146	GLN
1	K	194	GLN
1	K	265	ASN
1	K	326	ASN
1	K	351	GLN
1	K	366	GLN
1	K	453	GLN
1	L	10	ASN
1	L	97	GLN
1	L	146	GLN
1	L	194	GLN
1	L	265	ASN
1	L	326	ASN
1	L	351	GLN
1	L	366	GLN
1	L	453	GLN
1	M	10	ASN
1	M	97	GLN
1	M	146	GLN
1	M	194	GLN
1	M	265	ASN

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Mol	Chain	Res	Type
1	M	326	ASN
1	M	351	GLN
1	M	366	GLN
1	M	453	GLN
1	N	10	ASN
1	N	97	GLN
1	N	146	GLN
1	N	194	GLN
1	N	265	ASN
1	N	326	ASN
1	N	351	GLN
1	N	366	GLN
1	N	453	GLN
1	O	10	ASN
1	O	97	GLN
1	O	146	GLN
1	O	194	GLN
1	O	265	ASN
1	O	326	ASN
1	O	351	GLN
1	O	366	GLN
1	O	453	GLN
1	P	10	ASN
1	P	97	GLN
1	P	146	GLN
1	P	194	GLN
1	P	265	ASN
1	P	326	ASN
1	P	351	GLN
1	P	366	GLN
1	P	453	GLN
1	Q	10	ASN
1	Q	97	GLN
1	Q	146	GLN
1	Q	194	GLN
1	Q	265	ASN
1	Q	326	ASN
1	Q	351	GLN
1	Q	366	GLN
1	Q	453	GLN
1	R	10	ASN
1	R	97	GLN

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Mol	Chain	Res	Type
1	R	146	GLN
1	R	194	GLN
1	R	265	ASN
1	R	326	ASN
1	R	351	GLN
1	R	366	GLN
1	R	453	GLN
1	R	475	ASN
1	S	10	ASN
1	S	97	GLN
1	S	146	GLN
1	S	194	GLN
1	S	265	ASN
1	S	326	ASN
1	S	351	GLN
1	S	366	GLN
1	S	453	GLN
1	S	475	ASN
1	T	10	ASN
1	T	97	GLN
1	T	146	GLN
1	T	194	GLN
1	T	229	ASN
1	T	265	ASN
1	T	326	ASN
1	T	351	GLN
1	T	366	GLN
1	T	453	GLN
1	U	10	ASN
1	U	97	GLN
1	U	146	GLN
1	U	194	GLN
1	U	265	ASN
1	U	326	ASN
1	U	351	GLN
1	U	366	GLN
1	U	453	GLN
1	V	10	ASN
1	V	97	GLN
1	V	146	GLN
1	V	194	GLN
1	V	265	ASN

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Mol	Chain	Res	Type
1	V	326	ASN
1	V	351	GLN
1	V	366	GLN
1	W	10	ASN
1	W	97	GLN
1	W	146	GLN
1	W	194	GLN
1	W	229	ASN
1	W	265	ASN
1	W	326	ASN
1	W	351	GLN
1	W	366	GLN
1	W	453	GLN
1	W	475	ASN
1	X	10	ASN
1	X	97	GLN
1	X	146	GLN
1	X	194	GLN
1	X	265	ASN
1	X	326	ASN
1	X	351	GLN
1	X	366	GLN
1	X	453	GLN
1	Y	10	ASN
1	Y	97	GLN
1	Y	146	GLN
1	Y	194	GLN
1	Y	265	ASN
1	Y	326	ASN
1	Y	351	GLN
1	Y	366	GLN
1	Y	453	GLN
1	Z	10	ASN
1	Z	97	GLN
1	Z	146	GLN
1	Z	194	GLN
1	Z	265	ASN
1	Z	326	ASN
1	Z	351	GLN
1	Z	366	GLN
1	Z	453	GLN
1	1	10	ASN

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Mol	Chain	Res	Type
1	1	97	GLN
1	1	146	GLN
1	1	194	GLN
1	1	265	ASN
1	1	326	ASN
1	1	351	GLN
1	1	366	GLN
1	1	453	GLN
1	1	475	ASN
1	2	10	ASN
1	2	97	GLN
1	2	146	GLN
1	2	194	GLN
1	2	265	ASN
1	2	326	ASN
1	2	351	GLN
1	2	366	GLN
1	2	453	GLN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

There are no ligands in this entry.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data (i)

