



Full wwPDB X-ray Structure Validation Report

Feb 28, 2014 – 02:50 PM GMT

PDB ID : 1AON
Title : CRYSTAL STRUCTURE OF THE ASYMMETRIC CHAPERONIN COM-
PLEX GROEL/GROES/(ADP)7
Authors : Xu, Z.; Horwich, A.L.; Sigler, P.B.
Deposited on : 1997-07-08
Resolution : 3.00 Å(reported)

This is a full wwPDB validation report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at <http://wwpdb.org/ValidationPDFNotes.html>

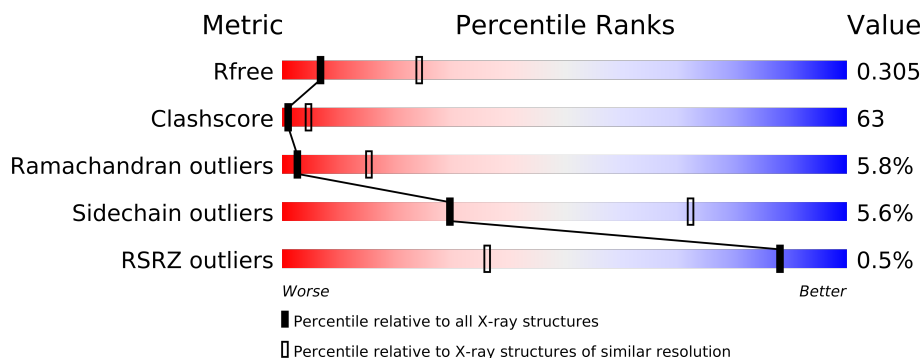
The following versions of software and data (see [references](#)) were used in the production of this report:

MolProbity : 4.02b-467
Mogul : 1.15 2013
Xtriage (Phenix) : dev-1323
EDS : stable22639
Percentile statistics : 21963
Refmac : 5.8.0049
CCP4 : 6.3.0 (Settle)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : stable22683

1 Overall quality at a glance

The reported resolution of this entry is 3.00 Å.

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



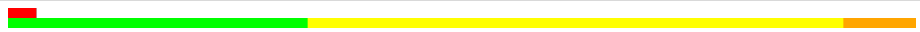
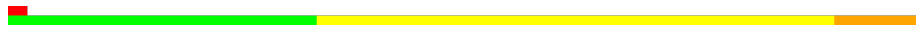


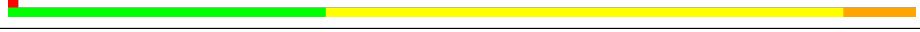


Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	66092	1216 (3.00-3.00)
Clashscore	79885	1594 (3.00-3.00)
Ramachandran outliers	78287	1537 (3.00-3.00)
Sidechain outliers	78261	1540 (3.00-3.00)
RSRZ outliers	66119	1217 (3.00-3.00)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density.

Mol	Chain	Length	Quality of chain
1	A	547	
1	B	547	
1	C	547	
1	D	547	
1	E	547	
1	F	547	
1	G	547	
1	H	547	
1	I	547	
1	J	547	
1	K	547	
1	L	547	
1	M	547	
1	N	547	

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Mol	Chain	Length	Quality of chain
2	O	97	
2	P	97	
2	Q	97	
2	R	97	
2	S	97	
2	T	97	
2	U	97	

The following table lists non-polymeric compounds that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Geometry	Electron density
3	MG	A	550	-	X
3	MG	B	550	-	X
3	MG	C	550	-	X
3	MG	D	550	-	X
3	MG	E	550	-	X
3	MG	F	550	-	X
4	ADP	A	1	-	X
4	ADP	B	1	-	X
4	ADP	C	1	-	X

2 Entry composition

There are 4 unique types of molecules in this entry. The entry contains 58870 atoms, of which 0 are hydrogen and 0 are deuterium.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called GROEL.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	524	Total	C	N	O	S	0	0	0
			3808	2368	653	767	20			
1	B	524	Total	C	N	O	S	0	0	0
			3808	2368	653	767	20			
1	C	524	Total	C	N	O	S	0	0	0
			3808	2368	653	767	20			
1	D	524	Total	C	N	O	S	0	0	0
			3808	2368	653	767	20			
1	E	524	Total	C	N	O	S	0	0	0
			3808	2368	653	767	20			
1	F	524	Total	C	N	O	S	0	0	0
			3808	2368	653	767	20			
1	G	524	Total	C	N	O	S	0	0	0
			3808	2368	653	767	20			
1	H	524	Total	C	N	O	S	0	0	0
			3849	2394	662	773	20			
1	I	524	Total	C	N	O	S	0	0	0
			3849	2394	662	773	20			
1	J	524	Total	C	N	O	S	0	0	0
			3849	2394	662	773	20			
1	K	524	Total	C	N	O	S	0	0	0
			3849	2394	662	773	20			
1	L	524	Total	C	N	O	S	0	0	0
			3849	2394	662	773	20			
1	M	524	Total	C	N	O	S	0	0	0
			3849	2394	662	773	20			
1	N	524	Total	C	N	O	S	0	0	0
			3849	2394	662	773	20			

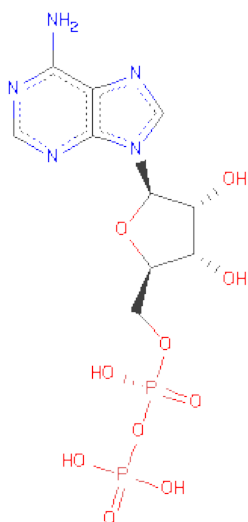
- Molecule 2 is a protein called GROEL/GROES COMPLEX.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	O	97	Total 725	C 452	N 127	O 145	S 1	0	0	0
2	P	97	Total 725	C 452	N 127	O 145	S 1	0	0	0
2	Q	97	Total 725	C 452	N 127	O 145	S 1	0	0	0
2	R	97	Total 725	C 452	N 127	O 145	S 1	0	0	0
2	S	97	Total 725	C 452	N 127	O 145	S 1	0	0	0
2	T	97	Total 725	C 452	N 127	O 145	S 1	0	0	0
2	U	97	Total 725	C 452	N 127	O 145	S 1	0	0	0

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

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

- Molecule 4 is ADENOSINE-5'-DIPHOSPHATE (three-letter code: ADP) (formula: C₁₀H₁₅N₅O₁₀P₂).



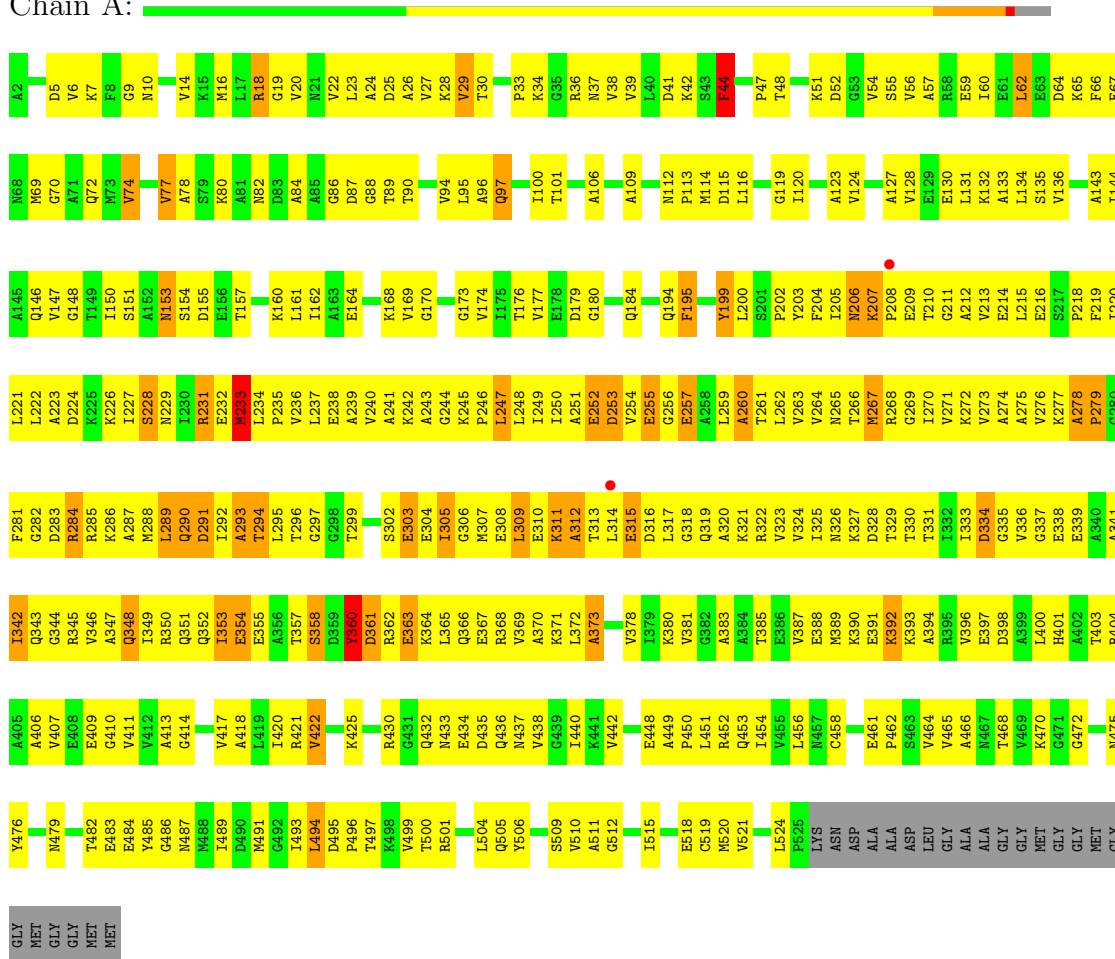
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
4	A	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
4	B	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
4	C	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
4	D	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
4	E	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
4	F	1	Total	C	N	O	P	0	0
			27	10	5	10	2		
4	G	1	Total	C	N	O	P	0	0
			27	10	5	10	2		

3 Residue-property plots

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

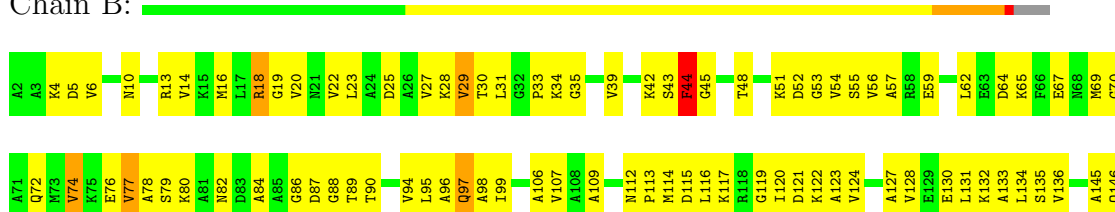
• Molecule 1: GROEL

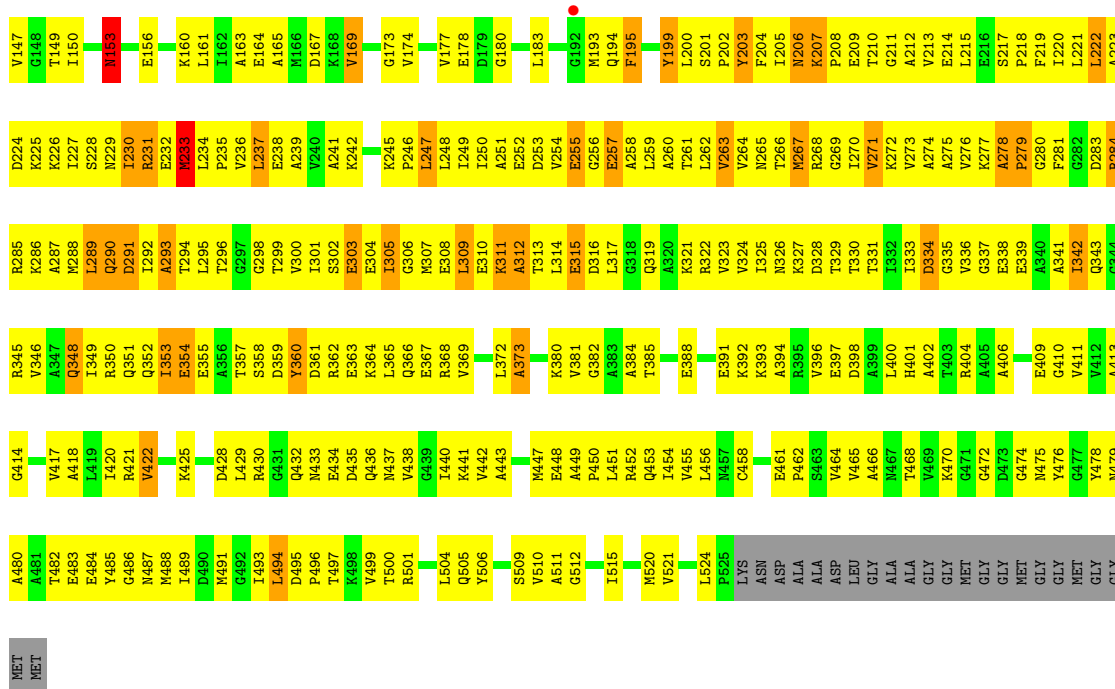
Chain A:



• Molecule 1: GROEL

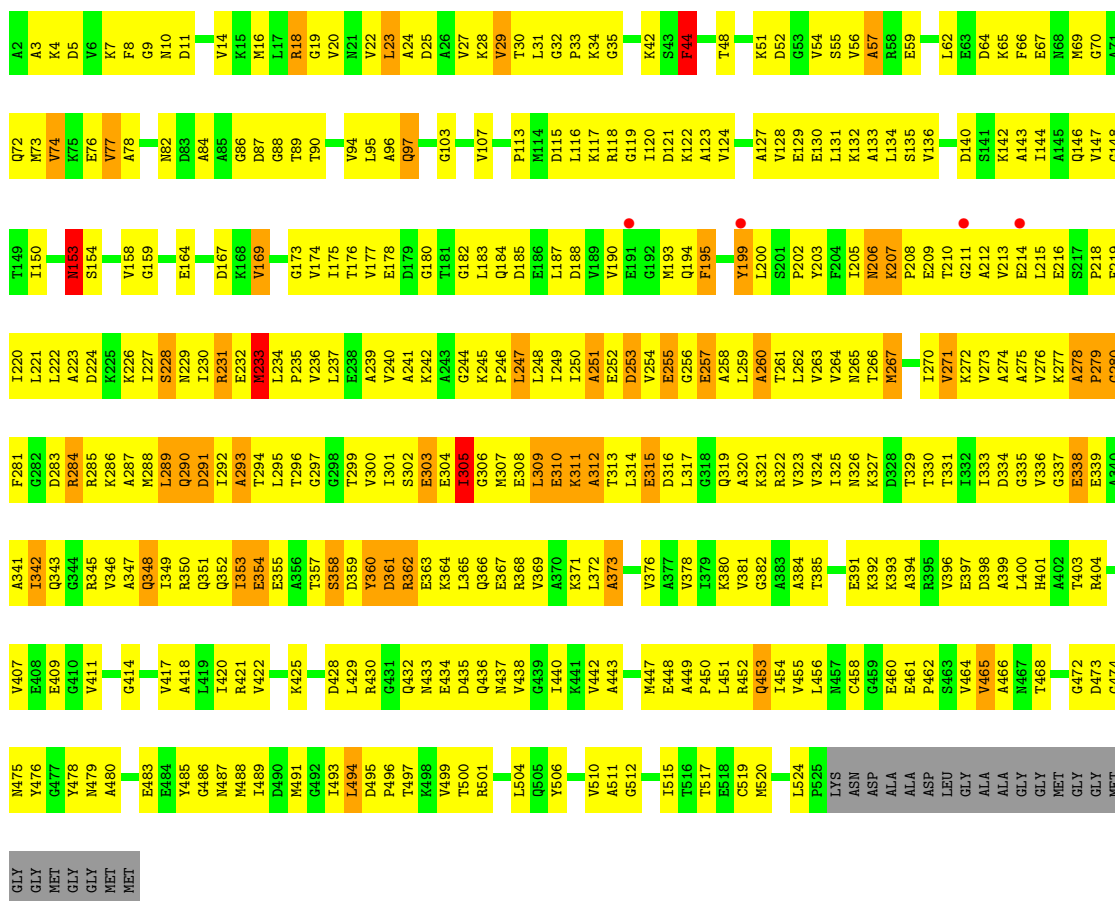
Chain B:





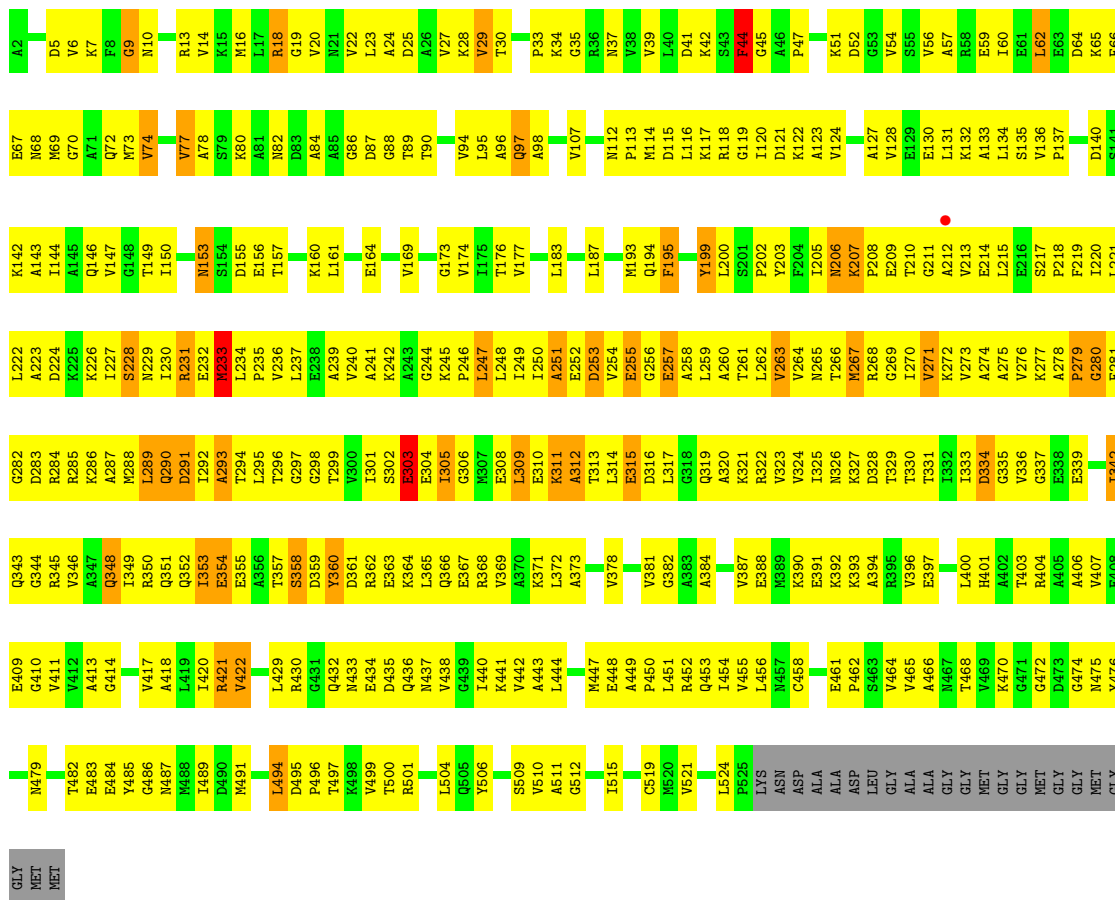
- Molecule 1: GROEL

Chain C: 



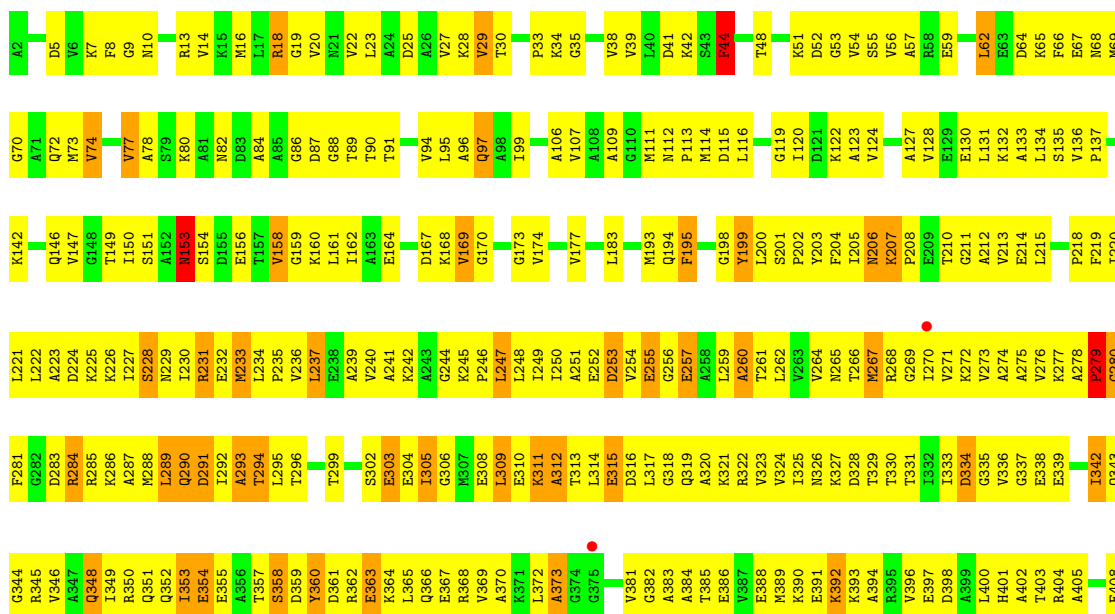
- Molecule 1: GROEL

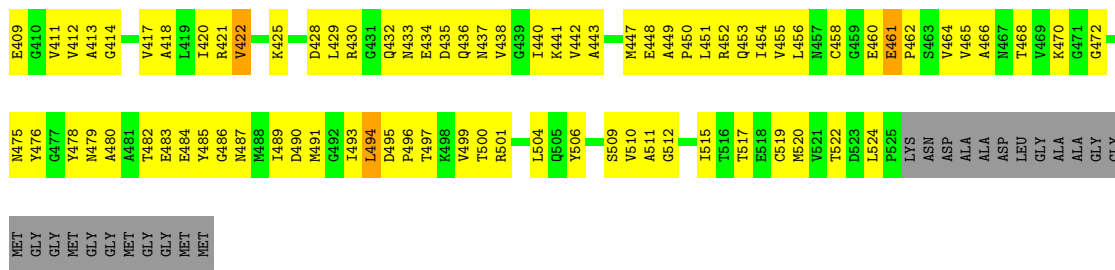
Chain D:



- Molecule 1: GROEL

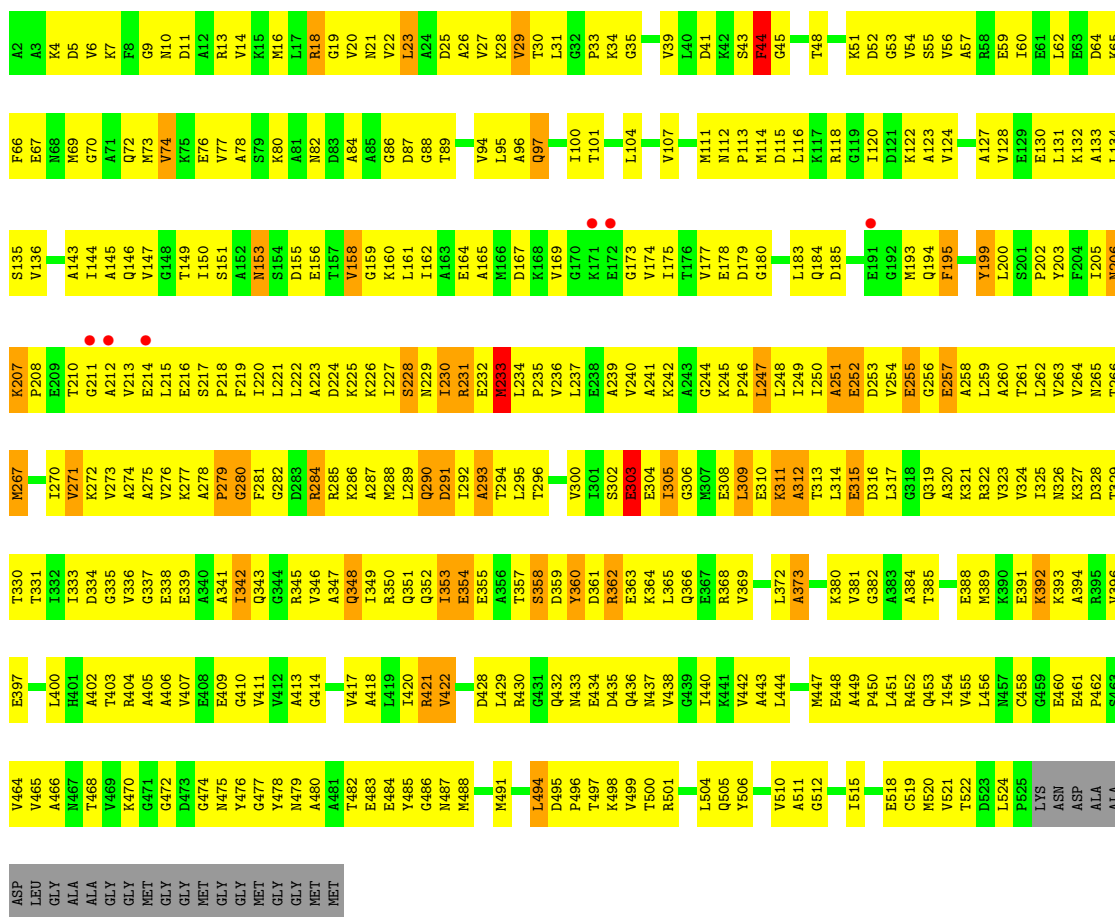
Chain E:





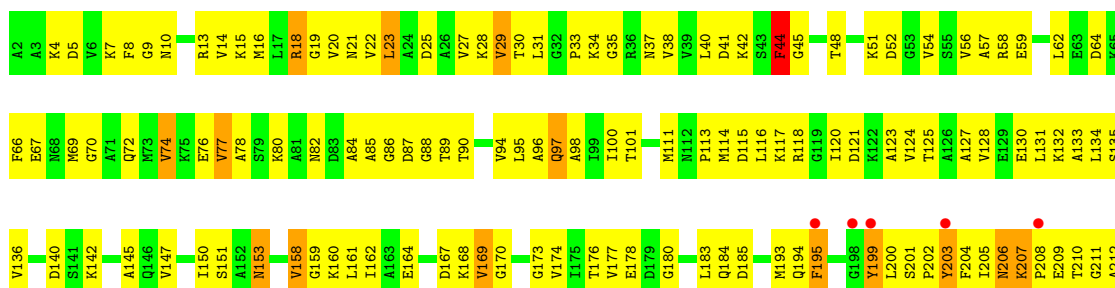
- Molecule 1: GROEL

Chain F:



- Molecule 1: GROEL

Chain G:



V213	A274	D334	A399	V467	GLY
E214	A275	G335	L400	T468	ALA
E216	V276	V336	H401	V469	ALA
S217	K277	G337	A402	V470	GLY
A278	A279	E338	T403	G471	GLY
P218	P279	E339	A404	G472	MET
F219	G280	I342	A405	D473	GLY
L220	F281	Q343	A406	G474	GLY
L221	G282	G344	E409	N475	MET
L222	D283	G345	G410	G476	GLY
A223	R284	G410	G410	G477	GLY
D224	R285	V346	V411	G478	MET
K225	K286	A347	V412	N479	GLY
K226	A287	Q348	A413	A480	GLY
L227	M288	I349	G414	A481	MET
S228	L289	R350	V417	T482	MET
N229	Q290	Q351	V418	E483	
L230	D291	Q352	A418	E484	
R231	L292	I353	L419	Y485	
E232	A293	E354	L420	G486	
M233	T294	E355	R421	M487	
P234	L295	A356	V422	M488	
P235	T296	T357	K425	M489	
V236	G297	S358	K426	D490	
L237	G298	D359	D428	M491	
E238	T299	R360	L429	L494	
A239	I301	D361	L430	D495	
V240	E302	R362	A431	P496	
K241	E303	E363	G432	T497	
K242	K304	K364	Q433	K498	
E304	E304	L365	N433	V499	
G244	I305	Q366	E434	T500	
K245	G306	E367	D435	R501	
P246	M307	R368	N437	L504	
L247	E308	V369	N438	Q505	
L248	L309	A370	G439	L506	
L249	E310	K371	L440	S509	
I250	K311	L372	A443	V510	
A251	A312	I379	M447	A511	
E252	T313	E315	E449	G512	
V254	L314	D316	E450	I515	
E255	D316	G381	L451	T516	
G256	L317	G382	R452	T517	
E257	G318	A383	Q453	E518	
A258	Q319	A384	I454	C519	
L259	A320	V387	V455	M520	
A260	K321	K388	L456	L524	
K322	R322	M389	N457	P525	
V323	V323	K392	C458	L525	
V263	V324	T326	E461	L526	
L262	L262	N326	A394	L527	
V264	N326	K327	K393	L528	
N265	T266	T327	A394	L529	
M267	M267	D328	A462	L530	
I270	I270	T329	E463	L531	
V271	V271	T330	A464	L532	
K272	K272	T331	V465	L533	
E273	E273	I332	V466	L534	
V273	I333	V396	V467	L535	
		E397	V468	L536	
		D398	ASP	L537	
			LEU	L538	

• Molecule 1: GROEL

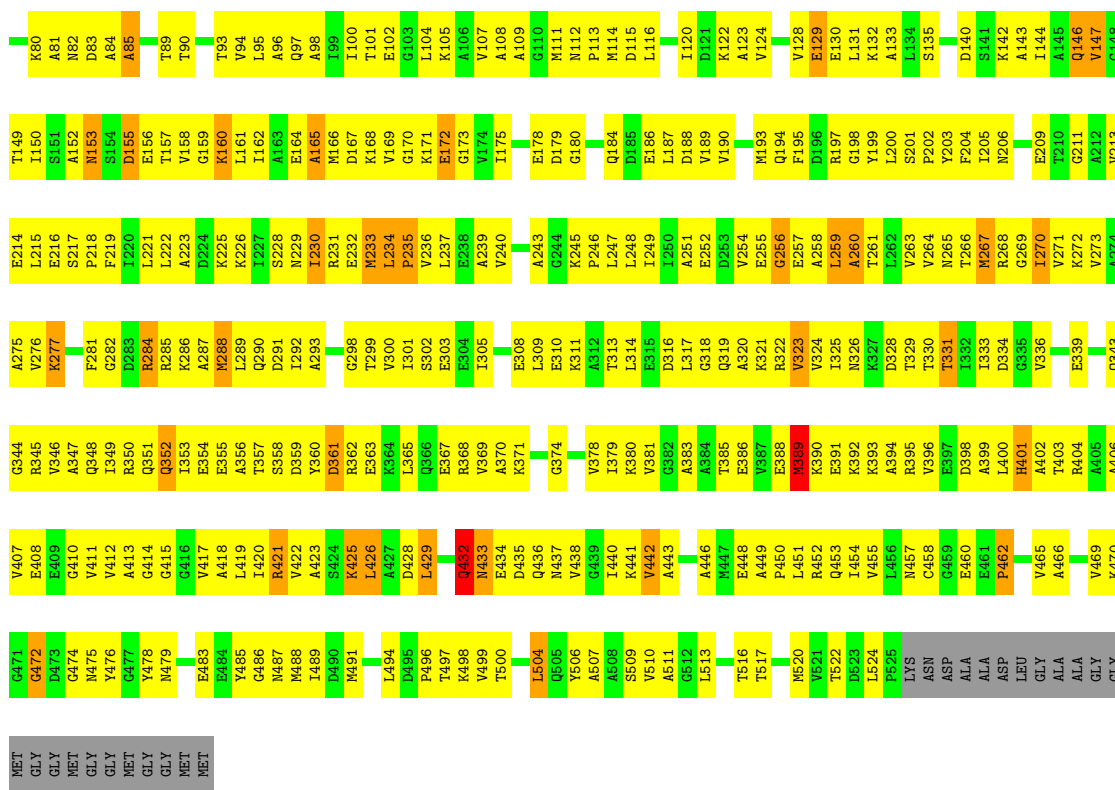
Chain H:

K2	K80	I150	E216	K277	I349	V417	M488	K42
D5	A81	S151	S217	F281	R350	A418	I489	D5
V6	N82	N153	F219	G282	Q352	L419	L490	V6
K7	D83	S154	L220	D283	I353	R421	M491	K7
F8	A84	D155	L221	R284	E354	V422	L494	F8
G9	A85	E156	L222	R285	E355	D425	D495	G9
N10	G88	T157	A223	K286	A356	K426	P496	N10
D11	T89	V158	G224	A287	T357	L426	T497	D11
K15	T90	G159	K226	M288	S358	A427	K498	K15
M16	T90	K160	K227	Q290	D359	D428	V499	M16
L17	T93	L161	L227	D291	D361	L429	T500	L17
V20	V94	E164	N229	T292	R362	Q432	S502	V20
N21	L95	A165	I230	A293	E363	M433	A503	N21
V22	A96	M166	R231	G297	K364	E434	L504	V22
L23	Q97	D167	E232	I301	L365	D435	Q505	L23
A24	A98	K168	M233	G297	Q366	Q436	Q506	A24
D25	I99	V169	L234	S301	E367	M437	V509	D25
A26	I100	G170	P235	S302	R368	V438	V510	A26
V27	T101	K171	L237	E303	V369	G439	A511	V27
K28	G103	E172	E238	I305	A370	T440	G512	K28
V29	L104	V174	A239	K350	K380	V442	L513	V29
T30	K105	I175	V240	E308	V381	M443	M514	T30
L31	A106	I175		L309	G382	M447	I515	L31
G32	V107	E178	A243	E310	A383	E448	T516	G32
P33	A108	D179	G244	K311	A384	A449	M520	P33
K34	A109	G180	K245	A312	T385	P450	V521	K34
G35	G110	G180	P246	T313	E386	L451	T522	G35
R36	M111	L183	L247	L314	V387	R452	D523	R36
N37	N112	Q184	L248	E315	E388	K452	P525	N37
V38	P113	L187	L249	D316	K389	T454	P525	V38
L40	M114	D115	I250	L317	K390	V455	L524	L40
I49	L116	L189	E252	G318	E391	C458	ASN	I49
T50	D121	V190	V254	Q319	K392	G459	ALA	T50
K51	K122	E191	E255	A320	A394	E460	ALA	K51
S55	A123	G192	E257	K321	R395	E461	ASP	S55
V56	T125	M193	G256	V324	V396	P462	ASP	V56
A511	T125	F195	E258	T325	E397		LEU	A511
G512	A126	D196	L259	K326	D398	V465	ALA	G512
E58	A127	R197	A260	A399	L400	V469	ALA	E58
E59	V128	E197	T261	K327	L401	V470	GLY	E59
D64	E129	G198	L262	D328	H401	E402	GLY	D64
K65	E130	Y199	V263	T329	A402	G472	MET	K65
F66	L131	L200	V264	T330	T403	D473	GLY	F66
E67	K65	S201	N265	T331	R404	G474	GLY	E67
M68	K132	P202	T266	D334	A405	M475	MET	M68
N69	A133	Y203	M267	G335	A406	V476	GLY	N69
A71	C138	F204	G269	V336	V407	G477	GLY	A71
Q72	A143	L205	K207	T342	E408	Y478	MET	Q72
M73	I144	N206	I270	V271	G410	N479	GLY	M73
V74	A145	K207	K272	G211	V411	E483	MET	V74
E75	Q146	A145	V273	K212	V412	E484	MET	E75
K76	V147	E214	A274	R345	A413	G485		K76
E76	G148	E214	A275	V346	G414	G486		E76
V77	V149	L215	V276	Q348	G416	N487		V77

• Molecule 1: GROEL

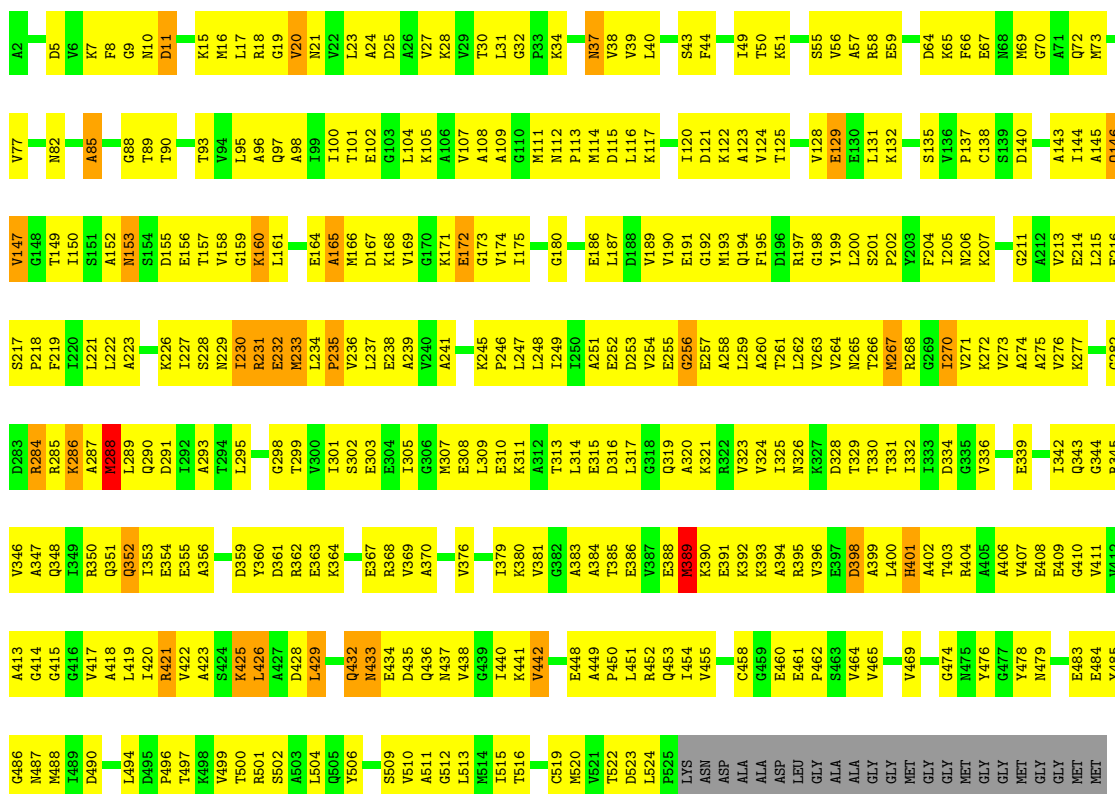
Chain I:

K2	D5	N10	K15	M16	L17	R18	G19	V20	L23	A24	D25	A26	V27	K28	V29	T30	L31	G32	P33	K34	G35	N37	V38	V39	L40	D41	F44	P47	T48	I49	T50	K51	S55	R58	E59	D64	K65	F66	E67	N69	Q72	M73	V74	K75	E76	V77
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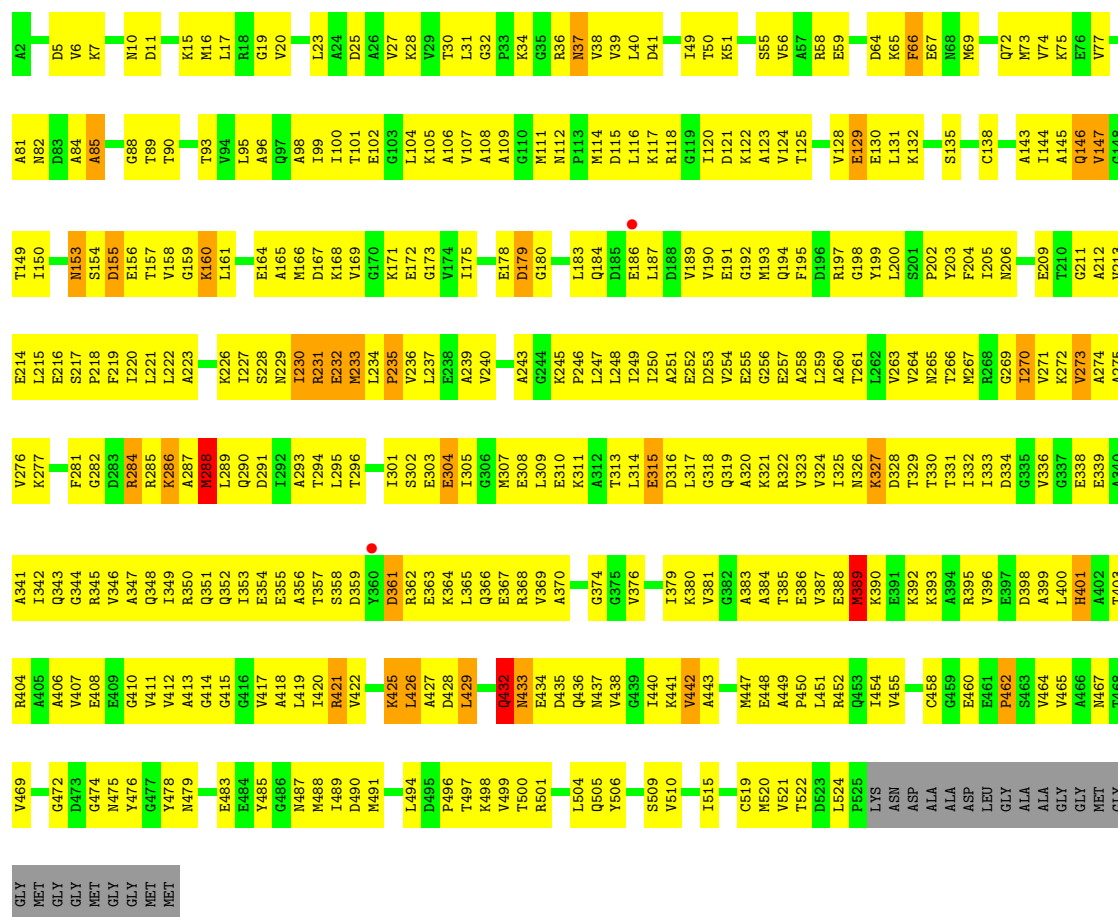
- Molecule 1: GROEL

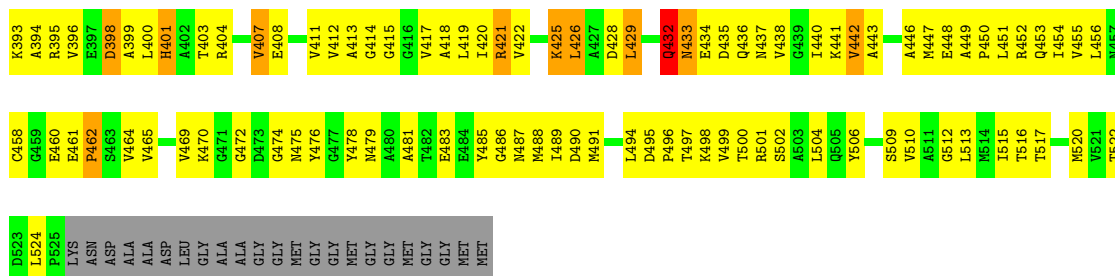
Chain J: 



- Molecule 1: GROEL

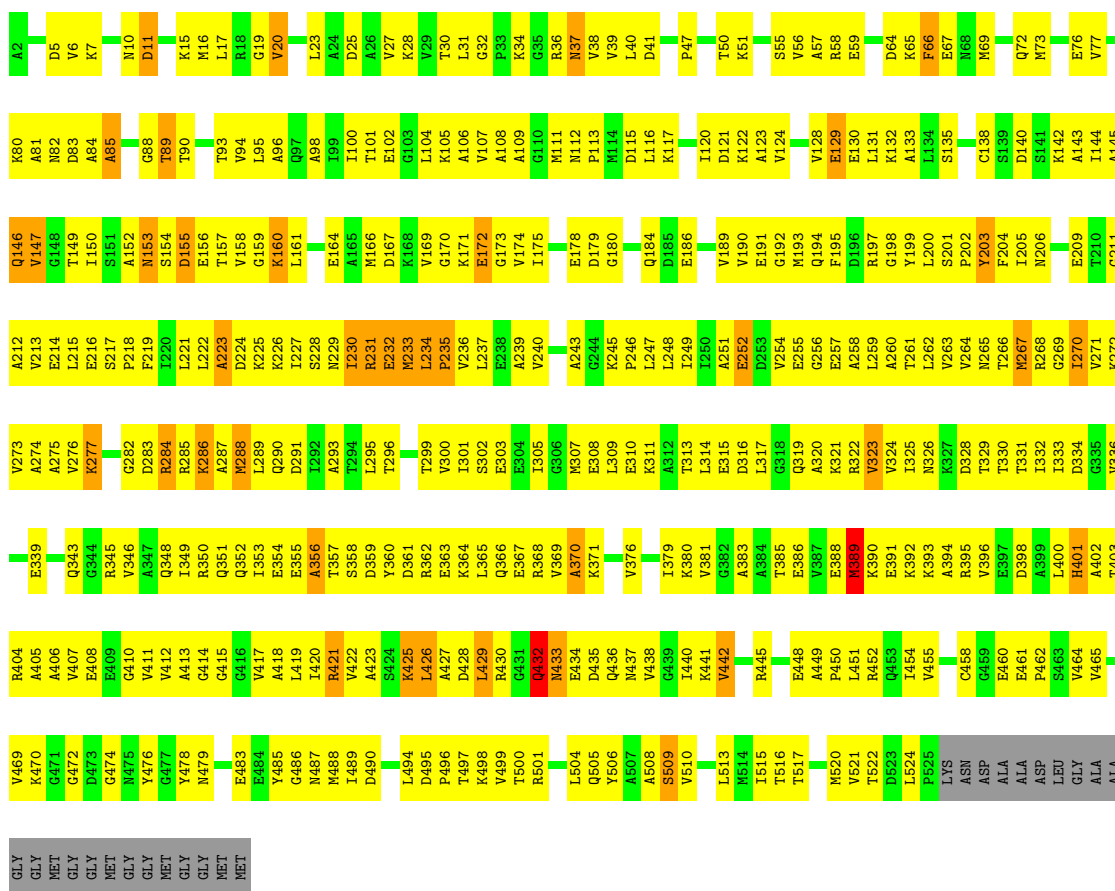
Chain K:





• Molecule 1: GROEL

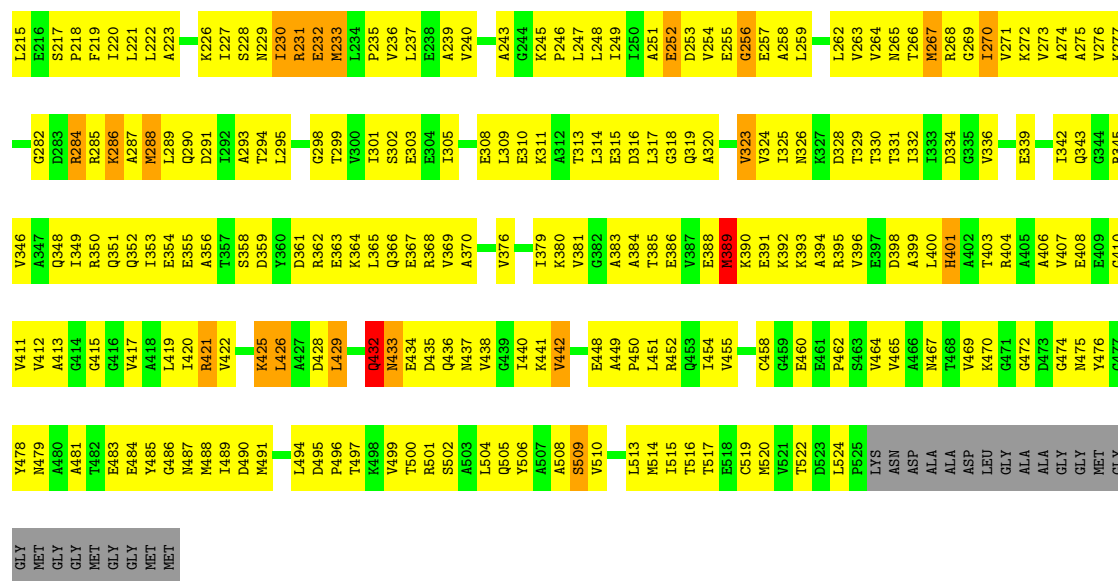
Chain M:



• Molecule 1: GROEL

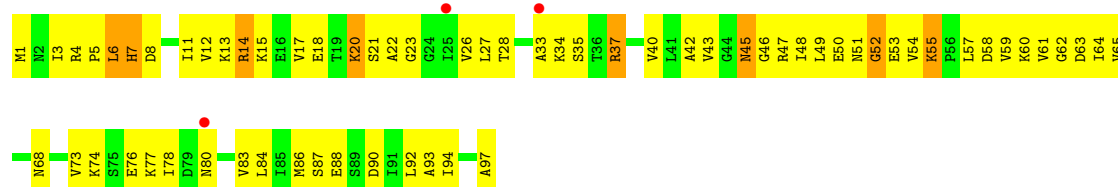
Chain N:





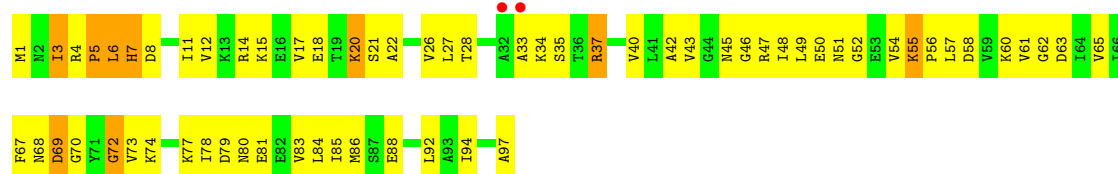
• Molecule 2: GROEL/GROES COMPLEX

Chain O:



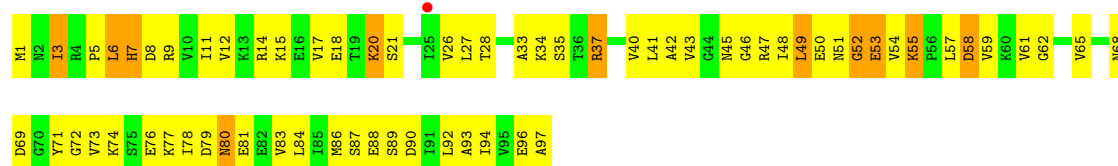
• Molecule 2: GROEL/GROES COMPLEX

Chain P:



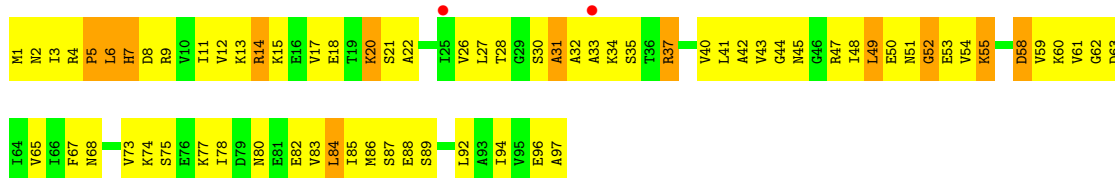
• Molecule 2: GROEL/GROES COMPLEX

Chain Q:



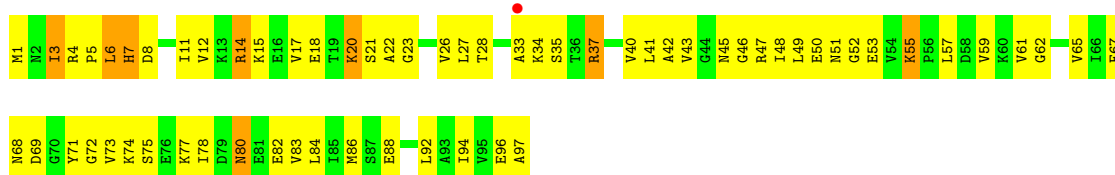
• Molecule 2: GROEL/GROES COMPLEX

Chain R:



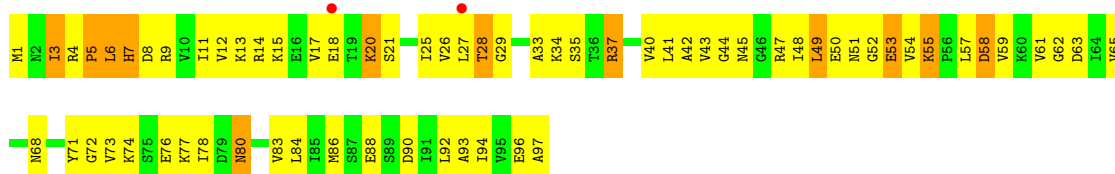
• Molecule 2: GROEL/GROES COMPLEX

Chain S:



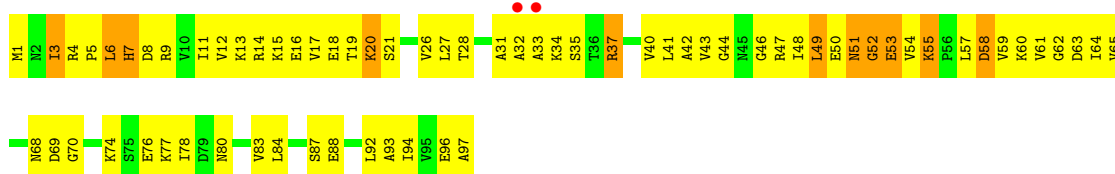
• Molecule 2: GROEL/GROES COMPLEX

Chain T:



• Molecule 2: GROEL/GROES COMPLEX

Chain U:



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 2	Depositor
Cell constants a, b, c, α , β , γ	255.26Å 265.25Å 184.40Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	40.00 – 3.00 40.07 – 2.99	Depositor EDS
% Data completeness (in resolution range)	79.7 (40.00-3.00) 96.7 (40.07-2.99)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.12	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.25 (at 3.01Å)	Xtriage
Refinement program	X-PLOR	Depositor
R, R_{free}	0.248 , 0.291 0.271 , 0.305	Depositor DCC
R_{free} test set	12080 reflections (4.98%)	DCC
Wilson B-factor (Å ²)	50.3	Xtriage
Anisotropy	0.614	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.30 , 34.4	EDS
Estimated twinning fraction	0.003 for k,h,-l	Xtriage
L-test for twinning	$\langle L \rangle = 0.49$, $\langle L^2 \rangle = 0.33$	Xtriage
Outliers	0 of 242645 reflections	Xtriage
F_o, F_c correlation	0.89	EDS
Total number of atoms	58870	wwPDB-VP
Average B, all atoms (Å ²)	61.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.22% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

5 Model quality

5.1 Standard geometry

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

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	0.52	0/3835	0.76	0/5186
1	B	0.52	0/3835	0.75	0/5186
1	C	0.52	0/3835	0.74	0/5186
1	D	0.53	0/3835	0.74	0/5186
1	E	0.52	0/3835	0.76	0/5186
1	F	0.52	0/3835	0.75	0/5186
1	G	0.52	0/3835	0.75	0/5186
1	H	0.48	0/3877	0.73	0/5236
1	I	0.49	0/3877	0.71	0/5236
1	J	0.47	0/3877	0.72	0/5236
1	K	0.47	0/3877	0.72	0/5236
1	L	0.46	0/3877	0.72	0/5236
1	M	0.47	0/3877	0.71	0/5236
1	N	0.48	0/3877	0.73	0/5236
2	O	0.39	0/729	0.68	0/980
2	P	0.36	0/729	0.68	0/980
2	Q	0.37	0/729	0.69	0/980
2	R	0.40	0/729	0.69	0/980
2	S	0.37	0/729	0.69	0/980
2	T	0.39	0/729	0.69	0/980
2	U	0.36	0/729	0.68	0/980
All	All	0.49	0/59087	0.73	0/79814

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 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 hydrogens added by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, and the number in parentheses is this value normalized per 1000 atoms of the molecule in the chain. The Symm-Clashes column gives symmetry related clashes, in the same way as for the Clashes column.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3808	0	3890	563	1
1	B	3808	0	3890	513	0
1	C	3808	0	3890	525	0
1	D	3808	0	3890	527	0
1	E	3808	0	3890	537	0
1	F	3808	0	3890	556	0
1	G	3808	0	3890	535	0
1	H	3849	0	3965	479	0
1	I	3849	0	3965	439	0
1	J	3849	0	3965	444	1
1	K	3849	0	3965	479	0
1	L	3849	0	3965	504	0
1	M	3849	0	3965	486	0
1	N	3849	0	3965	435	0
2	O	725	0	755	119	0
2	P	725	0	755	98	0
2	Q	725	0	755	106	0
2	R	725	0	755	104	0
2	S	725	0	755	98	0
2	T	725	0	755	112	0
2	U	725	0	755	101	0
3	A	1	0	0	0	0
3	B	1	0	0	0	0
3	C	1	0	0	0	0
3	D	1	0	0	0	0
3	E	1	0	0	0	0
3	F	1	0	0	0	0
3	G	1	0	0	0	0
4	A	27	0	12	2	0
4	B	27	0	12	5	0
4	C	27	0	12	5	0
4	D	27	0	12	1	0
4	E	27	0	12	1	0
4	F	27	0	12	6	0
4	G	27	0	12	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
All	All	58870	0	60354	7568	1

Clashscore is defined as the number of clashes calculated for the entry per 1000 atoms (including hydrogens) of the entry. The overall clashscore for this entry is 63.

All (7568) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:233:MET:HA	1:G:310:GLU:HG3	1.20	1.19
1:F:322:ARG:HB3	1:F:333:ILE:HD12	1.24	1.18
1:B:228:SER:HA	1:B:255:GLU:HB2	1.27	1.13
1:D:214:GLU:HB3	1:D:322:ARG:HD3	1.30	1.13
2:O:55:LYS:H	2:O:55:LYS:HE2	1.15	1.12
1:B:214:GLU:HB3	1:B:322:ARG:HD3	1.32	1.12
1:H:230:ILE:HG13	1:H:258:ALA:HA	1.32	1.11
1:G:18:ARG:HH11	1:G:18:ARG:HB3	1.15	1.10
2:U:55:LYS:H	2:U:55:LYS:HE2	1.11	1.10
1:A:233:MET:HA	1:A:310:GLU:HG3	1.31	1.10
1:D:305:ILE:HG22	1:D:306:GLY:H	1.10	1.09
1:L:232:GLU:HB3	1:L:309:LEU:HB2	1.25	1.09
1:F:233:MET:HA	1:F:310:GLU:HG3	1.33	1.09
1:H:308:GLU:HB3	1:H:311:LYS:HD3	1.35	1.09
1:A:228:SER:HA	1:A:255:GLU:HB2	1.29	1.08
1:B:18:ARG:HB3	1:B:18:ARG:HH11	1.14	1.08
1:C:18:ARG:HB3	1:C:18:ARG:HH11	1.02	1.08
1:F:228:SER:HA	1:F:255:GLU:HB2	1.32	1.08
1:C:233:MET:HA	1:C:310:GLU:HG3	1.29	1.07
1:C:322:ARG:HB3	1:C:333:ILE:HD12	1.37	1.07
1:G:214:GLU:HB3	1:G:322:ARG:HD3	1.34	1.07
1:K:359:ASP:HA	1:K:362:ARG:HH12	1.17	1.07
1:B:233:MET:HA	1:B:310:GLU:HG3	1.30	1.07
2:Q:55:LYS:HE2	2:Q:55:LYS:H	1.14	1.06
1:E:296:THR:HG22	1:E:335:GLY:HA3	1.35	1.06
1:F:296:THR:HG22	1:F:335:GLY:HA3	1.39	1.05
1:E:18:ARG:HH11	1:E:18:ARG:HB3	1.16	1.05
1:E:228:SER:HA	1:E:255:GLU:HB2	1.33	1.05
1:D:18:ARG:HB3	1:D:18:ARG:HH11	1.14	1.05
1:L:230:ILE:HG13	1:L:258:ALA:HA	1.39	1.05
1:A:18:ARG:HH11	1:A:18:ARG:HB3	1.18	1.04
1:H:232:GLU:HB3	1:H:309:LEU:HB2	1.38	1.04
1:G:322:ARG:HB3	1:G:333:ILE:HD12	1.37	1.04
1:E:322:ARG:HB3	1:E:333:ILE:HD12	1.39	1.04
1:N:230:ILE:H	1:N:230:ILE:HD12	1.17	1.04

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:18:ARG:HB3	1:F:18:ARG:HH11	1.19	1.04
1:J:356:ALA:HB1	1:J:362:ARG:HE	1.24	1.03
1:J:230:ILE:HG13	1:J:258:ALA:HA	1.37	1.03
1:D:322:ARG:HB3	1:D:333:ILE:HD12	1.40	1.03
1:K:223:ALA:HB3	1:K:251:ALA:HB2	1.40	1.02
1:I:308:GLU:HB3	1:I:311:LYS:HD3	1.38	1.02
1:N:223:ALA:HB3	1:N:251:ALA:HB2	1.40	1.02
1:M:239:ALA:HB1	1:M:314:LEU:HD11	1.36	1.02
1:L:359:ASP:HA	1:L:362:ARG:HH12	1.23	1.02
1:H:230:ILE:HD12	1:H:230:ILE:H	1.21	1.01
1:L:314:LEU:HD12	1:L:314:LEU:H	1.25	1.01
1:D:233:MET:HA	1:D:310:GLU:HG3	1.42	1.01
1:B:322:ARG:HB3	1:B:333:ILE:HD12	1.40	1.01
1:I:230:ILE:H	1:I:230:ILE:HD12	1.17	1.01
1:G:305:ILE:HG22	1:G:306:GLY:H	1.26	1.01
1:G:239:ALA:HB1	1:G:314:LEU:HD23	1.43	1.01
1:C:228:SER:HA	1:C:255:GLU:HB2	1.41	1.00
1:J:314:LEU:H	1:J:314:LEU:HD12	1.21	1.00
1:J:239:ALA:HB1	1:J:314:LEU:HD11	1.44	1.00
1:M:230:ILE:H	1:M:230:ILE:HD12	1.20	1.00
1:H:223:ALA:HB3	1:H:251:ALA:HB2	1.43	1.00
1:E:214:GLU:HB3	1:E:322:ARG:HD3	1.44	1.00
1:G:33:PRO:HA	1:G:153:ASN:HD21	1.27	1.00
1:I:232:GLU:HB3	1:I:309:LEU:HB2	1.44	1.00
1:N:65:LYS:O	1:N:66:PHE:HB2	1.61	1.00
1:J:230:ILE:HD12	1:J:230:ILE:H	1.27	0.99
1:F:214:GLU:HB3	1:F:322:ARG:HD3	1.42	0.99
1:K:230:ILE:H	1:K:230:ILE:HD12	1.27	0.99
1:A:265:ASN:HA	1:A:270:ILE:HD12	1.40	0.99
2:Q:47:ARG:HD3	2:Q:49:LEU:HD12	1.42	0.99
1:L:16:MET:O	1:L:20:VAL:HG12	1.60	0.99
1:A:322:ARG:HB3	1:A:333:ILE:HD12	1.43	0.99
1:I:359:ASP:HA	1:I:362:ARG:HH12	1.28	0.98
1:B:33:PRO:HA	1:B:153:ASN:HD21	1.28	0.98
1:E:207:LYS:HB3	1:E:208:PRO:HD3	1.43	0.98
1:M:235:PRO:HG3	1:M:310:GLU:HA	1.44	0.98
1:G:228:SER:HA	1:G:255:GLU:HB2	1.45	0.98
2:U:47:ARG:HD3	2:U:49:LEU:HD12	1.40	0.98
1:N:426:LEU:H	1:N:426:LEU:HD23	1.28	0.98
1:I:314:LEU:H	1:I:314:LEU:HD12	1.26	0.98
1:K:308:GLU:HB3	1:K:311:LYS:HD3	1.44	0.98
1:K:232:GLU:HB3	1:K:309:LEU:HB2	1.43	0.98

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:R:17:VAL:HG21	2:R:34:LYS:HD2	1.46	0.98
1:K:166:MET:HE2	1:K:171:LYS:HA	1.46	0.98
1:L:308:GLU:HG2	1:L:309:LEU:H	1.28	0.97
1:L:149:THR:HG23	1:L:159:GLY:HA3	1.46	0.97
2:U:55:LYS:H	2:U:55:LYS:CE	1.75	0.97
1:E:273:VAL:HG12	1:E:274:ALA:H	1.29	0.97
1:K:314:LEU:H	1:K:314:LEU:HD12	1.25	0.97
1:B:199:TYR:HA	1:B:276:VAL:HG12	1.46	0.97
1:H:314:LEU:HD12	1:H:314:LEU:H	1.28	0.97
1:M:249:ILE:HB	1:M:275:ALA:HB2	1.45	0.97
1:I:314:LEU:HA	1:I:317:LEU:HD13	1.45	0.97
1:B:322:ARG:HG2	1:B:323:VAL:H	1.27	0.97
1:L:308:GLU:HB3	1:L:311:LYS:HD3	1.43	0.96
1:M:249:ILE:HB	1:M:275:ALA:CB	1.95	0.96
1:F:33:PRO:HA	1:F:153:ASN:HD21	1.30	0.96
1:M:232:GLU:HB3	1:M:309:LEU:HB2	1.48	0.96
1:D:207:LYS:HB3	1:D:208:PRO:HD3	1.42	0.96
2:Q:55:LYS:H	2:Q:55:LYS:CE	1.78	0.96
1:G:291:ASP:HB3	1:G:345:ARG:HH21	1.30	0.96
1:N:239:ALA:HB1	1:N:314:LEU:HD11	1.47	0.96
1:H:381:VAL:HG21	1:H:393:LYS:HA	1.48	0.95
2:R:55:LYS:HE2	2:R:55:LYS:H	1.30	0.95
1:C:245:LYS:HE2	1:C:245:LYS:HA	1.49	0.95
1:J:426:LEU:HD23	1:J:426:LEU:H	1.30	0.95
1:C:18:ARG:HB3	1:C:18:ARG:NH1	1.79	0.95
1:C:207:LYS:HB3	1:C:208:PRO:HD3	1.46	0.95
1:A:207:LYS:HB3	1:A:208:PRO:HD3	1.47	0.95
2:O:17:VAL:HG21	2:O:34:LYS:HD2	1.48	0.95
1:K:426:LEU:H	1:K:426:LEU:HD23	1.30	0.95
1:B:452:ARG:HB2	1:B:462:PRO:HB3	1.49	0.95
1:F:322:ARG:HG2	1:F:323:VAL:H	1.29	0.95
1:M:308:GLU:HB3	1:M:311:LYS:HD3	1.48	0.95
1:M:426:LEU:H	1:M:426:LEU:HD23	1.30	0.95
1:B:245:LYS:HA	1:B:245:LYS:HE2	1.47	0.95
1:J:232:GLU:HB3	1:J:309:LEU:HB2	1.46	0.95
1:A:346:VAL:HG12	1:A:350:ARG:HH22	1.29	0.95
1:N:230:ILE:HG13	1:N:258:ALA:HA	1.47	0.94
1:J:69:MET:HE1	1:J:522:THR:HB	1.49	0.94
1:I:230:ILE:HG13	1:I:258:ALA:HA	1.47	0.94
1:M:449:ALA:HB3	1:M:450:PRO:HD3	1.49	0.94
1:J:308:GLU:HB3	1:J:311:LYS:HD3	1.48	0.94
1:L:239:ALA:HB1	1:L:314:LEU:HD11	1.47	0.94

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:256:GLY:HA2	1:L:259:LEU:HB3	1.49	0.94
1:L:223:ALA:HB3	1:L:251:ALA:HB2	1.47	0.94
2:S:78:ILE:HD13	2:S:83:VAL:HG21	1.51	0.93
1:L:249:ILE:HB	1:L:275:ALA:HB2	1.51	0.93
1:F:452:ARG:HB2	1:F:462:PRO:HB3	1.49	0.93
1:J:69:MET:CE	1:J:522:THR:HB	1.99	0.93
1:H:433:ASN:HB3	1:H:436:GLN:HG3	1.50	0.93
2:P:65:VAL:HG12	2:P:94:ILE:HG12	1.50	0.93
1:D:228:SER:HA	1:D:255:GLU:HB2	1.50	0.93
1:D:277:LYS:HD3	1:D:285:ARG:HH22	1.31	0.93
1:I:65:LYS:O	1:I:66:PHE:HB2	1.65	0.93
1:L:426:LEU:HD23	1:L:426:LEU:H	1.33	0.93
1:F:207:LYS:HB3	1:F:208:PRO:HD3	1.50	0.93
1:D:411:VAL:HG12	1:D:496:PRO:HA	1.51	0.93
1:A:237:LEU:HD22	2:O:26:VAL:HG22	1.50	0.93
1:E:346:VAL:HG12	1:E:350:ARG:HH22	1.31	0.93
1:A:245:LYS:HE2	1:A:245:LYS:HA	1.50	0.92
1:I:449:ALA:HB3	1:I:450:PRO:HD3	1.49	0.92
1:F:360:TYR:O	1:F:364:LYS:HE2	1.69	0.92
1:J:65:LYS:O	1:J:66:PHE:HB2	1.68	0.92
1:I:249:ILE:HB	1:I:275:ALA:CB	1.99	0.92
1:N:356:ALA:HB1	1:N:362:ARG:HE	1.34	0.92
1:G:199:TYR:HA	1:G:276:VAL:HG12	1.50	0.92
1:I:249:ILE:HB	1:I:275:ALA:HB2	1.51	0.92
1:M:65:LYS:O	1:M:66:PHE:HB2	1.67	0.92
1:M:230:ILE:HG13	1:M:258:ALA:HA	1.50	0.92
1:G:322:ARG:HG2	1:G:323:VAL:H	1.31	0.92
1:A:305:ILE:HG22	1:A:306:GLY:H	1.35	0.92
1:C:305:ILE:HG22	1:C:306:GLY:H	1.34	0.92
2:O:55:LYS:H	2:O:55:LYS:CE	1.83	0.92
1:D:452:ARG:HB2	1:D:462:PRO:HB3	1.51	0.92
1:I:426:LEU:H	1:I:426:LEU:HD23	1.35	0.92
2:T:55:LYS:H	2:T:55:LYS:CE	1.82	0.92
1:J:308:GLU:HG2	1:J:309:LEU:H	1.34	0.91
1:I:16:MET:O	1:I:20:VAL:HG12	1.70	0.91
1:C:452:ARG:HB2	1:C:462:PRO:HB3	1.51	0.91
1:L:235:PRO:HG3	1:L:310:GLU:HA	1.50	0.91
1:I:359:ASP:HA	1:I:362:ARG:NH1	1.85	0.91
1:M:166:MET:HE2	1:M:171:LYS:HA	1.49	0.91
1:D:74:VAL:O	1:D:77:VAL:HG13	1.71	0.91
1:E:322:ARG:HG2	1:E:323:VAL:H	1.34	0.91
1:K:239:ALA:HB1	1:K:314:LEU:HD11	1.52	0.91

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:R:14:ARG:HD3	2:R:35:SER:HB3	1.53	0.91
1:G:487:ASN:O	1:G:491:MET:HG3	1.69	0.91
1:K:143:ALA:O	1:K:146:GLN:HB3	1.71	0.91
1:I:239:ALA:HB1	1:I:314:LEU:HD11	1.53	0.91
1:I:69:MET:CE	1:I:522:THR:HB	2.01	0.91
1:A:223:ALA:HB3	1:A:251:ALA:HB2	1.53	0.91
1:D:245:LYS:HA	1:D:245:LYS:HE2	1.53	0.91
1:M:314:LEU:H	1:M:314:LEU:HD12	1.35	0.91
2:U:65:VAL:HG12	2:U:94:ILE:HG12	1.51	0.91
1:K:230:ILE:HG13	1:K:258:ALA:HA	1.50	0.90
2:O:47:ARG:HD3	2:O:49:LEU:HD12	1.51	0.90
1:C:265:ASN:HA	1:C:270:ILE:HD12	1.53	0.90
1:M:308:GLU:HG2	1:M:309:LEU:H	1.32	0.90
1:B:207:LYS:HB3	1:B:208:PRO:HD3	1.51	0.90
1:D:350:ARG:HD3	1:D:353:ILE:HD12	1.53	0.90
1:N:381:VAL:HG21	1:N:393:LYS:HA	1.53	0.90
1:M:359:ASP:HA	1:M:362:ARG:HH12	1.37	0.90
1:N:286:LYS:HA	1:N:286:LYS:HE2	1.51	0.90
1:C:273:VAL:HG12	1:C:274:ALA:H	1.37	0.90
1:B:305:ILE:HG22	1:B:306:GLY:H	1.36	0.90
1:L:157:THR:O	1:L:160:LYS:HB3	1.70	0.90
1:D:215:LEU:HB3	1:D:246:PRO:HB2	1.54	0.90
1:H:308:GLU:HG2	1:H:309:LEU:H	1.37	0.90
1:I:284:ARG:HB2	1:I:284:ARG:HH11	1.36	0.89
1:L:284:ARG:HH11	1:L:284:ARG:HB2	1.36	0.89
1:K:65:LYS:O	1:K:66:PHE:HB2	1.71	0.89
1:F:314:LEU:HD12	1:F:315:GLU:N	1.86	0.89
1:H:449:ALA:HB3	1:H:450:PRO:HD3	1.53	0.89
1:G:256:GLY:HA2	1:G:259:LEU:HB2	1.54	0.89
1:J:449:ALA:HB3	1:J:450:PRO:HD3	1.54	0.89
1:H:65:LYS:O	1:H:66:PHE:HB2	1.70	0.89
1:H:436:GLN:O	1:H:440:ILE:HG13	1.72	0.89
1:G:349:ILE:HA	1:G:352:GLN:NE2	1.87	0.89
1:C:487:ASN:O	1:C:491:MET:HG3	1.73	0.89
1:F:245:LYS:HA	1:F:245:LYS:HE2	1.54	0.89
1:G:207:LYS:HB3	1:G:208:PRO:HD3	1.52	0.89
1:B:18:ARG:NH1	1:B:18:ARG:HB3	1.86	0.89
2:T:55:LYS:HE2	2:T:55:LYS:H	1.36	0.89
1:L:69:MET:CE	1:L:522:THR:HB	2.03	0.88
1:I:308:GLU:HG2	1:I:309:LEU:H	1.36	0.88
1:H:239:ALA:HB1	1:H:314:LEU:HD11	1.56	0.88
1:M:143:ALA:O	1:M:146:GLN:HB3	1.72	0.88

