



Full wwPDB X-ray Structure Validation Report

Feb 28, 2014 – 03:28 AM GMT

PDB ID : 2R5H
Title : Pentamer structure of Major Capsid Protein L1 of Human Papilloma Virus type 16
Authors : Bishop, B.; Dasgupta, J.; Chen, X.S.
Deposited on : 2007-09-03
Resolution : 3.70 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>

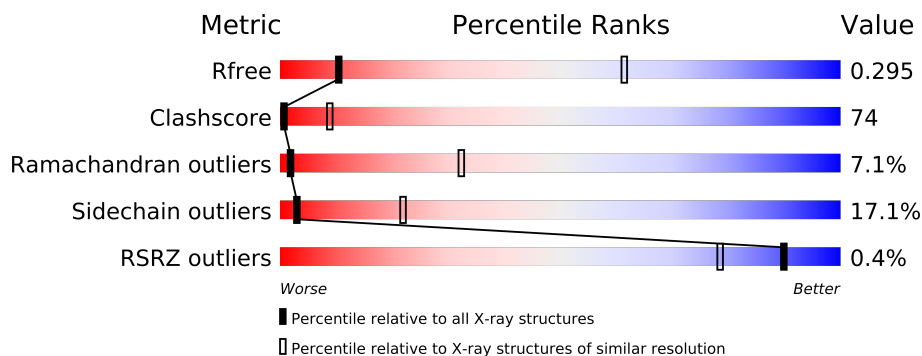
The following versions of software and data (see [references](#)) were used in the production of this report:

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 3.70 Å.

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




Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	66092	1098 (4.00-3.40)
Clashscore	79885	1009 (3.94-3.46)
Ramachandran outliers	78287	1016 (3.98-3.42)
Sidechain outliers	78261	1014 (3.98-3.42)
RSRZ outliers	66119	1099 (4.00-3.40)

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	424	
1	B	424	
1	C	424	
1	D	424	
1	E	424	
1	F	424	
1	G	424	
1	H	424	
1	I	424	
1	J	424	
1	K	424	
1	L	424	
1	M	424	
1	N	424	

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Mol	Chain	Length	Quality of chain
1	O	424	 A horizontal bar chart representing the quality of the protein chain. The bar is divided into four segments: a short green segment at the beginning, followed by a long yellow segment, then a long orange segment, and a short red segment at the end. The segments are separated by thin black lines.

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 49650 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 Late major capsid protein L1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	419	Total	C	N	O	S	0	0	0
			3310	2108	554	628	20			
1	B	419	Total	C	N	O	S	0	0	0
			3310	2108	554	628	20			
1	C	419	Total	C	N	O	S	0	0	0
			3310	2108	554	628	20			
1	D	419	Total	C	N	O	S	0	0	0
			3310	2108	554	628	20			
1	E	419	Total	C	N	O	S	0	0	0
			3310	2108	554	628	20			
1	F	419	Total	C	N	O	S	0	0	0
			3310	2108	554	628	20			
1	G	419	Total	C	N	O	S	0	0	0
			3310	2108	554	628	20			
1	H	419	Total	C	N	O	S	0	0	0
			3310	2108	554	628	20			
1	I	419	Total	C	N	O	S	0	0	0
			3310	2108	554	628	20			
1	J	419	Total	C	N	O	S	0	0	0
			3310	2108	554	628	20			
1	K	419	Total	C	N	O	S	0	0	0
			3310	2108	554	628	20			
1	L	419	Total	C	N	O	S	0	0	0
			3310	2108	554	628	20			
1	M	419	Total	C	N	O	S	0	0	0
			3310	2108	554	628	20			
1	N	419	Total	C	N	O	S	0	0	0
			3310	2108	554	628	20			
1	O	419	Total	C	N	O	S	0	0	0
			3310	2108	554	628	20			

There are 135 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	20	ALA	-	EXPRESSION TAG	UNP Q81007
A	177	GLN	ASN	ENGINEERED	UNP Q81007
A	181	GLN	ASN	ENGINEERED	UNP Q81007
A	404	GLY	-	LINKER	UNP Q81007
A	405	GLY	-	LINKER	UNP Q81007
A	406	SER	-	LINKER	UNP Q81007
A	407	GLY	-	LINKER	UNP Q81007
A	408	GLY	-	LINKER	UNP Q81007
A	472	LEU	-	EXPRESSION TAG	UNP Q81007
B	20	ALA	-	EXPRESSION TAG	UNP Q81007
B	177	GLN	ASN	ENGINEERED	UNP Q81007
B	181	GLN	ASN	ENGINEERED	UNP Q81007
B	404	GLY	-	LINKER	UNP Q81007
B	405	GLY	-	LINKER	UNP Q81007
B	406	SER	-	LINKER	UNP Q81007
B	407	GLY	-	LINKER	UNP Q81007
B	408	GLY	-	LINKER	UNP Q81007
B	472	LEU	-	EXPRESSION TAG	UNP Q81007
C	20	ALA	-	EXPRESSION TAG	UNP Q81007
C	177	GLN	ASN	ENGINEERED	UNP Q81007
C	181	GLN	ASN	ENGINEERED	UNP Q81007
C	404	GLY	-	LINKER	UNP Q81007
C	405	GLY	-	LINKER	UNP Q81007
C	406	SER	-	LINKER	UNP Q81007
C	407	GLY	-	LINKER	UNP Q81007
C	408	GLY	-	LINKER	UNP Q81007
C	472	LEU	-	EXPRESSION TAG	UNP Q81007
D	20	ALA	-	EXPRESSION TAG	UNP Q81007
D	177	GLN	ASN	ENGINEERED	UNP Q81007
D	181	GLN	ASN	ENGINEERED	UNP Q81007
D	404	GLY	-	LINKER	UNP Q81007
D	405	GLY	-	LINKER	UNP Q81007
D	406	SER	-	LINKER	UNP Q81007
D	407	GLY	-	LINKER	UNP Q81007
D	408	GLY	-	LINKER	UNP Q81007
D	472	LEU	-	EXPRESSION TAG	UNP Q81007
E	20	ALA	-	EXPRESSION TAG	UNP Q81007
E	177	GLN	ASN	ENGINEERED	UNP Q81007
E	181	GLN	ASN	ENGINEERED	UNP Q81007
E	404	GLY	-	LINKER	UNP Q81007
E	405	GLY	-	LINKER	UNP Q81007
E	406	SER	-	LINKER	UNP Q81007
E	407	GLY	-	LINKER	UNP Q81007

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Chain	Residue	Modelled	Actual	Comment	Reference
E	408	GLY	-	LINKER	UNP Q81007
E	472	LEU	-	EXPRESSION TAG	UNP Q81007
F	20	ALA	-	EXPRESSION TAG	UNP Q81007
F	177	GLN	ASN	ENGINEERED	UNP Q81007
F	181	GLN	ASN	ENGINEERED	UNP Q81007
F	404	GLY	-	LINKER	UNP Q81007
F	405	GLY	-	LINKER	UNP Q81007
F	406	SER	-	LINKER	UNP Q81007
F	407	GLY	-	LINKER	UNP Q81007
F	408	GLY	-	LINKER	UNP Q81007
F	472	LEU	-	EXPRESSION TAG	UNP Q81007
G	20	ALA	-	EXPRESSION TAG	UNP Q81007
G	177	GLN	ASN	ENGINEERED	UNP Q81007
G	181	GLN	ASN	ENGINEERED	UNP Q81007
G	404	GLY	-	LINKER	UNP Q81007
G	405	GLY	-	LINKER	UNP Q81007
G	406	SER	-	LINKER	UNP Q81007
G	407	GLY	-	LINKER	UNP Q81007
G	408	GLY	-	LINKER	UNP Q81007
G	472	LEU	-	EXPRESSION TAG	UNP Q81007
H	20	ALA	-	EXPRESSION TAG	UNP Q81007
H	177	GLN	ASN	ENGINEERED	UNP Q81007
H	181	GLN	ASN	ENGINEERED	UNP Q81007
H	404	GLY	-	LINKER	UNP Q81007
H	405	GLY	-	LINKER	UNP Q81007
H	406	SER	-	LINKER	UNP Q81007
H	407	GLY	-	LINKER	UNP Q81007
H	408	GLY	-	LINKER	UNP Q81007
H	472	LEU	-	EXPRESSION TAG	UNP Q81007
I	20	ALA	-	EXPRESSION TAG	UNP Q81007
I	177	GLN	ASN	ENGINEERED	UNP Q81007
I	181	GLN	ASN	ENGINEERED	UNP Q81007
I	404	GLY	-	LINKER	UNP Q81007
I	405	GLY	-	LINKER	UNP Q81007
I	406	SER	-	LINKER	UNP Q81007
I	407	GLY	-	LINKER	UNP Q81007
I	408	GLY	-	LINKER	UNP Q81007
I	472	LEU	-	EXPRESSION TAG	UNP Q81007
J	20	ALA	-	EXPRESSION TAG	UNP Q81007
J	177	GLN	ASN	ENGINEERED	UNP Q81007
J	181	GLN	ASN	ENGINEERED	UNP Q81007
J	404	GLY	-	LINKER	UNP Q81007

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Chain	Residue	Modelled	Actual	Comment	Reference
J	405	GLY	-	LINKER	UNP Q81007
J	406	SER	-	LINKER	UNP Q81007
J	407	GLY	-	LINKER	UNP Q81007
J	408	GLY	-	LINKER	UNP Q81007
J	472	LEU	-	EXPRESSION TAG	UNP Q81007
K	20	ALA	-	EXPRESSION TAG	UNP Q81007
K	177	GLN	ASN	ENGINEERED	UNP Q81007
K	181	GLN	ASN	ENGINEERED	UNP Q81007
K	404	GLY	-	LINKER	UNP Q81007
K	405	GLY	-	LINKER	UNP Q81007
K	406	SER	-	LINKER	UNP Q81007
K	407	GLY	-	LINKER	UNP Q81007
K	408	GLY	-	LINKER	UNP Q81007
K	472	LEU	-	EXPRESSION TAG	UNP Q81007
L	20	ALA	-	EXPRESSION TAG	UNP Q81007
L	177	GLN	ASN	ENGINEERED	UNP Q81007
L	181	GLN	ASN	ENGINEERED	UNP Q81007
L	404	GLY	-	LINKER	UNP Q81007
L	405	GLY	-	LINKER	UNP Q81007
L	406	SER	-	LINKER	UNP Q81007
L	407	GLY	-	LINKER	UNP Q81007
L	408	GLY	-	LINKER	UNP Q81007
L	472	LEU	-	EXPRESSION TAG	UNP Q81007
M	20	ALA	-	EXPRESSION TAG	UNP Q81007
M	177	GLN	ASN	ENGINEERED	UNP Q81007
M	181	GLN	ASN	ENGINEERED	UNP Q81007
M	404	GLY	-	LINKER	UNP Q81007
M	405	GLY	-	LINKER	UNP Q81007
M	406	SER	-	LINKER	UNP Q81007
M	407	GLY	-	LINKER	UNP Q81007
M	408	GLY	-	LINKER	UNP Q81007
M	472	LEU	-	EXPRESSION TAG	UNP Q81007
N	20	ALA	-	EXPRESSION TAG	UNP Q81007
N	177	GLN	ASN	ENGINEERED	UNP Q81007
N	181	GLN	ASN	ENGINEERED	UNP Q81007
N	404	GLY	-	LINKER	UNP Q81007
N	405	GLY	-	LINKER	UNP Q81007
N	406	SER	-	LINKER	UNP Q81007
N	407	GLY	-	LINKER	UNP Q81007
N	408	GLY	-	LINKER	UNP Q81007
N	472	LEU	-	EXPRESSION TAG	UNP Q81007
O	20	ALA	-	EXPRESSION TAG	UNP Q81007

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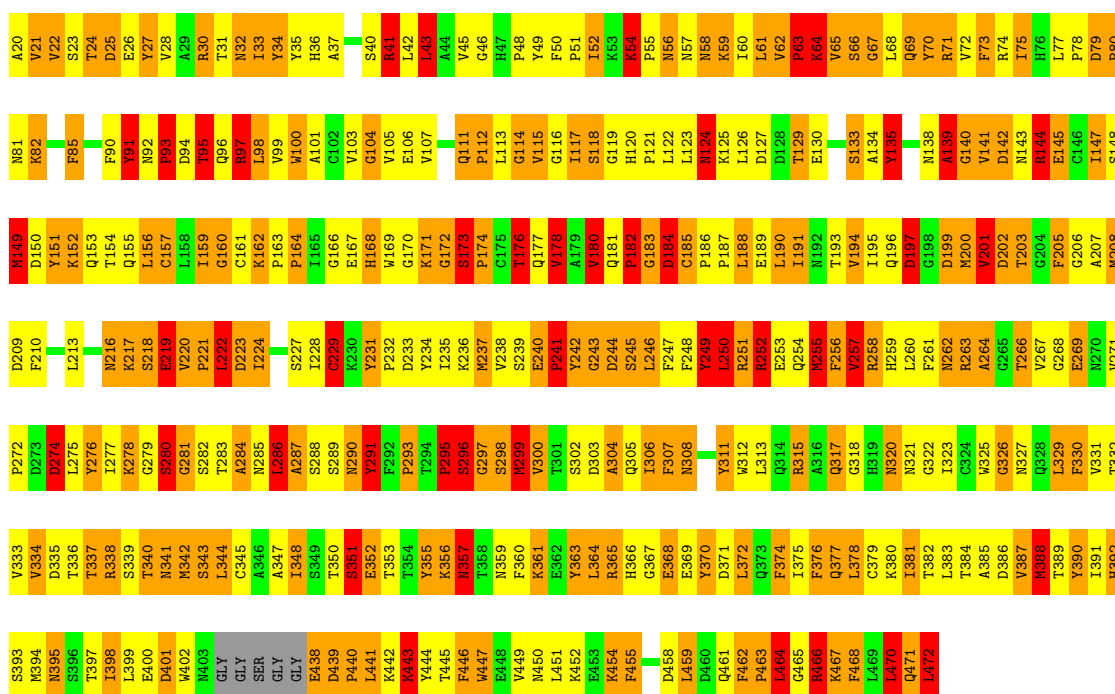
Chain	Residue	Modelled	Actual	Comment	Reference
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O	181	GLN	ASN	ENGINEERED	UNP Q81007
O	404	GLY	-	LINKER	UNP Q81007
O	405	GLY	-	LINKER	UNP Q81007
O	406	SER	-	LINKER	UNP Q81007
O	407	GLY	-	LINKER	UNP Q81007
O	408	GLY	-	LINKER	UNP Q81007
O	472	LEU	-	EXPRESSION TAG	UNP Q81007

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.

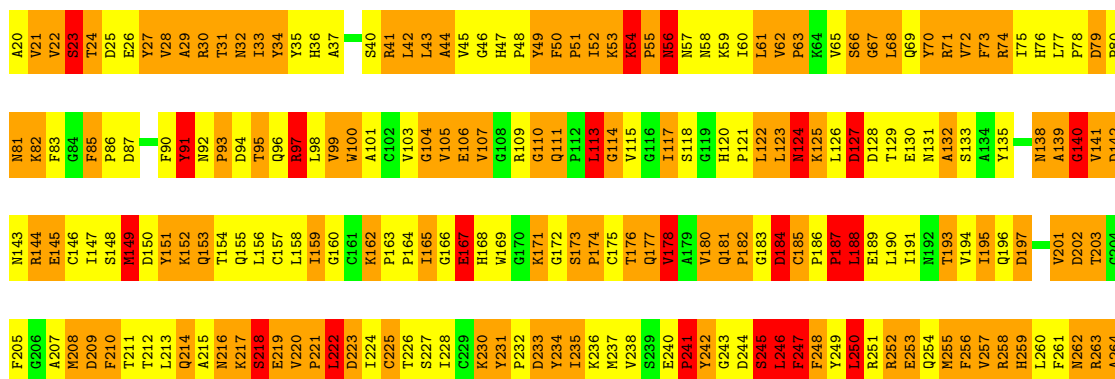
• Molecule 1: Late major capsid protein L1

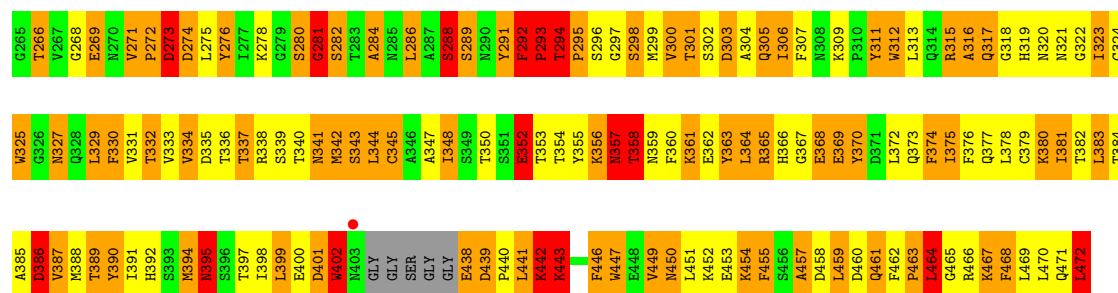
Chain A:



• Molecule 1: Late major capsid protein L1

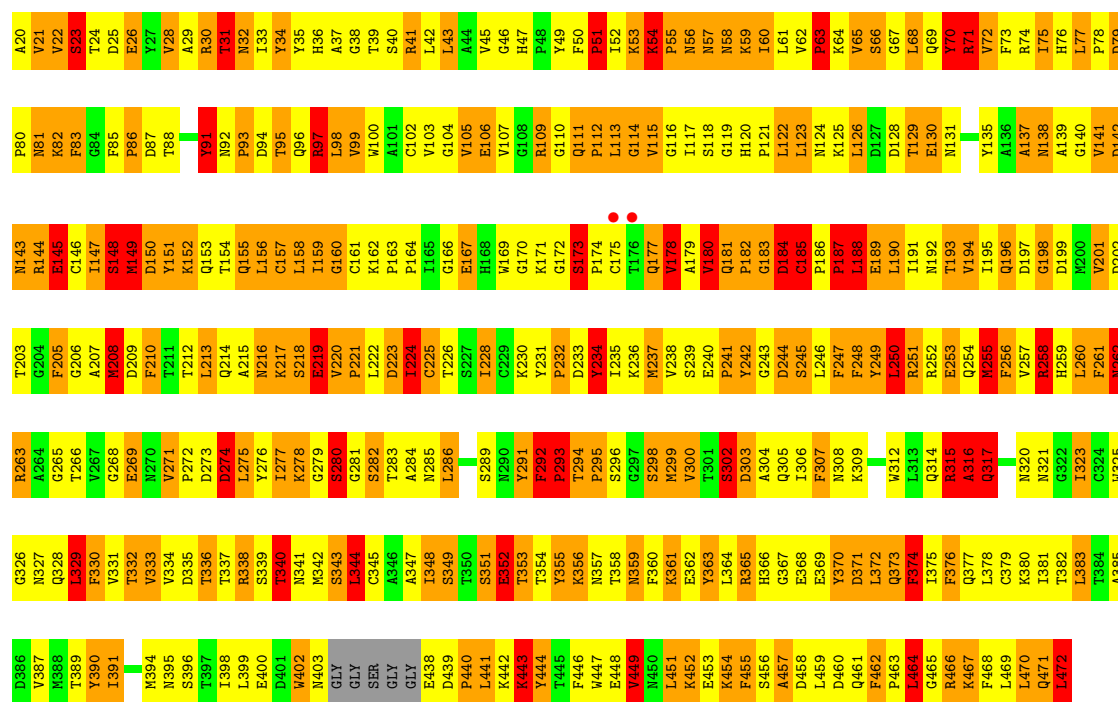
Chain B:





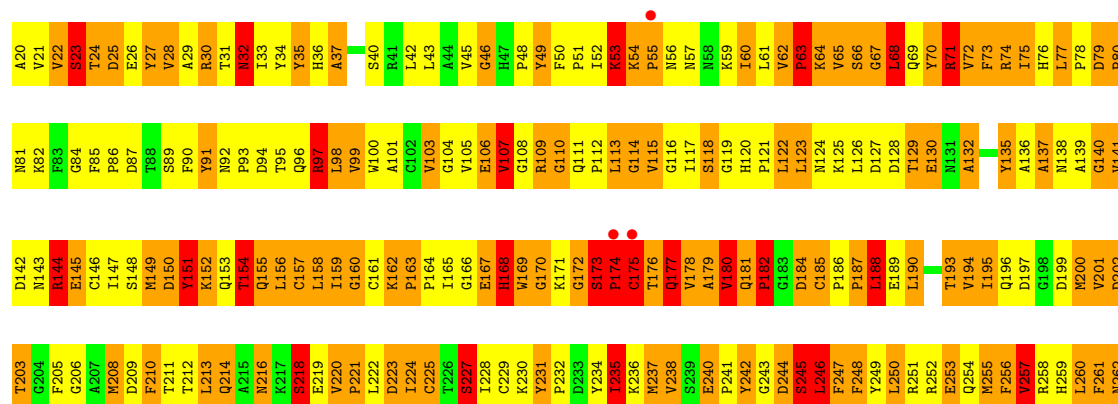
• Molecule 1: Late major capsid protein L1

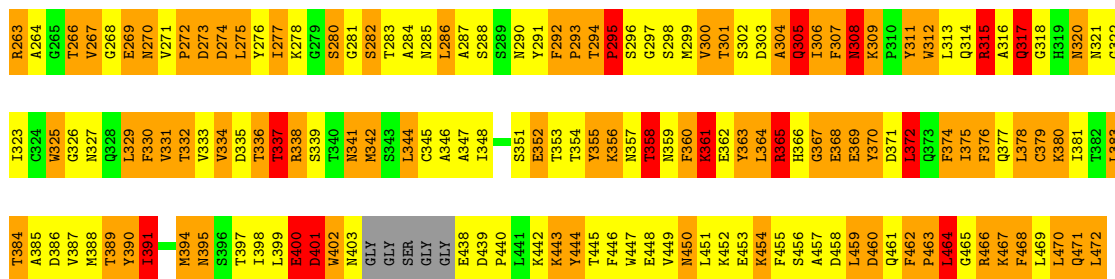
Chain C:



• Molecule 1: Late major capsid protein L1

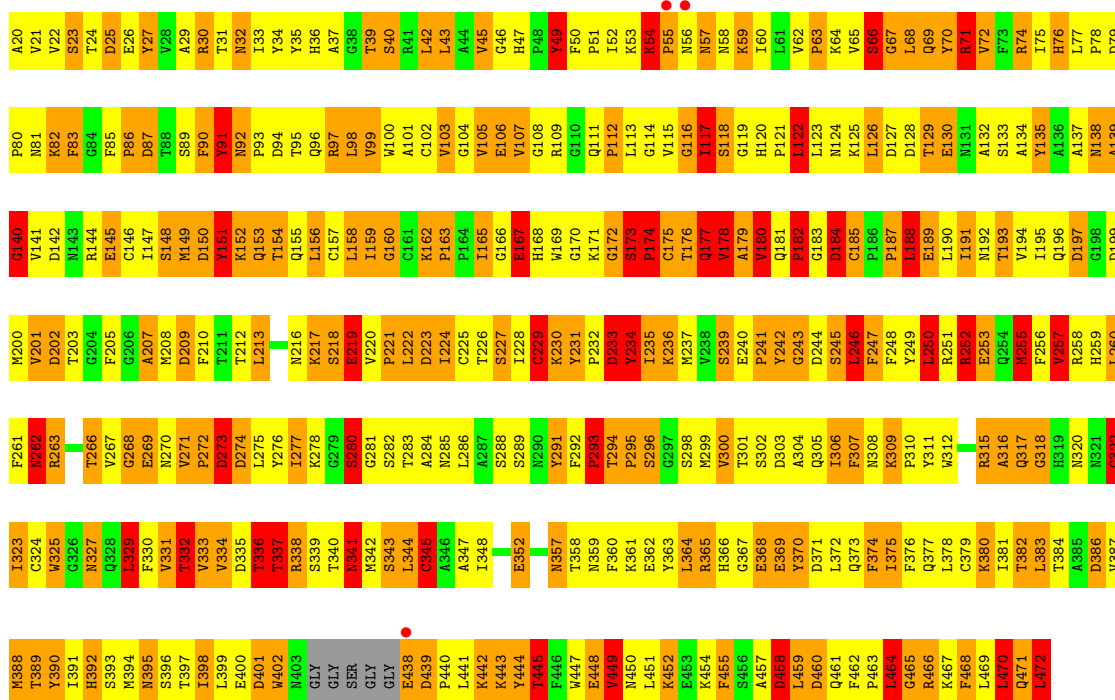
Chain D:





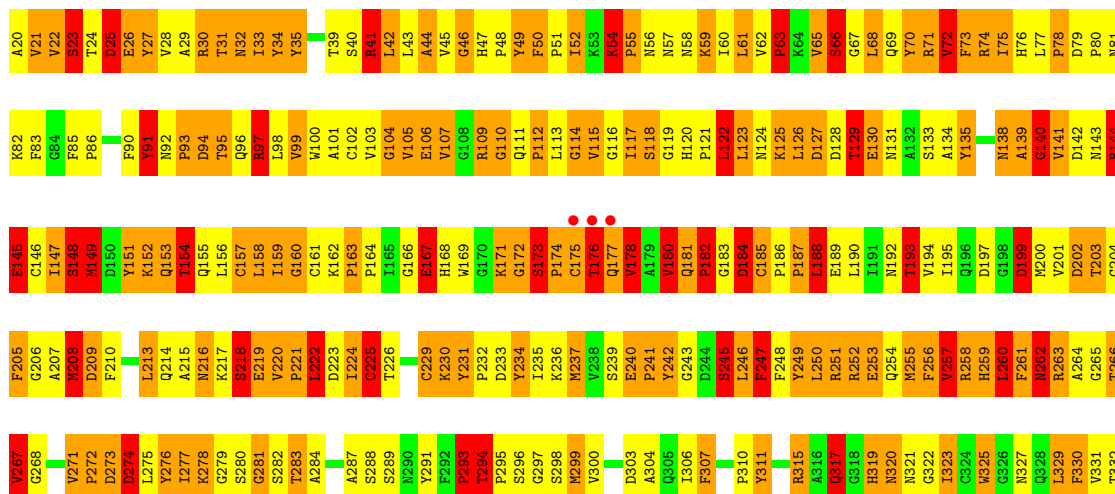
• Molecule 1: Late major capsid protein L1

Chain E:



• Molecule 1: Late major capsid protein L1

Chain F:



V333	S393
V334	M394
T335	N395
T336	S396
T337	T397
R338	I398
S339	L399
T340	E400
N341	D401
S342	N402
S343	R403
S344	T404
C345	GLY
A346	GLY
A347	SER
L348	GLY
S349	GLY
E438	E439
T350	D439
S351	P440
E352	L441
T353	K442
T354	K443
T355	V444
K356	T445
K357	T446
T358	W447
N359	V448
F360	V449
N450	N450
E361	L451
E362	K452
Y363	K453
L364	K454
R365	K455
H366	S456
G367	A457
E368	D458
E369	L459
Y370	D371
L371	L372
L372	L373
L373	F374
F374	L375
L375	G465
F376	R466
Q377	K467
L378	F468
C379	L469
K380	L470
L381	Q471
L382	L472
L383	
T384	
A385	
D386	
F387	
R388	
V389	
K390	
L391	
H392	

• Molecule 1: Late major capsid protein L1

Chain G:

A20	P80	G140	M200	F261	N321	L383	A20	P80	G140	M200	F261	N321	L383
V21	M81	V141	V201	M262	G322	T384	V21	M81	V141	V201	M262	G322	T384
S23	R82	N143	T202	A263	T323	A395	S23	R82	N143	T202	A263	T323	A395
T24	F83	R144	G204	G265	C324	D386	T24	F83	R144	G204	G265	C324	D386
D25	G84	R145	G205	T266	W325	M387	D25	G84	R145	G205	T266	W325	M387
E26	F85	C146	G206	V267	G326	T389	E26	F85	C146	G206	V267	G326	T389
Y27	D87	L147	A207	G268	Q328	Y390	Y27	D87	L147	A207	G268	Q328	Y390
V28	T88	S148	M208	E269	L329	T391	V28	T88	S148	M208	E269	L329	T391
A29	S89	M149	D209	N270	F330	H392	A29	S89	M149	D209	N270	F330	H392
R30	F90	D150	F210	V271	R30	S393	R30	F90	D150	F210	V271	R30	S393
T31	Y91	K151	T211	P272	T332	M394	T31	Y91	K151	T211	P272	T332	M394
N32	N92	K152	T212	D273	V333	N395	N32	N92	K152	T212	D273	V333	N395
I33	F93	Q153	L213	D274	V334	S396	I33	F93	Q153	L213	D274	V334	S396
Y34	D94	T154	Q214	L275	D335	T397	Y34	D94	T154	Q214	L275	D335	T397
Y35	T95	Q155	K215	Y276	T336	L398	Y35	T95	Q155	K215	Y276	T336	L398
H36	Q96	L156	N216	I277	L337	L399	H36	Q96	L156	N216	I277	L337	L399
A37	R97	C157	K217	K278	R338	E400	A37	R97	C157	K217	K278	R338	E400
G38	L98	L158	S218	G279	L340	L401	G38	L98	L158	S218	G279	L340	L401
T39	V99	I159	E219	S280	N341	W402	T39	V99	I159	E219	S280	N341	W402
S40	W100	G160	E220	G281	G342	M403	S40	W100	G160	E220	G281	G342	M403
R41	A101	C161	P221	S282	S343	GLY	R41	A101	C161	P221	S282	S343	GLY
L42	C102	K162	L222	T283	L344	GLY	L42	C102	K162	L222	T283	L344	GLY
L43	V103	P163	D223	A284	C345	SER	L43	V103	P163	D223	A284	C345	SER
A44	G104	P164	T224	N285	A346	GLY	A44	G104	P164	T224	N285	A346	GLY
V45	V105	I165	C225	L286	A347	GLY	V45	V105	I165	C225	L286	A347	GLY
G46	E106	G166	T226	A287	T348		G46	E106	G166	T226	A287	T348	
H47	V107	E167	S227	S288			H47	V107	E167	S227	S288		
P48	H168	K168	T228	S289	S351		P48	H168	K168	T228	S289	S351	
Y49	R109	W169	C229	N290	E352		Y49	R109	W169	C229	N290	E352	
F50	G110	K170	K230	Y291	T353		F50	G110	K170	K230	Y291	T353	
P51	Q111	K171	T231	F292	T354		P51	Q111	K171	T231	F292	T354	
I52	P112	G172	P232	P293	Y355		I52	P112	G172	P232	P293	Y355	
K53	L113	S173	D233	T294	K356		K53	L113	S173	D233	T294	K356	
E54	G114	P174	Y234	P295	N357		E54	G114	P174	Y234	P295	N357	
P55	V115	C175	I235	S296	T358		P55	V115	C175	I235	S296	T358	
N56	G116	T176	K236	G297	N359		N56	G116	T176	K236	G297	N359	
N57	L117	Q177	N237	S298	F360		N57	L117	Q177	N237	S298	F360	
N58	S118	V178	E240	M299	K361		N58	S118	V178	E240	M299	K361	
K59	G119	A179	P241	V300	E362		K59	G119	A179	P241	V300	E362	
T60	H120	T301	T241	T301	Y363		T60	H120	T301	T241	T301	Y363	
L61	P121	Q181	Y242	S302	L364		L61	P121	Q181	Y242	S302	L364	
V62	L122	P182	G243	D303	R365		V62	L122	P182	G243	D303	R365	
P63	L123	G183	D244	A304	H366		P63	L123	G183	D244	A304	H366	
K64	K64	D184	S245	Q305	G367		K64	K64	D184	S245	Q305	G367	
V65	V65	C185	L246	I306	E368		V65	V65	C185	L246	I306	E368	
S66	S66	P187	F247	F307	E369		S66	S66	P187	F247	F307	E369	
G67	G67	L188	F248	N308	L459		G67	G67	L188	F248	N308	L459	
L68	L68	K309	Y249	K309	D371		L68	L68	K309	Y249	K309	D371	
Q69	Q69	E189	L250	P310	L372		Q69	Q69	E189	L250	P310	L372	
Y70	Y70	L190	R251	Y311	Q373		Y70	Y70	L190	R251	Y311	Q373	
R71	R71	I191	E252	W312	F374		R71	R71	I191	E252	W312	F374	
V72	V72	N192	E253	N192	L313		V72	V72	N192	E253	N192	L313	
F73	F73	S193	Q254	Q134	F376		F73	F73	S193	Q254	Q134	F376	
R74	R74	V194	K255	R315	Q377		R74	R74	V194	K255	R315	Q377	
I75	I75	L195	F256	A316	L378		I75	I75	L195	F256	A316	L378	
H76	H76	Q196	V257	Q317	L379		H76	H76	Q196	V257	Q317	L379	
L77	L77	D197	R258	G318	L470		L77	L77	D197	R258	G318	L470	
P78	P78	N198	H259	H319	Q471		P78	P78	N198	H259	H319	Q471	
D79	D79	D199	L260	N320	L472		D79	D79	D199	L260	N320	L472	

• Molecule 1: Late major capsid protein L1

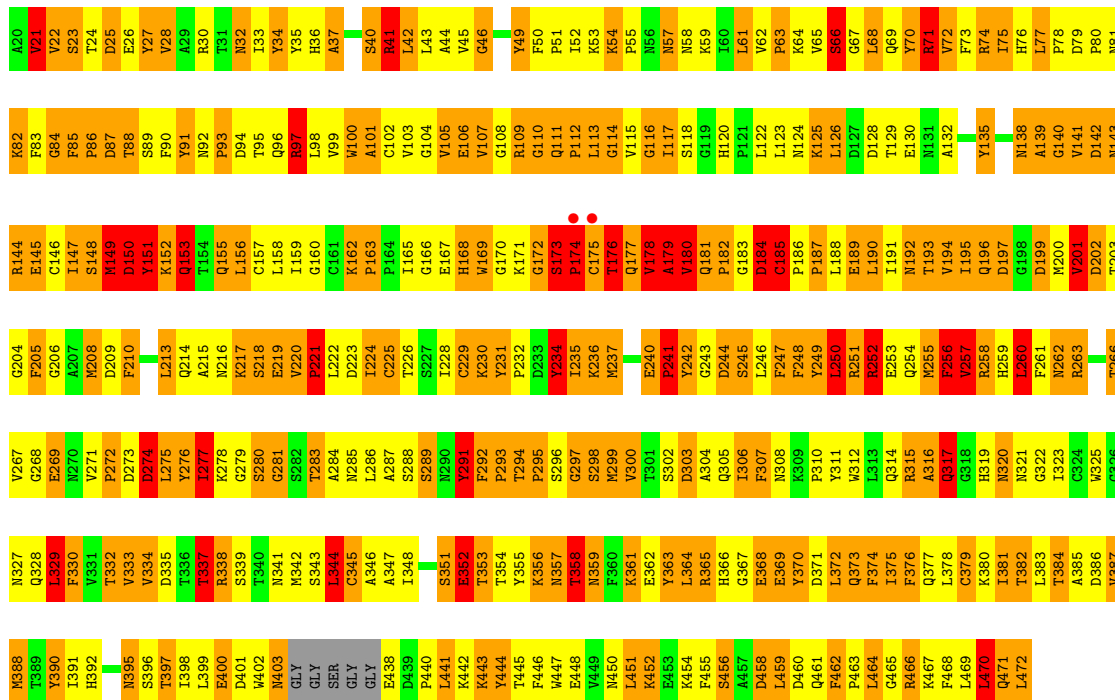
Chain H:

G326	G285	G204	R144	P80	A20
N327	T266	F205	E145	M81	V21
L329	Q328	G206	C146	K82	G22
F330	E268	A207	T147	F83	T24
V331	E269	M208	S148	G84	T24
T332	W270	D209	M149	F85	D25
F333	V271		D150	P86	E26
V334	P272	T212	Y151	D87	Y27
D335	D273	L213	K152	T88	V28
D336	D274	L214	Q153	S89	A29
T337	L275	A215	T154	F90	R30
R338	L276	K216	Q155	Y91	T31
N341	L277	K217	L156	N92	N32
	K278	S218	C157	P93	I33
	G279	E219	L158	D94	Y34
	G280	V220	T159	T95	Y35
	G281	P221	G160	Q96	H36
L344	S282	L222	C161	R97	A37
C345	T283	D223	K162	L98	G38
A346	A284	I224	P163	V99	T39
A347	G285	C225	T164	W100	S40
I348	L286	T226	I165	A101	R41
S349	A287	S227	G166	C102	L42
T350	S288	L228	E167	V103	L43
S351	S289	C229	H168	G104	A44
E352	N290	K230	W169	V105	V45
T353	Y291	Y231	G170	E106	G46
T354	F292	P232	K171	V107	H47
F355	P293	D233	G172	G108	P48
K356	T294	Y234	S173	R109	Y49
N357	P295	T235	P174	G110	F50
F358	S296	K236	C175	Q111	P51
N359	G297	M237	T176	P112	I52
F360	S298	V238	Q177	L113	K53
K361	M299	S239	W178	G114	E54
E362	L300	E240	A179	V115	P55
Y363	T301	P241	W180	G116	N56
L364	S302	Y242	K181	L117	N57
R365	D303	G243	P182	S118	N58
H366	A304	D244	G183	G119	K59
G367	Q305	S245	D184	H120	T60
E368	L306	L246	C185	P121	L61
F369	F307	F247	P186	L122	V62
Y370	N308	F248	P187	L123	P63
D371	K309	Y249	L188	M124	K64
L372	L372	L250	E189	K125	V65
Q373	Y311	R251	L190	L126	S66
F374	H312	K252	I191		G67
L375	L313	E253	N192	T129	L68
F376	Q314	Q254	T193	E130	Q69
Q377	R315	K255	Y194		Y70
L378	A316	F256	I195	Y135	R71
C379	N317	V257	Q196	A136	V72
K380		K258	D197	A137	F73
	L381	N320	G198	M138	R74
	T382	N321	L260	A139	I75
	L383	G322	F261	G140	H76
	T384	I323	T262	V201	L77
A385	C324	R263	M202	V141	T77
N386	L264	K264	D202	D142	P78
			T202	H142	V79



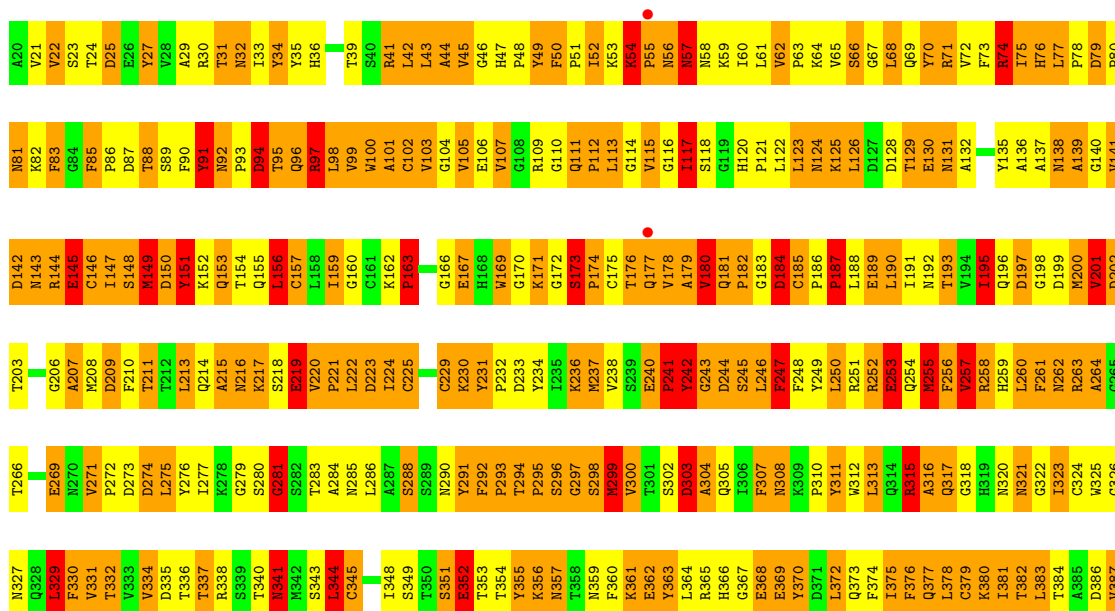
• Molecule 1: Late major capsid protein L1

Chain I:



• Molecule 1: Late major capsid protein L1

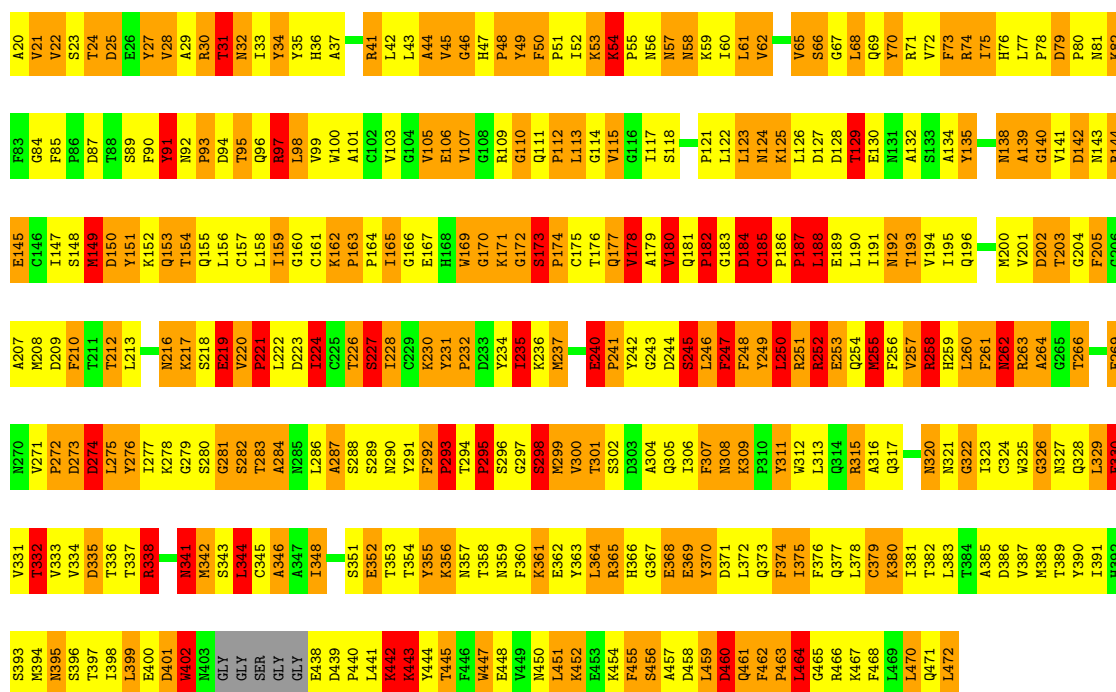
Chain J:





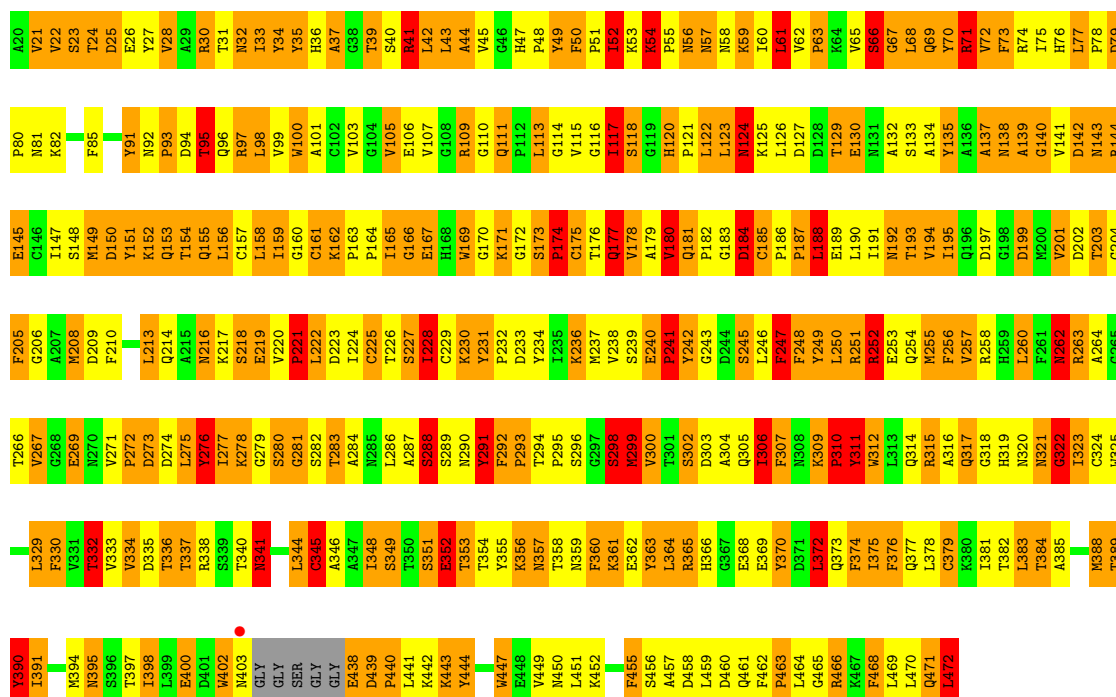
• Molecule 1: Late major capsid protein L1

Chain K:



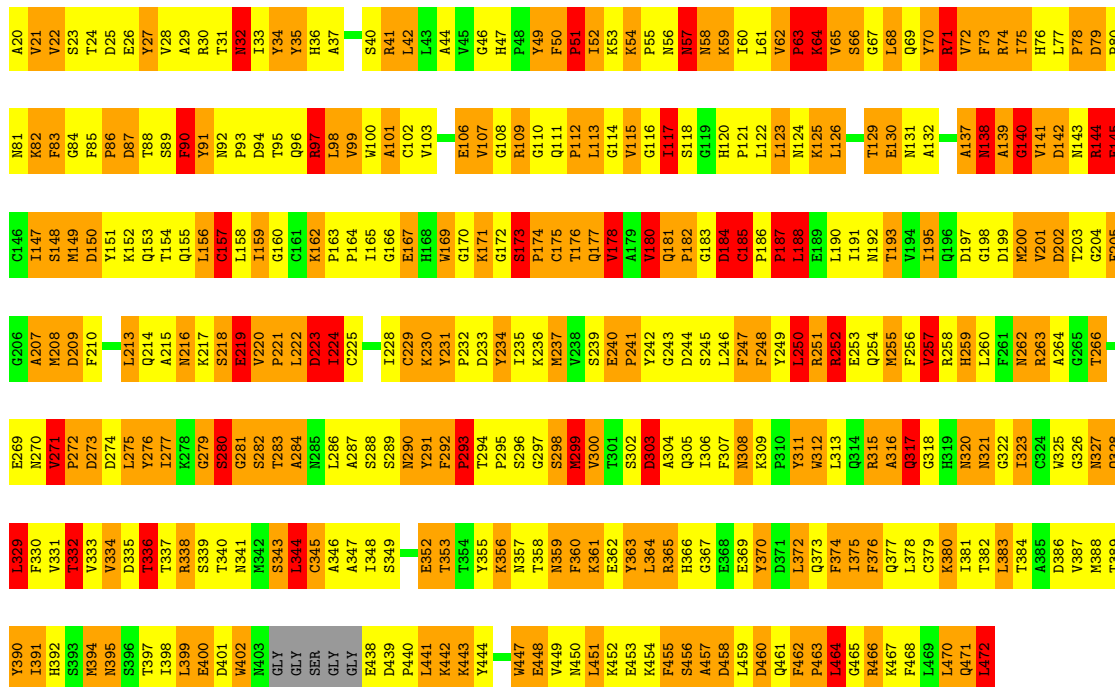
• Molecule 1: Late major capsid protein L1

Chain L:



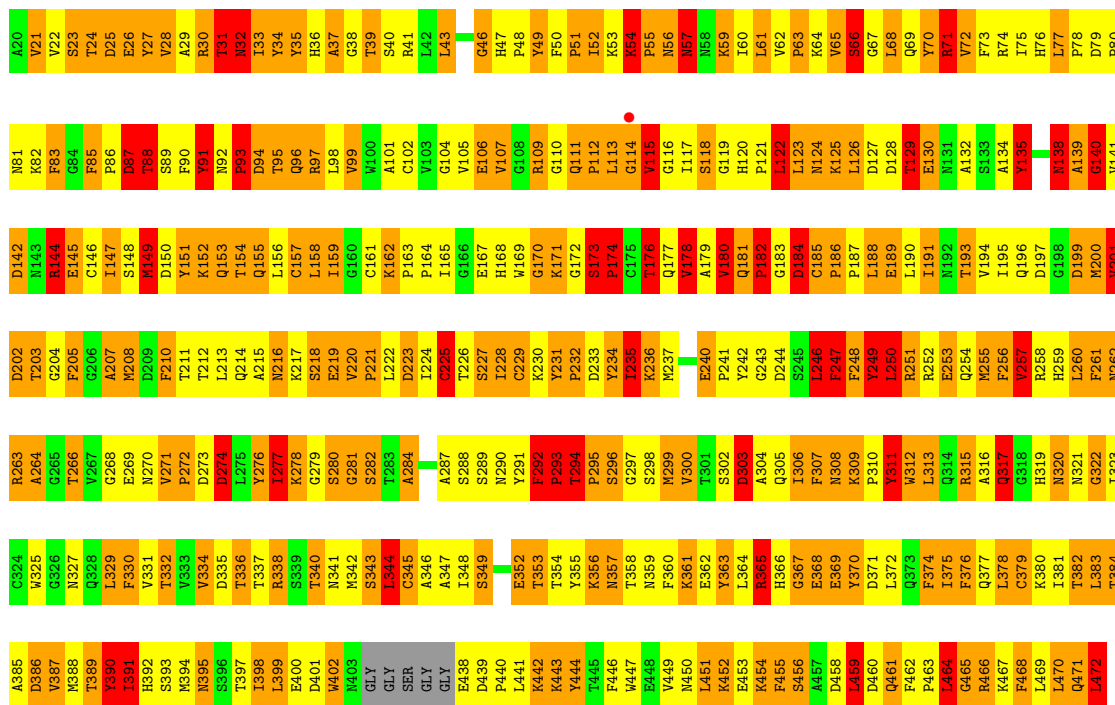
- Molecule 1: Late major capsid protein L1

Chain M:



- Molecule 1: Late major capsid protein L1

Chain N:



- Molecule 1: Late major capsid protein L1

Chain O:



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	105.00Å 159.05Å 413.74Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	15.00 – 3.70 14.98 – 3.70	Depositor EDS
% Data completeness (in resolution range)	80.5 (15.00-3.70) 80.5 (14.98-3.70)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.70 (at 3.66Å)	Xtriage
Refinement program	REFMAC 5.2.0019	Depositor
R, R_{free}	0.247 , 0.305 0.245 , 0.295	Depositor DCC
R_{free} test set	2971 reflections (5.27%)	DCC
Wilson B-factor (Å ²)	92.7	Xtriage
Anisotropy	0.063	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.20 , 34.1	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle L \rangle = 0.49$, $\langle L^2 \rangle = 0.32$	Xtriage
Outliers	14 of 59337 reflections (0.024%)	Xtriage
F_o, F_c correlation	0.90	EDS
Total number of atoms	49650	wwPDB-VP
Average B, all atoms (Å ²)	80.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.88% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

5 Model quality

5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 5$	RMSZ	# $ Z > 5$
1	A	2.76	242/3395 (7.1%)	2.11	115/4616 (2.5%)
1	B	2.74	260/3395 (7.7%)	2.03	110/4616 (2.4%)
1	C	2.76	241/3395 (7.1%)	2.14	110/4616 (2.4%)
1	D	2.98	305/3395 (9.0%)	2.15	130/4616 (2.8%)
1	E	2.76	244/3395 (7.2%)	2.02	113/4616 (2.4%)
1	F	2.85	287/3395 (8.5%)	2.09	128/4616 (2.8%)
1	G	2.82	264/3395 (7.8%)	2.07	121/4616 (2.6%)
1	H	2.87	287/3395 (8.5%)	2.09	133/4616 (2.9%)
1	I	2.82	257/3395 (7.6%)	2.08	120/4616 (2.6%)
1	J	2.78	267/3395 (7.9%)	2.09	123/4616 (2.7%)
1	K	2.82	258/3395 (7.6%)	2.04	97/4616 (2.1%)
1	L	2.82	243/3395 (7.2%)	2.07	124/4616 (2.7%)
1	M	2.72	230/3395 (6.8%)	2.14	129/4616 (2.8%)
1	N	2.76	269/3395 (7.9%)	2.12	136/4616 (2.9%)
1	O	2.73	266/3395 (7.8%)	1.99	90/4616 (1.9%)
All	All	2.80	3920/50925 (7.7%)	2.08	1779/69240 (2.6%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	C	0	3
1	D	0	1
1	E	0	1
1	F	0	1
1	G	0	1
1	L	0	3
1	M	0	1
1	N	0	1
1	O	0	1
All	All	0	13

