Full wwPDB X-ray Structure Validation Report ⓘ

Dec 12, 2023 – 05:20 pm GMT

PDB ID	:	2YEY
Title	:	Crystal structure of the allosteric-defective chaperonin GroEL E434K mutant
Authors	:	Cabo-Bilbao, A.; Mechaly, A.E.; Agirre, J.; Spinelli, S.; Sot, B.; Muga, A.; Guerin, D.M.A.
Deposited on	:	2011-03-31
Resolution	:	4.50 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

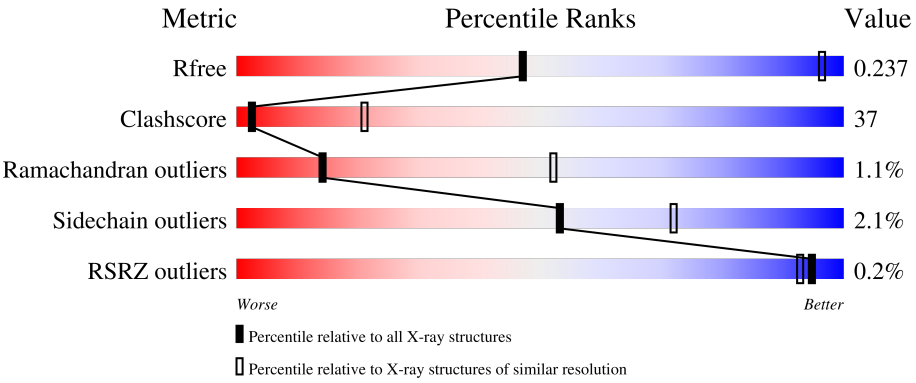
MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.13
EDS	:	2.36
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation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

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 4.50 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1055 (5.20-3.80)
Clashscore	141614	1123 (5.20-3.80)
Ramachandran outliers	138981	1069 (5.20-3.80)
Sidechain outliers	138945	1050 (5.20-3.80)
RSRZ outliers	127900	1101 (5.30-3.70)

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

Mol	Chain	Length	Quality of chain
1	A	524	44% 54% .
1	B	524	53% 44% .
1	C	524	47% 51% .
1	D	524	47% 50% .
1	E	524	% 48% 48% .

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Mol	Chain	Length	Quality of chain
1	F	524	47% 50%
1	G	524	50% 48%
1	H	524	46% 51%
1	I	524	46% 51%
1	J	524	44% 53%
1	K	524	47% 50%
1	L	524	45% 53%
1	M	524	46% 52%
1	N	524	% 48% 49%

2 Entry composition (i)

There is only 1 type of molecule in this entry. The entry contains 53984 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 60 KDA CHAPERONIN.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	524	Total 3856	C 2398	N 666	O 772	S 20	0	0	0
1	B	524	Total 3856	C 2398	N 666	O 772	S 20	0	0	0
1	C	524	Total 3856	C 2398	N 666	O 772	S 20	0	0	0
1	D	524	Total 3856	C 2398	N 666	O 772	S 20	0	0	0
1	E	524	Total 3856	C 2398	N 666	O 772	S 20	0	0	0
1	F	524	Total 3856	C 2398	N 666	O 772	S 20	0	0	0
1	G	524	Total 3856	C 2398	N 666	O 772	S 20	0	0	0
1	H	524	Total 3856	C 2398	N 666	O 772	S 20	0	0	0
1	I	524	Total 3856	C 2398	N 666	O 772	S 20	0	0	0
1	J	524	Total 3856	C 2398	N 666	O 772	S 20	0	0	0
1	K	524	Total 3856	C 2398	N 666	O 772	S 20	0	0	0
1	L	524	Total 3856	C 2398	N 666	O 772	S 20	0	0	0
1	M	524	Total 3856	C 2398	N 666	O 772	S 20	0	0	0
1	N	524	Total 3856	C 2398	N 666	O 772	S 20	0	0	0

There are 14 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	434	LYS	GLU	engineered mutation	UNP P0A6F5

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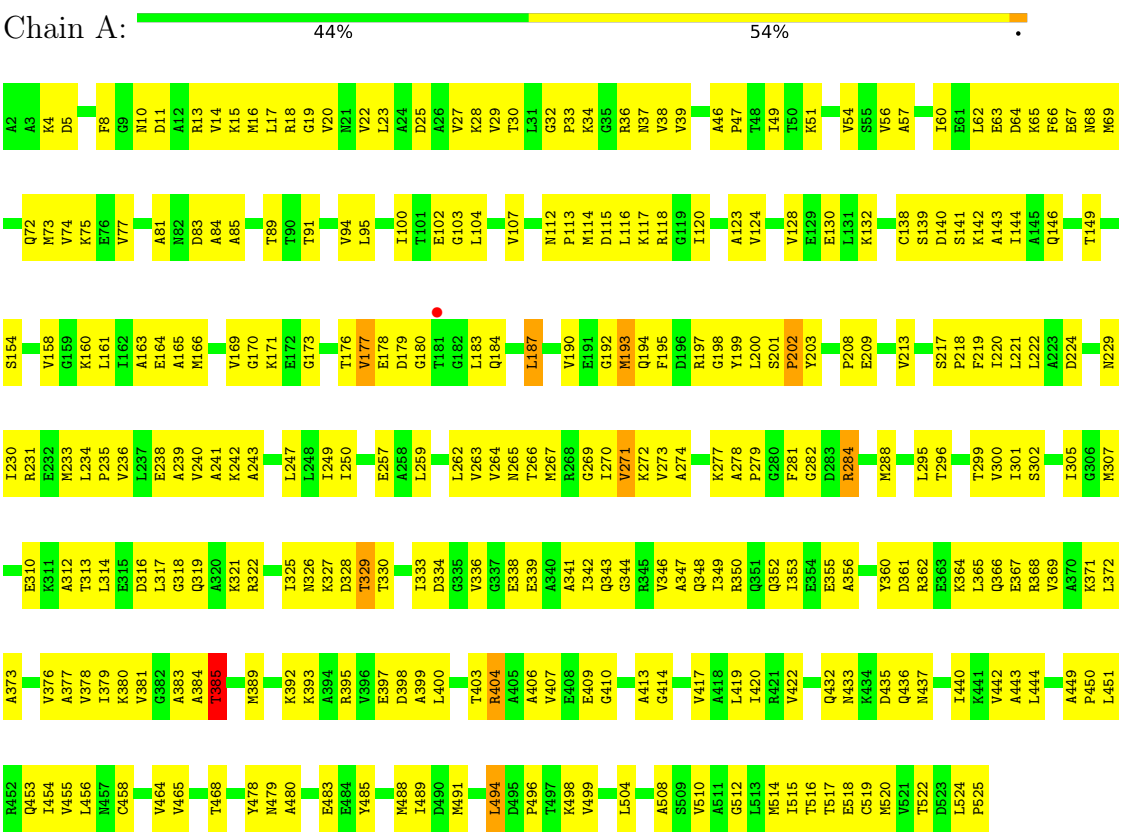
Chain	Residue	Modelled	Actual	Comment	Reference
B	434	LYS	GLU	engineered mutation	UNP P0A6F5
C	434	LYS	GLU	engineered mutation	UNP P0A6F5
D	434	LYS	GLU	engineered mutation	UNP P0A6F5
E	434	LYS	GLU	engineered mutation	UNP P0A6F5
F	434	LYS	GLU	engineered mutation	UNP P0A6F5
G	434	LYS	GLU	engineered mutation	UNP P0A6F5
H	434	LYS	GLU	engineered mutation	UNP P0A6F5
I	434	LYS	GLU	engineered mutation	UNP P0A6F5
J	434	LYS	GLU	engineered mutation	UNP P0A6F5
K	434	LYS	GLU	engineered mutation	UNP P0A6F5
L	434	LYS	GLU	engineered mutation	UNP P0A6F5
M	434	LYS	GLU	engineered mutation	UNP P0A6F5
N	434	LYS	GLU	engineered mutation	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.

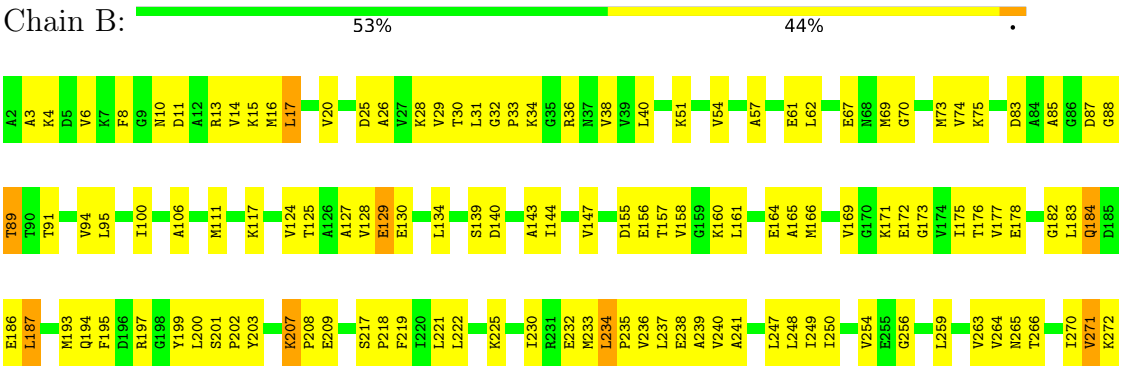
- Molecule 1: 60 KDA CHAPERONIN

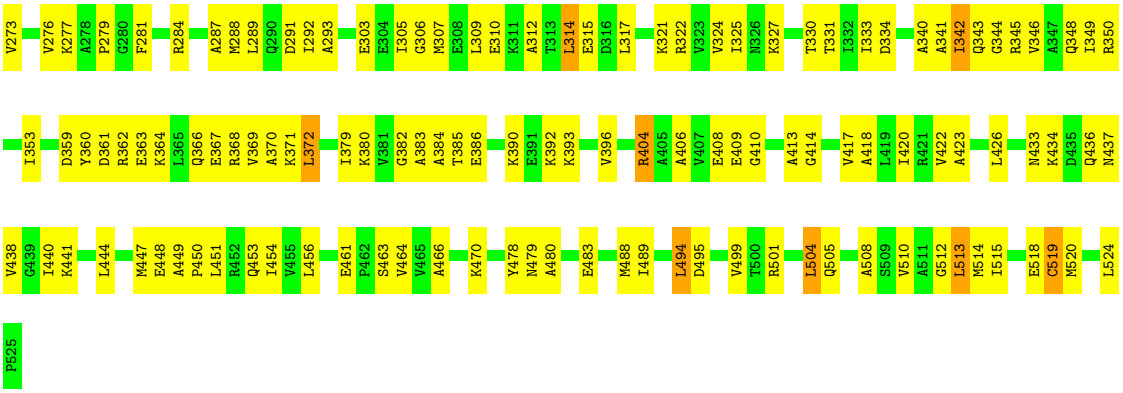
Chain A:

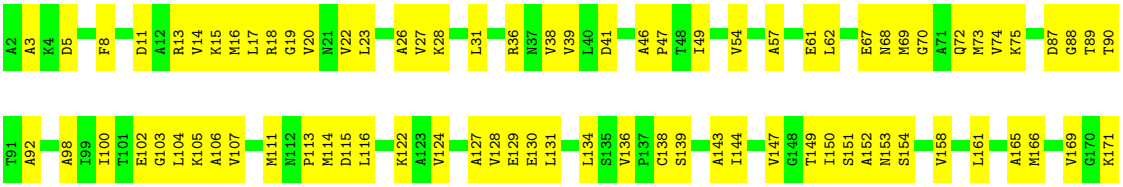


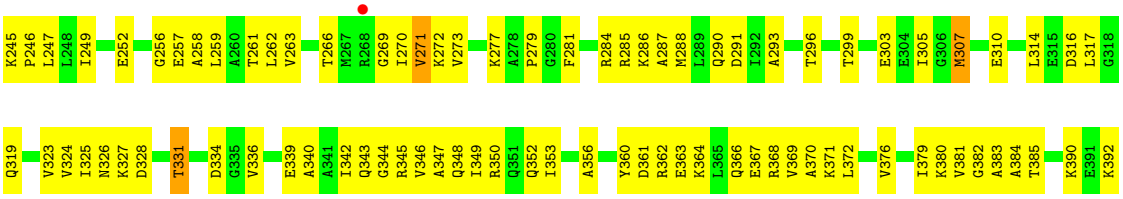
- Molecule 1: 60 KDA CHAPERONIN

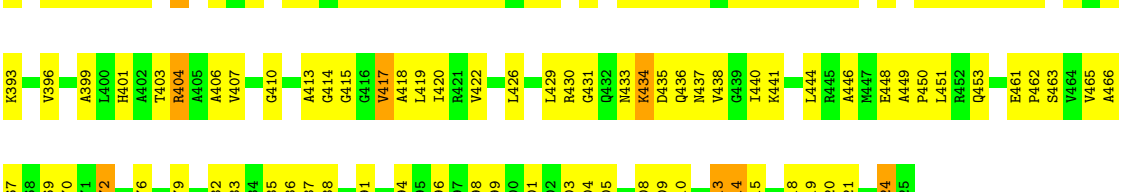
Chain B:

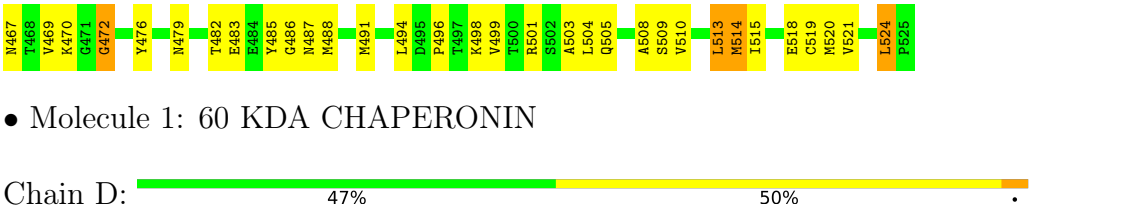


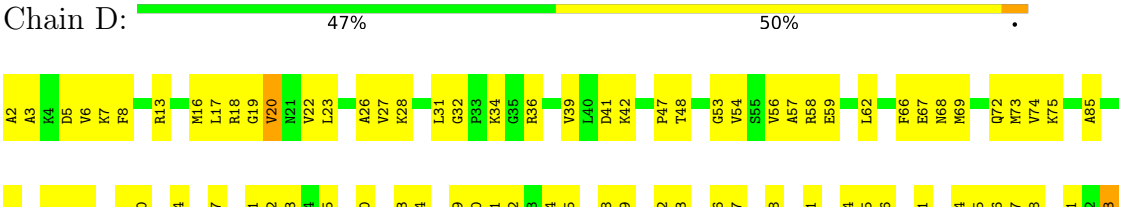


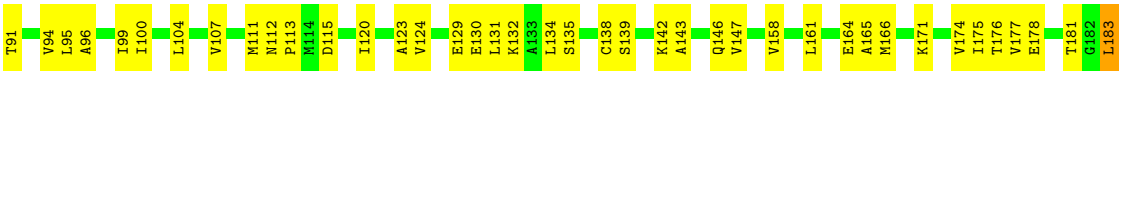










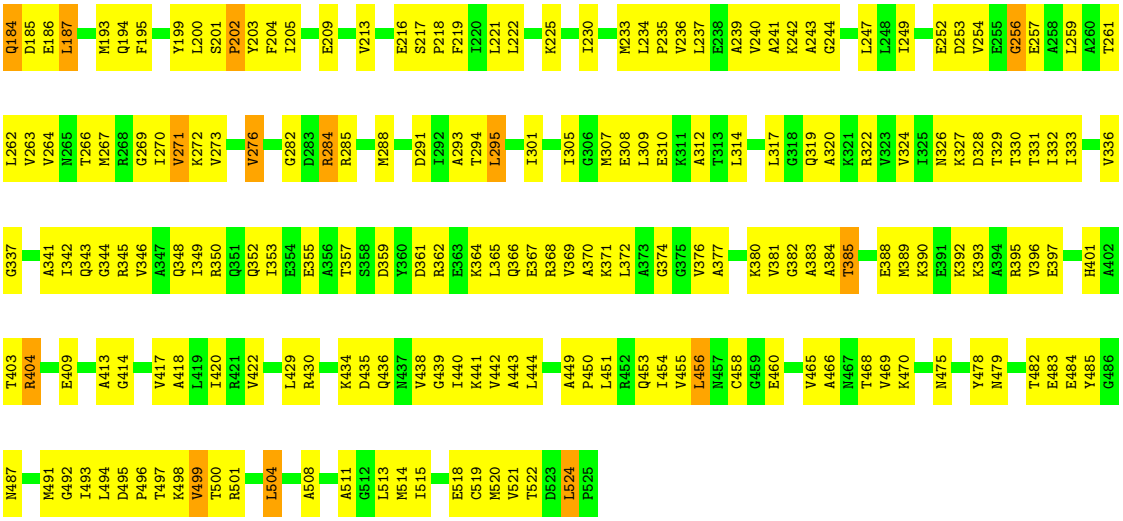


• Molecule 1: 60 KDA CHAPERONIN

Chain C:

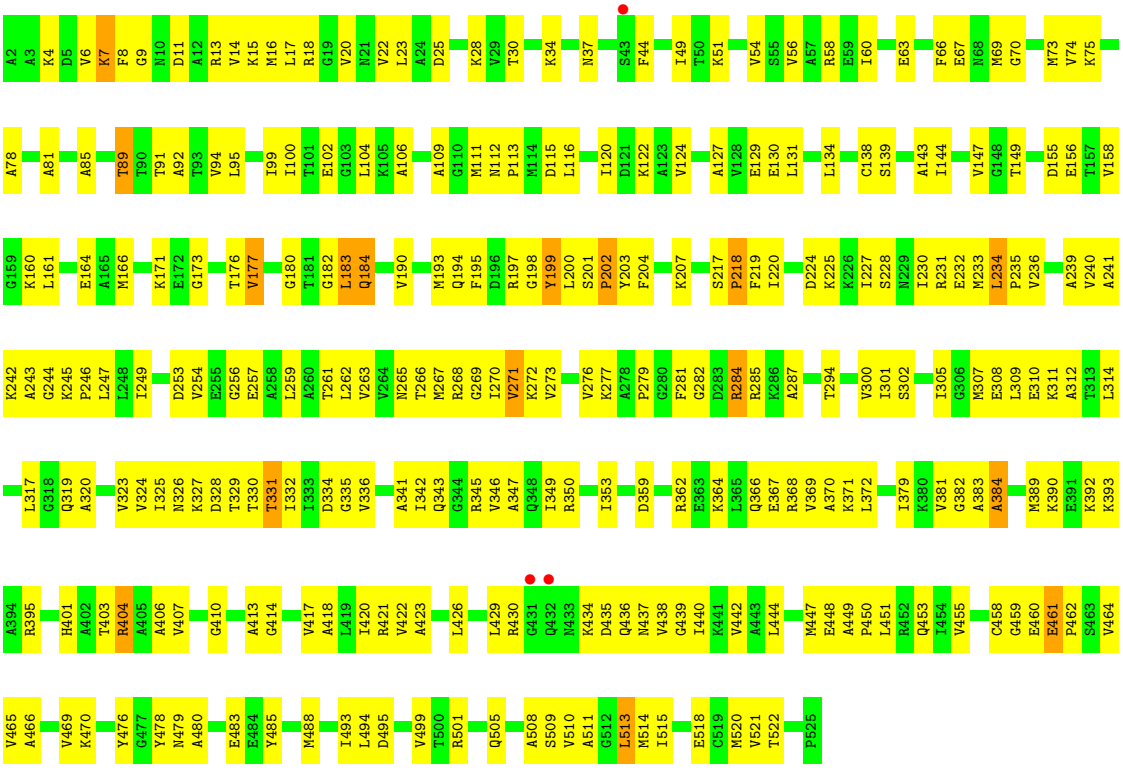
• Molecule 1: 60 KDA CHAPERONIN

Chain D:



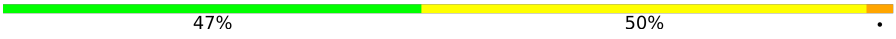
- Molecule 1: 60 KDA CHAPERONIN

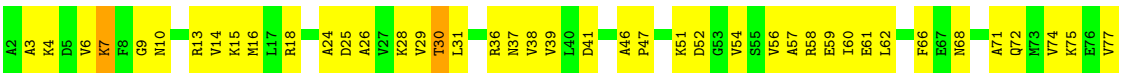
Chain E:

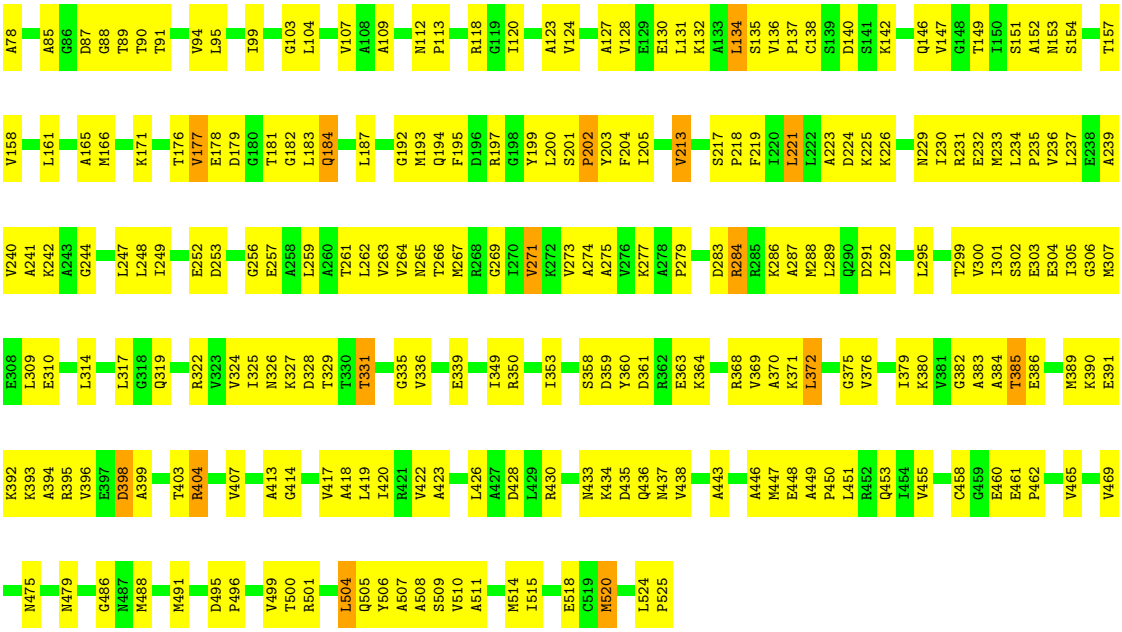


- Molecule 1: 60 KDA CHAPERONIN

Chain F:

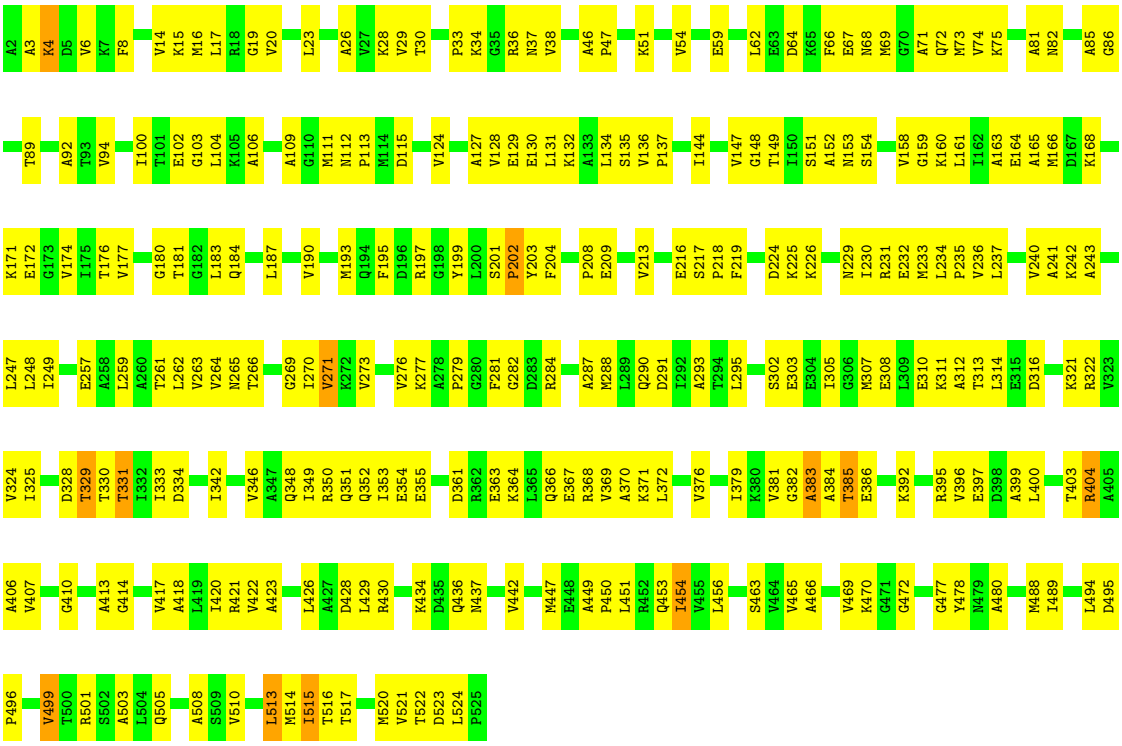






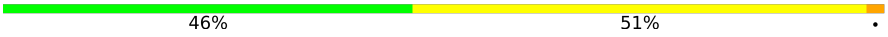
• Molecule 1: 60 KDA CHAPERONIN

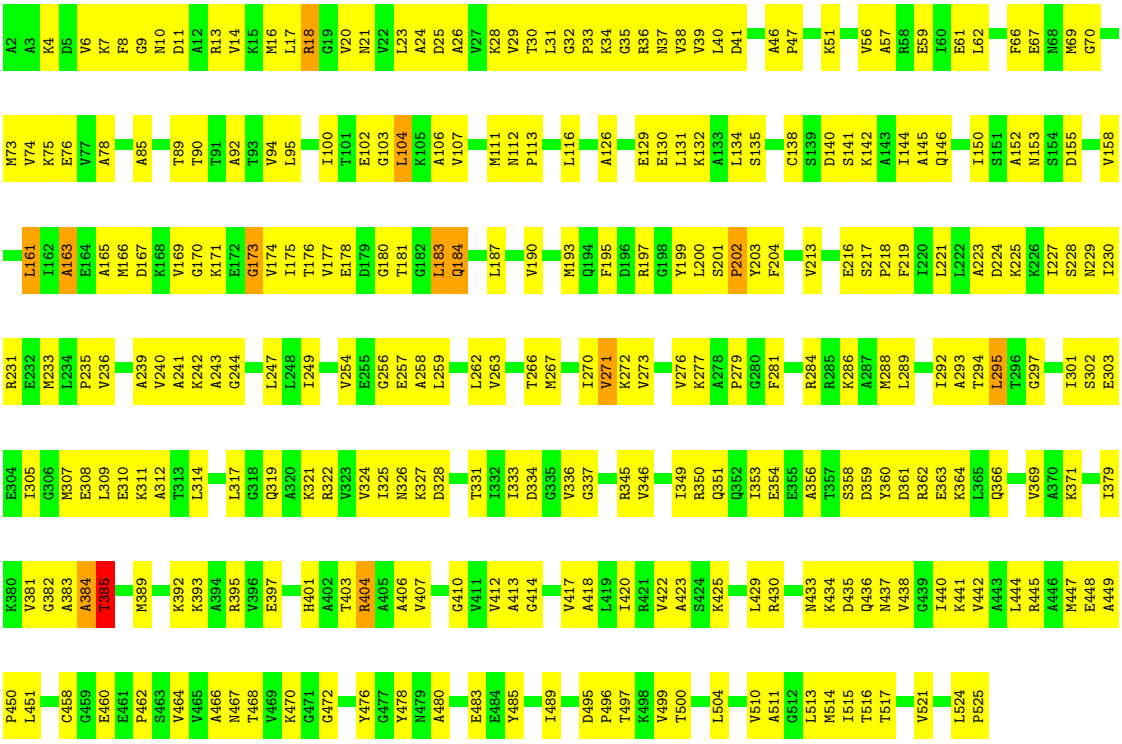
Chain G:



• Molecule 1: 60 KDA CHAPERONIN

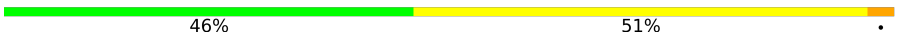
Chain H:

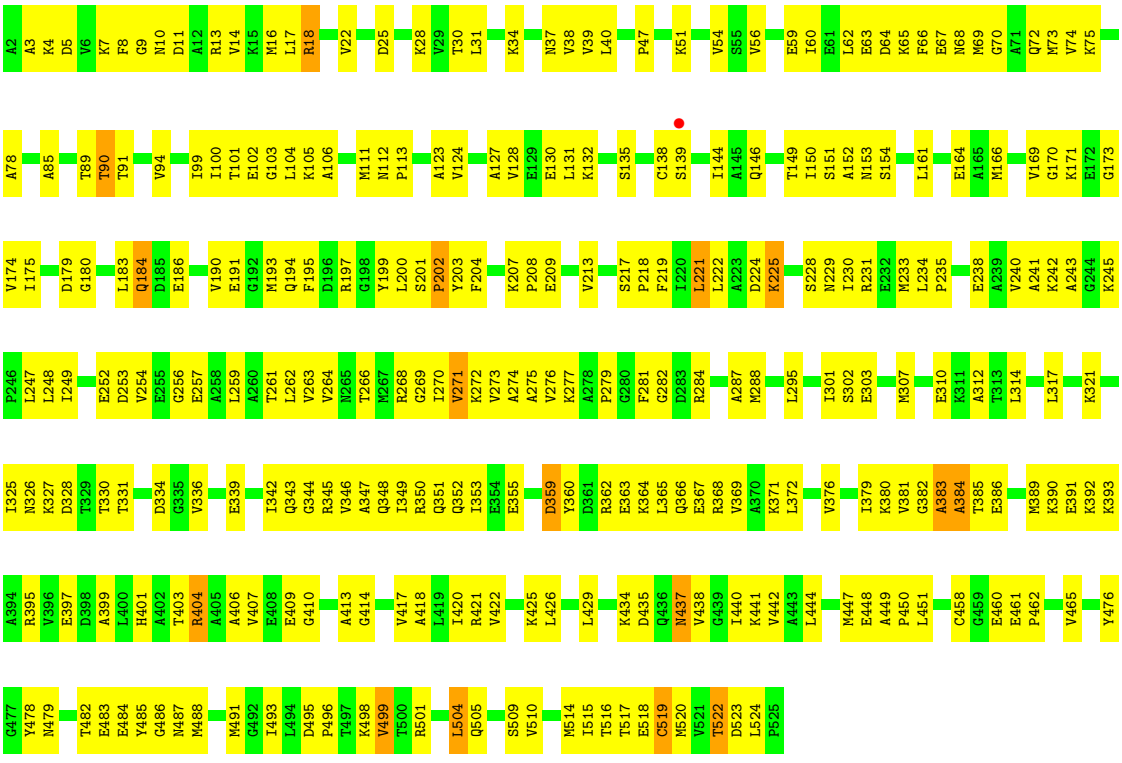




• Molecule 1: 60 KDA CHAPERONIN

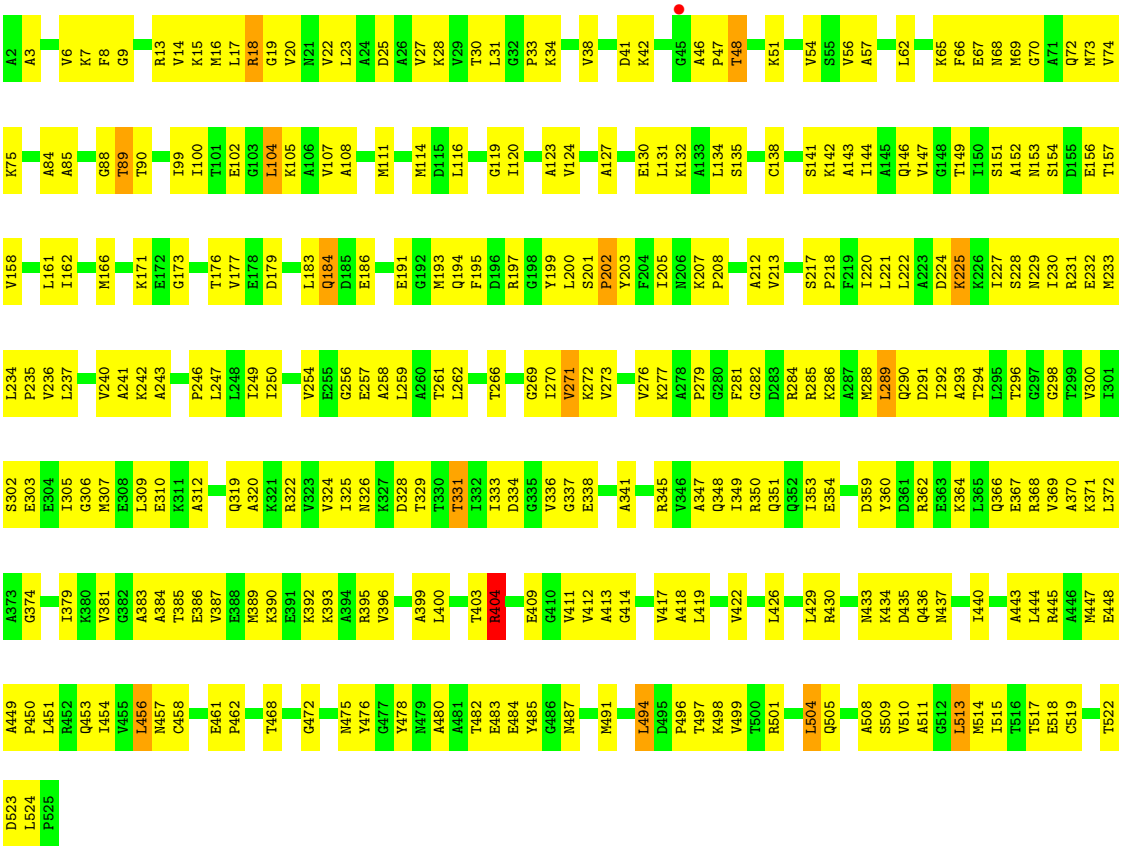
Chain I:





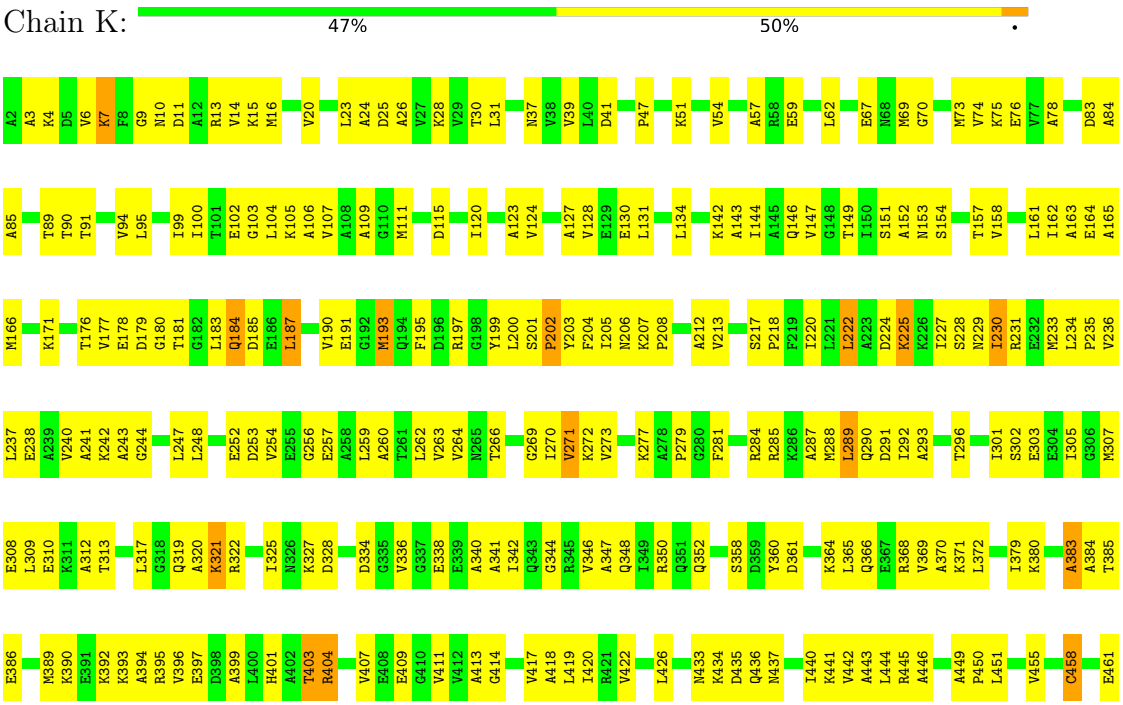
• Molecule 1: 60 KDA CHAPERONIN

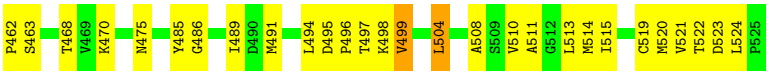
Chain J:



• Molecule 1: 60 KDA CHAPERONIN

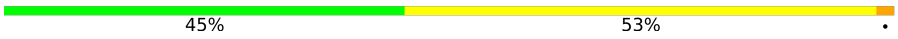
Chain K:

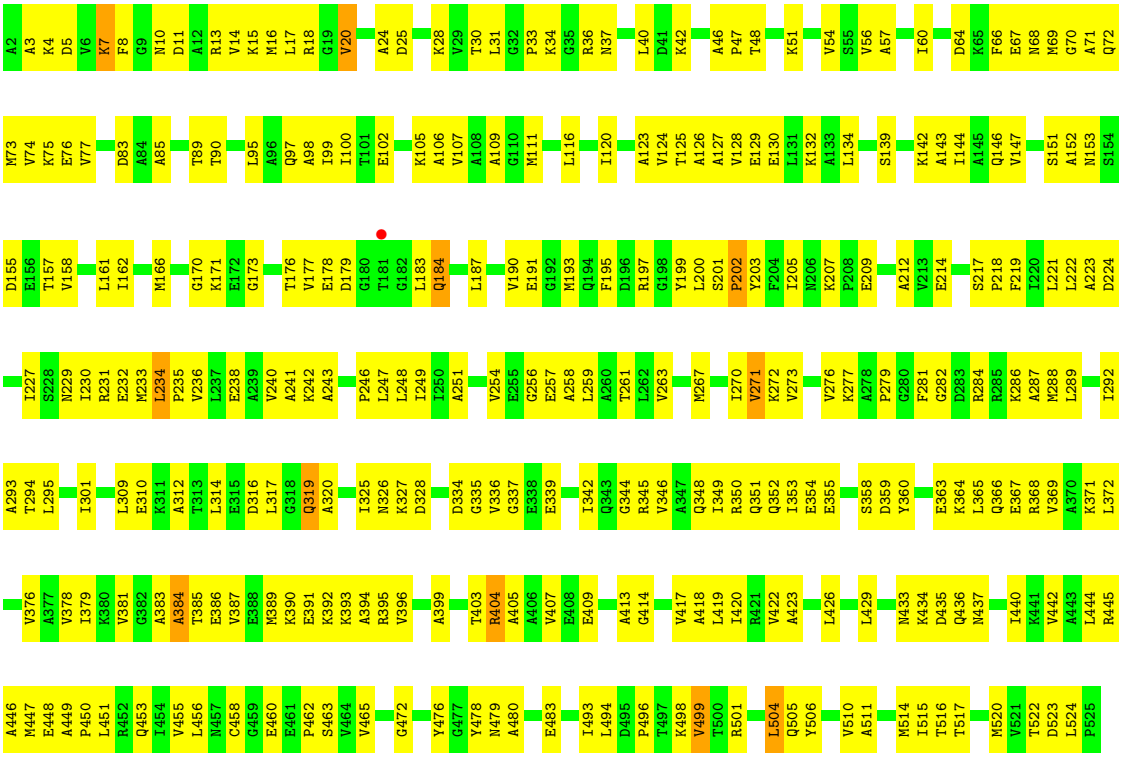




• Molecule 1: 60 KDA CHAPERONIN

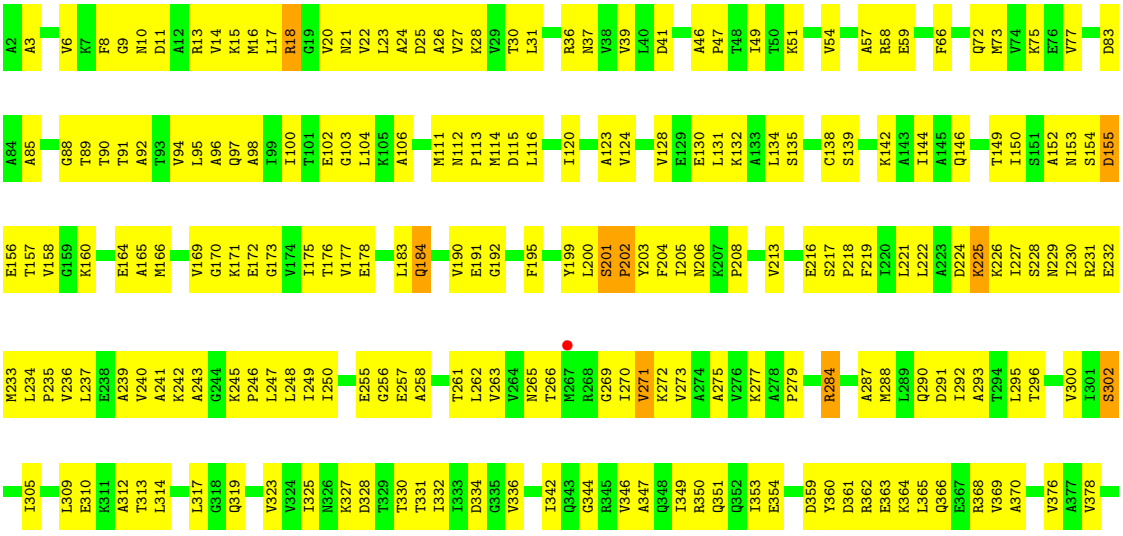
Chain L:

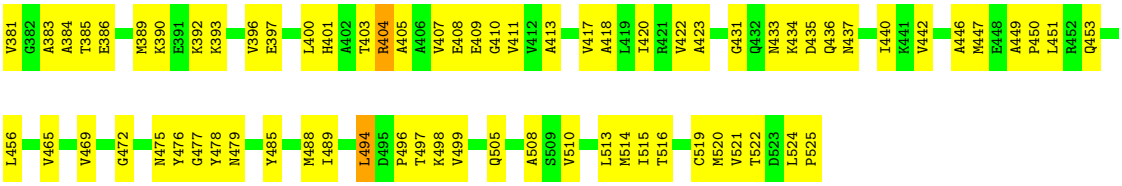




• Molecule 1: 60 KDA CHAPERONIN

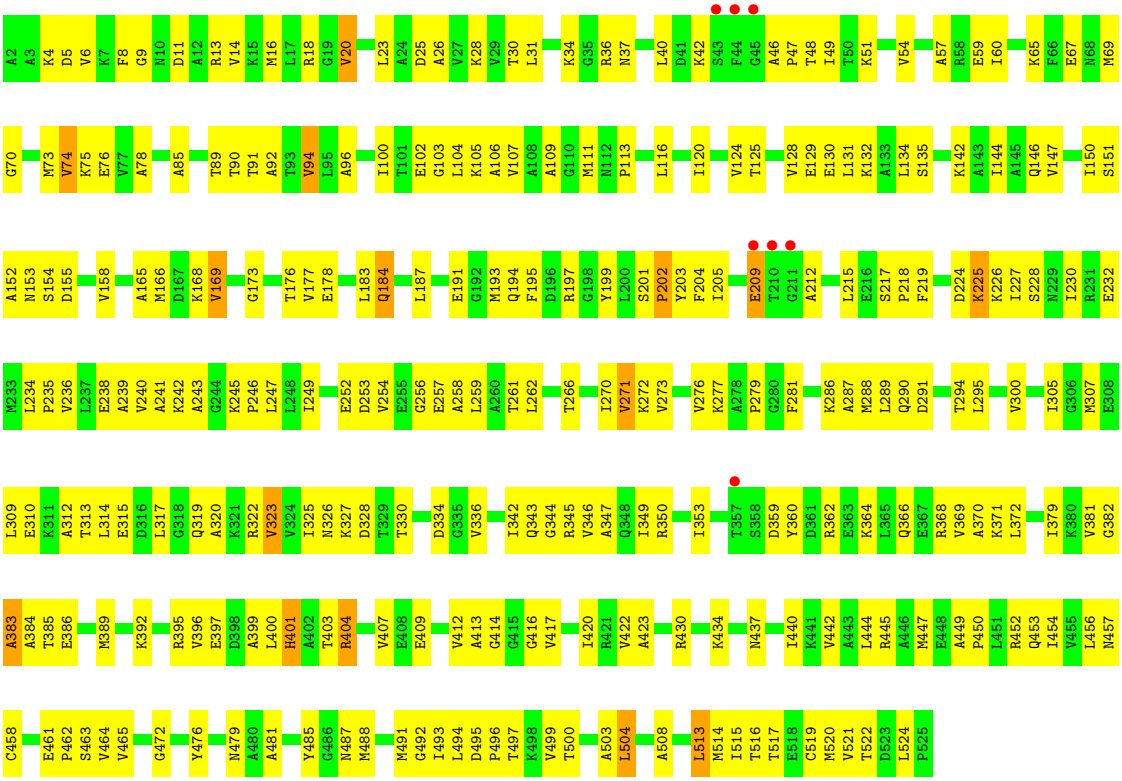
Chain M:





• Molecule 1: 60 KDA CHAPERONIN

Chain N:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 32	Depositor
Cell constants a, b, c, α, β, γ	171.91Å 171.91Å 454.59Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	19.99 – 4.50 19.99 – 4.50	Depositor EDS
% Data completeness (in resolution range)	96.4 (19.99-4.50) 99.4 (19.99-4.50)	Depositor EDS
R_{merge}	0.15	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.23 (at 4.54Å)	Xtriage
Refinement program	PHENIX (PHENIX.REFINE)	Depositor
R, R_{free}	0.167 , 0.240 0.181 , 0.237	Depositor DCC
R_{free} test set	2006 reflections (2.29%)	wwPDB-VP
Wilson B-factor (Å^2)	157.4	Xtriage
Anisotropy	0.151	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.25 , 96.8	EDS
L-test for twinning[2]	$< \|L\| > = 0.36$, $< L^2 > = 0.18$	Xtriage
Estimated twinning fraction	0.118 for -h,-k,l 0.369 for h,-h-k,-l 0.118 for -k,-h,-l	Xtriage
Reported twinning fraction	0.500 for h,-h-k,-l	Depositor
Outliers	0 of 87570 reflections	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	53984	wwPDB-VP
Average B, all atoms (Å^2)	174.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.19% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	0.79	0/3884	1.11	6/5242 (0.1%)
1	B	0.84	2/3884 (0.1%)	1.09	9/5242 (0.2%)
1	C	0.77	0/3884	1.08	6/5242 (0.1%)
1	D	0.76	1/3884 (0.0%)	1.05	7/5242 (0.1%)
1	E	0.77	1/3884 (0.0%)	1.04	6/5242 (0.1%)
1	F	0.93	4/3884 (0.1%)	1.18	11/5242 (0.2%)
1	G	0.81	1/3884 (0.0%)	1.08	4/5242 (0.1%)
1	H	0.87	0/3884	1.13	7/5242 (0.1%)
1	I	0.85	2/3884 (0.1%)	1.13	10/5242 (0.2%)
1	J	0.84	0/3884	1.10	8/5242 (0.2%)
1	K	0.82	3/3884 (0.1%)	1.10	10/5242 (0.2%)
1	L	0.81	0/3884	1.07	5/5242 (0.1%)
1	M	0.78	0/3884	1.05	2/5242 (0.0%)
1	N	0.76	0/3884	1.04	5/5242 (0.1%)
All	All	0.82	14/54376 (0.0%)	1.09	96/73388 (0.1%)

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	A	0	1
1	D	0	1
1	H	0	2
1	I	0	1
1	J	0	1
1	M	0	1
All	All	0	7

All (14) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	I	90	THR	CA-CB	6.74	1.70	1.53
1	F	458	CYS	CB-SG	-6.39	1.71	1.82
1	B	519	CYS	CB-SG	-6.07	1.72	1.82
1	F	339	GLU	CG-CD	-5.82	1.43	1.51
1	F	77	VAL	CA-CB	-5.65	1.42	1.54
1	D	54	VAL	CA-CB	-5.43	1.43	1.54
1	K	371	LYS	CD-CE	5.36	1.64	1.51
1	I	164	GLU	CG-CD	5.26	1.59	1.51
1	G	515	ILE	CA-CB	-5.24	1.42	1.54
1	F	30	THR	CA-CB	-5.21	1.39	1.53
1	K	7	LYS	CD-CE	5.13	1.64	1.51
1	E	120	ILE	CA-CB	-5.12	1.43	1.54
1	K	458	CYS	CB-SG	-5.09	1.73	1.81
1	B	315	GLU	CG-CD	5.03	1.59	1.51

All (96) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	I	504	LEU	CB-CG-CD1	-13.84	87.47	111.00
1	I	221	LEU	CA-CB-CG	-9.57	93.29	115.30
1	C	513	LEU	CA-CB-CG	-9.52	93.39	115.30
1	K	371	LYS	CD-CE-NZ	8.82	131.99	111.70
1	F	504	LEU	CB-CG-CD1	-8.67	96.26	111.00
1	D	187	LEU	CA-CB-CG	8.63	135.14	115.30
1	F	398	ASP	CB-CG-OD1	8.53	125.97	118.30
1	J	456	LEU	CB-CG-CD1	-8.10	97.23	111.00
1	J	494	LEU	CB-CG-CD1	-7.91	97.55	111.00
1	G	513	LEU	CA-CB-CG	-7.89	97.14	115.30
1	J	504	LEU	CB-CG-CD1	-7.83	97.69	111.00
1	G	295	LEU	CA-CB-CG	7.48	132.50	115.30
1	L	187	LEU	CA-CB-CG	7.41	132.33	115.30
1	K	187	LEU	CA-CB-CG	7.40	132.32	115.30
1	K	7	LYS	CD-CE-NZ	7.27	128.41	111.70
1	D	7	LYS	CD-CE-NZ	7.20	128.26	111.70
1	E	513	LEU	CA-CB-CG	-7.20	98.75	115.30
1	H	295	LEU	CA-CB-CG	7.12	131.69	115.30
1	J	104	LEU	CA-CB-CG	-7.11	98.95	115.30
1	I	519	CYS	CA-CB-SG	-7.04	101.33	114.00
1	J	513	LEU	CA-CB-CG	-7.01	99.19	115.30
1	B	513	LEU	CB-CG-CD2	-6.88	99.30	111.00
1	E	384	ALA	C-N-CA	6.59	138.17	121.70
1	L	7	LYS	CD-CE-NZ	6.59	126.85	111.70
1	N	513	LEU	CA-CB-CG	-6.55	100.23	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	H	425	LYS	CD-CE-NZ	6.50	126.64	111.70
1	F	221	LEU	CB-CG-CD1	-6.49	99.96	111.00
1	N	504	LEU	CB-CG-CD1	-6.42	100.09	111.00
1	H	161	LEU	CA-CB-CG	-6.29	100.84	115.30
1	A	295	LEU	CA-CB-CG	6.28	129.74	115.30
1	N	323	VAL	CG1-CB-CG2	6.27	120.94	110.90
1	A	187	LEU	CA-CB-CG	6.27	129.72	115.30
1	E	7	LYS	CD-CE-NZ	6.26	126.09	111.70
1	F	398	ASP	CB-CG-OD2	-6.23	112.69	118.30
1	H	233	MET	CB-CG-SD	-6.23	93.71	112.40
1	K	458	CYS	N-CA-CB	-6.23	99.39	110.60
1	E	44	PHE	N-CA-CB	6.15	121.68	110.60
1	C	136	VAL	N-CA-C	-6.14	94.41	111.00
1	B	314	LEU	CA-CB-CG	-6.07	101.34	115.30
1	B	519	CYS	N-CA-C	6.07	127.38	111.00
1	B	494	LEU	CB-CG-CD1	-6.03	100.75	111.00
1	N	445	ARG	CG-CD-NE	6.00	124.40	111.80
1	E	23	LEU	CA-CB-CG	5.93	128.93	115.30
1	I	90	THR	CA-CB-OG1	5.84	121.26	109.00
1	I	295	LEU	CA-CB-CG	5.83	128.70	115.30
1	D	276	VAL	CB-CA-C	-5.81	100.36	111.40
1	J	404	ARG	CA-CB-CG	5.81	126.17	113.40
1	B	234	LEU	CA-CB-CG	-5.80	101.96	115.30
1	K	504	LEU	CB-CG-CD1	-5.79	101.15	111.00
1	J	89	THR	N-CA-C	-5.76	95.45	111.00
1	B	187	LEU	CA-CB-CG	5.74	128.49	115.30
1	B	207	LYS	CA-CB-CG	5.72	125.99	113.40
1	F	350	ARG	CG-CD-NE	5.72	123.82	111.80
1	C	514	MET	CA-CB-CG	5.71	123.01	113.30
1	H	62	LEU	CA-CB-CG	-5.68	102.23	115.30
1	D	456	LEU	CB-CG-CD1	-5.68	101.35	111.00
1	A	193	MET	CA-CB-CG	5.65	122.90	113.30
1	B	342	ILE	N-CA-C	5.57	126.05	111.00
1	D	504	LEU	CA-CB-CG	-5.56	102.51	115.30
1	I	17	LEU	CB-CG-CD1	-5.55	101.57	111.00
1	K	193	MET	N-CA-CB	-5.54	100.64	110.60
1	L	381	VAL	N-CA-C	5.54	125.95	111.00
1	I	18	ARG	CA-CB-CG	5.51	125.53	113.40
1	H	173	GLY	N-CA-C	5.50	126.86	113.10
1	C	504	LEU	CB-CG-CD1	-5.48	101.68	111.00
1	H	104	LEU	CA-CB-CG	-5.48	102.71	115.30
1	K	321	LYS	CD-CE-NZ	5.45	124.23	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	F	213	VAL	CB-CA-C	-5.43	101.07	111.40
1	I	391	GLU	N-CA-CB	-5.43	100.83	110.60
1	D	504	LEU	CB-CG-CD1	-5.42	101.78	111.00
1	M	155	ASP	CB-CG-OD1	5.39	123.15	118.30
1	L	381	VAL	CB-CA-C	-5.38	101.17	111.40
1	A	114	MET	CB-CG-SD	-5.32	96.45	112.40
1	I	522	THR	CA-CB-CG2	-5.30	104.99	112.40
1	F	7	LYS	CD-CE-NZ	5.28	123.84	111.70
1	F	134	LEU	CA-CB-CG	5.26	127.40	115.30
1	A	494	LEU	CB-CG-CD2	-5.24	102.09	111.00
1	F	520	MET	CB-CG-SD	-5.23	96.70	112.40
1	J	494	LEU	CB-CG-CD2	-5.23	102.11	111.00
1	D	295	LEU	CA-CB-CG	5.21	127.27	115.30
1	B	17	LEU	CB-CG-CD1	-5.19	102.17	111.00
1	A	385	THR	N-CA-C	-5.18	97.02	111.00
1	F	18	ARG	NE-CZ-NH1	-5.18	117.71	120.30
1	N	383	ALA	N-CA-C	5.17	124.95	111.00
1	G	4	LYS	CA-CB-CG	-5.15	102.07	113.40
1	K	403	THR	CA-CB-CG2	-5.14	105.20	112.40
1	F	339	GLU	CA-CB-CG	-5.11	102.15	113.40
1	G	4	LYS	CD-CE-NZ	-5.11	99.95	111.70
1	E	207	LYS	N-CA-CB	5.10	119.78	110.60
1	L	234	LEU	CA-CB-CG	-5.10	103.57	115.30
1	K	352	GLN	CA-CB-CG	-5.07	102.24	113.40
1	I	509	SER	N-CA-CB	5.06	118.09	110.50
1	K	519	CYS	N-CA-C	5.03	124.59	111.00
1	M	494	LEU	CB-CG-CD1	-5.03	102.45	111.00
1	C	307	MET	CA-CB-CG	-5.02	104.76	113.30
1	C	472	GLY	N-CA-C	-5.00	100.59	113.10

There are no chirality outliers.