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:381:VAL:HG21	1:M:393:LYS:HA	1.53	0.88
1:E:215:LEU:O	1:E:218:PRO:HD3	1.73	0.88
1:E:349:ILE:HA	1:E:352:GLN:NE2	1.88	0.88
1:M:149:THR:HG23	1:M:159:GLY:HA3	1.53	0.88
2:P:47:ARG:HD3	2:P:49:LEU:HD12	1.55	0.88
1:A:411:VAL:HG12	1:A:496:PRO:HA	1.56	0.88
1:G:414:GLY:O	1:G:417:VAL:HG12	1.72	0.88
1:B:296:THR:HG22	1:B:335:GLY:HA3	1.56	0.88
1:C:64:ASP:HB3	1:C:67:GLU:HB2	1.55	0.88
1:N:69:MET:HE1	1:N:522:THR:HB	1.56	0.88
1:J:433:ASN:HB3	1:J:436:GLN:HG3	1.54	0.88
2:R:55:LYS:CE	2:R:55:LYS:H	1.87	0.87
2:U:78:ILE:HD13	2:U:83:VAL:HG21	1.56	0.87
1:J:254:VAL:HG12	1:J:259:LEU:HB2	1.56	0.87
1:L:85:ALA:HB1	1:L:499:VAL:HG12	1.56	0.87
1:L:381:VAL:HG21	1:L:393:LYS:HA	1.53	0.87
1:H:143:ALA:O	1:H:146:GLN:HB3	1.73	0.87
1:J:215:LEU:HB3	1:J:218:PRO:HG2	1.54	0.87
1:N:308:GLU:HG2	1:N:309:LEU:H	1.39	0.87
1:G:411:VAL:HG12	1:G:496:PRO:HA	1.56	0.87
1:E:18:ARG:NH1	1:E:18:ARG:HB3	1.89	0.87
1:N:232:GLU:HB3	1:N:309:LEU:HB2	1.56	0.87
1:J:249:ILE:HB	1:J:275:ALA:CB	2.05	0.87
1:N:359:ASP:HA	1:N:362:ARG:HH12	1.39	0.87
1:M:16:MET:O	1:M:20:VAL:HG12	1.74	0.87
1:D:18:ARG:HB3	1:D:18:ARG:NH1	1.90	0.87
2:O:78:ILE:HD13	2:O:83:VAL:HG21	1.57	0.87
1:K:433:ASN:HB3	1:K:436:GLN:HG3	1.56	0.87
1:I:235:PRO:HG3	1:I:310:GLU:HA	1.55	0.87
1:A:360:TYR:HA	1:A:363:GLU:OE1	1.75	0.87
1:D:199:TYR:HA	1:D:276:VAL:HG12	1.57	0.87
1:J:16:MET:O	1:J:20:VAL:HG12	1.75	0.87
1:H:166:MET:HE2	1:H:171:LYS:HA	1.55	0.87
1:K:359:ASP:HA	1:K:362:ARG:NH1	1.88	0.86
1:A:219:PHE:HD1	1:A:319:GLN:HE21	1.22	0.86
1:E:215:LEU:HB3	1:E:246:PRO:HB2	1.57	0.86
1:L:249:ILE:HB	1:L:275:ALA:CB	2.05	0.86
1:D:305:ILE:HG22	1:D:306:GLY:N	1.89	0.86
1:I:69:MET:HE2	1:I:522:THR:HB	1.55	0.86
1:K:149:THR:HG23	1:K:159:GLY:HA3	1.55	0.86
1:I:256:GLY:HA2	1:I:259:LEU:HB3	1.56	0.86
1:I:266:THR:HG22	1:I:272:LYS:HA	1.58	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:82:ASN:ND2	1:F:86:GLY:HA2	1.90	0.86
1:C:322:ARG:HG2	1:C:323:VAL:H	1.41	0.86
1:F:199:TYR:HA	1:F:276:VAL:HG12	1.58	0.86
1:D:273:VAL:HG12	1:D:274:ALA:H	1.41	0.86
2:P:55:LYS:CE	2:P:55:LYS:H	1.89	0.86
2:S:17:VAL:HG21	2:S:34:LYS:HD2	1.57	0.86
1:B:34:LYS:HD2	1:B:458:CYS:SG	2.14	0.86
1:G:245:LYS:HA	1:G:245:LYS:HE2	1.56	0.86
1:G:273:VAL:HG12	1:G:274:ALA:H	1.40	0.85
1:N:193:MET:HG2	1:N:194:GLN:N	1.91	0.85
1:I:381:VAL:HG21	1:I:393:LYS:HA	1.56	0.85
1:C:256:GLY:HA2	1:C:259:LEU:HB2	1.56	0.85
1:D:360:TYR:HA	1:D:363:GLU:OE1	1.76	0.85
1:H:284:ARG:HH11	1:H:284:ARG:HB2	1.40	0.85
1:L:169:VAL:HG13	1:L:173:GLY:HA3	1.57	0.85
1:K:356:ALA:HB1	1:K:362:ARG:HE	1.41	0.85
1:C:34:LYS:HD2	1:C:458:CYS:SG	2.16	0.85
1:N:434:GLU:HA	1:N:437:ASN:ND2	1.92	0.85
1:D:226:LYS:C	1:D:227:ILE:HD12	1.96	0.85
1:D:349:ILE:HA	1:D:352:GLN:NE2	1.90	0.85
1:M:434:GLU:HA	1:M:437:ASN:ND2	1.91	0.85
1:B:74:VAL:O	1:B:77:VAL:HG13	1.76	0.85
1:J:229:ASN:ND2	1:J:231:ARG:HH12	1.75	0.85
1:L:65:LYS:O	1:L:66:PHE:HB2	1.75	0.85
2:S:14:ARG:HG2	2:S:15:LYS:H	1.40	0.85
1:C:33:PRO:HA	1:C:153:ASN:HD21	1.42	0.85
1:J:143:ALA:O	1:J:147:VAL:HG12	1.75	0.85
1:L:222:LEU:HD22	1:L:289:LEU:HD11	1.58	0.85
1:I:284:ARG:NH1	1:I:284:ARG:HB2	1.91	0.85
1:B:411:VAL:HG12	1:B:496:PRO:HA	1.58	0.85
1:D:265:ASN:HA	1:D:270:ILE:HD12	1.57	0.84
1:G:64:ASP:HB3	1:G:67:GLU:HB2	1.59	0.84
1:L:166:MET:HE2	1:L:171:LYS:HA	1.56	0.84
1:F:18:ARG:NH1	1:F:18:ARG:HB3	1.92	0.84
1:E:314:LEU:HD12	1:E:315:GLU:N	1.92	0.84
1:D:234:LEU:HD12	1:D:234:LEU:H	1.40	0.84
1:B:265:ASN:HA	1:B:270:ILE:HD12	1.58	0.84
1:C:234:LEU:H	1:C:234:LEU:HD12	1.41	0.84
1:E:224:ASP:HB2	1:E:303:GLU:HB3	1.59	0.84
1:J:247:LEU:O	1:J:273:VAL:HB	1.78	0.84
1:J:284:ARG:HH11	1:J:284:ARG:HB2	1.43	0.84
1:E:131:LEU:CD2	1:E:422:VAL:HG11	2.06	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:249:ILE:HB	1:C:275:ALA:CB	2.07	0.84
2:T:47:ARG:HD3	2:T:49:LEU:HD12	1.60	0.84
1:K:449:ALA:HB3	1:K:450:PRO:HD3	1.58	0.84
1:M:169:VAL:HG13	1:M:173:GLY:HA3	1.58	0.84
1:A:215:LEU:HB3	1:A:246:PRO:HB2	1.58	0.84
1:N:314:LEU:H	1:N:314:LEU:HD12	1.42	0.84
1:M:359:ASP:HA	1:M:362:ARG:NH1	1.92	0.84
1:E:33:PRO:HA	1:E:153:ASN:HD21	1.42	0.84
1:G:452:ARG:HB2	1:G:462:PRO:HB3	1.59	0.84
1:N:230:ILE:N	1:N:230:ILE:HD12	1.93	0.84
1:D:233:MET:C	1:D:235:PRO:HD2	1.97	0.84
1:I:286:LYS:HA	1:I:286:LYS:HE2	1.59	0.84
1:E:305:ILE:HG22	1:E:306:GLY:H	1.43	0.84
1:L:230:ILE:HD12	1:L:230:ILE:H	1.42	0.84
1:F:34:LYS:HD2	1:F:458:CYS:SG	2.18	0.83
1:E:417:VAL:O	1:E:420:ILE:HG22	1.77	0.83
1:A:82:ASN:HD22	1:A:86:GLY:HA2	1.42	0.83
1:N:449:ALA:HB3	1:N:450:PRO:HD3	1.58	0.83
1:B:233:MET:C	1:B:235:PRO:HD2	1.98	0.83
1:H:249:ILE:HB	1:H:275:ALA:CB	2.07	0.83
1:N:403:THR:O	1:N:407:VAL:HG23	1.76	0.83
1:J:381:VAL:HG21	1:J:393:LYS:HA	1.60	0.83
1:A:452:ARG:HB2	1:A:462:PRO:HB3	1.58	0.83
1:E:295:LEU:O	1:E:337:GLY:HA3	1.79	0.83
1:F:414:GLY:O	1:F:417:VAL:HG12	1.78	0.83
1:I:415:GLY:H	1:I:417:VAL:HG23	1.43	0.83
1:B:360:TYR:HA	1:B:363:GLU:OE1	1.79	0.83
1:G:18:ARG:NH1	1:G:18:ARG:HB3	1.92	0.83
1:A:266:THR:HG22	1:A:271:VAL:O	1.78	0.83
1:F:349:ILE:O	1:F:353:ILE:HG13	1.79	0.83
1:E:452:ARG:HB2	1:E:462:PRO:HB3	1.59	0.83
1:B:417:VAL:O	1:B:420:ILE:HG22	1.77	0.83
1:E:273:VAL:HG12	1:E:274:ALA:N	1.93	0.83
1:H:314:LEU:HA	1:H:317:LEU:HD13	1.59	0.83
1:K:69:MET:HE1	1:K:522:THR:HB	1.60	0.83
1:K:198:GLY:HA3	1:K:328:ASP:HA	1.59	0.83
1:D:296:THR:HG22	1:D:335:GLY:HA3	1.60	0.83
1:M:356:ALA:HB1	1:M:362:ARG:HE	1.43	0.83
2:P:55:LYS:HE2	2:P:55:LYS:H	1.44	0.83
1:H:359:ASP:HA	1:H:362:ARG:HH12	1.44	0.83
1:N:308:GLU:HB3	1:N:311:LYS:HD3	1.60	0.83
1:G:174:VAL:HG21	1:G:367:GLU:HA	1.61	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:69:MET:CE	1:M:522:THR:HB	2.08	0.83
2:S:14:ARG:HD3	2:S:35:SER:HB3	1.58	0.83
1:F:74:VAL:O	1:F:77:VAL:HG13	1.77	0.83
1:C:360:TYR:O	1:C:364:LYS:HE2	1.78	0.83
1:J:223:ALA:HB3	1:J:251:ALA:HB2	1.61	0.83
1:H:100:ILE:O	1:H:104:LEU:HB2	1.79	0.83
1:H:254:VAL:HG12	1:H:259:LEU:HB2	1.59	0.83
1:A:314:LEU:HD12	1:A:315:GLU:N	1.94	0.83
2:Q:68:ASN:HD22	2:R:74:LYS:HE3	1.43	0.83
1:I:169:VAL:HG13	1:I:173:GLY:HA3	1.57	0.83
1:A:64:ASP:HB3	1:A:67:GLU:HB2	1.61	0.82
1:F:346:VAL:HG12	1:F:350:ARG:HH22	1.44	0.82
1:A:174:VAL:HG21	1:A:367:GLU:HA	1.60	0.82
1:F:223:ALA:HB3	1:F:251:ALA:HB2	1.62	0.82
1:J:299:THR:N	1:J:316:ASP:O	2.11	0.82
1:H:69:MET:CE	1:H:522:THR:HB	2.09	0.82
1:A:487:ASN:O	1:A:491:MET:HG3	1.78	0.82
1:K:381:VAL:HG21	1:K:393:LYS:HA	1.60	0.82
1:N:16:MET:O	1:N:20:VAL:HG12	1.80	0.82
1:A:214:GLU:HB3	1:A:322:ARG:HD3	1.61	0.82
1:G:461:GLU:HB2	1:G:464:VAL:HB	1.60	0.82
1:N:433:ASN:HB3	1:N:436:GLN:HG3	1.62	0.82
1:B:277:LYS:HD3	1:B:285:ARG:HH22	1.43	0.82
1:C:249:ILE:HB	1:C:275:ALA:HB2	1.60	0.82
1:I:199:TYR:HA	1:I:276:VAL:HG12	1.61	0.82
1:J:100:ILE:O	1:J:104:LEU:HB2	1.79	0.82
1:I:230:ILE:N	1:I:230:ILE:HD12	1.95	0.82
2:O:14:ARG:HG2	2:O:15:LYS:H	1.45	0.82
1:H:149:THR:HG23	1:H:159:GLY:HA3	1.61	0.82
1:N:69:MET:CE	1:N:522:THR:HB	2.09	0.82
1:F:33:PRO:HA	1:F:153:ASN:ND2	1.94	0.82
1:G:273:VAL:HG12	1:G:274:ALA:N	1.95	0.82
1:C:199:TYR:HA	1:C:276:VAL:HG12	1.62	0.82
1:J:436:GLN:O	1:J:440:ILE:HG13	1.80	0.82
1:C:226:LYS:C	1:C:227:ILE:HD12	2.01	0.82
1:B:487:ASN:O	1:B:491:MET:HG3	1.80	0.82
1:H:194:GLN:HG3	1:H:331:THR:HB	1.62	0.82
2:T:17:VAL:HG21	2:T:34:LYS:HD2	1.62	0.82
1:B:215:LEU:O	1:B:218:PRO:HD3	1.79	0.81
1:E:199:TYR:HA	1:E:276:VAL:HG12	1.61	0.81
1:L:314:LEU:HA	1:L:317:LEU:HD13	1.62	0.81
1:A:33:PRO:HA	1:A:153:ASN:HD21	1.45	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:T:65:VAL:HG12	2:T:94:ILE:HG12	1.61	0.81
1:F:411:VAL:HG12	1:F:496:PRO:HA	1.60	0.81
1:G:265:ASN:HA	1:G:270:ILE:HD12	1.61	0.81
1:J:249:ILE:HB	1:J:275:ALA:HB2	1.62	0.81
1:M:205:ILE:HA	1:M:213:VAL:HG22	1.61	0.81
1:C:411:VAL:HG12	1:C:496:PRO:HA	1.62	0.81
2:Q:11:ILE:HB	2:Q:42:ALA:HB3	1.60	0.81
1:L:359:ASP:HA	1:L:362:ARG:NH1	1.94	0.81
1:C:349:ILE:HA	1:C:352:GLN:NE2	1.95	0.81
1:A:277:LYS:HD3	1:A:285:ARG:HH22	1.44	0.81
1:I:85:ALA:HB1	1:I:499:VAL:HG12	1.60	0.81
1:E:414:GLY:O	1:E:417:VAL:HG12	1.80	0.81
1:E:360:TYR:HA	1:E:363:GLU:OE1	1.79	0.81
2:Q:78:ILE:HD13	2:Q:83:VAL:HG21	1.63	0.81
1:I:433:ASN:HB3	1:I:436:GLN:HG3	1.60	0.81
1:D:417:VAL:O	1:D:420:ILE:HG22	1.79	0.81
1:E:233:MET:C	1:E:235:PRO:HD2	2.00	0.81
1:G:233:MET:C	1:G:235:PRO:HD2	2.01	0.81
1:D:322:ARG:HB3	1:D:333:ILE:CD1	2.10	0.81
1:H:143:ALA:O	1:H:147:VAL:HG12	1.81	0.81
1:I:436:GLN:O	1:I:440:ILE:HG13	1.80	0.81
1:C:461:GLU:HB2	1:C:464:VAL:HB	1.62	0.81
1:H:426:LEU:HD23	1:H:426:LEU:H	1.44	0.81
1:M:286:LYS:HA	1:M:286:LYS:HE2	1.60	0.81
1:K:284:ARG:HB2	1:K:284:ARG:NH1	1.95	0.81
1:A:18:ARG:NH1	1:A:18:ARG:HB3	1.94	0.81
1:F:82:ASN:HD22	1:F:86:GLY:HA2	1.45	0.81
1:K:284:ARG:HB2	1:K:284:ARG:HH11	1.44	0.81
1:D:249:ILE:HB	1:D:275:ALA:HB2	1.61	0.81
1:D:291:ASP:OD1	1:D:292:ILE:HG13	1.81	0.81
1:J:351:GLN:HG2	1:J:354:GLU:OE2	1.80	0.81
1:F:368:ARG:HG2	1:F:372:LEU:HG	1.62	0.81
1:M:199:TYR:HA	1:M:276:VAL:HG12	1.63	0.81
2:Q:14:ARG:HG2	2:Q:15:LYS:H	1.44	0.81
1:N:230:ILE:H	1:N:230:ILE:CD1	1.94	0.81
1:C:278:ALA:HB1	1:C:279:PRO:CD	2.11	0.81
1:B:349:ILE:HA	1:B:352:GLN:NE2	1.95	0.81
1:B:107:VAL:HG13	1:B:113:PRO:HG3	1.63	0.81
1:J:494:LEU:HD23	1:J:494:LEU:N	1.95	0.81
1:M:143:ALA:O	1:M:147:VAL:HG12	1.79	0.80
1:L:217:SER:HA	1:L:320:ALA:O	1.80	0.80
1:D:273:VAL:HG12	1:D:274:ALA:N	1.95	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:33:PRO:HA	1:B:153:ASN:ND2	1.94	0.80
1:F:280:GLY:HA3	1:F:284:ARG:HH11	1.43	0.80
1:F:44:PHE:CD1	1:F:44:PHE:N	2.46	0.80
1:M:385:THR:HG23	1:M:388:GLU:H	1.46	0.80
1:F:215:LEU:HB3	1:F:246:PRO:HB2	1.62	0.80
1:D:64:ASP:HB3	1:D:67:GLU:HB2	1.63	0.80
1:K:249:ILE:HB	1:K:275:ALA:CB	2.10	0.80
2:S:18:GLU:CD	2:S:33:ALA:HB3	2.02	0.80
1:L:5:ASP:HB2	1:L:524:LEU:HD23	1.62	0.80
1:C:449:ALA:HB3	1:C:450:PRO:HD3	1.64	0.80
1:B:273:VAL:HG12	1:B:274:ALA:H	1.45	0.80
1:C:273:VAL:HG12	1:C:274:ALA:N	1.96	0.80
1:E:34:LYS:HD2	1:E:458:CYS:SG	2.22	0.80
1:I:143:ALA:O	1:I:146:GLN:HB3	1.81	0.80
1:C:302:SER:HB2	1:C:305:ILE:HD13	1.62	0.80
1:K:254:VAL:HG12	1:K:259:LEU:HB2	1.63	0.80
1:K:69:MET:CE	1:K:522:THR:HB	2.10	0.80
1:M:433:ASN:HB3	1:M:436:GLN:HG3	1.62	0.80
2:Q:17:VAL:HG21	2:Q:34:LYS:HD2	1.64	0.80
1:L:34:LYS:HB2	1:L:458:CYS:SG	2.21	0.80
1:I:223:ALA:HB3	1:I:251:ALA:HB2	1.64	0.80
1:L:199:TYR:HA	1:L:276:VAL:HG12	1.64	0.80
1:A:417:VAL:O	1:A:420:ILE:HG22	1.81	0.80
2:O:65:VAL:HG12	2:O:94:ILE:HG12	1.62	0.80
1:G:74:VAL:O	1:G:77:VAL:HG13	1.80	0.80
1:G:417:VAL:O	1:G:420:ILE:HG22	1.81	0.80
1:K:215:LEU:HB3	1:K:218:PRO:HG2	1.61	0.80
1:J:308:GLU:HG2	1:J:309:LEU:N	1.95	0.80
1:K:143:ALA:O	1:K:147:VAL:HG12	1.80	0.80
1:L:198:GLY:HA3	1:L:328:ASP:HA	1.64	0.80
1:K:5:ASP:HB2	1:K:524:LEU:HD23	1.63	0.80
1:F:64:ASP:HB3	1:F:67:GLU:HB2	1.64	0.80
2:S:14:ARG:HG2	2:S:15:LYS:N	1.97	0.80
1:C:18:ARG:CB	1:C:18:ARG:HH11	1.90	0.80
1:G:33:PRO:HA	1:G:153:ASN:ND2	1.95	0.80
1:E:33:PRO:HA	1:E:153:ASN:ND2	1.97	0.80
1:A:74:VAL:O	1:A:77:VAL:HG13	1.80	0.80
1:G:234:LEU:HD12	1:G:234:LEU:H	1.46	0.79
1:A:234:LEU:HD12	1:A:234:LEU:H	1.47	0.79
1:B:351:GLN:HG2	1:C:210:THR:OG1	1.82	0.79
1:C:325:ILE:HG13	1:C:330:THR:HG23	1.64	0.79
1:F:277:LYS:HD3	1:F:285:ARG:HH22	1.48	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:286:LYS:HE2	1:H:286:LYS:HA	1.64	0.79
1:C:414:GLY:O	1:C:417:VAL:HG12	1.81	0.79
1:H:284:ARG:NH1	1:H:284:ARG:HB2	1.97	0.79
1:B:224:ASP:HB2	1:B:303:GLU:HB3	1.64	0.79
1:G:349:ILE:O	1:G:353:ILE:HG13	1.82	0.79
1:L:161:LEU:HD12	1:L:161:LEU:H	1.47	0.79
2:R:47:ARG:HD3	2:R:49:LEU:HD12	1.64	0.79
1:B:278:ALA:HB1	1:B:279:PRO:CD	2.11	0.79
1:H:85:ALA:HB1	1:H:499:VAL:HG12	1.64	0.79
1:G:34:LYS:HD2	1:G:458:CYS:SG	2.23	0.79
1:D:249:ILE:HB	1:D:275:ALA:CB	2.12	0.79
1:B:314:LEU:HD12	1:B:315:GLU:N	1.97	0.79
1:I:230:ILE:H	1:I:230:ILE:CD1	1.94	0.79
1:H:266:THR:HG22	1:H:272:LYS:HA	1.63	0.79
1:M:436:GLN:O	1:M:440:ILE:HG13	1.81	0.79
1:J:198:GLY:HA3	1:J:328:ASP:HA	1.63	0.79
1:K:96:ALA:O	1:K:100:ILE:HG13	1.82	0.79
1:N:287:ALA:HB1	1:N:368:ARG:CZ	2.12	0.79
1:A:273:VAL:HG12	1:A:274:ALA:N	1.98	0.79
1:K:256:GLY:HA2	1:K:259:LEU:HB3	1.64	0.79
1:D:235:PRO:HG3	1:D:310:GLU:HB3	1.62	0.79
1:G:360:TYR:O	1:G:364:LYS:HE2	1.82	0.79
2:R:14:ARG:HG2	2:R:15:LYS:H	1.48	0.79
1:K:436:GLN:O	1:K:440:ILE:HG13	1.81	0.79
1:A:82:ASN:ND2	1:A:86:GLY:HA2	1.97	0.79
1:J:169:VAL:HG13	1:J:173:GLY:HA3	1.64	0.79
1:N:100:ILE:O	1:N:104:LEU:HB2	1.82	0.79
1:N:85:ALA:HB1	1:N:499:VAL:HG12	1.65	0.79
1:J:403:THR:O	1:J:407:VAL:HG23	1.81	0.79
1:H:233:MET:HA	1:H:233:MET:HE2	1.65	0.79
1:C:233:MET:C	1:C:235:PRO:HD2	2.02	0.79
1:E:349:ILE:O	1:E:353:ILE:HG13	1.81	0.79
1:J:85:ALA:HB1	1:J:499:VAL:HG12	1.63	0.79
1:A:20:VAL:HG13	1:A:74:VAL:HG11	1.63	0.79
2:S:55:LYS:H	2:S:55:LYS:HE2	1.47	0.79
1:J:415:GLY:H	1:J:417:VAL:HG23	1.47	0.79
1:A:322:ARG:HG2	1:A:323:VAL:H	1.46	0.79
1:A:131:LEU:CD2	1:A:422:VAL:HG11	2.12	0.79
1:A:414:GLY:O	1:A:417:VAL:HG12	1.82	0.79
1:J:286:LYS:HA	1:J:286:LYS:HE2	1.65	0.79
1:E:123:ALA:HB2	1:E:440:ILE:HG23	1.65	0.79
1:N:124:VAL:HG13	1:N:504:LEU:CD1	2.13	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:233:MET:C	1:A:235:PRO:HD2	2.02	0.79
1:L:308:GLU:HG2	1:L:309:LEU:N	1.97	0.79
1:K:221:LEU:HD12	1:K:249:ILE:HG23	1.65	0.79
1:C:281:PHE:O	1:C:285:ARG:HG2	1.83	0.79
1:A:215:LEU:O	1:A:218:PRO:HD3	1.83	0.79
1:B:414:GLY:HA2	1:B:495:ASP:OD2	1.83	0.79
1:N:143:ALA:O	1:N:146:GLN:HB3	1.83	0.79
1:B:219:PHE:HD1	1:B:319:GLN:HE21	1.29	0.79
1:C:305:ILE:HD12	1:C:305:ILE:N	1.99	0.79
1:F:234:LEU:HD12	1:F:234:LEU:H	1.46	0.79
1:B:295:LEU:O	1:B:337:GLY:HA3	1.83	0.79
1:I:326:ASN:OD1	1:I:329:THR:HB	1.83	0.79
1:B:461:GLU:HB2	1:B:464:VAL:HB	1.65	0.79
1:D:215:LEU:O	1:D:218:PRO:HD3	1.82	0.78
1:A:206:ASN:CB	1:A:214:GLU:H	1.96	0.78
1:L:433:ASN:HB3	1:L:436:GLN:HG3	1.64	0.78
1:N:436:GLN:O	1:N:440:ILE:HG13	1.84	0.78
1:L:415:GLY:H	1:L:417:VAL:HG23	1.46	0.78
2:U:14:ARG:HG2	2:U:15:LYS:H	1.48	0.78
1:C:214:GLU:HB3	1:C:322:ARG:HD3	1.65	0.78
1:G:295:LEU:O	1:G:337:GLY:HA3	1.84	0.78
1:J:284:ARG:HB2	1:J:284:ARG:NH1	1.98	0.78
1:F:360:TYR:HA	1:F:363:GLU:OE1	1.83	0.78
1:E:368:ARG:HG2	1:E:372:LEU:HG	1.63	0.78
1:J:235:PRO:HG3	1:J:310:GLU:HA	1.66	0.78
1:A:199:TYR:HA	1:A:276:VAL:HG12	1.65	0.78
1:B:414:GLY:O	1:B:417:VAL:HG12	1.83	0.78
1:H:217:SER:HA	1:H:320:ALA:O	1.84	0.78
1:B:273:VAL:HG12	1:B:274:ALA:N	1.99	0.78
1:F:222:LEU:HD22	1:F:300:VAL:HG22	1.66	0.78
1:A:350:ARG:HD3	1:A:353:ILE:HD12	1.66	0.78
2:T:78:ILE:HD13	2:T:83:VAL:HG21	1.66	0.78
1:E:411:VAL:HG12	1:E:496:PRO:HA	1.65	0.78
1:B:64:ASP:HB3	1:B:67:GLU:HB2	1.65	0.78
1:E:44:PHE:N	1:E:44:PHE:CD1	2.50	0.78
1:M:287:ALA:HB1	1:M:368:ARG:NH2	1.98	0.78
1:D:305:ILE:HD12	1:D:305:ILE:N	1.98	0.78
1:G:314:LEU:HD12	1:G:315:GLU:N	1.99	0.78
2:T:34:LYS:HG3	2:T:35:SER:H	1.47	0.78
1:K:100:ILE:O	1:K:104:LEU:HB2	1.83	0.78
1:N:415:GLY:H	1:N:417:VAL:HG23	1.48	0.78
1:N:166:MET:HE2	1:N:171:LYS:HA	1.64	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:305:ILE:N	1:G:305:ILE:HD12	1.99	0.78
1:G:305:ILE:HG22	1:G:306:GLY:N	1.97	0.78
1:K:16:MET:O	1:K:20:VAL:HG12	1.83	0.78
1:A:449:ALA:HB3	1:A:450:PRO:HD3	1.65	0.78
1:A:322:ARG:HB3	1:A:333:ILE:CD1	2.14	0.77
1:G:360:TYR:HA	1:G:363:GLU:OE1	1.85	0.77
1:N:284:ARG:HH11	1:N:284:ARG:HB2	1.49	0.77
1:N:284:ARG:NH1	1:N:284:ARG:HB2	1.99	0.77
1:N:247:LEU:O	1:N:273:VAL:HB	1.83	0.77
2:U:55:LYS:N	2:U:55:LYS:HE2	1.94	0.77
1:G:322:ARG:HG2	1:G:323:VAL:N	1.98	0.77
1:E:245:LYS:HA	1:E:245:LYS:HE2	1.66	0.77
1:E:322:ARG:HB3	1:E:333:ILE:CD1	2.14	0.77
2:O:14:ARG:HG2	2:O:15:LYS:N	1.99	0.77
1:E:305:ILE:N	1:E:305:ILE:HD12	1.99	0.77
2:T:14:ARG:HD3	2:T:35:SER:HB3	1.63	0.77
1:N:249:ILE:HB	1:N:275:ALA:HB2	1.65	0.77
1:I:5:ASP:HB2	1:I:524:LEU:HD23	1.64	0.77
1:B:44:PHE:N	1:B:44:PHE:CD1	2.50	0.77
1:F:247:LEU:HD12	1:F:249:ILE:HD11	1.67	0.77
1:N:235:PRO:HG3	1:N:310:GLU:HA	1.67	0.77
1:I:308:GLU:HG2	1:I:309:LEU:N	1.98	0.77
1:M:219:PHE:HE1	1:M:245:LYS:HB2	1.49	0.77
1:G:350:ARG:HD3	1:G:353:ILE:HD12	1.64	0.77
1:F:417:VAL:O	1:F:420:ILE:HG22	1.84	0.77
1:J:5:ASP:HB2	1:J:524:LEU:HD23	1.66	0.77
1:A:310:GLU:CD	1:A:310:GLU:H	1.85	0.77
1:A:247:LEU:HD12	1:A:249:ILE:HD11	1.67	0.77
2:S:20:LYS:H	2:S:20:LYS:HD2	1.49	0.77
1:A:291:ASP:OD1	1:A:292:ILE:HG13	1.84	0.77
1:K:191:GLU:HB3	1:K:295:LEU:HD11	1.66	0.77
1:M:351:GLN:HG2	1:M:354:GLU:OE2	1.84	0.77
1:G:237:LEU:HD22	2:U:26:VAL:HG22	1.66	0.77
1:M:85:ALA:HB1	1:M:499:VAL:HG12	1.65	0.77
1:D:252:GLU:HA	1:D:285:ARG:NH1	2.00	0.77
1:H:206:ASN:OD1	1:H:213:VAL:HA	1.85	0.77
2:S:65:VAL:HG12	2:S:94:ILE:HG12	1.66	0.77
1:E:487:ASN:O	1:E:491:MET:HG3	1.83	0.77
1:F:131:LEU:CD2	1:F:422:VAL:HG11	2.15	0.77
1:H:359:ASP:HA	1:H:362:ARG:NH1	1.99	0.77
2:O:97:ALA:O	2:P:1:MET:HA	1.83	0.77
1:H:230:ILE:HD12	1:H:230:ILE:N	1.99	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:230:ILE:N	1:M:230:ILE:HD12	2.00	0.77
1:E:233:MET:HA	1:E:310:GLU:HG3	1.64	0.77
1:N:143:ALA:O	1:N:147:VAL:HG12	1.84	0.77
1:H:122:LYS:HE2	1:H:429:LEU:HD11	1.67	0.77
2:S:7:HIS:O	2:S:8:ASP:HB3	1.84	0.77
1:M:248:LEU:HD22	1:M:249:ILE:H	1.49	0.77
1:N:200:LEU:CD1	1:N:276:VAL:HA	2.15	0.77
1:A:44:PHE:N	1:A:44:PHE:CD1	2.47	0.77
1:M:122:LYS:HE2	1:M:429:LEU:HD11	1.67	0.77
2:O:48:ILE:HG23	2:O:54:VAL:HG22	1.67	0.77
1:M:266:THR:HG22	1:M:272:LYS:HA	1.66	0.77
1:L:356:ALA:HB1	1:L:362:ARG:HE	1.50	0.77
1:A:289:LEU:HA	1:A:292:ILE:HD12	1.67	0.77
1:M:284:ARG:HB2	1:M:284:ARG:HH11	1.50	0.77
1:C:215:LEU:O	1:C:218:PRO:HD3	1.84	0.77
1:K:85:ALA:HB1	1:K:499:VAL:HG12	1.66	0.77
1:A:131:LEU:HD21	1:A:422:VAL:HG11	1.67	0.77
1:E:74:VAL:O	1:E:77:VAL:HG13	1.84	0.77
1:L:230:ILE:N	1:L:230:ILE:HD12	1.99	0.76
1:B:266:THR:HG22	1:B:271:VAL:O	1.85	0.76
1:H:235:PRO:HG3	1:H:310:GLU:HA	1.66	0.76
1:J:230:ILE:HD12	1:J:230:ILE:N	1.99	0.76
1:H:16:MET:O	1:H:20:VAL:HG12	1.85	0.76
1:M:111:MET:HG2	1:M:435:ASP:OD1	1.85	0.76
1:H:356:ALA:HB1	1:H:362:ARG:HE	1.49	0.76
1:B:281:PHE:O	1:B:285:ARG:HG2	1.84	0.76
1:M:124:VAL:O	1:M:128:VAL:HG23	1.84	0.76
1:I:34:LYS:HB2	1:I:458:CYS:SG	2.25	0.76
1:M:326:ASN:OD1	1:M:329:THR:HB	1.85	0.76
2:Q:48:ILE:HG12	2:Q:54:VAL:HG13	1.68	0.76
1:A:219:PHE:HB3	1:A:317:LEU:HD13	1.66	0.76
1:A:339:GLU:HB3	1:A:343:GLN:OE1	1.86	0.76
1:B:305:ILE:HG22	1:B:306:GLY:N	2.00	0.76
1:H:169:VAL:HG13	1:H:173:GLY:HA3	1.65	0.76
1:M:308:GLU:HG2	1:M:309:LEU:N	2.01	0.76
2:O:18:GLU:CD	2:O:33:ALA:HB3	2.06	0.76
2:P:78:ILE:HD13	2:P:83:VAL:HG21	1.68	0.76
1:G:215:LEU:O	1:G:218:PRO:HD3	1.85	0.76
1:I:301:ILE:N	1:I:301:ILE:HD12	2.00	0.76
1:H:69:MET:HE1	1:H:522:THR:HB	1.67	0.76
1:B:342:ILE:O	1:B:346:VAL:HG23	1.85	0.76
1:B:355:GLU:HG3	1:B:357:THR:H	1.48	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:33:PRO:HA	1:D:153:ASN:HD21	1.50	0.76
1:E:82:ASN:ND2	1:E:86:GLY:HA2	2.01	0.76
1:A:346:VAL:CG1	1:A:350:ARG:HH22	1.98	0.76
1:D:414:GLY:O	1:D:417:VAL:HG12	1.85	0.76
1:N:200:LEU:HD13	1:N:276:VAL:HA	1.67	0.76
2:R:92:LEU:O	2:S:6:LEU:HB2	1.85	0.76
1:J:166:MET:HE2	1:J:171:LYS:HA	1.67	0.76
1:N:111:MET:HG2	1:N:435:ASP:OD1	1.85	0.76
1:F:20:VAL:HG13	1:F:74:VAL:HG11	1.66	0.76
2:S:47:ARG:HD3	2:S:49:LEU:HD12	1.67	0.76
1:L:248:LEU:HD13	1:L:249:ILE:N	2.01	0.76
1:G:302:SER:HB2	1:G:305:ILE:HD13	1.68	0.76
1:L:284:ARG:NH1	1:L:284:ARG:HB2	2.00	0.76
1:A:411:VAL:HA	1:A:497:THR:H	1.50	0.76
1:J:434:GLU:HA	1:J:437:ASN:ND2	2.01	0.76
1:B:360:TYR:O	1:B:364:LYS:HE2	1.86	0.76
1:E:234:LEU:H	1:E:234:LEU:HD12	1.48	0.76
1:L:32:GLY:HA2	1:L:454:ILE:HD12	1.68	0.76
2:Q:55:LYS:HE2	2:Q:55:LYS:N	1.98	0.75
1:J:199:TYR:HA	1:J:276:VAL:HG12	1.67	0.75
1:F:273:VAL:HG12	1:F:274:ALA:N	1.99	0.75
1:F:281:PHE:O	1:F:285:ARG:HG2	1.87	0.75
1:N:249:ILE:HB	1:N:275:ALA:CB	2.16	0.75
1:M:215:LEU:HB3	1:M:218:PRO:HG2	1.67	0.75
1:D:321:LYS:HD2	1:D:333:ILE:HG22	1.69	0.75
1:G:226:LYS:C	1:G:227:ILE:HD12	2.06	0.75
1:D:199:TYR:HE1	1:D:327:LYS:HG3	1.50	0.75
1:F:273:VAL:HG12	1:F:274:ALA:H	1.49	0.75
1:G:239:ALA:O	1:G:242:LYS:HB3	1.87	0.75
1:M:256:GLY:HA2	1:M:259:LEU:HB3	1.67	0.75
1:A:346:VAL:HG12	1:A:350:ARG:NH2	2.00	0.75
1:A:234:LEU:N	1:A:235:PRO:HD2	2.02	0.75
1:L:365:LEU:O	1:L:369:VAL:HG23	1.85	0.75
1:D:214:GLU:HA	1:D:323:VAL:O	1.86	0.75
1:B:215:LEU:HB3	1:B:246:PRO:HB2	1.67	0.75
1:N:254:VAL:HG12	1:N:259:LEU:HB2	1.68	0.75
1:L:203:TYR:HB2	1:L:263:VAL:HG13	1.68	0.75
1:E:461:GLU:HB2	1:E:464:VAL:HB	1.68	0.75
1:F:449:ALA:HB3	1:F:450:PRO:HD3	1.68	0.75
1:F:461:GLU:HB2	1:F:464:VAL:HB	1.67	0.75
1:H:5:ASP:HB2	1:H:524:LEU:HD23	1.69	0.75
1:L:124:VAL:O	1:L:128:VAL:HG23	1.87	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:322:ARG:HG2	1:B:323:VAL:N	2.01	0.75
1:C:342:ILE:O	1:C:346:VAL:HG23	1.86	0.75
1:L:434:GLU:HA	1:L:437:ASN:ND2	2.00	0.75
1:B:223:ALA:HB3	1:B:251:ALA:HB2	1.69	0.75
2:O:5:PRO:HD3	2:O:42:ALA:HB1	1.69	0.75
1:K:169:VAL:HG13	1:K:173:GLY:HA3	1.67	0.75
1:C:291:ASP:HB3	1:C:345:ARG:HH21	1.52	0.75
2:R:48:ILE:HG23	2:R:54:VAL:HG22	1.69	0.75
1:C:208:PRO:HB2	1:C:212:ALA:CB	2.16	0.75
1:H:198:GLY:HA3	1:H:328:ASP:HA	1.69	0.75
1:M:100:ILE:O	1:M:104:LEU:HB2	1.86	0.75
2:O:7:HIS:O	2:O:8:ASP:HB3	1.85	0.75
1:B:18:ARG:HH11	1:B:18:ARG:CB	1.97	0.75
1:B:235:PRO:HG3	1:B:310:GLU:HB3	1.69	0.75
1:B:237:LEU:HD22	2:P:26:VAL:HG22	1.69	0.75
1:E:252:GLU:HA	1:E:285:ARG:NH1	2.02	0.75
1:C:296:THR:HG22	1:C:335:GLY:HA3	1.66	0.75
1:D:44:PHE:CD1	1:D:44:PHE:N	2.50	0.75
1:A:147:VAL:O	1:A:150:ILE:HG22	1.86	0.75
1:D:247:LEU:HD12	1:D:249:ILE:HD11	1.67	0.74
2:O:14:ARG:HD3	2:O:35:SER:HB3	1.68	0.74
1:K:157:THR:O	1:K:160:LYS:HB3	1.86	0.74
2:Q:14:ARG:HD3	2:Q:35:SER:HB3	1.67	0.74
1:E:82:ASN:HD22	1:E:86:GLY:HA2	1.52	0.74
1:L:205:ILE:HD13	1:L:211:GLY:HA2	1.68	0.74
1:B:392:LYS:O	1:B:396:VAL:HG23	1.86	0.74
1:I:157:THR:O	1:I:160:LYS:HB3	1.86	0.74
1:F:322:ARG:HB3	1:F:333:ILE:CD1	2.11	0.74
1:A:229:ASN:HA	1:A:257:GLU:OE2	1.87	0.74
2:Q:20:LYS:H	2:Q:20:LYS:HD2	1.52	0.74
1:B:302:SER:HB2	1:B:305:ILE:HB	1.69	0.74
1:I:415:GLY:N	1:I:417:VAL:HG23	2.02	0.74
1:J:149:THR:HG23	1:J:159:GLY:HA3	1.67	0.74
1:C:235:PRO:HG3	1:C:310:GLU:HB3	1.68	0.74
1:G:215:LEU:HB3	1:G:246:PRO:HB2	1.68	0.74
1:E:265:ASN:HA	1:E:270:ILE:HD12	1.69	0.74
2:S:5:PRO:HD3	2:S:42:ALA:HB1	1.70	0.74
1:D:461:GLU:HB2	1:D:464:VAL:HB	1.69	0.74
1:C:252:GLU:HA	1:C:285:ARG:NH1	2.02	0.74
1:E:449:ALA:HB3	1:E:450:PRO:HD3	1.70	0.74
1:C:360:TYR:HA	1:C:363:GLU:OE1	1.87	0.74
1:N:359:ASP:HA	1:N:362:ARG:NH1	2.02	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:287:ALA:HB1	1:L:368:ARG:NH2	2.02	0.74
1:D:314:LEU:HD12	1:D:315:GLU:N	2.01	0.74
1:I:351:GLN:HG2	1:I:354:GLU:OE2	1.88	0.74
1:E:305:ILE:HG22	1:E:306:GLY:N	2.02	0.74
1:M:284:ARG:NH1	1:M:284:ARG:HB2	2.03	0.74
2:P:77:LYS:HG3	2:P:80:ASN:HA	1.68	0.74
1:L:124:VAL:HG13	1:L:504:LEU:CD1	2.18	0.74
1:I:100:ILE:O	1:I:104:LEU:HB2	1.87	0.74
1:B:202:PRO:O	1:B:205:ILE:HG13	1.87	0.74
1:F:308:GLU:HB2	1:F:311:LYS:HB2	1.68	0.74
1:G:220:ILE:HG23	1:G:248:LEU:HD12	1.68	0.74
2:Q:14:ARG:HG2	2:Q:15:LYS:N	2.03	0.74
1:M:345:ARG:HA	1:M:348:GLN:NE2	2.02	0.74
1:N:284:ARG:HH11	1:N:284:ARG:H	1.33	0.74
1:I:82:ASN:HB2	1:I:89:THR:OG1	1.87	0.74
2:T:11:ILE:HB	2:T:42:ALA:HB3	1.68	0.74
2:O:6:LEU:HB2	2:U:92:LEU:O	1.88	0.74
1:B:234:LEU:N	1:B:235:PRO:HD2	2.03	0.74
1:G:291:ASP:HB3	1:G:345:ARG:NH2	2.03	0.74
1:E:127:ALA:O	1:E:130:GLU:HB2	1.86	0.74
1:J:494:LEU:HD23	1:J:494:LEU:H	1.52	0.74
2:U:40:VAL:HB	2:U:62:GLY:H	1.51	0.74
1:C:74:VAL:O	1:C:77:VAL:HG13	1.88	0.74
1:C:237:LEU:HD22	2:Q:26:VAL:HG22	1.68	0.74
1:I:149:THR:CG2	1:I:156:GLU:HA	2.18	0.74
1:G:44:PHE:CD1	1:G:44:PHE:N	2.48	0.74
1:B:229:ASN:HA	1:B:257:GLU:OE2	1.88	0.74
1:H:249:ILE:HB	1:H:275:ALA:HB2	1.69	0.74
1:E:360:TYR:O	1:E:364:LYS:HE2	1.87	0.74
1:E:135:SER:HB2	1:E:497:THR:HG21	1.69	0.74
1:I:339:GLU:O	1:I:343:GLN:HG2	1.88	0.74
1:N:149:THR:HG23	1:N:159:GLY:HA3	1.68	0.74
1:E:226:LYS:C	1:E:227:ILE:HD12	2.07	0.74
1:H:256:GLY:HA2	1:H:259:LEU:HB3	1.68	0.74
1:E:321:LYS:HD2	1:E:333:ILE:HG22	1.67	0.74
1:M:301:ILE:HD12	1:M:301:ILE:N	2.03	0.74
1:N:66:PHE:H	1:N:69:MET:HG3	1.51	0.74
1:J:66:PHE:H	1:J:69:MET:HG3	1.51	0.74
1:L:213:VAL:O	1:L:324:VAL:HA	1.88	0.74
1:K:124:VAL:HG13	1:K:504:LEU:CD1	2.18	0.74
1:K:124:VAL:O	1:K:128:VAL:HG23	1.88	0.74
1:J:287:ALA:HB1	1:J:368:ARG:NH2	2.02	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:325:ILE:HD12	1:C:325:ILE:N	2.03	0.73
1:C:314:LEU:HD12	1:C:315:GLU:N	2.01	0.73
1:A:235:PRO:HG3	1:A:310:GLU:HB3	1.70	0.73
1:D:302:SER:HB2	1:D:305:ILE:HB	1.70	0.73
1:K:287:ALA:HB1	1:K:368:ARG:NH2	2.03	0.73
1:N:233:MET:HA	1:N:233:MET:HE2	1.69	0.73
1:H:230:ILE:CD1	1:H:230:ILE:H	1.97	0.73
1:A:308:GLU:HB2	1:A:311:LYS:HB2	1.70	0.73
1:A:273:VAL:HG12	1:A:274:ALA:H	1.50	0.73
1:E:280:GLY:HA3	1:E:284:ARG:HH11	1.53	0.73
1:L:228:SER:O	1:L:257:GLU:HB3	1.88	0.73
1:G:414:GLY:HA2	1:G:495:ASP:OD2	1.88	0.73
1:B:131:LEU:CD2	1:B:422:VAL:HG11	2.18	0.73
1:B:449:ALA:HB3	1:B:450:PRO:HD3	1.70	0.73
1:F:233:MET:C	1:F:235:PRO:HD2	2.08	0.73
1:K:249:ILE:HB	1:K:275:ALA:HB2	1.70	0.73
1:C:346:VAL:HG12	1:C:350:ARG:HH22	1.53	0.73
1:J:314:LEU:HA	1:J:317:LEU:HD13	1.70	0.73
1:G:281:PHE:O	1:G:285:ARG:HG2	1.87	0.73
1:A:510:VAL:HG23	1:A:511:ALA:N	2.03	0.73
1:A:226:LYS:C	1:A:227:ILE:HD12	2.09	0.73
1:N:320:ALA:HA	1:N:334:ASP:O	1.88	0.73
1:M:157:THR:O	1:M:160:LYS:HB3	1.88	0.73
1:G:256:GLY:O	1:G:260:ALA:N	2.21	0.73
1:D:34:LYS:HD2	1:D:458:CYS:SG	2.29	0.73
1:D:266:THR:HG22	1:D:271:VAL:O	1.89	0.73
1:F:310:GLU:H	1:F:310:GLU:CD	1.92	0.73
1:E:291:ASP:HB3	1:E:345:ARG:HH21	1.52	0.73
1:C:33:PRO:HA	1:C:153:ASN:ND2	2.03	0.73
1:E:131:LEU:HD23	1:E:422:VAL:HG11	1.71	0.73
1:I:434:GLU:HA	1:I:437:ASN:ND2	2.03	0.73
1:E:234:LEU:N	1:E:235:PRO:HD2	2.02	0.73
1:H:215:LEU:HB3	1:H:218:PRO:HG2	1.68	0.73
1:D:351:GLN:HG2	1:E:210:THR:OG1	1.88	0.73
1:E:229:ASN:HA	1:E:257:GLU:OE2	1.89	0.73
1:E:277:LYS:HD3	1:E:285:ARG:HH22	1.53	0.73
2:R:17:VAL:CG2	2:R:34:LYS:HD2	2.18	0.73
1:F:342:ILE:O	1:F:346:VAL:HG23	1.89	0.73
1:N:199:TYR:HA	1:N:276:VAL:HG12	1.69	0.73
1:N:169:VAL:HG13	1:N:173:GLY:HA3	1.69	0.73
1:G:296:THR:HG22	1:G:335:GLY:HA3	1.71	0.73
1:L:100:ILE:O	1:L:104:LEU:HB2	1.87	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:237:LEU:HD22	2:S:26:VAL:HG22	1.68	0.73
1:B:219:PHE:O	1:B:247:LEU:HD22	1.89	0.73
1:L:107:VAL:HG23	1:L:108:ALA:N	2.04	0.73
1:I:32:GLY:HA2	1:I:454:ILE:HD12	1.71	0.73
1:C:202:PRO:O	1:C:205:ILE:HG13	1.88	0.73
1:E:20:VAL:HG13	1:E:74:VAL:HG11	1.71	0.73
1:N:149:THR:CG2	1:N:156:GLU:HA	2.18	0.73
1:D:324:VAL:C	1:D:325:ILE:HD12	2.09	0.73
2:R:14:ARG:HG2	2:R:15:LYS:N	2.04	0.73
1:J:385:THR:HG23	1:J:388:GLU:H	1.52	0.73
2:U:40:VAL:HG21	2:U:63:ASP:HB2	1.71	0.73
1:D:229:ASN:HA	1:D:257:GLU:OE2	1.89	0.72
1:A:220:ILE:N	1:A:220:ILE:HD12	2.04	0.72
1:A:295:LEU:O	1:A:337:GLY:HA3	1.89	0.72
1:H:149:THR:CG2	1:H:156:GLU:HA	2.17	0.72
1:N:124:VAL:O	1:N:128:VAL:HG23	1.90	0.72
1:L:494:LEU:HD23	1:L:494:LEU:N	2.04	0.72
1:C:249:ILE:HD12	1:C:249:ILE:N	2.04	0.72
1:H:247:LEU:HD22	1:H:248:LEU:H	1.54	0.72
1:D:131:LEU:CD2	1:D:422:VAL:HG11	2.19	0.72
1:A:70:GLY:O	1:A:74:VAL:HG22	1.88	0.72
1:J:175:ILE:HD12	1:J:175:ILE:N	2.04	0.72
1:C:305:ILE:HG22	1:C:306:GLY:N	2.03	0.72
1:E:219:PHE:HB3	1:E:317:LEU:HD13	1.69	0.72
1:G:249:ILE:HB	1:G:275:ALA:HB2	1.72	0.72
1:D:285:ARG:HG3	1:D:286:LYS:H	1.54	0.72
1:D:291:ASP:HB3	1:D:345:ARG:HH21	1.54	0.72
1:B:291:ASP:HB3	1:B:345:ARG:HH21	1.54	0.72
1:N:494:LEU:HD23	1:N:494:LEU:N	2.04	0.72
1:M:411:VAL:HG21	1:M:494:LEU:HD12	1.72	0.72
2:Q:7:HIS:O	2:Q:8:ASP:HB3	1.88	0.72
1:C:82:ASN:ND2	1:C:86:GLY:HA2	2.04	0.72
1:F:305:ILE:HG22	1:F:306:GLY:H	1.51	0.72
1:G:233:MET:CA	1:G:310:GLU:HG3	2.11	0.72
1:D:202:PRO:O	1:D:205:ILE:HG13	1.89	0.72
1:K:32:GLY:HA2	1:K:454:ILE:HD12	1.69	0.72
1:L:206:ASN:OD1	1:L:213:VAL:HA	1.88	0.72
2:P:43:VAL:HG23	2:P:61:VAL:HG22	1.71	0.72
1:I:217:SER:HA	1:I:320:ALA:O	1.89	0.72
1:K:223:ALA:HB3	1:K:251:ALA:CB	2.19	0.72
1:M:247:LEU:H	1:M:273:VAL:HG12	1.53	0.72
1:C:339:GLU:HB3	1:C:343:GLN:OE1	1.90	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:69:MET:HE2	1:L:522:THR:HB	1.71	0.72
1:A:349:ILE:O	1:A:353:ILE:HG13	1.88	0.72
1:G:510:VAL:HG23	1:G:511:ALA:N	2.04	0.72
1:N:287:ALA:HB1	1:N:368:ARG:NH2	2.05	0.72
1:F:169:VAL:HB	1:F:173:GLY:HA3	1.72	0.72
1:F:124:VAL:HG13	1:F:504:LEU:CD1	2.19	0.72
1:F:247:LEU:HD12	1:F:249:ILE:CD1	2.19	0.72
1:N:308:GLU:HG2	1:N:309:LEU:N	2.04	0.72
2:O:17:VAL:CG2	2:O:34:LYS:HD2	2.18	0.72
1:L:143:ALA:O	1:L:146:GLN:HB3	1.89	0.72
1:C:266:THR:HG22	1:C:271:VAL:O	1.89	0.72
1:H:494:LEU:HD23	1:H:494:LEU:N	2.05	0.72
1:J:149:THR:CG2	1:J:156:GLU:HA	2.19	0.72
1:C:351:GLN:HG2	1:D:210:THR:OG1	1.90	0.72
1:D:248:LEU:C	1:D:249:ILE:HD12	2.09	0.72
1:L:248:LEU:HD22	1:L:249:ILE:H	1.53	0.72
1:C:195:PHE:O	1:C:329:THR:HG23	1.89	0.72
1:M:175:ILE:N	1:M:175:ILE:HD12	2.04	0.72
1:J:124:VAL:HG13	1:J:504:LEU:CD1	2.19	0.72
1:B:234:LEU:HD12	1:B:234:LEU:H	1.54	0.72
1:J:359:ASP:HA	1:J:362:ARG:NH1	2.05	0.72
1:A:202:PRO:O	1:A:205:ILE:HG13	1.90	0.72
1:F:134:LEU:O	1:F:136:VAL:HG13	1.90	0.72
1:D:487:ASN:O	1:D:491:MET:HG3	1.89	0.72
1:N:345:ARG:HA	1:N:348:GLN:NE2	2.04	0.72
1:D:219:PHE:HB3	1:D:317:LEU:HD13	1.70	0.72
1:G:228:SER:HA	1:G:255:GLU:CB	2.19	0.72
1:A:349:ILE:HA	1:A:352:GLN:NE2	2.05	0.72
1:D:346:VAL:HG12	1:D:350:ARG:HH22	1.55	0.72
1:N:385:THR:HG23	1:N:388:GLU:H	1.54	0.72
1:B:291:ASP:OD1	1:B:292:ILE:HG13	1.90	0.72
1:I:221:LEU:HD13	1:I:222:LEU:N	2.05	0.72
1:C:253:ASP:CG	1:C:254:VAL:H	1.93	0.71
1:N:217:SER:HA	1:N:320:ALA:O	1.90	0.71
1:F:305:ILE:N	1:F:305:ILE:HD12	2.04	0.71
1:C:44:PHE:N	1:C:44:PHE:CD1	2.46	0.71
1:K:25:ASP:HA	1:K:28:LYS:HE2	1.72	0.71
1:M:5:ASP:HB2	1:M:524:LEU:HD23	1.72	0.71
1:A:299:THR:HB	1:A:316:ASP:HB3	1.72	0.71
1:E:206:ASN:CB	1:E:214:GLU:H	2.03	0.71
1:L:436:GLN:O	1:L:440:ILE:HG13	1.90	0.71
1:N:219:PHE:HE1	1:N:245:LYS:HB2	1.55	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:149:THR:HG23	1:I:159:GLY:HA3	1.69	0.71
1:B:310:GLU:H	1:B:310:GLU:CD	1.94	0.71
2:Q:47:ARG:HD3	2:Q:49:LEU:CD1	2.18	0.71
1:C:228:SER:O	1:C:257:GLU:HB3	1.89	0.71
1:C:350:ARG:HD3	1:C:353:ILE:HD12	1.71	0.71
1:F:365:LEU:HD22	1:F:366:GLN:HE22	1.55	0.71
1:A:305:ILE:HD12	1:A:305:ILE:N	2.05	0.71
1:K:301:ILE:HD12	1:K:301:ILE:N	2.06	0.71
2:U:18:GLU:CD	2:U:33:ALA:HB3	2.10	0.71
1:D:147:VAL:O	1:D:150:ILE:HG22	1.90	0.71
1:C:392:LYS:O	1:C:396:VAL:HG23	1.89	0.71
1:K:247:LEU:O	1:K:273:VAL:HB	1.90	0.71
1:H:32:GLY:HA2	1:H:454:ILE:HD12	1.72	0.71
2:Q:48:ILE:HG23	2:Q:54:VAL:HG22	1.70	0.71
1:F:237:LEU:HD22	2:T:26:VAL:HG22	1.72	0.71
1:K:161:LEU:H	1:K:161:LEU:HD12	1.55	0.71
1:E:235:PRO:HG2	1:E:236:VAL:H	1.55	0.71
1:J:392:LYS:O	1:J:396:VAL:HG23	1.90	0.71
1:G:392:LYS:O	1:G:396:VAL:HG23	1.90	0.71
1:E:64:ASP:HB3	1:E:67:GLU:HB2	1.73	0.71
1:F:355:GLU:O	1:F:362:ARG:NH2	2.24	0.71
2:Q:5:PRO:HD3	2:Q:42:ALA:HB1	1.71	0.71
1:N:215:LEU:HB3	1:N:218:PRO:HG2	1.73	0.71
1:M:494:LEU:HD23	1:M:494:LEU:N	2.06	0.71
1:K:230:ILE:N	1:K:230:ILE:HD12	2.04	0.71
1:A:252:GLU:O	1:A:253:ASP:HB2	1.89	0.71
1:F:350:ARG:HA	1:F:353:ILE:HD12	1.73	0.71
1:K:123:ALA:HB2	1:K:440:ILE:HG23	1.73	0.71
1:M:206:ASN:OD1	1:M:213:VAL:HA	1.90	0.71
1:L:194:GLN:HG3	1:L:331:THR:HB	1.72	0.71
1:I:161:LEU:H	1:I:161:LEU:HD12	1.54	0.71
1:H:116:LEU:HD23	1:H:435:ASP:O	1.89	0.71
2:S:40:VAL:HB	2:S:62:GLY:H	1.56	0.71
1:A:5:ASP:HB2	1:A:524:LEU:HD23	1.72	0.71
1:G:234:LEU:N	1:G:235:PRO:HD2	2.06	0.71
1:H:308:GLU:HG2	1:H:309:LEU:N	2.04	0.71
1:J:200:LEU:CD1	1:J:276:VAL:HA	2.20	0.71
1:G:247:LEU:HD12	1:G:249:ILE:HD11	1.73	0.71
2:R:47:ARG:HD2	2:R:55:LYS:HD2	1.72	0.71
1:G:131:LEU:CD2	1:G:422:VAL:HG11	2.20	0.71
1:B:368:ARG:HG2	1:B:372:LEU:HG	1.71	0.71
1:H:193:MET:HG2	1:H:194:GLN:N	2.04	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:215:LEU:HB3	1:I:218:PRO:HG2	1.73	0.71
1:K:240:VAL:HA	1:K:243:ALA:HB3	1.72	0.71
1:K:286:LYS:HA	1:K:286:LYS:HE2	1.72	0.71
1:F:248:LEU:C	1:F:249:ILE:HD12	2.11	0.71
1:A:252:GLU:HA	1:A:285:ARG:NH1	2.06	0.71
2:S:34:LYS:HG3	2:S:35:SER:H	1.55	0.71
1:F:322:ARG:HG2	1:F:323:VAL:N	2.04	0.70
1:B:195:PHE:O	1:B:329:THR:HG23	1.91	0.70
1:G:18:ARG:HB2	1:G:67:GLU:HG2	1.73	0.70
1:E:266:THR:HG22	1:E:271:VAL:O	1.91	0.70
1:E:349:ILE:HG21	1:E:369:VAL:HG22	1.73	0.70
1:K:230:ILE:H	1:K:230:ILE:CD1	2.03	0.70
1:A:278:ALA:HB1	1:A:279:PRO:CD	2.21	0.70
1:D:277:LYS:HD3	1:D:285:ARG:NH2	2.04	0.70
1:M:69:MET:HE2	1:M:522:THR:HB	1.71	0.70
1:J:417:VAL:HG21	1:J:488:MET:HG3	1.73	0.70
1:H:265:ASN:O	1:H:269:GLY:HA3	1.91	0.70
1:M:254:VAL:HG12	1:M:259:LEU:HB2	1.73	0.70
1:A:305:ILE:HG22	1:A:306:GLY:N	2.05	0.70
1:D:510:VAL:HG23	1:D:511:ALA:N	2.05	0.70
1:J:40:LEU:N	1:J:40:LEU:HD22	2.05	0.70
2:P:7:HIS:HB3	2:P:45:ASN:HD22	1.55	0.70
1:L:487:ASN:HB3	1:L:490:ASP:HB2	1.73	0.70
1:F:324:VAL:C	1:F:325:ILE:HD12	2.12	0.70
1:F:325:ILE:HG13	1:F:330:THR:HG23	1.73	0.70
1:K:219:PHE:HE1	1:K:245:LYS:HB2	1.55	0.70
1:L:175:ILE:HD12	1:L:175:ILE:N	2.05	0.70
1:N:32:GLY:HA2	1:N:454:ILE:HD12	1.71	0.70
1:F:77:VAL:HG12	1:F:510:VAL:HG21	1.71	0.70
1:N:282:GLY:O	1:N:285:ARG:HG2	1.92	0.70
1:C:234:LEU:N	1:C:235:PRO:HD2	2.05	0.70
1:G:252:GLU:O	1:G:253:ASP:HB2	1.91	0.70
1:F:44:PHE:H	1:F:44:PHE:HD1	1.35	0.70
1:J:404:ARG:O	1:J:408:GLU:HG3	1.91	0.70
1:D:449:ALA:HB3	1:D:450:PRO:HD3	1.72	0.70
1:I:111:MET:HG2	1:I:435:ASP:OD1	1.91	0.70
1:G:162:ILE:HG21	1:G:403:THR:HG21	1.74	0.70
1:G:322:ARG:HB3	1:G:333:ILE:CD1	2.17	0.70
1:E:346:VAL:CG1	1:E:350:ARG:HH22	2.03	0.70
1:F:346:VAL:HG12	1:F:350:ARG:NH2	2.06	0.70
1:F:226:LYS:C	1:F:227:ILE:HD12	2.12	0.70
1:F:486:GLY:HA3	1:F:491:MET:CE	2.22	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:257:GLU:OE2	1:N:270:ILE:HA	1.91	0.70
1:E:339:GLU:HB3	1:E:343:GLN:OE1	1.90	0.70
1:J:270:ILE:HG23	1:K:229:ASN:HD21	1.55	0.70
2:R:34:LYS:HG3	2:R:35:SER:H	1.56	0.70
1:L:326:ASN:OD1	1:L:329:THR:HB	1.91	0.70
1:A:16:MET:O	1:A:20:VAL:HG23	1.92	0.70
1:N:116:LEU:HD23	1:N:435:ASP:O	1.91	0.70
2:T:68:ASN:HD22	2:U:74:LYS:HE3	1.56	0.70
1:D:213:VAL:O	1:D:324:VAL:HA	1.91	0.70
1:D:214:GLU:CB	1:D:322:ARG:HD3	2.17	0.70
1:E:199:TYR:CZ	1:E:202:PRO:HA	2.27	0.70
1:D:237:LEU:HD22	2:R:26:VAL:HG22	1.73	0.70
1:L:17:LEU:O	1:L:20:VAL:HG13	1.91	0.70
1:D:411:VAL:HA	1:D:497:THR:H	1.55	0.70
1:N:93:THR:O	1:N:96:ALA:HB3	1.90	0.70
1:L:143:ALA:O	1:L:147:VAL:HG12	1.90	0.70
1:M:263:VAL:O	1:M:267:MET:HG2	1.92	0.70
1:L:264:VAL:HA	1:L:267:MET:HG2	1.74	0.70
1:C:510:VAL:HG23	1:C:511:ALA:N	2.07	0.70
1:J:339:GLU:O	1:J:343:GLN:HG2	1.92	0.70
1:B:249:ILE:HD12	1:B:249:ILE:N	2.07	0.70
1:J:230:ILE:CD1	1:J:230:ILE:H	2.03	0.70
1:D:310:GLU:CD	1:D:310:GLU:H	1.95	0.70
1:C:349:ILE:O	1:C:353:ILE:HG13	1.91	0.70
1:A:218:PRO:HA	1:A:246:PRO:HG2	1.74	0.70
1:H:205:ILE:HD13	1:H:211:GLY:HA2	1.72	0.70
1:K:386:GLU:HG2	1:K:390:LYS:HE2	1.73	0.70
1:K:116:LEU:HD23	1:K:435:ASP:O	1.90	0.70
1:J:226:LYS:HD2	1:J:252:GLU:HG3	1.74	0.70
1:A:233:MET:CA	1:A:310:GLU:HG3	2.17	0.70
1:L:314:LEU:H	1:L:314:LEU:CD1	2.04	0.70
1:F:365:LEU:HD22	1:F:366:GLN:NE2	2.05	0.70
2:S:17:VAL:HG13	2:S:34:LYS:HA	1.74	0.70
1:M:190:VAL:HG21	1:M:334:ASP:CG	2.11	0.70
1:M:288:MET:CE	1:M:288:MET:HA	2.22	0.70
1:H:398:ASP:O	1:H:401:HIS:HB2	1.92	0.70
1:F:392:LYS:O	1:F:396:VAL:HG23	1.92	0.70
1:F:206:ASN:CB	1:F:214:GLU:H	2.04	0.69
1:E:348:GLN:NE2	1:E:352:GLN:NE2	2.40	0.69
1:J:230:ILE:HD11	1:J:257:GLU:O	1.92	0.69
1:L:219:PHE:HB2	1:L:247:LEU:HD23	1.74	0.69
1:L:115:ASP:HB3	1:L:436:GLN:HG2	1.74	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:305:ILE:HD12	1:B:305:ILE:N	2.07	0.69
1:B:134:LEU:HD12	1:B:134:LEU:N	2.06	0.69
1:L:215:LEU:HB3	1:L:218:PRO:HG2	1.72	0.69
1:J:198:GLY:CA	1:J:328:ASP:HA	2.20	0.69
1:F:487:ASN:O	1:F:491:MET:HG3	1.92	0.69
1:F:249:ILE:N	1:F:249:ILE:HD12	2.08	0.69
1:G:279:PRO:HB3	1:G:288:MET:HE3	1.72	0.69
1:I:219:PHE:HE1	1:I:245:LYS:HB2	1.57	0.69
1:N:193:MET:HG2	1:N:194:GLN:H	1.55	0.69
1:M:325:ILE:N	1:M:325:ILE:HD12	2.07	0.69
2:S:5:PRO:CD	2:S:42:ALA:HB1	2.21	0.69
1:G:449:ALA:HB3	1:G:450:PRO:HD3	1.72	0.69
2:Q:65:VAL:HG12	2:Q:94:ILE:HG12	1.73	0.69
1:B:325:ILE:HD12	1:B:325:ILE:N	2.07	0.69
1:A:235:PRO:HG2	1:A:236:VAL:H	1.57	0.69
1:E:266:THR:HG22	1:E:273:VAL:H	1.55	0.69
1:C:285:ARG:HG3	1:C:286:LYS:H	1.56	0.69
1:K:155:ASP:OD1	1:K:158:VAL:HG23	1.91	0.69
1:E:486:GLY:HA3	1:E:491:MET:CE	2.22	0.69
1:I:324:VAL:C	1:I:325:ILE:HD12	2.13	0.69
1:E:392:LYS:O	1:E:396:VAL:HG23	1.91	0.69
1:D:219:PHE:HD1	1:D:319:GLN:HE21	1.38	0.69
1:H:301:ILE:N	1:H:301:ILE:HD12	2.06	0.69
1:L:221:LEU:HD13	1:L:222:LEU:N	2.08	0.69
1:G:249:ILE:N	1:G:249:ILE:HD12	2.07	0.69
1:C:194:GLN:HG3	1:C:330:THR:O	1.92	0.69
1:N:198:GLY:HA3	1:N:328:ASP:HA	1.73	0.69
1:M:107:VAL:HG23	1:M:108:ALA:N	2.07	0.69
1:E:169:VAL:HB	1:E:173:GLY:HA3	1.74	0.69
2:O:20:LYS:HB3	2:O:27:LEU:HG	1.73	0.69
1:E:346:VAL:HG12	1:E:350:ARG:NH2	2.07	0.69
1:J:219:PHE:HB3	1:J:317:LEU:HD23	1.73	0.69
1:I:17:LEU:O	1:I:20:VAL:HG13	1.92	0.69
1:L:200:LEU:CD1	1:L:276:VAL:HA	2.23	0.69
1:M:277:LYS:HB2	1:M:277:LYS:NZ	2.07	0.69
2:O:92:LEU:O	2:P:6:LEU:HB2	1.91	0.69
1:I:206:ASN:OD1	1:I:213:VAL:HA	1.93	0.69
1:L:286:LYS:HE2	1:L:286:LYS:HA	1.74	0.69
1:B:248:LEU:HD13	1:B:249:ILE:N	2.07	0.69
1:A:264:VAL:HA	1:A:267:MET:HB2	1.72	0.69
1:C:235:PRO:HG2	1:C:236:VAL:H	1.57	0.69
1:C:365:LEU:HD22	1:C:366:GLN:NE2	2.07	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:288:MET:HA	1:G:291:ASP:OD2	1.92	0.69
1:I:247:LEU:O	1:I:273:VAL:HB	1.93	0.69
1:N:239:ALA:CB	1:N:314:LEU:HD11	2.22	0.69
1:F:350:ARG:O	1:F:354:GLU:HG2	1.93	0.69
1:H:96:ALA:O	1:H:100:ILE:HG13	1.92	0.69
1:H:205:ILE:HA	1:H:213:VAL:HG22	1.74	0.69
1:H:465:VAL:O	1:H:469:VAL:HG23	1.93	0.69
1:A:219:PHE:HB2	1:A:247:LEU:HD22	1.74	0.69
1:E:273:VAL:CG1	1:E:274:ALA:H	2.04	0.69
1:D:234:LEU:CD1	1:D:234:LEU:H	2.05	0.69
1:L:69:MET:HE1	1:L:522:THR:HB	1.73	0.69
1:J:422:VAL:O	1:J:425:LYS:HB2	1.93	0.69
1:C:324:VAL:C	1:C:325:ILE:HD12	2.13	0.69
1:F:291:ASP:OD1	1:F:292:ILE:HG13	1.93	0.69
1:D:123:ALA:HB2	1:D:440:ILE:HG23	1.74	0.69
1:J:205:ILE:HD13	1:J:211:GLY:HA2	1.74	0.69
1:L:122:LYS:HE2	1:L:429:LEU:HD11	1.73	0.69
1:B:219:PHE:HB2	1:B:247:LEU:CD2	2.22	0.69
1:F:259:LEU:O	1:F:263:VAL:HG23	1.92	0.69
1:B:233:MET:CA	1:B:310:GLU:HG3	2.18	0.69
1:K:270:ILE:HG23	1:L:229:ASN:ND2	2.08	0.69
1:N:301:ILE:HD12	1:N:301:ILE:N	2.08	0.69
1:D:278:ALA:HB1	1:D:279:PRO:CD	2.22	0.69
1:D:135:SER:HB2	1:D:497:THR:HG21	1.74	0.69
1:J:116:LEU:HD23	1:J:435:ASP:O	1.92	0.69
1:K:434:GLU:HA	1:K:437:ASN:ND2	2.08	0.69
1:L:403:THR:O	1:L:407:VAL:HG23	1.93	0.69
1:B:134:LEU:O	1:B:136:VAL:HG13	1.93	0.69
1:F:291:ASP:HB3	1:F:345:ARG:HH21	1.57	0.69
2:P:7:HIS:O	2:P:8:ASP:HB3	1.93	0.69
1:A:404:ARG:HG3	1:A:404:ARG:HH11	1.58	0.69
1:N:34:LYS:HB2	1:N:458:CYS:SG	2.33	0.69
1:C:169:VAL:HB	1:C:173:GLY:HA3	1.75	0.69
1:D:325:ILE:N	1:D:325:ILE:HD12	2.08	0.69
1:F:234:LEU:N	1:F:235:PRO:HD2	2.07	0.69
1:F:266:THR:HG22	1:F:271:VAL:O	1.92	0.69
1:A:248:LEU:HD13	1:A:249:ILE:N	2.08	0.69
1:K:417:VAL:HG21	1:K:488:MET:HG3	1.75	0.69
1:J:32:GLY:HA2	1:J:454:ILE:HD12	1.75	0.69
1:N:96:ALA:O	1:N:100:ILE:HG13	1.93	0.69
1:C:242:LYS:C	1:C:242:LYS:HD3	2.13	0.69
1:K:345:ARG:HA	1:K:348:GLN:NE2	2.07	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:175:ILE:HD12	1:H:175:ILE:N	2.08	0.69
1:A:239:ALA:O	1:A:242:LYS:HB3	1.93	0.69
1:A:256:GLY:HA2	1:A:259:LEU:HB2	1.75	0.69
1:E:259:LEU:O	1:E:262:LEU:HB3	1.93	0.69
2:S:20:LYS:HD2	2:S:20:LYS:N	2.07	0.69
1:A:296:THR:HG22	1:A:335:GLY:HA3	1.74	0.69
1:G:20:VAL:HG13	1:G:74:VAL:HG11	1.74	0.69
1:F:305:ILE:HG22	1:F:306:GLY:N	2.08	0.69
1:J:455:VAL:HG13	1:J:460:GLU:HB2	1.75	0.69
1:B:124:VAL:HG13	1:B:504:LEU:CD1	2.23	0.69
1:B:228:SER:O	1:B:257:GLU:HB3	1.93	0.68
1:D:194:GLN:HG2	1:D:195:PHE:N	2.07	0.68
1:H:221:LEU:HD13	1:H:222:LEU:N	2.07	0.68
1:G:290:GLN:N	1:G:290:GLN:OE1	2.26	0.68
1:I:66:PHE:H	1:I:69:MET:HG3	1.57	0.68
1:I:32:GLY:HA3	1:I:454:ILE:HG23	1.76	0.68
1:H:345:ARG:HA	1:H:348:GLN:HE21	1.58	0.68
1:D:264:VAL:HA	1:D:267:MET:HB2	1.74	0.68
1:D:5:ASP:HB2	1:D:524:LEU:HD23	1.75	0.68
1:D:199:TYR:CE1	1:D:327:LYS:HG3	2.28	0.68
1:D:257:GLU:O	1:D:261:THR:HG22	1.94	0.68
1:K:362:ARG:O	1:K:366:GLN:HB2	1.93	0.68
1:D:234:LEU:N	1:D:235:PRO:HD2	2.07	0.68
1:H:66:PHE:H	1:H:69:MET:HG3	1.58	0.68
1:M:149:THR:CG2	1:M:156:GLU:HA	2.22	0.68
1:C:82:ASN:HD22	1:C:86:GLY:HA2	1.58	0.68
1:H:415:GLY:H	1:H:417:VAL:HG23	1.56	0.68
1:A:247:LEU:HD12	1:A:249:ILE:CD1	2.23	0.68
1:K:270:ILE:HG23	1:L:229:ASN:HD21	1.58	0.68
1:L:254:VAL:HG12	1:L:259:LEU:HB2	1.74	0.68
1:A:218:PRO:CA	1:A:246:PRO:HG2	2.23	0.68
1:A:325:ILE:N	1:A:325:ILE:HD12	2.09	0.68
1:I:248:LEU:HD13	1:I:249:ILE:N	2.09	0.68
1:G:404:ARG:HG3	1:G:404:ARG:HH11	1.58	0.68
1:H:82:ASN:HB2	1:H:89:THR:OG1	1.92	0.68
2:R:7:HIS:O	2:R:8:ASP:HB3	1.93	0.68
1:L:82:ASN:HB2	1:L:89:THR:OG1	1.92	0.68
1:F:325:ILE:HD12	1:F:325:ILE:N	2.09	0.68
1:D:256:GLY:HA2	1:D:259:LEU:HB2	1.76	0.68
1:E:249:ILE:HB	1:E:275:ALA:CB	2.24	0.68
1:D:18:ARG:HH11	1:D:18:ARG:CB	2.01	0.68
1:B:365:LEU:HD22	1:B:366:GLN:NE2	2.08	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:365:LEU:O	1:M:369:VAL:HG23	1.93	0.68
1:F:5:ASP:HB2	1:F:524:LEU:HD23	1.75	0.68
1:K:82:ASN:HB2	1:K:89:THR:OG1	1.93	0.68
1:N:455:VAL:HG13	1:N:460:GLU:HB2	1.76	0.68
1:A:248:LEU:C	1:A:249:ILE:HD12	2.13	0.68
1:J:247:LEU:H	1:J:273:VAL:HG12	1.58	0.68
1:M:225:LYS:HE2	1:M:309:LEU:HD11	1.76	0.68
1:L:111:MET:HG2	1:L:435:ASP:OD1	1.93	0.68
2:T:20:LYS:N	2:T:20:LYS:HD2	2.07	0.68
1:B:123:ALA:HB2	1:B:440:ILE:HG23	1.74	0.68
1:D:220:ILE:HD12	1:D:220:ILE:N	2.08	0.68
1:F:233:MET:CA	1:F:310:GLU:HG3	2.18	0.68
1:C:219:PHE:HB3	1:C:317:LEU:HD13	1.75	0.68
1:A:302:SER:HB2	1:A:305:ILE:HD13	1.75	0.68
1:F:241:ALA:HA	1:F:271:VAL:HG12	1.74	0.68
1:G:278:ALA:HB1	1:G:279:PRO:CD	2.24	0.68
1:A:456:LEU:HD13	1:A:462:PRO:CG	2.24	0.68
1:I:115:ASP:HB3	1:I:436:GLN:HG2	1.73	0.68
1:F:222:LEU:N	1:F:222:LEU:HD12	2.08	0.68
1:E:247:LEU:HD12	1:E:249:ILE:HD11	1.76	0.68
1:E:342:ILE:O	1:E:346:VAL:HG23	1.92	0.68
1:D:310:GLU:O	1:D:312:ALA:N	2.26	0.68
1:G:273:VAL:CG1	1:G:274:ALA:H	2.05	0.68
2:Q:68:ASN:ND2	2:R:74:LYS:HE3	2.09	0.68
1:C:417:VAL:O	1:C:420:ILE:HG22	1.94	0.68
2:U:34:LYS:HG3	2:U:35:SER:H	1.58	0.68
1:C:44:PHE:HD1	1:C:44:PHE:H	1.35	0.68
1:H:404:ARG:O	1:H:408:GLU:HG3	1.94	0.68
1:L:301:ILE:HD12	1:L:301:ILE:N	2.09	0.68
1:G:247:LEU:HD12	1:G:249:ILE:CD1	2.24	0.68
1:L:149:THR:CG2	1:L:156:GLU:HA	2.24	0.68
1:N:326:ASN:OD1	1:N:329:THR:HB	1.94	0.68
1:N:434:GLU:HA	1:N:437:ASN:HD22	1.58	0.68
2:U:17:VAL:HG13	2:U:34:LYS:HA	1.76	0.68
1:A:177:VAL:HG11	1:A:397:GLU:HG2	1.75	0.68
2:Q:37:ARG:HH11	2:Q:37:ARG:HG2	1.59	0.68
1:K:199:TYR:HA	1:K:276:VAL:HG12	1.76	0.68
1:A:259:LEU:O	1:A:262:LEU:HB3	1.94	0.68
1:E:195:PHE:O	1:E:329:THR:HG23	1.95	0.68
1:J:200:LEU:HD13	1:J:276:VAL:HA	1.76	0.68
1:J:298:GLY:HA2	1:J:317:LEU:O	1.93	0.68
1:G:219:PHE:HB2	1:G:247:LEU:HD22	1.76	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:325:ILE:HD12	1:G:325:ILE:N	2.08	0.68
1:H:381:VAL:HB	1:H:389:MET:HE3	1.76	0.68
1:I:398:ASP:O	1:I:401:HIS:HB2	1.93	0.68
1:I:417:VAL:HG21	1:I:488:MET:HG3	1.75	0.68
1:L:200:LEU:HD13	1:L:276:VAL:HA	1.76	0.68
1:N:247:LEU:H	1:N:273:VAL:HG12	1.59	0.68
1:N:5:ASP:HB2	1:N:524:LEU:HD23	1.76	0.68
1:G:475:ASN:HD22	1:G:475:ASN:N	1.91	0.68
2:U:37:ARG:HG2	2:U:37:ARG:HH11	1.58	0.68
1:B:146:GLN:NE2	1:B:494:LEU:HD11	2.08	0.68
1:E:27:VAL:HG12	1:E:90:THR:HG23	1.76	0.68
1:D:404:ARG:HG3	1:D:404:ARG:HH11	1.59	0.68
1:M:455:VAL:HG13	1:M:460:GLU:HB2	1.76	0.68
1:C:234:LEU:H	1:C:234:LEU:CD1	2.06	0.67
1:E:339:GLU:HA	1:E:342:ILE:HB	1.76	0.67
1:A:194:GLN:HG2	1:A:195:PHE:N	2.09	0.67
1:G:219:PHE:HD1	1:G:319:GLN:HE21	1.42	0.67
1:G:277:LYS:HD3	1:G:285:ARG:HH22	1.56	0.67
1:G:194:GLN:HG3	1:G:330:THR:O	1.94	0.67
1:H:157:THR:O	1:H:160:LYS:HB3	1.93	0.67
1:H:413:ALA:HB1	1:H:417:VAL:HB	1.76	0.67
1:A:224:ASP:HB2	1:A:303:GLU:HB3	1.76	0.67
1:D:256:GLY:O	1:D:260:ALA:N	2.26	0.67
2:O:49:LEU:O	2:O:55:LYS:NZ	2.27	0.67
1:E:202:PRO:O	1:E:205:ILE:HG13	1.94	0.67
1:L:219:PHE:CE1	1:L:245:LYS:HD2	2.29	0.67
1:M:229:ASN:ND2	1:M:231:ARG:HH12	1.92	0.67
1:F:349:ILE:HA	1:F:352:GLN:NE2	2.08	0.67
1:G:411:VAL:HA	1:G:497:THR:H	1.60	0.67
1:I:175:ILE:HD12	1:I:175:ILE:N	2.10	0.67
1:D:82:ASN:ND2	1:D:86:GLY:HA2	2.09	0.67
1:H:267:MET:HG3	1:H:267:MET:O	1.93	0.67
1:J:157:THR:O	1:J:160:LYS:HB3	1.94	0.67
1:D:322:ARG:HG2	1:D:323:VAL:N	2.10	0.67
1:E:247:LEU:HD12	1:E:249:ILE:CD1	2.25	0.67
1:J:270:ILE:HG22	1:J:271:VAL:N	2.09	0.67
1:C:273:VAL:CG1	1:C:274:ALA:H	2.07	0.67
1:D:281:PHE:O	1:D:285:ARG:HG2	1.94	0.67
1:I:494:LEU:HD23	1:I:494:LEU:N	2.10	0.67
1:L:499:VAL:HG23	1:L:500:THR:N	2.10	0.67
1:J:143:ALA:O	1:J:146:GLN:HB3	1.94	0.67
1:B:349:ILE:O	1:B:353:ILE:HG13	1.94	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:309:LEU:HD12	1:E:309:LEU:H	1.58	0.67
2:O:40:VAL:HB	2:O:62:GLY:N	2.10	0.67
2:Q:92:LEU:O	2:R:6:LEU:HB2	1.94	0.67
1:F:339:GLU:HB3	1:F:343:GLN:OE1	1.93	0.67
1:B:264:VAL:HA	1:B:267:MET:HB2	1.75	0.67
1:J:206:ASN:ND2	1:J:207:LYS:HE2	2.09	0.67
1:M:82:ASN:HB2	1:M:89:THR:OG1	1.95	0.67
1:J:359:ASP:HA	1:J:362:ARG:HH12	1.57	0.67
1:G:249:ILE:HB	1:G:275:ALA:CB	2.24	0.67
1:L:96:ALA:O	1:L:100:ILE:HG13	1.94	0.67
2:U:77:LYS:C	2:U:78:ILE:HD12	2.14	0.67
1:C:70:GLY:O	1:C:74:VAL:HG22	1.95	0.67
1:C:239:ALA:HB1	1:C:314:LEU:HD23	1.76	0.67
1:D:432:GLN:NE2	1:D:436:GLN:HE22	1.92	0.67
1:N:226:LYS:HD2	1:N:252:GLU:HG3	1.75	0.67
1:N:175:ILE:HD12	1:N:175:ILE:N	2.09	0.67
1:B:169:VAL:HB	1:B:173:GLY:HA3	1.75	0.67
1:F:321:LYS:HD2	1:F:333:ILE:HG22	1.76	0.67
1:C:248:LEU:C	1:C:249:ILE:HD12	2.15	0.67
1:J:221:LEU:C	1:J:221:LEU:HD13	2.14	0.67
1:J:422:VAL:O	1:J:426:LEU:HD23	1.95	0.67
2:O:17:VAL:HG13	2:O:34:LYS:HA	1.76	0.67
1:D:414:GLY:HA2	1:D:495:ASP:OD2	1.95	0.67
1:K:487:ASN:HB3	1:K:490:ASP:HB2	1.77	0.67
1:H:34:LYS:HB2	1:H:458:CYS:SG	2.35	0.67
1:F:208:PRO:HB2	1:F:212:ALA:HB3	1.76	0.67
1:K:365:LEU:O	1:K:369:VAL:HG23	1.95	0.67
1:E:288:MET:HA	1:E:291:ASP:OD2	1.94	0.67
1:C:247:LEU:O	1:C:273:VAL:HG13	1.94	0.67
1:K:66:PHE:H	1:K:69:MET:HG3	1.60	0.67
1:G:456:LEU:HD13	1:G:462:PRO:CG	2.25	0.67
1:N:417:VAL:HG21	1:N:488:MET:HG3	1.77	0.67
1:N:247:LEU:HD13	1:N:247:LEU:C	2.15	0.67
1:F:123:ALA:HB2	1:F:440:ILE:HG23	1.76	0.67
1:C:224:ASP:HB2	1:C:303:GLU:HB3	1.75	0.67
1:E:350:ARG:O	1:E:354:GLU:HG2	1.95	0.67
1:A:228:SER:O	1:A:257:GLU:HB3	1.94	0.67
1:K:233:MET:HA	1:K:233:MET:HE2	1.76	0.67
1:C:350:ARG:O	1:C:354:GLU:HG2	1.94	0.67
1:E:239:ALA:O	1:E:242:LYS:HB3	1.94	0.67
1:K:198:GLY:CA	1:K:328:ASP:HA	2.25	0.67
1:J:326:ASN:OD1	1:J:329:THR:HB	1.94	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:415:GLY:N	1:J:417:VAL:HG23	2.09	0.67
2:U:14:ARG:HG2	2:U:15:LYS:N	2.10	0.67
1:M:339:GLU:O	1:M:343:GLN:HG2	1.95	0.67
1:M:465:VAL:O	1:M:469:VAL:HG23	1.94	0.67
2:R:65:VAL:HG12	2:R:94:ILE:HG12	1.76	0.67
2:O:47:ARG:O	2:O:55:LYS:HE3	1.94	0.67
1:A:220:ILE:HG23	1:A:248:LEU:HD12	1.77	0.67
1:E:325:ILE:HG13	1:E:330:THR:HG23	1.76	0.67
1:G:247:LEU:O	1:G:273:VAL:HG13	1.95	0.67
1:F:456:LEU:HD13	1:F:462:PRO:CG	2.24	0.67
1:L:404:ARG:O	1:L:408:GLU:HG3	1.92	0.67
2:T:14:ARG:HG2	2:T:15:LYS:N	2.10	0.67
1:K:111:MET:HG2	1:K:435:ASP:OD1	1.94	0.67
1:I:107:VAL:HG23	1:I:108:ALA:N	2.10	0.67
2:P:14:ARG:HG2	2:P:15:LYS:N	2.09	0.67
1:B:214:GLU:HA	1:B:323:VAL:O	1.95	0.67
1:K:353:ILE:HD11	1:K:369:VAL:HG21	1.75	0.67
1:E:325:ILE:N	1:E:325:ILE:HD12	2.09	0.67
1:E:291:ASP:HB2	1:E:372:LEU:HD21	1.77	0.67
1:J:270:ILE:HG23	1:K:229:ASN:ND2	2.09	0.67
1:K:249:ILE:HB	1:K:275:ALA:HB1	1.77	0.67
1:C:219:PHE:HB2	1:C:247:LEU:HD22	1.76	0.67
1:C:247:LEU:HD12	1:C:249:ILE:HD11	1.76	0.67
1:H:219:PHE:HE1	1:H:245:LYS:HB2	1.58	0.67
1:B:288:MET:HA	1:B:291:ASP:OD2	1.94	0.67
1:F:227:ILE:N	1:F:227:ILE:HD12	2.10	0.67
1:B:227:ILE:HD12	1:B:227:ILE:N	2.10	0.67
1:F:248:LEU:HD13	1:F:249:ILE:N	2.10	0.66
1:A:362:ARG:HA	1:A:365:LEU:HD13	1.77	0.66
1:M:205:ILE:HD13	1:M:211:GLY:HA2	1.76	0.66
1:M:218:PRO:HB3	1:M:246:PRO:C	2.15	0.66
2:R:96:GLU:OE1	2:S:4:ARG:HB2	1.96	0.66
1:K:107:VAL:HG23	1:K:108:ALA:N	2.09	0.66
1:E:472:GLY:HA3	1:E:476:TYR:CD2	2.29	0.66
1:L:72:GLN:NE2	1:L:72:GLN:HA	2.10	0.66
1:E:220:ILE:N	1:E:220:ILE:HD12	2.10	0.66
1:F:349:ILE:HG21	1:F:369:VAL:HG22	1.77	0.66
2:U:17:VAL:HG21	2:U:34:LYS:HD2	1.77	0.66
1:F:124:VAL:HG13	1:F:504:LEU:HD12	1.77	0.66
1:I:213:VAL:O	1:I:324:VAL:HA	1.95	0.66
1:B:326:ASN:ND2	1:B:328:ASP:H	1.92	0.66
1:K:213:VAL:O	1:K:324:VAL:HA	1.96	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:247:LEU:HD13	1:B:248:LEU:N	2.10	0.66
1:H:229:ASN:ND2	1:N:270:ILE:HG23	2.09	0.66
1:C:234:LEU:HD12	1:C:234:LEU:N	2.09	0.66
1:C:215:LEU:HB3	1:C:246:PRO:HB2	1.76	0.66
1:L:313:THR:HG22	1:L:314:LEU:N	2.10	0.66
1:J:247:LEU:C	1:J:247:LEU:HD13	2.15	0.66
1:I:356:ALA:HB1	1:I:362:ARG:HE	1.60	0.66
1:I:266:THR:HB	1:I:272:LYS:HG3	1.77	0.66
1:I:385:THR:HG23	1:I:388:GLU:H	1.58	0.66
1:M:434:GLU:HA	1:M:437:ASN:HD22	1.57	0.66
2:Q:17:VAL:CG2	2:Q:34:LYS:HD2	2.26	0.66
1:L:191:GLU:O	1:L:334:ASP:HA	1.96	0.66
1:G:234:LEU:CD1	1:G:234:LEU:H	2.09	0.66
1:K:314:LEU:H	1:K:314:LEU:CD1	2.02	0.66
1:F:284:ARG:HG2	1:F:288:MET:HE2	1.76	0.66
1:M:161:LEU:HD12	1:M:161:LEU:H	1.60	0.66
1:F:302:SER:HB2	1:F:305:ILE:HB	1.78	0.66
1:F:302:SER:HB2	1:F:305:ILE:HD13	1.76	0.66
1:A:461:GLU:HB2	1:A:464:VAL:HB	1.78	0.66
1:F:247:LEU:HB3	1:F:273:VAL:HG13	1.77	0.66
1:K:270:ILE:HG22	1:K:271:VAL:N	2.11	0.66
1:H:226:LYS:HA	1:H:252:GLU:HB2	1.76	0.66
1:H:247:LEU:HD22	1:H:248:LEU:N	2.10	0.66
1:I:219:PHE:HB2	1:I:247:LEU:HD23	1.78	0.66
1:I:249:ILE:HB	1:I:275:ALA:HB1	1.77	0.66
1:C:194:GLN:HG2	1:C:195:PHE:N	2.09	0.66
1:A:146:GLN:NE2	1:A:494:LEU:HD11	2.10	0.66
1:C:20:VAL:HG13	1:C:74:VAL:HG11	1.78	0.66
1:L:494:LEU:H	1:L:494:LEU:HD23	1.60	0.66
2:P:20:LYS:HG2	2:P:27:LEU:HD23	1.77	0.66
1:F:228:SER:HA	1:F:255:GLU:CB	2.18	0.66
1:D:233:MET:CE	1:D:237:LEU:HB2	2.25	0.66
2:T:37:ARG:HH11	2:T:37:ARG:HG2	1.61	0.66
2:Q:84:LEU:N	2:Q:84:LEU:HD12	2.10	0.66
1:L:415:GLY:N	1:L:417:VAL:HG23	2.09	0.66
1:G:18:ARG:CB	1:G:18:ARG:HH11	2.02	0.66
2:O:20:LYS:HG2	2:O:27:LEU:CD2	2.26	0.66
1:E:253:ASP:CG	1:E:254:VAL:H	1.99	0.66
1:H:270:ILE:HG23	1:I:229:ASN:HD21	1.61	0.66
1:J:249:ILE:HB	1:J:275:ALA:HB1	1.77	0.66
1:G:220:ILE:HD12	1:G:220:ILE:N	2.09	0.66
1:A:349:ILE:HG21	1:A:369:VAL:HG22	1.76	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:356:ALA:CB	1:M:362:ARG:HE	2.07	0.66
1:E:302:SER:HB2	1:E:305:ILE:HB	1.78	0.66
1:F:131:LEU:HD21	1:F:422:VAL:HG11	1.76	0.66
2:R:84:LEU:N	2:R:84:LEU:HD12	2.11	0.66
1:B:206:ASN:CB	1:B:214:GLU:H	2.09	0.66
1:G:246:PRO:HA	1:G:272:LYS:O	1.95	0.66
1:N:345:ARG:HA	1:N:348:GLN:HE21	1.60	0.66
1:F:381:VAL:HG21	1:F:393:LYS:HA	1.77	0.66
1:J:324:VAL:C	1:J:325:ILE:HD12	2.16	0.66
1:I:124:VAL:O	1:I:128:VAL:HG23	1.94	0.66
1:N:155:ASP:OD1	1:N:158:VAL:HG23	1.95	0.66
1:N:160:LYS:HG2	1:N:164:GLU:OE2	1.95	0.66
1:G:10:ASN:O	1:G:14:VAL:HG23	1.96	0.66
1:F:253:ASP:CG	1:F:254:VAL:H	1.99	0.66
1:L:256:GLY:CA	1:L:259:LEU:HB3	2.25	0.66
1:K:247:LEU:H	1:K:273:VAL:HG12	1.61	0.66
1:M:249:ILE:HB	1:M:275:ALA:HB1	1.76	0.66
1:A:44:PHE:H	1:A:44:PHE:HD1	1.40	0.66
2:T:48:ILE:HG23	2:T:54:VAL:HG22	1.78	0.66
1:F:29:VAL:HG23	1:F:30:THR:HG23	1.78	0.66
1:A:29:VAL:HG23	1:A:30:THR:HG23	1.78	0.66
1:E:219:PHE:HB2	1:E:247:LEU:CD2	2.25	0.66
1:M:301:ILE:HG21	1:M:309:LEU:HD23	1.77	0.66
1:L:161:LEU:CD1	1:L:161:LEU:H	2.08	0.66
1:D:70:GLY:O	1:D:74:VAL:HG22	1.96	0.66
1:B:355:GLU:O	1:B:362:ARG:NH2	2.28	0.66
1:I:143:ALA:O	1:I:147:VAL:HG12	1.96	0.66
1:L:449:ALA:HB3	1:L:450:PRO:HD3	1.78	0.66
1:J:25:ASP:HA	1:J:28:LYS:HE2	1.78	0.66
1:G:124:VAL:HG13	1:G:504:LEU:CD1	2.26	0.66
1:G:169:VAL:HB	1:G:173:GLY:HA3	1.78	0.66
1:H:199:TYR:HA	1:H:276:VAL:HG12	1.77	0.66
1:F:222:LEU:HD22	1:F:293:ALA:HB2	1.76	0.65
1:E:249:ILE:N	1:E:249:ILE:HD12	2.10	0.65
1:E:214:GLU:CB	1:E:322:ARG:HD3	2.23	0.65
1:N:301:ILE:HG21	1:N:309:LEU:HD23	1.78	0.65
1:D:360:TYR:O	1:D:364:LYS:HE2	1.96	0.65
1:L:413:ALA:CB	1:L:417:VAL:HB	2.26	0.65
1:A:27:VAL:HG12	1:A:90:THR:HG23	1.78	0.65
1:F:218:PRO:CA	1:F:246:PRO:HG2	2.26	0.65
1:G:206:ASN:CB	1:G:214:GLU:H	2.09	0.65
1:K:221:LEU:C	1:K:221:LEU:HD13	2.16	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:115:ASP:HB3	1:N:436:GLN:HG2	1.77	0.65
1:K:385:THR:HG23	1:K:388:GLU:H	1.62	0.65
1:F:499:VAL:HG23	1:F:500:THR:N	2.10	0.65
1:N:499:VAL:HG23	1:N:500:THR:N	2.10	0.65
1:J:122:LYS:HE2	1:J:429:LEU:HD11	1.77	0.65
1:F:35:GLY:HA3	1:F:51:LYS:HE2	1.78	0.65
1:D:223:ALA:HB3	1:D:251:ALA:HB2	1.78	0.65
1:G:82:ASN:ND2	1:G:86:GLY:HA2	2.11	0.65
2:O:68:ASN:ND2	2:P:74:LYS:HE3	2.12	0.65
1:K:494:LEU:HD23	1:K:494:LEU:N	2.11	0.65
1:E:146:GLN:NE2	1:E:494:LEU:HD11	2.10	0.65
2:P:20:LYS:HG2	2:P:27:LEU:CD2	2.26	0.65
1:F:239:ALA:O	1:F:242:LYS:HB3	1.96	0.65
1:L:247:LEU:C	1:L:247:LEU:HD13	2.16	0.65
2:R:14:ARG:CD	2:R:35:SER:HB3	2.25	0.65
1:M:123:ALA:HB2	1:M:440:ILE:HG23	1.78	0.65
1:B:353:ILE:HG12	1:B:366:GLN:NE2	2.12	0.65
1:K:191:GLU:OE1	1:K:342:ILE:HG21	1.95	0.65
1:N:494:LEU:HD23	1:N:494:LEU:H	1.60	0.65
1:L:417:VAL:HG21	1:L:488:MET:HG3	1.79	0.65
1:D:124:VAL:HG22	1:D:504:LEU:HD11	1.76	0.65
1:B:257:GLU:O	1:B:261:THR:HG22	1.97	0.65
1:D:10:ASN:O	1:D:14:VAL:HG23	1.97	0.65
1:K:313:THR:HG22	1:K:314:LEU:N	2.11	0.65
1:C:290:GLN:OE1	1:C:290:GLN:N	2.29	0.65
1:H:249:ILE:HB	1:H:275:ALA:HB1	1.78	0.65
1:G:219:PHE:HB2	1:G:247:LEU:CD2	2.26	0.65
1:H:107:VAL:HG23	1:H:108:ALA:N	2.10	0.65
1:B:472:GLY:HA3	1:B:476:TYR:CD2	2.31	0.65
1:M:417:VAL:HG21	1:M:488:MET:HG3	1.78	0.65
1:L:30:THR:HB	1:L:51:LYS:O	1.97	0.65
1:N:23:LEU:O	1:N:27:VAL:HG12	1.96	0.65
1:H:277:LYS:NZ	1:H:277:LYS:HB2	2.11	0.65
1:H:256:GLY:HA2	1:H:260:ALA:H	1.61	0.65
1:N:256:GLY:HA2	1:N:259:LEU:HB3	1.78	0.65
1:G:205:ILE:CD1	1:G:211:GLY:HA2	2.25	0.65
1:G:248:LEU:C	1:G:249:ILE:HD12	2.17	0.65
