



Full wwPDB/EMDatabank EM Map/Model Validation Report ⓘ

Jan 16, 2018 – 07:06 AM EST

PDB ID : 2C7E
EMDB ID: : EMD-1047
Title : REVISED ATOMIC STRUCTURE FITTING INTO A GROEL(D398A)-
ATP7 CRYO-EM MAP (EMD 1047)
Authors : Ranson, N.A.; Farr, G.W.; Roseman, A.M.; Gowen, B.; Fenton, W.A.; Hor-
wich, A.L.; Saibil, H.R.
Deposited on : 2005-11-22
Resolution : 9.70 Å(reported)

This is a Full wwPDB/EMDatabank EM Map/Model Validation Report
for a publicly released PDB/EMDB entry.

We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
<http://wwpdb.org/validation/2016/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

MolProbity : 4.02b-467
Mogul : 1.7.2 (RC1), CSD as538be (2017)
Percentile statistics : 20161228.v01 (using entries in the PDB archive December 28th 2016)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : rb-20030736

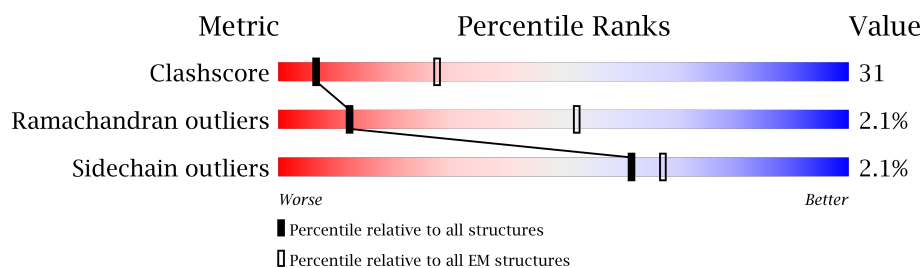
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 9.70 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)	EM structures (#Entries)
Clashscore	125131	1336
Ramachandran outliers	121729	1120
Sidechain outliers	121581	1026

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$.

Mol	Chain	Length	Quality of chain
1	A	547	
1	B	547	
1	C	547	
1	D	547	
1	E	547	
1	F	547	
1	G	547	
1	H	547	
1	I	547	

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Mol	Chain	Length	Quality of chain
1	J	547	<div><div></div><div>63%30%</div><div></div><div></div></div>
1	K	547	<div><div></div><div>63%31%</div><div></div><div></div></div>
1	L	547	<div><div></div><div>63%30%</div><div></div><div></div></div>
1	M	547	<div><div></div><div>63%30%</div><div></div><div></div></div>
1	N	547	<div><div></div><div>63%30%</div><div></div><div></div></div>

2 Entry composition

There are 5 unique types of molecules in this entry. The entry contains 54243 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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					AltConf	Trace
1	A	525	Total	C	N	O	S	0	0
			3855	2399	664	772	20		
1	B	525	Total	C	N	O	S	0	0
			3855	2399	664	772	20		
1	C	525	Total	C	N	O	S	0	0
			3855	2399	664	772	20		
1	D	525	Total	C	N	O	S	0	0
			3855	2399	664	772	20		
1	E	525	Total	C	N	O	S	0	0
			3855	2399	664	772	20		
1	F	525	Total	C	N	O	S	0	0
			3855	2399	664	772	20		
1	G	525	Total	C	N	O	S	0	0
			3855	2399	664	772	20		
1	H	525	Total	C	N	O	S	0	0
			3855	2399	664	772	20		
1	I	525	Total	C	N	O	S	0	0
			3855	2399	664	772	20		
1	J	525	Total	C	N	O	S	0	0
			3855	2399	664	772	20		
1	K	525	Total	C	N	O	S	0	0
			3855	2399	664	772	20		
1	L	525	Total	C	N	O	S	0	0
			3855	2399	664	772	20		
1	M	525	Total	C	N	O	S	0	0
			3855	2399	664	772	20		
1	N	525	Total	C	N	O	S	0	0
			3855	2399	664	772	20		

There are 28 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	13	GLY	ARG	engineered mutation	UNP P06139
A	126	VAL	ALA	engineered mutation	UNP P06139

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Chain	Residue	Modelled	Actual	Comment	Reference
B	13	GLY	ARG	engineered mutation	UNP P06139
B	126	VAL	ALA	engineered mutation	UNP P06139
C	13	GLY	ARG	engineered mutation	UNP P06139
C	126	VAL	ALA	engineered mutation	UNP P06139
D	13	GLY	ARG	engineered mutation	UNP P06139
D	126	VAL	ALA	engineered mutation	UNP P06139
E	13	GLY	ARG	engineered mutation	UNP P06139
E	126	VAL	ALA	engineered mutation	UNP P06139
F	13	GLY	ARG	engineered mutation	UNP P06139
F	126	VAL	ALA	engineered mutation	UNP P06139
G	13	GLY	ARG	engineered mutation	UNP P06139
G	126	VAL	ALA	engineered mutation	UNP P06139
H	13	GLY	ARG	engineered mutation	UNP P06139
H	126	VAL	ALA	engineered mutation	UNP P06139
I	13	GLY	ARG	engineered mutation	UNP P06139
I	126	VAL	ALA	engineered mutation	UNP P06139
J	13	GLY	ARG	engineered mutation	UNP P06139
J	126	VAL	ALA	engineered mutation	UNP P06139
K	13	GLY	ARG	engineered mutation	UNP P06139
K	126	VAL	ALA	engineered mutation	UNP P06139
L	13	GLY	ARG	engineered mutation	UNP P06139
L	126	VAL	ALA	engineered mutation	UNP P06139
M	13	GLY	ARG	engineered mutation	UNP P06139
M	126	VAL	ALA	engineered mutation	UNP P06139
N	13	GLY	ARG	engineered mutation	UNP P06139
N	126	VAL	ALA	engineered mutation	UNP P06139

- Molecule 2 is POTASSIUM ION (three-letter code: K) (formula: K).

Mol	Chain	Residues	Atoms	AltConf
2	G	1	Total K 1 1	0
2	D	1	Total K 1 1	0
2	E	1	Total K 1 1	0
2	B	1	Total K 1 1	0
2	C	1	Total K 1 1	0
2	A	1	Total K 1 1	0

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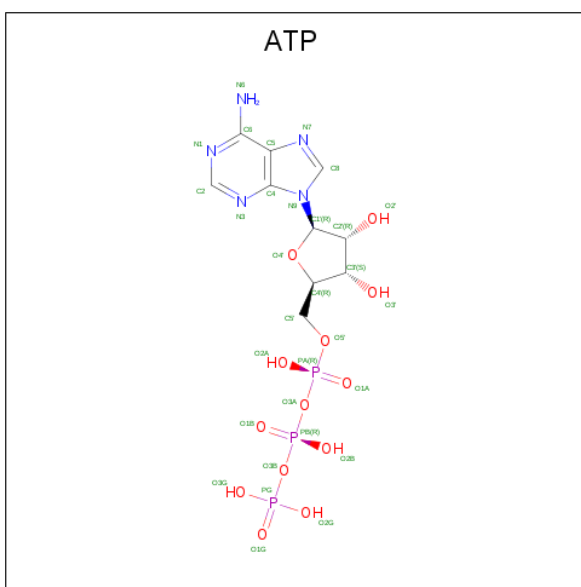
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Mol	Chain	Residues	Atoms		AltConf
2	F	1	Total	K	0
			1	1	

- Molecule 3 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
3	G	1	Total	Mg	0
			1	1	
3	D	1	Total	Mg	0
			1	1	
3	E	1	Total	Mg	0
			1	1	
3	B	1	Total	Mg	0
			1	1	
3	C	1	Total	Mg	0
			1	1	
3	A	1	Total	Mg	0
			1	1	
3	F	1	Total	Mg	0
			1	1	

- Molecule 4 is ADENOSINE-5'-TRIPHOSPHATE (three-letter code: ATP) (formula: C₁₀H₁₆N₅O₁₃P₃).



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Mol	Chain	Residues	Atoms					AltConf
4	B	1	Total	C	N	O	P	0
			31	10	5	13	3	
4	C	1	Total	C	N	O	P	0
			31	10	5	13	3	
4	D	1	Total	C	N	O	P	0
			31	10	5	13	3	
4	E	1	Total	C	N	O	P	0
			31	10	5	13	3	
4	F	1	Total	C	N	O	P	0
			31	10	5	13	3	
4	G	1	Total	C	N	O	P	0
			31	10	5	13	3	

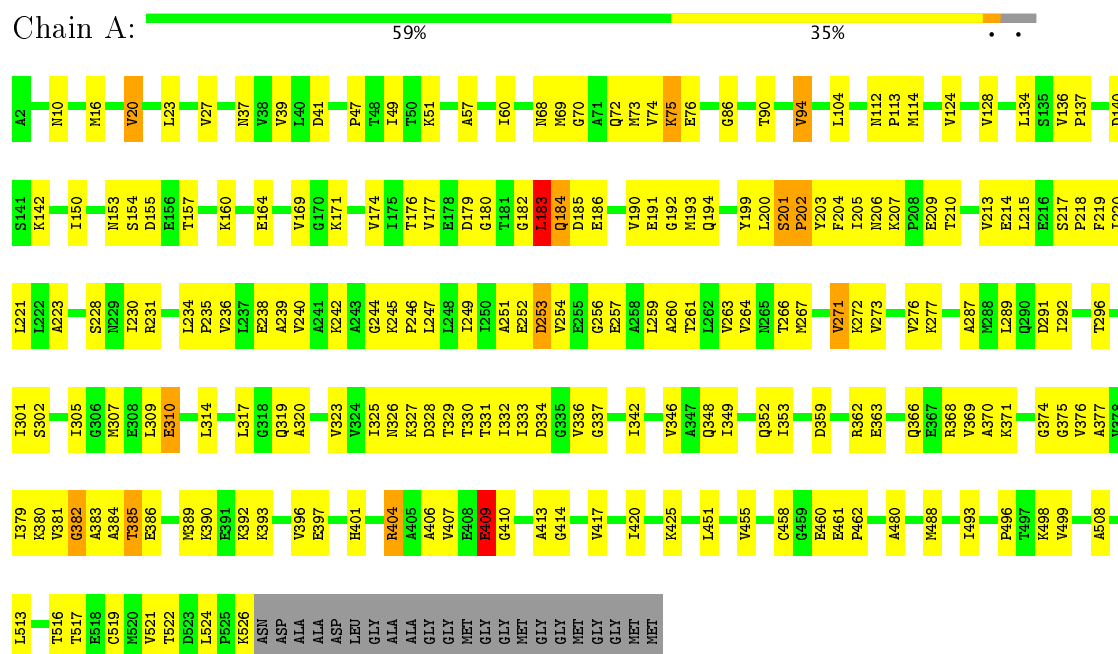
- Molecule 5 is water.

Mol	Chain	Residues	Atoms		AltConf
5	A	42	Total	O	0
			42	42	

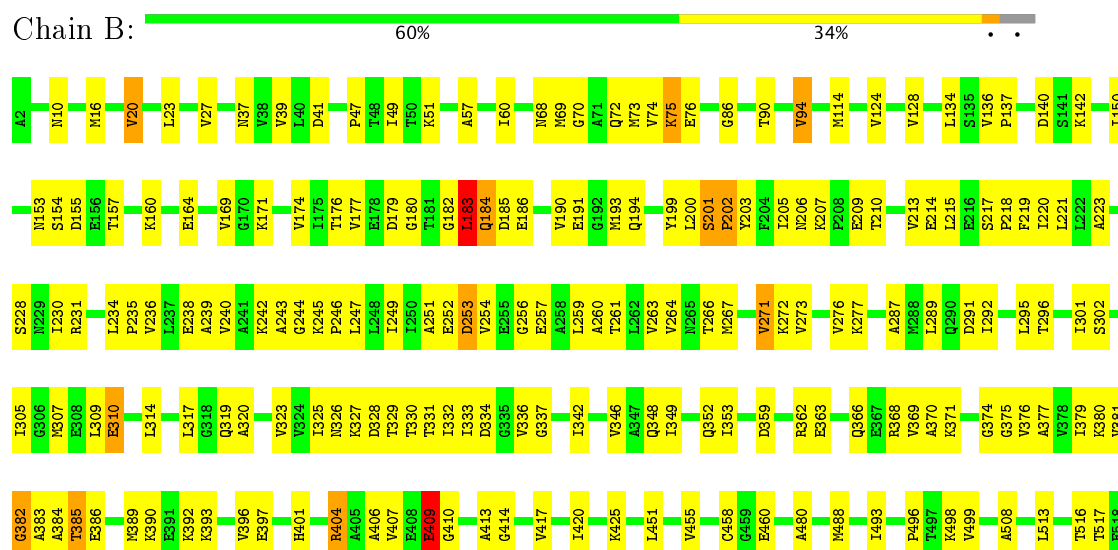
3 Residue-property plots

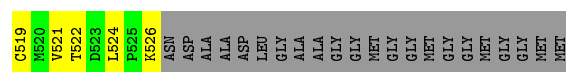
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded according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



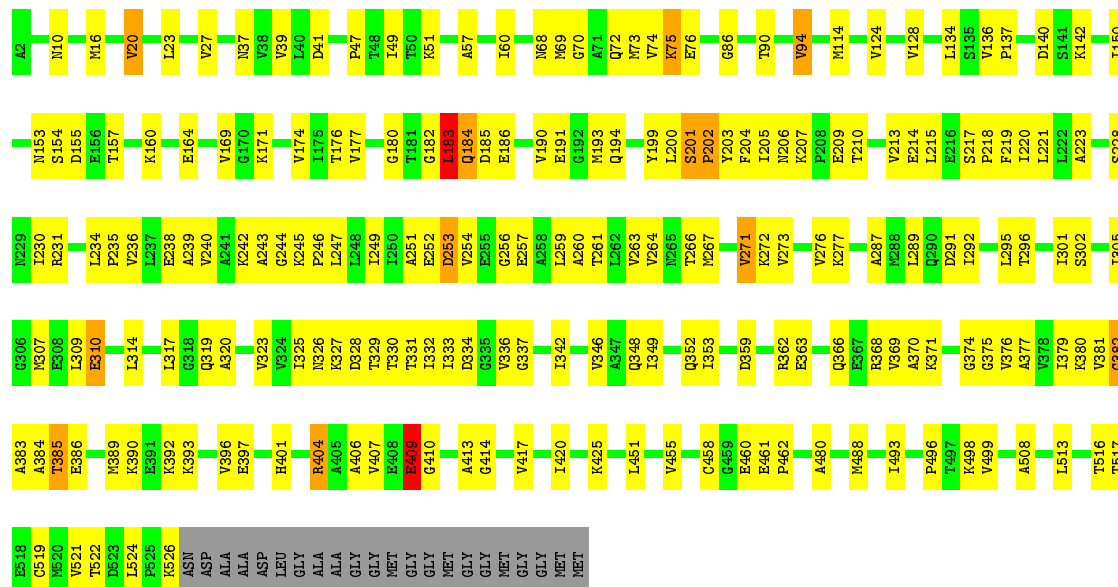
• Molecule 1: 60 KDA CHAPERONIN





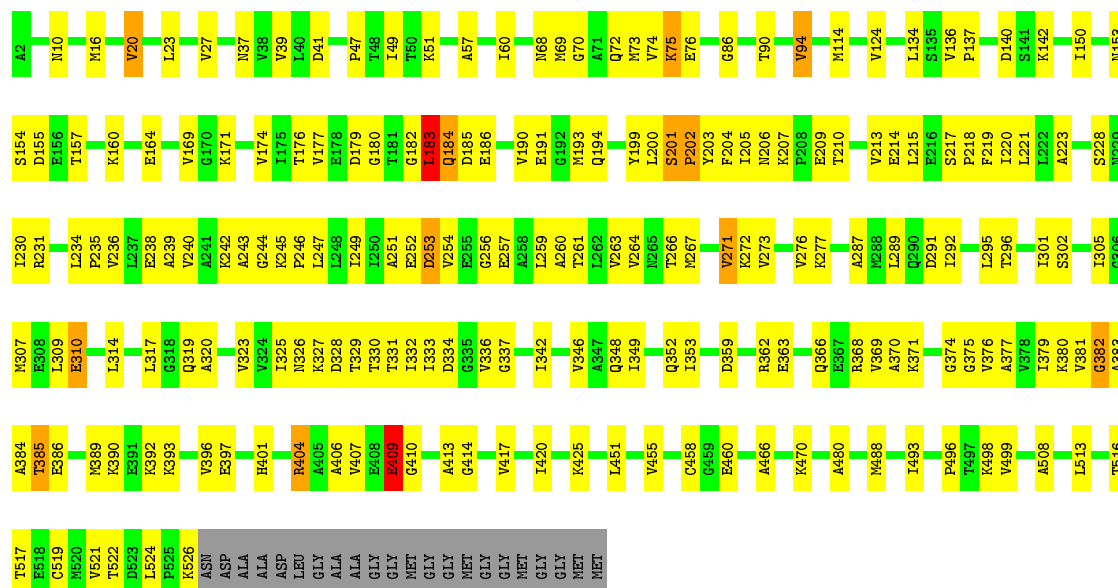
• Molecule 1: 60 KDA CHAPERONIN

Chain C: 59% 34%



• Molecule 1: 60 KDA CHAPERONIN

Chain D: 59% 34%




• Molecule 1: 60 KDA CHAPERONIN

Chain E: 60% 34%


A2	D155	R231	E308	E386	T522
M10	E156	L234	L309	K389	D523
M16	T157	P235	E310	K390	L524
V20	K160	V236	L314	E391	K525
L23	E164	E238	L317	K392	ASN
V27	V169	A239	G318	K393	ASP
L23	K171	V240	Q319	V396	ALA
V37	E174	A241	A320	E397	LEU
V38	L175	G244	V323	H401	GLY
V39	T176	K245	I325	R404	ALA
L40	V177	P246	N326	A405	GLY
D41	E178	L248	K327	A406	GLY
A46	D179	L249	D328	V407	MET
P47	G180	T250	T329	E408	GLY
T48	T181	A251	T330	E409	GLY
L49	L183	E252	I332	G410	MET
K51	Q184	V254	D333	A414	GLY
E57	E185	E255	G335	V417	MET
A57	E186	E257	V336	I420	GLY
I60	V190	A258	I342	K425	MET
N68	G192	A260	V346	R425	
N69	M193	T261	A347	L451	
G70	Q194	L262	Q348	V455	
A71	Y199	V263	I349	K458	
Q72	L200	V264	Q352	A466	
M73	S201	T266	I353	K470	
V74	P202	N267	D359	A480	
K75	Y203	V271	R362	N488	
E76	F204	K272	E363	I493	
686	I205	V273	Q366	P496	
T90	K207	V276	E367	T497	
V94	E209	K277	R368	V499	
M114	T210	A287	A370	A508	
V124	L215	P288	G374	L513	
V128	E216	D291	G375	T516	
L134	S217	L292	V376	T517	
L134	F218	T296	A377	E518	
S135	I220	I301	I379	E519	
V136	L221	S302	V381	T522	
P137	L222	I305	G382	D523	
A223	A223	T305	A383		
I150	S228	N229	N229		
N153	I230	K307	E386		

• Molecule 1: 60 KDA CHAPERONIN

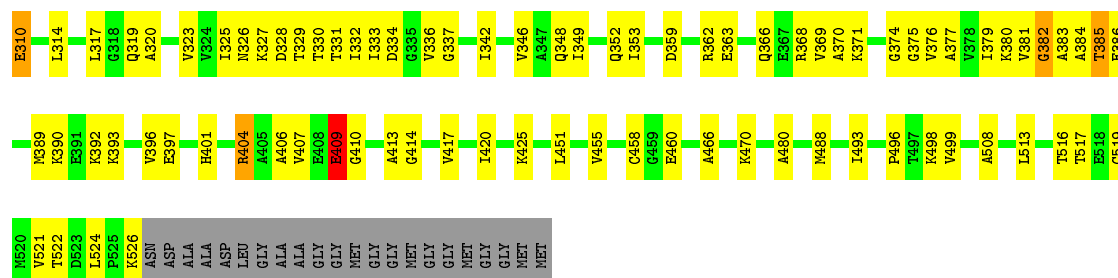
Chain F: 

A2	S154	R231	L309	K389	L524
M10	D155	L234	E310	K390	P525
M16	T157	P235	L314	E391	K526
V20	K160	V236	L317	K392	ASN
L23	E164	E238	Q319	K393	ASP
V27	V169	A239	A320	V396	ALA
L23	K171	V240	V323	E397	LEU
V37	E174	A241	V324	H401	GLY
V38	L175	G244	I325	R404	ALA
V39	T176	K245	N326	A405	GLY
L40	V177	P246	K327	A406	GLY
D41	E178	L248	D328	V407	MET
A46	D179	L249	T329	E408	GLY
P47	G180	T250	T330	E409	GLY
T48	T181	A251	I332	G410	GLY
L49	L183	E252	D333	A414	MET
K51	Q184	V254	G335	V417	GLY
E57	E185	E255	V336	I420	MET
A57	E186	E257	I342	K425	
I60	V190	A258	V346	R425	
N68	G192	A260	A347	L451	
N69	M193	T261	Q348	V455	
G70	Q194	L262	I349	K458	
A71	Y199	V263	Q352	A466	
Q72	L200	V264	I353	K470	
M73	S201	T266	D359	A480	
V74	P202	N267	R362	N488	
K75	Y203	V271	E363	I493	
E76	F204	K272	Q366	P496	
686	I205	V273	E367	T497	
T90	K207	V276	R368	V499	
V94	E209	K277	A370	A508	
M114	T210	A287	G374	L513	
V124	L215	P288	G375	T516	
V128	E216	D291	V376	T517	
L134	S217	L292	A377	E518	
L134	F218	T296	I379	E519	
S135	I220	I301	K380	T522	
V136	L221	S302	V381	D523	
P137	L222	I305	G382		
A223	A223	T305	A383		
I150	S228	N229	N229		
N153	I230	K307	E386		

• Molecule 1: 60 KDA CHAPERONIN

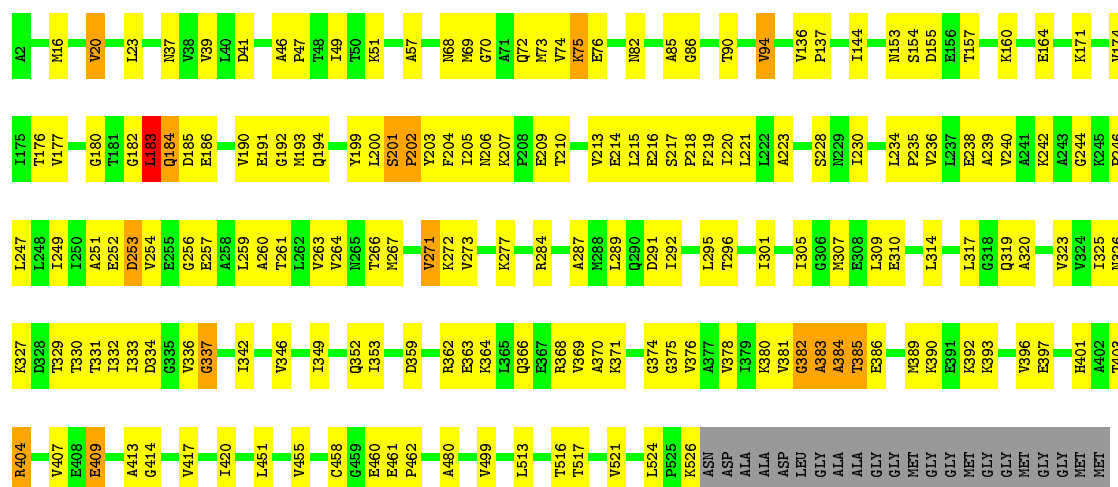
Chain G: 

A2	S154	R231	L309	K389	L524
M10	D155	L234	E310	K390	P525
M16	T157	P235	L314	E391	K526
V20	K160	V236	L317	K392	ASN
L23	E164	E238	Q319	K393	ASP
V37	V169	A239	A320	V396	ALA
V38	K171	V240	V323	E397	LEU
V39	E174	A241	V324	H401	GLY
L40	L175	G244	I325	R404	ALA
D41	T176	K245	N326	A405	GLY
P47	V177	P246	K327	A406	GLY
T48	E178	L248	D328	V407	MET
I49	E179	L249	T329	E408	GLY
T50	G180	T250	T330	E409	GLY
K51	T181	A251	I332	G410	GLY
A57	L183	E252	D333	A414	MET
I60	Q184	V254	G335	V417	GLY
N68	E185	E255	V336	I420	MET
N69	E186	E257	I342	K425	
A71	V190	A258	V346	R425	
Q72	G192	A260	A347	L451	
M73	M193	T261	Q348	V455	
V74	Q194	L262	I349	K458	
E76	Y199	V263	Q352	A466	
686	L200	V264	I353	K470	
T90	S201	T266	D359	A480	
V94	P202	N267	R362	N488	
N112	Y203	V271	E363	I493	
P113	F204	K272	Q366	P496	
M114	I205	V273	E367	T497	
V124	K207	V276	R368	V499	
L134	N206	K277	A370	A508	
S135	K207	A287	G374	L513	
V136	P208	K277	G375	T516	
P137	E209	K277	V376	T517	
D140	S217	K277	A377	E518	
K141	F218	K277	I379	E519	
K142	I220	K277	K380	T522	
I150	L221	K277	V381	D523	
N153	L222	K277	G382		
	A223	K277	A383		
	S228	K277	N229		
	N229	K277	N229		



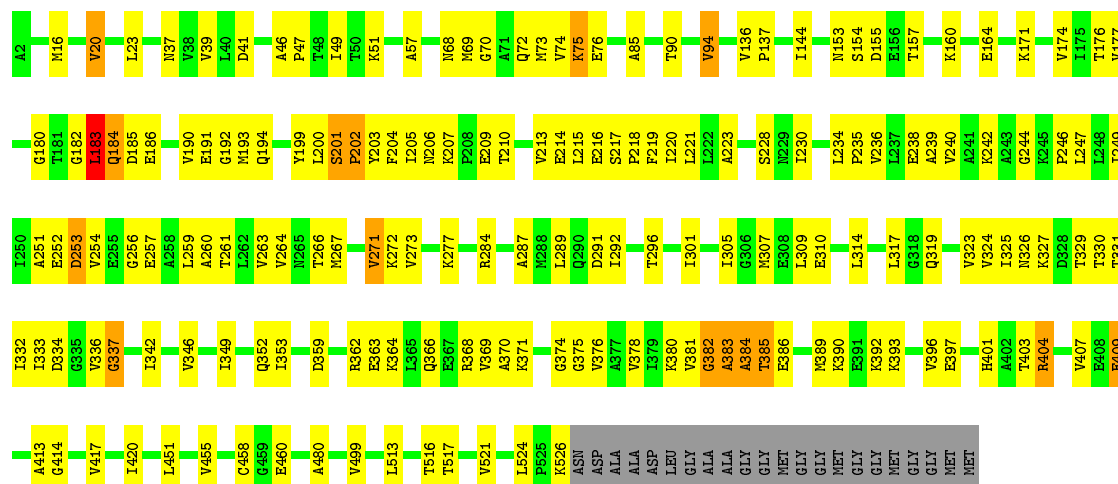
• Molecule 1: 60 KDA CHAPERONIN

Chain H: 63% 30%



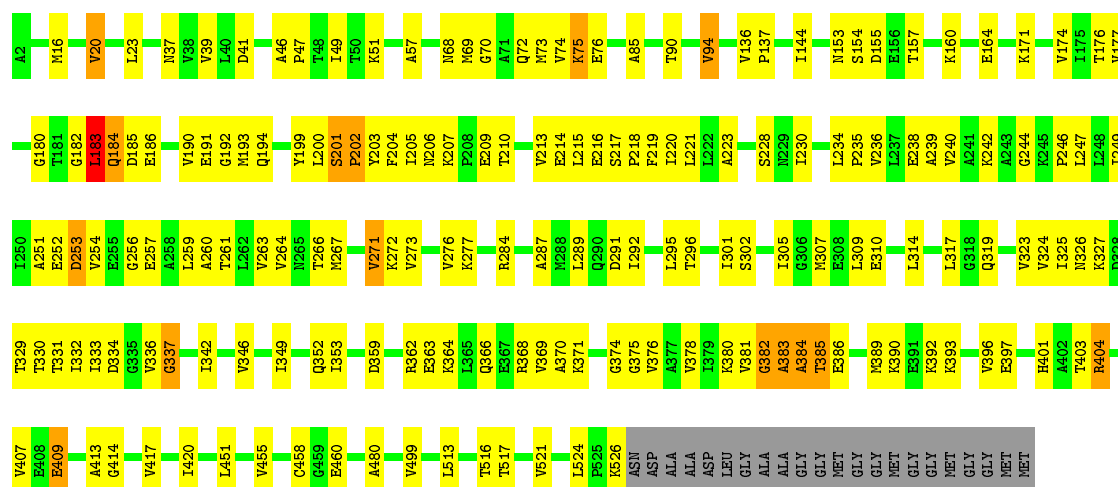
• Molecule 1: 60 KDA CHAPERONIN

Chain I: 64% 29%



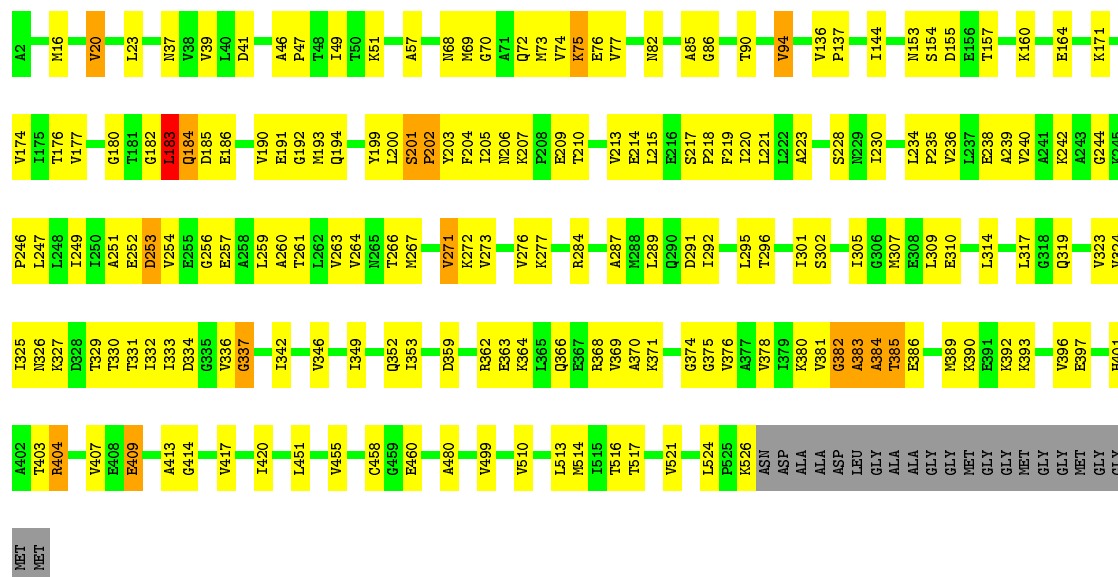
• Molecule 1: 60 KDA CHAPERONIN

Chain J: 63% 30%



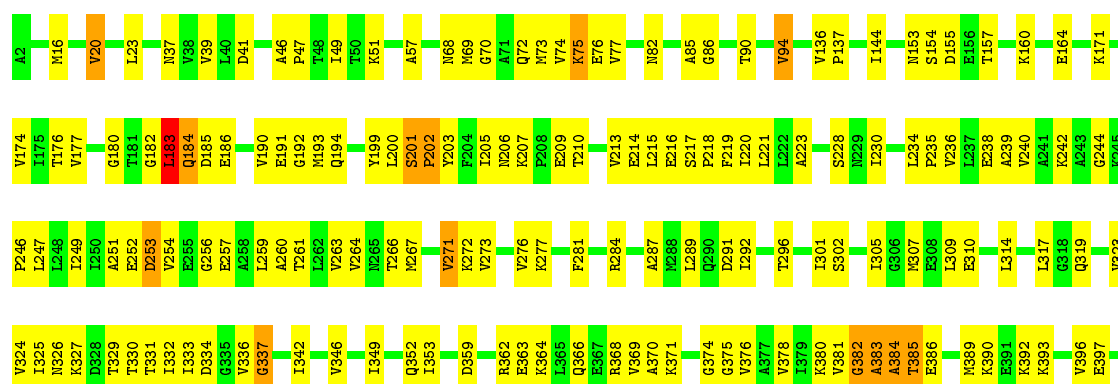
• Molecule 1: 60 KDA CHAPERONIN

Chain K: 63% 31%



• Molecule 1: 60 KDA CHAPERONIN

Chain L: 63% 30%





4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, D7	Depositor
Number of particles used	6404	Depositor
Resolution determination method	FSC 0.5 CUT-OFF	Depositor
CTF correction method	FULL CORRECTION ON 2D CLASS AVERAGES	Depositor
Microscope	FEI/PHILIPS CM200FEG	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/\text{\AA}^2$)	20	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	5000	Depositor
Magnification	37604	Depositor
Image detector	KODAK SO-163 FILM	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

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	$\# Z > 2$	RMSZ	$\# Z > 2$
1	A	0.34	1/3880 (0.0%)	0.85	2/5233 (0.0%)
1	B	0.34	1/3880 (0.0%)	0.85	2/5233 (0.0%)
1	C	0.34	1/3880 (0.0%)	0.85	2/5233 (0.0%)
1	D	0.34	1/3880 (0.0%)	0.85	2/5233 (0.0%)
1	E	0.34	1/3880 (0.0%)	0.85	2/5233 (0.0%)
1	F	0.34	1/3880 (0.0%)	0.85	2/5233 (0.0%)
1	G	0.34	1/3880 (0.0%)	0.85	2/5233 (0.0%)
1	H	0.77	1/3880 (0.0%)	0.81	3/5233 (0.1%)
1	I	0.77	1/3880 (0.0%)	0.81	3/5233 (0.1%)
1	J	0.77	1/3880 (0.0%)	0.81	3/5233 (0.1%)
1	K	0.77	1/3880 (0.0%)	0.81	3/5233 (0.1%)
1	L	0.77	1/3880 (0.0%)	0.81	3/5233 (0.1%)
1	M	0.77	1/3880 (0.0%)	0.81	3/5233 (0.1%)
1	N	0.77	1/3880 (0.0%)	0.81	3/5233 (0.1%)
All	All	0.60	14/54320 (0.0%)	0.83	35/73262 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1
1	B	0	1
1	C	0	1
1	D	0	1
1	E	0	1
1	F	0	1
1	G	0	1
1	H	0	1
1	I	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
1	J	0	1
1	K	0	1
1	L	0	1
1	M	0	1
1	N	0	1
All	All	0	14

All (14) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	J	409	GLU	C-N	-43.70	0.54	1.33
1	K	409	GLU	C-N	-43.68	0.54	1.33
1	M	409	GLU	C-N	-43.66	0.54	1.33
1	H	409	GLU	C-N	-43.65	0.54	1.33
1	N	409	GLU	C-N	-43.65	0.54	1.33
1	I	409	GLU	C-N	-43.65	0.54	1.33
1	L	409	GLU	C-N	-43.65	0.54	1.33
1	E	409	GLU	C-N	7.60	1.46	1.33
1	G	409	GLU	C-N	7.58	1.46	1.33
1	A	409	GLU	C-N	7.57	1.46	1.33
1	C	409	GLU	C-N	7.57	1.46	1.33
1	F	409	GLU	C-N	7.57	1.46	1.33
1	D	409	GLU	C-N	7.55	1.46	1.33
1	B	409	GLU	C-N	7.55	1.46	1.33

All (35) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	409	GLU	O-C-N	-45.43	45.96	123.20
1	A	409	GLU	O-C-N	-45.43	45.97	123.20
1	C	409	GLU	O-C-N	-45.43	45.97	123.20
1	E	409	GLU	O-C-N	-45.43	45.98	123.20
1	D	409	GLU	O-C-N	-45.42	45.99	123.20
1	B	409	GLU	O-C-N	-45.41	45.99	123.20
1	G	409	GLU	O-C-N	-45.41	46.00	123.20
1	M	409	GLU	O-C-N	-30.45	71.44	123.20
1	J	409	GLU	O-C-N	-30.44	71.45	123.20
1	I	409	GLU	O-C-N	-30.44	71.46	123.20
1	K	409	GLU	O-C-N	-30.42	71.48	123.20
1	H	409	GLU	O-C-N	-30.42	71.49	123.20
1	N	409	GLU	O-C-N	-30.41	71.51	123.20
1	L	409	GLU	O-C-N	-30.39	71.53	123.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	I	409	GLU	C-N-CA	-22.33	75.40	122.30
1	L	409	GLU	C-N-CA	-22.33	75.40	122.30
1	H	409	GLU	C-N-CA	-22.33	75.41	122.30
1	M	409	GLU	C-N-CA	-22.33	75.41	122.30
1	N	409	GLU	C-N-CA	-22.31	75.44	122.30
1	K	409	GLU	C-N-CA	-22.29	75.48	122.30
1	J	409	GLU	C-N-CA	-22.29	75.49	122.30
1	I	409	GLU	CA-C-N	-19.00	78.19	116.20
1	M	409	GLU	CA-C-N	-19.00	78.19	116.20
1	H	409	GLU	CA-C-N	-18.99	78.21	116.20
1	L	409	GLU	CA-C-N	-18.99	78.22	116.20
1	N	409	GLU	CA-C-N	-18.98	78.23	116.20
1	J	409	GLU	CA-C-N	-18.96	78.28	116.20
1	K	409	GLU	CA-C-N	-18.95	78.29	116.20
1	C	409	GLU	CA-C-N	7.47	131.14	116.20
1	G	409	GLU	CA-C-N	7.47	131.14	116.20
1	D	409	GLU	CA-C-N	7.47	131.14	116.20
1	B	409	GLU	CA-C-N	7.47	131.13	116.20
1	A	409	GLU	CA-C-N	7.46	131.13	116.20
1	F	409	GLU	CA-C-N	7.46	131.12	116.20
1	E	409	GLU	CA-C-N	7.45	131.10	116.20

There are no chirality outliers.

All (14) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	409	GLU	Mainchain
1	B	409	GLU	Mainchain
1	C	409	GLU	Mainchain
1	D	409	GLU	Mainchain
1	E	409	GLU	Mainchain
1	F	409	GLU	Mainchain
1	G	409	GLU	Mainchain
1	H	409	GLU	Mainchain
1	I	409	GLU	Mainchain
1	J	409	GLU	Mainchain
1	K	409	GLU	Mainchain
1	L	409	GLU	Mainchain
1	M	409	GLU	Mainchain
1	N	409	GLU	Mainchain

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3855	0	3976	329	0
1	B	3855	0	3976	331	0
1	C	3855	0	3976	334	0
1	D	3855	0	3976	331	0
1	E	3855	0	3976	324	0
1	F	3855	0	3976	318	0
1	G	3855	0	3976	325	0
1	H	3855	0	3970	243	0
1	I	3855	0	3970	238	0
1	J	3855	0	3970	241	0
1	K	3855	0	3970	248	0
1	L	3855	0	3970	240	0
1	M	3855	0	3970	239	0
1	N	3855	0	3970	242	0
2	A	1	0	0	0	0
2	B	1	0	0	0	0
2	C	1	0	0	0	0
2	D	1	0	0	0	0
2	E	1	0	0	0	0
2	F	1	0	0	0	0
2	G	1	0	0	0	0
3	A	1	0	0	0	0
3	B	1	0	0	0	0
3	C	1	0	0	0	0
3	D	1	0	0	0	0
3	E	1	0	0	0	0
3	F	1	0	0	0	0
3	G	1	0	0	0	0
4	A	31	0	12	0	0
4	B	31	0	12	0	0
4	C	31	0	12	0	0
4	D	31	0	12	0	0
4	E	31	0	12	0	0
4	F	31	0	12	0	0
4	G	31	0	12	0	0
5	A	42	0	0	0	0
All	All	54243	0	55706	3419	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 31.