All (7) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	432	GLN	Mainchain
1	D	256	GLY	Mainchain
1	H	163	ALA	Mainchain
1	H	385	THR	Peptide
1	I	359	ASP	Mainchain
1	J	345	ARG	Sidechain
1	M	431	GLY	Mainchain

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3856	0	3983	311	0
1	B	3856	0	3983	272	0
1	C	3856	0	3983	305	0
1	D	3856	0	3983	310	0
1	E	3856	0	3983	313	0
1	F	3856	0	3983	307	1
1	G	3856	0	3983	297	0
1	H	3856	0	3983	321	1
1	I	3856	0	3983	317	0
1	J	3856	0	3983	336	0
1	K	3856	0	3983	330	0
1	L	3856	0	3983	327	0
1	M	3856	0	3983	306	0
1	N	3856	0	3983	297	0
All	All	53984	0	55762	4071	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 37.

All (4071) 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:H:511:ALA:O	1:H:515:ILE:HD12	1.38	1.21
1:B:85:ALA:HB1	1:B:499:VAL:HG12	1.22	1.19
1:E:319:GLN:O	1:E:336:VAL:HG23	1.43	1.19
1:F:131:LEU:CD1	1:F:422:VAL:HG21	1.73	1.18
1:F:57:ALA:O	1:F:75:LYS:HE3	1.43	1.15
1:L:130:GLU:HB3	1:L:422:VAL:HG13	1.28	1.14
1:J:85:ALA:HB1	1:J:499:VAL:HG12	1.28	1.14
1:K:183:LEU:O	1:K:184:GLN:HG3	1.45	1.12
1:E:70:GLY:HA2	1:E:73:MET:HE3	1.21	1.12
1:B:325:ILE:HG12	1:B:330:THR:HG23	1.29	1.11
1:M:241:ALA:HA	1:M:271:VAL:HG21	1.34	1.09
1:K:25:ASP:HA	1:K:28:LYS:HE2	1.34	1.09
1:L:195:PHE:CD2	1:L:279:PRO:HG3	1.86	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:31:LEU:HD13	1:H:90:THR:HG22	1.24	1.08
1:J:235:PRO:HG3	1:J:310:GLU:HA	1.34	1.08
1:H:235:PRO:HG3	1:H:310:GLU:HA	1.29	1.07
1:M:235:PRO:HG3	1:M:310:GLU:HA	1.37	1.07
1:A:130:GLU:HB3	1:A:422:VAL:HG13	1.36	1.07
1:B:345:ARG:HA	1:B:348:GLN:NE2	1.69	1.07
1:M:85:ALA:HB1	1:M:499:VAL:HG12	1.32	1.06
1:D:142:LYS:O	1:D:146:GLN:HG3	1.53	1.06
1:H:219:PHE:HB3	1:H:317:LEU:HD23	1.33	1.06
1:E:13:ARG:HD3	1:E:104:LEU:HD22	1.33	1.06
1:N:57:ALA:O	1:N:75:LYS:HE3	1.55	1.06
1:F:131:LEU:HD13	1:F:422:VAL:HG21	1.35	1.05
1:C:166:MET:CE	1:C:171:LYS:HA	1.86	1.05
1:E:350:ARG:HA	1:E:353:ILE:HD12	1.33	1.05
1:H:85:ALA:HB1	1:H:499:VAL:HG12	1.07	1.05
1:B:200:LEU:HD21	1:B:277:LYS:HG3	1.37	1.05
1:F:31:LEU:HD13	1:F:90:THR:HG22	1.37	1.04
1:K:57:ALA:O	1:K:75:LYS:HE3	1.58	1.04
1:C:247:LEU:HB3	1:C:273:VAL:HG22	1.37	1.04
1:M:183:LEU:O	1:M:184:GLN:HG3	1.57	1.04
1:J:176:THR:HG21	1:J:322:ARG:HH12	1.21	1.03
1:I:421:ARG:HD2	1:I:425:LYS:HZ2	1.23	1.03
1:J:166:MET:CE	1:J:171:LYS:HA	1.89	1.03
1:H:241:ALA:HA	1:H:271:VAL:CG2	1.88	1.02
1:N:217:SER:N	1:N:218:PRO:HD3	1.75	1.02
1:L:34:LYS:HG3	1:L:458:CYS:SG	1.99	1.02
1:G:130:GLU:HB3	1:G:422:VAL:HG13	1.41	1.01
1:J:183:LEU:O	1:J:184:GLN:HG3	1.59	1.01
1:C:363:GLU:O	1:C:367:GLU:HG3	1.59	1.01
1:F:13:ARG:HD2	1:F:104:LEU:HD22	1.43	1.00
1:B:363:GLU:O	1:B:367:GLU:HG3	1.61	1.00
1:H:241:ALA:HA	1:H:271:VAL:HG21	1.04	1.00
1:L:434:LYS:HD3	1:L:437:ASN:HB2	1.42	0.99
1:A:166:MET:CE	1:A:171:LYS:HA	1.92	0.99
1:E:109:ALA:HB2	1:L:109:ALA:HB2	1.44	0.99
1:D:217:SER:N	1:D:218:PRO:HD3	1.76	0.99
1:E:235:PRO:HG3	1:E:310:GLU:HA	1.44	0.99
1:C:31:LEU:HD13	1:C:90:THR:CG2	1.92	0.98
1:F:25:ASP:HA	1:F:28:LYS:HE2	1.45	0.98
1:E:247:LEU:HB3	1:E:273:VAL:HG22	1.43	0.98
1:B:130:GLU:HB3	1:B:422:VAL:HG13	1.46	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:301:ILE:HA	1:A:307:MET:SD	2.03	0.98
1:H:31:LEU:HD13	1:H:90:THR:CG2	1.93	0.98
1:H:130:GLU:HB3	1:H:422:VAL:HG13	1.44	0.98
1:H:241:ALA:CA	1:H:271:VAL:HG21	1.93	0.97
1:A:247:LEU:HB3	1:A:273:VAL:HG22	1.41	0.97
1:J:254:VAL:HG12	1:J:259:LEU:HB2	1.45	0.97
1:K:269:GLY:HA3	1:L:257:GLU:HB2	1.44	0.97
1:G:158:VAL:HG13	1:G:396:VAL:HG22	1.43	0.97
1:B:128:VAL:HG21	1:B:505:GLN:HE21	1.27	0.97
1:D:31:LEU:HD12	1:D:32:GLY:H	1.29	0.97
1:L:287:ALA:HB1	1:L:368:ARG:NH1	1.78	0.97
1:F:305:ILE:HD12	1:F:307:MET:HE1	1.47	0.97
1:H:16:MET:HB3	1:H:514:MET:HE3	1.44	0.97
1:H:183:LEU:O	1:H:184:GLN:HG3	1.65	0.97
1:M:59:GLU:OE1	1:N:4:LYS:HE2	1.65	0.96
1:A:282:GLY:HA3	1:G:181:THR:O	1.65	0.96
1:N:13:ARG:HD2	1:N:104:LEU:HD22	1.45	0.96
1:A:437:ASN:HA	1:A:440:ILE:HD12	1.46	0.96
1:F:78:ALA:HB1	1:F:89:THR:HG23	1.45	0.95
1:I:219:PHE:HB3	1:I:317:LEU:HD23	1.45	0.95
1:K:496:PRO:HB2	1:K:499:VAL:HG13	1.46	0.95
1:B:184:GLN:O	1:B:382:GLY:HA3	1.66	0.95
1:H:70:GLY:HA2	1:H:73:MET:HE3	1.49	0.95
1:B:124:VAL:HG21	1:B:508:ALA:HB2	1.47	0.95
1:E:70:GLY:HA2	1:E:73:MET:CE	1.97	0.95
1:J:413:ALA:HB2	1:J:475:ASN:HD22	1.31	0.94
1:C:350:ARG:HA	1:C:353:ILE:HD12	1.48	0.94
1:C:230:ILE:HD13	1:C:261:THR:CG2	1.96	0.94
1:K:414:GLY:O	1:K:417:VAL:HG13	1.68	0.94
1:A:519:CYS:HB3	1:G:38:VAL:HG22	1.49	0.94
1:H:25:ASP:HA	1:H:28:LYS:HE2	1.47	0.94
1:C:31:LEU:HD13	1:C:90:THR:HG22	1.48	0.94
1:F:241:ALA:HA	1:F:271:VAL:HG21	1.48	0.93
1:J:54:VAL:HG22	1:J:89:THR:HB	1.48	0.93
1:F:230:ILE:HG22	1:F:257:GLU:OE2	1.69	0.93
1:E:219:PHE:HB3	1:E:317:LEU:HD23	1.48	0.93
1:N:85:ALA:HB1	1:N:499:VAL:HG12	1.50	0.93
1:I:183:LEU:O	1:I:184:GLN:HG3	1.67	0.93
1:K:13:ARG:HD2	1:K:104:LEU:HD22	1.47	0.93
1:N:247:LEU:HB3	1:N:273:VAL:HG22	1.47	0.93
1:L:85:ALA:HB1	1:L:499:VAL:HG12	1.51	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:247:LEU:HB3	1:I:273:VAL:HG22	1.50	0.93
1:H:414:GLY:HA2	1:H:495:ASP:OD2	1.68	0.92
1:M:241:ALA:HA	1:M:271:VAL:CG2	1.99	0.92
1:B:239:ALA:HB1	1:B:314:LEU:HD11	1.51	0.92
1:L:31:LEU:HD13	1:L:90:THR:HG22	1.51	0.92
1:H:166:MET:CE	1:H:171:LYS:HA	1.99	0.92
1:N:319:GLN:O	1:N:336:VAL:HG23	1.69	0.92
1:I:421:ARG:HD2	1:I:425:LYS:NZ	1.83	0.92
1:K:30:THR:HB	1:K:51:LYS:O	1.68	0.92
1:K:165:ALA:HB2	1:K:379:ILE:HD11	1.51	0.92
1:B:441:LYS:HD3	1:B:444:LEU:HD12	1.52	0.92
1:F:131:LEU:HD12	1:F:422:VAL:HG21	1.51	0.92
1:L:16:MET:HB3	1:L:514:MET:HE3	1.51	0.92
1:H:11:ASP:O	1:H:14:VAL:HG22	1.70	0.91
1:H:217:SER:N	1:H:218:PRO:HD3	1.85	0.91
1:N:381:VAL:HG11	1:N:392:LYS:HB3	1.51	0.91
1:A:221:LEU:HD23	1:A:249:ILE:HG23	1.50	0.91
1:K:200:LEU:HD21	1:K:277:LYS:HG3	1.52	0.91
1:M:59:GLU:O	1:N:4:LYS:HG3	1.69	0.91
1:N:5:ASP:HB2	1:N:524:LEU:HD12	1.51	0.91
1:B:85:ALA:CB	1:B:499:VAL:HG12	1.99	0.91
1:I:31:LEU:HD13	1:I:90:THR:HG22	1.50	0.91
1:B:34:LYS:HD2	1:C:114:MET:HE2	1.49	0.91
1:B:259:LEU:O	1:B:263:VAL:HG23	1.71	0.91
1:G:414:GLY:O	1:G:417:VAL:HG13	1.69	0.91
1:A:392:LYS:HG3	1:A:395:ARG:NH2	1.85	0.91
1:G:363:GLU:O	1:G:367:GLU:HG3	1.72	0.90
1:J:25:ASP:HA	1:J:28:LYS:HE2	1.53	0.90
1:M:13:ARG:HD2	1:M:104:LEU:HD22	1.50	0.90
1:L:247:LEU:HB3	1:L:273:VAL:HG22	1.53	0.90
1:M:130:GLU:HB3	1:M:422:VAL:HG13	1.53	0.90
1:A:37:ASN:ND2	1:A:51:LYS:HE3	1.85	0.90
1:G:247:LEU:HB3	1:G:273:VAL:HG22	1.54	0.90
1:I:208:PRO:HD2	1:I:209:GLU:OE2	1.72	0.90
1:C:195:PHE:CD2	1:C:279:PRO:HG3	2.05	0.90
1:D:34:LYS:HG3	1:D:458:CYS:SG	2.12	0.90
1:M:41:ASP:HB2	1:N:69:MET:CE	2.01	0.90
1:E:85:ALA:HB1	1:E:499:VAL:HG12	1.52	0.90
1:E:217:SER:N	1:E:218:PRO:HD3	1.87	0.90
1:A:140:ASP:OD2	1:A:142:LYS:HB3	1.70	0.89
1:M:247:LEU:HB3	1:M:273:VAL:HG22	1.54	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:183:LEU:HB2	1:F:384:ALA:HB2	1.52	0.89
1:I:217:SER:N	1:I:218:PRO:HD3	1.87	0.89
1:I:349:ILE:O	1:I:353:ILE:HG13	1.71	0.89
1:L:364:LYS:HD3	1:L:367:GLU:OE2	1.72	0.89
1:A:349:ILE:HG23	1:A:365:LEU:HD22	1.54	0.89
1:K:392:LYS:HG3	1:K:395:ARG:NH2	1.87	0.89
1:N:440:ILE:O	1:N:444:LEU:HG	1.73	0.89
1:G:128:VAL:HG12	1:G:132:LYS:HE3	1.55	0.89
1:I:229:ASN:HA	1:I:257:GLU:OE1	1.72	0.89
1:F:13:ARG:HD2	1:F:104:LEU:CD2	2.02	0.89
1:F:78:ALA:CB	1:F:89:THR:HG23	2.03	0.89
1:N:218:PRO:HB3	1:N:246:PRO:HB2	1.53	0.89
1:I:272:LYS:NZ	1:J:228:SER:HB2	1.88	0.89
1:K:241:ALA:HA	1:K:271:VAL:HG21	1.52	0.89
1:K:361:ASP:O	1:K:365:LEU:HG	1.73	0.89
1:F:85:ALA:HB1	1:F:499:VAL:HG12	1.55	0.89
1:L:193:MET:CG	1:L:371:LYS:HB3	2.02	0.88
1:A:16:MET:HB3	1:A:514:MET:CE	2.03	0.88
1:L:319:GLN:O	1:L:336:VAL:HG23	1.73	0.88
1:D:13:ARG:HD2	1:D:104:LEU:HD22	1.55	0.88
1:H:116:LEU:HD23	1:H:435:ASP:O	1.72	0.88
1:K:242:LYS:HG2	1:L:231:ARG:NH2	1.88	0.88
1:N:193:MET:HG3	1:N:371:LYS:HB3	1.56	0.88
1:E:184:GLN:H	1:E:382:GLY:HA3	1.37	0.88
1:I:235:PRO:HG3	1:I:310:GLU:HA	1.56	0.88
1:M:131:LEU:HD13	1:M:422:VAL:HG21	1.55	0.88
1:K:69:MET:O	1:K:73:MET:HG3	1.72	0.87
1:J:326:ASN:HD22	1:J:329:THR:HB	1.39	0.87
1:N:183:LEU:O	1:N:184:GLN:HG3	1.75	0.87
1:H:181:THR:O	1:I:282:GLY:HA3	1.75	0.87
1:E:70:GLY:CA	1:E:73:MET:HE3	2.05	0.87
1:H:26:ALA:HA	1:I:8:PHE:HE1	1.39	0.87
1:E:13:ARG:CD	1:E:104:LEU:HD22	2.04	0.87
1:H:70:GLY:HA2	1:H:73:MET:CE	2.04	0.87
1:C:356:ALA:O	1:C:362:ARG:NH2	2.08	0.87
1:H:131:LEU:HD13	1:H:422:VAL:HG21	1.54	0.87
1:C:430:ARG:HD2	1:C:437:ASN:ND2	1.88	0.87
1:F:195:PHE:CD2	1:F:279:PRO:HG3	2.10	0.87
1:G:496:PRO:HB2	1:G:499:VAL:HG13	1.57	0.87
1:C:501:ARG:HG2	1:C:505:GLN:OE1	1.75	0.86
1:I:269:GLY:O	1:J:229:ASN:ND2	2.06	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:69:MET:O	1:E:73:MET:HG3	1.76	0.86
1:C:360:TYR:CE1	1:C:364:LYS:HE3	2.10	0.86
1:H:240:VAL:HG12	1:H:271:VAL:HG11	1.58	0.86
1:F:158:VAL:HG13	1:F:396:VAL:HG22	1.56	0.86
1:J:191:GLU:O	1:J:334:ASP:HA	1.74	0.86
1:L:31:LEU:HD13	1:L:90:THR:CG2	2.06	0.86
1:C:496:PRO:HB2	1:C:499:VAL:HG13	1.58	0.86
1:E:116:LEU:HD23	1:E:435:ASP:O	1.76	0.86
1:K:171:LYS:O	1:K:404:ARG:NH1	2.09	0.86
1:D:193:MET:HG3	1:D:371:LYS:HB3	1.58	0.86
1:H:423:ALA:HB2	1:H:447:MET:SD	2.16	0.86
1:K:181:THR:HA	1:L:282:GLY:HA3	1.56	0.85
1:B:193:MET:HG3	1:B:371:LYS:HB3	1.56	0.85
1:L:134:LEU:O	1:L:134:LEU:HD13	1.76	0.85
1:K:70:GLY:HA2	1:K:73:MET:HE3	1.57	0.85
1:N:5:ASP:HB2	1:N:524:LEU:CD1	2.05	0.85
1:D:138:CYS:SG	1:D:147:VAL:HG21	2.17	0.85
1:E:236:VAL:HG22	1:E:312:ALA:HB3	1.56	0.85
1:A:224:ASP:HB3	1:A:302:SER:HB3	1.57	0.85
1:C:57:ALA:O	1:C:75:LYS:HE3	1.76	0.85
1:I:166:MET:CE	1:I:171:LYS:HA	2.07	0.85
1:C:414:GLY:O	1:C:417:VAL:HG13	1.77	0.85
1:C:230:ILE:HD13	1:C:261:THR:HG21	1.58	0.85
1:E:236:VAL:CG2	1:E:312:ALA:HB3	2.06	0.85
1:J:34:LYS:HG3	1:J:458:CYS:SG	2.17	0.85
1:D:165:ALA:HA	1:D:187:LEU:HD11	1.60	0.84
1:E:434:LYS:HE3	1:L:434:LYS:HE3	1.60	0.84
1:F:420:ILE:HG13	1:F:448:GLU:HG2	1.57	0.84
1:I:213:VAL:HB	1:I:325:ILE:HB	1.57	0.84
1:H:430:ARG:HH12	1:H:441:LYS:HE2	1.42	0.84
1:J:13:ARG:HD2	1:J:104:LEU:HD22	1.60	0.84
1:J:413:ALA:CB	1:J:475:ASN:HD22	1.90	0.84
1:F:200:LEU:HD21	1:F:277:LYS:HG3	1.59	0.84
1:C:166:MET:HE2	1:C:171:LYS:HA	1.58	0.84
1:L:171:LYS:O	1:L:404:ARG:NH1	2.11	0.84
1:E:102:GLU:HB2	1:E:442:VAL:HG13	1.58	0.83
1:H:69:MET:O	1:H:73:MET:HE2	1.78	0.83
1:B:194:GLN:O	1:B:371:LYS:HE3	1.78	0.83
1:E:171:LYS:HB3	1:E:407:VAL:HG11	1.61	0.83
1:L:16:MET:HB3	1:L:514:MET:CE	2.07	0.83
1:E:122:LYS:HE2	1:E:429:LEU:HD11	1.60	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:117:LYS:HZ3	1:A:512:GLY:HA3	1.44	0.83
1:D:41:ASP:HB2	1:E:69:MET:SD	2.18	0.83
1:H:85:ALA:CB	1:H:499:VAL:HG12	2.01	0.83
1:K:235:PRO:HG3	1:K:310:GLU:HA	1.60	0.83
1:E:383:ALA:O	1:E:384:ALA:HB3	1.78	0.83
1:F:262:LEU:O	1:F:266:THR:HG23	1.78	0.83
1:J:368:ARG:O	1:J:372:LEU:HD13	1.79	0.83
1:K:83:ASP:OD2	1:K:327:LYS:HD3	1.79	0.83
1:C:222:LEU:HD13	1:C:293:ALA:HB2	1.60	0.83
1:H:39:VAL:HB	1:I:520:MET:HG2	1.61	0.83
1:K:241:ALA:HA	1:K:271:VAL:CG2	2.08	0.82
1:L:287:ALA:HB1	1:L:368:ARG:HH12	1.43	0.82
1:C:217:SER:N	1:C:218:PRO:HD3	1.93	0.82
1:E:144:ILE:HG23	1:E:403:THR:HG21	1.62	0.82
1:I:85:ALA:HB1	1:I:499:VAL:HG12	1.60	0.82
1:D:496:PRO:HB2	1:D:499:VAL:HG13	1.60	0.82
1:F:368:ARG:O	1:F:372:LEU:HD13	1.78	0.82
1:G:109:ALA:O	1:J:105:LYS:HD3	1.79	0.82
1:D:284:ARG:NH1	1:D:364:LYS:HD2	1.95	0.82
1:M:217:SER:N	1:M:218:PRO:HD3	1.95	0.82
1:G:177:VAL:CG1	1:G:397:GLU:HG2	2.10	0.82
1:A:16:MET:HB3	1:A:514:MET:HE1	1.62	0.81
1:A:178:GLU:HB3	1:A:322:ARG:NH2	1.95	0.81
1:F:4:LYS:C	1:F:524:LEU:HD11	2.00	0.81
1:G:414:GLY:HA2	1:G:495:ASP:OD2	1.80	0.81
1:B:124:VAL:HG21	1:B:508:ALA:CB	2.10	0.81
1:F:417:VAL:O	1:F:420:ILE:HG22	1.80	0.81
1:N:343:GLN:NE2	1:N:346:VAL:HG11	1.96	0.81
1:B:266:THR:CG2	1:B:273:VAL:H	1.93	0.81
1:D:241:ALA:HB1	1:E:231:ARG:NH1	1.95	0.81
1:N:325:ILE:HG12	1:N:330:THR:HG23	1.61	0.81
1:K:171:LYS:HB3	1:K:407:VAL:HG11	1.62	0.81
1:D:100:ILE:HD13	1:D:514:MET:SD	2.20	0.81
1:A:365:LEU:CD2	1:A:368:ARG:HH21	1.93	0.81
1:B:235:PRO:HG3	1:B:310:GLU:HA	1.62	0.81
1:D:17:LEU:HD13	1:D:100:ILE:HG22	1.63	0.81
1:D:194:GLN:O	1:D:371:LYS:HE3	1.81	0.81
1:E:350:ARG:HA	1:E:353:ILE:CD1	2.10	0.81
1:H:235:PRO:CG	1:H:310:GLU:HA	2.11	0.81
1:K:161:LEU:HD11	1:K:185:ASP:HB3	1.63	0.81
1:M:158:VAL:HG13	1:M:396:VAL:HG22	1.63	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:132:LYS:O	1:H:135:SER:HB3	1.81	0.81
1:E:383:ALA:CB	1:E:389:MET:HA	2.11	0.80
1:E:465:VAL:HG13	1:E:485:TYR:OH	1.82	0.80
1:I:200:LEU:HD21	1:I:277:LYS:HG3	1.63	0.80
1:C:319:GLN:O	1:C:336:VAL:HG23	1.81	0.80
1:A:257:GLU:HB2	1:G:269:GLY:HA3	1.63	0.80
1:I:272:LYS:HZ3	1:J:228:SER:HB2	1.42	0.80
1:J:202:PRO:O	1:J:203:TYR:HB2	1.80	0.80
1:L:128:VAL:HG21	1:L:505:GLN:HE21	1.43	0.80
1:J:236:VAL:CG2	1:J:312:ALA:HB3	2.11	0.80
1:J:413:ALA:H	1:J:475:ASN:ND2	1.79	0.80
1:M:195:PHE:CD2	1:M:279:PRO:HG3	2.17	0.80
1:H:69:MET:C	1:H:73:MET:HE2	2.02	0.80
1:D:319:GLN:O	1:D:336:VAL:HG23	1.82	0.80
1:K:413:ALA:O	1:K:418:ALA:HB2	1.81	0.80
1:N:178:GLU:OE2	1:N:322:ARG:HD3	1.81	0.80
1:M:139:SER:HB3	1:M:171:LYS:NZ	1.97	0.80
1:M:230:ILE:HD13	1:M:261:THR:CG2	2.12	0.80
1:J:241:ALA:HB1	1:K:231:ARG:NH1	1.96	0.80
1:L:193:MET:HG3	1:L:371:LYS:HB3	1.62	0.80
1:A:517:THR:HA	1:G:37:ASN:O	1.81	0.79
1:B:34:LYS:HD2	1:C:114:MET:CE	2.11	0.79
1:D:131:LEU:CD1	1:D:422:VAL:HG21	2.11	0.79
1:K:287:ALA:HB1	1:K:368:ARG:HH12	1.47	0.79
1:A:124:VAL:HG21	1:A:508:ALA:HB2	1.64	0.79
1:J:166:MET:HE2	1:J:171:LYS:HA	1.64	0.79
1:L:130:GLU:CB	1:L:422:VAL:HG13	2.10	0.79
1:F:182:GLY:HA2	1:G:281:PHE:CE2	2.17	0.79
1:L:128:VAL:HG12	1:L:132:LYS:HE3	1.62	0.79
1:B:254:VAL:HG12	1:B:259:LEU:HB2	1.64	0.79
1:C:360:TYR:CZ	1:C:364:LYS:HE3	2.16	0.79
1:K:233:MET:HB3	1:K:237:LEU:HD12	1.64	0.79
1:M:240:VAL:HG12	1:M:271:VAL:HG11	1.63	0.79
1:A:217:SER:N	1:A:218:PRO:HD3	1.98	0.79
1:A:265:ASN:OD1	1:A:270:ILE:HD12	1.83	0.79
1:E:13:ARG:HD3	1:E:104:LEU:CD2	2.12	0.79
1:I:383:ALA:O	1:I:384:ALA:HB3	1.83	0.79
1:L:83:ASP:OD2	1:L:327:LYS:HD3	1.82	0.79
1:L:259:LEU:O	1:L:263:VAL:HG23	1.83	0.79
1:N:417:VAL:HG21	1:N:488:MET:HG3	1.64	0.79
1:B:182:GLY:HA2	1:C:281:PHE:CE2	2.18	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3:ALA:O	1:F:524:LEU:HD13	1.82	0.79
1:G:235:PRO:HG3	1:G:310:GLU:HA	1.65	0.79
1:B:247:LEU:HB3	1:B:273:VAL:HG22	1.64	0.79
1:L:124:VAL:HG13	1:L:504:LEU:HD23	1.65	0.79
1:C:174:VAL:HG12	1:C:376:VAL:HG13	1.64	0.78
1:F:224:ASP:HB3	1:F:302:SER:HB3	1.64	0.78
1:F:230:ILE:HD12	1:F:261:THR:HB	1.63	0.78
1:L:139:SER:HB3	1:L:171:LYS:NZ	1.99	0.78
1:C:122:LYS:NZ	1:C:430:ARG:O	2.14	0.78
1:D:235:PRO:HG3	1:D:310:GLU:HA	1.64	0.78
1:E:319:GLN:O	1:E:336:VAL:CG2	2.29	0.78
1:A:437:ASN:HA	1:A:440:ILE:CD1	2.13	0.78
1:E:420:ILE:HG13	1:E:448:GLU:HG2	1.65	0.78
1:G:131:LEU:HD13	1:G:422:VAL:HG21	1.63	0.78
1:K:181:THR:CA	1:L:282:GLY:HA3	2.13	0.78
1:E:326:ASN:HD22	1:E:329:THR:HB	1.47	0.78
1:C:28:LYS:HD2	1:C:453:GLN:OE1	1.84	0.78
1:E:478:TYR:CZ	1:E:483:GLU:HA	2.18	0.78
1:G:151:SER:HB3	1:G:399:ALA:HA	1.65	0.78
1:J:195:PHE:CD2	1:J:279:PRO:HG3	2.19	0.78
1:H:169:VAL:HG23	1:H:170:GLY:H	1.49	0.78
1:N:313:THR:O	1:N:317:LEU:HD13	1.82	0.78
1:C:436:GLN:O	1:C:440:ILE:HG13	1.83	0.78
1:K:259:LEU:O	1:K:263:VAL:HG23	1.84	0.78
1:N:362:ARG:HG2	1:N:366:GLN:NE2	1.99	0.78
1:F:4:LYS:O	1:F:524:LEU:HD11	1.84	0.77
1:D:247:LEU:HB3	1:D:273:VAL:HG22	1.63	0.77
1:G:449:ALA:HB3	1:G:450:PRO:HD3	1.64	0.77
1:H:224:ASP:HB3	1:H:302:SER:HB3	1.66	0.77
1:I:219:PHE:CB	1:I:317:LEU:HD23	2.14	0.77
1:I:519:CYS:SG	1:I:520:MET:N	2.57	0.77
1:J:447:MET:HE1	1:J:504:LEU:HD21	1.65	0.77
1:K:131:LEU:CD1	1:K:422:VAL:HG21	2.14	0.77
1:E:171:LYS:HD3	1:E:407:VAL:HG13	1.64	0.77
1:I:421:ARG:CD	1:I:425:LYS:HZ2	1.98	0.77
1:B:344:GLY:O	1:B:348:GLN:HG3	1.84	0.77
1:D:272:LYS:NZ	1:E:228:SER:HB3	1.99	0.77
1:D:438:VAL:O	1:D:442:VAL:HG23	1.85	0.77
1:F:183:LEU:O	1:F:184:GLN:HG3	1.84	0.77
1:K:389:MET:HG3	1:L:281:PHE:CE2	2.19	0.77
1:L:70:GLY:HA2	1:L:73:MET:HE3	1.65	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:513:LEU:HD13	1:N:49:ILE:HD13	1.66	0.77
1:A:166:MET:HE3	1:A:171:LYS:HA	1.67	0.77
1:C:350:ARG:HA	1:C:353:ILE:CD1	2.15	0.77
1:M:227:ILE:HG12	1:M:309:LEU:HD11	1.67	0.77
1:M:290:GLN:NE2	1:M:293:ALA:HB3	1.99	0.77
1:C:187:LEU:HD13	1:C:379:ILE:HG12	1.67	0.77
1:E:91:THR:O	1:E:94:VAL:HG22	1.85	0.77
1:I:166:MET:HE1	1:I:171:LYS:HA	1.66	0.77
1:J:221:LEU:HD23	1:J:249:ILE:HD12	1.65	0.77
1:L:451:LEU:O	1:L:455:VAL:HG23	1.85	0.77
1:C:39:VAL:HG12	1:D:69:MET:HE2	1.65	0.77
1:K:217:SER:N	1:K:218:PRO:HD3	1.98	0.77
1:C:305:ILE:HD12	1:C:307:MET:HE1	1.68	0.76
1:G:54:VAL:HG22	1:G:89:THR:HB	1.67	0.76
1:K:321:LYS:HD2	1:K:334:ASP:OD2	1.84	0.76
1:A:221:LEU:HD22	1:A:233:MET:CE	2.15	0.76
1:C:193:MET:HG3	1:C:371:LYS:HB3	1.68	0.76
1:F:319:GLN:O	1:F:336:VAL:HG23	1.85	0.76
1:K:224:ASP:HB3	1:K:302:SER:HB3	1.66	0.76
1:C:356:ALA:CB	1:C:362:ARG:HG3	2.14	0.76
1:G:171:LYS:O	1:G:404:ARG:NH1	2.17	0.76
1:H:321:LYS:HD2	1:H:334:ASP:OD2	1.84	0.76
1:K:392:LYS:HG3	1:K:395:ARG:HH22	1.48	0.76
1:B:144:ILE:HD13	1:B:166:MET:SD	2.26	0.76
1:I:130:GLU:HB3	1:I:422:VAL:HG13	1.66	0.76
1:B:85:ALA:HB1	1:B:499:VAL:CG1	2.10	0.76
1:B:183:LEU:O	1:B:183:LEU:HD13	1.86	0.76
1:H:241:ALA:HB1	1:I:231:ARG:NH1	2.00	0.76
1:J:134:LEU:HD13	1:J:134:LEU:O	1.86	0.76
1:I:385:THR:H	1:J:281:PHE:HE1	1.33	0.76
1:N:239:ALA:O	1:N:314:LEU:HD21	1.84	0.76
1:F:305:ILE:O	1:F:305:ILE:HG22	1.84	0.76
1:M:139:SER:HB3	1:M:171:LYS:HZ1	1.49	0.76
1:F:181:THR:O	1:G:282:GLY:HA3	1.85	0.76
1:I:30:THR:HB	1:I:51:LYS:O	1.85	0.76
1:K:287:ALA:HB1	1:K:368:ARG:NH1	2.01	0.76
1:M:417:VAL:HG21	1:M:488:MET:HG3	1.67	0.76
1:A:403:THR:O	1:A:407:VAL:HG23	1.85	0.76
1:B:478:TYR:CZ	1:B:483:GLU:HA	2.20	0.76
1:H:430:ARG:HH12	1:H:441:LYS:CE	1.98	0.76
1:M:124:VAL:HG21	1:M:508:ALA:CB	2.16	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:230:ILE:HG22	1:N:257:GLU:OE2	1.86	0.76
1:B:234:LEU:O	1:B:238:GLU:HG3	1.86	0.75
1:A:516:THR:OG1	1:G:37:ASN:OD1	2.04	0.75
1:F:3:ALA:HB1	1:F:524:LEU:HD22	1.67	0.75
1:H:39:VAL:N	1:I:519:CYS:O	2.17	0.75
1:J:289:LEU:HA	1:J:292:ILE:HD12	1.66	0.75
1:K:131:LEU:HD12	1:K:422:VAL:HG21	1.67	0.75
1:D:414:GLY:HA2	1:D:495:ASP:OD2	1.87	0.75
1:F:120:ILE:O	1:F:124:VAL:HG23	1.86	0.75
1:J:31:LEU:HD13	1:J:90:THR:HG22	1.67	0.75
1:B:236:VAL:CG2	1:B:312:ALA:HB3	2.16	0.75
1:L:36:ARG:HB3	1:M:516:THR:O	1.86	0.75
1:A:124:VAL:HG21	1:A:508:ALA:CB	2.16	0.75
1:A:178:GLU:HB3	1:A:322:ARG:CZ	2.16	0.75
1:D:230:ILE:HG22	1:D:257:GLU:OE2	1.86	0.75
1:G:193:MET:HG3	1:G:371:LYS:HB3	1.67	0.75
1:H:36:ARG:HG3	1:I:518:GLU:HG3	1.69	0.75
1:H:140:ASP:OD2	1:H:142:LYS:HB3	1.87	0.75
1:N:195:PHE:CD2	1:N:279:PRO:HG3	2.22	0.75
1:N:479:ASN:CG	1:N:493:ILE:HD11	2.07	0.75
1:A:284:ARG:O	1:A:288:MET:HG3	1.87	0.75
1:B:440:ILE:O	1:B:444:LEU:HG	1.86	0.75
1:C:39:VAL:HG12	1:D:69:MET:CE	2.17	0.75
1:G:195:PHE:CD2	1:G:279:PRO:HG3	2.20	0.75
1:A:166:MET:HE2	1:A:171:LYS:HA	1.68	0.75
1:J:166:MET:HE3	1:J:171:LYS:HA	1.69	0.75
1:H:284:ARG:NH1	1:H:364:LYS:HD2	2.02	0.75
1:I:414:GLY:HA2	1:I:495:ASP:OD2	1.87	0.75
1:J:18:ARG:O	1:J:22:VAL:HG23	1.87	0.75
1:L:478:TYR:CZ	1:L:483:GLU:HA	2.22	0.75
1:E:308:GLU:HB2	1:E:311:LYS:CG	2.16	0.74
1:F:39:VAL:HB	1:G:520:MET:HG2	1.69	0.74
1:A:349:ILE:CG2	1:A:365:LEU:HD22	2.17	0.74
1:B:232:GLU:OE1	1:B:309:LEU:HD12	1.86	0.74
1:C:242:LYS:O	1:C:243:ALA:HB3	1.87	0.74
1:C:299:THR:N	1:C:316:ASP:O	2.19	0.74
1:D:31:LEU:HD12	1:D:32:GLY:N	2.02	0.74
1:E:17:LEU:HD13	1:E:100:ILE:HG22	1.69	0.74
1:E:308:GLU:HB2	1:E:311:LYS:HG2	1.68	0.74
1:K:229:ASN:HA	1:K:257:GLU:OE1	1.86	0.74
1:C:235:PRO:HG3	1:C:310:GLU:HA	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:219:PHE:CB	1:H:317:LEU:HD23	2.16	0.74
1:I:262:LEU:O	1:I:266:THR:HG23	1.86	0.74
1:B:345:ARG:HA	1:B:348:GLN:HE21	1.51	0.74
1:H:158:VAL:HG21	1:H:395:ARG:NH1	2.02	0.74
1:K:183:LEU:O	1:K:184:GLN:CG	2.32	0.74
1:L:183:LEU:O	1:L:184:GLN:HG3	1.87	0.74
1:B:266:THR:HG21	1:B:273:VAL:H	1.52	0.74
1:F:31:LEU:CD1	1:F:90:THR:HG22	2.17	0.74
1:F:287:ALA:HB1	1:F:368:ARG:NH1	2.01	0.74
1:I:301:ILE:HD13	1:I:312:ALA:HB2	1.70	0.74
1:K:233:MET:HE2	1:K:237:LEU:HD11	1.69	0.74
1:N:54:VAL:HG22	1:N:89:THR:HB	1.70	0.74
1:D:131:LEU:HD12	1:D:422:VAL:HG21	1.70	0.74
1:F:236:VAL:O	1:F:240:VAL:HG23	1.88	0.74
1:D:326:ASN:HD22	1:D:329:THR:HB	1.52	0.74
1:B:32:GLY:HA3	1:B:454:ILE:HG23	1.70	0.74
1:B:130:GLU:CB	1:B:422:VAL:HG13	2.16	0.74
1:D:28:LYS:HD2	1:D:453:GLN:OE1	1.88	0.74
1:E:301:ILE:HG23	1:E:307:MET:HB3	1.70	0.74
1:I:22:VAL:HG11	1:I:62:LEU:HD21	1.70	0.74
1:D:85:ALA:HB1	1:D:499:VAL:HG12	1.69	0.73
1:H:100:ILE:HD13	1:H:514:MET:SD	2.28	0.73
1:A:366:GLN:O	1:A:369:VAL:HG23	1.89	0.73
1:H:37:ASN:HB2	1:I:516:THR:O	1.88	0.73
1:H:59:GLU:O	1:I:4:LYS:HG3	1.88	0.73
1:H:270:ILE:O	1:H:271:VAL:O	2.05	0.73
1:J:144:ILE:HD13	1:J:166:MET:SD	2.27	0.73
1:C:417:VAL:O	1:C:420:ILE:HG22	1.88	0.73
1:I:74:VAL:HG12	1:I:510:VAL:HG21	1.69	0.73
1:J:131:LEU:CD1	1:J:422:VAL:HG21	2.19	0.73
1:M:24:ALA:HB3	1:M:97:GLN:NE2	2.03	0.73
1:A:301:ILE:HG23	1:A:307:MET:HB3	1.71	0.73
1:G:434:LYS:HZ2	1:J:434:LYS:HE3	1.53	0.73
1:N:177:VAL:HG11	1:N:397:GLU:HG3	1.69	0.73
1:B:239:ALA:HB1	1:B:314:LEU:CD1	2.19	0.73
1:K:180:GLY:HA2	1:K:380:LYS:HB3	1.70	0.73
1:L:460:GLU:O	1:L:462:PRO:HD3	1.89	0.73
1:M:241:ALA:CA	1:M:271:VAL:HG21	2.17	0.73
1:L:364:LYS:O	1:L:367:GLU:HB2	1.88	0.73
1:M:469:VAL:HG23	1:M:485:TYR:HE2	1.53	0.73
1:N:34:LYS:HG3	1:N:458:CYS:SG	2.29	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:16:MET:O	1:A:20:VAL:HG13	1.88	0.73
1:D:107:VAL:HG21	1:D:515:ILE:HG23	1.69	0.73
1:D:344:GLY:O	1:D:348:GLN:HG3	1.89	0.73
1:I:359:ASP:HA	1:I:362:ARG:NH1	2.04	0.73
1:L:478:TYR:OH	1:L:483:GLU:HA	1.89	0.73
1:D:183:LEU:O	1:D:184:GLN:HG3	1.88	0.73
1:I:434:LYS:HE2	1:I:434:LYS:HA	1.71	0.73
1:L:166:MET:CE	1:L:171:LYS:HA	2.19	0.73
1:E:74:VAL:HA	1:E:510:VAL:HG21	1.68	0.73
1:G:128:VAL:CG1	1:G:132:LYS:HE3	2.18	0.73
1:H:236:VAL:CG2	1:H:312:ALA:HB3	2.19	0.73
1:L:57:ALA:O	1:L:75:LYS:HE3	1.88	0.73
1:A:265:ASN:OD1	1:A:270:ILE:CD1	2.37	0.73
1:A:494:LEU:C	1:A:494:LEU:HD12	2.08	0.73
1:M:17:LEU:O	1:M:20:VAL:HG22	1.87	0.73
1:C:235:PRO:HG2	1:C:236:VAL:HG23	1.71	0.72
1:C:419:LEU:HD13	1:C:450:PRO:HG2	1.71	0.72
1:H:131:LEU:CD1	1:H:422:VAL:HG21	2.19	0.72
1:C:420:ILE:HD12	1:C:451:LEU:HD13	1.70	0.72
1:E:102:GLU:HB3	1:E:442:VAL:HG22	1.70	0.72
1:E:166:MET:CE	1:E:171:LYS:HA	2.19	0.72
1:N:235:PRO:HG2	1:N:310:GLU:HA	1.71	0.72
1:B:173:GLY:O	1:B:404:ARG:NH2	2.23	0.72
1:D:353:ILE:HD13	1:D:366:GLN:HG3	1.70	0.72
1:F:16:MET:HB3	1:F:514:MET:CE	2.19	0.72
1:I:417:VAL:HG21	1:I:488:MET:HG3	1.70	0.72
1:J:134:LEU:HD11	1:J:475:ASN:HD21	1.54	0.72
1:C:39:VAL:CG1	1:D:69:MET:HE2	2.18	0.72
1:D:23:LEU:HD23	1:D:74:VAL:HG23	1.70	0.72
1:E:359:ASP:HA	1:E:362:ARG:NH1	2.03	0.72
1:J:70:GLY:HA2	1:J:73:MET:HE2	1.70	0.72
1:K:59:GLU:O	1:L:4:LYS:HG3	1.89	0.72
1:L:34:LYS:HD2	1:M:114:MET:HE2	1.71	0.72
1:N:42:LYS:HD2	1:N:48:THR:OG1	1.90	0.72
1:F:240:VAL:HG21	1:F:247:LEU:HD22	1.71	0.72
1:I:101:THR:O	1:I:105:LYS:HG3	1.89	0.72
1:M:36:ARG:NH1	1:N:113:PRO:HG2	2.04	0.72
1:H:247:LEU:HB3	1:H:273:VAL:HG22	1.71	0.72
1:K:165:ALA:CB	1:K:379:ILE:HD11	2.20	0.72
1:K:205:ILE:HA	1:K:213:VAL:HG22	1.71	0.72
1:M:270:ILE:O	1:M:271:VAL:O	2.08	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:420:ILE:CD1	1:M:451:LEU:HD13	2.20	0.72
1:M:262:LEU:O	1:M:266:THR:HG23	1.90	0.72
1:N:401:HIS:O	1:N:404:ARG:HB2	1.89	0.72
1:I:180:GLY:HA3	1:I:381:VAL:O	1.89	0.72
1:I:342:ILE:O	1:I:346:VAL:HG23	1.90	0.72
1:L:100:ILE:HD11	1:L:511:ALA:HA	1.72	0.72
1:N:130:GLU:HB3	1:N:422:VAL:HG13	1.71	0.72
1:C:72:GLN:OE1	1:C:75:LYS:HD3	1.90	0.72
1:D:219:PHE:O	1:D:247:LEU:HD12	1.89	0.72
1:E:130:GLU:HB3	1:E:422:VAL:HG22	1.70	0.72
1:M:200:LEU:HD21	1:M:277:LYS:HG3	1.70	0.72
1:A:343:GLN:O	1:A:346:VAL:HB	1.89	0.72
1:I:131:LEU:CD1	1:I:422:VAL:HG21	2.19	0.72
1:K:419:LEU:CD1	1:K:450:PRO:HG2	2.20	0.72
1:L:139:SER:HB3	1:L:171:LYS:HZ1	1.54	0.72
1:M:41:ASP:HB2	1:N:69:MET:HE3	1.70	0.72
1:A:16:MET:HB3	1:A:514:MET:HE3	1.71	0.71
1:A:235:PRO:HG3	1:A:310:GLU:HA	1.72	0.71
1:D:324:VAL:HB	1:D:331:THR:HG22	1.71	0.71
1:D:478:TYR:CZ	1:D:483:GLU:HA	2.25	0.71
1:F:140:ASP:OD2	1:F:142:LYS:HB3	1.89	0.71
1:F:240:VAL:HG11	1:F:247:LEU:HB2	1.72	0.71
1:I:78:ALA:HB1	1:I:89:THR:HG23	1.71	0.71
1:K:158:VAL:HG13	1:K:396:VAL:HG22	1.70	0.71
1:L:158:VAL:HG13	1:L:396:VAL:HG22	1.72	0.71
1:F:221:LEU:HD23	1:F:249:ILE:HD12	1.71	0.71
1:H:92:ALA:O	1:H:95:LEU:HB2	1.90	0.71
1:K:166:MET:CE	1:K:171:LYS:HA	2.20	0.71
1:B:195:PHE:CE2	1:B:197:ARG:HB2	2.26	0.71
1:D:247:LEU:HD21	1:D:249:ILE:HD11	1.72	0.71
1:E:414:GLY:HA2	1:E:495:ASP:OD2	1.90	0.71
1:F:59:GLU:OE1	1:G:4:LYS:HE2	1.89	0.71
1:G:466:ALA:O	1:G:470:LYS:HG3	1.90	0.71
1:I:101:THR:HG22	1:I:105:LYS:HE3	1.71	0.71
1:I:91:THR:O	1:I:94:VAL:HG22	1.90	0.71
1:A:37:ASN:HD21	1:A:51:LYS:HE3	1.54	0.71
1:A:190:VAL:HG21	1:A:334:ASP:HB2	1.73	0.71
1:B:305:ILE:HB	1:B:307:MET:HE2	1.73	0.71
1:E:239:ALA:HB1	1:E:314:LEU:HG	1.72	0.71
1:K:419:LEU:HD12	1:K:450:PRO:HG2	1.72	0.71
1:A:221:LEU:HD22	1:A:233:MET:HE1	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:28:LYS:HD2	1:B:453:GLN:OE1	1.91	0.71
1:C:26:ALA:HA	1:D:8:PHE:HE2	1.54	0.71
1:D:184:GLN:H	1:D:382:GLY:HA3	1.55	0.71
1:H:130:GLU:CB	1:H:422:VAL:HG13	2.20	0.71
1:A:34:LYS:HG3	1:A:458:CYS:SG	2.31	0.71
1:A:139:SER:HB3	1:A:171:LYS:NZ	2.06	0.71
1:G:131:LEU:CD1	1:G:422:VAL:HG21	2.21	0.71
1:I:224:ASP:HB3	1:I:302:SER:HB3	1.72	0.71
1:B:34:LYS:CD	1:C:114:MET:HE2	2.20	0.71
1:B:182:GLY:HA2	1:C:281:PHE:CZ	2.26	0.71
1:F:224:ASP:HB3	1:F:302:SER:CB	2.20	0.71
1:H:18:ARG:HG2	1:H:67:GLU:CD	2.11	0.71
1:D:39:VAL:HG12	1:E:69:MET:CE	2.21	0.71
1:H:241:ALA:CB	1:I:231:ARG:HH12	2.04	0.71
1:L:501:ARG:O	1:L:505:GLN:HG3	1.90	0.71
1:M:202:PRO:O	1:M:203:TYR:HB2	1.91	0.71
1:N:194:GLN:O	1:N:371:LYS:HE3	1.91	0.71
1:F:193:MET:HG3	1:F:371:LYS:HB3	1.73	0.70
1:G:28:LYS:HD2	1:G:453:GLN:OE1	1.91	0.70
1:H:414:GLY:O	1:H:417:VAL:HG13	1.91	0.70
1:I:385:THR:HA	1:J:284:ARG:NH2	2.07	0.70
1:N:392:LYS:HG3	1:N:395:ARG:NH2	2.05	0.70
1:H:26:ALA:CA	1:I:8:PHE:HE1	2.03	0.70
1:J:494:LEU:C	1:J:494:LEU:HD12	2.11	0.70
1:K:26:ALA:HA	1:L:8:PHE:HE1	1.56	0.70
1:B:106:ALA:HB1	1:B:111:MET:HE3	1.73	0.70
1:C:158:VAL:HG13	1:C:396:VAL:HG22	1.73	0.70
1:C:166:MET:HE3	1:C:171:LYS:HA	1.73	0.70
1:F:392:LYS:HG3	1:F:395:ARG:NH2	2.06	0.70
1:D:42:LYS:HD2	1:D:48:THR:OG1	1.90	0.70
1:J:200:LEU:CD1	1:J:254:VAL:HB	2.20	0.70
1:E:319:GLN:C	1:E:336:VAL:HG23	2.11	0.70
1:J:134:LEU:HD11	1:J:475:ASN:ND2	2.07	0.70
1:M:411:VAL:HB	1:M:494:LEU:HD13	1.73	0.70
1:A:5:ASP:HB3	1:A:522:THR:HG23	1.73	0.70
1:D:511:ALA:O	1:D:515:ILE:HD12	1.91	0.70
1:F:3:ALA:C	1:F:524:LEU:HD13	2.11	0.70
1:H:7:LYS:HG3	1:H:66:PHE:CZ	2.26	0.70
1:H:158:VAL:HG21	1:H:395:ARG:HH12	1.57	0.70
1:K:165:ALA:HA	1:K:187:LEU:HD11	1.73	0.70
1:L:124:VAL:O	1:L:128:VAL:HG23	1.92	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:390:LYS:O	1:M:393:LYS:HB3	1.91	0.70
1:N:16:MET:HG3	1:N:520:MET:SD	2.32	0.70
1:N:205:ILE:HG23	1:N:212:ALA:O	1.91	0.70
1:B:423:ALA:HB2	1:B:447:MET:SD	2.32	0.70
1:G:177:VAL:HG11	1:G:397:GLU:HG2	1.74	0.70
1:L:420:ILE:CD1	1:L:451:LEU:HD13	2.22	0.70
1:M:213:VAL:HB	1:M:325:ILE:HB	1.73	0.70
1:F:74:VAL:HG12	1:F:510:VAL:HG21	1.74	0.70
1:H:39:VAL:HG23	1:I:517:THR:HG21	1.72	0.70
1:H:107:VAL:HG21	1:H:515:ILE:HG23	1.73	0.70
1:M:381:VAL:HG11	1:M:392:LYS:HG2	1.74	0.70
1:M:437:ASN:HA	1:M:440:ILE:HD12	1.73	0.70
1:D:264:VAL:HA	1:D:267:MET:HE2	1.73	0.70
1:F:16:MET:HB3	1:F:514:MET:HE1	1.74	0.70
1:F:392:LYS:HG3	1:F:395:ARG:HH22	1.56	0.70
1:H:33:PRO:HG2	1:H:480:ALA:HB3	1.73	0.70
1:K:147:VAL:HG11	1:K:403:THR:HG23	1.73	0.70
1:B:349:ILE:CG2	1:B:369:VAL:HG13	2.22	0.69
1:C:356:ALA:HB3	1:C:362:ARG:NE	2.07	0.69
1:E:25:ASP:HA	1:E:28:LYS:HE2	1.73	0.69
1:J:383:ALA:O	1:J:384:ALA:HB3	1.89	0.69
1:L:33:PRO:HG2	1:L:480:ALA:HB3	1.72	0.69
1:L:414:GLY:N	1:L:494:LEU:HA	2.07	0.69
1:H:235:PRO:HG3	1:H:310:GLU:CA	2.14	0.69
1:K:103:GLY:O	1:K:107:VAL:HG23	1.93	0.69
1:K:390:LYS:O	1:K:393:LYS:HB3	1.92	0.69
1:M:237:LEU:CD2	1:M:273:VAL:HG21	2.23	0.69
1:D:147:VAL:HG12	1:D:403:THR:OG1	1.92	0.69
1:G:30:THR:HB	1:G:51:LYS:O	1.92	0.69
1:G:151:SER:CB	1:G:399:ALA:HA	2.22	0.69
1:C:252:GLU:HG3	1:C:285:ARG:CZ	2.22	0.69
1:D:31:LEU:HG	1:D:454:ILE:CG1	2.22	0.69
1:G:127:ALA:HA	1:G:426:LEU:HD11	1.74	0.69
1:M:85:ALA:CB	1:M:499:VAL:HG12	2.18	0.69
1:M:236:VAL:CG2	1:M:312:ALA:HB3	2.23	0.69
1:E:16:MET:HB3	1:E:514:MET:CE	2.22	0.69
1:H:169:VAL:HG23	1:H:170:GLY:N	2.07	0.69
1:K:143:ALA:O	1:K:147:VAL:HG23	1.92	0.69
1:A:224:ASP:HB3	1:A:302:SER:CB	2.23	0.69
1:E:225:LYS:NZ	1:E:232:GLU:OE1	2.26	0.69
1:F:37:ASN:O	1:G:517:THR:HA	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:172:GLU:C	1:G:404:ARG:HH22	1.96	0.69
1:M:496:PRO:HB2	1:M:499:VAL:HG13	1.73	0.69
1:A:120:ILE:HG23	1:A:443:ALA:HB2	1.73	0.69
1:D:217:SER:HA	1:D:320:ALA:O	1.93	0.69
1:K:102:GLU:O	1:K:105:LYS:HB2	1.92	0.69
1:K:240:VAL:HG12	1:K:271:VAL:HG11	1.74	0.69
1:F:202:PRO:O	1:F:203:TYR:HB2	1.92	0.69
1:A:437:ASN:CA	1:A:440:ILE:HD12	2.23	0.69
1:C:122:LYS:NZ	1:C:431:GLY:HA2	2.08	0.69
1:D:177:VAL:CG1	1:D:397:GLU:HG3	2.22	0.69
1:J:390:LYS:O	1:J:393:LYS:HB3	1.92	0.68
1:D:47:PRO:HG2	1:E:73:MET:HG2	1.75	0.68
1:H:92:ALA:HA	1:H:95:LEU:HD12	1.75	0.68
1:H:430:ARG:NH1	1:H:441:LYS:HE2	2.07	0.68
1:I:228:SER:O	1:I:257:GLU:HB3	1.94	0.68
1:I:429:LEU:HG	1:I:440:ILE:HD13	1.75	0.68
1:J:305:ILE:O	1:J:305:ILE:HG22	1.93	0.68
1:L:433:ASN:O	1:L:436:GLN:HB2	1.94	0.68
1:A:149:THR:HG22	1:A:154:SER:HA	1.75	0.68
1:E:230:ILE:HD12	1:E:261:THR:HB	1.75	0.68
1:I:186:GLU:HB2	1:I:380:LYS:HB2	1.74	0.68
1:E:190:VAL:HG21	1:E:334:ASP:HB2	1.74	0.68
1:G:302:SER:H	1:G:307:MET:HE3	1.59	0.68
1:H:16:MET:HB3	1:H:514:MET:CE	2.23	0.68
1:H:39:VAL:O	1:I:520:MET:HA	1.94	0.68
1:H:146:GLN:O	1:H:150:ILE:HG13	1.93	0.68
1:M:130:GLU:CB	1:M:422:VAL:HG13	2.23	0.68
1:N:383:ALA:HB3	1:N:389:MET:HB2	1.74	0.68
1:G:166:MET:CE	1:G:171:LYS:HA	2.24	0.68
1:G:230:ILE:HD12	1:G:261:THR:HB	1.75	0.68
1:G:324:VAL:HB	1:G:331:THR:HG23	1.75	0.68
1:K:195:PHE:CD2	1:K:279:PRO:HG3	2.28	0.68
1:M:138:CYS:O	1:M:407:VAL:HA	1.93	0.68
1:L:339:GLU:HA	1:L:342:ILE:HD12	1.74	0.68
1:N:70:GLY:HA2	1:N:73:MET:CE	2.23	0.68
1:A:72:GLN:OE1	1:A:75:LYS:HD3	1.94	0.68
1:H:17:LEU:HD13	1:H:100:ILE:HG22	1.76	0.68
1:N:417:VAL:O	1:N:420:ILE:HG22	1.92	0.68
1:B:288:MET:HG3	1:B:368:ARG:HD3	1.74	0.68
1:D:221:LEU:HD23	1:D:249:ILE:HG23	1.75	0.68
1:D:324:VAL:HB	1:D:331:THR:CG2	2.24	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:16:MET:O	1:E:20:VAL:HG13	1.94	0.68
1:E:478:TYR:CE2	1:E:480:ALA:HA	2.29	0.68
1:H:37:ASN:HD21	1:H:51:LYS:HE3	1.58	0.68
1:M:83:ASP:OD2	1:M:327:LYS:HD3	1.93	0.68
1:A:496:PRO:HB2	1:A:499:VAL:HG13	1.76	0.68
1:C:184:GLN:H	1:C:382:GLY:HA3	1.59	0.68
1:N:184:GLN:O	1:N:382:GLY:HA3	1.93	0.68
1:N:219:PHE:HB3	1:N:317:LEU:HD23	1.76	0.68
1:A:419:LEU:CD1	1:A:450:PRO:HG2	2.23	0.67
1:B:57:ALA:O	1:B:75:LYS:HE3	1.93	0.67
1:C:501:ARG:CG	1:C:505:GLN:OE1	2.41	0.67
1:D:34:LYS:CG	1:D:458:CYS:SG	2.82	0.67
1:D:241:ALA:HB1	1:E:231:ARG:HH12	1.57	0.67
1:D:346:VAL:O	1:D:350:ARG:HB2	1.93	0.67
1:L:171:LYS:HB3	1:L:407:VAL:HG11	1.75	0.67
1:N:305:ILE:HD12	1:N:307:MET:HE1	1.76	0.67
1:E:437:ASN:O	1:E:440:ILE:HB	1.94	0.67
1:G:350:ARG:O	1:G:353:ILE:HB	1.95	0.67
1:H:41:ASP:HB2	1:I:69:MET:SD	2.34	0.67
1:H:230:ILE:HB	1:H:258:ALA:HA	1.76	0.67
1:I:40:LEU:HD13	1:I:59:GLU:HG3	1.75	0.67
1:K:199:TYR:CZ	1:K:205:ILE:HD11	2.29	0.67
1:L:455:VAL:HG11	1:L:465:VAL:HG21	1.75	0.67
1:A:160:LYS:HG2	1:A:164:GLU:OE2	1.95	0.67
1:A:234:LEU:O	1:A:238:GLU:HG3	1.95	0.67
1:A:381:VAL:HG11	1:A:392:LYS:HB3	1.77	0.67
1:A:440:ILE:O	1:A:444:LEU:HG	1.93	0.67
1:G:217:SER:N	1:G:218:PRO:HD3	2.09	0.67
1:I:131:LEU:HD13	1:I:422:VAL:HG21	1.76	0.67
1:N:134:LEU:HD12	1:N:412:VAL:HG12	1.77	0.67
1:E:138:CYS:SG	1:E:147:VAL:HG21	2.34	0.67
1:E:349:ILE:O	1:E:353:ILE:HG13	1.95	0.67
1:L:40:LEU:HD11	1:L:56:VAL:HA	1.75	0.67
1:A:365:LEU:HD23	1:A:368:ARG:HH21	1.59	0.67
1:C:31:LEU:HD13	1:C:90:THR:HG21	1.75	0.67
1:C:218:PRO:O	1:C:319:GLN:HG3	1.94	0.67
1:I:392:LYS:HG3	1:I:395:ARG:HH22	1.59	0.67
1:M:230:ILE:HB	1:M:258:ALA:HA	1.77	0.67
1:M:319:GLN:HB3	1:M:336:VAL:HG21	1.76	0.67
1:A:356:ALA:O	1:A:362:ARG:NH2	2.28	0.67
1:A:385:THR:H	1:B:281:PHE:HE1	1.41	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:151:SER:HB2	1:C:399:ALA:CB	2.23	0.67
1:K:181:THR:O	1:L:282:GLY:HA3	1.94	0.67
1:M:219:PHE:HE2	1:M:245:LYS:HB2	1.58	0.67
1:C:252:GLU:CD	1:C:285:ARG:NH1	2.48	0.67
1:D:440:ILE:O	1:D:444:LEU:HG	1.95	0.67
1:E:420:ILE:CD1	1:E:448:GLU:HG2	2.24	0.67
1:L:342:ILE:O	1:L:346:VAL:HG23	1.95	0.67
1:N:488:MET:HA	1:N:491:MET:HE3	1.76	0.67
1:A:117:LYS:NZ	1:A:512:GLY:HA3	2.09	0.67
1:C:420:ILE:CD1	1:C:451:LEU:HD13	2.25	0.67
1:H:242:LYS:O	1:H:243:ALA:HB3	1.95	0.67
1:J:17:LEU:O	1:J:20:VAL:HG22	1.94	0.67
1:A:409:GLU:OE1	1:A:498:LYS:HA	1.94	0.67
1:A:516:THR:O	1:G:37:ASN:N	2.23	0.67
1:B:130:GLU:HB3	1:B:422:VAL:CG1	2.24	0.67
1:E:16:MET:HB3	1:E:514:MET:HE1	1.76	0.67
1:H:358:SER:HB3	1:H:361:ASP:OD1	1.95	0.67
1:I:16:MET:HG3	1:I:520:MET:SD	2.35	0.67
1:I:34:LYS:HD2	1:J:114:MET:CE	2.25	0.67
1:I:478:TYR:OH	1:I:483:GLU:HA	1.95	0.67
1:I:392:LYS:HG3	1:I:395:ARG:NH2	2.09	0.67
1:L:414:GLY:H	1:L:494:LEU:HA	1.60	0.67
1:L:455:VAL:CG1	1:L:465:VAL:HG21	2.25	0.67
1:N:106:ALA:O	1:N:111:MET:HB2	1.95	0.67
1:C:195:PHE:CG	1:C:279:PRO:HG3	2.30	0.66
1:H:57:ALA:O	1:H:75:LYS:HE3	1.94	0.66
1:L:511:ALA:O	1:L:515:ILE:HD12	1.96	0.66
1:M:17:LEU:HD13	1:M:100:ILE:HG22	1.77	0.66
1:A:392:LYS:CG	1:A:395:ARG:NH2	2.58	0.66
1:F:349:ILE:HG21	1:F:369:VAL:HG13	1.77	0.66
1:G:434:LYS:HE3	1:J:434:LYS:HD2	1.76	0.66
1:I:7:LYS:HG3	1:I:66:PHE:CZ	2.30	0.66
1:M:21:ASN:HA	1:M:97:GLN:HE21	1.59	0.66
1:N:25:ASP:HA	1:N:28:LYS:HE2	1.77	0.66
1:F:183:LEU:HD22	1:F:184:GLN:N	2.09	0.66
1:H:10:ASN:HA	1:H:13:ARG:NH1	2.10	0.66
1:B:202:PRO:O	1:B:203:TYR:HB2	1.94	0.66
1:E:413:ALA:O	1:E:418:ALA:HB2	1.94	0.66
1:G:183:LEU:HB2	1:G:384:ALA:HB2	1.78	0.66
1:N:16:MET:HB3	1:N:514:MET:CE	2.24	0.66
1:A:220:ILE:HD12	1:A:296:THR:HG21	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:10:ASN:HB2	1:B:13:ARG:HH21	1.61	0.66
1:C:197:ARG:HD2	1:C:277:LYS:HB2	1.78	0.66
1:D:397:GLU:O	1:D:401:HIS:HB2	1.95	0.66
1:E:364:LYS:O	1:E:367:GLU:HB2	1.96	0.66
1:F:239:ALA:HB1	1:F:314:LEU:HG	1.77	0.66
1:I:40:LEU:HD13	1:I:59:GLU:CG	2.25	0.66
1:I:169:VAL:HG23	1:I:173:GLY:HA3	1.78	0.66
1:I:417:VAL:O	1:I:420:ILE:HG22	1.95	0.66
1:N:366:GLN:HA	1:N:369:VAL:HG22	1.78	0.66
1:B:187:LEU:HD13	1:B:379:ILE:HG12	1.77	0.66
1:L:128:VAL:HG21	1:L:505:GLN:NE2	2.10	0.66
1:L:496:PRO:HB2	1:L:499:VAL:HG13	1.77	0.66
1:A:91:THR:O	1:A:94:VAL:HG22	1.96	0.66
1:A:193:MET:HG3	1:A:371:LYS:HB3	1.77	0.66
1:B:13:ARG:NH1	1:B:518:GLU:OE2	2.29	0.66
1:B:383:ALA:O	1:B:384:ALA:HB3	1.95	0.66
1:C:247:LEU:HD21	1:C:249:ILE:HD11	1.78	0.66
1:H:4:LYS:C	1:H:524:LEU:HD11	2.16	0.66
1:H:85:ALA:HB1	1:H:499:VAL:CG1	2.04	0.66
1:H:111:MET:SD	1:H:438:VAL:HG21	2.36	0.66
1:K:106:ALA:O	1:K:111:MET:HB2	1.96	0.66
1:F:288:MET:O	1:F:291:ASP:N	2.29	0.66
1:I:248:LEU:HD12	1:I:274:ALA:O	1.95	0.66
1:J:7:LYS:HG3	1:J:66:PHE:CZ	2.30	0.66
1:A:63:GLU:HB2	1:B:524:LEU:HD21	1.78	0.66
1:A:366:GLN:O	1:A:369:VAL:CG2	2.43	0.66
1:B:183:LEU:O	1:B:184:GLN:HG3	1.96	0.66
1:F:131:LEU:HD12	1:F:422:VAL:CG2	2.26	0.66
1:G:383:ALA:O	1:G:384:ALA:HB3	1.96	0.66
1:K:296:THR:HB	1:K:319:GLN:H	1.60	0.66
1:L:202:PRO:O	1:L:203:TYR:HB2	1.96	0.66
1:A:360:TYR:OH	1:A:364:LYS:HE3	1.95	0.66
1:G:115:ASP:O	1:G:436:GLN:HG2	1.96	0.66
1:K:181:THR:HA	1:L:282:GLY:CA	2.24	0.66
1:N:325:ILE:HG23	1:N:330:THR:OG1	1.95	0.66
1:A:128:VAL:O	1:A:132:LYS:HG3	1.96	0.65
1:A:364:LYS:O	1:A:367:GLU:HB2	1.96	0.65
1:E:17:LEU:O	1:E:20:VAL:HG22	1.96	0.65
1:M:152:ALA:O	1:M:153:ASN:HB3	1.96	0.65
1:A:199:TYR:CZ	1:A:327:LYS:HA	2.30	0.65
1:C:383:ALA:O	1:C:384:ALA:HB3	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:183:LEU:O	1:H:184:GLN:CG	2.43	0.65
