



Full wwPDB EM Validation Report ⓘ

Mar 6, 2026 – 12:20 PM UTC

PDB ID : 4A13 / pdb_00004a13
EMDB ID : EMD-1963
Title : model refined against symmetry-free cryo-EM map of TRiC-ADP
Authors : Cong, Y.; Schroder, G.F.; Meyer, A.S.; Jakana, J.; Ma, B.; Dougherty, M.T.;
Schmid, M.F.; Reissmann, S.; Levitt, M.; Ludtke, S.L.; Frydman, J.; Chiu, W.
Deposited on : 2011-09-13
Resolution : 11.30 Å(reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

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

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

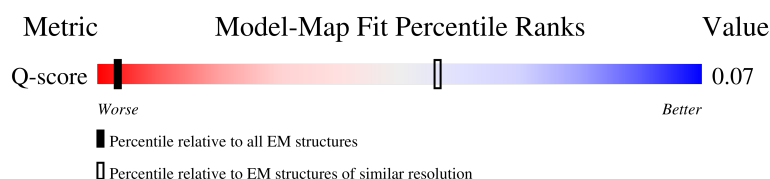
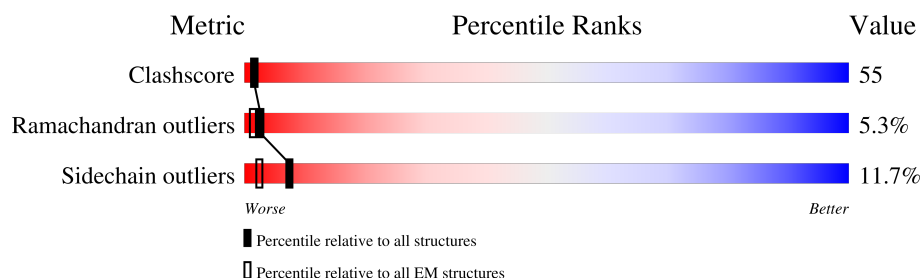
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 11.30 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)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	98 (10.80 - 11.80)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	513	
1	B	513	
1	C	513	
1	D	513	

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Mol	Chain	Length	Quality of chain
1	E	513	
1	F	513	
1	G	513	
1	H	513	
1	I	513	
1	J	513	
1	K	513	
1	L	513	
1	M	513	
1	N	513	
1	O	513	
1	P	513	

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 60012 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.

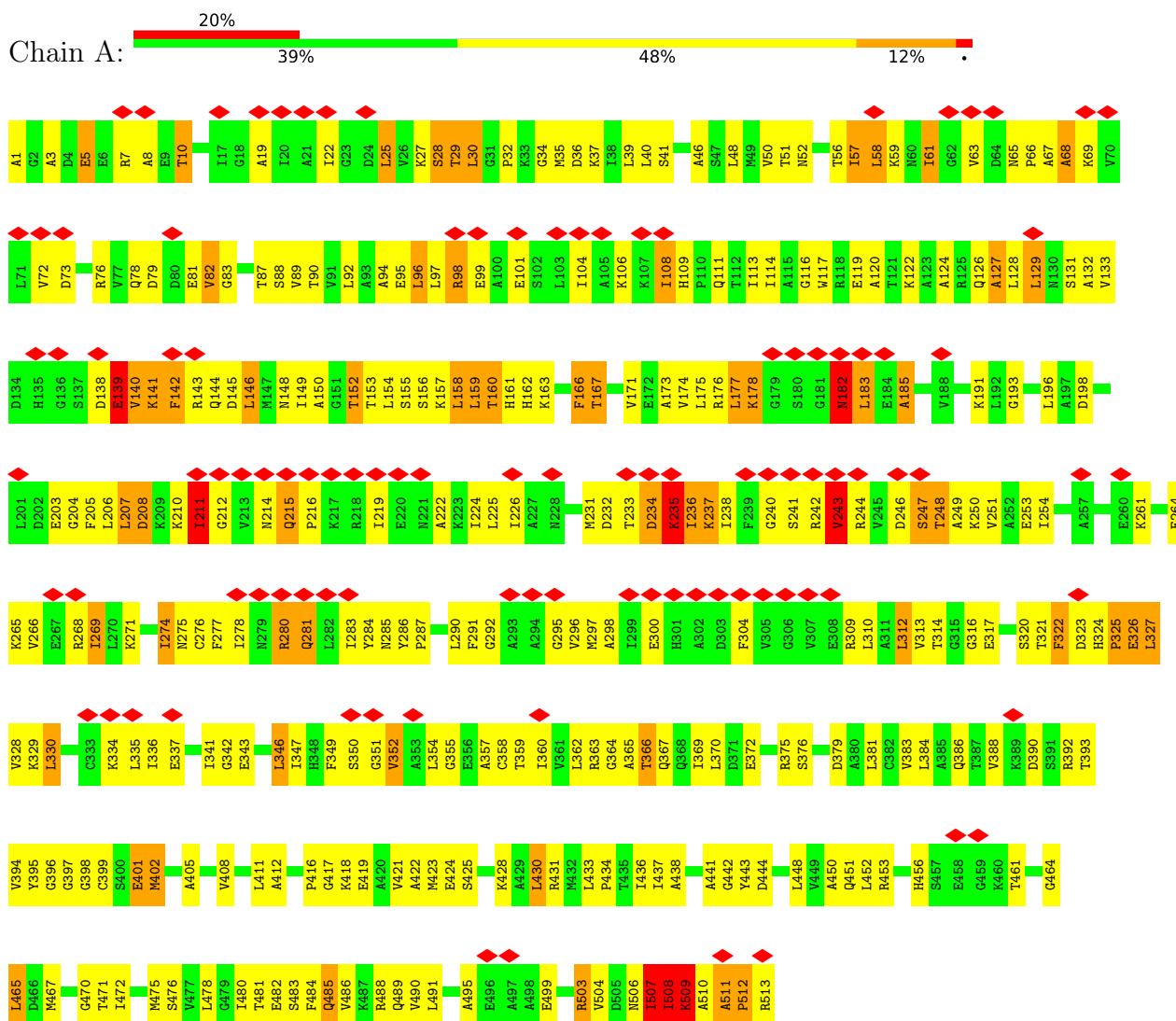
- Molecule 1 is a protein called T-COMPLEX PROTEIN 1 SUBUNIT BETA.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	513	Total	C	N	O	S	0	0
			3855	2409	679	748	19		
1	B	488	Total	C	N	O	S	0	0
			3666	2293	645	710	18		
1	C	513	Total	C	N	O	S	0	0
			3855	2409	679	748	19		
1	D	489	Total	C	N	O	S	0	0
			3675	2298	646	713	18		
1	E	513	Total	C	N	O	S	0	0
			3855	2409	679	748	19		
1	F	513	Total	C	N	O	S	0	0
			3855	2409	679	748	19		
1	G	487	Total	C	N	O	S	0	0
			3658	2289	643	708	18		
1	H	489	Total	C	N	O	S	0	0
			3675	2298	646	713	18		
1	I	513	Total	C	N	O	S	0	0
			3855	2409	679	748	19		
1	J	485	Total	C	N	O	S	0	0
			3634	2272	639	704	19		
1	K	490	Total	C	N	O	S	0	0
			3673	2295	645	714	19		
1	L	494	Total	C	N	O	S	0	0
			3707	2318	652	719	18		
1	M	513	Total	C	N	O	S	0	0
			3855	2409	679	748	19		
1	N	488	Total	C	N	O	S	0	0
			3666	2293	645	710	18		
1	O	513	Total	C	N	O	S	0	0
			3855	2409	679	748	19		
1	P	489	Total	C	N	O	S	0	0
			3673	2297	646	712	18		

3 Residue-property plots

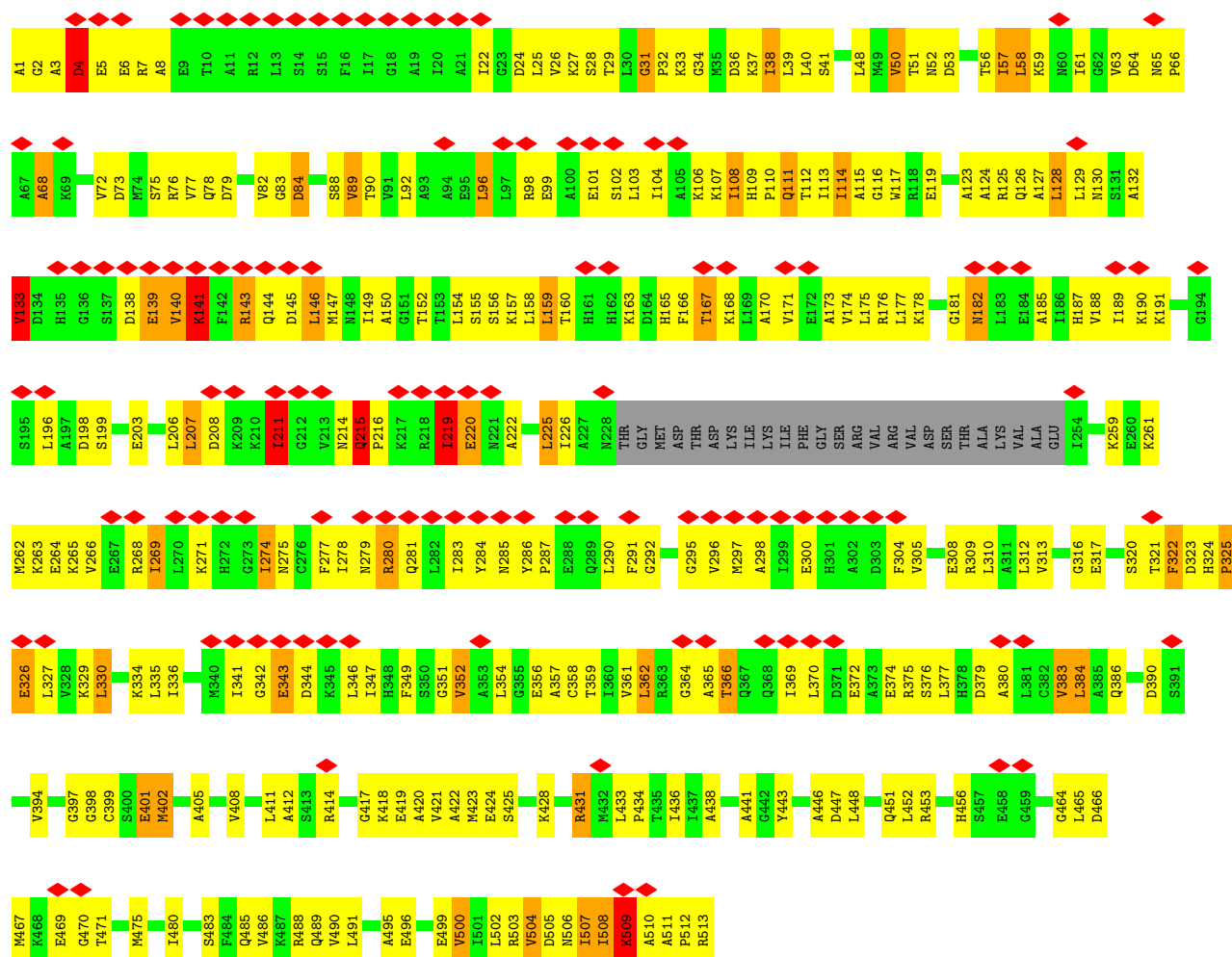
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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: T-COMPLEX PROTEIN 1 SUBUNIT BETA

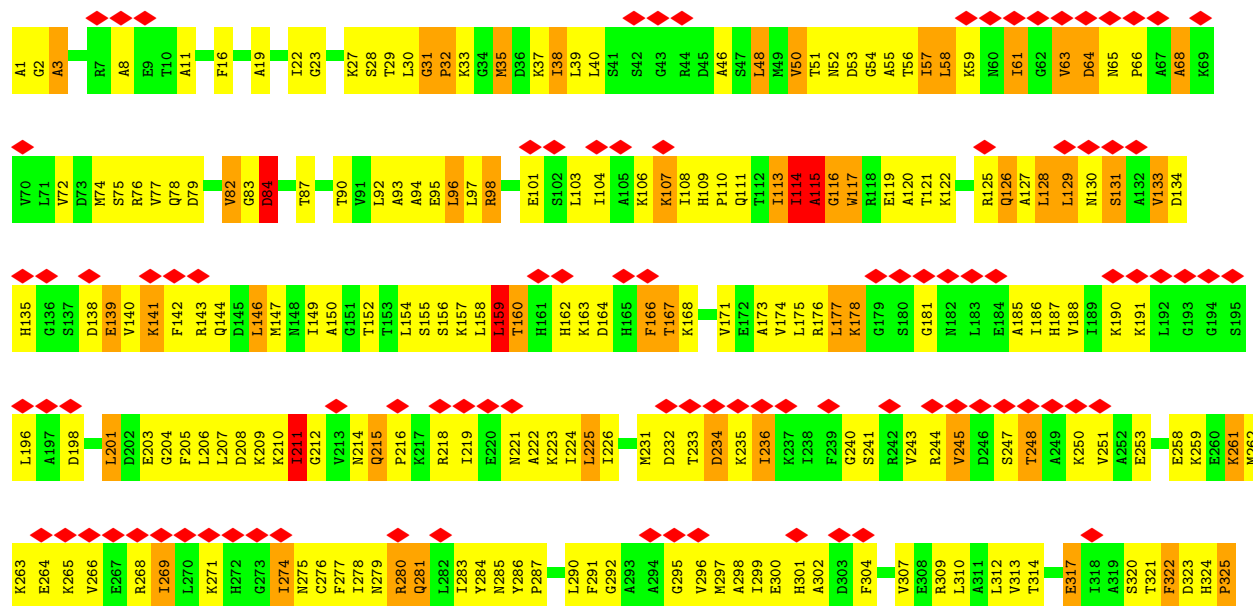


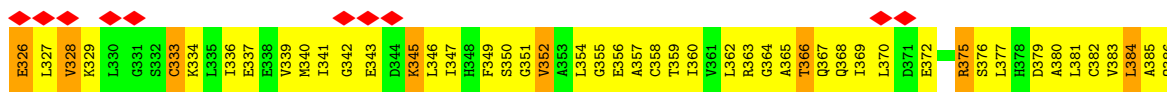
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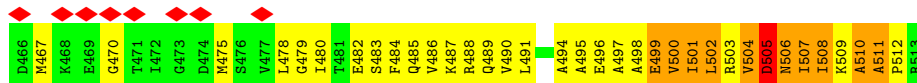
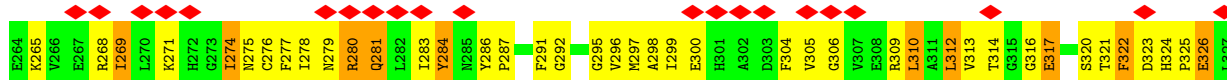
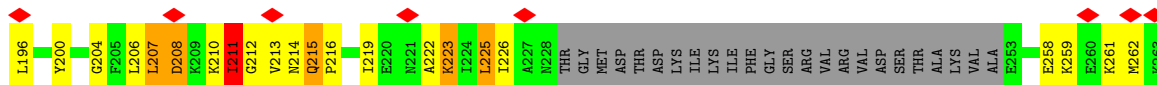
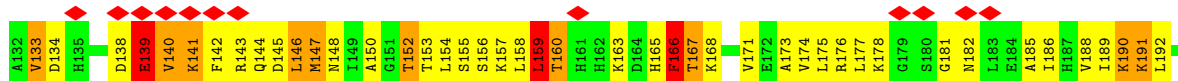
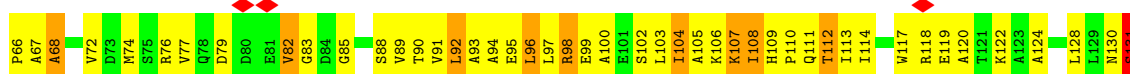
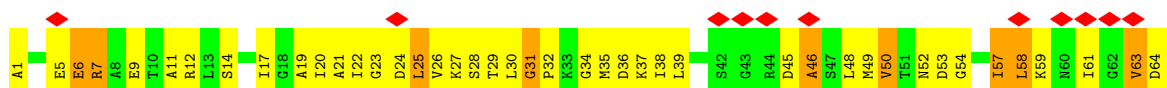


• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

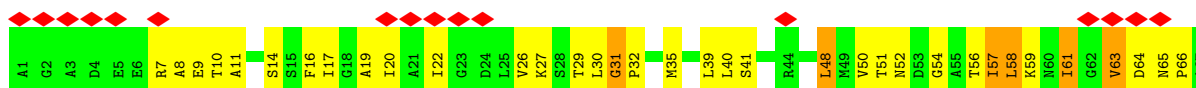


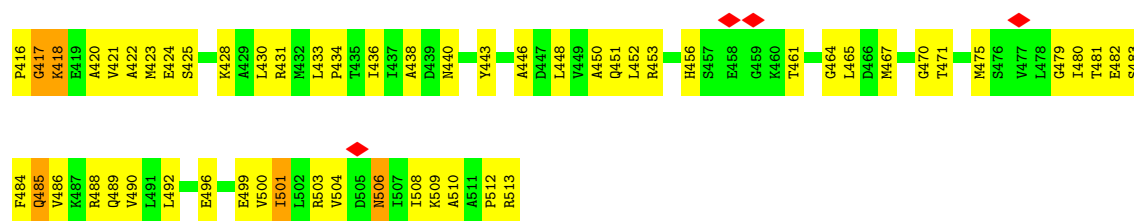


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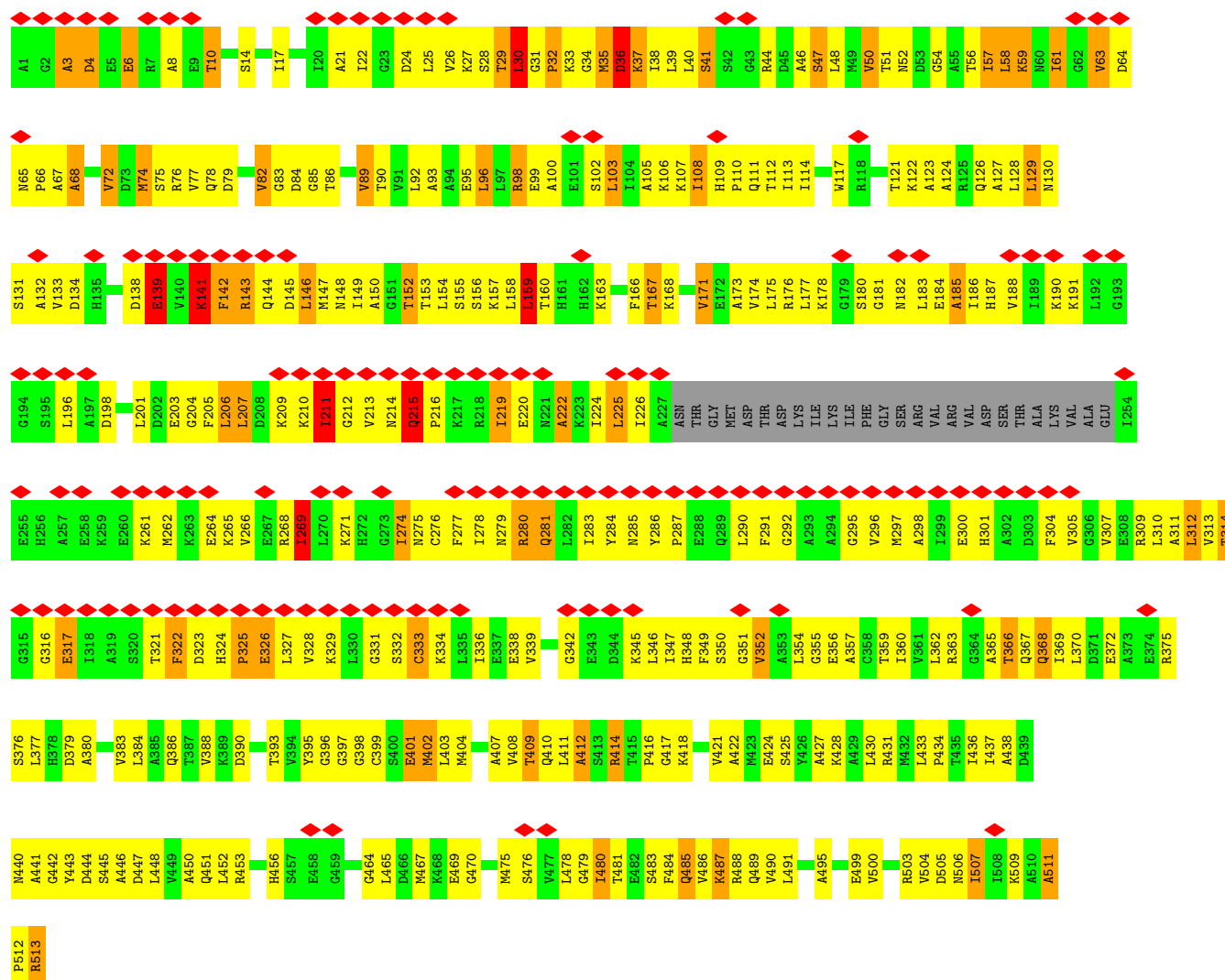


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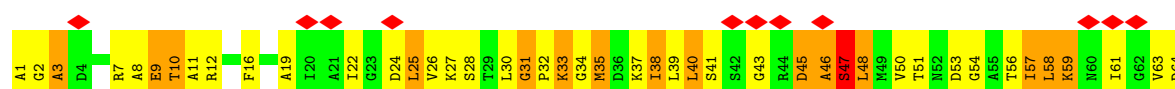


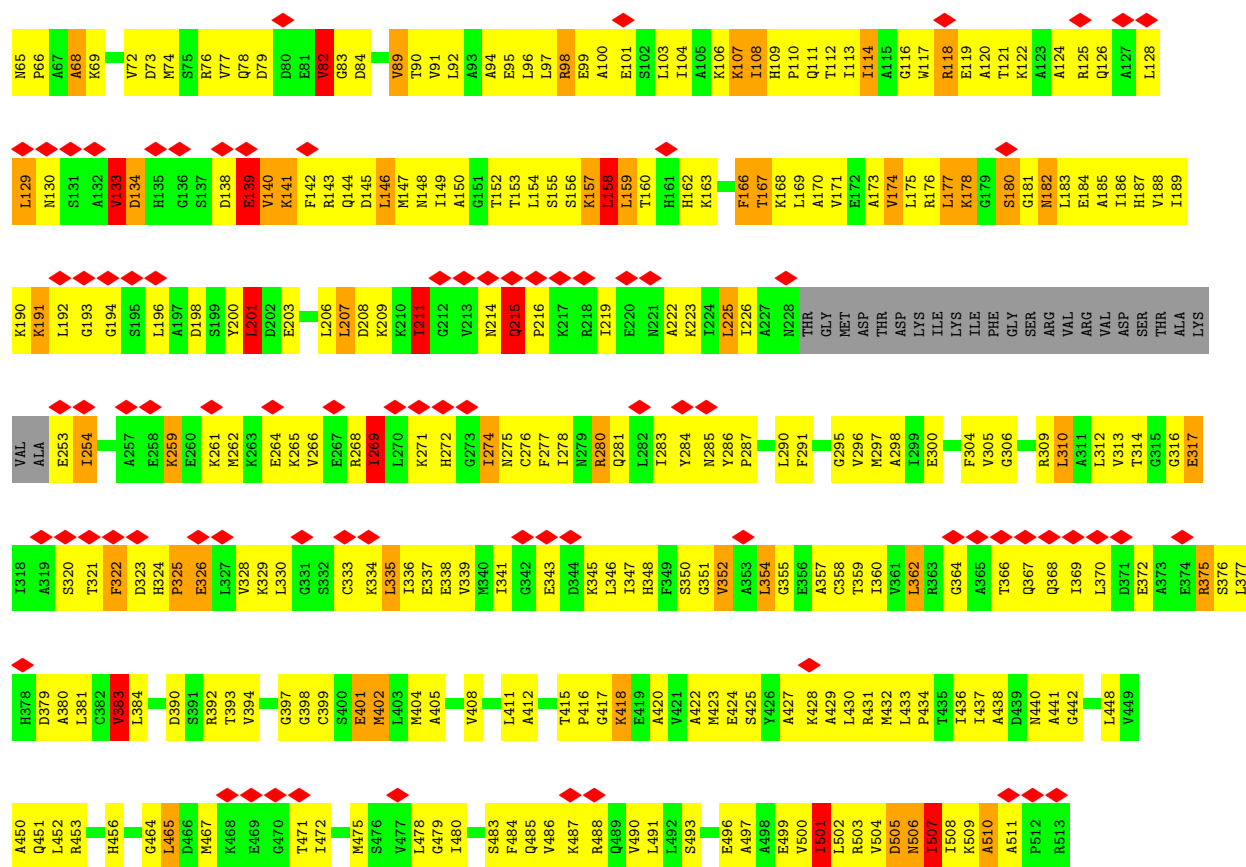


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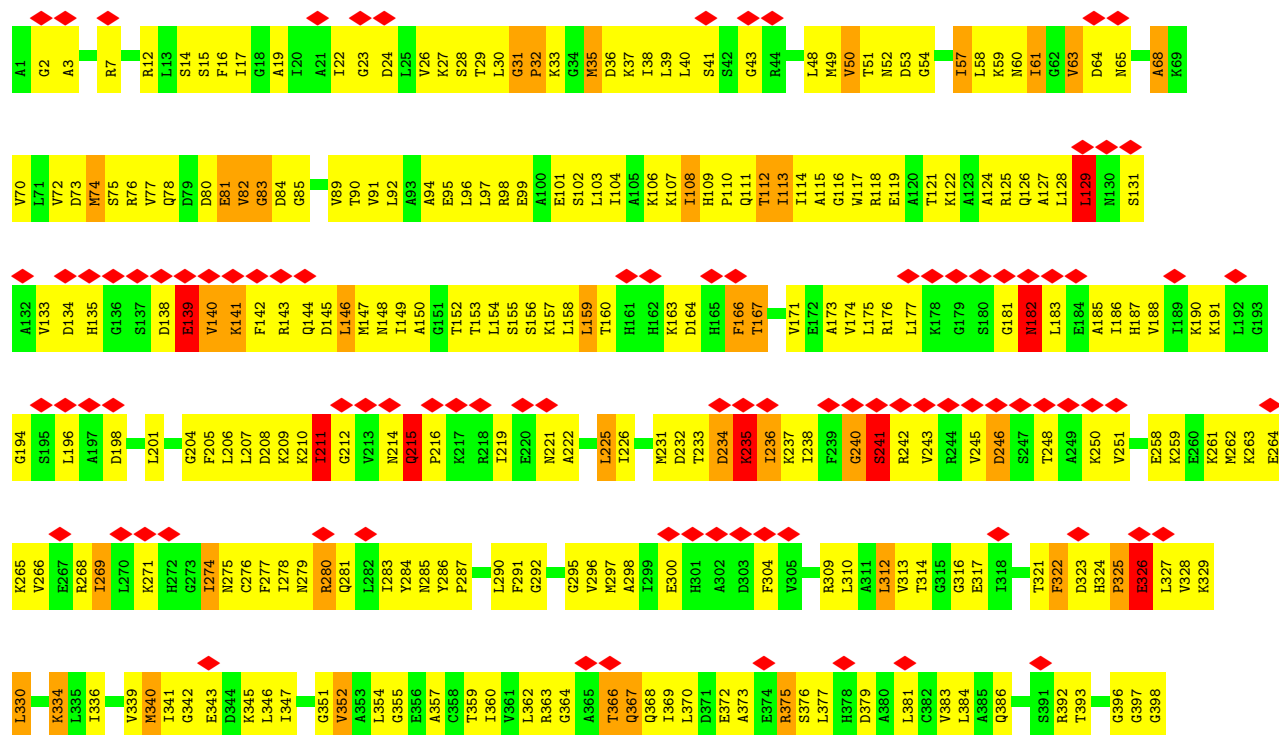


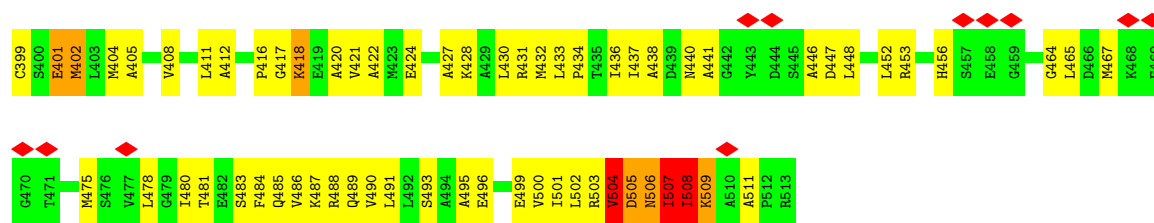
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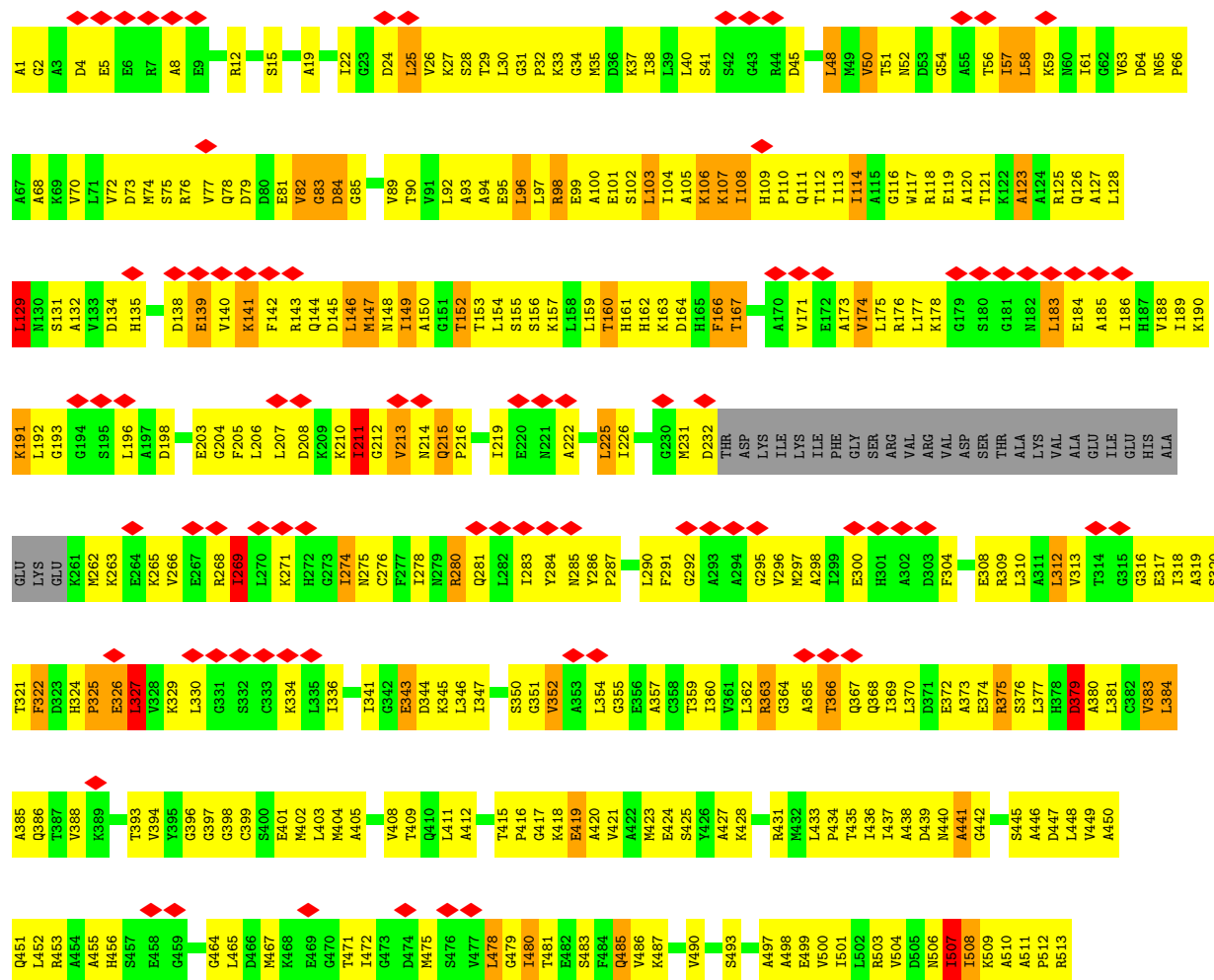


● Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

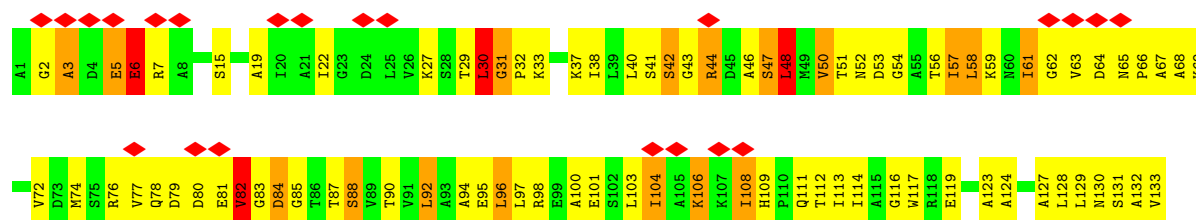


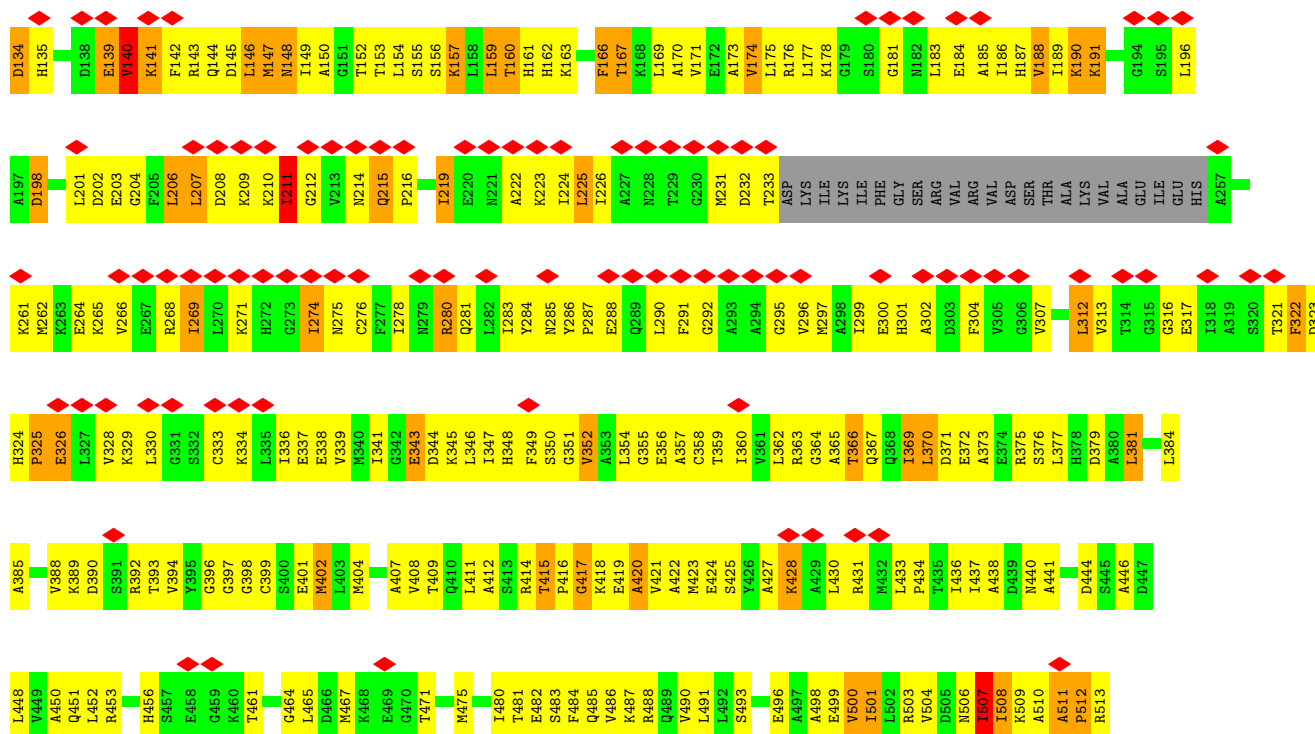


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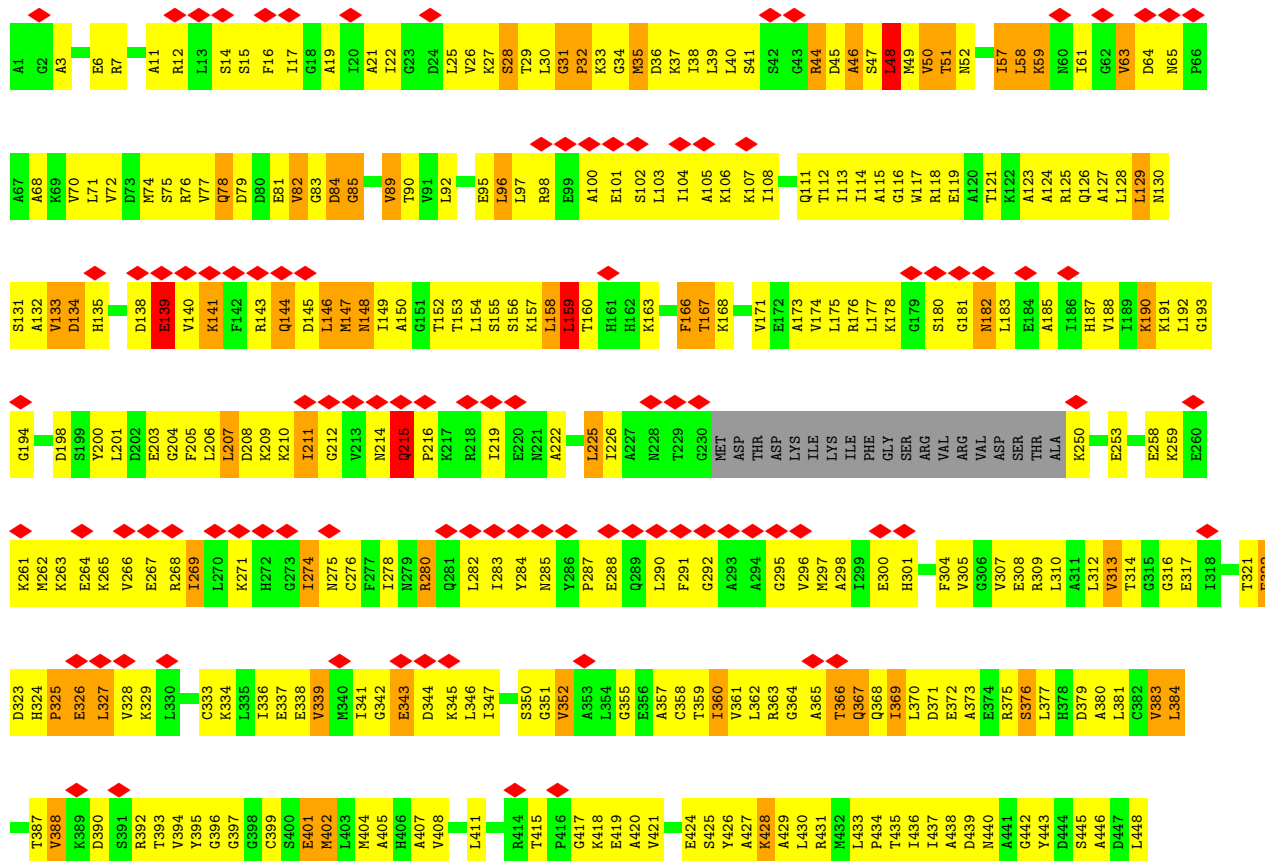


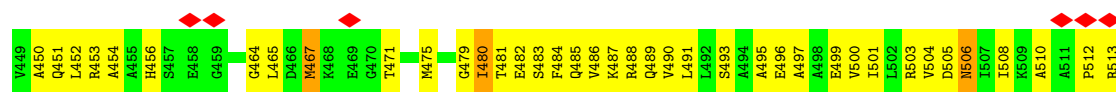
• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA



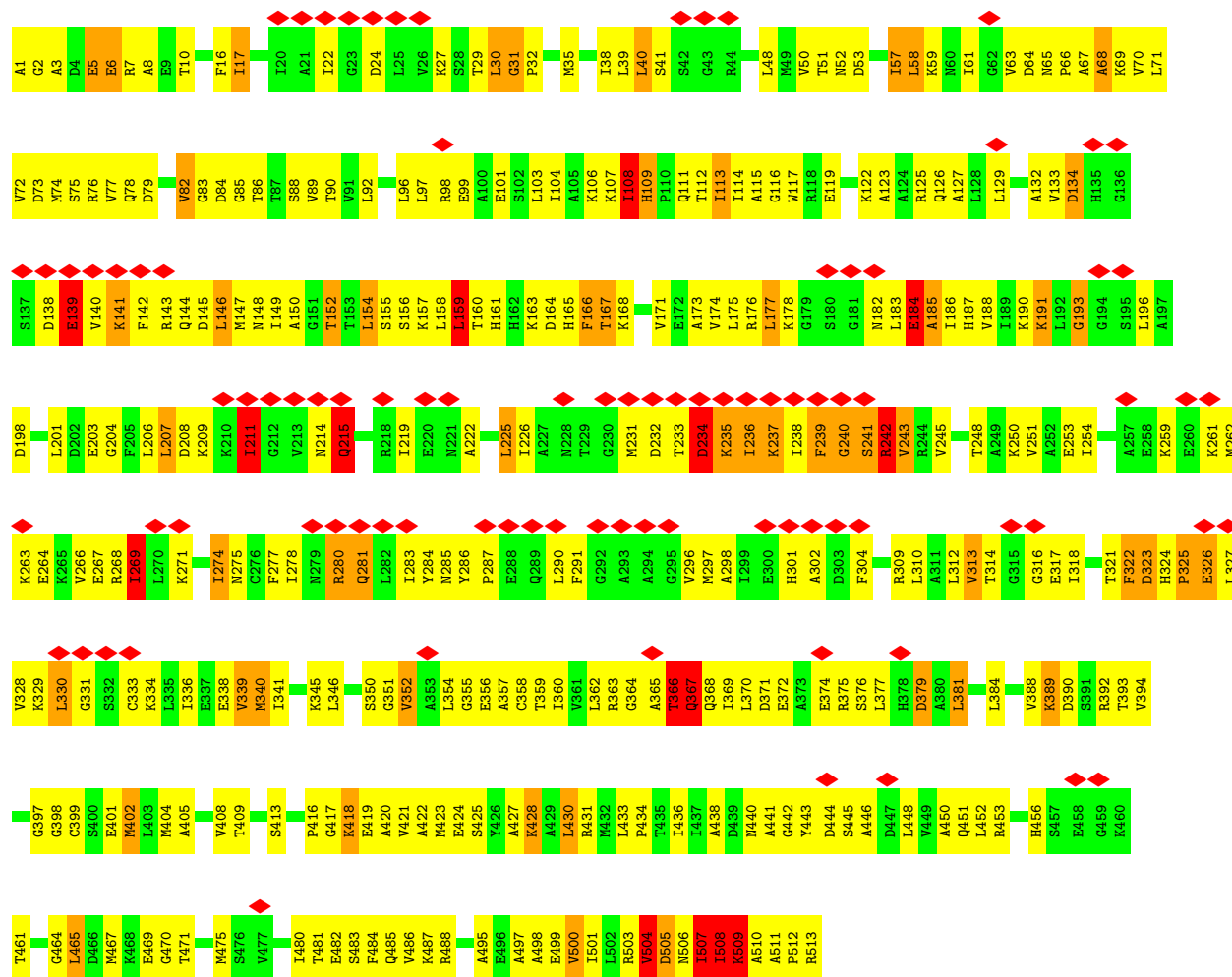


• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

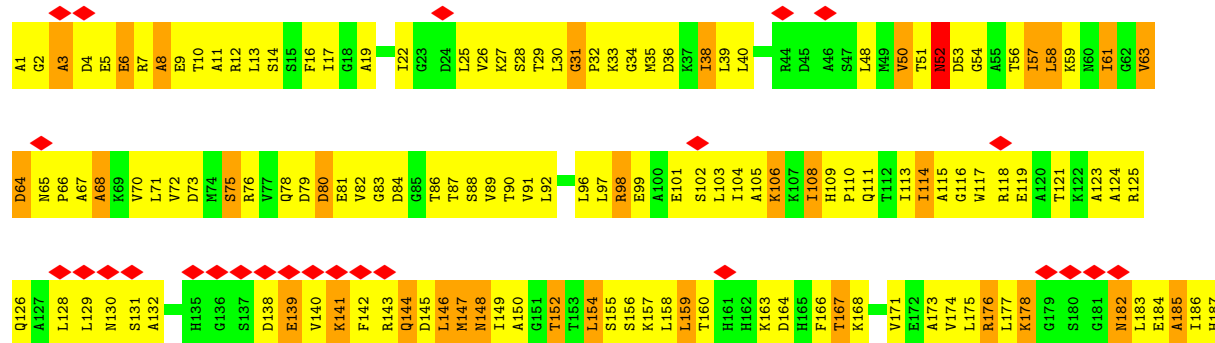


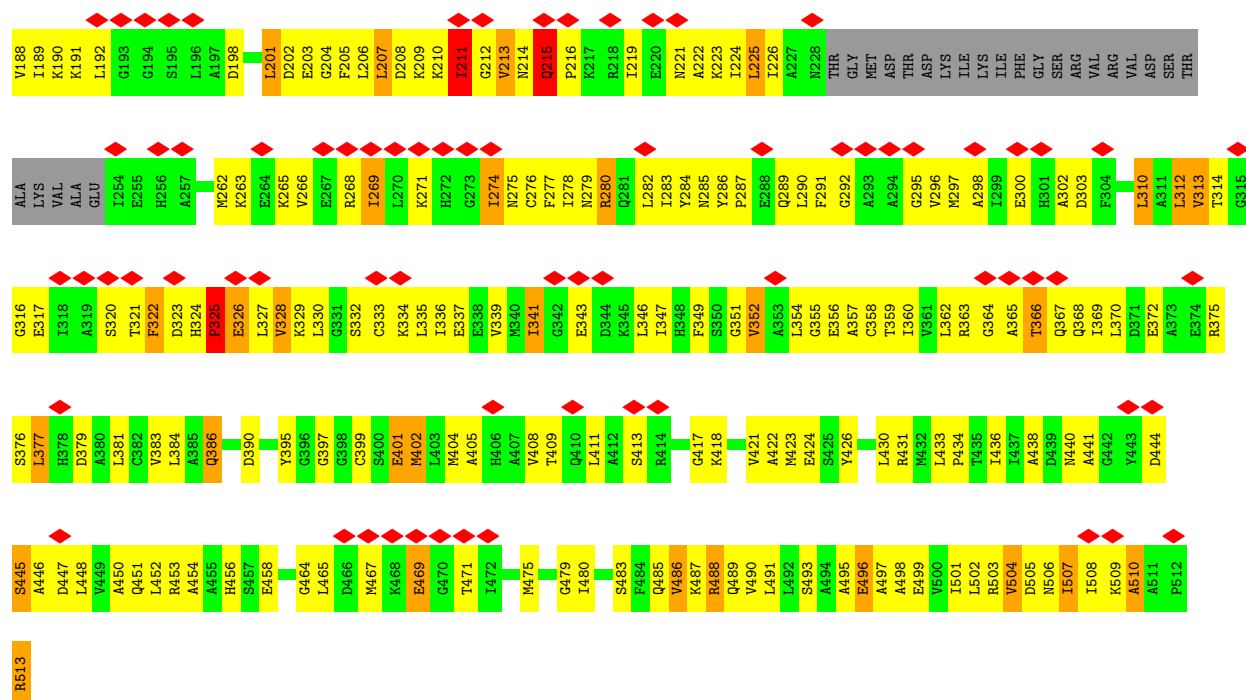


• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA

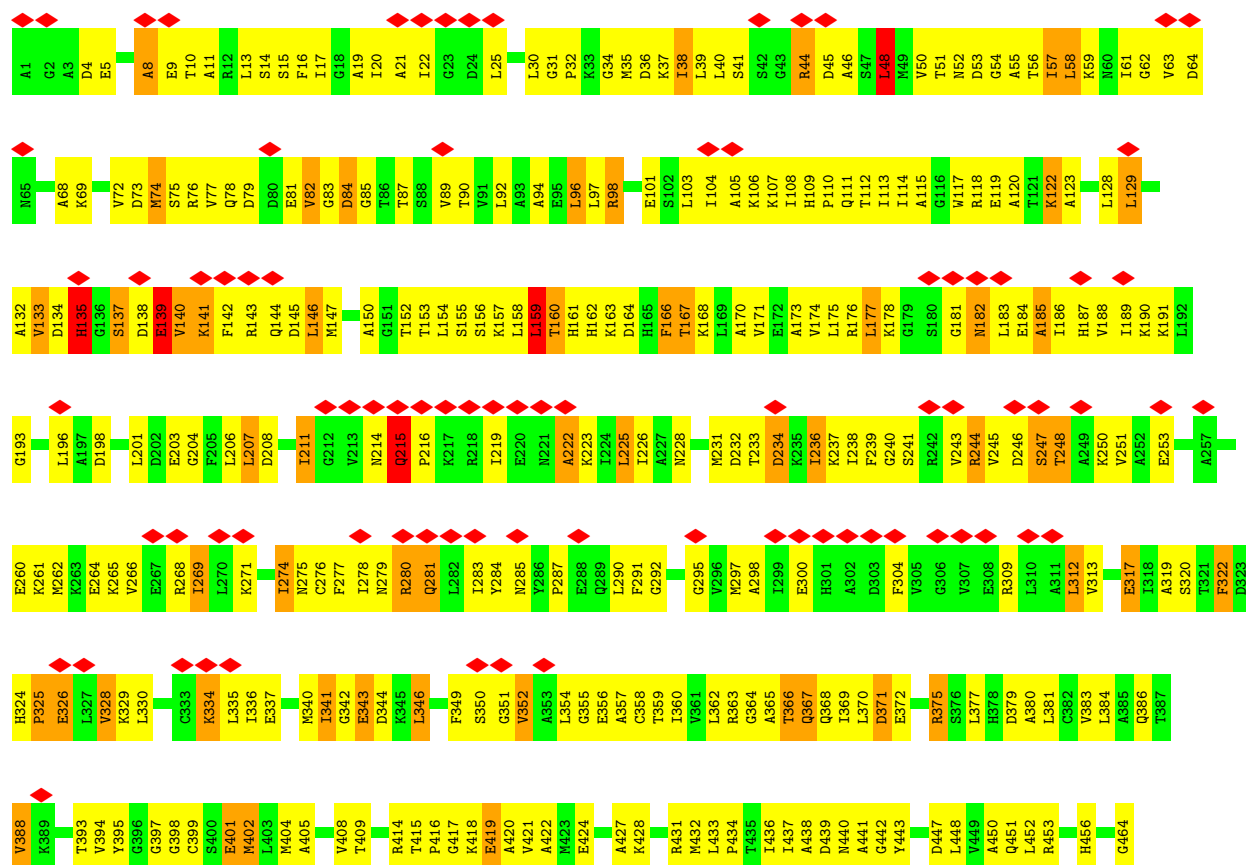


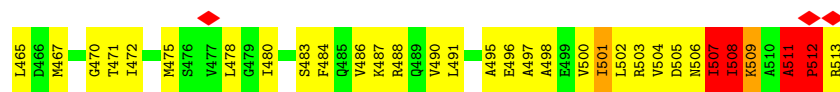
• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA



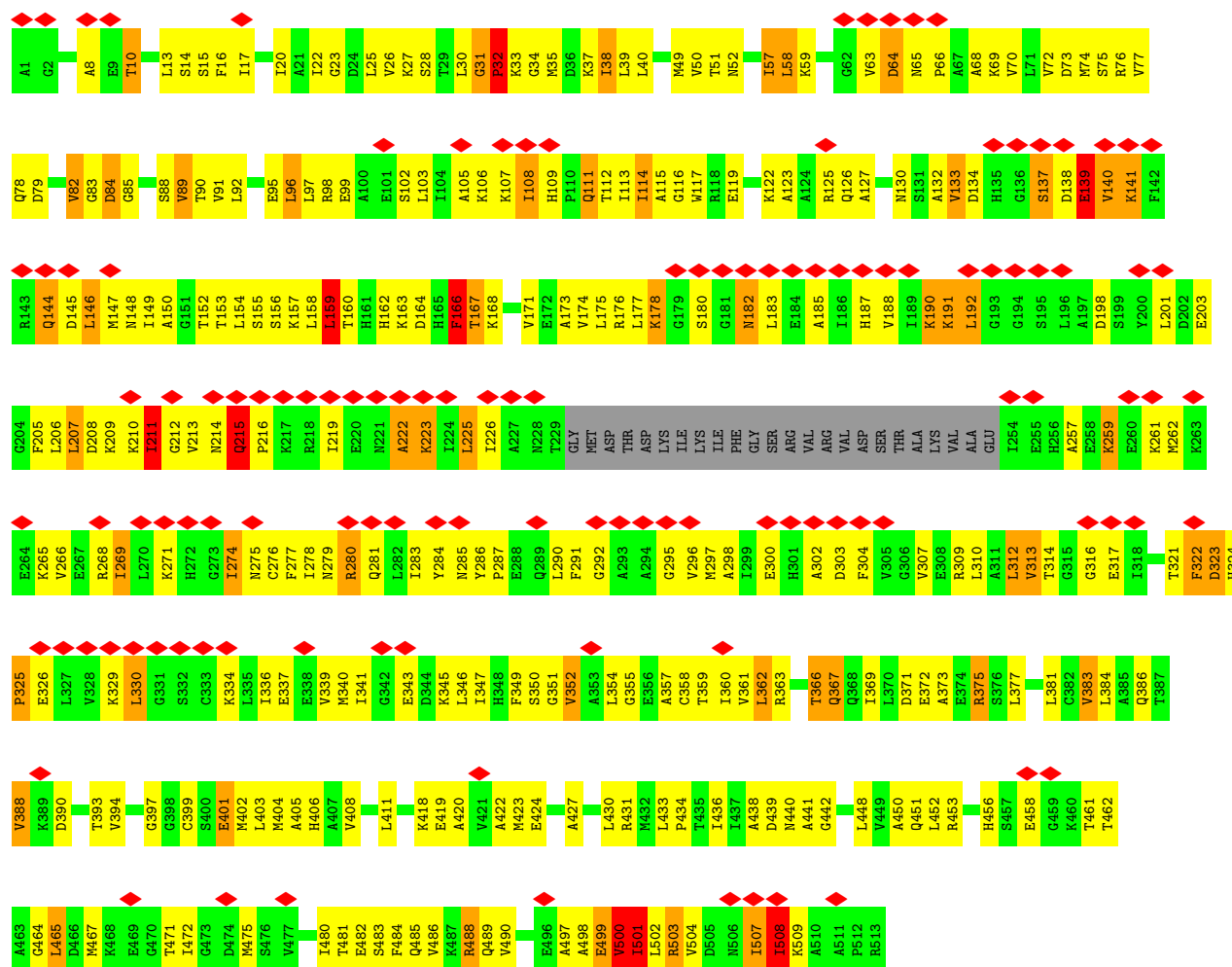


• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA





• Molecule 1: T-COMPLEX PROTEIN 1 SUBUNIT BETA



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	23523	Depositor
Resolution determination method	Not provided	
CTF correction method	EACH MICROGRAPH	Depositor
Microscope	JEOL 3200FSC	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	18	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	3000	Depositor
Magnification	50000	Depositor
Image detector	KODAK SO-163 FILM	Depositor
Maximum map value	1.974	Depositor
Minimum map value	-0.302	Depositor
Average map value	0.068	Depositor
Map value standard deviation	0.257	Depositor
Recommended contour level	1.08	Depositor
Map size ($\text{\AA}$)	345.6, 345.6, 345.6	wwPDB
Map dimensions	144, 144, 144	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	2.4, 2.4, 2.4	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	0.79	2/3896 (0.1%)	1.29	25/5249 (0.5%)
1	B	0.77	0/3705	1.24	22/4992 (0.4%)
1	C	0.86	8/3896 (0.2%)	1.30	35/5249 (0.7%)
1	D	0.74	0/3714	1.21	12/5004 (0.2%)
1	E	0.78	0/3896	1.28	29/5249 (0.6%)
1	F	0.73	1/3896 (0.0%)	1.22	22/5249 (0.4%)
1	G	0.76	0/3697	1.24	19/4981 (0.4%)
1	H	0.76	0/3714	1.31	27/5004 (0.5%)
1	I	0.78	1/3896 (0.0%)	1.28	28/5249 (0.5%)
1	J	0.75	0/3672	1.19	15/4948 (0.3%)
1	K	0.80	1/3711 (0.0%)	1.31	24/5000 (0.5%)
1	L	0.77	0/3746	1.27	30/5047 (0.6%)
1	M	0.77	0/3896	1.26	28/5249 (0.5%)
1	N	0.76	1/3705 (0.0%)	1.26	19/4992 (0.4%)
1	O	0.79	2/3896 (0.1%)	1.26	18/5249 (0.3%)
1	P	0.79	1/3712 (0.0%)	1.27	23/5002 (0.5%)
All	All	0.77	17/60648 (0.0%)	1.26	376/81713 (0.5%)

All (17) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	505	ASP	N-CA	9.16	1.57	1.46
1	C	504	VAL	CA-C	8.50	1.63	1.52
1	C	114	ILE	C-O	-7.77	1.14	1.24
1	O	508	ILE	CA-C	7.62	1.62	1.52
1	C	505	ASP	CA-C	6.38	1.60	1.52
1	A	508	ILE	CA-C	6.32	1.60	1.52
1	N	148	ASN	CA-C	6.30	1.55	1.52
1	C	115	ALA	CA-C	6.03	1.60	1.52
1	F	108	ILE	N-CA	5.94	1.53	1.46
1	P	508	ILE	N-CA	5.81	1.53	1.46
1	C	115	ALA	N-CA	5.57	1.53	1.46
1	I	148	ASN	CA-C	5.32	1.55	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	504	VAL	C-N	5.25	1.40	1.33
1	K	6	GLU	N-CA	5.22	1.52	1.46
1	A	207	LEU	CA-C	5.16	1.55	1.52
1	C	236	ILE	CA-C	5.08	1.59	1.52
1	O	508	ILE	N-CA	5.03	1.52	1.46

All (376) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	H	508	ILE	N-CA-C	19.54	130.46	110.72
1	K	369	ILE	N-CA-C	-12.70	100.71	112.90
1	B	5	GLU	N-CA-C	10.91	123.17	111.28
1	P	499	GLU	N-CA-C	-10.06	100.15	111.71
1	H	507	ILE	CA-C-N	9.97	134.58	120.42
1	H	507	ILE	C-N-CA	9.97	134.58	120.42
1	H	509	LYS	N-CA-C	9.74	125.44	109.95
1	L	48	LEU	N-CA-C	9.24	124.19	113.19
1	C	61	ILE	N-CA-C	9.21	121.00	108.11
1	I	243	VAL	N-CA-C	9.10	122.87	108.85
1	F	107	LYS	N-CA-C	9.08	122.37	111.02
1	K	82	VAL	N-CA-C	-9.03	104.59	111.90
1	O	63	VAL	N-CA-C	8.86	118.93	110.42
1	C	116	GLY	N-CA-C	8.69	123.16	112.73
1	L	63	VAL	N-CA-C	8.69	119.48	110.62
1	C	502	LEU	N-CA-C	-8.58	102.39	112.86
1	E	420	ALA	N-CA-C	8.45	120.49	111.28
1	K	147	MET	N-CA-C	-8.43	101.45	112.24
1	E	507	ILE	N-CA-CB	-8.39	97.39	111.23
1	I	235	LYS	N-CA-C	8.36	120.39	111.28
1	D	506	ASN	N-CA-C	8.35	123.01	111.74
1	H	84	ASP	N-CA-C	8.33	120.14	111.14
1	I	63	VAL	N-CA-C	8.29	119.08	110.62
1	E	512	PRO	N-CA-CB	-8.25	94.59	103.25
1	G	63	VAL	N-CA-C	8.22	119.02	110.72
1	G	445	SER	N-CA-C	8.17	120.19	111.28
1	A	509	LYS	N-CA-C	8.16	123.06	110.42
1	K	5	GLU	N-CA-C	8.11	120.12	111.28
1	E	63	VAL	N-CA-C	8.11	118.89	110.62
1	P	180	SER	N-CA-C	8.10	120.11	111.28
1	D	63	VAL	N-CA-C	8.05	118.83	110.62
1	A	240	GLY	N-CA-C	-7.98	103.15	112.73
1	C	235	LYS	N-CA-C	7.88	119.87	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	P	63	VAL	N-CA-C	7.83	118.60	110.62
1	E	497	ALA	N-CA-C	7.82	119.88	111.36
1	F	138	ASP	N-CA-C	7.81	119.79	111.28
1	A	63	VAL	N-CA-C	7.80	118.58	110.62
1	G	222	ALA	N-CA-C	7.74	121.46	110.23
1	O	501	ILE	N-CA-C	7.73	117.69	110.42
1	E	269	ILE	N-CA-C	7.73	117.84	110.42
1	D	166	PHE	CA-CB-CG	7.68	121.48	113.80
1	A	235	LYS	N-CA-C	7.64	119.69	111.36
1	C	504	VAL	CB-CA-C	7.63	123.81	111.29
1	J	63	VAL	N-CA-C	7.54	118.31	110.62
1	P	500	VAL	CA-C-N	7.52	132.34	120.47
1	P	500	VAL	C-N-CA	7.52	132.34	120.47
1	P	211	ILE	CB-CA-C	-7.51	102.36	111.97
1	B	111	GLN	N-CA-C	7.50	119.46	111.28
1	A	246	ASP	N-CA-C	7.49	119.45	111.28
1	M	243	VAL	N-CA-C	7.45	118.60	108.17
1	K	157	LYS	N-CA-CB	-7.41	98.88	110.06
1	C	507	ILE	CB-CA-C	-7.38	99.18	111.29
1	C	420	ALA	N-CA-C	7.35	119.29	111.28
1	F	269	ILE	N-CA-C	7.34	117.47	110.42
1	K	148	ASN	CB-CA-C	-7.33	105.84	116.54
1	L	369	ILE	N-CA-C	-7.31	105.46	113.43
1	M	61	ILE	N-CA-C	7.28	118.60	108.12
1	L	383	VAL	N-CA-C	7.26	117.39	110.42
1	A	61	ILE	N-CA-C	7.25	119.26	108.46
1	A	30	LEU	N-CA-C	7.22	119.16	111.28
1	H	61	ILE	N-CA-C	7.22	118.52	108.12
1	H	63	VAL	N-CA-C	7.22	117.99	110.62
1	C	507	ILE	N-CA-C	7.20	124.31	109.34
1	G	333	CYS	N-CA-C	7.20	120.35	110.06
1	C	63	VAL	N-CA-C	7.16	117.92	110.62
1	L	467	MET	N-CA-CB	-7.15	99.58	110.16
1	D	269	ILE	N-CA-C	7.14	117.28	110.42
1	F	61	ILE	N-CA-C	7.11	118.72	108.48
1	O	509	LYS	N-CA-CB	-7.09	98.51	110.49
1	C	505	ASP	N-CA-C	7.09	120.79	109.24
1	B	269	ILE	N-CA-C	7.06	117.82	110.62
1	M	418	LYS	CA-C-N	7.06	129.74	120.28
1	M	418	LYS	C-N-CA	7.06	129.74	120.28
1	H	508	ILE	CB-CA-C	-7.06	102.48	112.22
1	N	52	ASN	CA-CB-CG	7.04	119.64	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	P	166	PHE	CA-CB-CG	7.04	120.84	113.80
1	N	313	VAL	N-CA-C	7.00	117.14	110.42
1	G	36	ASP	CA-CB-CG	6.99	119.59	112.60
1	J	61	ILE	N-CA-C	6.97	118.16	108.12
1	F	108	ILE	N-CA-C	6.92	123.75	109.34
1	L	147	MET	N-CA-C	-6.91	104.43	112.86
1	K	63	VAL	N-CA-C	6.88	117.64	110.62
1	O	269	ILE	N-CA-C	6.87	117.01	110.42
1	N	63	VAL	N-CA-C	6.86	117.61	110.62
1	P	366	THR	N-CA-C	6.86	119.58	110.53
1	C	115	ALA	CA-C-N	6.85	127.58	119.98
1	C	115	ALA	C-N-CA	6.85	127.58	119.98
1	B	84	ASP	N-CA-C	6.84	119.74	111.40
1	I	507	ILE	N-CA-C	6.83	119.25	108.87
1	L	180	SER	N-CA-C	6.81	118.70	111.28
1	L	134	ASP	N-CA-C	6.78	118.67	111.28
1	H	508	ILE	N-CA-CB	-6.76	100.44	110.58
1	N	269	ILE	N-CA-C	6.76	116.91	110.42
1	A	507	ILE	N-CA-C	6.75	117.83	111.48
1	E	243	VAL	N-CA-C	6.74	123.36	109.34
1	I	182	ASN	CA-CB-CG	6.72	119.32	112.60
1	J	147	MET	N-CA-C	-6.70	102.69	111.74
1	L	388	VAL	CB-CA-C	-6.69	103.41	111.97
1	K	507	ILE	CB-CA-C	-6.68	100.33	111.29
1	M	269	ILE	N-CA-C	6.68	116.83	110.42
1	C	240	GLY	N-CA-C	-6.66	106.04	115.30
1	B	211	ILE	CB-CA-C	-6.65	103.45	111.97
1	A	211	ILE	CB-CA-C	-6.65	103.46	111.97
1	B	500	VAL	CB-CA-C	-6.64	103.47	111.97
1	L	269	ILE	N-CA-C	6.64	116.80	110.42
1	N	61	ILE	N-CA-C	6.64	117.68	108.12
1	E	240	GLY	N-CA-C	-6.64	106.58	115.21
1	M	508	ILE	N-CA-C	6.62	123.12	109.34
1	K	48	LEU	CA-C-N	-6.62	113.62	122.42
1	K	48	LEU	C-N-CA	-6.62	113.62	122.42
1	D	508	ILE	N-CA-C	6.60	116.76	110.42
1	J	285	ASN	N-CA-C	6.60	118.47	111.28
1	B	504	VAL	N-CA-C	6.59	118.07	108.58
1	M	166	PHE	CA-CB-CG	6.56	120.36	113.80
1	O	185	ALA	N-CA-C	6.53	120.09	111.28
1	K	508	ILE	N-CA-C	6.49	117.23	107.75
1	P	500	VAL	N-CA-C	6.49	122.84	109.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	N	507	ILE	N-CA-CB	-6.47	103.35	111.31
1	I	113	ILE	N-CA-C	-6.46	103.01	111.09
1	C	46	ALA	N-CA-C	6.46	118.40	111.36
1	E	498	ALA	N-CA-C	6.42	117.94	111.07
1	I	61	ILE	N-CA-C	6.42	117.36	108.12
1	F	240	GLY	N-CA-C	-6.41	106.39	115.30
1	E	147	MET	N-CA-C	-6.38	104.08	112.24
1	P	49	MET	N-CA-CB	6.38	120.96	110.69
1	I	508	ILE	N-CA-C	6.37	122.58	109.34
1	G	36	ASP	N-CA-CB	6.34	121.20	110.49
1	E	417	GLY	N-CA-C	6.33	120.55	112.83
1	C	211	ILE	CB-CA-C	-6.32	103.88	111.97
1	L	148	ASN	N-CA-C	6.32	118.17	108.12
1	P	508	ILE	N-CA-C	6.32	122.48	109.34
1	A	285	ASN	N-CA-C	6.31	118.15	111.28
1	H	166	PHE	CA-CB-CG	6.30	120.10	113.80
1	O	135	HIS	CA-CB-CG	6.29	120.09	113.80
1	F	420	ALA	N-CA-C	6.27	117.78	111.07
1	J	142	PHE	N-CA-C	6.26	118.11	111.28
1	H	368	GLN	N-CA-CB	6.26	119.32	110.12
1	M	285	ASN	N-CA-C	6.25	118.09	111.28
1	H	211	ILE	CB-CA-C	-6.25	103.97	111.97
1	N	445	SER	N-CA-C	6.23	118.07	111.28
1	G	211	ILE	CB-CA-C	-6.22	104.01	111.97
1	F	235	LYS	N-CA-C	6.22	118.06	111.28
1	A	512	PRO	N-CA-C	6.21	121.08	111.21
1	H	418	LYS	N-CA-CB	-6.21	101.00	110.12
1	G	285	ASN	N-CA-C	6.21	118.04	111.28
1	J	485	GLN	N-CA-CB	-6.20	101.00	110.12
1	B	61	ILE	N-CA-C	6.19	117.03	108.12
1	F	285	ASN	N-CA-C	6.19	118.03	111.28
1	E	378	HIS	CA-CB-CG	6.18	119.98	113.80
1	L	51	THR	N-CA-C	6.17	118.79	108.73
1	M	235	LYS	N-CA-C	6.16	118.00	111.28
1	A	509	LYS	CA-C-N	6.13	129.42	120.71
1	A	509	LYS	C-N-CA	6.13	129.42	120.71
1	C	421	VAL	N-CA-C	6.12	116.30	110.42
1	N	147	MET	N-CA-C	-6.12	105.05	113.56
1	B	4	ASP	CA-C-N	6.10	128.46	120.28
1	B	4	ASP	C-N-CA	6.10	128.46	120.28
1	N	144	GLN	N-CA-C	-6.09	105.61	113.16
1	I	166	PHE	CA-CB-CG	6.09	119.89	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	510	ALA	N-CA-C	6.07	119.03	110.23
1	M	31	GLY	CA-C-N	6.06	126.23	119.32
1	M	31	GLY	C-N-CA	6.06	126.23	119.32
1	M	445	SER	N-CA-C	6.05	117.88	111.28
1	G	61	ILE	N-CA-C	6.05	117.47	108.46
1	M	69	LYS	N-CA-C	6.05	117.87	111.28
1	C	333	CYS	N-CA-C	6.02	118.67	110.06
1	I	420	ALA	N-CA-C	6.02	117.51	111.07
1	F	109	HIS	CA-C-N	6.00	125.88	119.28
1	F	109	HIS	C-N-CA	6.00	125.88	119.28
1	E	180	SER	N-CA-C	-5.99	104.49	112.94
1	M	242	ARG	N-CA-C	-5.99	97.93	108.23
1	K	333	CYS	N-CA-C	5.98	118.53	110.88
1	M	63	VAL	N-CA-C	5.98	116.16	110.42
1	D	211	ILE	CB-CA-C	-5.96	104.34	111.97
1	H	269	ILE	N-CA-C	5.96	116.14	110.42
1	O	285	ASN	N-CA-C	5.96	117.78	111.28
1	L	333	CYS	N-CA-C	5.93	117.56	110.44
1	E	31	GLY	CA-C-N	5.93	126.08	119.32
1	E	31	GLY	C-N-CA	5.93	126.08	119.32
1	O	61	ILE	N-CA-C	5.92	117.28	108.46
1	B	383	VAL	CB-CA-C	-5.91	104.41	111.97
1	H	142	PHE	N-CA-C	5.91	117.39	111.07
1	I	211	ILE	CB-CA-C	-5.90	104.42	111.97
1	P	501	ILE	N-CA-CB	-5.89	100.57	110.65
1	C	121	THR	N-CA-C	-5.88	104.94	111.71
1	P	488	ARG	CB-CA-C	-5.88	101.66	110.88
1	C	31	GLY	CA-C-N	5.87	127.18	119.84
1	C	31	GLY	C-N-CA	5.87	127.18	119.84
1	L	376	SER	CA-C-N	5.87	128.14	120.28
1	L	376	SER	C-N-CA	5.87	128.14	120.28
1	M	500	VAL	N-CA-C	5.87	116.65	110.72
1	O	507	ILE	N-CA-C	5.84	121.49	109.34
1	P	64	ASP	N-CA-C	5.84	117.09	108.86
1	A	127	ALA	N-CA-C	-5.83	105.93	113.16
1	C	507	ILE	CA-C-N	5.82	132.45	121.97
1	C	507	ILE	C-N-CA	5.82	132.45	121.97
1	I	285	ASN	N-CA-C	5.82	117.62	111.28
1	K	211	ILE	CB-CA-C	-5.81	104.53	111.97
1	N	211	ILE	CB-CA-C	-5.80	104.54	111.97
1	J	383	VAL	CB-CA-C	-5.80	104.54	111.97
1	G	185	ALA	N-CA-C	5.80	119.64	111.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	O	511	ALA	CA-C-N	5.80	127.09	119.84
1	O	511	ALA	C-N-CA	5.80	127.09	119.84
1	F	134	ASP	N-CA-C	-5.77	101.39	109.69
1	K	31	GLY	CA-C-N	5.76	125.89	119.32
1	K	31	GLY	C-N-CA	5.76	125.89	119.32
1	M	107	LYS	CB-CA-C	-5.75	103.57	111.73
1	B	285	ASN	N-CA-C	5.74	117.54	111.28
1	D	505	ASP	CA-CB-CG	5.74	118.34	112.60
1	P	285	ASN	N-CA-C	5.73	117.53	111.28
1	A	243	VAL	N-CA-C	5.73	121.26	109.34
1	N	52	ASN	N-CA-C	-5.72	105.61	112.59
1	L	31	GLY	CA-C-N	5.71	125.83	119.32
1	L	31	GLY	C-N-CA	5.71	125.83	119.32
1	C	504	VAL	CA-CB-CG1	5.69	120.07	110.40
1	M	313	VAL	N-CA-C	5.69	115.88	110.42
1	C	29	THR	N-CA-C	5.69	117.48	111.28
1	N	6	GLU	N-CA-C	5.69	118.14	108.02
1	H	380	ALA	N-CA-C	5.68	117.55	111.36
1	I	508	ILE	CB-CA-C	-5.68	101.98	111.29
1	H	285	ASN	N-CA-C	5.67	117.46	111.28
1	A	503	ARG	N-CA-C	5.67	117.46	111.28
1	O	166	PHE	CA-CB-CG	5.67	119.47	113.80
1	E	242	ARG	N-CA-C	-5.66	98.51	108.20
1	H	194	GLY	N-CA-C	5.65	117.97	111.36
1	I	142	PHE	N-CA-C	5.63	117.10	111.07
1	F	211	ILE	CB-CA-C	-5.63	104.77	111.97
1	M	509	LYS	N-CA-C	5.63	122.79	110.80
1	A	29	THR	N-CA-C	5.62	117.41	111.28
1	D	166	PHE	N-CA-CB	5.62	119.00	110.28
1	E	130	ASN	N-CA-C	-5.60	106.33	114.12
1	E	61	ILE	N-CA-C	5.59	116.73	108.45
1	L	166	PHE	CB-CA-C	-5.59	101.51	110.79
1	M	211	ILE	CB-CA-C	-5.57	104.84	111.97
1	D	107	LYS	N-CA-C	5.56	119.07	111.39
1	B	500	VAL	N-CA-C	5.56	115.76	110.42
1	C	166	PHE	CA-CB-CG	5.54	119.34	113.80
1	F	242	ARG	CB-CA-C	5.54	118.87	109.84
1	H	133	VAL	N-CA-C	5.54	120.86	109.34
1	J	441	ALA	N-CA-C	5.54	117.32	111.28
1	J	480	ILE	N-CA-C	5.54	116.22	109.30
1	O	512	PRO	CA-N-CD	-5.53	104.26	112.00
1	E	211	ILE	CB-CA-C	-5.53	104.90	111.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	K	371	ASP	N-CA-C	-5.53	105.80	112.54
1	E	64	ASP	N-CA-C	5.52	117.37	109.14
1	I	221	ASN	N-CA-C	-5.52	104.28	111.74
1	P	166	PHE	N-CA-CB	5.52	118.83	110.28
1	C	126	GLN	N-CA-C	5.50	117.27	111.28
1	A	513	ARG	N-CA-CB	5.49	119.84	110.50
1	F	135	HIS	CA-CB-CG	-5.49	108.31	113.80
1	C	508	ILE	N-CA-C	5.49	120.75	109.34
1	J	211	ILE	CB-CA-C	-5.48	104.96	111.97
1	L	64	ASP	N-CA-C	5.48	117.73	109.41
1	A	242	ARG	N-CA-C	-5.47	99.15	110.80
1	A	166	PHE	CA-CB-CG	5.46	119.27	113.80
1	C	507	ILE	O-C-N	5.46	129.39	122.57
1	L	285	ASN	N-CA-C	5.45	117.22	111.28
1	K	420	ALA	N-CA-C	5.45	117.30	111.36
1	C	113	ILE	CB-CA-C	-5.44	105.00	111.97
1	F	166	PHE	CA-CB-CG	5.44	119.24	113.80
1	I	64	ASP	N-CA-C	5.44	117.06	108.96
1	I	148	ASN	CA-C-O	5.44	122.87	119.55
1	E	487	LYS	N-CA-C	5.43	117.28	111.36
1	F	108	ILE	CA-C-N	-5.43	116.58	123.15
1	F	108	ILE	C-N-CA	-5.43	116.58	123.15
1	O	222	ALA	N-CA-C	5.43	118.10	110.23
1	C	117	TRP	N-CA-CB	5.43	118.10	110.12
1	G	269	ILE	N-CA-C	5.43	115.63	110.42
1	M	323	ASP	N-CA-C	-5.43	106.43	113.16
1	L	327	LEU	N-CA-C	5.42	117.19	111.28
1	G	365	ALA	N-CA-C	5.42	116.87	111.07
1	N	486	VAL	CB-CA-C	-5.42	104.82	112.14
1	I	240	GLY	N-CA-C	-5.42	108.16	115.21
1	N	285	ASN	N-CA-C	5.41	117.18	111.28
1	O	142	PHE	N-CA-C	5.41	117.17	111.28
1	K	415	THR	CA-C-N	5.40	125.31	119.85
1	K	415	THR	C-N-CA	5.40	125.31	119.85
1	H	107	LYS	N-CA-C	5.40	119.03	111.74
1	B	63	VAL	N-CA-C	5.39	116.12	110.62
1	B	31	GLY	CA-C-N	5.39	125.06	119.56
1	B	31	GLY	C-N-CA	5.39	125.06	119.56
1	M	389	LYS	N-CA-C	5.39	118.07	111.82
1	H	31	GLY	CA-C-N	5.38	125.45	119.32
1	H	31	GLY	C-N-CA	5.38	125.45	119.32
1	C	507	ILE	CA-C-O	5.37	127.49	120.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	368	GLN	N-CA-C	-5.37	105.43	111.28
1	G	32	PRO	CA-C-N	-5.36	115.20	123.14
1	G	32	PRO	C-N-CA	-5.36	115.20	123.14
1	E	118	ARG	CB-CA-C	5.36	119.69	110.79
1	F	30	LEU	N-CA-C	5.36	118.00	110.23
1	I	60	ASN	N-CA-C	5.36	117.12	111.28
1	I	508	ILE	CA-C-N	5.36	131.77	121.54
1	I	508	ILE	C-N-CA	5.36	131.77	121.54
1	I	504	VAL	N-CA-C	5.35	120.47	109.34
1	H	30	LEU	N-CA-C	5.34	118.04	110.50
1	B	502	LEU	CA-C-N	5.34	127.44	120.28
1	B	502	LEU	C-N-CA	5.34	127.44	120.28
1	E	242	ARG	CB-CA-C	5.34	119.32	110.78
1	N	31	GLY	CA-C-N	5.34	125.41	119.32
1	N	31	GLY	C-N-CA	5.34	125.41	119.32
1	K	285	ASN	N-CA-C	5.34	117.10	111.28
1	K	147	MET	N-CA-CB	-5.34	104.19	112.30
1	C	285	ASN	N-CA-C	5.33	117.09	111.28
1	K	166	PHE	CA-CB-CG	5.33	119.13	113.80
1	M	193	GLY	CA-C-N	-5.33	118.02	121.65
1	M	193	GLY	C-N-CA	-5.33	118.02	121.65
1	E	7	ARG	N-CA-C	5.33	122.15	110.80
1	H	505	ASP	CA-CB-CG	5.33	117.92	112.60
1	J	166	PHE	CA-CB-CG	5.33	119.13	113.80
1	A	240	GLY	O-C-N	5.32	127.30	122.19
1	J	327	LEU	N-CA-C	5.31	117.07	111.28
1	E	285	ASN	N-CA-C	5.31	117.06	111.28
1	C	114	ILE	CB-CA-C	5.30	119.98	111.29
1	B	509	LYS	CB-CA-C	-5.29	109.50	115.79
1	K	61	ILE	N-CA-C	5.28	117.46	108.86
1	N	488	ARG	N-CA-C	5.28	117.11	111.36
1	B	6	GLU	N-CA-C	5.27	117.67	110.24
1	G	487	LYS	N-CA-C	5.27	117.11	111.36
1	E	84	ASP	N-CA-C	5.27	118.53	110.36
1	L	369	ILE	CA-C-O	5.27	123.96	118.96
1	P	31	GLY	CA-C-N	5.26	126.42	119.84
1	P	31	GLY	C-N-CA	5.26	126.42	119.84
1	A	28	SER	CA-C-N	5.25	127.31	120.28
1	A	28	SER	C-N-CA	5.25	127.31	120.28
1	L	480	ILE	N-CA-C	5.25	115.41	107.75
1	I	166	PHE	CB-CA-C	-5.24	102.08	110.79
1	H	134	ASP	N-CA-C	5.24	117.78	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	64	ASP	N-CA-C	5.24	116.94	109.14
1	P	313	VAL	N-CA-C	5.21	115.42	110.42
1	P	371	ASP	CA-C-N	5.21	127.26	120.28
1	P	371	ASP	C-N-CA	5.21	127.26	120.28
1	L	64	ASP	CA-C-N	5.19	127.43	120.58
1	L	64	ASP	C-N-CA	5.19	127.43	120.58
1	L	85	GLY	N-CA-C	-5.18	100.90	113.18
1	P	323	ASP	N-CA-C	-5.18	106.73	113.16
1	C	3	ALA	N-CA-C	5.17	121.80	110.80
1	O	371	ASP	N-CA-C	-5.16	106.24	112.54
1	M	240	GLY	N-CA-C	-5.14	106.43	113.27
1	M	418	LYS	N-CA-C	-5.13	106.97	113.18
1	B	211	ILE	N-CA-C	5.13	115.34	110.42
1	N	148	ASN	N-CA-C	5.12	116.26	108.12
1	J	149	ILE	N-CA-C	5.12	115.84	110.62
1	F	313	VAL	N-CA-C	5.12	115.33	110.42
1	K	48	LEU	N-CA-C	5.12	121.70	110.80
1	D	31	GLY	CA-C-N	5.11	124.91	119.28
1	D	31	GLY	C-N-CA	5.11	124.91	119.28
1	J	107	LYS	N-CA-CB	-5.11	104.82	113.15
1	A	185	ALA	N-CA-C	5.11	118.67	111.52
1	F	137	SER	N-CA-C	-5.11	104.19	111.24
1	L	313	VAL	N-CA-C	5.10	115.32	110.42
1	H	333	CYS	N-CA-C	5.10	118.81	112.59
1	I	31	GLY	CA-C-N	5.09	126.20	119.84
1	I	31	GLY	C-N-CA	5.09	126.20	119.84
1	B	327	LEU	N-CA-C	5.08	116.82	111.28
1	N	507	ILE	N-CA-C	5.08	115.66	107.73
1	E	85	GLY	N-CA-C	-5.08	101.14	113.18
1	L	158	LEU	N-CA-C	5.08	116.81	111.28
1	G	30	LEU	N-CA-C	5.07	116.86	108.49
1	I	242	ARG	N-CA-C	-5.07	100.89	108.96
1	E	452	LEU	N-CA-C	5.07	116.50	111.07
1	O	507	ILE	CB-CA-C	-5.07	102.98	111.29
1	L	32	PRO	CA-C-N	-5.06	116.01	122.79
1	L	32	PRO	C-N-CA	-5.06	116.01	122.79
1	O	508	ILE	CB-CA-C	5.04	119.55	111.29
1	I	507	ILE	CA-C-N	5.04	131.03	121.97
1	I	507	ILE	C-N-CA	5.04	131.03	121.97
1	M	237	LYS	N-CA-C	5.04	116.46	111.07
1	H	383	VAL	CB-CA-C	-5.03	105.53	111.97
1	M	85	GLY	N-CA-C	-5.03	101.27	113.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	P	222	ALA	N-CA-C	5.03	117.52	110.23
1	F	243	VAL	N-CA-C	5.02	119.79	109.34
1	J	269	ILE	N-CA-C	5.02	115.24	110.42
1	E	242	ARG	N-CA-CB	-5.01	102.10	110.37
1	G	72	VAL	N-CA-C	5.01	115.73	110.62
1	C	64	ASP	N-CA-C	5.01	116.42	108.96
1	D	414	ARG	N-CA-C	5.00	116.73	111.28

There are no chirality outliers.

There are no planarity outliers.

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	3970	447	0
1	B	3666	0	3772	384	0
1	C	3855	0	3970	541	0
1	D	3675	0	3778	435	0
1	E	3855	0	3970	471	0
1	F	3855	0	3970	352	0
1	G	3658	0	3766	435	0
1	H	3675	0	3778	439	0
1	I	3855	0	3970	464	0
1	J	3634	0	3741	449	0
1	K	3673	0	3778	452	0
1	L	3707	0	3815	495	0
1	M	3855	0	3970	442	0
1	N	3666	0	3772	504	0
1	O	3855	0	3970	457	0
1	P	3673	0	3779	436	0
All	All	60012	0	61769	6699	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 55.