All (3419) 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:J:190:VAL:HG11	1:J:333:ILE:CG2	1.30	1.61
1:J:190:VAL:CG1	1:J:333:ILE:HG22	1.20	1.60
1:N:190:VAL:HG11	1:N:333:ILE:CG2	1.30	1.60
1:K:190:VAL:HG11	1:K:333:ILE:CG2	1.30	1.59
1:M:190:VAL:CG1	1:M:333:ILE:HG22	1.20	1.59
1:N:190:VAL:CG1	1:N:333:ILE:HG22	1.20	1.58
1:I:190:VAL:HG11	1:I:333:ILE:CG2	1.30	1.57
1:L:190:VAL:HG11	1:L:333:ILE:CG2	1.30	1.56
1:M:190:VAL:CG1	1:M:333:ILE:CG2	1.82	1.56
1:N:190:VAL:CG1	1:N:333:ILE:CG2	1.82	1.56
1:L:190:VAL:CG1	1:L:333:ILE:HG22	1.20	1.56
1:H:190:VAL:CG1	1:H:333:ILE:HG22	1.20	1.56
1:H:190:VAL:HG11	1:H:333:ILE:CG2	1.30	1.55
1:K:190:VAL:CG1	1:K:333:ILE:HG22	1.20	1.55
1:F:136:VAL:C	1:F:137:PRO:HD3	1.21	1.55
1:I:190:VAL:CG1	1:I:333:ILE:HG22	1.20	1.54
1:G:136:VAL:C	1:G:137:PRO:HD3	1.21	1.54
1:M:190:VAL:HG11	1:M:333:ILE:CG2	1.30	1.52
1:A:86:GLY:HA3	1:A:401:HIS:CE1	1.46	1.50
1:C:86:GLY:HA3	1:C:401:HIS:CE1	1.46	1.50
1:E:86:GLY:HA3	1:E:401:HIS:CE1	1.46	1.50
1:E:136:VAL:C	1:E:137:PRO:HD3	1.21	1.49
1:D:86:GLY:HA3	1:D:401:HIS:CE1	1.46	1.49
1:G:86:GLY:HA3	1:G:401:HIS:CE1	1.46	1.49
1:B:86:GLY:HA3	1:B:401:HIS:CE1	1.46	1.49
1:K:190:VAL:CG1	1:K:333:ILE:CG2	1.82	1.48
1:D:136:VAL:C	1:D:137:PRO:HD3	1.21	1.47
1:C:136:VAL:C	1:C:137:PRO:HD3	1.21	1.47
1:A:136:VAL:C	1:A:137:PRO:HD3	1.21	1.47
1:F:86:GLY:HA3	1:F:401:HIS:CE1	1.46	1.46
1:J:190:VAL:CG1	1:J:333:ILE:CG2	1.82	1.45
1:I:190:VAL:CG1	1:I:333:ILE:CG2	1.82	1.45
1:B:136:VAL:C	1:B:137:PRO:HD3	1.21	1.45
1:F:194:GLN:N	1:F:375:GLY:H	1.15	1.43
1:C:245:LYS:HZ1	1:D:231:ARG:NH2	1.15	1.42
1:H:190:VAL:CG1	1:H:333:ILE:CG2	1.82	1.42
1:B:245:LYS:HZ1	1:C:231:ARG:NH2	1.14	1.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:190:VAL:CG1	1:L:333:ILE:CG2	1.82	1.41
1:D:136:VAL:C	1:D:137:PRO:CD	1.89	1.40
1:B:194:GLN:N	1:B:375:GLY:H	1.15	1.40
1:A:136:VAL:C	1:A:137:PRO:CD	1.89	1.39
1:F:245:LYS:HZ1	1:G:231:ARG:NH2	1.14	1.39
1:E:136:VAL:C	1:E:137:PRO:CD	1.89	1.39
1:A:194:GLN:N	1:A:375:GLY:H	1.15	1.39
1:C:136:VAL:C	1:C:137:PRO:CD	1.89	1.39
1:E:245:LYS:HZ1	1:F:231:ARG:NH2	1.15	1.39
1:C:39:VAL:CG2	1:D:517:THR:HG23	1.53	1.39
1:B:136:VAL:C	1:B:137:PRO:CD	1.89	1.38
1:D:194:GLN:N	1:D:375:GLY:H	1.15	1.38
1:G:136:VAL:C	1:G:137:PRO:CD	1.89	1.38
1:B:39:VAL:CG2	1:C:517:THR:HG23	1.53	1.38
1:K:192:GLY:O	1:K:375:GLY:HA2	1.24	1.38
1:D:39:VAL:CG2	1:E:517:THR:HG23	1.53	1.38
1:F:39:VAL:CG2	1:G:517:THR:HG23	1.53	1.38
1:G:194:GLN:N	1:G:375:GLY:H	1.15	1.37
1:E:174:VAL:CG2	1:E:329:THR:HG21	1.54	1.37
1:A:517:THR:HG23	1:G:39:VAL:CG2	1.53	1.37
1:F:136:VAL:C	1:F:137:PRO:CD	1.89	1.37
1:D:174:VAL:CG2	1:D:329:THR:HG21	1.54	1.37
1:E:194:GLN:N	1:E:375:GLY:H	1.15	1.36
1:F:174:VAL:CG2	1:F:329:THR:HG21	1.54	1.36
1:E:39:VAL:CG2	1:F:517:THR:HG23	1.53	1.36
1:A:231:ARG:NH2	1:G:245:LYS:HZ1	1.21	1.36
1:A:174:VAL:CG2	1:A:329:THR:HG21	1.54	1.36
1:C:174:VAL:CG2	1:C:329:THR:HG21	1.54	1.36
1:C:194:GLN:N	1:C:375:GLY:H	1.15	1.36
1:G:174:VAL:CG2	1:G:329:THR:HG21	1.54	1.36
1:B:174:VAL:CG2	1:B:329:THR:HG21	1.54	1.35
1:A:39:VAL:CG2	1:B:517:THR:HG23	1.53	1.35
1:J:192:GLY:O	1:J:375:GLY:HA2	1.24	1.35
1:D:245:LYS:HZ1	1:E:231:ARG:NH2	1.21	1.34
1:L:192:GLY:O	1:L:375:GLY:HA2	1.24	1.34
1:N:371:LYS:C	1:N:374:GLY:N	1.82	1.33
1:L:371:LYS:C	1:L:374:GLY:N	1.82	1.33
1:I:371:LYS:C	1:I:374:GLY:N	1.82	1.33
1:G:136:VAL:O	1:G:137:PRO:N	1.62	1.32
1:E:136:VAL:O	1:E:137:PRO:N	1.62	1.32
1:J:371:LYS:C	1:J:374:GLY:N	1.82	1.32