All (3920) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	K	245	SER	CB-OG	29.56	1.80	1.42
1	D	438	GLU	CD-OE2	20.41	1.48	1.25
1	D	438	GLU	CD-OE1	18.10	1.45	1.25
1	I	356	LYS	CE-NZ	17.09	1.91	1.49
1	D	178	VAL	CB-CG2	16.71	1.88	1.52
1	L	161	CYS	CB-SG	16.45	2.10	1.82
1	E	390	TYR	CE2-CZ	16.41	1.59	1.38
1	E	280	SER	CB-OG	16.23	1.63	1.42
1	I	291	TYR	CE2-CZ	-16.15	1.17	1.38
1	H	178	VAL	CB-CG1	15.88	1.86	1.52
1	G	178	VAL	CB-CG1	15.80	1.86	1.52
1	H	217	LYS	CE-NZ	15.74	1.88	1.49
1	H	157	CYS	CB-SG	-15.44	1.55	1.82
1	G	219	GLU	CD-OE2	15.35	1.42	1.25
1	M	390	TYR	CD2-CE2	-15.01	1.16	1.39
1	O	280	SER	CB-OG	14.93	1.61	1.42
1	F	157	CYS	CB-SG	-14.55	1.57	1.82
1	M	230	LYS	CE-NZ	14.51	1.85	1.49
1	L	145	GLU	CB-CG	-13.99	1.25	1.52
1	D	100	TRP	CG-CD1	-13.96	1.17	1.36
1	F	175	CYS	CB-SG	13.86	2.05	1.82
1	A	64	LYS	CD-CE	13.79	1.85	1.51
1	G	20	ALA	CA-CB	13.74	1.81	1.52
1	I	179	ALA	CA-CB	13.72	1.81	1.52
1	A	231	TYR	CD1-CE1	13.60	1.59	1.39
1	J	74	ARG	CG-CD	13.48	1.85	1.51
1	B	70	TYR	CG-CD2	-13.23	1.22	1.39
1	F	40	SER	CB-OG	13.15	1.59	1.42
1	E	368	GLU	CD-OE1	13.02	1.40	1.25
1	L	59	LYS	CE-NZ	13.01	1.81	1.49
1	J	219	GLU	CD-OE1	12.93	1.39	1.25
1	C	178	VAL	CB-CG1	12.92	1.79	1.52
1	L	73	PHE	CE1-CZ	12.88	1.61	1.37
1	I	369	GLU	CB-CG	12.86	1.76	1.52
1	G	219	GLU	CD-OE1	12.85	1.39	1.25
1	F	207	ALA	CA-CB	-12.76	1.25	1.52
1	K	362	GLU	CD-OE1	12.70	1.39	1.25
1	F	59	LYS	CE-NZ	12.70	1.80	1.49
1	G	280	SER	CB-OG	12.68	1.58	1.42
1	F	139	ALA	CA-CB	12.67	1.79	1.52
1	G	333	VAL	CB-CG2	-12.65	1.26	1.52
1	M	457	ALA	CA-CB	-12.62	1.25	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	I	201	VAL	CB-CG1	-12.61	1.26	1.52
1	H	301	THR	CB-CG2	12.61	1.94	1.52
1	F	365	ARG	CG-CD	12.56	1.83	1.51
1	B	225	CYS	CB-SG	12.56	2.03	1.82
1	H	178	VAL	C-O	12.48	1.47	1.23
1	J	453	GLU	CG-CD	12.48	1.70	1.51
1	D	32	ASN	CB-CG	12.47	1.79	1.51
1	B	334	VAL	CB-CG1	-12.46	1.26	1.52
1	J	457	ALA	CA-CB	-12.46	1.26	1.52
1	N	207	ALA	CA-CB	-12.42	1.26	1.52
1	F	231	TYR	CD1-CE1	12.38	1.57	1.39
1	H	139	ALA	CA-CB	12.37	1.78	1.52
1	J	180	VAL	CB-CG2	12.35	1.78	1.52
1	D	181	GLN	CG-CD	12.30	1.79	1.51
1	J	300	VAL	CB-CG1	12.27	1.78	1.52
1	A	178	VAL	CB-CG2	12.25	1.78	1.52
1	M	86	PRO	CA-C	12.23	1.77	1.52
1	F	438	GLU	CG-CD	12.16	1.70	1.51
1	L	291	TYR	CG-CD2	-12.12	1.23	1.39
1	E	152	LYS	CD-CE	12.12	1.81	1.51
1	G	105	VAL	CB-CG2	12.08	1.78	1.52
1	M	137	ALA	CA-CB	12.07	1.77	1.52
1	L	333	VAL	CB-CG1	-12.04	1.27	1.52
1	E	177	GLN	CG-CD	12.02	1.78	1.51
1	K	27	TYR	CD1-CE1	12.01	1.57	1.39
1	E	189	GLU	CD-OE1	11.99	1.38	1.25
1	K	27	TYR	CD2-CE2	11.94	1.57	1.39
1	C	82	LYS	CE-NZ	11.89	1.78	1.49
1	M	178	VAL	CB-CG1	11.87	1.77	1.52
1	L	169	TRP	CG-CD1	-11.83	1.20	1.36
1	F	145	GLU	CD-OE1	11.82	1.38	1.25
1	K	178	VAL	CB-CG1	11.81	1.77	1.52
1	I	257	VAL	CB-CG1	-11.81	1.28	1.52
1	D	137	ALA	CA-CB	11.78	1.77	1.52
1	H	107	VAL	CB-CG2	-11.77	1.28	1.52
1	J	105	VAL	CB-CG2	11.76	1.77	1.52
1	B	107	VAL	CB-CG2	-11.76	1.28	1.52
1	H	130	GLU	CD-OE2	11.75	1.38	1.25
1	M	334	VAL	CB-CG1	-11.73	1.28	1.52
1	K	130	GLU	CD-OE2	11.73	1.38	1.25
1	O	269	GLU	CB-CG	11.72	1.74	1.52
1	C	452	LYS	CE-NZ	11.68	1.78	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	J	178	VAL	CB-CG1	11.64	1.77	1.52
1	M	106	GLU	CB-CG	11.64	1.74	1.52
1	F	362	GLU	CD-OE2	11.60	1.38	1.25
1	A	368	GLU	CB-CG	-11.59	1.30	1.52
1	I	291	TYR	CE1-CZ	-11.57	1.23	1.38
1	J	253	GLU	CD-OE1	11.55	1.38	1.25
1	L	247	PHE	CE2-CZ	-11.55	1.15	1.37
1	K	400	GLU	CD-OE1	11.55	1.38	1.25
1	A	300	VAL	CB-CG1	11.54	1.77	1.52
1	K	311	TYR	CD1-CE1	11.53	1.56	1.39
1	K	456	SER	CB-OG	11.53	1.57	1.42
1	L	402	TRP	C-O	11.48	1.45	1.23
1	C	219	GLU	CD-OE1	11.47	1.38	1.25
1	A	64	LYS	CE-NZ	11.46	1.77	1.49
1	H	32	ASN	CB-CG	11.45	1.77	1.51
1	G	201	VAL	CB-CG2	11.44	1.76	1.52
1	H	361	LYS	CG-CD	11.44	1.91	1.52
1	A	157	CYS	CB-SG	-11.42	1.62	1.82
1	B	369	GLU	CB-CG	11.41	1.73	1.52
1	I	390	TYR	CE1-CZ	11.40	1.53	1.38
1	M	369	GLU	CD-OE1	11.39	1.38	1.25
1	E	70	TYR	CE2-CZ	-11.38	1.23	1.38
1	G	363	TYR	CD1-CE1	11.38	1.56	1.39
1	K	162	LYS	CD-CE	11.38	1.79	1.51
1	E	236	LYS	CE-NZ	11.37	1.77	1.49
1	M	144	ARG	CB-CG	11.36	1.83	1.52
1	O	130	GLU	CD-OE2	11.35	1.38	1.25
1	F	467	LYS	CD-CE	11.32	1.79	1.51
1	L	152	LYS	CD-CE	11.32	1.79	1.51
1	I	448	GLU	CD-OE2	11.31	1.38	1.25
1	I	82	LYS	CD-CE	11.28	1.79	1.51
1	D	468	PHE	CE2-CZ	11.27	1.58	1.37
1	M	331	VAL	CB-CG2	-11.23	1.29	1.52
1	M	82	LYS	CE-NZ	11.23	1.77	1.49
1	D	339	SER	CB-OG	-11.23	1.27	1.42
1	C	453	GLU	CD-OE2	11.22	1.38	1.25
1	O	368	GLU	CD-OE1	11.22	1.38	1.25
1	K	452	LYS	CD-CE	11.21	1.79	1.51
1	G	27	TYR	CG-CD2	11.20	1.53	1.39
1	K	185	CYS	CB-SG	11.20	2.01	1.82
1	E	178	VAL	CB-CG1	11.19	1.76	1.52
1	O	71	ARG	CZ-NH1	11.15	1.47	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	L	72	VAL	CB-CG2	-11.14	1.29	1.52
1	E	201	VAL	CB-CG1	-11.12	1.29	1.52
1	C	135	TYR	CD1-CE1	-11.11	1.22	1.39
1	H	26	GLU	CD-OE1	11.11	1.37	1.25
1	K	346	ALA	CA-CB	11.07	1.75	1.52
1	A	161	CYS	CB-SG	11.06	2.01	1.82
1	M	32	ASN	CB-CG	11.06	1.76	1.51
1	H	59	LYS	CE-NZ	11.06	1.76	1.49
1	K	289	SER	CB-OG	11.05	1.56	1.42
1	M	145	GLU	CD-OE2	11.01	1.37	1.25
1	J	145	GLU	CD-OE2	11.01	1.37	1.25
1	G	400	GLU	CG-CD	10.96	1.68	1.51
1	N	107	VAL	CB-CG2	-10.96	1.29	1.52
1	G	173	SER	CA-CB	10.93	1.69	1.52
1	F	178	VAL	CB-CG1	10.93	1.75	1.52
1	J	201	VAL	CB-CG1	-10.91	1.29	1.52
1	D	176	THR	C-O	10.89	1.44	1.23
1	J	362	GLU	CD-OE1	10.86	1.37	1.25
1	O	331	VAL	CB-CG1	10.86	1.75	1.52
1	L	118	SER	CB-OG	10.85	1.56	1.42
1	F	125	LYS	C-O	10.83	1.44	1.23
1	G	146	CYS	CB-SG	10.83	2.00	1.82
1	O	442	LYS	CE-NZ	10.83	1.76	1.49
1	B	312	TRP	CG-CD1	-10.81	1.21	1.36
1	A	178	VAL	CB-CG1	10.81	1.75	1.52
1	C	217	LYS	CD-CE	10.80	1.78	1.51
1	G	400	GLU	CD-OE2	10.80	1.37	1.25
1	L	219	GLU	CD-OE1	10.79	1.37	1.25
1	D	253	GLU	CD-OE1	10.78	1.37	1.25
1	O	452	LYS	CE-NZ	10.77	1.75	1.49
1	E	141	VAL	CB-CG2	-10.76	1.30	1.52
1	N	370	TYR	CD2-CE2	-10.67	1.23	1.39
1	I	291	TYR	CG-CD1	-10.65	1.25	1.39
1	C	59	LYS	CD-CE	10.64	1.77	1.51
1	D	65	VAL	CB-CG1	-10.64	1.30	1.52
1	I	361	LYS	CE-NZ	10.61	1.75	1.49
1	N	28	VAL	CB-CG1	10.57	1.75	1.52
1	E	269	GLU	CD-OE1	10.56	1.37	1.25
1	K	62	VAL	CB-CG2	-10.56	1.30	1.52
1	D	380	LYS	CD-CE	10.54	1.77	1.51
1	E	100	TRP	CB-CG	-10.54	1.31	1.50
1	O	41	ARG	CZ-NH1	10.54	1.46	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	280	SER	CB-OG	10.54	1.55	1.42
1	O	256	PHE	CB-CG	10.53	1.69	1.51
1	D	201	VAL	CB-CG1	-10.53	1.30	1.52
1	D	115	VAL	CB-CG1	10.52	1.75	1.52
1	L	105	VAL	CB-CG1	-10.49	1.30	1.52
1	M	356	LYS	CE-NZ	10.47	1.75	1.49
1	I	333	VAL	CB-CG1	-10.47	1.30	1.52
1	D	100	TRP	CB-CG	-10.45	1.31	1.50
1	D	194	VAL	CB-CG2	10.41	1.74	1.52
1	C	20	ALA	CA-CB	10.40	1.74	1.52
1	D	390	TYR	CD1-CE1	10.40	1.54	1.39
1	J	206	GLY	C-O	10.39	1.40	1.23
1	E	130	GLU	CB-CG	-10.39	1.32	1.52
1	G	316	ALA	CA-CB	10.38	1.74	1.52
1	B	355	TYR	CD2-CE2	10.37	1.54	1.39
1	M	101	ALA	CA-CB	-10.36	1.30	1.52
1	H	256	PHE	CG-CD1	-10.33	1.23	1.38
1	H	54	LYS	CE-NZ	10.32	1.74	1.49
1	A	334	VAL	CB-CG1	-10.31	1.31	1.52
1	J	116	GLY	C-O	10.31	1.40	1.23
1	A	320	ASN	C-O	-10.30	1.03	1.23
1	C	207	ALA	CA-CB	-10.29	1.30	1.52
1	N	27	TYR	CD2-CE2	10.29	1.54	1.39
1	C	178	VAL	CB-CG2	10.28	1.74	1.52
1	A	219	GLU	CD-OE1	10.28	1.36	1.25
1	M	64	LYS	CB-CG	10.25	1.80	1.52
1	M	117	ILE	CA-CB	-10.25	1.31	1.54
1	N	32	ASN	CB-CG	10.21	1.74	1.51
1	E	271	VAL	CB-CG1	10.20	1.74	1.52
1	L	352	GLU	CG-CD	10.20	1.67	1.51
1	J	438	GLU	CG-CD	10.18	1.67	1.51
1	F	467	LYS	CG-CD	10.18	1.87	1.52
1	O	62	VAL	CB-CG2	10.17	1.74	1.52
1	I	141	VAL	CB-CG2	-10.16	1.31	1.52
1	K	49	TYR	CE1-CZ	-10.16	1.25	1.38
1	B	269	GLU	CB-CG	10.15	1.71	1.52
1	G	362	GLU	CD-OE1	10.14	1.36	1.25
1	F	362	GLU	CB-CG	10.11	1.71	1.52
1	N	173	SER	CB-OG	10.09	1.55	1.42
1	E	173	SER	CA-CB	10.08	1.68	1.52
1	H	320	ASN	C-O	-10.08	1.04	1.23
1	N	181	GLN	CG-CD	10.08	1.74	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	269	GLU	CD-OE2	10.06	1.36	1.25
1	H	59	LYS	CD-CE	10.05	1.76	1.51
1	H	91	TYR	CD2-CE2	10.05	1.54	1.39
1	G	467	LYS	CE-NZ	10.04	1.74	1.49
1	D	257	VAL	CB-CG2	10.04	1.74	1.52
1	G	363	TYR	CE1-CZ	10.03	1.51	1.38
1	A	368	GLU	CD-OE2	10.03	1.36	1.25
1	I	170	GLY	N-CA	10.03	1.61	1.46
1	C	369	GLU	CD-OE2	10.03	1.36	1.25
1	D	20	ALA	CA-CB	10.02	1.73	1.52
1	K	368	GLU	CD-OE1	10.02	1.36	1.25
1	J	453	GLU	CD-OE1	10.01	1.36	1.25
1	D	402	TRP	CB-CG	10.00	1.68	1.50
1	O	230	LYS	CE-NZ	10.00	1.74	1.49
1	M	456	SER	CB-OG	9.99	1.55	1.42
1	E	27	TYR	CD1-CE1	9.98	1.54	1.39
1	C	400	GLU	CD-OE2	9.97	1.36	1.25
1	A	356	LYS	CE-NZ	9.96	1.74	1.49
1	N	354	THR	C-O	9.96	1.42	1.23
1	I	256	PHE	CE2-CZ	-9.96	1.18	1.37
1	D	361	LYS	CG-CD	9.95	1.86	1.52
1	G	462	PHE	CB-CG	-9.95	1.34	1.51
1	H	362	GLU	CD-OE2	9.94	1.36	1.25
1	L	300	VAL	CB-CG2	-9.93	1.31	1.52
1	H	65	VAL	CB-CG1	-9.93	1.31	1.52
1	H	216	ASN	C-O	9.91	1.42	1.23
1	I	261	PHE	CD1-CE1	-9.91	1.19	1.39
1	C	137	ALA	CA-CB	9.91	1.73	1.52
1	E	352	GLU	CD-OE2	9.90	1.36	1.25
1	N	453	GLU	CG-CD	9.90	1.66	1.51
1	K	472	LEU	N-CA	9.89	1.66	1.46
1	O	390	TYR	CD1-CE1	-9.89	1.24	1.39
1	O	99	VAL	CB-CG1	-9.88	1.32	1.52
1	E	22	VAL	CB-CG1	9.87	1.73	1.52
1	K	175	CYS	CB-SG	9.86	1.99	1.82
1	C	316	ALA	CA-CB	9.86	1.73	1.52
1	M	343	SER	CB-OG	9.86	1.55	1.42
1	H	380	LYS	CD-CE	9.85	1.75	1.51
1	C	54	LYS	CE-NZ	9.82	1.73	1.49
1	G	173	SER	CB-OG	9.81	1.55	1.42
1	H	116	GLY	C-O	9.81	1.39	1.23
1	D	116	GLY	C-O	9.81	1.39	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	I	206	GLY	C-O	9.80	1.39	1.23
1	E	269	GLU	CG-CD	9.79	1.66	1.51
1	K	130	GLU	CD-OE1	9.79	1.36	1.25
1	B	169	TRP	CZ3-CH2	-9.78	1.24	1.40
1	H	115	VAL	CB-CG2	-9.78	1.32	1.52
1	I	236	LYS	CB-CG	9.78	1.78	1.52
1	J	362	GLU	CD-OE2	9.78	1.36	1.25
1	I	114	GLY	N-CA	9.77	1.60	1.46
1	N	73	PHE	CE2-CZ	9.76	1.55	1.37
1	B	70	TYR	CG-CD1	-9.75	1.26	1.39
1	A	370	TYR	CE2-CZ	-9.75	1.25	1.38
1	A	115	VAL	CB-CG2	-9.75	1.32	1.52
1	J	249	TYR	CD2-CE2	9.75	1.53	1.39
1	M	167	GLU	CD-OE2	9.73	1.36	1.25
1	F	369	GLU	CB-CG	9.72	1.70	1.52
1	H	205	PHE	CE2-CZ	9.69	1.55	1.37
1	C	467	LYS	CE-NZ	9.69	1.73	1.49
1	L	280	SER	CB-OG	9.69	1.54	1.42
1	I	63	PRO	C-O	9.69	1.42	1.23
1	A	379	CYS	CB-SG	-9.66	1.65	1.82
1	D	176	THR	CA-CB	9.66	1.78	1.53
1	E	34	TYR	CG-CD2	-9.65	1.26	1.39
1	H	181	GLN	CG-CD	9.65	1.73	1.51
1	F	70	TYR	CB-CG	-9.65	1.37	1.51
1	L	114	GLY	N-CA	9.65	1.60	1.46
1	L	449	VAL	CB-CG1	-9.64	1.32	1.52
1	L	309	LYS	CD-CE	9.64	1.75	1.51
1	F	163	PRO	C-O	9.64	1.42	1.23
1	G	21	VAL	CB-CG1	9.64	1.73	1.52
1	O	167	GLU	CD-OE2	9.63	1.36	1.25
1	B	176	THR	CB-CG2	9.61	1.84	1.52
1	H	179	ALA	C-O	9.60	1.41	1.23
1	I	217	LYS	CE-NZ	9.59	1.73	1.49
1	N	139	ALA	CA-CB	9.58	1.72	1.52
1	N	249	TYR	CG-CD1	-9.58	1.26	1.39
1	N	356	LYS	CE-NZ	9.58	1.73	1.49
1	F	138	ASN	C-O	9.57	1.41	1.23
1	C	363	TYR	CD1-CE1	9.57	1.53	1.39
1	D	402	TRP	C-O	9.57	1.41	1.23
1	B	462	PHE	CG-CD1	-9.56	1.24	1.38
1	C	292	PHE	CE1-CZ	-9.56	1.19	1.37
1	N	46	GLY	C-O	9.56	1.39	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	334	VAL	CB-CG2	9.56	1.73	1.52
1	L	291	TYR	CE1-CZ	-9.55	1.26	1.38
1	K	400	GLU	CB-CG	9.53	1.70	1.52
1	C	370	TYR	CE1-CZ	9.53	1.50	1.38
1	D	269	GLU	CD-OE1	-9.52	1.15	1.25
1	F	249	TYR	CD1-CE1	9.52	1.53	1.39
1	H	130	GLU	CB-CG	9.51	1.70	1.52
1	M	157	CYS	CB-SG	-9.51	1.66	1.82
1	G	438	GLU	CG-CD	9.51	1.66	1.51
1	K	28	VAL	CB-CG2	-9.50	1.32	1.52
1	K	114	GLY	N-CA	9.50	1.60	1.46
1	A	162	LYS	CE-NZ	9.50	1.72	1.49
1	B	21	VAL	CB-CG1	-9.50	1.32	1.52
1	A	242	TYR	CZ-OH	-9.48	1.21	1.37
1	G	276	TYR	CG-CD2	9.48	1.51	1.39
1	D	305	GLN	CG-CD	9.48	1.72	1.51
1	D	118	SER	CB-OG	9.47	1.54	1.42
1	C	457	ALA	CA-CB	-9.46	1.32	1.52
1	D	253	GLU	CD-OE2	9.46	1.36	1.25
1	E	40	SER	CB-OG	9.46	1.54	1.42
1	E	169	TRP	CG-CD1	9.46	1.50	1.36
1	D	320	ASN	C-O	-9.46	1.05	1.23
1	O	347	ALA	CA-CB	9.46	1.72	1.52
1	N	370	TYR	CD1-CE1	-9.45	1.25	1.39
1	I	199	ASP	CG-OD2	9.45	1.47	1.25
1	G	276	TYR	CD2-CE2	-9.43	1.25	1.39
1	O	26	GLU	CD-OE2	9.42	1.36	1.25
1	M	438	GLU	CD-OE2	9.42	1.36	1.25
1	A	304	ALA	CA-CB	-9.41	1.32	1.52
1	E	370	TYR	CD2-CE2	9.41	1.53	1.39
1	N	282	SER	CB-OG	9.41	1.54	1.42
1	N	338	ARG	CG-CD	9.39	1.75	1.51
1	B	264	ALA	CA-CB	9.38	1.72	1.52
1	J	27	TYR	CE1-CZ	9.38	1.50	1.38
1	A	374	PHE	CE1-CZ	-9.38	1.19	1.37
1	H	307	PHE	CE2-CZ	-9.37	1.19	1.37
1	B	438	GLU	CG-CD	9.37	1.66	1.51
1	B	44	ALA	CA-CB	9.36	1.72	1.52
1	H	361	LYS	CB-CG	9.36	1.77	1.52
1	D	151	TYR	CD2-CE2	9.35	1.53	1.39
1	E	227	SER	CB-OG	9.35	1.54	1.42
1	G	220	VAL	CB-CG1	9.35	1.72	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	L	276	TYR	CD2-CE2	-9.34	1.25	1.39
1	H	152	LYS	CE-NZ	9.34	1.72	1.49
1	L	35	TYR	CG-CD1	-9.33	1.27	1.39
1	A	264	ALA	CA-CB	-9.33	1.32	1.52
1	E	30	ARG	CZ-NH1	9.33	1.45	1.33
1	B	49	TYR	CG-CD2	9.32	1.51	1.39
1	L	438	GLU	CD-OE1	9.32	1.35	1.25
1	O	452	LYS	CD-CE	9.29	1.74	1.51
1	M	173	SER	CB-OG	9.29	1.54	1.42
1	L	272	PRO	CB-CG	9.28	1.96	1.50
1	J	453	GLU	CD-OE2	9.27	1.35	1.25
1	D	73	PHE	CB-CG	-9.27	1.35	1.51
1	N	346	ALA	CA-CB	9.27	1.72	1.52
1	A	368	GLU	CD-OE1	9.27	1.35	1.25
1	L	166	GLY	N-CA	-9.26	1.32	1.46
1	D	297	GLY	C-O	9.25	1.38	1.23
1	B	292	PHE	CE1-CZ	-9.24	1.19	1.37
1	J	179	ALA	CA-CB	9.23	1.71	1.52
1	O	173	SER	CA-CB	9.22	1.66	1.52
1	D	177	GLN	C-O	9.22	1.40	1.23
1	F	194	VAL	CB-CG1	9.22	1.72	1.52
1	G	35	TYR	CD1-CE1	-9.20	1.25	1.39
1	M	62	VAL	CB-CG1	9.19	1.72	1.52
1	F	352	GLU	CD-OE1	9.19	1.35	1.25
1	K	107	VAL	C-O	-9.17	1.05	1.23
1	C	248	PHE	CE2-CZ	9.17	1.54	1.37
1	I	175	CYS	CB-SG	9.16	1.97	1.82
1	K	30	ARG	CG-CD	9.16	1.74	1.51
1	E	178	VAL	C-O	9.16	1.40	1.23
1	J	96	GLN	CA-C	9.16	1.76	1.52
1	D	449	VAL	CB-CG1	-9.15	1.33	1.52
1	C	269	GLU	CG-CD	9.15	1.65	1.51
1	G	248	PHE	CE2-CZ	9.15	1.54	1.37
1	J	103	VAL	CB-CG2	9.15	1.72	1.52
1	D	355	TYR	CG-CD1	-9.14	1.27	1.39
1	G	216	ASN	CG-OD1	9.14	1.44	1.24
1	G	40	SER	CB-OG	9.14	1.54	1.42
1	L	462	PHE	CB-CG	-9.14	1.35	1.51
1	I	72	VAL	CB-CG1	-9.14	1.33	1.52
1	E	269	GLU	CD-OE2	9.12	1.35	1.25
1	G	180	VAL	C-O	9.12	1.40	1.23
1	I	89	SER	CB-OG	9.11	1.54	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	376	PHE	CG-CD2	9.11	1.52	1.38
1	O	210	PHE	CD2-CE2	-9.10	1.21	1.39
1	G	73	PHE	CE2-CZ	9.09	1.54	1.37
1	A	133	SER	CB-OG	9.09	1.54	1.42
1	H	443	LYS	CD-CE	9.09	1.74	1.51
1	J	368	GLU	CD-OE1	9.08	1.35	1.25
1	I	151	TYR	CZ-OH	-9.07	1.22	1.37
1	H	26	GLU	CG-CD	9.07	1.65	1.51
1	G	138	ASN	C-O	9.05	1.40	1.23
1	O	172	GLY	C-O	9.04	1.38	1.23
1	C	453	GLU	CG-CD	9.03	1.65	1.51
1	B	70	TYR	CE2-CZ	-9.03	1.26	1.38
1	C	330	PHE	CE1-CZ	9.03	1.54	1.37
1	D	438	GLU	CG-CD	9.03	1.65	1.51
1	J	356	LYS	C-O	-9.02	1.06	1.23
1	J	454	LYS	CE-NZ	9.02	1.71	1.49
1	C	21	VAL	CB-CG1	-9.02	1.33	1.52
1	F	438	GLU	CD-OE1	9.01	1.35	1.25
1	C	269	GLU	CB-CG	9.01	1.69	1.52
1	K	360	PHE	CE1-CZ	-9.01	1.20	1.37
1	B	178	VAL	CB-CG1	9.00	1.71	1.52
1	B	70	TYR	CB-CG	-9.00	1.38	1.51
1	C	232	PRO	CG-CD	-9.00	1.21	1.50
1	I	178	VAL	CA-CB	9.00	1.73	1.54
1	D	356	LYS	CE-NZ	8.99	1.71	1.49
1	I	240	GLU	CD-OE1	8.99	1.35	1.25
1	H	151	TYR	CD2-CE2	8.98	1.52	1.39
1	M	280	SER	CB-OG	8.98	1.53	1.42
1	A	438	GLU	CD-OE2	8.98	1.35	1.25
1	C	106	GLU	CD-OE2	8.97	1.35	1.25
1	I	292	PHE	CE2-CZ	8.97	1.54	1.37
1	M	349	SER	CB-OG	8.96	1.53	1.42
1	C	196	GLN	C-O	-8.96	1.06	1.23
1	F	390	TYR	CE1-CZ	8.95	1.50	1.38
1	N	106	GLU	CD-OE2	8.95	1.35	1.25
1	F	448	GLU	CG-CD	8.95	1.65	1.51
1	L	37	ALA	CA-CB	-8.95	1.33	1.52
1	N	152	LYS	CE-NZ	-8.95	1.26	1.49
1	D	325	TRP	CE3-CZ3	8.94	1.53	1.38
1	G	300	VAL	CB-CG2	-8.94	1.34	1.52
1	I	294	THR	CB-CG2	-8.94	1.22	1.52
1	D	64	LYS	CB-CG	8.93	1.76	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	113	LEU	C-O	8.93	1.40	1.23
1	L	471	GLN	CB-CG	-8.93	1.28	1.52
1	D	454	LYS	CE-NZ	8.92	1.71	1.49
1	M	249	TYR	CD2-CE2	8.91	1.52	1.39
1	C	396	SER	CB-OG	8.91	1.53	1.42
1	A	449	VAL	CB-CG2	-8.90	1.34	1.52
1	O	444	TYR	CD2-CE2	8.90	1.52	1.39
1	M	73	PHE	CE2-CZ	-8.90	1.20	1.37
1	I	261	PHE	CE1-CZ	-8.89	1.20	1.37
1	D	73	PHE	CG-CD1	-8.88	1.25	1.38
1	E	83	PHE	CG-CD1	8.88	1.52	1.38
1	G	22	VAL	CA-CB	-8.88	1.36	1.54
1	G	249	TYR	CD2-CE2	8.87	1.52	1.39
1	J	331	VAL	CB-CG2	-8.87	1.34	1.52
1	I	361	LYS	CD-CE	8.87	1.73	1.51
1	G	292	PHE	CE2-CZ	-8.86	1.20	1.37
1	D	188	LEU	C-O	-8.86	1.06	1.23
1	K	362	GLU	CB-CG	-8.85	1.35	1.52
1	M	291	TYR	CD1-CE1	-8.85	1.26	1.39
1	B	132	ALA	CA-CB	-8.84	1.33	1.52
1	D	66	SER	CB-OG	8.84	1.53	1.42
1	G	207	ALA	CA-CB	-8.84	1.33	1.52
1	O	177	GLN	CG-CD	8.84	1.71	1.51
1	K	370	TYR	CG-CD2	-8.84	1.27	1.39
1	I	444	TYR	CD1-CE1	8.83	1.52	1.39
1	N	169	TRP	CB-CG	-8.82	1.34	1.50
1	L	139	ALA	CA-CB	8.82	1.71	1.52
1	O	72	VAL	CB-CG1	-8.82	1.34	1.52
1	A	63	PRO	C-O	8.80	1.40	1.23
1	G	256	PHE	CE2-CZ	-8.80	1.20	1.37
1	D	370	TYR	CE2-CZ	-8.79	1.27	1.38
1	A	26	GLU	CG-CD	8.79	1.65	1.51
1	F	220	VAL	C-O	-8.79	1.06	1.23
1	L	456	SER	CB-OG	8.79	1.53	1.42
1	K	100	TRP	CG-CD1	-8.78	1.24	1.36
1	L	152	LYS	CE-NZ	8.77	1.71	1.49
1	L	201	VAL	CB-CG2	-8.77	1.34	1.52
1	N	472	LEU	N-CA	8.77	1.63	1.46
1	A	161	CYS	C-O	8.76	1.40	1.23
1	H	376	PHE	CD2-CE2	-8.75	1.21	1.39
1	A	249	TYR	CZ-OH	8.75	1.52	1.37
1	C	300	VAL	CB-CG2	-8.75	1.34	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	F	70	TYR	CG-CD2	-8.75	1.27	1.39
1	C	471	GLN	C-O	8.75	1.40	1.23
1	D	307	PHE	CG-CD1	-8.75	1.25	1.38
1	E	368	GLU	CD-OE2	8.75	1.35	1.25
1	N	317	GLN	CG-CD	8.75	1.71	1.51
1	G	64	LYS	C-O	8.74	1.40	1.23
1	H	370	TYR	CB-CG	-8.74	1.38	1.51
1	L	178	VAL	CB-CG2	8.74	1.71	1.52
1	N	157	CYS	CB-SG	-8.74	1.67	1.82
1	N	363	TYR	CD2-CE2	8.74	1.52	1.39
1	E	352	GLU	CD-OE1	8.73	1.35	1.25
1	I	210	PHE	CE1-CZ	8.73	1.53	1.37
1	B	472	LEU	N-CA	8.73	1.63	1.46
1	F	376	PHE	CD2-CE2	-8.73	1.21	1.39
1	A	152	LYS	CE-NZ	8.72	1.70	1.49
1	C	464	LEU	CG-CD1	8.72	1.84	1.51
1	D	206	GLY	C-O	8.72	1.37	1.23
1	F	253	GLU	CD-OE2	8.72	1.35	1.25
1	J	438	GLU	CD-OE2	8.71	1.35	1.25
1	L	70	TYR	CG-CD1	-8.71	1.27	1.39
1	N	26	GLU	CB-CG	-8.71	1.35	1.52
1	F	32	ASN	CB-CG	8.70	1.71	1.51
1	F	103	VAL	CB-CG2	8.69	1.71	1.52
1	J	92	ASN	CB-CG	8.68	1.71	1.51
1	K	231	TYR	CD1-CE1	8.68	1.52	1.39
1	J	264	ALA	CA-CB	-8.67	1.34	1.52
1	M	291	TYR	CE1-CZ	-8.66	1.27	1.38
1	A	296	SER	CB-OG	8.66	1.53	1.42
1	B	49	TYR	CE2-CZ	-8.65	1.27	1.38
1	B	347	ALA	C-O	8.65	1.39	1.23
1	G	180	VAL	CB-CG2	8.63	1.71	1.52
1	K	294	THR	CB-CG2	-8.62	1.23	1.52
1	C	374	PHE	CG-CD1	8.62	1.51	1.38
1	D	152	LYS	CE-NZ	8.61	1.70	1.49
1	B	256	PHE	CG-CD2	8.61	1.51	1.38
1	L	361	LYS	CE-NZ	8.60	1.70	1.49
1	O	352	GLU	CD-OE2	8.59	1.35	1.25
1	B	123	LEU	CG-CD2	8.59	1.83	1.51
1	E	176	THR	C-O	8.59	1.39	1.23
1	A	64	LYS	CB-CG	8.58	1.75	1.52
1	D	159	ILE	CA-CB	-8.58	1.35	1.54
1	L	349	SER	CB-OG	8.58	1.53	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	40	SER	CB-OG	8.57	1.53	1.42
1	N	293	PRO	CA-CB	-8.57	1.36	1.53
1	L	234	TYR	CG-CD2	8.57	1.50	1.39
1	O	217	LYS	CE-NZ	8.56	1.70	1.49
1	A	205	PHE	CE1-CZ	-8.56	1.21	1.37
1	L	103	VAL	CB-CG2	-8.56	1.34	1.52
1	C	441	LEU	CG-CD2	8.55	1.83	1.51
1	E	172	GLY	C-O	8.55	1.37	1.23
1	E	269	GLU	CB-CG	8.55	1.68	1.52
1	H	231	TYR	CE2-CZ	8.55	1.49	1.38
1	G	374	PHE	CE2-CZ	8.54	1.53	1.37
1	L	275	LEU	CG-CD2	8.54	1.83	1.51
1	C	360	PHE	CE2-CZ	-8.54	1.21	1.37
1	A	380	LYS	CD-CE	8.54	1.72	1.51
1	D	225	CYS	CB-SG	8.54	1.96	1.82
1	I	194	VAL	CB-CG1	8.54	1.70	1.52
1	A	278	LYS	CE-NZ	8.53	1.70	1.49
1	G	151	TYR	CD2-CE2	8.53	1.52	1.39
1	D	285	ASN	C-O	8.53	1.39	1.23
1	L	155	GLN	CB-CG	-8.52	1.29	1.52
1	I	37	ALA	CA-CB	8.52	1.70	1.52
1	K	70	TYR	CE2-CZ	-8.52	1.27	1.38
1	J	330	PHE	CE1-CZ	8.51	1.53	1.37
1	L	379	CYS	CB-SG	-8.51	1.67	1.82
1	A	43	LEU	C-O	-8.51	1.07	1.23
1	A	311	TYR	CD1-CE1	8.51	1.52	1.39
1	B	362	GLU	CB-CG	8.51	1.68	1.52
1	I	27	TYR	CG-CD2	8.51	1.50	1.39
1	J	62	VAL	CB-CG1	-8.51	1.34	1.52
1	C	291	TYR	CG-CD1	-8.51	1.28	1.39
1	B	300	VAL	CB-CG1	8.50	1.70	1.52
1	J	315	ARG	CZ-NH2	8.50	1.44	1.33
1	F	197	ASP	C-O	-8.49	1.07	1.23
1	G	362	GLU	C-O	8.48	1.39	1.23
1	L	315	ARG	CG-CD	8.48	1.73	1.51
1	K	205	PHE	CE1-CZ	-8.48	1.21	1.37
1	C	51	PRO	CB-CG	8.47	1.92	1.50
1	D	53	LYS	CB-CG	8.47	1.75	1.52
1	G	102	CYS	CB-SG	8.47	1.96	1.82
1	E	173	SER	CB-OG	8.47	1.53	1.42
1	L	35	TYR	CB-CG	-8.46	1.39	1.51
1	O	256	PHE	CE1-CZ	-8.46	1.21	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	263	ARG	CZ-NH2	-8.46	1.22	1.33
1	G	240	GLU	CD-OE1	8.46	1.34	1.25
1	K	47	HIS	C-O	-8.45	1.07	1.23
1	G	330	PHE	CG-CD2	8.45	1.51	1.38
1	H	180	VAL	CB-CG2	8.45	1.70	1.52
1	L	291	TYR	CD1-CE1	-8.45	1.26	1.39
1	H	400	GLU	CD-OE2	8.45	1.34	1.25
1	M	287	ALA	CA-CB	8.45	1.70	1.52
1	L	241	PRO	CB-CG	8.44	1.92	1.50
1	C	161	CYS	CB-SG	-8.44	1.67	1.82
1	C	115	VAL	C-O	8.44	1.39	1.23
1	G	369	GLU	CD-OE2	8.44	1.34	1.25
1	M	455	PHE	CB-CG	-8.43	1.37	1.51
1	E	209	ASP	C-O	8.42	1.39	1.23
1	N	387	VAL	CB-CG1	8.42	1.70	1.52
1	B	442	LYS	CD-CE	8.42	1.72	1.51
1	I	249	TYR	CD2-CE2	8.42	1.51	1.39
1	I	330	PHE	CG-CD2	8.41	1.51	1.38
1	E	291	TYR	CG-CD2	-8.41	1.28	1.39
1	F	204	GLY	C-O	-8.41	1.10	1.23
1	L	352	GLU	CD-OE1	8.41	1.34	1.25
1	J	88	THR	CB-CG2	8.41	1.80	1.52
1	K	472	LEU	C-OXT	8.41	1.39	1.23
1	J	171	LYS	C-O	8.40	1.39	1.23
1	B	133	SER	CB-OG	8.40	1.53	1.42
1	N	186	PRO	C-O	-8.40	1.06	1.23
1	E	72	VAL	CB-CG2	-8.39	1.35	1.52
1	N	83	PHE	CD1-CE1	8.39	1.56	1.39
1	N	87	ASP	CG-OD2	8.39	1.44	1.25
1	B	83	PHE	C-O	8.39	1.39	1.23
1	F	206	GLY	C-O	8.38	1.37	1.23
1	K	360	PHE	CG-CD1	-8.38	1.26	1.38
1	D	282	SER	CB-OG	8.37	1.53	1.42
1	I	46	GLY	C-O	8.38	1.37	1.23
1	F	49	TYR	C-O	8.37	1.39	1.23
1	D	347	ALA	C-O	8.37	1.39	1.23
1	J	231	TYR	CD1-CE1	8.37	1.51	1.39
1	L	263	ARG	CZ-NH2	-8.37	1.22	1.33
1	M	390	TYR	CD1-CE1	-8.37	1.26	1.39
1	B	82	LYS	CB-CG	8.36	1.75	1.52
1	H	161	CYS	CB-SG	8.36	1.96	1.82
1	L	374	PHE	CD1-CE1	8.36	1.55	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	309	LYS	CD-CE	8.36	1.72	1.51
1	N	54	LYS	CD-CE	8.36	1.72	1.51
1	D	374	PHE	CE1-CZ	8.35	1.53	1.37
1	L	267	VAL	CA-CB	-8.35	1.37	1.54
1	E	276	TYR	CE1-CZ	-8.34	1.27	1.38
1	N	247	PHE	CE1-CZ	8.33	1.53	1.37
1	C	20	ALA	N-CA	8.33	1.63	1.46
1	N	112	PRO	CG-CD	8.32	1.78	1.50
1	O	333	VAL	C-O	8.32	1.39	1.23
1	C	194	VAL	CB-CG2	8.32	1.70	1.52
1	F	50	PHE	CD1-CE1	-8.32	1.22	1.39
1	J	379	CYS	CB-SG	-8.32	1.68	1.82
1	O	219	GLU	CD-OE2	8.32	1.34	1.25
1	C	467	LYS	CG-CD	8.31	1.80	1.52
1	D	291	TYR	CD2-CE2	8.31	1.51	1.39
1	I	471	GLN	CG-CD	8.31	1.70	1.51
1	F	442	LYS	CD-CE	8.31	1.72	1.51
1	D	169	TRP	CE3-CZ3	-8.31	1.24	1.38
1	H	374	PHE	CE2-CZ	8.30	1.53	1.37
1	J	368	GLU	CD-OE2	8.30	1.34	1.25
1	H	27	TYR	CD2-CE2	8.30	1.51	1.39
1	B	284	ALA	CA-CB	-8.29	1.35	1.52
1	E	116	GLY	C-O	8.29	1.36	1.23
1	A	472	LEU	N-CA	8.29	1.62	1.46
1	J	157	CYS	CB-SG	-8.29	1.68	1.82
1	C	238	VAL	CB-CG1	-8.27	1.35	1.52
1	I	217	LYS	CD-CE	8.27	1.72	1.51
1	G	442	LYS	CE-NZ	8.26	1.69	1.49
1	J	369	GLU	CB-CG	8.26	1.67	1.52
1	K	231	TYR	CD2-CE2	8.26	1.51	1.39
1	L	26	GLU	CD-OE2	8.26	1.34	1.25
1	D	312	TRP	CG-CD1	-8.26	1.25	1.36
1	N	123	LEU	CG-CD2	8.26	1.82	1.51
1	M	370	TYR	CB-CG	-8.25	1.39	1.51
1	F	70	TYR	CE2-CZ	-8.25	1.27	1.38
1	D	167	GLU	CG-CD	-8.24	1.39	1.51
1	L	132	ALA	CA-CB	-8.24	1.35	1.52
1	K	278	LYS	C-O	8.23	1.39	1.23
1	L	26	GLU	CD-OE1	8.23	1.34	1.25
1	E	438	GLU	CD-OE2	8.23	1.34	1.25
1	B	390	TYR	CG-CD1	8.22	1.49	1.39
1	C	387	VAL	CB-CG2	8.22	1.70	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	N	276	TYR	CD2-CE2	8.22	1.51	1.39
1	C	167	GLU	CG-CD	8.22	1.64	1.51
1	G	333	VAL	C-O	8.21	1.39	1.23
1	E	103	VAL	CB-CG1	-8.21	1.35	1.52
1	K	20	ALA	CA-CB	8.20	1.69	1.52
1	C	70	TYR	CG-CD2	-8.19	1.28	1.39
1	H	237	MET	CG-SD	8.19	2.02	1.81
1	M	49	TYR	CG-CD1	-8.19	1.28	1.39
1	I	346	ALA	CA-CB	8.18	1.69	1.52
1	C	362	GLU	C-O	8.18	1.38	1.23
1	M	207	ALA	CA-CB	-8.18	1.35	1.52
1	C	362	GLU	CG-CD	-8.18	1.39	1.51
1	I	276	TYR	CE1-CZ	-8.18	1.27	1.38
1	L	231	TYR	CD1-CE1	8.18	1.51	1.39
1	D	276	TYR	CG-CD2	-8.18	1.28	1.39
1	O	100	TRP	CZ3-CH2	8.17	1.53	1.40
1	E	438	GLU	CB-CG	8.17	1.67	1.52
1	O	234	TYR	CE2-CZ	-8.17	1.27	1.38
1	C	355	TYR	CD2-CE2	-8.17	1.27	1.39
1	B	380	LYS	CD-CE	8.16	1.71	1.51
1	E	239	SER	CB-OG	8.16	1.52	1.42
1	G	77	LEU	C-O	8.16	1.38	1.23
1	I	113	LEU	C-O	8.16	1.38	1.23
1	F	256	PHE	CG-CD2	8.15	1.50	1.38
1	C	56	ASN	CB-CG	8.15	1.69	1.51
1	C	64	LYS	CD-CE	8.15	1.71	1.51
1	D	46	GLY	C-O	8.15	1.36	1.23
1	H	219	GLU	CB-CG	8.15	1.67	1.52
1	N	70	TYR	CG-CD1	-8.14	1.28	1.39
1	D	159	ILE	CB-CG2	-8.13	1.27	1.52
1	O	72	VAL	CB-CG2	-8.13	1.35	1.52
1	O	460	ASP	CB-CG	8.13	1.68	1.51
1	H	144	ARG	CD-NE	-8.13	1.32	1.46
1	I	63	PRO	N-CD	8.12	1.59	1.47
1	J	462	PHE	CG-CD2	-8.12	1.26	1.38
1	I	234	TYR	CE2-CZ	-8.12	1.28	1.38
1	M	257	VAL	CB-CG2	8.12	1.69	1.52
1	C	349	SER	CB-OG	8.11	1.52	1.42
1	L	247	PHE	CG-CD1	-8.11	1.26	1.38
1	H	173	SER	CA-CB	8.11	1.65	1.52
1	I	138	ASN	C-O	8.11	1.38	1.23
1	B	245	SER	CB-OG	8.10	1.52	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	90	PHE	CE1-CZ	8.10	1.52	1.37
1	N	444	TYR	CD1-CE1	8.10	1.51	1.39
1	A	276	TYR	CE2-CZ	8.09	1.49	1.38
1	A	454	LYS	CE-NZ	8.09	1.69	1.49
1	F	384	THR	N-CA	8.09	1.62	1.46
1	G	151	TYR	CD1-CE1	8.09	1.51	1.39
1	O	325	TRP	CZ3-CH2	8.09	1.52	1.40
1	K	387	VAL	CB-CG1	8.09	1.69	1.52
1	G	227	SER	C-O	8.09	1.38	1.23
1	N	73	PHE	CB-CG	-8.09	1.37	1.51
1	O	179	ALA	C-O	8.09	1.38	1.23
1	B	110	GLY	C-O	8.08	1.36	1.23
1	D	138	ASN	CG-ND2	8.08	1.53	1.32
1	K	139	ALA	CA-CB	8.08	1.69	1.52
1	F	34	TYR	CD2-CE2	-8.08	1.27	1.39
1	I	291	TYR	CD1-CE1	-8.08	1.27	1.39
1	H	224	ILE	CB-CG2	-8.07	1.27	1.52
1	A	347	ALA	CA-CB	8.07	1.69	1.52
1	A	70	TYR	CE2-CZ	-8.07	1.28	1.38
1	M	72	VAL	C-O	-8.07	1.08	1.23
1	F	164	PRO	CG-CD	-8.07	1.24	1.50
1	A	468	PHE	CG-CD1	-8.06	1.26	1.38
1	J	352	GLU	CD-OE2	8.06	1.34	1.25
1	G	309	LYS	CE-NZ	8.06	1.69	1.49
1	H	205	PHE	CD1-CE1	8.06	1.55	1.39
1	L	318	GLY	C-O	-8.06	1.10	1.23
1	F	471	GLN	CG-CD	8.06	1.69	1.51
1	G	32	ASN	CB-CG	8.06	1.69	1.51
1	M	276	TYR	CE1-CZ	-8.06	1.28	1.38
1	L	169	TRP	CD2-CE2	-8.05	1.31	1.41
1	C	265	GLY	C-O	8.05	1.36	1.23
1	C	185	CYS	CB-SG	8.04	1.96	1.82
1	G	234	TYR	CD1-CE1	8.04	1.51	1.39
1	K	130	GLU	CB-CG	8.04	1.67	1.52
1	K	400	GLU	CG-CD	8.04	1.64	1.51
1	A	219	GLU	CB-CG	-8.04	1.36	1.52
1	L	390	TYR	CE1-CZ	8.04	1.49	1.38
1	G	91	TYR	CG-CD2	8.04	1.49	1.39
1	H	265	GLY	C-O	8.02	1.36	1.23
1	J	462	PHE	CB-CG	-8.02	1.37	1.51
1	O	139	ALA	CA-CB	8.02	1.69	1.52
1	A	343	SER	CB-OG	8.02	1.52	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	K	271	VAL	CB-CG1	-8.02	1.36	1.52
1	M	291	TYR	CG-CD2	-8.02	1.28	1.39
1	O	164	PRO	CG-CD	8.02	1.77	1.50
1	H	91	TYR	CD1-CE1	8.02	1.51	1.39
1	N	185	CYS	CB-SG	8.02	1.95	1.82
1	A	159	ILE	CB-CG2	-8.01	1.28	1.52
1	N	249	TYR	CD2-CE2	8.01	1.51	1.39
1	J	117	ILE	CA-CB	-8.00	1.36	1.54
1	I	185	CYS	C-O	8.00	1.38	1.23
1	K	338	ARG	CB-CG	8.00	1.74	1.52
1	F	234	TYR	CG-CD2	8.00	1.49	1.39
1	J	107	VAL	CB-CG1	-8.00	1.36	1.52
1	D	210	PHE	CE1-CZ	8.00	1.52	1.37
1	F	28	VAL	CB-CG1	7.99	1.69	1.52
1	B	231	TYR	CE2-CZ	7.99	1.49	1.38
1	D	244	ASP	CB-CG	7.99	1.68	1.51
1	E	343	SER	CA-CB	7.99	1.65	1.52
1	N	261	PHE	CG-CD2	-7.99	1.26	1.38
1	N	173	SER	CA-CB	7.98	1.65	1.52
1	K	70	TYR	CD1-CE1	7.98	1.51	1.39
1	L	442	LYS	CB-CG	7.98	1.74	1.52
1	J	236	LYS	CG-CD	7.97	1.79	1.52
1	O	459	LEU	C-O	-7.97	1.08	1.23
1	F	140	GLY	C-O	7.97	1.36	1.23
1	L	151	TYR	CG-CD1	7.97	1.49	1.39
1	K	362	GLU	CD-OE2	7.96	1.34	1.25
1	A	381	ILE	CB-CG2	7.96	1.77	1.52
1	E	231	TYR	CD1-CE1	7.96	1.51	1.39
1	M	444	TYR	CD1-CE1	7.96	1.51	1.39
1	N	355	TYR	CZ-OH	7.96	1.51	1.37
1	H	311	TYR	C-O	7.96	1.38	1.23
1	N	313	LEU	CG-CD2	7.95	1.81	1.51
1	D	231	TYR	CD1-CE1	7.95	1.51	1.39
1	J	334	VAL	CB-CG1	-7.95	1.36	1.52
1	L	111	GLN	CG-CD	7.95	1.69	1.51
1	H	177	GLN	CB-CG	-7.94	1.31	1.52
1	J	220	VAL	CB-CG2	-7.94	1.36	1.52
1	M	224	ILE	CB-CG2	-7.94	1.28	1.52
1	G	51	PRO	CB-CG	7.93	1.89	1.50
1	G	151	TYR	CB-CG	-7.93	1.39	1.51
1	M	311	TYR	CE2-CZ	7.93	1.48	1.38
1	C	106	GLU	CD-OE1	7.92	1.34	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	H	26	GLU	CD-OE2	7.92	1.34	1.25
1	I	116	GLY	C-O	7.92	1.36	1.23
1	H	446	PHE	CD2-CE2	7.91	1.55	1.39
1	J	106	GLU	CD-OE2	7.91	1.34	1.25
1	A	82	LYS	CE-NZ	7.91	1.68	1.49
1	H	70	TYR	CD2-CE2	-7.90	1.27	1.39
1	K	50	PHE	CD2-CE2	-7.90	1.23	1.39
1	D	157	CYS	CB-SG	-7.90	1.68	1.82
1	N	229	CYS	CB-SG	-7.90	1.68	1.82
1	I	287	ALA	C-O	7.90	1.38	1.23
1	I	315	ARG	CG-CD	7.90	1.71	1.51
1	A	355	TYR	CZ-OH	7.90	1.51	1.37
1	B	442	LYS	CE-NZ	7.90	1.68	1.49
1	N	312	TRP	CD2-CE2	7.90	1.50	1.41
1	O	453	GLU	CG-CD	7.89	1.63	1.51
1	F	172	GLY	C-O	7.89	1.36	1.23
1	D	268	GLY	C-O	7.89	1.36	1.23
1	D	249	TYR	CD1-CE1	-7.88	1.27	1.39
1	L	195	ILE	C-O	-7.88	1.08	1.23
1	B	216	ASN	C-O	-7.88	1.08	1.23
1	N	382	THR	CB-CG2	7.88	1.78	1.52
1	F	20	ALA	N-CA	7.87	1.62	1.46
1	I	151	TYR	CD2-CE2	-7.86	1.27	1.39
1	A	297	GLY	N-CA	7.86	1.57	1.46
1	B	467	LYS	CG-CD	7.86	1.79	1.52
1	F	139	ALA	CA-C	7.86	1.73	1.52
1	H	297	GLY	C-O	7.85	1.36	1.23
1	D	80	PRO	CG-CD	7.85	1.76	1.50
1	D	49	TYR	CE2-CZ	7.84	1.48	1.38
1	H	50	PHE	CE1-CZ	-7.84	1.22	1.37
1	G	355	TYR	CE2-CZ	-7.84	1.28	1.38
1	K	125	LYS	CD-CE	7.84	1.70	1.51
1	E	444	TYR	CE2-CZ	7.83	1.48	1.38
1	A	206	GLY	C-O	7.83	1.36	1.23
1	K	309	LYS	CD-CE	7.82	1.70	1.51
1	L	447	TRP	CB-CG	7.82	1.64	1.50
1	O	291	TYR	CE1-CZ	-7.82	1.28	1.38
1	J	35	TYR	CE1-CZ	-7.82	1.28	1.38
1	E	177	GLN	CA-CB	7.82	1.71	1.53
1	A	464	LEU	CG-CD2	-7.81	1.23	1.51
1	E	335	ASP	C-O	7.81	1.38	1.23
1	E	347	ALA	C-O	7.81	1.38	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	H	137	ALA	CA-CB	7.81	1.68	1.52
1	L	365	ARG	CZ-NH2	-7.81	1.23	1.33
1	B	49	TYR	CG-CD1	-7.80	1.29	1.39
1	D	139	ALA	CA-CB	7.80	1.68	1.52
1	L	306	ILE	CB-CG2	-7.80	1.28	1.52
1	G	91	TYR	CG-CD1	7.80	1.49	1.39
1	A	240	GLU	CB-CG	7.80	1.67	1.52
1	G	35	TYR	CD2-CE2	-7.80	1.27	1.39
1	H	469	LEU	CG-CD2	7.80	1.80	1.51
1	I	352	GLU	CG-CD	7.80	1.63	1.51
1	K	355	TYR	CD1-CE1	7.79	1.51	1.39
1	L	247	PHE	CE1-CZ	7.79	1.52	1.37
1	O	48	PRO	CG-CD	-7.79	1.25	1.50
1	E	291	TYR	CE1-CZ	-7.79	1.28	1.38
1	J	247	PHE	CE1-CZ	7.79	1.52	1.37
1	J	35	TYR	CG-CD1	-7.79	1.29	1.39
1	H	100	TRP	CZ3-CH2	-7.78	1.27	1.40
1	B	311	TYR	CD1-CE1	7.78	1.51	1.39
1	I	101	ALA	CA-CB	-7.78	1.36	1.52
1	G	169	TRP	CE3-CZ3	-7.77	1.25	1.38
1	I	456	SER	C-O	7.77	1.38	1.23
1	H	91	TYR	CE1-CZ	7.77	1.48	1.38
1	J	438	GLU	CD-OE1	7.76	1.34	1.25
1	E	252	ARG	CG-CD	7.76	1.71	1.51
1	F	360	PHE	CB-CG	-7.76	1.38	1.51
1	H	355	TYR	CE1-CZ	7.76	1.48	1.38
1	I	135	TYR	CB-CG	7.76	1.63	1.51
1	F	205	PHE	CD1-CE1	-7.75	1.23	1.39
1	E	334	VAL	CB-CG2	-7.74	1.36	1.52
1	A	217	LYS	CD-CE	7.74	1.70	1.51
1	H	347	ALA	C-O	7.74	1.38	1.23
1	F	154	THR	CB-CG2	7.73	1.77	1.52
1	H	148	SER	CB-OG	7.73	1.52	1.42
1	C	256	PHE	CE2-CZ	-7.73	1.22	1.37
1	M	167	GLU	CG-CD	7.72	1.63	1.51
1	B	441	LEU	CG-CD2	7.72	1.80	1.51
1	N	203	THR	N-CA	7.72	1.61	1.46
1	O	312	TRP	CE2-CZ2	-7.72	1.26	1.39
1	A	70	TYR	CG-CD2	-7.72	1.29	1.39
1	F	44	ALA	CA-CB	7.71	1.68	1.52
1	G	181	GLN	CG-CD	7.71	1.68	1.51
1	K	248	PHE	CE1-CZ	-7.71	1.22	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	181	GLN	CG-CD	7.71	1.68	1.51
1	E	323	ILE	CB-CG2	7.71	1.76	1.52
1	F	54	LYS	CE-NZ	7.71	1.68	1.49
1	N	49	TYR	CD1-CE1	7.71	1.50	1.39
1	J	357	ASN	C-O	7.70	1.38	1.23
1	A	463	PRO	CA-C	-7.70	1.37	1.52
1	G	336	THR	C-O	-7.70	1.08	1.23
1	N	311	TYR	CE1-CZ	-7.70	1.28	1.38
1	D	261	PHE	CE1-CZ	-7.70	1.22	1.37
1	B	261	PHE	CE2-CZ	-7.69	1.22	1.37
1	D	312	TRP	CD2-CE3	-7.69	1.28	1.40
1	K	49	TYR	CE2-CZ	-7.69	1.28	1.38
1	C	28	VAL	CB-CG1	7.68	1.69	1.52
1	O	324	CYS	CB-SG	7.68	1.95	1.82
1	D	468	PHE	CE1-CZ	-7.68	1.22	1.37
1	A	443	LYS	CE-NZ	7.68	1.68	1.49
1	K	100	TRP	CB-CG	-7.68	1.36	1.50
1	N	276	TYR	CD1-CE1	7.68	1.50	1.39
1	N	291	TYR	CB-CG	-7.68	1.40	1.51
1	E	72	VAL	CA-CB	-7.68	1.38	1.54
1	G	438	GLU	CD-OE2	7.68	1.34	1.25
1	G	44	ALA	CA-CB	7.67	1.68	1.52
1	L	249	TYR	CD1-CE1	-7.67	1.27	1.39
1	I	458	ASP	CG-OD2	7.67	1.43	1.25
1	H	444	TYR	CD1-CE1	7.66	1.50	1.39
1	E	438	GLU	CD-OE1	7.66	1.34	1.25
1	I	317	GLN	CG-CD	7.66	1.68	1.51
1	D	100	TRP	CD2-CE2	-7.65	1.32	1.41
1	D	248	PHE	CB-CG	-7.65	1.38	1.51
1	I	241	PRO	N-CA	7.65	1.60	1.47
1	G	69	GLN	C-O	7.65	1.37	1.23
1	H	178	VAL	CB-CG2	7.64	1.69	1.52
1	K	230	LYS	CG-CD	7.64	1.78	1.52
1	A	28	VAL	CB-CG1	7.64	1.68	1.52
1	H	360	PHE	CD2-CE2	7.64	1.54	1.39
1	I	317	GLN	CB-CG	7.64	1.73	1.52
1	C	86	PRO	CA-C	7.64	1.68	1.52
1	O	333	VAL	CB-CG2	-7.64	1.36	1.52
1	C	400	GLU	CG-CD	7.64	1.63	1.51
1	F	83	PHE	CE1-CZ	7.64	1.51	1.37
1	J	256	PHE	CE2-CZ	-7.63	1.22	1.37
1	I	84	GLY	CA-C	7.63	1.64	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	K	165	ILE	C-O	7.63	1.37	1.23
1	C	356	LYS	CE-NZ	7.62	1.68	1.49
1	H	194	VAL	CB-CG1	7.62	1.68	1.52
1	C	280	SER	CB-OG	7.62	1.52	1.42
1	H	217	LYS	CD-CE	7.61	1.70	1.51
1	I	376	PHE	CD2-CE2	-7.61	1.24	1.39
1	N	189	GLU	CD-OE2	7.61	1.34	1.25
1	O	317	GLN	CG-CD	7.61	1.68	1.51
1	N	138	ASN	CB-CG	7.61	1.68	1.51
1	B	305	GLN	CB-CG	-7.61	1.32	1.52
1	E	362	GLU	CD-OE1	7.61	1.34	1.25
1	I	291	TYR	CG-CD2	-7.60	1.29	1.39
1	I	97	ARG	CZ-NH1	7.60	1.43	1.33
1	L	291	TYR	CG-CD1	-7.60	1.29	1.39
1	C	353	THR	CB-CG2	7.60	1.77	1.52
1	I	280	SER	C-O	7.59	1.37	1.23
1	O	107	VAL	CB-CG1	-7.59	1.36	1.52
1	G	217	LYS	CE-NZ	7.59	1.68	1.49
1	N	456	SER	CB-OG	7.59	1.52	1.42
1	D	267	VAL	CB-CG2	7.59	1.68	1.52
1	F	472	LEU	N-CA	7.59	1.61	1.46
1	N	189	GLU	CG-CD	7.59	1.63	1.51
1	G	230	LYS	CE-NZ	7.58	1.68	1.49
1	G	374	PHE	CG-CD1	7.58	1.50	1.38
1	K	292	PHE	CD2-CE2	7.58	1.54	1.39
1	D	296	SER	CB-OG	-7.58	1.32	1.42
1	O	176	THR	CB-CG2	7.58	1.77	1.52
1	L	97	ARG	CG-CD	7.57	1.70	1.51
1	J	54	LYS	C-O	7.57	1.37	1.23
1	C	230	LYS	CB-CG	7.57	1.73	1.52
1	D	453	GLU	CG-CD	7.57	1.63	1.51
1	G	450	ASN	CG-ND2	7.57	1.51	1.32
1	K	266	THR	CB-CG2	7.56	1.77	1.52
1	K	300	VAL	CB-CG1	7.56	1.68	1.52
1	D	178	VAL	CB-CG1	7.56	1.68	1.52
1	F	117	ILE	CA-CB	-7.56	1.37	1.54
1	F	114	GLY	N-CA	7.55	1.57	1.46
1	N	53	LYS	CB-CG	7.55	1.73	1.52
1	D	172	GLY	C-O	7.55	1.35	1.23
1	I	147	ILE	C-O	7.55	1.37	1.23
1	H	248	PHE	C-O	7.55	1.37	1.23
1	N	87	ASP	CG-OD1	7.55	1.42	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	N	165	ILE	CA-CB	-7.55	1.37	1.54
1	K	292	PHE	CD1-CE1	7.54	1.54	1.39
1	N	231	TYR	CE2-CZ	7.54	1.48	1.38
1	A	338	ARG	CG-CD	7.54	1.70	1.51
1	I	84	GLY	C-O	7.54	1.35	1.23
1	L	362	GLU	CD-OE2	7.54	1.33	1.25
1	A	30	ARG	C-O	-7.54	1.09	1.23
1	E	118	SER	CB-OG	7.54	1.52	1.42
1	C	115	VAL	CB-CG2	-7.54	1.37	1.52
1	L	456	SER	C-O	7.54	1.37	1.23
1	E	135	TYR	CD1-CE1	-7.54	1.28	1.39
1	K	210	PHE	CD2-CE2	-7.53	1.24	1.39
1	O	335	ASP	C-O	7.53	1.37	1.23
1	L	375	ILE	C-O	7.53	1.37	1.23
1	L	272	PRO	N-CD	7.53	1.58	1.47
1	D	360	PHE	CE2-CZ	-7.52	1.23	1.37
1	E	449	VAL	CA-CB	7.52	1.70	1.54
1	N	292	PHE	CD1-CE1	-7.52	1.24	1.39
1	J	44	ALA	CA-CB	7.52	1.68	1.52
1	K	330	PHE	CD2-CE2	-7.52	1.24	1.39
1	B	263	ARG	CZ-NH2	-7.51	1.23	1.33
1	I	263	ARG	CZ-NH1	-7.51	1.23	1.33
1	J	240	GLU	CG-CD	7.51	1.63	1.51
1	J	472	LEU	N-CA	7.51	1.61	1.46
1	D	40	SER	CB-OG	7.51	1.52	1.42
1	J	106	GLU	CG-CD	7.51	1.63	1.51
1	L	311	TYR	CG-CD2	7.51	1.49	1.39
1	G	176	THR	CA-CB	7.50	1.72	1.53
1	H	256	PHE	CB-CG	-7.50	1.38	1.51
1	J	390	TYR	CB-CG	-7.50	1.40	1.51
1	E	236	LYS	CD-CE	7.50	1.70	1.51
1	F	468	PHE	CG-CD1	7.50	1.50	1.38
1	G	362	GLU	CD-OE2	7.50	1.33	1.25
1	I	364	LEU	C-O	7.50	1.37	1.23
1	L	230	LYS	CE-NZ	7.50	1.67	1.49
1	F	28	VAL	C-O	7.49	1.37	1.23
1	J	263	ARG	CG-CD	-7.49	1.33	1.51
1	O	352	GLU	CG-CD	7.49	1.63	1.51
1	O	210	PHE	CE1-CZ	7.49	1.51	1.37
1	C	355	TYR	CD1-CE1	-7.49	1.28	1.39
1	J	115	VAL	CB-CG2	-7.49	1.37	1.52
1	O	249	TYR	CZ-OH	7.49	1.50	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	M	140	GLY	N-CA	7.48	1.57	1.46
1	A	242	TYR	CE1-CZ	-7.48	1.28	1.38
1	I	375	ILE	C-O	7.48	1.37	1.23
1	I	458	ASP	CG-OD1	7.47	1.42	1.25
1	F	97	ARG	CG-CD	7.47	1.70	1.51
1	H	356	LYS	C-O	-7.47	1.09	1.23
1	I	379	CYS	CB-SG	7.47	1.95	1.82
1	C	307	PHE	CE1-CZ	7.46	1.51	1.37
1	H	220	VAL	CB-CG1	-7.46	1.37	1.52
1	H	261	PHE	CE1-CZ	-7.46	1.23	1.37
1	G	263	ARG	CG-CD	-7.46	1.33	1.51
1	L	49	TYR	CD2-CE2	-7.46	1.28	1.39
1	L	177	GLN	CG-CD	7.46	1.68	1.51
1	D	257	VAL	CA-CB	7.45	1.70	1.54
1	O	173	SER	CB-OG	7.45	1.51	1.42
1	D	245	SER	CB-OG	7.45	1.51	1.42
1	I	242	TYR	CD1-CE1	7.45	1.50	1.39
1	I	205	PHE	CG-CD2	7.44	1.50	1.38
1	K	210	PHE	CD1-CE1	-7.44	1.24	1.39
1	E	343	SER	CB-OG	7.43	1.51	1.42
1	J	382	THR	C-O	7.43	1.37	1.23
1	N	219	GLU	CB-CG	7.43	1.66	1.52
1	C	70	TYR	CE2-CZ	-7.43	1.28	1.38
1	J	338	ARG	CZ-NH1	7.43	1.42	1.33
1	N	138	ASN	C-O	7.43	1.37	1.23
1	K	444	TYR	CD1-CE1	-7.43	1.28	1.39
1	K	49	TYR	CB-CG	7.42	1.62	1.51
1	N	40	SER	CB-OG	7.42	1.51	1.42
1	H	20	ALA	CA-CB	7.42	1.68	1.52
1	D	256	PHE	CE2-CZ	-7.42	1.23	1.37
1	M	70	TYR	CG-CD2	-7.42	1.29	1.39
1	O	27	TYR	CG-CD2	7.42	1.48	1.39
1	F	139	ALA	C-N	7.41	1.46	1.33
1	J	360	PHE	CE1-CZ	-7.41	1.23	1.37
1	O	344	LEU	C-O	7.41	1.37	1.23
1	B	169	TRP	CD2-CE2	-7.41	1.32	1.41
1	O	22	VAL	CB-CG1	7.41	1.68	1.52
1	D	258	ARG	CZ-NH2	-7.41	1.23	1.33
1	H	391	ILE	CA-CB	-7.41	1.37	1.54
1	I	90	PHE	CE1-CZ	7.41	1.51	1.37
1	I	390	TYR	CD2-CE2	-7.41	1.28	1.39
1	M	132	ALA	CA-CB	7.41	1.68	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	K	276	TYR	CD2-CE2	7.40	1.50	1.39
1	M	249	TYR	CD1-CE1	7.40	1.50	1.39
1	I	225	CYS	CB-SG	7.40	1.94	1.82
1	K	462	PHE	CB-CG	-7.40	1.38	1.51
1	I	28	VAL	CB-CG2	-7.40	1.37	1.52
1	C	453	GLU	CD-OE1	7.39	1.33	1.25
1	F	448	GLU	CD-OE2	7.39	1.33	1.25
1	L	205	PHE	CG-CD2	7.39	1.49	1.38
1	J	32	ASN	CB-CG	7.39	1.68	1.51
1	C	333	VAL	CB-CG2	-7.38	1.37	1.52
1	F	126	LEU	C-O	7.38	1.37	1.23
1	N	454	LYS	CE-NZ	7.38	1.67	1.49
1	B	67	GLY	CA-C	7.38	1.63	1.51
1	D	115	VAL	C-O	7.38	1.37	1.23
1	K	287	ALA	CA-CB	7.37	1.68	1.52
1	C	77	LEU	CG-CD2	7.37	1.79	1.51
1	B	217	LYS	CD-CE	7.36	1.69	1.51
1	B	276	TYR	CG-CD1	-7.36	1.29	1.39
1	I	174	PRO	C-O	7.36	1.38	1.23
1	J	271	VAL	CB-CG2	-7.36	1.37	1.52
1	N	27	TYR	C-O	7.36	1.37	1.23
1	J	455	PHE	CE2-CZ	7.36	1.51	1.37
1	O	220	VAL	CB-CG1	7.35	1.68	1.52
1	D	249	TYR	CG-CD1	-7.35	1.29	1.39
1	D	294	THR	CB-CG2	-7.35	1.28	1.52
1	E	291	TYR	CB-CG	-7.35	1.40	1.51
1	M	253	GLU	CD-OE2	-7.35	1.17	1.25
1	E	376	PHE	CD2-CE2	-7.35	1.24	1.39
1	H	360	PHE	CE2-CZ	-7.35	1.23	1.37
1	N	272	PRO	CA-C	-7.35	1.38	1.52
1	B	258	ARG	C-O	7.35	1.37	1.23
1	H	333	VAL	C-O	7.35	1.37	1.23
1	K	311	TYR	C-O	7.34	1.37	1.23
1	C	59	LYS	CE-NZ	7.34	1.67	1.49
1	M	369	GLU	CD-OE2	7.34	1.33	1.25
1	D	165	ILE	CA-CB	-7.34	1.38	1.54
1	D	370	TYR	CB-CG	-7.33	1.40	1.51
1	F	106	GLU	CG-CD	7.33	1.62	1.51
1	D	115	VAL	CA-CB	-7.32	1.39	1.54
1	K	151	TYR	CD2-CE2	7.32	1.50	1.39
1	J	376	PHE	CE1-CZ	7.32	1.51	1.37
1	J	292	PHE	CG-CD2	7.32	1.49	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	269	GLU	CG-CD	7.32	1.62	1.51
1	C	23	SER	CB-OG	7.31	1.51	1.42
1	F	442	LYS	C-O	7.31	1.37	1.23
1	L	360	PHE	CB-CG	-7.31	1.39	1.51
1	H	361	LYS	CE-NZ	7.30	1.67	1.49
1	M	155	GLN	CB-CG	-7.30	1.32	1.52
1	H	249	TYR	N-CA	7.30	1.60	1.46
1	N	89	SER	C-O	7.30	1.37	1.23
1	H	175	CYS	CB-SG	7.30	1.94	1.82
1	M	35	TYR	CG-CD1	-7.30	1.29	1.39
1	H	311	TYR	CE1-CZ	-7.29	1.29	1.38
1	E	151	TYR	CG-CD2	7.29	1.48	1.39
1	F	181	GLN	CG-CD	7.29	1.67	1.51
1	E	35	TYR	CD1-CE1	-7.29	1.28	1.39
1	H	309	LYS	CD-CE	7.29	1.69	1.51
1	F	315	ARG	CG-CD	7.29	1.70	1.51
1	A	268	GLY	C-O	7.29	1.35	1.23
1	E	468	PHE	CE2-CZ	7.29	1.51	1.37
1	N	258	ARG	CB-CG	-7.29	1.32	1.52
1	D	189	GLU	CG-CD	7.28	1.62	1.51
1	C	374	PHE	CE1-CZ	7.28	1.51	1.37
1	E	234	TYR	CD2-CE2	7.28	1.50	1.39
1	M	269	GLU	CD-OE1	-7.28	1.17	1.25
1	M	347	ALA	C-O	7.28	1.37	1.23
1	H	276	TYR	CD2-CE2	7.28	1.50	1.39
1	O	187	PRO	CG-CD	7.28	1.74	1.50
1	B	355	TYR	CZ-OH	7.27	1.50	1.37
1	C	376	PHE	CE2-CZ	7.27	1.51	1.37
1	H	109	ARG	NE-CZ	7.27	1.42	1.33
1	J	377	GLN	CG-CD	7.27	1.67	1.51
1	E	382	THR	C-O	7.26	1.37	1.23
1	G	178	VAL	CB-CG2	7.26	1.68	1.52
1	N	72	VAL	N-CA	7.26	1.60	1.46
1	B	234	TYR	CE2-CZ	-7.26	1.29	1.38
1	H	347	ALA	CA-CB	7.26	1.67	1.52
1	F	27	TYR	CE1-CZ	7.26	1.48	1.38
1	F	189	GLU	CG-CD	7.26	1.62	1.51
1	F	383	LEU	CG-CD2	7.26	1.78	1.51
1	G	148	SER	CB-OG	7.26	1.51	1.42
1	J	243	GLY	C-O	7.26	1.35	1.23
1	M	298	SER	CB-OG	7.26	1.51	1.42
1	B	362	GLU	CD-OE2	7.25	1.33	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	K	163	PRO	CA-CB	-7.25	1.39	1.53
1	B	201	VAL	CB-CG1	-7.25	1.37	1.52
1	K	48	PRO	C-O	7.25	1.37	1.23
1	D	110	GLY	C-O	-7.25	1.12	1.23
1	J	173	SER	CB-OG	7.24	1.51	1.42
1	H	130	GLU	CG-CD	7.24	1.62	1.51
1	C	253	GLU	CD-OE2	-7.24	1.17	1.25
1	E	66	SER	C-O	7.24	1.37	1.23
1	I	204	GLY	C-O	7.24	1.35	1.23
1	C	249	TYR	CE1-CZ	-7.23	1.29	1.38
1	N	21	VAL	CB-CG2	7.23	1.68	1.52
1	F	438	GLU	CD-OE2	7.23	1.33	1.25
1	O	74	ARG	CZ-NH1	7.23	1.42	1.33
1	H	50	PHE	CD2-CE2	-7.23	1.24	1.39
1	H	346	ALA	CA-CB	7.22	1.67	1.52
1	L	181	GLN	CG-CD	7.22	1.67	1.51
1	A	54	LYS	CE-NZ	7.22	1.67	1.49
1	D	176	THR	N-CA	7.22	1.60	1.46
1	A	67	GLY	CA-C	7.22	1.63	1.51
1	A	361	LYS	CD-CE	7.22	1.69	1.51
1	K	43	LEU	C-O	-7.22	1.09	1.23
1	J	363	TYR	CE2-CZ	7.22	1.48	1.38
1	B	203	THR	CA-CB	-7.21	1.34	1.53
1	E	331	VAL	CB-CG1	7.21	1.68	1.52
1	G	35	TYR	CE1-CZ	-7.21	1.29	1.38
1	L	469	LEU	C-O	-7.21	1.09	1.23
1	A	103	VAL	CB-CG1	-7.21	1.37	1.52
1	M	138	ASN	C-O	7.21	1.37	1.23
1	A	227	SER	CB-OG	7.21	1.51	1.42
1	B	145	GLU	CD-OE1	7.21	1.33	1.25
1	K	185	CYS	C-O	7.21	1.37	1.23
1	B	230	LYS	CE-NZ	7.20	1.67	1.49
1	E	282	SER	CB-OG	7.20	1.51	1.42
1	I	247	PHE	CE1-CZ	7.20	1.51	1.37
1	J	370	TYR	C-O	7.20	1.37	1.23
1	L	227	SER	CB-OG	7.20	1.51	1.42
1	L	236	LYS	CB-CG	7.20	1.72	1.52
1	B	91	TYR	CG-CD1	7.20	1.48	1.39
1	O	360	PHE	CG-CD1	-7.19	1.27	1.38
1	I	172	GLY	C-O	7.19	1.35	1.23
1	K	219	GLU	CG-CD	-7.19	1.41	1.51
1	A	151	TYR	CG-CD2	7.18	1.48	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	I	320	ASN	CB-CG	7.18	1.67	1.51
1	N	95	THR	CB-CG2	7.18	1.76	1.52
1	J	94	ASP	CB-CG	7.18	1.66	1.51
1	L	317	GLN	CG-CD	7.18	1.67	1.51
1	H	462	PHE	CE1-CZ	-7.17	1.23	1.37
1	B	168	HIS	C-O	-7.17	1.09	1.23
1	I	88	THR	CB-CG2	7.16	1.75	1.52
1	D	62	VAL	CB-CG2	7.16	1.67	1.52
1	O	38	GLY	C-O	7.16	1.35	1.23
1	C	462	PHE	CG-CD1	-7.16	1.28	1.38
1	G	447	TRP	CG-CD1	7.16	1.46	1.36
1	B	298	SER	CB-OG	-7.16	1.32	1.42
1	E	396	SER	C-O	7.16	1.36	1.23
1	H	254	GLN	C-O	7.15	1.36	1.23
1	L	116	GLY	C-O	7.15	1.35	1.23
1	O	27	TYR	CE1-CZ	7.15	1.47	1.38
1	E	35	TYR	CD2-CE2	-7.15	1.28	1.39
1	H	89	SER	CB-OG	7.15	1.51	1.42
1	N	201	VAL	CB-CG1	-7.15	1.37	1.52
1	O	149	MET	CG-SD	7.15	1.99	1.81
1	H	67	GLY	N-CA	-7.14	1.35	1.46
1	O	26	GLU	CG-CD	7.14	1.62	1.51
1	D	181	GLN	C-O	7.14	1.36	1.23
1	E	280	SER	C-O	7.14	1.36	1.23
1	J	455	PHE	CD1-CE1	-7.13	1.25	1.39
1	K	140	GLY	N-CA	7.13	1.56	1.46
1	J	349	SER	CA-CB	7.13	1.63	1.52
1	G	98	LEU	CG-CD1	7.13	1.78	1.51
1	L	262	ASN	C-O	-7.13	1.09	1.23
1	B	472	LEU	C-OXT	7.13	1.36	1.23
1	M	362	GLU	CD-OE1	7.13	1.33	1.25
1	H	90	PHE	CG-CD2	7.13	1.49	1.38
1	H	156	LEU	C-O	7.13	1.36	1.23
1	H	400	GLU	CD-OE1	7.13	1.33	1.25
1	F	225	CYS	N-CA	7.12	1.60	1.46
1	E	194	VAL	CB-CG1	7.12	1.67	1.52
1	K	468	PHE	CD1-CE1	-7.12	1.25	1.39
1	F	35	TYR	CG-CD1	7.12	1.48	1.39
1	F	389	THR	CB-CG2	7.12	1.75	1.52
1	K	247	PHE	CG-CD2	7.12	1.49	1.38
1	A	355	TYR	CG-CD1	-7.12	1.29	1.39
1	O	261	PHE	CG-CD2	7.12	1.49	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	32	ASN	CB-CG	7.11	1.67	1.51
1	D	174	PRO	N-CD	7.11	1.57	1.47
1	H	114	GLY	N-CA	7.11	1.56	1.46
1	O	379	CYS	C-O	7.11	1.36	1.23
1	B	242	TYR	CE1-CZ	-7.11	1.29	1.38
1	H	300	VAL	C-O	7.11	1.36	1.23
1	O	292	PHE	CE2-CZ	-7.11	1.23	1.37
1	N	32	ASN	CG-OD1	7.11	1.39	1.24
1	N	125	LYS	C-O	7.11	1.36	1.23
1	B	142	ASP	CB-CG	-7.11	1.36	1.51
1	N	24	THR	CA-CB	-7.11	1.34	1.53
1	F	259	HIS	CA-CB	-7.11	1.38	1.53
1	J	100	TRP	CB-CG	-7.11	1.37	1.50
1	N	269	GLU	CB-CG	7.11	1.65	1.52
1	E	442	LYS	C-O	7.10	1.36	1.23
1	H	467	LYS	CB-CG	7.10	1.71	1.52
1	D	301	THR	CB-CG2	7.10	1.75	1.52
1	F	239	SER	CB-OG	7.10	1.51	1.42
1	G	162	LYS	CE-NZ	7.10	1.66	1.49
1	A	291	TYR	CE1-CZ	-7.10	1.29	1.38
1	A	315	ARG	CG-CD	7.10	1.69	1.51
1	B	124	ASN	CB-CG	7.09	1.67	1.51
1	K	161	CYS	CB-SG	7.09	1.94	1.82
1	B	56	ASN	C-O	7.09	1.36	1.23
1	G	216	ASN	CG-ND2	7.09	1.50	1.32
1	B	201	VAL	CA-CB	-7.09	1.39	1.54
1	I	390	TYR	CZ-OH	7.08	1.49	1.37
1	C	242	TYR	CE2-CZ	7.08	1.47	1.38
1	H	58	ASN	C-O	7.08	1.36	1.23
1	K	452	LYS	CG-CD	7.08	1.76	1.52
1	A	400	GLU	CD-OE1	7.08	1.33	1.25
1	F	114	GLY	C-O	7.08	1.34	1.23
1	I	231	TYR	CG-CD2	-7.08	1.29	1.39
1	L	340	THR	CB-CG2	-7.07	1.29	1.52
1	O	107	VAL	C-O	7.07	1.36	1.23
1	J	240	GLU	CD-OE1	7.07	1.33	1.25
1	E	45	VAL	CB-CG2	-7.07	1.38	1.52
1	O	374	PHE	CG-CD1	7.07	1.49	1.38
1	D	32	ASN	CG-OD1	7.07	1.39	1.24
1	N	315	ARG	CG-CD	7.07	1.69	1.51
1	D	152	LYS	CD-CE	7.06	1.69	1.51
1	J	215	ALA	CA-CB	7.06	1.67	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	L	177	GLN	C-O	7.06	1.36	1.23
1	H	106	GLU	CD-OE2	7.06	1.33	1.25
1	I	387	VAL	CA-CB	7.06	1.69	1.54
1	F	184	ASP	CG-OD2	7.05	1.41	1.25
1	N	320	ASN	C-O	-7.05	1.09	1.23
1	L	472	LEU	C-O	7.05	1.36	1.23
1	M	200	MET	C-O	7.05	1.36	1.23
1	K	462	PHE	CG-CD1	-7.05	1.28	1.38
1	C	387	VAL	CB-CG1	7.04	1.67	1.52
1	E	160	GLY	N-CA	7.04	1.56	1.46
1	O	49	TYR	C-O	7.04	1.36	1.23
1	D	189	GLU	CD-OE1	7.04	1.33	1.25
1	B	241	PRO	N-CA	7.04	1.59	1.47
1	C	173	SER	CA-CB	7.04	1.63	1.52
1	D	369	GLU	C-O	-7.04	1.09	1.23
1	F	265	GLY	N-CA	7.04	1.56	1.46
1	M	293	PRO	C-O	-7.04	1.09	1.23
1	D	334	VAL	CB-CG1	-7.03	1.38	1.52
1	E	465	GLY	C-O	-7.03	1.12	1.23
1	D	240	GLU	CD-OE1	7.03	1.33	1.25
1	B	117	ILE	CA-CB	-7.03	1.38	1.54
1	M	73	PHE	CG-CD1	-7.03	1.28	1.38
1	N	438	GLU	CD-OE2	7.03	1.33	1.25
1	I	145	GLU	CD-OE2	7.02	1.33	1.25
1	A	114	GLY	C-O	7.02	1.34	1.23
1	E	173	SER	C-O	7.02	1.36	1.23
1	F	197	ASP	CG-OD1	7.02	1.41	1.25
1	J	231	TYR	CD2-CE2	7.02	1.49	1.39
1	J	249	TYR	C-O	-7.02	1.10	1.23
1	M	240	GLU	CG-CD	7.02	1.62	1.51
1	B	138	ASN	CB-CG	7.01	1.67	1.51
1	G	226	THR	CA-CB	-7.01	1.35	1.53
1	N	202	ASP	CG-OD2	7.01	1.41	1.25
1	O	169	TRP	CB-CG	-7.01	1.37	1.50
1	C	242	TYR	CG-CD1	7.01	1.48	1.39
1	K	22	VAL	CB-CG2	7.01	1.67	1.52
1	G	312	TRP	CE3-CZ3	-7.00	1.26	1.38
1	J	456	SER	CB-OG	7.00	1.51	1.42
1	O	159	ILE	CA-CB	-7.00	1.38	1.54
1	B	91	TYR	CE2-CZ	6.99	1.47	1.38
1	L	144	ARG	CZ-NH2	6.99	1.42	1.33
1	O	40	SER	CA-CB	6.99	1.63	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	34	TYR	CD1-CE1	-6.99	1.28	1.39
1	F	438	GLU	CB-CG	6.99	1.65	1.52
1	N	88	THR	CA-CB	6.99	1.71	1.53
1	E	452	LYS	CE-NZ	6.99	1.66	1.49
1	B	214	GLN	CB-CG	6.99	1.71	1.52
1	D	311	TYR	CZ-OH	-6.99	1.25	1.37
1	A	208	MET	C-O	6.99	1.36	1.23
1	L	351	SER	C-O	6.99	1.36	1.23
1	B	177	GLN	CD-OE1	6.98	1.39	1.24
1	C	83	PHE	CE2-CZ	6.98	1.50	1.37
1	F	276	TYR	CE2-CZ	6.98	1.47	1.38
1	K	106	GLU	CG-CD	6.98	1.62	1.51
1	B	390	TYR	CE1-CZ	6.98	1.47	1.38
1	F	368	GLU	CD-OE2	6.98	1.33	1.25
1	N	205	PHE	CE2-CZ	6.98	1.50	1.37
1	A	307	PHE	CG-CD1	-6.98	1.28	1.38
1	C	104	GLY	N-CA	-6.98	1.35	1.46
1	D	213	LEU	C-O	6.98	1.36	1.23
1	E	375	ILE	C-O	6.98	1.36	1.23
1	K	62	VAL	CB-CG1	-6.98	1.38	1.52
1	C	187	PRO	CG-CD	6.97	1.73	1.50
1	H	234	TYR	CD2-CE2	-6.97	1.28	1.39
1	F	117	ILE	CB-CG2	6.97	1.74	1.52
1	K	115	VAL	CB-CG2	-6.97	1.38	1.52
1	L	151	TYR	CZ-OH	-6.97	1.26	1.37
1	L	302	SER	CA-CB	-6.97	1.42	1.52
1	H	376	PHE	CG-CD2	6.97	1.49	1.38
1	A	183	GLY	C-O	6.97	1.34	1.23
1	E	389	THR	CB-CG2	6.97	1.75	1.52
1	I	117	ILE	CA-CB	-6.96	1.38	1.54
1	N	257	VAL	CA-CB	6.96	1.69	1.54
1	O	124	ASN	CB-CG	6.96	1.67	1.51
1	F	353	THR	CB-CG2	6.96	1.75	1.52
1	J	375	ILE	C-O	6.96	1.36	1.23
1	E	89	SER	CB-OG	6.96	1.51	1.42
1	O	141	VAL	CB-CG1	6.96	1.67	1.52
1	G	172	GLY	N-CA	6.96	1.56	1.46
1	H	333	VAL	CB-CG2	-6.96	1.38	1.52
1	K	196	GLN	C-O	-6.96	1.10	1.23
1	L	177	GLN	CD-OE1	6.95	1.39	1.24
1	I	263	ARG	CZ-NH2	-6.95	1.24	1.33
1	I	466	ARG	CB-CG	6.95	1.71	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	61	LEU	CG-CD1	6.94	1.77	1.51
1	B	271	VAL	C-O	-6.94	1.10	1.23
1	B	140	GLY	CA-C	6.94	1.62	1.51
1	H	444	TYR	CE2-CZ	6.94	1.47	1.38
1	N	70	TYR	CB-CG	-6.94	1.41	1.51
1	N	369	GLU	CB-CG	6.94	1.65	1.52
1	E	105	VAL	CB-CG1	-6.94	1.38	1.52
1	G	128	ASP	C-O	6.94	1.36	1.23
1	N	88	THR	CB-CG2	6.94	1.75	1.52
1	I	269	GLU	CD-OE1	6.94	1.33	1.25
1	N	294	THR	CB-CG2	-6.93	1.29	1.52
1	O	229	CYS	CB-SG	6.93	1.94	1.82
1	N	281	GLY	CA-C	6.93	1.62	1.51
1	J	97	ARG	NE-CZ	6.93	1.42	1.33
1	E	167	GLU	CD-OE2	6.93	1.33	1.25
1	A	162	LYS	CD-CE	6.92	1.68	1.51
1	B	463	PRO	CB-CG	6.92	1.84	1.50
1	J	380	LYS	CD-CE	6.92	1.68	1.51
1	M	441	LEU	CG-CD2	6.92	1.77	1.51
1	F	263	ARG	CZ-NH2	-6.92	1.24	1.33
1	C	135	TYR	CD2-CE2	-6.91	1.28	1.39
1	F	148	SER	CB-OG	6.91	1.51	1.42
1	H	331	VAL	CB-CG1	-6.91	1.38	1.52
1	O	86	PRO	C-O	6.91	1.37	1.23
1	K	343	SER	C-O	6.91	1.36	1.23
1	M	82	LYS	CD-CE	6.91	1.68	1.51
1	G	125	LYS	CD-CE	6.91	1.68	1.51
1	J	184	ASP	C-O	6.91	1.36	1.23
1	F	444	TYR	CZ-OH	6.91	1.49	1.37
1	K	105	VAL	CB-CG1	-6.90	1.38	1.52
1	I	189	GLU	CD-OE1	6.90	1.33	1.25
1	O	240	GLU	CD-OE1	6.90	1.33	1.25
1	B	400	GLU	CB-CG	6.90	1.65	1.52
1	J	311	TYR	CD2-CE2	-6.90	1.29	1.39
1	M	292	PHE	CE2-CZ	-6.90	1.24	1.37
1	H	317	GLN	CG-CD	6.90	1.67	1.51
1	M	97	ARG	CG-CD	6.90	1.69	1.51
1	C	263	ARG	NE-CZ	-6.89	1.24	1.33
1	A	145	GLU	CD-OE2	6.89	1.33	1.25
1	B	151	TYR	CZ-OH	-6.89	1.26	1.37
1	I	106	GLU	CD-OE2	6.89	1.33	1.25
1	L	276	TYR	CD1-CE1	-6.89	1.29	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	I	368	GLU	CD-OE2	6.88	1.33	1.25
1	D	185	CYS	CB-SG	6.88	1.94	1.82
1	D	190	LEU	C-O	6.88	1.36	1.23
1	J	101	ALA	C-O	6.88	1.36	1.23
1	L	73	PHE	CE2-CZ	-6.88	1.24	1.37
1	N	93	PRO	CG-CD	6.88	1.73	1.50
1	F	167	GLU	CD-OE2	6.88	1.33	1.25
1	B	325	TRP	CG-CD1	6.87	1.46	1.36
1	D	68	LEU	CA-C	-6.87	1.35	1.52
1	D	356	LYS	CD-CE	6.87	1.68	1.51
1	O	200	MET	CG-SD	6.87	1.99	1.81
1	M	215	ALA	CA-CB	6.87	1.66	1.52
1	F	343	SER	CB-OG	6.87	1.51	1.42
1	E	337	THR	C-O	6.87	1.36	1.23
1	F	256	PHE	CE2-CZ	-6.87	1.24	1.37
1	A	351	SER	CB-OG	-6.86	1.33	1.42
1	H	269	GLU	CG-CD	6.86	1.62	1.51
1	L	240	GLU	CD-OE2	-6.86	1.18	1.25
1	M	438	GLU	CG-CD	6.86	1.62	1.51
1	N	59	LYS	CD-CE	6.86	1.68	1.51
1	O	253	GLU	CB-CG	6.86	1.65	1.52
1	B	400	GLU	CG-CD	6.85	1.62	1.51
1	E	34	TYR	CZ-OH	6.85	1.49	1.37
1	H	144	ARG	CZ-NH1	-6.85	1.24	1.33
1	J	442	LYS	CE-NZ	6.85	1.66	1.49
1	O	322	GLY	N-CA	6.85	1.56	1.46
1	H	179	ALA	CA-CB	6.85	1.66	1.52
1	L	290	ASN	CG-OD1	-6.85	1.08	1.24
1	B	250	LEU	N-CA	6.85	1.60	1.46
1	C	344	LEU	C-O	6.85	1.36	1.23
1	F	31	THR	CA-C	-6.85	1.35	1.52
1	F	97	ARG	CB-CG	6.84	1.71	1.52
1	H	100	TRP	CD2-CE2	-6.84	1.33	1.41
1	I	199	ASP	CG-OD1	6.84	1.41	1.25
1	D	355	TYR	CZ-OH	6.84	1.49	1.37
1	J	234	TYR	CD2-CE2	-6.84	1.29	1.39
1	L	204	GLY	C-O	-6.84	1.12	1.23
1	L	141	VAL	CB-CG1	-6.84	1.38	1.52
1	L	205	PHE	CD1-CE1	6.84	1.52	1.39
1	H	336	THR	CB-CG2	-6.84	1.29	1.52
1	H	370	TYR	CG-CD1	-6.84	1.30	1.39
1	O	208	MET	CG-SD	6.84	1.99	1.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	F	176	THR	CB-CG2	6.83	1.74	1.52
1	H	237	MET	C-O	6.83	1.36	1.23
1	J	446	PHE	CD2-CE2	6.83	1.52	1.39
1	O	50	PHE	CE1-CZ	6.83	1.50	1.37
1	O	249	TYR	CD1-CE1	-6.83	1.29	1.39
1	O	370	TYR	CZ-OH	6.83	1.49	1.37
1	D	211	THR	C-O	-6.83	1.10	1.23
1	E	181	GLN	CG-CD	6.83	1.66	1.51
1	H	83	PHE	CE2-CZ	6.83	1.50	1.37
1	H	91	TYR	CG-CD2	6.83	1.48	1.39
1	N	28	VAL	C-O	6.83	1.36	1.23
1	A	400	GLU	CD-OE2	6.83	1.33	1.25
1	F	251	ARG	CZ-NH1	6.82	1.42	1.33
1	M	187	PRO	CG-CD	6.82	1.73	1.50
1	A	231	TYR	CE2-CZ	6.82	1.47	1.38
1	G	75	ILE	C-O	6.81	1.36	1.23
1	M	139	ALA	C-N	6.81	1.45	1.33
1	I	174	PRO	N-CD	6.81	1.57	1.47
1	N	248	PHE	CD1-CE1	6.81	1.52	1.39
1	H	310	PRO	N-CA	-6.81	1.35	1.47
1	L	312	TRP	CB-CG	-6.81	1.38	1.50
1	A	34	TYR	CD2-CE2	-6.80	1.29	1.39
1	G	230	LYS	CB-CG	6.80	1.71	1.52
1	O	388	MET	C-O	6.80	1.36	1.23
1	A	380	LYS	CE-NZ	6.80	1.66	1.49
1	J	315	ARG	C-O	6.80	1.36	1.23
1	L	472	LEU	N-CA	6.80	1.59	1.46
1	D	100	TRP	CE3-CZ3	6.80	1.50	1.38
1	L	152	LYS	CB-CG	-6.80	1.34	1.52
1	A	468	PHE	CG-CD2	-6.80	1.28	1.38
1	K	169	TRP	CB-CG	-6.80	1.38	1.50
1	K	330	PHE	CD1-CE1	-6.80	1.25	1.39
1	N	49	TYR	CE2-CZ	6.80	1.47	1.38
1	F	347	ALA	C-O	6.79	1.36	1.23
1	J	399	LEU	N-CA	6.79	1.59	1.46
1	O	108	GLY	N-CA	6.79	1.56	1.46
1	F	376	PHE	CD1-CE1	-6.79	1.25	1.39
1	C	295	PRO	CA-C	-6.79	1.39	1.52
1	A	307	PHE	CD1-CE1	-6.79	1.25	1.39
1	H	355	TYR	CE2-CZ	-6.78	1.29	1.38
1	H	266	THR	CB-CG2	6.78	1.74	1.52
1	J	109	ARG	CZ-NH1	6.78	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	M	259	HIS	C-O	6.78	1.36	1.23
1	I	358	THR	CB-CG2	6.77	1.74	1.52
1	C	241	PRO	CB-CG	6.77	1.83	1.50
1	E	316	ALA	CA-CB	-6.77	1.38	1.52
1	M	26	GLU	CB-CG	-6.77	1.39	1.52
1	M	453	GLU	CD-OE2	6.77	1.33	1.25
1	M	27	TYR	CE2-CZ	-6.77	1.29	1.38
1	N	306	ILE	C-O	-6.77	1.10	1.23
1	O	91	TYR	CE1-CZ	6.76	1.47	1.38
1	F	151	TYR	CD1-CE1	-6.76	1.29	1.39
1	G	337	THR	CB-CG2	6.76	1.74	1.52
1	K	443	LYS	C-O	6.76	1.36	1.23
1	O	369	GLU	CB-CG	6.76	1.65	1.52
1	A	241	PRO	N-CA	6.76	1.58	1.47
1	F	468	PHE	CG-CD2	-6.75	1.28	1.38
1	M	125	LYS	CB-CG	-6.75	1.34	1.52
1	M	372	LEU	C-O	-6.75	1.10	1.23
1	H	258	ARG	CZ-NH2	-6.75	1.24	1.33
1	K	312	TRP	CG-CD1	-6.75	1.27	1.36
1	I	205	PHE	CE2-CZ	6.75	1.50	1.37
1	A	135	TYR	CE1-CZ	6.74	1.47	1.38
1	B	276	TYR	CD2-CE2	-6.74	1.29	1.39
1	G	25	ASP	CB-CG	6.74	1.66	1.51
1	G	334	VAL	CB-CG1	-6.74	1.38	1.52
1	B	106	GLU	CD-OE1	6.74	1.33	1.25
1	I	292	PHE	CG-CD1	6.74	1.48	1.38
1	L	180	VAL	CB-CG2	6.74	1.67	1.52
1	M	139	ALA	C-O	6.74	1.36	1.23
1	I	75	ILE	CB-CG2	6.74	1.73	1.52
1	M	185	CYS	CB-SG	-6.74	1.70	1.82
1	A	296	SER	CA-CB	-6.73	1.42	1.52
1	A	390	TYR	CG-CD2	-6.73	1.30	1.39
1	J	338	ARG	CG-CD	6.73	1.68	1.51
1	L	34	TYR	CD1-CE1	-6.73	1.29	1.39
1	G	91	TYR	CE2-CZ	6.73	1.47	1.38
1	I	280	SER	CB-OG	6.73	1.50	1.42
1	N	147	ILE	CA-CB	6.73	1.70	1.54
1	N	400	GLU	CD-OE1	6.73	1.33	1.25
1	D	197	ASP	C-O	-6.73	1.10	1.23
1	G	26	GLU	CD-OE1	6.73	1.33	1.25
1	G	111	GLN	CB-CG	-6.73	1.34	1.52
1	G	253	GLU	CB-CG	6.73	1.65	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	H	118	SER	C-O	6.73	1.36	1.23
1	N	472	LEU	C-OXT	6.73	1.36	1.23
1	K	107	VAL	CB-CG1	-6.72	1.38	1.52
1	M	201	VAL	CB-CG1	-6.72	1.38	1.52
1	B	167	GLU	CD-OE2	6.72	1.33	1.25
1	D	109	ARG	CD-NE	6.72	1.57	1.46
1	N	107	VAL	CB-CG1	-6.72	1.38	1.52
1	L	205	PHE	CD2-CE2	6.72	1.52	1.39
1	H	315	ARG	CZ-NH2	6.72	1.41	1.33
1	J	446	PHE	CE1-CZ	6.72	1.50	1.37
1	D	227	SER	CB-OG	6.71	1.50	1.42
1	H	169	TRP	CE3-CZ3	-6.71	1.27	1.38
1	I	40	SER	CA-CB	6.71	1.63	1.52
1	B	291	TYR	CE1-CZ	-6.71	1.29	1.38
1	F	140	GLY	CA-C	6.71	1.62	1.51
1	I	40	SER	C-O	6.71	1.36	1.23
1	H	268	GLY	C-O	6.71	1.34	1.23
1	B	210	PHE	CD1-CE1	-6.71	1.25	1.39
1	L	156	LEU	C-O	6.71	1.36	1.23
1	N	220	VAL	CB-CG2	-6.71	1.38	1.52
1	L	247	PHE	CD1-CE1	-6.71	1.25	1.39
1	J	131	ASN	CB-CG	6.70	1.66	1.51
1	L	282	SER	C-O	6.70	1.36	1.23
1	G	178	VAL	C-O	6.70	1.36	1.23
1	G	325	TRP	CG-CD1	6.70	1.46	1.36
1	I	193	THR	CB-CG2	6.70	1.74	1.52
1	J	25	ASP	CG-OD2	6.70	1.40	1.25
1	A	440	PRO	CG-CD	6.70	1.72	1.50
1	O	49	TYR	CG-CD2	6.69	1.47	1.39
1	B	195	ILE	N-CA	-6.69	1.32	1.46
1	G	107	VAL	CA-CB	-6.69	1.40	1.54
1	D	72	VAL	CB-CG2	-6.69	1.38	1.52
1	G	114	GLY	C-O	-6.69	1.12	1.23
1	D	123	LEU	CG-CD2	6.68	1.76	1.51
1	J	54	LYS	CE-NZ	6.68	1.65	1.49
1	J	85	PHE	C-O	6.68	1.36	1.23
1	G	446	PHE	CB-CG	-6.68	1.40	1.51
1	E	199	ASP	CG-OD2	6.67	1.40	1.25
1	E	97	ARG	CZ-NH2	6.67	1.41	1.33
1	C	181	GLN	CD-OE1	6.66	1.38	1.24
1	M	201	VAL	CB-CG2	-6.66	1.38	1.52
1	C	107	VAL	CB-CG1	-6.66	1.38	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	347	ALA	C-O	6.66	1.36	1.23
1	H	400	GLU	CG-CD	6.66	1.61	1.51
1	L	49	TYR	CD1-CE1	-6.66	1.29	1.39
1	E	234	TYR	CE2-CZ	-6.66	1.29	1.38
1	C	349	SER	CA-CB	6.65	1.62	1.52
1	A	365	ARG	CZ-NH2	6.65	1.41	1.33
1	B	85	PHE	CE2-CZ	6.65	1.50	1.37
1	I	152	LYS	CB-CG	6.65	1.70	1.52
1	H	438	GLU	CG-CD	6.65	1.61	1.51
1	K	240	GLU	CD-OE1	6.65	1.32	1.25
1	B	171	LYS	CG-CD	6.65	1.75	1.52
1	E	99	VAL	CB-CG1	-6.65	1.38	1.52
1	F	26	GLU	CG-CD	-6.65	1.42	1.51
1	L	341	ASN	C-O	6.65	1.35	1.23
1	L	144	ARG	CD-NE	-6.65	1.35	1.46
1	A	105	VAL	CA-CB	-6.64	1.40	1.54
1	D	174	PRO	CG-CD	6.64	1.72	1.50
1	F	125	LYS	CD-CE	6.64	1.67	1.51
1	M	317	GLN	N-CA	6.64	1.59	1.46
1	I	230	LYS	CE-NZ	6.64	1.65	1.49
1	E	300	VAL	CB-CG1	6.64	1.66	1.52
1	M	162	LYS	CE-NZ	6.64	1.65	1.49
1	N	299	MET	C-O	6.64	1.35	1.23
1	M	50	PHE	CG-CD1	-6.64	1.28	1.38
1	N	279	GLY	C-O	-6.64	1.13	1.23
1	E	67	GLY	N-CA	6.63	1.56	1.46
1	O	33	ILE	C-O	6.63	1.35	1.23
1	E	82	LYS	CD-CE	6.63	1.67	1.51
1	K	70	TYR	CG-CD1	-6.63	1.30	1.39
1	N	296	SER	C-O	6.63	1.35	1.23
1	E	137	ALA	CA-CB	6.63	1.66	1.52
1	F	205	PHE	CE2-CZ	6.63	1.50	1.37
1	O	376	PHE	CD2-CE2	-6.63	1.25	1.39
1	E	459	LEU	C-O	-6.63	1.10	1.23
1	O	363	TYR	CD1-CE1	6.63	1.49	1.39
1	I	150	ASP	CG-OD2	6.62	1.40	1.25
1	B	23	SER	CB-OG	6.62	1.50	1.42
1	F	379	CYS	CB-SG	-6.62	1.71	1.82
1	H	379	CYS	CB-SG	-6.62	1.71	1.82
1	O	210	PHE	CG-CD2	6.62	1.48	1.38
1	F	160	GLY	C-O	-6.61	1.13	1.23
1	F	387	VAL	CB-CG2	6.61	1.66	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	194	VAL	CA-CB	-6.61	1.40	1.54
1	B	104	GLY	C-O	6.61	1.34	1.23
1	I	256	PHE	CG-CD1	-6.61	1.28	1.38
1	J	466	ARG	C-O	6.61	1.35	1.23
1	K	32	ASN	CB-CG	6.61	1.66	1.51
1	H	109	ARG	CD-NE	6.61	1.57	1.46
1	L	139	ALA	C-O	6.61	1.35	1.23
1	O	448	GLU	CG-CD	6.61	1.61	1.51
1	B	327	ASN	CB-CG	6.61	1.66	1.51
1	F	152	LYS	CE-NZ	6.61	1.65	1.49
1	G	202	ASP	CG-OD1	6.61	1.40	1.25
1	B	324	CYS	CB-SG	6.60	1.93	1.82
1	J	135	TYR	CD1-CE1	-6.60	1.29	1.39
1	K	376	PHE	CD2-CE2	-6.60	1.26	1.39
1	M	98	LEU	CG-CD1	6.60	1.76	1.51
1	O	238	VAL	CB-CG1	6.60	1.66	1.52
1	B	374	PHE	CD1-CE1	6.60	1.52	1.39
1	C	438	GLU	CD-OE2	6.60	1.32	1.25
1	H	350	THR	CA-CB	6.60	1.70	1.53
1	L	345	CYS	CB-SG	-6.60	1.71	1.82
1	O	81	ASN	CG-ND2	6.60	1.49	1.32
1	I	180	VAL	CB-CG2	6.60	1.66	1.52
1	N	210	PHE	CD2-CE2	-6.59	1.26	1.39
1	A	176	THR	CB-CG2	6.59	1.74	1.52
1	C	210	PHE	CE1-CZ	6.59	1.49	1.37
1	K	150	ASP	C-O	-6.59	1.10	1.23
1	O	231	TYR	CD2-CE2	6.59	1.49	1.39
1	D	173	SER	CA-CB	6.58	1.62	1.52
1	I	337	THR	C-O	6.58	1.35	1.23
1	E	210	PHE	CD2-CE2	-6.58	1.26	1.39
1	D	63	PRO	CB-CG	6.58	1.82	1.50
1	K	132	ALA	CA-CB	-6.58	1.38	1.52
1	N	38	GLY	C-O	6.58	1.34	1.23
1	K	444	TYR	CG-CD2	-6.58	1.30	1.39
1	N	23	SER	CB-OG	6.58	1.50	1.42
1	N	135	TYR	CD2-CE2	-6.58	1.29	1.39
1	C	201	VAL	CB-CG2	6.57	1.66	1.52
1	C	72	VAL	CB-CG1	-6.57	1.39	1.52
1	I	135	TYR	CE1-CZ	-6.56	1.30	1.38
1	N	253	GLU	CB-CG	6.56	1.64	1.52
1	C	173	SER	CB-OG	6.56	1.50	1.42
1	B	358	THR	CB-CG2	6.56	1.74	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	378	LEU	C-O	-6.56	1.10	1.23
1	K	343	SER	CB-OG	6.56	1.50	1.42
1	N	65	VAL	CB-CG1	-6.56	1.39	1.52
1	N	319	HIS	CA-CB	-6.56	1.39	1.53
1	J	304	ALA	CA-CB	-6.56	1.38	1.52
1	K	322	GLY	N-CA	6.56	1.55	1.46
1	M	64	LYS	CD-CE	6.56	1.67	1.51
1	N	54	LYS	CE-NZ	6.56	1.65	1.49
1	B	181	GLN	CG-CD	6.56	1.66	1.51
1	B	355	TYR	CE2-CZ	6.56	1.47	1.38
1	A	447	TRP	CB-CG	-6.55	1.38	1.50
1	M	205	PHE	CE1-CZ	-6.55	1.24	1.37
1	C	148	SER	CA-CB	-6.55	1.43	1.52
1	D	309	LYS	CB-CG	6.55	1.70	1.52
1	E	392	HIS	C-O	6.55	1.35	1.23
1	B	323	ILE	C-O	6.55	1.35	1.23
1	D	139	ALA	C-N	6.55	1.44	1.33
1	I	70	TYR	CE2-CZ	-6.55	1.30	1.38
1	A	298	SER	CB-OG	6.54	1.50	1.42
1	E	213	LEU	CG-CD1	6.54	1.76	1.51
1	H	324	CYS	CB-SG	6.54	1.93	1.82
1	A	59	LYS	CE-NZ	6.54	1.65	1.49
1	F	325	TRP	CE3-CZ3	6.54	1.49	1.38
1	K	175	CYS	C-O	6.54	1.35	1.23
1	O	370	TYR	CE1-CZ	6.54	1.47	1.38
1	B	177	GLN	CB-CG	6.54	1.70	1.52
1	B	220	VAL	CB-CG1	-6.54	1.39	1.52
1	G	114	GLY	N-CA	6.54	1.55	1.46
1	B	249	TYR	C-O	6.54	1.35	1.23
1	G	332	THR	CB-OG1	6.53	1.56	1.43
1	O	300	VAL	CB-CG1	6.53	1.66	1.52
1	L	97	ARG	CZ-NH1	6.53	1.41	1.33
1	M	282	SER	CB-OG	6.53	1.50	1.42
1	H	242	TYR	C-O	6.53	1.35	1.23
1	E	160	GLY	C-O	6.52	1.34	1.23
1	J	453	GLU	CB-CG	6.52	1.64	1.52
1	O	98	LEU	CG-CD1	6.52	1.75	1.51
1	F	184	ASP	CG-OD1	6.52	1.40	1.25
1	I	390	TYR	CE2-CZ	6.52	1.47	1.38
1	G	49	TYR	C-O	6.52	1.35	1.23
1	K	348	ILE	CA-CB	-6.52	1.39	1.54
1	K	362	GLU	CA-CB	-6.52	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	M	164	PRO	CA-CB	6.52	1.66	1.53
1	D	370	TYR	CG-CD1	-6.52	1.30	1.39
1	M	131	ASN	C-O	-6.52	1.10	1.23
1	D	450	ASN	C-O	6.52	1.35	1.23
1	C	462	PHE	CB-CG	-6.51	1.40	1.51
1	G	58	ASN	C-O	6.51	1.35	1.23
1	I	35	TYR	CD1-CE1	-6.51	1.29	1.39
1	I	152	LYS	C-O	6.51	1.35	1.23
1	L	34	TYR	CG-CD1	-6.51	1.30	1.39
1	B	28	VAL	CB-CG1	6.51	1.66	1.52
1	K	385	ALA	CA-CB	6.51	1.66	1.52
1	M	370	TYR	CG-CD1	-6.51	1.30	1.39
1	N	330	PHE	CE1-CZ	6.51	1.49	1.37
1	B	114	GLY	C-O	6.50	1.34	1.23
1	B	301	THR	CB-CG2	6.50	1.73	1.52
1	F	241	PRO	CB-CG	6.50	1.82	1.50
1	D	276	TYR	CE2-CZ	6.50	1.47	1.38
1	F	70	TYR	C-O	-6.50	1.10	1.23
1	F	70	TYR	CG-CD1	-6.50	1.30	1.39
1	O	109	ARG	C-O	6.50	1.35	1.23
1	C	115	VAL	CA-CB	-6.50	1.41	1.54
1	D	89	SER	C-O	6.50	1.35	1.23
1	H	323	ILE	C-O	6.50	1.35	1.23
1	N	181	GLN	CD-OE1	6.50	1.38	1.24
1	C	254	GLN	CD-OE1	-6.50	1.09	1.24
1	J	240	GLU	CB-CG	6.50	1.64	1.52
1	N	210	PHE	CB-CG	6.50	1.62	1.51
1	J	361	LYS	CD-CE	6.50	1.67	1.51
1	G	70	TYR	CG-CD1	-6.49	1.30	1.39
1	L	352	GLU	CD-OE2	6.49	1.32	1.25
1	E	309	LYS	C-O	6.49	1.35	1.23
1	O	177	GLN	CD-OE1	6.49	1.38	1.24
1	M	130	GLU	CD-OE2	6.49	1.32	1.25
1	B	294	THR	CB-CG2	-6.49	1.30	1.52
1	K	253	GLU	CD-OE2	6.49	1.32	1.25
1	O	162	LYS	CE-NZ	6.49	1.65	1.49
1	D	467	LYS	CB-CG	6.48	1.70	1.52
1	J	146	CYS	CB-SG	-6.48	1.71	1.82
1	E	322	GLY	C-O	6.48	1.34	1.23
1	A	35	TYR	CE1-CZ	-6.48	1.30	1.38
1	A	62	VAL	CB-CG2	6.48	1.66	1.52
1	C	150	ASP	C-O	-6.48	1.11	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	F	144	ARG	CZ-NH1	-6.48	1.24	1.33
1	C	178	VAL	C-O	6.47	1.35	1.23
1	G	370	TYR	CD2-CE2	6.47	1.49	1.39
1	B	114	GLY	N-CA	6.47	1.55	1.46
1	I	258	ARG	CZ-NH1	6.47	1.41	1.33
1	G	402	TRP	CG-CD1	6.47	1.45	1.36
1	B	307	PHE	CB-CG	-6.47	1.40	1.51
1	G	325	TRP	CD2-CE2	6.47	1.49	1.41
1	I	219	GLU	CD-OE1	-6.47	1.18	1.25
1	F	171	LYS	CG-CD	6.47	1.74	1.52
1	N	57	ASN	CG-ND2	6.47	1.49	1.32
1	O	202	ASP	N-CA	-6.47	1.33	1.46
1	D	363	TYR	CZ-OH	6.46	1.48	1.37
1	F	95	THR	CB-CG2	-6.46	1.31	1.52
1	I	189	GLU	CG-CD	6.46	1.61	1.51
1	B	272	PRO	CG-CD	6.46	1.72	1.50
1	O	330	PHE	CB-CG	6.46	1.62	1.51
1	I	53	LYS	CE-NZ	6.46	1.65	1.49
1	K	298	SER	CB-OG	6.46	1.50	1.42
1	M	87	ASP	C-O	6.46	1.35	1.23
1	M	273	ASP	N-CA	6.46	1.59	1.46
1	F	257	VAL	CB-CG1	-6.46	1.39	1.52
1	K	375	ILE	C-O	6.45	1.35	1.23
1	O	271	VAL	CB-CG1	6.45	1.66	1.52
1	F	178	VAL	CA-CB	6.45	1.68	1.54
1	B	438	GLU	C-O	6.45	1.35	1.23
1	D	181	GLN	CD-OE1	6.45	1.38	1.24
1	E	280	SER	CA-CB	6.45	1.62	1.52
1	J	132	ALA	CA-CB	6.45	1.66	1.52
1	N	225	CYS	CB-SG	6.45	1.93	1.82
1	M	380	LYS	C-O	-6.45	1.11	1.23
1	B	306	ILE	C-O	-6.45	1.11	1.23
1	A	172	GLY	C-O	6.44	1.33	1.23
1	H	466	ARG	NE-CZ	6.44	1.41	1.33
1	J	234	TYR	CD1-CE1	-6.44	1.29	1.39
1	F	169	TRP	CE3-CZ3	-6.44	1.27	1.38
1	N	130	GLU	CD-OE1	-6.44	1.18	1.25
1	N	334	VAL	CB-CG1	-6.44	1.39	1.52
1	O	266	THR	CB-CG2	6.44	1.73	1.52
1	A	256	PHE	CD1-CE1	-6.44	1.26	1.39
1	E	199	ASP	C-O	-6.43	1.11	1.23
1	F	400	GLU	CD-OE1	6.43	1.32	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	83	PHE	C-O	6.43	1.35	1.23
1	B	303	ASP	C-O	-6.43	1.11	1.23
1	K	370	TYR	CE2-CZ	-6.43	1.30	1.38
1	K	387	VAL	CB-CG2	6.43	1.66	1.52
1	A	117	ILE	CA-CB	-6.43	1.40	1.54
1	E	341	ASN	C-O	-6.43	1.11	1.23
1	K	70	TYR	CG-CD2	-6.43	1.30	1.39
1	M	229	CYS	CB-SG	-6.43	1.71	1.82
1	O	138	ASN	CG-ND2	6.43	1.49	1.32
1	C	26	GLU	CD-OE1	6.42	1.32	1.25
1	O	49	TYR	CG-CD1	6.42	1.47	1.39
1	C	314	GLN	CD-OE1	6.42	1.38	1.24
1	I	362	GLU	CG-CD	6.42	1.61	1.51
1	N	34	TYR	CE2-CZ	-6.42	1.30	1.38
1	F	330	PHE	CD1-CE1	-6.42	1.26	1.39
1	H	209	ASP	CG-OD2	6.42	1.40	1.25
1	K	82	LYS	CD-CE	6.42	1.67	1.51
1	K	338	ARG	CZ-NH2	6.42	1.41	1.33
1	M	370	TYR	CG-CD2	-6.42	1.30	1.39
1	D	312	TRP	CA-CB	-6.42	1.39	1.53
1	F	245	SER	CB-OG	6.41	1.50	1.42
1	G	202	ASP	N-CA	-6.41	1.33	1.46
1	K	151	TYR	CD1-CE1	-6.41	1.29	1.39
1	L	472	LEU	C-OXT	6.41	1.35	1.23
1	B	272	PRO	CB-CG	6.41	1.82	1.50
1	F	218	SER	CB-OG	-6.41	1.33	1.42
1	K	455	PHE	CE1-CZ	-6.41	1.25	1.37
1	N	292	PHE	C-O	-6.41	1.11	1.23
1	N	211	THR	CB-CG2	-6.41	1.31	1.52
1	F	107	VAL	CA-CB	-6.41	1.41	1.54
1	A	105	VAL	CB-CG2	6.41	1.66	1.52
1	A	98	LEU	C-O	6.40	1.35	1.23
1	E	32	ASN	CB-CG	6.40	1.65	1.51
1	K	34	TYR	CE2-CZ	-6.40	1.30	1.38
1	L	307	PHE	CB-CG	-6.40	1.40	1.51
1	N	189	GLU	CD-OE1	6.40	1.32	1.25
1	D	376	PHE	CA-CB	-6.40	1.39	1.53
1	E	152	LYS	CB-CG	-6.40	1.35	1.52
1	C	232	PRO	N-CA	-6.40	1.36	1.47
1	F	356	LYS	CD-CE	6.40	1.67	1.51
1	E	393	SER	C-O	6.40	1.35	1.23
1	G	241	PRO	CB-CG	6.39	1.81	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	L	54	LYS	CE-NZ	6.39	1.65	1.49
1	B	438	GLU	CD-OE2	6.39	1.32	1.25
1	A	22	VAL	CB-CG1	6.39	1.66	1.52
1	J	96	GLN	CB-CG	6.39	1.69	1.52
1	O	116	GLY	C-O	6.39	1.33	1.23
1	K	159	ILE	CB-CG2	-6.39	1.33	1.52
1	M	359	ASN	CG-ND2	6.39	1.48	1.32
1	E	91	TYR	CE1-CZ	6.38	1.46	1.38
1	C	253	GLU	CG-CD	-6.38	1.42	1.51
1	G	216	ASN	C-O	-6.38	1.11	1.23
1	N	355	TYR	CB-CG	6.38	1.61	1.51
1	O	63	PRO	CG-CD	6.38	1.71	1.50
1	D	209	ASP	C-O	6.37	1.35	1.23
1	M	374	PHE	CD2-CE2	-6.37	1.26	1.39
1	L	447	TRP	CE3-CZ3	-6.37	1.27	1.38
1	M	438	GLU	CD-OE1	6.37	1.32	1.25
1	G	227	SER	CB-OG	6.37	1.50	1.42
1	H	231	TYR	CG-CD1	6.37	1.47	1.39
1	H	402	TRP	CB-CG	6.37	1.61	1.50
1	L	40	SER	C-O	6.36	1.35	1.23
1	A	311	TYR	CE1-CZ	-6.36	1.30	1.38
1	J	103	VAL	C-O	6.36	1.35	1.23
1	A	360	PHE	CG-CD1	-6.36	1.29	1.38
1	C	224	ILE	CB-CG2	-6.36	1.33	1.52
1	E	107	VAL	CB-CG1	-6.36	1.39	1.52
1	E	457	ALA	CA-CB	-6.36	1.39	1.52
1	G	206	GLY	CA-C	6.36	1.62	1.51
1	A	356	LYS	C-O	-6.36	1.11	1.23
1	G	311	TYR	CG-CD2	6.36	1.47	1.39
1	I	382	THR	C-O	6.36	1.35	1.23
1	J	291	TYR	CG-CD2	-6.36	1.30	1.39
1	O	278	LYS	CG-CD	6.36	1.74	1.52
1	D	132	ALA	CA-CB	-6.35	1.39	1.52
1	K	338	ARG	CG-CD	6.35	1.67	1.51
1	D	358	THR	CB-CG2	6.35	1.73	1.52
1	I	248	PHE	CG-CD1	-6.35	1.29	1.38
1	M	257	VAL	CB-CG1	6.35	1.66	1.52
1	B	211	THR	C-O	-6.35	1.11	1.23
1	F	169	TRP	CG-CD1	-6.35	1.27	1.36
1	F	197	ASP	CB-CG	6.35	1.65	1.51
1	J	269	GLU	CB-CG	6.35	1.64	1.52
1	G	139	ALA	CA-CB	6.35	1.65	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	307	PHE	CE1-CZ	6.35	1.49	1.37
1	H	201	VAL	CA-C	-6.34	1.36	1.52
1	N	53	LYS	CE-NZ	6.34	1.65	1.49
1	B	73	PHE	CD1-CE1	6.34	1.51	1.39
1	K	27	TYR	CG-CD2	6.34	1.47	1.39
1	L	376	PHE	CD2-CE2	-6.34	1.26	1.39
1	H	249	TYR	CG-CD1	-6.34	1.30	1.39
1	K	447	TRP	CE3-CZ3	6.34	1.49	1.38
1	D	376	PHE	CD2-CE2	-6.34	1.26	1.39
1	H	462	PHE	CG-CD1	-6.34	1.29	1.38
1	D	220	VAL	CB-CG2	-6.33	1.39	1.52
1	F	365	ARG	CZ-NH1	6.33	1.41	1.33
1	B	453	GLU	CD-OE2	6.33	1.32	1.25
1	C	103	VAL	CB-CG1	-6.33	1.39	1.52
1	F	242	TYR	CD1-CE1	6.33	1.48	1.39
1	J	243	GLY	CA-C	6.33	1.61	1.51
1	C	54	LYS	CD-CE	6.33	1.67	1.51
1	E	146	CYS	CB-SG	6.33	1.93	1.82
1	O	387	VAL	CB-CG2	6.33	1.66	1.52
1	G	281	GLY	C-O	6.33	1.33	1.23
1	I	49	TYR	CG-CD2	6.32	1.47	1.39
1	A	447	TRP	CD2-CE2	-6.32	1.33	1.41
1	N	311	TYR	C-O	6.32	1.35	1.23
1	I	189	GLU	CD-OE2	6.32	1.32	1.25
1	L	66	SER	CA-CB	-6.32	1.43	1.52
1	D	98	LEU	C-O	6.32	1.35	1.23
1	H	70	TYR	CD1-CE1	6.32	1.48	1.39
1	H	140	GLY	N-CA	6.32	1.55	1.46
1	D	40	SER	CA-CB	6.31	1.62	1.52
1	G	152	LYS	CE-NZ	6.31	1.64	1.49
1	I	462	PHE	CE2-CZ	6.31	1.49	1.37
1	L	442	LYS	CE-NZ	6.31	1.64	1.49
1	N	273	ASP	CB-CG	6.31	1.65	1.51
1	B	107	VAL	CB-CG1	-6.31	1.39	1.52
1	C	268	GLY	C-O	6.31	1.33	1.23
1	D	311	TYR	CE1-CZ	-6.31	1.30	1.38
1	D	346	ALA	C-O	6.31	1.35	1.23
1	E	191	ILE	CA-CB	-6.31	1.40	1.54
1	I	162	LYS	CD-CE	6.31	1.67	1.51
1	K	177	GLN	CG-CD	6.31	1.65	1.51
1	L	34	TYR	CE1-CZ	-6.31	1.30	1.38
1	A	249	TYR	CE2-CZ	6.31	1.46	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	256	PHE	CG-CD1	-6.31	1.29	1.38
1	N	361	LYS	CG-CD	6.31	1.73	1.52
1	H	109	ARG	CZ-NH1	6.31	1.41	1.33
1	M	162	LYS	CD-CE	6.31	1.67	1.51
1	B	390	TYR	CD1-CE1	6.30	1.48	1.39
1	D	107	VAL	CB-CG1	-6.30	1.39	1.52
1	E	229	CYS	CB-SG	6.30	1.93	1.82
1	E	333	VAL	C-O	6.30	1.35	1.23
1	K	169	TRP	CE3-CZ3	-6.30	1.27	1.38
1	G	337	THR	C-O	6.30	1.35	1.23
1	I	91	TYR	CE2-CZ	6.30	1.46	1.38
1	J	144	ARG	CB-CG	6.30	1.69	1.52
1	H	472	LEU	C-OXT	6.29	1.35	1.23
1	M	300	VAL	CB-CG2	-6.29	1.39	1.52
1	D	174	PRO	CA-CB	6.29	1.66	1.53
1	D	256	PHE	CG-CD1	-6.29	1.29	1.38
1	H	269	GLU	CD-OE1	-6.29	1.18	1.25
1	F	374	PHE	CE1-CZ	6.29	1.49	1.37
1	O	360	PHE	CB-CG	-6.29	1.40	1.51
1	C	448	GLU	C-O	6.29	1.35	1.23
1	D	174	PRO	CB-CG	6.29	1.81	1.50
1	A	390	TYR	CG-CD1	6.28	1.47	1.39
1	H	179	ALA	CA-C	6.28	1.69	1.52
1	K	448	GLU	CD-OE1	6.28	1.32	1.25
1	B	352	GLU	CG-CD	6.28	1.61	1.51
1	A	85	PHE	C-O	6.28	1.35	1.23
1	C	167	GLU	CD-OE1	6.28	1.32	1.25
1	O	347	ALA	C-O	6.28	1.35	1.23
1	M	271	VAL	CA-CB	-6.28	1.41	1.54
1	O	133	SER	C-O	6.28	1.35	1.23
1	E	165	ILE	C-O	6.27	1.35	1.23
1	L	61	LEU	CG-CD1	6.27	1.75	1.51
1	O	171	LYS	CB-CG	6.27	1.69	1.52
1	A	285	ASN	C-O	6.27	1.35	1.23
1	E	207	ALA	CA-CB	6.27	1.65	1.52
1	I	49	TYR	C-O	6.27	1.35	1.23
1	D	245	SER	C-O	6.26	1.35	1.23
1	L	153	GLN	CG-CD	6.26	1.65	1.51
1	I	370	TYR	CA-CB	-6.26	1.40	1.53
1	O	183	GLY	C-O	6.26	1.33	1.23
1	G	27	TYR	CB-CG	6.26	1.61	1.51
1	A	459	LEU	C-O	-6.26	1.11	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	290	ASN	C-O	6.26	1.35	1.23
1	F	273	ASP	C-O	6.26	1.35	1.23
1	N	236	LYS	CE-NZ	6.26	1.64	1.49
1	C	64	LYS	CE-NZ	6.25	1.64	1.49
1	B	97	ARG	CG-CD	6.25	1.67	1.51
1	D	187	PRO	CG-CD	6.25	1.71	1.50
1	G	470	LEU	CG-CD1	6.25	1.75	1.51
1	H	375	ILE	C-O	6.25	1.35	1.23
1	J	22	VAL	CB-CG2	6.25	1.66	1.52
1	K	21	VAL	CB-CG2	6.25	1.66	1.52
1	H	361	LYS	CD-CE	6.25	1.66	1.51
1	J	253	GLU	CG-CD	6.25	1.61	1.51
1	K	221	PRO	N-CD	-6.25	1.39	1.47
1	N	114	GLY	C-O	6.25	1.33	1.23
1	O	32	ASN	CB-CG	6.25	1.65	1.51
1	A	100	TRP	CG-CD1	-6.24	1.28	1.36
1	B	381	ILE	C-O	-6.24	1.11	1.23
1	G	374	PHE	CG-CD2	6.24	1.48	1.38
1	G	452	LYS	CE-NZ	6.24	1.64	1.49
1	I	169	TRP	CE3-CZ3	-6.24	1.27	1.38
1	F	55	PRO	C-O	6.24	1.35	1.23
1	A	237	MET	CA-C	6.24	1.69	1.52
1	A	371	ASP	N-CA	6.24	1.58	1.46
1	I	172	GLY	N-CA	6.24	1.55	1.46
1	F	236	LYS	CE-NZ	6.24	1.64	1.49
1	M	219	GLU	CD-OE1	6.24	1.32	1.25
1	K	172	GLY	C-O	6.24	1.33	1.23
1	K	203	THR	CA-CB	-6.24	1.37	1.53
1	I	352	GLU	CD-OE1	6.23	1.32	1.25
1	I	61	LEU	CG-CD1	6.23	1.75	1.51
1	K	180	VAL	CB-CG1	6.23	1.66	1.52
1	L	103	VAL	CA-CB	-6.23	1.41	1.54
1	M	360	PHE	CG-CD1	-6.23	1.29	1.38
1	O	325	TRP	CD2-CE2	6.23	1.48	1.41
1	D	276	TYR	CZ-OH	6.23	1.48	1.37
1	H	155	GLN	CB-CG	-6.23	1.35	1.52
1	O	394	MET	CG-SD	6.23	1.97	1.81
1	E	462	PHE	CE1-CZ	-6.23	1.25	1.37
1	L	71	ARG	CG-CD	-6.23	1.36	1.51
1	F	178	VAL	CB-CG2	6.23	1.66	1.52
1	H	454	LYS	CD-CE	6.23	1.66	1.51
1	K	221	PRO	CB-CG	-6.23	1.18	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	259	HIS	CA-CB	-6.23	1.40	1.53
1	D	370	TYR	CA-CB	-6.23	1.40	1.53
1	O	78	PRO	CB-CG	-6.23	1.18	1.50
1	O	311	TYR	CG-CD1	6.23	1.47	1.39
1	F	176	THR	C-O	6.22	1.35	1.23
1	J	231	TYR	CB-CG	-6.22	1.42	1.51
1	L	402	TRP	CB-CG	-6.22	1.39	1.50
1	M	178	VAL	CB-CG2	6.22	1.66	1.52
1	A	100	TRP	CB-CG	-6.22	1.39	1.50
1	C	271	VAL	CA-CB	-6.22	1.41	1.54
1	C	368	GLU	CD-OE2	6.22	1.32	1.25
1	M	269	GLU	C-O	6.22	1.35	1.23
1	K	95	THR	C-O	6.22	1.35	1.23
1	A	48	PRO	C-O	6.22	1.35	1.23
1	A	40	SER	CB-OG	6.21	1.50	1.42