1:B:456:LEU:HD13	1:B:462:PRO:CG	2.27	0.65
1:A:348:GLN:NE2	1:A:352:GLN:NE2	2.45	0.65
1:F:284:ARG:HG2	1:F:288:MET:CE	2.25	0.65
1:K:398:ASP:O	1:K:401:HIS:HB2	1.96	0.65
1:C:123:ALA:HB2	1:C:440:ILE:HG23	1.78	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:193:MET:O	1:F:331:THR:HG23	1.97	0.65
1:B:247:LEU:HD12	1:B:249:ILE:HD11	1.79	0.65
1:D:249:ILE:N	1:D:249:ILE:HD12	2.11	0.65
1:A:265:ASN:HB3	1:A:271:VAL:HG22	1.77	0.65
1:K:308:GLU:HG2	1:K:309:LEU:H	1.62	0.65
1:K:235:PRO:HG3	1:K:310:GLU:HA	1.76	0.65
1:G:326:ASN:ND2	1:G:328:ASP:H	1.95	0.65
1:J:115:ASP:HB3	1:J:436:GLN:HG2	1.77	0.65
1:N:205:ILE:HD13	1:N:211:GLY:HA2	1.78	0.65
1:D:131:LEU:HD23	1:D:422:VAL:HG11	1.78	0.65
1:M:240:VAL:HA	1:M:243:ALA:HB3	1.77	0.65
1:C:321:LYS:HD2	1:C:333:ILE:HG22	1.78	0.65
1:K:367:GLU:O	1:K:370:ALA:HB3	1.97	0.65
1:G:313:THR:CG2	1:G:315:GLU:HG3	2.27	0.65
1:N:65:LYS:O	1:N:66:PHE:CB	2.38	0.65
1:L:66:PHE:H	1:L:69:MET:HG3	1.62	0.65
2:S:78:ILE:HD13	2:S:83:VAL:CG2	2.26	0.65
1:F:360:TYR:H	1:F:363:GLU:CD	2.00	0.65
1:A:302:SER:HB2	1:A:305:ILE:HB	1.77	0.65
1:A:499:VAL:HG23	1:A:500:THR:N	2.11	0.65
1:H:155:ASP:OD1	1:H:158:VAL:HG23	1.97	0.65
2:S:55:LYS:H	2:S:55:LYS:CE	2.09	0.65
1:L:325:ILE:HD12	1:L:325:ILE:N	2.11	0.65
2:T:20:LYS:HD2	2:T:20:LYS:H	1.62	0.65
1:I:175:ILE:HD13	1:I:404:ARG:NH2	2.12	0.65
1:J:193:MET:HG2	1:J:194:GLN:N	2.11	0.65
2:R:78:ILE:HD13	2:R:83:VAL:HG21	1.78	0.65
1:I:282:GLY:O	1:I:285:ARG:HG2	1.97	0.65
1:H:326:ASN:OD1	1:H:329:THR:HB	1.97	0.65
1:N:122:LYS:HE2	1:N:429:LEU:HD11	1.79	0.65
1:K:303:GLU:C	1:K:305:ILE:H	2.00	0.65
2:P:20:LYS:HG3	2:P:28:THR:O	1.95	0.65
1:F:229:ASN:C	1:F:231:ARG:H	1.96	0.65
1:E:350:ARG:HA	1:E:353:ILE:HD12	1.78	0.65
1:K:314:LEU:HA	1:K:317:LEU:HD13	1.77	0.65
1:D:350:ARG:HA	1:D:353:ILE:HD12	1.78	0.65
1:D:368:ARG:CD	1:D:372:LEU:HD11	2.27	0.65
1:A:135:SER:HB2	1:A:497:THR:HG21	1.79	0.65
1:K:115:ASP:HB3	1:K:436:GLN:HG2	1.79	0.65
1:N:415:GLY:N	1:N:417:VAL:HG23	2.12	0.65
1:M:217:SER:HA	1:M:320:ALA:O	1.96	0.65
1:I:160:LYS:HG2	1:I:164:GLU:OE2	1.97	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:325:ILE:N	1:J:325:ILE:HD12	2.11	0.65
1:D:222:LEU:N	1:D:222:LEU:HD12	2.12	0.65
1:G:235:PRO:HG2	1:G:236:VAL:H	1.60	0.65
1:B:228:SER:HA	1:B:255:GLU:CB	2.17	0.65
1:F:242:LYS:C	1:F:242:LYS:HD3	2.16	0.65
1:E:353:ILE:HG12	1:E:366:GLN:HE22	1.62	0.65
1:H:226:LYS:HG3	1:H:252:GLU:HB3	1.78	0.65
1:F:352:GLN:C	1:F:365:LEU:HD11	2.18	0.65
1:F:510:VAL:HG23	1:F:511:ALA:N	2.12	0.65
1:E:499:VAL:HG23	1:E:500:THR:N	2.10	0.65
1:E:510:VAL:HG23	1:E:511:ALA:N	2.10	0.65
1:L:263:VAL:O	1:L:267:MET:HG2	1.97	0.65
2:O:40:VAL:HB	2:O:62:GLY:H	1.61	0.65
1:I:320:ALA:HA	1:I:334:ASP:O	1.96	0.65
1:F:30:THR:HB	1:F:51:LYS:HG3	1.79	0.65
1:F:52:ASP:OD1	1:F:54:VAL:HG12	1.96	0.65
1:F:213:VAL:O	1:F:324:VAL:HA	1.97	0.65
1:B:321:LYS:HD2	1:B:333:ILE:HG22	1.78	0.65
1:F:219:PHE:HB2	1:F:247:LEU:HD22	1.77	0.65
1:F:249:ILE:HB	1:F:275:ALA:HB2	1.79	0.65
1:C:247:LEU:HD12	1:C:249:ILE:CD1	2.27	0.65
1:I:359:ASP:CA	1:I:362:ARG:HH12	2.07	0.65
1:G:279:PRO:HB2	1:G:285:ARG:HA	1.78	0.65
1:I:314:LEU:CD1	1:I:314:LEU:H	2.06	0.65
1:A:348:GLN:HE22	1:A:352:GLN:NE2	1.95	0.65
2:S:12:VAL:HG23	2:S:84:LEU:HB2	1.78	0.65
1:D:346:VAL:CG1	1:D:350:ARG:HH22	2.10	0.65
1:D:368:ARG:HG2	1:D:372:LEU:HG	1.79	0.65
1:L:116:LEU:HD23	1:L:435:ASP:O	1.97	0.65
2:T:47:ARG:HD2	2:T:55:LYS:HD2	1.77	0.65
2:O:12:VAL:HG23	2:O:84:LEU:HB2	1.79	0.65
1:I:365:LEU:O	1:I:369:VAL:HG23	1.97	0.65
1:K:325:ILE:N	1:K:325:ILE:HD12	2.12	0.65
1:N:157:THR:O	1:N:160:LYS:HB3	1.97	0.65
1:A:338:GLU:O	1:A:341:ALA:HB3	1.97	0.65
1:A:123:ALA:HB2	1:A:440:ILE:HG23	1.77	0.65
1:G:234:LEU:HD12	1:G:234:LEU:N	2.12	0.64
1:F:214:GLU:HA	1:F:323:VAL:O	1.96	0.64
1:F:326:ASN:ND2	1:F:328:ASP:H	1.94	0.64
1:I:254:VAL:HG12	1:I:259:LEU:HB2	1.79	0.64
1:C:262:LEU:HD11	1:C:273:VAL:HB	1.79	0.64
1:C:281:PHE:H	1:C:284:ARG:HD2	1.61	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:S:84:LEU:N	2:S:84:LEU:HD12	2.12	0.64
1:B:411:VAL:HA	1:B:497:THR:H	1.61	0.64
1:B:366:GLN:HA	1:B:369:VAL:CG2	2.27	0.64
1:L:214:GLU:HA	1:L:324:VAL:HG12	1.78	0.64
1:I:25:ASP:HA	1:I:28:LYS:HE2	1.78	0.64
1:D:273:VAL:CG1	1:D:274:ALA:H	2.09	0.64
1:D:18:ARG:HB2	1:D:67:GLU:HG2	1.80	0.64
1:D:233:MET:HE2	1:D:237:LEU:HB2	1.79	0.64
1:D:234:LEU:HD12	1:D:234:LEU:N	2.11	0.64
1:F:346:VAL:CG1	1:F:350:ARG:HH22	2.09	0.64
1:L:351:GLN:HG2	1:L:354:GLU:OE2	1.97	0.64
1:K:205:ILE:HA	1:K:213:VAL:HG22	1.78	0.64
1:M:34:LYS:HB2	1:M:458:CYS:SG	2.37	0.64
1:L:400:LEU:HD23	1:L:400:LEU:C	2.18	0.64
1:A:249:ILE:HD12	1:A:249:ILE:N	2.12	0.64
1:I:69:MET:HE1	1:I:522:THR:HB	1.79	0.64
1:G:207:LYS:NZ	1:G:207:LYS:HB2	2.12	0.64
1:I:200:LEU:CD1	1:I:276:VAL:HA	2.27	0.64
1:H:417:VAL:HG21	1:H:488:MET:HG3	1.79	0.64
1:I:287:ALA:HB1	1:I:368:ARG:CZ	2.27	0.64
1:I:265:ASN:O	1:I:269:GLY:HA3	1.96	0.64
1:M:403:THR:O	1:M:407:VAL:HG23	1.96	0.64
2:P:20:LYS:HD2	2:P:20:LYS:N	2.12	0.64
1:F:249:ILE:HB	1:F:275:ALA:CB	2.28	0.64
1:B:313:THR:HB	1:B:315:GLU:OE2	1.96	0.64
1:C:368:ARG:HG2	1:C:372:LEU:HG	1.80	0.64
1:L:155:ASP:OD1	1:L:158:VAL:HG23	1.97	0.64
1:K:415:GLY:H	1:K:417:VAL:HG23	1.62	0.64
1:B:207:LYS:HB2	1:B:207:LYS:NZ	2.13	0.64
1:N:123:ALA:HB2	1:N:440:ILE:HG23	1.80	0.64
1:E:310:GLU:O	1:E:312:ALA:N	2.30	0.64
1:B:472:GLY:HA3	1:B:476:TYR:HD2	1.63	0.64
1:F:207:LYS:CB	1:F:208:PRO:HD3	2.27	0.64
1:B:248:LEU:C	1:B:249:ILE:HD12	2.18	0.64
1:D:247:LEU:HD12	1:D:249:ILE:CD1	2.28	0.64
2:R:20:LYS:HG3	2:R:28:THR:O	1.97	0.64
1:A:247:LEU:O	1:A:273:VAL:HG13	1.97	0.64
1:I:256:GLY:CA	1:I:259:LEU:HB3	2.27	0.64
2:Q:20:LYS:HD2	2:Q:20:LYS:N	2.12	0.64
1:L:422:VAL:O	1:L:425:LYS:HB2	1.97	0.64
1:M:115:ASP:HB3	1:M:436:GLN:HG2	1.80	0.64
1:F:414:GLY:HA2	1:F:495:ASP:OD2	1.98	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:291:ASP:HB3	1:F:345:ARG:NH2	2.12	0.64
1:L:205:ILE:HA	1:L:213:VAL:HG22	1.78	0.64
2:O:68:ASN:HD22	2:P:74:LYS:HE3	1.62	0.64
1:G:123:ALA:HB2	1:G:440:ILE:HG23	1.80	0.64
1:I:135:SER:HA	1:I:412:VAL:HG12	1.79	0.64
1:I:403:THR:O	1:I:407:VAL:HG23	1.97	0.64
1:D:206:ASN:CB	1:D:214:GLU:H	2.11	0.64
1:E:219:PHE:HB2	1:E:247:LEU:HD22	1.77	0.64
1:G:229:ASN:HA	1:G:257:GLU:OE2	1.98	0.64
2:O:78:ILE:HD13	2:O:83:VAL:CG2	2.26	0.64
1:K:385:THR:O	1:K:389:MET:HB2	1.97	0.64
2:Q:50:GLU:OE1	2:R:50:GLU:HA	1.98	0.64
1:B:160:LYS:HE3	1:B:164:GLU:OE2	1.97	0.64
1:N:265:ASN:O	1:N:269:GLY:HA3	1.97	0.64
2:O:47:ARG:HD3	2:O:49:LEU:CD1	2.26	0.64
2:U:47:ARG:HD3	2:U:49:LEU:CD1	2.20	0.64
1:E:322:ARG:HG2	1:E:323:VAL:N	2.09	0.64
1:E:18:ARG:HH11	1:E:18:ARG:CB	2.01	0.64
1:K:254:VAL:O	1:K:259:LEU:HD12	1.98	0.64
1:C:368:ARG:O	1:C:372:LEU:HG	1.97	0.64
1:A:195:PHE:O	1:A:329:THR:HG23	1.98	0.64
1:G:130:GLU:O	1:G:133:ALA:HB3	1.98	0.64
1:J:111:MET:HG2	1:J:435:ASP:OD1	1.98	0.64
1:E:130:GLU:O	1:E:134:LEU:HD13	1.97	0.64
1:B:349:ILE:HG21	1:B:369:VAL:HG22	1.79	0.64
1:K:339:GLU:O	1:K:343:GLN:HG2	1.98	0.64
1:A:5:ASP:HB2	1:A:524:LEU:CD2	2.28	0.64
1:K:351:GLN:HG2	1:K:354:GLU:OE2	1.98	0.64
1:D:27:VAL:HG12	1:D:90:THR:HG23	1.78	0.64
1:K:175:ILE:N	1:K:175:ILE:HD12	2.12	0.64
1:I:267:MET:O	1:I:267:MET:HG3	1.97	0.64
1:D:320:ALA:HA	1:D:335:GLY:HA2	1.78	0.64
1:E:228:SER:O	1:E:257:GLU:HB3	1.97	0.64
1:E:291:ASP:OD1	1:E:292:ILE:HG13	1.98	0.64
1:N:221:LEU:C	1:N:221:LEU:HD13	2.18	0.64
1:C:280:GLY:HA3	1:C:284:ARG:HH11	1.62	0.64
1:J:313:THR:HG22	1:J:314:LEU:N	2.12	0.64
1:A:291:ASP:HB3	1:A:345:ARG:NH2	2.13	0.64
1:D:345:ARG:O	1:D:349:ILE:HG13	1.98	0.64
1:H:32:GLY:HA3	1:H:454:ILE:HG23	1.80	0.64
1:K:149:THR:CG2	1:K:156:GLU:HA	2.27	0.64
1:A:417:VAL:HA	1:A:420:ILE:HG22	1.79	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:499:VAL:CG2	1:E:500:THR:N	2.59	0.64
1:I:222:LEU:HD22	1:I:289:LEU:HD11	1.80	0.64
1:I:302:SER:HB2	1:I:305:ILE:HD12	1.80	0.64
1:M:25:ASP:HA	1:M:28:LYS:HE2	1.79	0.64
1:B:220:ILE:HD12	1:B:220:ILE:N	2.13	0.64
1:D:350:ARG:O	1:D:354:GLU:HG2	1.97	0.64
1:I:66:PHE:HA	1:I:520:MET:HE1	1.80	0.64
1:B:20:VAL:HG13	1:B:74:VAL:HG11	1.80	0.64
2:Q:5:PRO:CD	2:Q:42:ALA:HB1	2.28	0.64
1:N:161:LEU:HD12	1:N:161:LEU:H	1.63	0.64
1:B:82:ASN:HD22	1:B:86:GLY:HA2	1.63	0.64
1:B:82:ASN:ND2	1:B:86:GLY:HA2	2.12	0.64
1:B:31:LEU:HD12	4:B:1:ADP:O1A	1.98	0.64
1:C:310:GLU:O	1:C:312:ALA:N	2.31	0.64
1:G:325:ILE:HG13	1:G:330:THR:HG23	1.80	0.64
1:I:499:VAL:HG23	1:I:500:THR:N	2.12	0.64
1:D:20:VAL:HG13	1:D:74:VAL:HG11	1.78	0.64
1:L:385:THR:HG23	1:L:388:GLU:H	1.63	0.64
2:S:17:VAL:CG1	2:S:34:LYS:HA	2.27	0.64
1:A:33:PRO:HA	1:A:153:ASN:ND2	2.11	0.64
1:F:135:SER:HB2	1:F:497:THR:HG21	1.79	0.64
1:F:44:PHE:HD1	1:F:44:PHE:N	1.92	0.64
1:M:198:GLY:HA3	1:M:328:ASP:HA	1.80	0.64
1:F:264:VAL:HA	1:F:267:MET:HB2	1.79	0.64
1:A:210:THR:OG1	1:G:351:GLN:HG2	1.97	0.64
1:E:391:GLU:O	1:E:394:ALA:HB3	1.98	0.64
1:D:322:ARG:HG2	1:D:323:VAL:H	1.63	0.63
1:B:324:VAL:C	1:B:325:ILE:HD12	2.18	0.63
1:E:247:LEU:HB3	1:E:273:VAL:HG13	1.79	0.63
1:F:18:ARG:CB	1:F:18:ARG:HH11	2.05	0.63
1:I:232:GLU:HB2	1:I:233:MET:HE1	1.80	0.63
2:P:47:ARG:HG2	2:P:49:LEU:H	1.63	0.63
1:M:116:LEU:HD23	1:M:435:ASP:O	1.98	0.63
1:L:277:LYS:HB2	1:L:277:LYS:NZ	2.12	0.63
1:D:248:LEU:HD13	1:D:249:ILE:N	2.13	0.63
1:B:235:PRO:HG2	1:B:236:VAL:H	1.63	0.63
1:G:213:VAL:O	1:G:324:VAL:HA	1.98	0.63
2:T:49:LEU:O	2:T:55:LYS:NZ	2.32	0.63
1:J:107:VAL:HG23	1:J:108:ALA:N	2.13	0.63
1:F:278:ALA:HB1	1:F:279:PRO:CD	2.27	0.63
1:H:325:ILE:N	1:H:325:ILE:HD12	2.13	0.63
1:I:287:ALA:HB1	1:I:368:ARG:NH2	2.13	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:147:VAL:O	1:E:150:ILE:HG22	1.97	0.63
1:M:265:ASN:O	1:M:269:GLY:HA3	1.99	0.63
1:B:29:VAL:HG23	1:B:30:THR:HG23	1.80	0.63
1:F:195:PHE:O	1:F:329:THR:HG23	1.98	0.63
1:B:219:PHE:HB3	1:B:317:LEU:HD13	1.80	0.63
1:D:219:PHE:HB2	1:D:247:LEU:HD22	1.80	0.63
1:E:324:VAL:C	1:E:325:ILE:HD12	2.18	0.63
1:L:363:GLU:O	1:L:366:GLN:HB3	1.97	0.63
1:J:499:VAL:HG23	1:J:500:THR:N	2.13	0.63
1:D:456:LEU:HD13	1:D:462:PRO:CG	2.28	0.63
1:H:171:LYS:HD3	1:H:407:VAL:HG11	1.79	0.63
1:N:326:ASN:ND2	1:N:328:ASP:H	1.95	0.63
1:B:279:PRO:HG2	1:B:288:MET:HE3	1.81	0.63
1:C:499:VAL:HG23	1:C:500:THR:N	2.14	0.63
1:J:194:GLN:HG2	1:J:195:PHE:N	2.13	0.63
1:J:213:VAL:O	1:J:324:VAL:HA	1.98	0.63
2:P:37:ARG:HG2	2:P:37:ARG:HH11	1.63	0.63
2:S:43:VAL:HG23	2:S:61:VAL:HG22	1.80	0.63
1:F:224:ASP:HB2	1:F:303:GLU:HB3	1.80	0.63
1:B:222:LEU:N	1:B:222:LEU:HD12	2.14	0.63
1:G:228:SER:O	1:G:257:GLU:HB3	1.98	0.63
1:I:247:LEU:H	1:I:273:VAL:HG12	1.64	0.63
2:T:17:VAL:CG2	2:T:34:LYS:HD2	2.29	0.63
1:M:324:VAL:C	1:M:325:ILE:HD12	2.19	0.63
1:H:422:VAL:O	1:H:426:LEU:HD23	1.98	0.63
1:C:131:LEU:CD2	1:C:422:VAL:HG11	2.27	0.63
2:U:14:ARG:HD3	2:U:35:SER:HB3	1.79	0.63
1:E:70:GLY:O	1:E:74:VAL:HG22	1.99	0.63
1:M:415:GLY:H	1:M:417:VAL:HG23	1.62	0.63
1:J:197:ARG:HG2	1:J:277:LYS:O	1.99	0.63
1:L:282:GLY:O	1:L:285:ARG:HG2	1.98	0.63
1:A:368:ARG:HG2	1:A:372:LEU:HG	1.81	0.63
1:G:235:PRO:HG3	1:G:310:GLU:HB3	1.80	0.63
2:P:20:LYS:HD2	2:P:20:LYS:H	1.63	0.63
1:D:228:SER:HA	1:D:255:GLU:CB	2.27	0.63
1:D:219:PHE:HB2	1:D:247:LEU:CD2	2.28	0.63
1:D:349:ILE:O	1:D:353:ILE:HG13	1.99	0.63
1:J:218:PRO:HB3	1:J:246:PRO:C	2.18	0.63
1:H:145:ALA:HA	1:H:159:GLY:O	1.99	0.63
1:E:310:GLU:H	1:E:310:GLU:CD	2.02	0.63
1:F:280:GLY:HA3	1:F:284:ARG:NH1	2.13	0.63
1:I:124:VAL:HG13	1:I:504:LEU:CD1	2.28	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:160:LYS:HE3	1:D:164:GLU:OE2	1.98	0.63
1:K:326:ASN:OD1	1:K:329:THR:HB	1.98	0.63
1:F:229:ASN:HA	1:F:257:GLU:OE2	1.99	0.63
1:D:233:MET:CA	1:D:310:GLU:HG3	2.24	0.63
1:C:288:MET:HA	1:C:291:ASP:OD2	1.99	0.63
1:A:199:TYR:HE2	1:A:205:ILE:HG12	1.63	0.63
1:F:313:THR:HB	1:F:315:GLU:OE2	1.99	0.63
1:N:31:LEU:HG	1:N:454:ILE:HD11	1.81	0.63
2:T:84:LEU:N	2:T:84:LEU:HD12	2.13	0.63
1:K:200:LEU:CD1	1:K:276:VAL:HA	2.28	0.63
1:N:82:ASN:HB2	1:N:89:THR:OG1	1.97	0.63
1:C:404:ARG:HG3	1:C:404:ARG:HH11	1.63	0.63
1:F:208:PRO:HB2	1:F:212:ALA:CB	2.28	0.63
1:I:232:GLU:HB3	1:I:309:LEU:CB	2.26	0.63
1:C:207:LYS:CB	1:C:208:PRO:HD3	2.27	0.63
1:M:450:PRO:O	1:M:454:ILE:HG12	1.99	0.63
1:F:348:GLN:HE22	1:F:352:GLN:NE2	1.96	0.63
1:A:223:ALA:HB3	1:A:251:ALA:CB	2.28	0.63
1:H:365:LEU:O	1:H:369:VAL:HG23	1.99	0.63
1:M:385:THR:O	1:M:389:MET:HB2	1.98	0.63
1:A:54:VAL:HB	1:A:89:THR:HG21	1.79	0.63
1:H:413:ALA:CB	1:H:417:VAL:HB	2.28	0.63
2:R:77:LYS:HG3	2:R:80:ASN:HA	1.80	0.63
1:I:166:MET:HE2	1:I:171:LYS:HA	1.80	0.63
1:K:265:ASN:O	1:K:269:GLY:HA3	1.99	0.63
1:K:194:GLN:HG2	1:K:195:PHE:N	2.12	0.63
2:T:97:ALA:O	2:U:1:MET:HA	1.99	0.63
1:I:266:THR:CG2	1:I:273:VAL:H	2.12	0.63
2:Q:77:LYS:HG3	2:Q:80:ASN:HA	1.81	0.63
2:S:49:LEU:O	2:S:55:LYS:NZ	2.32	0.63
1:C:433:ASN:HD21	1:C:435:ASP:HB2	1.63	0.63
1:K:72:GLN:HA	1:K:72:GLN:NE2	2.14	0.63
1:K:478:TYR:HB2	1:K:485:TYR:CD2	2.34	0.63
1:J:367:GLU:O	1:J:370:ALA:HB3	1.98	0.63
1:K:287:ALA:HB1	1:K:368:ARG:CZ	2.29	0.63
1:D:309:LEU:HD12	1:D:309:LEU:H	1.64	0.63
1:C:365:LEU:HD22	1:C:366:GLN:HE22	1.63	0.63
1:A:199:TYR:HE1	1:A:327:LYS:HG3	1.64	0.63
1:G:348:GLN:NE2	1:G:352:GLN:NE2	2.45	0.63
1:K:422:VAL:O	1:K:425:LYS:HB2	1.99	0.63
1:B:291:ASP:HB3	1:B:345:ARG:NH2	2.12	0.63
1:C:499:VAL:CG2	1:C:500:THR:N	2.62	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:226:LYS:C	1:B:227:ILE:HD12	2.19	0.63
1:E:353:ILE:HG12	1:E:366:GLN:NE2	2.14	0.62
1:N:264:VAL:HA	1:N:267:MET:HG2	1.80	0.62
1:L:265:ASN:O	1:L:269:GLY:HA3	1.98	0.62
1:J:248:LEU:HD22	1:J:249:ILE:H	1.63	0.62
1:G:365:LEU:O	1:G:369:VAL:HG23	1.99	0.62
1:H:434:GLU:HA	1:H:437:ASN:ND2	2.14	0.62
1:I:411:VAL:HG21	1:I:494:LEU:HD12	1.80	0.62
1:I:422:VAL:O	1:I:425:LYS:HB2	1.99	0.62
1:H:157:THR:O	1:H:161:LEU:HD13	1.98	0.62
1:K:217:SER:N	1:K:218:PRO:HD3	2.14	0.62
1:F:215:LEU:O	1:F:218:PRO:HD3	1.98	0.62
2:O:7:HIS:HB3	2:O:45:ASN:HD22	1.64	0.62
2:O:55:LYS:N	2:O:55:LYS:HE2	2.00	0.62
1:E:280:GLY:HA3	1:E:284:ARG:NH1	2.13	0.62
1:G:305:ILE:CG2	1:G:306:GLY:H	2.02	0.62
1:G:242:LYS:HD3	1:G:242:LYS:C	2.20	0.62
1:N:325:ILE:HG13	1:N:330:THR:HG23	1.80	0.62
1:L:198:GLY:CA	1:L:328:ASP:HA	2.29	0.62
1:L:37:ASN:H	1:L:37:ASN:ND2	1.96	0.62
1:L:240:VAL:HA	1:L:243:ALA:HB3	1.80	0.62
1:J:478:TYR:HB2	1:J:485:TYR:CD2	2.35	0.62
1:J:82:ASN:HB2	1:J:89:THR:OG1	1.98	0.62
1:I:122:LYS:HE2	1:I:429:LEU:HD11	1.81	0.62
1:J:138:CYS:SG	1:J:144:ILE:HD13	2.39	0.62
1:B:310:GLU:O	1:B:312:ALA:N	2.32	0.62
1:J:263:VAL:O	1:J:267:MET:HG2	1.99	0.62
1:C:220:ILE:N	1:C:220:ILE:HD12	2.14	0.62
1:C:253:ASP:CG	1:C:254:VAL:N	2.53	0.62
1:H:223:ALA:HB3	1:H:251:ALA:CB	2.25	0.62
1:D:339:GLU:HB3	1:D:343:GLN:OE1	1.99	0.62
2:T:55:LYS:HE2	2:T:55:LYS:N	2.11	0.62
1:D:510:VAL:HG23	1:D:511:ALA:H	1.63	0.62
1:J:320:ALA:HA	1:J:334:ASP:O	1.98	0.62
1:N:194:GLN:HG2	1:N:195:PHE:N	2.13	0.62
1:I:363:GLU:O	1:I:367:GLU:HG3	2.00	0.62
1:I:180:GLY:HA2	1:I:380:LYS:HB3	1.80	0.62
1:D:266:THR:HA	1:D:271:VAL:O	1.99	0.62
1:F:310:GLU:O	1:F:312:ALA:N	2.32	0.62
1:G:214:GLU:CB	1:G:322:ARG:HD3	2.20	0.62
1:A:200:LEU:N	1:A:200:LEU:HD12	2.15	0.62
1:K:147:VAL:HA	1:K:150:ILE:HD12	1.81	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:16:MET:HG3	1:H:520:MET:SD	2.38	0.62
1:B:135:SER:HB2	1:B:497:THR:HG21	1.81	0.62
1:D:44:PHE:HD1	1:D:44:PHE:H	1.43	0.62
1:D:239:ALA:HB1	1:D:314:LEU:HD23	1.79	0.62
1:E:472:GLY:HA3	1:E:476:TYR:HD2	1.64	0.62
1:A:372:LEU:O	1:A:373:ALA:HB2	2.00	0.62
1:G:72:GLN:NE2	1:G:72:GLN:HA	2.15	0.62
2:O:37:ARG:HG2	2:O:37:ARG:HH11	1.64	0.62
1:D:247:LEU:O	1:D:273:VAL:HG13	1.99	0.62
1:B:218:PRO:HA	1:B:246:PRO:HG2	1.81	0.62
2:O:22:ALA:O	2:O:26:VAL:HB	1.99	0.62
1:E:291:ASP:HB3	1:E:345:ARG:NH2	2.14	0.62
1:K:290:GLN:O	1:K:293:ALA:HB3	1.99	0.62
1:M:239:ALA:CB	1:M:314:LEU:HD11	2.22	0.62
2:R:18:GLU:CD	2:R:33:ALA:HB3	2.19	0.62
1:A:207:LYS:CB	1:A:208:PRO:HD3	2.26	0.62
1:C:411:VAL:HA	1:C:497:THR:H	1.64	0.62
1:E:234:LEU:H	1:E:234:LEU:CD1	2.12	0.62
1:D:450:PRO:O	1:D:454:ILE:HG13	1.99	0.62
1:J:10:ASN:O	1:J:11:ASP:C	2.38	0.62
1:C:25:ASP:HA	1:C:28:LYS:HE2	1.79	0.62
1:N:363:GLU:O	1:N:367:GLU:HG3	1.99	0.62
1:F:219:PHE:HB2	1:F:247:LEU:CD2	2.28	0.62
1:N:263:VAL:O	1:N:267:MET:HG2	1.99	0.62
1:M:66:PHE:H	1:M:69:MET:HG3	1.65	0.62
1:H:31:LEU:HG	1:H:454:ILE:HD11	1.81	0.62
1:N:325:ILE:HD12	1:N:325:ILE:N	2.14	0.62
1:E:131:LEU:HD21	1:E:422:VAL:HG11	1.78	0.62
1:I:157:THR:O	1:I:161:LEU:HD13	1.99	0.62
2:P:17:VAL:HG13	2:P:34:LYS:HA	1.80	0.62
2:Q:50:GLU:O	2:Q:52:GLY:N	2.32	0.62
1:A:41:ASP:HB2	1:G:69:MET:SD	2.40	0.62
1:B:35:GLY:HA3	1:B:51:LYS:HE2	1.81	0.62
1:K:403:THR:O	1:K:407:VAL:HG23	1.99	0.62
1:B:218:PRO:CA	1:B:246:PRO:HG2	2.30	0.62
1:F:221:LEU:HD13	1:F:317:LEU:CD2	2.29	0.62
1:C:322:ARG:HB3	1:C:333:ILE:CD1	2.22	0.62
1:G:241:ALA:HA	1:G:271:VAL:HG12	1.79	0.62
1:I:266:THR:O	1:I:268:ARG:N	2.31	0.62
1:M:32:GLY:HA2	1:M:454:ILE:HD12	1.81	0.62
1:F:134:LEU:N	1:F:134:LEU:HD12	2.15	0.62
1:B:350:ARG:HD3	1:B:353:ILE:HD12	1.82	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:302:SER:HB2	1:M:305:ILE:HG13	1.82	0.62
1:D:218:PRO:CA	1:D:246:PRO:HG2	2.30	0.62
1:K:363:GLU:O	1:K:367:GLU:HG3	2.00	0.62
1:E:218:PRO:CA	1:E:246:PRO:HG2	2.29	0.62
1:E:252:GLU:O	1:E:253:ASP:HB2	1.98	0.62
1:F:18:ARG:HB2	1:F:67:GLU:HG2	1.80	0.62
1:K:308:GLU:HG2	1:K:309:LEU:N	2.13	0.62
1:G:313:THR:N	1:G:316:ASP:OD2	2.33	0.62
1:C:281:PHE:H	1:C:284:ARG:CD	2.13	0.62
1:D:77:VAL:HG12	1:D:510:VAL:HG21	1.82	0.62
1:M:149:THR:CG2	1:M:159:GLY:HA3	2.30	0.62
2:P:48:ILE:HG12	2:P:54:VAL:HG13	1.82	0.62
1:B:70:GLY:O	1:B:74:VAL:HG22	2.00	0.62
1:M:287:ALA:HB1	1:M:368:ARG:CZ	2.30	0.62
1:E:512:GLY:O	1:E:515:ILE:HG12	1.98	0.62
2:O:40:VAL:CG1	2:O:61:VAL:HA	2.30	0.62
1:G:44:PHE:H	1:G:44:PHE:HD1	1.39	0.62
1:I:205:ILE:HA	1:I:213:VAL:HG22	1.82	0.62
1:I:404:ARG:O	1:I:408:GLU:HG3	1.99	0.62
1:K:122:LYS:HE2	1:K:429:LEU:HD11	1.81	0.62
1:N:386:GLU:HG2	1:N:390:LYS:HE2	1.81	0.62
1:D:259:LEU:O	1:D:263:VAL:HG23	1.98	0.62
2:O:6:LEU:O	2:O:7:HIS:O	2.16	0.62
1:F:257:GLU:O	1:F:261:THR:HG22	2.00	0.62
1:C:223:ALA:HB3	1:C:251:ALA:HB2	1.80	0.62
1:C:219:PHE:HD1	1:C:319:GLN:HE21	1.48	0.62
1:K:413:ALA:CB	1:K:417:VAL:HB	2.30	0.62
1:A:277:LYS:HD3	1:A:285:ARG:NH2	2.13	0.62
1:D:283:ASP:O	1:D:287:ALA:HB2	1.98	0.62
1:C:193:MET:SD	1:C:371:LYS:HB3	2.40	0.62
1:I:385:THR:O	1:I:389:MET:HB2	1.99	0.62
1:E:414:GLY:HA2	1:E:495:ASP:OD2	2.00	0.62
1:H:345:ARG:HA	1:H:348:GLN:NE2	2.14	0.62
1:B:381:VAL:HG21	1:B:393:LYS:HA	1.82	0.62
1:M:164:GLU:O	1:M:167:ASP:HB3	1.99	0.62
1:G:450:PRO:O	1:G:454:ILE:HG13	1.99	0.62
1:H:302:SER:HB2	1:H:305:ILE:HD12	1.82	0.62
1:L:472:GLY:HA3	1:L:476:TYR:HD2	1.63	0.62
1:B:214:GLU:CB	1:B:322:ARG:HD3	2.21	0.62
1:M:270:ILE:HG22	1:M:271:VAL:N	2.15	0.62
1:N:264:VAL:HA	1:N:267:MET:CG	2.29	0.62
1:F:18:ARG:O	1:F:22:VAL:HG23	2.00	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:314:LEU:H	1:M:314:LEU:CD1	2.10	0.62
1:A:342:ILE:O	1:A:346:VAL:HG23	1.98	0.62
1:H:32:GLY:CA	1:H:454:ILE:HG23	2.30	0.62
2:U:78:ILE:HD13	2:U:83:VAL:CG2	2.27	0.62
1:A:360:TYR:O	1:A:364:LYS:HE2	1.99	0.62
1:F:202:PRO:O	1:F:205:ILE:HG13	2.00	0.62
1:L:194:GLN:HG2	1:L:195:PHE:N	2.13	0.62
1:E:94:VAL:HG12	1:E:449:ALA:HB1	1.81	0.62
1:H:200:LEU:CD1	1:H:276:VAL:HA	2.29	0.62
1:K:277:LYS:NZ	1:K:277:LYS:HB2	2.15	0.62
1:B:201:SER:HB3	1:B:259:LEU:HD22	1.82	0.61
1:J:301:ILE:HD12	1:J:301:ILE:N	2.15	0.61
1:M:247:LEU:O	1:M:273:VAL:HB	1.98	0.61
1:L:413:ALA:HB1	1:L:417:VAL:HB	1.81	0.61
2:P:77:LYS:C	2:P:78:ILE:HD12	2.20	0.61
1:D:44:PHE:HD1	1:D:44:PHE:N	1.97	0.61
1:B:177:VAL:HG11	1:B:397:GLU:HG2	1.80	0.61
1:K:194:GLN:HG3	1:K:331:THR:HB	1.81	0.61
1:B:5:ASP:HB2	1:B:524:LEU:HD23	1.82	0.61
1:D:65:LYS:O	1:D:69:MET:HG3	2.00	0.61
1:F:472:GLY:HA3	1:F:476:TYR:CD2	2.35	0.61
1:K:135:SER:HA	1:K:412:VAL:HG12	1.82	0.61
1:B:249:ILE:HB	1:B:275:ALA:CB	2.31	0.61
1:D:266:THR:CG2	1:D:273:VAL:H	2.12	0.61
1:F:219:PHE:HB3	1:F:317:LEU:HD13	1.80	0.61
1:H:270:ILE:HG23	1:I:229:ASN:ND2	2.15	0.61
1:J:219:PHE:CB	1:J:317:LEU:HD23	2.31	0.61
1:I:314:LEU:CA	1:I:317:LEU:HD13	2.24	0.61
1:F:448:GLU:O	1:F:452:ARG:HG2	2.00	0.61
1:N:219:PHE:CE1	1:N:245:LYS:HB2	2.33	0.61
1:D:33:PRO:HA	1:D:153:ASN:ND2	2.15	0.61
1:B:504:LEU:C	1:B:504:LEU:HD13	2.21	0.61
1:F:25:ASP:HA	1:F:28:LYS:HE2	1.82	0.61
2:S:37:ARG:HH11	2:S:37:ARG:HG2	1.66	0.61
1:C:76:GLU:OE1	1:D:387:VAL:HG13	2.00	0.61
1:A:259:LEU:O	1:A:263:VAL:HG23	2.00	0.61
1:C:322:ARG:HG2	1:C:323:VAL:N	2.13	0.61
1:E:285:ARG:HG3	1:E:286:LYS:H	1.64	0.61
1:E:295:LEU:HD23	1:E:295:LEU:C	2.21	0.61
1:M:248:LEU:HD13	1:M:249:ILE:N	2.15	0.61
1:L:223:ALA:HB3	1:L:251:ALA:CB	2.25	0.61
1:G:299:THR:HB	1:G:316:ASP:HB3	1.82	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:273:VAL:CG1	1:G:274:ALA:N	2.64	0.61
1:A:222:LEU:N	1:A:222:LEU:HD12	2.15	0.61
1:D:496:PRO:HG2	1:D:499:VAL:HG13	1.81	0.61
1:C:194:GLN:HB2	1:C:331:THR:HG23	1.83	0.61
1:J:450:PRO:O	1:J:454:ILE:HG12	2.01	0.61
1:L:385:THR:O	1:L:389:MET:HB2	2.00	0.61
1:H:155:ASP:CG	1:H:158:VAL:HG23	2.20	0.61
1:B:52:ASP:OD1	1:B:54:VAL:HG12	2.00	0.61
1:N:319:GLN:O	1:N:336:VAL:HG23	2.00	0.61
1:G:339:GLU:HB3	1:G:343:GLN:OE1	1.99	0.61
1:B:229:ASN:C	1:B:231:ARG:H	2.03	0.61
1:J:270:ILE:HA	1:K:257:GLU:OE2	2.00	0.61
1:K:235:PRO:HG2	1:K:236:VAL:H	1.66	0.61
1:J:266:THR:HG22	1:J:272:LYS:HA	1.82	0.61
1:M:426:LEU:H	1:M:426:LEU:CD2	2.10	0.61
1:L:123:ALA:HB2	1:L:440:ILE:HG23	1.82	0.61
1:B:510:VAL:HG23	1:B:511:ALA:N	2.16	0.61
1:G:227:ILE:N	1:G:227:ILE:HD12	2.15	0.61
1:D:169:VAL:HB	1:D:173:GLY:HA3	1.81	0.61
2:P:97:ALA:O	2:Q:1:MET:HA	2.01	0.61
1:B:247:LEU:HD12	1:B:249:ILE:CD1	2.30	0.61
1:B:325:ILE:HG13	1:B:330:THR:HG23	1.82	0.61
1:F:233:MET:HE3	1:F:236:VAL:HB	1.80	0.61
1:E:278:ALA:HB1	1:E:279:PRO:CD	2.30	0.61
1:J:236:VAL:HG23	1:J:237:LEU:N	2.16	0.61
1:H:247:LEU:H	1:H:273:VAL:HG12	1.64	0.61
1:M:359:ASP:CA	1:M:362:ARG:HH12	2.12	0.61
1:G:417:VAL:HA	1:G:420:ILE:HG22	1.82	0.61
1:F:200:LEU:N	1:F:200:LEU:HD12	2.15	0.61
1:E:313:THR:N	1:E:316:ASP:OD2	2.33	0.61
1:G:448:GLU:O	1:G:452:ARG:HG2	2.00	0.61
1:F:127:ALA:O	1:F:130:GLU:HB2	1.99	0.61
2:P:7:HIS:HB3	2:P:45:ASN:ND2	2.14	0.61
1:B:475:ASN:N	1:B:475:ASN:HD22	1.97	0.61
1:M:400:LEU:HD23	1:M:400:LEU:C	2.21	0.61
1:D:30:THR:HB	1:D:51:LYS:HG3	1.82	0.61
1:E:69:MET:SD	1:F:41:ASP:HB2	2.41	0.61
2:T:43:VAL:HG23	2:T:61:VAL:HG22	1.82	0.61
1:B:199:TYR:CA	1:B:276:VAL:HG12	2.27	0.61
1:I:270:ILE:HA	1:J:257:GLU:OE2	1.99	0.61
1:G:291:ASP:OD1	1:G:292:ILE:HG13	2.01	0.61
1:A:360:TYR:HA	1:A:363:GLU:CD	2.19	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:107:VAL:HG23	1:N:108:ALA:N	2.15	0.61
1:N:191:GLU:HB3	1:N:295:LEU:HD11	1.82	0.61
1:G:5:ASP:HB2	1:G:524:LEU:HD23	1.83	0.61
1:N:448:GLU:HB3	1:N:452:ARG:HD2	1.82	0.61
1:F:146:GLN:NE2	1:F:494:LEU:HD11	2.15	0.61
1:F:265:ASN:HA	1:F:270:ILE:HD12	1.81	0.61
1:L:266:THR:HG22	1:L:273:VAL:H	1.65	0.61
1:C:291:ASP:OD1	1:C:292:ILE:HG13	2.00	0.61
1:E:207:LYS:CB	1:E:208:PRO:HD3	2.24	0.61
1:L:161:LEU:HD12	1:L:161:LEU:N	2.16	0.61
1:L:25:ASP:HA	1:L:28:LYS:HE2	1.81	0.61
2:S:17:VAL:CG2	2:S:34:LYS:HD2	2.28	0.61
1:B:413:ALA:HB1	1:B:417:VAL:HG11	1.83	0.61
1:K:320:ALA:HA	1:K:334:ASP:O	2.00	0.61
1:H:217:SER:HB3	1:H:321:LYS:HA	1.82	0.61
1:N:191:GLU:HB3	1:N:295:LEU:CD1	2.29	0.61
2:T:68:ASN:ND2	2:U:74:LYS:HE3	2.16	0.61
1:D:299:THR:HB	1:D:316:ASP:HB3	1.81	0.61
1:D:116:LEU:O	1:D:120:ILE:HG13	1.99	0.61
1:D:84:ALA:HB2	1:D:506:TYR:HE2	1.66	0.61
1:G:472:GLY:HA3	1:G:476:TYR:CD2	2.36	0.61
1:B:266:THR:CG2	1:B:273:VAL:H	2.12	0.61
1:F:223:ALA:HB3	1:F:251:ALA:CB	2.31	0.61
1:F:259:LEU:O	1:F:262:LEU:HB3	1.99	0.61
1:J:232:GLU:HA	1:J:310:GLU:HG2	1.82	0.61
1:L:221:LEU:HD13	1:L:221:LEU:C	2.21	0.61
1:C:368:ARG:CD	1:C:372:LEU:HD11	2.31	0.61
1:J:248:LEU:HD13	1:J:249:ILE:N	2.16	0.61
1:H:219:PHE:HB3	1:H:317:LEU:HD23	1.82	0.61
1:E:234:LEU:HD12	1:E:234:LEU:N	2.14	0.61
1:A:227:ILE:HD12	1:A:227:ILE:N	2.15	0.61
1:A:34:LYS:HD2	1:A:458:CYS:SG	2.41	0.61
2:Q:18:GLU:CD	2:Q:33:ALA:HB3	2.21	0.61
1:D:142:LYS:HE2	1:D:146:GLN:OE1	2.00	0.61
1:L:202:PRO:C	1:L:204:PHE:H	2.03	0.61
1:N:186:GLU:HB2	1:N:380:LYS:HB2	1.83	0.61
1:B:247:LEU:O	1:B:273:VAL:HG13	2.01	0.61
2:O:20:LYS:N	2:O:20:LYS:HD2	2.16	0.61
2:O:27:LEU:HD23	2:O:27:LEU:O	2.01	0.61
1:M:219:PHE:HB2	1:M:247:LEU:HD23	1.82	0.61
1:M:219:PHE:HB3	1:M:317:LEU:HD23	1.82	0.61
1:L:363:GLU:O	1:L:367:GLU:HG3	2.01	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:248:LEU:HD13	1:C:249:ILE:N	2.16	0.61
1:N:313:THR:HB	1:N:315:GLU:HG2	1.82	0.61
1:D:339:GLU:H	1:D:339:GLU:CD	2.04	0.61
1:E:239:ALA:HB1	1:E:314:LEU:HD23	1.83	0.61
1:B:131:LEU:HD21	1:B:422:VAL:HG11	1.83	0.61
1:A:146:GLN:HE21	1:A:494:LEU:HD11	1.65	0.61
1:M:411:VAL:HG21	1:M:494:LEU:CD1	2.31	0.61
2:R:6:LEU:O	2:R:7:HIS:O	2.19	0.61
1:B:25:ASP:HA	1:B:28:LYS:HE2	1.82	0.61
1:N:179:ASP:OD2	1:N:390:LYS:HG2	2.01	0.61
1:M:135:SER:HA	1:M:412:VAL:HG12	1.82	0.61
1:K:267:MET:HG3	1:K:267:MET:O	2.00	0.61
1:I:455:VAL:HG13	1:I:460:GLU:HB2	1.83	0.61
1:E:264:VAL:HA	1:E:267:MET:HB2	1.82	0.61
1:K:226:LYS:HG3	1:K:252:GLU:HB3	1.83	0.61
1:H:257:GLU:O	1:H:261:THR:HG23	2.01	0.61
1:F:234:LEU:CD1	1:F:234:LEU:H	2.12	0.61
1:F:247:LEU:O	1:F:273:VAL:HG13	2.01	0.61
1:E:222:LEU:HD12	1:E:222:LEU:N	2.15	0.61
1:L:266:THR:HG21	1:L:273:VAL:O	2.01	0.61
1:H:221:LEU:HD13	1:H:221:LEU:C	2.22	0.61
1:M:499:VAL:HG23	1:M:500:THR:N	2.15	0.61
1:D:339:GLU:N	1:D:339:GLU:CD	2.55	0.61
1:M:69:MET:HE1	1:M:522:THR:HB	1.80	0.61
2:Q:77:LYS:C	2:Q:78:ILE:HD12	2.21	0.61
2:Q:34:LYS:HG3	2:Q:35:SER:H	1.63	0.61
2:T:77:LYS:HG3	2:T:80:ASN:HA	1.82	0.61
1:N:247:LEU:HD22	1:N:248:LEU:H	1.65	0.61
1:M:124:VAL:HG13	1:M:504:LEU:CD1	2.31	0.61
1:L:350:ARG:HE	1:L:369:VAL:HG11	1.66	0.61
1:F:381:VAL:CG1	1:F:392:LYS:CG	2.79	0.61
2:P:14:ARG:HD3	2:P:35:SER:HB3	1.81	0.61
1:I:178:GLU:O	1:I:380:LYS:HA	2.00	0.61
1:C:475:ASN:N	1:C:475:ASN:HD22	1.97	0.61
1:M:180:GLY:HA2	1:M:380:LYS:HB3	1.83	0.61
1:F:194:GLN:HB2	1:F:331:THR:HG23	1.83	0.60
1:B:273:VAL:CG1	1:B:274:ALA:H	2.12	0.60
1:L:232:GLU:HA	1:L:310:GLU:CG	2.31	0.60
1:G:272:LYS:NZ	1:G:272:LYS:HB2	2.16	0.60
1:I:228:SER:O	1:I:257:GLU:HB3	2.01	0.60
1:C:256:GLY:O	1:C:260:ALA:N	2.31	0.60
1:J:17:LEU:O	1:J:20:VAL:HG13	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:284:ARG:CB	1:I:284:ARG:HH11	2.11	0.60
1:E:235:PRO:HG3	1:E:310:GLU:HB3	1.83	0.60
1:A:134:LEU:N	1:A:134:LEU:HD12	2.15	0.60
1:K:191:GLU:HB3	1:K:295:LEU:CD1	2.30	0.60
1:G:399:ALA:O	1:G:403:THR:HG23	1.99	0.60
1:N:155:ASP:CG	1:N:158:VAL:HG23	2.21	0.60
1:C:310:GLU:CD	1:C:310:GLU:H	2.04	0.60
1:K:359:ASP:CA	1:K:362:ARG:HH12	2.05	0.60
1:N:221:LEU:HD13	1:N:222:LEU:N	2.15	0.60
1:A:291:ASP:HB3	1:A:345:ARG:HH21	1.66	0.60
1:E:413:ALA:HB1	1:E:417:VAL:HG11	1.83	0.60
2:U:17:VAL:CG2	2:U:34:LYS:HD2	2.32	0.60
1:M:353:ILE:HD11	1:M:369:VAL:HG21	1.82	0.60
1:M:124:VAL:HG13	1:M:504:LEU:HD13	1.82	0.60
2:R:68:ASN:HD22	2:S:74:LYS:HE3	1.66	0.60
1:G:224:ASP:HB2	1:G:303:GLU:HB3	1.81	0.60
1:D:271:VAL:O	1:D:271:VAL:HG23	2.02	0.60
1:A:10:ASN:O	1:A:14:VAL:HG23	2.01	0.60
1:G:194:GLN:HB2	1:G:331:THR:HG23	1.82	0.60
2:U:84:LEU:HD12	2:U:84:LEU:N	2.16	0.60
1:J:216:GLU:HA	1:J:216:GLU:OE1	2.00	0.60
1:I:343:GLN:O	1:I:346:VAL:HB	2.01	0.60
1:M:264:VAL:HA	1:M:267:MET:HG2	1.83	0.60
1:J:325:ILE:HG13	1:J:330:THR:HG23	1.84	0.60
1:G:433:ASN:HD21	1:G:435:ASP:HB2	1.65	0.60
1:B:28:LYS:O	1:B:30:THR:N	2.34	0.60
1:J:277:LYS:NZ	1:J:277:LYS:HB2	2.16	0.60
1:A:124:VAL:HG22	1:A:504:LEU:HD11	1.83	0.60
1:K:392:LYS:O	1:K:396:VAL:HG23	2.02	0.60
1:N:10:ASN:O	1:N:11:ASP:C	2.40	0.60
1:A:228:SER:HA	1:A:255:GLU:CB	2.19	0.60
1:B:10:ASN:O	1:B:14:VAL:HG23	2.01	0.60
1:C:308:GLU:HB2	1:C:311:LYS:HB2	1.81	0.60
1:J:314:LEU:H	1:J:314:LEU:CD1	2.02	0.60
1:G:285:ARG:HG3	1:G:286:LYS:H	1.67	0.60
2:R:48:ILE:HG12	2:R:54:VAL:HG13	1.82	0.60
1:A:339:GLU:CD	1:A:339:GLU:N	2.54	0.60
1:D:346:VAL:HG12	1:D:350:ARG:NH2	2.15	0.60
1:C:487:ASN:OD1	1:C:489:ILE:N	2.35	0.60
1:N:214:GLU:HA	1:N:324:VAL:HG12	1.84	0.60
1:E:44:PHE:HD1	1:E:44:PHE:H	1.47	0.60
1:M:290:GLN:HA	1:M:290:GLN:OE1	2.00	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:184:GLN:OE1	1:G:184:GLN:N	2.32	0.60
1:A:160:LYS:HE3	1:A:164:GLU:OE2	2.01	0.60
1:F:206:ASN:HB3	1:F:214:GLU:H	1.65	0.60
1:B:193:MET:O	1:B:331:THR:HG23	2.01	0.60
1:A:313:THR:HB	1:A:315:GLU:OE2	2.00	0.60
1:C:320:ALA:HA	1:C:334:ASP:O	2.02	0.60
1:C:259:LEU:O	1:C:262:LEU:HB3	2.01	0.60
1:G:349:ILE:HG21	1:G:369:VAL:HG22	1.82	0.60
2:R:49:LEU:O	2:R:55:LYS:NZ	2.35	0.60
1:G:131:LEU:HD23	1:G:422:VAL:HG11	1.83	0.60
1:I:161:LEU:N	1:I:161:LEU:HD12	2.17	0.60
1:D:433:ASN:HD21	1:D:435:ASP:HB2	1.65	0.60
2:T:20:LYS:HG2	2:T:27:LEU:CD2	2.32	0.60
1:J:214:GLU:HA	1:J:324:VAL:HG12	1.84	0.60
1:C:472:GLY:HA3	1:C:476:TYR:CD2	2.36	0.60
1:D:270:ILE:HD13	2:R:27:LEU:HB2	1.83	0.60
2:O:20:LYS:HG3	2:O:28:THR:O	2.02	0.60
1:E:296:THR:CG2	1:E:335:GLY:HA3	2.24	0.60
1:C:228:SER:HA	1:C:255:GLU:CB	2.25	0.60
1:C:241:ALA:HA	1:C:271:VAL:HG12	1.83	0.60
2:R:17:VAL:HG22	2:R:35:SER:N	2.16	0.60
1:D:207:LYS:CB	1:D:208:PRO:HD3	2.24	0.60
1:D:295:LEU:O	1:D:337:GLY:HA3	2.00	0.60
1:K:66:PHE:HA	1:K:520:MET:HE1	1.84	0.60
2:Q:76:GLU:O	2:Q:83:VAL:HG22	2.00	0.60
1:K:124:VAL:HG13	1:K:504:LEU:HD11	1.83	0.60
1:K:206:ASN:OD1	1:K:213:VAL:HA	2.01	0.60
1:E:146:GLN:HE21	1:E:494:LEU:HD11	1.66	0.60
1:A:372:LEU:O	1:A:373:ALA:CB	2.49	0.60
1:M:302:SER:HB2	1:M:305:ILE:CD1	2.31	0.60
1:C:52:ASP:OD1	1:C:54:VAL:HG12	2.02	0.60
2:R:20:LYS:HD2	2:R:20:LYS:N	2.17	0.60
1:A:270:ILE:HD13	2:O:27:LEU:HB2	1.84	0.60
1:B:18:ARG:O	1:B:22:VAL:HG23	2.01	0.60
1:K:270:ILE:HA	1:L:257:GLU:OE2	2.02	0.60
1:M:219:PHE:CE1	1:M:245:LYS:HB2	2.34	0.60
1:C:219:PHE:CE2	1:C:245:LYS:HB2	2.37	0.60
1:C:249:ILE:HB	1:C:275:ALA:HB1	1.84	0.60
1:C:252:GLU:N	1:C:252:GLU:OE1	2.35	0.60
1:H:385:THR:HG23	1:H:388:GLU:HB3	1.83	0.60
1:K:426:LEU:H	1:K:426:LEU:CD2	2.09	0.60
2:S:77:LYS:HG3	2:S:80:ASN:HA	1.83	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:112:ASN:O	1:L:116:LEU:HG	2.02	0.60
1:C:213:VAL:HB	1:C:325:ILE:HD13	1.84	0.60
1:G:499:VAL:CG2	1:G:500:THR:N	2.65	0.60
1:J:383:ALA:CB	1:J:389:MET:HA	2.31	0.60
1:H:499:VAL:HG23	1:H:500:THR:N	2.17	0.60
1:H:200:LEU:HD13	1:H:276:VAL:HA	1.84	0.60
1:H:400:LEU:C	1:H:400:LEU:HD23	2.22	0.60
1:I:465:VAL:O	1:I:469:VAL:HG23	2.02	0.60
1:F:122:LYS:HE2	1:F:429:LEU:HD11	1.83	0.60
1:D:193:MET:O	1:D:331:THR:HG23	2.02	0.60
1:L:235:PRO:HG2	1:L:236:VAL:H	1.66	0.60
1:L:236:VAL:HG23	1:L:237:LEU:N	2.16	0.60
1:E:352:GLN:C	1:E:365:LEU:HD11	2.22	0.60
1:E:355:GLU:O	1:E:362:ARG:NH2	2.35	0.60
1:G:247:LEU:HD13	1:G:248:LEU:N	2.16	0.60
1:I:319:GLN:O	1:I:336:VAL:HG23	2.02	0.60
2:O:34:LYS:HG3	2:O:35:SER:H	1.66	0.60
1:G:499:VAL:HG23	1:G:500:THR:N	2.17	0.60
1:F:499:VAL:CG2	1:F:500:THR:N	2.65	0.60
1:H:411:VAL:HG21	1:H:494:LEU:HD12	1.83	0.60
2:P:92:LEU:O	2:Q:6:LEU:HB2	2.02	0.60
1:N:351:GLN:HG2	1:N:354:GLU:OE2	2.00	0.60
1:N:398:ASP:O	1:N:401:HIS:HB2	2.02	0.60
1:J:101:THR:O	1:J:105:LYS:HG3	2.01	0.60
1:A:169:VAL:HB	1:A:173:GLY:HA3	1.84	0.60
1:E:84:ALA:HB2	1:E:506:TYR:HE2	1.66	0.60
1:B:245:LYS:HA	1:B:245:LYS:CE	2.28	0.60
1:N:358:SER:O	1:N:362:ARG:HB2	2.02	0.60
1:C:199:TYR:CZ	1:C:202:PRO:HA	2.36	0.60
1:H:169:VAL:HG22	1:H:169:VAL:O	2.01	0.60
1:L:147:VAL:HA	1:L:150:ILE:HD12	1.84	0.60
1:J:226:LYS:HA	1:J:252:GLU:HB2	1.84	0.60
1:G:82:ASN:HD22	1:G:86:GLY:HA2	1.67	0.60
1:K:395:ARG:O	1:K:398:ASP:HB2	2.02	0.60
1:N:302:SER:HB2	1:N:305:ILE:HD12	1.84	0.60
2:O:73:VAL:HG22	2:O:86:MET:HB3	1.84	0.60
1:G:368:ARG:HG2	1:G:372:LEU:HG	1.83	0.60
1:D:195:PHE:O	1:D:329:THR:HG23	2.02	0.60
1:A:256:GLY:O	1:A:260:ALA:N	2.30	0.60
1:E:219:PHE:HD1	1:E:319:GLN:HE21	1.50	0.60
1:E:18:ARG:HB2	1:E:67:GLU:HG2	1.83	0.60
1:L:314:LEU:HD12	1:L:314:LEU:N	2.07	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:219:PHE:HB2	1:H:247:LEU:HD23	1.83	0.60
1:N:426:LEU:H	1:N:426:LEU:CD2	2.09	0.60
1:A:355:GLU:HG3	1:A:357:THR:H	1.67	0.60
1:H:115:ASP:HB3	1:H:436:GLN:HG2	1.83	0.60
1:D:252:GLU:O	1:D:253:ASP:HB2	2.01	0.60
1:K:155:ASP:CG	1:K:158:VAL:HG23	2.22	0.60
1:B:499:VAL:HG23	1:B:500:THR:N	2.16	0.60
1:H:359:ASP:CA	1:H:362:ARG:HH12	2.15	0.60
1:L:5:ASP:HB2	1:L:524:LEU:CD2	2.31	0.60
1:N:395:ARG:O	1:N:398:ASP:HB2	2.01	0.60
1:N:101:THR:O	1:N:105:LYS:HG3	2.02	0.60
1:I:55:SER:O	1:I:58:ARG:HB3	2.02	0.60
1:E:29:VAL:HG23	1:E:30:THR:HG23	1.84	0.60
1:M:36:ARG:HB3	1:N:516:THR:O	2.02	0.60
1:M:55:SER:HA	1:M:58:ARG:NH1	2.17	0.60
1:A:234:LEU:N	1:A:234:LEU:HD12	2.16	0.59
1:L:233:MET:HE2	1:L:233:MET:HA	1.83	0.59
1:B:242:LYS:HD3	1:B:242:LYS:C	2.23	0.59
1:K:222:LEU:HD11	1:K:293:ALA:HA	1.84	0.59
1:I:233:MET:HA	1:I:233:MET:HE3	1.83	0.59
1:I:232:GLU:CB	1:I:309:LEU:HD12	2.32	0.59
1:A:333:ILE:O	1:A:334:ASP:HB2	2.02	0.59
2:R:14:ARG:NH1	2:R:14:ARG:HB2	2.17	0.59
1:F:350:ARG:HD3	1:F:353:ILE:HD12	1.84	0.59
1:L:499:VAL:CG2	1:L:500:THR:N	2.65	0.59
1:J:23:LEU:O	1:J:27:VAL:HG12	2.02	0.59
1:N:277:LYS:NZ	1:N:277:LYS:HB2	2.17	0.59
1:L:287:ALA:HB1	1:L:368:ARG:CZ	2.32	0.59
1:C:44:PHE:N	1:C:44:PHE:HD1	1.93	0.59
1:H:264:VAL:HA	1:H:267:MET:HG2	1.84	0.59
1:M:478:TYR:CE1	1:M:483:GLU:HA	2.37	0.59
1:L:37:ASN:H	1:L:37:ASN:HD22	1.50	0.59
1:I:264:VAL:HA	1:I:267:MET:HG2	1.84	0.59
1:C:28:LYS:O	1:C:30:THR:N	2.35	0.59
1:H:124:VAL:O	1:H:128:VAL:HG23	2.02	0.59
1:B:512:GLY:O	1:B:515:ILE:HG12	2.00	0.59
1:N:25:ASP:HA	1:N:28:LYS:HE2	1.84	0.59
1:N:270:ILE:HG22	1:N:271:VAL:N	2.17	0.59
2:S:20:LYS:HG2	2:S:27:LEU:CD2	2.32	0.59
1:L:228:SER:HA	1:L:255:GLU:HB2	1.84	0.59
1:C:266:THR:CG2	1:C:273:VAL:H	2.14	0.59
1:H:385:THR:O	1:H:389:MET:HB2	2.02	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:208:PRO:HB2	1:B:212:ALA:CB	2.33	0.59
1:B:44:PHE:N	1:B:44:PHE:HD1	1.95	0.59
2:P:50:GLU:O	2:P:52:GLY:N	2.35	0.59
1:M:216:GLU:OE1	1:M:216:GLU:HA	2.02	0.59
1:G:140:ASP:OD1	1:G:142:LYS:HB3	2.02	0.59
1:B:327:LYS:HD3	1:B:327:LYS:H	1.67	0.59
1:A:234:LEU:H	1:A:234:LEU:CD1	2.14	0.59
1:A:313:THR:N	1:A:316:ASP:OD2	2.35	0.59
1:H:314:LEU:H	1:H:314:LEU:CD1	2.06	0.59
1:G:229:ASN:C	1:G:231:ARG:H	2.06	0.59
2:O:17:VAL:CG1	2:O:34:LYS:HA	2.32	0.59
1:A:350:ARG:HA	1:A:353:ILE:HD12	1.84	0.59
1:K:146:GLN:O	1:K:150:ILE:HG13	2.02	0.59
1:N:31:LEU:HG	1:N:454:ILE:CD1	2.32	0.59
2:O:40:VAL:HG12	2:O:61:VAL:HA	1.84	0.59
1:F:486:GLY:HA3	1:F:491:MET:HE2	1.83	0.59
1:N:226:LYS:HG3	1:N:252:GLU:HB3	1.85	0.59
1:L:72:GLN:HE21	1:L:72:GLN:HA	1.68	0.59
1:I:504:LEU:O	1:I:504:LEU:HD22	2.02	0.59
1:F:218:PRO:HA	1:F:246:PRO:HG2	1.82	0.59
1:D:218:PRO:HA	1:D:246:PRO:HG2	1.83	0.59
1:C:259:LEU:O	1:C:263:VAL:HG23	2.03	0.59
1:N:313:THR:HG22	1:N:314:LEU:N	2.17	0.59
1:A:353:ILE:HG12	1:A:366:GLN:HE22	1.67	0.59
1:C:205:ILE:CD1	1:C:211:GLY:HA2	2.32	0.59
1:J:217:SER:N	1:J:218:PRO:HD3	2.17	0.59
1:K:383:ALA:CB	1:K:389:MET:HA	2.31	0.59
1:K:169:VAL:O	1:K:169:VAL:HG22	2.02	0.59
1:L:135:SER:HA	1:L:412:VAL:HG12	1.83	0.59
1:I:116:LEU:HD23	1:I:435:ASP:O	2.02	0.59
1:I:345:ARG:HA	1:I:348:GLN:NE2	2.18	0.59
1:C:84:ALA:HB2	1:C:506:TYR:HE2	1.68	0.59
1:D:325:ILE:HG13	1:D:330:THR:HG23	1.82	0.59
1:L:232:GLU:HA	1:L:310:GLU:HG2	1.84	0.59
1:E:247:LEU:O	1:E:273:VAL:HG13	2.02	0.59
1:E:326:ASN:ND2	1:E:328:ASP:H	1.99	0.59
1:M:313:THR:HG22	1:M:314:LEU:N	2.18	0.59
1:D:281:PHE:O	1:D:284:ARG:HB3	2.01	0.59
1:D:499:VAL:HG23	1:D:500:THR:N	2.17	0.59
1:F:348:GLN:NE2	1:F:352:GLN:NE2	2.49	0.59
1:N:324:VAL:C	1:N:325:ILE:HD12	2.22	0.59
1:G:54:VAL:HB	1:G:89:THR:HG21	1.83	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:O:43:VAL:HG23	2:O:61:VAL:HG22	1.84	0.59
1:B:94:VAL:HG12	1:B:449:ALA:HB1	1.84	0.59
1:J:175:ILE:HD13	1:J:404:ARG:NH2	2.18	0.59
1:I:358:SER:HB3	1:I:361:ASP:OD1	2.03	0.59
1:F:84:ALA:HB2	1:F:506:TYR:HE2	1.67	0.59
1:I:194:GLN:HG2	1:I:195:PHE:N	2.17	0.59
1:D:392:LYS:O	1:D:396:VAL:HG23	2.02	0.59
1:E:124:VAL:HG13	1:E:504:LEU:CD1	2.33	0.59
1:A:242:LYS:C	1:A:242:LYS:HD3	2.23	0.59
1:A:310:GLU:O	1:A:312:ALA:N	2.35	0.59
1:D:305:ILE:N	1:D:305:ILE:CD1	2.66	0.59
1:A:219:PHE:HB2	1:A:247:LEU:CD2	2.32	0.59
1:A:273:VAL:CG1	1:A:274:ALA:H	2.15	0.59
1:E:285:ARG:HG3	1:E:286:LYS:N	2.18	0.59
1:N:223:ALA:HB3	1:N:251:ALA:CB	2.25	0.59
1:H:31:LEU:HG	1:H:454:ILE:CD1	2.31	0.59
1:F:289:LEU:HD23	1:F:292:ILE:HD12	1.82	0.59
1:E:381:VAL:HG21	1:E:393:LYS:HA	1.85	0.59
1:N:365:LEU:O	1:N:369:VAL:HG23	2.02	0.59
1:D:25:ASP:HA	1:D:28:LYS:HE2	1.84	0.59
1:A:160:LYS:O	1:A:164:GLU:HG3	2.03	0.59
1:E:35:GLY:HA3	1:E:51:LYS:HE2	1.84	0.59
1:I:198:GLY:HA3	1:I:328:ASP:HA	1.85	0.59
1:K:384:ALA:O	1:L:281:PHE:HZ	1.85	0.59
1:G:19:GLY:HA3	1:G:67:GLU:O	2.02	0.59
1:G:214:GLU:HA	1:G:323:VAL:O	2.03	0.59
2:R:17:VAL:HG13	2:R:34:LYS:HA	1.84	0.59
1:K:422:VAL:O	1:K:426:LEU:HD23	2.02	0.59
1:A:339:GLU:H	1:A:339:GLU:CD	2.06	0.59
1:B:346:VAL:HG12	1:B:350:ARG:HH22	1.66	0.59
1:B:348:GLN:NE2	1:B:352:GLN:NE2	2.49	0.59
1:E:448:GLU:O	1:E:452:ARG:HG2	2.03	0.59
1:H:359:ASP:O	1:H:363:GLU:HB2	2.02	0.59
1:H:422:VAL:O	1:H:425:LYS:HB2	2.03	0.59
1:L:31:LEU:HG	1:L:454:ILE:HD11	1.84	0.59
1:I:161:LEU:H	1:I:161:LEU:CD1	2.16	0.59
2:S:11:ILE:HB	2:S:42:ALA:HB3	1.85	0.59
1:I:205:ILE:HD13	1:I:211:GLY:HA2	1.84	0.59
1:I:124:VAL:HG13	1:I:504:LEU:HD13	1.84	0.59
1:K:101:THR:O	1:K:105:LYS:HG3	2.01	0.59
1:A:387:VAL:HG13	1:G:76:GLU:OE1	2.03	0.59
1:G:322:ARG:CG	1:G:323:VAL:H	2.10	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:349:ILE:HG21	1:C:369:VAL:HG22	1.84	0.59
1:G:207:LYS:CB	1:G:208:PRO:HD3	2.30	0.59
1:B:77:VAL:HG12	1:B:510:VAL:HG21	1.84	0.59
1:E:302:SER:HB2	1:E:305:ILE:HD13	1.85	0.59
1:C:131:LEU:HD21	1:C:422:VAL:HG11	1.83	0.59
1:J:124:VAL:HG13	1:J:504:LEU:HD13	1.83	0.59
1:L:10:ASN:O	1:L:11:ASP:C	2.41	0.59
1:H:232:GLU:HA	1:H:310:GLU:CG	2.33	0.59
1:N:228:SER:HA	1:N:255:GLU:HB2	1.85	0.59
1:J:247:LEU:HB3	1:J:273:VAL:HG11	1.83	0.59
1:H:219:PHE:CE1	1:H:245:LYS:HB2	2.38	0.59
1:H:266:THR:CG2	1:H:273:VAL:H	2.16	0.59
1:H:266:THR:HB	1:H:272:LYS:HG3	1.84	0.59
1:A:215:LEU:O	1:A:322:ARG:HG3	2.03	0.59
1:G:253:ASP:CG	1:G:254:VAL:H	2.05	0.59
1:G:348:GLN:HE22	1:G:352:GLN:NE2	2.01	0.59
2:U:64:ILE:O	2:U:94:ILE:HG23	2.03	0.59
1:F:313:THR:N	1:F:316:ASP:OD2	2.32	0.59
1:H:17:LEU:O	1:H:20:VAL:HG13	2.03	0.59
1:J:217:SER:HA	1:J:320:ALA:O	2.03	0.59
1:K:149:THR:CG2	1:K:159:GLY:HA3	2.30	0.59
1:K:31:LEU:HG	1:K:454:ILE:HD11	1.85	0.59
1:B:278:ALA:HB1	1:B:279:PRO:HD3	1.84	0.59
1:M:277:LYS:HB2	1:M:277:LYS:HZ2	1.67	0.59
2:U:40:VAL:CG2	2:U:63:ASP:HB2	2.33	0.59
1:B:124:VAL:HG13	1:B:504:LEU:HD12	1.83	0.59
1:I:277:LYS:HB2	1:I:277:LYS:NZ	2.17	0.59
1:B:482:THR:OG1	1:B:484:GLU:HG2	2.02	0.59
1:B:266:THR:HG22	1:B:273:VAL:H	1.68	0.59
1:D:199:TYR:HE2	1:D:205:ILE:HG12	1.67	0.59
1:N:314:LEU:HD12	1:N:314:LEU:N	2.15	0.59
1:A:305:ILE:CG2	1:A:306:GLY:H	2.10	0.59
1:N:206:ASN:OD1	1:N:213:VAL:HA	2.03	0.59
1:B:360:TYR:HA	1:B:363:GLU:CD	2.23	0.59
1:F:16:MET:O	1:F:20:VAL:HG23	2.03	0.59
1:A:44:PHE:N	1:A:44:PHE:HD1	1.94	0.59
2:Q:6:LEU:O	2:Q:7:HIS:O	2.21	0.59
1:H:111:MET:HG2	1:H:435:ASP:OD1	2.02	0.59
1:A:177:VAL:HG11	1:A:397:GLU:CG	2.31	0.59
1:D:266:THR:HG22	1:D:273:VAL:H	1.68	0.58
1:A:237:LEU:CD2	2:O:26:VAL:HG22	2.29	0.58
1:A:219:PHE:CE2	1:A:245:LYS:HB2	2.38	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:231:ARG:O	1:K:234:LEU:HG	2.03	0.58
1:K:314:LEU:N	1:K:314:LEU:HD12	2.06	0.58
1:M:266:THR:CG2	1:M:273:VAL:H	2.16	0.58
1:C:295:LEU:O	1:C:337:GLY:HA3	2.02	0.58
1:F:455:VAL:HG12	1:F:460:GLU:O	2.03	0.58
1:H:123:ALA:HB2	1:H:440:ILE:HG23	1.85	0.58
1:A:499:VAL:CG2	1:A:500:THR:N	2.66	0.58
2:O:77:LYS:HG3	2:O:80:ASN:HA	1.85	0.58
1:B:346:VAL:CG1	1:B:350:ARG:HH22	2.16	0.58
1:L:217:SER:N	1:L:218:PRO:HD3	2.18	0.58
2:R:97:ALA:O	2:S:1:MET:HA	2.03	0.58
1:D:321:LYS:HB2	1:D:333:ILE:HB	1.85	0.58
1:L:232:GLU:HB3	1:L:309:LEU:CB	2.17	0.58
1:I:270:ILE:HG22	1:I:271:VAL:N	2.18	0.58
1:K:221:LEU:HD13	1:K:222:LEU:N	2.18	0.58
1:H:270:ILE:HG22	1:H:271:VAL:N	2.17	0.58
1:L:222:LEU:HD22	1:L:289:LEU:CD1	2.32	0.58
1:C:266:THR:HG22	1:C:273:VAL:H	1.67	0.58
1:J:314:LEU:HD12	1:J:314:LEU:N	2.05	0.58
1:K:499:VAL:HG23	1:K:500:THR:N	2.18	0.58
2:S:14:ARG:CG	2:S:15:LYS:H	2.15	0.58
1:B:350:ARG:O	1:B:354:GLU:HG2	2.02	0.58
1:B:130:GLU:O	1:B:133:ALA:HB3	2.03	0.58
1:H:282:GLY:O	1:H:285:ARG:HG2	2.02	0.58
1:F:288:MET:HA	1:F:291:ASP:OD2	2.03	0.58
1:C:177:VAL:HG11	1:C:397:GLU:HG2	1.84	0.58
1:F:472:GLY:HA3	1:F:476:TYR:HD2	1.68	0.58
1:H:124:VAL:HG13	1:H:504:LEU:CD1	2.33	0.58
2:T:7:HIS:O	2:T:8:ASP:HB3	2.02	0.58
1:A:84:ALA:HB2	1:A:506:TYR:HE2	1.68	0.58
1:G:84:ALA:HB2	1:G:506:TYR:HE2	1.68	0.58
1:G:180:GLY:CA	1:G:380:LYS:HB3	2.33	0.58
1:G:237:LEU:HD22	2:U:26:VAL:CG2	2.33	0.58
1:F:247:LEU:HD13	1:F:248:LEU:N	2.18	0.58
1:E:247:LEU:HD13	1:E:248:LEU:N	2.17	0.58
1:E:339:GLU:N	1:E:339:GLU:CD	2.57	0.58
1:K:219:PHE:HB3	1:K:317:LEU:HD23	1.85	0.58
1:G:357:THR:HB	1:G:361:ASP:CB	2.33	0.58
1:H:385:THR:HG23	1:H:388:GLU:H	1.68	0.58
1:K:415:GLY:N	1:K:417:VAL:HG23	2.16	0.58
1:A:281:PHE:O	1:A:285:ARG:HG2	2.03	0.58
1:B:16:MET:O	1:B:20:VAL:HG23	2.04	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:146:GLN:O	1:J:150:ILE:HG13	2.03	0.58
1:I:157:THR:O	1:I:161:LEU:CD1	2.51	0.58
1:C:177:VAL:HG11	1:C:397:GLU:CG	2.33	0.58
1:B:434:GLU:OE2	1:B:438:VAL:HG23	2.03	0.58
1:A:28:LYS:O	1:A:30:THR:N	2.36	0.58
1:C:233:MET:HE3	1:C:236:VAL:HB	1.83	0.58
1:L:149:THR:HG23	1:L:159:GLY:CA	2.28	0.58
1:L:107:VAL:HG23	1:L:108:ALA:H	1.67	0.58
2:O:84:LEU:N	2:O:84:LEU:HD12	2.18	0.58
1:F:285:ARG:HG3	1:F:286:LYS:H	1.68	0.58
1:J:161:LEU:H	1:J:161:LEU:HD12	1.68	0.58
2:S:50:GLU:OE1	2:T:50:GLU:HA	2.02	0.58
1:I:263:VAL:O	1:I:267:MET:HG2	2.03	0.58
1:A:475:ASN:N	1:A:475:ASN:HD22	2.01	0.58
1:D:242:LYS:HD3	1:D:242:LYS:C	2.24	0.58
1:H:487:ASN:HB3	1:H:490:ASP:HB2	1.85	0.58
1:E:434:GLU:O	1:E:435:ASP:C	2.42	0.58
2:P:18:GLU:CD	2:P:33:ALA:HB3	2.24	0.58
1:D:229:ASN:C	1:D:231:ARG:H	2.07	0.58
1:F:308:GLU:H	1:F:311:LYS:HB3	1.68	0.58
1:A:273:VAL:CG1	1:A:274:ALA:N	2.67	0.58
1:A:18:ARG:HH11	1:A:18:ARG:CB	2.04	0.58
1:C:219:PHE:HB2	1:C:247:LEU:CD2	2.33	0.58
1:G:342:ILE:O	1:G:346:VAL:HG23	2.04	0.58
1:M:358:SER:O	1:M:362:ARG:HB2	2.03	0.58
2:U:7:HIS:O	2:U:8:ASP:HB3	2.02	0.58
1:L:193:MET:HB3	1:L:332:ILE:HD11	1.86	0.58
1:J:149:THR:HG22	1:J:156:GLU:HA	1.85	0.58
2:T:20:LYS:HG2	2:T:27:LEU:HD23	1.86	0.58
1:I:303:GLU:C	1:I:305:ILE:H	2.05	0.58
1:E:72:GLN:NE2	1:E:72:GLN:HA	2.18	0.58
1:D:512:GLY:O	1:D:515:ILE:HG12	2.03	0.58
1:G:310:GLU:O	1:G:312:ALA:N	2.36	0.58
1:E:292:ILE:O	1:E:295:LEU:HB3	2.02	0.58
1:L:230:ILE:CD1	1:L:257:GLU:HG2	2.33	0.58
1:J:360:TYR:O	1:J:364:LYS:HB2	2.04	0.58
1:K:219:PHE:CE1	1:K:245:LYS:HB2	2.39	0.58
1:C:221:LEU:HD13	1:C:317:LEU:CD2	2.33	0.58
1:J:221:LEU:HD13	1:J:222:LEU:N	2.18	0.58
1:J:299:THR:HB	1:J:316:ASP:HB3	1.86	0.58
1:A:327:LYS:HD3	1:A:327:LYS:H	1.69	0.58
2:Q:17:VAL:HG13	2:Q:34:LYS:HA	1.84	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:S:47:ARG:HG2	2:S:49:LEU:H	1.68	0.58
1:L:195:PHE:CE1	1:L:330:THR:HB	2.38	0.58
1:C:299:THR:HB	1:C:316:ASP:HB3	1.85	0.58
1:F:177:VAL:HG11	1:F:397:GLU:CG	2.34	0.58
1:D:80:LYS:HD2	1:D:506:TYR:CZ	2.38	0.58
1:A:80:LYS:HD2	1:A:506:TYR:CZ	2.39	0.58
1:E:434:GLU:OE2	1:E:438:VAL:HG23	2.03	0.58
1:I:392:LYS:O	1:I:396:VAL:HG23	2.04	0.58
1:K:282:GLY:O	1:K:285:ARG:HG2	2.04	0.58
1:C:124:VAL:HG13	1:C:504:LEU:CD1	2.33	0.58
1:G:264:VAL:HA	1:G:267:MET:HB2	1.85	0.58
1:F:273:VAL:CG1	1:F:274:ALA:H	2.15	0.58
1:E:246:PRO:HA	1:E:272:LYS:O	2.04	0.58
1:J:233:MET:CE	1:J:309:LEU:HD13	2.34	0.58
1:J:219:PHE:HB2	1:J:247:LEU:HD23	1.85	0.58
1:G:266:THR:CG2	1:G:273:VAL:H	2.17	0.58
1:G:199:TYR:CA	1:G:276:VAL:HG12	2.29	0.58
1:D:279:PRO:HD2	1:D:285:ARG:HA	1.85	0.58
1:H:69:MET:HE2	1:H:522:THR:HB	1.84	0.58
1:M:386:GLU:O	1:M:389:MET:HB3	2.04	0.58
1:K:191:GLU:O	1:K:334:ASP:HA	2.04	0.58
1:N:247:LEU:HD22	1:N:248:LEU:N	2.19	0.58
1:L:193:MET:HG2	1:L:194:GLN:N	2.18	0.58
1:D:82:ASN:HD22	1:D:86:GLY:HA2	1.68	0.58
1:E:162:ILE:HG21	1:E:403:THR:HG21	1.86	0.58
1:M:221:LEU:HD13	1:M:222:LEU:N	2.19	0.58
1:L:231:ARG:O	1:L:234:LEU:HG	2.04	0.58
1:B:253:ASP:CG	1:B:254:VAL:H	2.07	0.58
1:B:199:TYR:CZ	1:B:202:PRO:HA	2.38	0.58
1:H:228:SER:O	1:H:257:GLU:HB3	2.04	0.58
1:F:234:LEU:HD12	1:F:234:LEU:N	2.15	0.58
1:J:236:VAL:HG23	1:J:237:LEU:H	1.69	0.58
1:A:206:ASN:H	1:A:213:VAL:HA	1.68	0.58
1:A:253:ASP:CG	1:A:254:VAL:H	2.07	0.58
1:D:499:VAL:CG2	1:D:500:THR:N	2.66	0.58
1:M:17:LEU:O	1:M:20:VAL:HG13	2.04	0.58
1:C:213:VAL:O	1:C:324:VAL:HA	2.04	0.58
1:D:227:ILE:HD12	1:D:227:ILE:N	2.18	0.58
1:H:367:GLU:O	1:H:370:ALA:HB3	2.04	0.58
2:U:57:LEU:HD22	2:U:88:GLU:HB2	1.85	0.58
2:U:6:LEU:O	2:U:7:HIS:O	2.20	0.58
1:H:415:GLY:N	1:H:417:VAL:HG23	2.17	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:215:LEU:C	1:D:322:ARG:HG3	2.23	0.58
1:G:18:ARG:O	1:G:22:VAL:HG23	2.04	0.58
1:D:304:GLU:HB2	1:D:305:ILE:HD12	1.84	0.58
1:F:232:GLU:O	1:F:233:MET:HB3	2.02	0.58
1:K:233:MET:CE	1:K:309:LEU:HD13	2.34	0.58
1:M:247:LEU:C	1:M:247:LEU:HD13	2.24	0.58
1:D:232:GLU:O	1:D:233:MET:HB3	2.03	0.58
1:G:293:ALA:HB1	1:G:298:GLY:O	2.04	0.58
1:A:206:ASN:HB3	1:A:214:GLU:H	1.69	0.58
1:A:215:LEU:C	1:A:322:ARG:HG3	2.24	0.58
1:G:266:THR:HG22	1:G:271:VAL:O	2.03	0.58
1:F:365:LEU:O	1:F:369:VAL:HG23	2.04	0.58
1:I:146:GLN:HE21	1:I:150:ILE:HD11	1.68	0.58
1:C:147:VAL:O	1:C:150:ILE:HG22	2.04	0.58
1:C:418:ALA:O	1:C:422:VAL:HG13	2.04	0.58
1:B:146:GLN:HE21	1:B:494:LEU:HD11	1.68	0.58
2:T:50:GLU:O	2:T:52:GLY:N	2.36	0.58
1:F:147:VAL:O	1:F:150:ILE:HG22	2.04	0.58
1:A:351:GLN:HG2	1:B:210:THR:OG1	2.04	0.58
1:E:174:VAL:HG21	1:E:367:GLU:HA	1.86	0.58
1:B:249:ILE:HB	1:B:275:ALA:HB2	1.85	0.58
1:F:230:ILE:O	1:F:232:GLU:N	2.37	0.58
1:C:18:ARG:HB2	1:C:67:GLU:HG2	1.86	0.58
1:E:248:LEU:C	1:E:249:ILE:HD12	2.25	0.58
1:M:219:PHE:CE1	1:M:245:LYS:HD2	2.39	0.58
1:D:237:LEU:C	1:D:237:LEU:HD23	2.24	0.58
1:M:230:ILE:CD1	1:M:230:ILE:H	1.97	0.58
1:H:226:LYS:HD2	1:H:252:GLU:HG3	1.86	0.58
1:A:285:ARG:HG3	1:A:286:LYS:H	1.69	0.58
1:J:123:ALA:HB2	1:J:440:ILE:HG23	1.86	0.58
1:N:413:ALA:CB	1:N:417:VAL:HB	2.34	0.58
1:L:205:ILE:HD13	1:L:211:GLY:CA	2.34	0.58
1:G:44:PHE:N	1:G:44:PHE:HD1	1.94	0.58
1:A:227:ILE:HG22	1:A:227:ILE:O	2.03	0.58
2:Q:86:MET:HB2	2:Q:90:ASP:OD2	2.04	0.58
1:E:177:VAL:HG11	1:E:397:GLU:HG2	1.86	0.58
1:M:415:GLY:N	1:M:417:VAL:HG23	2.18	0.58
1:M:221:LEU:HD13	1:M:223:ALA:H	1.67	0.58
1:E:351:GLN:HG2	1:F:210:THR:OG1	2.04	0.58
1:C:232:GLU:O	1:C:233:MET:HB3	2.03	0.57
1:B:234:LEU:HD12	1:B:234:LEU:N	2.17	0.57
1:E:366:GLN:O	1:E:369:VAL:HB	2.03	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:222:LEU:N	1:G:222:LEU:HD12	2.19	0.57
1:J:64:ASP:OD1	1:J:65:LYS:O	2.21	0.57
1:D:278:ALA:HB1	1:D:279:PRO:HD2	1.86	0.57
1:J:39:VAL:HG22	1:J:49:ILE:HG12	1.85	0.57
1:K:434:GLU:HA	1:K:437:ASN:HD22	1.67	0.57
1:J:385:THR:O	1:J:389:MET:HB2	2.04	0.57
1:H:161:LEU:H	1:H:161:LEU:HD12	1.69	0.57
1:J:160:LYS:HG2	1:J:164:GLU:OE2	2.03	0.57
2:O:50:GLU:HA	2:U:50:GLU:OE1	2.03	0.57
1:H:302:SER:HB2	1:H:305:ILE:CD1	2.34	0.57
1:F:403:THR:O	1:F:407:VAL:HG23	2.03	0.57
1:M:10:ASN:O	1:M:11:ASP:C	2.42	0.57
1:J:235:PRO:HG2	1:J:236:VAL:H	1.69	0.57
1:J:221:LEU:HD12	1:J:249:ILE:HG23	1.86	0.57
1:I:32:GLY:CA	1:I:454:ILE:HG23	2.32	0.57
1:B:418:ALA:O	1:B:422:VAL:HG13	2.04	0.57
1:B:285:ARG:HG3	1:B:286:LYS:H	1.69	0.57
1:C:227:ILE:HD12	1:C:227:ILE:N	2.19	0.57
1:C:414:GLY:HA2	1:C:495:ASP:OD2	2.04	0.57
1:J:166:MET:CE	1:J:171:LYS:HA	2.33	0.57
1:L:264:VAL:HA	1:L:267:MET:CG	2.33	0.57
1:E:381:VAL:CG1	1:E:392:LYS:CG	2.81	0.57
1:K:214:GLU:HA	1:K:324:VAL:HG12	1.84	0.57
1:K:324:VAL:C	1:K:325:ILE:HD12	2.24	0.57
1:D:124:VAL:HG13	1:D:504:LEU:CD1	2.33	0.57
1:C:29:VAL:HG23	1:C:30:THR:HG23	1.86	0.57
1:L:472:GLY:HA3	1:L:476:TYR:CD2	2.39	0.57
1:D:29:VAL:HG23	1:D:30:THR:HG23	1.87	0.57
1:B:96:ALA:O	1:B:97:GLN:C	2.42	0.57
1:K:291:ASP:O	1:K:294:THR:HB	2.04	0.57
1:L:475:ASN:ND2	1:L:489:ILE:HD12	2.18	0.57
1:E:248:LEU:HD13	1:E:249:ILE:N	2.18	0.57
1:E:266:THR:CG2	1:E:273:VAL:H	2.17	0.57
1:L:367:GLU:O	1:L:370:ALA:HB3	2.05	0.57
1:G:326:ASN:ND2	1:G:328:ASP:N	2.52	0.57
1:N:422:VAL:O	1:N:425:LYS:HB2	2.04	0.57
1:M:66:PHE:HD1	1:M:520:MET:HE2	1.69	0.57
1:H:27:VAL:HG11	1:H:93:THR:HG21	1.87	0.57
1:G:417:VAL:HG13	1:G:418:ALA:N	2.20	0.57
1:F:199:TYR:CA	1:F:276:VAL:HG12	2.32	0.57
1:F:130:GLU:O	1:F:134:LEU:HD13	2.05	0.57
1:B:287:ALA:O	1:B:290:GLN:NE2	2.36	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:281:PHE:O	1:K:284:ARG:NH1	2.37	0.57
1:F:372:LEU:O	1:F:373:ALA:HB2	2.03	0.57
2:S:5:PRO:HD3	2:S:42:ALA:CB	2.34	0.57
1:M:478:TYR:HB2	1:M:485:TYR:CE2	2.39	0.57
1:N:400:LEU:HD23	1:N:400:LEU:C	2.24	0.57
1:E:5:ASP:HB2	1:E:524:LEU:HD23	1.86	0.57
1:E:409:GLU:CD	1:E:501:ARG:HH21	2.08	0.57
1:G:35:GLY:HA3	1:G:51:LYS:HE2	1.86	0.57
1:B:259:LEU:O	1:B:263:VAL:HG23	2.04	0.57
1:B:322:ARG:CG	1:B:323:VAL:H	2.11	0.57
1:F:266:THR:CG2	1:F:273:VAL:H	2.18	0.57
1:E:218:PRO:HA	1:E:246:PRO:HG2	1.85	0.57
1:E:265:ASN:HB3	1:E:271:VAL:HG22	1.87	0.57
1:L:227:ILE:O	1:L:254:VAL:HA	2.04	0.57
1:J:356:ALA:CB	1:J:362:ARG:HE	2.07	0.57
1:G:219:PHE:CE2	1:G:245:LYS:HB2	2.39	0.57
1:A:289:LEU:N	1:A:290:GLN:OE1	2.33	0.57
1:A:288:MET:HA	1:A:291:ASP:OD2	2.04	0.57
1:F:199:TYR:CZ	1:F:202:PRO:HA	2.39	0.57
1:K:218:PRO:HB3	1:K:246:PRO:C	2.25	0.57
1:J:478:TYR:CE1	1:J:483:GLU:HA	2.40	0.57
1:F:475:ASN:HD22	1:F:475:ASN:N	2.02	0.57
1:D:224:ASP:HB2	1:D:303:GLU:HB3	1.87	0.57
1:D:228:SER:O	1:D:257:GLU:HB3	2.04	0.57
1:H:256:GLY:O	1:H:260:ALA:N	2.37	0.57
1:F:309:LEU:HD12	1:F:309:LEU:H	1.70	0.57
1:A:229:ASN:C	1:A:231:ARG:H	2.06	0.57
1:E:249:ILE:HB	1:E:275:ALA:HB2	1.86	0.57
1:A:290:GLN:OE1	1:A:290:GLN:N	2.37	0.57
1:D:285:ARG:HG3	1:D:286:LYS:N	2.20	0.57
1:B:290:GLN:N	1:B:290:GLN:OE1	2.37	0.57
1:E:308:GLU:HB2	1:E:311:LYS:HB2	1.87	0.57
1:G:472:GLY:HA3	1:G:476:TYR:HD2	1.68	0.57
1:K:263:VAL:O	1:K:267:MET:HG2	2.04	0.57
1:E:404:ARG:HG3	1:E:404:ARG:HH11	1.69	0.57
1:L:303:GLU:C	1:L:305:ILE:H	2.08	0.57
1:G:310:GLU:H	1:G:310:GLU:CD	2.07	0.57
1:D:259:LEU:O	1:D:262:LEU:HB3	2.05	0.57
1:C:18:ARG:O	1:C:22:VAL:HG23	2.04	0.57
1:K:362:ARG:HB3	1:K:362:ARG:NH1	2.19	0.57
1:E:327:LYS:HD3	1:E:327:LYS:H	1.68	0.57
1:C:365:LEU:O	1:C:369:VAL:HG23	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:235:PRO:HG2	1:M:236:VAL:H	1.70	0.57
1:A:325:ILE:HG13	1:A:330:THR:HG23	1.86	0.57
1:G:280:GLY:HA3	1:G:284:ARG:HH11	1.69	0.57
2:U:20:LYS:HG2	2:U:27:LEU:CD2	2.34	0.57
2:R:47:ARG:HB3	2:R:55:LYS:HG2	1.87	0.57
1:A:289:LEU:O	1:A:292:ILE:HB	2.04	0.57
1:J:66:PHE:HA	1:J:520:MET:HE1	1.87	0.57
1:I:31:LEU:HG	1:I:454:ILE:CD1	2.34	0.57
1:L:284:ARG:CB	1:L:284:ARG:HH11	2.15	0.57
1:K:433:ASN:HD22	1:K:434:GLU:N	2.02	0.57
1:D:227:ILE:HG22	1:D:227:ILE:O	2.04	0.57
1:H:494:LEU:HD23	1:H:494:LEU:H	1.67	0.57
1:L:32:GLY:HA3	1:L:454:ILE:HG23	1.87	0.57
1:I:96:ALA:O	1:I:100:ILE:HG13	2.05	0.57
1:M:160:LYS:HG2	1:M:164:GLU:OE2	2.04	0.57
1:K:34:LYS:HB2	1:K:458:CYS:SG	2.44	0.57
1:D:107:VAL:HG13	1:D:113:PRO:HG3	1.85	0.57
1:G:223:ALA:HB3	1:G:251:ALA:HB2	1.85	0.57
1:D:194:GLN:NE2	1:D:329:THR:HG21	2.20	0.57
1:C:233:MET:CA	1:C:310:GLU:HG3	2.21	0.57
1:B:299:THR:HB	1:B:316:ASP:HB3	1.86	0.57
1:C:288:MET:O	1:C:289:LEU:HG	2.04	0.57
1:C:346:VAL:HG12	1:C:350:ARG:NH2	2.18	0.57
1:C:207:LYS:HB2	1:C:207:LYS:NZ	2.20	0.57
1:D:350:ARG:O	1:D:353:ILE:HB	2.05	0.57
1:K:161:LEU:CD1	1:K:161:LEU:H	2.17	0.57
1:E:52:ASP:OD1	1:E:54:VAL:HG12	2.04	0.57
1:C:472:GLY:HA3	1:C:476:TYR:HD2	1.70	0.57
1:N:478:TYR:HB2	1:N:485:TYR:CD2	2.40	0.57
1:J:34:LYS:HB2	1:J:458:CYS:SG	2.44	0.57
1:H:138:CYS:SG	1:H:144:ILE:HD13	2.45	0.57
1:C:215:LEU:C	1:C:322:ARG:HG3	2.24	0.57
1:B:236:VAL:O	1:B:239:ALA:HB3	2.05	0.57
1:G:281:PHE:O	1:G:284:ARG:HB3	2.05	0.57
1:E:314:LEU:HD12	1:E:314:LEU:C	2.25	0.57
1:A:130:GLU:O	1:A:134:LEU:HD13	2.04	0.57
1:C:144:ILE:O	1:C:147:VAL:HG22	2.05	0.57
1:H:499:VAL:CG2	1:H:500:THR:N	2.68	0.57
1:H:215:LEU:CB	1:H:218:PRO:HG2	2.35	0.57
2:O:5:PRO:CD	2:O:42:ALA:HB1	2.33	0.57
1:H:216:GLU:OE1	1:H:216:GLU:HA	2.05	0.57
1:J:386:GLU:HG2	1:J:390:LYS:HE2	1.86	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:392:LYS:O	1:H:396:VAL:HG23	2.05	0.57
1:L:55:SER:HA	1:L:58:ARG:NH1	2.20	0.57
1:M:193:MET:HG2	1:M:194:GLN:N	2.19	0.57
1:D:245:LYS:HA	1:D:245:LYS:CE	2.32	0.57
1:A:249:ILE:HB	1:A:275:ALA:HB2	1.86	0.57
1:K:247:LEU:HD22	1:K:248:LEU:N	2.20	0.57
1:M:248:LEU:HD22	1:M:249:ILE:N	2.18	0.57
1:M:233:MET:HA	1:M:233:MET:HE2	1.87	0.57
1:G:247:LEU:HB3	1:G:273:VAL:HG13	1.87	0.57
1:G:266:THR:HG22	1:G:273:VAL:H	1.69	0.57
1:A:357:THR:HB	1:A:361:ASP:CB	2.35	0.57
1:M:31:LEU:HG	1:M:454:ILE:CD1	2.35	0.57
1:G:487:ASN:OD1	1:G:489:ILE:N	2.36	0.57
1:H:171:LYS:HD3	1:H:407:VAL:CG1	2.35	0.57
1:E:456:LEU:HD13	1:E:462:PRO:CG	2.34	0.57
1:B:291:ASP:HB2	1:B:372:LEU:HD21	1.85	0.57
1:I:147:VAL:HA	1:I:150:ILE:HD12	1.87	0.57
1:C:417:VAL:HA	1:C:420:ILE:HG22	1.86	0.57
1:E:123:ALA:CB	1:E:440:ILE:HG23	2.34	0.57
1:B:450:PRO:O	1:B:454:ILE:HG13	2.05	0.57
2:P:6:LEU:O	2:P:7:HIS:O	2.23	0.57
1:M:203:TYR:HB2	1:M:263:VAL:HG13	1.85	0.57
1:K:411:VAL:HG21	1:K:494:LEU:HD12	1.86	0.57
1:H:124:VAL:HG13	1:H:504:LEU:HD11	1.87	0.57
1:L:336:VAL:O	1:L:336:VAL:HG12	2.05	0.57
1:G:23:LEU:HD13	1:G:23:LEU:C	2.25	0.57
1:F:96:ALA:O	1:F:97:GLN:C	2.43	0.57
1:I:406:ALA:O	1:I:410:GLY:N	2.36	0.57
1:M:202:PRO:C	1:M:204:PHE:H	2.08	0.57
1:B:273:VAL:CG1	1:B:274:ALA:N	2.67	0.57
1:F:237:LEU:HD23	1:F:237:LEU:C	2.25	0.57
1:A:266:THR:CG2	1:A:273:VAL:H	2.17	0.57
1:E:200:LEU:N	1:E:200:LEU:HD12	2.20	0.57
1:E:350:ARG:HD3	1:E:353:ILE:HD12	1.86	0.57
1:C:278:ALA:HB1	1:C:279:PRO:HD3	1.85	0.57
2:Q:20:LYS:HG2	2:Q:27:LEU:CD2	2.35	0.57
1:K:413:ALA:HB1	1:K:417:VAL:HB	1.85	0.57
1:M:31:LEU:HG	1:M:454:ILE:HD11	1.86	0.57
1:D:286:LYS:HA	1:D:289:LEU:HD12	1.87	0.57
1:K:64:ASP:OD1	1:K:65:LYS:O	2.22	0.57