All (6699) 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:C:117:TRP:CE3	1:C:505:ASP:HA	1.82	1.15
1:K:146:LEU:HD12	1:K:171:VAL:HG13	1.14	1.13
1:N:146:LEU:HD12	1:N:171:VAL:HG13	1.26	1.12
1:P:146:LEU:HD12	1:P:171:VAL:HG13	1.31	1.12
1:E:146:LEU:HD12	1:E:171:VAL:HG13	1.24	1.11
1:F:446:ALA:HB2	1:O:108:ILE:HG23	1.31	1.10
1:J:146:LEU:HD12	1:J:171:VAL:HG13	1.30	1.10
1:L:146:LEU:HD21	1:L:150:ALA:HB3	1.34	1.10
1:C:503:ARG:O	1:C:504:VAL:HB	1.54	1.08
1:J:128:LEU:HD13	1:J:394:VAL:HG11	1.35	1.08
1:E:266:VAL:HB	1:E:290:LEU:HD21	1.36	1.07
1:M:146:LEU:HD12	1:M:171:VAL:HG13	1.26	1.07
1:O:146:LEU:HD12	1:O:171:VAL:HG13	1.35	1.07
1:C:266:VAL:HB	1:C:290:LEU:HD21	1.36	1.07
1:F:146:LEU:HD12	1:F:171:VAL:HG13	1.38	1.06
1:M:146:LEU:HD21	1:M:150:ALA:HB3	1.37	1.06
1:I:146:LEU:HD12	1:I:171:VAL:HG13	1.36	1.06
1:F:146:LEU:HD21	1:F:150:ALA:HB3	1.38	1.05
1:M:67:ALA:HA	1:M:507:ILE:HG21	1.35	1.05
1:G:266:VAL:HB	1:G:290:LEU:HD21	1.38	1.04
1:C:133:VAL:HG23	1:C:134:ASP:H	1.23	1.04
1:C:158:LEU:HD21	1:H:503:ARG:HE	1.22	1.03
1:F:38:ILE:HG22	1:F:50:VAL:HB	1.41	1.03
1:I:206:LEU:HD11	1:I:346:LEU:HD23	1.41	1.03
1:N:146:LEU:HD21	1:N:150:ALA:HB3	1.40	1.02
1:I:159:LEU:HD12	1:I:372:GLU:HG2	1.40	1.02
1:L:112:THR:HG23	1:P:442:GLY:HA2	1.42	1.02
1:D:188:VAL:HG11	1:D:377:LEU:HD21	1.40	1.01
1:D:450:ALA:HB2	1:K:420:ALA:HB3	1.39	1.00
1:G:185:ALA:HB3	1:G:357:ALA:HB1	1.43	1.00
1:A:453:ARG:HH21	1:M:420:ALA:HB1	1.26	1.00
1:G:32:PRO:HD2	1:G:467:MET:SD	2.02	1.00
1:P:149:ILE:HD13	1:P:482:GLU:HA	1.41	0.99
1:D:38:ILE:O	1:E:507:ILE:HG23	1.61	0.99
1:O:92:LEU:HD21	1:O:433:LEU:HD11	1.45	0.99
1:J:266:VAL:HB	1:J:290:LEU:HD21	1.42	0.98
1:B:503:ARG:HH22	1:G:158:LEU:HD22	1.28	0.98
1:C:117:TRP:CZ3	1:C:507:ILE:HG23	1.97	0.98
1:I:124:ALA:HA	1:I:491:LEU:HD13	1.45	0.98
1:H:32:PRO:HD2	1:H:467:MET:SD	2.02	0.98
1:O:150:ALA:HB2	1:O:384:LEU:HD21	1.45	0.97
1:C:146:LEU:HD21	1:C:150:ALA:HB3	1.46	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:402:MET:HE3	1:G:453:ARG:HG2	1.46	0.97
1:O:369:ILE:O	1:O:372:GLU:HB3	1.63	0.96
1:A:146:LEU:HD12	1:A:171:VAL:HG13	1.48	0.96
1:D:146:LEU:HD21	1:D:150:ALA:HB3	1.45	0.96
1:J:146:LEU:HD21	1:J:150:ALA:HB3	1.43	0.96
1:K:475:MET:SD	1:K:480:ILE:HB	2.05	0.96
1:H:16:PHE:HA	1:H:97:LEU:HD23	1.48	0.96
1:D:211:ILE:HD11	1:D:297:MET:HG3	1.48	0.96
1:E:108:ILE:HB	1:J:446:ALA:HB3	1.48	0.96
1:G:446:ALA:HB3	1:N:108:ILE:HB	1.47	0.96
1:M:266:VAL:HB	1:M:290:LEU:HD21	1.45	0.96
1:K:124:ALA:HB1	1:K:491:LEU:HD13	1.47	0.96
1:K:511:ALA:HB1	1:K:512:PRO:HD2	1.48	0.95
1:H:364:GLY:HA3	1:H:370:LEU:HD13	1.45	0.95
1:I:74:MET:HE3	1:O:366:THR:HG21	1.48	0.95
1:I:146:LEU:HD21	1:I:150:ALA:HB3	1.46	0.95
1:O:32:PRO:HD2	1:O:467:MET:SD	2.06	0.95
1:A:146:LEU:HD21	1:A:150:ALA:HB3	1.49	0.95
1:B:500:VAL:HG22	1:G:369:ILE:HD11	1.49	0.94
1:D:39:LEU:HB2	1:E:510:ALA:HB3	1.49	0.94
1:G:67:ALA:HB3	1:G:507:ILE:HD12	1.49	0.94
1:A:106:LYS:HE2	1:A:113:ILE:HD11	1.47	0.94
1:O:122:LYS:HE2	1:O:408:VAL:HG12	1.50	0.94
1:E:269:ILE:HG23	1:E:274:ILE:HG21	1.51	0.93
1:G:146:LEU:HD22	1:G:168:LYS:HA	1.50	0.93
1:B:32:PRO:HD2	1:B:467:MET:HE1	1.48	0.93
1:D:508:ILE:HG22	1:D:509:LYS:HG2	1.51	0.93
1:I:35:MET:HE2	1:N:504:VAL:HG11	1.48	0.93
1:N:211:ILE:HD11	1:N:297:MET:HG3	1.49	0.93
1:B:146:LEU:HD21	1:B:167:THR:HG23	1.49	0.93
1:B:402:MET:HE3	1:B:453:ARG:HG2	1.51	0.92
1:N:92:LEU:HD21	1:N:433:LEU:HD11	1.51	0.92
1:F:448:LEU:HD21	1:F:465:LEU:HD12	1.52	0.92
1:J:188:VAL:HG21	1:J:377:LEU:HD13	1.50	0.92
1:A:140:VAL:HA	1:A:175:LEU:HD22	1.49	0.92
1:G:108:ILE:HD11	1:N:445:SER:HB2	1.52	0.92
1:D:133:VAL:HG23	1:D:134:ASP:H	1.35	0.91
1:I:28:SER:HB2	1:I:35:MET:SD	2.10	0.91
1:K:188:VAL:HG13	1:K:377:LEU:HD21	1.51	0.91
1:M:158:LEU:HD21	1:O:500:VAL:HG12	1.50	0.91
1:H:32:PRO:HA	1:H:155:SER:O	1.70	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:149:ILE:HD12	1:K:482:GLU:HA	1.52	0.91
1:H:146:LEU:HD22	1:H:168:LYS:HA	1.52	0.91
1:L:475:MET:SD	1:L:480:ILE:HB	2.09	0.90
1:A:79:ASP:HA	1:A:83:GLY:CA	2.01	0.90
1:G:417:GLY:HA2	1:N:450:ALA:HB1	1.53	0.90
1:N:266:VAL:HB	1:N:290:LEU:HD21	1.52	0.90
1:C:27:LYS:HA	1:C:436:ILE:HD11	1.50	0.90
1:J:188:VAL:HG11	1:J:377:LEU:HD22	1.53	0.90
1:N:206:LEU:HD11	1:N:346:LEU:HD21	1.52	0.90
1:C:117:TRP:CE3	1:C:498:ALA:HB1	2.06	0.90
1:H:411:LEU:HB3	1:H:423:MET:HE3	1.51	0.90
1:I:266:VAL:HB	1:I:290:LEU:HD21	1.50	0.90
1:G:211:ILE:HD11	1:G:297:MET:HG3	1.54	0.90
1:P:500:VAL:HG13	1:P:502:LEU:H	1.32	0.90
1:N:188:VAL:HG11	1:N:377:LEU:HD21	1.53	0.89
1:B:191:LYS:HE2	1:B:346:LEU:HD11	1.53	0.89
1:L:283:ILE:HG22	1:L:300:GLU:HG3	1.54	0.89
1:P:127:ALA:HB2	1:P:404:MET:SD	2.12	0.89
1:D:111:GLN:HA	1:D:114:ILE:HD12	1.54	0.89
1:G:51:THR:HG21	1:G:57:ILE:HB	1.52	0.89
1:J:140:VAL:HA	1:J:175:LEU:HD22	1.51	0.89
1:N:402:MET:HE3	1:N:453:ARG:HG2	1.54	0.89
1:H:27:LYS:HA	1:H:436:ILE:HD11	1.52	0.89
1:K:211:ILE:HD11	1:K:297:MET:HG3	1.54	0.89
1:A:114:ILE:HG23	1:A:499:GLU:HG3	1.55	0.89
1:G:113:ILE:HA	1:G:422:ALA:HB2	1.54	0.89
1:G:146:LEU:HD21	1:G:167:THR:HG23	1.55	0.89
1:K:266:VAL:HB	1:K:290:LEU:HD21	1.54	0.89
1:J:159:LEU:HD11	1:J:372:GLU:HG2	1.54	0.89
1:P:146:LEU:HD21	1:P:150:ALA:HB3	1.55	0.89
1:C:154:LEU:HD22	1:C:167:THR:HB	1.55	0.88
1:P:146:LEU:HD23	1:P:147:MET:H	1.36	0.88
1:L:163:LYS:HA	1:L:166:PHE:CD1	2.08	0.88
1:O:417:GLY:HA2	1:O:420:ALA:HB3	1.55	0.88
1:H:402:MET:HE3	1:H:453:ARG:HG2	1.55	0.88
1:N:82:VAL:HG23	1:N:485:GLN:HB2	1.55	0.88
1:D:501:ILE:HA	1:D:504:VAL:HG23	1.54	0.88
1:I:31:GLY:O	1:I:156:SER:HA	1.74	0.88
1:B:325:PRO:O	1:B:326:GLU:HG3	1.73	0.88
1:M:112:THR:HG23	1:M:418:LYS:HD2	1.53	0.88
1:E:146:LEU:HD12	1:E:171:VAL:CG1	2.04	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:39:LEU:HD22	1:M:3:ALA:HB1	1.54	0.88
1:A:508:ILE:HG22	1:A:509:LYS:H	1.38	0.88
1:O:269:ILE:HG23	1:O:274:ILE:CG2	2.03	0.88
1:P:500:VAL:O	1:P:503:ARG:HG2	1.73	0.88
1:H:166:PHE:CZ	1:H:198:ASP:HB3	2.08	0.88
1:K:149:ILE:HB	1:K:481:THR:O	1.73	0.88
1:N:117:TRP:CZ2	1:N:498:ALA:HB1	2.09	0.88
1:G:148:ASN:HA	1:G:479:GLY:O	1.73	0.88
1:M:174:VAL:HG21	1:M:384:LEU:HB3	1.55	0.88
1:C:117:TRP:N	1:C:505:ASP:HB2	1.89	0.87
1:F:269:ILE:HG23	1:F:274:ILE:CG2	2.04	0.87
1:H:206:LEU:HD11	1:H:346:LEU:HD23	1.55	0.87
1:I:109:HIS:ND1	1:O:442:GLY:HA2	1.87	0.87
1:J:211:ILE:HD11	1:J:297:MET:HG3	1.54	0.87
1:G:438:ALA:HB2	1:G:448:LEU:HG	1.56	0.87
1:C:114:ILE:HG22	1:C:504:VAL:HG13	1.57	0.87
1:D:146:LEU:HD12	1:D:171:VAL:HG13	1.55	0.87
1:N:10:THR:HA	1:N:510:ALA:HB2	1.55	0.87
1:O:508:ILE:HG23	1:O:509:LYS:H	1.39	0.87
1:J:163:LYS:HA	1:J:166:PHE:CD1	2.09	0.87
1:A:508:ILE:HG21	1:F:40:LEU:HG	1.54	0.87
1:E:417:GLY:HA2	1:E:420:ALA:HB3	1.55	0.87
1:D:114:ILE:HD13	1:D:503:ARG:HH21	1.38	0.87
1:I:109:HIS:CE1	1:I:111:GLN:HB2	2.09	0.87
1:M:369:ILE:HD11	1:O:500:VAL:HG11	1.57	0.87
1:N:269:ILE:HG23	1:N:274:ILE:CG2	2.05	0.87
1:A:411:LEU:HB3	1:A:423:MET:SD	2.15	0.87
1:P:266:VAL:HB	1:P:290:LEU:HD21	1.57	0.87
1:L:146:LEU:HD12	1:L:171:VAL:HG13	1.55	0.87
1:B:372:GLU:HG3	1:B:375:ARG:NH2	1.88	0.86
1:G:372:GLU:HA	1:G:375:ARG:NH2	1.89	0.86
1:H:185:ALA:H	1:H:309:ARG:HG2	1.39	0.86
1:I:402:MET:HE3	1:I:453:ARG:HG2	1.57	0.86
1:J:50:VAL:HG22	1:J:375:ARG:NH2	1.88	0.86
1:P:402:MET:HE3	1:P:453:ARG:HG2	1.55	0.86
1:I:111:GLN:HG2	1:O:35:MET:HE3	1.55	0.86
1:E:404:MET:HE3	1:E:430:LEU:HG	1.57	0.86
1:N:110:PRO:HB2	1:N:502:LEU:HD22	1.58	0.86
1:I:58:LEU:HD22	1:N:1:ALA:HA	1.56	0.86
1:J:369:ILE:O	1:J:372:GLU:HB3	1.75	0.86
1:O:402:MET:HE3	1:O:453:ARG:HG2	1.55	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:504:VAL:HG13	1:D:507:ILE:HG13	1.58	0.86
1:H:191:LYS:HZ3	1:H:346:LEU:HD22	1.39	0.86
1:E:133:VAL:HB	1:E:393:THR:O	1.74	0.86
1:F:112:THR:HG21	1:F:418:LYS:HE3	1.58	0.86
1:J:399:CYS:SG	1:J:464:GLY:HA3	2.16	0.86
1:E:454:ALA:HB2	1:J:416:PRO:HA	1.57	0.86
1:D:191:LYS:HZ2	1:D:346:LEU:HD11	1.41	0.86
1:N:163:LYS:HA	1:N:166:PHE:CD1	2.11	0.86
1:E:269:ILE:HG23	1:E:274:ILE:CG2	2.06	0.86
1:G:448:LEU:HD21	1:G:465:LEU:HD12	1.55	0.86
1:K:146:LEU:HD23	1:K:147:MET:H	1.41	0.86
1:B:185:ALA:HB1	1:B:357:ALA:HB2	1.55	0.85
1:J:92:LEU:HD11	1:J:433:LEU:HD21	1.56	0.85
1:I:448:LEU:HD21	1:I:465:LEU:HD12	1.59	0.85
1:N:448:LEU:HD21	1:N:465:LEU:HD12	1.57	0.85
1:K:146:LEU:HD12	1:K:171:VAL:CG1	2.04	0.85
1:A:364:GLY:HA3	1:A:370:LEU:HD13	1.56	0.85
1:F:402:MET:HE3	1:F:453:ARG:HG2	1.57	0.85
1:H:92:LEU:HD11	1:H:433:LEU:HD21	1.59	0.85
1:P:126:GLN:NE2	1:P:408:VAL:HA	1.91	0.85
1:P:154:LEU:HD22	1:P:167:THR:HB	1.58	0.85
1:I:133:VAL:HB	1:I:393:THR:O	1.77	0.85
1:O:146:LEU:HD23	1:O:147:MET:H	1.41	0.85
1:A:163:LYS:HA	1:A:166:PHE:CD1	2.11	0.85
1:A:369:ILE:O	1:A:372:GLU:HB3	1.75	0.85
1:B:50:VAL:O	1:B:375:ARG:HD3	1.77	0.85
1:B:211:ILE:HD11	1:B:297:MET:HG3	1.57	0.84
1:P:15:SER:CB	1:P:501:ILE:HG23	2.07	0.84
1:F:140:VAL:HA	1:F:175:LEU:HD22	1.60	0.84
1:G:146:LEU:HD12	1:G:171:VAL:HG13	1.59	0.84
1:I:211:ILE:HD11	1:I:297:MET:HG3	1.58	0.84
1:D:442:GLY:HA3	1:E:109:HIS:CD2	2.11	0.84
1:F:79:ASP:HA	1:F:83:GLY:CA	2.07	0.84
1:K:40:LEU:HG	1:P:508:ILE:HG21	1.59	0.84
1:O:266:VAL:HB	1:O:290:LEU:HD21	1.59	0.84
1:P:52:ASN:H	1:P:375:ARG:HD3	1.41	0.84
1:C:188:VAL:HG21	1:C:377:LEU:HD21	1.59	0.84
1:P:369:ILE:O	1:P:372:GLU:HB3	1.76	0.84
1:A:171:VAL:HG12	1:A:384:LEU:HG	1.60	0.84
1:M:166:PHE:CZ	1:M:198:ASP:HB3	2.13	0.84
1:K:448:LEU:HD21	1:K:465:LEU:HD12	1.60	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:140:VAL:HA	1:N:175:LEU:HD22	1.59	0.84
1:L:369:ILE:HD11	1:M:504:VAL:HG22	1.57	0.84
1:P:211:ILE:HD11	1:P:297:MET:HG3	1.56	0.84
1:H:146:LEU:HD21	1:H:167:THR:HG23	1.60	0.84
1:P:500:VAL:HG22	1:P:501:ILE:H	1.40	0.84
1:C:31:GLY:O	1:C:156:SER:HA	1.76	0.84
1:C:116:GLY:H	1:C:422:ALA:HB3	1.42	0.84
1:J:191:LYS:HE3	1:J:346:LEU:HD21	1.59	0.84
1:L:496:GLU:O	1:L:499:GLU:HG2	1.78	0.84
1:O:140:VAL:HA	1:O:175:LEU:HD22	1.60	0.84
1:P:32:PRO:HG2	1:P:467:MET:HE1	1.59	0.84
1:C:127:ALA:HB2	1:C:404:MET:SD	2.17	0.83
1:D:171:VAL:HG12	1:D:384:LEU:HG	1.59	0.83
1:I:372:GLU:HA	1:I:375:ARG:CZ	2.08	0.83
1:M:233:THR:HG21	1:M:261:LYS:HE3	1.60	0.83
1:B:369:ILE:O	1:B:372:GLU:HB3	1.78	0.83
1:L:27:LYS:O	1:L:436:ILE:HD11	1.78	0.83
1:B:364:GLY:HA3	1:B:370:LEU:HD13	1.59	0.83
1:K:283:ILE:HG22	1:K:300:GLU:HG3	1.60	0.83
1:K:84:ASP:CG	1:K:379:ASP:HB2	2.03	0.83
1:K:402:MET:HE3	1:K:453:ARG:HG2	1.58	0.83
1:A:266:VAL:HB	1:A:290:LEU:HD21	1.59	0.83
1:D:190:LYS:HA	1:D:362:LEU:O	1.78	0.83
1:D:269:ILE:HG23	1:D:274:ILE:CG2	2.08	0.83
1:H:211:ILE:HD11	1:H:297:MET:HG3	1.59	0.83
1:L:31:GLY:O	1:L:156:SER:HA	1.77	0.83
1:P:265:LYS:O	1:P:269:ILE:HB	1.78	0.83
1:B:433:LEU:O	1:B:436:ILE:HG22	1.78	0.83
1:I:364:GLY:HA3	1:I:370:LEU:HD13	1.61	0.83
1:K:204:GLY:HA3	1:K:349:PHE:O	1.79	0.83
1:C:115:ALA:HA	1:C:504:VAL:HG21	1.59	0.83
1:L:176:ARG:HH21	1:L:360:ILE:HD12	1.41	0.83
1:C:245:VAL:HG11	1:C:250:LYS:HB3	1.60	0.83
1:I:188:VAL:HG21	1:I:377:LEU:HD11	1.61	0.82
1:J:48:LEU:HD23	1:K:510:ALA:HB3	1.59	0.82
1:P:148:ASN:HB2	1:P:481:THR:HG22	1.59	0.82
1:F:211:ILE:HD11	1:F:297:MET:HG3	1.57	0.82
1:L:146:LEU:HD23	1:L:147:MET:H	1.42	0.82
1:C:265:LYS:O	1:C:269:ILE:HB	1.77	0.82
1:L:79:ASP:HA	1:L:83:GLY:CA	2.09	0.82
1:M:116:GLY:HA2	1:M:422:ALA:HB1	1.61	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:397:GLY:HA3	1:N:475:MET:HE1	1.62	0.82
1:O:211:ILE:HD11	1:O:297:MET:HG3	1.60	0.82
1:K:145:ASP:O	1:K:171:VAL:HG11	1.79	0.82
1:H:152:THR:HB	1:H:480:ILE:HG23	1.62	0.82
1:K:127:ALA:HB1	1:K:404:MET:HG3	1.62	0.82
1:B:399:CYS:SG	1:B:464:GLY:HA3	2.20	0.82
1:D:57:ILE:HD12	1:E:509:LYS:HB3	1.60	0.82
1:D:117:TRP:CD1	1:D:495:ALA:HB1	2.15	0.82
1:P:31:GLY:O	1:P:156:SER:HA	1.79	0.82
1:A:132:ALA:HB3	1:A:461:THR:HG21	1.59	0.82
1:K:504:VAL:HG12	1:K:507:ILE:HD13	1.62	0.82
1:L:390:ASP:HB3	1:L:485:GLN:OE1	1.79	0.82
1:L:402:MET:HE3	1:L:453:ARG:HG2	1.59	0.82
1:N:402:MET:SD	1:N:456:HIS:HB2	2.20	0.82
1:M:206:LEU:HD11	1:M:346:LEU:HD23	1.60	0.81
1:B:25:LEU:HD13	1:F:508:ILE:HD11	1.60	0.81
1:C:411:LEU:HD13	1:C:423:MET:HE2	1.62	0.81
1:F:38:ILE:HD12	1:F:48:LEU:HD23	1.62	0.81
1:H:324:HIS:O	1:H:329:LYS:HG2	1.80	0.81
1:I:503:ARG:NH2	1:O:158:LEU:HD23	1.95	0.81
1:J:154:LEU:HD23	1:J:163:LYS:HG3	1.62	0.81
1:P:269:ILE:HG23	1:P:274:ILE:HG21	1.60	0.81
1:D:450:ALA:HB3	1:K:417:GLY:CA	2.10	0.81
1:E:177:LEU:HD23	1:E:186:ILE:HD11	1.62	0.81
1:G:27:LYS:HA	1:G:436:ILE:HD11	1.63	0.81
1:L:38:ILE:HD13	1:M:508:ILE:H	1.43	0.81
1:L:146:LEU:CD2	1:L:167:THR:HG23	2.08	0.81
1:N:92:LEU:HD11	1:N:433:LEU:HG	1.62	0.81
1:O:79:ASP:HA	1:O:83:GLY:CA	2.09	0.81
1:O:133:VAL:HA	1:O:393:THR:O	1.78	0.81
1:O:163:LYS:HA	1:O:166:PHE:CD1	2.16	0.81
1:F:131:SER:H	1:F:403:LEU:HD23	1.45	0.81
1:J:166:PHE:CZ	1:J:198:ASP:HB3	2.15	0.81
1:D:399:CYS:SG	1:D:464:GLY:HA3	2.19	0.81
1:I:146:LEU:HD23	1:I:147:MET:H	1.44	0.81
1:I:324:HIS:O	1:I:329:LYS:HG2	1.80	0.81
1:L:40:LEU:HD12	1:M:509:LYS:HD2	1.61	0.81
1:A:79:ASP:HA	1:A:83:GLY:HA3	1.62	0.81
1:E:11:ALA:HB1	1:E:506:ASN:HB2	1.63	0.81
1:I:372:GLU:HA	1:I:375:ARG:NH2	1.95	0.81
1:E:39:LEU:HD22	1:G:512:PRO:HG2	1.60	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:109:HIS:NE2	1:E:111:GLN:HB2	1.95	0.81
1:F:79:ASP:HA	1:F:83:GLY:HA3	1.63	0.81
1:M:30:LEU:HD13	1:M:436:ILE:HG12	1.62	0.81
1:F:402:MET:SD	1:F:456:HIS:HB2	2.21	0.81
1:H:148:ASN:HA	1:H:479:GLY:O	1.81	0.81
1:O:269:ILE:HG23	1:O:274:ILE:HG21	1.62	0.81
1:C:158:LEU:HD21	1:H:503:ARG:NE	1.96	0.81
1:E:245:VAL:HG21	1:E:250:LYS:HB3	1.61	0.81
1:N:31:GLY:HA3	1:N:440:ASN:CG	2.06	0.81
1:A:92:LEU:HD11	1:A:433:LEU:HD21	1.63	0.80
1:A:211:ILE:HD11	1:A:297:MET:HG3	1.61	0.80
1:H:107:LYS:HB3	1:L:108:ILE:HG23	1.63	0.80
1:K:343:GLU:CG	1:K:344:ASP:H	1.94	0.80
1:O:364:GLY:HA2	1:O:370:LEU:HD13	1.61	0.80
1:A:283:ILE:HG22	1:A:300:GLU:HG3	1.63	0.80
1:I:116:GLY:O	1:I:119:GLU:HB2	1.80	0.80
1:J:219:ILE:HD11	1:J:336:ILE:HB	1.61	0.80
1:K:452:LEU:HD13	1:K:465:LEU:HD13	1.63	0.80
1:M:67:ALA:HA	1:M:507:ILE:CG2	2.10	0.80
1:M:402:MET:HE3	1:M:453:ARG:HG2	1.64	0.80
1:D:402:MET:SD	1:D:453:ARG:HA	2.20	0.80
1:D:402:MET:HE3	1:D:453:ARG:HG2	1.62	0.80
1:H:146:LEU:HD12	1:H:171:VAL:HG13	1.62	0.80
1:E:417:GLY:HA3	1:J:450:ALA:O	1.80	0.80
1:G:416:PRO:HB3	1:N:454:ALA:HB2	1.63	0.80
1:G:446:ALA:HB3	1:N:108:ILE:CB	2.12	0.80
1:M:364:GLY:HA3	1:M:370:LEU:HD13	1.63	0.80
1:N:154:LEU:HD21	1:N:163:LYS:HG3	1.64	0.80
1:K:31:GLY:HA3	1:K:440:ASN:OD1	1.80	0.80
1:I:37:LYS:HB3	1:N:6:GLU:N	1.97	0.80
1:M:79:ASP:HA	1:M:83:GLY:CA	2.12	0.80
1:C:114:ILE:HG22	1:C:504:VAL:CG1	2.11	0.80
1:C:375:ARG:HG2	1:C:376:SER:N	1.95	0.80
1:D:269:ILE:HG23	1:D:274:ILE:HG21	1.63	0.79
1:H:399:CYS:SG	1:H:464:GLY:HA3	2.22	0.79
1:H:416:PRO:HA	1:P:450:ALA:HB1	1.64	0.79
1:A:32:PRO:HD2	1:A:467:MET:SD	2.21	0.79
1:D:35:MET:HE1	1:E:111:GLN:HG2	1.62	0.79
1:I:52:ASN:H	1:I:375:ARG:HD3	1.46	0.79
1:J:448:LEU:HD21	1:J:465:LEU:HD12	1.64	0.79
1:M:233:THR:O	1:M:234:ASP:HB3	1.82	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:448:LEU:HD21	1:M:465:LEU:HD12	1.63	0.79
1:P:163:LYS:HA	1:P:166:PHE:CE1	2.18	0.79
1:P:402:MET:SD	1:P:456:HIS:HB2	2.22	0.79
1:H:266:VAL:HB	1:H:290:LEU:HD21	1.64	0.79
1:L:70:VAL:HG21	1:P:38:ILE:HD13	1.64	0.79
1:P:163:LYS:HG3	1:P:166:PHE:CD2	2.17	0.79
1:A:453:ARG:NH2	1:M:420:ALA:HB1	1.98	0.79
1:B:500:VAL:HG22	1:G:369:ILE:CD1	2.12	0.79
1:E:146:LEU:HD23	1:E:147:MET:H	1.47	0.79
1:E:421:VAL:HA	1:J:453:ARG:NH2	1.97	0.79
1:G:96:LEU:HD11	1:G:117:TRP:HZ2	1.47	0.79
1:I:163:LYS:HA	1:I:166:PHE:CD1	2.16	0.79
1:L:82:VAL:HG22	1:L:486:VAL:HG12	1.63	0.79
1:B:111:GLN:HG3	1:G:35:MET:SD	2.23	0.79
1:E:126:GLN:O	1:E:130:ASN:HB2	1.82	0.79
1:J:372:GLU:HG3	1:J:375:ARG:NH1	1.98	0.79
1:A:402:MET:HE3	1:A:453:ARG:HG2	1.65	0.79
1:E:313:VAL:HG22	1:E:357:ALA:HB3	1.65	0.79
1:O:185:ALA:HB3	1:O:357:ALA:HB1	1.62	0.79
1:I:369:ILE:O	1:I:372:GLU:HB3	1.82	0.79
1:J:174:VAL:CG1	1:J:384:LEU:HB3	2.13	0.79
1:O:82:VAL:HG11	1:O:486:VAL:HA	1.65	0.79
1:C:433:LEU:O	1:C:436:ILE:HG22	1.82	0.79
1:E:109:HIS:CD2	1:E:111:GLN:HB2	2.18	0.79
1:L:269:ILE:HG23	1:L:274:ILE:CG2	2.13	0.79
1:P:145:ASP:O	1:P:171:VAL:HG11	1.83	0.79
1:I:146:LEU:HD12	1:I:171:VAL:CG1	2.13	0.79
1:C:115:ALA:HB1	1:C:419:GLU:HA	1.64	0.78
1:K:399:CYS:SG	1:K:464:GLY:HA3	2.23	0.78
1:L:84:ASP:CG	1:L:379:ASP:HB3	2.08	0.78
1:M:269:ILE:HG23	1:M:274:ILE:CG2	2.14	0.78
1:O:153:THR:HG21	1:O:379:ASP:HB3	1.65	0.78
1:A:128:LEU:O	1:A:129:LEU:HD22	1.83	0.78
1:D:448:LEU:HD11	1:D:465:LEU:HD11	1.66	0.78
1:N:146:LEU:HD23	1:N:147:MET:H	1.47	0.78
1:D:35:MET:CE	1:E:111:GLN:HG2	2.14	0.78
1:I:265:LYS:O	1:I:269:ILE:HB	1.83	0.78
1:P:119:GLU:CD	1:P:419:GLU:HG2	2.08	0.78
1:A:159:LEU:HD12	1:A:372:GLU:HG2	1.64	0.78
1:B:51:THR:HG21	1:B:56:THR:HB	1.64	0.78
1:J:475:MET:SD	1:J:480:ILE:HB	2.23	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:402:MET:SD	1:P:453:ARG:HA	2.23	0.78
1:G:100:ALA:HA	1:G:103:LEU:HD22	1.64	0.78
1:I:92:LEU:HG	1:I:433:LEU:HD11	1.64	0.78
1:C:115:ALA:HA	1:C:504:VAL:CG2	2.13	0.78
1:E:446:ALA:HB3	1:J:108:ILE:HD12	1.64	0.78
1:L:124:ALA:O	1:L:128:LEU:HG	1.84	0.78
1:M:173:ALA:HB2	1:M:360:ILE:HD11	1.64	0.78
1:A:475:MET:SD	1:A:480:ILE:HB	2.23	0.78
1:C:114:ILE:HA	1:C:505:ASP:O	1.82	0.78
1:E:417:GLY:HA3	1:J:450:ALA:C	2.09	0.78
1:J:146:LEU:HD12	1:J:171:VAL:CG1	2.11	0.78
1:N:149:ILE:HD13	1:N:383:VAL:HG11	1.65	0.78
1:A:158:LEU:HD12	1:C:501:ILE:HG12	1.65	0.78
1:A:324:HIS:O	1:A:329:LYS:HG2	1.84	0.78
1:C:146:LEU:HD13	1:C:168:LYS:HA	1.65	0.78
1:C:411:LEU:HB3	1:C:423:MET:SD	2.23	0.78
1:I:317:GLU:OE1	1:I:329:LYS:HD2	1.84	0.78
1:M:499:GLU:O	1:M:503:ARG:HG2	1.83	0.78
1:O:438:ALA:HB2	1:O:448:LEU:HG	1.66	0.78
1:E:448:LEU:HD21	1:E:465:LEU:HD12	1.63	0.78
1:J:51:THR:HG21	1:J:56:THR:HB	1.66	0.78
1:K:206:LEU:HD21	1:K:346:LEU:HD23	1.66	0.78
1:G:31:GLY:O	1:G:156:SER:HA	1.84	0.77
1:G:129:LEU:HD23	1:G:491:LEU:HD11	1.65	0.77
1:G:79:ASP:HA	1:G:83:GLY:HA3	1.67	0.77
1:I:32:PRO:HD2	1:I:467:MET:HE3	1.67	0.77
1:N:214:ASN:O	1:N:215:GLN:HB2	1.85	0.77
1:I:233:THR:HG21	1:I:261:LYS:HE2	1.67	0.77
1:I:475:MET:SD	1:I:480:ILE:HB	2.24	0.77
1:N:7:ARG:HA	1:N:11:ALA:HB2	1.66	0.77
1:B:269:ILE:HG23	1:B:274:ILE:CG2	2.14	0.77
1:G:166:PHE:HD2	1:G:362:LEU:HD22	1.49	0.77
1:P:503:ARG:HG3	1:P:504:VAL:H	1.50	0.77
1:H:163:LYS:HA	1:H:166:PHE:CD1	2.19	0.77
1:H:185:ALA:HB1	1:H:357:ALA:HB1	1.67	0.77
1:J:31:GLY:O	1:J:156:SER:HA	1.85	0.77
1:M:116:GLY:CA	1:M:422:ALA:HB1	2.15	0.77
1:O:204:GLY:HA3	1:O:349:PHE:O	1.85	0.77
1:P:500:VAL:HG22	1:P:501:ILE:HB	1.65	0.77
1:C:475:MET:SD	1:C:480:ILE:HB	2.24	0.77
1:E:508:ILE:HG13	1:E:509:LYS:N	2.00	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:324:HIS:HB2	1:I:329:LYS:NZ	1.99	0.77
1:J:174:VAL:HG11	1:J:384:LEU:HB3	1.64	0.77
1:K:393:THR:HG22	1:K:483:SER:HA	1.65	0.77
1:O:448:LEU:HD21	1:O:465:LEU:HD12	1.65	0.77
1:A:39:LEU:HD11	1:A:57:ILE:HG13	1.67	0.77
1:G:79:ASP:HA	1:G:83:GLY:CA	2.15	0.77
1:J:411:LEU:HD13	1:J:423:MET:HE2	1.65	0.77
1:P:52:ASN:N	1:P:375:ARG:HD3	2.00	0.77
1:A:116:GLY:CA	1:A:422:ALA:HB1	2.15	0.77
1:C:51:THR:HG21	1:C:56:THR:HB	1.66	0.77
1:C:159:LEU:HD13	1:C:372:GLU:HG2	1.67	0.77
1:J:313:VAL:HG22	1:J:357:ALA:HB3	1.65	0.77
1:A:417:GLY:O	1:M:450:ALA:HB1	1.85	0.77
1:B:313:VAL:HG13	1:B:352:VAL:HB	1.65	0.77
1:F:32:PRO:HG2	1:F:467:MET:HE1	1.67	0.76
1:F:372:GLU:O	1:F:375:ARG:HB3	1.84	0.76
1:O:32:PRO:HA	1:O:155:SER:O	1.85	0.76
1:O:79:ASP:HA	1:O:83:GLY:HA3	1.67	0.76
1:B:159:LEU:HD12	1:B:372:GLU:HG2	1.67	0.76
1:I:269:ILE:HG23	1:I:274:ILE:HG21	1.66	0.76
1:J:408:VAL:HA	1:J:411:LEU:HD12	1.67	0.76
1:M:171:VAL:HG12	1:M:384:LEU:HG	1.67	0.76
1:D:39:LEU:HD23	1:E:507:ILE:HG22	1.64	0.76
1:E:146:LEU:HD23	1:E:147:MET:N	2.01	0.76
1:A:159:LEU:HG	1:A:163:LYS:HG2	1.68	0.76
1:A:372:GLU:HG3	1:A:375:ARG:NH2	2.01	0.76
1:C:48:LEU:HB3	1:H:507:ILE:HD11	1.65	0.76
1:G:106:LYS:O	1:G:107:LYS:HG2	1.84	0.76
1:C:313:VAL:HG22	1:C:357:ALA:HB3	1.67	0.76
1:C:501:ILE:HG23	1:C:502:LEU:HD23	1.68	0.76
1:D:280:ARG:O	1:D:280:ARG:HG3	1.85	0.76
1:L:207:LEU:HD12	1:L:208:ASP:H	1.48	0.76
1:N:154:LEU:HD22	1:N:167:THR:HB	1.68	0.76
1:O:134:ASP:HB2	1:O:393:THR:OG1	1.85	0.76
1:C:211:ILE:HD11	1:C:297:MET:HG3	1.67	0.76
1:I:283:ILE:HG22	1:I:300:GLU:HG3	1.66	0.76
1:L:396:GLY:HA3	1:L:480:ILE:HG22	1.67	0.76
1:B:112:THR:HB	1:B:418:LYS:CE	2.15	0.76
1:D:446:ALA:HB2	1:K:106:LYS:HZ1	1.50	0.76
1:E:79:ASP:HA	1:E:83:GLY:HA3	1.67	0.76
1:M:32:PRO:HA	1:M:155:SER:HB3	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:185:ALA:N	1:H:309:ARG:HG2	1.99	0.76
1:I:507:ILE:HD13	1:O:368:GLN:NE2	2.01	0.76
1:K:146:LEU:CD1	1:K:171:VAL:HG13	2.06	0.76
1:L:138:ASP:O	1:L:139:GLU:HB2	1.85	0.76
1:P:191:LYS:HE3	1:P:346:LEU:HD13	1.67	0.76
1:B:140:VAL:HA	1:B:175:LEU:HD22	1.68	0.76
1:E:402:MET:SD	1:E:456:HIS:HB2	2.26	0.76
1:M:149:ILE:HB	1:M:481:THR:O	1.86	0.76
1:E:324:HIS:HB2	1:E:329:LYS:NZ	2.01	0.76
1:F:369:ILE:O	1:F:372:GLU:HB3	1.86	0.76
1:G:92:LEU:HD11	1:G:433:LEU:HD21	1.67	0.76
1:G:145:ASP:O	1:G:171:VAL:HG11	1.86	0.76
1:J:183:LEU:HD11	1:J:385:ALA:HB1	1.66	0.76
1:L:146:LEU:HD23	1:L:147:MET:N	2.01	0.76
1:L:146:LEU:CD1	1:L:171:VAL:HG13	2.16	0.76
1:G:265:LYS:O	1:G:269:ILE:HB	1.86	0.75
1:K:265:LYS:O	1:K:269:ILE:HB	1.85	0.75
1:L:114:ILE:HA	1:L:117:TRP:CE3	2.21	0.75
1:M:48:LEU:CD1	1:O:508:ILE:HG22	2.17	0.75
1:N:111:GLN:O	1:N:114:ILE:HB	1.86	0.75
1:N:283:ILE:HG22	1:N:300:GLU:HG3	1.67	0.75
1:G:38:ILE:HG21	1:G:368:GLN:NE2	1.99	0.75
1:G:138:ASP:O	1:G:139:GLU:HB2	1.84	0.75
1:H:159:LEU:HG	1:H:163:LYS:HG2	1.67	0.75
1:I:128:LEU:CD2	1:I:488:ARG:HG2	2.16	0.75
1:K:154:LEU:CD2	1:K:167:THR:HB	2.16	0.75
1:D:38:ILE:HG22	1:D:50:VAL:HB	1.67	0.75
1:E:173:ALA:HB1	1:E:360:ILE:HD11	1.68	0.75
1:H:369:ILE:O	1:H:372:GLU:HB3	1.86	0.75
1:K:343:GLU:HG2	1:K:344:ASP:H	1.49	0.75
1:K:396:GLY:HA3	1:K:480:ILE:HG22	1.66	0.75
1:N:146:LEU:CD2	1:N:147:MET:H	2.00	0.75
1:O:31:GLY:O	1:O:156:SER:HA	1.86	0.75
1:P:79:ASP:HA	1:P:83:GLY:HA3	1.68	0.75
1:P:448:LEU:HD21	1:P:465:LEU:HD12	1.68	0.75
1:A:163:LYS:HD2	1:A:166:PHE:CG	2.21	0.75
1:C:114:ILE:C	1:C:504:VAL:HG13	2.11	0.75
1:C:163:LYS:HA	1:C:166:PHE:CD1	2.21	0.75
1:G:402:MET:SD	1:G:456:HIS:HB2	2.26	0.75
1:K:163:LYS:HA	1:K:166:PHE:CD1	2.21	0.75
1:K:188:VAL:HB	1:K:360:ILE:O	1.87	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:30:LEU:HG	1:A:87:THR:O	1.87	0.75
1:B:269:ILE:HG23	1:B:274:ILE:HG21	1.69	0.75
1:I:114:ILE:HD11	1:I:502:LEU:HD23	1.66	0.75
1:I:146:LEU:HD23	1:I:147:MET:N	2.01	0.75
1:J:214:ASN:O	1:J:215:GLN:HB2	1.85	0.75
1:L:226:ILE:HG12	1:L:278:ILE:HG23	1.68	0.75
1:P:15:SER:HB3	1:P:501:ILE:HG23	1.68	0.75
1:C:119:GLU:HB3	1:C:423:MET:HE3	1.68	0.75
1:E:506:ASN:O	1:E:507:ILE:HB	1.86	0.75
1:G:103:LEU:HG	1:G:113:ILE:HD13	1.68	0.75
1:I:32:PRO:HD2	1:I:467:MET:CE	2.16	0.75
1:J:52:ASN:HB2	1:J:375:ARG:NH1	2.01	0.75
1:C:450:ALA:CB	1:L:417:GLY:HA2	2.17	0.75
1:G:128:LEU:HD13	1:G:404:MET:HA	1.67	0.75
1:D:402:MET:SD	1:D:456:HIS:HB2	2.26	0.75
1:F:214:ASN:O	1:F:215:GLN:HB2	1.87	0.75
1:L:38:ILE:O	1:L:38:ILE:HG13	1.86	0.75
1:M:133:VAL:HB	1:M:393:THR:O	1.87	0.75
1:M:145:ASP:O	1:M:171:VAL:HG11	1.87	0.75
1:C:155:SER:HA	1:C:160:THR:HG21	1.67	0.75
1:E:32:PRO:HA	1:E:155:SER:HB3	1.69	0.75
1:K:166:PHE:CZ	1:K:198:ASP:HB3	2.22	0.74
1:L:433:LEU:O	1:L:436:ILE:HG22	1.86	0.74
1:A:399:CYS:SG	1:A:464:GLY:HA3	2.27	0.74
1:E:114:ILE:HG23	1:E:499:GLU:OE2	1.87	0.74
1:E:444:ASP:HB3	1:J:108:ILE:HD13	1.69	0.74
1:I:152:THR:OG1	1:I:480:ILE:HG23	1.87	0.74
1:L:39:LEU:HD12	1:L:57:ILE:HG13	1.68	0.74
1:M:140:VAL:HA	1:M:175:LEU:HD22	1.68	0.74
1:K:324:HIS:O	1:K:329:LYS:HG2	1.86	0.74
1:L:63:VAL:CB	1:M:2:GLY:HA3	2.17	0.74
1:L:71:LEU:HD13	1:L:501:ILE:HD12	1.69	0.74
1:N:101:GLU:O	1:N:104:ILE:HG22	1.86	0.74
1:N:399:CYS:SG	1:N:464:GLY:HA3	2.28	0.74
1:P:283:ILE:HG22	1:P:300:GLU:HG3	1.68	0.74
1:B:503:ARG:NH2	1:G:158:LEU:HD22	2.01	0.74
1:H:186:ILE:HG21	1:H:377:LEU:HD21	1.69	0.74
1:N:208:ASP:O	1:N:209:LYS:HG3	1.87	0.74
1:A:166:PHE:CZ	1:A:198:ASP:HB3	2.22	0.74
1:D:39:LEU:HB2	1:E:510:ALA:CB	2.17	0.74
1:D:450:ALA:HB3	1:K:417:GLY:HA2	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:250:LYS:O	1:F:253:GLU:HG2	1.87	0.74
1:J:128:LEU:CD1	1:J:394:VAL:HG11	2.15	0.74
1:L:178:LYS:HE2	1:L:388:VAL:HG22	1.69	0.74
1:N:209:LYS:NZ	1:N:303:ASP:H	1.85	0.74
1:C:324:HIS:HB2	1:C:329:LYS:NZ	2.01	0.74
1:G:408:VAL:HA	1:G:411:LEU:HD12	1.69	0.74
1:I:146:LEU:CD2	1:I:147:MET:H	2.00	0.74
1:J:29:THR:O	1:J:156:SER:HB2	1.88	0.74
1:J:438:ALA:HB2	1:J:448:LEU:HG	1.69	0.74
1:K:79:ASP:O	1:K:83:GLY:HA2	1.87	0.74
1:L:178:LYS:CB	1:L:388:VAL:HG11	2.18	0.74
1:L:205:PHE:HA	1:L:359:THR:OG1	1.88	0.74
1:P:159:LEU:HD12	1:P:372:GLU:OE2	1.87	0.74
1:P:188:VAL:HG13	1:P:377:LEU:HD21	1.69	0.74
1:E:27:LYS:HA	1:E:436:ILE:HD11	1.70	0.74
1:H:324:HIS:ND1	1:H:325:PRO:HD3	2.03	0.74
1:I:114:ILE:HG23	1:I:499:GLU:OE1	1.86	0.74
1:J:171:VAL:O	1:J:174:VAL:HG13	1.87	0.74
1:K:325:PRO:O	1:K:326:GLU:HG3	1.88	0.74
1:D:475:MET:SD	1:D:480:ILE:HB	2.28	0.74
1:I:150:ALA:HB2	1:I:384:LEU:HD11	1.69	0.74
1:I:159:LEU:HD13	1:I:159:LEU:H	1.52	0.74
1:K:146:LEU:HD23	1:K:147:MET:N	2.02	0.74
1:L:114:ILE:HA	1:L:117:TRP:CZ3	2.23	0.74
1:E:79:ASP:HA	1:E:83:GLY:CA	2.18	0.74
1:F:269:ILE:HG23	1:F:274:ILE:HG22	1.70	0.74
1:H:92:LEU:HG	1:H:433:LEU:HD11	1.70	0.74
1:H:109:HIS:CE1	1:H:111:GLN:HB2	2.22	0.74
1:C:116:GLY:N	1:C:422:ALA:HB3	2.03	0.74
1:N:146:LEU:HD23	1:N:147:MET:N	2.02	0.74
1:B:146:LEU:HD23	1:B:147:MET:H	1.53	0.73
1:G:283:ILE:HG22	1:G:300:GLU:HG3	1.70	0.73
1:L:214:ASN:O	1:L:215:GLN:HB2	1.88	0.73
1:B:146:LEU:HD22	1:B:168:LYS:HA	1.70	0.73
1:H:113:ILE:HG23	1:H:422:ALA:HB2	1.68	0.73
1:H:146:LEU:HD23	1:H:147:MET:H	1.52	0.73
1:K:154:LEU:HD22	1:K:167:THR:HB	1.69	0.73
1:L:25:LEU:HD11	1:M:5:GLU:HA	1.68	0.73
1:O:317:GLU:HB2	1:O:329:LYS:HG2	1.69	0.73
1:A:51:THR:HA	1:A:375:ARG:CD	2.17	0.73
1:B:438:ALA:HB2	1:B:448:LEU:HG	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:32:PRO:CA	1:M:155:SER:HB3	2.18	0.73
1:B:499:GLU:O	1:B:503:ARG:HB2	1.89	0.73
1:L:206:LEU:HD21	1:L:346:LEU:HG	1.68	0.73
1:A:324:HIS:O	1:A:328:VAL:HG23	1.89	0.73
1:E:211:ILE:HD11	1:E:297:MET:HG3	1.70	0.73
1:L:207:LEU:HD12	1:L:208:ASP:N	2.02	0.73
1:L:368:GLN:HG3	1:L:371:ASP:OD2	1.89	0.73
1:P:146:LEU:CD2	1:P:147:MET:H	2.01	0.73
1:B:125:ARG:O	1:B:128:LEU:HD22	1.87	0.73
1:B:441:ALA:HB2	1:B:467:MET:HG2	1.70	0.73
1:C:214:ASN:O	1:C:215:GLN:HB2	1.86	0.73
1:D:58:LEU:HB3	1:D:72:VAL:HG11	1.69	0.73
1:D:206:LEU:HD11	1:D:346:LEU:HD23	1.71	0.73
1:G:438:ALA:CB	1:G:448:LEU:HG	2.19	0.73
1:O:214:ASN:O	1:O:215:GLN:HB2	1.88	0.73
1:F:159:LEU:HD13	1:F:372:GLU:HG2	1.71	0.73
1:H:140:VAL:HA	1:H:175:LEU:HD22	1.70	0.73
1:I:110:PRO:HA	1:I:113:ILE:HD12	1.71	0.73
1:I:188:VAL:HG22	1:I:377:LEU:HD21	1.70	0.73
1:O:283:ILE:HG22	1:O:300:GLU:HG3	1.68	0.73
1:B:24:ASP:O	1:B:27:LYS:HG2	1.89	0.73
1:D:185:ALA:HB3	1:D:357:ALA:HB1	1.70	0.73
1:D:324:HIS:O	1:D:328:VAL:HG13	1.87	0.73
1:H:19:ALA:HB1	1:H:94:ALA:HA	1.71	0.73
1:L:166:PHE:CZ	1:L:198:ASP:HB3	2.24	0.73
1:L:178:LYS:HB3	1:L:388:VAL:HG11	1.70	0.73
1:E:140:VAL:HA	1:E:175:LEU:HD22	1.71	0.73
1:G:225:LEU:HD13	1:G:329:LYS:HE2	1.71	0.73
1:G:475:MET:SD	1:G:480:ILE:HB	2.29	0.73
1:L:25:LEU:HD21	1:M:5:GLU:HG3	1.69	0.73
1:N:142:PHE:O	1:N:143:ARG:HG3	1.89	0.73
1:P:15:SER:HB2	1:P:501:ILE:HG23	1.70	0.73
1:P:59:LYS:HE2	1:P:76:ARG:HB2	1.69	0.73
1:A:313:VAL:HG22	1:A:357:ALA:HB3	1.69	0.73
1:D:140:VAL:HA	1:D:175:LEU:HD22	1.71	0.73
1:G:188:VAL:HG11	1:G:377:LEU:HD22	1.69	0.73
1:P:114:ILE:HA	1:P:117:TRP:CE3	2.24	0.73
1:B:109:HIS:CE1	1:G:35:MET:HE1	2.24	0.72
1:B:146:LEU:CD2	1:B:167:THR:HG23	2.19	0.72
1:B:475:MET:SD	1:B:480:ILE:HB	2.29	0.72
1:I:433:LEU:O	1:I:436:ILE:HG22	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:115:ALA:HB3	1:B:419:GLU:HG2	1.70	0.72
1:C:152:THR:OG1	1:C:480:ILE:HG23	1.89	0.72
1:F:399:CYS:SG	1:F:464:GLY:HA3	2.28	0.72
1:H:38:ILE:HG22	1:H:50:VAL:HB	1.69	0.72
1:J:497:ALA:O	1:J:500:VAL:HG12	1.88	0.72
1:K:188:VAL:HG11	1:K:377:LEU:HD11	1.70	0.72
1:O:438:ALA:CB	1:O:448:LEU:HG	2.18	0.72
1:B:111:GLN:O	1:B:114:ILE:HB	1.89	0.72
1:C:402:MET:HE3	1:C:453:ARG:HG2	1.70	0.72
1:D:325:PRO:O	1:D:326:GLU:HG3	1.89	0.72
1:G:163:LYS:HA	1:G:166:PHE:CD1	2.25	0.72
1:G:324:HIS:O	1:G:329:LYS:HG2	1.90	0.72
1:I:27:LYS:HA	1:I:436:ILE:HD11	1.72	0.72
1:I:35:MET:HE1	1:I:440:ASN:HB2	1.71	0.72
1:M:324:HIS:O	1:M:329:LYS:HG2	1.89	0.72
1:N:124:ALA:HA	1:N:491:LEU:HD13	1.71	0.72
1:B:82:VAL:HG11	1:B:486:VAL:HA	1.70	0.72
1:B:117:TRP:CD1	1:B:495:ALA:HB1	2.24	0.72
1:B:324:HIS:O	1:B:329:LYS:HG2	1.89	0.72
1:D:324:HIS:O	1:D:329:LYS:HG2	1.89	0.72
1:H:146:LEU:HD12	1:H:171:VAL:CG1	2.19	0.72
1:H:159:LEU:HD13	1:H:372:GLU:CG	2.19	0.72
1:I:39:LEU:HD11	1:I:57:ILE:HG13	1.70	0.72
1:L:269:ILE:HG23	1:L:274:ILE:HG22	1.70	0.72
1:M:339:VAL:O	1:M:340:MET:HG3	1.87	0.72
1:B:176:ARG:CZ	1:B:358:CYS:HB2	2.19	0.72
1:M:79:ASP:HA	1:M:83:GLY:HA3	1.69	0.72
1:O:62:GLY:HA2	1:O:509:LYS:NZ	2.03	0.72
1:O:399:CYS:SG	1:O:464:GLY:HA3	2.30	0.72
1:B:411:LEU:HB3	1:B:423:MET:SD	2.30	0.72
1:J:283:ILE:HG22	1:J:300:GLU:HG3	1.70	0.72
1:K:214:ASN:O	1:K:215:GLN:HB2	1.88	0.72
1:L:63:VAL:HB	1:M:2:GLY:HA3	1.72	0.72
1:B:111:GLN:CD	1:B:503:ARG:HD3	2.14	0.72
1:C:114:ILE:HG23	1:C:505:ASP:C	2.15	0.72
1:C:508:ILE:HG23	1:C:509:LYS:H	1.55	0.72
1:F:324:HIS:HB2	1:F:329:LYS:NZ	2.05	0.72
1:A:448:LEU:HD21	1:A:465:LEU:HD12	1.71	0.72
1:C:11:ALA:HB1	1:C:510:ALA:HB2	1.69	0.72
1:F:28:SER:HB2	1:F:35:MET:SD	2.30	0.72
1:G:433:LEU:O	1:G:436:ILE:HG22	1.90	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:154:LEU:HD22	1:I:167:THR:HB	1.70	0.72
1:I:448:LEU:HD21	1:I:465:LEU:CD1	2.20	0.72
1:B:512:PRO:O	1:B:513:ARG:HG2	1.89	0.72
1:E:232:ASP:HA	1:E:284:TYR:CD1	2.25	0.72
1:F:475:MET:SD	1:F:480:ILE:HB	2.30	0.72
1:H:200:TYR:O	1:H:201:LEU:HB2	1.90	0.72
1:I:496:GLU:O	1:I:500:VAL:HG23	1.89	0.72
1:M:393:THR:HG22	1:M:483:SER:HA	1.71	0.72
1:O:497:ALA:O	1:O:500:VAL:HG22	1.90	0.72
1:D:103:LEU:O	1:D:106:LYS:HB3	1.90	0.71
1:D:133:VAL:CG1	1:D:394:VAL:HA	2.19	0.71
1:G:214:ASN:O	1:G:215:GLN:HB2	1.89	0.71
1:H:154:LEU:HD22	1:H:167:THR:HB	1.70	0.71
1:H:448:LEU:HD21	1:H:465:LEU:HD12	1.71	0.71
1:I:50:VAL:HG22	1:I:375:ARG:NH2	2.05	0.71
1:J:103:LEU:HG	1:J:113:ILE:HD13	1.71	0.71
1:C:133:VAL:HB	1:C:393:THR:H	1.55	0.71
1:F:269:ILE:HG23	1:F:274:ILE:HG21	1.71	0.71
1:G:154:LEU:HD23	1:G:163:LYS:HG3	1.72	0.71
1:I:32:PRO:C	1:I:33:LYS:HD2	2.14	0.71
1:K:402:MET:SD	1:K:456:HIS:HB2	2.29	0.71
1:D:433:LEU:O	1:D:436:ILE:HG22	1.90	0.71
1:J:145:ASP:O	1:J:171:VAL:HG11	1.89	0.71
1:J:442:GLY:O	1:K:112:THR:HA	1.90	0.71
1:M:159:LEU:HD22	1:M:163:LYS:HB2	1.72	0.71
1:N:174:VAL:HG21	1:N:384:LEU:HD22	1.71	0.71
1:O:51:THR:HA	1:O:375:ARG:HD2	1.72	0.71
1:P:146:LEU:HD12	1:P:171:VAL:CG1	2.17	0.71
1:B:119:GLU:HB3	1:B:423:MET:HE3	1.72	0.71
1:C:117:TRP:HE3	1:C:504:VAL:O	1.73	0.71
1:E:475:MET:SD	1:E:480:ILE:HB	2.30	0.71
1:H:438:ALA:CB	1:H:448:LEU:HG	2.21	0.71
1:J:32:PRO:HD2	1:J:467:MET:SD	2.30	0.71
1:N:84:ASP:OD2	1:N:379:ASP:HB3	1.90	0.71
1:N:109:HIS:CE1	1:N:111:GLN:HB2	2.25	0.71
1:I:37:LYS:HD2	1:N:5:GLU:HG2	1.72	0.71
1:I:109:HIS:CG	1:O:442:GLY:HA2	2.25	0.71
1:J:59:LYS:HE2	1:J:76:ARG:HB2	1.71	0.71
1:J:324:HIS:HB2	1:J:329:LYS:NZ	2.04	0.71
1:M:269:ILE:HG23	1:M:274:ILE:HG21	1.72	0.71
1:O:106:LYS:HZ1	1:O:421:VAL:HG11	1.56	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:114:ILE:HA	1:P:117:TRP:CZ3	2.25	0.71
1:A:51:THR:HA	1:A:375:ARG:HD3	1.72	0.71
1:B:158:LEU:HB3	1:B:372:GLU:OE2	1.89	0.71
1:F:243:VAL:HG12	1:F:245:VAL:HG23	1.72	0.71
1:M:214:ASN:O	1:M:215:GLN:HB2	1.90	0.71
1:A:25:LEU:HD12	1:C:511:ALA:O	1.91	0.71
1:B:214:ASN:O	1:B:215:GLN:HB2	1.89	0.71
1:D:501:ILE:HA	1:D:504:VAL:CG2	2.20	0.71
1:E:204:GLY:O	1:E:359:THR:HB	1.90	0.71
1:K:146:LEU:CD2	1:K:147:MET:H	2.04	0.71
1:O:146:LEU:HD12	1:O:171:VAL:CG1	2.15	0.71
1:A:417:GLY:C	1:M:450:ALA:HB1	2.16	0.71
1:B:101:GLU:O	1:B:104:ILE:HG12	1.91	0.71
1:B:365:ALA:O	1:B:366:THR:HG22	1.91	0.71
1:D:325:PRO:C	1:D:326:GLU:HG3	2.15	0.71
1:G:108:ILE:HD12	1:N:444:ASP:OD1	1.90	0.71
1:G:399:CYS:SG	1:G:464:GLY:HA3	2.31	0.71
1:M:174:VAL:HG11	1:M:384:LEU:HB2	1.72	0.71
1:N:117:TRP:HZ2	1:N:498:ALA:HB1	1.55	0.71
1:C:110:PRO:O	1:C:114:ILE:HG13	1.90	0.71
1:D:39:LEU:HA	1:E:507:ILE:CG2	2.20	0.71
1:E:399:CYS:SG	1:E:464:GLY:HA3	2.31	0.71
1:H:110:PRO:HA	1:H:113:ILE:HD12	1.72	0.71
1:K:109:HIS:CE1	1:K:111:GLN:HB2	2.26	0.71
1:L:112:THR:HG23	1:P:442:GLY:CA	2.20	0.71
1:N:369:ILE:O	1:N:372:GLU:HB3	1.91	0.71
1:A:508:ILE:HG22	1:A:509:LYS:N	2.03	0.71
1:D:173:ALA:HB2	1:D:360:ILE:HD11	1.72	0.71
1:J:386:GLN:HB3	1:J:485:GLN:OE1	1.91	0.71
1:P:214:ASN:O	1:P:215:GLN:HB2	1.88	0.71
1:A:111:GLN:O	1:A:114:ILE:HB	1.91	0.70
1:D:214:ASN:O	1:D:215:GLN:HB2	1.89	0.70
1:H:214:ASN:O	1:H:215:GLN:HB2	1.88	0.70
1:H:283:ILE:HG22	1:H:300:GLU:HG3	1.72	0.70
1:J:157:LYS:HB3	1:J:159:LEU:HD12	1.73	0.70
1:O:171:VAL:CG1	1:O:384:LEU:HG	2.21	0.70
1:E:19:ALA:HB1	1:E:94:ALA:HA	1.73	0.70
1:E:124:ALA:HB1	1:E:491:LEU:HD13	1.73	0.70
1:F:107:LYS:O	1:F:108:ILE:HG13	1.91	0.70
1:I:127:ALA:HB3	1:I:491:LEU:HD11	1.72	0.70
1:I:240:GLY:O	1:I:241:SER:HB3	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:38:ILE:HD12	1:K:509:LYS:HD3	1.73	0.70
1:J:509:LYS:O	1:N:48:LEU:HD11	1.90	0.70
1:K:219:ILE:HD13	1:K:219:ILE:H	1.56	0.70
1:L:188:VAL:CG1	1:L:377:LEU:HD21	2.21	0.70
1:A:214:ASN:O	1:A:215:GLN:HB2	1.90	0.70
1:B:39:LEU:HD22	1:F:508:ILE:HB	1.73	0.70
1:E:508:ILE:HG13	1:E:509:LYS:H	1.54	0.70
1:F:106:LYS:HE3	1:F:421:VAL:HG11	1.73	0.70
1:H:109:HIS:NE2	1:H:111:GLN:HB2	2.06	0.70
1:H:417:GLY:H	1:P:450:ALA:HB3	1.56	0.70
1:I:372:GLU:HG3	1:I:375:ARG:NH1	2.05	0.70
1:J:40:LEU:HB2	1:K:510:ALA:N	2.06	0.70
1:L:367:GLN:HG3	1:L:369:ILE:HD12	1.72	0.70
1:M:324:HIS:ND1	1:M:325:PRO:HD3	2.06	0.70
1:N:79:ASP:HA	1:N:83:GLY:HA3	1.73	0.70
1:P:188:VAL:CG1	1:P:377:LEU:HD21	2.21	0.70
1:E:214:ASN:O	1:E:215:GLN:HB2	1.90	0.70
1:F:317:GLU:HB3	1:F:329:LYS:HG2	1.73	0.70
1:M:119:GLU:CD	1:M:419:GLU:HG2	2.16	0.70
1:O:154:LEU:HD22	1:O:167:THR:HB	1.74	0.70
1:D:103:LEU:HG	1:D:113:ILE:HD13	1.73	0.70
1:L:154:LEU:HD21	1:L:163:LYS:HG2	1.74	0.70
1:F:145:ASP:O	1:F:171:VAL:HG11	1.92	0.70
1:F:265:LYS:HZ2	1:F:287:PRO:HG3	1.56	0.70
1:H:390:ASP:HB3	1:H:485:GLN:NE2	2.07	0.70
1:K:324:HIS:ND1	1:K:325:PRO:HD3	2.07	0.70
1:L:364:GLY:HA3	1:L:370:LEU:CD1	2.21	0.70
1:N:33:LYS:HB2	1:N:440:ASN:O	1.91	0.70
1:D:185:ALA:HA	1:D:309:ARG:HD2	1.73	0.70
1:E:132:ALA:O	1:E:133:VAL:HG22	1.92	0.70
1:G:108:ILE:HG22	1:G:109:HIS:H	1.57	0.70
1:O:146:LEU:HD21	1:O:150:ALA:HB3	1.74	0.70
1:P:122:LYS:O	1:P:125:ARG:HG2	1.92	0.70
1:A:35:MET:HE2	1:C:502:LEU:HD22	1.74	0.70
1:O:402:MET:SD	1:O:456:HIS:HB2	2.32	0.70
1:A:58:LEU:HB3	1:A:72:VAL:CG1	2.21	0.70
1:D:37:LYS:CB	1:E:508:ILE:HG12	2.21	0.70
1:D:138:ASP:O	1:D:139:GLU:HB2	1.91	0.70
1:F:219:ILE:HD11	1:F:336:ILE:HB	1.72	0.70
1:B:417:GLY:CA	1:I:447:ASP:HA	2.22	0.70
1:E:402:MET:HE3	1:E:453:ARG:HG2	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:372:GLU:HA	1:G:375:ARG:HH22	1.57	0.70
1:P:372:GLU:HG3	1:P:375:ARG:CZ	2.21	0.70
1:D:22:ILE:HD12	1:D:90:THR:HG22	1.74	0.69
1:D:442:GLY:HA3	1:E:109:HIS:NE2	2.06	0.69
1:E:84:ASP:OD2	1:E:379:ASP:HB3	1.91	0.69
1:E:283:ILE:HG22	1:E:300:GLU:HG3	1.73	0.69
1:A:57:ILE:HG23	1:A:58:LEU:HD23	1.74	0.69
1:G:29:THR:O	1:G:156:SER:HB2	1.91	0.69
1:G:123:ALA:O	1:G:128:LEU:HD12	1.92	0.69
1:K:150:ALA:HB1	1:K:167:THR:OG1	1.91	0.69
1:N:146:LEU:CD1	1:N:171:VAL:HG13	2.15	0.69
1:P:70:VAL:HG21	1:P:507:ILE:HG21	1.74	0.69
1:A:503:ARG:HH12	1:F:158:LEU:HD22	1.56	0.69
1:D:88:SER:O	1:D:92:LEU:HD13	1.92	0.69
1:E:154:LEU:HD23	1:E:163:LYS:HG3	1.74	0.69
1:E:163:LYS:HA	1:E:166:PHE:CD1	2.27	0.69
1:G:483:SER:O	1:G:486:VAL:HG22	1.92	0.69
1:H:269:ILE:HG23	1:H:274:ILE:CG2	2.23	0.69
1:I:324:HIS:O	1:I:328:VAL:HG23	1.92	0.69
1:K:146:LEU:HD11	1:K:150:ALA:HB3	1.74	0.69
1:L:39:LEU:HD13	1:M:3:ALA:HB3	1.73	0.69
1:L:324:HIS:HB2	1:L:329:LYS:NZ	2.06	0.69
1:M:67:ALA:CA	1:M:507:ILE:HG21	2.17	0.69
1:A:145:ASP:O	1:A:171:VAL:HG11	1.92	0.69
1:C:226:ILE:HG12	1:C:278:ILE:HG23	1.72	0.69
1:E:39:LEU:HD13	1:G:512:PRO:HG2	1.74	0.69
1:G:146:LEU:HD23	1:G:147:MET:H	1.56	0.69
1:G:188:VAL:HG21	1:G:377:LEU:HD13	1.74	0.69
1:G:414:ARG:O	1:G:414:ARG:HD3	1.92	0.69
1:K:33:LYS:HD3	1:K:441:ALA:O	1.92	0.69
1:K:146:LEU:HD21	1:K:150:ALA:HB3	1.73	0.69
1:N:269:ILE:HG23	1:N:274:ILE:HG21	1.73	0.69
1:P:146:LEU:HD22	1:P:168:LYS:HA	1.74	0.69
1:C:27:LYS:HA	1:C:436:ILE:CD1	2.22	0.69
1:C:163:LYS:HG3	1:C:166:PHE:CG	2.28	0.69
1:C:206:LEU:HD21	1:C:346:LEU:HB3	1.74	0.69
1:E:124:ALA:HB1	1:E:491:LEU:HD22	1.75	0.69
1:E:146:LEU:CD2	1:E:147:MET:H	2.05	0.69
1:F:163:LYS:HA	1:F:166:PHE:CD1	2.26	0.69
1:J:79:ASP:HA	1:J:83:GLY:HA3	1.74	0.69
1:N:119:GLU:CD	1:N:423:MET:HE3	2.18	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:325:PRO:C	1:B:326:GLU:HG3	2.17	0.69
1:D:154:LEU:HD23	1:D:163:LYS:HG3	1.74	0.69
1:E:325:PRO:O	1:E:326:GLU:HG3	1.91	0.69
1:I:37:LYS:HB2	1:N:5:GLU:HG3	1.73	0.69
1:N:115:ALA:O	1:N:119:GLU:HG2	1.92	0.69
1:A:402:MET:SD	1:A:456:HIS:HB2	2.33	0.69
1:D:39:LEU:CB	1:E:510:ALA:HB3	2.22	0.69
1:D:82:VAL:HG11	1:D:486:VAL:HG12	1.74	0.69
1:D:483:SER:O	1:D:486:VAL:HG22	1.93	0.69
1:F:265:LYS:HE2	1:F:322:PHE:CE1	2.28	0.69
1:G:185:ALA:HB3	1:G:357:ALA:CB	2.21	0.69
1:H:11:ALA:HB1	1:H:505:ASP:CB	2.22	0.69
1:K:269:ILE:HG12	1:K:274:ILE:HG21	1.73	0.69
1:K:324:HIS:HB2	1:K:329:LYS:NZ	2.08	0.69
1:O:138:ASP:O	1:O:139:GLU:HB2	1.90	0.69
1:P:70:VAL:HG21	1:P:507:ILE:CG2	2.23	0.69
1:P:190:LYS:O	1:P:190:LYS:HD3	1.92	0.69
1:A:154:LEU:HD22	1:A:167:THR:HB	1.75	0.69
1:B:448:LEU:HD21	1:B:465:LEU:HD12	1.75	0.69
1:E:51:THR:HG21	1:E:56:THR:HB	1.75	0.69
1:H:100:ALA:HA	1:H:103:LEU:HD13	1.75	0.69
1:H:152:THR:CB	1:H:480:ILE:HG23	2.22	0.69
1:J:316:GLY:O	1:J:330:LEU:HB2	1.93	0.69
1:K:483:SER:O	1:K:486:VAL:HG22	1.92	0.69
1:M:316:GLY:O	1:M:330:LEU:HB2	1.93	0.69
1:N:82:VAL:CG2	1:N:485:GLN:HB2	2.22	0.69
1:O:159:LEU:HG	1:O:163:LYS:HG2	1.74	0.69
1:C:117:TRP:CD2	1:C:498:ALA:HB1	2.28	0.69
1:C:188:VAL:HG21	1:C:377:LEU:CD2	2.23	0.69
1:H:146:LEU:HD22	1:H:168:LYS:CA	2.22	0.69
1:I:128:LEU:HD22	1:I:488:ARG:HG2	1.73	0.69
1:L:166:PHE:CE1	1:L:198:ASP:HB3	2.28	0.69
1:M:399:CYS:SG	1:M:464:GLY:HA3	2.33	0.69
1:N:119:GLU:OE1	1:N:423:MET:HE3	1.92	0.69
1:P:173:ALA:HB2	1:P:360:ILE:HD11	1.74	0.69
1:C:74:MET:O	1:C:77:VAL:HG12	1.93	0.69
1:G:128:LEU:CD1	1:G:404:MET:HA	2.23	0.69
1:I:362:LEU:HD11	1:I:377:LEU:HD13	1.75	0.69
1:K:394:VAL:HG21	1:K:487:LYS:HG3	1.75	0.69
1:L:334:LYS:CB	1:L:351:GLY:HA3	2.23	0.69
1:M:127:ALA:HB2	1:M:404:MET:SD	2.33	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:58:LEU:HB3	1:N:72:VAL:HG13	1.73	0.69
1:N:64:ASP:CB	1:N:66:PRO:HD2	2.23	0.69
1:O:146:LEU:HD23	1:O:147:MET:N	2.08	0.69
1:P:32:PRO:HA	1:P:155:SER:C	2.18	0.69
1:H:48:LEU:HD12	1:H:48:LEU:H	1.57	0.68
1:K:499:GLU:HG2	1:K:503:ARG:HE	1.56	0.68
1:D:417:GLY:O	1:K:450:ALA:HB1	1.93	0.68
1:L:174:VAL:HG11	1:L:384:LEU:HB2	1.74	0.68
1:L:176:ARG:HH22	1:L:201:LEU:HD21	1.58	0.68
1:O:146:LEU:CD2	1:O:147:MET:H	2.06	0.68
1:O:401:GLU:HG2	1:O:433:LEU:HD13	1.74	0.68
1:P:146:LEU:HD23	1:P:147:MET:N	2.07	0.68
1:P:399:CYS:SG	1:P:464:GLY:HA3	2.34	0.68
1:B:112:THR:HB	1:B:418:LYS:HE2	1.73	0.68
1:C:106:LYS:C	1:C:107:LYS:HG3	2.16	0.68
1:D:108:ILE:HG23	1:D:109:HIS:H	1.58	0.68
1:I:80:ASP:O	1:I:81:GLU:HG3	1.94	0.68
1:I:483:SER:O	1:I:486:VAL:HG22	1.92	0.68
1:L:117:TRP:CD1	1:L:499:GLU:HB3	2.28	0.68
1:M:324:HIS:O	1:M:328:VAL:HG13	1.93	0.68
1:O:145:ASP:OD1	1:O:171:VAL:HB	1.93	0.68
1:P:190:LYS:HA	1:P:362:LEU:HD13	1.75	0.68
1:P:216:PRO:CG	1:P:295:GLY:HA2	2.23	0.68
1:A:216:PRO:HG2	1:A:295:GLY:HA2	1.74	0.68
1:B:79:ASP:HA	1:B:83:GLY:HA2	1.76	0.68
1:D:96:LEU:HD11	1:D:498:ALA:HB1	1.75	0.68
1:E:103:LEU:O	1:E:106:LYS:HB3	1.94	0.68
1:E:452:LEU:HD13	1:E:465:LEU:HD13	1.75	0.68
1:I:38:ILE:HA	1:I:50:VAL:HB	1.75	0.68
1:K:171:VAL:HA	1:K:174:VAL:CG1	2.22	0.68
1:O:265:LYS:HE2	1:O:322:PHE:CE1	2.28	0.68
1:P:74:MET:O	1:P:77:VAL:HG12	1.93	0.68
1:A:191:LYS:HE3	1:A:346:LEU:HD11	1.75	0.68
1:C:119:GLU:O	1:C:122:LYS:HB3	1.93	0.68
1:D:25:LEU:HD12	1:E:508:ILE:HG22	1.75	0.68
1:E:438:ALA:HB2	1:E:448:LEU:HG	1.75	0.68
1:F:452:LEU:HD13	1:F:465:LEU:HD13	1.76	0.68
1:G:446:ALA:CB	1:N:108:ILE:HB	2.22	0.68
1:H:157:LYS:O	1:H:159:LEU:HD22	1.93	0.68
1:H:452:LEU:HD13	1:H:465:LEU:HD13	1.74	0.68
1:I:54:GLY:O	1:I:58:LEU:HG	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:106:LYS:CE	1:I:421:VAL:HG11	2.24	0.68
1:K:372:GLU:HA	1:K:375:ARG:NE	2.08	0.68
1:L:38:ILE:CG1	1:M:506:ASN:HB3	2.23	0.68
1:B:146:LEU:HD12	1:B:171:VAL:CG1	2.24	0.68
1:B:163:LYS:HA	1:B:166:PHE:CD1	2.28	0.68
1:D:82:VAL:CG1	1:D:486:VAL:HG12	2.24	0.68
1:I:216:PRO:HG2	1:I:295:GLY:HA2	1.76	0.68
1:O:313:VAL:HG22	1:O:357:ALA:HB3	1.74	0.68
1:A:59:LYS:HE2	1:A:76:ARG:HB2	1.75	0.68
1:A:216:PRO:CG	1:A:295:GLY:HA2	2.23	0.68
1:B:27:LYS:CA	1:B:436:ILE:HD11	2.24	0.68
1:D:324:HIS:HB2	1:D:329:LYS:NZ	2.09	0.68
1:D:496:GLU:O	1:D:500:VAL:HG12	1.93	0.68
1:E:100:ALA:HA	1:E:103:LEU:HD23	1.76	0.68
1:I:204:GLY:O	1:I:359:THR:HB	1.94	0.68
1:J:50:VAL:HG22	1:J:375:ARG:HH22	1.55	0.68
1:L:39:LEU:HD22	1:M:3:ALA:CB	2.23	0.68
1:L:178:LYS:HE2	1:L:388:VAL:CG2	2.23	0.68
1:C:52:ASN:H	1:C:375:ARG:HG3	1.58	0.68
1:E:417:GLY:C	1:J:450:ALA:HB1	2.19	0.68
1:G:141:LYS:HG2	1:G:144:GLN:HB2	1.75	0.68
1:G:499:GLU:O	1:G:503:ARG:HG2	1.94	0.68
1:K:338:GLU:OE1	1:K:345:LYS:HD3	1.94	0.68
1:N:31:GLY:C	1:N:156:SER:HA	2.19	0.68
1:C:11:ALA:HB1	1:C:510:ALA:CB	2.23	0.68
1:C:79:ASP:HA	1:C:83:GLY:HA3	1.76	0.68
1:D:12:ARG:HD2	1:D:100:ALA:HB1	1.76	0.68
1:H:185:ALA:HA	1:H:309:ARG:HG2	1.75	0.68
1:J:138:ASP:O	1:J:139:GLU:HB2	1.94	0.68
1:J:171:VAL:HG12	1:J:384:LEU:HG	1.74	0.68
1:K:146:LEU:CD2	1:K:167:THR:HG23	2.24	0.68
1:N:316:GLY:O	1:N:330:LEU:HB2	1.94	0.68
1:A:34:GLY:C	1:A:35:MET:HG3	2.19	0.68
1:A:92:LEU:O	1:A:95:GLU:HG2	1.94	0.68
1:A:133:VAL:HB	1:A:393:THR:O	1.93	0.68
1:A:265:LYS:O	1:A:269:ILE:HB	1.93	0.68
1:B:96:LEU:HD11	1:B:117:TRP:HZ2	1.57	0.68
1:C:79:ASP:HA	1:C:83:GLY:CA	2.24	0.68
1:C:317:GLU:HB2	1:C:329:LYS:HG2	1.75	0.68
1:I:37:LYS:HB2	1:N:5:GLU:CG	2.24	0.68
1:A:443:TYR:CG	1:A:470:GLY:HA3	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:452:LEU:HD13	1:A:465:LEU:HD13	1.75	0.67
1:C:442:GLY:HA3	1:H:109:HIS:H	1.59	0.67
1:C:499:GLU:O	1:C:500:VAL:HG22	1.95	0.67
1:E:92:LEU:HD11	1:E:433:LEU:HD21	1.75	0.67
1:H:103:LEU:HD23	1:H:113:ILE:HD13	1.76	0.67
1:H:433:LEU:O	1:H:436:ILE:HG22	1.94	0.67
1:I:226:ILE:HD12	1:I:317:GLU:HG3	1.75	0.67
1:O:244:ARG:HG3	1:O:245:VAL:H	1.59	0.67
1:P:206:LEU:HD21	1:P:346:LEU:HD23	1.75	0.67
1:A:219:ILE:HD11	1:A:336:ILE:HB	1.75	0.67
1:B:32:PRO:CD	1:B:467:MET:HE1	2.21	0.67
1:C:231:MET:HB2	1:C:284:TYR:H	1.59	0.67
1:D:130:ASN:O	1:D:131:SER:HB3	1.94	0.67
1:E:111:GLN:O	1:E:114:ILE:HB	1.94	0.67
1:F:402:MET:SD	1:F:453:ARG:HA	2.34	0.67
1:H:114:ILE:HG13	1:H:503:ARG:NH2	2.09	0.67
1:H:269:ILE:HG23	1:H:274:ILE:HG21	1.76	0.67
1:J:101:GLU:O	1:J:104:ILE:HG22	1.93	0.67
1:P:85:GLY:O	1:P:153:THR:HA	1.95	0.67
1:C:133:VAL:HG23	1:C:134:ASP:N	2.05	0.67
1:J:380:ALA:O	1:J:384:LEU:HD22	1.93	0.67
1:L:171:VAL:O	1:L:174:VAL:HG22	1.94	0.67
1:M:240:GLY:O	1:M:241:SER:HB2	1.94	0.67
1:O:145:ASP:O	1:O:171:VAL:HG11	1.95	0.67
1:O:441:ALA:HB2	1:O:467:MET:HG2	1.76	0.67
1:B:483:SER:O	1:B:486:VAL:HG22	1.95	0.67
1:H:171:VAL:O	1:H:174:VAL:HG22	1.94	0.67
1:I:35:MET:CG	1:N:504:VAL:HG21	2.24	0.67
1:I:59:LYS:HE2	1:I:76:ARG:HB2	1.77	0.67
1:J:402:MET:HE3	1:J:453:ARG:HG2	1.75	0.67
1:K:114:ILE:HA	1:K:117:TRP:CE3	2.29	0.67
1:K:114:ILE:HG23	1:K:499:GLU:HG3	1.74	0.67
1:K:219:ILE:HD11	1:K:336:ILE:HB	1.75	0.67
1:L:364:GLY:HA3	1:L:370:LEU:HD13	1.74	0.67
1:E:188:VAL:HG11	1:E:377:LEU:HB3	1.76	0.67
1:H:192:LEU:HG	1:H:366:THR:HG22	1.76	0.67
1:J:38:ILE:HG22	1:J:50:VAL:HB	1.77	0.67
1:M:140:VAL:H	1:M:178:LYS:HZ2	1.41	0.67
1:M:163:LYS:HA	1:M:166:PHE:CD1	2.29	0.67
1:P:50:VAL:HG22	1:P:375:ARG:NH2	2.09	0.67
1:A:96:LEU:HD13	1:A:97:LEU:N	2.09	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:159:LEU:HG	1:C:163:LYS:CD	2.25	0.67
1:D:96:LEU:HD11	1:D:498:ALA:CB	2.25	0.67
1:E:446:ALA:CB	1:J:108:ILE:HD12	2.25	0.67
1:H:219:ILE:HD11	1:H:336:ILE:HB	1.75	0.67
1:I:438:ALA:HB2	1:I:448:LEU:HG	1.76	0.67
1:K:187:HIS:O	1:K:359:THR:HG23	1.95	0.67
1:P:154:LEU:HD21	1:P:163:LYS:NZ	2.10	0.67
1:P:316:GLY:O	1:P:330:LEU:HD23	1.94	0.67
1:C:28:SER:HB2	1:C:35:MET:SD	2.35	0.67
1:C:58:LEU:HB3	1:C:72:VAL:CG1	2.25	0.67
1:C:116:GLY:O	1:C:119:GLU:HB2	1.95	0.67
1:E:146:LEU:HD11	1:E:150:ALA:HB3	1.77	0.67
1:G:145:ASP:OD1	1:G:171:VAL:HB	1.93	0.67
1:J:29:THR:HG21	1:J:52:ASN:O	1.93	0.67
1:L:216:PRO:HG2	1:L:295:GLY:HA2	1.77	0.67
1:N:110:PRO:HB2	1:N:502:LEU:CD2	2.25	0.67
1:N:166:PHE:CZ	1:N:198:ASP:HB2	2.30	0.67
1:N:190:LYS:HA	1:N:362:LEU:O	1.93	0.67
1:O:342:GLY:C	1:O:343:GLU:HG3	2.20	0.67
1:P:52:ASN:ND2	1:P:157:LYS:HG2	2.10	0.67
1:P:123:ALA:O	1:P:126:GLN:HB3	1.95	0.67
1:B:117:TRP:HD1	1:B:495:ALA:HB1	1.60	0.67
1:G:166:PHE:CD2	1:G:362:LEU:HD22	2.29	0.67
1:H:112:THR:HG23	1:H:418:LYS:HE3	1.75	0.67
1:K:183:LEU:O	1:K:184:GLU:HG3	1.95	0.67
1:L:79:ASP:HA	1:L:83:GLY:HA3	1.75	0.67
1:O:128:LEU:HD21	1:O:488:ARG:HA	1.75	0.67
1:O:504:VAL:HG11	1:O:507:ILE:HD11	1.76	0.67
1:P:145:ASP:OD1	1:P:171:VAL:HB	1.95	0.67
1:A:114:ILE:CG2	1:A:499:GLU:HG3	2.24	0.67
1:C:204:GLY:O	1:C:359:THR:HB	1.94	0.67
1:C:269:ILE:HG23	1:C:274:ILE:HG21	1.75	0.67
1:D:37:LYS:HB3	1:E:508:ILE:HG12	1.77	0.67
1:E:129:LEU:HD21	1:E:392:ARG:HH21	1.60	0.67
1:I:27:LYS:HB2	1:I:436:ILE:HG13	1.77	0.67
1:L:367:GLN:CG	1:L:369:ILE:HB	2.25	0.67
1:M:119:GLU:OE2	1:M:419:GLU:HG2	1.95	0.67
1:M:152:THR:HA	1:M:155:SER:OG	1.95	0.67
1:O:114:ILE:HA	1:O:117:TRP:CE3	2.30	0.67
1:P:96:LEU:HD13	1:P:96:LEU:C	2.20	0.67
1:B:143:ARG:HA	1:B:143:ARG:HE	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:421:VAL:HA	1:L:453:ARG:HH22	1.60	0.67
1:C:511:ALA:HB3	1:C:512:PRO:HD3	1.76	0.67
1:E:29:THR:O	1:E:156:SER:HB2	1.94	0.67
1:G:51:THR:HA	1:G:375:ARG:NE	2.10	0.67
1:K:146:LEU:HD11	1:K:150:ALA:CB	2.24	0.67
1:B:154:LEU:HD22	1:B:167:THR:HB	1.77	0.66
1:B:163:LYS:O	1:B:166:PHE:HB2	1.95	0.66
1:B:324:HIS:ND1	1:B:325:PRO:HD3	2.11	0.66
1:H:114:ILE:HG13	1:H:503:ARG:HH22	1.59	0.66
1:H:219:ILE:HD12	1:H:275:ASN:HB3	1.77	0.66
1:P:84:ASP:OD2	1:P:383:VAL:HG12	1.95	0.66
1:P:452:LEU:HD13	1:P:465:LEU:HD13	1.77	0.66
1:B:114:ILE:HA	1:B:117:TRP:CE3	2.30	0.66
1:B:146:LEU:HD12	1:B:171:VAL:HG13	1.76	0.66
1:C:114:ILE:O	1:C:505:ASP:N	2.26	0.66
1:E:106:LYS:HD3	1:E:421:VAL:HG11	1.77	0.66
1:H:186:ILE:CG2	1:H:377:LEU:HD21	2.25	0.66
1:H:324:HIS:O	1:H:328:VAL:HG23	1.94	0.66
1:K:203:GLU:HG2	1:K:350:SER:HB2	1.76	0.66
1:M:84:ASP:OD2	1:M:379:ASP:HB2	1.94	0.66
1:N:324:HIS:ND1	1:N:325:PRO:HD3	2.09	0.66
1:O:50:VAL:HG22	1:O:375:ARG:NH1	2.11	0.66
1:B:99:GLU:CG	1:B:425:SER:HB2	2.25	0.66
1:C:434:PRO:HB3	1:C:452:LEU:CD2	2.25	0.66
1:C:442:GLY:O	1:H:108:ILE:HB	1.96	0.66
1:D:74:MET:O	1:D:77:VAL:HG12	1.95	0.66
1:D:478:LEU:HB3	1:D:480:ILE:HD13	1.76	0.66
1:L:146:LEU:CD2	1:L:147:MET:H	2.08	0.66
1:L:188:VAL:CG2	1:L:377:LEU:HD21	2.25	0.66
1:A:159:LEU:CD1	1:A:372:GLU:HG2	2.26	0.66
1:C:92:LEU:HG	1:C:433:LEU:HD11	1.77	0.66
1:C:176:ARG:HD2	1:C:358:CYS:SG	2.36	0.66
1:H:116:GLY:O	1:H:119:GLU:HB2	1.95	0.66
1:K:188:VAL:CG1	1:K:377:LEU:HD11	2.25	0.66
1:M:31:GLY:O	1:M:156:SER:HA	1.95	0.66
1:M:452:LEU:HD13	1:M:465:LEU:HD13	1.77	0.66
1:N:509:LYS:HG2	1:N:510:ALA:N	2.10	0.66
1:C:324:HIS:ND1	1:C:325:PRO:HD3	2.09	0.66
1:E:381:LEU:O	1:E:381:LEU:HD22	1.95	0.66
1:E:418:LYS:N	1:J:450:ALA:HB1	2.10	0.66
1:E:444:ASP:HB3	1:J:108:ILE:CD1	2.25	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:451:GLN:NE2	1:J:471:THR:HA	2.10	0.66
1:K:140:VAL:HA	1:K:175:LEU:HD22	1.78	0.66
1:K:507:ILE:HB	1:K:513:ARG:NH1	2.10	0.66
1:A:511:ALA:H	1:A:512:PRO:CD	2.08	0.66
1:B:324:HIS:HB2	1:B:329:LYS:NZ	2.11	0.66
1:I:16:PHE:HA	1:I:97:LEU:HD23	1.77	0.66
1:I:97:LEU:HD21	1:I:501:ILE:HG21	1.78	0.66
1:I:106:LYS:NZ	1:I:421:VAL:HG11	2.11	0.66
1:K:146:LEU:HD13	1:K:167:THR:O	1.95	0.66
1:K:372:GLU:HA	1:K:375:ARG:CZ	2.24	0.66
1:M:132:ALA:HB3	1:M:461:THR:HG21	1.76	0.66
1:N:224:ILE:HD11	1:N:349:PHE:CE2	2.31	0.66
1:N:438:ALA:HB2	1:N:448:LEU:HG	1.78	0.66
1:O:163:LYS:HD2	1:O:166:PHE:CG	2.31	0.66
1:P:498:ALA:O	1:P:500:VAL:HB	1.95	0.66
1:B:185:ALA:HB2	1:B:312:LEU:HD12	1.75	0.66
1:C:402:MET:SD	1:C:456:HIS:HB2	2.35	0.66
1:I:219:ILE:HD12	1:I:275:ASN:HB3	1.78	0.66
1:M:401:GLU:HG2	1:M:433:LEU:HD22	1.78	0.66
1:O:132:ALA:HB2	1:O:395:TYR:CD2	2.31	0.66
1:O:157:LYS:HB3	1:O:159:LEU:CD1	2.26	0.66
1:P:206:LEU:HD13	1:P:361:VAL:HG21	1.76	0.66
1:B:59:LYS:HE2	1:B:76:ARG:HB2	1.78	0.66
1:B:508:ILE:O	1:B:509:LYS:HG3	1.95	0.66
1:E:32:PRO:CA	1:E:155:SER:HB3	2.26	0.66
1:G:163:LYS:O	1:G:166:PHE:HB2	1.96	0.66
1:K:482:GLU:OE1	1:K:487:LYS:HE3	1.96	0.66
1:M:74:MET:O	1:M:77:VAL:HG12	1.95	0.66
1:N:103:LEU:O	1:N:106:LYS:HG2	1.96	0.66
1:P:155:SER:HA	1:P:160:THR:HG21	1.76	0.66
1:F:185:ALA:HA	1:F:309:ARG:HD2	1.77	0.66
1:I:81:GLU:O	1:I:82:VAL:HB	1.94	0.66
1:I:111:GLN:O	1:I:114:ILE:HB	1.94	0.66
1:I:364:GLY:HA3	1:I:370:LEU:CD1	2.26	0.66
1:L:38:ILE:O	1:L:39:LEU:HD23	1.96	0.66
1:L:149:ILE:HB	1:L:481:THR:O	1.95	0.66
1:M:159:LEU:HB3	1:M:369:ILE:HG23	1.78	0.66
1:C:117:TRP:CH2	1:C:507:ILE:HG23	2.30	0.66
1:F:171:VAL:CG1	1:F:384:LEU:HG	2.26	0.66
1:H:159:LEU:HD13	1:H:372:GLU:HG3	1.76	0.66
1:K:32:PRO:N	1:K:155:SER:HB3	2.11	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:127:ALA:CB	1:K:404:MET:HG3	2.26	0.66
1:K:145:ASP:OD1	1:K:171:VAL:HB	1.96	0.66
1:L:438:ALA:CB	1:L:448:LEU:HG	2.26	0.66
1:O:324:HIS:HB2	1:O:329:LYS:NZ	2.10	0.66
1:P:79:ASP:HA	1:P:83:GLY:CA	2.25	0.66
1:A:37:LYS:HD2	1:C:512:PRO:HD3	1.78	0.65
1:B:52:ASN:N	1:B:375:ARG:HD2	2.11	0.65
1:M:475:MET:SD	1:M:480:ILE:HB	2.37	0.65
1:N:483:SER:O	1:N:486:VAL:HG22	1.96	0.65
1:O:245:VAL:HG11	1:O:250:LYS:HB3	1.76	0.65
1:P:52:ASN:CB	1:P:375:ARG:HD3	2.26	0.65
1:B:418:LYS:O	1:B:421:VAL:HG12	1.95	0.65
1:G:404:MET:HE3	1:G:430:LEU:HD11	1.77	0.65
1:I:434:PRO:HB3	1:I:452:LEU:CD2	2.26	0.65
1:J:30:LEU:HB2	1:J:440:ASN:OD1	1.96	0.65
1:J:52:ASN:H	1:J:375:ARG:NE	1.94	0.65
1:L:32:PRO:CG	1:L:467:MET:SD	2.84	0.65
1:M:32:PRO:HD2	1:M:467:MET:SD	2.37	0.65
1:M:38:ILE:HD13	1:O:507:ILE:HA	1.77	0.65
1:M:123:ALA:O	1:M:126:GLN:HB2	1.97	0.65
1:B:486:VAL:O	1:B:490:VAL:HG13	1.96	0.65
1:E:154:LEU:CD2	1:E:163:LYS:HG3	2.26	0.65
1:H:74:MET:O	1:H:77:VAL:HG12	1.97	0.65
1:H:451:GLN:NE2	1:H:471:THR:HA	2.12	0.65
1:H:484:PHE:CE2	1:H:488:ARG:HD3	2.30	0.65
1:J:163:LYS:HD2	1:J:166:PHE:CG	2.31	0.65
1:K:85:GLY:O	1:K:153:THR:HA	1.97	0.65
1:L:89:VAL:HG12	1:L:490:VAL:HG23	1.77	0.65
1:L:148:ASN:HA	1:L:480:ILE:HA	1.78	0.65
1:L:399:CYS:SG	1:L:464:GLY:HA3	2.36	0.65
1:N:64:ASP:HB3	1:N:66:PRO:HD2	1.77	0.65
1:O:128:LEU:O	1:O:129:LEU:HD22	1.97	0.65
1:C:149:ILE:O	1:C:152:THR:HG22	1.96	0.65
1:E:111:GLN:HA	1:E:114:ILE:CG1	2.25	0.65
1:G:74:MET:O	1:G:77:VAL:HG12	1.95	0.65
1:K:96:LEU:HD13	1:K:97:LEU:N	2.12	0.65
1:L:118:ARG:HH12	1:P:33:LYS:HZ2	1.44	0.65
1:L:448:LEU:HD11	1:L:465:LEU:HD11	1.77	0.65
1:N:216:PRO:CG	1:N:295:GLY:HA2	2.26	0.65
1:N:313:VAL:HG13	1:N:352:VAL:HG11	1.79	0.65
1:O:173:ALA:HB2	1:O:360:ILE:HD11	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:145:ASP:OD1	1:A:171:VAL:HB	1.96	0.65
1:B:27:LYS:HA	1:B:436:ILE:HD11	1.79	0.65
1:C:362:LEU:HD11	1:C:377:LEU:HD22	1.77	0.65
1:E:138:ASP:O	1:E:139:GLU:HB2	1.94	0.65
1:F:438:ALA:HB2	1:F:448:LEU:HG	1.78	0.65
1:I:101:GLU:O	1:I:104:ILE:HG22	1.97	0.65
1:J:114:ILE:HA	1:J:117:TRP:CE3	2.31	0.65
1:L:37:LYS:HE3	1:M:7:ARG:CZ	2.25	0.65
1:N:108:ILE:HG23	1:N:109:HIS:N	2.11	0.65
1:N:132:ALA:HB3	1:N:395:TYR:HE2	1.59	0.65
1:C:122:LYS:HE3	1:C:125:ARG:NH1	2.11	0.65
1:D:374:GLU:O	1:D:377:LEU:HD23	1.96	0.65
1:D:394:VAL:HG21	1:D:487:LYS:HG3	1.78	0.65
1:K:183:LEU:HD13	1:K:385:ALA:HB2	1.76	0.65
1:N:81:GLU:HA	1:N:386:GLN:NE2	2.12	0.65
1:P:28:SER:O	1:P:34:GLY:HA2	1.96	0.65
1:D:61:ILE:HD11	1:D:63:VAL:HG13	1.78	0.65
1:D:501:ILE:CA	1:D:504:VAL:HG23	2.26	0.65
1:G:146:LEU:HD12	1:G:171:VAL:CG1	2.27	0.65
1:I:484:PHE:CE2	1:I:488:ARG:HD3	2.32	0.65
1:I:504:VAL:HG12	1:I:505:ASP:H	1.61	0.65
1:J:145:ASP:OD1	1:J:171:VAL:HB	1.96	0.65
1:K:78:GLN:HE21	1:K:82:VAL:HG21	1.61	0.65
1:L:37:LYS:HD3	1:M:505:ASP:OD2	1.97	0.65
1:L:154:LEU:CD2	1:L:163:LYS:HG2	2.27	0.65
1:L:341:ILE:HG23	1:L:363:ARG:HH21	1.61	0.65
1:B:408:VAL:HA	1:B:411:LEU:HD12	1.78	0.65
1:G:141:LYS:CG	1:G:144:GLN:HB2	2.26	0.65
1:I:122:LYS:O	1:I:125:ARG:HG2	1.96	0.65
1:I:188:VAL:CG2	1:I:377:LEU:HD21	2.26	0.65
1:J:324:HIS:O	1:J:329:LYS:HG2	1.97	0.65
1:J:503:ARG:HD2	1:N:369:ILE:HD11	1.78	0.65
1:M:313:VAL:HG22	1:M:357:ALA:HB3	1.77	0.65
1:P:209:LYS:NZ	1:P:302:ALA:HA	2.11	0.65
1:A:341:ILE:HG23	1:A:363:ARG:NH2	2.12	0.65
1:D:95:GLU:OE1	1:D:432:MET:HB3	1.97	0.65
1:D:504:VAL:HG12	1:D:505:ASP:N	2.10	0.65
1:E:324:HIS:ND1	1:E:325:PRO:HD3	2.11	0.65
1:E:380:ALA:O	1:E:384:LEU:HD23	1.96	0.65
1:F:32:PRO:CG	1:F:467:MET:HE1	2.25	0.65
1:F:417:GLY:O	1:O:450:ALA:HB1	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:433:LEU:O	1:F:436:ILE:HG22	1.97	0.65
1:F:483:SER:O	1:F:486:VAL:HG22	1.95	0.65
1:H:16:PHE:HA	1:H:97:LEU:CD2	2.26	0.65
1:H:159:LEU:HG	1:H:163:LYS:CG	2.26	0.65
1:K:174:VAL:CG1	1:K:384:LEU:HB3	2.27	0.65
1:A:146:LEU:CD1	1:A:171:VAL:HG13	2.25	0.65
1:C:269:ILE:HG23	1:C:274:ILE:CG2	2.27	0.65
1:D:177:LEU:HD11	1:D:186:ILE:HD11	1.78	0.65
1:H:401:GLU:HG2	1:H:433:LEU:HD22	1.79	0.65
1:H:475:MET:SD	1:H:480:ILE:HB	2.37	0.65
1:I:50:VAL:HG13	1:I:375:ARG:NH2	2.12	0.65
1:L:185:ALA:HA	1:L:309:ARG:HD2	1.78	0.65
1:O:177:LEU:HD11	1:O:186:ILE:HD11	1.78	0.65
1:A:438:ALA:HB2	1:A:448:LEU:HG	1.79	0.64
1:C:95:GLU:OE1	1:C:432:MET:HB3	1.97	0.64
1:C:421:VAL:HA	1:L:453:ARG:NH2	2.11	0.64
1:E:110:PRO:O	1:E:113:ILE:HB	1.97	0.64
1:E:450:ALA:HA	1:J:417:GLY:HA3	1.78	0.64
1:G:112:THR:HG23	1:G:418:LYS:HE2	1.80	0.64
1:G:173:ALA:HB2	1:G:360:ILE:HD11	1.79	0.64
1:H:177:LEU:HD21	1:H:184:GLU:O	1.97	0.64
1:H:402:MET:SD	1:H:456:HIS:HB2	2.37	0.64
1:L:140:VAL:HA	1:L:175:LEU:HD22	1.79	0.64
1:L:508:ILE:HB	1:P:39:LEU:HD22	1.79	0.64
1:M:40:LEU:HD12	1:M:41:SER:N	2.12	0.64
1:N:198:ASP:O	1:N:363:ARG:HB2	1.97	0.64
1:N:209:LYS:HZ3	1:N:303:ASP:H	1.43	0.64
1:N:411:LEU:HB3	1:N:423:MET:SD	2.38	0.64
1:O:231:MET:HG3	1:O:283:ILE:HG13	1.79	0.64
1:P:58:LEU:HB3	1:P:72:VAL:CG1	2.27	0.64
1:C:325:PRO:C	1:C:326:GLU:HG3	2.22	0.64
1:E:145:ASP:OD1	1:E:171:VAL:HB	1.97	0.64
1:E:334:LYS:CD	1:E:351:GLY:HA3	2.27	0.64
1:G:143:ARG:HA	1:G:143:ARG:HE	1.61	0.64
1:I:85:GLY:O	1:I:153:THR:HG23	1.97	0.64
1:J:99:GLU:HG2	1:J:425:SER:HB2	1.79	0.64
1:K:154:LEU:CD2	1:K:163:LYS:HG3	2.27	0.64
1:L:216:PRO:CG	1:L:295:GLY:HA2	2.27	0.64
1:M:402:MET:SD	1:M:456:HIS:HB2	2.37	0.64
1:N:138:ASP:O	1:N:139:GLU:HB2	1.96	0.64
1:N:206:LEU:HB2	1:N:359:THR:HG21	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:58:LEU:HB3	1:O:72:VAL:HG11	1.79	0.64
1:O:141:LYS:HG2	1:O:144:GLN:HB2	1.79	0.64
1:A:82:VAL:HG21	1:A:486:VAL:HG12	1.79	0.64
1:A:106:LYS:CE	1:A:113:ILE:HD11	2.22	0.64
1:B:58:LEU:HB3	1:B:72:VAL:HG11	1.79	0.64
1:D:446:ALA:HB2	1:K:106:LYS:NZ	2.13	0.64
1:E:163:LYS:O	1:E:166:PHE:HB2	1.97	0.64
1:G:390:ASP:HB3	1:G:485:GLN:HE22	1.63	0.64
1:H:483:SER:O	1:H:486:VAL:HG12	1.97	0.64
1:I:235:LYS:O	1:I:236:ILE:HG22	1.97	0.64
1:I:399:CYS:SG	1:I:464:GLY:HA3	2.38	0.64
1:L:58:LEU:HB3	1:L:72:VAL:CG1	2.28	0.64
1:M:438:ALA:HB2	1:M:448:LEU:HG	1.80	0.64
1:N:486:VAL:O	1:N:490:VAL:HG12	1.97	0.64
1:O:341:ILE:HG12	1:O:346:LEU:HD21	1.79	0.64
1:C:51:THR:HG22	1:C:53:ASP:H	1.61	0.64
1:E:119:GLU:O	1:E:122:LYS:HB3	1.97	0.64
1:G:166:PHE:CZ	1:G:198:ASP:HB3	2.31	0.64
1:H:27:LYS:HA	1:H:436:ILE:CD1	2.24	0.64
1:H:33:LYS:HB2	1:H:441:ALA:HA	1.79	0.64
1:I:74:MET:O	1:I:77:VAL:HG12	1.98	0.64
1:I:158:LEU:CD1	1:N:503:ARG:HD2	2.28	0.64
1:J:160:THR:HG23	1:J:164:ASP:HB3	1.80	0.64
1:J:415:THR:HG23	1:J:420:ALA:HB2	1.79	0.64
1:L:148:ASN:HA	1:L:479:GLY:O	1.97	0.64
1:L:407:ALA:O	1:L:411:LEU:HG	1.97	0.64
1:P:58:LEU:HB3	1:P:72:VAL:HG11	1.79	0.64
1:P:325:PRO:O	1:P:326:GLU:HG3	1.98	0.64
1:P:372:GLU:HA	1:P:375:ARG:HE	1.62	0.64
1:B:106:LYS:CE	1:B:418:LYS:HD3	2.28	0.64
1:D:119:GLU:O	1:D:122:LYS:HB3	1.97	0.64
1:E:141:LYS:HG2	1:E:144:GLN:HB2	1.78	0.64
1:G:324:HIS:ND1	1:G:325:PRO:HD3	2.12	0.64
1:J:106:LYS:HD2	1:J:113:ILE:HD11	1.78	0.64
1:J:185:ALA:HB1	1:J:357:ALA:HB2	1.79	0.64
1:K:190:LYS:HA	1:K:362:LEU:O	1.98	0.64
1:L:150:ALA:HB1	1:L:167:THR:OG1	1.98	0.64
1:L:313:VAL:HG22	1:L:357:ALA:HB3	1.78	0.64
1:M:160:THR:HA	1:M:163:LYS:HB3	1.78	0.64
1:M:310:LEU:O	1:M:314:THR:HG22	1.97	0.64
1:O:31:GLY:C	1:O:156:SER:HA	2.23	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:248:THR:O	1:O:251:VAL:HG12	1.97	0.64
1:O:365:ALA:H	1:O:370:LEU:CD1	2.10	0.64
1:A:408:VAL:HA	1:A:411:LEU:HD12	1.79	0.64
1:B:50:VAL:C	1:B:375:ARG:HD3	2.22	0.64
1:C:58:LEU:HB3	1:C:72:VAL:HG11	1.79	0.64
1:F:114:ILE:HA	1:F:117:TRP:CZ3	2.31	0.64
1:H:92:LEU:CG	1:H:433:LEU:HD11	2.28	0.64
1:H:159:LEU:HG	1:H:163:LYS:CB	2.27	0.64
1:H:416:PRO:HA	1:P:450:ALA:CB	2.28	0.64
1:L:84:ASP:OD2	1:L:379:ASP:HB3	1.97	0.64
1:L:163:LYS:O	1:L:166:PHE:HB2	1.97	0.64
1:P:59:LYS:HE3	1:P:73:ASP:HA	1.79	0.64
1:A:37:LYS:CG	1:A:52:ASN:HA	2.27	0.64
1:A:116:GLY:HA3	1:A:422:ALA:HB1	1.77	0.64
1:B:82:VAL:CG2	1:B:485:GLN:HB2	2.27	0.64
1:D:324:HIS:ND1	1:D:325:PRO:HD3	2.13	0.64
1:E:146:LEU:HD11	1:E:150:ALA:CB	2.28	0.64
1:G:52:ASN:ND2	1:G:157:LYS:HG2	2.12	0.64
1:G:219:ILE:HD13	1:G:219:ILE:H	1.61	0.64
1:I:7:ARG:NH2	1:O:25:LEU:HD12	2.13	0.64
1:J:48:LEU:CD2	1:K:510:ALA:HB3	2.27	0.64
1:K:114:ILE:HA	1:K:117:TRP:CZ3	2.33	0.64
1:K:116:GLY:HA3	1:K:422:ALA:CB	2.28	0.64
1:K:188:VAL:CG2	1:K:362:LEU:HG	2.28	0.64
1:A:50:VAL:HG22	1:A:375:ARG:NH1	2.13	0.64
1:A:58:LEU:HB3	1:A:72:VAL:HG13	1.79	0.64
1:B:402:MET:SD	1:B:453:ARG:HA	2.37	0.64
1:D:434:PRO:HB3	1:D:452:LEU:CD2	2.28	0.64
1:D:488:ARG:HG3	1:D:489:GLN:OE1	1.97	0.64
1:K:437:ILE:HG22	1:K:467:MET:SD	2.38	0.64
1:L:6:GLU:O	1:L:7:ARG:HD2	1.97	0.64
1:L:128:LEU:CD2	1:L:488:ARG:HA	2.28	0.64
1:A:174:VAL:HG11	1:A:384:LEU:HB2	1.80	0.64
1:D:443:TYR:CD1	1:D:470:GLY:HA2	2.33	0.64
1:F:324:HIS:ND1	1:F:325:PRO:HD3	2.13	0.64
1:O:159:LEU:HD12	1:O:372:GLU:HG2	1.80	0.64
1:P:324:HIS:O	1:P:329:LYS:HG2	1.98	0.64
1:A:316:GLY:O	1:A:330:LEU:HB2	1.98	0.64
1:A:324:HIS:ND1	1:A:325:PRO:HD3	2.12	0.64
1:E:9:GLU:HG2	1:E:10:THR:N	2.12	0.64
1:E:32:PRO:HA	1:E:155:SER:CB	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:190:LYS:HD2	1:E:370:LEU:HG	1.80	0.64
1:E:231:MET:HB2	1:E:284:TYR:H	1.62	0.64
1:F:159:LEU:HG	1:F:163:LYS:CB	2.28	0.64
1:L:175:LEU:HA	1:L:178:LYS:HE3	1.79	0.64
1:P:269:ILE:HG23	1:P:274:ILE:CG2	2.28	0.64
1:P:397:GLY:HA3	1:P:475:MET:HE3	1.79	0.64
1:C:114:ILE:CG2	1:C:504:VAL:HG13	2.27	0.63
1:E:146:LEU:HD13	1:E:167:THR:O	1.97	0.63
1:M:59:LYS:HE2	1:M:76:ARG:HB2	1.80	0.63
1:M:163:LYS:HD2	1:M:166:PHE:CG	2.32	0.63
1:M:211:ILE:HD11	1:M:297:MET:HG3	1.79	0.63
1:N:88:SER:O	1:N:92:LEU:HD13	1.98	0.63
1:A:248:THR:O	1:A:251:VAL:HG12	1.98	0.63
1:B:188:VAL:CG1	1:B:377:LEU:HD21	2.27	0.63
1:B:504:VAL:HG12	1:B:505:ASP:O	1.98	0.63
1:D:482:GLU:OE1	1:D:487:LYS:HE3	1.98	0.63
1:E:146:LEU:CD2	1:E:167:THR:HG23	2.28	0.63
1:E:421:VAL:HA	1:J:453:ARG:HH22	1.61	0.63
1:K:116:GLY:O	1:K:119:GLU:HB2	1.98	0.63
1:K:146:LEU:HB2	1:K:171:VAL:CG2	2.28	0.63
1:L:146:LEU:HD21	1:L:167:THR:HG23	1.77	0.63
1:N:7:ARG:HA	1:N:11:ALA:CB	2.27	0.63
1:P:216:PRO:HG2	1:P:295:GLY:HA2	1.78	0.63
1:A:57:ILE:HD11	1:C:513:ARG:HH12	1.62	0.63
1:E:173:ALA:HA	1:E:176:ARG:NH1	2.13	0.63
1:F:216:PRO:CG	1:F:295:GLY:HA2	2.28	0.63
1:H:149:ILE:O	1:H:152:THR:HG22	1.99	0.63
1:H:159:LEU:HD23	1:H:160:THR:N	2.13	0.63
1:J:269:ILE:HG23	1:J:274:ILE:HG21	1.79	0.63
1:J:451:GLN:HE22	1:J:471:THR:HA	1.64	0.63
1:L:82:VAL:HG21	1:L:486:VAL:N	2.13	0.63
1:L:145:ASP:O	1:L:171:VAL:HG11	1.98	0.63
1:M:58:LEU:HB3	1:M:72:VAL:HG13	1.80	0.63
1:N:81:GLU:HA	1:N:386:GLN:HE21	1.64	0.63
1:N:324:HIS:HB2	1:N:329:LYS:NZ	2.14	0.63
1:O:204:GLY:O	1:O:359:THR:HB	1.99	0.63
1:P:146:LEU:HD21	1:P:167:THR:HG23	1.79	0.63
1:A:82:VAL:HG21	1:A:486:VAL:CG1	2.28	0.63
1:A:433:LEU:O	1:A:436:ILE:HG22	1.98	0.63
1:C:325:PRO:O	1:C:328:VAL:HG23	1.98	0.63
1:C:372:GLU:HA	1:C:375:ARG:HD2	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:114:ILE:HG21	1:E:503:ARG:HH11	1.64	0.63
1:H:51:THR:HG21	1:H:56:THR:HB	1.81	0.63
1:J:452:LEU:HD13	1:J:465:LEU:HD13	1.80	0.63
1:K:30:LEU:HD13	1:K:436:ILE:CD1	2.29	0.63
1:K:51:THR:HG23	1:K:375:ARG:HD3	1.79	0.63
1:N:146:LEU:CD2	1:N:167:THR:HG23	2.28	0.63
1:C:501:ILE:C	1:C:502:LEU:HD23	2.24	0.63
1:D:402:MET:HG2	1:D:431:ARG:NH2	2.14	0.63
1:E:74:MET:O	1:E:77:VAL:HG12	1.99	0.63
1:I:141:LYS:HG2	1:I:144:GLN:HB2	1.80	0.63
1:K:139:GLU:O	1:K:140:VAL:HB	1.99	0.63
1:K:483:SER:HB2	1:K:486:VAL:HG13	1.78	0.63
1:L:125:ARG:HA	1:L:128:LEU:HD12	1.80	0.63
1:M:109:HIS:HB2	1:M:112:THR:OG1	1.97	0.63
1:N:123:ALA:HB1	1:N:404:MET:SD	2.39	0.63
1:N:148:ASN:OD1	1:N:479:GLY:HA3	1.98	0.63
1:N:160:THR:HA	1:N:163:LYS:HB3	1.78	0.63
1:O:117:TRP:HE1	1:O:498:ALA:HB3	1.63	0.63
1:O:206:LEU:HD21	1:O:346:LEU:HG	1.80	0.63
1:A:483:SER:O	1:A:486:VAL:HG22	1.98	0.63
1:C:133:VAL:CG2	1:C:134:ASP:H	2.05	0.63
1:D:145:ASP:OD1	1:D:171:VAL:HB	1.99	0.63
1:F:11:ALA:HB1	1:F:506:ASN:HA	1.80	0.63
1:J:324:HIS:ND1	1:J:325:PRO:HD3	2.13	0.63
1:K:407:ALA:O	1:K:411:LEU:HG	1.98	0.63
1:L:426:TYR:OH	1:L:491:LEU:HD22	1.98	0.63
1:O:191:LYS:HE3	1:O:346:LEU:HD12	1.81	0.63
1:P:154:LEU:HD22	1:P:167:THR:CB	2.26	0.63
1:A:32:PRO:HD2	1:A:467:MET:CE	2.29	0.63
1:A:158:LEU:HD21	1:C:497:ALA:HB1	1.80	0.63
1:E:96:LEU:O	1:E:96:LEU:HD22	1.99	0.63
1:G:325:PRO:C	1:G:326:GLU:HG3	2.24	0.63
1:H:404:MET:HE3	1:H:430:LEU:CD1	2.28	0.63
1:I:402:MET:SD	1:I:456:HIS:HB2	2.39	0.63
1:J:146:LEU:HB2	1:J:171:VAL:HG21	1.79	0.63
1:M:325:PRO:C	1:M:326:GLU:HG3	2.23	0.63
1:N:78:GLN:HG3	1:N:83:GLY:HA2	1.81	0.63
1:N:187:HIS:O	1:N:359:THR:HG23	1.99	0.63
1:N:372:GLU:HG3	1:N:375:ARG:NH1	2.13	0.63
1:P:52:ASN:H	1:P:375:ARG:CD	2.11	0.63
1:P:176:ARG:NE	1:P:358:CYS:HB2	2.12	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:27:LYS:HB2	1:B:436:ILE:CD1	2.29	0.63
1:B:53:ASP:HB2	1:B:379:ASP:OD1	1.99	0.63
1:C:115:ALA:C	1:C:504:VAL:HG22	2.23	0.63
1:C:380:ALA:O	1:C:384:LEU:HD22	1.99	0.63
1:F:438:ALA:CB	1:F:448:LEU:HG	2.29	0.63
1:G:108:ILE:HG22	1:G:109:HIS:N	2.14	0.63
1:J:74:MET:O	1:J:77:VAL:HG12	1.98	0.63
1:K:401:GLU:HG2	1:K:433:LEU:HD22	1.80	0.63
1:L:317:GLU:HB2	1:L:329:LYS:HG2	1.80	0.63
1:M:152:THR:O	1:M:155:SER:HB2	1.99	0.63
1:P:112:THR:HG23	1:P:418:LYS:HE3	1.80	0.63
1:A:124:ALA:O	1:A:128:LEU:HG	1.99	0.63
1:B:28:SER:O	1:B:34:GLY:HA2	1.98	0.63
1:D:485:GLN:HE21	1:D:488:ARG:HH21	1.45	0.63
1:D:506:ASN:HB2	1:H:38:ILE:O	1.99	0.63
1:E:146:LEU:HD21	1:E:150:ALA:HB3	1.81	0.63
1:G:107:LYS:O	1:G:108:ILE:HD13	1.99	0.63
1:H:95:GLU:OE2	1:H:432:MET:HB3	1.99	0.63
1:H:147:MET:O	1:H:479:GLY:HA3	1.99	0.63
1:K:211:ILE:CD1	1:K:297:MET:HG3	2.29	0.63
1:L:15:SER:HB3	1:L:501:ILE:HG23	1.80	0.63
1:M:64:ASP:CG	1:M:66:PRO:HD2	2.24	0.63
1:M:122:LYS:O	1:M:125:ARG:HG2	1.98	0.63
1:O:166:PHE:CZ	1:O:198:ASP:HB3	2.33	0.63
1:C:32:PRO:HD2	1:C:467:MET:HE1	1.81	0.62
1:C:48:LEU:HB3	1:H:507:ILE:CD1	2.29	0.62
1:G:450:ALA:CA	1:N:417:GLY:HA2	2.29	0.62
1:J:27:LYS:HA	1:J:436:ILE:HD11	1.80	0.62
1:L:119:GLU:CG	1:L:419:GLU:HG2	2.29	0.62
1:N:499:GLU:O	1:N:503:ARG:HG2	1.99	0.62
1:O:342:GLY:O	1:O:343:GLU:HG3	1.99	0.62
1:P:15:SER:HB3	1:P:501:ILE:CG2	2.29	0.62
1:P:209:LYS:NZ	1:P:303:ASP:H	1.96	0.62
1:C:113:ILE:HG13	1:L:446:ALA:HB2	1.81	0.62
1:C:141:LYS:HG2	1:C:144:GLN:HB2	1.80	0.62
1:D:7:ARG:HG3	1:D:7:ARG:O	1.99	0.62
1:E:450:ALA:O	1:J:417:GLY:HA3	1.99	0.62
1:G:52:ASN:H	1:G:375:ARG:HE	1.46	0.62
1:G:146:LEU:HD22	1:G:168:LYS:CA	2.26	0.62
1:I:52:ASN:CG	1:I:157:LYS:HG2	2.23	0.62
1:J:372:GLU:HG3	1:J:375:ARG:HH11	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:128:LEU:HD22	1:L:488:ARG:HA	1.81	0.62
1:L:203:GLU:HG2	1:L:350:SER:HB2	1.79	0.62
1:N:145:ASP:OD1	1:N:171:VAL:HB	1.99	0.62
1:N:434:PRO:HB3	1:N:452:LEU:CD2	2.29	0.62
1:O:52:ASN:H	1:O:375:ARG:HD2	1.64	0.62
1:P:111:GLN:HA	1:P:114:ILE:HG12	1.81	0.62
1:P:146:LEU:HB2	1:P:171:VAL:HG21	1.81	0.62
1:P:163:LYS:HA	1:P:166:PHE:CD1	2.33	0.62
1:B:452:LEU:HD13	1:B:465:LEU:HD13	1.81	0.62
1:E:58:LEU:HB3	1:E:72:VAL:HG11	1.81	0.62
1:G:269:ILE:HG23	1:G:274:ILE:HG21	1.81	0.62
1:H:128:LEU:O	1:H:129:LEU:HG	1.98	0.62
1:K:210:LYS:HE2	1:K:212:GLY:O	1.98	0.62
1:K:313:VAL:HG22	1:K:357:ALA:HB3	1.81	0.62
1:L:37:LYS:HB2	1:L:51:THR:O	1.99	0.62
1:L:59:LYS:HE2	1:L:76:ARG:HB2	1.80	0.62
1:L:89:VAL:HG12	1:L:490:VAL:CG2	2.28	0.62
1:M:146:LEU:CD1	1:M:171:VAL:HG13	2.16	0.62
1:P:96:LEU:HG	1:P:498:ALA:HB1	1.81	0.62
1:P:268:ARG:O	1:P:271:LYS:HG2	1.99	0.62
1:A:51:THR:CA	1:A:375:ARG:HH11	2.13	0.62
1:C:452:LEU:HD13	1:C:465:LEU:HD13	1.80	0.62
1:E:483:SER:O	1:E:486:VAL:HG22	2.00	0.62
1:F:59:LYS:HZ1	1:F:76:ARG:HD3	1.63	0.62
1:N:116:GLY:O	1:N:119:GLU:HB2	1.99	0.62
1:O:128:LEU:HD22	1:O:484:PHE:CZ	2.35	0.62
1:O:236:ILE:HG12	1:O:237:LYS:H	1.63	0.62
1:A:325:PRO:C	1:A:326:GLU:HG3	2.24	0.62
1:C:146:LEU:HD21	1:C:150:ALA:CB	2.24	0.62
1:D:141:LYS:HG2	1:D:144:GLN:HB2	1.80	0.62
1:D:371:ASP:O	1:D:374:GLU:HB3	2.00	0.62
1:E:146:LEU:HB2	1:E:171:VAL:HG21	1.80	0.62
1:J:325:PRO:C	1:J:326:GLU:HG3	2.25	0.62
1:K:191:LYS:NZ	1:K:346:LEU:HD21	2.13	0.62
1:L:274:ILE:O	1:L:296:VAL:HG22	1.99	0.62
1:L:433:LEU:O	1:L:437:ILE:HG12	1.99	0.62
1:O:325:PRO:C	1:O:326:GLU:HG3	2.24	0.62
1:O:365:ALA:O	1:O:366:THR:HB	1.99	0.62
1:O:434:PRO:HB3	1:O:452:LEU:CD2	2.29	0.62
1:O:483:SER:O	1:O:486:VAL:HG22	1.99	0.62
1:A:452:LEU:HA	1:A:472:ILE:HG21	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:216:PRO:HG2	1:B:295:GLY:HA2	1.81	0.62
1:C:75:SER:O	1:C:78:GLN:HB3	2.00	0.62
1:C:82:VAL:HA	1:C:386:GLN:HG3	1.81	0.62
1:C:146:LEU:CD2	1:C:150:ALA:HB3	2.27	0.62
1:C:209:LYS:HE2	1:C:301:HIS:O	1.99	0.62
1:F:313:VAL:HG22	1:F:357:ALA:HB3	1.81	0.62
1:K:143:ARG:NE	1:K:143:ARG:HA	2.15	0.62
1:M:242:ARG:HB3	1:O:241:SER:HA	1.80	0.62
1:N:269:ILE:HG23	1:N:274:ILE:HG22	1.82	0.62
1:N:513:ARG:HG2	1:N:513:ARG:OXT	1.99	0.62
1:A:37:LYS:CD	1:C:511:ALA:HB1	2.30	0.62
1:A:324:HIS:HB2	1:A:329:LYS:NZ	2.15	0.62
1:C:216:PRO:HG2	1:C:295:GLY:HA2	1.81	0.62
1:D:128:LEU:HD13	1:D:484:PHE:CZ	2.33	0.62
1:D:265:LYS:HE2	1:D:322:PHE:CE1	2.34	0.62
1:F:154:LEU:HD22	1:F:167:THR:HB	1.81	0.62
1:F:185:ALA:HA	1:F:309:ARG:CD	2.30	0.62
1:H:185:ALA:CA	1:H:309:ARG:HG2	2.29	0.62
1:M:146:LEU:HD12	1:M:171:VAL:CG1	2.18	0.62
1:N:157:LYS:HE2	1:N:376:SER:HB2	1.80	0.62
1:N:171:VAL:HA	1:N:174:VAL:HG22	1.81	0.62
1:P:324:HIS:HB2	1:P:329:LYS:NZ	2.14	0.62
1:A:1:ALA:H2	1:F:61:ILE:HB	1.63	0.62
1:E:59:LYS:HE2	1:E:76:ARG:HB2	1.82	0.62
1:F:206:LEU:HD13	1:F:206:LEU:C	2.25	0.62
1:G:150:ALA:HB2	1:G:384:LEU:HD21	1.82	0.62
1:H:9:GLU:HG2	1:H:10:THR:N	2.14	0.62
1:H:146:LEU:CD2	1:H:167:THR:HG23	2.29	0.62
1:H:191:LYS:HG2	1:H:341:ILE:HG22	1.80	0.62
1:J:58:LEU:HB3	1:J:72:VAL:HG11	1.82	0.62
1:J:149:ILE:HD13	1:J:383:VAL:HG11	1.81	0.62
1:K:103:LEU:HG	1:K:113:ILE:CD1	2.30	0.62
1:L:31:GLY:HA3	1:L:440:ASN:HD21	1.63	0.62
1:N:63:VAL:HG12	1:N:64:ASP:OD1	2.00	0.62
1:C:78:GLN:NE2	1:C:486:VAL:HA	2.14	0.62
1:C:108:ILE:HD13	1:M:109:HIS:CD2	2.35	0.62
1:C:150:ALA:HB2	1:C:384:LEU:HD11	1.82	0.62
1:D:39:LEU:HD23	1:E:507:ILE:CG2	2.30	0.62
1:E:236:ILE:HG23	1:E:237:LYS:N	2.15	0.62
1:F:141:LYS:HG2	1:F:144:GLN:HB2	1.82	0.62
1:G:85:GLY:O	1:G:153:THR:HA	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:266:VAL:HB	1:G:290:LEU:CD2	2.24	0.62
1:I:22:ILE:HG22	1:N:1:ALA:N	2.14	0.62
1:K:504:VAL:HG11	1:K:507:ILE:HG23	1.82	0.62
1:L:37:LYS:HE3	1:M:7:ARG:NH2	2.14	0.62
1:L:308:GLU:OE2	1:P:213:VAL:HG21	2.00	0.62
1:M:145:ASP:OD1	1:M:171:VAL:HB	1.99	0.62
1:M:324:HIS:HB2	1:M:329:LYS:NZ	2.14	0.62
1:M:369:ILE:O	1:M:372:GLU:HB3	2.00	0.62
1:N:372:GLU:HG3	1:N:375:ARG:HH12	1.65	0.62
1:A:82:VAL:HG13	1:A:83:GLY:H	1.63	0.62
1:A:126:GLN:HE22	1:A:411:LEU:HD11	1.64	0.62
1:B:145:ASP:OD1	1:B:171:VAL:HB	1.99	0.62
1:C:27:LYS:HG3	1:C:436:ILE:HG13	1.81	0.62
1:C:313:VAL:HG22	1:C:357:ALA:CB	2.30	0.62
1:D:446:ALA:CB	1:K:106:LYS:HZ1	2.12	0.62
1:D:450:ALA:CB	1:K:420:ALA:HB3	2.23	0.62
1:E:451:GLN:NE2	1:E:471:THR:HA	2.15	0.62
1:H:141:LYS:HG2	1:H:144:GLN:HB2	1.79	0.62
1:H:404:MET:HE3	1:H:430:LEU:HD11	1.81	0.62
1:H:420:ALA:HB1	1:P:453:ARG:NH2	2.15	0.62
1:I:149:ILE:O	1:I:152:THR:HG22	2.00	0.62
1:N:58:LEU:HB3	1:N:72:VAL:CG1	2.29	0.62
1:N:208:ASP:C	1:N:209:LYS:HG3	2.25	0.62
1:O:52:ASN:H	1:O:375:ARG:HG2	1.65	0.62
1:A:174:VAL:O	1:A:177:LEU:HD12	2.00	0.61
1:A:450:ALA:HB1	1:M:416:PRO:HA	1.80	0.61
1:A:483:SER:HB2	1:A:486:VAL:HG13	1.81	0.61
1:B:79:ASP:HA	1:B:83:GLY:CA	2.30	0.61
1:E:108:ILE:HB	1:J:446:ALA:CB	2.27	0.61
1:E:250:LYS:O	1:E:253:GLU:HG2	1.99	0.61
1:I:507:ILE:HG13	1:O:38:ILE:HG12	1.82	0.61
1:J:81:GLU:O	1:J:386:GLN:HG3	2.00	0.61
1:J:96:LEU:HD13	1:J:96:LEU:C	2.25	0.61
1:L:258:GLU:OE2	1:L:284:TYR:HE2	1.83	0.61
1:N:139:GLU:O	1:N:140:VAL:HB	1.99	0.61
1:O:44:ARG:HG2	1:O:44:ARG:HH11	1.64	0.61
1:O:367:GLN:CD	1:O:369:ILE:HB	2.24	0.61
1:P:130:ASN:O	1:P:403:LEU:HG	2.00	0.61
1:C:76:ARG:HG2	1:C:76:ARG:HH11	1.65	0.61
1:C:492:LEU:O	1:C:496:GLU:HB2	1.99	0.61
1:D:27:LYS:HA	1:D:436:ILE:HD11	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:191:LYS:HA	1:D:191:LYS:CE	2.30	0.61
1:F:312:LEU:HD12	1:F:357:ALA:HB2	1.80	0.61
1:I:191:LYS:HZ1	1:I:346:LEU:HD11	1.65	0.61
1:L:174:VAL:CG1	1:L:384:LEU:HD23	2.31	0.61
1:M:114:ILE:HA	1:M:117:TRP:CZ3	2.35	0.61
1:N:496:GLU:HG3	1:N:497:ALA:N	2.14	0.61
1:C:268:ARG:O	1:C:271:LYS:HG2	2.00	0.61
1:D:274:ILE:O	1:D:296:VAL:HG22	1.99	0.61
1:F:354:LEU:HD23	1:F:356:GLU:H	1.63	0.61
1:I:269:ILE:HG23	1:I:274:ILE:CG2	2.30	0.61
1:I:500:VAL:O	1:I:504:VAL:HG22	2.01	0.61
1:J:92:LEU:HG	1:J:433:LEU:HD11	1.82	0.61
1:K:116:GLY:HA3	1:K:422:ALA:HB1	1.82	0.61
1:M:397:GLY:HA3	1:M:475:MET:HE3	1.81	0.61
1:N:9:GLU:HB3	1:N:507:ILE:HG23	1.79	0.61
1:N:78:GLN:OE1	1:N:489:GLN:HB2	2.01	0.61
1:O:511:ALA:O	1:O:513:ARG:N	2.30	0.61
1:P:345:LYS:C	1:P:346:LEU:HD12	2.24	0.61
1:E:154:LEU:HD22	1:E:167:THR:HB	1.81	0.61
1:E:417:GLY:HA3	1:J:450:ALA:CA	2.30	0.61
1:G:30:LEU:HB2	1:G:86:THR:HB	1.83	0.61
1:G:108:ILE:HG13	1:N:446:ALA:HB2	1.82	0.61
1:I:126:GLN:HB3	1:I:404:MET:HG3	1.82	0.61
1:I:421:VAL:O	1:I:424:GLU:HG2	2.01	0.61
1:J:58:LEU:HB3	1:J:72:VAL:CG1	2.30	0.61
1:K:59:LYS:HE3	1:K:72:VAL:O	2.00	0.61
1:L:210:LYS:HE2	1:L:212:GLY:O	2.01	0.61
1:L:352:VAL:HG22	1:L:355:GLY:H	1.64	0.61
1:L:483:SER:HB2	1:L:486:VAL:HG13	1.81	0.61
1:M:185:ALA:HB1	1:M:357:ALA:HA	1.82	0.61
1:M:506:ASN:O	1:M:507:ILE:HB	1.99	0.61
1:P:33:LYS:HG3	1:P:441:ALA:HA	1.83	0.61
1:A:313:VAL:HG13	1:A:352:VAL:HB	1.80	0.61
1:B:146:LEU:HD21	1:B:150:ALA:HB3	1.81	0.61
1:D:146:LEU:CD2	1:D:147:MET:H	2.13	0.61
1:D:188:VAL:HG11	1:D:377:LEU:CD2	2.25	0.61
1:E:393:THR:HB	1:E:482:GLU:O	2.00	0.61
1:F:171:VAL:O	1:F:174:VAL:HG22	1.99	0.61
1:H:154:LEU:CD2	1:H:167:THR:HB	2.31	0.61
1:H:345:LYS:C	1:H:346:LEU:HD12	2.25	0.61
1:I:128:LEU:O	1:I:129:LEU:HD22	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:433:LEU:O	1:J:436:ILE:HG22	2.01	0.61
1:M:146:LEU:CD2	1:M:147:MET:H	2.14	0.61
1:O:132:ALA:O	1:O:133:VAL:HG22	2.01	0.61
1:O:193:GLY:HA3	1:O:343:GLU:CD	2.26	0.61
1:P:32:PRO:HG2	1:P:467:MET:CE	2.30	0.61
1:A:52:ASN:HD22	1:A:375:ARG:NH2	1.98	0.61
1:A:82:VAL:HG11	1:A:486:VAL:HG12	1.82	0.61
1:A:108:ILE:HG22	1:A:109:HIS:N	2.15	0.61
1:B:418:LYS:HA	1:I:446:ALA:HB1	1.81	0.61
1:C:31:GLY:HA3	1:C:467:MET:HE1	1.80	0.61
1:D:96:LEU:HD13	1:D:97:LEU:HD12	1.82	0.61
1:I:154:LEU:HD21	1:I:163:LYS:HG2	1.83	0.61
1:J:439:ASP:HA	1:K:109:HIS:HE2	1.64	0.61
1:L:32:PRO:HG2	1:L:467:MET:SD	2.41	0.61
1:N:210:LYS:HE2	1:N:212:GLY:O	2.00	0.61
1:P:15:SER:O	1:P:501:ILE:HG13	2.00	0.61
1:P:50:VAL:HG22	1:P:375:ARG:HH22	1.64	0.61
1:A:143:ARG:HG3	1:A:143:ARG:O	2.00	0.61
1:A:161:HIS:CG	1:A:162:HIS:H	2.19	0.61
1:C:483:SER:O	1:C:486:VAL:HG22	2.01	0.61
1:D:67:ALA:HB2	1:D:509:LYS:C	2.26	0.61
1:E:334:LYS:HD3	1:E:351:GLY:HA3	1.81	0.61
1:E:451:GLN:HE22	1:E:471:THR:HA	1.65	0.61
1:F:65:ASN:HD21	1:F:509:LYS:HE2	1.66	0.61
1:J:52:ASN:HB2	1:J:375:ARG:HH11	1.63	0.61
1:J:100:ALA:HA	1:J:103:LEU:HD22	1.83	0.61
1:J:503:ARG:HB2	1:N:35:MET:HG2	1.82	0.61
1:L:146:LEU:HD12	1:L:171:VAL:CG1	2.28	0.61
1:L:176:ARG:HD2	1:L:358:CYS:SG	2.39	0.61
1:N:176:ARG:HG3	1:N:176:ARG:HH11	1.63	0.61
1:N:274:ILE:O	1:N:296:VAL:HG22	2.01	0.61
1:N:367:GLN:CG	1:N:369:ILE:HB	2.30	0.61
1:O:475:MET:SD	1:O:480:ILE:HB	2.41	0.61
1:P:404:MET:O	1:P:408:VAL:HG13	2.01	0.61
1:B:82:VAL:HB	1:B:485:GLN:HB3	1.81	0.61
1:B:128:LEU:O	1:B:129:LEU:HB3	2.00	0.61
1:C:54:GLY:O	1:C:58:LEU:HD23	2.01	0.61
1:D:114:ILE:HA	1:D:117:TRP:CE3	2.36	0.61
1:J:161:HIS:CD2	1:J:162:HIS:H	2.18	0.61
1:J:269:ILE:HG23	1:J:274:ILE:CG2	2.30	0.61
1:J:372:GLU:O	1:J:375:ARG:HD2	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:504:VAL:CG1	1:K:507:ILE:HD13	2.30	0.61
1:N:145:ASP:OD2	1:N:175:LEU:HD11	2.01	0.61
1:N:146:LEU:HD13	1:N:167:THR:O	2.00	0.61
1:N:313:VAL:HG22	1:N:357:ALA:HB3	1.83	0.61
1:O:44:ARG:HH11	1:O:44:ARG:CG	2.14	0.61
1:O:109:HIS:CD2	1:O:112:THR:H	2.18	0.61
1:P:448:LEU:HD13	1:P:448:LEU:C	2.26	0.61
1:C:159:LEU:HG	1:C:163:LYS:CB	2.30	0.61
1:D:27:LYS:HG3	1:D:436:ILE:HG13	1.82	0.61
1:E:171:VAL:O	1:E:174:VAL:HG22	2.01	0.61
1:H:324:HIS:HB2	1:H:329:LYS:NZ	2.16	0.61
1:I:117:TRP:HD1	1:I:495:ALA:O	1.83	0.61
1:J:74:MET:SD	1:J:493:SER:HB2	2.40	0.61
1:M:58:LEU:HD12	1:M:72:VAL:HG22	1.83	0.61
1:P:259:LYS:HA	1:P:259:LYS:HE3	1.83	0.61
1:P:324:HIS:HB2	1:P:329:LYS:HZ3	1.65	0.61
1:B:447:ASP:HA	1:I:417:GLY:HA2	1.83	0.61
1:C:188:VAL:HG11	1:C:377:LEU:HD21	1.82	0.61
1:C:317:GLU:CB	1:C:329:LYS:HG2	2.30	0.61
1:D:32:PRO:HA	1:D:155:SER:OG	2.00	0.61
1:E:401:GLU:HG2	1:E:433:LEU:HD22	1.82	0.61
1:F:163:LYS:O	1:F:166:PHE:HB2	2.00	0.61
1:F:225:LEU:HD11	1:F:324:HIS:CE1	2.36	0.61
1:I:145:ASP:O	1:I:171:VAL:HG11	2.01	0.61
1:I:226:ILE:HG12	1:I:278:ILE:HG23	1.83	0.61