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:371:LYS:C	1:M:374:GLY:N	1.82	1.32
1:C:136:VAL:O	1:C:137:PRO:N	1.62	1.32
1:I:192:GLY:O	1:I:375:GLY:HA2	1.24	1.32
1:F:136:VAL:O	1:F:137:PRO:N	1.62	1.31
1:K:371:LYS:C	1:K:374:GLY:N	1.82	1.31
1:H:371:LYS:C	1:H:374:GLY:N	1.82	1.31
1:B:136:VAL:O	1:B:137:PRO:N	1.62	1.31
1:A:517:THR:CG2	1:G:39:VAL:CG2	2.09	1.31
1:A:136:VAL:O	1:A:137:PRO:N	1.62	1.31
1:A:245:LYS:HZ1	1:B:231:ARG:NH2	1.22	1.31
1:M:192:GLY:O	1:M:375:GLY:HA2	1.24	1.30
1:E:39:VAL:CG2	1:F:517:THR:CG2	2.09	1.30
1:D:136:VAL:O	1:D:137:PRO:N	1.62	1.30
1:D:194:GLN:HB2	1:D:375:GLY:O	1.31	1.30
1:C:39:VAL:CG2	1:D:517:THR:CG2	2.09	1.29
1:F:39:VAL:CG2	1:G:517:THR:CG2	2.09	1.29
1:H:192:GLY:O	1:H:375:GLY:HA2	1.24	1.29
1:N:192:GLY:O	1:N:375:GLY:HA2	1.24	1.29
1:C:194:GLN:HB2	1:C:375:GLY:O	1.31	1.29
1:B:39:VAL:CG2	1:C:517:THR:CG2	2.09	1.29
1:E:194:GLN:HB2	1:E:375:GLY:O	1.31	1.28
1:A:39:VAL:CG2	1:B:517:THR:CG2	2.09	1.28
1:D:39:VAL:CG2	1:E:517:THR:CG2	2.09	1.28
1:J:370:ALA:O	1:J:374:GLY:N	1.67	1.28
1:F:194:GLN:HB2	1:F:375:GLY:O	1.31	1.27
1:G:194:GLN:HB2	1:G:375:GLY:O	1.31	1.27
1:N:370:ALA:O	1:N:374:GLY:N	1.67	1.27
1:B:191:GLU:HB2	1:B:334:ASP:N	1.50	1.26
1:G:191:GLU:HB2	1:G:334:ASP:N	1.50	1.26
1:A:191:GLU:HB2	1:A:334:ASP:N	1.50	1.26
1:F:191:GLU:HB2	1:F:334:ASP:N	1.50	1.26
1:H:370:ALA:O	1:H:374:GLY:N	1.67	1.26
1:M:370:ALA:O	1:M:374:GLY:N	1.67	1.26
1:A:194:GLN:HB2	1:A:375:GLY:O	1.31	1.26
1:K:370:ALA:O	1:K:374:GLY:N	1.67	1.26
1:C:191:GLU:HB2	1:C:334:ASP:N	1.50	1.25
1:B:194:GLN:HB2	1:B:375:GLY:O	1.31	1.25
1:C:245:LYS:NZ	1:D:231:ARG:HH22	1.33	1.25
1:I:370:ALA:O	1:I:374:GLY:N	1.67	1.25
1:E:191:GLU:HB2	1:E:334:ASP:N	1.50	1.25
1:C:41:ASP:HB2	1:D:521:VAL:O	1.37	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:245:LYS:NZ	1:E:231:ARG:HH22	1.33	1.25
1:B:245:LYS:NZ	1:C:231:ARG:HH22	1.33	1.25
1:E:245:LYS:NZ	1:F:231:ARG:NH2	1.85	1.25
1:B:194:GLN:CB	1:B:375:GLY:O	1.85	1.24
1:D:41:ASP:HB2	1:E:521:VAL:O	1.37	1.24
1:A:231:ARG:HH22	1:G:245:LYS:NZ	1.33	1.24
1:B:41:ASP:HB2	1:C:521:VAL:O	1.37	1.24
1:F:245:LYS:NZ	1:G:231:ARG:NH2	1.85	1.24
1:L:370:ALA:O	1:L:374:GLY:N	1.67	1.24
1:A:41:ASP:HB2	1:B:521:VAL:O	1.37	1.24
1:A:521:VAL:O	1:G:41:ASP:HB2	1.37	1.24
1:F:245:LYS:NZ	1:G:231:ARG:HH22	1.33	1.24
1:E:194:GLN:CB	1:E:375:GLY:O	1.85	1.24
1:A:245:LYS:NZ	1:B:231:ARG:HH22	1.33	1.24
1:F:194:GLN:CB	1:F:375:GLY:O	1.85	1.24
1:E:245:LYS:NZ	1:F:231:ARG:HH22	1.33	1.23
1:D:245:LYS:NZ	1:E:231:ARG:NH2	1.85	1.23
1:H:333:ILE:HD13	1:H:378:VAL:CG2	1.68	1.23
1:E:41:ASP:HB2	1:F:521:VAL:O	1.37	1.23
1:F:41:ASP:HB2	1:G:521:VAL:O	1.37	1.23
1:I:333:ILE:HD13	1:I:378:VAL:CG2	1.68	1.23
1:N:333:ILE:HD13	1:N:378:VAL:CG2	1.68	1.23
1:C:194:GLN:CB	1:C:375:GLY:O	1.85	1.23
1:G:194:GLN:CB	1:G:375:GLY:O	1.85	1.23
1:A:194:GLN:CB	1:A:375:GLY:O	1.85	1.23
1:D:194:GLN:CB	1:D:375:GLY:O	1.85	1.23
1:D:331:THR:OG1	1:D:376:VAL:HG23	1.38	1.23
1:D:191:GLU:HB2	1:D:334:ASP:N	1.50	1.22
1:M:333:ILE:HD13	1:M:378:VAL:CG2	1.68	1.22
1:J:333:ILE:HD13	1:J:378:VAL:CG2	1.68	1.22
1:L:333:ILE:HD13	1:L:378:VAL:CG2	1.68	1.22
1:A:231:ARG:NH2	1:G:245:LYS:NZ	1.85	1.22
1:K:333:ILE:HD13	1:K:378:VAL:CG2	1.68	1.21
1:C:39:VAL:HG21	1:D:517:THR:CG2	1.70	1.21
1:B:331:THR:OG1	1:B:376:VAL:HG23	1.38	1.21
1:D:39:VAL:HG21	1:E:517:THR:CG2	1.70	1.21
1:C:245:LYS:NZ	1:D:231:ARG:NH2	1.85	1.21
1:B:39:VAL:HG21	1:C:517:THR:CG2	1.70	1.20
1:F:39:VAL:HG21	1:G:517:THR:CG2	1.69	1.20
1:F:174:VAL:HG21	1:F:329:THR:CG2	1.71	1.20
1:A:517:THR:CG2	1:G:39:VAL:HG21	1.70	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:39:VAL:HG21	1:F:517:THR:CG2	1.69	1.19
1:C:174:VAL:HG21	1:C:329:THR:CG2	1.71	1.19
1:E:174:VAL:HG21	1:E:329:THR:CG2	1.71	1.19
1:A:245:LYS:NZ	1:B:231:ARG:NH2	1.85	1.19
1:G:174:VAL:HG21	1:G:329:THR:CG2	1.71	1.19
1:B:174:VAL:HG21	1:B:329:THR:CG2	1.71	1.19
1:E:47:PRO:HD2	1:F:73:MET:CG	1.72	1.19
1:F:47:PRO:HD2	1:G:73:MET:CG	1.73	1.19
1:D:47:PRO:HD2	1:E:73:MET:CG	1.72	1.19
1:B:245:LYS:NZ	1:C:231:ARG:NH2	1.85	1.19
1:H:371:LYS:CA	1:H:374:GLY:N	2.07	1.18
1:A:73:MET:CG	1:G:47:PRO:HD2	1.73	1.18
1:D:174:VAL:HG21	1:D:329:THR:CG2	1.71	1.18
1:A:174:VAL:HG21	1:A:329:THR:CG2	1.71	1.18
1:C:331:THR:OG1	1:C:376:VAL:HG23	1.38	1.18
1:F:331:THR:OG1	1:F:376:VAL:HG23	1.38	1.18
1:I:371:LYS:CA	1:I:374:GLY:N	2.07	1.18
1:C:47:PRO:HD2	1:D:73:MET:CG	1.72	1.17
1:N:371:LYS:CA	1:N:374:GLY:N	2.06	1.17
1:E:331:THR:OG1	1:E:376:VAL:HG23	1.38	1.17
1:G:331:THR:OG1	1:G:376:VAL:HG23	1.38	1.17
1:A:47:PRO:HD2	1:B:73:MET:CG	1.73	1.17
1:F:174:VAL:CG2	1:F:329:THR:CG2	2.23	1.17
1:G:191:GLU:CB	1:G:333:ILE:HA	1.74	1.17
1:J:371:LYS:CA	1:J:374:GLY:N	2.07	1.17
1:A:39:VAL:HG21	1:B:517:THR:CG2	1.70	1.17
1:E:174:VAL:CG2	1:E:329:THR:CG2	2.22	1.16
1:K:371:LYS:CA	1:K:374:GLY:N	2.07	1.16
1:A:331:THR:OG1	1:A:376:VAL:HG23	1.38	1.16
1:B:47:PRO:HD2	1:C:73:MET:CG	1.73	1.16
1:H:192:GLY:C	1:H:375:GLY:HA2	1.65	1.16
1:I:192:GLY:C	1:I:375:GLY:HA2	1.65	1.16
1:L:371:LYS:CA	1:L:374:GLY:N	2.07	1.16
1:J:192:GLY:C	1:J:375:GLY:HA2	1.65	1.16
1:G:174:VAL:CG2	1:G:329:THR:CG2	2.23	1.16
1:K:192:GLY:C	1:K:375:GLY:HA2	1.65	1.16
1:B:174:VAL:CG2	1:B:329:THR:CG2	2.23	1.16
1:N:192:GLY:C	1:N:375:GLY:HA2	1.65	1.16
1:M:371:LYS:CA	1:M:374:GLY:N	2.07	1.15
1:C:174:VAL:CG2	1:C:329:THR:CG2	2.23	1.15
1:L:192:GLY:C	1:L:375:GLY:HA2	1.65	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:191:GLU:C	1:I:193:MET:N	1.99	1.15
1:M:192:GLY:C	1:M:375:GLY:HA2	1.65	1.15
1:A:174:VAL:CG2	1:A:329:THR:CG2	2.23	1.15
1:D:174:VAL:CG2	1:D:329:THR:CG2	2.23	1.14
1:A:517:THR:CG2	1:G:39:VAL:HG23	1.75	1.14
1:D:39:VAL:HG21	1:E:517:THR:HG21	1.28	1.13
1:I:192:GLY:O	1:I:375:GLY:CA	1.97	1.13
1:H:192:GLY:O	1:H:375:GLY:CA	1.97	1.13
1:K:192:GLY:O	1:K:375:GLY:CA	1.97	1.13
1:N:192:GLY:O	1:N:375:GLY:CA	1.97	1.13
1:E:39:VAL:HG23	1:F:517:THR:CG2	1.75	1.13
1:J:190:VAL:CG1	1:J:333:ILE:HG23	1.78	1.13
1:H:191:GLU:C	1:H:193:MET:N	1.99	1.13
1:H:190:VAL:CG1	1:H:333:ILE:HG23	1.78	1.13
1:M:192:GLY:O	1:M:375:GLY:CA	1.97	1.13
1:C:39:VAL:HG21	1:D:517:THR:HG21	1.28	1.12
1:L:192:GLY:O	1:L:375:GLY:CA	1.97	1.12
1:L:191:GLU:C	1:L:193:MET:N	1.99	1.11
1:D:39:VAL:HG23	1:E:517:THR:CG2	1.75	1.11
1:M:190:VAL:CG1	1:M:333:ILE:HG23	1.78	1.11
1:N:191:GLU:C	1:N:193:MET:N	1.99	1.11
1:M:191:GLU:C	1:M:193:MET:N	1.99	1.11
1:J:192:GLY:O	1:J:375:GLY:CA	1.97	1.11
1:J:230:ILE:HD12	1:J:261:THR:HG21	1.33	1.11
1:F:86:GLY:CA	1:F:401:HIS:CE1	2.34	1.11
1:G:371:LYS:HG2	1:G:374:GLY:N	1.66	1.11
1:F:371:LYS:HG2	1:F:374:GLY:N	1.66	1.11
1:E:371:LYS:HG2	1:E:374:GLY:N	1.66	1.10
1:G:86:GLY:CA	1:G:401:HIS:CE1	2.34	1.10
1:A:517:THR:HG21	1:G:39:VAL:HG21	1.28	1.10
1:D:371:LYS:HG2	1:D:374:GLY:N	1.66	1.10
1:J:191:GLU:C	1:J:193:MET:N	1.99	1.10
1:N:190:VAL:CG1	1:N:333:ILE:HG23	1.78	1.10
1:C:371:LYS:HG2	1:C:374:GLY:N	1.66	1.10
1:A:371:LYS:HG2	1:A:374:GLY:N	1.66	1.10
1:F:191:GLU:CB	1:F:333:ILE:HA	1.74	1.10
1:I:230:ILE:HD12	1:I:261:THR:HG21	1.33	1.10
1:B:371:LYS:HG2	1:B:374:GLY:N	1.66	1.10
1:A:191:GLU:HB2	1:A:334:ASP:H	0.94	1.10
1:H:230:ILE:HD12	1:H:261:THR:HG21	1.33	1.10
1:C:191:GLU:HB2	1:C:334:ASP:H	0.94	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:230:ILE:HD12	1:M:261:THR:HG21	1.33	1.10
1:B:86:GLY:CA	1:B:401:HIS:CE1	2.34	1.09
1:C:174:VAL:HG22	1:C:329:THR:HG21	1.26	1.09
1:G:191:GLU:HB2	1:G:334:ASP:H	0.94	1.09
1:D:191:GLU:HB2	1:D:334:ASP:H	0.94	1.09
1:E:86:GLY:CA	1:E:401:HIS:CE1	2.34	1.09
1:K:191:GLU:C	1:K:193:MET:N	1.99	1.09
1:C:39:VAL:HG23	1:D:517:THR:CG2	1.75	1.09
1:C:86:GLY:CA	1:C:401:HIS:CE1	2.34	1.09
1:F:194:GLN:N	1:F:375:GLY:N	2.00	1.09
1:M:183:LEU:H	1:M:383:ALA:HB3	1.13	1.09
1:F:39:VAL:HG23	1:G:517:THR:CG2	1.75	1.09
1:G:194:GLN:N	1:G:375:GLY:N	2.00	1.09
1:A:174:VAL:HG22	1:A:329:THR:HG21	1.26	1.09
1:A:86:GLY:CA	1:A:401:HIS:CE1	2.34	1.09
1:B:194:GLN:N	1:B:375:GLY:N	2.00	1.09
1:D:191:GLU:CB	1:D:333:ILE:HA	1.74	1.09
1:E:191:GLU:HB2	1:E:334:ASP:H	0.94	1.08
1:L:371:LYS:O	1:L:374:GLY:N	1.86	1.08
1:C:194:GLN:N	1:C:375:GLY:N	2.00	1.08
1:I:371:LYS:O	1:I:374:GLY:N	1.86	1.08
1:K:230:ILE:HD12	1:K:261:THR:HG21	1.33	1.08
1:F:191:GLU:HB2	1:F:334:ASP:H	0.94	1.08
1:D:86:GLY:CA	1:D:401:HIS:CE1	2.34	1.08
1:C:191:GLU:CB	1:C:333:ILE:HA	1.74	1.08
1:F:39:VAL:HG21	1:G:517:THR:HG21	1.28	1.08
1:A:371:LYS:HG2	1:A:374:GLY:CA	1.84	1.08
1:E:194:GLN:N	1:E:375:GLY:N	2.00	1.08
1:L:230:ILE:HD12	1:L:261:THR:HG21	1.33	1.08
1:A:194:GLN:N	1:A:375:GLY:N	2.00	1.08
1:B:39:VAL:HG21	1:C:517:THR:HG21	1.28	1.08
1:G:174:VAL:HG22	1:G:329:THR:HG21	1.26	1.08
1:M:521:VAL:O	1:N:41:ASP:HB2	1.54	1.08
1:F:174:VAL:HG22	1:F:329:THR:HG21	1.26	1.08
1:H:183:LEU:H	1:H:383:ALA:HB3	1.13	1.08
1:I:190:VAL:CG1	1:I:333:ILE:HG23	1.78	1.08
1:N:371:LYS:O	1:N:374:GLY:N	1.86	1.08
1:H:521:VAL:O	1:I:41:ASP:HB2	1.54	1.08
1:N:183:LEU:H	1:N:383:ALA:HB3	1.13	1.08
1:E:39:VAL:HG21	1:F:517:THR:HG21	1.28	1.07
1:A:39:VAL:HG21	1:B:517:THR:HG21	1.28	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:521:VAL:O	1:K:41:ASP:HB2	1.54	1.07
1:L:333:ILE:HD13	1:L:378:VAL:HG21	1.11	1.07
1:B:371:LYS:HG2	1:B:374:GLY:CA	1.84	1.07
1:B:191:GLU:CB	1:B:333:ILE:HA	1.74	1.07
1:D:183:LEU:H	1:D:383:ALA:HB3	1.20	1.07
1:H:41:ASP:HB2	1:N:521:VAL:O	1.54	1.07
1:K:333:ILE:HD13	1:K:378:VAL:HG21	1.11	1.07
1:B:174:VAL:HG22	1:B:329:THR:HG21	1.26	1.07
1:D:47:PRO:CD	1:E:73:MET:HG2	1.85	1.07
1:A:174:VAL:HG21	1:A:329:THR:HG21	1.30	1.07
1:B:39:VAL:HG23	1:C:517:THR:CG2	1.75	1.07
1:F:371:LYS:HG2	1:F:374:GLY:CA	1.84	1.07
1:I:183:LEU:H	1:I:383:ALA:HB3	1.13	1.07
1:D:194:GLN:N	1:D:375:GLY:N	2.00	1.07
1:E:47:PRO:CD	1:F:73:MET:HG2	1.85	1.07
1:C:47:PRO:CD	1:D:73:MET:HG2	1.85	1.06
1:J:371:LYS:O	1:J:374:GLY:N	1.86	1.06
1:K:183:LEU:H	1:K:383:ALA:HB3	1.13	1.06
1:D:371:LYS:HG2	1:D:374:GLY:CA	1.84	1.06
1:B:47:PRO:CD	1:C:73:MET:HG2	1.85	1.06
1:A:47:PRO:CD	1:B:73:MET:HG2	1.85	1.06
1:E:174:VAL:HG22	1:E:329:THR:HG21	1.26	1.06
1:E:371:LYS:HG2	1:E:374:GLY:CA	1.84	1.06
1:F:47:PRO:CD	1:G:73:MET:HG2	1.85	1.06
1:A:73:MET:HG2	1:G:47:PRO:CD	1.85	1.06
1:K:371:LYS:O	1:K:374:GLY:N	1.86	1.06
1:L:521:VAL:O	1:M:41:ASP:HB2	1.54	1.06
1:C:371:LYS:HG2	1:C:374:GLY:CA	1.84	1.06
1:G:371:LYS:HG2	1:G:374:GLY:CA	1.84	1.06
1:J:333:ILE:HD13	1:J:378:VAL:HG21	1.11	1.06
1:M:333:ILE:HD13	1:M:378:VAL:HG21	1.11	1.06
1:M:371:LYS:O	1:M:374:GLY:N	1.86	1.06
1:A:191:GLU:CB	1:A:334:ASP:H	1.68	1.06
1:E:191:GLU:CB	1:E:333:ILE:HA	1.74	1.06
1:F:174:VAL:HG21	1:F:329:THR:HG21	1.30	1.06
1:N:230:ILE:HD12	1:N:261:THR:HG21	1.33	1.06
1:E:191:GLU:CB	1:E:334:ASP:H	1.68	1.06
1:G:191:GLU:CB	1:G:334:ASP:H	1.68	1.06
1:H:333:ILE:HD13	1:H:378:VAL:HG21	1.11	1.06
1:E:191:GLU:HB2	1:E:333:ILE:HA	1.36	1.05
1:G:331:THR:OG1	1:G:376:VAL:CG2	2.04	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:521:VAL:O	1:J:41:ASP:HB2	1.54	1.05
1:K:521:VAL:O	1:L:41:ASP:HB2	1.54	1.05
1:L:183:LEU:H	1:L:383:ALA:HB3	1.13	1.05
1:B:183:LEU:H	1:B:383:ALA:HB3	1.20	1.05
1:D:191:GLU:CB	1:D:334:ASP:H	1.68	1.05
1:F:331:THR:OG1	1:F:376:VAL:CG2	2.04	1.05
1:G:191:GLU:HB2	1:G:333:ILE:HA	1.36	1.05
1:H:371:LYS:O	1:H:374:GLY:N	1.87	1.05
1:K:190:VAL:CG1	1:K:333:ILE:HG23	1.78	1.05
1:A:230:ILE:HD12	1:A:261:THR:HG21	1.36	1.05
1:D:174:VAL:HG22	1:D:329:THR:HG21	1.26	1.05
1:E:230:ILE:HD12	1:E:261:THR:HG21	1.36	1.05
1:B:331:THR:OG1	1:B:376:VAL:CG2	2.04	1.05
1:C:191:GLU:CB	1:C:334:ASP:H	1.68	1.05
1:D:331:THR:OG1	1:D:376:VAL:CG2	2.04	1.05
1:B:230:ILE:HD12	1:B:261:THR:HG21	1.36	1.05
1:B:191:GLU:CB	1:B:334:ASP:H	1.68	1.05
1:E:331:THR:OG1	1:E:376:VAL:CG2	2.04	1.05
1:J:183:LEU:H	1:J:383:ALA:HB3	1.13	1.05
1:A:331:THR:OG1	1:A:376:VAL:CG2	2.04	1.05
1:N:333:ILE:HD13	1:N:378:VAL:HG21	1.11	1.05
1:C:331:THR:OG1	1:C:376:VAL:CG2	2.04	1.05
1:F:191:GLU:CB	1:F:334:ASP:H	1.68	1.05
1:A:183:LEU:H	1:A:383:ALA:HB3	1.20	1.04
1:F:183:LEU:H	1:F:383:ALA:HB3	1.20	1.04
1:A:39:VAL:HG23	1:B:517:THR:CG2	1.75	1.04
1:B:191:GLU:HB2	1:B:334:ASP:H	0.94	1.04
1:I:333:ILE:HD13	1:I:378:VAL:HG21	1.11	1.04
1:C:183:LEU:H	1:C:383:ALA:HB3	1.20	1.04
1:E:183:LEU:H	1:E:383:ALA:HB3	1.20	1.04
1:C:191:GLU:HB3	1:C:332:ILE:O	1.58	1.03
1:F:230:ILE:HD12	1:F:261:THR:HG21	1.36	1.03
1:D:230:ILE:HD12	1:D:261:THR:HG21	1.36	1.03
1:E:245:LYS:CE	1:F:231:ARG:NH2	2.22	1.03
1:G:191:GLU:HB3	1:G:332:ILE:O	1.58	1.03
1:B:136:VAL:HG12	1:B:137:PRO:CD	1.89	1.03
1:A:231:ARG:NH2	1:G:245:LYS:CE	2.22	1.03
1:C:230:ILE:HD12	1:C:261:THR:HG21	1.36	1.03
1:F:136:VAL:HG12	1:F:137:PRO:CD	1.89	1.03
1:C:136:VAL:HG12	1:C:137:PRO:CD	1.89	1.02
1:D:191:GLU:HB3	1:D:332:ILE:O	1.58	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:183:LEU:H	1:G:383:ALA:HB3	1.20	1.02
1:J:191:GLU:C	1:J:193:MET:H	1.61	1.02
1:B:245:LYS:CE	1:C:231:ARG:NH2	2.22	1.02
1:D:136:VAL:HG12	1:D:137:PRO:CD	1.89	1.02
1:F:191:GLU:HB3	1:F:332:ILE:O	1.58	1.02
1:G:136:VAL:HG12	1:G:137:PRO:CD	1.89	1.02
1:G:230:ILE:HD12	1:G:261:THR:HG21	1.36	1.02
1:M:191:GLU:C	1:M:193:MET:H	1.61	1.02
1:A:136:VAL:HG12	1:A:137:PRO:CD	1.89	1.02
1:A:41:ASP:CB	1:B:521:VAL:O	2.08	1.02
1:B:191:GLU:HB3	1:B:332:ILE:O	1.58	1.02
1:A:191:GLU:CB	1:A:333:ILE:HA	1.74	1.02
1:D:245:LYS:CE	1:E:231:ARG:NH2	2.22	1.02
1:L:191:GLU:C	1:L:193:MET:H	1.61	1.02
1:L:190:VAL:CG1	1:L:333:ILE:HG23	1.78	1.02
1:A:521:VAL:O	1:G:41:ASP:CB	2.08	1.02
1:C:245:LYS:CE	1:D:231:ARG:HH21	1.72	1.02
1:I:370:ALA:O	1:I:374:GLY:CA	2.08	1.02
1:A:191:GLU:HB3	1:A:332:ILE:O	1.58	1.02
1:A:245:LYS:CE	1:B:231:ARG:HH21	1.72	1.02
1:B:245:LYS:CE	1:C:231:ARG:HH21	1.72	1.02
1:B:41:ASP:CB	1:C:521:VAL:O	2.08	1.02
1:E:136:VAL:HG12	1:E:137:PRO:CD	1.89	1.02
1:F:245:LYS:CE	1:G:231:ARG:NH2	2.22	1.02
1:K:190:VAL:HG13	1:K:333:ILE:CG2	1.89	1.01
1:A:245:LYS:CE	1:B:231:ARG:NH2	2.22	1.01
1:C:245:LYS:CE	1:D:231:ARG:NH2	2.22	1.01
1:C:191:GLU:HB2	1:C:333:ILE:HA	1.36	1.01
1:E:191:GLU:HB3	1:E:332:ILE:O	1.58	1.01
1:E:245:LYS:CE	1:F:231:ARG:HH21	1.72	1.01
1:J:190:VAL:HG13	1:J:333:ILE:CG2	1.89	1.01
1:F:245:LYS:CE	1:G:231:ARG:HH21	1.72	1.01
1:J:370:ALA:O	1:J:374:GLY:CA	2.08	1.01
1:N:190:VAL:HG13	1:N:333:ILE:CG2	1.89	1.01
1:G:174:VAL:HG21	1:G:329:THR:HG21	1.30	1.01
1:A:231:ARG:HH21	1:G:245:LYS:CE	1.72	1.01
1:H:190:VAL:HG13	1:H:333:ILE:CG2	1.89	1.01
1:H:370:ALA:O	1:H:374:GLY:CA	2.08	1.01
1:F:86:GLY:CA	1:F:401:HIS:HE1	1.73	1.01
1:F:41:ASP:CB	1:G:521:VAL:O	2.08	1.01
1:N:331:THR:OG1	1:N:376:VAL:HG21	1.61	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:86:GLY:CA	1:A:401:HIS:HE1	1.73	1.00
1:D:41:ASP:CB	1:E:521:VAL:O	2.08	1.00
1:D:136:VAL:HG12	1:D:137:PRO:HD2	1.43	1.00
1:C:41:ASP:CB	1:D:521:VAL:O	2.08	1.00
1:L:331:THR:OG1	1:L:376:VAL:HG21	1.61	1.00
1:E:41:ASP:CB	1:F:521:VAL:O	2.08	1.00
1:G:136:VAL:HG12	1:G:137:PRO:HD2	1.43	1.00
1:K:331:THR:OG1	1:K:376:VAL:HG21	1.61	1.00
1:L:370:ALA:O	1:L:374:GLY:CA	2.08	1.00
1:M:370:ALA:O	1:M:374:GLY:CA	2.08	1.00
1:D:245:LYS:CE	1:E:231:ARG:HH21	1.72	1.00
1:K:191:GLU:C	1:K:193:MET:H	1.61	1.00
1:K:370:ALA:O	1:K:374:GLY:CA	2.08	1.00
1:B:191:GLU:HB2	1:B:333:ILE:HA	1.36	1.00
1:M:331:THR:OG1	1:M:376:VAL:HG21	1.61	1.00
1:F:136:VAL:HG12	1:F:137:PRO:HD2	1.43	1.00
1:H:331:THR:OG1	1:H:376:VAL:HG21	1.61	1.00
1:D:191:GLU:HB2	1:D:333:ILE:HA	1.36	0.99
1:D:86:GLY:CA	1:D:401:HIS:HE1	1.73	0.99
1:J:331:THR:OG1	1:J:376:VAL:HG21	1.61	0.99
1:N:370:ALA:O	1:N:374:GLY:CA	2.08	0.99
1:B:331:THR:CB	1:B:376:VAL:CG2	2.40	0.99
1:I:331:THR:OG1	1:I:376:VAL:HG21	1.61	0.99
1:A:136:VAL:HG12	1:A:137:PRO:HD2	1.43	0.99
1:B:86:GLY:CA	1:B:401:HIS:HE1	1.73	0.99
1:B:136:VAL:HG12	1:B:137:PRO:HD2	1.43	0.99
1:D:331:THR:CB	1:D:376:VAL:CG2	2.40	0.99
1:F:331:THR:CB	1:F:376:VAL:CG2	2.40	0.99
1:C:86:GLY:CA	1:C:401:HIS:HE1	1.73	0.99
1:A:331:THR:CB	1:A:376:VAL:CG2	2.40	0.98
1:G:331:THR:CB	1:G:376:VAL:CG2	2.40	0.98
1:F:194:GLN:NE2	1:F:375:GLY:O	1.96	0.98
1:E:194:GLN:NE2	1:E:375:GLY:O	1.97	0.98
1:C:331:THR:CB	1:C:376:VAL:CG2	2.40	0.98
1:E:136:VAL:HG12	1:E:137:PRO:HD2	1.43	0.98
1:E:331:THR:CB	1:E:376:VAL:CG2	2.40	0.98
1:I:331:THR:OG1	1:I:376:VAL:HG11	1.63	0.98
1:B:194:GLN:NE2	1:B:375:GLY:O	1.97	0.98
1:I:191:GLU:C	1:I:193:MET:H	1.61	0.98
1:L:190:VAL:HG13	1:L:333:ILE:CG2	1.89	0.98
1:N:331:THR:OG1	1:N:376:VAL:HG11	1.63	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:194:GLN:NE2	1:D:375:GLY:O	1.97	0.98
1:H:191:GLU:C	1:H:193:MET:H	1.61	0.98
1:B:47:PRO:CD	1:C:73:MET:CG	2.42	0.97
1:M:190:VAL:HG13	1:M:333:ILE:CG2	1.89	0.97
1:G:194:GLN:NE2	1:G:375:GLY:O	1.96	0.97
1:F:47:PRO:HD2	1:G:73:MET:HG2	0.97	0.97
1:H:331:THR:OG1	1:H:376:VAL:HG11	1.63	0.97
1:A:73:MET:HG2	1:G:47:PRO:HD2	0.98	0.97
1:C:136:VAL:HG12	1:C:137:PRO:HD2	1.43	0.97
1:F:191:GLU:HB2	1:F:333:ILE:HA	1.36	0.97
1:E:47:PRO:HD2	1:F:73:MET:HG2	0.97	0.97
1:K:513:LEU:HD13	1:L:49:ILE:HD12	1.46	0.97
1:H:49:ILE:HD12	1:N:513:LEU:HD13	1.45	0.97
1:I:194:GLN:HB2	1:I:376:VAL:HG22	1.47	0.97
1:G:86:GLY:CA	1:G:401:HIS:HE1	1.73	0.97
1:H:194:GLN:HB2	1:H:376:VAL:HG22	1.47	0.96
1:C:194:GLN:NE2	1:C:375:GLY:O	1.96	0.96
1:H:513:LEU:HD13	1:I:49:ILE:HD12	1.45	0.96
1:B:194:GLN:H	1:B:375:GLY:H	1.07	0.96
1:K:331:THR:OG1	1:K:376:VAL:HG11	1.63	0.96
1:L:513:LEU:HD13	1:M:49:ILE:HD12	1.46	0.96
1:A:47:PRO:HD2	1:B:73:MET:HG2	0.98	0.96
1:D:47:PRO:HD2	1:E:73:MET:HG2	0.97	0.96
1:E:86:GLY:CA	1:E:401:HIS:HE1	1.73	0.96
1:A:191:GLU:HB2	1:A:333:ILE:HA	1.36	0.96
1:J:513:LEU:HD13	1:K:49:ILE:HD12	1.45	0.96
1:A:194:GLN:H	1:A:375:GLY:H	1.07	0.96
1:A:194:GLN:NE2	1:A:375:GLY:O	1.97	0.96
1:K:174:VAL:HG21	1:K:194:GLN:HB3	1.47	0.96
1:L:331:THR:OG1	1:L:376:VAL:HG11	1.63	0.96
1:I:190:VAL:HG13	1:I:333:ILE:CG2	1.89	0.96
1:J:331:THR:OG1	1:J:376:VAL:HG11	1.63	0.96
1:M:331:THR:OG1	1:M:376:VAL:HG11	1.63	0.96
1:A:37:ASN:HB2	1:B:516:THR:O	1.66	0.95
1:D:37:ASN:HB2	1:E:516:THR:O	1.66	0.95
1:M:513:LEU:HD13	1:N:49:ILE:HD12	1.45	0.95
1:C:47:PRO:HD2	1:D:73:MET:HG2	0.98	0.95
1:B:37:ASN:HB2	1:C:516:THR:O	1.66	0.95
1:D:47:PRO:CD	1:E:73:MET:CG	2.42	0.95
1:J:194:GLN:HB2	1:J:376:VAL:HG22	1.47	0.95
1:B:47:PRO:HD2	1:C:73:MET:HG2	0.98	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:194:GLN:HB2	1:N:376:VAL:HG22	1.47	0.95
1:A:516:THR:O	1:G:37:ASN:HB2	1.66	0.95
1:F:47:PRO:CD	1:G:73:MET:CG	2.42	0.95
1:H:174:VAL:HG21	1:H:194:GLN:HB3	1.47	0.95
1:N:174:VAL:HG21	1:N:194:GLN:HB3	1.47	0.95
1:N:191:GLU:C	1:N:193:MET:H	1.61	0.95
1:C:37:ASN:HB2	1:D:516:THR:O	1.66	0.95
1:E:37:ASN:HB2	1:F:516:THR:O	1.66	0.95
1:I:513:LEU:HD13	1:J:49:ILE:HD12	1.45	0.95
1:E:47:PRO:CD	1:F:73:MET:CG	2.42	0.95
1:K:517:THR:HG23	1:L:39:VAL:HG23	1.49	0.94
1:A:73:MET:CG	1:G:47:PRO:CD	2.42	0.94
1:G:191:GLU:HB2	1:G:333:ILE:CA	1.98	0.94
1:H:39:VAL:HG23	1:N:517:THR:HG23	1.49	0.94
1:C:331:THR:HG1	1:C:376:VAL:HG23	1.19	0.94
1:M:194:GLN:HB2	1:M:376:VAL:HG22	1.47	0.94
1:F:37:ASN:HB2	1:G:516:THR:O	1.66	0.94
1:I:218:PRO:HB3	1:I:246:PRO:HG2	1.50	0.94
1:K:218:PRO:HB3	1:K:246:PRO:HG2	1.50	0.94
1:E:191:GLU:HB2	1:E:333:ILE:CA	1.98	0.94
1:E:235:PRO:HG3	1:E:310:GLU:HA	1.48	0.94
1:M:517:THR:HG23	1:N:39:VAL:HG23	1.49	0.94
1:A:191:GLU:HB2	1:A:333:ILE:CA	1.98	0.94
1:D:235:PRO:HG3	1:D:310:GLU:HA	1.48	0.94
1:H:218:PRO:HB3	1:H:246:PRO:HG2	1.50	0.94
1:J:218:PRO:HB3	1:J:246:PRO:HG2	1.50	0.94
1:L:517:THR:HG23	1:M:39:VAL:HG23	1.49	0.94
1:B:191:GLU:HB2	1:B:333:ILE:CA	1.98	0.93
1:J:174:VAL:HG21	1:J:194:GLN:HB3	1.47	0.93
1:D:331:THR:HG1	1:D:376:VAL:HG23	1.25	0.93
1:I:174:VAL:HG21	1:I:194:GLN:HB3	1.47	0.93
1:L:218:PRO:HB3	1:L:246:PRO:HG2	1.50	0.93
1:M:174:VAL:HG21	1:M:194:GLN:HB3	1.47	0.93
1:C:191:GLU:HB2	1:C:333:ILE:CA	1.98	0.93
1:E:191:GLU:C	1:E:332:ILE:O	2.07	0.93
1:D:191:GLU:C	1:D:332:ILE:O	2.07	0.93
1:A:194:GLN:HB2	1:A:375:GLY:C	1.89	0.93
1:C:194:GLN:H	1:C:375:GLY:H	1.07	0.93
1:D:191:GLU:HB2	1:D:333:ILE:CA	1.98	0.93
1:F:191:GLU:HB2	1:F:333:ILE:CA	1.98	0.93
1:C:136:VAL:C	1:C:137:PRO:N	2.15	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:191:GLU:C	1:F:332:ILE:O	2.07	0.93
1:L:194:GLN:HB2	1:L:376:VAL:HG22	1.47	0.93
1:L:174:VAL:HG21	1:L:194:GLN:HB3	1.47	0.93
1:A:235:PRO:HG3	1:A:310:GLU:HA	1.48	0.93
1:C:235:PRO:HG3	1:C:310:GLU:HA	1.48	0.93
1:G:194:GLN:HB2	1:G:375:GLY:C	1.89	0.93
1:K:194:GLN:HB2	1:K:376:VAL:HG22	1.47	0.93
1:B:194:GLN:HB2	1:B:375:GLY:C	1.89	0.93
1:J:517:THR:HG23	1:K:39:VAL:HG23	1.49	0.93
1:E:331:THR:HG1	1:E:376:VAL:HG23	1.23	0.93
1:F:235:PRO:HG3	1:F:310:GLU:HA	1.48	0.93
1:H:521:VAL:O	1:I:41:ASP:CB	2.17	0.93
1:A:47:PRO:CD	1:B:73:MET:CG	2.42	0.92
1:B:191:GLU:C	1:B:332:ILE:O	2.07	0.92
1:E:218:PRO:HB3	1:E:246:PRO:HG2	1.52	0.92
1:G:235:PRO:HG3	1:G:310:GLU:HA	1.48	0.92
1:I:521:VAL:O	1:J:41:ASP:CB	2.17	0.92
1:C:191:GLU:C	1:C:332:ILE:O	2.07	0.92
1:E:136:VAL:C	1:E:137:PRO:N	2.15	0.92
1:M:235:PRO:HG3	1:M:310:GLU:HA	1.52	0.92
1:N:235:PRO:HG3	1:N:310:GLU:HA	1.52	0.92
1:C:47:PRO:CD	1:D:73:MET:CG	2.42	0.92
1:L:235:PRO:HG3	1:L:310:GLU:HA	1.52	0.92
1:A:191:GLU:C	1:A:332:ILE:O	2.07	0.92
1:H:41:ASP:CB	1:N:521:VAL:O	2.17	0.92
1:B:218:PRO:HB3	1:B:246:PRO:HG2	1.52	0.92
1:J:517:THR:HG23	1:K:39:VAL:CG2	2.00	0.92
1:M:517:THR:HG23	1:N:39:VAL:CG2	2.00	0.92
1:D:218:PRO:HB3	1:D:246:PRO:HG2	1.52	0.92
1:D:194:GLN:H	1:D:375:GLY:H	1.07	0.92
1:F:194:GLN:HB2	1:F:375:GLY:C	1.89	0.92
1:G:194:GLN:H	1:G:375:GLY:H	1.07	0.92
1:N:218:PRO:HB3	1:N:246:PRO:HG2	1.50	0.92
1:C:194:GLN:HB2	1:C:375:GLY:C	1.89	0.92
1:E:194:GLN:H	1:E:375:GLY:H	1.07	0.92
1:F:218:PRO:HB3	1:F:246:PRO:HG2	1.52	0.92
1:H:235:PRO:HG3	1:H:310:GLU:HA	1.52	0.92
1:H:39:VAL:CG2	1:N:517:THR:HG23	2.00	0.92
1:I:517:THR:HG23	1:J:39:VAL:HG23	1.49	0.92
1:K:517:THR:HG23	1:L:39:VAL:CG2	2.00	0.92
1:M:218:PRO:HB3	1:M:246:PRO:HG2	1.50	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:517:THR:HG23	1:M:39:VAL:CG2	2.00	0.92
1:B:136:VAL:C	1:B:137:PRO:N	2.15	0.92
1:G:191:GLU:C	1:G:332:ILE:O	2.07	0.92
1:C:218:PRO:HB3	1:C:246:PRO:HG2	1.52	0.92
1:E:194:GLN:HB2	1:E:375:GLY:C	1.89	0.92
1:A:218:PRO:HB3	1:A:246:PRO:HG2	1.52	0.91
1:E:174:VAL:HG21	1:E:329:THR:HG21	1.30	0.91
1:F:194:GLN:H	1:F:375:GLY:H	1.07	0.91
1:B:235:PRO:HG3	1:B:310:GLU:HA	1.48	0.91
1:H:517:THR:HG23	1:I:39:VAL:HG23	1.49	0.91
1:I:517:THR:HG23	1:J:39:VAL:CG2	2.00	0.91
1:K:235:PRO:HG3	1:K:310:GLU:HA	1.52	0.91
1:J:521:VAL:O	1:K:41:ASP:CB	2.17	0.91
1:D:194:GLN:HB2	1:D:375:GLY:C	1.89	0.91
1:G:218:PRO:HB3	1:G:246:PRO:HG2	1.52	0.91
1:B:331:THR:HG21	1:B:376:VAL:HG21	1.53	0.91
1:E:331:THR:HG21	1:E:376:VAL:HG21	1.53	0.91
1:L:521:VAL:O	1:M:41:ASP:CB	2.17	0.91
1:A:49:ILE:CD1	1:B:513:LEU:HB3	2.01	0.91
1:D:331:THR:HG21	1:D:376:VAL:HG21	1.53	0.91
1:I:235:PRO:HG3	1:I:310:GLU:HA	1.52	0.91
1:J:333:ILE:CD1	1:J:378:VAL:HG21	2.01	0.91
1:D:136:VAL:C	1:D:137:PRO:N	2.15	0.91
1:E:49:ILE:CD1	1:F:513:LEU:HB3	2.01	0.91
1:G:136:VAL:C	1:G:137:PRO:N	2.15	0.91
1:M:521:VAL:O	1:N:41:ASP:CB	2.17	0.91
1:K:521:VAL:O	1:L:41:ASP:CB	2.17	0.90
1:A:331:THR:HG21	1:A:376:VAL:HG21	1.53	0.90
1:C:49:ILE:CD1	1:D:513:LEU:HB3	2.01	0.90
1:I:190:VAL:HG13	1:I:333:ILE:HG23	1.52	0.90
1:H:517:THR:HG23	1:I:39:VAL:CG2	2.00	0.90
1:J:235:PRO:HG3	1:J:310:GLU:HA	1.52	0.90
1:B:49:ILE:CD1	1:C:513:LEU:HB3	2.01	0.90
1:C:331:THR:HG21	1:C:376:VAL:HG21	1.53	0.90
1:F:331:THR:HG21	1:F:376:VAL:HG21	1.53	0.90
1:D:49:ILE:CD1	1:E:513:LEU:HB3	2.01	0.90
1:F:136:VAL:C	1:F:137:PRO:N	2.15	0.90
1:K:333:ILE:CD1	1:K:378:VAL:HG21	2.01	0.90
1:I:194:GLN:HB2	1:I:376:VAL:CG2	2.03	0.89
1:M:371:LYS:HA	1:M:374:GLY:N	1.88	0.89
1:D:174:VAL:HG21	1:D:329:THR:HG21	1.30	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:194:GLN:HB2	1:N:376:VAL:CG2	2.03	0.89
1:G:331:THR:HG21	1:G:376:VAL:HG21	1.53	0.89
1:I:371:LYS:HA	1:I:374:GLY:N	1.88	0.89
1:K:194:GLN:HB2	1:K:376:VAL:CG2	2.03	0.89
1:F:49:ILE:CD1	1:G:513:LEU:HB3	2.01	0.89
1:H:333:ILE:CD1	1:H:378:VAL:HG21	2.01	0.89
1:K:371:LYS:HA	1:K:374:GLY:N	1.88	0.89
1:L:333:ILE:CD1	1:L:378:VAL:HG21	2.01	0.89
1:C:174:VAL:HG21	1:C:329:THR:HG21	1.30	0.88
1:M:194:GLN:HB2	1:M:376:VAL:CG2	2.03	0.88
1:A:513:LEU:HB3	1:G:49:ILE:CD1	2.01	0.88
1:H:194:GLN:HB2	1:H:376:VAL:CG2	2.03	0.88
1:I:333:ILE:HG21	1:I:378:VAL:HG21	1.55	0.88
1:J:194:GLN:HB2	1:J:376:VAL:CG2	2.03	0.88
1:N:333:ILE:CD1	1:N:378:VAL:HG21	2.01	0.88
1:B:174:VAL:HG21	1:B:329:THR:HG21	1.30	0.88
1:E:191:GLU:CB	1:E:334:ASP:N	2.33	0.88
1:L:194:GLN:HB2	1:L:376:VAL:CG2	2.03	0.88
1:H:333:ILE:HG21	1:H:378:VAL:HG21	1.55	0.88
1:H:371:LYS:HA	1:H:374:GLY:N	1.88	0.88
1:I:333:ILE:CD1	1:I:378:VAL:HG21	2.01	0.88
1:H:190:VAL:CB	1:H:333:ILE:CG2	2.42	0.88
1:H:404:ARG:HG2	1:H:404:ARG:HH11	1.39	0.87
1:I:333:ILE:CD1	1:I:378:VAL:CG2	2.53	0.87
1:J:333:ILE:CD1	1:J:378:VAL:CG2	2.53	0.87
1:L:333:ILE:CD1	1:L:378:VAL:CG2	2.53	0.87
1:L:333:ILE:HG21	1:L:378:VAL:HG21	1.55	0.87
1:M:333:ILE:CD1	1:M:378:VAL:CG2	2.53	0.87
1:I:404:ARG:HH11	1:I:404:ARG:HG2	1.39	0.87
1:N:371:LYS:HA	1:N:374:GLY:N	1.88	0.87
1:A:517:THR:HG23	1:G:39:VAL:HG23	0.87	0.87
1:C:39:VAL:HG23	1:D:517:THR:HG23	0.87	0.87
1:M:333:ILE:CD1	1:M:378:VAL:HG21	2.01	0.87
1:D:39:VAL:HG23	1:E:517:THR:HG23	0.87	0.87
1:J:371:LYS:HA	1:J:374:GLY:N	1.88	0.87
1:L:190:VAL:HG13	1:L:333:ILE:HG23	1.52	0.87
1:N:333:ILE:HG21	1:N:378:VAL:HG21	1.55	0.87
1:A:39:VAL:HG23	1:B:517:THR:HG23	0.87	0.86
1:B:39:VAL:HG23	1:C:517:THR:HG23	0.87	0.86
1:C:191:GLU:CB	1:C:334:ASP:N	2.33	0.86
1:J:333:ILE:HG21	1:J:378:VAL:HG21	1.55	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:333:ILE:HG21	1:K:378:VAL:HG21	1.55	0.86
1:A:193:MET:C	1:A:375:GLY:H	1.78	0.86
1:F:174:VAL:HG22	1:F:329:THR:CG2	1.98	0.86
1:G:193:MET:C	1:G:375:GLY:H	1.78	0.86
1:M:190:VAL:HG12	1:M:334:ASP:HB2	1.58	0.86
1:M:333:ILE:HG21	1:M:378:VAL:HG21	1.55	0.86
1:B:191:GLU:CB	1:B:334:ASP:N	2.33	0.86
1:D:191:GLU:CB	1:D:334:ASP:N	2.33	0.86
1:H:333:ILE:CD1	1:H:378:VAL:CG2	2.53	0.86
1:L:371:LYS:HA	1:L:374:GLY:N	1.88	0.86
1:L:404:ARG:HG2	1:L:404:ARG:HH11	1.39	0.86
1:C:331:THR:CB	1:C:376:VAL:HG21	2.05	0.86
1:G:371:LYS:CG	1:G:374:GLY:N	2.39	0.86
1:N:190:VAL:HG12	1:N:334:ASP:HB2	1.58	0.86
1:N:404:ARG:HH11	1:N:404:ARG:HG2	1.40	0.86
1:B:191:GLU:CB	1:B:333:ILE:CA	2.54	0.86
1:D:371:LYS:CG	1:D:374:GLY:N	2.39	0.86
1:D:193:MET:C	1:D:375:GLY:H	1.78	0.86
1:F:331:THR:CB	1:F:376:VAL:HG21	2.05	0.86
1:G:174:VAL:HG22	1:G:329:THR:CG2	1.98	0.86
1:K:333:ILE:CD1	1:K:378:VAL:CG2	2.53	0.86
1:L:190:VAL:HG12	1:L:334:ASP:HB2	1.58	0.86
1:A:136:VAL:C	1:A:137:PRO:N	2.15	0.85
1:B:193:MET:C	1:B:375:GLY:H	1.78	0.85
1:G:191:GLU:CB	1:G:333:ILE:CA	2.54	0.85
1:J:404:ARG:HH11	1:J:404:ARG:HG2	1.39	0.85
1:E:331:THR:CB	1:E:376:VAL:HG21	2.05	0.85
1:M:69:MET:HE1	1:N:41:ASP:HB2	1.56	0.85
1:A:371:LYS:CG	1:A:374:GLY:N	2.39	0.85
1:C:371:LYS:CG	1:C:374:GLY:N	2.39	0.85
1:E:39:VAL:HG23	1:F:517:THR:HG23	0.87	0.85
1:A:49:ILE:HD13	1:B:513:LEU:HB3	1.58	0.85
1:F:193:MET:C	1:F:375:GLY:H	1.78	0.85
1:I:190:VAL:CB	1:I:333:ILE:CG2	2.42	0.85
1:D:49:ILE:HD13	1:E:513:LEU:HB3	1.59	0.85
1:G:331:THR:CB	1:G:376:VAL:HG21	2.05	0.85
1:K:404:ARG:HG2	1:K:404:ARG:HH11	1.40	0.85
1:D:331:THR:CB	1:D:376:VAL:HG21	2.05	0.85
1:C:193:MET:C	1:C:375:GLY:H	1.78	0.85
1:B:49:ILE:HD13	1:C:513:LEU:HB3	1.59	0.85
1:J:190:VAL:HG12	1:J:334:ASP:HB2	1.58	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:190:VAL:HG12	1:H:334:ASP:HB2	1.58	0.85
1:N:333:ILE:CD1	1:N:378:VAL:CG2	2.53	0.85
1:E:191:GLU:CB	1:E:333:ILE:CA	2.54	0.85
1:E:174:VAL:HG22	1:E:329:THR:CG2	1.98	0.84
1:E:371:LYS:CG	1:E:374:GLY:N	2.39	0.84
1:E:193:MET:C	1:E:375:GLY:H	1.78	0.84
1:L:349:ILE:HA	1:L:352:GLN:HG3	1.60	0.84
1:F:371:LYS:CG	1:F:374:GLY:N	2.39	0.84
1:K:349:ILE:HA	1:K:352:GLN:HG3	1.59	0.84
1:A:191:GLU:CB	1:A:333:ILE:CA	2.54	0.84
1:A:331:THR:CB	1:A:376:VAL:HG21	2.05	0.84
1:B:371:LYS:CG	1:B:374:GLY:N	2.39	0.84
1:A:513:LEU:HB3	1:G:49:ILE:HD13	1.59	0.84
1:K:190:VAL:CB	1:K:333:ILE:CG2	2.42	0.84
1:K:183:LEU:N	1:K:383:ALA:HB3	1.93	0.84
1:M:349:ILE:HA	1:M:352:GLN:HG3	1.60	0.84
1:B:331:THR:CB	1:B:376:VAL:HG21	2.05	0.84
1:C:49:ILE:HD13	1:D:513:LEU:HB3	1.59	0.84
1:E:349:ILE:HA	1:E:352:GLN:HG3	1.60	0.84
1:E:49:ILE:HD13	1:F:513:LEU:HB3	1.59	0.84
1:I:190:VAL:HG12	1:I:334:ASP:HB2	1.58	0.84
1:B:174:VAL:HG22	1:B:329:THR:CG2	1.98	0.84
1:D:349:ILE:HA	1:D:352:GLN:HG3	1.60	0.84
1:H:190:VAL:HG13	1:H:333:ILE:HG23	1.51	0.84
1:J:183:LEU:N	1:J:383:ALA:HB3	1.93	0.84
1:K:190:VAL:HG13	1:K:333:ILE:HG23	1.51	0.84
1:L:183:LEU:N	1:L:383:ALA:HB3	1.93	0.84
1:M:404:ARG:HG2	1:M:404:ARG:HH11	1.39	0.84
1:A:174:VAL:HG22	1:A:329:THR:CG2	1.98	0.83
1:A:191:GLU:CB	1:A:334:ASP:N	2.33	0.83
1:J:190:VAL:HG13	1:J:333:ILE:HG23	1.51	0.83
1:F:349:ILE:HA	1:F:352:GLN:HG3	1.60	0.83
1:F:39:VAL:HG23	1:G:517:THR:HG23	0.87	0.83
1:F:49:ILE:HD13	1:G:513:LEU:HB3	1.58	0.83
1:J:349:ILE:HA	1:J:352:GLN:HG3	1.59	0.83
1:N:349:ILE:HA	1:N:352:GLN:HG3	1.59	0.83
1:G:349:ILE:HA	1:G:352:GLN:HG3	1.60	0.83
1:H:349:ILE:HA	1:H:352:GLN:HG3	1.60	0.83
1:I:349:ILE:HA	1:I:352:GLN:HG3	1.59	0.83
1:K:190:VAL:HG12	1:K:334:ASP:HB2	1.58	0.83
1:C:349:ILE:HA	1:C:352:GLN:HG3	1.60	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:190:VAL:HG13	1:M:333:ILE:HG23	1.51	0.82
1:D:174:VAL:HG22	1:D:329:THR:CG2	1.98	0.82
1:G:371:LYS:HG2	1:G:374:GLY:HA2	1.62	0.82
1:C:191:GLU:CB	1:C:332:ILE:O	2.28	0.82
1:F:331:THR:CG2	1:F:376:VAL:HG21	2.10	0.82
1:G:331:THR:CG2	1:G:376:VAL:HG21	2.09	0.82
1:I:183:LEU:N	1:I:383:ALA:HB3	1.93	0.82
1:A:41:ASP:CG	1:B:69:MET:SD	2.58	0.82
1:E:371:LYS:HG2	1:E:374:GLY:HA2	1.62	0.82
1:F:191:GLU:CB	1:F:333:ILE:CA	2.54	0.82
1:M:183:LEU:N	1:M:383:ALA:HB3	1.93	0.82
1:C:174:VAL:HG22	1:C:329:THR:CG2	1.98	0.82
1:A:349:ILE:HA	1:A:352:GLN:HG3	1.60	0.82
1:B:41:ASP:CG	1:C:69:MET:SD	2.58	0.82
1:G:191:GLU:CB	1:G:332:ILE:O	2.28	0.82
1:B:191:GLU:CB	1:B:332:ILE:O	2.28	0.82
1:C:191:GLU:HB2	1:C:333:ILE:C	1.99	0.82
1:C:371:LYS:HG2	1:C:374:GLY:HA2	1.62	0.82
1:D:191:GLU:HB2	1:D:333:ILE:C	1.99	0.82
1:D:41:ASP:CG	1:E:69:MET:SD	2.58	0.82
1:E:41:ASP:CG	1:F:69:MET:SD	2.58	0.82
1:N:370:ALA:C	1:N:374:GLY:N	2.34	0.82
1:A:331:THR:CG2	1:A:376:VAL:HG21	2.09	0.81
1:E:331:THR:CG2	1:E:376:VAL:HG21	2.10	0.81
1:A:191:GLU:CB	1:A:332:ILE:O	2.28	0.81
1:F:191:GLU:CB	1:F:334:ASP:N	2.33	0.81
1:H:370:ALA:C	1:H:374:GLY:N	2.34	0.81
1:A:41:ASP:HB2	1:B:69:MET:HE1	1.62	0.81
1:A:191:GLU:HB2	1:A:333:ILE:C	1.99	0.81
1:A:69:MET:SD	1:G:41:ASP:CG	2.58	0.81
1:C:41:ASP:CG	1:D:69:MET:SD	2.58	0.81
1:D:191:GLU:CB	1:D:332:ILE:O	2.28	0.81
1:B:349:ILE:HA	1:B:352:GLN:HG3	1.60	0.81
1:B:331:THR:CG2	1:B:376:VAL:HG21	2.10	0.81
1:F:41:ASP:CG	1:G:69:MET:SD	2.58	0.81
1:B:371:LYS:HG2	1:B:374:GLY:HA2	1.62	0.81
1:C:331:THR:CG2	1:C:376:VAL:HG21	2.10	0.81
1:E:191:GLU:HB2	1:E:333:ILE:C	1.99	0.81
1:F:191:GLU:CB	1:F:332:ILE:O	2.28	0.81
1:M:370:ALA:C	1:M:374:GLY:N	2.34	0.81
1:B:191:GLU:HB2	1:B:333:ILE:C	1.99	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:191:GLU:HB2	1:G:333:ILE:C	1.99	0.81
1:N:183:LEU:N	1:N:383:ALA:HB3	1.93	0.81
1:D:331:THR:CG2	1:D:376:VAL:HG21	2.09	0.81
1:F:191:GLU:HB2	1:F:333:ILE:C	1.99	0.81
1:H:183:LEU:N	1:H:383:ALA:HB3	1.93	0.81
1:I:370:ALA:C	1:I:374:GLY:N	2.34	0.81
1:K:370:ALA:C	1:K:374:GLY:N	2.34	0.81
1:D:331:THR:CB	1:D:376:VAL:HG23	2.09	0.81
1:E:191:GLU:CB	1:E:332:ILE:O	2.28	0.81
1:A:69:MET:HE1	1:G:41:ASP:HB2	1.62	0.81
1:F:41:ASP:HB2	1:G:69:MET:HE1	1.61	0.81
1:F:371:LYS:HG2	1:F:374:GLY:HA2	1.62	0.80
1:J:370:ALA:C	1:J:374:GLY:N	2.33	0.80
1:C:191:GLU:CB	1:C:333:ILE:CA	2.54	0.80
1:D:371:LYS:HG2	1:D:374:GLY:HA2	1.62	0.80
1:D:191:GLU:CB	1:D:333:ILE:CA	2.54	0.80
1:L:370:ALA:C	1:L:374:GLY:N	2.34	0.80
1:B:331:THR:CB	1:B:376:VAL:HG23	2.09	0.80
1:G:174:VAL:HG21	1:G:329:THR:HG23	1.62	0.80
1:G:191:GLU:CB	1:G:334:ASP:N	2.33	0.80
1:E:331:THR:CB	1:E:376:VAL:HG23	2.09	0.80
1:J:333:ILE:HD13	1:J:378:VAL:HG22	1.64	0.80
1:C:194:GLN:HB3	1:C:375:GLY:O	1.82	0.80
1:K:333:ILE:HD13	1:K:378:VAL:HG22	1.64	0.80
1:A:174:VAL:HG21	1:A:329:THR:HG23	1.62	0.80
1:A:371:LYS:HG2	1:A:374:GLY:HA2	1.62	0.80
1:D:191:GLU:C	1:D:332:ILE:C	2.40	0.79
1:A:191:GLU:C	1:A:332:ILE:C	2.40	0.79
1:A:331:THR:CB	1:A:376:VAL:HG23	2.09	0.79
1:F:174:VAL:HG21	1:F:329:THR:HG23	1.62	0.79
1:G:194:GLN:HB3	1:G:375:GLY:O	1.82	0.79
1:N:190:VAL:CB	1:N:333:ILE:CG2	2.42	0.79
1:G:136:VAL:CG1	1:G:137:PRO:HD2	2.13	0.79
1:F:191:GLU:C	1:F:332:ILE:C	2.40	0.79
1:F:331:THR:CB	1:F:376:VAL:HG23	2.09	0.79
1:H:41:ASP:HB2	1:N:69:MET:HE1	1.63	0.79
1:A:136:VAL:CG1	1:A:137:PRO:HD2	2.13	0.79
1:B:200:LEU:HD21	1:B:277:LYS:HG3	1.65	0.79
1:D:136:VAL:CG1	1:D:137:PRO:HD2	2.13	0.79
1:E:136:VAL:CG1	1:E:137:PRO:HD2	2.13	0.79
1:F:200:LEU:HD21	1:F:277:LYS:HG3	1.65	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:41:ASP:HB2	1:F:69:MET:HE1	1.64	0.79
1:G:331:THR:CB	1:G:376:VAL:HG23	2.09	0.79
1:G:200:LEU:HD21	1:G:277:LYS:HG3	1.65	0.79
1:H:69:MET:HE1	1:I:41:ASP:HB2	1.64	0.79
1:C:200:LEU:HD21	1:C:277:LYS:HG3	1.65	0.79
1:F:194:GLN:HB3	1:F:375:GLY:O	1.82	0.79
1:B:174:VAL:HG21	1:B:329:THR:HG23	1.63	0.78
1:J:57:ALA:O	1:J:75:LYS:HE2	1.83	0.78
1:A:200:LEU:HD21	1:A:277:LYS:HG3	1.65	0.78
1:B:136:VAL:CG1	1:B:137:PRO:HD2	2.13	0.78
1:C:136:VAL:CG1	1:C:137:PRO:HD2	2.13	0.78
1:K:69:MET:HE1	1:L:41:ASP:HB2	1.63	0.78
1:A:41:ASP:CB	1:B:69:MET:HE1	2.14	0.78
1:F:41:ASP:CB	1:G:69:MET:HE1	2.12	0.78
1:G:193:MET:HG3	1:G:374:GLY:N	1.99	0.78
1:C:174:VAL:HG21	1:C:329:THR:HG23	1.62	0.78
1:C:41:ASP:HB2	1:D:69:MET:HE1	1.65	0.78
1:E:200:LEU:HD21	1:E:277:LYS:HG3	1.65	0.78
1:J:85:ALA:O	1:J:401:HIS:HE1	1.67	0.78
1:D:200:LEU:HD21	1:D:277:LYS:HG3	1.65	0.78
1:E:174:VAL:HG21	1:E:329:THR:HG23	1.62	0.78
1:I:57:ALA:O	1:I:75:LYS:HE2	1.83	0.78
1:I:85:ALA:O	1:I:401:HIS:HE1	1.67	0.78
1:I:69:MET:HE1	1:J:41:ASP:HB2	1.65	0.78
1:N:57:ALA:O	1:N:75:LYS:HE2	1.83	0.78
1:C:193:MET:HG3	1:C:374:GLY:N	1.99	0.78
1:D:193:MET:HG3	1:D:374:GLY:N	1.99	0.78
1:F:136:VAL:CG1	1:F:137:PRO:HD2	2.13	0.78
1:L:57:ALA:O	1:L:75:LYS:HE2	1.83	0.78
1:A:194:GLN:HB3	1:A:375:GLY:O	1.82	0.78
1:K:85:ALA:O	1:K:401:HIS:HE1	1.67	0.78
1:D:194:GLN:HB3	1:D:375:GLY:O	1.82	0.78
1:H:57:ALA:O	1:H:75:LYS:HE2	1.83	0.78
1:H:85:ALA:O	1:H:401:HIS:HE1	1.67	0.78
1:J:191:GLU:O	1:J:332:ILE:HG22	1.85	0.77
1:E:193:MET:HG3	1:E:374:GLY:N	1.99	0.77
1:L:85:ALA:O	1:L:401:HIS:HE1	1.67	0.77
1:M:190:VAL:CB	1:M:333:ILE:CG2	2.42	0.77
1:M:85:ALA:O	1:M:401:HIS:HE1	1.67	0.77
1:M:57:ALA:O	1:M:75:LYS:HE2	1.83	0.77
1:N:333:ILE:HD13	1:N:378:VAL:HG22	1.63	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:85:ALA:O	1:N:401:HIS:HE1	1.67	0.77
1:K:57:ALA:O	1:K:75:LYS:HE2	1.83	0.77
1:B:193:MET:HG3	1:B:374:GLY:N	1.99	0.77
1:M:333:ILE:HD13	1:M:378:VAL:HG22	1.64	0.77
1:C:331:THR:HB	1:C:376:VAL:CG2	2.15	0.77
1:C:183:LEU:N	1:C:383:ALA:HB3	1.99	0.77
1:E:183:LEU:N	1:E:383:ALA:HB3	1.99	0.77
1:L:191:GLU:O	1:L:332:ILE:HG22	1.85	0.77
1:A:69:MET:HE1	1:G:41:ASP:CB	2.14	0.77
1:A:331:THR:HB	1:A:376:VAL:CG2	2.15	0.77
1:H:191:GLU:O	1:H:332:ILE:HG22	1.85	0.76
1:N:191:GLU:O	1:N:332:ILE:HG22	1.85	0.76
1:A:193:MET:HG3	1:A:374:GLY:N	1.99	0.76
1:L:69:MET:HE1	1:M:41:ASP:HB2	1.66	0.76
1:B:191:GLU:C	1:B:332:ILE:C	2.40	0.76
1:B:41:ASP:HB2	1:C:69:MET:HE1	1.67	0.76
1:A:183:LEU:N	1:A:383:ALA:HB3	1.99	0.76
1:A:406:ALA:HB2	1:A:496:PRO:HG3	1.68	0.76
1:F:331:THR:HB	1:F:376:VAL:CG2	2.15	0.76
1:L:333:ILE:HD13	1:L:378:VAL:HG22	1.64	0.76
1:M:191:GLU:O	1:M:332:ILE:HG22	1.85	0.76
1:N:190:VAL:HG13	1:N:333:ILE:HG23	1.52	0.76
1:F:193:MET:HG3	1:F:374:GLY:N	1.99	0.76
1:G:406:ALA:HB2	1:G:496:PRO:HG3	1.68	0.76
1:D:41:ASP:HB2	1:E:69:MET:HE1	1.67	0.76
1:E:194:GLN:HB3	1:E:375:GLY:O	1.82	0.76
1:I:191:GLU:O	1:I:332:ILE:HG22	1.85	0.76
1:B:406:ALA:HB2	1:B:496:PRO:HG3	1.68	0.76
1:D:136:VAL:CG1	1:D:137:PRO:CD	2.64	0.76
1:D:174:VAL:HG21	1:D:329:THR:HG23	1.63	0.76
1:C:136:VAL:CG1	1:C:137:PRO:CD	2.64	0.76
1:C:406:ALA:HB2	1:C:496:PRO:HG3	1.68	0.76
1:D:331:THR:HB	1:D:376:VAL:CG2	2.15	0.76
1:E:191:GLU:C	1:E:332:ILE:C	2.40	0.75
1:M:517:THR:CG2	1:N:39:VAL:CG2	2.64	0.75
1:F:41:ASP:CB	1:G:69:MET:CE	2.65	0.75
1:E:41:ASP:CB	1:F:69:MET:CE	2.65	0.75
1:A:69:MET:CE	1:G:41:ASP:CB	2.65	0.75
1:J:517:THR:CG2	1:K:39:VAL:CG2	2.64	0.75
1:B:331:THR:HB	1:B:376:VAL:CG2	2.15	0.75
1:D:406:ALA:HB2	1:D:496:PRO:HG3	1.68	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:183:LEU:N	1:F:383:ALA:HB3	1.99	0.75
1:H:359:ASP:O	1:H:363:GLU:HG2	1.86	0.75
1:J:359:ASP:O	1:J:363:GLU:HG2	1.86	0.75
1:K:191:GLU:O	1:K:332:ILE:HG22	1.85	0.75
1:A:136:VAL:CG1	1:A:137:PRO:CD	2.64	0.75
1:C:191:GLU:C	1:C:332:ILE:C	2.40	0.75
1:G:331:THR:HG1	1:G:376:VAL:HG23	1.47	0.75
1:C:331:THR:CB	1:C:376:VAL:HG23	2.09	0.75
1:F:406:ALA:HB2	1:F:496:PRO:HG3	1.68	0.75
1:H:183:LEU:H	1:H:383:ALA:CB	1.98	0.75
1:H:39:VAL:CG2	1:N:517:THR:CG2	2.64	0.75
1:J:517:THR:CG2	1:K:39:VAL:HG21	2.17	0.75
1:K:359:ASP:O	1:K:363:GLU:HG2	1.86	0.75
1:K:517:THR:CG2	1:L:39:VAL:HG21	2.17	0.75
1:L:517:THR:CG2	1:M:39:VAL:HG21	2.17	0.75
1:M:517:THR:CG2	1:N:39:VAL:HG21	2.17	0.75
1:B:194:GLN:HB3	1:B:375:GLY:O	1.82	0.75
1:H:517:THR:CG2	1:I:39:VAL:HG21	2.17	0.75
1:J:200:LEU:HD21	1:J:277:LYS:HG3	1.69	0.75
1:N:359:ASP:O	1:N:363:GLU:HG2	1.86	0.75
1:A:41:ASP:CB	1:B:69:MET:CE	2.65	0.75
1:K:517:THR:CG2	1:L:39:VAL:CG2	2.64	0.75
1:D:41:ASP:CB	1:E:69:MET:CE	2.65	0.75
1:E:41:ASP:CB	1:F:69:MET:HE1	2.17	0.75
1:B:136:VAL:CG1	1:B:137:PRO:CD	2.64	0.75
1:I:517:THR:CG2	1:J:39:VAL:CG2	2.64	0.75
1:L:517:THR:CG2	1:M:39:VAL:CG2	2.64	0.75
1:G:183:LEU:N	1:G:383:ALA:HB3	1.99	0.74
1:I:200:LEU:HD21	1:I:277:LYS:HG3	1.69	0.74
1:I:359:ASP:O	1:I:363:GLU:HG2	1.86	0.74
1:G:331:THR:HB	1:G:376:VAL:CG2	2.15	0.74
1:H:517:THR:CG2	1:I:39:VAL:CG2	2.64	0.74
1:K:200:LEU:HD21	1:K:277:LYS:HG3	1.69	0.74
1:N:183:LEU:H	1:N:383:ALA:CB	1.98	0.74
1:I:333:ILE:HD13	1:I:378:VAL:HG22	1.64	0.74
1:I:517:THR:CG2	1:J:39:VAL:HG21	2.17	0.74
1:G:191:GLU:C	1:G:332:ILE:C	2.40	0.74
1:H:39:VAL:HG21	1:N:517:THR:CG2	2.17	0.74
1:H:513:LEU:HB3	1:I:49:ILE:HD13	1.69	0.74
1:L:359:ASP:O	1:L:363:GLU:HG2	1.86	0.74
1:A:359:ASP:O	1:A:363:GLU:HG2	1.88	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:49:ILE:HD13	1:N:513:LEU:HB3	1.68	0.74
1:M:381:VAL:HG21	1:M:393:LYS:HA	1.70	0.74
1:C:359:ASP:O	1:C:363:GLU:HG2	1.88	0.74
1:G:359:ASP:O	1:G:363:GLU:HG2	1.88	0.74
1:H:381:VAL:HG21	1:H:393:LYS:HA	1.70	0.74
1:M:359:ASP:O	1:M:363:GLU:HG2	1.86	0.74
1:F:136:VAL:CG1	1:F:137:PRO:CD	2.64	0.74
1:F:359:ASP:O	1:F:363:GLU:HG2	1.88	0.74
1:E:359:ASP:O	1:E:363:GLU:HG2	1.88	0.74
1:E:331:THR:HB	1:E:376:VAL:CG2	2.15	0.74
1:E:406:ALA:HB2	1:E:496:PRO:HG3	1.68	0.74
1:F:331:THR:HG1	1:F:376:VAL:HG23	1.51	0.74
1:L:183:LEU:H	1:L:383:ALA:CB	1.98	0.74
1:M:183:LEU:H	1:M:383:ALA:CB	1.98	0.74
1:E:86:GLY:HA3	1:E:401:HIS:HE1	0.94	0.74
1:H:200:LEU:HD21	1:H:277:LYS:HG3	1.69	0.74
1:J:183:LEU:H	1:J:383:ALA:CB	1.98	0.74
1:B:41:ASP:CB	1:C:69:MET:CE	2.65	0.73
1:C:41:ASP:CB	1:D:69:MET:CE	2.65	0.73
1:H:333:ILE:HD13	1:H:378:VAL:HG22	1.64	0.73
1:L:200:LEU:HD21	1:L:277:LYS:HG3	1.69	0.73
1:D:359:ASP:O	1:D:363:GLU:HG2	1.88	0.73
1:E:136:VAL:CG1	1:E:137:PRO:CD	2.64	0.73
1:G:136:VAL:CG1	1:G:137:PRO:CD	2.64	0.73
1:L:513:LEU:HB3	1:M:49:ILE:HD13	1.69	0.73
1:B:359:ASP:O	1:B:363:GLU:HG2	1.88	0.73
1:D:86:GLY:HA3	1:D:401:HIS:HE1	0.94	0.73
1:F:86:GLY:HA3	1:F:401:HIS:HE1	0.94	0.73
1:I:381:VAL:HG21	1:I:393:LYS:HA	1.70	0.73
1:L:381:VAL:HG21	1:L:393:LYS:HA	1.70	0.73
1:K:331:THR:OG1	1:K:376:VAL:CG2	2.36	0.73
1:K:513:LEU:HB3	1:L:49:ILE:HD13	1.68	0.73
1:N:200:LEU:HD21	1:N:277:LYS:HG3	1.69	0.73
1:C:41:ASP:CB	1:D:69:MET:HE1	2.18	0.73
1:I:513:LEU:HB3	1:J:49:ILE:HD13	1.69	0.73
1:M:200:LEU:HD21	1:M:277:LYS:HG3	1.69	0.73
1:N:192:GLY:C	1:N:375:GLY:CA	2.52	0.73
1:B:57:ALA:O	1:B:75:LYS:HE2	1.89	0.73
1:C:57:ALA:O	1:C:75:LYS:HE2	1.89	0.73
1:A:57:ALA:O	1:A:75:LYS:HE2	1.89	0.72
1:C:86:GLY:HA3	1:C:401:HIS:HE1	0.94	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:41:ASP:CG	1:E:69:MET:CE	2.58	0.72
1:M:513:LEU:HB3	1:N:49:ILE:HD13	1.68	0.72
1:B:183:LEU:N	1:B:383:ALA:HB3	1.99	0.72
1:B:86:GLY:HA3	1:B:401:HIS:HE1	0.94	0.72
1:G:86:GLY:HA3	1:G:401:HIS:HE1	0.94	0.72
1:J:69:MET:HE1	1:K:41:ASP:HB2	1.70	0.72
1:A:86:GLY:HA3	1:A:401:HIS:HE1	0.94	0.72
1:E:41:ASP:CG	1:F:69:MET:CE	2.58	0.72
1:J:513:LEU:HB3	1:K:49:ILE:HD13	1.69	0.72
1:N:331:THR:OG1	1:N:376:VAL:CG2	2.36	0.72
1:A:41:ASP:CG	1:B:69:MET:CE	2.58	0.72
1:D:57:ALA:O	1:D:75:LYS:HE2	1.89	0.72
1:F:191:GLU:CA	1:F:332:ILE:O	2.38	0.72
1:J:331:THR:OG1	1:J:376:VAL:CG2	2.36	0.72
1:K:331:THR:OG1	1:K:376:VAL:CG1	2.38	0.72
1:N:331:THR:OG1	1:N:376:VAL:CG1	2.38	0.72
1:D:183:LEU:N	1:D:383:ALA:HB3	1.99	0.72
1:K:174:VAL:HG21	1:K:194:GLN:CB	2.12	0.72
1:K:381:VAL:HG21	1:K:393:LYS:HA	1.70	0.72
1:H:174:VAL:HG21	1:H:194:GLN:CB	2.12	0.72
1:C:414:GLY:O	1:C:417:VAL:HG13	1.90	0.72
1:B:41:ASP:CG	1:C:69:MET:CE	2.58	0.72
1:H:331:THR:OG1	1:H:376:VAL:CG1	2.38	0.72
1:A:69:MET:CE	1:G:41:ASP:CG	2.58	0.72
1:B:191:GLU:CA	1:B:332:ILE:O	2.38	0.72
1:D:174:VAL:CG2	1:D:329:THR:HG23	2.17	0.72
1:A:191:GLU:CA	1:A:332:ILE:O	2.38	0.72
1:D:191:GLU:CA	1:D:332:ILE:O	2.38	0.72
1:C:41:ASP:CG	1:D:69:MET:CE	2.58	0.72
1:E:245:LYS:HE2	1:F:231:ARG:HH21	1.55	0.72
1:F:414:GLY:O	1:F:417:VAL:HG13	1.90	0.72
1:G:191:GLU:CA	1:G:332:ILE:O	2.38	0.72
1:J:381:VAL:HG21	1:J:393:LYS:HA	1.70	0.72
1:N:381:VAL:HG21	1:N:393:LYS:HA	1.70	0.72
1:H:331:THR:OG1	1:H:376:VAL:CG2	2.36	0.72
1:M:331:THR:OG1	1:M:376:VAL:CG2	2.36	0.72
1:A:231:ARG:HH21	1:G:245:LYS:HE2	1.55	0.71
1:F:41:ASP:CG	1:G:69:MET:CE	2.58	0.71
1:L:331:THR:OG1	1:L:376:VAL:CG1	2.38	0.71
1:E:191:GLU:CA	1:E:332:ILE:O	2.38	0.71
1:G:57:ALA:O	1:G:75:LYS:HE2	1.89	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:331:THR:OG1	1:I:376:VAL:CG1	2.38	0.71
1:E:414:GLY:O	1:E:417:VAL:HG13	1.90	0.71
1:K:183:LEU:H	1:K:383:ALA:CB	1.98	0.71
1:F:245:LYS:HE2	1:G:231:ARG:HH21	1.55	0.71
1:B:245:LYS:HE2	1:C:231:ARG:HH21	1.55	0.71
1:D:414:GLY:O	1:D:417:VAL:HG13	1.90	0.71
1:E:57:ALA:O	1:E:75:LYS:HE2	1.89	0.71
1:F:174:VAL:CG2	1:F:329:THR:HG23	2.17	0.71
1:C:263:VAL:O	1:C:267:MET:HB2	1.91	0.71
1:C:191:GLU:CA	1:C:332:ILE:O	2.38	0.71
1:D:263:VAL:O	1:D:267:MET:HB2	1.91	0.71
1:D:245:LYS:HE2	1:E:231:ARG:HH21	1.55	0.71
1:I:194:GLN:O	1:I:371:LYS:HE3	1.91	0.71
1:J:194:GLN:O	1:J:371:LYS:HE3	1.91	0.71
1:C:245:LYS:HE2	1:D:231:ARG:HH21	1.55	0.71
1:E:263:VAL:O	1:E:267:MET:HB2	1.91	0.71
1:C:174:VAL:CG2	1:C:329:THR:HG23	2.17	0.71
1:F:263:VAL:O	1:F:267:MET:HB2	1.91	0.71
1:A:414:GLY:O	1:A:417:VAL:HG13	1.90	0.71
1:B:263:VAL:O	1:B:267:MET:HB2	1.91	0.71
1:B:414:GLY:O	1:B:417:VAL:HG13	1.90	0.70
1:C:381:VAL:HG21	1:C:393:LYS:HA	1.73	0.70
1:D:41:ASP:CB	1:E:69:MET:HE1	2.21	0.70
1:G:414:GLY:O	1:G:417:VAL:HG13	1.90	0.70
1:M:174:VAL:HG21	1:M:194:GLN:CB	2.12	0.70
1:B:381:VAL:HG21	1:B:393:LYS:HA	1.73	0.70
1:F:57:ALA:O	1:F:75:LYS:HE2	1.89	0.70
1:G:263:VAL:O	1:G:267:MET:HB2	1.91	0.70
1:I:331:THR:OG1	1:I:376:VAL:CG2	2.36	0.70
1:A:263:VAL:O	1:A:267:MET:HB2	1.91	0.70
1:B:41:ASP:CB	1:C:69:MET:HE1	2.21	0.70
1:M:85:ALA:O	1:M:401:HIS:CE1	2.45	0.70
1:L:85:ALA:O	1:L:401:HIS:CE1	2.45	0.70
1:K:85:ALA:O	1:K:401:HIS:CE1	2.45	0.70
1:M:331:THR:OG1	1:M:376:VAL:CG1	2.38	0.70
1:N:85:ALA:O	1:N:401:HIS:CE1	2.45	0.70
1:A:245:LYS:HE2	1:B:231:ARG:HH21	1.55	0.70
1:I:263:VAL:O	1:I:267:MET:HB2	1.92	0.70
1:H:263:VAL:O	1:H:267:MET:HB2	1.92	0.70
1:J:331:THR:OG1	1:J:376:VAL:CG1	2.38	0.70
1:L:331:THR:OG1	1:L:376:VAL:CG2	2.36	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:177:VAL:HG21	1:I:397:GLU:HG3	1.74	0.69
1:D:381:VAL:HG21	1:D:393:LYS:HA	1.73	0.69
1:D:41:ASP:OD1	1:E:69:MET:HE3	1.92	0.69
1:J:177:VAL:HG21	1:J:397:GLU:HG3	1.74	0.69
1:A:381:VAL:HG21	1:A:393:LYS:HA	1.73	0.69
1:H:194:GLN:O	1:H:371:LYS:HE3	1.91	0.69
1:K:194:GLN:O	1:K:371:LYS:HE3	1.91	0.69
1:B:41:ASP:OD1	1:C:69:MET:HE3	1.92	0.69
1:K:219:PHE:HB3	1:K:317:LEU:HD23	1.74	0.69
1:N:194:GLN:O	1:N:371:LYS:HE3	1.91	0.69
1:N:331:THR:HG1	1:N:376:VAL:HG11	1.57	0.69
1:K:192:GLY:C	1:K:375:GLY:CA	2.52	0.69
1:J:85:ALA:O	1:J:401:HIS:CE1	2.45	0.69
1:L:219:PHE:HB3	1:L:317:LEU:HD23	1.74	0.69
1:M:194:GLN:O	1:M:371:LYS:HE3	1.91	0.69
1:E:213:VAL:HB	1:E:325:ILE:CG1	2.23	0.69
1:L:194:GLN:O	1:L:371:LYS:HE3	1.91	0.69
1:H:177:VAL:HG21	1:H:397:GLU:HG3	1.74	0.69
1:H:85:ALA:O	1:H:401:HIS:CE1	2.45	0.69
1:K:177:VAL:HG21	1:K:397:GLU:HG3	1.74	0.69
1:A:174:VAL:CG2	1:A:329:THR:HG23	2.17	0.69
1:D:213:VAL:HB	1:D:325:ILE:CG1	2.23	0.69
1:E:381:VAL:HG21	1:E:393:LYS:HA	1.73	0.69
1:F:213:VAL:HB	1:F:325:ILE:CG1	2.23	0.69
1:J:263:VAL:O	1:J:267:MET:HB2	1.92	0.69
1:L:263:VAL:O	1:L:267:MET:HB2	1.92	0.69
1:M:263:VAL:O	1:M:267:MET:HB2	1.92	0.69
1:K:263:VAL:O	1:K:267:MET:HB2	1.92	0.69
1:I:183:LEU:H	1:I:383:ALA:CB	1.98	0.68
1:I:85:ALA:O	1:I:401:HIS:CE1	2.45	0.68
1:C:194:GLN:H	1:C:375:GLY:N	1.79	0.68
1:F:381:VAL:HG21	1:F:393:LYS:HA	1.73	0.68
1:J:219:PHE:HB3	1:J:317:LEU:HD23	1.74	0.68
1:M:219:PHE:HB3	1:M:317:LEU:HD23	1.74	0.68
1:N:183:LEU:HD23	1:N:384:ALA:HB2	1.75	0.68
1:C:213:VAL:HB	1:C:325:ILE:CG1	2.23	0.68
1:M:177:VAL:HG21	1:M:397:GLU:HG3	1.74	0.68
1:A:213:VAL:HB	1:A:325:ILE:CG1	2.23	0.68
1:M:183:LEU:HD23	1:M:384:ALA:HB2	1.75	0.68
1:N:174:VAL:HG21	1:N:194:GLN:CB	2.12	0.68
1:G:228:SER:O	1:G:257:GLU:HB3	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:381:VAL:HG21	1:G:393:LYS:HA	1.73	0.68
1:I:219:PHE:HB3	1:I:317:LEU:HD23	1.74	0.68
1:K:305:ILE:HD12	1:K:307:MET:HE2	1.75	0.68
1:A:194:GLN:H	1:A:375:GLY:N	1.79	0.68
1:D:183:LEU:H	1:D:383:ALA:CB	2.03	0.68
1:E:228:SER:O	1:E:257:GLU:HB3	1.94	0.68
1:H:183:LEU:HD23	1:H:384:ALA:HB2	1.75	0.68
1:L:76:GLU:HG3	1:M:46:ALA:HB2	1.76	0.68
1:N:263:VAL:O	1:N:267:MET:HB2	1.92	0.68
1:A:228:SER:O	1:A:257:GLU:HB3	1.94	0.68
1:G:213:VAL:HB	1:G:325:ILE:CG1	2.23	0.68
1:G:194:GLN:O	1:G:371:LYS:HE3	1.94	0.68
1:H:219:PHE:HB3	1:H:317:LEU:HD23	1.74	0.68
1:H:192:GLY:C	1:H:375:GLY:CA	2.52	0.68
1:H:76:GLU:HG3	1:I:46:ALA:HB2	1.76	0.68
1:I:76:GLU:HG3	1:J:46:ALA:HB2	1.76	0.68
1:K:76:GLU:HG3	1:L:46:ALA:HB2	1.76	0.68
1:B:213:VAL:HB	1:B:325:ILE:CG1	2.23	0.68
1:B:228:SER:O	1:B:257:GLU:HB3	1.94	0.68
1:H:46:ALA:HB2	1:N:76:GLU:HG3	1.76	0.68
1:J:174:VAL:HG21	1:J:194:GLN:CB	2.12	0.68
1:J:76:GLU:HG3	1:K:46:ALA:HB2	1.76	0.68
1:M:76:GLU:HG3	1:N:46:ALA:HB2	1.76	0.68
1:N:177:VAL:HG21	1:N:397:GLU:CG	2.24	0.68
1:D:47:PRO:CD	1:E:73:MET:HG3	2.24	0.67
1:J:192:GLY:C	1:J:375:GLY:CA	2.52	0.67
1:B:174:VAL:CG2	1:B:329:THR:HG23	2.17	0.67
1:E:41:ASP:OD1	1:F:69:MET:HE3	1.94	0.67
1:I:177:VAL:HG21	1:I:397:GLU:CG	2.24	0.67
1:A:194:GLN:O	1:A:371:LYS:HE3	1.94	0.67
1:C:47:PRO:CD	1:D:73:MET:HG3	2.24	0.67
1:F:228:SER:O	1:F:257:GLU:HB3	1.94	0.67
1:I:183:LEU:HD23	1:I:384:ALA:HB2	1.75	0.67
1:F:193:MET:CG	1:F:374:GLY:N	2.58	0.67
1:L:192:GLY:C	1:L:375:GLY:CA	2.52	0.67
1:N:177:VAL:HG21	1:N:397:GLU:HG3	1.74	0.67
1:B:193:MET:CG	1:B:374:GLY:N	2.58	0.67
1:D:228:SER:O	1:D:257:GLU:HB3	1.94	0.67
1:E:193:MET:CG	1:E:374:GLY:N	2.58	0.67
1:J:305:ILE:HD12	1:J:307:MET:HE2	1.76	0.67
1:L:177:VAL:HG21	1:L:397:GLU:HG3	1.74	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:183:LEU:HD23	1:L:384:ALA:HB2	1.75	0.67
1:C:228:SER:O	1:C:257:GLU:HB3	1.94	0.67
1:D:39:VAL:CG2	1:E:517:THR:HG21	2.01	0.67
1:F:194:GLN:O	1:F:371:LYS:HE3	1.94	0.67
1:G:193:MET:CG	1:G:374:GLY:N	2.58	0.67
1:J:177:VAL:HG21	1:J:397:GLU:CG	2.25	0.67
1:L:305:ILE:HD12	1:L:307:MET:HE2	1.75	0.67
1:B:194:GLN:O	1:B:371:LYS:HE3	1.94	0.67
1:C:41:ASP:OD1	1:D:69:MET:HE3	1.94	0.67
1:H:513:LEU:HB3	1:I:49:ILE:CD1	2.25	0.67
1:K:177:VAL:HG21	1:K:397:GLU:CG	2.25	0.67
1:N:219:PHE:HB3	1:N:317:LEU:HD23	1.74	0.67
1:E:47:PRO:CD	1:F:73:MET:HG3	2.24	0.67
1:I:513:LEU:HB3	1:J:49:ILE:CD1	2.25	0.67
1:K:183:LEU:HD23	1:K:384:ALA:HB2	1.76	0.67
1:A:193:MET:CG	1:A:374:GLY:N	2.58	0.66
1:C:194:GLN:O	1:C:371:LYS:HE3	1.94	0.66
1:M:177:VAL:HG21	1:M:397:GLU:CG	2.25	0.66
1:D:41:ASP:HA	1:E:69:MET:HE3	1.78	0.66
1:H:177:VAL:HG21	1:H:397:GLU:CG	2.25	0.66
1:J:183:LEU:HD23	1:J:384:ALA:HB2	1.76	0.66
1:M:305:ILE:HD12	1:M:307:MET:HE2	1.76	0.66
1:N:305:ILE:HD12	1:N:307:MET:HE2	1.76	0.66
1:M:513:LEU:HB3	1:N:49:ILE:CD1	2.25	0.66
1:B:47:PRO:CD	1:C:73:MET:HG3	2.25	0.66
1:C:193:MET:CG	1:C:374:GLY:N	2.58	0.66
1:D:194:GLN:O	1:D:371:LYS:HE3	1.94	0.66
1:H:49:ILE:CD1	1:N:513:LEU:HB3	2.25	0.66
1:J:190:VAL:CB	1:J:333:ILE:CG2	2.42	0.66
1:L:177:VAL:HG21	1:L:397:GLU:CG	2.25	0.66
1:C:41:ASP:OD1	1:D:69:MET:HG2	1.96	0.66
1:I:192:GLY:C	1:I:375:GLY:CA	2.52	0.66
1:A:69:MET:HE3	1:G:41:ASP:OD1	1.96	0.66
1:A:41:ASP:OD1	1:B:69:MET:HE3	1.96	0.66
1:B:41:ASP:OD1	1:C:69:MET:HG2	1.96	0.66
1:A:183:LEU:H	1:A:383:ALA:CB	2.03	0.66
1:F:47:PRO:CD	1:G:73:MET:HG3	2.25	0.66
1:H:370:ALA:O	1:H:374:GLY:HA2	1.96	0.66
1:M:192:GLY:C	1:M:375:GLY:CA	2.52	0.66
1:A:47:PRO:CD	1:B:73:MET:HG3	2.24	0.66
1:E:41:ASP:OD1	1:F:69:MET:HG2	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:513:LEU:HB3	1:K:49:ILE:CD1	2.25	0.66
1:A:73:MET:HG3	1:G:47:PRO:CD	2.24	0.66
1:K:370:ALA:O	1:K:374:GLY:HA2	1.96	0.66
1:L:513:LEU:HB3	1:M:49:ILE:CD1	2.25	0.66
1:B:41:ASP:HA	1:C:69:MET:HE3	1.78	0.65
1:D:41:ASP:OD1	1:E:69:MET:HG2	1.96	0.65