2:S:17:VAL:HG13	2:S:34:LYS:CA	2.34	0.57
1:G:456:LEU:HD13	1:G:462:PRO:HG2	1.87	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:S:6:LEU:O	2:S:7:HIS:O	2.21	0.57
1:H:281:PHE:HZ	1:N:384:ALA:O	1.88	0.57
1:N:55:SER:HA	1:N:58:ARG:NH1	2.20	0.57
2:Q:59:VAL:O	2:Q:59:VAL:HG23	2.05	0.57
1:N:138:CYS:SG	1:N:144:ILE:HD13	2.45	0.57
1:D:240:VAL:O	1:D:244:GLY:N	2.35	0.57
1:D:272:LYS:HB2	1:D:272:LYS:NZ	2.20	0.56
1:B:333:ILE:O	1:B:334:ASP:HB2	2.05	0.56
1:N:222:LEU:HD22	1:N:289:LEU:HD11	1.87	0.56
1:C:247:LEU:HD13	1:C:248:LEU:N	2.19	0.56
1:A:206:ASN:HB2	1:A:214:GLU:H	1.70	0.56
1:N:314:LEU:CD1	1:N:314:LEU:H	2.14	0.56
1:A:350:ARG:O	1:A:354:GLU:HG2	2.04	0.56
1:L:27:VAL:HG11	1:L:93:THR:HG21	1.87	0.56
1:H:351:GLN:O	1:H:354:GLU:N	2.34	0.56
1:K:284:ARG:CB	1:K:284:ARG:HH11	2.17	0.56
1:A:510:VAL:HG23	1:A:511:ALA:H	1.68	0.56
1:A:510:VAL:CG2	1:A:511:ALA:N	2.68	0.56
1:F:450:PRO:O	1:F:454:ILE:HG13	2.05	0.56
1:F:227:ILE:HG22	1:F:227:ILE:O	2.05	0.56
1:A:177:VAL:CG1	1:A:397:GLU:HG2	2.35	0.56
2:T:86:MET:HB2	2:T:90:ASP:OD2	2.05	0.56
1:L:55:SER:O	1:L:58:ARG:HB3	2.05	0.56
1:M:226:LYS:HD2	1:M:252:GLU:HG3	1.86	0.56
1:N:339:GLU:O	1:N:343:GLN:HG2	2.04	0.56
1:B:219:PHE:HD1	1:B:319:GLN:NE2	2.02	0.56
1:A:232:GLU:O	1:A:233:MET:HB3	2.05	0.56
1:K:247:LEU:HD22	1:K:248:LEU:H	1.70	0.56
1:C:252:GLU:O	1:C:253:ASP:HB2	2.04	0.56
1:C:295:LEU:C	1:C:295:LEU:HD23	2.26	0.56
1:C:368:ARG:HD2	1:C:372:LEU:HD11	1.87	0.56
1:H:248:LEU:HD22	1:H:249:ILE:H	1.69	0.56
1:I:362:ARG:NH1	1:I:362:ARG:HB3	2.21	0.56
1:G:266:THR:HA	1:G:271:VAL:O	2.05	0.56
1:A:348:GLN:NE2	1:A:352:GLN:HE21	2.04	0.56
1:G:134:LEU:O	1:G:136:VAL:HG13	2.04	0.56
1:J:434:GLU:HA	1:J:437:ASN:HD22	1.69	0.56
2:U:77:LYS:HG3	2:U:80:ASN:HA	1.87	0.56
1:E:232:GLU:O	1:E:233:MET:HB3	2.05	0.56
1:E:308:GLU:H	1:E:311:LYS:HB3	1.70	0.56
1:E:311:LYS:O	1:E:312:ALA:HB2	2.05	0.56
1:H:419:LEU:HD21	1:H:500:THR:HG23	1.87	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:146:GLN:O	1:L:150:ILE:HG13	2.04	0.56
1:N:161:LEU:CD1	1:N:161:LEU:H	2.18	0.56
1:E:25:ASP:HA	1:E:28:LYS:HE2	1.87	0.56
1:D:475:ASN:HD22	1:D:475:ASN:N	2.03	0.56
1:N:421:ARG:HD2	1:N:474:GLY:O	2.05	0.56
1:D:326:ASN:ND2	1:D:328:ASP:H	2.03	0.56
1:C:304:GLU:HB2	1:C:305:ILE:HD12	1.86	0.56
1:B:327:LYS:N	1:B:327:LYS:HD3	2.21	0.56
1:F:266:THR:HG22	1:F:273:VAL:H	1.70	0.56
1:A:265:ASN:OD1	2:O:27:LEU:HB3	2.06	0.56
1:C:218:PRO:HA	1:C:246:PRO:HG2	1.87	0.56
1:E:19:GLY:HA3	1:E:67:GLU:O	2.05	0.56
1:J:264:VAL:HA	1:J:267:MET:CG	2.36	0.56
1:K:219:PHE:HB2	1:K:247:LEU:HD23	1.85	0.56
1:L:362:ARG:HB3	1:L:362:ARG:HH11	1.71	0.56
2:R:47:ARG:HG2	2:R:49:LEU:H	1.69	0.56
1:D:342:ILE:O	1:D:346:VAL:HG23	2.05	0.56
1:D:368:ARG:HG2	1:D:372:LEU:CG	2.36	0.56
2:T:55:LYS:H	2:T:55:LYS:HE3	1.70	0.56
1:N:383:ALA:CB	1:N:389:MET:HA	2.35	0.56
1:L:385:THR:HG23	1:L:388:GLU:HB3	1.85	0.56
2:Q:78:ILE:HD13	2:Q:83:VAL:CG2	2.34	0.56
1:D:418:ALA:O	1:D:422:VAL:HG13	2.06	0.56
1:F:368:ARG:HG2	1:F:372:LEU:CG	2.35	0.56
1:N:499:VAL:CG2	1:N:500:THR:N	2.67	0.56
1:N:266:THR:HG22	1:N:272:LYS:HA	1.88	0.56
2:U:40:VAL:HG23	2:U:63:ASP:O	2.05	0.56
1:N:169:VAL:HG22	1:N:169:VAL:O	2.05	0.56
1:D:150:ILE:HD11	4:D:1:ADP:N7	2.20	0.56
1:F:381:VAL:CG1	1:F:392:LYS:HG3	2.36	0.56
1:L:54:VAL:HG22	1:L:89:THR:HG21	1.88	0.56
1:I:166:MET:CE	1:I:171:LYS:HA	2.35	0.56
1:I:30:THR:HB	1:I:51:LYS:O	2.05	0.56
2:Q:12:VAL:HG12	2:Q:40:VAL:HA	1.86	0.56
1:I:432:GLN:OE1	1:I:432:GLN:N	2.38	0.56
1:C:517:THR:HG23	1:D:39:VAL:HG23	1.87	0.56
1:C:4:LYS:HG3	1:D:59:GLU:O	2.05	0.56
1:B:241:ALA:HA	1:B:271:VAL:HG12	1.88	0.56
1:D:256:GLY:O	1:D:257:GLU:C	2.43	0.56
1:A:219:PHE:O	1:A:247:LEU:HD22	2.05	0.56
1:J:356:ALA:HB1	1:J:362:ARG:NE	2.08	0.56
1:J:256:GLY:HA2	1:J:259:LEU:HB3	1.86	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:248:LEU:HD13	1:H:249:ILE:N	2.21	0.56
1:H:317:LEU:HD12	1:H:317:LEU:N	2.20	0.56
1:A:324:VAL:C	1:A:325:ILE:HD12	2.24	0.56
1:I:499:VAL:CG2	1:I:500:THR:N	2.69	0.56
1:J:350:ARG:HE	1:J:369:VAL:HG11	1.70	0.56
2:S:48:ILE:HG22	2:S:48:ILE:O	2.05	0.56
1:L:428:ASP:O	1:L:429:LEU:C	2.44	0.56
1:K:200:LEU:N	1:K:200:LEU:HD12	2.21	0.56
1:I:193:MET:HG2	1:I:194:GLN:N	2.18	0.56
1:G:41:ASP:O	1:G:42:LYS:HG3	2.06	0.56
1:A:237:LEU:C	1:A:237:LEU:HD23	2.26	0.56
1:E:296:THR:HG22	1:E:335:GLY:CA	2.24	0.56
1:L:262:LEU:HA	1:L:265:ASN:HB3	1.88	0.56
1:C:229:ASN:HA	1:C:257:GLU:OE2	2.06	0.56
1:I:317:LEU:HD12	1:I:317:LEU:N	2.20	0.56
1:H:284:ARG:HH11	1:H:284:ARG:CB	2.14	0.56
1:J:284:ARG:CB	1:J:284:ARG:HH11	2.15	0.56
1:B:339:GLU:HB3	1:B:343:GLN:OE1	2.05	0.56
1:B:289:LEU:N	1:B:290:GLN:OE1	2.37	0.56
1:N:124:VAL:HG13	1:N:504:LEU:HD11	1.84	0.56
1:E:411:VAL:HA	1:E:497:THR:H	1.68	0.56
1:N:247:LEU:HB3	1:N:273:VAL:HG11	1.87	0.56
1:K:302:SER:HB2	1:K:305:ILE:HD12	1.87	0.56
1:I:197:ARG:HG3	1:I:277:LYS:NZ	2.20	0.56
1:F:404:ARG:HH11	1:F:404:ARG:HG3	1.71	0.56
1:J:400:LEU:C	1:J:400:LEU:HD23	2.25	0.56
1:A:433:ASN:OD1	1:A:436:GLN:HB2	2.05	0.56
1:F:272:LYS:HB2	1:F:272:LYS:NZ	2.20	0.56
1:D:327:LYS:HD3	1:D:327:LYS:N	2.21	0.56
1:A:309:LEU:H	1:A:309:LEU:HD12	1.70	0.56
1:E:278:ALA:HB1	1:E:279:PRO:HD2	1.86	0.56
1:J:229:ASN:HD21	1:J:231:ARG:HH12	1.52	0.56
1:J:264:VAL:HA	1:J:267:MET:HG2	1.87	0.56
1:C:346:VAL:CG1	1:C:350:ARG:HH22	2.16	0.56
2:Q:20:LYS:HG3	2:Q:28:THR:O	2.05	0.56
1:J:247:LEU:N	1:J:273:VAL:HG12	2.20	0.56
1:C:208:PRO:HB2	1:C:212:ALA:HB3	1.85	0.56
1:E:455:VAL:HG12	1:E:460:GLU:O	2.05	0.56
1:A:52:ASP:OD1	1:A:54:VAL:HG12	2.05	0.56
1:I:353:ILE:HD11	1:I:369:VAL:HG21	1.87	0.56
1:I:155:ASP:OD1	1:I:158:VAL:HG23	2.05	0.56
2:P:43:VAL:HG13	2:P:57:LEU:HD12	1.87	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:R:68:ASN:ND2	2:S:74:LYS:HE3	2.20	0.56
1:L:506:TYR:O	1:L:509:SER:HB3	2.05	0.56
2:Q:97:ALA:O	2:R:1:MET:HA	2.04	0.56
1:G:232:GLU:O	1:G:233:MET:HB3	2.06	0.56
1:D:247:LEU:HD13	1:D:248:LEU:N	2.20	0.56
1:E:219:PHE:O	1:E:247:LEU:HD22	2.06	0.56
2:S:20:LYS:HG3	2:S:28:THR:O	2.06	0.56
1:N:235:PRO:HG2	1:N:236:VAL:H	1.70	0.56
1:E:208:PRO:O	1:E:212:ALA:HB3	2.06	0.56
1:J:426:LEU:CD2	1:J:426:LEU:H	2.09	0.56
1:I:169:VAL:CG1	1:I:173:GLY:HA3	2.34	0.56
1:I:221:LEU:C	1:I:221:LEU:HD13	2.26	0.56
1:M:264:VAL:HA	1:M:267:MET:CG	2.35	0.56
1:D:489:ILE:HD12	1:D:494:LEU:HD22	1.86	0.56
1:N:134:LEU:HD11	1:N:475:ASN:OD1	2.06	0.56
1:A:65:LYS:O	1:A:69:MET:HG3	2.06	0.56
1:D:305:ILE:HD11	1:E:203:TYR:OH	2.06	0.56
1:A:249:ILE:HB	1:A:275:ALA:CB	2.36	0.56
2:S:20:LYS:HA	2:S:28:THR:HG23	1.88	0.56
1:E:18:ARG:O	1:E:22:VAL:HG23	2.05	0.56
1:L:257:GLU:O	1:L:261:THR:HG23	2.06	0.56
1:D:279:PRO:HD2	1:D:285:ARG:CB	2.35	0.56
1:D:368:ARG:O	1:D:372:LEU:HG	2.04	0.56
1:B:134:LEU:CD1	1:B:134:LEU:N	2.68	0.56
1:H:324:VAL:C	1:H:325:ILE:HD12	2.26	0.56
1:H:428:ASP:O	1:H:429:LEU:C	2.43	0.56
1:N:149:THR:HG22	1:N:156:GLU:HA	1.87	0.56
1:E:227:ILE:HD12	1:E:227:ILE:N	2.20	0.56
1:B:432:GLN:NE2	1:B:436:GLN:HE22	2.04	0.56
1:A:381:VAL:HG21	1:A:393:LYS:HA	1.87	0.56
1:A:30:THR:HG22	1:A:36:ARG:O	2.05	0.56
1:B:23:LEU:HD13	1:B:23:LEU:C	2.26	0.56
1:C:184:GLN:OE1	1:C:184:GLN:N	2.38	0.56
2:P:40:VAL:HB	2:P:62:GLY:H	1.71	0.56
1:B:145:ALA:HB2	1:B:163:ALA:HB2	1.87	0.56
1:B:338:GLU:O	1:B:341:ALA:HB3	2.06	0.56
1:K:506:TYR:O	1:K:509:SER:HB3	2.05	0.56
1:B:262:LEU:HD11	1:B:273:VAL:HB	1.88	0.56
1:D:194:GLN:HG3	1:D:331:THR:OG1	2.06	0.56
1:J:359:ASP:O	1:J:363:GLU:HB2	2.05	0.56
1:C:291:ASP:HB3	1:C:345:ARG:NH2	2.19	0.56
1:G:205:ILE:HG12	1:G:211:GLY:HA2	1.86	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:499:VAL:CG2	1:J:500:THR:N	2.69	0.56
2:P:65:VAL:CG1	2:P:94:ILE:HG12	2.30	0.56
1:I:169:VAL:HG22	1:I:169:VAL:O	2.06	0.56
1:E:237:LEU:C	1:E:237:LEU:HD23	2.26	0.56
1:E:496:PRO:HG2	1:E:499:VAL:HG13	1.87	0.56
2:O:57:LEU:HD22	2:O:88:GLU:HB2	1.88	0.56
2:O:86:MET:HB2	2:O:90:ASP:OD2	2.06	0.56
1:F:351:GLN:HG2	1:G:210:THR:OG1	2.06	0.56
1:F:164:GLU:O	1:F:167:ASP:HB3	2.06	0.56
1:B:406:ALA:O	1:B:410:GLY:N	2.38	0.56
1:M:6:VAL:HG22	1:M:521:VAL:HG22	1.86	0.56
2:R:20:LYS:HG2	2:R:27:LEU:CD2	2.35	0.56
1:F:248:LEU:HD13	1:F:248:LEU:C	2.27	0.56
1:A:261:THR:O	1:A:265:ASN:ND2	2.39	0.56
1:A:266:THR:HG22	1:A:273:VAL:H	1.71	0.56
1:K:362:ARG:HB3	1:K:362:ARG:HH11	1.71	0.56
1:E:348:GLN:HE22	1:E:352:GLN:NE2	2.04	0.56
1:E:358:SER:HA	1:E:362:ARG:CD	2.36	0.56
1:E:366:GLN:HA	1:E:369:VAL:CG2	2.36	0.56
1:L:249:ILE:HB	1:L:275:ALA:HB1	1.88	0.56
1:J:287:ALA:HB1	1:J:368:ARG:CZ	2.36	0.56
1:H:247:LEU:C	1:H:247:LEU:HD13	2.26	0.56
1:I:449:ALA:HB3	1:I:450:PRO:CD	2.31	0.56
1:I:248:LEU:HD13	1:I:248:LEU:C	2.26	0.56
1:C:448:GLU:O	1:C:452:ARG:HG2	2.06	0.56
2:P:48:ILE:HG22	2:P:48:ILE:O	2.06	0.56
1:N:193:MET:CG	1:N:194:GLN:N	2.67	0.56
1:B:134:LEU:HD11	1:B:425:LYS:NZ	2.21	0.56
1:H:351:GLN:HG2	1:H:354:GLU:OE2	2.06	0.56
1:N:129:GLU:O	1:N:132:LYS:N	2.39	0.56
1:K:179:ASP:OD2	1:K:390:LYS:HG2	2.06	0.56
1:D:5:ASP:HB2	1:D:524:LEU:CD2	2.36	0.56
2:P:84:LEU:N	2:P:84:LEU:HD12	2.20	0.56
1:I:209:GLU:HA	1:I:209:GLU:OE1	2.06	0.56
1:K:180:GLY:HA2	1:K:380:LYS:HB3	1.87	0.56
1:J:398:ASP:O	1:J:401:HIS:HB2	2.06	0.56
1:C:134:LEU:O	1:C:136:VAL:HG13	2.06	0.56
2:R:40:VAL:HG21	2:R:63:ASP:HB2	1.87	0.56
2:O:46:GLY:HA3	2:O:55:LYS:O	2.06	0.55
1:A:237:LEU:HD22	2:O:26:VAL:CG2	2.29	0.55
1:J:228:SER:O	1:J:257:GLU:HB3	2.07	0.55
1:K:232:GLU:HB3	1:K:309:LEU:CB	2.27	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:240:VAL:HG21	1:C:247:LEU:HD23	1.88	0.55
1:C:285:ARG:HG3	1:C:286:LYS:N	2.21	0.55
1:A:322:ARG:HG2	1:A:323:VAL:N	2.19	0.55
1:G:324:VAL:C	1:G:325:ILE:HD12	2.26	0.55
1:G:349:ILE:HA	1:G:352:GLN:CD	2.26	0.55
1:A:283:ASP:O	1:A:287:ALA:HB2	2.05	0.55
1:F:285:ARG:HG3	1:F:286:LYS:N	2.21	0.55
1:K:428:ASP:O	1:K:429:LEU:C	2.45	0.55
1:G:80:LYS:HD2	1:G:506:TYR:CZ	2.41	0.55
2:U:48:ILE:HG12	2:U:54:VAL:HG13	1.88	0.55
1:K:15:LYS:HD2	1:K:67:GLU:HG3	1.87	0.55
1:D:202:PRO:HG2	1:D:203:TYR:CD1	2.41	0.55
1:H:254:VAL:O	1:H:259:LEU:HD12	2.06	0.55
1:F:236:VAL:O	1:F:239:ALA:HB3	2.06	0.55
1:B:234:LEU:H	1:B:234:LEU:CD1	2.17	0.55
1:E:281:PHE:O	1:E:284:ARG:HB3	2.07	0.55
1:E:365:LEU:O	1:E:369:VAL:HG23	2.06	0.55
1:D:233:MET:CE	1:D:233:MET:O	2.54	0.55
1:C:319:GLN:O	1:C:335:GLY:HA2	2.07	0.55
1:H:313:THR:HG22	1:H:314:LEU:N	2.21	0.55
1:L:17:LEU:HA	1:L:20:VAL:CG1	2.36	0.55
1:N:356:ALA:CB	1:N:362:ARG:HE	2.12	0.55
1:G:496:PRO:HG2	1:G:499:VAL:HG13	1.88	0.55
1:G:510:VAL:HG23	1:G:511:ALA:H	1.69	0.55
2:P:78:ILE:N	2:P:78:ILE:HD12	2.22	0.55
1:M:218:PRO:HB3	1:M:246:PRO:HB2	1.88	0.55
1:I:325:ILE:HD12	1:I:325:ILE:N	2.20	0.55
2:S:50:GLU:O	2:S:52:GLY:N	2.39	0.55
1:I:406:ALA:O	1:I:410:GLY:CA	2.54	0.55
1:N:288:MET:HA	1:N:288:MET:CE	2.36	0.55
1:K:236:VAL:HG23	1:K:237:LEU:N	2.22	0.55
1:L:362:ARG:HB3	1:L:362:ARG:NH1	2.21	0.55
1:J:299:THR:OG1	1:J:316:ASP:HA	2.06	0.55
1:I:219:PHE:HB3	1:I:317:LEU:HD23	1.88	0.55
1:I:318:GLY:O	1:I:319:GLN:HG3	2.05	0.55
1:L:157:THR:O	1:L:161:LEU:HD13	2.06	0.55
1:A:295:LEU:C	1:A:295:LEU:HD23	2.26	0.55
1:D:174:VAL:HG21	1:D:367:GLU:HA	1.89	0.55
1:D:346:VAL:HA	1:D:349:ILE:HD12	1.88	0.55
1:E:130:GLU:O	1:E:133:ALA:HB3	2.06	0.55
1:A:130:GLU:O	1:A:133:ALA:HB3	2.06	0.55
1:M:428:ASP:O	1:M:429:LEU:C	2.44	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:94:VAL:HG12	1:F:449:ALA:HB1	1.88	0.55
1:N:217:SER:N	1:N:218:PRO:HD3	2.20	0.55
2:U:37:ARG:HG2	2:U:37:ARG:NH1	2.20	0.55
1:I:55:SER:HA	1:I:58:ARG:NH1	2.21	0.55
1:A:472:GLY:HA3	1:A:476:TYR:CD2	2.42	0.55
1:A:106:ALA:O	1:A:109:ALA:HB3	2.07	0.55
1:D:247:LEU:HB3	1:D:273:VAL:HG13	1.88	0.55
1:B:203:TYR:H	1:B:203:TYR:HD1	1.54	0.55
2:O:20:LYS:HD2	2:O:20:LYS:H	1.71	0.55
1:E:221:LEU:C	1:E:222:LEU:HD12	2.26	0.55
1:D:233:MET:C	1:D:235:PRO:CD	2.73	0.55
1:C:353:ILE:HG12	1:C:366:GLN:NE2	2.21	0.55
1:C:357:THR:CG2	1:C:361:ASP:HB2	2.36	0.55
1:G:195:PHE:O	1:G:329:THR:HG23	2.07	0.55
1:G:289:LEU:HD23	1:G:292:ILE:HD12	1.89	0.55
2:U:20:LYS:HB3	2:U:27:LEU:HG	1.89	0.55
1:J:69:MET:HE2	1:J:522:THR:HB	1.85	0.55
1:J:284:ARG:H	1:J:284:ARG:HH11	1.54	0.55
1:H:217:SER:N	1:H:218:PRO:HD3	2.20	0.55
1:M:161:LEU:H	1:M:161:LEU:CD1	2.20	0.55
1:F:486:GLY:CA	1:F:491:MET:CE	2.84	0.55
1:F:381:VAL:HG13	1:F:392:LYS:HG3	1.89	0.55
1:G:339:GLU:CD	1:G:339:GLU:N	2.60	0.55
1:D:28:LYS:O	1:D:30:THR:N	2.39	0.55
1:C:127:ALA:O	1:C:130:GLU:HB2	2.05	0.55
1:B:194:GLN:HB2	1:B:331:THR:HG23	1.87	0.55
1:D:302:SER:HB2	1:D:305:ILE:HD13	1.87	0.55
1:C:222:LEU:N	1:C:222:LEU:HD12	2.21	0.55
1:N:66:PHE:N	1:N:69:MET:HG3	2.20	0.55
1:A:285:ARG:HG3	1:A:286:LYS:N	2.21	0.55
1:B:134:LEU:H	1:B:134:LEU:CD1	2.19	0.55
1:H:363:GLU:O	1:H:367:GLU:HG3	2.06	0.55
2:U:43:VAL:CG1	2:U:57:LEU:HD12	2.36	0.55
1:L:215:LEU:CB	1:L:218:PRO:HG2	2.37	0.55
1:M:385:THR:HG23	1:M:388:GLU:N	2.17	0.55
1:M:345:ARG:HA	1:M:348:GLN:HE21	1.69	0.55
1:C:381:VAL:HG21	1:C:393:LYS:HA	1.88	0.55
1:F:7:LYS:HD2	1:F:66:PHE:CE2	2.42	0.55
1:K:193:MET:HG2	1:K:194:GLN:N	2.21	0.55
1:E:504:LEU:HD13	1:E:504:LEU:C	2.26	0.55
2:R:37:ARG:HH11	2:R:37:ARG:HG2	1.71	0.55
2:T:40:VAL:HB	2:T:62:GLY:H	1.72	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:160:LYS:O	1:G:164:GLU:HG3	2.06	0.55
1:F:290:GLN:N	1:F:290:GLN:OE1	2.39	0.55
1:G:311:LYS:O	1:G:312:ALA:HB2	2.07	0.55
1:M:219:PHE:CB	1:M:317:LEU:HD23	2.37	0.55
1:C:248:LEU:C	1:C:248:LEU:HD13	2.26	0.55
1:L:107:VAL:CG2	1:L:108:ALA:N	2.68	0.55
1:N:389:MET:HE1	1:N:393:LYS:HB2	1.89	0.55
1:K:149:THR:HG22	1:K:156:GLU:HA	1.89	0.55
1:E:134:LEU:N	1:E:134:LEU:HD12	2.21	0.55
1:K:215:LEU:CB	1:K:218:PRO:HG2	2.33	0.55
1:L:448:GLU:HB3	1:L:452:ARG:HD2	1.89	0.55
1:B:404:ARG:HH11	1:B:404:ARG:HG3	1.71	0.55
1:C:16:MET:O	1:C:20:VAL:HG23	2.07	0.55
1:K:205:ILE:HD13	1:K:211:GLY:HA2	1.89	0.55
1:A:25:ASP:HA	1:A:28:LYS:HE2	1.87	0.55
1:I:345:ARG:O	1:I:348:GLN:HB2	2.07	0.55
1:K:478:TYR:HB2	1:K:485:TYR:CE2	2.42	0.55
1:N:37:ASN:H	1:N:37:ASN:ND2	2.05	0.55
1:L:226:LYS:HD2	1:L:252:GLU:HG3	1.88	0.55
1:J:421:ARG:HD2	1:J:474:GLY:O	2.06	0.55
1:L:36:ARG:HB3	1:M:516:THR:O	2.06	0.55
1:K:10:ASN:O	1:K:11:ASP:C	2.45	0.55
1:B:205:ILE:CD1	1:B:211:GLY:HA2	2.37	0.55
1:A:245:LYS:CE	1:A:245:LYS:HA	2.30	0.55
1:B:18:ARG:HB2	1:B:67:GLU:HG2	1.88	0.55
1:E:220:ILE:HG23	1:E:248:LEU:HD12	1.89	0.55
1:E:368:ARG:HG2	1:E:372:LEU:CG	2.36	0.55
1:I:31:LEU:HG	1:I:454:ILE:HD11	1.89	0.55
1:J:494:LEU:CD2	1:J:494:LEU:N	2.66	0.55
1:E:486:GLY:CA	1:E:491:MET:CE	2.85	0.55
1:B:401:HIS:O	1:B:404:ARG:HB2	2.05	0.55
1:D:436:GLN:O	1:D:440:ILE:HG13	2.06	0.55
1:K:478:TYR:CE1	1:K:483:GLU:HA	2.42	0.55
1:H:303:GLU:C	1:H:305:ILE:H	2.07	0.55
1:E:65:LYS:O	1:E:69:MET:HG3	2.07	0.55
1:G:29:VAL:HG23	1:G:30:THR:HG23	1.88	0.55
1:E:42:LYS:HE2	1:E:48:THR:HB	1.88	0.55
1:L:455:VAL:HG13	1:L:460:GLU:HB2	1.89	0.55
1:L:140:ASP:O	1:L:144:ILE:HG12	2.06	0.55
1:K:406:ALA:O	1:K:410:GLY:N	2.34	0.55
2:O:48:ILE:HG22	2:O:48:ILE:O	2.06	0.55
1:A:308:GLU:H	1:A:311:LYS:HB3	1.72	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:305:ILE:CG2	1:D:306:GLY:H	1.93	0.55
1:A:220:ILE:N	1:A:220:ILE:CD1	2.70	0.55
2:Q:47:ARG:HG2	2:Q:49:LEU:H	1.71	0.55
1:J:363:GLU:O	1:J:367:GLU:HG3	2.07	0.55
1:H:226:LYS:CA	1:H:252:GLU:HB2	2.36	0.55
1:G:271:VAL:O	1:G:271:VAL:HG23	2.07	0.55
1:D:452:ARG:HB2	1:D:462:PRO:CB	2.33	0.55
1:H:66:PHE:N	1:H:69:MET:HG3	2.21	0.55
1:N:32:GLY:HA3	1:N:454:ILE:HG23	1.89	0.55
1:M:214:GLU:HA	1:M:324:VAL:HG12	1.88	0.55
1:H:213:VAL:O	1:H:324:VAL:HA	2.06	0.55
1:M:112:ASN:O	1:M:116:LEU:HG	2.06	0.55
1:J:226:LYS:HG3	1:J:252:GLU:HB3	1.88	0.55
1:A:381:VAL:CG1	1:A:392:LYS:CG	2.84	0.55
1:A:434:GLU:O	1:A:435:ASP:C	2.44	0.55
2:O:1:MET:HA	2:U:97:ALA:O	2.07	0.55
1:H:184:GLN:HA	1:H:184:GLN:OE1	2.07	0.55
2:T:3:ILE:HD12	2:T:3:ILE:H	1.72	0.55
1:C:23:LEU:HD13	1:C:23:LEU:C	2.27	0.55
1:C:215:LEU:O	1:C:322:ARG:HG3	2.07	0.55
1:I:236:VAL:HG23	1:I:237:LEU:N	2.22	0.55
1:M:230:ILE:CD1	1:M:257:GLU:HG2	2.37	0.55
1:K:39:VAL:HG22	1:K:49:ILE:HG12	1.87	0.55
1:K:417:VAL:O	1:K:418:ALA:C	2.44	0.55
2:P:47:ARG:O	2:P:54:VAL:HG13	2.07	0.55
1:E:242:LYS:HD3	1:E:242:LYS:C	2.26	0.55
1:L:339:GLU:O	1:L:343:GLN:HG2	2.07	0.55
1:N:215:LEU:CB	1:N:218:PRO:HG2	2.37	0.55
1:K:325:ILE:HG13	1:K:330:THR:HG23	1.88	0.55
1:K:305:ILE:HG22	1:K:307:MET:HG3	1.88	0.55
1:B:150:ILE:HD11	4:B:1:ADP:N7	2.22	0.55
1:G:25:ASP:HA	1:G:28:LYS:HE2	1.88	0.55
1:I:288:MET:HA	1:I:288:MET:CE	2.37	0.55
1:F:409:GLU:CD	1:F:501:ARG:HH21	2.11	0.55
1:J:406:ALA:O	1:J:410:GLY:N	2.36	0.55
1:A:59:GLU:O	1:G:4:LYS:HG3	2.07	0.55
1:F:207:LYS:NZ	1:F:207:LYS:HB2	2.22	0.55
1:B:219:PHE:HB2	1:B:247:LEU:HD22	1.88	0.55
1:F:235:PRO:HG3	1:F:310:GLU:HB3	1.87	0.55
1:L:254:VAL:O	1:L:259:LEU:HD12	2.07	0.55
1:K:219:PHE:CB	1:K:317:LEU:HD23	2.37	0.55
1:H:221:LEU:HD22	1:H:222:LEU:H	1.72	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:352:GLN:C	1:G:365:LEU:HD11	2.28	0.55
2:R:14:ARG:HH11	2:R:14:ARG:CB	2.18	0.55
1:H:7:LYS:HG3	1:H:66:PHE:CE2	2.41	0.55
1:K:433:ASN:HD22	1:K:434:GLU:H	1.54	0.55
1:A:417:VAL:HA	1:A:420:ILE:CG2	2.37	0.55
1:G:510:VAL:CG2	1:G:511:ALA:N	2.69	0.55
1:N:413:ALA:HB1	1:N:417:VAL:HB	1.87	0.55
1:F:177:VAL:HG11	1:F:397:GLU:HG2	1.89	0.55
1:H:175:ILE:HD13	1:H:404:ARG:NH2	2.22	0.55
2:P:14:ARG:HG2	2:P:15:LYS:H	1.69	0.55
1:C:130:GLU:O	1:C:133:ALA:HB3	2.08	0.55
1:A:512:GLY:O	1:A:515:ILE:HG12	2.06	0.55
1:L:398:ASP:O	1:L:401:HIS:HB2	2.07	0.55
1:M:40:LEU:N	1:M:40:LEU:HD22	2.22	0.55
1:A:270:ILE:HD11	2:O:27:LEU:CD1	2.38	0.54
1:C:206:ASN:CB	1:C:214:GLU:H	2.20	0.54
1:K:356:ALA:HB1	1:K:362:ARG:NE	2.18	0.54
2:S:20:LYS:HG2	2:S:27:LEU:HD23	1.89	0.54
1:J:259:LEU:O	1:J:263:VAL:HG23	2.08	0.54
1:K:229:ASN:ND2	1:K:231:ARG:HH12	2.05	0.54
1:I:301:ILE:N	1:I:301:ILE:CD1	2.69	0.54
1:G:486:GLY:HA3	1:G:491:MET:CE	2.36	0.54
1:I:415:GLY:H	1:I:417:VAL:CG2	2.17	0.54
1:F:70:GLY:O	1:F:74:VAL:HG22	2.07	0.54
1:E:119:GLY:O	1:E:440:ILE:HG12	2.06	0.54
1:M:411:VAL:HA	1:M:497:THR:H	1.71	0.54
1:H:112:ASN:O	1:H:116:LEU:HG	2.06	0.54
1:M:288:MET:HA	1:M:288:MET:HE2	1.89	0.54
1:K:478:TYR:HA	1:K:485:TYR:HA	1.89	0.54
1:N:186:GLU:O	1:N:379:ILE:HA	2.07	0.54
1:I:421:ARG:NH2	1:I:469:VAL:O	2.39	0.54
1:N:55:SER:O	1:N:58:ARG:HB3	2.07	0.54
1:K:465:VAL:O	1:K:469:VAL:HG23	2.08	0.54
1:C:494:LEU:HD23	1:C:494:LEU:N	2.21	0.54
1:L:392:LYS:O	1:L:396:VAL:HG23	2.06	0.54
1:B:322:ARG:HB3	1:B:333:ILE:CD1	2.26	0.54
1:B:232:GLU:O	1:B:233:MET:HB3	2.07	0.54
1:G:193:MET:O	1:G:331:THR:HG23	2.07	0.54
1:G:353:ILE:HG22	1:G:354:GLU:N	2.22	0.54
1:D:252:GLU:O	1:D:277:LYS:HE2	2.07	0.54
1:E:417:VAL:HA	1:E:420:ILE:HG22	1.87	0.54
1:H:345:ARG:HH22	1:H:368:ARG:HH22	1.53	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:T:14:ARG:CD	2:T:35:SER:HB3	2.33	0.54
1:M:345:ARG:O	1:M:348:GLN:HB2	2.07	0.54
1:M:352:GLN:O	1:M:355:GLU:OE1	2.25	0.54
1:M:217:SER:N	1:M:218:PRO:HD3	2.21	0.54
1:M:175:ILE:HD13	1:M:404:ARG:NH2	2.21	0.54
1:J:40:LEU:HD23	1:J:50:THR:HG22	1.88	0.54
1:D:434:GLU:O	1:D:435:ASP:C	2.45	0.54
2:T:48:ILE:HG12	2:T:54:VAL:HG13	1.89	0.54
2:R:50:GLU:OE1	2:S:50:GLU:HA	2.07	0.54
2:S:50:GLU:O	2:S:50:GLU:HG2	2.06	0.54
1:A:368:ARG:CD	1:A:372:LEU:HD11	2.37	0.54
1:D:112:ASN:HD21	1:D:114:MET:HB3	1.71	0.54
1:E:161:LEU:O	1:E:164:GLU:HB2	2.08	0.54
1:D:258:ALA:O	1:D:261:THR:HG23	2.07	0.54
1:M:266:THR:HG22	1:M:273:VAL:H	1.72	0.54
1:G:200:LEU:O	1:G:202:PRO:HD2	2.07	0.54
1:G:259:LEU:O	1:G:263:VAL:HG23	2.07	0.54
1:G:326:ASN:OD1	1:G:329:THR:N	2.39	0.54
1:G:357:THR:CG2	1:G:361:ASP:HB2	2.37	0.54
1:D:357:THR:HB	1:D:361:ASP:CB	2.37	0.54
1:I:494:LEU:HD23	1:I:494:LEU:H	1.71	0.54
1:D:54:VAL:HB	1:D:89:THR:HG21	1.88	0.54
1:E:134:LEU:O	1:E:136:VAL:HG13	2.08	0.54
1:C:135:SER:HB2	1:C:497:THR:HG21	1.89	0.54
1:B:44:PHE:H	1:B:44:PHE:HD1	1.40	0.54
1:H:214:GLU:HA	1:H:324:VAL:HG12	1.88	0.54
1:N:218:PRO:HB3	1:N:246:PRO:C	2.28	0.54
1:J:428:ASP:O	1:J:429:LEU:C	2.45	0.54
1:M:506:TYR:O	1:M:509:SER:HB3	2.08	0.54
1:L:465:VAL:O	1:L:469:VAL:HG23	2.07	0.54
1:D:203:TYR:H	1:D:203:TYR:HD1	1.55	0.54
1:H:235:PRO:HG2	1:H:236:VAL:H	1.72	0.54
1:E:349:ILE:HA	1:E:352:GLN:CD	2.27	0.54
1:J:233:MET:HE2	1:J:233:MET:HA	1.90	0.54
1:M:247:LEU:N	1:M:273:VAL:HG12	2.23	0.54
1:L:219:PHE:O	1:L:247:LEU:HD22	2.07	0.54
1:C:277:LYS:HD3	1:C:285:ARG:HH22	1.72	0.54
1:C:279:PRO:HB3	1:C:288:MET:HE1	1.88	0.54
1:C:368:ARG:HG2	1:C:372:LEU:CG	2.37	0.54
1:A:199:TYR:CE2	1:A:205:ILE:HG12	2.41	0.54
1:A:357:THR:CG2	1:A:361:ASP:HB2	2.37	0.54
1:N:385:THR:O	1:N:389:MET:HB2	2.08	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:77:VAL:HG12	1:G:510:VAL:HG21	1.89	0.54
1:L:350:ARG:HG3	1:L:350:ARG:HH11	1.73	0.54
1:M:267:MET:O	1:M:267:MET:HG3	2.07	0.54
1:J:206:ASN:OD1	1:J:213:VAL:HA	2.07	0.54
1:D:489:ILE:CD1	1:D:494:LEU:HD22	2.37	0.54
1:N:302:SER:HB2	1:N:305:ILE:CD1	2.37	0.54
1:E:475:ASN:N	1:E:475:ASN:HD22	2.05	0.54
1:K:84:ALA:O	1:K:498:LYS:HE2	2.08	0.54
1:D:220:ILE:HG23	1:D:248:LEU:HD12	1.88	0.54
1:F:311:LYS:O	1:F:312:ALA:HB2	2.07	0.54
1:H:232:GLU:HA	1:H:310:GLU:HG3	1.90	0.54
1:F:19:GLY:HA3	1:F:67:GLU:O	2.07	0.54
1:H:222:LEU:CD1	1:H:293:ALA:HA	2.38	0.54
1:G:257:GLU:O	1:G:261:THR:HG22	2.07	0.54
1:G:204:PHE:CB	1:G:274:ALA:HB2	2.37	0.54
1:M:419:LEU:O	1:M:422:VAL:HG22	2.08	0.54
1:M:422:VAL:O	1:M:426:LEU:HD23	2.08	0.54
1:M:422:VAL:O	1:M:425:LYS:HB2	2.07	0.54
1:D:339:GLU:HA	1:D:342:ILE:HB	1.89	0.54
1:D:362:ARG:O	1:D:366:GLN:OE1	2.26	0.54
1:F:347:ALA:O	1:F:350:ARG:HG2	2.06	0.54
1:B:127:ALA:O	1:B:130:GLU:HB2	2.08	0.54
1:C:227:ILE:O	1:C:227:ILE:HG22	2.06	0.54
1:J:384:ALA:O	1:K:281:PHE:HZ	1.90	0.54
2:S:47:ARG:HD2	2:S:55:LYS:HD2	1.88	0.54
1:N:284:ARG:CB	1:N:284:ARG:HH11	2.18	0.54
1:E:464:VAL:CG2	1:K:464:VAL:HA	2.38	0.54
1:C:313:THR:HG22	1:C:314:LEU:N	2.22	0.54
2:P:43:VAL:CG1	2:P:57:LEU:HD12	2.37	0.54
1:I:218:PRO:HB3	1:I:246:PRO:C	2.28	0.54
1:B:122:LYS:HE2	1:B:429:LEU:HD11	1.90	0.54
1:F:339:GLU:N	1:F:339:GLU:CD	2.61	0.54
1:H:319:GLN:O	1:H:336:VAL:HG23	2.07	0.54
1:J:302:SER:HB2	1:J:305:ILE:CD1	2.37	0.54
1:I:10:ASN:O	1:I:11:ASP:C	2.46	0.54
1:B:205:ILE:HD13	1:B:211:GLY:HA2	1.90	0.54
1:A:204:PHE:CB	1:A:274:ALA:HB2	2.37	0.54
1:J:232:GLU:HA	1:J:310:GLU:CG	2.36	0.54
1:K:266:THR:HG22	1:K:273:VAL:H	1.72	0.54
1:C:278:ALA:HB1	1:C:279:PRO:HD2	1.89	0.54
1:G:208:PRO:HB2	1:G:212:ALA:CB	2.37	0.54
1:K:31:LEU:HG	1:K:454:ILE:CD1	2.38	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:417:VAL:HG13	1:B:418:ALA:N	2.22	0.54
1:H:287:ALA:HB1	1:H:368:ARG:NH2	2.22	0.54
1:L:190:VAL:HG22	1:L:191:GLU:N	2.23	0.54
1:L:183:LEU:HD22	1:M:360:TYR:CE2	2.43	0.54
1:D:451:LEU:C	1:D:451:LEU:HD23	2.27	0.54
1:I:198:GLY:CA	1:I:328:ASP:HA	2.37	0.54
1:L:302:SER:HB2	1:L:305:ILE:HD12	1.89	0.54
2:Q:40:VAL:HB	2:Q:62:GLY:H	1.73	0.54
1:F:149:THR:HG23	1:F:155:ASP:C	2.28	0.54
1:K:400:LEU:C	1:K:400:LEU:HD23	2.27	0.54
1:D:327:LYS:H	1:D:327:LYS:HD3	1.72	0.54
1:A:266:THR:HA	1:A:271:VAL:O	2.07	0.54
1:I:219:PHE:CE1	1:I:245:LYS:HB2	2.40	0.54
1:D:208:PRO:HB2	1:D:212:ALA:CB	2.38	0.54
1:K:69:MET:O	1:K:73:MET:HG3	2.08	0.54
1:K:161:LEU:N	1:K:161:LEU:HD12	2.23	0.54
1:M:434:GLU:O	1:M:438:VAL:HG23	2.08	0.54
1:E:130:GLU:HA	1:E:130:GLU:OE1	2.07	0.54
1:B:417:VAL:HA	1:B:420:ILE:HG22	1.89	0.54
1:M:287:ALA:O	1:M:290:GLN:HB3	2.07	0.54
1:N:166:MET:CE	1:N:171:LYS:HA	2.36	0.54
2:O:40:VAL:HG21	2:O:63:ASP:HB2	1.90	0.54
1:C:510:VAL:CG2	1:C:511:ALA:N	2.70	0.54
1:D:94:VAL:HG12	1:D:449:ALA:HB1	1.89	0.54
1:I:453:GLN:NE2	1:I:457:ASN:OD1	2.40	0.54
1:J:102:GLU:HB2	1:J:442:VAL:HG13	1.89	0.54
1:N:222:LEU:CD1	1:N:293:ALA:HA	2.37	0.54
1:N:222:LEU:HD11	1:N:293:ALA:HA	1.89	0.54
1:H:221:LEU:HD11	1:H:223:ALA:HB2	1.90	0.54
1:A:199:TYR:CE1	1:A:327:LYS:HG3	2.43	0.54
1:L:107:VAL:CG2	1:L:108:ALA:H	2.21	0.54
1:D:510:VAL:CG2	1:D:511:ALA:N	2.70	0.54
2:S:14:ARG:CG	2:S:15:LYS:N	2.70	0.54
1:B:372:LEU:O	1:B:373:ALA:HB2	2.07	0.54
1:I:433:ASN:HD22	1:I:434:GLU:H	1.56	0.54
1:M:200:LEU:HD13	1:M:276:VAL:HA	1.89	0.54
1:H:198:GLY:CA	1:H:328:ASP:HA	2.38	0.54
1:M:107:VAL:CG2	1:M:108:ALA:N	2.71	0.54
1:G:177:VAL:HG11	1:G:397:GLU:CG	2.37	0.54
1:E:381:VAL:CG1	1:E:392:LYS:HG3	2.37	0.54
1:K:264:VAL:HA	1:K:267:MET:HG2	1.90	0.54
2:S:92:LEU:O	2:T:6:LEU:HB2	2.08	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:161:LEU:O	1:F:164:GLU:HB2	2.08	0.54
1:E:249:ILE:HG22	1:E:250:ILE:N	2.23	0.54
1:L:370:ALA:O	1:L:374:GLY:N	2.37	0.54
1:C:271:VAL:O	1:C:271:VAL:HG23	2.08	0.54
1:L:16:MET:HG3	1:L:520:MET:SD	2.47	0.54
1:A:326:ASN:ND2	1:A:328:ASP:H	2.05	0.54
1:L:155:ASP:CG	1:L:158:VAL:HG23	2.28	0.54
1:J:38:VAL:HG13	1:K:519:CYS:HB3	1.89	0.54
1:G:131:LEU:HD21	1:G:422:VAL:HG11	1.88	0.54
2:O:77:LYS:C	2:O:78:ILE:HD12	2.28	0.54
1:H:357:THR:O	1:H:357:THR:HG22	2.07	0.54
1:L:342:ILE:O	1:L:346:VAL:HG23	2.08	0.54
1:B:381:VAL:CG1	1:B:392:LYS:CG	2.86	0.54
1:J:420:ILE:HG13	1:J:451:LEU:HD22	1.90	0.54
1:I:217:SER:N	1:I:218:PRO:HD3	2.23	0.54
1:G:372:LEU:O	1:G:373:ALA:HB2	2.08	0.54
1:C:124:VAL:HG13	1:C:504:LEU:HD12	1.90	0.54
2:P:3:ILE:H	2:P:3:ILE:HD12	1.73	0.54
1:M:322:ARG:O	1:M:323:VAL:HB	2.08	0.54
1:B:180:GLY:CA	1:B:380:LYS:HB3	2.38	0.54
1:B:256:GLY:O	1:B:260:ALA:N	2.38	0.54
1:C:305:ILE:N	1:C:305:ILE:CD1	2.68	0.54
1:B:246:PRO:HA	1:B:272:LYS:O	2.07	0.54
1:K:359:ASP:O	1:K:363:GLU:HB2	2.08	0.54
2:S:20:LYS:H	2:S:20:LYS:CD	2.18	0.54
1:I:225:LYS:HE2	1:I:309:LEU:HD11	1.88	0.54
1:C:220:ILE:HG23	1:C:248:LEU:HD12	1.89	0.54
1:C:245:LYS:CE	1:C:245:LYS:HA	2.31	0.54
1:G:346:VAL:HG12	1:G:350:ARG:HH22	1.73	0.54
2:R:17:VAL:CG1	2:R:34:LYS:HA	2.38	0.54
2:S:77:LYS:C	2:S:78:ILE:HD12	2.28	0.54
1:J:112:ASN:O	1:J:116:LEU:HG	2.07	0.54
2:U:41:LEU:O	2:U:61:VAL:HG13	2.07	0.54
1:F:295:LEU:O	1:F:337:GLY:HA3	2.07	0.54
1:H:406:ALA:O	1:H:410:GLY:N	2.39	0.54
1:B:124:VAL:HG22	1:B:504:LEU:HD11	1.90	0.54
1:N:226:LYS:HG3	1:N:252:GLU:CB	2.37	0.54
1:D:35:GLY:HA3	1:D:51:LYS:HE2	1.90	0.54
1:C:475:ASN:N	1:C:475:ASN:ND2	2.56	0.54
1:N:478:TYR:CE1	1:N:483:GLU:HA	2.42	0.54
1:L:40:LEU:N	1:L:40:LEU:HD22	2.23	0.54
1:C:302:SER:HB2	1:C:305:ILE:HB	1.90	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:R:27:LEU:O	2:R:27:LEU:HD23	2.07	0.53
2:R:20:LYS:HB3	2:R:27:LEU:HG	1.89	0.53
1:A:271:VAL:O	1:A:271:VAL:HG23	2.08	0.53
1:B:237:LEU:C	1:B:237:LEU:HD23	2.27	0.53
1:K:247:LEU:N	1:K:273:VAL:HG12	2.23	0.53
1:I:247:LEU:N	1:I:273:VAL:HG12	2.22	0.53
2:R:14:ARG:CG	2:R:15:LYS:H	2.21	0.53
1:F:362:ARG:O	1:F:366:GLN:OE1	2.27	0.53
1:I:395:ARG:O	1:I:398:ASP:HB2	2.07	0.53
1:K:143:ALA:C	1:K:146:GLN:HB3	2.29	0.53
1:N:213:VAL:O	1:N:324:VAL:HA	2.07	0.53
1:B:499:VAL:CG2	1:B:500:THR:N	2.70	0.53
1:D:417:VAL:HA	1:D:420:ILE:HG22	1.88	0.53
1:F:277:LYS:HD3	1:F:285:ARG:NH2	2.22	0.53
1:F:252:GLU:HA	1:F:285:ARG:NH1	2.23	0.53
1:E:44:PHE:N	1:E:44:PHE:HD1	1.99	0.53
2:P:77:LYS:HA	2:P:81:GLU:O	2.08	0.53
1:C:177:VAL:HG22	1:C:393:LYS:HG3	1.89	0.53
1:A:381:VAL:CG1	1:A:392:LYS:HG2	2.38	0.53
1:H:263:VAL:O	1:H:267:MET:HG2	2.08	0.53
1:K:479:ASN:O	1:K:483:GLU:N	2.41	0.53
1:I:421:ARG:HD2	1:I:474:GLY:O	2.08	0.53
1:J:395:ARG:O	1:J:398:ASP:HB2	2.08	0.53
1:E:468:THR:OG1	1:E:485:TYR:CE2	2.61	0.53
1:I:84:ALA:O	1:I:498:LYS:HE2	2.08	0.53
1:H:152:ALA:O	1:H:153:ASN:HB3	2.08	0.53
1:E:107:VAL:HG13	1:E:113:PRO:HG3	1.89	0.53
1:D:130:GLU:O	1:D:134:LEU:HD13	2.07	0.53
1:G:237:LEU:HD23	1:G:237:LEU:C	2.29	0.53
1:F:194:GLN:NE2	1:F:329:THR:HG21	2.22	0.53
1:D:261:THR:O	1:D:265:ASN:ND2	2.41	0.53
1:D:322:ARG:O	1:D:333:ILE:HG13	2.08	0.53
1:F:221:LEU:HD13	1:F:317:LEU:HD21	1.89	0.53
1:E:277:LYS:HD3	1:E:285:ARG:NH2	2.23	0.53
1:L:256:GLY:O	1:L:260:ALA:N	2.41	0.53
1:J:233:MET:HE1	1:J:309:LEU:HD13	1.89	0.53
1:K:256:GLY:O	1:K:260:ALA:N	2.41	0.53
1:L:164:GLU:O	1:L:167:ASP:HB3	2.07	0.53
2:O:14:ARG:CG	2:O:15:LYS:H	2.20	0.53
2:O:17:VAL:HG11	2:O:33:ALA:O	2.08	0.53
1:F:357:THR:O	1:F:359:ASP:N	2.41	0.53
2:T:47:ARG:HG2	2:T:49:LEU:H	1.73	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:510:VAL:CG2	1:D:511:ALA:H	2.21	0.53
1:E:313:THR:HG22	1:E:314:LEU:N	2.24	0.53
1:B:285:ARG:HG3	1:B:286:LYS:N	2.23	0.53
2:P:68:ASN:HD22	2:Q:74:LYS:HE3	1.73	0.53
1:F:368:ARG:O	1:F:372:LEU:HG	2.07	0.53
1:N:411:VAL:HA	1:N:497:THR:H	1.73	0.53
1:I:112:ASN:O	1:I:116:LEU:HG	2.08	0.53
1:I:428:ASP:O	1:I:429:LEU:C	2.45	0.53
1:J:465:VAL:O	1:J:469:VAL:HG23	2.08	0.53
1:J:30:THR:HB	1:J:51:LYS:O	2.07	0.53
1:F:6:VAL:HG12	1:F:521:VAL:HG22	1.89	0.53
1:M:282:GLY:O	1:M:285:ARG:HG2	2.06	0.53
1:F:391:GLU:O	1:F:394:ALA:HB3	2.08	0.53
1:H:227:ILE:O	1:H:254:VAL:HA	2.08	0.53
1:K:370:ALA:O	1:K:374:GLY:N	2.40	0.53
1:E:206:ASN:HB3	1:E:214:GLU:H	1.72	0.53
1:L:230:ILE:HD12	1:L:257:GLU:HG2	1.90	0.53
1:H:266:THR:HG22	1:H:273:VAL:H	1.72	0.53
1:I:266:THR:HG22	1:I:273:VAL:H	1.73	0.53
1:A:288:MET:O	1:A:289:LEU:HG	2.08	0.53
1:L:129:GLU:O	1:L:132:LYS:N	2.41	0.53
1:L:434:GLU:HA	1:L:437:ASN:HD22	1.73	0.53
1:N:385:THR:CG2	1:N:388:GLU:HB3	2.39	0.53
1:K:17:LEU:O	1:K:20:VAL:HG13	2.08	0.53
1:F:205:ILE:CD1	1:F:211:GLY:HA2	2.38	0.53
1:I:433:ASN:HD22	1:I:434:GLU:N	2.06	0.53
1:G:95:LEU:O	1:G:98:ALA:HB3	2.08	0.53
2:S:73:VAL:O	2:S:74:LYS:HD3	2.07	0.53
1:D:384:ALA:N	1:D:388:GLU:OE1	2.40	0.53
1:C:391:GLU:O	1:C:394:ALA:HB3	2.08	0.53
1:D:302:SER:CB	1:D:305:ILE:HB	2.36	0.53
1:B:313:THR:N	1:B:316:ASP:OD2	2.42	0.53
1:L:259:LEU:HD23	1:L:259:LEU:C	2.28	0.53
1:A:200:LEU:CD1	1:A:276:VAL:HA	2.39	0.53
1:G:278:ALA:HB1	1:G:279:PRO:HD2	1.89	0.53
1:L:158:VAL:O	1:L:160:LYS:N	2.42	0.53
1:L:24:ALA:HA	1:L:27:VAL:HG12	1.89	0.53
1:B:296:THR:HG22	1:B:335:GLY:CA	2.32	0.53
2:T:92:LEU:O	2:U:6:LEU:HB2	2.08	0.53
1:E:115:ASP:HB3	1:E:436:GLN:HG3	1.90	0.53
1:L:32:GLY:CA	1:L:454:ILE:HG23	2.38	0.53
1:K:226:LYS:HA	1:K:252:GLU:HB2	1.89	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:409:GLU:CD	1:C:501:ARG:HH21	2.11	0.53
1:I:256:GLY:O	1:I:260:ALA:N	2.42	0.53
1:M:314:LEU:HA	1:M:317:LEU:HD13	1.90	0.53
1:L:356:ALA:HB1	1:L:362:ARG:NE	2.19	0.53
1:H:222:LEU:HD11	1:H:293:ALA:HA	1.90	0.53
1:G:278:ALA:O	1:G:279:PRO:O	2.27	0.53
1:C:208:PRO:C	1:C:212:ALA:HB3	2.29	0.53
1:A:207:LYS:HB3	1:A:208:PRO:CD	2.32	0.53
1:M:499:VAL:CG2	1:M:500:THR:N	2.71	0.53
1:D:349:ILE:HG21	1:D:369:VAL:HG22	1.90	0.53
1:F:346:VAL:O	1:F:349:ILE:HB	2.09	0.53
1:C:202:PRO:HG2	1:C:203:TYR:CD1	2.44	0.53
2:P:55:LYS:HE3	2:P:55:LYS:H	1.72	0.53
1:F:418:ALA:O	1:F:422:VAL:HG13	2.09	0.53
1:F:368:ARG:CD	1:F:372:LEU:HD11	2.39	0.53
1:N:219:PHE:HB2	1:N:247:LEU:HD23	1.90	0.53
1:L:214:GLU:HG2	1:L:324:VAL:CG1	2.38	0.53
1:E:177:VAL:HG11	1:E:397:GLU:CG	2.39	0.53
1:B:147:VAL:HA	1:B:150:ILE:HG22	1.90	0.53
2:T:43:VAL:HG13	2:T:57:LEU:HD12	1.90	0.53
1:D:143:ALA:HA	1:D:146:GLN:NE2	2.23	0.53
1:J:180:GLY:HA2	1:J:380:LYS:HB3	1.89	0.53
1:A:313:THR:HG22	1:A:314:LEU:N	2.24	0.53
1:E:10:ASN:O	1:E:14:VAL:HG23	2.08	0.53
1:L:256:GLY:HA2	1:L:260:ALA:H	1.73	0.53
1:J:308:GLU:OE2	1:J:310:GLU:HG3	2.09	0.53
1:D:235:PRO:HG2	1:D:236:VAL:H	1.73	0.53
1:C:257:GLU:O	1:C:261:THR:HG22	2.09	0.53
1:J:222:LEU:HD22	1:J:289:LEU:HD11	1.89	0.53
1:G:200:LEU:O	1:G:202:PRO:CD	2.56	0.53
1:G:219:PHE:O	1:G:247:LEU:HD22	2.09	0.53
1:D:346:VAL:O	1:D:349:ILE:HB	2.08	0.53
1:F:349:ILE:HG22	1:F:353:ILE:HG13	1.89	0.53
1:N:359:ASP:CA	1:N:362:ARG:HH12	2.16	0.53
1:I:383:ALA:CB	1:I:389:MET:HA	2.38	0.53
1:E:299:THR:HB	1:E:316:ASP:HB3	1.90	0.53
1:E:234:LEU:N	1:E:235:PRO:CD	2.72	0.53
1:M:320:ALA:HA	1:M:334:ASP:O	2.08	0.53
2:U:12:VAL:HG12	2:U:40:VAL:HA	1.91	0.53
1:N:428:ASP:O	1:N:429:LEU:C	2.46	0.53
1:I:478:TYR:CE1	1:I:483:GLU:HA	2.43	0.53
1:F:253:ASP:CG	1:F:254:VAL:N	2.63	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:270:ILE:HA	1:N:257:GLU:OE2	2.08	0.53
1:D:311:LYS:O	1:D:312:ALA:HB2	2.09	0.53
1:C:240:VAL:O	1:C:244:GLY:N	2.42	0.53
1:M:230:ILE:HD11	1:M:257:GLU:HG2	1.91	0.53
1:H:314:LEU:N	1:H:314:LEU:HD12	2.11	0.53
2:R:55:LYS:HE2	2:R:55:LYS:N	2.12	0.53
2:S:78:ILE:N	2:S:78:ILE:HD12	2.24	0.53
1:D:448:GLU:O	1:D:452:ARG:HG2	2.08	0.53
2:O:78:ILE:HD12	2:O:78:ILE:N	2.24	0.53
2:Q:14:ARG:CG	2:Q:15:LYS:H	2.17	0.53
1:L:31:LEU:HG	1:L:454:ILE:CD1	2.39	0.53
2:O:11:ILE:HB	2:O:42:ALA:HB3	1.89	0.53
1:C:381:VAL:CG1	1:C:392:LYS:HG2	2.38	0.53
1:F:177:VAL:CG1	1:F:397:GLU:HG2	2.39	0.53
1:M:421:ARG:NH2	1:M:469:VAL:O	2.42	0.53
2:P:34:LYS:HG3	2:P:35:SER:H	1.73	0.53
1:F:28:LYS:O	1:F:30:THR:N	2.41	0.53
2:O:74:LYS:HE3	2:U:68:ASN:HD22	1.74	0.53
1:B:84:ALA:HB2	1:B:506:TYR:HE2	1.72	0.53
1:D:319:GLN:O	1:D:335:GLY:HA2	2.08	0.53
1:F:256:GLY:O	1:F:260:ALA:N	2.40	0.53
1:C:230:ILE:O	1:C:232:GLU:N	2.42	0.53
1:N:301:ILE:CD1	1:N:301:ILE:N	2.72	0.53
1:L:64:ASP:C	1:L:65:LYS:O	2.43	0.53
1:D:357:THR:O	1:D:359:ASP:N	2.42	0.53
1:F:349:ILE:HD13	1:F:369:VAL:HG22	1.89	0.53
1:C:200:LEU:HD12	1:C:200:LEU:N	2.24	0.53
1:H:25:ASP:HA	1:H:28:LYS:HE2	1.91	0.53
1:F:417:VAL:HA	1:F:420:ILE:HG22	1.90	0.53
1:J:96:ALA:O	1:J:100:ILE:HG13	2.09	0.53
2:T:14:ARG:HG2	2:T:15:LYS:H	1.74	0.53
1:C:88:GLY:HA2	4:C:1:ADP:O2B	2.09	0.53
1:H:395:ARG:O	1:H:398:ASP:HB2	2.09	0.53
1:N:157:THR:O	1:N:161:LEU:HD13	2.08	0.53
1:K:305:ILE:O	1:K:305:ILE:HG22	2.09	0.53
1:H:504:LEU:C	1:H:504:LEU:HD13	2.29	0.53
1:I:406:ALA:O	1:I:410:GLY:HA2	2.09	0.53
1:F:402:ALA:O	1:F:405:ALA:HB3	2.09	0.53
1:L:15:LYS:HD2	1:L:67:GLU:HG3	1.90	0.53
1:E:183:LEU:O	1:E:382:GLY:HA3	2.08	0.53
1:K:455:VAL:HG13	1:K:460:GLU:HB2	1.90	0.53
2:Q:43:VAL:CG1	2:Q:57:LEU:HD12	2.39	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:421:ARG:HD2	1:H:474:GLY:O	2.08	0.53
1:N:204:PHE:CD2	1:N:274:ALA:HB1	2.43	0.53
1:B:222:LEU:HD22	1:B:293:ALA:HB2	1.91	0.53
1:C:329:THR:CG2	1:C:330:THR:N	2.71	0.53
1:L:385:THR:CG2	1:L:388:GLU:HB3	2.39	0.53
1:E:432:GLN:NE2	1:E:436:GLN:HE22	2.06	0.53
1:G:381:VAL:HG21	1:G:393:LYS:HA	1.90	0.53
1:G:475:ASN:ND2	1:G:475:ASN:N	2.56	0.53
1:K:494:LEU:HD23	1:K:494:LEU:H	1.73	0.53
1:M:194:GLN:HG3	1:M:331:THR:HB	1.91	0.53
1:N:406:ALA:O	1:N:410:GLY:N	2.35	0.53
1:N:152:ALA:O	1:N:153:ASN:HB3	2.09	0.53
1:C:96:ALA:O	1:C:97:GLN:C	2.46	0.53
2:O:47:ARG:O	2:O:54:VAL:HG13	2.09	0.53
2:Q:49:LEU:O	2:Q:55:LYS:NZ	2.41	0.53
1:G:346:VAL:HA	1:G:349:ILE:HD12	1.90	0.53
1:I:247:LEU:C	1:I:247:LEU:HD13	2.29	0.53
1:F:452:ARG:HB2	1:F:462:PRO:CB	2.32	0.53
1:K:499:VAL:CG2	1:K:500:THR:N	2.71	0.53
1:D:289:LEU:O	1:D:292:ILE:HB	2.09	0.53
1:H:107:VAL:CG2	1:H:108:ALA:N	2.72	0.53
1:I:381:VAL:HB	1:I:389:MET:HE3	1.91	0.53
1:J:385:THR:HG23	1:J:388:GLU:HB3	1.91	0.53
1:H:285:ARG:O	1:H:288:MET:HB2	2.09	0.53
1:B:284:ARG:HG2	1:B:288:MET:HE2	1.91	0.53
1:H:145:ALA:O	1:H:149:THR:HG23	2.08	0.53
1:H:193:MET:CG	1:H:194:GLN:N	2.71	0.53
2:Q:14:ARG:CD	2:Q:35:SER:HB3	2.39	0.53
1:E:486:GLY:HA3	1:E:491:MET:HE2	1.90	0.53
1:E:54:VAL:HB	1:E:89:THR:HG21	1.90	0.53
1:M:494:LEU:O	1:M:495:ASP:OD1	2.27	0.53
2:T:20:LYS:HB3	2:T:27:LEU:HG	1.91	0.53
1:N:262:LEU:HA	1:N:265:ASN:HB3	1.91	0.53
1:N:101:THR:HG22	1:N:105:LYS:HE3	1.89	0.53
1:G:96:ALA:O	1:G:97:GLN:C	2.47	0.53
1:E:509:SER:CB	1:F:385:THR:HG23	2.40	0.53
1:M:398:ASP:O	1:M:401:HIS:HB2	2.08	0.53
2:O:47:ARG:HD2	2:O:55:LYS:HD2	1.90	0.52
1:F:273:VAL:CG1	1:F:274:ALA:N	2.68	0.52
1:K:353:ILE:HA	1:K:365:LEU:HD12	1.91	0.52
1:E:368:ARG:CD	1:E:372:LEU:HD11	2.39	0.52
1:K:247:LEU:HB3	1:K:273:VAL:HG11	1.91	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:230:ILE:HD11	1:K:257:GLU:O	2.09	0.52
1:K:256:GLY:CA	1:K:259:LEU:HB3	2.38	0.52
1:L:248:LEU:HD13	1:L:248:LEU:C	2.28	0.52
1:M:231:ARG:O	1:M:234:LEU:HG	2.09	0.52
1:H:219:PHE:CB	1:H:317:LEU:HD23	2.39	0.52
1:G:202:PRO:HG2	1:G:203:TYR:CD1	2.44	0.52
2:R:34:LYS:HG3	2:R:35:SER:N	2.21	0.52
2:R:48:ILE:HG22	2:R:48:ILE:O	2.08	0.52
1:I:422:VAL:O	1:I:426:LEU:HD23	2.08	0.52
1:J:218:PRO:HB3	1:J:246:PRO:HB2	1.90	0.52
1:A:360:TYR:H	1:A:363:GLU:HG3	1.74	0.52
1:K:145:ALA:O	1:K:149:THR:HG23	2.10	0.52
1:N:450:PRO:O	1:N:454:ILE:HG12	2.09	0.52
1:F:77:VAL:CG1	1:F:510:VAL:HG21	2.39	0.52
1:F:510:VAL:O	1:F:511:ALA:C	2.48	0.52
1:K:217:SER:HA	1:K:320:ALA:O	2.09	0.52
1:C:403:THR:O	1:C:407:VAL:HG23	2.09	0.52
1:N:95:LEU:O	1:N:98:ALA:HB3	2.09	0.52
1:M:198:GLY:CA	1:M:328:ASP:HA	2.38	0.52
1:G:381:VAL:CG1	1:G:392:LYS:CG	2.87	0.52
1:N:164:GLU:O	1:N:167:ASP:HB3	2.08	0.52
1:C:436:GLN:O	1:C:440:ILE:HG13	2.09	0.52
1:K:404:ARG:O	1:K:408:GLU:HG3	2.09	0.52
1:I:195:PHE:CE1	1:I:330:THR:HB	2.44	0.52
1:A:112:ASN:HD21	1:A:114:MET:HB3	1.73	0.52
1:K:455:VAL:HG11	1:K:462:PRO:HA	1.91	0.52
1:D:400:LEU:HD13	1:D:400:LEU:O	2.09	0.52
1:L:358:SER:HB3	1:L:361:ASP:OD1	2.09	0.52
1:G:235:PRO:HG2	1:G:236:VAL:HG23	1.91	0.52
1:D:199:TYR:CE2	1:D:205:ILE:HG12	2.44	0.52
1:G:218:PRO:HA	1:G:246:PRO:HG2	1.91	0.52
1:D:19:GLY:HA3	1:D:67:GLU:O	2.09	0.52
1:M:247:LEU:HB3	1:M:273:VAL:HG11	1.90	0.52
1:C:486:GLY:HA3	1:C:491:MET:CE	2.39	0.52
1:K:160:LYS:HG2	1:K:164:GLU:OE2	2.08	0.52
1:F:417:VAL:HG13	1:F:418:ALA:N	2.24	0.52
1:B:420:ILE:HD11	1:B:470:LYS:CG	2.39	0.52
1:H:161:LEU:CD1	1:H:161:LEU:H	2.22	0.52
1:M:325:ILE:HG13	1:M:330:THR:HG23	1.89	0.52
1:H:411:VAL:HA	1:H:497:THR:H	1.74	0.52
2:O:4:ARG:HD2	2:O:5:PRO:HD2	1.90	0.52
1:K:129:GLU:O	1:K:132:LYS:N	2.41	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:161:LEU:N	1:M:161:LEU:HD12	2.23	0.52
1:N:404:ARG:O	1:N:408:GLU:HG3	2.10	0.52
1:F:107:VAL:HG13	1:F:113:PRO:HG3	1.90	0.52
1:L:226:LYS:HG3	1:L:252:GLU:HB3	1.91	0.52
1:F:327:LYS:HD3	1:F:327:LYS:H	1.73	0.52
1:I:77:VAL:HG22	1:I:506:TYR:HB3	1.91	0.52
1:A:233:MET:C	1:A:235:PRO:CD	2.75	0.52
1:F:220:ILE:HD12	1:F:220:ILE:N	2.24	0.52
1:E:253:ASP:CG	1:E:254:VAL:N	2.62	0.52
1:E:265:ASN:OD1	2:S:27:LEU:HB3	2.10	0.52
1:K:232:GLU:HB2	1:K:233:MET:HE3	1.91	0.52
1:N:221:LEU:HD22	1:N:222:LEU:H	1.75	0.52
1:L:359:ASP:CA	1:L:362:ARG:HH12	2.10	0.52
1:L:313:THR:CG2	1:L:314:LEU:N	2.72	0.52
1:J:221:LEU:HD11	1:J:223:ALA:HB2	1.91	0.52
1:D:295:LEU:HD23	1:D:295:LEU:C	2.29	0.52
1:L:90:THR:O	1:L:93:THR:HB	2.09	0.52
1:H:287:ALA:HB1	1:H:368:ARG:CZ	2.39	0.52
1:B:283:ASP:O	1:B:287:ALA:HB2	2.09	0.52
1:B:486:GLY:HA3	1:B:491:MET:CE	2.39	0.52
1:M:205:ILE:HA	1:M:213:VAL:CG2	2.36	0.52
1:E:510:VAL:HG23	1:E:511:ALA:H	1.73	0.52
1:F:305:ILE:CG2	1:F:306:GLY:H	2.19	0.52
1:F:124:VAL:HG22	1:F:504:LEU:HD11	1.91	0.52
1:H:109:ALA:HB3	1:H:111:MET:CE	2.39	0.52
1:F:5:ASP:HB2	1:F:524:LEU:CD2	2.39	0.52
1:F:143:ALA:O	1:F:146:GLN:HB2	2.10	0.52
1:L:455:VAL:HG11	1:L:462:PRO:HA	1.91	0.52
1:D:56:VAL:O	1:D:57:ALA:C	2.48	0.52
1:H:240:VAL:HA	1:H:243:ALA:HB3	1.90	0.52
1:F:479:ASN:HB3	1:F:482:THR:OG1	2.09	0.52
1:L:117:LYS:HG2	1:L:121:ASP:OD2	2.10	0.52
1:D:215:LEU:O	1:D:322:ARG:HG3	2.09	0.52
1:B:199:TYR:HE2	1:B:205:ILE:HG12	1.75	0.52
1:B:329:THR:CG2	1:B:330:THR:N	2.72	0.52
2:U:55:LYS:N	2:U:55:LYS:CE	2.60	0.52
1:C:233:MET:C	1:C:235:PRO:CD	2.76	0.52
1:G:206:ASN:HB3	1:G:214:GLU:H	1.73	0.52
1:B:311:LYS:O	1:B:312:ALA:HB2	2.09	0.52
1:E:7:LYS:HD2	1:E:66:PHE:CE2	2.45	0.52
1:N:230:ILE:HD11	1:N:257:GLU:O	2.10	0.52
1:I:258:ALA:O	1:I:261:THR:OG1	2.25	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:352:GLN:C	1:C:365:LEU:HD11	2.30	0.52
1:J:66:PHE:N	1:J:69:MET:HG3	2.21	0.52
1:F:361:ASP:C	1:F:363:GLU:H	2.13	0.52
1:C:455:VAL:O	1:C:458:CYS:HB2	2.09	0.52
1:B:134:LEU:H	1:B:134:LEU:HD12	1.75	0.52
1:B:280:GLY:HA3	1:B:284:ARG:HH11	1.73	0.52
1:B:284:ARG:O	1:B:287:ALA:HB3	2.10	0.52
1:M:383:ALA:CB	1:M:389:MET:HA	2.39	0.52
1:A:78:ALA:O	1:A:89:THR:HG22	2.10	0.52
1:E:412:VAL:HG13	1:E:497:THR:OG1	2.10	0.52
2:P:78:ILE:HD13	2:P:83:VAL:CG2	2.38	0.52
1:I:190:VAL:HG21	1:I:334:ASP:CG	2.30	0.52
2:R:8:ASP:O	2:R:87:SER:HA	2.09	0.52
1:I:302:SER:HB2	1:I:305:ILE:CD1	2.39	0.52
1:J:302:SER:HB2	1:J:305:ILE:HD12	1.91	0.52
1:I:479:ASN:O	1:I:483:GLU:N	2.42	0.52
1:M:299:THR:HB	1:M:316:ASP:HB3	1.90	0.52
1:F:184:GLN:N	1:F:184:GLN:OE1	2.39	0.52
1:C:468:THR:OG1	1:C:485:TYR:CE2	2.62	0.52
1:A:308:GLU:HB2	1:A:311:LYS:CB	2.39	0.52
1:B:232:GLU:O	1:B:233:MET:CB	2.57	0.52
1:E:14:VAL:O	1:E:18:ARG:HG3	2.09	0.52
1:L:249:ILE:HG22	1:L:250:ILE:N	2.25	0.52
1:C:264:VAL:HA	1:C:267:MET:HB2	1.91	0.52
1:C:348:GLN:HE22	1:C:352:GLN:NE2	2.07	0.52
2:U:20:LYS:HD2	2:U:20:LYS:N	2.23	0.52
1:I:131:LEU:CD1	1:I:422:VAL:HG11	2.39	0.52
1:D:16:MET:O	1:D:20:VAL:HG23	2.10	0.52
1:H:147:VAL:HA	1:H:150:ILE:HD12	1.91	0.52
1:E:305:ILE:N	1:E:305:ILE:CD1	2.69	0.52
1:F:411:VAL:HA	1:F:497:THR:H	1.73	0.52
1:K:284:ARG:H	1:K:284:ARG:HH11	1.57	0.52
1:K:23:LEU:O	1:K:27:VAL:HG12	2.09	0.52
1:E:87:ASP:OD1	1:E:88:GLY:N	2.42	0.52
1:M:104:LEU:O	1:M:107:VAL:HG22	2.09	0.52
1:I:149:THR:HG22	1:I:156:GLU:HA	1.90	0.52
1:H:77:VAL:HG22	1:H:506:TYR:HB3	1.91	0.52
1:F:433:ASN:OD1	1:F:436:GLN:HB2	2.09	0.52
2:P:14:ARG:CG	2:P:15:LYS:N	2.72	0.52
1:D:124:VAL:HG13	1:D:504:LEU:HD12	1.92	0.52
2:O:50:GLU:O	2:O:52:GLY:N	2.43	0.52
1:N:420:ILE:CD1	1:N:448:GLU:HA	2.38	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:124:VAL:HG13	1:A:504:LEU:CD1	2.39	0.52
1:C:54:VAL:HB	1:C:89:THR:HG21	1.91	0.52
1:E:433:ASN:HD21	1:E:435:ASP:HB2	1.74	0.52
1:K:358:SER:HB3	1:K:361:ASP:OD1	2.10	0.52
1:F:477:GLY:HA3	1:F:488:MET:SD	2.48	0.52
1:M:392:LYS:O	1:M:396:VAL:HG23	2.08	0.52
1:B:200:LEU:HD12	1:B:200:LEU:N	2.24	0.52
1:H:301:ILE:CD1	1:H:301:ILE:N	2.73	0.52
1:L:230:ILE:HD11	1:L:257:GLU:O	2.09	0.52
2:Q:27:LEU:HD23	2:Q:27:LEU:O	2.09	0.52
1:L:149:THR:HG22	1:L:156:GLU:O	2.09	0.52
1:M:419:LEU:HD21	1:M:500:THR:HG23	1.92	0.52
1:H:103:GLY:O	1:H:107:VAL:HG13	2.09	0.52
1:G:418:ALA:O	1:G:422:VAL:HG13	2.09	0.52
1:H:345:ARG:HH22	1:H:368:ARG:NH2	2.07	0.52
1:H:350:ARG:HE	1:H:369:VAL:HG11	1.75	0.52
1:G:510:VAL:CG2	1:G:511:ALA:H	2.23	0.52
1:I:349:ILE:O	1:I:350:ARG:C	2.48	0.52
1:K:487:ASN:O	1:K:491:MET:HG3	2.09	0.52
1:B:87:ASP:OD1	1:B:88:GLY:N	2.42	0.52
1:H:129:GLU:O	1:H:132:LYS:N	2.42	0.52
1:M:221:LEU:C	1:M:221:LEU:HD13	2.30	0.52
1:D:127:ALA:O	1:D:130:GLU:HB2	2.08	0.52
1:E:509:SER:OG	1:F:385:THR:HG23	2.10	0.52
1:N:72:GLN:HA	1:N:72:GLN:NE2	2.24	0.52
1:C:451:LEU:HD23	1:C:451:LEU:C	2.30	0.52
1:M:155:ASP:CG	1:M:158:VAL:HG23	2.30	0.52
1:H:386:GLU:HG2	1:H:390:LYS:HE2	1.90	0.52
1:G:7:LYS:HD2	1:G:66:PHE:CE2	2.45	0.52
1:E:213:VAL:O	1:E:324:VAL:HA	2.10	0.52
1:E:281:PHE:O	1:E:285:ARG:HG2	2.10	0.52
1:I:232:GLU:CB	1:I:233:MET:HE1	2.39	0.52
1:C:229:ASN:C	1:C:231:ARG:H	2.13	0.52
1:C:265:ASN:HB3	1:C:271:VAL:HG22	1.92	0.52
1:L:64:ASP:OD1	1:L:65:LYS:O	2.27	0.52
1:L:145:ALA:HA	1:L:159:GLY:O	2.09	0.52
1:D:366:GLN:O	1:D:369:VAL:HB	2.09	0.52
1:D:368:ARG:HD2	1:D:372:LEU:HD11	1.91	0.52
1:F:420:ILE:HD11	1:F:470:LYS:CG	2.40	0.52
1:H:193:MET:HG2	1:H:194:GLN:H	1.74	0.52
1:E:234:LEU:HD23	2:S:23:GLY:HA3	1.91	0.52
1:A:134:LEU:O	1:A:136:VAL:HG13	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:321:LYS:HD2	1:M:334:ASP:OD2	2.09	0.52
1:L:214:GLU:HG2	1:L:324:VAL:HG12	1.91	0.52
1:A:161:LEU:O	1:A:164:GLU:HB2	2.10	0.52
1:E:124:VAL:HG13	1:E:504:LEU:HD12	1.91	0.52
1:D:72:GLN:HA	1:D:72:GLN:NE2	2.25	0.52
1:F:338:GLU:O	1:F:341:ALA:HB3	2.08	0.52
1:N:40:LEU:HD22	1:N:40:LEU:N	2.25	0.52
1:H:229:ASN:HD21	1:N:270:ILE:HG23	1.74	0.52
1:E:215:LEU:HB3	1:E:246:PRO:CB	2.35	0.52
1:K:222:LEU:HD22	1:K:289:LEU:HD11	1.90	0.52
1:N:222:LEU:HD13	1:N:293:ALA:HB2	1.92	0.52
2:Q:20:LYS:HG2	2:Q:27:LEU:HD23	1.91	0.52
1:J:285:ARG:HG2	1:J:285:ARG:HH11	1.75	0.52
1:J:287:ALA:O	1:J:290:GLN:N	2.43	0.52
1:A:322:ARG:CB	1:A:333:ILE:HD12	2.28	0.52
1:G:253:ASP:CG	1:G:254:VAL:N	2.63	0.52
1:I:386:GLU:O	1:I:389:MET:HB3	2.10	0.52
1:B:278:ALA:CB	1:B:279:PRO:CD	2.85	0.52
1:I:200:LEU:HD13	1:I:276:VAL:HA	1.90	0.52
1:M:200:LEU:CD1	1:M:276:VAL:HA	2.40	0.52
1:A:417:VAL:CA	1:A:420:ILE:HG22	2.39	0.52
1:A:510:VAL:CG2	1:A:511:ALA:H	2.23	0.52
1:E:496:PRO:HG2	1:E:499:VAL:CG1	2.40	0.52
1:L:420:ILE:CD1	1:L:448:GLU:HA	2.40	0.52
2:R:78:ILE:N	2:R:78:ILE:HD12	2.25	0.52
1:E:59:GLU:OE1	1:E:59:GLU:HA	2.10	0.52
1:C:7:LYS:HD2	1:C:66:PHE:CE2	2.44	0.52
1:D:472:GLY:HA3	1:D:476:TYR:CD2	2.44	0.52
1:A:262:LEU:HD11	1:A:273:VAL:HB	1.92	0.52
1:I:257:GLU:O	1:I:261:THR:HG23	2.09	0.52
1:C:281:PHE:H	1:C:284:ARG:NE	2.07	0.52
1:H:403:THR:O	1:H:407:VAL:HG23	2.10	0.52
1:K:157:THR:O	1:K:161:LEU:HD13	2.10	0.52
1:J:169:VAL:O	1:J:169:VAL:HG22	2.10	0.52
1:H:320:ALA:HA	1:H:334:ASP:O	2.10	0.52
2:T:78:ILE:N	2:T:78:ILE:HD12	2.25	0.52
1:N:266:THR:HG22	1:N:273:VAL:H	1.75	0.52
1:M:351:GLN:O	1:M:354:GLU:N	2.36	0.52
1:L:450:PRO:O	1:L:454:ILE:HG12	2.09	0.52
1:L:353:ILE:HA	1:L:365:LEU:CD1	2.40	0.52
1:M:175:ILE:CD1	1:M:175:ILE:N	2.73	0.52
1:E:177:VAL:HG22	1:E:393:LYS:HG3	1.90	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:R:77:LYS:C	2:R:78:ILE:HD12	2.30	0.52
1:A:47:PRO:HD3	1:G:72:GLN:HB3	1.92	0.52
1:N:420:ILE:HD13	1:N:448:GLU:HA	1.92	0.52
1:M:55:SER:O	1:M:58:ARG:HB3	2.10	0.52
1:G:41:ASP:O	1:G:42:LYS:CG	2.57	0.52
1:C:327:LYS:H	1:C:327:LYS:HD3	1.75	0.52
1:F:512:GLY:O	1:F:515:ILE:HG12	2.10	0.52
1:D:122:LYS:HE2	1:D:429:LEU:HD11	1.92	0.52
1:D:200:LEU:HD12	1:D:200:LEU:N	2.25	0.52
1:D:266:THR:HG22	1:D:273:VAL:N	2.24	0.52
1:I:256:GLY:O	1:I:257:GLU:C	2.46	0.52
1:M:314:LEU:HD12	1:M:314:LEU:N	2.15	0.52
1:L:219:PHE:HE1	1:L:245:LYS:HD2	1.73	0.52
2:Q:20:LYS:HB3	2:Q:27:LEU:HG	1.92	0.52
1:M:259:LEU:C	1:M:259:LEU:HD23	2.31	0.52
1:I:313:THR:HG22	1:I:314:LEU:N	2.24	0.52
2:R:14:ARG:NH1	2:R:14:ARG:CB	2.73	0.52
1:E:417:VAL:HG13	1:E:418:ALA:N	2.23	0.52
1:J:385:THR:CG2	1:J:388:GLU:HB3	2.40	0.52
1:F:406:ALA:O	1:F:410:GLY:N	2.43	0.52
1:L:124:VAL:HG13	1:L:504:LEU:HD13	1.90	0.52
1:C:381:VAL:CG1	1:C:392:LYS:CG	2.88	0.52
1:F:177:VAL:HG22	1:F:393:LYS:HG3	1.91	0.52
1:H:264:VAL:HA	1:H:267:MET:CG	2.39	0.52
1:C:432:GLN:NE2	1:C:436:GLN:HE22	2.08	0.52
1:D:381:VAL:CG1	1:D:392:LYS:HG2	2.39	0.52
1:L:395:ARG:O	1:L:398:ASP:HB2	2.10	0.52
1:I:400:LEU:C	1:I:400:LEU:HD23	2.29	0.52
1:L:478:TYR:HB2	1:L:485:TYR:CD2	2.45	0.52
1:C:164:GLU:O	1:C:167:ASP:HB3	2.09	0.52
1:G:482:THR:OG1	1:G:484:GLU:HG2	2.09	0.52
1:G:232:GLU:O	1:G:310:GLU:OE2	2.28	0.51
1:F:247:LEU:HB3	1:F:273:VAL:CG1	2.40	0.51
1:C:218:PRO:HD2	1:C:320:ALA:O	2.09	0.51
1:B:308:GLU:HB2	1:B:311:LYS:HB2	1.92	0.51
1:E:228:SER:HA	1:E:255:GLU:CB	2.22	0.51
1:E:338:GLU:O	1:E:342:ILE:HG13	2.10	0.51
1:D:14:VAL:O	1:D:18:ARG:HG3	2.09	0.51
1:I:301:ILE:HD12	1:I:301:ILE:H	1.73	0.51
1:L:221:LEU:HD12	1:L:249:ILE:HG23	1.92	0.51
1:L:293:ALA:HB1	1:L:298:GLY:O	2.10	0.51
1:G:222:LEU:HD21	1:G:292:ILE:HB	1.90	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:325:ILE:HA	1:G:329:THR:O	2.10	0.51
1:G:325:ILE:CG1	1:G:330:THR:HG23	2.40	0.51
2:U:20:LYS:HG3	2:U:28:THR:O	2.10	0.51
1:H:385:THR:CG2	1:H:388:GLU:HB3	2.39	0.51
1:K:7:LYS:HG3	1:K:66:PHE:CE2	2.45	0.51
1:G:127:ALA:O	1:G:130:GLU:HB2	2.10	0.51
1:G:417:VAL:CA	1:G:420:ILE:HG22	2.40	0.51
1:J:218:PRO:CG	1:J:246:PRO:HB2	2.40	0.51
1:J:27:VAL:HG11	1:J:93:THR:HG21	1.93	0.51
2:P:5:PRO:CD	2:P:42:ALA:HB1	2.39	0.51
1:K:190:VAL:HG22	1:K:191:GLU:N	2.25	0.51
1:E:77:VAL:HG12	1:E:510:VAL:HG21	1.92	0.51
1:M:101:THR:HG22	1:M:105:LYS:HE3	1.90	0.51
1:A:403:THR:O	1:A:407:VAL:HG23	2.09	0.51
2:R:83:VAL:C	2:R:84:LEU:HD12	2.30	0.51
1:L:288:MET:HA	1:L:288:MET:CE	2.40	0.51
1:N:487:ASN:HB3	1:N:490:ASP:HB2	1.90	0.51
1:C:56:VAL:O	1:C:57:ALA:C	2.49	0.51
1:I:72:GLN:HA	1:I:72:GLN:NE2	2.26	0.51
1:G:233:MET:C	1:G:235:PRO:CD	2.77	0.51
1:E:200:LEU:CD1	1:E:276:VAL:HA	2.40	0.51
1:L:248:LEU:HD22	1:L:249:ILE:N	2.25	0.51
1:C:366:GLN:HA	1:C:369:VAL:CG2	2.39	0.51
1:G:261:THR:O	1:G:265:ASN:ND2	2.43	0.51
1:A:289:LEU:HD23	1:A:292:ILE:HD12	1.92	0.51
1:D:289:LEU:HA	1:D:292:ILE:HD12	1.91	0.51
1:D:510:VAL:O	1:D:511:ALA:C	2.47	0.51
1:N:286:LYS:HA	1:N:286:LYS:CE	2.33	0.51
1:B:304:GLU:HB2	1:B:305:ILE:HD12	1.91	0.51
1:C:211:GLY:O	1:C:325:ILE:O	2.28	0.51
1:H:104:LEU:O	1:H:107:VAL:HG22	2.09	0.51
1:M:147:VAL:HA	1:M:150:ILE:HD12	1.91	0.51
1:N:266:THR:HG21	1:N:273:VAL:O	2.10	0.51
1:M:354:GLU:CG	1:M:355:GLU:N	2.73	0.51
1:M:284:ARG:H	1:M:284:ARG:HH11	1.56	0.51
1:I:354:GLU:CG	1:I:355:GLU:N	2.73	0.51
2:Q:37:ARG:HG2	2:Q:37:ARG:NH1	2.25	0.51
1:K:302:SER:HB2	1:K:305:ILE:CD1	2.40	0.51
1:K:197:ARG:HG2	1:K:277:LYS:O	2.11	0.51
1:G:180:GLY:HA3	1:G:380:LYS:HB3	1.92	0.51
1:C:69:MET:CE	1:D:39:VAL:HG12	2.40	0.51
1:F:501:ARG:O	1:F:505:GLN:HG3	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:37:ASN:ND2	1:I:37:ASN:H	2.08	0.51
1:H:10:ASN:O	1:H:11:ASP:C	2.49	0.51
1:G:468:THR:OG1	1:G:485:TYR:CE2	2.61	0.51
1:F:320:ALA:HA	1:F:335:GLY:HA2	1.91	0.51
1:A:239:ALA:HB1	1:A:314:LEU:HD23	1.92	0.51
1:F:261:THR:HB	2:T:29:GLY:HA3	1.92	0.51
1:C:366:GLN:O	1:C:369:VAL:HB	2.10	0.51
1:H:219:PHE:CE1	1:H:245:LYS:HD2	2.44	0.51
1:N:17:LEU:O	1:N:20:VAL:HG13	2.10	0.51
1:G:248:LEU:HD13	1:G:249:ILE:N	2.25	0.51
1:L:157:THR:O	1:L:161:LEU:CD1	2.58	0.51
1:A:292:ILE:O	1:A:295:LEU:HB3	2.11	0.51
1:F:357:THR:CG2	1:F:361:ASP:HB2	2.40	0.51
1:B:131:LEU:HD23	1:B:422:VAL:HG11	1.90	0.51
1:B:130:GLU:O	1:B:134:LEU:HD13	2.11	0.51
1:H:360:TYR:O	1:H:364:LYS:HB2	2.10	0.51
1:K:27:VAL:HG11	1:K:93:THR:HG21	1.93	0.51
2:T:78:ILE:HD13	2:T:83:VAL:CG2	2.39	0.51
1:M:363:GLU:O	1:M:367:GLU:HG3	2.11	0.51
1:D:147:VAL:HA	1:D:150:ILE:HG22	1.90	0.51
1:G:177:VAL:HG11	1:G:397:GLU:HG2	1.92	0.51
1:K:205:ILE:HG23	1:K:212:ALA:O	2.10	0.51
1:J:101:THR:HG22	1:J:105:LYS:HE3	1.92	0.51
1:M:40:LEU:HD23	1:M:50:THR:HG22	1.93	0.51
1:L:478:TYR:CE1	1:L:483:GLU:HA	2.46	0.51
1:B:309:LEU:HD12	1:B:309:LEU:H	1.75	0.51
1:D:430:ARG:HG2	1:D:430:ARG:HH11	1.76	0.51
1:D:176:THR:OG1	1:D:378:VAL:HG22	2.10	0.51
1:H:30:THR:HB	1:H:51:LYS:O	2.10	0.51
1:A:313:THR:CG2	1:A:315:GLU:HG3	2.40	0.51
1:A:256:GLY:HA2	1:A:259:LEU:HD12	1.91	0.51
2:O:20:LYS:HG2	2:O:27:LEU:HD23	1.91	0.51
1:L:230:ILE:H	1:L:230:ILE:CD1	2.16	0.51
1:A:321:LYS:HD2	1:A:333:ILE:HG22	1.92	0.51
1:G:256:GLY:O	1:G:257:GLU:C	2.49	0.51
2:R:14:ARG:CG	2:R:35:SER:HB3	2.39	0.51
1:F:357:THR:HB	1:F:361:ASP:CB	2.41	0.51
1:H:65:LYS:O	1:H:66:PHE:CB	2.46	0.51
1:E:16:MET:O	1:E:20:VAL:HG23	2.10	0.51
1:M:23:LEU:O	1:M:27:VAL:HG12	2.10	0.51
1:L:206:ASN:ND2	1:L:207:LYS:HE2	2.25	0.51
1:I:351:GLN:O	1:I:354:GLU:N	2.32	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:494:LEU:CD2	1:L:494:LEU:N	2.72	0.51
1:K:107:VAL:CG2	1:K:108:ALA:N	2.74	0.51
2:T:20:LYS:HG3	2:T:28:THR:O	2.10	0.51
1:K:200:LEU:HD13	1:K:276:VAL:HA	1.91	0.51
1:J:161:LEU:H	1:J:161:LEU:CD1	2.24	0.51
1:F:111:MET:CE	1:F:438:VAL:HG21	2.41	0.51
1:D:160:LYS:O	1:D:164:GLU:HG3	2.10	0.51
1:C:401:HIS:O	1:C:404:ARG:HB2	2.10	0.51
1:M:302:SER:HB2	1:M:305:ILE:CG1	2.39	0.51
1:D:249:ILE:HG22	1:D:250:ILE:N	2.24	0.51
1:F:229:ASN:C	1:F:231:ARG:N	2.64	0.51
1:C:272:LYS:HB2	1:C:272:LYS:HZ2	1.75	0.51
1:E:357:THR:HB	1:E:361:ASP:CB	2.41	0.51
1:K:222:LEU:CD1	1:K:293:ALA:HA	2.41	0.51
1:K:232:GLU:HA	1:K:310:GLU:CG	2.41	0.51
1:C:292:ILE:O	1:C:295:LEU:HB3	2.10	0.51
1:N:426:LEU:N	1:N:426:LEU:HD23	2.12	0.51
1:L:158:VAL:C	1:L:160:LYS:N	2.64	0.51
1:D:253:ASP:CG	1:D:254:VAL:H	2.13	0.51
2:T:14:ARG:CG	2:T:15:LYS:N	2.74	0.51
1:J:169:VAL:CG1	1:J:173:GLY:HA3	2.39	0.51
1:H:190:VAL:HG22	1:H:191:GLU:N	2.26	0.51
1:I:218:PRO:HB3	1:I:246:PRO:HB2	1.91	0.51
2:T:48:ILE:HG22	2:T:48:ILE:O	2.11	0.51
1:C:434:GLU:OE2	1:C:438:VAL:HG23	2.11	0.51
1:F:54:VAL:HB	1:F:89:THR:HG21	1.91	0.51
1:L:285:ARG:HA	1:L:288:MET:HB2	1.92	0.51
1:J:478:TYR:HB2	1:J:485:TYR:CE2	2.46	0.51
1:B:475:ASN:ND2	1:B:475:ASN:N	2.57	0.51
1:B:65:LYS:O	1:B:69:MET:HG3	2.09	0.51
1:H:73:MET:HE3	1:N:49:ILE:HD11	1.93	0.51
1:F:194:GLN:HG3	1:F:330:THR:O	2.11	0.51
1:B:249:ILE:HG22	1:B:250:ILE:N	2.26	0.51
1:F:262:LEU:HD11	1:F:273:VAL:HB	1.92	0.51
1:C:272:LYS:NZ	1:C:272:LYS:HB2	2.24	0.51
1:B:313:THR:HG22	1:B:314:LEU:N	2.25	0.51
1:N:308:GLU:OE2	1:N:310:GLU:HG3	2.10	0.51
1:K:248:LEU:HD22	1:K:249:ILE:H	1.76	0.51
1:K:248:LEU:HD13	1:K:249:ILE:N	2.25	0.51
1:K:313:THR:HB	1:K:315:GLU:HG2	1.93	0.51
1:F:456:LEU:HD13	1:F:462:PRO:HG2	1.93	0.51
1:D:366:GLN:HA	1:D:369:VAL:CG2	2.41	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:109:ALA:HB3	1:L:111:MET:HE3	1.93	0.51
2:S:17:VAL:HG22	2:S:35:SER:N	2.26	0.51
1:B:278:ALA:HB1	1:B:279:PRO:HD2	1.89	0.51
2:S:47:ARG:HD3	2:S:49:LEU:CD1	2.37	0.51
1:C:237:LEU:C	1:C:237:LEU:HD23	2.31	0.51
1:E:27:VAL:HG13	1:E:53:GLY:HA2	1.92	0.51
1:L:138:CYS:SG	1:L:144:ILE:HD13	2.51	0.51
1:J:302:SER:HB2	1:J:305:ILE:HG13	1.92	0.51
1:F:145:ALA:O	1:F:159:GLY:HA3	2.11	0.51
1:H:259:LEU:HD23	1:H:259:LEU:C	2.31	0.51
1:H:256:GLY:CA	1:H:259:LEU:HB3	2.39	0.51
1:A:249:ILE:HG22	1:A:250:ILE:N	2.26	0.51
1:C:235:PRO:HG2	1:C:236:VAL:HG23	1.92	0.51
1:C:333:ILE:O	1:C:334:ASP:HB2	2.11	0.51
1:G:221:LEU:C	1:G:222:LEU:HD12	2.31	0.51
1:G:283:ASP:O	1:G:287:ALA:HB2	2.11	0.51
1:D:357:THR:CG2	1:D:361:ASP:HB2	2.40	0.51
2:T:47:ARG:HB3	2:T:55:LYS:HG2	1.92	0.51
1:K:16:MET:HG3	1:K:520:MET:SD	2.50	0.51
1:A:496:PRO:HG2	1:A:499:VAL:HG13	1.91	0.51
1:B:346:VAL:HG12	1:B:350:ARG:NH2	2.26	0.51
1:B:252:GLU:HA	1:B:285:ARG:NH1	2.26	0.51
2:T:14:ARG:HB2	2:T:14:ARG:NH1	2.26	0.51
1:L:320:ALA:HA	1:L:334:ASP:O	2.10	0.51
1:A:131:LEU:HD23	1:A:422:VAL:HG11	1.91	0.51
1:M:93:THR:O	1:M:96:ALA:HB3	2.10	0.51
1:I:321:LYS:HD2	1:I:334:ASP:OD2	2.11	0.51
2:R:7:HIS:C	2:R:9:ARG:H	2.14	0.51
1:A:23:LEU:HD13	1:A:23:LEU:C	2.31	0.51
1:I:40:LEU:N	1:I:40:LEU:HD22	2.24	0.51
1:K:40:LEU:N	1:K:40:LEU:HD22	2.25	0.51
1:H:231:ARG:O	1:H:234:LEU:HG	2.11	0.51
1:H:180:GLY:HA2	1:H:380:LYS:HB3	1.93	0.51
1:G:309:LEU:H	1:G:309:LEU:HD12	1.75	0.51
1:A:234:LEU:HA	1:A:237:LEU:HB3	1.93	0.51
1:I:235:PRO:HG2	1:I:236:VAL:H	1.76	0.51
1:C:252:GLU:O	1:C:277:LYS:HE2	2.11	0.51
1:M:311:LYS:HD2	1:M:311:LYS:N	2.26	0.51
1:N:66:PHE:HD1	1:N:520:MET:HE2	1.73	0.51
1:D:78:ALA:O	1:D:89:THR:HG22	2.11	0.51
1:M:149:THR:HG22	1:M:156:GLU:O	2.11	0.51
1:J:191:GLU:O	1:J:334:ASP:HA	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:279:PRO:HB3	1:F:288:MET:HE1	1.93	0.51
2:S:7:HIS:HB2	2:S:46:GLY:O	2.11	0.51
1:L:351:GLN:O	1:L:354:GLU:N	2.27	0.51
1:D:267:MET:O	1:D:269:GLY:N	2.44	0.51
1:F:436:GLN:O	1:F:440:ILE:HG13	2.10	0.51
1:I:166:MET:HE2	1:I:171:LYS:HG2	1.92	0.51