1:J:119:GLU:HB3	1:J:423:MET:HE3	1.83	0.61
1:K:74:MET:O	1:K:77:VAL:HG12	2.01	0.61
1:K:438:ALA:CB	1:K:448:LEU:HG	2.31	0.61
1:L:38:ILE:CD1	1:M:508:ILE:H	2.12	0.61
1:L:58:LEU:HB3	1:L:72:VAL:HG13	1.83	0.61
1:N:334:LYS:HB3	1:N:351:GLY:HA3	1.82	0.61
1:O:52:ASN:N	1:O:375:ARG:HD2	2.16	0.61
1:A:39:LEU:O	1:A:48:LEU:HG	2.01	0.60
1:A:274:ILE:O	1:A:296:VAL:HG22	2.01	0.60
1:E:191:LYS:HG2	1:E:363:ARG:HG2	1.83	0.60
1:G:99:GLU:O	1:G:103:LEU:HD13	2.00	0.60
1:G:190:LYS:HD2	1:G:370:LEU:HG	1.82	0.60
1:J:32:PRO:CA	1:J:155:SER:HB3	2.31	0.60
1:K:433:LEU:O	1:K:436:ILE:HG22	2.01	0.60
1:M:88:SER:O	1:M:92:LEU:HD13	2.01	0.60
1:M:438:ALA:CB	1:M:448:LEU:HG	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:31:GLY:HA3	1:N:440:ASN:OD1	2.01	0.60
1:N:265:LYS:HE2	1:N:322:PHE:CE1	2.36	0.60
1:A:222:ALA:HA	1:A:275:ASN:OD1	2.01	0.60
1:B:59:LYS:HE2	1:B:76:ARG:CB	2.30	0.60
1:E:85:GLY:O	1:E:153:THR:HA	1.99	0.60
1:H:99:GLU:OE2	1:H:428:LYS:HD3	2.01	0.60
1:H:216:PRO:CG	1:H:295:GLY:HA2	2.31	0.60
1:I:138:ASP:O	1:I:139:GLU:HB2	2.00	0.60
1:J:1:ALA:HB3	1:N:39:LEU:HB3	1.83	0.60
1:J:141:LYS:HG2	1:J:144:GLN:HB2	1.83	0.60
1:J:265:LYS:HE2	1:J:322:PHE:CE1	2.36	0.60
1:J:386:GLN:HB3	1:J:485:GLN:CD	2.26	0.60
1:K:171:VAL:O	1:K:174:VAL:HG13	2.01	0.60
1:L:119:GLU:CD	1:L:419:GLU:HG2	2.25	0.60
1:L:141:LYS:HG2	1:L:144:GLN:HB2	1.81	0.60
1:L:499:GLU:O	1:L:503:ARG:HG2	2.00	0.60
1:M:32:PRO:HA	1:M:155:SER:C	2.25	0.60
1:P:39:LEU:HD11	1:P:57:ILE:HD11	1.83	0.60
1:A:402:MET:SD	1:A:453:ARG:HA	2.41	0.60
1:B:154:LEU:CD2	1:B:163:LYS:HG3	2.31	0.60
1:E:166:PHE:CZ	1:E:198:ASP:HB3	2.36	0.60
1:I:15:SER:HB3	1:I:501:ILE:O	2.02	0.60
1:J:32:PRO:HA	1:J:155:SER:O	2.01	0.60
1:N:110:PRO:O	1:N:113:ILE:HB	2.01	0.60
1:N:206:LEU:CB	1:N:359:THR:HG21	2.31	0.60
1:N:216:PRO:HG3	1:N:295:GLY:HA2	1.82	0.60
1:O:82:VAL:HG11	1:O:486:VAL:CA	2.30	0.60
1:B:313:VAL:HG13	1:B:352:VAL:CB	2.31	0.60
1:C:114:ILE:HG22	1:C:504:VAL:C	2.27	0.60
1:F:396:GLY:HA3	1:F:480:ILE:HG22	1.83	0.60
1:H:108:ILE:HG12	1:H:109:HIS:N	2.16	0.60
1:H:305:VAL:HG22	1:H:309:ARG:CZ	2.31	0.60
1:I:500:VAL:HG13	1:O:368:GLN:HE22	1.66	0.60
1:K:219:ILE:HG13	1:K:275:ASN:HB3	1.82	0.60
1:K:231:MET:HG3	1:K:283:ILE:HG13	1.82	0.60
1:K:352:VAL:HG22	1:K:355:GLY:H	1.66	0.60
1:L:222:ALA:HA	1:L:275:ASN:OD1	2.01	0.60
1:N:145:ASP:O	1:N:171:VAL:HG11	2.01	0.60
1:N:324:HIS:O	1:N:328:VAL:HG22	2.00	0.60
1:P:390:ASP:CB	1:P:485:GLN:HE22	2.15	0.60
1:A:36:ASP:HB3	1:A:158:LEU:HB2	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:117:TRP:CD1	1:F:499:GLU:HB2	2.37	0.60
1:G:452:LEU:HD13	1:G:465:LEU:HD13	1.83	0.60
1:K:157:LYS:HD3	1:K:376:SER:CB	2.31	0.60
1:L:280:ARG:HD2	1:L:304:PHE:HB2	1.84	0.60
1:M:52:ASN:HB2	1:M:375:ARG:NH1	2.16	0.60
1:N:203:GLU:HB2	1:N:351:GLY:H	1.67	0.60
1:O:372:GLU:HA	1:O:375:ARG:HE	1.65	0.60
1:O:452:LEU:HA	1:O:472:ILE:HG21	1.83	0.60
1:A:128:LEU:C	1:A:129:LEU:HD13	2.27	0.60
1:A:149:ILE:O	1:A:152:THR:HG22	2.01	0.60
1:B:99:GLU:HG2	1:B:425:SER:HB2	1.83	0.60
1:B:496:GLU:HB3	1:G:367:GLN:NE2	2.16	0.60
1:C:364:GLY:HA3	1:C:370:LEU:CD1	2.32	0.60
1:C:450:ALA:HB2	1:L:420:ALA:HB3	1.82	0.60
1:D:486:VAL:O	1:D:490:VAL:HG12	2.02	0.60
1:E:117:TRP:CD1	1:E:495:ALA:HA	2.36	0.60
1:H:163:LYS:HD2	1:H:166:PHE:CG	2.37	0.60
1:H:280:ARG:HD2	1:H:304:PHE:HB2	1.83	0.60
1:L:146:LEU:HD22	1:L:167:THR:O	2.01	0.60
1:M:111:GLN:O	1:M:114:ILE:HB	2.00	0.60
1:A:178:LYS:HB3	1:A:178:LYS:HZ3	1.66	0.60
1:A:396:GLY:HA3	1:A:480:ILE:HG22	1.84	0.60
1:D:213:VAL:HG11	1:E:318:ILE:HG23	1.84	0.60
1:E:111:GLN:HA	1:E:114:ILE:HG12	1.82	0.60
1:F:174:VAL:HG12	1:F:381:LEU:HD22	1.83	0.60
1:H:19:ALA:HB3	1:H:97:LEU:HD22	1.83	0.60
1:I:219:ILE:HD11	1:I:336:ILE:HB	1.84	0.60
1:J:146:LEU:HD13	1:J:167:THR:O	2.01	0.60
1:K:88:SER:O	1:K:92:LEU:HD13	2.01	0.60
1:L:219:ILE:HB	1:L:275:ASN:HB3	1.82	0.60
1:N:408:VAL:HA	1:N:411:LEU:HD12	1.84	0.60
1:O:452:LEU:HD13	1:O:465:LEU:HD13	1.82	0.60
1:P:369:ILE:HG23	1:P:372:GLU:OE2	2.02	0.60
1:C:103:LEU:HG	1:C:113:ILE:HD13	1.84	0.60
1:C:207:LEU:O	1:C:347:ILE:HG22	2.00	0.60
1:D:96:LEU:HA	1:D:99:GLU:OE1	2.01	0.60
1:F:46:ALA:O	1:F:47:SER:HB2	2.00	0.60
1:F:59:LYS:NZ	1:F:76:ARG:HD3	2.17	0.60
1:F:451:GLN:HE22	1:F:471:THR:HA	1.66	0.60
1:G:146:LEU:CD2	1:G:167:THR:HG23	2.30	0.60
1:G:185:ALA:HB2	1:G:309:ARG:O	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:325:PRO:C	1:H:326:GLU:HG3	2.27	0.60
1:J:59:LYS:HE3	1:J:73:ASP:HA	1.83	0.60
1:J:100:ALA:HA	1:J:103:LEU:CD2	2.32	0.60
1:K:265:LYS:HE2	1:K:322:PHE:CE1	2.36	0.60
1:L:44:ARG:HG3	1:L:44:ARG:O	2.01	0.60
1:L:397:GLY:O	1:L:465:LEU:HD23	2.02	0.60
1:L:404:MET:O	1:L:408:VAL:HG22	2.01	0.60
1:N:411:LEU:HB3	1:N:423:MET:CE	2.31	0.60
1:O:269:ILE:HG23	1:O:274:ILE:HG22	1.82	0.60
1:B:191:LYS:CE	1:B:346:LEU:HD11	2.29	0.60
1:D:22:ILE:O	1:D:26:VAL:HG22	2.02	0.60
1:D:32:PRO:HA	1:D:155:SER:CB	2.32	0.60
1:D:99:GLU:O	1:D:103:LEU:HD13	2.02	0.60
1:E:226:ILE:HG12	1:E:278:ILE:HG23	1.83	0.60
1:G:450:ALA:HB1	1:N:417:GLY:HA2	1.84	0.60
1:H:134:ASP:OD1	1:H:392:ARG:HA	2.02	0.60
1:K:48:LEU:HD22	1:K:48:LEU:O	2.02	0.60
1:L:148:ASN:HB3	1:L:481:THR:H	1.66	0.60
1:M:123:ALA:HA	1:M:126:GLN:CD	2.27	0.60
1:M:398:GLY:HA2	1:M:401:GLU:OE1	2.02	0.60
1:O:101:GLU:O	1:O:104:ILE:HG12	2.02	0.60
1:O:312:LEU:O	1:O:354:LEU:HD22	2.02	0.60
1:A:390:ASP:HB3	1:A:485:GLN:HE22	1.65	0.60
1:B:112:THR:HG21	1:G:442:GLY:HA3	1.83	0.60
1:B:446:ALA:HB2	1:I:108:ILE:CD1	2.32	0.60
1:C:341:ILE:HG23	1:C:363:ARG:NH2	2.17	0.60
1:C:372:GLU:O	1:C:375:ARG:HD2	2.02	0.60
1:C:505:ASP:O	1:C:506:ASN:HB2	2.02	0.60
1:D:68:ALA:O	1:D:72:VAL:HG23	2.01	0.60
1:D:310:LEU:O	1:D:314:THR:HG22	2.02	0.60
1:G:27:LYS:CA	1:G:436:ILE:HD11	2.30	0.60
1:H:145:ASP:O	1:H:171:VAL:HG11	2.02	0.60
1:J:171:VAL:HA	1:J:174:VAL:CG1	2.32	0.60
1:J:206:LEU:HD11	1:J:346:LEU:HD23	1.83	0.60
1:L:51:THR:HG21	1:L:57:ILE:HB	1.83	0.60
1:L:143:ARG:HA	1:L:143:ARG:HE	1.67	0.60
1:N:205:PHE:O	1:N:349:PHE:HB3	2.02	0.60
1:N:325:PRO:C	1:N:326:GLU:HG3	2.26	0.60
1:O:443:TYR:CD1	1:O:470:GLY:HA2	2.37	0.60
1:P:503:ARG:CG	1:P:504:VAL:H	2.13	0.60
1:C:171:VAL:O	1:C:174:VAL:HG22	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:159:LEU:HD12	1:D:372:GLU:HG2	1.83	0.59
1:D:280:ARG:CD	1:D:304:PHE:HB2	2.32	0.59
1:H:394:VAL:HG21	1:H:487:LYS:HG3	1.84	0.59
1:K:190:LYS:HE2	1:K:370:LEU:HB3	1.82	0.59
1:M:149:ILE:HD12	1:M:482:GLU:HA	1.82	0.59
1:N:159:LEU:HD21	1:N:163:LYS:HG2	1.84	0.59
1:O:74:MET:O	1:O:77:VAL:HG12	2.01	0.59
1:P:59:LYS:HE2	1:P:76:ARG:CB	2.32	0.59
1:P:367:GLN:HG3	1:P:369:ILE:H	1.66	0.59
1:A:51:THR:HA	1:A:375:ARG:HH11	1.67	0.59
1:C:159:LEU:CD1	1:C:372:GLU:HG2	2.32	0.59
1:D:57:ILE:CD1	1:E:509:LYS:HB3	2.32	0.59
1:E:177:LEU:HD23	1:E:186:ILE:CD1	2.31	0.59
1:H:150:ALA:O	1:H:154:LEU:HD13	2.02	0.59
1:H:367:GLN:HE21	1:H:369:ILE:HD12	1.67	0.59
1:I:448:LEU:HD11	1:I:465:LEU:HD11	1.84	0.59
1:J:35:MET:SD	1:K:503:ARG:NH1	2.76	0.59
1:K:226:ILE:HB	1:K:317:GLU:OE2	2.03	0.59
1:K:421:VAL:O	1:K:424:GLU:HG2	2.02	0.59
1:N:59:LYS:HE2	1:N:76:ARG:HB2	1.84	0.59
1:P:109:HIS:HB3	1:P:112:THR:OG1	2.02	0.59
1:B:269:ILE:HG23	1:B:274:ILE:HG22	1.84	0.59
1:C:117:TRP:CZ3	1:C:505:ASP:HA	2.36	0.59
1:D:146:LEU:HD12	1:D:171:VAL:CG1	2.31	0.59
1:E:450:ALA:HB2	1:J:418:LYS:HD2	1.84	0.59
1:E:452:LEU:HD13	1:E:465:LEU:CD1	2.32	0.59
1:F:166:PHE:CZ	1:F:198:ASP:HB3	2.37	0.59
1:F:206:LEU:HG	1:F:361:VAL:HG22	1.84	0.59
1:G:184:GLU:OE1	1:G:312:LEU:HG	2.01	0.59
1:H:262:MET:HE1	1:H:286:TYR:O	2.02	0.59
1:H:381:LEU:HD13	1:H:381:LEU:C	2.26	0.59
1:I:219:ILE:HB	1:I:275:ASN:HB3	1.84	0.59
1:I:504:VAL:HG12	1:I:505:ASP:N	2.17	0.59
1:J:146:LEU:CD2	1:J:147:MET:H	2.16	0.59
1:K:51:THR:HG21	1:K:56:THR:HB	1.85	0.59
1:K:96:LEU:O	1:K:96:LEU:HD22	2.02	0.59
1:L:33:LYS:HB2	1:L:440:ASN:O	2.02	0.59
1:L:188:VAL:HG13	1:L:377:LEU:HD21	1.82	0.59
1:L:341:ILE:HG23	1:L:363:ARG:NH2	2.18	0.59
1:M:222:ALA:O	1:M:333:CYS:HB3	2.01	0.59
1:O:32:PRO:HA	1:O:155:SER:C	2.26	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:231:MET:HG3	1:A:283:ILE:HG13	1.83	0.59
1:C:258:GLU:OE2	1:C:284:TYR:HE2	1.84	0.59
1:C:367:GLN:O	1:C:370:LEU:HB3	2.02	0.59
1:E:106:LYS:HG3	1:E:108:ILE:HG22	1.85	0.59
1:G:269:ILE:HG23	1:G:274:ILE:CG2	2.32	0.59
1:G:334:LYS:HE3	1:G:351:GLY:HA3	1.85	0.59
1:H:106:LYS:HE2	1:H:108:ILE:HD12	1.83	0.59
1:H:265:LYS:HE2	1:H:322:PHE:CE1	2.37	0.59
1:I:82:VAL:HA	1:I:386:GLN:HG3	1.84	0.59
1:L:111:GLN:O	1:L:114:ILE:HG13	2.03	0.59
1:N:86:THR:HG22	1:N:156:SER:HB2	1.85	0.59
1:O:52:ASN:ND2	1:O:157:LYS:HG2	2.17	0.59
1:O:176:ARG:HH12	1:O:201:LEU:HD11	1.65	0.59
1:A:81:GLU:OE2	1:A:489:GLN:HG2	2.01	0.59
1:C:115:ALA:CB	1:C:419:GLU:HA	2.33	0.59
1:G:163:LYS:HD2	1:G:166:PHE:CG	2.38	0.59
1:G:216:PRO:HG2	1:G:295:GLY:HA2	1.84	0.59
1:G:222:ALA:HA	1:G:275:ASN:HB2	1.85	0.59
1:H:431:ARG:HH21	1:H:434:PRO:HG2	1.68	0.59
1:I:146:LEU:HB2	1:I:171:VAL:HG21	1.84	0.59
1:M:59:LYS:HE2	1:M:76:ARG:CB	2.33	0.59
1:O:85:GLY:O	1:O:153:THR:HG23	2.02	0.59
1:O:154:LEU:CD2	1:O:167:THR:HB	2.32	0.59
1:A:171:VAL:O	1:A:174:VAL:HG22	2.02	0.59
1:A:401:GLU:HG2	1:A:433:LEU:HD22	1.85	0.59
1:B:82:VAL:HA	1:B:386:GLN:HG3	1.84	0.59
1:C:52:ASN:HB2	1:C:375:ARG:HD3	1.84	0.59
1:C:354:LEU:HD23	1:C:356:GLU:H	1.68	0.59
1:C:511:ALA:CB	1:C:512:PRO:HD3	2.32	0.59
1:D:133:VAL:HG23	1:D:134:ASP:N	2.13	0.59
1:D:511:ALA:CB	1:D:512:PRO:HD3	2.32	0.59
1:E:92:LEU:HG	1:E:433:LEU:HD11	1.84	0.59
1:E:154:LEU:HD22	1:E:167:THR:CB	2.33	0.59
1:F:397:GLY:HA3	1:F:475:MET:HE3	1.84	0.59
1:G:110:PRO:O	1:G:113:ILE:HB	2.01	0.59
1:I:95:GLU:CD	1:I:432:MET:HB3	2.28	0.59
1:I:216:PRO:CG	1:I:295:GLY:HA2	2.32	0.59
1:K:124:ALA:HB1	1:K:491:LEU:CD1	2.29	0.59
1:L:48:LEU:HA	1:M:509:LYS:HE3	1.85	0.59
1:M:154:LEU:HD21	1:M:376:SER:OG	2.03	0.59
1:O:58:LEU:HB3	1:O:72:VAL:CG1	2.33	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:330:LEU:N	1:P:330:LEU:HD22	2.18	0.59
1:A:101:GLU:O	1:A:104:ILE:HG12	2.03	0.59
1:B:366:THR:HG23	1:B:366:THR:O	2.03	0.59
1:D:448:LEU:C	1:D:448:LEU:HD13	2.27	0.59
1:F:417:GLY:C	1:O:450:ALA:HB1	2.27	0.59
1:G:54:GLY:O	1:G:58:LEU:HD23	2.03	0.59
1:G:123:ALA:HB2	1:G:408:VAL:HG12	1.85	0.59
1:I:59:LYS:HE3	1:I:73:ASP:HA	1.83	0.59
1:J:40:LEU:HG	1:K:510:ALA:HA	1.83	0.59
1:L:159:LEU:HG	1:L:163:LYS:CD	2.32	0.59
1:L:434:PRO:HB3	1:L:452:LEU:CD2	2.32	0.59
1:M:204:GLY:O	1:M:359:THR:HB	2.02	0.59
1:N:173:ALA:CB	1:N:360:ILE:HD11	2.31	0.59
1:P:369:ILE:HG23	1:P:372:GLU:CD	2.28	0.59
1:A:37:LYS:HG3	1:A:52:ASN:HA	1.85	0.59
1:C:39:LEU:HD22	1:H:2:GLY:C	2.28	0.59
1:D:114:ILE:HD13	1:D:503:ARG:NH2	2.13	0.59
1:D:283:ILE:HG22	1:D:300:GLU:HG3	1.84	0.59
1:F:111:GLN:O	1:F:114:ILE:HB	2.03	0.59
1:F:236:ILE:HG12	1:F:237:LYS:H	1.67	0.59
1:H:28:SER:O	1:H:34:GLY:HA2	2.03	0.59
1:H:334:LYS:HD3	1:H:351:GLY:HA3	1.85	0.59
1:H:433:LEU:HA	1:H:436:ILE:HG22	1.85	0.59
1:I:82:VAL:HG11	1:I:485:GLN:HB2	1.84	0.59
1:I:231:MET:HG3	1:I:283:ILE:HG13	1.85	0.59
1:L:159:LEU:HG	1:L:163:LYS:HD3	1.84	0.59
1:M:146:LEU:HD23	1:M:147:MET:N	2.18	0.59
1:N:188:VAL:HG11	1:N:377:LEU:CD2	2.27	0.59
1:N:310:LEU:O	1:N:314:THR:HG22	2.02	0.59
1:O:69:LYS:CB	1:O:509:LYS:HE2	2.33	0.59
1:O:188:VAL:HG11	1:O:377:LEU:HD22	1.84	0.59
1:P:108:ILE:HG22	1:P:109:HIS:H	1.68	0.59
1:B:59:LYS:HE3	1:B:73:ASP:HA	1.83	0.59
1:C:82:VAL:HG22	1:C:486:VAL:HG13	1.85	0.59
1:D:39:LEU:HG	1:E:509:LYS:CA	2.32	0.59
1:E:210:LYS:HE2	1:E:212:GLY:O	2.02	0.59
1:F:112:THR:HG21	1:F:418:LYS:CE	2.32	0.59
1:F:114:ILE:HA	1:F:117:TRP:CE3	2.37	0.59
1:I:78:GLN:HG3	1:I:83:GLY:HA3	1.84	0.59
1:J:93:ALA:O	1:J:96:LEU:HD12	2.03	0.59
1:K:33:LYS:HB2	1:K:440:ASN:O	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:46:ALA:O	1:K:47:SER:HB3	2.03	0.59
1:K:448:LEU:HD13	1:K:448:LEU:C	2.28	0.59
1:L:401:GLU:HG2	1:L:433:LEU:HD22	1.85	0.59
1:M:114:ILE:HA	1:M:117:TRP:CE3	2.38	0.59
1:N:78:GLN:HE22	1:N:486:VAL:HA	1.68	0.59
1:B:417:GLY:HA3	1:I:447:ASP:HA	1.83	0.59
1:C:452:LEU:HD13	1:C:465:LEU:CD1	2.33	0.59
1:D:316:GLY:O	1:D:330:LEU:HB2	2.02	0.59
1:D:397:GLY:HA3	1:D:475:MET:HE3	1.84	0.59
1:E:117:TRP:CE2	1:E:499:GLU:HG3	2.38	0.59
1:G:417:GLY:CA	1:N:450:ALA:HB1	2.28	0.59
1:H:11:ALA:HB1	1:H:505:ASP:HB2	1.83	0.59
1:H:284:TYR:O	1:H:287:PRO:HD2	2.02	0.59
1:I:92:LEU:HD11	1:I:433:LEU:HD21	1.85	0.59
1:J:78:GLN:HG3	1:J:83:GLY:HA2	1.83	0.59
1:J:128:LEU:HD13	1:J:394:VAL:CG1	2.22	0.59
1:K:269:ILE:HG23	1:K:274:ILE:CG2	2.33	0.59
1:K:486:VAL:O	1:K:490:VAL:HG13	2.03	0.59
1:L:74:MET:O	1:L:77:VAL:HG12	2.03	0.59
1:N:40:LEU:HB2	1:N:48:LEU:HG	1.84	0.59
1:N:159:LEU:HD11	1:N:163:LYS:HD3	1.84	0.59
1:O:119:GLU:O	1:O:122:LYS:HB3	2.03	0.59
1:O:177:LEU:CD1	1:O:186:ILE:HD11	2.32	0.59
1:O:380:ALA:O	1:O:384:LEU:HD23	2.02	0.59
1:A:59:LYS:HE3	1:A:73:ASP:HA	1.84	0.58
1:A:448:LEU:HD11	1:A:465:LEU:HD11	1.85	0.58
1:B:173:ALA:O	1:B:176:ARG:HG2	2.02	0.58
1:B:485:GLN:HG2	1:B:488:ARG:HH21	1.69	0.58
1:D:109:HIS:HB3	1:H:442:GLY:HA2	1.84	0.58
1:E:32:PRO:HD3	1:E:467:MET:CE	2.33	0.58
1:I:37:LYS:HG2	1:N:7:ARG:CB	2.33	0.58
1:I:115:ALA:O	1:I:118:ARG:HG2	2.03	0.58
1:L:15:SER:HB3	1:L:501:ILE:CG2	2.33	0.58
1:L:187:HIS:O	1:L:359:THR:HG23	2.03	0.58
1:M:206:LEU:HD21	1:M:346:LEU:HD23	1.84	0.58
1:O:64:ASP:O	1:O:508:ILE:HD13	2.03	0.58
1:O:246:ASP:O	1:O:247:SER:HB3	2.02	0.58
1:P:187:HIS:O	1:P:359:THR:HG23	2.03	0.58
1:A:128:LEU:CD2	1:A:488:ARG:HG2	2.32	0.58
1:A:146:LEU:HD21	1:A:150:ALA:CB	2.30	0.58
1:A:412:ALA:HB1	1:A:424:GLU:HB2	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:262:MET:HE1	1:B:286:TYR:O	2.03	0.58
1:C:411:LEU:HB3	1:C:423:MET:CE	2.33	0.58
1:H:12:ARG:HD3	1:H:502:LEU:HD12	1.84	0.58
1:I:324:HIS:HB2	1:I:329:LYS:HZ1	1.66	0.58
1:K:283:ILE:HG22	1:K:300:GLU:CG	2.32	0.58
1:L:146:LEU:HB2	1:L:171:VAL:CG2	2.33	0.58
1:O:5:GLU:HG3	1:O:5:GLU:O	2.02	0.58
1:C:146:LEU:HD12	1:C:171:VAL:HG22	1.85	0.58
1:D:5:GLU:O	1:D:505:ASP:HA	2.03	0.58
1:G:65:ASN:CG	1:G:66:PRO:HD3	2.28	0.58
1:G:268:ARG:O	1:G:271:LYS:HG2	2.04	0.58
1:H:122:LYS:O	1:H:126:GLN:HG3	2.03	0.58
1:H:149:ILE:HD13	1:H:383:VAL:CG1	2.33	0.58
1:I:39:LEU:HD11	1:I:57:ILE:CG1	2.32	0.58
1:J:146:LEU:HD23	1:J:147:MET:N	2.17	0.58
1:K:32:PRO:CA	1:K:155:SER:HB3	2.32	0.58
1:K:209:LYS:HE2	1:K:301:HIS:O	2.03	0.58
1:K:452:LEU:HD11	1:K:456:HIS:HE1	1.67	0.58
1:N:163:LYS:HD2	1:N:166:PHE:CG	2.38	0.58
1:P:154:LEU:HD21	1:P:163:LYS:HZ3	1.67	0.58
1:A:36:ASP:OD1	1:A:158:LEU:HD13	2.03	0.58
1:B:111:GLN:OE1	1:B:503:ARG:HA	2.01	0.58
1:B:402:MET:SD	1:B:456:HIS:HB2	2.44	0.58
1:C:38:ILE:HB	1:H:507:ILE:HD13	1.84	0.58
1:E:32:PRO:N	1:E:155:SER:HB3	2.18	0.58
1:F:52:ASN:HB3	1:F:375:ARG:HD3	1.86	0.58
1:F:146:LEU:HD13	1:F:167:THR:O	2.04	0.58
1:F:512:PRO:O	1:F:513:ARG:HG2	2.04	0.58
1:I:2:GLY:HA3	1:O:40:LEU:O	2.02	0.58
1:I:31:GLY:HA3	1:I:467:MET:SD	2.43	0.58
1:I:412:ALA:CB	1:I:424:GLU:HB3	2.33	0.58
1:J:40:LEU:HD22	1:J:41:SER:H	1.67	0.58
1:L:32:PRO:HA	1:L:155:SER:HB3	1.84	0.58
1:L:367:GLN:HG3	1:L:369:ILE:HB	1.85	0.58
1:M:58:LEU:HB3	1:M:72:VAL:CG1	2.34	0.58
1:O:171:VAL:HG12	1:O:384:LEU:HG	1.85	0.58
1:A:52:ASN:H	1:A:375:ARG:HD2	1.68	0.58
1:A:152:THR:OG1	1:A:480:ILE:HG12	2.04	0.58
1:C:38:ILE:HG22	1:C:50:VAL:HG12	1.83	0.58
1:C:166:PHE:CZ	1:C:198:ASP:HB3	2.38	0.58
1:C:225:LEU:HD13	1:C:329:LYS:CE	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:106:LYS:CE	1:F:421:VAL:HG11	2.33	0.58
1:F:163:LYS:HD2	1:F:166:PHE:CG	2.39	0.58
1:F:401:GLU:HG2	1:F:433:LEU:HD22	1.84	0.58
1:H:499:GLU:O	1:H:503:ARG:HD2	2.03	0.58
1:I:97:LEU:HD21	1:I:501:ILE:CG2	2.33	0.58
1:J:163:LYS:O	1:J:166:PHE:HB2	2.03	0.58
1:J:203:GLU:HG2	1:J:350:SER:HB2	1.85	0.58
1:K:276:CYS:HA	1:K:297:MET:O	2.02	0.58
1:L:28:SER:O	1:L:34:GLY:HA2	2.02	0.58
1:L:508:ILE:HB	1:P:39:LEU:CD2	2.34	0.58
1:M:59:LYS:HE3	1:M:73:ASP:HA	1.85	0.58
1:M:345:LYS:C	1:M:346:LEU:HD12	2.29	0.58
1:N:75:SER:O	1:N:78:GLN:HB3	2.04	0.58
1:P:52:ASN:HB2	1:P:375:ARG:HH11	1.67	0.58
1:P:317:GLU:HB2	1:P:329:LYS:HD3	1.84	0.58
1:B:110:PRO:HA	1:B:113:ILE:HD12	1.85	0.58
1:B:322:PHE:HA	1:B:324:HIS:CD2	2.38	0.58
1:D:67:ALA:HB2	1:D:509:LYS:O	2.01	0.58
1:D:145:ASP:O	1:D:171:VAL:HG11	2.04	0.58
1:E:117:TRP:CD1	1:E:499:GLU:HG3	2.39	0.58
1:E:324:HIS:HB2	1:E:329:LYS:CE	2.33	0.58
1:F:412:ALA:CB	1:F:424:GLU:HB3	2.34	0.58
1:G:485:GLN:HB2	1:G:489:GLN:HE22	1.69	0.58
1:I:19:ALA:HB1	1:I:94:ALA:HA	1.85	0.58
1:J:146:LEU:HD23	1:J:147:MET:H	1.68	0.58
1:K:80:ASP:OD1	1:K:81:GLU:HG3	2.04	0.58
1:M:38:ILE:CD1	1:O:507:ILE:HA	2.34	0.58
1:P:16:PHE:HA	1:P:97:LEU:HD23	1.85	0.58
1:A:51:THR:HA	1:A:375:ARG:HD2	1.85	0.58
1:A:236:ILE:HG12	1:A:237:LYS:H	1.68	0.58
1:E:146:LEU:HD21	1:E:167:THR:HG23	1.86	0.58
1:E:511:ALA:N	1:E:512:PRO:HD3	2.17	0.58
1:F:216:PRO:HG2	1:F:295:GLY:HA2	1.84	0.58
1:G:226:ILE:HG12	1:G:278:ILE:HG23	1.86	0.58
1:J:185:ALA:HB1	1:J:357:ALA:CB	2.33	0.58
1:K:148:ASN:HA	1:K:480:ILE:HA	1.86	0.58
1:L:173:ALA:HA	1:L:176:ARG:CZ	2.34	0.58
1:N:173:ALA:HA	1:N:176:ARG:CZ	2.34	0.58
1:N:433:LEU:HB2	1:N:434:PRO:HD3	1.85	0.58
1:O:62:GLY:HA2	1:O:509:LYS:HZ3	1.67	0.58
1:O:226:ILE:HG12	1:O:278:ILE:HG23	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:402:MET:SD	1:O:453:ARG:HA	2.43	0.58
1:P:159:LEU:HG	1:P:163:LYS:CD	2.33	0.58
1:P:206:LEU:CD2	1:P:346:LEU:HD23	2.32	0.58
1:C:110:PRO:HA	1:C:113:ILE:HD12	1.86	0.58
1:C:171:VAL:HG12	1:C:384:LEU:HG	1.84	0.58
1:C:417:GLY:O	1:C:418:LYS:HB3	2.04	0.58
1:D:32:PRO:HD2	1:D:467:MET:CE	2.34	0.58
1:E:174:VAL:HG11	1:E:384:LEU:CB	2.34	0.58
1:E:317:GLU:OE1	1:E:329:LYS:HB3	2.04	0.58
1:E:487:LYS:O	1:E:491:LEU:HG	2.03	0.58
1:G:448:LEU:HD21	1:G:465:LEU:CD1	2.32	0.58
1:H:502:LEU:C	1:H:502:LEU:HD23	2.28	0.58
1:J:226:ILE:HG12	1:J:278:ILE:HG23	1.86	0.58
1:K:402:MET:CE	1:K:453:ARG:HG2	2.33	0.58
1:M:126:GLN:OE1	1:M:408:VAL:HG12	2.04	0.58
1:M:248:THR:O	1:M:251:VAL:HG12	2.03	0.58
1:N:323:ASP:C	1:N:325:PRO:HD2	2.29	0.58
1:P:401:GLU:HG2	1:P:433:LEU:HD22	1.84	0.58
1:P:498:ALA:C	1:P:500:VAL:HB	2.28	0.58
1:B:116:GLY:O	1:B:119:GLU:HB2	2.03	0.58
1:F:126:GLN:NE2	1:F:411:LEU:HD11	2.19	0.58
1:J:108:ILE:HG22	1:J:109:HIS:N	2.19	0.58
1:K:222:ALA:HA	1:K:275:ASN:OD1	2.04	0.58
1:L:59:LYS:CE	1:L:76:ARG:HB2	2.34	0.58
1:M:334:LYS:HB3	1:M:350:SER:O	2.03	0.58
1:M:341:ILE:HG23	1:M:363:ARG:NH2	2.19	0.58
1:O:193:GLY:HA3	1:O:343:GLU:OE2	2.04	0.58
1:P:223:LYS:HB2	1:P:274:ILE:HA	1.86	0.58
1:B:96:LEU:HD11	1:B:117:TRP:CZ2	2.39	0.58
1:D:154:LEU:HD23	1:D:163:LYS:CG	2.34	0.58
1:H:40:LEU:HD22	1:H:41:SER:N	2.19	0.58
1:H:91:VAL:HG21	1:H:436:ILE:CD1	2.34	0.58
1:H:159:LEU:HA	1:H:369:ILE:CG2	2.34	0.58
1:H:334:LYS:CD	1:H:351:GLY:HA3	2.34	0.58
1:J:154:LEU:CD2	1:J:163:LYS:HG3	2.31	0.58
1:J:452:LEU:HD13	1:J:465:LEU:CD1	2.34	0.58
1:M:67:ALA:CB	1:M:507:ILE:HG13	2.34	0.58
1:M:250:LYS:O	1:M:253:GLU:HG2	2.04	0.58
1:N:32:PRO:HG2	1:N:441:ALA:HA	1.86	0.58
1:N:119:GLU:OE1	1:N:119:GLU:HA	2.04	0.58
1:O:451:GLN:NE2	1:O:471:THR:HA	2.19	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:163:LYS:O	1:A:166:PHE:HB2	2.04	0.57
1:B:317:GLU:HB2	1:B:329:LYS:HD3	1.86	0.57
1:C:225:LEU:HD11	1:C:324:HIS:CE1	2.39	0.57
1:C:397:GLY:O	1:C:465:LEU:HD23	2.04	0.57
1:D:141:LYS:CG	1:D:144:GLN:HB2	2.34	0.57
1:D:444:ASP:HA	1:K:108:ILE:CD1	2.34	0.57
1:E:160:THR:HA	1:E:163:LYS:HB3	1.84	0.57
1:H:412:ALA:CB	1:H:424:GLU:HB3	2.34	0.57
1:I:36:ASP:H	1:N:7:ARG:CZ	2.16	0.57
1:K:40:LEU:HG	1:P:508:ILE:CG2	2.30	0.57
1:O:175:LEU:O	1:O:178:LYS:HG2	2.03	0.57
1:O:232:ASP:HA	1:O:284:TYR:CD1	2.39	0.57
1:B:324:HIS:HB2	1:B:329:LYS:HZ3	1.69	0.57
1:C:276:CYS:HA	1:C:297:MET:O	2.04	0.57
1:C:324:HIS:HB2	1:C:329:LYS:CE	2.34	0.57
1:C:385:ALA:O	1:C:388:VAL:HG12	2.04	0.57
1:D:66:PRO:HA	1:D:510:ALA:C	2.29	0.57
1:D:185:ALA:H	1:D:309:ARG:HD2	1.68	0.57
1:E:365:ALA:HB1	1:E:367:GLN:NE2	2.18	0.57
1:F:141:LYS:CG	1:F:144:GLN:HB2	2.33	0.57
1:F:146:LEU:CD1	1:F:171:VAL:HG13	2.25	0.57
1:G:324:HIS:O	1:G:328:VAL:HG23	2.04	0.57
1:H:28:SER:HB2	1:H:35:MET:HE2	1.84	0.57
1:I:158:LEU:HD13	1:N:503:ARG:HD2	1.85	0.57
1:I:280:ARG:HD2	1:I:304:PHE:HB2	1.85	0.57
1:N:36:ASP:OD2	1:N:369:ILE:HA	2.04	0.57
1:O:173:ALA:CB	1:O:360:ILE:HD11	2.34	0.57
1:P:108:ILE:HG22	1:P:109:HIS:N	2.19	0.57
1:A:269:ILE:HG12	1:A:274:ILE:HG21	1.87	0.57
1:A:312:LEU:O	1:A:354:LEU:HD22	2.04	0.57
1:C:48:LEU:HB3	1:H:507:ILE:CG1	2.34	0.57
1:C:416:PRO:HA	1:L:454:ALA:HB2	1.86	0.57
1:E:438:ALA:CB	1:E:448:LEU:HG	2.34	0.57
1:F:452:LEU:HD22	1:F:465:LEU:HD11	1.86	0.57
1:G:210:LYS:HE2	1:G:212:GLY:O	2.04	0.57
1:G:412:ALA:CB	1:G:424:GLU:HB3	2.34	0.57
1:H:173:ALA:HB2	1:H:360:ILE:HD11	1.85	0.57
1:K:146:LEU:HD21	1:K:167:THR:HG23	1.86	0.57
1:K:157:LYS:CE	1:K:376:SER:HA	2.34	0.57
1:K:198:ASP:O	1:K:363:ARG:HB2	2.04	0.57
1:L:390:ASP:HB3	1:L:485:GLN:CD	2.29	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:433:LEU:O	1:M:436:ILE:HG22	2.03	0.57
1:N:64:ASP:CG	1:N:513:ARG:HH12	2.12	0.57
1:N:78:GLN:NE2	1:N:486:VAL:HA	2.20	0.57
1:N:206:LEU:HD21	1:N:346:LEU:CD2	2.34	0.57
1:N:286:TYR:HA	1:N:289:GLN:HE21	1.69	0.57
1:O:36:ASP:OD2	1:O:372:GLU:HG3	2.03	0.57
1:A:39:LEU:CD1	1:A:57:ILE:HG13	2.34	0.57
1:A:191:LYS:HE2	1:A:191:LYS:HA	1.85	0.57
1:D:82:VAL:HG21	1:D:485:GLN:HB2	1.87	0.57
1:D:390:ASP:HB2	1:D:485:GLN:HE22	1.69	0.57
1:D:444:ASP:HA	1:K:108:ILE:HD13	1.86	0.57
1:E:191:LYS:HZ3	1:E:346:LEU:HD21	1.68	0.57
1:E:446:ALA:HB1	1:J:418:LYS:NZ	2.19	0.57
1:E:512:PRO:O	1:E:513:ARG:HB2	2.04	0.57
1:J:148:ASN:HA	1:J:479:GLY:C	2.29	0.57
1:J:204:GLY:HA3	1:J:350:SER:HA	1.86	0.57
1:K:37:LYS:O	1:K:50:VAL:HG23	2.03	0.57
1:K:334:LYS:CB	1:K:351:GLY:HA3	2.35	0.57
1:K:390:ASP:CB	1:K:485:GLN:HE22	2.17	0.57
1:L:101:GLU:O	1:L:104:ILE:HG12	2.04	0.57
1:L:127:ALA:HB1	1:L:404:MET:SD	2.44	0.57
1:L:190:LYS:HD2	1:L:190:LYS:C	2.29	0.57
1:M:146:LEU:HD13	1:M:167:THR:O	2.04	0.57
1:N:438:ALA:CB	1:N:448:LEU:HG	2.33	0.57
1:B:181:GLY:O	1:B:182:ASN:HB2	2.03	0.57
1:D:507:ILE:CG2	1:H:38:ILE:HD12	2.33	0.57
1:H:27:LYS:HB2	1:H:436:ILE:HG13	1.87	0.57
1:H:106:LYS:HZ3	1:H:113:ILE:HG12	1.70	0.57
1:H:438:ALA:HB3	1:H:448:LEU:HG	1.86	0.57
1:I:404:MET:HE3	1:I:430:LEU:HD11	1.87	0.57
1:J:152:THR:CB	1:J:480:ILE:HG12	2.35	0.57
1:K:171:VAL:HA	1:K:174:VAL:HG13	1.86	0.57
1:K:496:GLU:O	1:K:500:VAL:HG22	2.05	0.57
1:L:145:ASP:OD1	1:L:171:VAL:HB	2.04	0.57
1:L:377:LEU:HA	1:L:380:ALA:HB3	1.87	0.57
1:M:372:GLU:HG3	1:M:375:ARG:NH2	2.19	0.57
1:M:390:ASP:HB2	1:M:485:GLN:HE22	1.69	0.57
1:N:28:SER:O	1:N:34:GLY:HA2	2.05	0.57
1:A:158:LEU:HA	1:C:501:ILE:HD13	1.87	0.57
1:A:166:PHE:CD2	1:A:362:LEU:HD22	2.40	0.57
1:A:269:ILE:HG23	1:A:274:ILE:CG2	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:32:PRO:HD2	1:B:467:MET:CE	2.27	0.57
1:D:124:ALA:O	1:D:128:LEU:HG	2.04	0.57
1:E:146:LEU:CD1	1:E:171:VAL:HG13	2.17	0.57
1:H:146:LEU:CD1	1:H:171:VAL:HG13	2.34	0.57
1:J:154:LEU:HD22	1:J:167:THR:OG1	2.05	0.57
1:K:32:PRO:HA	1:K:155:SER:CA	2.35	0.57
1:K:312:LEU:O	1:K:354:LEU:HD22	2.05	0.57
1:L:119:GLU:HB3	1:L:419:GLU:HG2	1.86	0.57
1:L:128:LEU:HD13	1:L:488:ARG:HG2	1.86	0.57
1:M:236:ILE:HG12	1:M:237:LYS:H	1.69	0.57
1:N:26:VAL:O	1:N:29:THR:HB	2.05	0.57
1:N:191:LYS:HD2	1:N:341:ILE:HB	1.85	0.57
1:N:287:PRO:O	1:N:291:PHE:HD2	1.88	0.57
1:A:1:ALA:HB1	1:F:39:LEU:HB2	1.85	0.57
1:A:116:GLY:O	1:A:119:GLU:HB2	2.04	0.57
1:A:352:VAL:HG22	1:A:355:GLY:H	1.70	0.57
1:B:284:TYR:O	1:B:287:PRO:HD2	2.04	0.57
1:E:58:LEU:HB3	1:E:72:VAL:CG1	2.34	0.57
1:E:124:ALA:CB	1:E:491:LEU:HD22	2.35	0.57
1:G:446:ALA:HB3	1:N:108:ILE:CG2	2.34	0.57
1:G:452:LEU:HD13	1:G:465:LEU:CD1	2.35	0.57
1:H:97:LEU:HG	1:H:501:ILE:HG21	1.85	0.57
1:H:187:HIS:O	1:H:359:THR:HG23	2.04	0.57
1:H:433:LEU:HB2	1:H:434:PRO:HD3	1.87	0.57
1:J:118:ARG:O	1:J:121:THR:HB	2.04	0.57
1:M:219:ILE:HD11	1:M:336:ILE:HB	1.85	0.57
1:N:146:LEU:HD22	1:N:167:THR:HG23	1.87	0.57
1:N:324:HIS:O	1:N:329:LYS:HG2	2.05	0.57
1:O:113:ILE:HA	1:O:422:ALA:HB2	1.87	0.57
1:O:504:VAL:HG11	1:O:507:ILE:CD1	2.34	0.57
1:O:511:ALA:HB3	1:O:512:PRO:HD2	1.87	0.57
1:P:14:SER:O	1:P:17:ILE:HG22	2.05	0.57
1:P:57:ILE:HG23	1:P:58:LEU:HD22	1.85	0.57
1:A:203:GLU:HG3	1:A:350:SER:HB2	1.86	0.57
1:A:453:ARG:CZ	1:M:413:SER:HA	2.34	0.57
1:B:280:ARG:HD2	1:B:304:PHE:HB2	1.85	0.57
1:G:96:LEU:HD11	1:G:117:TRP:CZ2	2.36	0.57
1:G:99:GLU:HG2	1:G:425:SER:HB2	1.86	0.57
1:G:206:LEU:HD22	1:G:207:LEU:N	2.20	0.57
1:H:59:LYS:CE	1:H:76:ARG:HB2	2.35	0.57
1:H:452:LEU:HD22	1:H:465:LEU:HD21	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:63:VAL:HG21	1:N:3:ALA:H	1.68	0.57
1:J:372:GLU:HG3	1:J:375:ARG:CD	2.35	0.57
1:J:439:ASP:HA	1:K:109:HIS:NE2	2.20	0.57
1:K:109:HIS:HB3	1:K:112:THR:OG1	2.05	0.57
1:K:127:ALA:HA	1:K:130:ASN:ND2	2.19	0.57
1:L:32:PRO:HA	1:L:155:SER:C	2.29	0.57
1:L:50:VAL:HG11	1:L:368:GLN:O	2.04	0.57
1:L:96:LEU:O	1:L:96:LEU:HD22	2.05	0.57
1:N:334:LYS:CB	1:N:351:GLY:HA3	2.35	0.57
1:O:128:LEU:C	1:O:129:LEU:HD13	2.29	0.57
1:O:153:THR:CG2	1:O:379:ASP:HB3	2.35	0.57
1:O:164:ASP:O	1:O:167:THR:HG22	2.03	0.57
1:O:190:LYS:HE2	1:O:371:ASP:OD1	2.04	0.57
1:A:69:LYS:HB3	1:A:509:LYS:HZ1	1.70	0.57
1:A:269:ILE:HG23	1:A:274:ILE:HG21	1.86	0.57
1:B:40:LEU:HD22	1:B:41:SER:N	2.20	0.57
1:C:222:ALA:HA	1:C:275:ASN:OD1	2.04	0.57
1:D:438:ALA:HB2	1:D:448:LEU:HG	1.87	0.57
1:E:193:GLY:HA3	1:E:343:GLU:CD	2.30	0.57
1:E:313:VAL:HG13	1:E:352:VAL:HB	1.87	0.57
1:E:408:VAL:HA	1:E:411:LEU:HD12	1.87	0.57
1:F:160:THR:HA	1:F:163:LYS:HB3	1.87	0.57
1:F:174:VAL:HG11	1:F:384:LEU:HB2	1.86	0.57
1:F:188:VAL:HG21	1:F:377:LEU:HD23	1.87	0.57
1:F:367:GLN:HE21	1:F:369:ILE:HB	1.68	0.57
1:G:398:GLY:HA2	1:G:401:GLU:OE1	2.04	0.57
1:H:32:PRO:HD2	1:H:467:MET:CE	2.33	0.57
1:H:392:ARG:C	1:H:484:PHE:HB2	2.30	0.57
1:I:50:VAL:HG22	1:I:375:ARG:CZ	2.35	0.57
1:I:125:ARG:HG3	1:I:126:GLN:N	2.18	0.57
1:I:431:ARG:HH21	1:I:434:PRO:HG2	1.70	0.57
1:J:150:ALA:HB1	1:J:167:THR:OG1	2.05	0.57
1:K:30:LEU:HD13	1:K:436:ILE:HD11	1.85	0.57
1:K:499:GLU:HG2	1:K:503:ARG:NE	2.20	0.57
1:M:68:ALA:O	1:M:72:VAL:HG23	2.05	0.57
1:M:154:LEU:HD12	1:M:167:THR:OG1	2.04	0.57
1:M:508:ILE:HG23	1:M:509:LYS:HG2	1.86	0.57
1:N:8:ALA:HB1	1:N:506:ASN:O	2.05	0.57
1:O:50:VAL:O	1:O:375:ARG:HD3	2.03	0.57
1:O:159:LEU:HD12	1:O:372:GLU:CD	2.29	0.57
1:O:244:ARG:HG3	1:O:245:VAL:N	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:274:ILE:HG23	1:P:296:VAL:HG21	1.87	0.57
1:P:324:HIS:ND1	1:P:325:PRO:HD3	2.19	0.57
1:P:475:MET:SD	1:P:480:ILE:HB	2.45	0.57
1:A:69:LYS:HD3	1:A:509:LYS:HZ1	1.70	0.57
1:C:226:ILE:HD13	1:C:307:VAL:HG13	1.87	0.57
1:D:32:PRO:HD2	1:D:467:MET:HE3	1.87	0.57
1:D:38:ILE:CG2	1:D:50:VAL:HB	2.33	0.57
1:G:34:GLY:HA3	1:G:156:SER:O	2.05	0.57
1:G:108:ILE:HG21	1:N:446:ALA:HB3	1.86	0.57
1:G:404:MET:CE	1:G:430:LEU:HD11	2.34	0.57
1:K:191:LYS:HE3	1:K:191:LYS:HA	1.86	0.57
1:K:266:VAL:HB	1:K:290:LEU:CD2	2.33	0.57
1:M:149:ILE:HA	1:M:152:THR:HG23	1.86	0.57
1:N:485:GLN:HB3	1:N:489:GLN:HE22	1.69	0.57
1:A:177:LEU:HD13	1:A:177:LEU:C	2.29	0.56
1:B:78:GLN:OE1	1:B:489:GLN:HB2	2.05	0.56
1:B:390:ASP:HB3	1:B:485:GLN:CD	2.30	0.56
1:B:431:ARG:HA	1:B:431:ARG:CZ	2.34	0.56
1:D:185:ALA:HB3	1:D:357:ALA:CB	2.35	0.56
1:D:305:VAL:O	1:D:309:ARG:HG2	2.04	0.56
1:F:51:THR:HA	1:F:375:ARG:HH12	1.70	0.56
1:G:84:ASP:OD2	1:G:379:ASP:HA	2.04	0.56
1:G:324:HIS:HB2	1:G:329:LYS:NZ	2.20	0.56
1:H:149:ILE:HD13	1:H:383:VAL:HG11	1.86	0.56
1:I:133:VAL:HG23	1:I:134:ASP:H	1.68	0.56
1:J:191:LYS:HD3	1:J:192:LEU:H	1.70	0.56
1:K:43:GLY:O	1:K:44:ARG:HB2	2.05	0.56
1:O:51:THR:HA	1:O:375:ARG:CD	2.34	0.56
1:P:164:ASP:O	1:P:167:THR:HG22	2.05	0.56
1:P:269:ILE:CG2	1:P:274:ILE:HG21	2.35	0.56
1:C:438:ALA:HB2	1:C:448:LEU:HG	1.87	0.56
1:E:39:LEU:CD2	1:G:512:PRO:HG2	2.32	0.56
1:F:280:ARG:HD2	1:F:304:PHE:HB2	1.86	0.56
1:H:114:ILE:HA	1:H:117:TRP:CE3	2.39	0.56
1:K:163:LYS:HD2	1:K:166:PHE:CG	2.40	0.56
1:L:141:LYS:O	1:L:145:ASP:HB2	2.04	0.56
1:L:206:LEU:HB2	1:L:359:THR:HG21	1.87	0.56
1:L:387:THR:HA	1:L:390:ASP:OD2	2.05	0.56
1:M:317:GLU:HB2	1:M:329:LYS:HD3	1.86	0.56
1:M:448:LEU:HD13	1:M:448:LEU:C	2.30	0.56
1:O:408:VAL:HG23	1:O:427:ALA:HB1	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:157:LYS:HB3	1:P:159:LEU:CD1	2.36	0.56
1:P:226:ILE:HG12	1:P:278:ILE:HG23	1.87	0.56
1:P:448:LEU:HD11	1:P:465:LEU:HD11	1.86	0.56
1:B:106:LYS:NZ	1:B:418:LYS:HD3	2.20	0.56
1:B:124:ALA:HB1	1:B:491:LEU:HB3	1.86	0.56
1:B:128:LEU:HG	1:B:488:ARG:HG2	1.87	0.56
1:C:61:ILE:CG2	1:C:63:VAL:HG23	2.36	0.56
1:C:444:ASP:OD2	1:L:112:THR:HG21	2.05	0.56
1:D:143:ARG:NE	1:D:143:ARG:HA	2.21	0.56
1:D:452:LEU:HD13	1:D:465:LEU:HD13	1.87	0.56
1:D:485:GLN:HE21	1:D:488:ARG:NH2	2.03	0.56
1:E:63:VAL:HG21	1:G:511:ALA:O	2.05	0.56
1:E:191:LYS:NZ	1:E:346:LEU:HD21	2.21	0.56
1:E:276:CYS:HA	1:E:297:MET:O	2.05	0.56
1:E:369:ILE:O	1:E:372:GLU:HB3	2.06	0.56
1:F:65:ASN:ND2	1:F:509:LYS:HE2	2.20	0.56
1:G:274:ILE:HG23	1:G:296:VAL:HG21	1.87	0.56
1:H:101:GLU:O	1:H:104:ILE:HG12	2.05	0.56
1:H:181:GLY:O	1:H:182:ASN:HB2	2.04	0.56
1:H:265:LYS:O	1:H:269:ILE:HB	2.04	0.56
1:H:345:LYS:O	1:H:346:LEU:HD12	2.05	0.56
1:H:452:LEU:HD11	1:H:456:HIS:HE1	1.71	0.56
1:I:324:HIS:ND1	1:I:325:PRO:HD3	2.20	0.56
1:J:146:LEU:HB2	1:J:171:VAL:CG2	2.35	0.56
1:J:146:LEU:HD23	1:J:148:ASN:H	1.71	0.56
1:J:154:LEU:HD22	1:J:167:THR:CB	2.34	0.56
1:K:204:GLY:O	1:K:359:THR:HB	2.05	0.56
1:K:297:MET:CE	1:K:347:ILE:HD11	2.34	0.56
1:L:22:ILE:HD12	1:L:90:THR:CG2	2.36	0.56
1:L:38:ILE:HG22	1:L:50:VAL:CG2	2.35	0.56
1:L:125:ARG:HA	1:L:128:LEU:CD1	2.35	0.56
1:M:71:LEU:HD12	1:M:501:ILE:HG13	1.86	0.56
1:M:117:TRP:HE1	1:M:498:ALA:HB1	1.69	0.56
1:N:36:ASP:OD2	1:N:369:ILE:HD13	2.05	0.56
1:N:171:VAL:O	1:N:175:LEU:HG	2.05	0.56
1:N:262:MET:HE1	1:N:286:TYR:O	2.05	0.56
1:N:284:TYR:CE2	1:N:286:TYR:HD2	2.24	0.56
1:O:159:LEU:HD23	1:O:163:LYS:HB3	1.88	0.56
1:O:161:HIS:CD2	1:O:162:HIS:H	2.22	0.56
1:P:157:LYS:HB3	1:P:159:LEU:HD11	1.88	0.56
1:P:310:LEU:O	1:P:314:THR:HG22	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:500:VAL:CG2	1:P:501:ILE:H	2.07	0.56
1:C:287:PRO:O	1:C:291:PHE:HD1	1.89	0.56
1:E:433:LEU:HB2	1:E:434:PRO:HD3	1.88	0.56
1:F:138:ASP:O	1:F:139:GLU:HB2	2.05	0.56
1:H:434:PRO:HB3	1:H:452:LEU:CD2	2.35	0.56
1:J:433:LEU:HA	1:J:436:ILE:HG22	1.87	0.56
1:L:402:MET:CE	1:L:453:ARG:HG2	2.31	0.56
1:M:173:ALA:CB	1:M:360:ILE:HD11	2.31	0.56
1:N:182:ASN:ND2	1:N:184:GLU:HB2	2.20	0.56
1:O:10:THR:O	1:O:13:LEU:HB3	2.06	0.56
1:O:223:LYS:HB2	1:O:274:ILE:HA	1.86	0.56
1:A:163:LYS:HE3	1:A:376:SER:HB3	1.86	0.56
1:B:159:LEU:CD1	1:B:372:GLU:HG2	2.35	0.56
1:B:159:LEU:CD1	1:B:376:SER:HB2	2.36	0.56
1:B:503:ARG:HH22	1:G:158:LEU:CD2	2.11	0.56
1:C:372:GLU:CA	1:C:375:ARG:HD2	2.36	0.56
1:C:379:ASP:O	1:C:383:VAL:HG23	2.04	0.56
1:E:448:LEU:HD13	1:E:448:LEU:C	2.30	0.56
1:F:19:ALA:HB3	1:F:98:ARG:HH22	1.70	0.56
1:F:58:LEU:HB3	1:F:72:VAL:CG1	2.35	0.56
1:G:108:ILE:HG13	1:N:446:ALA:N	2.21	0.56
1:G:453:ARG:HH22	1:N:421:VAL:HG23	1.70	0.56
1:I:345:LYS:C	1:I:346:LEU:HD12	2.30	0.56
1:I:433:LEU:HB2	1:I:434:PRO:HD3	1.87	0.56
1:J:22:ILE:HD12	1:J:90:THR:CG2	2.36	0.56
1:K:173:ALA:O	1:K:176:ARG:HG2	2.04	0.56
1:N:503:ARG:O	1:N:504:VAL:HG13	2.05	0.56
1:O:19:ALA:HB1	1:O:94:ALA:HA	1.86	0.56
1:A:59:LYS:HE2	1:A:76:ARG:CB	2.36	0.56
1:A:158:LEU:HD11	1:C:501:ILE:HG21	1.87	0.56
1:B:366:THR:CG2	1:F:77:VAL:HG21	2.35	0.56
1:C:59:LYS:HE2	1:C:76:ARG:HB2	1.87	0.56
1:D:25:LEU:HG	1:E:508:ILE:HB	1.86	0.56
1:H:159:LEU:HD13	1:H:372:GLU:HG2	1.88	0.56
1:I:37:LYS:O	1:I:50:VAL:HG23	2.06	0.56
1:I:146:LEU:HD21	1:I:167:THR:HG23	1.88	0.56
1:I:452:LEU:HD13	1:I:465:LEU:HD13	1.87	0.56
1:J:59:LYS:HE2	1:J:76:ARG:CB	2.34	0.56
1:L:442:GLY:HA2	1:M:111:GLN:HB2	1.86	0.56
1:M:366:THR:HG22	1:M:367:GLN:N	2.21	0.56
1:O:171:VAL:O	1:O:174:VAL:HG22	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:211:ILE:HB	1:O:215:GLN:OE1	2.05	0.56
1:O:448:LEU:C	1:O:448:LEU:HD13	2.30	0.56
1:A:225:LEU:HD11	1:A:324:HIS:ND1	2.21	0.56
1:B:37:LYS:O	1:B:50:VAL:HG23	2.06	0.56
1:C:175:LEU:O	1:C:178:LYS:HG2	2.06	0.56
1:C:372:GLU:HG3	1:C:375:ARG:CD	2.36	0.56
1:D:38:ILE:C	1:E:507:ILE:HG23	2.30	0.56
1:D:501:ILE:O	1:D:504:VAL:HG23	2.05	0.56
1:H:119:GLU:HB3	1:H:423:MET:SD	2.45	0.56
1:H:139:GLU:O	1:H:140:VAL:HB	2.06	0.56
1:H:392:ARG:O	1:H:484:PHE:HB2	2.05	0.56
1:H:402:MET:HE3	1:H:453:ARG:CG	2.33	0.56
1:I:139:GLU:C	1:I:141:LYS:H	2.13	0.56
1:I:163:LYS:O	1:I:166:PHE:HB2	2.05	0.56
1:J:52:ASN:CB	1:J:375:ARG:HD3	2.36	0.56
1:K:177:LEU:HD11	1:K:186:ILE:CD1	2.36	0.56
1:K:190:LYS:HG2	1:K:190:LYS:O	2.04	0.56
1:P:154:LEU:HD13	1:P:167:THR:OG1	2.05	0.56
1:A:57:ILE:HG23	1:A:58:LEU:CD2	2.36	0.56
1:A:96:LEU:HA	1:A:99:GLU:OE2	2.06	0.56
1:B:108:ILE:HG22	1:B:109:HIS:N	2.21	0.56
1:C:31:GLY:CA	1:C:467:MET:HE1	2.35	0.56
1:C:154:LEU:HD13	1:C:167:THR:OG1	2.06	0.56
1:C:369:ILE:HD12	1:H:503:ARG:HD3	1.86	0.56
1:D:178:LYS:NZ	1:D:388:VAL:HG11	2.21	0.56
1:E:124:ALA:CB	1:E:491:LEU:HD13	2.35	0.56
1:E:171:VAL:O	1:E:175:LEU:HG	2.06	0.56
1:E:404:MET:O	1:E:408:VAL:HG22	2.06	0.56
1:H:317:GLU:HB3	1:H:329:LYS:HD3	1.87	0.56
1:K:203:GLU:H	1:K:203:GLU:CD	2.13	0.56
1:K:337:GLU:HG3	1:K:339:VAL:HG23	1.88	0.56
1:L:81:GLU:CD	1:L:489:GLN:HG2	2.31	0.56
1:L:206:LEU:CB	1:L:359:THR:HG21	2.36	0.56
1:L:226:ILE:HD13	1:L:307:VAL:HG13	1.87	0.56
1:L:384:LEU:HD22	1:L:384:LEU:H	1.70	0.56
1:P:15:SER:HB3	1:P:501:ILE:CG1	2.36	0.56
1:A:67:ALA:CB	1:A:507:ILE:HB	2.36	0.56
1:B:2:GLY:N	1:G:39:LEU:HD22	2.19	0.56
1:C:366:THR:O	1:C:366:THR:HG22	2.06	0.56
1:D:207:LEU:HD22	1:D:208:ASP:H	1.71	0.56
1:E:152:THR:HA	1:E:155:SER:OG	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:171:VAL:HG12	1:F:384:LEU:HG	1.87	0.56
1:F:276:CYS:HA	1:F:297:MET:O	2.05	0.56
1:I:24:ASP:O	1:I:27:LYS:HG2	2.06	0.56
1:I:52:ASN:OD1	1:I:157:LYS:HG2	2.06	0.56
1:I:402:MET:SD	1:I:453:ARG:HA	2.46	0.56
1:I:418:LYS:HG3	1:O:443:TYR:CZ	2.41	0.56
1:J:483:SER:O	1:J:486:VAL:HG22	2.05	0.56
1:K:32:PRO:HA	1:K:155:SER:HB3	1.88	0.56
1:K:106:LYS:O	1:K:108:ILE:HG13	2.06	0.56
1:L:29:THR:O	1:L:156:SER:HB2	2.06	0.56
1:L:82:VAL:CG2	1:L:486:VAL:HG12	2.32	0.56
1:L:188:VAL:HG22	1:L:377:LEU:HD21	1.86	0.56
1:L:369:ILE:HD11	1:M:504:VAL:CG2	2.31	0.56
1:N:191:LYS:CE	1:N:346:LEU:HD22	2.35	0.56
1:O:146:LEU:CD1	1:O:171:VAL:HG13	2.24	0.56
1:O:206:LEU:HD21	1:O:346:LEU:CG	2.36	0.56
1:O:262:MET:SD	1:O:290:LEU:HB2	2.46	0.56
1:P:146:LEU:HB2	1:P:171:VAL:CG2	2.36	0.56
1:P:148:ASN:ND2	1:P:149:ILE:H	2.04	0.56
1:P:345:LYS:O	1:P:346:LEU:HD12	2.06	0.56
1:A:37:LYS:O	1:A:50:VAL:HG23	2.06	0.56
1:B:59:LYS:CE	1:B:76:ARG:HB2	2.35	0.56
1:C:188:VAL:HG11	1:C:377:LEU:CD2	2.36	0.56
1:D:96:LEU:O	1:D:96:LEU:HD22	2.06	0.56
1:D:185:ALA:CB	1:D:357:ALA:HB1	2.36	0.56
1:D:225:LEU:HD12	1:D:226:ILE:N	2.20	0.56
1:E:146:LEU:HB2	1:E:171:VAL:CG2	2.36	0.56
1:G:128:LEU:HD13	1:G:404:MET:HG3	1.86	0.56
1:G:280:ARG:HD2	1:G:304:PHE:HB2	1.88	0.56
1:I:7:ARG:NH1	1:O:37:LYS:HE3	2.21	0.56
1:I:171:VAL:HA	1:I:174:VAL:HG22	1.87	0.56
1:I:187:HIS:O	1:I:359:THR:HG23	2.06	0.56
1:J:96:LEU:HD12	1:J:97:LEU:HD12	1.87	0.56
1:L:206:LEU:HD21	1:L:346:LEU:CG	2.35	0.56
1:M:67:ALA:HA	1:M:507:ILE:CB	2.35	0.56
1:M:203:GLU:HB2	1:M:350:SER:HB2	1.88	0.56
1:M:402:MET:SD	1:M:453:ARG:HA	2.46	0.56
1:M:500:VAL:O	1:M:504:VAL:HG23	2.06	0.56
1:N:173:ALA:HB2	1:N:360:ILE:HD11	1.87	0.56
1:N:451:GLN:HE22	1:N:471:THR:HA	1.71	0.56
1:O:433:LEU:HB2	1:O:434:PRO:HD3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:452:LEU:HD13	1:O:465:LEU:CD1	2.35	0.56
1:P:284:TYR:O	1:P:287:PRO:HD2	2.04	0.56
1:P:433:LEU:O	1:P:436:ILE:HG22	2.06	0.56
1:B:103:LEU:HG	1:B:113:ILE:HD13	1.87	0.55
1:C:143:ARG:HA	1:C:143:ARG:HE	1.71	0.55
1:C:203:GLU:HB2	1:C:350:SER:HB2	1.87	0.55
1:C:248:THR:O	1:C:251:VAL:HG12	2.05	0.55
1:C:309:ARG:O	1:C:313:VAL:HG23	2.06	0.55
1:C:412:ALA:O	1:C:413:SER:HB2	2.06	0.55
1:G:149:ILE:O	1:G:152:THR:HG22	2.06	0.55
1:H:106:LYS:CE	1:H:418:LYS:HA	2.36	0.55
1:K:96:LEU:HD23	1:K:117:TRP:HZ2	1.70	0.55
1:K:191:LYS:HG3	1:K:343:GLU:OE1	2.06	0.55
1:O:225:LEU:HD13	1:O:329:LYS:CE	2.36	0.55
1:A:425:SER:O	1:A:428:LYS:HG2	2.07	0.55
1:C:310:LEU:O	1:C:313:VAL:HB	2.05	0.55
1:C:404:MET:O	1:C:408:VAL:HG22	2.06	0.55
1:D:19:ALA:HB3	1:D:98:ARG:NH2	2.21	0.55
1:D:191:LYS:NZ	1:D:346:LEU:HD11	2.18	0.55
1:E:188:VAL:CG2	1:E:362:LEU:HG	2.36	0.55
1:G:3:ALA:O	1:G:4:ASP:HB2	2.06	0.55
1:G:129:LEU:HB3	1:G:487:LYS:HB3	1.88	0.55
1:I:53:ASP:HB2	1:I:379:ASP:CG	2.31	0.55
1:J:186:ILE:HG21	1:J:381:LEU:HD21	1.87	0.55
1:K:226:ILE:HG12	1:K:278:ILE:HG23	1.87	0.55
1:L:74:MET:HG2	1:P:367:GLN:HA	1.87	0.55
1:M:171:VAL:HG12	1:M:384:LEU:CG	2.37	0.55
1:M:269:ILE:HG23	1:M:274:ILE:HG22	1.88	0.55
1:O:352:VAL:HG22	1:O:355:GLY:H	1.70	0.55
1:P:274:ILE:HG23	1:P:296:VAL:CG2	2.36	0.55
1:B:32:PRO:HA	1:B:155:SER:CB	2.37	0.55
1:D:219:ILE:HB	1:D:275:ASN:HB3	1.88	0.55
1:E:183:LEU:HD12	1:E:381:LEU:HD13	1.87	0.55
1:F:341:ILE:HG23	1:F:363:ARG:NH2	2.21	0.55
1:G:103:LEU:CG	1:G:113:ILE:HD13	2.35	0.55
1:G:431:ARG:HA	1:G:431:ARG:CZ	2.36	0.55
1:H:402:MET:SD	1:H:453:ARG:HA	2.46	0.55
1:I:33:LYS:HD2	1:I:33:LYS:N	2.20	0.55
1:I:334:LYS:CD	1:I:351:GLY:HA3	2.35	0.55
1:J:32:PRO:N	1:J:155:SER:HB3	2.21	0.55
1:L:178:LYS:HB2	1:L:388:VAL:HG11	1.86	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:39:LEU:CD1	1:M:57:ILE:HD11	2.36	0.55
1:N:191:LYS:CD	1:N:341:ILE:HB	2.36	0.55
1:O:111:GLN:O	1:O:114:ILE:HB	2.05	0.55
1:O:128:LEU:HD22	1:O:484:PHE:CE2	2.41	0.55
1:O:451:GLN:HE22	1:O:471:THR:HA	1.70	0.55
1:P:222:ALA:HA	1:P:275:ASN:HB2	1.89	0.55
1:B:1:ALA:N	1:G:57:ILE:HD11	2.22	0.55
1:B:82:VAL:HG21	1:B:486:VAL:N	2.21	0.55
1:C:122:LYS:O	1:C:125:ARG:HB3	2.06	0.55
1:E:106:LYS:O	1:J:446:ALA:HB2	2.06	0.55
1:E:222:ALA:HA	1:E:275:ASN:OD1	2.06	0.55
1:F:150:ALA:O	1:F:154:LEU:HD13	2.06	0.55
1:F:274:ILE:O	1:F:296:VAL:HG22	2.06	0.55
1:G:495:ALA:O	1:G:499:GLU:HG3	2.06	0.55
1:H:448:LEU:HD13	1:H:448:LEU:C	2.31	0.55
1:I:106:LYS:NZ	1:I:108:ILE:HD11	2.21	0.55
1:I:116:GLY:HA3	1:I:422:ALA:HB1	1.86	0.55
1:I:154:LEU:HD13	1:I:167:THR:OG1	2.07	0.55
1:I:163:LYS:HG3	1:I:166:PHE:CG	2.41	0.55
1:K:67:ALA:HB3	1:K:513:ARG:CZ	2.36	0.55
1:L:408:VAL:HA	1:L:411:LEU:HD12	1.88	0.55
1:M:140:VAL:H	1:M:178:LYS:NZ	2.04	0.55
1:N:157:LYS:HG2	1:N:372:GLU:CD	2.31	0.55
1:P:103:LEU:O	1:P:106:LYS:HB3	2.07	0.55
1:P:154:LEU:O	1:P:157:LYS:HB2	2.06	0.55
1:P:448:LEU:HD11	1:P:465:LEU:CD1	2.35	0.55
1:A:204:GLY:HA3	1:A:350:SER:HA	1.89	0.55
1:A:231:MET:HB2	1:A:284:TYR:H	1.71	0.55
1:D:185:ALA:CA	1:D:309:ARG:HD2	2.36	0.55
1:E:324:HIS:HB2	1:E:329:LYS:HE2	1.87	0.55
1:F:324:HIS:HB2	1:F:329:LYS:CE	2.36	0.55
1:G:205:PHE:HA	1:G:359:THR:OG1	2.07	0.55
1:I:284:TYR:O	1:I:287:PRO:HD2	2.07	0.55
1:K:74:MET:HE1	1:K:493:SER:HB2	1.87	0.55
1:K:364:GLY:HA3	1:K:370:LEU:HD11	1.88	0.55
1:M:226:ILE:HG12	1:M:278:ILE:HG23	1.88	0.55
1:A:114:ILE:HG21	1:A:503:ARG:NH2	2.22	0.55
1:A:334:LYS:CG	1:A:351:GLY:HA3	2.37	0.55
1:B:188:VAL:HG11	1:B:377:LEU:HD21	1.89	0.55
1:C:114:ILE:O	1:C:116:GLY:N	2.39	0.55
1:D:109:HIS:CB	1:H:442:GLY:HA2	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:173:ALA:CB	1:D:360:ILE:HD11	2.36	0.55
1:F:131:SER:H	1:F:403:LEU:CD2	2.16	0.55
1:F:148:ASN:HB3	1:F:481:THR:HG22	1.89	0.55
1:G:181:GLY:HA3	1:G:356:GLU:CD	2.32	0.55
1:I:146:LEU:HD13	1:I:167:THR:O	2.06	0.55
1:I:166:PHE:CE2	1:I:362:LEU:HD22	2.42	0.55
1:J:52:ASN:HB3	1:J:375:ARG:HD3	1.88	0.55
1:K:54:GLY:O	1:K:58:LEU:HD23	2.06	0.55
1:K:146:LEU:HD22	1:K:167:THR:HG23	1.89	0.55
1:L:74:MET:SD	1:L:497:ALA:HB2	2.47	0.55
1:L:176:ARG:HH21	1:L:360:ILE:CD1	2.17	0.55
1:L:204:GLY:O	1:L:359:THR:HB	2.07	0.55
1:M:173:ALA:HA	1:M:176:ARG:CZ	2.37	0.55
1:O:443:TYR:CD1	1:O:470:GLY:CA	2.90	0.55
1:O:508:ILE:CG2	1:O:509:LYS:H	2.14	0.55
1:A:58:LEU:HB3	1:A:72:VAL:HG11	1.87	0.55
1:A:68:ALA:O	1:A:72:VAL:HG23	2.06	0.55
1:B:82:VAL:HB	1:B:485:GLN:CB	2.35	0.55
1:B:316:GLY:O	1:B:330:LEU:HB2	2.07	0.55
1:C:82:VAL:HB	1:C:485:GLN:HB2	1.88	0.55
1:D:442:GLY:HA3	1:E:109:HIS:CE1	2.42	0.55
1:E:258:GLU:CD	1:E:284:TYR:HE2	2.14	0.55
1:F:317:GLU:CB	1:F:329:LYS:HG2	2.37	0.55
1:F:380:ALA:O	1:F:384:LEU:HD23	2.07	0.55
1:F:446:ALA:N	1:O:108:ILE:HG12	2.22	0.55
1:F:448:LEU:HA	1:F:451:GLN:HE21	1.71	0.55
1:F:484:PHE:HE2	1:F:488:ARG:NE	2.04	0.55
1:G:59:LYS:CE	1:G:76:ARG:HD3	2.37	0.55
1:G:216:PRO:CG	1:G:295:GLY:HA2	2.37	0.55
1:I:173:ALA:O	1:I:176:ARG:HG2	2.06	0.55
1:K:191:LYS:HZ3	1:K:346:LEU:HD21	1.70	0.55
1:L:38:ILE:HG22	1:L:50:VAL:HG23	1.89	0.55
1:A:372:GLU:O	1:A:375:ARG:HB3	2.07	0.55
1:C:52:ASN:HB2	1:C:375:ARG:NH1	2.22	0.55
1:C:57:ILE:HD12	1:H:1:ALA:HA	1.89	0.55
1:C:280:ARG:O	1:C:281:GLN:HB3	2.07	0.55
1:D:28:SER:O	1:D:34:GLY:HA2	2.07	0.55
1:D:146:LEU:HB2	1:D:171:VAL:HG21	1.87	0.55
1:D:191:LYS:HB3	1:D:363:ARG:HD2	1.89	0.55
1:F:145:ASP:OD1	1:F:171:VAL:HB	2.06	0.55
1:F:434:PRO:HB3	1:F:452:LEU:CD2	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:31:GLY:C	1:H:156:SER:HA	2.32	0.55
1:H:33:LYS:HA	1:H:158:LEU:HD12	1.89	0.55
1:I:126:GLN:HE21	1:I:411:LEU:HD11	1.72	0.55
1:I:404:MET:HE3	1:I:430:LEU:CD1	2.36	0.55
1:K:65:ASN:CG	1:K:66:PRO:HD3	2.32	0.55
1:K:269:ILE:HG23	1:K:274:ILE:HG21	1.89	0.55
1:K:316:GLY:O	1:K:330:LEU:HB2	2.07	0.55
1:L:36:ASP:OD2	1:L:369:ILE:HG23	2.07	0.55
1:L:334:LYS:HG2	1:L:351:GLY:HA3	1.89	0.55
1:M:168:LYS:O	1:M:171:VAL:HG22	2.07	0.55
1:M:191:LYS:HG3	1:M:193:GLY:H	1.71	0.55
1:M:354:LEU:HD23	1:M:356:GLU:H	1.72	0.55
1:M:452:LEU:HD13	1:M:465:LEU:CD1	2.37	0.55
1:O:51:THR:CA	1:O:375:ARG:HD2	2.35	0.55
1:O:51:THR:HG21	1:O:56:THR:HB	1.89	0.55
1:O:276:CYS:HA	1:O:297:MET:O	2.06	0.55
1:P:52:ASN:HB2	1:P:375:ARG:HD3	1.89	0.55
1:P:78:GLN:OE1	1:P:489:GLN:HB2	2.07	0.55
1:P:141:LYS:HE2	1:P:144:GLN:HE21	1.71	0.55
1:A:162:HIS:HB3	1:A:198:ASP:OD2	2.06	0.55
1:A:166:PHE:CE1	1:A:198:ASP:HB3	2.40	0.55
1:C:82:VAL:HG13	1:C:83:GLY:N	2.22	0.55
1:D:284:TYR:O	1:D:287:PRO:HD2	2.07	0.55
1:D:352:VAL:HG22	1:D:355:GLY:H	1.72	0.55
1:E:52:ASN:CG	1:E:157:LYS:HG2	2.32	0.55
1:E:231:MET:HG3	1:E:283:ILE:HG13	1.88	0.55
1:E:450:ALA:HB1	1:J:418:LYS:N	2.22	0.55
1:G:219:ILE:HB	1:G:275:ASN:HB3	1.89	0.55
1:G:414:ARG:HD3	1:G:414:ARG:C	2.32	0.55
1:I:232:ASP:HA	1:I:284:TYR:CD1	2.42	0.55
1:J:111:GLN:O	1:J:114:ILE:HB	2.06	0.55
1:K:161:HIS:CD2	1:K:162:HIS:H	2.25	0.55
1:L:77:VAL:HG21	1:P:366:THR:CB	2.37	0.55
1:L:148:ASN:CG	1:L:481:THR:HG22	2.32	0.55
1:L:506:ASN:OD1	1:P:25:LEU:HD21	2.07	0.55
1:A:29:THR:O	1:A:156:SER:HB2	2.06	0.55
1:B:143:ARG:HA	1:B:143:ARG:NE	2.22	0.55
1:C:78:GLN:HE22	1:C:489:GLN:HB2	1.72	0.55
1:C:216:PRO:CG	1:C:295:GLY:HA2	2.37	0.55
1:D:185:ALA:H	1:D:309:ARG:CD	2.19	0.55
1:F:27:LYS:O	1:F:436:ILE:HD11	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:219:ILE:HB	1:H:275:ASN:HB3	1.88	0.55
1:H:225:LEU:HD11	1:H:324:HIS:ND1	2.22	0.55
1:I:22:ILE:HG22	1:N:1:ALA:H3	1.71	0.55
1:I:78:GLN:OE1	1:I:489:GLN:HB2	2.07	0.55
1:J:41:SER:HB3	1:J:45:ASP:OD2	2.07	0.55
1:K:29:THR:O	1:K:156:SER:HA	2.07	0.55
1:K:166:PHE:CE1	1:K:198:ASP:HB3	2.42	0.55
1:K:366:THR:O	1:K:366:THR:HG22	2.07	0.55
1:M:75:SER:O	1:M:78:GLN:HB3	2.07	0.55
1:M:166:PHE:HD2	1:M:362:LEU:HD22	1.71	0.55
1:M:171:VAL:CG1	1:M:384:LEU:HG	2.37	0.55
1:M:231:MET:HG3	1:M:283:ILE:HG13	1.89	0.55
1:M:235:LYS:O	1:M:236:ILE:HG22	2.07	0.55
1:O:222:ALA:HA	1:O:275:ASN:OD1	2.07	0.55
1:B:185:ALA:HB1	1:B:357:ALA:CB	2.34	0.54
1:C:280:ARG:HD2	1:C:304:PHE:HB2	1.88	0.54
1:C:399:CYS:HA	1:C:456:HIS:NE2	2.22	0.54
1:C:421:VAL:HG23	1:L:450:ALA:HB2	1.89	0.54
1:C:431:ARG:CZ	1:C:431:ARG:HA	2.36	0.54
1:E:32:PRO:HD2	1:E:467:MET:SD	2.47	0.54
1:E:106:LYS:HE2	1:J:446:ALA:HB1	1.89	0.54
1:E:188:VAL:HB	1:E:377:LEU:HD22	1.89	0.54
1:E:450:ALA:CA	1:J:417:GLY:HA3	2.36	0.54
1:H:334:LYS:O	1:H:335:LEU:HB2	2.07	0.54
1:I:12:ARG:HG2	1:I:502:LEU:HD12	1.89	0.54
1:L:146:LEU:HD22	1:L:167:THR:C	2.32	0.54
1:L:176:ARG:NH2	1:L:360:ILE:HD12	2.16	0.54
1:M:57:ILE:HG23	1:M:58:LEU:HD23	1.88	0.54
1:M:141:LYS:HG2	1:M:144:GLN:HB2	1.89	0.54
1:M:176:ARG:HE	1:M:358:CYS:HB2	1.72	0.54
1:N:226:ILE:HG12	1:N:278:ILE:CG2	2.36	0.54
1:O:157:LYS:HB3	1:O:159:LEU:HD11	1.87	0.54
1:O:185:ALA:HB3	1:O:357:ALA:CB	2.35	0.54
1:P:148:ASN:CB	1:P:481:THR:HG22	2.35	0.54
1:C:38:ILE:HD13	1:H:505:ASP:O	2.07	0.54
1:C:399:CYS:SG	1:C:464:GLY:HA3	2.47	0.54
1:E:96:LEU:HD22	1:E:96:LEU:C	2.32	0.54
1:F:38:ILE:HD12	1:F:48:LEU:CD2	2.34	0.54
1:I:95:GLU:OE2	1:I:432:MET:HB3	2.07	0.54
1:I:106:LYS:HE2	1:I:421:VAL:HG11	1.88	0.54
1:I:287:PRO:O	1:I:291:PHE:HD1	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:367:GLN:CG	1:J:369:ILE:HB	2.36	0.54
1:L:154:LEU:HD22	1:L:167:THR:OG1	2.07	0.54
1:O:137:SER:OG	1:O:388:VAL:HG12	2.07	0.54
1:O:190:LYS:HD2	1:O:190:LYS:C	2.32	0.54
1:P:219:ILE:HB	1:P:275:ASN:HB3	1.89	0.54
1:P:404:MET:HE3	1:P:430:LEU:HG	1.87	0.54
1:A:27:LYS:HG3	1:A:436:ILE:HG13	1.88	0.54
1:A:250:LYS:O	1:A:253:GLU:HG2	2.07	0.54
1:C:211:ILE:HG13	1:C:298:ALA:O	2.06	0.54
1:C:283:ILE:HG22	1:C:300:GLU:HG3	1.88	0.54
1:D:114:ILE:HA	1:D:117:TRP:CZ3	2.42	0.54
1:E:284:TYR:O	1:E:287:PRO:HD2	2.06	0.54
1:F:131:SER:N	1:F:403:LEU:HD23	2.17	0.54
1:G:134:ASP:CG	1:G:393:THR:H	2.15	0.54
1:H:112:THR:CG2	1:H:418:LYS:HE3	2.38	0.54
1:I:89:VAL:HB	1:I:490:VAL:HG23	1.89	0.54
1:J:154:LEU:HD22	1:J:167:THR:HB	1.89	0.54
1:K:183:LEU:HD13	1:K:385:ALA:CB	2.38	0.54
1:L:211:ILE:HG13	1:L:298:ALA:O	2.06	0.54
1:M:171:VAL:O	1:M:174:VAL:HG22	2.08	0.54
1:M:392:ARG:C	1:M:484:PHE:HB2	2.33	0.54
1:N:433:LEU:O	1:N:436:ILE:HG22	2.08	0.54
1:O:433:LEU:O	1:O:437:ILE:HG12	2.06	0.54
1:P:75:SER:O	1:P:78:GLN:HB3	2.08	0.54
1:P:82:VAL:HG13	1:P:83:GLY:N	2.22	0.54
1:P:117:TRP:HE1	1:P:498:ALA:C	2.15	0.54
1:P:208:ASP:O	1:P:209:LYS:HG3	2.08	0.54
1:P:274:ILE:O	1:P:296:VAL:HG22	2.07	0.54
1:A:37:LYS:HB3	1:C:512:PRO:CG	2.37	0.54
1:A:280:ARG:O	1:A:281:GLN:HB3	2.06	0.54
1:B:32:PRO:HA	1:B:155:SER:HB3	1.90	0.54
1:C:133:VAL:HG12	1:C:393:THR:O	2.08	0.54
1:C:324:HIS:HB2	1:C:329:LYS:HE2	1.90	0.54
1:D:280:ARG:HD3	1:D:304:PHE:HB2	1.88	0.54
1:D:502:LEU:C	1:D:502:LEU:HD13	2.31	0.54
1:E:185:ALA:HB1	1:E:357:ALA:HB1	1.87	0.54
1:E:390:ASP:HB3	1:E:485:GLN:HE22	1.71	0.54
1:E:462:THR:O	1:E:475:MET:HB3	2.08	0.54
1:F:168:LYS:O	1:F:171:VAL:HG22	2.08	0.54
1:G:102:SER:O	1:G:105:ALA:HB3	2.07	0.54
1:G:334:LYS:CE	1:G:351:GLY:HA3	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:158:LEU:HB3	1:I:372:GLU:OE2	2.07	0.54
1:I:231:MET:HB2	1:I:284:TYR:H	1.72	0.54
1:J:274:ILE:O	1:J:296:VAL:HG22	2.06	0.54
1:M:29:THR:O	1:M:156:SER:HB2	2.08	0.54
1:M:309:ARG:O	1:M:313:VAL:HG23	2.08	0.54
1:O:397:GLY:HA3	1:O:475:MET:HE3	1.89	0.54
1:P:280:ARG:HD2	1:P:304:PHE:HB2	1.89	0.54
1:D:6:GLU:C	1:D:11:ALA:HB2	2.32	0.54
1:E:27:LYS:HE3	1:J:107:LYS:NZ	2.23	0.54
1:F:171:VAL:O	1:F:175:LEU:HG	2.07	0.54
1:G:111:GLN:HE21	1:G:503:ARG:HB2	1.72	0.54
1:G:178:LYS:HD3	1:G:388:VAL:HG21	1.90	0.54
1:H:190:LYS:O	1:H:190:LYS:HD2	2.08	0.54
1:I:99:GLU:O	1:I:103:LEU:HD13	2.08	0.54
1:K:176:ARG:HE	1:K:358:CYS:HB2	1.72	0.54
1:M:67:ALA:HA	1:M:507:ILE:HG13	1.88	0.54
1:P:188:VAL:HA	1:P:360:ILE:O	2.08	0.54
1:A:159:LEU:HG	1:A:163:LYS:CG	2.36	0.54
1:B:1:ALA:H3	1:G:39:LEU:HD11	1.71	0.54
1:B:99:GLU:OE2	1:B:428:LYS:HE3	2.08	0.54
1:B:124:ALA:HB1	1:B:491:LEU:HD13	1.89	0.54
1:C:82:VAL:CB	1:C:485:GLN:HB2	2.37	0.54
1:C:116:GLY:H	1:C:422:ALA:CB	2.19	0.54
1:C:369:ILE:O	1:C:372:GLU:HB3	2.08	0.54
1:D:82:VAL:HA	1:D:386:GLN:HG3	1.90	0.54
1:D:211:ILE:CD1	1:D:297:MET:HG3	2.28	0.54
1:G:184:GLU:CD	1:G:312:LEU:HG	2.31	0.54
1:G:448:LEU:C	1:G:448:LEU:HD13	2.31	0.54
1:H:24:ASP:O	1:H:27:LYS:HG2	2.07	0.54
1:H:276:CYS:HA	1:H:297:MET:O	2.08	0.54
1:H:450:ALA:HB2	1:P:420:ALA:HB3	1.88	0.54
1:J:109:HIS:O	1:J:112:THR:HG22	2.07	0.54
1:J:334:LYS:CG	1:J:351:GLY:HA3	2.38	0.54
1:J:372:GLU:HG3	1:J:375:ARG:CZ	2.37	0.54
1:K:268:ARG:O	1:K:271:LYS:HB3	2.07	0.54
1:L:250:LYS:O	1:L:253:GLU:HG2	2.06	0.54
1:M:211:ILE:HG13	1:M:298:ALA:O	2.08	0.54
1:O:57:ILE:HG23	1:O:58:LEU:CD2	2.37	0.54
1:P:173:ALA:HA	1:P:176:ARG:CZ	2.37	0.54
1:P:190:LYS:HD3	1:P:190:LYS:C	2.32	0.54
1:A:111:GLN:HG2	1:F:35:MET:HE2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:408:VAL:HA	1:C:411:LEU:HD12	1.90	0.54
1:D:57:ILE:HG13	1:E:510:ALA:N	2.22	0.54
1:D:163:LYS:HA	1:D:166:PHE:CE1	2.43	0.54
1:D:191:LYS:HA	1:D:191:LYS:HE2	1.89	0.54
1:E:183:LEU:HD12	1:E:381:LEU:CD1	2.38	0.54
1:E:321:THR:O	1:E:323:ASP:N	2.40	0.54
1:G:22:ILE:HD12	1:G:90:THR:CG2	2.38	0.54
1:H:39:LEU:HD11	1:H:57:ILE:HD11	1.89	0.54
1:H:111:GLN:O	1:H:114:ILE:HB	2.08	0.54
1:H:174:VAL:HG12	1:H:381:LEU:HA	1.89	0.54
1:I:7:ARG:CZ	1:O:25:LEU:HD12	2.37	0.54
1:J:386:GLN:HB3	1:J:485:GLN:NE2	2.23	0.54
1:K:425:SER:O	1:K:428:LYS:HG2	2.08	0.54
1:K:448:LEU:HA	1:K:451:GLN:HE21	1.73	0.54
1:M:16:PHE:HA	1:M:97:LEU:HD23	1.89	0.54
1:O:106:LYS:NZ	1:O:421:VAL:HG21	2.23	0.54
1:O:207:LEU:HD22	1:O:208:ASP:H	1.71	0.54
1:O:219:ILE:HD11	1:O:336:ILE:HB	1.89	0.54
1:P:178:LYS:HG2	1:P:178:LYS:O	2.07	0.54
1:B:29:THR:O	1:B:156:SER:HB2	2.08	0.54
1:C:210:LYS:HE2	1:C:212:GLY:O	2.08	0.54
1:C:265:LYS:HE2	1:C:322:PHE:CE1	2.43	0.54
1:C:364:GLY:HA3	1:C:370:LEU:HD11	1.88	0.54
1:D:185:ALA:N	1:D:309:ARG:HD2	2.23	0.54
1:G:313:VAL:HG22	1:G:357:ALA:HB3	1.88	0.54
1:H:38:ILE:CG2	1:H:50:VAL:HB	2.37	0.54
1:H:82:VAL:HG11	1:H:486:VAL:CA	2.38	0.54
1:H:185:ALA:HA	1:H:309:ARG:CG	2.38	0.54
1:I:133:VAL:HG21	1:I:392:ARG:HE	1.72	0.54
1:K:111:GLN:O	1:K:114:ILE:HB	2.07	0.54
1:L:63:VAL:CG1	1:M:2:GLY:HA3	2.37	0.54
1:L:204:GLY:HA3	1:L:350:SER:HA	1.90	0.54
1:N:219:ILE:HB	1:N:275:ASN:HB3	1.89	0.54
1:O:231:MET:HB2	1:O:284:TYR:H	1.71	0.54
1:O:324:HIS:O	1:O:328:VAL:HG22	2.08	0.54
1:A:146:LEU:HD23	1:A:148:ASN:H	1.73	0.54
1:B:160:THR:HA	1:B:163:LYS:HB3	1.90	0.54
1:D:58:LEU:HB3	1:D:72:VAL:CG1	2.36	0.54
1:D:262:MET:HE1	1:D:286:TYR:O	2.08	0.54
1:E:404:MET:HE3	1:E:430:LEU:CG	2.31	0.54
1:J:309:ARG:O	1:J:313:VAL:HG23	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:417:GLY:HA2	1:J:420:ALA:HB3	1.89	0.54
1:K:146:LEU:HB2	1:K:171:VAL:HG21	1.89	0.54
1:M:173:ALA:HA	1:M:176:ARG:NH1	2.23	0.54
1:N:159:LEU:HG	1:N:163:LYS:HB2	1.88	0.54
1:O:115:ALA:O	1:O:118:ARG:HB3	2.08	0.54
1:O:317:GLU:CB	1:O:329:LYS:HG2	2.36	0.54
1:P:334:LYS:CG	1:P:351:GLY:HA3	2.37	0.54
1:A:448:LEU:C	1:A:448:LEU:HD13	2.33	0.54
1:C:119:GLU:CB	1:C:423:MET:HE3	2.37	0.54
1:C:503:ARG:O	1:C:503:ARG:HG2	2.06	0.54
1:D:22:ILE:HD12	1:D:90:THR:CG2	2.38	0.54
1:E:110:PRO:O	1:E:114:ILE:HG12	2.09	0.54
1:F:233:THR:HG21	1:F:261:LYS:HE2	1.89	0.54
1:F:324:HIS:HB2	1:F:329:LYS:HE2	1.89	0.54
1:G:408:VAL:HG21	1:G:427:ALA:HA	1.90	0.54
1:I:150:ALA:HB1	1:I:167:THR:OG1	2.08	0.54
1:I:265:LYS:HE2	1:I:322:PHE:CE1	2.43	0.54
1:J:38:ILE:HD12	1:K:509:LYS:CD	2.38	0.54
1:L:175:LEU:O	1:L:178:LYS:HG2	2.07	0.54
1:L:211:ILE:HD13	1:L:215:GLN:OE1	2.07	0.54
1:P:185:ALA:HB1	1:P:357:ALA:HB1	1.90	0.54
1:A:106:LYS:HE3	1:M:446:ALA:HB2	1.90	0.53
1:A:124:ALA:HA	1:A:491:LEU:HD13	1.89	0.53
1:A:335:LEU:HD21	1:A:337:GLU:OE2	2.08	0.53
1:B:75:SER:O	1:B:78:GLN:HB3	2.08	0.53
1:B:401:GLU:HG2	1:B:433:LEU:HD22	1.90	0.53
1:C:113:ILE:O	1:C:422:ALA:HB2	2.07	0.53
1:C:405:ALA:HB2	1:C:430:LEU:HB2	1.90	0.53
1:G:412:ALA:HB1	1:G:424:GLU:HB3	1.89	0.53
1:H:369:ILE:HA	1:H:372:GLU:HB2	1.89	0.53
1:I:50:VAL:HG22	1:I:375:ARG:HH22	1.70	0.53
1:I:52:ASN:N	1:I:375:ARG:HD3	2.17	0.53
1:I:226:ILE:O	1:I:329:LYS:HE3	2.08	0.53
1:J:411:LEU:HB3	1:J:423:MET:SD	2.48	0.53
1:J:452:LEU:HD11	1:J:456:HIS:CE1	2.43	0.53
1:K:78:GLN:NE2	1:K:82:VAL:HG21	2.23	0.53
1:K:402:MET:SD	1:K:453:ARG:HA	2.48	0.53
1:L:51:THR:HA	1:L:375:ARG:HD2	1.89	0.53
1:L:150:ALA:O	1:L:154:LEU:HB2	2.07	0.53
1:M:207:LEU:HD22	1:M:208:ASP:H	1.73	0.53
1:P:126:GLN:OE1	1:P:408:VAL:HG12	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:173:ALA:CB	1:P:360:ILE:HD11	2.37	0.53
1:B:369:ILE:HD11	1:F:496:GLU:OE1	2.08	0.53
1:D:433:LEU:HB2	1:D:434:PRO:HD3	1.90	0.53
1:E:225:LEU:HD11	1:E:324:HIS:CE1	2.44	0.53
1:E:446:ALA:H	1:J:108:ILE:CD1	2.20	0.53
1:F:32:PRO:HA	1:F:155:SER:C	2.33	0.53
1:F:206:LEU:HG	1:F:361:VAL:CG2	2.38	0.53
1:G:226:ILE:HD13	1:G:307:VAL:HG13	1.91	0.53
1:G:431:ARG:HH21	1:G:434:PRO:HG2	1.73	0.53
1:J:280:ARG:HD2	1:J:304:PHE:HB2	1.89	0.53
1:K:32:PRO:HA	1:K:155:SER:CB	2.39	0.53
1:M:334:LYS:CG	1:M:351:GLY:HA3	2.37	0.53
1:M:390:ASP:CB	1:M:485:GLN:HE22	2.20	0.53
1:N:50:VAL:HG21	1:N:368:GLN:HG3	1.89	0.53
1:N:223:LYS:HB2	1:N:274:ILE:HA	1.90	0.53
1:P:367:GLN:CG	1:P:369:ILE:HB	2.39	0.53
1:A:485:GLN:HB2	1:A:489:GLN:HE22	1.73	0.53
1:B:443:TYR:CD2	1:B:470:GLY:HA2	2.44	0.53
1:B:496:GLU:HB3	1:G:367:GLN:HE22	1.74	0.53
1:C:448:LEU:C	1:C:448:LEU:HD13	2.34	0.53
1:D:19:ALA:HB3	1:D:98:ARG:HH22	1.73	0.53
1:D:106:LYS:HD2	1:K:446:ALA:HA	1.91	0.53
1:E:166:PHE:HD2	1:E:362:LEU:HD22	1.74	0.53
1:F:148:ASN:HA	1:F:479:GLY:O	2.09	0.53
1:H:65:ASN:CG	1:H:66:PRO:HD3	2.33	0.53
1:H:108:ILE:HG12	1:H:109:HIS:H	1.73	0.53
1:I:112:THR:HB	1:I:418:LYS:NZ	2.24	0.53
1:I:245:VAL:HG11	1:I:250:LYS:CG	2.38	0.53
1:L:266:VAL:HB	1:L:290:LEU:HD21	1.90	0.53
1:M:99:GLU:O	1:M:103:LEU:HD13	2.08	0.53
1:N:402:MET:SD	1:N:453:ARG:HA	2.49	0.53
1:P:146:LEU:CD2	1:P:167:THR:HG23	2.38	0.53
1:P:159:LEU:HG	1:P:163:LYS:HD2	1.89	0.53
1:A:106:LYS:HE2	1:A:113:ILE:CD1	2.29	0.53
1:A:372:GLU:HG3	1:A:375:ARG:CZ	2.38	0.53
1:A:402:MET:HE3	1:A:453:ARG:CG	2.36	0.53
1:A:485:GLN:HB3	1:A:488:ARG:HH21	1.74	0.53
1:B:139:GLU:O	1:B:140:VAL:HB	2.07	0.53
1:B:149:ILE:HD12	1:B:483:SER:N	2.24	0.53
1:B:500:VAL:O	1:B:503:ARG:HB3	2.09	0.53
1:D:438:ALA:CB	1:D:448:LEU:HG	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:116:GLY:HA3	1:F:422:ALA:HB1	1.91	0.53
1:H:106:LYS:HE3	1:H:418:LYS:HA	1.91	0.53
1:J:402:MET:SD	1:J:456:HIS:HB2	2.48	0.53
1:J:431:ARG:HH21	1:J:434:PRO:HG2	1.73	0.53
1:K:203:GLU:CG	1:K:350:SER:HB2	2.39	0.53
1:K:280:ARG:HD2	1:K:304:PHE:HB2	1.90	0.53
1:M:188:VAL:HG11	1:M:377:LEU:HD23	1.90	0.53
1:N:141:LYS:HG2	1:N:144:GLN:HB2	1.90	0.53
1:N:452:LEU:HD13	1:N:465:LEU:CD1	2.39	0.53
1:A:61:ILE:HG12	1:C:1:ALA:HA	1.90	0.53
1:A:153:THR:HG21	1:A:379:ASP:HB3	1.90	0.53
1:A:451:GLN:NE2	1:A:471:THR:HA	2.23	0.53
1:A:511:ALA:H	1:A:512:PRO:HD3	1.71	0.53
1:B:113:ILE:CG2	1:B:422:ALA:HB2	2.39	0.53
1:B:113:ILE:HG13	1:B:418:LYS:HD2	1.90	0.53
1:B:154:LEU:CD2	1:B:167:THR:HB	2.38	0.53
1:C:95:GLU:HA	1:C:98:ARG:HD2	1.90	0.53
1:D:177:LEU:CD1	1:D:186:ILE:HD11	2.38	0.53
1:D:396:GLY:HA3	1:D:480:ILE:HG22	1.90	0.53
1:D:507:ILE:HG23	1:H:38:ILE:CG1	2.38	0.53
1:E:280:ARG:HD2	1:E:304:PHE:HB2	1.91	0.53
1:E:417:GLY:HA2	1:E:420:ALA:CB	2.32	0.53
1:F:171:VAL:HG13	1:F:384:LEU:HG	1.89	0.53
1:F:262:MET:HE1	1:F:286:TYR:O	2.08	0.53
1:G:269:ILE:HG12	1:G:274:ILE:HG21	1.90	0.53
1:H:405:ALA:HA	1:H:408:VAL:HG22	1.90	0.53
1:I:15:SER:HB3	1:I:501:ILE:HG22	1.89	0.53
1:J:116:GLY:O	1:J:119:GLU:HB2	2.09	0.53
1:J:317:GLU:HB2	1:J:329:LYS:HD3	1.90	0.53
1:K:177:LEU:HD11	1:K:186:ILE:HD12	1.91	0.53
1:L:367:GLN:HG2	1:L:369:ILE:HB	1.90	0.53
1:M:322:PHE:HA	1:M:324:HIS:CD2	2.43	0.53
1:N:125:ARG:HA	1:N:128:LEU:HD12	1.89	0.53
1:N:284:TYR:O	1:N:287:PRO:HD2	2.09	0.53
1:C:187:HIS:O	1:C:359:THR:HG23	2.09	0.53
1:D:54:GLY:O	1:D:58:LEU:HD23	2.09	0.53
1:D:171:VAL:HA	1:D:174:VAL:HG22	1.90	0.53
1:E:124:ALA:HB1	1:E:491:LEU:CD1	2.38	0.53
1:I:35:MET:HA	1:N:7:ARG:HH21	1.72	0.53
1:I:82:VAL:HG11	1:I:485:GLN:CB	2.38	0.53
1:J:126:GLN:NE2	1:J:411:LEU:HD11	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:438:ALA:CB	1:J:448:LEU:HG	2.37	0.53
1:L:32:PRO:HA	1:L:155:SER:O	2.09	0.53
1:L:284:TYR:O	1:L:287:PRO:HD2	2.09	0.53
1:L:368:GLN:HE22	1:M:508:ILE:HG21	1.73	0.53
1:M:280:ARG:HD2	1:M:304:PHE:HB2	1.89	0.53
1:N:52:ASN:ND2	1:N:375:ARG:HH22	2.06	0.53
1:N:168:LYS:O	1:N:171:VAL:HG22	2.09	0.53
1:O:69:LYS:HB2	1:O:509:LYS:HE2	1.90	0.53
1:P:89:VAL:HG12	1:P:490:VAL:HG23	1.90	0.53
1:P:103:LEU:HG	1:P:113:ILE:CD1	2.38	0.53
1:A:3:ALA:HB3	1:F:40:LEU:O	2.09	0.53
1:A:37:LYS:HG2	1:A:52:ASN:HA	1.90	0.53
1:A:175:LEU:O	1:A:178:LYS:HG2	2.09	0.53
1:A:274:ILE:HG23	1:A:296:VAL:CG2	2.39	0.53
1:B:39:LEU:CD2	1:F:508:ILE:HB	2.37	0.53
1:C:114:ILE:CB	1:C:504:VAL:HG13	2.38	0.53
1:D:502:LEU:HD13	1:D:502:LEU:O	2.09	0.53
1:G:35:MET:O	1:G:36:ASP:CG	2.52	0.53
1:H:95:GLU:CD	1:H:429:ALA:HA	2.34	0.53
1:H:109:HIS:O	1:H:112:THR:HB	2.08	0.53
1:H:146:LEU:CD2	1:H:147:MET:H	2.18	0.53
1:I:51:THR:HG21	1:I:57:ILE:HB	1.91	0.53
1:I:274:ILE:HG23	1:I:296:VAL:CG2	2.39	0.53
1:I:431:ARG:O	1:I:434:PRO:HD2	2.09	0.53
1:J:32:PRO:HA	1:J:155:SER:C	2.34	0.53
1:J:99:GLU:O	1:J:102:SER:HB2	2.08	0.53
1:L:25:LEU:HD11	1:M:5:GLU:CA	2.39	0.53
1:L:324:HIS:O	1:L:329:LYS:HG3	2.07	0.53
1:N:431:ARG:CZ	1:N:431:ARG:HA	2.39	0.53
1:O:96:LEU:O	1:O:96:LEU:HD22	2.09	0.53
1:P:32:PRO:CG	1:P:467:MET:HE1	2.35	0.53
1:A:32:PRO:HA	1:A:155:SER:CB	2.39	0.53
1:A:119:GLU:O	1:A:122:LYS:HB3	2.08	0.53
1:C:19:ALA:HB1	1:C:94:ALA:HA	1.91	0.53
1:C:125:ARG:O	1:C:129:LEU:HB2	2.08	0.53
1:C:158:LEU:HD13	1:H:111:GLN:HG2	1.91	0.53
1:C:366:THR:H	1:C:370:LEU:HD22	1.74	0.53
1:D:174:VAL:HA	1:D:177:LEU:HD12	1.90	0.53
1:D:258:GLU:OE2	1:D:284:TYR:HE2	1.92	0.53
1:D:287:PRO:O	1:D:291:PHE:HD1	1.92	0.53
1:E:27:LYS:HE3	1:J:107:LYS:HZ1	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:50:VAL:O	1:G:375:ARG:CZ	2.57	0.53
1:H:11:ALA:HB1	1:H:505:ASP:HB3	1.90	0.53
1:I:32:PRO:HA	1:I:155:SER:HB3	1.90	0.53
1:I:222:ALA:HA	1:I:275:ASN:OD1	2.09	0.53
1:I:283:ILE:HG22	1:I:300:GLU:CG	2.39	0.53
1:J:52:ASN:H	1:J:375:ARG:CZ	2.22	0.53
1:J:92:LEU:HD11	1:J:433:LEU:CD2	2.35	0.53
1:L:176:ARG:NH2	1:L:201:LEU:HD21	2.23	0.53
1:L:198:ASP:O	1:L:363:ARG:HB2	2.09	0.53
1:L:265:LYS:HE2	1:L:322:PHE:CZ	2.44	0.53
1:M:206:LEU:HD11	1:M:346:LEU:CD2	2.36	0.53
1:P:15:SER:HB3	1:P:501:ILE:HD12	1.89	0.53
1:P:78:GLN:HG3	1:P:83:GLY:HA2	1.91	0.53
1:P:171:VAL:HA	1:P:174:VAL:HG22	1.90	0.53
1:P:402:MET:HE3	1:P:453:ARG:CG	2.33	0.53
1:A:503:ARG:NH1	1:F:158:LEU:HD22	2.23	0.53
1:C:334:LYS:CD	1:C:351:GLY:HA3	2.38	0.53
1:D:85:GLY:HA2	1:D:153:THR:OG1	2.09	0.53
1:E:446:ALA:HB2	1:J:106:LYS:CG	2.38	0.53
1:F:352:VAL:HG22	1:F:355:GLY:H	1.74	0.53
1:F:390:ASP:HB3	1:F:485:GLN:HE22	1.74	0.53
1:G:369:ILE:O	1:G:372:GLU:HB3	2.09	0.53
1:H:32:PRO:CA	1:H:155:SER:O	2.50	0.53
1:H:118:ARG:O	1:H:121:THR:HB	2.09	0.53
1:I:128:LEU:HD21	1:I:488:ARG:HG2	1.90	0.53
1:J:105:ALA:O	1:J:107:LYS:HG3	2.09	0.53
1:J:396:GLY:HA3	1:J:480:ILE:HG22	1.90	0.53
1:K:32:PRO:CD	1:K:467:MET:SD	2.97	0.53
1:K:68:ALA:O	1:K:72:VAL:HG23	2.08	0.53
1:K:148:ASN:CA	1:K:480:ILE:HA	2.38	0.53
1:K:219:ILE:HB	1:K:275:ASN:HB3	1.91	0.53
1:K:451:GLN:HE22	1:K:471:THR:HA	1.72	0.53
1:L:154:LEU:HD22	1:L:167:THR:CB	2.39	0.53
1:M:30:LEU:HD23	1:M:86:THR:HB	1.90	0.53
1:M:367:GLN:HG2	1:M:369:ILE:H	1.73	0.53
1:M:507:ILE:CG2	1:M:507:ILE:O	2.56	0.53
1:O:96:LEU:C	1:O:96:LEU:HD13	2.34	0.53
1:O:203:GLU:HG2	1:O:350:SER:HB2	1.91	0.53
1:P:434:PRO:HB3	1:P:452:LEU:CD2	2.39	0.53
1:A:52:ASN:OD1	1:A:157:LYS:HG2	2.09	0.53
1:B:107:LYS:HD3	1:N:506:ASN:HD21	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:163:LYS:HD2	1:B:166:PHE:CG	2.44	0.53
1:C:55:ALA:O	1:C:59:LYS:HG3	2.09	0.53
1:C:154:LEU:HD21	1:C:163:LYS:NZ	2.23	0.53
1:C:159:LEU:HD11	1:C:376:SER:HB2	1.89	0.53
1:D:38:ILE:HA	1:D:49:MET:O	2.07	0.53
1:D:104:ILE:HG13	1:D:105:ALA:N	2.22	0.53
1:E:31:GLY:C	1:E:155:SER:HB3	2.34	0.53
1:E:54:GLY:O	1:E:58:LEU:HD23	2.09	0.53
1:F:231:MET:HG3	1:F:283:ILE:HG13	1.89	0.53
1:F:404:MET:HE3	1:F:430:LEU:HG	1.91	0.53
1:G:173:ALA:HA	1:G:176:ARG:CZ	2.39	0.53
1:I:36:ASP:OD1	1:I:52:ASN:HB2	2.09	0.53
1:J:40:LEU:HD22	1:J:41:SER:N	2.23	0.53
1:J:159:LEU:CD1	1:J:372:GLU:HG2	2.34	0.53
1:J:219:ILE:HB	1:J:275:ASN:HB3	1.89	0.53
1:J:448:LEU:HD13	1:J:448:LEU:C	2.33	0.53
1:K:52:ASN:ND2	1:K:157:LYS:HG2	2.24	0.53
1:L:96:LEU:HD21	1:L:117:TRP:CZ2	2.44	0.53
1:L:417:GLY:O	1:L:418:LYS:HB3	2.09	0.53
1:L:448:LEU:HD21	1:L:465:LEU:CD1	2.38	0.53
1:M:82:VAL:HG11	1:M:486:VAL:HA	1.90	0.53
1:M:404:MET:HE3	1:M:430:LEU:HG	1.91	0.53
1:N:9:GLU:HB3	1:N:507:ILE:CD1	2.38	0.53
1:N:176:ARG:HH21	1:N:201:LEU:HD21	1.73	0.53
1:O:187:HIS:O	1:O:359:THR:HG23	2.08	0.53
1:P:408:VAL:HB	1:P:427:ALA:CB	2.39	0.53
1:A:225:LEU:HD12	1:A:329:LYS:HE2	1.92	0.52
1:A:324:HIS:HB2	1:A:329:LYS:HZ3	1.73	0.52
1:A:431:ARG:NH1	1:A:453:ARG:HD3	2.24	0.52
1:B:448:LEU:HD13	1:B:448:LEU:C	2.34	0.52
1:C:345:LYS:C	1:C:346:LEU:HD12	2.34	0.52
1:D:109:HIS:CE1	1:D:111:GLN:HB2	2.45	0.52
1:D:277:PHE:CE2	1:D:279:ASN:HB2	2.44	0.52
1:E:310:LEU:O	1:E:313:VAL:HB	2.09	0.52
1:F:159:LEU:HG	1:F:163:LYS:HG2	1.89	0.52
1:F:192:LEU:H	1:F:192:LEU:HD12	1.74	0.52
1:G:38:ILE:HG21	1:G:368:GLN:CD	2.34	0.52
1:G:219:ILE:O	1:G:220:GLU:HG2	2.09	0.52
1:H:352:VAL:HG22	1:H:355:GLY:H	1.74	0.52
1:H:367:GLN:HE21	1:H:369:ILE:HB	1.74	0.52
1:J:162:HIS:HB3	1:J:198:ASP:OD2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:215:GLN:HG3	1:J:292:GLY:HA2	1.90	0.52
1:J:500:VAL:HG22	1:J:504:VAL:HG21	1.91	0.52
1:J:508:ILE:HG13	1:N:48:LEU:HD13	1.90	0.52
1:L:89:VAL:CG1	1:L:490:VAL:HG23	2.39	0.52
1:L:206:LEU:HD11	1:L:346:LEU:HD11	1.89	0.52
1:L:341:ILE:O	1:L:343:GLU:N	2.42	0.52
1:M:50:VAL:O	1:M:375:ARG:HD3	2.10	0.52
1:N:9:GLU:HB3	1:N:507:ILE:HD12	1.91	0.52
1:N:36:ASP:CG	1:N:52:ASN:HD22	2.16	0.52
1:N:154:LEU:HD11	1:N:163:LYS:NZ	2.24	0.52
1:O:157:LYS:HB3	1:O:159:LEU:HD13	1.90	0.52
1:A:284:TYR:O	1:A:287:PRO:HD2	2.09	0.52
1:B:51:THR:HA	1:B:375:ARG:HD3	1.91	0.52
1:B:274:ILE:HG23	1:B:274:ILE:O	2.08	0.52
1:B:324:HIS:CG	1:B:325:PRO:HD3	2.45	0.52
1:B:431:ARG:O	1:B:434:PRO:HD2	2.09	0.52
1:C:324:HIS:HB2	1:C:329:LYS:HZ3	1.73	0.52
1:C:434:PRO:HB3	1:C:452:LEU:HD23	1.90	0.52
1:D:337:GLU:HG3	1:D:339:VAL:HG22	1.91	0.52
1:G:191:LYS:HB3	1:G:363:ARG:HG2	1.91	0.52
1:I:57:ILE:HG23	1:I:58:LEU:HD23	1.91	0.52
1:I:160:THR:HG23	1:I:164:ASP:HB3	1.91	0.52
1:I:401:GLU:HG2	1:I:433:LEU:CD2	2.40	0.52
1:I:500:VAL:HG13	1:O:368:GLN:NE2	2.24	0.52
1:J:268:ARG:O	1:J:271:LYS:HG2	2.10	0.52
1:J:455:ALA:HB2	1:J:472:ILE:HD12	1.90	0.52
1:M:259:LYS:O	1:M:262:MET:HB3	2.10	0.52
1:N:469:GLU:O	1:N:469:GLU:HG3	2.09	0.52
1:A:274:ILE:HG23	1:A:296:VAL:HG21	1.90	0.52
1:A:317:GLU:HB3	1:A:330:LEU:H	1.75	0.52
1:A:452:LEU:HD13	1:A:465:LEU:CD1	2.40	0.52
1:B:216:PRO:CG	1:B:295:GLY:HA2	2.39	0.52
1:B:405:ALA:HA	1:B:408:VAL:HG22	1.92	0.52
1:C:78:GLN:NE2	1:C:489:GLN:HB2	2.24	0.52
1:D:501:ILE:C	1:D:504:VAL:HG23	2.34	0.52
1:E:129:LEU:CD2	1:E:392:ARG:HH21	2.21	0.52
1:E:145:ASP:O	1:E:171:VAL:HG11	2.08	0.52
1:G:82:VAL:HG13	1:G:486:VAL:HG12	1.91	0.52
1:G:130:ASN:HD21	1:G:488:ARG:CG	2.22	0.52
1:H:287:PRO:O	1:H:291:PHE:HD2	1.91	0.52
1:I:171:VAL:O	1:I:174:VAL:HG22	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:510:ALA:C	1:J:512:PRO:HD3	2.34	0.52
1:K:334:LYS:HB3	1:K:351:GLY:HA3	1.90	0.52
1:L:63:VAL:HG11	1:M:2:GLY:HA3	1.92	0.52
1:L:149:ILE:HD12	1:L:482:GLU:HA	1.91	0.52
1:L:269:ILE:HG23	1:L:274:ILE:HG21	1.89	0.52
1:M:274:ILE:O	1:M:296:VAL:HG22	2.09	0.52
1:N:31:GLY:HA3	1:N:440:ASN:ND2	2.24	0.52
1:N:32:PRO:HD2	1:N:440:ASN:OD1	2.09	0.52
1:N:152:THR:OG1	1:N:480:ILE:HG21	2.08	0.52
1:N:222:ALA:HA	1:N:275:ASN:OD1	2.08	0.52
1:O:4:ASP:O	1:O:5:GLU:HG2	2.09	0.52
1:O:123:ALA:O	1:O:491:LEU:HD13	2.10	0.52
1:P:188:VAL:HG22	1:P:377:LEU:HD21	1.92	0.52
1:A:317:GLU:HB2	1:A:329:LYS:HA	1.92	0.52
1:B:263:LYS:HA	1:B:266:VAL:HG12	1.92	0.52
1:C:128:LEU:HD21	1:C:487:LYS:HB3	1.90	0.52
1:C:274:ILE:O	1:C:296:VAL:HG22	2.08	0.52
1:D:85:GLY:O	1:D:153:THR:HA	2.09	0.52
1:D:114:ILE:HG23	1:D:499:GLU:HG2	1.91	0.52
1:E:446:ALA:H	1:J:108:ILE:HD12	1.74	0.52
1:F:310:LEU:O	1:F:313:VAL:HB	2.09	0.52
1:G:50:VAL:HG13	1:G:375:ARG:HH22	1.75	0.52
1:G:108:ILE:HG13	1:N:446:ALA:H	1.74	0.52
1:I:22:ILE:HD12	1:I:90:THR:CG2	2.39	0.52
1:I:35:MET:HG2	1:N:504:VAL:HG21	1.90	0.52
1:I:396:GLY:HA3	1:I:480:ILE:HG22	1.91	0.52
1:J:12:ARG:HD2	1:J:100:ALA:HB1	1.92	0.52
1:J:412:ALA:HB1	1:J:424:GLU:HB3	1.92	0.52
1:J:452:LEU:HA	1:J:472:ILE:HG21	1.91	0.52
1:L:52:ASN:OD1	1:L:157:LYS:HG2	2.09	0.52
1:L:159:LEU:CD2	1:L:163:LYS:HD3	2.38	0.52
1:L:226:ILE:HD11	1:L:310:LEU:HD12	1.91	0.52
1:N:475:MET:SD	1:N:480:ILE:HB	2.50	0.52
1:O:244:ARG:HH21	1:O:251:VAL:HG21	1.73	0.52
1:P:185:ALA:HA	1:P:309:ARG:HG2	1.91	0.52
1:A:478:LEU:HB3	1:A:480:ILE:HD12	1.90	0.52
1:B:154:LEU:HD21	1:B:163:LYS:HG3	1.89	0.52
1:D:57:ILE:C	1:D:57:ILE:HD13	2.35	0.52
1:D:431:ARG:O	1:D:434:PRO:HD2	2.09	0.52
1:E:92:LEU:HD11	1:E:433:LEU:CD2	2.39	0.52
1:E:225:LEU:HD11	1:E:324:HIS:ND1	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:112:THR:HG22	1:F:418:LYS:HB3	1.90	0.52
1:F:379:ASP:O	1:F:383:VAL:HG23	2.10	0.52
1:F:397:GLY:HA3	1:F:475:MET:CE	2.40	0.52
1:G:122:LYS:O	1:G:126:GLN:HB2	2.09	0.52
1:G:183:LEU:O	1:G:184:GLU:HG3	2.08	0.52
1:I:16:PHE:HA	1:I:97:LEU:CD2	2.40	0.52
1:I:222:ALA:HA	1:I:275:ASN:CG	2.34	0.52
1:I:448:LEU:C	1:I:448:LEU:HD13	2.34	0.52
1:L:188:VAL:HB	1:L:360:ILE:HB	1.92	0.52
1:N:30:LEU:HD11	1:N:87:THR:O	2.09	0.52
1:N:117:TRP:HE1	1:N:498:ALA:HB3	1.74	0.52
1:N:155:SER:HB3	1:N:467:MET:HE1	1.91	0.52
1:N:367:GLN:HG3	1:N:369:ILE:HB	1.90	0.52
1:N:386:GLN:HG2	1:N:485:GLN:NE2	2.25	0.52
1:N:448:LEU:C	1:N:448:LEU:HD13	2.34	0.52
1:A:109:HIS:CE1	1:A:111:GLN:HB2	2.45	0.52
1:A:191:LYS:CE	1:A:346:LEU:HD11	2.40	0.52
1:B:7:ARG:NH2	1:B:509:LYS:HD3	2.24	0.52
1:B:123:ALA:O	1:B:126:GLN:HG2	2.10	0.52
1:C:32:PRO:HD2	1:C:467:MET:CE	2.39	0.52
1:C:408:VAL:HG21	1:C:427:ALA:HA	1.91	0.52
1:D:146:LEU:HD23	1:D:147:MET:N	2.25	0.52
1:D:369:ILE:O	1:D:372:GLU:HB3	2.10	0.52
1:F:154:LEU:CD2	1:F:163:LYS:HG3	2.40	0.52
1:G:173:ALA:CB	1:G:360:ILE:HD11	2.39	0.52
1:I:35:MET:HA	1:N:7:ARG:NH2	2.25	0.52
1:J:147:MET:O	1:J:479:GLY:HA3	2.09	0.52
1:K:119:GLU:CD	1:K:419:GLU:HB3	2.34	0.52
1:L:16:PHE:HA	1:L:97:LEU:HD23	1.92	0.52
1:L:408:VAL:HG23	1:L:427:ALA:HB1	1.90	0.52
1:M:143:ARG:HA	1:M:143:ARG:NE	2.24	0.52
1:M:394:VAL:CG2	1:M:482:GLU:HB2	2.40	0.52
1:M:425:SER:O	1:M:428:LYS:HG2	2.10	0.52
1:O:405:ALA:HA	1:O:408:VAL:HG22	1.91	0.52
1:P:92:LEU:O	1:P:95:GLU:HG2	2.09	0.52
1:P:188:VAL:CG2	1:P:377:LEU:HD21	2.39	0.52
1:P:334:LYS:HB3	1:P:350:SER:O	2.09	0.52
1:A:265:LYS:HE2	1:A:322:PHE:CE1	2.45	0.52
1:D:411:LEU:HB3	1:D:423:MET:SD	2.50	0.52
1:E:408:VAL:HG23	1:E:427:ALA:HB1	1.91	0.52
1:F:30:LEU:HG	1:F:87:THR:O	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:30:LEU:HD22	1:F:436:ILE:HD13	1.92	0.52
1:G:314:THR:O	1:G:332:SER:HB3	2.09	0.52
1:H:154:LEU:HD11	1:H:376:SER:HB2	1.91	0.52
1:H:325:PRO:O	1:H:326:GLU:HG3	2.10	0.52
1:H:367:GLN:NE2	1:H:369:ILE:HB	2.24	0.52
1:H:408:VAL:HA	1:H:411:LEU:HD12	1.92	0.52
1:J:283:ILE:CG2	1:J:300:GLU:HG3	2.38	0.52
1:K:219:ILE:CB	1:K:275:ASN:HB3	2.40	0.52
1:M:39:LEU:HD12	1:M:57:ILE:HD11	1.92	0.52
1:M:231:MET:HB2	1:M:284:TYR:H	1.73	0.52
1:M:394:VAL:HG23	1:M:482:GLU:HB2	1.92	0.52
1:P:438:ALA:CB	1:P:448:LEU:HG	2.40	0.52
1:A:111:GLN:HE21	1:A:503:ARG:HG2	1.75	0.52
1:A:159:LEU:HD13	1:A:372:GLU:OE2	2.10	0.52
1:A:364:GLY:HA3	1:A:370:LEU:CD1	2.36	0.52
1:B:64:ASP:OD2	1:B:66:PRO:HD2	2.10	0.52
1:B:107:LYS:HD3	1:N:506:ASN:ND2	2.24	0.52
1:C:38:ILE:HG22	1:C:50:VAL:CG1	2.39	0.52
1:C:82:VAL:HG21	1:C:485:GLN:HB2	1.91	0.52
1:C:95:GLU:HA	1:C:98:ARG:CD	2.40	0.52
1:E:117:TRP:N	1:E:117:TRP:HE3	2.08	0.52
1:E:187:HIS:O	1:E:359:THR:HG23	2.09	0.52
1:G:114:ILE:HG13	1:G:503:ARG:HB3	1.92	0.52
1:G:126:GLN:NE2	1:G:407:ALA:HB1	2.24	0.52
1:G:284:TYR:O	1:G:287:PRO:HD2	2.10	0.52
1:H:171:VAL:O	1:H:175:LEU:HG	2.08	0.52
1:I:82:VAL:HG21	1:I:483:SER:HB3	1.89	0.52
1:I:146:LEU:CD2	1:I:167:THR:HG23	2.39	0.52
1:I:149:ILE:HG13	1:I:481:THR:O	2.10	0.52
1:L:191:LYS:HE3	1:L:344:ASP:OD2	2.10	0.52
1:L:225:LEU:HD11	1:L:324:HIS:CE1	2.44	0.52
1:M:242:ARG:HG3	1:O:239:PHE:CD1	2.45	0.52
1:M:372:GLU:HG3	1:M:375:ARG:CZ	2.40	0.52
1:N:390:ASP:HB3	1:N:485:GLN:OE1	2.09	0.52
1:O:159:LEU:HD12	1:O:372:GLU:CG	2.39	0.52
1:O:191:LYS:HE3	1:O:346:LEU:CD1	2.40	0.52
1:P:206:LEU:HD23	1:P:207:LEU:N	2.24	0.52
1:P:266:VAL:HB	1:P:290:LEU:CD2	2.37	0.52
1:B:52:ASN:H	1:B:375:ARG:HD2	1.75	0.52
1:B:222:ALA:HA	1:B:275:ASN:HB2	1.92	0.52
1:C:442:GLY:CA	1:H:109:HIS:HB2	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:39:LEU:HD13	1:G:512:PRO:CG	2.39	0.52
1:E:124:ALA:HA	1:E:404:MET:SD	2.50	0.52
1:E:211:ILE:HG22	1:E:288:GLU:OE1	2.10	0.52
1:E:451:GLN:O	1:E:472:ILE:HD13	2.10	0.52
1:F:318:ILE:HG12	1:F:328:VAL:O	2.09	0.52
1:G:52:ASN:CG	1:G:157:LYS:HG2	2.35	0.52
1:G:171:VAL:HA	1:G:174:VAL:HG22	1.91	0.52
1:G:219:ILE:CB	1:G:275:ASN:HB3	2.39	0.52
1:I:78:GLN:CD	1:I:489:GLN:HB2	2.35	0.52
1:K:157:LYS:HD3	1:K:376:SER:OG	2.10	0.52
1:K:174:VAL:HG12	1:K:384:LEU:HB3	1.92	0.52
1:K:287:PRO:O	1:K:291:PHE:HD2	1.93	0.52
1:L:58:LEU:HD11	1:M:1:ALA:HB2	1.92	0.52
1:L:78:GLN:HE22	1:L:489:GLN:C	2.18	0.52
1:A:108:ILE:CD1	1:M:446:ALA:H	2.23	0.52
1:A:173:ALA:HA	1:A:176:ARG:CZ	2.40	0.52
1:A:323:ASP:C	1:A:325:PRO:HD2	2.35	0.52
1:B:170:ALA:O	1:B:173:ALA:HB3	2.10	0.52
1:D:286:TYR:HB2	1:D:287:PRO:HD3	1.92	0.52
1:E:57:ILE:HD11	1:G:512:PRO:HB3	1.92	0.52
1:E:280:ARG:O	1:E:281:GLN:HB3	2.10	0.52
1:F:154:LEU:HD23	1:F:163:LYS:HG3	1.92	0.52
1:F:191:LYS:HA	1:F:191:LYS:HE3	1.90	0.52
1:F:219:ILE:HB	1:F:275:ASN:HB3	1.92	0.52
1:F:233:THR:O	1:F:234:ASP:HB3	2.10	0.52
1:G:130:ASN:HD21	1:G:488:ARG:HG2	1.74	0.52
1:G:375:ARG:HH11	1:G:375:ARG:HG3	1.74	0.52
1:G:478:LEU:HB3	1:G:480:ILE:HD12	1.91	0.52
1:H:185:ALA:HB1	1:H:357:ALA:CB	2.40	0.52
1:H:431:ARG:NH2	1:H:434:PRO:HG2	2.25	0.52
1:I:194:GLY:HA3	1:I:363:ARG:HB3	1.92	0.52
1:I:238:ILE:HB	1:O:244:ARG:HH11	1.75	0.52
1:K:69:LYS:HD3	1:K:511:ALA:CB	2.40	0.52
1:M:443:TYR:CE2	1:M:470:GLY:HA2	2.45	0.52
1:M:511:ALA:HB1	1:M:512:PRO:HD2	1.91	0.52
1:N:65:ASN:ND2	1:N:66:PRO:HD3	2.25	0.52
1:O:117:TRP:HA	1:O:120:ALA:HB2	1.92	0.52
1:O:225:LEU:HD11	1:O:324:HIS:CE1	2.46	0.52
1:O:240:GLY:O	1:O:241:SER:HB2	2.09	0.52
1:O:324:HIS:HB2	1:O:329:LYS:CE	2.40	0.52
1:P:15:SER:C	1:P:501:ILE:HG13	2.35	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:26:VAL:HG23	1:P:91:VAL:HG22	1.92	0.52
1:P:111:GLN:O	1:P:114:ILE:HB	2.10	0.52
1:P:402:MET:HE1	1:P:406:HIS:HB2	1.92	0.52
1:A:325:PRO:O	1:A:326:GLU:HG3	2.10	0.51
1:B:58:LEU:HB3	1:B:72:VAL:CG1	2.40	0.51
1:B:187:HIS:O	1:B:359:THR:HA	2.10	0.51
1:C:177:LEU:HG	1:C:186:ILE:HD11	1.91	0.51
1:D:390:ASP:CB	1:D:485:GLN:HE22	2.22	0.51
1:E:11:ALA:CB	1:E:506:ASN:HB2	2.39	0.51
1:E:437:ILE:HG23	1:E:467:MET:SD	2.50	0.51
1:F:146:LEU:CD2	1:F:147:MET:H	2.23	0.51
1:G:57:ILE:C	1:G:57:ILE:HD13	2.35	0.51
1:H:106:LYS:NZ	1:H:113:ILE:HG12	2.24	0.51
1:H:216:PRO:HG2	1:H:295:GLY:HA2	1.92	0.51
1:H:367:GLN:NE2	1:H:369:ILE:HD12	2.25	0.51
1:J:324:HIS:CG	1:J:325:PRO:HD3	2.45	0.51
1:J:498:ALA:O	1:J:501:ILE:HB	2.11	0.51
1:K:96:LEU:HD13	1:K:96:LEU:C	2.35	0.51
1:K:225:LEU:HD11	1:K:324:HIS:ND1	2.25	0.51
1:M:101:GLU:O	1:M:104:ILE:HG22	2.11	0.51
1:M:146:LEU:HD23	1:M:148:ASN:H	1.74	0.51
1:M:166:PHE:CD2	1:M:362:LEU:HD22	2.46	0.51
1:N:211:ILE:CD1	1:N:297:MET:HG3	2.31	0.51
1:N:485:GLN:HG3	1:N:488:ARG:NH2	2.26	0.51
1:O:168:LYS:O	1:O:171:VAL:HG22	2.10	0.51
1:O:181:GLY:HA3	1:O:356:GLU:CD	2.35	0.51
1:O:372:GLU:HB2	1:O:375:ARG:HH21	1.75	0.51
1:A:173:ALA:O	1:A:176:ARG:HG2	2.09	0.51
1:B:22:ILE:HD12	1:B:90:THR:CG2	2.40	0.51
1:B:226:ILE:HB	1:B:317:GLU:OE2	2.11	0.51
1:E:117:TRP:HD1	1:E:495:ALA:O	1.93	0.51
1:H:69:LYS:HD3	1:H:510:ALA:HB3	1.92	0.51
1:I:53:ASP:HB2	1:I:379:ASP:OD1	2.09	0.51
1:K:57:ILE:HG23	1:K:58:LEU:CD2	2.41	0.51
1:K:146:LEU:O	1:K:147:MET:HB2	2.10	0.51
1:M:262:MET:HE1	1:M:286:TYR:O	2.11	0.51
1:N:57:ILE:HG23	1:N:58:LEU:CD2	2.40	0.51
1:N:110:PRO:HD3	1:N:505:ASP:OD1	2.10	0.51
1:N:402:MET:HE3	1:N:453:ARG:CG	2.36	0.51
1:O:114:ILE:HA	1:O:117:TRP:CZ3	2.45	0.51
1:O:135:HIS:C	1:O:135:HIS:HD1	2.19	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:132:ALA:H	1:P:461:THR:HG21	1.76	0.51
1:A:27:LYS:HG3	1:A:436:ILE:CD1	2.40	0.51
1:A:37:LYS:HD2	1:C:512:PRO:CD	2.41	0.51
1:A:171:VAL:O	1:A:175:LEU:HG	2.11	0.51
1:A:310:LEU:O	1:A:313:VAL:HB	2.10	0.51
1:C:133:VAL:HG21	1:C:392:ARG:HD2	1.93	0.51
1:E:133:VAL:HG12	1:E:394:VAL:HG12	1.91	0.51
1:F:448:LEU:C	1:F:448:LEU:HD13	2.35	0.51
1:G:106:LYS:C	1:G:107:LYS:HG2	2.35	0.51
1:G:434:PRO:HB3	1:G:452:LEU:CD2	2.41	0.51
1:H:124:ALA:HA	1:H:491:LEU:HD13	1.92	0.51
1:J:152:THR:OG1	1:J:480:ILE:HG12	2.11	0.51
1:K:284:TYR:O	1:K:287:PRO:HD2	2.11	0.51
1:K:324:HIS:HB2	1:K:329:LYS:HZ3	1.75	0.51
1:L:363:ARG:O	1:L:370:LEU:HD11	2.11	0.51
1:L:425:SER:O	1:L:428:LYS:HG2	2.11	0.51
1:M:159:LEU:O	1:M:163:LYS:HB2	2.10	0.51
1:M:324:HIS:HB2	1:M:329:LYS:CE	2.41	0.51
1:N:222:ALA:HB1	1:N:336:ILE:HD12	1.93	0.51
1:O:106:LYS:C	1:O:108:ILE:H	2.18	0.51
1:O:196:LEU:C	1:O:196:LEU:HD13	2.34	0.51
1:O:341:ILE:HG23	1:O:363:ARG:NH2	2.26	0.51
1:P:140:VAL:HA	1:P:175:LEU:HD22	1.92	0.51
1:A:431:ARG:HH21	1:A:434:PRO:HG2	1.75	0.51
1:B:113:ILE:CG1	1:B:418:LYS:HD2	2.41	0.51
1:B:141:LYS:HA	1:B:141:LYS:HE3	1.93	0.51
1:B:431:ARG:HH21	1:B:434:PRO:HG2	1.76	0.51
1:C:32:PRO:HA	1:C:155:SER:HB3	1.91	0.51
1:C:334:LYS:CB	1:C:351:GLY:HA3	2.40	0.51
1:D:57:ILE:HG23	1:D:58:LEU:CD2	2.41	0.51
1:D:283:ILE:HG22	1:D:300:GLU:CG	2.41	0.51
1:E:93:ALA:O	1:E:96:LEU:HB3	2.10	0.51
1:E:149:ILE:HB	1:E:481:THR:O	2.09	0.51
1:G:182:ASN:CG	1:G:183:LEU:H	2.19	0.51
1:G:410:GLN:O	1:G:414:ARG:HB2	2.10	0.51
1:G:452:LEU:HD11	1:G:456:HIS:CE1	2.45	0.51
1:I:37:LYS:HG2	1:N:7:ARG:N	2.26	0.51
1:I:412:ALA:HB1	1:I:424:GLU:HB3	1.91	0.51
1:L:37:LYS:NZ	1:M:7:ARG:HG2	2.25	0.51
1:L:192:LEU:HA	1:L:370:LEU:HD23	1.91	0.51
1:L:276:CYS:HA	1:L:297:MET:O	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:117:TRP:HE1	1:M:498:ALA:CB	2.23	0.51
1:M:127:ALA:CB	1:M:404:MET:SD	2.99	0.51
1:M:280:ARG:O	1:M:281:GLN:HB3	2.10	0.51
1:M:451:GLN:HE22	1:M:471:THR:HA	1.75	0.51
1:O:62:GLY:HA2	1:O:509:LYS:HZ2	1.72	0.51
1:P:37:LYS:O	1:P:50:VAL:HG23	2.10	0.51
1:P:99:GLU:O	1:P:103:LEU:HD13	2.10	0.51
1:P:178:LYS:NZ	1:P:388:VAL:HB	2.24	0.51
1:P:330:LEU:N	1:P:330:LEU:CD2	2.73	0.51
1:P:405:ALA:HA	1:P:408:VAL:HG22	1.92	0.51
1:P:483:SER:O	1:P:486:VAL:HG22	2.11	0.51
1:A:37:LYS:HD3	1:C:511:ALA:HB1	1.93	0.51
1:B:146:LEU:CD2	1:B:147:MET:H	2.21	0.51
1:D:39:LEU:HG	1:E:509:LYS:HA	1.92	0.51
1:D:52:ASN:OD1	1:D:157:LYS:HD3	2.09	0.51
1:D:61:ILE:CD1	1:D:63:VAL:HG13	2.40	0.51
1:D:211:ILE:HB	1:D:215:GLN:OE1	2.09	0.51
1:E:312:LEU:O	1:E:354:LEU:HD22	2.11	0.51
1:F:58:LEU:C	1:F:72:VAL:HG11	2.35	0.51
1:F:488:ARG:HB2	1:F:489:GLN:OE1	2.10	0.51
1:H:166:PHE:HD2	1:H:362:LEU:HD22	1.75	0.51
1:I:126:GLN:CB	1:I:404:MET:HG3	2.39	0.51