1	C	114	GLY	C-O	-6.21	1.13	1.23
1	D	304	ALA	CA-CB	-6.21	1.39	1.52
1	I	202	ASP	N-CA	-6.21	1.33	1.46
1	K	46	GLY	C-O	6.21	1.33	1.23
1	N	361	LYS	CD-CE	6.21	1.66	1.51
1	I	272	PRO	CA-C	-6.21	1.40	1.52
1	K	374	PHE	CG-CD2	6.21	1.48	1.38
1	M	103	VAL	CB-CG1	-6.21	1.39	1.52
1	M	360	PHE	CE2-CZ	-6.21	1.25	1.37
1	A	229	CYS	CB-SG	6.21	1.92	1.82
1	M	34	TYR	CD1-CE1	-6.21	1.30	1.39
1	C	400	GLU	CD-OE1	6.21	1.32	1.25
1	C	446	PHE	CG-CD1	6.21	1.48	1.38
1	G	23	SER	CB-OG	6.21	1.50	1.42
1	H	242	TYR	CD1-CE1	6.21	1.48	1.39
1	D	242	TYR	CD1-CE1	6.20	1.48	1.39
1	D	270	ASN	C-O	-6.20	1.11	1.23
1	E	169	TRP	CE3-CZ3	-6.20	1.27	1.38
1	E	176	THR	CB-CG2	6.20	1.72	1.52
1	H	295	PRO	CA-C	-6.20	1.40	1.52
1	K	291	TYR	CZ-OH	6.20	1.48	1.37
1	K	311	TYR	CB-CG	-6.20	1.42	1.51
1	C	355	TYR	CB-CG	6.20	1.60	1.51
1	G	233	ASP	C-O	6.20	1.35	1.23
1	D	195	ILE	C-O	-6.20	1.11	1.23
1	I	300	VAL	CB-CG1	6.19	1.65	1.52
1	B	175	CYS	CB-SG	6.19	1.92	1.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	H	390	TYR	CG-CD2	-6.19	1.31	1.39
1	C	396	SER	CA-CB	6.19	1.62	1.52
1	F	125	LYS	CG-CD	6.19	1.73	1.52
1	A	369	GLU	CA-C	-6.18	1.36	1.52
1	E	274	ASP	C-O	6.18	1.35	1.23
1	E	325	TRP	CG-CD1	6.18	1.45	1.36
1	H	443	LYS	CE-NZ	6.18	1.64	1.49
1	D	167	GLU	CB-CG	-6.18	1.40	1.52
1	L	263	ARG	CZ-NH1	-6.18	1.25	1.33
1	F	295	PRO	CG-CD	6.18	1.71	1.50
1	G	467	LYS	CD-CE	6.18	1.66	1.51
1	O	231	TYR	CE2-CZ	6.18	1.46	1.38
1	F	283	THR	CB-CG2	6.18	1.72	1.52
1	B	212	THR	CB-CG2	6.17	1.72	1.52
1	D	468	PHE	CD1-CE1	6.17	1.51	1.39
1	E	376	PHE	CD1-CE1	-6.17	1.26	1.39
1	K	312	TRP	CA-CB	-6.17	1.40	1.53
1	N	453	GLU	CD-OE1	6.17	1.32	1.25
1	O	152	LYS	C-O	6.17	1.35	1.23
1	M	107	VAL	CB-CG2	-6.17	1.39	1.52
1	B	142	ASP	N-CA	6.17	1.58	1.46
1	I	125	LYS	CD-CE	6.17	1.66	1.51
1	L	138	ASN	CG-ND2	6.17	1.48	1.32
1	N	27	TYR	CA-C	6.17	1.69	1.52
1	C	147	ILE	CB-CG2	-6.17	1.33	1.52
1	G	356	LYS	CE-NZ	6.17	1.64	1.49
1	D	400	GLU	CG-CD	6.16	1.61	1.51
1	E	337	THR	CB-CG2	-6.16	1.32	1.52
1	D	301	THR	C-O	6.16	1.35	1.23
1	C	206	GLY	C-O	6.16	1.33	1.23
1	K	284	ALA	CA-CB	-6.16	1.39	1.52
1	M	332	THR	CB-OG1	6.16	1.55	1.43
1	E	83	PHE	CE2-CZ	6.16	1.49	1.37
1	G	315	ARG	C-O	6.16	1.35	1.23
1	I	330	PHE	CB-CG	6.16	1.61	1.51
1	B	138	ASN	CG-ND2	6.15	1.48	1.32
1	G	278	LYS	CB-CG	6.15	1.69	1.52
1	D	460	ASP	CG-OD1	6.15	1.39	1.25
1	F	83	PHE	CD1-CE1	6.15	1.51	1.39
1	G	439	ASP	N-CA	6.15	1.58	1.46
1	C	292	PHE	CG-CD1	6.15	1.48	1.38
1	L	354	THR	C-O	6.15	1.35	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	H	231	TYR	CD1-CE1	6.15	1.48	1.39
1	K	49	TYR	CZ-OH	-6.15	1.27	1.37
1	N	61	LEU	CG-CD1	6.15	1.74	1.51
1	L	351	SER	CB-OG	6.14	1.50	1.42
1	C	362	GLU	CD-OE1	6.14	1.32	1.25
1	H	472	LEU	CG-CD1	-6.14	1.29	1.51
1	J	455	PHE	CD2-CE2	-6.14	1.26	1.39
1	G	455	PHE	CB-CG	-6.14	1.41	1.51
1	O	50	PHE	CD1-CE1	-6.14	1.26	1.39
1	F	279	GLY	C-O	-6.13	1.13	1.23
1	A	24	THR	CA-CB	-6.13	1.37	1.53
1	J	147	ILE	CB-CG2	-6.13	1.33	1.52
1	K	231	TYR	CA-CB	-6.13	1.40	1.53
1	A	462	PHE	CG-CD2	-6.13	1.29	1.38
1	D	330	PHE	CD2-CE2	-6.13	1.26	1.39
1	G	287	ALA	C-O	6.13	1.34	1.23
1	H	27	TYR	CD1-CE1	6.13	1.48	1.39
1	K	448	GLU	CB-CG	6.13	1.63	1.52
1	B	291	TYR	CD2-CE2	-6.13	1.30	1.39
1	F	85	PHE	CG-CD1	6.13	1.48	1.38
1	B	139	ALA	CA-CB	6.12	1.65	1.52
1	D	453	GLU	CD-OE1	6.12	1.32	1.25
1	E	401	ASP	C-O	6.12	1.34	1.23
1	N	86	PRO	CA-C	6.12	1.65	1.52
1	C	183	GLY	C-O	6.12	1.33	1.23
1	E	291	TYR	CG-CD1	-6.12	1.31	1.39
1	A	447	TRP	CZ3-CH2	-6.12	1.30	1.40
1	N	208	MET	CB-CG	6.12	1.71	1.51
1	B	356	LYS	CD-CE	6.12	1.66	1.51
1	I	267	VAL	CB-CG2	6.11	1.65	1.52
1	M	177	GLN	CD-NE2	6.11	1.48	1.32
1	E	402	TRP	C-O	6.11	1.34	1.23
1	B	375	ILE	C-O	6.11	1.34	1.23
1	J	253	GLU	C-O	-6.11	1.11	1.23
1	O	176	THR	CA-CB	6.11	1.69	1.53
1	M	112	PRO	CA-C	6.11	1.65	1.52
1	A	331	VAL	CB-CG2	-6.11	1.40	1.52
1	A	468	PHE	CE2-CZ	-6.11	1.25	1.37
1	M	141	VAL	CB-CG2	-6.11	1.40	1.52
1	N	343	SER	C-O	6.11	1.34	1.23
1	K	247	PHE	CE1-CZ	6.10	1.49	1.37
1	F	99	VAL	CB-CG1	-6.10	1.40	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	167	GLU	CD-OE1	6.10	1.32	1.25
1	G	471	GLN	CB-CG	-6.10	1.36	1.52
1	K	457	ALA	CA-CB	-6.10	1.39	1.52
1	H	293	PRO	N-CA	-6.10	1.36	1.47
1	H	356	LYS	CE-NZ	6.10	1.64	1.49
1	J	269	GLU	CD-OE2	6.10	1.32	1.25
1	O	395	ASN	C-O	6.10	1.34	1.23
1	A	240	GLU	CD-OE1	6.10	1.32	1.25
1	E	227	SER	C-O	6.10	1.34	1.23
1	K	300	VAL	CA-CB	-6.10	1.42	1.54
1	K	448	GLU	CD-OE2	6.10	1.32	1.25
1	M	312	TRP	CB-CG	-6.10	1.39	1.50
1	O	96	GLN	CG-CD	6.10	1.65	1.51
1	D	317	GLN	CD-OE1	6.10	1.37	1.24
1	M	169	TRP	CD2-CE2	-6.10	1.34	1.41
1	M	276	TYR	CD1-CE1	6.10	1.48	1.39
1	I	470	LEU	CG-CD2	6.09	1.74	1.51
1	J	110	GLY	C-O	6.09	1.33	1.23
1	O	176	THR	C-O	6.09	1.34	1.23
1	E	340	THR	C-O	6.09	1.34	1.23
1	O	247	PHE	CE1-CZ	6.09	1.49	1.37
1	D	472	LEU	C-OXT	6.09	1.34	1.23
1	O	173	SER	C-O	6.09	1.34	1.23
1	D	363	TYR	CE1-CZ	6.08	1.46	1.38
1	I	25	ASP	CG-OD1	6.08	1.39	1.25
1	G	125	LYS	CE-NZ	6.08	1.64	1.49
1	O	86	PRO	CG-CD	6.08	1.70	1.50
1	A	312	TRP	CG-CD1	-6.08	1.28	1.36
1	A	339	SER	N-CA	6.08	1.58	1.46
1	B	231	TYR	CG-CD1	-6.08	1.31	1.39
1	D	354	THR	CB-CG2	-6.08	1.32	1.52
1	B	72	VAL	CB-CG2	-6.07	1.40	1.52
1	C	348	ILE	C-O	6.07	1.34	1.23
1	F	387	VAL	CB-CG1	-6.07	1.40	1.52
1	K	369	GLU	CB-CG	6.07	1.63	1.52
1	F	240	GLU	CG-CD	-6.07	1.42	1.51
1	B	231	TYR	CZ-OH	6.07	1.48	1.37
1	C	177	GLN	CG-CD	6.07	1.65	1.51
1	H	322	GLY	C-O	6.07	1.33	1.23
1	A	149	MET	CG-SD	-6.07	1.65	1.81
1	F	465	GLY	C-O	-6.07	1.14	1.23
1	G	82	LYS	CE-NZ	6.07	1.64	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	103	VAL	CB-CG2	6.07	1.65	1.52
1	B	54	LYS	CB-CG	6.07	1.69	1.52
1	C	373	GLN	C-O	6.06	1.34	1.23
1	E	217	LYS	CE-NZ	6.06	1.64	1.49
1	E	219	GLU	CB-CG	-6.06	1.40	1.52
1	F	278	LYS	CA-CB	6.06	1.67	1.53
1	G	90	PHE	CE1-CZ	6.06	1.48	1.37
1	K	356	LYS	C-O	-6.06	1.11	1.23
1	M	312	TRP	CG-CD2	-6.06	1.33	1.43
1	N	360	PHE	CD2-CE2	6.06	1.51	1.39
1	G	309	LYS	CB-CG	6.06	1.69	1.52
1	M	58	ASN	C-O	6.06	1.34	1.23
1	N	96	GLN	N-CA	-6.06	1.34	1.46
1	O	84	GLY	C-O	6.06	1.33	1.23
1	J	125	LYS	CE-NZ	6.06	1.64	1.49
1	K	263	ARG	CZ-NH1	6.06	1.41	1.33
1	N	227	SER	CB-OG	6.06	1.50	1.42
1	G	285	ASN	C-O	6.06	1.34	1.23
1	B	318	GLY	C-O	-6.05	1.14	1.23
1	E	135	TYR	CZ-OH	6.05	1.48	1.37
1	G	444	TYR	CG-CD1	6.05	1.47	1.39
1	J	242	TYR	CD1-CE1	6.05	1.48	1.39
1	C	62	VAL	CB-CG2	6.05	1.65	1.52
1	E	472	LEU	N-CA	6.05	1.58	1.46
1	N	118	SER	CB-OG	6.05	1.50	1.42
1	A	200	MET	CG-SD	6.05	1.96	1.81
1	I	252	ARG	CG-CD	6.05	1.67	1.51
1	O	71	ARG	CZ-NH2	6.05	1.41	1.33
1	M	447	TRP	CB-CG	-6.05	1.39	1.50
1	O	369	GLU	CG-CD	6.05	1.61	1.51
1	H	462	PHE	CB-CG	-6.04	1.41	1.51
1	L	205	PHE	CE2-CZ	6.04	1.48	1.37
1	M	181	GLN	CG-CD	6.04	1.65	1.51
1	N	447	TRP	CD2-CE2	6.04	1.48	1.41
1	I	277	ILE	CA-CB	-6.04	1.41	1.54
1	K	293	PRO	CA-C	-6.04	1.40	1.52
1	M	34	TYR	CD2-CE2	-6.04	1.30	1.39
1	J	96	GLN	N-CA	6.04	1.58	1.46
1	M	361	LYS	CE-NZ	6.04	1.64	1.49
1	I	448	GLU	CG-CD	6.04	1.61	1.51
1	D	365	ARG	C-O	6.04	1.34	1.23
1	K	44	ALA	CA-CB	-6.04	1.39	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	N	331	VAL	C-O	6.04	1.34	1.23
1	O	248	PHE	CE1-CZ	6.04	1.48	1.37
1	K	463	PRO	CA-C	-6.04	1.40	1.52
1	O	198	GLY	C-O	6.04	1.33	1.23
1	B	216	ASN	CB-CG	-6.03	1.37	1.51
1	E	242	TYR	CE1-CZ	-6.03	1.30	1.38
1	G	180	VAL	CA-CB	6.03	1.67	1.54
1	H	444	TYR	CG-CD2	-6.03	1.31	1.39
1	L	463	PRO	CB-CG	6.03	1.80	1.50
1	C	370	TYR	CD2-CE2	6.03	1.48	1.39
1	G	182	PRO	CG-CD	6.03	1.70	1.50
1	H	438	GLU	CD-OE2	6.03	1.32	1.25
1	J	139	ALA	CA-CB	6.03	1.65	1.52
1	B	316	ALA	N-CA	6.03	1.58	1.46
1	H	253	GLU	CD-OE1	6.03	1.32	1.25
1	M	333	VAL	CB-CG2	-6.03	1.40	1.52
1	B	294	THR	N-CA	-6.03	1.34	1.46
1	D	37	ALA	CA-CB	6.03	1.65	1.52
1	G	51	PRO	N-CD	6.03	1.56	1.47
1	J	34	TYR	CD2-CE2	-6.03	1.30	1.39
1	L	462	PHE	CG-CD2	-6.03	1.29	1.38
1	O	400	GLU	CB-CG	6.03	1.63	1.52
1	L	309	LYS	CE-NZ	6.02	1.64	1.49
1	F	184	ASP	CB-CG	6.02	1.64	1.51
1	F	271	VAL	CB-CG2	6.02	1.65	1.52
1	I	214	GLN	CD-OE1	6.02	1.37	1.24
1	I	467	LYS	CB-CG	6.02	1.68	1.52
1	L	70	TYR	CD2-CE2	-6.02	1.30	1.39
1	D	326	GLY	C-O	-6.02	1.14	1.23
1	N	316	ALA	N-CA	6.02	1.58	1.46
1	H	355	TYR	CD2-CE2	6.01	1.48	1.39
1	J	234	TYR	CE1-CZ	-6.01	1.30	1.38
1	B	315	ARG	CG-CD	6.01	1.67	1.51
1	D	173	SER	C-O	6.01	1.34	1.23
1	N	223	ASP	C-O	6.01	1.34	1.23
1	M	78	PRO	N-CA	-6.01	1.37	1.47
1	N	273	ASP	C-O	6.01	1.34	1.23
1	O	74	ARG	CG-CD	-6.01	1.36	1.51
1	G	177	GLN	CD-OE1	6.01	1.37	1.24
1	B	41	ARG	CZ-NH1	6.01	1.40	1.33
1	F	95	THR	CA-CB	-6.01	1.37	1.53
1	I	176	THR	N-CA	6.01	1.58	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	242	TYR	CG-CD2	6.01	1.47	1.39
1	D	356	LYS	N-CA	-6.01	1.34	1.46
1	F	169	TRP	CB-CG	-6.01	1.39	1.50
1	I	179	ALA	N-CA	6.01	1.58	1.46
1	J	452	LYS	CD-CE	6.01	1.66	1.51
1	B	272	PRO	CA-C	-6.00	1.40	1.52
1	L	349	SER	C-O	6.00	1.34	1.23
1	F	35	TYR	CG-CD2	6.00	1.47	1.39
1	F	352	GLU	CD-OE2	6.00	1.32	1.25
1	K	30	ARG	C-O	-6.00	1.11	1.23
1	C	99	VAL	CA-CB	6.00	1.67	1.54
1	A	471	GLN	CA-CB	-6.00	1.40	1.53
1	C	189	GLU	CD-OE1	6.00	1.32	1.25
1	L	175	CYS	C-O	6.00	1.34	1.23
1	E	471	GLN	C-O	6.00	1.34	1.23
1	I	110	GLY	CA-C	5.99	1.61	1.51
1	K	341	ASN	CA-C	-5.99	1.37	1.52
1	C	160	GLY	C-O	5.99	1.33	1.23
1	J	330	PHE	CD2-CE2	5.99	1.51	1.39
1	J	471	GLN	C-O	5.99	1.34	1.23
1	B	177	GLN	CG-CD	5.99	1.64	1.51
1	F	330	PHE	CD2-CE2	-5.99	1.27	1.39
1	B	22	VAL	C-O	5.99	1.34	1.23
1	D	272	PRO	C-O	-5.99	1.11	1.23
1	H	287	ALA	CA-CB	5.99	1.65	1.52
1	H	235	ILE	CA-CB	-5.98	1.41	1.54
1	C	444	TYR	CG-CD2	5.98	1.47	1.39
1	H	139	ALA	C-N	5.98	1.43	1.33
1	D	140	GLY	N-CA	5.98	1.55	1.46
1	F	351	SER	CB-OG	5.98	1.50	1.42
1	H	106	GLU	CB-CG	5.98	1.63	1.52
1	M	455	PHE	CE2-CZ	5.98	1.48	1.37
1	N	194	VAL	CB-CG1	5.98	1.65	1.52
1	M	361	LYS	CD-CE	5.98	1.66	1.51
1	C	347	ALA	CA-CB	5.97	1.65	1.52
1	I	196	GLN	CB-CG	-5.97	1.36	1.52
1	A	139	ALA	CA-CB	5.97	1.65	1.52
1	D	162	LYS	CE-NZ	5.97	1.64	1.49
1	J	288	SER	CB-OG	5.97	1.50	1.42
1	O	355	TYR	CG-CD1	-5.97	1.31	1.39
1	N	353	THR	CB-CG2	5.97	1.72	1.52
1	A	398	ILE	CA-CB	-5.97	1.41	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	472	LEU	CA-CB	5.97	1.67	1.53
1	G	97	ARG	CB-CG	5.97	1.68	1.52
1	O	176	THR	N-CA	5.97	1.58	1.46
1	L	239	SER	CB-OG	5.97	1.50	1.42
1	D	60	ILE	CG1-CD1	5.97	1.91	1.50
1	E	130	GLU	CD-OE2	5.97	1.32	1.25
1	G	222	LEU	C-O	5.97	1.34	1.23
1	L	346	ALA	CA-CB	5.97	1.65	1.52
1	A	35	TYR	CG-CD2	-5.96	1.31	1.39
1	E	276	TYR	CA-CB	-5.96	1.40	1.53
1	L	241	PRO	N-CA	5.96	1.57	1.47
1	O	390	TYR	CE1-CZ	5.96	1.46	1.38
1	J	163	PRO	C-O	5.96	1.35	1.23
1	J	269	GLU	CG-CD	5.96	1.60	1.51
1	B	210	PHE	CD2-CE2	-5.96	1.27	1.39
1	C	32	ASN	CB-CG	5.96	1.64	1.51
1	I	307	PHE	CD2-CE2	-5.96	1.27	1.39
1	F	50	PHE	CD2-CE2	-5.96	1.27	1.39
1	F	65	VAL	CB-CG1	-5.95	1.40	1.52
1	L	256	PHE	CD2-CE2	5.95	1.51	1.39
1	O	307	PHE	C-O	5.95	1.34	1.23
1	L	334	VAL	CB-CG2	-5.95	1.40	1.52
1	J	324	CYS	CB-SG	5.95	1.92	1.82
1	H	356	LYS	CG-CD	5.95	1.72	1.52
1	D	317	GLN	CG-CD	5.95	1.64	1.51
1	H	293	PRO	CB-CG	-5.95	1.20	1.50
1	G	130	GLU	CD-OE2	5.95	1.32	1.25
1	K	301	THR	CB-CG2	5.95	1.72	1.52
1	J	198	GLY	C-O	5.94	1.33	1.23
1	M	220	VAL	C-N	-5.94	1.23	1.34
1	C	376	PHE	CG-CD1	5.94	1.47	1.38
1	F	268	GLY	CA-C	5.94	1.61	1.51
1	I	258	ARG	CZ-NH2	-5.94	1.25	1.33
1	K	448	GLU	C-O	5.94	1.34	1.23
1	K	171	LYS	CG-CD	5.94	1.72	1.52
1	B	395	ASN	CB-CG	5.94	1.64	1.51
1	C	453	GLU	CB-CG	5.94	1.63	1.52
1	K	89	SER	CB-OG	5.94	1.50	1.42
1	D	168	HIS	C-O	5.93	1.34	1.23
1	H	137	ALA	C-O	5.93	1.34	1.23
1	G	396	SER	CB-OG	5.93	1.50	1.42
1	H	438	GLU	CB-CG	5.93	1.63	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	I	46	GLY	N-CA	5.93	1.54	1.46
1	E	156	LEU	C-O	5.93	1.34	1.23
1	K	295	PRO	N-CA	-5.93	1.37	1.47
1	A	20	ALA	C-O	5.93	1.34	1.23
1	B	463	PRO	N-CA	5.93	1.57	1.47
1	E	390	TYR	CG-CD1	5.93	1.46	1.39
1	E	76	HIS	C-O	5.93	1.34	1.23
1	H	370	TYR	CD1-CE1	5.93	1.48	1.39
1	J	355	TYR	CD2-CE2	5.93	1.48	1.39
1	L	199	ASP	CB-CG	5.92	1.64	1.51
1	N	272	PRO	C-O	-5.92	1.11	1.23
1	O	231	TYR	CD1-CE1	5.92	1.48	1.39
1	I	241	PRO	CB-CG	5.92	1.79	1.50
1	J	281	GLY	C-O	5.92	1.33	1.23
1	A	267	VAL	CB-CG2	5.92	1.65	1.52
1	G	144	ARG	CZ-NH2	5.92	1.40	1.33
1	H	310	PRO	C-O	-5.92	1.11	1.23
1	H	454	LYS	CE-NZ	5.92	1.63	1.49
1	J	257	VAL	CA-CB	-5.92	1.42	1.54
1	K	30	ARG	N-CA	-5.92	1.34	1.46
1	N	145	GLU	CD-OE1	5.92	1.32	1.25
1	B	127	ASP	N-CA	5.91	1.58	1.46
1	E	138	ASN	CG-ND2	5.91	1.47	1.32
1	K	353	THR	C-O	5.91	1.34	1.23
1	N	178	VAL	N-CA	5.91	1.58	1.46
1	O	269	GLU	CD-OE1	5.91	1.32	1.25
1	G	73	PHE	CE1-CZ	5.91	1.48	1.37
1	O	128	ASP	C-O	5.91	1.34	1.23
1	A	243	GLY	C-O	5.91	1.33	1.23
1	B	207	ALA	CA-CB	-5.91	1.40	1.52
1	C	312	TRP	CE3-CZ3	-5.91	1.28	1.38
1	G	376	PHE	CE2-CZ	5.91	1.48	1.37
1	H	171	LYS	C-O	5.91	1.34	1.23
1	O	180	VAL	C-O	5.91	1.34	1.23
1	H	57	ASN	C-O	5.91	1.34	1.23
1	N	35	TYR	C-O	5.91	1.34	1.23
1	L	70	TYR	CG-CD2	-5.91	1.31	1.39
1	F	362	GLU	CD-OE1	5.91	1.32	1.25
1	I	320	ASN	CG-OD1	5.91	1.36	1.24
1	D	296	SER	CA-CB	-5.90	1.44	1.52
1	E	222	LEU	CG-CD2	5.90	1.73	1.51
1	N	134	ALA	C-O	5.90	1.34	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	45	VAL	CB-CG2	-5.90	1.40	1.52
1	D	55	PRO	CA-C	5.90	1.64	1.52
1	D	300	VAL	C-O	5.90	1.34	1.23
1	I	390	TYR	CD1-CE1	-5.90	1.30	1.39
1	H	235	ILE	C-O	5.90	1.34	1.23
1	L	26	GLU	CG-CD	5.90	1.60	1.51
1	I	330	PHE	CE2-CZ	5.90	1.48	1.37
1	N	93	PRO	CA-CB	5.90	1.65	1.53
1	O	217	LYS	CD-CE	5.90	1.66	1.51
1	O	472	LEU	N-CA	5.90	1.58	1.46
1	B	453	GLU	C-O	5.90	1.34	1.23
1	J	159	ILE	CB-CG2	-5.90	1.34	1.52
1	F	365	ARG	NE-CZ	5.89	1.40	1.33
1	G	164	PRO	C-O	5.89	1.35	1.23
1	G	202	ASP	CG-OD2	5.89	1.39	1.25
1	J	446	PHE	CE2-CZ	5.89	1.48	1.37
1	L	70	TYR	CE2-CZ	-5.89	1.30	1.38
1	N	365	ARG	CZ-NH1	5.89	1.40	1.33
1	B	288	SER	C-O	-5.89	1.12	1.23
1	C	179	ALA	CA-CB	5.89	1.64	1.52
1	E	106	GLU	CG-CD	5.89	1.60	1.51
1	D	291	TYR	CB-CG	-5.89	1.42	1.51
1	H	233	ASP	CB-CG	5.89	1.64	1.51
1	M	64	LYS	C-O	5.89	1.34	1.23
1	O	66	SER	CB-OG	5.89	1.50	1.42
1	G	391	ILE	CB-CG2	5.88	1.71	1.52
1	M	240	GLU	CD-OE1	5.88	1.32	1.25
1	A	280	SER	CB-OG	5.88	1.49	1.42
1	O	443	LYS	CG-CD	5.88	1.72	1.52
1	F	78	PRO	CA-CB	5.88	1.65	1.53
1	J	56	ASN	CG-OD1	5.88	1.36	1.24
1	A	30	ARG	CA-C	-5.88	1.37	1.52
1	B	343	SER	CB-OG	5.88	1.49	1.42
1	C	278	LYS	CB-CG	5.88	1.68	1.52
1	D	276	TYR	CD1-CE1	-5.88	1.30	1.39
1	M	91	TYR	CE2-CZ	5.88	1.46	1.38
1	E	362	GLU	CD-OE2	5.88	1.32	1.25
1	G	299	MET	N-CA	5.88	1.58	1.46
1	I	169	TRP	CG-CD1	-5.88	1.28	1.36
1	O	210	PHE	CD1-CE1	-5.88	1.27	1.39
1	A	342	MET	SD-CE	5.87	2.10	1.77
1	B	342	MET	C-O	5.87	1.34	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	218	SER	CB-OG	-5.87	1.34	1.42
1	E	296	SER	C-O	-5.87	1.12	1.23
1	H	106	GLU	CG-CD	5.87	1.60	1.51
1	K	74	ARG	CB-CG	-5.87	1.36	1.52
1	E	224	ILE	CB-CG2	-5.87	1.34	1.52
1	J	376	PHE	C-O	5.87	1.34	1.23
1	C	262	ASN	CB-CG	-5.87	1.37	1.51
1	N	355	TYR	C-O	5.87	1.34	1.23
1	A	90	PHE	CD1-CE1	5.87	1.50	1.39
1	D	311	TYR	C-O	5.87	1.34	1.23
1	K	370	TYR	CB-CG	-5.87	1.42	1.51
1	G	181	GLN	CD-NE2	5.86	1.47	1.32
1	K	227	SER	CA-CB	5.86	1.61	1.52
1	K	261	PHE	CB-CG	5.86	1.61	1.51
1	L	363	TYR	CB-CG	-5.86	1.42	1.51
1	N	49	TYR	CG-CD1	5.86	1.46	1.39
1	K	276	TYR	CD1-CE1	5.86	1.48	1.39
1	D	200	MET	C-O	5.86	1.34	1.23
1	O	329	LEU	C-O	5.86	1.34	1.23
1	B	247	PHE	CE2-CZ	-5.86	1.26	1.37
1	D	170	GLY	C-O	5.86	1.33	1.23
1	J	293	PRO	CA-C	-5.86	1.41	1.52
1	D	106	GLU	C-O	5.86	1.34	1.23
1	F	61	LEU	CG-CD1	5.86	1.73	1.51
1	N	249	TYR	CB-CG	-5.86	1.42	1.51
1	H	61	LEU	CG-CD1	5.86	1.73	1.51
1	N	263	ARG	C-O	5.86	1.34	1.23
1	B	271	VAL	CB-CG2	5.85	1.65	1.52
1	C	55	PRO	CA-C	5.85	1.64	1.52
1	K	438	GLU	CB-CG	5.85	1.63	1.52
1	B	446	PHE	CG-CD1	5.85	1.47	1.38
1	L	307	PHE	CG-CD2	-5.85	1.29	1.38
1	O	152	LYS	CE-NZ	5.85	1.63	1.49
1	O	282	SER	CB-OG	5.85	1.49	1.42
1	D	29	ALA	CA-CB	5.84	1.64	1.52
1	I	85	PHE	CE2-CZ	5.84	1.48	1.37
1	E	130	GLU	CD-OE1	5.84	1.32	1.25
1	B	455	PHE	CE2-CZ	-5.84	1.26	1.37
1	G	72	VAL	CB-CG2	-5.84	1.40	1.52
1	J	352	GLU	CB-CG	-5.84	1.41	1.52
1	L	120	HIS	N-CA	5.84	1.58	1.46
1	O	194	VAL	C-O	5.84	1.34	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	H	452	LYS	CD-CE	5.84	1.65	1.51
1	I	88	THR	C-O	5.84	1.34	1.23
1	L	336	THR	CB-CG2	-5.84	1.33	1.52
1	A	191	ILE	CA-CB	-5.83	1.41	1.54
1	H	142	ASP	C-O	5.83	1.34	1.23
1	M	44	ALA	CA-CB	5.83	1.64	1.52
1	D	462	PHE	CE1-CZ	5.83	1.48	1.37
1	B	21	VAL	CA-CB	-5.83	1.42	1.54
1	C	251	ARG	CZ-NH1	5.83	1.40	1.33
1	H	28	VAL	C-O	5.83	1.34	1.23
1	I	314	GLN	CD-OE1	5.83	1.36	1.24
1	I	452	LYS	C-O	5.83	1.34	1.23
1	O	50	PHE	CD2-CE2	-5.83	1.27	1.39
1	D	199	ASP	C-O	-5.83	1.12	1.23
1	G	38	GLY	C-O	5.83	1.32	1.23
1	I	320	ASN	C-O	-5.83	1.12	1.23
1	A	290	ASN	C-O	5.83	1.34	1.23
1	D	199	ASP	CB-CG	-5.83	1.39	1.51
1	F	73	PHE	CB-CG	-5.83	1.41	1.51
1	H	221	PRO	CG-CD	5.83	1.69	1.50
1	A	467	LYS	CG-CD	5.82	1.72	1.52
1	C	148	SER	CB-OG	5.82	1.49	1.42
1	K	103	VAL	CB-CG1	5.82	1.65	1.52
1	H	101	ALA	C-O	5.82	1.34	1.23
1	L	93	PRO	CB-CG	-5.82	1.20	1.50
1	N	383	LEU	CG-CD1	5.82	1.73	1.51
1	O	206	GLY	C-O	5.82	1.32	1.23
1	I	334	VAL	C-O	5.82	1.34	1.23
1	K	24	THR	CA-CB	-5.82	1.38	1.53
1	B	394	MET	CB-CG	-5.82	1.32	1.51
1	L	165	ILE	CG1-CD1	5.82	1.90	1.50
1	A	370	TYR	CE1-CZ	-5.82	1.30	1.38
1	E	132	ALA	CA-CB	-5.82	1.40	1.52
1	F	249	TYR	CD2-CE2	5.82	1.48	1.39
1	G	453	GLU	CB-CG	5.82	1.63	1.52
1	L	95	THR	CB-OG1	5.82	1.54	1.43
1	L	315	ARG	CZ-NH2	5.82	1.40	1.33
1	G	306	ILE	CB-CG2	-5.81	1.34	1.52
1	B	169	TRP	CG-CD1	-5.81	1.28	1.36
1	C	295	PRO	C-O	-5.81	1.11	1.23
1	A	242	TYR	CE2-CZ	-5.81	1.30	1.38
1	G	56	ASN	C-O	5.81	1.34	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	M	400	GLU	CG-CD	5.81	1.60	1.51
1	J	466	ARG	CG-CD	5.81	1.66	1.51
1	C	471	GLN	CD-OE1	5.80	1.36	1.24
1	F	41	ARG	CD-NE	5.80	1.56	1.46
1	E	390	TYR	CZ-OH	5.80	1.47	1.37
1	B	248	PHE	CB-CG	-5.80	1.41	1.51
1	E	141	VAL	CA-CB	-5.80	1.42	1.54
1	E	83	PHE	CB-CG	5.80	1.61	1.51
1	G	91	TYR	CE1-CZ	5.80	1.46	1.38
1	J	370	TYR	CG-CD2	-5.80	1.31	1.39
1	O	111	GLN	CG-CD	5.80	1.64	1.51
1	G	55	PRO	CA-C	5.80	1.64	1.52
1	G	312	TRP	CE2-CZ2	-5.80	1.29	1.39
1	I	45	VAL	CB-CG1	-5.80	1.40	1.52
1	J	167	GLU	CD-OE1	5.80	1.32	1.25
1	D	151	TYR	C-O	5.79	1.34	1.23
1	C	471	GLN	CD-NE2	5.79	1.47	1.32
1	E	234	TYR	CG-CD1	-5.79	1.31	1.39
1	I	97	ARG	CG-CD	5.79	1.66	1.51
1	J	68	LEU	CA-C	-5.79	1.37	1.52
1	B	32	ASN	CB-CG	5.79	1.64	1.51
1	K	445	THR	CB-CG2	5.79	1.71	1.52
1	J	454	LYS	CD-CE	5.79	1.65	1.51
1	N	113	LEU	C-O	5.79	1.34	1.23
1	F	55	PRO	CA-C	5.79	1.64	1.52
1	C	130	GLU	CG-CD	-5.79	1.43	1.51
1	C	141	VAL	CB-CG1	5.79	1.65	1.52
1	D	248	PHE	CG-CD1	-5.79	1.30	1.38
1	G	62	VAL	C-O	5.79	1.34	1.23
1	H	296	SER	CB-OG	-5.79	1.34	1.42
1	M	352	GLU	CG-CD	5.79	1.60	1.51
1	J	299	MET	N-CA	5.78	1.57	1.46
1	B	152	LYS	CE-NZ	5.78	1.63	1.49
1	O	195	ILE	C-O	-5.78	1.12	1.23
1	B	51	PRO	CG-CD	-5.78	1.31	1.50
1	E	257	VAL	CB-CG2	5.78	1.65	1.52
1	J	219	GLU	C-O	-5.78	1.12	1.23
1	L	98	LEU	CG-CD1	5.78	1.73	1.51
1	J	86	PRO	C-O	5.78	1.34	1.23
1	K	379	CYS	CB-SG	-5.78	1.72	1.81
1	M	42	LEU	CG-CD2	5.78	1.73	1.51
1	M	471	GLN	CB-CG	-5.78	1.36	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	80	PRO	CB-CG	5.77	1.78	1.50
1	B	60	ILE	C-O	-5.77	1.12	1.23
1	B	246	LEU	CG-CD1	-5.77	1.30	1.51
1	M	316	ALA	N-CA	5.77	1.57	1.46
1	O	327	ASN	CB-CG	5.77	1.64	1.51
1	O	438	GLU	CG-CD	5.77	1.60	1.51
1	D	368	GLU	CG-CD	-5.77	1.43	1.51
1	H	176	THR	CB-CG2	5.77	1.71	1.52
1	I	285	ASN	C-O	5.77	1.34	1.23
1	N	85	PHE	CE1-CZ	5.77	1.48	1.37
1	G	108	GLY	C-O	5.77	1.32	1.23
1	D	267	VAL	C-O	-5.77	1.12	1.23
1	H	312	TRP	CD2-CE2	5.77	1.48	1.41
1	L	124	ASN	CB-CG	5.77	1.64	1.51
1	O	312	TRP	C-O	5.77	1.34	1.23
1	C	91	TYR	CE2-CZ	5.76	1.46	1.38
1	H	66	SER	CB-OG	5.76	1.49	1.42
1	J	86	PRO	CA-C	5.76	1.64	1.52
1	N	442	LYS	C-O	5.76	1.34	1.23
1	D	202	ASP	N-CA	-5.76	1.34	1.46
1	G	248	PHE	CD2-CE2	-5.76	1.27	1.39
1	C	454	LYS	C-O	5.76	1.34	1.23
1	D	463	PRO	N-CA	-5.76	1.37	1.47
1	G	348	ILE	CB-CG2	5.76	1.70	1.52
1	K	21	VAL	CA-CB	-5.76	1.42	1.54
1	B	350	THR	CA-CB	5.76	1.68	1.53
1	E	92	ASN	CG-OD1	5.76	1.36	1.24
1	G	306	ILE	CA-CB	-5.76	1.41	1.54
1	O	391	ILE	C-O	5.76	1.34	1.23
1	C	158	LEU	C-O	5.76	1.34	1.23
1	M	442	LYS	CD-CE	5.76	1.65	1.51
1	N	368	GLU	C-O	5.75	1.34	1.23
1	G	315	ARG	CG-CD	5.75	1.66	1.51
1	H	390	TYR	N-CA	5.75	1.57	1.46
1	I	363	TYR	CB-CG	-5.75	1.43	1.51
1	D	244	ASP	CG-OD1	5.75	1.38	1.25
1	G	116	GLY	C-O	5.75	1.32	1.23
1	L	221	PRO	CG-CD	-5.75	1.31	1.50
1	M	320	ASN	C-O	-5.75	1.12	1.23
1	H	472	LEU	N-CA	5.75	1.57	1.46
1	E	90	PHE	CE2-CZ	5.75	1.48	1.37
1	E	448	GLU	CB-CG	5.75	1.63	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	L	63	PRO	C-O	5.75	1.34	1.23
1	N	91	TYR	C-O	5.75	1.34	1.23
1	O	32	ASN	C-O	5.75	1.34	1.23
1	D	139	ALA	C-O	5.74	1.34	1.23
1	C	81	ASN	CG-OD1	5.74	1.36	1.24
1	F	215	ALA	CA-CB	-5.74	1.40	1.52
1	G	208	MET	C-O	5.74	1.34	1.23
1	G	265	GLY	N-CA	5.74	1.54	1.46
1	J	75	ILE	C-O	5.74	1.34	1.23
1	A	236	LYS	CE-NZ	5.74	1.63	1.49
1	C	225	CYS	C-O	5.74	1.34	1.23
1	G	176	THR	CB-CG2	5.74	1.71	1.52
1	N	280	SER	CB-OG	5.74	1.49	1.42
1	O	278	LYS	CD-CE	5.74	1.65	1.51
1	A	287	ALA	CA-CB	5.74	1.64	1.52
1	B	54	LYS	CD-CE	5.74	1.65	1.51
1	E	374	PHE	CE1-CZ	5.74	1.48	1.37
1	H	296	SER	CA-CB	-5.74	1.44	1.52
1	L	159	ILE	CG1-CD1	5.74	1.90	1.50
1	M	78	PRO	CG-CD	-5.74	1.31	1.50
1	M	148	SER	CB-OG	5.74	1.49	1.42
1	N	114	GLY	N-CA	5.74	1.54	1.46
1	J	174	PRO	C-O	5.73	1.34	1.23
1	L	188	LEU	CG-CD2	-5.73	1.30	1.51
1	E	338	ARG	CZ-NH1	5.73	1.40	1.33
1	G	55	PRO	C-O	5.73	1.34	1.23
1	M	71	ARG	C-O	-5.73	1.12	1.23
1	M	453	GLU	CD-OE1	5.73	1.31	1.25
1	G	225	CYS	C-O	5.73	1.34	1.23
1	J	139	ALA	CA-C	5.73	1.67	1.52
1	M	370	TYR	CZ-OH	5.73	1.47	1.37
1	B	323	ILE	CB-CG2	5.73	1.70	1.52
1	C	135	TYR	CG-CD1	5.73	1.46	1.39
1	D	104	GLY	N-CA	-5.73	1.37	1.46
1	D	144	ARG	CB-CG	5.73	1.68	1.52
1	J	57	ASN	CA-C	5.73	1.67	1.52
1	G	455	PHE	C-O	5.72	1.34	1.23
1	E	318	GLY	CA-C	-5.72	1.42	1.51
1	K	170	GLY	C-O	5.72	1.32	1.23
1	C	236	LYS	CG-CD	5.72	1.72	1.52
1	M	390	TYR	CB-CG	5.72	1.60	1.51
1	E	255	MET	C-O	-5.72	1.12	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	F	123	LEU	C-O	-5.72	1.12	1.23
1	J	389	THR	CB-CG2	5.72	1.71	1.52
1	K	138	ASN	C-O	5.72	1.34	1.23
1	A	341	ASN	C-O	5.71	1.34	1.23
1	F	43	LEU	C-O	5.71	1.34	1.23
1	G	68	LEU	CG-CD2	-5.71	1.30	1.51
1	J	137	ALA	CA-CB	5.71	1.64	1.52
1	J	35	TYR	C-O	5.71	1.34	1.23
1	H	175	CYS	N-CA	5.71	1.57	1.46
1	L	135	TYR	CD2-CE2	-5.71	1.30	1.39
1	O	140	GLY	C-O	5.71	1.32	1.23
1	O	294	THR	CB-CG2	-5.71	1.33	1.52
1	B	472	LEU	CA-CB	5.71	1.66	1.53
1	F	393	SER	CB-OG	-5.71	1.34	1.42
1	G	467	LYS	CG-CD	5.71	1.71	1.52
1	K	245	SER	CA-CB	5.71	1.61	1.52
1	N	94	ASP	C-O	5.71	1.34	1.23
1	D	130	GLU	C-O	5.71	1.34	1.23
1	O	444	TYR	CD1-CE1	5.71	1.48	1.39
1	E	291	TYR	CZ-OH	5.70	1.47	1.37
1	H	40	SER	CB-OG	5.70	1.49	1.42
1	I	151	TYR	CG-CD1	5.70	1.46	1.39
1	K	299	MET	N-CA	5.70	1.57	1.46
1	D	174	PRO	N-CA	5.70	1.56	1.47
1	I	248	PHE	CB-CG	-5.70	1.41	1.51
1	J	75	ILE	CA-CB	-5.70	1.41	1.54
1	J	207	ALA	CA-CB	-5.70	1.40	1.52
1	M	273	ASP	CG-OD2	5.70	1.38	1.25
1	O	97	ARG	CB-CG	5.70	1.68	1.52
1	D	292	PHE	CE1-CZ	5.70	1.48	1.37
1	F	231	TYR	CZ-OH	5.70	1.47	1.37
1	H	218	SER	CB-OG	5.70	1.49	1.42
1	H	390	TYR	CD2-CE2	5.70	1.47	1.39
1	B	402	TRP	CB-CG	5.70	1.60	1.50
1	C	75	ILE	CA-CB	-5.70	1.41	1.54
1	O	443	LYS	CB-CG	5.70	1.68	1.52
1	J	285	ASN	C-O	5.69	1.34	1.23
1	N	31	THR	CB-CG2	5.69	1.71	1.52
1	I	34	TYR	CD1-CE1	5.69	1.47	1.39
1	I	70	TYR	CD1-CE1	5.69	1.47	1.39
1	L	322	GLY	C-O	5.69	1.32	1.23
1	D	95	THR	CB-OG1	5.69	1.54	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	I	468	PHE	CD2-CE2	5.69	1.50	1.39
1	K	269	GLU	CB-CG	5.69	1.62	1.52
1	M	438	GLU	CB-CG	5.69	1.62	1.52
1	N	266	THR	CB-CG2	5.69	1.71	1.52
1	L	283	THR	C-O	-5.69	1.12	1.23
1	N	256	PHE	CE2-CZ	-5.69	1.26	1.37
1	B	138	ASN	C-O	5.68	1.34	1.23
1	C	234	TYR	CE1-CZ	-5.68	1.31	1.38
1	E	230	LYS	CB-CG	5.68	1.67	1.52
1	F	268	GLY	C-O	5.68	1.32	1.23
1	F	471	GLN	C-O	5.68	1.34	1.23
1	I	468	PHE	CE1-CZ	5.68	1.48	1.37
1	L	311	TYR	CZ-OH	-5.68	1.28	1.37
1	N	162	LYS	C-O	5.68	1.34	1.23
1	O	212	THR	CA-CB	-5.68	1.38	1.53
1	H	81	ASN	C-O	-5.68	1.12	1.23
1	I	25	ASP	CG-OD2	5.68	1.38	1.25
1	K	370	TYR	CE1-CZ	-5.68	1.31	1.38
1	F	102	CYS	CB-SG	-5.68	1.72	1.81
1	M	51	PRO	N-CD	5.68	1.55	1.47
1	N	155	GLN	CG-CD	5.68	1.64	1.51
1	A	400	GLU	CG-CD	5.68	1.60	1.51
1	H	103	VAL	C-O	5.68	1.34	1.23
1	H	171	LYS	CB-CG	5.68	1.67	1.52
1	L	42	LEU	CG-CD2	5.68	1.72	1.51
1	O	362	GLU	CD-OE1	5.68	1.31	1.25
1	G	247	PHE	CE1-CZ	5.68	1.48	1.37
1	J	50	PHE	CE2-CZ	-5.68	1.26	1.37
1	J	98	LEU	CG-CD1	5.68	1.72	1.51
1	A	82	LYS	CD-CE	5.67	1.65	1.51
1	A	392	HIS	C-O	5.67	1.34	1.23
1	C	64	LYS	CB-CG	5.67	1.67	1.52
1	D	203	THR	C-O	5.67	1.34	1.23
1	J	298	SER	CB-OG	5.67	1.49	1.42
1	N	250	LEU	C-O	5.67	1.34	1.23
1	D	70	TYR	CE1-CZ	5.67	1.46	1.38
1	D	472	LEU	N-CA	5.67	1.57	1.46
1	H	362	GLU	CD-OE1	5.67	1.31	1.25
1	J	130	GLU	CD-OE1	-5.67	1.19	1.25
1	H	183	GLY	C-O	5.67	1.32	1.23
1	G	48	PRO	CA-C	-5.67	1.41	1.52
1	O	241	PRO	CB-CG	5.67	1.78	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	H	145	GLU	C-O	5.66	1.34	1.23
1	K	202	ASP	CG-OD1	5.66	1.38	1.25
1	N	361	LYS	CE-NZ	5.66	1.63	1.49
1	K	251	ARG	CZ-NH1	-5.66	1.25	1.33
1	L	462	PHE	CG-CD1	-5.66	1.30	1.38
1	G	364	LEU	C-O	5.66	1.34	1.23
1	J	136	ALA	C-O	5.66	1.34	1.23
1	L	332	THR	CB-CG2	-5.66	1.33	1.52
1	M	82	LYS	C-O	-5.66	1.12	1.23
1	A	312	TRP	CZ3-CH2	5.66	1.49	1.40
1	E	369	GLU	CB-CG	5.66	1.62	1.52
1	E	390	TYR	CE1-CZ	5.66	1.46	1.38
1	L	137	ALA	CA-CB	5.66	1.64	1.52
1	M	159	ILE	CB-CG2	-5.66	1.35	1.52
1	N	50	PHE	CE1-CZ	5.66	1.48	1.37
1	A	111	GLN	CG-CD	5.66	1.64	1.51
1	H	321	ASN	CB-CG	5.66	1.64	1.51
1	D	462	PHE	CB-CG	-5.65	1.41	1.51
1	L	40	SER	CA-C	5.65	1.67	1.52
1	I	162	LYS	CG-CD	5.65	1.71	1.52
1	N	391	ILE	C-O	5.65	1.34	1.23
1	E	184	ASP	CB-CG	5.65	1.63	1.51
1	O	249	TYR	CG-CD2	-5.65	1.31	1.39
1	H	363	TYR	CB-CG	5.65	1.60	1.51
1	O	403	ASN	CG-ND2	5.65	1.47	1.32
1	D	362	GLU	C-O	5.65	1.34	1.23
1	J	471	GLN	CB-CG	-5.65	1.37	1.52
1	O	276	TYR	CG-CD2	5.65	1.46	1.39
1	E	396	SER	CA-C	5.64	1.67	1.52
1	G	387	VAL	CB-CG1	5.64	1.64	1.52
1	A	462	PHE	CB-CG	-5.64	1.41	1.51
1	F	158	LEU	C-O	5.64	1.34	1.23
1	L	111	GLN	CD-OE1	5.64	1.36	1.24
1	N	455	PHE	CD2-CE2	5.64	1.50	1.39
1	F	149	MET	CB-CG	5.64	1.69	1.51
1	N	380	LYS	CD-CE	5.64	1.65	1.51
1	H	349	SER	CB-OG	5.64	1.49	1.42
1	I	150	ASP	N-CA	5.64	1.57	1.46
1	A	261	PHE	CE2-CZ	5.64	1.48	1.37
1	H	56	ASN	CB-CG	5.64	1.64	1.51
1	H	205	PHE	CG-CD1	5.64	1.47	1.38
1	J	31	THR	C-O	-5.64	1.12	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	L	91	TYR	CD1-CE1	-5.64	1.30	1.39
1	L	444	TYR	CG-CD1	5.64	1.46	1.39
1	A	118	SER	CA-CB	-5.63	1.44	1.52
1	C	329	LEU	CG-CD1	-5.63	1.31	1.51
1	F	130	GLU	C-O	5.63	1.34	1.23
1	G	363	TYR	CG-CD2	5.63	1.46	1.39
1	M	75	ILE	CB-CG2	-5.63	1.35	1.52
1	I	368	GLU	CD-OE1	5.63	1.31	1.25
1	K	91	TYR	CZ-OH	5.63	1.47	1.37
1	M	63	PRO	CB-CG	5.63	1.78	1.50
1	J	376	PHE	CG-CD1	5.63	1.47	1.38
1	C	299	MET	CA-CB	-5.63	1.41	1.53
1	D	286	LEU	CA-CB	-5.63	1.40	1.53
1	I	106	GLU	CD-OE1	5.63	1.31	1.25
1	D	273	ASP	CB-CG	5.63	1.63	1.51
1	J	468	PHE	CE2-CZ	-5.63	1.26	1.37
1	M	248	PHE	CA-CB	-5.63	1.41	1.53
1	N	468	PHE	C-O	5.63	1.34	1.23
1	A	297	GLY	C-O	5.62	1.32	1.23
1	B	225	CYS	N-CA	5.62	1.57	1.46
1	N	247	PHE	N-CA	-5.62	1.35	1.46
1	N	438	GLU	CG-CD	5.62	1.60	1.51
1	A	295	PRO	N-CD	-5.62	1.40	1.47
1	B	86	PRO	CG-CD	5.62	1.69	1.50
1	B	187	PRO	CA-C	-5.62	1.41	1.52
1	C	123	LEU	CG-CD2	5.62	1.72	1.51
1	E	102	CYS	CB-SG	-5.62	1.72	1.81
1	E	138	ASN	C-O	5.62	1.34	1.23
1	G	210	PHE	CG-CD2	5.62	1.47	1.38
1	N	234	TYR	CE2-CZ	-5.62	1.31	1.38
1	H	367	GLY	N-CA	5.62	1.54	1.46
1	E	70	TYR	CG-CD1	-5.62	1.31	1.39
1	F	453	GLU	CD-OE1	5.62	1.31	1.25
1	K	149	MET	CG-SD	-5.62	1.66	1.81
1	K	335	ASP	CB-CG	-5.62	1.40	1.51
1	O	448	GLU	CD-OE2	5.62	1.31	1.25
1	L	390	TYR	CB-CG	-5.62	1.43	1.51
1	M	327	ASN	CB-CG	5.62	1.64	1.51
1	A	164	PRO	C-O	-5.62	1.12	1.23
1	F	139	ALA	C-O	5.62	1.34	1.23
1	L	463	PRO	N-CA	5.62	1.56	1.47
1	N	89	SER	N-CA	5.62	1.57	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	97	ARG	NE-CZ	5.61	1.40	1.33
1	E	455	PHE	CD2-CE2	5.61	1.50	1.39
1	M	272	PRO	N-CA	-5.61	1.37	1.47
1	M	390	TYR	CE1-CZ	-5.61	1.31	1.38
1	N	34	TYR	CG-CD1	-5.61	1.31	1.39
1	D	446	PHE	CA-CB	-5.61	1.41	1.53
1	G	352	GLU	C-O	5.61	1.34	1.23
1	J	352	GLU	CG-CD	5.61	1.60	1.51
1	K	73	PHE	CD1-CE1	5.61	1.50	1.39
1	M	312	TRP	CG-CD1	-5.61	1.28	1.36
1	M	336	THR	C-O	5.61	1.34	1.23
1	D	280	SER	CA-C	-5.61	1.38	1.52
1	F	237	MET	C-O	5.61	1.34	1.23
1	G	194	VAL	C-O	5.61	1.34	1.23
1	K	401	ASP	C-O	5.61	1.34	1.23
1	A	378	LEU	C-O	-5.61	1.12	1.23
1	G	28	VAL	CB-CG1	5.61	1.64	1.52
1	J	169	TRP	CE3-CZ3	5.61	1.48	1.38
1	O	268	GLY	C-O	5.61	1.32	1.23
1	A	75	ILE	C-O	5.60	1.33	1.23
1	A	124	ASN	C-O	-5.60	1.12	1.23
1	C	208	MET	C-O	5.60	1.33	1.23
1	F	317	GLN	CG-CD	5.60	1.64	1.51
1	G	219	GLU	CG-CD	5.60	1.60	1.51
1	L	372	LEU	CB-CG	5.60	1.68	1.52
1	C	51	PRO	CA-C	5.60	1.64	1.52
1	D	376	PHE	CD1-CE1	-5.60	1.28	1.39
1	O	64	LYS	CB-CG	5.60	1.67	1.52
1	D	308	ASN	CG-ND2	5.60	1.46	1.32
1	A	160	GLY	CA-C	5.60	1.60	1.51
1	C	363	TYR	CE1-CZ	5.60	1.45	1.38
1	D	67	GLY	N-CA	-5.60	1.37	1.46
1	M	236	LYS	CD-CE	5.60	1.65	1.51
1	I	70	TYR	CG-CD2	-5.60	1.31	1.39
1	J	229	CYS	CB-SG	-5.60	1.72	1.81
1	L	455	PHE	CD1-CE1	5.60	1.50	1.39
1	N	446	PHE	CD2-CE2	5.60	1.50	1.39
1	O	252	ARG	N-CA	-5.60	1.35	1.46
1	H	46	GLY	N-CA	5.59	1.54	1.46
1	M	87	ASP	N-CA	5.59	1.57	1.46
1	O	162	LYS	CD-CE	5.59	1.65	1.51
1	B	105	VAL	CB-CG2	-5.59	1.41	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	216	ASN	C-O	-5.59	1.12	1.23
1	E	310	PRO	CG-CD	-5.59	1.32	1.50
1	F	294	THR	C-O	-5.59	1.12	1.23
1	I	178	VAL	CA-C	5.59	1.67	1.52
1	A	386	ASP	CB-CG	5.59	1.63	1.51
1	G	249	TYR	CG-CD2	-5.59	1.31	1.39
1	G	359	ASN	CA-C	5.59	1.67	1.52
1	N	105	VAL	CB-CG1	-5.59	1.41	1.52
1	O	26	GLU	CD-OE1	5.59	1.31	1.25
1	H	294	THR	C-O	5.59	1.33	1.23
1	K	341	ASN	CG-ND2	5.59	1.46	1.32
1	E	252	ARG	NE-CZ	-5.59	1.25	1.33
1	F	181	GLN	CD-OE1	5.59	1.36	1.24
1	J	98	LEU	C-O	5.59	1.33	1.23
1	M	230	LYS	CD-CE	5.59	1.65	1.51
1	N	449	VAL	N-CA	5.59	1.57	1.46
1	L	468	PHE	CE1-CZ	5.58	1.48	1.37
1	M	438	GLU	C-O	5.58	1.33	1.23
1	D	23	SER	CA-CB	5.58	1.61	1.52
1	B	40	SER	C-O	5.58	1.33	1.23
1	K	282	SER	C-O	5.58	1.33	1.23
1	M	248	PHE	CD2-CE2	-5.58	1.28	1.39
1	J	151	TYR	CE2-CZ	5.58	1.45	1.38
1	K	110	GLY	N-CA	5.58	1.54	1.46
1	K	326	GLY	C-O	-5.58	1.14	1.23
1	N	178	VAL	CB-CG1	5.58	1.64	1.52
1	C	146	CYS	N-CA	-5.58	1.35	1.46
1	J	91	TYR	CE1-CZ	-5.58	1.31	1.38
1	N	95	THR	N-CA	5.58	1.57	1.46
1	D	447	TRP	CB-CG	-5.57	1.40	1.50
1	F	32	ASN	C-O	5.57	1.33	1.23
1	F	247	PHE	CE1-CZ	5.57	1.48	1.37
1	F	363	TYR	CZ-OH	5.57	1.47	1.37
1	O	261	PHE	CE1-CZ	5.57	1.48	1.37
1	O	314	GLN	C-O	5.57	1.33	1.23
1	F	307	PHE	CE1-CZ	5.57	1.48	1.37
1	I	192	ASN	CG-ND2	5.57	1.46	1.32
1	N	30	ARG	CB-CG	5.57	1.67	1.52
1	E	309	LYS	CE-NZ	5.57	1.62	1.49
1	J	124	ASN	C-O	-5.57	1.12	1.23
1	J	330	PHE	C-O	5.57	1.33	1.23
1	C	331	VAL	CB-CG2	-5.57	1.41	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	311	TYR	CD1-CE1	5.57	1.47	1.39
1	D	471	GLN	CD-OE1	5.57	1.36	1.24
1	H	219	GLU	N-CA	5.57	1.57	1.46
1	B	51	PRO	CA-CB	-5.56	1.42	1.53
1	H	311	TYR	CG-CD1	-5.56	1.31	1.39
1	H	363	TYR	C-O	5.56	1.33	1.23
1	I	21	VAL	CA-CB	-5.56	1.43	1.54
1	I	229	CYS	CB-SG	5.56	1.91	1.82
1	M	89	SER	CB-OG	5.56	1.49	1.42
1	J	85	PHE	CG-CD1	5.56	1.47	1.38
1	J	169	TRP	CZ3-CH2	5.56	1.49	1.40
1	M	41	ARG	CG-CD	-5.56	1.38	1.51
1	C	31	THR	CB-CG2	5.56	1.70	1.52
1	D	70	TYR	CG-CD1	5.56	1.46	1.39
1	I	242	TYR	CG-CD2	5.56	1.46	1.39
1	A	348	ILE	N-CA	-5.56	1.35	1.46
1	N	278	LYS	CE-NZ	5.56	1.62	1.49
1	F	40	SER	CA-CB	5.56	1.61	1.52
1	M	171	LYS	CG-CD	5.56	1.71	1.52
1	N	271	VAL	CB-CG1	5.55	1.64	1.52
1	I	66	SER	C-O	5.55	1.33	1.23
1	B	50	PHE	CD1-CE1	-5.55	1.28	1.39
1	D	376	PHE	N-CA	-5.55	1.35	1.46
1	F	110	GLY	C-O	5.55	1.32	1.23
1	L	228	ILE	CG1-CD1	5.55	1.88	1.50
1	O	125	LYS	CG-CD	5.55	1.71	1.52
1	A	356	LYS	CG-CD	5.55	1.71	1.52
1	B	268	GLY	C-O	5.55	1.32	1.23
1	C	396	SER	C-O	5.55	1.33	1.23
1	K	180	VAL	CB-CG2	5.55	1.64	1.52
1	M	349	SER	CA-CB	5.55	1.61	1.52
1	O	403	ASN	CG-OD1	5.55	1.36	1.24
1	H	343	SER	C-O	5.55	1.33	1.23
1	H	374	PHE	CG-CD2	5.55	1.47	1.38
1	M	258	ARG	C-O	5.55	1.33	1.23
1	B	31	THR	CB-CG2	5.54	1.70	1.52
1	M	269	GLU	CB-CG	5.54	1.62	1.52
1	C	367	GLY	N-CA	5.54	1.54	1.46
1	F	203	THR	CA-CB	-5.54	1.39	1.53
1	B	271	VAL	C-N	-5.54	1.23	1.34
1	B	311	TYR	CG-CD2	5.54	1.46	1.39
1	D	362	GLU	CA-CB	-5.54	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	F	86	PRO	CA-C	5.54	1.64	1.52
1	M	279	GLY	CA-C	5.54	1.60	1.51
1	M	375	ILE	CB-CG2	-5.54	1.35	1.52
1	N	452	LYS	CG-CD	5.54	1.71	1.52
1	O	83	PHE	CE1-CZ	5.54	1.47	1.37
1	O	325	TRP	CG-CD1	5.54	1.44	1.36
1	E	181	GLN	C-O	5.53	1.33	1.23
1	F	443	LYS	CE-NZ	5.53	1.62	1.49
1	J	91	TYR	C-O	5.53	1.33	1.23
1	I	116	GLY	CA-C	5.53	1.60	1.51
1	F	400	GLU	CD-OE2	5.53	1.31	1.25
1	L	24	THR	C-O	5.53	1.33	1.23
1	F	157	CYS	C-O	-5.53	1.12	1.23
1	A	180	VAL	CB-CG2	5.52	1.64	1.52
1	C	98	LEU	CG-CD1	5.52	1.72	1.51
1	C	234	TYR	CD2-CE2	-5.52	1.31	1.39
1	O	439	ASP	N-CA	5.52	1.57	1.46
1	D	146	CYS	C-O	5.52	1.33	1.23
1	A	205	PHE	N-CA	-5.52	1.35	1.46
1	B	330	PHE	CE1-CZ	-5.52	1.26	1.37
1	J	310	PRO	CG-CD	-5.52	1.32	1.50
1	K	53	LYS	CB-CG	5.52	1.67	1.52
1	M	129	THR	CA-CB	-5.52	1.39	1.53
1	D	145	GLU	CB-CG	5.52	1.62	1.52
1	I	403	ASN	C-O	5.52	1.33	1.23
1	D	35	TYR	CG-CD2	-5.52	1.31	1.39
1	J	220	VAL	CA-CB	-5.52	1.43	1.54
1	A	459	LEU	CA-CB	-5.51	1.41	1.53
1	D	365	ARG	CG-CD	5.51	1.65	1.51
1	G	198	GLY	N-CA	5.51	1.54	1.46
1	G	307	PHE	CB-CG	-5.51	1.42	1.51
1	I	380	LYS	CD-CE	5.51	1.65	1.51
1	K	374	PHE	CE2-CZ	5.51	1.47	1.37
1	K	396	SER	CB-OG	5.51	1.49	1.42
1	M	49	TYR	CD2-CE2	5.51	1.47	1.39
1	M	353	THR	CB-CG2	5.51	1.70	1.52
1	N	63	PRO	C-O	5.51	1.34	1.23
1	D	361	LYS	CE-NZ	5.51	1.62	1.49
1	F	262	ASN	C-O	5.51	1.33	1.23
1	L	129	THR	N-CA	-5.51	1.35	1.46
1	D	114	GLY	N-CA	5.51	1.54	1.46
1	M	363	TYR	CD1-CE1	-5.51	1.31	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	N	126	LEU	C-O	5.51	1.33	1.23
1	C	198	GLY	N-CA	5.51	1.54	1.46
1	D	356	LYS	CG-CD	5.51	1.71	1.52
1	L	100	TRP	CA-C	-5.51	1.38	1.52
1	D	202	ASP	CB-CG	5.51	1.63	1.51
1	E	188	LEU	C-O	-5.51	1.12	1.23
1	K	354	THR	CA-CB	-5.51	1.39	1.53
1	M	453	GLU	CG-CD	5.51	1.60	1.51
1	C	314	GLN	CD-NE2	5.50	1.46	1.32
1	M	70	TYR	CD2-CE2	-5.50	1.31	1.39
1	A	438	GLU	CD-OE1	5.50	1.31	1.25
1	D	189	GLU	C-O	5.50	1.33	1.23
1	F	233	ASP	CG-OD1	5.50	1.38	1.25
1	G	167	GLU	N-CA	-5.50	1.35	1.46
1	I	215	ALA	CA-CB	5.50	1.64	1.52
1	J	189	GLU	CB-CG	5.50	1.62	1.52
1	L	372	LEU	CG-CD2	5.50	1.72	1.51
1	C	365	ARG	CZ-NH2	-5.50	1.25	1.33
1	I	469	LEU	C-O	-5.50	1.12	1.23
1	O	85	PHE	CG-CD1	5.50	1.47	1.38
1	O	264	ALA	CA-CB	5.50	1.64	1.52
1	O	360	PHE	CE1-CZ	-5.50	1.26	1.37
1	B	306	ILE	N-CA	-5.50	1.35	1.46
1	C	216	ASN	CG-OD1	5.50	1.36	1.24
1	K	235	ILE	CA-CB	-5.50	1.42	1.54
1	C	242	TYR	CE1-CZ	5.50	1.45	1.38
1	G	206	GLY	C-O	5.50	1.32	1.23
1	N	59	LYS	C-O	5.50	1.33	1.23
1	F	146	CYS	CB-SG	5.50	1.91	1.82
1	C	34	TYR	CG-CD1	-5.49	1.32	1.39
1	E	55	PRO	CA-C	5.49	1.63	1.52
1	E	217	LYS	C-O	5.49	1.33	1.23
1	L	348	ILE	CA-CB	-5.49	1.42	1.54
1	O	338	ARG	CB-CG	5.49	1.67	1.52
1	D	266	THR	CB-CG2	5.49	1.70	1.52
1	E	307	PHE	CE1-CZ	5.49	1.47	1.37
1	F	129	THR	CA-CB	-5.49	1.39	1.53
1	J	253	GLU	CB-CG	5.49	1.62	1.52
1	N	86	PRO	CG-CD	5.49	1.68	1.50
1	C	93	PRO	CG-CD	5.49	1.68	1.50
1	D	307	PHE	CE2-CZ	-5.49	1.26	1.37
1	K	442	LYS	CD-CE	5.49	1.65	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	H	129	THR	CB-CG2	-5.49	1.34	1.52
1	I	352	GLU	CD-OE2	5.49	1.31	1.25
1	J	94	ASP	CG-OD1	5.49	1.38	1.25
1	M	64	LYS	CG-CD	5.49	1.71	1.52
1	C	317	GLN	CD-OE1	5.49	1.36	1.24
1	K	220	VAL	CB-CG1	-5.49	1.41	1.52
1	K	402	TRP	CE3-CZ3	5.49	1.47	1.38
1	L	49	TYR	CG-CD1	-5.49	1.32	1.39
1	N	51	PRO	C-O	5.49	1.34	1.23
1	N	135	TYR	CE2-CZ	5.48	1.45	1.38
1	N	249	TYR	CD1-CE1	5.48	1.47	1.39
1	D	180	VAL	CB-CG2	5.48	1.64	1.52
1	F	26	GLU	CB-CG	-5.48	1.41	1.52
1	H	63	PRO	CB-CG	5.48	1.77	1.50
1	H	87	ASP	C-O	5.48	1.33	1.23
1	N	95	THR	CB-OG1	5.48	1.54	1.43
1	N	270	ASN	CB-CG	5.48	1.63	1.51
1	C	73	PHE	CD1-CE1	5.48	1.50	1.39
1	H	240	GLU	CD-OE1	5.48	1.31	1.25
1	I	334	VAL	CA-CB	-5.48	1.43	1.54
1	O	448	GLU	CB-CG	5.48	1.62	1.52
1	J	462	PHE	CG-CD1	-5.48	1.30	1.38
1	F	218	SER	C-O	5.48	1.33	1.23
1	A	93	PRO	N-CD	5.47	1.55	1.47
1	F	225	CYS	CB-SG	5.47	1.91	1.82
1	L	71	ARG	C-O	5.47	1.33	1.23
1	L	438	GLU	C-O	5.47	1.33	1.23
1	J	151	TYR	CB-CG	-5.47	1.43	1.51
1	K	58	ASN	CG-OD1	5.47	1.35	1.24
1	M	83	PHE	CE1-CZ	-5.47	1.26	1.37
1	N	446	PHE	CA-CB	-5.47	1.42	1.53
1	B	146	CYS	CB-SG	-5.47	1.72	1.81
1	D	27	TYR	CD2-CE2	5.47	1.47	1.39
1	G	56	ASN	CG-OD1	5.47	1.35	1.24
1	I	34	TYR	C-O	5.47	1.33	1.23
1	J	187	PRO	CG-CD	5.47	1.68	1.50
1	K	56	ASN	CB-CG	5.47	1.63	1.51
1	N	70	TYR	C-O	-5.47	1.12	1.23
1	N	240	GLU	CD-OE1	5.47	1.31	1.25
1	A	33	ILE	C-O	5.47	1.33	1.23
1	B	165	ILE	CB-CG2	5.47	1.69	1.52
1	C	144	ARG	CZ-NH2	-5.47	1.25	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	I	89	SER	C-O	5.46	1.33	1.23
1	D	160	GLY	CA-C	5.46	1.60	1.51
1	O	346	ALA	CA-C	-5.46	1.38	1.52
1	D	314	GLN	CB-CG	5.46	1.67	1.52
1	G	267	VAL	CB-CG2	5.46	1.64	1.52
1	K	187	PRO	CG-CD	5.46	1.68	1.50
1	O	381	ILE	C-O	5.46	1.33	1.23
1	D	363	TYR	CE2-CZ	5.46	1.45	1.38
1	I	363	TYR	C-O	5.46	1.33	1.23
1	L	52	ILE	CB-CG2	5.46	1.69	1.52
1	L	315	ARG	CB-CG	5.46	1.67	1.52
1	F	304	ALA	C-O	-5.46	1.12	1.23
1	H	402	TRP	C-O	5.46	1.33	1.23
1	D	28	VAL	CB-CG2	-5.45	1.41	1.52
1	F	230	LYS	C-O	5.45	1.33	1.23
1	A	104	GLY	N-CA	5.45	1.54	1.46
1	C	355	TYR	CZ-OH	5.45	1.47	1.37
1	I	217	LYS	C-O	5.45	1.33	1.23
1	J	400	GLU	CG-CD	5.45	1.60	1.51
1	N	106	GLU	CB-CG	5.45	1.62	1.52
1	E	121	PRO	CA-C	-5.45	1.42	1.52
1	J	211	THR	CA-CB	-5.45	1.39	1.53
1	O	156	LEU	C-O	5.45	1.33	1.23
1	A	27	TYR	CZ-OH	-5.45	1.28	1.37
1	I	163	PRO	CB-CG	5.45	1.77	1.50
1	F	104	GLY	C-O	5.45	1.32	1.23
1	I	364	LEU	CG-CD2	5.45	1.72	1.51
1	L	32	ASN	C-O	5.45	1.33	1.23
1	E	272	PRO	N-CA	-5.44	1.38	1.47
1	B	311	TYR	CD2-CE2	5.44	1.47	1.39
1	N	284	ALA	CA-CB	-5.44	1.41	1.52
1	N	312	TRP	CZ3-CH2	5.44	1.48	1.40
1	M	70	TYR	CG-CD1	-5.44	1.32	1.39
1	N	472	LEU	CA-CB	5.44	1.66	1.53
1	N	335	ASP	CG-OD2	5.44	1.37	1.25
1	F	241	PRO	N-CA	5.44	1.56	1.47
1	G	291	TYR	CD1-CE1	-5.44	1.31	1.39
1	E	192	ASN	CB-CG	5.44	1.63	1.51
1	H	350	THR	CB-CG2	5.44	1.70	1.52
1	L	69	GLN	C-O	-5.44	1.13	1.23
1	O	375	ILE	CB-CG2	-5.43	1.36	1.52
1	G	400	GLU	CB-CG	5.43	1.62	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	H	326	GLY	C-O	-5.43	1.15	1.23
1	N	347	ALA	C-O	5.43	1.33	1.23
1	C	146	CYS	CB-SG	5.43	1.91	1.82
1	E	257	VAL	CA-CB	-5.43	1.43	1.54
1	F	91	TYR	CE1-CZ	-5.43	1.31	1.38
1	F	311	TYR	CD1-CE1	5.43	1.47	1.39
1	A	45	VAL	C-O	5.43	1.33	1.23
1	E	270	ASN	N-CA	-5.43	1.35	1.46
1	F	82	LYS	CD-CE	5.43	1.64	1.51
1	H	145	GLU	CD-OE2	5.43	1.31	1.25
1	I	144	ARG	CG-CD	-5.43	1.38	1.51
1	C	38	GLY	N-CA	5.42	1.54	1.46
1	N	155	GLN	CA-CB	-5.42	1.42	1.53
1	N	469	LEU	CG-CD2	5.42	1.72	1.51
1	I	346	ALA	C-O	5.42	1.33	1.23
1	A	363	TYR	CD1-CE1	5.42	1.47	1.39
1	E	69	GLN	CA-C	5.42	1.67	1.52
1	G	54	LYS	CE-NZ	5.42	1.62	1.49
1	E	128	ASP	CB-CG	5.42	1.63	1.51
1	G	347	ALA	CA-CB	5.42	1.63	1.52
1	I	155	GLN	CB-CG	-5.42	1.38	1.52
1	M	346	ALA	CA-CB	5.42	1.63	1.52
1	A	390	TYR	CZ-OH	5.42	1.47	1.37
1	D	64	LYS	CE-NZ	-5.42	1.35	1.49
1	I	242	TYR	N-CA	-5.42	1.35	1.46
1	L	21	VAL	CB-CG2	5.42	1.64	1.52
1	O	22	VAL	CB-CG2	5.42	1.64	1.52
1	O	70	TYR	CD1-CE1	5.42	1.47	1.39
1	O	460	ASP	CG-OD1	5.42	1.37	1.25
1	B	271	VAL	N-CA	-5.42	1.35	1.46
1	E	324	CYS	CB-SG	5.42	1.91	1.82
1	F	454	LYS	C-O	5.42	1.33	1.23
1	G	355	TYR	CG-CD1	-5.42	1.32	1.39
1	K	365	ARG	CA-CB	5.42	1.65	1.53
1	A	348	ILE	CA-CB	-5.41	1.42	1.54
1	E	40	SER	CA-CB	5.41	1.61	1.52
1	I	41	ARG	CD-NE	5.41	1.55	1.46
1	J	370	TYR	CE2-CZ	-5.41	1.31	1.38
1	I	155	GLN	CG-CD	5.41	1.63	1.51
1	K	226	THR	C-O	5.41	1.33	1.23
1	B	375	ILE	CB-CG2	-5.41	1.36	1.52
1	F	267	VAL	N-CA	5.41	1.57	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	270	ASN	CG-ND2	5.41	1.46	1.32
1	O	365	ARG	CA-CB	-5.41	1.42	1.53
1	B	106	GLU	CG-CD	5.41	1.60	1.51
1	G	250	LEU	C-O	5.41	1.33	1.23
1	D	267	VAL	CB-CG1	5.41	1.64	1.52
1	K	151	TYR	CE1-CZ	-5.41	1.31	1.38
1	G	336	THR	CB-CG2	-5.40	1.34	1.52
1	A	210	PHE	CG-CD1	-5.40	1.30	1.38
1	B	361	LYS	C-O	5.40	1.33	1.23
1	C	472	LEU	N-CA	5.40	1.57	1.46
1	E	139	ALA	CA-CB	5.40	1.63	1.52
1	E	331	VAL	CB-CG2	5.40	1.64	1.52
1	M	64	LYS	N-CA	-5.40	1.35	1.46
1	N	236	LYS	CG-CD	5.40	1.70	1.52
1	O	390	TYR	CG-CD2	5.40	1.46	1.39
1	G	316	ALA	N-CA	5.40	1.57	1.46
1	L	178	VAL	CB-CG1	5.40	1.64	1.52
1	C	63	PRO	C-O	5.40	1.34	1.23
1	I	150	ASP	C-O	5.40	1.33	1.23
1	C	167	GLU	CD-OE2	5.40	1.31	1.25
1	I	90	PHE	C-O	5.40	1.33	1.23
1	J	298	SER	N-CA	-5.40	1.35	1.46
1	O	447	TRP	CG-CD1	5.40	1.44	1.36
1	A	244	ASP	C-O	5.40	1.33	1.23
1	A	447	TRP	CG-CD1	-5.39	1.29	1.36
1	D	444	TYR	C-O	5.39	1.33	1.23
1	J	360	PHE	CD2-CE2	5.39	1.50	1.39
1	K	50	PHE	CE1-CZ	-5.39	1.27	1.37
1	K	204	GLY	N-CA	-5.39	1.38	1.46
1	O	112	PRO	CA-C	5.39	1.63	1.52
1	F	453	GLU	CG-CD	5.39	1.60	1.51
1	H	256	PHE	CG-CD2	-5.39	1.30	1.38
1	M	291	TYR	CD2-CE2	-5.39	1.31	1.39
1	F	293	PRO	CA-CB	-5.39	1.42	1.53
1	G	330	PHE	CE1-CZ	5.39	1.47	1.37
1	O	356	LYS	CB-CG	5.39	1.67	1.52
1	D	135	TYR	CG-CD1	-5.39	1.32	1.39
1	D	158	LEU	C-O	5.39	1.33	1.23
1	G	214	GLN	CD-OE1	5.39	1.35	1.24
1	M	216	ASN	C-O	-5.39	1.13	1.23
1	O	290	ASN	CG-ND2	5.39	1.46	1.32
1	E	448	GLU	CD-OE2	5.38	1.31	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	108	GLY	CA-C	5.38	1.60	1.51
1	N	140	GLY	N-CA	5.38	1.54	1.46
1	N	276	TYR	C-O	5.38	1.33	1.23
1	B	55	PRO	C-O	5.38	1.34	1.23
1	B	380	LYS	CB-CG	-5.38	1.38	1.52
1	F	307	PHE	CD1-CE1	5.38	1.50	1.39
1	L	460	ASP	CA-CB	5.38	1.65	1.53
1	M	205	PHE	CG-CD1	5.38	1.46	1.38
1	N	106	GLU	CD-OE1	5.38	1.31	1.25
1	A	118	SER	CB-OG	-5.38	1.35	1.42
1	B	248	PHE	CE2-CZ	5.38	1.47	1.37
1	F	161	CYS	CB-SG	5.38	1.91	1.82
1	G	472	LEU	N-CA	5.38	1.57	1.46
1	K	181	GLN	CG-CD	5.38	1.63	1.51
1	D	68	LEU	C-O	-5.38	1.13	1.23
1	F	294	THR	C-N	-5.38	1.24	1.34
1	K	272	PRO	CB-CG	5.38	1.76	1.50
1	N	89	SER	CA-C	5.38	1.67	1.52
1	D	240	GLU	CD-OE2	5.38	1.31	1.25
1	E	39	THR	N-CA	5.38	1.57	1.46
1	J	85	PHE	CD2-CE2	5.38	1.50	1.39
1	B	276	TYR	CD1-CE1	-5.37	1.31	1.39
1	I	256	PHE	CG-CD2	5.37	1.46	1.38
1	J	159	ILE	CA-CB	-5.37	1.42	1.54
1	L	248	PHE	CE1-CZ	-5.37	1.27	1.37
1	M	201	VAL	CA-CB	-5.37	1.43	1.54
1	L	376	PHE	CD1-CE1	-5.37	1.28	1.39
1	O	53	LYS	CD-CE	5.37	1.64	1.51
1	B	368	GLU	CB-CG	-5.37	1.42	1.52
1	D	210	PHE	CG-CD1	5.37	1.46	1.38
1	B	105	VAL	CB-CG1	-5.37	1.41	1.52
1	G	96	GLN	C-O	5.37	1.33	1.23
1	A	166	GLY	N-CA	5.37	1.54	1.46
1	F	147	ILE	CA-CB	5.37	1.67	1.54
1	F	169	TRP	CZ3-CH2	-5.37	1.31	1.40
1	K	467	LYS	CG-CD	5.37	1.70	1.52
1	L	230	LYS	CG-CD	-5.37	1.34	1.52
1	O	161	CYS	C-O	5.37	1.33	1.23
1	L	26	GLU	C-O	-5.36	1.13	1.23
1	M	457	ALA	C-O	-5.36	1.13	1.23
1	O	177	GLN	C-O	5.36	1.33	1.23
1	J	55	PRO	N-CA	5.36	1.56	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	M	22	VAL	CB-CG2	-5.36	1.41	1.52
1	H	283	THR	CB-CG2	5.36	1.70	1.52
1	I	231	TYR	CB-CG	-5.36	1.43	1.51
1	K	278	LYS	CD-CE	5.36	1.64	1.51
1	B	169	TRP	CB-CG	-5.36	1.40	1.50
1	O	95	THR	CB-CG2	5.36	1.70	1.52
1	J	56	ASN	CB-CG	5.36	1.63	1.51
1	J	446	PHE	CD1-CE1	5.36	1.50	1.39
1	L	135	TYR	CG-CD2	5.36	1.46	1.39
1	A	284	ALA	CA-CB	5.36	1.63	1.52
1	A	390	TYR	CE1-CZ	5.36	1.45	1.38
1	D	312	TRP	NE1-CE2	-5.36	1.30	1.37
1	H	267	VAL	CB-CG2	5.35	1.64	1.52
1	E	282	SER	CA-CB	5.35	1.60	1.52
1	F	207	ALA	N-CA	-5.35	1.35	1.46
1	F	374	PHE	CE2-CZ	5.35	1.47	1.37
1	F	376	PHE	CE1-CZ	5.35	1.47	1.37
1	H	455	PHE	CB-CG	-5.35	1.42	1.51
1	O	96	GLN	CD-OE1	5.35	1.35	1.24
1	L	199	ASP	CG-OD2	5.35	1.37	1.25
1	D	109	ARG	NE-CZ	5.35	1.40	1.33
1	E	112	PRO	N-CD	-5.35	1.40	1.47
1	J	387	VAL	CB-CG2	-5.35	1.41	1.52
1	I	187	PRO	N-CA	5.35	1.56	1.47
1	M	49	TYR	CE2-CZ	-5.35	1.31	1.38
1	N	72	VAL	CB-CG1	5.35	1.64	1.52
1	D	179	ALA	CA-CB	5.34	1.63	1.52
1	G	159	ILE	CB-CG2	-5.34	1.36	1.52
1	H	442	LYS	CE-NZ	5.34	1.62	1.49
1	O	21	VAL	CB-CG2	5.34	1.64	1.52
1	D	300	VAL	CA-CB	-5.34	1.43	1.54
1	H	90	PHE	CB-CG	5.34	1.60	1.51
1	H	90	PHE	CE1-CZ	5.34	1.47	1.37
1	K	178	VAL	C-O	5.34	1.33	1.23
1	L	317	GLN	CB-CG	5.34	1.67	1.52
1	N	132	ALA	CA-CB	5.34	1.63	1.52
1	A	20	ALA	N-CA	5.34	1.57	1.46
1	C	77	LEU	CG-CD1	5.34	1.71	1.51
1	K	163	PRO	CG-CD	-5.34	1.33	1.50
1	O	317	GLN	CD-OE1	5.34	1.35	1.24
1	B	383	LEU	CG-CD1	5.34	1.71	1.51
1	D	135	TYR	CD2-CE2	5.34	1.47	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	K	393	SER	C-O	5.34	1.33	1.23
1	B	123	LEU	C-O	-5.34	1.13	1.23
1	D	287	ALA	CA-CB	5.34	1.63	1.52
1	F	50	PHE	CA-CB	-5.34	1.42	1.53
1	J	181	GLN	C-O	5.34	1.33	1.23
1	J	330	PHE	CG-CD2	5.34	1.46	1.38
1	L	302	SER	N-CA	-5.34	1.35	1.46
1	N	49	TYR	CD2-CE2	5.34	1.47	1.39
1	D	144	ARG	CZ-NH1	-5.34	1.26	1.33
1	D	293	PRO	CA-CB	-5.34	1.42	1.53
1	G	231	TYR	CE1-CZ	-5.34	1.31	1.38
1	B	24	THR	C-O	5.33	1.33	1.23
1	C	60	ILE	CG1-CD1	5.33	1.87	1.50
1	E	145	GLU	CD-OE2	5.33	1.31	1.25
1	H	341	ASN	N-CA	5.33	1.57	1.46
1	K	368	GLU	CD-OE2	5.33	1.31	1.25
1	O	85	PHE	CG-CD2	5.33	1.46	1.38
1	B	171	LYS	CD-CE	5.33	1.64	1.51
1	C	369	GLU	CD-OE1	5.33	1.31	1.25
1	I	100	TRP	CB-CG	-5.33	1.40	1.50
1	F	66	SER	C-O	5.33	1.33	1.23
1	J	147	ILE	CA-CB	-5.33	1.42	1.54
1	C	152	LYS	CE-NZ	5.33	1.62	1.49
1	C	215	ALA	C-O	5.33	1.33	1.23
1	C	469	LEU	CG-CD2	5.33	1.71	1.51
1	D	263	ARG	CZ-NH1	5.33	1.40	1.33
1	B	278	LYS	CE-NZ	5.33	1.62	1.49
1	D	60	ILE	CA-CB	-5.33	1.42	1.54
1	M	91	TYR	CG-CD2	5.33	1.46	1.39
1	A	387	VAL	C-O	5.32	1.33	1.23
1	D	108	GLY	C-O	5.32	1.32	1.23
1	E	252	ARG	CZ-NH2	-5.32	1.26	1.33
1	G	127	ASP	C-O	5.32	1.33	1.23
1	G	162	LYS	CD-CE	5.32	1.64	1.51
1	I	374	PHE	CG-CD2	5.32	1.46	1.38
1	K	276	TYR	CE2-CZ	5.32	1.45	1.38
1	N	55	PRO	CA-C	5.32	1.63	1.52
1	K	205	PHE	CE2-CZ	5.32	1.47	1.37
1	F	230	LYS	CB-CG	5.32	1.67	1.52
1	G	22	VAL	C-O	5.32	1.33	1.23
1	J	215	ALA	N-CA	5.32	1.56	1.46
1	J	468	PHE	CD1-CE1	-5.32	1.28	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	N	360	PHE	CB-CG	-5.32	1.42	1.51
1	O	270	ASN	CB-CG	5.32	1.63	1.51
1	C	248	PHE	CD1-CE1	5.32	1.49	1.39
1	F	199	ASP	CB-CG	-5.32	1.40	1.51
1	I	469	LEU	CG-CD2	5.32	1.71	1.51
1	L	251	ARG	C-O	5.32	1.33	1.23
1	H	27	TYR	CG-CD2	5.32	1.46	1.39
1	J	338	ARG	CZ-NH2	5.32	1.40	1.33
1	B	348	ILE	CA-CB	-5.31	1.42	1.54
1	C	361	LYS	CE-NZ	5.31	1.62	1.49
1	E	144	ARG	CZ-NH1	5.31	1.40	1.33
1	N	83	PHE	C-O	5.31	1.33	1.23
1	B	159	ILE	CB-CG2	-5.31	1.36	1.52
1	E	86	PRO	N-CA	5.31	1.56	1.47
1	F	206	GLY	N-CA	5.31	1.54	1.46
1	H	312	TRP	CE3-CZ3	-5.31	1.29	1.38
1	I	261	PHE	CG-CD2	-5.31	1.30	1.38
1	J	241	PRO	C-O	5.31	1.33	1.23
1	O	112	PRO	N-CD	-5.31	1.40	1.47
1	K	76	HIS	C-O	-5.31	1.13	1.23
1	A	70	TYR	CD1-CE1	5.31	1.47	1.39
1	F	355	TYR	CD1-CE1	-5.31	1.31	1.39
1	H	468	PHE	CG-CD2	-5.31	1.30	1.38
1	K	455	PHE	CA-CB	-5.31	1.42	1.53
1	L	311	TYR	CG-CD1	5.31	1.46	1.39
1	E	398	ILE	C-O	5.30	1.33	1.23
1	E	452	LYS	CD-CE	5.30	1.64	1.51
1	F	46	GLY	C-O	5.30	1.32	1.23
1	K	173	SER	C-O	5.30	1.33	1.23
1	B	155	GLN	CB-CG	-5.30	1.38	1.52
1	D	187	PRO	N-CA	5.30	1.56	1.47
1	E	201	VAL	CB-CG2	-5.30	1.41	1.52
1	G	376	PHE	CG-CD1	5.30	1.46	1.38
1	K	221	PRO	CG-CD	-5.30	1.33	1.50
1	C	177	GLN	CB-CG	5.30	1.66	1.52
1	D	390	TYR	CE1-CZ	5.30	1.45	1.38
1	C	309	LYS	CD-CE	5.30	1.64	1.51
1	H	148	SER	C-O	5.30	1.33	1.23
1	N	465	GLY	N-CA	5.30	1.53	1.46
1	C	466	ARG	CZ-NH1	-5.29	1.26	1.33
1	L	271	VAL	C-O	-5.29	1.13	1.23
1	M	442	LYS	CE-NZ	5.29	1.62	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	F	363	TYR	CE2-CZ	5.29	1.45	1.38
1	H	365	ARG	C-O	5.29	1.33	1.23
1	L	45	VAL	C-O	5.29	1.33	1.23
1	O	60	ILE	CB-CG2	-5.29	1.36	1.52
1	H	214	GLN	CD-OE1	5.29	1.35	1.24
1	N	99	VAL	CB-CG2	-5.29	1.41	1.52
1	A	138	ASN	CB-CG	5.29	1.63	1.51
1	H	313	LEU	C-O	5.29	1.33	1.23
1	M	462	PHE	CD1-CE1	-5.29	1.28	1.39
1	J	181	GLN	CD-OE1	5.29	1.35	1.24
1	B	181	GLN	CD-NE2	5.29	1.46	1.32
1	E	298	SER	N-CA	-5.29	1.35	1.46
1	G	374	PHE	CD2-CE2	-5.29	1.28	1.39
1	I	23	SER	CB-OG	-5.29	1.35	1.42
1	L	174	PRO	CG-CD	5.29	1.68	1.50
1	C	261	PHE	CG-CD2	-5.29	1.30	1.38
1	D	469	LEU	CA-C	5.29	1.66	1.52
1	E	150	ASP	CG-OD2	5.29	1.37	1.25
1	H	224	ILE	C-O	5.29	1.33	1.23
1	I	247	PHE	CE2-CZ	-5.29	1.27	1.37
1	I	329	LEU	CG-CD2	5.29	1.71	1.51
1	I	359	ASN	CG-OD1	5.29	1.35	1.24
1	D	249	TYR	CZ-OH	5.28	1.46	1.37
1	E	243	GLY	CA-C	5.28	1.60	1.51
1	H	23	SER	CB-OG	5.28	1.49	1.42
1	L	455	PHE	CD2-CE2	5.28	1.49	1.39
1	M	147	ILE	CG1-CD1	5.28	1.86	1.50
1	N	261	PHE	N-CA	-5.28	1.35	1.46
1	I	153	GLN	N-CA	5.28	1.56	1.46
1	B	28	VAL	CB-CG2	-5.28	1.41	1.52
1	B	125	LYS	CB-CG	-5.28	1.38	1.52
1	C	309	LYS	CB-CG	5.28	1.66	1.52
1	G	49	TYR	CE2-CZ	5.28	1.45	1.38
1	O	181	GLN	CG-CD	5.28	1.63	1.51
1	B	253	GLU	CB-CG	-5.28	1.42	1.52
1	C	455	PHE	CB-CG	-5.28	1.42	1.51
1	E	43	LEU	C-O	-5.28	1.13	1.23
1	K	328	GLN	C-O	5.28	1.33	1.23
1	N	464	LEU	CG-CD1	5.28	1.71	1.51
1	O	123	LEU	CG-CD1	5.28	1.71	1.51
1	I	260	LEU	CG-CD2	-5.28	1.32	1.51
1	H	248	PHE	CG-CD2	-5.28	1.30	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	N	308	ASN	CB-CG	5.28	1.63	1.51
1	F	171	LYS	CB-CG	5.27	1.66	1.52
1	H	157	CYS	C-O	5.27	1.33	1.23
1	O	225	CYS	CB-SG	5.27	1.91	1.82
1	A	374	PHE	CE2-CZ	5.27	1.47	1.37
1	B	197	ASP	CB-CG	5.27	1.62	1.51
1	C	370	TYR	CB-CG	-5.27	1.43	1.51
1	D	292	PHE	C-O	-5.27	1.13	1.23
1	G	355	TYR	CE1-CZ	-5.27	1.31	1.38
1	L	50	PHE	CD1-CE1	-5.27	1.28	1.39
1	G	34	TYR	CG-CD1	5.27	1.46	1.39
1	L	135	TYR	CZ-OH	5.27	1.46	1.37
1	M	205	PHE	CE2-CZ	5.27	1.47	1.37
1	D	70	TYR	CE2-CZ	-5.27	1.31	1.38
1	L	130	GLU	CG-CD	5.27	1.59	1.51
1	I	358	THR	CB-OG1	5.27	1.53	1.43
1	M	253	GLU	C-O	-5.27	1.13	1.23
1	C	343	SER	CB-OG	5.27	1.49	1.42
1	L	269	GLU	CB-CG	5.27	1.62	1.52
1	E	270	ASN	CA-C	-5.26	1.39	1.52
1	G	470	LEU	C-O	5.26	1.33	1.23
1	H	208	MET	N-CA	-5.26	1.35	1.46
1	N	256	PHE	CD2-CE2	-5.26	1.28	1.39
1	G	182	PRO	N-CA	5.26	1.56	1.47
1	K	255	MET	N-CA	5.26	1.56	1.46
1	M	333	VAL	C-O	5.26	1.33	1.23
1	B	370	TYR	CZ-OH	5.26	1.46	1.37
1	F	20	ALA	CA-CB	5.26	1.63	1.52
1	L	50	PHE	CD2-CE2	-5.26	1.28	1.39
1	L	330	PHE	CG-CD2	5.26	1.46	1.38
1	N	139	ALA	C-N	5.26	1.42	1.33
1	N	338	ARG	CZ-NH1	5.26	1.39	1.33
1	N	439	ASP	CB-CG	5.26	1.62	1.51
1	N	470	LEU	C-O	-5.26	1.13	1.23
1	C	298	SER	CA-CB	-5.26	1.45	1.52
1	H	227	SER	CA-CB	5.26	1.60	1.52
1	J	307	PHE	CG-CD1	-5.26	1.30	1.38
1	J	380	LYS	CG-CD	5.26	1.70	1.52
1	K	361	LYS	CG-CD	5.26	1.70	1.52
1	M	344	LEU	C-O	5.26	1.33	1.23
1	N	128	ASP	CG-OD2	5.26	1.37	1.25
1	F	346	ALA	CA-CB	5.26	1.63	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	393	SER	C-O	5.26	1.33	1.23
1	K	463	PRO	CA-CB	-5.26	1.43	1.53
1	G	135	TYR	C-O	-5.26	1.13	1.23
1	H	144	ARG	NE-CZ	-5.26	1.26	1.33
1	L	439	ASP	C-O	5.26	1.33	1.23
1	K	222	LEU	CG-CD1	-5.25	1.32	1.51
1	A	91	TYR	C-O	5.25	1.33	1.23
1	B	27	TYR	CZ-OH	5.25	1.46	1.37
1	G	178	VAL	CA-C	5.25	1.66	1.52
1	J	362	GLU	C-O	5.25	1.33	1.23
1	K	263	ARG	CZ-NH2	5.25	1.39	1.33
1	D	80	PRO	N-CD	5.25	1.55	1.47
1	E	368	GLU	CA-CB	-5.25	1.42	1.53
1	H	140	GLY	CA-C	5.25	1.60	1.51
1	J	343	SER	CB-OG	5.25	1.49	1.42
1	K	217	LYS	N-CA	-5.25	1.35	1.46
1	A	65	VAL	CB-CG1	5.25	1.63	1.52
1	C	82	LYS	CD-CE	5.25	1.64	1.51
1	E	470	LEU	CG-CD1	5.25	1.71	1.51
1	F	455	PHE	CE1-CZ	5.25	1.47	1.37
1	H	385	ALA	CA-CB	5.25	1.63	1.52
1	I	64	LYS	C-O	5.25	1.33	1.23
1	L	138	ASN	CB-CG	5.25	1.63	1.51
1	A	298	SER	CA-CB	-5.25	1.45	1.52
1	D	464	LEU	CG-CD2	-5.25	1.32	1.51
1	G	110	GLY	C-O	-5.25	1.15	1.23
1	J	102	CYS	CB-SG	5.25	1.91	1.82
1	J	169	TRP	CD2-CE2	5.25	1.47	1.41
1	N	356	LYS	C-O	-5.25	1.13	1.23
1	B	219	GLU	CB-CG	-5.25	1.42	1.52
1	B	230	LYS	CB-CG	5.25	1.66	1.52
1	G	22	VAL	CB-CG2	5.24	1.63	1.52
1	I	289	SER	CB-OG	5.24	1.49	1.42
1	K	217	LYS	CD-CE	5.24	1.64	1.51
1	L	298	SER	CA-CB	-5.24	1.45	1.52
1	O	453	GLU	CD-OE2	5.24	1.31	1.25
1	F	265	GLY	C-O	5.24	1.32	1.23
1	G	34	TYR	CB-CG	5.24	1.59	1.51
1	O	462	PHE	CB-CG	-5.24	1.42	1.51
1	A	127	ASP	CG-OD2	5.24	1.37	1.25
1	G	381	ILE	C-O	5.24	1.33	1.23
1	M	73	PHE	CD1-CE1	-5.24	1.28	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	M	362	GLU	C-O	5.24	1.33	1.23
1	H	99	VAL	CB-CG1	-5.24	1.41	1.52
1	B	443	LYS	CD-CE	5.24	1.64	1.51
1	C	97	ARG	CZ-NH1	5.24	1.39	1.33
1	F	177	GLN	C-O	5.24	1.33	1.23
1	H	35	TYR	CE1-CZ	-5.24	1.31	1.38
1	M	376	PHE	CG-CD1	5.24	1.46	1.38
1	N	181	GLN	N-CA	-5.24	1.35	1.46
1	N	471	GLN	CD-OE1	5.24	1.35	1.24
1	B	144	ARG	CD-NE	-5.23	1.37	1.46
1	F	22	VAL	CB-CG2	-5.23	1.41	1.52
1	F	73	PHE	CD1-CE1	5.23	1.49	1.39
1	G	345	CYS	C-O	-5.23	1.13	1.23
1	I	53	LYS	C-O	5.23	1.33	1.23
1	I	448	GLU	CD-OE1	5.23	1.31	1.25
1	M	75	ILE	C-O	5.23	1.33	1.23
1	N	27	TYR	CB-CG	-5.23	1.43	1.51
1	A	282	SER	CB-OG	5.23	1.49	1.42
1	D	367	GLY	CA-C	5.23	1.60	1.51
1	G	190	LEU	CG-CD1	5.23	1.71	1.51
1	K	75	ILE	CB-CG2	-5.23	1.36	1.52
1	L	322	GLY	N-CA	-5.23	1.38	1.46
1	D	30	ARG	N-CA	-5.23	1.35	1.46
1	F	188	LEU	C-O	-5.23	1.13	1.23
1	G	245	SER	CB-OG	5.23	1.49	1.42
1	K	459	LEU	CG-CD2	-5.23	1.32	1.51
1	A	356	LYS	CA-C	-5.23	1.39	1.52
1	H	396	SER	CB-OG	5.23	1.49	1.42
1	D	35	TYR	CG-CD1	-5.22	1.32	1.39
1	G	336	THR	CB-OG1	5.22	1.53	1.43
1	K	249	TYR	CE2-CZ	-5.22	1.31	1.38
1	K	255	MET	CG-SD	-5.22	1.67	1.81
1	M	271	VAL	CB-CG1	5.22	1.63	1.52
1	F	291	TYR	CZ-OH	5.22	1.46	1.37
1	K	444	TYR	CG-CD1	-5.22	1.32	1.39
1	N	278	LYS	CB-CG	5.22	1.66	1.52
1	B	140	GLY	N-CA	5.22	1.53	1.46
1	F	281	GLY	N-CA	5.22	1.53	1.46
1	M	312	TRP	NE1-CE2	-5.22	1.30	1.37
1	N	264	ALA	CA-CB	-5.22	1.41	1.52
1	D	203	THR	CA-CB	-5.22	1.39	1.53
1	K	21	VAL	N-CA	-5.22	1.35	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	22	VAL	CB-CG2	5.21	1.63	1.52
1	C	234	TYR	CE2-CZ	5.21	1.45	1.38
1	I	73	PHE	CG-CD1	5.21	1.46	1.38
1	O	258	ARG	CG-CD	5.21	1.65	1.51
1	E	103	VAL	C-O	5.21	1.33	1.23
1	F	376	PHE	CG-CD2	5.21	1.46	1.38
1	H	312	TRP	CA-CB	-5.21	1.42	1.53
1	L	460	ASP	CB-CG	5.21	1.62	1.51
1	C	124	ASN	C-O	-5.21	1.13	1.23
1	N	335	ASP	CB-CG	5.21	1.62	1.51
1	A	377	GLN	CB-CG	5.21	1.66	1.52
1	F	148	SER	C-O	5.21	1.33	1.23
1	G	394	MET	CG-SD	5.21	1.94	1.81
1	J	234	TYR	CG-CD1	-5.21	1.32	1.39
1	J	360	PHE	CG-CD2	-5.21	1.30	1.38
1	L	201	VAL	CA-CB	-5.21	1.43	1.54
1	F	85	PHE	CE2-CZ	5.21	1.47	1.37
1	F	272	PRO	CA-C	-5.21	1.42	1.52
1	H	247	PHE	CG-CD2	5.21	1.46	1.38
1	J	363	TYR	CG-CD1	5.21	1.46	1.39
1	F	400	GLU	CG-CD	5.21	1.59	1.51
1	F	396	SER	CB-OG	5.20	1.49	1.42
1	G	176	THR	N-CA	5.20	1.56	1.46
1	I	105	VAL	CB-CG2	5.20	1.63	1.52
1	I	351	SER	CB-OG	-5.20	1.35	1.42
1	K	30	ARG	CB-CG	5.20	1.66	1.52
1	K	315	ARG	CG-CD	5.20	1.65	1.51
1	J	141	VAL	CB-CG1	5.20	1.63	1.52
1	F	23	SER	N-CA	5.20	1.56	1.46
1	I	370	TYR	CG-CD1	-5.20	1.32	1.39
1	J	99	VAL	CB-CG1	-5.20	1.42	1.52
1	M	284	ALA	CA-C	-5.20	1.39	1.52
1	D	365	ARG	CA-CB	5.20	1.65	1.53
1	K	262	ASN	CG-OD1	5.20	1.35	1.24
1	A	374	PHE	CD1-CE1	-5.20	1.28	1.39
1	O	29	ALA	C-O	5.20	1.33	1.23
1	B	21	VAL	CB-CG2	5.20	1.63	1.52
1	D	216	ASN	C-O	5.20	1.33	1.23
1	H	459	LEU	CG-CD1	-5.20	1.32	1.51
1	J	27	TYR	CG-CD1	5.20	1.46	1.39
1	O	179	ALA	CA-CB	5.20	1.63	1.52
1	J	387	VAL	CB-CG1	5.19	1.63	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	F	249	TYR	CE1-CZ	-5.19	1.31	1.38
1	J	83	PHE	CB-CG	5.19	1.60	1.51
1	N	467	LYS	CB-CG	5.19	1.66	1.52
1	O	299	MET	C-O	-5.19	1.13	1.23
1	O	462	PHE	CG-CD2	5.19	1.46	1.38
1	F	291	TYR	CG-CD1	-5.19	1.32	1.39
1	G	314	GLN	CB-CG	5.19	1.66	1.52
1	H	292	PHE	CG-CD1	5.19	1.46	1.38
1	J	49	TYR	CD2-CE2	5.19	1.47	1.39
1	O	195	ILE	CA-CB	-5.19	1.43	1.54
1	O	231	TYR	CG-CD1	5.19	1.45	1.39
1	B	73	PHE	CB-CG	-5.19	1.42	1.51
1	D	292	PHE	CD2-CE2	5.19	1.49	1.39
1	I	85	PHE	CE1-CZ	5.19	1.47	1.37
1	N	376	PHE	C-O	5.19	1.33	1.23
1	C	234	TYR	CG-CD1	-5.19	1.32	1.39
1	E	365	ARG	CZ-NH1	5.19	1.39	1.33
1	A	242	TYR	CD1-CE1	5.19	1.47	1.39
1	H	205	PHE	CD2-CE2	5.19	1.49	1.39
1	I	359	ASN	CB-CG	5.19	1.62	1.51
1	J	200	MET	C-O	5.19	1.33	1.23
1	H	258	ARG	CZ-NH1	-5.18	1.26	1.33
1	K	447	TRP	CB-CG	-5.18	1.41	1.50
1	L	162	LYS	CE-NZ	5.18	1.62	1.49
1	H	56	ASN	CG-OD1	5.18	1.35	1.24
1	I	376	PHE	CE2-CZ	5.18	1.47	1.37
1	J	261	PHE	CD2-CE2	-5.18	1.28	1.39
1	K	281	GLY	CA-C	5.18	1.60	1.51
1	O	73	PHE	CD1-CE1	5.18	1.49	1.39
1	O	189	GLU	CD-OE1	5.18	1.31	1.25
1	F	164	PRO	N-CA	-5.18	1.38	1.47
1	F	99	VAL	CA-CB	5.18	1.65	1.54
1	G	353	THR	CB-CG2	5.18	1.69	1.52
1	I	41	ARG	NE-CZ	5.18	1.39	1.33
1	O	259	HIS	C-O	5.18	1.33	1.23
1	H	100	TRP	CB-CG	-5.18	1.41	1.50
1	H	311	TYR	CZ-OH	-5.18	1.29	1.37
1	L	389	THR	CB-CG2	5.18	1.69	1.52
1	O	49	TYR	CE2-CZ	5.18	1.45	1.38
1	E	210	PHE	CD1-CE1	-5.18	1.28	1.39
1	G	70	TYR	CB-CG	-5.18	1.43	1.51
1	J	394	MET	CG-SD	5.18	1.94	1.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	K	27	TYR	CG-CD1	5.18	1.45	1.39
1	M	282	SER	C-O	5.18	1.33	1.23
1	G	358	THR	C-O	5.17	1.33	1.23
1	H	151	TYR	N-CA	-5.17	1.35	1.46
1	I	310	PRO	CG-CD	-5.17	1.33	1.50
1	J	86	PRO	N-CA	5.17	1.56	1.47
1	K	50	PHE	CD1-CE1	-5.17	1.28	1.39
1	O	449	VAL	CA-CB	5.17	1.65	1.54
1	D	295	PRO	N-CD	-5.17	1.40	1.47
1	G	78	PRO	C-O	5.17	1.33	1.23
1	G	205	PHE	C-O	5.17	1.33	1.23
1	F	261	PHE	CG-CD2	-5.17	1.30	1.38
1	H	111	GLN	N-CA	-5.17	1.36	1.46
1	E	364	LEU	C-O	5.17	1.33	1.23
1	F	54	LYS	CD-CE	5.17	1.64	1.51
1	I	95	THR	CB-CG2	5.17	1.69	1.52
1	M	180	VAL	C-O	5.17	1.33	1.23
1	B	93	PRO	N-CD	5.17	1.55	1.47
1	N	365	ARG	CG-CD	5.17	1.64	1.51
1	O	85	PHE	CE2-CZ	5.17	1.47	1.37
1	D	214	GLN	CD-NE2	-5.17	1.20	1.32
1	C	58	ASN	CB-CG	5.16	1.62	1.51
1	C	121	PRO	C-O	-5.16	1.12	1.23
1	C	239	SER	CA-CB	5.16	1.60	1.52
1	F	278	LYS	CB-CG	5.16	1.66	1.52
1	H	358	THR	CB-CG2	5.16	1.69	1.52
1	J	231	TYR	CZ-OH	5.16	1.46	1.37
1	O	100	TRP	CD2-CE2	5.16	1.47	1.41
1	F	205	PHE	CG-CD2	-5.16	1.31	1.38
1	G	328	GLN	C-O	5.16	1.33	1.23
1	O	368	GLU	CB-CG	-5.16	1.42	1.52
1	A	468	PHE	CB-CG	-5.16	1.42	1.51
1	D	355	TYR	CG-CD2	5.16	1.45	1.39
1	G	463	PRO	CA-CB	-5.16	1.43	1.53
1	H	467	LYS	C-O	-5.16	1.13	1.23
1	A	176	THR	CA-CB	5.16	1.66	1.53
1	L	61	LEU	CG-CD2	5.16	1.71	1.51
1	E	45	VAL	CB-CG1	-5.16	1.42	1.52
1	G	89	SER	CB-OG	5.16	1.49	1.42
1	G	137	ALA	CA-CB	5.16	1.63	1.52
1	J	313	LEU	C-O	5.16	1.33	1.23
1	C	22	VAL	CA-CB	-5.15	1.44	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	173	SER	C-N	5.15	1.44	1.34
1	A	58	ASN	C-O	5.15	1.33	1.23
1	A	216	ASN	N-CA	-5.15	1.36	1.46
1	B	91	TYR	CD1-CE1	5.15	1.47	1.39
1	G	269	GLU	CG-CD	5.15	1.59	1.51
1	K	61	LEU	CG-CD1	5.15	1.71	1.51
1	O	276	TYR	CZ-OH	-5.15	1.29	1.37
1	B	214	GLN	CA-CB	5.15	1.65	1.53
1	A	133	SER	CA-CB	5.15	1.60	1.52
1	D	91	TYR	CD2-CE2	5.15	1.47	1.39
1	G	462	PHE	CD1-CE1	5.15	1.49	1.39
1	J	148	SER	N-CA	5.15	1.56	1.46
1	B	227	SER	C-O	5.15	1.33	1.23
1	B	300	VAL	CA-CB	5.15	1.65	1.54
1	G	442	LYS	CD-CE	5.15	1.64	1.51
1	A	95	THR	CB-OG1	5.14	1.53	1.43
1	A	312	TRP	NE1-CE2	-5.14	1.30	1.37
1	O	108	GLY	CA-C	5.14	1.60	1.51
1	E	176	THR	CA-CB	5.14	1.66	1.53
1	F	259	HIS	C-O	5.14	1.33	1.23
1	J	142	ASP	CG-OD1	5.14	1.37	1.25
1	J	214	GLN	N-CA	-5.14	1.36	1.46
1	C	263	ARG	CD-NE	-5.14	1.37	1.46
1	D	341	ASN	CG-OD1	5.14	1.35	1.24
1	F	115	VAL	CB-CG2	-5.14	1.42	1.52
1	F	230	LYS	CD-CE	5.14	1.64	1.51
1	I	327	ASN	CB-CG	5.14	1.62	1.51
1	K	296	SER	CB-OG	-5.14	1.35	1.42
1	B	472	LEU	CA-C	5.14	1.66	1.52
1	F	115	VAL	CA-C	-5.14	1.39	1.52
1	J	326	GLY	CA-C	5.14	1.60	1.51
1	B	165	ILE	CG1-CD1	5.14	1.85	1.50
1	C	112	PRO	N-CD	-5.14	1.40	1.47
1	I	236	LYS	CE-NZ	5.14	1.61	1.49
1	I	373	GLN	C-O	5.14	1.33	1.23
1	J	242	TYR	CG-CD1	5.14	1.45	1.39
1	B	280	SER	CA-CB	-5.13	1.45	1.52
1	D	389	THR	N-CA	5.13	1.56	1.46
1	E	327	ASN	C-O	5.13	1.33	1.23
1	G	443	LYS	CD-CE	5.13	1.64	1.51
1	E	179	ALA	CA-CB	5.13	1.63	1.52
1	F	216	ASN	CB-CG	-5.13	1.39	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	380	LYS	N-CA	-5.13	1.36	1.46
1	O	240	GLU	CB-CG	5.13	1.61	1.52
1	F	446	PHE	CA-CB	-5.13	1.42	1.53
1	I	177	GLN	CB-CG	5.13	1.66	1.52
1	J	153	GLN	CG-CD	-5.13	1.39	1.51
1	M	56	ASN	CG-OD1	5.13	1.35	1.24
1	M	444	TYR	CE2-CZ	5.13	1.45	1.38
1	A	168	HIS	N-CA	5.13	1.56	1.46
1	H	88	THR	CB-CG2	5.13	1.69	1.52
1	I	152	LYS	CE-NZ	-5.13	1.36	1.49
1	K	82	LYS	CE-NZ	5.13	1.61	1.49
1	G	311	TYR	CE1-CZ	-5.12	1.31	1.38
1	I	400	GLU	CG-CD	5.12	1.59	1.51
1	K	447	TRP	CD2-CE2	-5.12	1.35	1.41
1	E	250	LEU	C-O	5.12	1.33	1.23
1	F	28	VAL	CB-CG2	-5.12	1.42	1.52
1	F	135	TYR	CD1-CE1	-5.12	1.31	1.39
1	I	221	PRO	CG-CD	5.12	1.67	1.50
1	A	471	GLN	CB-CG	-5.12	1.38	1.52
1	F	30	ARG	C-O	-5.12	1.13	1.23
1	J	121	PRO	N-CA	-5.12	1.38	1.47
1	J	288	SER	CA-CB	5.12	1.60	1.52
1	J	368	GLU	CG-CD	5.12	1.59	1.51
1	M	175	CYS	C-O	5.12	1.33	1.23
1	J	237	MET	C-O	5.12	1.33	1.23
1	J	295	PRO	N-CA	-5.12	1.38	1.47
1	B	354	THR	CB-CG2	-5.12	1.35	1.52
1	D	400	GLU	CD-OE1	5.12	1.31	1.25
1	F	135	TYR	CD2-CE2	-5.12	1.31	1.39
1	G	242	TYR	CZ-OH	5.12	1.46	1.37
1	H	240	GLU	CD-OE2	5.12	1.31	1.25
1	N	83	PHE	CD2-CE2	5.12	1.49	1.39
1	B	151	TYR	CD2-CE2	-5.12	1.31	1.39
1	D	106	GLU	CD-OE2	5.12	1.31	1.25
1	E	345	CYS	CB-SG	-5.12	1.73	1.81
1	H	253	GLU	CD-OE2	5.12	1.31	1.25
1	I	235	ILE	C-O	-5.12	1.13	1.23
1	K	162	LYS	C-O	-5.12	1.13	1.23
1	N	151	TYR	CD1-CE1	5.12	1.47	1.39
1	F	352	GLU	CG-CD	5.11	1.59	1.51
1	H	145	GLU	CB-CG	5.11	1.61	1.52
1	H	386	ASP	C-O	5.11	1.33	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	J	176	THR	CB-CG2	5.11	1.69	1.52
1	K	312	TRP	CD2-CE3	-5.11	1.32	1.40
1	A	69	GLN	CD-OE1	5.11	1.35	1.24
1	C	37	ALA	C-O	5.11	1.33	1.23
1	D	394	MET	CG-SD	-5.11	1.67	1.81
1	H	281	GLY	C-O	5.11	1.31	1.23
1	L	248	PHE	CD2-CE2	-5.11	1.29	1.39
1	M	138	ASN	N-CA	5.11	1.56	1.46
1	N	72	VAL	CA-CB	5.11	1.65	1.54
1	M	86	PRO	CB-CG	5.11	1.75	1.50
1	N	379	CYS	CB-SG	5.11	1.91	1.82
1	F	35	TYR	CE2-CZ	5.11	1.45	1.38
1	F	131	ASN	CG-ND2	-5.11	1.20	1.32
1	H	251	ARG	CG-CD	-5.11	1.39	1.51
1	J	356	LYS	CA-C	-5.11	1.39	1.52
1	N	362	GLU	CB-CG	-5.11	1.42	1.52
1	A	235	ILE	CA-C	-5.11	1.39	1.52
1	C	363	TYR	CG-CD1	5.11	1.45	1.39
1	E	20	ALA	C-O	5.11	1.33	1.23
1	F	106	GLU	CD-OE2	5.11	1.31	1.25
1	F	447	TRP	C-O	5.11	1.33	1.23
1	G	264	ALA	C-O	5.11	1.33	1.23
1	E	174	PRO	CG-CD	5.10	1.67	1.50
1	L	206	GLY	N-CA	5.10	1.53	1.46
1	O	112	PRO	C-O	5.10	1.33	1.23
1	C	460	ASP	CA-C	-5.10	1.39	1.52
1	F	360	PHE	CE1-CZ	5.10	1.47	1.37
1	G	104	GLY	CA-C	5.10	1.60	1.51
1	H	356	LYS	CB-CG	5.10	1.66	1.52
1	K	320	ASN	C-O	-5.10	1.13	1.23
1	A	93	PRO	C-O	5.10	1.33	1.23
1	A	455	PHE	CD1-CE1	-5.10	1.29	1.39
1	E	63	PRO	CB-CG	5.10	1.75	1.50
1	H	256	PHE	CD2-CE2	5.10	1.49	1.39
1	H	403	ASN	CG-ND2	5.10	1.45	1.32
1	M	321	ASN	C-O	5.10	1.33	1.23
1	N	111	GLN	CG-CD	5.10	1.62	1.51
1	B	468	PHE	C-O	5.10	1.33	1.23
1	D	325	TRP	CE2-CZ2	5.10	1.48	1.39
1	I	113	LEU	C-N	5.10	1.42	1.33
1	N	39	THR	CB-CG2	-5.10	1.35	1.52
1	B	250	LEU	C-O	5.10	1.33	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	100	TRP	CA-CB	-5.10	1.42	1.53
1	M	20	ALA	CA-CB	5.10	1.63	1.52
1	H	449	VAL	CB-CG2	-5.09	1.42	1.52
1	O	363	TYR	CE1-CZ	5.09	1.45	1.38
1	A	56	ASN	CG-OD1	5.09	1.35	1.24
1	H	250	LEU	C-O	5.09	1.33	1.23
1	B	149	MET	CA-CB	-5.09	1.42	1.53
1	E	325	TRP	C-O	5.09	1.33	1.23
1	J	321	ASN	CG-OD1	5.09	1.35	1.24
1	K	91	TYR	CE2-CZ	5.09	1.45	1.38
1	M	99	VAL	CB-CG1	-5.09	1.42	1.52
1	N	210	PHE	CD1-CE1	-5.09	1.29	1.39
1	G	370	TYR	CE1-CZ	5.09	1.45	1.38
1	A	73	PHE	CE1-CZ	-5.09	1.27	1.37
1	E	362	GLU	C-O	5.09	1.33	1.23
1	M	117	ILE	CB-CG2	-5.09	1.37	1.52
1	D	201	VAL	C-O	5.09	1.33	1.23
1	K	375	ILE	CB-CG2	-5.09	1.37	1.52
1	M	21	VAL	C-O	-5.09	1.13	1.23
1	B	358	THR	CA-C	-5.08	1.39	1.52
1	I	462	PHE	CB-CG	-5.08	1.42	1.51
1	C	249	TYR	CD2-CE2	5.08	1.47	1.39
1	D	208	MET	CB-CG	5.08	1.67	1.51
1	E	162	LYS	CD-CE	5.08	1.64	1.51
1	F	119	GLY	C-O	-5.08	1.15	1.23
1	F	146	CYS	C-O	-5.08	1.13	1.23
1	J	106	GLU	CB-CG	5.08	1.61	1.52
1	K	140	GLY	CA-C	5.08	1.59	1.51
1	K	192	ASN	CG-ND2	5.08	1.45	1.32
1	M	336	THR	CB-OG1	5.08	1.53	1.43
1	A	470	LEU	CG-CD1	5.08	1.70	1.51
1	F	34	TYR	C-O	5.08	1.33	1.23
1	O	361	LYS	CD-CE	5.08	1.64	1.51
1	A	231	TYR	CB-CG	-5.08	1.44	1.51
1	A	357	ASN	CB-CG	5.08	1.62	1.51
1	A	445	THR	C-O	5.08	1.33	1.23
1	D	367	GLY	N-CA	5.08	1.53	1.46
1	H	172	GLY	C-O	5.08	1.31	1.23
1	M	448	GLU	CD-OE1	-5.08	1.20	1.25
1	N	439	ASP	N-CA	5.08	1.56	1.46
1	O	447	TRP	CD1-NE1	5.08	1.46	1.38
1	A	70	TYR	CD2-CE2	-5.08	1.31	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	140	GLY	CA-C	5.08	1.59	1.51
1	E	460	ASP	C-O	-5.08	1.13	1.23
1	F	118	SER	C-O	5.08	1.32	1.23
1	I	86	PRO	C-O	5.08	1.33	1.23
1	K	106	GLU	CB-CG	5.08	1.61	1.52
1	K	307	PHE	CG-CD1	-5.08	1.31	1.38
1	E	472	LEU	C-O	5.08	1.32	1.23
1	I	245	SER	CB-OG	5.08	1.48	1.42
1	N	390	TYR	CG-CD1	5.08	1.45	1.39
1	A	380	LYS	CB-CG	-5.08	1.38	1.52
1	B	289	SER	CB-OG	5.08	1.48	1.42
1	I	328	GLN	CG-CD	5.08	1.62	1.51
1	O	100	TRP	CB-CG	-5.08	1.41	1.50
1	O	127	ASP	CB-CG	5.08	1.62	1.51
1	A	171	LYS	CG-CD	5.07	1.69	1.52
1	G	114	GLY	CA-C	-5.07	1.43	1.51
1	H	390	TYR	CG-CD1	5.07	1.45	1.39
1	J	261	PHE	CE1-CZ	-5.07	1.27	1.37
1	K	65	VAL	CB-CG1	-5.07	1.42	1.52
1	M	173	SER	CA-CB	5.07	1.60	1.52
1	O	247	PHE	CE2-CZ	-5.07	1.27	1.37
1	H	394	MET	CG-SD	-5.07	1.68	1.81
1	N	277	ILE	CA-CB	-5.07	1.43	1.54
1	C	129	THR	C-O	5.07	1.32	1.23
1	C	449	VAL	CB-CG1	5.07	1.63	1.52
1	K	181	GLN	CD-OE1	5.07	1.35	1.24
1	L	370	TYR	CD1-CE1	-5.07	1.31	1.39
1	B	454	LYS	CE-NZ	5.07	1.61	1.49
1	F	45	VAL	N-CA	5.07	1.56	1.46
1	G	27	TYR	CG-CD1	5.07	1.45	1.39
1	N	171	LYS	CG-CD	5.07	1.69	1.52
1	B	345	CYS	CB-SG	5.07	1.90	1.82
1	C	205	PHE	CD1-CE1	5.07	1.49	1.39
1	H	20	ALA	N-CA	5.07	1.56	1.46
1	H	448	GLU	CB-CG	5.07	1.61	1.52
1	B	273	ASP	C-O	5.07	1.32	1.23
1	E	148	SER	CA-CB	-5.07	1.45	1.52
1	B	188	LEU	CG-CD2	-5.06	1.33	1.51
1	B	401	ASP	CG-OD1	5.06	1.36	1.25
1	K	332	THR	C-O	-5.06	1.13	1.23
1	B	247	PHE	CE1-CZ	5.06	1.47	1.37
1	B	292	PHE	CD2-CE2	5.06	1.49	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	450	ASN	C-O	5.06	1.32	1.23
1	H	70	TYR	CE1-CZ	5.06	1.45	1.38
1	J	362	GLU	CB-CG	5.06	1.61	1.52
1	K	115	VAL	CA-CB	5.06	1.65	1.54
1	M	210	PHE	CD2-CE2	-5.06	1.29	1.39
1	O	355	TYR	CB-CG	-5.06	1.44	1.51
1	G	362	GLU	CB-CG	-5.06	1.42	1.52
1	L	245	SER	CA-CB	5.06	1.60	1.52
1	M	338	ARG	CB-CG	5.06	1.66	1.52
1	A	261	PHE	CE1-CZ	5.06	1.47	1.37
1	B	42	LEU	CG-CD2	5.06	1.70	1.51
1	D	276	TYR	CB-CG	-5.06	1.44	1.51
1	F	338	ARG	CG-CD	5.06	1.64	1.51
1	N	367	GLY	N-CA	5.06	1.53	1.46
1	F	105	VAL	CB-CG1	-5.06	1.42	1.52
1	F	169	TRP	CD2-CE2	-5.06	1.35	1.41
1	K	451	LEU	CG-CD1	-5.06	1.33	1.51
1	B	449	VAL	C-O	5.06	1.32	1.23
1	C	189	GLU	CG-CD	5.05	1.59	1.51
1	E	285	ASN	C-O	5.05	1.32	1.23
1	F	355	TYR	CG-CD2	5.05	1.45	1.39
1	H	238	VAL	CB-CG2	5.05	1.63	1.52
1	I	169	TRP	CB-CG	-5.05	1.41	1.50
1	J	115	VAL	CA-CB	-5.05	1.44	1.54
1	K	35	TYR	CE2-CZ	5.05	1.45	1.38
1	M	219	GLU	CD-OE2	5.05	1.31	1.25
1	C	440	PRO	CB-CG	5.05	1.75	1.50
1	D	24	THR	CA-CB	-5.05	1.40	1.53
1	J	147	ILE	CG1-CD1	5.05	1.85	1.50
1	L	403	ASN	C-O	5.05	1.32	1.23
1	O	134	ALA	CA-CB	-5.05	1.41	1.52
1	F	22	VAL	C-O	5.05	1.32	1.23
1	H	206	GLY	C-O	5.05	1.31	1.23
1	J	255	MET	N-CA	5.05	1.56	1.46
1	A	116	GLY	N-CA	-5.05	1.38	1.46
1	D	70	TYR	CG-CD2	-5.05	1.32	1.39
1	N	312	TRP	CA-CB	-5.05	1.42	1.53
1	A	350	THR	C-O	5.05	1.32	1.23
1	C	402	TRP	C-O	5.05	1.32	1.23
1	F	340	THR	CB-CG2	5.05	1.69	1.52
1	F	460	ASP	C-O	5.05	1.32	1.23
1	M	251	ARG	CG-CD	-5.05	1.39	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	331	VAL	CA-CB	-5.04	1.44	1.54
1	L	440	PRO	C-O	5.04	1.33	1.23
1	B	390	TYR	CB-CG	-5.04	1.44	1.51
1	C	291	TYR	CE2-CZ	-5.04	1.31	1.38
1	I	107	VAL	CB-CG1	-5.04	1.42	1.52
1	J	111	GLN	CG-CD	5.04	1.62	1.51
1	J	376	PHE	CE2-CZ	5.04	1.47	1.37
1	N	25	ASP	CG-OD2	5.04	1.36	1.25
1	A	263	ARG	N-CA	5.04	1.56	1.46
1	A	459	LEU	N-CA	-5.04	1.36	1.46
1	D	318	GLY	CA-C	5.04	1.59	1.51
1	J	95	THR	N-CA	5.04	1.56	1.46
1	N	105	VAL	CA-CB	-5.04	1.44	1.54
1	E	295	PRO	CG-CD	5.04	1.67	1.50
1	E	329	LEU	CG-CD2	5.04	1.70	1.51
1	I	236	LYS	C-O	5.04	1.32	1.23
1	M	178	VAL	C-O	5.04	1.32	1.23
1	D	346	ALA	CA-CB	5.04	1.63	1.52
1	F	249	TYR	C-O	5.04	1.32	1.23
1	L	400	GLU	CD-OE2	5.04	1.31	1.25
1	M	230	LYS	C-O	5.04	1.32	1.23
1	O	131	ASN	CA-C	-5.04	1.39	1.52
1	B	194	VAL	C-O	5.04	1.32	1.23
1	C	462	PHE	CG-CD2	-5.04	1.31	1.38
1	D	108	GLY	N-CA	5.04	1.53	1.46
1	F	189	GLU	CD-OE2	5.04	1.31	1.25
1	J	57	ASN	C-O	5.04	1.32	1.23
1	J	375	ILE	CB-CG2	-5.04	1.37	1.52
1	O	234	TYR	CG-CD1	-5.04	1.32	1.39
1	A	390	TYR	C-O	5.03	1.32	1.23
1	E	70	TYR	CB-CG	-5.03	1.44	1.51
1	E	253	GLU	C-O	5.03	1.32	1.23
1	N	63	PRO	CB-CG	5.03	1.75	1.50
1	O	214	GLN	CD-OE1	5.03	1.35	1.24
1	C	51	PRO	N-CD	5.03	1.54	1.47
1	C	467	LYS	CD-CE	5.03	1.63	1.51
1	A	197	ASP	C-O	-5.03	1.13	1.23
1	B	388	MET	CG-SD	5.03	1.94	1.81
1	C	470	LEU	CA-CB	-5.03	1.42	1.53
1	I	22	VAL	CB-CG1	5.03	1.63	1.52
1	M	249	TYR	CE1-CZ	-5.03	1.32	1.38
1	N	116	GLY	C-O	5.03	1.31	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	O	334	VAL	CB-CG1	5.03	1.63	1.52
1	O	362	GLU	C-O	5.03	1.32	1.23
1	C	307	PHE	CB-CG	-5.03	1.42	1.51
1	L	30	ARG	CA-C	-5.03	1.39	1.52
1	L	216	ASN	CB-CG	-5.03	1.39	1.51
1	B	364	LEU	CG-CD1	-5.03	1.33	1.51
1	E	400	GLU	CG-CD	5.03	1.59	1.51
1	B	100	TRP	CB-CG	-5.02	1.41	1.50
1	O	231	TYR	CE1-CZ	5.02	1.45	1.38
1	B	248	PHE	CD1-CE1	5.02	1.49	1.39
1	B	355	TYR	CG-CD2	-5.02	1.32	1.39
1	F	152	LYS	C-O	5.02	1.32	1.23
1	F	289	SER	CB-OG	5.02	1.48	1.42
1	H	312	TRP	C-O	-5.02	1.13	1.23
1	J	96	GLN	CG-CD	-5.02	1.39	1.51
1	J	471	GLN	CA-CB	-5.02	1.43	1.53
1	L	439	ASP	C-N	5.02	1.43	1.34
1	N	170	GLY	C-O	5.02	1.31	1.23
1	C	359	ASN	C-O	5.02	1.32	1.23
1	A	376	PHE	CA-CB	-5.02	1.43	1.53
1	E	135	TYR	CG-CD2	5.02	1.45	1.39
1	E	162	LYS	CE-NZ	5.02	1.61	1.49
1	J	296	SER	CA-CB	-5.02	1.45	1.52
1	J	472	LEU	C-OXT	5.02	1.32	1.23
1	M	397	THR	CB-CG2	5.02	1.69	1.52
1	O	231	TYR	CB-CG	-5.02	1.44	1.51
1	C	315	ARG	NE-CZ	5.02	1.39	1.33
1	A	447	TRP	CE3-CZ3	5.01	1.47	1.38
1	L	143	ASN	C-O	5.01	1.32	1.23
1	L	314	GLN	CB-CG	5.01	1.66	1.52
1	B	131	ASN	C-O	5.01	1.32	1.23
1	H	292	PHE	CD1-CE1	5.01	1.49	1.39
1	H	462	PHE	CE2-CZ	5.01	1.46	1.37
1	J	148	SER	CB-OG	5.01	1.48	1.42
1	L	333	VAL	CB-CG2	-5.01	1.42	1.52
1	N	251	ARG	CZ-NH1	5.01	1.39	1.33
1	D	470	LEU	CA-CB	-5.01	1.42	1.53
1	M	402	TRP	C-O	5.01	1.32	1.23
1	N	300	VAL	CB-CG2	5.01	1.63	1.52
1	B	281	GLY	C-O	5.01	1.31	1.23
1	L	295	PRO	CA-CB	-5.01	1.43	1.53
1	L	468	PHE	CB-CG	-5.01	1.42	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	B	303	ASP	CA-C	-5.01	1.40	1.52
1	D	253	GLU	CG-CD	5.01	1.59	1.51
1	F	266	THR	CA-CB	-5.01	1.40	1.53
1	J	171	LYS	CG-CD	5.01	1.69	1.52
1	N	307	PHE	CE1-CZ	-5.01	1.27	1.37
1	A	446	PHE	CA-C	-5.00	1.40	1.52
1	A	454	LYS	CD-CE	5.00	1.63	1.51
1	H	186	PRO	C-N	5.00	1.43	1.34
1	D	22	VAL	CA-CB	-5.00	1.44	1.54
1	D	375	ILE	CB-CG2	-5.00	1.37	1.52
1	G	230	LYS	CG-CD	5.00	1.69	1.52
1	E	108	GLY	N-CA	5.00	1.53	1.46
1	I	83	PHE	C-O	5.00	1.32	1.23
1	M	328	GLN	N-CA	5.00	1.56	1.46