1:N:370:ALA:O	1:N:374:GLY:HA2	1.96	0.65
1:E:194:GLN:O	1:E:371:LYS:HE3	1.94	0.65
1:K:513:LEU:HB3	1:L:49:ILE:CD1	2.25	0.65
1:M:228:SER:O	1:M:257:GLU:HB3	1.97	0.65
1:A:41:ASP:OD2	1:B:69:MET:SD	2.55	0.65
1:D:193:MET:CG	1:D:374:GLY:N	2.58	0.65
1:I:305:ILE:HD12	1:I:307:MET:HE2	1.77	0.65
1:J:69:MET:O	1:J:73:MET:HG3	1.96	0.65
1:M:69:MET:O	1:M:73:MET:HG3	1.96	0.65
1:J:404:ARG:HH11	1:J:404:ARG:CG	2.08	0.65
1:J:69:MET:HE3	1:K:41:ASP:CG	2.17	0.65
1:L:331:THR:HG1	1:L:376:VAL:HG11	1.58	0.65
1:L:404:ARG:CG	1:L:404:ARG:HH11	2.08	0.65
1:M:404:ARG:CG	1:M:404:ARG:HH11	2.08	0.65
1:A:41:ASP:OD1	1:B:69:MET:HG2	1.96	0.65
1:C:349:ILE:HA	1:C:352:GLN:CG	2.27	0.65
1:F:183:LEU:H	1:F:383:ALA:CB	2.03	0.65
1:A:69:MET:SD	1:G:41:ASP:OD2	2.55	0.65
1:K:404:ARG:HH11	1:K:404:ARG:CG	2.08	0.65
1:M:191:GLU:O	1:M:332:ILE:CB	2.45	0.65
1:N:191:GLU:O	1:N:332:ILE:CB	2.44	0.65
1:N:228:SER:O	1:N:257:GLU:HB3	1.97	0.65
1:B:41:ASP:OD2	1:C:69:MET:SD	2.55	0.65
1:C:136:VAL:CA	1:C:137:PRO:HD3	2.25	0.65
1:E:221:LEU:HD23	1:E:249:ILE:HD12	1.79	0.65
1:H:305:ILE:HD12	1:H:307:MET:HE2	1.77	0.65
1:K:228:SER:O	1:K:257:GLU:HB3	1.97	0.65
1:A:349:ILE:HA	1:A:352:GLN:CG	2.27	0.65
1:B:349:ILE:HA	1:B:352:GLN:CG	2.27	0.65
1:D:41:ASP:OD2	1:E:69:MET:SD	2.55	0.65
1:G:349:ILE:HA	1:G:352:GLN:CG	2.27	0.65
1:H:191:GLU:O	1:H:332:ILE:CB	2.44	0.65
1:L:69:MET:O	1:L:73:MET:HG3	1.96	0.65
1:N:69:MET:O	1:N:73:MET:HG3	1.97	0.65
1:C:247:LEU:HB3	1:C:273:VAL:HG22	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:41:ASP:OD2	1:D:69:MET:SD	2.55	0.65
1:E:174:VAL:CG2	1:E:329:THR:HG23	2.17	0.65
1:N:404:ARG:CG	1:N:404:ARG:HH11	2.08	0.65
1:A:69:MET:HG2	1:G:41:ASP:OD1	1.96	0.65
1:D:349:ILE:HA	1:D:352:GLN:CG	2.27	0.65
1:E:349:ILE:HA	1:E:352:GLN:CG	2.27	0.65
1:F:349:ILE:HA	1:F:352:GLN:CG	2.27	0.65
1:H:69:MET:O	1:H:73:MET:HG3	1.96	0.65
1:I:69:MET:O	1:I:73:MET:HG3	1.96	0.65
1:J:228:SER:O	1:J:257:GLU:HB3	1.97	0.65
1:J:191:GLU:O	1:J:332:ILE:CB	2.44	0.65
1:L:228:SER:O	1:L:257:GLU:HB3	1.97	0.65
1:C:221:LEU:HD23	1:C:249:ILE:HD12	1.79	0.65
1:D:221:LEU:HD23	1:D:249:ILE:HD12	1.79	0.65
1:F:194:GLN:H	1:F:375:GLY:N	1.79	0.65
1:F:41:ASP:OD1	1:G:69:MET:HG2	1.96	0.65
1:H:228:SER:O	1:H:257:GLU:HB3	1.97	0.65
1:I:191:GLU:O	1:I:332:ILE:CB	2.44	0.65
1:I:370:ALA:O	1:I:374:GLY:HA2	1.96	0.65
1:D:247:LEU:HB3	1:D:273:VAL:HG22	1.79	0.64
1:E:41:ASP:OD2	1:F:69:MET:SD	2.55	0.64
1:H:404:ARG:CG	1:H:404:ARG:HH11	2.08	0.64
1:F:41:ASP:OD2	1:G:69:MET:SD	2.55	0.64
1:F:39:VAL:CG2	1:G:517:THR:HG21	2.01	0.64
1:B:247:LEU:HB3	1:B:273:VAL:HG22	1.79	0.64
1:C:41:ASP:HA	1:D:69:MET:HE3	1.80	0.64
1:F:221:LEU:HD23	1:F:249:ILE:HD12	1.79	0.64
1:J:331:THR:HG1	1:J:376:VAL:HG11	1.59	0.64
1:K:414:GLY:O	1:K:417:VAL:HG13	1.98	0.64
1:L:191:GLU:O	1:L:332:ILE:CB	2.45	0.64
1:M:414:GLY:O	1:M:417:VAL:HG13	1.98	0.64
1:B:191:GLU:CG	1:B:334:ASP:H	2.11	0.64
1:C:183:LEU:H	1:C:383:ALA:CB	2.03	0.64
1:D:136:VAL:CA	1:D:137:PRO:HD3	2.25	0.64
1:F:136:VAL:CA	1:F:137:PRO:HD3	2.25	0.64
1:F:191:GLU:CG	1:F:334:ASP:H	2.11	0.64
1:J:213:VAL:HB	1:J:325:ILE:CG1	2.28	0.64
1:M:333:ILE:CG2	1:M:378:VAL:HG21	2.26	0.64
1:I:228:SER:O	1:I:257:GLU:HB3	1.97	0.64
1:K:191:GLU:O	1:K:332:ILE:CB	2.44	0.64
1:L:370:ALA:O	1:L:374:GLY:HA2	1.96	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:136:VAL:CA	1:E:137:PRO:HD3	2.25	0.64
1:H:414:GLY:O	1:H:417:VAL:HG13	1.98	0.64
1:K:69:MET:O	1:K:73:MET:HG3	1.96	0.64
1:M:206:ASN:HD21	1:M:214:GLU:H	1.46	0.64
1:N:414:GLY:O	1:N:417:VAL:HG13	1.98	0.64
1:B:186:GLU:HB2	1:B:380:LYS:HB2	1.80	0.64
1:C:186:GLU:HB2	1:C:380:LYS:HB2	1.80	0.64
1:D:186:GLU:HB2	1:D:380:LYS:HB2	1.80	0.64
1:F:177:VAL:HG21	1:F:397:GLU:HG3	1.80	0.64
1:G:174:VAL:CG2	1:G:329:THR:HG23	2.17	0.64
1:I:213:VAL:HB	1:I:325:ILE:CG1	2.28	0.64
1:I:420:ILE:HD12	1:I:451:LEU:HD13	1.80	0.64
1:K:213:VAL:HB	1:K:325:ILE:CG1	2.28	0.64
1:L:206:ASN:HD21	1:L:214:GLU:H	1.46	0.64
1:N:206:ASN:HD21	1:N:214:GLU:H	1.46	0.64
1:A:191:GLU:CG	1:A:334:ASP:H	2.11	0.64
1:G:136:VAL:CA	1:G:137:PRO:HD3	2.25	0.64
1:G:177:VAL:HG21	1:G:397:GLU:HG3	1.80	0.64
1:I:331:THR:HG1	1:I:376:VAL:HG11	1.63	0.64
1:A:177:VAL:HG21	1:A:397:GLU:HG3	1.80	0.64
1:B:221:LEU:HD23	1:B:249:ILE:HD12	1.79	0.64
1:D:191:GLU:CG	1:D:334:ASP:H	2.11	0.64
1:E:247:LEU:HB3	1:E:273:VAL:HG22	1.79	0.64
1:E:177:VAL:HG21	1:E:397:GLU:HG3	1.80	0.64
1:F:41:ASP:OD1	1:G:69:MET:HE3	1.97	0.64
1:H:349:ILE:HA	1:H:352:GLN:CG	2.28	0.64
1:H:333:ILE:CD1	1:H:378:VAL:HG22	2.26	0.64
1:H:420:ILE:HD12	1:H:451:LEU:HD13	1.80	0.64
1:D:194:GLN:H	1:D:375:GLY:N	1.79	0.64
1:E:186:GLU:HB2	1:E:380:LYS:HB2	1.80	0.64
1:G:191:GLU:CG	1:G:334:ASP:H	2.11	0.64
1:H:206:ASN:HD21	1:H:214:GLU:H	1.46	0.64
1:I:349:ILE:HA	1:I:352:GLN:CG	2.28	0.64
1:K:206:ASN:HD21	1:K:214:GLU:H	1.46	0.64
1:I:206:ASN:HD21	1:I:214:GLU:H	1.46	0.63
1:J:414:GLY:O	1:J:417:VAL:HG13	1.98	0.63
1:I:404:ARG:HH11	1:I:404:ARG:CG	2.08	0.63
1:I:414:GLY:O	1:I:417:VAL:HG13	1.98	0.63
1:J:349:ILE:HA	1:J:352:GLN:CG	2.28	0.63
1:J:420:ILE:HD12	1:J:451:LEU:HD13	1.80	0.63
1:A:247:LEU:HB3	1:A:273:VAL:HG22	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:186:GLU:HB2	1:A:380:LYS:HB2	1.80	0.63
1:B:183:LEU:HD23	1:B:384:ALA:HB2	1.81	0.63
1:D:183:LEU:HD23	1:D:384:ALA:HB2	1.81	0.63
1:J:206:ASN:HD21	1:J:214:GLU:H	1.46	0.63
1:J:193:MET:N	1:J:375:GLY:HA2	2.12	0.63
1:L:333:ILE:CG2	1:L:378:VAL:HG21	2.26	0.63
1:N:349:ILE:HA	1:N:352:GLN:CG	2.28	0.63
1:F:247:LEU:HB3	1:F:273:VAL:HG22	1.79	0.63
1:L:414:GLY:O	1:L:417:VAL:HG13	1.98	0.63
1:N:333:ILE:CG2	1:N:378:VAL:HG21	2.26	0.63
1:A:183:LEU:HD23	1:A:384:ALA:HB2	1.81	0.63
1:E:183:LEU:HD23	1:E:384:ALA:HB2	1.81	0.63
1:F:186:GLU:HB2	1:F:380:LYS:HB2	1.80	0.63
1:G:186:GLU:HB2	1:G:380:LYS:HB2	1.80	0.63
1:G:221:LEU:HD23	1:G:249:ILE:HD12	1.79	0.63
1:A:221:LEU:HD23	1:A:249:ILE:HD12	1.79	0.63
1:H:213:VAL:HB	1:H:325:ILE:CG1	2.28	0.63
1:K:349:ILE:HA	1:K:352:GLN:CG	2.28	0.63
1:K:193:MET:N	1:K:375:GLY:HA2	2.12	0.63
1:M:331:THR:HG1	1:M:376:VAL:HG11	1.61	0.63
1:F:406:ALA:HA	1:F:496:PRO:HB3	1.81	0.63
1:N:191:GLU:O	1:N:332:ILE:CG2	2.47	0.63
1:N:420:ILE:HD12	1:N:451:LEU:HD13	1.80	0.63
1:C:191:GLU:CG	1:C:334:ASP:H	2.11	0.63
1:D:174:VAL:H	1:D:194:GLN:NE2	1.97	0.63
1:H:191:GLU:O	1:H:332:ILE:CG2	2.47	0.63
1:L:213:VAL:HB	1:L:325:ILE:CG1	2.28	0.63
1:M:370:ALA:O	1:M:374:GLY:HA2	1.96	0.63
1:C:183:LEU:HD23	1:C:384:ALA:HB2	1.81	0.63
1:E:213:VAL:HB	1:E:325:ILE:HG12	1.81	0.63
1:E:41:ASP:HA	1:F:69:MET:HE3	1.81	0.63
1:I:193:MET:N	1:I:375:GLY:HA2	2.12	0.63
1:L:362:ARG:O	1:L:366:GLN:HG3	1.99	0.63
1:D:177:VAL:HG21	1:D:397:GLU:HG3	1.80	0.62
1:E:174:VAL:H	1:E:194:GLN:NE2	1.97	0.62
1:E:191:GLU:CG	1:E:334:ASP:H	2.11	0.62
1:J:213:VAL:HB	1:J:325:ILE:HG12	1.81	0.62
1:K:333:ILE:CG2	1:K:378:VAL:HG21	2.26	0.62
1:M:191:GLU:O	1:M:332:ILE:CG2	2.47	0.62
1:F:183:LEU:HD23	1:F:384:ALA:HB2	1.81	0.62
1:G:183:LEU:HD23	1:G:384:ALA:HB2	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:406:ALA:HA	1:G:496:PRO:HB3	1.81	0.62
1:I:174:VAL:HG21	1:I:194:GLN:CB	2.12	0.62
1:J:370:ALA:O	1:J:374:GLY:HA2	1.96	0.62
1:K:362:ARG:O	1:K:366:GLN:HG3	1.99	0.62
1:K:420:ILE:HD12	1:K:451:LEU:HD13	1.80	0.62
1:M:349:ILE:HA	1:M:352:GLN:CG	2.28	0.62
1:B:194:GLN:H	1:B:375:GLY:N	1.79	0.62
1:B:177:VAL:HG21	1:B:397:GLU:HG3	1.80	0.62
1:F:305:ILE:HD12	1:F:307:MET:HE2	1.81	0.62
1:F:69:MET:O	1:F:73:MET:HG3	2.00	0.62
1:L:349:ILE:HA	1:L:352:GLN:CG	2.28	0.62
1:M:193:MET:N	1:M:375:GLY:HA2	2.12	0.62
1:N:193:MET:N	1:N:375:GLY:HA2	2.12	0.62
1:D:213:VAL:HB	1:D:325:ILE:HG12	1.81	0.62
1:G:247:LEU:HB3	1:G:273:VAL:HG22	1.79	0.62
1:I:213:VAL:HB	1:I:325:ILE:HG12	1.81	0.62
1:K:191:GLU:O	1:K:332:ILE:CG2	2.47	0.62
1:L:174:VAL:HG21	1:L:194:GLN:CB	2.12	0.62
1:M:69:MET:HE1	1:N:41:ASP:CB	2.28	0.62
1:B:69:MET:O	1:B:73:MET:HG3	2.00	0.62
1:C:174:VAL:H	1:C:194:GLN:NE2	1.97	0.62
1:C:69:MET:O	1:C:73:MET:HG3	2.00	0.62
1:H:333:ILE:CG2	1:H:378:VAL:HG21	2.26	0.62
1:I:191:GLU:O	1:I:332:ILE:CG2	2.47	0.62
1:M:213:VAL:HB	1:M:325:ILE:CG1	2.28	0.62
1:M:333:ILE:CD1	1:M:378:VAL:HG22	2.26	0.62
1:F:213:VAL:HB	1:F:325:ILE:HG12	1.81	0.62
1:I:333:ILE:CD1	1:I:378:VAL:HG22	2.26	0.62
1:K:213:VAL:HB	1:K:325:ILE:HG12	1.81	0.62
1:M:420:ILE:HD12	1:M:451:LEU:HD13	1.80	0.62
1:A:69:MET:O	1:A:73:MET:HG3	2.00	0.62
1:C:213:VAL:HB	1:C:325:ILE:HG12	1.81	0.62
1:G:305:ILE:HD12	1:G:307:MET:HE2	1.82	0.62
1:L:191:GLU:O	1:L:332:ILE:CG2	2.47	0.62
1:L:420:ILE:HD12	1:L:451:LEU:HD13	1.80	0.62
1:M:362:ARG:O	1:M:366:GLN:HG3	1.99	0.62
1:A:231:ARG:NH2	1:G:245:LYS:HE3	2.15	0.62
1:D:219:PHE:HB3	1:D:317:LEU:HD23	1.82	0.62
1:E:219:PHE:HB3	1:E:317:LEU:HD23	1.82	0.62
1:G:219:PHE:HB3	1:G:317:LEU:HD23	1.82	0.62
1:H:193:MET:N	1:H:375:GLY:HA2	2.12	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:213:VAL:HB	1:B:325:ILE:HG12	1.81	0.62
1:E:406:ALA:HA	1:E:496:PRO:HB3	1.81	0.62
1:F:219:PHE:HB3	1:F:317:LEU:HD23	1.82	0.62
1:A:174:VAL:H	1:A:194:GLN:NE2	1.97	0.62
1:D:69:MET:O	1:D:73:MET:HG3	2.00	0.62
1:E:69:MET:O	1:E:73:MET:HG3	2.00	0.62
1:J:191:GLU:O	1:J:332:ILE:CG2	2.47	0.62
1:N:333:ILE:CD1	1:N:378:VAL:HG22	2.26	0.62
1:E:305:ILE:HD12	1:E:307:MET:HE2	1.82	0.61
1:L:193:MET:N	1:L:375:GLY:HA2	2.12	0.61
1:N:213:VAL:HB	1:N:325:ILE:CG1	2.28	0.61
1:C:39:VAL:CG2	1:D:517:THR:HG21	2.01	0.61
1:J:186:GLU:HB2	1:J:380:LYS:HB2	1.82	0.61
1:A:136:VAL:CA	1:A:137:PRO:HD3	2.25	0.61
1:A:213:VAL:HB	1:A:325:ILE:HG12	1.81	0.61
1:G:213:VAL:HB	1:G:325:ILE:HG12	1.81	0.61
1:A:69:MET:HE3	1:G:41:ASP:HA	1.83	0.61
1:L:213:VAL:HB	1:L:325:ILE:HG12	1.81	0.61
1:A:219:PHE:HB3	1:A:317:LEU:HD23	1.82	0.61
1:A:406:ALA:HA	1:A:496:PRO:HB3	1.81	0.61
1:C:219:PHE:HB3	1:C:317:LEU:HD23	1.82	0.61
1:F:174:VAL:H	1:F:194:GLN:NE2	1.97	0.61
1:H:213:VAL:HB	1:H:325:ILE:HG12	1.81	0.61
1:N:362:ARG:O	1:N:366:GLN:HG3	1.99	0.61
1:A:177:VAL:HG21	1:A:397:GLU:CG	2.31	0.61
1:D:177:VAL:HG21	1:D:397:GLU:CG	2.31	0.61
1:G:174:VAL:H	1:G:194:GLN:NE2	1.97	0.61
1:G:69:MET:O	1:G:73:MET:HG3	2.00	0.61
1:H:362:ARG:O	1:H:366:GLN:HG3	1.99	0.61
1:A:41:ASP:HA	1:B:69:MET:HE3	1.83	0.61
1:F:177:VAL:HG21	1:F:397:GLU:CG	2.31	0.61
1:J:362:ARG:O	1:J:366:GLN:HG3	1.99	0.61
1:J:333:ILE:CG2	1:J:378:VAL:HG21	2.26	0.61
1:B:219:PHE:HB3	1:B:317:LEU:HD23	1.82	0.61
1:C:177:VAL:HG21	1:C:397:GLU:HG3	1.80	0.61
1:I:362:ARG:O	1:I:366:GLN:HG3	1.99	0.61
1:M:213:VAL:HB	1:M:325:ILE:HG12	1.81	0.61
1:G:183:LEU:H	1:G:383:ALA:CB	2.03	0.61
1:I:333:ILE:CG2	1:I:378:VAL:HG21	2.26	0.61
1:B:174:VAL:H	1:B:194:GLN:NE2	1.97	0.61
1:B:406:ALA:HA	1:B:496:PRO:HB3	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:406:ALA:HA	1:C:496:PRO:HB3	1.81	0.61
1:L:69:MET:HE3	1:M:41:ASP:CG	2.21	0.61
1:N:213:VAL:HB	1:N:325:ILE:HG12	1.81	0.61
1:I:186:GLU:HB2	1:I:380:LYS:HB2	1.82	0.61
1:H:247:LEU:HB3	1:H:273:VAL:HG22	1.83	0.60
1:K:186:GLU:HB2	1:K:380:LYS:HB2	1.82	0.60
1:D:41:ASP:CG	1:E:69:MET:HE3	2.22	0.60
1:M:186:GLU:HB2	1:M:380:LYS:HB2	1.82	0.60
1:M:247:LEU:HB3	1:M:273:VAL:HG22	1.83	0.60
1:L:186:GLU:HB2	1:L:380:LYS:HB2	1.82	0.60
1:A:305:ILE:HD12	1:A:307:MET:HE2	1.83	0.60
1:C:305:ILE:HD12	1:C:307:MET:HE2	1.83	0.60
1:C:177:VAL:HG21	1:C:397:GLU:CG	2.31	0.60
1:D:245:LYS:HE3	1:E:231:ARG:NH2	2.15	0.60
1:L:247:LEU:HB3	1:L:273:VAL:HG22	1.83	0.60
1:N:247:LEU:HB3	1:N:273:VAL:HG22	1.83	0.60
1:E:183:LEU:H	1:E:383:ALA:CB	2.03	0.60
1:F:41:ASP:HA	1:G:69:MET:HE3	1.84	0.60
1:B:86:GLY:HA3	1:B:401:HIS:NE2	2.10	0.60
1:D:406:ALA:HA	1:D:496:PRO:HB3	1.81	0.60
1:I:247:LEU:HB3	1:I:273:VAL:HG22	1.83	0.60
1:M:193:MET:HA	1:M:375:GLY:HA2	1.83	0.60
1:B:177:VAL:HG21	1:B:397:GLU:CG	2.31	0.60
1:E:177:VAL:HG21	1:E:397:GLU:CG	2.31	0.60
1:G:177:VAL:HG21	1:G:397:GLU:CG	2.31	0.60
1:I:69:MET:HE3	1:J:41:ASP:CG	2.22	0.60
1:J:193:MET:HA	1:J:375:GLY:HA2	1.83	0.60
1:K:247:LEU:HB3	1:K:273:VAL:HG22	1.83	0.60
1:H:186:GLU:HB2	1:H:380:LYS:HB2	1.82	0.60
1:N:186:GLU:HB2	1:N:380:LYS:HB2	1.82	0.60
1:N:193:MET:HA	1:N:375:GLY:HA2	1.83	0.60
1:J:247:LEU:HB3	1:J:273:VAL:HG22	1.83	0.60
1:G:23:LEU:HD22	1:G:74:VAL:HG13	1.85	0.59
1:K:193:MET:HA	1:K:375:GLY:HA2	1.83	0.59
1:C:23:LEU:HD22	1:C:74:VAL:HG13	1.85	0.59
1:L:193:MET:HA	1:L:375:GLY:HA2	1.83	0.59
1:B:183:LEU:H	1:B:383:ALA:CB	2.03	0.59
1:D:23:LEU:HD22	1:D:74:VAL:HG13	1.85	0.59
1:I:193:MET:HA	1:I:375:GLY:HA2	1.83	0.59
1:B:150:ILE:HD13	1:B:493:ILE:HA	1.84	0.59
1:F:23:LEU:HD22	1:F:74:VAL:HG13	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:86:GLY:HA3	1:F:401:HIS:NE2	2.10	0.59
1:H:193:MET:HA	1:H:375:GLY:HA2	1.83	0.59
1:A:23:LEU:HD22	1:A:74:VAL:HG13	1.85	0.59
1:B:23:LEU:HD22	1:B:74:VAL:HG13	1.84	0.59
1:B:39:VAL:CG2	1:C:517:THR:HG21	2.01	0.59
1:E:150:ILE:HD13	1:E:493:ILE:HA	1.84	0.59
1:K:333:ILE:CD1	1:K:378:VAL:HG22	2.26	0.59
1:B:305:ILE:HD12	1:B:307:MET:HE2	1.84	0.59
1:D:49:ILE:HD12	1:E:513:LEU:HB3	1.85	0.59
1:J:218:PRO:CB	1:J:246:PRO:HG2	2.30	0.59
1:A:150:ILE:HD13	1:A:493:ILE:HA	1.84	0.59
1:E:245:LYS:HE3	1:F:231:ARG:NH2	2.15	0.59
1:J:371:LYS:N	1:J:374:GLY:N	2.51	0.59
1:D:194:GLN:H	1:D:374:GLY:N	2.01	0.59
1:E:23:LEU:HD22	1:E:74:VAL:HG13	1.85	0.59
1:G:291:ASP:OD2	1:G:368:ARG:HD2	2.03	0.59
1:H:521:VAL:O	1:I:41:ASP:HB3	2.03	0.59
1:A:205:ILE:HA	1:A:213:VAL:HG22	1.85	0.59
1:B:205:ILE:HA	1:B:213:VAL:HG22	1.85	0.59
1:F:205:ILE:HA	1:F:213:VAL:HG22	1.85	0.59
1:F:291:ASP:OD2	1:F:368:ARG:HD2	2.03	0.59
1:G:150:ILE:HD13	1:G:493:ILE:HA	1.84	0.59
1:G:205:ILE:HA	1:G:213:VAL:HG22	1.85	0.59
1:G:194:GLN:H	1:G:374:GLY:N	2.01	0.59
1:K:69:MET:HE3	1:L:41:ASP:CG	2.24	0.59
1:A:291:ASP:OD2	1:A:368:ARG:HD2	2.03	0.58
1:B:235:PRO:CG	1:B:310:GLU:HA	2.29	0.58
1:C:194:GLN:H	1:C:374:GLY:N	2.01	0.58
1:C:291:ASP:OD2	1:C:368:ARG:HD2	2.03	0.58
1:D:272:LYS:HD2	1:D:272:LYS:N	2.18	0.58
1:F:150:ILE:HD13	1:F:493:ILE:HA	1.84	0.58
1:J:183:LEU:O	1:J:184:GLN:HB2	2.03	0.58
1:J:193:MET:CA	1:J:375:GLY:HA2	2.33	0.58
1:L:193:MET:CA	1:L:375:GLY:HA2	2.33	0.58
1:M:193:MET:CA	1:M:375:GLY:HA2	2.33	0.58
1:C:205:ILE:HA	1:C:213:VAL:HG22	1.85	0.58
1:C:272:LYS:HD2	1:C:272:LYS:N	2.18	0.58
1:D:291:ASP:OD2	1:D:368:ARG:HD2	2.03	0.58
1:E:272:LYS:HD2	1:E:272:LYS:N	2.18	0.58
1:F:200:LEU:O	1:F:201:SER:HB3	2.04	0.58
1:M:371:LYS:N	1:M:374:GLY:N	2.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:150:ILE:HD13	1:C:493:ILE:HA	1.84	0.58
1:E:194:GLN:H	1:E:374:GLY:N	2.01	0.58
1:H:371:LYS:N	1:H:374:GLY:N	2.51	0.58
1:I:218:PRO:CB	1:I:246:PRO:HG2	2.30	0.58
1:K:218:PRO:CB	1:K:246:PRO:HG2	2.30	0.58
1:M:183:LEU:O	1:M:184:GLN:HB2	2.03	0.58
1:A:155:ASP:OD1	1:A:157:THR:HB	2.04	0.58
1:F:272:LYS:N	1:F:272:LYS:HD2	2.18	0.58
1:F:362:ARG:O	1:F:366:GLN:HG3	2.04	0.58
1:H:41:ASP:CG	1:N:69:MET:HE3	2.24	0.58
1:B:194:GLN:H	1:B:374:GLY:N	2.01	0.58
1:D:150:ILE:HD13	1:D:493:ILE:HA	1.84	0.58
1:E:205:ILE:HA	1:E:213:VAL:HG22	1.85	0.58
1:F:86:GLY:C	1:F:401:HIS:CE1	2.77	0.58
1:J:521:VAL:O	1:K:41:ASP:HB3	2.03	0.58
1:K:193:MET:CA	1:K:375:GLY:HA2	2.33	0.58
1:N:183:LEU:O	1:N:184:GLN:HB2	2.03	0.58
1:N:371:LYS:N	1:N:374:GLY:N	2.51	0.58
1:B:272:LYS:N	1:B:272:LYS:HD2	2.18	0.58
1:B:86:GLY:C	1:B:401:HIS:CE1	2.77	0.58
1:C:155:ASP:OD1	1:C:157:THR:HB	2.04	0.58
1:B:245:LYS:HE3	1:C:231:ARG:NH2	2.15	0.58
1:C:245:LYS:HE3	1:D:231:ARG:NH2	2.15	0.58
1:D:404:ARG:HH11	1:D:404:ARG:HG2	1.69	0.58
1:E:291:ASP:OD2	1:E:368:ARG:HD2	2.03	0.58
1:E:362:ARG:O	1:E:366:GLN:HG3	2.04	0.58
1:G:331:THR:OG1	1:G:376:VAL:HG21	2.00	0.58
1:L:371:LYS:N	1:L:374:GLY:N	2.51	0.58
1:B:291:ASP:OD2	1:B:368:ARG:HD2	2.03	0.58
1:C:86:GLY:C	1:C:401:HIS:CE1	2.77	0.58
1:E:194:GLN:CG	1:E:375:GLY:O	2.52	0.58
1:E:49:ILE:HD12	1:F:513:LEU:HB3	1.85	0.58
1:G:86:GLY:C	1:G:401:HIS:CE1	2.77	0.58
1:G:404:ARG:HG2	1:G:404:ARG:HH11	1.69	0.58
1:K:371:LYS:N	1:K:374:GLY:N	2.51	0.58
1:A:16:MET:O	1:A:20:VAL:HG13	2.04	0.58
1:B:41:ASP:CG	1:C:69:MET:HE3	2.22	0.58
1:C:200:LEU:O	1:C:201:SER:HB3	2.04	0.58
1:G:200:LEU:O	1:G:201:SER:HB3	2.04	0.58
1:G:272:LYS:N	1:G:272:LYS:HD2	2.18	0.58
1:H:69:MET:HE3	1:I:41:ASP:CG	2.24	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:183:LEU:O	1:K:184:GLN:HB2	2.03	0.58
1:L:183:LEU:O	1:L:184:GLN:HB2	2.03	0.58
1:N:193:MET:CA	1:N:375:GLY:HA2	2.33	0.58
1:B:200:LEU:O	1:B:201:SER:HB3	2.04	0.58
1:D:86:GLY:C	1:D:401:HIS:CE1	2.77	0.58
1:F:16:MET:O	1:F:20:VAL:HG13	2.04	0.58
1:A:272:LYS:N	1:A:272:LYS:HD2	2.18	0.58
1:D:155:ASP:OD1	1:D:157:THR:HB	2.04	0.58
1:D:16:MET:O	1:D:20:VAL:HG13	2.04	0.58
1:D:205:ILE:HA	1:D:213:VAL:HG22	1.85	0.58
1:D:305:ILE:HD12	1:D:307:MET:HE2	1.84	0.58
1:F:194:GLN:CG	1:F:375:GLY:O	2.52	0.58
1:F:404:ARG:HG2	1:F:404:ARG:HH11	1.69	0.58
1:H:68:ASN:O	1:H:72:GLN:HG2	2.04	0.58
1:B:16:MET:O	1:B:20:VAL:HG13	2.04	0.57
1:B:362:ARG:O	1:B:366:GLN:HG3	2.03	0.57
1:D:362:ARG:O	1:D:366:GLN:HG3	2.03	0.57
1:D:86:GLY:HA3	1:D:401:HIS:NE2	2.09	0.57
1:G:155:ASP:OD1	1:G:157:THR:HB	2.04	0.57
1:I:183:LEU:O	1:I:184:GLN:HB2	2.03	0.57
1:B:245:LYS:HZ1	1:C:231:ARG:HH22	0.59	0.57
1:A:39:VAL:CG2	1:B:517:THR:HG21	2.01	0.57
1:C:41:ASP:CG	1:D:69:MET:HE3	2.24	0.57
1:E:200:LEU:O	1:E:201:SER:HB3	2.04	0.57
1:F:420:ILE:HD12	1:F:451:LEU:HD13	1.87	0.57
1:G:16:MET:O	1:G:20:VAL:HG13	2.04	0.57
1:G:362:ARG:O	1:G:366:GLN:HG3	2.03	0.57
1:H:272:LYS:N	1:H:272:LYS:HD2	2.19	0.57
1:A:194:GLN:H	1:A:374:GLY:N	2.01	0.57
1:B:382:GLY:O	1:B:389:MET:HG2	2.04	0.57
1:E:86:GLY:C	1:E:401:HIS:CE1	2.77	0.57
1:E:404:ARG:HG2	1:E:404:ARG:HH11	1.69	0.57
1:H:193:MET:CA	1:H:375:GLY:HA2	2.33	0.57
1:I:205:ILE:HA	1:I:213:VAL:HG22	1.86	0.57
1:N:272:LYS:HD2	1:N:272:LYS:N	2.19	0.57
1:A:404:ARG:HH11	1:A:404:ARG:HG2	1.69	0.57
1:B:136:VAL:CA	1:B:137:PRO:HD3	2.25	0.57
1:C:362:ARG:O	1:C:366:GLN:HG3	2.03	0.57
1:D:382:GLY:O	1:D:389:MET:HG2	2.04	0.57
1:D:420:ILE:HD12	1:D:451:LEU:HD13	1.87	0.57
1:E:16:MET:O	1:E:20:VAL:HG13	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:406:ALA:CB	1:E:496:PRO:HG3	2.35	0.57
1:F:245:LYS:HZ1	1:G:231:ARG:HH22	0.59	0.57
1:F:193:MET:C	1:F:375:GLY:N	2.50	0.57
1:G:420:ILE:HD12	1:G:451:LEU:HD13	1.87	0.57
1:J:69:MET:HE3	1:K:41:ASP:OD1	2.03	0.57
1:L:333:ILE:CD1	1:L:378:VAL:HG22	2.26	0.57
1:A:331:THR:OG1	1:A:376:VAL:HG21	2.00	0.57
1:A:382:GLY:O	1:A:389:MET:HG2	2.04	0.57
1:B:404:ARG:HH11	1:B:404:ARG:HG2	1.69	0.57
1:C:382:GLY:O	1:C:389:MET:HG2	2.04	0.57
1:C:420:ILE:HD12	1:C:451:LEU:HD13	1.87	0.57
1:E:420:ILE:HD12	1:E:451:LEU:HD13	1.87	0.57
1:F:49:ILE:HD12	1:G:513:LEU:HB3	1.85	0.57
1:H:183:LEU:O	1:H:184:GLN:HB2	2.03	0.57
1:I:371:LYS:N	1:I:374:GLY:N	2.51	0.57
1:I:193:MET:CA	1:I:375:GLY:HA2	2.33	0.57
1:I:68:ASN:O	1:I:72:GLN:HG2	2.04	0.57
1:J:205:ILE:HA	1:J:213:VAL:HG22	1.86	0.57
1:A:86:GLY:C	1:A:401:HIS:CE1	2.77	0.57
1:B:155:ASP:OD1	1:B:157:THR:HB	2.04	0.57
1:E:193:MET:C	1:E:375:GLY:N	2.50	0.57
1:E:382:GLY:O	1:E:389:MET:HG2	2.04	0.57
1:G:406:ALA:CB	1:G:496:PRO:HG3	2.35	0.57
1:I:272:LYS:N	1:I:272:LYS:HD2	2.19	0.57
1:K:68:ASN:O	1:K:72:GLN:HG2	2.04	0.57
1:A:513:LEU:HB3	1:G:49:ILE:HD12	1.85	0.57
1:B:406:ALA:CB	1:B:496:PRO:HG3	2.35	0.57
1:F:235:PRO:CG	1:F:310:GLU:HA	2.29	0.57
1:H:218:PRO:CB	1:H:246:PRO:HG2	2.30	0.57
1:J:272:LYS:N	1:J:272:LYS:HD2	2.19	0.57
1:M:272:LYS:N	1:M:272:LYS:HD2	2.19	0.57
1:N:68:ASN:O	1:N:72:GLN:HG2	2.04	0.57
1:C:218:PRO:CB	1:C:246:PRO:HG2	2.32	0.57
1:D:194:GLN:CG	1:D:375:GLY:O	2.52	0.57
1:E:218:PRO:CB	1:E:246:PRO:HG2	2.32	0.57
1:F:194:GLN:H	1:F:374:GLY:N	2.01	0.57
1:J:333:ILE:CD1	1:J:378:VAL:HG22	2.26	0.57
1:K:272:LYS:HD2	1:K:272:LYS:N	2.19	0.57
1:L:69:MET:HE3	1:M:41:ASP:OD1	2.05	0.57
1:N:190:VAL:HG23	1:N:332:ILE:O	2.04	0.57
1:A:200:LEU:O	1:A:201:SER:HB3	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:194:GLN:CG	1:A:375:GLY:O	2.52	0.57
1:A:49:ILE:HD12	1:B:513:LEU:HB3	1.85	0.57
1:C:16:MET:O	1:C:20:VAL:HG13	2.04	0.57
1:G:326:ASN:HD22	1:G:329:THR:HB	1.70	0.57
1:H:190:VAL:HG23	1:H:332:ILE:O	2.04	0.57
1:H:205:ILE:HA	1:H:213:VAL:HG22	1.86	0.57
1:G:194:GLN:H	1:G:375:GLY:N	1.79	0.57
1:G:194:GLN:CG	1:G:375:GLY:O	2.52	0.57
1:K:513:LEU:HD13	1:L:49:ILE:CD1	2.29	0.57
1:L:218:PRO:CB	1:L:246:PRO:HG2	2.30	0.57
1:L:272:LYS:HD2	1:L:272:LYS:N	2.19	0.57
1:L:68:ASN:O	1:L:72:GLN:HG2	2.04	0.57
1:A:362:ARG:O	1:A:366:GLN:HG3	2.03	0.56
1:A:420:ILE:HD12	1:A:451:LEU:HD13	1.87	0.56
1:B:420:ILE:HD12	1:B:451:LEU:HD13	1.87	0.56
1:D:200:LEU:O	1:D:201:SER:HB3	2.04	0.56
1:F:155:ASP:OD1	1:F:157:THR:HB	2.04	0.56
1:K:205:ILE:HA	1:K:213:VAL:HG22	1.86	0.56
1:N:242:LYS:C	1:N:244:GLY:H	2.09	0.56
1:D:235:PRO:CG	1:D:310:GLU:HA	2.29	0.56
1:E:326:ASN:HD22	1:E:329:THR:HB	1.70	0.56
1:F:382:GLY:O	1:F:389:MET:HG2	2.04	0.56
1:I:190:VAL:HG23	1:I:332:ILE:O	2.04	0.56
1:H:73:MET:HG2	1:I:47:PRO:HD2	1.87	0.56
1:J:190:VAL:HG23	1:J:332:ILE:O	2.04	0.56
1:M:190:VAL:HG23	1:M:332:ILE:O	2.04	0.56
1:M:68:ASN:O	1:M:72:GLN:HG2	2.04	0.56
1:B:193:MET:C	1:B:375:GLY:N	2.50	0.56
1:F:245:LYS:HE3	1:G:231:ARG:NH2	2.15	0.56
1:G:382:GLY:O	1:G:389:MET:HG2	2.04	0.56
1:E:49:ILE:HD12	1:F:513:LEU:HD13	1.88	0.56
1:G:193:MET:C	1:G:375:GLY:N	2.50	0.56
1:H:47:PRO:HD2	1:N:73:MET:HG2	1.87	0.56
1:I:73:MET:HG2	1:J:47:PRO:HD2	1.87	0.56
1:C:326:ASN:HD22	1:C:329:THR:HB	1.70	0.56
1:D:218:PRO:CB	1:D:246:PRO:HG2	2.32	0.56
1:D:326:ASN:HD22	1:D:329:THR:HB	1.70	0.56
1:E:155:ASP:OD1	1:E:157:THR:HB	2.04	0.56
1:I:69:MET:HE3	1:J:41:ASP:OD1	2.06	0.56
1:J:68:ASN:O	1:J:72:GLN:HG2	2.04	0.56
1:B:326:ASN:HD22	1:B:329:THR:HB	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:404:ARG:HH11	1:C:404:ARG:HG2	1.69	0.56
1:I:242:LYS:C	1:I:244:GLY:H	2.09	0.56
1:H:41:ASP:HB3	1:N:521:VAL:O	2.03	0.56
1:D:245:LYS:HZ2	1:D:319:GLN:HE22	1.54	0.56
1:F:49:ILE:HD12	1:G:513:LEU:HD13	1.88	0.56
1:G:183:LEU:O	1:G:184:GLN:HB2	2.06	0.56
1:M:205:ILE:HA	1:M:213:VAL:HG22	1.86	0.56
1:A:326:ASN:HD22	1:A:329:THR:HB	1.70	0.56
1:A:86:GLY:HA3	1:A:401:HIS:NE2	2.10	0.56
1:B:194:GLN:CG	1:B:375:GLY:O	2.52	0.56
1:E:235:PRO:CG	1:E:310:GLU:HA	2.29	0.56
1:D:49:ILE:HD12	1:E:513:LEU:HD13	1.88	0.56
1:F:183:LEU:O	1:F:184:GLN:HB2	2.06	0.56
1:I:513:LEU:HD13	1:J:49:ILE:CD1	2.28	0.56
1:L:242:LYS:C	1:L:244:GLY:H	2.09	0.56
1:L:69:MET:CE	1:M:41:ASP:CG	2.74	0.56
1:C:206:ASN:HD21	1:C:214:GLU:H	1.54	0.56
1:C:406:ALA:CB	1:C:496:PRO:HG3	2.35	0.56
1:D:206:ASN:HD21	1:D:214:GLU:H	1.54	0.56
1:K:69:MET:CE	1:L:41:ASP:CG	2.74	0.56
1:H:242:LYS:C	1:H:244:GLY:H	2.09	0.56
1:M:242:LYS:C	1:M:244:GLY:H	2.09	0.56
1:A:235:PRO:CG	1:A:310:GLU:HA	2.29	0.56
1:A:245:LYS:HZ2	1:A:319:GLN:HE22	1.52	0.56
1:I:160:LYS:O	1:I:164:GLU:HG3	2.06	0.56
1:L:160:LYS:O	1:L:164:GLU:HG3	2.06	0.56
1:L:205:ILE:HA	1:L:213:VAL:HG22	1.86	0.56
1:L:513:LEU:HD13	1:M:49:ILE:CD1	2.29	0.56
1:M:69:MET:CE	1:N:41:ASP:CG	2.74	0.56
1:N:160:LYS:O	1:N:164:GLU:HG3	2.06	0.56
1:N:205:ILE:HA	1:N:213:VAL:HG22	1.86	0.56
1:G:86:GLY:HA3	1:G:401:HIS:NE2	2.10	0.55
1:K:190:VAL:HG23	1:K:332:ILE:O	2.03	0.55
1:J:73:MET:HG2	1:K:47:PRO:HD2	1.87	0.55
1:M:23:LEU:CD2	1:M:74:VAL:HG13	2.37	0.55
1:N:218:PRO:CB	1:N:246:PRO:HG2	2.30	0.55
1:N:386:GLU:O	1:N:390:LYS:HG2	2.07	0.55
1:E:41:ASP:CG	1:F:69:MET:HE3	2.25	0.55
1:H:160:LYS:O	1:H:164:GLU:HG3	2.06	0.55
1:M:218:PRO:CB	1:M:246:PRO:HG2	2.30	0.55
1:A:245:LYS:HE3	1:B:231:ARG:NH2	2.15	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:49:ILE:HD12	1:B:513:LEU:HD13	1.88	0.55
1:H:386:GLU:O	1:H:390:LYS:HG2	2.07	0.55
1:K:23:LEU:CD2	1:K:74:VAL:HG13	2.37	0.55
1:L:190:VAL:HG23	1:L:332:ILE:O	2.04	0.55
1:L:23:LEU:CD2	1:L:74:VAL:HG13	2.37	0.55
1:M:190:VAL:CG1	1:M:334:ASP:HB2	2.35	0.55
1:L:73:MET:HG2	1:M:47:PRO:HD2	1.87	0.55
1:N:190:VAL:CG1	1:N:334:ASP:HB2	2.35	0.55
1:H:41:ASP:OD1	1:N:69:MET:HE3	2.06	0.55
1:B:206:ASN:HD21	1:B:214:GLU:H	1.54	0.55
1:E:39:VAL:HB	1:F:519:CYS:O	2.07	0.55
1:J:386:GLU:O	1:J:390:LYS:HG2	2.07	0.55
1:J:513:LEU:HD13	1:K:49:ILE:CD1	2.29	0.55
1:J:69:MET:CE	1:K:41:ASP:CG	2.74	0.55
1:K:73:MET:HG2	1:L:47:PRO:HD2	1.87	0.55
1:A:183:LEU:O	1:A:184:GLN:HB2	2.06	0.55
1:B:49:ILE:HD12	1:C:513:LEU:HD13	1.88	0.55
1:A:39:VAL:HB	1:B:519:CYS:O	2.07	0.55
1:C:194:GLN:CG	1:C:375:GLY:O	2.52	0.55
1:C:49:ILE:HD12	1:D:513:LEU:HD13	1.88	0.55
1:F:406:ALA:CB	1:F:496:PRO:HG3	2.35	0.55
1:B:49:ILE:HD12	1:C:513:LEU:HB3	1.85	0.55
1:E:206:ASN:HD21	1:E:214:GLU:H	1.54	0.55
1:F:39:VAL:HB	1:G:519:CYS:O	2.07	0.55
1:I:521:VAL:O	1:J:41:ASP:HB3	2.03	0.55
1:D:183:LEU:O	1:D:184:GLN:HB2	2.06	0.55
1:H:69:MET:CE	1:I:41:ASP:CG	2.74	0.55
1:I:69:MET:CE	1:J:41:ASP:CG	2.74	0.55
1:K:386:GLU:O	1:K:390:LYS:HG2	2.07	0.55
1:K:69:MET:HE1	1:L:41:ASP:CB	2.36	0.55
1:N:23:LEU:CD2	1:N:74:VAL:HG13	2.37	0.55
1:H:41:ASP:CG	1:N:69:MET:CE	2.74	0.55
1:B:183:LEU:O	1:B:184:GLN:HB2	2.06	0.55
1:C:39:VAL:HB	1:D:519:CYS:O	2.07	0.55
1:D:39:VAL:HB	1:E:519:CYS:O	2.07	0.55
1:I:23:LEU:HD22	1:I:74:VAL:HG13	1.89	0.55
1:I:386:GLU:O	1:I:390:LYS:HG2	2.07	0.55
1:J:160:LYS:O	1:J:164:GLU:HG3	2.06	0.55
1:K:176:THR:HG22	1:K:177:VAL:N	2.22	0.55
1:L:521:VAL:O	1:M:41:ASP:HB3	2.03	0.55
1:M:386:GLU:O	1:M:390:LYS:HG2	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:73:MET:HG2	1:N:47:PRO:HD2	1.87	0.55
1:A:114:MET:HE1	1:G:51:LYS:HZ3	1.72	0.55
1:C:183:LEU:O	1:C:184:GLN:HB2	2.06	0.55
1:F:194:GLN:CD	1:F:375:GLY:O	2.46	0.55
1:J:242:LYS:C	1:J:244:GLY:H	2.09	0.55
1:K:16:MET:O	1:K:20:VAL:HG13	2.07	0.55
1:L:176:THR:HG22	1:L:177:VAL:N	2.22	0.55
1:K:69:MET:CE	1:L:41:ASP:HB2	2.36	0.55
1:H:49:ILE:CD1	1:N:513:LEU:HD13	2.28	0.55
1:B:39:VAL:HB	1:C:519:CYS:O	2.07	0.55
1:A:513:LEU:HD13	1:G:49:ILE:HD12	1.88	0.55
1:I:176:THR:HG22	1:I:177:VAL:N	2.22	0.55
1:H:69:MET:HE3	1:I:41:ASP:OD1	2.07	0.55
1:K:242:LYS:C	1:K:244:GLY:H	2.09	0.55
1:L:69:MET:CE	1:M:41:ASP:HB2	2.36	0.55
1:F:326:ASN:HD22	1:F:329:THR:HB	1.70	0.54
1:J:23:LEU:HD22	1:J:74:VAL:HG13	1.89	0.54
1:L:386:GLU:O	1:L:390:LYS:HG2	2.07	0.54
1:L:70:GLY:HA2	1:L:73:MET:HE3	1.89	0.54
1:M:160:LYS:O	1:M:164:GLU:HG3	2.06	0.54
1:A:160:LYS:O	1:A:164:GLU:HG3	2.08	0.54
1:A:194:GLN:CD	1:A:375:GLY:O	2.46	0.54
1:A:406:ALA:CB	1:A:496:PRO:HG3	2.35	0.54
1:A:41:ASP:CG	1:B:69:MET:HE3	2.28	0.54
1:J:23:LEU:CD2	1:J:74:VAL:HG13	2.37	0.54
1:J:190:VAL:CG1	1:J:334:ASP:HB2	2.35	0.54
1:K:160:LYS:O	1:K:164:GLU:HG3	2.06	0.54
1:K:69:MET:HE3	1:L:41:ASP:OD1	2.07	0.54
1:M:176:THR:HG22	1:M:177:VAL:N	2.22	0.54
1:B:194:GLN:CD	1:B:375:GLY:O	2.46	0.54
1:C:194:GLN:CD	1:C:375:GLY:O	2.46	0.54
1:D:160:LYS:O	1:D:164:GLU:HG3	2.08	0.54
1:D:183:LEU:HD12	1:D:184:GLN:HG3	1.89	0.54
1:E:183:LEU:O	1:E:184:GLN:HB2	2.06	0.54
1:A:519:CYS:O	1:G:39:VAL:HB	2.07	0.54
1:I:16:MET:O	1:I:20:VAL:HG13	2.07	0.54
1:M:200:LEU:O	1:M:201:SER:HB3	2.07	0.54
1:N:176:THR:HG22	1:N:177:VAL:N	2.22	0.54
1:N:16:MET:O	1:N:20:VAL:HG13	2.07	0.54
1:M:521:VAL:O	1:N:41:ASP:HB3	2.03	0.54
1:A:183:LEU:HD12	1:A:184:GLN:HG3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:206:ASN:HD21	1:A:214:GLU:H	1.54	0.54
1:D:194:GLN:CD	1:D:375:GLY:O	2.46	0.54
1:F:160:LYS:O	1:F:164:GLU:HG3	2.08	0.54
1:G:245:LYS:HZ2	1:G:319:GLN:HE22	1.54	0.54
1:H:23:LEU:HD22	1:H:74:VAL:HG13	1.89	0.54
1:K:193:MET:CE	1:K:292:ILE:HG12	2.38	0.54
1:L:200:LEU:O	1:L:201:SER:HB3	2.07	0.54
1:E:183:LEU:HD12	1:E:184:GLN:HG3	1.89	0.54
1:E:194:GLN:CD	1:E:375:GLY:O	2.46	0.54
1:F:386:GLU:O	1:F:390:LYS:HG2	2.08	0.54
1:H:16:MET:O	1:H:20:VAL:HG13	2.07	0.54
1:I:160:LYS:HB2	1:I:160:LYS:NZ	2.23	0.54
1:I:193:MET:CE	1:I:292:ILE:HG12	2.38	0.54
1:J:176:THR:HG22	1:J:177:VAL:N	2.22	0.54
1:J:16:MET:O	1:J:20:VAL:HG13	2.07	0.54
1:I:69:MET:CE	1:J:41:ASP:HB2	2.36	0.54
1:K:200:LEU:O	1:K:201:SER:HB3	2.07	0.54
1:N:193:MET:CE	1:N:292:ILE:HG12	2.38	0.54
1:G:386:GLU:O	1:G:390:LYS:HG2	2.08	0.54
1:J:160:LYS:NZ	1:J:160:LYS:HB2	2.23	0.54
1:L:193:MET:CE	1:L:292:ILE:HG12	2.38	0.54
1:N:160:LYS:HB2	1:N:160:LYS:NZ	2.23	0.54
1:C:235:PRO:CG	1:C:310:GLU:HA	2.29	0.54
1:D:406:ALA:CB	1:D:496:PRO:HG3	2.35	0.54
1:E:386:GLU:O	1:E:390:LYS:HG2	2.08	0.54
1:F:206:ASN:HD21	1:F:214:GLU:H	1.54	0.54
1:J:69:MET:CE	1:K:41:ASP:HB2	2.36	0.54
1:L:23:LEU:HD22	1:L:74:VAL:HG13	1.89	0.54
1:C:305:ILE:O	1:C:305:ILE:HG22	2.08	0.54
1:C:49:ILE:HD12	1:D:513:LEU:HB3	1.84	0.54
1:G:160:LYS:O	1:G:164:GLU:HG3	2.08	0.54
1:H:160:LYS:HB2	1:H:160:LYS:NZ	2.23	0.54
1:H:305:ILE:O	1:H:305:ILE:HG22	2.08	0.54
1:I:23:LEU:CD2	1:I:74:VAL:HG13	2.37	0.54
1:L:191:GLU:O	1:L:332:ILE:HB	2.08	0.54
1:M:16:MET:O	1:M:20:VAL:HG13	2.07	0.54
1:M:23:LEU:HD22	1:M:74:VAL:HG13	1.89	0.54
1:N:136:VAL:HG12	1:N:137:PRO:N	2.23	0.54
1:B:183:LEU:HD12	1:B:184:GLN:HG3	1.89	0.54
1:C:386:GLU:O	1:C:390:LYS:HG2	2.08	0.54
1:C:86:GLY:HA3	1:C:401:HIS:NE2	2.10	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:235:PRO:CG	1:G:310:GLU:HA	2.29	0.54
1:I:191:GLU:O	1:I:332:ILE:HB	2.08	0.54
1:N:319:GLN:O	1:N:336:VAL:HG23	2.08	0.54
1:A:193:MET:C	1:A:375:GLY:N	2.50	0.54
1:C:183:LEU:HD12	1:C:184:GLN:HG3	1.89	0.54
1:E:194:GLN:H	1:E:375:GLY:N	1.79	0.54
1:L:16:MET:O	1:L:20:VAL:HG13	2.07	0.54
1:N:305:ILE:O	1:N:305:ILE:HG22	2.08	0.54
1:A:386:GLU:O	1:A:390:LYS:HG2	2.08	0.53
1:D:202:PRO:O	1:D:203:TYR:HB2	2.08	0.53
1:D:301:ILE:HG21	1:D:309:LEU:HD23	1.90	0.53
1:E:160:LYS:O	1:E:164:GLU:HG3	2.08	0.53
1:G:183:LEU:HD12	1:G:184:GLN:HG3	1.89	0.53
1:G:206:ASN:HD21	1:G:214:GLU:H	1.54	0.53
1:G:194:GLN:CD	1:G:375:GLY:O	2.46	0.53
1:H:23:LEU:CD2	1:H:74:VAL:HG13	2.37	0.53
1:H:190:VAL:CG1	1:H:334:ASP:HB2	2.35	0.53
1:I:73:MET:O	1:I:76:GLU:HB2	2.09	0.53
1:J:193:MET:CE	1:J:292:ILE:HG12	2.38	0.53
1:K:69:MET:CE	1:L:41:ASP:CB	2.86	0.53
1:M:305:ILE:O	1:M:305:ILE:HG22	2.08	0.53
1:B:160:LYS:O	1:B:164:GLU:HG3	2.08	0.53
1:B:305:ILE:O	1:B:305:ILE:HG22	2.08	0.53
1:C:301:ILE:HG21	1:C:309:LEU:HD23	1.90	0.53
1:A:69:MET:HE3	1:G:41:ASP:CG	2.28	0.53
1:H:176:THR:HG22	1:H:177:VAL:N	2.22	0.53
1:H:200:LEU:O	1:H:201:SER:HB3	2.07	0.53
1:J:200:LEU:O	1:J:201:SER:HB3	2.07	0.53
1:J:73:MET:O	1:J:76:GLU:HB2	2.09	0.53
1:K:160:LYS:HB2	1:K:160:LYS:NZ	2.23	0.53
1:K:73:MET:O	1:K:76:GLU:HB2	2.09	0.53
1:M:136:VAL:HG12	1:M:137:PRO:N	2.23	0.53
1:M:193:MET:C	1:M:376:VAL:HG23	2.29	0.53
1:N:382:GLY:O	1:N:389:MET:HG2	2.08	0.53
1:C:160:LYS:O	1:C:164:GLU:HG3	2.08	0.53
1:C:202:PRO:O	1:C:203:TYR:HB2	2.08	0.53
1:D:305:ILE:O	1:D:305:ILE:HG22	2.08	0.53
1:G:301:ILE:HG21	1:G:309:LEU:HD23	1.90	0.53
1:H:136:VAL:HG12	1:H:137:PRO:N	2.23	0.53
1:H:191:GLU:O	1:H:332:ILE:HB	2.08	0.53
1:H:193:MET:CE	1:H:292:ILE:HG12	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:69:MET:CE	1:I:41:ASP:CB	2.86	0.53
1:K:319:GLN:O	1:K:336:VAL:HG23	2.08	0.53
1:K:191:GLU:O	1:K:332:ILE:HB	2.08	0.53
1:K:193:MET:C	1:K:376:VAL:HG23	2.29	0.53
1:L:319:GLN:O	1:L:336:VAL:HG23	2.08	0.53
1:K:521:VAL:O	1:L:41:ASP:HB3	2.03	0.53
1:M:319:GLN:O	1:M:336:VAL:HG23	2.08	0.53
1:M:73:MET:O	1:M:76:GLU:HB2	2.09	0.53
1:H:41:ASP:CB	1:N:69:MET:CE	2.86	0.53
1:D:386:GLU:O	1:D:390:LYS:HG2	2.08	0.53
1:E:305:ILE:O	1:E:305:ILE:HG22	2.08	0.53
1:F:305:ILE:HG22	1:F:305:ILE:O	2.08	0.53
1:F:51:LYS:NZ	1:G:114:MET:HE1	2.23	0.53
1:H:319:GLN:O	1:H:336:VAL:HG23	2.08	0.53
1:H:383:ALA:O	1:H:384:ALA:HB3	2.09	0.53
1:H:382:GLY:O	1:H:389:MET:HG2	2.08	0.53
1:I:382:GLY:O	1:I:389:MET:HG2	2.08	0.53
1:J:193:MET:C	1:J:376:VAL:HG23	2.29	0.53
1:J:382:GLY:O	1:J:389:MET:HG2	2.08	0.53
1:K:23:LEU:HD22	1:K:74:VAL:HG13	1.89	0.53
1:L:193:MET:C	1:L:376:VAL:HG23	2.29	0.53
1:B:386:GLU:O	1:B:390:LYS:HG2	2.08	0.53
1:E:252:GLU:O	1:E:253:ASP:HB2	2.09	0.53
1:F:183:LEU:HD12	1:F:184:GLN:HG3	1.89	0.53
1:J:191:GLU:O	1:J:332:ILE:HB	2.08	0.53
1:M:513:LEU:HD13	1:N:49:ILE:CD1	2.28	0.53
1:N:193:MET:C	1:N:376:VAL:HG23	2.29	0.53
1:N:200:LEU:O	1:N:201:SER:HB3	2.07	0.53
1:A:242:LYS:C	1:A:244:GLY:H	2.12	0.53
1:A:194:GLN:HB2	1:A:375:GLY:CA	2.39	0.53
1:C:194:GLN:HB2	1:C:375:GLY:CA	2.39	0.53
1:C:252:GLU:O	1:C:253:ASP:HB2	2.09	0.53
1:E:242:LYS:C	1:E:244:GLY:H	2.12	0.53
1:E:301:ILE:HG21	1:E:309:LEU:HD23	1.90	0.53
1:I:193:MET:C	1:I:376:VAL:HG23	2.29	0.53
1:I:305:ILE:HG22	1:I:305:ILE:O	2.08	0.53
1:I:383:ALA:O	1:I:384:ALA:HB3	2.09	0.53
1:K:382:GLY:O	1:K:389:MET:HG2	2.08	0.53
1:M:193:MET:CE	1:M:292:ILE:HG12	2.38	0.53
1:N:183:LEU:HD12	1:N:184:GLN:HG3	1.91	0.53
1:N:73:MET:O	1:N:76:GLU:HB2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:242:LYS:C	1:C:244:GLY:H	2.12	0.53
1:C:86:GLY:O	1:C:401:HIS:CE1	2.62	0.53
1:D:242:LYS:C	1:D:244:GLY:H	2.12	0.53
1:E:86:GLY:O	1:E:401:HIS:CE1	2.62	0.53
1:F:301:ILE:HG21	1:F:309:LEU:HD23	1.90	0.53
1:F:41:ASP:CG	1:G:69:MET:HE3	2.29	0.53
1:G:252:GLU:O	1:G:253:ASP:HB2	2.09	0.53
1:I:70:GLY:HA2	1:I:73:MET:HE3	1.89	0.53
1:K:136:VAL:HG12	1:K:137:PRO:N	2.23	0.53
1:L:160:LYS:NZ	1:L:160:LYS:HB2	2.23	0.53
1:L:305:ILE:O	1:L:305:ILE:HG22	2.08	0.53
1:M:183:LEU:HD12	1:M:184:GLN:HG3	1.91	0.53
1:N:23:LEU:HD22	1:N:74:VAL:HG13	1.89	0.53
1:D:193:MET:C	1:D:375:GLY:N	2.50	0.53
1:H:73:MET:O	1:H:76:GLU:HB2	2.09	0.53
1:M:160:LYS:NZ	1:M:160:LYS:HB2	2.23	0.53
1:A:301:ILE:HG21	1:A:309:LEU:HD23	1.90	0.53
1:B:301:ILE:HG21	1:B:309:LEU:HD23	1.90	0.53
1:B:86:GLY:O	1:B:401:HIS:CE1	2.62	0.53
1:G:305:ILE:O	1:G:305:ILE:HG22	2.08	0.53
1:H:193:MET:C	1:H:376:VAL:HG23	2.29	0.53
1:H:70:GLY:HA2	1:H:73:MET:HE3	1.89	0.53
1:I:136:VAL:HG12	1:I:137:PRO:N	2.23	0.53
1:I:200:LEU:O	1:I:201:SER:HB3	2.07	0.53
1:L:136:VAL:HG12	1:L:137:PRO:N	2.23	0.53
1:L:69:MET:CE	1:M:41:ASP:CB	2.86	0.53
1:M:70:GLY:HA2	1:M:73:MET:HE3	1.91	0.53
1:N:266:THR:CG2	1:N:273:VAL:H	2.22	0.53
1:N:383:ALA:O	1:N:384:ALA:HB3	2.09	0.53
1:A:252:GLU:O	1:A:253:ASP:HB2	2.09	0.53
1:A:86:GLY:O	1:A:401:HIS:CE1	2.62	0.53
1:E:194:GLN:HB2	1:E:375:GLY:CA	2.39	0.53
1:F:86:GLY:O	1:F:401:HIS:CE1	2.62	0.53
1:F:245:LYS:HE3	1:G:231:ARG:HH21	1.70	0.53
1:J:136:VAL:HG12	1:J:137:PRO:N	2.23	0.53
1:J:319:GLN:O	1:J:336:VAL:HG23	2.08	0.53
1:J:383:ALA:O	1:J:384:ALA:HB3	2.09	0.53
1:I:69:MET:CE	1:J:41:ASP:CB	2.86	0.53
1:J:70:GLY:HA2	1:J:73:MET:HE3	1.90	0.53
1:L:382:GLY:O	1:L:389:MET:HG2	2.08	0.53
1:M:191:GLU:O	1:M:332:ILE:HB	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:266:THR:CG2	1:K:273:VAL:H	2.22	0.52
1:L:183:LEU:HD12	1:L:184:GLN:HG3	1.91	0.52
1:L:291:ASP:OD2	1:L:368:ARG:HD2	2.10	0.52
1:M:382:GLY:O	1:M:389:MET:HG2	2.08	0.52
1:M:69:MET:CE	1:N:41:ASP:CB	2.86	0.52
1:B:252:GLU:O	1:B:253:ASP:HB2	2.09	0.52
1:F:39:VAL:CG2	1:G:517:THR:CB	2.86	0.52
1:G:242:LYS:C	1:G:244:GLY:H	2.12	0.52
1:K:305:ILE:O	1:K:305:ILE:HG22	2.08	0.52
1:M:383:ALA:O	1:M:384:ALA:HB3	2.09	0.52
1:N:191:GLU:O	1:N:332:ILE:HB	2.08	0.52
1:A:305:ILE:O	1:A:305:ILE:HG22	2.08	0.52
1:A:69:MET:CE	1:G:41:ASP:CA	2.88	0.52
1:D:86:GLY:O	1:D:401:HIS:CE1	2.62	0.52
1:E:41:ASP:CA	1:F:69:MET:CE	2.88	0.52
1:F:41:ASP:CA	1:G:69:MET:CE	2.88	0.52
1:J:69:MET:CE	1:K:41:ASP:CB	2.86	0.52
1:L:73:MET:O	1:L:76:GLU:HB2	2.09	0.52
1:N:183:LEU:CD1	1:N:184:GLN:HG3	2.40	0.52
1:N:70:GLY:HA2	1:N:73:MET:HE3	1.91	0.52
1:D:252:GLU:O	1:D:253:ASP:HB2	2.09	0.52
1:E:202:PRO:O	1:E:203:TYR:HB2	2.08	0.52
1:D:41:ASP:CA	1:E:69:MET:CE	2.88	0.52
1:H:41:ASP:HB2	1:N:69:MET:CE	2.36	0.52
1:J:305:ILE:O	1:J:305:ILE:HG22	2.08	0.52
1:K:383:ALA:O	1:K:384:ALA:HB3	2.09	0.52
1:K:70:GLY:HA2	1:K:73:MET:HE3	1.91	0.52
1:L:183:LEU:CD1	1:L:184:GLN:HG3	2.40	0.52
1:M:291:ASP:OD2	1:M:368:ARG:HD2	2.10	0.52
1:A:183:LEU:CD1	1:A:184:GLN:HG3	2.39	0.52
1:A:41:ASP:HB3	1:B:521:VAL:O	2.07	0.52
1:A:41:ASP:CA	1:B:69:MET:CE	2.88	0.52
1:C:41:ASP:CA	1:D:69:MET:CE	2.88	0.52
1:G:183:LEU:CD1	1:G:184:GLN:HG3	2.39	0.52
1:G:194:GLN:HB2	1:G:375:GLY:CA	2.39	0.52
1:G:202:PRO:O	1:G:203:TYR:HB2	2.08	0.52
1:G:86:GLY:O	1:G:401:HIS:CE1	2.62	0.52
1:I:266:THR:CG2	1:I:273:VAL:H	2.22	0.52
1:M:183:LEU:CD1	1:M:184:GLN:HG3	2.40	0.52
1:M:333:ILE:HG21	1:M:378:VAL:CG2	2.36	0.52
1:N:333:ILE:HG21	1:N:378:VAL:CG2	2.36	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:41:ASP:CB	1:N:69:MET:HE1	2.36	0.52
1:A:202:PRO:O	1:A:203:TYR:HB2	2.08	0.52
1:B:194:GLN:HB2	1:B:375:GLY:CA	2.39	0.52
1:C:193:MET:C	1:C:375:GLY:N	2.50	0.52
1:D:194:GLN:HB2	1:D:375:GLY:CA	2.39	0.52
1:E:183:LEU:CD1	1:E:184:GLN:HG3	2.39	0.52
1:H:183:LEU:HD12	1:H:184:GLN:HG3	1.91	0.52
1:I:319:GLN:O	1:I:336:VAL:HG23	2.08	0.52
1:L:383:ALA:O	1:L:384:ALA:HB3	2.09	0.52
1:M:266:THR:CG2	1:M:273:VAL:H	2.22	0.52
1:B:183:LEU:CD1	1:B:184:GLN:HG3	2.39	0.52
1:F:242:LYS:C	1:F:244:GLY:H	2.12	0.52
1:F:252:GLU:O	1:F:253:ASP:HB2	2.09	0.52
1:J:291:ASP:OD2	1:J:368:ARG:HD2	2.10	0.52
1:K:291:ASP:OD2	1:K:368:ARG:HD2	2.10	0.52
1:N:136:VAL:CG1	1:N:137:PRO:HD3	2.40	0.52
1:B:242:LYS:C	1:B:244:GLY:H	2.12	0.52
1:C:176:THR:HG22	1:C:177:VAL:N	2.25	0.52
1:F:183:LEU:CD1	1:F:184:GLN:HG3	2.39	0.52
1:F:194:GLN:HB2	1:F:375:GLY:CA	2.39	0.52
1:H:301:ILE:HG21	1:H:309:LEU:HD23	1.92	0.52
1:I:90:THR:O	1:I:94:VAL:HG13	2.10	0.52
1:L:266:THR:CG2	1:L:273:VAL:H	2.22	0.52
1:A:114:MET:CE	1:G:51:LYS:NZ	2.73	0.52
1:B:41:ASP:CA	1:C:69:MET:CE	2.88	0.52
1:D:51:LYS:NZ	1:E:114:MET:CE	2.73	0.52
1:E:51:LYS:NZ	1:F:114:MET:CE	2.73	0.52
1:H:90:THR:O	1:H:94:VAL:HG13	2.10	0.52
1:K:183:LEU:HD12	1:K:184:GLN:HG3	1.91	0.52
1:M:90:THR:O	1:M:94:VAL:HG13	2.10	0.52
1:N:301:ILE:HG21	1:N:309:LEU:HD23	1.92	0.52
1:N:90:THR:O	1:N:94:VAL:HG13	2.10	0.52
1:B:176:THR:HG22	1:B:177:VAL:N	2.25	0.52
1:A:245:LYS:HE3	1:B:231:ARG:HH21	1.70	0.52
1:H:183:LEU:CD1	1:H:184:GLN:HG3	2.40	0.52
1:M:301:ILE:HG21	1:M:309:LEU:HD23	1.92	0.52
1:B:202:PRO:O	1:B:203:TYR:HB2	2.08	0.51
1:C:183:LEU:CD1	1:C:184:GLN:HG3	2.39	0.51
1:E:180:GLY:HA3	1:E:381:VAL:O	2.11	0.51
1:F:202:PRO:O	1:F:203:TYR:HB2	2.08	0.51
1:A:517:THR:CB	1:G:39:VAL:CG2	2.86	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:183:LEU:CD1	1:I:184:GLN:HG3	2.40	0.51
1:J:266:THR:CG2	1:J:273:VAL:H	2.22	0.51
1:M:136:VAL:CG1	1:M:137:PRO:HD3	2.40	0.51
1:B:180:GLY:HA3	1:B:381:VAL:O	2.10	0.51
1:C:51:LYS:NZ	1:D:114:MET:CE	2.73	0.51
1:H:266:THR:CG2	1:H:273:VAL:H	2.22	0.51
1:I:291:ASP:OD2	1:I:368:ARG:HD2	2.10	0.51
1:I:301:ILE:HG21	1:I:309:LEU:HD23	1.92	0.51
1:H:69:MET:CE	1:I:41:ASP:HB2	2.36	0.51
1:J:136:VAL:CG1	1:J:137:PRO:HD3	2.40	0.51
1:B:51:LYS:NZ	1:C:114:MET:CE	2.73	0.51
1:D:180:GLY:HA3	1:D:381:VAL:O	2.10	0.51
1:D:183:LEU:CD1	1:D:184:GLN:HG3	2.39	0.51
1:F:180:GLY:HA3	1:F:381:VAL:O	2.10	0.51
1:H:291:ASP:OD2	1:H:368:ARG:HD2	2.10	0.51
1:C:160:LYS:HB2	1:C:160:LYS:NZ	2.26	0.51
1:D:160:LYS:NZ	1:D:160:LYS:HB2	2.26	0.51
1:E:310:GLU:N	1:E:310:GLU:OE1	2.44	0.51
1:G:310:GLU:OE1	1:G:310:GLU:N	2.44	0.51
1:J:90:THR:O	1:J:94:VAL:HG13	2.10	0.51
1:N:291:ASP:OD2	1:N:368:ARG:HD2	2.10	0.51
1:H:39:VAL:HG21	1:N:517:THR:OG1	2.11	0.51
1:A:371:LYS:CB	1:A:374:GLY:N	2.74	0.51
1:B:193:MET:CE	1:B:292:ILE:HG12	2.41	0.51
1:E:383:ALA:O	1:E:384:ALA:HB3	2.11	0.51
1:F:310:GLU:OE1	1:F:310:GLU:N	2.44	0.51
1:G:371:LYS:CB	1:G:374:GLY:N	2.74	0.51
1:I:517:THR:OG1	1:J:39:VAL:HG21	2.11	0.51
1:K:183:LEU:CD1	1:K:184:GLN:HG3	2.40	0.51
1:K:190:VAL:CG1	1:K:334:ASP:HB2	2.35	0.51
1:L:517:THR:OG1	1:M:39:VAL:HG21	2.11	0.51
1:D:176:THR:HG22	1:D:177:VAL:N	2.25	0.51
1:F:193:MET:CE	1:F:292:ILE:HG12	2.41	0.51
1:J:183:LEU:CD1	1:J:184:GLN:HG3	2.40	0.51
1:J:183:LEU:HD12	1:J:184:GLN:HG3	1.91	0.51
1:J:73:MET:HG2	1:K:47:PRO:CD	2.41	0.51
1:L:301:ILE:HG21	1:L:309:LEU:HD23	1.92	0.51
1:K:73:MET:HG2	1:L:47:PRO:CD	2.41	0.51
1:L:90:THR:O	1:L:94:VAL:HG13	2.10	0.51
1:A:218:PRO:CB	1:A:246:PRO:HG2	2.32	0.51
1:A:51:LYS:NZ	1:B:114:MET:CE	2.73	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:160:LYS:NZ	1:B:160:LYS:HB2	2.26	0.51
1:B:371:LYS:CB	1:B:374:GLY:N	2.74	0.51
1:B:458:CYS:SG	1:B:480:ALA:HB1	2.51	0.51
1:D:193:MET:CE	1:D:292:ILE:HG12	2.41	0.51
1:D:383:ALA:O	1:D:384:ALA:HB3	2.11	0.51
1:F:176:THR:HG22	1:F:177:VAL:N	2.25	0.51
1:F:383:ALA:O	1:F:384:ALA:HB3	2.11	0.51
1:E:39:VAL:CG2	1:F:517:THR:HG21	2.01	0.51
1:G:180:GLY:HA3	1:G:381:VAL:O	2.10	0.51
1:K:136:VAL:CG1	1:K:137:PRO:HD3	2.40	0.51
1:B:310:GLU:OE1	1:B:310:GLU:N	2.44	0.51
1:B:41:ASP:CA	1:C:69:MET:HE3	2.41	0.51
1:D:310:GLU:OE1	1:D:310:GLU:N	2.44	0.51
1:F:371:LYS:CB	1:F:374:GLY:N	2.74	0.51
1:A:114:MET:CE	1:G:51:LYS:HZ3	2.24	0.51
1:H:136:VAL:CG1	1:H:137:PRO:HD3	2.40	0.51
1:H:513:LEU:HD13	1:I:49:ILE:CD1	2.28	0.51
1:L:73:MET:HG2	1:M:47:PRO:CD	2.41	0.51
1:A:160:LYS:HB2	1:A:160:LYS:NZ	2.26	0.51
1:A:176:THR:HG22	1:A:177:VAL:N	2.25	0.51
1:A:521:VAL:O	1:G:41:ASP:HB3	2.07	0.51
1:B:193:MET:HA	1:B:375:GLY:N	2.26	0.51
1:C:287:ALA:HB1	1:C:368:ARG:NH1	2.26	0.51
1:E:39:VAL:CG2	1:F:517:THR:CB	2.86	0.51
1:E:458:CYS:SG	1:E:480:ALA:HB1	2.51	0.51
1:H:193:MET:HA	1:H:375:GLY:CA	2.41	0.51
1:H:333:ILE:HG21	1:H:378:VAL:CG2	2.36	0.51
1:H:69:MET:HE1	1:I:41:ASP:CB	2.36	0.51
1:I:183:LEU:HD12	1:I:184:GLN:HG3	1.91	0.51
1:I:73:MET:HG2	1:J:47:PRO:CD	2.41	0.51
1:J:301:ILE:HG21	1:J:309:LEU:HD23	1.92	0.51
1:N:193:MET:HA	1:N:375:GLY:CA	2.41	0.51
1:A:287:ALA:HB1	1:A:368:ARG:NH1	2.26	0.51
1:B:287:ALA:HB1	1:B:368:ARG:NH1	2.26	0.51
1:C:193:MET:CE	1:C:292:ILE:HG12	2.41	0.51
1:C:310:GLU:N	1:C:310:GLU:OE1	2.44	0.51
1:C:458:CYS:SG	1:C:480:ALA:HB1	2.51	0.51
1:F:209:GLU:N	1:F:209:GLU:OE1	2.44	0.51
1:G:193:MET:HA	1:G:375:GLY:N	2.26	0.51
1:G:287:ALA:HB1	1:G:368:ARG:NH1	2.26	0.51
1:I:136:VAL:CG1	1:I:137:PRO:HD3	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:517:THR:OG1	1:L:39:VAL:HG21	2.11	0.51
1:L:136:VAL:CG1	1:L:137:PRO:HD3	2.40	0.51
1:A:180:GLY:HA3	1:A:381:VAL:O	2.11	0.50
1:A:310:GLU:N	1:A:310:GLU:OE1	2.44	0.50
1:A:383:ALA:O	1:A:384:ALA:HB3	2.11	0.50
1:A:39:VAL:CG2	1:B:517:THR:CB	2.86	0.50
1:C:383:ALA:O	1:C:384:ALA:HB3	2.11	0.50
1:D:287:ALA:HB1	1:D:368:ARG:NH1	2.26	0.50
1:D:193:MET:HA	1:D:375:GLY:N	2.26	0.50
1:E:193:MET:CE	1:E:292:ILE:HG12	2.41	0.50
1:E:193:MET:HA	1:E:375:GLY:N	2.26	0.50
1:E:86:GLY:HA3	1:E:401:HIS:NE2	2.10	0.50
1:G:193:MET:CE	1:G:292:ILE:HG12	2.41	0.50
1:G:383:ALA:O	1:G:384:ALA:HB3	2.11	0.50
1:F:41:ASP:CA	1:G:69:MET:HE1	2.40	0.50
1:J:202:PRO:O	1:J:203:TYR:HB2	2.11	0.50
1:M:202:PRO:O	1:M:203:TYR:HB2	2.11	0.50
1:N:202:PRO:O	1:N:203:TYR:HB2	2.11	0.50
1:M:69:MET:HE3	1:N:41:ASP:CG	2.32	0.50
1:A:174:VAL:H	1:A:194:GLN:HE22	1.60	0.50
1:B:209:GLU:OE1	1:B:209:GLU:N	2.44	0.50
1:F:458:CYS:SG	1:F:480:ALA:HB1	2.51	0.50
1:E:41:ASP:HB3	1:F:521:VAL:O	2.07	0.50
1:F:51:LYS:NZ	1:G:114:MET:CE	2.73	0.50
1:G:458:CYS:SG	1:G:480:ALA:HB1	2.51	0.50
1:H:517:THR:OG1	1:I:39:VAL:HG21	2.11	0.50
1:L:413:ALA:HB3	1:L:417:VAL:HG22	1.93	0.50
1:M:404:ARG:CG	1:M:404:ARG:NH1	2.71	0.50
1:M:517:THR:OG1	1:N:39:VAL:HG21	2.11	0.50
1:N:371:LYS:O	1:N:375:GLY:N	2.44	0.50
1:N:413:ALA:HB3	1:N:417:VAL:HG22	1.93	0.50
1:A:194:GLN:CB	1:A:375:GLY:N	2.75	0.50
1:E:371:LYS:CB	1:E:374:GLY:N	2.74	0.50
1:E:51:LYS:NZ	1:F:114:MET:HE1	2.26	0.50
1:G:174:VAL:H	1:G:194:GLN:HE22	1.60	0.50
1:H:404:ARG:CG	1:H:404:ARG:NH1	2.71	0.50
1:H:413:ALA:HB3	1:H:417:VAL:HG22	1.93	0.50
1:M:73:MET:HG2	1:N:47:PRO:CD	2.41	0.50
1:B:174:VAL:H	1:B:194:GLN:HE22	1.60	0.50
1:C:180:GLY:HA3	1:C:381:VAL:O	2.10	0.50
1:C:209:GLU:N	1:C:209:GLU:OE1	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:194:GLN:CB	1:D:375:GLY:N	2.75	0.50
1:D:371:LYS:CB	1:D:374:GLY:N	2.74	0.50
1:E:209:GLU:OE1	1:E:209:GLU:N	2.44	0.50
1:E:287:ALA:HB1	1:E:368:ARG:NH1	2.26	0.50
1:G:176:THR:HG22	1:G:177:VAL:N	2.25	0.50
1:I:193:MET:HA	1:I:375:GLY:CA	2.41	0.50
1:J:517:THR:OG1	1:K:39:VAL:HG21	2.11	0.50
1:K:301:ILE:HG21	1:K:309:LEU:HD23	1.92	0.50
1:A:114:MET:HE1	1:G:51:LYS:NZ	2.27	0.50
1:A:271:VAL:HG12	1:A:273:VAL:HG23	1.94	0.50
1:B:271:VAL:HG12	1:B:273:VAL:HG23	1.94	0.50
1:E:194:GLN:CB	1:E:375:GLY:N	2.75	0.50
1:F:287:ALA:HB1	1:F:368:ARG:NH1	2.27	0.50
1:K:371:LYS:O	1:K:375:GLY:N	2.44	0.50
1:M:371:LYS:O	1:M:375:GLY:N	2.44	0.50
1:A:319:GLN:O	1:A:336:VAL:HG23	2.12	0.50
1:C:371:LYS:CB	1:C:374:GLY:N	2.74	0.50
1:E:160:LYS:HB2	1:E:160:LYS:NZ	2.26	0.50
1:E:176:THR:HG22	1:E:177:VAL:N	2.25	0.50
1:G:194:GLN:CB	1:G:375:GLY:N	2.75	0.50
1:G:271:VAL:HG12	1:G:273:VAL:HG23	1.94	0.50
1:H:73:MET:HG2	1:I:47:PRO:CD	2.41	0.50
1:K:202:PRO:O	1:K:203:TYR:HB2	2.11	0.50
1:L:202:PRO:O	1:L:203:TYR:HB2	2.11	0.50
1:B:194:GLN:CB	1:B:375:GLY:N	2.75	0.50
1:C:193:MET:HA	1:C:375:GLY:N	2.26	0.50
1:C:194:GLN:CB	1:C:375:GLY:N	2.75	0.50
1:C:319:GLN:O	1:C:336:VAL:HG23	2.12	0.50
1:E:319:GLN:O	1:E:336:VAL:HG23	2.12	0.50
1:F:193:MET:HA	1:F:375:GLY:N	2.26	0.50
1:G:218:PRO:CB	1:G:246:PRO:HG2	2.32	0.50
1:H:202:PRO:O	1:H:203:TYR:HB2	2.11	0.50
1:L:193:MET:HA	1:L:375:GLY:CA	2.41	0.50
1:L:221:LEU:HD23	1:L:249:ILE:HD12	1.94	0.50
1:C:174:VAL:H	1:C:194:GLN:HE22	1.60	0.50
1:F:174:VAL:H	1:F:194:GLN:HE22	1.60	0.50
1:F:271:VAL:HG12	1:F:273:VAL:HG23	1.94	0.50
1:G:160:LYS:HB2	1:G:160:LYS:NZ	2.26	0.50
1:H:287:ALA:HB1	1:H:368:ARG:NH1	2.27	0.50
1:I:202:PRO:O	1:I:203:TYR:HB2	2.11	0.50
1:I:371:LYS:O	1:I:375:GLY:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:193:MET:HA	1:M:375:GLY:CA	2.41	0.50
1:M:413:ALA:HB3	1:M:417:VAL:HG22	1.93	0.50
1:N:404:ARG:CG	1:N:404:ARG:NH1	2.71	0.50
1:A:136:VAL:HG12	1:A:137:PRO:N	2.27	0.50
1:A:193:MET:CE	1:A:292:ILE:HG12	2.41	0.50
1:B:136:VAL:HG12	1:B:137:PRO:N	2.27	0.50
1:B:41:ASP:OD2	1:C:522:THR:HB	2.12	0.50
1:D:39:VAL:CG2	1:E:517:THR:CB	2.86	0.50
1:E:200:LEU:HG	1:E:276:VAL:HA	1.93	0.50
1:F:319:GLN:O	1:F:336:VAL:HG23	2.12	0.50
1:F:39:VAL:CG2	1:G:517:THR:OG1	2.60	0.50
1:H:221:LEU:HD23	1:H:249:ILE:HD12	1.94	0.50
1:H:223:ALA:O	1:H:251:ALA:HA	2.12	0.50
1:H:371:LYS:O	1:H:375:GLY:N	2.44	0.50
1:J:371:LYS:O	1:J:375:GLY:N	2.44	0.50
1:K:252:GLU:O	1:K:253:ASP:HB2	2.12	0.50
1:K:193:MET:HA	1:K:375:GLY:CA	2.41	0.50
1:L:223:ALA:O	1:L:251:ALA:HA	2.12	0.50
1:M:221:LEU:HD23	1:M:249:ILE:HD12	1.94	0.50
1:M:310:GLU:OE1	1:M:310:GLU:N	2.45	0.50
1:A:41:ASP:OD2	1:B:522:THR:HB	2.12	0.49
1:B:383:ALA:O	1:B:384:ALA:HB3	2.11	0.49
1:C:234:LEU:O	1:C:238:GLU:HG3	2.12	0.49
1:D:458:CYS:SG	1:D:480:ALA:HB1	2.51	0.49
1:E:41:ASP:OD2	1:F:522:THR:HB	2.12	0.49
1:G:209:GLU:N	1:G:209:GLU:OE1	2.44	0.49
1:I:287:ALA:HB1	1:I:368:ARG:NH1	2.27	0.49
1:J:310:GLU:N	1:J:310:GLU:OE1	2.45	0.49
1:K:90:THR:O	1:K:94:VAL:HG13	2.10	0.49
1:L:371:LYS:O	1:L:375:GLY:N	2.44	0.49
1:N:221:LEU:HD23	1:N:249:ILE:HD12	1.94	0.49
1:N:287:ALA:HB1	1:N:368:ARG:NH1	2.27	0.49
1:A:193:MET:HA	1:A:375:GLY:N	2.26	0.49
1:A:458:CYS:SG	1:A:480:ALA:HB1	2.51	0.49
1:B:234:LEU:O	1:B:238:GLU:HG3	2.12	0.49
1:D:319:GLN:O	1:D:336:VAL:HG23	2.12	0.49
1:E:234:LEU:O	1:E:238:GLU:HG3	2.13	0.49
1:F:194:GLN:CB	1:F:375:GLY:N	2.75	0.49
1:F:200:LEU:HG	1:F:276:VAL:HA	1.93	0.49
1:I:310:GLU:OE1	1:I:310:GLU:N	2.45	0.49
1:K:221:LEU:HD23	1:K:249:ILE:HD12	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:384:ALA:O	1:K:385:THR:HG23	2.13	0.49
1:K:413:ALA:HB3	1:K:417:VAL:HG22	1.93	0.49
1:N:310:GLU:OE1	1:N:310:GLU:N	2.45	0.49
1:H:47:PRO:CD	1:N:73:MET:HG2	2.41	0.49
1:B:39:VAL:CG2	1:C:517:THR:OG1	2.60	0.49
1:C:271:VAL:HG12	1:C:273:VAL:HG23	1.94	0.49
1:E:174:VAL:H	1:E:194:GLN:HE22	1.60	0.49
1:F:234:LEU:O	1:F:238:GLU:HG3	2.13	0.49
1:J:252:GLU:O	1:J:253:ASP:HB2	2.12	0.49
1:K:310:GLU:OE1	1:K:310:GLU:N	2.45	0.49
1:M:69:MET:HE3	1:N:41:ASP:OD1	2.12	0.49
1:A:41:ASP:CA	1:B:69:MET:HE1	2.42	0.49
1:B:206:ASN:OD1	1:B:207:LYS:HG3	2.13	0.49
1:B:260:ALA:O	1:B:264:VAL:HG23	2.13	0.49
1:C:41:ASP:OD2	1:D:522:THR:HB	2.12	0.49
1:D:174:VAL:H	1:D:194:GLN:HE22	1.60	0.49
1:D:234:LEU:O	1:D:238:GLU:HG3	2.12	0.49
1:D:51:LYS:NZ	1:E:114:MET:HE1	2.27	0.49
1:E:39:VAL:CG2	1:F:517:THR:OG1	2.60	0.49
1:F:218:PRO:CB	1:F:246:PRO:HG2	2.32	0.49
1:G:200:LEU:HG	1:G:276:VAL:HA	1.93	0.49
1:H:310:GLU:OE1	1:H:310:GLU:N	2.45	0.49
1:H:171:LYS:HB2	1:H:407:VAL:HG11	1.95	0.49
1:I:223:ALA:O	1:I:251:ALA:HA	2.12	0.49
1:J:221:LEU:HD23	1:J:249:ILE:HD12	1.94	0.49
1:J:219:PHE:O	1:J:247:LEU:HD12	2.13	0.49
1:J:287:ALA:HB1	1:J:368:ARG:NH1	2.27	0.49
1:K:223:ALA:O	1:K:251:ALA:HA	2.12	0.49
1:L:252:GLU:O	1:L:253:ASP:HB2	2.12	0.49
1:M:219:PHE:O	1:M:247:LEU:HD12	2.13	0.49
1:M:223:ALA:O	1:M:251:ALA:HA	2.12	0.49
1:A:517:THR:OG1	1:G:39:VAL:CG2	2.60	0.49
1:C:39:VAL:CG2	1:D:517:THR:OG1	2.60	0.49
1:E:206:ASN:OD1	1:E:207:LYS:HG3	2.13	0.49
1:I:221:LEU:HD23	1:I:249:ILE:HD12	1.94	0.49
1:I:252:GLU:O	1:I:253:ASP:HB2	2.12	0.49
1:J:404:ARG:CG	1:J:404:ARG:NH1	2.71	0.49
1:L:310:GLU:OE1	1:L:310:GLU:N	2.45	0.49
1:L:384:ALA:O	1:L:385:THR:HG23	2.13	0.49
1:N:219:PHE:O	1:N:247:LEU:HD12	2.13	0.49
1:A:260:ALA:O	1:A:264:VAL:HG23	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:39:VAL:CG2	1:B:517:THR:OG1	2.60	0.49
1:B:319:GLN:O	1:B:336:VAL:HG23	2.12	0.49
1:C:245:LYS:HE3	1:D:231:ARG:HH21	1.70	0.49
1:E:271:VAL:HG12	1:E:273:VAL:HG23	1.94	0.49
1:D:41:ASP:HB3	1:E:521:VAL:O	2.07	0.49
1:G:260:ALA:O	1:G:264:VAL:HG23	2.13	0.49
1:H:219:PHE:O	1:H:247:LEU:HD12	2.13	0.49
1:I:219:PHE:O	1:I:247:LEU:HD12	2.13	0.49
1:J:413:ALA:HB3	1:J:417:VAL:HG22	1.93	0.49
1:K:193:MET:HE2	1:K:292:ILE:HG12	1.93	0.49
1:M:287:ALA:HB1	1:M:368:ARG:NH1	2.27	0.49
1:C:266:THR:CG2	1:C:273:VAL:H	2.26	0.49
1:D:200:LEU:HG	1:D:276:VAL:HA	1.93	0.49
1:D:39:VAL:CG2	1:E:517:THR:OG1	2.60	0.49
1:E:260:ALA:O	1:E:264:VAL:HG23	2.13	0.49
1:A:522:THR:HB	1:G:41:ASP:OD2	2.12	0.49
1:H:136:VAL:HG12	1:H:137:PRO:CD	2.43	0.49
1:J:384:ALA:O	1:J:385:THR:HG23	2.13	0.49
1:K:325:ILE:HG22	1:K:330:THR:HA	1.95	0.49