6.1 Protein, DNA and RNA chains (i)

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	1	525/547 (95%)	-0.28	1 (0%)	95	91	14, 53, 105, 117	0
1	2	525/547 (95%)	-0.21	2 (0%)	92	87	17, 68, 135, 147	0
1	A	525/547 (95%)	-0.17	3 (0%)	89	81	17, 76, 156, 168	0
1	B	525/547 (95%)	-0.16	3 (0%)	89	81	21, 69, 146, 158	0
1	C	525/547 (95%)	-0.24	1 (0%)	95	91	17, 67, 130, 142	0
1	D	525/547 (95%)	-0.19	2 (0%)	92	87	21, 80, 143, 155	0
1	E	525/547 (95%)	-0.13	7 (1%)	77	65	20, 79, 169, 181	0
1	F	525/547 (95%)	-0.19	3 (0%)	89	81	18, 71, 148, 160	0
1	G	525/547 (95%)	-0.09	5 (0%)	82	71	17, 77, 168, 180	0
1	H	525/547 (95%)	-0.13	7 (1%)	77	65	15, 71, 157, 169	0
1	I	525/547 (95%)	-0.28	1 (0%)	95	91	13, 52, 107, 119	0
1	J	525/547 (95%)	-0.23	2 (0%)	92	87	15, 72, 143, 155	0
1	K	525/547 (95%)	-0.19	1 (0%)	95	91	12, 58, 146, 158	0
1	L	525/547 (95%)	-0.11	8 (1%)	73	61	16, 74, 160, 171	0
1	M	525/547 (95%)	-0.26	0	100	100	12, 50, 109, 121	0
1	N	525/547 (95%)	-0.21	1 (0%)	95	91	14, 58, 133, 145	0
1	O	525/547 (95%)	-0.11	5 (0%)	82	71	20, 80, 164, 176	0
1	P	525/547 (95%)	-0.17	2 (0%)	92	87	19, 68, 149, 161	0
1	Q	525/547 (95%)	-0.15	7 (1%)	77	65	16, 82, 162, 174	0
1	R	525/547 (95%)	-0.10	6 (1%)	80	69	20, 73, 174, 186	0
1	S	525/547 (95%)	-0.13	5 (0%)	82	71	21, 75, 155, 167	0
1	T	525/547 (95%)	-0.20	3 (0%)	89	81	18, 71, 141, 153	0
1	U	525/547 (95%)	-0.14	5 (0%)	82	71	21, 78, 159, 171	0
1	V	525/547 (95%)	-0.20	2 (0%)	92	87	15, 68, 148, 160	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	W	525/547 (95%)	-0.17	5 (0%) 82 71	16, 73, 153, 165	0
1	X	525/547 (95%)	-0.27	0 100 100	11, 50, 112, 124	0
1	Y	525/547 (95%)	-0.25	1 (0%) 95 91	11, 60, 142, 154	0
1	Z	525/547 (95%)	-0.12	9 (1%) 70 57	18, 67, 161, 173	0
All	All	14700/15316 (95%)	-0.18	97 (0%) 87 79	11, 67, 155, 186	0

All (97) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	L	223	ALA	5.1
1	R	203	TYR	4.5
1	F	268	ARG	4.3
1	B	223	ALA	4.2
1	K	268	ARG	4.2
1	V	268	ARG	3.8
1	R	229	ASN	3.8
1	Z	268	ARG	3.7
1	Z	223	ALA	3.7
1	P	268	ARG	3.6
1	H	306	GLY	3.6
1	U	299	THR	3.5
1	E	223	ALA	3.5
1	H	268	ARG	3.4
1	H	223	ALA	3.2
1	O	229	ASN	3.1
1	Y	268	ARG	3.0
1	R	309	LEU	3.0
1	L	299	THR	2.9
1	E	255	GLU	2.9
1	G	309	LEU	2.8
1	W	263	VAL	2.8
1	S	268	ARG	2.8
1	O	320	ALA	2.7
1	Z	299	THR	2.7
1	L	263	VAL	2.7
1	T	268	ARG	2.7
1	Q	233	MET	2.6
1	H	269	GLY	2.6
1	L	302	SER	2.6
1	S	223	ALA	2.6
1	O	223	ALA	2.6

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Mol	Chain	Res	Type	RSRZ
1	Z	256	GLY	2.6
1	W	256	GLY	2.5
1	Z	246	PRO	2.5
1	V	366	GLN	2.5
1	H	265	ASN	2.5
1	W	251	ALA	2.5
1	2	266	THR	2.5
1	O	237	LEU	2.5
1	Q	229	ASN	2.5
1	A	268	ARG	2.4
1	J	268	ARG	2.4
1	N	268	ARG	2.4
1	Q	284	ARG	2.4
1	L	251	ALA	2.4
1	F	264	VAL	2.4
1	D	279	PRO	2.4
1	Z	270	ILE	2.4
1	G	302	SER	2.3
1	L	301	ILE	2.3
1	E	349	ILE	2.3
1	W	270	ILE	2.3
1	T	319	GLN	2.3
1	2	313	THR	2.3
1	Q	203	TYR	2.3
1	C	268	ARG	2.3
1	1	268	ARG	2.3
1	H	299	THR	2.2
1	D	332	ILE	2.2
1	L	275	ALA	2.2
1	R	231	ARG	2.2
1	R	224	ASP	2.2
1	U	309	LEU	2.2
1	W	172	GLU	2.2
1	U	243	ALA	2.2
1	G	316	ASP	2.2
1	A	302	SER	2.2
1	B	268	ARG	2.2
1	Q	314	LEU	2.2
1	Z	314	LEU	2.2
1	E	233	MET	2.2
1	O	299	THR	2.2
1	Q	231	ARG	2.2

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Mol	Chain	Res	Type	RSRZ
1	G	203	TYR	2.2
1	B	314	LEU	2.1
1	E	235	PRO	2.1
1	R	233	MET	2.1
1	E	309	LEU	2.1
1	P	263	VAL	2.1
1	U	311	LYS	2.1
1	J	313	THR	2.1
1	U	383	ALA	2.1
1	Z	263	VAL	2.1
1	S	299	THR	2.1
1	F	231	ARG	2.1
1	H	247	LEU	2.1
1	I	268	ARG	2.1
1	A	303	GLU	2.1
1	Q	271	VAL	2.1
1	S	240	VAL	2.0
1	G	227	ILE	2.0
1	Z	233	MET	2.0
1	E	254	VAL	2.0
1	T	206	ASN	2.0
1	L	233	MET	2.0
1	S	265	ASN	2.0

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

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

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

There are no ligands in this entry.

6.5 Other polymers (i)

There are no such residues in this entry.