1:K:346:VAL:O	1:K:350:ARG:HB2	1.95	0.65
1:A:8:PHE:HE2	1:G:26:ALA:HA	1.61	0.65
1:C:149:THR:HG22	1:C:154:SER:HA	1.76	0.65
1:D:239:ALA:HB1	1:D:314:LEU:HG	1.78	0.65
1:E:323:VAL:HG12	1:E:332:ILE:HA	1.79	0.65
1:G:290:GLN:NE2	1:G:293:ALA:HB3	2.12	0.65
1:K:171:LYS:HD3	1:K:407:VAL:CG1	2.26	0.65
1:K:409:GLU:OE1	1:K:498:LYS:HA	1.96	0.65
1:L:383:ALA:HB3	1:L:389:MET:CA	2.26	0.65
1:M:176:THR:HG22	1:M:177:VAL:N	2.11	0.65
1:D:365:LEU:CD2	1:D:368:ARG:HH21	2.09	0.65
1:F:419:LEU:HD21	1:F:500:THR:HG23	1.77	0.65
1:G:165:ALA:HB2	1:G:379:ILE:HD11	1.77	0.65
1:I:54:VAL:HG22	1:I:89:THR:HB	1.78	0.65
1:I:248:LEU:HA	1:I:274:ALA:O	1.97	0.65
1:J:183:LEU:HG	1:J:384:ALA:HB2	1.79	0.65
1:M:229:ASN:C	1:M:231:ARG:H	1.97	0.65
1:B:166:MET:CE	1:B:171:LYS:HA	2.27	0.65
1:B:171:LYS:O	1:B:404:ARG:NH1	2.29	0.65
1:C:183:LEU:HD23	1:C:383:ALA:HA	1.79	0.65
1:E:109:ALA:HB2	1:L:109:ALA:CB	2.24	0.65
1:G:259:LEU:O	1:G:263:VAL:HG23	1.97	0.65
1:I:397:GLU:O	1:I:401:HIS:CD2	2.49	0.65
1:J:472:GLY:HA3	1:J:476:TYR:CD2	2.31	0.65
1:N:177:VAL:CG1	1:N:397:GLU:HG3	2.27	0.65
1:B:208:PRO:HG2	1:B:209:GLU:OE2	1.96	0.65
1:C:430:ARG:CD	1:C:437:ASN:ND2	2.58	0.65
1:F:230:ILE:CG2	1:F:257:GLU:OE2	2.44	0.65
1:H:496:PRO:O	1:H:499:VAL:HG22	1.97	0.65
1:E:287:ALA:HB1	1:E:368:ARG:NH1	2.12	0.65
1:F:138:CYS:SG	1:F:147:VAL:HG21	2.37	0.65
1:F:241:ALA:HA	1:F:271:VAL:CG2	2.23	0.65
1:F:420:ILE:HD13	1:F:451:LEU:HD13	1.79	0.65
1:H:288:MET:O	1:H:292:ILE:HG13	1.95	0.65
1:J:222:LEU:HD21	1:J:292:ILE:CG2	2.25	0.65
1:K:13:ARG:HD2	1:K:104:LEU:CD2	2.22	0.65
1:D:217:SER:N	1:D:218:PRO:CD	2.58	0.65
1:E:420:ILE:CG1	1:E:448:GLU:HG2	2.25	0.65
1:G:366:GLN:HA	1:G:369:VAL:HG22	1.77	0.65
1:J:131:LEU:HD12	1:J:422:VAL:HG21	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:385:THR:H	1:K:281:PHE:HE1	1.44	0.65
1:L:501:ARG:HG2	1:L:505:GLN:OE1	1.97	0.65
1:C:434:LYS:HD2	1:N:434:LYS:HD2	1.78	0.65
1:F:176:THR:HG22	1:F:177:VAL:N	2.12	0.65
1:I:209:GLU:H	1:I:209:GLU:CD	1.99	0.65
1:L:219:PHE:O	1:L:247:LEU:HD12	1.97	0.65
1:A:130:GLU:CB	1:A:422:VAL:HG13	2.22	0.65
1:D:241:ALA:HA	1:D:271:VAL:HG21	1.78	0.65
1:L:4:LYS:C	1:L:524:LEU:HD11	2.17	0.65
1:B:385:THR:H	1:C:281:PHE:HE1	1.46	0.64
1:C:305:ILE:HB	1:C:307:MET:CE	2.27	0.64
1:F:524:LEU:HD12	1:F:524:LEU:N	2.12	0.64
1:H:360:TYR:OH	1:N:384:ALA:HA	1.97	0.64
1:I:385:THR:HA	1:J:284:ARG:HH21	1.61	0.64
1:I:496:PRO:HB2	1:I:499:VAL:HG13	1.78	0.64
1:N:413:ALA:HB1	1:N:488:MET:HG3	1.79	0.64
1:E:102:GLU:HB2	1:E:442:VAL:CG1	2.28	0.64
1:H:440:ILE:O	1:H:444:LEU:HG	1.97	0.64
1:J:225:LYS:HD2	1:J:303:GLU:OE2	1.96	0.64
1:J:233:MET:HB3	1:J:237:LEU:CD1	2.27	0.64
1:L:284:ARG:HH12	1:L:364:LYS:NZ	1.95	0.64
1:B:453:GLN:O	1:B:456:LEU:HB3	1.97	0.64
1:G:106:ALA:O	1:G:111:MET:HE3	1.97	0.64
1:J:111:MET:HG2	1:J:435:ASP:OD1	1.98	0.64
1:K:197:ARG:HD2	1:K:277:LYS:HB2	1.77	0.64
1:L:116:LEU:HD23	1:L:435:ASP:O	1.97	0.64
1:M:230:ILE:CD1	1:M:261:THR:HB	2.28	0.64
1:A:284:ARG:NH1	1:A:364:LYS:HD2	2.12	0.64
1:G:69:MET:CE	1:G:520:MET:HE2	2.28	0.64
1:N:191:GLU:HB3	1:N:295:LEU:CD2	2.26	0.64
1:A:17:LEU:O	1:A:20:VAL:HG22	1.97	0.64
1:C:122:LYS:HZ2	1:C:431:GLY:HA2	1.62	0.64
1:F:57:ALA:O	1:F:75:LYS:CE	2.36	0.64
1:I:127:ALA:HA	1:I:426:LEU:HD11	1.79	0.64
1:I:478:TYR:CZ	1:I:483:GLU:HA	2.33	0.64
1:M:224:ASP:O	1:M:225:LYS:HB3	1.98	0.64
1:M:319:GLN:O	1:M:336:VAL:HG23	1.98	0.64
1:N:150:ILE:HD13	1:N:492:GLY:O	1.98	0.64
1:B:25:ASP:HA	1:B:28:LYS:HG2	1.80	0.64
1:D:58:ARG:HA	1:D:75:LYS:HE3	1.78	0.64
1:G:229:ASN:C	1:G:231:ARG:H	2.01	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:37:ASN:O	1:I:517:THR:HA	1.97	0.64
1:H:74:VAL:HG12	1:H:510:VAL:HG21	1.78	0.64
1:I:38:VAL:HG22	1:J:519:CYS:HB3	1.79	0.64
1:I:199:TYR:CZ	1:I:327:LYS:HA	2.33	0.64
1:J:411:VAL:HB	1:J:494:LEU:HD13	1.80	0.64
1:J:447:MET:CE	1:J:504:LEU:HD21	2.27	0.64
1:B:3:ALA:CB	1:B:524:LEU:HD22	2.28	0.64
1:I:10:ASN:O	1:I:14:VAL:HG22	1.98	0.64
1:M:96:ALA:O	1:M:100:ILE:HG13	1.97	0.64
1:M:237:LEU:HD11	1:M:262:LEU:HD21	1.79	0.64
1:N:224:ASP:O	1:N:225:LYS:HB3	1.97	0.64
1:C:144:ILE:HG23	1:C:403:THR:HG21	1.78	0.64
1:D:57:ALA:O	1:D:75:LYS:HE3	1.97	0.64
1:I:103:GLY:HA3	1:I:515:ILE:CD1	2.26	0.64
1:J:30:THR:HB	1:J:51:LYS:O	1.98	0.64
1:M:224:ASP:HB3	1:M:302:SER:HB3	1.80	0.64
1:F:130:GLU:HB3	1:F:422:VAL:HG13	1.80	0.64
1:F:131:LEU:HD21	1:F:500:THR:HG22	1.78	0.64
1:I:169:VAL:CG2	1:I:173:GLY:HA3	2.28	0.64
1:J:28:LYS:HD2	1:J:453:GLN:OE1	1.98	0.64
1:K:401:HIS:O	1:K:404:ARG:HB2	1.98	0.64
1:L:120:ILE:O	1:L:123:ALA:HB3	1.97	0.64
1:N:496:PRO:O	1:N:499:VAL:HG22	1.96	0.64
1:C:180:GLY:HA2	1:C:380:LYS:HB3	1.80	0.64
1:C:202:PRO:C	1:C:204:PHE:H	2.01	0.64
1:C:381:VAL:HG11	1:C:392:LYS:HG2	1.80	0.64
1:F:305:ILE:O	1:F:305:ILE:CG2	2.46	0.64
1:G:234:LEU:N	1:G:235:PRO:HD2	2.13	0.64
1:M:242:LYS:O	1:M:243:ALA:HB3	1.98	0.64
1:B:128:VAL:HG21	1:B:505:GLN:NE2	2.08	0.63
1:C:349:ILE:O	1:C:353:ILE:HG13	1.98	0.63
1:F:217:SER:N	1:F:218:PRO:HD3	2.11	0.63
1:G:6:VAL:HG13	1:G:521:VAL:HG22	1.81	0.63
1:H:47:PRO:HG2	1:I:73:MET:HG3	1.80	0.63
1:K:106:ALA:HB1	1:K:111:MET:CE	2.27	0.63
1:M:420:ILE:HD12	1:M:451:LEU:HD13	1.79	0.63
1:N:217:SER:N	1:N:218:PRO:CD	2.59	0.63
1:N:319:GLN:C	1:N:336:VAL:HG23	2.19	0.63
1:A:420:ILE:HD13	1:A:451:LEU:HD13	1.79	0.63
1:C:269:GLY:HA2	1:C:272:LYS:NZ	2.14	0.63
1:G:176:THR:HG21	1:G:333:ILE:HD11	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:24:ALA:O	1:H:28:LYS:HG2	1.98	0.63
1:J:127:ALA:HA	1:J:426:LEU:HD11	1.79	0.63
1:N:11:ASP:O	1:N:14:VAL:HG22	1.99	0.63
1:B:34:LYS:CD	1:C:114:MET:CE	2.76	0.63
1:C:165:ALA:HA	1:C:187:LEU:HD21	1.78	0.63
1:D:95:LEU:HD13	1:D:504:LEU:HD12	1.80	0.63
1:K:166:MET:HE2	1:K:171:LYS:HA	1.79	0.63
1:N:184:GLN:H	1:N:382:GLY:HA3	1.61	0.63
1:N:215:LEU:HB2	1:N:323:VAL:HG22	1.80	0.63
1:B:10:ASN:HB2	1:B:13:ARG:NH2	2.13	0.63
1:C:47:PRO:CG	1:D:69:MET:HG2	2.28	0.63
1:F:157:THR:HG21	1:F:392:LYS:NZ	2.14	0.63
1:H:30:THR:O	1:H:35:GLY:HA3	1.97	0.63
1:K:127:ALA:HA	1:K:426:LEU:HD11	1.80	0.63
1:M:26:ALA:HA	1:N:8:PHE:HE1	1.62	0.63
1:A:420:ILE:CD1	1:A:451:LEU:HD13	2.27	0.63
1:E:455:VAL:HG13	1:E:460:GLU:HB2	1.79	0.63
1:I:225:LYS:HD2	1:I:303:GLU:HG3	1.79	0.63
1:J:123:ALA:HA	1:J:429:LEU:CD2	2.29	0.63
1:K:62:LEU:HD12	1:K:67:GLU:C	2.18	0.63
1:A:478:TYR:CZ	1:A:483:GLU:HA	2.33	0.63
1:J:230:ILE:HD13	1:J:261:THR:CG2	2.29	0.63
1:J:288:MET:HG2	1:J:368:ARG:HD3	1.80	0.63
1:H:155:ASP:OD2	1:H:392:LYS:HE3	1.99	0.63
1:H:199:TYR:HA	1:H:276:VAL:HG12	1.80	0.63
1:C:213:VAL:HB	1:C:325:ILE:HB	1.80	0.63
1:D:5:ASP:HB2	1:D:524:LEU:HD12	1.81	0.63
1:E:434:LYS:O	1:E:434:LYS:HD3	1.99	0.63
1:E:488:MET:HB3	1:E:493:ILE:O	1.99	0.63
1:F:31:LEU:HD13	1:F:90:THR:CG2	2.23	0.63
1:I:100:ILE:O	1:I:104:LEU:HG	1.98	0.63
1:J:293:ALA:HB1	1:J:298:GLY:O	1.97	0.63
1:J:381:VAL:HG11	1:J:392:LYS:HB3	1.81	0.63
1:L:7:LYS:HG3	1:L:66:PHE:CZ	2.34	0.63
1:A:352:GLN:HA	1:A:355:GLU:OE1	1.99	0.63
1:B:117:LYS:HZ3	1:B:512:GLY:HA3	1.63	0.63
1:B:494:LEU:C	1:B:494:LEU:HD12	2.19	0.63
1:D:69:MET:O	1:D:73:MET:HG3	1.99	0.63
1:D:100:ILE:CD1	1:D:514:MET:SD	2.87	0.63
1:E:230:ILE:HD13	1:E:261:THR:HG21	1.81	0.63
1:N:217:SER:O	1:N:245:LYS:HD3	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:305:ILE:O	1:B:305:ILE:HG22	1.97	0.62
1:D:492:GLY:O	1:D:494:LEU:HG	1.99	0.62
1:F:3:ALA:CB	1:F:524:LEU:HD22	2.29	0.62
1:G:180:GLY:HA3	1:G:381:VAL:O	1.99	0.62
1:G:241:ALA:HA	1:G:271:VAL:HG21	1.81	0.62
1:J:57:ALA:O	1:J:75:LYS:HE3	1.99	0.62
1:N:13:ARG:HD2	1:N:104:LEU:CD2	2.26	0.62
1:A:139:SER:HB3	1:A:171:LYS:HZ1	1.62	0.62
1:A:199:TYR:CD2	1:A:326:ASN:O	2.52	0.62
1:C:13:ARG:NH1	1:C:518:GLU:OE2	2.30	0.62
1:H:218:PRO:O	1:H:319:GLN:HG3	1.99	0.62
1:I:350:ARG:HA	1:I:353:ILE:HD12	1.81	0.62
1:M:183:LEU:O	1:M:184:GLN:CG	2.42	0.62
1:B:233:MET:HB3	1:B:237:LEU:CD1	2.29	0.62
1:C:247:LEU:CD2	1:C:249:ILE:HD11	2.29	0.62
1:D:272:LYS:HZ2	1:E:228:SER:HB3	1.64	0.62
1:H:305:ILE:HG22	1:H:305:ILE:O	1.98	0.62
1:K:130:GLU:HB3	1:K:422:VAL:HG13	1.79	0.62
1:N:69:MET:O	1:N:73:MET:HE2	2.00	0.62
1:B:184:GLN:O	1:B:382:GLY:CA	2.45	0.62
1:C:103:GLY:O	1:C:106:ALA:HB3	1.99	0.62
1:C:199:TYR:CE2	1:C:326:ASN:O	2.52	0.62
1:F:39:VAL:O	1:G:520:MET:HA	2.00	0.62
1:G:74:VAL:HG12	1:G:510:VAL:CG1	2.29	0.62
1:G:106:ALA:O	1:G:111:MET:HB2	2.00	0.62
1:I:363:GLU:O	1:I:367:GLU:HG3	1.98	0.62
1:I:386:GLU:HB2	1:J:281:PHE:HB3	1.81	0.62
1:J:31:LEU:HD13	1:J:90:THR:CG2	2.28	0.62
1:J:176:THR:HG21	1:J:322:ARG:NH1	2.05	0.62
1:J:453:GLN:NE2	1:J:456:LEU:HD23	2.14	0.62
1:A:171:LYS:O	1:A:404:ARG:NH1	2.32	0.62
1:A:213:VAL:HB	1:A:325:ILE:HB	1.80	0.62
1:C:183:LEU:HD23	1:C:383:ALA:CA	2.29	0.62
1:F:109:ALA:HB2	1:K:109:ALA:HB2	1.81	0.62
1:H:111:MET:HE3	1:H:438:VAL:HG11	1.80	0.62
1:H:225:LYS:HD2	1:H:303:GLU:CG	2.30	0.62
1:I:3:ALA:O	1:I:524:LEU:HD13	1.98	0.62
1:I:193:MET:HG3	1:I:371:LYS:HB3	1.81	0.62
1:J:193:MET:HG3	1:J:371:LYS:HB3	1.81	0.62
1:L:36:ARG:HH12	1:M:113:PRO:HG2	1.65	0.62
1:A:208:PRO:HG2	1:A:209:GLU:OE2	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:265:ASN:CG	1:A:270:ILE:HD12	2.18	0.62
1:D:368:ARG:O	1:D:372:LEU:HD13	2.00	0.62
1:F:66:PHE:HD1	1:F:520:MET:SD	2.22	0.62
1:H:295:LEU:O	1:H:337:GLY:HA3	2.00	0.62
1:L:227:ILE:HG12	1:L:309:LEU:HD11	1.81	0.62
1:M:160:LYS:O	1:M:164:GLU:HG3	2.00	0.62
1:N:151:SER:HB3	1:N:399:ALA:HA	1.81	0.62
1:B:161:LEU:HD22	1:B:379:ILE:CG2	2.29	0.62
1:B:184:GLN:H	1:B:382:GLY:HA3	1.63	0.62
1:B:324:VAL:HB	1:B:331:THR:CG2	2.29	0.62
1:I:284:ARG:NH1	1:I:364:LYS:HD2	2.15	0.62
1:J:319:GLN:HB3	1:J:336:VAL:HG21	1.80	0.62
1:K:179:ASP:OD1	1:K:393:LYS:HE3	1.99	0.62
1:K:240:VAL:HG11	1:K:247:LEU:HB2	1.82	0.62
1:M:230:ILE:HD13	1:M:261:THR:HB	1.80	0.62
1:N:142:LYS:O	1:N:146:GLN:HG3	1.99	0.62
1:C:36:ARG:NH1	1:D:113:PRO:HG2	2.14	0.62
1:D:384:ALA:O	1:D:385:THR:HG23	1.99	0.62
1:E:92:ALA:HA	1:E:95:LEU:HD12	1.82	0.62
1:G:224:ASP:HB3	1:G:302:SER:CB	2.29	0.62
1:I:351:GLN:O	1:I:355:GLU:HG3	2.00	0.62
1:J:176:THR:CG2	1:J:322:ARG:HH12	2.03	0.62
1:K:70:GLY:HA2	1:K:73:MET:CE	2.29	0.62
1:B:350:ARG:O	1:B:353:ILE:HB	2.00	0.62
1:C:13:ARG:HA	1:C:16:MET:CE	2.30	0.62
1:H:155:ASP:HB3	1:H:395:ARG:HH12	1.64	0.62
1:I:434:LYS:HA	1:I:434:LYS:CE	2.27	0.62
1:J:236:VAL:HG22	1:J:312:ALA:HB3	1.80	0.62
1:K:183:LEU:O	1:K:183:LEU:HD13	1.99	0.62
1:K:336:VAL:HG12	1:K:336:VAL:O	2.00	0.62
1:M:226:LYS:HD3	1:M:255:GLU:OE2	2.00	0.62
1:B:6:VAL:HG11	1:B:8:PHE:CZ	2.35	0.62
1:C:384:ALA:O	1:C:385:THR:OG1	2.11	0.62
1:D:131:LEU:HD13	1:D:422:VAL:HG21	1.80	0.62
1:H:46:ALA:HA	1:I:72:GLN:HB3	1.81	0.62
1:J:123:ALA:HB2	1:J:440:ILE:HG23	1.81	0.62
1:J:200:LEU:HD12	1:J:254:VAL:HB	1.81	0.62
1:K:106:ALA:CA	1:K:111:MET:HE3	2.30	0.62
1:L:183:LEU:O	1:L:183:LEU:HD13	1.99	0.62
1:C:69:MET:O	1:C:73:MET:HG3	2.00	0.61
1:C:130:GLU:HB3	1:C:422:VAL:HG22	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:177:VAL:HG11	1:D:397:GLU:HG3	1.81	0.61
1:E:139:SER:HA	1:E:171:LYS:HZ1	1.65	0.61
1:F:131:LEU:CD1	1:F:422:VAL:CG2	2.66	0.61
1:F:233:MET:HB3	1:F:237:LEU:CD1	2.30	0.61
1:G:54:VAL:HG22	1:G:89:THR:CB	2.30	0.61
1:G:64:ASP:OD1	1:G:67:GLU:N	2.26	0.61
1:J:413:ALA:O	1:J:418:ALA:HB2	2.00	0.61
1:J:413:ALA:N	1:J:475:ASN:ND2	2.48	0.61
1:K:201:SER:HB2	1:K:259:LEU:HD11	1.81	0.61
1:K:233:MET:HB3	1:K:237:LEU:CD1	2.28	0.61
1:L:72:GLN:OE1	1:L:75:LYS:HD3	2.00	0.61
1:N:247:LEU:O	1:N:273:VAL:HA	1.99	0.61
1:B:6:VAL:HG12	1:B:8:PHE:CE1	2.35	0.61
1:D:364:LYS:O	1:D:367:GLU:HB2	2.00	0.61
1:E:190:VAL:HB	1:E:334:ASP:OD1	2.00	0.61
1:F:28:LYS:HD2	1:F:453:GLN:OE1	2.00	0.61
1:F:197:ARG:HD2	1:F:277:LYS:HB2	1.82	0.61
1:K:16:MET:HG3	1:K:520:MET:SD	2.39	0.61
1:K:229:ASN:C	1:K:231:ARG:H	2.03	0.61
1:L:25:ASP:OD1	1:L:28:LYS:HE2	2.00	0.61
1:L:241:ALA:HA	1:L:271:VAL:HG21	1.81	0.61
1:N:230:ILE:HD13	1:N:261:THR:CG2	2.30	0.61
1:A:202:PRO:O	1:A:203:TYR:HB2	2.00	0.61
1:E:173:GLY:O	1:E:404:ARG:NH2	2.31	0.61
1:E:430:ARG:HD2	1:E:437:ASN:ND2	2.15	0.61
1:F:488:MET:HA	1:F:491:MET:HE3	1.83	0.61
1:H:103:GLY:O	1:H:107:VAL:HG23	1.99	0.61
1:H:197:ARG:HH22	1:N:386:GLU:CD	2.02	0.61
1:N:158:VAL:HG13	1:N:396:VAL:HG22	1.81	0.61
1:A:187:LEU:CD1	1:A:379:ILE:HG12	2.31	0.61
1:D:178:GLU:HB3	1:D:322:ARG:CZ	2.29	0.61
1:G:74:VAL:HG12	1:G:510:VAL:HG11	1.82	0.61
1:H:240:VAL:HG12	1:H:271:VAL:CG1	2.29	0.61
1:J:6:VAL:CG1	1:J:8:PHE:CE2	2.83	0.61
1:K:205:ILE:HG23	1:K:212:ALA:O	2.00	0.61
1:L:209:GLU:H	1:L:209:GLU:CD	2.01	0.61
1:B:463:SER:CB	1:N:461:GLU:OE2	2.48	0.61
1:E:345:ARG:O	1:E:349:ILE:HG13	1.99	0.61
1:F:269:GLY:HA3	1:G:257:GLU:HB2	1.82	0.61
1:C:5:ASP:HB2	1:C:524:LEU:HD12	1.81	0.61
1:C:103:GLY:HA3	1:C:515:ILE:HD13	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:225:LYS:HD2	1:H:303:GLU:CD	2.20	0.61
1:I:200:LEU:O	1:I:201:SER:HB2	2.00	0.61
1:L:193:MET:HG2	1:L:371:LYS:HB3	1.81	0.61
1:N:16:MET:HB3	1:N:514:MET:HE1	1.81	0.61
1:A:349:ILE:HG23	1:A:365:LEU:CD2	2.27	0.61
1:D:13:ARG:HD2	1:D:104:LEU:CD2	2.29	0.61
1:G:160:LYS:HG2	1:G:164:GLU:OE2	2.01	0.61
1:H:17:LEU:HG	1:H:21:ASN:ND2	2.15	0.61
1:H:349:ILE:O	1:H:353:ILE:HG13	1.99	0.61
1:K:62:LEU:HD12	1:K:67:GLU:O	2.01	0.61
1:K:207:LYS:NZ	1:K:390:LYS:NZ	2.49	0.61
1:K:236:VAL:O	1:K:240:VAL:HG23	2.00	0.61
1:K:241:ALA:CA	1:K:271:VAL:HG21	2.29	0.61
1:L:409:GLU:OE2	1:L:498:LYS:HG3	2.00	0.61
1:M:112:ASN:O	1:M:116:LEU:HG	2.01	0.61
1:M:247:LEU:HD21	1:M:249:ILE:HD11	1.81	0.61
1:B:195:PHE:CG	1:B:279:PRO:HG3	2.36	0.61
1:C:13:ARG:HD2	1:C:104:LEU:HD22	1.83	0.61
1:G:177:VAL:HG11	1:G:397:GLU:CG	2.31	0.61
1:G:313:THR:O	1:G:316:ASP:HB2	2.01	0.61
1:L:319:GLN:C	1:L:336:VAL:HG23	2.21	0.61
1:B:345:ARG:O	1:B:348:GLN:HB2	2.01	0.61
1:E:161:LEU:HD22	1:E:379:ILE:HG23	1.82	0.61
1:H:294:THR:HG21	1:H:345:ARG:HB2	1.83	0.61
1:H:413:ALA:O	1:H:418:ALA:HB2	2.01	0.61
1:J:242:LYS:O	1:J:243:ALA:HB3	1.99	0.61
1:J:262:LEU:O	1:J:266:THR:HG23	2.00	0.61
1:K:161:LEU:HD11	1:K:185:ASP:CB	2.30	0.61
1:K:360:TYR:OH	1:K:364:LYS:HE3	2.00	0.61
1:L:152:ALA:O	1:L:153:ASN:HB3	2.00	0.61
1:L:420:ILE:HD12	1:L:451:LEU:HD13	1.83	0.61
1:M:417:VAL:O	1:M:420:ILE:HG22	2.01	0.61
1:B:519:CYS:SG	1:B:520:MET:N	2.74	0.61
1:C:124:VAL:O	1:C:128:VAL:HG23	2.00	0.61
1:E:269:GLY:HA3	1:F:229:ASN:OD1	2.01	0.61
1:F:420:ILE:CD1	1:F:451:LEU:HD13	2.31	0.61
1:H:166:MET:HE1	1:H:171:LYS:HA	1.83	0.61
1:H:241:ALA:HB1	1:I:231:ARG:HH12	1.63	0.61
1:J:359:ASP:HA	1:J:362:ARG:NH1	2.16	0.61
1:L:230:ILE:O	1:L:234:LEU:HG	2.00	0.61
1:N:362:ARG:HG2	1:N:366:GLN:HE22	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:396:VAL:O	1:N:400:LEU:HB2	2.01	0.61
1:A:238:GLU:O	1:A:241:ALA:HB3	2.01	0.60
1:C:23:LEU:O	1:C:27:VAL:HG23	2.01	0.60
1:C:242:LYS:O	1:C:243:ALA:CB	2.47	0.60
1:C:288:MET:HG2	1:C:368:ARG:HD3	1.82	0.60
1:C:430:ARG:HD2	1:C:437:ASN:HD21	1.64	0.60
1:D:434:LYS:O	1:D:438:VAL:HG23	2.00	0.60
1:L:229:ASN:C	1:L:231:ARG:H	2.04	0.60
1:B:463:SER:HB3	1:N:461:GLU:OE2	2.01	0.60
1:C:201:SER:HB2	1:C:259:LEU:HD21	1.83	0.60
1:C:230:ILE:HG22	1:C:257:GLU:OE2	2.00	0.60
1:C:305:ILE:HG22	1:C:305:ILE:O	2.01	0.60
1:D:242:LYS:C	1:D:244:GLY:H	2.05	0.60
1:D:272:LYS:HZ3	1:E:228:SER:HB3	1.64	0.60
1:E:230:ILE:HG22	1:E:257:GLU:OE2	2.00	0.60
1:I:440:ILE:O	1:I:444:LEU:HG	2.00	0.60
1:K:224:ASP:O	1:K:225:LYS:HB3	2.00	0.60
1:M:149:THR:HG21	1:M:156:GLU:HG2	1.83	0.60
1:N:70:GLY:HA2	1:N:73:MET:HE3	1.82	0.60
1:N:359:ASP:OD1	1:N:362:ARG:NH1	2.34	0.60
1:A:193:MET:SD	1:A:372:LEU:CD1	2.90	0.60
1:B:187:LEU:CD1	1:B:379:ILE:HG12	2.31	0.60
1:B:461:GLU:OE1	1:N:463:SER:HB3	2.00	0.60
1:C:139:SER:HB3	1:C:171:LYS:NZ	2.16	0.60
1:E:501:ARG:O	1:E:505:GLN:HG3	2.01	0.60
1:J:409:GLU:O	1:J:497:THR:HB	2.01	0.60
1:K:171:LYS:HD3	1:K:407:VAL:HG13	1.83	0.60
1:M:144:ILE:HG23	1:M:403:THR:HG21	1.82	0.60
1:N:240:VAL:HG11	1:N:247:LEU:HB2	1.83	0.60
1:B:414:GLY:HA2	1:B:495:ASP:OD2	2.00	0.60
1:D:247:LEU:CD2	1:D:249:ILE:HD11	2.31	0.60
1:D:266:THR:HG21	1:D:273:VAL:O	2.01	0.60
1:D:276:VAL:HG23	1:D:276:VAL:O	2.00	0.60
1:D:434:LYS:HZ1	1:M:434:LYS:HE3	1.66	0.60
1:I:522:THR:HG23	1:I:523:ASP:O	2.02	0.60
1:K:31:LEU:HD13	1:K:90:THR:CG2	2.31	0.60
1:L:363:GLU:O	1:L:367:GLU:HG3	2.01	0.60
1:M:224:ASP:HB3	1:M:302:SER:HA	1.83	0.60
1:A:62:LEU:HD12	1:A:68:ASN:HA	1.83	0.60
1:D:392:LYS:HG3	1:D:395:ARG:NH2	2.17	0.60
1:F:506:TYR:O	1:F:509:SER:HB3	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:242:LYS:O	1:I:243:ALA:HB3	2.02	0.60
1:I:343:GLN:HE22	1:I:346:VAL:HG11	1.66	0.60
1:J:205:ILE:HA	1:J:213:VAL:HG22	1.83	0.60
1:K:106:ALA:HB1	1:K:111:MET:HE3	1.82	0.60
1:L:4:LYS:C	1:L:524:LEU:CD1	2.70	0.60
1:M:166:MET:HE1	1:M:171:LYS:HA	1.83	0.60
1:N:144:ILE:HG23	1:N:403:THR:HG21	1.84	0.60
1:F:230:ILE:N	1:F:257:GLU:OE1	2.31	0.60
1:F:288:MET:O	1:F:291:ASP:HB2	2.01	0.60
1:H:134:LEU:O	1:H:134:LEU:HD23	2.02	0.60
1:I:225:LYS:HD2	1:I:303:GLU:CG	2.31	0.60
1:E:74:VAL:HG12	1:E:510:VAL:CG2	2.31	0.60
1:E:343:GLN:O	1:E:346:VAL:HB	2.02	0.60
1:F:182:GLY:HA2	1:G:281:PHE:CZ	2.37	0.60
1:F:385:THR:H	1:G:281:PHE:HE1	1.49	0.60
1:H:26:ALA:HB2	1:I:8:PHE:CZ	2.37	0.60
1:I:34:LYS:HD2	1:J:114:MET:HE2	1.83	0.60
1:I:478:TYR:N	1:I:488:MET:SD	2.75	0.60
1:K:441:LYS:O	1:K:445:ARG:HB2	2.02	0.60
1:L:191:GLU:HG3	1:L:342:ILE:CD1	2.31	0.60
1:L:472:GLY:HA3	1:L:476:TYR:CD2	2.36	0.60
1:A:197:ARG:HH22	1:G:386:GLU:CD	2.05	0.60
1:B:30:THR:HB	1:B:51:LYS:O	2.01	0.60
1:B:143:ALA:O	1:B:147:VAL:HG23	2.02	0.60
1:D:449:ALA:HB3	1:D:450:PRO:HD3	1.83	0.60
1:G:366:GLN:O	1:G:369:VAL:HG22	2.02	0.60
1:H:144:ILE:HG23	1:H:403:THR:HG21	1.84	0.60
1:H:440:ILE:HG22	1:H:444:LEU:CD1	2.31	0.60
1:I:161:LEU:HD22	1:I:379:ILE:HG23	1.83	0.60
1:J:241:ALA:HA	1:J:271:VAL:HG21	1.82	0.60
1:J:472:GLY:HA3	1:J:476:TYR:HD2	1.67	0.60
1:K:41:ASP:HB2	1:L:69:MET:SD	2.42	0.60
1:K:54:VAL:HG22	1:K:89:THR:HB	1.84	0.60
1:K:151:SER:CB	1:K:399:ALA:HA	2.30	0.60
1:L:85:ALA:HB1	1:L:499:VAL:CG1	2.30	0.60
1:B:176:THR:HG21	1:B:333:ILE:HD11	1.82	0.60
1:B:209:GLU:H	1:B:209:GLU:CD	2.04	0.60
1:B:247:LEU:HD21	1:B:249:ILE:HD11	1.83	0.60
1:C:202:PRO:O	1:C:203:TYR:HB2	2.01	0.60
1:E:449:ALA:HB3	1:E:450:PRO:HD3	1.82	0.60
1:G:264:VAL:HG12	1:G:265:ASN:N	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:224:ASP:O	1:H:225:LYS:HB3	2.02	0.60
1:H:420:ILE:CD1	1:H:451:LEU:HD13	2.31	0.60
1:J:173:GLY:O	1:J:404:ARG:NH2	2.35	0.60
1:J:254:VAL:HG12	1:J:259:LEU:CB	2.28	0.60
1:L:178:GLU:OE2	1:L:378:VAL:HG11	2.02	0.60
1:L:207:LYS:HE3	1:L:214:GLU:OE1	2.02	0.60
1:A:419:LEU:HD12	1:A:450:PRO:HG2	1.84	0.60
1:I:384:ALA:CB	1:J:360:TYR:OH	2.49	0.60
1:J:392:LYS:HG3	1:J:395:ARG:NH2	2.16	0.60
1:K:205:ILE:HG23	1:K:212:ALA:C	2.22	0.60
1:L:16:MET:O	1:L:20:VAL:HG13	2.02	0.60
1:M:6:VAL:HG22	1:M:521:VAL:HG22	1.84	0.60
1:M:219:PHE:CE2	1:M:245:LYS:HB2	2.36	0.60
1:M:265:ASN:O	1:M:270:ILE:HB	2.01	0.60
1:N:344:GLY:O	1:N:347:ALA:HB3	2.02	0.60
1:A:414:GLY:N	1:A:494:LEU:HA	2.16	0.59
1:A:516:THR:O	1:G:37:ASN:HB2	2.01	0.59
1:B:14:VAL:HG23	1:B:15:LYS:N	2.17	0.59
1:B:359:ASP:HA	1:B:362:ARG:NH1	2.17	0.59
1:C:106:ALA:HB1	1:C:111:MET:HE3	1.83	0.59
1:F:384:ALA:O	1:F:385:THR:HG23	2.01	0.59
1:A:269:GLY:HA2	1:A:272:LYS:NZ	2.17	0.59
1:C:221:LEU:HD23	1:C:249:ILE:HG23	1.84	0.59
1:A:349:ILE:HA	1:A:352:GLN:OE1	2.02	0.59
1:B:368:ARG:O	1:B:372:LEU:HD13	2.01	0.59
1:D:284:ARG:CZ	1:D:364:LYS:HD2	2.32	0.59
1:G:381:VAL:HG12	1:G:382:GLY:N	2.17	0.59
1:J:440:ILE:O	1:J:444:LEU:HG	2.02	0.59
1:B:83:ASP:OD2	1:B:327:LYS:HD3	2.03	0.59
1:G:209:GLU:H	1:G:209:GLU:CD	2.06	0.59
1:H:106:ALA:HB1	1:H:111:MET:HE3	1.84	0.59
1:H:169:VAL:HG23	1:H:173:GLY:HA3	1.84	0.59
1:L:34:LYS:CG	1:L:458:CYS:SG	2.84	0.59
1:A:349:ILE:O	1:A:352:GLN:HB2	2.02	0.59
1:B:287:ALA:HB1	1:B:368:ARG:HH12	1.67	0.59
1:B:390:LYS:O	1:B:393:LYS:HB3	2.01	0.59
1:L:10:ASN:HA	1:L:13:ARG:NH1	2.18	0.59
1:L:166:MET:HE2	1:L:171:LYS:HA	1.84	0.59
1:N:201:SER:C	1:N:202:PRO:O	2.40	0.59
1:N:392:LYS:O	1:N:396:VAL:HG23	2.02	0.59
1:A:201:SER:C	1:A:202:PRO:O	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:262:LEU:O	1:A:266:THR:HG23	2.02	0.59
1:C:221:LEU:HD13	1:C:236:VAL:HG11	1.83	0.59
1:F:124:VAL:O	1:F:128:VAL:HG23	2.03	0.59
1:I:336:VAL:O	1:I:336:VAL:HG12	2.03	0.59
1:J:161:LEU:HD22	1:J:379:ILE:HG23	1.84	0.59
1:K:120:ILE:HG23	1:K:443:ALA:HB2	1.83	0.59
1:K:397:GLU:O	1:K:401:HIS:CD2	2.55	0.59
1:M:155:ASP:OD2	1:M:157:THR:HB	2.01	0.59
1:N:423:ALA:HB2	1:N:447:MET:SD	2.41	0.59
1:C:176:THR:HG22	1:C:177:VAL:N	2.18	0.59
1:H:16:MET:O	1:H:20:VAL:HG13	2.03	0.59
1:H:384:ALA:O	1:H:385:THR:OG1	2.20	0.59
1:I:479:ASN:OD1	1:I:493:ILE:HD11	2.02	0.59
1:J:338:GLU:O	1:J:341:ALA:N	2.35	0.59
1:L:248:LEU:C	1:L:249:ILE:HD13	2.23	0.59
1:L:295:LEU:HD13	1:L:335:GLY:HA3	1.85	0.59
1:L:434:LYS:O	1:L:435:ASP:C	2.41	0.59
1:B:240:VAL:HG11	1:B:247:LEU:HB2	1.83	0.59
1:F:383:ALA:O	1:F:384:ALA:HB3	2.03	0.59
1:G:423:ALA:HB2	1:G:447:MET:SD	2.42	0.59
1:I:367:GLU:O	1:I:371:LYS:HG3	2.03	0.59
1:J:349:ILE:O	1:J:353:ILE:HG13	2.03	0.59
1:M:383:ALA:O	1:M:384:ALA:HB3	2.02	0.59
1:N:155:ASP:OD2	1:N:158:VAL:HG23	2.02	0.59
1:A:11:ASP:O	1:A:14:VAL:HG22	2.03	0.59
1:A:17:LEU:HD13	1:A:100:ILE:HG22	1.84	0.59
1:B:16:MET:HG3	1:B:520:MET:SD	2.42	0.59
1:E:263:VAL:O	1:E:267:MET:HB2	2.02	0.59
1:J:234:LEU:N	1:J:235:PRO:HD2	2.18	0.59
1:J:385:THR:N	1:K:281:PHE:HE1	2.01	0.59
1:M:124:VAL:HG21	1:M:508:ALA:HB1	1.84	0.59
1:N:236:VAL:CG2	1:N:312:ALA:HB3	2.33	0.59
1:N:496:PRO:HB2	1:N:499:VAL:HG13	1.85	0.59
1:B:40:LEU:HD23	1:C:521:VAL:HB	1.84	0.59
1:B:176:THR:HG22	1:B:177:VAL:N	2.17	0.59
1:E:217:SER:HA	1:E:320:ALA:O	2.03	0.59
1:G:224:ASP:HB3	1:G:302:SER:HB3	1.84	0.59
1:H:31:LEU:CD1	1:H:90:THR:HG22	2.16	0.59
1:I:102:GLU:HB2	1:I:442:VAL:HG13	1.83	0.59
1:I:348:GLN:O	1:I:352:GLN:HG3	2.01	0.59
1:B:17:LEU:HD13	1:B:100:ILE:HG22	1.83	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:479:ASN:O	1:E:483:GLU:N	2.36	0.58
1:F:295:LEU:HD13	1:F:295:LEU:O	2.02	0.58
1:F:360:TYR:O	1:F:363:GLU:N	2.36	0.58
1:L:36:ARG:NH1	1:M:113:PRO:HG2	2.18	0.58
1:M:171:LYS:O	1:M:404:ARG:NH1	2.31	0.58
1:N:106:ALA:CB	1:N:111:MET:HE1	2.33	0.58
1:D:372:LEU:N	1:D:372:LEU:CD1	2.66	0.58
1:G:113:PRO:HB3	1:G:516:THR:HA	1.85	0.58
1:G:216:GLU:OE2	1:G:322:ARG:HD2	2.03	0.58
1:H:163:ALA:O	1:H:167:ASP:HB2	2.03	0.58
1:H:383:ALA:O	1:H:384:ALA:HB3	2.03	0.58
1:J:130:GLU:HB3	1:J:422:VAL:HG22	1.84	0.58
1:B:433:ASN:OD1	1:B:436:GLN:HG3	2.02	0.58
1:C:199:TYR:CZ	1:C:327:LYS:HA	2.38	0.58
1:D:95:LEU:O	1:D:99:ILE:HD12	2.02	0.58
1:G:434:LYS:HZ2	1:J:434:LYS:CE	2.14	0.58
1:H:61:GLU:HG2	1:I:3:ALA:HA	1.85	0.58
1:K:78:ALA:HB1	1:K:89:THR:HG23	1.84	0.58
1:M:103:GLY:HA3	1:M:515:ILE:HD13	1.85	0.58
1:M:222:LEU:HD21	1:M:292:ILE:HG22	1.85	0.58
1:M:230:ILE:HD13	1:M:261:THR:CB	2.33	0.58
1:A:115:ASP:HB3	1:A:436:GLN:HG2	1.86	0.58
1:A:449:ALA:HB3	1:A:450:PRO:HD3	1.85	0.58
1:B:124:VAL:HG13	1:B:504:LEU:CD2	2.33	0.58
1:D:181:THR:O	1:E:282:GLY:HA3	2.03	0.58
1:E:440:ILE:HG22	1:E:444:LEU:CD1	2.33	0.58
1:F:391:GLU:O	1:F:394:ALA:HB3	2.03	0.58
1:F:479:ASN:HB2	1:F:491:MET:SD	2.43	0.58
1:G:213:VAL:HB	1:G:325:ILE:HB	1.85	0.58
1:H:228:SER:O	1:H:257:GLU:HB3	2.03	0.58
1:J:284:ARG:HH12	1:J:364:LYS:NZ	2.01	0.58
1:K:181:THR:C	1:L:282:GLY:HA3	2.23	0.58
1:L:107:VAL:HG21	1:L:515:ILE:HG23	1.85	0.58
1:M:178:GLU:OE2	1:M:378:VAL:HG11	2.03	0.58
1:A:234:LEU:N	1:A:235:PRO:HD2	2.19	0.58
1:F:390:LYS:O	1:F:393:LYS:HB3	2.03	0.58
1:H:10:ASN:O	1:H:14:VAL:HG13	2.03	0.58
1:H:433:ASN:OD1	1:H:436:GLN:HG3	2.04	0.58
1:H:434:LYS:O	1:H:437:ASN:HB2	2.03	0.58
1:K:202:PRO:HA	1:K:205:ILE:HD12	1.85	0.58
1:K:383:ALA:O	1:K:384:ALA:HB3	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:77:VAL:HG12	1:L:77:VAL:O	2.01	0.58
1:L:106:ALA:HB1	1:L:111:MET:HE3	1.86	0.58
1:M:39:VAL:HG23	1:N:517:THR:CG2	2.33	0.58
1:M:240:VAL:HG11	1:M:247:LEU:HB2	1.85	0.58
1:N:430:ARG:HD2	1:N:437:ASN:ND2	2.18	0.58
1:B:155:ASP:OD2	1:B:157:THR:HB	2.03	0.58
1:C:437:ASN:O	1:C:441:LYS:HG2	2.03	0.58
1:D:26:ALA:HA	1:E:8:PHE:HE2	1.67	0.58
1:E:166:MET:HE2	1:E:171:LYS:HA	1.84	0.58
1:G:240:VAL:HG12	1:G:271:VAL:HG11	1.86	0.58
1:H:184:GLN:O	1:H:382:GLY:HA3	2.02	0.58
1:I:383:ALA:O	1:I:384:ALA:CB	2.50	0.58
1:I:413:ALA:O	1:I:418:ALA:HB2	2.03	0.58
1:J:225:LYS:HD2	1:J:303:GLU:CD	2.24	0.58
1:L:440:ILE:O	1:L:444:LEU:HG	2.02	0.58
1:M:39:VAL:HB	1:N:520:MET:HG2	1.86	0.58
1:M:465:VAL:HA	1:M:485:TYR:OH	2.04	0.58
1:N:230:ILE:HG21	1:N:261:THR:HG21	1.85	0.58
1:B:3:ALA:HB3	1:B:524:LEU:HD22	1.84	0.58
1:E:230:ILE:HD13	1:E:261:THR:CG2	2.33	0.58
1:F:4:LYS:C	1:F:524:LEU:CD1	2.72	0.58
1:G:64:ASP:HB3	1:G:67:GLU:HB2	1.85	0.58
1:K:248:LEU:HD13	1:K:325:ILE:HD11	1.84	0.58
1:C:5:ASP:HB2	1:C:524:LEU:CD1	2.34	0.58
1:C:26:ALA:HA	1:D:8:PHE:CE2	2.36	0.58
1:C:199:TYR:CD2	1:C:326:ASN:O	2.57	0.58
1:C:372:LEU:HD12	1:C:372:LEU:N	2.17	0.58
1:G:187:LEU:HD13	1:G:379:ILE:HG12	1.84	0.58
1:H:6:VAL:HG22	1:H:521:VAL:HG22	1.84	0.58
1:H:171:LYS:HB3	1:H:407:VAL:HG11	1.85	0.58
1:H:216:GLU:OE2	1:H:322:ARG:HD2	2.03	0.58
1:I:103:GLY:HA3	1:I:515:ILE:HD13	1.85	0.58
1:J:236:VAL:HG21	1:J:312:ALA:HB3	1.84	0.58
1:J:413:ALA:HB2	1:J:475:ASN:ND2	2.12	0.58
1:L:383:ALA:HB3	1:L:389:MET:HA	1.86	0.58
1:M:225:LYS:NZ	1:M:232:GLU:OE1	2.34	0.58
1:M:351:GLN:O	1:M:354:GLU:HB2	2.04	0.58
1:M:381:VAL:CG1	1:M:392:LYS:HG2	2.33	0.58
1:D:165:ALA:CA	1:D:187:LEU:HD11	2.34	0.58
1:F:74:VAL:HG12	1:F:510:VAL:CG2	2.34	0.58
1:F:199:TYR:CZ	1:F:205:ILE:HD11	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:418:ALA:O	1:F:422:VAL:HG23	2.03	0.58
1:G:71:ALA:O	1:G:75:LYS:HB2	2.04	0.58
1:I:229:ASN:C	1:I:231:ARG:H	2.07	0.58
1:I:270:ILE:HG23	1:J:231:ARG:HH11	1.69	0.58
1:N:383:ALA:O	1:N:384:ALA:HB3	2.04	0.58
1:N:479:ASN:CG	1:N:493:ILE:CD1	2.71	0.58
1:N:479:ASN:ND2	1:N:493:ILE:HD11	2.19	0.58
1:A:346:VAL:CG1	1:A:350:ARG:NH1	2.67	0.58
1:B:449:ALA:HB3	1:B:450:PRO:HD3	1.86	0.58
1:D:240:VAL:HG11	1:D:247:LEU:HB2	1.86	0.58
1:D:383:ALA:O	1:D:384:ALA:HB3	2.03	0.58
1:E:198:GLY:O	1:E:276:VAL:HG12	2.03	0.58
1:E:247:LEU:CD2	1:E:249:ILE:HD11	2.33	0.58
1:E:383:ALA:HB3	1:E:389:MET:HA	1.86	0.58
1:E:404:ARG:HG2	1:E:404:ARG:HH11	1.69	0.58
1:F:305:ILE:HD12	1:F:307:MET:CE	2.26	0.58
1:G:324:VAL:HB	1:G:331:THR:CG2	2.34	0.58
1:H:166:MET:HE2	1:H:171:LYS:HA	1.85	0.58
1:H:236:VAL:HG21	1:H:312:ALA:HB3	1.85	0.58
1:L:383:ALA:CB	1:L:389:MET:HA	2.34	0.58
1:E:423:ALA:HB2	1:E:447:MET:SD	2.44	0.57
1:F:91:THR:O	1:F:94:VAL:HG22	2.03	0.57
1:F:229:ASN:HA	1:F:257:GLU:OE1	2.02	0.57
1:H:7:LYS:HG3	1:H:66:PHE:CE2	2.39	0.57
1:J:241:ALA:HA	1:J:271:VAL:CG2	2.34	0.57
1:K:147:VAL:CG1	1:K:403:THR:HG23	2.33	0.57
1:K:414:GLY:HA2	1:K:495:ASP:OD2	2.04	0.57
1:K:417:VAL:HA	1:K:451:LEU:HD12	1.85	0.57
1:L:420:ILE:HD13	1:L:451:LEU:HD13	1.86	0.57
1:M:16:MET:O	1:M:20:VAL:HG13	2.04	0.57
1:A:494:LEU:HD12	1:A:494:LEU:O	2.04	0.57
1:N:383:ALA:CB	1:N:389:MET:HA	2.33	0.57
1:B:195:PHE:CD2	1:B:197:ARG:HB2	2.39	0.57
1:C:138:CYS:SG	1:C:147:VAL:HG21	2.43	0.57
1:C:319:GLN:HB3	1:C:336:VAL:HG21	1.86	0.57
1:D:47:PRO:HG2	1:E:73:MET:CG	2.34	0.57
1:E:253:ASP:CG	1:E:277:LYS:HE2	2.24	0.57
1:J:158:VAL:HG13	1:J:396:VAL:HG22	1.87	0.57
1:K:242:LYS:O	1:K:243:ALA:HB3	2.03	0.57
1:N:343:GLN:HE22	1:N:346:VAL:HG11	1.67	0.57
1:B:247:LEU:CD2	1:B:249:ILE:HD11	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:263:VAL:O	1:D:267:MET:HB2	2.04	0.57
1:E:16:MET:HG3	1:E:520:MET:SD	2.44	0.57
1:G:102:GLU:HB2	1:G:442:VAL:HG13	1.86	0.57
1:G:515:ILE:O	1:G:515:ILE:HG22	2.03	0.57
1:J:183:LEU:O	1:J:184:GLN:CG	2.44	0.57
1:M:92:ALA:O	1:M:95:LEU:HB2	2.04	0.57
1:C:222:LEU:HD13	1:C:293:ALA:CB	2.34	0.57
1:H:171:LYS:O	1:H:404:ARG:NH1	2.37	0.57
1:J:47:PRO:HG3	1:K:69:MET:HG2	1.86	0.57
1:J:453:GLN:HE22	1:J:456:LEU:HD23	1.69	0.57
1:L:144:ILE:HG23	1:L:403:THR:HG21	1.87	0.57
1:N:234:LEU:HB2	1:N:235:PRO:HD3	1.87	0.57
1:B:266:THR:HG21	1:B:273:VAL:O	2.04	0.57
1:F:183:LEU:HD22	1:F:183:LEU:C	2.24	0.57
1:F:221:LEU:HB3	1:F:249:ILE:HD13	1.85	0.57
1:F:229:ASN:C	1:F:231:ARG:H	2.06	0.57
1:H:74:VAL:HG12	1:H:510:VAL:CG2	2.34	0.57
1:H:141:SER:HA	1:H:144:ILE:HD12	1.86	0.57
1:H:230:ILE:HG22	1:H:257:GLU:OE1	2.04	0.57
1:I:64:ASP:HB3	1:I:67:GLU:HB2	1.86	0.57
1:J:202:PRO:O	1:J:203:TYR:CB	2.50	0.57
1:J:290:GLN:OE1	1:J:300:VAL:HG23	2.05	0.57
1:N:103:GLY:O	1:N:107:VAL:HG23	2.04	0.57
1:A:77:VAL:HG11	1:A:510:VAL:HB	1.86	0.57
1:F:183:LEU:O	1:F:184:GLN:CG	2.51	0.57
1:G:313:THR:N	1:G:316:ASP:OD2	2.28	0.57
1:H:478:TYR:CZ	1:H:483:GLU:HA	2.39	0.57
1:I:16:MET:HB3	1:I:514:MET:HE1	1.85	0.57
1:J:322:ARG:NH1	1:J:333:ILE:CD1	2.67	0.57
1:L:345:ARG:HG3	1:L:349:ILE:HD11	1.87	0.57
1:N:239:ALA:HB1	1:N:314:LEU:HG	1.85	0.57
1:B:183:LEU:HD22	1:B:184:GLN:N	2.20	0.57
1:B:233:MET:HB3	1:B:237:LEU:HD11	1.86	0.57
1:D:209:GLU:H	1:D:209:GLU:CD	2.08	0.57
1:F:165:ALA:HA	1:F:187:LEU:HD11	1.87	0.57
1:G:165:ALA:O	1:G:168:LYS:HB2	2.05	0.57
1:I:139:SER:HB3	1:I:171:LYS:NZ	2.20	0.57
1:J:131:LEU:HD13	1:J:422:VAL:HG21	1.86	0.57
1:L:16:MET:HG3	1:L:520:MET:SD	2.45	0.57
1:A:241:ALA:HA	1:A:271:VAL:HG21	1.87	0.57
1:B:3:ALA:O	1:B:524:LEU:HD13	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:195:PHE:HE2	1:B:197:ARG:HB2	1.70	0.57
1:C:139:SER:HB3	1:C:171:LYS:HZ1	1.69	0.57
1:D:31:LEU:HG	1:D:454:ILE:HG12	1.86	0.57
1:D:326:ASN:ND2	1:D:329:THR:HB	2.20	0.57
1:F:303:GLU:O	1:F:304:GLU:C	2.40	0.57
1:F:403:THR:O	1:F:407:VAL:HG23	2.04	0.57
1:I:234:LEU:N	1:I:235:PRO:HD2	2.19	0.57
1:I:368:ARG:O	1:I:372:LEU:HD13	2.05	0.57
1:J:34:LYS:CG	1:J:458:CYS:SG	2.90	0.57
1:K:16:MET:HB3	1:K:514:MET:CE	2.35	0.57
1:K:262:LEU:O	1:K:266:THR:HG23	2.05	0.57
1:M:305:ILE:O	1:M:305:ILE:HG22	2.05	0.57
1:A:130:GLU:HB3	1:A:422:VAL:CG1	2.25	0.57
1:D:171:LYS:O	1:D:404:ARG:NH1	2.38	0.57
1:E:320:ALA:HB1	1:E:334:ASP:O	2.05	0.57
1:E:326:ASN:HB2	1:E:329:THR:H	1.70	0.57
1:F:10:ASN:N	1:F:13:ARG:NH2	2.52	0.57
1:F:39:VAL:HG23	1:G:517:THR:HG21	1.86	0.57
1:H:451:LEU:HD23	1:H:451:LEU:C	2.25	0.57
1:I:202:PRO:O	1:I:203:TYR:HB2	2.04	0.57
1:J:6:VAL:HG12	1:J:8:PHE:CE2	2.40	0.57
1:M:166:MET:O	1:M:170:GLY:N	2.37	0.57
1:C:496:PRO:HB2	1:C:499:VAL:CG1	2.33	0.56
1:E:383:ALA:HB3	1:E:389:MET:CB	2.35	0.56
1:G:381:VAL:HG11	1:G:392:LYS:HB3	1.87	0.56
1:J:3:ALA:O	1:J:524:LEU:HD13	2.05	0.56
1:K:455:VAL:O	1:K:458:CYS:HB2	2.04	0.56
1:M:106:ALA:HB1	1:M:111:MET:HE3	1.85	0.56
1:N:124:VAL:O	1:N:128:VAL:HG23	2.05	0.56
1:A:296:THR:HB	1:A:319:GLN:H	1.69	0.56
1:B:406:ALA:O	1:B:410:GLY:N	2.32	0.56
1:D:68:ASN:O	1:D:72:GLN:HG2	2.05	0.56
1:J:134:LEU:HD12	1:J:412:VAL:HB	1.87	0.56
1:K:202:PRO:O	1:K:203:TYR:HB2	2.04	0.56
1:K:217:SER:N	1:K:218:PRO:CD	2.67	0.56
1:K:358:SER:HB3	1:K:361:ASP:OD1	2.05	0.56
1:A:344:GLY:O	1:A:347:ALA:HB3	2.05	0.56
1:A:451:LEU:O	1:A:455:VAL:HG23	2.06	0.56
1:C:41:ASP:HB2	1:D:69:MET:SD	2.46	0.56
1:D:176:THR:HG22	1:D:177:VAL:N	2.20	0.56
1:D:372:LEU:N	1:D:372:LEU:HD12	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:287:ALA:HB1	1:G:368:ARG:NH1	2.19	0.56
1:H:70:GLY:HA2	1:H:73:MET:HE2	1.87	0.56
1:H:193:MET:HG3	1:H:371:LYS:HB3	1.86	0.56
1:I:179:ASP:OD1	1:I:393:LYS:HD2	2.05	0.56
1:I:264:VAL:O	1:I:268:ARG:HG3	2.06	0.56
1:I:420:ILE:CD1	1:I:451:LEU:HD13	2.35	0.56
1:J:123:ALA:HA	1:J:429:LEU:HD21	1.86	0.56
1:J:258:ALA:O	1:J:262:LEU:HG	2.06	0.56
1:K:3:ALA:O	1:K:524:LEU:HD13	2.05	0.56
1:K:389:MET:HG3	1:L:281:PHE:CD2	2.39	0.56
1:L:5:ASP:N	1:L:524:LEU:CD1	2.69	0.56
1:L:47:PRO:HG2	1:M:73:MET:HG3	1.87	0.56
1:M:413:ALA:O	1:M:418:ALA:HB2	2.04	0.56
1:N:177:VAL:CG1	1:N:397:GLU:CG	2.83	0.56
1:N:234:LEU:O	1:N:238:GLU:HG3	2.05	0.56
1:A:221:LEU:HD22	1:A:233:MET:HE2	1.88	0.56
1:B:26:ALA:HA	1:C:8:PHE:HE2	1.70	0.56
1:D:39:VAL:HG12	1:E:69:MET:HE3	1.87	0.56
1:D:389:MET:HG3	1:E:281:PHE:CE2	2.41	0.56
1:F:103:GLY:O	1:F:107:VAL:HG23	2.06	0.56
1:F:176:THR:HG21	1:F:322:ARG:HH12	1.71	0.56
1:H:17:LEU:HG	1:H:21:ASN:HD21	1.70	0.56
1:H:294:THR:OG1	1:H:345:ARG:HD3	2.06	0.56
1:K:433:ASN:CG	1:K:436:GLN:HG3	2.26	0.56
1:A:180:GLY:HA2	1:A:380:LYS:HB3	1.88	0.56
1:B:264:VAL:HG12	1:B:265:ASN:N	2.20	0.56
1:B:451:LEU:HD23	1:B:451:LEU:C	2.26	0.56
1:C:122:LYS:HE2	1:C:429:LEU:HD11	1.87	0.56
1:F:248:LEU:O	1:F:249:ILE:HD13	2.05	0.56
1:K:433:ASN:O	1:K:436:GLN:HB2	2.06	0.56
1:N:228:SER:O	1:N:257:GLU:HB3	2.06	0.56
1:N:454:ILE:O	1:N:457:ASN:HB2	2.04	0.56
1:A:197:ARG:HD2	1:A:277:LYS:HB2	1.88	0.56
1:A:305:ILE:HD12	1:A:307:MET:HE2	1.85	0.56
1:B:25:ASP:OD1	1:B:28:LYS:HE2	2.05	0.56
1:B:478:TYR:OH	1:B:483:GLU:HA	2.03	0.56
1:E:230:ILE:CD1	1:E:261:THR:HB	2.35	0.56
1:F:10:ASN:HA	1:F:13:ARG:NH2	2.20	0.56
1:F:71:ALA:O	1:F:74:VAL:HG22	2.06	0.56
1:G:100:ILE:O	1:G:104:LEU:HG	2.04	0.56
1:G:230:ILE:HG22	1:G:257:GLU:OE2	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:254:VAL:O	1:J:259:LEU:HD22	2.06	0.56
1:N:177:VAL:HG11	1:N:397:GLU:CG	2.36	0.56
1:N:202:PRO:O	1:N:203:TYR:HB2	2.05	0.56
1:N:488:MET:HA	1:N:491:MET:CE	2.35	0.56
1:F:183:LEU:CB	1:F:384:ALA:HB2	2.31	0.56
1:G:62:LEU:HD13	1:G:67:GLU:HB3	1.88	0.56
1:K:489:ILE:HD13	1:K:494:LEU:HB3	1.87	0.56
1:L:183:LEU:O	1:L:184:GLN:CG	2.53	0.56
1:N:130:GLU:CB	1:N:422:VAL:HG13	2.35	0.56
1:A:417:VAL:O	1:A:420:ILE:HG22	2.05	0.56
1:E:311:LYS:HE2	1:E:311:LYS:HA	1.88	0.56
1:F:9:GLY:N	1:F:518:GLU:O	2.37	0.56
1:G:16:MET:HB3	1:G:514:MET:HE1	1.87	0.56
1:G:242:LYS:O	1:G:243:ALA:HB3	2.06	0.56
1:G:290:GLN:HE22	1:G:293:ALA:HB3	1.71	0.56
1:H:36:ARG:HG3	1:I:518:GLU:CG	2.34	0.56
1:L:99:ILE:HG21	1:L:120:ILE:HD13	1.86	0.56
1:L:155:ASP:OD2	1:L:157:THR:HB	2.06	0.56
1:M:39:VAL:HG23	1:N:517:THR:HG21	1.86	0.56
1:B:414:GLY:O	1:B:417:VAL:HG13	2.05	0.56
1:D:219:PHE:HB3	1:D:317:LEU:HD23	1.88	0.56
1:H:201:SER:O	1:H:204:PHE:CD2	2.59	0.56
1:H:384:ALA:C	1:H:385:THR:HG23	2.25	0.56
1:K:394:ALA:HA	1:K:397:GLU:OE1	2.06	0.56
1:M:31:LEU:HD13	1:M:90:THR:CG2	2.36	0.56
1:A:193:MET:SD	1:A:372:LEU:HD11	2.46	0.56
1:G:201:SER:C	1:G:202:PRO:O	2.42	0.56
1:I:230:ILE:N	1:I:257:GLU:OE1	2.38	0.56
1:K:449:ALA:HB3	1:K:450:PRO:HD3	1.87	0.56
1:L:54:VAL:HG22	1:L:89:THR:HB	1.88	0.56
1:L:176:THR:HG22	1:L:177:VAL:N	2.20	0.56
1:B:16:MET:HB3	1:B:514:MET:HE3	1.87	0.55
1:B:266:THR:CG2	1:B:273:VAL:N	2.67	0.55
1:C:186:GLU:O	1:C:379:ILE:HA	2.06	0.55
1:D:107:VAL:CG2	1:D:515:ILE:HG23	2.35	0.55
1:D:434:LYS:NZ	1:M:434:LYS:HE3	2.21	0.55
1:E:383:ALA:HB3	1:E:389:MET:CA	2.36	0.55
1:G:177:VAL:HG13	1:G:397:GLU:HG2	1.86	0.55
1:I:131:LEU:HD12	1:I:422:VAL:HG21	1.87	0.55
1:J:197:ARG:HD2	1:J:277:LYS:HB2	1.88	0.55
1:L:24:ALA:HB3	1:L:97:GLN:NE2	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:124:VAL:HG22	1:L:504:LEU:HD21	1.88	0.55
1:L:179:ASP:OD1	1:L:393:LYS:HE3	2.06	0.55
1:M:361:ASP:O	1:M:365:LEU:HG	2.05	0.55
1:N:195:PHE:CG	1:N:279:PRO:HG3	2.40	0.55
1:N:266:THR:HG21	1:N:273:VAL:O	2.06	0.55
1:N:383:ALA:HB2	1:N:389:MET:HA	1.88	0.55
1:A:199:TYR:CE2	1:A:326:ASN:O	2.60	0.55
1:A:300:VAL:O	1:A:307:MET:HE1	2.06	0.55
1:A:313:THR:O	1:A:317:LEU:HD13	2.05	0.55
1:C:127:ALA:HA	1:C:426:LEU:HD11	1.87	0.55
1:C:381:VAL:CG1	1:C:392:LYS:HG2	2.36	0.55
1:D:41:ASP:HB2	1:E:69:MET:CE	2.36	0.55
1:D:365:LEU:HD23	1:D:368:ARG:HH21	1.69	0.55
1:F:229:ASN:C	1:F:231:ARG:N	2.60	0.55
1:F:372:LEU:CD1	1:F:372:LEU:H	2.19	0.55
1:F:434:LYS:HD3	1:F:437:ASN:HB2	1.87	0.55
1:G:420:ILE:CD1	1:G:451:LEU:HD13	2.36	0.55
1:G:421:ARG:NH1	1:G:472:GLY:O	2.39	0.55
1:H:183:LEU:HB2	1:H:384:ALA:HB2	1.87	0.55
1:I:74:VAL:HG12	1:I:510:VAL:CG2	2.36	0.55
1:L:224:ASP:HB2	1:L:289:LEU:CD1	2.37	0.55
1:L:453:GLN:O	1:L:456:LEU:HB3	2.05	0.55
1:M:409:GLU:OE1	1:M:498:LYS:HA	2.06	0.55
1:N:70:GLY:HA2	1:N:73:MET:HE2	1.87	0.55
1:N:176:THR:HG21	1:N:322:ARG:HH12	1.71	0.55
1:E:320:ALA:HB2	1:E:335:GLY:HA2	1.87	0.55
1:F:273:VAL:HG12	1:F:274:ALA:N	2.21	0.55
1:G:302:SER:H	1:G:307:MET:CE	2.18	0.55
1:I:30:THR:CB	1:I:51:LYS:O	2.54	0.55
1:I:123:ALA:HA	1:I:429:LEU:CD2	2.36	0.55
1:I:130:GLU:CB	1:I:422:VAL:HG13	2.36	0.55
1:I:434:LYS:O	1:I:434:LYS:HD3	2.06	0.55
1:J:368:ARG:O	1:J:372:LEU:CD1	2.51	0.55
1:K:199:TYR:CE2	1:K:205:ILE:HD11	2.41	0.55
1:K:233:MET:HE3	1:K:237:LEU:HD21	1.89	0.55
1:L:339:GLU:HA	1:L:342:ILE:HB	1.88	0.55
1:B:69:MET:O	1:B:73:MET:HG3	2.06	0.55
1:C:349:ILE:HB	1:C:369:VAL:CG1	2.37	0.55
1:F:183:LEU:O	1:F:184:GLN:CB	2.54	0.55
1:H:26:ALA:O	1:H:29:VAL:HG22	2.07	0.55