1:I:372:GLU:HA	1:I:375:ARG:NE	2.25	0.51
1:J:265:LYS:O	1:J:269:ILE:HB	2.10	0.51
1:M:190:LYS:HD3	1:M:370:LEU:CD2	2.41	0.51
1:N:38:ILE:HD12	1:N:48:LEU:HD22	1.93	0.51
1:N:115:ALA:O	1:N:118:ARG:HB3	2.11	0.51
1:O:32:PRO:CD	1:O:467:MET:SD	2.92	0.51
1:O:146:LEU:HD13	1:O:167:THR:O	2.11	0.51
1:P:65:ASN:CG	1:P:66:PRO:HD3	2.35	0.51
1:P:117:TRP:HE1	1:P:498:ALA:CB	2.24	0.51
1:B:34:GLY:H	1:B:156:SER:HA	1.76	0.51
1:B:40:LEU:HD12	1:F:509:LYS:HE3	1.92	0.51
1:B:207:LEU:HD13	1:B:208:ASP:N	2.26	0.51
1:B:433:LEU:HA	1:B:436:ILE:HG22	1.93	0.51
1:D:139:GLU:O	1:D:140:VAL:HB	2.09	0.51
1:D:152:THR:OG1	1:D:480:ILE:HG13	2.10	0.51
1:D:483:SER:HB2	1:D:486:VAL:HG13	1.92	0.51
1:F:82:VAL:CG2	1:F:485:GLN:HG2	2.40	0.51
1:G:146:LEU:CD2	1:G:147:MET:H	2.23	0.51
1:H:222:ALA:HA	1:H:275:ASN:CG	2.36	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:1:ALA:N	1:N:61:ILE:HG21	2.26	0.51
1:K:157:LYS:HE2	1:K:376:SER:HA	1.93	0.51
1:L:431:ARG:NH2	1:L:434:PRO:HG2	2.25	0.51
1:M:106:LYS:HE3	1:M:108:ILE:HD12	1.92	0.51
1:N:154:LEU:CD2	1:N:164:ASP:HA	2.41	0.51
1:N:313:VAL:HG13	1:N:352:VAL:CG1	2.40	0.51
1:O:75:SER:O	1:O:78:GLN:HB3	2.10	0.51
1:O:402:MET:HE3	1:O:453:ARG:CG	2.37	0.51
1:P:211:ILE:CD1	1:P:297:MET:HG3	2.37	0.51
1:P:462:THR:O	1:P:475:MET:HB3	2.10	0.51
1:A:150:ALA:O	1:A:154:LEU:HD13	2.11	0.51
1:D:171:VAL:O	1:D:174:VAL:HG22	2.10	0.51
1:F:206:LEU:C	1:F:206:LEU:CD1	2.84	0.51
1:G:443:TYR:CD2	1:G:470:GLY:HA2	2.46	0.51
1:H:259:LYS:HA	1:H:259:LYS:HE3	1.93	0.51
1:H:274:ILE:O	1:H:274:ILE:HG23	2.10	0.51
1:I:269:ILE:CG2	1:I:274:ILE:HG21	2.40	0.51
1:J:226:ILE:HA	1:J:278:ILE:O	2.11	0.51
1:J:276:CYS:HA	1:J:297:MET:O	2.11	0.51
1:K:96:LEU:CD2	1:K:117:TRP:HZ2	2.23	0.51
1:K:211:ILE:HB	1:K:215:GLN:OE1	2.11	0.51
1:K:402:MET:HE3	1:K:453:ARG:CG	2.36	0.51
1:L:178:LYS:CE	1:L:388:VAL:HG22	2.38	0.51
1:N:8:ALA:HA	1:N:504:VAL:O	2.10	0.51
1:N:32:PRO:HA	1:N:155:SER:O	2.10	0.51
1:N:68:ALA:O	1:N:72:VAL:HG23	2.11	0.51
1:N:104:ILE:CD1	1:N:507:ILE:HG13	2.41	0.51
1:N:216:PRO:HG2	1:N:295:GLY:HA2	1.92	0.51
1:C:101:GLU:O	1:C:104:ILE:HG12	2.10	0.51
1:C:116:GLY:C	1:C:505:ASP:HB2	2.35	0.51
1:E:334:LYS:HD2	1:E:351:GLY:HA3	1.93	0.51
1:F:51:THR:HA	1:F:375:ARG:NH1	2.26	0.51
1:G:437:ILE:HG23	1:G:467:MET:SD	2.51	0.51
1:H:171:VAL:HG12	1:H:384:LEU:HD21	1.91	0.51
1:H:173:ALA:HA	1:H:176:ARG:CZ	2.41	0.51
1:I:117:TRP:CD1	1:I:495:ALA:O	2.64	0.51
1:I:234:ASP:CG	1:I:235:LYS:H	2.19	0.51
1:J:175:LEU:HD23	1:J:178:LYS:HE3	1.93	0.51
1:J:352:VAL:HG22	1:J:355:GLY:H	1.75	0.51
1:K:207:LEU:O	1:K:347:ILE:HG22	2.10	0.51
1:L:33:LYS:HB2	1:L:440:ASN:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:38:ILE:HA	1:L:50:VAL:HA	1.92	0.51
1:L:448:LEU:HD21	1:L:465:LEU:HD13	1.92	0.51
1:M:70:VAL:HG22	1:M:507:ILE:CD1	2.40	0.51
1:M:173:ALA:O	1:M:176:ARG:HG2	2.11	0.51
1:M:226:ILE:HB	1:M:317:GLU:OE2	2.10	0.51
1:M:232:ASP:HA	1:M:284:TYR:HB2	1.93	0.51
1:M:324:HIS:HB2	1:M:329:LYS:HE2	1.93	0.51
1:M:483:SER:O	1:M:486:VAL:HG22	2.11	0.51
1:O:15:SER:HB3	1:O:501:ILE:HG23	1.91	0.51
1:O:190:LYS:HA	1:O:362:LEU:O	2.11	0.51
1:P:176:ARG:HH12	1:P:201:LEU:HD21	1.74	0.51
1:P:209:LYS:HZ2	1:P:302:ALA:HA	1.73	0.51
1:P:408:VAL:CG2	1:P:427:ALA:HB1	2.40	0.51
1:A:309:ARG:O	1:A:313:VAL:HG23	2.10	0.51
1:B:499:GLU:HB3	1:B:503:ARG:HH21	1.74	0.51
1:C:157:LYS:HE3	1:C:379:ASP:OD2	2.10	0.51
1:C:211:ILE:HG12	1:C:298:ALA:H	1.75	0.51
1:C:392:ARG:HG2	1:C:484:PHE:CG	2.46	0.51
1:C:433:LEU:HA	1:C:436:ILE:HG22	1.93	0.51
1:D:89:VAL:HA	1:D:490:VAL:HG21	1.93	0.51
1:D:507:ILE:HG23	1:H:38:ILE:HD12	1.93	0.51
1:H:138:ASP:O	1:H:139:GLU:HB2	2.11	0.51
1:H:437:ILE:HG23	1:H:467:MET:SD	2.51	0.51
1:J:57:ILE:HG23	1:J:58:LEU:HD23	1.92	0.51
1:J:82:VAL:HG13	1:J:83:GLY:N	2.25	0.51
1:K:19:ALA:CB	1:K:97:LEU:HD12	2.41	0.51
1:K:52:ASN:H	1:K:375:ARG:HD2	1.76	0.51
1:K:178:LYS:NZ	1:K:388:VAL:HG23	2.26	0.51
1:K:219:ILE:HD13	1:K:219:ILE:N	2.23	0.51
1:M:57:ILE:HG23	1:M:58:LEU:CD2	2.41	0.51
1:M:146:LEU:HD23	1:M:147:MET:H	1.76	0.51
1:M:274:ILE:O	1:M:274:ILE:HG23	2.11	0.51
1:N:9:GLU:HG3	1:N:10:THR:N	2.25	0.51
1:N:31:GLY:CA	1:N:156:SER:HA	2.41	0.51
1:A:163:LYS:HD2	1:A:166:PHE:CD1	2.45	0.51
1:B:99:GLU:HG2	1:B:425:SER:CB	2.39	0.51
1:B:166:PHE:CZ	1:B:198:ASP:HB3	2.46	0.51
1:B:287:PRO:O	1:B:291:PHE:HD1	1.94	0.51
1:C:141:LYS:CG	1:C:144:GLN:HB2	2.41	0.51
1:C:420:ALA:HB3	1:L:450:ALA:HB1	1.93	0.51
1:E:226:ILE:HD12	1:E:317:GLU:HG3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:107:LYS:O	1:F:108:ILE:CG1	2.59	0.51
1:G:113:ILE:HA	1:G:422:ALA:CB	2.35	0.51
1:G:146:LEU:HD21	1:G:150:ALA:HB3	1.93	0.51
1:G:190:LYS:HA	1:G:362:LEU:O	2.11	0.51
1:H:268:ARG:O	1:H:271:LYS:HG2	2.11	0.51
1:H:506:ASN:O	1:H:507:ILE:HG22	2.11	0.51
1:I:39:LEU:HD23	1:N:4:ASP:O	2.10	0.51
1:J:120:ALA:O	1:J:123:ALA:HB3	2.10	0.51
1:J:128:LEU:HD22	1:J:394:VAL:HG11	1.92	0.51
1:J:364:GLY:HA3	1:J:370:LEU:HD13	1.93	0.51
1:J:402:MET:HG2	1:J:431:ARG:HH22	1.76	0.51
1:K:402:MET:HE2	1:K:402:MET:O	2.10	0.51
1:K:510:ALA:O	1:K:511:ALA:HB3	2.11	0.51
1:L:40:LEU:HD23	1:L:41:SER:N	2.25	0.51
1:L:133:VAL:HG22	1:L:134:ASP:H	1.76	0.51
1:M:226:ILE:HA	1:M:278:ILE:O	2.11	0.51
1:M:284:TYR:O	1:M:287:PRO:HD2	2.11	0.51
1:M:318:ILE:HB	1:M:328:VAL:CG2	2.40	0.51
1:B:128:LEU:HD13	1:B:128:LEU:N	2.26	0.50
1:C:57:ILE:HD13	1:C:57:ILE:C	2.36	0.50
1:D:32:PRO:HA	1:D:155:SER:HB2	1.94	0.50
1:D:36:ASP:OD1	1:D:158:LEU:HB2	2.10	0.50
1:D:57:ILE:HD13	1:D:57:ILE:O	2.11	0.50
1:D:99:GLU:HG2	1:D:425:SER:HB2	1.93	0.50
1:D:166:PHE:HD1	1:D:166:PHE:H	1.59	0.50
1:E:124:ALA:HB1	1:E:491:LEU:CD2	2.39	0.50
1:G:89:VAL:HG12	1:G:490:VAL:HG23	1.91	0.50
1:G:322:PHE:HA	1:G:324:HIS:CD2	2.46	0.50
1:I:58:LEU:HB3	1:I:72:VAL:CG1	2.41	0.50
1:I:177:LEU:HD13	1:I:177:LEU:C	2.36	0.50
1:I:274:ILE:HG23	1:I:296:VAL:HG21	1.93	0.50
1:J:96:LEU:HD11	1:J:498:ALA:HB1	1.94	0.50
1:J:157:LYS:HE2	1:J:376:SER:HA	1.92	0.50
1:J:334:LYS:HG3	1:J:351:GLY:HA3	1.93	0.50
1:K:499:GLU:O	1:K:503:ARG:HG2	2.11	0.50
1:L:504:VAL:HA	1:P:37:LYS:NZ	2.26	0.50
1:M:38:ILE:HG22	1:M:50:VAL:HB	1.92	0.50
1:N:397:GLY:O	1:N:465:LEU:HD23	2.10	0.50
1:O:54:GLY:O	1:O:58:LEU:HD23	2.11	0.50
1:O:159:LEU:O	1:O:161:HIS:N	2.45	0.50
1:O:283:ILE:HG22	1:O:300:GLU:CG	2.39	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:280:ARG:HD2	1:A:304:PHE:HB2	1.92	0.50
1:A:431:ARG:O	1:A:434:PRO:HD2	2.11	0.50
1:C:57:ILE:HG23	1:C:58:LEU:CD2	2.40	0.50
1:C:154:LEU:HD21	1:C:163:LYS:HZ2	1.75	0.50
1:C:159:LEU:HG	1:C:163:LYS:HB3	1.94	0.50
1:D:108:ILE:HG23	1:D:109:HIS:N	2.23	0.50
1:D:431:ARG:HH21	1:D:434:PRO:HG2	1.76	0.50
1:F:193:GLY:HA2	1:F:343:GLU:OE1	2.10	0.50
1:F:408:VAL:HA	1:F:411:LEU:HD12	1.93	0.50
1:G:111:GLN:HA	1:G:114:ILE:CG1	2.41	0.50
1:G:274:ILE:HG23	1:G:296:VAL:CG2	2.41	0.50
1:J:57:ILE:HG23	1:J:58:LEU:CD2	2.41	0.50
1:J:102:SER:O	1:J:105:ALA:HB3	2.12	0.50
1:K:207:LEU:HD22	1:K:208:ASP:N	2.26	0.50
1:L:32:PRO:CA	1:L:155:SER:HB3	2.42	0.50
1:L:149:ILE:HB	1:L:482:GLU:HA	1.93	0.50
1:L:313:VAL:CG2	1:L:357:ALA:HB3	2.42	0.50
1:M:154:LEU:CD2	1:M:163:LYS:HG2	2.41	0.50
1:M:171:VAL:O	1:M:175:LEU:HG	2.11	0.50
1:N:263:LYS:HA	1:N:266:VAL:HG12	1.92	0.50
1:N:280:ARG:HA	1:N:302:ALA:O	2.11	0.50
1:O:334:LYS:CB	1:O:351:GLY:HA3	2.41	0.50
1:P:96:LEU:O	1:P:96:LEU:HD22	2.11	0.50
1:P:115:ALA:O	1:P:119:GLU:HG2	2.11	0.50
1:P:367:GLN:HG3	1:P:369:ILE:HB	1.93	0.50
1:A:224:ILE:HD11	1:A:349:PHE:CE2	2.46	0.50
1:B:106:LYS:HE3	1:B:418:LYS:HD3	1.92	0.50
1:C:173:ALA:O	1:C:176:ARG:HG2	2.11	0.50
1:C:431:ARG:NH2	1:C:434:PRO:HG2	2.27	0.50
1:D:372:GLU:HG3	1:D:375:ARG:NH1	2.26	0.50
1:E:133:VAL:HG23	1:E:134:ASP:N	2.26	0.50
1:F:446:ALA:CB	1:O:108:ILE:HG23	2.21	0.50
1:H:119:GLU:OE2	1:H:415:THR:HG21	2.12	0.50
1:I:146:LEU:HD11	1:I:150:ALA:CB	2.40	0.50
1:J:438:ALA:HB2	1:J:448:LEU:CG	2.37	0.50
1:K:341:ILE:HD11	1:K:348:HIS:CE1	2.46	0.50
1:M:57:ILE:C	1:M:57:ILE:HD13	2.36	0.50
1:M:159:LEU:CB	1:M:369:ILE:HG23	2.41	0.50
1:O:161:HIS:CG	1:O:162:HIS:H	2.30	0.50
1:P:15:SER:HB3	1:P:501:ILE:CB	2.42	0.50
1:P:51:THR:HA	1:P:375:ARG:HG3	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:451:GLN:HE22	1:P:471:THR:HA	1.77	0.50
1:A:52:ASN:ND2	1:A:375:ARG:NH2	2.60	0.50
1:A:96:LEU:HD23	1:A:117:TRP:HZ2	1.75	0.50
1:A:154:LEU:HD23	1:A:163:LYS:HG3	1.93	0.50
1:B:112:THR:CB	1:G:442:GLY:HA3	2.42	0.50
1:B:452:LEU:HD13	1:B:465:LEU:CD1	2.41	0.50
1:C:150:ALA:HB1	1:C:167:THR:OG1	2.11	0.50
1:C:159:LEU:HD13	1:C:372:GLU:CG	2.39	0.50
1:D:146:LEU:HD13	1:D:168:LYS:HA	1.92	0.50
1:E:173:ALA:CB	1:E:360:ILE:HD11	2.39	0.50
1:E:313:VAL:HG13	1:E:352:VAL:CB	2.40	0.50
1:E:500:VAL:O	1:E:504:VAL:HG23	2.10	0.50
1:F:231:MET:HB2	1:F:284:TYR:H	1.76	0.50
1:G:211:ILE:HG12	1:G:298:ALA:H	1.77	0.50
1:G:222:ALA:O	1:G:333:CYS:HB3	2.10	0.50
1:J:232:ASP:HA	1:J:284:TYR:HB2	1.93	0.50
1:K:159:LEU:HB3	1:K:163:LYS:HB2	1.92	0.50
1:K:216:PRO:CG	1:K:295:GLY:HA2	2.41	0.50
1:K:274:ILE:HG23	1:K:296:VAL:HG21	1.93	0.50
1:L:206:LEU:HD21	1:L:346:LEU:CD2	2.41	0.50
1:L:216:PRO:HG2	1:L:295:GLY:CA	2.42	0.50
1:M:112:THR:HG23	1:M:418:LYS:CD	2.35	0.50
1:M:158:LEU:CD2	1:O:500:VAL:HG12	2.33	0.50
1:N:431:ARG:HH21	1:N:434:PRO:HG2	1.76	0.50
1:O:59:LYS:HZ1	1:O:75:SER:HB3	1.76	0.50
1:O:313:VAL:HG13	1:O:352:VAL:HG21	1.93	0.50
1:P:109:HIS:CE1	1:P:111:GLN:HG2	2.47	0.50
1:B:99:GLU:CD	1:B:425:SER:HB2	2.36	0.50
1:B:126:GLN:O	1:B:130:ASN:HB2	2.12	0.50
1:B:132:ALA:O	1:B:133:VAL:HG12	2.11	0.50
1:C:16:PHE:HA	1:C:97:LEU:HD23	1.94	0.50
1:C:52:ASN:ND2	1:C:157:LYS:HA	2.27	0.50
1:C:64:ASP:CG	1:C:66:PRO:HD2	2.36	0.50
1:C:117:TRP:CD2	1:C:505:ASP:HA	2.40	0.50
1:C:117:TRP:HD1	1:C:120:ALA:HB3	1.77	0.50
1:C:450:ALA:HB3	1:L:417:GLY:HA2	1.92	0.50
1:C:451:GLN:NE2	1:C:471:THR:HA	2.27	0.50
1:D:204:GLY:O	1:D:359:THR:HB	2.10	0.50
1:D:448:LEU:HA	1:D:451:GLN:HE21	1.77	0.50
1:F:126:GLN:CD	1:F:411:LEU:HD11	2.37	0.50
1:F:132:ALA:HB2	1:F:461:THR:HG21	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:96:LEU:O	1:G:96:LEU:HD22	2.11	0.50
1:G:310:LEU:O	1:G:313:VAL:HB	2.12	0.50
1:G:433:LEU:O	1:G:437:ILE:HG12	2.11	0.50
1:H:31:GLY:O	1:H:156:SER:HA	2.12	0.50
1:I:12:ARG:O	1:I:15:SER:HB2	2.12	0.50
1:I:32:PRO:HA	1:I:155:SER:C	2.36	0.50
1:J:139:GLU:O	1:J:140:VAL:HB	2.10	0.50
1:K:101:GLU:O	1:K:104:ILE:HG23	2.12	0.50
1:K:231:MET:HB2	1:K:284:TYR:H	1.77	0.50
1:K:394:VAL:CG2	1:K:482:GLU:HB2	2.41	0.50
1:K:415:THR:HB	1:K:416:PRO:HD2	1.93	0.50
1:L:81:GLU:O	1:L:82:VAL:HB	2.12	0.50
1:L:497:ALA:O	1:L:500:VAL:HG22	2.11	0.50
1:M:222:ALA:HA	1:M:275:ASN:OD1	2.11	0.50
1:M:452:LEU:HD22	1:M:465:LEU:HD21	1.93	0.50
1:N:452:LEU:HD11	1:N:456:HIS:CE1	2.46	0.50
1:A:96:LEU:HD23	1:A:117:TRP:CZ2	2.46	0.50
1:A:224:ILE:HD11	1:A:349:PHE:HE2	1.75	0.50
1:B:109:HIS:NE2	1:G:35:MET:HE1	2.27	0.50
1:B:503:ARG:HD2	1:G:35:MET:HA	1.93	0.50
1:C:127:ALA:C	1:C:128:LEU:HG	2.37	0.50
1:C:442:GLY:N	1:H:109:HIS:HB2	2.27	0.50
1:D:21:ALA:O	1:D:25:LEU:HD22	2.12	0.50
1:D:37:LYS:HZ3	1:E:504:VAL:HG22	1.77	0.50
1:D:106:LYS:O	1:K:446:ALA:HB2	2.12	0.50
1:D:117:TRP:HA	1:D:120:ALA:CB	2.42	0.50
1:E:149:ILE:HD13	1:E:383:VAL:HG11	1.94	0.50
1:E:159:LEU:H	1:E:159:LEU:HD22	1.77	0.50
1:E:159:LEU:HG	1:E:163:LYS:CG	2.42	0.50
1:E:269:ILE:HG23	1:E:274:ILE:HG22	1.90	0.50
1:F:337:GLU:HG3	1:F:339:VAL:HG23	1.94	0.50
1:G:51:THR:CG2	1:G:57:ILE:HB	2.35	0.50
1:H:157:LYS:HD3	1:H:375:ARG:HH11	1.77	0.50
1:H:280:ARG:HG3	1:H:304:PHE:HA	1.92	0.50
1:I:310:LEU:O	1:I:314:THR:HG22	2.11	0.50
1:K:188:VAL:HG13	1:K:377:LEU:CD2	2.34	0.50
1:O:222:ALA:HA	1:O:275:ASN:HB2	1.93	0.50
1:P:205:PHE:HA	1:P:359:THR:OG1	2.11	0.50
1:P:372:GLU:HG3	1:P:375:ARG:NE	2.27	0.50
1:P:405:ALA:O	1:P:408:VAL:HG22	2.11	0.50
1:A:226:ILE:O	1:A:329:LYS:HE3	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:171:VAL:O	1:B:174:VAL:HG22	2.12	0.50
1:C:122:LYS:HE2	1:C:126:GLN:NE2	2.26	0.50
1:C:232:ASP:HA	1:C:284:TYR:CD1	2.46	0.50
1:D:216:PRO:CG	1:D:295:GLY:HA2	2.41	0.50
1:D:397:GLY:O	1:D:465:LEU:HB2	2.12	0.50
1:E:22:ILE:HD12	1:E:90:THR:CG2	2.41	0.50
1:E:378:HIS:HD2	1:E:379:ASP:N	2.10	0.50
1:E:434:PRO:HB3	1:E:452:LEU:CD2	2.42	0.50
1:E:438:ALA:HB2	1:E:448:LEU:CD1	2.42	0.50
1:F:209:LYS:HE2	1:F:301:HIS:O	2.12	0.50
1:F:222:ALA:HA	1:F:275:ASN:OD1	2.10	0.50
1:H:133:VAL:HG11	1:H:393:THR:O	2.12	0.50
1:H:310:LEU:O	1:H:314:THR:HG22	2.12	0.50
1:H:398:GLY:HA2	1:H:401:GLU:CD	2.36	0.50
1:J:32:PRO:HA	1:J:155:SER:HB3	1.93	0.50
1:J:478:LEU:HD13	1:J:478:LEU:C	2.36	0.50
1:K:225:LEU:HD11	1:K:324:HIS:CE1	2.47	0.50
1:K:297:MET:HE3	1:K:347:ILE:HD11	1.93	0.50
1:L:503:ARG:HH22	1:P:158:LEU:HD22	1.77	0.50
1:M:70:VAL:HG22	1:M:507:ILE:HD13	1.94	0.50
1:M:341:ILE:HG23	1:M:363:ARG:CZ	2.42	0.50
1:N:146:LEU:HB2	1:N:171:VAL:CG2	2.41	0.50
1:N:367:GLN:HG2	1:N:370:LEU:H	1.76	0.50
1:O:34:GLY:HA3	1:O:156:SER:O	2.11	0.50
1:O:132:ALA:O	1:O:133:VAL:HG13	2.12	0.50
1:O:211:ILE:HG12	1:O:298:ALA:H	1.76	0.50
1:P:219:ILE:CD1	1:P:276:CYS:HB2	2.41	0.50
1:A:334:LYS:HD3	1:A:335:LEU:N	2.27	0.50
1:B:78:GLN:HE21	1:B:490:VAL:HG13	1.77	0.50
1:B:226:ILE:HG12	1:B:278:ILE:HG23	1.93	0.50
1:B:283:ILE:HG22	1:B:300:GLU:HG3	1.94	0.50
1:C:231:MET:C	1:C:284:TYR:HB2	2.36	0.50
1:D:1:ALA:HB1	1:H:39:LEU:HD22	1.94	0.50
1:D:191:LYS:HB3	1:D:363:ARG:HG3	1.94	0.50
1:E:209:LYS:HE2	1:E:301:HIS:O	2.11	0.50
1:G:152:THR:HB	1:G:480:ILE:HG23	1.93	0.50
1:H:57:ILE:HG23	1:H:58:LEU:HD23	1.92	0.50
1:H:188:VAL:CG2	1:H:362:LEU:HD11	2.42	0.50
1:H:496:GLU:O	1:H:499:GLU:HB3	2.11	0.50
1:J:40:LEU:HG	1:K:510:ALA:CB	2.42	0.50
1:J:177:LEU:HD22	1:J:186:ILE:HD11	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:216:PRO:HG2	1:J:295:GLY:HA2	1.94	0.50
1:J:431:ARG:O	1:J:434:PRO:HD2	2.11	0.50
1:J:431:ARG:NH2	1:J:434:PRO:HG2	2.26	0.50
1:J:433:LEU:HB2	1:J:434:PRO:HD3	1.94	0.50
1:K:31:GLY:HA3	1:K:440:ASN:CG	2.36	0.50
1:M:48:LEU:HD11	1:O:508:ILE:HG22	1.92	0.50
1:O:280:ARG:HD2	1:O:304:PHE:HB2	1.92	0.50
1:O:324:HIS:HB2	1:O:329:LYS:HE2	1.92	0.50
1:P:191:LYS:HE2	1:P:341:ILE:HB	1.94	0.50
1:A:232:ASP:HA	1:A:284:TYR:CD1	2.47	0.50
1:A:506:ASN:O	1:F:38:ILE:HD11	2.11	0.50
1:C:274:ILE:HG23	1:C:296:VAL:HG21	1.94	0.50
1:C:431:ARG:HH21	1:C:434:PRO:HG2	1.76	0.50
1:D:108:ILE:HG13	1:K:444:ASP:OD2	2.12	0.50
1:D:404:MET:HE3	1:D:430:LEU:CD1	2.42	0.50
1:E:116:GLY:O	1:E:120:ALA:N	2.44	0.50
1:E:121:THR:O	1:E:125:ARG:HB2	2.11	0.50
1:E:146:LEU:HD22	1:E:167:THR:HG23	1.93	0.50
1:E:438:ALA:HB2	1:E:448:LEU:CG	2.42	0.50
1:F:40:LEU:HD23	1:F:48:LEU:HD12	1.93	0.50
1:F:202:ASP:HB2	1:F:359:THR:O	2.12	0.50
1:F:431:ARG:HH21	1:F:434:PRO:HG2	1.77	0.50
1:G:32:PRO:HA	1:G:155:SER:O	2.11	0.50
1:G:185:ALA:HA	1:G:309:ARG:HB3	1.93	0.50
1:G:414:ARG:O	1:G:416:PRO:HD3	2.12	0.50
1:G:431:ARG:NH2	1:G:434:PRO:HG2	2.26	0.50
1:H:166:PHE:CE1	1:H:198:ASP:HB3	2.47	0.50
1:H:226:ILE:HG12	1:H:278:ILE:CG2	2.42	0.50
1:H:451:GLN:HE22	1:H:471:THR:HA	1.76	0.50
1:I:99:GLU:HG2	1:I:428:LYS:HD2	1.93	0.50
1:J:266:VAL:CB	1:J:290:LEU:HD21	2.29	0.50
1:K:96:LEU:HD22	1:K:96:LEU:C	2.37	0.50
1:M:112:THR:CG2	1:M:418:LYS:HB3	2.42	0.50
1:M:243:VAL:C	1:O:240:GLY:HA2	2.36	0.50
1:M:338:GLU:HG3	1:M:346:LEU:O	2.12	0.50
1:N:57:ILE:HD13	1:N:57:ILE:C	2.37	0.50
1:O:128:LEU:CD1	1:O:488:ARG:HG3	2.42	0.50
1:O:146:LEU:CD2	1:O:167:THR:HG23	2.42	0.50
1:P:27:LYS:HA	1:P:30:LEU:HD13	1.94	0.50
1:A:25:LEU:HG	1:C:512:PRO:HA	1.93	0.49
1:A:82:VAL:HG13	1:A:83:GLY:N	2.26	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:269:ILE:CG2	1:B:274:ILE:HG21	2.40	0.49
1:B:312:LEU:O	1:B:354:LEU:HD22	2.12	0.49
1:C:313:VAL:HG13	1:C:352:VAL:HG11	1.93	0.49
1:C:352:VAL:HG23	1:C:355:GLY:H	1.77	0.49
1:D:7:ARG:NH2	1:H:25:LEU:HD13	2.27	0.49
1:D:108:ILE:CG2	1:D:109:HIS:N	2.74	0.49
1:D:146:LEU:HD23	1:D:148:ASN:H	1.77	0.49
1:D:171:VAL:HG12	1:D:384:LEU:CG	2.37	0.49
1:G:133:VAL:HG23	1:G:393:THR:O	2.12	0.49
1:H:154:LEU:HD23	1:H:163:LYS:CG	2.41	0.49
1:I:185:ALA:HB3	1:I:357:ALA:HB2	1.94	0.49
1:J:110:PRO:HA	1:J:113:ILE:HD12	1.94	0.49
1:K:431:ARG:HH21	1:K:434:PRO:HG2	1.77	0.49
1:L:226:ILE:HA	1:L:278:ILE:O	2.12	0.49
1:M:35:MET:HG3	1:O:503:ARG:HB3	1.94	0.49
1:M:143:ARG:HA	1:M:143:ARG:HE	1.77	0.49
1:N:148:ASN:O	1:N:480:ILE:HG12	2.11	0.49
1:N:431:ARG:NH1	1:N:453:ARG:HD3	2.27	0.49
1:O:32:PRO:CA	1:O:155:SER:O	2.58	0.49
1:O:284:TYR:O	1:O:287:PRO:HD2	2.12	0.49
1:A:57:ILE:C	1:A:57:ILE:HD13	2.37	0.49
1:A:438:ALA:CB	1:A:448:LEU:HG	2.40	0.49
1:B:146:LEU:HD22	1:B:168:LYS:CA	2.40	0.49
1:B:222:ALA:HA	1:B:275:ASN:OD1	2.12	0.49
1:C:28:SER:OG	1:C:37:LYS:HE2	2.12	0.49
1:C:61:ILE:HG22	1:C:63:VAL:HG23	1.93	0.49
1:C:115:ALA:CA	1:C:504:VAL:HG22	2.43	0.49
1:C:501:ILE:C	1:C:503:ARG:N	2.67	0.49
1:D:222:ALA:HA	1:D:275:ASN:HB2	1.94	0.49
1:D:402:MET:HE2	1:D:402:MET:O	2.11	0.49
1:D:447:ASP:HB2	1:K:418:LYS:HE2	1.93	0.49
1:E:232:ASP:OD1	1:E:284:TYR:HD1	1.96	0.49
1:F:185:ALA:HB1	1:F:357:ALA:HB1	1.94	0.49
1:F:334:LYS:CG	1:F:351:GLY:HA3	2.42	0.49
1:G:450:ALA:C	1:N:417:GLY:HA2	2.37	0.49
1:G:452:LEU:HD11	1:G:456:HIS:HE1	1.77	0.49
1:H:89:VAL:HB	1:H:490:VAL:HG23	1.94	0.49
1:H:112:THR:HG23	1:H:418:LYS:CE	2.42	0.49
1:I:36:ASP:HB2	1:N:7:ARG:NH1	2.26	0.49
1:I:211:ILE:HB	1:I:215:GLN:OE1	2.12	0.49
1:I:324:HIS:HB2	1:I:329:LYS:HZ3	1.75	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:397:GLY:O	1:I:465:LEU:HD23	2.11	0.49
1:J:341:ILE:HG23	1:J:363:ARG:NH2	2.27	0.49
1:K:30:LEU:HD11	1:K:87:THR:O	2.12	0.49
1:K:216:PRO:HG2	1:K:295:GLY:HA2	1.94	0.49
1:K:343:GLU:CG	1:K:344:ASP:N	2.65	0.49
1:M:394:VAL:HG11	1:M:487:LYS:HG3	1.93	0.49
1:N:154:LEU:HD11	1:N:163:LYS:HZ2	1.77	0.49
1:P:452:LEU:HA	1:P:472:ILE:HG21	1.93	0.49
1:A:36:ASP:HB2	1:A:375:ARG:HH22	1.77	0.49
1:A:234:ASP:CG	1:A:235:LYS:H	2.20	0.49
1:B:141:LYS:HA	1:B:141:LYS:CE	2.42	0.49
1:B:485:GLN:HG2	1:B:488:ARG:NH2	2.27	0.49
1:C:82:VAL:CG2	1:C:485:GLN:HB2	2.42	0.49
1:D:117:TRP:HA	1:D:120:ALA:HB3	1.94	0.49
1:E:117:TRP:NE1	1:E:499:GLU:HG3	2.27	0.49
1:E:338:GLU:OE2	1:E:345:LYS:HE2	2.12	0.49
1:F:146:LEU:HD23	1:F:148:ASN:H	1.77	0.49
1:F:286:TYR:HB2	1:F:287:PRO:HD3	1.94	0.49
1:F:431:ARG:O	1:F:434:PRO:HD2	2.12	0.49
1:G:154:LEU:HD23	1:G:163:LYS:CG	2.39	0.49
1:G:338:GLU:HA	1:G:347:ILE:HA	1.94	0.49
1:H:225:LEU:HD11	1:H:324:HIS:CE1	2.47	0.49
1:J:205:PHE:HA	1:J:359:THR:OG1	2.13	0.49
1:K:163:LYS:O	1:K:166:PHE:HB2	2.12	0.49
1:L:219:ILE:HD11	1:L:336:ILE:HB	1.94	0.49
1:L:263:LYS:O	1:L:267:GLU:HG2	2.13	0.49
1:N:488:ARG:HG3	1:N:489:GLN:OE1	2.12	0.49
1:O:225:LEU:HG	1:O:277:PHE:CD1	2.47	0.49
1:P:37:LYS:C	1:P:50:VAL:HG23	2.37	0.49
1:A:1:ALA:O	1:F:39:LEU:HD13	2.13	0.49
1:A:36:ASP:CG	1:A:158:LEU:HD13	2.37	0.49
1:A:161:HIS:CD2	1:A:162:HIS:H	2.29	0.49
1:B:110:PRO:O	1:B:113:ILE:HB	2.13	0.49
1:B:112:THR:OG1	1:G:442:GLY:HA3	2.13	0.49
1:D:143:ARG:HA	1:D:143:ARG:HE	1.77	0.49
1:D:276:CYS:HA	1:D:297:MET:O	2.12	0.49
1:E:211:ILE:HD13	1:E:215:GLN:OE1	2.12	0.49
1:F:366:THR:HG23	1:F:366:THR:O	2.12	0.49
1:F:451:GLN:NE2	1:F:471:THR:HA	2.27	0.49
1:F:452:LEU:HD13	1:F:465:LEU:CD1	2.42	0.49
1:G:215:GLN:HG3	1:G:292:GLY:HA2	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:311:ALA:HA	1:G:314:THR:CG2	2.42	0.49
1:G:450:ALA:CB	1:N:417:GLY:HA2	2.41	0.49
1:I:74:MET:HE3	1:O:366:THR:CG2	2.33	0.49
1:I:129:LEU:HD23	1:I:129:LEU:C	2.37	0.49
1:I:210:LYS:HE2	1:I:212:GLY:O	2.11	0.49
1:I:233:THR:O	1:I:234:ASP:HB3	2.12	0.49
1:I:268:ARG:O	1:I:271:LYS:HG2	2.12	0.49
1:I:297:MET:HE3	1:I:347:ILE:HD11	1.93	0.49
1:J:15:SER:HB3	1:J:501:ILE:CG2	2.43	0.49
1:K:154:LEU:HD23	1:K:163:LYS:HG3	1.94	0.49
1:K:334:LYS:CD	1:K:351:GLY:HA3	2.43	0.49
1:L:334:LYS:HB3	1:L:350:SER:O	2.12	0.49
1:L:483:SER:O	1:L:486:VAL:HG22	2.13	0.49
1:N:364:GLY:HA3	1:N:370:LEU:HD13	1.93	0.49
1:P:321:THR:O	1:P:323:ASP:N	2.46	0.49
1:A:5:GLU:HG2	1:A:5:GLU:O	2.12	0.49
1:A:22:ILE:HD12	1:A:90:THR:CG2	2.43	0.49
1:A:225:LEU:CD1	1:A:329:LYS:HE2	2.43	0.49
1:A:261:LYS:O	1:A:264:GLU:HG2	2.13	0.49
1:A:442:GLY:HA2	1:C:111:GLN:CB	2.43	0.49
1:B:38:ILE:O	1:B:39:LEU:HD23	2.13	0.49
1:C:48:LEU:CB	1:H:507:ILE:HD11	2.37	0.49
1:C:219:ILE:HD12	1:C:275:ASN:HB3	1.94	0.49
1:C:231:MET:HE3	1:C:265:LYS:HZ3	1.77	0.49
1:C:284:TYR:O	1:C:287:PRO:HD2	2.13	0.49
1:D:163:LYS:HD2	1:D:166:PHE:CD2	2.47	0.49
1:F:28:SER:O	1:F:34:GLY:HA2	2.13	0.49
1:F:236:ILE:HG12	1:F:237:LYS:N	2.28	0.49
1:G:266:VAL:CB	1:G:290:LEU:HD21	2.27	0.49
1:H:51:THR:CG2	1:H:56:THR:HB	2.41	0.49
1:H:274:ILE:HG23	1:H:296:VAL:CG2	2.42	0.49
1:I:159:LEU:HD12	1:I:372:GLU:CG	2.27	0.49
1:J:50:VAL:HG11	1:J:368:GLN:HB2	1.94	0.49
1:J:75:SER:O	1:J:78:GLN:HB3	2.12	0.49
1:J:198:ASP:HA	1:J:363:ARG:HG2	1.95	0.49
1:J:419:GLU:O	1:J:423:MET:HB2	2.12	0.49
1:L:21:ALA:O	1:L:25:LEU:HD23	2.12	0.49
1:L:71:LEU:HD13	1:L:501:ILE:CD1	2.42	0.49
1:L:119:GLU:OE1	1:L:119:GLU:HA	2.13	0.49
1:M:67:ALA:CA	1:M:507:ILE:HG13	2.42	0.49
1:N:146:LEU:O	1:N:147:MET:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:8:ALA:O	1:O:11:ALA:HB3	2.12	0.49
1:P:150:ALA:HB2	1:P:384:LEU:HD11	1.94	0.49
1:P:163:LYS:HG3	1:P:166:PHE:CE2	2.47	0.49
1:B:146:LEU:CD1	1:B:171:VAL:HG13	2.42	0.49
1:B:411:LEU:O	1:B:414:ARG:HB3	2.12	0.49
1:C:431:ARG:O	1:C:434:PRO:HD2	2.12	0.49
1:D:324:HIS:HB2	1:D:329:LYS:CE	2.43	0.49
1:D:401:GLU:OE1	1:D:433:LEU:HD23	2.13	0.49
1:D:511:ALA:CB	1:D:512:PRO:CD	2.90	0.49
1:E:152:THR:O	1:E:155:SER:HB2	2.12	0.49
1:E:451:GLN:HG3	1:E:472:ILE:HG23	1.95	0.49
1:F:130:ASN:ND2	1:F:407:ALA:HB2	2.27	0.49
1:G:24:ASP:O	1:G:27:LYS:HG2	2.12	0.49
1:I:274:ILE:O	1:I:296:VAL:HG22	2.12	0.49
1:J:109:HIS:CE1	1:J:111:GLN:HB2	2.48	0.49
1:J:231:MET:HB2	1:J:284:TYR:H	1.77	0.49
1:J:448:LEU:CD2	1:J:465:LEU:HD12	2.40	0.49
1:L:166:PHE:CE2	1:L:363:ARG:O	2.66	0.49
1:M:314:THR:OG1	1:M:331:GLY:HA2	2.13	0.49
1:M:495:ALA:O	1:M:499:GLU:HG3	2.13	0.49
1:O:128:LEU:HD21	1:O:488:ARG:CA	2.41	0.49
1:P:431:ARG:HH21	1:P:434:PRO:HG2	1.78	0.49
1:A:226:ILE:HG12	1:A:278:ILE:HG23	1.93	0.49
1:A:287:PRO:O	1:A:291:PHE:HD2	1.95	0.49
1:A:313:VAL:HG13	1:A:352:VAL:CB	2.42	0.49
1:B:177:LEU:HD13	1:B:177:LEU:C	2.37	0.49
1:C:58:LEU:HB3	1:C:72:VAL:HG13	1.95	0.49
1:C:92:LEU:HD11	1:C:433:LEU:HD21	1.94	0.49
1:C:404:MET:HE3	1:C:430:LEU:HD11	1.95	0.49
1:C:502:LEU:HD23	1:C:502:LEU:N	2.27	0.49
1:D:312:LEU:O	1:D:354:LEU:HD22	2.12	0.49
1:E:411:LEU:HB3	1:E:423:MET:SD	2.52	0.49
1:G:82:VAL:HA	1:G:386:GLN:HG3	1.94	0.49
1:H:110:PRO:O	1:H:113:ILE:HB	2.12	0.49
1:H:207:LEU:O	1:H:347:ILE:HG22	2.13	0.49
1:I:206:LEU:HD11	1:I:346:LEU:CD2	2.28	0.49
1:K:499:GLU:CG	1:K:503:ARG:HE	2.24	0.49
1:L:30:LEU:HB2	1:L:436:ILE:HD13	1.93	0.49
1:L:96:LEU:HD13	1:L:97:LEU:N	2.28	0.49
1:L:405:ALA:HA	1:L:408:VAL:HG22	1.94	0.49
1:L:431:ARG:HH21	1:L:434:PRO:HG2	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:32:PRO:HA	1:M:155:SER:CB	2.39	0.49
1:N:365:ALA:C	1:N:366:THR:HG23	2.37	0.49
1:O:92:LEU:CD2	1:O:433:LEU:HD11	2.30	0.49
1:O:188:VAL:HG21	1:O:377:LEU:HD22	1.95	0.49
1:P:89:VAL:HG12	1:P:490:VAL:CG2	2.43	0.49
1:A:95:GLU:O	1:A:98:ARG:HG2	2.13	0.49
1:B:119:GLU:HB3	1:B:423:MET:CE	2.40	0.49
1:B:452:LEU:HD22	1:B:465:LEU:HD11	1.94	0.49
1:C:222:ALA:HA	1:C:275:ASN:CG	2.37	0.49
1:D:322:PHE:HA	1:D:324:HIS:CD2	2.47	0.49
1:E:274:ILE:O	1:E:274:ILE:HG23	2.12	0.49
1:F:74:MET:HE2	1:F:77:VAL:CG1	2.43	0.49
1:F:371:ASP:O	1:F:374:GLU:HB3	2.12	0.49
1:G:146:LEU:HD13	1:G:171:VAL:HG22	1.94	0.49
1:G:431:ARG:CZ	1:G:453:ARG:HD3	2.43	0.49
1:H:54:GLY:O	1:H:58:LEU:HD23	2.12	0.49
1:H:222:ALA:HA	1:H:275:ASN:CB	2.43	0.49
1:H:367:GLN:HG3	1:H:369:ILE:HB	1.95	0.49
1:I:37:LYS:HB3	1:N:6:GLU:H	1.77	0.49
1:I:368:GLN:OE1	1:N:67:ALA:HB2	2.13	0.49
1:J:431:ARG:HA	1:J:431:ARG:CZ	2.43	0.49
1:K:160:THR:HA	1:K:163:LYS:HB3	1.95	0.49
1:M:219:ILE:HB	1:M:275:ASN:HB3	1.95	0.49
1:M:431:ARG:HH21	1:M:434:PRO:HG2	1.76	0.49
1:N:19:ALA:HB3	1:N:98:ARG:HH22	1.77	0.49
1:N:411:LEU:C	1:N:423:MET:SD	2.96	0.49
1:O:324:HIS:O	1:O:329:LYS:HG3	2.13	0.49
1:O:365:ALA:H	1:O:370:LEU:HD12	1.77	0.49
1:P:334:LYS:HG3	1:P:351:GLY:HA3	1.94	0.49
1:A:108:ILE:HD13	1:M:444:ASP:OD1	2.13	0.49
1:A:226:ILE:HG12	1:A:278:ILE:CG2	2.42	0.49
1:A:448:LEU:HD11	1:A:465:LEU:CD1	2.43	0.49
1:C:117:TRP:H	1:C:505:ASP:N	2.11	0.49
1:C:143:ARG:HA	1:C:143:ARG:NE	2.27	0.49
1:C:446:ALA:CA	1:L:421:VAL:HG21	2.43	0.49
1:D:505:ASP:OD2	1:H:37:LYS:HD2	2.13	0.49
1:E:106:LYS:CE	1:J:446:ALA:HB1	2.43	0.49
1:E:154:LEU:HD22	1:E:167:THR:OG1	2.13	0.49
1:F:15:SER:HB3	1:F:501:ILE:CG2	2.42	0.49
1:F:143:ARG:HA	1:F:143:ARG:HE	1.78	0.49
1:F:280:ARG:O	1:F:281:GLN:HB3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:399:CYS:SG	1:H:464:GLY:CA	3.00	0.49
1:I:15:SER:CB	1:I:501:ILE:O	2.60	0.49
1:I:82:VAL:HG11	1:I:486:VAL:N	2.27	0.49
1:I:418:LYS:NZ	1:I:418:LYS:HB3	2.28	0.49
1:J:128:LEU:HD22	1:J:394:VAL:CG1	2.43	0.49
1:K:139:GLU:OE1	1:K:178:LYS:HD3	2.13	0.49
1:L:159:LEU:N	1:L:159:LEU:HD22	2.28	0.49
1:L:324:HIS:HB2	1:L:329:LYS:CE	2.41	0.49
1:L:368:GLN:NE2	1:M:508:ILE:HG21	2.27	0.49
1:L:504:VAL:HA	1:P:37:LYS:HZ2	1.78	0.49
1:L:508:ILE:O	1:P:39:LEU:HD22	2.12	0.49
1:M:48:LEU:HD13	1:O:508:ILE:HG22	1.95	0.49
1:O:384:LEU:HD22	1:O:384:LEU:N	2.28	0.49
1:A:65:ASN:CG	1:A:66:PRO:HD3	2.38	0.49
1:A:114:ILE:HD12	1:A:499:GLU:HA	1.93	0.49
1:B:1:ALA:O	1:G:61:ILE:HG21	2.13	0.49
1:B:163:LYS:HE3	1:B:376:SER:HB3	1.95	0.49
1:C:191:LYS:HZ2	1:C:346:LEU:HD11	1.77	0.49
1:C:368:GLN:NE2	1:H:504:VAL:HG11	2.28	0.49
1:D:506:ASN:HD22	1:H:39:LEU:CD2	2.25	0.49
1:E:322:PHE:HA	1:E:324:HIS:CD2	2.48	0.49
1:G:152:THR:CB	1:G:480:ILE:HG23	2.43	0.49
1:I:166:PHE:CE1	1:I:198:ASP:HB2	2.47	0.49
1:I:206:LEU:HD13	1:I:206:LEU:C	2.38	0.49
1:I:408:VAL:HG23	1:I:427:ALA:HB1	1.94	0.49
1:K:176:ARG:HH22	1:K:360:ILE:CG1	2.26	0.49
1:K:404:MET:O	1:K:408:VAL:HG22	2.13	0.49
1:L:119:GLU:CB	1:L:419:GLU:HG2	2.43	0.49
1:M:171:VAL:HG12	1:M:384:LEU:CD1	2.43	0.49
1:M:187:HIS:O	1:M:359:THR:HG23	2.13	0.49
1:M:241:SER:O	1:M:243:VAL:HG23	2.13	0.49
1:M:277:PHE:O	1:M:298:ALA:HA	2.13	0.49
1:N:117:TRP:CE2	1:N:498:ALA:HB1	2.48	0.49
1:N:404:MET:HE3	1:N:408:VAL:HG11	1.94	0.49
1:N:452:LEU:HD13	1:N:465:LEU:HD13	1.95	0.49
1:O:233:THR:HG21	1:O:261:LYS:HE2	1.94	0.49
1:O:433:LEU:HA	1:O:436:ILE:HG22	1.94	0.49
1:P:32:PRO:O	1:P:33:LYS:HD3	2.13	0.49
1:P:126:GLN:HE21	1:P:411:LEU:HD13	1.78	0.49
1:P:276:CYS:HA	1:P:297:MET:O	2.13	0.49
1:A:177:LEU:C	1:A:177:LEU:CD1	2.86	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:506:ASN:OD1	1:F:38:ILE:HG13	2.13	0.48
1:B:31:GLY:O	1:B:156:SER:HB3	2.13	0.48
1:B:40:LEU:HB2	1:B:48:LEU:HG	1.95	0.48
1:B:412:ALA:CB	1:B:424:GLU:HB3	2.43	0.48
1:C:226:ILE:HD11	1:C:310:LEU:HD12	1.94	0.48
1:D:133:VAL:HG11	1:D:394:VAL:HA	1.93	0.48
1:F:211:ILE:HG12	1:F:298:ALA:H	1.79	0.48
1:F:236:ILE:CG1	1:F:237:LYS:H	2.27	0.48
1:G:95:GLU:HA	1:G:98:ARG:HD2	1.94	0.48
1:H:402:MET:HG2	1:H:431:ARG:HH22	1.79	0.48
1:I:40:LEU:HD11	1:I:48:LEU:HG	1.94	0.48
1:J:503:ARG:CZ	1:N:158:LEU:HD22	2.43	0.48
1:L:305:VAL:O	1:L:309:ARG:HG2	2.13	0.48
1:L:325:PRO:C	1:L:326:GLU:HG3	2.38	0.48
1:N:9:GLU:CB	1:N:507:ILE:HG23	2.43	0.48
1:O:211:ILE:HG13	1:O:298:ALA:O	2.13	0.48
1:A:185:ALA:HB1	1:A:357:ALA:HB1	1.95	0.48
1:A:233:THR:O	1:A:234:ASP:HB3	2.13	0.48
1:A:393:THR:HB	1:A:482:GLU:O	2.13	0.48
1:B:372:GLU:HG3	1:B:375:ARG:CZ	2.43	0.48
1:C:82:VAL:HG11	1:C:485:GLN:C	2.38	0.48
1:C:188:VAL:CG2	1:C:377:LEU:HD21	2.38	0.48
1:C:401:GLU:HG2	1:C:433:LEU:HD22	1.95	0.48
1:D:39:LEU:HB2	1:E:510:ALA:N	2.28	0.48
1:D:79:ASP:HA	1:D:83:GLY:CA	2.43	0.48
1:D:118:ARG:NH1	1:D:118:ARG:HB2	2.28	0.48
1:D:399:CYS:SG	1:D:475:MET:HB2	2.53	0.48
1:D:487:LYS:O	1:D:491:LEU:HG	2.12	0.48
1:E:188:VAL:HA	1:E:360:ILE:O	2.13	0.48
1:E:211:ILE:HG13	1:E:298:ALA:O	2.13	0.48
1:F:266:VAL:HB	1:F:290:LEU:HD21	1.94	0.48
1:G:111:GLN:HA	1:G:114:ILE:HG12	1.95	0.48
1:H:154:LEU:HD22	1:H:167:THR:CB	2.40	0.48
1:I:82:VAL:HG13	1:I:486:VAL:HG12	1.96	0.48
1:I:159:LEU:CD2	1:I:163:LYS:HD3	2.42	0.48
1:I:433:LEU:H	1:I:433:LEU:HD12	1.78	0.48
1:J:1:ALA:H2	1:N:61:ILE:HG21	1.78	0.48
1:J:134:ASP:O	1:J:134:ASP:CG	2.56	0.48
1:J:183:LEU:HD21	1:J:385:ALA:HB3	1.95	0.48
1:J:262:MET:HE1	1:J:286:TYR:O	2.12	0.48
1:K:59:LYS:NZ	1:K:76:ARG:HB2	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:132:ALA:HB3	1:K:461:THR:OG1	2.13	0.48
1:K:171:VAL:HG12	1:K:384:LEU:HD12	1.95	0.48
1:L:58:LEU:HB3	1:L:72:VAL:HG11	1.95	0.48
1:L:70:VAL:HG21	1:P:38:ILE:CD1	2.40	0.48
1:L:152:THR:O	1:L:155:SER:HB2	2.13	0.48
1:L:154:LEU:HD22	1:L:167:THR:HB	1.95	0.48
1:M:152:THR:HG21	1:M:480:ILE:HG23	1.95	0.48
1:M:160:THR:O	1:M:160:THR:HG22	2.13	0.48
1:M:191:LYS:HB3	1:M:363:ARG:HG2	1.95	0.48
1:M:421:VAL:O	1:M:424:GLU:HG2	2.14	0.48
1:N:176:ARG:NH1	1:N:358:CYS:HB2	2.28	0.48
1:N:177:LEU:CD2	1:N:186:ILE:HD11	2.42	0.48
1:O:145:ASP:OD2	1:O:175:LEU:HD11	2.13	0.48
1:O:250:LYS:O	1:O:253:GLU:HG2	2.13	0.48
1:O:261:LYS:O	1:O:264:GLU:HG2	2.13	0.48
1:O:287:PRO:O	1:O:291:PHE:HD1	1.96	0.48
1:O:341:ILE:HG23	1:O:363:ARG:CZ	2.43	0.48
1:P:287:PRO:O	1:P:291:PHE:HD1	1.96	0.48
1:P:441:ALA:HB2	1:P:467:MET:HG2	1.95	0.48
1:A:37:LYS:HB3	1:C:512:PRO:CD	2.44	0.48
1:A:41:SER:OG	1:C:1:ALA:HB3	2.13	0.48
1:A:50:VAL:HG22	1:A:375:ARG:HH12	1.78	0.48
1:A:133:VAL:CB	1:A:393:THR:O	2.62	0.48
1:B:99:GLU:O	1:B:103:LEU:HD13	2.13	0.48
1:F:412:ALA:HB2	1:F:424:GLU:HB3	1.93	0.48
1:G:176:ARG:HH22	1:G:201:LEU:HD21	1.78	0.48
1:H:174:VAL:CG1	1:H:381:LEU:HA	2.44	0.48
1:I:219:ILE:CD1	1:I:276:CYS:HB2	2.43	0.48
1:I:478:LEU:HB3	1:I:480:ILE:HG12	1.94	0.48
1:J:64:ASP:CG	1:J:66:PRO:HD2	2.38	0.48
1:J:211:ILE:HG12	1:J:298:ALA:H	1.78	0.48
1:K:82:VAL:HG23	1:K:486:VAL:HG12	1.94	0.48
1:K:129:LEU:C	1:K:131:SER:H	2.22	0.48
1:K:261:LYS:O	1:K:264:GLU:HG2	2.14	0.48
1:K:433:LEU:O	1:K:437:ILE:HG12	2.12	0.48
1:K:484:PHE:O	1:K:488:ARG:HG3	2.13	0.48
1:L:174:VAL:HG11	1:L:384:LEU:C	2.37	0.48
1:M:96:LEU:HD21	1:M:117:TRP:CZ2	2.48	0.48
1:M:441:ALA:O	1:O:111:GLN:HB2	2.13	0.48
1:N:6:GLU:O	1:N:11:ALA:HB2	2.12	0.48
1:N:176:ARG:HH11	1:N:176:ARG:CG	2.25	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:431:ARG:O	1:N:434:PRO:HD2	2.13	0.48
1:N:513:ARG:OXT	1:N:513:ARG:CG	2.61	0.48
1:P:59:LYS:CE	1:P:76:ARG:HB2	2.40	0.48
1:P:451:GLN:HG3	1:P:472:ILE:HG23	1.95	0.48
1:P:503:ARG:HG3	1:P:504:VAL:N	2.24	0.48
1:A:109:HIS:CE1	1:F:440:ASN:HA	2.49	0.48
1:A:146:LEU:HD13	1:A:167:THR:O	2.13	0.48
1:C:140:VAL:HA	1:C:175:LEU:HD22	1.95	0.48
1:C:297:MET:HE3	1:C:347:ILE:HD11	1.95	0.48
1:D:14:SER:HB3	1:D:510:ALA:O	2.14	0.48
1:D:222:ALA:HA	1:D:275:ASN:OD1	2.12	0.48
1:E:431:ARG:HH21	1:E:434:PRO:HG2	1.78	0.48
1:E:433:LEU:O	1:E:436:ILE:HG22	2.13	0.48
1:F:33:LYS:O	1:F:440:ASN:HB2	2.12	0.48
1:F:159:LEU:HG	1:F:163:LYS:CG	2.43	0.48
1:F:196:LEU:HD13	1:F:196:LEU:C	2.38	0.48
1:F:219:ILE:HD12	1:F:275:ASN:HB3	1.96	0.48
1:F:244:ARG:HH21	1:F:246:ASP:HA	1.78	0.48
1:F:404:MET:HE3	1:F:430:LEU:CD1	2.43	0.48
1:G:159:LEU:HD22	1:G:159:LEU:N	2.28	0.48
1:G:310:LEU:O	1:G:314:THR:HG22	2.12	0.48
1:H:74:MET:SD	1:H:493:SER:HB3	2.54	0.48
1:I:75:SER:O	1:I:78:GLN:HB3	2.13	0.48
1:I:225:LEU:HD13	1:I:329:LYS:HE2	1.94	0.48
1:I:274:ILE:HG23	1:I:274:ILE:O	2.13	0.48
1:K:58:LEU:HB3	1:K:72:VAL:CG1	2.42	0.48
1:K:96:LEU:HG	1:K:498:ALA:HB1	1.94	0.48
1:L:435:THR:O	1:L:439:ASP:HB2	2.13	0.48
1:N:154:LEU:HD22	1:N:167:THR:CB	2.40	0.48
1:O:236:ILE:CG1	1:O:237:LYS:H	2.26	0.48
1:O:498:ALA:O	1:O:501:ILE:HB	2.13	0.48
1:A:146:LEU:CD2	1:A:150:ALA:HB3	2.33	0.48
1:A:313:VAL:CG1	1:A:352:VAL:HB	2.42	0.48
1:C:163:LYS:HG2	1:C:166:PHE:HB2	1.95	0.48
1:E:99:GLU:O	1:E:102:SER:HB2	2.13	0.48
1:E:116:GLY:O	1:E:119:GLU:HB2	2.13	0.48
1:E:139:GLU:O	1:E:140:VAL:HB	2.13	0.48
1:E:173:ALA:O	1:E:176:ARG:HG2	2.13	0.48
1:F:110:PRO:O	1:F:114:ILE:HG12	2.13	0.48
1:G:402:MET:HG2	1:G:431:ARG:HH22	1.77	0.48
1:G:404:MET:HE1	1:G:491:LEU:HD21	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:163:LYS:O	1:H:166:PHE:HB2	2.12	0.48
1:H:452:LEU:HD11	1:H:456:HIS:CE1	2.48	0.48
1:I:103:LEU:HA	1:I:106:LYS:HD3	1.94	0.48
1:I:372:GLU:CA	1:I:375:ARG:NH2	2.73	0.48
1:J:38:ILE:CD1	1:K:509:LYS:HD3	2.43	0.48
1:J:225:LEU:HD11	1:J:324:HIS:ND1	2.28	0.48
1:K:52:ASN:N	1:K:375:ARG:HD2	2.28	0.48
1:K:123:ALA:HB2	1:K:423:MET:HE3	1.94	0.48
1:K:412:ALA:O	1:K:420:ALA:HB1	2.12	0.48
1:L:51:THR:HG23	1:L:375:ARG:HD3	1.96	0.48
1:L:128:LEU:HB2	1:L:129:LEU:HD13	1.94	0.48
1:L:174:VAL:HG11	1:L:384:LEU:CB	2.43	0.48
1:L:390:ASP:HB3	1:L:485:GLN:NE2	2.29	0.48
1:M:242:ARG:HG3	1:O:239:PHE:HB2	1.96	0.48
1:N:64:ASP:HB2	1:N:66:PRO:HD2	1.95	0.48
1:N:192:LEU:CD1	1:N:343:GLU:HG2	2.43	0.48
1:N:265:LYS:O	1:N:269:ILE:HG13	2.13	0.48
1:O:139:GLU:O	1:O:140:VAL:HB	2.12	0.48
1:P:166:PHE:CE1	1:P:198:ASP:HB2	2.49	0.48
1:P:171:VAL:O	1:P:175:LEU:HG	2.14	0.48
1:A:37:LYS:HD2	1:C:511:ALA:HB1	1.95	0.48
1:A:37:LYS:HD3	1:C:511:ALA:CB	2.44	0.48
1:C:149:ILE:HD13	1:C:387:THR:OG1	2.13	0.48
1:C:163:LYS:CG	1:C:166:PHE:HB2	2.43	0.48
1:D:39:LEU:HD12	1:E:510:ALA:H	1.78	0.48
1:D:207:LEU:HD12	1:D:299:ILE:HD13	1.93	0.48
1:E:50:VAL:HG12	1:E:368:GLN:HE21	1.79	0.48
1:E:268:ARG:O	1:E:271:LYS:HG2	2.14	0.48
1:F:163:LYS:HE3	1:F:376:SER:HB3	1.94	0.48
1:F:191:LYS:HD3	1:F:346:LEU:HD11	1.95	0.48
1:F:261:LYS:O	1:F:264:GLU:HG2	2.14	0.48
1:G:177:LEU:HD11	1:G:183:LEU:HD12	1.95	0.48
1:G:312:LEU:O	1:G:354:LEU:HD22	2.14	0.48
1:H:226:ILE:HD12	1:H:317:GLU:HG3	1.95	0.48
1:H:274:ILE:O	1:H:296:VAL:HG22	2.13	0.48
1:H:448:LEU:HD22	1:H:451:GLN:HE21	1.79	0.48
1:I:51:THR:CG2	1:I:57:ILE:HB	2.44	0.48
1:I:205:PHE:HA	1:I:359:THR:OG1	2.14	0.48
1:K:111:GLN:HA	1:K:114:ILE:HG12	1.94	0.48
1:L:74:MET:HE1	1:L:493:SER:OG	2.14	0.48
1:L:404:MET:CE	1:L:430:LEU:HD11	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:448:LEU:C	1:L:448:LEU:HD13	2.39	0.48
1:P:215:GLN:HG3	1:P:292:GLY:HA2	1.95	0.48
1:A:32:PRO:HA	1:A:155:SER:HB3	1.95	0.48
1:A:247:SER:O	1:A:248:THR:HB	2.13	0.48
1:A:397:GLY:HA3	1:A:475:MET:HE3	1.96	0.48
1:B:28:SER:OG	1:B:37:LYS:HE2	2.13	0.48
1:B:128:LEU:HD13	1:B:128:LEU:H	1.78	0.48
1:C:110:PRO:O	1:C:113:ILE:HB	2.14	0.48
1:C:475:MET:SD	1:C:480:ILE:CB	2.97	0.48
1:D:25:LEU:HB3	1:E:508:ILE:HB	1.95	0.48
1:D:110:PRO:O	1:D:114:ILE:HG13	2.14	0.48
1:D:452:LEU:HD11	1:D:456:HIS:HE1	1.77	0.48
1:D:511:ALA:HB3	1:D:512:PRO:HD3	1.95	0.48
1:E:19:ALA:HB1	1:E:94:ALA:CA	2.43	0.48
1:E:243:VAL:HG12	1:E:244:ARG:O	2.13	0.48
1:G:428:LYS:O	1:G:431:ARG:HB3	2.13	0.48
1:H:112:THR:HG22	1:H:418:LYS:HG2	1.95	0.48
1:H:196:LEU:C	1:H:196:LEU:HD13	2.39	0.48
1:I:29:THR:HA	1:I:35:MET:H	1.78	0.48
1:I:158:LEU:HD22	1:N:7:ARG:NH1	2.28	0.48
1:K:206:LEU:HD23	1:K:348:HIS:CD2	2.49	0.48
1:K:408:VAL:HG23	1:K:427:ALA:HB1	1.96	0.48
1:L:57:ILE:C	1:L:57:ILE:HD13	2.39	0.48
1:L:100:ALA:HA	1:L:103:LEU:HD13	1.95	0.48
1:M:154:LEU:HD21	1:M:163:LYS:HG2	1.94	0.48
1:M:317:GLU:OE2	1:M:329:LYS:HE3	2.14	0.48
1:M:433:LEU:HB2	1:M:434:PRO:HD3	1.96	0.48
1:N:139:GLU:OE2	1:N:178:LYS:HD2	2.13	0.48
1:N:192:LEU:HB2	1:N:343:GLU:HB3	1.96	0.48
1:N:509:LYS:HG2	1:N:510:ALA:H	1.78	0.48
1:P:99:GLU:O	1:P:102:SER:HB2	2.13	0.48
1:A:25:LEU:CG	1:C:512:PRO:HA	2.44	0.48
1:A:96:LEU:HD13	1:A:96:LEU:C	2.38	0.48
1:B:150:ALA:O	1:B:154:LEU:HD13	2.14	0.48
1:B:380:ALA:O	1:B:384:LEU:HD22	2.13	0.48
1:D:274:ILE:O	1:D:274:ILE:HG23	2.14	0.48
1:E:41:SER:HB2	1:G:513:ARG:HA	1.95	0.48
1:E:57:ILE:HD11	1:G:512:PRO:CB	2.44	0.48
1:E:143:ARG:HA	1:E:143:ARG:HE	1.78	0.48
1:E:364:GLY:O	1:E:370:LEU:HD13	2.14	0.48
1:G:149:ILE:HD12	1:G:483:SER:N	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:511:ALA:H	1:G:512:PRO:HD3	1.77	0.48
1:H:398:GLY:HA2	1:H:401:GLU:OE1	2.13	0.48
1:H:434:PRO:HB3	1:H:452:LEU:HD23	1.95	0.48
1:I:35:MET:SD	1:N:504:VAL:HG21	2.53	0.48
1:J:57:ILE:C	1:J:57:ILE:HD13	2.38	0.48
1:J:146:LEU:O	1:J:147:MET:HB2	2.13	0.48
1:J:161:HIS:CG	1:J:162:HIS:H	2.32	0.48
1:K:22:ILE:HD12	1:K:90:THR:CG2	2.44	0.48
1:K:431:ARG:NH1	1:K:453:ARG:HD3	2.29	0.48
1:L:57:ILE:HD13	1:L:57:ILE:O	2.13	0.48
1:L:82:VAL:HG11	1:L:486:VAL:HA	1.94	0.48
1:L:130:ASN:O	1:L:131:SER:HB2	2.13	0.48
1:M:67:ALA:HA	1:M:507:ILE:CG1	2.43	0.48
1:M:196:LEU:C	1:M:196:LEU:HD13	2.39	0.48
1:N:163:LYS:O	1:N:166:PHE:HB2	2.13	0.48
1:O:443:TYR:CE1	1:O:470:GLY:HA3	2.48	0.48
1:B:39:LEU:HD22	1:F:509:LYS:H	1.78	0.48
1:B:305:VAL:HG23	1:B:309:ARG:HH12	1.79	0.48
1:C:392:ARG:HB3	1:C:484:PHE:HB3	1.95	0.48
1:D:185:ALA:HA	1:D:309:ARG:HB3	1.95	0.48
1:D:226:ILE:HG12	1:D:278:ILE:HG23	1.96	0.48
1:E:381:LEU:HD22	1:E:381:LEU:C	2.39	0.48
1:H:222:ALA:HA	1:H:275:ASN:HB2	1.95	0.48
1:H:408:VAL:HG23	1:H:427:ALA:HB1	1.96	0.48
1:H:431:ARG:O	1:H:434:PRO:HD2	2.14	0.48
1:I:50:VAL:CG2	1:I:375:ARG:HH22	2.27	0.48
1:I:166:PHE:CZ	1:I:198:ASP:HB3	2.49	0.48
1:J:40:LEU:HG	1:K:510:ALA:CA	2.44	0.48
1:J:399:CYS:SG	1:J:464:GLY:CA	2.97	0.48
1:M:159:LEU:CD2	1:M:163:LYS:HD3	2.44	0.48
1:M:251:VAL:O	1:M:254:ILE:HB	2.14	0.48
1:M:448:LEU:HA	1:M:451:GLN:HE21	1.79	0.48
1:N:426:TYR:OH	1:N:491:LEU:HD22	2.14	0.48
1:O:274:ILE:HG23	1:O:274:ILE:O	2.13	0.48
1:P:211:ILE:HG12	1:P:298:ALA:H	1.79	0.48
1:A:52:ASN:N	1:A:375:ARG:HD2	2.29	0.48
1:B:84:ASP:OD1	1:B:84:ASP:N	2.47	0.48
1:B:199:SER:HA	1:B:361:VAL:O	2.13	0.48
1:C:341:ILE:O	1:C:343:GLU:N	2.44	0.48
1:C:396:GLY:HA3	1:C:480:ILE:HG22	1.96	0.48
1:D:59:LYS:HE2	1:D:76:ARG:HB2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:211:ILE:HG12	1:D:298:ALA:H	1.78	0.48
1:D:405:ALA:HA	1:D:408:VAL:HG22	1.96	0.48
1:F:58:LEU:HB3	1:F:72:VAL:HG11	1.95	0.48
1:G:110:PRO:O	1:G:114:ILE:HG12	2.14	0.48
1:G:171:VAL:O	1:G:174:VAL:HG22	2.14	0.48
1:H:191:LYS:HG2	1:H:341:ILE:CG2	2.44	0.48
1:I:262:MET:HE1	1:I:286:TYR:O	2.12	0.48
1:I:313:VAL:HG13	1:I:352:VAL:HG21	1.96	0.48
1:J:37:LYS:O	1:J:50:VAL:HG23	2.14	0.48
1:J:114:ILE:HA	1:J:117:TRP:CZ3	2.49	0.48
1:J:308:GLU:OE2	1:N:213:VAL:HG22	2.14	0.48
1:J:312:LEU:O	1:J:354:LEU:HD22	2.14	0.48
1:K:148:ASN:HA	1:K:480:ILE:HG12	1.95	0.48
1:K:280:ARG:HA	1:K:302:ALA:O	2.14	0.48
1:K:341:ILE:HD11	1:K:348:HIS:HE1	1.79	0.48
1:L:35:MET:SD	1:L:35:MET:N	2.87	0.48
1:M:22:ILE:HD12	1:M:90:THR:CG2	2.44	0.48
1:M:138:ASP:O	1:M:139:GLU:HB2	2.12	0.48
1:M:191:LYS:HG2	1:M:341:ILE:HG22	1.95	0.48
1:N:29:THR:HG23	1:N:52:ASN:O	2.14	0.48
1:N:152:THR:O	1:N:155:SER:HB2	2.14	0.48
1:N:297:MET:CE	1:N:347:ILE:HD11	2.43	0.48
1:N:313:VAL:CG2	1:N:357:ALA:HB3	2.43	0.48
1:N:411:LEU:HB3	1:N:423:MET:HE2	1.95	0.48
1:O:154:LEU:CD2	1:O:163:LYS:HG3	2.44	0.48
1:O:225:LEU:HD13	1:O:329:LYS:HE3	1.95	0.48
1:P:277:PHE:O	1:P:298:ALA:HA	2.14	0.48
1:A:59:LYS:CE	1:A:76:ARG:HB2	2.43	0.47
1:A:65:ASN:ND2	1:A:66:PRO:HD3	2.29	0.47
1:A:139:GLU:O	1:A:140:VAL:HB	2.13	0.47
1:A:372:GLU:HG3	1:A:375:ARG:HH21	1.79	0.47
1:B:211:ILE:CD1	1:B:297:MET:HG3	2.35	0.47
1:C:11:ALA:CB	1:C:510:ALA:HB3	2.43	0.47
1:C:39:LEU:HD12	1:C:57:ILE:HG13	1.96	0.47
1:C:114:ILE:CG2	1:C:504:VAL:C	2.87	0.47
1:D:111:GLN:O	1:D:114:ILE:HB	2.14	0.47
1:D:154:LEU:HD22	1:D:167:THR:OG1	2.14	0.47
1:D:431:ARG:HA	1:D:431:ARG:CZ	2.44	0.47
1:E:114:ILE:CG2	1:E:503:ARG:HH11	2.25	0.47
1:E:117:TRP:HD1	1:E:495:ALA:HA	1.79	0.47
1:E:145:ASP:OD2	1:E:175:LEU:HD11	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:188:VAL:HG21	1:F:377:LEU:CD2	2.43	0.47
1:G:57:ILE:HG23	1:G:58:LEU:CD2	2.44	0.47
1:G:59:LYS:NZ	1:G:76:ARG:HB2	2.28	0.47
1:G:154:LEU:HD22	1:G:167:THR:HB	1.95	0.47
1:G:203:GLU:HB2	1:G:350:SER:HB2	1.96	0.47
1:I:276:CYS:HA	1:I:297:MET:O	2.14	0.47
1:I:433:LEU:HA	1:I:436:ILE:HG22	1.96	0.47
1:M:40:LEU:HD22	1:M:48:LEU:HD21	1.96	0.47
1:N:225:LEU:HD11	1:N:324:HIS:CE1	2.48	0.47
1:O:166:PHE:CZ	1:O:198:ASP:CB	2.97	0.47
1:O:203:GLU:CD	1:O:203:GLU:H	2.21	0.47
1:P:372:GLU:O	1:P:375:ARG:HB3	2.13	0.47
1:A:67:ALA:HB3	1:A:507:ILE:HB	1.94	0.47
1:A:146:LEU:HD12	1:A:171:VAL:CG1	2.34	0.47
1:A:166:PHE:HD2	1:A:362:LEU:HD22	1.77	0.47
1:A:372:GLU:CG	1:A:375:ARG:NH2	2.76	0.47
1:B:113:ILE:HG23	1:B:422:ALA:HB2	1.96	0.47
1:B:225:LEU:HD11	1:B:324:HIS:ND1	2.29	0.47
1:B:265:LYS:O	1:B:269:ILE:HB	2.14	0.47
1:B:334:LYS:CG	1:B:351:GLY:HA3	2.44	0.47
1:C:119:GLU:OE1	1:C:119:GLU:HA	2.14	0.47
1:E:447:ASP:HA	1:J:418:LYS:HD3	1.95	0.47
1:G:261:LYS:O	1:G:264:GLU:HG2	2.15	0.47
1:G:504:VAL:HG12	1:G:506:ASN:O	2.14	0.47
1:H:261:LYS:O	1:H:264:GLU:HG2	2.14	0.47
1:I:103:LEU:HA	1:I:106:LYS:CD	2.44	0.47
1:K:284:TYR:CE2	1:K:286:TYR:CD1	3.02	0.47
1:L:11:ALA:HB1	1:L:506:ASN:HA	1.96	0.47
1:L:75:SER:O	1:L:78:GLN:HB3	2.13	0.47
1:L:117:TRP:HD1	1:L:495:ALA:O	1.97	0.47
1:M:219:ILE:HD12	1:M:275:ASN:HB3	1.97	0.47
1:M:313:VAL:HG22	1:M:357:ALA:CB	2.44	0.47
1:N:192:LEU:HD13	1:N:343:GLU:HG2	1.96	0.47
1:O:31:GLY:HA3	1:O:440:ASN:OD1	2.14	0.47
1:O:146:LEU:HD21	1:O:167:THR:HG23	1.95	0.47
1:P:22:ILE:HD12	1:P:90:THR:CG2	2.44	0.47
1:A:204:GLY:HA3	1:A:349:PHE:O	2.14	0.47
1:A:310:LEU:O	1:A:314:THR:HG22	2.13	0.47
1:B:124:ALA:O	1:B:127:ALA:HB3	2.15	0.47
1:B:158:LEU:HD22	1:F:503:ARG:HH12	1.80	0.47
1:C:218:ARG:HG3	1:C:337:GLU:HB3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:392:ARG:HG2	1:C:484:PHE:CD1	2.49	0.47
1:D:280:ARG:HD2	1:D:304:PHE:HB2	1.95	0.47
1:D:394:VAL:CG2	1:D:482:GLU:HB2	2.44	0.47
1:D:397:GLY:HA3	1:D:475:MET:CE	2.44	0.47
1:E:32:PRO:HD3	1:E:467:MET:HE3	1.95	0.47
1:E:132:ALA:H	1:E:461:THR:HG21	1.79	0.47
1:E:431:ARG:O	1:E:434:PRO:HD2	2.14	0.47
1:F:108:ILE:HD11	1:I:107:LYS:O	2.15	0.47
1:F:402:MET:HG2	1:F:431:ARG:HH22	1.78	0.47
1:G:190:LYS:HD2	1:G:370:LEU:CD2	2.45	0.47
1:G:209:LYS:HE2	1:G:301:HIS:O	2.15	0.47
1:G:345:LYS:C	1:G:346:LEU:HD12	2.40	0.47
1:H:11:ALA:CB	1:H:505:ASP:HB2	2.44	0.47
1:K:191:LYS:NZ	1:K:191:LYS:HB2	2.29	0.47
1:L:38:ILE:CD1	1:M:508:ILE:N	2.77	0.47
1:M:106:LYS:HG2	1:M:108:ILE:CD1	2.43	0.47
1:O:112:THR:HG23	1:O:418:LYS:HD3	1.96	0.47
1:O:431:ARG:O	1:O:434:PRO:HD2	2.15	0.47
1:A:178:LYS:HB3	1:A:178:LYS:NZ	2.26	0.47
1:B:265:LYS:HE2	1:B:322:PHE:CE1	2.50	0.47
1:B:417:GLY:O	1:B:420:ALA:HB3	2.15	0.47
1:C:392:ARG:HB3	1:C:484:PHE:CB	2.45	0.47
1:C:416:PRO:HA	1:L:454:ALA:CB	2.44	0.47
1:D:324:HIS:HB2	1:D:329:LYS:HE2	1.97	0.47
1:D:434:PRO:HB3	1:D:452:LEU:HD23	1.95	0.47
1:D:511:ALA:HB3	1:D:512:PRO:CD	2.45	0.47
1:E:88:SER:O	1:E:92:LEU:HD13	2.14	0.47
1:F:75:SER:O	1:F:78:GLN:HB3	2.14	0.47
1:F:176:ARG:HH12	1:F:201:LEU:HD21	1.78	0.47
1:G:89:VAL:HG12	1:G:490:VAL:CG2	2.44	0.47
1:G:219:ILE:HG21	1:G:275:ASN:O	2.13	0.47
1:G:431:ARG:O	1:G:434:PRO:HD2	2.15	0.47
1:H:7:ARG:H	1:H:10:THR:HG23	1.79	0.47
1:H:184:GLU:O	1:H:185:ALA:HB3	2.14	0.47
1:I:280:ARG:HG3	1:I:304:PHE:CA	2.44	0.47
1:J:50:VAL:C	1:J:375:ARG:HH21	2.22	0.47
1:K:69:LYS:HD3	1:K:511:ALA:HB1	1.96	0.47
1:K:262:MET:HE1	1:K:286:TYR:O	2.15	0.47
1:L:40:LEU:CD1	1:M:509:LYS:HD2	2.39	0.47
1:L:373:ALA:O	1:L:377:LEU:HB2	2.14	0.47
1:M:82:VAL:HG11	1:M:486:VAL:CA	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:65:ASN:N	1:N:66:PRO:CD	2.77	0.47
1:N:146:LEU:HB2	1:N:171:VAL:CG1	2.44	0.47
1:N:206:LEU:HD21	1:N:346:LEU:HD21	1.96	0.47
1:O:341:ILE:O	1:O:341:ILE:HG22	2.14	0.47
1:P:393:THR:HG22	1:P:483:SER:HA	1.96	0.47
1:A:219:ILE:HB	1:A:275:ASN:HB3	1.97	0.47
1:C:393:THR:HB	1:C:481:THR:OG1	2.15	0.47
1:D:37:LYS:O	1:D:50:VAL:HA	2.14	0.47
1:D:226:ILE:HA	1:D:278:ILE:O	2.15	0.47
1:F:108:ILE:CD1	1:I:107:LYS:HB3	2.44	0.47
1:F:226:ILE:HG12	1:F:278:ILE:CG2	2.44	0.47
1:F:287:PRO:O	1:F:291:PHE:HD2	1.98	0.47
1:G:108:ILE:HG23	1:N:444:ASP:OD1	2.14	0.47
1:G:211:ILE:CD1	1:G:297:MET:HG3	2.35	0.47
1:H:121:THR:O	1:H:125:ARG:HG2	2.14	0.47
1:H:206:LEU:HD11	1:H:346:LEU:CD2	2.38	0.47
1:J:106:LYS:O	1:J:107:LYS:HB2	2.15	0.47
1:J:183:LEU:HD21	1:J:385:ALA:CB	2.45	0.47
1:K:222:ALA:HA	1:K:275:ASN:CG	2.39	0.47
1:K:511:ALA:HB1	1:K:512:PRO:CD	2.33	0.47
1:L:100:ALA:O	1:L:103:LEU:HB2	2.14	0.47
1:L:334:LYS:CG	1:L:351:GLY:HA3	2.43	0.47
1:N:89:VAL:HB	1:N:490:VAL:HG23	1.97	0.47
1:N:108:ILE:CG2	1:N:109:HIS:N	2.78	0.47
1:N:206:LEU:CD1	1:N:346:LEU:HD21	2.36	0.47
1:A:27:LYS:HG3	1:A:436:ILE:HD11	1.96	0.47
1:A:216:PRO:HG2	1:A:295:GLY:CA	2.42	0.47
1:B:82:VAL:CA	1:B:386:GLN:HG3	2.44	0.47
1:B:324:HIS:HB2	1:B:329:LYS:CE	2.45	0.47
1:C:57:ILE:HD13	1:C:57:ILE:O	2.15	0.47
1:C:96:LEU:HD11	1:C:507:ILE:HG12	1.95	0.47
1:C:122:LYS:HD2	1:C:125:ARG:HD3	1.97	0.47
1:C:176:ARG:HH12	1:C:201:LEU:HD21	1.80	0.47
1:C:452:LEU:HD11	1:C:456:HIS:CE1	2.50	0.47
1:C:501:ILE:HG23	1:C:502:LEU:CD2	2.41	0.47
1:D:39:LEU:HA	1:E:507:ILE:HG21	1.95	0.47
1:E:176:ARG:HE	1:E:358:CYS:HB2	1.79	0.47
1:E:188:VAL:CB	1:E:377:LEU:HD22	2.45	0.47
1:E:324:HIS:HB2	1:E:329:LYS:HZ1	1.79	0.47
1:F:319:ALA:HA	1:F:329:LYS:HZ1	1.78	0.47
1:G:417:GLY:HA2	1:N:450:ALA:CB	2.35	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:59:LYS:HE2	1:H:76:ARG:HB2	1.96	0.47
1:H:99:GLU:HG2	1:H:425:SER:HA	1.97	0.47
1:H:112:THR:CG2	1:H:418:LYS:HG2	2.45	0.47
1:I:38:ILE:HG22	1:I:50:VAL:HB	1.95	0.47
1:I:103:LEU:HD21	1:I:113:ILE:HG21	1.96	0.47
1:I:114:ILE:CD1	1:I:502:LEU:HD23	2.39	0.47
1:I:245:VAL:HG11	1:I:250:LYS:HG2	1.97	0.47
1:I:393:THR:HB	1:I:481:THR:OG1	2.15	0.47
1:I:438:ALA:CB	1:I:448:LEU:HG	2.44	0.47
1:K:19:ALA:HB1	1:K:94:ALA:HA	1.97	0.47
1:K:40:LEU:HD13	1:K:40:LEU:C	2.39	0.47
1:K:390:ASP:HB2	1:K:485:GLN:HE22	1.78	0.47
1:K:452:LEU:HD22	1:K:465:LEU:HD11	1.96	0.47
1:M:484:PHE:CE2	1:M:488:ARG:HD3	2.49	0.47
1:N:325:PRO:O	1:N:326:GLU:HG3	2.15	0.47
1:O:52:ASN:H	1:O:375:ARG:CG	2.27	0.47
1:O:188:VAL:HG11	1:O:377:LEU:CD2	2.45	0.47
1:O:443:TYR:CE1	1:O:470:GLY:CA	2.97	0.47
1:P:283:ILE:HG22	1:P:300:GLU:CG	2.41	0.47
1:A:57:ILE:HD11	1:C:513:ARG:NH1	2.29	0.47
1:A:367:GLN:OE1	1:A:369:ILE:HD12	2.14	0.47
1:B:206:LEU:HB3	1:B:359:THR:HG21	1.97	0.47
1:B:297:MET:CE	1:B:347:ILE:HD11	2.44	0.47
1:B:379:ASP:O	1:B:383:VAL:HG23	2.14	0.47
1:B:431:ARG:C	1:B:434:PRO:HD2	2.40	0.47
1:C:52:ASN:H	1:C:375:ARG:CG	2.25	0.47
1:C:262:MET:HE1	1:C:286:TYR:O	2.15	0.47
1:C:297:MET:CE	1:C:347:ILE:HD11	2.44	0.47
1:C:372:GLU:HG3	1:C:375:ARG:HD3	1.96	0.47
1:D:59:LYS:CE	1:D:76:ARG:HB2	2.45	0.47
1:D:64:ASP:CG	1:D:66:PRO:HD2	2.40	0.47
1:D:223:LYS:HB2	1:D:274:ILE:HA	1.96	0.47
1:D:417:GLY:O	1:K:450:ALA:CB	2.61	0.47
1:D:485:GLN:HB3	1:D:489:GLN:HE22	1.80	0.47
1:E:39:LEU:HD22	1:G:512:PRO:CG	2.37	0.47
1:E:417:GLY:HA3	1:J:450:ALA:HA	1.96	0.47
1:F:222:ALA:HA	1:F:275:ASN:HB2	1.97	0.47
1:F:390:ASP:CB	1:F:485:GLN:HE22	2.27	0.47
1:G:21:ALA:O	1:G:25:LEU:HD23	2.15	0.47
1:G:148:ASN:HB3	1:G:481:THR:HG22	1.97	0.47
1:G:396:GLY:HA3	1:G:480:ILE:HG22	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:82:VAL:HG11	1:H:486:VAL:HA	1.97	0.47
1:H:153:THR:O	1:H:157:LYS:HE2	2.14	0.47
1:H:417:GLY:H	1:P:450:ALA:CB	2.27	0.47
1:H:431:ARG:CZ	1:H:431:ARG:HA	2.45	0.47
1:H:452:LEU:HD13	1:H:465:LEU:CD1	2.42	0.47
1:I:59:LYS:HE2	1:I:76:ARG:CB	2.43	0.47
1:I:59:LYS:CE	1:I:76:ARG:HB2	2.45	0.47
1:I:103:LEU:O	1:I:106:LYS:HB2	2.15	0.47
1:I:418:LYS:HB3	1:I:418:LYS:HZ2	1.78	0.47
1:J:274:ILE:O	1:J:274:ILE:HG23	2.13	0.47
1:K:398:GLY:HA2	1:K:401:GLU:OE1	2.14	0.47
1:L:103:LEU:HG	1:L:113:ILE:CD1	2.44	0.47
1:L:215:GLN:HG3	1:L:292:GLY:HA2	1.96	0.47
1:L:216:PRO:HG2	1:L:295:GLY:C	2.40	0.47
1:L:268:ARG:O	1:L:271:LYS:HG2	2.15	0.47
1:L:435:THR:HG23	1:L:445:SER:HB3	1.97	0.47
1:M:209:LYS:CE	1:M:302:ALA:HA	2.45	0.47
1:M:225:LEU:HD13	1:M:329:LYS:HE2	1.96	0.47
1:N:154:LEU:HD12	1:N:376:SER:OG	2.14	0.47
1:N:166:PHE:CZ	1:N:198:ASP:CB	2.97	0.47
1:O:228:ASN:OD1	1:O:319:ALA:HB3	2.15	0.47
1:O:431:ARG:HH21	1:O:434:PRO:HG2	1.80	0.47
1:P:106:LYS:O	1:P:107:LYS:HG2	2.14	0.47
1:P:159:LEU:HG	1:P:163:LYS:HD3	1.96	0.47
1:A:433:LEU:O	1:A:437:ILE:HG12	2.15	0.47
1:B:166:PHE:CE2	1:B:362:LEU:HD22	2.50	0.47
1:C:32:PRO:HA	1:C:155:SER:CB	2.45	0.47
1:C:57:ILE:CD1	1:H:1:ALA:HA	2.45	0.47
1:C:117:TRP:HH2	1:C:507:ILE:HG12	1.78	0.47
1:C:448:LEU:HD11	1:C:465:LEU:HD11	1.96	0.47
1:D:398:GLY:HA2	1:D:401:GLU:CD	2.39	0.47
1:D:433:LEU:H	1:D:433:LEU:HD12	1.80	0.47
1:D:448:LEU:HD21	1:D:465:LEU:CD1	2.45	0.47
1:G:274:ILE:O	1:G:296:VAL:HG22	2.13	0.47
1:G:438:ALA:O	1:G:441:ALA:HB3	2.14	0.47
1:H:40:LEU:HD23	1:H:47:SER:HA	1.95	0.47
1:H:110:PRO:HB2	1:H:502:LEU:HD22	1.96	0.47
1:H:119:GLU:HB3	1:H:423:MET:CE	2.45	0.47
1:I:22:ILE:O	1:I:26:VAL:HG22	2.14	0.47
1:I:29:THR:O	1:I:156:SER:HB2	2.15	0.47
1:K:15:SER:HB3	1:K:501:ILE:CG2	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:188:VAL:HG23	1:L:360:ILE:O	2.15	0.47
1:L:324:HIS:HB2	1:L:329:LYS:HZ3	1.80	0.47
1:M:115:ALA:O	1:M:119:GLU:HG2	2.15	0.47
1:M:442:GLY:HA3	1:O:109:HIS:CD2	2.50	0.47
1:P:107:LYS:HG3	1:P:107:LYS:O	2.15	0.47
1:P:177:LEU:C	1:P:177:LEU:HD13	2.40	0.47
1:P:265:LYS:HE2	1:P:322:PHE:CE1	2.50	0.47
1:A:1:ALA:CB	1:F:39:LEU:HB2	2.45	0.47
1:A:122:LYS:O	1:A:126:GLN:HG2	2.14	0.47
1:A:178:LYS:NZ	1:A:388:VAL:HG21	2.30	0.47
1:A:266:VAL:HB	1:A:290:LEU:CD2	2.37	0.47
1:A:276:CYS:HA	1:A:297:MET:O	2.14	0.47
1:A:334:LYS:HD2	1:A:351:GLY:HA3	1.96	0.47
1:A:508:ILE:CG2	1:A:509:LYS:N	2.76	0.47
1:B:57:ILE:C	1:B:57:ILE:HD13	2.40	0.47
1:C:222:ALA:HA	1:C:275:ASN:HB2	1.97	0.47
1:D:93:ALA:HB2	1:D:494:ALA:HB1	1.97	0.47
1:E:446:ALA:HB1	1:J:418:LYS:HZ2	1.78	0.47
1:F:101:GLU:O	1:F:104:ILE:HG12	2.15	0.47
1:F:225:LEU:HD11	1:F:324:HIS:ND1	2.30	0.47
1:F:418:LYS:CD	1:O:447:ASP:HA	2.44	0.47
1:G:276:CYS:HA	1:G:297:MET:O	2.15	0.47
1:H:57:ILE:HG23	1:H:58:LEU:CD2	2.44	0.47
1:H:265:LYS:NZ	1:H:287:PRO:HG3	2.30	0.47
1:I:37:LYS:CD	1:N:5:GLU:HG2	2.42	0.47
1:I:139:GLU:O	1:I:140:VAL:HB	2.15	0.47
1:J:322:PHE:HA	1:J:324:HIS:CD2	2.50	0.47
1:K:269:ILE:CG1	1:K:274:ILE:HG21	2.43	0.47
1:K:390:ASP:HB3	1:K:485:GLN:HE22	1.79	0.47
1:K:431:ARG:CZ	1:K:431:ARG:HA	2.44	0.47
1:L:48:LEU:HD22	1:L:48:LEU:N	2.30	0.47
1:L:341:ILE:CG2	1:L:363:ARG:HE	2.28	0.47
1:M:58:LEU:C	1:M:72:VAL:HG11	2.40	0.47
1:M:371:ASP:O	1:M:374:GLU:HB3	2.14	0.47
1:N:207:LEU:HD13	1:N:208:ASP:N	2.30	0.47
1:O:104:ILE:HG13	1:O:105:ALA:N	2.28	0.47
1:O:140:VAL:HA	1:O:175:LEU:CD2	2.38	0.47
1:O:236:ILE:HG23	1:O:238:ILE:O	2.15	0.47
1:O:417:GLY:HA2	1:O:420:ALA:CB	2.38	0.47
1:P:82:VAL:HG11	1:P:485:GLN:C	2.40	0.47
1:P:313:VAL:HG13	1:P:352:VAL:HB	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:28:SER:O	1:A:34:GLY:HA2	2.14	0.47
1:B:154:LEU:HD22	1:B:167:THR:CB	2.45	0.47
1:C:68:ALA:O	1:C:72:VAL:HG23	2.15	0.47
1:C:206:LEU:HD11	1:C:346:LEU:HD23	1.97	0.47
1:C:408:VAL:HG23	1:C:427:ALA:HB1	1.97	0.47
1:D:39:LEU:HA	1:E:507:ILE:HG23	1.97	0.47
1:E:123:ALA:HB1	1:E:408:VAL:HG12	1.96	0.47
1:E:317:GLU:HB3	1:E:329:LYS:HG2	1.96	0.47
1:G:30:LEU:HD22	1:G:30:LEU:O	2.15	0.47
1:G:67:ALA:HB3	1:G:507:ILE:CD1	2.33	0.47
1:G:196:LEU:C	1:G:196:LEU:HD13	2.39	0.47
1:H:95:GLU:HG3	1:H:429:ALA:HA	1.96	0.47
1:H:106:LYS:NZ	1:H:418:LYS:HA	2.30	0.47
1:H:203:GLU:OE2	1:H:350:SER:HB2	2.15	0.47
1:I:82:VAL:HG21	1:I:483:SER:CB	2.45	0.47
1:I:145:ASP:OD1	1:I:171:VAL:HB	2.14	0.47
1:J:28:SER:O	1:J:34:GLY:HA2	2.14	0.47
1:J:152:THR:HB	1:J:480:ILE:HG12	1.96	0.47
1:J:174:VAL:CB	1:J:384:LEU:HB3	2.45	0.47
1:K:166:PHE:O	1:K:169:LEU:HB3	2.15	0.47
1:K:438:ALA:HB1	1:K:448:LEU:HG	1.96	0.47
1:L:146:LEU:C	1:L:148:ASN:N	2.73	0.47
1:L:149:ILE:HD13	1:L:383:VAL:HG11	1.95	0.47
1:M:222:ALA:HA	1:M:275:ASN:CG	2.39	0.47
1:M:234:ASP:OD1	1:M:235:LYS:HG3	2.14	0.47
1:O:365:ALA:O	1:O:366:THR:CB	2.63	0.47
1:P:37:LYS:O	1:P:50:VAL:HA	2.14	0.47
1:P:207:LEU:HB3	1:P:347:ILE:CG2	2.44	0.47
1:P:208:ASP:C	1:P:209:LYS:HG3	2.40	0.47
1:A:149:ILE:HD13	1:A:383:VAL:CG1	2.44	0.46
1:A:154:LEU:CD2	1:A:163:LYS:HG3	2.45	0.46
1:C:82:VAL:HG22	1:C:486:VAL:CG1	2.44	0.46
1:C:106:LYS:HE2	1:C:113:ILE:HG12	1.97	0.46
1:C:116:GLY:HA3	1:C:505:ASP:HB3	1.97	0.46
1:C:250:LYS:O	1:C:253:GLU:HG2	2.15	0.46
1:D:154:LEU:O	1:D:157:LYS:HB2	2.15	0.46
1:E:159:LEU:HG	1:E:163:LYS:HB2	1.96	0.46
1:G:103:LEU:O	1:G:106:LYS:HB3	2.15	0.46
1:G:511:ALA:H	1:G:512:PRO:CD	2.28	0.46
1:H:173:ALA:O	1:H:176:ARG:HG2	2.15	0.46
1:H:335:LEU:HD21	1:H:337:GLU:OE1	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:50:VAL:HG22	1:J:375:ARG:HH21	1.75	0.46
1:J:150:ALA:HB3	1:J:167:THR:HG23	1.97	0.46
1:L:96:LEU:HD13	1:L:96:LEU:C	2.40	0.46
1:L:193:GLY:HA3	1:L:364:GLY:O	2.16	0.46
1:M:431:ARG:O	1:M:434:PRO:HD2	2.15	0.46
1:N:117:TRP:CZ3	1:N:502:LEU:HD12	2.50	0.46
1:N:159:LEU:HG	1:N:163:LYS:CB	2.45	0.46
1:O:128:LEU:HD11	1:O:488:ARG:HG3	1.97	0.46
1:O:226:ILE:HA	1:O:278:ILE:O	2.15	0.46
1:P:33:LYS:HB2	1:P:440:ASN:HB2	1.97	0.46
1:P:82:VAL:HG22	1:P:486:VAL:HG12	1.97	0.46
1:P:188:VAL:HG23	1:P:360:ILE:O	2.15	0.46
1:P:210:LYS:HE2	1:P:212:GLY:O	2.15	0.46
1:A:52:ASN:HD21	1:A:157:LYS:HG2	1.80	0.46
1:C:185:ALA:HB1	1:C:357:ALA:HB1	1.98	0.46
1:C:225:LEU:HG	1:C:277:PHE:CD1	2.50	0.46
1:C:231:MET:HG3	1:C:283:ILE:HG13	1.98	0.46
1:D:146:LEU:CD2	1:D:147:MET:N	2.79	0.46
1:E:57:ILE:HD13	1:E:57:ILE:C	2.40	0.46
1:E:287:PRO:O	1:E:291:PHE:HD1	1.98	0.46
1:E:324:HIS:CG	1:E:325:PRO:HD3	2.51	0.46
1:E:352:VAL:HG22	1:E:355:GLY:H	1.80	0.46
1:E:433:LEU:HA	1:E:436:ILE:HG22	1.96	0.46
1:E:434:PRO:HB3	1:E:452:LEU:HD22	1.97	0.46
1:F:103:LEU:HG	1:F:113:ILE:HD13	1.97	0.46
1:F:177:LEU:C	1:F:177:LEU:HD13	2.39	0.46
1:F:381:LEU:C	1:F:381:LEU:HD13	2.40	0.46
1:F:452:LEU:HD11	1:F:456:HIS:CE1	2.50	0.46
1:H:149:ILE:HG21	1:H:383:VAL:HG11	1.97	0.46
1:I:37:LYS:C	1:I:50:VAL:HG23	2.40	0.46
1:I:84:ASP:CG	1:I:85:GLY:H	2.22	0.46
1:J:375:ARG:HG2	1:J:376:SER:N	2.27	0.46
1:K:219:ILE:CG1	1:K:275:ASN:HB3	2.44	0.46
1:K:274:ILE:O	1:K:296:VAL:HG22	2.15	0.46
1:L:129:LEU:HD13	1:L:129:LEU:H	1.80	0.46
1:L:287:PRO:O	1:L:291:PHE:HD1	1.98	0.46
1:L:421:VAL:O	1:L:424:GLU:HG2	2.15	0.46
1:L:451:GLN:HE22	1:L:471:THR:HA	1.80	0.46
1:M:65:ASN:CG	1:M:66:PRO:HD3	2.41	0.46
1:M:114:ILE:O	1:M:117:TRP:HE3	1.98	0.46
1:M:225:LEU:HD11	1:M:324:HIS:ND1	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:65:ASN:CG	1:N:66:PRO:HD3	2.39	0.46
1:N:71:LEU:HB2	1:N:496:GLU:OE2	2.15	0.46
1:N:189:ILE:HD12	1:N:206:LEU:HD12	1.98	0.46
1:N:284:TYR:CE2	1:N:286:TYR:CD2	3.03	0.46
1:N:334:LYS:HD3	1:N:334:LYS:C	2.41	0.46
1:N:475:MET:CG	1:N:480:ILE:HB	2.45	0.46
1:O:52:ASN:H	1:O:375:ARG:CD	2.27	0.46
1:O:59:LYS:HE2	1:O:76:ARG:HB2	1.96	0.46
1:A:57:ILE:HD13	1:A:57:ILE:O	2.15	0.46
1:A:82:VAL:CG2	1:A:486:VAL:HG12	2.45	0.46
1:A:149:ILE:HD12	1:A:481:THR:O	2.15	0.46
1:B:40:LEU:HD22	1:B:41:SER:H	1.78	0.46
1:B:446:ALA:HB2	1:I:108:ILE:HD11	1.96	0.46
1:C:96:LEU:O	1:C:96:LEU:HD22	2.15	0.46
1:C:122:LYS:HE3	1:C:125:ARG:HH11	1.81	0.46
1:C:154:LEU:HG	1:C:376:SER:OG	2.15	0.46
1:C:173:ALA:HB2	1:C:360:ILE:HD11	1.96	0.46
1:E:30:LEU:HD11	1:E:87:THR:O	2.15	0.46
1:E:39:LEU:CD1	1:G:512:PRO:HG2	2.42	0.46
1:E:106:LYS:CD	1:E:421:VAL:HG11	2.44	0.46
1:E:367:GLN:OE1	1:E:369:ILE:HB	2.15	0.46
1:E:414:ARG:O	1:E:414:ARG:HD3	2.16	0.46
1:F:102:SER:O	1:F:105:ALA:HB3	2.15	0.46
1:F:393:THR:HB	1:F:482:GLU:O	2.15	0.46
1:F:433:LEU:HB2	1:F:434:PRO:HD3	1.97	0.46
1:G:188:VAL:CG2	1:G:377:LEU:HD13	2.42	0.46
1:G:222:ALA:HB1	1:G:336:ILE:HD12	1.97	0.46
1:G:511:ALA:HB3	1:G:512:PRO:HD3	1.98	0.46
1:H:497:ALA:O	1:H:500:VAL:HG22	2.15	0.46
1:I:27:LYS:CA	1:I:436:ILE:HD11	2.43	0.46
1:J:19:ALA:HB1	1:J:94:ALA:HA	1.98	0.46
1:J:402:MET:HE2	1:J:402:MET:O	2.16	0.46
1:K:183:LEU:HB2	1:K:385:ALA:HB1	1.97	0.46
1:L:22:ILE:O	1:L:26:VAL:HG22	2.16	0.46
1:L:324:HIS:O	1:L:328:VAL:HG23	2.14	0.46
1:L:369:ILE:O	1:L:372:GLU:HG3	2.15	0.46
1:L:375:ARG:HG2	1:L:375:ARG:HH11	1.80	0.46
1:M:397:GLY:HA3	1:M:475:MET:CE	2.45	0.46
1:N:171:VAL:O	1:N:174:VAL:HG22	2.15	0.46
1:O:117:TRP:NE1	1:O:498:ALA:HB3	2.30	0.46
1:O:508:ILE:HG23	1:O:509:LYS:N	2.20	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:102:SER:O	1:P:105:ALA:HB3	2.15	0.46
1:P:373:ALA:O	1:P:377:LEU:HB2	2.16	0.46
1:A:34:GLY:O	1:A:35:MET:HG3	2.15	0.46
1:A:341:ILE:HG23	1:A:363:ARG:HH21	1.77	0.46
1:B:77:VAL:HG11	1:G:366:THR:HG21	1.97	0.46
1:B:112:THR:CG2	1:G:442:GLY:HA3	2.44	0.46
1:B:124:ALA:HB1	1:B:491:LEU:CB	2.45	0.46
1:C:159:LEU:HD22	1:C:159:LEU:N	2.31	0.46
1:C:269:ILE:CG2	1:C:274:ILE:HG21	2.45	0.46
1:D:7:ARG:HH21	1:H:25:LEU:HD13	1.81	0.46
1:F:32:PRO:HA	1:F:155:SER:CB	2.46	0.46
1:F:59:LYS:HB3	1:F:59:LYS:HZ3	1.81	0.46
1:F:245:VAL:HG11	1:F:250:LYS:HD2	1.97	0.46
1:H:95:GLU:OE1	1:H:429:ALA:HA	2.16	0.46
1:H:277:PHE:O	1:H:298:ALA:HA	2.16	0.46
1:H:337:GLU:HG3	1:H:339:VAL:CG2	2.45	0.46
1:J:103:LEU:HD12	1:J:106:LYS:HZ3	1.80	0.46
1:J:178:LYS:HE2	1:J:388:VAL:HB	1.98	0.46
1:K:203:GLU:HG2	1:K:350:SER:CB	2.43	0.46
1:K:431:ARG:O	1:K:434:PRO:HD2	2.15	0.46
1:L:503:ARG:HH12	1:P:158:LEU:CD2	2.27	0.46
1:L:505:ASP:O	1:L:506:ASN:HB3	2.16	0.46
1:M:67:ALA:O	1:M:68:ALA:HB2	2.16	0.46
1:N:431:ARG:NH2	1:N:434:PRO:HG2	2.31	0.46
1:O:173:ALA:HA	1:O:176:ARG:CZ	2.45	0.46
1:O:397:GLY:HA3	1:O:475:MET:CE	2.45	0.46
1:O:433:LEU:O	1:O:436:ILE:HG22	2.16	0.46
1:A:96:LEU:HD22	1:A:96:LEU:O	2.15	0.46
1:A:127:ALA:HB3	1:A:491:LEU:HD13	1.97	0.46
1:B:84:ASP:OD1	1:B:383:VAL:HG22	2.15	0.46
1:D:168:LYS:O	1:D:171:VAL:HG22	2.15	0.46
1:D:178:LYS:NZ	1:D:388:VAL:HG21	2.31	0.46
1:D:317:GLU:HB3	1:D:330:LEU:H	1.81	0.46
1:D:381:LEU:C	1:D:381:LEU:HD13	2.41	0.46
1:E:113:ILE:N	1:E:113:ILE:CD1	2.79	0.46
1:E:313:VAL:CG1	1:E:352:VAL:HB	2.45	0.46
1:E:447:ASP:O	1:E:451:GLN:HG2	2.15	0.46
1:F:146:LEU:HD23	1:F:147:MET:N	2.31	0.46
1:F:365:ALA:O	1:F:366:THR:HG22	2.15	0.46
1:F:370:LEU:O	1:F:373:ALA:HB3	2.15	0.46
1:F:411:LEU:HD13	1:F:423:MET:HE3	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:317:GLU:CD	1:G:329:LYS:HD2	2.40	0.46
1:G:401:GLU:HG2	1:G:433:LEU:HD22	1.98	0.46
1:H:153:THR:HG21	1:H:379:ASP:HB3	1.98	0.46
1:I:238:ILE:HB	1:O:244:ARG:NH1	2.31	0.46
1:I:341:ILE:HG23	1:I:363:ARG:NH2	2.31	0.46
1:J:149:ILE:HB	1:J:481:THR:O	2.16	0.46
1:J:196:LEU:C	1:J:196:LEU:HD13	2.40	0.46
1:K:38:ILE:HG13	1:K:50:VAL:HB	1.98	0.46
1:L:30:LEU:HB2	1:L:436:ILE:CD1	2.46	0.46
1:L:141:LYS:CG	1:L:144:GLN:HB2	2.46	0.46
1:M:163:LYS:HD2	1:M:166:PHE:CD1	2.50	0.46
1:M:176:ARG:HD2	1:M:358:CYS:SG	2.56	0.46
1:M:209:LYS:HE2	1:M:301:HIS:O	2.16	0.46
1:N:146:LEU:HD12	1:N:171:VAL:CG1	2.20	0.46
1:P:166:PHE:CD1	1:P:166:PHE:N	2.84	0.46
1:P:438:ALA:HB1	1:P:448:LEU:HG	1.97	0.46
1:A:27:LYS:HG3	1:A:436:ILE:CG1	2.45	0.46
1:A:416:PRO:HD2	1:A:419:GLU:OE1	2.15	0.46
1:A:433:LEU:HB2	1:A:434:PRO:HD3	1.97	0.46
1:A:504:VAL:CG1	1:F:38:ILE:HG12	2.46	0.46
1:B:343:GLU:HG3	1:B:344:ASP:H	1.80	0.46
1:C:166:PHE:CE1	1:C:198:ASP:CB	2.99	0.46
1:C:446:ALA:HA	1:L:421:VAL:HG21	1.97	0.46
1:C:452:LEU:HA	1:C:472:ILE:HG21	1.97	0.46
1:D:402:MET:HG2	1:D:431:ARG:HH22	1.80	0.46
1:G:128:LEU:HD21	1:G:403:LEU:HG	1.96	0.46
1:G:287:PRO:O	1:G:291:PHE:HD2	1.98	0.46
1:G:339:VAL:HB	1:G:348:HIS:ND1	2.30	0.46
1:G:390:ASP:HB3	1:G:485:GLN:NE2	2.28	0.46
1:I:78:GLN:HG3	1:I:83:GLY:CA	2.44	0.46
1:I:159:LEU:HD23	1:I:163:LYS:HD3	1.97	0.46
1:K:27:LYS:HA	1:K:436:ILE:HD11	1.96	0.46
1:K:188:VAL:HG21	1:K:362:LEU:HG	1.96	0.46
1:K:206:LEU:HD22	1:K:207:LEU:N	2.30	0.46
1:K:226:ILE:HG12	1:K:278:ILE:CG2	2.45	0.46
1:K:433:LEU:HB2	1:K:434:PRO:HD3	1.97	0.46
1:L:85:GLY:O	1:L:153:THR:HA	2.15	0.46
1:L:192:LEU:HB3	1:L:366:THR:CG2	2.45	0.46
1:M:431:ARG:CZ	1:M:431:ARG:HA	2.45	0.46
1:N:54:GLY:O	1:N:58:LEU:HD23	2.15	0.46
1:N:116:GLY:N	1:N:422:ALA:HB1	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:201:LEU:HD22	1:N:202:ASP:N	2.31	0.46
1:O:84:ASP:OD2	1:O:383:VAL:HG23	2.16	0.46
1:O:268:ARG:O	1:O:271:LYS:HG2	2.16	0.46
1:P:116:GLY:HA3	1:P:422:ALA:HB1	1.98	0.46
1:P:154:LEU:CD2	1:P:163:LYS:HG2	2.46	0.46
1:A:205:PHE:HA	1:A:359:THR:OG1	2.16	0.46
1:A:397:GLY:O	1:A:465:LEU:HB2	2.16	0.46
1:A:451:GLN:HE22	1:A:471:THR:HA	1.79	0.46
1:B:1:ALA:H3	1:G:39:LEU:CD1	2.28	0.46
1:B:431:ARG:NH2	1:B:434:PRO:HG2	2.30	0.46
1:C:30:LEU:HD11	1:C:87:THR:O	2.16	0.46
1:D:404:MET:HE3	1:D:430:LEU:HD11	1.97	0.46
1:D:442:GLY:HA3	1:E:109:HIS:CG	2.49	0.46
1:E:92:LEU:CG	1:E:433:LEU:HD11	2.45	0.46
1:F:500:VAL:O	1:F:504:VAL:HG23	2.15	0.46
1:G:352:VAL:CG2	1:G:355:GLY:H	2.29	0.46
1:H:379:ASP:O	1:H:383:VAL:HG22	2.16	0.46
1:I:14:SER:O	1:I:17:ILE:HG22	2.16	0.46
1:I:112:THR:HG23	1:O:441:ALA:O	2.16	0.46
1:I:434:PRO:HB3	1:I:452:LEU:HD23	1.97	0.46
1:J:59:LYS:CE	1:J:76:ARG:HB2	2.42	0.46
1:J:85:GLY:O	1:J:153:THR:HA	2.15	0.46
1:J:159:LEU:HB3	1:J:163:LYS:HB2	1.96	0.46
1:J:287:PRO:O	1:J:291:PHE:HD1	1.98	0.46
1:K:79:ASP:HA	1:K:83:GLY:O	2.16	0.46
1:L:157:LYS:HE2	1:L:376:SER:HA	1.96	0.46
1:L:177:LEU:HD13	1:L:177:LEU:C	2.41	0.46
1:L:209:LYS:HE2	1:L:301:HIS:O	2.16	0.46
1:L:402:MET:SD	1:L:453:ARG:HA	2.55	0.46
1:L:402:MET:SD	1:L:456:HIS:HB2	2.56	0.46
1:M:103:LEU:HD21	1:M:113:ILE:HG21	1.96	0.46
1:N:59:LYS:HE3	1:N:73:ASP:HA	1.96	0.46
1:N:99:GLU:O	1:N:102:SER:HB2	2.15	0.46
1:N:157:LYS:HG2	1:N:372:GLU:HG2	1.98	0.46
1:O:324:HIS:ND1	1:O:325:PRO:HD3	2.31	0.46
1:P:32:PRO:HG3	1:P:155:SER:OG	2.16	0.46
1:P:390:ASP:HB3	1:P:485:GLN:HE22	1.80	0.46
1:A:82:VAL:HA	1:A:386:GLN:HG3	1.96	0.46
1:B:27:LYS:O	1:B:436:ILE:HD11	2.16	0.46
1:B:111:GLN:HA	1:B:114:ILE:HG12	1.97	0.46
1:B:196:LEU:C	1:B:196:LEU:HD13	2.40	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:159:LEU:HG	1:C:163:LYS:HD3	1.95	0.46
1:C:164:ASP:O	1:C:167:THR:HG22	2.16	0.46
1:C:286:TYR:HB2	1:C:287:PRO:HD3	1.97	0.46
1:D:6:GLU:HB3	1:D:11:ALA:HB2	1.98	0.46
1:E:120:ALA:HB1	1:E:426:TYR:CE1	2.51	0.46
1:E:226:ILE:HA	1:E:278:ILE:O	2.16	0.46
1:F:159:LEU:HD22	1:F:372:GLU:OE2	2.16	0.46
1:F:316:GLY:C	1:F:317:GLU:HG2	2.40	0.46
1:F:345:LYS:C	1:F:346:LEU:HD12	2.40	0.46
1:G:325:PRO:O	1:G:326:GLU:HG3	2.16	0.46
1:G:431:ARG:NH1	1:G:453:ARG:HD3	2.30	0.46
1:H:166:PHE:O	1:H:169:LEU:HB3	2.16	0.46
1:H:390:ASP:HB3	1:H:485:GLN:HE22	1.81	0.46
1:I:158:LEU:HB2	1:N:7:ARG:HH22	1.81	0.46
1:I:313:VAL:HG22	1:I:357:ALA:HB3	1.98	0.46
1:I:505:ASP:HB3	1:O:38:ILE:HD12	1.98	0.46
1:J:41:SER:HB3	1:J:45:ASP:CG	2.40	0.46
1:J:132:ALA:HB2	1:J:403:LEU:HD23	1.97	0.46
1:J:140:VAL:HA	1:J:175:LEU:CD2	2.36	0.46
1:J:178:LYS:HB3	1:J:388:VAL:HG11	1.96	0.46
1:K:15:SER:HB3	1:K:501:ILE:HG23	1.98	0.46
1:K:233:THR:HG21	1:K:261:LYS:HE2	1.97	0.46
1:L:38:ILE:HG12	1:M:506:ASN:HB3	1.95	0.46
1:M:177:LEU:O	1:M:177:LEU:HD22	2.15	0.46
1:N:114:ILE:HG12	1:N:502:LEU:CB	2.45	0.46
1:P:141:LYS:HE2	1:P:144:GLN:NE2	2.30	0.46
1:P:192:LEU:HB3	1:P:343:GLU:OE2	2.16	0.46
1:A:108:ILE:HG22	1:A:109:HIS:H	1.80	0.46
1:A:140:VAL:O	1:A:141:LYS:HB3	2.16	0.46
1:A:145:ASP:OD2	1:A:175:LEU:HD11	2.15	0.46
1:A:280:ARG:HG3	1:A:304:PHE:HB2	1.97	0.46
1:B:138:ASP:O	1:B:139:GLU:CB	2.63	0.46
1:B:226:ILE:HA	1:B:278:ILE:O	2.16	0.46
1:B:313:VAL:HG22	1:B:357:ALA:HB3	1.97	0.46
1:C:31:GLY:C	1:C:156:SER:HA	2.40	0.46
1:C:206:LEU:HD13	1:C:206:LEU:C	2.41	0.46
1:D:39:LEU:CD1	1:E:509:LYS:HA	2.46	0.46
1:D:204:GLY:HA3	1:D:350:SER:HA	1.97	0.46
1:E:99:GLU:O	1:E:103:LEU:HD22	2.16	0.46
1:E:222:ALA:HA	1:E:275:ASN:HB2	1.98	0.46
1:F:24:ASP:O	1:F:27:LYS:HG2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:96:LEU:O	1:F:96:LEU:HD22	2.16	0.46
1:F:207:LEU:HD12	1:F:299:ILE:HD13	1.98	0.46
1:F:485:GLN:HB2	1:F:489:GLN:HE22	1.80	0.46
1:G:108:ILE:HG21	1:N:446:ALA:CB	2.46	0.46
1:G:297:MET:CE	1:G:347:ILE:HD11	2.46	0.46
1:G:305:VAL:HG22	1:G:309:ARG:HE	1.80	0.46
1:G:380:ALA:O	1:G:384:LEU:HD23	2.16	0.46
1:H:68:ALA:O	1:H:72:VAL:HG23	2.16	0.46
1:H:191:LYS:HD2	1:H:341:ILE:O	2.16	0.46
1:I:37:LYS:HB2	1:N:5:GLU:HG2	1.95	0.46
1:K:134:ASP:O	1:K:135:HIS:CG	2.69	0.46
1:K:196:LEU:HD13	1:K:196:LEU:C	2.41	0.46
1:K:365:ALA:O	1:K:366:THR:CB	2.64	0.46
1:L:48:LEU:HD22	1:L:48:LEU:H	1.81	0.46
1:L:115:ALA:O	1:L:119:GLU:HG2	2.16	0.46
1:L:176:ARG:NH1	1:L:201:LEU:HD11	2.31	0.46
1:L:216:PRO:HG3	1:L:295:GLY:HA2	1.96	0.46
1:M:164:ASP:O	1:M:167:THR:HG22	2.16	0.46
1:N:36:ASP:HA	1:N:52:ASN:CB	2.45	0.46
1:N:40:LEU:HD12	1:N:48:LEU:HG	1.96	0.46
1:N:71:LEU:CD1	1:N:497:ALA:HB2	2.45	0.46
1:N:332:SER:OG	1:N:349:PHE:HZ	1.99	0.46
1:O:51:THR:HG22	1:O:53:ASP:O	2.16	0.46
1:P:146:LEU:CD2	1:P:150:ALA:HB3	2.36	0.46
1:P:182:ASN:CG	1:P:183:LEU:H	2.24	0.46
1:P:209:LYS:HZ2	1:P:303:ASP:H	1.64	0.46
1:P:503:ARG:HD3	1:P:504:VAL:HG23	1.98	0.46
1:A:266:VAL:CG2	1:A:290:LEU:HD11	2.46	0.46
1:A:284:TYR:CE2	1:A:286:TYR:HD1	2.34	0.46
1:A:450:ALA:CB	1:M:417:GLY:H	2.28	0.46
1:B:124:ALA:CB	1:B:491:LEU:HB3	2.46	0.46
1:C:219:ILE:HD11	1:C:336:ILE:HB	1.97	0.46
1:D:448:LEU:HD21	1:D:465:LEU:HD12	1.96	0.46
1:F:425:SER:O	1:F:428:LYS:HG2	2.16	0.46
1:G:139:GLU:HA	1:G:139:GLU:OE1	2.15	0.46
1:J:176:ARG:HH22	1:J:360:ILE:HD11	1.80	0.46
1:K:111:GLN:HE21	1:K:503:ARG:HA	1.81	0.46
1:K:219:ILE:HG12	1:K:222:ALA:HB2	1.97	0.46
1:K:226:ILE:HA	1:K:278:ILE:O	2.16	0.46
1:L:118:ARG:HH22	1:P:33:LYS:NZ	2.14	0.46
1:M:106:LYS:HG2	1:M:108:ILE:HD12	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:268:ARG:O	1:M:271:LYS:HG2	2.16	0.46
1:N:14:SER:O	1:N:17:ILE:HG22	2.16	0.46
1:N:36:ASP:HA	1:N:52:ASN:HB3	1.97	0.46
1:N:171:VAL:HG12	1:N:384:LEU:CD2	2.45	0.46
1:N:209:LYS:HZ2	1:N:302:ALA:HA	1.81	0.46
1:N:317:GLU:HB2	1:N:329:LYS:HD3	1.96	0.46
1:O:55:ALA:O	1:O:59:LYS:HG2	2.16	0.46
1:O:96:LEU:HD13	1:O:97:LEU:N	2.31	0.46
1:P:367:GLN:HG3	1:P:369:ILE:N	2.31	0.46
1:A:176:ARG:HE	1:A:358:CYS:HB2	1.81	0.45
1:C:38:ILE:HB	1:H:507:ILE:HG21	1.98	0.45
1:C:209:LYS:HB2	1:C:299:ILE:HG23	1.98	0.45
1:C:448:LEU:HD21	1:C:465:LEU:HD12	1.97	0.45
1:C:455:ALA:HB2	1:C:472:ILE:HD12	1.98	0.45
1:E:96:LEU:HD21	1:E:117:TRP:CZ2	2.50	0.45
1:E:223:LYS:HB2	1:E:274:ILE:HA	1.97	0.45
1:E:316:GLY:C	1:E:317:GLU:HG2	2.41	0.45
1:E:402:MET:SD	1:E:453:ARG:HA	2.56	0.45
1:H:59:LYS:HE2	1:H:76:ARG:HE	1.81	0.45
1:I:63:VAL:CG2	1:N:3:ALA:H	2.29	0.45
1:I:112:THR:OG1	1:O:442:GLY:HA3	2.15	0.45
1:I:323:ASP:C	1:I:325:PRO:HD2	2.41	0.45
1:I:508:ILE:HD13	1:O:50:VAL:HG11	1.98	0.45
1:J:125:ARG:NH1	1:J:125:ARG:HB2	2.31	0.45
1:J:231:MET:HG3	1:J:283:ILE:HG13	1.98	0.45
1:K:215:GLN:HE21	1:K:292:GLY:N	2.15	0.45
1:L:365:ALA:C	1:L:366:THR:HG23	2.41	0.45
1:M:381:LEU:O	1:M:381:LEU:HD22	2.17	0.45
1:N:146:LEU:HD21	1:N:167:THR:HG23	1.98	0.45
1:P:205:PHE:O	1:P:349:PHE:HB3	2.16	0.45
1:P:226:ILE:HA	1:P:278:ILE:O	2.16	0.45
1:P:404:MET:HE3	1:P:430:LEU:CD1	2.45	0.45
1:A:82:VAL:CG1	1:A:486:VAL:HG12	2.45	0.45
1:A:215:GLN:HG3	1:A:292:GLY:HA2	1.97	0.45
1:A:448:LEU:HD21	1:A:465:LEU:CD1	2.45	0.45
1:B:146:LEU:HD13	1:B:171:VAL:HG22	1.98	0.45
1:C:38:ILE:HB	1:H:507:ILE:CD1	2.46	0.45
1:C:274:ILE:O	1:C:274:ILE:HG23	2.16	0.45
1:C:367:GLN:HG2	1:H:500:VAL:CG1	2.46	0.45
1:D:5:GLU:HA	1:D:506:ASN:OD1	2.15	0.45
1:D:213:VAL:CG1	1:E:318:ILE:HG23	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:376:SER:O	1:D:379:ASP:HB2	2.17	0.45
1:E:163:LYS:HD2	1:E:166:PHE:CG	2.51	0.45
1:E:190:LYS:HA	1:E:362:LEU:O	2.16	0.45
1:F:78:GLN:NE2	1:F:489:GLN:HB2	2.31	0.45
1:F:82:VAL:HG22	1:F:485:GLN:HG2	1.97	0.45
1:F:450:ALA:HA	1:O:417:GLY:HA3	1.98	0.45
1:G:369:ILE:HG23	1:G:372:GLU:OE1	2.16	0.45
1:G:375:ARG:HG3	1:G:375:ARG:NH1	2.31	0.45
1:G:447:ASP:HB2	1:N:108:ILE:HD11	1.98	0.45
1:H:157:LYS:HD3	1:H:375:ARG:HD2	1.99	0.45
1:I:109:HIS:CB	1:O:442:GLY:HA2	2.46	0.45
1:I:452:LEU:HD11	1:I:456:HIS:HE1	1.81	0.45
1:J:397:GLY:O	1:J:465:LEU:HD23	2.17	0.45
1:K:392:ARG:C	1:K:484:PHE:HB2	2.41	0.45
1:L:314:THR:HG23	1:L:316:GLY:H	1.80	0.45
1:L:334:LYS:HB3	1:L:351:GLY:HA3	1.96	0.45
1:L:402:MET:HE2	1:L:402:MET:O	2.16	0.45
1:L:434:PRO:HB3	1:L:452:LEU:HD22	1.97	0.45
1:L:485:GLN:HB3	1:L:489:GLN:HE22	1.80	0.45
1:M:112:THR:HG23	1:M:418:LYS:HB3	1.97	0.45
1:M:190:LYS:HA	1:M:362:LEU:O	2.16	0.45
1:M:513:ARG:HG3	1:M:513:ARG:O	2.16	0.45
1:N:4:ASP:OD1	1:N:6:GLU:HG3	2.16	0.45
1:N:171:VAL:HG12	1:N:384:LEU:HD21	1.97	0.45
1:N:191:LYS:HD2	1:N:341:ILE:CB	2.47	0.45
1:N:274:ILE:HG23	1:N:296:VAL:HG21	1.98	0.45
1:O:370:LEU:HD23	1:O:370:LEU:HA	1.86	0.45
1:P:280:ARG:HG3	1:P:304:PHE:CA	2.46	0.45
1:P:452:LEU:HD11	1:P:456:HIS:HE1	1.80	0.45
1:A:106:LYS:O	1:A:108:ILE:HG13	2.16	0.45
1:B:171:VAL:HA	1:B:174:VAL:HG22	1.98	0.45
1:B:313:VAL:CG1	1:B:352:VAL:HB	2.40	0.45
1:C:152:THR:OG1	1:C:480:ILE:HD12	2.16	0.45
1:C:158:LEU:HD11	1:H:503:ARG:HH21	1.81	0.45
1:C:171:VAL:CG1	1:C:384:LEU:HG	2.46	0.45
1:C:225:LEU:HD13	1:C:329:LYS:HE3	1.98	0.45
1:C:233:THR:O	1:C:234:ASP:HB3	2.16	0.45
1:C:420:ALA:HB3	1:L:450:ALA:CB	2.46	0.45
1:C:431:ARG:C	1:C:434:PRO:HD2	2.42	0.45
1:D:37:LYS:HD2	1:E:508:ILE:HG23	1.99	0.45
1:D:96:LEU:HD13	1:D:97:LEU:N	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:17:ILE:HA	1:E:20:ILE:HG22	1.98	0.45
1:E:81:GLU:OE1	1:E:81:GLU:HA	2.17	0.45
1:F:248:THR:O	1:F:251:VAL:HG12	2.16	0.45
1:G:149:ILE:HD13	1:G:383:VAL:HG13	1.97	0.45
1:H:22:ILE:HD12	1:H:90:THR:CG2	2.46	0.45
1:I:39:LEU:HD12	1:I:49:MET:O	2.16	0.45
1:I:236:ILE:HG12	1:I:237:LYS:H	1.80	0.45
1:I:261:LYS:O	1:I:264:GLU:HG2	2.17	0.45
1:I:373:ALA:O	1:I:377:LEU:HB2	2.17	0.45
1:J:25:LEU:HD11	1:K:506:ASN:HD22	1.81	0.45
1:J:106:LYS:NZ	1:J:106:LYS:HB2	2.31	0.45
1:J:125:ARG:O	1:J:129:LEU:HB3	2.15	0.45
1:J:186:ILE:HD13	1:J:381:LEU:HD21	1.98	0.45
1:J:431:ARG:NH1	1:J:453:ARG:HD3	2.32	0.45
1:J:435:THR:HG23	1:J:445:SER:HB3	1.98	0.45
1:J:487:LYS:HA	1:J:490:VAL:HG12	1.99	0.45
1:K:402:MET:HG2	1:K:431:ARG:HH22	1.82	0.45
1:L:225:LEU:HD22	1:L:329:LYS:HD2	1.97	0.45
1:L:485:GLN:HE21	1:L:488:ARG:HH21	1.64	0.45
1:N:96:LEU:HD23	1:N:96:LEU:C	2.41	0.45
1:N:352:VAL:HG22	1:N:355:GLY:H	1.81	0.45
1:O:269:ILE:CG2	1:O:274:ILE:HG21	2.41	0.45
1:P:23:GLY:HA2	1:P:26:VAL:HG22	1.97	0.45
1:A:79:ASP:HA	1:A:83:GLY:N	2.31	0.45
1:A:128:LEU:HD22	1:A:488:ARG:HG2	1.97	0.45
1:A:154:LEU:O	1:A:157:LYS:HB2	2.16	0.45
1:B:88:SER:O	1:B:92:LEU:HD13	2.16	0.45
1:C:39:LEU:HD11	1:H:1:ALA:HA	1.97	0.45
1:C:130:ASN:O	1:C:131:SER:HB3	2.16	0.45
1:D:89:VAL:HG12	1:D:490:VAL:HB	1.97	0.45
1:D:96:LEU:HD22	1:D:96:LEU:C	2.42	0.45
1:D:111:GLN:HG3	1:D:114:ILE:HD12	1.97	0.45
1:D:280:ARG:O	1:D:281:GLN:HB3	2.17	0.45
1:D:394:VAL:HG22	1:D:482:GLU:HB2	1.98	0.45
1:F:176:ARG:NE	1:F:358:CYS:HB2	2.31	0.45
1:G:277:PHE:O	1:G:298:ALA:HA	2.17	0.45
1:G:441:ALA:HB2	1:G:467:MET:HG2	1.98	0.45
1:H:106:LYS:HZ1	1:H:418:LYS:HA	1.81	0.45
1:I:37:LYS:HG2	1:N:7:ARG:HB2	1.97	0.45
1:I:152:THR:CB	1:I:480:ILE:HD12	2.46	0.45
1:I:248:THR:O	1:I:251:VAL:HG12	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:399:CYS:HA	1:I:456:HIS:NE2	2.31	0.45
1:J:127:ALA:C	1:J:128:LEU:HG	2.39	0.45
1:J:211:ILE:HD13	1:J:215:GLN:HB2	1.98	0.45
1:K:5:GLU:O	1:K:6:GLU:C	2.59	0.45
1:K:176:ARG:HD2	1:K:358:CYS:SG	2.57	0.45
1:K:186:ILE:HG21	1:K:381:LEU:HD21	1.98	0.45
1:K:188:VAL:HB	1:K:360:ILE:HB	1.99	0.45
1:K:188:VAL:CB	1:K:360:ILE:O	2.62	0.45
1:K:219:ILE:HD12	1:K:297:MET:HE2	1.99	0.45
1:K:224:ILE:CD1	1:K:349:PHE:HE2	2.30	0.45
1:L:33:LYS:H	1:L:440:ASN:CG	2.25	0.45
1:L:159:LEU:HD13	1:L:372:GLU:OE2	2.15	0.45
1:M:334:LYS:HG3	1:M:351:GLY:HA3	1.99	0.45
1:N:92:LEU:HD21	1:N:433:LEU:CD1	2.33	0.45
1:O:109:HIS:NE2	1:O:111:GLN:HB2	2.32	0.45
1:O:364:GLY:HA2	1:O:370:LEU:CD1	2.41	0.45
1:O:366:THR:HG23	1:O:366:THR:O	2.16	0.45
1:O:397:GLY:O	1:O:465:LEU:HD23	2.17	0.45
1:P:215:GLN:HE21	1:P:292:GLY:N	2.15	0.45
1:P:286:TYR:HB2	1:P:287:PRO:HD3	1.99	0.45
1:A:146:LEU:HB2	1:A:171:VAL:HG21	1.98	0.45
1:A:191:LYS:HG3	1:A:193:GLY:H	1.81	0.45
1:A:225:LEU:HD13	1:A:329:LYS:HG3	1.99	0.45
1:B:109:HIS:CD2	1:G:440:ASN:HA	2.51	0.45
1:B:165:HIS:O	1:B:168:LYS:HB3	2.16	0.45
1:B:305:VAL:CG2	1:B:309:ARG:HH12	2.30	0.45
1:B:483:SER:HB2	1:B:486:VAL:HG13	1.98	0.45
1:D:165:HIS:O	1:D:168:LYS:HB3	2.17	0.45
1:D:191:LYS:HA	1:D:191:LYS:HE3	1.98	0.45
1:E:127:ALA:HB2	1:E:404:MET:HG3	1.97	0.45
1:E:211:ILE:HG12	1:E:298:ALA:H	1.82	0.45
1:E:486:VAL:O	1:E:490:VAL:HG12	2.17	0.45
1:F:40:LEU:HD22	1:F:41:SER:N	2.31	0.45
1:H:106:LYS:HZ3	1:H:113:ILE:CG1	2.30	0.45
1:H:140:VAL:HA	1:H:175:LEU:CD2	2.43	0.45
1:I:402:MET:HB3	1:I:456:HIS:CG	2.52	0.45
1:I:448:LEU:HD11	1:I:465:LEU:CD1	2.46	0.45
1:J:64:ASP:C	1:J:509:LYS:HE2	2.41	0.45
1:J:319:ALA:HA	1:J:329:LYS:HZ1	1.82	0.45
1:J:324:HIS:HB2	1:J:329:LYS:HZ1	1.77	0.45
1:K:266:VAL:CG2	1:K:290:LEU:HD11	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:102:SER:O	1:L:105:ALA:HB3	2.16	0.45
1:L:173:ALA:O	1:L:176:ARG:HG2	2.16	0.45
1:O:52:ASN:HD21	1:O:157:LYS:HG2	1.80	0.45
1:O:215:GLN:HE21	1:O:292:GLY:N	2.14	0.45
1:A:40:LEU:HD23	1:A:40:LEU:C	2.42	0.45
1:B:177:LEU:HD11	1:B:182:ASN:O	2.16	0.45
1:B:211:ILE:HG12	1:B:298:ALA:H	1.80	0.45
1:B:418:LYS:HA	1:I:446:ALA:CB	2.45	0.45
1:B:466:ASP:HB3	1:B:469:GLU:HB3	1.99	0.45
1:C:114:ILE:CG2	1:C:505:ASP:N	2.80	0.45
1:D:38:ILE:HG12	1:E:507:ILE:HD12	1.98	0.45
1:D:431:ARG:CZ	1:D:453:ARG:HD3	2.46	0.45
1:D:507:ILE:HG21	1:H:38:ILE:HD12	1.98	0.45
1:E:57:ILE:HG23	1:E:58:LEU:CD2	2.47	0.45
1:E:186:ILE:CD1	1:E:381:LEU:HD21	2.47	0.45
1:E:193:GLY:O	1:E:364:GLY:HA2	2.17	0.45
1:F:250:LYS:HZ3	1:F:250:LYS:HB2	1.81	0.45
1:G:141:LYS:HG3	1:G:144:GLN:HB2	1.97	0.45
1:G:224:ILE:HD11	1:G:349:PHE:HE2	1.82	0.45
1:G:326:GLU:HB2	1:G:327:LEU:H	1.60	0.45
1:H:119:GLU:O	1:H:122:LYS:HB3	2.17	0.45
1:H:211:ILE:HG12	1:H:298:ALA:H	1.82	0.45
1:H:286:TYR:HB2	1:H:287:PRO:HD3	1.99	0.45
1:I:322:PHE:HA	1:I:324:HIS:CD2	2.51	0.45
1:K:232:ASP:HA	1:K:284:TYR:HB2	1.98	0.45
1:L:48:LEU:C	1:M:509:LYS:HE3	2.41	0.45
1:L:114:ILE:HD12	1:L:115:ALA:N	2.31	0.45
1:L:146:LEU:HB2	1:L:171:VAL:HG21	1.98	0.45
1:M:154:LEU:HD11	1:M:376:SER:OG	2.15	0.45
1:M:183:LEU:O	1:M:183:LEU:HG	2.15	0.45
1:M:225:LEU:HD13	1:M:329:LYS:CE	2.46	0.45
1:M:368:GLN:HE22	1:O:507:ILE:CD1	2.30	0.45
1:O:215:GLN:HG3	1:O:292:GLY:HA2	1.98	0.45
1:P:145:ASP:OD2	1:P:175:LEU:HD11	2.16	0.45
1:P:352:VAL:CG2	1:P:355:GLY:H	2.28	0.45
1:B:504:VAL:CG1	1:B:507:ILE:HD12	2.46	0.45
1:C:52:ASN:HB2	1:C:375:ARG:HH11	1.80	0.45
1:C:146:LEU:HB2	1:C:171:VAL:HG21	1.98	0.45
1:D:313:VAL:HG13	1:D:352:VAL:CG2	2.46	0.45
1:E:14:SER:O	1:E:17:ILE:HG22	2.17	0.45
1:E:32:PRO:CD	1:E:467:MET:SD	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:171:VAL:HA	1:E:174:VAL:HG22	1.98	0.45
1:E:274:ILE:O	1:E:296:VAL:HG22	2.17	0.45
1:F:450:ALA:CB	1:O:417:GLY:H	2.29	0.45
1:G:216:PRO:HG2	1:G:295:GLY:CA	2.45	0.45
1:G:316:GLY:C	1:G:317:GLU:HG2	2.41	0.45
1:G:399:CYS:SG	1:G:464:GLY:CA	3.04	0.45
1:G:453:ARG:NH2	1:N:421:VAL:HG23	2.31	0.45
1:H:377:LEU:HD23	1:H:377:LEU:C	2.42	0.45
1:I:52:ASN:H	1:I:375:ARG:CD	2.23	0.45
1:I:490:VAL:HA	1:I:493:SER:HB3	1.99	0.45
1:J:117:TRP:O	1:J:120:ALA:HB3	2.17	0.45
1:J:412:ALA:CB	1:J:424:GLU:HB3	2.46	0.45
1:K:181:GLY:HA3	1:K:356:GLU:OE2	2.16	0.45
1:M:51:THR:HG22	1:M:53:ASP:O	2.17	0.45
1:N:22:ILE:HD12	1:N:90:THR:CG2	2.46	0.45
1:N:191:LYS:HE3	1:N:346:LEU:CB	2.47	0.45
1:N:404:MET:O	1:N:408:VAL:HG22	2.17	0.45
1:N:404:MET:HE2	1:N:430:LEU:HG	1.98	0.45
1:O:11:ALA:HB1	1:O:505:ASP:HB3	1.98	0.45
1:O:111:GLN:HA	1:O:114:ILE:HG12	1.99	0.45
1:P:158:LEU:C	1:P:160:THR:H	2.25	0.45