1:B:147:VAL:O	1:B:150:ILE:HG22	2.11	0.51
1:M:178:GLU:O	1:M:380:LYS:HA	2.11	0.51
1:M:72:GLN:HA	1:M:72:GLN:NE2	2.24	0.51
1:H:343:GLN:O	1:H:346:VAL:HB	2.10	0.51
1:D:333:ILE:O	1:D:334:ASP:HB2	2.09	0.51
1:C:309:LEU:HD12	1:C:309:LEU:H	1.76	0.51
1:E:320:ALA:HA	1:E:335:GLY:HA2	1.92	0.51
1:E:357:THR:CG2	1:E:361:ASP:HB2	2.41	0.51
1:M:247:LEU:HD22	1:M:248:LEU:H	1.76	0.51
1:G:305:ILE:N	1:G:305:ILE:CD1	2.69	0.51
1:C:290:GLN:O	1:C:294:THR:N	2.40	0.51
1:H:266:THR:HG21	1:H:273:VAL:O	2.10	0.51
1:A:194:GLN:NE2	1:A:329:THR:HG21	2.26	0.51
2:O:17:VAL:HG13	2:O:34:LYS:CA	2.39	0.51
1:K:425:LYS:O	1:K:427:ALA:N	2.44	0.51
1:A:357:THR:HB	1:A:361:ASP:HB2	1.92	0.51
1:D:279:PRO:HD2	1:D:285:ARG:CA	2.41	0.51
1:G:207:LYS:HB2	1:G:207:LYS:HZ2	1.75	0.51
2:S:14:ARG:HB2	2:S:14:ARG:NH1	2.26	0.51
1:J:385:THR:HG23	1:J:388:GLU:N	2.24	0.51
1:A:130:GLU:OE1	1:A:130:GLU:HA	2.11	0.51
1:J:413:ALA:CB	1:J:417:VAL:HB	2.41	0.51
1:M:355:GLU:O	1:M:357:THR:N	2.44	0.51
1:M:421:ARG:HA	1:M:421:ARG:HE	1.75	0.51
1:G:434:GLU:OE2	1:G:438:VAL:HG23	2.10	0.51
1:F:80:LYS:HD2	1:F:506:TYR:CZ	2.46	0.51
1:E:160:LYS:HE3	1:E:164:GLU:OE2	2.10	0.51
1:B:301:ILE:HG12	1:B:307:MET:HE2	1.93	0.51
1:D:482:THR:OG1	1:D:484:GLU:HG2	2.11	0.51
1:N:465:VAL:O	1:N:469:VAL:HG23	2.11	0.51
1:K:95:LEU:O	1:K:98:ALA:HB3	2.11	0.51
1:D:205:ILE:CD1	1:D:211:GLY:HA2	2.41	0.51
1:B:194:GLN:HG3	1:B:330:THR:O	2.10	0.51
1:B:195:PHE:CE1	1:B:330:THR:HB	2.45	0.51
1:A:240:VAL:O	1:A:244:GLY:N	2.41	0.51
1:C:308:GLU:H	1:C:311:LYS:HB3	1.76	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:279:PRO:HG2	1:E:288:MET:HE3	1.92	0.51
1:J:232:GLU:HB3	1:J:309:LEU:CB	2.31	0.51
1:K:313:THR:CG2	1:K:314:LEU:N	2.74	0.51
1:G:242:LYS:HD3	1:G:243:ALA:N	2.26	0.51
1:J:313:THR:CG2	1:J:314:LEU:N	2.73	0.51
1:A:213:VAL:O	1:A:324:VAL:HA	2.11	0.51
1:G:289:LEU:N	1:G:290:GLN:OE1	2.36	0.51
1:G:325:ILE:HG22	1:G:326:ASN:O	2.11	0.51
1:G:353:ILE:O	1:G:355:GLU:N	2.44	0.51
1:A:366:GLN:HA	1:A:369:VAL:CG2	2.41	0.51
1:D:291:ASP:O	1:D:295:LEU:HB2	2.10	0.51
1:M:169:VAL:CG1	1:M:173:GLY:HA3	2.37	0.51
1:H:149:THR:HG22	1:H:156:GLU:HA	1.90	0.51
1:M:284:ARG:HH11	1:M:284:ARG:CB	2.19	0.51
1:M:109:ALA:HB3	1:M:111:MET:HE3	1.93	0.51
1:N:149:THR:HG22	1:N:156:GLU:O	2.11	0.51
2:P:7:HIS:HA	2:P:45:ASN:N	2.24	0.51
1:M:288:MET:HE3	1:M:288:MET:HA	1.93	0.51
1:M:478:TYR:HB2	1:M:485:TYR:CD2	2.46	0.51
1:N:161:LEU:N	1:N:161:LEU:HD12	2.24	0.51
1:D:381:VAL:CG1	1:D:392:LYS:CG	2.89	0.51
1:M:221:LEU:CD1	1:M:223:ALA:H	2.24	0.51
1:I:216:GLU:OE1	1:I:216:GLU:HA	2.10	0.51
1:D:403:THR:O	1:D:407:VAL:HG23	2.10	0.51
1:B:174:VAL:HG21	1:B:367:GLU:HA	1.91	0.51
1:B:215:LEU:C	1:B:322:ARG:HG3	2.31	0.50
1:B:194:GLN:NE2	1:B:329:THR:HG21	2.26	0.50
1:K:366:GLN:O	1:K:369:VAL:HB	2.10	0.50
1:J:253:ASP:OD1	1:J:254:VAL:N	2.33	0.50
1:K:233:MET:HE3	1:K:309:LEU:HD13	1.93	0.50
1:K:236:VAL:O	1:K:239:ALA:N	2.43	0.50
1:M:236:VAL:HG23	1:M:237:LEU:N	2.26	0.50
1:A:279:PRO:HD2	1:A:285:ARG:HA	1.94	0.50
1:A:362:ARG:HA	1:A:365:LEU:CD1	2.40	0.50
1:G:135:SER:HB2	1:G:497:THR:HG21	1.93	0.50
1:K:145:ALA:HA	1:K:159:GLY:O	2.11	0.50
1:B:510:VAL:O	1:B:511:ALA:C	2.49	0.50
1:H:425:LYS:O	1:H:427:ALA:N	2.43	0.50
2:U:14:ARG:CG	2:U:15:LYS:H	2.22	0.50
1:E:227:ILE:HG22	1:E:227:ILE:O	2.11	0.50
1:M:496:PRO:O	1:M:497:THR:C	2.48	0.50
1:E:142:LYS:HE2	1:E:146:GLN:OE1	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:37:ASN:N	1:L:37:ASN:ND2	2.56	0.50
1:J:478:TYR:HA	1:J:485:TYR:HA	1.92	0.50
1:D:381:VAL:HG21	1:D:393:LYS:HA	1.92	0.50
1:B:180:GLY:HA2	1:B:380:LYS:HB3	1.92	0.50
1:N:299:THR:HB	1:N:316:ASP:HB3	1.93	0.50
1:J:476:TYR:HA	1:J:486:GLY:O	2.11	0.50
2:R:75:SER:OG	2:R:82:GLU:OE1	2.29	0.50
1:D:443:ALA:O	1:D:447:MET:HG3	2.10	0.50
1:N:464:VAL:O	1:N:467:ASN:HB3	2.11	0.50
1:E:95:LEU:O	1:E:99:ILE:HG13	2.10	0.50
1:G:391:GLU:O	1:G:394:ALA:HB3	2.11	0.50
1:B:42:LYS:HE2	1:B:48:THR:HB	1.92	0.50
1:F:329:THR:CG2	1:F:330:THR:N	2.74	0.50
1:D:200:LEU:CD1	1:D:276:VAL:HA	2.41	0.50
1:B:211:GLY:O	1:B:325:ILE:O	2.30	0.50
1:L:301:ILE:HG21	1:L:309:LEU:HD23	1.94	0.50
1:F:230:ILE:C	1:F:232:GLU:N	2.64	0.50
2:O:20:LYS:CB	2:O:27:LEU:HG	2.40	0.50
1:J:301:ILE:HG21	1:J:309:LEU:HD23	1.93	0.50
1:H:247:LEU:O	1:H:273:VAL:HB	2.11	0.50
1:M:41:ASP:HB2	1:N:69:MET:CE	2.41	0.50
1:G:350:ARG:HA	1:G:353:ILE:HD12	1.93	0.50
1:L:152:ALA:O	1:L:153:ASN:HB3	2.11	0.50
1:N:205:ILE:HA	1:N:213:VAL:HG22	1.93	0.50
1:L:169:VAL:HG22	1:L:169:VAL:O	2.11	0.50
1:N:32:GLY:CA	1:N:454:ILE:HG23	2.41	0.50
1:F:134:LEU:N	1:F:134:LEU:CD1	2.74	0.50
1:B:361:ASP:O	1:B:365:LEU:HB2	2.11	0.50
1:A:417:VAL:C	1:A:420:ILE:HG22	2.31	0.50
1:N:200:LEU:HD11	1:N:277:LYS:H	1.76	0.50
1:G:401:HIS:O	1:G:404:ARG:HB2	2.11	0.50
1:M:413:ALA:CB	1:M:417:VAL:HB	2.41	0.50
1:G:5:ASP:HB2	1:G:524:LEU:CD2	2.40	0.50
1:E:112:ASN:HD21	1:E:114:MET:HB3	1.76	0.50
1:N:140:ASP:O	1:N:144:ILE:HG12	2.11	0.50
2:R:40:VAL:HB	2:R:62:GLY:H	1.77	0.50
1:A:72:GLN:NE2	1:A:72:GLN:HA	2.26	0.50
1:I:140:ASP:O	1:I:144:ILE:HG12	2.11	0.50
1:M:420:ILE:HG23	1:M:470:LYS:HD3	1.92	0.50
1:A:311:LYS:O	1:A:312:ALA:HB2	2.11	0.50
1:C:311:LYS:O	1:C:312:ALA:HB2	2.12	0.50
1:L:219:PHE:HB3	1:L:317:LEU:HD23	1.92	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:247:LEU:HD22	1:L:248:LEU:N	2.26	0.50
1:L:222:LEU:CD2	1:L:289:LEU:HD11	2.38	0.50
1:C:270:ILE:HD13	2:Q:27:LEU:HB2	1.92	0.50
1:C:355:GLU:C	1:C:357:THR:H	2.15	0.50
1:F:33:PRO:HG2	1:F:34:LYS:H	1.76	0.50
1:D:361:ASP:O	1:D:365:LEU:HB2	2.11	0.50
1:I:64:ASP:OD1	1:I:65:LYS:O	2.29	0.50
1:B:207:LYS:CB	1:B:208:PRO:HD3	2.32	0.50
1:G:134:LEU:HD11	1:G:425:LYS:NZ	2.27	0.50
1:N:194:GLN:HG3	1:N:331:THR:HB	1.92	0.50
1:H:362:ARG:O	1:H:366:GLN:HB2	2.12	0.50
1:F:510:VAL:HG23	1:F:511:ALA:H	1.75	0.50
2:T:18:GLU:CD	2:T:33:ALA:HB3	2.31	0.50
1:M:290:GLN:CG	1:M:345:ARG:HH21	2.25	0.50
1:N:247:LEU:N	1:N:273:VAL:HG12	2.26	0.50
1:M:215:LEU:CB	1:M:218:PRO:HG2	2.40	0.50
2:Q:9:ARG:NH1	2:Q:86:MET:HA	2.26	0.50
1:N:290:GLN:HA	1:N:290:GLN:OE1	2.11	0.50
1:D:267:MET:C	1:D:269:GLY:N	2.64	0.50
1:D:267:MET:N	1:D:267:MET:HE3	2.27	0.50
1:L:479:ASN:OD1	1:L:481:ALA:HB3	2.11	0.50
1:G:451:LEU:HD23	1:G:451:LEU:C	2.32	0.50
1:I:189:VAL:O	1:I:189:VAL:HG23	2.10	0.50
1:M:47:PRO:HG3	1:N:73:MET:HG3	1.93	0.50
1:B:501:ARG:O	1:B:505:GLN:HG3	2.11	0.50
1:G:147:VAL:O	1:G:150:ILE:HG22	2.12	0.50
1:K:55:SER:HA	1:K:58:ARG:NH1	2.26	0.50
1:A:257:GLU:O	1:A:261:THR:HG22	2.10	0.50
1:C:19:GLY:HA3	1:C:67:GLU:O	2.12	0.50
1:E:249:ILE:HB	1:E:275:ALA:HB1	1.93	0.50
1:I:256:GLY:HA2	1:I:260:ALA:H	1.75	0.50
1:J:222:LEU:CD1	1:J:293:ALA:HA	2.42	0.50
1:J:219:PHE:CE1	1:J:245:LYS:HD2	2.46	0.50
1:M:259:LEU:HD23	1:M:260:ALA:N	2.26	0.50
1:N:64:ASP:OD1	1:N:65:LYS:O	2.30	0.50
1:A:327:LYS:HD3	1:A:327:LYS:N	2.25	0.50
1:A:281:PHE:O	1:A:284:ARG:HB3	2.12	0.50
1:A:290:GLN:O	1:A:294:THR:N	2.43	0.50
1:A:346:VAL:O	1:A:349:ILE:HB	2.11	0.50
1:L:419:LEU:HD12	1:L:447:MET:HB3	1.93	0.50
1:F:349:ILE:HG21	1:F:369:VAL:CG2	2.40	0.50
1:N:385:THR:HG23	1:N:388:GLU:N	2.25	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:P:47:ARG:HD3	2:P:49:LEU:CD1	2.36	0.50
2:P:47:ARG:HB3	2:P:55:LYS:HG2	1.94	0.50
1:G:134:LEU:N	1:G:134:LEU:HD12	2.26	0.50
1:L:383:ALA:CB	1:L:389:MET:HA	2.41	0.50
1:L:169:VAL:CG1	1:L:173:GLY:HA3	2.37	0.50
1:F:134:LEU:CD1	1:F:134:LEU:H	2.24	0.50
1:K:383:ALA:HB3	1:K:389:MET:HA	1.94	0.50
2:T:14:ARG:CG	2:T:35:SER:HB3	2.42	0.50
1:C:450:PRO:O	1:C:454:ILE:HG13	2.11	0.50
1:I:346:VAL:O	1:I:350:ARG:HG2	2.11	0.50
1:F:339:GLU:H	1:F:339:GLU:CD	2.15	0.50
1:E:150:ILE:HD11	4:E:1:ADP:N7	2.25	0.50
2:R:12:VAL:HA	2:R:41:LEU:HG	1.94	0.50
1:K:30:THR:HB	1:K:51:LYS:O	2.10	0.50
1:J:55:SER:HA	1:J:58:ARG:NH1	2.26	0.50
1:H:262:LEU:HA	1:H:265:ASN:HB3	1.94	0.50
1:M:266:THR:HG21	1:M:273:VAL:O	2.12	0.50
1:G:240:VAL:O	1:G:244:GLY:N	2.37	0.50
1:E:207:LYS:HB3	1:E:208:PRO:CD	2.30	0.50
1:H:143:ALA:C	1:H:146:GLN:HB3	2.31	0.50
1:K:450:PRO:O	1:K:454:ILE:HG12	2.11	0.50
1:E:305:ILE:CG2	1:E:306:GLY:H	2.12	0.50
1:H:419:LEU:HD21	1:H:500:THR:CG2	2.41	0.50
1:M:367:GLU:O	1:M:370:ALA:HB3	2.11	0.50
1:M:494:LEU:H	1:M:494:LEU:HD23	1.72	0.50
1:D:486:GLY:HA3	1:D:491:MET:CE	2.42	0.50
1:K:301:ILE:CD1	1:K:301:ILE:N	2.73	0.50
1:M:479:ASN:O	1:M:483:GLU:N	2.42	0.50
1:D:221:LEU:C	1:D:222:LEU:HD12	2.32	0.50
2:T:43:VAL:CG1	2:T:57:LEU:HD12	2.42	0.50
1:M:222:LEU:CD1	1:M:293:ALA:HA	2.41	0.50
1:I:420:ILE:HG13	1:I:451:LEU:HD22	1.92	0.50
1:A:6:VAL:HG12	1:A:521:VAL:HG13	1.94	0.50
1:H:391:GLU:O	1:H:394:ALA:HB3	2.12	0.50
1:I:240:VAL:HA	1:I:243:ALA:HB3	1.94	0.50
1:N:117:LYS:HG2	1:N:121:ASP:OD2	2.11	0.50
1:D:220:ILE:CD1	1:D:220:ILE:N	2.74	0.50
1:E:256:GLY:O	1:E:260:ALA:N	2.38	0.50
1:E:372:LEU:O	1:E:373:ALA:HB2	2.11	0.50
1:F:10:ASN:O	1:F:14:VAL:HG23	2.11	0.50
1:I:233:MET:CE	1:I:309:LEU:HD13	2.42	0.50
1:M:256:GLY:CA	1:M:259:LEU:HB3	2.41	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:252:GLU:O	1:G:277:LYS:HE2	2.11	0.50
1:A:361:ASP:O	1:A:365:LEU:HB2	2.12	0.50
1:F:358:SER:HA	1:F:362:ARG:CD	2.42	0.50
1:A:302:SER:CB	1:A:305:ILE:HB	2.41	0.50
1:A:302:SER:HB2	1:A:305:ILE:CD1	2.41	0.50
1:I:179:ASP:OD2	1:I:390:LYS:HG2	2.12	0.50
1:J:107:VAL:CG2	1:J:108:ALA:N	2.75	0.50
1:F:292:ILE:O	1:F:295:LEU:HB3	2.11	0.50
2:O:60:LYS:HG2	2:O:63:ASP:OD2	2.12	0.50
1:K:345:ARG:HA	1:K:348:GLN:HE21	1.73	0.50
1:I:107:VAL:CG2	1:I:108:ALA:N	2.75	0.50
1:N:135:SER:HA	1:N:412:VAL:HG12	1.94	0.50
1:I:15:LYS:HD2	1:I:67:GLU:HG3	1.93	0.50
1:H:236:VAL:HG23	1:H:237:LEU:N	2.26	0.50
1:A:270:ILE:HD11	2:O:27:LEU:HD13	1.94	0.50
1:E:200:LEU:O	1:E:202:PRO:HD2	2.12	0.50
1:L:314:LEU:CA	1:L:317:LEU:HD13	2.40	0.50
1:G:199:TYR:CZ	1:G:202:PRO:HA	2.47	0.50
1:G:247:LEU:HB3	1:G:273:VAL:CG1	2.42	0.50
1:G:199:TYR:HE1	1:G:327:LYS:HG3	1.76	0.50
1:A:279:PRO:HB3	1:A:288:MET:HE3	1.93	0.50
1:A:339:GLU:HA	1:A:342:ILE:HB	1.93	0.50
1:L:109:ALA:HB3	1:L:111:MET:CE	2.42	0.50
1:M:16:MET:HG3	1:M:520:MET:SD	2.51	0.50
1:J:190:VAL:HG21	1:J:334:ASP:CG	2.31	0.50
1:N:193:MET:CG	1:N:194:GLN:H	2.24	0.50
1:N:198:GLY:CA	1:N:328:ASP:HA	2.41	0.50
1:B:353:ILE:O	1:B:355:GLU:N	2.45	0.50
1:H:288:MET:CE	1:H:288:MET:HA	2.41	0.50
1:H:353:ILE:HG12	1:H:365:LEU:CB	2.41	0.50
1:B:225:LYS:C	1:B:252:GLU:HB2	2.31	0.50
1:E:233:MET:C	1:E:235:PRO:CD	2.76	0.50
1:A:77:VAL:HG12	1:A:510:VAL:HG21	1.94	0.50
1:H:218:PRO:HB3	1:H:246:PRO:HB2	1.92	0.50
1:M:129:GLU:O	1:M:132:LYS:N	2.44	0.50
1:L:354:GLU:CG	1:L:355:GLU:N	2.75	0.50
1:E:461:GLU:OE2	1:K:452:ARG:NH2	2.45	0.50
1:C:510:VAL:HG23	1:C:511:ALA:H	1.75	0.50
1:K:112:ASN:O	1:K:116:LEU:HG	2.12	0.50
1:A:392:LYS:O	1:A:396:VAL:HG23	2.11	0.50
1:J:323:VAL:CG2	1:J:332:ILE:HG22	2.41	0.50
1:L:302:SER:HB2	1:L:305:ILE:CD1	2.42	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:74:VAL:O	1:H:75:LYS:C	2.50	0.50
1:M:487:ASN:HB3	1:M:490:ASP:HB2	1.94	0.50
1:B:199:TYR:O	1:B:199:TYR:HD1	1.95	0.50
1:B:202:PRO:HG2	1:B:203:TYR:CD1	2.47	0.50
1:A:234:LEU:N	1:A:235:PRO:CD	2.73	0.50
1:D:234:LEU:HA	1:D:237:LEU:HB3	1.94	0.50
1:G:313:THR:HB	1:G:315:GLU:OE2	2.12	0.50
1:M:232:GLU:HB2	1:M:233:MET:HE3	1.93	0.50
1:G:262:LEU:HD11	1:G:273:VAL:HB	1.92	0.50
1:J:422:VAL:O	1:J:426:LEU:CD2	2.59	0.50
1:L:23:LEU:O	1:L:27:VAL:HG12	2.11	0.50
1:F:315:GLU:OE1	1:F:316:ASP:N	2.45	0.50
1:I:286:LYS:HA	1:I:286:LYS:CE	2.36	0.50
1:B:349:ILE:HA	1:B:352:GLN:CD	2.32	0.50
1:H:353:ILE:HG12	1:H:365:LEU:HB3	1.94	0.50
1:I:434:GLU:HA	1:I:437:ASN:HD22	1.75	0.50
1:J:149:THR:CG2	1:J:159:GLY:HA3	2.41	0.50
1:J:124:VAL:O	1:J:128:VAL:HG23	2.11	0.50
2:S:40:VAL:HB	2:S:62:GLY:N	2.26	0.50
1:B:434:GLU:O	1:B:437:ASN:N	2.45	0.50
1:D:404:ARG:HG3	1:D:404:ARG:NH1	2.26	0.50
1:C:35:GLY:HA3	1:C:51:LYS:HE2	1.93	0.50
2:T:6:LEU:O	2:T:7:HIS:O	2.29	0.50
1:I:476:TYR:HA	1:I:486:GLY:O	2.12	0.50
1:F:59:GLU:OE1	1:F:59:GLU:HA	2.11	0.50
1:H:448:GLU:HB3	1:H:452:ARG:HD2	1.93	0.50
1:B:149:THR:OG1	1:B:156:GLU:HA	2.11	0.50
2:R:58:ASP:N	2:R:88:GLU:OE2	2.40	0.50
1:F:329:THR:HG22	1:F:330:THR:N	2.27	0.50
1:C:302:SER:HB2	1:C:305:ILE:CD1	2.36	0.50
1:H:230:ILE:HD11	1:H:257:GLU:O	2.11	0.50
1:E:279:PRO:HB2	1:E:285:ARG:HA	1.94	0.50
1:E:291:ASP:O	1:E:295:LEU:HB2	2.12	0.50
1:L:266:THR:O	1:L:268:ARG:N	2.45	0.50
1:G:346:VAL:O	1:G:349:ILE:HB	2.12	0.50
1:J:7:LYS:HG3	1:J:66:PHE:CE2	2.47	0.50
1:D:290:GLN:N	1:D:290:GLN:OE1	2.40	0.50
1:M:69:MET:O	1:M:73:MET:HG3	2.12	0.50
1:G:417:VAL:C	1:G:420:ILE:HG22	2.32	0.50
2:S:14:ARG:CD	2:S:35:SER:HB3	2.36	0.50
1:I:202:PRO:C	1:I:204:PHE:H	2.15	0.50
1:D:267:MET:C	1:D:269:GLY:H	2.15	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:432:GLN:NE2	1:G:436:GLN:HE22	2.10	0.50
1:G:351:GLN:O	1:G:351:GLN:NE2	2.45	0.50
1:F:451:LEU:C	1:F:451:LEU:HD23	2.32	0.50
1:F:325:ILE:HG22	1:F:326:ASN:N	2.26	0.49
1:D:211:GLY:O	1:D:325:ILE:O	2.30	0.49
1:A:232:GLU:O	1:A:233:MET:CB	2.60	0.49
1:H:232:GLU:HA	1:H:310:GLU:HG2	1.94	0.49
1:C:246:PRO:HA	1:C:272:LYS:O	2.12	0.49
1:G:218:PRO:CA	1:G:246:PRO:HG2	2.42	0.49
1:F:14:VAL:O	1:F:18:ARG:HG3	2.11	0.49
1:K:288:MET:CE	1:K:288:MET:HA	2.41	0.49
1:G:203:TYR:HD1	1:G:203:TYR:H	1.59	0.49
1:G:279:PRO:CB	1:G:288:MET:HE3	2.41	0.49
1:G:326:ASN:HD21	1:G:328:ASP:HB2	1.77	0.49
1:G:352:GLN:O	1:G:355:GLU:HB2	2.12	0.49
1:B:452:ARG:HB2	1:B:462:PRO:CB	2.33	0.49
1:H:93:THR:O	1:H:96:ALA:HB3	2.11	0.49
1:J:32:GLY:HA3	1:J:454:ILE:HG23	1.94	0.49
1:B:77:VAL:HG22	1:B:78:ALA:N	2.27	0.49
1:F:130:GLU:O	1:F:133:ALA:HB3	2.11	0.49
1:M:343:GLN:O	1:M:346:VAL:HB	2.12	0.49
1:H:109:ALA:HB3	1:H:111:MET:HE3	1.93	0.49
2:P:14:ARG:HB2	2:P:14:ARG:NH1	2.26	0.49
1:M:186:GLU:HB2	1:M:380:LYS:HB2	1.94	0.49
1:M:186:GLU:O	1:M:379:ILE:HA	2.11	0.49
1:F:210:THR:HG22	1:F:210:THR:O	2.12	0.49
1:C:143:ALA:O	1:C:146:GLN:HB2	2.12	0.49
1:D:134:LEU:O	1:D:136:VAL:HG13	2.11	0.49
1:E:509:SER:HB3	1:F:385:THR:HG23	1.94	0.49
1:M:299:THR:OG1	1:M:316:ASP:HA	2.12	0.49
1:F:443:ALA:O	1:F:447:MET:HG3	2.12	0.49
1:N:15:LYS:HD2	1:N:67:GLU:HG3	1.94	0.49
1:I:370:ALA:O	1:I:371:LYS:C	2.50	0.49
1:H:256:GLY:O	1:H:257:GLU:C	2.50	0.49
1:A:234:LEU:O	1:A:238:GLU:N	2.38	0.49
1:B:19:GLY:HA3	1:B:67:GLU:O	2.12	0.49
1:J:256:GLY:O	1:J:260:ALA:N	2.44	0.49
1:J:200:LEU:HD13	1:J:275:ALA:O	2.12	0.49
1:L:270:ILE:HG23	1:M:229:ASN:HD21	1.77	0.49
1:I:266:THR:HG21	1:I:273:VAL:O	2.11	0.49
1:D:207:LYS:HB3	1:D:208:PRO:CD	2.29	0.49
1:H:434:GLU:O	1:H:438:VAL:HG23	2.11	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:352:GLN:O	1:D:355:GLU:HB2	2.12	0.49
1:K:381:VAL:HB	1:K:389:MET:HE3	1.93	0.49
1:E:360:TYR:H	1:E:363:GLU:HG3	1.77	0.49
2:P:68:ASN:ND2	2:Q:74:LYS:HE3	2.26	0.49
1:M:107:VAL:HG23	1:M:108:ALA:H	1.77	0.49
1:M:95:LEU:O	1:M:98:ALA:HB3	2.12	0.49
1:J:40:LEU:N	1:J:40:LEU:CD2	2.74	0.49
1:F:381:VAL:CG1	1:F:392:LYS:HG2	2.42	0.49
1:A:409:GLU:CD	1:A:501:ARG:HH21	2.14	0.49
1:F:468:THR:OG1	1:F:485:TYR:CE2	2.65	0.49
1:D:406:ALA:O	1:D:410:GLY:N	2.44	0.49
1:F:23:LEU:C	1:F:23:LEU:HD13	2.32	0.49
1:H:36:ARG:HB3	1:I:516:THR:O	2.12	0.49
1:B:247:LEU:HB3	1:B:273:VAL:HG13	1.93	0.49
1:D:305:ILE:CG2	1:D:306:GLY:N	2.61	0.49
1:L:301:ILE:CD1	1:L:301:ILE:N	2.76	0.49
1:F:232:GLU:O	1:F:233:MET:CB	2.60	0.49
1:H:233:MET:HE1	1:H:309:LEU:HD13	1.94	0.49
1:L:225:LYS:HG3	1:L:227:ILE:HD13	1.94	0.49
1:L:362:ARG:O	1:L:366:GLN:HB2	2.12	0.49
1:E:208:PRO:HB2	1:E:212:ALA:CB	2.42	0.49
1:G:285:ARG:HG3	1:G:286:LYS:N	2.27	0.49
1:N:422:VAL:O	1:N:426:LEU:HD23	2.13	0.49
1:L:152:ALA:HB2	1:L:158:VAL:HG11	1.93	0.49
1:A:352:GLN:O	1:A:355:GLU:HB2	2.11	0.49
1:A:353:ILE:O	1:A:355:GLU:N	2.46	0.49
1:L:95:LEU:O	1:L:98:ALA:HB3	2.12	0.49
1:J:31:LEU:HG	1:J:454:ILE:HD11	1.94	0.49
1:N:433:ASN:HD22	1:N:434:GLU:N	2.10	0.49
1:K:385:THR:HG23	1:K:388:GLU:N	2.27	0.49
1:A:385:THR:OG1	1:A:388:GLU:HB2	2.12	0.49
2:T:83:VAL:C	2:T:84:LEU:HD12	2.32	0.49
1:M:197:ARG:HG3	1:M:277:LYS:NZ	2.28	0.49
1:I:217:SER:HB3	1:I:321:LYS:HA	1.94	0.49
1:J:129:GLU:O	1:J:132:LYS:N	2.46	0.49
2:P:37:ARG:HG2	2:P:37:ARG:NH1	2.27	0.49
1:L:288:MET:HE3	1:L:288:MET:HA	1.94	0.49
1:H:399:ALA:O	1:H:400:LEU:C	2.51	0.49
1:L:305:ILE:HG22	1:L:307:MET:HG3	1.93	0.49
1:G:164:GLU:O	1:G:167:ASP:HB3	2.12	0.49
1:E:160:LYS:O	1:E:164:GLU:HG3	2.12	0.49
2:Q:57:LEU:HD22	2:Q:88:GLU:HB2	1.95	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:189:VAL:HG23	1:J:189:VAL:O	2.12	0.49
1:L:357:THR:HG22	1:L:357:THR:O	2.11	0.49
1:N:484:GLU:O	1:N:491:MET:HE1	2.12	0.49
1:K:6:VAL:HG22	1:K:521:VAL:HG22	1.93	0.49
1:A:233:MET:HE3	1:A:236:VAL:HB	1.95	0.49
1:F:265:ASN:HB3	1:F:271:VAL:HG22	1.92	0.49
1:H:233:MET:HB3	1:H:237:LEU:HB2	1.94	0.49
1:G:272:LYS:CB	1:G:272:LYS:NZ	2.75	0.49
1:E:219:PHE:CE2	1:E:245:LYS:HB2	2.48	0.49
1:E:247:LEU:HB3	1:E:273:VAL:CG1	2.42	0.49
1:C:266:THR:HG22	1:C:273:VAL:N	2.27	0.49
1:G:357:THR:HB	1:G:361:ASP:HB2	1.94	0.49
1:A:293:ALA:O	1:A:294:THR:C	2.51	0.49
1:D:277:LYS:HG2	1:D:278:ALA:N	2.27	0.49
1:G:496:PRO:HG2	1:G:499:VAL:CG1	2.43	0.49
1:J:381:VAL:HB	1:J:389:MET:HE3	1.94	0.49
1:A:456:LEU:HD13	1:A:462:PRO:HG3	1.93	0.49
1:H:349:ILE:HA	1:H:352:GLN:NE2	2.27	0.49
1:E:237:LEU:HD22	2:S:26:VAL:CG2	2.42	0.49
1:E:309:LEU:H	1:E:309:LEU:CD1	2.25	0.49
1:E:309:LEU:HD12	1:E:309:LEU:N	2.25	0.49
2:U:17:VAL:HG13	2:U:34:LYS:CA	2.41	0.49
1:N:112:ASN:O	1:N:116:LEU:HG	2.11	0.49
1:B:177:VAL:CG1	1:B:397:GLU:HG2	2.43	0.49
1:M:174:VAL:C	1:M:175:ILE:HD12	2.32	0.49
1:A:177:VAL:HG22	1:A:393:LYS:HG3	1.93	0.49
1:F:112:ASN:HD22	1:F:115:ASP:CG	2.15	0.49
1:N:367:GLU:O	1:N:370:ALA:HB3	2.12	0.49
1:K:203:TYR:HB2	1:K:263:VAL:HG13	1.95	0.49
1:E:28:LYS:O	1:E:30:THR:N	2.45	0.49
1:A:434:GLU:OE2	1:A:438:VAL:HG23	2.11	0.49
1:K:19:GLY:HA3	1:K:67:GLU:O	2.12	0.49
1:I:370:ALA:O	1:I:374:GLY:N	2.36	0.49
1:G:27:VAL:HG12	1:G:90:THR:HG23	1.93	0.49
1:H:455:VAL:HG13	1:H:460:GLU:HB2	1.94	0.49
1:G:56:VAL:O	1:G:57:ALA:C	2.50	0.49
1:F:207:LYS:HB2	1:F:207:LYS:HZ2	1.77	0.49
1:F:320:ALA:HA	1:F:334:ASP:O	2.13	0.49
1:B:249:ILE:N	1:B:249:ILE:CD1	2.76	0.49
1:H:232:GLU:OE1	1:H:232:GLU:N	2.33	0.49
1:B:234:LEU:N	1:B:235:PRO:CD	2.73	0.49
1:E:247:LEU:HD13	1:E:248:LEU:O	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:290:GLN:OE1	1:J:293:ALA:HB3	2.12	0.49
1:H:314:LEU:C	1:H:316:ASP:H	2.16	0.49
1:H:381:VAL:HB	1:H:389:MET:CE	2.41	0.49
2:O:17:VAL:HG22	2:O:35:SER:N	2.27	0.49
1:D:353:ILE:O	1:D:355:GLU:N	2.45	0.49
1:L:106:ALA:HA	1:L:111:MET:HE1	1.94	0.49
1:I:131:LEU:HD12	1:I:422:VAL:HG11	1.95	0.49
1:K:434:GLU:O	1:K:438:VAL:HG23	2.12	0.49
1:C:153:ASN:O	1:C:154:SER:HB2	2.13	0.49
1:E:413:ALA:HB1	1:E:417:VAL:CG1	2.42	0.49
1:I:413:ALA:CB	1:I:417:VAL:HB	2.42	0.49
2:Q:5:PRO:HD3	2:Q:42:ALA:CB	2.39	0.49
1:I:149:THR:HG21	1:I:156:GLU:HA	1.93	0.49
1:N:190:VAL:HG21	1:N:334:ASP:CG	2.33	0.49
1:L:411:VAL:HA	1:L:497:THR:H	1.76	0.49
1:A:115:ASP:HB3	1:A:436:GLN:HG3	1.93	0.49
1:I:506:TYR:O	1:I:509:SER:HB3	2.13	0.49
1:M:420:ILE:HG13	1:M:451:LEU:HD22	1.94	0.49
1:K:441:LYS:O	1:K:442:VAL:C	2.49	0.49
1:F:228:SER:O	1:F:257:GLU:HB3	2.12	0.49
1:E:241:ALA:HA	1:E:271:VAL:HG12	1.93	0.49
1:I:301:ILE:HG21	1:I:309:LEU:HD23	1.93	0.49
1:C:252:GLU:HG3	1:C:285:ARG:HH11	1.78	0.49
1:H:221:LEU:HD13	1:H:223:ALA:N	2.28	0.49
1:G:319:GLN:O	1:G:335:GLY:HA2	2.12	0.49
1:A:278:ALA:HB1	1:A:279:PRO:HD2	1.93	0.49
1:I:449:ALA:CB	1:I:450:PRO:HD3	2.31	0.49
1:C:200:LEU:CD1	1:C:276:VAL:HA	2.42	0.49
1:M:146:GLN:HE21	1:M:150:ILE:HD11	1.77	0.49
1:E:232:GLU:O	1:E:233:MET:CB	2.60	0.49
1:J:354:GLU:CG	1:J:355:GLU:N	2.76	0.49
1:A:418:ALA:O	1:A:422:VAL:HG13	2.11	0.49
1:C:87:ASP:OD1	1:C:88:GLY:N	2.46	0.49
1:B:429:LEU:HG	1:B:440:ILE:HD13	1.95	0.49
1:F:434:GLU:O	1:F:435:ASP:C	2.49	0.49
2:R:50:GLU:O	2:R:52:GLY:N	2.46	0.49
1:M:223:ALA:HB3	1:M:251:ALA:HB2	1.94	0.49
1:E:409:GLU:OE1	1:E:501:ARG:NH2	2.46	0.49
2:T:12:VAL:HG12	2:T:40:VAL:HA	1.93	0.49
1:N:37:ASN:HB3	1:N:51:LYS:CG	2.43	0.49
2:Q:43:VAL:HG12	2:Q:57:LEU:HD12	1.94	0.49
1:M:441:LYS:O	1:M:442:VAL:C	2.50	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:409:GLU:O	1:J:497:THR:HB	2.12	0.49
1:J:510:VAL:HG13	1:J:511:ALA:N	2.28	0.49
1:G:383:ALA:HB3	1:G:389:MET:CE	2.43	0.49
1:B:256:GLY:HA2	1:B:259:LEU:HB2	1.94	0.49
1:A:242:LYS:HD3	1:A:243:ALA:N	2.28	0.49
1:H:233:MET:HA	1:H:233:MET:CE	2.40	0.49
1:E:357:THR:HB	1:E:361:ASP:HB2	1.94	0.49
1:E:358:SER:HA	1:E:362:ARG:HD2	1.94	0.49
1:D:233:MET:HE2	1:D:233:MET:O	2.13	0.49
1:H:221:LEU:O	1:H:222:LEU:HD23	2.12	0.49
1:H:247:LEU:N	1:H:273:VAL:HG12	2.28	0.49
1:G:281:PHE:H	1:G:284:ARG:HD2	1.78	0.49
1:G:358:SER:HA	1:G:362:ARG:HD2	1.94	0.49
1:M:422:VAL:HG23	1:M:423:ALA:N	2.26	0.49
1:J:93:THR:O	1:J:96:ALA:HB3	2.13	0.49
1:H:149:THR:CG2	1:H:159:GLY:HA3	2.37	0.49
1:H:130:GLU:HG3	1:H:426:LEU:HD22	1.95	0.49
1:N:494:LEU:CD2	1:N:494:LEU:N	2.73	0.49
2:Q:48:ILE:HG22	2:Q:48:ILE:O	2.12	0.49
1:M:191:GLU:O	1:M:334:ASP:HA	2.13	0.49
1:G:404:ARG:HG3	1:G:404:ARG:NH1	2.26	0.49
1:D:434:GLU:OE2	1:D:438:VAL:HG23	2.12	0.49
1:F:147:VAL:HA	1:F:150:ILE:HG22	1.95	0.49
1:I:72:GLN:NE2	1:I:75:LYS:HD3	2.28	0.49
1:A:501:ARG:O	1:A:505:GLN:HG3	2.12	0.49
1:H:472:GLY:HA3	1:H:476:TYR:CD2	2.47	0.49
1:H:472:GLY:HA3	1:H:476:TYR:HD2	1.77	0.49
1:G:234:LEU:N	1:G:235:PRO:CD	2.76	0.49
1:D:199:TYR:OH	1:D:211:GLY:HA3	2.13	0.49
1:D:249:ILE:C	1:D:250:ILE:HG13	2.32	0.49
1:D:270:ILE:CD1	2:R:27:LEU:HB2	2.42	0.49
1:B:272:LYS:NZ	1:B:272:LYS:HB2	2.28	0.49
1:A:240:VAL:C	1:A:242:LYS:N	2.64	0.49
1:F:256:GLY:HA2	1:F:259:LEU:HB2	1.94	0.49
1:E:355:GLU:HG3	1:E:357:THR:H	1.78	0.49
1:K:247:LEU:HD13	1:K:247:LEU:C	2.32	0.49
1:L:219:PHE:HE1	1:L:245:LYS:HB2	1.76	0.49
1:D:309:LEU:HD12	1:D:309:LEU:N	2.27	0.49
1:C:345:ARG:O	1:C:349:ILE:HG13	2.11	0.49
1:A:329:THR:CG2	1:A:330:THR:N	2.76	0.49
1:A:346:VAL:HA	1:A:349:ILE:HD12	1.94	0.49
1:D:288:MET:HA	1:D:291:ASP:OD2	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:417:VAL:HA	1:G:420:ILE:CG2	2.41	0.49
1:B:496:PRO:O	1:B:499:VAL:HG22	2.13	0.49
1:E:417:VAL:O	1:E:420:ILE:CG2	2.57	0.49
1:H:285:ARG:HA	1:H:288:MET:HB2	1.95	0.49
1:M:346:VAL:O	1:M:350:ARG:HG2	2.13	0.49
1:E:511:ALA:O	1:E:515:ILE:HG23	2.12	0.49
1:M:96:ALA:O	1:M:100:ILE:HG13	2.13	0.49
1:I:164:GLU:O	1:I:167:ASP:HB3	2.13	0.49
1:J:448:GLU:HB3	1:J:452:ARG:HD2	1.95	0.49
1:C:397:GLU:O	1:C:400:LEU:HB3	2.13	0.49
1:B:54:VAL:HB	1:B:89:THR:HG21	1.93	0.49
1:F:31:LEU:HD12	4:F:1:ADP:O1A	2.12	0.49
1:F:287:ALA:O	1:F:290:GLN:NE2	2.39	0.49
1:A:400:LEU:HD13	1:A:400:LEU:O	2.12	0.49
1:K:357:THR:HG22	1:K:357:THR:O	2.13	0.49
1:D:23:LEU:HD22	1:D:60:ILE:HG13	1.95	0.49
1:J:487:ASN:HB3	1:J:490:ASP:HB2	1.95	0.49
1:I:152:ALA:O	1:I:153:ASN:HB3	2.13	0.49
1:D:265:ASN:HB3	1:D:271:VAL:HG22	1.95	0.49
1:F:220:ILE:HG23	1:F:248:LEU:HD12	1.93	0.49
1:K:287:ALA:O	1:K:288:MET:C	2.51	0.49
1:C:285:ARG:O	1:C:288:MET:N	2.43	0.49
1:G:205:ILE:CG1	1:G:211:GLY:HA2	2.43	0.49
2:R:14:ARG:CG	2:R:15:LYS:N	2.76	0.49
1:A:284:ARG:HG2	1:A:288:MET:HE1	1.94	0.49
1:F:357:THR:HB	1:F:361:ASP:HB2	1.94	0.49
1:I:419:LEU:HD21	1:I:500:THR:HG23	1.95	0.49
1:C:199:TYR:CA	1:C:276:VAL:HG12	2.39	0.49
2:U:11:ILE:HB	2:U:42:ALA:HB3	1.95	0.49
1:J:354:GLU:HG2	1:J:355:GLU:H	1.77	0.49
1:A:127:ALA:O	1:A:130:GLU:HB2	2.12	0.49
1:L:415:GLY:H	1:L:417:VAL:CG2	2.23	0.49
1:D:44:PHE:HB2	1:D:45:GLY:H	1.49	0.49
1:J:145:ALA:O	1:J:149:THR:HG23	2.12	0.49
1:G:381:VAL:CG1	1:G:392:LYS:HG2	2.43	0.49
2:R:5:PRO:HB2	2:R:9:ARG:O	2.12	0.49
1:N:226:LYS:HA	1:N:252:GLU:HB2	1.93	0.49
1:A:433:ASN:HD21	1:A:435:ASP:HB2	1.78	0.49
1:H:179:ASP:OD2	1:H:390:LYS:HG2	2.13	0.49
1:L:184:GLN:OE1	1:L:184:GLN:HA	2.12	0.49
1:E:443:ALA:O	1:E:447:MET:HG3	2.12	0.49
1:A:96:ALA:O	1:A:97:GLN:C	2.49	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:106:ALA:O	1:B:109:ALA:HB3	2.13	0.49
1:F:195:PHE:CE1	1:F:330:THR:HB	2.48	0.49
1:E:249:ILE:HD13	1:E:274:ALA:O	2.13	0.49
1:N:259:LEU:O	1:N:263:VAL:HG23	2.13	0.49
1:K:311:LYS:HD2	1:K:311:LYS:N	2.28	0.49
1:A:206:ASN:HB3	1:A:214:GLU:N	2.26	0.49
1:G:199:TYR:CE1	1:G:327:LYS:HG3	2.48	0.49
1:H:433:ASN:HD22	1:H:434:GLU:N	2.11	0.49
1:H:64:ASP:OD1	1:H:65:LYS:O	2.30	0.49
1:A:448:GLU:O	1:A:452:ARG:HG2	2.13	0.49
1:B:353:ILE:HG12	1:B:366:GLN:HE22	1.78	0.49
1:H:353:ILE:O	1:H:353:ILE:HG22	2.13	0.49
1:M:214:GLU:HG2	1:M:324:VAL:HG12	1.94	0.49
1:C:496:PRO:HG2	1:C:499:VAL:HG13	1.93	0.49
1:H:426:LEU:H	1:H:426:LEU:CD2	2.22	0.49
1:L:199:TYR:CZ	1:L:327:LYS:HA	2.48	0.49
1:G:77:VAL:HG22	1:G:78:ALA:N	2.28	0.49
1:M:350:ARG:HE	1:M:369:VAL:CG1	2.26	0.49
1:M:215:LEU:HB3	1:M:218:PRO:CG	2.42	0.49
1:J:175:ILE:CD1	1:J:175:ILE:N	2.73	0.49
1:F:305:ILE:N	1:F:305:ILE:CD1	2.74	0.49
1:J:157:THR:O	1:J:161:LEU:HD13	2.12	0.49
1:D:146:GLN:NE2	1:D:494:LEU:HD11	2.28	0.49
1:C:134:LEU:N	1:C:134:LEU:HD12	2.28	0.49
1:J:186:GLU:HB2	1:J:380:LYS:HB2	1.95	0.49
1:I:448:GLU:HB3	1:I:452:ARG:HD2	1.95	0.49
2:O:59:VAL:HG23	2:O:59:VAL:O	2.13	0.49
1:N:392:LYS:O	1:N:396:VAL:HG23	2.11	0.49
1:C:107:VAL:HG13	1:C:113:PRO:HG3	1.94	0.49
1:E:383:ALA:HB3	1:E:389:MET:HE2	1.94	0.49
1:F:245:LYS:CE	1:F:245:LYS:HA	2.34	0.48
1:E:199:TYR:HE1	1:E:327:LYS:HG3	1.78	0.48
1:E:261:THR:O	1:E:265:ASN:ND2	2.46	0.48
1:N:232:GLU:HA	1:N:310:GLU:HG2	1.94	0.48
1:J:267:MET:O	1:J:267:MET:HG3	2.12	0.48
1:K:314:LEU:C	1:K:316:ASP:H	2.16	0.48
1:I:228:SER:O	1:I:258:ALA:N	2.46	0.48
1:G:220:ILE:CD1	1:G:220:ILE:N	2.76	0.48
1:G:279:PRO:HB2	1:G:285:ARG:CA	2.42	0.48
1:G:327:LYS:H	1:G:327:LYS:HD3	1.78	0.48
1:L:119:GLY:O	1:L:440:ILE:HG12	2.13	0.48
1:L:422:VAL:O	1:L:426:LEU:HD23	2.12	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:449:ALA:HB3	1:H:450:PRO:CD	2.34	0.48
1:H:90:THR:O	1:H:93:THR:HB	2.12	0.48
1:F:200:LEU:CD1	1:F:276:VAL:HA	2.43	0.48
1:J:353:ILE:O	1:J:353:ILE:HG22	2.13	0.48
1:L:413:ALA:HB3	1:L:417:VAL:HB	1.95	0.48
1:C:77:VAL:HG12	1:C:510:VAL:HG21	1.93	0.48
1:L:411:VAL:HG21	1:L:494:LEU:HD12	1.95	0.48
1:J:132:LYS:O	1:J:135:SER:HB3	2.13	0.48
1:B:468:THR:OG1	1:B:485:TYR:CE2	2.64	0.48
2:P:20:LYS:CG	2:P:27:LEU:HD23	2.44	0.48
1:D:219:PHE:HB3	1:D:317:LEU:CD1	2.42	0.48
1:D:215:LEU:O	1:D:322:ARG:HA	2.13	0.48
1:L:289:LEU:O	1:L:292:ILE:HB	2.13	0.48
1:C:247:LEU:HB3	1:C:273:VAL:HG13	1.94	0.48
1:A:194:GLN:O	1:A:371:LYS:NZ	2.40	0.48
1:G:194:GLN:NE2	1:G:329:THR:HG21	2.27	0.48
1:G:174:VAL:HG23	1:G:370:ALA:HB2	1.95	0.48
1:I:266:THR:HG21	1:I:273:VAL:H	1.77	0.48
1:L:386:GLU:O	1:L:389:MET:HB3	2.13	0.48
1:B:362:ARG:O	1:B:366:GLN:OE1	2.30	0.48
1:B:413:ALA:HB1	1:B:417:VAL:CG1	2.42	0.48
1:A:486:GLY:HA3	1:A:491:MET:HE2	1.95	0.48
1:F:252:GLU:N	1:F:252:GLU:OE1	2.47	0.48
1:N:496:PRO:O	1:N:497:THR:C	2.51	0.48
1:H:207:LYS:HG3	1:H:214:GLU:OE2	2.13	0.48
1:M:494:LEU:N	1:M:494:LEU:CD2	2.76	0.48
2:T:57:LEU:HD22	2:T:88:GLU:HB2	1.95	0.48
1:L:77:VAL:HG11	1:L:510:VAL:HB	1.94	0.48
1:B:301:ILE:HG12	1:B:307:MET:CE	2.43	0.48
1:D:9:GLY:HA2	1:D:13:ARG:NH1	2.27	0.48
1:B:183:LEU:O	1:B:382:GLY:HA3	2.12	0.48
1:E:168:LYS:O	1:E:170:GLY:N	2.45	0.48
1:C:180:GLY:CA	1:C:380:LYS:HB3	2.43	0.48
1:D:390:LYS:O	1:D:391:GLU:C	2.52	0.48
1:J:319:GLN:O	1:J:336:VAL:HG23	2.13	0.48
1:K:344:GLY:O	1:K:347:ALA:HB3	2.13	0.48
1:D:96:ALA:O	1:D:97:GLN:C	2.52	0.48
1:J:238:GLU:O	1:J:241:ALA:HB3	2.13	0.48
1:A:391:GLU:O	1:A:394:ALA:HB3	2.12	0.48
1:F:217:SER:N	1:F:218:PRO:CD	2.76	0.48
1:B:200:LEU:O	1:B:202:PRO:HD2	2.13	0.48
1:A:308:GLU:O	1:A:309:LEU:O	2.31	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:233:MET:C	1:B:235:PRO:CD	2.76	0.48
1:I:230:ILE:CD1	1:I:257:GLU:HG2	2.44	0.48
1:J:290:GLN:O	1:J:293:ALA:HB3	2.13	0.48
1:D:455:VAL:O	1:D:458:CYS:HB2	2.13	0.48
1:B:305:ILE:N	1:B:305:ILE:CD1	2.76	0.48
1:J:217:SER:HB3	1:J:321:LYS:HA	1.95	0.48
1:E:420:ILE:HD11	1:E:470:LYS:CG	2.44	0.48
1:D:131:LEU:HD21	1:D:422:VAL:HG11	1.92	0.48
1:J:353:ILE:HD11	1:J:369:VAL:HG21	1.95	0.48
1:C:417:VAL:HG13	1:C:418:ALA:N	2.28	0.48
2:Q:48:ILE:HG12	2:Q:54:VAL:CG1	2.38	0.48
2:Q:7:HIS:O	2:Q:7:HIS:ND1	2.46	0.48
1:N:294:THR:HG21	1:N:345:ARG:HB2	1.94	0.48
1:B:434:GLU:O	1:B:435:ASP:C	2.50	0.48
1:M:413:ALA:HB1	1:M:417:VAL:HB	1.93	0.48
1:C:115:ASP:HB3	1:C:436:GLN:HG3	1.95	0.48
1:M:81:ALA:HA	1:M:506:TYR:CD2	2.48	0.48
1:H:72:GLN:NE2	1:H:72:GLN:HA	2.29	0.48
1:K:432:GLN:OE1	1:K:432:GLN:N	2.47	0.48
1:H:501:ARG:O	1:H:502:SER:C	2.52	0.48
1:I:129:GLU:O	1:I:132:LYS:N	2.46	0.48
1:H:102:GLU:HB2	1:H:442:VAL:HG13	1.94	0.48
1:A:466:ALA:O	1:A:470:LYS:HG3	2.13	0.48
1:H:225:LYS:HG3	1:H:227:ILE:HD13	1.94	0.48
1:C:272:LYS:CB	1:C:272:LYS:NZ	2.76	0.48
1:G:333:ILE:O	1:G:334:ASP:HB2	2.14	0.48
1:J:229:ASN:ND2	1:J:231:ARG:NH1	2.55	0.48
1:N:221:LEU:HD11	1:N:223:ALA:HB2	1.96	0.48
1:M:266:THR:HB	1:M:272:LYS:HG3	1.95	0.48
1:K:422:VAL:O	1:K:426:LEU:CD2	2.61	0.48
1:B:208:PRO:HB2	1:B:212:ALA:HB3	1.94	0.48
1:A:360:TYR:N	1:A:363:GLU:HG3	2.28	0.48
1:J:90:THR:O	1:J:93:THR:HB	2.14	0.48
1:M:366:GLN:O	1:M:369:VAL:HB	2.13	0.48
1:E:78:ALA:O	1:E:89:THR:HG22	2.12	0.48
1:I:352:GLN:O	1:I:355:GLU:OE1	2.31	0.48
2:R:6:LEU:H	2:R:9:ARG:HB2	1.78	0.48
1:A:37:ASN:OD1	1:A:51:LYS:HB2	2.13	0.48
1:L:285:ARG:O	1:L:288:MET:HB2	2.14	0.48
1:M:302:SER:HB2	1:M:305:ILE:HD12	1.96	0.48
1:H:455:VAL:HG11	1:H:461:GLU:O	2.13	0.48
1:C:27:VAL:HG12	1:C:90:THR:HG23	1.94	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:441:LYS:O	1:N:442:VAL:C	2.51	0.48
1:C:305:ILE:CG2	1:C:306:GLY:H	2.07	0.48
1:B:200:LEU:CD1	1:B:276:VAL:HA	2.44	0.48
1:E:271:VAL:HG23	1:E:271:VAL:O	2.13	0.48
1:E:283:ASP:O	1:E:287:ALA:HB2	2.14	0.48
1:L:256:GLY:O	1:L:257:GLU:C	2.52	0.48
1:K:221:LEU:HD11	1:K:223:ALA:HB2	1.96	0.48
1:L:66:PHE:N	1:L:69:MET:HG3	2.27	0.48
1:G:252:GLU:HA	1:G:285:ARG:NH1	2.28	0.48
1:B:448:GLU:O	1:B:452:ARG:HG2	2.13	0.48
2:S:83:VAL:C	2:S:84:LEU:HD12	2.33	0.48
1:D:291:ASP:HB3	1:D:345:ARG:NH2	2.25	0.48
1:H:7:LYS:HG3	1:H:66:PHE:CZ	2.49	0.48
1:E:465:VAL:O	1:E:466:ALA:C	2.52	0.48
1:B:295:LEU:C	1:B:295:LEU:HD23	2.34	0.48
1:J:97:GLN:O	1:J:98:ALA:C	2.52	0.48
2:T:94:ILE:N	2:U:4:ARG:O	2.45	0.48
1:M:179:ASP:OD2	1:M:390:LYS:HG2	2.14	0.48
1:G:510:VAL:O	1:G:511:ALA:C	2.51	0.48
1:C:417:VAL:O	1:C:421:ARG:HB2	2.13	0.48
1:L:267:MET:O	1:L:267:MET:HG3	2.14	0.48
1:F:504:LEU:HD13	1:F:504:LEU:C	2.33	0.48
1:M:404:ARG:O	1:M:408:GLU:HG3	2.13	0.48
1:F:381:VAL:HG13	1:F:392:LYS:CG	2.43	0.48
1:M:421:ARG:HD2	1:M:474:GLY:O	2.12	0.48
2:P:14:ARG:NH2	2:P:84:LEU:HD21	2.28	0.48
1:K:302:SER:HB2	1:K:305:ILE:CG1	2.43	0.48
1:C:409:GLU:OE1	1:C:501:ARG:NH2	2.47	0.48
1:K:472:GLY:HA3	1:K:476:TYR:HD2	1.78	0.48
1:G:465:VAL:O	1:G:466:ALA:C	2.52	0.48
1:L:80:LYS:O	1:L:83:ASP:HB2	2.13	0.48
1:G:232:GLU:O	1:G:233:MET:CB	2.61	0.48
1:D:302:SER:C	1:D:304:GLU:N	2.66	0.48
1:F:249:ILE:N	1:F:249:ILE:CD1	2.77	0.48
1:C:234:LEU:N	1:C:235:PRO:CD	2.75	0.48
1:G:320:ALA:HA	1:G:334:ASP:O	2.13	0.48
1:E:290:GLN:N	1:E:290:GLN:OE1	2.42	0.48
1:E:295:LEU:HD23	1:E:335:GLY:O	2.13	0.48
1:M:266:THR:O	1:M:268:ARG:N	2.46	0.48
1:A:326:ASN:OD1	1:A:329:THR:N	2.43	0.48
1:E:208:PRO:C	1:E:212:ALA:HB3	2.34	0.48
1:G:279:PRO:HD2	1:G:285:ARG:HB2	1.95	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:325:ILE:HG13	1:G:330:THR:HA	1.95	0.48
1:D:208:PRO:HB2	1:D:212:ALA:HB3	1.96	0.48
1:D:360:TYR:HA	1:D:363:GLU:CD	2.33	0.48
1:L:93:THR:O	1:L:96:ALA:HB3	2.13	0.48
1:I:426:LEU:H	1:I:426:LEU:CD2	2.14	0.48
2:P:48:ILE:HG23	2:P:54:VAL:HG22	1.94	0.48
2:U:83:VAL:C	2:U:84:LEU:HD12	2.33	0.48
2:S:14:ARG:CB	2:S:14:ARG:HH11	2.26	0.48
1:B:365:LEU:O	1:B:369:VAL:HG23	2.13	0.48
1:B:285:ARG:HG3	1:B:286:LYS:HG3	1.96	0.48
1:A:413:ALA:HB1	1:A:417:VAL:HG11	1.96	0.48
1:J:417:VAL:O	1:J:418:ALA:C	2.51	0.48
1:H:122:LYS:O	1:H:125:THR:HB	2.13	0.48
1:N:190:VAL:HG22	1:N:191:GLU:N	2.28	0.48
2:R:84:LEU:N	2:R:84:LEU:CD1	2.77	0.48
1:L:37:ASN:O	1:M:517:THR:HA	2.14	0.48
1:C:124:VAL:HG22	1:C:504:LEU:HD11	1.95	0.48
1:M:102:GLU:HB2	1:M:442:VAL:HG13	1.94	0.48
1:D:23:LEU:C	1:D:23:LEU:HD13	2.34	0.48
1:E:383:ALA:HB3	1:E:389:MET:CE	2.43	0.48
1:G:400:LEU:O	1:G:400:LEU:HD13	2.14	0.48
1:H:101:THR:O	1:H:105:LYS:HG3	2.12	0.48
1:G:512:GLY:O	1:G:515:ILE:HG12	2.13	0.48
2:R:44:GLY:O	2:R:45:ASN:C	2.51	0.48
1:C:174:VAL:HG12	1:C:175:ILE:N	2.29	0.48
1:B:248:LEU:HD13	1:B:248:LEU:C	2.33	0.48
1:D:194:GLN:O	1:D:371:LYS:NZ	2.44	0.48
1:D:302:SER:O	1:D:305:ILE:N	2.45	0.48
1:F:235:PRO:HG2	1:F:236:VAL:H	1.79	0.48
1:G:321:LYS:HD2	1:G:333:ILE:HG22	1.95	0.48
1:N:253:ASP:OD1	1:N:254:VAL:N	2.30	0.48
1:C:208:PRO:O	1:C:212:ALA:HB3	2.13	0.48
1:L:49:ILE:HD11	1:M:73:MET:HE3	1.95	0.48
1:M:7:LYS:HG3	1:M:66:PHE:CE2	2.49	0.48
1:B:304:GLU:C	1:B:305:ILE:HD12	2.33	0.48
1:K:66:PHE:HA	1:K:520:MET:CE	2.43	0.48
2:T:37:ARG:NH1	2:T:37:ARG:HG2	2.28	0.48
2:U:78:ILE:HD12	2:U:78:ILE:N	2.29	0.48
1:A:153:ASN:O	1:A:154:SER:HB2	2.14	0.48
1:F:496:PRO:O	1:F:499:VAL:HG22	2.14	0.48
1:K:218:PRO:HB3	1:K:246:PRO:HB2	1.95	0.48
1:K:93:THR:O	1:K:96:ALA:HB3	2.14	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:413:ALA:HB1	1:J:417:VAL:HB	1.95	0.48
2:U:17:VAL:CG1	2:U:34:LYS:HA	2.43	0.48
1:N:248:LEU:HD22	1:N:249:ILE:H	1.78	0.48
1:M:364:LYS:HA	1:M:367:GLU:OE1	2.13	0.48
1:A:147:VAL:HG23	1:A:148:GLY:N	2.29	0.48
1:E:381:VAL:HG13	1:E:392:LYS:HG3	1.95	0.48
1:H:417:VAL:O	1:H:418:ALA:C	2.52	0.48
1:F:432:GLN:NE2	1:F:436:GLN:HE22	2.12	0.48
1:K:411:VAL:HA	1:K:497:THR:H	1.79	0.48
1:B:160:LYS:O	1:B:164:GLU:HG3	2.13	0.48
1:I:187:LEU:HD23	1:I:187:LEU:C	2.33	0.48
1:F:246:PRO:HA	1:F:272:LYS:O	2.14	0.48
1:H:258:ALA:O	1:H:261:THR:OG1	2.30	0.48
1:E:254:VAL:HG12	1:E:259:LEU:HG	1.95	0.48
1:C:221:LEU:HD13	1:C:317:LEU:HD21	1.94	0.48
1:H:383:ALA:CB	1:H:389:MET:HA	2.43	0.48
1:L:47:PRO:HG3	1:M:73:MET:HG3	1.95	0.48
1:B:302:SER:O	1:B:305:ILE:N	2.44	0.48
1:C:203:TYR:HD1	1:C:203:TYR:H	1.61	0.48
1:J:216:GLU:C	1:J:218:PRO:HD3	2.34	0.48
1:A:417:VAL:O	1:A:420:ILE:CG2	2.59	0.48
1:C:31:LEU:HD12	4:C:1:ADP:O1A	2.13	0.48
1:K:420:ILE:CD1	1:K:448:GLU:HA	2.44	0.48
1:M:27:VAL:HG11	1:M:93:THR:HG21	1.94	0.48
1:L:345:ARG:HA	1:L:348:GLN:NE2	2.29	0.48
1:N:352:GLN:O	1:N:355:GLU:OE1	2.32	0.48
1:I:221:LEU:O	1:I:222:LEU:HD23	2.14	0.48
1:I:293:ALA:HB2	1:I:300:VAL:HG13	1.96	0.48
1:E:177:VAL:CG2	1:E:393:LYS:HG3	2.44	0.48
1:B:119:GLY:O	1:B:440:ILE:HG12	2.14	0.48
2:P:14:ARG:CG	2:P:15:LYS:H	2.26	0.48
1:K:302:SER:HB2	1:K:305:ILE:HG13	1.96	0.48
1:E:147:VAL:HA	1:E:150:ILE:HG22	1.94	0.48
1:A:41:ASP:O	1:A:42:LYS:HG3	2.13	0.48
1:N:305:ILE:O	1:N:305:ILE:HG22	2.13	0.48
1:H:281:PHE:CZ	1:N:384:ALA:O	2.67	0.48
1:F:69:MET:SD	1:F:522:THR:HB	2.54	0.48
1:A:7:LYS:HD2	1:A:66:PHE:CE2	2.49	0.48
1:C:465:VAL:O	1:C:466:ALA:C	2.52	0.48
1:B:222:LEU:HD22	1:B:300:VAL:HG22	1.96	0.48
1:B:259:LEU:O	1:B:262:LEU:HB3	2.13	0.48
2:U:49:LEU:O	2:U:55:LYS:NZ	2.45	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:233:MET:CE	1:H:309:LEU:HD13	2.44	0.48
1:K:350:ARG:HE	1:K:369:VAL:HG11	1.79	0.48
2:S:20:LYS:HA	2:S:28:THR:CG2	2.44	0.48
1:M:248:LEU:C	1:M:248:LEU:HD13	2.33	0.48
1:L:247:LEU:O	1:L:273:VAL:HB	2.14	0.48
1:L:247:LEU:HD22	1:L:248:LEU:H	1.79	0.48
1:L:293:ALA:O	1:L:297:GLY:N	2.47	0.48
1:C:339:GLU:N	1:C:339:GLU:CD	2.67	0.48
1:K:166:MET:HE2	1:K:171:LYS:CA	2.30	0.48
1:J:419:LEU:HA	1:J:422:VAL:HG22	1.96	0.48
1:A:207:LYS:HB2	1:A:207:LYS:NZ	2.29	0.48
1:A:366:GLN:HA	1:A:369:VAL:HB	1.94	0.48
1:D:357:THR:HB	1:D:361:ASP:HB2	1.95	0.48
1:L:389:MET:HE1	1:L:393:LYS:HB2	1.96	0.48
1:I:386:GLU:HG2	1:I:390:LYS:HE2	1.96	0.48
1:M:213:VAL:O	1:M:324:VAL:HA	2.13	0.48
1:J:352:GLN:O	1:J:355:GLU:OE1	2.31	0.48
1:K:216:GLU:C	1:K:218:PRO:HD3	2.34	0.48
1:B:504:LEU:O	1:B:504:LEU:HD13	2.13	0.48
1:B:123:ALA:CB	1:B:440:ILE:HG23	2.44	0.48
1:K:277:LYS:HZ2	1:K:277:LYS:HB2	1.79	0.48
1:F:162:ILE:HG21	1:F:403:THR:HG21	1.96	0.48
2:R:11:ILE:HG12	2:R:85:ILE:HG12	1.96	0.48
1:I:36:ARG:HB3	1:J:516:THR:O	2.13	0.48
1:H:204:PHE:CD2	1:H:274:ALA:HB1	2.49	0.48
1:M:513:LEU:HD12	1:M:513:LEU:HA	1.72	0.48
1:B:465:VAL:O	1:B:466:ALA:C	2.51	0.48
1:M:19:GLY:HA3	1:M:67:GLU:O	2.14	0.48
1:G:216:GLU:O	1:G:246:PRO:HG3	2.14	0.48
1:E:220:ILE:N	1:E:220:ILE:CD1	2.76	0.48
1:A:19:GLY:HA3	1:A:67:GLU:O	2.13	0.48
1:C:281:PHE:N	1:C:284:ARG:HD2	2.29	0.48
1:A:194:GLN:HG3	1:A:330:THR:O	2.14	0.48
1:I:362:ARG:HB3	1:I:362:ARG:HH11	1.79	0.48
1:G:295:LEU:C	1:G:295:LEU:HD23	2.34	0.48
1:B:365:LEU:HD22	1:B:366:GLN:HE22	1.78	0.48
1:B:368:ARG:O	1:B:372:LEU:N	2.47	0.48
1:C:94:VAL:HG12	1:C:449:ALA:HB1	1.96	0.48
1:N:107:VAL:CG2	1:N:108:ALA:N	2.77	0.48
1:H:215:LEU:HB2	1:H:323:VAL:HG13	1.96	0.48
1:H:215:LEU:HB3	1:H:218:PRO:CG	2.41	0.48
1:N:284:ARG:NH1	1:N:284:ARG:H	2.05	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:370:ALA:O	1:M:371:LYS:C	2.51	0.48
1:J:145:ALA:HA	1:J:159:GLY:O	2.13	0.48
1:D:161:LEU:O	1:D:164:GLU:HB2	2.14	0.48
1:M:194:GLN:HG2	1:M:195:PHE:N	2.29	0.48
1:L:40:LEU:HD23	1:L:50:THR:HG22	1.95	0.48
1:D:400:LEU:HD13	1:D:400:LEU:C	2.34	0.48
1:F:479:ASN:O	1:F:483:GLU:N	2.46	0.48
1:G:147:VAL:HA	1:G:150:ILE:HG22	1.96	0.48
1:H:420:ILE:HG13	1:H:451:LEU:HD22	1.95	0.48
1:D:23:LEU:HD23	1:D:60:ILE:HB	1.96	0.48
1:H:55:SER:HA	1:H:58:ARG:NH1	2.29	0.48
1:J:187:LEU:HD23	1:J:187:LEU:C	2.34	0.48
2:O:47:ARG:HG2	2:O:49:LEU:H	1.79	0.47
1:A:220:ILE:HD12	1:A:220:ILE:H	1.78	0.47
1:D:309:LEU:H	1:D:309:LEU:CD1	2.26	0.47
1:C:353:ILE:HG12	1:C:366:GLN:HE22	1.77	0.47
1:G:33:PRO:HD3	4:G:1:ADP:N7	2.29	0.47
1:C:207:LYS:HB3	1:C:208:PRO:CD	2.32	0.47
1:D:496:PRO:HG2	1:D:499:VAL:CG1	2.44	0.47
1:H:23:LEU:O	1:H:27:VAL:HG12	2.13	0.47
1:H:90:THR:O	1:H:94:VAL:HG23	2.14	0.47
2:P:46:GLY:HA3	2:P:55:LYS:O	2.14	0.47
1:A:496:PRO:O	1:A:497:THR:C	2.53	0.47
1:M:169:VAL:HG22	1:M:169:VAL:O	2.14	0.47
1:H:194:GLN:HG2	1:H:195:PHE:N	2.28	0.47
1:K:218:PRO:CG	1:K:246:PRO:HB2	2.44	0.47
1:C:147:VAL:HA	1:C:150:ILE:HG22	1.95	0.47
1:C:77:VAL:HG22	1:C:78:ALA:N	2.29	0.47
1:L:496:PRO:O	1:L:497:THR:C	2.51	0.47
2:Q:7:HIS:HA	2:Q:45:ASN:N	2.29	0.47
2:R:87:SER:OG	2:R:89:SER:HB2	2.13	0.47
1:G:124:VAL:HG13	1:G:504:LEU:HD12	1.95	0.47
1:I:305:ILE:HG22	1:I:305:ILE:O	2.13	0.47
1:M:262:LEU:HA	1:M:265:ASN:HB3	1.96	0.47
1:D:37:ASN:OD1	1:D:51:LYS:HB2	2.14	0.47
1:N:479:ASN:OD1	1:N:481:ALA:HB3	2.14	0.47
1:K:40:LEU:HD23	1:K:50:THR:HG22	1.96	0.47
1:H:476:TYR:HA	1:H:486:GLY:O	2.14	0.47
1:G:116:LEU:O	1:G:120:ILE:HG13	2.15	0.47
1:J:391:GLU:O	1:J:394:ALA:HB3	2.13	0.47
1:D:149:THR:OG1	1:D:156:GLU:HA	2.14	0.47
1:F:215:LEU:O	1:F:322:ARG:HG3	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:247:LEU:HD13	1:B:248:LEU:O	2.13	0.47
1:B:215:LEU:O	1:B:322:ARG:HG3	2.14	0.47
1:F:221:LEU:C	1:F:222:LEU:HD12	2.34	0.47
1:B:235:PRO:HG2	1:B:236:VAL:HG23	1.94	0.47
1:E:256:GLY:O	1:E:257:GLU:C	2.52	0.47
1:A:18:ARG:O	1:A:22:VAL:HG23	2.14	0.47
1:C:219:PHE:O	1:C:247:LEU:HD22	2.15	0.47
1:J:219:PHE:O	1:J:247:LEU:HD22	2.14	0.47
1:G:248:LEU:C	1:G:248:LEU:HD13	2.34	0.47
1:H:440:ILE:O	1:H:443:ALA:HB3	2.14	0.47
2:S:17:VAL:HG11	2:S:33:ALA:O	2.14	0.47
1:B:357:THR:O	1:B:359:ASP:N	2.47	0.47
1:H:358:SER:HB3	1:H:361:ASP:OD1	2.14	0.47
1:H:353:ILE:HD11	1:H:369:VAL:HG21	1.95	0.47
1:H:494:LEU:CD2	1:H:494:LEU:N	2.74	0.47
1:N:411:VAL:HG21	1:N:494:LEU:HD12	1.96	0.47
1:N:249:ILE:HB	1:N:275:ALA:HB1	1.93	0.47
1:E:487:ASN:HB3	1:E:490:ASP:OD2	2.15	0.47
1:I:353:ILE:HA	1:I:365:LEU:CD1	2.44	0.47
1:F:302:SER:CB	1:F:305:ILE:HB	2.42	0.47
1:G:72:GLN:NE2	1:G:72:GLN:CA	2.75	0.47
1:G:23:LEU:CD1	1:G:23:LEU:C	2.82	0.47
1:F:160:LYS:O	1:F:164:GLU:HG3	2.14	0.47
1:G:161:LEU:O	1:G:164:GLU:HB2	2.14	0.47
1:C:23:LEU:CD1	1:C:23:LEU:C	2.82	0.47
1:M:285:ARG:HH11	1:M:285:ARG:HG2	1.78	0.47
1:L:299:THR:HB	1:L:316:ASP:HB3	1.97	0.47
1:I:80:LYS:O	1:I:83:ASP:HB2	2.14	0.47
1:F:39:VAL:HA	1:F:48:THR:O	2.15	0.47
1:E:122:LYS:HE2	1:E:429:LEU:HD11	1.96	0.47
1:A:237:LEU:C	1:A:237:LEU:CD2	2.83	0.47
1:F:240:VAL:O	1:F:244:GLY:N	2.45	0.47
1:E:349:ILE:O	1:E:349:ILE:HG22	2.14	0.47
1:D:233:MET:HE3	1:D:233:MET:O	2.14	0.47
1:C:253:ASP:HB2	1:C:277:LYS:HE2	1.95	0.47
1:C:280:GLY:HA3	1:C:284:ARG:NH1	2.30	0.47
1:C:295:LEU:O	1:C:295:LEU:HD23	2.14	0.47
1:J:288:MET:HA	1:J:288:MET:CE	2.44	0.47
1:J:314:LEU:C	1:J:316:ASP:H	2.17	0.47
1:J:314:LEU:O	1:J:316:ASP:N	2.47	0.47
1:G:252:GLU:O	1:G:253:ASP:CB	2.61	0.47
1:K:131:LEU:CD1	1:K:422:VAL:HG11	2.43	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:38:VAL:HG12	1:H:39:VAL:N	2.29	0.47
1:N:381:VAL:HB	1:N:389:MET:HE3	1.95	0.47
1:J:38:VAL:HG12	1:J:39:VAL:N	2.29	0.47
1:J:190:VAL:HG22	1:J:191:GLU:N	2.29	0.47
1:H:348:GLN:O	1:H:352:GLN:HG3	2.15	0.47
1:C:177:VAL:CG1	1:C:397:GLU:HG2	2.43	0.47
1:D:438:VAL:O	1:D:442:VAL:HG23	2.14	0.47
1:B:115:ASP:HB3	1:B:436:GLN:HG3	1.95	0.47
1:M:88:GLY:O	1:M:89:THR:C	2.53	0.47
1:B:88:GLY:HA2	4:B:1:ADP:O2B	2.14	0.47
1:A:209:GLU:N	1:A:209:GLU:CD	2.68	0.47
1:L:240:VAL:HA	1:L:243:ALA:CB	2.43	0.47
1:A:475:ASN:ND2	1:A:475:ASN:N	2.62	0.47
2:R:43:VAL:HG23	2:R:61:VAL:HG22	1.96	0.47
1:L:515:ILE:O	1:L:515:ILE:HG22	2.13	0.47
1:N:74:VAL:O	1:N:75:LYS:C	2.52	0.47
1:F:212:ALA:HA	1:F:325:ILE:O	2.14	0.47
1:D:270:ILE:HD11	2:R:27:LEU:CD1	2.45	0.47
2:Q:47:ARG:HD2	2:Q:55:LYS:HD2	1.95	0.47
1:E:220:ILE:N	1:E:318:GLY:O	2.37	0.47
1:E:322:ARG:CG	1:E:323:VAL:H	2.14	0.47
1:J:496:PRO:O	1:J:499:VAL:HG22	2.13	0.47
1:B:207:LYS:CB	1:B:207:LYS:NZ	2.77	0.47
2:P:48:ILE:HG12	2:P:54:VAL:CG1	2.42	0.47
1:N:284:ARG:N	1:N:284:ARG:HH11	2.06	0.47
1:M:355:GLU:C	1:M:357:THR:N	2.67	0.47
1:L:124:VAL:HG13	1:L:504:LEU:HD11	1.96	0.47
1:I:222:LEU:CD1	1:I:293:ALA:HA	2.44	0.47
1:L:487:ASN:O	1:L:491:MET:HG3	2.14	0.47
1:K:109:ALA:HB3	1:K:111:MET:HE3	1.95	0.47
2:T:20:LYS:CD	2:T:20:LYS:H	2.26	0.47
1:G:436:GLN:O	1:G:440:ILE:HG13	2.14	0.47
1:C:30:THR:HB	1:C:51:LYS:HG3	1.95	0.47
1:E:161:LEU:HD12	1:E:161:LEU:HA	1.73	0.47
1:D:519:CYS:HB3	1:E:38:VAL:HG13	1.97	0.47
1:I:299:THR:HB	1:I:316:ASP:HB3	1.97	0.47
1:F:56:VAL:O	1:F:57:ALA:C	2.53	0.47
1:F:237:LEU:CD2	1:F:237:LEU:C	2.83	0.47
1:J:364:LYS:HA	1:J:367:GLU:OE1	2.15	0.47
1:K:228:SER:O	1:K:257:GLU:HB3	2.14	0.47
1:K:313:THR:HG22	1:K:314:LEU:H	1.79	0.47
1:G:259:LEU:O	1:G:262:LEU:HB3	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:353:ILE:HG12	1:G:366:GLN:HE22	1.79	0.47
2:R:48:ILE:HG12	2:R:54:VAL:CG1	2.43	0.47
1:J:16:MET:HG3	1:J:520:MET:SD	2.54	0.47
1:F:355:GLU:HG3	1:F:357:THR:H	1.78	0.47
1:F:313:THR:HG22	1:F:314:LEU:N	2.30	0.47
1:I:385:THR:HG23	1:I:388:GLU:HB3	1.96	0.47
1:F:413:ALA:HB1	1:F:417:VAL:HG11	1.96	0.47
1:F:510:VAL:CG2	1:F:511:ALA:N	2.75	0.47
1:B:288:MET:O	1:B:289:LEU:HG	2.14	0.47
1:H:161:LEU:N	1:H:161:LEU:HD12	2.28	0.47
2:T:17:VAL:HG13	2:T:34:LYS:HA	1.95	0.47
1:D:417:VAL:HG13	1:D:418:ALA:N	2.29	0.47
1:L:32:GLY:CA	1:L:454:ILE:HD12	2.42	0.47
1:L:350:ARG:HG3	1:L:350:ARG:NH1	2.29	0.47
1:I:222:LEU:HD22	1:I:289:LEU:CD1	2.44	0.47
1:H:175:ILE:N	1:H:175:ILE:CD1	2.77	0.47
1:B:429:LEU:O	1:B:430:ARG:NH1	2.40	0.47
1:J:214:GLU:HG2	1:J:324:VAL:HG12	1.97	0.47
1:N:353:ILE:HD11	1:N:369:VAL:HG21	1.97	0.47
1:J:186:GLU:O	1:J:379:ILE:HA	2.14	0.47
1:I:102:GLU:HB2	1:I:442:VAL:HG13	1.96	0.47
1:E:478:TYR:CE2	1:E:480:ALA:HA	2.49	0.47
1:D:409:GLU:CD	1:D:501:ARG:HH21	2.18	0.47
1:A:468:THR:OG1	1:A:485:TYR:CE2	2.68	0.47
1:B:262:LEU:O	1:B:266:THR:HG23	2.15	0.47
1:A:265:ASN:HB3	1:A:271:VAL:CG2	2.45	0.47
1:A:263:VAL:HG12	1:A:267:MET:SD	2.54	0.47
1:K:353:ILE:HA	1:K:365:LEU:CD1	2.45	0.47
1:A:18:ARG:HB2	1:A:67:GLU:HG2	1.95	0.47
1:I:233:MET:HE2	1:I:309:LEU:HD13	1.96	0.47
1:D:234:LEU:N	1:D:235:PRO:CD	2.78	0.47
1:C:256:GLY:HA2	1:C:259:LEU:HD12	1.97	0.47
1:C:348:GLN:NE2	1:C:352:GLN:NE2	2.62	0.47
1:C:355:GLU:O	1:C:362:ARG:NH2	2.46	0.47
2:O:14:ARG:CD	2:O:35:SER:HB3	2.42	0.47
1:M:131:LEU:CD1	1:M:422:VAL:HG11	2.45	0.47
1:I:66:PHE:HA	1:I:520:MET:CE	2.44	0.47
1:I:419:LEU:O	1:I:422:VAL:HG22	2.14	0.47
1:J:31:LEU:HG	1:J:454:ILE:CD1	2.44	0.47
1:F:280:GLY:CA	1:F:284:ARG:HD2	2.45	0.47
1:F:44:PHE:HB2	1:F:45:GLY:H	1.57	0.47
1:N:287:ALA:HB1	1:N:368:ARG:NH1	2.30	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:420:ILE:HD13	1:L:448:GLU:HA	1.97	0.47
2:O:5:PRO:HD3	2:O:42:ALA:CB	2.42	0.47
1:K:124:VAL:HG13	1:K:504:LEU:HD13	1.95	0.47
1:F:124:VAL:O	1:F:128:VAL:HG23	2.15	0.47
1:L:277:LYS:HZ3	1:L:277:LYS:HB2	1.78	0.47
1:N:73:MET:HE1	1:N:514:MET:HG2	1.97	0.47
1:K:55:SER:O	1:K:58:ARG:HB3	2.14	0.47
1:I:38:VAL:HG12	1:I:39:VAL:N	2.30	0.47
2:U:59:VAL:HG23	2:U:59:VAL:O	2.14	0.47
1:L:432:GLN:OE1	1:L:432:GLN:N	2.47	0.47
1:K:443:ALA:O	1:K:447:MET:HG3	2.14	0.47
1:G:519:CYS:SG	1:G:520:MET:N	2.88	0.47
1:L:291:ASP:O	1:L:294:THR:HB	2.15	0.47
1:K:138:CYS:SG	1:K:144:ILE:HD13	2.55	0.47
1:B:260:ALA:O	1:B:263:VAL:HB	2.14	0.47
1:B:204:PHE:CB	1:B:274:ALA:HB2	2.45	0.47
1:D:256:GLY:HA2	1:D:259:LEU:HD12	1.96	0.47
2:O:48:ILE:HG12	2:O:54:VAL:HG13	1.96	0.47
1:B:195:PHE:CD1	1:B:195:PHE:C	2.88	0.47
1:F:233:MET:C	1:F:235:PRO:CD	2.81	0.47
1:A:266:THR:HG22	1:A:273:VAL:N	2.28	0.47
1:E:339:GLU:CD	1:E:339:GLU:H	2.18	0.47
1:E:206:ASN:HB2	1:E:214:GLU:H	1.78	0.47
1:E:257:GLU:O	1:E:261:THR:HG22	2.15	0.47
1:D:7:LYS:HD2	1:D:66:PHE:CE2	2.50	0.47
1:J:270:ILE:HG22	1:J:271:VAL:H	1.77	0.47
1:K:221:LEU:HB3	1:K:249:ILE:HA	1.96	0.47
1:I:231:ARG:O	1:I:234:LEU:HG	2.15	0.47
1:C:221:LEU:C	1:C:222:LEU:HD12	2.35	0.47
1:C:368:ARG:O	1:C:372:LEU:N	2.46	0.47
1:H:293:ALA:O	1:H:297:GLY:N	2.47	0.47
1:G:346:VAL:CG1	1:G:350:ARG:HH22	2.27	0.47
2:R:47:ARG:O	2:R:54:VAL:HG13	2.14	0.47
1:J:65:LYS:O	1:J:66:PHE:CB	2.44	0.47
1:I:41:ASP:HB2	1:J:69:MET:CE	2.45	0.47
1:M:449:ALA:CB	1:M:450:PRO:HD3	2.29	0.47
1:C:195:PHE:HD1	1:C:195:PHE:C	2.17	0.47
1:H:15:LYS:HD2	1:H:67:GLU:HG3	1.97	0.47
1:M:145:ALA:HA	1:M:159:GLY:O	2.15	0.47
1:M:149:THR:HG22	1:M:156:GLU:HA	1.95	0.47
2:O:83:VAL:C	2:O:84:LEU:HD12	2.35	0.47
1:F:202:PRO:HG2	1:F:203:TYR:CD1	2.50	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:455:VAL:O	1:B:458:CYS:HB2	2.15	0.47
1:B:510:VAL:CG2	1:B:511:ALA:N	2.78	0.47
1:B:411:VAL:HG12	1:B:496:PRO:CA	2.37	0.47
1:E:418:ALA:O	1:E:422:VAL:HG13	2.15	0.47
1:F:510:VAL:CG2	1:F:511:ALA:H	2.28	0.47
1:B:252:GLU:O	1:B:277:LYS:HE2	2.15	0.47
2:U:43:VAL:HG12	2:U:57:LEU:HD12	1.95	0.47
1:M:214:GLU:HG2	1:M:324:VAL:CG1	2.45	0.47
2:Q:84:LEU:N	2:Q:84:LEU:CD1	2.76	0.47
1:F:368:ARG:O	1:F:372:LEU:N	2.46	0.47
1:F:281:PHE:H	1:F:284:ARG:CZ	2.28	0.47
1:F:225:LYS:C	1:F:252:GLU:HB2	2.35	0.47
1:E:510:VAL:CG2	1:E:511:ALA:N	2.76	0.47
1:M:109:ALA:HB3	1:M:111:MET:CE	2.44	0.47
2:U:60:LYS:N	2:U:63:ASP:OD2	2.48	0.47
1:F:304:GLU:HB2	1:F:305:ILE:HD12	1.96	0.47
1:K:107:VAL:HG23	1:K:108:ALA:H	1.78	0.47
1:K:107:VAL:HG11	1:K:515:ILE:HG23	1.96	0.47
1:J:461:GLU:HB3	1:J:464:VAL:HB	1.95	0.47
1:A:119:GLY:O	1:A:440:ILE:HG12	2.14	0.47
2:U:52:GLY:O	2:U:53:GLU:HB2	2.13	0.47
1:L:476:TYR:HA	1:L:486:GLY:O	2.14	0.47
2:S:37:ARG:NH1	2:S:37:ARG:HG2	2.30	0.47
1:F:146:GLN:HE21	1:F:494:LEU:HD11	1.80	0.47
1:E:112:ASN:N	1:E:435:ASP:OD2	2.43	0.47
1:F:475:ASN:ND2	1:F:475:ASN:N	2.63	0.47
2:R:40:VAL:CG2	2:R:63:ASP:HB2	2.44	0.47
1:C:5:ASP:HB2	1:C:524:LEU:HD23	1.96	0.47
1:D:472:GLY:HA3	1:D:476:TYR:HD2	1.80	0.47
1:K:187:LEU:C	1:K:187:LEU:HD23	2.35	0.47
1:H:513:LEU:HD12	1:H:513:LEU:HA	1.66	0.47
1:F:76:GLU:OE1	1:G:387:VAL:HG13	2.14	0.47
1:E:428:ASP:HA	1:E:430:ARG:HH12	1.80	0.47
2:U:3:ILE:H	2:U:3:ILE:HD12	1.79	0.47
1:H:84:ALA:O	1:H:498:LYS:HE2	2.14	0.47
1:C:72:GLN:HB3	1:D:47:PRO:HD3	1.96	0.47
1:N:501:ARG:O	1:N:502:SER:C	2.52	0.47
1:F:174:VAL:C	1:F:175:ILE:HG13	2.34	0.47
1:G:428:ASP:C	1:G:430:ARG:NH1	2.68	0.47
1:F:100:ILE:O	1:F:101:THR:C	2.53	0.47
1:B:391:GLU:O	1:B:394:ALA:HB3	2.15	0.47
1:L:391:GLU:O	1:L:394:ALA:HB3	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:482:THR:OG1	1:A:484:GLU:HG2	2.15	0.47
1:G:234:LEU:HA	1:G:237:LEU:HB3	1.96	0.47
1:F:222:LEU:CD2	1:F:300:VAL:HG22	2.40	0.47
1:B:239:ALA:O	1:B:242:LYS:HB3	2.15	0.47
1:E:289:LEU:N	1:E:290:GLN:OE1	2.43	0.47
1:J:228:SER:HA	1:J:255:GLU:HB2	1.96	0.47
1:K:290:GLN:HA	1:K:290:GLN:OE1	2.15	0.47
1:J:266:THR:HB	1:J:272:LYS:HG3	1.96	0.47
1:L:270:ILE:HG23	1:M:229:ASN:ND2	2.29	0.47
1:M:308:GLU:OE2	1:M:310:GLU:HG3	2.15	0.47
1:N:64:ASP:C	1:N:65:LYS:O	2.51	0.47
1:K:38:VAL:HG12	1:K:39:VAL:N	2.30	0.47
1:A:293:ALA:O	1:A:297:GLY:N	2.47	0.47
1:I:69:MET:O	1:I:73:MET:HG3	2.14	0.47
1:I:450:PRO:O	1:I:454:ILE:HG12	2.15	0.47
1:I:402:ALA:HA	1:I:496:PRO:HG2	1.96	0.47
1:H:17:LEU:HA	1:H:20:VAL:CG1	2.45	0.47
1:G:130:GLU:O	1:G:134:LEU:HD13	2.15	0.47
1:E:417:VAL:C	1:E:420:ILE:HG22	2.34	0.47
1:K:385:THR:CG2	1:K:388:GLU:HB3	2.44	0.47
2:Q:78:ILE:HD12	2:Q:78:ILE:N	2.30	0.47
1:E:308:GLU:O	1:E:309:LEU:O	2.33	0.47
1:H:218:PRO:HB3	1:H:246:PRO:C	2.35	0.47
1:E:411:VAL:HG12	1:E:496:PRO:CA	2.40	0.47
1:J:161:LEU:HD12	1:J:161:LEU:N	2.30	0.47
1:K:193:MET:HB3	1:K:332:ILE:HD11	1.96	0.47
1:L:305:ILE:O	1:L:305:ILE:HG22	2.15	0.47
1:B:409:GLU:CD	1:B:501:ARG:HH21	2.18	0.47
1:I:441:LYS:O	1:I:442:VAL:C	2.51	0.47
1:G:117:LYS:HG2	1:G:121:ASP:OD2	2.14	0.47
1:M:336:VAL:O	1:M:336:VAL:HG12	2.15	0.47
1:M:501:ARG:NH1	1:M:505:GLN:OE1	2.48	0.47
1:A:383:ALA:N	1:A:389:MET:HE1	2.29	0.47
2:P:20:LYS:H	2:P:20:LYS:CD	2.28	0.47
1:H:301:ILE:HG21	1:H:309:LEU:HD23	1.96	0.47
1:G:272:LYS:HZ2	1:G:272:LYS:HB2	1.80	0.47
1:B:234:LEU:HA	1:B:237:LEU:HB3	1.96	0.47
1:E:326:ASN:OD1	1:E:329:THR:N	2.48	0.47
1:N:230:ILE:CD1	1:N:257:GLU:HG2	2.44	0.47
1:J:230:ILE:HG12	1:J:261:THR:HG21	1.97	0.47
1:K:288:MET:HA	1:K:288:MET:HE3	1.97	0.47
1:C:256:GLY:O	1:C:257:GLU:C	2.53	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:358:SER:HA	1:C:362:ARG:CD	2.45	0.47
1:H:266:THR:O	1:H:268:ARG:N	2.48	0.47
1:H:317:LEU:CD1	1:H:317:LEU:N	2.78	0.47
1:G:266:THR:HG22	1:G:273:VAL:N	2.30	0.47
1:I:247:LEU:HB3	1:I:273:VAL:HG11	1.96	0.47
1:I:336:VAL:HG12	1:I:336:VAL:O	2.14	0.47
1:J:419:LEU:HD21	1:J:500:THR:CG2	2.45	0.47
1:L:106:ALA:HA	1:L:111:MET:CE	2.45	0.47
1:L:131:LEU:HD12	1:L:422:VAL:HG11	1.97	0.47
1:C:456:LEU:HD13	1:C:462:PRO:CG	2.45	0.47
1:C:194:GLN:NE2	1:C:329:THR:HG21	2.30	0.47
1:G:417:VAL:O	1:G:420:ILE:CG2	2.56	0.47
1:B:366:GLN:HA	1:B:369:VAL:HG21	1.97	0.47
1:F:73:MET:O	1:F:74:VAL:C	2.53	0.47
1:H:160:LYS:HG2	1:H:164:GLU:OE2	2.14	0.47
1:A:417:VAL:HG13	1:A:418:ALA:N	2.28	0.47
2:T:71:TYR:O	2:T:73:VAL:N	2.48	0.47
1:I:5:ASP:HB2	1:I:524:LEU:CD2	2.41	0.47
1:N:163:ALA:O	1:N:167:ASP:HB2	2.15	0.47
1:C:434:GLU:O	1:C:435:ASP:C	2.53	0.47
2:P:50:GLU:OE1	2:Q:50:GLU:HA	2.15	0.47
1:L:202:PRO:C	1:L:204:PHE:N	2.68	0.47
1:I:478:TYR:HB2	1:I:485:TYR:CE2	2.50	0.47
1:I:74:VAL:O	1:I:75:LYS:C	2.54	0.47
1:F:421:ARG:HA	1:F:421:ARG:HD3	1.74	0.47
1:M:189:VAL:O	1:M:189:VAL:HG23	2.15	0.47
1:I:357:THR:O	1:I:357:THR:HG22	2.15	0.47
1:K:36:ARG:HB3	1:L:516:THR:O	2.13	0.47
1:F:428:ASP:HA	1:F:430:ARG:HH12	1.80	0.47
1:A:479:ASN:O	1:A:483:GLU:N	2.47	0.47
1:B:271:VAL:O	1:B:271:VAL:HG23	2.14	0.47
1:B:199:TYR:O	1:B:199:TYR:CD1	2.68	0.47
1:F:260:ALA:O	1:F:263:VAL:HB	2.15	0.47
1:F:308:GLU:O	1:F:309:LEU:O	2.33	0.47
1:A:247:LEU:HD13	1:A:248:LEU:N	2.29	0.47
2:Q:47:ARG:HD3	2:Q:49:LEU:CG	2.45	0.47
1:E:272:LYS:NZ	1:E:272:LYS:HB2	2.30	0.47
1:E:277:LYS:HG2	1:E:278:ALA:N	2.30	0.47
1:E:353:ILE:HG22	1:E:354:GLU:N	2.30	0.47
1:J:254:VAL:O	1:J:259:LEU:HD12	2.15	0.47
1:K:228:SER:O	1:K:258:ALA:N	2.47	0.47
1:D:237:LEU:C	1:D:237:LEU:CD2	2.83	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:352:GLN:HB3	1:C:365:LEU:HD11	1.97	0.47
1:A:218:PRO:HA	1:A:246:PRO:O	2.15	0.47
1:A:329:THR:HG22	1:A:330:THR:N	2.30	0.47
1:M:66:PHE:N	1:M:69:MET:HG3	2.28	0.47
1:C:486:GLY:CA	1:C:491:MET:CE	2.93	0.47
2:U:4:ARG:HD2	2:U:5:PRO:HD2	1.96	0.47
2:Q:71:TYR:O	2:Q:73:VAL:N	2.48	0.47
1:F:278:ALA:HB1	1:F:279:PRO:HD2	1.96	0.47
1:A:414:GLY:HA2	1:A:495:ASP:OD2	2.14	0.47
2:S:47:ARG:HG2	2:S:48:ILE:N	2.30	0.47
1:L:290:GLN:HG3	1:L:345:ARG:HE	1.79	0.47
1:N:191:GLU:O	1:N:334:ASP:HA	2.15	0.47
1:M:414:GLY:N	1:M:494:LEU:HA	2.31	0.47
1:N:345:ARG:O	1:N:348:GLN:HB2	2.15	0.47
1:K:199:TYR:C	1:K:200:LEU:HD12	2.35	0.47
1:N:420:ILE:CD1	1:N:448:GLU:HG2	2.45	0.47
1:H:37:ASN:H	1:H:37:ASN:ND2	2.13	0.47
1:K:322:ARG:HB2	1:K:333:ILE:HB	1.97	0.47
1:C:187:LEU:HD12	1:C:188:ASP:N	2.30	0.47
1:K:153:ASN:O	1:K:154:SER:HB2	2.15	0.47
1:F:400:LEU:HD13	1:F:400:LEU:O	2.15	0.47
1:B:221:LEU:C	1:B:222:LEU:HD12	2.36	0.46
1:B:195:PHE:HD1	1:B:195:PHE:C	2.18	0.46
1:L:233:MET:HB3	1:L:237:LEU:HB2	1.98	0.46
1:A:249:ILE:C	1:A:250:ILE:HG13	2.35	0.46
2:Q:47:ARG:HB3	2:Q:55:LYS:HG2	1.97	0.46
2:Q:47:ARG:O	2:Q:55:LYS:HE3	2.15	0.46
1:E:206:ASN:HB3	1:E:214:GLU:N	2.30	0.46
1:E:353:ILE:O	1:E:355:GLU:N	2.47	0.46
1:N:267:MET:HG3	1:N:267:MET:O	2.15	0.46
1:K:222:LEU:HD22	1:K:289:LEU:CD1	2.46	0.46
1:A:346:VAL:O	1:A:350:ARG:NH1	2.47	0.46
1:F:314:LEU:C	1:F:314:LEU:HD12	2.33	0.46
1:N:206:ASN:ND2	1:N:207:LYS:HE2	2.30	0.46
1:N:325:ILE:HG22	1:N:326:ASN:N	2.29	0.46
1:F:127:ALA:O	1:F:131:LEU:HG	2.14	0.46
1:B:127:ALA:O	1:B:131:LEU:HG	2.15	0.46
1:H:353:ILE:HA	1:H:365:LEU:CD1	2.45	0.46
2:T:17:VAL:CG1	2:T:34:LYS:HA	2.45	0.46
2:U:5:PRO:HD3	2:U:42:ALA:HB1	1.96	0.46
1:M:157:THR:O	1:M:161:LEU:HD13	2.15	0.46
2:Q:87:SER:C	2:Q:89:SER:N	2.67	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:94:VAL:HG12	1:G:449:ALA:HB1	1.97	0.46
1:A:404:ARG:NH1	1:A:404:ARG:HG3	2.28	0.46
1:A:30:THR:HB	1:A:51:LYS:HG3	1.96	0.46
1:F:54:VAL:HG13	1:F:55:SER:N	2.29	0.46
1:K:352:GLN:O	1:K:355:GLU:OE1	2.33	0.46
1:A:210:THR:HG22	1:A:210:THR:O	2.15	0.46
2:O:73:VAL:O	2:O:74:LYS:HD3	2.15	0.46
1:E:111:MET:CE	1:E:438:VAL:HG21	2.44	0.46
1:K:285:ARG:HH11	1:K:285:ARG:HG2	1.80	0.46
2:R:11:ILE:HB	2:R:42:ALA:HB3	1.98	0.46
1:L:144:ILE:HG21	1:L:163:ALA:HA	1.96	0.46
1:F:444:LEU:HD23	1:F:447:MET:HE3	1.97	0.46
2:R:59:VAL:O	2:R:59:VAL:HG23	2.15	0.46
1:N:298:GLY:HA2	1:N:317:LEU:O	2.15	0.46
1:D:205:ILE:HD13	1:D:211:GLY:HA2	1.96	0.46
1:D:245:LYS:HE2	1:D:245:LYS:CA	2.36	0.46
1:A:315:GLU:OE1	1:A:316:ASP:N	2.49	0.46
1:A:299:THR:N	1:A:316:ASP:O	2.48	0.46
1:G:302:SER:C	1:G:304:GLU:N	2.68	0.46
1:J:222:LEU:HD11	1:J:293:ALA:HA	1.97	0.46