1:H:202:PRO:C	1:H:204:PHE:H	2.09	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:131:LEU:HD13	1:K:422:VAL:HG21	1.89	0.55
1:K:269:GLY:HA3	1:L:257:GLU:CB	2.27	0.55
1:N:383:ALA:HB3	1:N:389:MET:CB	2.36	0.55
1:B:325:ILE:HG12	1:B:330:THR:CG2	2.19	0.55
1:D:383:ALA:HB3	1:D:389:MET:CA	2.36	0.55
1:F:127:ALA:HA	1:F:426:LEU:HD11	1.88	0.55
1:G:225:LYS:NZ	1:G:232:GLU:OE1	2.36	0.55
1:H:155:ASP:CB	1:H:395:ARG:HH12	2.19	0.55
1:J:509:SER:O	1:J:513:LEU:HG	2.06	0.55
1:A:18:ARG:HG2	1:A:67:GLU:CD	2.27	0.55
1:B:219:PHE:O	1:B:248:LEU:N	2.32	0.55
1:B:349:ILE:HB	1:B:369:VAL:CG1	2.36	0.55
1:D:413:ALA:HB1	1:D:417:VAL:CG2	2.37	0.55
1:F:182:GLY:CA	1:G:281:PHE:CE2	2.89	0.55
1:G:72:GLN:OE1	1:G:75:LYS:HD3	2.07	0.55
1:G:366:GLN:HA	1:G:369:VAL:CG2	2.37	0.55
1:J:135:SER:HA	1:J:412:VAL:HG12	1.88	0.55
1:J:144:ILE:HG23	1:J:403:THR:HG21	1.88	0.55
1:K:153:ASN:O	1:K:154:SER:HB2	2.06	0.55
1:K:178:GLU:HG3	1:K:380:LYS:HG2	1.88	0.55
1:L:130:GLU:HB3	1:L:422:VAL:CG1	2.17	0.55
1:L:155:ASP:HB3	1:L:395:ARG:HH12	1.72	0.55
1:M:146:GLN:O	1:M:150:ILE:HG13	2.06	0.55
1:M:413:ALA:HB1	1:M:488:MET:HG3	1.88	0.55
1:C:106:ALA:O	1:C:111:MET:HB2	2.06	0.55
1:C:252:GLU:OE1	1:C:285:ARG:NH1	2.40	0.55
1:C:343:GLN:NE2	1:C:346:VAL:HB	2.22	0.55
1:D:352:GLN:HA	1:D:355:GLU:OE1	2.06	0.55
1:E:85:ALA:CB	1:E:499:VAL:HG12	2.33	0.55
1:K:131:LEU:HD12	1:K:422:VAL:CG2	2.35	0.55
1:M:290:GLN:HE22	1:M:293:ALA:HB3	1.71	0.55
1:A:65:LYS:HB3	1:A:522:THR:OG1	2.07	0.55
1:A:141:SER:HA	1:A:144:ILE:HB	1.89	0.55
1:A:192:GLY:HA3	1:A:376:VAL:CG2	2.36	0.55
1:D:23:LEU:O	1:D:27:VAL:HG23	2.06	0.55
1:E:458:CYS:SG	1:E:480:ALA:HB1	2.46	0.55
1:F:368:ARG:O	1:F:372:LEU:CD1	2.52	0.55
1:I:362:ARG:HG2	1:I:366:GLN:NE2	2.21	0.55
1:N:125:THR:O	1:N:129:GLU:OE1	2.25	0.55
1:B:195:PHE:CD2	1:B:279:PRO:HG3	2.41	0.55
1:B:342:ILE:O	1:B:346:VAL:HG23	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:487:ASN:N	1:C:491:MET:HE2	2.21	0.55
1:D:177:VAL:CG1	1:D:397:GLU:CG	2.84	0.55
1:D:326:ASN:HB2	1:D:329:THR:HB	1.88	0.55
1:E:13:ARG:HB3	1:E:104:LEU:HD13	1.88	0.55
1:E:488:MET:HE1	1:E:493:ILE:HG21	1.88	0.55
1:F:87:ASP:CG	1:F:88:GLY:H	2.10	0.55
1:H:41:ASP:HA	1:H:47:PRO:HB3	1.88	0.55
1:H:223:ALA:HB2	1:H:309:LEU:HD21	1.89	0.55
1:I:230:ILE:HD13	1:I:261:THR:CG2	2.37	0.55
1:L:289:LEU:HA	1:L:292:ILE:HD12	1.89	0.55
1:M:30:THR:HB	1:M:51:LYS:O	2.07	0.55
1:M:269:GLY:HA3	1:N:257:GLU:HB2	1.89	0.55
1:N:183:LEU:O	1:N:184:GLN:CG	2.51	0.55
1:N:288:MET:O	1:N:291:ASP:HB2	2.07	0.55
1:A:339:GLU:HA	1:A:342:ILE:HB	1.89	0.55
1:G:219:PHE:CE2	1:G:314:LEU:HD22	2.42	0.55
1:H:472:GLY:HA3	1:H:476:TYR:CD2	2.41	0.55
1:K:6:VAL:HG22	1:K:521:VAL:HG22	1.89	0.55
1:A:33:PRO:HG2	1:A:480:ALA:HB3	1.89	0.54
1:A:236:VAL:CG2	1:A:312:ALA:HB3	2.37	0.54
1:D:413:ALA:CB	1:D:417:VAL:CG2	2.84	0.54
1:F:181:THR:C	1:G:282:GLY:HA3	2.28	0.54
1:F:324:VAL:HB	1:F:331:THR:HG23	1.89	0.54
1:F:414:GLY:HA2	1:F:495:ASP:OD2	2.06	0.54
1:G:144:ILE:HG21	1:G:163:ALA:HA	1.87	0.54
1:I:195:PHE:CZ	1:I:330:THR:HB	2.42	0.54
1:J:6:VAL:HG11	1:J:8:PHE:CE2	2.42	0.54
1:J:290:GLN:NE2	1:J:293:ALA:HB3	2.23	0.54
1:M:66:PHE:CZ	1:M:522:THR:HG22	2.41	0.54
1:M:149:THR:HG22	1:M:154:SER:HA	1.88	0.54
1:N:100:ILE:O	1:N:104:LEU:HG	2.07	0.54
1:N:199:TYR:CD2	1:N:326:ASN:O	2.60	0.54
1:N:456:LEU:HD13	1:N:462:PRO:HG2	1.88	0.54
1:B:440:ILE:HG22	1:B:444:LEU:HD11	1.89	0.54
1:C:143:ALA:O	1:C:147:VAL:HG23	2.07	0.54
1:C:262:LEU:O	1:C:266:THR:HG23	2.07	0.54
1:D:453:GLN:NE2	1:D:456:LEU:HD23	2.22	0.54
1:J:222:LEU:HD21	1:J:292:ILE:HG22	1.87	0.54
1:K:180:GLY:O	1:L:281:PHE:HD2	1.90	0.54
1:L:205:ILE:HG23	1:L:212:ALA:O	2.07	0.54
1:L:434:LYS:O	1:L:437:ASN:N	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:229:ASN:C	1:M:231:ARG:N	2.61	0.54
1:M:349:ILE:CG2	1:M:369:VAL:HG13	2.37	0.54
1:N:152:ALA:HB1	1:N:155:ASP:HB3	1.88	0.54
1:A:229:ASN:C	1:A:231:ARG:H	2.10	0.54
1:B:202:PRO:O	1:B:203:TYR:CB	2.54	0.54
1:C:305:ILE:HB	1:C:307:MET:HE2	1.90	0.54
1:D:216:GLU:C	1:D:218:PRO:HD3	2.27	0.54
1:D:383:ALA:HB3	1:D:389:MET:N	2.23	0.54
1:D:409:GLU:O	1:D:497:THR:HB	2.06	0.54
1:E:28:LYS:HD2	1:E:453:GLN:OE1	2.07	0.54
1:E:131:LEU:HD13	1:E:422:VAL:HG21	1.88	0.54
1:F:13:ARG:NH1	1:F:518:GLU:OE2	2.36	0.54
1:G:69:MET:O	1:G:73:MET:HG3	2.07	0.54
1:G:241:ALA:HA	1:G:271:VAL:CG2	2.36	0.54
1:H:37:ASN:HB2	1:I:517:THR:HA	1.89	0.54
1:H:513:LEU:CD1	1:N:49:ILE:HD13	2.37	0.54
1:J:224:ASP:HB3	1:J:302:SER:HB3	1.88	0.54
1:K:151:SER:HB3	1:K:399:ALA:HA	1.89	0.54
1:K:201:SER:C	1:K:202:PRO:O	2.41	0.54
1:K:207:LYS:NZ	1:K:390:LYS:HZ1	2.04	0.54
1:L:126:ALA:CB	1:L:429:LEU:HD22	2.38	0.54
1:N:28:LYS:HD2	1:N:453:GLN:OE1	2.06	0.54
1:N:368:ARG:O	1:N:372:LEU:HD13	2.08	0.54
1:A:406:ALA:O	1:A:410:GLY:N	2.40	0.54
1:D:200:LEU:HD13	1:D:254:VAL:HB	1.88	0.54
1:E:190:VAL:HG21	1:E:334:ASP:CB	2.37	0.54
1:E:236:VAL:HG22	1:E:312:ALA:CB	2.35	0.54
1:E:478:TYR:OH	1:E:483:GLU:HA	2.07	0.54
1:F:419:LEU:HD12	1:F:450:PRO:HG2	1.88	0.54
1:H:356:ALA:HB3	1:H:362:ARG:HE	1.73	0.54
1:H:466:ALA:O	1:H:470:LYS:HD2	2.07	0.54
1:J:326:ASN:ND2	1:J:329:THR:HB	2.17	0.54
1:K:124:VAL:HG21	1:K:508:ALA:CB	2.36	0.54
1:L:195:PHE:HD2	1:L:279:PRO:HG3	1.62	0.54
1:N:37:ASN:HB3	1:N:49:ILE:CG2	2.38	0.54
1:A:124:VAL:HG13	1:A:504:LEU:HD23	1.90	0.54
1:B:124:VAL:O	1:B:128:VAL:HG23	2.08	0.54
1:D:392:LYS:HG3	1:D:395:ARG:HH22	1.73	0.54
1:D:479:ASN:OD1	1:D:493:ILE:HD11	2.07	0.54
1:E:224:ASP:HB3	1:E:302:SER:HB3	1.90	0.54
1:F:419:LEU:CD2	1:F:500:THR:HG23	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:16:MET:HB3	1:G:514:MET:CE	2.37	0.54
1:I:132:LYS:O	1:I:135:SER:HB3	2.07	0.54
1:J:319:GLN:HB3	1:J:336:VAL:CG2	2.37	0.54
1:K:321:LYS:CD	1:K:334:ASP:OD2	2.53	0.54
1:M:384:ALA:O	1:M:385:THR:OG1	2.23	0.54
1:N:153:ASN:O	1:N:154:SER:HB2	2.08	0.54
1:N:176:THR:HG22	1:N:177:VAL:N	2.23	0.54
1:N:227:ILE:HG12	1:N:309:LEU:HD11	1.90	0.54
1:A:102:GLU:HB2	1:A:442:VAL:HG13	1.90	0.54
1:C:449:ALA:N	1:C:450:PRO:CD	2.71	0.54
1:D:284:ARG:NH1	1:D:364:LYS:CD	2.68	0.54
1:E:127:ALA:HA	1:E:426:LEU:HD11	1.89	0.54
1:G:147:VAL:HG12	1:G:403:THR:OG1	2.07	0.54
1:K:180:GLY:O	1:L:281:PHE:CD2	2.60	0.54
1:K:207:LYS:N	1:K:208:PRO:HD3	2.22	0.54
1:L:246:PRO:HA	1:L:272:LYS:O	2.08	0.54
1:L:336:VAL:O	1:L:336:VAL:HG12	2.07	0.54
1:M:183:LEU:O	1:M:183:LEU:HD13	2.07	0.54
1:A:100:ILE:O	1:A:104:LEU:HG	2.08	0.54
1:A:209:GLU:H	1:A:209:GLU:CD	2.09	0.54
1:A:296:THR:HB	1:A:319:GLN:N	2.22	0.54
1:A:397:GLU:O	1:A:400:LEU:HB3	2.07	0.54
1:C:70:GLY:HA2	1:C:73:MET:HE2	1.88	0.54
1:C:466:ALA:O	1:C:470:LYS:HG3	2.08	0.54
1:D:254:VAL:HG12	1:D:259:LEU:HB2	1.88	0.54
1:E:124:VAL:HG21	1:E:508:ALA:HB2	1.89	0.54
1:F:202:PRO:C	1:F:204:PHE:H	2.11	0.54
1:F:428:ASP:O	1:F:430:ARG:HG2	2.08	0.54
1:G:17:LEU:HD13	1:G:100:ILE:HG22	1.89	0.54
1:G:54:VAL:CG2	1:G:89:THR:HB	2.38	0.54
1:H:202:PRO:O	1:H:203:TYR:HB2	2.07	0.54
1:J:200:LEU:HD21	1:J:277:LYS:HG3	1.89	0.54
1:K:16:MET:HB3	1:K:514:MET:HE1	1.89	0.54
1:K:247:LEU:O	1:K:273:VAL:HA	2.07	0.54
1:K:260:ALA:O	1:K:264:VAL:HG23	2.08	0.54
1:K:433:ASN:OD1	1:K:436:GLN:HG3	2.08	0.54
1:L:158:VAL:O	1:L:162:ILE:HG13	2.07	0.54
1:L:183:LEU:HB2	1:L:384:ALA:HB2	1.89	0.54
1:L:235:PRO:HG3	1:L:310:GLU:HA	1.89	0.54
1:L:241:ALA:HA	1:L:271:VAL:CG2	2.38	0.54
1:N:241:ALA:HA	1:N:271:VAL:HG21	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:241:ALA:HA	1:N:271:VAL:CG2	2.37	0.54
1:C:230:ILE:HD12	1:C:261:THR:HB	1.88	0.54
1:I:184:GLN:H	1:I:382:GLY:HA3	1.71	0.54
1:I:288:MET:CG	1:I:368:ARG:HD3	2.38	0.54
1:J:152:ALA:O	1:J:153:ASN:HB3	2.08	0.54
1:J:296:THR:HB	1:J:319:GLN:N	2.22	0.54
1:L:242:LYS:O	1:L:243:ALA:HB3	2.07	0.54
1:L:349:ILE:O	1:L:353:ILE:HG13	2.07	0.54
1:N:30:THR:HB	1:N:51:LYS:O	2.08	0.54
1:A:74:VAL:HA	1:A:510:VAL:HG21	1.89	0.54
1:B:466:ALA:O	1:B:470:LYS:HG3	2.08	0.54
1:C:54:VAL:HG22	1:C:89:THR:HB	1.89	0.54
1:C:269:GLY:HA2	1:C:272:LYS:HZ1	1.72	0.54
1:C:356:ALA:HB3	1:C:362:ARG:HE	1.71	0.54
1:D:177:VAL:HG13	1:D:397:GLU:HG3	1.89	0.54
1:E:383:ALA:CB	1:E:389:MET:CA	2.86	0.54
1:F:176:THR:CG2	1:F:177:VAL:N	2.71	0.54
1:F:326:ASN:N	1:F:329:THR:O	2.26	0.54
1:G:16:MET:HG3	1:G:520:MET:SD	2.47	0.54
1:I:248:LEU:HD13	1:I:325:ILE:HD11	1.90	0.54
1:J:9:GLY:HA2	1:J:518:GLU:OE1	2.07	0.54
1:J:134:LEU:CD1	1:J:475:ASN:HD21	2.20	0.54
1:A:192:GLY:HA3	1:A:376:VAL:HG23	1.90	0.54
1:B:222:LEU:HD13	1:B:293:ALA:HB2	1.89	0.54
1:B:372:LEU:N	1:B:372:LEU:HD12	2.22	0.54
1:C:230:ILE:HD13	1:C:261:THR:HG22	1.87	0.54
1:D:5:ASP:HB2	1:D:524:LEU:CD1	2.38	0.54
1:E:15:LYS:O	1:E:67:GLU:HA	2.07	0.54
1:E:217:SER:N	1:E:218:PRO:CD	2.68	0.54
1:F:303:GLU:O	1:F:306:GLY:N	2.37	0.54
1:J:16:MET:O	1:J:20:VAL:HG13	2.07	0.54
1:J:224:ASP:O	1:J:225:LYS:HB3	2.08	0.54
1:J:347:ALA:O	1:J:348:GLN:C	2.46	0.54
1:M:235:PRO:CG	1:M:310:GLU:HA	2.23	0.54
1:M:284:ARG:NH1	1:M:364:LYS:HD2	2.22	0.54
1:M:359:ASP:O	1:M:363:GLU:CD	2.46	0.54
1:N:452:ARG:HH12	1:N:463:SER:HA	1.73	0.54
1:A:465:VAL:HG22	1:A:485:TYR:OH	2.08	0.53
1:B:31:LEU:HG	1:B:454:ILE:HG12	1.90	0.53
1:E:184:GLN:N	1:E:382:GLY:HA3	2.17	0.53
1:I:68:ASN:HD21	1:I:72:GLN:HG3	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:284:ARG:NH1	1:L:364:LYS:NZ	2.56	0.53
1:L:405:ALA:HB1	1:L:498:LYS:HB3	1.90	0.53
1:M:204:PHE:CZ	1:M:263:VAL:HG22	2.43	0.53
1:M:449:ALA:HB3	1:M:450:PRO:HD3	1.90	0.53
1:M:510:VAL:HA	1:M:513:LEU:HD12	1.88	0.53
1:A:69:MET:O	1:A:73:MET:HG3	2.09	0.53
1:C:230:ILE:HG21	1:C:261:THR:HG21	1.90	0.53
1:C:479:ASN:C	1:C:479:ASN:OD1	2.47	0.53
1:E:242:LYS:O	1:E:243:ALA:HB3	2.07	0.53
1:F:249:ILE:HB	1:F:275:ALA:HA	1.89	0.53
1:H:116:LEU:CD2	1:H:435:ASP:O	2.52	0.53
1:J:13:ARG:NH1	1:J:107:VAL:HG11	2.24	0.53
1:K:228:SER:O	1:K:257:GLU:HB3	2.08	0.53
1:M:72:GLN:OE1	1:M:75:LYS:HD3	2.09	0.53
1:A:284:ARG:CZ	1:A:364:LYS:HD2	2.37	0.53
1:B:266:THR:HG21	1:B:273:VAL:N	2.21	0.53
1:F:59:GLU:O	1:G:4:LYS:HG3	2.08	0.53
1:I:16:MET:HB3	1:I:514:MET:CE	2.37	0.53
1:J:33:PRO:HG2	1:J:480:ALA:HB3	1.90	0.53
1:J:54:VAL:HG22	1:J:89:THR:CB	2.30	0.53
1:K:151:SER:HB2	1:K:399:ALA:CB	2.39	0.53
1:L:221:LEU:HB3	1:L:249:ILE:HD12	1.91	0.53
1:M:217:SER:N	1:M:218:PRO:CD	2.70	0.53
1:M:218:PRO:HB3	1:M:246:PRO:HB2	1.88	0.53
1:N:199:TYR:HA	1:N:276:VAL:HG12	1.91	0.53
1:A:305:ILE:HD12	1:A:307:MET:CE	2.38	0.53
1:B:161:LEU:HD22	1:B:379:ILE:HG23	1.89	0.53
1:B:183:LEU:HD22	1:B:183:LEU:C	2.29	0.53
1:D:366:GLN:O	1:D:369:VAL:HG23	2.08	0.53
1:E:195:PHE:CE1	1:E:197:ARG:HB2	2.43	0.53
1:E:241:ALA:HA	1:E:271:VAL:HG21	1.89	0.53
1:F:78:ALA:HB3	1:F:89:THR:HG23	1.89	0.53
1:G:113:PRO:CB	1:G:516:THR:HG22	2.38	0.53
1:H:4:LYS:C	1:H:524:LEU:CD1	2.77	0.53
1:H:433:ASN:CG	1:H:436:GLN:HG3	2.29	0.53
1:I:5:ASP:HB3	1:I:522:THR:HG22	1.91	0.53
1:J:177:VAL:HG21	1:J:396:VAL:HG12	1.90	0.53
1:J:430:ARG:HD2	1:J:437:ASN:ND2	2.23	0.53
1:K:240:VAL:HG21	1:K:247:LEU:HD22	1.91	0.53
1:L:74:VAL:HG12	1:L:510:VAL:HG21	1.89	0.53
1:M:296:THR:HB	1:M:319:GLN:H	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:350:ARG:HA	1:M:353:ILE:HG13	1.90	0.53
1:M:418:ALA:O	1:M:422:VAL:HG23	2.08	0.53
1:G:152:ALA:O	1:G:153:ASN:HB3	2.09	0.53
1:G:166:MET:HE2	1:G:171:LYS:HA	1.89	0.53
1:G:428:ASP:O	1:G:430:ARG:HG2	2.09	0.53
1:J:41:ASP:HB2	1:K:69:MET:SD	2.48	0.53
1:J:284:ARG:NH1	1:J:364:LYS:NZ	2.56	0.53
1:L:151:SER:HB3	1:L:399:ALA:HA	1.91	0.53
1:M:313:THR:O	1:M:317:LEU:HD13	2.09	0.53
1:M:385:THR:H	1:N:281:PHE:HE1	1.55	0.53
1:C:18:ARG:O	1:C:22:VAL:HG23	2.09	0.53
1:G:115:ASP:HB3	1:G:436:GLN:HG3	1.91	0.53
1:I:229:ASN:CA	1:I:257:GLU:OE1	2.50	0.53
1:I:288:MET:HG2	1:I:368:ARG:HD3	1.89	0.53
1:I:385:THR:HG22	1:J:364:LYS:HZ2	1.73	0.53
1:J:194:GLN:OE1	1:J:331:THR:HB	2.09	0.53
1:K:26:ALA:HB2	1:L:8:PHE:HZ	1.73	0.53
1:L:240:VAL:HG11	1:L:247:LEU:HB2	1.91	0.53
1:L:319:GLN:HB3	1:L:336:VAL:HG21	1.91	0.53
1:M:360:TYR:HA	1:M:363:GLU:OE1	2.09	0.53
1:B:200:LEU:O	1:B:201:SER:HB2	2.09	0.53
1:B:272:LYS:NZ	1:C:228:SER:HB3	2.24	0.53
1:C:13:ARG:HD2	1:C:104:LEU:CD2	2.38	0.53
1:D:203:TYR:HB3	1:D:267:MET:SD	2.48	0.53
1:D:401:HIS:O	1:D:404:ARG:HB2	2.09	0.53
1:D:478:TYR:OH	1:D:483:GLU:HA	2.08	0.53
1:F:183:LEU:HB2	1:F:384:ALA:CB	2.33	0.53
1:F:420:ILE:CG1	1:F:448:GLU:HG2	2.32	0.53
1:G:287:ALA:HB1	1:G:368:ARG:HH12	1.72	0.53
1:J:14:VAL:HG23	1:J:15:LYS:N	2.23	0.53
1:K:25:ASP:HA	1:K:28:LYS:CE	2.23	0.53
1:L:287:ALA:CB	1:L:368:ARG:NH1	2.64	0.53
1:N:236:VAL:HG21	1:N:312:ALA:HB3	1.91	0.53
1:N:383:ALA:CB	1:N:389:MET:CA	2.87	0.53
1:A:124:VAL:HG13	1:A:504:LEU:CD2	2.39	0.53
1:A:519:CYS:HB3	1:G:38:VAL:CG2	2.31	0.53
1:B:183:LEU:O	1:B:184:GLN:CB	2.56	0.53
1:B:183:LEU:HD23	1:B:383:ALA:HA	1.90	0.53
1:B:291:ASP:OD2	1:B:368:ARG:HD2	2.09	0.53
1:B:324:VAL:HB	1:B:331:THR:HG23	1.91	0.53
1:D:120:ILE:HG23	1:D:443:ALA:HB2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:183:LEU:O	1:F:183:LEU:HD13	2.09	0.53
1:G:202:PRO:O	1:G:203:TYR:HB2	2.09	0.53
1:G:384:ALA:O	1:G:385:THR:HG23	2.08	0.53
1:J:47:PRO:HD2	1:K:73:MET:HG2	1.91	0.53
1:J:127:ALA:CA	1:J:426:LEU:HD11	2.38	0.53
1:J:201:SER:C	1:J:202:PRO:O	2.45	0.53
1:M:237:LEU:HD21	1:M:273:VAL:HG21	1.91	0.53
1:N:42:LYS:HD2	1:N:48:THR:HG1	1.74	0.53
1:N:242:LYS:O	1:N:243:ALA:HB3	2.08	0.53
1:N:383:ALA:HB3	1:N:389:MET:CA	2.38	0.53
1:N:479:ASN:OD1	1:N:493:ILE:HD11	2.07	0.53
1:A:217:SER:N	1:A:218:PRO:CD	2.69	0.53
1:C:23:LEU:HD23	1:C:74:VAL:HG23	1.90	0.53
1:C:252:GLU:CD	1:C:285:ARG:HH12	2.12	0.53
1:D:130:GLU:HB3	1:D:422:VAL:HG13	1.90	0.53
1:F:134:LEU:HD21	1:F:475:ASN:ND2	2.24	0.53
1:G:69:MET:HE2	1:G:520:MET:CE	2.39	0.53
1:I:37:ASN:O	1:J:517:THR:HG23	2.09	0.53
1:I:193:MET:HG3	1:I:371:LYS:CB	2.38	0.53
1:I:360:TYR:HA	1:I:363:GLU:OE1	2.09	0.53
1:J:70:GLY:HA2	1:J:73:MET:CE	2.36	0.53
1:J:151:SER:CB	1:J:399:ALA:HA	2.39	0.53
1:N:336:VAL:HG12	1:N:336:VAL:O	2.08	0.53
1:A:464:VAL:HA	1:H:464:VAL:HG22	1.90	0.53
1:B:32:GLY:HA3	1:B:454:ILE:CG2	2.37	0.53
1:C:420:ILE:HG13	1:C:448:GLU:HG2	1.91	0.53
1:F:99:ILE:HG22	1:F:515:ILE:HD11	1.91	0.53
1:F:230:ILE:HD13	1:F:261:THR:HG21	1.90	0.53
1:G:229:ASN:C	1:G:231:ARG:N	2.61	0.53
1:G:351:GLN:NE2	1:G:355:GLU:OE2	2.42	0.53
1:H:106:ALA:HB1	1:H:111:MET:CE	2.38	0.53
1:I:152:ALA:O	1:I:153:ASN:HB3	2.09	0.53
1:I:479:ASN:HA	1:I:493:ILE:HD12	1.91	0.53
1:J:222:LEU:HD13	1:J:293:ALA:HA	1.91	0.53
1:J:413:ALA:H	1:J:475:ASN:HD21	1.54	0.53
1:N:151:SER:HB2	1:N:399:ALA:HB1	1.91	0.53
1:A:247:LEU:CD2	1:A:249:ILE:HD11	2.39	0.52
1:B:124:VAL:HG13	1:B:504:LEU:HD23	1.90	0.52
1:D:66:PHE:CZ	1:D:522:THR:HG22	2.44	0.52
1:D:175:ILE:HG12	1:D:377:ALA:HB3	1.90	0.52
1:D:429:LEU:HG	1:D:440:ILE:HD13	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:23:LEU:HD23	1:H:74:VAL:HG23	1.92	0.52
1:H:397:GLU:O	1:H:401:HIS:CD2	2.62	0.52
1:I:151:SER:HB3	1:I:399:ALA:HA	1.91	0.52
1:J:291:ASP:OD2	1:J:372:LEU:HD11	2.10	0.52
1:K:47:PRO:HG3	1:L:69:MET:HG2	1.91	0.52
1:K:187:LEU:HD13	1:K:379:ILE:HG12	1.90	0.52
1:L:74:VAL:HG12	1:L:510:VAL:CG2	2.38	0.52
1:L:383:ALA:O	1:L:384:ALA:HB3	2.09	0.52
1:N:413:ALA:HB1	1:N:417:VAL:CG2	2.40	0.52
1:C:68:ASN:O	1:C:72:GLN:HG2	2.09	0.52
1:D:202:PRO:C	1:D:204:PHE:H	2.12	0.52
1:E:326:ASN:ND2	1:E:329:THR:HB	2.21	0.52
1:F:10:ASN:CA	1:F:13:ARG:NH2	2.72	0.52
1:F:219:PHE:HB3	1:F:317:LEU:HD23	1.91	0.52
1:G:68:ASN:O	1:G:72:GLN:HG2	2.09	0.52
1:G:172:GLU:O	1:G:404:ARG:NH2	2.41	0.52
1:G:369:VAL:HG23	1:G:370:ALA:N	2.24	0.52
1:J:212:ALA:HB1	1:J:325:ILE:O	2.09	0.52
1:J:324:VAL:HB	1:J:331:THR:HG23	1.91	0.52
1:K:201:SER:O	1:K:202:PRO:O	2.27	0.52
1:K:236:VAL:CG2	1:K:312:ALA:HB3	2.39	0.52
1:L:68:ASN:O	1:L:72:GLN:HG2	2.08	0.52
1:L:514:MET:O	1:L:517:THR:HB	2.09	0.52
1:M:221:LEU:HD13	1:M:236:VAL:HG11	1.91	0.52
1:M:478:TYR:HB2	1:M:485:TYR:CE2	2.44	0.52
1:N:262:LEU:O	1:N:266:THR:HG23	2.09	0.52
1:C:187:LEU:CD1	1:C:379:ILE:HG12	2.36	0.52
1:E:449:ALA:N	1:E:450:PRO:CD	2.72	0.52
1:G:82:ASN:O	1:G:86:GLY:N	2.41	0.52
1:H:165:ALA:CB	1:H:379:ILE:HD11	2.40	0.52
1:H:254:VAL:HG12	1:H:259:LEU:HB2	1.90	0.52
1:H:346:VAL:O	1:H:350:ARG:HB2	2.10	0.52
1:I:449:ALA:O	1:I:450:PRO:C	2.45	0.52
1:I:451:LEU:C	1:I:451:LEU:HD23	2.29	0.52
1:J:326:ASN:N	1:J:329:THR:O	2.35	0.52
1:K:197:ARG:HG3	1:K:277:LYS:O	2.10	0.52
1:K:433:ASN:ND2	1:K:436:GLN:HG3	2.25	0.52
1:N:6:VAL:HG22	1:N:521:VAL:HG22	1.91	0.52
1:N:217:SER:HA	1:N:320:ALA:O	2.09	0.52
1:N:417:VAL:CG2	1:N:488:MET:HG3	2.35	0.52
1:A:489:ILE:HA	1:A:494:LEU:HD23	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:164:GLU:HB3	1:D:187:LEU:CD2	2.40	0.52
1:E:414:GLY:O	1:E:417:VAL:HG22	2.09	0.52
1:I:174:VAL:HG11	1:I:376:VAL:HG22	1.91	0.52
1:J:191:GLU:O	1:J:334:ASP:CA	2.53	0.52
1:K:39:VAL:HG12	1:L:69:MET:HE3	1.92	0.52
1:K:91:THR:O	1:K:94:VAL:HG22	2.08	0.52
1:K:234:LEU:N	1:K:235:PRO:HD2	2.25	0.52
1:L:222:LEU:HD21	1:L:292:ILE:CG2	2.39	0.52
1:M:57:ALA:O	1:M:75:LYS:HE3	2.09	0.52
1:M:247:LEU:CD2	1:M:249:ILE:HD11	2.39	0.52
1:M:420:ILE:HD13	1:M:451:LEU:HD13	1.90	0.52
1:N:102:GLU:HB2	1:N:442:VAL:HG13	1.92	0.52
1:A:247:LEU:HD21	1:A:249:ILE:HD11	1.90	0.52
1:A:419:LEU:HD13	1:A:450:PRO:HG2	1.90	0.52
1:C:13:ARG:HA	1:C:16:MET:HE2	1.91	0.52
1:C:151:SER:CB	1:C:399:ALA:HA	2.40	0.52
1:C:230:ILE:CD1	1:C:261:THR:CG2	2.82	0.52
1:C:233:MET:C	1:C:235:PRO:HD2	2.29	0.52
1:D:16:MET:HB3	1:D:514:MET:HE3	1.92	0.52
1:F:120:ILE:O	1:F:123:ALA:HB3	2.09	0.52
1:I:199:TYR:HA	1:I:276:VAL:HG12	1.91	0.52
1:K:178:GLU:O	1:K:380:LYS:HA	2.09	0.52
1:K:305:ILE:HG22	1:K:305:ILE:O	2.09	0.52
1:L:199:TYR:HA	1:L:276:VAL:HG12	1.91	0.52
1:M:113:PRO:HA	1:M:116:LEU:HD12	1.92	0.52
1:M:230:ILE:HG21	1:M:261:THR:HG21	1.91	0.52
1:A:14:VAL:HG23	1:A:15:LYS:N	2.24	0.52
1:A:178:GLU:O	1:A:380:LYS:HA	2.10	0.52
1:A:193:MET:SD	1:A:372:LEU:HD12	2.50	0.52
1:B:17:LEU:O	1:B:20:VAL:HG22	2.09	0.52
1:B:139:SER:O	1:B:171:LYS:HE2	2.10	0.52
1:D:262:LEU:O	1:D:266:THR:HG23	2.09	0.52
1:E:171:LYS:CD	1:E:407:VAL:HG13	2.38	0.52
1:F:16:MET:HB3	1:F:514:MET:HE3	1.92	0.52
1:I:359:ASP:HA	1:I:362:ARG:HH12	1.71	0.52
1:K:134:LEU:O	1:K:134:LEU:HD13	2.09	0.52
1:L:413:ALA:HB3	1:L:417:VAL:CG2	2.40	0.52
1:M:249:ILE:HB	1:M:275:ALA:HA	1.91	0.52
1:N:91:THR:O	1:N:94:VAL:HG22	2.10	0.52
1:N:414:GLY:HA2	1:N:495:ASP:OD2	2.09	0.52
1:B:238:GLU:O	1:B:241:ALA:HB3	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:349:ILE:CG2	1:E:369:VAL:HG13	2.40	0.52
1:F:24:ALA:O	1:F:28:LYS:HG2	2.08	0.52
1:F:59:GLU:OE1	1:G:4:LYS:CE	2.57	0.52
1:H:138:CYS:O	1:H:407:VAL:HA	2.09	0.52
1:I:39:VAL:HG11	1:J:69:MET:HE3	1.90	0.52
1:I:385:THR:HG22	1:J:364:LYS:NZ	2.23	0.52
1:J:338:GLU:O	1:J:341:ALA:HB3	2.10	0.52
1:J:384:ALA:O	1:J:385:THR:OG1	2.27	0.52
1:J:510:VAL:HG13	1:J:511:ALA:N	2.25	0.52
1:K:74:VAL:HG12	1:K:510:VAL:HG21	1.90	0.52
1:K:115:ASP:HB3	1:K:436:GLN:HG2	1.91	0.52
1:K:225:LYS:HD2	1:K:303:GLU:CG	2.39	0.52
1:K:338:GLU:O	1:K:342:ILE:HG13	2.10	0.52
1:N:23:LEU:HD23	1:N:74:VAL:HG22	1.92	0.52
1:N:315:GLU:O	1:N:315:GLU:HG2	2.09	0.52
1:N:366:GLN:O	1:N:369:VAL:HG22	2.10	0.52
1:A:19:GLY:HA3	1:A:67:GLU:O	2.10	0.52
1:A:269:GLY:HA2	1:A:272:LYS:HZ2	1.75	0.52
1:C:417:VAL:HG21	1:C:488:MET:HG3	1.91	0.52
1:E:176:THR:HG22	1:E:177:VAL:N	2.25	0.52
1:F:224:ASP:N	1:F:301:ILE:O	2.34	0.52
1:F:295:LEU:HD13	1:F:335:GLY:HA3	1.91	0.52
1:G:501:ARG:NH1	1:G:505:GLN:OE1	2.42	0.52
1:I:183:LEU:O	1:I:183:LEU:HD13	2.10	0.52
1:K:220:ILE:HD12	1:K:296:THR:HG21	1.92	0.52
1:L:207:LYS:NZ	1:L:390:LYS:NZ	2.58	0.52
1:M:453:GLN:OE1	1:M:456:LEU:HD23	2.10	0.52
1:N:16:MET:HB3	1:N:514:MET:HE3	1.91	0.52
1:N:191:GLU:HB3	1:N:295:LEU:HD21	1.92	0.52
1:A:344:GLY:O	1:A:348:GLN:HG3	2.10	0.52
1:A:383:ALA:O	1:A:384:ALA:HB3	2.10	0.52
1:C:369:VAL:HG23	1:C:370:ALA:N	2.24	0.52
1:F:224:ASP:CB	1:F:302:SER:HB3	2.38	0.52
1:F:359:ASP:O	1:F:363:GLU:HG3	2.09	0.52
1:G:165:ALA:CB	1:G:379:ILE:HD11	2.39	0.52
1:G:291:ASP:OD2	1:G:368:ARG:HD2	2.09	0.52
1:H:195:PHE:CD2	1:H:279:PRO:HG3	2.45	0.52
1:I:437:ASN:HD22	1:I:437:ASN:N	2.08	0.52
1:K:41:ASP:HB3	1:L:522:THR:HA	1.91	0.52
1:K:106:ALA:CB	1:K:111:MET:HE3	2.40	0.52
1:L:200:LEU:HD13	1:L:254:VAL:HB	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:417:VAL:HA	1:M:451:LEU:HD12	1.92	0.52
1:A:519:CYS:SG	1:A:520:MET:N	2.83	0.52
1:D:269:GLY:HA3	1:E:257:GLU:HB2	1.91	0.52
1:E:406:ALA:O	1:E:410:GLY:N	2.40	0.52
1:F:7:LYS:HD2	1:F:66:PHE:CE2	2.45	0.52
1:F:178:GLU:O	1:F:380:LYS:HA	2.10	0.52
1:F:423:ALA:HB2	1:F:447:MET:SD	2.50	0.52
1:G:144:ILE:HD13	1:G:166:MET:SD	2.49	0.52
1:I:349:ILE:HG23	1:I:365:LEU:HD22	1.92	0.52
1:J:296:THR:HB	1:J:319:GLN:H	1.74	0.52
1:K:366:GLN:O	1:K:369:VAL:HG22	2.10	0.52
1:M:88:GLY:O	1:M:91:THR:HB	2.10	0.52
1:M:139:SER:CB	1:M:171:LYS:NZ	2.72	0.52
1:B:464:VAL:HA	1:N:464:VAL:HG22	1.91	0.51
1:C:74:VAL:HG12	1:C:510:VAL:HG21	1.91	0.51
1:E:202:PRO:C	1:E:204:PHE:H	2.12	0.51
1:E:359:ASP:HA	1:E:362:ARG:HH12	1.74	0.51
1:H:31:LEU:CD1	1:H:90:THR:CG2	2.80	0.51
1:I:138:CYS:O	1:I:407:VAL:HA	2.09	0.51
1:I:272:LYS:NZ	1:J:228:SER:CB	2.69	0.51
1:I:441:LYS:HD3	1:I:444:LEU:HD12	1.91	0.51
1:J:449:ALA:HB3	1:J:450:PRO:HD3	1.92	0.51
1:K:308:GLU:HB3	1:K:310:GLU:OE1	2.10	0.51
1:K:361:ASP:O	1:K:365:LEU:CG	2.53	0.51
1:L:125:THR:O	1:L:129:GLU:HG2	2.10	0.51
1:L:445:ARG:O	1:L:448:GLU:HG3	2.10	0.51
1:N:239:ALA:C	1:N:314:LEU:HD21	2.29	0.51
1:B:74:VAL:HG12	1:B:510:VAL:HG21	1.92	0.51
1:C:36:ARG:NH2	1:D:113:PRO:HD2	2.25	0.51
1:C:224:ASP:OD2	1:C:286:LYS:HD3	2.09	0.51
1:C:364:LYS:O	1:C:367:GLU:HB2	2.10	0.51
1:D:434:LYS:HE3	1:M:434:LYS:NZ	2.26	0.51
1:F:284:ARG:NH1	1:F:364:LYS:HD2	2.25	0.51
1:G:183:LEU:HD23	1:G:383:ALA:HA	1.92	0.51
1:G:197:ARG:HG3	1:G:277:LYS:O	2.10	0.51
1:H:445:ARG:O	1:H:448:GLU:HG3	2.10	0.51
1:I:224:ASP:O	1:I:225:LYS:HB3	2.10	0.51
1:J:104:LEU:HD21	1:J:515:ILE:HA	1.91	0.51
1:J:389:MET:SD	1:J:389:MET:C	2.89	0.51
1:L:455:VAL:HG11	1:L:465:VAL:CG2	2.40	0.51
1:A:32:GLY:HA3	1:A:454:ILE:HG23	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:305:ILE:HB	1:B:307:MET:CE	2.40	0.51
1:D:176:THR:CG2	1:D:177:VAL:N	2.73	0.51
1:D:414:GLY:N	1:D:494:LEU:HA	2.25	0.51
1:F:349:ILE:CG2	1:F:369:VAL:HG13	2.39	0.51
1:F:423:ALA:HB2	1:F:447:MET:HB2	1.92	0.51
1:H:142:LYS:O	1:H:145:ALA:HB3	2.09	0.51
1:H:203:TYR:HB2	1:H:263:VAL:HG13	1.92	0.51
1:H:516:THR:O	1:N:36:ARG:HB3	2.10	0.51
1:J:100:ILE:HD13	1:J:514:MET:SD	2.49	0.51
1:K:281:PHE:HA	1:K:285:ARG:NH2	2.24	0.51
1:N:199:TYR:CZ	1:N:327:LYS:HA	2.45	0.51
1:C:290:GLN:HB3	1:C:345:ARG:NH2	2.26	0.51
1:D:319:GLN:C	1:D:336:VAL:HG23	2.30	0.51
1:G:208:PRO:HG2	1:G:209:GLU:OE2	2.09	0.51
1:H:241:ALA:CB	1:I:231:ARG:NH1	2.64	0.51
1:I:7:LYS:HG3	1:I:66:PHE:CE2	2.45	0.51
1:K:10:ASN:HA	1:K:13:ARG:NH2	2.25	0.51
1:K:11:ASP:O	1:K:14:VAL:HG22	2.09	0.51
1:L:69:MET:O	1:L:73:MET:HG3	2.10	0.51
1:L:230:ILE:HG13	1:L:233:MET:HB2	1.92	0.51
1:M:128:VAL:HG21	1:M:505:GLN:HE21	1.74	0.51
1:N:225:LYS:NZ	1:N:232:GLU:OE1	2.41	0.51
1:N:434:LYS:O	1:N:437:ASN:HB2	2.10	0.51
1:A:36:ARG:HG3	1:B:518:GLU:HG3	1.91	0.51
1:C:291:ASP:HB3	1:C:372:LEU:HD21	1.92	0.51
1:F:153:ASN:O	1:F:154:SER:HB2	2.11	0.51
1:G:463:SER:HB2	1:I:461:GLU:OE1	2.11	0.51
1:H:262:LEU:O	1:H:266:THR:HG23	2.10	0.51
1:I:486:GLY:C	1:I:491:MET:HE2	2.30	0.51
1:J:217:SER:N	1:J:218:PRO:CD	2.73	0.51
1:J:270:ILE:O	1:J:271:VAL:O	2.28	0.51
1:K:179:ASP:OD1	1:K:393:LYS:CE	2.59	0.51
1:B:6:VAL:CG1	1:B:8:PHE:CE1	2.94	0.51
1:B:161:LEU:HD22	1:B:379:ILE:HG21	1.93	0.51
1:C:229:ASN:C	1:C:231:ARG:H	2.12	0.51
1:E:122:LYS:HG2	1:E:429:LEU:HD21	1.93	0.51
1:E:241:ALA:HA	1:E:271:VAL:CG2	2.40	0.51
1:H:11:ASP:O	1:H:14:VAL:CG2	2.50	0.51
1:I:195:PHE:CD2	1:I:197:ARG:HB2	2.46	0.51
1:L:385:THR:HG22	1:M:364:LYS:NZ	2.26	0.51
1:D:494:LEU:C	1:D:494:LEU:HD12	2.30	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:17:LEU:HD12	1:E:20:VAL:CG2	2.41	0.51
1:E:183:LEU:O	1:E:184:GLN:HG3	2.10	0.51
1:I:69:MET:SD	1:I:520:MET:HE2	2.51	0.51
1:J:72:GLN:OE1	1:J:75:LYS:HD3	2.10	0.51
1:J:127:ALA:O	1:J:131:LEU:HB2	2.11	0.51
1:A:240:VAL:HG11	1:A:247:LEU:HB2	1.92	0.51
1:C:401:HIS:O	1:C:404:ARG:HB2	2.10	0.51
1:D:202:PRO:O	1:D:203:TYR:HB2	2.11	0.51
1:D:496:PRO:O	1:D:499:VAL:HG22	2.11	0.51
1:G:392:LYS:HG3	1:G:395:ARG:NH2	2.26	0.51
1:H:173:GLY:O	1:H:175:ILE:HG13	2.10	0.51
1:I:420:ILE:HG13	1:I:448:GLU:HG2	1.92	0.51
1:I:487:ASN:N	1:I:491:MET:HE2	2.25	0.51
1:J:409:GLU:O	1:J:497:THR:CB	2.58	0.51
1:M:383:ALA:HB3	1:M:389:MET:CA	2.41	0.51
1:B:349:ILE:HG21	1:B:369:VAL:HG13	1.92	0.51
1:B:434:LYS:O	1:B:438:VAL:HG23	2.11	0.51
1:D:366:GLN:O	1:D:369:VAL:CG2	2.59	0.51
1:E:14:VAL:HG23	1:E:15:LYS:N	2.25	0.51
1:E:180:GLY:HA3	1:E:381:VAL:O	2.10	0.51
1:G:366:GLN:CA	1:G:369:VAL:HG22	2.41	0.51
1:L:106:ALA:HB1	1:L:111:MET:CE	2.39	0.51
1:N:40:LEU:HD13	1:N:59:GLU:HG3	1.93	0.51
1:N:134:LEU:HD12	1:N:412:VAL:CG1	2.41	0.51
1:N:417:VAL:HG21	1:N:488:MET:CG	2.37	0.51
1:A:18:ARG:O	1:A:22:VAL:HG23	2.11	0.51
1:B:324:VAL:C	1:B:325:ILE:HG13	2.32	0.51
1:C:224:ASP:OD1	1:C:224:ASP:O	2.29	0.51
1:C:230:ILE:CD1	1:C:261:THR:HB	2.40	0.51
1:D:294:THR:HG23	1:D:341:ALA:HB1	1.93	0.51
1:F:264:VAL:O	1:F:267:MET:N	2.36	0.51
1:I:166:MET:O	1:I:170:GLY:N	2.43	0.51
1:I:183:LEU:O	1:I:184:GLN:CG	2.50	0.51
1:L:69:MET:C	1:L:73:MET:HE2	2.32	0.51
1:M:37:ASN:HB3	1:M:49:ILE:CG2	2.40	0.51
1:M:524:LEU:N	1:M:524:LEU:CD1	2.73	0.51
1:A:169:VAL:HG13	1:A:377:ALA:HB2	1.93	0.50
1:C:343:GLN:O	1:C:346:VAL:HB	2.10	0.50
1:D:91:THR:O	1:D:94:VAL:HG22	2.11	0.50
1:I:103:GLY:HA3	1:I:515:ILE:HD11	1.93	0.50
1:I:190:VAL:HB	1:I:334:ASP:OD1	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:222:LEU:HD21	1:J:292:ILE:HG21	1.92	0.50
1:K:420:ILE:HD11	1:K:470:LYS:HE3	1.92	0.50
1:L:240:VAL:HG12	1:L:271:VAL:HG11	1.94	0.50
1:M:113:PRO:O	1:M:116:LEU:HB2	2.11	0.50
1:M:222:LEU:HD21	1:M:292:ILE:CG2	2.41	0.50
1:A:138:CYS:O	1:A:407:VAL:HA	2.11	0.50
1:A:346:VAL:HG21	1:A:373:ALA:HB2	1.93	0.50
1:C:221:LEU:HA	1:C:317:LEU:HG	1.93	0.50
1:D:95:LEU:HD13	1:D:504:LEU:CD1	2.40	0.50
1:G:515:ILE:O	1:G:515:ILE:CG2	2.59	0.50
1:H:241:ALA:HB3	1:I:231:ARG:HH12	1.76	0.50
1:I:112:ASN:N	1:I:435:ASP:OD2	2.35	0.50
1:J:284:ARG:HH11	1:J:364:LYS:HD2	1.75	0.50
1:J:372:LEU:N	1:J:372:LEU:HD12	2.26	0.50
1:K:70:GLY:CA	1:K:73:MET:HE3	2.37	0.50
1:L:70:GLY:HA2	1:L:73:MET:CE	2.37	0.50
1:L:142:LYS:O	1:L:146:GLN:HG3	2.11	0.50
1:L:166:MET:CE	1:L:407:VAL:HG21	2.41	0.50
1:M:230:ILE:HD12	1:M:262:LEU:HG	1.92	0.50
1:A:197:ARG:HG3	1:A:277:LYS:O	2.11	0.50
1:A:299:THR:N	1:A:316:ASP:O	2.37	0.50
1:C:13:ARG:HA	1:C:16:MET:HE3	1.94	0.50
1:E:7:LYS:HD3	1:E:11:ASP:OD2	2.11	0.50
1:E:74:VAL:HG12	1:E:510:VAL:HG21	1.91	0.50
1:E:478:TYR:HE2	1:E:480:ALA:HA	1.75	0.50
1:F:41:ASP:HB3	1:G:522:THR:HA	1.92	0.50
1:G:202:PRO:C	1:G:204:PHE:H	2.14	0.50
1:H:305:ILE:HD12	1:H:307:MET:CE	2.41	0.50
1:I:18:ARG:HG3	1:I:67:GLU:HG2	1.91	0.50
1:K:183:LEU:HD23	1:K:383:ALA:HA	1.93	0.50
1:K:233:MET:CE	1:K:237:LEU:HD21	2.41	0.50
1:A:365:LEU:HD21	1:A:368:ARG:HH21	1.70	0.50
1:C:39:VAL:HG22	1:C:49:ILE:HG12	1.93	0.50
1:C:343:GLN:HE22	1:C:346:VAL:HG11	1.76	0.50
1:D:58:ARG:CA	1:D:75:LYS:HE3	2.41	0.50
1:D:453:GLN:HE22	1:D:456:LEU:HD23	1.77	0.50
1:G:16:MET:SD	1:G:514:MET:HE3	2.52	0.50
1:H:158:VAL:CG2	1:H:395:ARG:HH12	2.24	0.50
1:H:366:GLN:HA	1:H:369:VAL:HG22	1.94	0.50
1:I:153:ASN:O	1:I:154:SER:HB2	2.11	0.50
1:K:176:THR:HG22	1:K:177:VAL:N	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:366:GLN:O	1:L:369:VAL:HG22	2.11	0.50
1:M:152:ALA:O	1:M:153:ASN:CB	2.59	0.50
1:M:386:GLU:HG3	1:M:389:MET:HE3	1.93	0.50
1:N:219:PHE:O	1:N:247:LEU:HD12	2.11	0.50
1:D:16:MET:HB3	1:D:514:MET:CE	2.40	0.50
1:D:124:VAL:HG21	1:D:508:ALA:CB	2.41	0.50
1:D:186:GLU:HB2	1:D:380:LYS:HB2	1.94	0.50
1:G:230:ILE:O	1:G:234:LEU:HG	2.12	0.50
1:G:329:THR:O	1:G:329:THR:HG22	2.12	0.50
1:H:224:ASP:HB3	1:H:302:SER:CB	2.39	0.50
1:I:217:SER:N	1:I:218:PRO:CD	2.67	0.50
1:I:230:ILE:HD13	1:I:261:THR:HG21	1.92	0.50
1:K:26:ALA:HA	1:L:8:PHE:CE1	2.41	0.50
1:L:34:LYS:CD	1:M:114:MET:HE2	2.41	0.50
1:L:71:ALA:O	1:L:75:LYS:HB2	2.10	0.50
1:L:344:GLY:O	1:L:348:GLN:HG3	2.12	0.50
1:M:230:ILE:HD13	1:M:261:THR:HG22	1.94	0.50
1:N:42:LYS:CD	1:N:48:THR:OG1	2.59	0.50
1:B:343:GLN:NE2	1:B:346:VAL:HG11	2.27	0.50
1:C:36:ARG:HG3	1:D:518:GLU:HG3	1.93	0.50
1:C:47:PRO:HG2	1:D:69:MET:HG2	1.91	0.50
1:C:372:LEU:HD12	1:C:372:LEU:H	1.77	0.50
1:E:124:VAL:HG21	1:E:508:ALA:CB	2.41	0.50
1:E:195:PHE:CD1	1:E:197:ARG:HB2	2.47	0.50
1:H:420:ILE:HD13	1:H:451:LEU:HD13	1.93	0.50
1:I:144:ILE:HG23	1:I:403:THR:CG2	2.42	0.50
1:I:384:ALA:HB1	1:J:360:TYR:OH	2.10	0.50
1:K:31:LEU:HD13	1:K:90:THR:HG22	1.92	0.50
1:K:202:PRO:O	1:K:204:PHE:N	2.42	0.50
1:K:301:ILE:HG21	1:K:308:GLU:O	2.10	0.50
1:L:64:ASP:HB3	1:L:67:GLU:HB2	1.94	0.50
1:M:165:ALA:CB	1:M:175:ILE:HD13	2.41	0.50
1:A:54:VAL:HG22	1:A:89:THR:HG21	1.93	0.50
1:A:392:LYS:HG3	1:A:395:ARG:HH21	1.72	0.50
1:D:19:GLY:HA2	1:D:62:LEU:CD1	2.42	0.50
1:E:139:SER:HA	1:E:171:LYS:NZ	2.26	0.50
1:G:127:ALA:O	1:G:422:VAL:HG11	2.11	0.50
1:I:128:VAL:HG21	1:I:505:GLN:NE2	2.26	0.50
1:J:284:ARG:NH1	1:J:364:LYS:HD2	2.26	0.50
1:J:366:GLN:O	1:J:369:VAL:HG22	2.11	0.50
1:K:193:MET:CE	1:K:292:ILE:HG12	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:152:ALA:O	1:L:395:ARG:HD2	2.10	0.50
1:M:366:GLN:HA	1:M:369:VAL:HG22	1.92	0.50
1:C:107:VAL:HG21	1:C:515:ILE:HG23	1.93	0.50
1:E:401:HIS:O	1:E:404:ARG:HB2	2.12	0.50
1:E:465:VAL:O	1:E:469:VAL:HG23	2.11	0.50
1:G:149:THR:HG22	1:G:154:SER:HA	1.94	0.50
1:H:263:VAL:O	1:H:267:MET:HB2	2.12	0.50
1:I:34:LYS:HG3	1:I:458:CYS:SG	2.52	0.50
1:L:60:ILE:O	1:L:75:LYS:NZ	2.35	0.50
1:L:166:MET:HE1	1:L:171:LYS:HA	1.92	0.50
1:L:200:LEU:HD21	1:L:277:LYS:HG3	1.93	0.50
1:M:54:VAL:HG22	1:M:89:THR:HB	1.94	0.50
1:M:236:VAL:HG21	1:M:312:ALA:HB3	1.91	0.50
1:N:414:GLY:N	1:N:494:LEU:HA	2.27	0.50
1:A:62:LEU:HB2	1:A:68:ASN:HB2	1.94	0.50
1:C:61:GLU:OE1	1:D:2:ALA:N	2.45	0.50
1:H:219:PHE:O	1:H:247:LEU:HD12	2.12	0.50
1:I:345:ARG:HG3	1:I:349:ILE:HD11	1.93	0.50
1:K:164:GLU:HB3	1:K:187:LEU:CD2	2.42	0.50
1:L:161:LEU:HD22	1:L:379:ILE:HG23	1.93	0.50
1:N:349:ILE:O	1:N:353:ILE:HG13	2.12	0.50
1:N:499:VAL:HG23	1:N:500:THR:N	2.25	0.50
1:A:143:ALA:O	1:A:146:GLN:HB2	2.12	0.49
1:A:200:LEU:HD21	1:A:277:LYS:HG3	1.94	0.49
1:A:433:ASN:OD1	1:A:435:ASP:HB2	2.13	0.49
1:B:440:ILE:HG22	1:B:444:LEU:CD1	2.42	0.49
1:C:344:GLY:O	1:C:347:ALA:HB3	2.12	0.49
1:D:123:ALA:HA	1:D:429:LEU:CD2	2.42	0.49
1:E:478:TYR:CE1	1:E:483:GLU:HA	2.46	0.49
1:F:6:VAL:HG13	1:F:520:MET:O	2.12	0.49
1:F:391:GLU:O	1:F:394:ALA:N	2.45	0.49
1:H:281:PHE:HB3	1:N:386:GLU:HG3	1.95	0.49
1:I:139:SER:HB3	1:I:171:LYS:HZ1	1.77	0.49
1:I:207:LYS:NZ	1:I:390:LYS:NZ	2.60	0.49
1:J:143:ALA:O	1:J:147:VAL:HG23	2.12	0.49
1:M:166:MET:HA	1:M:175:ILE:HD11	1.93	0.49
1:A:166:MET:O	1:A:170:GLY:N	2.45	0.49
1:B:178:GLU:HB3	1:B:322:ARG:CZ	2.42	0.49
1:B:303:GLU:O	1:B:306:GLY:N	2.45	0.49
1:D:381:VAL:HG11	1:D:392:LYS:HB3	1.94	0.49
1:E:155:ASP:HB3	1:E:395:ARG:NH1	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:434:LYS:O	1:E:438:VAL:HG23	2.12	0.49
1:F:146:GLN:O	1:F:149:THR:HB	2.12	0.49
1:F:253:ASP:OD2	1:F:277:LYS:HE2	2.12	0.49
1:F:291:ASP:OD2	1:F:368:ARG:HD2	2.12	0.49
1:H:420:ILE:HD12	1:H:451:LEU:HD13	1.94	0.49
1:J:230:ILE:HD13	1:J:261:THR:HG21	1.93	0.49
1:M:23:LEU:O	1:M:27:VAL:HG23	2.12	0.49
1:N:69:MET:C	1:N:73:MET:HE2	2.32	0.49
1:N:106:ALA:HB1	1:N:111:MET:CE	2.42	0.49
1:N:169:VAL:HB	1:N:173:GLY:HA3	1.93	0.49
1:B:463:SER:HB2	1:N:461:GLU:CD	2.32	0.49
1:C:202:PRO:C	1:C:204:PHE:N	2.65	0.49
1:D:264:VAL:O	1:D:267:MET:HB3	2.12	0.49
1:E:305:ILE:HG22	1:E:305:ILE:O	2.12	0.49
1:H:47:PRO:HG2	1:I:73:MET:CG	2.41	0.49
1:I:364:LYS:O	1:I:367:GLU:HB2	2.12	0.49
1:I:384:ALA:HA	1:J:360:TYR:OH	2.12	0.49
1:M:237:LEU:HD22	1:M:273:VAL:HG21	1.93	0.49
1:M:401:HIS:O	1:M:404:ARG:HB2	2.13	0.49
1:N:392:LYS:CG	1:N:395:ARG:NH2	2.75	0.49
1:N:465:VAL:HG22	1:N:485:TYR:OH	2.12	0.49
1:B:4:LYS:C	1:B:524:LEU:CD1	2.81	0.49
1:B:240:VAL:HG21	1:B:247:LEU:HD13	1.94	0.49
1:E:269:GLY:O	1:F:229:ASN:ND2	2.46	0.49
1:E:440:ILE:HG22	1:E:444:LEU:HD12	1.93	0.49
1:H:223:ALA:HA	1:H:301:ILE:O	2.11	0.49
1:I:99:ILE:O	1:I:99:ILE:HG22	2.12	0.49
1:J:161:LEU:HD22	1:J:379:ILE:CG2	2.42	0.49
1:A:36:ARG:HG3	1:B:518:GLU:CG	2.42	0.49
1:F:302:SER:H	1:F:307:MET:CE	2.26	0.49
1:G:127:ALA:CA	1:G:426:LEU:HD11	2.42	0.49
1:G:148:GLY:HA3	1:G:159:GLY:HA2	1.94	0.49
1:G:197:ARG:HD2	1:G:277:LYS:HB2	1.94	0.49
1:G:202:PRO:O	1:G:204:PHE:N	2.39	0.49
1:G:236:VAL:CG2	1:G:312:ALA:HB3	2.41	0.49
1:K:124:VAL:O	1:K:128:VAL:HG23	2.11	0.49
1:N:176:THR:CG2	1:N:322:ARG:HH12	2.26	0.49
1:B:157:THR:HG21	1:B:392:LYS:NZ	2.28	0.49
1:D:166:MET:CE	1:D:171:LYS:HA	2.42	0.49
1:D:479:ASN:N	1:D:484:GLU:O	2.34	0.49
1:E:253:ASP:OD2	1:E:277:LYS:HE2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:383:ALA:HB3	1:E:389:MET:HB2	1.94	0.49
1:F:61:GLU:CD	1:G:3:ALA:HA	2.33	0.49
1:F:247:LEU:CD2	1:F:249:ILE:HD11	2.43	0.49
1:G:33:PRO:HG2	1:G:480:ALA:HB3	1.94	0.49
1:G:130:GLU:CB	1:G:422:VAL:HG13	2.27	0.49
1:G:366:GLN:C	1:G:369:VAL:HG22	2.31	0.49
1:H:229:ASN:C	1:H:231:ARG:H	2.16	0.49
1:I:174:VAL:CG1	1:I:376:VAL:HG22	2.43	0.49
1:K:369:VAL:HG23	1:K:370:ALA:N	2.28	0.49
1:M:41:ASP:HB2	1:N:69:MET:HE2	1.92	0.49
1:N:18:ARG:HG2	1:N:67:GLU:CD	2.32	0.49
1:N:247:LEU:HD21	1:N:249:ILE:HD11	1.93	0.49
1:N:479:ASN:OD1	1:N:481:ALA:N	2.45	0.49
1:A:195:PHE:CE2	1:A:197:ARG:HB2	2.47	0.49
1:A:305:ILE:O	1:A:305:ILE:HG22	2.12	0.49
1:B:360:TYR:OH	1:B:364:LYS:HE3	2.12	0.49
1:C:171:LYS:HD3	1:C:407:VAL:CG1	2.42	0.49
1:C:183:LEU:HD22	1:C:184:GLN:N	2.27	0.49
1:D:183:LEU:O	1:D:184:GLN:CG	2.60	0.49
1:D:301:ILE:HG23	1:D:307:MET:HB3	1.95	0.49
1:E:34:LYS:HB2	1:E:458:CYS:SG	2.53	0.49
1:E:34:LYS:HG3	1:E:458:CYS:SG	2.52	0.49
1:E:369:VAL:HG23	1:E:370:ALA:N	2.28	0.49
1:E:392:LYS:HG3	1:E:395:ARG:NH2	2.28	0.49
1:F:71:ALA:O	1:F:74:VAL:CG2	2.60	0.49
1:G:366:GLN:O	1:G:369:VAL:CG2	2.61	0.49
1:J:384:ALA:C	1:J:385:THR:HG23	2.33	0.49
1:K:183:LEU:HD23	1:K:383:ALA:N	2.27	0.49
1:K:222:LEU:HD23	1:K:289:LEU:HD23	1.93	0.49
1:L:3:ALA:O	1:L:524:LEU:HD13	2.12	0.49
1:L:155:ASP:CB	1:L:395:ARG:HH12	2.25	0.49
1:M:36:ARG:HB3	1:N:516:THR:O	2.11	0.49
1:N:201:SER:O	1:N:202:PRO:O	2.30	0.49
1:N:360:TYR:CZ	1:N:364:LYS:HE3	2.47	0.49
1:A:194:GLN:O	1:A:371:LYS:HE3	2.13	0.49
1:A:336:VAL:O	1:A:336:VAL:HG12	2.11	0.49
1:A:518:GLU:HB3	1:G:29:VAL:HG11	1.93	0.49
1:B:372:LEU:H	1:B:372:LEU:CD1	2.25	0.49
1:C:360:TYR:CE1	1:C:364:LYS:CE	2.92	0.49
1:D:383:ALA:HB1	1:D:388:GLU:CB	2.42	0.49
1:E:171:LYS:HD3	1:E:407:VAL:CG1	2.41	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:324:VAL:HB	1:E:331:THR:HG23	1.94	0.49
1:E:326:ASN:HB2	1:E:329:THR:N	2.27	0.49
1:F:14:VAL:HG23	1:F:15:LYS:N	2.28	0.49
1:F:161:LEU:HD22	1:F:379:ILE:HG23	1.94	0.49
1:F:501:ARG:O	1:F:505:GLN:HG3	2.12	0.49
1:G:195:PHE:CG	1:G:279:PRO:HG3	2.46	0.49
1:I:13:ARG:NH1	1:I:518:GLU:OE2	2.42	0.49
1:J:199:TYR:HA	1:J:276:VAL:HG12	1.95	0.49
1:K:247:LEU:HB3	1:K:273:VAL:HG22	1.94	0.49
1:L:413:ALA:CB	1:L:417:VAL:CG2	2.91	0.49
1:N:6:VAL:HG13	1:N:521:VAL:HG22	1.95	0.49
1:N:413:ALA:HB3	1:N:417:VAL:HG23	1.95	0.49
1:A:113:PRO:HA	1:A:116:LEU:HD12	1.95	0.49
1:A:229:ASN:HA	1:A:257:GLU:OE1	2.12	0.49
1:B:236:VAL:HG22	1:B:312:ALA:HB3	1.91	0.49
1:B:325:ILE:HG23	1:B:330:THR:OG1	2.13	0.49
1:C:105:LYS:HD3	1:N:109:ALA:O	2.12	0.49
1:C:305:ILE:HB	1:C:307:MET:HE1	1.93	0.49
1:E:183:LEU:O	1:E:184:GLN:CB	2.59	0.49
1:E:414:GLY:CA	1:E:495:ASP:OD2	2.59	0.49
1:F:87:ASP:CG	1:F:88:GLY:N	2.66	0.49
1:F:443:ALA:O	1:F:446:ALA:HB3	2.12	0.49
1:I:272:LYS:HZ1	1:J:228:SER:CB	2.26	0.49
1:I:522:THR:HG23	1:I:523:ASP:N	2.25	0.49
1:J:236:VAL:O	1:J:240:VAL:HG23	2.13	0.49
1:J:383:ALA:CB	1:J:389:MET:HA	2.43	0.49
1:K:202:PRO:HA	1:K:205:ILE:CD1	2.43	0.49
1:K:236:VAL:CG1	1:K:317:LEU:HD21	2.42	0.49
1:K:269:GLY:HA2	1:K:272:LYS:NZ	2.27	0.49
1:K:313:THR:O	1:K:317:LEU:HD13	2.12	0.49
1:K:440:ILE:O	1:K:444:LEU:HG	2.13	0.49
1:L:36:ARG:NH2	1:M:113:PRO:HD2	2.27	0.49
1:M:202:PRO:O	1:M:203:TYR:CB	2.61	0.49
1:N:69:MET:O	1:N:73:MET:HG3	2.13	0.49
1:B:272:LYS:HZ1	1:C:228:SER:HB3	1.77	0.49
1:E:74:VAL:HG12	1:E:510:VAL:HG22	1.94	0.49
1:E:193:MET:HG3	1:E:371:LYS:HB3	1.94	0.49
1:E:242:LYS:C	1:E:244:GLY:H	2.15	0.49
1:E:265:ASN:O	1:E:268:ARG:HB2	2.12	0.49