All (1779) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	71	ARG	NE-CZ-NH2	23.80	132.20	120.30
1	F	365	ARG	NE-CZ-NH1	21.93	131.26	120.30
1	C	144	ARG	NE-CZ-NH1	21.91	131.25	120.30
1	I	258	ARG	NE-CZ-NH1	20.20	130.40	120.30
1	D	251	ARG	NE-CZ-NH2	19.49	130.04	120.30
1	J	97	ARG	NE-CZ-NH2	19.16	129.88	120.30
1	E	144	ARG	NE-CZ-NH2	-18.23	111.19	120.30
1	O	109	ARG	NE-CZ-NH2	17.99	129.29	120.30
1	M	150	ASP	CB-CG-OD2	17.50	134.05	118.30
1	I	97	ARG	NE-CZ-NH2	-17.16	111.72	120.30
1	I	258	ARG	NE-CZ-NH2	-17.14	111.73	120.30
1	H	460	ASP	CB-CG-OD1	16.77	133.39	118.30
1	F	144	ARG	NE-CZ-NH1	-16.47	112.06	120.30
1	D	263	ARG	NE-CZ-NH2	-16.37	112.11	120.30
1	J	251	ARG	NE-CZ-NH2	16.16	128.38	120.30
1	G	71	ARG	NE-CZ-NH2	-15.82	112.39	120.30
1	G	71	ARG	NE-CZ-NH1	15.58	128.09	120.30
1	M	150	ASP	CB-CG-OD1	-15.01	104.79	118.30
1	F	251	ARG	NE-CZ-NH2	-14.99	112.81	120.30
1	O	71	ARG	NE-CZ-NH2	-14.97	112.81	120.30
1	I	97	ARG	NE-CZ-NH1	14.80	127.70	120.30
1	O	335	ASP	CB-CG-OD1	-14.73	105.04	118.30
1	K	25	ASP	CB-CG-OD1	-14.66	105.11	118.30
1	J	150	ASP	CB-CG-OD2	14.64	131.47	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	71	ARG	NE-CZ-NH1	-14.38	113.11	120.30
1	N	365	ARG	NE-CZ-NH2	-14.37	113.11	120.30
1	D	251	ARG	NE-CZ-NH1	-14.32	113.14	120.30
1	C	365	ARG	NE-CZ-NH1	14.24	127.42	120.30
1	A	364	LEU	CB-CG-CD1	-14.13	86.98	111.00
1	K	460	ASP	CB-CG-OD2	-14.12	105.59	118.30
1	C	464	LEU	CB-CG-CD1	14.05	134.88	111.00
1	C	144	ARG	NE-CZ-NH2	-14.04	113.28	120.30
1	M	126	LEU	CB-CG-CD1	-14.02	87.17	111.00
1	M	144	ARG	NE-CZ-NH1	13.81	127.20	120.30
1	D	460	ASP	CB-CG-OD2	-13.73	105.95	118.30
1	H	275	LEU	CB-CG-CD2	13.72	134.32	111.00
1	F	365	ARG	NE-CZ-NH2	-13.68	113.46	120.30
1	C	365	ARG	NE-CZ-NH2	-13.65	113.48	120.30
1	H	460	ASP	CB-CG-OD2	-13.56	106.10	118.30
1	M	252	ARG	NE-CZ-NH2	-13.35	113.63	120.30
1	L	144	ARG	NE-CZ-NH2	-13.23	113.69	120.30
1	J	150	ASP	CB-CG-OD1	-13.12	106.50	118.30
1	D	365	ARG	NE-CZ-NH1	13.01	126.81	120.30
1	N	144	ARG	NE-CZ-NH1	-12.99	113.80	120.30
1	O	123	LEU	CB-CG-CD2	-12.99	88.91	111.00
1	C	156	LEU	CB-CG-CD2	-12.90	89.07	111.00
1	N	313	LEU	CB-CG-CD2	12.85	132.85	111.00
1	J	315	ARG	NE-CZ-NH1	-12.79	113.91	120.30
1	L	42	LEU	CB-CG-CD2	12.74	132.66	111.00
1	E	338	ARG	NE-CZ-NH2	-12.63	113.98	120.30
1	G	263	ARG	NE-CZ-NH2	12.46	126.53	120.30
1	O	144	ARG	NE-CZ-NH1	12.45	126.52	120.30
1	B	365	ARG	NE-CZ-NH1	12.41	126.51	120.30
1	A	439	ASP	CB-CG-OD1	-12.38	107.16	118.30
1	C	250	LEU	CB-CG-CD1	-12.37	89.97	111.00
1	B	460	ASP	CB-CG-OD2	-12.36	107.18	118.30
1	C	374	PHE	CB-CG-CD2	-12.28	112.20	120.80
1	O	378	LEU	CB-CG-CD2	-12.11	90.42	111.00
1	C	71	ARG	NE-CZ-NH1	11.88	126.24	120.30
1	L	109	ARG	NE-CZ-NH1	11.88	126.24	120.30
1	A	223	ASP	CB-CG-OD2	11.85	128.96	118.30
1	H	466	ARG	NE-CZ-NH1	11.84	126.22	120.30
1	D	71	ARG	NE-CZ-NH1	11.70	126.15	120.30
1	M	71	ARG	NE-CZ-NH1	11.62	126.11	120.30
1	A	258	ARG	NE-CZ-NH1	11.55	126.08	120.30
1	I	291	TYR	CD1-CE1-CZ	11.52	130.17	119.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	N	294	THR	CA-CB-CG2	-11.50	96.29	112.40
1	H	361	LYS	CD-CE-NZ	-11.49	85.27	111.70
1	C	466	ARG	NE-CZ-NH1	-11.48	114.56	120.30
1	K	258	ARG	NE-CZ-NH1	-11.48	114.56	120.30
1	O	25	ASP	CB-CG-OD1	-11.35	108.08	118.30
1	A	223	ASP	CB-CG-OD1	-11.23	108.19	118.30
1	H	109	ARG	NE-CZ-NH1	11.20	125.90	120.30
1	N	113	LEU	CB-CG-CD2	-11.15	92.04	111.00
1	O	365	ARG	NE-CZ-NH2	-11.12	114.74	120.30
1	B	30	ARG	NE-CZ-NH2	-11.10	114.75	120.30
1	A	197	ASP	CB-CG-OD2	11.05	128.24	118.30
1	J	41	ARG	NE-CZ-NH1	11.04	125.82	120.30
1	F	144	ARG	NE-CZ-NH2	11.02	125.81	120.30
1	K	97	ARG	NE-CZ-NH1	11.02	125.81	120.30
1	N	365	ARG	NE-CZ-NH1	10.99	125.80	120.30
1	E	252	ARG	NE-CZ-NH2	-10.96	114.82	120.30
1	M	25	ASP	CB-CG-OD2	-10.93	108.46	118.30
1	I	213	LEU	CB-CG-CD1	-10.90	92.47	111.00
1	K	74	ARG	NE-CZ-NH2	-10.89	114.85	120.30
1	A	41	ARG	NE-CZ-NH2	-10.87	114.86	120.30
1	N	128	ASP	CB-CG-OD1	-10.87	108.52	118.30
1	M	126	LEU	CB-CG-CD2	10.86	129.47	111.00
1	A	184	ASP	CB-CG-OD2	10.85	128.06	118.30
1	C	371	ASP	CB-CG-OD1	10.83	128.05	118.30
1	C	68	LEU	CA-CB-CG	-10.82	90.41	115.30
1	C	150	ASP	CB-CG-OD2	10.82	128.03	118.30
1	J	197	ASP	CB-CG-OD2	10.78	128.00	118.30
1	J	365	ARG	NE-CZ-NH2	-10.74	114.93	120.30
1	G	286	LEU	CB-CG-CD2	-10.74	92.74	111.00
1	J	147	ILE	CG1-CB-CG2	-10.72	87.81	111.40
1	O	127	ASP	CB-CG-OD2	10.72	127.95	118.30
1	M	338	ARG	NE-CZ-NH2	-10.70	114.95	120.30
1	J	97	ARG	NH1-CZ-NH2	-10.68	107.65	119.40
1	C	274	ASP	CB-CG-OD1	-10.66	108.70	118.30
1	N	30	ARG	NE-CZ-NH2	-10.63	114.98	120.30
1	E	144	ARG	NE-CZ-NH1	10.62	125.61	120.30
1	B	223	ASP	CB-CG-OD2	10.58	127.82	118.30
1	C	258	ARG	NE-CZ-NH2	-10.52	115.04	120.30
1	L	338	ARG	NE-CZ-NH2	10.51	125.56	120.30
1	C	30	ARG	NE-CZ-NH2	-10.51	115.05	120.30
1	M	147	ILE	CG1-CB-CG2	-10.51	88.28	111.40
1	D	97	ARG	NE-CZ-NH1	10.48	125.54	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	255	MET	CG-SD-CE	10.46	116.94	100.20
1	K	273	ASP	CB-CG-OD1	-10.41	108.93	118.30
1	J	365	ARG	NE-CZ-NH1	10.37	125.49	120.30
1	L	159	ILE	CG1-CB-CG2	-10.37	88.58	111.40
1	J	113	LEU	CB-CG-CD2	-10.35	93.41	111.00
1	D	297	GLY	N-CA-C	-10.31	87.33	113.10
1	F	97	ARG	NE-CZ-NH1	10.27	125.43	120.30
1	N	68	LEU	CA-CB-CG	-10.23	91.78	115.30
1	O	335	ASP	CB-CG-OD2	10.21	127.49	118.30
1	C	255	MET	CG-SD-CE	10.19	116.50	100.20
1	I	208	MET	CG-SD-CE	10.18	116.49	100.20
1	O	222	LEU	CB-CG-CD2	-10.15	93.75	111.00
1	O	263	ARG	NE-CZ-NH1	10.10	125.35	120.30
1	F	379	CYS	CA-CB-SG	-10.10	95.83	114.00
1	N	335	ASP	CB-CG-OD1	-10.08	109.23	118.30
1	K	464	LEU	CB-CG-CD1	-10.07	93.87	111.00
1	L	122	LEU	CB-CG-CD2	-10.07	93.87	111.00
1	K	188	LEU	CB-CG-CD2	-10.05	93.91	111.00
1	M	41	ARG	NE-CZ-NH1	10.05	125.33	120.30
1	L	208	MET	CG-SD-CE	10.04	116.27	100.20
1	H	464	LEU	CB-CG-CD2	10.02	128.04	111.00
1	A	202	ASP	CB-CG-OD1	-10.01	109.29	118.30
1	B	144	ARG	NE-CZ-NH1	10.00	125.30	120.30
1	H	74	ARG	NE-CZ-NH1	10.00	125.30	120.30
1	E	365	ARG	NE-CZ-NH2	-9.98	115.31	120.30
1	L	365	ARG	NE-CZ-NH2	-9.96	115.32	120.30
1	M	75	ILE	CG1-CB-CG2	-9.95	89.52	111.40
1	H	470	LEU	CB-CG-CD1	-9.94	94.10	111.00
1	J	252	ARG	NE-CZ-NH1	9.94	125.27	120.30
1	D	258	ARG	NE-CZ-NH2	-9.91	115.34	120.30
1	G	199	ASP	CB-CG-OD2	9.91	127.22	118.30
1	M	68	LEU	CA-CB-CG	-9.87	92.60	115.30
1	L	228	ILE	CG1-CB-CG2	-9.87	89.70	111.40
1	A	112	PRO	N-CD-CG	-9.83	88.45	103.20
1	H	303	ASP	CB-CG-OD1	-9.83	109.45	118.30
1	D	197	ASP	CB-CG-OD1	9.82	127.14	118.30
1	F	109	ARG	NE-CZ-NH2	-9.82	115.39	120.30
1	L	71	ARG	NE-CZ-NH1	-9.81	115.39	120.30
1	M	144	ARG	NE-CZ-NH2	-9.81	115.40	120.30
1	L	372	LEU	CA-CB-CG	-9.76	92.86	115.30
1	I	388	MET	CG-SD-CE	9.75	115.80	100.20
1	G	209	ASP	CB-CG-OD2	9.74	127.06	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	I	255	MET	CG-SD-CE	9.73	115.77	100.20
1	E	109	ARG	NE-CZ-NH2	9.72	125.16	120.30
1	G	331	VAL	CA-CB-CG2	-9.72	96.32	110.90
1	C	109	ARG	NE-CZ-NH2	9.71	125.16	120.30
1	G	97	ARG	NE-CZ-NH2	-9.70	115.45	120.30
1	N	469	LEU	CA-CB-CG	9.67	137.54	115.30
1	A	297	GLY	N-CA-C	-9.59	89.13	113.10
1	G	467	LYS	CD-CE-NZ	9.57	133.72	111.70
1	I	184	ASP	CB-CG-OD2	-9.55	109.70	118.30
1	A	441	LEU	CB-CG-CD1	-9.55	94.77	111.00
1	H	252	ARG	NE-CZ-NH2	-9.54	115.53	120.30
1	L	356	LYS	CD-CE-NZ	-9.53	89.77	111.70
1	D	128	ASP	CB-CG-OD2	9.53	126.88	118.30
1	I	142	ASP	CB-CG-OD1	9.51	126.86	118.30
1	A	30	ARG	NE-CZ-NH2	-9.48	115.56	120.30
1	M	369	GLU	OE1-CD-OE2	9.47	134.66	123.30
1	D	71	ARG	NE-CZ-NH2	-9.46	115.57	120.30
1	N	199	ASP	CB-CG-OD2	9.46	126.81	118.30
1	B	286	LEU	CB-CG-CD2	-9.42	94.99	111.00
1	B	464	LEU	CB-CG-CD1	9.42	127.02	111.00
1	K	335	ASP	CB-CG-OD1	-9.41	109.83	118.30
1	A	71	ARG	NE-CZ-NH1	-9.41	115.59	120.30
1	K	127	ASP	CB-CG-OD2	-9.39	109.85	118.30
1	N	159	ILE	CG1-CB-CG2	-9.39	90.75	111.40
1	C	286	LEU	CB-CG-CD2	-9.38	95.06	111.00
1	J	126	LEU	CB-CG-CD1	-9.38	95.06	111.00
1	E	469	LEU	CA-CB-CG	9.31	136.71	115.30
1	L	43	LEU	CB-CG-CD2	-9.29	95.20	111.00
1	L	209	ASP	CB-CG-OD2	9.28	126.65	118.30
1	L	365	ARG	NE-CZ-NH1	9.23	124.92	120.30
1	D	401	ASP	CB-CG-OD1	9.22	126.59	118.30
1	B	144	ARG	NE-CZ-NH2	-9.21	115.69	120.30
1	G	260	LEU	CB-CG-CD1	-9.21	95.34	111.00
1	D	282	SER	N-CA-CB	-9.20	96.70	110.50
1	G	365	ARG	NE-CZ-NH2	-9.20	115.70	120.30
1	B	400	GLU	OE1-CD-OE2	-9.19	112.27	123.30
1	B	71	ARG	NE-CZ-NH1	-9.19	115.70	120.30
1	I	74	ARG	NE-CZ-NH1	-9.19	115.70	120.30
1	G	202	ASP	CB-CG-OD1	-9.19	110.03	118.30
1	E	260	LEU	CB-CG-CD2	-9.14	95.47	111.00
1	C	113	LEU	CB-CG-CD2	-9.14	95.47	111.00
1	C	224	ILE	CG1-CB-CG2	-9.13	91.31	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	175	CYS	CA-CB-SG	-9.08	97.66	114.00
1	M	113	LEU	CB-CG-CD1	-9.07	95.59	111.00
1	N	123	LEU	CB-CG-CD2	9.06	126.40	111.00
1	O	144	ARG	NE-CZ-NH2	-9.05	115.77	120.30
1	O	42	LEU	CB-CG-CD1	-9.04	95.63	111.00
1	N	274	ASP	CB-CG-OD2	-9.02	110.18	118.30
1	D	77	LEU	CB-CG-CD2	-9.00	95.70	111.00
1	O	167	GLU	OE1-CD-OE2	8.99	134.08	123.30
1	D	181	GLN	N-CA-C	-8.97	86.78	111.00
1	E	255	MET	CG-SD-CE	8.95	114.52	100.20
1	J	62	VAL	CG1-CB-CG2	-8.93	96.61	110.90
1	H	297	GLY	N-CA-C	-8.91	90.83	113.10
1	K	25	ASP	CB-CG-OD2	8.91	126.32	118.30
1	L	144	ARG	NH1-CZ-NH2	8.89	129.18	119.40
1	B	230	LYS	CD-CE-NZ	-8.88	91.28	111.70
1	H	209	ASP	CB-CG-OD2	8.88	126.29	118.30
1	N	128	ASP	CB-CG-OD2	8.88	126.29	118.30
1	H	61	LEU	CB-CG-CD1	8.87	126.07	111.00
1	G	332	THR	CA-CB-CG2	-8.86	99.99	112.40
1	F	159	ILE	CG1-CB-CG2	-8.84	91.95	111.40
1	M	202	ASP	CB-CG-OD1	-8.84	110.35	118.30
1	B	159	ILE	CG1-CB-CG2	-8.83	91.97	111.40
1	K	258	ARG	NE-CZ-NH2	8.83	124.71	120.30
1	C	202	ASP	CB-CG-OD2	-8.80	110.38	118.30
1	M	68	LEU	CB-CG-CD2	8.79	125.94	111.00
1	M	460	ASP	CB-CG-OD1	-8.77	110.41	118.30
1	A	313	LEU	CB-CG-CD1	8.75	125.88	111.00
1	K	252	ARG	NE-CZ-NH2	-8.74	115.93	120.30
1	K	123	LEU	CB-CG-CD1	-8.73	96.15	111.00
1	N	71	ARG	NE-CZ-NH1	8.73	124.67	120.30
1	L	372	LEU	CB-CG-CD1	8.73	125.84	111.00
1	N	144	ARG	NE-CZ-NH2	8.73	124.67	120.30
1	O	190	LEU	CB-CG-CD1	8.71	125.81	111.00
1	B	442	LYS	CD-CE-NZ	8.69	131.70	111.70
1	B	202	ASP	N-CA-C	-8.68	87.56	111.00
1	B	263	ARG	NE-CZ-NH2	-8.68	115.96	120.30
1	L	68	LEU	CB-CG-CD1	-8.68	96.24	111.00
1	L	364	LEU	CB-CG-CD1	8.68	125.76	111.00
1	I	338	ARG	NE-CZ-NH1	8.68	124.64	120.30
1	H	178	VAL	CG1-CB-CG2	8.68	124.78	110.90
1	L	25	ASP	CB-CG-OD1	-8.67	110.50	118.30
1	H	277	ILE	CG1-CB-CG2	-8.67	92.33	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	226	THR	CA-CB-CG2	-8.66	100.27	112.40
1	O	398	ILE	CG1-CB-CG2	-8.66	92.35	111.40
1	F	107	VAL	CA-CB-CG1	-8.62	97.97	110.90
1	D	249	TYR	CD1-CE1-CZ	8.60	127.54	119.80
1	G	286	LEU	CB-CG-CD1	8.59	125.60	111.00
1	G	383	LEU	CB-CG-CD1	8.58	125.59	111.00
1	C	188	LEU	CB-CG-CD2	-8.58	96.42	111.00
1	N	202	ASP	CB-CG-OD1	-8.58	110.58	118.30
1	L	252	ARG	NE-CZ-NH2	8.58	124.59	120.30
1	I	190	LEU	CB-CG-CD1	8.56	125.56	111.00
1	F	344	LEU	CB-CG-CD2	8.55	125.54	111.00
1	O	333	VAL	CA-CB-CG2	-8.56	98.07	110.90
1	A	162	LYS	CD-CE-NZ	-8.55	92.03	111.70
1	E	458	ASP	CB-CG-OD2	-8.55	110.60	118.30
1	F	233	ASP	CB-CG-OD2	-8.53	110.62	118.30
1	D	156	LEU	CB-CG-CD2	-8.52	96.51	111.00
1	J	202	ASP	CB-CG-OD1	-8.52	110.63	118.30
1	M	52	ILE	CG1-CB-CG2	-8.52	92.65	111.40
1	D	365	ARG	NE-CZ-NH2	-8.50	116.05	120.30
1	C	278	LYS	CD-CE-NZ	-8.49	92.16	111.70
1	D	315	ARG	NE-CZ-NH1	-8.48	116.06	120.30
1	C	237	MET	CG-SD-CE	8.47	113.76	100.20
1	L	41	ARG	NE-CZ-NH2	8.45	124.53	120.30
1	H	371	ASP	CB-CG-OD1	8.45	125.90	118.30
1	M	458	ASP	CB-CG-OD1	-8.43	110.71	118.30
1	F	109	ARG	NE-CZ-NH1	8.43	124.51	120.30
1	L	33	ILE	CG1-CB-CG2	-8.43	92.86	111.40
1	I	209	ASP	CB-CG-OD1	8.42	125.88	118.30
1	C	201	VAL	CB-CA-C	-8.41	95.42	111.40
1	B	49	TYR	CD1-CE1-CZ	8.39	127.36	119.80
1	O	199	ASP	CB-CG-OD1	-8.39	110.75	118.30
1	C	338	ARG	NE-CZ-NH2	-8.38	116.11	120.30
1	A	335	ASP	CB-CG-OD1	-8.37	110.77	118.30
1	O	109	ARG	NH1-CZ-NH2	-8.37	110.20	119.40
1	C	233	ASP	CB-CG-OD2	8.36	125.82	118.30
1	C	277	ILE	CG1-CB-CG2	-8.36	93.01	111.40
1	J	79	ASP	CB-CG-OD2	8.36	125.82	118.30
1	M	464	LEU	CB-CG-CD1	8.35	125.20	111.00
1	G	452	LYS	CD-CE-NZ	8.34	130.89	111.70
1	N	464	LEU	CB-CG-CD1	8.34	125.18	111.00
1	M	113	LEU	CB-CG-CD2	-8.34	96.82	111.00
1	H	74	ARG	NE-CZ-NH2	-8.34	116.13	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	K	365	ARG	NE-CZ-NH1	-8.34	116.13	120.30
1	N	378	LEU	CB-CG-CD2	-8.33	96.84	111.00
1	M	263	ARG	CG-CD-NE	-8.31	94.36	111.80
1	F	256	PHE	CB-CG-CD2	8.30	126.61	120.80
1	D	263	ARG	NE-CZ-NH1	8.29	124.45	120.30
1	J	257	VAL	CA-CB-CG2	-8.29	98.46	110.90
1	K	460	ASP	CB-CG-OD1	8.29	125.76	118.30
1	B	364	LEU	CB-CG-CD2	8.29	125.09	111.00
1	I	217	LYS	CD-CE-NZ	-8.29	92.64	111.70
1	F	74	ARG	NE-CZ-NH2	-8.28	116.16	120.30
1	H	222	LEU	CB-CG-CD1	-8.28	96.93	111.00
1	G	338	ARG	NE-CZ-NH2	8.28	124.44	120.30
1	I	441	LEU	CB-CG-CD1	-8.27	96.94	111.00
1	D	379	CYS	CA-CB-SG	-8.27	99.12	114.00
1	G	41	ARG	NE-CZ-NH2	8.27	124.43	120.30
1	G	273	ASP	CB-CG-OD1	-8.26	110.87	118.30
1	N	60	ILE	CG1-CB-CG2	-8.26	93.23	111.40
1	B	208	MET	CG-SD-CE	8.25	113.40	100.20
1	E	274	ASP	CB-CG-OD1	-8.22	110.90	118.30
1	G	273	ASP	CB-CG-OD2	8.22	125.70	118.30
1	C	79	ASP	CB-CG-OD2	8.21	125.69	118.30
1	K	113	LEU	CB-CG-CD2	8.21	124.96	111.00
1	O	365	ARG	NE-CZ-NH1	8.21	124.41	120.30
1	C	178	VAL	CG1-CB-CG2	8.21	124.03	110.90
1	K	97	ARG	NE-CZ-NH2	-8.21	116.20	120.30
1	G	74	ARG	NE-CZ-NH1	-8.20	116.20	120.30
1	D	141	VAL	CA-CB-CG1	-8.20	98.61	110.90
1	C	441	LEU	CB-CG-CD1	-8.18	97.09	111.00
1	F	213	LEU	CB-CG-CD1	-8.18	97.09	111.00
1	M	79	ASP	CB-CG-OD2	8.18	125.66	118.30
1	B	111	GLN	N-CA-CB	-8.18	95.88	110.60
1	E	43	LEU	CB-CG-CD1	8.17	124.89	111.00
1	K	371	ASP	CB-CG-OD2	8.16	125.65	118.30
1	J	77	LEU	CB-CG-CD2	-8.16	97.12	111.00
1	N	379	CYS	CA-CB-SG	-8.15	99.32	114.00
1	F	458	ASP	CB-CG-OD2	-8.15	110.96	118.30
1	M	448	GLU	OE1-CD-OE2	-8.15	113.52	123.30
1	F	117	ILE	CG1-CB-CG2	8.14	129.32	111.40
1	M	364	LEU	CB-CG-CD2	-8.14	97.16	111.00
1	I	144	ARG	NE-CZ-NH2	-8.13	116.23	120.30
1	C	234	TYR	CB-CG-CD1	-8.12	116.13	121.00
1	A	315	ARG	NE-CZ-NH2	-8.12	116.24	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	I	68	LEU	CA-CB-CG	-8.11	96.64	115.30
1	K	251	ARG	NE-CZ-NH1	-8.11	116.25	120.30
1	A	199	ASP	CB-CG-OD1	-8.10	111.01	118.30
1	C	111	GLN	N-CA-CB	-8.10	96.03	110.60
1	D	391	ILE	CG1-CB-CG2	-8.10	93.59	111.40
1	N	389	THR	CA-CB-CG2	-8.10	101.07	112.40
1	A	365	ARG	NE-CZ-NH1	-8.09	116.25	120.30
1	M	441	LEU	CB-CG-CD1	-8.09	97.25	111.00
1	N	149	MET	CA-CB-CG	-8.08	99.57	113.30
1	C	113	LEU	CB-CG-CD1	-8.06	97.30	111.00
1	N	460	ASP	CB-CG-OD1	8.05	125.55	118.30
1	F	258	ARG	NE-CZ-NH1	8.04	124.32	120.30
1	K	275	LEU	CB-CG-CD1	-8.04	97.34	111.00
1	J	181	GLN	N-CA-C	-8.03	89.31	111.00
1	O	386	ASP	CB-CG-OD1	-8.03	111.07	118.30
1	G	107	VAL	CG1-CB-CG2	8.03	123.75	110.90
1	C	184	ASP	CB-CG-OD1	-8.03	111.08	118.30
1	G	178	VAL	CG1-CB-CG2	8.03	123.74	110.90
1	L	332	THR	CA-CB-CG2	-8.01	101.18	112.40
1	L	72	VAL	CB-CA-C	-8.01	96.18	111.40
1	C	75	ILE	CA-CB-CG2	-8.00	94.91	110.90
1	K	79	ASP	CB-CG-OD2	-7.99	111.11	118.30
1	B	49	TYR	CG-CD1-CE1	-7.98	114.91	121.30
1	H	344	LEU	CB-CG-CD2	7.98	124.57	111.00
1	H	61	LEU	CB-CG-CD2	-7.98	97.44	111.00
1	C	238	VAL	CG1-CB-CG2	-7.97	98.14	110.90
1	J	94	ASP	CB-CG-OD1	7.96	125.46	118.30
1	G	252	ARG	NE-CZ-NH2	-7.95	116.33	120.30
1	D	331	VAL	CA-CB-CG1	-7.95	98.98	110.90
1	A	201	VAL	CB-CA-C	-7.94	96.31	111.40
1	A	472	LEU	CB-CG-CD2	7.92	124.47	111.00
1	C	332	THR	CA-CB-CG2	-7.92	101.31	112.40
1	K	115	VAL	CG1-CB-CG2	-7.91	98.25	110.90
1	F	71	ARG	NE-CZ-NH2	7.90	124.25	120.30
1	J	96	GLN	O-C-N	-7.90	110.06	122.70
1	J	128	ASP	CB-CG-OD2	7.90	125.41	118.30
1	I	361	LYS	CD-CE-NZ	-7.89	93.54	111.70
1	O	98	LEU	CB-CG-CD2	-7.89	97.58	111.00
1	F	68	LEU	CB-CG-CD2	-7.89	97.59	111.00
1	N	258	ARG	NE-CZ-NH2	-7.88	116.36	120.30
1	E	217	LYS	CD-CE-NZ	-7.88	93.57	111.70
1	H	177	GLN	CA-CB-CG	-7.88	96.06	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	M	188	LEU	CB-CG-CD2	-7.88	97.60	111.00
1	E	260	LEU	CB-CG-CD1	-7.88	97.61	111.00
1	E	334	VAL	CG1-CB-CG2	-7.88	98.30	110.90
1	I	190	LEU	CB-CG-CD2	-7.88	97.61	111.00
1	G	222	LEU	CB-CG-CD2	-7.87	97.62	111.00
1	H	30	ARG	NE-CZ-NH1	-7.87	116.37	120.30
1	C	43	LEU	CB-CG-CD2	7.87	124.37	111.00
1	K	105	VAL	CA-CB-CG1	-7.87	99.10	110.90
1	E	30	ARG	NE-CZ-NH2	-7.86	116.37	120.30
1	H	258	ARG	NE-CZ-NH2	7.85	124.22	120.30
1	K	464	LEU	CB-CG-CD2	7.85	124.34	111.00
1	L	28	VAL	CB-CA-C	-7.84	96.50	111.40
1	L	222	LEU	CB-CG-CD2	-7.84	97.67	111.00
1	O	258	ARG	NE-CZ-NH1	-7.84	116.38	120.30
1	A	97	ARG	NE-CZ-NH2	-7.83	116.38	120.30
1	M	231	TYR	CB-CG-CD2	-7.83	116.30	121.00
1	N	263	ARG	NE-CZ-NH1	7.83	124.21	120.30
1	A	171	LYS	CD-CE-NZ	-7.83	93.70	111.70
1	K	338	ARG	NE-CZ-NH1	-7.82	116.39	120.30
1	G	74	ARG	NE-CZ-NH2	7.82	124.21	120.30
1	D	470	LEU	CB-CG-CD1	-7.81	97.72	111.00
1	L	105	VAL	CG1-CB-CG2	-7.81	98.41	110.90
1	D	150	ASP	CB-CG-OD1	-7.81	111.28	118.30
1	J	294	THR	CA-CB-CG2	-7.80	101.47	112.40
1	A	263	ARG	NE-CZ-NH1	7.80	124.20	120.30
1	H	70	TYR	CG-CD2-CE2	7.80	127.54	121.30
1	L	39	THR	OG1-CB-CG2	-7.80	92.06	110.00
1	E	263	ARG	NE-CZ-NH1	7.79	124.20	120.30
1	A	401	ASP	CB-CG-OD2	-7.79	111.29	118.30
1	D	30	ARG	NE-CZ-NH1	-7.79	116.40	120.30
1	D	103	VAL	CA-CB-CG1	-7.79	99.22	110.90
1	E	54	LYS	CD-CE-NZ	7.78	129.60	111.70
1	L	201	VAL	CB-CA-C	-7.78	96.62	111.40
1	B	469	LEU	CB-CG-CD1	-7.78	97.78	111.00
1	J	74	ARG	NE-CZ-NH1	7.77	124.19	120.30
1	E	472	LEU	CB-CG-CD2	7.76	124.19	111.00
1	K	251	ARG	NE-CZ-NH2	7.75	124.18	120.30
1	M	74	ARG	NE-CZ-NH2	7.75	124.18	120.30
1	N	115	VAL	CA-CB-CG1	-7.75	99.27	110.90
1	J	229	CYS	CA-CB-SG	-7.75	100.05	114.00
1	I	151	TYR	CD1-CE1-CZ	-7.75	112.83	119.80
1	O	240	GLU	CG-CD-OE2	-7.74	102.83	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	J	79	ASP	CB-CG-OD1	-7.74	111.34	118.30
1	O	146	CYS	CA-CB-SG	-7.73	100.08	114.00
1	A	79	ASP	CB-CG-OD2	7.73	125.25	118.30
1	N	142	ASP	CB-CG-OD1	7.70	125.23	118.30
1	L	188	LEU	CB-CG-CD2	-7.69	97.93	111.00
1	D	60	ILE	CG1-CB-CG2	-7.68	94.51	111.40
1	N	297	GLY	N-CA-C	-7.67	93.92	113.10
1	C	65	VAL	CG1-CB-CG2	-7.67	98.63	110.90
1	K	65	VAL	CG1-CB-CG2	-7.67	98.64	110.90
1	K	277	ILE	CG1-CB-CG2	-7.66	94.54	111.40
1	D	246	LEU	CB-CG-CD1	-7.66	97.98	111.00
1	A	21	VAL	CB-CA-C	-7.66	96.85	111.40
1	M	331	VAL	CA-CB-CG2	-7.64	99.44	110.90
1	C	372	LEU	CB-CG-CD2	-7.64	98.02	111.00
1	I	113	LEU	CB-CG-CD2	-7.63	98.03	111.00
1	A	348	ILE	CG1-CB-CG2	-7.62	94.62	111.40
1	D	178	VAL	CG1-CB-CG2	7.62	123.09	110.90
1	K	130	GLU	OE1-CD-OE2	7.62	132.44	123.30
1	G	286	LEU	CA-CB-CG	-7.62	97.77	115.30
1	J	300	VAL	CA-CB-CG2	-7.62	99.47	110.90
1	E	87	ASP	CB-CG-OD2	-7.62	111.44	118.30
1	O	260	LEU	CB-CG-CD1	-7.62	98.05	111.00
1	F	209	ASP	CB-CG-OD1	-7.61	111.45	118.30
1	J	329	LEU	CB-CG-CD2	-7.61	98.07	111.00
1	J	369	GLU	OE1-CD-OE2	7.60	132.42	123.30
1	K	60	ILE	CG1-CB-CG2	-7.60	94.68	111.40
1	O	286	LEU	CB-CG-CD2	-7.59	98.09	111.00
1	H	274	ASP	CB-CG-OD1	-7.59	111.47	118.30
1	N	233	ASP	CB-CG-OD1	7.59	125.13	118.30
1	E	34	TYR	CG-CD1-CE1	7.59	127.37	121.30
1	A	52	ILE	CG1-CB-CG2	-7.59	94.71	111.40
1	K	472	LEU	CA-CB-CG	7.58	132.75	115.30
1	F	42	LEU	CB-CG-CD2	-7.58	98.11	111.00
1	C	97	ARG	NE-CZ-NH2	-7.57	116.52	120.30
1	C	275	LEU	CB-CG-CD2	7.57	123.87	111.00
1	M	401	ASP	CB-CG-OD1	-7.55	111.50	118.30
1	K	128	ASP	CB-CG-OD2	7.54	125.09	118.30
1	H	209	ASP	CB-CG-OD1	-7.54	111.52	118.30
1	I	25	ASP	CB-CG-OD2	-7.53	111.52	118.30
1	L	127	ASP	CB-CG-OD1	7.53	125.08	118.30
1	N	109	ARG	NE-CZ-NH1	7.53	124.06	120.30
1	G	105	VAL	CA-CB-CG1	-7.52	99.61	110.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	O	41	ARG	NE-CZ-NH1	7.52	124.06	120.30
1	A	264	ALA	N-CA-CB	-7.51	99.58	110.10
1	I	231	TYR	CD1-CE1-CZ	-7.51	113.04	119.80
1	D	70	TYR	CB-CG-CD1	7.51	125.51	121.00
1	D	212	THR	CA-CB-CG2	-7.51	101.89	112.40
1	F	234	TYR	CZ-CE2-CD2	-7.51	113.04	119.80
1	H	294	THR	CA-CB-CG2	-7.50	101.89	112.40
1	D	123	LEU	CB-CG-CD2	7.50	123.75	111.00
1	F	334	VAL	CA-CB-CG1	-7.50	99.65	110.90
1	N	26	GLU	OE1-CD-OE2	-7.49	114.31	123.30
1	O	230	LYS	CD-CE-NZ	-7.49	94.48	111.70
1	A	106	GLU	OE1-CD-OE2	-7.48	114.32	123.30
1	E	383	LEU	CB-CG-CD2	-7.48	98.28	111.00
1	A	250	LEU	CB-CG-CD2	7.48	123.72	111.00
1	N	77	LEU	CB-CG-CD2	-7.48	98.29	111.00
1	B	460	ASP	CB-CG-OD1	7.47	125.03	118.30
1	J	251	ARG	NH1-CZ-NH2	-7.46	111.19	119.40
1	G	272	PRO	N-CD-CG	-7.46	92.00	103.20
1	D	160	GLY	CA-C-O	7.45	134.01	120.60
1	K	364	LEU	CB-CG-CD2	-7.45	98.34	111.00
1	M	252	ARG	NH1-CZ-NH2	7.45	127.59	119.40
1	G	274	ASP	CB-CG-OD2	7.44	125.00	118.30
1	E	439	ASP	CB-CG-OD2	-7.44	111.61	118.30
1	N	256	PHE	CB-CG-CD2	7.43	126.00	120.80
1	L	79	ASP	CB-CG-OD1	7.43	124.98	118.30
1	C	286	LEU	CB-CG-CD1	7.42	123.61	111.00
1	K	31	THR	CA-CB-CG2	-7.42	102.02	112.40
1	L	113	LEU	CA-CB-CG	-7.42	98.24	115.30
1	M	213	LEU	CB-CG-CD1	-7.42	98.39	111.00
1	K	237	MET	CG-SD-CE	7.41	112.06	100.20
1	H	41	ARG	NE-CZ-NH1	-7.41	116.59	120.30
1	D	73	PHE	CB-CG-CD1	-7.41	115.62	120.80
1	M	365	ARG	NE-CZ-NH2	-7.40	116.60	120.30
1	N	25	ASP	CB-CG-OD2	7.39	124.96	118.30
1	E	257	VAL	CG1-CB-CG2	7.39	122.73	110.90
1	H	202	ASP	CB-CG-OD1	-7.38	111.65	118.30
1	N	399	LEU	CA-CB-CG	-7.38	98.32	115.30
1	I	306	ILE	CG1-CB-CG2	-7.38	95.17	111.40
1	J	68	LEU	CA-CB-CG	-7.37	98.34	115.30
1	G	97	ARG	NE-CZ-NH1	7.37	123.98	120.30
1	N	25	ASP	CB-CG-OD1	-7.37	111.67	118.30
1	E	188	LEU	CB-CG-CD2	-7.37	98.48	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	I	181	GLN	N-CA-C	-7.37	91.11	111.00
1	H	338	ARG	NE-CZ-NH1	-7.36	116.62	120.30
1	F	25	ASP	CB-CG-OD2	-7.35	111.68	118.30
1	F	180	VAL	CB-CA-C	-7.35	97.43	111.40
1	N	371	ASP	CB-CG-OD2	7.35	124.92	118.30
1	F	202	ASP	CB-CG-OD2	-7.35	111.69	118.30
1	N	372	LEU	CB-CG-CD2	-7.34	98.52	111.00
1	B	97	ARG	NE-CZ-NH1	7.34	123.97	120.30
1	K	244	ASP	CB-CG-OD2	-7.34	111.70	118.30
1	J	470	LEU	CB-CG-CD1	-7.34	98.53	111.00
1	J	95	THR	OG1-CB-CG2	7.33	126.87	110.00
1	A	112	PRO	CA-CB-CG	-7.33	90.07	104.00
1	B	251	ARG	NE-CZ-NH1	-7.33	116.63	120.30
1	D	292	PHE	N-CA-CB	-7.33	97.41	110.60
1	A	326	GLY	N-CA-C	-7.32	94.80	113.10
1	M	201	VAL	CB-CA-C	-7.32	97.49	111.40
1	G	114	GLY	CA-C-O	-7.32	107.43	120.60
1	K	315	ARG	NE-CZ-NH2	-7.32	116.64	120.30
1	H	159	ILE	CG1-CB-CG2	-7.32	95.31	111.40
1	B	123	LEU	CB-CG-CD2	7.31	123.43	111.00
1	M	142	ASP	CB-CG-OD1	-7.31	111.72	118.30
1	D	260	LEU	CB-CG-CD2	-7.30	98.58	111.00
1	F	49	TYR	CB-CG-CD1	-7.30	116.62	121.00
1	N	28	VAL	CG1-CB-CG2	7.30	122.58	110.90
1	M	209	ASP	CB-CG-OD1	-7.30	111.73	118.30
1	K	123	LEU	CA-CB-CG	7.29	132.06	115.30
1	I	251	ARG	NE-CZ-NH2	7.28	123.94	120.30
1	E	472	LEU	CB-CG-CD1	-7.28	98.63	111.00
1	C	244	ASP	CB-CG-OD1	7.27	124.84	118.30
1	L	340	THR	CA-CB-CG2	-7.26	102.23	112.40
1	F	467	LYS	CD-CE-NZ	7.26	128.41	111.70
1	C	209	ASP	CB-CG-OD1	-7.26	111.77	118.30
1	O	63	PRO	N-CD-CG	-7.24	92.35	103.20
1	J	297	GLY	N-CA-C	-7.21	95.08	113.10
1	M	276	TYR	CZ-CE2-CD2	7.21	126.29	119.80
1	I	338	ARG	NE-CZ-NH2	-7.21	116.70	120.30
1	L	251	ARG	NE-CZ-NH1	7.21	123.90	120.30
1	I	472	LEU	CB-CG-CD1	-7.20	98.76	111.00
1	J	370	TYR	CB-CG-CD1	7.20	125.32	121.00
1	L	230	LYS	CA-CB-CG	-7.20	97.57	113.40
1	D	136	ALA	CB-CA-C	-7.19	99.32	110.10
1	C	269	GLU	OE1-CD-OE2	-7.18	114.68	123.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	365	ARG	NE-CZ-NH2	-7.18	116.71	120.30
1	H	293	PRO	CA-N-CD	-7.17	101.46	111.50
1	E	246	LEU	CB-CG-CD2	-7.17	98.81	111.00
1	G	250	LEU	CB-CG-CD1	-7.17	98.81	111.00
1	I	365	ARG	NE-CZ-NH1	7.17	123.88	120.30
1	A	64	LYS	CD-CE-NZ	-7.17	95.22	111.70
1	B	222	LEU	CB-CG-CD2	7.14	123.14	111.00
1	B	79	ASP	CB-CG-OD2	-7.14	111.88	118.30
1	J	52	ILE	CG1-CB-CG2	-7.13	95.71	111.40
1	F	364	LEU	CB-CG-CD1	-7.13	98.88	111.00
1	K	192	ASN	N-CA-C	-7.12	91.77	111.00
1	L	206	GLY	N-CA-C	-7.12	95.31	113.10
1	B	233	ASP	CB-CG-OD2	7.10	124.69	118.30
1	I	291	TYR	CB-CG-CD1	7.10	125.26	121.00
1	N	182	PRO	CA-CB-CG	-7.10	90.51	104.00
1	C	194	VAL	CG1-CB-CG2	7.10	122.26	110.90
1	F	294	THR	CA-CB-CG2	-7.10	102.46	112.40
1	O	332	THR	CA-CB-CG2	-7.09	102.47	112.40
1	H	275	LEU	CB-CG-CD1	-7.09	98.95	111.00
1	J	223	ASP	CB-CG-OD1	-7.09	111.92	118.30
1	C	159	ILE	CG1-CB-CG2	-7.08	95.81	111.40
1	M	383	LEU	CB-CG-CD1	7.08	123.04	111.00
1	F	125	LYS	CD-CE-NZ	-7.08	95.42	111.70
1	H	244	ASP	CB-CG-OD1	7.07	124.67	118.30
1	J	275	LEU	CB-CG-CD2	7.07	123.02	111.00
1	K	24	THR	CA-CB-CG2	-7.07	102.50	112.40
1	J	291	TYR	CZ-CE2-CD2	7.07	126.16	119.80
1	K	463	PRO	N-CD-CG	-7.06	92.61	103.20
1	B	383	LEU	CB-CG-CD1	7.05	122.99	111.00
1	L	460	ASP	CB-CG-OD1	7.05	124.65	118.30
1	B	162	LYS	CD-CE-NZ	7.05	127.91	111.70
1	H	289	SER	N-CA-CB	-7.04	99.94	110.50
1	K	331	VAL	CA-CB-CG2	-7.04	100.34	110.90
1	N	362	GLU	OE1-CD-OE2	-7.04	114.86	123.30
1	B	355	TYR	CG-CD1-CE1	7.03	126.92	121.30
1	I	174	PRO	N-CA-C	7.03	130.37	112.10
1	J	180	VAL	CB-CA-C	-7.02	98.05	111.40
1	L	109	ARG	NH1-CZ-NH2	-7.02	111.67	119.40
1	C	128	ASP	CB-CG-OD2	-7.02	111.98	118.30
1	F	464	LEU	CB-CG-CD2	7.02	122.93	111.00
1	A	194	VAL	CB-CA-C	-7.01	98.08	111.40
1	J	260	LEU	CB-CG-CD1	-7.01	99.09	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	M	25	ASP	CB-CG-OD1	7.01	124.61	118.30
1	M	472	LEU	CA-CB-CG	7.00	131.41	115.30
1	G	274	ASP	CB-CG-OD1	-7.00	112.00	118.30
1	H	231	TYR	CD1-CE1-CZ	-7.00	113.50	119.80
1	L	376	PHE	CB-CG-CD1	-6.99	115.91	120.80
1	A	244	ASP	CB-CG-OD1	6.98	124.59	118.30
1	B	107	VAL	CG1-CB-CG2	-6.98	99.73	110.90
1	N	335	ASP	CB-CG-OD2	6.98	124.58	118.30
1	N	64	LYS	CD-CE-NZ	6.98	127.75	111.70
1	B	97	ARG	NE-CZ-NH2	-6.98	116.81	120.30
1	D	335	ASP	CB-CG-OD2	6.97	124.58	118.30
1	G	106	GLU	OE1-CD-OE2	-6.97	114.94	123.30
1	N	459	LEU	CB-CG-CD1	-6.97	99.16	111.00
1	M	42	LEU	CB-CG-CD1	-6.96	99.17	111.00
1	K	79	ASP	CB-CG-OD1	6.95	124.56	118.30
1	N	292	PHE	CB-CG-CD2	-6.95	115.93	120.80
1	O	460	ASP	CB-CG-OD1	6.95	124.56	118.30
1	A	266	THR	CB-CA-C	-6.95	92.84	111.60
1	G	336	THR	CA-CB-CG2	-6.95	102.67	112.40
1	C	142	ASP	CB-CG-OD2	6.95	124.55	118.30
1	D	144	ARG	CG-CD-NE	-6.95	97.21	111.80
1	E	263	ARG	NE-CZ-NH2	6.95	123.77	120.30
1	L	269	GLU	N-CA-CB	-6.94	98.10	110.60
1	B	263	ARG	NE-CZ-NH1	6.94	123.77	120.30
1	A	235	ILE	CB-CA-C	-6.94	97.72	111.60
1	J	381	ILE	CG1-CB-CG2	6.93	126.65	111.40
1	E	34	TYR	CD1-CE1-CZ	-6.93	113.56	119.80
1	H	123	LEU	CB-CG-CD1	-6.93	99.22	111.00
1	M	72	VAL	CG1-CB-CG2	6.92	121.98	110.90
1	M	299	MET	CB-CG-SD	-6.92	91.65	112.40
1	C	181	GLN	N-CA-C	-6.91	92.33	111.00
1	F	260	LEU	CB-CG-CD2	-6.91	99.25	111.00
1	M	332	THR	CA-CB-CG2	-6.91	102.73	112.40
1	D	223	ASP	CB-CG-OD2	-6.91	112.08	118.30
1	K	74	ARG	NE-CZ-NH1	6.91	123.75	120.30
1	I	71	ARG	NE-CZ-NH1	6.90	123.75	120.30
1	H	454	LYS	CD-CE-NZ	6.89	127.54	111.70
1	N	87	ASP	C-N-CA	-6.89	104.48	121.70
1	M	90	PHE	CB-CG-CD2	-6.88	115.98	120.80
1	J	123	LEU	CB-CG-CD1	-6.88	99.31	111.00
1	D	160	GLY	O-C-N	-6.87	111.70	122.70
1	I	344	LEU	CB-CG-CD2	6.87	122.67	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	J	377	GLN	CA-CB-CG	6.87	128.51	113.40
1	B	315	ARG	NE-CZ-NH1	6.87	123.73	120.30
1	F	41	ARG	NE-CZ-NH2	6.86	123.73	120.30
1	H	156	LEU	CB-CG-CD1	6.86	122.66	111.00
1	H	391	ILE	CA-CB-CG1	-6.86	97.97	111.00
1	I	178	VAL	CG1-CB-CG2	-6.86	99.93	110.90
1	J	95	THR	N-CA-C	6.85	129.50	111.00
1	E	468	PHE	CG-CD1-CE1	6.85	128.33	120.80
1	M	257	VAL	CA-CB-CG2	-6.85	100.63	110.90
1	I	197	ASP	CB-CG-OD2	-6.84	112.14	118.30
1	H	269	GLU	OE1-CD-OE2	-6.84	115.09	123.30
1	B	182	PRO	CA-CB-CG	-6.84	91.00	104.00
1	E	252	ARG	NH1-CZ-NH2	6.84	126.92	119.40
1	H	158	LEU	CB-CG-CD2	-6.84	99.38	111.00
1	D	235	ILE	CB-CA-C	-6.83	97.93	111.60
1	L	230	LYS	CD-CE-NZ	-6.83	95.99	111.70
1	B	214	GLN	CA-CB-CG	-6.82	98.39	113.40
1	J	175	CYS	CA-CB-SG	-6.82	101.72	114.00
1	N	165	ILE	CA-CB-CG1	-6.81	98.06	111.00
1	I	77	LEU	CA-CB-CG	-6.81	99.64	115.30
1	L	195	ILE	CG1-CB-CG2	6.81	126.38	111.40
1	I	466	ARG	NE-CZ-NH2	-6.80	116.90	120.30
1	A	449	VAL	CG1-CB-CG2	-6.80	100.02	110.90
1	H	201	VAL	CB-CA-C	-6.80	98.47	111.40
1	E	98	LEU	CB-CG-CD2	-6.80	99.44	111.00
1	L	334	VAL	CG1-CB-CG2	-6.79	100.03	110.90
1	M	165	ILE	CG1-CB-CG2	-6.79	96.47	111.40
1	D	386	ASP	CB-CG-OD2	6.78	124.40	118.30
1	C	126	LEU	CA-CB-CG	-6.78	99.72	115.30
1	F	220	VAL	CA-CB-CG1	-6.78	100.74	110.90
1	L	22	VAL	CB-CA-C	-6.77	98.53	111.40
1	M	49	TYR	CB-CG-CD2	6.77	125.06	121.00
1	D	468	PHE	CG-CD1-CE1	6.77	128.25	120.80
1	H	260	LEU	CB-CG-CD1	-6.77	99.49	111.00
1	G	159	ILE	CG1-CB-CG2	-6.77	96.51	111.40
1	N	201	VAL	CA-CB-CG1	-6.77	100.75	110.90
1	G	335	ASP	CB-CG-OD2	-6.77	112.21	118.30
1	E	150	ASP	CB-CG-OD1	-6.76	112.22	118.30
1	D	128	ASP	CB-CG-OD1	-6.75	112.22	118.30
1	G	180	VAL	CB-CA-C	-6.75	98.57	111.40
1	E	335	ASP	CB-CG-OD1	-6.75	112.22	118.30
1	O	156	LEU	CB-CG-CD1	6.75	122.48	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	M	329	LEU	CA-CB-CG	-6.75	99.78	115.30
1	D	277	ILE	CG1-CB-CG2	-6.75	96.56	111.40
1	I	74	ARG	NE-CZ-NH2	6.74	123.67	120.30
1	E	263	ARG	NH1-CZ-NH2	-6.74	111.99	119.40
1	O	162	LYS	CD-CE-NZ	6.74	127.20	111.70
1	F	94	ASP	CB-CG-OD1	-6.73	112.25	118.30
1	M	281	GLY	N-CA-C	-6.73	96.28	113.10
1	A	26	GLU	OE1-CD-OE2	-6.72	115.23	123.30
1	D	469	LEU	CB-CG-CD2	-6.72	99.58	111.00
1	M	363	TYR	N-CA-CB	-6.72	98.50	110.60
1	I	237	MET	CG-SD-CE	-6.72	89.45	100.20
1	D	438	GLU	OE1-CD-OE2	6.71	131.36	123.30
1	E	300	VAL	CA-CB-CG2	-6.71	100.83	110.90
1	G	156	LEU	CB-CG-CD2	-6.71	99.59	111.00
1	A	181	GLN	N-CA-C	-6.71	92.89	111.00
1	I	451	LEU	CB-CG-CD2	-6.71	99.60	111.00
1	I	390	TYR	CB-CG-CD2	-6.71	116.98	121.00
1	H	401	ASP	CB-CG-OD2	-6.70	112.27	118.30
1	D	66	SER	C-N-CA	-6.70	108.24	122.30
1	I	112	PRO	N-CD-CG	-6.70	93.16	103.20
1	L	247	PHE	CG-CD1-CE1	-6.69	113.44	120.80
1	A	390	TYR	CB-CG-CD2	-6.69	116.98	121.00
1	D	122	LEU	CB-CG-CD1	6.69	122.38	111.00
1	O	322	GLY	N-CA-C	-6.69	96.37	113.10
1	A	286	LEU	CB-CG-CD1	6.69	122.38	111.00
1	H	212	THR	CA-CB-CG2	-6.69	103.03	112.40
1	J	195	ILE	CG1-CB-CG2	6.68	126.10	111.40
1	I	105	VAL	CA-CB-CG1	-6.68	100.88	110.90
1	A	241	PRO	CA-CB-CG	-6.67	91.32	104.00
1	G	30	ARG	NE-CZ-NH2	-6.67	116.96	120.30
1	N	199	ASP	CB-CG-OD1	-6.67	112.30	118.30
1	H	144	ARG	CG-CD-NE	-6.67	97.80	111.80
1	L	398	ILE	CB-CG1-CD1	-6.67	95.23	113.90
1	E	458	ASP	CB-CG-OD1	6.67	124.30	118.30
1	J	147	ILE	CA-CB-CG1	-6.66	98.34	111.00
1	G	365	ARG	NE-CZ-NH1	6.66	123.63	120.30
1	C	374	PHE	CB-CG-CD1	6.65	125.45	120.80
1	M	87	ASP	CB-CG-OD1	-6.64	112.32	118.30
1	F	390	TYR	CB-CG-CD2	-6.64	117.01	121.00
1	N	127	ASP	CB-CG-OD2	-6.64	112.32	118.30
1	G	371	ASP	CB-CG-OD2	-6.63	112.33	118.30
1	F	242	TYR	CZ-CE2-CD2	6.63	125.76	119.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	49	TYR	CZ-CE2-CD2	-6.62	113.84	119.80
1	H	472	LEU	CB-CG-CD2	6.62	122.25	111.00
1	H	235	ILE	CB-CA-C	-6.61	98.38	111.60
1	D	115	VAL	CA-CB-CG2	-6.61	100.99	110.90
1	E	201	VAL	CG1-CB-CG2	-6.61	100.33	110.90
1	L	315	ARG	NE-CZ-NH1	-6.61	117.00	120.30
1	L	177	GLN	N-CA-C	-6.60	93.18	111.00
1	M	42	LEU	CB-CG-CD2	6.60	122.22	111.00
1	M	234	TYR	CD1-CE1-CZ	6.60	125.74	119.80
1	D	240	GLU	OE1-CD-OE2	6.59	131.21	123.30
1	H	217	LYS	CD-CE-NZ	-6.59	96.54	111.70
1	N	211	THR	CA-CB-CG2	-6.59	103.17	112.40
1	E	202	ASP	CB-CG-OD2	6.59	124.23	118.30
1	D	75	ILE	CG1-CB-CG2	-6.59	96.91	111.40
1	I	72	VAL	CA-CB-CG1	-6.58	101.03	110.90
1	N	451	LEU	CB-CG-CD1	6.58	122.18	111.00
1	B	463	PRO	CA-CB-CG	-6.58	91.51	104.00
1	D	98	LEU	CB-CG-CD2	-6.57	99.83	111.00
1	F	175	CYS	CA-CB-SG	-6.57	102.17	114.00
1	F	383	LEU	CB-CG-CD2	6.57	122.17	111.00
1	A	71	ARG	NH1-CZ-NH2	-6.57	112.17	119.40
1	A	147	ILE	CB-CA-C	-6.57	98.47	111.60
1	E	71	ARG	NE-CZ-NH2	-6.56	117.02	120.30
1	C	362	GLU	OE1-CD-OE2	6.56	131.18	123.30
1	I	372	LEU	CB-CG-CD2	-6.56	99.84	111.00
1	D	447	TRP	N-CA-C	-6.56	93.29	111.00
1	A	269	GLU	OE1-CD-OE2	-6.56	115.43	123.30
1	I	170	GLY	N-CA-C	-6.55	96.71	113.10
1	G	313	LEU	CB-CG-CD1	6.55	122.14	111.00
1	K	313	LEU	CB-CG-CD1	6.55	122.14	111.00
1	F	123	LEU	N-CA-CB	-6.55	97.30	110.40
1	I	173	SER	C-N-CD	-6.55	106.19	120.60
1	C	180	VAL	CB-CA-C	-6.54	98.97	111.40
1	D	258	ARG	NE-CZ-NH1	6.54	123.57	120.30
1	F	372	LEU	CA-CB-CG	-6.54	100.25	115.30
1	J	452	LYS	CD-CE-NZ	6.54	126.75	111.70
1	F	203	THR	CA-CB-CG2	-6.54	103.25	112.40
1	D	201	VAL	CG1-CB-CG2	-6.53	100.44	110.90
1	K	389	THR	CA-CB-CG2	-6.53	103.26	112.40
1	F	181	GLN	N-CA-C	-6.53	93.37	111.00
1	N	274	ASP	OD1-CG-OD2	6.53	135.70	123.30
1	M	457	ALA	N-CA-CB	-6.52	100.97	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	263	ARG	NH1-CZ-NH2	-6.52	112.23	119.40
1	I	231	TYR	CG-CD1-CE1	6.51	126.51	121.30
1	L	98	LEU	CB-CG-CD2	-6.51	99.94	111.00
1	C	274	ASP	CB-CG-OD2	6.51	124.16	118.30
1	E	337	THR	CA-CB-CG2	-6.50	103.30	112.40
1	I	299	MET	CG-SD-CE	6.50	110.60	100.20
1	M	71	ARG	NH1-CZ-NH2	-6.50	112.25	119.40
1	J	230	LYS	CD-CE-NZ	-6.49	96.77	111.70
1	L	144	ARG	NE-CZ-NH1	-6.49	117.06	120.30
1	F	297	GLY	N-CA-C	-6.49	96.88	113.10
1	F	389	THR	OG1-CB-CG2	6.49	124.92	110.00
1	D	175	CYS	N-CA-C	-6.48	93.49	111.00
1	G	145	GLU	OE1-CD-OE2	6.48	131.08	123.30
1	G	278	LYS	CD-CE-NZ	-6.48	96.79	111.70
1	H	310	PRO	N-CA-CB	-6.48	95.47	102.60
1	F	361	LYS	CD-CE-NZ	-6.48	96.80	111.70
1	G	388	MET	CG-SD-CE	6.48	110.56	100.20
1	N	386	ASP	CB-CG-OD2	6.48	124.13	118.30
1	G	72	VAL	CG1-CB-CG2	6.47	121.26	110.90
1	G	363	TYR	CG-CD1-CE1	-6.47	116.12	121.30
1	C	295	PRO	N-CD-CG	-6.47	93.49	103.20
1	G	207	ALA	N-CA-CB	-6.47	101.04	110.10
1	M	98	LEU	CB-CG-CD2	-6.47	100.00	111.00
1	M	299	MET	CG-SD-CE	6.47	110.55	100.20
1	F	49	TYR	CB-CG-CD2	6.47	124.88	121.00
1	D	72	VAL	CA-CB-CG1	-6.46	101.20	110.90
1	M	86	PRO	C-N-CA	6.46	137.86	121.70
1	M	269	GLU	CG-CD-OE2	6.46	131.22	118.30
1	C	291	TYR	CB-CG-CD2	6.46	124.88	121.00
1	M	323	ILE	CG1-CB-CG2	-6.46	97.20	111.40
1	F	199	ASP	CB-CG-OD2	-6.45	112.49	118.30
1	G	453	GLU	OE1-CD-OE2	-6.45	115.56	123.30
1	H	466	ARG	NH1-CZ-NH2	-6.45	112.30	119.40
1	A	315	ARG	NH1-CZ-NH2	6.45	126.49	119.40
1	H	220	VAL	CG1-CB-CG2	-6.44	100.60	110.90
1	H	315	ARG	NE-CZ-NH1	-6.44	117.08	120.30
1	L	194	VAL	O-C-N	-6.44	112.39	122.70
1	H	183	GLY	O-C-N	6.44	133.00	122.70
1	J	252	ARG	NE-CZ-NH2	-6.43	117.08	120.30
1	J	442	LYS	N-CA-C	-6.43	93.63	111.00
1	O	68	LEU	CA-CB-CG	-6.43	100.51	115.30
1	G	181	GLN	N-CA-C	-6.43	93.64	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	277	ILE	CG1-CB-CG2	-6.43	97.26	111.40
1	A	233	ASP	CB-CG-OD2	-6.43	112.52	118.30
1	C	51	PRO	CB-CG-CD	-6.43	81.43	106.50
1	H	338	ARG	N-CA-C	-6.42	93.65	111.00
1	K	113	LEU	CA-CB-CG	-6.42	100.53	115.30
1	N	201	VAL	CB-CA-C	-6.42	99.19	111.40
1	A	241	PRO	N-CD-CG	-6.42	93.57	103.20
1	H	59	LYS	CD-CE-NZ	6.41	126.45	111.70
1	C	41	ARG	NE-CZ-NH1	6.41	123.50	120.30
1	N	460	ASP	CB-CG-OD2	-6.41	112.53	118.30
1	C	145	GLU	OE1-CD-OE2	6.41	130.99	123.30
1	L	299	MET	CA-CB-CG	6.41	124.19	113.30
1	L	323	ILE	CG1-CB-CG2	-6.40	97.31	111.40
1	H	158	LEU	CA-CB-CG	6.40	130.03	115.30
1	N	191	ILE	CB-CA-C	-6.40	98.80	111.60
1	B	331	VAL	CG1-CB-CG2	6.40	121.14	110.90
1	E	177	GLN	N-CA-C	-6.39	93.73	111.00
1	M	195	ILE	N-CA-C	-6.39	93.75	111.00
1	C	383	LEU	CB-CG-CD1	6.39	121.86	111.00
1	K	263	ARG	NE-CZ-NH2	-6.38	117.11	120.30
1	L	72	VAL	CA-CB-CG1	-6.38	101.33	110.90
1	I	87	ASP	CB-CG-OD1	6.38	124.04	118.30
1	J	201	VAL	CA-CB-CG1	-6.38	101.34	110.90
1	F	222	LEU	CB-CG-CD2	6.37	121.84	111.00
1	D	60	ILE	CA-CB-CG1	-6.37	98.89	111.00
1	H	233	ASP	CB-CG-OD1	6.37	124.03	118.30
1	C	244	ASP	CB-CG-OD2	-6.37	112.57	118.30
1	E	468	PHE	CD1-CE1-CZ	-6.37	112.46	120.10
1	G	439	ASP	CB-CG-OD2	6.37	124.03	118.30
1	B	272	PRO	CA-N-CD	6.36	120.61	111.70
1	L	260	LEU	CB-CG-CD1	-6.36	100.19	111.00
1	H	99	VAL	CG1-CB-CG2	-6.36	100.73	110.90
1	O	190	LEU	CB-CG-CD2	-6.36	100.19	111.00
1	O	43	LEU	CB-CG-CD1	6.35	121.80	111.00
1	N	203	THR	CA-CB-CG2	-6.35	103.51	112.40
1	E	368	GLU	CA-CB-CG	-6.35	99.43	113.40
1	G	398	ILE	CG1-CB-CG2	-6.35	97.43	111.40
1	J	87	ASP	CB-CG-OD2	-6.35	112.59	118.30
1	K	180	VAL	CG1-CB-CG2	6.34	121.05	110.90
1	H	298	SER	N-CA-CB	-6.34	100.98	110.50
1	I	456	SER	C-N-CA	-6.34	105.84	121.70
1	L	144	ARG	CG-CD-NE	-6.34	98.49	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	240	GLU	OE1-CD-OE2	6.34	130.90	123.30
1	I	275	LEU	CB-CG-CD1	6.33	121.76	111.00
1	C	443	LYS	CD-CE-NZ	6.33	126.25	111.70
1	E	281	GLY	N-CA-C	-6.32	97.29	113.10
1	N	33	ILE	CG1-CB-CG2	-6.32	97.49	111.40
1	D	28	VAL	CA-CB-CG2	-6.32	101.42	110.90
1	I	111	GLN	CB-CG-CD	-6.32	95.17	111.60
1	A	306	ILE	CA-CB-CG1	-6.31	99.00	111.00
1	D	298	SER	N-CA-CB	-6.31	101.03	110.50
1	L	344	LEU	CB-CG-CD2	-6.31	100.27	111.00
1	F	122	LEU	CB-CG-CD2	-6.31	100.27	111.00
1	L	263	ARG	NE-CZ-NH1	6.30	123.45	120.30
1	G	199	ASP	CB-CG-OD1	-6.30	112.63	118.30
1	C	302	SER	N-CA-CB	-6.29	101.06	110.50
1	J	180	VAL	CG1-CB-CG2	6.29	120.97	110.90
1	L	213	LEU	CB-CG-CD1	-6.29	100.30	111.00
1	O	197	ASP	CB-CG-OD1	-6.29	112.64	118.30
1	A	299	MET	CB-CA-C	-6.29	97.82	110.40
1	B	70	TYR	CZ-CE2-CD2	6.29	125.46	119.80
1	M	300	VAL	CA-CB-CG2	-6.29	101.47	110.90
1	B	62	VAL	CB-CA-C	-6.29	99.45	111.40
1	A	315	ARG	NE-CZ-NH1	-6.29	117.16	120.30
1	A	208	MET	CG-SD-CE	6.28	110.25	100.20
1	M	65	VAL	CG1-CB-CG2	-6.28	100.85	110.90
1	D	70	TYR	CB-CG-CD2	-6.28	117.23	121.00
1	M	184	ASP	CB-CG-OD1	-6.28	112.65	118.30
1	A	178	VAL	CG1-CB-CG2	6.27	120.93	110.90
1	O	371	ASP	CB-CG-OD1	6.27	123.94	118.30
1	C	441	LEU	CB-CG-CD2	6.27	121.66	111.00
1	G	263	ARG	CD-NE-CZ	-6.27	114.83	123.60
1	H	52	ILE	CG1-CB-CG2	-6.26	97.62	111.40
1	C	439	ASP	CB-CG-OD1	-6.26	112.67	118.30
1	M	313	LEU	CB-CG-CD1	6.25	121.63	111.00
1	G	209	ASP	CB-CG-OD1	-6.25	112.67	118.30
1	A	334	VAL	CA-CB-CG2	6.25	120.27	110.90
1	B	71	ARG	NE-CZ-NH2	6.25	123.42	120.30
1	N	331	VAL	CA-CB-CG2	-6.24	101.54	110.90
1	N	399	LEU	CB-CG-CD1	-6.24	100.39	111.00
1	L	54	LYS	CD-CE-NZ	6.24	126.06	111.70
1	D	77	LEU	CB-CG-CD1	6.23	121.60	111.00
1	H	35	TYR	CZ-CE2-CD2	6.23	125.41	119.80
1	C	251	ARG	NE-CZ-NH1	6.23	123.42	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	126	LEU	CA-CB-CG	-6.23	100.97	115.30
1	H	123	LEU	CB-CG-CD2	6.23	121.59	111.00
1	O	167	GLU	CG-CD-OE1	-6.23	105.84	118.30
1	N	212	THR	CA-CB-CG2	-6.23	103.68	112.40
1	J	372	LEU	CA-CB-CG	-6.22	100.98	115.30
1	L	25	ASP	CB-CG-OD2	6.22	123.90	118.30
1	L	291	TYR	CG-CD1-CE1	6.22	126.28	121.30
1	F	52	ILE	CG1-CB-CG2	-6.22	97.72	111.40
1	L	123	LEU	CB-CG-CD2	-6.21	100.44	111.00
1	C	260	LEU	CB-CG-CD1	-6.21	100.44	111.00
1	C	249	TYR	CG-CD1-CE1	6.21	126.27	121.30
1	A	64	LYS	CB-CA-C	-6.21	97.99	110.40
1	E	460	ASP	CB-CG-OD1	6.21	123.88	118.30
1	I	199	ASP	CB-CG-OD1	-6.20	112.72	118.30
1	C	122	LEU	CB-CG-CD2	-6.20	100.46	111.00
1	D	165	ILE	CA-CB-CG1	-6.19	99.23	111.00
1	H	383	LEU	CB-CG-CD2	-6.19	100.47	111.00
1	L	71	ARG	NH1-CZ-NH2	6.19	126.21	119.40
1	N	282	SER	N-CA-CB	-6.19	101.21	110.50
1	H	181	GLN	N-CA-CB	-6.19	99.46	110.60
1	H	175	CYS	N-CA-CB	-6.18	99.47	110.60
1	N	37	ALA	C-N-CA	-6.18	109.33	122.30
1	A	255	MET	CB-CA-C	-6.18	98.05	110.40
1	F	180	VAL	N-CA-C	6.17	127.67	111.00
1	J	388	MET	CG-SD-CE	6.17	110.08	100.20
1	I	266	THR	CA-CB-CG2	-6.17	103.76	112.40
1	D	159	ILE	CA-CB-CG2	-6.17	98.56	110.90
1	H	237	MET	CA-CB-CG	6.17	123.79	113.30
1	K	457	ALA	CB-CA-C	-6.17	100.84	110.10
1	B	99	VAL	CA-CB-CG2	-6.17	101.64	110.90
1	H	43	LEU	CB-CG-CD2	-6.17	100.51	111.00
1	G	180	VAL	N-CA-C	6.17	127.65	111.00
1	H	365	ARG	NE-CZ-NH1	-6.17	117.22	120.30
1	O	299	MET	CG-SD-CE	6.17	110.07	100.20
1	H	336	THR	CA-CB-CG2	-6.16	103.78	112.40
1	G	90	PHE	CB-CG-CD2	-6.15	116.49	120.80
1	G	315	ARG	NE-CZ-NH2	-6.15	117.22	120.30
1	E	383	LEU	CB-CG-CD1	6.15	121.45	111.00
1	M	123	LEU	CB-CG-CD1	6.15	121.45	111.00
1	B	472	LEU	CA-CB-CG	6.15	129.44	115.30
1	F	209	ASP	CB-CG-OD2	6.15	123.83	118.30
1	I	356	LYS	CD-CE-NZ	-6.14	97.58	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	M	113	LEU	CA-CB-CG	6.14	129.43	115.30
1	B	142	ASP	CB-CG-OD2	-6.14	112.77	118.30
1	G	115	VAL	CB-CA-C	-6.14	99.73	111.40
1	G	225	CYS	CA-CB-SG	-6.14	102.95	114.00
1	H	178	VAL	CA-CB-CG2	-6.14	101.69	110.90
1	O	262	ASN	N-CA-CB	-6.14	99.55	110.60
1	E	141	VAL	CA-CB-CG2	-6.14	101.70	110.90
1	G	144	ARG	NE-CZ-NH1	-6.14	117.23	120.30
1	L	234	TYR	CZ-CE2-CD2	-6.14	114.28	119.80
1	A	144	ARG	CG-CD-NE	-6.13	98.92	111.80
1	B	128	ASP	CB-CG-OD1	6.13	123.82	118.30
1	B	68	LEU	CA-CB-CG	-6.13	101.21	115.30
1	D	470	LEU	CB-CG-CD2	6.12	121.41	111.00
1	D	144	ARG	NE-CZ-NH1	-6.12	117.24	120.30
1	J	156	LEU	CB-CG-CD1	-6.12	100.59	111.00
1	M	318	GLY	N-CA-C	-6.12	97.79	113.10
1	E	125	LYS	CD-CE-NZ	-6.12	97.62	111.70
1	F	72	VAL	CA-CB-CG1	-6.12	101.72	110.90
1	B	34	TYR	CD1-CE1-CZ	-6.12	114.29	119.80
1	C	370	TYR	CZ-CE2-CD2	-6.12	114.30	119.80
1	N	54	LYS	CD-CE-NZ	6.12	125.77	111.70
1	N	464	LEU	CB-CG-CD2	6.11	121.39	111.00
1	H	313	LEU	CB-CG-CD1	6.11	121.39	111.00
1	C	156	LEU	CB-CG-CD1	6.11	121.38	111.00
1	G	107	VAL	CA-CB-CG1	-6.11	101.74	110.90
1	K	142	ASP	CB-CG-OD2	6.11	123.80	118.30
1	J	244	ASP	CB-CG-OD2	-6.10	112.81	118.30
1	J	378	LEU	CB-CG-CD1	6.10	121.37	111.00
1	D	304	ALA	N-CA-C	6.10	127.47	111.00
1	E	156	LEU	CB-CG-CD2	-6.10	100.63	111.00
1	G	365	ARG	CB-CG-CD	-6.09	95.76	111.60
1	G	439	ASP	CB-CG-OD1	-6.09	112.82	118.30
1	J	361	LYS	O-C-N	-6.09	112.96	122.70
1	M	269	GLU	OE1-CD-OE2	-6.09	115.99	123.30
1	D	175	CYS	CA-CB-SG	-6.09	103.04	114.00
1	G	180	VAL	CA-C-N	-6.08	103.82	117.20
1	F	95	THR	CA-CB-CG2	-6.08	103.89	112.40
1	D	188	LEU	CB-CG-CD1	-6.08	100.67	111.00
1	I	172	GLY	N-CA-C	-6.08	97.91	113.10
1	M	237	MET	CG-SD-CE	6.07	109.91	100.20
1	E	158	LEU	CB-CG-CD1	-6.07	100.68	111.00
1	D	269	GLU	OE1-CD-OE2	-6.06	116.02	123.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	M	109	ARG	NE-CZ-NH1	-6.06	117.27	120.30
1	H	178	VAL	CA-C-N	-6.06	103.87	117.20
1	K	45	VAL	CA-CB-CG1	-6.06	101.82	110.90
1	K	151	TYR	CZ-CE2-CD2	-6.05	114.35	119.80
1	B	386	ASP	CB-CG-OD2	6.05	123.75	118.30
1	F	97	ARG	CG-CD-NE	6.05	124.51	111.80
1	E	234	TYR	CZ-CE2-CD2	-6.05	114.35	119.80
1	F	128	ASP	CB-CG-OD2	6.05	123.74	118.30
1	I	194	VAL	CG1-CB-CG2	6.05	120.58	110.90
1	B	278	LYS	C-N-CA	-6.04	109.61	122.30
1	G	335	ASP	OD1-CG-OD2	6.04	134.78	123.30
1	M	338	ARG	NE-CZ-NH1	6.04	123.32	120.30
1	K	333	VAL	CB-CA-C	-6.04	99.93	111.40
1	E	25	ASP	CB-CG-OD1	-6.04	112.87	118.30
1	I	87	ASP	CB-CG-OD2	-6.03	112.87	118.30
1	N	88	THR	CB-CA-C	6.03	127.89	111.60
1	G	197	ASP	CB-CG-OD1	-6.03	112.87	118.30
1	H	33	ILE	CG1-CB-CG2	-6.03	98.13	111.40
1	H	65	VAL	CG1-CB-CG2	-6.03	101.25	110.90
1	E	122	LEU	CA-CB-CG	-6.03	101.43	115.30
1	D	109	ARG	NE-CZ-NH2	6.03	123.31	120.30
1	G	49	TYR	CG-CD2-CE2	-6.02	116.48	121.30
1	B	291	TYR	CB-CG-CD2	6.02	124.61	121.00
1	A	209	ASP	CB-CG-OD1	-6.02	112.88	118.30
1	F	234	TYR	CD1-CE1-CZ	6.02	125.22	119.80
1	B	306	ILE	CG1-CB-CG2	-6.02	98.16	111.40
1	A	466	ARG	NE-CZ-NH1	6.01	123.31	120.30
1	L	67	GLY	O-C-N	-6.01	113.08	122.70
1	N	303	ASP	CB-CG-OD1	-6.01	112.89	118.30
1	F	49	TYR	CD1-CE1-CZ	-6.01	114.39	119.80
1	J	112	PRO	N-CD-CG	-6.00	94.19	103.20
1	J	457	ALA	N-CA-CB	-6.00	101.69	110.10
1	N	277	ILE	CG1-CB-CG2	-6.00	98.19	111.40
1	A	258	ARG	CG-CD-NE	-6.00	99.20	111.80
1	F	468	PHE	CG-CD2-CE2	-6.00	114.20	120.80
1	G	271	VAL	CG1-CB-CG2	6.00	120.50	110.90
1	D	371	ASP	CB-CG-OD2	6.00	123.70	118.30
1	B	292	PHE	CG-CD2-CE2	-5.99	114.21	120.80
1	A	33	ILE	CB-CA-C	-5.99	99.62	111.60
1	C	128	ASP	CB-CG-OD1	5.99	123.69	118.30
1	I	128	ASP	CB-CG-OD2	-5.99	112.91	118.30
1	N	469	LEU	CB-CG-CD2	-5.99	100.82	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	74	ARG	NE-CZ-NH1	-5.99	117.31	120.30
1	D	141	VAL	CB-CA-C	-5.99	100.03	111.40
1	E	329	LEU	CB-CG-CD1	-5.99	100.82	111.00
1	A	64	LYS	CA-CB-CG	-5.98	100.23	113.40
1	A	289	SER	N-CA-CB	-5.98	101.52	110.50
1	I	206	GLY	N-CA-C	-5.98	98.14	113.10
1	L	31	THR	CB-CA-C	-5.98	95.44	111.60
1	A	222	LEU	CB-CG-CD1	5.98	121.17	111.00
1	M	123	LEU	CB-CG-CD2	-5.98	100.84	111.00
1	C	256	PHE	CB-CG-CD2	5.97	124.98	120.80
1	F	466	ARG	NE-CZ-NH1	-5.97	117.31	120.30
1	G	140	GLY	CA-C-O	5.97	131.35	120.60
1	K	98	LEU	CA-CB-CG	5.97	129.04	115.30
1	G	122	LEU	CB-CG-CD1	5.97	121.15	111.00
1	E	338	ARG	NE-CZ-NH1	5.97	123.28	120.30
1	J	144	ARG	NE-CZ-NH1	-5.97	117.32	120.30
1	M	158	LEU	N-CA-CB	5.97	122.34	110.40
1	D	374	PHE	CB-CG-CD2	-5.96	116.62	120.80
1	M	297	GLY	N-CA-C	-5.96	98.19	113.10
1	B	266	THR	CA-CB-CG2	-5.96	104.05	112.40
1	E	177	GLN	CB-CG-CD	5.96	127.10	111.60
1	K	231	TYR	CB-CA-C	-5.96	98.48	110.40
1	E	141	VAL	CB-CA-C	-5.95	100.09	111.40
1	E	336	THR	N-CA-CB	5.95	121.61	110.30
1	I	102	CYS	CA-CB-SG	-5.95	103.30	114.00
1	F	323	ILE	CG1-CB-CG2	-5.94	98.33	111.40
1	E	189	GLU	OE1-CD-OE2	5.94	130.43	123.30
1	G	144	ARG	CG-CD-NE	-5.94	99.33	111.80
1	D	306	ILE	CG1-CB-CG2	-5.94	98.33	111.40
1	K	344	LEU	CB-CG-CD2	5.94	121.10	111.00
1	K	448	GLU	N-CA-CB	-5.94	99.91	110.60
1	A	251	ARG	NE-CZ-NH1	-5.93	117.33	120.30
1	G	472	LEU	CA-CB-CG	5.93	128.94	115.30
1	I	274	ASP	CB-CG-OD2	-5.93	112.96	118.30
1	K	297	GLY	N-CA-C	-5.93	98.28	113.10
1	K	300	VAL	CB-CA-C	-5.93	100.14	111.40
1	L	341	ASN	N-CA-CB	5.92	121.26	110.60
1	J	126	LEU	CA-CB-CG	-5.92	101.68	115.30
1	N	205	PHE	CG-CD1-CE1	5.92	127.31	120.80
1	L	466	ARG	NE-CZ-NH2	5.92	123.26	120.30
1	F	383	LEU	CB-CG-CD1	5.92	121.06	111.00
1	M	59	LYS	CD-CE-NZ	-5.92	98.09	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	278	LYS	C-N-CA	-5.91	109.89	122.30
1	L	398	ILE	CG1-CB-CG2	-5.91	98.40	111.40
1	O	77	LEU	CB-CG-CD1	5.91	121.04	111.00
1	C	309	LYS	CD-CE-NZ	5.91	125.28	111.70
1	D	122	LEU	CB-CG-CD2	-5.91	100.96	111.00
1	O	71	ARG	NE-CZ-NH1	5.91	123.25	120.30
1	N	244	ASP	CB-CG-OD2	-5.90	112.99	118.30
1	N	157	CYS	CA-CB-SG	5.90	124.63	114.00
1	B	469	LEU	O-C-N	-5.90	113.26	122.70
1	A	472	LEU	N-CA-CB	5.90	122.19	110.40
1	N	251	ARG	NE-CZ-NH2	-5.90	117.35	120.30
1	D	62	VAL	CA-CB-CG1	-5.89	102.06	110.90
1	D	154	THR	CA-CB-CG2	5.89	120.65	112.40
1	K	68	LEU	CA-CB-CG	-5.89	101.74	115.30
1	M	112	PRO	CA-CB-CG	-5.89	92.81	104.00
1	G	335	ASP	CB-CG-OD1	-5.89	113.00	118.30
1	O	72	VAL	CG1-CB-CG2	-5.89	101.48	110.90
1	C	53	LYS	CD-CE-NZ	-5.89	98.16	111.70
1	H	208	MET	CG-SD-CE	5.89	109.62	100.20
1	I	234	TYR	CG-CD1-CE1	-5.89	116.59	121.30
1	M	275	LEU	CB-CG-CD2	5.88	121.00	111.00
1	F	129	THR	CA-CB-CG2	-5.88	104.16	112.40
1	J	103	VAL	CB-CA-C	-5.88	100.22	111.40
1	K	129	THR	CA-CB-CG2	-5.88	104.17	112.40
1	A	25	ASP	CB-CG-OD2	-5.88	113.01	118.30
1	E	27	TYR	CG-CD1-CE1	-5.88	116.60	121.30
1	F	256	PHE	CB-CG-CD1	-5.88	116.68	120.80
1	D	237	MET	CB-CG-SD	-5.88	94.77	112.40
1	F	384	THR	CB-CA-C	-5.87	95.76	111.60
1	K	274	ASP	CB-CG-OD1	-5.87	113.02	118.30
1	G	198	GLY	N-CA-C	5.86	127.76	113.10
1	L	247	PHE	CG-CD2-CE2	5.86	127.25	120.80
1	E	470	LEU	CB-CG-CD1	-5.86	101.03	111.00
1	E	31	THR	CA-CB-CG2	-5.86	104.20	112.40
1	C	226	THR	CA-CB-CG2	-5.86	104.20	112.40
1	N	249	TYR	CD1-CE1-CZ	5.85	125.07	119.80
1	A	334	VAL	N-CA-C	-5.85	95.20	111.00
1	I	190	LEU	CA-CB-CG	-5.85	101.84	115.30
1	K	294	THR	CA-CB-CG2	-5.85	104.21	112.40
1	L	166	GLY	N-CA-C	5.85	127.72	113.10
1	L	361	LYS	CD-CE-NZ	-5.85	98.25	111.70
1	B	439	ASP	CB-CG-OD1	-5.85	113.04	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	I	68	LEU	CB-CG-CD2	5.85	120.94	111.00
1	H	188	LEU	CB-CG-CD1	5.85	120.94	111.00
1	G	22	VAL	CG1-CB-CG2	5.84	120.25	110.90
1	J	360	PHE	CB-CG-CD1	5.84	124.89	120.80
1	A	300	VAL	CA-CB-CG2	-5.84	102.14	110.90
1	L	195	ILE	CB-CG1-CD1	5.84	130.26	113.90
1	B	141	VAL	CB-CA-C	-5.84	100.31	111.40
1	O	25	ASP	CB-CG-OD2	5.84	123.55	118.30
1	D	70	TYR	CD1-CE1-CZ	-5.83	114.55	119.80
1	I	195	ILE	CB-CG1-CD1	5.83	130.24	113.90
1	B	234	TYR	CG-CD1-CE1	-5.83	116.63	121.30
1	O	223	ASP	CB-CG-OD2	-5.83	113.05	118.30
1	H	107	VAL	CA-CB-CG1	-5.83	102.15	110.90
1	M	74	ARG	NE-CZ-NH1	-5.83	117.38	120.30
1	J	42	LEU	CA-CB-CG	-5.83	101.89	115.30
1	F	31	THR	O-C-N	5.83	132.02	122.70
1	J	469	LEU	O-C-N	-5.83	113.38	122.70
1	C	105	VAL	CA-CB-CG1	-5.82	102.16	110.90
1	D	355	TYR	CD1-CE1-CZ	5.82	125.04	119.80
1	J	341	ASN	N-CA-C	-5.82	95.28	111.00
1	G	39	THR	CA-CB-CG2	-5.82	104.26	112.40
1	H	115	VAL	CA-CB-CG1	5.82	119.62	110.90
1	J	334	VAL	N-CA-C	-5.82	95.30	111.00
1	F	225	CYS	CA-CB-SG	-5.81	103.54	114.00
1	J	291	TYR	CB-CG-CD1	5.81	124.49	121.00
1	I	256	PHE	CD1-CE1-CZ	5.81	127.07	120.10
1	N	322	GLY	N-CA-C	-5.81	98.57	113.10
1	C	291	TYR	CG-CD2-CE2	5.81	125.95	121.30
1	M	181	GLN	N-CA-C	-5.81	95.31	111.00
1	C	300	VAL	CA-CB-CG2	-5.80	102.20	110.90
1	G	61	LEU	CB-CG-CD2	5.80	120.86	111.00
1	K	249	TYR	CD1-CE1-CZ	5.80	125.02	119.80
1	E	126	LEU	CB-CG-CD2	5.80	120.86	111.00
1	O	202	ASP	CB-CG-OD1	-5.80	113.08	118.30
1	N	340	THR	CA-CB-CG2	-5.79	104.29	112.40
1	F	234	TYR	CG-CD1-CE1	-5.79	116.67	121.30
1	G	372	LEU	CA-CB-CG	-5.79	101.98	115.30
1	A	244	ASP	CB-CG-OD2	-5.79	113.09	118.30
1	N	233	ASP	CB-CG-OD2	-5.79	113.09	118.30
1	E	258	ARG	NE-CZ-NH1	-5.79	117.41	120.30
1	H	380	LYS	CD-CE-NZ	-5.79	98.39	111.70
1	D	448	GLU	OE1-CD-OE2	-5.79	116.36	123.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	M	338	ARG	CG-CD-NE	5.79	123.95	111.80
1	N	158	LEU	CB-CG-CD1	-5.79	101.17	111.00
1	D	190	LEU	CB-CG-CD2	-5.78	101.17	111.00
1	J	83	PHE	CB-CG-CD1	5.78	124.85	120.80
1	G	374	PHE	CB-CG-CD2	-5.78	116.75	120.80
1	O	150	ASP	CB-CG-OD1	-5.78	113.10	118.30
1	K	200	MET	CA-CB-CG	-5.78	103.47	113.30
1	L	273	ASP	CB-CG-OD2	-5.78	113.10	118.30
1	F	141	VAL	CA-CB-CG1	-5.78	102.23	110.90
1	F	267	VAL	CA-CB-CG2	-5.78	102.23	110.90
1	E	370	TYR	CB-CG-CD2	5.77	124.46	121.00
1	O	255	MET	CG-SD-CE	5.77	109.44	100.20
1	J	344	LEU	CA-CB-CG	5.77	128.57	115.30
1	M	323	ILE	CB-CA-C	-5.77	100.06	111.60
1	H	446	PHE	CB-CG-CD1	5.77	124.84	120.80
1	M	258	ARG	NE-CZ-NH2	-5.77	117.42	120.30
1	N	105	VAL	CA-CB-CG2	-5.77	102.25	110.90
1	O	464	LEU	CB-CA-C	-5.77	99.24	110.20
1	E	68	LEU	O-C-N	5.77	131.93	122.70
1	L	222	LEU	CA-CB-CG	5.77	128.56	115.30
1	L	42	LEU	CA-CB-CG	-5.76	102.04	115.30
1	H	105	VAL	CG1-CB-CG2	-5.76	101.69	110.90
1	H	315	ARG	NE-CZ-NH2	5.76	123.18	120.30
1	A	330	PHE	N-CA-CB	-5.76	100.24	110.60
1	A	370	TYR	CZ-CE2-CD2	-5.76	114.62	119.80
1	I	174	PRO	O-C-N	5.76	131.91	122.70
1	L	374	PHE	CG-CD2-CE2	5.76	127.13	120.80
1	N	315	ARG	NE-CZ-NH1	-5.76	117.42	120.30
1	A	372	LEU	CA-CB-CG	-5.75	102.06	115.30
1	D	194	VAL	CB-CA-C	-5.75	100.47	111.40
1	N	197	ASP	CB-CG-OD2	-5.75	113.12	118.30
1	N	316	ALA	N-CA-CB	5.75	118.15	110.10
1	I	458	ASP	CB-CG-OD2	-5.75	113.13	118.30
1	B	201	VAL	CB-CA-C	-5.74	100.49	111.40
1	B	390	TYR	CB-CG-CD2	-5.74	117.55	121.00
1	G	98	LEU	N-CA-C	5.74	126.51	111.00
1	I	210	PHE	CB-CG-CD1	-5.74	116.78	120.80
1	A	335	ASP	CB-CG-OD2	5.73	123.46	118.30
1	I	109	ARG	NE-CZ-NH2	5.73	123.17	120.30
1	N	315	ARG	NE-CZ-NH2	-5.73	117.44	120.30
1	A	222	LEU	CA-CB-CG	-5.73	102.13	115.30
1	D	296	SER	N-CA-CB	-5.73	101.91	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	N	338	ARG	CA-CB-CG	5.73	126.00	113.40
1	G	289	SER	N-CA-CB	-5.72	101.92	110.50
1	C	188	LEU	CB-CG-CD1	5.72	120.72	111.00
1	D	355	TYR	CB-CG-CD2	5.71	124.43	121.00
1	G	102	CYS	CA-CB-SG	-5.71	103.71	114.00
1	M	234	TYR	CB-CG-CD1	-5.71	117.57	121.00
1	I	149	MET	CB-CG-SD	5.71	129.54	112.40
1	I	28	VAL	CG1-CB-CG2	-5.71	101.77	110.90
1	O	140	GLY	CA-C-O	5.71	130.88	120.60
1	O	151	TYR	CB-CG-CD2	5.71	124.42	121.00
1	B	61	LEU	CB-CG-CD1	5.70	120.69	111.00
1	O	257	VAL	CA-CB-CG1	-5.70	102.34	110.90
1	A	311	TYR	CB-CG-CD2	5.70	124.42	121.00
1	L	321	ASN	C-N-CA	-5.70	110.33	122.30
1	N	472	LEU	CA-CB-CG	5.70	128.40	115.30
1	J	111	GLN	N-CA-CB	-5.70	100.35	110.60
1	E	388	MET	CG-SD-CE	5.69	109.31	100.20
1	B	315	ARG	CD-NE-CZ	5.69	131.57	123.60
1	K	112	PRO	N-CD-CG	-5.69	94.66	103.20
1	A	252	ARG	CD-NE-CZ	-5.69	115.63	123.60
1	H	286	LEU	CB-CG-CD1	5.69	120.67	111.00
1	M	335	ASP	C-N-CA	-5.69	107.47	121.70
1	J	43	LEU	O-C-N	5.69	131.80	122.70
1	I	256	PHE	CG-CD1-CE1	-5.68	114.55	120.80
1	L	247	PHE	CZ-CE2-CD2	-5.68	113.28	120.10
1	I	283	THR	CA-CB-CG2	5.68	120.35	112.40
1	E	160	GLY	N-CA-C	-5.68	98.90	113.10
1	F	176	THR	OG1-CB-CG2	5.68	123.06	110.00
1	H	184	ASP	CB-CG-OD1	-5.68	113.19	118.30
1	D	70	TYR	OH-CZ-CE2	-5.67	104.78	120.10
1	O	462	PHE	CZ-CE2-CD2	-5.67	113.29	120.10
1	C	107	VAL	CA-CB-CG1	-5.67	102.39	110.90
1	F	194	VAL	CG1-CB-CG2	5.67	119.97	110.90
1	G	112	PRO	N-CD-CG	-5.67	94.69	103.20
1	C	296	SER	O-C-N	-5.67	113.57	123.20
1	O	346	ALA	CB-CA-C	-5.66	101.60	110.10
1	F	333	VAL	CA-CB-CG2	-5.66	102.41	110.90
1	N	303	ASP	CB-CG-OD2	5.66	123.39	118.30
1	J	223	ASP	CB-CG-OD2	5.66	123.39	118.30
1	G	463	PRO	CB-CG-CD	-5.66	84.44	106.50
1	J	75	ILE	CG1-CB-CG2	-5.66	98.96	111.40
1	D	113	LEU	CB-CG-CD1	5.65	120.61	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	K	162	LYS	CG-CD-CE	-5.65	94.96	111.90
1	B	158	LEU	CD1-CG-CD2	-5.64	93.57	110.50
1	D	364	LEU	CB-CG-CD2	-5.64	101.40	111.00
1	F	173	SER	N-CA-CB	5.64	118.97	110.50
1	B	151	TYR	CB-CG-CD1	-5.64	117.62	121.00
1	J	379	CYS	CA-CB-SG	-5.64	103.85	114.00
1	N	390	TYR	CB-CG-CD2	-5.64	117.62	121.00
1	B	53	LYS	CD-CE-NZ	-5.64	98.74	111.70
1	E	375	ILE	CB-CA-C	-5.64	100.33	111.60
1	J	95	THR	CB-CA-C	-5.63	96.39	111.60
1	J	149	MET	N-CA-CB	-5.63	100.46	110.60
1	N	61	LEU	CB-CG-CD1	5.63	120.58	111.00
1	H	199	ASP	CB-CG-OD1	5.63	123.36	118.30
1	O	107	VAL	CG1-CB-CG2	5.63	119.91	110.90
1	H	97	ARG	O-C-N	5.63	131.70	122.70
1	J	163	PRO	CB-CG-CD	-5.62	84.57	106.50
1	O	201	VAL	CB-CA-C	-5.62	100.72	111.40
1	F	231	TYR	CZ-CE2-CD2	5.62	124.86	119.80
1	K	380	LYS	CD-CE-NZ	-5.62	98.78	111.70
1	M	451	LEU	CA-CB-CG	-5.62	102.38	115.30
1	B	209	ASP	CB-CG-OD2	5.62	123.35	118.30
1	E	345	CYS	CA-CB-SG	-5.62	103.89	114.00
1	I	315	ARG	NE-CZ-NH1	5.61	123.11	120.30
1	N	200	MET	CA-CB-CG	-5.61	103.76	113.30
1	E	117	ILE	CG1-CB-CG2	5.61	123.75	111.40
1	D	275	LEU	CB-CG-CD2	5.61	120.54	111.00
1	N	220	VAL	CA-CB-CG1	-5.61	102.48	110.90
1	F	61	LEU	CB-CG-CD1	5.61	120.54	111.00
1	M	22	VAL	CB-CA-C	-5.61	100.74	111.40
1	G	146	CYS	CA-CB-SG	-5.61	103.91	114.00
1	H	300	VAL	CA-CB-CG2	-5.61	102.49	110.90
1	H	263	ARG	NE-CZ-NH2	5.60	123.10	120.30
1	N	204	GLY	O-C-N	5.60	131.67	122.70
1	F	331	VAL	CG1-CB-CG2	5.60	119.87	110.90
1	I	381	ILE	CB-CG1-CD1	-5.60	98.21	113.90
1	G	298	SER	CB-CA-C	-5.60	99.47	110.10
1	H	249	TYR	CB-CG-CD2	5.60	124.36	121.00
1	B	48	PRO	N-CD-CG	-5.59	94.81	103.20
1	N	246	LEU	CB-CG-CD2	5.59	120.51	111.00
1	O	354	THR	CA-CB-CG2	-5.59	104.58	112.40
1	E	177	GLN	N-CA-CB	5.59	120.66	110.60
1	H	219	GLU	CG-CD-OE1	-5.59	107.13	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	I	363	TYR	CB-CG-CD2	-5.59	117.65	121.00
1	A	205	PHE	CG-CD1-CE1	5.58	126.94	120.80
1	B	127	ASP	CB-CG-OD1	5.58	123.32	118.30
1	J	147	ILE	CB-CA-C	-5.58	100.44	111.60
1	B	33	ILE	CG1-CB-CG2	-5.58	99.13	111.40
1	F	34	TYR	CD1-CE1-CZ	-5.58	114.78	119.80
1	I	41	ARG	NE-CZ-NH1	5.58	123.09	120.30
1	B	182	PRO	CB-CG-CD	-5.57	84.77	106.50
1	K	151	TYR	CD1-CE1-CZ	5.57	124.81	119.80
1	B	242	TYR	CB-CG-CD2	5.57	124.34	121.00
1	A	357	ASN	N-CA-C	5.57	126.04	111.00
1	J	326	GLY	N-CA-C	-5.57	99.18	113.10
1	H	355	TYR	CG-CD2-CE2	5.57	125.75	121.30
1	K	368	GLU	OE1-CD-OE2	5.57	129.98	123.30
1	L	21	VAL	CB-CA-C	-5.57	100.82	111.40
1	A	371	ASP	CB-CG-OD1	5.56	123.31	118.30
1	B	241	PRO	N-CD-CG	-5.56	94.86	103.20
1	G	77	LEU	CB-CG-CD2	-5.56	101.55	111.00
1	M	145	GLU	CG-CD-OE1	-5.56	107.19	118.30
1	C	65	VAL	CA-CB-CG1	5.55	119.23	110.90
1	F	107	VAL	CG1-CB-CG2	5.55	119.79	110.90
1	N	294	THR	CA-CB-OG1	5.55	120.67	109.00
1	D	203	THR	OG1-CB-CG2	5.55	122.77	110.00
1	B	71	ARG	CB-CG-CD	-5.55	97.17	111.60
1	G	41	ARG	NH1-CZ-NH2	-5.55	113.30	119.40
1	I	22	VAL	CG1-CB-CG2	5.55	119.78	110.90
1	C	149	MET	CG-SD-CE	5.55	109.08	100.20
1	N	280	SER	C-N-CA	-5.55	110.65	122.30
1	C	73	PHE	CD1-CE1-CZ	5.54	126.75	120.10
1	H	356	LYS	CB-CG-CD	-5.54	97.19	111.60
1	I	299	MET	CB-CG-SD	-5.54	95.77	112.40
1	K	142	ASP	CB-CG-OD1	-5.54	113.31	118.30
1	J	206	GLY	N-CA-C	-5.54	99.25	113.10
1	L	158	LEU	CB-CG-CD2	-5.54	101.58	111.00
1	M	94	ASP	CB-CG-OD1	-5.54	113.31	118.30
1	M	334	VAL	N-CA-C	-5.54	96.04	111.00
1	H	201	VAL	CG1-CB-CG2	-5.54	102.04	110.90
1	H	180	VAL	CA-CB-CG1	-5.54	102.60	110.90
1	J	446	PHE	CB-CG-CD2	-5.54	116.92	120.80
1	M	26	GLU	OE1-CD-OE2	-5.53	116.66	123.30
1	N	235	ILE	CG1-CB-CG2	-5.53	99.23	111.40
1	G	347	ALA	CB-CA-C	5.53	118.39	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	N	207	ALA	CB-CA-C	-5.53	101.81	110.10
1	N	375	ILE	CB-CA-C	-5.53	100.54	111.60
1	H	30	ARG	NE-CZ-NH2	5.53	123.06	120.30
1	O	189	GLU	OE1-CD-OE2	5.53	129.93	123.30
1	O	331	VAL	CA-CB-CG2	-5.53	102.61	110.90
1	A	98	LEU	CB-CG-CD2	-5.53	101.61	111.00
1	H	151	TYR	CD1-CE1-CZ	5.52	124.77	119.80
1	N	378	LEU	CB-CG-CD1	5.52	120.39	111.00
1	K	250	LEU	CB-CG-CD1	5.52	120.39	111.00
1	O	375	ILE	CG1-CB-CG2	-5.52	99.25	111.40
1	D	361	LYS	CD-CE-NZ	-5.52	99.00	111.70
1	F	176	THR	CA-CB-CG2	-5.52	104.67	112.40
1	B	73	PHE	CB-CG-CD1	-5.51	116.94	120.80
1	D	449	VAL	CB-CA-C	-5.51	100.92	111.40
1	N	70	TYR	CG-CD2-CE2	5.51	125.71	121.30
1	A	152	LYS	CG-CD-CE	-5.51	95.37	111.90
1	E	332	THR	CA-CB-CG2	-5.51	104.69	112.40
1	K	45	VAL	CA-CB-CG2	5.51	119.16	110.90
1	F	249	TYR	CZ-CE2-CD2	5.51	124.76	119.80
1	G	201	VAL	CB-CA-C	-5.51	100.94	111.40
1	C	303	ASP	CB-CG-OD1	-5.50	113.35	118.30
1	M	51	PRO	CB-CG-CD	-5.50	85.04	106.50
1	B	43	LEU	CB-CA-C	-5.50	99.75	110.20
1	H	300	VAL	CB-CA-C	-5.50	100.95	111.40
1	E	167	GLU	CB-CG-CD	-5.50	99.35	114.20
1	G	338	ARG	CA-CB-CG	5.50	125.49	113.40
1	O	449	VAL	CG1-CB-CG2	-5.50	102.11	110.90
1	H	265	GLY	CA-C-N	-5.50	105.11	117.20
1	O	374	PHE	CB-CG-CD2	-5.50	116.95	120.80
1	M	101	ALA	C-N-CA	-5.49	107.97	121.70
1	F	99	VAL	CG1-CB-CG2	-5.49	102.11	110.90
1	E	199	ASP	CB-CG-OD1	-5.49	113.36	118.30
1	D	383	LEU	CB-CG-CD1	5.49	120.33	111.00
1	O	333	VAL	CB-CA-C	-5.49	100.97	111.40
1	E	233	ASP	CB-CG-OD2	5.48	123.23	118.30
1	B	389	THR	CA-CB-CG2	-5.48	104.73	112.40
1	D	266	THR	CB-CA-C	-5.48	96.81	111.60
1	I	141	VAL	CA-CB-CG2	-5.48	102.69	110.90
1	C	97	ARG	NE-CZ-NH1	5.47	123.04	120.30
1	A	152	LYS	CD-CE-NZ	5.47	124.29	111.70
1	K	468	PHE	CG-CD1-CE1	5.47	126.82	120.80
1	O	103	VAL	CA-CB-CG2	5.47	119.11	110.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	D	113	LEU	CB-CG-CD2	-5.47	101.70	111.00
1	D	176	THR	O-C-N	5.47	131.45	122.70
1	B	87	ASP	CB-CG-OD2	-5.47	113.38	118.30
1	I	252	ARG	N-CA-CB	-5.47	100.76	110.60
1	N	66	SER	C-N-CA	-5.47	110.82	122.30
1	B	286	LEU	N-CA-C	5.46	125.76	111.00
1	I	365	ARG	NH1-CZ-NH2	-5.46	113.39	119.40
1	E	268	GLY	N-CA-C	-5.46	99.45	113.10
1	L	127	ASP	CB-CG-OD2	-5.46	113.39	118.30
1	C	312	TRP	N-CA-CB	-5.46	100.78	110.60
1	J	299	MET	CG-SD-CE	5.46	108.93	100.20
1	J	363	TYR	CB-CG-CD2	-5.46	117.72	121.00
1	K	180	VAL	CB-CA-C	-5.46	101.03	111.40
1	E	189	GLU	CG-CD-OE2	-5.45	107.39	118.30
1	E	277	ILE	CA-CB-CG2	-5.45	100.00	110.90
1	M	250	LEU	CB-CG-CD1	-5.45	101.73	111.00
1	B	295	PRO	CA-CB-CG	-5.45	93.65	104.00
1	D	151	TYR	CB-CG-CD2	-5.45	117.73	121.00
1	L	449	VAL	CA-CB-CG1	-5.45	102.73	110.90
1	A	95	THR	CA-CB-CG2	-5.45	104.78	112.40
1	N	300	VAL	CB-CA-C	-5.44	101.06	111.40
1	E	445	THR	CA-CB-CG2	-5.44	104.78	112.40
1	F	469	LEU	CA-CB-CG	5.44	127.81	115.30
1	G	20	ALA	N-CA-CB	5.44	117.72	110.10
1	G	180	VAL	CA-CB-CG1	-5.44	102.74	110.90
1	H	68	LEU	CB-CA-C	-5.44	99.86	110.20
1	F	226	THR	CB-CA-C	-5.44	96.92	111.60
1	F	274	ASP	CB-CG-OD1	-5.44	113.41	118.30
1	I	126	LEU	CB-CG-CD2	5.44	120.24	111.00
1	J	398	ILE	CB-CA-C	-5.44	100.72	111.60
1	F	85	PHE	CB-CG-CD2	-5.43	117.00	120.80
1	H	372	LEU	CB-CG-CD1	5.43	120.24	111.00
1	O	449	VAL	CA-CB-CG1	-5.43	102.75	110.90
1	M	28	VAL	CA-CB-CG1	5.43	119.05	110.90
1	H	472	LEU	CB-CG-CD1	-5.43	101.77	111.00
1	F	219	GLU	CA-CB-CG	-5.42	101.47	113.40
1	K	472	LEU	CD1-CG-CD2	5.42	126.77	110.50
1	M	449	VAL	CG1-CB-CG2	-5.42	102.23	110.90
1	D	313	LEU	CB-CG-CD1	5.42	120.21	111.00
1	I	334	VAL	CA-CB-CG2	-5.42	102.77	110.90
1	E	266	THR	CA-CB-CG2	-5.41	104.82	112.40
1	H	68	LEU	CA-CB-CG	-5.41	102.85	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	I	150	ASP	CB-CA-C	-5.41	99.58	110.40
1	L	192	ASN	O-C-N	-5.41	114.04	122.70
1	N	39	THR	CA-CB-CG2	-5.41	104.82	112.40
1	B	342	MET	CA-CB-CG	5.41	122.50	113.30
1	D	161	CYS	CA-CB-SG	5.41	123.74	114.00
1	E	145	GLU	CG-CD-OE1	-5.41	107.48	118.30
1	H	224	ILE	CB-CA-C	-5.41	100.78	111.60
1	J	399	LEU	CB-CG-CD2	-5.41	101.80	111.00
1	C	187	PRO	CA-N-CD	-5.41	103.93	111.50
1	O	42	LEU	CA-CB-CG	-5.41	102.86	115.30
1	K	264	ALA	N-CA-CB	-5.41	102.53	110.10
1	A	115	VAL	CA-C-N	-5.40	105.41	116.20
1	M	208	MET	CB-CA-C	-5.40	99.61	110.40
1	D	386	ASP	OD1-CG-OD2	-5.39	113.05	123.30
1	H	333	VAL	CB-CA-C	-5.39	101.16	111.40
1	D	199	ASP	CB-CG-OD1	5.39	123.15	118.30
1	G	113	LEU	C-N-CA	-5.39	110.98	122.30
1	A	149	MET	CA-CB-CG	5.39	122.46	113.30
1	E	59	LYS	CD-CE-NZ	5.39	124.09	111.70
1	H	472	LEU	CA-C-O	-5.39	108.79	120.10
1	J	143	ASN	N-CA-C	-5.39	96.46	111.00
1	M	279	GLY	O-C-N	-5.39	114.08	122.70
1	B	31	THR	OG1-CB-CG2	5.38	122.38	110.00
1	M	164	PRO	N-CD-CG	-5.38	95.13	103.20
1	A	201	VAL	CA-CB-CG1	-5.38	102.83	110.90
1	D	99	VAL	CB-CA-C	-5.38	101.17	111.40
1	E	362	GLU	OE1-CD-OE2	5.38	129.76	123.30
1	F	297	GLY	CA-C-O	5.38	130.29	120.60
1	K	49	TYR	CB-CG-CD1	5.38	124.23	121.00
1	K	470	LEU	N-CA-CB	-5.38	99.64	110.40
1	B	291	TYR	CE1-CZ-OH	-5.38	105.58	120.10
1	F	138	ASN	CA-C-N	-5.38	105.37	117.20
1	F	386	ASP	CB-CG-OD2	5.38	123.14	118.30
1	N	226	THR	CB-CA-C	-5.38	97.08	111.60
1	B	70	TYR	CE1-CZ-CE2	-5.38	111.20	119.80
1	G	70	TYR	CG-CD2-CE2	5.38	125.60	121.30
1	D	307	PHE	CD1-CE1-CZ	5.37	126.55	120.10
1	E	42	LEU	CA-CB-CG	-5.37	102.94	115.30
1	M	394	MET	CG-SD-CE	5.37	108.80	100.20
1	C	263	ARG	CD-NE-CZ	-5.37	116.08	123.60
1	K	49	TYR	CD1-CG-CD2	-5.37	111.99	117.90
1	L	35	TYR	CB-CG-CD1	-5.37	117.78	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	L	372	LEU	N-CA-CB	-5.37	99.66	110.40
1	I	178	VAL	C-N-CA	5.37	135.13	121.70
1	O	470	LEU	CB-CG-CD1	-5.37	101.87	111.00
1	D	97	ARG	NE-CZ-NH2	-5.37	117.62	120.30
1	A	172	GLY	N-CA-C	-5.36	99.69	113.10
1	J	274	ASP	CB-CG-OD1	-5.36	113.47	118.30
1	D	231	TYR	CD1-CE1-CZ	-5.36	114.98	119.80
1	F	75	ILE	CG1-CB-CG2	-5.36	99.61	111.40
1	L	117	ILE	N-CA-CB	-5.36	98.48	110.80
1	A	70	TYR	CG-CD2-CE2	5.36	125.58	121.30
1	M	201	VAL	CA-CB-CG1	-5.36	102.87	110.90
1	E	231	TYR	CE1-CZ-OH	-5.35	105.65	120.10
1	A	71	ARG	CB-CG-CD	-5.35	97.69	111.60
1	C	70	TYR	CG-CD2-CE2	5.35	125.58	121.30
1	D	35	TYR	CB-CG-CD2	-5.35	117.79	121.00
1	I	283	THR	OG1-CB-CG2	-5.35	97.69	110.00
1	A	340	THR	CA-CB-CG2	-5.35	104.91	112.40
1	I	469	LEU	CB-CG-CD1	-5.35	101.91	111.00
1	N	344	LEU	CA-CB-CG	-5.35	103.00	115.30
1	I	459	LEU	CB-CG-CD1	5.35	120.09	111.00
1	K	293	PRO	O-C-N	5.35	131.25	122.70
1	N	295	PRO	N-CD-CG	-5.35	95.18	103.20
1	A	331	VAL	CA-CB-CG2	-5.34	102.88	110.90
1	E	159	ILE	CG1-CB-CG2	-5.34	99.64	111.40
1	F	266	THR	CB-CA-C	-5.34	97.17	111.60
1	C	451	LEU	CB-CG-CD2	-5.34	101.92	111.00
1	M	142	ASP	CB-CG-OD2	5.34	123.11	118.30
1	H	103	VAL	CB-CA-C	-5.34	101.26	111.40
1	L	203	THR	CA-CB-CG2	-5.34	104.93	112.40
1	N	87	ASP	CB-CG-OD2	-5.34	113.50	118.30
1	A	70	TYR	N-CA-C	-5.33	96.60	111.00
1	N	309	LYS	CD-CE-NZ	-5.33	99.43	111.70
1	F	355	TYR	CZ-CE2-CD2	-5.33	115.00	119.80
1	J	400	GLU	OE1-CD-OE2	-5.33	116.90	123.30
1	N	27	TYR	N-CA-C	5.33	125.40	111.00
1	H	129	THR	CA-CB-CG2	-5.33	104.94	112.40
1	H	251	ARG	NE-CZ-NH1	-5.33	117.64	120.30
1	L	70	TYR	CG-CD2-CE2	5.33	125.56	121.30
1	L	271	VAL	CG1-CB-CG2	-5.33	102.37	110.90
1	E	262	ASN	N-CA-CB	-5.33	101.01	110.60
1	I	383	LEU	CB-CG-CD2	-5.33	101.94	111.00
1	K	125	LYS	CD-CE-NZ	-5.33	99.45	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	O	472	LEU	CB-CG-CD1	-5.33	101.94	111.00
1	L	238	VAL	CA-CB-CG1	5.32	118.89	110.90
1	N	30	ARG	NH1-CZ-NH2	5.32	125.25	119.40
1	F	219	GLU	OE1-CD-OE2	5.32	129.69	123.30
1	F	356	LYS	CD-CE-NZ	-5.32	99.48	111.70
1	G	306	ILE	CA-CB-CG1	-5.31	100.90	111.00
1	H	181	GLN	N-CA-C	-5.31	96.67	111.00
1	H	197	ASP	CB-CG-OD2	5.31	123.08	118.30
1	A	387	VAL	CA-C-N	-5.30	105.53	117.20
1	D	64	LYS	CB-CA-C	-5.30	99.80	110.40
1	D	68	LEU	CA-CB-CG	-5.30	103.11	115.30
1	J	176	THR	CA-CB-CG2	-5.30	104.98	112.40
1	C	94	ASP	CB-CG-OD1	-5.30	113.53	118.30
1	A	257	VAL	CA-CB-CG2	-5.30	102.95	110.90
1	N	85	PHE	CB-CG-CD1	-5.29	117.09	120.80
1	M	115	VAL	CA-CB-CG2	-5.29	102.96	110.90
1	A	203	THR	CA-C-N	-5.29	105.62	116.20
1	G	284	ALA	CB-CA-C	5.29	118.04	110.10
1	C	396	SER	N-CA-CB	-5.29	102.57	110.50
1	H	22	VAL	CB-CA-C	-5.29	101.35	111.40
1	J	145	GLU	CG-CD-OE1	-5.29	107.72	118.30
1	L	73	PHE	CG-CD2-CE2	5.29	126.62	120.80
1	I	22	VAL	CB-CA-C	-5.29	101.35	111.40
1	E	306	ILE	CG1-CB-CG2	-5.29	99.77	111.40
1	H	265	GLY	CA-C-O	5.29	130.11	120.60
1	J	209	ASP	CB-CG-OD2	5.29	123.06	118.30
1	L	103	VAL	CA-CB-CG1	-5.29	102.97	110.90
1	D	380	LYS	CB-CG-CD	5.28	125.33	111.60
1	G	194	VAL	CB-CA-C	-5.28	101.37	111.40
1	M	312	TRP	CD1-NE1-CE2	-5.28	104.25	109.00
1	I	209	ASP	N-CA-C	-5.28	96.75	111.00
1	K	277	ILE	CA-CB-CG2	-5.28	100.35	110.90
1	O	271	VAL	CB-CA-C	-5.28	101.38	111.40
1	D	25	ASP	CB-CG-OD2	5.27	123.05	118.30
1	G	256	PHE	CD1-CE1-CZ	5.27	126.43	120.10
1	F	208	MET	CB-CG-SD	5.27	128.22	112.40
1	F	467	LYS	CG-CD-CE	-5.27	96.08	111.90
1	M	315	ARG	CD-NE-CZ	5.27	130.98	123.60
1	C	470	LEU	CA-CB-CG	5.27	127.42	115.30
1	L	209	ASP	OD1-CG-OD2	-5.27	113.29	123.30
1	F	21	VAL	CB-CA-C	-5.27	101.39	111.40
1	G	105	VAL	CA-CB-CG2	5.27	118.80	110.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	O	122	LEU	CA-CB-CG	-5.27	103.19	115.30
1	D	372	LEU	CB-CG-CD2	-5.26	102.05	111.00
1	H	172	GLY	N-CA-C	-5.26	99.94	113.10
1	B	294	THR	CA-CB-CG2	5.26	119.77	112.40
1	C	271	VAL	CB-CA-C	-5.26	101.41	111.40
1	C	338	ARG	CG-CD-NE	5.26	122.84	111.80
1	E	390	TYR	CD1-CG-CD2	5.26	123.68	117.90
1	D	238	VAL	CA-CB-CG1	-5.25	103.03	110.90
1	N	26	GLU	CG-CD-OE1	5.25	128.80	118.30
1	N	122	LEU	CB-CG-CD1	5.25	119.92	111.00
1	O	70	TYR	CG-CD2-CE2	5.25	125.50	121.30
1	I	139	ALA	C-N-CA	-5.25	111.28	122.30
1	O	397	THR	CA-CB-CG2	5.25	119.74	112.40
1	I	178	VAL	N-CA-C	5.25	125.16	111.00
1	I	369	GLU	OE1-CD-OE2	-5.25	117.01	123.30
1	J	113	LEU	CA-C-N	-5.24	105.72	116.20
1	A	274	ASP	CB-CG-OD1	-5.24	113.58	118.30
1	N	249	TYR	CE1-CZ-CE2	-5.24	111.42	119.80
1	F	41	ARG	CG-CD-NE	5.24	122.80	111.80
1	K	22	VAL	CA-CB-CG1	-5.24	103.05	110.90
1	L	162	LYS	CD-CE-NZ	5.24	123.74	111.70
1	M	87	ASP	OD1-CG-OD2	5.24	133.25	123.30
1	N	71	ARG	NH1-CZ-NH2	-5.24	113.64	119.40
1	E	380	LYS	CD-CE-NZ	5.23	123.74	111.70
1	J	93	PRO	N-CA-C	5.23	125.71	112.10
1	B	107	VAL	CA-CB-CG2	5.23	118.75	110.90
1	C	124	ASN	O-C-N	-5.23	114.33	122.70
1	F	123	LEU	CB-CA-C	5.23	120.14	110.20
1	F	194	VAL	CB-CA-C	-5.23	101.46	111.40
1	J	130	GLU	CA-CB-CG	5.23	124.91	113.40
1	H	222	LEU	C-N-CA	-5.23	108.62	121.70
1	I	94	ASP	CB-CG-OD1	5.23	123.01	118.30
1	G	444	TYR	CB-CG-CD2	-5.23	117.86	121.00
1	B	459	LEU	CB-CG-CD2	5.23	119.89	111.00
1	D	390	TYR	CG-CD1-CE1	-5.23	117.12	121.30
1	J	76	HIS	O-C-N	5.23	131.06	122.70
1	L	35	TYR	CD1-CE1-CZ	5.23	124.50	119.80
1	L	283	THR	O-C-N	-5.23	114.34	122.70
1	A	387	VAL	CG1-CB-CG2	-5.23	102.54	110.90
1	G	441	LEU	CB-CG-CD1	-5.23	102.12	111.00
1	B	447	TRP	N-CA-C	-5.22	96.89	111.00
1	D	79	ASP	CB-CG-OD2	5.22	123.00	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	105	VAL	CA-CB-CG1	-5.22	103.06	110.90
1	N	362	GLU	CG-CD-OE1	5.22	128.75	118.30
1	A	388	MET	CB-CG-SD	5.22	128.07	112.40
1	M	361	LYS	CB-CG-CD	-5.22	98.02	111.60
1	B	74	ARG	NE-CZ-NH2	-5.22	117.69	120.30
1	B	113	LEU	CB-CA-C	-5.22	100.28	110.20
1	D	208	MET	CB-CG-SD	5.22	128.06	112.40
1	F	63	PRO	N-CD-CG	-5.22	95.37	103.20
1	F	193	THR	OG1-CB-CG2	-5.22	97.99	110.00
1	L	181	GLN	N-CA-C	-5.22	96.91	111.00
1	M	223	ASP	CB-CA-C	-5.22	99.96	110.40
1	O	212	THR	CA-CB-CG2	-5.22	105.09	112.40
1	F	247	PHE	CB-CG-CD2	-5.22	117.15	120.80
1	L	72	VAL	CG1-CB-CG2	-5.22	102.55	110.90
1	L	194	VAL	CA-C-O	5.22	131.05	120.10
1	F	253	GLU	OE1-CD-OE2	5.21	129.56	123.30
1	I	179	ALA	N-CA-CB	5.21	117.40	110.10
1	E	234	TYR	CG-CD2-CE2	5.21	125.47	121.30
1	O	390	TYR	CZ-CE2-CD2	-5.21	115.11	119.80
1	A	311	TYR	OH-CZ-CE2	5.21	134.16	120.10
1	I	236	LYS	CD-CE-NZ	-5.21	99.72	111.70
1	B	335	ASP	CB-CG-OD2	-5.21	113.61	118.30
1	N	21	VAL	CB-CA-C	-5.21	101.51	111.40
1	H	374	PHE	CZ-CE2-CD2	-5.21	113.85	120.10
1	I	257	VAL	CB-CA-C	-5.20	101.51	111.40
1	J	340	THR	CA-CB-CG2	-5.20	105.11	112.40
1	L	171	LYS	CD-CE-NZ	-5.20	99.73	111.70
1	N	264	ALA	C-N-CA	-5.20	111.37	122.30
1	N	468	PHE	N-CA-C	5.20	125.05	111.00
1	A	334	VAL	CG1-CB-CG2	-5.20	102.58	110.90
1	N	226	THR	CA-CB-CG2	-5.20	105.12	112.40
1	B	247	PHE	CB-CG-CD1	5.20	124.44	120.80
1	D	337	THR	CB-CA-C	-5.20	97.56	111.60
1	G	109	ARG	NE-CZ-NH2	5.20	122.90	120.30
1	I	142	ASP	OD1-CG-OD2	-5.20	113.43	123.30
1	K	311	TYR	CG-CD1-CE1	-5.20	117.14	121.30
1	L	245	SER	CB-CA-C	5.20	119.97	110.10
1	M	283	THR	C-N-CA	-5.20	108.71	121.70
1	M	460	ASP	CB-CG-OD2	5.20	122.98	118.30
1	N	250	LEU	CB-CG-CD2	5.20	119.83	111.00
1	E	464	LEU	CA-CB-CG	-5.19	103.36	115.30
1	F	220	VAL	CA-CB-CG2	5.19	118.69	110.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	N	211	THR	OG1-CB-CG2	-5.19	98.06	110.00
1	D	462	PHE	CB-CG-CD1	-5.19	117.17	120.80
1	A	258	ARG	NE-CZ-NH2	-5.19	117.71	120.30
1	K	180	VAL	N-CA-C	5.19	125.00	111.00
1	F	213	LEU	CA-CB-CG	5.18	127.22	115.30
1	A	180	VAL	CB-CA-C	-5.18	101.55	111.40
1	H	147	ILE	CA-CB-CG2	5.18	121.27	110.90
1	N	446	PHE	N-CA-CB	-5.18	101.27	110.60
1	H	103	VAL	CG1-CB-CG2	5.18	119.19	110.90
1	J	171	LYS	CA-C-N	-5.18	105.84	116.20
1	L	184	ASP	CB-CG-OD2	-5.18	113.64	118.30
1	A	440	PRO	CA-N-CD	5.18	118.95	111.70
1	B	399	LEU	CB-CG-CD2	5.18	119.80	111.00
1	N	292	PHE	CA-C-O	-5.18	109.23	120.10
1	H	178	VAL	O-C-N	5.17	130.98	122.70
1	J	107	VAL	CG1-CB-CG2	5.17	119.17	110.90
1	B	356	LYS	CG-CD-CE	-5.17	96.40	111.90
1	D	337	THR	N-CA-C	5.17	124.95	111.00
1	E	400	GLU	OE1-CD-OE2	-5.17	117.10	123.30
1	G	333	VAL	CA-CB-CG2	-5.17	103.15	110.90
1	M	103	VAL	CA-CB-CG2	5.17	118.65	110.90
1	N	292	PHE	N-CA-CB	-5.17	101.30	110.60
1	G	49	TYR	CB-CG-CD1	-5.17	117.90	121.00
1	B	251	ARG	CG-CD-NE	-5.16	100.95	111.80
1	F	151	TYR	CB-CG-CD2	-5.16	117.90	121.00
1	F	336	THR	CA-CB-OG1	-5.16	98.16	109.00
1	G	22	VAL	CA-CB-CG2	-5.16	103.16	110.90
1	G	65	VAL	N-CA-CB	-5.16	100.15	111.50
1	H	41	ARG	NH1-CZ-NH2	5.16	125.08	119.40
1	M	266	THR	CB-CA-C	-5.16	97.67	111.60
1	E	62	VAL	CG1-CB-CG2	5.16	119.15	110.90
1	N	383	LEU	CB-CG-CD1	5.16	119.77	111.00
1	B	29	ALA	N-CA-CB	-5.16	102.88	110.10
1	I	143	ASN	CB-CA-C	-5.16	100.09	110.40
1	E	139	ALA	C-N-CA	-5.15	111.48	122.30
1	H	126	LEU	CB-CG-CD1	5.15	119.76	111.00
1	L	150	ASP	CB-CG-OD1	-5.15	113.66	118.30
1	G	383	LEU	CB-CG-CD2	-5.15	102.25	111.00
1	L	144	ARG	N-CA-CB	-5.15	101.33	110.60
1	J	109	ARG	NE-CZ-NH2	-5.15	117.73	120.30
1	O	180	VAL	CB-CA-C	-5.15	101.62	111.40
1	E	151	TYR	CG-CD1-CE1	-5.15	117.18	121.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	H	215	ALA	N-CA-CB	5.15	117.30	110.10
1	B	292	PHE	CB-CG-CD1	5.14	124.40	120.80
1	N	129	THR	OG1-CB-CG2	5.14	121.83	110.00
1	F	202	ASP	N-CA-C	-5.14	97.12	111.00
1	G	304	ALA	CB-CA-C	-5.14	102.39	110.10
1	H	97	ARG	CA-C-N	-5.14	105.89	117.20
1	N	452	LYS	CD-CE-NZ	5.14	123.52	111.70
1	D	45	VAL	CG1-CB-CG2	-5.14	102.68	110.90
1	M	253	GLU	N-CA-CB	-5.14	101.35	110.60
1	A	381	ILE	CB-CA-C	-5.14	101.33	111.60
1	E	74	ARG	NE-CZ-NH2	5.13	122.87	120.30
1	J	32	ASN	CB-CA-C	-5.13	100.13	110.40
1	J	157	CYS	N-CA-CB	-5.13	101.36	110.60
1	M	311	TYR	CG-CD1-CE1	5.13	125.41	121.30
1	O	346	ALA	N-CA-CB	5.13	117.29	110.10
1	O	177	GLN	N-CA-C	-5.13	97.15	111.00
1	F	85	PHE	CB-CG-CD1	5.13	124.39	120.80
1	M	175	CYS	N-CA-C	-5.13	97.15	111.00
1	C	198	GLY	N-CA-C	5.13	125.91	113.10
1	E	49	TYR	CD1-CE1-CZ	5.13	124.41	119.80
1	E	98	LEU	CB-CG-CD1	5.13	119.71	111.00
1	H	462	PHE	CB-CG-CD1	-5.13	117.21	120.80
1	O	240	GLU	CG-CD-OE1	5.13	128.55	118.30
1	H	191	ILE	CB-CG1-CD1	-5.12	99.55	113.90
1	F	222	LEU	C-N-CA	-5.12	108.90	121.70
1	J	455	PHE	CB-CG-CD2	-5.12	117.21	120.80
1	B	266	THR	CB-CA-C	-5.12	97.78	111.60
1	C	396	SER	CB-CA-C	5.12	119.83	110.10
1	J	144	ARG	NE-CZ-NH2	-5.12	117.74	120.30
1	L	61	LEU	CB-CG-CD2	5.12	119.70	111.00
1	L	219	GLU	OE1-CD-OE2	5.12	129.44	123.30
1	L	383	LEU	CB-CG-CD2	-5.12	102.30	111.00
1	K	43	LEU	CB-CG-CD2	-5.12	102.30	111.00
1	J	93	PRO	CA-N-CD	-5.12	104.34	111.50
1	L	152	LYS	CD-CE-NZ	5.12	123.47	111.70
1	G	364	LEU	CB-CG-CD1	-5.11	102.31	111.00
1	N	374	PHE	CB-CG-CD1	-5.11	117.22	120.80
1	F	33	ILE	CG1-CB-CG2	-5.11	100.16	111.40
1	G	94	ASP	CB-CG-OD2	-5.11	113.70	118.30
1	I	42	LEU	CA-CB-CG	-5.11	103.55	115.30
1	I	113	LEU	C-N-CA	-5.11	111.57	122.30
1	L	151	TYR	N-CA-CB	-5.11	101.40	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	J	439	ASP	CB-CG-OD1	-5.11	113.70	118.30
1	K	70	TYR	CG-CD2-CE2	5.11	125.39	121.30
1	C	146	CYS	CB-CA-C	-5.11	100.19	110.40
1	D	201	VAL	CA-CB-CG1	-5.11	103.24	110.90
1	K	179	ALA	N-CA-CB	5.11	117.25	110.10
1	M	164	PRO	CA-N-CD	-5.11	104.35	111.50
1	H	277	ILE	CB-CG1-CD1	-5.10	99.61	113.90
1	N	315	ARG	NH1-CZ-NH2	5.10	125.01	119.40
1	O	105	VAL	CA-CB-CG1	-5.10	103.25	110.90
1	D	402	TRP	CA-C-N	-5.10	105.98	117.20
1	I	201	VAL	CA-CB-CG1	-5.10	103.25	110.90
1	L	44	ALA	O-C-N	-5.10	114.54	122.70
1	B	22	VAL	CB-CA-C	-5.10	101.71	111.40
1	E	223	ASP	CB-CG-OD2	-5.10	113.71	118.30
1	E	470	LEU	N-CA-C	5.10	124.77	111.00
1	D	304	ALA	CB-CA-C	-5.09	102.46	110.10
1	L	333	VAL	CA-CB-CG1	-5.09	103.26	110.90
1	M	144	ARG	CG-CD-NE	-5.09	101.10	111.80
1	I	219	GLU	OE1-CD-OE2	-5.09	117.19	123.30
1	J	234	TYR	CB-CG-CD1	-5.09	117.94	121.00
1	B	457	ALA	CB-CA-C	5.09	117.74	110.10
1	G	242	TYR	CB-CG-CD1	-5.09	117.95	121.00
1	G	251	ARG	C-N-CA	-5.09	108.97	121.70
1	M	65	VAL	CA-CB-CG1	5.09	118.54	110.90
1	A	398	ILE	CB-CA-C	-5.09	101.42	111.60
1	C	285	ASN	N-CA-CB	-5.09	101.44	110.60
1	O	220	VAL	CG1-CB-CG2	5.09	119.04	110.90
1	I	242	TYR	CB-CG-CD2	5.09	124.05	121.00
1	B	297	GLY	N-CA-C	-5.09	100.38	113.10
1	C	315	ARG	NE-CZ-NH1	5.09	122.84	120.30
1	E	258	ARG	NE-CZ-NH2	-5.09	117.76	120.30
1	B	363	TYR	OH-CZ-CE2	-5.08	106.37	120.10
1	I	250	LEU	N-CA-CB	5.08	120.56	110.40
1	L	338	ARG	O-C-N	5.08	130.82	122.70
1	B	214	GLN	CB-CA-C	-5.08	100.25	110.40
1	M	263	ARG	NE-CZ-NH2	-5.08	117.76	120.30
1	B	195	ILE	CG1-CB-CG2	-5.07	100.24	111.40
1	K	260	LEU	CB-CG-CD1	-5.07	102.38	111.00
1	F	31	THR	OG1-CB-CG2	5.07	121.66	110.00
1	H	240	GLU	OE1-CD-OE2	5.07	129.38	123.30
1	F	319	HIS	N-CA-C	5.07	124.69	111.00
1	I	459	LEU	CB-CG-CD2	-5.07	102.38	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	J	98	LEU	CA-CB-CG	5.07	126.96	115.30
1	B	226	THR	CA-CB-CG2	-5.07	105.31	112.40
1	B	186	PRO	N-CD-CG	5.06	110.79	103.20
1	E	390	TYR	CG-CD2-CE2	-5.06	117.25	121.30
1	H	286	LEU	CB-CG-CD2	-5.06	102.39	111.00
1	I	281	GLY	N-CA-C	-5.06	100.44	113.10
1	J	217	LYS	CD-CE-NZ	-5.06	100.06	111.70
1	G	174	PRO	CA-C-N	-5.06	106.07	117.20
1	G	334	VAL	N-CA-C	-5.06	97.34	111.00
1	L	156	LEU	CB-CG-CD1	5.06	119.60	111.00
1	I	117	ILE	CG1-CB-CG2	5.05	122.52	111.40
1	N	261	PHE	CA-C-N	-5.05	106.08	117.20
1	J	213	LEU	CA-CB-CG	5.05	126.92	115.30
1	M	175	CYS	CA-CB-SG	-5.05	104.91	114.00
1	O	293	PRO	CA-CB-CG	-5.05	94.40	104.00
1	K	261	PHE	CB-CG-CD2	5.05	124.33	120.80
1	M	362	GLU	CG-CD-OE2	-5.05	108.20	118.30
1	E	459	LEU	CB-CG-CD2	-5.05	102.42	111.00
1	A	145	GLU	CG-CD-OE1	-5.04	108.21	118.30
1	L	277	ILE	CG1-CB-CG2	-5.04	100.30	111.40
1	M	277	ILE	CG1-CB-CG2	-5.04	100.30	111.40
1	C	248	PHE	CB-CG-CD2	-5.04	117.27	120.80
1	I	144	ARG	NE-CZ-NH1	5.04	122.82	120.30
1	M	99	VAL	CG1-CB-CG2	-5.04	102.83	110.90
1	A	231	TYR	CZ-CE2-CD2	5.04	124.34	119.80
1	L	77	LEU	CB-CG-CD1	5.04	119.57	111.00
1	M	115	VAL	CG1-CB-CG2	5.04	118.97	110.90
1	I	193	THR	N-CA-CB	-5.04	100.73	110.30
1	L	242	TYR	CD1-CE1-CZ	-5.04	115.27	119.80
1	K	54	LYS	CD-CE-NZ	5.04	123.28	111.70
1	E	293	PRO	N-CD-CG	-5.03	95.65	103.20
1	K	74	ARG	N-CA-C	-5.03	97.41	111.00
1	B	238	VAL	CA-CB-CG1	5.03	118.45	110.90
1	I	226	THR	CB-CA-C	-5.03	98.02	111.60
1	J	70	TYR	N-CA-C	-5.03	97.42	111.00
1	E	335	ASP	CB-CG-OD2	5.03	122.83	118.30
1	J	380	LYS	CD-CE-NZ	5.03	123.27	111.70
1	N	338	ARG	NE-CZ-NH2	-5.03	117.79	120.30
1	E	165	ILE	CG1-CB-CG2	5.03	122.46	111.40
1	B	142	ASP	OD1-CG-OD2	5.03	132.85	123.30
1	F	45	VAL	CG1-CB-CG2	5.03	118.94	110.90
1	J	294	THR	CA-C-O	-5.03	109.55	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	K	22	VAL	CB-CA-C	-5.03	101.85	111.40
1	C	472	LEU	CB-CG-CD2	-5.02	102.46	111.00
1	H	87	ASP	CB-CG-OD1	-5.02	113.78	118.30
1	D	173	SER	N-CA-CB	5.02	118.03	110.50
1	J	42	LEU	CB-CG-CD1	-5.02	102.47	111.00
1	E	180	VAL	CA-C-O	5.02	130.64	120.10
1	H	472	LEU	CA-CB-CG	5.02	126.85	115.30
1	F	469	LEU	CB-CG-CD1	-5.02	102.47	111.00
1	I	230	LYS	CA-CB-CG	-5.02	102.36	113.40
1	J	238	VAL	CG1-CB-CG2	-5.02	102.87	110.90
1	L	281	GLY	N-CA-C	-5.02	100.56	113.10
1	O	156	LEU	CB-CG-CD2	-5.02	102.47	111.00
1	E	209	ASP	N-CA-C	-5.02	97.46	111.00
1	F	205	PHE	C-N-CA	-5.02	111.77	122.30
1	H	390	TYR	CB-CG-CD1	5.02	124.01	121.00
1	C	102	CYS	CA-CB-SG	-5.01	104.97	114.00
1	F	112	PRO	N-CD-CG	-5.01	95.68	103.20
1	J	311	TYR	CD1-CE1-CZ	-5.01	115.29	119.80
1	O	350	THR	CA-CB-CG2	-5.01	105.38	112.40
1	A	364	LEU	CB-CG-CD2	5.01	119.52	111.00
1	L	276	TYR	CB-CA-C	-5.01	100.38	110.40
1	A	103	VAL	CB-CA-C	-5.01	101.88	111.40
1	K	224	ILE	N-CA-C	5.01	124.52	111.00
1	L	310	PRO	CA-CB-CG	-5.01	94.48	104.00
1	O	312	TRP	CD1-NE1-CE2	-5.01	104.49	109.00
1	O	331	VAL	CA-CB-CG1	5.01	118.42	110.90
1	I	456	SER	CA-CB-OG	-5.01	97.68	111.20
1	L	49	TYR	CZ-CE2-CD2	-5.00	115.30	119.80
1	J	244	ASP	CB-CG-OD1	5.00	122.80	118.30
1	J	323	ILE	CB-CA-C	-5.00	101.60	111.60
1	M	176	THR	CA-CB-CG2	-5.00	105.40	112.40
1	N	260	LEU	CB-CG-CD2	-5.00	102.50	111.00
1	O	159	ILE	CA-CB-CG2	-5.00	100.90	110.90