1:L:7:LYS:HG3	1:L:66:PHE:CE2	2.50	0.46
1:G:327:LYS:N	1:G:327:LYS:HD3	2.30	0.46
1:C:195:PHE:CD1	1:C:195:PHE:C	2.88	0.46
1:N:433:ASN:HD22	1:N:434:GLU:H	1.63	0.46
1:L:175:ILE:HD13	1:L:404:ARG:NH2	2.30	0.46
1:F:131:LEU:HD23	1:F:422:VAL:HG11	1.94	0.46
1:I:417:VAL:O	1:I:418:ALA:C	2.53	0.46
2:P:5:PRO:HD3	2:P:42:ALA:HB1	1.97	0.46
1:G:52:ASP:OD1	1:G:54:VAL:HG12	2.16	0.46
1:M:112:ASN:HA	1:M:113:PRO:HD3	1.67	0.46
1:G:403:THR:O	1:G:404:ARG:C	2.54	0.46
1:H:402:ALA:O	1:H:406:ALA:N	2.32	0.46
1:B:112:ASN:HD21	1:B:114:MET:HB3	1.79	0.46
1:G:433:ASN:OD1	1:G:436:GLN:HB2	2.15	0.46
1:D:84:ALA:HB2	1:D:506:TYR:CE2	2.49	0.46
1:N:180:GLY:HA2	1:N:380:LYS:HB3	1.97	0.46
1:J:336:VAL:O	1:J:336:VAL:HG12	2.14	0.46
1:B:4:LYS:HG3	1:C:59:GLU:O	2.14	0.46
1:L:188:ASP:O	1:L:378:VAL:HG22	2.15	0.46
2:P:69:ASP:HA	2:P:73:VAL:HG21	1.98	0.46
1:C:10:ASN:O	1:C:14:VAL:HG23	2.15	0.46
1:E:96:ALA:O	1:E:97:GLN:C	2.54	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:325:ILE:N	1:F:325:ILE:CD1	2.78	0.46
1:D:309:LEU:O	1:D:310:GLU:C	2.53	0.46
1:J:314:LEU:C	1:J:316:ASP:N	2.69	0.46
1:J:317:LEU:N	1:J:317:LEU:HD12	2.30	0.46
1:E:208:PRO:HD2	1:E:212:ALA:HB1	1.96	0.46
1:G:200:LEU:HD21	1:G:253:ASP:OD1	2.16	0.46
1:A:253:ASP:CG	1:A:254:VAL:N	2.69	0.46
1:D:280:GLY:CA	1:D:284:ARG:HD2	2.46	0.46
1:D:358:SER:HA	1:D:362:ARG:HD2	1.96	0.46
1:I:66:PHE:N	1:I:69:MET:HG3	2.27	0.46
1:L:112:ASN:HA	1:L:113:PRO:HD3	1.73	0.46
1:F:366:GLN:HA	1:F:369:VAL:HB	1.98	0.46
1:D:74:VAL:O	1:D:77:VAL:CG1	2.54	0.46
1:C:329:THR:HG22	1:C:330:THR:N	2.30	0.46
1:J:433:ASN:HD22	1:J:434:GLU:H	1.63	0.46
1:A:134:LEU:N	1:A:134:LEU:CD1	2.78	0.46
1:A:510:VAL:O	1:A:511:ALA:C	2.53	0.46
1:N:220:ILE:N	1:N:318:GLY:O	2.48	0.46
1:M:284:ARG:HE	1:M:364:LYS:NZ	2.14	0.46
1:M:350:ARG:HE	1:M:369:VAL:HG11	1.80	0.46
1:L:360:TYR:O	1:L:364:LYS:HB2	2.15	0.46
1:B:223:ALA:HB3	1:B:251:ALA:CB	2.42	0.46
1:D:313:THR:HG22	1:D:314:LEU:N	2.30	0.46
1:I:353:ILE:HA	1:I:365:LEU:HD12	1.97	0.46
1:B:227:ILE:HG22	1:B:227:ILE:O	2.14	0.46
1:L:399:ALA:O	1:L:400:LEU:C	2.54	0.46
1:K:72:GLN:HE21	1:K:72:GLN:HA	1.78	0.46
1:J:302:SER:HB2	1:J:305:ILE:CG1	2.45	0.46
1:J:186:GLU:OE1	1:J:380:LYS:HD2	2.14	0.46
1:M:84:ALA:O	1:M:498:LYS:HE2	2.14	0.46
1:G:501:ARG:O	1:G:505:GLN:HG3	2.15	0.46
1:B:95:LEU:O	1:B:99:ILE:HG13	2.16	0.46
1:D:468:THR:OG1	1:D:485:TYR:CE2	2.68	0.46
1:J:15:LYS:HD2	1:J:67:GLU:HG3	1.98	0.46
1:E:62:LEU:N	1:E:62:LEU:CD1	2.79	0.46
1:B:199:TYR:CE2	1:B:205:ILE:HG12	2.50	0.46
1:I:236:VAL:HG23	1:I:237:LEU:H	1.79	0.46
1:M:247:LEU:HD22	1:M:248:LEU:N	2.30	0.46
1:C:290:GLN:O	1:C:294:THR:HG23	2.15	0.46
1:C:357:THR:O	1:C:359:ASP:N	2.48	0.46
1:C:357:THR:HB	1:C:361:ASP:CB	2.45	0.46
1:M:301:ILE:CD1	1:M:301:ILE:N	2.71	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:326:ASN:HD21	1:A:328:ASP:HB2	1.79	0.46
1:G:284:ARG:HG2	1:G:288:MET:HE1	1.97	0.46
1:G:219:PHE:HB3	1:G:317:LEU:HD13	1.96	0.46
1:K:421:ARG:HD2	1:K:474:GLY:O	2.16	0.46
1:M:433:ASN:HD22	1:M:434:GLU:H	1.63	0.46
1:E:240:VAL:O	1:E:244:GLY:N	2.45	0.46
1:E:134:LEU:N	1:E:134:LEU:CD1	2.79	0.46
1:F:295:LEU:C	1:F:295:LEU:HD23	2.36	0.46
1:N:494:LEU:O	1:N:495:ASP:OD1	2.34	0.46
1:L:203:TYR:CB	1:L:263:VAL:HG13	2.43	0.46
2:O:40:VAL:CG2	2:O:63:ASP:HB2	2.44	0.46
1:L:325:ILE:HG13	1:L:330:THR:HG23	1.97	0.46
1:F:381:VAL:HG21	1:F:393:LYS:CA	2.45	0.46
1:D:87:ASP:OD1	1:D:88:GLY:N	2.46	0.46
1:C:438:VAL:O	1:C:442:VAL:HG23	2.16	0.46
1:N:363:GLU:O	1:N:366:GLN:HB3	2.15	0.46
1:D:140:ASP:OD1	1:D:142:LYS:HB3	2.15	0.46
1:G:28:LYS:O	1:G:30:THR:N	2.49	0.46
1:D:475:ASN:ND2	1:D:475:ASN:N	2.63	0.46
1:L:478:TYR:HA	1:L:485:TYR:HA	1.98	0.46
1:A:421:ARG:HA	1:A:421:ARG:HD3	1.76	0.46
2:Q:53:GLU:N	2:Q:53:GLU:OE1	2.49	0.46
1:D:199:TYR:OH	1:D:211:GLY:CA	2.64	0.46
1:A:233:MET:HE2	1:A:237:LEU:HB2	1.98	0.46
1:F:219:PHE:CE2	1:F:245:LYS:HB2	2.51	0.46
1:F:271:VAL:HG23	1:F:271:VAL:O	2.16	0.46
1:L:270:ILE:HA	1:M:257:GLU:OE2	2.16	0.46
1:H:314:LEU:C	1:H:316:ASP:N	2.69	0.46
1:N:69:MET:HE2	1:N:522:THR:HB	1.95	0.46
1:A:215:LEU:HB3	1:A:246:PRO:CB	2.40	0.46
1:G:256:GLY:HA2	1:G:259:LEU:HD12	1.96	0.46
1:A:208:PRO:HB2	1:A:212:ALA:CB	2.45	0.46
1:H:433:ASN:HD22	1:H:434:GLU:H	1.62	0.46
1:L:433:ASN:HD22	1:L:434:GLU:H	1.64	0.46
1:F:353:ILE:HG22	1:F:354:GLU:N	2.31	0.46
1:D:456:LEU:HD13	1:D:462:PRO:HG2	1.97	0.46
1:I:494:LEU:CD2	1:I:494:LEU:N	2.78	0.46
1:I:496:PRO:O	1:I:497:THR:C	2.54	0.46
1:D:413:ALA:HB1	1:D:417:VAL:HG11	1.98	0.46
2:Q:14:ARG:NH2	2:Q:69:ASP:OD2	2.44	0.46
1:H:496:PRO:O	1:H:497:THR:C	2.53	0.46
2:T:84:LEU:CD1	2:T:84:LEU:N	2.79	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:287:ALA:HB1	1:M:368:ARG:HH22	1.77	0.46
1:M:353:ILE:O	1:M:353:ILE:HG22	2.16	0.46
1:K:420:ILE:HD13	1:K:448:GLU:HA	1.98	0.46
1:L:287:ALA:O	1:L:290:GLN:N	2.49	0.46
2:Q:86:MET:HG3	2:Q:90:ASP:HB2	1.97	0.46
1:J:214:GLU:HG2	1:J:324:VAL:CG1	2.45	0.46
1:H:305:ILE:HG22	1:H:305:ILE:O	2.16	0.46
2:U:68:ASN:O	2:U:70:GLY:N	2.47	0.46
1:H:487:ASN:O	1:H:491:MET:HG3	2.15	0.46
1:E:72:GLN:CA	1:E:72:GLN:HE21	2.28	0.46
1:B:209:GLU:N	1:B:209:GLU:CD	2.69	0.46
1:N:478:TYR:HB2	1:N:485:TYR:CE2	2.50	0.46
1:D:183:LEU:O	1:D:382:GLY:HA3	2.16	0.46
1:N:102:GLU:HB2	1:N:442:VAL:HG13	1.96	0.46
1:J:202:PRO:C	1:J:204:PHE:H	2.19	0.46
2:S:75:SER:OG	2:S:82:GLU:OE1	2.34	0.46
1:C:430:ARG:HH11	1:C:430:ARG:HG2	1.80	0.46
1:D:241:ALA:HA	1:D:271:VAL:HG12	1.97	0.46
1:E:365:LEU:HD22	1:E:366:GLN:NE2	2.30	0.46
1:K:248:LEU:HD11	1:K:250:ILE:HG13	1.98	0.46
1:K:314:LEU:C	1:K:316:ASP:N	2.69	0.46
1:K:41:ASP:HB2	1:L:69:MET:HE2	1.98	0.46
1:L:66:PHE:HA	1:L:520:MET:HE1	1.97	0.46
1:L:149:THR:CG2	1:L:159:GLY:HA3	2.30	0.46
1:F:346:VAL:HA	1:F:349:ILE:HD12	1.97	0.46
1:C:200:LEU:O	1:C:202:PRO:CD	2.63	0.46
1:E:417:VAL:O	1:E:418:ALA:C	2.54	0.46
1:E:452:ARG:HB2	1:E:462:PRO:CB	2.40	0.46
2:R:73:VAL:O	2:R:74:LYS:HD3	2.16	0.46
1:M:205:ILE:HG23	1:M:212:ALA:O	2.16	0.46
1:D:417:VAL:C	1:D:420:ILE:HG22	2.36	0.46
2:P:11:ILE:HB	2:P:42:ALA:HB3	1.97	0.46
1:C:421:ARG:HA	1:C:421:ARG:HD3	1.76	0.46
1:N:419:LEU:HD21	1:N:500:THR:HG23	1.96	0.46
1:N:128:VAL:O	1:N:132:LYS:HG3	2.16	0.46
1:M:197:ARG:NE	1:M:277:LYS:HZ3	2.14	0.46
1:C:510:VAL:CG2	1:C:511:ALA:H	2.28	0.46
1:J:226:LYS:CA	1:J:252:GLU:HB2	2.46	0.46
1:H:197:ARG:HG2	1:H:277:LYS:O	2.14	0.46
1:I:287:ALA:O	1:I:290:GLN:N	2.48	0.46
1:H:487:ASN:OD1	1:H:489:ILE:HB	2.16	0.46
2:R:13:LYS:HB3	2:R:41:LEU:HD11	1.97	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:441:LYS:O	1:J:442:VAL:C	2.53	0.46
1:C:3:ALA:HB3	1:C:524:LEU:HD12	1.98	0.46
1:G:428:ASP:HA	1:G:430:ARG:HH12	1.81	0.46
1:E:128:VAL:HG12	1:E:132:LYS:HE2	1.97	0.46
1:D:219:PHE:O	1:D:247:LEU:HD22	2.15	0.46
1:B:272:LYS:HZ2	1:B:272:LYS:HB2	1.81	0.46
1:F:258:ALA:O	1:F:261:THR:HG23	2.16	0.46
1:E:321:LYS:HB2	1:E:333:ILE:HB	1.96	0.46
1:N:203:TYR:HB2	1:N:263:VAL:HG13	1.98	0.46
1:K:317:LEU:HD12	1:K:317:LEU:N	2.31	0.46
1:I:255:GLU:O	1:I:256:GLY:C	2.53	0.46
1:H:270:ILE:HA	1:I:257:GLU:OE2	2.16	0.46
1:J:239:ALA:CB	1:J:314:LEU:HD11	2.30	0.46
1:M:225:LYS:HE2	1:M:309:LEU:CD1	2.43	0.46
1:M:232:GLU:HA	1:M:310:GLU:CG	2.46	0.46
1:G:249:ILE:HG22	1:G:250:ILE:N	2.31	0.46
1:G:255:GLU:O	1:G:259:LEU:HG	2.15	0.46
1:G:345:ARG:O	1:G:349:ILE:HG13	2.16	0.46
1:G:355:GLU:C	1:G:357:THR:H	2.18	0.46
2:R:17:VAL:HG11	2:R:33:ALA:O	2.16	0.46
1:M:422:VAL:O	1:M:426:LEU:CD2	2.63	0.46
1:H:39:VAL:HG22	1:H:49:ILE:HG12	1.97	0.46
1:N:362:ARG:HB3	1:N:362:ARG:HH11	1.80	0.46
1:C:326:ASN:OD1	1:C:329:THR:N	2.49	0.46
1:N:434:GLU:O	1:N:438:VAL:HG23	2.16	0.46
1:B:284:ARG:HG2	1:B:288:MET:CE	2.46	0.46
1:I:434:GLU:O	1:I:438:VAL:HG23	2.15	0.46
1:C:495:ASP:CG	4:C:1:ADP:HO2'	2.18	0.46
1:M:197:ARG:H	1:M:329:THR:HA	1.81	0.46
2:P:78:ILE:N	2:P:78:ILE:CD1	2.79	0.46
1:F:449:ALA:O	1:F:450:PRO:C	2.51	0.46
1:C:177:VAL:CG2	1:C:393:LYS:HG3	2.45	0.46
1:B:433:ASN:HD21	1:B:435:ASP:HB2	1.81	0.46
1:F:87:ASP:OD1	1:F:88:GLY:N	2.47	0.46
1:C:54:VAL:HG13	1:C:55:SER:N	2.31	0.46
1:L:421:ARG:HD2	1:L:474:GLY:O	2.15	0.46
1:H:72:GLN:NE2	1:H:75:LYS:HD3	2.31	0.46
1:M:15:LYS:HD2	1:M:67:GLU:HG3	1.97	0.46
1:A:179:ASP:OD1	1:A:389:MET:HG3	2.15	0.46
1:A:116:LEU:O	1:A:120:ILE:HG13	2.16	0.46
1:I:466:ALA:O	1:I:470:LYS:HG2	2.15	0.46
1:A:56:VAL:O	1:A:57:ALA:C	2.54	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:256:GLY:O	1:F:257:GLU:C	2.53	0.46
1:A:219:PHE:CB	1:A:317:LEU:HD13	2.42	0.46
1:E:206:ASN:H	1:E:213:VAL:HA	1.80	0.46
1:E:229:ASN:C	1:E:231:ARG:H	2.19	0.46
1:M:270:ILE:HG23	1:N:229:ASN:ND2	2.31	0.46
1:N:221:LEU:HD13	1:N:223:ALA:N	2.30	0.46
1:L:317:LEU:N	1:L:317:LEU:HD12	2.31	0.46
1:C:284:ARG:O	1:C:287:ALA:HB3	2.16	0.46
1:A:206:ASN:CB	1:A:213:VAL:HA	2.46	0.46
1:G:287:ALA:O	1:G:290:GLN:NE2	2.44	0.46
1:G:194:GLN:HG3	1:G:331:THR:OG1	2.16	0.46
1:I:317:LEU:CD1	1:I:317:LEU:N	2.79	0.46
1:I:69:MET:HE2	1:I:522:THR:CB	2.38	0.46
1:L:130:GLU:OE2	1:L:425:LYS:HB3	2.15	0.46
1:D:52:ASP:OD1	1:D:54:VAL:HG12	2.16	0.46
1:K:69:MET:HE2	1:K:522:THR:HB	1.94	0.46
1:E:304:GLU:HB2	1:E:305:ILE:HD12	1.97	0.46
1:F:411:VAL:HG12	1:F:496:PRO:CA	2.39	0.46
1:F:277:LYS:HG2	1:F:278:ALA:N	2.30	0.46
1:F:281:PHE:H	1:F:284:ARG:HD2	1.81	0.46
1:A:385:THR:OG1	1:A:388:GLU:CB	2.64	0.46
1:G:16:MET:O	1:G:20:VAL:HG23	2.16	0.46
1:N:247:LEU:HD13	1:N:248:LEU:N	2.30	0.46
1:N:277:LYS:HZ3	1:N:277:LYS:HB2	1.81	0.46
1:I:112:ASN:HA	1:I:113:PRO:HD3	1.73	0.46
1:L:88:GLY:O	1:L:89:THR:C	2.55	0.46
1:B:433:ASN:OD1	1:B:436:GLN:HB2	2.15	0.46
1:D:95:LEU:O	1:D:98:ALA:HB3	2.15	0.46
1:H:277:LYS:HZ2	1:H:277:LYS:HB2	1.79	0.46
1:K:303:GLU:C	1:K:305:ILE:N	2.68	0.46
1:D:69:MET:O	1:D:73:MET:HG3	2.16	0.46
1:N:478:TYR:HA	1:N:485:TYR:HA	1.98	0.46
1:G:210:THR:HG22	1:G:210:THR:O	2.15	0.46
1:L:479:ASN:O	1:L:483:GLU:N	2.48	0.46
1:G:409:GLU:CD	1:G:501:ARG:HH21	2.18	0.46
2:P:58:ASP:N	2:P:88:GLU:OE2	2.45	0.46
1:D:200:LEU:O	1:D:202:PRO:HD2	2.16	0.46
1:D:320:ALA:HA	1:D:334:ASP:O	2.16	0.46
2:O:48:ILE:HG12	2:O:54:VAL:CG1	2.45	0.46
1:K:353:ILE:HD11	1:K:369:VAL:CG2	2.46	0.46
1:B:234:LEU:O	1:B:238:GLU:N	2.47	0.46
1:E:366:GLN:HA	1:E:369:VAL:HG21	1.98	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:262:LEU:O	1:C:266:THR:HG23	2.16	0.46
1:C:281:PHE:HB2	1:C:284:ARG:NH2	2.31	0.46
1:J:200:LEU:N	1:J:200:LEU:HD12	2.31	0.46
1:M:227:ILE:HD12	1:M:309:LEU:HD11	1.97	0.46
1:A:211:GLY:O	1:A:325:ILE:O	2.34	0.46
1:G:350:ARG:O	1:G:354:GLU:HG2	2.16	0.46
2:O:14:ARG:CB	2:O:14:ARG:HH11	2.29	0.46
2:S:12:VAL:CG2	2:S:84:LEU:HB2	2.45	0.46
1:L:131:LEU:CD1	1:L:422:VAL:HG11	2.46	0.46
1:H:64:ASP:C	1:H:65:LYS:O	2.50	0.46
1:A:496:PRO:HG2	1:A:499:VAL:CG1	2.45	0.46
1:F:77:VAL:HG22	1:F:78:ALA:N	2.31	0.46
1:H:131:LEU:CD1	1:H:422:VAL:HG11	2.45	0.46
1:H:422:VAL:O	1:H:426:LEU:CD2	2.64	0.46
1:C:449:ALA:HB3	1:C:450:PRO:CD	2.41	0.46
1:H:414:GLY:N	1:H:494:LEU:HA	2.30	0.46
1:A:449:ALA:HB3	1:A:450:PRO:CD	2.43	0.46
1:A:449:ALA:O	1:A:450:PRO:C	2.54	0.46
2:S:7:HIS:HA	2:S:45:ASN:N	2.30	0.46
1:L:352:GLN:O	1:L:355:GLU:OE1	2.34	0.46
1:B:177:VAL:HG22	1:B:393:LYS:HG3	1.97	0.46
1:F:5:ASP:O	1:F:66:PHE:HZ	1.99	0.46
1:J:193:MET:CG	1:J:194:GLN:N	2.78	0.46
1:F:434:GLU:OE2	1:F:438:VAL:HG23	2.15	0.46
1:G:115:ASP:HB3	1:G:436:GLN:HG3	1.96	0.46
1:K:122:LYS:O	1:K:125:THR:HB	2.15	0.46
1:F:88:GLY:C	4:F:1:ADP:O2B	2.54	0.46
1:B:210:THR:O	1:B:210:THR:HG22	2.16	0.46
1:D:474:GLY:C	1:D:475:ASN:HD22	2.19	0.46
1:G:209:GLU:O	1:G:210:THR:HB	2.16	0.46
1:E:116:LEU:O	1:E:120:ILE:HG13	2.16	0.46
1:M:391:GLU:O	1:M:394:ALA:HB3	2.16	0.46
1:E:430:ARG:HH11	1:E:430:ARG:HG2	1.80	0.46
1:F:428:ASP:C	1:F:430:ARG:NH1	2.70	0.46
1:K:184:GLN:HA	1:K:184:GLN:OE1	2.15	0.46
1:K:189:VAL:HG23	1:K:189:VAL:O	2.15	0.46
1:C:183:LEU:O	1:C:382:GLY:HA3	2.15	0.46
1:L:102:GLU:HB2	1:L:442:VAL:HG13	1.97	0.46
1:D:128:VAL:HG12	1:D:132:LYS:HE2	1.98	0.46
1:K:296:THR:HB	1:K:319:GLN:N	2.31	0.46
1:H:301:ILE:HD12	1:H:301:ILE:H	1.80	0.46
1:E:368:ARG:HD3	1:E:372:LEU:HD11	1.98	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:221:LEU:HD13	1:H:223:ALA:H	1.80	0.46
1:M:419:LEU:HD21	1:M:500:THR:CG2	2.46	0.46
1:A:279:PRO:HD2	1:A:285:ARG:CB	2.46	0.46
1:A:355:GLU:HG2	1:A:361:ASP:OD2	2.15	0.46
1:A:305:ILE:CD1	1:A:305:ILE:N	2.75	0.46
2:P:49:LEU:O	2:P:55:LYS:NZ	2.48	0.46
1:E:417:VAL:CA	1:E:420:ILE:HG22	2.46	0.46
1:H:362:ARG:HB3	1:H:362:ARG:NH1	2.31	0.46
1:H:353:ILE:HA	1:H:365:LEU:HD12	1.98	0.46
1:L:218:PRO:HB3	1:L:246:PRO:HB2	1.98	0.46
1:M:385:THR:CG2	1:M:388:GLU:H	2.22	0.46
1:A:385:THR:HG23	1:G:509:SER:OG	2.16	0.46
1:M:363:GLU:O	1:M:366:GLN:HB3	2.15	0.46
2:P:78:ILE:HG22	2:P:79:ASP:OD2	2.17	0.46
1:E:381:VAL:CG1	1:E:392:LYS:HG2	2.45	0.46
1:F:433:ASN:HD21	1:F:435:ASP:HB2	1.81	0.46
1:L:72:GLN:NE2	1:L:75:LYS:HD3	2.30	0.46
1:G:124:VAL:HG22	1:G:504:LEU:HD11	1.98	0.46
1:K:302:SER:O	1:K:305:ILE:HB	2.16	0.46
1:F:144:ILE:O	1:F:147:VAL:HG22	2.16	0.46
1:E:267:MET:N	1:E:267:MET:HE3	2.31	0.46
1:D:134:LEU:N	1:D:134:LEU:HD12	2.31	0.46
1:N:432:GLN:OE1	1:N:432:GLN:N	2.49	0.46
2:S:96:GLU:OE1	2:T:4:ARG:HB2	2.16	0.46
1:J:506:TYR:O	1:J:509:SER:HB3	2.16	0.46
1:B:256:GLY:O	1:B:257:GLU:C	2.55	0.45
1:F:235:PRO:O	1:F:239:ALA:HB2	2.17	0.45
1:F:262:LEU:O	1:F:266:THR:HG23	2.15	0.45
1:K:364:LYS:O	1:K:365:LEU:C	2.52	0.45
1:B:313:THR:CG2	1:B:315:GLU:HG3	2.46	0.45
1:J:257:GLU:O	1:J:261:THR:HG23	2.16	0.45
1:M:225:LYS:HG3	1:M:227:ILE:HD13	1.97	0.45
1:M:256:GLY:HA2	1:M:260:ALA:H	1.80	0.45
1:N:16:MET:HG3	1:N:520:MET:SD	2.56	0.45
1:G:199:TYR:HE2	1:G:205:ILE:HG12	1.79	0.45
1:A:289:LEU:O	1:A:290:GLN:C	2.55	0.45
1:J:17:LEU:HA	1:J:20:VAL:CG1	2.46	0.45
1:D:358:SER:HA	1:D:362:ARG:CD	2.46	0.45
1:I:130:GLU:OE2	1:I:425:LYS:HB3	2.16	0.45
1:I:411:VAL:HG21	1:I:494:LEU:CD1	2.44	0.45
1:D:77:VAL:HG22	1:D:78:ALA:N	2.30	0.45
1:K:65:LYS:O	1:K:66:PHE:CB	2.46	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:175:ILE:N	1:L:175:ILE:CD1	2.75	0.45
1:K:32:GLY:CA	1:K:454:ILE:HG23	2.46	0.45
1:H:126:ALA:HB1	1:H:426:LEU:HD13	1.97	0.45
1:F:281:PHE:O	1:F:284:ARG:HB3	2.16	0.45
1:H:286:LYS:CE	1:H:286:LYS:HA	2.40	0.45
1:N:95:LEU:O	1:N:96:ALA:C	2.54	0.45
1:A:450:PRO:O	1:A:454:ILE:HG13	2.16	0.45
1:M:107:VAL:CG2	1:M:108:ALA:H	2.29	0.45
1:B:177:VAL:HG11	1:B:397:GLU:CG	2.44	0.45
1:I:292:ILE:O	1:I:293:ALA:C	2.54	0.45
1:F:434:GLU:O	1:F:437:ASN:N	2.50	0.45
1:J:28:LYS:HD2	1:J:453:GLN:OE1	2.15	0.45
1:G:434:GLU:O	1:G:435:ASP:C	2.54	0.45
2:T:50:GLU:OE2	2:U:51:ASN:HB3	2.16	0.45
1:L:81:ALA:HA	1:L:506:TYR:CD2	2.51	0.45
2:Q:41:LEU:O	2:Q:61:VAL:HG13	2.16	0.45
1:B:421:ARG:HA	1:B:421:ARG:HD3	1.78	0.45
1:I:101:THR:HG22	1:I:105:LYS:HE3	1.98	0.45
1:F:183:LEU:O	1:F:382:GLY:HA3	2.16	0.45
1:B:270:ILE:HD13	2:P:27:LEU:HB2	1.98	0.45
1:D:321:LYS:HD2	1:D:333:ILE:CG2	2.43	0.45
2:R:20:LYS:HA	2:R:28:THR:CG2	2.46	0.45
1:A:314:LEU:HD12	1:A:315:GLU:H	1.75	0.45
1:E:248:LEU:HD13	1:E:248:LEU:C	2.36	0.45
1:E:326:ASN:ND2	1:E:328:ASP:N	2.63	0.45
2:S:27:LEU:HD23	2:S:27:LEU:O	2.16	0.45
1:K:253:ASP:OD1	1:K:254:VAL:N	2.38	0.45
1:M:232:GLU:CB	1:M:309:LEU:HD12	2.45	0.45
1:H:221:LEU:HB3	1:H:249:ILE:HA	1.96	0.45
1:G:31:LEU:HD12	4:G:1:ADP:O1A	2.16	0.45
1:M:425:LYS:O	1:M:427:ALA:N	2.48	0.45
1:E:130:GLU:HB3	1:E:422:VAL:HB	1.98	0.45
1:B:413:ALA:CB	1:B:417:VAL:CG1	2.94	0.45
1:B:417:VAL:C	1:B:420:ILE:HG22	2.35	0.45
1:B:487:ASN:OD1	1:B:489:ILE:N	2.48	0.45
1:F:406:ALA:HB2	1:F:496:PRO:HB3	1.99	0.45
2:Q:83:VAL:C	2:Q:84:LEU:HD12	2.36	0.45
1:F:281:PHE:H	1:F:284:ARG:NE	2.14	0.45
1:L:326:ASN:O	1:L:327:LYS:C	2.55	0.45
1:E:77:VAL:HG22	1:E:78:ALA:N	2.30	0.45
1:M:197:ARG:HE	1:M:277:LYS:HB2	1.81	0.45
2:O:43:VAL:CG1	2:O:57:LEU:HD12	2.46	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:209:GLU:O	1:D:210:THR:HB	2.16	0.45
1:C:397:GLU:O	1:C:398:ASP:C	2.54	0.45
1:B:112:ASN:ND2	1:B:115:ASP:H	2.14	0.45
1:A:368:ARG:O	1:A:372:LEU:HG	2.15	0.45
2:R:13:LYS:HG3	2:R:13:LYS:O	2.16	0.45
1:N:37:ASN:HB3	1:N:51:LYS:HG3	1.97	0.45
1:K:472:GLY:HA3	1:K:476:TYR:CD2	2.51	0.45
1:H:55:SER:O	1:H:58:ARG:HB3	2.16	0.45
1:C:183:LEU:HD22	1:C:384:ALA:HA	1.98	0.45
1:M:117:LYS:HG2	1:M:121:ASP:OD2	2.17	0.45
1:G:421:ARG:HA	1:G:421:ARG:HD3	1.78	0.45
1:E:482:THR:OG1	1:E:484:GLU:HG2	2.16	0.45
1:J:512:GLY:HA2	1:J:515:ILE:HD12	1.98	0.45
1:C:443:ALA:O	1:C:447:MET:HG3	2.16	0.45
1:C:218:PRO:CA	1:C:246:PRO:HG2	2.45	0.45
1:E:333:ILE:O	1:E:334:ASP:HB2	2.17	0.45
2:R:22:ALA:O	2:R:26:VAL:HB	2.16	0.45
1:G:302:SER:HB2	1:G:305:ILE:HB	1.98	0.45
1:M:227:ILE:O	1:M:254:VAL:HA	2.17	0.45
1:M:228:SER:HA	1:M:255:GLU:HB2	1.98	0.45
1:E:207:LYS:HB2	1:E:207:LYS:NZ	2.31	0.45
1:G:194:GLN:HG2	1:G:195:PHE:N	2.31	0.45
2:R:47:ARG:HB3	2:R:55:LYS:CG	2.46	0.45
1:D:289:LEU:N	1:D:290:GLN:OE1	2.44	0.45
1:I:65:LYS:O	1:I:66:PHE:CB	2.42	0.45
1:M:358:SER:HB3	1:M:361:ASP:HB2	1.98	0.45
1:J:449:ALA:HB3	1:J:450:PRO:CD	2.38	0.45
1:G:420:ILE:HD11	1:G:470:LYS:CG	2.47	0.45
2:U:76:GLU:O	2:U:83:VAL:HG22	2.16	0.45
1:I:385:THR:CG2	1:I:388:GLU:HB3	2.47	0.45
1:E:413:ALA:CB	1:E:417:VAL:CG1	2.94	0.45
1:B:295:LEU:O	1:B:337:GLY:CA	2.62	0.45
1:H:149:THR:HG22	1:H:156:GLU:O	2.16	0.45
2:U:5:PRO:CD	2:U:42:ALA:HB1	2.45	0.45
2:U:8:ASP:O	2:U:87:SER:HA	2.16	0.45
1:L:191:GLU:OE1	1:L:342:ILE:HG21	2.17	0.45
1:B:381:VAL:CG1	1:B:392:LYS:HG3	2.46	0.45
1:F:434:GLU:HA	1:F:437:ASN:HD22	1.80	0.45
1:K:494:LEU:CD2	1:K:494:LEU:N	2.78	0.45
1:B:56:VAL:O	1:B:57:ALA:C	2.53	0.45
1:E:9:GLY:HA2	1:E:13:ARG:NH1	2.32	0.45
1:C:512:GLY:O	1:C:515:ILE:HG12	2.15	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:215:LEU:O	1:C:322:ARG:HA	2.17	0.45
1:K:364:LYS:HD2	1:K:367:GLU:OE1	2.15	0.45
1:K:220:ILE:HG23	1:K:248:LEU:HD12	1.97	0.45
1:L:222:LEU:HD11	1:L:293:ALA:HA	1.99	0.45
1:L:69:MET:O	1:L:73:MET:HG3	2.16	0.45
1:G:366:GLN:O	1:G:369:VAL:HB	2.16	0.45
1:I:219:PHE:CB	1:I:317:LEU:HD23	2.46	0.45
1:C:193:MET:O	1:C:331:THR:HG23	2.17	0.45
1:B:352:GLN:C	1:B:365:LEU:HD11	2.37	0.45
1:M:286:LYS:CE	1:M:286:LYS:HA	2.39	0.45
1:E:455:VAL:O	1:E:458:CYS:HB2	2.16	0.45
1:H:190:VAL:HG21	1:H:334:ASP:CG	2.37	0.45
1:B:381:VAL:CG1	1:B:392:LYS:HG2	2.45	0.45
1:C:510:VAL:O	1:C:511:ALA:C	2.53	0.45
1:K:175:ILE:HD13	1:K:404:ARG:NH2	2.31	0.45
1:A:209:GLU:O	1:A:210:THR:HB	2.16	0.45
1:J:399:ALA:O	1:J:400:LEU:C	2.54	0.45
1:D:430:ARG:NH1	1:D:430:ARG:HG2	2.32	0.45
1:G:383:ALA:N	1:G:389:MET:HE1	2.31	0.45
1:E:128:VAL:CG1	1:E:132:LYS:HE2	2.46	0.45
1:F:216:GLU:O	1:F:246:PRO:HG3	2.17	0.45
1:L:233:MET:HE1	1:L:309:LEU:HD13	1.99	0.45
1:E:194:GLN:HG2	1:E:195:PHE:N	2.30	0.45
1:E:221:LEU:HD13	1:E:317:LEU:CD2	2.46	0.45
1:J:301:ILE:N	1:J:301:ILE:CD1	2.80	0.45
1:L:362:ARG:NH1	1:L:362:ARG:CB	2.79	0.45
1:D:233:MET:HE1	1:D:237:LEU:HB2	1.98	0.45
1:C:347:ALA:O	1:C:350:ARG:HG2	2.15	0.45
1:M:232:GLU:OE1	1:M:232:GLU:N	2.35	0.45
1:I:16:MET:HG3	1:I:520:MET:SD	2.57	0.45
1:H:24:ALA:HA	1:H:27:VAL:HG12	1.97	0.45
1:E:417:VAL:HA	1:E:420:ILE:CG2	2.46	0.45
1:B:339:GLU:HA	1:B:342:ILE:HB	1.97	0.45
2:T:14:ARG:CB	2:T:14:ARG:NH1	2.80	0.45
1:I:123:ALA:HB2	1:I:440:ILE:HG23	1.99	0.45
2:P:11:ILE:HG12	2:P:85:ILE:HG12	1.99	0.45
1:M:360:TYR:O	1:M:364:LYS:HB2	2.16	0.45
1:M:106:ALA:HA	1:M:111:MET:HE1	1.99	0.45
2:O:58:ASP:N	2:O:88:GLU:OE2	2.39	0.45
1:A:162:ILE:HG21	1:A:403:THR:HG21	1.97	0.45
1:D:239:ALA:HB1	1:D:314:LEU:HB3	1.99	0.45
1:D:451:LEU:O	1:D:454:ILE:HB	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:T:68:ASN:HD22	2:U:74:LYS:CE	2.27	0.45
2:O:50:GLU:OE1	2:P:50:GLU:HA	2.16	0.45
1:B:88:GLY:C	4:B:1:ADP:O2B	2.55	0.45
1:F:147:VAL:HG12	1:F:494:LEU:HB2	1.98	0.45
1:N:178:GLU:O	1:N:380:LYS:HA	2.17	0.45
1:K:226:LYS:CA	1:K:252:GLU:HB2	2.45	0.45
1:C:474:GLY:C	1:C:475:ASN:HD22	2.20	0.45
1:G:37:ASN:OD1	1:G:51:LYS:HB2	2.17	0.45
1:L:302:SER:HB2	1:L:305:ILE:HG13	1.99	0.45
1:M:204:PHE:CD2	1:M:274:ALA:HB1	2.52	0.45
2:R:60:LYS:N	2:R:63:ASP:OD2	2.50	0.45
1:A:472:GLY:HA3	1:A:476:TYR:HD2	1.80	0.45
1:I:288:MET:HA	1:I:288:MET:HE3	1.97	0.45
1:F:485:TYR:N	1:F:485:TYR:CD1	2.85	0.45
1:J:165:ALA:O	1:J:168:LYS:HB2	2.16	0.45
1:N:80:LYS:O	1:N:83:ASP:HB2	2.17	0.45
1:F:465:VAL:O	1:F:466:ALA:C	2.55	0.45
1:F:321:LYS:HG3	1:F:334:ASP:HB3	1.98	0.45
1:C:302:SER:O	1:C:305:ILE:N	2.47	0.45
1:A:232:GLU:O	1:A:310:GLU:OE2	2.35	0.45
1:F:250:ILE:O	1:F:251:ALA:HB2	2.17	0.45
1:K:363:GLU:O	1:K:366:GLN:HB3	2.17	0.45
1:E:295:LEU:CD2	1:E:295:LEU:C	2.84	0.45
1:E:348:GLN:NE2	1:E:352:GLN:HE22	2.12	0.45
1:J:227:ILE:HD12	1:J:309:LEU:HD11	1.98	0.45
1:I:228:SER:HA	1:I:255:GLU:HB2	1.97	0.45
1:D:308:GLU:O	1:D:309:LEU:O	2.35	0.45
1:I:219:PHE:HA	1:I:319:GLN:HG2	1.99	0.45
2:O:14:ARG:CB	2:O:14:ARG:NH1	2.80	0.45
1:H:354:GLU:CG	1:H:355:GLU:N	2.79	0.45
1:E:499:VAL:CG2	1:E:500:THR:H	2.30	0.45
1:J:323:VAL:HG23	1:J:331:THR:O	2.16	0.45
2:S:57:LEU:HD22	2:S:88:GLU:HB2	1.98	0.45
2:O:37:ARG:HG2	2:O:37:ARG:NH1	2.29	0.45
1:B:23:LEU:CD1	1:B:23:LEU:C	2.84	0.45
2:R:37:ARG:HG2	2:R:37:ARG:NH1	2.32	0.45
1:N:77:VAL:HG11	1:N:510:VAL:HB	1.99	0.45
1:M:30:THR:HB	1:M:51:LYS:O	2.16	0.45
1:K:475:ASN:ND2	1:K:489:ILE:HD12	2.31	0.45
1:L:84:ALA:O	1:L:498:LYS:HE2	2.16	0.45
1:N:192:GLY:C	1:N:376:VAL:HG23	2.37	0.45
1:F:215:LEU:C	1:F:322:ARG:HG3	2.37	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:304:GLU:C	1:C:305:ILE:HD12	2.36	0.45
1:D:219:PHE:CE2	1:D:245:LYS:HB2	2.52	0.45
1:H:230:ILE:CG1	1:H:258:ALA:HA	2.23	0.45
1:F:219:PHE:O	1:F:247:LEU:HD22	2.17	0.45
1:E:329:THR:CG2	1:E:330:THR:N	2.80	0.45
1:I:259:LEU:HD23	1:I:259:LEU:C	2.37	0.45
1:G:315:GLU:OE1	1:G:316:ASP:N	2.49	0.45
1:M:233:MET:HE1	1:M:309:LEU:HD13	1.98	0.45
1:L:65:LYS:O	1:L:66:PHE:CB	2.51	0.45
1:G:362:ARG:O	1:G:366:GLN:OE1	2.34	0.45
2:R:17:VAL:CG1	2:R:33:ALA:O	2.64	0.45
1:A:285:ARG:HG3	1:A:286:LYS:HG3	1.99	0.45
1:I:422:VAL:HG23	1:I:423:ALA:N	2.32	0.45
1:H:104:LEU:HD12	1:H:104:LEU:HA	1.72	0.45
1:B:417:VAL:CA	1:B:420:ILE:HG22	2.47	0.45
1:B:285:ARG:O	1:B:289:LEU:HG	2.17	0.45
1:M:205:ILE:CA	1:M:213:VAL:HG22	2.39	0.45
1:M:385:THR:CG2	1:M:388:GLU:HB3	2.47	0.45
1:K:191:GLU:HG3	1:K:339:GLU:OE2	2.17	0.45
1:A:150:ILE:HG23	1:A:151:SER:N	2.32	0.45
1:D:434:GLU:O	1:D:437:ASN:N	2.49	0.45
1:J:324:VAL:HG22	1:J:331:THR:HG23	1.98	0.45
2:P:12:VAL:HG23	2:P:84:LEU:HB2	1.98	0.45
2:P:17:VAL:CG2	2:P:34:LYS:HD2	2.46	0.45
1:K:214:GLU:HG2	1:K:324:VAL:HG12	1.99	0.45
1:E:267:MET:HA	1:E:267:MET:CE	2.46	0.45
2:R:40:VAL:HG12	2:R:61:VAL:HA	1.99	0.45
1:J:303:GLU:C	1:J:305:ILE:H	2.20	0.45
1:B:309:LEU:N	1:B:309:LEU:HD12	2.31	0.45
1:E:400:LEU:O	1:E:400:LEU:HD13	2.16	0.45
2:P:60:LYS:N	2:P:63:ASP:OD2	2.50	0.45
1:G:178:GLU:CD	1:G:378:VAL:HG11	2.36	0.45
1:G:183:LEU:HD22	1:G:384:ALA:HA	1.99	0.45
1:F:326:ASN:ND2	1:F:328:ASP:N	2.65	0.45
2:O:7:HIS:O	2:O:8:ASP:CB	2.60	0.45
1:A:310:GLU:CD	1:A:310:GLU:N	2.63	0.45
1:D:302:SER:O	1:D:304:GLU:N	2.49	0.45
1:F:266:THR:HG22	1:F:273:VAL:N	2.31	0.45
1:H:233:MET:SD	1:H:233:MET:N	2.90	0.45
1:E:198:GLY:HA3	1:E:327:LYS:C	2.38	0.45
1:M:272:LYS:HE3	1:M:272:LYS:HB2	1.78	0.45
1:L:219:PHE:CB	1:L:317:LEU:HD23	2.47	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:249:ILE:HD13	1:C:274:ALA:O	2.16	0.45
1:A:214:GLU:HA	1:A:323:VAL:O	2.16	0.45
1:I:298:GLY:HA2	1:I:317:LEU:O	2.17	0.45
1:D:360:TYR:CE1	1:D:364:LYS:HD3	2.52	0.45
1:M:17:LEU:HA	1:M:20:VAL:CG1	2.47	0.45
1:N:389:MET:C	1:N:389:MET:CE	2.85	0.45
1:C:205:ILE:HD13	1:C:211:GLY:HA2	1.97	0.45
1:C:325:ILE:CG1	1:C:330:THR:HG23	2.40	0.45
2:S:34:LYS:HG3	2:S:35:SER:N	2.29	0.45
1:K:183:LEU:HD22	1:L:360:TYR:CE2	2.51	0.45
1:K:448:GLU:HB3	1:K:452:ARG:HD2	1.99	0.45
1:K:88:GLY:O	1:K:89:THR:C	2.55	0.45
1:L:37:ASN:HB3	1:L:51:LYS:CG	2.47	0.45
2:U:53:GLU:OE1	2:U:53:GLU:N	2.50	0.45
1:A:39:VAL:HG23	1:G:517:THR:HG23	1.99	0.45
1:F:160:LYS:HE3	1:F:164:GLU:OE2	2.16	0.45
1:J:55:SER:O	1:J:58:ARG:HB3	2.16	0.45
1:D:9:GLY:HA2	1:D:13:ARG:HH12	1.82	0.45
1:G:113:PRO:O	1:G:116:LEU:HB2	2.17	0.45
1:B:95:LEU:O	1:B:98:ALA:HB3	2.17	0.45
1:G:183:LEU:O	1:G:382:GLY:HA3	2.17	0.45
1:I:513:LEU:HD12	1:I:513:LEU:HA	1.70	0.45
1:M:209:GLU:HA	1:M:209:GLU:OE1	2.17	0.45
1:K:336:VAL:O	1:K:336:VAL:HG12	2.16	0.45
1:K:204:PHE:CD2	1:K:274:ALA:HB1	2.52	0.45
1:K:74:VAL:O	1:K:75:LYS:C	2.54	0.45
1:H:516:THR:O	1:N:36:ARG:HB3	2.17	0.45
1:H:187:LEU:HD23	1:H:187:LEU:C	2.37	0.45
1:G:478:TYR:CE2	1:G:480:ALA:HA	2.52	0.45
1:B:293:ALA:HB1	1:B:298:GLY:O	2.17	0.45
1:G:215:LEU:C	1:G:322:ARG:HG3	2.37	0.45
1:K:232:GLU:HA	1:K:310:GLU:HG3	1.99	0.45
1:K:219:PHE:CE1	1:K:245:LYS:HD2	2.52	0.45
1:J:287:ALA:O	1:J:288:MET:C	2.55	0.45
1:A:352:GLN:C	1:A:365:LEU:HD11	2.37	0.45
1:A:365:LEU:O	1:A:369:VAL:HG23	2.16	0.45
1:J:64:ASP:C	1:J:65:LYS:O	2.51	0.45
1:L:104:LEU:O	1:L:107:VAL:HG22	2.16	0.45
1:L:130:GLU:O	1:L:133:ALA:HB3	2.16	0.45
1:G:486:GLY:CA	1:G:491:MET:CE	2.94	0.45
1:B:305:ILE:CG2	1:B:306:GLY:H	2.09	0.45
1:J:433:ASN:HD22	1:J:434:GLU:N	2.14	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:353:ILE:HG22	1:B:354:GLU:N	2.32	0.45
1:A:486:GLY:HA3	1:A:491:MET:CE	2.46	0.45
1:J:104:LEU:HA	1:J:104:LEU:HD12	1.75	0.45
2:U:5:PRO:HB2	2:U:9:ARG:O	2.17	0.45
1:M:325:ILE:N	1:M:325:ILE:CD1	2.78	0.45
1:K:190:VAL:HG21	1:K:334:ASP:CG	2.36	0.45
1:A:74:VAL:O	1:A:77:VAL:CG1	2.59	0.45
1:M:287:ALA:O	1:M:290:GLN:N	2.50	0.45
1:M:191:GLU:HB3	1:M:295:LEU:HD11	1.98	0.45
1:E:449:ALA:O	1:E:450:PRO:C	2.53	0.45
1:M:411:VAL:CG2	1:M:494:LEU:HD12	2.42	0.45
1:J:128:VAL:O	1:J:132:LYS:HG3	2.17	0.45
1:F:227:ILE:CD1	1:F:227:ILE:N	2.78	0.45
1:E:150:ILE:HD13	1:E:493:ILE:HA	1.99	0.45
1:F:69:MET:SD	1:G:41:ASP:HB2	2.57	0.45
1:K:186:GLU:OE1	1:K:380:LYS:HD2	2.17	0.45
1:N:299:THR:N	1:N:316:ASP:O	2.32	0.45
1:D:421:ARG:HD3	1:D:421:ARG:HA	1.73	0.45
1:C:158:VAL:O	1:C:159:GLY:C	2.55	0.45
1:E:385:THR:OG1	1:E:388:GLU:HB2	2.16	0.45
1:D:203:TYR:CD1	1:D:203:TYR:N	2.80	0.45
1:F:240:VAL:C	1:F:242:LYS:N	2.69	0.45
1:A:267:MET:O	1:A:269:GLY:N	2.50	0.45
1:G:216:GLU:OE1	1:G:216:GLU:HA	2.17	0.45
1:E:66:PHE:O	1:E:67:GLU:C	2.55	0.45
1:D:232:GLU:O	1:D:310:GLU:OE2	2.35	0.45
1:M:232:GLU:HA	1:M:310:GLU:HG2	1.99	0.45
1:H:222:LEU:HD22	1:H:289:LEU:HD11	1.97	0.45
1:K:426:LEU:HD23	1:K:426:LEU:N	2.14	0.45
1:A:347:ALA:O	1:A:350:ARG:HG2	2.16	0.45
1:B:397:GLU:O	1:B:398:ASP:C	2.55	0.45
1:L:37:ASN:N	1:L:37:ASN:HD22	2.12	0.45
1:I:166:MET:O	1:I:170:GLY:CA	2.65	0.45
1:L:197:ARG:HG2	1:L:277:LYS:O	2.17	0.45
1:C:84:ALA:CB	1:C:506:TYR:HE2	2.29	0.45
1:F:409:GLU:OE1	1:F:501:ARG:NH2	2.50	0.45
1:J:37:ASN:HB3	1:J:51:LYS:HG2	1.99	0.45
1:M:420:ILE:CD1	1:M:448:GLU:HG2	2.47	0.45
1:C:72:GLN:HA	1:C:72:GLN:NE2	2.31	0.45
1:N:77:VAL:HG22	1:N:506:TYR:HB3	1.98	0.45
1:H:384:ALA:O	1:I:281:PHE:HZ	1.99	0.45
1:B:117:LYS:HG2	1:B:121:ASP:OD2	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:56:VAL:O	1:E:57:ALA:C	2.55	0.45
1:L:186:GLU:HB2	1:L:380:LYS:HB2	1.99	0.45
1:F:478:TYR:CE2	1:F:480:ALA:HA	2.52	0.45
1:H:308:GLU:OE2	1:H:310:GLU:HG3	2.17	0.44
1:A:219:PHE:HE2	1:A:245:LYS:HB2	1.80	0.44
1:E:368:ARG:O	1:E:372:LEU:N	2.46	0.44
1:H:265:ASN:OD1	1:H:271:VAL:O	2.34	0.44
1:G:304:GLU:HB2	1:G:305:ILE:HD12	1.99	0.44
1:G:346:VAL:HG12	1:G:350:ARG:NH2	2.31	0.44
1:G:357:THR:HG21	1:G:361:ASP:HB2	1.98	0.44
1:L:422:VAL:O	1:L:426:LEU:CD2	2.64	0.44
1:D:496:PRO:CG	1:D:499:VAL:HG13	2.47	0.44
1:M:64:ASP:OD1	1:M:65:LYS:O	2.35	0.44
1:C:452:ARG:HB2	1:C:462:PRO:CB	2.36	0.44
1:G:207:LYS:NZ	1:G:207:LYS:CB	2.77	0.44
1:K:449:ALA:HB3	1:K:450:PRO:CD	2.39	0.44
1:H:126:ALA:CB	1:H:426:LEU:HD13	2.47	0.44
1:I:223:ALA:HB3	1:I:251:ALA:CB	2.41	0.44
2:O:64:ILE:O	2:O:94:ILE:HG23	2.17	0.44
1:K:216:GLU:HA	1:K:216:GLU:OE1	2.17	0.44
1:A:54:VAL:HG13	1:A:55:SER:N	2.32	0.44
1:H:217:SER:N	1:H:321:LYS:O	2.48	0.44
1:L:324:VAL:C	1:L:325:ILE:HD12	2.36	0.44
1:F:302:SER:O	1:F:304:GLU:N	2.50	0.44
1:D:86:GLY:O	1:D:87:ASP:HB2	2.16	0.44
1:N:175:ILE:CD1	1:N:175:ILE:N	2.78	0.44
2:P:14:ARG:CB	2:P:14:ARG:NH1	2.80	0.44
1:I:264:VAL:HA	1:I:267:MET:CG	2.47	0.44
1:B:88:GLY:CA	4:B:1:ADP:O2B	2.64	0.44
1:F:84:ALA:HB2	1:F:506:TYR:CE2	2.51	0.44
1:M:222:LEU:HD22	1:M:289:LEU:HD11	1.99	0.44
1:A:112:ASN:ND2	1:A:115:ASP:H	2.15	0.44
1:A:112:ASN:N	1:A:435:ASP:OD2	2.40	0.44
1:A:438:VAL:O	1:A:442:VAL:HG23	2.17	0.44
1:F:409:GLU:OE2	1:F:498:LYS:HA	2.17	0.44
1:C:493:ILE:C	1:C:494:LEU:HD23	2.37	0.44
1:J:305:ILE:O	1:J:305:ILE:HG22	2.16	0.44
1:K:102:GLU:HB2	1:K:442:VAL:HG13	1.98	0.44
1:L:441:LYS:O	1:L:442:VAL:C	2.54	0.44
2:P:67:PHE:C	2:P:67:PHE:CD1	2.90	0.44
1:B:509:SER:CB	1:C:385:THR:HG23	2.47	0.44
1:D:41:ASP:O	1:D:42:LYS:HG3	2.16	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:6:VAL:HG12	1:D:521:VAL:HG22	2.00	0.44
1:C:148:GLY:HA2	1:C:399:ALA:HB1	1.99	0.44
1:A:180:GLY:HA2	1:A:380:LYS:HB3	1.98	0.44
1:F:325:ILE:CG1	1:F:330:THR:HG23	2.44	0.44
1:D:325:ILE:HG22	1:D:326:ASN:O	2.17	0.44
2:R:20:LYS:HG2	2:R:27:LEU:HD23	1.98	0.44
2:O:48:ILE:HG23	2:O:54:VAL:CG2	2.42	0.44
1:B:206:ASN:HB2	1:B:214:GLU:H	1.80	0.44
1:A:313:THR:HG22	1:A:315:GLU:HG3	1.99	0.44
1:A:263:VAL:O	1:A:267:MET:SD	2.75	0.44
1:L:370:ALA:O	1:L:371:LYS:C	2.56	0.44
1:L:247:LEU:HB3	1:L:273:VAL:HG11	1.99	0.44
1:L:313:THR:HG22	1:L:314:LEU:H	1.83	0.44
1:G:313:THR:HG22	1:G:314:LEU:N	2.31	0.44
1:C:280:GLY:CA	1:C:284:ARG:HD2	2.47	0.44
1:J:317:LEU:N	1:J:317:LEU:CD1	2.80	0.44
1:G:364:LYS:O	1:G:367:GLU:HB3	2.16	0.44
1:G:174:VAL:HG23	1:G:370:ALA:CB	2.48	0.44
2:O:17:VAL:CG1	2:O:33:ALA:O	2.65	0.44
1:H:434:GLU:HA	1:H:437:ASN:HD22	1.81	0.44
1:F:358:SER:HA	1:F:362:ARG:HG3	2.00	0.44
1:K:157:THR:O	1:K:161:LEU:CD1	2.65	0.44
2:S:14:ARG:NH2	2:S:69:ASP:OD2	2.50	0.44
1:B:74:VAL:O	1:B:77:VAL:CG1	2.59	0.44
2:T:14:ARG:CG	2:T:15:LYS:H	2.29	0.44
1:A:153:ASN:C	1:A:153:ASN:HD22	2.20	0.44
1:F:281:PHE:H	1:F:284:ARG:CD	2.29	0.44
1:A:127:ALA:O	1:A:131:LEU:HG	2.17	0.44
1:L:417:VAL:O	1:L:418:ALA:C	2.55	0.44
1:N:200:LEU:HD13	1:N:275:ALA:O	2.17	0.44
1:M:349:ILE:O	1:M:352:GLN:HB2	2.17	0.44
1:M:106:ALA:HA	1:M:111:MET:CE	2.48	0.44
1:M:128:VAL:O	1:M:132:LYS:HG3	2.17	0.44
1:I:155:ASP:CG	1:I:158:VAL:HG23	2.38	0.44
1:J:226:LYS:HG3	1:J:252:GLU:CB	2.47	0.44
1:B:438:VAL:O	1:B:442:VAL:HG23	2.17	0.44
1:K:199:TYR:CZ	1:K:327:LYS:HA	2.52	0.44
1:J:164:GLU:O	1:J:167:ASP:HB3	2.16	0.44
1:G:72:GLN:HE21	1:G:72:GLN:CA	2.30	0.44
1:I:194:GLN:HG3	1:I:331:THR:HB	1.98	0.44
1:G:185:ASP:HA	1:G:380:LYS:O	2.17	0.44
1:A:59:GLU:OE1	1:A:59:GLU:HA	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:77:VAL:HG11	1:I:510:VAL:HB	1.99	0.44
1:I:47:PRO:HG3	1:J:73:MET:HG3	1.99	0.44
1:K:117:LYS:HG2	1:K:121:ASP:OD2	2.16	0.44
1:L:101:THR:HG22	1:L:105:LYS:HE3	1.98	0.44
1:D:249:ILE:CG2	1:D:250:ILE:N	2.80	0.44
1:D:325:ILE:CG1	1:D:330:THR:HG23	2.48	0.44
1:B:199:TYR:HE1	1:B:327:LYS:HG3	1.82	0.44
1:A:238:GLU:CB	2:O:23:GLY:O	2.65	0.44
1:L:308:GLU:CB	1:L:311:LYS:HD3	2.32	0.44
1:C:216:GLU:O	1:C:246:PRO:HG3	2.16	0.44
1:E:225:LYS:C	1:E:252:GLU:HB2	2.38	0.44
1:K:248:LEU:HD13	1:K:248:LEU:C	2.37	0.44
1:C:349:ILE:O	1:C:349:ILE:HG22	2.16	0.44
1:J:247:LEU:HD22	1:J:248:LEU:N	2.32	0.44
1:L:149:THR:HG21	1:L:156:GLU:HA	2.00	0.44
1:L:158:VAL:O	1:L:159:GLY:C	2.56	0.44
1:A:208:PRO:C	1:A:212:ALA:HB3	2.38	0.44
1:M:66:PHE:HA	1:M:520:MET:HE1	1.99	0.44
1:M:66:PHE:CD1	1:M:520:MET:HE2	2.49	0.44
1:E:134:LEU:HD11	1:E:425:LYS:NZ	2.33	0.44
1:E:466:ALA:O	1:E:470:LYS:HG3	2.18	0.44
1:B:417:VAL:O	1:B:420:ILE:CG2	2.58	0.44
1:H:193:MET:CG	1:H:194:GLN:H	2.29	0.44
1:H:131:LEU:HD12	1:H:422:VAL:HG11	1.98	0.44
1:M:200:LEU:N	1:M:200:LEU:HD12	2.32	0.44
2:Q:69:ASP:HA	2:Q:73:VAL:HG21	1.99	0.44
1:A:417:VAL:O	1:A:418:ALA:C	2.56	0.44
2:P:4:ARG:HA	2:P:5:PRO:HD2	1.88	0.44
1:G:78:ALA:O	1:G:89:THR:HG22	2.18	0.44
1:C:210:THR:O	1:C:210:THR:HG22	2.17	0.44
1:C:147:VAL:CG2	1:C:403:THR:HG22	2.48	0.44
1:H:496:PRO:HB2	1:H:499:VAL:HG13	1.99	0.44
1:K:90:THR:O	1:K:93:THR:HB	2.17	0.44
1:E:436:GLN:O	1:E:440:ILE:HG13	2.17	0.44
1:A:94:VAL:HG12	1:A:449:ALA:HB1	1.98	0.44
1:E:510:VAL:CG2	1:E:511:ALA:H	2.30	0.44
1:L:345:ARG:O	1:L:348:GLN:HB2	2.17	0.44
1:F:302:SER:HB2	1:F:305:ILE:CD1	2.44	0.44
1:D:209:GLU:O	1:D:210:THR:CB	2.65	0.44
1:J:325:ILE:N	1:J:325:ILE:CD1	2.80	0.44
1:M:421:ARG:HA	1:M:421:ARG:NE	2.32	0.44
1:K:214:GLU:HG2	1:K:324:VAL:CG1	2.47	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:T:58:ASP:N	2:T:88:GLU:OE2	2.36	0.44
1:G:368:ARG:CD	1:G:372:LEU:HD11	2.48	0.44
1:A:509:SER:CB	1:B:385:THR:HG23	2.47	0.44
1:A:128:VAL:HG12	1:A:132:LYS:HE2	1.98	0.44
1:H:95:LEU:O	1:H:98:ALA:HB3	2.17	0.44
1:J:117:LYS:HG2	1:J:121:ASP:OD2	2.17	0.44
1:N:240:VAL:HA	1:N:243:ALA:HB3	2.00	0.44
1:C:338:GLU:O	1:C:341:ALA:HB3	2.17	0.44
1:H:40:LEU:HD22	1:H:40:LEU:N	2.32	0.44
1:J:344:GLY:O	1:J:347:ALA:HB3	2.18	0.44
1:F:218:PRO:HA	1:F:246:PRO:O	2.18	0.44
1:E:291:ASP:HB2	1:E:372:LEU:CD2	2.46	0.44
1:E:325:ILE:HG22	1:E:326:ASN:N	2.31	0.44
1:J:231:ARG:O	1:J:234:LEU:HG	2.18	0.44
1:C:219:PHE:HE2	1:C:245:LYS:HB2	1.81	0.44
1:C:270:ILE:HD11	2:Q:27:LEU:HD13	1.98	0.44
1:G:202:PRO:O	1:G:205:ILE:HG13	2.17	0.44
1:G:221:LEU:HD13	1:G:317:LEU:CD2	2.47	0.44
1:H:443:ALA:O	1:H:447:MET:HG3	2.17	0.44
1:D:368:ARG:O	1:D:372:LEU:N	2.50	0.44
1:K:66:PHE:N	1:K:69:MET:HG3	2.29	0.44
1:N:194:GLN:HG3	1:N:330:THR:O	2.18	0.44
1:N:449:ALA:HB3	1:N:450:PRO:CD	2.39	0.44
1:F:417:VAL:O	1:F:420:ILE:CG2	2.60	0.44
1:B:290:GLN:O	1:B:294:THR:N	2.49	0.44
1:D:420:ILE:HD11	1:D:470:LYS:CG	2.47	0.44
1:D:417:VAL:CA	1:D:420:ILE:HG22	2.47	0.44
1:G:70:GLY:O	1:G:74:VAL:HG22	2.18	0.44
1:E:86:GLY:O	1:E:87:ASP:HB2	2.18	0.44
1:L:349:ILE:O	1:L:352:GLN:HB2	2.17	0.44
1:A:144:ILE:O	1:A:147:VAL:HG22	2.16	0.44
2:Q:86:MET:N	2:Q:86:MET:SD	2.91	0.44
1:F:128:VAL:HG12	1:F:132:LYS:HE2	1.98	0.44
1:I:214:GLU:HA	1:I:324:VAL:HG12	1.99	0.44
1:I:175:ILE:CD1	1:I:175:ILE:N	2.78	0.44
1:A:24:ALA:O	1:A:28:LYS:HG3	2.18	0.44
2:O:37:ARG:N	2:O:37:ARG:HD2	2.32	0.44
1:N:420:ILE:HG23	1:N:470:LYS:HD3	1.99	0.44
1:F:65:LYS:O	1:F:69:MET:HG3	2.17	0.44
1:N:37:ASN:ND2	1:N:37:ASN:N	2.64	0.44
1:L:421:ARG:NH2	1:L:469:VAL:O	2.48	0.44
1:G:430:ARG:HH11	1:G:430:ARG:HG2	1.82	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:101:THR:O	1:L:105:LYS:HG3	2.17	0.44
1:A:62:LEU:CD1	1:A:62:LEU:N	2.81	0.44
1:N:391:GLU:O	1:N:394:ALA:HB3	2.18	0.44
2:R:20:LYS:HD2	2:R:20:LYS:H	1.83	0.44
1:H:230:ILE:CD1	1:H:257:GLU:HG2	2.48	0.44
1:A:219:PHE:HB3	1:A:317:LEU:CD1	2.44	0.44
1:B:232:GLU:C	1:B:310:GLU:OE2	2.56	0.44
1:E:199:TYR:CE2	1:E:202:PRO:HA	2.52	0.44
1:L:221:LEU:HD11	1:L:223:ALA:HB2	1.98	0.44
1:J:422:VAL:HG23	1:J:423:ALA:N	2.32	0.44
2:O:14:ARG:HB3	2:O:14:ARG:HH11	1.82	0.44
1:D:287:ALA:O	1:D:290:GLN:NE2	2.50	0.44
1:L:443:ALA:O	1:L:447:MET:HG3	2.16	0.44
1:D:77:VAL:CG1	1:D:510:VAL:HG21	2.47	0.44
1:J:112:ASN:HA	1:J:113:PRO:HD3	1.70	0.44
1:B:357:THR:HB	1:B:361:ASP:HB2	1.98	0.44
2:T:14:ARG:HH11	2:T:14:ARG:CB	2.30	0.44
1:F:406:ALA:HB1	1:F:411:VAL:HG13	1.99	0.44
1:J:351:GLN:O	1:J:354:GLU:N	2.34	0.44
2:S:47:ARG:CD	2:S:49:LEU:HB2	2.48	0.44
1:H:217:SER:CB	1:H:321:LYS:HA	2.47	0.44
1:J:174:VAL:C	1:J:175:ILE:HD12	2.37	0.44
1:F:302:SER:C	1:F:304:GLU:N	2.70	0.44
1:N:290:GLN:HG3	1:N:345:ARG:HE	1.82	0.44
1:J:343:GLN:O	1:J:346:VAL:HB	2.18	0.44
1:B:326:ASN:HD21	1:B:328:ASP:HB2	1.82	0.44
1:C:404:ARG:HG3	1:C:404:ARG:NH1	2.30	0.44
1:H:475:ASN:ND2	1:H:489:ILE:HD12	2.32	0.44
1:E:72:GLN:NE2	1:E:72:GLN:CA	2.79	0.44
1:N:40:LEU:HD23	1:N:50:THR:HG22	1.99	0.44
1:C:327:LYS:HD3	1:C:327:LYS:N	2.32	0.44
1:H:178:GLU:O	1:H:380:LYS:HA	2.17	0.44
1:F:23:LEU:C	1:F:23:LEU:CD1	2.86	0.44
1:H:441:LYS:O	1:H:442:VAL:C	2.55	0.44
1:G:87:ASP:OD1	1:G:88:GLY:N	2.50	0.44
1:B:72:GLN:HA	1:B:72:GLN:NE2	2.31	0.44
1:M:153:ASN:O	1:M:154:SER:HB2	2.17	0.44
1:I:226:LYS:HD2	1:I:252:GLU:HG3	2.00	0.44
1:E:479:ASN:O	1:E:483:GLU:N	2.50	0.44
1:F:325:ILE:HG22	1:F:326:ASN:O	2.18	0.44
2:U:47:ARG:HB3	2:U:55:LYS:HG2	1.99	0.44
1:K:233:MET:HE1	1:K:309:LEU:HD13	1.99	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:314:LEU:O	1:K:316:ASP:N	2.51	0.44
1:N:221:LEU:HD13	1:N:223:ALA:H	1.82	0.44
1:M:233:MET:CE	1:M:309:LEU:HD13	2.47	0.44
1:A:194:GLN:HG3	1:A:331:THR:OG1	2.18	0.44
1:N:130:GLU:OE2	1:N:425:LYS:HB3	2.18	0.44
1:A:279:PRO:HB2	1:A:285:ARG:HA	1.99	0.44
1:B:207:LYS:HB3	1:B:208:PRO:CD	2.36	0.44
1:H:450:PRO:O	1:H:454:ILE:HG12	2.17	0.44
1:H:64:ASP:HB3	1:H:67:GLU:HB2	2.00	0.44
1:B:348:GLN:HE22	1:B:352:GLN:NE2	2.14	0.44
1:A:143:ALA:O	1:A:146:GLN:HB2	2.17	0.44
1:J:351:GLN:O	1:J:353:ILE:N	2.51	0.44
1:L:343:GLN:O	1:L:346:VAL:HB	2.18	0.44
1:N:496:PRO:O	1:N:499:VAL:HG22	2.17	0.44
1:J:286:LYS:HA	1:J:286:LYS:CE	2.42	0.44
1:N:266:THR:O	1:N:268:ARG:N	2.50	0.44
1:F:95:LEU:HD23	1:F:450:PRO:HD3	1.98	0.44
2:O:4:ARG:O	2:U:93:ALA:HB1	2.17	0.44
1:B:401:HIS:O	1:B:402:ALA:C	2.56	0.44
1:I:158:VAL:O	1:I:162:ILE:HG13	2.17	0.44
1:N:149:THR:CG2	1:N:159:GLY:HA3	2.45	0.44
1:B:451:LEU:O	1:B:454:ILE:HB	2.18	0.44
1:H:199:TYR:HD1	1:H:201:SER:H	1.64	0.44
1:E:494:LEU:HD23	1:E:494:LEU:N	2.31	0.44
1:E:267:MET:O	1:E:269:GLY:N	2.50	0.44
1:K:384:ALA:O	1:L:281:PHE:CZ	2.69	0.44
1:G:30:THR:HB	1:G:51:LYS:HG3	1.98	0.44
2:Q:96:GLU:O	2:Q:97:ALA:C	2.55	0.44
1:D:183:LEU:HD22	1:D:384:ALA:HA	2.00	0.44
1:A:519:CYS:SG	1:A:520:MET:N	2.91	0.44
1:L:512:GLY:HA2	1:L:515:ILE:HD12	2.00	0.44
1:M:120:ILE:HG22	1:M:121:ASP:N	2.33	0.44
1:N:187:LEU:HD23	1:N:187:LEU:C	2.37	0.44
1:A:88:GLY:C	4:A:1:ADP:O2B	2.56	0.44
1:C:116:LEU:O	1:C:120:ILE:HG13	2.17	0.44
1:M:38:VAL:HG22	1:N:519:CYS:HB3	2.00	0.44
1:N:165:ALA:O	1:N:168:LYS:N	2.35	0.44
1:H:165:ALA:O	1:H:168:LYS:HB2	2.18	0.44
1:K:165:ALA:O	1:K:168:LYS:HB2	2.17	0.44
1:J:152:ALA:O	1:J:153:ASN:HB3	2.18	0.44
1:G:237:LEU:CD2	1:G:237:LEU:C	2.85	0.44
1:G:309:LEU:HD12	1:G:309:LEU:N	2.33	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:207:LYS:NZ	1:F:207:LYS:CB	2.81	0.44
1:B:221:LEU:HD13	1:B:317:LEU:CD2	2.47	0.44
1:D:200:LEU:O	1:D:202:PRO:CD	2.66	0.44
1:L:221:LEU:HD13	1:L:223:ALA:N	2.33	0.44
1:M:229:ASN:HA	1:M:257:GLU:CD	2.38	0.44
1:H:314:LEU:O	1:H:316:ASP:N	2.50	0.44
1:G:200:LEU:HD12	1:G:200:LEU:N	2.32	0.44
1:C:194:GLN:NE2	1:C:331:THR:OG1	2.51	0.44
1:C:199:TYR:CE1	1:C:202:PRO:HA	2.53	0.44
1:J:32:GLY:CA	1:J:454:ILE:HG23	2.48	0.44
1:I:413:ALA:HB1	1:I:417:VAL:HB	1.99	0.44
1:H:356:ALA:C	1:H:358:SER:H	2.21	0.44
1:K:381:VAL:HB	1:K:389:MET:CE	2.47	0.44
2:U:58:ASP:N	2:U:88:GLU:OE2	2.44	0.44
1:L:190:VAL:HG21	1:L:334:ASP:CG	2.38	0.44
1:K:343:GLN:O	1:K:346:VAL:HB	2.18	0.44
2:S:47:ARG:HD3	2:S:49:LEU:CG	2.48	0.44
1:M:504:LEU:HD22	1:M:504:LEU:O	2.18	0.44
1:M:95:LEU:O	1:M:96:ALA:C	2.54	0.44
1:A:147:VAL:CG2	1:A:403:THR:HG22	2.48	0.44
1:A:150:ILE:CG2	1:A:151:SER:N	2.80	0.44
1:I:351:GLN:O	1:I:353:ILE:N	2.51	0.44
1:J:122:LYS:O	1:J:125:THR:HB	2.17	0.44
1:D:451:LEU:O	1:D:451:LEU:HD23	2.17	0.44
1:I:285:ARG:HG2	1:I:285:ARG:HH11	1.82	0.44
1:H:326:ASN:O	1:H:327:LYS:C	2.55	0.44
2:R:11:ILE:HG22	2:R:41:LEU:HB2	1.98	0.44
1:H:455:VAL:HG11	1:H:462:PRO:HA	1.99	0.44
1:G:176:THR:O	1:G:378:VAL:HA	2.18	0.44
2:O:47:ARG:HB3	2:O:55:LYS:HG2	1.99	0.44
1:L:232:GLU:HA	1:L:310:GLU:HG3	1.99	0.44
2:O:20:LYS:HG2	2:O:27:LEU:HD21	1.99	0.44
1:B:308:GLU:H	1:B:311:LYS:HB3	1.83	0.44
1:E:204:PHE:O	1:E:213:VAL:HG22	2.18	0.44
1:E:262:LEU:HD11	1:E:273:VAL:HB	2.00	0.44
1:E:344:GLY:C	1:E:346:VAL:N	2.71	0.44
1:E:346:VAL:O	1:E:350:ARG:NH1	2.51	0.44
1:K:256:GLY:HA2	1:K:260:ALA:H	1.82	0.44
1:I:255:GLU:O	1:I:257:GLU:N	2.51	0.44
1:M:313:THR:CG2	1:M:314:LEU:N	2.80	0.44
1:G:220:ILE:H	1:G:220:ILE:HD12	1.80	0.44
1:H:24:ALA:O	1:H:28:LYS:HG2	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:381:VAL:HG21	1:M:393:LYS:CA	2.38	0.44
1:G:127:ALA:O	1:G:131:LEU:HG	2.18	0.44
1:F:417:VAL:C	1:F:420:ILE:HG22	2.37	0.44
2:U:7:HIS:HB2	2:U:46:GLY:O	2.18	0.44
1:L:218:PRO:HB3	1:L:246:PRO:C	2.38	0.44
1:C:417:VAL:CA	1:C:420:ILE:HG22	2.47	0.44
1:H:321:LYS:HD2	1:H:334:ASP:OD2	2.17	0.44
1:M:122:LYS:NZ	1:M:430:ARG:O	2.39	0.44
2:P:79:ASP:HB2	2:P:81:GLU:OE1	2.18	0.44
1:L:354:GLU:HG2	1:L:355:GLU:H	1.82	0.44
1:A:147:VAL:CG2	1:A:148:GLY:N	2.80	0.44
1:I:350:ARG:HE	1:I:369:VAL:HG11	1.82	0.44
1:G:44:PHE:HB2	1:G:45:GLY:H	1.57	0.44
1:D:486:GLY:CA	1:D:491:MET:CE	2.96	0.44
1:N:88:GLY:O	1:N:89:THR:C	2.56	0.44
1:L:201:SER:HA	1:L:202:PRO:HD3	1.87	0.44
2:T:86:MET:HG3	2:T:90:ASP:HB2	1.99	0.44
2:Q:97:ALA:HB3	2:R:2:ASN:H	1.83	0.44
1:M:155:ASP:OD1	1:M:158:VAL:HG23	2.17	0.44
1:H:521:VAL:HB	1:N:40:LEU:HD13	1.99	0.44
1:I:399:ALA:O	1:I:400:LEU:C	2.53	0.44
1:B:309:LEU:CD1	1:B:309:LEU:H	2.30	0.44
1:I:19:GLY:HA3	1:I:67:GLU:O	2.17	0.44
1:N:15:LYS:HA	1:N:15:LYS:HD3	1.85	0.44
1:A:400:LEU:HD13	1:A:400:LEU:C	2.39	0.44
1:F:400:LEU:C	1:F:400:LEU:HD13	2.38	0.44
1:J:77:VAL:HG22	1:J:506:TYR:HB3	1.99	0.44
1:H:478:TYR:HB2	1:H:485:TYR:CD2	2.53	0.44
1:D:272:LYS:CB	1:D:272:LYS:NZ	2.81	0.44
1:B:217:SER:N	1:B:218:PRO:CD	2.80	0.44
1:A:235:PRO:HG2	1:A:236:VAL:HG23	1.99	0.44
1:L:308:GLU:OE2	1:L:310:GLU:HG3	2.18	0.44
1:F:308:GLU:HB2	1:F:311:LYS:CB	2.43	0.44
1:E:211:GLY:O	1:E:325:ILE:O	2.36	0.44
1:E:325:ILE:N	1:E:325:ILE:CD1	2.79	0.44
1:E:358:SER:HA	1:E:362:ARG:HG3	2.00	0.44
1:A:199:TYR:OH	1:A:211:GLY:HA2	2.17	0.44
1:G:325:ILE:HG22	1:G:326:ASN:N	2.33	0.44
1:L:160:LYS:HG2	1:L:164:GLU:OE2	2.17	0.44
1:A:345:ARG:O	1:A:349:ILE:HG13	2.18	0.44
1:D:289:LEU:HD23	1:D:292:ILE:HD12	1.99	0.44
1:E:302:SER:C	1:E:304:GLU:N	2.71	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:130:GLU:OE1	1:F:130:GLU:HA	2.18	0.44
1:B:44:PHE:HB2	1:B:45:GLY:H	1.50	0.44
1:M:104:LEU:HD12	1:M:104:LEU:HA	1.69	0.44
2:T:68:ASN:ND2	2:U:74:LYS:CE	2.79	0.44
2:R:7:HIS:ND1	2:R:7:HIS:O	2.50	0.44
1:N:175:ILE:HD13	1:N:404:ARG:NH2	2.33	0.44
1:B:165:ALA:O	1:B:169:VAL:HG22	2.17	0.44
1:N:353:ILE:HA	1:N:365:LEU:CD1	2.48	0.44
2:O:74:LYS:HE3	2:U:68:ASN:ND2	2.33	0.44
1:C:84:ALA:HB2	1:C:506:TYR:CE2	2.49	0.44
1:A:434:GLU:O	1:A:437:ASN:N	2.50	0.44
1:H:153:ASN:O	1:H:154:SER:HB2	2.18	0.44
1:I:478:TYR:HA	1:I:485:TYR:HA	1.99	0.44
2:Q:43:VAL:HG23	2:Q:61:VAL:HG22	2.00	0.44
1:D:176:THR:O	1:D:378:VAL:HA	2.18	0.44
1:B:183:LEU:HD22	1:B:384:ALA:HA	2.00	0.44
1:D:391:GLU:O	1:D:394:ALA:HB3	2.18	0.44
1:A:465:VAL:O	1:A:466:ALA:C	2.55	0.44
1:H:479:ASN:O	1:H:483:GLU:N	2.49	0.44
1:J:262:LEU:HA	1:J:265:ASN:HB3	1.99	0.44
2:R:67:PHE:CD1	2:R:67:PHE:C	2.91	0.44
1:M:140:ASP:O	1:M:144:ILE:HG12	2.18	0.44
1:G:145:ALA:O	1:G:159:GLY:HA3	2.18	0.44
1:E:106:ALA:O	1:E:109:ALA:HB3	2.17	0.44
1:B:219:PHE:CE2	1:B:245:LYS:HB2	2.52	0.43
1:B:194:GLN:HG2	1:B:195:PHE:N	2.33	0.43
1:B:206:ASN:HB3	1:B:214:GLU:H	1.83	0.43
1:A:219:PHE:HA	1:A:318:GLY:O	2.18	0.43
1:C:308:GLU:O	1:C:309:LEU:O	2.36	0.43
1:E:290:GLN:O	1:E:294:THR:N	2.50	0.43
1:N:256:GLY:O	1:N:257:GLU:C	2.55	0.43
1:K:256:GLY:O	1:K:257:GLU:C	2.57	0.43
1:K:227:ILE:HD12	1:K:309:LEU:HD11	1.98	0.43
1:G:313:THR:HG22	1:G:315:GLU:H	1.83	0.43
1:C:283:ASP:O	1:C:287:ALA:HB2	2.18	0.43
1:G:290:GLN:O	1:G:294:THR:HG23	2.17	0.43
1:A:344:GLY:C	1:A:346:VAL:N	2.71	0.43
1:J:522:THR:OG1	1:J:523:ASP:N	2.51	0.43
1:L:433:ASN:OD1	1:L:435:ASP:HB2	2.18	0.43
1:N:362:ARG:CB	1:N:362:ARG:NH1	2.81	0.43
2:T:47:ARG:HB3	2:T:55:LYS:CG	2.48	0.43
1:C:456:LEU:HD22	1:C:462:PRO:HG2	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:305:ILE:HD11	1:C:203:TYR:OH	2.17	0.43
1:L:389:MET:O	1:L:389:MET:HE1	2.18	0.43
1:G:406:ALA:O	1:G:410:GLY:N	2.51	0.43
1:B:350:ARG:HA	1:B:353:ILE:HD12	2.00	0.43
1:B:360:TYR:H	1:B:363:GLU:HG3	1.83	0.43
2:P:68:ASN:O	2:P:70:GLY:N	2.50	0.43
1:J:420:ILE:CD1	1:J:448:GLU:HA	2.47	0.43
1:A:39:VAL:HG12	1:G:69:MET:CE	2.48	0.43
1:I:37:ASN:ND2	1:I:37:ASN:N	2.65	0.43
1:F:518:GLU:OE1	1:F:518:GLU:HA	2.18	0.43
1:C:8:PHE:N	1:C:8:PHE:CD1	2.85	0.43
1:A:430:ARG:HG2	1:A:430:ARG:HH11	1.82	0.43
1:C:190:VAL:HB	1:C:376:VAL:HB	1.99	0.43
1:F:180:GLY:CA	1:F:380:LYS:HB3	2.47	0.43
1:F:207:LYS:CB	1:F:208:PRO:CD	2.96	0.43
2:P:20:LYS:HA	2:P:28:THR:HG23	1.99	0.43
1:D:325:ILE:HG22	1:D:326:ASN:N	2.32	0.43
1:G:217:SER:N	1:G:218:PRO:CD	2.82	0.43
1:K:362:ARG:CB	1:K:362:ARG:NH1	2.81	0.43
1:B:237:LEU:C	1:B:237:LEU:CD2	2.87	0.43
1:E:284:ARG:HG2	1:E:288:MET:HE2	2.00	0.43
1:J:301:ILE:HG22	1:J:301:ILE:O	2.17	0.43
1:K:248:LEU:CD1	1:K:250:ILE:HG13	2.47	0.43
1:C:293:ALA:O	1:C:294:THR:C	2.56	0.43
1:C:362:ARG:O	1:C:366:GLN:OE1	2.36	0.43
1:J:345:ARG:O	1:J:348:GLN:HB2	2.17	0.43
1:A:200:LEU:O	1:A:202:PRO:HD2	2.18	0.43
1:A:213:VAL:HB	1:A:325:ILE:HD13	1.99	0.43
1:A:216:GLU:O	1:A:246:PRO:HG3	2.19	0.43
1:G:284:ARG:O	1:G:287:ALA:HB3	2.18	0.43
1:N:313:THR:CG2	1:N:314:LEU:N	2.81	0.43
1:J:131:LEU:HD12	1:J:422:VAL:HG11	2.00	0.43
1:A:208:PRO:O	1:A:212:ALA:HB3	2.18	0.43
1:K:413:ALA:HB3	1:K:417:VAL:HB	1.98	0.43
1:C:200:LEU:O	1:C:202:PRO:HD2	2.18	0.43
1:J:49:ILE:HD11	1:K:73:MET:HE2	2.00	0.43
2:P:47:ARG:HG2	2:P:48:ILE:N	2.33	0.43
1:G:413:ALA:HB1	1:G:417:VAL:HG11	2.01	0.43
1:H:287:ALA:O	1:H:288:MET:C	2.56	0.43
1:D:465:VAL:O	1:D:466:ALA:C	2.57	0.43
1:I:215:LEU:CB	1:I:218:PRO:HG2	2.46	0.43
1:D:451:LEU:CD2	1:D:451:LEU:C	2.86	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:203:TYR:HD1	1:M:203:TYR:H	1.66	0.43
1:F:29:VAL:HG23	1:F:30:THR:CG2	2.45	0.43
1:B:474:GLY:C	1:B:475:ASN:HD22	2.20	0.43
2:T:7:HIS:HB3	2:T:45:ASN:HD22	1.82	0.43
1:F:155:ASP:HB3	1:F:158:VAL:CG2	2.47	0.43
1:M:448:GLU:HB3	1:M:452:ARG:HD2	1.99	0.43
1:I:38:VAL:HG22	1:J:519:CYS:HB3	1.99	0.43
1:N:317:LEU:CD1	1:N:317:LEU:N	2.81	0.43
1:E:9:GLY:HA2	1:E:13:ARG:HH12	1.82	0.43
1:N:165:ALA:O	1:N:168:LYS:HB2	2.18	0.43
1:N:513:LEU:HA	1:N:513:LEU:HD12	1.73	0.43
2:R:31:ALA:O	2:R:32:ALA:HB3	2.18	0.43
1:M:80:LYS:O	1:M:83:ASP:HB2	2.18	0.43
1:B:249:ILE:HB	1:B:275:ALA:HB1	1.99	0.43
1:D:246:PRO:HA	1:D:272:LYS:O	2.19	0.43
1:A:248:LEU:HD13	1:A:248:LEU:C	2.38	0.43
1:K:353:ILE:HG12	1:K:365:LEU:CB	2.48	0.43
1:E:325:ILE:CG1	1:E:330:THR:HG23	2.45	0.43
1:J:259:LEU:C	1:J:259:LEU:HD23	2.38	0.43
1:K:227:ILE:O	1:K:254:VAL:HA	2.17	0.43
1:K:232:GLU:CB	1:K:309:LEU:HD12	2.49	0.43
1:I:259:LEU:HD23	1:I:260:ALA:N	2.33	0.43
1:L:293:ALA:HB2	1:L:300:VAL:HG13	1.99	0.43
1:C:266:THR:HA	1:C:271:VAL:O	2.18	0.43
1:C:346:VAL:O	1:C:349:ILE:HB	2.18	0.43
1:J:287:ALA:O	1:J:290:GLN:HB3	2.17	0.43
1:A:321:LYS:HB2	1:A:333:ILE:HB	1.99	0.43
1:G:285:ARG:O	1:G:288:MET:N	2.48	0.43
1:G:295:LEU:HD23	1:G:335:GLY:O	2.18	0.43
1:L:433:ASN:HD22	1:L:434:GLU:N	2.15	0.43
1:N:385:THR:HG23	1:N:388:GLU:HB3	1.99	0.43
1:H:32:GLY:HA2	1:H:454:ILE:HG23	2.01	0.43
1:G:456:LEU:HD12	1:G:456:LEU:HA	1.84	0.43
1:F:112:ASN:HA	1:F:113:PRO:HD3	1.73	0.43
1:C:303:GLU:C	1:C:303:GLU:OE1	2.57	0.43
1:I:290:GLN:HG3	1:I:345:ARG:HE	1.83	0.43
1:G:111:MET:CE	1:G:438:VAL:HG21	2.48	0.43
1:I:186:GLU:O	1:I:379:ILE:HA	2.18	0.43
1:F:150:ILE:HG23	1:F:151:SER:N	2.32	0.43
1:K:226:LYS:HD2	1:K:252:GLU:HG3	2.00	0.43
1:K:296:THR:HB	1:K:319:GLN:H	1.82	0.43
1:K:120:ILE:O	1:K:121:ASP:C	2.57	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:S:97:ALA:O	2:T:1:MET:HA	2.18	0.43
1:N:21:ASN:HA	1:N:21:ASN:HD22	1.59	0.43
2:O:13:LYS:O	2:O:13:LYS:HG3	2.17	0.43
1:B:116:LEU:O	1:B:120:ILE:HG13	2.19	0.43
1:C:302:SER:CB	1:C:305:ILE:HB	2.48	0.43
1:D:272:LYS:HB2	1:D:272:LYS:HZ2	1.82	0.43
1:A:233:MET:HE2	1:A:233:MET:O	2.19	0.43
1:F:309:LEU:O	1:F:310:GLU:C	2.56	0.43
1:N:227:ILE:O	1:N:254:VAL:HA	2.18	0.43
1:N:259:LEU:HD23	1:N:259:LEU:C	2.38	0.43
1:D:232:GLU:O	1:D:233:MET:CB	2.67	0.43
1:G:313:THR:HG22	1:G:315:GLU:HG3	1.99	0.43
1:J:248:LEU:C	1:J:248:LEU:HD13	2.38	0.43
1:H:314:LEU:CA	1:H:317:LEU:HD13	2.41	0.43
1:B:153:ASN:C	1:B:153:ASN:HD22	2.20	0.43
1:G:361:ASP:C	1:G:363:GLU:H	2.22	0.43
1:L:149:THR:HG22	1:L:156:GLU:HA	1.99	0.43
1:L:152:ALA:CB	1:L:158:VAL:HG11	2.48	0.43
1:A:279:PRO:CB	1:A:288:MET:HE3	2.49	0.43
2:S:84:LEU:CD1	2:S:84:LEU:N	2.81	0.43
1:L:47:PRO:HG3	1:M:73:MET:CG	2.48	0.43
1:G:134:LEU:H	1:G:134:LEU:CD1	2.32	0.43
1:J:321:LYS:HD2	1:J:334:ASP:OD2	2.18	0.43
1:F:417:VAL:CA	1:F:420:ILE:HG22	2.48	0.43
1:N:104:LEU:HD12	1:N:104:LEU:HA	1.72	0.43
2:T:5:PRO:HD3	2:T:42:ALA:HB1	2.01	0.43
1:C:315:GLU:OE1	1:C:316:ASP:N	2.51	0.43
1:N:351:GLN:O	1:N:354:GLU:HB3	2.19	0.43
1:K:200:LEU:CD1	1:K:200:LEU:N	2.82	0.43
1:K:325:ILE:CD1	1:K:325:ILE:N	2.80	0.43
1:J:88:GLY:O	1:J:89:THR:C	2.56	0.43
1:N:364:LYS:HD2	1:N:367:GLU:OE1	2.17	0.43
1:M:303:GLU:C	1:M:305:ILE:H	2.19	0.43
1:N:420:ILE:HG13	1:N:451:LEU:HD22	2.01	0.43
2:Q:93:ALA:HB1	2:R:4:ARG:O	2.17	0.43
1:K:178:GLU:O	1:K:380:LYS:HA	2.18	0.43
1:I:478:TYR:HB2	1:I:485:TYR:CD2	2.52	0.43
1:N:202:PRO:C	1:N:204:PHE:H	2.22	0.43
1:C:451:LEU:CD2	1:C:451:LEU:C	2.86	0.43
1:C:451:LEU:O	1:C:451:LEU:HD23	2.19	0.43
1:H:420:ILE:CD1	1:H:448:GLU:HA	2.48	0.43
1:C:103:GLY:O	1:C:107:VAL:HG23	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:128:VAL:CG1	1:D:132:LYS:HE2	2.48	0.43
1:F:27:VAL:HG13	1:F:53:GLY:HA2	2.00	0.43
1:N:323:VAL:HG23	1:N:332:ILE:HG22	2.00	0.43
1:M:461:GLU:HB3	1:M:464:VAL:HB	2.00	0.43
1:B:325:ILE:N	1:B:325:ILE:CD1	2.77	0.43
1:F:222:LEU:CD1	1:F:222:LEU:N	2.78	0.43
1:F:265:ASN:HB3	1:F:271:VAL:CG2	2.48	0.43
1:E:201:SER:HB3	1:E:259:LEU:HD22	2.00	0.43
1:G:240:VAL:C	1:G:242:LYS:N	2.68	0.43
1:C:365:LEU:C	1:C:367:GLU:N	2.71	0.43
1:J:266:THR:O	1:J:268:ARG:N	2.51	0.43
1:J:282:GLY:O	1:J:285:ARG:HG2	2.19	0.43
1:D:207:LYS:HB2	1:D:207:LYS:NZ	2.34	0.43
2:O:14:ARG:HB2	2:O:14:ARG:NH1	2.33	0.43
1:D:348:GLN:NE2	1:D:352:GLN:NE2	2.66	0.43
1:D:411:VAL:HG12	1:D:496:PRO:CA	2.35	0.43
2:U:84:LEU:N	2:U:84:LEU:CD1	2.81	0.43
1:I:385:THR:HG23	1:I:388:GLU:N	2.30	0.43
1:B:339:GLU:HG3	1:B:342:ILE:HD12	1.99	0.43
1:H:149:THR:HG21	1:H:156:GLU:HA	1.99	0.43
2:U:44:GLY:O	2:U:57:LEU:HD12	2.19	0.43
1:F:499:VAL:CG2	1:F:500:THR:H	2.31	0.43
1:J:414:GLY:N	1:J:494:LEU:HA	2.33	0.43
1:F:279:PRO:HD2	1:F:285:ARG:CB	2.48	0.43
2:T:76:GLU:O	2:T:83:VAL:HG22	2.17	0.43
1:A:451:LEU:C	1:A:451:LEU:HD23	2.39	0.43
1:E:73:MET:O	1:E:74:VAL:C	2.56	0.43
1:I:104:LEU:HD12	1:I:104:LEU:HA	1.80	0.43
1:I:97:GLN:O	1:I:98:ALA:C	2.57	0.43
1:H:81:ALA:HA	1:H:506:TYR:CD2	2.54	0.43
1:B:428:ASP:C	1:B:430:ARG:NH1	2.71	0.43
1:C:122:LYS:HE2	1:C:429:LEU:HD11	1.99	0.43
1:D:30:THR:HB	1:D:51:LYS:CG	2.47	0.43
1:D:381:VAL:HG13	1:D:392:LYS:CG	2.48	0.43
1:M:221:LEU:HD13	1:M:223:ALA:N	2.34	0.43
1:L:302:SER:HB2	1:L:305:ILE:CG1	2.48	0.43
1:C:65:LYS:O	1:C:69:MET:HG3	2.18	0.43
1:K:186:GLU:HB2	1:K:380:LYS:HB2	2.00	0.43
1:N:37:ASN:H	1:N:37:ASN:HD22	1.65	0.43
1:E:164:GLU:O	1:E:167:ASP:HB3	2.18	0.43
2:Q:58:ASP:N	2:Q:88:GLU:OE2	2.47	0.43
1:A:6:VAL:HG23	1:A:6:VAL:O	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:472:GLY:HA3	1:I:476:TYR:CD2	2.54	0.43
1:K:202:PRO:C	1:K:204:PHE:H	2.22	0.43
1:M:184:GLN:HA	1:M:184:GLN:OE1	2.18	0.43
1:J:192:GLY:C	1:J:376:VAL:HG23	2.38	0.43
1:L:38:VAL:HG12	1:L:39:VAL:N	2.33	0.43
1:C:519:CYS:SG	1:C:520:MET:N	2.92	0.43
1:F:326:ASN:OD1	1:F:329:THR:N	2.51	0.43
1:B:229:ASN:C	1:B:231:ARG:N	2.70	0.43
1:F:229:ASN:O	1:F:231:ARG:N	2.51	0.43
1:C:309:LEU:O	1:C:311:LYS:N	2.51	0.43
1:B:239:ALA:HB1	1:B:314:LEU:HB3	2.00	0.43
1:N:255:GLU:O	1:N:256:GLY:C	2.56	0.43
1:I:233:MET:N	1:I:233:MET:SD	2.91	0.43
1:M:247:LEU:HD13	1:M:248:LEU:N	2.33	0.43
1:C:270:ILE:HD11	2:Q:27:LEU:CD1	2.49	0.43
1:C:281:PHE:O	1:C:284:ARG:HB3	2.19	0.43
1:J:288:MET:HE3	1:J:288:MET:HA	2.01	0.43
1:A:284:ARG:HG2	1:A:288:MET:CE	2.48	0.43
1:J:69:MET:O	1:J:70:GLY:C	2.57	0.43
1:F:348:GLN:NE2	1:F:352:GLN:HE21	2.17	0.43
2:T:37:ARG:N	2:T:37:ARG:HD2	2.34	0.43
2:O:76:GLU:O	2:O:83:VAL:HG22	2.18	0.43
1:A:360:TYR:H	1:A:363:GLU:CG	2.32	0.43
1:B:279:PRO:CG	1:B:288:MET:HE3	2.46	0.43
1:E:237:LEU:C	1:E:237:LEU:CD2	2.87	0.43
1:L:413:ALA:HB1	1:L:417:VAL:CB	2.48	0.43
1:H:121:ASP:O	1:H:125:THR:OG1	2.32	0.43
1:F:165:ALA:O	1:F:169:VAL:HG22	2.19	0.43
1:I:290:GLN:OE1	1:I:290:GLN:HA	2.18	0.43
1:L:398:ASP:O	1:L:401:HIS:N	2.51	0.43
1:C:185:ASP:HA	1:C:380:LYS:O	2.19	0.43
1:F:183:LEU:HD22	1:F:384:ALA:HA	2.01	0.43
2:U:13:LYS:O	2:U:13:LYS:HG3	2.19	0.43
1:J:8:PHE:O	1:J:9:GLY:C	2.57	0.43
1:F:179:ASP:OD1	1:F:389:MET:HG3	2.18	0.43
1:M:472:GLY:HA3	1:M:476:TYR:CD2	2.54	0.43
1:D:219:PHE:CB	1:D:317:LEU:HD13	2.45	0.43
2:O:55:LYS:N	2:O:55:LYS:CE	2.67	0.43
1:F:262:LEU:HA	1:F:265:ASN:HD22	1.82	0.43
1:E:266:THR:HA	1:E:271:VAL:O	2.18	0.43
1:G:31:LEU:HD23	1:G:453:GLN:HB3	2.00	0.43
1:E:207:LYS:CB	1:E:208:PRO:CD	2.93	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:228:SER:HA	1:G:255:GLU:CG	2.48	0.43
1:G:279:PRO:HD2	1:G:285:ARG:CB	2.49	0.43
1:G:281:PHE:CG	1:G:282:GLY:N	2.86	0.43
1:G:280:GLY:CA	1:G:284:ARG:HD2	2.49	0.43
1:I:318:GLY:O	1:I:319:GLN:CG	2.67	0.43
2:R:14:ARG:HH11	2:R:14:ARG:HB3	1.82	0.43
1:D:355:GLU:O	1:D:362:ARG:NH2	2.52	0.43
1:F:362:ARG:HA	1:F:365:LEU:HD13	2.01	0.43
1:F:200:LEU:N	1:F:200:LEU:CD1	2.82	0.43
1:B:510:VAL:HG23	1:B:511:ALA:H	1.82	0.43
1:L:171:LYS:HD3	1:L:407:VAL:HG11	2.01	0.43
2:U:43:VAL:HG13	2:U:57:LEU:HD12	2.01	0.43
1:D:417:VAL:O	1:D:420:ILE:CG2	2.59	0.43
1:L:326:ASN:O	1:L:328:ASP:N	2.51	0.43
2:S:68:ASN:HD22	2:T:74:LYS:HE3	1.83	0.43
1:M:291:ASP:OD1	1:M:368:ARG:NH2	2.51	0.43
1:M:364:LYS:O	1:M:365:LEU:C	2.56	0.43
1:L:353:ILE:HA	1:L:365:LEU:HD13	2.01	0.43
1:I:353:ILE:HG22	1:I:353:ILE:O	2.18	0.43
1:C:237:LEU:HD22	2:Q:26:VAL:CG2	2.42	0.43
1:B:436:GLN:O	1:B:440:ILE:HG13	2.18	0.43
1:K:323:VAL:HG23	1:K:331:THR:O	2.18	0.43
1:K:323:VAL:HG13	1:K:323:VAL:O	2.18	0.43
1:A:38:VAL:HG12	1:A:39:VAL:N	2.34	0.43
1:B:5:ASP:HB2	1:B:524:LEU:CD2	2.46	0.43
1:K:135:SER:HA	1:K:412:VAL:CG1	2.48	0.43
1:D:299:THR:N	1:D:316:ASP:O	2.52	0.43
1:N:479:ASN:O	1:N:483:GLU:N	2.51	0.43
1:M:202:PRO:C	1:M:204:PHE:N	2.72	0.43
1:N:56:VAL:O	1:N:57:ALA:C	2.55	0.43
1:K:15:LYS:HD3	1:K:15:LYS:HA	1.88	0.43
1:H:336:VAL:HG12	1:H:336:VAL:O	2.18	0.43
1:D:519:CYS:HB3	1:E:38:VAL:HG22	1.99	0.43
1:G:183:LEU:CD2	1:G:384:ALA:HA	2.49	0.43
1:G:384:ALA:N	1:G:388:GLU:OE1	2.50	0.43
1:J:120:ILE:O	1:J:121:ASP:C	2.56	0.43
1:E:451:LEU:C	1:E:451:LEU:HD23	2.39	0.43
1:A:272:LYS:NZ	1:A:272:LYS:HB2	2.34	0.43