1:H:417:VAL:O	1:H:420:ILE:HG22	2.12	0.49
1:H:440:ILE:HG22	1:H:444:LEU:HD12	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:206:ASN:C	1:K:208:PRO:HD3	2.34	0.49
1:K:207:LYS:HZ1	1:K:390:LYS:NZ	2.08	0.49
1:N:107:VAL:HG21	1:N:515:ILE:HG23	1.95	0.49
1:N:366:GLN:CA	1:N:369:VAL:HG22	2.43	0.49
1:A:392:LYS:HG3	1:A:395:ARG:HH22	1.75	0.48
1:B:28:LYS:HB2	1:B:453:GLN:HG2	1.94	0.48
1:B:183:LEU:O	1:B:184:GLN:CG	2.61	0.48
1:C:498:LYS:HG3	1:C:501:ARG:HH21	1.78	0.48
1:D:264:VAL:HA	1:D:267:MET:CE	2.42	0.48
1:E:460:GLU:OE2	1:E:483:GLU:OE2	2.30	0.48
1:F:259:LEU:O	1:F:262:LEU:HB2	2.12	0.48
1:F:434:LYS:O	1:F:438:VAL:HG23	2.13	0.48
1:H:26:ALA:CA	1:I:8:PHE:CE1	2.92	0.48
1:H:104:LEU:HD23	1:H:104:LEU:HA	1.53	0.48
1:J:217:SER:N	1:J:218:PRO:HD3	2.28	0.48
1:J:230:ILE:CD1	1:J:261:THR:HB	2.43	0.48
1:K:37:ASN:HB2	1:L:516:THR:O	2.13	0.48
1:N:106:ALA:HB1	1:N:111:MET:SD	2.53	0.48
1:N:346:VAL:O	1:N:350:ARG:HB2	2.12	0.48
1:C:151:SER:HB2	1:C:399:ALA:HB1	1.95	0.48
1:D:161:LEU:HD11	1:D:185:ASP:HB3	1.95	0.48
1:D:178:GLU:HB3	1:D:322:ARG:NH1	2.29	0.48
1:D:233:MET:HB3	1:D:237:LEU:CD1	2.43	0.48
1:D:242:LYS:O	1:D:243:ALA:HB3	2.13	0.48
1:E:158:VAL:HG21	1:E:395:ARG:NH1	2.29	0.48
1:E:200:LEU:HD11	1:E:254:VAL:H	1.77	0.48
1:E:383:ALA:O	1:E:384:ALA:CB	2.48	0.48
1:E:488:MET:CE	1:E:493:ILE:HG21	2.43	0.48
1:F:386:GLU:OE1	1:G:197:ARG:NH1	2.43	0.48
1:G:291:ASP:HB3	1:G:372:LEU:HD11	1.95	0.48
1:H:40:LEU:HD21	1:H:56:VAL:HG13	1.94	0.48
1:H:61:GLU:HB3	1:I:4:LYS:H	1.77	0.48
1:H:351:GLN:O	1:H:354:GLU:HB2	2.13	0.48
1:K:310:GLU:OE1	1:K:310:GLU:N	2.39	0.48
1:M:157:THR:HG21	1:M:392:LYS:NZ	2.28	0.48
1:M:232:GLU:HB3	1:M:309:LEU:HB2	1.95	0.48
1:N:202:PRO:C	1:N:204:PHE:H	2.16	0.48
1:N:209:GLU:CD	1:N:209:GLU:H	2.16	0.48
1:A:69:MET:HE1	1:A:520:MET:HB3	1.96	0.48
1:A:197:ARG:NH1	1:G:386:GLU:OE1	2.44	0.48
1:B:128:VAL:CG2	1:B:505:GLN:HE21	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:423:ALA:O	1:B:426:LEU:N	2.40	0.48
1:D:53:GLY:O	1:D:56:VAL:HB	2.13	0.48
1:E:17:LEU:HD12	1:E:20:VAL:HG22	1.95	0.48
1:E:430:ARG:CD	1:E:437:ASN:ND2	2.77	0.48
1:F:235:PRO:HG3	1:F:310:GLU:HA	1.94	0.48
1:F:349:ILE:O	1:F:353:ILE:HG13	2.12	0.48
1:F:443:ALA:O	1:F:447:MET:HG3	2.13	0.48
1:G:103:GLY:O	1:G:106:ALA:HB3	2.13	0.48
1:G:414:GLY:N	1:G:494:LEU:HA	2.29	0.48
1:H:23:LEU:CD2	1:H:74:VAL:HG23	2.42	0.48
1:H:69:MET:O	1:H:73:MET:HG3	2.13	0.48
1:H:158:VAL:O	1:H:161:LEU:HB2	2.13	0.48
1:I:392:LYS:HA	1:I:395:ARG:NH2	2.29	0.48
1:K:443:ALA:O	1:K:446:ALA:HB3	2.14	0.48
1:L:433:ASN:OD1	1:L:436:GLN:HG3	2.13	0.48
1:M:224:ASP:CB	1:M:302:SER:HB3	2.43	0.48
1:B:16:MET:HB3	1:B:514:MET:CE	2.43	0.48
1:B:160:LYS:HG2	1:B:164:GLU:OE2	2.13	0.48
1:C:339:GLU:O	1:C:340:ALA:C	2.48	0.48
1:E:366:GLN:HA	1:E:369:VAL:HG22	1.94	0.48
1:F:31:LEU:CD1	1:F:90:THR:CG2	2.88	0.48
1:G:201:SER:O	1:G:202:PRO:O	2.32	0.48
1:G:248:LEU:HD13	1:G:325:ILE:HD11	1.95	0.48
1:H:152:ALA:O	1:H:153:ASN:HB3	2.14	0.48
1:H:178:GLU:HA	1:H:393:LYS:HE2	1.94	0.48
1:H:221:LEU:HD23	1:H:249:ILE:HD12	1.95	0.48
1:H:242:LYS:O	1:H:243:ALA:CB	2.60	0.48
1:I:230:ILE:HG13	1:I:233:MET:HB2	1.96	0.48
1:I:259:LEU:O	1:I:263:VAL:HG23	2.14	0.48
1:K:434:LYS:NZ	1:K:437:ASN:ND2	2.62	0.48
1:L:346:VAL:O	1:L:350:ARG:HB2	2.13	0.48
1:M:199:TYR:CZ	1:M:205:ILE:HD11	2.49	0.48
1:M:224:ASP:HB3	1:M:302:SER:CB	2.44	0.48
1:B:359:ASP:O	1:B:363:GLU:HG3	2.13	0.48
1:B:372:LEU:N	1:B:372:LEU:CD1	2.76	0.48
1:C:115:ASP:HB3	1:C:436:GLN:HG2	1.95	0.48
1:D:34:LYS:HG3	1:D:458:CYS:HG	1.77	0.48
1:D:478:TYR:OH	1:D:483:GLU:HG2	2.14	0.48
1:G:428:ASP:O	1:G:429:LEU:C	2.49	0.48
1:I:420:ILE:HD13	1:I:451:LEU:HD13	1.94	0.48
1:J:201:SER:O	1:J:202:PRO:O	2.32	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:445:ARG:O	1:J:448:GLU:HB2	2.13	0.48
1:K:225:LYS:HD2	1:K:303:GLU:HG3	1.96	0.48
1:L:270:ILE:O	1:L:271:VAL:O	2.31	0.48
1:M:96:ALA:O	1:M:100:ILE:CG1	2.60	0.48
1:M:183:LEU:HB3	1:N:360:TYR:CE2	2.49	0.48
1:M:472:GLY:HA3	1:M:476:TYR:CD2	2.48	0.48
1:N:102:GLU:O	1:N:105:LYS:HB2	2.12	0.48
1:A:218:PRO:O	1:A:319:GLN:HG3	2.14	0.48
1:B:6:VAL:CG1	1:B:8:PHE:CZ	2.95	0.48
1:B:176:THR:CG2	1:B:177:VAL:N	2.76	0.48
1:B:239:ALA:HB1	1:B:314:LEU:CG	2.44	0.48
1:C:220:ILE:HD12	1:C:296:THR:HG21	1.96	0.48
1:E:199:TYR:CD1	1:E:199:TYR:O	2.67	0.48
1:E:308:GLU:HB2	1:E:311:LYS:HG3	1.93	0.48
1:I:221:LEU:HG	1:I:222:LEU:N	2.19	0.48
1:J:482:THR:O	1:J:484:GLU:HG2	2.14	0.48
1:K:183:LEU:HD23	1:K:383:ALA:CA	2.44	0.48
1:B:172:GLU:O	1:B:404:ARG:NH2	2.47	0.48
1:D:201:SER:C	1:D:202:PRO:O	2.49	0.48
1:D:366:GLN:HA	1:D:369:VAL:HG22	1.96	0.48
1:F:38:VAL:HG11	1:F:56:VAL:HG22	1.95	0.48
1:J:392:LYS:CG	1:J:395:ARG:NH2	2.77	0.48
1:L:31:LEU:HD13	1:L:90:THR:HG21	1.94	0.48
1:L:195:PHE:CD2	1:L:279:PRO:CG	2.79	0.48
1:M:386:GLU:HG3	1:M:389:MET:CE	2.43	0.48
1:A:65:LYS:O	1:A:69:MET:HG3	2.14	0.48
1:A:239:ALA:HB1	1:A:314:LEU:HG	1.96	0.48
1:E:199:TYR:O	1:E:199:TYR:HD1	1.96	0.48
1:F:157:THR:HG21	1:F:392:LYS:HZ1	1.77	0.48
1:F:179:ASP:OD2	1:F:390:LYS:NZ	2.46	0.48
1:F:233:MET:C	1:F:235:PRO:HD2	2.34	0.48
1:G:102:GLU:HB2	1:G:442:VAL:CG1	2.44	0.48
1:H:18:ARG:HG2	1:H:67:GLU:CG	2.44	0.48
1:H:126:ALA:O	1:H:129:GLU:HB2	2.14	0.48
1:I:25:ASP:HA	1:I:28:LYS:HG2	1.95	0.48
1:I:123:ALA:HA	1:I:429:LEU:HD23	1.93	0.48
1:I:219:PHE:CG	1:I:317:LEU:HD23	2.48	0.48
1:K:106:ALA:CB	1:K:111:MET:CE	2.92	0.48
1:K:202:PRO:C	1:K:204:PHE:H	2.17	0.48
1:K:252:GLU:O	1:K:253:ASP:HB2	2.14	0.48
1:L:85:ALA:CB	1:L:499:VAL:HA	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:173:GLY:O	1:L:404:ARG:NH2	2.47	0.48
1:L:223:ALA:CB	1:L:309:LEU:HD21	2.44	0.48
1:L:351:GLN:C	1:L:353:ILE:N	2.67	0.48
1:M:400:LEU:O	1:M:404:ARG:HB2	2.13	0.48
1:N:166:MET:CE	1:N:407:VAL:HG21	2.43	0.48
1:A:169:VAL:HG23	1:A:173:GLY:HA3	1.95	0.48
1:A:451:LEU:C	1:A:451:LEU:HD23	2.33	0.48
1:A:494:LEU:C	1:A:494:LEU:CD1	2.82	0.48
1:D:17:LEU:HD22	1:D:104:LEU:HD12	1.96	0.48
1:D:59:GLU:O	1:E:4:LYS:HG3	2.13	0.48
1:H:165:ALA:HB2	1:H:379:ILE:HD11	1.95	0.48
1:H:217:SER:N	1:H:218:PRO:CD	2.67	0.48
1:H:336:VAL:O	1:H:336:VAL:HG12	2.13	0.48
1:I:202:PRO:C	1:I:204:PHE:H	2.16	0.48
1:I:479:ASN:HA	1:I:493:ILE:CD1	2.43	0.48
1:J:247:LEU:CD2	1:J:249:ILE:HD11	2.43	0.48
1:J:370:ALA:O	1:J:374:GLY:HA3	2.14	0.48
1:K:74:VAL:HG12	1:K:510:VAL:CG2	2.43	0.48
1:K:95:LEU:HD13	1:K:504:LEU:HD12	1.96	0.48
1:K:144:ILE:HG23	1:K:403:THR:HG21	1.96	0.48
1:K:288:MET:HG2	1:K:368:ARG:HD3	1.95	0.48
1:L:351:GLN:O	1:L:354:GLU:N	2.43	0.48
1:L:352:GLN:HA	1:L:355:GLU:OE1	2.13	0.48
1:L:413:ALA:O	1:L:418:ALA:HB2	2.14	0.48
1:M:383:ALA:HB3	1:M:389:MET:N	2.28	0.48
1:A:64:ASP:HB3	1:A:67:GLU:HB2	1.96	0.48
1:A:265:ASN:OD1	1:A:270:ILE:HD13	2.12	0.48
1:B:74:VAL:HG12	1:B:510:VAL:CG2	2.44	0.48
1:B:158:VAL:HG13	1:B:396:VAL:HG22	1.96	0.48
1:B:166:MET:HE3	1:B:171:LYS:HA	1.94	0.48
1:B:479:ASN:C	1:B:479:ASN:OD1	2.52	0.48
1:C:38:VAL:HG22	1:D:519:CYS:HB3	1.94	0.48
1:D:247:LEU:HD21	1:D:249:ILE:CD1	2.41	0.48
1:E:9:GLY:N	1:E:518:GLU:O	2.44	0.48
1:E:144:ILE:HG23	1:E:403:THR:CG2	2.39	0.48
1:E:161:LEU:HD22	1:E:379:ILE:CG2	2.44	0.48
1:F:107:VAL:HG21	1:F:515:ILE:HG23	1.96	0.48
1:H:174:VAL:C	1:H:175:ILE:HG13	2.34	0.48
1:I:359:ASP:OD1	1:I:362:ARG:NH1	2.47	0.48
1:J:232:GLU:OE1	1:J:309:LEU:HD12	2.13	0.48
1:K:191:GLU:O	1:K:334:ASP:HA	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:42:LYS:HD2	1:L:48:THR:OG1	2.14	0.48
1:M:41:ASP:HB2	1:N:69:MET:SD	2.54	0.48
1:D:31:LEU:HG	1:D:454:ILE:HG13	1.95	0.47
1:D:99:ILE:CG2	1:D:511:ALA:HB1	2.44	0.47
1:E:233:MET:O	1:E:234:LEU:C	2.52	0.47
1:F:455:VAL:HG13	1:F:460:GLU:HB2	1.96	0.47
1:F:507:ALA:O	1:F:510:VAL:HG12	2.14	0.47
1:G:64:ASP:OD1	1:G:66:PHE:N	2.47	0.47
1:G:100:ILE:HG23	1:G:104:LEU:HD11	1.96	0.47
1:H:496:PRO:HD2	1:H:499:VAL:HG21	1.95	0.47
1:J:195:PHE:CG	1:J:279:PRO:HG3	2.49	0.47
1:K:200:LEU:HD13	1:K:254:VAL:HB	1.96	0.47
1:L:127:ALA:HA	1:L:426:LEU:HD11	1.95	0.47
1:L:222:LEU:HD21	1:L:292:ILE:HG22	1.96	0.47
1:L:423:ALA:HB2	1:L:447:MET:SD	2.54	0.47
1:M:183:LEU:HG	1:M:384:ALA:HB2	1.94	0.47
1:M:242:LYS:O	1:M:243:ALA:CB	2.62	0.47
1:N:132:LYS:O	1:N:135:SER:HB3	2.14	0.47
1:C:165:ALA:HB2	1:C:379:ILE:HD11	1.95	0.47
1:D:131:LEU:HD21	1:D:500:THR:HG22	1.95	0.47
1:D:519:CYS:SG	1:D:520:MET:N	2.87	0.47
1:E:16:MET:HB3	1:E:514:MET:HE3	1.94	0.47
1:F:41:ASP:HB2	1:G:69:MET:HE3	1.95	0.47
1:F:142:LYS:O	1:F:146:GLN:HG3	2.14	0.47
1:I:193:MET:HG2	1:I:194:GLN:N	2.28	0.47
1:I:287:ALA:HB1	1:I:368:ARG:NH1	2.30	0.47
1:K:106:ALA:O	1:K:111:MET:HE3	2.13	0.47
1:L:312:ALA:HA	1:L:316:ASP:OD2	2.14	0.47
1:N:247:LEU:HG	1:N:273:VAL:HG13	1.96	0.47
1:B:363:GLU:O	1:B:367:GLU:CG	2.49	0.47
1:C:319:GLN:C	1:C:336:VAL:HG23	2.34	0.47
1:G:321:LYS:HE3	1:G:334:ASP:OD2	2.14	0.47
1:H:38:VAL:HG13	1:I:519:CYS:HB3	1.96	0.47
1:H:272:LYS:HD2	1:H:272:LYS:N	2.28	0.47
1:H:449:ALA:HB3	1:H:450:PRO:HD3	1.94	0.47
1:H:517:THR:HG23	1:N:37:ASN:O	2.14	0.47
1:K:222:LEU:HD13	1:K:293:ALA:HA	1.96	0.47
1:K:290:GLN:O	1:K:291:ASP:C	2.52	0.47
1:K:434:LYS:O	1:K:435:ASP:C	2.53	0.47
1:M:190:VAL:HG21	1:M:334:ASP:HB2	1.97	0.47
1:M:243:ALA:O	1:M:245:LYS:HG3	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:250:ILE:HD13	1:M:292:ILE:HD13	1.95	0.47
1:N:8:PHE:CE1	1:N:519:CYS:SG	3.04	0.47
1:N:414:GLY:O	1:N:417:VAL:HG22	2.13	0.47
1:N:472:GLY:HA3	1:N:476:TYR:CD2	2.50	0.47
1:B:91:THR:O	1:B:94:VAL:HG22	2.14	0.47
1:D:366:GLN:HA	1:D:369:VAL:CG2	2.45	0.47
1:D:434:LYS:HE3	1:M:434:LYS:HZ1	1.77	0.47
1:F:46:ALA:HA	1:G:72:GLN:HB3	1.96	0.47
1:J:218:PRO:HD2	1:J:320:ALA:O	2.13	0.47
1:L:247:LEU:HD21	1:L:249:ILE:HD11	1.96	0.47
1:M:172:GLU:C	1:M:404:ARG:HH22	2.17	0.47
1:M:266:THR:CG2	1:M:273:VAL:H	2.28	0.47
1:M:323:VAL:HG12	1:M:332:ILE:HA	1.96	0.47
1:M:405:ALA:HB1	1:M:498:LYS:HB3	1.97	0.47
1:N:215:LEU:HB2	1:N:323:VAL:CG2	2.44	0.47
1:N:225:LYS:CE	1:N:226:LYS:O	2.63	0.47
1:A:346:VAL:O	1:A:350:ARG:HB2	2.15	0.47
1:C:193:MET:CG	1:C:371:LYS:HB3	2.42	0.47
1:C:486:GLY:C	1:C:491:MET:HE2	2.34	0.47
1:C:520:MET:HB3	1:C:520:MET:HE2	1.80	0.47
1:E:232:GLU:HB3	1:E:310:GLU:OE1	2.14	0.47
1:E:294:THR:HG21	1:E:341:ALA:O	2.14	0.47
1:G:106:ALA:CA	1:G:111:MET:HE3	2.45	0.47
1:G:430:ARG:HD2	1:G:437:ASN:ND2	2.30	0.47
1:H:406:ALA:O	1:H:410:GLY:N	2.46	0.47
1:I:417:VAL:CG2	1:I:488:MET:HG3	2.42	0.47
1:I:420:ILE:HD12	1:I:451:LEU:HD13	1.96	0.47
1:J:228:SER:O	1:J:257:GLU:HB3	2.14	0.47
1:M:195:PHE:CZ	1:M:330:THR:HB	2.50	0.47
1:M:344:GLY:O	1:M:347:ALA:HB3	2.14	0.47
1:N:124:VAL:HG21	1:N:508:ALA:CB	2.45	0.47
1:B:29:VAL:O	1:B:36:ARG:N	2.39	0.47
1:E:440:ILE:HG22	1:E:444:LEU:HD11	1.97	0.47
1:F:52:ASP:OD1	1:F:54:VAL:HG23	2.15	0.47
1:G:247:LEU:HD21	1:G:249:ILE:HD11	1.95	0.47
1:H:17:LEU:O	1:H:20:VAL:HG22	2.15	0.47
1:H:37:ASN:O	1:I:518:GLU:N	2.43	0.47
1:H:201:SER:O	1:H:204:PHE:HD2	1.96	0.47
1:I:34:LYS:HD2	1:J:114:MET:HE1	1.94	0.47
1:K:222:LEU:CD1	1:K:293:ALA:HA	2.45	0.47
1:K:411:VAL:HG12	1:K:495:ASP:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:401:HIS:O	1:M:404:ARG:CB	2.62	0.47
1:A:38:VAL:HG22	1:B:519:CYS:HB3	1.96	0.47
1:A:69:MET:SD	1:A:520:MET:HE2	2.54	0.47
1:A:103:GLY:HA3	1:A:515:ILE:CD1	2.45	0.47
1:A:128:VAL:HG12	1:A:132:LYS:HE3	1.97	0.47
1:B:346:VAL:O	1:B:350:ARG:HB2	2.15	0.47
1:B:366:GLN:HA	1:B:369:VAL:HG22	1.95	0.47
1:B:515:ILE:HG22	1:B:515:ILE:O	2.15	0.47
1:C:305:ILE:CD1	1:C:307:MET:HE1	2.43	0.47
1:D:359:ASP:HA	1:D:362:ARG:NH1	2.29	0.47
1:D:383:ALA:CB	1:D:389:MET:N	2.78	0.47
1:D:453:GLN:O	1:D:456:LEU:HB3	2.15	0.47
1:F:179:ASP:OD1	1:F:393:LYS:HE3	2.14	0.47
1:F:194:GLN:O	1:F:371:LYS:CE	2.63	0.47
1:G:69:MET:CE	1:G:520:MET:CE	2.92	0.47
1:G:69:MET:HE2	1:G:520:MET:HE3	1.96	0.47
1:G:213:VAL:O	1:G:324:VAL:HA	2.15	0.47
1:I:482:THR:O	1:I:484:GLU:HG2	2.14	0.47
1:J:233:MET:HB3	1:J:237:LEU:HD11	1.95	0.47
1:J:392:LYS:HG3	1:J:395:ARG:HH21	1.79	0.47
1:J:419:LEU:HD12	1:J:450:PRO:HG2	1.96	0.47
1:K:124:VAL:HG21	1:K:508:ALA:HB2	1.95	0.47
1:K:153:ASN:O	1:K:153:ASN:CG	2.53	0.47
1:K:205:ILE:CA	1:K:213:VAL:HG22	2.42	0.47
1:K:401:HIS:O	1:K:404:ARG:CB	2.62	0.47
1:L:152:ALA:O	1:L:153:ASN:CB	2.61	0.47
1:L:249:ILE:HD13	1:L:249:ILE:N	2.30	0.47
1:L:284:ARG:HH11	1:L:364:LYS:HD2	1.80	0.47
1:M:236:VAL:HG22	1:M:312:ALA:HB3	1.96	0.47
1:N:65:LYS:O	1:N:69:MET:HG3	2.13	0.47
1:A:107:VAL:HG21	1:A:515:ILE:HG23	1.97	0.47
1:A:192:GLY:CA	1:A:376:VAL:HG23	2.45	0.47
1:A:398:ASP:O	1:A:399:ALA:C	2.51	0.47
1:A:518:GLU:HG3	1:G:36:ARG:HG3	1.96	0.47
1:D:39:VAL:CG1	1:E:69:MET:HE2	2.44	0.47
1:D:120:ILE:HD11	1:D:442:VAL:HG11	1.97	0.47
1:D:174:VAL:CG1	1:D:376:VAL:HG22	2.45	0.47
1:E:451:LEU:HD23	1:E:451:LEU:C	2.35	0.47
1:F:41:ASP:HB2	1:G:69:MET:SD	2.54	0.47
1:F:91:THR:HG22	1:F:95:LEU:HD12	1.97	0.47
1:F:132:LYS:O	1:F:135:SER:HB3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:449:ALA:O	1:F:450:PRO:C	2.48	0.47
1:G:144:ILE:CG2	1:G:163:ALA:HA	2.45	0.47
1:H:429:LEU:HG	1:H:440:ILE:HD13	1.97	0.47
1:H:440:ILE:HG22	1:H:444:LEU:HD11	1.97	0.47
1:H:524:LEU:CB	1:H:525:PRO:HD2	2.44	0.47
1:I:345:ARG:O	1:I:349:ILE:HG13	2.15	0.47
1:J:419:LEU:CD1	1:J:450:PRO:HG2	2.45	0.47
1:K:83:ASP:OD2	1:K:327:LYS:CD	2.57	0.47
1:K:360:TYR:CE1	1:K:364:LYS:HE2	2.50	0.47
1:M:176:THR:CG2	1:M:177:VAL:N	2.76	0.47
1:N:187:LEU:CD1	1:N:379:ILE:HG12	2.45	0.47
1:A:281:PHE:HE1	1:G:385:THR:H	1.63	0.47
1:C:413:ALA:HB1	1:C:488:MET:HB2	1.96	0.47
1:D:282:GLY:O	1:D:285:ARG:HB3	2.15	0.47
1:E:246:PRO:HA	1:E:272:LYS:O	2.14	0.47
1:E:513:LEU:HA	1:E:513:LEU:HD23	1.44	0.47
1:G:151:SER:HB2	1:G:399:ALA:CB	2.45	0.47
1:G:413:ALA:CB	1:G:417:VAL:HG22	2.45	0.47
1:H:183:LEU:HB3	1:I:360:TYR:CE2	2.50	0.47
1:H:460:GLU:O	1:H:462:PRO:HD3	2.13	0.47
1:H:511:ALA:O	1:H:515:ILE:CD1	2.33	0.47
1:H:524:LEU:HB3	1:H:525:PRO:HD2	1.97	0.47
1:J:119:GLY:O	1:J:440:ILE:HG12	2.15	0.47
1:J:224:ASP:HB3	1:J:302:SER:CB	2.45	0.47
1:L:36:ARG:HH22	1:M:113:PRO:HD2	1.79	0.47
1:M:230:ILE:CD1	1:M:262:LEU:HG	2.45	0.47
1:M:479:ASN:C	1:M:479:ASN:OD1	2.51	0.47
1:N:487:ASN:C	1:N:491:MET:HE2	2.35	0.47
1:A:15:LYS:O	1:A:67:GLU:HA	2.15	0.47
1:B:3:ALA:HB1	1:B:524:LEU:HD22	1.96	0.47
1:D:41:ASP:CB	1:E:69:MET:SD	2.98	0.47
1:D:439:GLY:O	1:D:442:VAL:HB	2.14	0.47
1:F:247:LEU:HD21	1:F:249:ILE:HD11	1.97	0.47
1:H:225:LYS:HD2	1:H:303:GLU:OE2	2.15	0.47
1:J:144:ILE:HG23	1:J:403:THR:CG2	2.45	0.47
1:J:383:ALA:HB3	1:J:389:MET:CA	2.45	0.47
1:J:478:TYR:CZ	1:J:483:GLU:HA	2.50	0.47
1:K:233:MET:C	1:K:235:PRO:HD2	2.36	0.47
1:K:240:VAL:HG12	1:K:271:VAL:CG1	2.45	0.47
1:L:221:LEU:HD12	1:L:317:LEU:HD11	1.96	0.47
1:L:229:ASN:C	1:L:231:ARG:N	2.67	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:57:ALA:C	1:N:75:LYS:HE3	2.31	0.47
1:N:294:THR:HG21	1:N:345:ARG:HB2	1.97	0.47
1:C:360:TYR:OH	1:C:364:LYS:HE3	2.14	0.46
1:E:262:LEU:O	1:E:266:THR:HG23	2.15	0.46
1:E:368:ARG:O	1:E:371:LYS:HB2	2.15	0.46
1:E:429:LEU:HG	1:E:440:ILE:HD13	1.97	0.46
1:F:39:VAL:HG13	1:F:47:PRO:HB2	1.97	0.46
1:F:62:LEU:HB2	1:F:68:ASN:HB2	1.97	0.46
1:F:372:LEU:H	1:F:372:LEU:HD12	1.79	0.46
1:H:223:ALA:CB	1:H:309:LEU:HD21	2.46	0.46
1:H:513:LEU:HD23	1:H:513:LEU:HA	1.66	0.46
1:I:241:ALA:HA	1:I:271:VAL:HG22	1.96	0.46
1:I:249:ILE:HB	1:I:275:ALA:CB	2.45	0.46
1:K:142:LYS:O	1:K:146:GLN:HG3	2.15	0.46
1:L:151:SER:HB2	1:L:399:ALA:CB	2.46	0.46
1:L:472:GLY:HA3	1:L:476:TYR:HD2	1.79	0.46
1:M:233:MET:C	1:M:235:PRO:HD2	2.35	0.46
1:N:319:GLN:HB3	1:N:336:VAL:HG21	1.97	0.46
1:N:369:VAL:HG23	1:N:370:ALA:N	2.30	0.46
1:A:66:PHE:O	1:A:69:MET:HB2	2.16	0.46
1:B:4:LYS:C	1:B:524:LEU:HD11	2.36	0.46
1:B:165:ALA:HA	1:B:187:LEU:HD21	1.96	0.46
1:C:166:MET:HA	1:C:175:ILE:HD11	1.96	0.46
1:C:413:ALA:O	1:C:418:ALA:HB2	2.15	0.46
1:D:96:ALA:O	1:D:100:ILE:HG13	2.15	0.46
1:D:383:ALA:HB1	1:D:388:GLU:HB2	1.96	0.46
1:E:160:LYS:HG2	1:E:164:GLU:OE2	2.15	0.46
1:E:197:ARG:HD2	1:E:277:LYS:HB2	1.97	0.46
1:F:91:THR:HG22	1:F:95:LEU:CD1	2.45	0.46
1:F:242:LYS:C	1:F:244:GLY:H	2.18	0.46
1:H:359:ASP:O	1:H:363:GLU:HG3	2.15	0.46
1:I:66:PHE:O	1:I:69:MET:HB2	2.15	0.46
1:I:383:ALA:HB3	1:I:389:MET:HB2	1.97	0.46
1:J:135:SER:HA	1:J:412:VAL:CG1	2.45	0.46
1:J:138:CYS:SG	1:J:147:VAL:HG21	2.56	0.46
1:K:23:LEU:HD23	1:K:74:VAL:HG23	1.97	0.46
1:M:465:VAL:HG13	1:M:485:TYR:OH	2.14	0.46
1:N:147:VAL:HG12	1:N:403:THR:OG1	2.15	0.46
1:N:252:GLU:O	1:N:253:ASP:HB2	2.16	0.46
1:A:28:LYS:HD2	1:A:453:GLN:OE1	2.16	0.46
1:A:30:THR:HB	1:A:51:LYS:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:291:ASP:HB3	1:C:372:LEU:HD11	1.97	0.46
1:D:195:PHE:CZ	1:D:330:THR:HG21	2.49	0.46
1:D:236:VAL:CG2	1:D:312:ALA:HB3	2.45	0.46
1:D:282:GLY:H	1:D:285:ARG:NH2	2.12	0.46
1:D:384:ALA:C	1:D:385:THR:HG23	2.36	0.46
1:F:56:VAL:O	1:F:57:ALA:C	2.51	0.46
1:H:74:VAL:CG1	1:H:510:VAL:HG21	2.44	0.46
1:H:524:LEU:CD1	1:H:524:LEU:N	2.79	0.46
1:I:195:PHE:CD2	1:I:279:PRO:HG3	2.50	0.46
1:J:350:ARG:HA	1:J:353:ILE:HD12	1.97	0.46
1:K:409:GLU:OE2	1:K:498:LYS:HG3	2.15	0.46
1:K:417:VAL:O	1:K:420:ILE:HG22	2.14	0.46
1:L:16:MET:SD	1:L:73:MET:HE1	2.55	0.46
1:L:434:LYS:CD	1:L:437:ASN:HB2	2.30	0.46
1:M:310:GLU:OE1	1:M:310:GLU:N	2.46	0.46
1:B:193:MET:HE2	1:B:292:ILE:HG12	1.96	0.46
1:E:30:THR:HB	1:E:51:LYS:O	2.16	0.46
1:E:460:GLU:O	1:E:462:PRO:HD3	2.16	0.46
1:G:199:TYR:HA	1:G:276:VAL:HG12	1.97	0.46
1:G:420:ILE:HD13	1:G:451:LEU:HD13	1.97	0.46
1:H:8:PHE:HE1	1:N:26:ALA:HA	1.80	0.46
1:J:134:LEU:HD12	1:J:412:VAL:CG1	2.46	0.46
1:J:186:GLU:O	1:J:379:ILE:HA	2.15	0.46
1:J:269:GLY:HA2	1:J:272:LYS:HZ2	1.80	0.46
1:M:149:THR:O	1:M:154:SER:N	2.44	0.46
1:M:384:ALA:C	1:M:385:THR:HG23	2.35	0.46
1:N:165:ALA:O	1:N:169:VAL:HG22	2.15	0.46
1:A:158:VAL:HG21	1:A:395:ARG:NH1	2.30	0.46
1:A:176:THR:HG22	1:A:177:VAL:N	2.29	0.46
1:B:305:ILE:HD12	1:B:307:MET:HE1	1.97	0.46
1:C:461:GLU:HA	1:C:462:PRO:HD3	1.77	0.46
1:D:132:LYS:O	1:D:135:SER:HB3	2.14	0.46
1:F:295:LEU:HD13	1:F:295:LEU:C	2.36	0.46
1:F:319:GLN:C	1:F:336:VAL:HG23	2.36	0.46
1:G:501:ARG:O	1:G:505:GLN:HG3	2.15	0.46
1:H:216:GLU:C	1:H:218:PRO:HD3	2.36	0.46
1:J:152:ALA:HB1	1:J:395:ARG:HH11	1.80	0.46
1:J:230:ILE:HD12	1:J:261:THR:HB	1.98	0.46
1:K:149:THR:HG22	1:K:154:SER:HA	1.97	0.46
1:L:230:ILE:HG22	1:L:257:GLU:OE2	2.15	0.46
1:L:522:THR:OG1	1:L:523:ASP:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:130:GLU:HB3	1:M:422:VAL:CG1	2.37	0.46
1:M:384:ALA:O	1:M:385:THR:CB	2.62	0.46
1:N:287:ALA:HB1	1:N:368:ARG:NH1	2.31	0.46
1:A:56:VAL:O	1:A:60:ILE:HG12	2.15	0.46
1:A:333:ILE:HG21	1:A:378:VAL:HG21	1.98	0.46
1:A:414:GLY:H	1:A:494:LEU:HA	1.80	0.46
1:C:87:ASP:CG	1:C:88:GLY:H	2.18	0.46
1:C:230:ILE:HB	1:C:258:ALA:HA	1.97	0.46
1:D:177:VAL:HG21	1:D:396:VAL:HG11	1.97	0.46
1:E:109:ALA:CB	1:L:109:ALA:HB2	2.32	0.46
1:F:10:ASN:HA	1:F:13:ARG:HH21	1.81	0.46
1:F:39:VAL:HG23	1:G:517:THR:CG2	2.45	0.46
1:F:134:LEU:CD2	1:F:475:ASN:ND2	2.79	0.46
1:F:213:VAL:HB	1:F:325:ILE:HB	1.98	0.46
1:F:273:VAL:CG1	1:F:274:ALA:N	2.79	0.46
1:F:305:ILE:CD1	1:F:307:MET:HE1	2.32	0.46
1:G:62:LEU:HD12	1:G:67:GLU:C	2.36	0.46
1:G:451:LEU:HD23	1:G:451:LEU:C	2.35	0.46
1:H:37:ASN:CB	1:I:516:THR:O	2.61	0.46
1:J:176:THR:HG22	1:J:177:VAL:N	2.30	0.46
1:L:77:VAL:HG12	1:L:506:TYR:HB3	1.97	0.46
1:M:413:ALA:CB	1:M:488:MET:HB2	2.46	0.46
1:B:11:ASP:O	1:B:14:VAL:HG22	2.15	0.46
1:C:102:GLU:O	1:C:105:LYS:HB2	2.16	0.46
1:C:392:LYS:O	1:C:396:VAL:HG23	2.16	0.46
1:D:28:LYS:HB2	1:D:453:GLN:HG2	1.97	0.46
1:D:266:THR:CG2	1:D:273:VAL:H	2.28	0.46
1:F:192:GLY:N	1:F:295:LEU:HD21	2.31	0.46
1:F:510:VAL:HG13	1:F:511:ALA:N	2.31	0.46
1:G:308:GLU:HB2	1:G:311:LYS:HG3	1.97	0.46
1:G:465:VAL:O	1:G:469:VAL:HG23	2.15	0.46
1:H:70:GLY:CA	1:H:73:MET:CE	2.87	0.46
1:I:139:SER:CB	1:I:171:LYS:HZ3	2.29	0.46
1:I:421:ARG:CD	1:I:425:LYS:NZ	2.65	0.46
1:K:151:SER:HB2	1:K:399:ALA:HA	1.96	0.46
1:K:272:LYS:N	1:K:272:LYS:HD2	2.31	0.46
1:K:281:PHE:HA	1:K:285:ARG:CZ	2.46	0.46
1:K:384:ALA:O	1:K:385:THR:OG1	2.33	0.46
1:L:3:ALA:HB3	1:L:524:LEU:HD22	1.98	0.46
1:L:37:ASN:OD1	1:M:513:LEU:HD23	2.16	0.46
1:L:100:ILE:HG13	1:L:511:ALA:CB	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:102:GLU:O	1:L:105:LYS:HB2	2.16	0.46
1:L:236:VAL:CG2	1:L:312:ALA:HB3	2.46	0.46
1:B:217:SER:N	1:B:218:PRO:CD	2.78	0.46
1:C:39:VAL:CG1	1:D:69:MET:CE	2.85	0.46
1:C:124:VAL:HG21	1:C:508:ALA:CB	2.46	0.46
1:D:143:ALA:O	1:D:147:VAL:HG23	2.14	0.46
1:D:174:VAL:HG21	1:D:194:GLN:HB3	1.97	0.46
1:D:181:THR:C	1:E:282:GLY:HA3	2.36	0.46
1:E:420:ILE:HG13	1:E:448:GLU:CG	2.41	0.46
1:E:511:ALA:O	1:E:515:ILE:HG13	2.14	0.46
1:F:455:VAL:CG1	1:F:460:GLU:HB2	2.46	0.46
1:G:37:ASN:HD21	1:G:51:LYS:HE3	1.81	0.46
1:I:344:GLY:O	1:I:347:ALA:HB3	2.16	0.46
1:L:191:GLU:O	1:L:334:ASP:HA	2.16	0.46
1:L:358:SER:OG	1:L:359:ASP:N	2.49	0.46
1:M:413:ALA:HB1	1:M:488:MET:CB	2.46	0.46
1:N:195:PHE:N	1:N:195:PHE:CD1	2.84	0.46
1:A:64:ASP:OD1	1:A:66:PHE:N	2.49	0.46
1:B:449:ALA:N	1:B:450:PRO:CD	2.79	0.46
1:C:494:LEU:HD12	1:C:494:LEU:O	2.16	0.46
1:D:6:VAL:HG22	1:D:521:VAL:HG22	1.96	0.46
1:D:420:ILE:CD1	1:D:451:LEU:HD13	2.46	0.46
1:E:193:MET:HG2	1:E:194:GLN:N	2.31	0.46
1:F:232:GLU:HG2	1:F:310:GLU:OE2	2.15	0.46
1:G:225:LYS:CB	1:G:303:GLU:OE2	2.64	0.46
1:G:305:ILE:O	1:G:305:ILE:HG22	2.15	0.46
1:H:18:ARG:HG2	1:H:67:GLU:HG2	1.97	0.46
1:H:170:GLY:C	1:H:173:GLY:H	2.19	0.46
1:I:366:GLN:HA	1:I:369:VAL:HG22	1.97	0.46
1:J:433:ASN:OD1	1:J:436:GLN:HG3	2.16	0.46
1:J:468:THR:HG21	1:J:485:TYR:CZ	2.50	0.46
1:K:16:MET:SD	1:K:73:MET:HE1	2.56	0.46
1:K:95:LEU:HD23	1:K:95:LEU:HA	1.74	0.46
1:N:168:LYS:HA	1:N:168:LYS:HD3	1.71	0.46
1:B:236:VAL:HG21	1:B:312:ALA:HB3	1.97	0.46
1:C:23:LEU:CD2	1:C:74:VAL:HG23	2.45	0.46
1:C:417:VAL:HA	1:C:451:LEU:HD12	1.97	0.46
1:D:177:VAL:HG13	1:D:397:GLU:CG	2.46	0.46
1:D:259:LEU:O	1:D:263:VAL:HG23	2.16	0.46
1:F:419:LEU:CD1	1:F:450:PRO:HG2	2.46	0.46
1:G:478:TYR:O	1:G:488:MET:CE	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:383:ALA:CB	1:H:389:MET:HA	2.45	0.46
1:I:399:ALA:O	1:I:403:THR:OG1	2.25	0.46
1:I:460:GLU:O	1:I:462:PRO:HD3	2.16	0.46
1:J:194:GLN:O	1:J:371:LYS:HE3	2.16	0.46
1:J:279:PRO:O	1:J:285:ARG:HG3	2.16	0.46
1:J:319:GLN:O	1:J:336:VAL:HG23	2.16	0.46
1:L:151:SER:CB	1:L:399:ALA:HA	2.45	0.46
1:M:14:VAL:HG23	1:M:15:LYS:N	2.31	0.46
1:M:132:LYS:O	1:M:135:SER:HB3	2.15	0.46
1:M:166:MET:HG2	1:M:175:ILE:CD1	2.47	0.46
1:M:216:GLU:C	1:M:218:PRO:HD3	2.36	0.46
1:N:92:ALA:HB2	1:N:503:ALA:HB1	1.97	0.46
1:N:218:PRO:HA	1:N:246:PRO:HD2	1.98	0.46
1:N:409:GLU:O	1:N:497:THR:HB	2.16	0.46
1:A:5:ASP:HB3	1:A:522:THR:CG2	2.42	0.45
1:A:38:VAL:HG21	1:A:56:VAL:HG21	1.97	0.45
1:A:66:PHE:HA	1:A:69:MET:SD	2.56	0.45
1:A:348:GLN:O	1:A:352:GLN:HG3	2.16	0.45
1:B:87:ASP:CG	1:B:88:GLY:H	2.19	0.45
1:B:234:LEU:N	1:B:235:PRO:HD2	2.31	0.45
1:C:217:SER:N	1:C:218:PRO:CD	2.73	0.45
1:C:270:ILE:O	1:C:271:VAL:O	2.34	0.45
1:C:305:ILE:O	1:C:305:ILE:CG2	2.64	0.45
1:C:349:ILE:CG2	1:C:369:VAL:HG13	2.46	0.45
1:D:230:ILE:HD13	1:D:261:THR:CG2	2.45	0.45
1:F:166:MET:CE	1:F:171:LYS:HA	2.46	0.45
1:F:419:LEU:HD21	1:F:500:THR:CG2	2.42	0.45
1:G:420:ILE:HD12	1:G:451:LEU:HD13	1.97	0.45
1:H:70:GLY:CA	1:H:73:MET:HE2	2.46	0.45
1:H:74:VAL:HA	1:H:510:VAL:HG21	1.98	0.45
1:I:476:TYR:OH	1:I:485:TYR:HB3	2.16	0.45
1:K:161:LEU:HD22	1:K:379:ILE:HG23	1.97	0.45
1:L:462:PRO:O	1:L:463:SER:C	2.54	0.45
1:M:404:ARG:HD2	1:M:408:GLU:OE2	2.16	0.45
1:N:116:LEU:O	1:N:120:ILE:HG13	2.16	0.45
1:N:191:GLU:OE1	1:N:342:ILE:HD13	2.17	0.45
1:N:254:VAL:O	1:N:259:LEU:HD22	2.16	0.45
1:A:25:ASP:HA	1:A:28:LYS:HG2	1.98	0.45
1:A:113:PRO:O	1:A:116:LEU:HB2	2.17	0.45
1:E:106:ALA:HB1	1:E:111:MET:HE3	1.97	0.45
1:E:342:ILE:O	1:E:346:VAL:HG23	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:466:ALA:O	1:E:470:LYS:HG3	2.16	0.45
1:F:36:ARG:NH1	1:G:113:PRO:HD2	2.32	0.45
1:G:23:LEU:CD2	1:G:74:VAL:HG23	2.46	0.45
1:G:69:MET:SD	1:G:520:MET:HE2	2.56	0.45
1:H:286:LYS:HA	1:H:289:LEU:HD12	1.99	0.45
1:H:349:ILE:CG2	1:H:369:VAL:HG13	2.46	0.45
1:I:272:LYS:HZ1	1:J:228:SER:HB2	1.71	0.45
1:K:69:MET:O	1:K:70:GLY:C	2.54	0.45
1:K:234:LEU:O	1:K:238:GLU:HG3	2.15	0.45
1:L:272:LYS:N	1:L:272:LYS:HD2	2.31	0.45
1:M:413:ALA:HB1	1:M:488:MET:HB2	1.97	0.45
1:N:366:GLN:O	1:N:369:VAL:CG2	2.65	0.45
1:A:468:THR:HG21	1:A:485:TYR:CZ	2.52	0.45
1:B:199:TYR:CZ	1:B:327:LYS:HA	2.51	0.45
1:D:203:TYR:HB2	1:D:263:VAL:HG13	1.99	0.45
1:E:127:ALA:CA	1:E:426:LEU:HD11	2.47	0.45
1:E:171:LYS:HB3	1:E:407:VAL:CG1	2.38	0.45
1:H:26:ALA:HB2	1:I:8:PHE:CE1	2.52	0.45
1:H:169:VAL:CG2	1:H:170:GLY:H	2.26	0.45
1:I:346:VAL:O	1:I:350:ARG:HB2	2.16	0.45
1:A:81:ALA:O	1:A:85:ALA:HB3	2.16	0.45
1:A:259:LEU:O	1:A:263:VAL:HG23	2.16	0.45
1:C:39:VAL:HG11	1:D:69:MET:HE2	1.98	0.45
1:C:201:SER:HB2	1:C:259:LEU:HD11	1.98	0.45
1:D:234:LEU:N	1:D:235:PRO:HD2	2.31	0.45
1:D:475:ASN:O	1:D:487:ASN:HA	2.16	0.45
1:E:240:VAL:HG12	1:E:271:VAL:HG11	1.99	0.45
1:F:496:PRO:O	1:F:499:VAL:HG22	2.17	0.45
1:G:171:LYS:HB3	1:G:407:VAL:HG11	1.99	0.45
1:G:230:ILE:CD1	1:G:261:THR:HB	2.45	0.45
1:H:26:ALA:HB2	1:I:8:PHE:HZ	1.82	0.45
1:H:468:THR:HG21	1:H:485:TYR:CE2	2.52	0.45
1:I:151:SER:CB	1:I:399:ALA:HA	2.46	0.45
1:I:195:PHE:CG	1:I:279:PRO:HG3	2.52	0.45
1:I:429:LEU:HB3	1:I:440:ILE:HG21	1.98	0.45
1:I:465:VAL:HA	1:I:485:TYR:OH	2.16	0.45
1:J:326:ASN:HB2	1:J:329:THR:N	2.31	0.45
1:K:486:GLY:C	1:K:491:MET:HE2	2.36	0.45
1:L:202:PRO:O	1:L:203:TYR:CB	2.64	0.45
1:L:455:VAL:HB	1:L:462:PRO:HG3	1.98	0.45
1:M:139:SER:CB	1:M:171:LYS:HZ3	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:239:ALA:O	1:M:314:LEU:HD21	2.17	0.45
1:N:151:SER:HB2	1:N:399:ALA:CB	2.46	0.45
1:A:39:VAL:HG22	1:A:49:ILE:HG12	1.99	0.45
1:A:187:LEU:HD13	1:A:379:ILE:HG12	1.97	0.45
1:B:61:GLU:O	1:C:3:ALA:HA	2.17	0.45
1:C:100:ILE:HD13	1:C:514:MET:SD	2.57	0.45
1:C:266:THR:HG21	1:C:273:VAL:O	2.15	0.45
1:D:177:VAL:HG21	1:D:396:VAL:CG1	2.47	0.45
1:D:319:GLN:HB3	1:D:336:VAL:HG21	1.97	0.45
1:D:504:LEU:HD12	1:D:504:LEU:HA	1.42	0.45
1:E:284:ARG:NH1	1:E:364:LYS:HD2	2.32	0.45
1:F:118:ARG:HD2	1:F:436:GLN:NE2	2.32	0.45
1:F:283:ASP:O	1:F:286:LYS:HB2	2.17	0.45
1:F:461:GLU:HA	1:F:462:PRO:HD3	1.81	0.45
1:G:197:ARG:NE	1:G:277:LYS:HB3	2.31	0.45
1:H:39:VAL:HG23	1:I:517:THR:CG2	2.42	0.45
1:I:146:GLN:O	1:I:150:ILE:HG13	2.15	0.45
1:K:115:ASP:HB3	1:K:436:GLN:CG	2.46	0.45
1:K:229:ASN:CA	1:K:257:GLU:OE1	2.61	0.45
1:K:270:ILE:O	1:K:271:VAL:O	2.34	0.45
1:L:227:ILE:HD12	1:L:251:ALA:HB2	1.98	0.45
1:M:290:GLN:OE1	1:M:300:VAL:HG23	2.16	0.45
1:M:469:VAL:HG23	1:M:485:TYR:CE2	2.42	0.45
1:A:456:LEU:HA	1:A:456:LEU:HD12	1.66	0.45
1:B:250:ILE:HG12	1:B:276:VAL:CG2	2.46	0.45
1:C:366:GLN:HA	1:C:369:VAL:HG22	1.98	0.45
1:C:434:LYS:HA	1:C:434:LYS:HD3	1.67	0.45
1:C:449:ALA:HB3	1:C:450:PRO:HD3	1.99	0.45
1:D:111:MET:HG2	1:D:435:ASP:OD1	2.17	0.45
1:D:515:ILE:O	1:D:515:ILE:HG22	2.16	0.45
1:E:254:VAL:HG12	1:E:259:LEU:HB2	1.98	0.45
1:E:336:VAL:O	1:E:336:VAL:HG12	2.17	0.45
1:E:404:ARG:HG2	1:E:404:ARG:NH1	2.29	0.45
1:F:13:ARG:CD	1:F:104:LEU:HD22	2.31	0.45
1:G:81:ALA:O	1:G:85:ALA:HB3	2.16	0.45
1:G:106:ALA:HB1	1:G:111:MET:CE	2.47	0.45
1:H:190:VAL:HG21	1:H:334:ASP:HB2	1.99	0.45
1:H:354:GLU:C	1:H:356:ALA:H	2.19	0.45
1:H:468:THR:CG2	1:H:485:TYR:CE2	3.00	0.45
1:I:406:ALA:O	1:I:410:GLY:N	2.49	0.45
1:J:102:GLU:O	1:J:105:LYS:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:419:LEU:HA	1:J:419:LEU:HD23	1.68	0.45
1:J:524:LEU:N	1:J:524:LEU:HD12	2.32	0.45
1:K:7:LYS:HD2	1:K:15:LYS:HE3	1.99	0.45
1:K:31:LEU:HD13	1:K:90:THR:HG21	1.98	0.45
1:L:28:LYS:HB2	1:L:453:GLN:HG2	1.98	0.45
1:L:183:LEU:O	1:L:184:GLN:CB	2.65	0.45
1:L:207:LYS:HZ1	1:L:390:LYS:NZ	2.15	0.45
1:M:10:ASN:N	1:M:13:ARG:NH2	2.65	0.45
1:N:305:ILE:HG22	1:N:305:ILE:O	2.17	0.45
1:A:4:LYS:HG3	1:G:59:GLU:O	2.17	0.45
1:A:365:LEU:CD2	1:A:368:ARG:NH2	2.72	0.45
1:A:384:ALA:O	1:A:385:THR:HG23	2.16	0.45
1:C:98:ALA:HB3	1:C:446:ALA:HB1	1.98	0.45
1:E:201:SER:O	1:E:204:PHE:HD2	1.99	0.45
1:E:383:ALA:HB2	1:E:389:MET:HA	1.94	0.45
1:H:176:THR:HG21	1:H:333:ILE:HD11	1.99	0.45
1:H:414:GLY:HA2	1:H:495:ASP:CG	2.34	0.45
1:I:65:LYS:HB3	1:I:522:THR:OG1	2.16	0.45
1:J:104:LEU:HA	1:J:104:LEU:HD23	1.54	0.45
1:J:383:ALA:HB3	1:J:389:MET:N	2.32	0.45
1:L:3:ALA:CB	1:L:524:LEU:HD22	2.47	0.45
1:L:143:ALA:O	1:L:147:VAL:HG23	2.17	0.45
1:L:455:VAL:HG13	1:L:465:VAL:HG21	1.98	0.45
1:N:291:ASP:HB3	1:N:372:LEU:HD11	1.98	0.45
1:A:413:ALA:HB1	1:A:488:MET:HB2	1.99	0.45
1:C:191:GLU:OE1	1:C:342:ILE:HG21	2.16	0.45
1:D:58:ARG:HA	1:D:75:LYS:CE	2.47	0.45
1:E:102:GLU:CB	1:E:442:VAL:HG13	2.39	0.45
1:E:233:MET:O	1:E:236:VAL:N	2.49	0.45
1:F:25:ASP:O	1:F:29:VAL:HG13	2.17	0.45
1:F:226:LYS:HE3	1:F:252:GLU:OE2	2.17	0.45
1:F:419:LEU:CD2	1:F:500:THR:CG2	2.95	0.45
1:G:240:VAL:HG12	1:G:271:VAL:CG1	2.46	0.45
1:J:179:ASP:OD1	1:J:393:LYS:HE3	2.16	0.45
1:L:449:ALA:N	1:L:450:PRO:CD	2.80	0.45
1:M:102:GLU:HB2	1:M:442:VAL:HG13	1.99	0.45
1:M:234:LEU:N	1:M:235:PRO:HD2	2.31	0.45
1:N:343:GLN:NE2	1:N:346:VAL:CG1	2.75	0.45
1:B:178:GLU:HB3	1:B:322:ARG:NH2	2.32	0.45
1:B:384:ALA:O	1:B:385:THR:OG1	2.17	0.45
1:E:143:ALA:O	1:E:147:VAL:HG23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:183:LEU:HG	1:E:384:ALA:HB2	1.98	0.45
1:F:171:LYS:O	1:F:404:ARG:NH1	2.42	0.45
1:F:230:ILE:CD1	1:F:261:THR:HB	2.41	0.45
1:G:477:GLY:HA3	1:G:488:MET:HG2	1.99	0.45
1:H:30:THR:O	1:H:31:LEU:C	2.55	0.45
1:H:412:VAL:HG13	1:H:497:THR:OG1	2.17	0.45
1:J:269:GLY:O	1:K:229:ASN:OD1	2.35	0.45
1:J:291:ASP:OD2	1:J:368:ARG:HD2	2.17	0.45
1:J:384:ALA:H	1:K:281:PHE:HZ	1.64	0.45
1:J:429:LEU:HG	1:J:440:ILE:HD13	1.98	0.45
1:K:193:MET:HE2	1:K:292:ILE:HG12	1.97	0.45
1:L:16:MET:SD	1:L:73:MET:CE	3.05	0.45
1:L:83:ASP:OD2	1:L:327:LYS:CD	2.60	0.45
1:L:284:ARG:NH1	1:L:364:LYS:HD2	2.30	0.45
1:M:247:LEU:N	1:M:272:LYS:O	2.45	0.45
1:N:134:LEU:O	1:N:134:LEU:HD13	2.16	0.45
1:B:217:SER:N	1:B:218:PRO:HD3	2.32	0.45
1:C:349:ILE:HB	1:C:369:VAL:HG12	1.99	0.45
1:E:17:LEU:CD1	1:E:100:ILE:HG22	2.42	0.45
1:E:155:ASP:HB3	1:E:395:ARG:HH12	1.82	0.45
1:F:486:GLY:C	1:F:491:MET:HE2	2.38	0.45
1:H:385:THR:H	1:I:281:PHE:HE1	1.63	0.45
1:J:124:VAL:HG21	1:J:508:ALA:CB	2.47	0.45
1:J:233:MET:HB3	1:J:237:LEU:HD12	1.99	0.45
1:J:501:ARG:NH1	1:J:505:GLN:OE1	2.49	0.45
1:L:11:ASP:O	1:L:14:VAL:HG22	2.16	0.45
1:L:95:LEU:HD11	1:L:419:LEU:HD11	1.99	0.45
1:L:391:GLU:O	1:L:394:ALA:HB3	2.16	0.45
1:M:224:ASP:HB3	1:M:302:SER:CA	2.46	0.45
1:N:413:ALA:CB	1:N:417:VAL:CG2	2.95	0.45
1:A:46:ALA:HA	1:A:47:PRO:HD3	1.58	0.44
1:B:17:LEU:HA	1:B:17:LEU:HD12	1.55	0.44
1:C:221:LEU:HB3	1:C:249:ILE:HD13	1.99	0.44
1:D:384:ALA:O	1:D:385:THR:CG2	2.65	0.44
1:D:384:ALA:O	1:D:385:THR:OG1	2.30	0.44
1:D:455:VAL:HG13	1:D:460:GLU:HB2	1.99	0.44
1:D:498:LYS:HG3	1:D:501:ARG:HH21	1.82	0.44
1:F:152:ALA:HB1	1:F:395:ARG:HH11	1.82	0.44
1:G:288:MET:HG2	1:G:368:ARG:HD3	1.97	0.44
1:H:39:VAL:HG12	1:I:69:MET:CE	2.47	0.44
1:H:46:ALA:HA	1:I:72:GLN:CB	2.45	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:314:LEU:HD23	1:I:317:LEU:HD22	1.99	0.44
1:J:383:ALA:HB2	1:J:389:MET:HA	1.99	0.44
1:K:384:ALA:C	1:K:385:THR:HG23	2.38	0.44
1:L:100:ILE:HG13	1:L:511:ALA:HB1	1.98	0.44
1:M:206:ASN:C	1:M:208:PRO:HD3	2.37	0.44
1:N:187:LEU:HD13	1:N:379:ILE:HG12	1.99	0.44
1:N:270:ILE:O	1:N:271:VAL:O	2.36	0.44
1:A:213:VAL:HG11	1:A:274:ALA:HB2	2.00	0.44
1:A:229:ASN:C	1:A:231:ARG:N	2.71	0.44
1:A:360:TYR:CZ	1:A:364:LYS:HE3	2.52	0.44
1:A:517:THR:HA	1:G:37:ASN:HB2	1.99	0.44
1:C:287:ALA:HB1	1:C:368:ARG:NH1	2.32	0.44
1:E:149:THR:HG23	1:E:156:GLU:HA	1.99	0.44
1:E:488:MET:HE3	1:E:493:ILE:CG2	2.47	0.44
1:F:433:ASN:OD1	1:F:435:ASP:HB2	2.17	0.44
1:G:183:LEU:HD23	1:G:383:ALA:CA	2.47	0.44
1:H:39:VAL:HG12	1:I:69:MET:HE3	1.99	0.44
1:H:111:MET:CE	1:H:438:VAL:HG11	2.46	0.44
1:K:4:LYS:C	1:K:524:LEU:HD11	2.38	0.44
1:K:183:LEU:HD13	1:K:183:LEU:C	2.38	0.44
1:K:229:ASN:C	1:K:231:ARG:N	2.70	0.44
1:K:340:ALA:O	1:K:341:ALA:C	2.55	0.44
1:K:434:LYS:NZ	1:K:437:ASN:HD22	2.15	0.44
1:K:468:THR:HG21	1:K:485:TYR:CZ	2.53	0.44
1:L:190:VAL:HG21	1:L:334:ASP:HB2	1.99	0.44
1:L:230:ILE:HD13	1:L:261:THR:CG2	2.47	0.44
1:M:100:ILE:O	1:M:104:LEU:HG	2.17	0.44
1:N:16:MET:O	1:N:20:VAL:HG13	2.17	0.44
1:N:23:LEU:CD2	1:N:74:VAL:HG22	2.47	0.44
1:N:199:TYR:CE2	1:N:326:ASN:O	2.70	0.44
1:A:107:VAL:HG22	1:A:113:PRO:HG3	1.99	0.44
1:C:199:TYR:CE2	1:C:326:ASN:C	2.90	0.44
1:C:509:SER:O	1:C:513:LEU:HG	2.17	0.44
1:D:301:ILE:HG21	1:D:308:GLU:O	2.18	0.44
1:D:383:ALA:CB	1:D:389:MET:HA	2.48	0.44
1:F:194:GLN:O	1:F:371:LYS:HE2	2.17	0.44
1:F:465:VAL:O	1:F:469:VAL:HG23	2.17	0.44
1:G:23:LEU:HD23	1:G:74:VAL:CG2	2.47	0.44
1:G:23:LEU:HD23	1:G:74:VAL:HG23	1.99	0.44
1:G:176:THR:HG21	1:G:333:ILE:CD1	2.46	0.44
1:H:17:LEU:HD12	1:H:17:LEU:HA	1.57	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:100:ILE:CD1	1:H:514:MET:SD	3.03	0.44
1:H:510:VAL:HG13	1:H:511:ALA:N	2.31	0.44
1:I:240:VAL:CG1	1:I:245:LYS:O	2.64	0.44
1:J:305:ILE:O	1:J:305:ILE:CG2	2.63	0.44
1:K:236:VAL:HG21	1:K:312:ALA:HB3	1.97	0.44
1:K:360:TYR:CZ	1:K:364:LYS:HE3	2.52	0.44
1:K:409:GLU:O	1:K:497:THR:HB	2.16	0.44
1:L:212:ALA:HB1	1:L:325:ILE:O	2.17	0.44
1:L:434:LYS:C	1:L:436:GLN:N	2.68	0.44
1:M:31:LEU:HD13	1:M:90:THR:HG22	1.98	0.44
1:M:290:GLN:O	1:M:291:ASP:C	2.55	0.44
1:M:405:ALA:O	1:M:408:GLU:HB2	2.17	0.44
1:A:169:VAL:O	1:A:173:GLY:HA3	2.17	0.44
1:A:349:ILE:CG2	1:A:365:LEU:CD2	2.91	0.44
1:A:440:ILE:HG22	1:A:444:LEU:HG	2.00	0.44
1:B:117:LYS:NZ	1:B:512:GLY:HA3	2.30	0.44
1:C:46:ALA:HA	1:C:47:PRO:HD3	1.70	0.44
1:C:229:ASN:C	1:C:231:ARG:N	2.70	0.44
1:C:406:ALA:O	1:C:410:GLY:N	2.45	0.44
1:C:465:VAL:O	1:C:469:VAL:HG23	2.17	0.44
1:E:230:ILE:CG2	1:E:257:GLU:OE2	2.64	0.44
1:H:230:ILE:HG22	1:H:257:GLU:OE2	2.17	0.44
1:I:112:ASN:HA	1:I:113:PRO:HD3	1.92	0.44
1:I:124:VAL:O	1:I:128:VAL:HG23	2.18	0.44
1:J:231:ARG:O	1:J:234:LEU:HD12	2.17	0.44
1:K:134:LEU:HD11	1:K:475:ASN:OD1	2.17	0.44
1:K:183:LEU:HD22	1:K:184:GLN:N	2.32	0.44
1:K:344:GLY:O	1:K:348:GLN:HG3	2.17	0.44
1:L:247:LEU:N	1:L:272:LYS:O	2.47	0.44
1:A:139:SER:CB	1:A:171:LYS:NZ	2.78	0.44
1:A:144:ILE:HG21	1:A:163:ALA:HA	1.99	0.44
1:B:31:LEU:HG	1:B:454:ILE:CG1	2.47	0.44
1:B:54:VAL:HG22	1:B:89:THR:HB	1.97	0.44
1:B:314:LEU:HD23	1:B:317:LEU:HD22	2.00	0.44
1:C:288:MET:HG2	1:C:368:ARG:CD	2.48	0.44
1:C:288:MET:CG	1:C:368:ARG:HD3	2.47	0.44
1:C:360:TYR:HA	1:C:363:GLU:OE1	2.16	0.44
1:E:233:MET:C	1:E:235:PRO:HD2	2.38	0.44
1:F:46:ALA:HA	1:F:47:PRO:HD3	1.68	0.44
1:F:202:PRO:C	1:F:204:PHE:N	2.71	0.44
1:F:524:LEU:N	1:F:524:LEU:CD1	2.79	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:102:GLU:HB2	1:H:442:VAL:HG13	1.99	0.44
1:I:40:LEU:HD13	1:I:59:GLU:HG2	1.98	0.44
1:L:139:SER:HB3	1:L:171:LYS:HZ3	1.81	0.44
1:L:514:MET:HE2	1:L:514:MET:HB3	1.86	0.44
1:M:413:ALA:HB1	1:M:488:MET:CG	2.48	0.44
1:N:413:ALA:CB	1:N:417:VAL:HG23	2.48	0.44
1:B:165:ALA:HB2	1:B:379:ILE:HD11	2.00	0.44
1:D:513:LEU:HD23	1:D:513:LEU:HA	1.85	0.44
1:E:18:ARG:O	1:E:22:VAL:HG23	2.18	0.44
1:G:190:VAL:HG21	1:G:334:ASP:HB2	1.99	0.44
1:H:511:ALA:C	1:H:515:ILE:HD12	2.28	0.44
1:I:199:TYR:CE2	1:I:326:ASN:O	2.70	0.44
1:I:249:ILE:HB	1:I:275:ALA:HB2	2.00	0.44
1:J:149:THR:OG1	1:J:156:GLU:HA	2.18	0.44
1:J:524:LEU:N	1:J:524:LEU:CD1	2.80	0.44
1:L:100:ILE:CD1	1:L:511:ALA:HA	2.44	0.44
1:M:58:ARG:HA	1:M:75:LYS:HE3	1.99	0.44
1:M:384:ALA:O	1:M:385:THR:HG23	2.18	0.44
1:N:287:ALA:O	1:N:290:GLN:HB3	2.17	0.44
1:A:420:ILE:HD12	1:A:451:LEU:HD13	1.99	0.44
1:B:404:ARG:HD2	1:B:408:GLU:OE2	2.17	0.44
1:B:501:ARG:O	1:B:505:GLN:HG3	2.18	0.44
1:C:61:GLU:O	1:D:3:ALA:HA	2.18	0.44
1:C:472:GLY:HA3	1:C:476:TYR:CD2	2.53	0.44
1:E:6:VAL:HG22	1:E:521:VAL:HG22	2.00	0.44
1:F:319:GLN:O	1:F:336:VAL:CG2	2.61	0.44
1:G:413:ALA:HB1	1:G:417:VAL:HG22	1.99	0.44
1:I:74:VAL:CG1	1:I:510:VAL:HG21	2.43	0.44
1:K:222:LEU:HD21	1:K:292:ILE:HB	1.99	0.44
1:K:434:LYS:HZ3	1:K:437:ASN:ND2	2.16	0.44
1:L:223:ALA:HA	1:L:301:ILE:O	2.18	0.44
1:M:16:MET:SD	1:M:514:MET:HG2	2.57	0.44
1:M:166:MET:CE	1:M:171:LYS:HA	2.46	0.44
1:M:247:LEU:O	1:M:273:VAL:HA	2.18	0.44
1:M:469:VAL:CG2	1:M:485:TYR:HE2	2.28	0.44
1:N:513:LEU:HA	1:N:513:LEU:HD23	1.23	0.44
1:A:326:ASN:HB2	1:A:329:THR:H	1.83	0.44
1:B:62:LEU:HD13	1:B:67:GLU:OE1	2.18	0.44
1:B:266:THR:HB	1:B:272:LYS:HA	1.98	0.44
1:D:201:SER:O	1:D:202:PRO:O	2.36	0.44