1:A:67:ALA:HB3	1:A:507:ILE:CG2	2.47	0.45
1:B:27:LYS:HB2	1:B:436:ILE:HD11	1.98	0.45
1:B:37:LYS:HG3	1:F:504:VAL:HG13	1.99	0.45
1:B:150:ALA:HB2	1:B:384:LEU:HD11	1.98	0.45
1:B:188:VAL:CG2	1:B:377:LEU:HD21	2.47	0.45
1:C:381:LEU:HD13	1:C:381:LEU:C	2.42	0.45
1:C:397:GLY:HA3	1:C:475:MET:HE3	1.98	0.45
1:D:215:GLN:HE21	1:D:292:GLY:N	2.14	0.45
1:E:113:ILE:H	1:E:113:ILE:HD13	1.81	0.45
1:E:365:ALA:O	1:E:366:THR:HG22	2.17	0.45
1:F:96:LEU:HD11	1:F:117:TRP:HZ2	1.81	0.45
1:F:157:LYS:HB3	1:F:159:LEU:HD22	1.99	0.45
1:F:190:LYS:HB2	1:F:370:LEU:HD21	1.99	0.45
1:G:46:ALA:O	1:G:47:SER:CB	2.65	0.45
1:G:313:VAL:HG13	1:G:352:VAL:HB	1.98	0.45
1:G:487:LYS:O	1:G:490:VAL:HG12	2.17	0.45
1:H:22:ILE:O	1:H:26:VAL:HG22	2.16	0.45
1:H:33:LYS:HB3	1:H:440:ASN:O	2.17	0.45
1:H:265:LYS:HZ2	1:H:287:PRO:HG3	1.82	0.45
1:I:154:LEU:CD2	1:I:163:LYS:HG2	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:188:VAL:HG23	1:I:360:ILE:O	2.16	0.45
1:M:79:ASP:HA	1:M:83:GLY:HA2	1.97	0.45
1:N:185:ALA:HB3	1:N:357:ALA:HB1	1.98	0.45
1:O:41:SER:HB2	1:O:45:ASP:OD2	2.17	0.45
1:P:82:VAL:HG13	1:P:83:GLY:H	1.82	0.45
1:P:171:VAL:O	1:P:174:VAL:HG22	2.17	0.45
1:P:190:LYS:HA	1:P:362:LEU:O	2.17	0.45
1:P:431:ARG:O	1:P:434:PRO:HD2	2.16	0.45
1:A:196:LEU:HD13	1:A:196:LEU:C	2.41	0.45
1:A:222:ALA:HA	1:A:275:ASN:CG	2.41	0.45
1:B:139:GLU:HG2	1:B:178:LYS:NZ	2.32	0.45
1:C:11:ALA:CB	1:C:510:ALA:CB	2.94	0.45
1:C:171:VAL:O	1:C:175:LEU:HG	2.17	0.45
1:D:92:LEU:HD11	1:D:433:LEU:HG	1.99	0.45
1:G:128:LEU:HD13	1:G:404:MET:CA	2.43	0.45
1:H:173:ALA:HA	1:H:176:ARG:NH1	2.31	0.45
1:I:309:ARG:HH11	1:I:309:ARG:HG3	1.81	0.45
1:I:334:LYS:HD2	1:I:351:GLY:HA3	1.99	0.45
1:I:366:THR:C	1:I:367:GLN:HG3	2.42	0.45
1:I:433:LEU:O	1:I:437:ILE:HG12	2.16	0.45
1:J:381:LEU:HD13	1:J:381:LEU:C	2.42	0.45
1:K:157:LYS:HD3	1:K:376:SER:HB2	1.98	0.45
1:K:324:HIS:O	1:K:328:VAL:HG23	2.17	0.45
1:L:178:LYS:HE2	1:L:388:VAL:CG1	2.47	0.45
1:L:324:HIS:ND1	1:L:325:PRO:HD3	2.32	0.45
1:M:222:ALA:HA	1:M:275:ASN:HB2	1.99	0.45
1:N:97:LEU:HD23	1:N:501:ILE:HD11	1.98	0.45
1:N:430:LEU:HD22	1:N:430:LEU:N	2.32	0.45
1:O:30:LEU:HD11	1:O:87:THR:O	2.17	0.45
1:O:89:VAL:HG12	1:O:490:VAL:HG21	1.98	0.45
1:O:163:LYS:HD2	1:O:166:PHE:CD1	2.50	0.45
1:O:452:LEU:HD11	1:O:456:HIS:CE1	2.52	0.45
1:P:22:ILE:O	1:P:26:VAL:HG22	2.16	0.45
1:P:134:ASP:CG	1:P:393:THR:H	2.25	0.45
1:P:317:GLU:CB	1:P:329:LYS:HD3	2.47	0.45
1:P:402:MET:HE2	1:P:402:MET:O	2.17	0.45
1:A:176:ARG:HD2	1:A:358:CYS:SG	2.57	0.45
1:A:206:LEU:HD11	1:A:346:LEU:HD22	1.99	0.45
1:C:113:ILE:HG23	1:C:421:VAL:HG12	1.99	0.45
1:C:261:LYS:O	1:C:264:GLU:HG2	2.17	0.45
1:C:323:ASP:C	1:C:325:PRO:HD2	2.42	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:424:GLU:O	1:C:427:ALA:HB3	2.17	0.45
1:D:166:PHE:N	1:D:166:PHE:CD1	2.85	0.45
1:D:368:GLN:O	1:D:371:ASP:HB2	2.17	0.45
1:E:175:LEU:O	1:E:178:LYS:HG2	2.17	0.45
1:E:431:ARG:CZ	1:E:431:ARG:HA	2.47	0.45
1:E:448:LEU:CD2	1:E:465:LEU:HD12	2.39	0.45
1:G:154:LEU:HD22	1:G:167:THR:CB	2.47	0.45
1:I:24:ASP:HA	1:I:27:LYS:HD3	1.99	0.45
1:I:438:ALA:O	1:I:441:ALA:HB3	2.17	0.45
1:I:508:ILE:HG22	1:I:509:LYS:H	1.81	0.45
1:J:326:GLU:HB2	1:J:327:LEU:H	1.62	0.45
1:J:411:LEU:HB3	1:J:423:MET:CE	2.46	0.45
1:J:503:ARG:NH1	1:N:158:LEU:HD22	2.31	0.45
1:J:509:LYS:H	1:N:48:LEU:CD1	2.30	0.45
1:K:154:LEU:HD21	1:K:163:LYS:HG3	1.98	0.45
1:K:437:ILE:CG2	1:K:467:MET:SD	3.03	0.45
1:L:61:ILE:HG12	1:L:63:VAL:HG23	1.97	0.45
1:L:133:VAL:HG13	1:L:134:ASP:N	2.32	0.45
1:L:326:GLU:HB2	1:L:327:LEU:H	1.61	0.45
1:L:390:ASP:HB3	1:L:485:GLN:HE22	1.81	0.45
1:M:27:LYS:HB2	1:M:436:ILE:CD1	2.46	0.45
1:N:132:ALA:HB3	1:N:395:TYR:CE2	2.46	0.45
1:N:312:LEU:O	1:N:354:LEU:HD22	2.16	0.45
1:N:486:VAL:HG23	1:N:487:LYS:N	2.32	0.45
1:O:334:LYS:CD	1:O:351:GLY:HA3	2.47	0.45
1:P:508:ILE:HG23	1:P:509:LYS:N	2.32	0.45
1:A:141:LYS:HE2	1:A:144:GLN:HB2	1.98	0.44
1:A:173:ALA:CB	1:A:360:ILE:HD11	2.47	0.44
1:A:277:PHE:O	1:A:298:ALA:HA	2.17	0.44
1:A:437:ILE:HG23	1:A:467:MET:SD	2.57	0.44
1:A:506:ASN:HD21	1:F:39:LEU:HA	1.82	0.44
1:B:1:ALA:H3	1:G:57:ILE:HD11	1.81	0.44
1:B:65:ASN:CG	1:B:66:PRO:HD3	2.42	0.44
1:B:495:ALA:O	1:B:499:GLU:HG3	2.16	0.44
1:C:113:ILE:HG23	1:C:421:VAL:CG1	2.47	0.44
1:C:115:ALA:HA	1:C:504:VAL:HG22	1.93	0.44
1:C:274:ILE:HG23	1:C:296:VAL:CG2	2.47	0.44
1:D:39:LEU:HB2	1:E:510:ALA:CA	2.46	0.44
1:D:485:GLN:NE2	1:D:488:ARG:HH21	2.13	0.44
1:E:117:TRP:O	1:E:120:ALA:HB3	2.17	0.44
1:E:239:PHE:C	1:E:241:SER:H	2.23	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:280:ARG:HG3	1:E:304:PHE:CA	2.47	0.44
1:F:226:ILE:HG12	1:F:278:ILE:HG23	1.99	0.44
1:G:103:LEU:HG	1:G:113:ILE:CD1	2.41	0.44
1:G:334:LYS:CD	1:G:351:GLY:HA3	2.47	0.44
1:G:433:LEU:HB2	1:G:434:PRO:HD3	1.99	0.44
1:H:78:GLN:OE1	1:H:78:GLN:HA	2.17	0.44
1:I:506:ASN:C	1:O:38:ILE:HD13	2.41	0.44
1:J:106:LYS:NZ	1:J:421:VAL:HG11	2.33	0.44
1:J:226:ILE:O	1:J:329:LYS:HE3	2.17	0.44
1:J:313:VAL:HG13	1:J:352:VAL:HB	1.98	0.44
1:K:61:ILE:HG13	1:K:62:GLY:N	2.32	0.44
1:K:504:VAL:CG1	1:K:507:ILE:HG23	2.46	0.44
1:L:211:ILE:HG22	1:L:288:GLU:OE1	2.17	0.44
1:N:9:GLU:OE2	1:N:507:ILE:HG22	2.16	0.44
1:N:399:CYS:SG	1:N:464:GLY:CA	3.03	0.44
1:O:112:THR:HG21	1:O:418:LYS:HG2	1.99	0.44
1:O:159:LEU:C	1:O:161:HIS:H	2.24	0.44
1:P:103:LEU:HG	1:P:113:ILE:HD13	1.98	0.44
1:P:106:LYS:O	1:P:108:ILE:HG12	2.18	0.44
1:A:37:LYS:CD	1:C:512:PRO:HD3	2.46	0.44
1:A:158:LEU:CD1	1:C:501:ILE:HG21	2.47	0.44
1:A:236:ILE:HG23	1:A:238:ILE:H	1.82	0.44
1:A:334:LYS:HD3	1:A:335:LEU:CB	2.47	0.44
1:B:128:LEU:HG	1:B:488:ARG:CG	2.47	0.44
1:B:150:ALA:HB1	1:B:167:THR:OG1	2.18	0.44
1:C:114:ILE:HG12	1:C:506:ASN:CB	2.47	0.44
1:C:154:LEU:O	1:C:157:LYS:HB2	2.17	0.44
1:C:325:PRO:O	1:C:326:GLU:HG3	2.16	0.44
1:D:17:ILE:O	1:D:20:ILE:HG22	2.17	0.44
1:D:45:ASP:O	1:D:46:ALA:HB3	2.17	0.44
1:D:112:THR:HG22	1:D:418:LYS:HE2	1.99	0.44
1:D:185:ALA:HA	1:D:309:ARG:CD	2.44	0.44
1:D:215:GLN:HG3	1:D:292:GLY:HA2	1.99	0.44
1:D:225:LEU:HD11	1:D:324:HIS:ND1	2.31	0.44
1:F:32:PRO:HA	1:F:155:SER:HB3	1.99	0.44
1:G:37:LYS:O	1:G:50:VAL:HA	2.18	0.44
1:G:44:ARG:HG3	1:G:44:ARG:O	2.16	0.44
1:G:163:LYS:HD2	1:G:166:PHE:CD1	2.52	0.44
1:H:175:LEU:HA	1:H:178:LYS:HE2	1.99	0.44
1:H:312:LEU:HD13	1:H:312:LEU:C	2.42	0.44
1:I:185:ALA:HA	1:I:309:ARG:CD	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:207:LEU:O	1:I:347:ILE:HG22	2.17	0.44
1:J:211:ILE:HD13	1:J:215:GLN:CB	2.48	0.44
1:J:475:MET:HG3	1:J:480:ILE:O	2.18	0.44
1:K:154:LEU:HD21	1:K:167:THR:HB	1.97	0.44
1:K:207:LEU:HD22	1:K:208:ASP:H	1.82	0.44
1:L:19:ALA:HB3	1:L:97:LEU:HD22	1.99	0.44
1:L:74:MET:HE3	1:P:367:GLN:HB3	1.99	0.44
1:L:324:HIS:HB2	1:L:329:LYS:HE2	1.98	0.44
1:N:219:ILE:HD12	1:N:275:ASN:HB3	1.99	0.44
1:A:174:VAL:HA	1:A:177:LEU:HG	1.98	0.44
1:A:247:SER:C	1:A:249:ALA:H	2.26	0.44
1:A:442:GLY:HA2	1:C:111:GLN:HB3	1.98	0.44
1:B:215:GLN:HE21	1:B:292:GLY:N	2.16	0.44
1:B:310:LEU:O	1:B:313:VAL:HB	2.17	0.44
1:C:176:ARG:HH22	1:C:201:LEU:HD21	1.82	0.44
1:D:133:VAL:HG12	1:D:394:VAL:HA	1.95	0.44
1:D:403:LEU:HD22	1:D:461:THR:HG22	2.00	0.44
1:E:244:ARG:HG2	1:E:245:VAL:N	2.32	0.44
1:E:414:ARG:HA	1:E:414:ARG:HH11	1.82	0.44
1:E:452:LEU:HD11	1:E:456:HIS:CE1	2.51	0.44
1:F:412:ALA:HB1	1:F:424:GLU:HB3	1.98	0.44
1:G:32:PRO:HD2	1:G:467:MET:CE	2.46	0.44
1:G:154:LEU:HD21	1:G:163:LYS:NZ	2.32	0.44
1:G:226:ILE:HD12	1:G:317:GLU:HG3	1.99	0.44
1:H:108:ILE:CG1	1:H:109:HIS:N	2.79	0.44
1:I:171:VAL:O	1:I:175:LEU:HG	2.16	0.44
1:I:226:ILE:HA	1:I:278:ILE:O	2.17	0.44
1:J:152:THR:HA	1:J:155:SER:OG	2.17	0.44
1:K:58:LEU:HB3	1:K:72:VAL:HG11	1.98	0.44
1:K:185:ALA:HB1	1:K:357:ALA:CB	2.47	0.44
1:K:321:THR:O	1:K:323:ASP:N	2.51	0.44
1:L:390:ASP:CB	1:L:485:GLN:HE22	2.29	0.44
1:L:431:ARG:O	1:L:434:PRO:HD2	2.17	0.44
1:M:103:LEU:CD2	1:M:113:ILE:HG21	2.46	0.44
1:M:452:LEU:HD11	1:M:456:HIS:CE1	2.52	0.44
1:N:92:LEU:CD2	1:N:433:LEU:HD11	2.36	0.44
1:N:206:LEU:HD13	1:N:206:LEU:C	2.43	0.44
1:N:367:GLN:O	1:N:370:LEU:HB3	2.18	0.44
1:O:176:ARG:NE	1:O:358:CYS:HB2	2.33	0.44
1:P:226:ILE:HD13	1:P:307:VAL:HG13	2.00	0.44
1:P:262:MET:HE1	1:P:286:TYR:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:210:LYS:HE2	1:A:212:GLY:O	2.16	0.44
1:A:365:ALA:O	1:A:366:THR:HG23	2.16	0.44
1:B:146:LEU:HB2	1:B:171:VAL:HG21	1.99	0.44
1:C:114:ILE:HG23	1:C:505:ASP:CA	2.47	0.44
1:C:196:LEU:HD13	1:C:196:LEU:C	2.43	0.44
1:C:341:ILE:HG23	1:C:363:ARG:CZ	2.47	0.44
1:D:106:LYS:HE3	1:K:446:ALA:HB1	1.99	0.44
1:D:196:LEU:HD13	1:D:196:LEU:C	2.43	0.44
1:D:219:ILE:CD1	1:D:276:CYS:HB2	2.48	0.44
1:E:59:LYS:HE3	1:E:73:ASP:HA	1.99	0.44
1:E:186:ILE:HD12	1:E:381:LEU:HD21	1.98	0.44
1:F:244:ARG:NH2	1:F:246:ASP:HA	2.32	0.44
1:F:274:ILE:O	1:F:274:ILE:HG23	2.17	0.44
1:G:31:GLY:H	1:G:156:SER:HA	1.81	0.44
1:G:159:LEU:CD2	1:G:163:LYS:HG2	2.48	0.44
1:G:187:HIS:O	1:G:359:THR:HG23	2.18	0.44
1:H:7:ARG:N	1:H:10:THR:HG23	2.32	0.44
1:J:40:LEU:HD13	1:J:40:LEU:C	2.42	0.44
1:J:404:MET:O	1:J:408:VAL:HG22	2.18	0.44
1:J:439:ASP:CA	1:K:109:HIS:HE2	2.29	0.44
1:J:478:LEU:CD1	1:J:480:ILE:HD12	2.48	0.44
1:K:141:LYS:HE2	1:K:144:GLN:HB2	2.00	0.44
1:K:159:LEU:HB3	1:K:163:LYS:CG	2.48	0.44
1:K:161:HIS:CG	1:K:162:HIS:H	2.36	0.44
1:L:114:ILE:HG12	1:P:35:MET:HE2	1.99	0.44
1:L:116:GLY:O	1:L:119:GLU:HB2	2.16	0.44
1:L:368:GLN:OE1	1:M:508:ILE:HD12	2.17	0.44
1:L:431:ARG:HA	1:L:431:ARG:CZ	2.48	0.44
1:L:506:ASN:HB3	1:P:25:LEU:HD11	1.99	0.44
1:M:133:VAL:HG12	1:M:394:VAL:HG12	2.00	0.44
1:M:225:LEU:HD12	1:M:226:ILE:N	2.33	0.44
1:M:287:PRO:O	1:M:291:PHE:HD1	1.99	0.44
1:N:126:GLN:HG3	1:N:130:ASN:ND2	2.32	0.44
1:N:150:ALA:O	1:N:154:LEU:HB2	2.18	0.44
1:N:215:GLN:HA	1:N:292:GLY:HA2	2.00	0.44
1:P:216:PRO:HG2	1:P:295:GLY:CA	2.44	0.44
1:P:485:GLN:HE21	1:P:488:ARG:NH2	2.14	0.44
1:A:28:SER:HB3	1:A:37:LYS:NZ	2.32	0.44
1:B:99:GLU:O	1:B:102:SER:HB2	2.17	0.44
1:B:219:ILE:O	1:B:220:GLU:HB2	2.17	0.44
1:B:504:VAL:HG11	1:B:507:ILE:HD12	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:110:PRO:O	1:C:114:ILE:CG1	2.63	0.44
1:D:26:VAL:HG23	1:D:91:VAL:HG22	1.99	0.44
1:D:29:THR:O	1:D:156:SER:HB2	2.18	0.44
1:D:53:ASP:HB2	1:D:157:LYS:NZ	2.31	0.44
1:D:108:ILE:HA	1:D:108:ILE:HD13	1.65	0.44
1:D:128:LEU:HD22	1:D:484:PHE:CE1	2.53	0.44
1:F:312:LEU:O	1:F:354:LEU:HD13	2.18	0.44
1:F:496:GLU:HG2	1:F:499:GLU:OE1	2.18	0.44
1:G:269:ILE:CG2	1:G:274:ILE:HG21	2.46	0.44
1:H:176:ARG:CZ	1:H:358:CYS:HB2	2.47	0.44
1:I:36:ASP:CG	1:I:52:ASN:HD22	2.25	0.44
1:I:398:GLY:HA2	1:I:401:GLU:CD	2.42	0.44
1:J:226:ILE:HG12	1:J:278:ILE:CG2	2.46	0.44
1:K:367:GLN:HB3	1:K:369:ILE:HB	1.99	0.44
1:L:82:VAL:CG1	1:L:486:VAL:HA	2.48	0.44
1:L:139:GLU:O	1:L:140:VAL:HB	2.16	0.44
1:L:185:ALA:CB	1:L:357:ALA:HB1	2.48	0.44
1:M:32:PRO:HA	1:M:155:SER:O	2.18	0.44
1:N:124:ALA:CA	1:N:491:LEU:HD13	2.44	0.44
1:A:219:ILE:HD12	1:A:275:ASN:HB3	1.99	0.44
1:A:433:LEU:HA	1:A:436:ILE:HG22	1.99	0.44
1:B:114:ILE:O	1:B:117:TRP:HB2	2.17	0.44
1:C:40:LEU:H	1:H:3:ALA:CB	2.30	0.44
1:C:508:ILE:HG23	1:C:509:LYS:N	2.28	0.44
1:D:58:LEU:HD12	1:D:72:VAL:HG21	2.00	0.44
1:D:324:HIS:HB2	1:D:329:LYS:HZ1	1.82	0.44
1:E:127:ALA:HB2	1:E:404:MET:CG	2.47	0.44
1:E:131:SER:O	1:E:132:ALA:C	2.60	0.44
1:E:222:ALA:HA	1:E:275:ASN:CG	2.42	0.44
1:F:111:GLN:HA	1:F:114:ILE:HG12	1.99	0.44
1:F:323:ASP:C	1:F:325:PRO:HD2	2.43	0.44
1:F:450:ALA:CA	1:O:417:GLY:HA3	2.48	0.44
1:F:450:ALA:HB1	1:O:417:GLY:H	1.83	0.44
1:G:38:ILE:HG22	1:G:50:VAL:HB	1.99	0.44
1:G:265:LYS:HZ2	1:G:287:PRO:HG3	1.81	0.44
1:G:487:LYS:HA	1:G:490:VAL:HG12	1.98	0.44
1:H:206:LEU:HD23	1:H:348:HIS:CD2	2.53	0.44
1:H:313:VAL:HG13	1:H:352:VAL:HG21	1.99	0.44
1:I:138:ASP:O	1:I:139:GLU:CB	2.66	0.44
1:I:146:LEU:HB2	1:I:171:VAL:CG2	2.45	0.44
1:I:163:LYS:HE3	1:I:376:SER:OG	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:89:VAL:HB	1:J:490:VAL:HG23	1.99	0.44
1:J:405:ALA:HA	1:J:408:VAL:HG22	2.00	0.44
1:K:159:LEU:HB3	1:K:163:LYS:CB	2.48	0.44
1:K:170:ALA:O	1:K:173:ALA:HB3	2.18	0.44
1:L:148:ASN:CA	1:L:480:ILE:HA	2.47	0.44
1:L:261:LYS:O	1:L:265:LYS:HG3	2.18	0.44
1:M:27:LYS:HB2	1:M:436:ILE:HD11	1.99	0.44
1:M:52:ASN:CG	1:M:157:LYS:HG2	2.43	0.44
1:M:82:VAL:HG13	1:M:83:GLY:N	2.32	0.44
1:M:163:LYS:O	1:M:166:PHE:HB2	2.18	0.44
1:M:441:ALA:O	1:O:109:HIS:NE2	2.51	0.44
1:N:26:VAL:HG23	1:N:91:VAL:HG22	1.99	0.44
1:N:82:VAL:HG11	1:N:486:VAL:HG13	1.99	0.44
1:N:221:ASN:HA	1:N:333:CYS:HB2	2.00	0.44
1:N:421:VAL:O	1:N:424:GLU:HG2	2.18	0.44
1:O:39:LEU:HD12	1:O:57:ILE:HG13	1.98	0.44
1:O:69:LYS:HB3	1:O:509:LYS:HE2	2.00	0.44
1:O:335:LEU:HD21	1:O:337:GLU:OE1	2.18	0.44
1:P:173:ALA:O	1:P:176:ARG:HG2	2.17	0.44
1:P:498:ALA:C	1:P:500:VAL:N	2.74	0.44
1:A:89:VAL:HG12	1:A:490:VAL:CG2	2.47	0.44
1:B:38:ILE:O	1:B:38:ILE:HG12	2.17	0.44
1:B:334:LYS:HD3	1:B:335:LEU:N	2.33	0.44
1:C:33:LYS:HB3	1:H:109:HIS:HE1	1.83	0.44
1:C:116:GLY:O	1:C:120:ALA:N	2.47	0.44
1:C:173:ALA:HA	1:C:176:ARG:CZ	2.48	0.44
1:D:95:GLU:O	1:D:98:ARG:HD2	2.17	0.44
1:D:159:LEU:HD23	1:D:163:LYS:HB3	1.99	0.44
1:D:192:LEU:HG	1:D:366:THR:HB	2.00	0.44
1:E:81:GLU:O	1:E:386:GLN:HG3	2.17	0.44
1:E:108:ILE:CB	1:J:446:ALA:HB3	2.33	0.44
1:E:280:ARG:O	1:E:281:GLN:CB	2.66	0.44
1:F:110:PRO:HA	1:F:113:ILE:HD12	2.00	0.44
1:F:143:ARG:HA	1:F:143:ARG:NE	2.33	0.44
1:F:201:LEU:CD2	1:F:360:ILE:HG12	2.48	0.44
1:F:222:ALA:HA	1:F:275:ASN:CG	2.42	0.44
1:G:277:PHE:CE2	1:G:279:ASN:HB2	2.53	0.44
1:G:321:THR:O	1:G:323:ASP:N	2.50	0.44
1:H:143:ARG:HA	1:H:143:ARG:HE	1.83	0.44
1:H:145:ASP:OD1	1:H:171:VAL:HB	2.16	0.44
1:H:216:PRO:HG2	1:H:295:GLY:CA	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:27:LYS:HB2	1:I:436:ILE:CG1	2.47	0.44
1:I:206:LEU:HD21	1:I:346:LEU:HB3	1.99	0.44
1:I:321:THR:O	1:I:323:ASP:N	2.50	0.44
1:I:367:GLN:HA	1:N:70:VAL:HB	2.00	0.44
1:I:381:LEU:C	1:I:381:LEU:HD13	2.42	0.44
1:I:508:ILE:HG12	1:O:38:ILE:CG2	2.48	0.44
1:J:183:LEU:N	1:J:183:LEU:CD1	2.81	0.44
1:J:398:GLY:HA2	1:J:401:GLU:CD	2.43	0.44
1:K:166:PHE:HD2	1:K:362:LEU:HD22	1.82	0.44
1:K:334:LYS:HD3	1:K:351:GLY:HA3	2.00	0.44
1:L:405:ALA:HA	1:L:408:VAL:CG2	2.48	0.44
1:M:57:ILE:HD13	1:M:57:ILE:O	2.18	0.44
1:N:277:PHE:O	1:N:298:ALA:HA	2.18	0.44
1:O:146:LEU:HD11	1:O:150:ALA:CB	2.47	0.44
1:P:313:VAL:HG13	1:P:352:VAL:CB	2.48	0.44
1:P:402:MET:HG2	1:P:431:ARG:HH22	1.82	0.44
1:B:206:LEU:CB	1:B:359:THR:HG21	2.48	0.44
1:B:286:TYR:HB2	1:B:287:PRO:HD3	1.99	0.44
1:B:417:GLY:HA2	1:I:447:ASP:HA	1.95	0.44
1:C:32:PRO:HA	1:C:155:SER:C	2.42	0.44
1:C:146:LEU:HD13	1:C:168:LYS:CA	2.43	0.44
1:C:159:LEU:C	1:C:159:LEU:HD23	2.43	0.44
1:C:280:ARG:HG3	1:C:304:PHE:HB2	1.99	0.44
1:C:438:ALA:CB	1:C:448:LEU:HG	2.47	0.44
1:E:96:LEU:CD2	1:E:117:TRP:CZ2	3.01	0.44
1:E:96:LEU:CD2	1:E:117:TRP:HZ2	2.31	0.44
1:E:174:VAL:HG11	1:E:384:LEU:HB2	2.00	0.44
1:E:177:LEU:CD1	1:E:177:LEU:C	2.91	0.44
1:E:412:ALA:CB	1:E:424:GLU:HB3	2.48	0.44
1:E:448:LEU:HD11	1:E:465:LEU:CD1	2.48	0.44
1:G:108:ILE:HG13	1:N:446:ALA:CB	2.46	0.44
1:H:154:LEU:HD23	1:H:163:LYS:HG3	2.00	0.44
1:H:397:GLY:HA3	1:H:475:MET:HE3	2.00	0.44
1:I:68:ALA:O	1:I:72:VAL:HG23	2.17	0.44
1:I:185:ALA:HB3	1:I:357:ALA:CB	2.48	0.44
1:I:208:ASP:O	1:I:209:LYS:HG3	2.18	0.44
1:I:211:ILE:HG12	1:I:298:ALA:H	1.83	0.44
1:I:258:GLU:OE2	1:I:284:TYR:HE2	2.01	0.44
1:J:445:SER:O	1:J:449:VAL:HG23	2.17	0.44
1:J:447:ASP:O	1:J:450:ALA:HB3	2.18	0.44
1:K:215:GLN:HG3	1:K:292:GLY:HA2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:448:LEU:HA	1:K:451:GLN:NE2	2.32	0.44
1:L:128:LEU:HD21	1:L:488:ARG:HA	1.98	0.44
1:L:415:THR:HB	1:L:419:GLU:OE1	2.17	0.44
1:N:12:ARG:HG3	1:N:501:ILE:CD1	2.47	0.44
1:N:59:LYS:HE2	1:N:76:ARG:CB	2.46	0.44
1:N:203:GLU:O	1:N:352:VAL:HG13	2.17	0.44
1:O:160:THR:O	1:O:160:THR:HG22	2.18	0.44
1:P:367:GLN:CD	1:P:369:ILE:HB	2.43	0.44
1:A:207:LEU:O	1:A:208:ASP:CB	2.66	0.44
1:C:92:LEU:CD1	1:C:433:LEU:HD21	2.48	0.44
1:C:258:GLU:OE2	1:C:284:TYR:CE2	2.67	0.44
1:C:326:GLU:HB2	1:C:327:LEU:H	1.60	0.44
1:C:402:MET:HE3	1:C:453:ARG:CG	2.45	0.44
1:D:5:GLU:HG3	1:D:6:GLU:H	1.83	0.44
1:D:26:VAL:CG2	1:D:91:VAL:HG22	2.48	0.44
1:D:146:LEU:CD2	1:D:150:ALA:HB3	2.33	0.44
1:D:438:ALA:HB2	1:D:448:LEU:CD1	2.48	0.44
1:E:309:ARG:O	1:E:313:VAL:HG23	2.18	0.44
1:E:446:ALA:HB2	1:J:106:LYS:HG2	1.99	0.44
1:F:50:VAL:HG13	1:F:375:ARG:HH22	1.82	0.44
1:G:395:TYR:HE1	1:G:476:SER:OG	2.01	0.44
1:H:226:ILE:HD11	1:H:310:LEU:HD12	1.99	0.44
1:H:316:GLY:C	1:H:317:GLU:HG2	2.42	0.44
1:I:121:THR:O	1:I:124:ALA:HB3	2.18	0.44
1:J:157:LYS:CE	1:J:376:SER:HA	2.48	0.44
1:J:438:ALA:HB2	1:J:448:LEU:CD1	2.48	0.44
1:K:133:VAL:HG11	1:K:394:VAL:HG12	2.00	0.44
1:L:171:VAL:O	1:L:175:LEU:HG	2.18	0.44
1:M:408:VAL:HG23	1:M:427:ALA:HB1	2.00	0.44
1:N:367:GLN:HG2	1:N:369:ILE:HB	2.00	0.44
1:P:257:ALA:O	1:P:261:LYS:HD2	2.17	0.44
1:P:497:ALA:O	1:P:500:VAL:HG23	2.18	0.44
1:A:166:PHE:CE1	1:A:198:ASP:CB	3.00	0.43
1:A:365:ALA:C	1:A:366:THR:HG23	2.42	0.43
1:B:277:PHE:O	1:B:298:ALA:HA	2.18	0.43
1:C:23:GLY:O	1:C:27:LYS:HB2	2.18	0.43
1:C:159:LEU:HD23	1:C:160:THR:N	2.33	0.43
1:C:188:VAL:HA	1:C:360:ILE:O	2.17	0.43
1:C:215:GLN:HG3	1:C:292:GLY:HA2	1.99	0.43
1:C:428:LYS:NZ	1:L:428:LYS:HE2	2.33	0.43
1:E:117:TRP:HA	1:E:120:ALA:CB	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:166:PHE:CD2	1:E:362:LEU:HD22	2.52	0.43
1:E:193:GLY:HA3	1:E:343:GLU:OE2	2.17	0.43
1:E:207:LEU:HD13	1:E:208:ASP:N	2.33	0.43
1:E:283:ILE:CG2	1:E:300:GLU:HG3	2.43	0.43
1:F:392:ARG:C	1:F:484:PHE:HB2	2.43	0.43
1:I:99:GLU:O	1:I:102:SER:HB2	2.17	0.43
1:I:159:LEU:HG	1:I:163:LYS:CD	2.47	0.43
1:I:216:PRO:HG2	1:I:295:GLY:CA	2.46	0.43
1:I:312:LEU:O	1:I:354:LEU:HD22	2.18	0.43
1:I:316:GLY:O	1:I:330:LEU:HB2	2.18	0.43
1:J:52:ASN:N	1:J:375:ARG:CZ	2.81	0.43
1:J:126:GLN:HE22	1:J:411:LEU:HD11	1.83	0.43
1:J:408:VAL:HG23	1:J:427:ALA:HB1	2.00	0.43
1:K:451:GLN:NE2	1:K:471:THR:HA	2.32	0.43
1:M:17:ILE:HD13	1:M:17:ILE:HA	1.90	0.43
1:M:32:PRO:CG	1:M:155:SER:HB3	2.48	0.43
1:M:284:TYR:CE2	1:M:286:TYR:HD1	2.35	0.43
1:M:388:VAL:HG23	1:M:389:LYS:N	2.33	0.43
1:N:7:ARG:O	1:N:8:ALA:HB2	2.18	0.43
1:N:102:SER:O	1:N:105:ALA:HB3	2.18	0.43
1:N:451:GLN:NE2	1:N:471:THR:HA	2.32	0.43
1:O:280:ARG:O	1:O:281:GLN:HB3	2.18	0.43
1:O:280:ARG:HG3	1:O:304:PHE:CA	2.48	0.43
1:O:280:ARG:HG3	1:O:304:PHE:HB2	1.99	0.43
1:O:404:MET:O	1:O:408:VAL:HG13	2.17	0.43
1:O:421:VAL:O	1:O:424:GLU:HG2	2.18	0.43
1:A:431:ARG:CZ	1:A:431:ARG:HA	2.48	0.43
1:B:115:ALA:HB2	1:G:33:LYS:NZ	2.33	0.43
1:B:313:VAL:HG12	1:B:349:PHE:HE1	1.83	0.43
1:B:324:HIS:HB2	1:B:329:LYS:HE2	1.99	0.43
1:C:78:GLN:O	1:C:83:GLY:N	2.50	0.43
1:C:365:ALA:O	1:C:366:THR:CB	2.65	0.43
1:C:462:THR:O	1:C:475:MET:HB3	2.19	0.43
1:D:321:THR:O	1:D:323:ASP:N	2.51	0.43
1:E:286:TYR:HB2	1:E:287:PRO:HD3	2.00	0.43
1:E:450:ALA:C	1:J:417:GLY:HA3	2.42	0.43
1:F:38:ILE:HG22	1:F:50:VAL:CB	2.29	0.43
1:G:28:SER:O	1:G:34:GLY:HA2	2.19	0.43
1:G:486:VAL:HG23	1:G:487:LYS:HG2	2.00	0.43
1:H:146:LEU:CG	1:H:147:MET:H	2.30	0.43
1:I:50:VAL:HG13	1:I:375:ARG:HH21	1.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:214:ASN:O	1:I:215:GLN:HB2	2.18	0.43
1:J:38:ILE:HB	1:K:509:LYS:HD3	1.99	0.43
1:J:166:PHE:CE1	1:J:198:ASP:HB3	2.52	0.43
1:J:263:LYS:HA	1:J:266:VAL:HG12	1.99	0.43
1:J:402:MET:HE3	1:J:453:ARG:CG	2.44	0.43
1:K:2:GLY:O	1:K:3:ALA:HB2	2.19	0.43
1:K:52:ASN:H	1:K:375:ARG:CD	2.31	0.43
1:K:143:ARG:HA	1:K:143:ARG:HE	1.81	0.43
1:K:394:VAL:HG22	1:K:482:GLU:HB2	2.00	0.43
1:L:206:LEU:HD11	1:L:346:LEU:HD21	1.99	0.43
1:L:321:THR:O	1:L:323:ASP:N	2.51	0.43
1:M:404:MET:HE3	1:M:430:LEU:CG	2.48	0.43
1:N:171:VAL:CA	1:N:174:VAL:HG22	2.48	0.43
1:N:186:ILE:HD13	1:N:381:LEU:HD13	1.98	0.43
1:N:498:ALA:O	1:N:501:ILE:HB	2.17	0.43
1:O:222:ALA:HA	1:O:275:ASN:CG	2.43	0.43
1:O:443:TYR:CD1	1:O:470:GLY:HA3	2.53	0.43
1:P:274:ILE:HG23	1:P:274:ILE:O	2.18	0.43
1:P:373:ALA:O	1:P:377:LEU:CB	2.66	0.43
1:A:321:THR:O	1:A:323:ASP:N	2.52	0.43
1:A:434:PRO:HB3	1:A:452:LEU:CD2	2.48	0.43
1:B:448:LEU:HD21	1:B:465:LEU:CD1	2.47	0.43
1:D:6:GLU:HB3	1:D:11:ALA:CB	2.49	0.43
1:D:181:GLY:HA3	1:D:356:GLU:OE2	2.17	0.43
1:D:431:ARG:HA	1:D:431:ARG:NE	2.33	0.43
1:E:39:LEU:HD13	1:G:512:PRO:CB	2.47	0.43
1:E:121:THR:O	1:E:125:ARG:CB	2.66	0.43
1:E:311:ALA:O	1:E:316:GLY:N	2.52	0.43
1:F:150:ALA:HB2	1:F:384:LEU:HD21	2.00	0.43
1:F:321:THR:O	1:F:323:ASP:N	2.50	0.43
1:F:334:LYS:CB	1:F:351:GLY:HA3	2.48	0.43
1:F:433:LEU:HA	1:F:436:ILE:HG22	2.00	0.43
1:G:188:VAL:CG1	1:G:377:LEU:HD22	2.43	0.43
1:G:280:ARG:O	1:G:281:GLN:HB3	2.17	0.43
1:H:191:LYS:CE	1:H:341:ILE:HB	2.48	0.43
1:H:191:LYS:NZ	1:H:346:LEU:HD22	2.21	0.43
1:H:433:LEU:C	1:H:436:ILE:HG22	2.43	0.43
1:H:433:LEU:CA	1:H:436:ILE:HG22	2.49	0.43
1:I:61:ILE:HG23	1:N:2:GLY:HA3	2.00	0.43
1:I:266:VAL:CB	1:I:290:LEU:HD21	2.35	0.43
1:J:421:VAL:O	1:J:424:GLU:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:509:LYS:H	1:N:48:LEU:HD11	1.83	0.43
1:K:32:PRO:HA	1:K:155:SER:HA	2.00	0.43
1:K:146:LEU:HB2	1:K:171:VAL:HG22	1.99	0.43
1:K:506:ASN:C	1:K:507:ILE:HG12	2.43	0.43
1:L:185:ALA:HA	1:L:309:ARG:CD	2.44	0.43
1:L:433:LEU:HA	1:L:436:ILE:HG22	2.00	0.43
1:L:485:GLN:HB3	1:L:489:GLN:NE2	2.34	0.43
1:N:207:LEU:O	1:N:347:ILE:HG22	2.18	0.43
1:N:226:ILE:HB	1:N:317:GLU:OE2	2.18	0.43
1:N:324:HIS:HB2	1:N:329:LYS:CE	2.48	0.43
1:N:404:MET:CE	1:N:430:LEU:HG	2.48	0.43
1:O:103:LEU:CD2	1:O:113:ILE:HD13	2.48	0.43
1:O:216:PRO:CG	1:O:295:GLY:HA2	2.48	0.43
1:O:428:LYS:HB2	1:O:428:LYS:HE3	1.90	0.43
1:P:17:ILE:O	1:P:20:ILE:HG22	2.18	0.43
1:P:133:VAL:HG12	1:P:394:VAL:HG12	1.99	0.43
1:P:206:LEU:HD23	1:P:206:LEU:C	2.43	0.43
1:A:171:VAL:HA	1:A:174:VAL:HG22	2.01	0.43
1:B:268:ARG:O	1:B:271:LYS:HG2	2.18	0.43
1:B:505:ASP:O	1:B:506:ASN:C	2.60	0.43
1:C:206:LEU:HD21	1:C:346:LEU:HD23	2.00	0.43
1:D:216:PRO:HG2	1:D:295:GLY:HA2	1.98	0.43
1:E:39:LEU:O	1:E:48:LEU:HA	2.18	0.43
1:E:402:MET:HE3	1:E:453:ARG:CG	2.45	0.43
1:E:450:ALA:HA	1:J:417:GLY:CA	2.46	0.43
1:F:46:ALA:O	1:F:47:SER:CB	2.65	0.43
1:G:448:LEU:HA	1:G:451:GLN:HE21	1.82	0.43
1:H:166:PHE:CE2	1:H:362:LEU:HB3	2.53	0.43
1:H:190:LYS:HA	1:H:362:LEU:O	2.18	0.43
1:I:266:VAL:HB	1:I:290:LEU:CD2	2.36	0.43
1:I:376:SER:O	1:I:379:ASP:HB2	2.18	0.43
1:J:57:ILE:HD13	1:J:57:ILE:O	2.18	0.43
1:J:171:VAL:HA	1:J:174:VAL:HG12	1.99	0.43
1:K:189:ILE:HG22	1:K:190:LYS:N	2.34	0.43
1:K:372:GLU:O	1:K:375:ARG:HG2	2.17	0.43
1:L:484:PHE:HE2	1:L:488:ARG:HD3	1.82	0.43
1:M:32:PRO:HG2	1:M:467:MET:CE	2.48	0.43
1:M:191:LYS:HE3	1:M:346:LEU:HD11	2.01	0.43
1:M:402:MET:CE	1:M:453:ARG:HG2	2.43	0.43
1:O:57:ILE:HG23	1:O:58:LEU:HD23	1.99	0.43
1:O:170:ALA:O	1:O:173:ALA:HB3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:176:ARG:HH22	1:O:360:ILE:CG1	2.32	0.43
1:P:159:LEU:HD23	1:P:163:LYS:HB3	2.01	0.43
1:P:261:LYS:O	1:P:265:LYS:HG3	2.18	0.43
1:P:312:LEU:O	1:P:354:LEU:HD22	2.19	0.43
1:A:51:THR:HG21	1:A:56:THR:HB	2.00	0.43
1:A:89:VAL:HG12	1:A:490:VAL:HG21	2.01	0.43
1:A:127:ALA:HB3	1:A:491:LEU:CD1	2.48	0.43
1:A:313:VAL:O	1:A:352:VAL:HG23	2.18	0.43
1:A:421:VAL:HA	1:M:453:ARG:HH22	1.83	0.43
1:B:261:LYS:O	1:B:264:GLU:HG2	2.18	0.43
1:C:28:SER:HB2	1:C:35:MET:HB2	2.01	0.43
1:C:108:ILE:HG21	1:M:109:HIS:CD2	2.54	0.43
1:C:162:HIS:HB3	1:C:198:ASP:OD2	2.19	0.43
1:C:442:GLY:CA	1:H:109:HIS:H	2.30	0.43
1:D:208:ASP:CG	1:D:208:ASP:O	2.61	0.43
1:E:40:LEU:HB3	1:G:509:LYS:HD2	1.99	0.43
1:E:154:LEU:CD2	1:E:167:THR:HB	2.47	0.43
1:E:372:GLU:HA	1:E:375:ARG:NH2	2.33	0.43
1:E:445:SER:O	1:E:449:VAL:HG23	2.17	0.43
1:E:450:ALA:O	1:J:416:PRO:O	2.36	0.43
1:G:369:ILE:O	1:G:372:GLU:CB	2.66	0.43
1:H:157:LYS:H	1:H:157:LYS:HG2	1.51	0.43
1:H:223:LYS:HD3	1:H:272:HIS:CD2	2.53	0.43
1:H:401:GLU:HG2	1:H:433:LEU:HD13	2.01	0.43
1:I:35:MET:HE2	1:N:504:VAL:CG1	2.33	0.43
1:I:232:ASP:HA	1:I:284:TYR:HB2	2.00	0.43
1:I:475:MET:SD	1:I:480:ILE:CB	3.02	0.43
1:J:163:LYS:HA	1:J:166:PHE:HD1	1.74	0.43
1:J:386:GLN:HB3	1:J:485:GLN:HE22	1.83	0.43
1:K:43:GLY:O	1:K:44:ARG:CB	2.66	0.43
1:K:108:ILE:HG22	1:K:109:HIS:N	2.33	0.43
1:L:261:LYS:O	1:L:264:GLU:HG2	2.18	0.43
1:L:394:VAL:HG23	1:L:482:GLU:HB2	2.01	0.43
1:L:443:TYR:HA	1:M:109:HIS:CE1	2.53	0.43
1:M:103:LEU:HG	1:M:113:ILE:HD12	2.01	0.43
1:M:263:LYS:O	1:M:267:GLU:HG2	2.19	0.43
1:M:326:GLU:HB2	1:M:327:LEU:H	1.62	0.43
1:N:57:ILE:HD13	1:N:57:ILE:O	2.17	0.43
1:N:155:SER:CB	1:N:467:MET:HE1	2.49	0.43
1:O:44:ARG:CG	1:O:44:ARG:NH1	2.79	0.43
1:O:103:LEU:O	1:O:106:LYS:HB3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:119:GLU:OE2	1:O:419:GLU:HG2	2.18	0.43
1:O:123:ALA:C	1:O:491:LEU:HD13	2.43	0.43
1:O:163:LYS:HA	1:O:166:PHE:HD1	1.79	0.43
1:O:174:VAL:HG12	1:O:381:LEU:HD22	2.01	0.43
1:P:280:ARG:HG3	1:P:304:PHE:HB2	2.00	0.43
1:P:284:TYR:CE2	1:P:286:TYR:CD1	3.06	0.43
1:P:337:GLU:HG3	1:P:339:VAL:HG23	2.01	0.43
1:A:313:VAL:HG13	1:A:352:VAL:CG2	2.49	0.43
1:A:381:LEU:C	1:A:381:LEU:HD13	2.43	0.43
1:B:89:VAL:HG12	1:B:490:VAL:HG11	2.01	0.43
1:B:159:LEU:HD11	1:B:376:SER:HB2	1.99	0.43
1:C:173:ALA:CB	1:C:360:ILE:HD11	2.47	0.43
1:D:341:ILE:HB	1:D:363:ARG:HH12	1.83	0.43
1:E:397:GLY:HA3	1:E:475:MET:HE3	2.01	0.43
1:G:57:ILE:HG23	1:G:58:LEU:HD22	2.01	0.43
1:G:154:LEU:HD21	1:G:163:LYS:HZ1	1.83	0.43
1:G:286:TYR:HB2	1:G:287:PRO:HD3	2.01	0.43
1:G:379:ASP:O	1:G:383:VAL:HG23	2.19	0.43
1:H:74:MET:HE1	1:H:496:GLU:HB2	2.01	0.43
1:H:100:ALA:HA	1:H:103:LEU:HB2	2.00	0.43
1:H:114:ILE:CG1	1:H:503:ARG:HH22	2.29	0.43
1:I:163:LYS:HG3	1:I:166:PHE:HB2	2.00	0.43
1:J:33:LYS:HB2	1:J:441:ALA:HA	2.00	0.43
1:J:103:LEU:CG	1:J:113:ILE:HD13	2.44	0.43
1:J:512:PRO:O	1:J:513:ARG:CB	2.67	0.43
1:K:32:PRO:HB2	1:K:33:LYS:HD2	2.01	0.43
1:K:40:LEU:HD22	1:K:41:SER:N	2.34	0.43
1:K:53:ASP:H	1:K:375:ARG:HD2	1.83	0.43
1:L:41:SER:HB3	1:L:45:ASP:OD2	2.19	0.43
1:L:50:VAL:O	1:L:375:ARG:NH1	2.52	0.43
1:L:159:LEU:CG	1:L:163:LYS:HD3	2.47	0.43
1:L:283:ILE:HG22	1:L:300:GLU:CG	2.38	0.43
1:L:453:ARG:HH11	1:L:453:ARG:HD3	1.70	0.43
1:M:163:LYS:HD2	1:M:166:PHE:HB2	1.99	0.43
1:N:30:LEU:HD22	1:N:436:ILE:HG12	2.00	0.43
1:N:58:LEU:CB	1:N:72:VAL:HG13	2.45	0.43
1:N:312:LEU:HD12	1:N:357:ALA:HB2	2.00	0.43
1:O:22:ILE:HD12	1:O:90:THR:CG2	2.48	0.43
1:O:415:THR:HB	1:O:416:PRO:HD2	2.00	0.43
1:P:176:ARG:CZ	1:P:358:CYS:HB2	2.48	0.43
1:A:27:LYS:HA	1:A:436:ILE:HD11	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:393:THR:HG22	1:A:483:SER:HA	2.01	0.43
1:C:51:THR:HA	1:C:375:ARG:HB2	2.00	0.43
1:C:114:ILE:HG23	1:C:505:ASP:N	2.34	0.43
1:C:133:VAL:HG11	1:C:392:ARG:HG3	2.01	0.43
1:C:411:LEU:HB3	1:C:423:MET:HE2	2.00	0.43
1:E:82:VAL:HG13	1:E:486:VAL:HG12	2.01	0.43
1:F:139:GLU:O	1:F:141:LYS:N	2.48	0.43
1:G:6:GLU:HA	1:G:10:THR:OG1	2.18	0.43
1:G:40:LEU:HD13	1:G:48:LEU:HG	2.01	0.43
1:G:177:LEU:HD11	1:G:183:LEU:CD1	2.49	0.43
1:I:160:THR:CG2	1:I:164:ASP:HB3	2.49	0.43
1:I:277:PHE:CE2	1:I:279:ASN:HB2	2.53	0.43
1:J:96:LEU:CD1	1:J:97:LEU:HD12	2.47	0.43
1:J:210:LYS:HE2	1:J:212:GLY:O	2.18	0.43
1:J:324:HIS:HB2	1:J:329:LYS:HZ3	1.83	0.43
1:K:79:ASP:HA	1:K:83:GLY:HA2	1.99	0.43
1:K:140:VAL:HG12	1:K:141:LYS:N	2.33	0.43
1:K:317:GLU:HB2	1:K:329:LYS:HD3	2.01	0.43
1:K:343:GLU:HG3	1:K:344:ASP:H	1.79	0.43
1:L:77:VAL:HG21	1:P:366:THR:HB	1.99	0.43
1:L:95:GLU:OE2	1:L:429:ALA:HB1	2.19	0.43
1:M:59:LYS:HE3	1:M:73:ASP:CA	2.49	0.43
1:M:166:PHE:CE1	1:M:198:ASP:HB3	2.54	0.43
1:N:109:HIS:NE2	1:N:111:GLN:HB2	2.34	0.43
1:O:16:PHE:HA	1:O:97:LEU:HD23	2.01	0.43
1:O:109:HIS:CD2	1:O:109:HIS:C	2.97	0.43
1:O:135:HIS:C	1:O:135:HIS:ND1	2.76	0.43
1:O:171:VAL:HA	1:O:174:VAL:HG22	2.01	0.43
1:O:203:GLU:CG	1:O:350:SER:HB2	2.48	0.43
1:P:38:ILE:HG22	1:P:50:VAL:HB	1.99	0.43
1:A:141:LYS:HD2	1:A:142:PHE:H	1.84	0.43
1:A:297:MET:CE	1:A:347:ILE:HD11	2.49	0.43
1:A:341:ILE:C	1:A:343:GLU:H	2.26	0.43
1:B:341:ILE:C	1:B:343:GLU:H	2.27	0.43
1:C:31:GLY:O	1:C:33:LYS:N	2.52	0.43
1:C:219:ILE:HB	1:C:275:ASN:HB3	2.00	0.43
1:C:317:GLU:CB	1:C:329:LYS:HA	2.48	0.43
1:D:61:ILE:HD11	1:D:63:VAL:CG1	2.47	0.43
1:D:65:ASN:HB2	1:D:66:PRO:HD3	2.01	0.43
1:D:117:TRP:CD1	1:D:495:ALA:CB	2.96	0.43
1:D:192:LEU:O	1:D:366:THR:HG22	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:448:LEU:HA	1:E:451:GLN:HE21	1.84	0.43
1:F:15:SER:HB3	1:F:501:ILE:HG23	2.00	0.43
1:G:59:LYS:HE3	1:G:76:ARG:HD3	2.00	0.43
1:G:68:ALA:O	1:G:72:VAL:HG23	2.19	0.43
1:G:313:VAL:HG13	1:G:352:VAL:CB	2.48	0.43
1:I:82:VAL:HG13	1:I:83:GLY:N	2.33	0.43
1:I:111:GLN:HA	1:I:114:ILE:HG12	2.01	0.43
1:J:70:VAL:HG21	1:J:507:ILE:HD11	2.00	0.43
1:J:143:ARG:HG3	1:J:143:ARG:O	2.18	0.43
1:J:148:ASN:HA	1:J:479:GLY:O	2.18	0.43
1:J:157:LYS:HD3	1:J:376:SER:HB2	1.99	0.43
1:K:188:VAL:HG23	1:K:362:LEU:HG	2.01	0.43
1:L:512:PRO:O	1:L:513:ARG:CB	2.67	0.43
1:M:65:ASN:ND2	1:M:66:PRO:HD3	2.33	0.43
1:M:152:THR:CG2	1:M:480:ILE:HG23	2.49	0.43
1:N:157:LYS:HG2	1:N:372:GLU:CG	2.49	0.43
1:O:59:LYS:HE3	1:O:73:ASP:HA	2.01	0.43
1:O:322:PHE:HA	1:O:324:HIS:CD2	2.53	0.43
1:P:369:ILE:O	1:P:372:GLU:CB	2.58	0.43
1:A:128:LEU:HD21	1:A:488:ARG:HG2	2.01	0.43
1:A:268:ARG:O	1:A:271:LYS:HG2	2.19	0.43
1:B:40:LEU:H	1:F:509:LYS:HG2	1.84	0.43
1:B:154:LEU:HD23	1:B:163:LYS:HG3	2.00	0.43
1:B:321:THR:O	1:B:323:ASP:N	2.52	0.43
1:B:366:THR:HG21	1:F:77:VAL:HG21	2.01	0.43
1:C:208:ASP:O	1:C:209:LYS:HG3	2.18	0.43
1:C:441:ALA:HB2	1:C:467:MET:HG2	1.99	0.43
1:C:484:PHE:CE2	1:C:488:ARG:HD3	2.54	0.43
1:C:512:PRO:O	1:C:513:ARG:HB3	2.19	0.43
1:D:306:GLY:O	1:D:310:LEU:HB2	2.18	0.43
1:D:313:VAL:HG13	1:D:352:VAL:HB	1.99	0.43
1:E:109:HIS:HD2	1:E:111:GLN:OE1	2.01	0.43
1:F:14:SER:O	1:F:17:ILE:HG22	2.19	0.43
1:F:116:GLY:O	1:F:119:GLU:HB2	2.19	0.43
1:F:207:LEU:HD23	1:F:207:LEU:HA	1.87	0.43
1:F:284:TYR:O	1:F:287:PRO:HD2	2.18	0.43
1:F:297:MET:HE1	1:F:336:ILE:HG22	2.00	0.43
1:F:384:LEU:HD22	1:F:384:LEU:N	2.34	0.43
1:G:157:LYS:HE2	1:G:376:SER:HA	2.00	0.43
1:G:402:MET:SD	1:G:456:HIS:CB	3.02	0.43
1:G:409:THR:HG21	1:N:413:SER:HB2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:269:ILE:HG12	1:H:274:ILE:HG21	2.01	0.43
1:H:316:GLY:O	1:H:330:LEU:HB2	2.18	0.43
1:J:211:ILE:HG13	1:J:298:ALA:O	2.19	0.43
1:J:511:ALA:HB3	1:N:40:LEU:HD13	2.01	0.43
1:K:100:ALA:HA	1:K:103:LEU:HD13	2.00	0.43
1:K:134:ASP:OD1	1:K:393:THR:C	2.61	0.43
1:L:45:ASP:O	1:L:46:ALA:HB3	2.18	0.43
1:L:141:LYS:HG3	1:L:144:GLN:H	1.83	0.43
1:L:143:ARG:HH22	1:L:168:LYS:HE3	1.84	0.43
1:L:166:PHE:CE1	1:L:198:ASP:CB	3.00	0.43
1:M:103:LEU:O	1:M:106:LYS:HB3	2.19	0.43
1:M:191:LYS:HE3	1:M:346:LEU:CD1	2.49	0.43
1:M:206:LEU:CD1	1:M:346:LEU:HD23	2.41	0.43
1:N:203:GLU:CB	1:N:351:GLY:H	2.31	0.43
1:N:274:ILE:HG23	1:N:296:VAL:CG2	2.48	0.43
1:N:447:ASP:O	1:N:450:ALA:HB3	2.19	0.43
1:O:59:LYS:HE2	1:O:76:ARG:CB	2.49	0.43
1:O:176:ARG:NH1	1:O:201:LEU:HD11	2.34	0.43
1:O:185:ALA:CB	1:O:357:ALA:HB1	2.40	0.43
1:O:502:LEU:HD23	1:O:502:LEU:C	2.44	0.43
1:P:203:GLU:H	1:P:203:GLU:CD	2.26	0.43
1:P:219:ILE:HD11	1:P:336:ILE:HB	2.01	0.43
1:A:35:MET:HG2	1:C:502:LEU:CD2	2.48	0.43
1:A:412:ALA:CB	1:A:424:GLU:HB2	2.49	0.43
1:B:402:MET:HE2	1:B:402:MET:O	2.19	0.43
1:C:117:TRP:H	1:C:505:ASP:HB2	1.80	0.43
1:C:452:LEU:HD11	1:C:456:HIS:HE1	1.84	0.43
1:D:31:GLY:HA3	1:D:467:MET:HE1	2.01	0.43
1:E:421:VAL:O	1:E:424:GLU:HG2	2.19	0.43
1:F:40:LEU:C	1:F:40:LEU:HD13	2.44	0.43
1:F:211:ILE:CD1	1:F:297:MET:HG3	2.40	0.43
1:G:280:ARG:O	1:G:281:GLN:CB	2.67	0.43
1:H:59:LYS:HE3	1:H:73:ASP:HA	2.01	0.43
1:I:15:SER:HB3	1:I:501:ILE:CG2	2.49	0.43
1:I:109:HIS:CD2	1:O:439:ASP:O	2.71	0.43
1:I:110:PRO:HA	1:I:113:ILE:CD1	2.45	0.43
1:I:245:VAL:HG12	1:I:246:ASP:OD1	2.19	0.43
1:I:259:LYS:O	1:I:262:MET:HB3	2.19	0.43
1:I:286:TYR:HB2	1:I:287:PRO:HD3	2.01	0.43
1:I:478:LEU:CB	1:I:480:ILE:HG12	2.49	0.43
1:J:38:ILE:HB	1:K:509:LYS:HB3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:386:GLN:CB	1:J:485:GLN:HE22	2.31	0.43
1:J:509:LYS:HG2	1:J:510:ALA:N	2.33	0.43
1:K:124:ALA:O	1:K:128:LEU:HG	2.19	0.43
1:K:438:ALA:HB2	1:K:448:LEU:HG	1.99	0.43
1:L:34:GLY:C	1:L:35:MET:SD	3.02	0.43
1:L:128:LEU:CD2	1:L:491:LEU:HD12	2.49	0.43
1:L:158:LEU:C	1:L:160:THR:H	2.27	0.43
1:L:192:LEU:HA	1:L:370:LEU:CD2	2.49	0.43
1:L:259:LYS:O	1:L:262:MET:HB3	2.19	0.43
1:L:485:GLN:CG	1:L:489:GLN:HE22	2.32	0.43
1:M:165:HIS:O	1:M:168:LYS:HB3	2.19	0.43
1:M:206:LEU:C	1:M:206:LEU:HD13	2.44	0.43
1:O:82:VAL:HA	1:O:386:GLN:HG3	2.01	0.43
1:P:64:ASP:CG	1:P:66:PRO:HD2	2.43	0.43
1:P:138:ASP:O	1:P:139:GLU:CB	2.66	0.43
1:P:222:ALA:HA	1:P:275:ASN:CB	2.48	0.43
1:A:114:ILE:HA	1:A:117:TRP:CE3	2.54	0.42
1:A:274:ILE:O	1:A:274:ILE:HG23	2.19	0.42
1:A:310:LEU:O	1:A:310:LEU:HD13	2.19	0.42
1:A:441:ALA:HB1	1:A:467:MET:O	2.18	0.42
1:B:322:PHE:O	1:B:325:PRO:HD2	2.19	0.42
1:C:82:VAL:HG13	1:C:83:GLY:H	1.82	0.42
1:C:159:LEU:HD11	1:C:376:SER:CB	2.49	0.42
1:C:402:MET:SD	1:C:453:ARG:HA	2.59	0.42
1:E:261:LYS:O	1:E:264:GLU:HG2	2.19	0.42
1:E:405:ALA:HA	1:E:408:VAL:CG2	2.48	0.42
1:F:201:LEU:HD23	1:F:360:ILE:HG12	2.01	0.42
1:H:64:ASP:CG	1:H:66:PRO:HD2	2.44	0.42
1:H:162:HIS:HB3	1:H:198:ASP:OD2	2.19	0.42
1:H:274:ILE:HG23	1:H:296:VAL:HG21	2.00	0.42
1:I:269:ILE:HG12	1:I:274:ILE:HG21	2.01	0.42
1:I:431:ARG:NH2	1:I:434:PRO:HG2	2.33	0.42
1:J:40:LEU:HG	1:K:510:ALA:HB2	1.99	0.42
1:J:175:LEU:HA	1:J:178:LYS:HE3	2.00	0.42
1:K:201:LEU:C	1:K:201:LEU:HD13	2.44	0.42
1:L:117:TRP:CD1	1:L:495:ALA:O	2.72	0.42
1:L:219:ILE:HG21	1:L:275:ASN:O	2.19	0.42
1:L:265:LYS:HE2	1:L:322:PHE:CE2	2.54	0.42
1:L:337:GLU:HG3	1:L:339:VAL:CG2	2.49	0.42
1:M:31:GLY:HA3	1:M:440:ASN:ND2	2.33	0.42
1:M:188:VAL:HG21	1:M:377:LEU:HD22	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:226:ILE:HG12	1:M:278:ILE:CG2	2.48	0.42
1:M:366:THR:O	1:M:370:LEU:HB3	2.19	0.42
1:N:27:LYS:HB2	1:N:436:ILE:HD11	2.00	0.42
1:N:114:ILE:HG12	1:N:502:LEU:HB3	2.01	0.42
1:N:159:LEU:CD2	1:N:163:LYS:HG2	2.47	0.42
1:O:14:SER:O	1:O:17:ILE:HG22	2.19	0.42
1:P:433:LEU:HA	1:P:436:ILE:HG22	2.00	0.42
1:P:438:ALA:O	1:P:441:ALA:HB3	2.19	0.42
1:A:117:TRP:CD1	1:A:495:ALA:HA	2.54	0.42
1:A:399:CYS:SG	1:A:464:GLY:CA	3.04	0.42
1:B:266:VAL:HB	1:B:290:LEU:HD21	2.00	0.42
1:C:152:THR:CB	1:C:480:ILE:HD12	2.48	0.42
1:D:5:GLU:HG3	1:D:6:GLU:N	2.33	0.42
1:D:19:ALA:HB2	1:D:97:LEU:HD22	2.01	0.42
1:D:102:SER:O	1:D:105:ALA:HB3	2.19	0.42
1:D:210:LYS:HE2	1:D:212:GLY:O	2.19	0.42
1:D:362:LEU:O	1:D:363:ARG:HD3	2.19	0.42
1:E:106:LYS:HZ2	1:E:421:VAL:CG1	2.33	0.42
1:E:414:ARG:HD3	1:E:414:ARG:HA	1.90	0.42
1:F:85:GLY:O	1:F:153:THR:HA	2.19	0.42
1:F:92:LEU:HD11	1:F:433:LEU:HD21	2.00	0.42
1:F:119:GLU:OE1	1:F:423:MET:HE2	2.18	0.42
1:F:206:LEU:HD13	1:F:207:LEU:N	2.33	0.42
1:F:324:HIS:HB2	1:F:329:LYS:HZ1	1.83	0.42
1:G:108:ILE:CG2	1:G:109:HIS:H	2.25	0.42
1:G:190:LYS:HD2	1:G:370:LEU:CG	2.48	0.42
1:G:417:GLY:C	1:N:450:ALA:HB1	2.44	0.42
1:H:97:LEU:H	1:H:97:LEU:HD12	1.84	0.42
1:H:163:LYS:HA	1:H:166:PHE:HD1	1.81	0.42
1:H:253:GLU:HG3	1:H:254:ILE:HD12	2.01	0.42
1:I:22:ILE:HD12	1:I:90:THR:HG22	2.00	0.42
1:K:274:ILE:HG23	1:K:274:ILE:O	2.19	0.42
1:K:341:ILE:HG23	1:K:363:ARG:NH2	2.34	0.42
1:L:79:ASP:HA	1:L:83:GLY:HA2	1.97	0.42
1:L:145:ASP:OD2	1:L:175:LEU:HD11	2.19	0.42
1:L:182:ASN:CG	1:L:183:LEU:H	2.27	0.42
1:L:225:LEU:HD13	1:L:329:LYS:CE	2.49	0.42
1:M:163:LYS:HE3	1:M:376:SER:OG	2.19	0.42
1:M:184:GLU:H	1:M:184:GLU:HG3	1.63	0.42
1:M:185:ALA:HB1	1:M:357:ALA:CB	2.48	0.42
1:M:239:PHE:C	1:M:241:SER:N	2.75	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:261:LYS:O	1:M:264:GLU:HG2	2.19	0.42
1:M:500:VAL:O	1:M:503:ARG:HB2	2.19	0.42
1:N:117:TRP:HE1	1:N:498:ALA:CB	2.30	0.42
1:N:268:ARG:O	1:N:271:LYS:HG2	2.19	0.42
1:N:401:GLU:HG2	1:N:433:LEU:HD13	2.01	0.42
1:O:82:VAL:HG13	1:O:486:VAL:HG12	2.00	0.42
1:O:334:LYS:CG	1:O:351:GLY:HA3	2.50	0.42
1:O:399:CYS:SG	1:O:464:GLY:CA	3.04	0.42
1:P:68:ALA:O	1:P:72:VAL:HG23	2.20	0.42
1:P:222:ALA:HA	1:P:275:ASN:OD1	2.19	0.42
1:P:321:THR:C	1:P:323:ASP:H	2.27	0.42
1:A:34:GLY:O	1:C:501:ILE:HG13	2.20	0.42
1:A:79:ASP:HA	1:A:83:GLY:HA2	1.95	0.42
1:A:117:TRP:O	1:A:120:ALA:HB3	2.19	0.42
1:A:157:LYS:HB3	1:A:159:LEU:HD13	2.01	0.42
1:A:159:LEU:HD11	1:A:376:SER:HB2	2.00	0.42
1:C:108:ILE:HG21	1:M:109:HIS:HD2	1.84	0.42
1:C:188:VAL:HG23	1:C:360:ILE:O	2.19	0.42
1:C:225:LEU:HD22	1:C:329:LYS:HD2	2.00	0.42
1:E:65:ASN:CG	1:E:66:PRO:HD3	2.44	0.42
1:E:225:LEU:HD13	1:E:329:LYS:CE	2.49	0.42
1:E:404:MET:HE3	1:E:430:LEU:CD1	2.49	0.42
1:F:173:ALA:HA	1:F:176:ARG:CZ	2.49	0.42
1:G:56:THR:O	1:G:59:LYS:HG2	2.19	0.42
1:G:128:LEU:HD13	1:G:404:MET:CG	2.48	0.42
1:G:284:TYR:CE2	1:G:286:TYR:HD1	2.37	0.42
1:H:117:TRP:O	1:H:120:ALA:HB3	2.19	0.42
1:I:181:GLY:O	1:I:182:ASN:CG	2.62	0.42
1:I:339:VAL:HG12	1:I:340:MET:N	2.35	0.42
1:J:79:ASP:HA	1:J:83:GLY:CA	2.44	0.42
1:J:173:ALA:O	1:J:176:ARG:HG2	2.20	0.42
1:J:207:LEU:HD22	1:J:208:ASP:H	1.84	0.42
1:K:274:ILE:HG23	1:K:296:VAL:CG2	2.50	0.42
1:L:96:LEU:HD22	1:L:96:LEU:C	2.43	0.42
1:L:146:LEU:O	1:L:147:MET:HB2	2.19	0.42
1:L:181:GLY:O	1:L:182:ASN:HB2	2.20	0.42
1:L:337:GLU:HG3	1:L:339:VAL:HG22	2.01	0.42
1:M:58:LEU:O	1:M:72:VAL:HG11	2.19	0.42
1:M:145:ASP:CG	1:M:171:VAL:HB	2.44	0.42
1:N:10:THR:HG22	1:N:510:ALA:N	2.33	0.42
1:N:204:GLY:O	1:N:359:THR:HB	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:15:SER:HB3	1:P:501:ILE:CD1	2.49	0.42
1:P:117:TRP:NE1	1:P:498:ALA:C	2.78	0.42
1:P:162:HIS:HB3	1:P:198:ASP:OD2	2.19	0.42
1:P:207:LEU:HD23	1:P:207:LEU:HA	1.91	0.42
1:P:219:ILE:HD13	1:P:276:CYS:HB2	2.01	0.42
1:P:259:LYS:HA	1:P:259:LYS:CE	2.48	0.42
1:A:326:GLU:HB2	1:A:327:LEU:H	1.59	0.42
1:C:226:ILE:HG12	1:C:278:ILE:CG2	2.46	0.42
1:C:280:ARG:HG3	1:C:304:PHE:CA	2.49	0.42
1:D:22:ILE:HG13	1:D:23:GLY:N	2.34	0.42
1:E:154:LEU:HD21	1:E:163:LYS:NZ	2.35	0.42
1:G:114:ILE:HA	1:G:117:TRP:CZ3	2.55	0.42
1:G:211:ILE:HB	1:G:215:GLN:OE1	2.18	0.42
1:G:504:VAL:O	1:G:505:ASP:HB2	2.18	0.42
1:H:97:LEU:HD12	1:H:97:LEU:N	2.35	0.42
1:H:189:ILE:HG22	1:H:190:LYS:N	2.33	0.42
1:I:375:ARG:HE	1:I:375:ARG:HB3	1.51	0.42
1:I:508:ILE:HA	1:O:48:LEU:HD13	2.01	0.42
1:J:24:ASP:O	1:J:27:LYS:HG2	2.19	0.42
1:J:54:GLY:O	1:J:58:LEU:HD23	2.19	0.42
1:J:284:TYR:HE2	1:J:286:TYR:CD1	2.37	0.42
1:J:434:PRO:HB3	1:J:452:LEU:CD2	2.49	0.42
1:J:451:GLN:HG3	1:J:472:ILE:HG23	2.02	0.42
1:J:500:VAL:HG22	1:J:504:VAL:CG2	2.49	0.42
1:K:364:GLY:HA3	1:K:370:LEU:CD1	2.50	0.42
1:L:37:LYS:HZ2	1:M:7:ARG:HG2	1.84	0.42
1:L:390:ASP:C	1:L:392:ARG:N	2.77	0.42
1:L:399:CYS:SG	1:L:464:GLY:CA	3.07	0.42
1:M:242:ARG:CG	1:O:239:PHE:HB2	2.49	0.42
1:M:433:LEU:HA	1:M:436:ILE:HG22	2.01	0.42
1:N:447:ASP:O	1:N:451:GLN:HG2	2.19	0.42
1:O:106:LYS:NZ	1:O:108:ILE:CD1	2.82	0.42
1:P:206:LEU:CD1	1:P:361:VAL:HG21	2.46	0.42
1:A:1:ALA:H2	1:F:61:ILE:CB	2.29	0.42
1:B:41:SER:HB2	1:F:510:ALA:HB3	2.02	0.42
1:C:50:VAL:HG23	1:C:375:ARG:CZ	2.49	0.42
1:C:82:VAL:CG2	1:C:486:VAL:HG13	2.50	0.42
1:C:130:ASN:O	1:C:131:SER:CB	2.67	0.42
1:D:96:LEU:HD13	1:D:96:LEU:C	2.44	0.42
1:D:105:ALA:O	1:D:107:LYS:HG2	2.20	0.42
1:D:154:LEU:HD22	1:D:167:THR:CB	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:40:LEU:HD22	1:E:41:SER:H	1.84	0.42
1:E:280:ARG:HG3	1:E:304:PHE:HB2	2.02	0.42
1:E:417:GLY:C	1:J:450:ALA:CB	2.92	0.42
1:F:226:ILE:HD11	1:F:310:LEU:HD12	2.02	0.42
1:G:173:ALA:HA	1:G:176:ARG:NE	2.34	0.42
1:G:395:TYR:HE1	1:G:476:SER:HG	1.68	0.42
1:G:450:ALA:HB1	1:N:417:GLY:CA	2.49	0.42
1:H:128:LEU:C	1:H:129:LEU:HG	2.45	0.42
1:H:269:ILE:CG2	1:H:274:ILE:HG21	2.46	0.42
1:I:78:GLN:NE2	1:I:489:GLN:HB2	2.34	0.42
1:I:82:VAL:HG13	1:I:486:VAL:CG1	2.49	0.42
1:I:397:GLY:HA3	1:I:475:MET:CE	2.50	0.42
1:I:405:ALA:HA	1:I:408:VAL:HG22	2.01	0.42
1:J:334:LYS:HD2	1:J:351:GLY:HA3	2.02	0.42
1:K:354:LEU:CD2	1:K:356:GLU:HB3	2.49	0.42
1:K:408:VAL:HA	1:K:411:LEU:HD12	2.01	0.42
1:K:433:LEU:HA	1:K:436:ILE:HG22	2.00	0.42
1:L:38:ILE:HG22	1:L:50:VAL:HB	2.01	0.42
1:L:82:VAL:HG21	1:L:486:VAL:CA	2.49	0.42
1:L:149:ILE:HG13	1:L:482:GLU:HG2	2.02	0.42
1:L:157:LYS:HD3	1:L:376:SER:HB2	2.01	0.42
1:L:360:ILE:CD1	1:L:360:ILE:N	2.82	0.42
1:M:92:LEU:HD11	1:M:433:LEU:HD11	2.01	0.42
1:M:141:LYS:CG	1:M:144:GLN:HB2	2.50	0.42
1:M:352:VAL:HG22	1:M:355:GLY:H	1.83	0.42
1:N:154:LEU:CD2	1:N:167:THR:HB	2.44	0.42
1:N:263:LYS:O	1:N:266:VAL:HG12	2.20	0.42
1:N:277:PHE:CE2	1:N:279:ASN:HB2	2.55	0.42
1:N:372:GLU:O	1:N:375:ARG:HB3	2.20	0.42
1:O:106:LYS:NZ	1:O:108:ILE:HD12	2.34	0.42
1:P:88:SER:O	1:P:92:LEU:HD13	2.20	0.42
1:P:191:LYS:HB3	1:P:363:ARG:HG2	1.99	0.42
1:A:19:ALA:HB1	1:A:94:ALA:HA	2.00	0.42
1:A:67:ALA:HB2	1:A:507:ILE:HB	2.01	0.42
1:A:141:LYS:HE2	1:A:144:GLN:HE21	1.84	0.42
1:A:397:GLY:HA3	1:A:475:MET:CE	2.49	0.42
1:B:259:LYS:O	1:B:262:MET:HB3	2.20	0.42
1:B:277:PHE:CE2	1:B:279:ASN:HB2	2.55	0.42
1:C:259:LYS:O	1:C:263:LYS:HG2	2.20	0.42
1:C:277:PHE:CE2	1:C:279:ASN:HB2	2.54	0.42
1:C:376:SER:O	1:C:379:ASP:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:82:VAL:HG13	1:D:486:VAL:HG12	2.00	0.42
1:D:159:LEU:CD1	1:D:372:GLU:HG2	2.47	0.42
1:D:405:ALA:HB2	1:D:430:LEU:HB3	2.02	0.42
1:E:117:TRP:HA	1:E:120:ALA:HB3	2.02	0.42
1:E:378:HIS:CD2	1:E:379:ASP:N	2.86	0.42
1:E:424:GLU:O	1:E:427:ALA:HB3	2.20	0.42
1:F:451:GLN:OE1	1:F:471:THR:HB	2.19	0.42
1:G:128:LEU:HD11	1:G:407:ALA:HB3	2.02	0.42
1:G:397:GLY:HA3	1:G:475:MET:HE3	2.02	0.42
1:H:128:LEU:C	1:H:130:ASN:H	2.27	0.42
1:H:159:LEU:HD22	1:H:159:LEU:H	1.85	0.42
1:I:30:LEU:H	1:I:30:LEU:HD12	1.85	0.42
1:I:397:GLY:HA3	1:I:475:MET:HE3	2.01	0.42
1:J:65:ASN:CG	1:J:66:PRO:HD3	2.44	0.42
1:J:189:ILE:HG22	1:J:190:LYS:N	2.35	0.42
1:J:219:ILE:HD13	1:J:276:CYS:HB2	2.02	0.42
1:J:419:GLU:H	1:J:419:GLU:HG2	1.61	0.42
1:K:226:ILE:HD13	1:K:307:VAL:HG13	2.00	0.42
1:L:393:THR:HG22	1:L:483:SER:HA	2.00	0.42
1:M:405:ALA:HA	1:M:408:VAL:HG22	2.01	0.42
1:N:66:PRO:HG2	1:N:513:ARG:HD2	2.00	0.42
1:N:104:ILE:HD12	1:N:507:ILE:HG13	2.00	0.42
1:N:154:LEU:HD13	1:N:167:THR:OG1	2.20	0.42
1:N:337:GLU:HG3	1:N:339:VAL:HG23	2.02	0.42
1:N:405:ALA:HA	1:N:408:VAL:HG22	2.00	0.42
1:O:110:PRO:HA	1:O:113:ILE:HD12	2.02	0.42
1:O:158:LEU:O	1:O:160:THR:N	2.52	0.42
1:P:499:GLU:O	1:P:500:VAL:HG12	2.19	0.42
1:A:37:LYS:HD2	1:C:512:PRO:HG3	2.02	0.42
1:A:392:ARG:C	1:A:484:PHE:HB2	2.45	0.42
1:B:141:LYS:HB3	1:B:144:GLN:HB2	2.01	0.42
1:B:170:ALA:HB1	1:B:384:LEU:HD23	2.02	0.42
1:C:340:MET:HG2	1:C:345:LYS:HG2	2.01	0.42
1:D:22:ILE:HD11	1:D:94:ALA:HB2	2.02	0.42
1:D:37:LYS:HG3	1:E:508:ILE:HD13	2.01	0.42
1:D:146:LEU:CD1	1:D:171:VAL:HG13	2.37	0.42
1:D:189:ILE:HG22	1:D:190:LYS:N	2.35	0.42
1:D:225:LEU:HD12	1:D:225:LEU:C	2.45	0.42
1:D:259:LYS:O	1:D:262:MET:HB3	2.19	0.42
1:E:216:PRO:CG	1:E:295:GLY:HA2	2.50	0.42
1:F:89:VAL:HB	1:F:490:VAL:HG23	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:130:ASN:HD22	1:F:407:ALA:HB2	1.83	0.42
1:F:145:ASP:OD2	1:F:175:LEU:HD11	2.19	0.42
1:F:305:VAL:O	1:F:309:ARG:HG2	2.20	0.42
1:G:401:GLU:CD	1:G:433:LEU:HD22	2.45	0.42
1:H:58:LEU:HB3	1:H:72:VAL:CG1	2.50	0.42
1:H:152:THR:O	1:H:155:SER:HB2	2.20	0.42
1:H:269:ILE:HG23	1:H:274:ILE:HG22	1.98	0.42
1:J:84:ASP:CB	1:J:379:ASP:HA	2.50	0.42
1:J:507:ILE:N	1:N:38:ILE:HD11	2.34	0.42
1:K:52:ASN:H	1:K:375:ARG:NE	2.18	0.42
1:K:280:ARG:HG3	1:K:304:PHE:HB2	2.02	0.42
1:K:506:ASN:O	1:K:508:ILE:HG13	2.20	0.42
1:L:40:LEU:HD13	1:M:509:LYS:HB3	2.02	0.42
1:L:118:ARG:O	1:L:121:THR:HB	2.19	0.42
1:L:211:ILE:HD11	1:L:297:MET:HG3	2.00	0.42
1:L:274:ILE:O	1:L:274:ILE:HG23	2.18	0.42
1:M:280:ARG:HG3	1:M:304:PHE:HA	2.02	0.42
1:N:117:TRP:N	1:N:117:TRP:CE3	2.88	0.42
1:N:121:THR:O	1:N:125:ARG:HG2	2.20	0.42
1:N:219:ILE:CD1	1:N:276:CYS:HB2	2.50	0.42
1:O:146:LEU:HD22	1:O:168:LYS:HA	2.01	0.42
1:O:277:PHE:CE2	1:O:279:ASN:HB2	2.55	0.42
1:P:141:LYS:O	1:P:145:ASP:HB2	2.20	0.42
1:P:214:ASN:O	1:P:215:GLN:CB	2.64	0.42
1:A:488:ARG:HB2	1:A:489:GLN:OE1	2.19	0.42
1:B:113:ILE:HG12	1:B:418:LYS:CG	2.50	0.42
1:B:222:ALA:HB1	1:B:336:ILE:HD12	2.01	0.42
1:C:317:GLU:HB3	1:C:329:LYS:HA	2.01	0.42
1:C:405:ALA:HA	1:C:408:VAL:HG22	2.02	0.42
1:C:426:TYR:HB2	1:C:505:ASP:OD2	2.20	0.42
1:D:24:ASP:O	1:D:27:LYS:HB3	2.20	0.42
1:D:30:LEU:HD12	1:D:30:LEU:H	1.83	0.42
1:D:211:ILE:HD13	1:D:215:GLN:CB	2.49	0.42
1:E:26:VAL:O	1:E:29:THR:HB	2.20	0.42
1:E:117:TRP:N	1:E:117:TRP:CE3	2.88	0.42
1:E:233:THR:O	1:E:234:ASP:HB3	2.19	0.42
1:E:362:LEU:HD11	1:E:377:LEU:HD13	2.01	0.42
1:E:455:ALA:HB2	1:E:472:ILE:HD12	2.02	0.42
1:G:225:LEU:HD11	1:G:324:HIS:ND1	2.35	0.42
1:H:405:ALA:HA	1:H:408:VAL:CG2	2.50	0.42
1:H:506:ASN:C	1:H:507:ILE:HG22	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:159:LEU:HD23	1:I:163:LYS:HB3	2.02	0.42
1:J:48:LEU:HD23	1:K:510:ALA:CB	2.40	0.42
1:J:134:ASP:OD1	1:J:393:THR:O	2.38	0.42
1:J:143:ARG:HA	1:J:143:ARG:HE	1.85	0.42
1:J:193:GLY:O	1:J:363:ARG:HB2	2.19	0.42
1:J:297:MET:HE3	1:J:347:ILE:HD11	2.02	0.42
1:J:402:MET:SD	1:J:453:ARG:HA	2.60	0.42
1:J:452:LEU:HD11	1:J:456:HIS:HE1	1.82	0.42
1:K:78:GLN:O	1:K:82:VAL:HG13	2.20	0.42
1:K:324:HIS:HB2	1:K:329:LYS:CE	2.49	0.42
1:L:63:VAL:CG2	1:M:2:GLY:HA3	2.49	0.42
1:M:182:ASN:HD22	1:M:182:ASN:N	2.17	0.42
1:M:238:ILE:O	1:M:239:PHE:C	2.63	0.42
1:M:399:CYS:SG	1:M:464:GLY:CA	3.06	0.42
1:N:22:ILE:O	1:N:26:VAL:HG22	2.20	0.42
1:N:71:LEU:HD23	1:N:71:LEU:C	2.45	0.42
1:O:21:ALA:O	1:O:25:LEU:HD23	2.20	0.42
1:O:117:TRP:HE1	1:O:498:ALA:CB	2.29	0.42
1:O:143:ARG:O	1:O:143:ARG:HG3	2.19	0.42
1:P:34:GLY:HA3	1:P:156:SER:O	2.19	0.42
1:P:148:ASN:CG	1:P:149:ILE:H	2.28	0.42
1:A:158:LEU:CD2	1:C:497:ALA:HB1	2.47	0.42
1:A:174:VAL:HG21	1:A:384:LEU:HB3	2.02	0.42
1:A:395:TYR:HE1	1:A:476:SER:OG	2.03	0.42
1:C:337:GLU:HG3	1:C:339:VAL:HG23	2.01	0.42
1:C:451:GLN:HE22	1:C:471:THR:HA	1.85	0.42
1:E:159:LEU:N	1:E:159:LEU:CD2	2.83	0.42
1:E:231:MET:C	1:E:284:TYR:HB2	2.45	0.42
1:E:431:ARG:HA	1:E:431:ARG:NE	2.35	0.42
1:F:312:LEU:C	1:F:312:LEU:HD13	2.45	0.42
1:G:123:ALA:CB	1:G:408:VAL:HG12	2.48	0.42
1:H:321:THR:O	1:H:323:ASP:N	2.53	0.42
1:H:452:LEU:CD2	1:H:465:LEU:HD21	2.48	0.42
1:I:91:VAL:HG21	1:I:436:ILE:CD1	2.49	0.42
1:I:196:LEU:HD13	1:I:196:LEU:C	2.45	0.42
1:K:30:LEU:HD13	1:K:436:ILE:HD13	2.01	0.42
1:K:100:ALA:O	1:K:103:LEU:HB2	2.19	0.42
1:K:341:ILE:HG13	1:K:346:LEU:HD13	2.02	0.42
1:L:123:ALA:HA	1:L:126:GLN:HG2	2.01	0.42
1:L:394:VAL:CG2	1:L:482:GLU:HB2	2.50	0.42
1:M:24:ASP:O	1:M:27:LYS:HG2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:184:GLU:HB2	1:M:185:ALA:H	1.57	0.42
1:M:313:VAL:HG13	1:M:352:VAL:HG11	2.02	0.42
1:N:99:GLU:O	1:N:103:LEU:HD13	2.20	0.42
1:N:286:TYR:HB2	1:N:287:PRO:HD3	2.02	0.42
1:O:97:LEU:HD21	1:O:501:ILE:HG21	2.00	0.42
1:O:159:LEU:CD2	1:O:163:LYS:HG2	2.50	0.42
1:O:437:ILE:CG2	1:O:467:MET:SD	3.08	0.42
1:P:96:LEU:HG	1:P:498:ALA:CB	2.47	0.42
1:P:262:MET:SD	1:P:290:LEU:HB2	2.60	0.42
1:A:280:ARG:O	1:A:281:GLN:CB	2.67	0.42
1:B:397:GLY:HA3	1:B:475:MET:HE3	2.01	0.42
1:C:82:VAL:CG1	1:C:83:GLY:N	2.83	0.42
1:D:507:ILE:HB	1:D:508:ILE:H	1.60	0.42
1:E:59:LYS:CE	1:E:76:ARG:HB2	2.49	0.42
1:E:366:THR:H	1:E:370:LEU:HD22	1.84	0.42
1:E:414:ARG:HD3	1:E:414:ARG:C	2.45	0.42
1:F:78:GLN:HE22	1:F:489:GLN:HB2	1.84	0.42
1:G:141:LYS:HE2	1:G:142:PHE:H	1.84	0.42
1:G:160:THR:HA	1:G:163:LYS:HB3	2.02	0.42
1:H:166:PHE:CD2	1:H:362:LEU:HB3	2.55	0.42
1:H:381:LEU:HD13	1:H:381:LEU:O	2.20	0.42
1:I:225:LEU:HD11	1:I:324:HIS:ND1	2.35	0.42
1:I:402:MET:CE	1:I:453:ARG:HG2	2.40	0.42
1:J:27:LYS:HB2	1:J:436:ILE:HG13	2.02	0.42
1:J:32:PRO:C	1:J:33:LYS:HD2	2.45	0.42
1:J:96:LEU:HD13	1:J:97:LEU:N	2.35	0.42
1:J:222:ALA:HA	1:J:275:ASN:HB2	2.01	0.42
1:J:313:VAL:CG1	1:J:352:VAL:HB	2.50	0.42
1:K:163:LYS:HA	1:K:166:PHE:HD1	1.77	0.42
1:K:171:VAL:CA	1:K:174:VAL:HG13	2.49	0.42
1:L:35:MET:HB2	1:M:7:ARG:NH1	2.35	0.42
1:L:47:SER:O	1:M:509:LYS:HD2	2.20	0.42
1:L:92:LEU:HA	1:L:95:GLU:OE2	2.20	0.42
1:L:338:GLU:OE1	1:L:345:LYS:HD3	2.19	0.42
1:M:154:LEU:HD23	1:M:157:LYS:HB2	2.01	0.42
1:N:53:ASP:HB2	1:N:375:ARG:HE	1.85	0.42
1:N:124:ALA:O	1:N:128:LEU:HG	2.20	0.42
1:O:171:VAL:O	1:O:175:LEU:HG	2.19	0.42
1:O:434:PRO:HB3	1:O:452:LEU:HD23	2.01	0.42
1:P:122:LYS:HD3	1:P:423:MET:HE1	2.02	0.42
1:P:141:LYS:HE2	1:P:144:GLN:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:191:LYS:HZ2	1:A:346:LEU:HD11	1.85	0.41
1:B:280:ARG:HG3	1:B:304:PHE:CA	2.50	0.41
1:B:433:LEU:C	1:B:436:ILE:HG22	2.41	0.41
1:B:434:PRO:HB3	1:B:452:LEU:CD2	2.50	0.41
1:C:84:ASP:OD2	1:C:382:CYS:HB2	2.19	0.41
1:C:106:LYS:O	1:C:107:LYS:HG3	2.20	0.41
1:C:128:LEU:O	1:C:484:PHE:HE1	2.03	0.41
1:C:209:LYS:CB	1:C:299:ILE:HG23	2.49	0.41
1:D:37:LYS:NZ	1:E:504:VAL:HG13	2.34	0.41
1:F:146:LEU:HD21	1:F:150:ALA:CB	2.28	0.41
1:F:450:ALA:CB	1:O:417:GLY:N	2.83	0.41
1:G:57:ILE:HD13	1:G:57:ILE:O	2.20	0.41
1:G:61:ILE:CG1	1:G:63:VAL:HG13	2.49	0.41
1:G:112:THR:HG23	1:G:418:LYS:HB3	2.02	0.41
1:G:129:LEU:HG	1:G:487:LYS:HB3	2.02	0.41
1:G:214:ASN:O	1:G:215:GLN:CB	2.65	0.41
1:H:28:SER:CB	1:H:35:MET:HE2	2.50	0.41
1:I:188:VAL:HA	1:I:360:ILE:O	2.20	0.41
1:J:146:LEU:CD1	1:J:171:VAL:HG13	2.22	0.41
1:J:284:TYR:O	1:J:287:PRO:HD2	2.20	0.41
1:J:318:ILE:HG23	1:N:289:GLN:HB3	2.01	0.41
1:J:320:SER:HA	1:N:289:GLN:OE1	2.20	0.41
1:J:441:ALA:HB2	1:J:467:MET:HG2	2.02	0.41
1:K:154:LEU:O	1:K:157:LYS:HB2	2.20	0.41
1:K:177:LEU:HD11	1:K:186:ILE:HD11	2.02	0.41
1:K:452:LEU:HD11	1:K:456:HIS:CE1	2.51	0.41
1:L:118:ARG:NH1	1:P:33:LYS:HZ2	2.12	0.41
1:L:185:ALA:HB3	1:L:357:ALA:HB1	2.02	0.41
1:M:280:ARG:O	1:M:281:GLN:CB	2.67	0.41
1:N:32:PRO:CA	1:N:155:SER:O	2.67	0.41
1:N:82:VAL:HG21	1:N:486:VAL:HG13	2.02	0.41
1:N:166:PHE:HE2	1:N:363:ARG:H	1.68	0.41
1:N:313:VAL:HG13	1:N:352:VAL:CB	2.50	0.41
1:N:401:GLU:HG2	1:N:433:LEU:HD22	2.01	0.41
1:N:402:MET:HE2	1:N:402:MET:O	2.20	0.41
1:O:196:LEU:HD13	1:O:196:LEU:O	2.19	0.41
1:A:284:TYR:CE2	1:A:286:TYR:CD1	3.09	0.41
1:A:398:GLY:HA2	1:A:401:GLU:CD	2.45	0.41
1:B:398:GLY:HA2	1:B:401:GLU:OE1	2.20	0.41
1:B:448:LEU:HD11	1:B:465:LEU:CD1	2.50	0.41
1:B:448:LEU:HD11	1:B:465:LEU:HD11	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:22:ILE:HD12	1:C:90:THR:CG2	2.51	0.41
1:C:310:LEU:O	1:C:314:THR:HG22	2.19	0.41
1:D:191:LYS:HD2	1:D:346:LEU:HD11	2.02	0.41
1:D:432:MET:O	1:D:435:THR:HB	2.19	0.41
1:D:497:ALA:O	1:D:500:VAL:HG13	2.20	0.41
1:E:101:GLU:O	1:E:104:ILE:HG12	2.20	0.41
1:E:149:ILE:HD12	1:E:482:GLU:HA	2.01	0.41
1:E:378:HIS:CD2	1:E:378:HIS:C	2.99	0.41
1:F:322:PHE:HA	1:F:324:HIS:CD2	2.55	0.41
1:F:334:LYS:O	1:F:335:LEU:HB2	2.19	0.41
1:G:93:ALA:O	1:G:96:LEU:HB3	2.20	0.41
1:G:352:VAL:HG22	1:G:355:GLY:H	1.85	0.41
1:H:163:LYS:HD2	1:H:166:PHE:CD1	2.54	0.41
1:H:313:VAL:HG22	1:H:357:ALA:HB3	2.02	0.41
1:I:124:ALA:O	1:I:128:LEU:HG	2.19	0.41
1:I:177:LEU:HG	1:I:186:ILE:HD11	2.00	0.41
1:I:402:MET:HG2	1:I:431:ARG:HH22	1.84	0.41
1:J:145:ASP:OD2	1:J:175:LEU:HD11	2.21	0.41
1:J:222:ALA:HA	1:J:275:ASN:CB	2.50	0.41
1:J:372:GLU:HG3	1:J:375:ARG:HD2	2.01	0.41
1:K:207:LEU:HD12	1:K:299:ILE:HD13	2.02	0.41
1:K:322:PHE:HA	1:K:324:HIS:CD2	2.56	0.41
1:K:341:ILE:O	1:K:341:ILE:HG22	2.20	0.41
1:L:14:SER:O	1:L:17:ILE:HG22	2.20	0.41
1:L:191:LYS:HE2	1:L:346:LEU:HB2	2.01	0.41
1:L:397:GLY:HA3	1:L:475:MET:HE3	2.01	0.41
1:M:185:ALA:HB1	1:M:357:ALA:CA	2.49	0.41
1:N:192:LEU:HD23	1:N:366:THR:HG22	2.01	0.41
1:N:206:LEU:HD22	1:N:347:ILE:O	2.20	0.41
1:N:282:LEU:H	1:N:282:LEU:HD22	1.86	0.41
1:O:159:LEU:HD22	1:O:160:THR:N	2.34	0.41
1:O:394:VAL:HG21	1:O:487:LYS:HG3	2.01	0.41
1:P:146:LEU:HD11	1:P:150:ALA:CB	2.49	0.41
1:P:166:PHE:CE1	1:P:198:ASP:CB	3.02	0.41
1:A:69:LYS:HD3	1:A:509:LYS:NZ	2.34	0.41
1:A:138:ASP:O	1:A:139:GLU:HB2	2.20	0.41
1:A:444:ASP:OD1	1:M:109:HIS:NE2	2.52	0.41
1:B:3:ALA:HB3	1:G:41:SER:HA	2.02	0.41
1:B:152:THR:OG1	1:B:480:ILE:HG23	2.20	0.41
1:C:57:ILE:HG23	1:C:58:LEU:HD22	2.01	0.41
1:C:111:GLN:HA	1:C:114:ILE:HD12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:163:LYS:HG2	1:C:163:LYS:O	2.20	0.41
1:C:171:VAL:HA	1:C:174:VAL:HG22	2.00	0.41
1:D:133:VAL:HG21	1:D:393:THR:O	2.20	0.41
1:E:122:LYS:O	1:E:126:GLN:HG3	2.21	0.41
1:E:511:ALA:N	1:E:512:PRO:CD	2.82	0.41
1:F:52:ASN:CB	1:F:375:ARG:HD3	2.50	0.41
1:G:58:LEU:HB3	1:G:72:VAL:CG1	2.50	0.41
1:G:58:LEU:HB3	1:G:72:VAL:HG13	2.02	0.41
1:G:334:LYS:HD3	1:G:351:GLY:HA3	2.02	0.41
1:G:421:VAL:HA	1:G:424:GLU:OE2	2.21	0.41
1:H:79:ASP:O	1:H:83:GLY:HA2	2.21	0.41
1:H:117:TRP:HE3	1:H:117:TRP:H	1.67	0.41
1:I:109:HIS:NE2	1:I:111:GLN:HB2	2.34	0.41
1:I:143:ARG:HA	1:I:143:ARG:HE	1.84	0.41
1:I:352:VAL:HG22	1:I:355:GLY:H	1.85	0.41
1:I:504:VAL:CG1	1:I:505:ASP:H	2.30	0.41
1:J:82:VAL:HB	1:J:485:GLN:NE2	2.35	0.41
1:J:365:ALA:C	1:J:366:THR:HG23	2.45	0.41
1:J:433:LEU:O	1:J:437:ILE:HG12	2.21	0.41
1:K:40:LEU:HD22	1:K:41:SER:H	1.86	0.41
1:K:365:ALA:O	1:K:366:THR:HB	2.21	0.41
1:L:402:MET:HE3	1:L:453:ARG:CG	2.40	0.41
1:M:7:ARG:O	1:M:10:THR:HG22	2.20	0.41
1:M:147:MET:SD	1:M:168:LYS:HE2	2.59	0.41
1:M:177:LEU:HD11	1:M:183:LEU:HD12	2.03	0.41
1:N:50:VAL:CG2	1:N:368:GLN:HG3	2.50	0.41
1:N:113:ILE:C	1:N:115:ALA:N	2.78	0.41
1:N:485:GLN:HG3	1:N:488:ARG:HH21	1.84	0.41
1:O:341:ILE:CG1	1:O:346:LEU:HD21	2.48	0.41
1:O:511:ALA:HB3	1:O:512:PRO:CD	2.49	0.41
1:P:324:HIS:O	1:P:329:LYS:CG	2.68	0.41
1:P:390:ASP:HB2	1:P:485:GLN:HE22	1.83	0.41
1:A:32:PRO:CD	1:A:467:MET:CE	2.98	0.41
1:A:280:ARG:HG3	1:A:304:PHE:CA	2.51	0.41
1:A:334:LYS:HG3	1:A:351:GLY:HA3	2.03	0.41
1:B:154:LEU:O	1:B:157:LYS:HB2	2.20	0.41
1:B:225:LEU:HD13	1:B:329:LYS:CE	2.50	0.41
1:B:436:ILE:HG21	1:B:436:ILE:HD13	1.77	0.41
1:C:166:PHE:CE1	1:C:198:ASP:HB3	2.55	0.41
1:C:397:GLY:HA3	1:C:475:MET:CE	2.50	0.41
1:D:96:LEU:CD1	1:D:97:LEU:HD12	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:198:ASP:O	1:E:199:SER:HB3	2.20	0.41
1:E:231:MET:HB2	1:E:284:TYR:N	2.31	0.41
1:F:178:LYS:HB2	1:F:178:LYS:HE3	1.92	0.41
1:F:236:ILE:HG23	1:F:238:ILE:O	2.20	0.41
1:H:109:HIS:HA	1:H:110:PRO:HD2	1.89	0.41
1:H:412:ALA:HA	1:H:423:MET:CG	2.50	0.41
1:I:53:ASP:HB2	1:I:379:ASP:OD2	2.20	0.41
1:J:74:MET:HE2	1:J:77:VAL:CG1	2.50	0.41
1:J:173:ALA:HA	1:J:176:ARG:NH1	2.35	0.41
1:L:38:ILE:HG13	1:M:506:ASN:HB3	2.01	0.41
1:L:384:LEU:HD13	1:L:384:LEU:N	2.36	0.41
1:N:111:GLN:HG2	1:N:502:LEU:O	2.20	0.41
1:N:190:LYS:HD2	1:N:370:LEU:HG	2.01	0.41
1:N:505:ASP:O	1:N:507:ILE:HG12	2.21	0.41
1:O:117:TRP:HA	1:O:120:ALA:CB	2.49	0.41
1:P:52:ASN:H	1:P:375:ARG:CG	2.32	0.41
1:P:107:LYS:O	1:P:108:ILE:HD13	2.20	0.41
1:P:158:LEU:O	1:P:160:THR:N	2.53	0.41
1:P:369:ILE:HG23	1:P:372:GLU:OE1	2.21	0.41
1:P:433:LEU:HB2	1:P:434:PRO:HD3	2.02	0.41
1:A:158:LEU:CD1	1:C:501:ILE:HG12	2.43	0.41
1:A:402:MET:HG2	1:A:431:ARG:HH22	1.84	0.41
1:B:65:ASN:ND2	1:B:66:PRO:HD3	2.35	0.41
1:C:53:ASP:HB2	1:C:379:ASP:OD1	2.21	0.41
1:C:163:LYS:O	1:C:166:PHE:HB2	2.21	0.41
1:C:209:LYS:HD2	1:C:302:ALA:HA	2.01	0.41
1:C:321:THR:O	1:C:323:ASP:N	2.53	0.41
1:C:418:LYS:N	1:L:450:ALA:HB3	2.36	0.41
1:E:215:GLN:HG3	1:E:292:GLY:HA2	2.03	0.41
1:E:405:ALA:HA	1:E:408:VAL:HG22	2.03	0.41
1:F:40:LEU:HD22	1:F:41:SER:H	1.86	0.41
1:F:185:ALA:HA	1:F:309:ARG:HD3	2.01	0.41
1:G:14:SER:O	1:G:17:ILE:HG22	2.20	0.41
1:G:22:ILE:O	1:G:26:VAL:HG22	2.21	0.41
1:G:38:ILE:HA	1:G:50:VAL:HA	2.02	0.41
1:G:112:THR:CG2	1:G:418:LYS:HE2	2.46	0.41
1:G:177:LEU:HD22	1:G:186:ILE:HD11	2.02	0.41
1:H:306:GLY:O	1:H:309:ARG:HB2	2.21	0.41
1:I:38:ILE:O	1:I:38:ILE:HG13	2.20	0.41
1:I:58:LEU:CD2	1:N:1:ALA:HA	2.37	0.41
1:I:153:THR:HG21	1:I:383:VAL:HG21	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:245:VAL:HG11	1:I:250:LYS:CD	2.51	0.41
1:I:280:ARG:HG3	1:I:304:PHE:HA	2.02	0.41
1:K:48:LEU:C	1:K:48:LEU:HD13	2.46	0.41
1:K:191:LYS:H	1:K:363:ARG:HA	1.85	0.41
1:L:200:TYR:O	1:L:361:VAL:HB	2.20	0.41
1:L:402:MET:SD	1:L:453:ARG:HG2	2.61	0.41
1:M:40:LEU:HA	1:M:48:LEU:HD23	2.02	0.41
1:M:82:VAL:HG11	1:M:486:VAL:N	2.36	0.41
1:M:431:ARG:NH1	1:M:453:ARG:HD3	2.36	0.41
1:O:36:ASP:HB3	1:O:375:ARG:HH12	1.84	0.41
1:O:82:VAL:CG1	1:O:486:VAL:HG12	2.50	0.41
1:O:103:LEU:HD21	1:O:113:ILE:HG21	2.03	0.41
1:O:185:ALA:HA	1:O:309:ARG:HD3	2.03	0.41
1:O:344:ASP:O	1:O:346:LEU:HD13	2.20	0.41
1:P:13:LEU:HD23	1:P:13:LEU:C	2.45	0.41
1:P:190:LYS:CD	1:P:190:LYS:H	2.34	0.41
1:P:222:ALA:HA	1:P:275:ASN:CG	2.46	0.41
1:P:277:PHE:CE2	1:P:279:ASN:HB2	2.55	0.41
1:P:408:VAL:HG23	1:P:427:ALA:HB1	2.03	0.41
1:P:438:ALA:HB2	1:P:448:LEU:CD1	2.50	0.41
1:P:500:VAL:HG13	1:P:501:ILE:N	2.36	0.41
1:A:28:SER:OG	1:A:35:MET:HB2	2.20	0.41
1:A:133:VAL:HG11	1:A:394:VAL:HG12	2.01	0.41
1:B:57:ILE:HD13	1:B:57:ILE:O	2.20	0.41
1:B:341:ILE:O	1:B:343:GLU:N	2.51	0.41
1:C:259:LYS:O	1:C:262:MET:HB3	2.20	0.41
1:C:324:HIS:O	1:C:329:LYS:HG3	2.20	0.41
1:D:173:ALA:O	1:D:176:ARG:HG2	2.20	0.41
1:D:192:LEU:HD12	1:D:192:LEU:N	2.36	0.41
1:E:113:ILE:HG23	1:E:422:ALA:HB2	2.02	0.41
1:E:340:MET:SD	1:E:345:LYS:HG2	2.61	0.41
1:E:496:GLU:O	1:E:500:VAL:HG13	2.21	0.41
1:F:100:ALA:HA	1:F:103:LEU:HD13	2.03	0.41
1:H:110:PRO:HG3	1:H:502:LEU:HD21	2.03	0.41
1:H:183:LEU:HD13	1:H:381:LEU:HD11	2.02	0.41
1:I:70:VAL:HG11	1:I:507:ILE:HG22	2.02	0.41
1:I:437:ILE:CG2	1:I:467:MET:HE2	2.50	0.41
1:K:92:LEU:O	1:K:95:GLU:HG2	2.20	0.41
1:K:191:LYS:HG3	1:K:343:GLU:CD	2.45	0.41
1:K:373:ALA:O	1:K:377:LEU:HB2	2.21	0.41
1:L:114:ILE:HD12	1:L:114:ILE:C	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:206:LEU:HD13	1:L:206:LEU:C	2.46	0.41
1:M:175:LEU:O	1:M:178:LYS:HG2	2.20	0.41
1:N:7:ARG:HD2	1:N:503:ARG:HB2	2.01	0.41
1:N:163:LYS:HD2	1:N:166:PHE:CB	2.50	0.41
1:N:163:LYS:HD2	1:N:166:PHE:HB2	2.01	0.41
1:N:335:LEU:HD23	1:N:335:LEU:C	2.45	0.41
1:O:372:GLU:HB2	1:O:375:ARG:NH2	2.35	0.41
1:O:398:GLY:HA2	1:O:401:GLU:CD	2.46	0.41
1:O:402:MET:HG2	1:O:431:ARG:NH2	2.35	0.41
1:O:443:TYR:CZ	1:O:470:GLY:HA3	2.55	0.41
1:P:69:LYS:O	1:P:72:VAL:HB	2.21	0.41
1:P:225:LEU:HB3	1:P:277:PHE:CD1	2.56	0.41
1:A:341:ILE:O	1:A:343:GLU:N	2.52	0.41
1:A:508:ILE:HD12	1:F:40:LEU:HB3	2.02	0.41
1:B:52:ASN:HB2	1:B:375:ARG:HH11	1.85	0.41
1:B:402:MET:CE	1:B:453:ARG:HG2	2.37	0.41
1:C:152:THR:HB	1:C:480:ILE:HA	2.01	0.41
1:C:181:GLY:HA3	1:C:356:GLU:CD	2.46	0.41
1:C:226:ILE:O	1:C:329:LYS:HE3	2.21	0.41
1:C:398:GLY:HA2	1:C:401:GLU:OE1	2.20	0.41
1:D:58:LEU:HD12	1:D:72:VAL:CG2	2.50	0.41
1:D:280:ARG:O	1:D:280:ARG:CG	2.60	0.41
1:E:131:SER:CB	1:E:403:LEU:HD23	2.51	0.41
1:E:352:VAL:CG2	1:E:355:GLY:H	2.33	0.41
1:E:367:GLN:HB2	1:E:368:GLN:H	1.68	0.41
1:E:452:LEU:HA	1:E:472:ILE:HG21	2.01	0.41
1:F:257:ALA:O	1:F:261:LYS:HD2	2.21	0.41
1:F:310:LEU:O	1:F:314:THR:HG22	2.20	0.41
1:G:265:LYS:HE2	1:G:322:PHE:CE1	2.56	0.41
1:G:444:ASP:OD2	1:N:108:ILE:HG12	2.20	0.41
1:H:40:LEU:HD22	1:H:41:SER:H	1.86	0.41
1:H:59:LYS:NZ	1:H:76:ARG:HB2	2.35	0.41
1:I:36:ASP:O	1:N:7:ARG:HD3	2.20	0.41
1:I:58:LEU:HB3	1:I:72:VAL:HG13	2.02	0.41
1:I:82:VAL:HG23	1:I:386:GLN:CB	2.51	0.41
1:I:207:LEU:HD13	1:I:208:ASP:N	2.35	0.41
1:J:163:LYS:NZ	1:J:373:ALA:HA	2.35	0.41
1:L:178:LYS:HE2	1:L:388:VAL:HG13	2.02	0.41
1:L:373:ALA:O	1:L:377:LEU:CB	2.68	0.41
1:N:216:PRO:HG2	1:N:295:GLY:C	2.45	0.41
1:O:163:LYS:O	1:O:166:PHE:HB2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:219:ILE:CD1	1:O:276:CYS:HB2	2.51	0.41
1:O:233:THR:O	1:O:234:ASP:HB3	2.21	0.41
1:P:23:GLY:HA2	1:P:26:VAL:CG2	2.51	0.41
1:P:78:GLN:CD	1:P:489:GLN:HB2	2.45	0.41
1:P:139:GLU:O	1:P:140:VAL:HB	2.20	0.41
1:P:399:CYS:SG	1:P:464:GLY:CA	3.07	0.41
1:P:424:GLU:O	1:P:427:ALA:HB3	2.20	0.41
1:P:451:GLN:O	1:P:472:ILE:HD13	2.20	0.41
1:A:297:MET:HE1	1:A:336:ILE:HG22	2.03	0.41
1:B:68:ALA:O	1:B:72:VAL:HG23	2.21	0.41
1:B:132:ALA:HB1	1:B:394:VAL:HA	2.03	0.41
1:B:405:ALA:HA	1:B:408:VAL:CG2	2.50	0.41
1:C:40:LEU:C	1:C:40:LEU:HD13	2.46	0.41
1:C:114:ILE:O	1:C:504:VAL:HG13	2.18	0.41
1:C:159:LEU:HG	1:C:163:LYS:HD2	2.00	0.41
1:C:221:ASN:HA	1:C:333:CYS:HB2	2.02	0.41
1:C:390:ASP:HB2	1:C:485:GLN:HE22	1.83	0.41
1:D:200:TYR:CD2	1:D:363:ARG:NH2	2.89	0.41
1:F:112:THR:HG21	1:F:418:LYS:HG3	2.03	0.41
1:F:145:ASP:C	1:F:171:VAL:HG11	2.45	0.41
1:F:216:PRO:HG2	1:F:295:GLY:CA	2.50	0.41
1:F:334:LYS:HD2	1:F:351:GLY:HA3	2.01	0.41
1:G:75:SER:O	1:G:78:GLN:HB3	2.21	0.41
1:H:38:ILE:H	1:H:38:ILE:HG12	1.69	0.41
1:H:190:LYS:HD2	1:H:190:LYS:C	2.46	0.41
1:I:106:LYS:HE3	1:I:108:ILE:CD1	2.50	0.41
1:J:114:ILE:HG23	1:J:499:GLU:OE1	2.21	0.41
1:J:123:ALA:C	1:J:125:ARG:N	2.78	0.41
1:J:178:LYS:HD3	1:J:388:VAL:HG21	2.03	0.41
1:J:402:MET:CE	1:J:453:ARG:HG2	2.45	0.41
1:K:19:ALA:HB2	1:K:97:LEU:HD12	2.01	0.41
1:K:313:VAL:HG13	1:K:352:VAL:HB	2.02	0.41
1:M:32:PRO:HA	1:M:155:SER:CA	2.51	0.41
1:M:402:MET:HE3	1:M:453:ARG:CG	2.40	0.41
1:N:191:LYS:HG2	1:N:192:LEU:N	2.35	0.41
1:O:16:PHE:HA	1:O:97:LEU:CD2	2.50	0.41
1:O:206:LEU:HD21	1:O:346:LEU:HB2	2.02	0.41
1:O:508:ILE:HG12	1:O:509:LYS:HE3	2.01	0.41
1:P:340:MET:HE1	1:P:345:LYS:HE2	2.02	0.41
1:P:408:VAL:HB	1:P:427:ALA:HB1	2.03	0.41
1:P:484:PHE:HE1	1:P:488:ARG:HE	1.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:32:PRO:CA	1:A:155:SER:HB3	2.50	0.41
1:B:26:VAL:O	1:B:29:THR:HB	2.21	0.41
1:B:112:THR:OG1	1:G:442:GLY:CA	2.68	0.41
1:B:214:ASN:O	1:B:215:GLN:CB	2.65	0.41
1:B:222:ALA:HA	1:B:275:ASN:CB	2.51	0.41
1:B:317:GLU:OE2	1:B:329:LYS:HE3	2.20	0.41
1:B:438:ALA:CB	1:B:448:LEU:HG	2.47	0.41
1:C:38:ILE:CB	1:H:507:ILE:HD13	2.50	0.41
1:C:146:LEU:HD12	1:C:171:VAL:HG13	2.02	0.41
1:C:205:PHE:HA	1:C:359:THR:OG1	2.20	0.41
1:C:222:ALA:HA	1:C:275:ASN:CB	2.51	0.41
1:C:243:VAL:HG12	1:C:244:ARG:N	2.36	0.41
1:C:408:VAL:HA	1:C:411:LEU:CD1	2.51	0.41
1:C:433:LEU:C	1:C:436:ILE:HG22	2.45	0.41
1:C:488:ARG:O	1:C:492:LEU:HD23	2.21	0.41
1:D:39:LEU:HD12	1:E:510:ALA:N	2.36	0.41
1:D:148:ASN:HA	1:D:479:GLY:O	2.21	0.41
1:D:261:LYS:O	1:D:265:LYS:HG3	2.21	0.41
1:D:372:GLU:O	1:D:375:ARG:HB3	2.21	0.41
1:E:61:ILE:HG21	1:G:512:PRO:O	2.21	0.41
1:E:117:TRP:CD2	1:E:499:GLU:HG3	2.56	0.41
1:E:166:PHE:CE1	1:E:198:ASP:HB3	2.55	0.41
1:E:321:THR:C	1:E:323:ASP:H	2.29	0.41
1:E:364:GLY:O	1:E:370:LEU:HD22	2.21	0.41
1:E:412:ALA:O	1:E:420:ALA:HB1	2.20	0.41
1:F:19:ALA:HB3	1:F:98:ARG:NH2	2.35	0.41
1:F:92:LEU:HD11	1:F:433:LEU:HD11	2.03	0.41
1:F:186:ILE:HD13	1:F:381:LEU:HD21	2.03	0.41
1:F:418:LYS:HE2	1:O:447:ASP:HB2	2.01	0.41
1:F:484:PHE:HE2	1:F:488:ARG:HE	1.67	0.41
1:G:274:ILE:HG23	1:G:274:ILE:O	2.19	0.41
1:G:450:ALA:HA	1:N:417:GLY:HA2	2.03	0.41
1:H:110:PRO:CB	1:H:502:LEU:HD22	2.50	0.41
1:H:188:VAL:HG21	1:H:362:LEU:HD11	2.02	0.41
1:H:190:LYS:HD3	1:H:370:LEU:CD2	2.49	0.41
1:H:207:LEU:HD22	1:H:208:ASP:H	1.86	0.41
1:H:222:ALA:HA	1:H:275:ASN:OD1	2.21	0.41
1:I:159:LEU:HG	1:I:163:LYS:HD2	2.02	0.41
1:I:284:TYR:CE2	1:I:286:TYR:CD1	3.09	0.41
1:I:452:LEU:HD22	1:I:465:LEU:HD11	2.02	0.41
1:J:191:LYS:HD3	1:J:191:LYS:HA	1.82	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:367:GLN:HG2	1:J:369:ILE:HB	2.01	0.41
1:J:452:LEU:HD22	1:J:465:LEU:HD11	2.03	0.41
1:K:32:PRO:HD3	1:K:467:MET:SD	2.61	0.41
1:K:64:ASP:CG	1:K:66:PRO:HD2	2.45	0.41
1:K:103:LEU:O	1:K:106:LYS:HB3	2.20	0.41
1:K:176:ARG:NE	1:K:358:CYS:HB2	2.36	0.41
1:K:369:ILE:O	1:K:372:GLU:HB3	2.20	0.41
1:L:78:GLN:HG3	1:L:83:GLY:HA2	2.02	0.41
1:L:79:ASP:HA	1:L:83:GLY:N	2.36	0.41
1:L:259:LYS:O	1:L:263:LYS:HG2	2.21	0.41
1:L:487:LYS:O	1:L:491:LEU:HG	2.20	0.41
1:M:32:PRO:HG3	1:M:155:SER:HB3	2.02	0.41
1:M:310:LEU:O	1:M:313:VAL:HB	2.21	0.41
1:N:40:LEU:HD12	1:N:48:LEU:CG	2.51	0.41
1:N:71:LEU:HD12	1:N:497:ALA:HB2	2.03	0.41
1:N:219:ILE:HD12	1:N:275:ASN:CB	2.50	0.41
1:N:324:HIS:HB2	1:N:329:LYS:HE2	2.02	0.41
1:O:74:MET:HE2	1:O:77:VAL:CG1	2.51	0.41
1:O:117:TRP:HD1	1:O:495:ALA:HA	1.86	0.41
1:O:236:ILE:HG12	1:O:237:LYS:N	2.33	0.41
1:O:280:ARG:O	1:O:281:GLN:CB	2.68	0.41
1:O:354:LEU:HG	1:O:356:GLU:H	1.86	0.41
1:O:365:ALA:N	1:O:370:LEU:HD12	2.36	0.41
1:P:78:GLN:O	1:P:83:GLY:N	2.54	0.41
1:P:79:ASP:HA	1:P:83:GLY:N	2.36	0.41
1:P:322:PHE:HA	1:P:324:HIS:CD2	2.56	0.41
1:P:431:ARG:CZ	1:P:431:ARG:HA	2.50	0.41
1:A:173:ALA:HA	1:A:176:ARG:NH1	2.35	0.41
1:A:214:ASN:O	1:A:215:GLN:CB	2.67	0.41
1:A:222:ALA:HA	1:A:275:ASN:HB2	2.02	0.41
1:A:431:ARG:C	1:A:434:PRO:HD2	2.46	0.41
1:B:222:ALA:HA	1:B:275:ASN:CG	2.45	0.41
1:B:317:GLU:CB	1:B:329:LYS:HD3	2.50	0.41
1:C:50:VAL:HG23	1:C:375:ARG:NH2	2.36	0.41
1:C:412:ALA:O	1:C:413:SER:CB	2.69	0.41
1:D:502:LEU:C	1:D:502:LEU:CD1	2.94	0.41
1:E:100:ALA:HA	1:E:103:LEU:CD2	2.49	0.41
1:E:372:GLU:HG3	1:E:375:ARG:NH1	2.35	0.41
1:F:145:ASP:CG	1:F:171:VAL:HB	2.46	0.41
1:G:96:LEU:HD21	1:G:117:TRP:CZ2	2.56	0.41
1:G:424:GLU:O	1:G:427:ALA:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:45:ASP:O	1:H:46:ALA:CB	2.68	0.41
1:H:170:ALA:O	1:H:173:ALA:HB3	2.21	0.41
1:H:354:LEU:HD22	1:H:354:LEU:HA	1.86	0.41
1:H:397:GLY:O	1:H:465:LEU:HB2	2.21	0.41
1:I:326:GLU:HB2	1:I:327:LEU:H	1.64	0.41
1:J:22:ILE:O	1:J:26:VAL:HG22	2.21	0.41
1:J:95:GLU:HA	1:J:98:ARG:HD2	2.02	0.41
1:J:188:VAL:HG11	1:J:377:LEU:CD2	2.37	0.41
1:J:503:ARG:HD2	1:N:369:ILE:CD1	2.49	0.41
1:L:36:ASP:CG	1:L:369:ILE:HG23	2.46	0.41
1:L:384:LEU:HA	1:L:387:THR:OG1	2.20	0.41
1:M:122:LYS:HD3	1:M:423:MET:HE1	2.03	0.41
1:M:321:THR:C	1:M:323:ASP:H	2.29	0.41
1:M:365:ALA:O	1:M:366:THR:CB	2.69	0.41
1:N:13:LEU:HD23	1:N:13:LEU:C	2.46	0.41
1:N:192:LEU:CB	1:N:343:GLU:HB3	2.51	0.41
1:N:222:ALA:HA	1:N:275:ASN:CG	2.46	0.41
1:N:222:ALA:HA	1:N:275:ASN:HB2	2.03	0.41
1:N:364:GLY:HA3	1:N:370:LEU:CD1	2.50	0.41
1:N:438:ALA:O	1:N:441:ALA:HB3	2.21	0.41
1:O:173:ALA:O	1:O:176:ARG:HG2	2.20	0.41
1:O:232:ASP:HA	1:O:284:TYR:HB2	2.03	0.41
1:P:16:PHE:HA	1:P:97:LEU:CD2	2.48	0.41
1:P:50:VAL:CG2	1:P:375:ARG:NH2	2.82	0.41
1:P:313:VAL:CG1	1:P:352:VAL:HB	2.51	0.41
1:A:39:LEU:HD22	1:C:513:ARG:CZ	2.51	0.40
1:A:96:LEU:C	1:A:96:LEU:HD22	2.46	0.40
1:A:131:SER:O	1:A:132:ALA:HB3	2.20	0.40
1:B:38:ILE:C	1:B:39:LEU:HD23	2.46	0.40
1:B:82:VAL:HG21	1:B:486:VAL:H	1.85	0.40
1:B:170:ALA:CB	1:B:384:LEU:HD23	2.51	0.40
1:B:308:GLU:OE1	1:G:213:VAL:HG21	2.21	0.40
1:C:16:PHE:HA	1:C:97:LEU:CD2	2.50	0.40
1:C:154:LEU:O	1:C:160:THR:HG23	2.21	0.40
1:C:223:LYS:HB2	1:C:274:ILE:HA	2.03	0.40
1:C:224:ILE:CD1	1:C:349:PHE:HE2	2.35	0.40
1:D:38:ILE:HD12	1:D:48:LEU:HD22	2.03	0.40
1:D:268:ARG:O	1:D:271:LYS:HG2	2.21	0.40
1:E:96:LEU:HD12	1:E:498:ALA:HB1	2.03	0.40
1:E:300:GLU:OE2	1:E:301:HIS:HB2	2.21	0.40
1:E:508:ILE:CG1	1:E:509:LYS:H	2.28	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:146:LEU:HB2	1:G:171:VAL:HG21	2.02	0.40
1:G:146:LEU:CD1	1:G:171:VAL:HG13	2.41	0.40
1:G:222:ALA:HA	1:G:275:ASN:CB	2.48	0.40
1:H:323:ASP:C	1:H:325:PRO:HD2	2.45	0.40
1:I:82:VAL:O	1:I:84:ASP:N	2.54	0.40
1:I:418:LYS:HG3	1:O:443:TYR:OH	2.21	0.40
1:J:193:GLY:HA2	1:J:343:GLU:HG2	2.02	0.40
1:K:231:MET:HE3	1:K:265:LYS:HZ3	1.87	0.40
1:K:397:GLY:HA3	1:K:475:MET:CE	2.52	0.40
1:L:300:GLU:OE2	1:L:301:HIS:HB2	2.22	0.40
1:M:451:GLN:NE2	1:M:471:THR:HA	2.35	0.40
1:N:117:TRP:NE1	1:N:498:ALA:HB3	2.36	0.40
1:N:321:THR:O	1:N:323:ASP:N	2.54	0.40
1:N:369:ILE:O	1:N:372:GLU:CB	2.66	0.40
1:N:493:SER:C	1:N:495:ALA:H	2.29	0.40
1:O:57:ILE:HG23	1:O:58:LEU:HD22	2.03	0.40
1:O:181:GLY:O	1:O:182:ASN:CB	2.69	0.40
1:P:10:THR:O	1:P:13:LEU:HB3	2.21	0.40
1:P:50:VAL:HG13	1:P:375:ARG:NH2	2.36	0.40
1:P:310:LEU:O	1:P:313:VAL:HB	2.21	0.40
1:P:362:LEU:HD13	1:P:362:LEU:O	2.21	0.40
1:A:204:GLY:O	1:A:359:THR:HB	2.21	0.40
1:A:405:ALA:HA	1:A:408:VAL:HG22	2.02	0.40
1:A:430:LEU:HD13	1:A:430:LEU:HA	1.89	0.40
1:B:222:ALA:CB	1:B:336:ILE:HD12	2.51	0.40
1:B:451:GLN:HE22	1:B:471:THR:HA	1.85	0.40
1:D:213:VAL:CG1	1:E:318:ILE:HD12	2.51	0.40
1:D:507:ILE:HG23	1:H:38:ILE:CD1	2.51	0.40
1:F:209:LYS:HE2	1:F:302:ALA:HA	2.03	0.40
1:G:32:PRO:CD	1:G:467:MET:CE	2.99	0.40
1:G:145:ASP:OD2	1:G:175:LEU:HD11	2.21	0.40
1:G:284:TYR:CE2	1:G:286:TYR:CD1	3.09	0.40
1:G:311:ALA:HA	1:G:314:THR:HG22	2.02	0.40
1:G:312:LEU:O	1:G:312:LEU:HD22	2.20	0.40
1:H:89:VAL:HG12	1:H:490:VAL:HG21	2.03	0.40
1:I:114:ILE:O	1:I:117:TRP:HB2	2.21	0.40
1:I:452:LEU:HD13	1:I:465:LEU:CD1	2.50	0.40
1:J:274:ILE:HG23	1:J:296:VAL:HG21	2.03	0.40
1:J:442:GLY:HA2	1:K:109:HIS:CE1	2.56	0.40
1:J:448:LEU:HD11	1:J:465:LEU:CD1	2.50	0.40
1:K:103:LEU:HG	1:K:113:ILE:HD12	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:431:ARG:HA	1:K:431:ARG:NE	2.37	0.40
1:L:134:ASP:HA	1:L:395:TYR:CZ	2.56	0.40
1:M:5:GLU:HG2	1:M:6:GLU:N	2.36	0.40
1:M:366:THR:O	1:M:367:GLN:O	2.40	0.40
1:M:404:MET:O	1:M:408:VAL:HG13	2.20	0.40
1:M:497:ALA:O	1:M:500:VAL:HG22	2.21	0.40
1:N:54:GLY:HA3	1:N:87:THR:HG21	2.03	0.40
1:N:225:LEU:HD13	1:N:329:LYS:CE	2.51	0.40
1:N:434:PRO:HB3	1:N:452:LEU:HD22	2.02	0.40
1:O:154:LEU:HD13	1:O:167:THR:OG1	2.21	0.40
1:O:511:ALA:CB	1:O:512:PRO:CD	2.99	0.40
1:P:280:ARG:HA	1:P:302:ALA:O	2.20	0.40
1:P:313:VAL:HG22	1:P:357:ALA:HB3	2.03	0.40
1:A:7:ARG:O	1:A:10:THR:HG23	2.21	0.40
1:A:182:ASN:CG	1:A:183:LEU:N	2.79	0.40
1:B:51:THR:CA	1:B:375:ARG:HD3	2.52	0.40
1:B:124:ALA:CB	1:B:491:LEU:HD13	2.52	0.40
1:B:174:VAL:HG11	1:B:384:LEU:HB3	2.03	0.40
1:C:95:GLU:CD	1:C:429:ALA:O	2.64	0.40
1:C:117:TRP:CD1	1:C:120:ALA:HB3	2.56	0.40
1:C:369:ILE:O	1:C:372:GLU:CB	2.68	0.40
1:D:74:MET:HE2	1:D:77:VAL:CG1	2.51	0.40
1:D:158:LEU:C	1:D:160:THR:H	2.29	0.40
1:D:206:LEU:HD13	1:D:206:LEU:C	2.47	0.40
1:D:506:ASN:HD22	1:H:39:LEU:HD23	1.86	0.40
1:E:57:ILE:HD13	1:E:57:ILE:O	2.20	0.40
1:E:109:HIS:CE1	1:E:112:THR:OG1	2.75	0.40
1:E:177:LEU:O	1:E:178:LYS:C	2.63	0.40
1:E:277:PHE:CE2	1:E:279:ASN:HB2	2.57	0.40
1:F:127:ALA:HB2	1:F:404:MET:SD	2.61	0.40
1:F:146:LEU:O	1:F:147:MET:HB2	2.21	0.40
1:F:317:GLU:HB3	1:F:329:LYS:CG	2.45	0.40
1:G:46:ALA:O	1:G:47:SER:HB2	2.21	0.40
1:G:484:PHE:CE2	1:G:488:ARG:NE	2.89	0.40
1:H:95:GLU:HA	1:H:98:ARG:HD2	2.03	0.40
1:H:225:LEU:HD13	1:H:329:LYS:HE2	2.03	0.40
1:I:215:GLN:HG3	1:I:292:GLY:HA2	2.02	0.40
1:I:259:LYS:O	1:I:263:LYS:HG2	2.22	0.40
1:J:52:ASN:HB2	1:J:375:ARG:HD3	2.03	0.40
1:K:143:ARG:NE	1:K:143:ARG:CA	2.84	0.40
1:K:399:CYS:SG	1:K:464:GLY:CA	3.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:282:LEU:H	1:L:282:LEU:HD22	1.86	0.40
1:L:426:TYR:O	1:L:429:ALA:HB3	2.20	0.40
1:M:58:LEU:CB	1:M:72:VAL:HG13	2.48	0.40
1:M:222:ALA:HA	1:M:275:ASN:CB	2.51	0.40
1:M:430:LEU:HD13	1:M:430:LEU:HA	1.82	0.40
1:M:469:GLU:HA	1:M:469:GLU:OE1	2.21	0.40
1:N:509:LYS:O	1:N:510:ALA:HB3	2.21	0.40
1:O:154:LEU:HD23	1:O:163:LYS:HG3	2.03	0.40
1:P:38:ILE:H	1:P:38:ILE:HG13	1.75	0.40
1:P:111:GLN:HA	1:P:114:ILE:CG1	2.49	0.40
1:A:508:ILE:HD13	1:F:40:LEU:HD12	2.04	0.40
1:B:36:ASP:C	1:B:37:LYS:HD2	2.46	0.40
1:B:37:LYS:NZ	1:F:504:VAL:HG13	2.36	0.40
1:B:163:LYS:HE3	1:B:376:SER:CB	2.51	0.40
1:C:93:ALA:O	1:C:96:LEU:HB3	2.22	0.40
1:C:372:GLU:C	1:C:375:ARG:HD2	2.46	0.40
1:D:166:PHE:HD1	1:D:166:PHE:N	2.18	0.40
1:D:225:LEU:HD11	1:D:324:HIS:CE1	2.57	0.40
1:E:16:PHE:HA	1:E:97:LEU:CD2	2.52	0.40
1:E:39:LEU:HD13	1:G:512:PRO:HB2	2.02	0.40
1:F:27:LYS:CA	1:F:436:ILE:HD11	2.50	0.40
1:F:117:TRP:NE1	1:F:499:GLU:HB2	2.36	0.40
1:G:129:LEU:CD1	1:G:487:LYS:HD2	2.52	0.40
1:G:204:GLY:O	1:G:359:THR:HB	2.22	0.40
1:G:317:GLU:HB3	1:G:329:LYS:HD3	2.03	0.40
1:H:51:THR:HG22	1:H:53:ASP:O	2.21	0.40
1:H:171:VAL:HG12	1:H:384:LEU:CD2	2.51	0.40
1:H:452:LEU:HA	1:H:472:ILE:HG21	2.03	0.40
1:I:152:THR:OG1	1:I:480:ILE:HD12	2.21	0.40
1:I:225:LEU:HD11	1:I:324:HIS:CE1	2.56	0.40
1:I:452:LEU:HD11	1:I:456:HIS:CE1	2.57	0.40
1:J:82:VAL:HG13	1:J:83:GLY:H	1.85	0.40
1:J:405:ALA:HA	1:J:408:VAL:CG2	2.51	0.40
1:L:51:THR:HG23	1:L:375:ARG:CD	2.52	0.40
1:L:280:ARG:HG3	1:L:304:PHE:HB2	2.04	0.40
1:L:452:LEU:CD1	1:L:465:LEU:HD22	2.51	0.40
1:L:504:VAL:HG22	1:P:37:LYS:HD3	2.02	0.40
1:M:159:LEU:H	1:M:159:LEU:HD12	1.86	0.40
1:M:225:LEU:HD21	1:M:324:HIS:ND1	2.37	0.40
1:N:114:ILE:HA	1:N:117:TRP:CE3	2.57	0.40
1:N:154:LEU:HD23	1:N:164:ASP:HA	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:226:ILE:HG12	1:N:278:ILE:HG23	2.03	0.40
1:N:503:ARG:HA	1:N:503:ARG:HD3	1.74	0.40
1:O:20:ILE:HA	1:O:98:ARG:HH12	1.86	0.40
1:O:159:LEU:CG	1:O:163:LYS:HG2	2.45	0.40
1:P:50:VAL:CG2	1:P:375:ARG:HH22	2.33	0.40
1:P:82:VAL:HA	1:P:386:GLN:HG3	2.02	0.40
1:P:119:GLU:HG3	1:P:419:GLU:HA	2.02	0.40
1:P:206:LEU:HD21	1:P:346:LEU:HB3	2.03	0.40
1:P:397:GLY:HA3	1:P:475:MET:CE	2.48	0.40
1:B:1:ALA:HA	1:B:508:ILE:HG12	2.04	0.40
1:B:114:ILE:C	1:B:116:GLY:N	2.79	0.40
1:B:187:HIS:HB2	1:B:309:ARG:HD3	2.02	0.40
1:B:189:ILE:HG22	1:B:190:LYS:N	2.36	0.40
1:B:191:LYS:HD2	1:B:191:LYS:HA	1.92	0.40
1:B:284:TYR:CE2	1:B:286:TYR:HD1	2.40	0.40
1:C:139:GLU:OE2	1:C:140:VAL:HG23	2.21	0.40
1:C:222:ALA:CB	1:C:336:ILE:HD12	2.52	0.40
1:C:280:ARG:O	1:C:281:GLN:CB	2.68	0.40
1:D:14:SER:O	1:D:17:ILE:HG22	2.22	0.40
1:D:384:LEU:O	1:D:388:VAL:HG12	2.20	0.40
1:E:131:SER:HB2	1:E:403:LEU:HD23	2.04	0.40
1:E:132:ALA:O	1:E:133:VAL:HG13	2.21	0.40
1:E:186:ILE:HG23	1:E:360:ILE:HD12	2.03	0.40
1:E:245:VAL:HG22	1:E:246:ASP:N	2.37	0.40
1:F:341:ILE:HG13	1:F:346:LEU:HD13	2.04	0.40
1:F:443:TYR:CD2	1:F:470:GLY:HA2	2.56	0.40
1:G:397:GLY:HA3	1:G:475:MET:CE	2.51	0.40
1:H:107:LYS:HE3	1:P:439:ASP:CG	2.46	0.40
1:H:112:THR:O	1:H:418:LYS:HE3	2.21	0.40
1:H:188:VAL:HB	1:H:377:LEU:HD13	2.02	0.40
1:H:338:GLU:HA	1:H:347:ILE:HA	2.03	0.40
1:H:369:ILE:O	1:H:372:GLU:CB	2.63	0.40
1:I:22:ILE:HG13	1:I:23:GLY:N	2.36	0.40
1:I:35:MET:CE	1:I:440:ASN:HB2	2.47	0.40
1:I:222:ALA:HA	1:I:275:ASN:CB	2.52	0.40
1:J:173:ALA:HA	1:J:176:ARG:CZ	2.52	0.40
1:J:372:GLU:CG	1:J:375:ARG:HD2	2.51	0.40
1:K:171:VAL:C	1:K:174:VAL:HG13	2.46	0.40
1:K:173:ALA:HA	1:K:176:ARG:CZ	2.51	0.40
1:K:176:ARG:HH22	1:K:360:ILE:HG13	1.86	0.40
1:K:178:LYS:HG3	1:K:388:VAL:CG2	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:325:PRO:C	1:K:326:GLU:HG3	2.46	0.40
1:L:32:PRO:HG3	1:L:467:MET:SD	2.61	0.40
1:L:159:LEU:HD23	1:L:163:LYS:HB3	2.02	0.40
1:L:317:GLU:HB2	1:L:329:LYS:HA	2.03	0.40
1:M:146:LEU:CD2	1:M:147:MET:N	2.80	0.40
1:M:184:GLU:O	1:M:186:ILE:HG13	2.22	0.40
1:M:334:LYS:CB	1:M:351:GLY:HA3	2.52	0.40
1:M:438:ALA:O	1:M:441:ALA:HB3	2.22	0.40
1:N:13:LEU:O	1:N:16:PHE:HB3	2.22	0.40
1:N:51:THR:HG21	1:N:56:THR:HB	2.04	0.40
1:O:103:LEU:HA	1:O:106:LYS:HB3	2.03	0.40
1:O:189:ILE:HG22	1:O:190:LYS:N	2.36	0.40
1:O:219:ILE:HB	1:O:275:ASN:HB3	2.04	0.40
1:O:437:ILE:HG23	1:O:467:MET:SD	2.61	0.40
1:P:185:ALA:HB1	1:P:357:ALA:CB	2.52	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	511/513 (100%)	455 (89%)	30 (6%)	26 (5%)	1	15
1	B	484/513 (94%)	432 (89%)	30 (6%)	22 (4%)	2	17
1	C	511/513 (100%)	449 (88%)	25 (5%)	37 (7%)	1	11
1	D	485/513 (94%)	438 (90%)	23 (5%)	24 (5%)	1	16
1	E	511/513 (100%)	458 (90%)	29 (6%)	24 (5%)	2	16
1	F	511/513 (100%)	449 (88%)	32 (6%)	30 (6%)	1	13
1	G	483/513 (94%)	424 (88%)	31 (6%)	28 (6%)	1	14
1	H	485/513 (94%)	436 (90%)	22 (4%)	27 (6%)	1	14