1:D:177:VAL:HG11	1:D:397:GLU:CG	2.49	0.43
1:C:140:ASP:OD1	1:C:142:LYS:HB3	2.18	0.43
1:I:27:VAL:HG11	1:I:93:THR:HG21	2.01	0.43
1:B:220:ILE:HG23	1:B:248:LEU:HD12	2.01	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:206:ASN:CB	1:B:213:VAL:HA	2.49	0.43
1:D:302:SER:HB2	1:D:305:ILE:CB	2.46	0.43
1:F:233:MET:CE	1:F:237:LEU:HB2	2.49	0.43
1:F:240:VAL:O	1:F:241:ALA:C	2.57	0.43
1:F:249:ILE:HB	1:F:275:ALA:HB1	2.00	0.43
1:G:215:LEU:O	1:G:322:ARG:HG3	2.18	0.43
1:J:231:ARG:HH11	1:J:231:ARG:HB3	1.83	0.43
1:J:311:LYS:HD2	1:J:311:LYS:N	2.34	0.43
1:C:222:LEU:HD22	1:C:293:ALA:HB2	2.01	0.43
1:C:279:PRO:HD2	1:C:285:ARG:CB	2.49	0.43
1:C:346:VAL:HA	1:C:349:ILE:HD12	2.00	0.43
1:H:249:ILE:HD12	1:H:275:ALA:HB2	2.00	0.43
1:H:247:LEU:HB3	1:H:273:VAL:HG11	2.00	0.43
1:K:418:ALA:O	1:K:421:ARG:HB3	2.19	0.43
1:K:496:PRO:O	1:K:499:VAL:HG22	2.18	0.43
1:D:349:ILE:HG12	1:D:352:GLN:HE22	1.82	0.43
1:L:440:ILE:O	1:L:443:ALA:HB3	2.18	0.43
1:I:401:HIS:O	1:I:402:ALA:C	2.57	0.43
2:T:47:ARG:HD3	2:T:49:LEU:HB2	2.01	0.43
1:H:69:MET:O	1:H:70:GLY:C	2.56	0.43
1:L:385:THR:HG23	1:L:388:GLU:N	2.31	0.43
1:N:214:GLU:HG2	1:N:324:VAL:CG1	2.48	0.43
1:E:456:LEU:HD22	1:E:462:PRO:HG2	1.99	0.43
1:H:157:THR:O	1:H:161:LEU:CD1	2.64	0.43
1:C:496:PRO:HG2	1:C:499:VAL:CG1	2.49	0.43
2:P:4:ARG:O	2:P:5:PRO:O	2.37	0.43
2:T:73:VAL:O	2:T:74:LYS:HD3	2.19	0.43
1:N:220:ILE:HG23	1:N:248:LEU:HD12	2.01	0.43
1:N:112:ASN:C	1:N:112:ASN:OD1	2.57	0.43
2:T:20:LYS:HA	2:T:28:THR:HG23	2.01	0.43
1:A:397:GLU:O	1:A:398:ASP:C	2.55	0.43
1:L:37:ASN:HB3	1:L:51:LYS:HG3	2.00	0.43
1:A:95:LEU:HD13	1:A:504:LEU:HD23	2.01	0.43
1:N:302:SER:HB2	1:N:305:ILE:CG1	2.48	0.43
1:M:221:LEU:HD11	1:M:223:ALA:HB2	2.00	0.43
1:M:193:MET:CG	1:M:194:GLN:N	2.81	0.43
1:D:136:VAL:HA	1:D:137:PRO:HD3	1.79	0.43
1:B:39:VAL:HA	1:B:48:THR:O	2.18	0.43
1:H:202:PRO:C	1:H:204:PHE:H	2.21	0.43
1:N:81:ALA:HA	1:N:506:TYR:CD2	2.54	0.43
1:H:384:ALA:O	1:I:281:PHE:CZ	2.71	0.43
1:L:318:GLY:O	1:L:319:GLN:HG3	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:520:MET:HB3	1:F:520:MET:HE2	1.94	0.43
1:D:479:ASN:O	1:D:483:GLU:N	2.51	0.43
1:A:176:THR:OG1	1:A:378:VAL:HG22	2.18	0.43
1:C:302:SER:C	1:C:304:GLU:N	2.72	0.43
1:F:241:ALA:HB3	2:T:25:ILE:HD12	2.01	0.43
1:G:215:LEU:O	1:G:322:ARG:HA	2.19	0.43
1:E:293:ALA:O	1:E:294:THR:C	2.56	0.43
1:E:321:LYS:HD2	1:E:333:ILE:CG2	2.42	0.43
1:N:228:SER:O	1:N:257:GLU:HB3	2.19	0.43
1:N:221:LEU:HD22	1:N:222:LEU:N	2.33	0.43
1:L:249:ILE:CG2	1:L:250:ILE:N	2.81	0.43
1:C:249:ILE:HG22	1:C:250:ILE:N	2.34	0.43
1:C:254:VAL:HG12	1:C:259:LEU:HG	2.01	0.43
1:C:289:LEU:O	1:C:290:GLN:C	2.57	0.43
1:C:350:ARG:HA	1:C:353:ILE:HD12	2.00	0.43
1:J:221:LEU:CD1	1:J:221:LEU:C	2.85	0.43
1:L:130:GLU:HG3	1:L:426:LEU:HD22	2.01	0.43
1:L:41:ASP:HB2	1:M:69:MET:HE2	2.00	0.43
1:I:130:GLU:HG3	1:I:426:LEU:HD22	2.01	0.43
1:C:200:LEU:HD12	1:C:200:LEU:H	1.84	0.43
1:J:109:ALA:HB3	1:J:111:MET:CE	2.48	0.43
2:S:67:PHE:HE1	2:S:69:ASP:HB2	1.84	0.43
1:J:383:ALA:HB3	1:J:389:MET:HA	2.00	0.43
1:J:411:VAL:HG21	1:J:494:LEU:HD12	2.00	0.43
1:L:34:LYS:HB2	1:L:458:CYS:HG	1.79	0.43
2:S:47:ARG:HD3	2:S:49:LEU:HB2	2.01	0.43
1:M:351:GLN:O	1:M:354:GLU:CB	2.67	0.43
1:M:328:ASP:OD1	1:M:328:ASP:N	2.52	0.43
1:H:169:VAL:CG1	1:H:173:GLY:HA3	2.42	0.43
1:N:112:ASN:OD1	1:N:114:MET:N	2.52	0.43
1:D:486:GLY:HA3	1:D:491:MET:HE2	2.00	0.43
1:N:351:GLN:O	1:N:354:GLU:CB	2.67	0.43
1:I:109:ALA:HB3	1:I:111:MET:CE	2.49	0.43
1:L:286:LYS:CE	1:L:286:LYS:HA	2.45	0.43
1:A:401:HIS:O	1:A:404:ARG:HB2	2.18	0.43
1:D:401:HIS:O	1:D:404:ARG:HB2	2.19	0.43
1:N:401:HIS:O	1:N:404:ARG:N	2.52	0.43
2:T:50:GLU:OE1	2:U:50:GLU:HA	2.18	0.43
2:T:40:VAL:CG2	2:T:63:ASP:HB2	2.49	0.43
1:C:488:MET:HE3	1:C:493:ILE:HB	1.99	0.43
1:F:482:THR:OG1	1:F:484:GLU:HG2	2.19	0.43
1:G:7:LYS:HD2	1:G:66:PHE:CD2	2.53	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:138:CYS:SG	1:M:144:ILE:HD13	2.59	0.43
1:E:519:CYS:SG	1:E:520:MET:N	2.92	0.43
1:L:272:LYS:HE3	1:L:272:LYS:HB2	1.87	0.43
1:J:72:GLN:NE2	1:J:72:GLN:HA	2.34	0.43
2:T:59:VAL:HG23	2:T:59:VAL:O	2.18	0.43
1:I:391:GLU:O	1:I:394:ALA:HB3	2.19	0.43
1:H:80:LYS:O	1:H:83:ASP:HB2	2.19	0.43
1:I:487:ASN:O	1:I:491:MET:HG3	2.19	0.43
1:B:220:ILE:CD1	1:B:220:ILE:N	2.81	0.43
1:B:266:THR:HA	1:B:271:VAL:O	2.19	0.43
1:D:322:ARG:CB	1:D:333:ILE:HD12	2.29	0.43
1:B:213:VAL:O	1:B:324:VAL:HA	2.18	0.43
1:F:222:LEU:CD2	1:F:293:ALA:HB2	2.47	0.43
1:A:267:MET:C	1:A:269:GLY:N	2.71	0.43
1:A:220:ILE:N	1:A:318:GLY:O	2.48	0.43
1:B:239:ALA:HB1	1:B:314:LEU:HD23	2.01	0.43
1:J:227:ILE:O	1:J:254:VAL:HA	2.19	0.43
1:K:233:MET:HE2	1:K:233:MET:CA	2.46	0.43
2:U:27:LEU:O	2:U:27:LEU:HD23	2.19	0.43
1:H:49:ILE:HD11	1:I:73:MET:HE3	2.01	0.43
1:D:456:LEU:C	1:D:458:CYS:H	2.23	0.43
1:C:456:LEU:C	1:C:458:CYS:H	2.21	0.43
2:U:65:VAL:CG1	2:U:94:ILE:HG12	2.35	0.43
1:N:385:THR:HG22	1:N:388:GLU:HB3	2.01	0.43
2:S:14:ARG:CB	2:S:14:ARG:NH1	2.82	0.43
1:A:456:LEU:HD13	1:A:462:PRO:HG2	1.98	0.43
1:H:349:ILE:O	1:H:352:GLN:HB2	2.17	0.43
1:H:356:ALA:HB1	1:H:362:ARG:NE	2.26	0.43
2:P:5:PRO:HD3	2:P:42:ALA:CB	2.48	0.43
2:O:94:ILE:N	2:P:4:ARG:O	2.51	0.43
1:M:351:GLN:O	1:M:354:GLU:HB3	2.19	0.43
1:M:354:GLU:O	1:M:355:GLU:C	2.56	0.43
1:M:101:THR:O	1:M:105:LYS:HG3	2.18	0.43
1:M:90:THR:O	1:M:94:VAL:HG23	2.18	0.43
1:C:73:MET:O	1:C:74:VAL:C	2.57	0.43
1:L:414:GLY:HA2	1:L:495:ASP:OD2	2.19	0.43
1:J:124:VAL:HG13	1:J:504:LEU:HD11	1.99	0.43
1:I:203:TYR:HB2	1:I:263:VAL:HG13	2.00	0.43
1:N:302:SER:HB2	1:N:305:ILE:HG13	2.00	0.43
1:G:84:ALA:HB2	1:G:506:TYR:CE2	2.51	0.43
1:E:438:VAL:O	1:E:442:VAL:HG23	2.19	0.43
1:N:343:GLN:O	1:N:346:VAL:HB	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:R:12:VAL:HG12	2:R:40:VAL:HA	2.01	0.43
1:D:130:GLU:O	1:D:133:ALA:HB3	2.19	0.43
1:M:391:GLU:OE1	1:M:395:ARG:HD3	2.18	0.43
1:M:15:LYS:HD3	1:M:15:LYS:HA	1.83	0.43
1:B:76:GLU:HA	1:B:79:SER:HB3	2.01	0.43
1:G:233:MET:HE2	1:G:237:LEU:HB2	2.01	0.42
1:D:249:ILE:HB	1:D:275:ALA:HB1	1.96	0.42
1:D:259:LEU:O	1:D:263:VAL:N	2.48	0.42
1:G:14:VAL:O	1:G:15:LYS:C	2.57	0.42
1:F:219:PHE:HD1	1:F:319:GLN:HE21	1.66	0.42
1:C:222:LEU:HD22	1:C:300:VAL:HG22	1.99	0.42
1:C:250:ILE:O	1:C:251:ALA:HB2	2.19	0.42
1:C:289:LEU:N	1:C:290:GLN:OE1	2.45	0.42
1:J:266:THR:HG22	1:J:273:VAL:H	1.84	0.42
1:A:214:GLU:O	1:A:322:ARG:HD3	2.19	0.42
1:G:211:GLY:O	1:G:325:ILE:O	2.37	0.42
1:F:456:LEU:HA	1:F:456:LEU:HD12	1.86	0.42
1:H:389:MET:HE1	1:H:393:LYS:HB2	2.00	0.42
1:A:353:ILE:HG22	1:A:354:GLU:N	2.34	0.42
1:F:353:ILE:O	1:F:355:GLU:N	2.52	0.42
1:K:17:LEU:HA	1:K:20:VAL:CG1	2.49	0.42
1:B:362:ARG:HA	1:B:365:LEU:HD13	2.01	0.42
1:H:362:ARG:HB3	1:H:362:ARG:HH11	1.84	0.42
1:H:364:LYS:O	1:H:365:LEU:C	2.57	0.42
1:B:368:ARG:HG2	1:B:372:LEU:CG	2.46	0.42
1:H:158:VAL:C	1:H:160:LYS:N	2.71	0.42
1:E:309:LEU:O	1:E:310:GLU:C	2.57	0.42
1:F:279:PRO:CB	1:F:288:MET:HE1	2.48	0.42
1:F:291:ASP:O	1:F:295:LEU:HB2	2.18	0.42
1:H:205:ILE:HD13	1:H:211:GLY:CA	2.42	0.42
1:M:107:VAL:HG11	1:M:515:ILE:HG23	2.00	0.42
1:K:200:LEU:HD11	1:K:276:VAL:HA	1.99	0.42
1:M:465:VAL:HG11	1:M:478:TYR:CD2	2.54	0.42
1:D:95:LEU:HD13	1:D:504:LEU:HD23	2.01	0.42
1:F:150:ILE:HD11	4:F:1:ADP:C8	2.54	0.42
1:E:267:MET:C	1:E:269:GLY:H	2.23	0.42
2:T:3:ILE:N	2:T:3:ILE:HD12	2.34	0.42
1:M:402:ALA:O	1:M:405:ALA:HB3	2.19	0.42
1:G:479:ASN:HB3	1:G:482:THR:OG1	2.19	0.42
1:I:472:GLY:HA3	1:I:476:TYR:HD2	1.84	0.42
1:D:409:GLU:O	1:D:409:GLU:HG2	2.18	0.42
1:B:385:THR:OG1	1:B:388:GLU:HB2	2.18	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:226:LYS:HG3	1:I:252:GLU:HB3	2.01	0.42
1:A:87:ASP:OD1	1:A:88:GLY:N	2.51	0.42
1:G:114:MET:O	1:G:118:ARG:HG3	2.19	0.42
1:B:59:GLU:OE1	1:B:59:GLU:HA	2.19	0.42
1:M:432:GLN:N	1:M:432:GLN:OE1	2.52	0.42
2:S:3:ILE:HD12	2:S:3:ILE:H	1.83	0.42
1:N:508:ALA:O	1:N:509:SER:C	2.56	0.42
1:A:155:ASP:OD1	1:A:157:THR:HB	2.19	0.42
1:B:488:MET:CE	1:B:493:ILE:HG21	2.49	0.42
1:C:232:GLU:O	1:C:310:GLU:OE2	2.37	0.42
1:K:350:ARG:HE	1:K:369:VAL:CG1	2.33	0.42
1:E:266:THR:HG22	1:E:273:VAL:N	2.29	0.42
1:C:261:THR:O	1:C:265:ASN:ND2	2.52	0.42
1:C:288:MET:HG2	1:C:368:ARG:HE	1.83	0.42
1:G:245:LYS:HE2	1:G:245:LYS:CA	2.38	0.42
1:L:95:LEU:O	1:L:96:ALA:C	2.56	0.42
1:E:302:SER:CB	1:E:305:ILE:HB	2.47	0.42
1:H:349:ILE:O	1:H:350:ARG:C	2.58	0.42
1:B:277:LYS:HD3	1:B:285:ARG:NH2	2.20	0.42
1:B:292:ILE:O	1:B:295:LEU:HB3	2.19	0.42
1:L:339:GLU:O	1:L:340:ALA:C	2.58	0.42
1:J:326:ASN:ND2	1:J:328:ASP:H	2.17	0.42
1:E:487:ASN:OD1	1:E:489:ILE:N	2.52	0.42
1:M:197:ARG:HG2	1:M:277:LYS:O	2.19	0.42
1:E:88:GLY:O	1:E:91:THR:HB	2.19	0.42
1:K:420:ILE:HG13	1:K:451:LEU:HD22	2.01	0.42
1:L:420:ILE:HG23	1:L:470:LYS:HD3	2.01	0.42
1:M:90:THR:O	1:M:93:THR:HB	2.19	0.42
1:I:354:GLU:HG3	1:I:355:GLU:N	2.33	0.42
1:B:449:ALA:O	1:B:450:PRO:C	2.57	0.42
1:K:107:VAL:CG2	1:K:108:ALA:H	2.32	0.42
1:C:433:ASN:ND2	1:C:435:ASP:HB2	2.31	0.42
1:K:194:GLN:CG	1:K:331:THR:HB	2.48	0.42
1:M:400:LEU:O	1:M:400:LEU:HD23	2.19	0.42
1:N:420:ILE:CG2	1:N:470:LYS:HD3	2.50	0.42
1:F:150:ILE:HD11	4:F:1:ADP:N7	2.34	0.42
1:N:57:ALA:O	1:N:58:ARG:C	2.58	0.42
1:E:41:ASP:O	1:E:42:LYS:CG	2.67	0.42
1:C:178:GLU:O	1:C:380:LYS:HA	2.18	0.42
1:L:299:THR:OG1	1:L:316:ASP:HA	2.19	0.42
1:L:172:GLU:N	1:L:172:GLU:OE1	2.52	0.42
1:D:293:ALA:O	1:D:297:GLY:N	2.52	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:192:GLY:C	1:K:376:VAL:HG23	2.39	0.42
1:C:128:VAL:O	1:C:129:GLU:C	2.57	0.42
1:B:27:VAL:HG13	1:B:53:GLY:HA2	2.00	0.42
1:F:206:ASN:HB3	1:F:214:GLU:N	2.33	0.42
1:B:266:THR:HG22	1:B:273:VAL:N	2.31	0.42
1:C:305:ILE:HG21	1:D:263:VAL:HG11	2.01	0.42
1:D:302:SER:C	1:D:304:GLU:H	2.23	0.42
1:A:219:PHE:HD1	1:A:319:GLN:NE2	2.03	0.42
2:O:20:LYS:CG	2:O:27:LEU:HD23	2.49	0.42
1:C:230:ILE:C	1:C:232:GLU:N	2.71	0.42
1:A:14:VAL:O	1:A:18:ARG:HG3	2.19	0.42
1:M:233:MET:O	1:M:234:LEU:C	2.57	0.42
1:M:258:ALA:O	1:M:261:THR:OG1	2.36	0.42
1:H:221:LEU:CD1	1:H:223:ALA:H	2.33	0.42
1:A:325:ILE:N	1:A:325:ILE:CD1	2.79	0.42
1:L:149:THR:H	1:L:159:GLY:HA3	1.83	0.42
1:F:455:VAL:HG11	1:F:462:PRO:HA	2.02	0.42
1:K:130:GLU:HG3	1:K:426:LEU:HD22	2.01	0.42
1:B:456:LEU:HD13	1:B:462:PRO:HG2	2.00	0.42
1:I:17:LEU:HA	1:I:20:VAL:CG1	2.49	0.42
1:L:24:ALA:O	1:L:28:LYS:HG2	2.20	0.42
1:M:66:PHE:HA	1:M:520:MET:CE	2.49	0.42
1:C:205:ILE:HG12	1:C:211:GLY:HA2	2.01	0.42
1:J:218:PRO:CB	1:J:246:PRO:HB2	2.49	0.42
1:G:411:VAL:HG12	1:G:496:PRO:CA	2.39	0.42
1:F:203:TYR:H	1:F:203:TYR:HD1	1.65	0.42
1:E:136:VAL:HA	1:E:137:PRO:HD3	1.86	0.42
2:T:34:LYS:HG3	2:T:35:SER:N	2.26	0.42
1:E:235:PRO:HG2	1:E:236:VAL:HG23	2.01	0.42
1:J:415:GLY:H	1:J:417:VAL:CG2	2.26	0.42
1:L:325:ILE:N	1:L:325:ILE:CD1	2.82	0.42
1:J:420:ILE:CD1	1:J:448:GLU:HG2	2.50	0.42
1:N:290:GLN:HB3	1:N:345:ARG:HH21	1.84	0.42
1:B:494:LEU:N	1:B:494:LEU:HD23	2.34	0.42
1:L:77:VAL:HG22	1:L:506:TYR:HB3	2.01	0.42
2:T:40:VAL:HG21	2:T:63:ASP:HB2	2.00	0.42
1:K:399:ALA:O	1:K:400:LEU:C	2.58	0.42
1:N:72:GLN:HE21	1:N:72:GLN:HA	1.84	0.42
1:N:501:ARG:NH1	1:N:505:GLN:OE1	2.51	0.42
1:M:37:ASN:HB3	1:M:51:LYS:CG	2.49	0.42
1:B:509:SER:HB3	1:C:385:THR:HG23	2.01	0.42
1:G:40:LEU:HD13	1:G:59:GLU:HG3	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:309:LEU:HD12	1:F:309:LEU:N	2.34	0.42
1:A:220:ILE:H	1:A:220:ILE:CD1	2.31	0.42
1:A:262:LEU:O	1:A:266:THR:HG23	2.19	0.42
1:E:256:GLY:HA2	1:E:259:LEU:HB2	2.01	0.42
1:G:299:THR:N	1:G:316:ASP:O	2.52	0.42
1:J:248:LEU:HD22	1:J:249:ILE:N	2.32	0.42
1:D:278:ALA:CB	1:D:279:PRO:CD	2.95	0.42
1:I:414:GLY:N	1:I:494:LEU:HA	2.33	0.42
1:K:164:GLU:O	1:K:167:ASP:HB3	2.18	0.42
1:G:54:VAL:O	1:G:58:ARG:HG3	2.19	0.42
1:B:224:ASP:HB2	1:B:303:GLU:CB	2.42	0.42
2:S:7:HIS:O	2:S:8:ASP:CB	2.57	0.42
1:I:95:LEU:O	1:I:96:ALA:C	2.58	0.42
1:L:412:VAL:O	1:L:494:LEU:HB2	2.20	0.42
1:H:112:ASN:HA	1:H:113:PRO:HD3	1.73	0.42
1:F:7:LYS:HD2	1:F:66:PHE:CD2	2.55	0.42
1:L:74:VAL:O	1:L:75:LYS:C	2.57	0.42
1:E:5:ASP:HB2	1:E:524:LEU:CD2	2.47	0.42
1:A:23:LEU:HD23	1:A:60:ILE:HB	2.01	0.42
1:I:187:LEU:HD23	1:I:188:ASP:N	2.34	0.42
1:E:38:VAL:HG12	1:E:39:VAL:N	2.34	0.42
1:L:178:GLU:O	1:L:380:LYS:HA	2.19	0.42
1:G:59:GLU:OE1	1:G:59:GLU:HA	2.19	0.42
1:I:184:GLN:HA	1:I:184:GLN:OE1	2.19	0.42
1:C:42:LYS:HE2	1:C:48:THR:HB	2.00	0.42
1:F:216:GLU:HA	1:F:216:GLU:OE1	2.19	0.42
1:F:194:GLN:HG3	1:F:331:THR:OG1	2.20	0.42
1:A:221:LEU:HD13	1:A:317:LEU:CD2	2.49	0.42
1:A:247:LEU:HD13	1:A:248:LEU:O	2.18	0.42
1:B:235:PRO:O	1:B:239:ALA:HB2	2.20	0.42
1:E:265:ASN:HB3	1:E:271:VAL:CG2	2.47	0.42
1:E:199:TYR:CE1	1:E:327:LYS:HG3	2.54	0.42
1:E:349:ILE:CG2	1:E:365:LEU:HD21	2.50	0.42
1:K:221:LEU:CD1	1:K:221:LEU:C	2.87	0.42
1:K:236:VAL:HG23	1:K:237:LEU:H	1.85	0.42
1:G:203:TYR:CD1	1:G:203:TYR:N	2.87	0.42
1:N:126:ALA:HB1	1:N:426:LEU:HD13	2.00	0.42
1:N:130:GLU:HB3	1:N:422:VAL:HG12	2.01	0.42
1:D:291:ASP:OD1	1:D:292:ILE:N	2.52	0.42
1:D:352:GLN:C	1:D:365:LEU:HD11	2.39	0.42
1:I:520:MET:HB3	1:I:520:MET:HE2	1.84	0.42
1:A:302:SER:HB2	1:A:305:ILE:CB	2.48	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:433:ASN:HD22	1:M:434:GLU:N	2.15	0.42
1:I:200:LEU:N	1:I:200:LEU:HD12	2.35	0.42
1:H:149:THR:H	1:H:159:GLY:HA3	1.84	0.42
2:U:43:VAL:HG23	2:U:61:VAL:HG22	2.02	0.42
2:Q:17:VAL:CG1	2:Q:34:LYS:HA	2.49	0.42
1:M:386:GLU:HG2	1:M:390:LYS:HE2	2.01	0.42
1:C:131:LEU:HD23	1:C:422:VAL:HG11	2.00	0.42
1:E:54:VAL:HG13	1:E:55:SER:N	2.35	0.42
1:M:218:PRO:CG	1:M:246:PRO:HB2	2.48	0.42
2:O:4:ARG:HA	2:O:5:PRO:HD2	1.86	0.42
1:E:450:PRO:O	1:E:454:ILE:HG13	2.18	0.42
1:N:149:THR:HG21	1:N:156:GLU:HA	1.99	0.42
1:N:354:GLU:CG	1:N:355:GLU:N	2.83	0.42
1:D:401:HIS:O	1:D:404:ARG:N	2.52	0.42
1:J:155:ASP:CG	1:J:158:VAL:HG23	2.39	0.42
2:R:78:ILE:CD1	2:R:78:ILE:N	2.82	0.42
1:K:414:GLY:N	1:K:494:LEU:HA	2.35	0.42
1:B:29:VAL:HG23	1:B:30:THR:CG2	2.47	0.42
1:F:150:ILE:HG21	1:F:494:LEU:O	2.18	0.42
1:N:185:ASP:HA	1:N:380:LYS:O	2.20	0.42
1:E:80:LYS:HD2	1:E:506:TYR:CZ	2.54	0.42
1:H:128:VAL:O	1:H:132:LYS:HG3	2.19	0.42
1:M:222:LEU:HD11	1:M:293:ALA:HA	2.02	0.42
1:E:183:LEU:HD22	1:E:384:ALA:HA	2.02	0.42
1:H:37:ASN:O	1:I:517:THR:HA	2.20	0.42
1:A:7:LYS:HD2	1:A:66:PHE:CD2	2.55	0.42
1:H:40:LEU:HD23	1:H:50:THR:HG22	2.00	0.42
1:E:193:MET:O	1:E:331:THR:HG23	2.19	0.42
1:I:323:VAL:O	1:I:323:VAL:HG13	2.20	0.42
1:J:172:GLU:OE1	1:J:172:GLU:N	2.53	0.42
1:E:405:ALA:HA	1:E:408:GLU:HG2	2.01	0.42
1:B:259:LEU:O	1:B:260:ALA:C	2.57	0.42
1:D:206:ASN:HB3	1:D:214:GLU:H	1.85	0.42
1:G:206:ASN:HB3	1:G:214:GLU:N	2.33	0.42
1:B:314:LEU:C	1:B:314:LEU:HD12	2.39	0.42
1:E:288:MET:O	1:E:289:LEU:HG	2.19	0.42
1:K:266:THR:CG2	1:K:273:VAL:H	2.32	0.42
1:I:233:MET:O	1:I:234:LEU:C	2.58	0.42
1:C:263:VAL:HG12	1:C:267:MET:SD	2.59	0.42
1:C:296:THR:HG22	1:C:335:GLY:CA	2.42	0.42
1:H:313:THR:CG2	1:H:314:LEU:N	2.83	0.42
1:L:66:PHE:HA	1:L:520:MET:CE	2.49	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:419:LEU:O	1:J:422:VAL:HG22	2.20	0.42
1:K:419:LEU:HD21	1:K:500:THR:HG23	2.00	0.42
1:K:419:LEU:HA	1:K:422:VAL:HG22	2.01	0.42
1:A:278:ALA:O	1:A:279:PRO:O	2.37	0.42
1:A:350:ARG:HD3	1:A:350:ARG:HA	1.83	0.42
1:D:288:MET:O	1:D:289:LEU:HG	2.20	0.42
1:D:361:ASP:C	1:D:363:GLU:H	2.22	0.42
1:L:419:LEU:O	1:L:422:VAL:HG22	2.20	0.42
1:F:349:ILE:HG23	1:F:365:LEU:HD21	2.00	0.42
1:I:130:GLU:O	1:I:133:ALA:HB3	2.19	0.42
1:H:66:PHE:HD1	1:H:520:MET:HE2	1.83	0.42
2:P:47:ARG:HD2	2:P:55:LYS:HD2	2.01	0.42
1:L:381:VAL:HB	1:L:389:MET:HE3	2.02	0.42
1:K:433:ASN:ND2	1:K:434:GLU:N	2.67	0.42
1:L:171:LYS:HD3	1:L:407:VAL:CG1	2.49	0.42
1:H:361:ASP:O	1:H:365:LEU:HG	2.19	0.42
1:J:95:LEU:O	1:J:96:ALA:C	2.58	0.42
1:N:104:LEU:O	1:N:107:VAL:HG22	2.19	0.42
2:O:5:PRO:HG3	2:O:43:VAL:C	2.39	0.42
1:D:147:VAL:CA	1:D:150:ILE:HG22	2.50	0.42
1:G:177:VAL:CG1	1:G:397:GLU:HG2	2.48	0.42
1:I:112:ASN:OD1	1:I:114:MET:N	2.52	0.42
1:H:200:LEU:HD12	1:H:200:LEU:N	2.34	0.42
1:H:253:ASP:OD2	1:H:277:LYS:HD3	2.19	0.42
1:A:41:ASP:O	1:A:42:LYS:CG	2.67	0.42
1:I:277:LYS:HZ2	1:I:277:LYS:HB2	1.83	0.42
1:G:180:GLY:HA2	1:G:380:LYS:HB3	2.00	0.42
1:E:434:GLU:HA	1:E:437:ASN:HD22	1.85	0.42
1:E:113:PRO:O	1:E:116:LEU:HB2	2.20	0.42
1:C:5:ASP:O	1:C:66:PHE:HZ	2.02	0.42
1:N:19:GLY:HA3	1:N:67:GLU:O	2.20	0.42
1:C:430:ARG:HG2	1:C:430:ARG:NH1	2.35	0.42
1:N:476:TYR:HA	1:N:486:GLY:O	2.19	0.42
1:F:72:GLN:NE2	1:F:72:GLN:HA	2.34	0.42
1:F:116:LEU:O	1:F:120:ILE:HG13	2.19	0.42
1:A:236:VAL:O	1:A:239:ALA:HB3	2.20	0.42
1:E:339:GLU:HA	1:E:342:ILE:CB	2.48	0.42
1:E:357:THR:O	1:E:359:ASP:N	2.53	0.42
1:N:232:GLU:OE1	1:N:232:GLU:N	2.37	0.42
1:K:230:ILE:O	1:K:231:ARG:C	2.58	0.42
1:C:220:ILE:N	1:C:220:ILE:CD1	2.82	0.42
1:A:200:LEU:H	1:A:200:LEU:HD12	1.85	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:348:GLN:NE2	1:G:352:GLN:HE21	2.15	0.42
2:U:20:LYS:HG2	2:U:27:LEU:HD23	2.00	0.42
1:A:252:GLU:O	1:A:277:LYS:HE2	2.20	0.42
1:D:496:PRO:O	1:D:497:THR:C	2.56	0.42
1:B:207:LYS:HZ2	1:B:207:LYS:HB2	1.83	0.42
1:A:456:LEU:HA	1:A:456:LEU:HD12	1.86	0.42
1:B:134:LEU:HD11	1:B:425:LYS:HZ1	1.82	0.42
1:C:411:VAL:HG12	1:C:496:PRO:CA	2.43	0.42
1:I:433:ASN:ND2	1:I:434:GLU:N	2.68	0.42
1:N:272:LYS:HE3	1:N:272:LYS:HB2	1.68	0.42
2:S:7:HIS:ND1	2:S:7:HIS:O	2.52	0.42
1:M:353:ILE:HA	1:M:365:LEU:HD12	2.00	0.42
1:L:349:ILE:HA	1:L:352:GLN:NE2	2.35	0.42
1:F:128:VAL:CG1	1:F:132:LYS:HE2	2.49	0.42
1:N:348:GLN:O	1:N:351:GLN:HB3	2.19	0.42
1:M:203:TYR:CD1	1:M:203:TYR:N	2.88	0.42
1:C:301:ILE:HG12	1:C:307:MET:CE	2.50	0.42
2:S:41:LEU:O	2:S:61:VAL:HG13	2.19	0.42
1:J:140:ASP:O	1:J:144:ILE:HG12	2.19	0.42
1:N:349:ILE:O	1:N:350:ARG:C	2.58	0.42
1:G:339:GLU:O	1:G:343:GLN:OE1	2.36	0.42
1:F:88:GLY:HA2	4:F:1:ADP:O2B	2.20	0.42
2:T:44:GLY:O	2:T:45:ASN:C	2.58	0.42
1:K:77:VAL:HG11	1:K:510:VAL:HB	2.00	0.42
1:N:30:THR:HB	1:N:51:LYS:O	2.19	0.42
1:L:478:TYR:HB2	1:L:485:TYR:CE2	2.55	0.42
1:K:37:ASN:ND2	1:K:37:ASN:H	2.18	0.42
1:K:37:ASN:HB3	1:K:51:LYS:CG	2.50	0.42
1:H:432:GLN:N	1:H:432:GLN:OE1	2.53	0.42
1:I:165:ALA:O	1:I:168:LYS:HB2	2.20	0.42
1:G:473:ASP:O	1:G:474:GLY:C	2.58	0.42
2:U:31:ALA:O	2:U:32:ALA:HB3	2.20	0.42
1:B:272:LYS:NZ	1:B:272:LYS:CB	2.83	0.42
1:A:241:ALA:HA	1:A:271:VAL:HG12	2.01	0.42
1:E:326:ASN:HD21	1:E:328:ASP:HB2	1.83	0.42
1:E:345:ARG:O	1:E:349:ILE:HG13	2.19	0.42
1:E:7:LYS:HD2	1:E:66:PHE:CD2	2.55	0.42
1:L:270:ILE:HG22	1:L:271:VAL:N	2.34	0.42
1:G:273:VAL:O	1:G:274:ALA:HB2	2.20	0.42
1:G:279:PRO:CB	1:G:285:ARG:HA	2.47	0.42
1:L:152:ALA:HB1	1:L:158:VAL:HG21	2.02	0.42
1:A:290:GLN:O	1:A:294:THR:HG23	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:349:ILE:HA	1:D:352:GLN:HE21	1.76	0.42
1:D:368:ARG:O	1:D:369:VAL:C	2.58	0.42
1:C:195:PHE:CE1	1:C:330:THR:HB	2.55	0.42
2:U:8:ASP:OD2	2:U:87:SER:HB2	2.20	0.42
1:H:130:GLU:O	1:H:133:ALA:HB3	2.19	0.42
1:C:417:VAL:HA	1:C:420:ILE:CG2	2.49	0.42
1:M:218:PRO:HB3	1:M:246:PRO:O	2.19	0.42
1:L:349:ILE:O	1:L:350:ARG:C	2.57	0.42
1:A:147:VAL:HA	1:A:150:ILE:HG22	2.01	0.42
2:Q:7:HIS:HB3	2:Q:45:ASN:HD22	1.85	0.42
1:F:302:SER:O	1:F:305:ILE:N	2.50	0.42
1:N:354:GLU:HG2	1:N:355:GLU:H	1.85	0.42
1:K:112:ASN:OD1	1:K:114:MET:N	2.52	0.42
1:D:434:GLU:HA	1:D:437:ASN:HD22	1.85	0.42
1:D:433:ASN:OD1	1:D:436:GLN:HB2	2.20	0.42
1:J:455:VAL:CG1	1:J:460:GLU:HB2	2.48	0.42
1:B:267:MET:C	1:B:269:GLY:H	2.21	0.42
1:K:226:LYS:HG3	1:K:252:GLU:CB	2.48	0.42
2:T:9:ARG:NH1	2:T:86:MET:HA	2.35	0.42
1:N:475:ASN:ND2	1:N:489:ILE:HD12	2.35	0.42
1:E:475:ASN:ND2	1:E:475:ASN:N	2.67	0.42
1:M:402:ALA:O	1:M:406:ALA:N	2.40	0.42
1:A:409:GLU:OE1	1:A:501:ARG:NH2	2.52	0.42
1:F:23:LEU:HD23	1:F:60:ILE:HB	2.02	0.42
1:G:430:ARG:HG2	1:G:430:ARG:NH1	2.35	0.42
1:M:152:ALA:O	1:M:153:ASN:HB3	2.20	0.42
1:F:185:ASP:HA	1:F:380:LYS:O	2.20	0.42
1:I:44:PHE:CD1	1:I:44:PHE:N	2.88	0.42
1:E:441:LYS:HA	1:E:441:LYS:HD2	1.80	0.42
1:N:44:PHE:N	1:N:44:PHE:CD1	2.87	0.42
1:M:192:GLY:C	1:M:376:VAL:HG23	2.39	0.42
1:B:246:PRO:HB3	1:B:272:LYS:HZ2	1.84	0.42
1:C:206:ASN:HB2	1:C:214:GLU:H	1.84	0.42
2:Q:46:GLY:HA3	2:Q:55:LYS:O	2.19	0.42
1:E:218:PRO:HA	1:E:246:PRO:O	2.20	0.42
1:J:359:ASP:O	1:J:363:GLU:CB	2.68	0.42
1:I:233:MET:HB3	1:I:237:LEU:HB2	2.01	0.42
1:C:278:ALA:CB	1:C:279:PRO:CD	2.87	0.42
2:Q:20:LYS:HA	2:Q:28:THR:CG2	2.50	0.42
1:J:345:ARG:HH22	1:J:368:ARG:HH22	1.67	0.42
1:N:17:LEU:HA	1:N:20:VAL:CG1	2.50	0.42
1:L:7:LYS:HG3	1:L:66:PHE:CZ	2.54	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:349:ILE:HG22	1:G:349:ILE:O	2.19	0.42
1:G:270:ILE:HD11	2:U:27:LEU:HD13	2.00	0.42
2:R:47:ARG:HD3	2:R:49:LEU:CD1	2.43	0.42
1:B:456:LEU:HD13	1:B:462:PRO:HG3	1.99	0.42
1:A:222:LEU:HD22	1:A:293:ALA:HB2	2.02	0.42
1:G:208:PRO:HB2	1:G:212:ALA:HB3	2.01	0.42
2:P:55:LYS:N	2:P:55:LYS:HE2	2.23	0.42
1:G:496:PRO:O	1:G:497:THR:C	2.58	0.42
1:N:214:GLU:HG2	1:N:324:VAL:HG12	2.00	0.42
1:B:357:THR:HB	1:B:361:ASP:CB	2.49	0.42
2:U:7:HIS:ND1	2:U:7:HIS:O	2.53	0.42
2:Q:11:ILE:CB	2:Q:42:ALA:HB3	2.42	0.42
1:J:384:ALA:O	1:K:281:PHE:CZ	2.72	0.42
1:A:451:LEU:O	1:A:454:ILE:HB	2.19	0.42
1:L:345:ARG:HA	1:L:348:GLN:HE21	1.84	0.42
1:I:158:VAL:O	1:I:159:GLY:C	2.56	0.42
1:D:147:VAL:C	1:D:150:ILE:HG22	2.41	0.42
1:G:177:VAL:HG22	1:G:393:LYS:HG3	2.01	0.42
1:F:177:VAL:CG1	1:F:397:GLU:CG	2.97	0.42
1:C:301:ILE:O	1:C:303:GLU:N	2.47	0.42
2:P:14:ARG:CB	2:P:14:ARG:HH11	2.33	0.42
1:B:227:ILE:CD1	1:B:227:ILE:N	2.79	0.42
1:K:354:GLU:CG	1:K:355:GLU:N	2.83	0.42
1:M:201:SER:HA	1:M:202:PRO:HD3	1.90	0.42
1:L:19:GLY:HA3	1:L:67:GLU:O	2.19	0.42
1:G:451:LEU:CD2	1:G:451:LEU:C	2.89	0.42
1:G:383:ALA:HB3	1:G:389:MET:HE1	2.00	0.42
1:E:517:THR:HG23	1:F:39:VAL:HG23	2.01	0.42
1:G:158:VAL:O	1:G:159:GLY:C	2.58	0.42
1:N:323:VAL:CG2	1:N:332:ILE:HG22	2.49	0.42
1:C:117:LYS:HG2	1:C:121:ASP:OD2	2.19	0.42
1:L:453:GLN:O	1:L:456:LEU:HB3	2.20	0.42
2:U:16:GLU:CB	2:U:19:THR:OG1	2.67	0.42
1:N:38:VAL:HG12	1:N:39:VAL:N	2.34	0.42
1:F:194:GLN:HG2	1:F:195:PHE:N	2.34	0.42
1:D:202:PRO:HG2	1:D:203:TYR:CE1	2.54	0.42
1:D:262:LEU:HD11	1:D:273:VAL:HB	2.01	0.42
1:D:296:THR:HA	1:D:335:GLY:HA3	2.02	0.42
1:F:259:LEU:O	1:F:263:VAL:N	2.50	0.42
1:C:232:GLU:O	1:C:233:MET:CB	2.66	0.42
1:C:233:MET:O	1:C:233:MET:HE2	2.20	0.42
1:E:325:ILE:HG22	1:E:326:ASN:O	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:232:GLU:HA	1:N:310:GLU:CG	2.50	0.42
1:J:228:SER:O	1:J:258:ALA:N	2.53	0.42
1:C:293:ALA:O	1:C:296:THR:N	2.53	0.42
1:H:389:MET:CE	1:H:389:MET:C	2.87	0.42
1:A:295:LEU:C	1:A:295:LEU:CD2	2.88	0.42
1:D:279:PRO:HB2	1:D:285:ARG:HA	2.02	0.42
1:M:64:ASP:C	1:M:65:LYS:O	2.52	0.42
1:J:449:ALA:CB	1:J:450:PRO:HD3	2.35	0.42
1:E:240:VAL:C	1:E:242:LYS:N	2.73	0.42
2:T:93:ALA:HB1	2:U:4:ARG:O	2.20	0.42
1:E:234:LEU:HA	1:E:237:LEU:HB3	2.01	0.42
1:H:130:GLU:HB3	1:H:422:VAL:HG12	2.02	0.42
1:M:283:ASP:O	1:M:286:LYS:HB2	2.20	0.42
1:L:193:MET:CG	1:L:194:GLN:N	2.81	0.42
1:H:81:ALA:O	1:H:82:ASN:C	2.57	0.42
1:F:30:THR:HB	1:F:51:LYS:CG	2.46	0.42
2:T:96:GLU:O	2:T:97:ALA:C	2.57	0.42
1:E:404:ARG:NH1	1:E:404:ARG:HG3	2.34	0.42
1:G:161:LEU:HD12	1:G:161:LEU:HA	1.82	0.42
1:C:7:LYS:HD2	1:C:66:PHE:CD2	2.55	0.42
1:K:37:ASN:O	1:L:517:THR:HA	2.19	0.42
1:I:420:ILE:CD1	1:I:448:GLU:HG2	2.50	0.42
1:J:513:LEU:HA	1:J:513:LEU:HD12	1.65	0.42
1:G:301:ILE:HG12	1:G:307:MET:CE	2.50	0.42
1:A:168:LYS:O	1:A:170:GLY:N	2.53	0.42
1:B:479:ASN:O	1:B:483:GLU:N	2.53	0.42
1:M:56:VAL:O	1:M:57:ALA:C	2.58	0.42
1:D:255:GLU:O	1:D:259:LEU:HG	2.20	0.41
1:L:236:VAL:HG23	1:L:237:LEU:H	1.83	0.41
1:F:309:LEU:H	1:F:309:LEU:CD1	2.31	0.41
1:E:199:TYR:CE1	1:E:202:PRO:HA	2.54	0.41
1:E:215:LEU:O	1:E:322:ARG:HA	2.20	0.41
1:E:249:ILE:N	1:E:249:ILE:CD1	2.79	0.41
1:E:252:GLU:O	1:E:277:LYS:HE2	2.20	0.41
1:N:236:VAL:HG23	1:N:237:LEU:N	2.34	0.41
1:L:313:THR:CG2	1:L:314:LEU:H	2.32	0.41
1:M:256:GLY:O	1:M:257:GLU:C	2.59	0.41
1:A:200:LEU:N	1:A:200:LEU:CD1	2.82	0.41
1:G:354:GLU:HG3	1:G:354:GLU:O	2.20	0.41
1:A:291:ASP:O	1:A:295:LEU:HB2	2.20	0.41
1:J:520:MET:HE2	1:J:520:MET:HB3	1.88	0.41
1:M:449:ALA:HB3	1:M:450:PRO:CD	2.32	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:411:VAL:HA	1:I:497:THR:H	1.83	0.41
1:I:496:PRO:O	1:I:499:VAL:HG22	2.20	0.41
1:C:486:GLY:HA3	1:C:491:MET:HE2	2.00	0.41
1:E:305:ILE:HD12	1:E:305:ILE:H	1.82	0.41
1:J:104:LEU:O	1:J:107:VAL:HG22	2.19	0.41
1:E:235:PRO:CG	1:E:236:VAL:H	2.28	0.41
1:N:112:ASN:HA	1:N:113:PRO:HD3	1.79	0.41
2:T:5:PRO:CD	2:T:42:ALA:HB1	2.50	0.41
1:L:146:GLN:HE21	1:L:150:ILE:HD11	1.85	0.41
1:D:487:ASN:C	1:D:487:ASN:OD1	2.59	0.41
1:K:286:LYS:HA	1:K:286:LYS:CE	2.47	0.41
1:H:81:ALA:HA	1:H:506:TYR:CE2	2.55	0.41
1:F:115:ASP:HB3	1:F:436:GLN:HG3	2.02	0.41
1:M:417:VAL:O	1:M:418:ALA:C	2.59	0.41
1:I:455:VAL:HG12	1:I:460:GLU:O	2.20	0.41
1:G:368:ARG:HG2	1:G:372:LEU:CG	2.49	0.41
1:L:81:ALA:HA	1:L:506:TYR:CE2	2.54	0.41
1:M:406:ALA:O	1:M:410:GLY:N	2.52	0.41
1:H:37:ASN:HB3	1:H:51:LYS:CG	2.50	0.41
1:A:66:PHE:HD1	1:A:520:MET:HE2	1.84	0.41
1:E:430:ARG:NH1	1:E:430:ARG:HG2	2.35	0.41
1:C:10:ASN:O	1:C:11:ASP:C	2.58	0.41
1:M:37:ASN:ND2	1:M:37:ASN:H	2.19	0.41
1:M:172:GLU:N	1:M:172:GLU:OE1	2.52	0.41
1:F:215:LEU:O	1:F:322:ARG:HA	2.20	0.41
2:O:45:ASN:HB2	2:O:46:GLY:H	1.73	0.41
1:B:215:LEU:O	1:B:322:ARG:HA	2.20	0.41
1:A:313:THR:HB	1:A:315:GLU:CD	2.40	0.41
1:H:233:MET:CE	1:H:233:MET:CA	2.98	0.41
1:I:228:SER:CB	1:I:255:GLU:HB2	2.51	0.41
1:G:304:GLU:C	1:G:305:ILE:HD12	2.40	0.41
1:C:293:ALA:O	1:C:297:GLY:N	2.53	0.41
1:J:7:LYS:HG3	1:J:66:PHE:CZ	2.54	0.41
1:N:383:ALA:HB3	1:N:389:MET:HA	2.02	0.41
1:A:499:VAL:CG2	1:A:500:THR:H	2.33	0.41
1:B:361:ASP:C	1:B:363:GLU:H	2.24	0.41
1:A:494:LEU:HD23	1:A:494:LEU:N	2.35	0.41
1:H:149:THR:N	1:H:159:GLY:HA3	2.35	0.41
1:H:130:GLU:HG3	1:H:426:LEU:CD2	2.49	0.41
2:Q:34:LYS:HG3	2:Q:35:SER:N	2.33	0.41
1:K:217:SER:HB3	1:K:321:LYS:HA	2.02	0.41
1:M:191:GLU:HB3	1:M:295:LEU:CD1	2.50	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:464:VAL:O	1:K:467:ASN:HB3	2.20	0.41
1:F:464:VAL:CG2	1:L:464:VAL:HA	2.51	0.41
1:B:451:LEU:HD23	1:B:451:LEU:C	2.40	0.41
1:L:414:GLY:N	1:L:494:LEU:HA	2.35	0.41
1:B:28:LYS:C	1:B:30:THR:N	2.74	0.41
1:E:84:ALA:HB2	1:E:506:TYR:CE2	2.51	0.41
2:T:86:MET:N	2:T:86:MET:SD	2.94	0.41
1:G:150:ILE:CG2	1:G:151:SER:N	2.83	0.41
1:E:428:ASP:C	1:E:430:ARG:NH1	2.74	0.41
1:J:201:SER:HA	1:J:202:PRO:HD3	1.91	0.41
1:N:81:ALA:HA	1:N:506:TYR:CE2	2.55	0.41
1:A:430:ARG:HG2	1:A:430:ARG:NH1	2.35	0.41
1:L:513:LEU:HA	1:L:513:LEU:HD12	1.71	0.41
1:C:209:GLU:N	1:C:209:GLU:CD	2.73	0.41
1:B:6:VAL:HG12	1:B:521:VAL:HG13	2.01	0.41
1:D:206:ASN:CB	1:D:213:VAL:HA	2.50	0.41
2:O:8:ASP:OD1	2:O:87:SER:HB2	2.21	0.41
1:L:235:PRO:HG3	1:L:310:GLU:CA	2.35	0.41
2:P:22:ALA:O	2:P:26:VAL:HB	2.20	0.41
1:E:349:ILE:HG21	1:E:369:VAL:CG2	2.47	0.41
1:E:350:ARG:O	1:E:353:ILE:HB	2.20	0.41
2:S:20:LYS:CG	2:S:27:LEU:HD23	2.50	0.41
1:K:231:ARG:HG2	1:K:310:GLU:OE2	2.19	0.41
1:I:232:GLU:HB3	1:I:309:LEU:HD12	2.01	0.41
1:L:247:LEU:C	1:L:247:LEU:CD1	2.88	0.41
1:C:240:VAL:CG1	1:C:245:LYS:O	2.68	0.41
1:C:240:VAL:HG12	1:C:245:LYS:O	2.20	0.41
1:C:252:GLU:HG3	1:C:285:ARG:NH1	2.35	0.41
1:C:355:GLU:HB3	1:C:361:ASP:OD2	2.20	0.41
1:C:372:LEU:O	1:C:373:ALA:HB2	2.20	0.41
1:M:228:SER:O	1:M:258:ALA:HB2	2.21	0.41
1:H:272:LYS:HB2	1:H:272:LYS:HE3	1.82	0.41
1:H:385:THR:HG23	1:H:388:GLU:CB	2.50	0.41
1:A:293:ALA:O	1:A:296:THR:N	2.53	0.41
1:B:305:ILE:CG2	1:B:306:GLY:N	2.70	0.41
1:J:434:GLU:O	1:J:438:VAL:HG23	2.19	0.41
1:N:194:GLN:CG	1:N:195:PHE:N	2.82	0.41
1:K:99:ILE:O	1:K:100:ILE:C	2.58	0.41
2:T:77:LYS:C	2:T:78:ILE:HD12	2.41	0.41
1:M:290:GLN:HB3	1:M:345:ARG:HH21	1.85	0.41
1:E:464:VAL:HG22	1:K:464:VAL:HA	2.01	0.41
2:O:4:ARG:HB2	2:U:96:GLU:OE1	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:Q:7:HIS:C	2:Q:9:ARG:H	2.23	0.41
1:I:322:ARG:HB2	1:I:333:ILE:HB	2.02	0.41
1:K:301:ILE:HD12	1:K:301:ILE:H	1.79	0.41
2:P:14:ARG:CD	2:P:35:SER:HB3	2.49	0.41
1:A:39:VAL:HG12	1:G:69:MET:HE3	2.02	0.41
1:I:455:VAL:HG11	1:I:462:PRO:HA	2.03	0.41
1:A:124:VAL:HG13	1:A:504:LEU:HD12	2.02	0.41
1:K:81:ALA:HA	1:K:506:TYR:CD2	2.55	0.41
1:B:178:GLU:O	1:B:380:LYS:HA	2.21	0.41
1:I:510:VAL:HG13	1:I:511:ALA:N	2.35	0.41
1:F:477:GLY:HA3	1:F:488:MET:CG	2.50	0.41
1:I:23:LEU:O	1:I:27:VAL:HG12	2.21	0.41
1:D:293:ALA:HB1	1:D:298:GLY:O	2.19	0.41
1:F:4:LYS:HG3	1:G:59:GLU:O	2.20	0.41
1:M:296:THR:HB	1:M:319:GLN:N	2.34	0.41
1:J:43:SER:HB2	1:J:44:PHE:CD1	2.55	0.41
2:T:13:LYS:O	2:T:13:LYS:HG3	2.19	0.41
1:L:179:ASP:OD2	1:L:390:LYS:HG2	2.20	0.41
1:E:223:ALA:HB3	1:E:251:ALA:HB2	2.02	0.41
1:D:195:PHE:CD1	1:D:195:PHE:C	2.93	0.41
2:O:7:HIS:HA	2:O:45:ASN:N	2.36	0.41
1:A:235:PRO:CG	1:A:236:VAL:H	2.29	0.41
1:F:234:LEU:N	1:F:235:PRO:CD	2.78	0.41
1:C:216:GLU:HA	1:C:216:GLU:OE1	2.20	0.41
2:Q:55:LYS:CE	2:Q:55:LYS:N	2.63	0.41
1:E:281:PHE:HE2	1:E:283:ASP:OD2	2.04	0.41
1:E:289:LEU:HD23	1:E:292:ILE:HD12	2.01	0.41
1:E:288:MET:HG2	1:E:368:ARG:HE	1.85	0.41
1:N:227:ILE:HD12	1:N:309:LEU:HD11	2.02	0.41
1:I:254:VAL:O	1:I:259:LEU:HD12	2.21	0.41
1:C:348:GLN:O	1:C:348:GLN:NE2	2.54	0.41
1:G:325:ILE:CD1	1:G:325:ILE:N	2.78	0.41
1:H:385:THR:HG23	1:H:388:GLU:N	2.35	0.41
1:A:287:ALA:O	1:A:290:GLN:NE2	2.51	0.41
1:D:281:PHE:H	1:D:284:ARG:HD2	1.85	0.41
1:D:350:ARG:HD3	1:D:350:ARG:HA	1.82	0.41
1:L:115:ASP:O	1:L:116:LEU:C	2.58	0.41
1:M:166:MET:O	1:M:170:GLY:CA	2.68	0.41
1:K:115:ASP:O	1:K:118:ARG:HB3	2.21	0.41
1:E:456:LEU:HD13	1:E:462:PRO:HG3	2.02	0.41
1:H:352:GLN:O	1:H:355:GLU:OE1	2.38	0.41
1:I:120:ILE:O	1:I:123:ALA:N	2.53	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:342:ILE:O	1:K:346:VAL:HG23	2.20	0.41
1:D:144:ILE:O	1:D:147:VAL:HG22	2.19	0.41
1:E:397:GLU:O	1:E:398:ASP:C	2.58	0.41
1:J:155:ASP:OD1	1:J:158:VAL:HG23	2.20	0.41
1:E:72:GLN:HE21	1:E:72:GLN:HA	1.84	0.41
1:C:134:LEU:HD11	1:C:425:LYS:NZ	2.35	0.41
1:G:160:LYS:HE3	1:G:164:GLU:OE2	2.21	0.41
1:E:41:ASP:O	1:E:42:LYS:HG3	2.20	0.41
1:M:508:ALA:O	1:M:509:SER:C	2.58	0.41
1:J:204:PHE:CD2	1:J:274:ALA:HB1	2.55	0.41
1:M:37:ASN:O	1:N:517:THR:HA	2.20	0.41
1:A:509:SER:OG	1:B:385:THR:HG23	2.20	0.41
1:N:472:GLY:HA3	1:N:476:TYR:CD2	2.55	0.41
2:T:13:LYS:HB3	2:T:41:LEU:HD11	2.02	0.41
1:E:158:VAL:O	1:E:159:GLY:C	2.59	0.41
1:E:421:ARG:HA	1:E:421:ARG:HD3	1.76	0.41
1:D:118:ARG:O	1:D:119:GLY:C	2.59	0.41
1:G:443:ALA:O	1:G:447:MET:HG3	2.20	0.41
1:A:100:ILE:O	1:A:101:THR:C	2.59	0.41
1:B:265:ASN:HB3	1:B:271:VAL:HG22	2.03	0.41
1:K:349:ILE:O	1:K:353:ILE:HG13	2.20	0.41
1:E:252:GLU:HA	1:E:285:ARG:HH12	1.81	0.41
1:E:350:ARG:HA	1:E:350:ARG:HD3	1.95	0.41
1:K:313:THR:CG2	1:K:314:LEU:H	2.31	0.41
1:I:230:ILE:HD12	1:I:257:GLU:HG2	2.03	0.41
1:G:293:ALA:O	1:G:297:GLY:N	2.52	0.41
1:G:298:GLY:HA2	1:G:316:ASP:O	2.19	0.41
1:C:295:LEU:C	1:C:295:LEU:CD2	2.89	0.41
2:Q:20:LYS:HA	2:Q:28:THR:HG23	2.01	0.41
1:G:229:ASN:C	1:G:231:ARG:N	2.73	0.41
1:J:131:LEU:CD1	1:J:422:VAL:HG11	2.50	0.41
1:A:290:GLN:NE2	1:A:345:ARG:HH12	2.18	0.41
1:D:353:ILE:HG22	1:D:354:GLU:N	2.36	0.41
1:D:355:GLU:HG2	1:D:361:ASP:OD2	2.20	0.41
1:L:106:ALA:O	1:L:107:VAL:C	2.59	0.41
1:J:215:LEU:CB	1:J:218:PRO:HG2	2.37	0.41
1:H:287:ALA:O	1:H:290:GLN:HB3	2.20	0.41
1:H:366:GLN:O	1:H:369:VAL:HB	2.20	0.41
1:A:487:ASN:OD1	1:A:489:ILE:N	2.53	0.41
1:I:199:TYR:HD1	1:I:201:SER:H	1.67	0.41
1:B:486:GLY:CA	1:B:491:MET:CE	2.98	0.41
1:G:13:ARG:O	1:G:16:MET:HB3	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:326:ASN:ND2	1:M:328:ASP:OD1	2.54	0.41
1:I:350:ARG:HE	1:I:369:VAL:CG1	2.33	0.41
1:N:290:GLN:CG	1:N:345:ARG:HH21	2.34	0.41
1:E:147:VAL:C	1:E:150:ILE:HG22	2.41	0.41
1:N:350:ARG:HE	1:N:369:VAL:HG11	1.86	0.41
1:E:124:VAL:HG22	1:E:504:LEU:HD11	2.02	0.41
1:D:301:ILE:HG22	1:D:301:ILE:O	2.21	0.41
1:L:226:LYS:HA	1:L:252:GLU:HB2	2.02	0.41
1:C:327:LYS:HB2	1:C:327:LYS:HE2	1.92	0.41
1:A:23:LEU:CD1	1:A:23:LEU:C	2.89	0.41
1:A:509:SER:HB3	1:B:385:THR:HG23	2.02	0.41
1:H:56:VAL:O	1:H:57:ALA:C	2.58	0.41
1:M:77:VAL:HG11	1:M:510:VAL:HB	2.01	0.41
1:G:168:LYS:O	1:G:170:GLY:N	2.52	0.41
1:E:8:PHE:HE2	1:F:26:ALA:HA	1.85	0.41
2:Q:79:ASP:HB2	2:Q:81:GLU:OE1	2.20	0.41
1:G:235:PRO:CG	1:G:236:VAL:H	2.32	0.41
1:F:233:MET:CE	1:F:233:MET:O	2.68	0.41
1:F:233:MET:HE2	1:F:237:LEU:HB2	2.02	0.41
2:O:27:LEU:CD2	2:O:27:LEU:O	2.68	0.41
1:E:195:PHE:CD1	1:E:195:PHE:C	2.93	0.41
1:I:233:MET:CA	1:I:233:MET:HE3	2.50	0.41
1:C:258:ALA:O	1:C:261:THR:HG23	2.20	0.41
1:J:219:PHE:HE1	1:J:245:LYS:HB2	1.86	0.41
1:J:285:ARG:O	1:J:288:MET:HB2	2.20	0.41
1:A:205:ILE:HA	1:A:213:VAL:HG22	2.02	0.41
1:G:357:THR:CB	1:G:361:ASP:HB2	2.50	0.41
1:K:66:PHE:CD1	1:K:69:MET:HE3	2.56	0.41
2:P:55:LYS:HA	2:P:56:PRO:HD2	1.88	0.41
1:F:199:TYR:CE1	1:F:202:PRO:HA	2.55	0.41
1:E:413:ALA:HB3	1:E:417:VAL:HG13	2.02	0.41
1:E:153:ASN:O	1:E:154:SER:HB2	2.20	0.41
2:U:11:ILE:HG22	2:U:41:LEU:HD12	2.02	0.41
2:Q:71:TYR:C	2:Q:73:VAL:N	2.74	0.41
1:F:281:PHE:CG	1:F:282:GLY:N	2.89	0.41
1:K:5:ASP:HB2	1:K:524:LEU:CD2	2.42	0.41
1:L:351:GLN:HG2	1:L:354:GLU:CD	2.40	0.41
1:L:353:ILE:HD11	1:L:369:VAL:HG21	2.02	0.41
1:F:461:GLU:OE2	1:L:452:ARG:NH2	2.52	0.41
1:B:400:LEU:O	1:B:404:ARG:HG2	2.21	0.41
1:C:237:LEU:CD2	1:C:237:LEU:C	2.89	0.41
1:N:215:LEU:HB3	1:N:218:PRO:CG	2.46	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:109:ALA:HB3	1:K:111:MET:CE	2.50	0.41
1:G:95:LEU:HD13	1:G:504:LEU:HD23	2.03	0.41
1:C:433:ASN:OD1	1:C:436:GLN:HB2	2.20	0.41
1:K:305:ILE:CG2	1:K:307:MET:HG3	2.50	0.41
1:I:166:MET:HA	1:I:170:GLY:O	2.21	0.41
2:P:50:GLU:HG2	2:P:50:GLU:O	2.21	0.41
1:I:186:GLU:HB2	1:I:380:LYS:HB2	2.01	0.41
1:N:364:LYS:O	1:N:365:LEU:C	2.59	0.41
1:F:88:GLY:CA	4:F:1:ADP:O2B	2.69	0.41
1:N:399:ALA:O	1:N:400:LEU:C	2.59	0.41
1:A:432:GLN:NE2	1:A:436:GLN:HE22	2.18	0.41
1:H:318:GLY:O	1:H:319:GLN:HG3	2.21	0.41
1:H:37:ASN:ND2	1:H:37:ASN:N	2.69	0.41
1:E:386:GLU:C	1:E:388:GLU:H	2.23	0.41
1:D:6:VAL:HG12	1:D:521:VAL:HG13	2.02	0.41
1:A:88:GLY:HA2	4:A:1:ADP:O2B	2.21	0.41
1:A:184:GLN:N	1:A:184:GLN:OE1	2.49	0.41
1:I:172:GLU:N	1:I:172:GLU:OE1	2.53	0.41
1:L:216:GLU:OE1	1:L:216:GLU:HA	2.20	0.41
1:M:130:GLU:O	1:M:133:ALA:HB3	2.19	0.41
1:F:519:CYS:O	1:G:38:VAL:HA	2.21	0.41
1:F:214:GLU:CB	1:F:322:ARG:HD3	2.31	0.41
1:F:326:ASN:CG	1:F:329:THR:H	2.24	0.41
1:B:258:ALA:O	1:B:261:THR:HG23	2.20	0.41
1:D:213:VAL:HB	1:D:325:ILE:HD13	2.01	0.41
1:D:247:LEU:HB3	1:D:273:VAL:CG1	2.50	0.41
1:G:218:PRO:HD2	1:G:320:ALA:O	2.21	0.41
1:K:232:GLU:HA	1:K:310:GLU:HG2	2.03	0.41
1:H:262:LEU:O	1:H:265:ASN:HB3	2.20	0.41
1:M:254:VAL:O	1:M:259:LEU:HD12	2.21	0.41
1:H:251:ALA:O	1:H:252:GLU:C	2.58	0.41
1:A:216:GLU:OE1	1:A:216:GLU:HA	2.21	0.41
1:A:321:LYS:HG3	1:A:334:ASP:HB3	2.03	0.41
1:A:195:PHE:CE1	1:A:330:THR:HB	2.56	0.41
1:A:283:ASP:O	1:A:287:ALA:CB	2.68	0.41
1:D:344:GLY:C	1:D:346:VAL:N	2.74	0.41
1:I:64:ASP:C	1:I:65:LYS:O	2.54	0.41
1:M:65:LYS:O	1:M:66:PHE:CB	2.43	0.41
1:D:456:LEU:HD22	1:D:462:PRO:HG2	2.03	0.41
1:G:134:LEU:N	1:G:134:LEU:CD1	2.83	0.41
2:O:78:ILE:CD1	2:O:78:ILE:N	2.83	0.41
2:O:12:VAL:CG2	2:O:84:LEU:HB2	2.48	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:166:MET:HE2	1:H:171:LYS:CA	2.40	0.41
1:A:174:VAL:HG23	1:A:370:ALA:CB	2.51	0.41
1:A:489:ILE:CD1	1:A:494:LEU:HD22	2.50	0.41
1:I:202:PRO:C	1:I:204:PHE:N	2.74	0.41
1:D:466:ALA:O	1:D:470:LYS:HG3	2.21	0.41
1:A:385:THR:HG21	1:G:510:VAL:HG13	2.01	0.41
1:D:153:ASN:C	1:D:153:ASN:HD22	2.24	0.41
1:F:464:VAL:HG22	1:L:464:VAL:HA	2.03	0.41
1:N:218:PRO:HB3	1:N:246:PRO:HB2	2.02	0.41
1:B:124:VAL:O	1:B:128:VAL:HG23	2.21	0.41
1:H:88:GLY:O	1:H:89:THR:C	2.59	0.41
1:B:428:ASP:HA	1:B:430:ARG:HH12	1.84	0.41
1:F:438:VAL:O	1:F:442:VAL:HG23	2.20	0.41
1:K:193:MET:CG	1:K:194:GLN:N	2.84	0.41
1:J:478:TYR:CZ	1:J:483:GLU:HA	2.55	0.41
1:N:353:ILE:HG12	1:N:365:LEU:HB3	2.03	0.41
1:D:24:ALA:O	1:D:28:LYS:HG3	2.20	0.41
1:D:28:LYS:C	1:D:30:THR:N	2.74	0.41
1:I:40:LEU:HD23	1:I:50:THR:HG22	2.03	0.41
1:F:174:VAL:HG12	1:F:175:ILE:N	2.35	0.41
1:B:509:SER:OG	1:C:385:THR:HG23	2.21	0.41
2:S:59:VAL:O	2:S:59:VAL:HG23	2.21	0.41
1:L:165:ALA:O	1:L:168:LYS:HB2	2.21	0.41
1:K:338:GLU:O	1:K:341:ALA:HB3	2.21	0.41
1:G:309:LEU:H	1:G:309:LEU:CD1	2.33	0.41
1:B:14:VAL:O	1:B:18:ARG:HG3	2.21	0.41
1:E:199:TYR:HE2	1:E:205:ILE:HG12	1.85	0.41
1:E:200:LEU:HD22	1:E:254:VAL:HB	2.02	0.41
1:I:270:ILE:HG23	1:J:229:ASN:ND2	2.35	0.41
1:K:231:ARG:O	1:K:233:MET:N	2.54	0.41
1:K:287:ALA:O	1:K:290:GLN:N	2.54	0.41
1:M:313:THR:HB	1:M:315:GLU:HG2	2.02	0.41
1:L:262:LEU:O	1:L:266:THR:HG23	2.21	0.41
1:G:314:LEU:C	1:G:314:LEU:HD12	2.41	0.41
1:G:249:ILE:N	1:G:249:ILE:CD1	2.77	0.41
1:M:419:LEU:N	1:M:419:LEU:HD22	2.35	0.41
1:C:455:VAL:HG12	1:C:460:GLU:O	2.21	0.41
1:F:200:LEU:O	1:F:202:PRO:HD2	2.20	0.41
1:F:134:LEU:HD12	1:F:134:LEU:H	1.81	0.41
1:H:355:GLU:O	1:H:357:THR:N	2.54	0.41
1:B:284:ARG:O	1:B:287:ALA:N	2.54	0.41
1:J:95:LEU:O	1:J:98:ALA:HB3	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:499:VAL:CG2	1:C:500:THR:H	2.33	0.41
2:Q:74:LYS:O	2:Q:84:LEU:HA	2.21	0.41
2:S:22:ALA:O	2:S:26:VAL:HB	2.21	0.41
2:Q:14:ARG:CG	2:Q:35:SER:HB3	2.51	0.41
1:M:105:LYS:O	1:M:109:ALA:N	2.53	0.41
1:L:420:ILE:CD1	1:L:448:GLU:HG2	2.51	0.41
1:L:461:GLU:HB3	1:L:464:VAL:HB	2.02	0.41
1:N:366:GLN:O	1:N:369:VAL:HB	2.20	0.41
1:D:143:ALA:O	1:D:146:GLN:HB2	2.21	0.41
1:E:30:THR:HB	1:E:51:LYS:HG3	2.02	0.41
1:M:293:ALA:HB2	1:M:300:VAL:HG13	2.02	0.41
1:B:209:GLU:O	1:B:210:THR:HB	2.21	0.41
1:J:305:ILE:CG2	1:J:307:MET:HG3	2.51	0.41
1:G:479:ASN:O	1:G:483:GLU:N	2.51	0.41
1:M:420:ILE:HD13	1:M:448:GLU:HG2	2.03	0.41
1:K:37:ASN:HB3	1:K:51:LYS:HG2	2.02	0.41
1:C:428:ASP:HA	1:C:430:ARG:HH12	1.86	0.41
1:M:476:TYR:HA	1:M:486:GLY:O	2.20	0.41
1:A:518:GLU:OE1	1:A:518:GLU:HA	2.21	0.41
1:B:161:LEU:HD12	1:B:161:LEU:HA	1.74	0.41
1:C:479:ASN:O	1:C:483:GLU:N	2.54	0.41
1:D:62:LEU:HB2	1:D:68:ASN:HA	2.02	0.41
1:H:510:VAL:HG13	1:H:511:ALA:N	2.35	0.41
1:C:176:THR:O	1:C:378:VAL:HA	2.21	0.41
1:E:401:HIS:O	1:E:402:ALA:C	2.58	0.41
1:D:199:TYR:O	1:D:199:TYR:HD1	2.04	0.41
1:B:329:THR:HG22	1:B:330:THR:N	2.36	0.41
1:H:228:SER:HA	1:H:255:GLU:HB2	2.02	0.41
1:F:249:ILE:HG22	1:F:250:ILE:N	2.35	0.41
1:B:230:ILE:O	1:B:232:GLU:N	2.53	0.41
1:B:237:LEU:CD2	1:B:238:GLU:N	2.84	0.41
1:E:329:THR:HG22	1:E:330:THR:N	2.35	0.41
1:E:344:GLY:C	1:E:346:VAL:H	2.25	0.41
1:J:359:ASP:CA	1:J:362:ARG:HH12	2.28	0.41
1:J:233:MET:O	1:J:237:LEU:N	2.44	0.41
1:I:229:ASN:ND2	1:I:231:ARG:HH12	2.19	0.41
1:C:359:ASP:C	1:C:361:ASP:H	2.22	0.41
2:Q:20:LYS:H	2:Q:20:LYS:CD	2.25	0.41
1:K:49:ILE:HD11	1:L:73:MET:HE2	2.01	0.41
1:A:214:GLU:CB	1:A:322:ARG:HD3	2.43	0.41
1:A:323:VAL:HA	1:A:331:THR:O	2.21	0.41
1:G:252:GLU:OE1	1:G:252:GLU:N	2.54	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:258:ALA:O	1:G:261:THR:HG23	2.21	0.41
1:N:126:ALA:CB	1:N:426:LEU:HD13	2.50	0.41
1:F:456:LEU:HD13	1:F:462:PRO:HG3	2.02	0.41
1:A:252:GLU:O	1:A:253:ASP:CB	2.62	0.41
1:A:284:ARG:O	1:A:287:ALA:N	2.54	0.41
1:D:285:ARG:CG	1:D:286:LYS:H	2.30	0.41
1:A:302:SER:C	1:A:304:GLU:N	2.74	0.41
1:K:146:GLN:HE21	1:K:150:ILE:HD11	1.86	0.41
1:C:199:TYR:CE2	1:C:205:ILE:HG12	2.56	0.41
1:K:64:ASP:C	1:K:65:LYS:O	2.59	0.41
1:H:107:VAL:HG11	1:H:515:ILE:HG23	2.02	0.41
1:H:31:LEU:HD22	1:H:94:VAL:HG21	2.03	0.41
1:A:496:PRO:O	1:A:499:VAL:HG22	2.20	0.41
1:K:158:VAL:C	1:K:160:LYS:N	2.74	0.41
1:N:326:ASN:OD1	1:N:329:THR:N	2.53	0.41
1:I:389:MET:CE	1:I:389:MET:C	2.90	0.41
1:B:13:ARG:O	1:B:16:MET:HB3	2.21	0.41
1:H:330:THR:HG22	1:H:331:THR:N	2.35	0.41
1:L:190:VAL:CG2	1:L:191:GLU:N	2.84	0.41
1:C:95:LEU:HD23	1:C:450:PRO:HD3	2.02	0.41
1:C:150:ILE:HD11	4:C:1:ADP:N7	2.35	0.41
1:N:107:VAL:HG11	1:N:515:ILE:HG23	2.02	0.41
2:T:74:LYS:O	2:T:84:LEU:HA	2.20	0.41
1:M:218:PRO:CB	1:M:246:PRO:HB2	2.51	0.41
1:A:150:ILE:HD11	1:A:493:ILE:HG23	2.03	0.41
1:B:398:ASP:O	1:B:401:HIS:HB2	2.21	0.41
2:S:4:ARG:HA	2:S:5:PRO:HD2	1.90	0.41
1:I:95:LEU:O	1:I:98:ALA:HB3	2.20	0.41
1:H:401:HIS:O	1:H:402:ALA:C	2.59	0.41
1:E:177:VAL:CG1	1:E:397:GLU:HG2	2.50	0.41
1:J:455:VAL:HG11	1:J:461:GLU:O	2.20	0.41
1:J:158:VAL:C	1:J:160:LYS:N	2.74	0.41
2:P:14:ARG:CG	2:P:35:SER:HB3	2.50	0.41
1:C:429:LEU:HG	1:C:440:ILE:HD13	2.02	0.41
1:D:222:LEU:N	1:D:222:LEU:CD1	2.82	0.41
1:B:164:GLU:O	1:B:167:ASP:HB3	2.19	0.41
2:S:43:VAL:CG1	2:S:57:LEU:HD12	2.51	0.41
1:D:161:LEU:HA	1:D:161:LEU:HD12	1.85	0.41
1:J:479:ASN:O	1:J:483:GLU:N	2.53	0.41
1:M:224:ASP:CG	1:M:224:ASP:O	2.59	0.41
1:L:202:PRO:O	1:L:204:PHE:N	2.53	0.41
1:M:222:LEU:HD13	1:M:293:ALA:HB2	2.02	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:30:THR:HB	1:G:51:LYS:CG	2.51	0.41
1:L:303:GLU:C	1:L:305:ILE:N	2.74	0.41
2:Q:96:GLU:OE1	2:R:4:ARG:HB2	2.21	0.41
1:K:77:VAL:HG22	1:K:506:TYR:HB3	2.02	0.41
1:K:186:GLU:O	1:K:379:ILE:HA	2.21	0.41
1:C:23:LEU:O	1:C:24:ALA:C	2.59	0.41
1:B:80:LYS:HD2	1:B:506:TYR:CZ	2.55	0.41
1:E:183:LEU:CD2	1:E:384:ALA:HA	2.51	0.41
1:F:385:THR:OG1	1:F:388:GLU:HB2	2.21	0.41
1:G:485:TYR:N	1:G:485:TYR:CD1	2.89	0.41
1:D:187:LEU:HD12	1:D:378:VAL:O	2.21	0.41
1:H:342:ILE:O	1:H:346:VAL:HG23	2.21	0.41
1:M:487:ASN:OD1	1:M:489:ILE:HB	2.21	0.41
1:E:62:LEU:HB2	1:E:68:ASN:HA	2.03	0.41
1:H:187:LEU:HD23	1:H:188:ASP:N	2.36	0.41
1:I:49:ILE:HD11	1:J:73:MET:HE3	2.03	0.41
1:M:38:VAL:HG12	1:M:39:VAL:N	2.36	0.41
1:H:478:TYR:HB2	1:H:485:TYR:CE2	2.56	0.41
1:C:128:VAL:CG1	1:C:132:LYS:HE2	2.51	0.41
1:A:168:LYS:C	1:A:170:GLY:N	2.74	0.41
1:J:21:ASN:HA	1:J:21:ASN:HD22	1.60	0.41
1:L:44:PHE:CD1	1:L:44:PHE:N	2.88	0.41
1:F:114:MET:O	1:F:118:ARG:HG3	2.21	0.41
1:G:100:ILE:O	1:G:101:THR:C	2.59	0.41
1:H:21:ASN:HA	1:H:21:ASN:HD22	1.65	0.41
1:H:257:GLU:O	1:H:261:THR:CG2	2.69	0.41
1:G:21:ASN:O	1:G:22:VAL:C	2.58	0.41
1:E:293:ALA:O	1:E:295:LEU:N	2.54	0.41
1:K:290:GLN:OE1	1:K:293:ALA:HB3	2.21	0.41
1:C:223:ALA:HB3	1:C:251:ALA:CB	2.49	0.41
1:J:290:GLN:OE1	1:J:290:GLN:HA	2.20	0.41
1:G:194:GLN:O	1:G:371:LYS:NZ	2.49	0.41
1:G:199:TYR:O	1:G:199:TYR:HD1	2.04	0.41
1:F:455:VAL:O	1:F:458:CYS:HB2	2.20	0.41
1:J:419:LEU:HD21	1:J:500:THR:HG23	2.02	0.41
1:A:290:GLN:O	1:A:291:ASP:C	2.60	0.41
1:A:357:THR:CB	1:A:361:ASP:HB2	2.51	0.41
1:L:129:GLU:O	1:L:130:GLU:C	2.59	0.41
1:L:434:GLU:O	1:L:438:VAL:HG23	2.20	0.41
1:I:449:ALA:CB	1:I:450:PRO:CD	2.97	0.41
1:F:314:LEU:HD12	1:F:315:GLU:CA	2.50	0.41
1:J:112:ASN:OD1	1:J:114:MET:N	2.54	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:510:VAL:CG2	1:B:511:ALA:H	2.34	0.41
1:G:455:VAL:HG11	1:G:462:PRO:HA	2.03	0.41
1:H:345:ARG:O	1:H:348:GLN:HB2	2.21	0.41
1:K:389:MET:HE1	1:K:393:LYS:HB2	2.02	0.41
1:B:289:LEU:HD23	1:B:292:ILE:HD12	2.03	0.41
1:F:284:ARG:CG	1:F:288:MET:HE2	2.49	0.41
2:O:93:ALA:HB1	2:P:4:ARG:O	2.21	0.41
1:A:77:VAL:HG22	1:A:78:ALA:N	2.36	0.41
2:U:14:ARG:CG	2:U:15:LYS:N	2.79	0.41
1:L:364:LYS:O	1:L:365:LEU:C	2.59	0.41
1:L:420:ILE:HG13	1:L:451:LEU:HD22	2.03	0.41
1:G:403:THR:OG1	1:G:404:ARG:N	2.54	0.41
1:B:267:MET:C	1:B:269:GLY:N	2.75	0.41
1:G:124:VAL:O	1:G:125:THR:C	2.57	0.41
1:M:224:ASP:HB3	1:M:302:SER:HA	2.03	0.41
1:E:69:MET:SD	1:E:522:THR:HB	2.61	0.41
1:C:473:ASP:O	1:C:474:GLY:C	2.59	0.41
2:S:73:VAL:HG13	2:S:86:MET:HE3	2.03	0.41
1:D:224:ASP:OD1	1:D:301:ILE:O	2.39	0.41
1:L:305:ILE:CG2	1:L:307:MET:HG3	2.51	0.41
1:G:42:LYS:HE2	1:G:48:THR:HB	2.03	0.41
1:F:290:GLN:O	1:F:294:THR:HG23	2.21	0.41
1:F:155:ASP:HB3	1:F:158:VAL:HG21	2.03	0.41
1:I:507:ALA:O	1:I:510:VAL:HG12	2.21	0.41
2:U:3:ILE:CD1	2:U:3:ILE:H	2.33	0.41
1:K:296:THR:OG1	1:K:318:GLY:HA3	2.21	0.41
1:M:472:GLY:HA3	1:M:476:TYR:HD2	1.86	0.41
1:N:472:GLY:HA3	1:N:476:TYR:HD2	1.86	0.41
1:H:183:LEU:HD22	1:I:360:TYR:CE2	2.57	0.41
1:E:149:THR:OG1	1:E:156:GLU:HA	2.21	0.41
1:D:441:LYS:HA	1:D:441:LYS:HD2	1.86	0.41
1:H:172:GLU:OE1	1:H:172:GLU:N	2.54	0.41
1:D:155:ASP:OD1	1:D:157:THR:HB	2.21	0.41
1:F:206:ASN:H	1:F:213:VAL:HA	1.85	0.40
1:A:309:LEU:H	1:A:309:LEU:CD1	2.34	0.40
1:F:254:VAL:HG12	1:F:259:LEU:HG	2.03	0.40
1:H:301:ILE:CD1	1:H:301:ILE:H	2.34	0.40
1:E:255:GLU:OE1	1:E:255:GLU:N	2.54	0.40
1:E:320:ALA:HA	1:E:334:ASP:O	2.21	0.40
1:K:227:ILE:CD1	1:K:309:LEU:HD11	2.51	0.40
1:I:225:LYS:HE2	1:I:309:LEU:CD1	2.50	0.40
1:C:366:GLN:HA	1:C:369:VAL:HB	2.03	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:248:LEU:HD13	1:H:248:LEU:C	2.41	0.40
1:G:284:ARG:HG2	1:G:288:MET:CE	2.50	0.40
1:G:358:SER:HA	1:G:362:ARG:CD	2.51	0.40
1:I:41:ASP:HB2	1:J:69:MET:HE2	2.03	0.40
2:S:78:ILE:N	2:S:78:ILE:CD1	2.83	0.40
1:D:360:TYR:H	1:D:363:GLU:CD	2.24	0.40
1:C:199:TYR:OH	1:C:205:ILE:HD11	2.21	0.40
1:A:411:VAL:HG12	1:A:496:PRO:CA	2.38	0.40
1:J:191:GLU:HB3	1:J:295:LEU:CD1	2.51	0.40
1:C:153:ASN:O	1:C:154:SER:CB	2.67	0.40
1:H:290:GLN:O	1:H:291:ASP:C	2.58	0.40
2:T:17:VAL:HG11	2:T:33:ALA:O	2.21	0.40
2:T:17:VAL:HG13	2:T:34:LYS:CA	2.50	0.40
1:C:31:LEU:HD23	1:C:453:GLN:HB3	2.02	0.40
1:J:166:MET:HE2	1:J:166:MET:HB3	1.93	0.40
1:M:190:VAL:O	1:M:191:GLU:C	2.59	0.40
1:I:320:ALA:HB1	1:I:333:ILE:O	2.21	0.40
1:K:106:ALA:O	1:K:107:VAL:C	2.59	0.40
2:T:27:LEU:O	2:T:27:LEU:HD23	2.20	0.40
2:T:20:LYS:CB	2:T:27:LEU:HG	2.50	0.40
1:A:177:VAL:CG2	1:A:393:LYS:HG3	2.51	0.40
1:N:27:VAL:HG23	1:N:53:GLY:HA2	2.01	0.40
1:G:433:ASN:ND2	1:G:435:ASP:HB2	2.33	0.40
2:U:50:GLU:O	2:U:52:GLY:N	2.53	0.40
1:A:368:ARG:HG2	1:A:372:LEU:CG	2.49	0.40
1:A:368:ARG:O	1:A:372:LEU:N	2.53	0.40
1:B:54:VAL:HG13	1:B:55:SER:N	2.36	0.40
1:M:379:ILE:HG22	1:M:380:LYS:N	2.36	0.40
1:N:303:GLU:C	1:N:305:ILE:H	2.24	0.40
1:C:130:GLU:O	1:C:134:LEU:HD13	2.21	0.40
1:M:395:ARG:O	1:M:398:ASP:HB2	2.22	0.40
1:I:188:ASP:O	1:I:378:VAL:HG22	2.21	0.40
1:D:509:SER:CB	1:E:385:THR:HG23	2.51	0.40
1:B:520:MET:HE2	1:B:520:MET:HB3	1.90	0.40
1:G:128:VAL:CG1	1:G:132:LYS:HE2	2.51	0.40
1:L:46:ALA:CB	1:M:76:GLU:OE1	2.69	0.40
1:B:478:TYR:CE2	1:B:480:ALA:HA	2.56	0.40
1:L:501:ARG:O	1:L:502:SER:C	2.59	0.40
1:I:443:ALA:O	1:I:446:ALA:HB3	2.21	0.40
1:D:217:SER:N	1:D:218:PRO:CD	2.83	0.40
1:L:308:GLU:CG	1:L:309:LEU:N	2.75	0.40
1:E:195:PHE:HD1	1:E:195:PHE:C	2.24	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:219:PHE:CB	1:E:247:LEU:HD22	2.49	0.40
1:D:18:ARG:O	1:D:22:VAL:HG23	2.21	0.40
1:N:301:ILE:HG22	1:N:301:ILE:O	2.21	0.40
1:F:21:ASN:O	1:F:22:VAL:C	2.58	0.40
1:M:317:LEU:HD12	1:M:317:LEU:N	2.37	0.40
1:C:357:THR:HB	1:C:361:ASP:HB2	2.03	0.40
1:C:361:ASP:C	1:C:363:GLU:H	2.25	0.40
1:H:221:LEU:CD1	1:H:223:ALA:N	2.83	0.40
1:N:313:THR:HG22	1:N:314:LEU:H	1.86	0.40
1:K:131:LEU:HD12	1:K:422:VAL:HG11	2.02	0.40
1:D:279:PRO:CD	1:D:285:ARG:HA	2.51	0.40
1:L:104:LEU:HA	1:L:104:LEU:HD12	1.80	0.40
1:L:443:ALA:O	1:L:446:ALA:HB3	2.21	0.40
1:C:199:TYR:HE2	1:C:205:ILE:HG12	1.86	0.40
1:G:406:ALA:HB2	1:G:496:PRO:HB3	2.03	0.40
1:K:158:VAL:O	1:K:159:GLY:C	2.60	0.40
1:J:24:ALA:HA	1:J:27:VAL:HG12	2.02	0.40
1:H:158:VAL:O	1:H:159:GLY:C	2.60	0.40
1:A:153:ASN:ND2	1:A:153:ASN:O	2.54	0.40
2:U:7:HIS:C	2:U:9:ARG:H	2.25	0.40
1:F:43:SER:O	1:F:44:PHE:O	2.39	0.40
1:N:419:LEU:HD21	1:N:500:THR:CG2	2.52	0.40
1:H:106:ALA:O	1:H:109:ALA:N	2.49	0.40
1:K:286:LYS:NZ	1:K:304:GLU:OE2	2.47	0.40
1:K:106:ALA:HA	1:K:111:MET:HE1	2.02	0.40
1:K:106:ALA:HA	1:K:111:MET:CE	2.51	0.40
1:B:267:MET:O	1:B:269:GLY:N	2.54	0.40
2:P:72:GLY:O	2:P:74:LYS:HE2	2.22	0.40
1:N:24:ALA:HA	1:N:27:VAL:HG12	2.02	0.40
1:I:344:GLY:O	1:I:345:ARG:C	2.60	0.40
1:L:10:ASN:O	1:L:12:ALA:N	2.54	0.40
1:E:434:GLU:O	1:E:437:ASN:N	2.53	0.40
1:N:288:MET:HA	1:N:288:MET:HE2	2.01	0.40
1:D:409:GLU:OE1	1:D:501:ARG:NH2	2.55	0.40
2:U:3:ILE:N	2:U:3:ILE:HD12	2.36	0.40
1:N:76:GLU:O	1:N:80:LYS:HG3	2.21	0.40
1:B:27:VAL:HG12	1:B:90:THR:HG23	2.03	0.40
1:G:85:ALA:HB2	1:G:498:LYS:HE2	2.04	0.40
1:K:272:LYS:HE3	1:K:272:LYS:HB2	1.79	0.40
1:F:13:ARG:HD2	1:F:104:LEU:HD22	2.02	0.40
1:C:118:ARG:O	1:C:119:GLY:C	2.57	0.40
1:I:90:THR:O	1:I:94:VAL:HG23	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:501:ARG:O	1:J:502:SER:C	2.60	0.40
1:G:309:LEU:O	1:G:310:GLU:C	2.60	0.40
1:F:322:ARG:CB	1:F:333:ILE:HD12	2.18	0.40
1:D:329:THR:HG22	1:D:330:THR:N	2.36	0.40
1:A:308:GLU:O	1:A:311:LYS:HB3	2.21	0.40
1:E:362:ARG:O	1:E:366:GLN:OE1	2.39	0.40
1:F:10:ASN:O	1:F:11:ASP:C	2.59	0.40
1:J:231:ARG:HG2	1:J:310:GLU:OE2	2.21	0.40
1:K:257:GLU:O	1:K:261:THR:HG23	2.21	0.40
1:C:339:GLU:HA	1:C:342:ILE:HB	2.04	0.40
1:H:226:LYS:HG3	1:H:252:GLU:CB	2.47	0.40
1:H:221:LEU:N	1:H:248:LEU:O	2.53	0.40
1:N:66:PHE:CD1	1:N:520:MET:HE2	2.55	0.40
1:G:254:VAL:HG12	1:G:259:LEU:HG	2.04	0.40
1:G:288:MET:O	1:G:289:LEU:HD23	2.22	0.40
1:A:278:ALA:CB	1:A:279:PRO:CD	2.94	0.40
1:A:284:ARG:CG	1:A:288:MET:HE1	2.51	0.40
1:A:358:SER:HA	1:A:362:ARG:CD	2.51	0.40
1:J:66:PHE:HA	1:J:520:MET:CE	2.51	0.40
1:D:281:PHE:H	1:D:284:ARG:CD	2.34	0.40
1:D:364:LYS:O	1:D:367:GLU:HB3	2.21	0.40
1:F:349:ILE:HG22	1:F:349:ILE:O	2.20	0.40
1:N:381:VAL:HB	1:N:389:MET:CE	2.52	0.40
1:L:389:MET:CE	1:L:389:MET:C	2.90	0.40
1:F:205:ILE:HG12	1:F:211:GLY:HA2	2.02	0.40
1:L:404:ARG:O	1:L:407:VAL:HB	2.21	0.40
1:E:134:LEU:H	1:E:134:LEU:CD1	2.34	0.40
1:H:194:GLN:CG	1:H:331:THR:HB	2.41	0.40
1:A:153:ASN:O	1:A:154:SER:CB	2.69	0.40
2:Q:3:ILE:HD13	2:Q:11:ILE:CD1	2.51	0.40
1:E:230:ILE:O	1:E:232:GLU:N	2.55	0.40
1:C:32:GLY:N	4:C:1:ADP:O1A	2.29	0.40
1:D:461:GLU:OE2	1:J:452:ARG:NH2	2.54	0.40
1:I:353:ILE:HD11	1:I:369:VAL:CG2	2.50	0.40
1:J:124:VAL:O	1:J:125:THR:C	2.60	0.40
1:J:194:GLN:HG3	1:J:331:THR:HB	2.02	0.40
1:I:379:ILE:HG22	1:I:380:LYS:N	2.36	0.40
2:T:7:HIS:O	2:T:7:HIS:ND1	2.55	0.40
2:T:9:ARG:HA	2:T:9:ARG:HD3	1.89	0.40
1:B:253:ASP:CG	1:B:254:VAL:N	2.72	0.40
1:M:322:ARG:HB3	1:M:333:ILE:HD12	2.03	0.40
1:I:140:ASP:C	1:I:142:LYS:N	2.75	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:59:GLU:OE1	1:C:59:GLU:HA	2.21	0.40
1:A:128:VAL:CG1	1:A:132:LYS:HE2	2.51	0.40
1:F:178:GLU:O	1:F:380:LYS:HA	2.22	0.40
2:P:86:MET:SD	2:P:86:MET:N	2.94	0.40
1:B:441:LYS:HA	1:B:441:LYS:HD2	1.87	0.40
1:I:475:ASN:ND2	1:I:489:ILE:HD12	2.36	0.40
1:B:443:ALA:O	1:B:447:MET:HG3	2.22	0.40
1:K:501:ARG:O	1:K:505:GLN:HG3	2.20	0.40
1:F:195:PHE:CD1	1:F:195:PHE:C	2.95	0.40
1:F:296:THR:CG2	1:F:335:GLY:HA3	2.29	0.40
1:B:261:THR:O	1:B:265:ASN:ND2	2.55	0.40
1:D:229:ASN:C	1:D:231:ARG:N	2.74	0.40
1:A:307:MET:C	1:A:308:GLU:HG3	2.42	0.40
1:F:261:THR:O	1:F:265:ASN:ND2	2.55	0.40
1:F:270:ILE:HG23	2:T:25:ILE:HG22	2.03	0.40
1:A:266:THR:HG21	1:A:273:VAL:O	2.22	0.40
1:D:66:PHE:O	1:D:67:GLU:C	2.59	0.40
1:M:257:GLU:O	1:M:261:THR:HG23	2.21	0.40
1:G:199:TYR:O	1:G:199:TYR:CD1	2.73	0.40
1:G:249:ILE:HB	1:G:275:ALA:HB1	2.01	0.40
1:G:270:ILE:O	1:G:271:VAL:HG13	2.20	0.40
1:G:359:ASP:O	1:G:360:TYR:CB	2.69	0.40
2:R:47:ARG:HD3	2:R:49:LEU:HB2	2.03	0.40
1:D:279:PRO:HB3	1:D:288:MET:HE3	2.03	0.40
2:T:47:ARG:CD	2:T:49:LEU:HB2	2.51	0.40
1:G:486:GLY:HA3	1:G:491:MET:HE2	2.03	0.40
1:M:142:LYS:O	1:M:146:GLN:HB2	2.22	0.40
1:J:115:ASP:O	1:J:116:LEU:C	2.60	0.40
2:T:37:ARG:NE	2:U:76:GLU:OE1	2.44	0.40
1:B:339:GLU:N	1:B:339:GLU:CD	2.75	0.40
1:I:201:SER:O	1:I:204:PHE:HB2	2.21	0.40
1:N:166:MET:HE2	1:N:171:LYS:HG2	2.04	0.40
1:B:43:SER:O	1:B:44:PHE:O	2.40	0.40
1:I:347:ALA:O	1:I:350:ARG:HB2	2.22	0.40
1:I:354:GLU:CG	1:I:355:GLU:H	2.34	0.40
1:N:231:ARG:O	1:N:233:MET:N	2.54	0.40
2:Q:8:ASP:O	2:Q:87:SER:HA	2.21	0.40
2:P:7:HIS:O	2:P:8:ASP:CB	2.64	0.40
1:D:115:ASP:HB3	1:D:436:GLN:HG3	2.02	0.40
1:B:128:VAL:HG12	1:B:132:LYS:HE2	2.02	0.40
1:I:166:MET:HE1	1:I:407:VAL:HG21	2.04	0.40
1:E:150:ILE:CG2	1:E:151:SER:N	2.84	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:42:LYS:HE2	1:A:48:THR:HB	2.04	0.40
2:O:74:LYS:CE	2:U:68:ASN:HD22	2.34	0.40
2:T:7:HIS:C	2:T:9:ARG:H	2.25	0.40
1:E:174:VAL:HG23	1:E:370:ALA:CB	2.51	0.40
1:A:112:ASN:HA	1:A:113:PRO:HD3	1.86	0.40
1:J:401:HIS:O	1:J:402:ALA:C	2.58	0.40
2:T:3:ILE:CD1	2:T:3:ILE:H	2.27	0.40
1:C:146:GLN:HE21	1:C:494:LEU:HD11	1.85	0.40
1:F:149:THR:HG23	1:F:156:GLU:N	2.37	0.40
1:J:37:ASN:HB3	1:J:51:LYS:CG	2.50	0.40
1:M:401:HIS:O	1:M:402:ALA:C	2.59	0.40
1:H:501:ARG:O	1:H:505:GLN:HG3	2.22	0.40
1:M:501:ARG:O	1:M:505:GLN:HG3	2.22	0.40
1:H:8:PHE:O	1:H:9:GLY:C	2.59	0.40
1:J:56:VAL:O	1:J:57:ALA:C	2.59	0.40
1:D:117:LYS:HG2	1:D:121:ASP:OD2	2.22	0.40
1:A:26:ALA:HA	1:G:8:PHE:CE2	2.56	0.40
1:B:261:THR:HG23	1:B:262:LEU:H	1.87	0.40
1:G:14:VAL:O	1:G:18:ARG:HG3	2.20	0.40
1:L:236:VAL:CG2	1:L:237:LEU:N	2.82	0.40
1:C:321:LYS:HG3	1:C:334:ASP:HB3	2.03	0.40
1:J:231:ARG:HH11	1:J:231:ARG:CB	2.35	0.40
1:K:228:SER:HA	1:K:255:GLU:HB2	2.03	0.40
1:L:222:LEU:CD1	1:L:293:ALA:HA	2.51	0.40
1:M:227:ILE:CD1	1:M:309:LEU:HD11	2.51	0.40
1:H:219:PHE:O	1:H:247:LEU:HD22	2.21	0.40
1:A:320:ALA:HA	1:A:334:ASP:O	2.20	0.40
1:C:207:LYS:CB	1:C:208:PRO:CD	2.96	0.40
1:C:207:LYS:HB2	1:C:207:LYS:HZ2	1.86	0.40
1:C:207:LYS:CB	1:C:207:LYS:NZ	2.83	0.40
1:K:421:ARG:O	1:K:422:VAL:C	2.59	0.40
1:A:284:ARG:O	1:A:285:ARG:C	2.59	0.40
1:M:7:LYS:HG3	1:M:66:PHE:CZ	2.57	0.40
1:B:208:PRO:O	1:B:212:ALA:HB3	2.22	0.40
1:J:216:GLU:O	1:J:217:SER:C	2.59	0.40
1:K:32:GLY:HA2	1:K:454:ILE:HG23	2.02	0.40
1:B:349:ILE:HG22	1:B:349:ILE:O	2.21	0.40
1:B:368:ARG:CD	1:B:372:LEU:HD11	2.51	0.40
1:L:351:GLN:O	1:L:354:GLU:HB3	2.21	0.40
1:K:128:VAL:O	1:K:132:LYS:HG3	2.22	0.40
1:J:226:LYS:HD2	1:J:226:LYS:N	2.36	0.40
2:T:20:LYS:HA	2:T:28:THR:CG2	2.52	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:434:GLU:HA	1:C:437:ASN:HD22	1.87	0.40
2:S:71:TYR:O	2:S:73:VAL:N	2.54	0.40
1:A:112:ASN:HD22	1:A:115:ASP:CG	2.25	0.40
1:F:290:GLN:O	1:F:294:THR:N	2.54	0.40
1:M:323:VAL:CG2	1:M:332:ILE:HG22	2.52	0.40
1:N:201:SER:HA	1:N:202:PRO:HD3	1.90	0.40
1:I:81:ALA:HA	1:I:506:TYR:CD2	2.56	0.40
1:D:443:ALA:O	1:D:444:LEU:C	2.59	0.40
1:G:128:VAL:HG12	1:G:132:LYS:HE2	2.02	0.40
1:J:18:ARG:O	1:J:19:GLY:C	2.60	0.40
1:M:445:ARG:HB3	1:M:445:ARG:HE	1.73	0.40
1:K:209:GLU:HA	1:K:209:GLU:OE1	2.22	0.40
1:A:203:TYR:H	1:A:203:TYR:HD1	1.68	0.40
1:A:406:ALA:O	1:A:410:GLY:N	2.53	0.40
1:C:478:TYR:CE2	1:C:480:ALA:HA	2.56	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:425:LYS:NZ	1:J:484:GLU:OE2[4_445]	2.13	0.07