1:D:241:ALA:HA	1:D:271:VAL:CG2	2.45	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:34:LYS:CG	1:E:458:CYS:SG	3.06	0.44
1:E:56:VAL:O	1:E:60:ILE:HG12	2.18	0.44
1:F:157:THR:HG21	1:F:392:LYS:HZ3	1.83	0.44
1:F:319:GLN:HB3	1:F:336:VAL:HG21	2.00	0.44
1:G:177:VAL:CG1	1:G:397:GLU:CG	2.87	0.44
1:G:195:PHE:CZ	1:G:330:THR:HB	2.53	0.44
1:H:34:LYS:HG3	1:H:458:CYS:SG	2.57	0.44
1:H:202:PRO:C	1:H:204:PHE:N	2.71	0.44
1:H:434:LYS:O	1:H:438:VAL:HG23	2.18	0.44
1:I:191:GLU:O	1:I:334:ASP:HA	2.18	0.44
1:K:230:ILE:HG13	1:K:233:MET:HB2	2.00	0.44
1:M:319:GLN:HB3	1:M:336:VAL:CG2	2.44	0.44
1:A:489:ILE:HG23	1:A:494:LEU:CD2	2.48	0.44
1:C:47:PRO:HG3	1:D:69:MET:HG2	2.00	0.44
1:C:413:ALA:CB	1:C:488:MET:HB2	2.48	0.44
1:E:37:ASN:OD1	1:E:49:ILE:HG22	2.18	0.44
1:E:202:PRO:O	1:E:204:PHE:N	2.38	0.44
1:F:369:VAL:HG23	1:F:370:ALA:N	2.32	0.44
1:G:19:GLY:HA3	1:G:67:GLU:O	2.17	0.44
1:G:136:VAL:HA	1:G:137:PRO:HD3	1.78	0.44
1:J:368:ARG:O	1:J:371:LYS:HB2	2.17	0.44
1:L:227:ILE:HD12	1:L:251:ALA:CB	2.48	0.44
1:L:449:ALA:HB3	1:L:450:PRO:HD3	1.99	0.44
1:M:116:LEU:HD23	1:M:435:ASP:O	2.18	0.44
1:M:240:VAL:HG12	1:M:271:VAL:CG1	2.41	0.44
1:M:524:LEU:O	1:M:525:PRO:OXT	2.36	0.44
1:N:286:LYS:HA	1:N:289:LEU:HD12	2.00	0.44
1:N:465:VAL:HG13	1:N:485:TYR:OH	2.17	0.44
1:A:231:ARG:NH1	1:G:241:ALA:HB1	2.32	0.43
1:C:158:VAL:O	1:C:161:LEU:HB2	2.18	0.43
1:C:225:LYS:HD2	1:C:303:GLU:CG	2.48	0.43
1:C:230:ILE:O	1:C:233:MET:HB2	2.18	0.43
1:C:364:LYS:HA	1:C:367:GLU:CD	2.38	0.43
1:D:18:ARG:O	1:D:22:VAL:HG23	2.18	0.43
1:D:205:ILE:HA	1:D:213:VAL:HG22	2.00	0.43
1:D:222:LEU:HD13	1:D:293:ALA:HB2	1.99	0.43
1:E:63:GLU:HB2	1:F:3:ALA:HB1	2.00	0.43
1:E:115:ASP:O	1:E:436:GLN:HG2	2.18	0.43
1:E:219:PHE:CE2	1:E:245:LYS:HD2	2.53	0.43
1:E:310:GLU:OE1	1:E:310:GLU:N	2.51	0.43
1:E:440:ILE:CG2	1:E:444:LEU:HD11	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:151:SER:HB3	1:F:399:ALA:HA	1.99	0.43
1:F:158:VAL:CG1	1:F:396:VAL:HG22	2.39	0.43
1:F:288:MET:O	1:F:289:LEU:C	2.56	0.43
1:G:364:LYS:O	1:G:367:GLU:HB2	2.17	0.43
1:G:381:VAL:HG12	1:G:382:GLY:H	1.83	0.43
1:H:242:LYS:C	1:H:244:GLY:H	2.21	0.43
1:H:259:LEU:O	1:H:263:VAL:HG23	2.17	0.43
1:H:305:ILE:HD12	1:H:307:MET:HE2	1.99	0.43
1:I:16:MET:CG	1:I:520:MET:SD	3.06	0.43
1:J:47:PRO:CG	1:K:69:MET:HG2	2.47	0.43
1:J:120:ILE:HG23	1:J:443:ALA:HB2	2.00	0.43
1:J:218:PRO:HB3	1:J:246:PRO:HB2	1.99	0.43
1:K:39:VAL:HG12	1:L:69:MET:CE	2.48	0.43
1:K:85:ALA:HB1	1:K:499:VAL:HG12	1.99	0.43
1:K:95:LEU:O	1:K:99:ILE:HG13	2.17	0.43
1:M:192:GLY:C	1:M:376:VAL:HG23	2.38	0.43
1:A:176:THR:CG2	1:A:177:VAL:N	2.81	0.43
1:B:16:MET:CG	1:B:520:MET:SD	3.05	0.43
1:B:450:PRO:O	1:B:451:LEU:C	2.55	0.43
1:D:183:LEU:O	1:D:184:GLN:CB	2.66	0.43
1:D:252:GLU:O	1:D:253:ASP:HB2	2.16	0.43
1:D:336:VAL:O	1:D:336:VAL:HG12	2.18	0.43
1:E:294:THR:CG2	1:E:341:ALA:O	2.67	0.43
1:F:134:LEU:CD2	1:F:475:ASN:HD21	2.31	0.43
1:F:413:ALA:HB2	1:F:475:ASN:HD22	1.82	0.43
1:G:14:VAL:HG23	1:G:15:LYS:N	2.32	0.43
1:G:16:MET:CG	1:G:520:MET:SD	3.07	0.43
1:G:302:SER:N	1:G:307:MET:HE3	2.31	0.43
1:H:281:PHE:HE1	1:N:385:THR:H	1.65	0.43
1:H:440:ILE:CG2	1:H:444:LEU:HD11	2.49	0.43
1:I:504:LEU:HA	1:I:504:LEU:HD12	1.61	0.43
1:L:350:ARG:HA	1:L:353:ILE:CD1	2.48	0.43
1:M:16:MET:HB3	1:M:514:MET:CE	2.48	0.43
1:M:120:ILE:O	1:M:123:ALA:HB3	2.18	0.43
1:N:106:ALA:CB	1:N:111:MET:CE	2.96	0.43
1:B:38:VAL:HG22	1:C:519:CYS:HB3	2.00	0.43
1:B:349:ILE:HB	1:B:369:VAL:HG12	2.00	0.43
1:C:414:GLY:O	1:C:415:GLY:C	2.54	0.43
1:C:465:VAL:HG22	1:C:485:TYR:OH	2.18	0.43
1:D:305:ILE:O	1:D:305:ILE:HG22	2.19	0.43
1:E:420:ILE:CG2	1:E:421:ARG:N	2.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:26:ALA:HB2	1:G:8:PHE:CZ	2.53	0.43
1:F:112:ASN:HA	1:F:113:PRO:HD3	1.82	0.43
1:F:263:VAL:O	1:F:267:MET:HB2	2.19	0.43
1:G:69:MET:O	1:G:73:MET:HE2	2.19	0.43
1:G:174:VAL:HG11	1:G:376:VAL:HG22	2.00	0.43
1:H:112:ASN:HA	1:H:113:PRO:HD3	1.91	0.43
1:I:7:LYS:HD3	1:I:11:ASP:OD2	2.18	0.43
1:I:106:ALA:O	1:I:111:MET:HE3	2.18	0.43
1:I:301:ILE:HA	1:I:307:MET:HE3	2.00	0.43
1:J:449:ALA:N	1:J:450:PRO:CD	2.82	0.43
1:J:487:ASN:C	1:J:491:MET:HE2	2.38	0.43
1:J:496:PRO:HB2	1:J:499:VAL:HG13	2.00	0.43
1:J:522:THR:OG1	1:J:523:ASP:N	2.51	0.43
1:K:200:LEU:CD2	1:K:277:LYS:HG3	2.36	0.43
1:K:218:PRO:HD2	1:K:320:ALA:O	2.18	0.43
1:L:95:LEU:HD23	1:L:95:LEU:HA	1.75	0.43
1:N:300:VAL:O	1:N:307:MET:HE3	2.19	0.43
1:A:23:LEU:HD23	1:A:74:VAL:HG23	2.00	0.43
1:A:198:GLY:HA3	1:A:328:ASP:HA	2.00	0.43
1:A:220:ILE:CD1	1:A:296:THR:HG21	2.45	0.43
1:A:264:VAL:HG12	1:A:265:ASN:N	2.34	0.43
1:B:240:VAL:HG12	1:B:271:VAL:HG11	2.00	0.43
1:B:287:ALA:HB1	1:B:368:ARG:NH1	2.32	0.43
1:B:409:GLU:OE2	1:B:501:ARG:NH2	2.49	0.43
1:C:225:LYS:HD2	1:C:303:GLU:CD	2.38	0.43
1:D:16:MET:O	1:D:20:VAL:HG13	2.18	0.43
1:D:384:ALA:O	1:D:385:THR:CB	2.67	0.43
1:D:409:GLU:HG3	1:D:498:LYS:HB2	2.00	0.43
1:E:183:LEU:O	1:E:184:GLN:HB2	2.17	0.43
1:E:200:LEU:HD13	1:E:254:VAL:HB	1.99	0.43
1:F:287:ALA:HB1	1:F:368:ARG:HH12	1.79	0.43
1:G:132:LYS:O	1:G:135:SER:HB3	2.19	0.43
1:G:233:MET:O	1:G:237:LEU:HG	2.19	0.43
1:G:383:ALA:O	1:G:384:ALA:CB	2.63	0.43
1:J:142:LYS:O	1:J:146:GLN:HG3	2.18	0.43
1:J:220:ILE:CD1	1:J:296:THR:HG21	2.48	0.43
1:J:454:ILE:O	1:J:457:ASN:HB2	2.19	0.43
1:K:461:GLU:HA	1:K:462:PRO:HD3	1.88	0.43
1:L:195:PHE:CG	1:L:279:PRO:HG3	2.45	0.43
1:M:265:ASN:HA	1:M:270:ILE:HD12	2.00	0.43
1:N:90:THR:O	1:N:94:VAL:HG13	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:202:PRO:O	1:N:204:PHE:N	2.45	0.43
1:A:165:ALA:HA	1:A:187:LEU:HD21	2.00	0.43
1:B:345:ARG:CA	1:B:348:GLN:HE21	2.25	0.43
1:D:57:ALA:C	1:D:75:LYS:HE3	2.38	0.43
1:F:183:LEU:O	1:F:184:GLN:HB2	2.19	0.43
1:G:26:ALA:O	1:G:29:VAL:HG22	2.18	0.43
1:G:100:ILE:HG23	1:G:104:LEU:CD1	2.49	0.43
1:G:262:LEU:HD23	1:G:262:LEU:HA	1.85	0.43
1:H:240:VAL:HG21	1:H:247:LEU:HD13	2.00	0.43
1:H:350:ARG:HA	1:H:353:ILE:HD12	2.01	0.43
1:I:343:GLN:HE22	1:I:346:VAL:CG1	2.31	0.43
1:L:17:LEU:HD12	1:L:20:VAL:HG22	1.99	0.43
1:M:46:ALA:HA	1:M:47:PRO:HD3	1.80	0.43
1:B:230:ILE:HG13	1:B:233:MET:HB2	2.00	0.43
1:B:289:LEU:HD23	1:B:289:LEU:HA	1.74	0.43
1:C:201:SER:O	1:C:204:PHE:CD2	2.72	0.43
1:C:252:GLU:HG3	1:C:285:ARG:NH1	2.33	0.43
1:D:123:ALA:HA	1:D:429:LEU:HD21	2.01	0.43
1:G:349:ILE:CG2	1:G:369:VAL:CG1	2.96	0.43
1:G:513:LEU:HD23	1:G:513:LEU:HA	1.63	0.43
1:H:30:THR:HG22	1:H:36:ARG:O	2.19	0.43
1:H:155:ASP:CB	1:H:395:ARG:NH1	2.80	0.43
1:H:213:VAL:HB	1:H:325:ILE:HB	2.01	0.43
1:H:240:VAL:HG11	1:H:247:LEU:HB2	2.00	0.43
1:I:461:GLU:HA	1:I:462:PRO:HD3	1.81	0.43
1:J:65:LYS:HA	1:J:68:ASN:HB3	2.01	0.43
1:K:106:ALA:HA	1:K:111:MET:HE3	2.01	0.43
1:L:14:VAL:HG23	1:L:15:LYS:N	2.33	0.43
1:M:369:VAL:HG23	1:M:370:ALA:N	2.33	0.43
1:N:366:GLN:HA	1:N:369:VAL:CG2	2.46	0.43
1:A:84:ALA:O	1:A:498:LYS:HE2	2.19	0.43
1:A:118:ARG:HH22	1:G:34:LYS:HE2	1.84	0.43
1:A:242:LYS:O	1:A:243:ALA:HB3	2.18	0.43
1:B:26:ALA:HA	1:C:8:PHE:CE2	2.53	0.43
1:C:62:LEU:HD13	1:C:67:GLU:HB3	2.00	0.43
1:C:106:ALA:CB	1:C:111:MET:HE3	2.48	0.43
1:C:440:ILE:O	1:C:444:LEU:HD12	2.18	0.43
1:D:39:VAL:HG12	1:E:69:MET:HE2	1.94	0.43
1:D:120:ILE:HG12	1:D:439:GLY:O	2.18	0.43
1:D:199:TYR:CZ	1:D:327:LYS:HA	2.53	0.43
1:E:195:PHE:CG	1:E:279:PRO:HG3	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:227:ILE:HG12	1:E:309:LEU:HD11	2.01	0.43
1:E:438:VAL:O	1:E:439:GLY:C	2.57	0.43
1:F:184:GLN:H	1:F:382:GLY:HA3	1.84	0.43
1:F:299:THR:HG22	1:F:300:VAL:O	2.18	0.43
1:G:151:SER:HB2	1:G:399:ALA:HA	2.00	0.43
1:I:197:ARG:HD2	1:I:277:LYS:HB2	2.01	0.43
1:I:451:LEU:C	1:I:451:LEU:CD2	2.86	0.43
1:J:350:ARG:HA	1:J:353:ILE:CD1	2.49	0.43
1:K:227:ILE:HG12	1:K:309:LEU:HD11	2.01	0.43
1:K:468:THR:CG2	1:K:485:TYR:CE2	3.02	0.43
1:L:201:SER:C	1:L:202:PRO:O	2.54	0.43
1:L:390:LYS:O	1:L:393:LYS:HB3	2.19	0.43
1:M:6:VAL:HA	1:M:520:MET:O	2.19	0.43
1:M:73:MET:O	1:M:77:VAL:HG23	2.17	0.43
1:M:346:VAL:HG13	1:M:350:ARG:NH2	2.34	0.43
1:N:54:VAL:HG22	1:N:89:THR:CB	2.43	0.43
1:N:65:LYS:HB3	1:N:522:THR:HG21	2.00	0.43
1:B:20:VAL:HG12	1:B:70:GLY:O	2.19	0.43
1:D:28:LYS:HD2	1:D:453:GLN:CD	2.38	0.43
1:E:131:LEU:CD1	1:E:422:VAL:HG21	2.49	0.43
1:E:305:ILE:HD12	1:E:307:MET:CE	2.49	0.43
1:F:199:TYR:CZ	1:F:327:LYS:HA	2.54	0.43
1:G:225:LYS:HB2	1:G:303:GLU:OE2	2.19	0.43
1:H:228:SER:HB3	1:N:272:LYS:HZ3	1.84	0.43
1:I:39:VAL:CG1	1:I:47:PRO:HB2	2.48	0.43
1:I:384:ALA:CA	1:J:360:TYR:OH	2.67	0.43
1:J:74:VAL:HG12	1:J:510:VAL:CG2	2.49	0.43
1:J:513:LEU:HD23	1:J:513:LEU:HA	1.58	0.43
1:K:13:ARG:HA	1:K:16:MET:CE	2.49	0.43
1:L:40:LEU:CD1	1:L:56:VAL:HA	2.44	0.43
1:M:417:VAL:CG2	1:M:488:MET:HG3	2.44	0.43
1:N:16:MET:CG	1:N:520:MET:SD	3.04	0.43
1:A:366:GLN:HA	1:A:369:VAL:CG2	2.49	0.43
1:C:193:MET:HG2	1:C:194:GLN:N	2.34	0.43
1:C:433:ASN:OD1	1:C:436:GLN:HG3	2.18	0.43
1:D:158:VAL:HG13	1:D:396:VAL:HG22	2.00	0.43
1:D:420:ILE:HD13	1:D:451:LEU:HD13	2.01	0.43
1:E:115:ASP:HB3	1:E:436:GLN:HG2	2.01	0.43
1:E:202:PRO:O	1:E:203:TYR:HB2	2.19	0.43
1:E:325:ILE:HG12	1:E:330:THR:HG23	2.00	0.43
1:G:4:LYS:HD3	1:G:523:ASP:OD1	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:169:VAL:CG2	1:H:173:GLY:HA3	2.48	0.43
1:I:56:VAL:O	1:I:60:ILE:HG12	2.18	0.43
1:I:234:LEU:HB2	1:I:235:PRO:CD	2.48	0.43
1:I:351:GLN:O	1:I:351:GLN:HG2	2.18	0.43
1:J:66:PHE:O	1:J:67:GLU:C	2.56	0.43
1:J:151:SER:HB3	1:J:399:ALA:HA	1.99	0.43
1:J:183:LEU:CG	1:J:384:ALA:HB2	2.48	0.43
1:J:400:LEU:HD12	1:J:400:LEU:HA	1.74	0.43
1:J:496:PRO:O	1:J:499:VAL:HG22	2.18	0.43
1:K:287:ALA:CB	1:K:368:ARG:NH1	2.78	0.43
1:L:365:LEU:CD2	1:L:368:ARG:HH21	2.32	0.43
1:M:6:VAL:CG1	1:M:519:CYS:SG	3.06	0.43
1:M:239:ALA:HB1	1:M:314:LEU:HG	1.99	0.43
1:N:46:ALA:HA	1:N:47:PRO:HD3	1.75	0.43
1:B:186:GLU:HB2	1:B:380:LYS:HB2	2.00	0.43
1:B:305:ILE:O	1:B:305:ILE:CG2	2.64	0.43
1:B:437:ASN:HA	1:B:440:ILE:HD12	2.01	0.43
1:C:17:LEU:HD13	1:C:100:ILE:HG22	2.00	0.43
1:D:413:ALA:HB3	1:D:417:VAL:CG2	2.48	0.43
1:D:468:THR:HG21	1:D:485:TYR:CE2	2.53	0.43
1:E:69:MET:HE1	1:E:521:VAL:O	2.19	0.43
1:E:112:ASN:N	1:E:435:ASP:OD2	2.42	0.43
1:F:56:VAL:O	1:F:60:ILE:HG12	2.18	0.43
1:H:227:ILE:O	1:H:254:VAL:HG13	2.19	0.43
1:J:414:GLY:N	1:J:494:LEU:HA	2.34	0.43
1:K:384:ALA:O	1:K:385:THR:CB	2.66	0.43
1:L:144:ILE:HD13	1:L:166:MET:SD	2.59	0.43
1:L:456:LEU:HA	1:L:456:LEU:HD12	1.77	0.43
1:M:349:ILE:HB	1:M:369:VAL:HG12	2.00	0.43
1:N:320:ALA:HB1	1:N:334:ASP:O	2.18	0.43
1:A:392:LYS:CG	1:A:395:ARG:HH22	2.32	0.42
1:B:28:LYS:HD2	1:B:453:GLN:CD	2.40	0.42
1:D:39:VAL:HG13	1:D:47:PRO:HB2	2.01	0.42
1:D:479:ASN:HB2	1:D:491:MET:SD	2.59	0.42
1:E:476:TYR:CE1	1:E:485:TYR:HB3	2.54	0.42
1:F:136:VAL:HA	1:F:137:PRO:HD3	1.84	0.42
1:H:180:GLY:HA3	1:H:381:VAL:O	2.19	0.42
1:H:230:ILE:HG22	1:H:257:GLU:CD	2.39	0.42
1:H:445:ARG:HA	1:H:448:GLU:OE2	2.19	0.42
1:I:230:ILE:O	1:I:234:LEU:HG	2.18	0.42
1:I:253:ASP:OD2	1:I:277:LYS:HE2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:339:GLU:O	1:I:343:GLN:HB2	2.19	0.42
1:J:38:VAL:HG21	1:J:56:VAL:HG21	2.01	0.42
1:J:417:VAL:HA	1:J:451:LEU:HD12	2.01	0.42
1:J:461:GLU:HA	1:J:462:PRO:HD3	1.66	0.42
1:K:360:TYR:CE1	1:K:364:LYS:CE	3.02	0.42
1:L:16:MET:SD	1:L:514:MET:CE	3.07	0.42
1:L:230:ILE:HA	1:L:233:MET:CG	2.49	0.42
1:M:37:ASN:HB3	1:M:49:ILE:HG23	2.00	0.42
1:M:120:ILE:O	1:M:124:VAL:HG23	2.19	0.42
1:M:219:PHE:HB3	1:M:317:LEU:HD23	2.01	0.42
1:M:288:MET:O	1:M:291:ASP:HB2	2.19	0.42
1:A:8:PHE:HE2	1:G:26:ALA:CA	2.30	0.42
1:A:72:GLN:HB3	1:G:46:ALA:HA	2.00	0.42
1:A:489:ILE:HD13	1:A:494:LEU:HB3	2.00	0.42
1:C:131:LEU:HD13	1:C:422:VAL:HG21	1.99	0.42
1:E:349:ILE:HG21	1:E:369:VAL:HG13	2.01	0.42
1:F:138:CYS:SG	1:F:147:VAL:CG2	3.07	0.42
1:F:201:SER:C	1:F:202:PRO:O	2.56	0.42
1:F:524:LEU:HA	1:F:525:PRO:HD3	1.80	0.42
1:G:17:LEU:HD12	1:G:20:VAL:HG22	2.02	0.42
1:H:467:ASN:HA	1:H:470:LYS:HD2	2.01	0.42
1:I:401:HIS:O	1:I:404:ARG:HB2	2.20	0.42
1:I:476:TYR:CZ	1:I:485:TYR:HB3	2.54	0.42
1:J:153:ASN:O	1:J:154:SER:HB2	2.20	0.42
1:K:57:ALA:O	1:K:75:LYS:CE	2.48	0.42
1:K:230:ILE:HG13	1:K:233:MET:CB	2.48	0.42
1:K:230:ILE:HG13	1:K:233:MET:HG3	2.00	0.42
1:L:46:ALA:HA	1:L:47:PRO:HD3	1.72	0.42
1:M:25:ASP:HA	1:M:28:LYS:HE2	1.99	0.42
1:M:449:ALA:N	1:M:450:PRO:CD	2.82	0.42
1:M:475:ASN:HB3	1:M:489:ILE:HG12	2.01	0.42
1:B:125:THR:O	1:B:129:GLU:OE1	2.37	0.42
1:B:127:ALA:HA	1:B:426:LEU:HD11	2.00	0.42
1:B:155:ASP:O	1:B:156:GLU:C	2.56	0.42
1:C:151:SER:HB2	1:C:399:ALA:HA	2.00	0.42
1:C:348:GLN:O	1:C:352:GLN:HG3	2.20	0.42
1:D:19:GLY:HA3	1:D:67:GLU:O	2.19	0.42
1:D:115:ASP:O	1:D:436:GLN:HG2	2.19	0.42
1:D:482:THR:O	1:D:483:GLU:HB2	2.19	0.42
1:E:54:VAL:HG22	1:E:89:THR:HB	2.02	0.42
1:E:464:VAL:HG23	1:K:463:SER:HB3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:217:SER:N	1:G:218:PRO:CD	2.82	0.42
1:G:225:LYS:HE2	1:G:226:LYS:O	2.18	0.42
1:G:262:LEU:O	1:G:266:THR:HG23	2.19	0.42
1:H:161:LEU:HD23	1:H:161:LEU:HA	1.76	0.42
1:J:141:SER:HA	1:J:144:ILE:HB	2.01	0.42
1:J:266:THR:HG21	1:J:273:VAL:HB	2.01	0.42
1:K:220:ILE:CD1	1:K:296:THR:HG21	2.49	0.42
1:K:386:GLU:CD	1:L:197:ARG:HH22	2.22	0.42
1:L:284:ARG:HH12	1:L:364:LYS:HZ2	1.64	0.42
1:L:288:MET:O	1:L:292:ILE:HD12	2.19	0.42
1:L:386:GLU:O	1:L:387:VAL:C	2.56	0.42
1:M:130:GLU:O	1:M:134:LEU:HB2	2.19	0.42
1:N:36:ARG:HG3	1:N:36:ARG:HH11	1.83	0.42
1:N:449:ALA:HB3	1:N:450:PRO:HD3	2.01	0.42
1:A:321:LYS:HG3	1:A:334:ASP:OD2	2.20	0.42
1:A:338:GLU:O	1:A:341:ALA:N	2.53	0.42
1:A:516:THR:O	1:G:37:ASN:CB	2.68	0.42
1:B:200:LEU:O	1:B:201:SER:CB	2.66	0.42
1:B:413:ALA:CB	1:B:417:VAL:HG22	2.49	0.42
1:C:151:SER:HB3	1:C:399:ALA:HA	2.01	0.42
1:C:183:LEU:HD22	1:C:183:LEU:C	2.40	0.42
1:C:216:GLU:C	1:C:218:PRO:HD3	2.37	0.42
1:D:131:LEU:HD21	1:D:500:THR:CG2	2.50	0.42
1:D:294:THR:O	1:D:337:GLY:HA3	2.19	0.42
1:D:390:LYS:O	1:D:393:LYS:HB3	2.18	0.42
1:G:92:ALA:HA	1:G:503:ALA:HB1	2.01	0.42
1:G:161:LEU:O	1:G:164:GLU:HB2	2.20	0.42
1:G:489:ILE:HG23	1:G:494:LEU:HD23	2.01	0.42
1:I:34:LYS:CG	1:I:458:CYS:SG	3.07	0.42
1:I:231:ARG:HA	1:I:234:LEU:HD11	2.01	0.42
1:J:326:ASN:HB2	1:J:329:THR:H	1.84	0.42
1:J:468:THR:CG2	1:J:485:TYR:CE2	3.02	0.42
1:K:120:ILE:O	1:K:123:ALA:HB3	2.19	0.42
1:M:124:VAL:O	1:M:128:VAL:HG23	2.18	0.42
1:M:142:LYS:O	1:M:146:GLN:HG3	2.18	0.42
1:M:225:LYS:HE2	1:M:226:LYS:O	2.18	0.42
1:A:112:ASN:HA	1:A:113:PRO:HD3	1.92	0.42
1:A:366:GLN:O	1:A:369:VAL:HG22	2.19	0.42
1:A:518:GLU:CG	1:G:36:ARG:HG3	2.48	0.42
1:B:515:ILE:O	1:B:515:ILE:CG2	2.65	0.42
1:D:230:ILE:HD13	1:D:261:THR:HG21	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:385:THR:H	1:E:281:PHE:HE1	1.68	0.42
1:E:202:PRO:C	1:E:204:PHE:N	2.73	0.42
1:F:234:LEU:N	1:F:235:PRO:HD2	2.35	0.42
1:F:262:LEU:O	1:F:266:THR:CG2	2.60	0.42
1:F:383:ALA:O	1:F:384:ALA:CB	2.67	0.42
1:G:342:ILE:O	1:G:346:VAL:HG23	2.19	0.42
1:G:348:GLN:O	1:G:352:GLN:HG3	2.19	0.42
1:J:13:ARG:NH1	1:J:518:GLU:OE2	2.51	0.42
1:J:193:MET:HG2	1:J:194:GLN:N	2.35	0.42
1:L:320:ALA:HB2	1:L:335:GLY:HA2	2.00	0.42
1:M:3:ALA:CB	1:M:524:LEU:HD22	2.49	0.42
1:M:13:ARG:HD2	1:M:104:LEU:CD2	2.37	0.42
1:M:169:VAL:HG23	1:M:173:GLY:HA3	2.01	0.42
1:N:31:LEU:HD12	1:N:31:LEU:HA	1.77	0.42
1:N:452:ARG:NH1	1:N:463:SER:HA	2.34	0.42
1:N:453:GLN:NE2	1:N:456:LEU:HD23	2.34	0.42
1:A:29:VAL:HB	1:A:36:ARG:HB2	2.01	0.42
1:C:28:LYS:HB2	1:C:453:GLN:HG2	2.01	0.42
1:C:524:LEU:HD12	1:C:524:LEU:HA	1.61	0.42
1:E:326:ASN:HB3	1:E:327:LYS:H	1.74	0.42
1:E:372:LEU:N	1:E:372:LEU:CD1	2.82	0.42
1:F:372:LEU:HD12	1:F:372:LEU:N	2.34	0.42
1:G:270:ILE:O	1:G:271:VAL:O	2.37	0.42
1:H:18:ARG:HG2	1:H:67:GLU:OE1	2.18	0.42
1:H:38:VAL:HG21	1:H:56:VAL:HG21	2.00	0.42
1:J:116:LEU:HD23	1:J:435:ASP:O	2.20	0.42
1:J:383:ALA:O	1:J:384:ALA:CB	2.55	0.42
1:K:317:LEU:N	1:K:317:LEU:CD1	2.83	0.42
1:K:419:LEU:HD13	1:K:450:PRO:HG2	2.01	0.42
1:L:16:MET:HG2	1:L:73:MET:CE	2.50	0.42
1:M:177:VAL:CG1	1:M:397:GLU:HG3	2.50	0.42
1:N:36:ARG:HA	1:N:36:ARG:HD3	1.62	0.42
1:A:16:MET:SD	1:A:73:MET:HE1	2.60	0.42
1:A:343:GLN:NE2	1:A:346:VAL:HG11	2.34	0.42
1:B:489:ILE:HG23	1:B:489:ILE:HD12	1.60	0.42
1:C:235:PRO:HG2	1:C:236:VAL:H	1.84	0.42
1:C:440:ILE:O	1:C:444:LEU:HG	2.20	0.42
1:C:463:SER:O	1:C:467:ASN:HB2	2.20	0.42
1:E:139:SER:CA	1:E:171:LYS:HZ1	2.32	0.42
1:G:406:ALA:O	1:G:410:GLY:N	2.49	0.42
1:J:225:LYS:HD2	1:J:303:GLU:CG	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:301:ILE:HG23	1:K:307:MET:HB3	2.01	0.42
1:L:25:ASP:OD1	1:L:28:LYS:CE	2.66	0.42
1:L:98:ALA:HB3	1:L:446:ALA:HB1	2.01	0.42
1:M:230:ILE:HD13	1:M:261:THR:HG21	1.98	0.42
1:M:230:ILE:HD12	1:M:261:THR:HB	2.01	0.42
1:M:349:ILE:HB	1:M:369:VAL:CG1	2.49	0.42
1:M:433:ASN:OD1	1:M:436:GLN:HG3	2.20	0.42
1:A:27:VAL:HG21	1:A:57:ALA:HB2	2.02	0.42
1:A:230:ILE:N	1:A:257:GLU:OE1	2.40	0.42
1:A:343:GLN:HE22	1:A:346:VAL:HG11	1.84	0.42
1:A:360:TYR:CE1	1:A:364:LYS:HE2	2.55	0.42
1:B:478:TYR:O	1:B:488:MET:CE	2.67	0.42
1:D:343:GLN:HG3	1:D:343:GLN:O	2.20	0.42
1:D:466:ALA:O	1:D:470:LYS:HG3	2.19	0.42
1:E:7:LYS:HE3	1:E:15:LYS:HE3	2.02	0.42
1:E:183:LEU:HB2	1:E:384:ALA:HB2	2.02	0.42
1:E:414:GLY:N	1:E:494:LEU:HA	2.35	0.42
1:F:151:SER:HB2	1:F:399:ALA:CB	2.49	0.42
1:F:221:LEU:HA	1:F:221:LEU:HD12	1.78	0.42
1:G:174:VAL:CG1	1:G:376:VAL:HG22	2.50	0.42
1:H:32:GLY:HA2	1:H:33:PRO:HD3	1.70	0.42
1:H:78:ALA:HB1	1:H:89:THR:HG23	2.01	0.42
1:H:203:TYR:CB	1:H:263:VAL:HG13	2.49	0.42
1:H:384:ALA:O	1:H:385:THR:HG23	2.19	0.42
1:I:201:SER:C	1:I:202:PRO:O	2.58	0.42
1:I:252:GLU:O	1:I:253:ASP:HB2	2.20	0.42
1:J:17:LEU:HA	1:J:20:VAL:HG22	2.02	0.42
1:J:46:ALA:HA	1:J:47:PRO:HD3	1.91	0.42
1:J:105:LYS:O	1:J:108:ALA:HB3	2.20	0.42
1:J:284:ARG:NH1	1:J:364:LYS:HZ2	2.16	0.42
1:K:515:ILE:O	1:K:515:ILE:HG22	2.18	0.42
1:N:392:LYS:HG3	1:N:395:ARG:HH21	1.80	0.42
1:A:39:VAL:CG1	1:A:47:PRO:HB2	2.50	0.42
1:A:192:GLY:C	1:A:376:VAL:HG23	2.40	0.42
1:B:87:ASP:CG	1:B:88:GLY:N	2.73	0.42
1:B:420:ILE:HG13	1:B:448:GLU:HG2	2.02	0.42
1:B:478:TYR:OH	1:B:483:GLU:CA	2.68	0.42
1:C:113:PRO:HA	1:C:116:LEU:HD12	2.02	0.42
1:C:190:VAL:HG21	1:C:334:ASP:HB2	2.02	0.42
1:C:203:TYR:HB2	1:C:263:VAL:HG13	2.02	0.42
1:C:434:LYS:O	1:C:438:VAL:HG23	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:131:LEU:HD12	1:D:422:VAL:CG2	2.46	0.42
1:D:288:MET:O	1:D:291:ASP:HB2	2.20	0.42
1:D:370:ALA:O	1:D:374:GLY:HA3	2.20	0.42
1:E:184:GLN:H	1:E:382:GLY:CA	2.21	0.42
1:F:26:ALA:CA	1:G:8:PHE:HE2	2.33	0.42
1:F:120:ILE:HG21	1:F:120:ILE:HD13	1.81	0.42
1:F:223:ALA:HB2	1:F:309:LEU:HD21	2.02	0.42
1:G:4:LYS:C	1:G:524:LEU:CD1	2.88	0.42
1:G:100:ILE:CG2	1:G:104:LEU:CD1	2.98	0.42
1:G:403:THR:O	1:G:406:ALA:HB3	2.20	0.42
1:H:384:ALA:O	1:H:385:THR:CB	2.68	0.42
1:I:69:MET:O	1:I:70:GLY:C	2.56	0.42
1:I:166:MET:HG2	1:I:175:ILE:HD11	2.01	0.42
1:J:230:ILE:HB	1:J:258:ALA:HA	2.01	0.42
1:K:26:ALA:HB2	1:L:8:PHE:CZ	2.53	0.42
1:L:147:VAL:HG12	1:L:403:THR:OG1	2.19	0.42
1:L:217:SER:N	1:L:218:PRO:CD	2.82	0.42
1:L:222:LEU:HD13	1:L:293:ALA:HA	2.02	0.42
1:N:37:ASN:HB3	1:N:49:ILE:HG23	2.01	0.42
1:N:247:LEU:CD2	1:N:249:ILE:HD11	2.50	0.42
1:A:54:VAL:HG22	1:A:89:THR:CG2	2.50	0.42
1:A:115:ASP:HB3	1:A:436:GLN:CG	2.49	0.42
1:A:161:LEU:O	1:A:164:GLU:HB2	2.19	0.42
1:A:468:THR:CG2	1:A:485:TYR:CE2	3.03	0.42
1:B:230:ILE:O	1:B:234:LEU:HG	2.20	0.42
1:C:14:VAL:HG23	1:C:15:LYS:N	2.35	0.42
1:C:36:ARG:HG3	1:D:518:GLU:CG	2.50	0.42
1:C:364:LYS:HD3	1:C:367:GLU:OE2	2.20	0.42
1:D:195:PHE:HE1	1:D:332:ILE:HD11	1.85	0.42
1:E:199:TYR:HA	1:E:276:VAL:HG12	2.02	0.42
1:E:247:LEU:O	1:E:273:VAL:HA	2.19	0.42
1:E:459:GLY:HA3	1:F:112:ASN:ND2	2.35	0.42
1:G:176:THR:HG22	1:G:177:VAL:N	2.35	0.42
1:H:23:LEU:HD23	1:H:74:VAL:CG2	2.49	0.42
1:H:383:ALA:O	1:H:384:ALA:CB	2.68	0.42
1:J:131:LEU:HD12	1:J:422:VAL:CG2	2.48	0.42
1:J:132:LYS:O	1:J:135:SER:HB3	2.20	0.42
1:J:220:ILE:HD12	1:J:296:THR:HG21	2.01	0.42
1:J:305:ILE:HD12	1:J:307:MET:CE	2.49	0.42
1:J:367:GLU:O	1:J:370:ALA:HB3	2.19	0.42
1:L:69:MET:O	1:L:73:MET:HE2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:479:ASN:OD1	1:L:493:ILE:HD11	2.19	0.42
1:M:3:ALA:HB1	1:M:524:LEU:HD22	2.02	0.42
1:M:134:LEU:O	1:M:134:LEU:HD23	2.20	0.42
1:M:248:LEU:HD22	1:M:323:VAL:HG11	2.01	0.42
1:N:74:VAL:O	1:N:78:ALA:HB2	2.20	0.42
1:N:178:GLU:HG2	1:N:322:ARG:NH1	2.34	0.42
1:A:16:MET:HG3	1:A:520:MET:SD	2.60	0.41
1:A:262:LEU:HA	1:A:262:LEU:HD23	1.82	0.41
1:B:413:ALA:O	1:B:418:ALA:HB2	2.20	0.41
1:B:478:TYR:OH	1:B:483:GLU:HB3	2.20	0.41
1:D:242:LYS:C	1:D:244:GLY:N	2.71	0.41
1:D:345:ARG:O	1:D:348:GLN:HB2	2.20	0.41
1:E:155:ASP:CB	1:E:395:ARG:NH1	2.83	0.41
1:F:10:ASN:CA	1:F:13:ARG:HH21	2.32	0.41
1:F:39:VAL:HG13	1:F:47:PRO:CB	2.50	0.41
1:F:389:MET:C	1:F:389:MET:SD	2.99	0.41
1:F:434:LYS:NZ	1:F:437:ASN:HD22	2.17	0.41
1:F:460:GLU:O	1:F:462:PRO:HD3	2.19	0.41
1:G:46:ALA:HA	1:G:47:PRO:HD3	1.77	0.41
1:H:326:ASN:HB3	1:H:327:LYS:H	1.70	0.41
1:H:499:VAL:HG23	1:H:500:THR:N	2.35	0.41
1:I:201:SER:O	1:I:202:PRO:O	2.38	0.41
1:I:207:LYS:HZ1	1:I:390:LYS:NZ	2.18	0.41
1:I:321:LYS:HD2	1:I:334:ASP:OD2	2.19	0.41
1:J:162:ILE:HD11	1:J:399:ALA:HB3	2.02	0.41
1:J:207:LYS:HA	1:J:208:PRO:HD2	1.85	0.41
1:J:247:LEU:HD21	1:J:249:ILE:HD11	2.02	0.41
1:J:366:GLN:HA	1:J:369:VAL:HG22	2.01	0.41
1:J:478:TYR:CE1	1:J:483:GLU:HA	2.55	0.41
1:J:501:ARG:O	1:J:505:GLN:HG3	2.19	0.41
1:K:242:LYS:C	1:K:244:GLY:H	2.23	0.41
1:M:8:PHE:CE1	1:M:519:CYS:SG	3.05	0.41
1:M:434:LYS:HD3	1:M:434:LYS:HA	1.78	0.41
1:A:123:ALA:HB2	1:A:440:ILE:HG23	2.01	0.41
1:A:222:LEU:HD23	1:A:250:ILE:HB	2.02	0.41
1:C:150:ILE:CD1	1:C:494:LEU:HD21	2.50	0.41
1:C:202:PRO:O	1:C:204:PHE:N	2.49	0.41
1:C:225:LYS:HB3	1:C:303:GLU:HG3	2.02	0.41
1:D:100:ILE:HA	1:D:515:ILE:HD11	2.02	0.41
1:E:346:VAL:O	1:E:350:ARG:HB2	2.20	0.41
1:H:56:VAL:O	1:H:57:ALA:C	2.58	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:123:ALA:HB2	1:I:440:ILE:HG23	2.01	0.41
1:I:254:VAL:O	1:I:259:LEU:HD22	2.19	0.41
1:J:433:ASN:CG	1:J:436:GLN:HG3	2.40	0.41
1:K:100:ILE:HD13	1:K:100:ILE:HG21	1.85	0.41
1:K:183:LEU:HB3	1:L:360:TYR:CE2	2.55	0.41
1:K:233:MET:O	1:K:234:LEU:C	2.57	0.41
1:L:18:ARG:O	1:L:18:ARG:HG3	2.15	0.41
1:M:138:CYS:O	1:M:407:VAL:HG22	2.19	0.41
1:N:166:MET:HE3	1:N:407:VAL:HG21	2.01	0.41
1:A:201:SER:O	1:A:202:PRO:O	2.38	0.41
1:A:219:PHE:HB3	1:A:317:LEU:HD23	2.02	0.41
1:A:278:ALA:HA	1:A:279:PRO:HD3	1.81	0.41
1:B:169:VAL:HG21	1:B:175:ILE:HG13	2.02	0.41
1:B:321:LYS:HD2	1:B:334:ASP:OD2	2.20	0.41
1:B:513:LEU:HA	1:B:513:LEU:HD23	1.60	0.41
1:E:139:SER:CB	1:E:171:LYS:NZ	2.83	0.41
1:E:417:VAL:HG21	1:E:488:MET:HG3	2.01	0.41
1:F:30:THR:HB	1:F:51:LYS:O	2.19	0.41
1:F:120:ILE:HG12	1:F:443:ALA:HB2	2.02	0.41
1:F:449:ALA:HB3	1:F:450:PRO:HD3	2.03	0.41
1:G:201:SER:HB3	1:G:204:PHE:CE2	2.55	0.41
1:J:151:SER:HB2	1:J:399:ALA:HA	2.01	0.41
1:J:152:ALA:O	1:J:153:ASN:CB	2.67	0.41
1:L:201:SER:O	1:L:202:PRO:O	2.37	0.41
1:M:18:ARG:O	1:M:22:VAL:HG23	2.21	0.41
1:N:266:THR:CG2	1:N:273:VAL:H	2.33	0.41
1:N:414:GLY:C	1:N:416:GLY:N	2.73	0.41
1:A:103:GLY:HA3	1:A:515:ILE:HD13	2.01	0.41
1:A:158:VAL:CG2	1:A:395:ARG:HH12	2.32	0.41
1:C:11:ASP:O	1:C:14:VAL:HG22	2.21	0.41
1:C:324:VAL:HB	1:C:331:THR:HG23	2.01	0.41
1:D:166:MET:HE2	1:D:171:LYS:HA	2.02	0.41
1:E:220:ILE:C	1:E:317:LEU:HG	2.40	0.41
1:E:461:GLU:HA	1:E:462:PRO:HD3	1.89	0.41
1:F:224:ASP:HB3	1:F:302:SER:CA	2.49	0.41
1:H:142:LYS:HE2	1:H:146:GLN:OE1	2.19	0.41
1:H:308:GLU:HB2	1:H:311:LYS:HG3	2.02	0.41
1:J:88:GLY:O	1:J:89:THR:C	2.56	0.41
1:K:152:ALA:O	1:K:153:ASN:HB3	2.20	0.41
1:K:190:VAL:HG21	1:K:334:ASP:HB2	2.03	0.41
1:K:269:GLY:CA	1:L:257:GLU:HB2	2.31	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:342:ILE:O	1:K:346:VAL:HG23	2.20	0.41
1:M:245:LYS:HA	1:M:246:PRO:HD3	1.62	0.41
1:N:349:ILE:HG12	1:N:368:ARG:NH2	2.35	0.41
1:A:10:ASN:HA	1:A:13:ARG:NH1	2.36	0.41
1:A:350:ARG:O	1:A:353:ILE:HB	2.19	0.41
1:A:479:ASN:C	1:A:479:ASN:OD1	2.59	0.41
1:B:183:LEU:O	1:B:184:GLN:HB2	2.19	0.41
1:B:207:LYS:NZ	1:B:390:LYS:NZ	2.69	0.41
1:C:383:ALA:O	1:C:384:ALA:CB	2.63	0.41
1:D:225:LYS:HE3	1:D:225:LYS:HB2	1.96	0.41
1:D:240:VAL:HG21	1:D:247:LEU:HD13	2.03	0.41
1:E:300:VAL:O	1:E:307:MET:HE1	2.20	0.41
1:F:124:VAL:HG21	1:F:508:ALA:CB	2.51	0.41
1:G:113:PRO:C	1:G:516:THR:HG22	2.41	0.41
1:G:195:PHE:CE2	1:G:330:THR:HB	2.56	0.41
1:H:293:ALA:O	1:H:297:GLY:N	2.54	0.41
1:I:72:GLN:OE1	1:I:75:LYS:HD3	2.20	0.41
1:I:193:MET:HG2	1:I:194:GLN:H	1.86	0.41
1:J:23:LEU:O	1:J:27:VAL:HG23	2.21	0.41
1:J:227:ILE:HG12	1:J:309:LEU:HD11	2.02	0.41
1:J:386:GLU:O	1:J:387:VAL:C	2.57	0.41
1:K:59:GLU:OE1	1:L:4:LYS:HE2	2.21	0.41
1:L:157:THR:HG21	1:L:392:LYS:CE	2.51	0.41
1:L:240:VAL:HG21	1:L:247:LEU:HD13	2.01	0.41
1:M:228:SER:O	1:M:257:GLU:HB3	2.20	0.41
1:M:295:LEU:HA	1:M:342:ILE:HG12	2.03	0.41
1:A:342:ILE:HD13	1:A:342:ILE:HG21	1.88	0.41
1:A:524:LEU:HA	1:A:525:PRO:HD3	1.95	0.41
1:C:116:LEU:HD23	1:C:435:ASP:O	2.20	0.41
1:E:201:SER:O	1:E:204:PHE:CD2	2.74	0.41
1:E:509:SER:O	1:E:513:LEU:HG	2.20	0.41
1:F:420:ILE:HD13	1:F:420:ILE:HG21	1.87	0.41
1:I:448:GLU:O	1:I:449:ALA:C	2.57	0.41
1:K:291:ASP:HB3	1:K:372:LEU:HD11	2.01	0.41
1:L:183:LEU:HD13	1:L:183:LEU:C	2.40	0.41
1:L:230:ILE:HB	1:L:258:ALA:HA	2.03	0.41
1:L:295:LEU:HB2	1:L:372:LEU:HD11	2.01	0.41
1:M:287:ALA:HB1	1:M:368:ARG:NH1	2.36	0.41
1:N:131:LEU:CD1	1:N:422:VAL:HG21	2.50	0.41
1:N:177:VAL:CG1	1:N:397:GLU:HG2	2.50	0.41
1:N:403:THR:O	1:N:407:VAL:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:336:VAL:O	1:A:336:VAL:CG1	2.69	0.41
1:B:183:LEU:HD13	1:B:183:LEU:C	2.40	0.41
1:B:221:LEU:HB3	1:B:249:ILE:CD1	2.51	0.41
1:C:152:ALA:O	1:C:153:ASN:HB3	2.21	0.41
1:D:20:VAL:HG13	1:D:20:VAL:H	1.66	0.41
1:D:242:LYS:O	1:D:244:GLY:N	2.52	0.41
1:D:430:ARG:NH1	1:D:441:LYS:HE2	2.36	0.41
1:D:520:MET:HE2	1:D:520:MET:HB3	1.97	0.41
1:E:390:LYS:O	1:E:393:LYS:HB3	2.21	0.41
1:F:384:ALA:H	1:G:281:PHE:HZ	1.68	0.41
1:G:351:GLN:HA	1:G:354:GLU:HG2	2.03	0.41
1:H:31:LEU:HA	1:H:31:LEU:HD12	1.69	0.41
1:H:155:ASP:HB3	1:H:395:ARG:NH1	2.34	0.41
1:H:489:ILE:H	1:H:489:ILE:HG12	1.72	0.41
1:I:7:LYS:HB2	1:I:66:PHE:CE1	2.55	0.41
1:I:11:ASP:O	1:I:14:VAL:HG23	2.21	0.41
1:I:39:VAL:HB	1:J:69:MET:HE1	2.01	0.41
1:I:441:LYS:HD3	1:I:441:LYS:HA	1.55	0.41
1:J:149:THR:HG21	1:J:156:GLU:HG2	2.01	0.41
1:J:221:LEU:HB2	1:J:247:LEU:HD11	2.01	0.41
1:K:384:ALA:O	1:K:385:THR:HG23	2.20	0.41
1:K:409:GLU:O	1:K:497:THR:CB	2.69	0.41
1:L:219:PHE:CZ	1:L:314:LEU:HD22	2.56	0.41
1:L:286:LYS:O	1:L:289:LEU:HB2	2.20	0.41
1:L:376:VAL:O	1:L:376:VAL:HG12	2.21	0.41
1:M:98:ALA:HB3	1:M:446:ALA:HB1	2.02	0.41
1:A:142:LYS:O	1:A:146:GLN:HG3	2.21	0.41
1:B:270:ILE:H	1:B:270:ILE:HG13	1.63	0.41
1:B:340:ALA:O	1:B:341:ALA:C	2.59	0.41
1:C:100:ILE:HA	1:C:515:ILE:HD11	2.03	0.41
1:C:169:VAL:HG21	1:C:175:ILE:HG13	2.02	0.41
1:C:342:ILE:O	1:C:346:VAL:HG23	2.21	0.41
1:C:482:THR:O	1:C:483:GLU:HB2	2.21	0.41
1:D:176:THR:CG2	1:D:322:ARG:HH12	2.32	0.41
1:D:309:LEU:HD23	1:D:309:LEU:HA	1.96	0.41
1:D:384:ALA:H	1:E:281:PHE:HZ	1.69	0.41
1:E:58:ARG:HA	1:E:75:LYS:HE3	2.02	0.41
1:E:66:PHE:CZ	1:E:522:THR:HG22	2.55	0.41
1:E:319:GLN:O	1:E:336:VAL:N	2.53	0.41
1:E:401:HIS:O	1:E:404:ARG:CB	2.69	0.41
1:F:57:ALA:C	1:F:75:LYS:HE3	2.29	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:124:VAL:HG21	1:G:508:ALA:CB	2.51	0.41
1:I:139:SER:CB	1:I:171:LYS:NZ	2.84	0.41
1:I:409:GLU:OE2	1:I:498:LYS:HG3	2.21	0.41
1:I:479:ASN:OD1	1:I:479:ASN:C	2.59	0.41
1:J:68:ASN:O	1:J:72:GLN:HG2	2.20	0.41
1:K:24:ALA:O	1:K:28:LYS:HG2	2.20	0.41
1:K:157:THR:HG21	1:K:392:LYS:NZ	2.36	0.41
1:L:230:ILE:HD13	1:L:261:THR:HG21	2.03	0.41
1:M:233:MET:O	1:M:234:LEU:C	2.59	0.41
1:N:165:ALA:HB2	1:N:187:LEU:HD11	2.02	0.41
1:A:69:MET:O	1:A:73:MET:HE2	2.21	0.41
1:A:83:ASP:OD2	1:A:327:LYS:HD3	2.21	0.41
1:A:95:LEU:HD13	1:A:504:LEU:HA	2.03	0.41
1:A:179:ASP:OD1	1:A:393:LYS:HD2	2.21	0.41
1:A:183:LEU:O	1:A:183:LEU:HD13	2.21	0.41
1:A:296:THR:OG1	1:A:318:GLY:HA3	2.20	0.41
1:A:325:ILE:HG23	1:A:330:THR:OG1	2.21	0.41
1:A:338:GLU:O	1:A:341:ALA:HB3	2.21	0.41
1:A:383:ALA:HB3	1:A:389:MET:CA	2.51	0.41
1:A:517:THR:CA	1:G:37:ASN:O	2.60	0.41
1:B:14:VAL:HG23	1:B:15:LYS:H	1.86	0.41
1:B:140:ASP:OD1	1:B:140:ASP:N	2.53	0.41
1:B:234:LEU:HA	1:B:234:LEU:HD23	1.74	0.41
1:C:19:GLY:HA3	1:C:67:GLU:O	2.20	0.41
1:C:104:LEU:O	1:C:105:LYS:C	2.59	0.41
1:C:239:ALA:HB1	1:C:314:LEU:HG	2.03	0.41
1:C:245:LYS:HA	1:C:246:PRO:HD3	1.80	0.41
1:D:36:ARG:NH1	1:E:113:PRO:HG2	2.35	0.41
1:D:176:THR:HG21	1:D:333:ILE:CD1	2.51	0.41
1:D:276:VAL:O	1:D:276:VAL:CG2	2.67	0.41
1:D:349:ILE:HA	1:D:352:GLN:OE1	2.21	0.41
1:D:413:ALA:O	1:D:418:ALA:HB2	2.21	0.41
1:E:166:MET:HE3	1:E:171:LYS:HA	1.99	0.41
1:E:247:LEU:N	1:E:272:LYS:O	2.52	0.41
1:E:300:VAL:O	1:E:307:MET:CE	2.69	0.41
1:E:311:LYS:HA	1:E:311:LYS:CE	2.51	0.41
1:E:347:ALA:O	1:E:350:ARG:HB3	2.21	0.41
1:F:41:ASP:HB2	1:G:69:MET:CE	2.50	0.41
1:F:41:ASP:CB	1:G:522:THR:HB	2.50	0.41
1:G:106:ALA:HA	1:G:111:MET:CE	2.51	0.41
1:G:106:ALA:HA	1:G:111:MET:HE3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:346:VAL:O	1:G:350:ARG:HB2	2.20	0.41
1:G:450:PRO:O	1:G:454:ILE:HG13	2.20	0.41
1:H:200:LEU:HD21	1:H:277:LYS:HG3	2.02	0.41
1:H:433:ASN:ND2	1:H:436:GLN:HG3	2.35	0.41
1:I:144:ILE:HG23	1:I:403:THR:HG21	2.02	0.41
1:I:366:GLN:O	1:I:369:VAL:HG22	2.21	0.41
1:J:42:LYS:HD2	1:J:48:THR:OG1	2.20	0.41
1:J:100:ILE:O	1:J:104:LEU:HG	2.21	0.41
1:J:157:THR:HG21	1:J:392:LYS:NZ	2.36	0.41
1:J:225:LYS:HD2	1:J:303:GLU:HG3	2.02	0.41
1:J:282:GLY:O	1:J:286:LYS:HG3	2.21	0.41
1:J:294:THR:O	1:J:337:GLY:HA3	2.21	0.41
1:J:303:GLU:O	1:J:306:GLY:N	2.39	0.41
1:K:177:VAL:CG1	1:K:397:GLU:HG2	2.51	0.41
1:K:222:LEU:HD23	1:K:289:LEU:CD2	2.51	0.41
1:K:321:LYS:O	1:K:322:ARG:HB2	2.21	0.41
1:K:434:LYS:HZ2	1:K:437:ASN:HD22	1.67	0.41
1:K:449:ALA:N	1:K:450:PRO:CD	2.83	0.41
1:K:510:VAL:HG13	1:K:511:ALA:N	2.35	0.41
1:K:522:THR:OG1	1:K:523:ASP:N	2.54	0.41
1:L:30:THR:HB	1:L:51:LYS:O	2.21	0.41
1:L:207:LYS:NZ	1:L:390:LYS:HZ2	2.18	0.41
1:L:232:GLU:OE1	1:L:309:LEU:HD12	2.21	0.41
1:L:294:THR:O	1:L:337:GLY:HA3	2.21	0.41
1:M:115:ASP:HB3	1:M:436:GLN:CG	2.51	0.41
1:M:191:GLU:OE1	1:M:342:ILE:HG21	2.21	0.41
1:M:342:ILE:C	1:M:344:GLY:N	2.74	0.41
1:M:410:GLY:O	1:M:497:THR:N	2.45	0.41
1:M:477:GLY:HA3	1:M:488:MET:SD	2.61	0.41
1:N:131:LEU:HD12	1:N:422:VAL:HG21	2.03	0.41
1:N:494:LEU:C	1:N:494:LEU:HD12	2.40	0.41
1:B:95:LEU:HD13	1:B:504:LEU:HA	2.03	0.41
1:C:106:ALA:CA	1:C:111:MET:HE3	2.50	0.41
1:C:240:VAL:HG11	1:C:247:LEU:HB2	2.01	0.41
1:D:165:ALA:CB	1:D:187:LEU:HD11	2.50	0.41
1:D:413:ALA:HB1	1:D:417:VAL:HG22	2.03	0.41
1:D:468:THR:CG2	1:D:485:TYR:CE2	3.03	0.41
1:E:78:ALA:O	1:E:81:ALA:HB3	2.21	0.41
1:E:240:VAL:HG12	1:E:271:VAL:CG1	2.51	0.41
1:E:301:ILE:HG23	1:E:307:MET:CB	2.46	0.41
1:G:197:ARG:CZ	1:G:277:LYS:HD3	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:236:VAL:HG22	1:G:312:ALA:HB3	2.02	0.41
1:G:349:ILE:HB	1:G:369:VAL:HG12	2.02	0.41
1:G:453:GLN:HE22	1:G:456:LEU:HD23	1.86	0.41
1:H:504:LEU:HA	1:H:504:LEU:HD12	1.82	0.41
1:I:417:VAL:HG21	1:I:488:MET:CG	2.46	0.41
1:J:288:MET:SD	1:J:368:ARG:HG2	2.60	0.41
1:J:351:GLN:O	1:J:354:GLU:HB2	2.20	0.41
1:K:504:LEU:HD12	1:K:504:LEU:HA	1.87	0.41
1:K:513:LEU:HA	1:K:513:LEU:HD23	1.84	0.41
1:L:34:LYS:HA	1:M:114:MET:HE1	2.03	0.41
1:L:234:LEU:O	1:L:238:GLU:HG3	2.21	0.41
1:M:115:ASP:O	1:M:436:GLN:HG2	2.20	0.41
1:M:201:SER:O	1:M:202:PRO:O	2.38	0.41
1:N:120:ILE:O	1:N:124:VAL:HG23	2.21	0.41
1:N:184:GLN:O	1:N:382:GLY:CA	2.65	0.41
1:A:263:VAL:O	1:A:267:MET:HB2	2.21	0.40
1:B:10:ASN:CA	1:B:13:ARG:NH2	2.84	0.40
1:B:165:ALA:CB	1:B:187:LEU:HD11	2.51	0.40
1:B:367:GLU:O	1:B:370:ALA:HB3	2.20	0.40
1:C:92:ALA:CA	1:C:503:ALA:HB1	2.52	0.40
1:C:367:GLU:O	1:C:370:ALA:HB3	2.21	0.40
1:D:295:LEU:HD22	1:D:342:ILE:CD1	2.52	0.40
1:E:99:ILE:HD13	1:E:99:ILE:HG21	1.78	0.40
1:F:72:GLN:OE1	1:F:75:LYS:HD3	2.21	0.40
1:F:375:GLY:C	1:F:376:VAL:HG23	2.42	0.40
1:I:39:VAL:CG1	1:J:69:MET:HE3	2.52	0.40
1:I:234:LEU:O	1:I:238:GLU:HG3	2.22	0.40
1:I:242:LYS:O	1:I:243:ALA:CB	2.67	0.40
1:I:253:ASP:CG	1:I:277:LYS:HE2	2.42	0.40
1:J:250:ILE:HG21	1:J:292:ILE:HD13	2.02	0.40
1:L:267:MET:HG2	1:L:267:MET:O	2.21	0.40
1:L:352:GLN:HG2	1:L:355:GLU:OE1	2.21	0.40
1:M:11:ASP:O	1:M:14:VAL:HG22	2.21	0.40
1:M:489:ILE:HG12	1:M:489:ILE:H	1.70	0.40
1:A:17:LEU:HD12	1:A:20:VAL:HG22	2.03	0.40
1:A:479:ASN:HB2	1:A:491:MET:SD	2.60	0.40
1:B:386:GLU:HB2	1:C:281:PHE:HB3	2.03	0.40
1:D:270:ILE:H	1:D:270:ILE:HG13	1.64	0.40
1:D:383:ALA:CB	1:D:389:MET:CA	2.99	0.40
1:F:183:LEU:C	1:F:183:LEU:HD13	2.40	0.40
1:F:264:VAL:HG12	1:F:265:ASN:N	2.32	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:326:ASN:HB3	1:F:327:LYS:H	1.57	0.40
1:H:187:LEU:HD13	1:H:379:ILE:HG12	2.04	0.40
1:H:241:ALA:CB	1:H:271:VAL:HG21	2.46	0.40
1:H:281:PHE:CE1	1:N:385:THR:CA	3.04	0.40
1:I:247:LEU:CD2	1:I:249:ILE:HD11	2.51	0.40
1:I:438:VAL:O	1:I:441:LYS:HB2	2.21	0.40
1:J:16:MET:HB3	1:J:514:MET:CE	2.50	0.40
1:J:17:LEU:HD12	1:J:20:VAL:CG2	2.51	0.40
1:J:19:GLY:HA2	1:J:62:LEU:CD1	2.50	0.40
1:J:413:ALA:HB2	1:J:475:ASN:HB3	2.04	0.40
1:K:84:ALA:O	1:K:498:LYS:HE2	2.20	0.40
1:K:344:GLY:O	1:K:347:ALA:HB3	2.20	0.40
1:L:166:MET:O	1:L:170:GLY:CA	2.69	0.40
1:N:96:ALA:O	1:N:100:ILE:HG13	2.21	0.40
1:C:87:ASP:CG	1:C:88:GLY:N	2.74	0.40
1:C:363:GLU:O	1:C:367:GLU:CG	2.47	0.40
1:D:112:ASN:HA	1:D:113:PRO:HD3	1.97	0.40
1:D:345:ARG:HA	1:D:348:GLN:NE2	2.35	0.40
1:E:182:GLY:O	1:E:184:GLN:N	2.55	0.40
1:E:270:ILE:O	1:E:271:VAL:HB	2.20	0.40
1:F:202:PRO:O	1:F:203:TYR:CB	2.62	0.40
1:G:413:ALA:O	1:G:418:ALA:HB2	2.21	0.40
1:I:63:GLU:HB2	1:J:3:ALA:CB	2.51	0.40
1:I:498:LYS:O	1:I:501:ARG:HB3	2.21	0.40
1:J:84:ALA:O	1:J:498:LYS:HE2	2.21	0.40
1:K:102:GLU:HB2	1:K:442:VAL:HG13	2.03	0.40
1:K:158:VAL:HG12	1:K:162:ILE:CD1	2.50	0.40
1:L:102:GLU:HB2	1:L:442:VAL:HG13	2.02	0.40
1:M:262:LEU:HD23	1:M:262:LEU:HA	1.69	0.40
1:M:272:LYS:HZ3	1:N:228:SER:HB3	1.85	0.40
1:M:353:ILE:O	1:M:353:ILE:HG22	2.20	0.40
1:M:362:ARG:HH11	1:M:362:ARG:HD2	1.75	0.40
1:N:23:LEU:HD23	1:N:74:VAL:CG2	2.51	0.40
1:N:230:ILE:HB	1:N:258:ALA:HA	2.03	0.40
1:N:254:VAL:O	1:N:259:LEU:HB2	2.22	0.40
1:N:453:GLN:O	1:N:456:LEU:HB3	2.21	0.40
1:C:241:ALA:HA	1:C:271:VAL:CG2	2.51	0.40
1:C:401:HIS:O	1:C:404:ARG:CB	2.69	0.40
1:D:465:VAL:O	1:D:469:VAL:HG23	2.21	0.40
1:F:47:PRO:HD2	1:G:73:MET:HG2	2.02	0.40
1:F:233:MET:HB3	1:F:237:LEU:HD11	2.01	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:289:LEU:HA	1:F:292:ILE:HD12	2.03	0.40
1:H:94:VAL:H	1:H:94:VAL:HG13	1.70	0.40
1:H:239:ALA:O	1:H:314:LEU:HD21	2.21	0.40
1:H:324:VAL:HB	1:H:331:THR:HG23	2.03	0.40
1:I:149:THR:HG22	1:I:154:SER:HA	2.03	0.40
1:J:417:VAL:HG12	1:J:451:LEU:CD1	2.51	0.40
1:K:99:ILE:CG2	1:K:120:ILE:HD13	2.51	0.40
1:K:284:ARG:NH1	1:K:364:LYS:HD2	2.37	0.40
1:L:230:ILE:HG13	1:L:233:MET:CB	2.50	0.40
1:L:383:ALA:HB3	1:L:389:MET:N	2.37	0.40
1:M:91:THR:O	1:M:94:VAL:HG22	2.22	0.40
1:M:262:LEU:HD22	1:M:273:VAL:HG11	2.02	0.40
1:N:197:ARG:HD2	1:N:277:LYS:HB2	2.03	0.40
1:B:33:PRO:HD2	1:B:480:ALA:CB	2.51	0.40
1:B:343:GLN:HE22	1:B:346:VAL:HG11	1.87	0.40
1:C:215:LEU:HB2	1:C:323:VAL:HG22	2.04	0.40
1:C:390:LYS:O	1:C:393:LYS:HB3	2.21	0.40
1:C:434:LYS:HZ3	1:C:437:ASN:ND2	2.19	0.40
1:D:39:VAL:CG1	1:E:69:MET:CE	2.95	0.40
1:D:142:LYS:HG2	1:D:146:GLN:OE1	2.21	0.40
1:E:269:GLY:CA	1:F:229:ASN:OD1	2.68	0.40
1:E:282:GLY:O	1:E:285:ARG:HB3	2.21	0.40
1:E:465:VAL:HA	1:E:485:TYR:OH	2.22	0.40
1:F:118:ARG:HD2	1:F:436:GLN:HE22	1.84	0.40
1:G:112:ASN:HA	1:G:113:PRO:HD3	1.82	0.40
1:H:201:SER:HA	1:H:202:PRO:HD3	1.96	0.40
1:H:350:ARG:HA	1:H:353:ILE:CD1	2.51	0.40
1:J:99:ILE:HD13	1:J:99:ILE:HG21	1.73	0.40
1:J:270:ILE:HD13	1:J:270:ILE:HG21	1.93	0.40
1:J:290:GLN:CD	1:J:293:ALA:HB3	2.42	0.40
1:K:162:ILE:O	1:K:163:ALA:C	2.60	0.40
1:K:199:TYR:CZ	1:K:327:LYS:HA	2.57	0.40
1:K:204:PHE:C	1:K:213:VAL:HG22	2.42	0.40
1:K:511:ALA:O	1:K:515:ILE:HD12	2.22	0.40
1:L:120:ILE:HD13	1:L:120:ILE:HG21	1.81	0.40
1:L:161:LEU:HD22	1:L:379:ILE:CG2	2.51	0.40
1:L:326:ASN:HB3	1:L:327:LYS:H	1.69	0.40
1:L:351:GLN:C	1:L:353:ILE:H	2.24	0.40
1:M:423:ALA:HB2	1:M:447:MET:SD	2.61	0.40
1:N:504:LEU:HA	1:N:504:LEU:HD12	1.85	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the sym-