1:L:190:VAL:CG1	1:L:334:ASP:HB2	2.35	0.49
1:M:193:MET:HE2	1:M:292:ILE:HG12	1.93	0.49
1:A:209:GLU:N	1:A:209:GLU:OE1	2.44	0.49
1:A:200:LEU:HG	1:A:276:VAL:HA	1.93	0.49
1:C:136:VAL:HG12	1:C:137:PRO:N	2.27	0.49
1:C:193:MET:HE3	1:C:292:ILE:HG12	1.94	0.49
1:C:206:ASN:OD1	1:C:207:LYS:HG3	2.13	0.49
1:C:60:ILE:O	1:C:75:LYS:HE3	2.13	0.49
1:D:206:ASN:OD1	1:D:207:LYS:HG3	2.13	0.49
1:F:41:ASP:OD2	1:G:522:THR:HB	2.12	0.49
1:G:266:THR:HG22	1:G:271:VAL:O	2.13	0.49
1:G:319:GLN:O	1:G:336:VAL:HG23	2.12	0.49
1:H:384:ALA:O	1:H:385:THR:HG23	2.13	0.49
1:I:190:VAL:CG1	1:I:334:ASP:HB2	2.35	0.49
1:I:384:ALA:O	1:I:385:THR:HG23	2.13	0.49
1:I:413:ALA:HB3	1:I:417:VAL:HG22	1.93	0.49
1:J:193:MET:HA	1:J:375:GLY:CA	2.41	0.49
1:N:384:ALA:O	1:N:385:THR:HG23	2.13	0.49
1:A:206:ASN:OD1	1:A:207:LYS:HG3	2.13	0.49
1:B:266:THR:HG22	1:B:271:VAL:O	2.13	0.49
1:C:239:ALA:O	1:C:314:LEU:HD11	2.13	0.49
1:D:266:THR:HG22	1:D:271:VAL:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:60:ILE:O	1:D:75:LYS:HE3	2.13	0.49
1:E:331:THR:OG1	1:E:376:VAL:HG21	2.00	0.49
1:E:60:ILE:O	1:E:75:LYS:HE3	2.13	0.49
1:F:160:LYS:NZ	1:F:160:LYS:HB2	2.26	0.49
1:A:69:MET:HE1	1:G:41:ASP:CA	2.42	0.49
1:K:287:ALA:HB1	1:K:368:ARG:NH1	2.27	0.49
1:K:331:THR:OG1	1:K:376:VAL:CB	2.61	0.49
1:L:325:ILE:HG22	1:L:330:THR:HA	1.95	0.49
1:L:404:ARG:CG	1:L:404:ARG:NH1	2.71	0.49
1:M:252:GLU:O	1:M:253:ASP:HB2	2.12	0.49
1:M:384:ALA:O	1:M:385:THR:HG23	2.13	0.49
1:N:136:VAL:HG12	1:N:137:PRO:CD	2.43	0.49
1:A:234:LEU:O	1:A:238:GLU:HG3	2.12	0.49
1:C:413:ALA:HB3	1:C:417:VAL:HG22	1.95	0.49
1:D:271:VAL:HG12	1:D:273:VAL:HG23	1.94	0.49
1:E:266:THR:HG22	1:E:271:VAL:O	2.13	0.49
1:D:41:ASP:CA	1:E:69:MET:HE3	2.41	0.49
1:F:254:VAL:HG12	1:F:259:LEU:HB2	1.95	0.49
1:G:234:LEU:O	1:G:238:GLU:HG3	2.12	0.49
1:G:254:VAL:HG12	1:G:259:LEU:HB2	1.95	0.49
1:G:266:THR:CG2	1:G:273:VAL:H	2.26	0.49
1:I:171:LYS:HB2	1:I:407:VAL:HG11	1.94	0.49
1:J:223:ALA:O	1:J:251:ALA:HA	2.12	0.49
1:J:171:LYS:HB2	1:J:407:VAL:HG11	1.94	0.49
1:K:234:LEU:O	1:K:238:GLU:HG3	2.13	0.49
1:L:136:VAL:HG12	1:L:137:PRO:CD	2.43	0.49
1:L:219:PHE:O	1:L:247:LEU:HD12	2.13	0.49
1:L:287:ALA:HB1	1:L:368:ARG:NH1	2.27	0.49
1:M:136:VAL:HG12	1:M:137:PRO:CD	2.43	0.49
1:B:413:ALA:HB3	1:B:417:VAL:HG22	1.95	0.48
1:E:266:THR:CG2	1:E:273:VAL:H	2.26	0.48
1:F:206:ASN:OD1	1:F:207:LYS:HG3	2.13	0.48
1:G:413:ALA:HB3	1:G:417:VAL:HG22	1.95	0.48
1:J:325:ILE:HG22	1:J:330:THR:HA	1.95	0.48
1:K:219:PHE:O	1:K:247:LEU:HD12	2.13	0.48
1:A:60:ILE:O	1:A:75:LYS:HE3	2.13	0.48
1:B:183:LEU:CD2	1:B:384:ALA:HB2	2.44	0.48
1:F:60:ILE:O	1:F:75:LYS:HE3	2.13	0.48
1:G:60:ILE:O	1:G:75:LYS:HE3	2.13	0.48
1:J:331:THR:OG1	1:J:376:VAL:CB	2.61	0.48
1:A:239:ALA:O	1:A:314:LEU:HD11	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:413:ALA:HB3	1:A:417:VAL:HG22	1.95	0.48
1:B:60:ILE:O	1:B:75:LYS:HE3	2.13	0.48
1:C:200:LEU:HG	1:C:276:VAL:HA	1.93	0.48
1:C:183:LEU:CD2	1:C:384:ALA:HB2	2.44	0.48
1:D:183:LEU:CD2	1:D:384:ALA:HB2	2.44	0.48
1:F:239:ALA:O	1:F:314:LEU:HD11	2.13	0.48
1:F:413:ALA:HB3	1:F:417:VAL:HG22	1.95	0.48
1:L:234:LEU:O	1:L:238:GLU:HG3	2.13	0.48
1:N:223:ALA:O	1:N:251:ALA:HA	2.12	0.48
1:N:252:GLU:O	1:N:253:ASP:HB2	2.12	0.48
1:B:200:LEU:HG	1:B:276:VAL:HA	1.93	0.48
1:D:413:ALA:HB3	1:D:417:VAL:HG22	1.95	0.48
1:D:41:ASP:OD2	1:E:522:THR:HB	2.12	0.48
1:E:183:LEU:CD2	1:E:384:ALA:HB2	2.44	0.48
1:G:239:ALA:O	1:G:314:LEU:HD11	2.13	0.48
1:G:409:GLU:HB2	1:G:498:LYS:HB2	1.96	0.48
1:I:325:ILE:HG22	1:I:330:THR:HA	1.95	0.48
1:K:404:ARG:NH1	1:K:404:ARG:CG	2.71	0.48
1:N:234:LEU:O	1:N:238:GLU:HG3	2.13	0.48
1:N:235:PRO:CG	1:N:310:GLU:HA	2.35	0.48
1:A:183:LEU:CD2	1:A:384:ALA:HB2	2.44	0.48
1:D:260:ALA:O	1:D:264:VAL:HG23	2.13	0.48
1:E:239:ALA:O	1:E:314:LEU:HD11	2.13	0.48
1:E:254:VAL:HG12	1:E:259:LEU:HB2	1.95	0.48
1:F:260:ALA:O	1:F:264:VAL:HG23	2.13	0.48
1:F:409:GLU:HB2	1:F:498:LYS:HB2	1.96	0.48
1:J:234:LEU:O	1:J:238:GLU:HG3	2.13	0.48
1:M:234:LEU:O	1:M:238:GLU:HG3	2.13	0.48
1:B:239:ALA:O	1:B:314:LEU:HD11	2.13	0.48
1:C:266:THR:HG22	1:C:271:VAL:O	2.13	0.48
1:D:331:THR:OG1	1:D:376:VAL:HG21	2.00	0.48
1:F:266:THR:HG22	1:F:271:VAL:O	2.13	0.48
1:G:70:GLY:HA2	1:G:73:MET:HE3	1.96	0.48
1:H:252:GLU:O	1:H:253:ASP:HB2	2.12	0.48
1:I:136:VAL:HG12	1:I:137:PRO:CD	2.43	0.48
1:A:51:LYS:NZ	1:B:114:MET:HE1	2.28	0.48
1:D:70:GLY:HA2	1:D:73:MET:HE3	1.96	0.48
1:E:39:VAL:HG21	1:F:517:THR:CB	2.41	0.48
1:F:190:VAL:HB	1:F:333:ILE:HG23	1.96	0.48
1:F:41:ASP:HB3	1:G:521:VAL:O	2.07	0.48
1:H:234:LEU:O	1:H:238:GLU:HG3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:136:VAL:HG12	1:K:137:PRO:CD	2.43	0.48
1:K:171:LYS:HB2	1:K:407:VAL:HG11	1.94	0.48
1:N:271:VAL:HG12	1:N:273:VAL:HG23	1.96	0.48
1:A:409:GLU:HB2	1:A:498:LYS:HB2	1.96	0.48
1:B:331:THR:HG1	1:B:376:VAL:HG23	1.65	0.48
1:C:260:ALA:O	1:C:264:VAL:HG23	2.13	0.48
1:C:51:LYS:NZ	1:D:114:MET:HE1	2.29	0.48
1:B:41:ASP:HB3	1:C:521:VAL:O	2.07	0.48
1:D:266:THR:CG2	1:D:273:VAL:H	2.26	0.48
1:F:183:LEU:CD2	1:F:384:ALA:HB2	2.44	0.48
1:G:190:VAL:HB	1:G:333:ILE:HG23	1.96	0.48
1:I:193:MET:HE1	1:I:292:ILE:HG12	1.96	0.48
1:K:331:THR:HG1	1:K:376:VAL:HG11	1.73	0.48
1:L:266:THR:HG22	1:L:271:VAL:O	2.14	0.48
1:L:331:THR:OG1	1:L:376:VAL:CB	2.61	0.48
1:M:271:VAL:HG12	1:M:273:VAL:HG23	1.96	0.48
1:N:331:THR:OG1	1:N:376:VAL:CB	2.61	0.48
1:A:254:VAL:HG12	1:A:259:LEU:HB2	1.95	0.48
1:A:266:THR:HG22	1:A:271:VAL:O	2.13	0.48
1:A:41:ASP:HB2	1:B:69:MET:CE	2.35	0.48
1:B:218:PRO:CB	1:B:246:PRO:HG2	2.32	0.48
1:B:266:THR:CG2	1:B:273:VAL:H	2.26	0.48
1:B:90:THR:O	1:B:94:VAL:HG13	2.14	0.48
1:C:51:LYS:HZ1	1:D:114:MET:HE3	1.78	0.48
1:D:239:ALA:O	1:D:314:LEU:HD11	2.13	0.48
1:E:190:VAL:HB	1:E:333:ILE:HG23	1.96	0.48
1:H:266:THR:HG22	1:H:271:VAL:O	2.14	0.48
1:L:235:PRO:CG	1:L:310:GLU:HA	2.35	0.48
1:A:190:VAL:HB	1:A:333:ILE:HG23	1.96	0.48
1:B:39:VAL:CG2	1:C:517:THR:CB	2.86	0.48
1:C:39:VAL:CG2	1:D:517:THR:CB	2.86	0.48
1:G:206:ASN:OD1	1:G:207:LYS:HG3	2.13	0.48
1:J:235:PRO:CG	1:J:310:GLU:HA	2.35	0.48
1:L:185:ASP:OD1	1:L:382:GLY:N	2.46	0.48
1:N:325:ILE:HG22	1:N:330:THR:HA	1.95	0.48
1:A:266:THR:CG2	1:A:273:VAL:H	2.26	0.47
1:B:409:GLU:HB2	1:B:498:LYS:HB2	1.96	0.47
1:D:305:ILE:HB	1:D:307:MET:HE2	1.96	0.47
1:D:190:VAL:HB	1:D:333:ILE:HG23	1.96	0.47
1:D:51:LYS:HZ1	1:E:114:MET:HE3	1.79	0.47
1:E:409:GLU:HB2	1:E:498:LYS:HB2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:90:THR:O	1:G:94:VAL:HG13	2.14	0.47
1:I:185:ASP:OD1	1:I:382:GLY:N	2.46	0.47
1:J:136:VAL:HG12	1:J:137:PRO:CD	2.43	0.47
1:M:325:ILE:HG22	1:M:330:THR:HA	1.95	0.47
1:M:171:LYS:HB2	1:M:407:VAL:HG11	1.94	0.47
1:N:171:LYS:HB2	1:N:407:VAL:HG11	1.94	0.47
1:A:51:LYS:HZ3	1:B:114:MET:HE1	1.79	0.47
1:B:51:LYS:HZ1	1:C:114:MET:HE3	1.79	0.47
1:C:254:VAL:HG12	1:C:259:LEU:HB2	1.95	0.47
1:F:90:THR:O	1:F:94:VAL:HG13	2.14	0.47
1:G:136:VAL:HG12	1:G:137:PRO:N	2.27	0.47
1:H:325:ILE:HG22	1:H:330:THR:HA	1.95	0.47
1:I:234:LEU:O	1:I:238:GLU:HG3	2.13	0.47
1:K:185:ASP:OD1	1:K:382:GLY:N	2.46	0.47
1:M:331:THR:OG1	1:M:376:VAL:CB	2.61	0.47
1:E:223:ALA:O	1:E:251:ALA:HA	2.15	0.47
1:F:266:THR:CG2	1:F:273:VAL:H	2.26	0.47
1:I:266:THR:HG22	1:I:271:VAL:O	2.14	0.47
1:M:209:GLU:N	1:M:209:GLU:OE1	2.46	0.47
1:M:266:THR:HG22	1:M:271:VAL:O	2.14	0.47
1:D:136:VAL:HG12	1:D:137:PRO:N	2.27	0.47
1:C:41:ASP:CA	1:D:69:MET:HE3	2.44	0.47
1:F:236:VAL:O	1:F:240:VAL:HG23	2.15	0.47
1:F:51:LYS:HZ3	1:G:114:MET:HE1	1.79	0.47
1:H:234:LEU:N	1:H:235:PRO:HD2	2.30	0.47
1:H:331:THR:OG1	1:H:376:VAL:CB	2.61	0.47
1:J:180:GLY:HA3	1:J:381:VAL:O	2.14	0.47
1:M:180:GLY:HA3	1:M:381:VAL:O	2.14	0.47
1:N:239:ALA:O	1:N:314:LEU:HD11	2.14	0.47
1:A:134:LEU:HD21	1:A:425:LYS:NZ	2.30	0.47
1:A:182:GLY:HA2	1:A:383:ALA:HB3	1.97	0.47
1:A:236:VAL:O	1:A:240:VAL:HG23	2.15	0.47
1:A:41:ASP:HA	1:B:69:MET:CE	2.45	0.47
1:B:39:VAL:HG21	1:C:517:THR:CB	2.41	0.47
1:C:223:ALA:O	1:C:251:ALA:HA	2.15	0.47
1:E:413:ALA:HB3	1:E:417:VAL:HG22	1.95	0.47
1:G:183:LEU:CD2	1:G:384:ALA:HB2	2.44	0.47
1:I:271:VAL:HG12	1:I:273:VAL:HG23	1.96	0.47
1:J:193:MET:HE3	1:J:292:ILE:HG12	1.95	0.47
1:K:234:LEU:N	1:K:235:PRO:HD2	2.30	0.47
1:K:266:THR:HG22	1:K:271:VAL:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:180:GLY:HA3	1:K:381:VAL:O	2.14	0.47
1:L:136:VAL:HG13	1:L:137:PRO:HD3	1.97	0.47
1:L:171:LYS:HB2	1:L:407:VAL:HG11	1.94	0.47
1:A:90:THR:O	1:A:94:VAL:HG13	2.14	0.47
1:B:41:ASP:HA	1:C:69:MET:CE	2.45	0.47
1:G:134:LEU:HD21	1:G:425:LYS:NZ	2.30	0.47
1:G:236:VAL:O	1:G:240:VAL:HG23	2.15	0.47
1:J:185:ASP:OD1	1:J:382:GLY:N	2.46	0.47
1:M:206:ASN:OD1	1:M:207:LYS:HG3	2.15	0.47
1:N:209:GLU:N	1:N:209:GLU:OE1	2.46	0.47
1:N:266:THR:HG22	1:N:271:VAL:O	2.14	0.47
1:B:236:VAL:O	1:B:240:VAL:HG23	2.15	0.47
1:B:305:ILE:HB	1:B:307:MET:HE2	1.96	0.47
1:C:353:ILE:HD13	1:C:366:GLN:HG2	1.97	0.47
1:D:209:GLU:N	1:D:209:GLU:OE1	2.44	0.47
1:F:182:GLY:HA2	1:F:383:ALA:HB3	1.97	0.47
1:G:223:ALA:O	1:G:251:ALA:HA	2.14	0.47
1:J:271:VAL:HG12	1:J:273:VAL:HG23	1.96	0.47
1:K:206:ASN:ND2	1:K:214:GLU:H	2.11	0.47
1:M:185:ASP:OD1	1:M:382:GLY:N	2.46	0.47
1:B:190:VAL:HB	1:B:333:ILE:HG23	1.96	0.47
1:B:254:VAL:HG12	1:B:259:LEU:HB2	1.95	0.47
1:C:190:VAL:HB	1:C:333:ILE:HG23	1.96	0.47
1:C:236:VAL:O	1:C:240:VAL:HG23	2.15	0.47
1:C:90:THR:O	1:C:94:VAL:HG13	2.14	0.47
1:D:236:VAL:O	1:D:240:VAL:HG23	2.15	0.47
1:A:69:MET:CE	1:G:41:ASP:HA	2.45	0.47
1:I:331:THR:OG1	1:I:376:VAL:CB	2.61	0.47
1:M:136:VAL:HG13	1:M:137:PRO:HD3	1.97	0.47
1:N:206:ASN:OD1	1:N:207:LYS:HG3	2.15	0.47
1:N:180:GLY:HA3	1:N:381:VAL:O	2.14	0.47
1:A:223:ALA:O	1:A:251:ALA:HA	2.15	0.47
1:B:353:ILE:HD13	1:B:366:GLN:HG2	1.97	0.47
1:B:51:LYS:HZ3	1:C:114:MET:HE1	1.80	0.47
1:C:41:ASP:HA	1:D:69:MET:CE	2.45	0.47
1:D:409:GLU:HB2	1:D:498:LYS:HB2	1.96	0.47
1:D:90:THR:O	1:D:94:VAL:HG13	2.14	0.47
1:E:236:VAL:O	1:E:240:VAL:HG23	2.15	0.47
1:F:39:VAL:HG21	1:G:517:THR:CB	2.41	0.47
1:G:185:ASP:OD1	1:G:382:GLY:N	2.48	0.47
1:H:271:VAL:HG12	1:H:273:VAL:HG23	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:239:ALA:O	1:H:314:LEU:HD11	2.15	0.47
1:I:239:ALA:O	1:I:314:LEU:HD11	2.15	0.47
1:M:239:ALA:O	1:M:314:LEU:HD11	2.15	0.47
1:C:134:LEU:HD21	1:C:425:LYS:NZ	2.30	0.47
1:C:409:GLU:HB2	1:C:498:LYS:HB2	1.96	0.47
1:D:223:ALA:O	1:D:251:ALA:HA	2.14	0.47
1:D:169:VAL:HG13	1:D:377:ALA:HB2	1.97	0.47
1:F:185:ASP:OD1	1:F:382:GLY:N	2.48	0.47
1:E:245:LYS:HE3	1:F:231:ARG:HH21	1.70	0.47
1:I:69:MET:HE1	1:J:41:ASP:CB	2.38	0.47
1:L:180:GLY:HA3	1:L:381:VAL:O	2.14	0.47
1:L:206:ASN:OD1	1:L:207:LYS:HG3	2.15	0.47
1:L:239:ALA:O	1:L:314:LEU:HD11	2.15	0.47
1:D:73:MET:O	1:D:76:GLU:HB2	2.15	0.47
1:E:169:VAL:HG13	1:E:377:ALA:HB2	1.97	0.47
1:I:180:GLY:HA3	1:I:381:VAL:O	2.14	0.47
1:I:206:ASN:ND2	1:I:214:GLU:H	2.11	0.47
1:I:234:LEU:N	1:I:235:PRO:HD2	2.30	0.47
1:L:209:GLU:OE1	1:L:209:GLU:N	2.46	0.47
1:M:234:LEU:N	1:M:235:PRO:HD2	2.30	0.47
1:B:223:ALA:O	1:B:251:ALA:HA	2.14	0.46
1:C:331:THR:OG1	1:C:376:VAL:HG21	2.00	0.46
1:C:366:GLN:O	1:C:369:VAL:HG22	2.15	0.46
1:C:169:VAL:HG13	1:C:377:ALA:HB2	1.97	0.46
1:E:325:ILE:HG22	1:E:330:THR:HA	1.98	0.46
1:E:90:THR:O	1:E:94:VAL:HG13	2.14	0.46
1:F:223:ALA:O	1:F:251:ALA:HA	2.15	0.46
1:F:169:VAL:HG13	1:F:377:ALA:HB2	1.97	0.46
1:H:206:ASN:OD1	1:H:207:LYS:HG3	2.15	0.46
1:H:517:THR:HG21	1:I:39:VAL:HG21	1.97	0.46
1:K:254:VAL:HG12	1:K:259:LEU:HB2	1.98	0.46
1:L:271:VAL:HG12	1:L:273:VAL:HG23	1.96	0.46
1:N:206:ASN:ND2	1:N:214:GLU:H	2.11	0.46
1:B:41:ASP:HB2	1:C:69:MET:CE	2.35	0.46
1:C:73:MET:O	1:C:76:GLU:HB2	2.15	0.46
1:F:73:MET:O	1:F:76:GLU:HB2	2.15	0.46
1:G:366:GLN:O	1:G:369:VAL:HG22	2.15	0.46
1:J:254:VAL:HG12	1:J:259:LEU:HB2	1.98	0.46
1:L:199:TYR:CZ	1:L:327:LYS:HA	2.50	0.46
1:L:234:LEU:N	1:L:235:PRO:HD2	2.30	0.46
1:A:325:ILE:HG22	1:A:330:THR:HA	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:524:LEU:O	1:A:526:LYS:N	2.48	0.46
1:B:182:GLY:HA2	1:B:383:ALA:HB3	1.97	0.46
1:B:524:LEU:O	1:B:526:LYS:N	2.49	0.46
1:C:215:LEU:HB2	1:C:323:VAL:HG22	1.98	0.46
1:C:524:LEU:O	1:C:526:LYS:N	2.48	0.46
1:D:254:VAL:HG12	1:D:259:LEU:HB2	1.95	0.46
1:D:524:LEU:O	1:D:526:LYS:N	2.48	0.46
1:E:182:GLY:HA2	1:E:383:ALA:HB3	1.97	0.46
1:E:524:LEU:O	1:E:526:LYS:N	2.48	0.46
1:F:136:VAL:HG12	1:F:137:PRO:N	2.27	0.46
1:F:325:ILE:HG22	1:F:330:THR:HA	1.98	0.46
1:F:366:GLN:O	1:F:369:VAL:HG22	2.15	0.46
1:J:239:ALA:O	1:J:314:LEU:HD11	2.15	0.46
1:J:266:THR:HG22	1:J:271:VAL:O	2.14	0.46
1:J:524:LEU:O	1:J:526:LYS:N	2.49	0.46
1:L:193:MET:HE1	1:L:292:ILE:HG12	1.95	0.46
1:B:215:LEU:HB2	1:B:323:VAL:HG22	1.98	0.46
1:B:68:ASN:O	1:B:72:GLN:HG2	2.15	0.46
1:D:134:LEU:HD21	1:D:425:LYS:NZ	2.30	0.46
1:E:134:LEU:HD21	1:E:425:LYS:NZ	2.30	0.46
1:E:171:LYS:HB2	1:E:407:VAL:HG11	1.98	0.46
1:E:41:ASP:CA	1:F:69:MET:HE1	2.44	0.46
1:E:73:MET:O	1:E:76:GLU:HB2	2.15	0.46
1:F:331:THR:OG1	1:F:376:VAL:HG21	2.00	0.46
1:F:134:LEU:HD21	1:F:425:LYS:NZ	2.30	0.46
1:G:325:ILE:HG22	1:G:330:THR:HA	1.98	0.46
1:J:206:ASN:ND2	1:J:214:GLU:H	2.11	0.46
1:J:206:ASN:OD1	1:J:207:LYS:HG3	2.15	0.46
1:J:199:TYR:CZ	1:J:327:LYS:HA	2.51	0.46
1:K:271:VAL:HG12	1:K:273:VAL:HG23	1.96	0.46
1:L:76:GLU:CG	1:M:46:ALA:HB2	2.45	0.46
1:A:70:GLY:HA2	1:A:73:MET:HE3	1.97	0.46
1:B:325:ILE:HG22	1:B:330:THR:HA	1.98	0.46
1:B:41:ASP:CB	1:C:69:MET:HE3	2.46	0.46
1:C:199:TYR:CZ	1:C:327:LYS:HA	2.51	0.46
1:D:325:ILE:HG22	1:D:330:THR:HA	1.98	0.46
1:I:333:ILE:HG21	1:I:378:VAL:CG2	2.36	0.46
1:J:234:LEU:N	1:J:235:PRO:HD2	2.30	0.46
1:K:199:TYR:CZ	1:K:327:LYS:HA	2.51	0.46
1:M:217:SER:N	1:M:218:PRO:CD	2.79	0.46
1:M:199:TYR:CZ	1:M:327:LYS:HA	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:234:LEU:N	1:N:235:PRO:HD2	2.30	0.46
1:N:199:TYR:CZ	1:N:327:LYS:HA	2.50	0.46
1:A:73:MET:O	1:A:76:GLU:HB2	2.15	0.46
1:C:68:ASN:O	1:C:72:GLN:HG2	2.15	0.46
1:D:215:LEU:HB2	1:D:323:VAL:HG22	1.98	0.46
1:D:199:TYR:CZ	1:D:327:LYS:HA	2.51	0.46
1:E:185:ASP:OD1	1:E:382:GLY:N	2.48	0.46
1:E:51:LYS:HZ3	1:F:114:MET:HE1	1.81	0.46
1:F:215:LEU:HB2	1:F:323:VAL:HG22	1.98	0.46
1:F:353:ILE:HD13	1:F:366:GLN:HG2	1.97	0.46
1:F:171:LYS:HB2	1:F:407:VAL:HG11	1.98	0.46
1:G:524:LEU:O	1:G:526:LYS:N	2.48	0.46
1:F:41:ASP:HA	1:G:69:MET:CE	2.45	0.46
1:H:180:GLY:HA3	1:H:381:VAL:O	2.14	0.46
1:H:209:GLU:OE1	1:H:209:GLU:N	2.46	0.46
1:H:199:TYR:CZ	1:H:327:LYS:HA	2.50	0.46
1:H:353:ILE:HD13	1:H:366:GLN:HG2	1.98	0.46
1:I:199:TYR:CZ	1:I:327:LYS:HA	2.50	0.46
1:K:136:VAL:HG13	1:K:137:PRO:HD3	1.97	0.46
1:K:236:VAL:O	1:K:240:VAL:HG23	2.16	0.46
1:A:39:VAL:HG21	1:B:517:THR:CB	2.41	0.46
1:B:134:LEU:HD21	1:B:425:LYS:NZ	2.30	0.46
1:E:68:ASN:O	1:E:72:GLN:HG2	2.15	0.46
1:G:73:MET:O	1:G:76:GLU:HB2	2.15	0.46
1:H:136:VAL:HG13	1:H:137:PRO:HD3	1.97	0.46
1:I:524:LEU:O	1:I:526:LYS:N	2.49	0.46
1:J:236:VAL:O	1:J:240:VAL:HG23	2.16	0.46
1:K:524:LEU:O	1:K:526:LYS:N	2.49	0.46
1:A:68:ASN:O	1:A:72:GLN:HG2	2.15	0.46
1:C:325:ILE:HG22	1:C:330:THR:HA	1.98	0.46
1:C:41:ASP:CA	1:D:69:MET:HE1	2.46	0.46
1:D:68:ASN:O	1:D:72:GLN:HG2	2.15	0.46
1:E:215:LEU:HB2	1:E:323:VAL:HG22	1.98	0.46
1:F:524:LEU:O	1:F:526:LYS:N	2.49	0.46
1:F:68:ASN:O	1:F:72:GLN:HG2	2.15	0.46
1:I:236:VAL:O	1:I:240:VAL:HG23	2.16	0.46
1:K:206:ASN:OD1	1:K:207:LYS:HG3	2.15	0.46
1:K:239:ALA:O	1:K:314:LEU:HD11	2.15	0.46
1:L:217:SER:N	1:L:218:PRO:CD	2.79	0.46
1:L:236:VAL:O	1:L:240:VAL:HG23	2.16	0.46
1:L:254:VAL:HG12	1:L:259:LEU:HB2	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:236:VAL:O	1:M:240:VAL:HG23	2.16	0.46
1:N:353:ILE:HD13	1:N:366:GLN:HG2	1.98	0.46
1:A:215:LEU:HB2	1:A:323:VAL:HG22	1.98	0.46
1:A:366:GLN:O	1:A:369:VAL:HG22	2.15	0.46
1:B:199:TYR:CZ	1:B:327:LYS:HA	2.51	0.46
1:D:353:ILE:HD13	1:D:366:GLN:HG2	1.97	0.46
1:D:171:LYS:HB2	1:D:407:VAL:HG11	1.98	0.46
1:E:136:VAL:HG12	1:E:137:PRO:N	2.27	0.46
1:E:366:GLN:O	1:E:369:VAL:HG22	2.15	0.46
1:I:206:ASN:OD1	1:I:207:LYS:HG3	2.15	0.46
1:I:254:VAL:HG12	1:I:259:LEU:HB2	1.98	0.46
1:N:136:VAL:HG13	1:N:137:PRO:HD3	1.97	0.46
1:A:353:ILE:HD13	1:A:366:GLN:HG2	1.97	0.46
1:B:169:VAL:HG13	1:B:377:ALA:HB2	1.97	0.46
1:D:366:GLN:O	1:D:369:VAL:HG22	2.15	0.46
1:E:384:ALA:O	1:E:385:THR:HG23	2.16	0.46
1:G:215:LEU:HB2	1:G:323:VAL:HG22	1.98	0.46
1:G:182:GLY:HA2	1:G:383:ALA:HB3	1.97	0.46
1:G:171:LYS:HB2	1:G:407:VAL:HG11	1.98	0.46
1:N:85:ALA:C	1:N:401:HIS:HE1	2.19	0.46
1:A:182:GLY:HA2	1:A:383:ALA:CB	2.46	0.45
1:B:366:GLN:O	1:B:369:VAL:HG22	2.15	0.45
1:B:51:LYS:NZ	1:C:114:MET:HE1	2.31	0.45
1:D:193:MET:HE1	1:D:292:ILE:HG12	1.97	0.45
1:D:41:ASP:HB2	1:E:69:MET:CE	2.35	0.45
1:E:182:GLY:HA2	1:E:383:ALA:CB	2.46	0.45
1:E:199:TYR:CZ	1:E:327:LYS:HA	2.51	0.45
1:G:169:VAL:HG13	1:G:377:ALA:HB2	1.97	0.45
1:G:353:ILE:HD13	1:G:366:GLN:HG2	1.97	0.45
1:I:85:ALA:C	1:I:401:HIS:HE1	2.19	0.45
1:J:136:VAL:HG13	1:J:137:PRO:HD3	1.97	0.45
1:J:284:ARG:HH12	1:J:364:LYS:NZ	2.14	0.45
1:L:206:ASN:ND2	1:L:214:GLU:H	2.12	0.45
1:L:69:MET:HE1	1:M:41:ASP:CB	2.39	0.45
1:N:236:VAL:O	1:N:240:VAL:HG23	2.16	0.45
1:D:182:GLY:HA2	1:D:383:ALA:HB3	1.97	0.45
1:D:404:ARG:HH11	1:D:404:ARG:CG	2.30	0.45
1:H:236:VAL:O	1:H:240:VAL:HG23	2.16	0.45
1:I:217:SER:N	1:I:218:PRO:CD	2.79	0.45
1:M:516:THR:O	1:N:37:ASN:HB2	2.17	0.45
1:N:183:LEU:CD2	1:N:384:ALA:HB2	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:524:LEU:O	1:N:526:LYS:N	2.49	0.45
1:B:182:GLY:HA2	1:B:383:ALA:CB	2.46	0.45
1:C:182:GLY:HA2	1:C:383:ALA:HB3	1.97	0.45
1:D:182:GLY:HA2	1:D:383:ALA:CB	2.46	0.45
1:D:384:ALA:O	1:D:385:THR:HG23	2.16	0.45
1:E:353:ILE:HD13	1:E:366:GLN:HG2	1.97	0.45
1:H:193:MET:HE3	1:H:292:ILE:HG12	1.98	0.45
1:I:136:VAL:HG13	1:I:137:PRO:HD3	1.97	0.45
1:L:190:VAL:HG22	1:L:333:ILE:HG23	1.51	0.45
1:A:169:VAL:HG13	1:A:377:ALA:HB2	1.97	0.45
1:C:404:ARG:HH11	1:C:404:ARG:CG	2.29	0.45
1:H:46:ALA:HB2	1:N:76:GLU:CG	2.45	0.45
1:J:217:SER:N	1:J:218:PRO:CD	2.79	0.45
1:J:242:LYS:C	1:J:244:GLY:N	2.70	0.45
1:I:517:THR:HG21	1:J:39:VAL:HG21	1.97	0.45
1:K:209:GLU:OE1	1:K:209:GLU:N	2.46	0.45
1:J:516:THR:O	1:K:37:ASN:HB2	2.17	0.45
1:K:516:THR:O	1:L:37:ASN:HB2	2.17	0.45
1:N:185:ASP:OD1	1:N:382:GLY:N	2.46	0.45
1:N:217:SER:N	1:N:218:PRO:CD	2.79	0.45
1:M:76:GLU:CG	1:N:46:ALA:HB2	2.45	0.45
1:A:193:MET:HE2	1:A:292:ILE:HG12	1.98	0.45
1:B:73:MET:O	1:B:76:GLU:HB2	2.15	0.45
1:C:182:GLY:HA2	1:C:383:ALA:CB	2.46	0.45
1:C:39:VAL:HG21	1:D:517:THR:CB	2.41	0.45
1:K:242:LYS:C	1:K:244:GLY:N	2.70	0.45
1:N:254:VAL:HG12	1:N:259:LEU:HB2	1.98	0.45
1:A:199:TYR:CZ	1:A:327:LYS:HA	2.51	0.45
1:B:51:LYS:HZ3	1:C:114:MET:CE	2.29	0.45
1:D:185:ASP:OD1	1:D:382:GLY:N	2.48	0.45
1:D:392:LYS:O	1:D:396:VAL:HG23	2.17	0.45
1:E:245:LYS:HZ1	1:F:231:ARG:HH22	0.52	0.45
1:F:182:GLY:HA2	1:F:383:ALA:CB	2.46	0.45
1:H:524:LEU:O	1:H:526:LYS:N	2.49	0.45
1:K:190:VAL:HG22	1:K:333:ILE:HG23	1.51	0.45
1:K:217:SER:N	1:K:218:PRO:CD	2.79	0.45
1:M:183:LEU:CD2	1:M:384:ALA:HB2	2.45	0.45
1:A:369:VAL:HG23	1:A:370:ALA:N	2.32	0.45
1:A:404:ARG:HH11	1:A:404:ARG:CG	2.29	0.45
1:B:392:LYS:O	1:B:396:VAL:HG23	2.17	0.45
1:C:41:ASP:HB3	1:D:521:VAL:O	2.07	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:369:VAL:HG23	1:F:370:ALA:N	2.32	0.45
1:F:392:LYS:O	1:F:396:VAL:HG23	2.17	0.45
1:G:369:VAL:HG23	1:G:370:ALA:N	2.32	0.45
1:G:68:ASN:O	1:G:72:GLN:HG2	2.15	0.45
1:I:353:ILE:HD13	1:I:366:GLN:HG2	1.98	0.45
1:M:85:ALA:C	1:M:401:HIS:HE1	2.19	0.45
1:A:217:SER:N	1:A:218:PRO:HD3	2.32	0.45
1:B:217:SER:N	1:B:218:PRO:HD3	2.32	0.45
1:B:384:ALA:O	1:B:385:THR:HG23	2.16	0.45
1:B:404:ARG:HH11	1:B:404:ARG:CG	2.29	0.45
1:C:384:ALA:O	1:C:385:THR:HG23	2.16	0.45
1:F:384:ALA:O	1:F:385:THR:HG23	2.16	0.45
1:H:217:SER:N	1:H:218:PRO:CD	2.79	0.45
1:H:85:ALA:C	1:H:401:HIS:HE1	2.19	0.45
1:I:209:GLU:OE1	1:I:209:GLU:N	2.46	0.45
1:A:217:SER:N	1:A:218:PRO:CD	2.80	0.45
1:A:231:ARG:HH21	1:G:245:LYS:HE3	1.70	0.45
1:F:404:ARG:CG	1:F:404:ARG:HH11	2.30	0.45
1:G:234:LEU:N	1:G:235:PRO:HD2	2.32	0.45
1:I:284:ARG:HH12	1:I:364:LYS:NZ	2.14	0.45
1:J:176:THR:HG22	1:J:177:VAL:H	1.82	0.45
1:K:284:ARG:HH12	1:K:364:LYS:NZ	2.14	0.45
1:L:353:ILE:HD13	1:L:366:GLN:HG2	1.98	0.45
1:M:524:LEU:O	1:M:526:LYS:N	2.49	0.45
1:A:234:LEU:N	1:A:235:PRO:HD2	2.32	0.45
1:A:305:ILE:HB	1:A:307:MET:HE2	1.99	0.45
1:A:392:LYS:O	1:A:396:VAL:HG23	2.17	0.45
1:A:171:LYS:HB2	1:A:407:VAL:HG11	1.98	0.45
1:B:217:SER:N	1:B:218:PRO:CD	2.80	0.45
1:B:369:VAL:HG23	1:B:370:ALA:N	2.32	0.45
1:C:217:SER:N	1:C:218:PRO:CD	2.80	0.45
1:C:392:LYS:O	1:C:396:VAL:HG23	2.17	0.45
1:C:171:LYS:HB2	1:C:407:VAL:HG11	1.98	0.45
1:E:348:GLN:O	1:E:352:GLN:HG2	2.17	0.45
1:E:369:VAL:HG23	1:E:370:ALA:N	2.32	0.45
1:F:70:GLY:HA2	1:F:73:MET:HE3	1.99	0.45
1:G:182:GLY:HA2	1:G:383:ALA:CB	2.46	0.45
1:G:217:SER:N	1:G:218:PRO:CD	2.80	0.45
1:G:404:ARG:CG	1:G:404:ARG:HH11	2.30	0.45
1:I:242:LYS:C	1:I:244:GLY:N	2.70	0.45
1:J:85:ALA:C	1:J:401:HIS:HE1	2.19	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:144:ILE:HG23	1:J:403:THR:HG21	1.99	0.45
1:K:302:SER:H	1:K:307:MET:HE1	1.82	0.45
1:L:242:LYS:C	1:L:244:GLY:N	2.70	0.45
1:L:284:ARG:HH12	1:L:364:LYS:NZ	2.14	0.45
1:M:206:ASN:ND2	1:M:214:GLU:H	2.11	0.45
1:H:37:ASN:HB2	1:N:516:THR:O	2.17	0.45
1:A:218:PRO:HD2	1:A:320:ALA:O	2.17	0.44
1:A:384:ALA:O	1:A:385:THR:HG23	2.16	0.44
1:C:218:PRO:HD2	1:C:320:ALA:O	2.17	0.44
1:C:234:LEU:N	1:C:235:PRO:HD2	2.32	0.44
1:C:185:ASP:OD1	1:C:382:GLY:N	2.48	0.44
1:F:234:LEU:N	1:F:235:PRO:HD2	2.32	0.44
1:F:199:TYR:CZ	1:F:327:LYS:HA	2.51	0.44
1:G:217:SER:N	1:G:218:PRO:HD3	2.32	0.44
1:G:348:GLN:O	1:G:352:GLN:HG2	2.17	0.44
1:G:392:LYS:O	1:G:396:VAL:HG23	2.17	0.44
1:H:183:LEU:CD2	1:H:384:ALA:HB2	2.45	0.44
1:H:76:GLU:CG	1:I:46:ALA:HB2	2.45	0.44
1:J:209:GLU:N	1:J:209:GLU:OE1	2.46	0.44
1:J:517:THR:HG21	1:K:39:VAL:HG21	1.97	0.44
1:M:176:THR:HG22	1:M:177:VAL:H	1.82	0.44
1:M:353:ILE:HD13	1:M:366:GLN:HG2	1.98	0.44
1:L:516:THR:O	1:M:37:ASN:HB2	2.17	0.44
1:E:41:ASP:HA	1:F:69:MET:CE	2.45	0.44
1:E:70:GLY:HA2	1:E:73:MET:HE3	1.99	0.44
1:G:384:ALA:O	1:G:385:THR:HG23	2.16	0.44
1:H:155:ASP:OD1	1:H:157:THR:HB	2.18	0.44
1:J:333:ILE:HG21	1:J:378:VAL:CG2	2.36	0.44
1:K:155:ASP:OD1	1:K:157:THR:HB	2.18	0.44
1:K:353:ILE:HD13	1:K:366:GLN:HG2	1.98	0.44
1:L:302:SER:H	1:L:307:MET:HE1	1.82	0.44
1:C:217:SER:N	1:C:218:PRO:HD3	2.32	0.44
1:C:369:VAL:HG23	1:C:370:ALA:N	2.32	0.44
1:D:234:LEU:N	1:D:235:PRO:HD2	2.32	0.44
1:G:199:TYR:CZ	1:G:327:LYS:HA	2.51	0.44
1:H:254:VAL:HG12	1:H:259:LEU:HB2	1.98	0.44
1:I:371:LYS:HA	1:I:374:GLY:CA	2.47	0.44
1:K:176:THR:HG22	1:K:177:VAL:H	1.82	0.44
1:K:144:ILE:HG23	1:K:403:THR:HG21	1.99	0.44
1:N:144:ILE:HG23	1:N:403:THR:HG21	1.99	0.44
1:N:217:SER:N	1:N:218:PRO:HD3	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:234:LEU:N	1:B:235:PRO:HD2	2.32	0.44
1:D:369:VAL:HG23	1:D:370:ALA:N	2.32	0.44
1:E:234:LEU:N	1:E:235:PRO:HD2	2.32	0.44
1:E:218:PRO:HD2	1:E:320:ALA:O	2.17	0.44
1:F:217:SER:N	1:F:218:PRO:HD3	2.32	0.44
1:F:348:GLN:O	1:F:352:GLN:HG2	2.17	0.44
1:J:353:ILE:HD13	1:J:366:GLN:HG2	1.98	0.44
1:L:336:VAL:O	1:L:337:GLY:C	2.56	0.44
1:M:242:LYS:C	1:M:244:GLY:N	2.70	0.44
1:M:254:VAL:HG12	1:M:259:LEU:HB2	1.98	0.44
1:N:155:ASP:OD1	1:N:157:THR:HB	2.18	0.44
1:A:210:THR:HG22	1:A:210:THR:O	2.18	0.44
1:B:218:PRO:HD2	1:B:320:ALA:O	2.17	0.44
1:C:348:GLN:O	1:C:352:GLN:HG2	2.17	0.44
1:E:217:SER:N	1:E:218:PRO:HD3	2.32	0.44
1:H:217:SER:N	1:H:218:PRO:HD3	2.33	0.44
1:H:392:LYS:O	1:H:396:VAL:HG23	2.18	0.44
1:I:155:ASP:OD1	1:I:157:THR:HB	2.18	0.44
1:I:217:SER:N	1:I:218:PRO:HD3	2.33	0.44
1:J:155:ASP:OD1	1:J:157:THR:HB	2.18	0.44
1:I:516:THR:O	1:J:37:ASN:HB2	2.17	0.44
1:K:336:VAL:O	1:K:337:GLY:C	2.56	0.44
1:L:524:LEU:O	1:L:526:LYS:N	2.49	0.44
1:M:392:LYS:O	1:M:396:VAL:HG23	2.18	0.44
1:N:284:ARG:HH12	1:N:364:LYS:NZ	2.14	0.44
1:N:392:LYS:O	1:N:396:VAL:HG23	2.18	0.44
1:C:245:LYS:HZ1	1:D:231:ARG:HH22	0.52	0.44
1:D:193:MET:CA	1:D:375:GLY:N	2.81	0.44
1:D:210:THR:HG22	1:D:210:THR:O	2.18	0.44
1:F:210:THR:HG22	1:F:210:THR:O	2.18	0.44
1:H:144:ILE:HG23	1:H:403:THR:HG21	1.99	0.44
1:H:176:THR:HG22	1:H:177:VAL:H	1.82	0.44
1:H:242:LYS:C	1:H:244:GLY:N	2.70	0.44
1:H:284:ARG:HH12	1:H:364:LYS:NZ	2.14	0.44
1:H:371:LYS:HA	1:H:374:GLY:CA	2.47	0.44
1:I:144:ILE:HG23	1:I:403:THR:HG21	1.99	0.44
1:J:217:SER:N	1:J:218:PRO:HD3	2.33	0.44
1:L:176:THR:HG22	1:L:177:VAL:H	1.82	0.44
1:L:260:ALA:O	1:L:264:VAL:HG23	2.18	0.44
1:M:284:ARG:HH12	1:M:364:LYS:NZ	2.14	0.44
1:N:193:MET:HE1	1:N:292:ILE:HG12	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:240:VAL:HG11	1:B:247:LEU:HB2	2.00	0.44
1:C:193:MET:CA	1:C:375:GLY:N	2.81	0.44
1:C:461:GLU:HA	1:C:462:PRO:HD3	1.89	0.44
1:D:217:SER:N	1:D:218:PRO:HD3	2.32	0.44
1:D:348:GLN:O	1:D:352:GLN:HG2	2.17	0.44
1:E:193:MET:CA	1:E:375:GLY:N	2.81	0.44
1:E:392:LYS:O	1:E:396:VAL:HG23	2.17	0.44
1:F:218:PRO:HD2	1:F:320:ALA:O	2.17	0.44
1:H:206:ASN:ND2	1:H:214:GLU:H	2.11	0.44
1:H:524:LEU:HA	1:H:524:LEU:HD12	1.87	0.44
1:I:215:LEU:HB2	1:I:323:VAL:HG22	2.00	0.44
1:H:516:THR:O	1:I:37:ASN:HB2	2.17	0.44
1:K:183:LEU:HD13	1:K:184:GLN:N	2.33	0.44
1:L:155:ASP:OD1	1:L:157:THR:HB	2.18	0.44
1:L:183:LEU:HD13	1:L:184:GLN:N	2.33	0.44
1:L:215:LEU:HB2	1:L:323:VAL:HG22	2.00	0.44
1:L:392:LYS:O	1:L:396:VAL:HG23	2.18	0.44
1:M:217:SER:N	1:M:218:PRO:HD3	2.33	0.44
1:M:260:ALA:O	1:M:264:VAL:HG23	2.18	0.44
1:N:242:LYS:C	1:N:244:GLY:N	2.70	0.44
1:A:240:VAL:HG11	1:A:247:LEU:HB2	2.00	0.44
1:B:185:ASP:OD1	1:B:382:GLY:N	2.48	0.44
1:D:217:SER:N	1:D:218:PRO:CD	2.80	0.44
1:E:217:SER:N	1:E:218:PRO:CD	2.80	0.44
1:F:240:VAL:HG11	1:F:247:LEU:HB2	2.00	0.44
1:G:240:VAL:HG11	1:G:247:LEU:HB2	2.00	0.44
1:K:215:LEU:HB2	1:K:323:VAL:HG22	2.00	0.44
1:L:144:ILE:HG23	1:L:403:THR:HG21	1.99	0.44
1:L:217:SER:N	1:L:218:PRO:HD3	2.33	0.44
1:L:333:ILE:CG2	1:L:378:VAL:CG2	2.96	0.44
1:K:517:THR:HG21	1:L:39:VAL:HG21	1.97	0.44
1:N:260:ALA:O	1:N:264:VAL:HG23	2.18	0.44
1:A:51:LYS:HZ1	1:B:114:MET:HE3	1.82	0.44
1:A:51:LYS:HZ3	1:B:114:MET:CE	2.31	0.44
1:B:348:GLN:O	1:B:352:GLN:HG2	2.17	0.44
1:B:171:LYS:HB2	1:B:407:VAL:HG11	1.98	0.44
1:C:210:THR:HG22	1:C:210:THR:O	2.18	0.44
1:C:240:VAL:HG11	1:C:247:LEU:HB2	2.00	0.44
1:D:218:PRO:HD2	1:D:320:ALA:O	2.17	0.44
1:H:215:LEU:HB2	1:H:323:VAL:HG22	2.00	0.44
1:I:333:ILE:CG2	1:I:378:VAL:CG2	2.96	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:392:LYS:O	1:I:396:VAL:HG23	2.18	0.44
1:J:260:ALA:O	1:J:264:VAL:HG23	2.18	0.44
1:J:215:LEU:HB2	1:J:323:VAL:HG22	2.00	0.44
1:J:371:LYS:HA	1:J:374:GLY:CA	2.47	0.44
1:L:183:LEU:CD2	1:L:384:ALA:HB2	2.45	0.44
1:M:144:ILE:HG23	1:M:403:THR:HG21	1.99	0.44
1:M:183:LEU:HD13	1:M:184:GLN:N	2.33	0.44
1:M:336:VAL:O	1:M:337:GLY:C	2.56	0.44
1:N:176:THR:HG22	1:N:177:VAL:H	1.82	0.44
1:A:348:GLN:O	1:A:352:GLN:HG2	2.17	0.43
1:A:517:THR:HG21	1:G:39:VAL:CG2	2.01	0.43
1:D:39:VAL:HG21	1:E:517:THR:CB	2.41	0.43
1:G:210:THR:HG22	1:G:210:THR:O	2.18	0.43
1:J:336:VAL:O	1:J:337:GLY:C	2.56	0.43
1:K:217:SER:N	1:K:218:PRO:HD3	2.33	0.43
1:K:85:ALA:C	1:K:401:HIS:HE1	2.19	0.43
1:L:85:ALA:C	1:L:401:HIS:HE1	2.19	0.43
1:B:366:GLN:HA	1:B:369:VAL:HG22	2.00	0.43
1:B:193:MET:HG2	1:B:374:GLY:N	2.33	0.43
1:B:193:MET:CA	1:B:375:GLY:N	2.81	0.43
1:B:51:LYS:NZ	1:C:114:MET:HE3	2.32	0.43
1:D:193:MET:HG2	1:D:374:GLY:N	2.34	0.43
1:H:260:ALA:O	1:H:264:VAL:HG23	2.18	0.43
1:I:524:LEU:HD12	1:I:524:LEU:HA	1.87	0.43
1:J:183:LEU:HD13	1:J:184:GLN:N	2.33	0.43
1:K:260:ALA:O	1:K:264:VAL:HG23	2.18	0.43
1:A:191:GLU:HA	1:A:192:GLY:HA3	1.25	0.43
1:A:366:GLN:HA	1:A:369:VAL:HG22	2.00	0.43
1:E:193:MET:HE1	1:E:292:ILE:HG12	2.00	0.43
1:G:218:PRO:HD2	1:G:320:ALA:O	2.17	0.43
1:H:333:ILE:CG2	1:H:378:VAL:CG2	2.96	0.43
1:H:336:VAL:O	1:H:337:GLY:C	2.56	0.43
1:I:336:VAL:O	1:I:337:GLY:C	2.56	0.43
1:I:183:LEU:CD2	1:I:384:ALA:HB2	2.45	0.43
1:J:384:ALA:C	1:J:385:THR:HG23	2.39	0.43
1:K:392:LYS:O	1:K:396:VAL:HG23	2.18	0.43
1:M:325:ILE:HA	1:M:329:THR:O	2.19	0.43
1:C:366:GLN:HA	1:C:369:VAL:HG22	2.00	0.43
1:E:51:LYS:HZ1	1:F:114:MET:HE3	1.82	0.43
1:F:217:SER:N	1:F:218:PRO:CD	2.80	0.43
1:I:404:ARG:NH1	1:I:404:ARG:CG	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:76:GLU:CG	1:J:46:ALA:HB2	2.45	0.43
1:M:333:ILE:CG2	1:M:378:VAL:CG2	2.96	0.43
1:M:384:ALA:C	1:M:385:THR:HG23	2.39	0.43
1:N:371:LYS:HA	1:N:374:GLY:CA	2.47	0.43
1:C:305:ILE:HB	1:C:307:MET:HE2	2.01	0.43
1:C:51:LYS:HZ3	1:D:114:MET:HE1	1.83	0.43
1:F:41:ASP:HB2	1:G:69:MET:CE	2.35	0.43
1:H:235:PRO:CG	1:H:310:GLU:HA	2.35	0.43
1:J:392:LYS:O	1:J:396:VAL:HG23	2.18	0.43
1:K:333:ILE:HG21	1:K:378:VAL:CG2	2.36	0.43
1:M:215:LEU:HB2	1:M:323:VAL:HG22	2.00	0.43
1:N:183:LEU:HD13	1:N:184:GLN:N	2.33	0.43
1:B:210:THR:HG22	1:B:210:THR:O	2.18	0.43
1:B:190:VAL:HG23	1:B:333:ILE:HG12	2.01	0.43
1:B:124:VAL:HG21	1:B:508:ALA:CB	2.49	0.43
1:C:124:VAL:HG21	1:C:508:ALA:CB	2.49	0.43
1:D:253:ASP:OD1	1:D:277:LYS:HE2	2.19	0.43
1:D:41:ASP:HA	1:E:69:MET:CE	2.45	0.43
1:F:183:LEU:HD13	1:F:184:GLN:N	2.34	0.43
1:G:183:LEU:HD13	1:G:184:GLN:N	2.34	0.43
1:G:366:GLN:HA	1:G:369:VAL:HG22	2.00	0.43
1:G:193:MET:CA	1:G:375:GLY:N	2.81	0.43
1:I:176:THR:HG22	1:I:177:VAL:H	1.82	0.43
1:I:369:VAL:HG23	1:I:370:ALA:N	2.34	0.43
1:J:325:ILE:HA	1:J:329:THR:O	2.19	0.43
1:J:369:VAL:HG23	1:J:370:ALA:N	2.34	0.43
1:K:319:GLN:HB3	1:K:336:VAL:HG21	2.01	0.43
1:K:384:ALA:C	1:K:385:THR:HG23	2.39	0.43
1:L:319:GLN:HB3	1:L:336:VAL:HG21	2.01	0.43
1:A:124:VAL:HG21	1:A:508:ALA:CB	2.49	0.43
1:C:183:LEU:HD13	1:C:184:GLN:N	2.34	0.43
1:C:253:ASP:OD1	1:C:277:LYS:HE2	2.19	0.43
1:C:70:GLY:HA2	1:C:73:MET:HE3	2.01	0.43
1:F:417:VAL:HG11	1:F:488:MET:HG3	2.01	0.43
1:G:524:LEU:HA	1:G:524:LEU:HD12	1.89	0.43
1:H:342:ILE:O	1:H:346:VAL:HG23	2.19	0.43
1:I:37:ASN:ND2	1:I:51:LYS:HE3	2.34	0.43
1:L:384:ALA:C	1:L:385:THR:HG23	2.39	0.43
1:N:215:LEU:HB2	1:N:323:VAL:HG22	2.00	0.43
1:N:333:ILE:CG2	1:N:378:VAL:CG2	2.96	0.43
1:A:193:MET:CA	1:A:375:GLY:N	2.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:183:LEU:HD13	1:B:184:GLN:N	2.34	0.43
1:B:253:ASP:OD1	1:B:277:LYS:HE2	2.19	0.43
1:C:190:VAL:HG23	1:C:333:ILE:HG12	2.01	0.43
1:E:210:THR:O	1:E:210:THR:HG22	2.18	0.43
1:E:177:VAL:HA	1:E:379:ILE:O	2.19	0.43
1:F:366:GLN:HA	1:F:369:VAL:HG22	2.00	0.43
1:G:417:VAL:HG11	1:G:488:MET:HG3	2.01	0.43
1:I:240:VAL:HG11	1:I:247:LEU:HB2	2.01	0.43
1:J:342:ILE:O	1:J:346:VAL:HG23	2.19	0.43
1:J:37:ASN:ND2	1:J:51:LYS:HE3	2.34	0.43
1:K:369:VAL:HG23	1:K:370:ALA:N	2.34	0.43
1:K:37:ASN:ND2	1:K:51:LYS:HE3	2.34	0.43
1:N:384:ALA:C	1:N:385:THR:HG23	2.39	0.43
1:N:46:ALA:HA	1:N:47:PRO:HD3	1.91	0.43
1:B:41:ASP:CA	1:C:69:MET:HE1	2.49	0.43
1:D:240:VAL:HG11	1:D:247:LEU:HB2	2.00	0.43
1:E:253:ASP:OD1	1:E:277:LYS:HE2	2.19	0.43
1:G:153:ASN:O	1:G:154:SER:HB2	2.19	0.43
1:H:240:VAL:HG11	1:H:247:LEU:HB2	2.01	0.43
1:H:331:THR:HG1	1:H:376:VAL:HG11	1.73	0.43
1:I:260:ALA:O	1:I:264:VAL:HG23	2.18	0.43
1:I:325:ILE:HA	1:I:329:THR:O	2.19	0.43
1:I:384:ALA:C	1:I:385:THR:HG23	2.39	0.43
1:J:333:ILE:CG2	1:J:378:VAL:CG2	2.96	0.43
1:K:514:MET:HE3	1:K:514:MET:HB3	1.93	0.43
1:L:342:ILE:O	1:L:346:VAL:HG23	2.19	0.43
1:M:155:ASP:OD1	1:M:157:THR:HB	2.18	0.43
1:M:319:GLN:HB3	1:M:336:VAL:HG21	2.01	0.43
1:N:336:VAL:O	1:N:337:GLY:C	2.56	0.43
1:C:41:ASP:CB	1:D:69:MET:HE3	2.49	0.42
1:D:124:VAL:HG21	1:D:508:ALA:CB	2.49	0.42
1:D:366:GLN:HA	1:D:369:VAL:HG22	2.00	0.42
1:H:37:ASN:ND2	1:H:51:LYS:HE3	2.34	0.42
1:I:183:LEU:HD13	1:I:184:GLN:N	2.33	0.42
1:I:342:ILE:O	1:I:346:VAL:HG23	2.19	0.42
1:J:319:GLN:HB3	1:J:336:VAL:HG21	2.01	0.42
1:K:371:LYS:HA	1:K:374:GLY:CA	2.47	0.42
1:N:342:ILE:O	1:N:346:VAL:HG23	2.19	0.42
1:A:153:ASN:O	1:A:154:SER:HB2	2.19	0.42
1:A:190:VAL:HG23	1:A:333:ILE:HG12	2.01	0.42
1:E:240:VAL:HG11	1:E:247:LEU:HB2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:417:VAL:HG11	1:E:488:MET:HG3	2.01	0.42
1:F:176:THR:HG22	1:F:177:VAL:H	1.84	0.42
1:F:253:ASP:OD1	1:F:277:LYS:HE2	2.19	0.42
1:H:185:ASP:OD1	1:H:382:GLY:N	2.46	0.42
1:H:305:ILE:HB	1:H:307:MET:HE2	2.02	0.42
1:J:240:VAL:HG11	1:J:247:LEU:HB2	2.01	0.42
1:K:325:ILE:HA	1:K:329:THR:O	2.19	0.42
1:A:253:ASP:OD1	1:A:277:LYS:HE2	2.19	0.42
1:A:185:ASP:OD1	1:A:382:GLY:N	2.48	0.42
1:E:124:VAL:HG21	1:E:508:ALA:CB	2.49	0.42
1:F:177:VAL:HA	1:F:379:ILE:O	2.19	0.42
1:H:369:VAL:HG23	1:H:370:ALA:N	2.34	0.42
1:L:37:ASN:ND2	1:L:51:LYS:HE3	2.34	0.42
1:L:461:GLU:HA	1:L:462:PRO:HD3	1.88	0.42
1:B:153:ASN:O	1:B:154:SER:HB2	2.19	0.42
1:D:190:VAL:HG23	1:D:333:ILE:HG12	2.01	0.42
1:D:406:ALA:HA	1:D:496:PRO:CB	2.50	0.42
1:E:366:GLN:HA	1:E:369:VAL:HG22	2.00	0.42
1:F:193:MET:HE2	1:F:292:ILE:HG12	2.00	0.42
1:G:124:VAL:HG21	1:G:508:ALA:CB	2.49	0.42
1:H:384:ALA:C	1:H:385:THR:HG23	2.39	0.42
1:I:305:ILE:HB	1:I:307:MET:HE2	2.02	0.42
1:N:240:VAL:HG11	1:N:247:LEU:HB2	2.01	0.42
1:N:193:MET:HE2	1:N:292:ILE:HG12	2.00	0.42
1:B:325:ILE:HA	1:B:329:THR:O	2.20	0.42
1:C:193:MET:HG2	1:C:374:GLY:N	2.34	0.42
1:E:190:VAL:HG23	1:E:333:ILE:HG12	2.01	0.42
1:F:193:MET:CA	1:F:375:GLY:N	2.81	0.42
1:H:220:ILE:HD12	1:H:296:THR:HG21	2.02	0.42
1:H:325:ILE:HA	1:H:329:THR:O	2.19	0.42
1:H:39:VAL:HG21	1:N:517:THR:HG21	1.97	0.42
1:J:183:LEU:CD2	1:J:384:ALA:HB2	2.45	0.42
1:K:381:VAL:O	1:K:382:GLY:O	2.38	0.42
1:L:210:THR:HG22	1:L:210:THR:O	2.20	0.42
1:A:183:LEU:HD13	1:A:184:GLN:N	2.34	0.42
1:A:325:ILE:HA	1:A:329:THR:O	2.20	0.42
1:C:177:VAL:HA	1:C:379:ILE:O	2.19	0.42
1:B:245:LYS:HE3	1:C:231:ARG:HH21	1.70	0.42
1:C:51:LYS:NZ	1:D:114:MET:HE3	2.35	0.42
1:F:153:ASN:O	1:F:154:SER:HB2	2.19	0.42
1:F:191:GLU:HA	1:F:192:GLY:HA3	1.25	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:176:THR:HG22	1:G:177:VAL:H	1.84	0.42
1:L:220:ILE:HD12	1:L:296:THR:HG21	2.02	0.42
1:M:371:LYS:HA	1:M:374:GLY:CA	2.47	0.42
1:M:381:VAL:O	1:M:382:GLY:O	2.38	0.42
1:N:37:ASN:ND2	1:N:51:LYS:HE3	2.34	0.42
1:B:193:MET:HE3	1:B:292:ILE:HG12	2.01	0.42
1:C:325:ILE:HA	1:C:329:THR:O	2.20	0.42
1:D:219:PHE:O	1:D:247:LEU:HD12	2.20	0.42
1:E:183:LEU:HD13	1:E:184:GLN:N	2.34	0.42
1:F:124:VAL:HG21	1:F:508:ALA:CB	2.49	0.42
1:G:325:ILE:HA	1:G:329:THR:O	2.20	0.42
1:H:210:THR:O	1:H:210:THR:HG22	2.20	0.42
1:H:319:GLN:HB3	1:H:336:VAL:HG21	2.01	0.42
1:H:381:VAL:O	1:H:382:GLY:O	2.38	0.42
1:I:235:PRO:CG	1:I:310:GLU:HA	2.35	0.42
1:K:240:VAL:HG11	1:K:247:LEU:HB2	2.01	0.42
1:K:342:ILE:O	1:K:346:VAL:HG23	2.19	0.42
1:J:76:GLU:CG	1:K:46:ALA:HB2	2.45	0.42
1:L:369:VAL:HG23	1:L:370:ALA:N	2.34	0.42
1:L:371:LYS:HA	1:L:374:GLY:CA	2.47	0.42
1:M:210:THR:O	1:M:210:THR:HG22	2.20	0.42
1:N:220:ILE:HD12	1:N:296:THR:HG21	2.02	0.42
1:N:524:LEU:HA	1:N:524:LEU:HD12	1.87	0.42
1:B:194:GLN:HG3	1:B:331:THR:HB	2.02	0.42
1:E:153:ASN:O	1:E:154:SER:HB2	2.19	0.42
1:F:219:PHE:O	1:F:247:LEU:HD12	2.20	0.42
1:F:242:LYS:C	1:F:244:GLY:N	2.73	0.42
1:G:190:VAL:HG23	1:G:333:ILE:HG12	2.01	0.42
1:H:183:LEU:HD13	1:H:184:GLN:N	2.33	0.42
1:I:153:ASN:O	1:I:154:SER:HB2	2.20	0.42
1:J:381:VAL:O	1:J:382:GLY:O	2.38	0.42
1:K:192:GLY:O	1:K:375:GLY:HA3	2.07	0.42
1:K:220:ILE:HD12	1:K:296:THR:HG21	2.02	0.42
1:L:325:ILE:HA	1:L:329:THR:O	2.19	0.42
1:M:182:GLY:HA2	1:M:383:ALA:HB3	2.02	0.42
1:M:220:ILE:HD12	1:M:296:THR:HG21	2.02	0.42
1:N:381:VAL:O	1:N:382:GLY:O	2.38	0.42
1:A:194:GLN:HG3	1:A:331:THR:HB	2.02	0.42
1:A:177:VAL:HA	1:A:379:ILE:O	2.19	0.42
1:A:417:VAL:HG11	1:A:488:MET:HG3	2.00	0.42
1:B:302:SER:O	1:B:307:MET:HE3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:153:ASN:O	1:C:154:SER:HB2	2.19	0.42
1:C:219:PHE:O	1:C:247:LEU:HD12	2.20	0.42
1:C:417:VAL:HG11	1:C:488:MET:HG3	2.01	0.42
1:D:183:LEU:HD13	1:D:184:GLN:N	2.34	0.42
1:E:219:PHE:O	1:E:247:LEU:HD12	2.20	0.42
1:F:325:ILE:HA	1:F:329:THR:O	2.20	0.42
1:G:305:ILE:HB	1:G:307:MET:HE2	2.02	0.42
1:A:517:THR:CB	1:G:39:VAL:HG21	2.41	0.42
1:I:210:THR:HG22	1:I:210:THR:O	2.20	0.42
1:J:182:GLY:HA2	1:J:383:ALA:HB3	2.02	0.42
1:K:177:VAL:HG21	1:K:397:GLU:HG2	2.00	0.42
1:M:153:ASN:O	1:M:154:SER:HB2	2.20	0.42
1:M:240:VAL:HG11	1:M:247:LEU:HB2	2.01	0.42
1:M:37:ASN:ND2	1:M:51:LYS:HE3	2.34	0.42
1:N:153:ASN:O	1:N:154:SER:HB2	2.20	0.42
1:N:325:ILE:HA	1:N:329:THR:O	2.19	0.42
1:A:219:PHE:O	1:A:247:LEU:HD12	2.20	0.42
1:B:219:PHE:O	1:B:247:LEU:HD12	2.20	0.42
1:B:177:VAL:HA	1:B:379:ILE:O	2.19	0.42
1:B:417:VAL:HG11	1:B:488:MET:HG3	2.01	0.42
1:D:177:VAL:HA	1:D:379:ILE:O	2.19	0.42
1:D:51:LYS:HZ3	1:E:114:MET:HE1	1.84	0.42
1:E:384:ALA:O	1:E:385:THR:OG1	2.33	0.42
1:F:190:VAL:HG23	1:F:333:ILE:HG12	2.01	0.42
1:G:242:LYS:C	1:G:244:GLY:N	2.73	0.42
1:G:194:GLN:HG3	1:G:331:THR:HB	2.02	0.42
1:I:319:GLN:HB3	1:I:336:VAL:HG21	2.01	0.42
1:I:381:VAL:O	1:I:382:GLY:O	2.38	0.42
1:J:210:THR:HG22	1:J:210:THR:O	2.20	0.42
1:K:183:LEU:CD2	1:K:384:ALA:HB2	2.45	0.42
1:K:46:ALA:HA	1:K:47:PRO:HD3	1.91	0.42
1:L:153:ASN:O	1:L:154:SER:HB2	2.20	0.42
1:L:381:VAL:O	1:L:382:GLY:O	2.38	0.42
1:M:302:SER:H	1:M:307:MET:HE1	1.85	0.42
1:M:342:ILE:O	1:M:346:VAL:HG23	2.19	0.42
1:B:331:THR:OG1	1:B:376:VAL:HG21	2.00	0.41
1:B:70:GLY:HA2	1:B:73:MET:HE3	2.02	0.41
1:C:220:ILE:HD12	1:C:296:THR:HG21	2.02	0.41
1:D:153:ASN:O	1:D:154:SER:HB2	2.19	0.41
1:E:242:LYS:C	1:E:244:GLY:N	2.73	0.41
1:E:514:MET:HB3	1:E:514:MET:HE3	1.93	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:41:ASP:CA	1:E:69:MET:HE1	2.49	0.41
1:F:194:GLN:HG3	1:F:331:THR:HB	2.02	0.41
1:H:153:ASN:O	1:H:154:SER:HB2	2.20	0.41
1:I:220:ILE:HD12	1:I:296:THR:HG21	2.02	0.41
1:I:458:CYS:SG	1:I:480:ALA:HB1	2.60	0.41
1:J:302:SER:H	1:J:307:MET:HE1	1.85	0.41
1:J:524:LEU:HD12	1:J:524:LEU:HA	1.87	0.41
1:K:210:THR:HG22	1:K:210:THR:O	2.20	0.41
1:N:182:GLY:HA2	1:N:383:ALA:HB3	2.02	0.41
1:N:319:GLN:HB3	1:N:336:VAL:HG21	2.01	0.41
1:A:193:MET:HG2	1:A:374:GLY:N	2.34	0.41
1:B:409:GLU:OE2	1:B:498:LYS:HD2	2.21	0.41
1:C:41:ASP:HB2	1:D:69:MET:CE	2.35	0.41
1:D:417:VAL:HG11	1:D:488:MET:HG3	2.00	0.41
1:E:325:ILE:HA	1:E:329:THR:O	2.20	0.41
1:E:193:MET:HG2	1:E:374:GLY:N	2.34	0.41
1:G:219:PHE:O	1:G:247:LEU:HD12	2.20	0.41
1:I:455:VAL:HG13	1:I:460:GLU:HB2	2.03	0.41
1:J:458:CYS:SG	1:J:480:ALA:HB1	2.60	0.41
1:K:458:CYS:SG	1:K:480:ALA:HB1	2.60	0.41
1:M:458:CYS:SG	1:M:480:ALA:HB1	2.60	0.41
1:N:369:VAL:HG23	1:N:370:ALA:N	2.34	0.41
1:C:194:GLN:HG3	1:C:331:THR:HB	2.02	0.41
1:D:325:ILE:HA	1:D:329:THR:O	2.20	0.41
1:E:220:ILE:HD12	1:E:296:THR:HG21	2.02	0.41
1:F:51:LYS:HZ1	1:G:114:MET:HE3	1.85	0.41
1:G:253:ASP:OD1	1:G:277:LYS:HE2	2.19	0.41
1:H:266:THR:HG21	1:H:273:VAL:H	1.85	0.41
1:J:220:ILE:HD12	1:J:296:THR:HG21	2.02	0.41
1:C:409:GLU:OE2	1:C:498:LYS:HD2	2.21	0.41
1:D:182:GLY:O	1:D:183:LEU:O	2.38	0.41
1:D:220:ILE:HD12	1:D:296:THR:HG21	2.02	0.41
1:E:406:ALA:HA	1:E:496:PRO:CB	2.50	0.41
1:J:153:ASN:O	1:J:154:SER:HB2	2.20	0.41
1:A:266:THR:HG21	1:A:273:VAL:H	1.86	0.41
1:A:409:GLU:OE2	1:A:498:LYS:HD2	2.21	0.41
1:A:23:LEU:CD2	1:A:74:VAL:HG13	2.50	0.41
1:B:140:ASP:OD2	1:B:142:LYS:HB3	2.21	0.41
1:C:266:THR:HG21	1:C:273:VAL:H	1.86	0.41
1:D:41:ASP:CB	1:E:69:MET:HE3	2.46	0.41
1:E:51:LYS:HZ3	1:F:114:MET:CE	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:177:VAL:HA	1:G:379:ILE:O	2.19	0.41
1:H:455:VAL:HG13	1:H:460:GLU:HB2	2.02	0.41
1:I:202:PRO:C	1:I:204:PHE:H	2.24	0.41
1:J:455:VAL:HG13	1:J:460:GLU:HB2	2.03	0.41
1:M:369:VAL:HG23	1:M:370:ALA:N	2.34	0.41
1:N:458:CYS:SG	1:N:480:ALA:HB1	2.60	0.41
1:A:384:ALA:C	1:A:385:THR:HG23	2.41	0.41
1:A:455:VAL:HG13	1:A:460:GLU:HB2	2.03	0.41
1:B:220:ILE:HD12	1:B:296:THR:HG21	2.02	0.41
1:B:242:LYS:C	1:B:244:GLY:N	2.73	0.41
1:B:342:ILE:O	1:B:346:VAL:HG23	2.21	0.41
1:B:384:ALA:C	1:B:385:THR:HG23	2.41	0.41
1:B:455:VAL:HG13	1:B:460:GLU:HB2	2.03	0.41
1:B:23:LEU:CD2	1:B:74:VAL:HG13	2.50	0.41
1:C:176:THR:HG22	1:C:177:VAL:H	1.84	0.41
1:D:342:ILE:O	1:D:346:VAL:HG23	2.21	0.41
1:E:182:GLY:O	1:E:183:LEU:O	2.38	0.41
1:E:194:GLN:HG3	1:E:331:THR:HB	2.02	0.41
1:F:342:ILE:O	1:F:346:VAL:HG23	2.21	0.41
1:G:193:MET:HE1	1:G:292:ILE:HG12	2.01	0.41
1:H:193:MET:HE1	1:H:292:ILE:HG12	2.02	0.41
1:I:182:GLY:HA2	1:I:383:ALA:HB3	2.02	0.41
1:J:324:VAL:O	1:J:331:THR:HG22	2.21	0.41
1:K:76:GLU:CG	1:L:46:ALA:HB2	2.45	0.41
1:N:202:PRO:C	1:N:204:PHE:H	2.24	0.41
1:A:140:ASP:OD2	1:A:142:LYS:HB3	2.21	0.41
1:A:51:LYS:NZ	1:B:114:MET:HE3	2.36	0.41
1:B:406:ALA:HA	1:B:496:PRO:CB	2.50	0.41
1:C:202:PRO:C	1:C:204:PHE:H	2.24	0.41
1:D:176:THR:HG22	1:D:177:VAL:H	1.84	0.41
1:D:202:PRO:C	1:D:204:PHE:H	2.24	0.41
1:D:295:LEU:HD13	1:D:295:LEU:O	2.21	0.41
1:D:302:SER:O	1:D:307:MET:HE3	2.20	0.41
1:G:191:GLU:HB3	1:G:332:ILE:C	2.37	0.41
1:G:302:SER:O	1:G:307:MET:HE3	2.21	0.41
1:H:177:VAL:HG21	1:H:397:GLU:HG2	2.00	0.41
1:I:177:VAL:HG21	1:I:397:GLU:HG2	2.00	0.41
1:J:190:VAL:HG22	1:J:333:ILE:HG23	1.51	0.41
1:K:324:VAL:O	1:K:331:THR:HG22	2.21	0.41
1:L:240:VAL:HG11	1:L:247:LEU:HB2	2.01	0.41
1:L:182:GLY:HA2	1:L:383:ALA:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:458:CYS:SG	1:L:480:ALA:HB1	2.60	0.41
1:L:82:ASN:O	1:L:86:GLY:N	2.52	0.41
1:M:177:VAL:HG21	1:M:397:GLU:HG2	2.00	0.41
1:N:210:THR:O	1:N:210:THR:HG22	2.20	0.41
1:N:216:GLU:C	1:N:218:PRO:HD3	2.41	0.41
1:A:202:PRO:C	1:A:204:PHE:H	2.24	0.41
1:A:41:ASP:OD2	1:B:522:THR:CB	2.69	0.41
1:C:140:ASP:OD2	1:C:142:LYS:HB3	2.21	0.41
1:C:182:GLY:O	1:C:183:LEU:O	2.38	0.41
1:D:242:LYS:C	1:D:244:GLY:N	2.73	0.41
1:E:46:ALA:HA	1:E:47:PRO:HD3	1.93	0.41
1:F:51:LYS:HZ3	1:G:114:MET:CE	2.33	0.41
1:H:182:GLY:HA2	1:H:383:ALA:HB3	2.02	0.41
1:H:46:ALA:HA	1:H:47:PRO:HD3	1.91	0.41
1:J:216:GLU:C	1:J:218:PRO:HD3	2.41	0.41
1:K:153:ASN:O	1:K:154:SER:HB2	2.20	0.41
1:K:333:ILE:CG2	1:K:378:VAL:CG2	2.96	0.41
1:M:216:GLU:C	1:M:218:PRO:HD3	2.41	0.41
1:M:82:ASN:O	1:M:86:GLY:N	2.52	0.41
1:A:242:LYS:C	1:A:244:GLY:N	2.73	0.41
1:A:302:SER:O	1:A:307:MET:HE3	2.20	0.41
1:C:295:LEU:O	1:C:295:LEU:HD13	2.21	0.41
1:C:455:VAL:HG13	1:C:460:GLU:HB2	2.03	0.41
1:B:47:PRO:HD3	1:C:73:MET:HG3	2.03	0.41
1:D:194:GLN:HG3	1:D:331:THR:HB	2.02	0.41
1:D:384:ALA:C	1:D:385:THR:HG23	2.41	0.41
1:D:41:ASP:OD2	1:E:522:THR:CB	2.69	0.41
1:E:176:THR:HG22	1:E:177:VAL:H	1.84	0.41
1:E:41:ASP:OD1	1:F:69:MET:CG	2.68	0.41
1:G:202:PRO:C	1:G:204:PHE:H	2.24	0.41
1:G:193:MET:HG2	1:G:374:GLY:N	2.33	0.41
1:G:406:ALA:HA	1:G:496:PRO:CB	2.50	0.41
1:G:23:LEU:CD2	1:G:74:VAL:HG13	2.50	0.41
1:H:458:CYS:SG	1:H:480:ALA:HB1	2.60	0.41
1:I:266:THR:HG21	1:I:273:VAL:H	1.85	0.41
1:K:235:PRO:CG	1:K:310:GLU:HA	2.35	0.41
1:K:326:ASN:HD22	1:K:329:THR:HB	1.86	0.41
1:K:182:GLY:HA2	1:K:383:ALA:HB3	2.02	0.41
1:L:192:GLY:O	1:L:375:GLY:HA3	2.07	0.41
1:L:524:LEU:HA	1:L:524:LEU:HD12	1.87	0.41
1:L:77:VAL:HG23	1:L:510:VAL:HG21	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:517:THR:HG21	1:M:39:VAL:HG21	1.97	0.41
1:A:182:GLY:O	1:A:183:LEU:O	2.38	0.41
1:A:342:ILE:O	1:A:346:VAL:HG23	2.21	0.41
1:B:27:VAL:HG12	1:B:90:THR:HG23	2.03	0.41
1:C:302:SER:O	1:C:307:MET:HE3	2.21	0.41
1:C:342:ILE:O	1:C:346:VAL:HG23	2.21	0.41
1:B:41:ASP:OD2	1:C:522:THR:CB	2.69	0.41
1:C:27:VAL:HG12	1:C:90:THR:HG23	2.03	0.41
1:D:266:THR:HG21	1:D:273:VAL:H	1.85	0.41
1:D:466:ALA:O	1:D:470:LYS:HG3	2.21	0.41
1:E:302:SER:O	1:E:307:MET:HE3	2.21	0.41
1:E:342:ILE:O	1:E:346:VAL:HG23	2.21	0.41
1:D:47:PRO:HD3	1:E:73:MET:HG3	2.02	0.41
1:F:220:ILE:HD12	1:F:296:THR:HG21	2.02	0.41
1:G:336:VAL:O	1:G:337:GLY:C	2.59	0.41
1:G:384:ALA:C	1:G:385:THR:HG23	2.41	0.41
1:A:69:MET:CE	1:G:41:ASP:HB2	2.35	0.41
1:A:522:THR:CB	1:G:41:ASP:OD2	2.69	0.41
1:G:455:VAL:HG13	1:G:460:GLU:HB2	2.03	0.41
1:H:295:LEU:C	1:H:295:LEU:HD13	2.41	0.41
1:H:461:GLU:HA	1:H:462:PRO:HD3	1.88	0.41
1:H:82:ASN:O	1:H:86:GLY:N	2.52	0.41
1:J:182:GLY:O	1:J:183:LEU:O	2.39	0.41
1:J:144:ILE:HG23	1:J:403:THR:CG2	2.51	0.41
1:K:200:LEU:HG	1:K:276:VAL:HA	2.02	0.41
1:L:333:ILE:HG21	1:L:378:VAL:CG2	2.36	0.41
1:A:336:VAL:O	1:A:337:GLY:C	2.59	0.41
1:A:193:MET:C	1:A:375:GLY:HA2	2.42	0.41
1:B:176:THR:HG22	1:B:177:VAL:H	1.84	0.41
1:C:336:VAL:O	1:C:337:GLY:C	2.59	0.41
1:D:140:ASP:OD2	1:D:142:LYS:HB3	2.21	0.41
1:D:193:MET:C	1:D:375:GLY:HA2	2.42	0.41
1:D:242:LYS:O	1:D:243:ALA:HB3	2.21	0.41
1:C:41:ASP:OD2	1:D:522:THR:CB	2.69	0.41
1:E:27:VAL:HG12	1:E:90:THR:HG23	2.03	0.41
1:E:295:LEU:O	1:E:295:LEU:HD13	2.21	0.41
1:G:140:ASP:OD2	1:G:142:LYS:HB3	2.20	0.41
1:G:409:GLU:OE2	1:G:498:LYS:HD2	2.21	0.41
1:G:466:ALA:O	1:G:470:LYS:HG3	2.21	0.41
1:H:37:ASN:HD21	1:H:51:LYS:HE3	1.86	0.41
1:I:182:GLY:O	1:I:183:LEU:O	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:326:ASN:HD22	1:I:329:THR:HB	1.86	0.41
1:J:200:LEU:HG	1:J:276:VAL:HA	2.02	0.41
1:K:182:GLY:O	1:K:183:LEU:O	2.39	0.41
1:K:37:ASN:HD21	1:K:51:LYS:HE3	1.86	0.41
1:K:455:VAL:HG13	1:K:460:GLU:HB2	2.02	0.41
1:L:324:VAL:O	1:L:331:THR:HG22	2.21	0.41
1:L:326:ASN:HD22	1:L:329:THR:HB	1.86	0.41
1:M:326:ASN:HD22	1:M:329:THR:HB	1.86	0.41
1:M:37:ASN:HD21	1:M:51:LYS:HE3	1.86	0.41
1:N:326:ASN:HD22	1:N:329:THR:HB	1.86	0.41
1:A:104:LEU:HD23	1:A:104:LEU:HA	1.94	0.40
1:A:461:GLU:HA	1:A:462:PRO:HD3	1.89	0.40
1:C:242:LYS:O	1:C:243:ALA:HB3	2.21	0.40
1:C:384:ALA:C	1:C:385:THR:HG23	2.41	0.40
1:D:27:VAL:HG12	1:D:90:THR:HG23	2.03	0.40
1:F:466:ALA:O	1:F:470:LYS:HG3	2.21	0.40
1:J:202:PRO:C	1:J:204:PHE:H	2.24	0.40
1:K:182:GLY:HA2	1:K:383:ALA:CB	2.52	0.40
1:K:295:LEU:HD13	1:K:295:LEU:C	2.41	0.40
1:L:216:GLU:C	1:L:218:PRO:HD3	2.41	0.40
1:L:281:PHE:CE2	1:M:183:LEU:HB3	2.56	0.40
1:M:266:THR:HG21	1:M:273:VAL:H	1.85	0.40
1:M:295:LEU:C	1:M:295:LEU:HD13	2.41	0.40
1:M:77:VAL:HG23	1:M:510:VAL:HG21	2.03	0.40
1:N:302:SER:H	1:N:307:MET:HE1	1.86	0.40
1:M:517:THR:HG21	1:N:39:VAL:HG21	1.97	0.40
1:A:73:MET:HG3	1:G:47:PRO:HD3	2.03	0.40
1:B:179:ASP:HB3	1:B:389:MET:CE	2.52	0.40
1:D:409:GLU:OE2	1:D:498:LYS:HD2	2.21	0.40
1:E:202:PRO:C	1:E:204:PHE:H	2.24	0.40
1:F:302:SER:O	1:F:307:MET:HE3	2.21	0.40
1:F:193:MET:C	1:F:375:GLY:HA2	2.42	0.40
1:E:41:ASP:OD2	1:F:522:THR:CB	2.69	0.40
1:H:218:PRO:HD2	1:H:320:ALA:O	2.21	0.40
1:H:266:THR:HG22	1:H:273:VAL:H	1.87	0.40
1:I:216:GLU:C	1:I:218:PRO:HD3	2.41	0.40
1:J:326:ASN:HD22	1:J:329:THR:HB	1.86	0.40
1:K:144:ILE:HG23	1:K:403:THR:CG2	2.51	0.40
1:K:160:LYS:HB2	1:K:160:LYS:HZ2	1.85	0.40
1:K:524:LEU:HD12	1:K:524:LEU:HA	1.87	0.40
1:N:302:SER:H	1:N:307:MET:CE	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:69:MET:CE	1:N:41:ASP:HB2	2.36	0.40
1:N:82:ASN:O	1:N:86:GLY:N	2.52	0.40
1:B:182:GLY:O	1:B:183:LEU:O	2.38	0.40
1:B:242:LYS:O	1:B:243:ALA:HB3	2.21	0.40
1:B:336:VAL:O	1:B:337:GLY:C	2.59	0.40
1:E:242:LYS:O	1:E:243:ALA:HB3	2.21	0.40
1:F:182:GLY:O	1:F:183:LEU:O	2.39	0.40
1:F:384:ALA:C	1:F:385:THR:HG23	2.41	0.40
1:G:179:ASP:HB3	1:G:389:MET:CE	2.52	0.40
1:H:216:GLU:C	1:H:218:PRO:HD3	2.41	0.40
1:I:324:VAL:O	1:I:331:THR:HG22	2.21	0.40
1:K:202:PRO:C	1:K:204:PHE:H	2.24	0.40
1:K:517:THR:OG1	1:L:39:VAL:CG2	2.69	0.40
1:M:218:PRO:HD2	1:M:320:ALA:O	2.21	0.40
1:M:266:THR:HG22	1:M:273:VAL:H	1.87	0.40
1:M:281:PHE:CE2	1:N:183:LEU:HB3	2.56	0.40
1:N:218:PRO:HD2	1:N:320:ALA:O	2.21	0.40
1:N:295:LEU:C	1:N:295:LEU:HD13	2.41	0.40
1:A:112:ASN:HA	1:A:113:PRO:HD3	1.98	0.40
1:A:27:VAL:HG12	1:A:90:THR:HG23	2.03	0.40
1:B:124:VAL:O	1:B:128:VAL:HG23	2.22	0.40
1:B:295:LEU:O	1:B:295:LEU:HD13	2.21	0.40
1:A:41:ASP:CA	1:B:69:MET:HE3	2.48	0.40
1:C:242:LYS:C	1:C:244:GLY:N	2.73	0.40
1:D:455:VAL:HG13	1:D:460:GLU:HB2	2.03	0.40
1:E:179:ASP:HB3	1:E:389:MET:CE	2.52	0.40
1:E:193:MET:C	1:E:375:GLY:HA2	2.42	0.40
1:F:140:ASP:OD2	1:F:142:LYS:HB3	2.21	0.40
1:F:27:VAL:HG12	1:F:90:THR:HG23	2.03	0.40
1:F:41:ASP:OD2	1:G:522:THR:CB	2.69	0.40
1:H:202:PRO:C	1:H:204:PHE:H	2.24	0.40
1:J:136:VAL:HG12	1:J:137:PRO:HD3	2.03	0.40
1:J:295:LEU:HD13	1:J:295:LEU:C	2.41	0.40
1:K:266:THR:HG21	1:K:273:VAL:H	1.85	0.40
1:L:182:GLY:O	1:L:183:LEU:O	2.39	0.40
1:L:200:LEU:HG	1:L:276:VAL:HA	2.02	0.40
1:N:324:VAL:O	1:N:331:THR:HG22	2.21	0.40
1:N:455:VAL:HG13	1:N:460:GLU:HB2	2.03	0.40
1:A:124:VAL:O	1:A:128:VAL:HG23	2.22	0.40
1:A:179:ASP:HB3	1:A:389:MET:CE	2.52	0.40
1:A:220:ILE:HD12	1:A:296:THR:HG21	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:124:VAL:O	1:C:128:VAL:HG23	2.22	0.40
1:C:295:LEU:C	1:C:295:LEU:HD13	2.42	0.40
1:C:23:LEU:CD2	1:C:74:VAL:HG13	2.50	0.40
1:D:179:ASP:HB3	1:D:389:MET:CE	2.52	0.40
1:D:336:VAL:O	1:D:337:GLY:C	2.59	0.40
1:E:124:VAL:O	1:E:128:VAL:HG23	2.22	0.40
1:E:455:VAL:HG13	1:E:460:GLU:HB2	2.03	0.40
1:G:112:ASN:HA	1:G:113:PRO:HD3	1.98	0.40
1:G:342:ILE:O	1:G:346:VAL:HG23	2.21	0.40
1:H:326:ASN:HD22	1:H:329:THR:HB	1.86	0.40
1:H:517:THR:OG1	1:I:39:VAL:CG2	2.69	0.40
1:I:517:THR:OG1	1:J:39:VAL:CG2	2.69	0.40
1:J:266:THR:HG21	1:J:273:VAL:H	1.85	0.40
1:J:517:THR:OG1	1:K:39:VAL:CG2	2.69	0.40
1:K:77:VAL:HG23	1:K:510:VAL:HG21	2.03	0.40
1:K:82:ASN:O	1:K:86:GLY:N	2.52	0.40
1:L:266:THR:HG21	1:L:273:VAL:H	1.85	0.40
1:M:235:PRO:CG	1:M:310:GLU:HA	2.35	0.40
1:N:144:ILE:HG23	1:N:403:THR:CG2	2.51	0.40
1:N:177:VAL:HG21	1:N:397:GLU:HG2	2.00	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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	517/547 (94%)	480 (93%)	27 (5%)	10 (2%)	9	47
1	B	517/547 (94%)	480 (93%)	27 (5%)	10 (2%)	9	47
1	C	517/547 (94%)	480 (93%)	27 (5%)	10 (2%)	9	47
1	D	517/547 (94%)	480 (93%)	27 (5%)	10 (2%)	9	47