There are no chirality outliers.

All (13) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	C	292	PHE	Sidechain
1	C	390	TYR	Sidechain
1	C	70	TYR	Sidechain
1	D	294	THR	Mainchain

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Mol	Chain	Res	Type	Group
1	E	234	TYR	Sidechain
1	F	383	LEU	Mainchain
1	G	135	TYR	Sidechain
1	L	276	TYR	Sidechain
1	L	311	TYR	Sidechain
1	L	390	TYR	Sidechain
1	M	271	VAL	Mainchain
1	N	249	TYR	Sidechain
1	O	291	TYR	Sidechain

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	3310	0	3213	561	0
1	B	3310	0	3213	550	0
1	C	3310	0	3213	527	0
1	D	3310	0	3213	540	11
1	E	3310	0	3213	509	5
1	F	3310	0	3213	553	5
1	G	3310	0	3213	579	0
1	H	3310	0	3213	520	5
1	I	3310	0	3213	568	26
1	J	3310	0	3213	543	26
1	K	3310	0	3213	526	0
1	L	3310	0	3213	530	0
1	M	3310	0	3213	537	5
1	N	3310	0	3213	540	11
1	O	3310	0	3213	531	0
All	All	49650	0	48195	7270	47

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 74.

All (7270) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:115:VAL:CB	1:D:115:VAL:CG1	1.75	1.65
1:B:82:LYS:CG	1:B:82:LYS:CB	1.75	1.64
1:I:88:THR:CG2	1:I:88:THR:CB	1.76	1.64
1:F:176:THR:CG2	1:F:176:THR:CB	1.74	1.64
1:O:331:VAL:CG1	1:O:331:VAL:CB	1.75	1.63
1:N:95:THR:CB	1:N:95:THR:CG2	1.76	1.63
1:L:309:LYS:CD	1:L:309:LYS:CE	1.75	1.63
1:E:323:ILE:CG2	1:E:323:ILE:CB	1.76	1.62
1:K:452:LYS:CD	1:K:452:LYS:CG	1.76	1.61
1:C:348:ILE:CD1	1:C:348:ILE:CG1	1.74	1.61
1:I:61:LEU:CG	1:I:61:LEU:CD1	1.74	1.61
1:F:389:THR:CG2	1:F:389:THR:CB	1.75	1.61
1:F:353:THR:CB	1:F:353:THR:CG2	1.75	1.61
1:A:228:ILE:CG1	1:A:228:ILE:CD1	1.75	1.61
1:J:300:VAL:CG1	1:J:300:VAL:CB	1.78	1.61
1:D:301:THR:CG2	1:D:301:THR:CB	1.75	1.61
1:F:178:VAL:CG1	1:F:178:VAL:CB	1.75	1.61
1:B:33:ILE:CG1	1:B:33:ILE:CD1	1.79	1.61
1:J:180:VAL:CB	1:J:180:VAL:CG2	1.78	1.61
1:M:98:LEU:CG	1:M:98:LEU:CD1	1.76	1.61
1:D:64:LYS:CB	1:D:64:LYS:CG	1.76	1.61
1:A:178:VAL:CB	1:A:178:VAL:CG1	1.75	1.60
1:H:380:LYS:CE	1:H:380:LYS:CD	1.75	1.60
1:M:441:LEU:CG	1:M:441:LEU:CD2	1.77	1.60
1:M:137:ALA:CB	1:M:137:ALA:CA	1.77	1.60
1:K:346:ALA:CA	1:K:346:ALA:CB	1.75	1.60
1:D:380:LYS:CD	1:D:380:LYS:CE	1.77	1.60
1:K:230:LYS:CD	1:K:230:LYS:CG	1.78	1.60
1:O:187:PRO:CD	1:O:187:PRO:CG	1.74	1.60
1:I:277:ILE:CG1	1:I:277:ILE:CD1	1.79	1.60
1:H:469:LEU:CG	1:H:469:LEU:CD2	1.80	1.60
1:B:441:LEU:CG	1:B:441:LEU:CD2	1.80	1.60
1:B:61:LEU:CG	1:B:61:LEU:CD1	1.77	1.60
1:I:82:LYS:CD	1:I:82:LYS:CE	1.79	1.59
1:B:467:LYS:CG	1:B:467:LYS:CD	1.79	1.59
1:D:53:LYS:CG	1:D:53:LYS:CB	1.75	1.59
1:L:61:LEU:CG	1:L:61:LEU:CD1	1.75	1.59
1:A:381:ILE:CB	1:A:381:ILE:CG2	1.77	1.59
1:E:389:THR:CB	1:E:389:THR:CG2	1.75	1.59
1:F:154:THR:CG2	1:F:154:THR:CB	1.77	1.59
1:I:236:LYS:CG	1:I:236:LYS:CB	1.79	1.59
1:J:178:VAL:CB	1:J:178:VAL:CG1	1.77	1.59
1:C:178:VAL:CB	1:C:178:VAL:CG1	1.80	1.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:117:ILE:CB	1:F:117:ILE:CG2	1.74	1.59
1:F:117:ILE:CD1	1:F:117:ILE:CG1	1.76	1.59
1:D:194:VAL:CG2	1:D:194:VAL:CB	1.74	1.59
1:F:139:ALA:CA	1:F:139:ALA:CB	1.79	1.59
1:N:228:ILE:CD1	1:N:228:ILE:CG1	1.78	1.58
1:F:33:ILE:CG1	1:F:33:ILE:CD1	1.80	1.58
1:J:236:LYS:CG	1:J:236:LYS:CD	1.79	1.58
1:A:300:VAL:CB	1:A:300:VAL:CG1	1.77	1.58
1:O:452:LYS:CE	1:O:452:LYS:CD	1.74	1.58
1:C:59:LYS:CD	1:C:59:LYS:CE	1.77	1.58
1:E:33:ILE:CD1	1:E:33:ILE:CG1	1.75	1.58
1:J:105:VAL:CG2	1:J:105:VAL:CB	1.77	1.58
1:K:30:ARG:CG	1:K:30:ARG:CD	1.74	1.58
1:C:217:LYS:CD	1:C:217:LYS:CE	1.78	1.58
1:I:193:THR:CG2	1:I:193:THR:CB	1.74	1.58
1:F:467:LYS:CD	1:F:467:LYS:CE	1.79	1.58
1:F:383:LEU:CD2	1:F:383:LEU:CG	1.78	1.58
1:O:235:ILE:CD1	1:O:235:ILE:CG1	1.82	1.58
1:K:266:THR:CB	1:K:266:THR:CG2	1.77	1.58
1:N:112:PRO:CG	1:N:112:PRO:CD	1.78	1.58
1:E:213:LEU:CD1	1:E:213:LEU:CG	1.76	1.57
1:G:337:THR:CB	1:G:337:THR:CG2	1.74	1.57
1:B:171:LYS:CD	1:B:171:LYS:CG	1.75	1.57
1:I:358:THR:CB	1:I:358:THR:CG2	1.74	1.57
1:E:152:LYS:CE	1:E:152:LYS:CD	1.81	1.57
1:E:178:VAL:CB	1:E:178:VAL:CG1	1.76	1.57
1:C:356:LYS:NZ	1:C:356:LYS:CE	1.68	1.57
1:N:28:VAL:CB	1:N:28:VAL:CG1	1.75	1.57
1:G:98:LEU:CD1	1:G:98:LEU:CG	1.78	1.57
1:C:353:THR:CB	1:C:353:THR:CG2	1.77	1.57
1:N:338:ARG:CD	1:N:338:ARG:CG	1.75	1.57
1:A:178:VAL:CG2	1:A:178:VAL:CB	1.78	1.57
1:F:365:ARG:CG	1:F:365:ARG:CD	1.83	1.57
1:H:59:LYS:CD	1:H:59:LYS:CE	1.76	1.57
1:J:88:THR:CG2	1:J:88:THR:CB	1.80	1.57
1:H:266:THR:CB	1:H:266:THR:CG2	1.74	1.57
1:B:442:LYS:NZ	1:B:442:LYS:CE	1.68	1.56
1:N:61:LEU:CG	1:N:61:LEU:CD1	1.74	1.56
1:I:179:ALA:CB	1:I:179:ALA:CA	1.81	1.56
1:A:64:LYS:CG	1:A:64:LYS:CB	1.75	1.56
1:O:98:LEU:CG	1:O:98:LEU:CD1	1.76	1.56
1:D:123:LEU:CG	1:D:123:LEU:CD2	1.76	1.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:228:ILE:CD1	1:E:228:ILE:CG1	1.83	1.56
1:M:64:LYS:CG	1:M:64:LYS:CB	1.80	1.56
1:O:117:ILE:CD1	1:O:117:ILE:CG1	1.77	1.56
1:I:369:GLU:CB	1:I:369:GLU:CG	1.76	1.56
1:I:117:ILE:CD1	1:I:117:ILE:CG1	1.78	1.56
1:N:88:THR:CG2	1:N:88:THR:CB	1.75	1.56
1:N:313:LEU:CD2	1:N:313:LEU:CG	1.81	1.56
1:K:452:LYS:CE	1:K:452:LYS:CD	1.79	1.56
1:C:464:LEU:CD1	1:C:464:LEU:CG	1.84	1.56
1:G:201:VAL:CG2	1:G:201:VAL:CB	1.76	1.56
1:E:165:ILE:CD1	1:E:165:ILE:CG1	1.81	1.55
1:H:277:ILE:CD1	1:H:277:ILE:CG1	1.83	1.55
1:K:178:VAL:CB	1:K:178:VAL:CG1	1.77	1.55
1:C:441:LEU:CG	1:C:441:LEU:CD2	1.83	1.55
1:G:470:LEU:CG	1:G:470:LEU:CD1	1.75	1.55
1:N:382:THR:CG2	1:N:382:THR:CB	1.78	1.55
1:O:176:THR:CG2	1:O:176:THR:CB	1.77	1.55
1:L:361:LYS:CE	1:L:361:LYS:NZ	1.70	1.55
1:F:54:LYS:NZ	1:F:54:LYS:CE	1.68	1.55
1:N:32:ASN:CG	1:N:32:ASN:CB	1.74	1.55
1:H:361:LYS:CG	1:H:361:LYS:CB	1.77	1.55
1:L:152:LYS:CE	1:L:152:LYS:CD	1.79	1.55
1:G:105:VAL:CB	1:G:105:VAL:CG2	1.78	1.55
1:C:77:LEU:CD2	1:C:77:LEU:CG	1.79	1.55
1:H:139:ALA:CB	1:H:139:ALA:CA	1.78	1.55
1:D:80:PRO:CG	1:D:80:PRO:CD	1.76	1.55
1:B:123:LEU:CD2	1:B:123:LEU:CG	1.83	1.54
1:L:275:LEU:CD2	1:L:275:LEU:CG	1.83	1.54
1:D:174:PRO:CB	1:D:174:PRO:CG	1.81	1.54
1:G:230:LYS:NZ	1:G:230:LYS:CE	1.68	1.54
1:J:147:ILE:CG1	1:J:147:ILE:CD1	1.85	1.54
1:M:32:ASN:CB	1:M:32:ASN:CG	1.76	1.54
1:D:176:THR:CA	1:D:176:THR:CB	1.78	1.54
1:N:123:LEU:CG	1:N:123:LEU:CD2	1.82	1.54
1:K:165:ILE:CD1	1:K:165:ILE:CG1	1.83	1.54
1:K:162:LYS:CE	1:K:162:LYS:CD	1.79	1.54
1:M:178:VAL:CB	1:M:178:VAL:CG1	1.77	1.54
1:O:217:LYS:CE	1:O:217:LYS:NZ	1.70	1.54
1:K:159:ILE:CD1	1:K:159:ILE:CG1	1.76	1.54
1:O:164:PRO:CG	1:O:164:PRO:CD	1.77	1.53
1:G:217:LYS:CE	1:G:217:LYS:NZ	1.68	1.53
1:F:467:LYS:CD	1:F:467:LYS:CG	1.87	1.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:152:LYS:NZ	1:L:152:LYS:CE	1.71	1.53
1:O:398:ILE:CD1	1:O:398:ILE:CG1	1.84	1.53
1:G:178:VAL:CG1	1:G:178:VAL:CB	1.86	1.53
1:D:137:ALA:CB	1:D:137:ALA:CA	1.77	1.53
1:G:20:ALA:CA	1:G:20:ALA:CB	1.81	1.53
1:B:176:THR:CG2	1:B:176:THR:CB	1.84	1.53
1:M:147:ILE:CD1	1:M:147:ILE:CG1	1.86	1.53
1:E:235:ILE:CG1	1:E:235:ILE:CD1	1.80	1.53
1:C:467:LYS:CG	1:C:467:LYS:CD	1.80	1.53
1:L:117:ILE:CD1	1:L:117:ILE:CG1	1.84	1.52
1:M:144:ARG:CG	1:M:144:ARG:CB	1.83	1.52
1:G:309:LYS:CE	1:G:309:LYS:NZ	1.69	1.52
1:E:117:ILE:CG1	1:E:117:ILE:CD1	1.83	1.52
1:A:278:LYS:NZ	1:A:278:LYS:CE	1.70	1.52
1:A:162:LYS:NZ	1:A:162:LYS:CE	1.72	1.52
1:G:442:LYS:NZ	1:G:442:LYS:CE	1.69	1.52
1:N:454:LYS:NZ	1:N:454:LYS:CE	1.67	1.52
1:M:323:ILE:CG1	1:M:323:ILE:CD1	1.80	1.52
1:E:177:GLN:CD	1:E:177:GLN:CG	1.78	1.52
1:H:178:VAL:CG1	1:H:178:VAL:CB	1.86	1.52
1:A:454:LYS:CE	1:A:454:LYS:NZ	1.69	1.52
1:C:60:ILE:CG1	1:C:60:ILE:CD1	1.87	1.52
1:D:361:LYS:CD	1:D:361:LYS:CG	1.86	1.51
1:A:82:LYS:NZ	1:A:82:LYS:CE	1.68	1.51
1:L:228:ILE:CG1	1:L:228:ILE:CD1	1.88	1.51
1:J:454:LYS:NZ	1:J:454:LYS:CE	1.71	1.51
1:D:356:LYS:CE	1:D:356:LYS:NZ	1.71	1.51
1:A:64:LYS:CE	1:A:64:LYS:CD	1.85	1.51
1:A:443:LYS:NZ	1:A:443:LYS:CE	1.68	1.51
1:D:454:LYS:NZ	1:D:454:LYS:CE	1.71	1.51
1:O:230:LYS:NZ	1:O:230:LYS:CE	1.74	1.51
1:J:74:ARG:CD	1:J:74:ARG:CG	1.85	1.50
1:A:356:LYS:NZ	1:A:356:LYS:CE	1.73	1.50
1:J:96:GLN:CA	1:J:96:GLN:C	1.76	1.50
1:D:178:VAL:CG2	1:D:178:VAL:CB	1.87	1.50
1:H:32:ASN:CG	1:H:32:ASN:CB	1.77	1.50
1:M:86:PRO:CA	1:M:86:PRO:C	1.77	1.50
1:D:381:ILE:CD1	1:D:381:ILE:CG1	1.83	1.50
1:G:467:LYS:CE	1:G:467:LYS:NZ	1.74	1.50
1:L:230:LYS:NZ	1:L:230:LYS:CE	1.67	1.50
1:B:165:ILE:CD1	1:B:165:ILE:CG1	1.85	1.50
1:D:152:LYS:CE	1:D:152:LYS:NZ	1.70	1.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:241:PRO:CG	1:C:241:PRO:CB	1.83	1.49
1:A:152:LYS:CE	1:A:152:LYS:NZ	1.70	1.49
1:O:442:LYS:NZ	1:O:442:LYS:CE	1.76	1.49
1:D:181:GLN:CG	1:D:181:GLN:CD	1.79	1.49
1:L:159:ILE:CD1	1:L:159:ILE:CG1	1.90	1.49
1:D:32:ASN:CG	1:D:32:ASN:CB	1.79	1.49
1:D:60:ILE:CD1	1:D:60:ILE:CG1	1.91	1.49
1:B:272:PRO:CG	1:B:272:PRO:CB	1.82	1.48
1:B:463:PRO:CG	1:B:463:PRO:CB	1.84	1.48
1:N:356:LYS:NZ	1:N:356:LYS:CE	1.73	1.48
1:C:54:LYS:NZ	1:C:54:LYS:CE	1.73	1.48
1:C:467:LYS:CE	1:C:467:LYS:NZ	1.73	1.48
1:M:82:LYS:CE	1:M:82:LYS:NZ	1.77	1.47
1:H:54:LYS:CE	1:H:54:LYS:NZ	1.74	1.47
1:E:236:LYS:NZ	1:E:236:LYS:CE	1.77	1.47
1:O:452:LYS:NZ	1:O:452:LYS:CE	1.76	1.47
1:I:361:LYS:CE	1:I:361:LYS:NZ	1.75	1.47
1:I:217:LYS:CE	1:I:217:LYS:NZ	1.73	1.47
1:N:255:MET:SD	1:N:255:MET:CE	2.02	1.47
1:B:225:CYS:CB	1:B:225:CYS:SG	2.03	1.47
1:D:63:PRO:CG	1:D:63:PRO:CB	1.82	1.46
1:H:301:THR:CB	1:H:301:THR:CG2	1.94	1.46
1:C:440:PRO:CG	1:C:440:PRO:CB	1.75	1.46
1:L:165:ILE:CG1	1:L:165:ILE:CD1	1.90	1.46
1:G:241:PRO:CG	1:G:241:PRO:CB	1.81	1.46
1:A:64:LYS:CE	1:A:64:LYS:NZ	1.77	1.46
1:H:152:LYS:CE	1:H:152:LYS:NZ	1.72	1.46
1:I:241:PRO:CG	1:I:241:PRO:CB	1.79	1.46
1:M:356:LYS:CE	1:M:356:LYS:NZ	1.75	1.45
1:K:272:PRO:CG	1:K:272:PRO:CB	1.76	1.45
1:H:59:LYS:CE	1:H:59:LYS:NZ	1.76	1.45
1:C:452:LYS:NZ	1:C:452:LYS:CE	1.78	1.45
1:A:80:PRO:CB	1:A:80:PRO:CG	1.78	1.45
1:H:237:MET:CG	1:H:237:MET:SD	2.02	1.45
1:H:361:LYS:CG	1:H:361:LYS:CD	1.91	1.44
1:D:342:MET:SD	1:D:342:MET:CE	2.05	1.44
1:E:342:MET:SD	1:E:342:MET:CE	2.05	1.44
1:H:63:PRO:CB	1:H:63:PRO:CG	1.77	1.44
1:L:463:PRO:CG	1:L:463:PRO:CB	1.80	1.43
1:C:82:LYS:CE	1:C:82:LYS:NZ	1.78	1.43
1:M:63:PRO:CG	1:M:63:PRO:CB	1.78	1.43
1:F:175:CYS:SG	1:F:175:CYS:CB	2.05	1.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:440:PRO:CB	1:L:440:PRO:CG	1.74	1.43
1:J:388:MET:CE	1:J:388:MET:SD	2.05	1.42
1:F:59:LYS:NZ	1:F:59:LYS:CE	1.80	1.42
1:L:59:LYS:CE	1:L:59:LYS:NZ	1.81	1.41
1:N:63:PRO:CB	1:N:63:PRO:CG	1.75	1.40
1:M:230:LYS:CE	1:M:230:LYS:NZ	1.85	1.39
1:L:161:CYS:CB	1:L:161:CYS:SG	2.10	1.39
1:A:342:MET:SD	1:A:342:MET:CE	2.10	1.38
1:M:86:PRO:CB	1:M:86:PRO:CG	1.75	1.38
1:I:163:PRO:CG	1:I:163:PRO:CB	1.77	1.38
1:H:217:LYS:NZ	1:H:217:LYS:CE	1.88	1.36
1:C:51:PRO:CG	1:C:51:PRO:CB	1.92	1.36
1:G:51:PRO:CB	1:G:51:PRO:CG	1.89	1.35
1:L:272:PRO:CG	1:L:272:PRO:CB	1.96	1.35
1:O:241:PRO:CG	1:O:241:PRO:CB	1.78	1.34
1:E:63:PRO:CG	1:E:63:PRO:CB	1.75	1.34
1:I:356:LYS:NZ	1:I:356:LYS:CE	1.91	1.33
1:L:241:PRO:CB	1:L:241:PRO:CG	1.92	1.32
1:F:241:PRO:CB	1:F:241:PRO:CG	1.82	1.31
1:K:245:SER:CB	1:K:245:SER:OG	1.80	1.27
1:J:81:ASN:OD1	1:J:97:ARG:NH1	1.66	1.26
1:M:180:VAL:CG1	1:M:184:ASP:HB2	1.69	1.23
1:D:70:TYR:OH	1:D:232:PRO:HD3	1.33	1.23
1:N:151:TYR:CD2	1:N:203:THR:HB	1.76	1.20
1:C:345:CYS:SG	1:D:216:ASN:HB2	1.82	1.19
1:L:180:VAL:CG1	1:L:184:ASP:HB2	1.72	1.19
1:G:345:CYS:SG	1:H:216:ASN:HB2	1.82	1.17
1:C:180:VAL:HG12	1:C:184:ASP:HB2	1.22	1.17
1:O:70:TYR:OH	1:O:232:PRO:HD3	1.41	1.17
1:O:46:GLY:HA3	1:O:65:VAL:HG23	1.17	1.16
1:F:167:GLU:HB2	1:F:190:LEU:HD11	1.24	1.16
1:J:242:TYR:CD2	1:J:394:MET:HG3	1.81	1.16
1:G:151:TYR:CD2	1:G:203:THR:HB	1.78	1.16
1:D:98:LEU:HD13	1:D:378:LEU:HD11	1.19	1.16
1:F:151:TYR:CD2	1:F:203:THR:HB	1.81	1.15
1:I:472:LEU:CD2	1:M:138:ASN:HD22	1.59	1.14
1:L:152:LYS:HB2	1:L:255:MET:HB2	1.30	1.14
1:J:180:VAL:CG1	1:J:184:ASP:HB2	1.77	1.14
1:G:180:VAL:HG12	1:G:184:ASP:HB2	1.25	1.14
1:A:34:TYR:CE2	1:A:377:GLN:HG3	1.81	1.13
1:D:34:TYR:CE2	1:D:377:GLN:HG3	1.83	1.13
1:O:152:LYS:HB2	1:O:255:MET:HB2	1.31	1.12

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:463:PRO:HG2	1:G:464:LEU:H	1.12	1.12
1:D:68:LEU:O	1:D:201:VAL:HG22	1.49	1.12
1:M:79:ASP:OD2	1:M:81:ASN:HB2	1.49	1.11
1:B:54:LYS:HE3	1:B:55:PRO:HD2	1.30	1.11
1:A:286:LEU:HD12	1:E:122:LEU:HD21	1.33	1.11
1:M:117:ILE:HG21	1:N:293:PRO:HD3	1.33	1.11
1:N:75:ILE:N	1:N:75:ILE:HD12	1.55	1.10
1:C:451:LEU:HD23	1:C:454:LYS:HG3	1.27	1.10
1:A:65:VAL:HA	1:A:69:GLN:HE22	1.09	1.10
1:G:320:ASN:HD21	1:G:323:ILE:HB	1.11	1.10
1:D:112:PRO:HD3	1:E:231:TYR:CD2	1.84	1.10
1:G:74:ARG:HG3	1:G:330:PHE:CE2	1.87	1.10
1:K:216:ASN:HB2	1:O:345:CYS:SG	1.92	1.10
1:A:255:MET:HG2	1:A:256:PHE:N	1.33	1.09
1:F:78:PRO:HD3	1:F:452:LYS:HA	1.32	1.09
1:L:71:ARG:HA	1:L:71:ARG:HH11	1.15	1.09
1:G:74:ARG:HG3	1:G:330:PHE:HE2	1.16	1.09
1:A:345:CYS:SG	1:B:216:ASN:HB2	1.93	1.09
1:G:122:LEU:HD11	1:H:286:LEU:HD11	1.33	1.09
1:M:34:TYR:CE2	1:M:377:GLN:HB2	1.86	1.09
1:A:180:VAL:HG12	1:A:184:ASP:HB2	1.26	1.09
1:E:98:LEU:HD13	1:E:378:LEU:HD11	1.21	1.09
1:K:345:CYS:SG	1:L:216:ASN:HB2	1.91	1.09
1:G:180:VAL:CG1	1:G:184:ASP:HB2	1.83	1.09
1:N:344:LEU:N	1:N:344:LEU:HD23	1.68	1.09
1:M:74:ARG:NH2	1:M:441:LEU:HD12	1.67	1.08
1:J:98:LEU:HD22	1:J:378:LEU:CD1	1.83	1.08
1:N:98:LEU:HD13	1:N:378:LEU:HD11	1.30	1.08
1:L:250:LEU:HD12	1:L:250:LEU:H	1.04	1.08
1:B:78:PRO:HD3	1:B:452:LYS:HA	1.34	1.08
1:N:217:LYS:HD3	1:O:274:ASP:O	1.53	1.08
1:N:67:GLY:O	1:N:68:LEU:HG	1.54	1.08
1:E:149:MET:HE3	1:E:294:THR:HG22	1.16	1.07
1:J:180:VAL:HG12	1:J:184:ASP:HB2	1.27	1.07
1:B:344:LEU:HD12	1:C:186:PRO:HD2	1.33	1.07
1:I:123:LEU:HD23	1:I:147:ILE:HB	1.37	1.07
1:I:167:GLU:HB2	1:I:190:LEU:HD11	1.34	1.07
1:A:286:LEU:CD1	1:E:122:LEU:HD11	1.84	1.07
1:N:78:PRO:HD3	1:N:452:LYS:HA	1.34	1.07
1:A:54:LYS:HG3	1:A:55:PRO:HD2	1.35	1.07
1:L:166:GLY:CA	1:L:195:ILE:HD11	1.84	1.06
1:N:151:TYR:OH	1:N:221:PRO:HG2	1.55	1.06

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:345:CYS:SG	1:O:216:ASN:HB2	1.95	1.06
1:K:252:ARG:HD2	1:K:306:ILE:HD11	1.36	1.06
1:K:152:LYS:HB2	1:K:255:MET:HB2	1.37	1.06
1:B:152:LYS:HB2	1:B:255:MET:HB2	1.37	1.06
1:J:98:LEU:CD2	1:J:378:LEU:HD11	1.85	1.06
1:H:345:CYS:SG	1:I:216:ASN:HB2	1.96	1.05
1:E:176:THR:O	1:E:177:GLN:HG3	1.56	1.05
1:E:101:ALA:HA	1:E:322:GLY:O	1.56	1.05
1:A:139:ALA:HA	1:A:143:ASN:HD21	1.13	1.05
1:D:54:LYS:HE3	1:D:55:PRO:HD2	1.37	1.05
1:E:152:LYS:HB2	1:E:255:MET:HB2	1.32	1.05
1:L:166:GLY:N	1:L:195:ILE:HD11	1.70	1.05
1:D:167:GLU:HB2	1:D:190:LEU:HD11	1.39	1.04
1:M:180:VAL:HG13	1:M:184:ASP:HB2	1.38	1.04
1:A:266:THR:OG1	1:E:361:LYS:HA	1.55	1.04
1:O:46:GLY:HA3	1:O:65:VAL:CG2	1.87	1.04
1:L:344:LEU:HD11	1:M:185:CYS:SG	1.98	1.04
1:L:123:LEU:HD23	1:L:147:ILE:HB	1.35	1.04
1:J:255:MET:HG2	1:J:256:PHE:N	1.72	1.04
1:B:46:GLY:HA3	1:B:65:VAL:HG23	1.36	1.03
1:E:472:LEU:HD23	1:J:138:ASN:HD22	0.92	1.03
1:B:23:SER:OG	1:B:25:ASP:HB2	1.57	1.03
1:B:348:ILE:HG22	1:B:359:ASN:OD1	1.58	1.03
1:O:123:LEU:HD23	1:O:147:ILE:HB	1.40	1.03
1:D:30:ARG:HH11	1:D:377:GLN:HE22	1.07	1.03
1:A:255:MET:CG	1:A:256:PHE:N	2.22	1.02
1:H:169:TRP:HB3	1:H:188:LEU:HD12	1.42	1.02
1:D:152:LYS:HB2	1:D:255:MET:HB2	1.40	1.02
1:M:115:VAL:H	1:N:255:MET:HE1	1.17	1.02
1:N:348:ILE:HG22	1:N:359:ASN:OD1	1.59	1.02
1:A:286:LEU:HD11	1:E:122:LEU:HD11	1.02	1.02
1:K:443:LYS:HD3	1:K:443:LYS:H	1.19	1.02
1:E:96:GLN:HB3	1:E:382:THR:HG22	1.39	1.01
1:K:67:GLY:O	1:K:68:LEU:HG	1.59	1.01
1:O:167:GLU:HB2	1:O:190:LEU:HD11	1.41	1.01
1:E:472:LEU:HD23	1:J:138:ASN:ND2	1.74	1.01
1:J:96:GLN:HA	1:J:382:THR:HA	1.36	1.01
1:D:176:THR:O	1:D:177:GLN:HG3	1.61	1.01
1:H:70:TYR:OH	1:H:232:PRO:HD3	1.60	1.01
1:F:149:MET:HE3	1:F:294:THR:HG22	1.37	1.01
1:N:66:SER:H	1:N:69:GLN:NE2	1.58	1.01
1:O:158:LEU:HB2	1:O:332:THR:OG1	1.61	1.00

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:166:GLY:HA3	1:L:195:ILE:HD11	1.43	1.00
1:H:30:ARG:HH11	1:H:377:GLN:HE22	1.07	1.00
1:M:344:LEU:HD23	1:M:344:LEU:N	1.76	1.00
1:C:74:ARG:HG3	1:C:330:PHE:CE2	1.96	1.00
1:K:180:VAL:CG1	1:K:184:ASP:HB2	1.92	1.00
1:M:361:LYS:HA	1:N:266:THR:HG1	1.26	1.00
1:N:152:LYS:HB2	1:N:255:MET:HB2	1.44	1.00
1:J:44:ALA:O	1:J:45:VAL:HG23	1.61	1.00
1:D:252:ARG:HD2	1:D:306:ILE:HD11	1.39	1.00
1:C:302:SER:O	1:C:304:ALA:N	1.93	1.00
1:H:259:HIS:C	1:H:260:LEU:HD12	1.82	1.00
1:J:130:GLU:HB2	1:J:260:LEU:HD13	1.39	1.00
1:I:152:LYS:HB2	1:I:255:MET:HB2	1.43	1.00
1:H:71:ARG:HA	1:H:71:ARG:HH11	1.26	1.00
1:A:75:ILE:HG23	1:A:451:LEU:HD12	1.44	0.99
1:F:71:ARG:HH11	1:F:71:ARG:HA	1.21	0.99
1:G:361:LYS:HA	1:H:266:THR:OG1	1.61	0.99
1:G:463:PRO:HG2	1:G:464:LEU:N	1.77	0.99
1:H:68:LEU:HD22	1:H:203:THR:HG22	1.41	0.99
1:L:250:LEU:HD12	1:L:250:LEU:N	1.72	0.99
1:H:78:PRO:HD3	1:H:452:LYS:HA	1.44	0.99
1:A:71:ARG:HH11	1:A:71:ARG:HA	1.25	0.99
1:E:472:LEU:CD2	1:J:138:ASN:HD22	1.75	0.99
1:G:242:TYR:CD2	1:G:394:MET:HG3	1.98	0.98
1:F:21:VAL:HB	1:J:461:GLN:HE22	1.27	0.98
1:N:262:ASN:HD21	1:N:288:SER:HB3	1.26	0.98
1:D:71:ARG:HH11	1:D:71:ARG:HA	1.27	0.98
1:G:302:SER:O	1:G:304:ALA:N	1.97	0.98
1:O:151:TYR:CD2	1:O:203:THR:HB	1.98	0.98
1:D:255:MET:HG2	1:D:256:PHE:N	1.78	0.98
1:G:54:LYS:HG3	1:G:55:PRO:HD2	1.45	0.98
1:E:71:ARG:HA	1:E:71:ARG:HH11	1.26	0.98
1:N:71:ARG:HA	1:N:71:ARG:HH11	1.28	0.98
1:G:255:MET:HG2	1:G:256:PHE:H	1.27	0.98
1:N:52:ILE:HD12	1:N:52:ILE:N	1.78	0.98
1:A:66:SER:H	1:A:69:GLN:NE2	1.62	0.97
1:F:255:MET:HE1	1:J:115:VAL:H	1.26	0.97
1:A:286:LEU:HD11	1:E:122:LEU:CD1	1.94	0.97
1:O:242:TYR:CE2	1:O:394:MET:HG3	1.99	0.97
1:A:279:GLY:HA3	1:A:283:THR:O	1.65	0.97
1:N:167:GLU:HB2	1:N:190:LEU:HD11	1.46	0.97
1:E:99:VAL:HG11	1:E:323:ILE:HG22	1.46	0.97

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:54:LYS:HE3	1:K:55:PRO:HD2	1.44	0.97
1:M:74:ARG:HB2	1:M:330:PHE:HE2	1.30	0.97
1:A:65:VAL:HA	1:A:69:GLN:NE2	1.77	0.97
1:N:68:LEU:O	1:N:201:VAL:HG22	1.63	0.97
1:A:122:LEU:HD11	1:B:286:LEU:HD11	1.47	0.97
1:L:34:TYR:CE2	1:L:377:GLN:HB2	2.00	0.97
1:J:180:VAL:CG1	1:J:184:ASP:CB	2.42	0.96
1:K:279:GLY:HA3	1:K:283:THR:O	1.65	0.96
1:H:152:LYS:HB2	1:H:255:MET:HB2	1.48	0.96
1:A:57:ASN:HD21	1:A:59:LYS:CB	1.77	0.96
1:F:70:TYR:OH	1:F:232:PRO:HD3	1.63	0.96
1:N:374:PHE:HB3	1:N:376:PHE:CE1	2.01	0.96
1:N:262:ASN:ND2	1:N:288:SER:HB3	1.81	0.96
1:N:92:ASN:ND2	1:N:95:THR:H	1.61	0.96
1:A:52:ILE:HD12	1:A:52:ILE:N	1.78	0.96
1:C:190:LEU:HD12	1:C:191:ILE:H	1.28	0.96
1:M:361:LYS:HA	1:N:266:THR:OG1	1.64	0.96
1:I:166:GLY:CA	1:I:195:ILE:HD11	1.94	0.95
1:I:472:LEU:HD23	1:M:138:ASN:HD22	1.28	0.95
1:L:70:TYR:OH	1:L:232:PRO:HD3	1.66	0.95
1:M:67:GLY:O	1:M:68:LEU:HG	1.67	0.95
1:A:367:GLY:O	1:A:368:GLU:HG2	1.64	0.95
1:D:237:MET:O	1:D:240:GLU:HB3	1.66	0.95
1:B:345:CYS:SG	1:C:216:ASN:HB2	2.04	0.95
1:A:135:TYR:HE2	1:A:287:ALA:HB2	1.31	0.95
1:H:99:VAL:HG11	1:H:323:ILE:HG22	1.48	0.95
1:I:180:VAL:HG12	1:I:184:ASP:HB2	1.48	0.95
1:M:345:CYS:SG	1:N:216:ASN:HB2	2.05	0.95
1:A:180:VAL:CG1	1:A:184:ASP:HB2	1.95	0.95
1:G:180:VAL:CG1	1:G:184:ASP:CB	2.44	0.95
1:I:75:ILE:CD1	1:I:329:LEU:O	2.15	0.95
1:H:115:VAL:H	1:I:255:MET:HE1	1.30	0.94
1:F:117:ILE:CA	1:F:117:ILE:CG2	2.44	0.94
1:L:262:ASN:HD21	1:L:288:SER:HB3	1.27	0.94
1:F:216:ASN:HB2	1:J:345:CYS:SG	2.08	0.94
1:M:98:LEU:HD13	1:M:378:LEU:HD21	1.48	0.94
1:F:97:ARG:HG2	1:F:383:LEU:HD11	1.49	0.94
1:O:180:VAL:CG1	1:O:184:ASP:HB2	1.95	0.94
1:O:246:LEU:H	1:O:246:LEU:HD23	1.29	0.94
1:E:123:LEU:HD23	1:E:147:ILE:HB	1.46	0.94
1:J:96:GLN:CA	1:J:382:THR:HA	1.97	0.94
1:I:152:LYS:CB	1:I:255:MET:HB2	1.97	0.94

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:23:SER:OG	1:J:25:ASP:HB2	1.66	0.94
1:O:98:LEU:HD22	1:O:378:LEU:HD11	1.48	0.94
1:K:180:VAL:HG12	1:K:184:ASP:HB2	1.48	0.94
1:A:242:TYR:CD2	1:A:394:MET:HG3	2.03	0.94
1:I:67:GLY:O	1:I:68:LEU:HG	1.68	0.94
1:A:361:LYS:HA	1:B:266:THR:OG1	1.67	0.94
1:F:180:VAL:CG1	1:F:184:ASP:HB2	1.97	0.94
1:J:96:GLN:HB3	1:J:382:THR:HG22	1.50	0.94
1:H:320:ASN:OD1	1:H:321:ASN:N	2.01	0.94
1:G:49:TYR:HE2	1:G:118:SER:HA	1.32	0.93
1:B:361:LYS:HA	1:C:266:THR:OG1	1.67	0.93
1:K:202:ASP:OD2	1:O:112:PRO:HB2	1.68	0.93
1:F:101:ALA:HA	1:F:322:GLY:O	1.67	0.93
1:N:358:THR:HA	1:O:266:THR:CG2	1.98	0.93
1:G:167:GLU:HG2	1:G:231:TYR:O	1.68	0.93
1:H:166:GLY:CA	1:H:195:ILE:HD11	1.97	0.93
1:N:361:LYS:HA	1:O:266:THR:OG1	1.68	0.93
1:G:74:ARG:CG	1:G:330:PHE:HE2	1.82	0.93
1:N:122:LEU:HD11	1:O:286:LEU:HD11	1.51	0.93
1:D:443:LYS:HD3	1:D:443:LYS:H	1.33	0.93
1:F:97:ARG:CG	1:F:383:LEU:HD11	1.99	0.93
1:N:154:THR:H	1:N:336:THR:HG21	1.33	0.93
1:C:188:LEU:CD1	1:C:213:LEU:HD11	1.99	0.93
1:A:117:ILE:HG13	1:A:149:MET:O	1.69	0.93
1:M:185:CYS:SG	1:M:186:PRO:HD2	2.08	0.93
1:F:23:SER:OG	1:F:25:ASP:HB2	1.69	0.93
1:G:262:ASN:HD22	1:G:262:ASN:C	1.69	0.93
1:H:67:GLY:O	1:H:68:LEU:HG	1.69	0.93
1:M:180:VAL:HG13	1:M:184:ASP:CB	1.99	0.93
1:I:75:ILE:HD13	1:I:329:LEU:O	1.66	0.93
1:H:49:TYR:HE2	1:H:118:SER:HA	1.31	0.93
1:G:44:ALA:HB3	1:G:368:GLU:HB2	1.51	0.93
1:C:115:VAL:HG22	1:D:255:MET:SD	2.09	0.92
1:C:180:VAL:CG1	1:C:184:ASP:HB2	1.99	0.92
1:H:176:THR:C	1:H:177:GLN:HG3	1.90	0.92
1:G:71:ARG:HH12	1:G:198:GLY:H	1.10	0.92
1:C:361:LYS:HA	1:D:266:THR:OG1	1.69	0.92
1:O:65:VAL:HA	1:O:69:GLN:HE22	1.33	0.92
1:K:162:LYS:CG	1:K:162:LYS:CE	2.47	0.92
1:M:71:ARG:HH11	1:M:71:ARG:HA	1.32	0.92
1:N:180:VAL:HG13	1:N:184:ASP:HB2	1.49	0.92
1:J:242:TYR:CE2	1:J:394:MET:HG3	2.05	0.92

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:262:ASN:C	1:C:262:ASN:HD22	1.67	0.92
1:A:262:ASN:HD21	1:A:288:SER:HB3	1.33	0.92
1:K:259:HIS:C	1:K:260:LEU:HD12	1.90	0.92
1:N:344:LEU:H	1:N:344:LEU:HD23	1.32	0.92
1:M:117:ILE:CG2	1:N:293:PRO:HD3	2.00	0.92
1:F:266:THR:OG1	1:J:361:LYS:HA	1.67	0.92
1:M:281:GLY:O	1:M:284:ALA:N	2.02	0.92
1:B:115:VAL:HG21	1:C:257:VAL:HG13	1.50	0.92
1:N:79:ASP:OD2	1:N:81:ASN:HB2	1.68	0.92
1:K:117:ILE:HG13	1:K:149:MET:O	1.70	0.92
1:F:443:LYS:HD3	1:F:443:LYS:H	1.30	0.92
1:K:320:ASN:OD1	1:K:321:ASN:N	2.03	0.92
1:N:66:SER:H	1:N:69:GLN:HE21	1.05	0.92
1:N:126:LEU:HB3	1:N:262:ASN:HB3	1.52	0.92
1:B:344:LEU:HD11	1:C:185:CYS:SG	2.10	0.92
1:J:260:LEU:N	1:J:260:LEU:HD12	1.84	0.92
1:K:466:ARG:HD3	1:L:319:HIS:CE1	2.05	0.92
1:J:123:LEU:HD23	1:J:147:ILE:HB	1.51	0.91
1:A:139:ALA:HB1	1:A:143:ASN:OD1	1.70	0.91
1:H:451:LEU:HD23	1:H:454:LYS:HG3	1.51	0.91
1:J:71:ARG:HG2	1:J:71:ARG:NH1	1.84	0.91
1:A:74:ARG:NH2	1:A:441:LEU:HD12	1.84	0.91
1:D:305:GLN:HE22	1:D:337:THR:HG21	1.36	0.91
1:M:98:LEU:CD2	1:M:98:LEU:CD1	2.47	0.91
1:B:28:VAL:HG22	1:B:381:ILE:HD11	1.52	0.91
1:H:75:ILE:HG23	1:H:451:LEU:HD12	1.51	0.91
1:J:71:ARG:HG2	1:J:71:ARG:HH11	1.36	0.91
1:H:74:ARG:HG3	1:H:330:PHE:CE2	2.06	0.91
1:O:178:VAL:O	1:O:180:VAL:N	2.03	0.91
1:C:385:ALA:O	1:C:389:THR:HG23	1.71	0.91
1:F:344:LEU:HD12	1:G:186:PRO:HD2	1.52	0.91
1:A:79:ASP:OD2	1:A:81:ASN:HB2	1.69	0.91
1:H:30:ARG:HH11	1:H:377:GLN:NE2	1.68	0.91
1:K:123:LEU:HD23	1:K:147:ILE:HB	1.52	0.91
1:B:71:ARG:HA	1:B:71:ARG:HH11	1.35	0.91
1:F:246:LEU:HD23	1:F:246:LEU:H	1.36	0.91
1:K:361:LYS:HA	1:L:266:THR:OG1	1.69	0.91
1:K:228:ILE:N	1:K:228:ILE:HD12	1.86	0.91
1:N:471:GLN:OE1	1:N:472:LEU:N	2.03	0.91
1:K:246:LEU:HD23	1:K:246:LEU:O	1.69	0.91
1:L:152:LYS:CB	1:L:255:MET:HB2	2.00	0.91
1:O:180:VAL:HG13	1:O:184:ASP:HB2	1.53	0.91

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:472:LEU:CD2	1:I:138:ASN:HD22	1.84	0.91
1:K:74:ARG:HG3	1:K:330:PHE:CE2	2.06	0.90
1:B:49:TYR:HE2	1:B:118:SER:HA	1.36	0.90
1:L:230:LYS:NZ	1:L:230:LYS:CD	2.34	0.90
1:N:154:THR:O	1:N:336:THR:HG23	1.70	0.90
1:D:66:SER:H	1:D:69:GLN:NE2	1.69	0.90
1:F:443:LYS:HD3	1:F:443:LYS:N	1.87	0.90
1:L:122:LEU:HD11	1:M:286:LEU:HD11	1.53	0.90
1:O:101:ALA:HA	1:O:322:GLY:O	1.72	0.90
1:H:167:GLU:HB2	1:H:190:LEU:HD11	1.53	0.90
1:H:260:LEU:HD12	1:H:260:LEU:N	1.80	0.90
1:H:112:PRO:HD3	1:I:231:TYR:CD2	2.06	0.90
1:D:246:LEU:H	1:D:246:LEU:HD23	1.37	0.90
1:L:67:GLY:O	1:L:68:LEU:HG	1.70	0.90
1:C:167:GLU:HG2	1:C:231:TYR:O	1.70	0.90
1:N:28:VAL:HB	1:N:28:VAL:CG1	2.02	0.90
1:L:66:SER:H	1:L:69:GLN:NE2	1.70	0.90
1:H:373:GLN:CB	1:H:464:LEU:HD12	2.01	0.90
1:O:242:TYR:CD2	1:O:394:MET:HG3	2.08	0.89
1:I:378:LEU:HD12	1:I:379:CYS:N	1.86	0.89
1:A:164:PRO:HG3	1:A:332:THR:OG1	1.71	0.89
1:D:344:LEU:HD13	1:E:213:LEU:CD1	2.02	0.89
1:C:279:GLY:HA3	1:C:283:THR:O	1.72	0.89
1:O:65:VAL:HA	1:O:69:GLN:NE2	1.85	0.89
1:J:54:LYS:HG3	1:J:55:PRO:HD2	1.53	0.89
1:F:52:ILE:HB	1:F:62:VAL:HB	1.53	0.89
1:L:39:THR:HG23	1:L:372:LEU:HB2	1.54	0.89
1:G:120:HIS:NE2	1:G:218:SER:HB3	1.87	0.89
1:H:361:LYS:HD3	1:I:268:GLY:HA2	1.52	0.89
1:C:345:CYS:HG	1:D:216:ASN:HB2	1.38	0.89
1:G:159:ILE:HD12	1:G:248:PHE:HD2	1.34	0.89
1:E:70:TYR:OH	1:E:232:PRO:HD3	1.72	0.89
1:I:166:GLY:HA3	1:I:195:ILE:HD11	1.53	0.89
1:N:75:ILE:H	1:N:75:ILE:HD12	1.32	0.89
1:C:82:LYS:HZ1	1:C:403:ASN:HD22	0.91	0.89
1:M:255:MET:HG2	1:M:256:PHE:N	1.85	0.89
1:D:375:ILE:HG12	1:D:464:LEU:HD13	1.53	0.89
1:A:126:LEU:HB3	1:A:262:ASN:HB3	1.55	0.89
1:H:367:GLY:O	1:H:368:GLU:HG2	1.71	0.89
1:D:54:LYS:HB3	1:D:57:ASN:HB3	1.55	0.89
1:A:237:MET:O	1:A:240:GLU:HB3	1.73	0.89
1:D:31:THR:HG23	1:D:378:LEU:O	1.72	0.88