metry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:358:SER:CB	1:H:167:ASP:OD1[2_554]	2.19	0.01

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	522/524 (100%)	497 (95%)	21 (4%)	4 (1%)	19	60
1	B	522/524 (100%)	495 (95%)	23 (4%)	4 (1%)	19	60
1	C	522/524 (100%)	500 (96%)	18 (3%)	4 (1%)	19	60
1	D	522/524 (100%)	498 (95%)	19 (4%)	5 (1%)	15	54
1	E	522/524 (100%)	496 (95%)	21 (4%)	5 (1%)	15	54
1	F	522/524 (100%)	496 (95%)	20 (4%)	6 (1%)	14	52
1	G	522/524 (100%)	499 (96%)	18 (3%)	5 (1%)	15	54
1	H	522/524 (100%)	489 (94%)	26 (5%)	7 (1%)	12	48
1	I	522/524 (100%)	496 (95%)	18 (3%)	8 (2%)	10	46
1	J	522/524 (100%)	496 (95%)	21 (4%)	5 (1%)	15	54
1	K	522/524 (100%)	494 (95%)	20 (4%)	8 (2%)	10	46
1	L	522/524 (100%)	495 (95%)	22 (4%)	5 (1%)	15	54
1	M	522/524 (100%)	490 (94%)	25 (5%)	7 (1%)	12	48
1	N	522/524 (100%)	495 (95%)	21 (4%)	6 (1%)	14	52
All	All	7308/7336 (100%)	6936 (95%)	293 (4%)	79 (1%)	14	52