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	E	517/547 (94%)	480 (93%)	27 (5%)	10 (2%)	9	47
1	F	517/547 (94%)	480 (93%)	27 (5%)	10 (2%)	9	47
1	G	517/547 (94%)	480 (93%)	27 (5%)	10 (2%)	9	47
1	H	517/547 (94%)	480 (93%)	25 (5%)	12 (2%)	7	43
1	I	517/547 (94%)	480 (93%)	25 (5%)	12 (2%)	7	43
1	J	517/547 (94%)	480 (93%)	25 (5%)	12 (2%)	7	43
1	K	517/547 (94%)	480 (93%)	25 (5%)	12 (2%)	7	43
1	L	517/547 (94%)	480 (93%)	25 (5%)	12 (2%)	7	43
1	M	517/547 (94%)	480 (93%)	25 (5%)	12 (2%)	7	43
1	N	517/547 (94%)	480 (93%)	25 (5%)	12 (2%)	7	43
All	All	7238/7658 (94%)	6720 (93%)	364 (5%)	154 (2%)	12	45

All (154) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	410	GLY
1	B	410	GLY
1	C	410	GLY
1	D	410	GLY
1	E	410	GLY
1	F	410	GLY
1	G	410	GLY
1	A	183	LEU
1	A	256	GLY
1	A	271	VAL
1	B	183	LEU
1	B	256	GLY
1	B	271	VAL
1	C	183	LEU
1	C	256	GLY
1	C	271	VAL
1	D	183	LEU
1	D	256	GLY
1	D	271	VAL
1	E	183	LEU
1	E	256	GLY
1	E	271	VAL
1	F	183	LEU