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:342:MET:HB2	1:I:208:MET:HE1	1.53	0.88
1:M:78:PRO:HD3	1:M:452:LYS:HA	1.55	0.88
1:I:345:CYS:SG	1:J:216:ASN:HB2	2.12	0.88
1:J:167:GLU:HB2	1:J:190:LEU:HD11	1.55	0.88
1:O:320:ASN:OD1	1:O:323:ILE:HG12	1.73	0.88
1:D:65:VAL:HA	1:D:69:GLN:HE22	1.36	0.88
1:H:373:GLN:HB3	1:H:464:LEU:HD12	1.55	0.88
1:O:74:ARG:HG3	1:O:330:PHE:HE2	1.38	0.88
1:G:361:LYS:HA	1:H:266:THR:HG1	1.34	0.88
1:K:260:LEU:N	1:K:260:LEU:HD12	1.84	0.88
1:D:250:LEU:HD12	1:D:250:LEU:N	1.88	0.88
1:C:300:VAL:O	1:C:300:VAL:HG23	1.72	0.88
1:A:286:LEU:CD1	1:E:122:LEU:HD21	2.04	0.88
1:A:255:MET:HG2	1:A:256:PHE:H	1.37	0.88
1:O:280:SER:N	1:O:284:ALA:HB2	1.87	0.88
1:K:226:THR:HG21	1:L:275:LEU:HD22	1.54	0.88
1:N:344:LEU:N	1:N:344:LEU:CD2	2.34	0.88
1:G:463:PRO:CA	1:G:466:ARG:HH21	1.86	0.88
1:E:50:PHE:HB2	1:E:51:PRO:HD2	1.55	0.88
1:I:174:PRO:HG3	1:I:187:PRO:HG2	1.54	0.88
1:B:142:ASP:OD1	1:C:283:THR:OG1	1.91	0.88
1:D:126:LEU:HB3	1:D:262:ASN:HB3	1.54	0.88
1:N:21:VAL:CG1	1:N:390:TYR:OH	2.22	0.88
1:C:250:LEU:HD12	1:C:250:LEU:N	1.87	0.88
1:B:152:LYS:CB	1:B:255:MET:HB2	2.04	0.87
1:A:64:LYS:CG	1:A:64:LYS:CA	2.53	0.87
1:B:344:LEU:CD1	1:C:186:PRO:HD2	2.03	0.87
1:O:228:ILE:HD12	1:O:228:ILE:N	1.88	0.87
1:F:97:ARG:HG2	1:F:383:LEU:CD1	2.03	0.87
1:B:163:PRO:HD3	1:B:330:PHE:HE1	1.39	0.87
1:A:75:ILE:HD12	1:A:75:ILE:N	1.88	0.87
1:F:260:LEU:HD12	1:F:260:LEU:N	1.89	0.87
1:O:149:MET:CE	1:O:294:THR:HG22	2.05	0.87
1:D:472:LEU:HD23	1:I:138:ASN:HD22	1.39	0.87
1:B:74:ARG:HG3	1:B:330:PHE:CE2	2.09	0.87
1:A:68:LEU:HD23	1:A:201:VAL:HG21	1.56	0.87
1:I:74:ARG:HG3	1:I:330:PHE:CE2	2.09	0.87
1:O:149:MET:HE3	1:O:294:THR:HG22	1.56	0.87
1:I:180:VAL:CG1	1:I:184:ASP:HB2	2.05	0.87
1:C:35:TYR:CE2	1:C:457:ALA:HB2	2.10	0.87
1:B:122:LEU:HD21	1:C:286:LEU:HD12	1.57	0.87
1:B:180:VAL:HG12	1:B:181:GLN:O	1.74	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:344:LEU:HD12	1:L:186:PRO:HD2	1.56	0.87
1:K:41:ARG:HH22	1:L:192:ASN:HD21	1.19	0.87
1:L:255:MET:HG2	1:L:256:PHE:N	1.86	0.87
1:N:52:ILE:N	1:N:52:ILE:CD1	2.36	0.87
1:C:255:MET:HG2	1:C:256:PHE:H	1.38	0.87
1:F:180:VAL:HG12	1:F:184:ASP:HB2	1.57	0.87
1:H:54:LYS:HZ2	1:H:55:PRO:HD2	1.39	0.87
1:A:61:LEU:O	1:A:61:LEU:HD12	1.73	0.86
1:O:463:PRO:HB3	1:O:466:ARG:HH21	1.38	0.86
1:K:78:PRO:HD3	1:K:452:LYS:HA	1.56	0.86
1:O:66:SER:H	1:O:69:GLN:NE2	1.73	0.86
1:I:156:LEU:HG	1:I:334:VAL:HB	1.54	0.86
1:L:142:ASP:O	1:M:283:THR:HG21	1.75	0.86
1:I:171:LYS:HA	1:I:187:PRO:O	1.74	0.86
1:F:260:LEU:HD23	1:J:117:ILE:HD11	1.57	0.86
1:O:66:SER:O	1:O:69:GLN:HG3	1.75	0.86
1:L:262:ASN:ND2	1:L:288:SER:HB3	1.89	0.86
1:A:302:SER:HB2	1:B:253:GLU:H	1.40	0.86
1:G:242:TYR:CE2	1:G:394:MET:HG3	2.10	0.86
1:B:82:LYS:CD	1:B:82:LYS:CB	2.53	0.86
1:J:75:ILE:CG2	1:J:451:LEU:HD12	2.04	0.86
1:L:180:VAL:HG13	1:L:184:ASP:HB2	1.58	0.86
1:F:217:LYS:HD3	1:G:274:ASP:O	1.76	0.86
1:C:348:ILE:HG22	1:C:359:ASN:OD1	1.74	0.86
1:F:21:VAL:HG12	1:F:22:VAL:N	1.88	0.86
1:K:443:LYS:HD3	1:K:443:LYS:N	1.90	0.86
1:F:154:THR:O	1:F:336:THR:HG23	1.76	0.86
1:N:153:GLN:HE22	1:N:300:VAL:HA	1.39	0.86
1:A:78:PRO:HD3	1:A:452:LYS:HA	1.57	0.86
1:I:34:TYR:CE2	1:I:377:GLN:HB2	2.11	0.86
1:H:151:TYR:CD2	1:H:203:THR:HB	2.10	0.86
1:K:345:CYS:SG	1:L:216:ASN:CB	2.63	0.86
1:J:207:ALA:HB1	1:J:229:CYS:O	1.75	0.86
1:A:66:SER:H	1:A:69:GLN:HE21	1.24	0.86
1:F:65:VAL:HA	1:F:69:GLN:HE22	1.38	0.85
1:G:96:GLN:HB3	1:G:382:THR:HG22	1.58	0.85
1:N:156:LEU:HG	1:N:334:VAL:HB	1.58	0.85
1:F:126:LEU:HB3	1:F:262:ASN:HB3	1.58	0.85
1:I:70:TYR:OH	1:I:232:PRO:HD3	1.77	0.85
1:H:121:PRO:O	1:H:122:LEU:HD23	1.75	0.85
1:N:363:TYR:CD1	1:O:185:CYS:HB2	2.11	0.85
1:F:254:GLN:HA	1:J:300:VAL:O	1.76	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:255:MET:SD	1:J:114:GLY:HA2	2.17	0.85
1:A:156:LEU:C	1:A:156:LEU:HD12	1.97	0.85
1:O:443:LYS:HD3	1:O:443:LYS:H	1.40	0.85
1:J:50:PHE:HB2	1:J:51:PRO:HD2	1.58	0.85
1:E:183:GLY:O	1:E:185:CYS:N	2.10	0.85
1:E:151:TYR:CD2	1:E:203:THR:HB	2.11	0.85
1:E:23:SER:OG	1:E:25:ASP:HB2	1.75	0.85
1:C:40:SER:O	1:C:371:ASP:OD1	1.95	0.85
1:D:180:VAL:HG12	1:D:184:ASP:HB2	1.58	0.85
1:J:66:SER:H	1:J:69:GLN:NE2	1.74	0.85
1:D:78:PRO:HD3	1:D:452:LYS:HA	1.56	0.85
1:G:104:GLY:O	1:G:374:PHE:HA	1.75	0.85
1:C:345:CYS:SG	1:D:216:ASN:CB	2.63	0.85
1:A:46:GLY:HA3	1:A:65:VAL:HG23	1.57	0.85
1:F:99:VAL:HG11	1:F:323:ILE:HG22	1.58	0.85
1:C:142:ASP:OD2	1:C:144:ARG:HG3	1.76	0.85
1:L:74:ARG:HG3	1:L:330:PHE:CE2	2.11	0.85
1:G:320:ASN:ND2	1:G:323:ILE:HB	1.91	0.84
1:O:74:ARG:HG3	1:O:330:PHE:CE2	2.12	0.84
1:F:253:GLU:H	1:J:302:SER:HB2	1.41	0.84
1:F:345:CYS:SG	1:G:216:ASN:HB2	2.17	0.84
1:B:46:GLY:HA3	1:B:65:VAL:CG2	2.07	0.84
1:G:344:LEU:HD13	1:H:213:LEU:HD12	1.57	0.84
1:N:390:TYR:O	1:N:392:HIS:N	2.10	0.84
1:J:246:LEU:HD23	1:J:246:LEU:H	1.40	0.84
1:C:180:VAL:HG12	1:C:184:ASP:CB	2.05	0.84
1:G:255:MET:HG2	1:G:256:PHE:N	1.86	0.84
1:C:166:GLY:CA	1:C:195:ILE:HD11	2.06	0.84
1:D:358:THR:HA	1:E:266:THR:CG2	2.07	0.84
1:M:117:ILE:HD11	1:N:260:LEU:HD23	1.59	0.84
1:A:151:TYR:CD2	1:A:203:THR:HB	2.12	0.84
1:A:176:THR:O	1:A:177:GLN:HG3	1.77	0.84
1:A:147:ILE:HA	1:B:129:THR:O	1.77	0.84
1:K:156:LEU:HG	1:K:334:VAL:HB	1.57	0.84
1:D:52:ILE:HD12	1:D:52:ILE:N	1.93	0.84
1:M:66:SER:H	1:M:69:GLN:NE2	1.75	0.84
1:M:180:VAL:HG12	1:M:184:ASP:HB2	1.58	0.84
1:O:451:LEU:HD23	1:O:454:LYS:HG3	1.57	0.84
1:L:172:GLY:O	1:L:173:SER:O	1.94	0.84
1:J:151:TYR:CD2	1:J:203:THR:HB	2.12	0.84
1:G:176:THR:O	1:G:177:GLN:HG3	1.77	0.84
1:D:272:PRO:HD2	1:D:275:LEU:HD12	1.59	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:O:250:LEU:H	1:O:250:LEU:HD12	1.43	0.84
1:G:112:PRO:HD3	1:H:231:TYR:CD2	2.12	0.84
1:B:344:LEU:HD12	1:C:186:PRO:CD	2.06	0.84
1:H:171:LYS:HA	1:H:187:PRO:O	1.76	0.84
1:F:389:THR:CG2	1:F:389:THR:HB	2.04	0.84
1:G:188:LEU:CD1	1:G:213:LEU:HD11	2.07	0.84
1:N:154:THR:H	1:N:336:THR:CG2	1.89	0.84
1:C:466:ARG:HD2	1:D:317:GLN:O	1.77	0.84
1:D:380:LYS:CE	1:D:380:LYS:CG	2.56	0.84
1:A:300:VAL:O	1:B:254:GLN:HA	1.76	0.84
1:C:250:LEU:HD12	1:C:250:LEU:H	1.42	0.84
1:K:167:GLU:HB2	1:K:190:LEU:HD11	1.60	0.83
1:B:152:LYS:HB2	1:B:255:MET:CB	2.08	0.83
1:M:113:LEU:HD22	1:N:253:GLU:HG3	1.60	0.83
1:A:361:LYS:HA	1:B:266:THR:HG1	1.42	0.83
1:N:248:PHE:CZ	1:N:311:TYR:HB3	2.13	0.83
1:C:34:TYR:CE2	1:C:377:GLN:HB2	2.13	0.83
1:G:23:SER:OG	1:G:25:ASP:HB2	1.78	0.83
1:C:65:VAL:HA	1:C:69:GLN:NE2	1.93	0.83
1:N:70:TYR:OH	1:N:230:LYS:O	1.96	0.83
1:E:67:GLY:O	1:E:68:LEU:HG	1.78	0.83
1:A:57:ASN:HD21	1:A:59:LYS:HB3	1.42	0.83
1:K:443:LYS:CD	1:K:443:LYS:H	1.91	0.83
1:N:21:VAL:HG13	1:N:390:TYR:OH	1.78	0.83
1:F:75:ILE:CG2	1:F:451:LEU:HD12	2.07	0.83
1:E:152:LYS:CB	1:E:255:MET:HB2	2.07	0.83
1:F:154:THR:H	1:F:336:THR:HG21	1.44	0.83
1:L:92:ASN:ND2	1:L:95:THR:OG1	2.10	0.83
1:M:228:ILE:HD12	1:M:228:ILE:N	1.92	0.83
1:K:276:TYR:HA	1:O:217:LYS:HG2	1.61	0.83
1:J:152:LYS:HG3	1:J:152:LYS:O	1.78	0.83
1:E:156:LEU:HG	1:E:334:VAL:HB	1.58	0.83
1:E:57:ASN:ND2	1:E:59:LYS:H	1.76	0.83
1:O:78:PRO:HD3	1:O:452:LYS:HA	1.58	0.83
1:I:71:ARG:HH11	1:I:71:ARG:HA	1.42	0.83
1:O:98:LEU:HG	1:O:98:LEU:CD1	2.06	0.83
1:L:180:VAL:HG12	1:L:184:ASP:HB2	1.59	0.83
1:O:36:HIS:CG	1:O:462:PHE:CD1	2.67	0.83
1:A:231:TYR:CD2	1:E:112:PRO:HD3	2.14	0.83
1:L:470:LEU:O	1:L:470:LEU:HD23	1.78	0.83
1:K:189:GLU:O	1:K:191:ILE:HG13	1.77	0.83
1:B:122:LEU:HD21	1:C:286:LEU:CD1	2.09	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:217:LYS:HD3	1:J:274:ASP:O	1.76	0.83
1:E:46:GLY:HA3	1:E:65:VAL:HG23	1.59	0.83
1:F:75:ILE:HD12	1:F:75:ILE:N	1.93	0.83
1:L:167:GLU:HB2	1:L:190:LEU:HD11	1.58	0.83
1:G:71:ARG:HH12	1:G:198:GLY:N	1.77	0.83
1:L:361:LYS:HA	1:M:266:THR:OG1	1.78	0.83
1:G:112:PRO:HB2	1:H:202:ASP:OD2	1.79	0.83
1:C:82:LYS:HZ1	1:C:403:ASN:ND2	1.74	0.83
1:M:180:VAL:CG1	1:M:184:ASP:CB	2.53	0.83
1:E:459:LEU:HB3	1:E:465:GLY:HA3	1.58	0.83
1:I:152:LYS:HE2	1:I:202:ASP:HB3	1.59	0.83
1:O:152:LYS:HB2	1:O:255:MET:CB	2.09	0.83
1:G:70:TYR:OH	1:G:232:PRO:HD3	1.79	0.83
1:L:166:GLY:N	1:L:195:ILE:CD1	2.41	0.83
1:C:188:LEU:HD11	1:C:213:LEU:HD11	1.58	0.83
1:B:52:ILE:N	1:B:52:ILE:HD12	1.92	0.83
1:O:279:GLY:HA3	1:O:283:THR:O	1.78	0.83
1:A:171:LYS:HA	1:A:187:PRO:O	1.78	0.83
1:N:72:VAL:HG21	1:N:195:ILE:O	1.79	0.83
1:C:117:ILE:HD11	1:D:260:LEU:HD23	1.60	0.83
1:C:190:LEU:HD12	1:C:191:ILE:N	1.94	0.83
1:G:71:ARG:NH1	1:G:198:GLY:H	1.75	0.83
1:M:65:VAL:HA	1:M:69:GLN:HE22	1.44	0.83
1:F:123:LEU:HD23	1:F:147:ILE:HB	1.61	0.83
1:J:178:VAL:O	1:J:180:VAL:N	2.12	0.82
1:G:216:ASN:CG	1:G:219:GLU:OE2	2.17	0.82
1:H:384:THR:HG23	1:H:387:VAL:HG21	1.60	0.82
1:K:378:LEU:C	1:K:378:LEU:HD12	1.99	0.82
1:I:174:PRO:HG3	1:I:187:PRO:CG	2.09	0.82
1:D:79:ASP:OD2	1:D:81:ASN:HB2	1.78	0.82
1:C:71:ARG:HH11	1:C:71:ARG:HA	1.43	0.82
1:F:49:TYR:HE2	1:F:118:SER:HA	1.42	0.82
1:D:361:LYS:HA	1:E:266:THR:OG1	1.79	0.82
1:G:65:VAL:HA	1:G:69:GLN:HE22	1.44	0.82
1:H:122:LEU:HD13	1:H:144:ARG:NH2	1.94	0.82
1:I:109:ARG:NH1	1:I:370:TYR:CE1	2.47	0.82
1:E:43:LEU:HD12	1:E:369:GLU:HA	1.58	0.82
1:O:272:PRO:HD2	1:O:275:LEU:HD11	1.61	0.82
1:F:176:THR:O	1:F:177:GLN:HG3	1.78	0.82
1:A:159:ILE:HD12	1:A:248:PHE:HD2	1.45	0.82
1:F:30:ARG:HH11	1:F:377:GLN:HE22	1.27	0.82
1:A:92:ASN:ND2	1:A:95:THR:H	1.76	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:242:TYR:CE2	1:L:394:MET:HG3	2.14	0.82
1:B:52:ILE:HB	1:B:62:VAL:HB	1.59	0.82
1:H:99:VAL:HG11	1:H:323:ILE:CG2	2.09	0.82
1:M:75:ILE:HB	1:M:329:LEU:HB3	1.62	0.82
1:D:101:ALA:HA	1:D:322:GLY:O	1.77	0.82
1:I:82:LYS:CG	1:I:82:LYS:CE	2.57	0.82
1:N:338:ARG:CD	1:N:338:ARG:CB	2.58	0.82
1:A:139:ALA:CA	1:A:143:ASN:HD21	1.92	0.82
1:K:192:ASN:HD21	1:O:41:ARG:HH22	1.24	0.82
1:F:95:THR:O	1:F:383:LEU:N	2.11	0.82
1:O:123:LEU:CD2	1:O:147:ILE:HB	2.10	0.82
1:O:92:ASN:ND2	1:O:95:THR:H	1.77	0.82
1:N:97:ARG:HH11	1:N:97:ARG:HA	1.44	0.82
1:E:98:LEU:HD22	1:E:379:CYS:O	1.80	0.82
1:F:451:LEU:HD23	1:F:454:LYS:HG3	1.59	0.82
1:M:451:LEU:HD23	1:M:454:LYS:HG3	1.61	0.82
1:C:82:LYS:NZ	1:C:403:ASN:HD22	1.78	0.82
1:L:237:MET:O	1:L:240:GLU:HB3	1.80	0.82
1:L:71:ARG:HA	1:L:71:ARG:NH1	1.95	0.82
1:M:298:SER:OG	1:M:299:MET:N	2.12	0.81
1:M:115:VAL:H	1:N:255:MET:CE	1.92	0.81
1:C:180:VAL:CG1	1:C:184:ASP:CB	2.57	0.81
1:A:375:ILE:HG12	1:A:464:LEU:HD13	1.61	0.81
1:F:72:VAL:HG21	1:F:195:ILE:O	1.78	0.81
1:B:122:LEU:HD13	1:B:144:ARG:NH2	1.95	0.81
1:H:24:THR:CG2	1:H:320:ASN:HA	2.10	0.81
1:F:156:LEU:HG	1:F:334:VAL:HB	1.62	0.81
1:M:262:ASN:C	1:M:262:ASN:HD22	1.82	0.81
1:K:242:TYR:CD2	1:K:394:MET:HG3	2.15	0.81
1:J:180:VAL:HG13	1:J:184:ASP:CB	2.09	0.81
1:C:298:SER:OG	1:C:299:MET:N	2.12	0.81
1:D:152:LYS:NZ	1:D:253:GLU:OE1	2.13	0.81
1:L:344:LEU:HD12	1:M:186:PRO:HG2	1.61	0.81
1:G:54:LYS:HB2	1:G:57:ASN:HD22	1.44	0.81
1:C:126:LEU:HB3	1:C:262:ASN:HB3	1.59	0.81
1:I:156:LEU:HD12	1:I:156:LEU:O	1.79	0.81
1:K:171:LYS:HA	1:K:187:PRO:O	1.80	0.81
1:N:34:TYR:CE2	1:N:377:GLN:HB2	2.14	0.81
1:H:391:ILE:HB	1:H:399:LEU:HD21	1.62	0.81
1:F:361:LYS:HA	1:G:266:THR:OG1	1.80	0.81
1:B:96:GLN:HB3	1:B:382:THR:HG22	1.61	0.81
1:H:156:LEU:HD11	1:H:334:VAL:HG23	1.63	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:O:170:GLY:HA2	1:O:213:LEU:HD21	1.62	0.81
1:G:123:LEU:HD23	1:G:147:ILE:HB	1.60	0.81
1:C:375:ILE:HG12	1:C:464:LEU:HD13	1.62	0.81
1:H:70:TYR:OH	1:H:230:LYS:O	1.97	0.81
1:G:470:LEU:CD1	1:G:470:LEU:CB	2.59	0.81
1:K:159:ILE:HD12	1:K:248:PHE:HD2	1.45	0.81
1:I:75:ILE:CG2	1:I:451:LEU:HD12	2.09	0.81
1:A:97:ARG:HA	1:A:97:ARG:HH11	1.46	0.81
1:M:167:GLU:HG2	1:M:231:TYR:O	1.81	0.81
1:L:154:THR:O	1:L:336:THR:HG23	1.80	0.81
1:D:302:SER:HB2	1:E:253:GLU:H	1.43	0.81
1:M:237:MET:O	1:M:240:GLU:HB3	1.81	0.81
1:K:122:LEU:HD13	1:K:144:ARG:NH2	1.95	0.81
1:B:172:GLY:O	1:B:173:SER:C	2.17	0.81
1:N:67:GLY:C	1:N:68:LEU:HG	1.94	0.81
1:N:65:VAL:HA	1:N:69:GLN:HE22	1.46	0.81
1:D:30:ARG:HH11	1:D:377:GLN:NE2	1.78	0.81
1:I:57:ASN:ND2	1:I:59:LYS:H	1.79	0.81
1:M:156:LEU:C	1:M:156:LEU:HD12	2.01	0.81
1:K:151:TYR:CD2	1:K:203:THR:HB	2.16	0.81
1:K:70:TYR:OH	1:K:232:PRO:HD3	1.81	0.81
1:G:262:ASN:HD22	1:G:263:ARG:N	1.79	0.81
1:A:52:ILE:CD1	1:A:52:ILE:N	2.43	0.81
1:I:358:THR:HG22	1:J:266:THR:HG22	1.62	0.80
1:C:74:ARG:HG3	1:C:330:PHE:HE2	1.45	0.80
1:L:344:LEU:HD12	1:M:186:PRO:HD2	1.63	0.80
1:H:101:ALA:HA	1:H:322:GLY:O	1.80	0.80
1:D:471:GLN:O	1:D:472:LEU:OXT	1.98	0.80
1:F:52:ILE:N	1:F:52:ILE:HD12	1.95	0.80
1:D:64:LYS:CA	1:D:64:LYS:CG	2.59	0.80
1:J:99:VAL:HG11	1:J:323:ILE:HG23	1.63	0.80
1:G:152:LYS:HB2	1:G:255:MET:HB2	1.63	0.80
1:A:262:ASN:ND2	1:A:288:SER:HB3	1.94	0.80
1:E:96:GLN:HB3	1:E:382:THR:CG2	2.11	0.80
1:F:96:GLN:HA	1:F:383:LEU:HD12	1.63	0.80
1:M:64:LYS:CA	1:M:64:LYS:CG	2.58	0.80
1:D:34:TYR:CE2	1:D:377:GLN:CG	2.64	0.80
1:G:49:TYR:CE2	1:G:118:SER:HA	2.17	0.80
1:L:241:PRO:HG2	1:L:242:TYR:H	1.45	0.80
1:H:280:SER:O	1:H:280:SER:OG	1.99	0.80
1:H:360:PHE:O	1:I:266:THR:OG1	2.00	0.80
1:A:101:ALA:HA	1:A:322:GLY:O	1.81	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:344:LEU:N	1:L:344:LEU:HD23	1.96	0.80
1:M:344:LEU:H	1:M:344:LEU:HD23	1.43	0.80
1:A:461:GLN:HE22	1:B:21:VAL:HB	1.46	0.80
1:N:313:LEU:CD2	1:N:313:LEU:CD1	2.59	0.80
1:C:441:LEU:HG	1:C:441:LEU:CD2	2.07	0.80
1:O:230:LYS:NZ	1:O:230:LYS:CD	2.44	0.80
1:F:246:LEU:CD2	1:F:246:LEU:H	1.93	0.80
1:N:361:LYS:HA	1:O:266:THR:HG1	1.44	0.80
1:A:74:ARG:CZ	1:A:441:LEU:HD12	2.11	0.80
1:I:367:GLY:O	1:I:368:GLU:HG2	1.81	0.80
1:A:180:VAL:CG1	1:A:184:ASP:CB	2.60	0.80
1:O:452:LYS:CG	1:O:452:LYS:CE	2.59	0.80
1:J:163:PRO:HD3	1:J:330:PHE:HE1	1.47	0.80
1:N:112:PRO:HD3	1:O:231:TYR:CD2	2.16	0.80
1:L:361:LYS:NZ	1:L:361:LYS:CD	2.45	0.80
1:D:71:ARG:CA	1:D:71:ARG:HH11	1.94	0.80
1:M:52:ILE:N	1:M:52:ILE:HD12	1.94	0.80
1:B:96:GLN:HB3	1:B:382:THR:CG2	2.11	0.80
1:O:261:PHE:HB3	1:O:292:PHE:CE2	2.17	0.80
1:K:323:ILE:N	1:K:323:ILE:HD13	1.97	0.80
1:F:363:TYR:CD1	1:G:185:CYS:HB2	2.17	0.80
1:A:299:MET:HA	1:B:256:PHE:HB3	1.61	0.80
1:E:65:VAL:HA	1:E:69:GLN:NE2	1.97	0.80
1:F:78:PRO:CD	1:F:452:LYS:HA	2.12	0.80
1:M:463:PRO:HA	1:M:466:ARG:HE	1.47	0.80
1:E:395:ASN:O	1:E:398:ILE:HG12	1.81	0.80
1:F:365:ARG:HD3	1:F:365:ARG:HA	1.64	0.80
1:H:180:VAL:CG1	1:H:184:ASP:HB2	2.12	0.80
1:D:70:TYR:HH	1:D:232:PRO:HD3	1.46	0.80
1:J:375:ILE:HG12	1:J:464:LEU:HD13	1.63	0.79
1:M:74:ARG:HB2	1:M:330:PHE:CE2	2.16	0.79
1:G:113:LEU:HD22	1:H:253:GLU:HG3	1.62	0.79
1:G:72:VAL:HG22	1:G:332:THR:CG2	2.12	0.79
1:J:79:ASP:OD2	1:J:81:ASN:HB2	1.82	0.79
1:G:399:LEU:O	1:G:402:TRP:HB2	1.81	0.79
1:N:252:ARG:HD2	1:N:306:ILE:HD11	1.63	0.79
1:G:30:ARG:HH11	1:G:377:GLN:NE2	1.80	0.79
1:G:466:ARG:HD2	1:H:317:GLN:O	1.80	0.79
1:M:130:GLU:HB2	1:M:260:LEU:HD13	1.65	0.79
1:M:255:MET:HG2	1:M:256:PHE:H	1.46	0.79
1:B:77:LEU:HD22	1:B:455:PHE:CZ	2.17	0.79
1:B:451:LEU:O	1:B:454:LYS:HB2	1.82	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:373:GLN:HB3	1:K:464:LEU:HD12	1.63	0.79
1:F:30:ARG:HH11	1:F:377:GLN:NE2	1.81	0.79
1:N:320:ASN:OD1	1:N:321:ASN:N	2.16	0.79
1:F:252:ARG:HD2	1:F:306:ILE:HD11	1.64	0.79
1:M:323:ILE:N	1:M:323:ILE:HD13	1.97	0.79
1:O:442:LYS:NZ	1:O:442:LYS:HG2	1.97	0.79
1:C:112:PRO:HB2	1:D:202:ASP:OD2	1.82	0.79
1:B:72:VAL:HG22	1:B:332:THR:HG23	1.65	0.79
1:J:54:LYS:HG2	1:J:56:ASN:OD1	1.83	0.79
1:K:142:ASP:O	1:L:283:THR:HG21	1.82	0.79
1:B:172:GLY:O	1:B:173:SER:O	2.00	0.79
1:E:30:ARG:HH11	1:E:377:GLN:NE2	1.81	0.79
1:G:461:GLN:HE22	1:H:21:VAL:HB	1.48	0.79
1:D:242:TYR:CE2	1:D:394:MET:HB2	2.17	0.79
1:J:95:THR:O	1:J:383:LEU:N	2.11	0.79
1:A:117:ILE:HD12	1:B:293:PRO:HB3	1.65	0.79
1:D:23:SER:OG	1:D:25:ASP:HB2	1.83	0.79
1:G:120:HIS:HE2	1:G:218:SER:HB3	1.46	0.79
1:O:280:SER:CA	1:O:284:ALA:HB2	2.12	0.79
1:E:160:GLY:HA3	1:E:245:SER:O	1.83	0.79
1:K:323:ILE:HG21	1:K:325:TRP:CH2	2.18	0.79
1:C:344:LEU:HD13	1:D:213:LEU:HD12	1.65	0.79
1:M:381:ILE:O	1:M:381:ILE:HG22	1.83	0.79
1:C:162:LYS:C	1:C:330:PHE:HD1	1.85	0.79
1:G:54:LYS:NZ	1:G:54:LYS:HA	1.98	0.79
1:F:57:ASN:ND2	1:F:59:LYS:H	1.81	0.79
1:B:463:PRO:HB3	1:B:466:ARG:HH21	1.47	0.79
1:G:78:PRO:HD3	1:G:452:LYS:HA	1.64	0.79
1:K:52:ILE:HD12	1:K:52:ILE:N	1.98	0.78
1:D:72:VAL:HG22	1:D:332:THR:HG23	1.66	0.78
1:F:97:ARG:HA	1:F:97:ARG:HH11	1.45	0.78
1:A:162:LYS:CD	1:A:162:LYS:NZ	2.45	0.78
1:J:96:GLN:HA	1:J:382:THR:CA	2.14	0.78
1:M:152:LYS:HB2	1:M:255:MET:HB2	1.64	0.78
1:I:228:ILE:HD12	1:I:228:ILE:N	1.96	0.78
1:F:65:VAL:HA	1:F:69:GLN:NE2	1.97	0.78
1:K:117:ILE:HD12	1:L:293:PRO:HB3	1.64	0.78
1:B:123:LEU:CD2	1:B:123:LEU:HG	2.10	0.78
1:D:176:THR:O	1:D:177:GLN:CG	2.31	0.78
1:H:30:ARG:NH1	1:H:377:GLN:HE22	1.80	0.78
1:C:255:MET:HG2	1:C:256:PHE:N	1.98	0.78
1:D:300:VAL:HG23	1:D:300:VAL:O	1.81	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:117:ILE:HD11	1:C:260:LEU:HD23	1.65	0.78
1:K:41:ARG:HH22	1:L:192:ASN:ND2	1.81	0.78
1:A:207:ALA:HB1	1:A:229:CYS:O	1.82	0.78
1:M:323:ILE:CA	1:M:323:ILE:CD1	2.61	0.78
1:F:97:ARG:HA	1:F:97:ARG:NH1	1.98	0.78
1:L:120:HIS:HA	1:L:222:LEU:HD13	1.65	0.78
1:E:257:VAL:HG12	1:E:293:PRO:HB2	1.62	0.78
1:I:348:ILE:HG22	1:I:359:ASN:OD1	1.84	0.78
1:I:323:ILE:HD13	1:I:323:ILE:N	1.99	0.78
1:F:363:TYR:CG	1:G:185:CYS:HB2	2.19	0.78
1:J:236:LYS:CB	1:J:236:LYS:CD	2.61	0.78
1:I:68:LEU:HD23	1:I:201:VAL:HG21	1.66	0.78
1:N:152:LYS:NZ	1:N:253:GLU:OE1	2.17	0.78
1:G:345:CYS:SG	1:H:216:ASN:CB	2.68	0.78
1:L:348:ILE:HG22	1:L:359:ASN:OD1	1.83	0.78
1:B:101:ALA:HA	1:B:322:GLY:O	1.84	0.78
1:K:300:VAL:O	1:L:254:GLN:HA	1.82	0.78
1:F:255:MET:SD	1:J:114:GLY:CA	2.72	0.78
1:L:54:LYS:HG3	1:L:55:PRO:HD2	1.65	0.78
1:L:34:TYR:HE2	1:L:377:GLN:HB2	1.44	0.78
1:O:237:MET:HB3	1:O:246:LEU:HD22	1.64	0.78
1:D:117:ILE:HD11	1:E:260:LEU:HD23	1.65	0.78
1:E:193:THR:HG23	1:E:230:LYS:HD2	1.63	0.78
1:H:469:LEU:CB	1:H:469:LEU:CD2	2.61	0.78
1:C:151:TYR:CD2	1:C:203:THR:HB	2.19	0.78
1:I:193:THR:CG2	1:I:193:THR:CA	2.62	0.78
1:H:277:ILE:CD1	1:H:277:ILE:CB	2.61	0.78
1:N:66:SER:N	1:N:69:GLN:HE21	1.80	0.78
1:D:66:SER:OG	1:D:67:GLY:N	2.15	0.78
1:C:356:LYS:CD	1:C:356:LYS:NZ	2.45	0.78
1:G:201:VAL:CG1	1:G:201:VAL:CG2	2.61	0.78
1:K:180:VAL:CG1	1:K:184:ASP:CB	2.62	0.78
1:D:395:ASN:HB3	1:D:398:ILE:HG12	1.66	0.78
1:N:75:ILE:N	1:N:75:ILE:CD1	2.37	0.78
1:E:250:LEU:N	1:E:250:LEU:HD12	1.98	0.78
1:D:60:ILE:HG13	1:D:60:ILE:O	1.84	0.78
1:K:373:GLN:CB	1:K:464:LEU:HD12	2.13	0.78
1:G:156:LEU:HG	1:G:334:VAL:HB	1.63	0.78
1:M:300:VAL:O	1:M:300:VAL:HG23	1.83	0.78
1:L:39:THR:O	1:L:39:THR:OG1	1.92	0.78
1:O:49:TYR:HE2	1:O:118:SER:HA	1.47	0.78
1:J:66:SER:H	1:J:69:GLN:HE21	1.30	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:67:GLY:O	1:J:68:LEU:HG	1.84	0.78
1:O:54:LYS:HG3	1:O:55:PRO:HD2	1.64	0.78
1:F:176:THR:CA	1:F:176:THR:CG2	2.62	0.77
1:E:250:LEU:H	1:E:250:LEU:HD12	1.47	0.77
1:H:122:LEU:HD11	1:I:286:LEU:HD11	1.66	0.77
1:J:399:LEU:HD23	1:J:402:TRP:CE3	2.19	0.77
1:K:65:VAL:HA	1:K:69:GLN:HE22	1.49	0.77
1:B:171:LYS:HA	1:B:187:PRO:O	1.83	0.77
1:B:57:ASN:HD21	1:B:59:LYS:HB3	1.48	0.77
1:D:54:LYS:CB	1:D:57:ASN:HB3	2.15	0.77
1:M:262:ASN:HD22	1:M:263:ARG:N	1.82	0.77
1:K:375:ILE:CG1	1:K:464:LEU:HD22	2.15	0.77
1:C:156:LEU:HG	1:C:334:VAL:HB	1.66	0.77
1:N:162:LYS:HB3	1:N:163:PRO:HD2	1.64	0.77
1:H:30:ARG:NH1	1:H:377:GLN:NE2	2.32	0.77
1:H:49:TYR:HA	1:H:223:ASP:HB3	1.65	0.77
1:F:365:ARG:HA	1:F:365:ARG:CD	2.13	0.77
1:B:51:PRO:C	1:B:52:ILE:HD12	2.04	0.77
1:K:54:LYS:HG3	1:K:55:PRO:HD2	1.67	0.77
1:B:28:VAL:HG22	1:B:381:ILE:CD1	2.14	0.77
1:K:122:LEU:HD21	1:L:286:LEU:HD12	1.67	0.77
1:C:158:LEU:HD22	1:C:249:TYR:HB2	1.67	0.77
1:I:78:PRO:HD3	1:I:452:LYS:HA	1.64	0.77
1:N:34:TYR:HE2	1:N:377:GLN:HB2	1.49	0.77
1:F:24:THR:HG23	1:F:320:ASN:HA	1.66	0.77
1:K:68:LEU:HD23	1:K:201:VAL:HG21	1.64	0.77
1:N:451:LEU:HD23	1:N:454:LYS:HG3	1.66	0.77
1:B:210:PHE:O	1:B:214:GLN:HB2	1.84	0.77
1:K:363:TYR:CG	1:L:185:CYS:HB2	2.20	0.77
1:E:246:LEU:HD23	1:E:246:LEU:H	1.48	0.77
1:N:101:ALA:HA	1:N:322:GLY:O	1.84	0.77
1:H:380:LYS:NZ	1:H:380:LYS:CD	2.47	0.77
1:F:139:ALA:O	1:F:140:GLY:O	2.03	0.77
1:G:105:VAL:HB	1:G:105:VAL:CG2	2.11	0.77
1:B:374:PHE:O	1:B:375:ILE:HD13	1.83	0.77
1:J:156:LEU:C	1:J:156:LEU:HD12	2.04	0.77
1:M:74:ARG:CZ	1:M:441:LEU:HD12	2.15	0.77
1:N:344:LEU:H	1:N:344:LEU:CD2	1.97	0.77
1:N:98:LEU:HD13	1:N:378:LEU:CD1	2.11	0.77
1:E:382:THR:O	1:E:387:VAL:HG11	1.85	0.77
1:G:98:LEU:CD1	1:G:98:LEU:HG	2.10	0.77
1:O:459:LEU:HD23	1:O:459:LEU:N	1.99	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:471:GLN:O	1:L:472:LEU:OXT	2.03	0.77
1:M:98:LEU:HD13	1:M:378:LEU:HD11	1.67	0.77
1:F:154:THR:H	1:F:336:THR:CG2	1.97	0.77
1:M:180:VAL:HG12	1:M:181:GLN:O	1.84	0.77
1:A:66:SER:N	1:A:69:GLN:HE21	1.83	0.77
1:N:395:ASN:HB3	1:N:398:ILE:HG12	1.65	0.77
1:N:99:VAL:HG11	1:N:323:ILE:HG22	1.67	0.77
1:I:358:THR:CA	1:I:358:THR:CG2	2.62	0.77
1:B:180:VAL:HG13	1:B:184:ASP:HB2	1.66	0.77
1:H:219:GLU:O	1:H:220:VAL:HG13	1.84	0.77
1:C:170:GLY:HA2	1:C:213:LEU:HD21	1.67	0.77
1:O:69:GLN:HA	1:O:199:ASP:O	1.85	0.77
1:F:78:PRO:HD3	1:F:452:LYS:CA	2.14	0.77
1:A:139:ALA:HA	1:A:143:ASN:ND2	1.97	0.77
1:J:391:ILE:HG21	1:J:402:TRP:CZ3	2.20	0.77
1:C:35:TYR:CZ	1:C:457:ALA:HB2	2.19	0.76
1:H:361:LYS:HA	1:I:266:THR:OG1	1.84	0.76
1:L:260:LEU:HD12	1:L:260:LEU:N	2.00	0.76
1:E:23:SER:HG	1:E:25:ASP:HB2	1.48	0.76
1:J:246:LEU:H	1:J:246:LEU:CD2	1.96	0.76
1:G:451:LEU:HD23	1:G:454:LYS:HG3	1.67	0.76
1:D:154:THR:H	1:D:336:THR:HG21	1.49	0.76
1:F:185:CYS:SG	1:F:186:PRO:HD2	2.25	0.76
1:C:54:LYS:HA	1:C:54:LYS:HZ3	1.51	0.76
1:I:166:GLY:N	1:I:195:ILE:HD11	1.98	0.76
1:M:302:SER:O	1:M:304:ALA:N	2.18	0.76
1:B:395:ASN:O	1:B:398:ILE:HG12	1.85	0.76
1:F:344:LEU:HD11	1:G:185:CYS:SG	2.26	0.76
1:J:144:ARG:C	1:J:145:GLU:HG2	2.05	0.76
1:B:122:LEU:HD11	1:C:286:LEU:HD11	1.67	0.76
1:M:123:LEU:HD23	1:M:147:ILE:HB	1.66	0.76
1:N:151:TYR:CG	1:N:203:THR:HB	2.19	0.76
1:K:71:ARG:HA	1:K:71:ARG:HH11	1.50	0.76
1:F:79:ASP:OD2	1:F:81:ASN:HB2	1.85	0.76
1:N:338:ARG:CG	1:N:338:ARG:NE	2.48	0.76
1:G:375:ILE:HG12	1:G:464:LEU:HD13	1.67	0.76
1:J:242:TYR:CE2	1:J:394:MET:HB2	2.21	0.76
1:A:266:THR:HG1	1:E:361:LYS:HA	1.47	0.76
1:O:54:LYS:HG2	1:O:56:ASN:OD1	1.86	0.76
1:H:117:ILE:HD12	1:I:293:PRO:HB3	1.66	0.76
1:M:142:ASP:OD2	1:M:144:ARG:HG3	1.86	0.76
1:K:105:VAL:CG1	1:K:106:GLU:N	2.47	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:385:ALA:O	1:L:389:THR:HG23	1.85	0.76
1:E:237:MET:O	1:E:240:GLU:HB3	1.86	0.76
1:K:378:LEU:HD12	1:K:379:CYS:N	2.00	0.76
1:O:300:VAL:HG11	1:O:337:THR:HA	1.68	0.76
1:F:126:LEU:CB	1:F:262:ASN:HB3	2.15	0.76
1:I:305:GLN:C	1:I:306:ILE:HD13	2.06	0.76
1:N:200:MET:O	1:N:229:CYS:HA	1.86	0.76
1:K:65:VAL:HA	1:K:69:GLN:NE2	2.01	0.76
1:D:348:ILE:HG22	1:D:359:ASN:OD1	1.86	0.76
1:G:166:GLY:CA	1:G:195:ILE:HD11	2.16	0.76
1:F:107:VAL:HG23	1:F:311:TYR:HE1	1.50	0.76
1:A:344:LEU:HD13	1:B:213:LEU:HD12	1.65	0.76
1:N:54:LYS:HB3	1:N:57:ASN:HD22	1.51	0.76
1:D:120:HIS:NE2	1:D:218:SER:HB3	2.00	0.76
1:E:75:ILE:HD13	1:E:331:VAL:HG23	1.66	0.76
1:B:97:ARG:HG3	1:B:383:LEU:HD13	1.66	0.76
1:J:180:VAL:CG2	1:J:180:VAL:HB	2.13	0.76
1:I:255:MET:HG2	1:I:256:PHE:H	1.51	0.76
1:L:228:ILE:HD12	1:L:228:ILE:N	2.01	0.76
1:K:153:GLN:NE2	1:K:300:VAL:HG12	2.00	0.76
1:A:323:ILE:HD13	1:A:323:ILE:N	2.01	0.76
1:E:367:GLY:O	1:E:368:GLU:HG2	1.85	0.76
1:F:231:TYR:CD2	1:J:112:PRO:HD3	2.21	0.76
1:C:60:ILE:HG21	1:C:60:ILE:HD13	1.67	0.76
1:H:220:VAL:O	1:H:221:PRO:O	2.04	0.76
1:H:209:ASP:O	1:H:213:LEU:HD23	1.86	0.76
1:G:188:LEU:HD11	1:G:213:LEU:HD11	1.67	0.75
1:C:78:PRO:HD2	1:C:455:PHE:CE1	2.21	0.75
1:A:162:LYS:C	1:A:330:PHE:HD1	1.89	0.75
1:A:66:SER:N	1:A:69:GLN:NE2	2.33	0.75
1:G:391:ILE:CG2	1:G:398:ILE:HG21	2.16	0.75
1:C:71:ARG:HH12	1:C:198:GLY:H	1.32	0.75
1:J:399:LEU:HD23	1:J:402:TRP:HE3	1.50	0.75
1:F:457:ALA:O	1:F:459:LEU:HD23	1.86	0.75
1:C:142:ASP:O	1:D:283:THR:HG21	1.86	0.75
1:N:115:VAL:H	1:O:255:MET:HE1	1.51	0.75
1:I:174:PRO:CG	1:I:187:PRO:HG2	2.16	0.75
1:H:154:THR:O	1:H:336:THR:HG23	1.86	0.75
1:I:74:ARG:HG3	1:I:330:PHE:HE2	1.50	0.75
1:E:65:VAL:HA	1:E:69:GLN:HE22	1.50	0.75
1:I:472:LEU:HD23	1:M:138:ASN:ND2	2.02	0.75
1:K:141:VAL:HG13	1:O:357:ASN:H	1.49	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:52:ILE:HB	1:J:62:VAL:HB	1.69	0.75
1:G:171:LYS:HA	1:G:187:PRO:O	1.84	0.75
1:F:255:MET:CE	1:J:115:VAL:H	2.00	0.75
1:I:160:GLY:HA3	1:I:245:SER:O	1.87	0.75
1:G:246:LEU:HD12	1:G:249:TYR:HB3	1.68	0.75
1:L:395:ASN:O	1:L:398:ILE:HG12	1.86	0.75
1:M:471:GLN:OE1	1:M:472:LEU:N	2.18	0.75
1:C:60:ILE:O	1:C:60:ILE:HG13	1.84	0.75
1:B:165:ILE:CD1	1:B:165:ILE:CB	2.63	0.75
1:C:395:ASN:O	1:C:398:ILE:HG12	1.85	0.75
1:O:250:LEU:N	1:O:250:LEU:HD12	1.99	0.75
1:K:21:VAL:HG13	1:K:390:TYR:OH	1.87	0.75
1:F:113:LEU:HD22	1:G:253:GLU:HG3	1.67	0.75
1:H:28:VAL:HG12	1:H:29:ALA:N	2.00	0.75
1:D:115:VAL:CA	1:D:115:VAL:CG1	2.62	0.75
1:H:363:TYR:CD2	1:I:185:CYS:HB2	2.21	0.75
1:M:112:PRO:HB2	1:N:202:ASP:OD2	1.86	0.75
1:K:213:LEU:CD1	1:O:344:LEU:HD13	2.17	0.75
1:J:171:LYS:HA	1:J:187:PRO:O	1.86	0.75
1:J:262:ASN:HD22	1:J:262:ASN:C	1.90	0.75
1:J:375:ILE:CG1	1:J:464:LEU:HD13	2.16	0.75
1:N:61:LEU:HD12	1:N:61:LEU:O	1.86	0.75
1:G:463:PRO:CB	1:G:466:ARG:HH21	1.99	0.75
1:B:142:ASP:O	1:C:283:THR:HG21	1.87	0.75
1:B:214:GLN:OE1	1:B:219:GLU:HB2	1.87	0.75
1:F:237:MET:O	1:F:240:GLU:HB3	1.86	0.75
1:E:341:ASN:HB3	1:E:366:HIS:HB2	1.67	0.75
1:H:300:VAL:HG23	1:H:300:VAL:O	1.85	0.75
1:D:345:CYS:SG	1:E:216:ASN:HB2	2.27	0.75
1:A:363:TYR:CD2	1:B:185:CYS:HB2	2.22	0.75
1:D:122:LEU:HD11	1:E:286:LEU:HD11	1.68	0.75
1:J:237:MET:O	1:J:240:GLU:HB3	1.87	0.75
1:H:49:TYR:CE2	1:H:118:SER:HA	2.19	0.75
1:C:152:LYS:HB2	1:C:255:MET:HB2	1.69	0.75
1:K:156:LEU:HD12	1:K:156:LEU:C	2.07	0.75
1:F:117:ILE:CB	1:F:117:ILE:CD1	2.64	0.75
1:H:363:TYR:CG	1:I:185:CYS:HB2	2.21	0.75
1:B:78:PRO:CD	1:B:452:LYS:HA	2.17	0.75
1:L:172:GLY:O	1:L:173:SER:C	2.24	0.75
1:K:112:PRO:HD3	1:L:231:TYR:CD2	2.22	0.75
1:L:70:TYR:HE1	1:L:201:VAL:HA	1.51	0.75
1:O:343:SER:HB3	1:O:364:LEU:HD23	1.69	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:34:TYR:HE2	1:D:377:GLN:HG3	1.52	0.75
1:A:242:TYR:CE2	1:A:394:MET:HG3	2.21	0.75
1:D:250:LEU:H	1:D:250:LEU:HD12	1.49	0.75
1:O:104:GLY:O	1:O:374:PHE:HA	1.87	0.75
1:N:164:PRO:HG3	1:N:332:THR:HG21	1.69	0.75
1:E:246:LEU:HD23	1:E:246:LEU:N	1.99	0.75
1:C:77:LEU:HD22	1:C:455:PHE:CZ	2.22	0.74
1:I:472:LEU:CD2	1:M:138:ASN:ND2	2.45	0.74
1:N:78:PRO:HD3	1:N:452:LYS:CA	2.17	0.74
1:B:66:SER:H	1:B:69:GLN:NE2	1.85	0.74
1:M:344:LEU:N	1:M:344:LEU:CD2	2.49	0.74
1:D:246:LEU:H	1:D:246:LEU:CD2	2.00	0.74
1:H:125:LYS:NZ	1:I:132:ALA:O	2.19	0.74
1:K:383:LEU:HD23	1:K:388:MET:HE2	1.69	0.74
1:N:385:ALA:O	1:N:389:THR:HG23	1.86	0.74
1:J:156:LEU:HG	1:J:334:VAL:HB	1.67	0.74
1:D:71:ARG:NH1	1:D:71:ARG:HA	2.01	0.74
1:A:112:PRO:HD3	1:B:231:TYR:CD2	2.22	0.74
1:I:169:TRP:HB3	1:I:188:LEU:HD12	1.68	0.74
1:J:180:VAL:HG13	1:J:184:ASP:HB3	1.69	0.74
1:O:223:ASP:OD1	1:O:224:ILE:HG12	1.88	0.74
1:K:344:LEU:HB3	1:L:213:LEU:HD12	1.67	0.74
1:B:98:LEU:HD13	1:B:378:LEU:HD11	1.68	0.74
1:J:463:PRO:HA	1:J:466:ARG:HE	1.52	0.74
1:I:217:LYS:CD	1:I:217:LYS:NZ	2.49	0.74
1:N:390:TYR:C	1:N:392:HIS:H	1.91	0.74
1:C:33:ILE:HB	1:C:378:LEU:HB3	1.68	0.74
1:F:348:ILE:HG22	1:F:359:ASN:OD1	1.86	0.74
1:F:209:ASP:O	1:F:213:LEU:HD23	1.86	0.74
1:B:262:ASN:ND2	1:B:288:SER:HB3	2.02	0.74
1:O:385:ALA:O	1:O:389:THR:HG23	1.88	0.74
1:J:170:GLY:HA2	1:J:213:LEU:HD21	1.68	0.74
1:K:66:SER:H	1:K:69:GLN:NE2	1.86	0.74
1:I:21:VAL:HG12	1:I:390:TYR:OH	1.88	0.74
1:B:463:PRO:HG2	1:B:464:LEU:N	2.02	0.74
1:M:75:ILE:CG2	1:M:451:LEU:HD12	2.17	0.74
1:C:172:GLY:O	1:C:173:SER:C	2.26	0.74
1:F:168:HIS:HB2	1:F:208:MET:HA	1.68	0.74
1:E:71:ARG:CA	1:E:71:ARG:HH11	2.00	0.74
1:M:395:ASN:HB3	1:M:398:ILE:HG12	1.69	0.74
1:J:74:ARG:HD2	1:J:330:PHE:CE2	2.23	0.74
1:B:361:LYS:HA	1:C:266:THR:HG1	1.52	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:151:TYR:CD2	1:M:203:THR:HB	2.23	0.74
1:H:166:GLY:HA3	1:H:195:ILE:HD11	1.68	0.74
1:J:71:ARG:HH11	1:J:71:ARG:HA	1.51	0.74
1:E:50:PHE:HB2	1:E:51:PRO:CD	2.18	0.74
1:I:305:GLN:O	1:I:306:ILE:HD13	1.88	0.74
1:K:367:GLY:O	1:K:368:GLU:HG2	1.88	0.74
1:K:348:ILE:HG22	1:K:359:ASN:OD1	1.87	0.74
1:F:110:GLY:O	1:F:111:GLN:NE2	2.20	0.74
1:O:302:SER:O	1:O:304:ALA:N	2.20	0.74
1:C:464:LEU:CD1	1:C:464:LEU:HG	2.09	0.74
1:M:144:ARG:CB	1:M:144:ARG:CD	2.66	0.74
1:N:358:THR:HA	1:O:266:THR:HG22	1.68	0.74
1:F:372:LEU:HB3	1:F:374:PHE:HE1	1.52	0.74
1:L:24:THR:HG21	1:L:323:ILE:HG13	1.70	0.74
1:D:112:PRO:HD3	1:E:231:TYR:CG	2.22	0.74
1:J:75:ILE:HB	1:J:329:LEU:CB	2.17	0.74
1:K:31:THR:HG23	1:K:378:LEU:O	1.86	0.74
1:E:49:TYR:O	1:E:64:LYS:HE2	1.87	0.74
1:L:66:SER:O	1:L:69:GLN:HG3	1.88	0.74
1:J:107:VAL:HG23	1:J:311:TYR:HE1	1.52	0.74
1:I:344:LEU:HD12	1:J:186:PRO:HD2	1.68	0.74
1:F:68:LEU:O	1:F:201:VAL:HG13	1.87	0.74
1:H:117:ILE:HD11	1:I:260:LEU:HB3	1.70	0.74
1:K:248:PHE:CZ	1:K:311:TYR:HB3	2.22	0.74
1:B:183:GLY:O	1:B:185:CYS:N	2.21	0.74
1:K:286:LEU:HD11	1:O:122:LEU:HD11	1.68	0.74
1:A:246:LEU:HD23	1:A:246:LEU:H	1.53	0.74
1:K:213:LEU:HD12	1:O:344:LEU:HD13	1.68	0.74
1:G:92:ASN:HD21	1:G:94:ASP:HB2	1.52	0.74
1:H:126:LEU:HB3	1:H:262:ASN:HB3	1.70	0.74
1:O:81:ASN:O	1:O:82:LYS:HG3	1.88	0.74
1:F:21:VAL:HB	1:J:461:GLN:NE2	2.01	0.73
1:F:49:TYR:CE2	1:F:118:SER:HA	2.23	0.73
1:C:214:GLN:OE1	1:C:219:GLU:HB2	1.87	0.73
1:B:142:ASP:OD2	1:B:144:ARG:HG3	1.88	0.73
1:B:78:PRO:HD3	1:B:452:LYS:CA	2.16	0.73
1:G:159:ILE:HD12	1:G:248:PHE:CD2	2.22	0.73
1:F:75:ILE:HB	1:F:329:LEU:HB3	1.69	0.73
1:D:154:THR:O	1:D:336:THR:HG23	1.86	0.73
1:L:189:GLU:O	1:L:191:ILE:HG13	1.88	0.73
1:A:23:SER:OG	1:A:25:ASP:HB2	1.87	0.73
1:I:150:ASP:OD1	1:I:296:SER:HA	1.88	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:472:LEU:HD23	1:G:138:ASN:HD22	1.53	0.73
1:H:149:MET:HE3	1:H:294:THR:HG22	1.68	0.73
1:G:71:ARG:HB3	1:G:73:PHE:CE1	2.23	0.73
1:N:345:CYS:SG	1:O:216:ASN:CB	2.76	0.73
1:F:250:LEU:HD12	1:F:250:LEU:N	2.03	0.73
1:I:461:GLN:HE22	1:J:21:VAL:HB	1.51	0.73
1:O:171:LYS:HA	1:O:187:PRO:O	1.89	0.73
1:H:130:GLU:HB2	1:H:260:LEU:HD13	1.70	0.73
1:C:353:THR:HB	1:C:353:THR:CG2	2.14	0.73
1:B:220:VAL:O	1:B:221:PRO:C	2.22	0.73
1:C:242:TYR:CE2	1:C:394:MET:HB2	2.23	0.73
1:I:23:SER:OG	1:I:25:ASP:HB2	1.88	0.73
1:G:170:GLY:HA2	1:G:213:LEU:HD21	1.69	0.73
1:F:92:ASN:ND2	1:F:95:THR:OG1	2.18	0.73
1:E:213:LEU:CD1	1:E:213:LEU:CB	2.66	0.73
1:D:99:VAL:HG11	1:D:323:ILE:HG22	1.69	0.73
1:C:30:ARG:HH11	1:C:377:GLN:NE2	1.85	0.73
1:F:271:VAL:HG12	1:F:276:TYR:HE2	1.52	0.73
1:M:34:TYR:CD2	1:M:377:GLN:HB2	2.21	0.73
1:C:166:GLY:HA3	1:C:195:ILE:HD11	1.68	0.73
1:J:122:LEU:HD13	1:J:144:ARG:NH2	2.04	0.73
1:K:74:ARG:HG3	1:K:330:PHE:HE2	1.54	0.73
1:O:443:LYS:HD3	1:O:443:LYS:N	2.02	0.73
1:E:200:MET:O	1:E:229:CYS:HA	1.88	0.73
1:D:65:VAL:HA	1:D:69:GLN:NE2	2.03	0.73
1:N:223:ASP:OD1	1:N:224:ILE:HG23	1.87	0.73
1:G:316:ALA:HB3	1:G:321:ASN:OD1	1.87	0.73
1:C:262:ASN:HD22	1:C:263:ARG:N	1.86	0.73
1:N:153:GLN:NE2	1:N:300:VAL:HA	2.04	0.73
1:O:272:PRO:HD2	1:O:275:LEU:CD1	2.18	0.73
1:I:49:TYR:HE2	1:I:118:SER:HA	1.53	0.73
1:N:96:GLN:NE2	1:N:382:THR:HG22	2.03	0.73
1:N:374:PHE:CB	1:N:376:PHE:CE1	2.71	0.73
1:B:344:LEU:HD23	1:B:344:LEU:N	2.04	0.73
1:H:247:PHE:HD1	1:H:248:PHE:H	1.35	0.73
1:K:147:ILE:HA	1:L:129:THR:O	1.88	0.73
1:M:463:PRO:HB3	1:M:466:ARG:HH21	1.54	0.73
1:G:34:TYR:CE2	1:G:377:GLN:HB2	2.23	0.73
1:H:96:GLN:HB3	1:H:382:THR:HG22	1.70	0.73
1:M:96:GLN:HB3	1:M:382:THR:HG22	1.70	0.73
1:C:79:ASP:OD2	1:C:81:ASN:HB2	1.88	0.73
1:J:151:TYR:CG	1:J:203:THR:HB	2.23	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:34:TYR:HE2	1:C:377:GLN:HB2	1.52	0.73
1:A:97:ARG:NH1	1:A:97:ARG:HA	2.04	0.73
1:E:272:PRO:HD2	1:E:275:LEU:CD1	2.18	0.73
1:D:320:ASN:OD1	1:D:321:ASN:N	2.22	0.73
1:D:248:PHE:CZ	1:D:311:TYR:HB3	2.22	0.73
1:L:156:LEU:HG	1:L:334:VAL:HB	1.70	0.73
1:D:30:ARG:NH1	1:D:377:GLN:HE22	1.82	0.73
1:E:57:ASN:HD21	1:E:59:LYS:H	1.34	0.73
1:D:162:LYS:C	1:D:330:PHE:HD1	1.91	0.73
1:M:257:VAL:HG12	1:M:293:PRO:HB2	1.71	0.73
1:B:165:ILE:HG22	1:B:165:ILE:O	1.87	0.73
1:A:112:PRO:HB2	1:B:202:ASP:OD2	1.88	0.73
1:F:71:ARG:HH11	1:F:71:ARG:CA	2.01	0.73
1:I:159:ILE:HD12	1:I:248:PHE:HD2	1.53	0.73
1:I:463:PRO:CA	1:I:466:ARG:HH21	2.01	0.73
1:A:156:LEU:HG	1:A:334:VAL:HB	1.71	0.73
1:O:142:ASP:OD2	1:O:144:ARG:HG3	1.88	0.73
1:C:188:LEU:HD13	1:C:213:LEU:HD11	1.70	0.73
1:B:52:ILE:N	1:B:52:ILE:CD1	2.51	0.73
1:G:274:ASP:N	1:G:274:ASP:OD1	2.22	0.73
1:K:395:ASN:O	1:K:398:ILE:HG12	1.88	0.73
1:A:471:GLN:OE1	1:A:472:LEU:N	2.22	0.72
1:E:180:VAL:CG1	1:E:184:ASP:HB2	2.19	0.72
1:G:69:GLN:HA	1:G:199:ASP:O	1.89	0.72
1:N:75:ILE:HG23	1:N:451:LEU:HD12	1.71	0.72
1:M:200:MET:O	1:M:229:CYS:HA	1.88	0.72
1:K:459:LEU:HB3	1:K:465:GLY:HA3	1.71	0.72
1:F:202:ASP:OD2	1:J:112:PRO:HB2	1.89	0.72
1:K:154:THR:O	1:K:336:THR:HG23	1.89	0.72
1:I:151:TYR:CG	1:I:203:THR:HB	2.25	0.72
1:C:60:ILE:CD1	1:C:60:ILE:CB	2.67	0.72
1:J:96:GLN:HA	1:J:381:ILE:O	1.88	0.72
1:O:66:SER:N	1:O:69:GLN:NE2	2.36	0.72
1:M:462:PHE:O	1:M:466:ARG:HG3	1.89	0.72
1:B:121:PRO:HD3	1:B:222:LEU:HD22	1.71	0.72
1:B:237:MET:O	1:B:240:GLU:HB3	1.89	0.72
1:F:115:VAL:HG21	1:G:257:VAL:HG13	1.70	0.72
1:B:21:VAL:HG12	1:B:22:VAL:N	2.04	0.72
1:G:151:TYR:CD2	1:G:203:THR:CB	2.66	0.72
1:J:101:ALA:O	1:J:376:PHE:HA	1.89	0.72
1:H:201:VAL:HG23	1:H:202:ASP:O	1.89	0.72
1:A:54:LYS:HG3	1:A:55:PRO:CD	2.17	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:372:LEU:HB3	1:H:374:PHE:CE1	2.24	0.72
1:F:24:THR:HA	1:F:27:TYR:CE2	2.24	0.72
1:G:54:LYS:HZ3	1:G:54:LYS:HA	1.54	0.72
1:H:42:LEU:HD12	1:H:73:PHE:HE2	1.53	0.72
1:F:256:PHE:HB3	1:J:299:MET:HA	1.71	0.72
1:A:115:VAL:H	1:B:255:MET:CE	2.02	0.72
1:H:54:LYS:HA	1:H:54:LYS:HZ3	1.54	0.72
1:E:250:LEU:HD22	1:E:306:ILE:HG23	1.69	0.72
1:H:152:LYS:CB	1:H:255:MET:HB2	2.18	0.72
1:B:344:LEU:CD1	1:C:185:CYS:SG	2.77	0.72
1:I:75:ILE:HD12	1:I:75:ILE:N	2.03	0.72
1:H:23:SER:OG	1:H:25:ASP:HB2	1.88	0.72
1:B:113:LEU:HD22	1:C:253:GLU:HG3	1.71	0.72
1:I:61:LEU:CD1	1:I:61:LEU:HG	2.11	0.72
1:I:369:GLU:CA	1:I:369:GLU:CG	2.66	0.72
1:B:208:MET:SD	1:B:210:PHE:HE2	2.13	0.72
1:N:78:PRO:CD	1:N:452:LYS:HA	2.16	0.72
1:O:71:ARG:HH11	1:O:71:ARG:HA	1.53	0.72
1:E:171:LYS:HA	1:E:187:PRO:O	1.88	0.72
1:N:29:ALA:O	1:N:379:CYS:HB3	1.89	0.72
1:F:152:LYS:HB2	1:F:255:MET:HB2	1.71	0.72
1:C:167:GLU:HB2	1:C:190:LEU:HD11	1.70	0.72
1:I:117:ILE:HG13	1:I:149:MET:O	1.89	0.72
1:C:72:VAL:HG23	1:C:197:ASP:HA	1.69	0.72
1:H:465:GLY:O	1:H:467:LYS:N	2.22	0.72
1:A:67:GLY:O	1:A:68:LEU:HG	1.89	0.72
1:I:75:ILE:HD12	1:I:329:LEU:O	1.89	0.72
1:B:49:TYR:CE2	1:B:118:SER:HA	2.21	0.72
1:E:157:CYS:HB2	1:E:307:PHE:HE2	1.55	0.72
1:H:274:ASP:N	1:H:274:ASP:OD1	2.23	0.72
1:F:117:ILE:CG2	1:F:117:ILE:N	2.52	0.72
1:O:152:LYS:CB	1:O:255:MET:HB2	2.15	0.72
1:A:152:LYS:HB2	1:A:255:MET:HB2	1.72	0.72
1:H:220:VAL:O	1:H:221:PRO:C	2.25	0.72
1:L:57:ASN:ND2	1:L:59:LYS:H	1.87	0.72
1:H:372:LEU:HB3	1:H:374:PHE:HE1	1.55	0.72
1:G:248:PHE:HE2	1:G:311:TYR:CD1	2.07	0.72
1:I:200:MET:O	1:I:229:CYS:HA	1.90	0.72
1:I:122:LEU:HD11	1:J:286:LEU:HD11	1.70	0.72
1:D:151:TYR:CD2	1:D:203:THR:HB	2.25	0.72
1:F:375:ILE:HG12	1:F:464:LEU:HD13	1.72	0.72
1:F:142:ASP:O	1:G:283:THR:HG21	1.90	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:98:LEU:CD1	1:M:378:LEU:HD21	2.20	0.71
1:L:344:LEU:CD1	1:M:185:CYS:SG	2.76	0.71
1:H:166:GLY:H	1:H:195:ILE:HG13	1.54	0.71
1:H:74:ARG:HG3	1:H:330:PHE:HE2	1.55	0.71
1:J:54:LYS:HG3	1:J:55:PRO:CD	2.20	0.71
1:N:142:ASP:OD2	1:N:144:ARG:HG3	1.90	0.71
1:L:464:LEU:HD23	1:L:464:LEU:O	1.90	0.71
1:K:230:LYS:CD	1:K:230:LYS:CB	2.67	0.71
1:G:49:TYR:HA	1:G:223:ASP:HB3	1.71	0.71
1:O:463:PRO:HB3	1:O:466:ARG:NH2	2.04	0.71
1:J:472:LEU:CD2	1:N:138:ASN:HD22	2.02	0.71
1:N:92:ASN:HD21	1:N:95:THR:H	1.36	0.71
1:C:464:LEU:CD2	1:C:464:LEU:CD1	2.68	0.71
1:G:104:GLY:HA3	1:G:375:ILE:HB	1.71	0.71
1:G:463:PRO:HB3	1:G:466:ARG:HH21	1.55	0.71
1:D:33:ILE:HB	1:D:378:LEU:HB3	1.71	0.71
1:E:300:VAL:HG11	1:E:337:THR:HA	1.70	0.71
1:B:70:TYR:OH	1:B:230:LYS:O	2.06	0.71
1:F:440:PRO:HA	1:F:443:LYS:HZ1	1.53	0.71
1:L:66:SER:H	1:L:69:GLN:HE21	1.38	0.71
1:N:72:VAL:HG22	1:N:332:THR:HG23	1.71	0.71
1:D:188:LEU:CD1	1:D:213:LEU:HD11	2.18	0.71
1:B:121:PRO:HG3	1:C:289:SER:OG	1.90	0.71
1:N:109:ARG:NH1	1:N:370:TYR:CE1	2.58	0.71
1:G:80:PRO:HG2	1:G:98:LEU:O	1.90	0.71
1:J:99:VAL:HG11	1:J:323:ILE:CG2	2.20	0.71
1:L:66:SER:N	1:L:69:GLN:NE2	2.39	0.71
1:D:281:GLY:O	1:D:284:ALA:N	2.20	0.71
1:N:459:LEU:HB3	1:N:465:GLY:HA3	1.73	0.71
1:B:33:ILE:HG23	1:B:33:ILE:HD12	1.72	0.71
1:J:236:LYS:CG	1:J:236:LYS:CE	2.67	0.71
1:L:152:LYS:NZ	1:L:253:GLU:OE1	2.24	0.71
1:M:166:GLY:CA	1:M:195:ILE:HD11	2.20	0.71
1:N:262:ASN:HD21	1:N:288:SER:CB	2.01	0.71
1:A:34:TYR:HE2	1:A:377:GLN:HG3	1.52	0.71
1:J:255:MET:HG2	1:J:256:PHE:H	1.54	0.71
1:H:160:GLY:HA3	1:H:245:SER:O	1.90	0.71
1:E:451:LEU:HD23	1:E:454:LYS:HG3	1.72	0.71
1:N:57:ASN:ND2	1:N:59:LYS:H	1.89	0.71
1:E:323:ILE:CG2	1:E:323:ILE:CA	2.65	0.71
1:E:33:ILE:CD1	1:E:33:ILE:CB	2.68	0.71
1:F:213:LEU:HD12	1:J:344:LEU:HD13	1.72	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:281:GLY:O	1:C:284:ALA:HB3	1.90	0.71
1:A:113:LEU:HB2	1:B:253:GLU:OE1	1.90	0.71
1:E:220:VAL:O	1:E:221:PRO:O	2.08	0.71
1:K:126:LEU:HB3	1:K:262:ASN:HB3	1.72	0.71
1:L:30:ARG:HH11	1:L:377:GLN:NE2	1.88	0.71
1:H:75:ILE:HB	1:H:329:LEU:HB3	1.73	0.71
1:K:42:LEU:HD12	1:K:73:PHE:HE2	1.54	0.71
1:C:24:THR:CG2	1:C:320:ASN:HA	2.20	0.71
1:F:280:SER:CA	1:F:284:ALA:HB2	2.21	0.71
1:E:348:ILE:HG22	1:E:359:ASN:OD1	1.89	0.71
1:D:160:GLY:HA3	1:D:245:SER:O	1.89	0.71
1:C:471:GLN:O	1:C:472:LEU:OXT	2.09	0.71
1:D:457:ALA:O	1:D:459:LEU:HD23	1.90	0.71
1:F:21:VAL:CG1	1:F:22:VAL:N	2.53	0.71
1:K:190:LEU:HD12	1:K:191:ILE:H	1.55	0.71
1:I:101:ALA:HA	1:I:322:GLY:O	1.91	0.71
1:I:398:ILE:HG22	1:I:402:TRP:CZ3	2.25	0.71
1:N:180:VAL:CG1	1:N:184:ASP:HB2	2.20	0.71
1:O:74:ARG:CG	1:O:330:PHE:HE2	2.04	0.71
1:D:272:PRO:HD2	1:D:275:LEU:CD1	2.21	0.71
1:G:348:ILE:HG22	1:G:359:ASN:OD1	1.90	0.71
1:M:31:THR:HG23	1:M:379:CYS:HA	1.72	0.71
1:K:167:GLU:HG2	1:K:231:TYR:O	1.91	0.71
1:H:465:GLY:O	1:H:466:ARG:C	2.29	0.71
1:J:78:PRO:HD2	1:J:455:PHE:CE1	2.25	0.71
1:C:246:LEU:HD23	1:C:246:LEU:H	1.56	0.71
1:O:331:VAL:CG1	1:O:331:VAL:CG2	2.68	0.71
1:O:235:ILE:HD12	1:O:235:ILE:HG23	1.73	0.71
1:C:163:PRO:HD3	1:C:330:PHE:HE1	1.55	0.71
1:D:99:VAL:HG11	1:D:323:ILE:CG2	2.20	0.71
1:G:391:ILE:HB	1:G:399:LEU:HD21	1.72	0.71
1:J:345:CYS:HB2	1:J:362:GLU:OE2	1.91	0.71
1:L:27:TYR:HH	1:L:390:TYR:HE2	1.39	0.71
1:L:92:ASN:O	1:L:94:ASP:N	2.23	0.71
1:E:75:ILE:HG23	1:E:451:LEU:HD12	1.71	0.71
1:K:365:ARG:NH2	1:L:269:GLU:OE1	2.24	0.71
1:F:188:LEU:HD11	1:F:213:LEU:HD11	1.73	0.71
1:N:242:TYR:CE2	1:N:394:MET:HB2	2.26	0.71
1:D:115:VAL:HB	1:D:115:VAL:CG1	2.14	0.70
1:N:95:THR:CA	1:N:95:THR:CG2	2.67	0.70
1:N:92:ASN:ND2	1:N:95:THR:OG1	2.24	0.70
1:N:151:TYR:CD2	1:N:203:THR:CB	2.67	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:70:TYR:OH	1:B:232:PRO:HD3	1.91	0.70
1:I:246:LEU:H	1:I:246:LEU:HD23	1.54	0.70
1:B:33:ILE:CB	1:B:33:ILE:CD1	2.68	0.70
1:A:178:VAL:CG2	1:A:178:VAL:HB	2.14	0.70
1:K:266:THR:HG22	1:O:358:THR:HG22	1.72	0.70
1:G:372:LEU:HB3	1:G:374:PHE:CE1	2.25	0.70
1:N:149:MET:CE	1:N:205:PHE:CE1	2.74	0.70
1:C:299:MET:HA	1:D:256:PHE:HB3	1.73	0.70
1:M:156:LEU:HG	1:M:334:VAL:HB	1.74	0.70
1:B:262:ASN:HD21	1:B:288:SER:HB3	1.54	0.70
1:F:74:ARG:NH2	1:F:441:LEU:HD12	2.06	0.70
1:D:325:TRP:HB3	1:D:398:ILE:HD11	1.72	0.70
1:M:147:ILE:HG22	1:M:148:SER:H	1.55	0.70
1:C:60:ILE:CG1	1:C:60:ILE:O	2.38	0.70
1:E:75:ILE:HB	1:E:329:LEU:HB3	1.72	0.70
1:M:307:PHE:O	1:M:308:ASN:HB2	1.89	0.70
1:K:464:LEU:HD23	1:K:464:LEU:O	1.91	0.70
1:M:323:ILE:CB	1:M:323:ILE:CD1	2.68	0.70
1:B:74:ARG:HG3	1:B:330:PHE:HE2	1.55	0.70
1:O:235:ILE:CB	1:O:235:ILE:CD1	2.68	0.70
1:N:219:GLU:O	1:N:263:ARG:NH2	2.18	0.70
1:O:46:GLY:CA	1:O:65:VAL:CG2	2.66	0.70
1:L:344:LEU:HD12	1:M:186:PRO:CG	2.21	0.70
1:A:149:MET:HA	1:B:260:LEU:HD21	1.74	0.70
1:A:159:ILE:HD12	1:A:248:PHE:CD2	2.26	0.70
1:H:344:LEU:HD13	1:I:213:LEU:CD1	2.20	0.70
1:D:148:SER:OG	1:E:129:THR:HB	1.92	0.70
1:L:78:PRO:HD3	1:L:452:LYS:HA	1.74	0.70
1:F:117:ILE:H	1:F:117:ILE:HG22	1.55	0.70
1:K:144:ARG:HD3	1:O:355:TYR:CD1	2.27	0.70
1:A:325:TRP:HB3	1:A:398:ILE:HD12	1.71	0.70
1:G:237:MET:O	1:G:240:GLU:HB3	1.90	0.70
1:E:272:PRO:HD2	1:E:275:LEU:HD11	1.71	0.70
1:D:53:LYS:CD	1:D:53:LYS:CB	2.70	0.70
1:H:260:LEU:CD1	1:H:260:LEU:N	2.53	0.70
1:J:101:ALA:HA	1:J:322:GLY:O	1.90	0.70
1:C:65:VAL:HA	1:C:69:GLN:HE22	1.56	0.70
1:O:24:THR:CG2	1:O:320:ASN:HA	2.20	0.70
1:N:348:ILE:HD12	1:O:182:PRO:O	1.91	0.70
1:A:54:LYS:CG	1:A:55:PRO:HD2	2.19	0.70
1:G:152:LYS:O	1:G:152:LYS:HG3	1.91	0.70
1:O:246:LEU:H	1:O:246:LEU:CD2	2.03	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:180:VAL:CG1	1:D:184:ASP:HB2	2.21	0.70
1:C:463:PRO:HB3	1:C:466:ARG:HH21	1.56	0.70
1:A:99:VAL:HG11	1:A:323:ILE:HG23	1.73	0.70
1:M:74:ARG:HD3	1:M:448:GLU:OE1	1.92	0.70
1:C:343:SER:HB3	1:C:364:LEU:HD23	1.74	0.70
1:D:210:PHE:CE1	1:D:224:ILE:HB	2.27	0.70
1:D:70:TYR:OH	1:D:232:PRO:CD	2.28	0.70
1:A:65:VAL:CA	1:A:69:GLN:NE2	2.55	0.70
1:J:71:ARG:HH11	1:J:71:ARG:CG	2.03	0.70
1:E:30:ARG:HH11	1:E:377:GLN:HE22	1.37	0.70
1:D:117:ILE:HG13	1:D:149:MET:O	1.91	0.70
1:A:466:ARG:HD2	1:B:317:GLN:O	1.92	0.70
1:F:458:ASP:OD2	1:F:458:ASP:N	2.25	0.70
1:J:178:VAL:CA	1:J:178:VAL:CG1	2.70	0.70
1:J:105:VAL:CG2	1:J:105:VAL:HB	2.13	0.70
1:H:112:PRO:HB3	1:I:231:TYR:CD1	2.27	0.70
1:G:463:PRO:HA	1:G:466:ARG:HE	1.56	0.70
1:K:162:LYS:HG2	1:K:162:LYS:CE	2.21	0.70
1:O:320:ASN:HD21	1:O:323:ILE:HB	1.57	0.70
1:N:74:ARG:NH2	1:N:441:LEU:HD12	2.07	0.70
1:N:121:PRO:HG3	1:O:289:SER:HB2	1.74	0.70
1:D:443:LYS:HD3	1:D:443:LYS:N	2.05	0.70
1:D:74:ARG:HG3	1:D:330:PHE:CE2	2.27	0.70
1:G:101:ALA:HA	1:G:322:GLY:O	1.92	0.70
1:F:320:ASN:OD1	1:F:321:ASN:N	2.24	0.70
1:A:178:VAL:O	1:A:180:VAL:N	2.22	0.70
1:H:180:VAL:HG13	1:H:184:ASP:HB2	1.74	0.70
1:C:60:ILE:HG21	1:C:60:ILE:CD1	2.22	0.70
1:K:344:LEU:HD11	1:L:185:CYS:SG	2.32	0.70
1:F:443:LYS:CD	1:F:443:LYS:N	2.55	0.70
1:L:364:LEU:HD11	1:M:290:ASN:HA	1.71	0.70
1:N:149:MET:HE1	1:N:205:PHE:CE1	2.26	0.70
1:I:74:ARG:CG	1:I:330:PHE:HE2	2.05	0.70
1:K:361:LYS:HA	1:L:266:THR:HG1	1.54	0.70
1:L:66:SER:N	1:L:69:GLN:HE21	1.90	0.70
1:O:463:PRO:CB	1:O:466:ARG:HH21	2.05	0.70
1:F:34:TYR:HE2	1:F:377:GLN:HB2	1.56	0.70
1:H:344:LEU:HB3	1:I:213:LEU:HD12	1.74	0.70
1:B:154:THR:O	1:B:336:THR:HG23	1.92	0.69
1:E:188:LEU:HD11	1:E:213:LEU:HD11	1.73	0.69
1:G:196:GLN:O	1:G:199:ASP:OD2	2.09	0.69
1:N:365:ARG:HH11	1:N:365:ARG:CG	2.05	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:176:THR:C	1:H:177:GLN:CG	2.61	0.69
1:M:77:LEU:HD22	1:M:455:PHE:HZ	1.56	0.69
1:N:21:VAL:HG12	1:N:390:TYR:OH	1.90	0.69
1:E:470:LEU:HD23	1:E:470:LEU:O	1.92	0.69
1:E:193:THR:CG2	1:E:230:LYS:HD2	2.20	0.69
1:J:75:ILE:HB	1:J:329:LEU:HB3	1.75	0.69
1:J:75:ILE:HG23	1:J:451:LEU:HD12	1.74	0.69
1:C:167:GLU:CG	1:C:231:TYR:O	2.39	0.69
1:I:361:LYS:CD	1:I:361:LYS:NZ	2.54	0.69
1:I:241:PRO:HG2	1:I:242:TYR:H	1.58	0.69
1:F:443:LYS:CD	1:F:443:LYS:H	1.97	0.69
1:D:154:THR:H	1:D:336:THR:CG2	2.05	0.69
1:O:273:ASP:N	1:O:273:ASP:OD2	2.24	0.69
1:E:152:LYS:NZ	1:E:253:GLU:OE1	2.25	0.69
1:K:190:LEU:HD12	1:K:191:ILE:N	2.07	0.69
1:O:34:TYR:CE2	1:O:377:GLN:HB2	2.28	0.69
1:H:188:LEU:CD1	1:H:213:LEU:HD11	2.22	0.69
1:O:459:LEU:HB3	1:O:465:GLY:HA3	1.74	0.69
1:C:307:PHE:O	1:C:308:ASN:HB2	1.93	0.69
1:F:151:TYR:CG	1:F:203:THR:HB	2.26	0.69
1:F:66:SER:O	1:F:69:GLN:HG3	1.93	0.69
1:G:463:PRO:CG	1:G:464:LEU:N	2.55	0.69
1:F:129:THR:O	1:J:147:ILE:HA	1.92	0.69
1:J:81:ASN:CG	1:J:97:ARG:NH1	2.45	0.69
1:G:320:ASN:HD21	1:G:323:ILE:CB	1.98	0.69
1:B:375:ILE:HG21	1:B:468:PHE:CD2	2.27	0.69
1:G:457:ALA:O	1:G:459:LEU:HD23	1.93	0.69
1:A:178:VAL:CA	1:A:178:VAL:CG1	2.69	0.69
1:J:300:VAL:CG1	1:J:300:VAL:CG2	2.69	0.69
1:G:49:TYR:O	1:G:223:ASP:HA	1.92	0.69
1:F:95:THR:O	1:F:383:LEU:HB2	1.92	0.69
1:N:65:VAL:HA	1:N:69:GLN:NE2	2.07	0.69
1:O:66:SER:N	1:O:69:GLN:HE21	1.91	0.69
1:A:286:LEU:HD12	1:E:122:LEU:CD2	2.18	0.69
1:H:399:LEU:HA	1:H:402:TRP:HE3	1.57	0.69
1:K:227:SER:C	1:K:228:ILE:HD12	2.13	0.69
1:O:75:ILE:CG2	1:O:451:LEU:HD12	2.22	0.69
1:F:34:TYR:CE2	1:F:377:GLN:HB2	2.27	0.69
1:I:152:LYS:O	1:I:152:LYS:HG3	1.93	0.69
1:N:344:LEU:CD1	1:O:185:CYS:SG	2.80	0.69
1:N:164:PRO:HG3	1:N:332:THR:CG2	2.23	0.69
1:H:21:VAL:HG13	1:H:390:TYR:OH	1.93	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:141:VAL:HG12	1:D:142:ASP:N	1.96	0.69
1:J:34:TYR:CE2	1:J:377:GLN:HB2	2.27	0.69
1:K:79:ASP:OD2	1:K:81:ASN:HB2	1.93	0.69
1:G:66:SER:H	1:G:69:GLN:NE2	1.90	0.69
1:N:345:CYS:HA	1:N:361:LYS:O	1.93	0.69
1:H:451:LEU:HA	1:H:454:LYS:HG3	1.75	0.69
1:J:49:TYR:HE2	1:J:118:SER:HA	1.58	0.69
1:I:272:PRO:HD2	1:I:275:LEU:HD12	1.75	0.69
1:C:363:TYR:CE2	1:D:269:GLU:HG3	2.28	0.69
1:E:152:LYS:CE	1:E:152:LYS:CG	2.67	0.69
1:A:180:VAL:HG12	1:A:184:ASP:CB	2.13	0.69
1:M:80:PRO:HD3	1:M:100:TRP:CD1	2.27	0.69
1:J:451:LEU:HD23	1:J:454:LYS:HG3	1.75	0.69
1:C:69:GLN:HA	1:C:199:ASP:O	1.91	0.69
1:H:345:CYS:SG	1:I:216:ASN:CB	2.79	0.69
1:E:151:TYR:OH	1:E:221:PRO:HB2	1.93	0.69
1:B:463:PRO:HG2	1:B:464:LEU:H	1.56	0.69
1:M:67:GLY:C	1:M:68:LEU:HG	2.07	0.69
1:L:242:TYR:CD2	1:L:394:MET:HG3	2.27	0.69
1:K:344:LEU:CD1	1:L:186:PRO:HD2	2.23	0.69
1:D:34:TYR:HE2	1:D:377:GLN:CG	2.04	0.69
1:K:105:VAL:HG12	1:K:106:GLU:N	2.01	0.69
1:D:188:LEU:HD11	1:D:213:LEU:HD11	1.74	0.69
1:O:166:GLY:HA3	1:O:195:ILE:HD11	1.74	0.69
1:F:181:GLN:HE22	1:J:348:ILE:HD11	1.58	0.69
1:K:81:ASN:ND2	1:K:402:TRP:CD1	2.61	0.69
1:B:139:ALA:O	1:B:140:GLY:O	2.11	0.69
1:A:440:PRO:O	1:A:443:LYS:NZ	2.26	0.69
1:J:78:PRO:HD3	1:J:452:LYS:HA	1.74	0.69
1:J:81:ASN:CG	1:J:97:ARG:HH11	1.92	0.69
1:O:205:PHE:CD1	1:O:220:VAL:HG12	2.28	0.69
1:A:52:ILE:HB	1:A:62:VAL:HB	1.75	0.69
1:B:65:VAL:HA	1:B:69:GLN:HE22	1.57	0.69
1:M:357:ASN:H	1:N:141:VAL:HG13	1.56	0.69
1:K:182:PRO:O	1:O:348:ILE:HD12	1.92	0.69
1:C:237:MET:O	1:C:240:GLU:HB3	1.93	0.69
1:F:395:ASN:O	1:F:398:ILE:HG12	1.93	0.69
1:E:116:GLY:N	1:E:339:SER:OG	2.26	0.69
1:H:54:LYS:O	1:H:57:ASN:O	2.11	0.69
1:N:162:LYS:C	1:N:330:PHE:HD1	1.95	0.69
1:C:262:ASN:ND2	1:C:262:ASN:C	2.41	0.69
1:K:143:ASN:O	1:K:144:ARG:O	2.10	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:150:ASP:CG	1:N:257:VAL:HG21	2.12	0.69
1:G:250:LEU:N	1:G:250:LEU:HD12	2.08	0.69
1:C:217:LYS:CE	1:C:217:LYS:CG	2.72	0.68
1:E:180:VAL:HG12	1:E:184:ASP:HB2	1.75	0.68
1:D:82:LYS:NZ	1:D:403:ASN:HD22	1.92	0.68
1:C:23:SER:OG	1:C:25:ASP:HB2	1.93	0.68
1:G:24:THR:HG23	1:G:320:ASN:HA	1.73	0.68
1:H:451:LEU:O	1:H:454:LYS:HB2	1.93	0.68
1:F:372:LEU:HB3	1:F:374:PHE:CE1	2.27	0.68
1:F:348:ILE:HD11	1:G:181:GLN:HE22	1.58	0.68
1:B:468:PHE:CD1	1:B:468:PHE:O	2.46	0.68
1:L:378:LEU:HD12	1:L:379:CYS:H	1.57	0.68
1:H:279:GLY:HA3	1:H:283:THR:O	1.91	0.68
1:E:312:TRP:CH2	1:E:468:PHE:HB2	2.28	0.68
1:L:52:ILE:HB	1:L:62:VAL:HB	1.75	0.68
1:K:452:LYS:CE	1:K:452:LYS:CG	2.71	0.68
1:M:162:LYS:C	1:M:330:PHE:HD1	1.95	0.68
1:D:37:ALA:HB1	1:D:451:LEU:HD13	1.75	0.68
1:E:66:SER:H	1:E:69:GLN:NE2	1.91	0.68
1:D:120:HIS:HE2	1:D:218:SER:HB3	1.57	0.68
1:N:120:HIS:HA	1:N:222:LEU:HD13	1.76	0.68
1:B:30:ARG:HH11	1:B:377:GLN:NE2	1.91	0.68
1:J:54:LYS:NZ	1:J:54:LYS:HA	2.08	0.68
1:L:464:LEU:CD2	1:L:464:LEU:C	2.62	0.68
1:I:30:ARG:HH11	1:I:377:GLN:NE2	1.90	0.68
1:F:66:SER:H	1:F:69:GLN:NE2	1.92	0.68
1:I:66:SER:O	1:I:69:GLN:HG3	1.93	0.68
1:E:49:TYR:HE2	1:E:118:SER:HA	1.58	0.68
1:M:115:VAL:HG22	1:N:255:MET:SD	2.34	0.68
1:H:247:PHE:HD1	1:H:248:PHE:N	1.92	0.68
1:F:442:LYS:HB3	1:F:443:LYS:HD3	1.75	0.68
1:O:163:PRO:N	1:O:330:PHE:HD1	1.91	0.68
1:G:237:MET:HB3	1:G:246:LEU:HD22	1.75	0.68
1:M:250:LEU:N	1:M:250:LEU:HD12	2.06	0.68
1:D:465:GLY:O	1:D:468:PHE:N	2.26	0.68
1:F:383:LEU:CD2	1:F:383:LEU:CD1	2.70	0.68
1:B:461:GLN:HE22	1:C:21:VAL:HB	1.56	0.68
1:J:98:LEU:HD22	1:J:378:LEU:HD11	0.89	0.68
1:D:262:ASN:ND2	1:D:288:SER:HB3	2.08	0.68
1:K:242:TYR:CE2	1:K:394:MET:HG3	2.29	0.68
1:L:149:MET:HE3	1:L:294:THR:HG22	1.74	0.68
1:N:276:TYR:C	1:N:277:ILE:HG12	2.14	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:107:VAL:HG12	1:B:107:VAL:O	1.94	0.68
1:D:66:SER:H	1:D:69:GLN:HE21	1.39	0.68
1:N:262:ASN:HD22	1:N:263:ARG:N	1.91	0.68
1:G:316:ALA:CB	1:G:321:ASN:OD1	2.41	0.68
1:B:45:VAL:C	1:B:65:VAL:HG21	2.14	0.68
1:B:252:ARG:HD2	1:B:306:ILE:HD11	1.74	0.68
1:F:353:THR:HB	1:F:353:THR:CG2	2.12	0.68
1:J:74:ARG:CB	1:J:74:ARG:CD	2.71	0.68
1:F:57:ASN:HD21	1:F:59:LYS:CB	2.06	0.68
1:O:29:ALA:HB3	1:O:380:LYS:HG3	1.73	0.68
1:F:75:ILE:HG23	1:F:451:LEU:HD12	1.76	0.68
1:K:185:CYS:SG	1:O:344:LEU:HD11	2.33	0.68
1:F:115:VAL:CG2	1:G:257:VAL:HG13	2.23	0.68
1:O:77:LEU:HD22	1:O:455:PHE:HZ	1.59	0.68
1:A:21:VAL:HG12	1:A:22:VAL:N	2.07	0.68
1:C:151:TYR:OH	1:C:221:PRO:HB2	1.94	0.68
1:L:74:ARG:HG3	1:L:330:PHE:HE2	1.56	0.68
1:L:117:ILE:HD11	1:M:260:LEU:HB3	1.74	0.68
1:B:463:PRO:HA	1:B:466:ARG:HE	1.58	0.68
1:B:151:TYR:CD2	1:B:203:THR:HB	2.29	0.68
1:E:46:GLY:HA3	1:E:65:VAL:CG2	2.22	0.68
1:N:49:TYR:HE2	1:N:118:SER:HA	1.58	0.68
1:O:120:HIS:NE2	1:O:218:SER:HB3	2.09	0.68
1:K:202:ASP:OD2	1:O:112:PRO:CB	2.41	0.68
1:J:65:VAL:HA	1:J:69:GLN:HE22	1.59	0.68
1:A:97:ARG:HG3	1:A:383:LEU:HD11	1.74	0.68
1:O:116:GLY:N	1:O:339:SER:OG	2.23	0.68
1:E:302:SER:O	1:E:304:ALA:N	2.27	0.68
1:K:219:GLU:O	1:K:220:VAL:HG13	1.94	0.68
1:A:122:LEU:HD11	1:B:286:LEU:CD1	2.23	0.68
1:G:152:LYS:CB	1:G:255:MET:HB2	2.24	0.68
1:D:246:LEU:CD2	1:D:246:LEU:N	2.57	0.68
1:J:196:GLN:O	1:J:199:ASP:OD2	2.11	0.68
1:L:24:THR:HG23	1:L:320:ASN:HA	1.76	0.68
1:K:96:GLN:HA	1:K:381:ILE:O	1.94	0.68
1:B:305:GLN:HE22	1:B:337:THR:HG21	1.58	0.68
1:I:96:GLN:HB3	1:I:382:THR:HG22	1.73	0.68
1:K:237:MET:O	1:K:240:GLU:HB3	1.94	0.68
1:B:163:PRO:HD3	1:B:330:PHE:CE1	2.25	0.68
1:G:337:THR:CA	1:G:337:THR:CG2	2.67	0.68
1:B:57:ASN:HD21	1:B:59:LYS:CB	2.07	0.68
1:N:293:PRO:HG2	1:N:293:PRO:O	1.93	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:83:PHE:HB3	1:J:85:PHE:CE1	2.28	0.68
1:J:152:LYS:CG	1:J:152:LYS:O	2.42	0.68
1:I:78:PRO:HD2	1:I:455:PHE:CE1	2.29	0.68
1:E:271:VAL:HG13	1:E:275:LEU:HD12	1.76	0.68
1:M:441:LEU:HG	1:M:441:LEU:CD2	2.12	0.68
1:H:54:LYS:NZ	1:H:55:PRO:HD2	2.08	0.68
1:A:68:LEU:O	1:A:201:VAL:HG22	1.94	0.68
1:L:159:ILE:HG22	1:L:247:PHE:HE1	1.57	0.67
1:E:219:GLU:O	1:E:263:ARG:NH2	2.20	0.67
1:G:71:ARG:HH11	1:G:71:ARG:HA	1.58	0.67
1:L:363:TYR:CD2	1:M:185:CYS:HB2	2.29	0.67
1:M:52:ILE:CD1	1:M:52:ILE:N	2.57	0.67
1:B:160:GLY:HA3	1:B:245:SER:O	1.93	0.67
1:D:113:LEU:HD22	1:E:253:GLU:HG3	1.76	0.67
1:G:262:ASN:C	1:G:262:ASN:ND2	2.46	0.67
1:C:54:LYS:HA	1:C:54:LYS:NZ	2.09	0.67
1:E:98:LEU:CD1	1:E:378:LEU:HD11	2.12	0.67
1:C:70:TYR:HE1	1:C:201:VAL:HA	1.59	0.67
1:E:117:ILE:CB	1:E:117:ILE:CD1	2.73	0.67
1:N:46:GLY:HA3	1:N:63:PRO:O	1.94	0.67
1:D:120:HIS:HA	1:D:222:LEU:HD13	1.77	0.67
1:I:75:ILE:CG2	1:I:451:LEU:CD1	2.72	0.67
1:H:373:GLN:HB2	1:H:464:LEU:HD12	1.74	0.67
1:M:348:ILE:HD12	1:N:182:PRO:O	1.94	0.67
1:L:110:GLY:C	1:L:111:GLN:HG2	2.14	0.67
1:M:395:ASN:O	1:M:398:ILE:HG12	1.95	0.67
1:F:60:ILE:HG13	1:F:60:ILE:O	1.93	0.67
1:F:92:ASN:O	1:F:94:ASP:N	2.27	0.67
1:N:115:VAL:HG22	1:O:255:MET:SD	2.34	0.67
1:G:358:THR:HA	1:H:266:THR:CG2	2.24	0.67
1:I:177:GLN:O	1:I:178:VAL:C	2.30	0.67
1:A:223:ASP:OD1	1:A:224:ILE:N	2.28	0.67
1:N:356:LYS:NZ	1:N:356:LYS:CD	2.57	0.67
1:H:152:LYS:NZ	1:H:152:LYS:CD	2.57	0.67
1:G:112:PRO:HD3	1:H:231:TYR:CG	2.29	0.67
1:J:242:TYR:CE2	1:J:394:MET:CG	2.77	0.67
1:A:70:TYR:OH	1:A:232:PRO:HD3	1.94	0.67
1:A:54:LYS:HA	1:A:54:LYS:HZ2	1.59	0.67
1:L:98:LEU:HD13	1:L:378:LEU:HD11	1.75	0.67
1:A:36:HIS:ND1	1:A:37:ALA:N	2.42	0.67
1:A:213:LEU:HD12	1:E:344:LEU:HD13	1.75	0.67
1:I:123:LEU:CD2	1:I:147:ILE:HB	2.22	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:O:246:LEU:HD23	1:O:246:LEU:N	2.03	0.67
1:N:24:THR:CG2	1:N:320:ASN:HA	2.24	0.67
1:H:262:ASN:HD21	1:H:288:SER:CB	2.07	0.67
1:G:129:THR:HG21	1:G:291:TYR:HD2	1.59	0.67
1:M:204:GLY:HA3	1:M:295:PRO:HG3	1.75	0.67
1:I:36:HIS:ND1	1:I:37:ALA:N	2.42	0.67
1:A:300:VAL:O	1:A:300:VAL:HG23	1.94	0.67
1:H:54:LYS:HA	1:H:54:LYS:NZ	2.09	0.67
1:D:255:MET:HG2	1:D:256:PHE:H	1.57	0.67
1:K:363:TYR:CD1	1:L:185:CYS:HB2	2.30	0.67
1:L:180:VAL:CG1	1:L:184:ASP:CB	2.64	0.67
1:C:451:LEU:HD23	1:C:454:LYS:CG	2.14	0.67
1:A:216:ASN:HB2	1:E:345:CYS:SG	2.34	0.67
1:A:280:SER:N	1:A:284:ALA:HB2	2.10	0.67
1:C:463:PRO:HA	1:C:466:ARG:HE	1.59	0.67
1:C:323:ILE:HG21	1:C:325:TRP:CZ2	2.30	0.67
1:O:139:ALA:O	1:O:140:GLY:O	2.13	0.67
1:M:188:LEU:HD11	1:M:213:LEU:HD11	1.76	0.67
1:D:97:ARG:HH11	1:D:97:ARG:HA	1.59	0.67
1:L:247:PHE:HD1	1:L:248:PHE:H	1.41	0.67
1:M:163:PRO:HD3	1:M:330:PHE:HE1	1.60	0.67
1:C:54:LYS:HZ2	1:C:55:PRO:HD2	1.58	0.67
1:I:67:GLY:C	1:I:68:LEU:HG	2.11	0.67
1:H:54:LYS:HG2	1:H:57:ASN:HB3	1.75	0.67
1:I:369:GLU:OE1	1:J:190:LEU:HD21	1.95	0.67
1:G:180:VAL:CG1	1:G:184:ASP:HB3	2.22	0.67
1:H:68:LEU:HD23	1:H:201:VAL:CG2	2.24	0.67
1:G:219:GLU:HB3	1:G:263:ARG:CZ	2.24	0.67
1:J:162:LYS:C	1:J:330:PHE:HD1	1.97	0.67
1:C:220:VAL:O	1:C:221:PRO:O	2.13	0.67
1:G:163:PRO:N	1:G:330:PHE:HD1	1.93	0.67
1:A:57:ASN:ND2	1:A:59:LYS:H	1.93	0.67
1:A:135:TYR:CE2	1:A:287:ALA:HB2	2.21	0.67
1:B:472:LEU:CD2	1:G:138:ASN:HD22	2.07	0.67
1:L:249:TYR:O	1:L:249:TYR:CG	2.47	0.67
1:B:82:LYS:CG	1:B:82:LYS:CA	2.69	0.67
1:I:34:TYR:HE2	1:I:377:GLN:HB2	1.58	0.67
1:I:30:ARG:HH11	1:I:377:GLN:HE22	1.40	0.67
1:F:467:LYS:CE	1:F:467:LYS:CG	2.72	0.67
1:C:464:LEU:CD2	1:C:464:LEU:C	2.62	0.67
1:D:121:PRO:HG2	1:E:289:SER:HB2	1.77	0.67
1:N:122:LEU:O	1:N:218:SER:HB2	1.95	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:178:VAL:O	1:N:180:VAL:N	2.25	0.67
1:K:142:ASP:OD1	1:L:283:THR:OG1	2.11	0.67
1:I:302:SER:O	1:I:304:ALA:N	2.28	0.67
1:F:21:VAL:HG13	1:F:390:TYR:OH	1.95	0.67
1:O:450:ASN:HD21	1:O:452:LYS:HD2	1.59	0.67
1:I:120:HIS:HA	1:I:222:LEU:HD13	1.77	0.67
1:N:255:MET:HG2	1:N:256:PHE:N	2.10	0.67
1:N:219:GLU:C	1:N:220:VAL:HG13	2.16	0.67
1:M:462:PHE:HB3	1:M:463:PRO:HD2	1.75	0.67
1:N:142:ASP:O	1:O:283:THR:HG21	1.95	0.67
1:A:92:ASN:HD21	1:A:94:ASP:HB2	1.59	0.67
1:B:103:VAL:HG23	1:B:104:GLY:N	2.09	0.67
1:E:391:ILE:HG21	1:E:402:TRP:CZ3	2.30	0.67
1:E:78:PRO:HB3	1:E:452:LYS:HG2	1.77	0.67
1:H:112:PRO:HB3	1:I:231:TYR:CG	2.30	0.67
1:D:123:LEU:CD1	1:D:123:LEU:CD2	2.70	0.67
1:E:220:VAL:O	1:E:221:PRO:C	2.32	0.67
1:M:151:TYR:OH	1:M:221:PRO:HB2	1.94	0.67
1:F:246:LEU:CD2	1:F:246:LEU:N	2.57	0.67
1:N:363:TYR:CG	1:O:185:CYS:HB2	2.30	0.67
1:A:30:ARG:HH11	1:A:377:GLN:NE2	1.91	0.67
1:K:41:ARG:NH2	1:L:192:ASN:HD21	1.90	0.67
1:K:42:LEU:CD1	1:K:73:PHE:HE2	2.07	0.67
1:K:97:ARG:HH11	1:K:97:ARG:HA	1.59	0.67
1:L:149:MET:HE2	1:L:205:PHE:CE1	2.30	0.67
1:L:139:ALA:HB1	1:L:143:ASN:OD1	1.95	0.67
1:M:57:ASN:ND2	1:M:59:LYS:H	1.94	0.67
1:E:152:LYS:HE2	1:E:202:ASP:HB3	1.77	0.66
1:J:462:PHE:HB3	1:J:463:PRO:HD2	1.75	0.66
1:C:178:VAL:HB	1:C:178:VAL:CG1	2.16	0.66
1:I:70:TYR:HE1	1:I:201:VAL:HA	1.59	0.66
1:O:30:ARG:HH11	1:O:377:GLN:NE2	1.93	0.66
1:K:180:VAL:HG13	1:K:184:ASP:CB	2.25	0.66
1:L:194:VAL:HG21	1:L:444:TYR:CE2	2.29	0.66
1:J:96:GLN:HB3	1:J:382:THR:CG2	2.24	0.66
1:A:257:VAL:HG12	1:A:293:PRO:HB2	1.76	0.66
1:D:52:ILE:CD1	1:D:52:ILE:N	2.57	0.66
1:B:77:LEU:HD22	1:B:455:PHE:CE1	2.29	0.66
1:H:24:THR:HG21	1:H:320:ASN:HA	1.76	0.66
1:N:375:ILE:HG12	1:N:464:LEU:HD13	1.77	0.66
1:C:192:ASN:C	1:C:193:THR:HG22	2.15	0.66
1:I:111:GLN:HG2	1:I:369:GLU:CB	2.26	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:77:LEU:HD22	1:C:455:PHE:HZ	1.61	0.66
1:K:159:ILE:HD12	1:K:248:PHE:CD2	2.30	0.66
1:J:320:ASN:HD21	1:J:323:ILE:HB	1.60	0.66
1:N:68:LEU:HB3	1:N:201:VAL:CG2	2.25	0.66
1:A:122:LEU:HD13	1:A:144:ARG:NH2	2.09	0.66
1:M:344:LEU:HD11	1:N:188:LEU:HD21	1.77	0.66
1:G:450:ASN:HD21	1:G:452:LYS:HD2	1.60	0.66
1:L:375:ILE:HG21	1:L:468:PHE:CD2	2.31	0.66
1:G:280:SER:N	1:G:284:ALA:HB2	2.10	0.66
1:O:166:GLY:CA	1:O:195:ILE:HD11	2.24	0.66
1:H:308:ASN:HD22	1:I:251:ARG:HH22	1.42	0.66
1:F:109:ARG:NH1	1:F:370:TYR:CE1	2.63	0.66
1:M:375:ILE:HG12	1:M:464:LEU:HD13	1.76	0.66
1:O:367:GLY:O	1:O:368:GLU:HG2	1.94	0.66
1:C:113:LEU:N	1:C:113:LEU:HD12	2.08	0.66
1:H:178:VAL:CG1	1:H:178:VAL:CA	2.71	0.66
1:L:241:PRO:CG	1:L:242:TYR:H	2.07	0.66
1:J:70:TYR:OH	1:J:232:PRO:HD3	1.96	0.66
1:D:21:VAL:CG1	1:D:390:TYR:OH	2.43	0.66
1:O:77:LEU:HD22	1:O:455:PHE:CZ	2.31	0.66
1:F:114:GLY:HA3	1:F:340:THR:OG1	1.95	0.66
1:F:98:LEU:HD13	1:F:378:LEU:HD11	1.76	0.66
1:G:463:PRO:N	1:G:466:ARG:HH21	1.92	0.66
1:A:46:GLY:HA3	1:A:63:PRO:O	1.96	0.66
1:L:344:LEU:HD12	1:M:186:PRO:CD	2.24	0.66
1:A:237:MET:HB3	1:A:246:LEU:CD2	2.25	0.66
1:N:391:ILE:O	1:N:391:ILE:HG22	1.96	0.66
1:C:109:ARG:N	1:C:308:ASN:OD1	2.28	0.66
1:O:81:ASN:OD1	1:O:97:ARG:NH1	2.28	0.66
1:H:36:HIS:ND1	1:H:37:ALA:N	2.43	0.66
1:K:67:GLY:C	1:K:68:LEU:HG	2.16	0.66
1:B:345:CYS:SG	1:C:216:ASN:CB	2.82	0.66
1:C:205:PHE:CD1	1:C:220:VAL:HG12	2.30	0.66
1:G:42:LEU:HD13	1:G:447:TRP:CE2	2.30	0.66
1:K:299:MET:HA	1:L:256:PHE:HB3	1.76	0.66
1:D:252:ARG:CD	1:D:306:ILE:HD11	2.20	0.66
1:M:77:LEU:HD22	1:M:455:PHE:CZ	2.31	0.66
1:M:237:MET:HB3	1:M:246:LEU:CD2	2.26	0.66
1:L:151:TYR:OH	1:L:221:PRO:HB2	1.96	0.66
1:A:300:VAL:CG2	1:A:300:VAL:CG1	2.70	0.66
1:C:374:PHE:CD1	1:C:374:PHE:N	2.63	0.66
1:N:149:MET:HE1	1:N:205:PHE:HE1	1.61	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:68:LEU:HD23	1:H:201:VAL:HG21	1.77	0.66
1:B:363:TYR:CD1	1:C:185:CYS:HB2	2.31	0.66
1:A:97:ARG:CA	1:A:97:ARG:HH11	2.07	0.66
1:M:137:ALA:C	1:M:137:ALA:CB	2.61	0.66
1:B:320:ASN:OD1	1:B:321:ASN:N	2.29	0.66
1:B:325:TRP:NE1	1:B:394:MET:HE3	2.10	0.66
1:C:178:VAL:CG1	1:C:178:VAL:CA	2.73	0.66
1:L:355:TYR:CD1	1:M:144:ARG:HD3	2.30	0.66
1:A:75:ILE:HB	1:A:329:LEU:CB	2.25	0.66
1:B:72:VAL:HG13	1:B:332:THR:HG23	1.76	0.66
1:K:228:ILE:N	1:K:228:ILE:CD1	2.58	0.66
1:H:464:LEU:O	1:H:464:LEU:HD23	1.95	0.66
1:I:208:MET:CG	1:I:210:PHE:CE2	2.79	0.66
1:O:54:LYS:HG2	1:O:57:ASN:HB3	1.77	0.66
1:I:363:TYR:CD1	1:J:185:CYS:HB2	2.30	0.66
1:H:115:VAL:H	1:I:255:MET:CE	2.07	0.66
1:G:358:THR:HA	1:H:266:THR:HG23	1.77	0.66
1:D:400:GLU:O	1:D:402:TRP:N	2.28	0.66
1:H:33:ILE:HB	1:H:378:LEU:HB3	1.78	0.66
1:A:213:LEU:CD1	1:E:344:LEU:HD13	2.26	0.66
1:I:277:ILE:CB	1:I:277:ILE:CD1	2.74	0.66
1:I:320:ASN:OD1	1:I:322:GLY:N	2.23	0.66
1:G:147:ILE:HA	1:H:129:THR:O	1.96	0.66
1:I:70:TYR:CD2	1:I:195:ILE:HG21	2.31	0.66
1:I:152:LYS:HB3	1:I:255:MET:HB2	1.77	0.66
1:M:86:PRO:HA	1:M:86:PRO:C	2.06	0.66
1:K:219:GLU:HB3	1:K:263:ARG:CZ	2.25	0.66
1:D:440:PRO:HA	1:D:443:LYS:NZ	2.10	0.66
1:M:466:ARG:HD2	1:N:317:GLN:O	1.96	0.66
1:F:145:GLU:OE1	1:G:134:ALA:CA	2.44	0.66
1:L:77:LEU:HD22	1:L:455:PHE:HZ	1.61	0.66
1:M:54:LYS:HB3	1:M:57:ASN:HD22	1.60	0.66
1:N:246:LEU:HD23	1:N:246:LEU:O	1.95	0.66
1:A:302:SER:O	1:A:304:ALA:N	2.29	0.66
1:K:162:LYS:C	1:K:330:PHE:HD1	1.98	0.66
1:J:444:TYR:HB3	1:J:446:PHE:CZ	2.31	0.66
1:K:122:LEU:HD11	1:L:286:LEU:HD11	1.77	0.66
1:J:188:LEU:HD11	1:J:213:LEU:HD11	1.77	0.65
1:G:188:LEU:HD13	1:G:213:LEU:HD11	1.75	0.65
1:M:147:ILE:CB	1:M:147:ILE:CD1	2.74	0.65
1:L:115:VAL:HG22	1:M:255:MET:SD	2.37	0.65
1:M:255:MET:CG	1:M:256:PHE:N	2.58	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:344:LEU:HD12	1:O:185:CYS:SG	2.35	0.65
1:K:383:LEU:HD23	1:K:388:MET:CE	2.26	0.65
1:H:463:PRO:HA	1:H:466:ARG:HE	1.61	0.65
1:G:118:SER:HB2	1:G:151:TYR:CE1	2.32	0.65
1:B:361:LYS:HD2	1:C:183:GLY:HA3	1.77	0.65
1:G:305:GLN:HE22	1:G:337:THR:HG21	1.61	0.65
1:G:33:ILE:HB	1:G:378:LEU:HB3	1.78	0.65
1:B:123:LEU:HD23	1:B:147:ILE:HB	1.77	0.65
1:J:323:ILE:HG21	1:J:325:TRP:CZ2	2.30	0.65
1:K:344:LEU:CB	1:L:213:LEU:HD12	2.25	0.65
1:F:71:ARG:NH1	1:F:71:ARG:HA	2.03	0.65
1:J:220:VAL:O	1:J:221:PRO:C	2.30	0.65
1:F:459:LEU:HB3	1:F:465:GLY:HA3	1.78	0.65
1:D:31:THR:CG2	1:D:378:LEU:O	2.43	0.65
1:C:79:ASP:HA	1:C:327:ASN:ND2	2.11	0.65
1:B:54:LYS:CE	1:B:55:PRO:HD2	2.17	0.65
1:L:124:ASN:OD1	1:L:264:ALA:N	2.27	0.65
1:F:216:ASN:CB	1:J:345:CYS:SG	2.85	0.65
1:B:75:ILE:CG2	1:B:451:LEU:HD12	2.26	0.65
1:G:260:LEU:N	1:G:260:LEU:HD12	2.11	0.65
1:F:183:GLY:O	1:F:184:ASP:C	2.35	0.65
1:J:74:ARG:HD2	1:J:330:PHE:HE2	1.61	0.65
1:B:220:VAL:O	1:B:221:PRO:O	2.15	0.65
1:J:255:MET:CG	1:J:256:PHE:N	2.56	0.65
1:N:188:LEU:HD11	1:N:213:LEU:HD11	1.79	0.65
1:N:172:GLY:O	1:N:173:SER:C	2.35	0.65
1:G:151:TYR:OH	1:G:221:PRO:HB2	1.95	0.65
1:I:358:THR:HG22	1:J:266:THR:CG2	2.27	0.65
1:J:200:MET:O	1:J:229:CYS:HA	1.96	0.65
1:O:52:ILE:HD12	1:O:52:ILE:N	2.09	0.65
1:D:54:LYS:HG2	1:D:57:ASN:HB3	1.78	0.65
1:A:241:PRO:HG2	1:A:242:TYR:H	1.61	0.65
1:O:92:ASN:HD21	1:O:94:ASP:HB2	1.62	0.65
1:L:373:GLN:CB	1:L:464:LEU:HD12	2.26	0.65
1:D:96:GLN:HE22	1:D:380:LYS:HE3	1.61	0.65
1:M:299:MET:HA	1:N:256:PHE:HB3	1.78	0.65
1:C:49:TYR:HE2	1:C:118:SER:HA	1.60	0.65
1:O:52:ILE:N	1:O:52:ILE:CD1	2.59	0.65
1:B:77:LEU:HB2	1:B:327:ASN:HB3	1.79	0.65
1:A:240:GLU:HG3	1:A:243:GLY:H	1.61	0.65
1:I:109:ARG:NH1	1:I:370:TYR:CZ	2.65	0.65
1:O:92:ASN:HD22	1:O:95:THR:H	1.45	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:300:VAL:O	1:K:300:VAL:HG23	1.97	0.65
1:C:323:ILE:HG21	1:C:325:TRP:CE2	2.32	0.65
1:G:129:THR:HG21	1:G:291:TYR:CD2	2.32	0.65
1:M:54:LYS:HE3	1:M:55:PRO:HD2	1.79	0.65
1:E:439:ASP:OD2	1:E:440:PRO:HD2	1.96	0.65
1:E:189:GLU:O	1:E:191:ILE:HG13	1.96	0.65
1:M:439:ASP:O	1:M:442:LYS:HB2	1.96	0.65
1:E:49:TYR:CE2	1:E:118:SER:HA	2.32	0.65
1:O:49:TYR:CE2	1:O:118:SER:HA	2.30	0.65
1:J:44:ALA:O	1:J:45:VAL:CG2	2.40	0.65
1:J:166:GLY:HA3	1:J:195:ILE:HD11	1.79	0.65
1:M:75:ILE:HG23	1:M:451:LEU:HD12	1.78	0.65
1:N:274:ASP:OD1	1:N:274:ASP:N	2.28	0.65
1:E:442:LYS:HB3	1:E:443:LYS:HD3	1.78	0.65
1:I:139:ALA:O	1:I:140:GLY:O	2.15	0.65
1:F:153:GLN:HE22	1:F:300:VAL:HA	1.62	0.65
1:K:450:ASN:HD21	1:K:452:LYS:HD2	1.62	0.65
1:J:463:PRO:HG2	1:J:464:LEU:H	1.62	0.65
1:J:372:LEU:HB3	1:J:374:PHE:HE1	1.61	0.65
1:I:111:GLN:HG2	1:I:369:GLU:HB3	1.79	0.65
1:I:219:GLU:HA	1:I:263:ARG:HH12	1.62	0.65
1:N:123:LEU:HG	1:N:123:LEU:CD2	2.16	0.65
1:N:74:ARG:HG3	1:N:330:PHE:CE2	2.32	0.65
1:C:300:VAL:HG22	1:D:255:MET:O	1.97	0.65
1:M:220:VAL:O	1:M:221:PRO:O	2.15	0.65
1:B:263:ARG:HG2	1:B:292:PHE:HD2	1.61	0.65
1:N:151:TYR:HD2	1:N:203:THR:O	1.79	0.65
1:D:34:TYR:OH	1:D:377:GLN:OE1	2.11	0.65
1:B:30:ARG:HH11	1:B:377:GLN:HE22	1.45	0.65
1:H:391:ILE:O	1:H:391:ILE:HG22	1.97	0.65
1:H:307:PHE:C	1:H:309:LYS:H	1.99	0.65
1:K:164:PRO:HG3	1:K:332:THR:CG2	2.26	0.65
1:C:123:LEU:HD23	1:C:147:ILE:HB	1.78	0.65
1:J:463:PRO:O	1:J:467:LYS:HG3	1.97	0.65
1:I:27:TYR:CE2	1:I:390:TYR:HE2	2.15	0.65
1:C:67:GLY:C	1:C:68:LEU:HG	2.12	0.65
1:G:70:TYR:HE1	1:G:201:VAL:HA	1.62	0.65
1:O:323:ILE:O	1:O:325:TRP:N	2.28	0.65
1:L:228:ILE:CD1	1:L:228:ILE:N	2.60	0.65
1:C:223:ASP:OD1	1:C:224:ILE:HG12	1.96	0.65
1:B:54:LYS:NZ	1:B:54:LYS:HA	2.10	0.65
1:A:67:GLY:H	1:A:366:HIS:HE1	1.42	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:166:GLY:HA2	1:H:195:ILE:HD11	1.77	0.65
1:D:72:VAL:HG22	1:D:332:THR:CG2	2.27	0.65
1:D:142:ASP:O	1:E:283:THR:HG21	1.97	0.65
1:E:77:LEU:HD22	1:E:455:PHE:HZ	1.61	0.65
1:H:141:VAL:O	1:H:142:ASP:HB3	1.96	0.65
1:M:35:TYR:CE2	1:M:457:ALA:HB2	2.31	0.65
1:M:33:ILE:HB	1:M:378:LEU:HB3	1.77	0.65
1:K:31:THR:CG2	1:K:378:LEU:O	2.45	0.65
1:C:216:ASN:OD1	1:C:218:SER:N	2.29	0.65
1:H:266:THR:CG2	1:H:266:THR:CA	2.73	0.65
1:B:373:GLN:HB3	1:B:464:LEU:HD12	1.79	0.65
1:C:440:PRO:O	1:C:443:LYS:NZ	2.29	0.65
1:D:121:PRO:CG	1:E:289:SER:HB2	2.27	0.65
1:N:390:TYR:O	1:N:393:SER:N	2.30	0.65
1:O:171:LYS:HG3	1:O:187:PRO:HD2	1.78	0.64
1:F:214:GLN:OE1	1:F:219:GLU:HB2	1.98	0.64
1:L:361:LYS:HA	1:M:266:THR:HG1	1.62	0.64
1:J:323:ILE:HG21	1:J:325:TRP:CH2	2.32	0.64
1:M:201:VAL:HG23	1:M:202:ASP:O	1.97	0.64
1:O:451:LEU:CD2	1:O:454:LYS:HG3	2.26	0.64
1:A:92:ASN:ND2	1:A:95:THR:OG1	2.30	0.64
1:M:365:ARG:HG3	1:M:365:ARG:HH11	1.62	0.64
1:J:188:LEU:CD1	1:J:213:LEU:HD11	2.27	0.64
1:F:57:ASN:HD21	1:F:59:LYS:H	1.45	0.64
1:L:70:TYR:CE1	1:L:201:VAL:HA	2.33	0.64
1:C:188:LEU:HD11	1:C:213:LEU:CD1	2.27	0.64
1:A:196:GLN:N	1:A:199:ASP:OD2	2.30	0.64
1:N:77:LEU:HD22	1:N:455:PHE:CZ	2.33	0.64
1:K:192:ASN:ND2	1:O:41:ARG:HH22	1.95	0.64
1:K:52:ILE:HB	1:K:62:VAL:HB	1.79	0.64
1:M:217:LYS:HD3	1:N:274:ASP:O	1.97	0.64
1:K:70:TYR:OH	1:K:230:LYS:O	2.10	0.64
1:I:80:PRO:O	1:I:85:PHE:HE1	1.79	0.64
1:I:65:VAL:HA	1:I:69:GLN:NE2	2.13	0.64
1:O:156:LEU:HG	1:O:334:VAL:HB	1.77	0.64
1:J:88:THR:CA	1:J:88:THR:CG2	2.72	0.64
1:H:24:THR:HG23	1:H:320:ASN:HA	1.78	0.64
1:B:257:VAL:HG12	1:B:293:PRO:HB2	1.79	0.64
1:H:36:HIS:ND1	1:H:36:HIS:C	2.50	0.64
1:A:60:ILE:O	1:A:60:ILE:HG13	1.98	0.64
1:E:71:ARG:NH1	1:E:71:ARG:HA	2.08	0.64
1:B:80:PRO:C	1:B:82:LYS:H	2.01	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:307:PHE:O	1:J:308:ASN:HB2	1.97	0.64
1:I:151:TYR:CD2	1:I:203:THR:HB	2.32	0.64
1:N:148:SER:OG	1:O:129:THR:HB	1.97	0.64
1:N:363:TYR:CE1	1:O:185:CYS:HB2	2.31	0.64
1:J:242:TYR:CD2	1:J:394:MET:CG	2.71	0.64
1:A:240:GLU:OE1	1:A:241:PRO:HG2	1.98	0.64
1:L:110:GLY:O	1:L:111:GLN:HG2	1.97	0.64
1:B:391:ILE:O	1:B:391:ILE:CG2	2.45	0.64
1:H:250:LEU:N	1:H:250:LEU:HD12	2.10	0.64
1:F:67:GLY:O	1:F:68:LEU:HG	1.97	0.64
1:D:344:LEU:HD13	1:E:213:LEU:HD12	1.79	0.64
1:G:158:LEU:HB2	1:G:332:THR:OG1	1.97	0.64
1:F:54:LYS:HG2	1:F:56:ASN:OD1	1.96	0.64
1:C:116:GLY:N	1:C:339:SER:OG	2.31	0.64
1:B:461:GLN:HA	1:B:461:GLN:HE21	1.61	0.64
1:G:345:CYS:HG	1:H:216:ASN:HB2	1.62	0.64
1:N:193:THR:HG21	1:N:230:LYS:HD3	1.79	0.64
1:N:77:LEU:HD22	1:N:455:PHE:HZ	1.61	0.64
1:A:54:LYS:NZ	1:A:54:LYS:HA	2.11	0.64
1:H:384:THR:HG23	1:H:387:VAL:CG2	2.28	0.64
1:L:279:GLY:HA3	1:L:283:THR:O	1.98	0.64
1:J:391:ILE:HG21	1:J:402:TRP:HZ3	1.59	0.64
1:F:158:LEU:HD23	1:F:249:TYR:HB2	1.79	0.64
1:O:384:THR:H	1:O:387:VAL:HB	1.62	0.64
1:M:147:ILE:HG22	1:M:148:SER:N	2.11	0.64
1:C:60:ILE:CD1	1:C:60:ILE:CG2	2.75	0.64
1:L:363:TYR:CE2	1:M:185:CYS:HB2	2.33	0.64
1:I:329:LEU:HD13	1:I:374:PHE:CE2	2.33	0.64
1:H:153:GLN:HE22	1:H:300:VAL:HA	1.63	0.64
1:F:271:VAL:HG12	1:F:276:TYR:CE2	2.32	0.64
1:K:96:GLN:HB3	1:K:382:THR:HG22	1.79	0.64
1:M:440:PRO:O	1:M:443:LYS:NZ	2.30	0.64
1:O:317:GLN:HE21	1:O:317:GLN:C	2.00	0.64
1:F:68:LEU:HD23	1:F:201:VAL:HG21	1.80	0.64
1:F:344:LEU:HD21	1:F:365:ARG:HG2	1.79	0.64
1:G:470:LEU:O	1:G:470:LEU:HD23	1.96	0.64
1:D:80:PRO:C	1:D:82:LYS:H	1.98	0.64
1:M:166:GLY:HA3	1:M:195:ILE:HD11	1.80	0.64
1:M:65:VAL:HA	1:M:69:GLN:NE2	2.12	0.64
1:O:163:PRO:N	1:O:330:PHE:CD1	2.65	0.64
1:O:110:GLY:O	1:O:111:GLN:NE2	2.31	0.64
1:M:21:VAL:O	1:M:22:VAL:HG13	1.97	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:74:ARG:HG2	1:J:76:HIS:NE2	2.13	0.64
1:D:176:THR:C	1:D:177:GLN:HG3	2.15	0.64
1:C:467:LYS:CD	1:C:467:LYS:CB	2.76	0.64
1:L:123:LEU:O	1:L:125:LYS:N	2.30	0.64
1:J:54:LYS:HB3	1:J:57:ASN:HD22	1.62	0.64
1:A:91:TYR:HD1	1:A:96:GLN:HG3	1.63	0.64
1:K:99:VAL:HG11	1:K:323:ILE:HG22	1.80	0.64
1:N:54:LYS:CB	1:N:57:ASN:HD22	2.09	0.64
1:L:24:THR:HG21	1:L:323:ILE:CG1	2.28	0.64
1:N:30:ARG:HH11	1:N:377:GLN:HE22	1.45	0.64
1:J:36:HIS:CG	1:J:462:PHE:CD1	2.86	0.64
1:F:180:VAL:CG1	1:F:184:ASP:CB	2.75	0.64
1:J:348:ILE:HG22	1:J:359:ASN:OD1	1.98	0.64
1:M:320:ASN:OD1	1:M:321:ASN:N	2.31	0.64
1:F:363:TYR:CD2	1:G:185:CYS:HB2	2.32	0.64
1:E:79:ASP:OD2	1:E:81:ASN:HB2	1.98	0.64
1:M:64:LYS:CD	1:M:64:LYS:CB	2.75	0.64
1:C:105:VAL:HA	1:C:373:GLN:O	1.98	0.64
1:C:114:GLY:HA2	1:D:255:MET:SD	2.38	0.64
1:D:67:GLY:O	1:D:68:LEU:HG	1.97	0.64
1:G:323:ILE:N	1:G:323:ILE:HD13	2.12	0.64
1:L:250:LEU:N	1:L:250:LEU:CD1	2.44	0.64
1:J:152:LYS:HB2	1:J:255:MET:HB2	1.79	0.64
1:N:52:ILE:HB	1:N:62:VAL:HB	1.80	0.64
1:J:444:TYR:CB	1:J:446:PHE:CZ	2.81	0.64
1:I:57:ASN:HD21	1:I:59:LYS:H	1.44	0.64
1:D:21:VAL:HG13	1:D:390:TYR:OH	1.98	0.64
1:C:320:ASN:HD21	1:C:323:ILE:HB	1.63	0.64
1:G:280:SER:CA	1:G:284:ALA:HB2	2.28	0.64
1:D:110:GLY:O	1:D:111:GLN:NE2	2.29	0.64
1:B:35:TYR:CE2	1:B:457:ALA:HB2	2.33	0.64
1:D:42:LEU:CD1	1:D:73:PHE:HE2	2.10	0.64
1:E:274:ASP:N	1:E:274:ASP:OD1	2.30	0.64
1:C:78:PRO:HD3	1:C:452:LYS:HA	1.80	0.64
1:F:440:PRO:HA	1:F:443:LYS:NZ	2.12	0.64
1:L:65:VAL:HA	1:L:69:GLN:HE22	1.61	0.64
1:J:49:TYR:O	1:J:64:LYS:HE2	1.97	0.64
1:E:439:ASP:O	1:E:442:LYS:HB2	1.98	0.64
1:O:158:LEU:CD2	1:O:249:TYR:HB2	2.29	0.63
1:K:452:LYS:CD	1:K:452:LYS:CB	2.73	0.63
1:I:262:ASN:HD22	1:I:263:ARG:N	1.95	0.63
1:B:180:VAL:CG1	1:B:184:ASP:HB2	2.28	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:81:ASN:O	1:J:82:LYS:HG3	1.97	0.63
1:D:66:SER:N	1:D:69:GLN:NE2	2.43	0.63
1:K:255:MET:HG2	1:K:256:PHE:N	2.13	0.63
1:A:323:ILE:HG21	1:A:325:TRP:CZ2	2.32	0.63
1:N:104:GLY:HA3	1:N:375:ILE:HB	1.80	0.63
1:G:143:ASN:O	1:G:145:GLU:HG2	1.98	0.63
1:I:363:TYR:CG	1:J:185:CYS:HB2	2.34	0.63
1:D:194:VAL:CG2	1:D:194:VAL:CA	2.74	0.63
1:C:54:LYS:NZ	1:C:55:PRO:HD2	2.13	0.63
1:K:266:THR:HG23	1:O:358:THR:HA	1.80	0.63
1:C:74:ARG:CG	1:C:330:PHE:HE2	2.11	0.63
1:H:255:MET:HG2	1:H:256:PHE:N	2.12	0.63
1:A:262:ASN:HD21	1:A:288:SER:CB	2.08	0.63
1:I:208:MET:SD	1:I:210:PHE:HE2	2.21	0.63
1:F:280:SER:C	1:F:284:ALA:HB2	2.18	0.63
1:N:237:MET:O	1:N:240:GLU:HB3	1.98	0.63
1:F:255:MET:CE	1:J:115:VAL:HG22	2.27	0.63
1:B:325:TRP:CE2	1:B:394:MET:HE1	2.32	0.63
1:I:99:VAL:HG11	1:I:323:ILE:HG22	1.79	0.63
1:I:54:LYS:CB	1:I:57:ASN:HD22	2.10	0.63
1:K:375:ILE:HG12	1:K:464:LEU:HD22	1.80	0.63
1:F:250:LEU:HD22	1:F:306:ILE:HG23	1.80	0.63
1:C:240:GLU:HG3	1:C:243:GLY:H	1.62	0.63
1:F:471:GLN:O	1:F:472:LEU:OXT	2.17	0.63
1:L:273:ASP:N	1:L:273:ASP:OD2	2.30	0.63
1:N:91:TYR:C	1:N:91:TYR:CD2	2.69	0.63
1:G:216:ASN:OD1	1:G:218:SER:C	2.37	0.63
1:H:260:LEU:O	1:H:261:PHE:CD2	2.51	0.63
1:K:180:VAL:HG13	1:K:184:ASP:HB2	1.80	0.63
1:G:230:LYS:NZ	1:G:230:LYS:CD	2.59	0.63
1:A:363:TYR:CE2	1:B:185:CYS:HB2	2.33	0.63
1:M:147:ILE:HA	1:N:129:THR:O	1.99	0.63
1:D:228:ILE:N	1:D:228:ILE:HD12	2.14	0.63
1:A:67:GLY:H	1:A:366:HIS:CE1	2.16	0.63
1:A:67:GLY:N	1:A:366:HIS:HE1	1.95	0.63
1:D:54:LYS:CE	1:D:55:PRO:HD2	2.22	0.63
1:F:122:LEU:HD13	1:F:144:ARG:NH2	2.14	0.63
1:K:52:ILE:HG12	1:L:269:GLU:CD	2.19	0.63
1:O:54:LYS:HG3	1:O:55:PRO:CD	2.28	0.63
1:K:342:MET:HB2	1:L:208:MET:CE	2.28	0.63
1:G:228:ILE:HD12	1:G:228:ILE:N	2.13	0.63
1:L:458:ASP:OD2	1:L:458:ASP:N	2.30	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:461:GLN:HE22	1:M:21:VAL:HG23	1.64	0.63
1:I:358:THR:CG2	1:J:266:THR:HG22	2.28	0.63
1:G:29:ALA:HB3	1:G:380:LYS:O	1.98	0.63
1:M:220:VAL:O	1:M:221:PRO:C	2.35	0.63
1:K:220:VAL:O	1:K:221:PRO:O	2.16	0.63
1:H:162:LYS:C	1:H:330:PHE:HD1	2.02	0.63
1:F:248:PHE:CZ	1:F:311:TYR:HB3	2.33	0.63
1:F:280:SER:N	1:F:284:ALA:HB2	2.14	0.63
1:J:103:VAL:HA	1:J:313:LEU:HB2	1.80	0.63
1:D:43:LEU:HD12	1:D:369:GLU:HA	1.79	0.63
1:I:33:ILE:HB	1:I:378:LEU:HB3	1.79	0.63
1:I:397:THR:HB	1:I:401:ASP:OD2	1.99	0.63
1:B:467:LYS:CB	1:B:467:LYS:CD	2.72	0.63
1:E:80:PRO:HG2	1:E:98:LEU:O	1.99	0.63
1:I:151:TYR:OH	1:I:221:PRO:HB2	1.99	0.63
1:G:193:THR:CG2	1:G:230:LYS:HD3	2.28	0.63
1:K:363:TYR:CD2	1:L:185:CYS:HB2	2.33	0.63
1:J:242:TYR:CE2	1:J:394:MET:CB	2.82	0.63
1:H:188:LEU:HD13	1:H:213:LEU:HD11	1.80	0.63
1:E:75:ILE:CG2	1:E:451:LEU:HD12	2.28	0.63
1:M:262:ASN:ND2	1:M:262:ASN:C	2.51	0.63
1:K:29:ALA:HB3	1:K:380:LYS:O	1.99	0.63
1:B:105:VAL:HG11	1:B:159:ILE:CD1	2.29	0.63
1:J:75:ILE:HG21	1:J:451:LEU:HD12	1.81	0.63
1:K:266:THR:CA	1:K:266:THR:CG2	2.72	0.63
1:G:115:VAL:HG21	1:H:257:VAL:HG13	1.81	0.63
1:D:464:LEU:HD23	1:D:464:LEU:O	1.98	0.63
1:K:153:GLN:HE22	1:K:300:VAL:HA	1.63	0.63
1:D:196:GLN:NE2	1:D:444:TYR:HD2	1.96	0.63
1:J:459:LEU:HB3	1:J:465:GLY:HA3	1.81	0.63
1:I:378:LEU:HD12	1:I:379:CYS:H	1.62	0.63
1:K:159:ILE:CD1	1:K:159:ILE:CB	2.74	0.63
1:A:345:CYS:SG	1:B:216:ASN:CB	2.80	0.63
1:E:471:GLN:OE1	1:E:472:LEU:N	2.32	0.63
1:L:92:ASN:C	1:L:94:ASP:H	2.02	0.63
1:N:250:LEU:HD12	1:N:250:LEU:N	2.14	0.63
1:D:170:GLY:O	1:D:188:LEU:HA	1.98	0.63
1:B:391:ILE:HG22	1:B:399:LEU:CD2	2.29	0.63
1:F:176:THR:C	1:F:177:GLN:HG3	2.19	0.63
1:A:381:ILE:CA	1:A:381:ILE:CG2	2.74	0.63
1:D:52:ILE:HB	1:D:62:VAL:HB	1.81	0.63
1:N:365:ARG:NH2	1:O:269:GLU:OE1	2.32	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:185:CYS:SG	1:C:186:PRO:HD2	2.39	0.63
1:G:96:GLN:HE21	1:G:382:THR:HG23	1.64	0.63
1:O:375:ILE:HG21	1:O:468:PHE:CD2	2.33	0.63
1:C:30:ARG:HH11	1:C:377:GLN:HE22	1.45	0.63
1:H:141:VAL:O	1:H:142:ASP:CB	2.41	0.63
1:L:36:HIS:ND1	1:L:37:ALA:N	2.46	0.63
1:K:49:TYR:HA	1:K:223:ASP:HB3	1.81	0.63
1:J:60:ILE:HG13	1:J:60:ILE:O	1.97	0.63
1:M:395:ASN:HB3	1:M:398:ILE:CG1	2.28	0.62
1:I:193:THR:CG2	1:I:193:THR:N	2.61	0.62
1:C:77:LEU:HG	1:C:77:LEU:CD2	2.14	0.62
1:J:325:TRP:HB3	1:J:398:ILE:HD12	1.79	0.62
1:M:113:LEU:N	1:M:113:LEU:HD12	2.14	0.62
1:H:69:GLN:HA	1:H:199:ASP:O	1.98	0.62
1:F:240:GLU:HG3	1:F:243:GLY:HA2	1.81	0.62
1:O:45:VAL:C	1:O:65:VAL:HG21	2.19	0.62
1:K:443:LYS:CD	1:K:443:LYS:N	2.56	0.62
1:G:36:HIS:CG	1:G:462:PHE:CD1	2.87	0.62
1:D:107:VAL:HG21	1:D:157:CYS:SG	2.39	0.62
1:N:384:THR:H	1:N:387:VAL:HB	1.64	0.62
1:F:257:VAL:HG21	1:J:150:ASP:HB3	1.81	0.62
1:B:21:VAL:HG13	1:B:390:TYR:OH	1.99	0.62
1:K:266:THR:CG2	1:K:266:THR:HB	2.16	0.62
1:A:64:LYS:CE	1:A:64:LYS:CG	2.77	0.62
1:G:46:GLY:HA3	1:G:63:PRO:O	1.98	0.62
1:M:141:VAL:HG12	1:M:142:ASP:N	2.14	0.62
1:A:75:ILE:HB	1:A:329:LEU:HB3	1.80	0.62
1:C:81:ASN:ND2	1:C:402:TRP:HD1	1.97	0.62
1:N:343:SER:HB3	1:N:364:LEU:HD23	1.80	0.62
1:B:57:ASN:ND2	1:B:59:LYS:H	1.97	0.62
1:M:149:MET:HE3	1:M:294:THR:HG22	1.81	0.62
1:N:217:LYS:HG2	1:O:276:TYR:HA	1.81	0.62
1:B:150:ASP:N	1:B:150:ASP:OD2	2.33	0.62
1:E:395:ASN:HB3	1:E:398:ILE:HG12	1.80	0.62
1:F:255:MET:SD	1:J:115:VAL:HG22	2.38	0.62
1:J:79:ASP:HA	1:J:327:ASN:HD21	1.65	0.62
1:M:71:ARG:NH1	1:M:197:ASP:OD1	2.32	0.62
1:L:180:VAL:HG13	1:L:184:ASP:CB	2.28	0.62
1:J:71:ARG:CA	1:J:71:ARG:HH11	2.13	0.62
1:A:99:VAL:HG11	1:A:323:ILE:CG2	2.29	0.62
1:I:79:ASP:OD2	1:I:81:ASN:HB2	1.99	0.62
1:F:66:SER:N	1:F:69:GLN:NE2	2.48	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:259:HIS:CE1	1:J:130:GLU:HG2	2.35	0.62
1:F:112:PRO:HD3	1:G:231:TYR:CD2	2.34	0.62
1:M:305:GLN:HE22	1:M:337:THR:HG21	1.64	0.62
1:L:440:PRO:O	1:L:443:LYS:NZ	2.32	0.62
1:N:220:VAL:O	1:N:221:PRO:C	2.37	0.62
1:A:117:ILE:HG21	1:B:293:PRO:HD3	1.81	0.62
1:D:262:ASN:HD21	1:D:288:SER:HB3	1.64	0.62
1:N:390:TYR:C	1:N:392:HIS:N	2.50	0.62
1:E:160:GLY:O	1:E:329:LEU:HD23	2.00	0.62
1:B:96:GLN:HE21	1:B:382:THR:HG23	1.63	0.62
1:D:73:PHE:CD1	1:D:73:PHE:N	2.66	0.62
1:K:48:PRO:HB3	1:K:341:ASN:HD22	1.64	0.62
1:I:142:ASP:O	1:J:283:THR:HG21	1.98	0.62
1:M:27:TYR:CE2	1:M:390:TYR:CE2	2.87	0.62
1:M:74:ARG:CZ	1:M:441:LEU:CD1	2.76	0.62
1:I:85:PHE:CE2	1:I:378:LEU:HD22	2.34	0.62
1:N:259:HIS:HE1	1:O:130:GLU:CG	2.12	0.62
1:A:34:TYR:CE2	1:A:377:GLN:CG	2.72	0.62
1:H:176:THR:O	1:H:177:GLN:HG2	1.99	0.62
1:L:21:VAL:HG12	1:L:22:VAL:N	2.14	0.62
1:O:74:ARG:NH2	1:O:441:LEU:HD12	2.14	0.62
1:F:451:LEU:O	1:F:454:LYS:HB2	1.99	0.62
1:I:237:MET:O	1:I:240:GLU:HB3	1.99	0.62
1:K:308:ASN:HD22	1:L:251:ARG:HH22	1.47	0.62
1:N:381:ILE:O	1:N:381:ILE:HG22	2.00	0.62
1:I:220:VAL:HB	1:I:224:ILE:HD12	1.80	0.62
1:G:463:PRO:HB3	1:G:466:ARG:NH2	2.15	0.62
1:C:77:LEU:CD2	1:C:77:LEU:CB	2.75	0.62
1:O:443:LYS:CD	1:O:443:LYS:H	2.13	0.62
1:K:290:ASN:HA	1:O:364:LEU:HD11	1.82	0.62
1:G:54:LYS:CB	1:G:57:ASN:HD22	2.13	0.62
1:A:125:LYS:NZ	1:B:132:ALA:O	2.30	0.62
1:J:107:VAL:HG23	1:J:311:TYR:CE1	2.34	0.62
1:C:471:GLN:OE1	1:C:472:LEU:N	2.32	0.62
1:E:373:GLN:HB3	1:E:464:LEU:HD12	1.81	0.62
1:K:29:ALA:HB3	1:K:380:LYS:HG3	1.81	0.62
1:M:348:ILE:HG22	1:M:359:ASN:OD1	1.99	0.62
1:E:280:SER:N	1:E:284:ALA:HB2	2.14	0.62
1:C:92:ASN:ND2	1:C:95:THR:OG1	2.32	0.62
1:F:61:LEU:O	1:F:61:LEU:HD12	1.98	0.62
1:E:397:THR:HB	1:E:401:ASP:OD2	1.99	0.62
1:F:96:GLN:CA	1:F:383:LEU:HD12	2.29	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:163:PRO:O	1:J:163:PRO:HG2	2.00	0.62
1:E:266:THR:O	1:E:267:VAL:C	2.36	0.62
1:L:54:LYS:HE3	1:L:55:PRO:HD2	1.81	0.62
1:D:167:GLU:O	1:D:168:HIS:HB3	1.99	0.62
1:F:358:THR:HG22	1:G:266:THR:HG22	1.80	0.62
1:I:36:HIS:ND1	1:I:36:HIS:C	2.52	0.62
1:F:153:GLN:NE2	1:F:300:VAL:HG12	2.14	0.62
1:D:73:PHE:N	1:D:331:VAL:O	2.30	0.62
1:L:105:VAL:HG11	1:L:159:ILE:HD11	1.81	0.62
1:C:117:ILE:HG13	1:C:149:MET:O	2.00	0.62
1:E:178:VAL:CG1	1:E:178:VAL:CG2	2.76	0.62
1:M:344:LEU:CD1	1:N:188:LEU:HD21	2.30	0.62
1:H:44:ALA:HB3	1:H:368:GLU:HB2	1.80	0.62
1:C:237:MET:HB3	1:C:246:LEU:CD2	2.29	0.62
1:C:158:LEU:CD2	1:C:249:TYR:HB2	2.29	0.62
1:J:262:ASN:HD21	1:J:288:SER:HB3	1.64	0.62
1:G:250:LEU:H	1:G:250:LEU:HD12	1.63	0.62
1:L:53:LYS:HD3	1:L:58:ASN:HA	1.82	0.62
1:I:97:ARG:HH11	1:I:97:ARG:HA	1.63	0.62
1:A:115:VAL:HG22	1:B:255:MET:SD	2.40	0.62
1:C:122:LEU:HD13	1:C:144:ARG:NH2	2.14	0.62
1:N:115:VAL:HG21	1:O:257:VAL:HG13	1.81	0.62
1:C:391:ILE:HG22	1:C:391:ILE:O	1.99	0.62
1:H:302:SER:HB2	1:I:253:GLU:H	1.64	0.62
1:D:66:SER:N	1:D:69:GLN:HE21	1.98	0.62
1:H:384:THR:H	1:H:387:VAL:HB	1.64	0.62
1:G:54:LYS:CG	1:G:55:PRO:HD2	2.26	0.62
1:F:122:LEU:HD11	1:G:286:LEU:HD11	1.82	0.62
1:J:208:MET:SD	1:J:210:PHE:HE2	2.22	0.62
1:A:27:TYR:CE2	1:A:390:TYR:HE2	2.18	0.62
1:L:28:VAL:HA	1:L:381:ILE:HG12	1.81	0.62
1:B:33:ILE:HG23	1:B:33:ILE:CD1	2.29	0.62
1:I:316:ALA:HB3	1:I:321:ASN:OD1	1.99	0.62
1:I:260:LEU:N	1:I:260:LEU:HD12	2.14	0.62
1:K:79:ASP:OD2	1:K:82:LYS:HG3	2.00	0.62
1:A:49:TYR:HE2	1:A:118:SER:HA	1.65	0.62
1:C:464:LEU:HD22	1:C:464:LEU:C	2.20	0.62
1:G:65:VAL:HA	1:G:69:GLN:NE2	2.14	0.62
1:O:323:ILE:N	1:O:323:ILE:HD13	2.15	0.62
1:E:151:TYR:CG	1:E:203:THR:HB	2.33	0.62
1:K:152:LYS:CB	1:K:255:MET:HB2	2.24	0.62
1:D:54:LYS:CG	1:D:57:ASN:HB3	2.30	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:72:VAL:HG21	1:B:195:ILE:O	2.00	0.62
1:L:23:SER:OG	1:L:25:ASP:HB2	2.00	0.62
1:J:54:LYS:HA	1:J:54:LYS:HZ3	1.64	0.62
1:K:323:ILE:HG21	1:K:325:TRP:CZ3	2.35	0.62
1:O:54:LYS:HB2	1:O:57:ASN:HD22	1.63	0.62
1:D:159:ILE:HG22	1:D:247:PHE:CE1	2.35	0.62
1:N:139:ALA:O	1:N:140:GLY:O	2.18	0.62
1:F:365:ARG:CB	1:F:365:ARG:CD	2.73	0.61
1:G:149:MET:HE3	1:G:295:PRO:HD2	1.82	0.61
1:J:163:PRO:N	1:J:330:PHE:CD1	2.68	0.61
1:E:262:ASN:HD21	1:E:288:SER:HB3	1.65	0.61
1:E:165:ILE:O	1:E:165:ILE:HG22	1.98	0.61
1:L:74:ARG:CG	1:L:330:PHE:HE2	2.12	0.61
1:O:24:THR:HG21	1:O:320:ASN:HA	1.81	0.61
1:M:46:GLY:HA3	1:M:63:PRO:O	1.99	0.61
1:L:54:LYS:CB	1:L:57:ASN:HD22	2.14	0.61
1:M:69:GLN:HA	1:M:199:ASP:O	2.00	0.61
1:D:30:ARG:NH1	1:D:377:GLN:NE2	2.44	0.61
1:J:33:ILE:HB	1:J:378:LEU:HB3	1.81	0.61
1:I:159:ILE:HD12	1:I:248:PHE:CD2	2.35	0.61
1:K:193:THR:OG1	1:K:194:VAL:N	2.33	0.61
1:B:92:ASN:ND2	1:B:95:THR:OG1	2.33	0.61
1:M:172:GLY:O	1:M:173:SER:C	2.38	0.61
1:N:367:GLY:O	1:N:368:GLU:HG2	2.00	0.61
1:E:389:THR:CG2	1:E:389:THR:HB	2.13	0.61
1:F:365:ARG:CA	1:F:365:ARG:CD	2.77	0.61
1:H:57:ASN:HD21	1:H:59:LYS:CB	2.13	0.61