5.3 Torsion angles

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution. The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	522/547 (95%)	396 (76%)	92 (18%)	34 (6%)	2	11
1	B	522/547 (95%)	399 (76%)	94 (18%)	29 (6%)	3	16
1	C	522/547 (95%)	397 (76%)	88 (17%)	37 (7%)	2	9
1	D	522/547 (95%)	395 (76%)	95 (18%)	32 (6%)	2	14
1	E	522/547 (95%)	390 (75%)	98 (19%)	34 (6%)	2	11
1	F	522/547 (95%)	399 (76%)	93 (18%)	30 (6%)	3	16
1	G	522/547 (95%)	390 (75%)	98 (19%)	34 (6%)	2	11

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	H	522/547 (95%)	377 (72%)	115 (22%)	30 (6%)	3	16
1	I	522/547 (95%)	384 (74%)	113 (22%)	25 (5%)	4	20
1	J	522/547 (95%)	387 (74%)	110 (21%)	25 (5%)	4	20
1	K	522/547 (95%)	376 (72%)	121 (23%)	25 (5%)	4	20
1	L	522/547 (95%)	372 (71%)	124 (24%)	26 (5%)	3	19
1	M	522/547 (95%)	383 (73%)	110 (21%)	29 (6%)	3	16
1	N	522/547 (95%)	384 (74%)	112 (22%)	26 (5%)	3	19
2	O	95/97 (98%)	69 (73%)	20 (21%)	6 (6%)	2	12
2	P	95/97 (98%)	65 (68%)	24 (25%)	6 (6%)	2	12
2	Q	95/97 (98%)	67 (70%)	21 (22%)	7 (7%)	2	8
2	R	95/97 (98%)	68 (72%)	18 (19%)	9 (10%)	1	4
2	S	95/97 (98%)	73 (77%)	16 (17%)	6 (6%)	2	12
2	T	95/97 (98%)	67 (70%)	20 (21%)	8 (8%)	1	6
2	U	95/97 (98%)	64 (67%)	25 (26%)	6 (6%)	2	12
All	All	7973/8337 (96%)	5902 (74%)	1607 (20%)	464 (6%)	3	15

All (464) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	29	VAL
1	A	44	PHE
1	A	233	MET
1	A	279	PRO
1	A	309	LEU
1	A	311	LYS
1	A	353	ILE
1	A	358	SER
1	B	29	VAL
1	B	44	PHE
1	B	206	ASN
1	B	233	MET
1	B	279	PRO
1	B	309	LEU
1	B	311	LYS
1	B	353	ILE
1	B	354	GLU
1	B	358	SER

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Mol	Chain	Res	Type
1	B	373	ALA
1	C	29	VAL
1	C	44	PHE
1	C	206	ASN
1	C	233	MET
1	C	279	PRO
1	C	309	LEU
1	C	311	LYS
1	C	353	ILE
1	C	358	SER
1	D	44	PHE
1	D	206	ASN
1	D	233	MET
1	D	309	LEU
1	D	311	LYS
1	D	342	ILE
1	D	353	ILE
1	D	354	GLU
1	D	358	SER
1	E	44	PHE
1	E	233	MET
1	E	279	PRO
1	E	309	LEU
1	E	311	LYS
1	E	312	ALA
1	E	353	ILE
1	E	354	GLU
1	F	29	VAL
1	F	44	PHE
1	F	233	MET
1	F	279	PRO
1	F	309	LEU
1	F	311	LYS
1	F	353	ILE
1	F	358	SER
1	G	44	PHE
1	G	233	MET
1	G	279	PRO
1	G	309	LEU
1	G	311	LYS
1	G	336	VAL
1	G	353	ILE

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Mol	Chain	Res	Type
1	H	146	GLN
1	H	270	ILE
1	H	401	HIS
1	H	425	LYS
1	I	146	GLN
1	I	267	MET
1	I	270	ILE
1	I	401	HIS
1	J	270	ILE
1	K	270	ILE
1	K	425	LYS
1	L	146	GLN
1	L	270	ILE
1	L	425	LYS
1	M	146	GLN
1	M	270	ILE
1	M	323	VAL
1	M	425	LYS
1	N	270	ILE
2	O	7	HIS
2	P	7	HIS
2	P	51	ASN
2	Q	7	HIS
2	Q	49	LEU
2	Q	51	ASN
2	R	7	HIS
2	S	7	HIS
2	S	51	ASN
2	T	7	HIS
2	U	7	HIS
2	U	49	LEU
1	A	206	ASN
1	A	253	ASP
1	A	293	ALA
1	A	336	VAL
1	A	342	ILE
1	A	354	GLU
1	A	373	ALA
1	B	284	ARG
1	B	312	ALA
1	B	334	ASP
1	B	342	ILE

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Mol	Chain	Res	Type
1	C	228	SER
1	C	231	ARG
1	C	284	ARG
1	C	354	GLU
1	C	373	ALA
1	D	29	VAL
1	D	279	PRO
1	D	312	ALA
1	D	373	ALA
1	E	29	VAL
1	E	169	VAL
1	E	206	ASN
1	E	231	ARG
1	E	293	ALA
1	E	305	ILE
1	E	336	VAL
1	E	342	ILE
1	E	373	ALA
1	F	206	ASN
1	F	228	SER
1	F	231	ARG
1	F	305	ILE
1	F	312	ALA
1	F	354	GLU
1	F	373	ALA
1	G	9	GLY
1	G	29	VAL
1	G	253	ASP
1	G	293	ALA
1	G	312	ALA
1	G	338	GLU
1	G	342	ILE
1	G	354	GLU
1	G	358	SER
1	G	373	ALA
1	H	389	MET
1	H	429	LEU
1	I	85	ALA
1	I	256	GLY
1	I	352	GLN
1	I	389	MET
1	I	425	LYS

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Mol	Chain	Res	Type
1	I	429	LEU
1	J	85	ALA
1	J	146	GLN
1	J	267	MET
1	J	352	GLN
1	J	389	MET
1	J	425	LYS
1	J	429	LEU
1	J	432	GLN
1	K	85	ALA
1	K	146	GLN
1	K	160	LYS
1	K	286	LYS
1	K	389	MET
1	K	401	HIS
1	K	429	LEU
1	K	432	GLN
1	L	85	ALA
1	L	267	MET
1	L	286	LYS
1	L	389	MET
1	L	398	ASP
1	L	429	LEU
1	L	432	GLN
1	M	223	ALA
1	M	267	MET
1	M	356	ALA
1	M	389	MET
1	M	401	HIS
1	M	429	LEU
1	M	432	GLN
1	N	85	ALA
1	N	146	GLN
1	N	155	ASP
1	N	232	GLU
1	N	267	MET
1	N	401	HIS
1	N	425	LYS
1	N	429	LEU
1	N	432	GLN
2	O	51	ASN
2	P	5	PRO

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Mol	Chain	Res	Type
2	P	21	SER
2	Q	80	ASN
2	R	14	ARG
2	R	51	ASN
2	S	14	ARG
2	T	21	SER
2	T	51	ASN
2	T	72	GLY
2	U	21	SER
2	U	52	GLY
1	A	228	SER
1	A	268	ARG
1	A	282	GLY
1	A	284	ARG
1	A	289	LEU
1	A	312	ALA
1	A	334	ASP
1	A	363	GLU
1	A	390	LYS
1	B	231	ARG
1	B	237	LEU
1	B	263	VAL
1	B	293	ALA
1	C	9	GLY
1	C	153	ASN
1	C	293	ALA
1	C	312	ALA
1	C	336	VAL
1	C	338	GLU
1	C	342	ILE
1	D	231	ARG
1	D	268	ARG
1	D	334	ASP
1	E	153	ASN
1	E	228	SER
1	E	268	ARG
1	E	280	GLY
1	E	358	SER
1	F	251	ALA
1	F	284	ARG
1	F	362	ARG
1	G	206	ASN

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Mol	Chain	Res	Type
1	G	360	TYR
1	G	362	ARG
1	H	85	ALA
1	H	155	ASP
1	H	232	GLU
1	H	267	MET
1	H	327	LYS
1	H	352	GLN
1	H	356	ALA
1	H	421	ARG
1	H	432	GLN
1	H	462	PRO
1	I	277	LYS
1	I	323	VAL
1	I	432	GLN
1	J	286	LYS
1	J	401	HIS
1	J	462	PRO
1	K	231	ARG
1	K	232	GLU
1	K	273	VAL
1	K	327	LYS
1	L	160	LYS
1	L	203	TYR
1	L	327	LYS
1	L	401	HIS
1	L	421	ARG
1	M	85	ALA
1	M	203	TYR
1	M	231	ARG
1	M	232	GLU
1	M	277	LYS
1	M	421	ARG
1	M	462	PRO
1	M	509	SER
1	N	66	PHE
1	N	203	TYR
1	N	252	GLU
1	N	286	LYS
1	N	389	MET
1	N	421	ARG
1	N	509	SER

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Mol	Chain	Res	Type
2	O	14	ARG
2	O	21	SER
2	O	45	ASN
2	Q	21	SER
2	R	21	SER
2	R	30	SER
2	S	21	SER
2	T	49	LEU
2	T	80	ASN
2	U	51	ASN
1	A	207	LYS
1	A	231	ARG
1	A	360	TYR
1	A	361	ASP
1	B	153	ASN
1	B	230	ILE
1	B	268	ARG
1	B	278	ALA
1	B	289	LEU
1	B	305	ILE
1	C	253	ASP
1	C	260	ALA
1	C	280	GLY
1	C	289	LEU
1	C	362	ARG
1	D	228	SER
1	D	251	ALA
1	D	253	ASP
1	D	293	ALA
1	D	303	GLU
1	D	305	ILE
1	E	253	ASP
1	E	284	ARG
1	E	294	THR
1	E	390	LYS
1	F	207	LYS
1	F	293	ALA
1	F	303	GLU
1	G	207	LYS
1	G	228	SER
1	G	230	ILE
1	H	203	TYR

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Mol	Chain	Res	Type
1	I	66	PHE
1	I	155	ASP
1	I	160	LYS
1	I	165	ALA
1	I	260	ALA
1	I	421	ARG
1	J	165	ALA
1	J	256	GLY
1	J	315	GLU
1	J	421	ARG
1	K	66	PHE
1	K	155	ASP
1	K	235	PRO
1	K	288	MET
1	K	304	GLU
1	K	421	ARG
1	K	462	PRO
1	L	352	GLN
1	L	462	PRO
1	M	89	THR
1	M	155	ASP
1	M	160	LYS
1	M	252	GLU
1	M	370	ALA
1	N	231	ARG
1	N	442	VAL
1	N	462	PRO
2	Q	72	GLY
2	T	5	PRO
2	T	53	GLU
1	A	260	ALA
1	A	294	THR
1	A	305	ILE
1	A	392	LYS
1	C	57	ALA
1	C	182	GLY
1	C	305	ILE
1	D	230	ILE
1	D	263	VAL
1	D	289	LEU
1	D	294	THR
1	E	158	VAL

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Mol	Chain	Res	Type
1	E	207	LYS
1	E	260	ALA
1	E	289	LEU
1	E	334	ASP
1	E	363	GLU
1	E	392	LYS
1	F	230	ILE
1	F	342	ILE
1	F	392	LYS
1	G	169	VAL
1	G	294	THR
1	G	305	ILE
1	G	392	LYS
1	H	153	ASN
1	H	160	LYS
1	H	231	ARG
1	H	288	MET
1	H	315	GLU
1	H	398	ASP
1	H	509	SER
1	I	235	PRO
1	I	259	LEU
1	I	442	VAL
1	I	462	PRO
1	J	160	LYS
1	J	231	ARG
1	J	232	GLU
1	J	235	PRO
1	J	288	MET
1	J	398	ASP
1	L	158	VAL
1	L	407	VAL
1	L	442	VAL
1	M	66	PHE
1	M	442	VAL
1	N	160	LYS
2	O	52	GLY
2	P	69	ASP
2	R	5	PRO
2	S	80	ASN
2	U	69	ASP
1	B	169	VAL

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Mol	Chain	Res	Type
1	B	207	LYS
1	C	207	LYS
1	C	251	ALA
1	C	278	ALA
1	C	310	GLU
1	C	361	ASP
1	D	207	LYS
1	D	336	VAL
1	E	237	LEU
1	F	158	VAL
1	G	231	ARG
1	G	466	ALA
1	H	165	ALA
1	K	315	GLU
1	K	442	VAL
1	L	153	ASN
1	L	155	ASP
1	L	159	GLY
1	M	286	LYS
1	N	342	ILE
2	Q	52	GLY
2	R	31	ALA
2	R	49	LEU
1	A	278	ALA
1	F	474	GLY
1	H	323	VAL
1	I	472	GLY
1	J	137	PRO
1	L	280	GLY
1	M	235	PRO
1	N	256	GLY
1	N	323	VAL
2	P	72	GLY
2	S	72	GLY
1	A	9	GLY
1	B	336	VAL
1	D	9	GLY
1	D	280	GLY
1	G	201	SER
1	G	282	GLY
1	L	56	VAL
1	N	32	GLY

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Mol	Chain	Res	Type
1	C	169	VAL
1	F	9	GLY
1	F	280	GLY
1	F	336	VAL
1	G	158	VAL
1	H	442	VAL
1	L	32	GLY
2	R	52	GLY
1	C	271	VAL
1	C	465	VAL
1	D	271	VAL
1	D	282	GLY
1	G	271	VAL
1	G	465	VAL
1	H	235	PRO
1	I	234	LEU
1	J	342	ILE
1	J	442	VAL
1	K	56	VAL
1	K	387	VAL
1	M	234	LEU
1	B	271	VAL
1	F	271	VAL
1	H	387	VAL
1	H	472	GLY
1	N	56	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 X-ray entries followed by that with respect to entries of similar resolution. The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	393/414 (95%)	369 (94%)	24 (6%)	26	68
1	B	393/414 (95%)	368 (94%)	25 (6%)	25	66
1	C	393/414 (95%)	369 (94%)	24 (6%)	26	68
1	D	393/414 (95%)	369 (94%)	24 (6%)	26	68
1	E	393/414 (95%)	368 (94%)	25 (6%)	25	66

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	F	393/414 (95%)	368 (94%)	25 (6%)	25	66
1	G	393/414 (95%)	367 (93%)	26 (7%)	24	64
1	H	403/414 (97%)	385 (96%)	18 (4%)	38	81
1	I	403/414 (97%)	383 (95%)	20 (5%)	34	77
1	J	403/414 (97%)	385 (96%)	18 (4%)	38	81
1	K	403/414 (97%)	387 (96%)	16 (4%)	42	84
1	L	403/414 (97%)	386 (96%)	17 (4%)	40	83
1	M	403/414 (97%)	386 (96%)	17 (4%)	40	83
1	N	403/414 (97%)	386 (96%)	17 (4%)	40	83
2	O	79/80 (99%)	73 (92%)	6 (8%)	19	57
2	P	79/80 (99%)	74 (94%)	5 (6%)	25	66
2	Q	79/80 (99%)	72 (91%)	7 (9%)	14	48
2	R	79/80 (99%)	70 (89%)	9 (11%)	8	33
2	S	79/80 (99%)	73 (92%)	6 (8%)	19	57
2	T	79/80 (99%)	71 (90%)	8 (10%)	11	39
2	U	79/80 (99%)	72 (91%)	7 (9%)	14	48
All	All	6125/6356 (96%)	5781 (94%)	344 (6%)	30	72

All (344) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	18	ARG
1	A	44	PHE
1	A	62	LEU
1	A	74	VAL
1	A	77	VAL
1	A	97	GLN
1	A	153	ASN
1	A	195	PHE
1	A	199	TYR
1	A	233	MET
1	A	247	LEU
1	A	252	GLU
1	A	255	GLU
1	A	257	GLU
1	A	267	MET

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Mol	Chain	Res	Type
1	A	290	GLN
1	A	291	ASP
1	A	303	GLU
1	A	315	GLU
1	A	348	GLN
1	A	360	TYR
1	A	422	VAL
1	A	453	GLN
1	A	494	LEU
1	B	18	ARG
1	B	44	PHE
1	B	62	LEU
1	B	74	VAL
1	B	77	VAL
1	B	97	GLN
1	B	153	ASN
1	B	195	PHE
1	B	199	TYR
1	B	203	TYR
1	B	222	LEU
1	B	233	MET
1	B	247	LEU
1	B	255	GLU
1	B	257	GLU
1	B	267	MET
1	B	290	GLN
1	B	291	ASP
1	B	303	GLU
1	B	315	GLU
1	B	348	GLN
1	B	360	TYR
1	B	422	VAL
1	B	453	GLN
1	B	494	LEU
1	C	18	ARG
1	C	23	LEU
1	C	44	PHE
1	C	62	LEU
1	C	74	VAL
1	C	77	VAL
1	C	97	GLN
1	C	153	ASN

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Mol	Chain	Res	Type
1	C	195	PHE
1	C	199	TYR
1	C	233	MET
1	C	247	LEU
1	C	255	GLU
1	C	257	GLU
1	C	267	MET
1	C	290	GLN
1	C	291	ASP
1	C	303	GLU
1	C	305	ILE
1	C	315	GLU
1	C	348	GLN
1	C	360	TYR
1	C	453	GLN
1	C	494	LEU
1	D	18	ARG
1	D	44	PHE
1	D	62	LEU
1	D	74	VAL
1	D	77	VAL
1	D	97	GLN
1	D	153	ASN
1	D	195	PHE
1	D	199	TYR
1	D	233	MET
1	D	247	LEU
1	D	255	GLU
1	D	257	GLU
1	D	267	MET
1	D	290	GLN
1	D	291	ASP
1	D	303	GLU
1	D	315	GLU
1	D	348	GLN
1	D	360	TYR
1	D	421	ARG
1	D	422	VAL
1	D	453	GLN
1	D	494	LEU
1	E	18	ARG
1	E	23	LEU

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Mol	Chain	Res	Type
1	E	44	PHE
1	E	62	LEU
1	E	74	VAL
1	E	77	VAL
1	E	97	GLN
1	E	153	ASN
1	E	195	PHE
1	E	199	TYR
1	E	247	LEU
1	E	255	GLU
1	E	257	GLU
1	E	267	MET
1	E	279	PRO
1	E	290	GLN
1	E	291	ASP
1	E	303	GLU
1	E	315	GLU
1	E	348	GLN
1	E	360	TYR
1	E	422	VAL
1	E	453	GLN
1	E	461	GLU
1	E	494	LEU
1	F	18	ARG
1	F	23	LEU
1	F	44	PHE
1	F	62	LEU
1	F	74	VAL
1	F	97	GLN
1	F	153	ASN
1	F	195	PHE
1	F	199	TYR
1	F	233	MET
1	F	247	LEU
1	F	252	GLU
1	F	255	GLU
1	F	257	GLU
1	F	267	MET
1	F	290	GLN
1	F	291	ASP
1	F	303	GLU
1	F	315	GLU

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Mol	Chain	Res	Type
1	F	348	GLN
1	F	360	TYR
1	F	421	ARG
1	F	422	VAL
1	F	453	GLN
1	F	494	LEU
1	G	18	ARG
1	G	23	LEU
1	G	44	PHE
1	G	62	LEU
1	G	74	VAL
1	G	77	VAL
1	G	97	GLN
1	G	153	ASN
1	G	195	PHE
1	G	199	TYR
1	G	203	TYR
1	G	233	MET
1	G	247	LEU
1	G	255	GLU
1	G	257	GLU
1	G	267	MET
1	G	290	GLN
1	G	291	ASP
1	G	303	GLU
1	G	315	GLU
1	G	348	GLN
1	G	360	TYR
1	G	422	VAL
1	G	453	GLN
1	G	475	ASN
1	G	494	LEU
1	H	20	VAL
1	H	37	ASN
1	H	59	GLU
1	H	129	GLU
1	H	153	ASN
1	H	172	GLU
1	H	197	ARG
1	H	230	ILE
1	H	233	MET
1	H	284	ARG

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Mol	Chain	Res	Type
1	H	288	MET
1	H	291	ASP
1	H	331	THR
1	H	364	LYS
1	H	389	MET
1	H	426	LEU
1	H	432	GLN
1	H	433	ASN
1	I	11	ASP
1	I	20	VAL
1	I	37	ASN
1	I	59	GLU
1	I	129	GLU
1	I	147	VAL
1	I	153	ASN
1	I	172	GLU
1	I	230	ILE
1	I	233	MET
1	I	284	ARG
1	I	288	MET
1	I	291	ASP
1	I	331	THR
1	I	361	ASP
1	I	389	MET
1	I	426	LEU
1	I	432	GLN
1	I	433	ASN
1	I	504	LEU
1	J	11	ASP
1	J	20	VAL
1	J	37	ASN
1	J	59	GLU
1	J	129	GLU
1	J	147	VAL
1	J	153	ASN
1	J	172	GLU
1	J	230	ILE
1	J	233	MET
1	J	284	ARG
1	J	288	MET
1	J	291	ASP
1	J	361	ASP

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Mol	Chain	Res	Type
1	J	389	MET
1	J	426	LEU
1	J	432	GLN
1	J	433	ASN
1	K	37	ASN
1	K	59	GLU
1	K	129	GLU
1	K	147	VAL
1	K	153	ASN
1	K	172	GLU
1	K	179	ASP
1	K	230	ILE
1	K	233	MET
1	K	284	ARG
1	K	288	MET
1	K	361	ASP
1	K	389	MET
1	K	426	LEU
1	K	432	GLN
1	K	433	ASN
1	L	11	ASP
1	L	20	VAL
1	L	37	ASN
1	L	59	GLU
1	L	129	GLU
1	L	153	ASN
1	L	172	GLU
1	L	230	ILE
1	L	233	MET
1	L	284	ARG
1	L	288	MET
1	L	291	ASP
1	L	364	LYS
1	L	389	MET
1	L	426	LEU
1	L	432	GLN
1	L	433	ASN
1	M	11	ASP
1	M	20	VAL
1	M	37	ASN
1	M	59	GLU
1	M	129	GLU

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Mol	Chain	Res	Type
1	M	147	VAL
1	M	153	ASN
1	M	172	GLU
1	M	230	ILE
1	M	233	MET
1	M	284	ARG
1	M	288	MET
1	M	307	MET
1	M	389	MET
1	M	426	LEU
1	M	432	GLN
1	M	433	ASN
1	N	11	ASP
1	N	20	VAL
1	N	37	ASN
1	N	59	GLU
1	N	129	GLU
1	N	153	ASN
1	N	172	GLU
1	N	230	ILE
1	N	233	MET
1	N	284	ARG
1	N	288	MET
1	N	291	ASP
1	N	361	ASP
1	N	389	MET
1	N	426	LEU
1	N	432	GLN
1	N	433	ASN
2	O	3	ILE
2	O	6	LEU
2	O	20	LYS
2	O	37	ARG
2	O	53	GLU
2	O	55	LYS
2	P	3	ILE
2	P	6	LEU
2	P	20	LYS
2	P	37	ARG
2	P	55	LYS
2	Q	3	ILE
2	Q	6	LEU

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Mol	Chain	Res	Type
2	Q	20	LYS
2	Q	37	ARG
2	Q	53	GLU
2	Q	55	LYS
2	Q	58	ASP
2	R	3	ILE
2	R	6	LEU
2	R	20	LYS
2	R	37	ARG
2	R	53	GLU
2	R	55	LYS
2	R	58	ASP
2	R	84	LEU
2	R	86	MET
2	S	3	ILE
2	S	6	LEU
2	S	20	LYS
2	S	37	ARG
2	S	53	GLU
2	S	55	LYS
2	T	3	ILE
2	T	6	LEU
2	T	20	LYS
2	T	28	THR
2	T	37	ARG
2	T	53	GLU
2	T	55	LYS
2	T	58	ASP
2	U	3	ILE
2	U	6	LEU
2	U	20	LYS
2	U	37	ARG
2	U	53	GLU
2	U	55	LYS
2	U	58	ASP

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (187) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	21	ASN
1	A	82	ASN
1	A	112	ASN

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Mol	Chain	Res	Type
1	A	146	GLN
1	A	153	ASN
1	A	194	GLN
1	A	319	GLN
1	A	348	GLN
1	A	352	GLN
1	A	366	GLN
1	A	432	GLN
1	A	457	ASN
1	A	475	ASN
1	B	21	ASN
1	B	82	ASN
1	B	112	ASN
1	B	146	GLN
1	B	153	ASN
1	B	194	GLN
1	B	319	GLN
1	B	348	GLN
1	B	351	GLN
1	B	352	GLN
1	B	366	GLN
1	B	432	GLN
1	B	457	ASN
1	B	475	ASN
1	C	21	ASN
1	C	82	ASN
1	C	112	ASN
1	C	146	GLN
1	C	153	ASN
1	C	194	GLN
1	C	319	GLN
1	C	348	GLN
1	C	351	GLN
1	C	352	GLN
1	C	366	GLN
1	C	432	GLN
1	C	457	ASN
1	C	475	ASN
1	D	21	ASN
1	D	82	ASN
1	D	112	ASN
1	D	146	GLN

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Mol	Chain	Res	Type
1	D	153	ASN
1	D	194	GLN
1	D	319	GLN
1	D	348	GLN
1	D	351	GLN
1	D	352	GLN
1	D	366	GLN
1	D	432	GLN
1	D	457	ASN
1	D	475	ASN
1	E	21	ASN
1	E	82	ASN
1	E	112	ASN
1	E	146	GLN
1	E	153	ASN
1	E	194	GLN
1	E	319	GLN
1	E	348	GLN
1	E	351	GLN
1	E	352	GLN
1	E	366	GLN
1	E	432	GLN
1	E	457	ASN
1	F	21	ASN
1	F	82	ASN
1	F	112	ASN
1	F	146	GLN
1	F	153	ASN
1	F	194	GLN
1	F	265	ASN
1	F	319	GLN
1	F	348	GLN
1	F	351	GLN
1	F	352	GLN
1	F	366	GLN
1	F	432	GLN
1	F	457	ASN
1	G	21	ASN
1	G	72	GLN
1	G	82	ASN
1	G	112	ASN
1	G	146	GLN

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Mol	Chain	Res	Type
1	G	153	ASN
1	G	194	GLN
1	G	319	GLN
1	G	348	GLN
1	G	351	GLN
1	G	352	GLN
1	G	366	GLN
1	G	432	GLN
1	G	457	ASN
1	H	21	ASN
1	H	37	ASN
1	H	72	GLN
1	H	97	GLN
1	H	153	ASN
1	H	319	GLN
1	H	348	GLN
1	H	352	GLN
1	H	433	ASN
1	H	436	GLN
1	I	21	ASN
1	I	37	ASN
1	I	72	GLN
1	I	97	GLN
1	I	146	GLN
1	I	153	ASN
1	I	319	GLN
1	I	348	GLN
1	I	352	GLN
1	I	433	ASN
1	I	436	GLN
1	J	21	ASN
1	J	37	ASN
1	J	72	GLN
1	J	97	GLN
1	J	153	ASN
1	J	319	GLN
1	J	348	GLN
1	J	433	ASN
1	J	436	GLN
1	K	21	ASN
1	K	37	ASN
1	K	72	GLN

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Mol	Chain	Res	Type
1	K	97	GLN
1	K	146	GLN
1	K	153	ASN
1	K	319	GLN
1	K	348	GLN
1	K	352	GLN
1	K	433	ASN
1	K	436	GLN
1	L	21	ASN
1	L	37	ASN
1	L	72	GLN
1	L	97	GLN
1	L	153	ASN
1	L	319	GLN
1	L	348	GLN
1	L	352	GLN
1	L	433	ASN
1	L	436	GLN
1	M	21	ASN
1	M	72	GLN
1	M	97	GLN
1	M	146	GLN
1	M	153	ASN
1	M	319	GLN
1	M	348	GLN
1	M	433	ASN
1	M	436	GLN
1	N	21	ASN
1	N	37	ASN
1	N	72	GLN
1	N	97	GLN
1	N	146	GLN
1	N	153	ASN
1	N	319	GLN
1	N	348	GLN
1	N	433	ASN
1	N	436	GLN
2	O	45	ASN
2	O	68	ASN
2	O	80	ASN
2	P	45	ASN
2	P	68	ASN

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Mol	Chain	Res	Type
2	P	80	ASN
2	Q	45	ASN
2	Q	68	ASN
2	Q	80	ASN
2	R	45	ASN
2	R	68	ASN
2	R	80	ASN
2	S	45	ASN
2	S	68	ASN
2	S	80	ASN
2	T	45	ASN
2	T	68	ASN
2	T	80	ASN
2	U	45	ASN
2	U	68	ASN
2	U	80	ASN

5.3.3 RNA ⓘ

There are no RNA chains in this entry.

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

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

5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry ⓘ

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

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
4	ADP	A	1	3	29,29,29	0.69	0	45,45,45	1.08	2 (4%)
4	ADP	B	1	3	29,29,29	0.71	0	45,45,45	1.09	3 (6%)
4	ADP	C	1	3	29,29,29	0.69	0	45,45,45	1.02	2 (4%)
4	ADP	D	1	3	29,29,29	0.76	1 (3%)	45,45,45	1.06	3 (6%)
4	ADP	E	1	3	29,29,29	0.68	0	45,45,45	1.15	3 (6%)
4	ADP	F	1	3	29,29,29	0.70	0	45,45,45	1.07	2 (4%)
4	ADP	G	1	3	29,29,29	0.69	0	45,45,45	1.04	2 (4%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	ADP	A	1	3	-	0/16/32/32	0/1/3/3
4	ADP	B	1	3	-	0/16/32/32	0/1/3/3
4	ADP	C	1	3	-	0/16/32/32	0/1/3/3
4	ADP	D	1	3	-	0/16/32/32	0/1/3/3
4	ADP	E	1	3	-	0/16/32/32	0/1/3/3
4	ADP	F	1	3	-	0/16/32/32	0/1/3/3
4	ADP	G	1	3	-	0/16/32/32	0/1/3/3

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	D	1	ADP	PB-O2B	-2.15	1.46	1.54

All (17) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	D	1	ADP	PA-O3A-PB	-4.06	119.78	131.68
4	A	1	ADP	PA-O3A-PB	-3.86	120.37	131.68
4	B	1	ADP	PA-O3A-PB	-3.40	121.71	131.68
4	G	1	ADP	PA-O3A-PB	-3.39	121.74	131.68
4	E	1	ADP	PA-O3A-PB	-3.29	122.05	131.68
4	C	1	ADP	PA-O3A-PB	-3.28	122.06	131.68
4	F	1	ADP	PA-O3A-PB	-3.14	122.48	131.68
4	D	1	ADP	O3B-PB-O2B	2.39	116.92	107.61
4	E	1	ADP	C5'-C4'-C3'	2.27	124.30	115.21
4	G	1	ADP	O3B-PB-O2B	2.23	116.29	107.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	1	ADP	O3B-PB-O2B	2.20	116.16	107.61
4	B	1	ADP	O3B-PB-O2B	2.16	116.03	107.61
4	C	1	ADP	O3B-PB-O2B	2.14	115.93	107.61
4	F	1	ADP	O3B-PB-O2B	2.11	115.82	107.61
4	B	1	ADP	C8-N9-C1'	2.09	130.50	126.38
4	D	1	ADP	O2B-PB-O1B	2.06	117.19	110.44
4	E	1	ADP	O3B-PB-O2B	2.02	115.49	107.61

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	524/547 (95%)	-0.00	2 (0%) 90 41	4, 43, 100, 100	0
1	B	524/547 (95%)	-0.01	1 (0%) 93 54	6, 44, 100, 100	0
1	C	524/547 (95%)	-0.04	4 (0%) 83 26	3, 44, 100, 100	0
1	D	524/547 (95%)	-0.01	1 (0%) 93 54	5, 43, 100, 100	0
1	E	524/547 (95%)	0.05	2 (0%) 90 41	6, 46, 100, 100	0
1	F	524/547 (95%)	0.06	6 (1%) 77 21	6, 47, 100, 100	0
1	G	524/547 (95%)	0.01	7 (1%) 74 19	6, 44, 100, 100	0
1	H	524/547 (95%)	-0.09	0 100 100	6, 61, 99, 100	0
1	I	524/547 (95%)	-0.10	0 100 100	6, 61, 99, 100	0
1	J	524/547 (95%)	-0.07	0 100 100	7, 61, 99, 100	0
1	K	524/547 (95%)	-0.06	2 (0%) 90 41	7, 63, 99, 100	0
1	L	524/547 (95%)	-0.05	0 100 100	9, 64, 99, 100	0
1	M	524/547 (95%)	-0.04	0 100 100	7, 63, 99, 100	0
1	N	524/547 (95%)	-0.03	0 100 100	6, 62, 99, 100	0
2	O	97/97 (100%)	0.47	3 (3%) 47 9	74, 96, 100, 100	0
2	P	97/97 (100%)	0.45	2 (2%) 60 12	71, 96, 100, 100	0
2	Q	97/97 (100%)	0.36	1 (1%) 79 22	71, 96, 100, 100	0
2	R	97/97 (100%)	0.44	2 (2%) 60 12	73, 96, 100, 100	0
2	S	97/97 (100%)	0.41	1 (1%) 79 22	72, 96, 100, 100	0
2	T	97/97 (100%)	0.47	2 (2%) 60 12	74, 96, 100, 100	0
2	U	97/97 (100%)	0.34	2 (2%) 60 12	73, 96, 100, 100	0
All	All	8015/8337 (96%)	0.01	38 (0%) 88 36	3, 64, 100, 100	0

All (38) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	D	212	ALA	3.3
2	R	33	ALA	2.9
1	F	211	GLY	2.8
1	E	270	ILE	2.7
1	G	372	LEU	2.7
2	T	18	GLU	2.7
2	T	27	LEU	2.7
1	C	214	GLU	2.6
2	O	33	ALA	2.6
2	U	33	ALA	2.5
1	G	203	TYR	2.5
1	F	212	ALA	2.5
1	G	199	TYR	2.5
1	C	199	TYR	2.4
2	O	80	ASN	2.4
2	S	33	ALA	2.4
2	Q	25	ILE	2.3
1	F	172	GLU	2.3
1	G	208	PRO	2.3
1	K	186	GLU	2.3
1	F	171	LYS	2.3
2	R	25	ILE	2.3
1	E	375	GLY	2.2
2	P	32	ALA	2.2
1	B	192	GLY	2.2
1	A	314	LEU	2.2
1	C	191	GLU	2.2
2	P	33	ALA	2.2
1	K	360	TYR	2.1
1	G	198	GLY	2.1
2	U	32	ALA	2.1
1	A	208	PRO	2.1
1	F	214	GLU	2.1
1	G	195	PHE	2.0
1	G	214	GLU	2.0
2	O	25	ILE	2.0
1	C	211	GLY	2.0
1	F	191	GLU	2.0

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

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

6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.4 Ligands ⓘ

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
3	MG	C	550	1/1	0.32	7.71	13,13,13,13	0
3	MG	E	550	1/1	0.33	6.86	9,9,9,9	0
3	MG	D	550	1/1	0.32	4.98	5,5,5,5	0
3	MG	F	550	1/1	0.35	4.39	13,13,13,13	0
3	MG	A	550	1/1	0.34	3.94	2,2,2,2	0
4	ADP	B	1	27/27	0.30	3.65	13,34,39,49	0
3	MG	B	550	1/1	0.31	3.60	14,14,14,14	0
4	ADP	A	1	27/27	0.30	2.26	14,31,39,48	0
4	ADP	C	1	27/27	0.27	2.25	16,31,38,47	0
3	MG	G	550	1/1	0.26	1.87	12,12,12,12	0
4	ADP	G	1	27/27	0.26	1.63	15,31,39,49	0
4	ADP	D	1	27/27	0.26	1.59	11,31,36,48	0
4	ADP	F	1	27/27	0.26	1.28	20,35,41,47	0
4	ADP	E	1	27/27	0.27	1.18	8,32,39,50	0

6.5 Other polymers ⓘ

There are no such residues in this entry.