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Mol	Chain	Res	Type
1	F	256	GLY
1	F	271	VAL
1	G	183	LEU
1	G	256	GLY
1	G	271	VAL
1	H	183	LEU
1	H	256	GLY
1	H	382	GLY
1	I	183	LEU
1	I	256	GLY
1	I	382	GLY
1	J	183	LEU
1	J	256	GLY
1	J	382	GLY
1	K	183	LEU
1	K	256	GLY
1	K	382	GLY
1	L	183	LEU
1	L	256	GLY
1	L	382	GLY
1	M	183	LEU
1	M	256	GLY
1	M	382	GLY
1	N	183	LEU
1	N	256	GLY
1	N	382	GLY
1	A	202	PRO
1	A	385	THR
1	B	202	PRO
1	B	385	THR
1	C	202	PRO
1	C	385	THR
1	D	202	PRO
1	D	385	THR
1	E	202	PRO
1	E	385	THR
1	F	202	PRO
1	F	385	THR
1	G	202	PRO
1	G	385	THR
1	H	202	PRO
1	H	271	VAL

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Mol	Chain	Res	Type
1	H	385	THR
1	I	202	PRO
1	I	271	VAL
1	I	385	THR
1	J	202	PRO
1	J	271	VAL
1	J	385	THR
1	K	202	PRO
1	K	271	VAL
1	K	385	THR
1	L	202	PRO
1	L	271	VAL
1	L	385	THR
1	M	202	PRO
1	M	271	VAL
1	M	385	THR
1	N	202	PRO
1	N	271	VAL
1	N	385	THR
1	A	253	ASP
1	B	253	ASP
1	C	253	ASP
1	D	253	ASP
1	E	253	ASP
1	F	253	ASP
1	G	253	ASP
1	H	337	GLY
1	H	383	ALA
1	I	337	GLY
1	I	383	ALA
1	J	337	GLY
1	J	383	ALA
1	K	337	GLY
1	K	383	ALA
1	L	337	GLY
1	L	383	ALA
1	M	337	GLY
1	M	383	ALA
1	N	337	GLY
1	N	383	ALA
1	A	184	GLN
1	A	201	SER