1:N:149:MET:HA	1:O:260:LEU:HD21	1.81	0.61
1:M:114:GLY:HA2	1:N:255:MET:SD	2.40	0.61
1:G:96:GLN:HB3	1:G:382:THR:CG2	2.29	0.61
1:L:344:LEU:CD1	1:M:186:PRO:HD2	2.29	0.61
1:C:255:MET:CG	1:C:256:PHE:N	2.63	0.61
1:J:67:GLY:C	1:J:68:LEU:HG	2.19	0.61
1:A:248:PHE:CZ	1:A:311:TYR:HB3	2.35	0.61
1:D:384:THR:HG23	1:D:387:VAL:CG2	2.30	0.61
1:C:171:LYS:HA	1:C:187:PRO:O	1.98	0.61
1:L:373:GLN:HB3	1:L:464:LEU:HD12	1.82	0.61
1:M:27:TYR:CE2	1:M:390:TYR:HE2	2.18	0.61
1:D:80:PRO:HD2	1:D:81:ASN:H	1.64	0.61
1:E:235:ILE:CD1	1:E:235:ILE:CB	2.73	0.61
1:J:91:TYR:OH	1:J:97:ARG:NH2	2.33	0.61
1:O:442:LYS:CG	1:O:442:LYS:NZ	2.64	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:115:VAL:HG22	1:N:255:MET:CE	2.31	0.61
1:N:65:VAL:O	1:N:366:HIS:HB3	2.00	0.61
1:D:54:LYS:HB2	1:D:57:ASN:HD22	1.65	0.61
1:N:21:VAL:HG12	1:N:22:VAL:N	2.15	0.61
1:E:30:ARG:HD3	1:E:377:GLN:HE22	1.65	0.61
1:L:312:TRP:CH2	1:L:468:PHE:HB2	2.35	0.61
1:F:274:ASP:N	1:F:274:ASP:OD1	2.32	0.61
1:D:141:VAL:CG1	1:D:142:ASP:N	2.59	0.61
1:M:74:ARG:HH22	1:M:441:LEU:HD12	1.58	0.61
1:A:381:ILE:CG2	1:A:381:ILE:HB	2.14	0.61
1:J:163:PRO:HB3	1:J:330:PHE:CE1	2.36	0.61
1:O:30:ARG:HH11	1:O:377:GLN:HE22	1.48	0.61
1:N:70:TYR:OH	1:N:232:PRO:HD3	2.00	0.61
1:D:49:TYR:HA	1:D:223:ASP:HB3	1.81	0.61
1:G:24:THR:CG2	1:G:320:ASN:HA	2.30	0.61
1:K:306:ILE:N	1:K:306:ILE:HD13	2.15	0.61
1:B:66:SER:O	1:B:69:GLN:HG3	2.00	0.61
1:J:54:LYS:CB	1:J:57:ASN:HD22	2.13	0.61
1:A:397:THR:HB	1:A:401:ASP:OD2	2.00	0.61
1:B:126:LEU:HB3	1:B:262:ASN:HB3	1.82	0.61
1:M:250:LEU:H	1:M:250:LEU:HD12	1.65	0.61
1:H:124:ASN:OD1	1:H:264:ALA:N	2.33	0.61
1:E:167:GLU:HG3	1:E:231:TYR:O	2.00	0.61
1:I:344:LEU:HD11	1:J:185:CYS:SG	2.41	0.61
1:M:323:ILE:HG21	1:M:325:TRP:CZ2	2.34	0.61
1:I:399:LEU:O	1:I:402:TRP:HB2	1.99	0.61
1:D:80:PRO:CD	1:D:81:ASN:H	2.14	0.61
1:A:63:PRO:O	1:A:65:VAL:HG23	2.01	0.61
1:G:96:GLN:HE21	1:G:382:THR:CG2	2.13	0.61
1:H:104:GLY:HA3	1:H:375:ILE:HB	1.82	0.61
1:G:255:MET:CG	1:G:256:PHE:N	2.60	0.61
1:K:57:ASN:HD21	1:K:59:LYS:HB3	1.64	0.61
1:J:166:GLY:CA	1:J:195:ILE:HD11	2.30	0.61
1:D:464:LEU:CD2	1:D:464:LEU:O	2.48	0.61
1:K:254:GLN:HA	1:O:300:VAL:O	2.00	0.61
1:L:320:ASN:OD1	1:L:321:ASN:N	2.34	0.61
1:F:274:ASP:O	1:J:217:LYS:HD3	2.00	0.61
1:K:109:ARG:NH1	1:K:370:TYR:CE1	2.68	0.61
1:H:137:ALA:O	1:H:138:ASN:O	2.19	0.61
1:A:21:VAL:HB	1:E:461:GLN:HE22	1.64	0.61
1:E:172:GLY:O	1:E:173:SER:O	2.19	0.61
1:O:331:VAL:CG1	1:O:331:VAL:HB	2.18	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:358:THR:HA	1:C:266:THR:CG2	2.30	0.61
1:C:375:ILE:CG1	1:C:464:LEU:HD13	2.31	0.61
1:F:175:CYS:SG	1:F:175:CYS:CA	2.87	0.61
1:C:355:TYR:CD1	1:D:144:ARG:HD3	2.35	0.61
1:O:237:MET:HB3	1:O:246:LEU:CD2	2.30	0.61
1:I:42:LEU:HD13	1:I:447:TRP:CE2	2.35	0.61
1:B:44:ALA:HB3	1:B:368:GLU:HB2	1.81	0.61
1:I:82:LYS:NZ	1:I:82:LYS:CD	2.61	0.61
1:C:151:TYR:CG	1:C:203:THR:HB	2.35	0.61
1:C:122:LEU:HD11	1:D:286:LEU:HD11	1.83	0.61
1:K:117:ILE:HD11	1:L:260:LEU:HD23	1.81	0.61
1:D:80:PRO:C	1:D:82:LYS:N	2.54	0.61
1:L:227:SER:C	1:L:228:ILE:HD12	2.20	0.61
1:B:219:GLU:C	1:B:220:VAL:HG13	2.21	0.61
1:N:344:LEU:HD12	1:O:186:PRO:HD2	1.83	0.61
1:O:71:ARG:HH12	1:O:198:GLY:N	1.97	0.61
1:A:323:ILE:HG21	1:A:325:TRP:CH2	2.35	0.61
1:H:300:VAL:O	1:I:254:GLN:HA	1.99	0.61
1:L:298:SER:OG	1:L:299:MET:N	2.33	0.61
1:B:110:GLY:C	1:B:111:GLN:HG2	2.20	0.61
1:M:323:ILE:CA	1:M:323:ILE:HD13	2.30	0.61
1:G:219:GLU:HB3	1:G:263:ARG:NH2	2.16	0.61
1:O:117:ILE:CB	1:O:117:ILE:CD1	2.72	0.61
1:N:96:GLN:NE2	1:N:382:THR:CG2	2.63	0.61
1:D:98:LEU:HD22	1:D:379:CYS:O	2.00	0.61
1:A:163:PRO:N	1:A:330:PHE:CD1	2.69	0.61
1:K:219:GLU:C	1:K:220:VAL:HG13	2.21	0.61
1:L:374:PHE:O	1:L:375:ILE:HD13	2.01	0.61
1:E:70:TYR:O	1:E:71:ARG:NH1	2.34	0.61
1:E:24:THR:HG23	1:E:320:ASN:HA	1.83	0.61
1:F:121:PRO:HG3	1:G:289:SER:HB2	1.83	0.61
1:J:163:PRO:HD3	1:J:330:PHE:CE1	2.31	0.61
1:D:36:HIS:CG	1:D:462:PHE:CD1	2.89	0.61
1:B:208:MET:SD	1:B:210:PHE:CE2	2.94	0.61
1:N:216:ASN:ND2	1:N:219:GLU:OE2	2.34	0.61
1:A:345:CYS:HG	1:B:216:ASN:HB2	1.66	0.61
1:A:280:SER:CA	1:A:284:ALA:HB2	2.31	0.61
1:I:208:MET:SD	1:I:210:PHE:CE2	2.94	0.61
1:N:54:LYS:HG2	1:N:56:ASN:OD1	2.00	0.61
1:B:391:ILE:O	1:B:391:ILE:HG22	1.99	0.61
1:I:281:GLY:O	1:I:284:ALA:N	2.30	0.61
1:I:157:CYS:HB3	1:I:250:LEU:CD1	2.31	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:463:PRO:HG2	1:L:464:LEU:H	1.66	0.61
1:E:344:LEU:HD21	1:E:365:ARG:CG	2.31	0.61
1:G:147:ILE:HG22	1:G:148:SER:N	2.15	0.61
1:I:126:LEU:HB3	1:I:262:ASN:HB3	1.82	0.61
1:O:149:MET:HE1	1:O:294:THR:HG22	1.82	0.61
1:H:223:ASP:OD1	1:H:224:ILE:N	2.34	0.61
1:K:166:GLY:CA	1:K:195:ILE:HD11	2.31	0.61
1:M:169:TRP:H	1:M:208:MET:HA	1.66	0.61
1:L:248:PHE:CZ	1:L:311:TYR:HB3	2.36	0.60
1:M:378:LEU:HD12	1:M:379:CYS:H	1.66	0.60
1:D:344:LEU:HD13	1:E:213:LEU:HD13	1.83	0.60
1:G:361:LYS:CA	1:H:266:THR:OG1	2.45	0.60
1:A:357:ASN:HB2	1:B:141:VAL:HA	1.83	0.60
1:O:130:GLU:HB2	1:O:260:LEU:HD13	1.82	0.60
1:M:154:THR:O	1:M:336:THR:HG23	2.01	0.60
1:B:299:MET:HA	1:C:256:PHE:HB3	1.83	0.60
1:F:217:LYS:O	1:G:276:TYR:HA	2.01	0.60
1:D:159:ILE:HD12	1:D:248:PHE:HD2	1.65	0.60
1:H:172:GLY:O	1:H:173:SER:C	2.40	0.60
1:L:464:LEU:HD23	1:L:464:LEU:C	2.21	0.60
1:I:101:ALA:HB3	1:I:377:GLN:O	2.01	0.60
1:I:322:GLY:C	1:I:323:ILE:HD13	2.21	0.60
1:F:117:ILE:HG22	1:F:117:ILE:N	2.16	0.60
1:E:83:PHE:HD2	1:E:85:PHE:CE2	2.19	0.60
1:A:276:TYR:HA	1:E:217:LYS:HG2	1.82	0.60
1:O:24:THR:O	1:O:25:ASP:C	2.38	0.60
1:E:119:GLY:HA3	1:E:148:SER:HB3	1.83	0.60
1:A:75:ILE:CG2	1:A:451:LEU:HD12	2.26	0.60
1:A:257:VAL:HG13	1:E:115:VAL:CG2	2.31	0.60
1:O:442:LYS:NZ	1:O:442:LYS:CD	2.64	0.60
1:M:299:MET:HE2	1:N:298:SER:HB2	1.83	0.60
1:K:99:VAL:HG11	1:K:323:ILE:CG2	2.31	0.60
1:H:123:LEU:HD23	1:H:147:ILE:HB	1.81	0.60
1:M:241:PRO:HG2	1:M:242:TYR:H	1.66	0.60
1:M:383:LEU:CD2	1:M:388:MET:CE	2.79	0.60
1:B:24:THR:HA	1:B:27:TYR:CE2	2.37	0.60
1:G:178:VAL:O	1:G:180:VAL:N	2.22	0.60
1:H:180:VAL:HG13	1:H:184:ASP:CB	2.30	0.60
1:D:122:LEU:HD13	1:D:144:ARG:NH2	2.16	0.60
1:L:217:LYS:HG2	1:M:276:TYR:HA	1.83	0.60
1:H:82:LYS:NZ	1:H:403:ASN:HD22	1.99	0.60
1:H:79:ASP:OD2	1:H:81:ASN:HB2	2.02	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:375:ILE:HG12	1:I:464:LEU:HD13	1.83	0.60
1:G:43:LEU:HD12	1:G:368:GLU:O	2.02	0.60
1:L:21:VAL:HG13	1:L:390:TYR:OH	2.01	0.60
1:C:250:LEU:HD12	1:C:250:LEU:O	2.01	0.60
1:L:142:ASP:OD2	1:L:144:ARG:HG3	2.00	0.60
1:K:96:GLN:HA	1:K:382:THR:HA	1.83	0.60
1:N:240:GLU:HG3	1:N:243:GLY:H	1.66	0.60
1:H:365:ARG:NH2	1:I:269:GLU:OE1	2.34	0.60
1:H:109:ARG:NH1	1:H:370:TYR:CE1	2.69	0.60
1:B:29:ALA:HB3	1:B:380:LYS:O	2.02	0.60
1:C:54:LYS:CB	1:C:57:ASN:HD22	2.14	0.60
1:I:193:THR:HG23	1:I:230:LYS:HD2	1.83	0.60
1:C:374:PHE:HB2	1:C:376:PHE:CE1	2.36	0.60
1:A:82:LYS:NZ	1:A:82:LYS:CD	2.64	0.60
1:J:27:TYR:O	1:J:381:ILE:HG23	2.02	0.60
1:C:79:ASP:HA	1:C:327:ASN:HD21	1.66	0.60
1:D:61:LEU:HG	1:D:62:VAL:HG23	1.83	0.60
1:M:180:VAL:HG12	1:M:181:GLN:N	2.16	0.60
1:J:47:HIS:CE1	1:J:49:TYR:HD1	2.19	0.60
1:M:35:TYR:O	1:M:376:PHE:N	2.21	0.60
1:C:228:ILE:HD12	1:C:228:ILE:N	2.16	0.60
1:D:465:GLY:O	1:D:467:LYS:N	2.34	0.60
1:A:302:SER:HB2	1:B:253:GLU:N	2.16	0.60
1:G:42:LEU:HD13	1:G:447:TRP:CZ2	2.36	0.60
1:K:226:THR:CG2	1:L:275:LEU:HD22	2.30	0.60
1:C:451:LEU:HA	1:C:454:LYS:CG	2.32	0.60
1:N:24:THR:HG21	1:N:320:ASN:HA	1.82	0.60
1:J:126:LEU:HB3	1:J:262:ASN:HB3	1.82	0.60
1:J:248:PHE:CZ	1:J:311:TYR:HB3	2.36	0.60
1:B:391:ILE:HG22	1:B:399:LEU:HD21	1.84	0.60
1:F:171:LYS:HG3	1:F:187:PRO:HD2	1.82	0.60
1:B:280:SER:O	1:B:280:SER:OG	2.19	0.60
1:C:348:ILE:CB	1:C:348:ILE:CD1	2.75	0.60
1:I:21:VAL:CG1	1:I:390:TYR:OH	2.49	0.60
1:J:329:LEU:HD13	1:J:374:PHE:CE2	2.36	0.60
1:D:361:LYS:CD	1:D:361:LYS:CB	2.78	0.60
1:D:391:ILE:HG21	1:D:402:TRP:CZ3	2.36	0.60
1:B:458:ASP:OD1	1:B:461:GLN:HG3	2.01	0.60
1:B:77:LEU:HD22	1:B:455:PHE:HZ	1.62	0.60
1:O:246:LEU:N	1:O:246:LEU:CD2	2.60	0.60
1:H:74:ARG:CG	1:H:330:PHE:HE2	2.15	0.60
1:L:65:VAL:HA	1:L:69:GLN:NE2	2.17	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:97:ARG:NH1	1:N:97:ARG:HA	2.16	0.60
1:N:91:TYR:CD1	1:N:98:LEU:HD21	2.37	0.60
1:F:80:PRO:HB2	1:F:98:LEU:HB3	1.82	0.60
1:K:266:THR:OG1	1:O:361:LYS:HA	2.00	0.60
1:J:167:GLU:HG2	1:J:231:TYR:O	2.01	0.60
1:G:178:VAL:CA	1:G:178:VAL:CG1	2.77	0.60
1:B:234:TYR:O	1:B:237:MET:N	2.34	0.60
1:L:305:GLN:HE22	1:L:337:THR:HG21	1.67	0.60
1:O:458:ASP:OD2	1:O:458:ASP:N	2.34	0.60
1:I:274:ASP:OD1	1:I:274:ASP:N	2.34	0.60
1:G:172:GLY:O	1:G:173:SER:C	2.39	0.60
1:H:272:PRO:HD2	1:H:275:LEU:CD1	2.31	0.60
1:G:120:HIS:NE2	1:G:218:SER:CB	2.63	0.60
1:J:216:ASN:OD1	1:J:218:SER:N	2.34	0.60
1:D:361:LYS:HA	1:E:266:THR:HG1	1.66	0.60
1:D:345:CYS:SG	1:E:216:ASN:CB	2.89	0.60
1:A:439:ASP:OD2	1:A:440:PRO:HD2	2.02	0.60
1:I:163:PRO:N	1:I:330:PHE:HD1	1.99	0.60
1:I:356:LYS:CD	1:I:356:LYS:NZ	2.65	0.60
1:B:363:TYR:CG	1:C:185:CYS:HB2	2.36	0.60
1:N:170:GLY:O	1:N:188:LEU:HA	2.01	0.60
1:M:112:PRO:HB3	1:N:231:TYR:CG	2.37	0.60
1:J:160:GLY:HA3	1:J:245:SER:O	2.01	0.60
1:E:219:GLU:HB3	1:E:263:ARG:CZ	2.32	0.60
1:G:103:VAL:HG22	1:G:375:ILE:O	2.02	0.60
1:M:178:VAL:HB	1:M:178:VAL:CG1	2.17	0.60
1:M:122:LEU:HD13	1:M:144:ARG:NH2	2.17	0.60
1:C:81:ASN:ND2	1:C:402:TRP:CD1	2.70	0.60
1:H:302:SER:CB	1:I:253:GLU:H	2.15	0.60
1:D:121:PRO:HD3	1:D:222:LEU:HD13	1.84	0.60
1:A:46:GLY:HA3	1:A:65:VAL:CG2	2.31	0.60
1:G:399:LEU:HA	1:G:402:TRP:HE3	1.66	0.60
1:B:97:ARG:HG3	1:B:383:LEU:CD1	2.31	0.60
1:F:172:GLY:O	1:F:173:SER:O	2.19	0.60
1:O:103:VAL:HA	1:O:313:LEU:HB2	1.83	0.60
1:O:235:ILE:CD1	1:O:235:ILE:HG23	2.31	0.60
1:D:121:PRO:O	1:D:122:LEU:HD23	2.01	0.60
1:J:98:LEU:HD23	1:J:379:CYS:O	2.02	0.60
1:F:50:PHE:CD1	1:F:50:PHE:O	2.55	0.60
1:F:105:VAL:HG11	1:F:159:ILE:HD11	1.83	0.60
1:L:320:ASN:OD1	1:L:322:GLY:N	2.35	0.60
1:I:237:MET:HB3	1:I:246:LEU:HD22	1.82	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:105:VAL:HG11	1:B:159:ILE:HD11	1.84	0.60
1:C:247:PHE:HD1	1:C:248:PHE:N	2.00	0.60
1:E:139:ALA:O	1:E:140:GLY:O	2.20	0.60
1:F:121:PRO:HD3	1:F:222:LEU:HD22	1.84	0.59
1:A:255:MET:HG2	1:A:256:PHE:CA	2.27	0.59
1:F:167:GLU:CB	1:F:190:LEU:HD11	2.15	0.59
1:G:162:LYS:C	1:G:330:PHE:HD1	2.06	0.59
1:A:345:CYS:HB2	1:A:361:LYS:O	2.02	0.59
1:F:71:ARG:HB3	1:F:73:PHE:CE1	2.37	0.59
1:J:246:LEU:N	1:J:246:LEU:CD2	2.61	0.59
1:B:117:ILE:HG23	1:B:117:ILE:O	2.02	0.59
1:J:262:ASN:HD22	1:J:263:ARG:N	1.99	0.59
1:K:336:THR:O	1:K:338:ARG:N	2.35	0.59
1:A:182:PRO:O	1:E:348:ILE:HD12	2.02	0.59
1:I:234:TYR:O	1:I:237:MET:N	2.35	0.59
1:B:391:ILE:HG22	1:B:399:LEU:HG	1.83	0.59
1:I:176:THR:HG22	1:I:176:THR:O	2.02	0.59
1:E:27:TYR:O	1:E:381:ILE:HG23	2.02	0.59
1:F:49:TYR:HA	1:F:223:ASP:HB3	1.84	0.59
1:I:355:TYR:CD1	1:J:144:ARG:HD3	2.37	0.59
1:K:149:MET:CE	1:K:295:PRO:HD2	2.31	0.59
1:E:220:VAL:HB	1:E:224:ILE:CD1	2.32	0.59
1:A:57:ASN:HD21	1:A:59:LYS:HB2	1.65	0.59
1:D:57:ASN:HD21	1:D:59:LYS:CB	2.16	0.59
1:A:42:LEU:HD13	1:A:447:TRP:CE2	2.37	0.59
1:A:42:LEU:HD12	1:A:73:PHE:HE2	1.67	0.59
1:G:54:LYS:HZ2	1:G:55:PRO:HD3	1.66	0.59
1:N:167:GLU:HG2	1:N:231:TYR:O	2.02	0.59
1:D:237:MET:HB3	1:D:246:LEU:CD2	2.32	0.59
1:I:208:MET:HG2	1:I:210:PHE:CE2	2.37	0.59
1:L:99:VAL:HG11	1:L:323:ILE:HG22	1.84	0.59
1:A:36:HIS:C	1:A:36:HIS:ND1	2.54	0.59
1:D:384:THR:OG1	1:D:385:ALA:N	2.32	0.59
1:M:383:LEU:HD23	1:M:388:MET:HE2	1.84	0.59
1:M:98:LEU:HD22	1:M:379:CYS:O	2.02	0.59
1:B:162:LYS:C	1:B:330:PHE:HD1	2.05	0.59
1:G:29:ALA:HB3	1:G:380:LYS:HG3	1.83	0.59
1:I:174:PRO:CD	1:I:187:PRO:HG2	2.32	0.59
1:I:223:ASP:OD1	1:I:224:ILE:HG12	2.02	0.59
1:G:375:ILE:HG21	1:G:468:PHE:CD2	2.37	0.59
1:N:66:SER:HA	1:N:366:HIS:ND1	2.17	0.59
1:A:342:MET:HB2	1:B:208:MET:HE1	1.83	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:72:VAL:HG22	1:B:332:THR:CG2	2.32	0.59
1:M:112:PRO:HB3	1:N:231:TYR:CD1	2.37	0.59
1:F:361:LYS:HA	1:G:266:THR:HG1	1.65	0.59
1:K:323:ILE:HG21	1:K:325:TRP:CZ2	2.37	0.59
1:O:135:TYR:HE2	1:O:287:ALA:HB2	1.68	0.59
1:D:124:ASN:OD1	1:D:264:ALA:N	2.33	0.59
1:N:79:ASP:OD1	1:N:80:PRO:HD2	2.03	0.59
1:J:463:PRO:HB3	1:J:466:ARG:HH21	1.67	0.59
1:J:157:CYS:HB2	1:J:307:PHE:HE2	1.67	0.59
1:M:98:LEU:CB	1:M:98:LEU:CD1	2.75	0.59
1:D:348:ILE:HD12	1:E:182:PRO:O	2.01	0.59
1:H:55:PRO:HG2	1:H:56:ASN:ND2	2.16	0.59
1:E:300:VAL:O	1:E:300:VAL:HG23	2.01	0.59
1:E:68:LEU:O	1:E:201:VAL:HG13	2.01	0.59
1:N:320:ASN:C	1:N:320:ASN:OD1	2.41	0.59
1:M:263:ARG:HD3	1:M:292:PHE:CD2	2.38	0.59
1:H:344:LEU:HD13	1:I:213:LEU:HD12	1.82	0.59
1:D:156:LEU:HG	1:D:334:VAL:HB	1.84	0.59
1:D:115:VAL:HG22	1:E:255:MET:SD	2.42	0.59
1:E:24:THR:HA	1:E:27:TYR:CE2	2.37	0.59
1:E:381:ILE:O	1:E:383:LEU:HD12	2.02	0.59
1:J:300:VAL:HG11	1:J:337:THR:HA	1.84	0.59
1:F:117:ILE:H	1:F:117:ILE:CG2	2.13	0.59
1:D:361:LYS:HG2	1:E:268:GLY:HA2	1.85	0.59
1:J:260:LEU:N	1:J:260:LEU:CD1	2.61	0.59
1:L:55:PRO:HG2	1:L:56:ASN:ND2	2.17	0.59
1:I:163:PRO:CA	1:I:330:PHE:CD1	2.86	0.59
1:D:54:LYS:HB3	1:D:57:ASN:CB	2.29	0.59
1:A:279:GLY:C	1:A:284:ALA:HB2	2.22	0.59
1:I:105:VAL:HG22	1:I:374:PHE:CD2	2.38	0.59
1:J:151:TYR:OH	1:J:221:PRO:HB2	2.02	0.59
1:F:250:LEU:H	1:F:250:LEU:HD12	1.66	0.59
1:F:160:GLY:HA3	1:F:245:SER:O	2.02	0.59
1:L:280:SER:O	1:L:280:SER:OG	2.20	0.59
1:F:278:LYS:HB2	1:I:353:THR:O	2.02	0.59
1:L:247:PHE:HD1	1:L:248:PHE:N	1.99	0.59
1:H:466:ARG:HD2	1:I:317:GLN:O	2.01	0.59
1:G:210:PHE:O	1:G:214:GLN:HB2	2.03	0.59
1:N:188:LEU:CD1	1:N:213:LEU:HD11	2.33	0.59
1:H:75:ILE:CG2	1:H:451:LEU:HD12	2.28	0.59
1:L:378:LEU:HD12	1:L:379:CYS:N	2.17	0.59
1:B:391:ILE:CG2	1:B:399:LEU:HD21	2.33	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:383:LEU:HD23	1:M:388:MET:CE	2.33	0.59
1:L:160:GLY:HA3	1:L:245:SER:O	2.03	0.59
1:I:82:LYS:NZ	1:I:403:ASN:HD22	2.00	0.59
1:E:178:VAL:CA	1:E:178:VAL:CG1	2.78	0.59
1:G:66:SER:N	1:G:69:GLN:NE2	2.50	0.59
1:N:66:SER:N	1:N:69:GLN:NE2	2.39	0.59
1:K:344:LEU:CD1	1:L:185:CYS:SG	2.91	0.59
1:A:77:LEU:HD11	1:A:376:PHE:CE2	2.38	0.59
1:A:216:ASN:OD1	1:A:218:SER:N	2.36	0.59
1:G:57:ASN:ND2	1:G:59:LYS:H	2.00	0.59
1:L:120:HIS:NE2	1:L:218:SER:HB3	2.18	0.59
1:F:52:ILE:N	1:F:52:ILE:CD1	2.64	0.59
1:F:107:VAL:HG23	1:F:311:TYR:CE1	2.34	0.59
1:H:28:VAL:HG12	1:H:29:ALA:H	1.65	0.59
1:K:90:PHE:O	1:K:380:LYS:NZ	2.35	0.59
1:L:111:GLN:HG2	1:L:369:GLU:HB3	1.85	0.59
1:J:397:THR:HB	1:J:401:ASP:OD2	2.02	0.59
1:M:323:ILE:HA	1:M:323:ILE:CD1	2.31	0.59
1:H:259:HIS:HB2	1:H:294:THR:OG1	2.02	0.59
1:F:96:GLN:HB3	1:F:382:THR:HA	1.84	0.59
1:K:391:ILE:HG21	1:K:402:TRP:CZ3	2.37	0.59
1:G:98:LEU:CB	1:G:98:LEU:CD1	2.76	0.59
1:N:61:LEU:HG	1:N:61:LEU:CD1	2.17	0.59
1:E:205:PHE:CD1	1:E:220:VAL:HG12	2.38	0.59
1:N:255:MET:HG2	1:N:256:PHE:H	1.67	0.59
1:C:49:TYR:HE1	1:C:364:LEU:HD13	1.68	0.59
1:L:237:MET:HB3	1:L:246:LEU:HD22	1.83	0.59
1:D:223:ASP:OD1	1:D:224:ILE:N	2.35	0.59
1:G:391:ILE:HG21	1:G:402:TRP:CZ3	2.38	0.59
1:B:45:VAL:HA	1:B:366:HIS:O	2.03	0.59
1:H:248:PHE:CZ	1:H:311:TYR:HB3	2.37	0.59
1:F:125:LYS:HD2	1:F:147:ILE:HD11	1.84	0.59
1:H:174:PRO:HG3	1:H:187:PRO:HG2	1.84	0.59
1:A:399:LEU:HA	1:A:402:TRP:HE3	1.66	0.59
1:F:257:VAL:HG21	1:J:150:ASP:CB	2.33	0.59
1:I:384:THR:HG23	1:I:387:VAL:CG2	2.33	0.59
1:B:152:LYS:HE3	1:B:154:THR:OG1	2.03	0.59
1:K:391:ILE:HG21	1:K:402:TRP:HZ3	1.68	0.59
1:C:70:TYR:CE1	1:C:201:VAL:HA	2.38	0.59
1:O:378:LEU:HD12	1:O:379:CYS:N	2.18	0.59
1:I:49:TYR:CE2	1:I:118:SER:HA	2.37	0.59
1:F:129:THR:HB	1:J:148:SER:OG	2.03	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:O:23:SER:OG	1:O:25:ASP:HB2	2.03	0.59
1:E:149:MET:HE2	1:E:205:PHE:CE1	2.38	0.59
1:N:183:GLY:O	1:N:184:ASP:C	2.40	0.59
1:L:470:LEU:CD2	1:L:470:LEU:O	2.50	0.59
1:L:101:ALA:HA	1:L:322:GLY:O	2.02	0.59
1:A:465:GLY:O	1:A:466:ARG:C	2.41	0.59
1:M:57:ASN:HD21	1:M:59:LYS:H	1.49	0.59
1:N:237:MET:HB3	1:N:246:LEU:HD22	1.85	0.59
1:A:155:GLN:OE1	1:A:305:GLN:HA	2.03	0.59
1:B:357:ASN:H	1:C:141:VAL:HG13	1.67	0.59
1:G:98:LEU:HD22	1:G:379:CYS:O	2.03	0.59
1:H:54:LYS:HZ2	1:H:55:PRO:CD	2.13	0.59
1:K:113:LEU:HB2	1:L:253:GLU:OE1	2.03	0.59
1:K:117:ILE:HG21	1:L:293:PRO:HD3	1.84	0.59
1:M:113:LEU:N	1:M:113:LEU:CD1	2.66	0.59
1:M:66:SER:HA	1:M:366:HIS:ND1	2.18	0.59
1:M:71:ARG:HH12	1:M:198:GLY:H	1.49	0.59
1:C:98:LEU:HD22	1:C:379:CYS:O	2.03	0.59
1:A:384:THR:H	1:A:387:VAL:HB	1.68	0.59
1:L:316:ALA:HB3	1:L:321:ASN:OD1	2.03	0.59
1:C:110:GLY:O	1:C:111:GLN:NE2	2.35	0.59
1:H:92:ASN:ND2	1:H:95:THR:H	2.00	0.59
1:J:153:GLN:HE22	1:J:300:VAL:HA	1.67	0.58
1:J:183:GLY:O	1:J:185:CYS:N	2.36	0.58
1:I:28:VAL:HA	1:I:381:ILE:HG12	1.83	0.58
1:B:356:LYS:O	1:B:357:ASN:C	2.39	0.58
1:K:149:MET:HE3	1:K:295:PRO:HD2	1.83	0.58
1:D:98:LEU:CD1	1:D:378:LEU:HD11	2.13	0.58
1:O:129:THR:OG1	1:O:260:LEU:O	2.19	0.58
1:E:234:TYR:CD1	1:E:251:ARG:NH2	2.70	0.58
1:H:178:VAL:HB	1:H:178:VAL:CG1	2.21	0.58
1:H:154:THR:H	1:H:336:THR:HG21	1.68	0.58
1:C:358:THR:HA	1:D:266:THR:HG23	1.85	0.58
1:N:49:TYR:CE2	1:N:118:SER:HA	2.36	0.58
1:G:163:PRO:N	1:G:330:PHE:CD1	2.71	0.58
1:K:307:PHE:C	1:K:309:LYS:H	2.06	0.58
1:H:176:THR:O	1:H:177:GLN:CG	2.51	0.58
1:L:468:PHE:O	1:L:468:PHE:CD1	2.56	0.58
1:L:80:PRO:HG2	1:L:81:ASN:H	1.68	0.58
1:E:399:LEU:O	1:E:402:TRP:HB2	2.03	0.58
1:G:172:GLY:O	1:G:173:SER:O	2.21	0.58
1:G:234:TYR:CD1	1:G:251:ARG:NH2	2.71	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:200:MET:HB2	1:H:228:ILE:O	2.03	0.58
1:L:309:LYS:CD	1:L:309:LYS:NZ	2.64	0.58
1:B:74:ARG:NH2	1:B:441:LEU:HD12	2.17	0.58
1:H:466:ARG:HD3	1:I:319:HIS:CE1	2.38	0.58
1:D:53:LYS:CG	1:D:53:LYS:CA	2.77	0.58
1:A:156:LEU:HD12	1:A:157:CYS:N	2.18	0.58
1:G:71:ARG:NH1	1:G:197:ASP:OD1	2.36	0.58
1:L:152:LYS:HE2	1:L:202:ASP:CG	2.23	0.58
1:O:274:ASP:N	1:O:274:ASP:OD1	2.35	0.58
1:J:50:PHE:HB2	1:J:51:PRO:CD	2.31	0.58
1:J:65:VAL:HA	1:J:69:GLN:NE2	2.16	0.58
1:I:54:LYS:HE3	1:I:55:PRO:HD2	1.85	0.58
1:L:323:ILE:HD13	1:L:323:ILE:N	2.17	0.58
1:I:250:LEU:HD12	1:I:250:LEU:N	2.18	0.58
1:E:316:ALA:C	1:E:318:GLY:H	2.07	0.58
1:C:274:ASP:OD2	1:C:275:LEU:HD23	2.03	0.58
1:D:459:LEU:HB3	1:D:465:GLY:HA3	1.84	0.58
1:I:24:THR:HA	1:I:27:TYR:CE2	2.38	0.58
1:C:196:GLN:N	1:C:199:ASP:OD2	2.35	0.58
1:G:29:ALA:O	1:G:379:CYS:HB3	2.02	0.58
1:H:358:THR:HA	1:I:266:THR:CG2	2.32	0.58
1:A:374:PHE:HB3	1:A:376:PHE:CE1	2.38	0.58
1:B:201:VAL:C	1:B:202:ASP:O	2.35	0.58
1:L:262:ASN:HD22	1:L:263:ARG:N	2.01	0.58
1:K:461:GLN:HE22	1:L:21:VAL:H	1.50	0.58
1:B:312:TRP:CH2	1:B:468:PHE:HB2	2.38	0.58
1:F:461:GLN:HE22	1:G:21:VAL:HB	1.67	0.58
1:F:391:ILE:HG21	1:F:402:TRP:HZ3	1.68	0.58
1:E:52:ILE:HD12	1:E:52:ILE:N	2.18	0.58
1:E:167:GLU:HB2	1:E:190:LEU:HD11	1.84	0.58
1:N:30:ARG:HH11	1:N:377:GLN:NE2	2.00	0.58
1:B:22:VAL:O	1:B:23:SER:C	2.42	0.58
1:I:179:ALA:CB	1:I:179:ALA:C	2.67	0.58
1:I:180:VAL:CG1	1:I:184:ASP:CB	2.79	0.58
1:H:46:GLY:HA3	1:H:63:PRO:O	2.04	0.58
1:N:220:VAL:O	1:N:221:PRO:O	2.22	0.58
1:O:183:GLY:O	1:O:185:CYS:N	2.37	0.58
1:J:223:ASP:OD1	1:J:224:ILE:HG12	2.04	0.58
1:A:190:LEU:HD12	1:A:191:ILE:N	2.18	0.58
1:B:96:GLN:HA	1:B:382:THR:HA	1.84	0.58
1:F:307:PHE:CE2	1:F:333:VAL:HG13	2.38	0.58
1:O:344:LEU:O	1:O:363:TYR:N	2.34	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:214:GLN:OE1	1:M:219:GLU:HB2	2.03	0.58
1:D:75:ILE:HD12	1:D:75:ILE:N	2.17	0.58
1:N:176:THR:O	1:N:177:GLN:HG3	2.03	0.58
1:B:364:LEU:O	1:B:365:ARG:HD3	2.03	0.58
1:E:21:VAL:HG13	1:E:390:TYR:OH	2.04	0.58
1:M:30:ARG:HH11	1:M:377:GLN:NE2	2.02	0.58
1:M:162:LYS:O	1:M:330:PHE:HD1	1.85	0.58
1:I:384:THR:O	1:I:388:MET:HB3	2.03	0.58
1:G:149:MET:CE	1:G:205:PHE:CE1	2.86	0.58
1:A:155:GLN:HB3	1:A:252:ARG:HB3	1.85	0.58
1:L:272:PRO:HD2	1:L:275:LEU:HG	1.85	0.58
1:H:301:THR:CA	1:H:301:THR:CG2	2.79	0.58
1:D:68:LEU:HD23	1:D:201:VAL:HG21	1.85	0.58
1:L:123:LEU:CD2	1:L:147:ILE:HB	2.23	0.58
1:M:358:THR:HA	1:N:266:THR:HG22	1.85	0.58
1:O:162:LYS:C	1:O:330:PHE:HD1	2.07	0.58
1:A:27:TYR:CE2	1:A:390:TYR:CE2	2.91	0.58
1:C:281:GLY:O	1:C:284:ALA:N	2.34	0.58
1:M:383:LEU:HD22	1:M:388:MET:HE3	1.85	0.58
1:M:171:LYS:HA	1:M:187:PRO:O	2.04	0.58
1:A:169:TRP:H	1:A:208:MET:HA	1.68	0.58
1:F:344:LEU:CD1	1:G:185:CYS:SG	2.91	0.58
1:I:117:ILE:HD11	1:J:260:LEU:HB3	1.86	0.58
1:D:152:LYS:CD	1:D:152:LYS:NZ	2.64	0.58
1:D:120:HIS:ND1	1:D:122:LEU:N	2.47	0.58
1:D:122:LEU:HD11	1:E:286:LEU:CD1	2.34	0.58
1:K:57:ASN:HD21	1:K:59:LYS:CB	2.16	0.58
1:A:151:TYR:CG	1:A:203:THR:HB	2.39	0.58
1:H:343:SER:HB3	1:H:364:LEU:HD23	1.86	0.58
1:H:162:LYS:HB3	1:H:163:PRO:HD2	1.86	0.58
1:A:390:TYR:O	1:A:393:SER:N	2.36	0.58
1:C:344:LEU:CD1	1:D:213:LEU:HD12	2.32	0.58
1:O:54:LYS:CG	1:O:55:PRO:HD2	2.34	0.58
1:E:391:ILE:HG21	1:E:402:TRP:HZ3	1.68	0.58
1:H:272:PRO:HD2	1:H:275:LEU:HD12	1.86	0.58
1:G:471:GLN:OE1	1:G:472:LEU:N	2.36	0.58
1:J:211:THR:O	1:J:211:THR:HG22	2.03	0.58
1:O:158:LEU:HD23	1:O:249:TYR:HB2	1.85	0.58
1:K:302:SER:HB2	1:L:253:GLU:H	1.69	0.58
1:C:452:LYS:CD	1:C:452:LYS:NZ	2.63	0.58
1:B:120:HIS:ND1	1:B:122:LEU:N	2.49	0.58
1:G:443:LYS:N	1:G:443:LYS:HD3	2.18	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:49:TYR:HE2	1:D:118:SER:HA	1.67	0.58
1:H:34:TYR:CE2	1:H:377:GLN:HG3	2.38	0.58
1:N:398:ILE:HG22	1:N:402:TRP:CZ3	2.39	0.58
1:N:72:VAL:HG22	1:N:332:THR:CG2	2.34	0.58
1:A:104:GLY:HA3	1:A:375:ILE:HB	1.86	0.58
1:K:373:GLN:HB2	1:K:464:LEU:HD12	1.84	0.58
1:K:153:GLN:NE2	1:K:300:VAL:CG1	2.67	0.58
1:M:188:LEU:CD1	1:M:213:LEU:HD11	2.34	0.58
1:B:156:LEU:HG	1:B:334:VAL:HB	1.86	0.58
1:O:159:ILE:HG22	1:O:160:GLY:N	2.18	0.58
1:D:465:GLY:O	1:D:466:ARG:C	2.42	0.58
1:E:24:THR:CG2	1:E:320:ASN:HA	2.34	0.58
1:E:96:GLN:HE21	1:E:382:THR:CG2	2.17	0.58
1:I:363:TYR:CD2	1:J:185:CYS:HB2	2.39	0.58
1:M:34:TYR:HE2	1:M:377:GLN:HB2	1.60	0.58
1:B:23:SER:HG	1:B:25:ASP:HB2	1.67	0.58
1:I:120:HIS:NE2	1:I:218:SER:HB3	2.18	0.58
1:I:122:LEU:HD13	1:I:144:ARG:NH2	2.18	0.58
1:C:361:LYS:HA	1:D:266:THR:HG1	1.69	0.58
1:N:344:LEU:HD11	1:O:185:CYS:SG	2.44	0.58
1:A:46:GLY:O	1:A:365:ARG:HD3	2.04	0.58
1:K:250:LEU:HD13	1:K:306:ILE:CG2	2.33	0.58
1:I:75:ILE:HD12	1:I:75:ILE:H	1.68	0.58
1:A:317:GLN:O	1:E:466:ARG:HD2	2.03	0.58
1:F:231:TYR:CG	1:J:112:PRO:HD3	2.38	0.58
1:E:157:CYS:HB2	1:E:307:PHE:CE2	2.38	0.58
1:A:463:PRO:HA	1:A:466:ARG:HE	1.69	0.58
1:H:250:LEU:HD12	1:H:250:LEU:H	1.68	0.58
1:D:76:HIS:HB2	1:D:450:ASN:HA	1.86	0.58
1:L:391:ILE:HG22	1:L:391:ILE:O	2.02	0.58
1:F:364:LEU:O	1:F:365:ARG:HD3	2.04	0.58
1:K:33:ILE:HB	1:K:378:LEU:HB3	1.85	0.58
1:I:358:THR:HA	1:J:266:THR:CG2	2.33	0.58
1:I:183:GLY:O	1:I:185:CYS:N	2.37	0.58
1:G:103:VAL:O	1:G:313:LEU:N	2.28	0.58
1:O:99:VAL:HG11	1:O:323:ILE:HG22	1.85	0.58
1:M:144:ARG:C	1:M:145:GLU:HG2	2.24	0.58
1:H:217:LYS:NZ	1:H:217:LYS:CD	2.67	0.58
1:E:68:LEU:O	1:E:201:VAL:HG22	2.04	0.58
1:C:180:VAL:CG1	1:C:184:ASP:HB3	2.33	0.58
1:C:451:LEU:O	1:C:454:LYS:HB2	2.04	0.58
1:N:22:VAL:O	1:N:23:SER:C	2.42	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:341:ASN:HB3	1:J:366:HIS:HB2	1.85	0.58
1:K:144:ARG:HD3	1:O:355:TYR:CE1	2.39	0.58
1:C:157:CYS:HB2	1:C:307:PHE:HE2	1.69	0.58
1:G:168:HIS:H	1:G:190:LEU:HD11	1.68	0.58
1:G:387:VAL:HG12	1:G:388:MET:N	2.19	0.58
1:L:61:LEU:CD1	1:L:61:LEU:CD2	2.79	0.58
1:F:117:ILE:CG1	1:F:149:MET:O	2.52	0.58
1:J:163:PRO:N	1:J:330:PHE:HD1	2.01	0.58
1:K:98:LEU:HD22	1:K:378:LEU:HD11	1.86	0.58
1:E:180:VAL:CG1	1:E:184:ASP:CB	2.82	0.58
1:B:123:LEU:CD2	1:B:123:LEU:CD1	2.73	0.58
1:A:363:TYR:CG	1:B:185:CYS:HB2	2.39	0.58
1:C:440:PRO:HA	1:C:443:LYS:NZ	2.19	0.58
1:E:67:GLY:C	1:E:68:LEU:HG	2.23	0.58
1:B:344:LEU:H	1:B:344:LEU:HD23	1.69	0.58
1:A:345:CYS:O	1:B:215:ALA:N	2.29	0.58
1:H:105:VAL:HG22	1:H:374:PHE:CD2	2.38	0.58
1:K:375:ILE:HG13	1:K:464:LEU:HD22	1.86	0.58
1:B:117:ILE:HD12	1:C:293:PRO:HB3	1.84	0.58
1:K:97:ARG:HG3	1:K:383:LEU:CD1	2.34	0.58
1:C:24:THR:HG23	1:C:320:ASN:HA	1.84	0.58
1:L:139:ALA:HB1	1:L:143:ASN:ND2	2.19	0.58
1:M:456:SER:O	1:M:457:ALA:C	2.37	0.58
1:F:151:TYR:OH	1:F:221:PRO:HB2	2.04	0.57
1:F:363:TYR:CE1	1:G:185:CYS:HB2	2.39	0.57
1:C:54:LYS:HG2	1:C:57:ASN:HB3	1.86	0.57
1:K:391:ILE:HD13	1:K:402:TRP:CH2	2.38	0.57
1:I:361:LYS:HA	1:J:266:THR:OG1	2.04	0.57
1:O:34:TYR:HE2	1:O:377:GLN:HB2	1.67	0.57
1:J:190:LEU:HD12	1:J:191:ILE:H	1.68	0.57
1:L:257:VAL:HG12	1:L:293:PRO:HB2	1.86	0.57
1:O:398:ILE:CB	1:O:398:ILE:CD1	2.78	0.57
1:H:180:VAL:HG12	1:H:184:ASP:HB2	1.86	0.57
1:C:440:PRO:HA	1:C:443:LYS:HZ1	1.68	0.57
1:O:151:TYR:CG	1:O:203:THR:HB	2.39	0.57
1:G:194:VAL:HG21	1:G:444:TYR:CE2	2.39	0.57
1:M:361:LYS:CA	1:N:266:THR:HG1	2.10	0.57
1:F:266:THR:HG1	1:J:361:LYS:HA	1.69	0.57
1:K:174:PRO:HG3	1:K:187:PRO:HG2	1.86	0.57
1:F:358:THR:HA	1:G:266:THR:CG2	2.33	0.57
1:F:157:CYS:HB2	1:F:307:PHE:HE2	1.68	0.57
1:C:157:CYS:O	1:C:158:LEU:HD23	2.03	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:262:ASN:C	1:J:262:ASN:ND2	2.58	0.57
1:M:188:LEU:N	1:M:188:LEU:HD22	2.18	0.57
1:M:383:LEU:CD2	1:M:388:MET:HE3	2.34	0.57
1:M:247:PHE:HD1	1:M:248:PHE:N	2.00	0.57
1:L:464:LEU:CD2	1:L:464:LEU:O	2.52	0.57
1:G:149:MET:HE1	1:G:205:PHE:CE1	2.39	0.57
1:G:259:HIS:CE1	1:H:130:GLU:HG3	2.38	0.57
1:F:31:THR:OG1	1:F:33:ILE:HB	2.04	0.57
1:G:150:ASP:OD2	1:G:150:ASP:N	2.36	0.57
1:H:46:GLY:N	1:H:65:VAL:HB	2.19	0.57
1:D:68:LEU:HD23	1:D:201:VAL:CG2	2.34	0.57
1:O:68:LEU:HD22	1:O:203:THR:HG22	1.85	0.57
1:B:66:SER:N	1:B:69:GLN:NE2	2.50	0.57
1:I:104:GLY:HA3	1:I:375:ILE:HB	1.86	0.57
1:F:439:ASP:HB3	1:F:442:LYS:HE3	1.85	0.57
1:O:163:PRO:CA	1:O:330:PHE:CD1	2.87	0.57
1:F:253:GLU:HG3	1:J:113:LEU:HD22	1.86	0.57
1:E:333:VAL:HG12	1:E:334:VAL:N	2.20	0.57
1:A:92:ASN:ND2	1:A:95:THR:N	2.49	0.57
1:C:320:ASN:OD1	1:C:321:ASN:N	2.37	0.57
1:B:274:ASP:N	1:B:274:ASP:OD1	2.36	0.57
1:I:22:VAL:O	1:I:22:VAL:HG23	2.02	0.57
1:D:365:ARG:NH2	1:E:269:GLU:OE1	2.37	0.57
1:J:157:CYS:HB2	1:J:307:PHE:CE2	2.38	0.57
1:F:29:ALA:HB3	1:F:380:LYS:HG3	1.87	0.57
1:I:166:GLY:H	1:I:195:ILE:HG13	1.69	0.57
1:J:201:VAL:O	1:J:229:CYS:SG	2.53	0.57
1:H:361:LYS:CD	1:H:361:LYS:CB	2.82	0.57
1:L:70:TYR:CD2	1:L:195:ILE:HG21	2.40	0.57
1:K:112:PRO:HD3	1:L:231:TYR:CG	2.39	0.57
1:N:329:LEU:HD13	1:N:374:PHE:CE2	2.38	0.57
1:A:355:TYR:O	1:A:356:LYS:CG	2.52	0.57
1:O:223:ASP:OD1	1:O:224:ILE:HG23	2.05	0.57
1:A:124:ASN:OD1	1:A:264:ALA:N	2.37	0.57
1:M:185:CYS:SG	1:M:186:PRO:CD	2.88	0.57
1:A:71:ARG:HB3	1:A:73:PHE:CE1	2.38	0.57
1:A:246:LEU:CD2	1:A:246:LEU:H	2.16	0.57
1:D:149:MET:HE1	1:D:205:PHE:CZ	2.39	0.57
1:N:323:ILE:N	1:N:323:ILE:HD13	2.19	0.57
1:L:80:PRO:HD3	1:L:100:TRP:CD1	2.39	0.57
1:H:262:ASN:HD21	1:H:288:SER:HB3	1.68	0.57
1:F:391:ILE:HG21	1:F:402:TRP:CZ3	2.39	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:97:ARG:NH1	1:M:97:ARG:HA	2.19	0.57
1:F:171:LYS:HA	1:F:187:PRO:O	2.02	0.57
1:L:155:GLN:O	1:L:252:ARG:N	2.37	0.57
1:L:352:GLU:HG2	1:L:356:LYS:HD2	1.85	0.57
1:M:320:ASN:HD21	1:M:323:ILE:HB	1.68	0.57
1:H:463:PRO:HB3	1:H:466:ARG:HH21	1.70	0.57
1:C:66:SER:O	1:C:69:GLN:HG3	2.03	0.57
1:N:61:LEU:CD2	1:N:61:LEU:CD1	2.79	0.57
1:I:149:MET:CE	1:I:205:PHE:CE1	2.87	0.57
1:G:166:GLY:O	1:G:192:ASN:HA	2.04	0.57
1:L:355:TYR:CE1	1:M:144:ARG:HD3	2.40	0.57
1:B:241:PRO:O	1:B:243:GLY:N	2.38	0.57
1:M:29:ALA:HB3	1:M:380:LYS:HG3	1.85	0.57
1:A:64:LYS:NZ	1:A:64:LYS:CD	2.68	0.57
1:C:162:LYS:C	1:C:330:PHE:CD1	2.74	0.57
1:M:121:PRO:HG2	1:N:289:SER:HB2	1.85	0.57
1:J:320:ASN:ND2	1:J:325:TRP:NE1	2.53	0.57
1:L:165:ILE:CD1	1:L:165:ILE:CB	2.80	0.57
1:H:218:SER:O	1:H:219:GLU:HG2	2.03	0.57
1:D:120:HIS:NE2	1:D:218:SER:CB	2.68	0.57
1:O:124:ASN:OD1	1:O:264:ALA:N	2.35	0.57
1:H:24:THR:OG1	1:H:25:ASP:N	2.38	0.57
1:K:143:ASN:O	1:K:144:ARG:C	2.42	0.57
1:F:391:ILE:O	1:F:395:ASN:O	2.23	0.57
1:A:172:GLY:O	1:A:173:SER:C	2.41	0.57
1:H:465:GLY:C	1:H:467:LYS:N	2.58	0.57
1:F:117:ILE:HB	1:F:117:ILE:CG2	2.16	0.57
1:H:260:LEU:O	1:H:261:PHE:HD2	1.87	0.57
1:K:81:ASN:ND2	1:K:402:TRP:HD1	2.00	0.57
1:C:66:SER:HA	1:C:366:HIS:ND1	2.20	0.57
1:N:96:GLN:HE21	1:N:382:THR:HG22	1.70	0.57
1:K:226:THR:HG21	1:L:275:LEU:CD2	2.32	0.57
1:K:74:ARG:CG	1:K:330:PHE:HE2	2.18	0.57
1:B:176:THR:O	1:B:177:GLN:HG3	2.05	0.57
1:A:98:LEU:HD13	1:A:378:LEU:HD11	1.86	0.57
1:D:451:LEU:HD23	1:D:454:LYS:HG3	1.87	0.57
1:L:41:ARG:HH22	1:M:192:ASN:HD21	1.52	0.57
1:J:242:TYR:HE2	1:J:394:MET:HB2	1.66	0.57
1:J:47:HIS:CG	1:J:48:PRO:HD2	2.40	0.57
1:E:272:PRO:O	1:E:275:LEU:HG	2.04	0.57
1:J:472:LEU:HD23	1:N:138:ASN:HD22	1.68	0.57
1:A:467:LYS:O	1:A:470:LEU:N	2.37	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:250:LEU:HD12	1:B:250:LEU:N	2.19	0.57
1:L:96:GLN:HA	1:L:382:THR:HA	1.85	0.57
1:L:252:ARG:HD2	1:L:306:ILE:HD11	1.87	0.57
1:L:345:CYS:SG	1:M:216:ASN:HB2	2.45	0.57
1:A:107:VAL:HG11	1:A:333:VAL:HG21	1.87	0.57
1:K:274:ASP:N	1:K:274:ASP:OD1	2.37	0.57
1:F:255:MET:HG2	1:F:256:PHE:N	2.20	0.57
1:F:185:CYS:SG	1:F:186:PRO:CD	2.93	0.57
1:C:353:THR:O	1:E:278:LYS:HB2	2.04	0.57
1:N:146:CYS:O	1:O:129:THR:HG22	2.05	0.57
1:J:274:ASP:N	1:J:274:ASP:OD1	2.37	0.57
1:O:126:LEU:HB3	1:O:262:ASN:HB3	1.86	0.57
1:O:65:VAL:CA	1:O:69:GLN:NE2	2.62	0.57
1:G:316:ALA:C	1:G:318:GLY:H	2.06	0.57
1:A:55:PRO:HG2	1:A:56:ASN:ND2	2.19	0.57
1:B:97:ARG:HA	1:B:97:ARG:HH11	1.69	0.57
1:B:81:ASN:ND2	1:B:402:TRP:CD1	2.73	0.57
1:M:49:TYR:HE2	1:M:118:SER:HA	1.68	0.57
1:M:49:TYR:HE1	1:M:364:LEU:HD13	1.69	0.57
1:D:456:SER:OG	1:D:458:ASP:OD2	2.23	0.57
1:A:183:GLY:O	1:A:185:CYS:N	2.38	0.57
1:I:384:THR:HG23	1:I:387:VAL:HG21	1.87	0.57
1:I:399:LEU:HA	1:I:402:TRP:HE3	1.69	0.57
1:H:117:ILE:HG13	1:H:149:MET:O	2.04	0.57
1:D:344:LEU:HD23	1:D:344:LEU:N	2.20	0.57
1:G:196:GLN:N	1:G:199:ASP:OD2	2.37	0.57
1:O:176:THR:CG2	1:O:176:THR:CA	2.82	0.57
1:G:372:LEU:HB3	1:G:374:PHE:HE1	1.68	0.57
1:B:142:ASP:CG	1:C:283:THR:OG1	2.43	0.57
1:N:149:MET:HE3	1:N:294:THR:HG22	1.87	0.57
1:B:50:PHE:HB2	1:B:51:PRO:HD2	1.85	0.57
1:A:242:TYR:CD2	1:A:394:MET:CG	2.84	0.57
1:L:121:PRO:HD3	1:L:222:LEU:HD13	1.87	0.57
1:N:300:VAL:HG11	1:N:337:THR:HA	1.86	0.57
1:C:36:HIS:CG	1:C:462:PHE:CD1	2.92	0.57
1:D:241:PRO:HG2	1:D:242:TYR:H	1.70	0.57
1:I:463:PRO:HA	1:I:466:ARG:HH21	1.69	0.57
1:J:281:GLY:O	1:J:284:ALA:N	2.29	0.57
1:D:380:LYS:CE	1:D:380:LYS:HG3	2.33	0.57
1:B:61:LEU:HG	1:B:61:LEU:CD1	2.17	0.57
1:G:220:VAL:O	1:G:221:PRO:O	2.23	0.57
1:E:180:VAL:HG13	1:E:184:ASP:CB	2.34	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:439:ASP:O	1:B:442:LYS:HB2	2.05	0.57
1:D:123:LEU:HD23	1:D:147:ILE:HB	1.87	0.57
1:N:259:HIS:CE1	1:O:130:GLU:CG	2.88	0.57
1:G:391:ILE:HG23	1:G:398:ILE:HG21	1.86	0.57
1:F:77:LEU:HD22	1:F:455:PHE:CZ	2.40	0.57
1:G:54:LYS:HG3	1:G:55:PRO:CD	2.28	0.57
1:L:22:VAL:O	1:L:22:VAL:HG23	2.05	0.57
1:A:92:ASN:HD22	1:A:95:THR:H	1.50	0.57
1:I:54:LYS:HA	1:I:54:LYS:NZ	2.20	0.57
1:B:75:ILE:HG23	1:B:451:LEU:HD12	1.84	0.57
1:O:81:ASN:ND2	1:O:402:TRP:CD1	2.73	0.57
1:C:24:THR:HG21	1:C:320:ASN:HA	1.87	0.57
1:K:342:MET:HB2	1:L:208:MET:HE1	1.85	0.57
1:C:59:LYS:CE	1:C:59:LYS:CG	2.78	0.57
1:C:149:MET:HE2	1:C:205:PHE:CE1	2.40	0.57
1:O:398:ILE:HG23	1:O:398:ILE:HD12	1.85	0.57
1:G:115:VAL:CG2	1:H:257:VAL:HG13	2.35	0.57
1:L:54:LYS:HB2	1:L:57:ASN:HD22	1.70	0.57
1:D:210:PHE:CD1	1:D:224:ILE:HB	2.40	0.57
1:O:49:TYR:HA	1:O:223:ASP:HB3	1.86	0.57
1:A:196:GLN:O	1:A:199:ASP:OD2	2.22	0.57
1:K:21:VAL:HG12	1:K:22:VAL:N	2.19	0.57
1:M:126:LEU:CD1	1:M:264:ALA:HB2	2.35	0.57
1:H:28:VAL:CG1	1:H:29:ALA:N	2.66	0.57
1:M:96:GLN:HE21	1:M:382:THR:HG22	1.70	0.57
1:E:470:LEU:CD2	1:E:470:LEU:O	2.52	0.57
1:N:172:GLY:O	1:N:173:SER:O	2.22	0.57
1:L:96:GLN:HB3	1:L:382:THR:HG22	1.87	0.57
1:N:36:HIS:C	1:N:36:HIS:ND1	2.58	0.57
1:I:113:LEU:HB2	1:J:253:GLU:OE1	2.04	0.57
1:J:303:ASP:OD1	1:J:303:ASP:N	2.36	0.57
1:I:88:THR:CA	1:I:88:THR:CG2	2.78	0.56
1:K:167:GLU:OE1	1:K:190:LEU:HD21	2.04	0.56
1:F:69:GLN:HA	1:F:199:ASP:O	2.05	0.56
1:F:220:VAL:O	1:F:221:PRO:C	2.40	0.56
1:I:149:MET:HE2	1:I:205:PHE:CE1	2.39	0.56
1:G:70:TYR:CD2	1:G:195:ILE:HG21	2.40	0.56
1:J:147:ILE:HG22	1:J:148:SER:N	2.18	0.56
1:G:20:ALA:HA	1:G:20:ALA:CB	2.20	0.56
1:M:151:TYR:O	1:M:152:LYS:C	2.41	0.56
1:B:151:TYR:OH	1:B:221:PRO:HB2	2.05	0.56
1:O:201:VAL:O	1:O:229:CYS:SG	2.61	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:363:TYR:CG	1:M:185:CYS:HB2	2.40	0.56
1:D:250:LEU:CD1	1:D:250:LEU:N	2.63	0.56
1:A:99:VAL:HG12	1:A:100:TRP:O	2.04	0.56
1:D:97:ARG:NH1	1:D:97:ARG:HA	2.20	0.56
1:D:112:PRO:CD	1:E:231:TYR:CD2	2.74	0.56
1:D:457:ALA:O	1:D:459:LEU:CD2	2.52	0.56
1:F:255:MET:O	1:J:299:MET:HA	2.05	0.56
1:K:66:SER:H	1:K:69:GLN:HE21	1.53	0.56
1:F:80:PRO:HG2	1:F:98:LEU:O	2.05	0.56
1:H:299:MET:HA	1:I:255:MET:O	2.04	0.56
1:E:188:LEU:CD1	1:E:213:LEU:HD11	2.35	0.56
1:I:355:TYR:HB3	1:J:142:ASP:OD1	2.05	0.56
1:F:54:LYS:HG2	1:F:57:ASN:HB3	1.87	0.56
1:L:74:ARG:CB	1:L:330:PHE:HE2	2.19	0.56
1:B:183:GLY:O	1:B:184:ASP:C	2.41	0.56
1:C:169:TRP:H	1:C:208:MET:HA	1.70	0.56
1:N:121:PRO:HD3	1:N:222:LEU:HD13	1.87	0.56
1:O:49:TYR:HE2	1:O:118:SER:CA	2.16	0.56
1:A:271:VAL:HG13	1:A:275:LEU:HD12	1.86	0.56
1:A:272:PRO:HB2	1:A:275:LEU:HG	1.87	0.56
1:G:54:LYS:HG2	1:G:57:ASN:HB3	1.87	0.56
1:L:67:GLY:C	1:L:68:LEU:HG	2.26	0.56
1:M:52:ILE:HB	1:M:62:VAL:HB	1.86	0.56
1:F:188:LEU:CD1	1:F:213:LEU:HD11	2.35	0.56
1:B:234:TYR:O	1:B:236:LYS:N	2.37	0.56
1:G:139:ALA:O	1:G:140:GLY:O	2.22	0.56
1:O:172:GLY:O	1:O:173:SER:C	2.43	0.56
1:E:101:ALA:CA	1:E:322:GLY:O	2.43	0.56
1:I:344:LEU:CD2	1:I:365:ARG:HB2	2.35	0.56
1:M:80:PRO:HD3	1:M:100:TRP:HD1	1.70	0.56
1:M:399:LEU:HA	1:M:402:TRP:HE3	1.70	0.56
1:B:24:THR:C	1:B:26:GLU:N	2.56	0.56
1:I:27:TYR:CE2	1:I:390:TYR:CE2	2.94	0.56
1:G:169:TRP:H	1:G:208:MET:HA	1.70	0.56
1:G:306:ILE:N	1:G:306:ILE:HD13	2.20	0.56
1:H:361:LYS:CG	1:H:361:LYS:CA	2.78	0.56
1:G:103:VAL:CG2	1:G:375:ILE:O	2.53	0.56
1:D:399:LEU:O	1:D:402:TRP:HB2	2.05	0.56
1:N:149:MET:CE	1:N:205:PHE:HE1	2.18	0.56
1:G:178:VAL:O	1:G:178:VAL:HG12	2.05	0.56
1:M:153:GLN:NE2	1:M:298:SER:O	2.39	0.56
1:N:196:GLN:N	1:N:199:ASP:OD2	2.38	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:152:LYS:HE2	1:M:202:ASP:HB3	1.88	0.56
1:B:54:LYS:HA	1:B:54:LYS:HZ1	1.70	0.56
1:G:320:ASN:OD1	1:G:321:ASN:N	2.38	0.56
1:K:75:ILE:N	1:K:75:ILE:HD12	2.19	0.56
1:D:54:LYS:CB	1:D:57:ASN:HD22	2.19	0.56
1:O:105:VAL:HG22	1:O:374:PHE:CD2	2.40	0.56
1:F:125:LYS:NZ	1:G:132:ALA:O	2.38	0.56
1:K:141:VAL:HA	1:O:357:ASN:HB2	1.87	0.56
1:K:323:ILE:O	1:K:325:TRP:N	2.38	0.56
1:F:155:GLN:HG3	1:F:307:PHE:HE1	1.70	0.56
1:D:163:PRO:HB3	1:D:330:PHE:CE1	2.41	0.56
1:M:159:ILE:HG22	1:M:247:PHE:CE1	2.41	0.56
1:L:44:ALA:HB3	1:L:368:GLU:HB2	1.88	0.56
1:B:76:HIS:HB2	1:B:449:VAL:O	2.05	0.56
1:N:171:LYS:HA	1:N:187:PRO:O	2.06	0.56
1:B:80:PRO:HG2	1:B:98:LEU:O	2.05	0.56
1:N:80:PRO:HG2	1:N:98:LEU:O	2.06	0.56
1:B:385:ALA:O	1:B:389:THR:HG23	2.05	0.56
1:G:112:PRO:CB	1:H:202:ASP:OD2	2.53	0.56
1:H:46:GLY:CA	1:H:65:VAL:HB	2.36	0.56
1:N:343:SER:C	1:N:344:LEU:HD23	2.25	0.56
1:O:125:LYS:HG3	1:O:147:ILE:HD11	1.87	0.56
1:J:241:PRO:O	1:J:243:GLY:N	2.37	0.56
1:A:237:MET:HB3	1:A:246:LEU:HD22	1.86	0.56
1:M:451:LEU:HA	1:M:454:LYS:HG3	1.88	0.56
1:D:42:LEU:HD13	1:D:73:PHE:HE2	1.70	0.56
1:H:252:ARG:HD2	1:H:306:ILE:HD11	1.88	0.56
1:K:36:HIS:C	1:K:36:HIS:ND1	2.59	0.56
1:G:104:GLY:O	1:G:374:PHE:CA	2.53	0.56
1:C:399:LEU:HA	1:C:402:TRP:HE3	1.70	0.56
1:H:75:ILE:HB	1:H:329:LEU:CB	2.35	0.56
1:B:75:ILE:N	1:B:75:ILE:HD12	2.21	0.56
1:L:75:ILE:HD12	1:L:75:ILE:N	2.20	0.56
1:C:363:TYR:CD2	1:D:269:GLU:HG3	2.40	0.56
1:N:302:SER:O	1:N:304:ALA:N	2.38	0.56
1:D:77:LEU:HB2	1:D:327:ASN:HB3	1.88	0.56
1:E:383:LEU:HD23	1:E:388:MET:HE2	1.86	0.56
1:D:194:VAL:HB	1:D:194:VAL:CG2	2.18	0.56
1:C:153:GLN:HE22	1:C:300:VAL:HA	1.70	0.56
1:B:225:CYS:CA	1:B:225:CYS:SG	2.90	0.56
1:H:384:THR:OG1	1:H:387:VAL:HG23	2.05	0.56
1:N:51:PRO:C	1:N:52:ILE:HD12	2.25	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:74:ARG:CZ	1:A:441:LEU:CD1	2.84	0.56
1:D:464:LEU:CD2	1:D:464:LEU:C	2.73	0.56
1:E:111:GLN:HG2	1:E:369:GLU:HB3	1.88	0.56
1:K:171:LYS:HG3	1:K:187:PRO:HD2	1.88	0.56
1:A:320:ASN:OD1	1:A:321:ASN:N	2.39	0.56
1:N:246:LEU:H	1:N:246:LEU:CD2	2.19	0.56
1:A:111:GLN:HB2	1:A:338:ARG:HD3	1.86	0.56
1:B:41:ARG:HD3	1:B:43:LEU:HD13	1.87	0.56
1:I:456:SER:HB3	1:I:462:PHE:HE1	1.70	0.56
1:A:185:CYS:SG	1:E:344:LEU:HD11	2.45	0.56
1:I:363:TYR:CE1	1:J:185:CYS:HB2	2.41	0.56
1:M:21:VAL:HG12	1:M:22:VAL:H	1.71	0.56
1:H:469:LEU:CD1	1:H:469:LEU:CD2	2.82	0.56
1:G:149:MET:HA	1:H:260:LEU:HD21	1.88	0.56
1:K:101:ALA:HA	1:K:322:GLY:O	2.06	0.56
1:G:82:LYS:NZ	1:G:403:ASN:HD22	2.02	0.56
1:E:250:LEU:HD22	1:E:306:ILE:CG2	2.35	0.56
1:C:75:ILE:CG2	1:C:451:LEU:HD12	2.36	0.56
1:L:222:LEU:HA	1:L:225:CYS:SG	2.46	0.56
1:H:464:LEU:CD2	1:H:464:LEU:O	2.53	0.56
1:A:24:THR:HG21	1:A:320:ASN:HA	1.87	0.56
1:I:150:ASP:OD2	1:I:150:ASP:N	2.37	0.56
1:D:159:ILE:HG22	1:D:247:PHE:HE1	1.69	0.56
1:D:74:ARG:HG3	1:D:330:PHE:HE2	1.69	0.56
1:K:217:LYS:HD3	1:L:274:ASP:O	2.06	0.56
1:I:442:LYS:HB3	1:I:443:LYS:HD3	1.87	0.56
1:E:247:PHE:HD1	1:E:248:PHE:H	1.53	0.56
1:F:95:THR:O	1:F:383:LEU:CB	2.53	0.56
1:B:356:LYS:O	1:B:358:THR:N	2.39	0.56
1:C:266:THR:OG1	1:C:266:THR:O	2.22	0.56
1:G:378:LEU:HD12	1:G:379:CYS:N	2.21	0.56
1:A:163:PRO:N	1:A:330:PHE:HD1	2.03	0.56
1:N:193:THR:CG2	1:N:230:LYS:HD3	2.36	0.56
1:F:77:LEU:HB2	1:F:327:ASN:HB3	1.86	0.56
1:H:374:PHE:HB3	1:H:376:PHE:CE1	2.40	0.56
1:I:75:ILE:HG21	1:I:451:LEU:HD12	1.85	0.56
1:H:320:ASN:OD1	1:H:320:ASN:C	2.44	0.56
1:B:223:ASP:OD1	1:B:224:ILE:N	2.39	0.56
1:L:65:VAL:HG12	1:L:65:VAL:O	2.06	0.56
1:D:180:VAL:CG1	1:D:184:ASP:CB	2.83	0.56
1:F:323:ILE:N	1:F:323:ILE:HD13	2.20	0.56
1:E:57:ASN:HD21	1:E:59:LYS:N	2.02	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:75:ILE:HB	1:B:329:LEU:HB3	1.88	0.56
1:B:451:LEU:HA	1:B:454:LYS:HG3	1.88	0.56
1:M:42:LEU:HD22	1:M:447:TRP:CZ2	2.40	0.56
1:N:440:PRO:HA	1:N:443:LYS:NZ	2.21	0.56
1:J:73:PHE:CD1	1:J:73:PHE:N	2.72	0.56
1:F:180:VAL:O	1:F:182:PRO:HD3	2.05	0.56
1:K:34:TYR:CE2	1:K:377:GLN:HB2	2.41	0.56
1:G:105:VAL:CG2	1:G:105:VAL:CG1	2.75	0.56
1:B:463:PRO:CB	1:B:466:ARG:HH21	2.15	0.56
1:C:22:VAL:N	1:C:390:TYR:OH	2.25	0.56
1:C:75:ILE:HG23	1:C:451:LEU:HD12	1.88	0.56
1:A:57:ASN:CG	1:A:59:LYS:H	2.09	0.56
1:L:125:LYS:C	1:L:125:LYS:HD3	2.26	0.56
1:N:156:LEU:HD12	1:N:156:LEU:C	2.26	0.56
1:F:156:LEU:HD11	1:F:334:VAL:HG23	1.87	0.56
1:I:54:LYS:HB3	1:I:57:ASN:HD22	1.69	0.56
1:M:61:LEU:HG	1:M:62:VAL:HG23	1.88	0.56
1:K:170:GLY:HA2	1:K:213:LEU:HD21	1.88	0.56
1:G:153:GLN:NE2	1:G:300:VAL:HG12	2.21	0.56
1:B:248:PHE:CZ	1:B:311:TYR:HB3	2.41	0.56
1:F:193:THR:HG21	1:F:230:LYS:HD3	1.88	0.56
1:N:110:GLY:O	1:N:111:GLN:HG2	2.06	0.56
1:F:152:LYS:CB	1:F:255:MET:HB2	2.36	0.56
1:J:300:VAL:CG1	1:J:300:VAL:HB	2.20	0.56
1:C:59:LYS:NZ	1:C:59:LYS:CD	2.69	0.56
1:D:325:TRP:HB3	1:D:398:ILE:CD1	2.35	0.56
1:D:176:THR:O	1:D:177:GLN:CD	2.44	0.56
1:M:178:VAL:CG1	1:M:178:VAL:CA	2.81	0.56
1:D:178:VAL:CG2	1:D:178:VAL:CA	2.80	0.56
1:A:77:LEU:HB2	1:A:327:ASN:O	2.06	0.56
1:G:24:THR:HG21	1:G:323:ILE:HG13	1.88	0.56
1:K:157:CYS:HB2	1:K:307:PHE:HE2	1.71	0.56
1:D:117:ILE:HD12	1:E:293:PRO:HB3	1.87	0.56
1:O:79:ASP:OD2	1:O:81:ASN:HB2	2.05	0.56
1:H:137:ALA:O	1:H:138:ASN:C	2.44	0.56
1:M:323:ILE:N	1:M:323:ILE:CD1	2.68	0.55
1:F:220:VAL:HG23	1:F:225:CYS:HA	1.88	0.55
1:G:210:PHE:CD1	1:G:220:VAL:HG21	2.41	0.55
1:H:259:HIS:CE1	1:I:130:GLU:HG2	2.41	0.55
1:C:54:LYS:HB2	1:C:57:ASN:HD22	1.70	0.55
1:I:166:GLY:N	1:I:195:ILE:CD1	2.69	0.55
1:O:235:ILE:CG2	1:O:235:ILE:CD1	2.85	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:130:GLU:HB2	1:J:260:LEU:CD1	2.25	0.55
1:G:467:LYS:O	1:G:470:LEU:N	2.38	0.55
1:O:260:LEU:N	1:O:260:LEU:HD12	2.21	0.55
1:D:65:VAL:O	1:D:366:HIS:HB3	2.06	0.55
1:G:74:ARG:CB	1:G:330:PHE:HE2	2.18	0.55
1:A:266:THR:OG1	1:A:266:THR:O	2.20	0.55
1:A:71:ARG:HA	1:A:71:ARG:NH1	2.09	0.55
1:A:280:SER:O	1:A:281:GLY:C	2.45	0.55
1:K:111:GLN:HG2	1:K:369:GLU:HB3	1.88	0.55
1:H:21:VAL:HG12	1:H:22:VAL:N	2.20	0.55
1:J:126:LEU:HB3	1:J:262:ASN:O	2.06	0.55
1:E:104:GLY:O	1:E:374:PHE:HA	2.06	0.55
1:L:139:ALA:HB1	1:L:143:ASN:CG	2.26	0.55
1:H:348:ILE:HG22	1:H:359:ASN:OD1	2.06	0.55
1:B:85:PHE:CE2	1:B:378:LEU:HD22	2.41	0.55
1:M:21:VAL:HG12	1:M:22:VAL:N	2.21	0.55
1:D:228:ILE:HG22	1:D:230:LYS:HG3	1.89	0.55
1:N:118:SER:HB2	1:N:151:TYR:CE1	2.41	0.55
1:O:65:VAL:CA	1:O:69:GLN:HE22	2.13	0.55
1:A:372:LEU:HB3	1:A:374:PHE:HE1	1.71	0.55
1:A:122:LEU:HD21	1:B:286:LEU:HD12	1.87	0.55
1:O:237:MET:O	1:O:240:GLU:HB3	2.06	0.55
1:N:464:LEU:HD22	1:N:464:LEU:O	2.06	0.55
1:L:77:LEU:HD22	1:L:455:PHE:CZ	2.40	0.55
1:E:302:SER:C	1:E:304:ALA:H	2.09	0.55
1:C:96:GLN:HE21	1:C:382:THR:HG22	1.72	0.55
1:G:384:THR:H	1:G:387:VAL:HB	1.70	0.55
1:O:396:SER:O	1:O:400:GLU:HG3	2.06	0.55
1:E:40:SER:O	1:E:371:ASP:OD1	2.24	0.55
1:O:33:ILE:O	1:O:377:GLN:HA	2.07	0.55
1:D:400:GLU:O	1:D:401:ASP:C	2.44	0.55
1:M:139:ALA:O	1:M:140:GLY:O	2.23	0.55
1:O:442:LYS:HZ2	1:O:442:LYS:HG2	1.71	0.55
1:M:108:GLY:O	1:M:109:ARG:HG2	2.07	0.55
1:N:49:TYR:HE1	1:N:364:LEU:HD13	1.71	0.55
1:M:358:THR:HA	1:N:266:THR:CG2	2.36	0.55
1:G:248:PHE:CE2	1:G:311:TYR:HB3	2.42	0.55
1:C:463:PRO:CB	1:C:466:ARG:HH21	2.19	0.55
1:L:79:ASP:OD2	1:L:81:ASN:HB2	2.05	0.55
1:O:317:GLN:NE2	1:O:317:GLN:C	2.59	0.55
1:N:43:LEU:HD12	1:N:369:GLU:HA	1.87	0.55
1:D:171:LYS:HA	1:D:187:PRO:O	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:92:ASN:O	1:N:94:ASP:N	2.39	0.55
1:F:257:VAL:HG21	1:J:150:ASP:CG	2.26	0.55
1:M:389:THR:O	1:M:392:HIS:HB3	2.07	0.55
1:F:66:SER:N	1:F:69:GLN:HE21	2.05	0.55
1:N:228:ILE:N	1:N:228:ILE:HD12	2.22	0.55
1:K:165:ILE:CB	1:K:165:ILE:CD1	2.78	0.55
1:M:144:ARG:CG	1:M:144:ARG:CA	2.80	0.55
1:J:78:PRO:HD2	1:J:455:PHE:CZ	2.42	0.55
1:C:440:PRO:C	1:C:443:LYS:NZ	2.60	0.55
1:H:237:MET:O	1:H:240:GLU:HB3	2.07	0.55
1:M:151:TYR:CG	1:M:203:THR:HB	2.41	0.55
1:E:105:VAL:HG22	1:E:374:PHE:CD2	2.41	0.55
1:J:440:PRO:HA	1:J:443:LYS:NZ	2.21	0.55
1:K:231:TYR:OH	1:K:253:GLU:OE2	2.15	0.55
1:F:81:ASN:OD1	1:F:97:ARG:NH1	2.39	0.55
1:B:345:CYS:HB2	1:B:361:LYS:O	2.06	0.55
1:K:266:THR:HG1	1:O:361:LYS:HA	1.70	0.55
1:K:180:VAL:HG13	1:K:184:ASP:HB3	1.89	0.55
1:D:36:HIS:ND1	1:D:37:ALA:N	2.55	0.55
1:C:326:GLY:O	1:C:327:ASN:HB2	2.06	0.55
1:O:267:VAL:CG1	1:O:269:GLU:O	2.55	0.55
1:A:216:ASN:HA	1:E:360:PHE:CE2	2.42	0.55
1:B:42:LEU:HD22	1:B:447:TRP:CZ2	2.41	0.55
1:O:373:GLN:CB	1:O:464:LEU:HD12	2.36	0.55
1:K:144:ARG:C	1:K:145:GLU:HG2	2.26	0.55
1:I:305:GLN:HE22	1:I:337:THR:HG21	1.71	0.55
1:K:209:ASP:OD2	1:K:212:THR:HG23	2.06	0.55
1:J:397:THR:C	1:J:401:ASP:OD2	2.45	0.55
1:M:216:ASN:OD1	1:M:216:ASN:O	2.24	0.55
1:N:302:SER:C	1:N:304:ALA:H	2.10	0.55
1:N:302:SER:HB2	1:O:253:GLU:H	1.71	0.55
1:B:273:ASP:N	1:B:273:ASP:OD2	2.40	0.55
1:E:338:ARG:HG3	1:E:338:ARG:HH11	1.70	0.55
1:N:168:HIS:CE1	1:N:191:ILE:HB	2.42	0.55
1:E:42:LEU:HD13	1:E:447:TRP:CZ2	2.42	0.55
1:F:24:THR:CG2	1:F:320:ASN:HA	2.35	0.55
1:I:166:GLY:O	1:I:192:ASN:HA	2.07	0.55
1:H:112:PRO:HB2	1:I:202:ASP:OD2	2.07	0.55
1:C:162:LYS:O	1:C:330:PHE:HD1	1.89	0.55
1:N:259:HIS:CE1	1:O:130:GLU:HG2	2.42	0.55
1:N:365:ARG:HH11	1:N:365:ARG:HG3	1.72	0.55
1:M:108:GLY:C	1:M:109:ARG:HG2	2.27	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:66:SER:HA	1:A:366:HIS:ND1	2.22	0.55
1:A:120:HIS:CG	1:A:222:LEU:HD13	2.41	0.55
1:K:54:LYS:CB	1:K:57:ASN:HD22	2.19	0.55
1:A:240:GLU:HG3	1:A:243:GLY:N	2.21	0.55
1:N:180:VAL:HG12	1:N:181:GLN:O	2.07	0.55
1:J:208:MET:SD	1:J:210:PHE:CE2	2.99	0.55
1:A:95:THR:O	1:A:383:LEU:N	2.35	0.55
1:K:28:VAL:HG22	1:K:381:ILE:HD11	1.89	0.55
1:L:158:LEU:HD23	1:L:249:TYR:HB2	1.88	0.55
1:M:102:CYS:N	1:M:322:GLY:O	2.38	0.55
1:I:196:GLN:HB3	1:I:445:THR:O	2.06	0.55
1:A:185:CYS:HB2	1:E:363:TYR:CE1	2.42	0.55
1:B:441:LEU:CD2	1:B:441:LEU:HG	2.18	0.55
1:F:219:GLU:C	1:F:220:VAL:HG13	2.27	0.55
1:F:221:PRO:HD2	1:F:224:ILE:HD11	1.89	0.55
1:F:344:LEU:HD23	1:F:344:LEU:N	2.21	0.55
1:A:114:GLY:HA3	1:A:340:THR:OG1	2.07	0.55
1:C:46:GLY:HA3	1:C:63:PRO:O	2.06	0.55
1:N:115:VAL:HG22	1:O:255:MET:CE	2.36	0.55
1:D:361:LYS:HD2	1:E:183:GLY:HA3	1.88	0.55
1:M:113:LEU:H	1:M:113:LEU:CD1	2.19	0.55
1:G:150:ASP:CB	1:H:257:VAL:HG21	2.36	0.55
1:N:348:ILE:O	1:N:349:SER:HB3	2.06	0.55
1:N:358:THR:HG22	1:O:266:THR:HG22	1.88	0.55
1:B:46:GLY:CA	1:B:65:VAL:CG2	2.80	0.55
1:C:96:GLN:HB3	1:C:382:THR:HG22	1.89	0.55
1:M:97:ARG:HA	1:M:97:ARG:HH11	1.71	0.55
1:J:42:LEU:HB2	1:J:370:TYR:HB2	1.87	0.55
1:A:259:HIS:HE1	1:B:130:GLU:OE1	1.90	0.55
1:L:159:ILE:CB	1:L:159:ILE:CD1	2.83	0.55
1:D:466:ARG:HD2	1:E:317:GLN:O	2.06	0.55
1:A:185:CYS:HB2	1:E:363:TYR:CD1	2.42	0.55
1:F:344:LEU:HB2	1:G:213:LEU:O	2.06	0.55
1:E:126:LEU:HB3	1:E:262:ASN:HB3	1.89	0.55
1:A:342:MET:SD	1:B:208:MET:HE3	2.47	0.55
1:O:216:ASN:CB	1:O:219:GLU:OE2	2.55	0.55
1:G:395:ASN:C	1:G:395:ASN:HD22	2.09	0.55
1:K:216:ASN:ND2	1:K:219:GLU:OE2	2.40	0.55
1:A:142:ASP:OD2	1:A:144:ARG:HG3	2.06	0.55
1:H:372:LEU:CB	1:H:374:PHE:HE1	2.20	0.55
1:D:109:ARG:NH1	1:D:370:TYR:CE1	2.74	0.55
1:A:205:PHE:CD1	1:A:220:VAL:HG12	2.42	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:70:TYR:CD2	1:J:195:ILE:HG21	2.42	0.55
1:L:121:PRO:HD3	1:L:222:LEU:CD1	2.37	0.55
1:G:271:VAL:HG12	1:G:276:TYR:HE2	1.72	0.55
1:K:21:VAL:C	1:K:22:VAL:HG13	2.27	0.55
1:E:260:LEU:HD12	1:E:260:LEU:N	2.22	0.55
1:A:24:THR:CG2	1:A:320:ASN:HA	2.37	0.55
1:J:262:ASN:ND2	1:J:288:SER:HB3	2.21	0.55
1:K:92:ASN:ND2	1:K:95:THR:OG1	2.40	0.55
1:D:24:THR:HG23	1:D:320:ASN:HA	1.87	0.55
1:C:96:GLN:HE21	1:C:382:THR:CG2	2.19	0.55
1:O:471:GLN:O	1:O:472:LEU:OXT	2.25	0.55
1:K:450:ASN:ND2	1:K:452:LYS:HD2	2.21	0.55
1:M:399:LEU:O	1:M:402:TRP:HB2	2.07	0.55
1:M:80:PRO:HB3	1:M:100:TRP:NE1	2.22	0.55
1:B:387:VAL:O	1:B:390:TYR:N	2.40	0.55
1:A:299:MET:HA	1:B:255:MET:O	2.07	0.55
1:N:382:THR:CG2	1:N:382:THR:HB	2.17	0.55
1:D:152:LYS:HE3	1:D:253:GLU:HB2	1.89	0.55
1:N:66:SER:O	1:N:69:GLN:HG3	2.06	0.55
1:C:112:PRO:HD3	1:D:231:TYR:CD2	2.41	0.55
1:K:255:MET:CE	1:O:115:VAL:H	2.20	0.55
1:B:49:TYR:HA	1:B:223:ASP:HB3	1.88	0.55
1:O:280:SER:C	1:O:284:ALA:HB2	2.26	0.55
1:F:144:ARG:HD3	1:J:355:TYR:CD1	2.42	0.55
1:D:149:MET:HE1	1:D:205:PHE:CE1	2.41	0.55
1:A:325:TRP:HB3	1:A:398:ILE:CD1	2.37	0.55
1:A:395:ASN:HB3	1:A:398:ILE:CG1	2.37	0.55
1:D:163:PRO:CA	1:D:330:PHE:CD1	2.90	0.55
1:B:240:GLU:HG3	1:B:243:GLY:HA2	1.88	0.55
1:F:391:ILE:HG22	1:F:399:LEU:HG	1.89	0.55
1:K:164:PRO:HG3	1:K:332:THR:HG23	1.88	0.55
1:G:234:TYR:O	1:G:235:ILE:C	2.41	0.55
1:N:280:SER:CA	1:N:284:ALA:HB2	2.37	0.55
1:F:353:THR:CA	1:F:353:THR:CG2	2.79	0.55
1:F:256:PHE:HB3	1:J:299:MET:CA	2.37	0.55
1:J:184:ASP:O	1:J:185:CYS:O	2.25	0.55
1:B:325:TRP:CE2	1:B:394:MET:CE	2.89	0.55
1:N:299:MET:HA	1:O:256:PHE:HB3	1.88	0.55
1:I:259:HIS:HE1	1:J:130:GLU:HG2	1.71	0.55
1:C:372:LEU:HB3	1:C:374:PHE:CE1	2.42	0.55
1:K:163:PRO:HD3	1:K:330:PHE:HE1	1.72	0.55
1:C:21:VAL:HG12	1:C:22:VAL:N	2.22	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:237:MET:CB	1:H:237:MET:SD	2.91	0.55
1:H:151:TYR:CG	1:H:203:THR:HB	2.41	0.55
1:O:122:LEU:O	1:O:218:SER:HB2	2.07	0.55
1:A:68:LEU:HB3	1:A:201:VAL:HG22	1.89	0.55
1:B:193:THR:HG23	1:B:230:LYS:HD2	1.88	0.55
1:L:27:TYR:OH	1:L:390:TYR:HE2	1.90	0.55
1:L:122:LEU:HD11	1:M:286:LEU:CD1	2.33	0.55
1:J:54:LYS:CG	1:J:55:PRO:HD2	2.33	0.55
1:F:374:PHE:O	1:F:375:ILE:HD13	2.07	0.55
1:K:170:GLY:HA2	1:K:213:LEU:CD2	2.37	0.55
1:L:98:LEU:HA	1:L:379:CYS:O	2.07	0.55
1:C:323:ILE:N	1:C:323:ILE:HD13	2.22	0.55
1:D:247:PHE:HD1	1:D:248:PHE:N	2.04	0.55
1:M:150:ASP:OD1	1:N:257:VAL:HG21	2.07	0.55
1:K:207:ALA:O	1:K:208:MET:HB3	2.05	0.55
1:F:389:THR:CA	1:F:389:THR:CG2	2.77	0.54
1:G:214:GLN:CD	1:G:219:GLU:HG3	2.27	0.54
1:E:378:LEU:HD12	1:E:379:CYS:H	1.71	0.54
1:D:358:THR:HA	1:E:266:THR:HG22	1.85	0.54
1:I:179:ALA:O	1:I:180:VAL:O	2.25	0.54
1:G:193:THR:HG21	1:G:230:LYS:HD3	1.87	0.54
1:K:159:ILE:HG22	1:K:247:PHE:HE1	1.72	0.54
1:O:443:LYS:CD	1:O:443:LYS:N	2.70	0.54
1:H:219:GLU:C	1:H:220:VAL:HG13	2.27	0.54
1:B:344:LEU:HD12	1:C:186:PRO:CG	2.37	0.54
1:A:286:LEU:CD1	1:E:122:LEU:CD1	2.70	0.54
1:C:451:LEU:HA	1:C:454:LYS:HG3	1.88	0.54
1:G:163:PRO:CA	1:G:330:PHE:CD1	2.90	0.54
1:E:345:CYS:O	1:E:345:CYS:SG	2.64	0.54
1:L:344:LEU:H	1:L:344:LEU:HD23	1.69	0.54
1:K:463:PRO:HD3	1:K:466:ARG:NH2	2.22	0.54
1:O:107:VAL:HG23	1:O:311:TYR:HE1	1.72	0.54
1:E:54:LYS:CB	1:E:57:ASN:HD22	2.20	0.54
1:O:170:GLY:HA2	1:O:213:LEU:CD2	2.34	0.54
1:N:250:LEU:HD13	1:N:306:ILE:CG2	2.36	0.54
1:G:246:LEU:HD12	1:G:249:TYR:CB	2.38	0.54
1:I:246:LEU:N	1:I:246:LEU:HD23	2.16	0.54
1:K:72:VAL:HG21	1:K:195:ILE:O	2.06	0.54
1:C:247:PHE:CD1	1:C:248:PHE:N	2.75	0.54
1:D:92:ASN:HD21	1:D:94:ASP:HB2	1.70	0.54
1:M:50:PHE:HB2	1:M:51:PRO:HD2	1.90	0.54
1:G:52:ILE:CD1	1:G:52:ILE:N	2.70	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:381:ILE:O	1:N:383:LEU:HD12	2.07	0.54
1:E:99:VAL:CG1	1:E:323:ILE:HG22	2.30	0.54
1:J:305:GLN:HE22	1:J:337:THR:HG21	1.72	0.54
1:A:115:VAL:HG22	1:B:255:MET:HE1	1.88	0.54
1:H:151:TYR:CZ	1:H:221:PRO:HG2	2.42	0.54
1:H:68:LEU:O	1:H:201:VAL:HG13	2.06	0.54
1:D:222:LEU:HA	1:D:225:CYS:SG	2.47	0.54
1:O:149:MET:HE2	1:O:205:PHE:CE1	2.42	0.54
1:A:67:GLY:N	1:A:366:HIS:CE1	2.74	0.54
1:J:223:ASP:OD1	1:J:224:ILE:N	2.39	0.54
1:M:300:VAL:O	1:N:254:GLN:HA	2.06	0.54
1:A:397:THR:O	1:A:398:ILE:C	2.45	0.54
1:I:463:PRO:CB	1:I:466:ARG:HH21	2.20	0.54
1:I:41:ARG:HD3	1:I:43:LEU:HD13	1.88	0.54
1:C:160:GLY:HA3	1:C:245:SER:O	2.07	0.54
1:K:77:LEU:HB2	1:K:327:ASN:O	2.07	0.54
1:B:33:ILE:CG2	1:B:33:ILE:CD1	2.85	0.54
1:I:61:LEU:CD1	1:I:61:LEU:CD2	2.80	0.54
1:O:439:ASP:O	1:O:442:LYS:HB2	2.08	0.54
1:G:395:ASN:O	1:G:398:ILE:HG12	2.07	0.54
1:D:117:ILE:O	1:D:117:ILE:HG23	2.06	0.54
1:N:207:ALA:HB1	1:N:229:CYS:O	2.07	0.54
1:M:54:LYS:HG3	1:M:55:PRO:HD2	1.89	0.54
1:C:305:GLN:HE22	1:C:337:THR:HG21	1.72	0.54
1:H:258:ARG:NH2	1:I:257:VAL:O	2.41	0.54
1:G:22:VAL:HG23	1:G:22:VAL:O	2.07	0.54
1:D:461:GLN:HE22	1:E:21:VAL:HB	1.72	0.54
1:F:178:VAL:CA	1:F:178:VAL:CG1	2.81	0.54
1:F:185:CYS:HB2	1:J:363:TYR:CD1	2.42	0.54
1:F:59:LYS:CD	1:F:59:LYS:NZ	2.68	0.54
1:I:222:LEU:HA	1:I:225:CYS:SG	2.47	0.54
1:O:398:ILE:HG23	1:O:398:ILE:CD1	2.38	0.54
1:D:162:LYS:HG2	1:D:244:ASP:HB3	1.87	0.54
1:K:96:GLN:CA	1:K:382:THR:HA	2.38	0.54
1:L:96:GLN:NE2	1:L:382:THR:HG22	2.22	0.54
1:G:300:VAL:O	1:G:300:VAL:HG23	2.06	0.54
1:F:90:PHE:HD1	1:F:91:TYR:HB3	1.73	0.54
1:G:272:PRO:HD2	1:G:275:LEU:CD1	2.37	0.54
1:E:152:LYS:CE	1:E:202:ASP:HB3	2.37	0.54
1:O:152:LYS:HG3	1:O:152:LYS:O	2.07	0.54
1:E:180:VAL:O	1:E:182:PRO:HD3	2.08	0.54
1:C:373:GLN:C	1:C:374:PHE:CD1	2.81	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:162:LYS:C	1:L:330:PHE:HD1	2.11	0.54
1:E:153:GLN:HE22	1:E:300:VAL:HA	1.71	0.54
1:N:151:TYR:OH	1:N:221:PRO:CG	2.43	0.54
1:A:30:ARG:HH11	1:A:377:GLN:HE22	1.55	0.54
1:H:49:TYR:HE2	1:H:118:SER:CA	2.12	0.54
1:H:175:CYS:O	1:H:177:GLN:N	2.41	0.54
1:D:166:GLY:CA	1:D:195:ILE:HD11	2.37	0.54
1:D:153:GLN:HE22	1:D:300:VAL:HA	1.73	0.54
1:K:97:ARG:NH1	1:K:97:ARG:HA	2.21	0.54
1:E:105:VAL:HA	1:E:373:GLN:O	2.08	0.54
1:E:150:ASP:OD1	1:E:296:SER:HA	2.06	0.54
1:F:273:ASP:OD2	1:F:273:ASP:N	2.39	0.54
1:E:162:LYS:C	1:E:330:PHE:HD1	2.11	0.54
1:E:395:ASN:ND2	1:E:397:THR:OG1	2.41	0.54
1:B:74:ARG:CG	1:B:330:PHE:HE2	2.20	0.54
1:I:32:ASN:O	1:I:33:ILE:HD13	2.07	0.54
1:H:149:MET:HE2	1:H:205:PHE:CE1	2.42	0.54
1:J:120:HIS:ND1	1:J:122:LEU:N	2.48	0.54
1:I:220:VAL:HB	1:I:224:ILE:CD1	2.37	0.54
1:C:374:PHE:C	1:C:375:ILE:HG12	2.28	0.54
1:J:97:ARG:H	1:J:381:ILE:H	1.54	0.54
1:D:381:ILE:O	1:D:383:LEU:HD12	2.08	0.54
1:M:302:SER:C	1:M:304:ALA:H	2.11	0.54
1:N:151:TYR:CZ	1:N:221:PRO:HG2	2.39	0.54
1:O:220:VAL:O	1:O:221:PRO:C	2.44	0.54
1:H:79:ASP:OD1	1:H:80:PRO:HD2	2.08	0.54
1:K:459:LEU:O	1:K:461:GLN:N	2.41	0.54
1:M:36:HIS:CG	1:M:462:PHE:CD1	2.96	0.54
1:F:262:ASN:HD22	1:F:263:ARG:N	2.06	0.54
1:O:261:PHE:CB	1:O:292:PHE:CE2	2.88	0.54
1:D:242:TYR:CD2	1:D:394:MET:HG3	2.43	0.54
1:K:42:LEU:HD12	1:K:73:PHE:CE2	2.39	0.54
1:K:223:ASP:OD1	1:K:224:ILE:N	2.41	0.54
1:C:80:PRO:HB3	1:C:100:TRP:NE1	2.23	0.54
1:B:114:GLY:HA3	1:B:340:THR:OG1	2.08	0.54
1:E:386:ASP:OD2	1:E:386:ASP:N	2.41	0.54
1:N:92:ASN:HD21	1:N:95:THR:N	2.04	0.54
1:J:155:GLN:HG2	1:J:307:PHE:CE1	2.43	0.54
1:F:94:ASP:C	1:F:95:THR:HG23	2.26	0.54
1:J:74:ARG:NH2	1:J:441:LEU:HD12	2.22	0.54
1:C:117:ILE:HD11	1:D:260:LEU:CD2	2.35	0.54
1:I:117:ILE:CG1	1:I:149:MET:O	2.56	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:49:TYR:HA	1:I:223:ASP:HB3	1.90	0.54
1:L:227:SER:HA	1:L:228:ILE:HD12	1.88	0.54
1:J:77:LEU:O	1:J:327:ASN:HB3	2.08	0.54
1:M:66:SER:OG	1:M:68:LEU:HB2	2.07	0.54
1:M:70:TYR:OH	1:M:232:PRO:HD3	2.07	0.54
1:C:49:TYR:CE2	1:C:118:SER:HA	2.43	0.54
1:D:70:TYR:O	1:D:71:ARG:NH1	2.41	0.54
1:N:121:PRO:HD3	1:N:222:LEU:CD1	2.38	0.54
1:F:50:PHE:CD1	1:F:50:PHE:C	2.80	0.54
1:N:317:GLN:NE2	1:N:317:GLN:C	2.60	0.54
1:J:66:SER:HA	1:J:366:HIS:ND1	2.23	0.54
1:H:344:LEU:HD23	1:H:344:LEU:N	2.23	0.54
1:M:54:LYS:HG2	1:M:57:ASN:HB3	1.88	0.54
1:I:280:SER:N	1:I:284:ALA:HB2	2.22	0.54
1:L:171:LYS:HA	1:L:187:PRO:O	2.08	0.54
1:C:234:TYR:CD1	1:C:251:ARG:NH2	2.76	0.54
1:C:154:THR:O	1:C:336:THR:HG23	2.08	0.54
1:H:189:GLU:O	1:H:191:ILE:CG1	2.55	0.54
1:L:159:ILE:HD13	1:L:159:ILE:HG21	1.90	0.54
1:I:66:SER:OG	1:I:68:LEU:N	2.41	0.54
1:K:117:ILE:CG2	1:L:293:PRO:HD3	2.37	0.54
1:D:391:ILE:HG21	1:D:402:TRP:HZ3	1.72	0.54
1:A:75:ILE:CD1	1:A:75:ILE:N	2.64	0.54
1:G:50:PHE:HB2	1:G:51:PRO:HD2	1.90	0.54
1:O:216:ASN:ND2	1:O:219:GLU:OE2	2.41	0.54
1:O:52:ILE:HB	1:O:62:VAL:HB	1.90	0.54
1:J:44:ALA:C	1:J:45:VAL:HG23	2.28	0.54
1:F:50:PHE:HB2	1:F:51:PRO:HD2	1.89	0.54
1:K:95:THR:O	1:K:383:LEU:N	2.30	0.54
1:C:471:GLN:CD	1:C:472:LEU:N	2.62	0.54
1:A:21:VAL:CG1	1:A:22:VAL:N	2.70	0.54
1:K:28:VAL:HA	1:K:381:ILE:HG12	1.90	0.54
1:J:53:LYS:HD3	1:J:58:ASN:HA	1.90	0.54
1:O:96:GLN:NE2	1:O:382:THR:HG22	2.22	0.54
1:N:90:PHE:CD1	1:N:91:TYR:N	2.76	0.54
1:H:115:VAL:HG22	1:I:255:MET:SD	2.48	0.54
1:K:266:THR:CG2	1:O:358:THR:HA	2.38	0.54
1:G:158:LEU:O	1:G:331:VAL:HA	2.07	0.54
1:F:260:LEU:HD21	1:J:149:MET:HA	1.89	0.54
1:K:159:ILE:HG22	1:K:247:PHE:CE1	2.42	0.54
1:N:75:ILE:CD1	1:N:75:ILE:H	2.09	0.54
1:D:451:LEU:CD2	1:D:454:LYS:HG3	2.38	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:255:MET:CG	1:D:256:PHE:N	2.59	0.54
1:E:305:GLN:HE22	1:E:337:THR:HG21	1.72	0.54
1:C:395:ASN:OD1	1:C:398:ILE:HD11	2.07	0.54
1:L:348:ILE:HD12	1:M:182:PRO:O	2.07	0.54
1:G:133:SER:O	1:G:134:ALA:HB2	2.07	0.54
1:J:444:TYR:HB2	1:J:446:PHE:CE1	2.43	0.54
1:E:465:GLY:O	1:E:466:ARG:C	2.45	0.54
1:I:248:PHE:CZ	1:I:311:TYR:HB3	2.42	0.54
1:F:157:CYS:HB2	1:F:307:PHE:CE2	2.43	0.54
1:B:281:GLY:O	1:B:282:SER:C	2.47	0.54
1:L:226:THR:HG21	1:M:275:LEU:CD2	2.37	0.54
1:F:130:GLU:HG2	1:J:259:HIS:CE1	2.43	0.54
1:K:386:ASP:OD2	1:K:386:ASP:N	2.40	0.54
1:D:115:VAL:CG2	1:D:115:VAL:CG1	2.76	0.54
1:E:320:ASN:OD1	1:E:323:ILE:HG12	2.08	0.54
1:A:170:GLY:O	1:A:188:LEU:HA	2.08	0.54
1:K:346:ALA:CB	1:K:346:ALA:HA	2.18	0.54
1:G:80:PRO:C	1:G:82:LYS:H	2.12	0.54
1:H:57:ASN:HD21	1:H:59:LYS:HB3	1.73	0.54
1:G:24:THR:HA	1:G:27:TYR:CE2	2.43	0.54
1:B:68:LEU:HD23	1:B:201:VAL:HG21	1.89	0.54
1:D:237:MET:HB3	1:D:246:LEU:HD22	1.89	0.54
1:A:167:GLU:HB2	1:A:190:LEU:HD11	1.89	0.54
1:A:231:TYR:CG	1:E:112:PRO:HB3	2.43	0.54
1:M:126:LEU:HB3	1:M:262:ASN:HB3	1.90	0.54
1:I:54:LYS:CE	1:I:55:PRO:HD2	2.38	0.54
1:K:185:CYS:HB2	1:O:363:TYR:CD1	2.43	0.54
1:L:80:PRO:C	1:L:82:LYS:H	2.10	0.54
1:C:147:ILE:HG22	1:C:148:SER:N	2.21	0.54
1:G:168:HIS:O	1:G:190:LEU:HD12	2.08	0.54
1:G:272:PRO:HD2	1:G:275:LEU:HD11	1.89	0.54
1:F:254:GLN:NE2	1:F:298:SER:HB3	2.23	0.53
1:J:190:LEU:HD12	1:J:191:ILE:N	2.22	0.53
1:L:152:LYS:HE2	1:L:202:ASP:OD2	2.08	0.53
1:A:163:PRO:HD3	1:A:330:PHE:HE1	1.73	0.53
1:A:257:VAL:HG13	1:E:115:VAL:HG23	1.90	0.53
1:N:365:ARG:CG	1:N:365:ARG:NH1	2.68	0.53
1:M:117:ILE:HG13	1:M:149:MET:O	2.07	0.53
1:C:75:ILE:HD12	1:C:75:ILE:N	2.23	0.53
1:C:320:ASN:ND2	1:C:323:ILE:HB	2.22	0.53
1:E:72:VAL:HG23	1:E:197:ASP:HA	1.89	0.53
1:M:373:GLN:C	1:M:464:LEU:HD12	2.28	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:471:GLN:OE1	1:F:472:LEU:N	2.41	0.53
1:K:223:ASP:OD1	1:K:224:ILE:HG23	2.08	0.53
1:C:96:GLN:HA	1:C:382:THR:HA	1.90	0.53
1:J:139:ALA:HB1	1:J:143:ASN:OD1	2.07	0.53
1:E:193:THR:HG21	1:E:230:LYS:CD	2.38	0.53
1:M:325:TRP:HB3	1:M:398:ILE:CD1	2.38	0.53
1:I:320:ASN:OD1	1:I:321:ASN:N	2.41	0.53
1:I:255:MET:CG	1:I:256:PHE:N	2.71	0.53
1:I:49:TYR:HE1	1:I:364:LEU:HD13	1.72	0.53
1:K:117:ILE:CD1	1:L:293:PRO:HB3	2.35	0.53
1:O:99:VAL:HG12	1:O:100:TRP:N	2.21	0.53
1:H:65:VAL:HA	1:H:69:GLN:NE2	2.23	0.53
1:B:166:GLY:N	1:B:195:ILE:HG13	2.23	0.53
1:D:443:LYS:CD	1:D:443:LYS:H	2.07	0.53
1:F:75:ILE:CD1	1:F:75:ILE:N	2.65	0.53
1:K:141:VAL:CG1	1:O:357:ASN:H	2.18	0.53
1:I:465:GLY:O	1:I:466:ARG:C	2.45	0.53
1:N:459:LEU:C	1:N:461:GLN:H	2.10	0.53
1:E:129:THR:HG21	1:E:291:TYR:CD2	2.43	0.53
1:B:391:ILE:HG21	1:B:402:TRP:CZ3	2.43	0.53
1:K:169:TRP:H	1:K:208:MET:HA	1.73	0.53
1:G:52:ILE:HD12	1:G:52:ILE:N	2.22	0.53
1:D:238:VAL:O	1:D:238:VAL:HG12	2.08	0.53
1:N:91:TYR:CD1	1:N:98:LEU:CD2	2.91	0.53
1:E:383:LEU:HA	1:E:387:VAL:HG11	1.90	0.53
1:F:363:TYR:CE2	1:G:185:CYS:HB2	2.44	0.53
1:J:81:ASN:CB	1:J:97:ARG:NH1	2.72	0.53
1:B:271:VAL:HG13	1:B:275:LEU:HD12	1.90	0.53
1:D:224:ILE:O	1:D:227:SER:N	2.29	0.53
1:M:36:HIS:ND1	1:M:37:ALA:N	2.56	0.53
1:K:42:LEU:HB3	1:K:447:TRP:CZ2	2.42	0.53
1:J:219:GLU:HB3	1:J:263:ARG:CZ	2.39	0.53
1:M:96:GLN:HE21	1:M:382:THR:CG2	2.22	0.53
1:F:397:THR:HB	1:F:401:ASP:OD2	2.09	0.53
1:M:150:ASP:CB	1:N:257:VAL:HG21	2.39	0.53
1:E:103:VAL:HG23	1:E:104:GLY:N	2.23	0.53
1:M:83:PHE:CG	1:M:84:GLY:N	2.76	0.53
1:E:458:ASP:OD2	1:E:458:ASP:N	2.38	0.53
1:B:79:ASP:O	1:B:80:PRO:C	2.47	0.53
1:E:323:ILE:CG2	1:E:323:ILE:CG1	2.76	0.53
1:M:81:ASN:ND2	1:M:402:TRP:HD1	2.06	0.53
1:A:156:LEU:C	1:A:156:LEU:CD1	2.72	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:34:TYR:HE2	1:K:377:GLN:HB2	1.74	0.53
1:A:49:TYR:O	1:A:64:LYS:HD3	2.08	0.53
1:K:163:PRO:N	1:K:330:PHE:CD1	2.77	0.53
1:E:149:MET:CE	1:E:205:PHE:CE1	2.91	0.53
1:L:54:LYS:CG	1:L:55:PRO:HD2	2.37	0.53
1:D:219:GLU:C	1:D:220:VAL:HG13	2.29	0.53
1:L:148:SER:HB3	1:M:291:TYR:CE2	2.43	0.53
1:A:73:PHE:N	1:A:73:PHE:CD1	2.76	0.53
1:N:391:ILE:HG21	1:N:402:TRP:CZ3	2.44	0.53
1:A:450:ASN:HD21	1:A:452:LYS:HD2	1.73	0.53
1:A:384:THR:O	1:A:388:MET:HB2	2.08	0.53
1:D:188:LEU:HD13	1:D:213:LEU:HD11	1.89	0.53
1:L:80:PRO:HG2	1:L:81:ASN:N	2.21	0.53
1:C:363:TYR:HE2	1:D:269:GLU:HG3	1.71	0.53
1:L:49:TYR:HE2	1:L:118:SER:HA	1.73	0.53
1:G:312:TRP:HA	1:G:312:TRP:CE3	2.44	0.53
1:E:273:ASP:N	1:E:273:ASP:OD2	2.37	0.53
1:F:183:GLY:O	1:F:185:CYS:N	2.42	0.53
1:G:151:TYR:CG	1:G:203:THR:HB	2.39	0.53
1:I:117:ILE:CD1	1:I:117:ILE:CB	2.81	0.53
1:N:96:GLN:HE21	1:N:382:THR:CG2	2.22	0.53
1:L:74:ARG:NH2	1:L:441:LEU:HD12	2.24	0.53
1:N:163:PRO:N	1:N:330:PHE:HD1	2.05	0.53
1:C:208:MET:HG3	1:C:210:PHE:CE2	2.43	0.53
1:K:372:LEU:HB3	1:K:374:PHE:CE1	2.43	0.53
1:B:70:TYR:CZ	1:B:230:LYS:O	2.62	0.53
1:N:24:THR:OG1	1:N:25:ASP:N	2.41	0.53
1:K:21:VAL:HB	1:O:461:GLN:HE22	1.71	0.53
1:A:231:TYR:HD2	1:E:112:PRO:HD3	1.72	0.53
1:O:54:LYS:HB3	1:O:57:ASN:HB3	1.91	0.53
1:K:185:CYS:HB2	1:O:363:TYR:CE1	2.43	0.53
1:B:246:LEU:HD23	1:B:246:LEU:H	1.73	0.53
1:J:144:ARG:O	1:J:145:GLU:HG2	2.08	0.53
1:B:166:GLY:H	1:B:195:ILE:HG13	1.74	0.53
1:B:341:ASN:HB3	1:B:366:HIS:HB2	1.90	0.53
1:L:262:ASN:HD21	1:L:288:SER:CB	2.12	0.53
1:C:462:PHE:HB3	1:C:463:PRO:HD2	1.90	0.53
1:B:259:HIS:HE1	1:C:130:GLU:CG	2.21	0.53
1:N:57:ASN:HD21	1:N:59:LYS:H	1.57	0.53
1:C:280:SER:CA	1:C:284:ALA:HB2	2.38	0.53
1:I:280:SER:O	1:I:280:SER:OG	2.26	0.53
1:M:159:ILE:HG22	1:M:247:PHE:HE1	1.73	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:42:LEU:HD13	1:J:447:TRP:CZ2	2.44	0.53
1:N:281:GLY:O	1:N:282:SER:C	2.47	0.53
1:O:96:GLN:HE21	1:O:382:THR:HG22	1.73	0.53
1:M:92:ASN:ND2	1:M:95:THR:OG1	2.40	0.53
1:B:36:HIS:ND1	1:B:37:ALA:N	2.57	0.53
1:N:92:ASN:C	1:N:94:ASP:H	2.12	0.53
1:B:163:PRO:N	1:B:330:PHE:CD1	2.76	0.53
1:L:194:VAL:HG21	1:L:444:TYR:CZ	2.44	0.53
1:I:217:LYS:HG2	1:J:276:TYR:HA	1.89	0.53
1:H:217:LYS:C	1:H:218:SER:OG	2.47	0.53
1:O:163:PRO:HB3	1:O:330:PHE:CE1	2.43	0.53
1:N:153:GLN:NE2	1:N:300:VAL:HG12	2.23	0.53
1:A:97:ARG:CB	1:A:97:ARG:HH11	2.22	0.53
1:K:141:VAL:HG13	1:O:357:ASN:N	2.22	0.53
1:F:250:LEU:HD13	1:F:306:ILE:CG2	2.38	0.53
1:H:153:GLN:NE2	1:H:300:VAL:HA	2.24	0.53
1:K:49:TYR:HE2	1:K:118:SER:HA	1.74	0.53
1:L:170:GLY:O	1:L:188:LEU:HA	2.09	0.53
1:L:278:LYS:CB	1:O:354:THR:HG22	2.39	0.53
1:F:317:GLN:O	1:J:466:ARG:HD2	2.08	0.53
1:K:65:VAL:O	1:K:366:HIS:HB3	2.08	0.53
1:F:154:THR:CG2	1:F:154:THR:HB	2.20	0.53
1:F:139:ALA:HB1	1:F:143:ASN:OD1	2.09	0.53
1:H:363:TYR:CD1	1:I:185:CYS:HB2	2.44	0.53
1:O:440:PRO:HA	1:O:443:LYS:NZ	2.24	0.53
1:H:52:ILE:HD12	1:H:52:ILE:N	2.24	0.53
1:I:163:PRO:HB3	1:I:330:PHE:CE1	2.44	0.53
1:D:120:HIS:CE1	1:D:122:LEU:H	2.24	0.53
1:O:120:HIS:ND1	1:O:121:PRO:HD2	2.23	0.53
1:G:302:SER:C	1:G:304:ALA:H	2.09	0.53
1:L:384:THR:O	1:L:388:MET:HB2	2.09	0.53
1:J:302:SER:O	1:J:304:ALA:N	2.40	0.53
1:E:154:THR:H	1:E:336:THR:HG23	1.73	0.53
1:B:96:GLN:CA	1:B:382:THR:HA	2.38	0.53
1:B:391:ILE:CG2	1:B:399:LEU:CD2	2.86	0.53
1:D:77:LEU:HD22	1:D:455:PHE:CZ	2.43	0.53
1:K:135:TYR:HE2	1:K:287:ALA:HB2	1.73	0.53
1:L:150:ASP:N	1:L:150:ASP:OD2	2.39	0.53
1:E:193:THR:CG2	1:E:230:LYS:CD	2.87	0.53
1:L:39:THR:CG2	1:L:372:LEU:HB2	2.32	0.53
1:A:207:ALA:O	1:A:208:MET:HB3	2.09	0.53
1:B:24:THR:C	1:B:26:GLU:H	2.11	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:344:LEU:CB	1:G:213:LEU:O	2.57	0.53
1:I:49:TYR:HE1	1:I:364:LEU:CD1	2.21	0.53
1:G:157:CYS:HA	1:G:332:THR:O	2.09	0.53
1:L:227:SER:CA	1:L:228:ILE:HD12	2.39	0.53
1:O:210:PHE:O	1:O:214:GLN:HB2	2.09	0.53
1:O:49:TYR:HE1	1:O:364:LEU:HD13	1.72	0.53
1:A:242:TYR:CE2	1:A:394:MET:CG	2.91	0.53
1:F:144:ARG:C	1:F:145:GLU:HG2	2.28	0.53
1:M:75:ILE:HB	1:M:329:LEU:CB	2.38	0.53
1:F:208:MET:SD	1:F:210:PHE:CE2	3.02	0.53
1:B:300:VAL:HB	1:B:337:THR:HG22	1.91	0.53
1:E:77:LEU:HD22	1:E:455:PHE:CZ	2.43	0.53
1:C:113:LEU:N	1:C:113:LEU:CD1	2.72	0.53
1:I:157:CYS:HB3	1:I:250:LEU:HD13	1.91	0.53
1:N:114:GLY:HA3	1:N:340:THR:OG1	2.09	0.53
1:C:61:LEU:O	1:C:61:LEU:HD12	2.08	0.53
1:A:228:ILE:N	1:A:228:ILE:HD12	2.24	0.53
1:A:200:MET:HB2	1:A:228:ILE:O	2.09	0.53
1:B:467:LYS:CE	1:B:467:LYS:CG	2.81	0.53
1:G:223:ASP:OD1	1:G:224:ILE:N	2.42	0.53
1:I:255:MET:CG	1:I:256:PHE:H	2.20	0.53
1:D:361:LYS:HD3	1:D:363:TYR:OH	2.09	0.53
1:C:464:LEU:HD22	1:C:464:LEU:O	2.08	0.53
1:H:154:THR:H	1:H:336:THR:CG2	2.21	0.53
1:L:439:ASP:OD2	1:L:440:PRO:HD2	2.08	0.53
1:A:326:GLY:O	1:A:327:ASN:HB2	2.08	0.53
1:G:99:VAL:HG11	1:G:323:ILE:HG23	1.91	0.53
1:L:126:LEU:HB3	1:L:262:ASN:HB3	1.89	0.53
1:I:156:LEU:C	1:I:156:LEU:HD12	2.29	0.53
1:C:237:MET:HB3	1:C:246:LEU:HD22	1.91	0.53
1:F:188:LEU:HD21	1:J:344:LEU:HD13	1.91	0.53
1:N:246:LEU:N	1:N:246:LEU:CD2	2.72	0.53
1:E:315:ARG:O	1:E:316:ALA:HB2	2.09	0.53
1:F:367:GLY:O	1:F:368:GLU:HG2	2.09	0.53
1:D:87:ASP:O	1:D:90:PHE:CE2	2.62	0.53
1:O:53:LYS:HD3	1:O:58:ASN:HA	1.90	0.53
1:E:152:LYS:HG3	1:E:152:LYS:O	2.08	0.52
1:B:79:ASP:O	1:B:82:LYS:N	2.42	0.52
1:F:117:ILE:HG21	1:G:293:PRO:HD3	1.92	0.52
1:I:130:GLU:HB2	1:I:260:LEU:HD13	1.89	0.52
1:J:30:ARG:HH11	1:J:377:GLN:HE22	1.57	0.52
1:H:112:PRO:HD3	1:I:231:TYR:CG	2.42	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:70:TYR:CE1	1:I:201:VAL:HA	2.43	0.52
1:I:358:THR:HA	1:J:266:THR:HG23	1.91	0.52
1:F:283:THR:HG21	1:J:142:ASP:O	2.10	0.52
1:I:183:GLY:O	1:I:184:ASP:C	2.48	0.52
1:G:46:GLY:CA	1:G:65:VAL:HB	2.40	0.52
1:N:123:LEU:CD1	1:N:123:LEU:CD2	2.80	0.52
1:A:451:LEU:HA	1:A:454:LYS:HG3	1.91	0.52
1:J:325:TRP:HB3	1:J:398:ILE:CD1	2.39	0.52
1:H:151:TYR:OH	1:H:221:PRO:HG2	2.09	0.52
1:N:46:GLY:N	1:N:65:VAL:HB	2.24	0.52
1:M:366:HIS:CD2	1:M:367:GLY:N	2.78	0.52
1:B:54:LYS:HG2	1:B:57:ASN:HB3	1.90	0.52
1:A:50:PHE:HB2	1:A:51:PRO:HD2	1.91	0.52
1:E:471:GLN:O	1:E:472:LEU:OXT	2.27	0.52
1:G:344:LEU:HD12	1:H:186:PRO:HB2	1.91	0.52
1:I:160:GLY:O	1:I:329:LEU:HD23	2.10	0.52
1:E:154:THR:H	1:E:336:THR:CG2	2.22	0.52
1:M:156:LEU:C	1:M:156:LEU:CD1	2.75	0.52
1:O:54:LYS:CB	1:O:57:ASN:HD22	2.21	0.52
1:C:47:HIS:HB2	1:C:52:ILE:HD11	1.91	0.52
1:B:76:HIS:HB2	1:B:450:ASN:HA	1.91	0.52
1:G:272:PRO:HB2	1:G:275:LEU:HG	1.91	0.52
1:E:29:ALA:HB3	1:E:380:LYS:HG3	1.91	0.52
1:J:180:VAL:HG12	1:J:181:GLN:O	2.08	0.52
1:M:81:ASN:ND2	1:M:402:TRP:CD1	2.77	0.52
1:B:23:SER:N	1:B:319:HIS:HD2	2.07	0.52
1:G:188:LEU:HD11	1:G:213:LEU:CD1	2.39	0.52
1:C:149:MET:HE3	1:C:294:THR:HG22	1.91	0.52
1:I:71:ARG:HH11	1:I:71:ARG:CA	2.18	0.52
1:B:171:LYS:CE	1:B:171:LYS:CG	2.81	0.52
1:G:166:GLY:HA3	1:G:195:ILE:HD11	1.88	0.52
1:K:112:PRO:HB3	1:L:231:TYR:CD1	2.44	0.52
1:E:49:TYR:HA	1:E:223:ASP:HB3	1.91	0.52
1:B:208:MET:CG	1:B:210:PHE:CE2	2.92	0.52
1:O:143:ASN:O	1:O:145:GLU:HG2	2.10	0.52
1:A:459:LEU:HB3	1:A:465:GLY:HA3	1.92	0.52
1:F:90:PHE:CD1	1:F:91:TYR:HB3	2.43	0.52
1:G:353:THR:O	1:I:278:LYS:HB2	2.09	0.52
1:I:82:LYS:HG3	1:I:82:LYS:CE	2.38	0.52
1:F:81:ASN:ND2	1:F:98:LEU:O	2.42	0.52
1:C:54:LYS:HG2	1:C:56:ASN:OD1	2.09	0.52
1:C:141:VAL:HG12	1:C:142:ASP:N	2.22	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:220:VAL:O	1:C:221:PRO:C	2.46	0.52
1:I:66:SER:H	1:I:69:GLN:NE2	2.07	0.52
1:I:65:VAL:HA	1:I:69:GLN:HE22	1.73	0.52
1:E:180:VAL:HG13	1:E:184:ASP:HB3	1.92	0.52
1:G:105:VAL:HG23	1:G:313:LEU:HD11	1.90	0.52
1:A:69:GLN:HA	1:A:199:ASP:O	2.09	0.52
1:K:216:ASN:CB	1:O:345:CYS:SG	2.83	0.52
1:E:472:LEU:O	1:J:138:ASN:HB2	2.09	0.52
1:B:71:ARG:HB3	1:B:73:PHE:CE1	2.44	0.52
1:K:242:TYR:CE2	1:K:394:MET:CG	2.93	0.52
1:F:250:LEU:HD13	1:F:306:ILE:HG21	1.90	0.52
1:F:459:LEU:C	1:F:461:GLN:N	2.63	0.52
1:C:172:GLY:O	1:C:173:SER:O	2.27	0.52
1:B:246:LEU:CD2	1:B:246:LEU:H	2.23	0.52
1:K:326:GLY:O	1:K:327:ASN:HB2	2.10	0.52
1:B:149:MET:CE	1:B:205:PHE:CE1	2.92	0.52
1:I:58:ASN:N	1:I:58:ASN:OD1	2.41	0.52
1:N:101:ALA:HB3	1:N:377:GLN:O	2.10	0.52
1:N:98:LEU:CD1	1:N:378:LEU:HD11	2.21	0.52
1:N:92:ASN:ND2	1:N:95:THR:N	2.45	0.52
1:K:85:PHE:CZ	1:K:378:LEU:HD22	2.45	0.52
1:C:464:LEU:O	1:C:464:LEU:CD2	2.57	0.52
1:G:344:LEU:HD13	1:H:213:LEU:CD1	2.34	0.52
1:H:188:LEU:HD11	1:H:213:LEU:HD11	1.91	0.52
1:A:42:LEU:HB2	1:A:370:TYR:HB2	1.92	0.52
1:A:42:LEU:HD13	1:A:447:TRP:CZ2	2.44	0.52
1:B:115:VAL:CG2	1:C:257:VAL:HG13	2.33	0.52
1:B:28:VAL:HA	1:B:381:ILE:HG12	1.91	0.52
1:O:75:ILE:HG23	1:O:451:LEU:HD12	1.90	0.52
1:F:35:TYR:HD2	1:F:456:SER:C	2.12	0.52
1:F:459:LEU:C	1:F:461:GLN:H	2.13	0.52
1:B:35:TYR:CZ	1:B:457:ALA:HB2	2.44	0.52
1:C:247:PHE:HD1	1:C:248:PHE:H	1.56	0.52
1:D:267:VAL:HG11	1:D:270:ASN:OD1	2.10	0.52
1:B:79:ASP:OD1	1:B:80:PRO:HD2	2.09	0.52
1:E:383:LEU:HD23	1:E:388:MET:CE	2.40	0.52
1:F:185:CYS:HB2	1:J:363:TYR:CG	2.44	0.52
1:H:259:HIS:HE1	1:I:130:GLU:CG	2.22	0.52
1:J:75:ILE:HB	1:J:329:LEU:HB2	1.90	0.52
1:D:397:THR:HB	1:D:401:ASP:OD2	2.09	0.52
1:M:120:HIS:NE2	1:M:218:SER:HB3	2.25	0.52
1:N:163:PRO:N	1:N:330:PHE:CD1	2.77	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:374:PHE:CB	1:N:376:PHE:HE1	2.21	0.52
1:H:66:SER:OG	1:H:68:LEU:N	2.42	0.52
1:L:57:ASN:HD21	1:L:59:LYS:H	1.57	0.52
1:M:70:TYR:HE1	1:M:201:VAL:HA	1.74	0.52
1:O:122:LEU:HD13	1:O:144:ARG:NH2	2.23	0.52
1:L:180:VAL:HG12	1:L:181:GLN:N	2.25	0.52
1:A:217:LYS:O	1:A:218:SER:HB3	2.09	0.52
1:N:22:VAL:N	1:N:390:TYR:OH	2.39	0.52
1:I:342:MET:HB2	1:J:208:MET:HE1	1.92	0.52
1:F:156:LEU:HD12	1:F:156:LEU:C	2.29	0.52
1:F:465:GLY:O	1:F:466:ARG:C	2.48	0.52
1:J:316:ALA:HB3	1:J:321:ASN:OD1	2.09	0.52
1:B:397:THR:O	1:B:401:ASP:N	2.34	0.52
1:F:151:TYR:CD2	1:F:203:THR:CB	2.75	0.52
1:I:184:ASP:O	1:I:185:CYS:C	2.48	0.52
1:J:79:ASP:HA	1:J:327:ASN:ND2	2.24	0.52
1:A:149:MET:HG3	1:A:295:PRO:HD2	1.91	0.52
1:O:104:GLY:HA3	1:O:375:ILE:HB	1.92	0.52
1:C:249:TYR:O	1:C:249:TYR:CG	2.63	0.52
1:I:153:GLN:HE22	1:I:300:VAL:HA	1.75	0.52
1:L:99:VAL:HG12	1:L:100:TRP:N	2.23	0.52
1:I:459:LEU:HB3	1:I:465:GLY:HA3	1.92	0.52
1:H:226:THR:HG21	1:I:275:LEU:HD22	1.90	0.52
1:L:149:MET:CE	1:L:205:PHE:CE1	2.93	0.52
1:A:169:TRP:HB3	1:A:188:LEU:HD12	1.92	0.52
1:J:155:GLN:HG2	1:J:307:PHE:HE1	1.75	0.52
1:C:166:GLY:O	1:C:192:ASN:HA	2.08	0.52
1:I:255:MET:HG2	1:I:256:PHE:N	2.22	0.52
1:I:65:VAL:O	1:I:366:HIS:HB3	2.10	0.52
1:K:260:LEU:CD1	1:K:260:LEU:N	2.60	0.52
1:I:220:VAL:O	1:I:221:PRO:C	2.46	0.52
1:K:299:MET:HA	1:L:255:MET:O	2.09	0.52
1:B:373:GLN:CB	1:B:464:LEU:HD12	2.40	0.52
1:N:154:THR:HG23	1:N:253:GLU:HB3	1.92	0.52
1:H:255:MET:HG2	1:H:256:PHE:H	1.75	0.52
1:H:120:HIS:NE2	1:H:218:SER:HB3	2.24	0.52
1:B:151:TYR:CG	1:B:203:THR:HB	2.45	0.52
1:N:222:LEU:HA	1:N:225:CYS:SG	2.50	0.52
1:N:23:SER:OG	1:N:25:ASP:HB2	2.09	0.52
1:L:75:ILE:HB	1:L:329:LEU:HB3	1.91	0.52
1:B:29:ALA:HB3	1:B:380:LYS:HG3	1.92	0.52
1:J:280:SER:N	1:J:284:ALA:HB2	2.25	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:79:ASP:OD2	1:M:81:ASN:CB	2.41	0.52
1:I:80:PRO:HB3	1:I:100:TRP:NE1	2.25	0.52
1:F:97:ARG:HG2	1:F:383:LEU:HD13	1.85	0.52
1:I:179:ALA:C	1:I:180:VAL:HG23	2.29	0.52
1:E:46:GLY:HA3	1:E:63:PRO:O	2.10	0.52
1:M:180:VAL:HG13	1:M:184:ASP:HB3	1.88	0.52
1:G:163:PRO:HD3	1:G:330:PHE:HE1	1.73	0.52
1:K:155:GLN:HB3	1:K:252:ARG:HB3	1.92	0.52
1:A:124:ASN:HD22	1:A:216:ASN:ND2	2.06	0.52
1:H:34:TYR:CE2	1:H:377:GLN:HB2	2.45	0.52
1:H:323:ILE:N	1:H:323:ILE:HD13	2.24	0.52
1:F:51:PRO:C	1:F:52:ILE:HD12	2.30	0.52
1:A:92:ASN:O	1:A:94:ASP:N	2.42	0.52
1:O:92:ASN:ND2	1:O:95:THR:N	2.55	0.52
1:G:348:ILE:HG13	1:G:348:ILE:O	2.10	0.52
1:M:443:LYS:N	1:M:443:LYS:HD3	2.25	0.52
1:L:96:GLN:HE21	1:L:382:THR:HG22	1.75	0.52
1:H:124:ASN:OD1	1:H:124:ASN:O	2.28	0.52
1:H:95:THR:O	1:H:383:LEU:N	2.33	0.52
1:D:75:ILE:HB	1:D:329:LEU:HB3	1.91	0.52
1:H:235:ILE:HG22	1:H:235:ILE:O	2.10	0.52
1:E:42:LEU:HD13	1:E:447:TRP:CE2	2.45	0.52
1:B:384:THR:OG1	1:B:385:ALA:N	2.41	0.52
1:I:79:ASP:OD2	1:I:82:LYS:HE3	2.08	0.52
1:G:262:ASN:OD1	1:G:288:SER:O	2.28	0.52
1:K:80:PRO:O	1:K:98:LEU:HD12	2.10	0.52
1:G:166:GLY:HA2	1:G:195:ILE:HD11	1.92	0.52
1:G:72:VAL:HG13	1:G:332:THR:HG23	1.92	0.52
1:B:120:HIS:CE1	1:B:122:LEU:H	2.28	0.52
1:A:31:THR:HG23	1:A:378:LEU:O	2.10	0.52
1:E:155:GLN:HB3	1:E:252:ARG:HB3	1.92	0.52
1:I:217:LYS:HG2	1:J:276:TYR:CA	2.40	0.52
1:D:61:LEU:HD12	1:D:61:LEU:O	2.09	0.52
1:E:66:SER:O	1:E:69:GLN:HG3	2.10	0.52
1:D:121:PRO:HD3	1:D:222:LEU:CD1	2.40	0.52
1:N:361:LYS:HD3	1:N:363:TYR:OH	2.09	0.52
1:K:329:LEU:HD13	1:K:374:PHE:CE2	2.45	0.52
1:O:200:MET:HB2	1:O:228:ILE:O	2.10	0.52
1:A:167:GLU:N	1:A:231:TYR:O	2.43	0.52
1:I:463:PRO:HB3	1:I:466:ARG:HH21	1.75	0.52
1:O:42:LEU:HB2	1:O:370:TYR:HB2	1.90	0.52
1:B:80:PRO:O	1:B:82:LYS:N	2.43	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:85:PHE:CZ	1:I:378:LEU:HD22	2.44	0.52
1:I:387:VAL:O	1:I:391:ILE:HG13	2.09	0.52
1:F:149:MET:CE	1:F:205:PHE:CE1	2.93	0.52
1:F:46:GLY:HA3	1:F:63:PRO:O	2.11	0.52
1:G:217:LYS:NZ	1:G:217:LYS:CD	2.66	0.52
1:D:194:VAL:CG2	1:D:194:VAL:CG1	2.81	0.52
1:J:260:LEU:HD12	1:J:260:LEU:H	1.71	0.52
1:N:75:ILE:HB	1:N:329:LEU:HB3	1.92	0.52
1:N:66:SER:OG	1:N:68:LEU:HD12	2.10	0.52
1:I:451:LEU:HD23	1:I:454:LYS:HG3	1.92	0.52
1:A:96:GLN:HB3	1:A:382:THR:HG22	1.91	0.52
1:G:457:ALA:O	1:G:459:LEU:CD2	2.58	0.52
1:L:35:TYR:O	1:L:376:PHE:N	2.29	0.52
1:M:57:ASN:HD21	1:M:59:LYS:CB	2.23	0.52
1:G:228:ILE:CD1	1:G:228:ILE:N	2.72	0.52
1:L:459:LEU:HB3	1:L:465:GLY:HA3	1.92	0.52
1:M:106:GLU:HG3	1:M:309:LYS:C	2.30	0.52
1:M:323:ILE:HG21	1:M:325:TRP:CH2	2.45	0.51
1:G:217:LYS:O	1:G:218:SER:HB3	2.09	0.51
1:C:375:ILE:HG21	1:C:468:PHE:CD2	2.44	0.51
1:C:74:ARG:NH2	1:C:441:LEU:HD12	2.25	0.51
1:K:112:PRO:HB2	1:L:202:ASP:OD2	2.09	0.51
1:O:196:GLN:N	1:O:199:ASP:OD2	2.36	0.51
1:L:216:ASN:O	1:M:277:ILE:HD11	2.10	0.51
1:H:34:TYR:HE2	1:H:377:GLN:HB2	1.75	0.51
1:O:280:SER:O	1:O:280:SER:OG	2.28	0.51
1:F:120:HIS:ND1	1:F:122:LEU:N	2.51	0.51
1:F:120:HIS:HB3	1:F:123:LEU:HB2	1.91	0.51
1:K:172:GLY:O	1:K:173:SER:C	2.48	0.51
1:I:54:LYS:HB2	1:I:57:ASN:HD22	1.74	0.51
1:O:54:LYS:CG	1:O:57:ASN:HB3	2.40	0.51
1:C:307:PHE:O	1:C:308:ASN:CB	2.56	0.51
1:I:155:GLN:HB3	1:I:252:ARG:HB3	1.91	0.51
1:A:395:ASN:O	1:A:398:ILE:HG12	2.10	0.51
1:N:375:ILE:HG12	1:N:464:LEU:CD1	2.41	0.51
1:D:119:GLY:HA3	1:E:291:TYR:CE1	2.46	0.51
1:G:130:GLU:HB2	1:G:260:LEU:HD13	1.91	0.51
1:I:280:SER:CA	1:I:284:ALA:HB2	2.40	0.51
1:L:72:VAL:HG13	1:L:332:THR:HG23	1.92	0.51
1:E:343:SER:HB3	1:E:364:LEU:HD23	1.92	0.51
1:G:121:PRO:HG3	1:H:289:SER:OG	2.10	0.51
1:I:108:GLY:HA3	1:I:371:ASP:O	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:463:PRO:HG2	1:J:464:LEU:N	2.25	0.51
1:J:254:GLN:HE22	1:J:298:SER:HB3	1.76	0.51
1:K:298:SER:OG	1:K:299:MET:N	2.44	0.51
1:A:260:LEU:N	1:A:260:LEU:HD12	2.25	0.51
1:A:81:ASN:OD1	1:A:98:LEU:N	2.42	0.51
1:G:360:PHE:CE2	1:H:216:ASN:HA	2.46	0.51
1:M:70:TYR:CE1	1:M:201:VAL:HA	2.45	0.51
1:K:129:THR:O	1:O:147:ILE:HA	2.11	0.51
1:A:66:SER:O	1:A:69:GLN:HG3	2.10	0.51
1:A:122:LEU:O	1:A:218:SER:HB2	2.10	0.51
1:H:400:GLU:O	1:H:401:ASP:C	2.47	0.51
1:G:57:ASN:HD21	1:G:59:LYS:HB3	1.75	0.51
1:F:35:TYR:CD2	1:F:456:SER:C	2.83	0.51
1:F:208:MET:SD	1:F:210:PHE:HE2	2.32	0.51
1:I:258:ARG:HB2	1:I:296:SER:HB2	1.91	0.51
1:L:96:GLN:HE21	1:L:382:THR:CG2	2.23	0.51
1:D:75:ILE:HD12	1:D:75:ILE:H	1.76	0.51
1:I:181:GLN:O	1:I:182:PRO:C	2.48	0.51
1:H:189:GLU:O	1:H:191:ILE:HG12	2.09	0.51
1:F:124:ASN:OD1	1:F:264:ALA:N	2.39	0.51
1:H:112:PRO:CD	1:I:231:TYR:CD2	2.88	0.51
1:G:158:LEU:O	1:G:332:THR:N	2.35	0.51
1:O:395:ASN:O	1:O:398:ILE:HG12	2.10	0.51
1:E:45:VAL:C	1:E:65:VAL:HG21	2.31	0.51
1:A:68:LEU:HB3	1:A:201:VAL:CG2	2.40	0.51
1:K:220:VAL:O	1:K:221:PRO:C	2.48	0.51
1:K:155:GLN:HG2	1:K:306:ILE:HG12	1.92	0.51
1:B:167:GLU:HG3	1:B:231:TYR:O	2.11	0.51
1:I:75:ILE:HD13	1:I:329:LEU:HB3	1.92	0.51
1:I:464:LEU:CD2	1:I:464:LEU:C	2.77	0.51
1:L:49:TYR:HA	1:L:223:ASP:HB3	1.91	0.51
1:M:160:GLY:HA3	1:M:245:SER:O	2.10	0.51
1:K:121:PRO:HG3	1:L:289:SER:CB	2.41	0.51
1:D:367:GLY:O	1:D:368:GLU:HG2	2.11	0.51
1:M:390:TYR:O	1:M:391:ILE:C	2.48	0.51
1:B:397:THR:HB	1:B:401:ASP:OD2	2.10	0.51
1:I:323:ILE:O	1:I:325:TRP:N	2.42	0.51
1:F:96:GLN:HB3	1:F:382:THR:HG22	1.92	0.51
1:I:345:CYS:HA	1:I:361:LYS:O	2.10	0.51
1:I:175:CYS:O	1:I:177:GLN:N	2.37	0.51
1:F:57:ASN:HD21	1:F:59:LYS:HB3	1.74	0.51
1:K:163:PRO:N	1:K:330:PHE:HD1	2.08	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:130:GLU:HB2	1:M:260:LEU:CD1	2.38	0.51
1:N:74:ARG:CG	1:N:330:PHE:HE2	2.24	0.51
1:G:150:ASP:CG	1:H:257:VAL:HG21	2.31	0.51
1:M:223:ASP:OD1	1:M:224:ILE:HG23	2.10	0.51
1:J:345:CYS:CB	1:J:362:GLU:OE2	2.58	0.51
1:I:228:ILE:CD1	1:I:228:ILE:N	2.64	0.51
1:O:300:VAL:HG23	1:O:300:VAL:O	2.09	0.51
1:J:66:SER:N	1:J:69:GLN:HE21	2.06	0.51
1:O:54:LYS:HZ1	1:O:54:LYS:HA	1.75	0.51
1:I:335:ASP:OD1	1:I:337:THR:OG1	2.28	0.51
1:I:150:ASP:CG	1:I:150:ASP:O	2.48	0.51
1:D:163:PRO:N	1:D:330:PHE:CD1	2.78	0.51
1:I:139:ALA:HB1	1:I:143:ASN:OD1	2.11	0.51
1:L:335:ASP:OD1	1:L:337:THR:OG1	2.28	0.51
1:B:149:MET:HE3	1:B:294:THR:HG22	1.93	0.51
1:B:152:LYS:NZ	1:B:253:GLU:OE1	2.42	0.51
1:G:183:GLY:O	1:G:184:ASP:C	2.49	0.51
1:E:223:ASP:OD1	1:E:224:ILE:N	2.44	0.51
1:H:143:ASN:O	1:H:144:ARG:C	2.48	0.51
1:F:242:TYR:CE2	1:F:394:MET:HB2	2.46	0.51
1:K:216:ASN:H	1:O:345:CYS:HG	1.57	0.51
1:A:237:MET:HB3	1:A:246:LEU:HD21	1.92	0.51
1:J:47:HIS:HB3	1:J:50:PHE:O	2.11	0.51
1:I:172:GLY:O	1:I:173:SER:C	2.49	0.51
1:F:389:THR:OG1	1:F:390:TYR:N	2.43	0.51
1:A:170:GLY:HA2	1:A:213:LEU:HD21	1.91	0.51
1:F:256:PHE:CD1	1:F:257:VAL:N	2.78	0.51
1:B:20:ALA:O	1:B:390:TYR:HE1	1.93	0.51
1:I:391:ILE:HG21	1:I:402:TRP:CZ3	2.46	0.51
1:G:220:VAL:O	1:G:221:PRO:C	2.47	0.51
1:J:374:PHE:HB3	1:J:376:PHE:CE1	2.46	0.51
1:A:276:TYR:CD2	1:A:276:TYR:N	2.78	0.51
1:G:72:VAL:HG21	1:G:195:ILE:O	2.11	0.51
1:G:68:LEU:HD23	1:G:201:VAL:HG21	1.93	0.51
1:G:65:VAL:O	1:G:366:HIS:HB3	2.10	0.51
1:L:166:GLY:H	1:L:195:ILE:HD11	1.67	0.51
1:L:70:TYR:OH	1:L:230:LYS:O	2.18	0.51
1:D:356:LYS:CD	1:D:356:LYS:NZ	2.70	0.51
1:B:263:ARG:HG2	1:B:292:PHE:CD2	2.43	0.51
1:L:124:ASN:HD22	1:L:216:ASN:ND2	2.08	0.51
1:K:105:VAL:HG13	1:K:106:GLU:N	2.24	0.51
1:I:373:GLN:HB3	1:I:464:LEU:HD12	1.92	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:122:LEU:O	1:L:218:SER:HB2	2.10	0.51
1:I:228:ILE:HD12	1:I:228:ILE:H	1.73	0.51
1:K:213:LEU:O	1:O:344:LEU:HB2	2.10	0.51
1:D:159:ILE:CG2	1:D:247:PHE:HE1	2.23	0.51
1:H:64:LYS:NZ	1:H:200:MET:CE	2.74	0.51
1:C:259:HIS:HE1	1:D:130:GLU:OE1	1.93	0.51
1:A:200:MET:O	1:A:229:CYS:HA	2.11	0.51
1:D:64:LYS:CD	1:D:64:LYS:CB	2.83	0.51
1:B:323:ILE:HG21	1:B:325:TRP:CH2	2.46	0.51
1:F:65:VAL:CA	1:F:69:GLN:NE2	2.72	0.51
1:G:259:HIS:HE1	1:H:130:GLU:OE1	1.93	0.51
1:J:189:GLU:O	1:J:191:ILE:HG13	2.11	0.51
1:C:194:VAL:HG21	1:C:444:TYR:CE2	2.46	0.51
1:D:137:ALA:CB	1:D:137:ALA:C	2.70	0.51
1:E:300:VAL:CG1	1:E:337:THR:HG22	2.41	0.51
1:H:66:SER:HA	1:H:366:HIS:ND1	2.26	0.51
1:D:71:ARG:HG2	1:D:71:ARG:NH1	2.25	0.51
1:A:283:THR:OG1	1:E:142:ASP:CG	2.49	0.51
1:H:72:VAL:HG21	1:H:195:ILE:O	2.10	0.51
1:L:122:LEU:CD1	1:M:286:LEU:HD11	2.34	0.51
1:D:23:SER:OG	1:D:25:ASP:N	2.43	0.51
1:H:28:VAL:CG1	1:H:29:ALA:H	2.24	0.51
1:N:246:LEU:HD23	1:N:246:LEU:H	1.76	0.51
1:N:466:ARG:HD2	1:O:317:GLN:O	2.11	0.51
1:M:467:LYS:O	1:M:470:LEU:N	2.43	0.51
1:A:178:VAL:CG2	1:A:178:VAL:CA	2.81	0.51
1:O:152:LYS:HE2	1:O:202:ASP:HB3	1.92	0.51
1:D:123:LEU:HG	1:D:123:LEU:CD2	2.18	0.51
1:C:163:PRO:N	1:C:330:PHE:CD1	2.78	0.51
1:L:193:THR:OG1	1:L:194:VAL:N	2.43	0.51
1:E:148:SER:O	1:E:149:MET:HB3	2.09	0.51
1:H:178:VAL:C	1:H:180:VAL:H	2.13	0.51
1:C:115:VAL:HA	1:C:339:SER:OG	2.11	0.51
1:C:49:TYR:HE1	1:C:364:LEU:CD1	2.23	0.51
1:E:207:ALA:HB1	1:E:229:CYS:O	2.11	0.51
1:D:151:TYR:CG	1:D:203:THR:HB	2.46	0.51
1:L:185:CYS:SG	1:L:186:PRO:HD2	2.51	0.51
1:K:157:CYS:HB2	1:K:307:PHE:CE2	2.46	0.51
1:D:440:PRO:HA	1:D:443:LYS:HZ1	1.73	0.51
1:A:149:MET:CA	1:B:260:LEU:HD21	2.41	0.51
1:F:358:THR:HA	1:G:266:THR:HG22	1.91	0.51
1:D:188:LEU:HD11	1:D:213:LEU:CD1	2.39	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:163:PRO:HA	1:D:330:PHE:CD1	2.46	0.51
1:H:344:LEU:CB	1:I:213:LEU:HD12	2.40	0.51
1:E:78:PRO:HD2	1:E:455:PHE:CE1	2.46	0.51
1:B:248:PHE:CE2	1:B:311:TYR:HB3	2.45	0.51
1:E:193:THR:HG21	1:E:230:LYS:HD3	1.93	0.51
1:F:176:THR:HB	1:F:176:THR:CG2	2.19	0.51
1:E:24:THR:C	1:E:26:GLU:N	2.64	0.51
1:C:348:ILE:O	1:C:349:SER:HB3	2.11	0.51
1:F:117:ILE:HG13	1:F:149:MET:O	2.10	0.51
1:F:219:GLU:O	1:F:220:VAL:HG13	2.10	0.51
1:A:114:GLY:HA2	1:B:255:MET:SD	2.49	0.51
1:K:399:LEU:HA	1:K:402:TRP:HE3	1.76	0.51
1:I:68:LEU:HD23	1:I:201:VAL:CG2	2.40	0.51
1:E:124:ASN:OD1	1:E:124:ASN:O	2.28	0.51
1:G:42:LEU:HB2	1:G:370:TYR:HB2	1.92	0.51
1:G:70:TYR:O	1:G:71:ARG:NH1	2.44	0.51
1:G:115:VAL:HG22	1:H:255:MET:SD	2.51	0.51
1:M:71:ARG:HB3	1:M:73:PHE:CE1	2.46	0.51
1:N:48:PRO:HG2	1:N:49:TYR:CD1	2.46	0.51
1:O:125:LYS:HD3	1:O:126:LEU:N	2.26	0.51