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	I	511/513 (100%)	454 (89%)	25 (5%)	32 (6%)	1	13
1	J	481/513 (94%)	435 (90%)	21 (4%)	25 (5%)	1	15
1	K	486/513 (95%)	435 (90%)	26 (5%)	25 (5%)	1	15
1	L	490/513 (96%)	439 (90%)	30 (6%)	21 (4%)	2	17
1	M	511/513 (100%)	463 (91%)	17 (3%)	31 (6%)	1	13
1	N	484/513 (94%)	441 (91%)	27 (6%)	16 (3%)	3	21
1	O	511/513 (100%)	454 (89%)	26 (5%)	31 (6%)	1	13
1	P	485/513 (94%)	442 (91%)	22 (4%)	21 (4%)	2	17
All	All	7940/8208 (97%)	7104 (90%)	416 (5%)	420 (5%)	2	15

All (420) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	82	VAL
1	A	208	ASP
1	A	215	GLN
1	A	234	ASP
1	A	236	ILE
1	A	241	SER
1	A	281	GLN
1	A	325	PRO
1	A	366	THR
1	A	511	ALA
1	B	4	ASP
1	B	8	ALA
1	B	139	GLU
1	B	141	LYS
1	B	182	ASN
1	B	215	GLN
1	B	220	GLU
1	B	274	ILE
1	B	366	THR
1	C	2	GLY
1	C	3	ALA
1	C	32	PRO
1	C	82	VAL
1	C	84	ASP
1	C	115	ALA
1	C	131	SER