All (79) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	184	GLN
1	B	271	VAL

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Mol	Chain	Res	Type
1	C	184	GLN
1	C	271	VAL
1	D	184	GLN
1	E	184	GLN
1	F	184	GLN
1	F	271	VAL
1	G	184	GLN
1	H	271	VAL
1	I	184	GLN
1	J	271	VAL
1	K	271	VAL
1	L	184	GLN
1	L	271	VAL
1	M	271	VAL
1	N	271	VAL
1	A	385	THR
1	B	184	GLN
1	D	256	GLY
1	D	385	THR
1	F	256	GLY
1	F	385	THR
1	G	271	VAL
1	G	385	THR
1	H	184	GLN
1	I	271	VAL
1	J	184	GLN
1	J	225	LYS
1	J	256	GLY
1	K	184	GLN
1	K	256	GLY
1	L	256	GLY
1	M	184	GLN
1	N	184	GLN
1	A	202	PRO
1	C	202	PRO
1	C	256	GLY
1	D	202	PRO
1	E	202	PRO
1	F	225	LYS
1	G	202	PRO
1	K	202	PRO
1	L	202	PRO

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Mol	Chain	Res	Type
1	M	202	PRO
1	M	225	LYS
1	M	256	GLY
1	N	202	PRO
1	N	225	LYS
1	A	271	VAL
1	B	256	GLY
1	E	271	VAL
1	H	202	PRO
1	I	202	PRO
1	I	383	ALA
1	J	202	PRO
1	K	225	LYS
1	K	383	ALA
1	B	225	LYS
1	D	271	VAL
1	F	202	PRO
1	H	384	ALA
1	I	225	LYS
1	I	256	GLY
1	I	384	ALA
1	L	384	ALA
1	M	201	SER
1	G	383	ALA
1	H	385	THR
1	I	9	GLY
1	N	256	GLY
1	E	256	GLY
1	K	9	GLY
1	K	230	ILE
1	M	9	GLY
1	E	234	LEU
1	H	9	GLY
1	N	9	GLY
1	H	256	GLY

5.3.2 Protein sidechains (i)

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

The Analysed column shows the number of residues for which the sidechain conformation was

analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	404/404 (100%)	399 (99%)	5 (1%)	71 84
1	B	404/404 (100%)	396 (98%)	8 (2%)	55 73
1	C	404/404 (100%)	391 (97%)	13 (3%)	39 62
1	D	404/404 (100%)	392 (97%)	12 (3%)	41 63
1	E	404/404 (100%)	392 (97%)	12 (3%)	41 63
1	F	404/404 (100%)	394 (98%)	10 (2%)	47 68
1	G	404/404 (100%)	392 (97%)	12 (3%)	41 63
1	H	404/404 (100%)	398 (98%)	6 (2%)	65 80
1	I	404/404 (100%)	398 (98%)	6 (2%)	65 80
1	J	404/404 (100%)	398 (98%)	6 (2%)	65 80
1	K	404/404 (100%)	397 (98%)	7 (2%)	60 78
1	L	404/404 (100%)	397 (98%)	7 (2%)	60 78
1	M	404/404 (100%)	398 (98%)	6 (2%)	65 80
1	N	404/404 (100%)	394 (98%)	10 (2%)	47 68
All	All	5656/5656 (100%)	5536 (98%)	120 (2%)	53 72

All (120) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	177	VAL
1	A	284	ARG
1	A	329	THR
1	A	361	ASP
1	A	404	ARG
1	B	89	THR
1	B	129	GLU
1	B	134	LEU
1	B	284	ARG
1	B	361	ASP
1	B	372	LEU
1	B	404	ARG
1	B	504	LEU
1	C	20	VAL
1	C	129	GLU
1	C	134	LEU
1	C	177	VAL

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Mol	Chain	Res	Type
1	C	183	LEU
1	C	284	ARG
1	C	328	ASP
1	C	331	THR
1	C	361	ASP
1	C	404	ARG
1	C	417	VAL
1	C	434	LYS
1	C	524	LEU
1	D	20	VAL
1	D	129	GLU
1	D	134	LEU
1	D	139	SER
1	D	183	LEU
1	D	284	ARG
1	D	328	ASP
1	D	357	THR
1	D	361	ASP
1	D	404	ARG
1	D	499	VAL
1	D	524	LEU
1	E	89	THR
1	E	129	GLU
1	E	134	LEU
1	E	177	VAL
1	E	183	LEU
1	E	199	TYR
1	E	218	PRO
1	E	284	ARG
1	E	328	ASP
1	E	331	THR
1	E	404	ARG
1	E	461	GLU
1	F	58	ARG
1	F	177	VAL
1	F	284	ARG
1	F	328	ASP
1	F	331	THR
1	F	361	ASP
1	F	372	LEU
1	F	398	ASP
1	F	404	ARG

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Mol	Chain	Res	Type
1	F	504	LEU
1	G	94	VAL
1	G	129	GLU
1	G	134	LEU
1	G	284	ARG
1	G	328	ASP
1	G	329	THR
1	G	331	THR
1	G	361	ASP
1	G	400	LEU
1	G	404	ARG
1	G	454	ILE
1	G	499	VAL
1	H	18	ARG
1	H	76	GLU
1	H	177	VAL
1	H	183	LEU
1	H	328	ASP
1	H	404	ARG
1	I	328	ASP
1	I	331	THR
1	I	404	ARG
1	I	437	ASN
1	I	447	MET
1	I	499	VAL
1	J	18	ARG
1	J	48	THR
1	J	289	LEU
1	J	328	ASP
1	J	331	THR
1	J	404	ARG
1	K	20	VAL
1	K	76	GLU
1	K	222	LEU
1	K	289	LEU
1	K	328	ASP
1	K	404	ARG
1	K	499	VAL
1	L	20	VAL
1	L	76	GLU
1	L	319	GLN
1	L	328	ASP

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Mol	Chain	Res	Type
1	L	404	ARG
1	L	499	VAL
1	L	504	LEU
1	M	18	ARG
1	M	284	ARG
1	M	302	SER
1	M	328	ASP
1	M	331	THR
1	M	404	ARG
1	N	20	VAL
1	N	60	ILE
1	N	74	VAL
1	N	76	GLU
1	N	94	VAL
1	N	169	VAL
1	N	209	GLU
1	N	328	ASP
1	N	401	HIS
1	N	404	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (37) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	37	ASN
1	A	146	GLN
1	A	343	GLN
1	A	351	GLN
1	B	21	ASN
1	B	97	GLN
1	B	348	GLN
1	B	505	GLN
1	C	343	GLN
1	C	348	GLN
1	C	437	ASN
1	D	326	ASN
1	D	348	GLN
1	D	437	ASN
1	E	326	ASN
1	F	437	ASN
1	F	475	ASN
1	G	229	ASN
1	G	326	ASN

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Mol	Chain	Res	Type
1	G	437	ASN
1	H	21	ASN
1	H	97	GLN
1	H	290	GLN
1	H	401	HIS
1	I	343	GLN
1	I	401	HIS
1	I	437	ASN
1	J	326	ASN
1	J	475	ASN
1	K	265	ASN
1	K	401	HIS
1	K	437	ASN
1	M	21	ASN
1	M	97	GLN
1	M	401	HIS
1	M	505	GLN
1	N	343	GLN

5.3.3 RNA

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains

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

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	A	524/524 (100%)	-0.47	1 (0%) 95 93	88, 174, 251, 296	0
1	B	524/524 (100%)	-0.52	0 100 100	96, 172, 231, 280	0
1	C	524/524 (100%)	-0.50	1 (0%) 95 93	84, 177, 238, 293	0
1	D	524/524 (100%)	-0.48	0 100 100	89, 180, 263, 409	0
1	E	524/524 (100%)	-0.47	3 (0%) 89 84	78, 191, 247, 350	0
1	F	524/524 (100%)	-0.63	0 100 100	54, 140, 193, 240	0
1	G	524/524 (100%)	-0.54	0 100 100	85, 165, 231, 320	0
1	H	524/524 (100%)	-0.59	0 100 100	64, 154, 237, 308	0
1	I	524/524 (100%)	-0.52	1 (0%) 95 93	68, 174, 240, 308	0
1	J	524/524 (100%)	-0.56	1 (0%) 95 93	82, 155, 227, 300	0
1	K	524/524 (100%)	-0.57	0 100 100	75, 162, 228, 263	0
1	L	524/524 (100%)	-0.51	1 (0%) 95 93	70, 184, 260, 317	0
1	M	524/524 (100%)	-0.49	1 (0%) 95 93	92, 181, 259, 500	0
1	N	524/524 (100%)	-0.38	7 (1%) 77 68	92, 190, 273, 428	0
All	All	7336/7336 (100%)	-0.52	16 (0%) 95 93	54, 171, 246, 500	0

All (16) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	L	181	THR	4.4
1	N	44	PHE	3.9
1	A	181	THR	3.7
1	C	268	ARG	3.4
1	E	431	GLY	3.3
1	N	209	GLU	3.0
1	M	267	MET	2.6
1	N	211	GLY	2.6

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Mol	Chain	Res	Type	RSRZ
1	N	45	GLY	2.5
1	N	210	THR	2.5
1	J	45	GLY	2.5
1	E	43	SER	2.5
1	E	432	GLN	2.4
1	I	139	SER	2.3
1	N	43	SER	2.2
1	N	357	THR	2.1

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.