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Mol	Chain	Res	Type
1	B	184	GLN
1	B	201	SER
1	C	184	GLN
1	C	201	SER
1	D	184	GLN
1	D	201	SER
1	E	184	GLN
1	E	201	SER
1	F	184	GLN
1	F	201	SER
1	G	184	GLN
1	G	201	SER
1	H	184	GLN
1	H	253	ASP
1	H	384	ALA
1	I	184	GLN
1	I	253	ASP
1	I	384	ALA
1	J	184	GLN
1	J	253	ASP
1	J	384	ALA
1	K	184	GLN
1	K	253	ASP
1	K	384	ALA
1	L	184	GLN
1	L	253	ASP
1	L	384	ALA
1	M	184	GLN
1	M	253	ASP
1	M	384	ALA
1	N	184	GLN
1	N	253	ASP
1	N	384	ALA
1	A	382	GLY
1	B	382	GLY
1	C	382	GLY
1	D	382	GLY
1	E	382	GLY
1	F	382	GLY
1	G	382	GLY
1	N	201	SER
1	H	201	SER

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Mol	Chain	Res	Type
1	I	201	SER
1	J	201	SER
1	K	201	SER
1	L	201	SER
1	M	201	SER

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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	404/414 (98%)	394 (98%)	10 (2%)	53	77
1	B	404/414 (98%)	394 (98%)	10 (2%)	53	77
1	C	404/414 (98%)	394 (98%)	10 (2%)	53	77
1	D	404/414 (98%)	394 (98%)	10 (2%)	53	77
1	E	404/414 (98%)	394 (98%)	10 (2%)	53	77
1	F	404/414 (98%)	394 (98%)	10 (2%)	53	77
1	G	404/414 (98%)	394 (98%)	10 (2%)	53	77
1	H	404/414 (98%)	397 (98%)	7 (2%)	66	84
1	I	404/414 (98%)	397 (98%)	7 (2%)	66	84
1	J	404/414 (98%)	397 (98%)	7 (2%)	66	84
1	K	404/414 (98%)	397 (98%)	7 (2%)	66	84
1	L	404/414 (98%)	397 (98%)	7 (2%)	66	84
1	M	404/414 (98%)	397 (98%)	7 (2%)	66	84
1	N	404/414 (98%)	397 (98%)	7 (2%)	66	84
All	All	5656/5796 (98%)	5537 (98%)	119 (2%)	62	80

All (119) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	10	ASN
1	A	20	VAL

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Mol	Chain	Res	Type
1	A	75	LYS
1	A	94	VAL
1	A	183	LEU
1	A	289	LEU
1	A	310	GLU
1	A	328	ASP
1	A	404	ARG
1	A	499	VAL
1	B	10	ASN
1	B	20	VAL
1	B	75	LYS
1	B	94	VAL
1	B	183	LEU
1	B	289	LEU
1	B	310	GLU
1	B	328	ASP
1	B	404	ARG
1	B	499	VAL
1	C	10	ASN
1	C	20	VAL
1	C	75	LYS
1	C	94	VAL
1	C	183	LEU
1	C	289	LEU
1	C	310	GLU
1	C	328	ASP
1	C	404	ARG
1	C	499	VAL
1	D	10	ASN
1	D	20	VAL
1	D	75	LYS
1	D	94	VAL
1	D	183	LEU
1	D	289	LEU
1	D	310	GLU
1	D	328	ASP
1	D	404	ARG
1	D	499	VAL
1	E	10	ASN
1	E	20	VAL
1	E	75	LYS
1	E	94	VAL

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Mol	Chain	Res	Type
1	E	183	LEU
1	E	289	LEU
1	E	310	GLU
1	E	328	ASP
1	E	404	ARG
1	E	499	VAL
1	F	10	ASN
1	F	20	VAL
1	F	75	LYS
1	F	94	VAL
1	F	183	LEU
1	F	289	LEU
1	F	310	GLU
1	F	328	ASP
1	F	404	ARG
1	F	499	VAL
1	G	10	ASN
1	G	20	VAL
1	G	75	LYS
1	G	94	VAL
1	G	183	LEU
1	G	289	LEU
1	G	310	GLU
1	G	328	ASP
1	G	404	ARG
1	G	499	VAL
1	H	20	VAL
1	H	75	LYS
1	H	94	VAL
1	H	183	LEU
1	H	289	LEU
1	H	404	ARG
1	H	499	VAL
1	I	20	VAL
1	I	75	LYS
1	I	94	VAL
1	I	183	LEU
1	I	289	LEU
1	I	404	ARG
1	I	499	VAL
1	J	20	VAL
1	J	75	LYS

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Mol	Chain	Res	Type
1	J	94	VAL
1	J	183	LEU
1	J	289	LEU
1	J	404	ARG
1	J	499	VAL
1	K	20	VAL
1	K	75	LYS
1	K	94	VAL
1	K	183	LEU
1	K	289	LEU
1	K	404	ARG
1	K	499	VAL
1	L	20	VAL
1	L	75	LYS
1	L	94	VAL
1	L	183	LEU
1	L	289	LEU
1	L	404	ARG
1	L	499	VAL
1	M	20	VAL
1	M	75	LYS
1	M	94	VAL
1	M	183	LEU
1	M	289	LEU
1	M	404	ARG
1	M	499	VAL
1	N	20	VAL
1	N	75	LYS
1	N	94	VAL
1	N	183	LEU
1	N	289	LEU
1	N	404	ARG
1	N	499	VAL

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (119) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	146	GLN
1	A	265	ASN
1	A	319	GLN
1	A	326	ASN
1	A	348	GLN

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Mol	Chain	Res	Type
1	A	351	GLN
1	A	401	HIS
1	A	453	GLN
1	B	146	GLN
1	B	265	ASN
1	B	319	GLN
1	B	326	ASN
1	B	348	GLN
1	B	351	GLN
1	B	401	HIS
1	B	453	GLN
1	C	146	GLN
1	C	265	ASN
1	C	319	GLN
1	C	326	ASN
1	C	348	GLN
1	C	351	GLN
1	C	401	HIS
1	C	453	GLN
1	D	146	GLN
1	D	265	ASN
1	D	319	GLN
1	D	326	ASN
1	D	348	GLN
1	D	351	GLN
1	D	401	HIS
1	D	453	GLN
1	E	146	GLN
1	E	265	ASN
1	E	319	GLN
1	E	326	ASN
1	E	348	GLN
1	E	351	GLN
1	E	401	HIS
1	E	453	GLN
1	F	146	GLN
1	F	265	ASN
1	F	319	GLN
1	F	326	ASN
1	F	348	GLN
1	F	351	GLN
1	F	401	HIS

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Mol	Chain	Res	Type
1	F	453	GLN
1	G	146	GLN
1	G	265	ASN
1	G	319	GLN
1	G	326	ASN
1	G	348	GLN
1	G	351	GLN
1	G	401	HIS
1	G	453	GLN
1	H	37	ASN
1	H	146	GLN
1	H	265	ASN
1	H	319	GLN
1	H	326	ASN
1	H	348	GLN
1	H	351	GLN
1	H	401	HIS
1	H	453	GLN
1	I	37	ASN
1	I	146	GLN
1	I	265	ASN
1	I	319	GLN
1	I	326	ASN
1	I	348	GLN
1	I	351	GLN
1	I	401	HIS
1	I	453	GLN
1	J	37	ASN
1	J	146	GLN
1	J	265	ASN
1	J	319	GLN
1	J	326	ASN
1	J	348	GLN
1	J	351	GLN
1	J	401	HIS
1	J	453	GLN
1	K	37	ASN
1	K	146	GLN
1	K	265	ASN
1	K	319	GLN
1	K	326	ASN
1	K	348	GLN

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Mol	Chain	Res	Type
1	K	351	GLN
1	K	401	HIS
1	K	453	GLN
1	L	37	ASN
1	L	146	GLN
1	L	265	ASN
1	L	319	GLN
1	L	326	ASN
1	L	348	GLN
1	L	351	GLN
1	L	401	HIS
1	L	453	GLN
1	M	37	ASN
1	M	146	GLN
1	M	265	ASN
1	M	319	GLN
1	M	326	ASN
1	M	348	GLN
1	M	351	GLN
1	M	401	HIS
1	M	453	GLN
1	N	37	ASN
1	N	146	GLN
1	N	265	ASN
1	N	319	GLN
1	N	326	ASN
1	N	348	GLN
1	N	351	GLN
1	N	401	HIS
1	N	453	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 carbohydrates in this entry.

5.6 Ligand geometry

Of 21 ligands modelled in this entry, 14 are monoatomic - leaving 7 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
4	ATP	A	551	3,2	27,33,33	0.88	0	25,52,52	1.18	2 (8%)
4	ATP	B	551	3,2	27,33,33	0.87	0	25,52,52	1.18	2 (8%)
4	ATP	C	551	3,2	27,33,33	0.88	0	25,52,52	1.18	2 (8%)
4	ATP	D	551	3,2	27,33,33	0.88	0	25,52,52	1.18	2 (8%)
4	ATP	E	551	3,2	27,33,33	0.87	0	25,52,52	1.18	2 (8%)
4	ATP	F	551	3,2	27,33,33	0.88	0	25,52,52	1.18	2 (8%)
4	ATP	G	551	3,2	27,33,33	0.88	0	25,52,52	1.19	2 (8%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	ATP	A	551	3,2	-	0/18/38/38	0/3/3/3
4	ATP	B	551	3,2	-	0/18/38/38	0/3/3/3
4	ATP	C	551	3,2	-	0/18/38/38	0/3/3/3
4	ATP	D	551	3,2	-	0/18/38/38	0/3/3/3
4	ATP	E	551	3,2	-	0/18/38/38	0/3/3/3
4	ATP	F	551	3,2	-	0/18/38/38	0/3/3/3
4	ATP	G	551	3,2	-	0/18/38/38	0/3/3/3

There are no bond length outliers.

All (14) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	E	551	ATP	N3-C2-N1	-2.09	127.04	128.86
4	G	551	ATP	N3-C2-N1	-2.09	127.04	128.86
4	C	551	ATP	N3-C2-N1	-2.08	127.05	128.86
4	F	551	ATP	N3-C2-N1	-2.08	127.05	128.86
4	A	551	ATP	N3-C2-N1	-2.08	127.05	128.86
4	D	551	ATP	N3-C2-N1	-2.07	127.06	128.86
4	B	551	ATP	N3-C2-N1	-2.06	127.06	128.86
4	C	551	ATP	C5-C6-N6	2.14	124.84	120.47
4	E	551	ATP	C5-C6-N6	2.15	124.84	120.47
4	D	551	ATP	C5-C6-N6	2.15	124.85	120.47
4	F	551	ATP	C5-C6-N6	2.15	124.86	120.47
4	G	551	ATP	C5-C6-N6	2.15	124.86	120.47
4	B	551	ATP	C5-C6-N6	2.15	124.86	120.47
4	A	551	ATP	C5-C6-N6	2.15	124.86	120.47

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	J	4
1	K	4
1	H	4
1	I	4
1	N	4
1	L	4
1	M	4
1	G	3
1	D	3
1	E	3
1	B	3

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Mol	Chain	Number of breaks
1	C	3
1	A	3
1	F	3

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A	373:ALA	C	374:GLY	N	8.15
1	B	373:ALA	C	374:GLY	N	8.15
1	C	373:ALA	C	374:GLY	N	8.15
1	D	373:ALA	C	374:GLY	N	8.15
1	E	373:ALA	C	374:GLY	N	8.15
1	F	373:ALA	C	374:GLY	N	8.15
1	G	373:ALA	C	374:GLY	N	8.15
1	A	191:GLU	C	192:GLY	N	4.94
1	B	191:GLU	C	192:GLY	N	4.94
1	C	191:GLU	C	192:GLY	N	4.94
1	D	191:GLU	C	192:GLY	N	4.94
1	E	191:GLU	C	192:GLY	N	4.94
1	F	191:GLU	C	192:GLY	N	4.94
1	G	191:GLU	C	192:GLY	N	4.94
1	H	373:ALA	C	374:GLY	N	3.86
1	I	373:ALA	C	374:GLY	N	3.86
1	J	373:ALA	C	374:GLY	N	3.86
1	K	373:ALA	C	374:GLY	N	3.86
1	L	373:ALA	C	374:GLY	N	3.86
1	M	373:ALA	C	374:GLY	N	3.86
1	N	373:ALA	C	374:GLY	N	3.86
1	H	191:GLU	C	192:GLY	N	3.30
1	I	191:GLU	C	192:GLY	N	3.30
1	J	191:GLU	C	192:GLY	N	3.30
1	K	191:GLU	C	192:GLY	N	3.30
1	L	191:GLU	C	192:GLY	N	3.30
1	M	191:GLU	C	192:GLY	N	3.30
1	N	191:GLU	C	192:GLY	N	3.30
1	H	136:VAL	C	137:PRO	N	3.13
1	I	136:VAL	C	137:PRO	N	3.13
1	J	136:VAL	C	137:PRO	N	3.13
1	K	136:VAL	C	137:PRO	N	3.13
1	L	136:VAL	C	137:PRO	N	3.13
1	M	136:VAL	C	137:PRO	N	3.13
1	N	136:VAL	C	137:PRO	N	3.13
1	A	136:VAL	C	137:PRO	N	2.15

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	B	136:VAL	C	137:PRO	N	2.15
1	C	136:VAL	C	137:PRO	N	2.15
1	D	136:VAL	C	137:PRO	N	2.15
1	E	136:VAL	C	137:PRO	N	2.15
1	F	136:VAL	C	137:PRO	N	2.15
1	G	136:VAL	C	137:PRO	N	2.15
1	H	409:GLU	C	410:GLY	N	0.54
1	I	409:GLU	C	410:GLY	N	0.54
1	J	409:GLU	C	410:GLY	N	0.54
1	K	409:GLU	C	410:GLY	N	0.54
1	L	409:GLU	C	410:GLY	N	0.54
1	M	409:GLU	C	410:GLY	N	0.54
1	N	409:GLU	C	410:GLY	N	0.54