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Mol	Chain	Res	Type
1	C	133	VAL
1	C	141	LYS
1	C	215	GLN
1	C	234	ASP
1	C	236	ILE
1	C	247	SER
1	C	281	GLN
1	C	325	PRO
1	C	342	GLY
1	C	366	THR
1	C	503	ARG
1	C	504	VAL
1	C	506	ASN
1	C	509	LYS
1	C	511	ALA
1	D	68	ALA
1	D	131	SER
1	D	139	GLU
1	D	142	PHE
1	D	182	ASN
1	D	215	GLN
1	D	274	ILE
1	D	366	THR
1	D	504	VAL
1	D	511	ALA
1	E	68	ALA
1	E	132	ALA
1	E	133	VAL
1	E	139	GLU
1	E	215	GLN
1	E	236	ILE
1	E	281	GLN
1	E	322	PHE
1	E	325	PRO
1	E	340	MET
1	E	507	ILE
1	E	510	ALA
1	E	512	PRO
1	F	47	SER
1	F	68	ALA
1	F	82	VAL
1	F	84	ASP

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Mol	Chain	Res	Type
1	F	108	ILE
1	F	141	LYS
1	F	142	PHE
1	F	215	GLN
1	F	234	ASP
1	F	236	ILE
1	F	248	THR
1	F	325	PRO
1	F	366	THR
1	F	416	PRO
1	F	417	GLY
1	F	506	ASN
1	G	8	ALA
1	G	47	SER
1	G	124	ALA
1	G	127	ALA
1	G	139	GLU
1	G	141	LYS
1	G	142	PHE
1	G	180	SER
1	G	215	GLN
1	G	281	GLN
1	G	325	PRO
1	G	366	THR
1	H	46	ALA
1	H	68	ALA
1	H	139	GLU
1	H	201	LEU
1	H	215	GLN
1	H	274	ILE
1	H	325	PRO
1	H	511	ALA
1	I	3	ALA
1	I	82	VAL
1	I	83	GLY
1	I	129	LEU
1	I	139	GLU
1	I	141	LYS
1	I	182	ASN
1	I	215	GLN
1	I	234	ASP
1	I	236	ILE

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Mol	Chain	Res	Type
1	I	241	SER
1	I	325	PRO
1	I	504	VAL
1	I	506	ASN
1	I	508	ILE
1	I	509	LYS
1	I	511	ALA
1	J	2	GLY
1	J	82	VAL
1	J	84	ASP
1	J	129	LEU
1	J	139	GLU
1	J	274	ILE
1	J	325	PRO
1	J	366	THR
1	J	507	ILE
1	K	3	ALA
1	K	42	SER
1	K	47	SER
1	K	48	LEU
1	K	134	ASP
1	K	139	GLU
1	K	160	THR
1	K	215	GLN
1	K	325	PRO
1	K	366	THR
1	K	417	GLY
1	K	511	ALA
1	L	46	ALA
1	L	82	VAL
1	L	84	ASP
1	L	107	LYS
1	L	132	ALA
1	L	139	GLU
1	L	215	GLN
1	L	342	GLY
1	L	510	ALA
1	M	6	GLU
1	M	68	ALA
1	M	82	VAL
1	M	142	PHE
1	M	185	ALA

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Mol	Chain	Res	Type
1	M	215	GLN
1	M	234	ASP
1	M	236	ILE
1	M	241	SER
1	M	274	ILE
1	M	281	GLN
1	M	325	PRO
1	M	366	THR
1	M	367	GLN
1	M	504	VAL
1	M	507	ILE
1	M	509	LYS
1	M	510	ALA
1	N	8	ALA
1	N	68	ALA
1	N	131	SER
1	N	139	GLU
1	N	141	LYS
1	N	185	ALA
1	N	215	GLN
1	N	325	PRO
1	O	8	ALA
1	O	46	ALA
1	O	48	LEU
1	O	84	ASP
1	O	107	LYS
1	O	133	VAL
1	O	139	GLU
1	O	159	LEU
1	O	160	THR
1	O	182	ASN
1	O	215	GLN
1	O	236	ILE
1	O	244	ARG
1	O	247	SER
1	O	281	GLN
1	O	366	THR
1	O	506	ASN
1	O	507	ILE
1	O	511	ALA
1	O	512	PRO
1	P	82	VAL

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Mol	Chain	Res	Type
1	P	133	VAL
1	P	137	SER
1	P	141	LYS
1	P	182	ASN
1	P	215	GLN
1	P	281	GLN
1	P	322	PHE
1	P	325	PRO
1	P	367	GLN
1	P	500	VAL
1	P	503	ARG
1	P	508	ILE
1	A	8	ALA
1	A	46	ALA
1	A	68	ALA
1	A	160	THR
1	A	274	ILE
1	A	322	PHE
1	A	342	GLY
1	A	508	ILE
1	B	68	ALA
1	B	133	VAL
1	B	322	PHE
1	B	342	GLY
1	B	508	ILE
1	C	8	ALA
1	C	68	ALA
1	C	138	ASP
1	C	142	PHE
1	C	274	ILE
1	C	322	PHE
1	C	416	PRO
1	C	508	ILE
1	D	133	VAL
1	D	141	LYS
1	D	281	GLN
1	D	322	PHE
1	D	505	ASP
1	E	82	VAL
1	E	141	LYS
1	E	178	LYS
1	E	179	GLY

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Mol	Chain	Res	Type
1	E	192	LEU
1	E	234	ASP
1	E	249	ALA
1	E	274	ILE
1	F	8	ALA
1	F	247	SER
1	F	274	ILE
1	F	322	PHE
1	G	36	ASP
1	G	82	VAL
1	G	159	LEU
1	G	322	PHE
1	G	331	GLY
1	H	8	ALA
1	H	43	GLY
1	H	133	VAL
1	H	141	LYS
1	H	158	LEU
1	H	182	ASN
1	H	322	PHE
1	H	501	ILE
1	H	510	ALA
1	I	68	ALA
1	I	81	GLU
1	I	140	VAL
1	I	183	LEU
1	I	246	ASP
1	I	274	ILE
1	I	322	PHE
1	I	326	GLU
1	I	416	PRO
1	I	505	ASP
1	J	8	ALA
1	J	68	ALA
1	J	83	GLY
1	J	123	ALA
1	J	141	LYS
1	K	6	GLU
1	K	30	LEU
1	K	141	LYS
1	K	274	ILE
1	K	322	PHE

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Mol	Chain	Res	Type
1	L	133	VAL
1	L	141	LYS
1	L	159	LEU
1	L	182	ASN
1	L	274	ILE
1	L	322	PHE
1	L	366	THR
1	M	5	GLU
1	M	8	ALA
1	M	134	ASP
1	M	141	LYS
1	M	508	ILE
1	N	75	SER
1	N	80	ASP
1	N	114	ILE
1	N	274	ILE
1	N	322	PHE
1	O	68	ALA
1	O	82	VAL
1	O	141	LYS
1	O	234	ASP
1	O	274	ILE
1	O	322	PHE
1	O	508	ILE
1	P	8	ALA
1	P	84	ASP
1	P	139	GLU
1	P	159	LEU
1	P	274	ILE
1	A	5	GLU
1	A	88	SER
1	A	139	GLU
1	B	281	GLN
1	B	325	PRO
1	B	343	GLU
1	B	510	ALA
1	C	159	LEU
1	C	413	SER
1	D	46	ALA
1	D	159	LEU
1	E	8	ALA
1	F	32	PRO

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Mol	Chain	Res	Type
1	F	42	SER
1	F	132	ALA
1	F	139	GLU
1	F	281	GLN
1	G	68	ALA
1	G	132	ALA
1	G	412	ALA
1	H	3	ALA
1	H	114	ILE
1	H	281	GLN
1	H	335	LEU
1	I	43	GLY
1	I	281	GLN
1	J	160	THR
1	J	281	GLN
1	J	322	PHE
1	J	379	ASP
1	K	281	GLN
1	L	68	ALA
1	L	194	GLY
1	L	325	PRO
1	L	506	ASN
1	M	139	GLU
1	M	184	GLU
1	M	322	PHE
1	M	505	ASP
1	N	3	ALA
1	N	366	THR
1	O	325	PRO
1	P	32	PRO
1	A	108	ILE
1	A	182	ASN
1	C	139	GLU
1	C	241	SER
1	D	510	ALA
1	E	199	SER
1	F	335	LEU
1	H	47	SER
1	H	180	SER
1	H	193	GLY
1	I	131	SER
1	J	131	SER

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Mol	Chain	Res	Type
1	J	215	GLN
1	J	321	THR
1	K	142	PHE
1	L	3	ALA
1	M	340	MET
1	O	343	GLU
1	P	108	ILE
1	P	114	ILE
1	A	140	VAL
1	B	511	ALA
1	D	6	GLU
1	D	364	GLY
1	F	2	GLY
1	G	3	ALA
1	G	108	ILE
1	G	274	ILE
1	K	7	ARG
1	K	44	ARG
1	K	512	PRO
1	M	108	ILE
1	M	159	LEU
1	A	141	LYS
1	B	108	ILE
1	E	241	SER
1	G	6	GLU
1	G	41	SER
1	G	131	SER
1	G	511	ALA
1	H	507	ILE
1	J	184	GLU
1	N	510	ALA
1	G	342	GLY
1	I	342	GLY
1	K	140	VAL
1	D	140	VAL
1	D	342	GLY
1	F	342	GLY
1	I	32	PRO
1	J	114	ILE
1	J	213	VAL
1	K	501	ILE
1	O	140	VAL

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Mol	Chain	Res	Type
1	B	140	VAL
1	B	219	ILE
1	C	114	ILE
1	C	500	VAL
1	C	507	ILE
1	D	507	ILE
1	F	43	GLY
1	H	140	VAL
1	J	108	ILE
1	K	108	ILE
1	M	339	VAL
1	O	341	ILE
1	A	243	VAL
1	F	114	ILE
1	D	416	PRO
1	H	82	VAL

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	409/409 (100%)	364 (89%)	45 (11%)	6	20
1	B	388/409 (95%)	350 (90%)	38 (10%)	7	24
1	C	409/409 (100%)	359 (88%)	50 (12%)	5	17
1	D	389/409 (95%)	338 (87%)	51 (13%)	4	15
1	E	409/409 (100%)	365 (89%)	44 (11%)	6	21
1	F	409/409 (100%)	371 (91%)	38 (9%)	8	26
1	G	387/409 (95%)	338 (87%)	49 (13%)	4	16
1	H	389/409 (95%)	332 (85%)	57 (15%)	3	13
1	I	409/409 (100%)	367 (90%)	42 (10%)	7	23
1	J	385/409 (94%)	340 (88%)	45 (12%)	5	18
1	K	389/409 (95%)	341 (88%)	48 (12%)	4	17

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	L	392/409 (96%)	349 (89%)	43 (11%)	6	20
1	M	409/409 (100%)	361 (88%)	48 (12%)	5	18
1	N	388/409 (95%)	338 (87%)	50 (13%)	4	15
1	O	409/409 (100%)	356 (87%)	53 (13%)	4	15
1	P	389/409 (95%)	343 (88%)	46 (12%)	5	18
All	All	6359/6544 (97%)	5612 (88%)	747 (12%)	7	18

All (747) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	10	THR
1	A	25	LEU
1	A	57	ILE
1	A	58	LEU
1	A	78	GLN
1	A	96	LEU
1	A	98	ARG
1	A	129	LEU
1	A	139	GLU
1	A	142	PHE
1	A	146	LEU
1	A	152	THR
1	A	158	LEU
1	A	159	LEU
1	A	160	THR
1	A	167	THR
1	A	177	LEU
1	A	178	LYS
1	A	182	ASN
1	A	183	LEU
1	A	211	ILE
1	A	235	LYS
1	A	237	LYS
1	A	243	VAL
1	A	244	ARG
1	A	247	SER
1	A	248	THR
1	A	254	ILE
1	A	269	ILE
1	A	280	ARG

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Mol	Chain	Res	Type
1	A	312	LEU
1	A	320	SER
1	A	326	GLU
1	A	327	LEU
1	A	330	LEU
1	A	346	LEU
1	A	352	VAL
1	A	401	GLU
1	A	402	MET
1	A	418	LYS
1	A	430	LEU
1	A	465	LEU
1	A	485	GLN
1	A	507	ILE
1	A	509	LYS
1	B	4	ASP
1	B	33	LYS
1	B	38	ILE
1	B	50	VAL
1	B	57	ILE
1	B	58	LEU
1	B	89	VAL
1	B	96	LEU
1	B	98	ARG
1	B	114	ILE
1	B	128	LEU
1	B	133	VAL
1	B	141	LYS
1	B	143	ARG
1	B	146	LEU
1	B	159	LEU
1	B	167	THR
1	B	203	GLU
1	B	207	LEU
1	B	211	ILE
1	B	215	GLN
1	B	219	ILE
1	B	225	LEU
1	B	280	ARG
1	B	296	VAL
1	B	320	SER
1	B	326	GLU

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Mol	Chain	Res	Type
1	B	330	LEU
1	B	352	VAL
1	B	356	GLU
1	B	362	LEU
1	B	374	GLU
1	B	384	LEU
1	B	401	GLU
1	B	402	MET
1	B	431	ARG
1	B	507	ILE
1	B	509	LYS
1	C	35	MET
1	C	38	ILE
1	C	48	LEU
1	C	50	VAL
1	C	57	ILE
1	C	58	LEU
1	C	65	ASN
1	C	84	ASP
1	C	96	LEU
1	C	98	ARG
1	C	107	LYS
1	C	109	HIS
1	C	128	LEU
1	C	129	LEU
1	C	135	HIS
1	C	146	LEU
1	C	147	MET
1	C	159	LEU
1	C	160	THR
1	C	167	THR
1	C	177	LEU
1	C	178	LYS
1	C	190	LYS
1	C	201	LEU
1	C	211	ILE
1	C	225	LEU
1	C	245	VAL
1	C	248	THR
1	C	261	LYS
1	C	269	ILE
1	C	280	ARG

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Mol	Chain	Res	Type
1	C	312	LEU
1	C	317	GLU
1	C	320	SER
1	C	326	GLU
1	C	328	VAL
1	C	345	LYS
1	C	352	VAL
1	C	375	ARG
1	C	384	LEU
1	C	401	GLU
1	C	402	MET
1	C	409	THR
1	C	431	ARG
1	C	500	VAL
1	C	501	ILE
1	C	502	LEU
1	C	504	VAL
1	C	506	ASN
1	C	507	ILE
1	D	7	ARG
1	D	9	GLU
1	D	25	LEU
1	D	50	VAL
1	D	57	ILE
1	D	58	LEU
1	D	82	VAL
1	D	92	LEU
1	D	96	LEU
1	D	98	ARG
1	D	104	ILE
1	D	108	ILE
1	D	112	THR
1	D	131	SER
1	D	139	GLU
1	D	146	LEU
1	D	147	MET
1	D	152	THR
1	D	159	LEU
1	D	160	THR
1	D	166	PHE
1	D	167	THR
1	D	190	LYS

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Mol	Chain	Res	Type
1	D	191	LYS
1	D	207	LEU
1	D	208	ASP
1	D	211	ILE
1	D	223	LYS
1	D	225	LEU
1	D	280	ARG
1	D	284	TYR
1	D	310	LEU
1	D	312	LEU
1	D	317	GLU
1	D	320	SER
1	D	326	GLU
1	D	339	VAL
1	D	341	ILE
1	D	366	THR
1	D	377	LEU
1	D	384	LEU
1	D	388	VAL
1	D	402	MET
1	D	409	THR
1	D	418	LYS
1	D	431	ARG
1	D	465	LEU
1	D	499	GLU
1	D	500	VAL
1	D	501	ILE
1	D	502	LEU
1	E	35	MET
1	E	48	LEU
1	E	57	ILE
1	E	58	LEU
1	E	80	ASP
1	E	96	LEU
1	E	98	ARG
1	E	103	LEU
1	E	113	ILE
1	E	128	LEU
1	E	135	HIS
1	E	139	GLU
1	E	143	ARG
1	E	146	LEU

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Mol	Chain	Res	Type
1	E	159	LEU
1	E	167	THR
1	E	177	LEU
1	E	178	LYS
1	E	191	LYS
1	E	207	LEU
1	E	211	ILE
1	E	215	GLN
1	E	225	LEU
1	E	236	ILE
1	E	241	SER
1	E	280	ARG
1	E	308	GLU
1	E	317	GLU
1	E	326	GLU
1	E	339	VAL
1	E	341	ILE
1	E	346	LEU
1	E	352	VAL
1	E	367	GLN
1	E	378	HIS
1	E	381	LEU
1	E	401	GLU
1	E	402	MET
1	E	409	THR
1	E	414	ARG
1	E	499	GLU
1	E	502	LEU
1	E	507	ILE
1	E	512	PRO
1	F	33	LYS
1	F	35	MET
1	F	57	ILE
1	F	58	LEU
1	F	77	VAL
1	F	82	VAL
1	F	96	LEU
1	F	98	ARG
1	F	107	LYS
1	F	111	GLN
1	F	139	GLU
1	F	146	LEU

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Mol	Chain	Res	Type
1	F	152	THR
1	F	159	LEU
1	F	167	THR
1	F	171	VAL
1	F	190	LYS
1	F	191	LYS
1	F	206	LEU
1	F	207	LEU
1	F	211	ILE
1	F	217	LYS
1	F	225	LEU
1	F	229	THR
1	F	235	LYS
1	F	244	ARG
1	F	248	THR
1	F	250	LYS
1	F	280	ARG
1	F	317	GLU
1	F	352	VAL
1	F	366	THR
1	F	401	GLU
1	F	402	MET
1	F	418	LYS
1	F	485	GLN
1	F	492	LEU
1	F	501	ILE
1	G	4	ASP
1	G	10	THR
1	G	29	THR
1	G	30	LEU
1	G	35	MET
1	G	37	LYS
1	G	50	VAL
1	G	57	ILE
1	G	58	LEU
1	G	59	LYS
1	G	74	MET
1	G	89	VAL
1	G	96	LEU
1	G	98	ARG
1	G	103	LEU
1	G	121	THR

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Mol	Chain	Res	Type
1	G	129	LEU
1	G	139	GLU
1	G	141	LYS
1	G	143	ARG
1	G	146	LEU
1	G	152	THR
1	G	159	LEU
1	G	167	THR
1	G	171	VAL
1	G	206	LEU
1	G	207	LEU
1	G	211	ILE
1	G	215	GLN
1	G	219	ILE
1	G	225	LEU
1	G	262	MET
1	G	269	ILE
1	G	280	ARG
1	G	312	LEU
1	G	314	THR
1	G	317	GLU
1	G	326	GLU
1	G	352	VAL
1	G	401	GLU
1	G	402	MET
1	G	409	THR
1	G	414	ARG
1	G	469	GLU
1	G	480	ILE
1	G	485	GLN
1	G	500	VAL
1	G	507	ILE
1	G	513	ARG
1	H	9	GLU
1	H	10	THR
1	H	25	LEU
1	H	33	LYS
1	H	35	MET
1	H	38	ILE
1	H	40	LEU
1	H	45	ASP
1	H	47	SER

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Mol	Chain	Res	Type
1	H	48	LEU
1	H	57	ILE
1	H	58	LEU
1	H	59	LYS
1	H	82	VAL
1	H	89	VAL
1	H	96	LEU
1	H	98	ARG
1	H	108	ILE
1	H	118	ARG
1	H	129	LEU
1	H	139	GLU
1	H	146	LEU
1	H	157	LYS
1	H	158	LEU
1	H	159	LEU
1	H	167	THR
1	H	174	VAL
1	H	177	LEU
1	H	178	LYS
1	H	180	SER
1	H	191	LYS
1	H	201	LEU
1	H	207	LEU
1	H	209	LYS
1	H	211	ILE
1	H	215	GLN
1	H	225	LEU
1	H	254	ILE
1	H	259	LYS
1	H	269	ILE
1	H	280	ARG
1	H	310	LEU
1	H	317	GLU
1	H	320	SER
1	H	326	GLU
1	H	343	GLU
1	H	352	VAL
1	H	354	LEU
1	H	362	LEU
1	H	375	ARG
1	H	383	VAL

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Mol	Chain	Res	Type
1	H	401	GLU
1	H	402	MET
1	H	465	LEU
1	H	478	LEU
1	H	501	ILE
1	H	506	ASN
1	I	35	MET
1	I	41	SER
1	I	50	VAL
1	I	57	ILE
1	I	65	ASN
1	I	74	MET
1	I	96	LEU
1	I	98	ARG
1	I	108	ILE
1	I	112	THR
1	I	129	LEU
1	I	135	HIS
1	I	139	GLU
1	I	146	LEU
1	I	159	LEU
1	I	167	THR
1	I	190	LYS
1	I	201	LEU
1	I	211	ILE
1	I	215	GLN
1	I	225	LEU
1	I	235	LYS
1	I	241	SER
1	I	269	ILE
1	I	280	ARG
1	I	312	LEU
1	I	326	GLU
1	I	330	LEU
1	I	334	LYS
1	I	340	MET
1	I	343	GLU
1	I	352	VAL
1	I	366	THR
1	I	367	GLN
1	I	375	ARG
1	I	401	GLU

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Mol	Chain	Res	Type
1	I	402	MET
1	I	418	LYS
1	I	487	LYS
1	I	504	VAL
1	I	507	ILE
1	I	508	ILE
1	J	4	ASP
1	J	5	GLU
1	J	25	LEU
1	J	48	LEU
1	J	50	VAL
1	J	57	ILE
1	J	58	LEU
1	J	96	LEU
1	J	98	ARG
1	J	103	LEU
1	J	106	LYS
1	J	129	LEU
1	J	135	HIS
1	J	146	LEU
1	J	152	THR
1	J	167	THR
1	J	174	VAL
1	J	183	LEU
1	J	191	LYS
1	J	211	ILE
1	J	213	VAL
1	J	225	LEU
1	J	269	ILE
1	J	280	ARG
1	J	310	LEU
1	J	312	LEU
1	J	326	GLU
1	J	327	LEU
1	J	343	GLU
1	J	344	ASP
1	J	345	LYS
1	J	352	VAL
1	J	362	LEU
1	J	363	ARG
1	J	374	GLU
1	J	375	ARG

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Mol	Chain	Res	Type
1	J	379	ASP
1	J	384	LEU
1	J	409	THR
1	J	419	GLU
1	J	428	LYS
1	J	478	LEU
1	J	506	ASN
1	J	507	ILE
1	J	508	ILE
1	K	30	LEU
1	K	42	SER
1	K	48	LEU
1	K	50	VAL
1	K	57	ILE
1	K	58	LEU
1	K	82	VAL
1	K	84	ASP
1	K	88	SER
1	K	92	LEU
1	K	96	LEU
1	K	98	ARG
1	K	104	ILE
1	K	106	LYS
1	K	140	VAL
1	K	146	LEU
1	K	152	THR
1	K	159	LEU
1	K	167	THR
1	K	174	VAL
1	K	188	VAL
1	K	190	LYS
1	K	191	LYS
1	K	198	ASP
1	K	202	ASP
1	K	206	LEU
1	K	207	LEU
1	K	211	ILE
1	K	219	ILE
1	K	223	LYS
1	K	225	LEU
1	K	269	ILE
1	K	280	ARG

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Mol	Chain	Res	Type
1	K	288	GLU
1	K	312	LEU
1	K	326	GLU
1	K	343	GLU
1	K	352	VAL
1	K	370	LEU
1	K	381	LEU
1	K	389	LYS
1	K	402	MET
1	K	409	THR
1	K	414	ARG
1	K	428	LYS
1	K	430	LEU
1	K	500	VAL
1	K	507	ILE
1	L	12	ARG
1	L	28	SER
1	L	35	MET
1	L	44	ARG
1	L	48	LEU
1	L	49	MET
1	L	50	VAL
1	L	57	ILE
1	L	58	LEU
1	L	59	LYS
1	L	65	ASN
1	L	78	GLN
1	L	89	VAL
1	L	96	LEU
1	L	98	ARG
1	L	106	LYS
1	L	129	LEU
1	L	135	HIS
1	L	139	GLU
1	L	144	GLN
1	L	146	LEU
1	L	159	LEU
1	L	167	THR
1	L	190	LYS
1	L	207	LEU
1	L	211	ILE
1	L	215	GLN

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Mol	Chain	Res	Type
1	L	225	LEU
1	L	280	ARG
1	L	312	LEU
1	L	326	GLU
1	L	339	VAL
1	L	343	GLU
1	L	347	ILE
1	L	352	VAL
1	L	360	ILE
1	L	362	LEU
1	L	367	GLN
1	L	381	LEU
1	L	384	LEU
1	L	401	GLU
1	L	402	MET
1	L	428	LYS
1	M	17	ILE
1	M	30	LEU
1	M	40	LEU
1	M	57	ILE
1	M	58	LEU
1	M	89	VAL
1	M	98	ARG
1	M	108	ILE
1	M	109	HIS
1	M	113	ILE
1	M	129	LEU
1	M	134	ASP
1	M	139	GLU
1	M	146	LEU
1	M	152	THR
1	M	154	LEU
1	M	159	LEU
1	M	161	HIS
1	M	167	THR
1	M	177	LEU
1	M	184	GLU
1	M	191	LYS
1	M	201	LEU
1	M	207	LEU
1	M	211	ILE
1	M	215	GLN

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Mol	Chain	Res	Type
1	M	225	LEU
1	M	234	ASP
1	M	239	PHE
1	M	242	ARG
1	M	245	VAL
1	M	269	ILE
1	M	280	ARG
1	M	312	LEU
1	M	326	GLU
1	M	330	LEU
1	M	352	VAL
1	M	366	THR
1	M	367	GLN
1	M	379	ASP
1	M	381	LEU
1	M	402	MET
1	M	409	THR
1	M	428	LYS
1	M	430	LEU
1	M	465	LEU
1	M	504	VAL
1	M	507	ILE
1	N	25	LEU
1	N	38	ILE
1	N	50	VAL
1	N	52	ASN
1	N	57	ILE
1	N	58	LEU
1	N	64	ASP
1	N	80	ASP
1	N	98	ARG
1	N	106	LYS
1	N	108	ILE
1	N	129	LEU
1	N	146	LEU
1	N	152	THR
1	N	154	LEU
1	N	159	LEU
1	N	167	THR
1	N	176	ARG
1	N	178	LYS
1	N	182	ASN

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Mol	Chain	Res	Type
1	N	183	LEU
1	N	201	LEU
1	N	207	LEU
1	N	211	ILE
1	N	213	VAL
1	N	215	GLN
1	N	225	LEU
1	N	280	ARG
1	N	310	LEU
1	N	312	LEU
1	N	320	SER
1	N	325	PRO
1	N	326	GLU
1	N	327	LEU
1	N	328	VAL
1	N	341	ILE
1	N	352	VAL
1	N	356	GLU
1	N	377	LEU
1	N	386	GLN
1	N	401	GLU
1	N	402	MET
1	N	409	THR
1	N	418	LYS
1	N	458	GLU
1	N	469	GLU
1	N	496	GLU
1	N	504	VAL
1	N	508	ILE
1	N	513	ARG
1	O	9	GLU
1	O	38	ILE
1	O	44	ARG
1	O	48	LEU
1	O	57	ILE
1	O	58	LEU
1	O	74	MET
1	O	81	GLU
1	O	96	LEU
1	O	98	ARG
1	O	122	LYS
1	O	129	LEU

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Mol	Chain	Res	Type
1	O	135	HIS
1	O	137	SER
1	O	139	GLU
1	O	146	LEU
1	O	152	THR
1	O	159	LEU
1	O	167	THR
1	O	177	LEU
1	O	183	LEU
1	O	184	GLU
1	O	207	LEU
1	O	211	ILE
1	O	215	GLN
1	O	225	LEU
1	O	243	VAL
1	O	248	THR
1	O	260	GLU
1	O	280	ARG
1	O	312	LEU
1	O	317	GLU
1	O	320	SER
1	O	326	GLU
1	O	328	VAL
1	O	330	LEU
1	O	334	LYS
1	O	340	MET
1	O	346	LEU
1	O	352	VAL
1	O	367	GLN
1	O	375	ARG
1	O	388	VAL
1	O	401	GLU
1	O	402	MET
1	O	409	THR
1	O	414	ARG
1	O	419	GLU
1	O	432	MET
1	O	478	LEU
1	O	496	GLU
1	O	508	ILE
1	O	512	PRO
1	P	10	THR

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Mol	Chain	Res	Type
1	P	32	PRO
1	P	38	ILE
1	P	40	LEU
1	P	57	ILE
1	P	58	LEU
1	P	89	VAL
1	P	96	LEU
1	P	98	ARG
1	P	111	GLN
1	P	137	SER
1	P	139	GLU
1	P	140	VAL
1	P	144	GLN
1	P	146	LEU
1	P	152	THR
1	P	159	LEU
1	P	166	PHE
1	P	167	THR
1	P	178	LYS
1	P	190	LYS
1	P	191	LYS
1	P	192	LEU
1	P	207	LEU
1	P	211	ILE
1	P	215	GLN
1	P	223	LYS
1	P	225	LEU
1	P	259	LYS
1	P	269	ILE
1	P	280	ARG
1	P	312	LEU
1	P	330	LEU
1	P	352	VAL
1	P	362	LEU
1	P	375	ARG
1	P	381	LEU
1	P	383	VAL
1	P	388	VAL
1	P	401	GLU
1	P	458	GLU
1	P	465	LEU
1	P	500	VAL

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Mol	Chain	Res	Type
1	P	501	ILE
1	P	507	ILE
1	P	508	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (134) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	65	ASN
1	A	126	GLN
1	A	144	GLN
1	A	165	HIS
1	A	368	GLN
1	A	386	GLN
1	A	410	GLN
1	A	451	GLN
1	A	485	GLN
1	B	65	ASN
1	B	111	GLN
1	B	126	GLN
1	B	214	ASN
1	B	410	GLN
1	B	451	GLN
1	C	182	ASN
1	C	214	ASN
1	C	386	GLN
1	C	410	GLN
1	C	451	GLN
1	D	182	ASN
1	D	348	HIS
1	D	368	GLN
1	D	410	GLN
1	D	451	GLN
1	D	485	GLN
1	D	489	GLN
1	E	65	ASN
1	E	109	HIS
1	E	348	HIS
1	E	368	GLN
1	E	378	HIS
1	E	410	GLN
1	E	451	GLN
1	E	506	ASN

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Mol	Chain	Res	Type
1	F	65	ASN
1	F	109	HIS
1	F	130	ASN
1	F	214	ASN
1	F	221	ASN
1	F	367	GLN
1	F	386	GLN
1	F	410	GLN
1	F	451	GLN
1	F	489	GLN
1	G	109	HIS
1	G	130	ASN
1	G	182	ASN
1	G	214	ASN
1	G	256	HIS
1	G	368	GLN
1	G	451	GLN
1	G	485	GLN
1	G	489	GLN
1	H	161	HIS
1	H	275	ASN
1	H	348	HIS
1	H	367	GLN
1	H	368	GLN
1	H	386	GLN
1	H	406	HIS
1	H	410	GLN
1	H	451	GLN
1	H	489	GLN
1	I	52	ASN
1	I	126	GLN
1	I	148	ASN
1	I	165	HIS
1	I	275	ASN
1	I	348	HIS
1	I	378	HIS
1	I	386	GLN
1	J	65	ASN
1	J	126	GLN
1	J	161	HIS
1	J	368	GLN
1	J	386	GLN

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Mol	Chain	Res	Type
1	J	410	GLN
1	J	440	ASN
1	J	451	GLN
1	J	485	GLN
1	J	506	ASN
1	K	52	ASN
1	K	65	ASN
1	K	78	GLN
1	K	161	HIS
1	K	348	HIS
1	K	410	GLN
1	K	451	GLN
1	L	78	GLN
1	L	182	ASN
1	L	367	GLN
1	L	368	GLN
1	L	406	HIS
1	L	410	GLN
1	L	451	GLN
1	L	489	GLN
1	M	65	ASN
1	M	111	GLN
1	M	182	ASN
1	M	214	ASN
1	M	367	GLN
1	M	410	GLN
1	M	451	GLN
1	M	485	GLN
1	N	52	ASN
1	N	65	ASN
1	N	126	GLN
1	N	130	ASN
1	N	161	HIS
1	N	182	ASN
1	N	281	GLN
1	N	386	GLN
1	N	410	GLN
1	N	489	GLN
1	N	506	ASN
1	O	65	ASN
1	O	109	HIS
1	O	161	HIS

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Mol	Chain	Res	Type
1	O	182	ASN
1	O	348	HIS
1	O	368	GLN
1	O	386	GLN
1	O	410	GLN
1	O	451	GLN
1	O	485	GLN
1	P	65	ASN
1	P	126	GLN
1	P	144	GLN
1	P	182	ASN
1	P	386	GLN
1	P	410	GLN
1	P	451	GLN
1	P	485	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

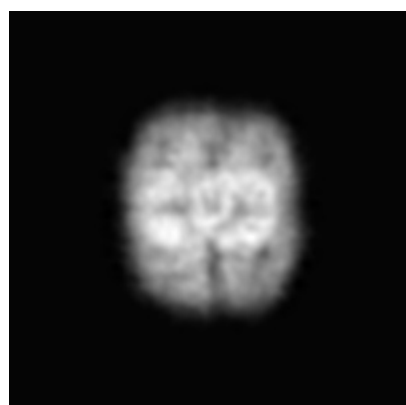
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-1963. These allow visual inspection of the internal detail of the map and identification of artifacts.

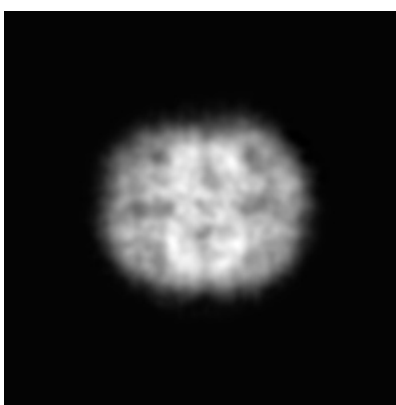
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

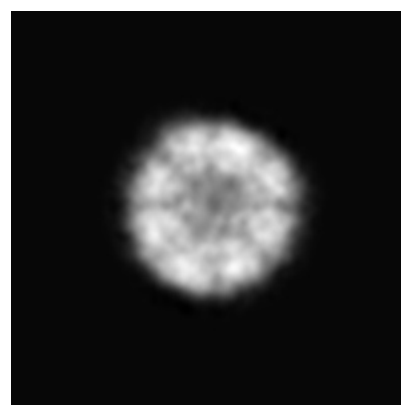
6.1.1 Primary map



X



Y

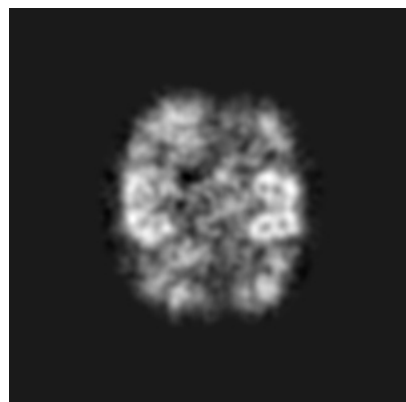


Z

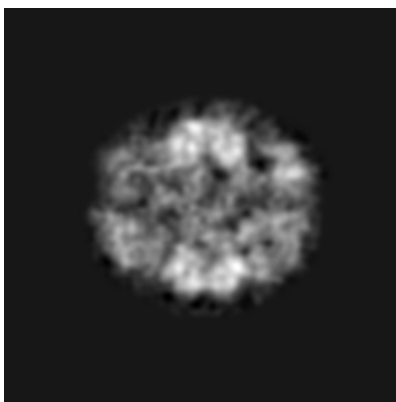
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

6.2.1 Primary map



X Index: 72



Y Index: 72

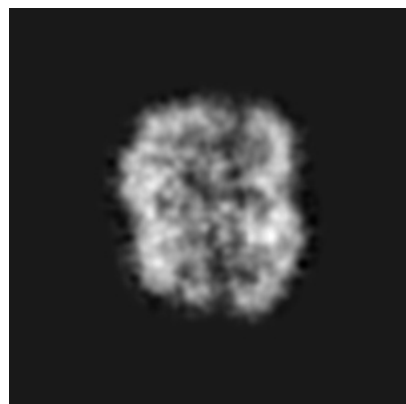


Z Index: 72

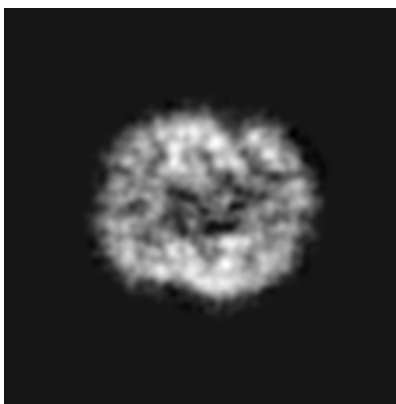
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

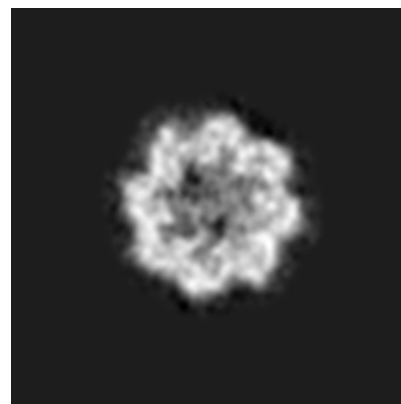
6.3.1 Primary map



X Index: 80



Y Index: 67

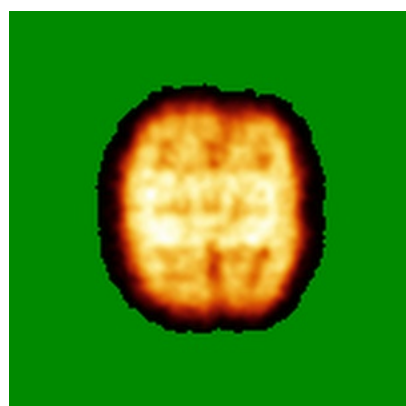


Z Index: 67

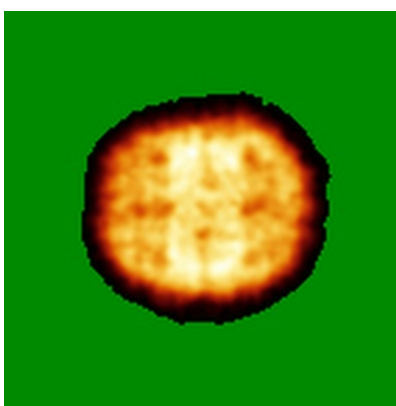
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

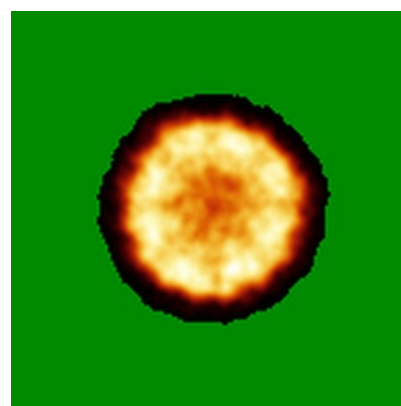
6.4.1 Primary map



X



Y

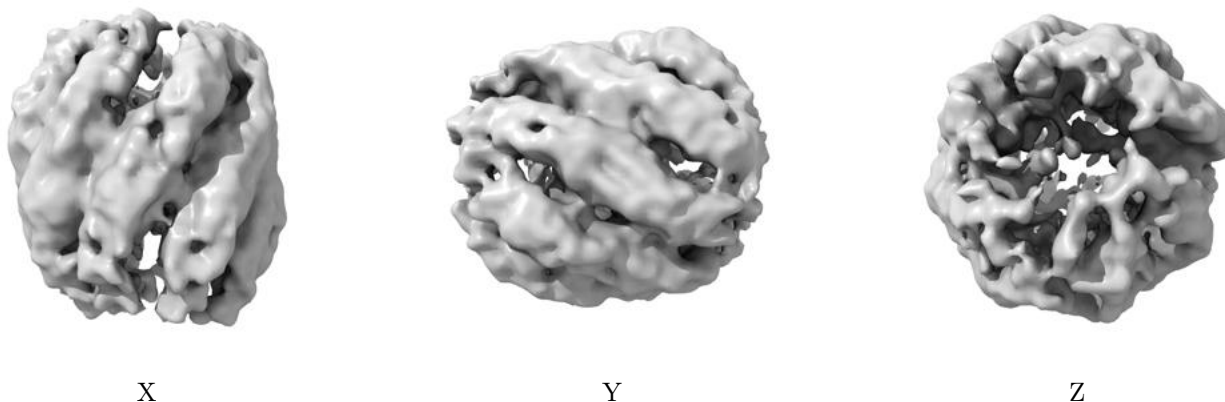


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 1.08. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

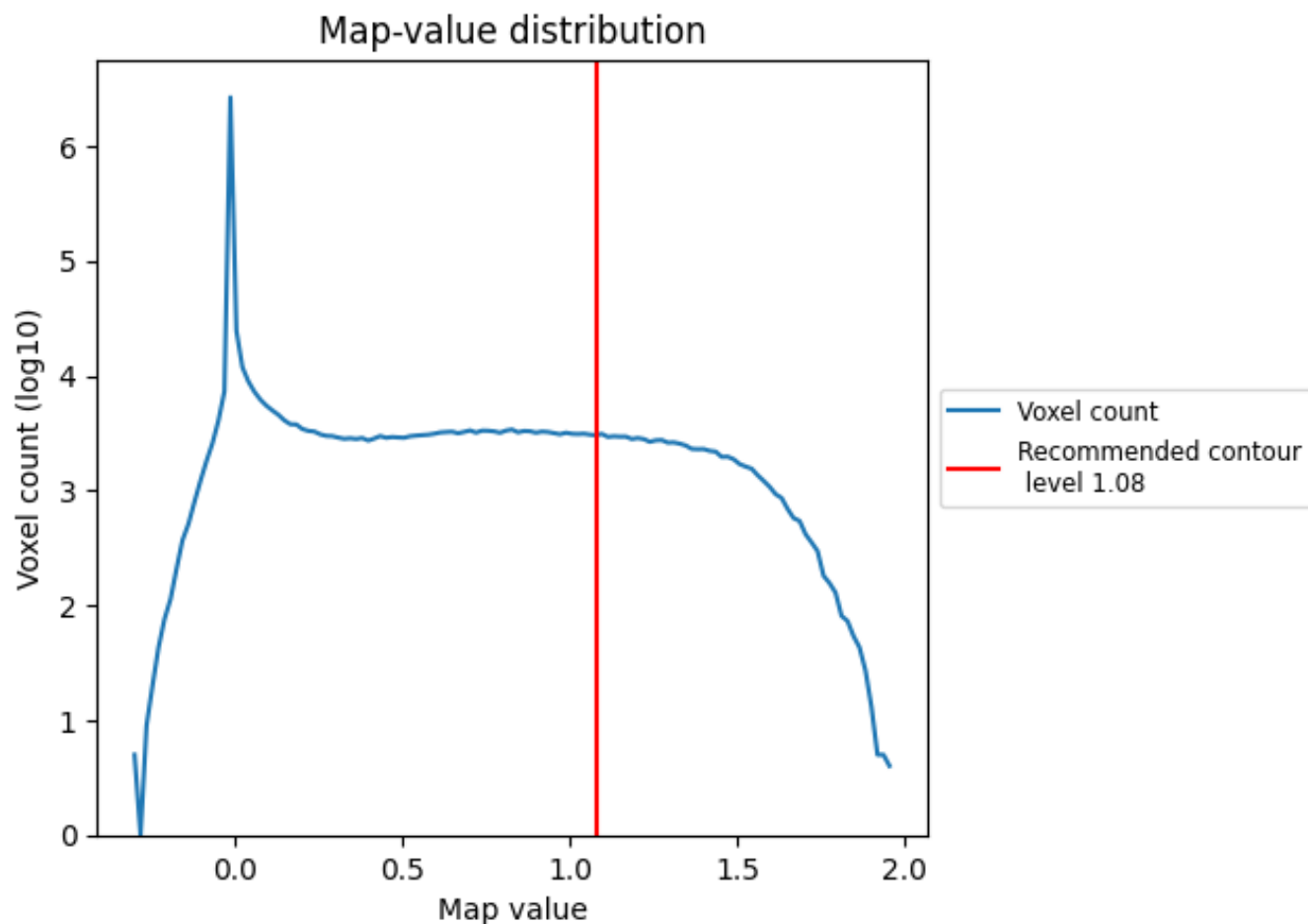
6.6 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

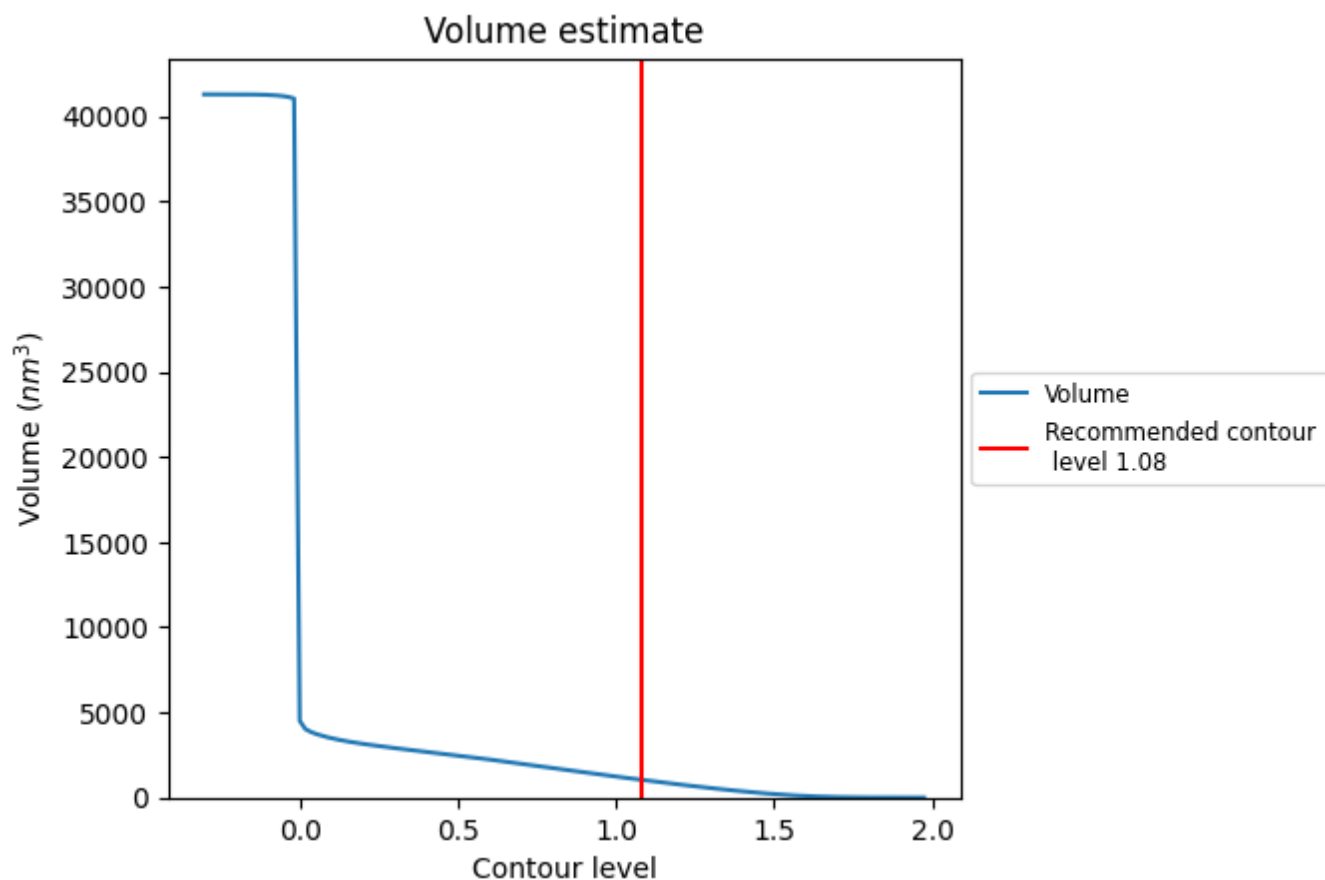
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

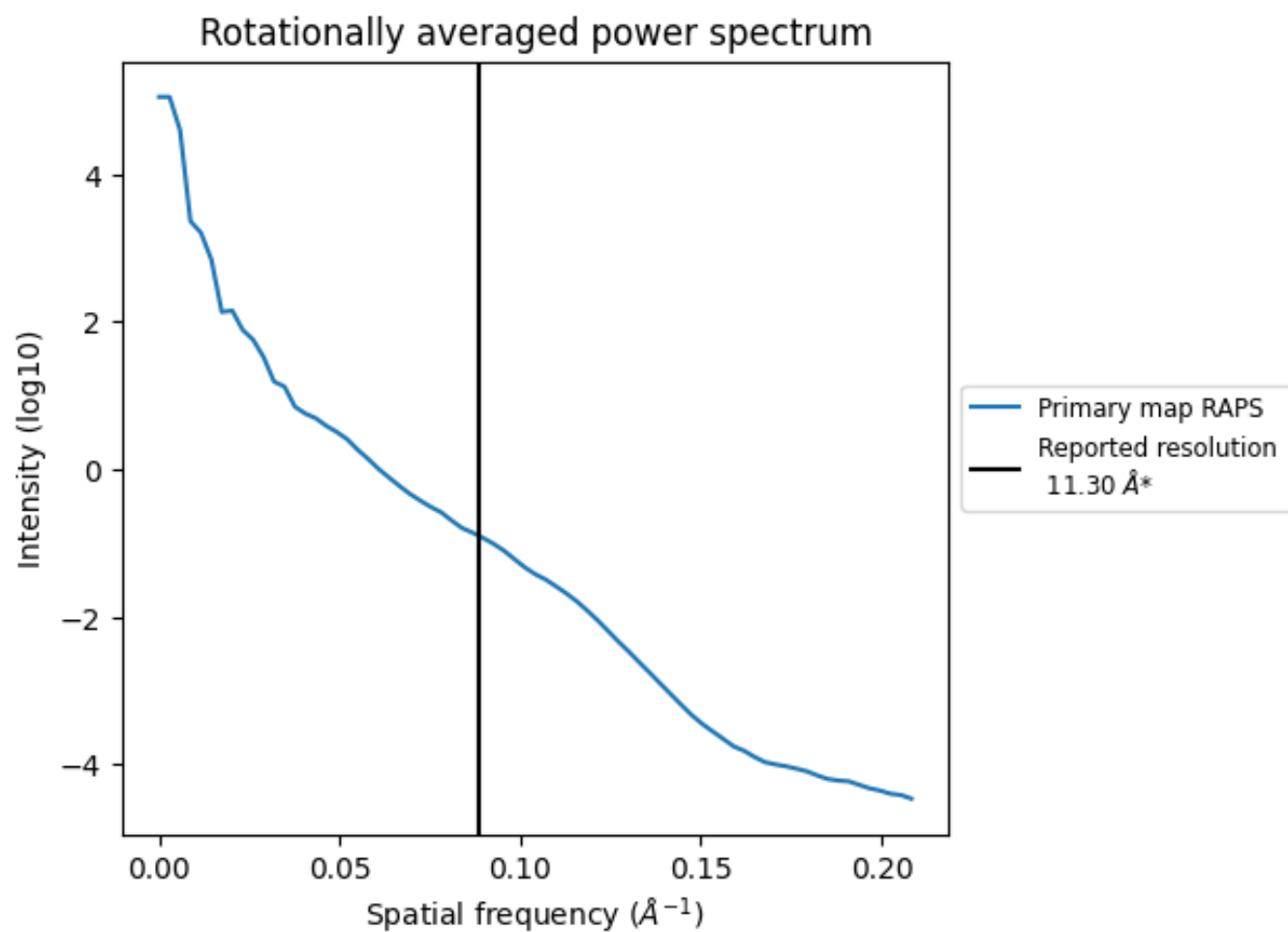
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1044 nm^3 ; this corresponds to an approximate mass of 943 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum ⓘ



*Reported resolution corresponds to spatial frequency of 0.088 Å⁻¹

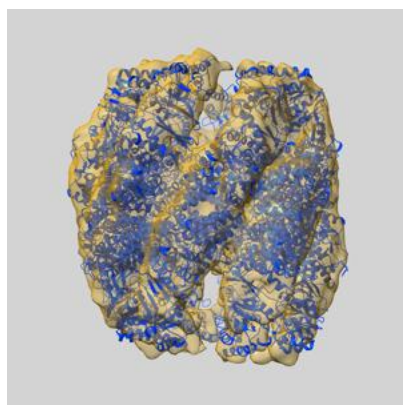
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

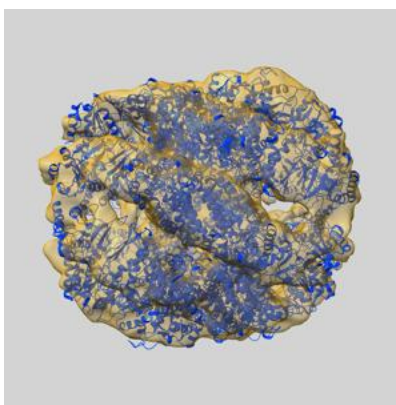
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-1963 and PDB model 4A13. Per-residue inclusion information can be found in section [3](#) on page [5](#).

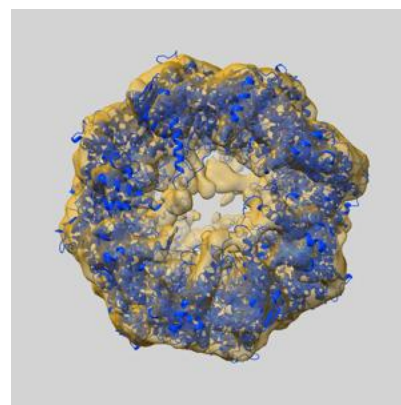
9.1 Map-model overlay [i](#)



X



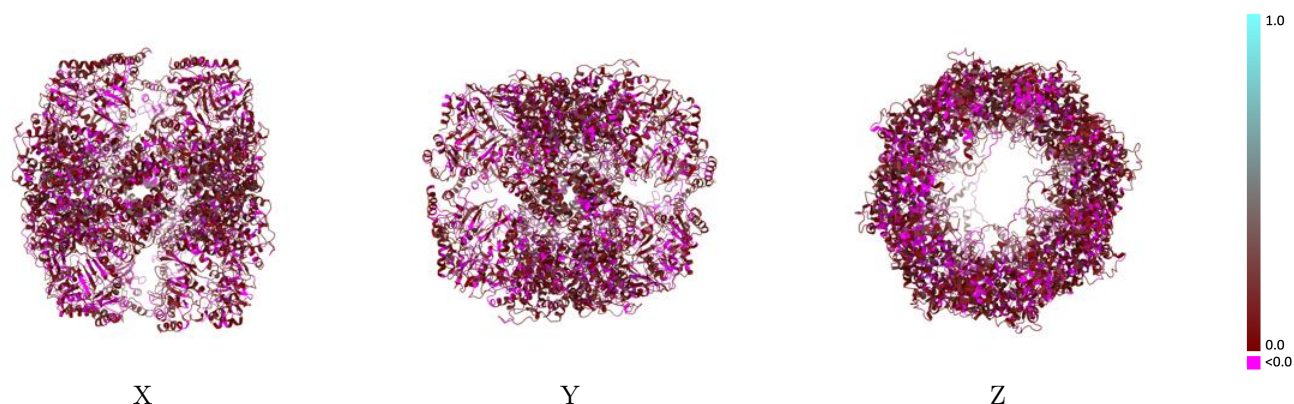
Y



Z

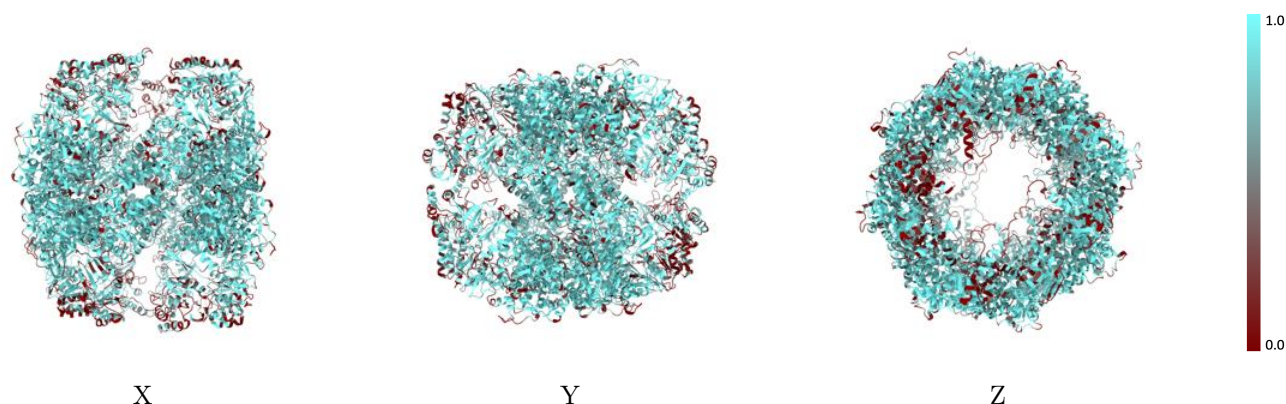
The images above show the 3D surface view of the map at the recommended contour level 1.08 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



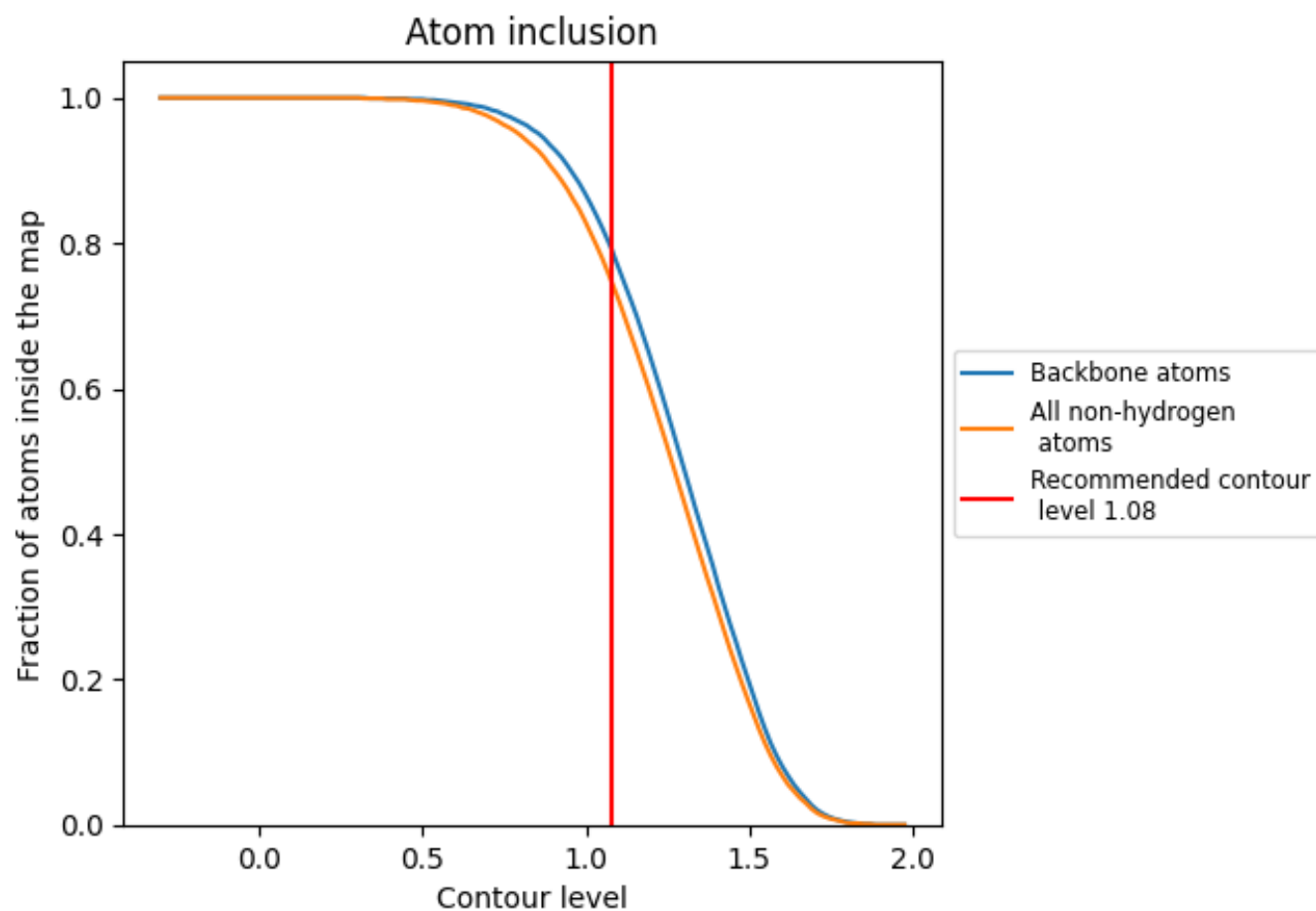
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (1.08).

9.4 Atom inclusion [i](#)



At the recommended contour level, 79% of all backbone atoms, 74% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (1.08) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.7450	0.0700
A	0.7550	0.0690
B	0.7020	0.0610
C	0.7320	0.0720
D	0.7710	0.0840
E	0.7330	0.0800
F	0.7760	0.0690
G	0.6690	0.0630
H	0.7570	0.0770
I	0.7490	0.0710
J	0.7660	0.0820
K	0.7190	0.0790
L	0.7640	0.0530
M	0.7830	0.0650
N	0.7640	0.0670
O	0.7820	0.0750
P	0.6990	0.0550