1:A:101:ALA:O	1:A:376:PHE:HA	2.11	0.51
1:H:162:LYS:CG	1:H:244:ASP:HB3	2.41	0.51
1:B:49:TYR:HE2	1:B:118:SER:CA	2.15	0.51
1:K:142:ASP:O	1:L:283:THR:CG2	2.58	0.51
1:D:247:PHE:HD1	1:D:248:PHE:H	1.58	0.51
1:H:142:ASP:O	1:I:283:THR:HG21	2.11	0.51
1:M:42:LEU:HD22	1:M:447:TRP:HZ2	1.75	0.51
1:D:92:ASN:O	1:D:94:ASP:N	2.43	0.51
1:C:29:ALA:HB3	1:C:380:LYS:HG3	1.92	0.51
1:I:189:GLU:O	1:I:191:ILE:HG13	2.11	0.51
1:I:363:TYR:CE2	1:J:185:CYS:HB2	2.46	0.51
1:I:398:ILE:HG22	1:I:402:TRP:CE3	2.46	0.51
1:F:341:ASN:HB3	1:F:366:HIS:HB2	1.92	0.51
1:O:452:LYS:NZ	1:O:452:LYS:CD	2.73	0.51
1:B:171:LYS:CD	1:B:171:LYS:CB	2.78	0.51
1:D:358:THR:HA	1:E:266:THR:HG21	1.90	0.51
1:J:90:PHE:CD1	1:J:91:TYR:HB3	2.47	0.51
1:M:72:VAL:HG23	1:M:197:ASP:HA	1.93	0.51
1:A:61:LEU:O	1:A:61:LEU:CD1	2.54	0.51
1:K:442:LYS:HB3	1:K:443:LYS:HD3	1.93	0.51
1:B:259:HIS:CE1	1:C:130:GLU:HG2	2.46	0.51
1:J:399:LEU:HA	1:J:402:TRP:HE3	1.75	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:249:TYR:C	1:C:249:TYR:CD1	2.83	0.51
1:F:213:LEU:CD1	1:J:344:LEU:HD13	2.41	0.51
1:J:280:SER:CA	1:J:284:ALA:HB2	2.41	0.51
1:H:155:GLN:HB3	1:H:252:ARG:HB3	1.91	0.51
1:L:153:GLN:HE22	1:L:300:VAL:HA	1.76	0.51
1:A:154:THR:O	1:A:336:THR:HG23	2.10	0.51
1:A:343:SER:HB3	1:A:364:LEU:HD23	1.93	0.51
1:D:185:CYS:SG	1:D:186:PRO:HD2	2.50	0.51
1:M:74:ARG:NH2	1:M:441:LEU:CD1	2.58	0.50
1:I:79:ASP:OD1	1:I:80:PRO:HD2	2.12	0.50
1:G:252:ARG:HD2	1:G:306:ILE:HD11	1.93	0.50
1:I:117:ILE:HD11	1:J:260:LEU:HD23	1.92	0.50
1:N:102:CYS:SG	1:N:313:LEU:HD12	2.51	0.50
1:L:152:LYS:HG3	1:L:152:LYS:O	2.11	0.50
1:J:320:ASN:ND2	1:J:323:ILE:HB	2.26	0.50
1:E:306:ILE:O	1:E:306:ILE:HG22	2.11	0.50
1:L:54:LYS:HG3	1:L:55:PRO:CD	2.40	0.50
1:B:54:LYS:CG	1:B:56:ASN:OD1	2.59	0.50
1:G:27:TYR:CE2	1:G:390:TYR:CE2	3.00	0.50
1:G:323:ILE:HG21	1:G:325:TRP:CH2	2.46	0.50
1:G:79:ASP:OD2	1:G:81:ASN:HB2	2.11	0.50
1:G:99:VAL:HG11	1:G:323:ILE:CG2	2.41	0.50
1:N:77:LEU:O	1:N:327:ASN:HB3	2.11	0.50
1:L:27:TYR:CE2	1:L:390:TYR:CE2	2.99	0.50
1:M:157:CYS:HB2	1:M:307:PHE:HE2	1.75	0.50
1:N:109:ARG:NH1	1:N:370:TYR:CD1	2.80	0.50
1:F:42:LEU:HB2	1:F:370:TYR:HB2	1.93	0.50
1:M:373:GLN:CB	1:M:464:LEU:HD12	2.41	0.50
1:F:162:LYS:C	1:F:330:PHE:HD1	2.13	0.50
1:E:36:HIS:ND1	1:E:37:ALA:N	2.59	0.50
1:K:53:LYS:HD3	1:K:58:ASN:HA	1.93	0.50
1:D:315:ARG:O	1:D:316:ALA:HB2	2.11	0.50
1:A:461:GLN:NE2	1:B:21:VAL:HB	2.20	0.50
1:B:320:ASN:HD21	1:B:323:ILE:HB	1.76	0.50
1:G:231:TYR:CD1	1:G:232:PRO:HD2	2.46	0.50
1:L:255:MET:HG2	1:L:256:PHE:H	1.70	0.50
1:D:81:ASN:ND2	1:D:402:TRP:CD1	2.80	0.50
1:N:147:ILE:HG23	1:O:129:THR:O	2.10	0.50
1:B:176:THR:CG2	1:B:176:THR:CA	2.85	0.50
1:N:163:PRO:CA	1:N:330:PHE:CD1	2.94	0.50
1:M:151:TYR:CZ	1:M:224:ILE:HD13	2.47	0.50
1:N:223:ASP:OD1	1:N:224:ILE:N	2.44	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:193:THR:CG2	1:B:230:LYS:HD2	2.41	0.50
1:H:400:GLU:O	1:H:402:TRP:N	2.44	0.50
1:F:375:ILE:HG21	1:F:468:PHE:CD2	2.45	0.50
1:C:71:ARG:NH1	1:C:198:GLY:H	2.06	0.50
1:M:237:MET:HB3	1:M:246:LEU:HD22	1.93	0.50
1:H:153:GLN:NE2	1:H:300:VAL:HG12	2.26	0.50
1:C:280:SER:C	1:C:284:ALA:HB2	2.32	0.50
1:L:139:ALA:CB	1:L:143:ASN:HD21	2.24	0.50
1:H:200:MET:O	1:H:229:CYS:HA	2.11	0.50
1:D:87:ASP:O	1:D:90:PHE:HE2	1.93	0.50
1:O:22:VAL:O	1:O:22:VAL:HG23	2.12	0.50
1:D:172:GLY:O	1:D:173:SER:C	2.50	0.50
1:L:353:THR:O	1:N:278:LYS:HB2	2.11	0.50
1:K:471:GLN:O	1:K:472:LEU:OXT	2.29	0.50
1:F:255:MET:O	1:J:300:VAL:HG22	2.11	0.50
1:G:123:LEU:O	1:G:125:LYS:N	2.44	0.50
1:M:139:ALA:HB1	1:M:143:ASN:OD1	2.12	0.50
1:A:80:PRO:HG2	1:A:98:LEU:O	2.12	0.50
1:J:320:ASN:HD22	1:J:325:TRP:HE1	1.57	0.50
1:D:122:LEU:O	1:D:218:SER:HB2	2.11	0.50
1:D:54:LYS:HE3	1:D:55:PRO:CD	2.26	0.50
1:K:440:PRO:HA	1:K:443:LYS:HZ2	1.77	0.50
1:H:160:GLY:O	1:H:329:LEU:HD23	2.11	0.50
1:J:71:ARG:HA	1:J:71:ARG:NH1	2.23	0.50
1:J:444:TYR:HB2	1:J:446:PHE:CZ	2.47	0.50
1:N:142:ASP:OD1	1:O:283:THR:OG1	2.30	0.50
1:B:90:PHE:HD1	1:B:91:TYR:HB3	1.76	0.50
1:C:459:LEU:C	1:C:461:GLN:H	2.14	0.50
1:K:209:ASP:O	1:K:213:LEU:HB2	2.11	0.50
1:L:220:VAL:O	1:L:221:PRO:O	2.30	0.50
1:F:42:LEU:HB2	1:F:370:TYR:CB	2.41	0.50
1:O:384:THR:HG23	1:O:387:VAL:HG21	1.93	0.50
1:E:172:GLY:O	1:E:173:SER:C	2.50	0.50
1:F:172:GLY:O	1:F:173:SER:C	2.49	0.50
1:N:234:TYR:O	1:N:235:ILE:C	2.49	0.50
1:L:60:ILE:HG13	1:L:60:ILE:O	2.10	0.50
1:B:80:PRO:C	1:B:82:LYS:N	2.64	0.50
1:L:107:VAL:O	1:L:307:PHE:HB3	2.11	0.50
1:E:242:TYR:HB3	1:E:244:ASP:OD1	2.11	0.50
1:E:33:ILE:HB	1:E:378:LEU:HB3	1.93	0.50
1:J:372:LEU:HB3	1:J:374:PHE:CE1	2.45	0.50
1:C:70:TYR:OH	1:C:232:PRO:HD3	2.10	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:142:ASP:CG	1:C:283:THR:HG1	2.08	0.50
1:G:81:ASN:ND2	1:G:402:TRP:CD1	2.79	0.50
1:N:397:THR:O	1:N:398:ILE:C	2.48	0.50
1:O:228:ILE:N	1:O:228:ILE:CD1	2.64	0.50
1:K:355:TYR:CE1	1:L:144:ARG:HD3	2.47	0.50
1:N:311:TYR:N	1:N:311:TYR:CD2	2.75	0.50
1:A:92:ASN:ND2	1:A:94:ASP:H	2.09	0.50
1:B:96:GLN:HB3	1:B:382:THR:HA	1.92	0.50
1:D:150:ASP:O	1:D:150:ASP:CG	2.48	0.50
1:I:237:MET:HB3	1:I:246:LEU:CD2	2.42	0.50
1:M:170:GLY:HA2	1:M:213:LEU:HD21	1.94	0.50
1:C:119:GLY:HA3	1:C:148:SER:HB3	1.94	0.50
1:M:364:LEU:HD11	1:N:290:ASN:HA	1.92	0.50
1:E:159:ILE:HG22	1:E:247:PHE:HE1	1.77	0.50
1:G:52:ILE:O	1:G:61:LEU:HB3	2.11	0.50
1:I:108:GLY:N	1:I:371:ASP:O	2.44	0.50
1:C:139:ALA:HB1	1:C:143:ASN:HD21	1.75	0.50
1:C:41:ARG:HG2	1:C:42:LEU:O	2.11	0.50
1:E:71:ARG:HD2	1:E:447:TRP:CZ3	2.47	0.50
1:E:384:THR:OG1	1:E:387:VAL:HG23	2.12	0.50
1:G:293:PRO:O	1:G:293:PRO:HG2	2.11	0.50
1:A:300:VAL:CG1	1:A:300:VAL:CA	2.79	0.50
1:C:214:GLN:CD	1:C:219:GLU:HG3	2.32	0.50
1:L:194:VAL:CG2	1:L:444:TYR:CE2	2.95	0.50
1:G:463:PRO:HA	1:G:466:ARG:NE	2.25	0.50
1:J:78:PRO:CD	1:J:455:PHE:CE1	2.95	0.50
1:H:68:LEU:CD2	1:H:203:THR:HG22	2.29	0.50
1:L:54:LYS:HA	1:L:54:LYS:NZ	2.25	0.50
1:O:120:HIS:HE2	1:O:218:SER:HB3	1.72	0.50
1:A:120:HIS:ND1	1:A:121:PRO:HD2	2.25	0.50
1:A:150:ASP:CG	1:A:150:ASP:O	2.49	0.50
1:K:24:THR:HA	1:K:27:TYR:CE2	2.46	0.50
1:L:389:THR:OG1	1:L:390:TYR:N	2.45	0.50
1:F:156:LEU:HD21	1:F:334:VAL:HG21	1.94	0.50
1:K:139:ALA:CB	1:K:143:ASN:HD21	2.24	0.50
1:G:30:ARG:HH11	1:G:377:GLN:HE22	1.56	0.50
1:E:240:GLU:HG3	1:E:243:GLY:N	2.27	0.50
1:K:97:ARG:HG3	1:K:383:LEU:HD11	1.93	0.50
1:F:399:LEU:HA	1:F:402:TRP:HE3	1.76	0.50
1:M:242:TYR:CE2	1:M:394:MET:HB2	2.46	0.50
1:M:383:LEU:CD2	1:M:388:MET:HE2	2.41	0.50
1:A:391:ILE:HG21	1:A:402:TRP:CZ3	2.47	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:92:ASN:C	1:D:94:ASP:H	2.15	0.50
1:J:315:ARG:O	1:J:316:ALA:HB2	2.11	0.50
1:K:471:GLN:OE1	1:K:472:LEU:N	2.45	0.50
1:B:109:ARG:NH1	1:B:370:TYR:CE1	2.80	0.50
1:H:53:LYS:HD3	1:H:58:ASN:HA	1.93	0.50
1:E:152:LYS:HB2	1:E:255:MET:CB	2.22	0.50
1:F:255:MET:HE1	1:J:115:VAL:N	2.11	0.50
1:F:257:VAL:O	1:J:258:ARG:NH2	2.44	0.50
1:M:387:VAL:HG13	1:M:391:ILE:HD11	1.94	0.50
1:A:115:VAL:H	1:B:255:MET:HE3	1.75	0.50
1:J:101:ALA:O	1:J:376:PHE:CA	2.57	0.50
1:J:75:ILE:N	1:J:75:ILE:HD12	2.26	0.50
1:J:75:ILE:HD13	1:J:329:LEU:HB3	1.94	0.50
1:K:30:ARG:HH11	1:K:377:GLN:NE2	2.10	0.50
1:O:255:MET:HG2	1:O:256:PHE:N	2.26	0.50
1:G:155:GLN:OE1	1:G:305:GLN:HA	2.12	0.50
1:J:120:HIS:CE1	1:J:122:LEU:H	2.27	0.50
1:D:81:ASN:ND2	1:D:402:TRP:HD1	2.09	0.50
1:E:149:MET:CE	1:E:205:PHE:HE1	2.25	0.50
1:N:163:PRO:HB3	1:N:330:PHE:CE1	2.46	0.50
1:E:300:VAL:CG1	1:E:337:THR:HA	2.39	0.50
1:G:115:VAL:H	1:H:255:MET:HE1	1.76	0.50
1:L:115:VAL:H	1:M:255:MET:HE1	1.77	0.50
1:J:85:PHE:CZ	1:J:378:LEU:HD22	2.46	0.50
1:D:109:ARG:HE	1:D:338:ARG:HD2	1.77	0.50
1:C:98:LEU:HD13	1:C:378:LEU:HD11	1.93	0.50
1:F:329:LEU:HD13	1:F:374:PHE:CE2	2.47	0.50
1:F:397:THR:O	1:F:401:ASP:OD2	2.30	0.50
1:K:28:VAL:HG12	1:K:29:ALA:N	2.26	0.50
1:D:384:THR:HG23	1:D:387:VAL:HG21	1.94	0.50
1:L:360:PHE:CD1	1:L:360:PHE:N	2.80	0.50
1:O:96:GLN:HA	1:O:382:THR:HA	1.94	0.50
1:H:290:ASN:HD22	1:H:290:ASN:N	2.08	0.50
1:D:200:MET:O	1:D:229:CYS:HA	2.11	0.50
1:L:373:GLN:HB2	1:L:464:LEU:HD12	1.94	0.50
1:D:312:TRP:CH2	1:D:468:PHE:HA	2.46	0.50
1:F:257:VAL:HG13	1:J:115:VAL:HG21	1.93	0.50
1:A:274:ASP:O	1:E:217:LYS:HD3	2.11	0.50
1:H:361:LYS:CG	1:H:361:LYS:CE	2.87	0.50
1:K:149:MET:HA	1:L:260:LEU:HD21	1.93	0.50
1:E:234:TYR:O	1:E:235:ILE:C	2.49	0.50
1:C:440:PRO:CA	1:C:443:LYS:HZ1	2.24	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:292:PHE:C	1:B:292:PHE:CD1	2.85	0.50
1:N:214:GLN:OE1	1:N:219:GLU:HB2	2.12	0.50
1:K:255:MET:SD	1:O:115:VAL:HG22	2.52	0.50
1:H:170:GLY:HA2	1:H:213:LEU:HD21	1.94	0.50
1:M:360:PHE:O	1:N:266:THR:HG23	2.12	0.50
1:D:307:PHE:C	1:D:309:LYS:H	2.15	0.50
1:O:242:TYR:CE2	1:O:394:MET:CG	2.85	0.50
1:F:451:LEU:CD2	1:F:454:LYS:HG3	2.37	0.50
1:N:155:GLN:OE1	1:N:305:GLN:HA	2.12	0.50
1:C:323:ILE:HG21	1:C:325:TRP:CH2	2.46	0.50
1:E:103:VAL:HG22	1:E:375:ILE:O	2.12	0.50
1:N:443:LYS:N	1:N:443:LYS:HD3	2.26	0.50
1:C:125:LYS:NZ	1:D:132:ALA:O	2.41	0.50
1:G:458:ASP:N	1:G:458:ASP:OD2	2.44	0.50
1:N:95:THR:O	1:N:383:LEU:N	2.38	0.50
1:C:68:LEU:HB3	1:C:201:VAL:HG22	1.94	0.50
1:O:267:VAL:HG12	1:O:269:GLU:O	2.11	0.50
1:I:163:PRO:CA	1:I:330:PHE:HD1	2.25	0.50
1:N:221:PRO:HD2	1:N:224:ILE:HD11	1.93	0.50
1:J:241:PRO:HG2	1:J:242:TYR:N	2.27	0.50
1:M:276:TYR:CD1	1:M:277:ILE:N	2.80	0.50
1:K:54:LYS:HG3	1:K:55:PRO:CD	2.41	0.50
1:B:115:VAL:HG22	1:C:255:MET:SD	2.52	0.50
1:M:463:PRO:CB	1:M:466:ARG:HH21	2.23	0.50
1:E:459:LEU:HB3	1:E:465:GLY:CA	2.35	0.50
1:D:21:VAL:HG12	1:D:390:TYR:OH	2.12	0.50
1:G:78:PRO:HD2	1:G:455:PHE:CE1	2.46	0.50
1:O:77:LEU:HB2	1:O:327:ASN:HB3	1.94	0.50
1:B:103:VAL:CG2	1:B:104:GLY:N	2.74	0.50
1:L:400:GLU:O	1:L:402:TRP:O	2.29	0.50
1:K:134:ALA:O	1:K:135:TYR:C	2.50	0.50
1:L:459:LEU:HB3	1:L:465:GLY:CA	2.42	0.50
1:E:92:ASN:ND2	1:E:95:THR:OG1	2.44	0.50
1:E:167:GLU:HG2	1:E:233:ASP:HB2	1.94	0.50
1:N:79:ASP:O	1:N:83:PHE:N	2.45	0.50
1:F:152:LYS:HB2	1:F:255:MET:CB	2.41	0.50
1:A:357:ASN:H	1:B:141:VAL:HG13	1.76	0.50
1:J:395:ASN:O	1:J:398:ILE:HG12	2.12	0.50
1:H:68:LEU:HD22	1:H:203:THR:CG2	2.29	0.50
1:E:66:SER:H	1:E:69:GLN:HE21	1.59	0.50
1:D:167:GLU:HG2	1:D:231:TYR:O	2.12	0.50
1:A:34:TYR:CZ	1:A:377:GLN:HG3	2.41	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:120:HIS:HA	1:E:222:LEU:HD13	1.93	0.50
1:L:148:SER:HB3	1:M:291:TYR:CD2	2.47	0.50
1:G:242:TYR:CG	1:G:394:MET:HG3	2.44	0.50
1:G:54:LYS:HZ2	1:G:54:LYS:HA	1.77	0.50
1:N:300:VAL:HG23	1:N:300:VAL:O	2.12	0.50
1:A:176:THR:C	1:A:177:GLN:HG3	2.32	0.50
1:E:57:ASN:CG	1:E:59:LYS:H	2.14	0.50
1:C:333:VAL:HG12	1:C:334:VAL:N	2.27	0.50
1:L:78:PRO:HD2	1:L:455:PHE:CE1	2.47	0.50
1:I:281:GLY:N	1:I:284:ALA:HB3	2.26	0.50
1:G:471:GLN:CD	1:G:472:LEU:N	2.65	0.50
1:M:248:PHE:CZ	1:M:311:TYR:HB3	2.47	0.50
1:C:137:ALA:O	1:C:138:ASN:O	2.30	0.50
1:F:255:MET:HE1	1:J:115:VAL:HG22	1.94	0.49
1:M:390:TYR:O	1:M:392:HIS:N	2.44	0.49
1:I:231:TYR:CD1	1:I:232:PRO:HD2	2.48	0.49
1:G:335:ASP:OD1	1:G:337:THR:OG1	2.30	0.49
1:N:28:VAL:CG1	1:N:28:VAL:CA	2.81	0.49
1:G:72:VAL:HG23	1:G:197:ASP:HA	1.93	0.49
1:G:105:VAL:HG22	1:G:374:PHE:CD2	2.47	0.49
1:E:223:ASP:OD1	1:E:224:ILE:HG23	2.12	0.49
1:A:438:GLU:HG2	1:A:439:ASP:H	1.76	0.49
1:M:302:SER:HB2	1:N:253:GLU:H	1.76	0.49
1:M:71:ARG:HH12	1:M:198:GLY:N	2.08	0.49
1:K:462:PHE:O	1:K:466:ARG:HG3	2.12	0.49
1:O:75:ILE:HB	1:O:329:LEU:HB3	1.94	0.49
1:F:463:PRO:HA	1:F:466:ARG:HE	1.77	0.49
1:F:399:LEU:O	1:F:402:TRP:HB2	2.12	0.49
1:L:205:PHE:CD1	1:L:220:VAL:HG12	2.47	0.49
1:K:210:PHE:CE1	1:K:224:ILE:HB	2.46	0.49
1:K:77:LEU:HD22	1:K:455:PHE:HZ	1.77	0.49
1:L:48:PRO:HG2	1:L:49:TYR:CD1	2.46	0.49
1:A:194:VAL:HG12	1:A:195:ILE:N	2.27	0.49
1:B:33:ILE:HD13	1:B:33:ILE:HA	1.95	0.49
1:E:27:TYR:CE2	1:E:390:TYR:CE2	3.00	0.49
1:J:184:ASP:O	1:J:185:CYS:C	2.51	0.49
1:I:69:GLN:HA	1:I:199:ASP:O	2.13	0.49
1:G:180:VAL:HG13	1:G:184:ASP:HB3	1.92	0.49
1:M:180:VAL:HG12	1:M:181:GLN:H	1.77	0.49
1:O:119:GLY:HA3	1:O:148:SER:HB3	1.94	0.49
1:N:217:LYS:HD3	1:O:274:ASP:C	2.30	0.49
1:D:237:MET:SD	1:D:246:LEU:HD22	2.52	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:260:LEU:N	1:B:260:LEU:HD12	2.26	0.49
1:I:54:LYS:HA	1:I:54:LYS:HZ1	1.77	0.49
1:C:155:GLN:HG2	1:C:307:PHE:CE1	2.48	0.49
1:D:162:LYS:HB3	1:D:163:PRO:HD2	1.94	0.49
1:L:220:VAL:O	1:L:221:PRO:C	2.48	0.49
1:I:250:LEU:HD12	1:I:250:LEU:H	1.76	0.49
1:A:160:GLY:HA3	1:A:245:SER:O	2.12	0.49
1:A:250:LEU:HD13	1:A:306:ILE:CG2	2.43	0.49
1:I:76:HIS:HB2	1:I:450:ASN:HA	1.93	0.49
1:A:178:VAL:C	1:A:180:VAL:H	2.10	0.49
1:I:236:LYS:CB	1:I:236:LYS:CD	2.82	0.49
1:G:119:GLY:HA3	1:G:148:SER:HB3	1.94	0.49
1:I:70:TYR:O	1:I:71:ARG:NH1	2.45	0.49
1:E:170:GLY:O	1:E:188:LEU:HA	2.13	0.49
1:K:260:LEU:O	1:K:261:PHE:CD2	2.65	0.49
1:K:293:PRO:HD3	1:O:117:ILE:HG21	1.95	0.49
1:H:355:TYR:CD1	1:I:144:ARG:HD3	2.47	0.49
1:I:122:LEU:O	1:I:218:SER:HB2	2.12	0.49
1:I:216:ASN:OD1	1:I:218:SER:N	2.45	0.49
1:K:150:ASP:CG	1:L:257:VAL:HG21	2.32	0.49
1:G:439:ASP:HB3	1:G:442:LYS:HE3	1.94	0.49
1:O:442:LYS:HG2	1:O:442:LYS:HZ3	1.76	0.49
1:G:316:ALA:C	1:G:318:GLY:N	2.65	0.49
1:A:120:HIS:ND1	1:A:121:PRO:CD	2.75	0.49
1:H:395:ASN:HB3	1:H:398:ILE:HG12	1.94	0.49
1:G:248:PHE:CZ	1:G:311:TYR:HB3	2.48	0.49
1:M:439:ASP:OD2	1:M:440:PRO:HD2	2.12	0.49
1:A:399:LEU:O	1:A:402:TRP:HB2	2.12	0.49
1:N:302:SER:CB	1:O:253:GLU:H	2.25	0.49
1:K:77:LEU:HD22	1:K:455:PHE:CZ	2.47	0.49
1:J:193:THR:HG23	1:J:230:LYS:HD2	1.95	0.49
1:K:50:PHE:HB2	1:K:51:PRO:HD2	1.94	0.49
1:N:158:LEU:HD23	1:N:249:TYR:HB2	1.93	0.49
1:L:159:ILE:HG21	1:L:159:ILE:CD1	2.41	0.49
1:E:395:ASN:HD22	1:E:395:ASN:C	2.15	0.49
1:B:163:PRO:N	1:B:330:PHE:HD1	2.11	0.49
1:I:101:ALA:O	1:I:376:PHE:HA	2.11	0.49
1:G:149:MET:HE1	1:G:205:PHE:CZ	2.48	0.49
1:F:467:LYS:CD	1:F:467:LYS:CB	2.82	0.49
1:O:167:GLU:HG3	1:O:231:TYR:O	2.11	0.49
1:B:124:ASN:OD1	1:B:264:ALA:N	2.33	0.49
1:B:148:SER:HB3	1:C:291:TYR:CD2	2.48	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:91:TYR:CD1	1:J:92:ASN:N	2.81	0.49
1:N:216:ASN:HB3	1:N:219:GLU:HG3	1.94	0.49
1:G:391:ILE:CG2	1:G:398:ILE:CG2	2.88	0.49
1:B:65:VAL:HA	1:B:69:GLN:NE2	2.24	0.49
1:K:54:LYS:HB2	1:K:57:ASN:HD22	1.77	0.49
1:F:439:ASP:O	1:F:442:LYS:HB2	2.12	0.49
1:L:69:GLN:HA	1:L:199:ASP:O	2.13	0.49
1:E:54:LYS:HB3	1:E:57:ASN:HD22	1.77	0.49
1:M:355:TYR:CD1	1:N:144:ARG:HD3	2.48	0.49
1:O:54:LYS:CB	1:O:57:ASN:HB3	2.42	0.49
1:B:153:GLN:NE2	1:B:300:VAL:HG12	2.28	0.49
1:K:77:LEU:O	1:K:327:ASN:HB3	2.12	0.49
1:I:458:ASP:OD2	1:I:458:ASP:N	2.45	0.49
1:I:50:PHE:CD1	1:I:50:PHE:C	2.85	0.49
1:J:438:GLU:HG2	1:J:439:ASP:N	2.27	0.49
1:F:24:THR:C	1:F:26:GLU:N	2.66	0.49
1:K:66:SER:HA	1:K:366:HIS:ND1	2.27	0.49
1:B:21:VAL:CG1	1:B:22:VAL:N	2.75	0.49
1:K:79:ASP:CG	1:K:81:ASN:HB2	2.33	0.49
1:C:70:TYR:CD2	1:C:195:ILE:HG21	2.47	0.49
1:K:272:PRO:HD2	1:K:275:LEU:HD11	1.94	0.49
1:I:74:ARG:CB	1:I:330:PHE:HE2	2.25	0.49
1:L:21:VAL:CG1	1:L:390:TYR:OH	2.60	0.49
1:M:36:HIS:C	1:M:36:HIS:ND1	2.66	0.49
1:O:305:GLN:HE22	1:O:337:THR:HG21	1.77	0.49
1:F:145:GLU:OE1	1:G:134:ALA:HA	2.11	0.49
1:F:145:GLU:OE1	1:G:134:ALA:N	2.46	0.49
1:C:281:GLY:O	1:C:284:ALA:CB	2.60	0.49
1:E:316:ALA:O	1:E:318:GLY:N	2.45	0.49
1:M:326:GLY:O	1:M:327:ASN:HB2	2.12	0.49
1:C:317:GLN:NE2	1:C:317:GLN:C	2.65	0.49
1:D:302:SER:C	1:D:304:ALA:H	2.16	0.49
1:N:384:THR:OG1	1:N:385:ALA:N	2.42	0.49
1:J:178:VAL:CG2	1:J:178:VAL:CG1	2.82	0.49
1:I:384:THR:H	1:I:387:VAL:HB	1.77	0.49
1:F:149:MET:HE1	1:F:205:PHE:CE1	2.47	0.49
1:F:68:LEU:O	1:F:201:VAL:HG22	2.12	0.49
1:A:471:GLN:CD	1:A:472:LEU:N	2.65	0.49
1:E:98:LEU:CD2	1:E:379:CYS:O	2.57	0.49
1:K:259:HIS:CE1	1:L:130:GLU:HG2	2.48	0.49
1:G:105:VAL:HG12	1:G:106:GLU:N	2.24	0.49
1:D:137:ALA:CB	1:D:137:ALA:N	2.66	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:74:ARG:HG3	1:N:330:PHE:HE2	1.75	0.49
1:H:119:GLY:N	1:H:221:PRO:HB3	2.28	0.49
1:I:163:PRO:HA	1:I:330:PHE:CD1	2.47	0.49
1:I:163:PRO:N	1:I:330:PHE:CD1	2.79	0.49
1:L:180:VAL:HG12	1:L:181:GLN:H	1.76	0.49
1:I:115:VAL:HG21	1:J:257:VAL:HG13	1.95	0.49
1:B:348:ILE:HD12	1:C:182:PRO:O	2.12	0.49
1:I:451:LEU:HA	1:I:454:LYS:HG3	1.93	0.49
1:I:168:HIS:HB2	1:I:208:MET:HA	1.95	0.49
1:M:126:LEU:HD13	1:M:264:ALA:HB2	1.95	0.49
1:M:167:GLU:O	1:M:167:GLU:HG3	2.11	0.49
1:D:27:TYR:CE2	1:D:390:TYR:CE2	3.01	0.49
1:J:391:ILE:HD13	1:J:402:TRP:HH2	1.78	0.49
1:K:395:ASN:HB3	1:K:398:ILE:CG1	2.42	0.49
1:F:472:LEU:HD23	1:O:138:ASN:HD22	1.76	0.49
1:J:397:THR:O	1:J:401:ASP:OD2	2.29	0.49
1:L:463:PRO:HG2	1:L:464:LEU:N	2.27	0.49
1:J:153:GLN:NE2	1:J:298:SER:O	2.45	0.49
1:J:180:VAL:CG2	1:J:180:VAL:CA	2.81	0.49
1:M:99:VAL:HG12	1:M:100:TRP:N	2.27	0.49
1:I:34:TYR:CE2	1:I:377:GLN:CB	2.92	0.49
1:H:363:TYR:CE2	1:I:185:CYS:HB2	2.46	0.49
1:K:260:LEU:O	1:K:261:PHE:HD2	1.96	0.49
1:L:193:THR:CG2	1:L:230:LYS:HD2	2.42	0.49
1:K:115:VAL:HG22	1:L:255:MET:SD	2.53	0.49
1:L:255:MET:CG	1:L:256:PHE:N	2.68	0.49
1:D:176:THR:C	1:D:177:GLN:CG	2.81	0.49
1:O:24:THR:HG23	1:O:320:ASN:HA	1.92	0.49
1:N:74:ARG:C	1:N:75:ILE:HD12	2.26	0.49
1:C:60:ILE:HD13	1:C:60:ILE:CG2	2.36	0.49
1:M:151:TYR:OH	1:M:221:PRO:CB	2.60	0.49
1:F:325:TRP:CZ2	1:F:394:MET:HE1	2.47	0.49
1:M:149:MET:HE2	1:M:205:PHE:CE1	2.47	0.49
1:K:461:GLN:HE22	1:L:21:VAL:HB	1.78	0.49
1:H:451:LEU:HA	1:H:454:LYS:CG	2.41	0.49
1:D:472:LEU:HD23	1:I:138:ASN:ND2	2.19	0.49
1:N:250:LEU:HD12	1:N:250:LEU:H	1.77	0.49
1:E:105:VAL:HG12	1:E:106:GLU:N	2.25	0.49
1:K:49:TYR:CE2	1:K:118:SER:HA	2.47	0.49
1:I:279:GLY:C	1:I:284:ALA:HB2	2.33	0.49
1:H:306:ILE:N	1:H:306:ILE:HD13	2.28	0.49
1:C:258:ARG:HG3	1:C:259:HIS:ND1	2.28	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:354:THR:O	1:H:356:LYS:HG3	2.12	0.49
1:O:108:GLY:N	1:O:371:ASP:O	2.44	0.49
1:G:290:ASN:N	1:G:290:ASN:HD22	2.10	0.49
1:J:465:GLY:O	1:J:468:PHE:N	2.45	0.49
1:M:162:LYS:C	1:M:330:PHE:CD1	2.83	0.49
1:E:98:LEU:HA	1:E:379:CYS:O	2.12	0.49
1:G:378:LEU:HD12	1:G:379:CYS:H	1.77	0.49
1:C:465:GLY:O	1:C:468:PHE:N	2.45	0.49
1:L:166:GLY:H	1:L:195:ILE:CD1	2.22	0.49
1:L:201:VAL:HG23	1:L:202:ASP:O	2.13	0.49
1:O:219:GLU:HB3	1:O:263:ARG:CZ	2.42	0.49
1:A:68:LEU:CD2	1:A:201:VAL:HG21	2.37	0.49
1:A:246:LEU:N	1:A:246:LEU:CD2	2.76	0.49
1:M:96:GLN:NE2	1:M:382:THR:HG22	2.27	0.49
1:H:42:LEU:HB3	1:H:447:TRP:CZ2	2.48	0.49
1:L:226:THR:HG21	1:M:275:LEU:HD22	1.95	0.49
1:L:302:SER:C	1:L:304:ALA:H	2.15	0.49
1:F:24:THR:C	1:F:26:GLU:H	2.15	0.49
1:H:459:LEU:HB3	1:H:465:GLY:HA3	1.94	0.49
1:F:121:PRO:HD3	1:F:222:LEU:CD2	2.42	0.49
1:G:259:HIS:HE1	1:H:130:GLU:CG	2.26	0.49
1:J:75:ILE:CD1	1:J:331:VAL:HG23	2.42	0.49
1:J:201:VAL:HG23	1:J:202:ASP:O	2.12	0.49
1:A:355:TYR:CD2	1:A:356:LYS:N	2.81	0.49
1:J:24:THR:HA	1:J:27:TYR:CE2	2.46	0.49
1:C:115:VAL:N	1:D:255:MET:SD	2.84	0.49
1:H:120:HIS:HA	1:H:222:LEU:HD13	1.94	0.49
1:M:71:ARG:NH1	1:M:71:ARG:HA	2.15	0.49
1:K:262:ASN:HD22	1:K:263:ARG:N	2.11	0.49
1:K:106:GLU:HG3	1:K:309:LYS:C	2.33	0.49
1:A:141:VAL:O	1:A:142:ASP:HB3	2.13	0.49
1:L:147:ILE:HG22	1:L:148:SER:N	2.26	0.49
1:O:163:PRO:HD3	1:O:330:PHE:HE1	1.78	0.49
1:E:463:PRO:HA	1:E:466:ARG:HE	1.77	0.49
1:N:54:LYS:HE3	1:N:55:PRO:HD2	1.95	0.49
1:E:72:VAL:HG22	1:E:332:THR:HG23	1.94	0.49
1:B:189:GLU:O	1:B:191:ILE:HG13	2.13	0.49
1:E:91:TYR:HA	1:E:96:GLN:OE1	2.13	0.49
1:A:471:GLN:O	1:F:140:GLY:HA2	2.13	0.49
1:K:178:VAL:CA	1:K:178:VAL:CG1	2.84	0.49
1:F:54:LYS:HB3	1:F:57:ASN:HD22	1.77	0.49
1:A:438:GLU:HG2	1:A:439:ASP:N	2.27	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:113:LEU:H	1:M:113:LEU:HD13	1.77	0.49
1:F:240:GLU:HG3	1:F:243:GLY:CA	2.42	0.49
1:D:216:ASN:OD1	1:D:218:SER:N	2.45	0.49
1:J:240:GLU:HG3	1:J:243:GLY:H	1.77	0.49
1:G:97:ARG:HG3	1:G:383:LEU:CD1	2.43	0.49
1:G:97:ARG:HG3	1:G:383:LEU:HD13	1.94	0.49
1:A:216:ASN:CB	1:E:345:CYS:SG	3.01	0.49
1:H:325:TRP:CZ2	1:H:394:MET:HE1	2.48	0.49
1:G:242:TYR:CD2	1:G:394:MET:CG	2.86	0.49
1:A:231:TYR:CD2	1:E:112:PRO:CD	2.92	0.49
1:B:96:GLN:CB	1:B:382:THR:HA	2.43	0.49
1:M:167:GLU:N	1:M:231:TYR:O	2.46	0.49
1:I:57:ASN:HD21	1:I:59:LYS:N	2.09	0.49
1:H:281:GLY:O	1:H:284:ALA:N	2.42	0.49
1:I:367:GLY:C	1:I:368:GLU:HG2	2.33	0.49
1:D:21:VAL:O	1:D:22:VAL:CG1	2.61	0.49
1:K:71:ARG:CA	1:K:71:ARG:HH11	2.24	0.49
1:A:21:VAL:C	1:A:22:VAL:HG13	2.33	0.49
1:C:92:ASN:N	1:C:96:GLN:OE1	2.41	0.49
1:I:440:PRO:HA	1:I:443:LYS:NZ	2.28	0.49
1:B:196:GLN:HA	1:B:446:PHE:CE2	2.47	0.49
1:F:41:ARG:HG2	1:F:41:ARG:O	2.10	0.49
1:N:31:THR:HG23	1:N:378:LEU:O	2.13	0.48
1:F:181:GLN:OE1	1:F:182:PRO:O	2.31	0.48
1:J:185:CYS:HA	1:J:186:PRO:HD3	1.64	0.48
1:K:240:GLU:HG3	1:K:243:GLY:H	1.77	0.48
1:B:22:VAL:HG23	1:B:22:VAL:O	2.13	0.48
1:G:149:MET:CE	1:G:295:PRO:HD2	2.42	0.48
1:D:260:LEU:O	1:D:261:PHE:CD2	2.65	0.48
1:J:122:LEU:O	1:J:218:SER:HB2	2.12	0.48
1:B:439:ASP:HB3	1:B:442:LYS:HD3	1.95	0.48
1:H:139:ALA:CB	1:H:139:ALA:N	2.67	0.48
1:D:400:GLU:C	1:D:402:TRP:N	2.66	0.48
1:G:440:PRO:HA	1:G:443:LYS:NZ	2.27	0.48
1:A:355:TYR:O	1:A:356:LYS:HG2	2.12	0.48
1:M:201:VAL:CG2	1:M:202:ASP:O	2.61	0.48
1:C:343:SER:HB3	1:C:364:LEU:CD2	2.43	0.48
1:N:219:GLU:O	1:N:220:VAL:HG13	2.13	0.48
1:B:363:TYR:CD2	1:C:185:CYS:HB2	2.48	0.48
1:L:216:ASN:OD1	1:L:216:ASN:C	2.52	0.48
1:J:152:LYS:CB	1:J:255:MET:HB2	2.42	0.48
1:K:151:TYR:CG	1:K:203:THR:HB	2.47	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:149:MET:CE	1:D:205:PHE:CE1	2.96	0.48
1:M:300:VAL:H	1:M:300:VAL:HG22	1.40	0.48
1:E:246:LEU:CD2	1:E:246:LEU:N	2.71	0.48
1:H:300:VAL:HG12	1:H:337:THR:HG22	1.95	0.48
1:K:348:ILE:CG2	1:K:359:ASN:OD1	2.59	0.48
1:G:130:GLU:CB	1:G:260:LEU:HD13	2.43	0.48
1:B:391:ILE:HG22	1:B:399:LEU:CG	2.42	0.48
1:O:172:GLY:O	1:O:173:SER:O	2.31	0.48
1:F:193:THR:CG2	1:F:230:LYS:HD3	2.43	0.48
1:L:341:ASN:HB3	1:L:366:HIS:HB2	1.94	0.48
1:I:158:LEU:O	1:I:332:THR:N	2.44	0.48
1:H:303:ASP:N	1:H:303:ASP:OD1	2.46	0.48
1:D:280:SER:OG	1:D:280:SER:O	2.25	0.48
1:E:152:LYS:HB3	1:E:255:MET:HG3	1.94	0.48
1:J:463:PRO:CB	1:J:466:ARG:HH21	2.26	0.48
1:I:344:LEU:CD1	1:J:185:CYS:SG	3.01	0.48
1:K:160:GLY:HA3	1:K:245:SER:O	2.13	0.48
1:G:80:PRO:CG	1:G:98:LEU:O	2.60	0.48
1:I:149:MET:CE	1:I:205:PHE:HE1	2.26	0.48
1:F:260:LEU:HD22	1:J:148:SER:O	2.12	0.48
1:K:74:ARG:CB	1:K:330:PHE:HE2	2.27	0.48
1:O:24:THR:C	1:O:26:GLU:N	2.65	0.48
1:B:184:ASP:O	1:B:185:CYS:O	2.30	0.48
1:N:74:ARG:HB2	1:N:330:PHE:HE2	1.78	0.48
1:E:114:GLY:N	1:E:337:THR:O	2.43	0.48
1:B:463:PRO:CG	1:B:464:LEU:N	2.75	0.48
1:M:366:HIS:CD2	1:M:367:GLY:H	2.32	0.48
1:I:162:LYS:C	1:I:330:PHE:HD1	2.17	0.48
1:L:241:PRO:CG	1:L:242:TYR:N	2.76	0.48
1:D:68:LEU:C	1:D:201:VAL:HG22	2.23	0.48
1:D:49:TYR:HE1	1:D:364:LEU:CD1	2.25	0.48
1:J:378:LEU:HD12	1:J:379:CYS:N	2.28	0.48
1:J:46:GLY:HA3	1:J:63:PRO:O	2.13	0.48
1:E:333:VAL:CG1	1:E:334:VAL:N	2.76	0.48
1:A:390:TYR:O	1:A:392:HIS:N	2.45	0.48
1:K:242:TYR:CD2	1:K:394:MET:CG	2.93	0.48
1:B:372:LEU:HB3	1:B:374:PHE:CE1	2.48	0.48
1:G:171:LYS:HG3	1:G:187:PRO:HD2	1.95	0.48
1:H:262:ASN:ND2	1:H:288:SER:HB3	2.28	0.48
1:G:359:ASN:O	1:G:359:ASN:OD1	2.31	0.48
1:B:280:SER:CA	1:B:284:ALA:HB2	2.43	0.48
1:B:280:SER:N	1:B:284:ALA:HB2	2.28	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:451:LEU:HD23	1:K:454:LYS:HG3	1.95	0.48
1:L:135:TYR:HE2	1:L:287:ALA:HB2	1.78	0.48
1:F:180:VAL:HG12	1:F:181:GLN:O	2.13	0.48
1:K:234:TYR:O	1:K:237:MET:N	2.46	0.48
1:F:365:ARG:CA	1:F:365:ARG:HD3	2.39	0.48
1:F:65:VAL:O	1:F:65:VAL:HG12	2.13	0.48
1:G:120:HIS:HB3	1:G:123:LEU:HB2	1.95	0.48
1:J:104:GLY:O	1:J:374:PHE:HA	2.13	0.48
1:E:183:GLY:O	1:E:184:ASP:C	2.51	0.48
1:C:106:GLU:HB3	1:C:373:GLN:HB2	1.95	0.48
1:G:178:VAL:CG1	1:G:178:VAL:HB	2.21	0.48
1:M:141:VAL:CG1	1:M:142:ASP:N	2.76	0.48
1:H:216:ASN:OD1	1:H:216:ASN:C	2.51	0.48
1:D:232:PRO:HB2	1:D:234:TYR:CE2	2.47	0.48
1:O:120:HIS:ND1	1:O:121:PRO:CD	2.76	0.48
1:C:184:ASP:O	1:C:185:CYS:C	2.49	0.48
1:G:163:PRO:HA	1:G:330:PHE:CD1	2.47	0.48
1:B:66:SER:OG	1:B:67:GLY:N	2.46	0.48
1:F:216:ASN:N	1:J:345:CYS:SG	2.79	0.48
1:M:280:SER:N	1:M:284:ALA:HB2	2.28	0.48
1:O:463:PRO:HA	1:O:466:ARG:HE	1.78	0.48
1:L:92:ASN:HD22	1:L:95:THR:HG1	1.58	0.48
1:H:96:GLN:HA	1:H:382:THR:HA	1.95	0.48
1:K:92:ASN:C	1:K:94:ASP:H	2.16	0.48
1:I:463:PRO:HA	1:I:466:ARG:HE	1.78	0.48
1:E:157:CYS:HA	1:E:332:THR:O	2.13	0.48
1:B:250:LEU:HD22	1:B:306:ILE:HG23	1.95	0.48
1:G:52:ILE:HB	1:G:62:VAL:HB	1.94	0.48
1:C:143:ASN:O	1:C:145:GLU:HG2	2.13	0.48
1:N:76:HIS:HB2	1:N:450:ASN:HA	1.95	0.48
1:M:90:PHE:C	1:M:90:PHE:CD1	2.86	0.48
1:B:33:ILE:HB	1:B:378:LEU:HB3	1.95	0.48
1:E:344:LEU:HD21	1:E:365:ARG:HG2	1.94	0.48
1:H:459:LEU:O	1:H:461:GLN:N	2.46	0.48
1:F:48:PRO:HG2	1:F:49:TYR:CD1	2.48	0.48
1:F:67:GLY:C	1:F:68:LEU:HG	2.34	0.48
1:K:33:ILE:O	1:K:377:GLN:HA	2.13	0.48
1:K:391:ILE:HD13	1:K:402:TRP:HH2	1.79	0.48
1:K:293:PRO:CD	1:K:293:PRO:O	2.60	0.48
1:I:222:LEU:HD21	1:J:271:VAL:CG1	2.43	0.48
1:K:112:PRO:HB3	1:L:231:TYR:CG	2.48	0.48
1:B:459:LEU:C	1:B:461:GLN:H	2.16	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:217:LYS:HG2	1:J:276:TYR:N	2.29	0.48
1:H:52:ILE:HB	1:H:62:VAL:HB	1.94	0.48
1:N:262:ASN:CG	1:N:288:SER:HB3	2.32	0.48
1:B:54:LYS:HE3	1:B:55:PRO:CD	2.21	0.48
1:H:70:TYR:CZ	1:H:230:LYS:O	2.66	0.48
1:J:367:GLY:O	1:J:368:GLU:HG2	2.13	0.48
1:N:183:GLY:O	1:N:185:CYS:N	2.46	0.48
1:B:298:SER:OG	1:B:299:MET:N	2.47	0.48
1:C:249:TYR:O	1:C:249:TYR:CD1	2.66	0.48
1:B:188:LEU:HD11	1:B:213:LEU:HD11	1.96	0.48
1:N:54:LYS:O	1:N:57:ASN:O	2.31	0.48
1:F:457:ALA:O	1:F:459:LEU:CD2	2.59	0.48
1:D:159:ILE:HD12	1:D:248:PHE:CD2	2.46	0.48
1:L:43:LEU:HD12	1:L:369:GLU:HA	1.95	0.48
1:D:77:LEU:HD11	1:D:376:PHE:CE2	2.49	0.48
1:L:223:ASP:OD1	1:L:224:ILE:N	2.47	0.48
1:J:438:GLU:HG2	1:J:439:ASP:H	1.78	0.48
1:L:42:LEU:HB2	1:L:370:TYR:HB2	1.95	0.48
1:L:176:THR:O	1:L:177:GLN:HG3	2.14	0.48
1:M:176:THR:O	1:M:177:GLN:HG3	2.13	0.48
1:N:342:MET:HB2	1:O:208:MET:HE1	1.93	0.48
1:E:152:LYS:HE2	1:E:202:ASP:CB	2.42	0.48
1:E:383:LEU:HA	1:E:387:VAL:CG1	2.43	0.48
1:B:162:LYS:NZ	1:B:395:ASN:OD1	2.44	0.48
1:I:391:ILE:HG21	1:I:402:TRP:HZ3	1.77	0.48
1:F:365:ARG:HG3	1:F:365:ARG:HH11	1.78	0.48
1:I:345:CYS:SG	1:J:216:ASN:CB	2.95	0.48
1:H:255:MET:CG	1:H:256:PHE:N	2.77	0.48
1:G:355:TYR:CD1	1:H:144:ARG:HD3	2.48	0.48
1:M:192:ASN:C	1:M:193:THR:HG22	2.32	0.48
1:O:125:LYS:HG3	1:O:147:ILE:CD1	2.44	0.48
1:M:117:ILE:CD1	1:N:260:LEU:HD23	2.39	0.48
1:C:75:ILE:HG22	1:C:76:HIS:N	2.21	0.48
1:I:75:ILE:HG22	1:I:451:LEU:HD12	1.94	0.48
1:H:27:TYR:CE2	1:H:390:TYR:CE2	3.01	0.48
1:J:391:ILE:HD13	1:J:402:TRP:CH2	2.49	0.48
1:K:185:CYS:SG	1:O:365:ARG:NH1	2.86	0.48
1:F:168:HIS:HB2	1:F:208:MET:CA	2.40	0.48
1:F:399:LEU:HD23	1:F:402:TRP:CZ3	2.48	0.48
1:K:166:GLY:H	1:K:195:ILE:HG13	1.77	0.48
1:C:228:ILE:CD1	1:C:228:ILE:N	2.77	0.48
1:G:153:GLN:CD	1:G:300:VAL:HG12	2.33	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:300:VAL:O	1:H:254:GLN:HA	2.12	0.48
1:C:317:GLN:H	1:C:317:GLN:HG3	1.38	0.48
1:F:234:TYR:CD1	1:F:251:ARG:NH2	2.81	0.48
1:D:105:VAL:CG1	1:D:106:GLU:N	2.76	0.48
1:I:347:ALA:H	1:J:215:ALA:CB	2.26	0.48
1:E:96:GLN:HA	1:E:382:THR:HA	1.95	0.48
1:F:317:GLN:C	1:F:317:GLN:NE2	2.66	0.48
1:B:441:LEU:CD2	1:B:441:LEU:CB	2.82	0.48
1:I:395:ASN:HB3	1:I:398:ILE:HG12	1.96	0.48
1:G:118:SER:CB	1:G:151:TYR:CE1	2.95	0.48
1:G:170:GLY:O	1:G:188:LEU:HA	2.14	0.48
1:A:307:PHE:O	1:A:308:ASN:CB	2.61	0.48
1:I:70:TYR:CE1	1:I:201:VAL:HG12	2.49	0.48
1:L:193:THR:HG23	1:L:230:LYS:HD2	1.95	0.48
1:M:125:LYS:HG3	1:M:147:ILE:CD1	2.43	0.48
1:J:90:PHE:HD1	1:J:91:TYR:HB3	1.77	0.48
1:B:272:PRO:HD2	1:B:275:LEU:HD11	1.94	0.48
1:J:383:LEU:HD22	1:J:388:MET:CE	2.44	0.48
1:M:66:SER:H	1:M:69:GLN:HE21	1.54	0.48
1:B:363:TYR:CE1	1:C:185:CYS:HB2	2.49	0.48
1:O:70:TYR:OH	1:O:232:PRO:CD	2.35	0.48
1:O:46:GLY:HA3	1:O:63:PRO:O	2.13	0.48
1:B:54:LYS:HG2	1:B:56:ASN:OD1	2.14	0.48
1:L:363:TYR:CZ	1:M:185:CYS:HB2	2.48	0.48
1:M:289:SER:O	1:M:291:TYR:CE1	2.66	0.48
1:F:266:THR:OG1	1:F:266:THR:O	2.25	0.48
1:N:180:VAL:HG13	1:N:184:ASP:CB	2.32	0.48
1:D:78:PRO:HD3	1:D:452:LYS:CA	2.37	0.48
1:F:373:GLN:HB3	1:F:464:LEU:HD12	1.96	0.48
1:O:36:HIS:CG	1:O:462:PHE:HD1	2.28	0.48
1:N:142:ASP:CG	1:O:283:THR:OG1	2.52	0.48
1:C:71:ARG:NH1	1:C:197:ASP:OD1	2.47	0.48
1:M:329:LEU:HD13	1:M:374:PHE:CE2	2.48	0.48
1:K:170:GLY:O	1:K:188:LEU:HA	2.14	0.48
1:A:444:TYR:HB3	1:A:446:PHE:CZ	2.49	0.48
1:N:383:LEU:HD22	1:N:388:MET:HE3	1.96	0.48
1:M:399:LEU:HD23	1:M:402:TRP:CZ3	2.48	0.48
1:J:163:PRO:CA	1:J:330:PHE:CD1	2.96	0.48
1:C:122:LEU:O	1:C:218:SER:HB2	2.14	0.48
1:I:70:TYR:OH	1:I:230:LYS:O	2.16	0.48
1:D:345:CYS:SG	1:D:345:CYS:O	2.72	0.48
1:G:70:TYR:CE1	1:G:201:VAL:HA	2.47	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:470:LEU:CD2	1:G:470:LEU:CD1	2.85	0.48
1:D:399:LEU:HA	1:D:402:TRP:HE3	1.79	0.48
1:M:166:GLY:HA2	1:M:195:ILE:HD11	1.92	0.48
1:A:61:LEU:O	1:A:62:VAL:HG23	2.13	0.48
1:L:344:LEU:CD1	1:M:186:PRO:HG2	2.38	0.48
1:O:155:GLN:HG2	1:O:307:PHE:HE1	1.78	0.48
1:I:333:VAL:HG12	1:I:334:VAL:N	2.28	0.48
1:F:75:ILE:HG23	1:F:451:LEU:CD1	2.44	0.48
1:E:54:LYS:HG2	1:E:56:ASN:OD1	2.12	0.48
1:I:42:LEU:HD13	1:I:447:TRP:CZ2	2.49	0.48
1:K:185:CYS:HB2	1:O:363:TYR:CD2	2.49	0.48
1:H:226:THR:HG21	1:I:275:LEU:CD2	2.43	0.48
1:M:150:ASP:O	1:M:296:SER:HA	2.13	0.48
1:K:121:PRO:CG	1:L:289:SER:HB2	2.44	0.48
1:D:105:VAL:HG12	1:D:106:GLU:N	2.28	0.48
1:B:217:LYS:C	1:B:218:SER:OG	2.51	0.48
1:N:458:ASP:OD2	1:N:458:ASP:N	2.47	0.48
1:F:23:SER:HG	1:F:25:ASP:HB2	1.71	0.48
1:J:335:ASP:OD1	1:J:337:THR:OG1	2.32	0.48
1:M:323:ILE:HG23	1:M:323:ILE:CD1	2.44	0.48
1:I:27:TYR:O	1:I:381:ILE:HG23	2.13	0.48
1:H:259:HIS:CE1	1:I:130:GLU:CG	2.97	0.48
1:A:298:SER:OG	1:A:299:MET:N	2.45	0.48
1:J:451:LEU:HA	1:J:454:LYS:CG	2.44	0.48
1:K:101:ALA:HB3	1:K:377:GLN:O	2.14	0.48
1:A:49:TYR:HA	1:A:223:ASP:HB3	1.96	0.48
1:I:151:TYR:OH	1:I:221:PRO:HG2	2.13	0.48
1:I:205:PHE:CD1	1:I:220:VAL:HG12	2.48	0.48
1:I:259:HIS:HE1	1:J:130:GLU:CG	2.27	0.48
1:G:372:LEU:HD23	1:G:372:LEU:HA	1.54	0.48
1:M:144:ARG:CG	1:M:144:ARG:H	2.27	0.48
1:M:121:PRO:HD3	1:M:222:LEU:HD13	1.94	0.48
1:J:92:ASN:N	1:J:96:GLN:OE1	2.47	0.48
1:B:272:PRO:HD2	1:B:275:LEU:CD1	2.43	0.48
1:D:214:GLN:NE2	1:D:219:GLU:HB2	2.28	0.48
1:K:75:ILE:HB	1:K:329:LEU:CB	2.43	0.48
1:A:112:PRO:HB3	1:B:231:TYR:CD1	2.48	0.48
1:O:36:HIS:ND1	1:O:462:PHE:CD1	2.82	0.48
1:G:451:LEU:CD2	1:G:454:LYS:HG3	2.41	0.48
1:K:210:PHE:HD1	1:K:224:ILE:O	1.97	0.48
1:K:166:GLY:H	1:K:195:ILE:CG1	2.27	0.48
1:H:439:ASP:OD2	1:H:440:PRO:HD2	2.14	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:53:LYS:HD3	1:B:58:ASN:HA	1.95	0.48
1:M:317:GLN:HB2	1:M:317:GLN:HE21	1.34	0.48
1:I:391:ILE:HB	1:I:399:LEU:HD21	1.96	0.48
1:G:147:ILE:HG23	1:H:129:THR:O	2.13	0.48
1:G:119:GLY:HA3	1:H:291:TYR:CZ	2.49	0.48
1:I:49:TYR:N	1:I:49:TYR:CD1	2.82	0.48
1:K:299:MET:CA	1:L:256:PHE:HB3	2.41	0.48
1:K:276:TYR:CD2	1:K:276:TYR:N	2.82	0.48
1:D:383:LEU:HD23	1:D:388:MET:HE2	1.96	0.48
1:D:342:MET:CE	1:D:342:MET:CG	2.91	0.48
1:L:54:LYS:CE	1:L:55:PRO:HD2	2.44	0.48
1:G:323:ILE:HG21	1:G:325:TRP:CZ2	2.48	0.48
1:L:71:ARG:NH1	1:L:197:ASP:CG	2.68	0.48
1:E:472:LEU:CD2	1:J:138:ASN:ND2	2.52	0.48
1:G:365:ARG:NH2	1:H:269:GLU:OE1	2.47	0.48
1:C:263:ARG:HG2	1:C:292:PHE:HD2	1.79	0.48
1:N:391:ILE:HG21	1:N:402:TRP:HZ3	1.78	0.48
1:N:159:ILE:HD12	1:N:248:PHE:HD2	1.77	0.48
1:I:107:VAL:HG23	1:I:311:TYR:HE1	1.78	0.48
1:B:451:LEU:HA	1:B:454:LYS:CG	2.44	0.48
1:E:248:PHE:CZ	1:E:311:TYR:HB3	2.48	0.48
1:L:278:LYS:HB2	1:O:354:THR:HG22	1.94	0.48
1:I:158:LEU:HD23	1:I:249:TYR:HB2	1.96	0.48
1:B:217:LYS:HG2	1:C:276:TYR:HA	1.96	0.48
1:B:386:ASP:OD2	1:B:386:ASP:N	2.47	0.48
1:M:110:GLY:O	1:M:111:GLN:NE2	2.45	0.48
1:N:97:ARG:HG3	1:N:383:LEU:HD11	1.96	0.48
1:A:180:VAL:CG1	1:A:184:ASP:HB3	2.40	0.48
1:M:390:TYR:C	1:M:392:HIS:N	2.68	0.48
1:K:190:LEU:HD21	1:O:369:GLU:OE1	2.14	0.48
1:I:400:GLU:O	1:I:401:ASP:C	2.51	0.48
1:G:259:HIS:HE1	1:H:130:GLU:HG3	1.79	0.48
1:I:369:GLU:OE1	1:J:167:GLU:OE1	2.32	0.48
1:F:112:PRO:HB2	1:G:202:ASP:OD2	2.14	0.48
1:I:122:LEU:HD21	1:J:286:LEU:CD1	2.44	0.48
1:B:463:PRO:HA	1:B:466:ARG:NE	2.26	0.48
1:L:438:GLU:HG2	1:L:439:ASP:N	2.29	0.48
1:G:50:PHE:CB	1:G:51:PRO:HD2	2.41	0.48
1:O:196:GLN:OE1	1:O:445:THR:N	2.43	0.48
1:C:75:ILE:HB	1:C:329:LEU:CB	2.44	0.48
1:G:390:TYR:C	1:G:392:HIS:N	2.67	0.48
1:A:54:LYS:HB3	1:A:57:ASN:HB3	1.95	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:348:ILE:CG2	1:B:359:ASN:OD1	2.46	0.48
1:H:71:ARG:HA	1:H:71:ARG:NH1	2.10	0.48
1:J:246:LEU:HD23	1:J:246:LEU:N	2.12	0.48
1:A:123:LEU:O	1:A:125:LYS:N	2.47	0.48
1:A:231:TYR:CD1	1:E:112:PRO:HB3	2.49	0.48
1:O:356:LYS:O	1:O:357:ASN:C	2.52	0.48
1:F:300:VAL:HG12	1:F:337:THR:HG22	1.95	0.48
1:L:223:ASP:OD1	1:L:224:ILE:HG12	2.14	0.48
1:L:49:TYR:N	1:L:49:TYR:CD1	2.81	0.48
1:D:103:VAL:HG21	1:D:468:PHE:CE1	2.49	0.47
1:I:344:LEU:HD21	1:I:365:ARG:HB2	1.96	0.47
1:B:61:LEU:CD2	1:B:61:LEU:CD1	2.82	0.47
1:A:299:MET:CA	1:B:256:PHE:HB3	2.37	0.47
1:L:163:PRO:CA	1:L:330:PHE:CD1	2.97	0.47
1:O:345:CYS:SG	1:O:345:CYS:O	2.72	0.47
1:A:124:ASN:HB3	1:A:263:ARG:HH11	1.79	0.47
1:I:115:VAL:HG22	1:J:255:MET:SD	2.53	0.47
1:H:232:PRO:HB2	1:H:234:TYR:CZ	2.49	0.47
1:J:208:MET:CG	1:J:210:PHE:CE2	2.96	0.47
1:E:329:LEU:HA	1:E:329:LEU:HD23	1.70	0.47
1:K:22:VAL:O	1:K:23:SER:C	2.52	0.47
1:O:355:TYR:CD2	1:O:356:LYS:N	2.82	0.47
1:G:237:MET:HB3	1:G:246:LEU:CD2	2.42	0.47
1:K:209:ASP:CG	1:K:212:THR:HG23	2.35	0.47
1:K:185:CYS:HB2	1:O:363:TYR:CE2	2.49	0.47
1:I:459:LEU:C	1:I:461:GLN:H	2.18	0.47
1:D:163:PRO:O	1:D:163:PRO:HG2	2.13	0.47
1:N:464:LEU:CD2	1:N:464:LEU:O	2.62	0.47
1:M:217:LYS:HG2	1:N:276:TYR:HA	1.96	0.47
1:L:139:ALA:CB	1:L:143:ASN:ND2	2.76	0.47
1:L:155:GLN:HB3	1:L:252:ARG:HB3	1.96	0.47
1:B:149:MET:HE2	1:B:205:PHE:CE1	2.49	0.47
1:J:250:LEU:N	1:J:250:LEU:HD12	2.28	0.47
1:E:231:TYR:OH	1:E:253:GLU:OE2	2.25	0.47
1:F:70:TYR:CE1	1:F:201:VAL:HA	2.49	0.47
1:F:97:ARG:CB	1:F:383:LEU:HD11	2.44	0.47
1:F:92:ASN:C	1:F:94:ASP:H	2.16	0.47
1:E:80:PRO:O	1:E:85:PHE:HE1	1.97	0.47
1:L:230:LYS:CD	1:L:230:LYS:HZ2	2.23	0.47
1:K:248:PHE:CE2	1:K:311:TYR:HB3	2.49	0.47
1:O:391:ILE:HG22	1:O:398:ILE:HB	1.97	0.47
1:A:443:LYS:NZ	1:A:443:LYS:CD	2.70	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:356:LYS:CD	1:A:356:LYS:NZ	2.68	0.47
1:N:152:LYS:HB2	1:N:255:MET:CB	2.32	0.47
1:M:66:SER:N	1:M:69:GLN:NE2	2.53	0.47
1:M:72:VAL:HG22	1:M:332:THR:HG23	1.95	0.47
1:B:219:GLU:O	1:B:220:VAL:HG13	2.14	0.47
1:G:97:ARG:HB2	1:G:383:LEU:HD11	1.96	0.47
1:I:105:VAL:CG1	1:I:106:GLU:N	2.76	0.47
1:I:105:VAL:HA	1:I:373:GLN:O	2.14	0.47
1:E:451:LEU:O	1:E:454:LYS:HB2	2.13	0.47
1:K:142:ASP:OD2	1:K:144:ARG:NE	2.47	0.47
1:B:237:MET:HB3	1:B:246:LEU:HD22	1.95	0.47
1:H:42:LEU:HD13	1:H:447:TRP:CE2	2.49	0.47
1:G:250:LEU:O	1:G:250:LEU:HD12	2.14	0.47
1:D:185:CYS:HA	1:D:186:PRO:HD3	1.76	0.47
1:J:390:TYR:C	1:J:392:HIS:N	2.66	0.47
1:J:111:GLN:HG2	1:J:369:GLU:HB3	1.96	0.47
1:E:261:PHE:HB3	1:E:292:PHE:CE2	2.48	0.47
1:N:384:THR:O	1:N:388:MET:HB2	2.14	0.47
1:J:375:ILE:HG21	1:J:468:PHE:CD2	2.49	0.47
1:J:36:HIS:HB2	1:J:459:LEU:HD22	1.95	0.47
1:H:380:LYS:CE	1:H:380:LYS:CG	2.83	0.47
1:H:461:GLN:HE22	1:I:21:VAL:HG23	1.79	0.47
1:F:67:GLY:N	1:F:366:HIS:HE1	2.11	0.47
1:G:217:LYS:O	1:G:218:SER:CB	2.61	0.47
1:F:92:ASN:HA	1:F:93:PRO:HD2	1.75	0.47
1:L:361:LYS:HD2	1:M:183:GLY:CA	2.44	0.47
1:M:302:SER:O	1:M:305:GLN:HG2	2.15	0.47
1:N:255:MET:CG	1:N:256:PHE:N	2.76	0.47
1:H:222:LEU:HA	1:H:225:CYS:SG	2.54	0.47
1:A:275:LEU:HD23	1:E:226:THR:HG21	1.97	0.47
1:A:279:GLY:HA3	1:A:283:THR:C	2.34	0.47
1:O:75:ILE:HG21	1:O:451:LEU:HD12	1.95	0.47
1:F:126:LEU:HB2	1:F:262:ASN:HB3	1.93	0.47
1:D:153:GLN:NE2	1:D:300:VAL:HA	2.29	0.47
1:B:252:ARG:CD	1:B:306:ILE:HD11	2.40	0.47
1:H:307:PHE:C	1:H:309:LYS:N	2.64	0.47
1:F:259:HIS:CE1	1:G:130:GLU:HG2	2.49	0.47
1:C:147:ILE:HG23	1:D:129:THR:O	2.15	0.47
1:I:141:VAL:O	1:I:142:ASP:CB	2.62	0.47
1:I:312:TRP:HA	1:I:312:TRP:CE3	2.48	0.47
1:M:79:ASP:CG	1:M:81:ASN:HB2	2.27	0.47
1:G:259:HIS:CE1	1:H:130:GLU:CG	2.98	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:115:VAL:HG22	1:B:255:MET:CE	2.43	0.47
1:J:373:GLN:C	1:J:374:PHE:CD1	2.87	0.47
1:D:80:PRO:HG2	1:D:98:LEU:O	2.14	0.47
1:K:162:LYS:NZ	1:K:162:LYS:CD	2.69	0.47
1:N:75:ILE:CG2	1:N:451:LEU:HD12	2.42	0.47
1:D:28:VAL:HA	1:D:381:ILE:HG12	1.96	0.47
1:D:122:LEU:CD1	1:E:286:LEU:HD11	2.41	0.47
1:N:151:TYR:CD2	1:N:203:THR:O	2.64	0.47
1:H:31:THR:HG23	1:H:378:LEU:O	2.13	0.47
1:K:461:GLN:NE2	1:L:21:VAL:H	2.11	0.47
1:M:459:LEU:HB3	1:M:465:GLY:HA3	1.95	0.47
1:K:241:PRO:HG2	1:K:242:TYR:H	1.80	0.47
1:F:459:LEU:O	1:F:461:GLN:N	2.48	0.47
1:N:189:GLU:O	1:N:191:ILE:HG13	2.13	0.47
1:K:176:THR:O	1:K:177:GLN:HG3	2.14	0.47
1:M:116:GLY:N	1:M:339:SER:OG	2.47	0.47
1:O:168:HIS:CE1	1:O:191:ILE:HB	2.49	0.47
1:E:96:GLN:HE21	1:E:382:THR:HG23	1.78	0.47
1:A:185:CYS:HB2	1:E:363:TYR:CG	2.50	0.47
1:H:380:LYS:HZ2	1:H:380:LYS:CD	2.27	0.47
1:G:169:TRP:HB3	1:G:188:LEU:HD12	1.97	0.47
1:F:96:GLN:NE2	1:F:380:LYS:HD2	2.29	0.47
1:C:57:ASN:ND2	1:C:59:LYS:H	2.12	0.47
1:O:255:MET:HG2	1:O:256:PHE:H	1.80	0.47
1:G:113:LEU:N	1:G:113:LEU:HD12	2.30	0.47
1:F:246:LEU:N	1:F:246:LEU:HD23	2.09	0.47
1:O:149:MET:HE3	1:O:294:THR:CG2	2.36	0.47
1:L:292:PHE:C	1:L:292:PHE:CD1	2.88	0.47
1:H:320:ASN:OD1	1:H:322:GLY:N	2.39	0.47
1:A:149:MET:HE2	1:A:205:PHE:CE1	2.50	0.47
1:D:114:GLY:N	1:D:337:THR:O	2.46	0.47
1:A:202:ASP:OD2	1:E:112:PRO:HB2	2.14	0.47
1:I:240:GLU:HG3	1:I:243:GLY:H	1.78	0.47
1:G:142:ASP:OD1	1:H:283:THR:OG1	2.25	0.47
1:L:36:HIS:C	1:L:36:HIS:ND1	2.66	0.47
1:B:247:PHE:HD1	1:B:248:PHE:N	2.12	0.47
1:B:190:LEU:HD12	1:B:190:LEU:HA	1.52	0.47
1:E:231:TYR:CD1	1:E:232:PRO:HD2	2.49	0.47
1:A:169:TRP:N	1:A:208:MET:HA	2.29	0.47
1:I:363:TYR:CZ	1:J:185:CYS:HB2	2.49	0.47
1:E:83:PHE:HB3	1:E:85:PHE:CE1	2.49	0.47
1:J:34:TYR:HE2	1:J:377:GLN:HB2	1.77	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:54:LYS:CB	1:H:57:ASN:HD22	2.27	0.47
1:I:111:GLN:HG2	1:I:369:GLU:HB2	1.96	0.47
1:I:151:TYR:OH	1:I:221:PRO:CB	2.63	0.47
1:G:307:PHE:C	1:G:309:LYS:H	2.17	0.47
1:O:442:LYS:HB3	1:O:443:LYS:HD3	1.96	0.47
1:D:68:LEU:HD22	1:D:203:THR:HG22	1.96	0.47
1:K:279:GLY:HA3	1:K:283:THR:C	2.34	0.47
1:N:49:TYR:HA	1:N:223:ASP:HB3	1.96	0.47
1:N:215:ALA:O	1:N:217:LYS:N	2.48	0.47
1:A:217:LYS:O	1:A:218:SER:CB	2.61	0.47
1:A:238:VAL:C	1:A:240:GLU:H	2.18	0.47
1:B:28:VAL:CG2	1:B:381:ILE:HD11	2.35	0.47
1:H:162:LYS:HG3	1:H:244:ASP:HB3	1.97	0.47
1:N:325:TRP:HB3	1:N:398:ILE:HD11	1.97	0.47
1:J:169:TRP:H	1:J:208:MET:HA	1.80	0.47
1:E:30:ARG:NH1	1:E:377:GLN:NE2	2.56	0.47
1:G:173:SER:HA	1:G:174:PRO:HD3	1.63	0.47
1:D:372:LEU:HB3	1:D:374:PHE:CE1	2.50	0.47
1:F:200:MET:O	1:F:229:CYS:HA	2.14	0.47
1:K:107:VAL:O	1:K:107:VAL:HG12	2.13	0.47
1:N:33:ILE:HD12	1:N:33:ILE:HG23	1.52	0.47
1:L:105:VAL:HA	1:L:373:GLN:O	2.14	0.47
1:F:185:CYS:SG	1:F:186:PRO:N	2.87	0.47
1:K:240:GLU:HG3	1:K:243:GLY:N	2.30	0.47
1:B:325:TRP:CZ2	1:B:394:MET:HE1	2.49	0.47
1:H:459:LEU:C	1:H:461:GLN:H	2.18	0.47
1:I:27:TYR:CZ	1:I:390:TYR:HE2	2.33	0.47
1:J:74:ARG:NE	1:J:74:ARG:CG	2.69	0.47
1:C:66:SER:OG	1:C:67:GLY:N	2.46	0.47
1:C:189:GLU:O	1:C:191:ILE:HG13	2.15	0.47
1:C:217:LYS:CD	1:C:217:LYS:NZ	2.70	0.47
1:N:115:VAL:H	1:O:255:MET:CE	2.23	0.47
1:N:313:LEU:CD2	1:N:313:LEU:HG	2.20	0.47
1:K:311:TYR:CD2	1:K:311:TYR:N	2.81	0.47
1:A:163:PRO:CA	1:A:330:PHE:CD1	2.98	0.47
1:D:355:TYR:CD2	1:D:356:LYS:N	2.82	0.47
1:A:443:LYS:CG	1:A:443:LYS:HZ3	2.28	0.47
1:A:257:VAL:HG13	1:E:115:VAL:HG21	1.96	0.47
1:H:216:ASN:OD1	1:H:218:SER:N	2.48	0.47
1:D:219:GLU:HB3	1:D:263:ARG:CZ	2.44	0.47
1:D:66:SER:HA	1:D:366:HIS:ND1	2.29	0.47
1:N:121:PRO:HG3	1:O:289:SER:CB	2.42	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:O:67:GLY:C	1:O:68:LEU:HG	2.34	0.47
1:A:65:VAL:CA	1:A:69:GLN:HE22	1.99	0.47
1:K:219:GLU:O	1:K:220:VAL:CG1	2.60	0.47
1:J:85:PHE:CE2	1:J:378:LEU:HD22	2.50	0.47
1:B:77:LEU:HD11	1:B:376:PHE:CE2	2.50	0.47
1:A:121:PRO:C	1:A:122:LEU:HD23	2.34	0.47
1:H:387:VAL:O	1:H:391:ILE:HG13	2.14	0.47
1:A:72:VAL:HG23	1:A:197:ASP:HA	1.97	0.47
1:H:247:PHE:CD1	1:H:248:PHE:N	2.76	0.47
1:H:166:GLY:CA	1:H:195:ILE:CD1	2.82	0.47
1:J:72:VAL:HG21	1:J:195:ILE:O	2.15	0.47
1:O:307:PHE:C	1:O:309:LYS:H	2.18	0.47
1:J:46:GLY:N	1:J:65:VAL:HB	2.28	0.47
1:J:49:TYR:HA	1:J:223:ASP:HB3	1.97	0.47
1:E:54:LYS:HG3	1:E:55:PRO:HD2	1.95	0.47
1:C:71:ARG:HH12	1:C:198:GLY:N	2.08	0.47
1:F:356:LYS:O	1:F:358:THR:N	2.48	0.47
1:K:213:LEU:HD13	1:K:213:LEU:HA	1.55	0.47
1:K:185:CYS:HB2	1:O:363:TYR:CZ	2.50	0.47
1:F:188:LEU:HD13	1:F:188:LEU:HA	1.70	0.47
1:L:98:LEU:HD23	1:L:98:LEU:N	2.29	0.47
1:L:208:MET:HG2	1:L:210:PHE:CE2	2.50	0.47
1:N:463:PRO:O	1:N:466:ARG:HB2	2.15	0.47
1:I:97:ARG:HA	1:I:97:ARG:NH1	2.28	0.47
1:G:168:HIS:H	1:G:190:LEU:CD1	2.27	0.47
1:L:356:LYS:O	1:L:357:ASN:C	2.53	0.47
1:N:290:ASN:HD22	1:N:290:ASN:N	2.13	0.47
1:O:96:GLN:HB3	1:O:382:THR:HG22	1.96	0.47
1:B:36:HIS:ND1	1:B:36:HIS:C	2.68	0.47
1:M:317:GLN:H	1:M:317:GLN:HG3	1.55	0.47
1:H:159:ILE:O	1:H:246:LEU:HA	2.15	0.47
1:J:154:THR:O	1:J:336:THR:HG23	2.15	0.47
1:I:386:ASP:OD2	1:I:386:ASP:N	2.48	0.47
1:C:53:LYS:HD3	1:C:58:ASN:HA	1.96	0.47
1:C:83:PHE:HD2	1:C:85:PHE:CE2	2.33	0.47
1:H:164:PRO:HG3	1:H:332:THR:HG21	1.95	0.47
1:F:205:PHE:CE1	1:F:220:VAL:HG12	2.50	0.47
1:F:67:GLY:N	1:F:366:HIS:CE1	2.83	0.47
1:H:149:MET:CE	1:H:205:PHE:CE1	2.98	0.47
1:D:176:THR:CA	1:D:176:THR:HB	2.21	0.47
1:O:381:ILE:O	1:O:383:LEU:HD12	2.14	0.47
1:G:180:VAL:HG13	1:G:184:ASP:CB	2.39	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:179:ALA:O	1:H:180:VAL:O	2.33	0.47
1:B:463:PRO:HB3	1:B:466:ARG:NH2	2.22	0.47
1:L:54:LYS:HB3	1:L:57:ASN:HD22	1.79	0.47
1:M:152:LYS:HE3	1:M:154:THR:OG1	2.15	0.47
1:K:372:LEU:HB3	1:K:374:PHE:HE1	1.80	0.47
1:B:67:GLY:C	1:B:68:LEU:HG	2.35	0.47
1:H:80:PRO:O	1:H:98:LEU:HD12	2.15	0.47
1:M:124:ASN:OD1	1:M:264:ALA:N	2.47	0.47
1:I:153:GLN:NE2	1:I:300:VAL:HA	2.30	0.47
1:N:54:LYS:HB3	1:N:57:ASN:ND2	2.26	0.47
1:K:92:ASN:HA	1:K:93:PRO:HD2	1.87	0.47
1:K:97:ARG:HG3	1:K:383:LEU:HD13	1.97	0.47
1:F:188:LEU:HD21	1:J:344:LEU:CD1	2.44	0.47
1:L:80:PRO:HG3	1:L:98:LEU:O	2.15	0.47
1:C:472:LEU:HD23	1:H:138:ASN:HD22	1.80	0.47
1:A:463:PRO:HB3	1:A:466:ARG:HH21	1.79	0.47
1:F:396:SER:O	1:F:397:THR:C	2.52	0.47
1:G:354:THR:HG22	1:I:278:LYS:CB	2.44	0.47
1:A:234:TYR:CD1	1:A:251:ARG:NH2	2.83	0.47
1:H:312:TRP:CH2	1:H:468:PHE:HA	2.49	0.47
1:G:109:ARG:N	1:G:308:ASN:OD1	2.48	0.47
1:O:164:PRO:CG	1:O:332:THR:HG21	2.45	0.47
1:J:463:PRO:CA	1:J:466:ARG:HH21	2.27	0.47
1:M:391:ILE:CG2	1:M:398:ILE:HG21	2.44	0.47
1:F:149:MET:CE	1:F:205:PHE:CZ	2.98	0.47
1:G:149:MET:HE2	1:G:205:PHE:CE1	2.50	0.47
1:B:336:THR:C	1:B:338:ARG:H	2.18	0.47
1:E:209:ASP:O	1:E:213:LEU:HB2	2.14	0.47
1:L:163:PRO:HA	1:L:330:PHE:CD1	2.50	0.47
1:D:323:ILE:HG21	1:D:325:TRP:CH2	2.50	0.47
1:D:99:VAL:HG21	1:D:325:TRP:HZ3	1.80	0.47
1:H:178:VAL:O	1:H:180:VAL:N	2.41	0.47
1:H:119:GLY:C	1:H:221:PRO:HA	2.34	0.47
1:L:57:ASN:HD21	1:L:59:LYS:CB	2.27	0.47
1:O:210:PHE:CE1	1:O:224:ILE:HB	2.50	0.47
1:I:471:GLN:OE1	1:I:472:LEU:N	2.48	0.47
1:H:374:PHE:CB	1:H:376:PHE:CE1	2.97	0.47
1:M:361:LYS:HD3	1:N:268:GLY:HA2	1.97	0.47
1:A:151:TYR:CD2	1:A:203:THR:CB	2.92	0.47
1:K:148:SER:HB3	1:L:291:TYR:CD2	2.50	0.47
1:M:461:GLN:HE22	1:N:21:VAL:H	1.63	0.47
1:I:155:GLN:OE1	1:I:305:GLN:HA	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:307:PHE:O	1:E:308:ASN:HB2	2.15	0.47
1:H:344:LEU:HB3	1:I:213:LEU:HB3	1.96	0.47
1:D:73:PHE:H	1:D:73:PHE:HD1	1.62	0.47
1:D:107:VAL:HG11	1:D:333:VAL:HG21	1.97	0.47
1:L:281:GLY:N	1:L:284:ALA:HB3	2.29	0.47
1:F:163:PRO:CA	1:F:330:PHE:CD1	2.98	0.47
1:D:299:MET:HA	1:E:256:PHE:HB3	1.97	0.47
1:E:24:THR:C	1:E:26:GLU:H	2.17	0.47
1:E:21:VAL:CG1	1:E:390:TYR:OH	2.63	0.47
1:M:81:ASN:O	1:M:82:LYS:HG3	2.15	0.47
1:O:113:LEU:CD1	1:O:113:LEU:N	2.78	0.47
1:F:60:ILE:HD12	1:F:63:PRO:HB3	1.96	0.47
1:F:96:GLN:CB	1:F:382:THR:HA	2.45	0.47
1:O:333:VAL:CG1	1:O:334:VAL:N	2.77	0.47
1:I:149:MET:HE1	1:I:205:PHE:CE1	2.50	0.47
1:N:163:PRO:HA	1:N:330:PHE:CD1	2.50	0.47
1:O:230:LYS:NZ	1:O:230:LYS:HD3	2.28	0.47
1:B:165:ILE:CD1	1:B:165:ILE:HB	2.45	0.47
1:H:302:SER:O	1:H:304:ALA:N	2.47	0.47
1:H:219:GLU:O	1:H:220:VAL:CG1	2.57	0.47
1:C:49:TYR:HA	1:C:223:ASP:HB3	1.96	0.47
1:D:49:TYR:HE1	1:D:364:LEU:HD12	1.80	0.47
1:N:49:TYR:HE1	1:N:364:LEU:CD1	2.27	0.47
1:G:399:LEU:O	1:G:402:TRP:CB	2.59	0.47
1:I:299:MET:HA	1:J:256:PHE:HB3	1.96	0.47
1:H:33:ILE:O	1:H:377:GLN:HA	2.13	0.47
1:G:242:TYR:CE2	1:G:394:MET:CG	2.91	0.47
1:O:155:GLN:OE1	1:O:305:GLN:HA	2.15	0.47
1:K:153:GLN:NE2	1:K:300:VAL:HA	2.28	0.47
1:L:219:GLU:O	1:L:220:VAL:HG13	2.14	0.47
1:B:92:ASN:C	1:B:94:ASP:H	2.19	0.47
1:L:281:GLY:N	1:L:284:ALA:CB	2.78	0.47
1:L:360:PHE:CE2	1:M:216:ASN:HA	2.50	0.47
1:J:176:THR:O	1:J:177:GLN:HG3	2.15	0.47
1:I:357:ASN:HB2	1:J:141:VAL:HG13	1.97	0.47
1:L:133:SER:O	1:L:134:ALA:HB2	2.13	0.47
1:H:113:LEU:HD12	1:H:113:LEU:N	2.30	0.47
1:O:158:LEU:HB2	1:O:332:THR:CB	2.45	0.46
1:F:121:PRO:HG3	1:G:289:SER:CB	2.43	0.46
1:O:33:ILE:HB	1:O:378:LEU:HB3	1.96	0.46
1:G:470:LEU:O	1:G:470:LEU:CD2	2.63	0.46
1:L:361:LYS:NZ	1:L:361:LYS:HD3	2.27	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:123:LEU:HD12	1:B:124:ASN:N	2.30	0.46
1:E:153:GLN:NE2	1:E:300:VAL:HA	2.29	0.46
1:C:22:VAL:O	1:C:23:SER:C	2.54	0.46
1:K:275:LEU:HD23	1:O:226:THR:HG21	1.97	0.46
1:L:54:LYS:HG2	1:L:57:ASN:HB3	1.95	0.46
1:M:345:CYS:O	1:M:345:CYS:SG	2.74	0.46
1:G:344:LEU:HB2	1:H:213:LEU:O	2.15	0.46
1:A:134:ALA:O	1:A:135:TYR:C	2.53	0.46
1:L:384:THR:OG1	1:L:385:ALA:N	2.45	0.46
1:A:171:LYS:HG3	1:A:187:PRO:HD2	1.97	0.46
1:C:246:LEU:HD12	1:C:249:TYR:HB3	1.96	0.46
1:K:42:LEU:HD13	1:K:447:TRP:CZ2	2.50	0.46
1:K:185:CYS:HB2	1:O:363:TYR:CG	2.49	0.46
1:I:36:HIS:CG	1:I:37:ALA:N	2.83	0.46
1:L:139:ALA:O	1:L:140:GLY:O	2.33	0.46
1:K:210:PHE:CE1	1:K:224:ILE:HG13	2.50	0.46
1:M:101:ALA:HA	1:M:322:GLY:O	2.16	0.46
1:C:234:TYR:CE1	1:C:251:ARG:NE	2.83	0.46
1:O:316:ALA:C	1:O:318:GLY:H	2.18	0.46
1:F:133:SER:O	1:F:134:ALA:HB2	2.14	0.46
1:L:159:ILE:CG2	1:L:159:ILE:CD1	2.93	0.46
1:I:276:TYR:C	1:I:277:ILE:HG12	2.35	0.46
1:B:154:THR:H	1:B:336:THR:HG21	1.80	0.46
1:J:101:ALA:O	1:J:377:GLN:N	2.47	0.46
1:C:167:GLU:OE1	1:C:190:LEU:HD21	2.15	0.46
1:C:66:SER:H	1:C:69:GLN:NE2	2.12	0.46
1:F:54:LYS:CB	1:F:57:ASN:HD22	2.27	0.46
1:G:105:VAL:CG1	1:G:106:GLU:N	2.78	0.46
1:D:85:PHE:CE2	1:D:378:LEU:HD22	2.49	0.46
1:O:217:LYS:HG2	1:O:217:LYS:O	2.15	0.46
1:O:24:THR:HA	1:O:27:TYR:CE2	2.50	0.46
1:C:391:ILE:HG21	1:C:402:TRP:CZ3	2.49	0.46
1:H:46:GLY:HA3	1:H:65:VAL:HB	1.96	0.46
1:E:66:SER:N	1:E:69:GLN:HE21	2.13	0.46
1:L:240:GLU:OE1	1:L:241:PRO:HG2	2.14	0.46
1:O:210:PHE:HD1	1:O:224:ILE:O	1.99	0.46
1:C:180:VAL:HG13	1:C:184:ASP:HB3	1.96	0.46
1:A:147:ILE:HG22	1:A:148:SER:N	2.29	0.46
1:D:166:GLY:N	1:D:195:ILE:HG13	2.31	0.46
1:N:384:THR:HG23	1:N:387:VAL:CG2	2.46	0.46
1:L:106:GLU:HG3	1:L:309:LYS:O	2.15	0.46
1:F:320:ASN:C	1:F:320:ASN:OD1	2.54	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:209:ASP:O	1:J:213:LEU:HD23	2.14	0.46
1:O:333:VAL:HG12	1:O:334:VAL:N	2.30	0.46
1:G:72:VAL:HG22	1:G:332:THR:HG23	1.96	0.46
1:C:441:LEU:HA	1:C:444:TYR:HD1	1.80	0.46
1:A:85:PHE:CE2	1:A:378:LEU:HD22	2.51	0.46
1:H:122:LEU:CD1	1:I:286:LEU:HD11	2.41	0.46
1:M:68:LEU:HD13	1:M:151:TYR:HD1	1.79	0.46
1:I:162:LYS:HG2	1:I:244:ASP:HB3	1.98	0.46
1:C:355:TYR:CE1	1:D:144:ARG:HD3	2.50	0.46
1:G:96:GLN:HA	1:G:381:ILE:O	2.16	0.46
1:H:49:TYR:HE1	1:H:364:LEU:CD1	2.28	0.46
1:G:247:PHE:HD1	1:G:248:PHE:H	1.63	0.46
1:O:281:GLY:O	1:O:284:ALA:HB3	2.16	0.46
1:F:99:VAL:HG12	1:F:100:TRP:N	2.31	0.46
1:A:318:GLY:HA2	1:E:466:ARG:NH1	2.30	0.46
1:I:307:PHE:O	1:I:308:ASN:HB2	2.14	0.46
1:B:96:GLN:HE21	1:B:382:THR:CG2	2.27	0.46
1:D:23:SER:HG	1:D:25:ASP:HB2	1.80	0.46
1:G:451:LEU:HA	1:G:454:LYS:CG	2.44	0.46
1:I:240:GLU:HG3	1:I:243:GLY:N	2.31	0.46
1:F:42:LEU:HD23	1:F:42:LEU:HA	1.21	0.46
1:B:365:ARG:HG3	1:B:365:ARG:HH11	1.80	0.46
1:B:438:GLU:OE1	1:B:443:LYS:HE3	2.15	0.46
1:M:271:VAL:HG23	1:M:271:VAL:H	1.36	0.46
1:O:164:PRO:HG3	1:O:332:THR:OG1	2.14	0.46
1:L:307:PHE:C	1:L:309:LYS:H	2.16	0.46
1:F:152:LYS:O	1:F:152:LYS:HG3	2.15	0.46
1:M:21:VAL:O	1:M:22:VAL:CG1	2.62	0.46
1:B:325:TRP:NE1	1:B:394:MET:CE	2.79	0.46
1:C:217:LYS:O	1:C:218:SER:HB3	2.16	0.46
1:G:80:PRO:HD3	1:G:100:TRP:CD1	2.50	0.46
1:I:178:VAL:C	1:I:180:VAL:H	2.18	0.46
1:L:74:ARG:HA	1:L:330:PHE:CD2	2.51	0.46
1:G:463:PRO:CA	1:G:466:ARG:NH2	2.67	0.46
1:B:180:VAL:HG12	1:B:181:GLN:C	2.34	0.46
1:M:148:SER:OG	1:N:129:THR:HB	2.16	0.46
1:B:458:ASP:N	1:B:458:ASP:OD2	2.47	0.46
1:N:120:HIS:HB2	1:N:221:PRO:HA	1.97	0.46
1:O:52:ILE:O	1:O:61:LEU:N	2.47	0.46
1:D:57:ASN:ND2	1:D:59:LYS:H	2.13	0.46
1:H:77:LEU:HB2	1:H:327:ASN:HB3	1.97	0.46
1:O:242:TYR:CD2	1:O:394:MET:CG	2.93	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:104:GLY:O	1:F:374:PHE:HA	2.16	0.46
1:I:107:VAL:O	1:I:307:PHE:HB3	2.15	0.46
1:C:323:ILE:HG21	1:C:325:TRP:CD2	2.51	0.46
1:E:441:LEU:HA	1:E:444:TYR:HD1	1.80	0.46
1:B:391:ILE:HG21	1:B:402:TRP:HZ3	1.80	0.46
1:C:139:ALA:HB1	1:C:143:ASN:ND2	2.30	0.46
1:O:47:HIS:HB3	1:O:50:PHE:O	2.16	0.46
1:C:456:SER:OG	1:C:458:ASP:OD2	2.32	0.46
1:B:21:VAL:CG1	1:B:390:TYR:OH	2.63	0.46
1:O:98:LEU:CD2	1:O:379:CYS:O	2.63	0.46
1:I:259:HIS:HB2	1:I:294:THR:OG1	2.16	0.46
1:C:106:GLU:HB3	1:C:373:GLN:HG3	1.96	0.46
1:L:201:VAL:HG11	1:L:334:VAL:HG13	1.97	0.46
1:D:99:VAL:HG21	1:D:325:TRP:CZ3	2.51	0.46
1:G:193:THR:HG23	1:G:230:LYS:HD3	1.97	0.46
1:F:293:PRO:HD3	1:J:117:ILE:CG2	2.45	0.46
1:A:75:ILE:HB	1:A:329:LEU:HB2	1.96	0.46
1:A:256:PHE:HB3	1:E:299:MET:HA	1.96	0.46
1:E:66:SER:N	1:E:69:GLN:NE2	2.61	0.46
1:D:214:GLN:HE22	1:D:219:GLU:HB2	1.81	0.46
1:A:77:LEU:O	1:A:327:ASN:HB3	2.15	0.46
1:I:105:VAL:HG12	1:I:106:GLU:N	2.25	0.46
1:N:399:LEU:O	1:N:402:TRP:HB2	2.16	0.46
1:F:125:LYS:HE3	1:F:261:PHE:CE2	2.51	0.46
1:F:126:LEU:HG	1:F:127:ASP:CG	2.36	0.46
1:A:147:ILE:CG2	1:A:148:SER:N	2.78	0.46
1:A:248:PHE:O	1:A:249:TYR:HB3	2.14	0.46
1:B:75:ILE:HB	1:B:329:LEU:CB	2.45	0.46
1:I:150:ASP:OD1	1:I:296:SER:CA	2.61	0.46
1:D:172:GLY:O	1:D:173:SER:O	2.33	0.46
1:C:42:LEU:HB2	1:C:370:TYR:HB2	1.96	0.46
1:K:451:LEU:HA	1:K:454:LYS:CG	2.45	0.46
1:J:384:THR:H	1:J:387:VAL:HB	1.80	0.46
1:O:351:SER:O	1:O:352:GLU:O	2.34	0.46
1:M:391:ILE:HB	1:M:399:LEU:HD21	1.98	0.46
1:G:125:LYS:HE2	1:G:261:PHE:CD2	2.50	0.46
1:K:302:SER:C	1:K:304:ALA:H	2.19	0.46
1:B:143:ASN:O	1:B:144:ARG:C	2.54	0.46
1:D:48:PRO:HG2	1:D:49:TYR:CD1	2.50	0.46
1:J:241:PRO:HG2	1:J:242:TYR:H	1.79	0.46
1:G:96:GLN:NE2	1:G:382:THR:CG2	2.79	0.46
1:G:81:ASN:ND2	1:G:402:TRP:HD1	2.14	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:257:VAL:HG13	1:O:115:VAL:HG21	1.98	0.46
1:K:54:LYS:CE	1:K:55:PRO:HD2	2.32	0.46
1:N:391:ILE:O	1:N:391:ILE:CG2	2.61	0.46
1:F:122:LEU:O	1:F:218:SER:HB2	2.15	0.46
1:E:43:LEU:CD1	1:E:369:GLU:HA	2.40	0.46
1:A:390:TYR:C	1:A:392:HIS:N	2.67	0.46
1:A:387:VAL:O	1:A:390:TYR:N	2.48	0.46
1:M:263:ARG:HD3	1:M:292:PHE:CE2	2.51	0.46
1:B:375:ILE:HG21	1:B:468:PHE:CE2	2.50	0.46
1:B:262:ASN:CG	1:B:288:SER:HB3	2.35	0.46
1:K:96:GLN:HE21	1:K:382:THR:CG2	2.29	0.46
1:H:64:LYS:HZ2	1:H:200:MET:CE	2.28	0.46
1:N:157:CYS:HB2	1:N:307:PHE:HE2	1.80	0.46
1:C:150:ASP:CB	1:D:257:VAL:HG21	2.46	0.46
1:E:323:ILE:N	1:E:323:ILE:HD13	2.31	0.46
1:F:254:GLN:HE22	1:F:298:SER:HB3	1.80	0.46
1:J:258:ARG:HB2	1:J:296:SER:HB2	1.98	0.46
1:H:469:LEU:CD2	1:H:469:LEU:HB3	2.45	0.46
1:G:119:GLY:HA2	1:G:148:SER:HA	1.98	0.46
1:K:391:ILE:HG22	1:K:391:ILE:O	2.16	0.46
1:D:260:LEU:HD12	1:D:260:LEU:N	2.30	0.46
1:H:362:GLU:OE2	1:I:219:GLU:OE2	2.34	0.46
1:I:120:HIS:CD2	1:I:222:LEU:HD12	2.50	0.46
1:K:162:LYS:HG2	1:K:162:LYS:HE2	1.98	0.46
1:A:256:PHE:CD1	1:A:257:VAL:O	2.69	0.46
1:B:463:PRO:CA	1:B:466:ARG:HE	2.25	0.46
1:H:65:VAL:HA	1:H:69:GLN:HE22	1.80	0.46
1:E:65:VAL:CA	1:E:69:GLN:NE2	2.76	0.46
1:N:348:ILE:HD11	1:O:181:GLN:HE22	1.80	0.46
1:O:119:GLY:N	1:O:221:PRO:HB3	2.31	0.46
1:O:124:ASN:HD22	1:O:216:ASN:ND2	2.14	0.46
1:K:283:THR:OG1	1:O:142:ASP:OD1	2.29	0.46
1:O:180:VAL:HG12	1:O:184:ASP:HB2	1.91	0.46
1:K:106:GLU:HG3	1:K:309:LYS:O	2.15	0.46
1:O:227:SER:C	1:O:228:ILE:HD12	2.35	0.46
1:M:126:LEU:HD12	1:M:264:ALA:HB2	1.97	0.46
1:B:91:TYR:HA	1:B:96:GLN:OE1	2.15	0.46
1:L:154:THR:H	1:L:336:THR:HG21	1.81	0.46
1:K:122:LEU:HD11	1:L:286:LEU:CD1	2.46	0.46
1:E:30:ARG:HD3	1:E:377:GLN:NE2	2.31	0.46
1:F:396:SER:O	1:F:398:ILE:N	2.49	0.46
1:E:105:VAL:CG1	1:E:106:GLU:N	2.76	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:96:GLN:NE2	1:C:382:THR:HG22	2.31	0.46
1:H:148:SER:HB3	1:I:291:TYR:CD2	2.50	0.46
1:F:22:VAL:O	1:F:22:VAL:HG23	2.16	0.46
1:M:33:ILE:O	1:M:377:GLN:HA	2.16	0.46
1:I:320:ASN:OD1	1:I:323:ILE:HG12	2.16	0.46
1:I:193:THR:HG22	1:I:193:THR:N	2.29	0.46
1:E:188:LEU:HD13	1:E:188:LEU:HA	1.59	0.46
1:O:33:ILE:HG23	1:O:33:ILE:HD12	1.37	0.46
1:K:149:MET:HE1	1:K:205:PHE:CZ	2.51	0.46
1:H:180:VAL:CG1	1:H:184:ASP:CB	2.88	0.46
1:H:32:ASN:CB	1:H:32:ASN:ND2	2.66	0.46
1:F:175:CYS:SG	1:F:175:CYS:HA	2.55	0.46
1:N:119:GLY:O	1:N:221:PRO:HA	2.16	0.46
1:A:34:TYR:HE2	1:A:377:GLN:CG	2.20	0.46
1:A:120:HIS:CE1	1:A:122:LEU:H	2.31	0.46
1:B:62:VAL:HG12	1:B:63:PRO:N	2.27	0.46
1:H:384:THR:O	1:H:388:MET:HB2	2.16	0.46
1:H:398:ILE:HG22	1:H:402:TRP:CE3	2.50	0.46
1:C:302:SER:C	1:C:304:ALA:N	2.64	0.46
1:F:39:THR:HG23	1:F:372:LEU:HB2	1.97	0.46
1:A:189:GLU:O	1:A:191:ILE:HG13	2.16	0.46
1:C:242:TYR:HE2	1:C:394:MET:HB2	1.78	0.46
1:D:163:PRO:N	1:D:330:PHE:HD1	2.09	0.46
1:K:210:PHE:CD1	1:K:224:ILE:HB	2.51	0.46
1:M:247:PHE:CD1	1:M:248:PHE:N	2.84	0.46
1:D:35:TYR:CD2	1:D:456:SER:C	2.89	0.46
1:N:36:HIS:ND1	1:N:37:ALA:N	2.64	0.46
1:L:49:TYR:HE2	1:L:118:SER:CA	2.29	0.46
1:M:60:ILE:HG13	1:M:60:ILE:O	2.15	0.46
1:L:233:ASP:OD2	1:L:236:LYS:HB2	2.15	0.46
1:L:258:ARG:HB2	1:L:296:SER:HB2	1.96	0.46
1:G:297:GLY:C	1:G:298:SER:O	2.54	0.46
1:L:113:LEU:HD12	1:L:113:LEU:N	2.31	0.46
1:B:163:PRO:CD	1:B:330:PHE:CE1	2.96	0.46
1:B:345:CYS:HA	1:B:361:LYS:O	2.15	0.46
1:I:46:GLY:HA3	1:I:63:PRO:O	2.16	0.46
1:K:178:VAL:O	1:K:180:VAL:N	2.40	0.46
1:K:115:VAL:CG2	1:L:257:VAL:HG13	2.45	0.46
1:A:440:PRO:HA	1:A:443:LYS:NZ	2.31	0.46
1:J:99:VAL:HG12	1:J:100:TRP:O	2.15	0.46
1:H:122:LEU:O	1:H:218:SER:HB2	2.16	0.46
1:O:180:VAL:HG12	1:O:181:GLN:N	2.31	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:241:PRO:CG	1:A:242:TYR:H	2.28	0.46
1:M:363:TYR:CZ	1:N:185:CYS:HB2	2.51	0.46
1:D:471:GLN:CD	1:D:472:LEU:N	2.69	0.46
1:H:342:MET:HB2	1:I:208:MET:CE	2.34	0.46
1:O:105:VAL:HA	1:O:373:GLN:O	2.16	0.46
1:K:355:TYR:CD2	1:K:356:LYS:N	2.83	0.46
1:F:125:LYS:HE2	1:F:127:ASP:C	2.35	0.46
1:L:92:ASN:C	1:L:94:ASP:N	2.64	0.46
1:M:329:LEU:HD23	1:M:329:LEU:HA	1.57	0.46
1:K:42:LEU:HD13	1:K:447:TRP:CE2	2.51	0.46
1:B:209:ASP:OD2	1:B:228:ILE:HG13	2.16	0.46
1:A:320:ASN:HD21	1:A:323:ILE:HB	1.80	0.46
1:B:471:GLN:O	1:B:472:LEU:OXT	2.33	0.46
1:G:280:SER:O	1:G:281:GLY:C	2.55	0.46
1:C:282:SER:C	1:C:284:ALA:H	2.20	0.46
1:A:465:GLY:O	1:A:468:PHE:N	2.49	0.46
1:B:392:HIS:CA	1:B:399:LEU:HD11	2.46	0.46
1:B:217:LYS:HG2	1:B:217:LYS:O	2.16	0.46
1:E:53:LYS:HD3	1:E:58:ASN:HA	1.96	0.46
1:G:200:MET:O	1:G:229:CYS:HA	2.15	0.46
1:N:91:TYR:CE2	1:N:93:PRO:HD3	2.51	0.46
1:J:307:PHE:O	1:J:308:ASN:CB	2.64	0.46
1:E:184:ASP:O	1:E:185:CYS:C	2.54	0.46
1:G:71:ARG:HG3	1:G:370:TYR:CE1	2.51	0.46
1:G:72:VAL:HG22	1:G:332:THR:HG22	1.96	0.46
1:D:80:PRO:HG2	1:D:98:LEU:C	2.37	0.46
1:J:96:GLN:HA	1:J:381:ILE:C	2.34	0.46
1:M:299:MET:HE2	1:N:298:SER:CB	2.46	0.46
1:H:301:THR:HG23	1:H:304:ALA:HB3	1.98	0.46
1:F:241:PRO:C	1:F:243:GLY:H	2.19	0.46
1:O:216:ASN:CG	1:O:219:GLU:OE2	2.54	0.46
1:K:361:LYS:HB3	1:K:363:TYR:CE1	2.50	0.46
1:A:365:ARG:NH2	1:B:269:GLU:OE1	2.47	0.46
1:K:216:ASN:HA	1:O:360:PHE:CE2	2.51	0.46
1:K:463:PRO:HA	1:K:466:ARG:HE	1.81	0.46
1:J:54:LYS:HB3	1:J:57:ASN:ND2	2.30	0.46
1:G:248:PHE:CE2	1:G:311:TYR:CD1	2.96	0.46
1:J:196:GLN:HA	1:J:446:PHE:CE2	2.51	0.46
1:K:92:ASN:O	1:K:94:ASP:N	2.49	0.46
1:B:234:TYR:O	1:B:235:ILE:C	2.54	0.46
1:I:271:VAL:HA	1:I:272:PRO:HD3	1.63	0.46
1:J:280:SER:O	1:J:281:GLY:C	2.54	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:281:GLY:O	1:F:282:SER:C	2.54	0.46
1:F:247:PHE:N	1:F:247:PHE:CD1	2.84	0.46
1:E:70:TYR:OH	1:E:230:LYS:O	2.29	0.45
1:O:164:PRO:HG3	1:O:332:THR:CG2	2.46	0.45
1:E:241:PRO:HG2	1:E:242:TYR:H	1.81	0.45
1:B:27:TYR:CE2	1:B:390:TYR:CE2	3.05	0.45
1:G:210:PHE:CD1	1:G:224:ILE:HB	2.50	0.45
1:K:81:ASN:OD1	1:K:98:LEU:N	2.47	0.45
1:O:251:ARG:O	1:O:252:ARG:HB2	2.16	0.45
1:G:42:LEU:HD12	1:G:73:PHE:HE2	1.82	0.45
1:D:210:PHE:O	1:D:214:GLN:HB2	2.16	0.45
1:A:61:LEU:HG	1:A:62:VAL:HG23	1.97	0.45
1:G:399:LEU:HA	1:G:402:TRP:CE3	2.49	0.45
1:B:101:ALA:O	1:B:376:PHE:HA	2.15	0.45
1:A:140:GLY:O	1:A:141:VAL:HB	2.16	0.45
1:L:147:ILE:CG2	1:L:148:SER:N	2.80	0.45
1:H:80:PRO:O	1:H:85:PHE:HE1	1.99	0.45
1:L:262:ASN:HD22	1:L:262:ASN:C	2.20	0.45
1:D:439:ASP:HB3	1:D:442:LYS:HE3	1.97	0.45
1:D:126:LEU:CB	1:D:262:ASN:HB3	2.38	0.45
1:J:220:VAL:O	1:J:220:VAL:HG23	2.15	0.45
1:E:158:LEU:O	1:E:331:VAL:HA	2.15	0.45
1:L:49:TYR:CE2	1:L:118:SER:HA	2.49	0.45
1:L:164:PRO:O	1:L:164:PRO:HG2	2.17	0.45
1:K:458:ASP:OD2	1:K:458:ASP:N	2.49	0.45
1:A:269:GLU:HG3	1:E:363:TYR:CD2	2.51	0.45
1:G:205:PHE:CD1	1:G:220:VAL:HG12	2.51	0.45
1:A:155:GLN:HG3	1:A:307:PHE:HE1	1.81	0.45
1:C:217:LYS:HB2	1:C:217:LYS:CE	2.46	0.45
1:O:234:TYR:CD1	1:O:251:ARG:NH2	2.84	0.45
1:G:85:PHE:CE2	1:G:378:LEU:HD22	2.51	0.45
1:O:176:THR:HB	1:O:176:THR:CG2	2.21	0.45
1:K:439:ASP:C	1:K:441:LEU:H	2.19	0.45
1:C:391:ILE:O	1:C:391:ILE:CG2	2.63	0.45
1:G:112:PRO:HB3	1:H:231:TYR:CD1	2.52	0.45
1:N:49:TYR:CE1	1:N:364:LEU:CD1	3.00	0.45
1:O:180:VAL:HG12	1:O:181:GLN:O	2.16	0.45
1:H:105:VAL:HG22	1:H:374:PHE:CE2	2.52	0.45
1:N:113:LEU:HA	1:N:337:THR:O	2.17	0.45
1:A:375:ILE:CG1	1:A:464:LEU:HD13	2.40	0.45
1:G:34:TYR:HE2	1:G:377:GLN:HB2	1.76	0.45
1:B:75:ILE:HG12	1:B:374:PHE:CZ	2.51	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:22:VAL:O	1:D:22:VAL:HG23	2.17	0.45
1:C:325:TRP:CZ2	1:C:394:MET:HE1	2.51	0.45
1:E:307:PHE:C	1:E:309:LYS:H	2.19	0.45
1:E:107:VAL:O	1:E:307:PHE:HB3	2.16	0.45
1:J:471:GLN:OE1	1:J:472:LEU:N	2.49	0.45
1:H:76:HIS:HB2	1:H:450:ASN:HA	1.98	0.45
1:J:29:ALA:HB3	1:J:380:LYS:O	2.16	0.45
1:J:29:ALA:HB3	1:J:380:LYS:HG3	1.98	0.45
1:F:235:ILE:HD12	1:F:235:ILE:HG23	1.68	0.45
1:E:394:MET:HB3	1:E:395:ASN:H	1.51	0.45
1:E:397:THR:O	1:E:401:ASP:N	2.47	0.45
1:J:312:TRP:CH2	1:J:468:PHE:HB2	2.51	0.45
1:A:188:LEU:HD13	1:A:188:LEU:HA	1.63	0.45
1:E:365:ARG:HD3	1:E:365:ARG:HA	1.81	0.45
1:I:82:LYS:HZ3	1:I:403:ASN:HD22	1.64	0.45
1:F:33:ILE:HB	1:F:378:LEU:HB3	1.97	0.45
1:C:54:LYS:HZ2	1:C:55:PRO:CD	2.26	0.45
1:C:217:LYS:CE	1:C:217:LYS:CB	2.93	0.45
1:G:65:VAL:HG12	1:G:65:VAL:O	2.17	0.45
1:L:361:LYS:HD2	1:M:183:GLY:HA3	1.98	0.45
1:L:441:LEU:HA	1:L:444:TYR:HD1	1.81	0.45
1:F:293:PRO:HD3	1:J:117:ILE:HG21	1.97	0.45
1:N:149:MET:HA	1:O:260:LEU:CD2	2.47	0.45
1:K:105:VAL:HG22	1:K:374:PHE:CD2	2.52	0.45
1:L:363:TYR:CD1	1:M:185:CYS:HB2	2.52	0.45
1:B:157:CYS:HA	1:B:332:THR:O	2.16	0.45
1:H:374:PHE:O	1:H:375:ILE:HD13	2.16	0.45
1:D:307:PHE:O	1:D:308:ASN:HB2	2.16	0.45
1:A:242:TYR:CE2	1:A:394:MET:HB2	2.51	0.45
1:M:280:SER:CA	1:M:284:ALA:HB2	2.46	0.45
1:I:248:PHE:CE2	1:I:311:TYR:HB3	2.51	0.45
1:K:139:ALA:HA	1:K:143:ASN:HD21	1.82	0.45
1:M:307:PHE:O	1:M:308:ASN:CB	2.56	0.45
1:G:156:LEU:HD12	1:G:156:LEU:C	2.36	0.45
1:E:440:PRO:HA	1:E:443:LYS:NZ	2.30	0.45
1:L:47:HIS:CG	1:L:48:PRO:HD2	2.52	0.45
1:I:108:GLY:CA	1:I:371:ASP:O	2.65	0.45
1:N:234:TYR:O	1:N:236:LYS:N	2.49	0.45
1:M:458:ASP:O	1:M:458:ASP:OD2	2.35	0.45
1:E:96:GLN:HB3	1:E:382:THR:HA	1.98	0.45
1:F:180:VAL:HG13	1:F:184:ASP:CB	2.47	0.45
1:F:180:VAL:HG13	1:F:184:ASP:HB2	1.91	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:253:GLU:H	1:O:302:SER:HB2	1.81	0.45
1:J:329:LEU:HD13	1:J:374:PHE:HE2	1.79	0.45
1:O:152:LYS:CG	1:O:152:LYS:O	2.65	0.45
1:O:98:LEU:HD22	1:O:379:CYS:O	2.16	0.45
1:I:149:MET:HE3	1:I:294:THR:HG22	1.99	0.45
1:C:39:THR:HG22	1:C:449:VAL:HG11	1.98	0.45
1:F:54:LYS:HG3	1:F:55:PRO:HD2	1.97	0.45
1:L:275:LEU:CB	1:L:275:LEU:CD2	2.86	0.45
1:K:74:ARG:NH2	1:K:441:LEU:HD12	2.31	0.45
1:O:27:TYR:O	1:O:381:ILE:HG23	2.17	0.45
1:E:155:GLN:HB2	1:E:155:GLN:HE21	1.52	0.45
1:D:181:GLN:CG	1:D:181:GLN:NE2	2.69	0.45
1:G:110:GLY:O	1:G:111:GLN:NE2	2.46	0.45
1:N:68:LEU:C	1:N:201:VAL:HG22	2.33	0.45
1:H:247:PHE:CE2	1:H:322:GLY:HA2	2.51	0.45
1:N:185:CYS:SG	1:N:186:PRO:HD2	2.56	0.45
1:L:27:TYR:CZ	1:L:390:TYR:HE2	2.34	0.45
1:N:159:ILE:HG21	1:N:159:ILE:HD13	1.63	0.45
1:M:246:LEU:H	1:M:246:LEU:HD23	1.81	0.45
1:F:107:VAL:HB	1:F:307:PHE:HD2	1.82	0.45
1:C:237:MET:CB	1:C:246:LEU:CD2	2.94	0.45
1:K:213:LEU:HD12	1:O:344:LEU:CB	2.46	0.45
1:K:269:GLU:HG3	1:O:363:TYR:CE2	2.51	0.45
1:J:247:PHE:HD1	1:J:248:PHE:N	2.14	0.45
1:C:47:HIS:HB2	1:C:52:ILE:CD1	2.45	0.45
1:L:249:TYR:O	1:L:249:TYR:CD1	2.69	0.45
1:K:166:GLY:N	1:K:195:ILE:HD11	2.31	0.45
1:M:97:ARG:HG3	1:M:383:LEU:HD11	1.97	0.45
1:E:316:ALA:C	1:E:318:GLY:N	2.69	0.45
1:M:364:LEU:HD23	1:M:364:LEU:HA	1.50	0.45
1:C:139:ALA:CB	1:C:143:ASN:HD21	2.30	0.45
1:O:133:SER:O	1:O:134:ALA:HB2	2.17	0.45
1:A:188:LEU:HD11	1:A:213:LEU:HD11	1.97	0.45
1:H:461:GLN:HE22	1:I:21:VAL:H	1.64	0.45
1:C:46:GLY:CA	1:C:65:VAL:HB	2.47	0.45
1:C:163:PRO:CD	1:C:330:PHE:HE1	2.27	0.45
1:B:147:ILE:CG2	1:B:148:SER:N	2.79	0.45
1:J:77:LEU:HD22	1:J:455:PHE:HZ	1.82	0.45
1:C:300:VAL:O	1:D:254:GLN:HA	2.17	0.45
1:G:150:ASP:HB3	1:H:257:VAL:HG21	1.99	0.45
1:D:49:TYR:CE2	1:D:118:SER:HA	2.51	0.45
1:D:70:TYR:CE1	1:D:201:VAL:HA	2.52	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:126:LEU:HA	1:N:126:LEU:HD12	1.45	0.45
1:N:188:LEU:HD11	1:N:213:LEU:CD1	2.44	0.45
1:J:57:ASN:HD21	1:J:59:LYS:CB	2.30	0.45
1:M:451:LEU:HA	1:M:451:LEU:HD23	1.88	0.45
1:K:52:ILE:CD1	1:K:52:ILE:N	2.70	0.45
1:C:240:GLU:HG3	1:C:243:GLY:N	2.30	0.45
1:I:114:GLY:N	1:I:337:THR:O	2.50	0.45
1:I:96:GLN:HA	1:I:382:THR:HA	1.98	0.45
1:B:399:LEU:HA	1:B:402:TRP:HE3	1.81	0.45
1:H:64:LYS:NZ	1:H:200:MET:HE2	2.31	0.45
1:C:335:ASP:OD1	1:C:337:THR:OG1	2.34	0.45
1:E:372:LEU:HD23	1:E:372:LEU:HA	1.70	0.45
1:E:166:GLY:CA	1:E:195:ILE:HD11	2.47	0.45
1:N:83:PHE:O	1:N:85:PHE:N	2.49	0.45
1:E:242:TYR:CE2	1:E:394:MET:HG3	2.51	0.45
1:I:344:LEU:HD13	1:J:213:LEU:HD12	1.98	0.45
1:M:323:ILE:HG23	1:M:323:ILE:HD12	1.97	0.45
1:B:325:TRP:HB3	1:B:398:ILE:HD11	1.99	0.45
1:G:262:ASN:HD21	1:G:288:SER:HB3	1.81	0.45
1:C:141:VAL:CG1	1:C:142:ASP:N	2.80	0.45
1:G:155:GLN:CD	1:G:306:ILE:HG12	2.36	0.45
1:F:260:LEU:H	1:F:260:LEU:HD12	1.75	0.45
1:D:176:THR:C	1:D:176:THR:CB	2.79	0.45
1:M:121:PRO:CG	1:N:289:SER:HB2	2.47	0.45
1:A:260:LEU:HD23	1:E:117:ILE:HD11	1.98	0.45
1:A:439:ASP:HA	1:A:440:PRO:HD3	1.86	0.45
1:D:46:GLY:HA3	1:D:63:PRO:O	2.16	0.45
1:G:390:TYR:C	1:G:392:HIS:H	2.20	0.45
1:F:77:LEU:HD22	1:F:455:PHE:HZ	1.80	0.45
1:K:345:CYS:SG	1:K:345:CYS:O	2.74	0.45
1:O:150:ASP:O	1:O:296:SER:HA	2.15	0.45
1:D:57:ASN:HD21	1:D:59:LYS:HB2	1.82	0.45
1:J:44:ALA:HB3	1:J:368:GLU:HB2	1.98	0.45
1:H:72:VAL:HG23	1:H:197:ASP:HA	1.99	0.45
1:M:459:LEU:C	1:M:461:GLN:N	2.69	0.45
1:F:262:ASN:ND2	1:F:288:SER:HB3	2.31	0.45
1:J:66:SER:N	1:J:69:GLN:NE2	2.54	0.45
1:A:123:LEU:HD23	1:A:147:ILE:CG2	2.47	0.45
1:A:190:LEU:HD12	1:A:191:ILE:H	1.79	0.45
1:F:155:GLN:HG2	1:F:306:ILE:HG12	1.99	0.45
1:I:246:LEU:N	1:I:246:LEU:CD2	2.79	0.45
1:M:47:HIS:HB3	1:M:50:PHE:O	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:208:MET:SD	1:N:210:PHE:HE2	2.40	0.45
1:J:272:PRO:O	1:J:275:LEU:HG	2.15	0.45
1:A:185:CYS:HB2	1:E:363:TYR:CZ	2.52	0.45
1:L:461:GLN:HE22	1:M:21:VAL:CG2	2.30	0.45
1:G:210:PHE:HD1	1:G:224:ILE:HB	1.82	0.45
1:D:193:THR:OG1	1:D:194:VAL:N	2.50	0.45
1:K:391:ILE:HD13	1:K:402:TRP:CZ3	2.52	0.45
1:O:156:LEU:C	1:O:156:LEU:HD12	2.37	0.45
1:D:348:ILE:CD1	1:E:182:PRO:O	2.65	0.45
1:G:85:PHE:HB3	1:G:87:ASP:O	2.16	0.45
1:I:112:PRO:HB3	1:J:231:TYR:CG	2.51	0.45
1:I:149:MET:HE3	1:I:295:PRO:HD2	1.99	0.45
1:G:71:ARG:HB3	1:G:73:PHE:HE1	1.77	0.45
1:L:74:ARG:HB2	1:L:330:PHE:HE2	1.82	0.45
1:D:79:ASP:OD2	1:D:82:LYS:HG3	2.17	0.45
1:O:380:LYS:C	1:O:381:ILE:HG13	2.37	0.45
1:G:439:ASP:O	1:G:442:LYS:HB2	2.16	0.45
1:J:81:ASN:C	1:J:82:LYS:HG3	2.37	0.45
1:A:257:VAL:HG12	1:A:293:PRO:CB	2.44	0.45
1:M:201:VAL:O	1:M:229:CYS:SG	2.74	0.45
1:B:344:LEU:CD2	1:B:344:LEU:N	2.72	0.45
1:B:344:LEU:HD12	1:C:186:PRO:HG2	1.98	0.45
1:A:57:ASN:ND2	1:A:59:LYS:CB	2.62	0.45
1:A:112:PRO:HD3	1:B:231:TYR:CG	2.52	0.45
1:A:117:ILE:HD11	1:B:260:LEU:HD23	1.99	0.45
1:A:150:ASP:O	1:A:296:SER:HA	2.16	0.45
1:D:375:ILE:CG1	1:D:464:LEU:HD13	2.37	0.45
1:O:155:GLN:HG2	1:O:307:PHE:CE1	2.52	0.45
1:O:373:GLN:HB3	1:O:464:LEU:HD12	1.99	0.45
1:C:463:PRO:HB3	1:C:466:ARG:NH2	2.30	0.45
1:F:451:LEU:HA	1:F:454:LYS:CG	2.46	0.45
1:I:300:VAL:HG23	1:I:300:VAL:O	2.16	0.45
1:K:395:ASN:HB3	1:K:398:ILE:HG12	1.99	0.45
1:A:21:VAL:C	1:A:22:VAL:CG1	2.85	0.45
1:M:54:LYS:CB	1:M:57:ASN:HD22	2.30	0.45
1:H:36:HIS:CG	1:H:37:ALA:N	2.84	0.45
1:L:96:GLN:NE2	1:L:382:THR:CG2	2.79	0.45
1:L:155:GLN:HB2	1:L:155:GLN:HE21	1.50	0.45
1:N:280:SER:O	1:N:281:GLY:C	2.53	0.45
1:I:50:PHE:CD1	1:I:50:PHE:O	2.70	0.45
1:B:196:GLN:HA	1:B:446:PHE:HE2	1.81	0.45
1:C:97:ARG:NH1	1:C:97:ARG:HA	2.32	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:O:211:THR:HG22	1:O:211:THR:O	2.16	0.45
1:L:107:VAL:HG13	1:L:372:LEU:HD21	1.99	0.45
1:C:348:ILE:HD12	1:D:182:PRO:O	2.17	0.45
1:A:207:ALA:CB	1:A:229:CYS:O	2.61	0.45
1:J:300:VAL:O	1:J:300:VAL:HG23	2.17	0.45
1:M:80:PRO:HG2	1:M:81:ASN:N	2.32	0.45
1:F:344:LEU:CD2	1:F:344:LEU:N	2.79	0.45
1:F:46:GLY:O	1:F:365:ARG:HD2	2.17	0.45
1:G:216:ASN:CB	1:G:219:GLU:OE2	2.65	0.45
1:J:451:LEU:HA	1:J:454:LYS:HG2	1.99	0.45
1:I:231:TYR:HA	1:I:232:PRO:HD3	1.77	0.45
1:N:338:ARG:CD	1:N:338:ARG:HB2	2.44	0.45
1:J:207:ALA:CB	1:J:229:CYS:O	2.58	0.45
1:G:68:LEU:HD23	1:G:201:VAL:CG2	2.47	0.45
1:F:54:LYS:CG	1:F:56:ASN:OD1	2.62	0.45
1:O:183:GLY:O	1:O:184:ASP:C	2.55	0.45
1:A:30:ARG:HB3	1:A:377:GLN:NE2	2.32	0.45
1:K:307:PHE:C	1:K:309:LYS:N	2.67	0.45
1:B:46:GLY:HA3	1:B:63:PRO:O	2.17	0.45
1:A:42:LEU:HD12	1:A:73:PHE:CE2	2.51	0.45
1:H:166:GLY:N	1:H:195:ILE:HG13	2.25	0.45
1:L:27:TYR:CE2	1:L:390:TYR:HE2	2.34	0.45
1:O:228:ILE:HD12	1:O:228:ILE:H	1.79	0.45
1:J:196:GLN:N	1:J:199:ASP:OD2	2.49	0.45
1:I:307:PHE:CD1	1:I:307:PHE:N	2.84	0.45
1:F:30:ARG:HD3	1:F:377:GLN:HE22	1.82	0.45
1:M:263:ARG:CD	1:M:292:PHE:CD2	2.99	0.45
1:C:344:LEU:HB2	1:D:213:LEU:O	2.16	0.45
1:B:97:ARG:HA	1:B:97:ARG:NH1	2.29	0.45
1:F:202:ASP:OD2	1:J:112:PRO:CB	2.60	0.45
1:C:52:ILE:HD12	1:C:52:ILE:N	2.32	0.45
1:C:52:ILE:CG1	1:D:269:GLU:OE2	2.65	0.45
1:G:456:SER:HB3	1:G:462:PHE:HE1	1.81	0.45
1:H:60:ILE:O	1:H:60:ILE:HG13	2.15	0.45
1:F:178:VAL:CG2	1:F:178:VAL:CG1	2.86	0.45
1:I:399:LEU:HA	1:I:402:TRP:CE3	2.51	0.45
1:F:67:GLY:H	1:F:366:HIS:CE1	2.35	0.45
1:K:30:ARG:CG	1:K:30:ARG:NE	2.66	0.45
1:K:81:ASN:HD21	1:K:402:TRP:HE1	1.64	0.45
1:C:214:GLN:CD	1:C:219:GLU:HB2	2.37	0.45
1:D:82:LYS:HZ3	1:D:403:ASN:HD22	1.60	0.45
1:K:439:ASP:C	1:K:441:LEU:N	2.70	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:180:VAL:HG11	1:G:184:ASP:CB	2.40	0.45
1:G:438:GLU:OE1	1:G:443:LYS:HE3	2.17	0.45
1:N:162:LYS:HB3	1:N:163:PRO:CD	2.42	0.45
1:J:89:SER:O	1:J:91:TYR:N	2.50	0.45
1:A:255:MET:O	1:E:300:VAL:HG22	2.17	0.45
1:D:62:VAL:CG1	1:D:63:PRO:HD2	2.47	0.45
1:G:150:ASP:O	1:G:150:ASP:CG	2.54	0.45
1:D:167:GLU:CB	1:D:190:LEU:HD11	2.27	0.45
1:O:51:PRO:C	1:O:52:ILE:HD12	2.37	0.45
1:A:272:PRO:HD2	1:A:275:LEU:HD11	1.98	0.45
1:A:70:TYR:CE1	1:A:201:VAL:HA	2.52	0.45
1:A:281:GLY:O	1:A:284:ALA:N	2.36	0.45
1:K:465:GLY:O	1:K:466:ARG:C	2.54	0.45
1:I:342:MET:SD	1:J:208:MET:HE3	2.57	0.45
1:G:279:GLY:C	1:G:284:ALA:HB2	2.37	0.45
1:A:465:GLY:O	1:A:467:LYS:N	2.50	0.45
1:A:467:LYS:O	1:A:468:PHE:C	2.52	0.45
1:N:272:PRO:C	1:N:274:ASP:H	2.19	0.45
1:E:150:ASP:CG	1:E:150:ASP:O	2.53	0.45
1:G:354:THR:HG22	1:I:278:LYS:HB3	1.99	0.45
1:J:458:ASP:O	1:J:458:ASP:OD2	2.35	0.45
1:A:254:GLN:HG3	1:A:254:GLN:O	2.17	0.45
1:E:42:LEU:HB2	1:E:370:TYR:CB	2.47	0.45
1:B:82:LYS:HD2	1:B:82:LYS:CB	2.41	0.45
1:A:228:ILE:CB	1:A:228:ILE:CD1	2.81	0.45
1:M:30:ARG:NH2	1:M:321:ASN:HD22	2.15	0.45
1:I:384:THR:OG1	1:I:385:ALA:N	2.49	0.45
1:F:336:THR:C	1:F:338:ARG:H	2.20	0.45
1:I:166:GLY:H	1:I:195:ILE:CG1	2.29	0.45
1:C:354:THR:HG22	1:E:278:LYS:HB3	1.99	0.45
1:D:398:ILE:HG22	1:D:402:TRP:CE3	2.51	0.45
1:B:123:LEU:O	1:B:125:LYS:N	2.50	0.45
1:J:149:MET:CE	1:J:294:THR:HG22	2.47	0.45
1:O:391:ILE:CG2	1:O:398:ILE:HB	2.46	0.45
1:J:323:ILE:HG21	1:J:325:TRP:CE2	2.51	0.45
1:M:166:GLY:O	1:M:192:ASN:HA	2.17	0.45
1:M:70:TYR:CD2	1:M:195:ILE:HG21	2.51	0.45
1:M:109:ARG:HD3	1:M:370:TYR:CE2	2.52	0.45
1:A:72:VAL:H	1:A:197:ASP:HB2	1.82	0.45
1:I:104:GLY:O	1:I:374:PHE:HA	2.18	0.45
1:I:75:ILE:CD1	1:I:75:ILE:N	2.72	0.45
1:A:92:ASN:C	1:A:94:ASP:H	2.20	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:126:LEU:HB2	1:M:264:ALA:HB2	1.98	0.45
1:K:141:VAL:O	1:K:142:ASP:CB	2.64	0.45
1:H:28:VAL:HA	1:H:381:ILE:HG12	1.98	0.45
1:C:471:GLN:C	1:C:471:GLN:CD	2.75	0.45
1:N:173:SER:HA	1:N:174:PRO:HD3	1.64	0.45
1:M:35:TYR:CE2	1:M:457:ALA:N	2.85	0.45
1:L:280:SER:CA	1:L:284:ALA:HB2	2.47	0.45
1:M:106:GLU:HG3	1:M:309:LYS:O	2.17	0.45
1:F:163:PRO:HD3	1:F:330:PHE:HE1	1.80	0.45
1:N:107:VAL:HG12	1:N:107:VAL:O	2.16	0.45
1:H:158:LEU:HD23	1:H:249:TYR:HB2	1.99	0.45
1:H:108:GLY:N	1:H:371:ASP:O	2.43	0.45
1:N:33:ILE:O	1:N:377:GLN:HA	2.17	0.44
1:N:85:PHE:CZ	1:N:378:LEU:HD22	2.52	0.44
1:F:22:VAL:O	1:F:23:SER:C	2.55	0.44
1:J:300:VAL:CG1	1:J:300:VAL:CA	2.84	0.44
1:F:363:TYR:CZ	1:G:185:CYS:HB2	2.52	0.44
1:I:152:LYS:HB3	1:I:255:MET:HG3	1.99	0.44
1:N:112:PRO:HB2	1:O:202:ASP:OD2	2.17	0.44
1:E:184:ASP:O	1:E:185:CYS:O	2.35	0.44
1:M:70:TYR:O	1:M:71:ARG:NH1	2.50	0.44
1:I:471:GLN:CD	1:I:472:LEU:N	2.71	0.44
1:G:391:ILE:HG22	1:G:398:ILE:HB	1.99	0.44
1:G:163:PRO:HB2	1:G:194:VAL:HG13	1.99	0.44
1:E:360:PHE:CD1	1:E:360:PHE:N	2.85	0.44
1:G:363:TYR:CG	1:H:185:CYS:HB2	2.52	0.44
1:D:442:LYS:HB3	1:D:443:LYS:HD3	1.98	0.44
1:H:48:PRO:HG2	1:H:49:TYR:CD1	2.52	0.44
1:K:461:GLN:HE22	1:L:21:VAL:CB	2.30	0.44
1:O:355:TYR:C	1:O:355:TYR:CD2	2.91	0.44
1:B:451:LEU:HD23	1:B:454:LYS:HG3	2.00	0.44
1:K:300:VAL:O	1:K:300:VAL:CG2	2.64	0.44
1:G:75:ILE:HB	1:G:329:LEU:HB3	1.99	0.44
1:K:42:LEU:CD1	1:K:73:PHE:CE2	2.96	0.44
1:F:395:ASN:HB3	1:F:398:ILE:HG12	1.99	0.44
1:B:110:GLY:O	1:B:111:GLN:NE2	2.50	0.44
1:J:42:LEU:HD13	1:J:447:TRP:CE2	2.52	0.44
1:N:235:ILE:HG23	1:N:235:ILE:HD12	1.76	0.44
1:E:60:ILE:HG13	1:E:60:ILE:O	2.16	0.44
1:J:317:GLN:HG3	1:J:317:GLN:H	1.56	0.44
1:N:92:ASN:HD21	1:N:94:ASP:HB2	1.80	0.44
1:F:23:SER:N	1:F:319:HIS:HD2	2.14	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:24:THR:OG1	1:F:25:ASP:N	2.50	0.44
1:F:178:VAL:O	1:F:180:VAL:N	2.34	0.44
1:F:97:ARG:CA	1:F:97:ARG:HH11	2.22	0.44
1:F:97:ARG:N	1:F:383:LEU:CD1	2.80	0.44
1:A:49:TYR:CE2	1:A:118:SER:HA	2.50	0.44
1:K:117:ILE:O	1:K:117:ILE:HG23	2.18	0.44
1:G:307:PHE:C	1:G:309:LYS:N	2.70	0.44
1:B:219:GLU:HA	1:B:263:ARG:NH1	2.32	0.44
1:D:210:PHE:HE1	1:D:224:ILE:HB	1.76	0.44
1:D:71:ARG:CG	1:D:71:ARG:HH11	2.31	0.44
1:N:262:ASN:HD22	1:N:263:ARG:H	1.61	0.44
1:G:74:ARG:NH2	1:G:441:LEU:HD12	2.31	0.44
1:A:242:TYR:CE2	1:A:394:MET:CB	3.00	0.44
1:G:367:GLY:O	1:G:368:GLU:HG2	2.17	0.44
1:B:28:VAL:HG22	1:B:381:ILE:CG1	2.47	0.44
1:I:42:LEU:HB2	1:I:370:TYR:HB2	1.99	0.44
1:B:96:GLN:HB3	1:B:382:THR:CA	2.47	0.44
1:H:389:THR:OG1	1:H:390:TYR:N	2.50	0.44
1:L:374:PHE:HB3	1:L:376:PHE:CE1	2.52	0.44
1:C:323:ILE:CG2	1:C:325:TRP:CD2	3.00	0.44
1:H:307:PHE:O	1:H:308:ASN:HB2	2.17	0.44
1:E:440:PRO:HG2	1:E:441:LEU:HG	1.99	0.44
1:C:91:TYR:HA	1:C:96:GLN:OE1	2.16	0.44
1:L:157:CYS:HA	1:L:332:THR:O	2.17	0.44
1:L:153:GLN:NE2	1:L:300:VAL:HG12	2.32	0.44
1:H:87:ASP:O	1:H:90:PHE:CE2	2.70	0.44
1:I:72:VAL:HG23	1:I:197:ASP:HA	2.00	0.44
1:A:385:ALA:O	1:A:389:THR:HG23	2.17	0.44
1:H:471:GLN:O	1:H:472:LEU:OXT	2.35	0.44
1:F:257:VAL:CG2	1:J:150:ASP:OD1	2.65	0.44
1:K:70:TYR:CE1	1:K:201:VAL:HA	2.52	0.44
1:F:97:ARG:HG3	1:F:383:LEU:HD21	1.99	0.44
1:E:213:LEU:CD1	1:E:213:LEU:CD2	2.85	0.44
1:K:150:ASP:OD2	1:K:150:ASP:N	2.49	0.44
1:L:275:LEU:CD2	1:L:275:LEU:CD1	2.79	0.44
1:A:129:THR:HG21	1:A:291:TYR:CD2	2.53	0.44
1:G:442:LYS:HB3	1:G:443:LYS:HD3	2.00	0.44
1:M:114:GLY:CA	1:N:255:MET:SD	3.05	0.44
1:C:440:PRO:C	1:C:443:LYS:HZ1	2.21	0.44
1:N:361:LYS:HD2	1:O:183:GLY:HA3	1.99	0.44
1:O:149:MET:CE	1:O:205:PHE:CZ	3.00	0.44
1:L:185:CYS:SG	1:L:186:PRO:CD	3.06	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:121:PRO:CG	1:B:289:SER:HB2	2.47	0.44
1:H:80:PRO:C	1:H:82:LYS:H	2.20	0.44
1:G:152:LYS:HE3	1:G:154:THR:OG1	2.18	0.44
1:K:57:ASN:ND2	1:K:59:LYS:H	2.16	0.44
1:A:135:TYR:HE2	1:A:287:ALA:CB	2.17	0.44
1:M:363:TYR:CE1	1:N:185:CYS:HB2	2.51	0.44
1:O:373:GLN:HB2	1:O:464:LEU:HD12	1.99	0.44
1:J:246:LEU:HD23	1:J:246:LEU:O	2.18	0.44
1:M:126:LEU:HD12	1:M:126:LEU:HA	1.86	0.44
1:I:57:ASN:CG	1:I:59:LYS:H	2.21	0.44
1:G:30:ARG:NH1	1:G:377:GLN:NE2	2.58	0.44
1:C:155:GLN:HG2	1:C:307:PHE:HE1	1.81	0.44
1:B:392:HIS:HB2	1:B:399:LEU:HD11	1.98	0.44
1:F:278:LYS:CB	1:I:354:THR:HG22	2.47	0.44
1:M:247:PHE:HD1	1:M:248:PHE:H	1.64	0.44
1:H:189:GLU:O	1:H:191:ILE:HG13	2.16	0.44
1:E:92:ASN:HD21	1:E:94:ASP:HB2	1.82	0.44
1:A:290:ASN:N	1:A:290:ASN:HD22	2.14	0.44
1:I:125:LYS:C	1:I:125:LYS:HD3	2.38	0.44
1:B:98:LEU:HA	1:B:379:CYS:O	2.17	0.44
1:E:323:ILE:O	1:E:325:TRP:N	2.49	0.44
1:E:390:TYR:O	1:E:394:MET:N	2.51	0.44
1:M:441:LEU:CB	1:M:441:LEU:CD2	2.81	0.44
1:K:240:GLU:HG2	1:K:245:SER:OG	2.16	0.44
1:A:302:SER:C	1:A:304:ALA:H	2.21	0.44
1:D:360:PHE:CE2	1:E:216:ASN:HA	2.52	0.44
1:G:66:SER:O	1:G:69:GLN:HG3	2.18	0.44
1:N:382:THR:CG2	1:N:382:THR:CA	2.84	0.44
1:C:115:VAL:H	1:D:255:MET:HE1	1.83	0.44
1:K:124:ASN:HD22	1:K:216:ASN:ND2	2.15	0.44
1:H:325:TRP:HB3	1:H:398:ILE:HD11	2.00	0.44
1:H:399:LEU:HA	1:H:402:TRP:CE3	2.44	0.44
1:J:54:LYS:HG2	1:J:57:ASN:HB3	1.99	0.44
1:E:75:ILE:CD1	1:E:331:VAL:HG23	2.39	0.44
1:K:141:VAL:O	1:K:142:ASP:HB3	2.17	0.44
1:E:293:PRO:CD	1:E:293:PRO:O	2.65	0.44
1:L:254:GLN:HG3	1:L:254:GLN:O	2.15	0.44
1:C:24:THR:O	1:C:28:VAL:HG23	2.17	0.44
1:B:240:GLU:HG3	1:B:243:GLY:CA	2.47	0.44
1:L:364:LEU:CD1	1:M:290:ASN:HA	2.44	0.44
1:F:399:LEU:HD23	1:F:402:TRP:CE3	2.52	0.44
1:E:106:GLU:HB3	1:E:373:GLN:HB2	1.99	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:290:ASN:ND2	1:N:290:ASN:N	2.64	0.44
1:J:172:GLY:O	1:J:173:SER:C	2.55	0.44
1:J:254:GLN:NE2	1:J:298:SER:HB3	2.32	0.44
1:K:253:GLU:HG3	1:O:113:LEU:HD22	2.00	0.44
1:F:149:MET:HE1	1:F:205:PHE:CZ	2.53	0.44
1:G:208:MET:CG	1:G:210:PHE:CE2	3.00	0.44
1:I:355:TYR:CE1	1:J:144:ARG:HD3	2.53	0.44
1:O:33:ILE:HD13	1:O:33:ILE:HA	1.74	0.44
1:C:153:GLN:NE2	1:C:300:VAL:HA	2.32	0.44
1:D:51:PRO:C	1:D:52:ILE:HD12	2.38	0.44
1:F:240:GLU:OE2	1:F:241:PRO:HD2	2.17	0.44
1:O:144:ARG:C	1:O:145:GLU:HG2	2.37	0.44
1:B:54:LYS:HB3	1:B:57:ASN:HD22	1.82	0.44
1:C:329:LEU:HA	1:C:329:LEU:HD23	1.77	0.44
1:N:217:LYS:HG2	1:O:276:TYR:CA	2.46	0.44
1:I:148:SER:OG	1:J:129:THR:HB	2.17	0.44
1:A:283:THR:HG21	1:E:142:ASP:O	2.17	0.44
1:J:70:TYR:O	1:J:71:ARG:NH1	2.50	0.44
1:M:78:PRO:HD2	1:M:455:PHE:CE1	2.53	0.44
1:J:47:HIS:HE1	1:J:49:TYR:HD1	1.63	0.44
1:A:231:TYR:CD2	1:E:112:PRO:HB3	2.53	0.44
1:D:242:TYR:CE2	1:D:394:MET:CB	2.95	0.44
1:H:153:GLN:NE2	1:H:300:VAL:CG1	2.80	0.44
1:L:210:PHE:O	1:L:214:GLN:HB2	2.18	0.44
1:M:92:ASN:HA	1:M:93:PRO:HD2	1.72	0.44
1:C:276:TYR:CD2	1:C:276:TYR:N	2.85	0.44
1:E:261:PHE:CB	1:E:292:PHE:CE2	2.99	0.44
1:H:159:ILE:HD13	1:H:159:ILE:HG21	1.85	0.44
1:J:125:LYS:HE2	1:J:261:PHE:CD2	2.52	0.44
1:E:42:LEU:HA	1:E:42:LEU:HD23	1.48	0.44
1:O:331:VAL:CG1	1:O:331:VAL:CA	2.82	0.44
1:N:31:THR:HG23	1:N:379:CYS:HA	2.00	0.44
1:E:99:VAL:HG11	1:E:323:ILE:CG2	2.31	0.44
1:A:185:CYS:HB2	1:E:363:TYR:CD2	2.53	0.44
1:M:22:VAL:O	1:M:23:SER:C	2.55	0.44
1:K:237:MET:CE	1:K:246:LEU:HD13	2.48	0.44
1:F:117:ILE:HG12	1:F:149:MET:O	2.18	0.44
1:A:307:PHE:O	1:A:308:ASN:HB2	2.16	0.44
1:I:193:THR:CG2	1:I:230:LYS:HD2	2.45	0.44
1:F:57:ASN:HD21	1:F:59:LYS:N	2.11	0.44
1:O:398:ILE:HA	1:O:398:ILE:CD1	2.48	0.44
1:N:74:ARG:CB	1:N:330:PHE:HE2	2.31	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:28:VAL:HG22	1:D:381:ILE:HD11	2.00	0.44
1:F:237:MET:HB3	1:F:246:LEU:HD22	1.98	0.44
1:G:395:ASN:ND2	1:G:395:ASN:C	2.71	0.44
1:B:101:ALA:HB3	1:B:377:GLN:O	2.18	0.44
1:M:363:TYR:CE2	1:N:185:CYS:HB2	2.52	0.44
1:J:57:ASN:ND2	1:J:59:LYS:H	2.16	0.44
1:O:463:PRO:CA	1:O:466:ARG:HH21	2.31	0.44
1:K:369:GLU:OE1	1:L:190:LEU:CD2	2.66	0.44
1:D:22:VAL:O	1:D:23:SER:C	2.55	0.44
1:C:130:GLU:HB2	1:C:260:LEU:HD13	2.00	0.44
1:D:117:ILE:HD11	1:E:260:LEU:CD2	2.41	0.44
1:K:213:LEU:HD12	1:O:344:LEU:CD1	2.42	0.44
1:F:395:ASN:ND2	1:F:397:THR:OG1	2.50	0.44
1:H:308:ASN:ND2	1:I:251:ARG:HH22	2.12	0.44
1:J:58:ASN:N	1:J:58:ASN:OD1	2.50	0.44
1:E:76:HIS:HB2	1:E:450:ASN:HA	1.98	0.44
1:H:135:TYR:HE2	1:H:287:ALA:HB2	1.81	0.44
1:K:364:LEU:HD23	1:K:364:LEU:HA	1.72	0.44
1:L:33:ILE:HD12	1:L:33:ILE:HG23	1.77	0.44
1:L:463:PRO:HA	1:L:466:ARG:HE	1.82	0.44
1:D:103:VAL:HG21	1:D:468:PHE:CZ	2.53	0.44
1:E:96:GLN:CB	1:E:382:THR:HG22	2.29	0.44
1:A:188:LEU:CD1	1:A:213:LEU:HD11	2.48	0.44
1:I:85:PHE:HA	1:I:86:PRO:HD2	1.70	0.44
1:F:166:GLY:O	1:F:192:ASN:HA	2.18	0.44
1:A:155:GLN:CG	1:A:307:PHE:HE1	2.30	0.44
1:C:117:ILE:HG21	1:C:117:ILE:HD13	1.66	0.44
1:I:110:GLY:C	1:I:111:GLN:HG2	2.37	0.44
1:O:129:THR:HG1	1:O:260:LEU:C	2.19	0.44
1:D:178:VAL:CG2	1:D:178:VAL:N	2.80	0.44
1:L:348:ILE:HD11	1:M:181:GLN:HE22	1.83	0.44
1:D:120:HIS:HB2	1:D:221:PRO:HA	1.99	0.44
1:N:348:ILE:HA	1:N:348:ILE:HD12	1.81	0.44
1:D:155:GLN:HG2	1:D:307:PHE:HE1	1.83	0.44
1:G:394:MET:HE2	1:G:394:MET:HB3	1.89	0.44
1:N:325:TRP:HB3	1:N:398:ILE:CD1	2.47	0.44
1:O:459:LEU:C	1:O:461:GLN:N	2.71	0.44
1:D:21:VAL:C	1:D:22:VAL:HG13	2.39	0.44
1:K:44:ALA:HB3	1:K:368:GLU:HB2	2.00	0.44
1:F:141:VAL:HG13	1:J:357:ASN:H	1.83	0.44
1:A:462:PHE:O	1:A:466:ARG:HG3	2.18	0.44
1:M:208:MET:HB2	1:M:209:ASP:H	1.45	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:383:LEU:HD22	1:M:388:MET:CE	2.44	0.44
1:I:444:TYR:HB3	1:I:446:PHE:CZ	2.53	0.44
1:J:316:ALA:C	1:J:318:GLY:H	2.21	0.44
1:O:42:LEU:HD13	1:O:447:TRP:CZ2	2.52	0.44
1:E:36:HIS:CG	1:E:37:ALA:N	2.85	0.44
1:C:381:ILE:O	1:C:383:LEU:HD12	2.17	0.44
1:O:390:TYR:O	1:O:392:HIS:N	2.51	0.44
1:J:364:LEU:HA	1:J:364:LEU:HD23	1.61	0.44
1:N:117:ILE:HG23	1:N:117:ILE:O	2.17	0.44
1:N:92:ASN:HA	1:N:93:PRO:HD2	1.45	0.44
1:E:322:GLY:C	1:E:323:ILE:HD13	2.38	0.44
1:J:153:GLN:H	1:J:297:GLY:HA3	1.82	0.44
1:I:344:LEU:HD21	1:I:365:ARG:CG	2.48	0.44
1:J:180:VAL:HG12	1:J:181:GLN:H	1.82	0.44
1:M:22:VAL:N	1:M:390:TYR:OH	2.47	0.44
1:K:190:LEU:CD2	1:O:369:GLU:OE1	2.65	0.44
1:I:396:SER:OG	1:I:397:THR:N	2.51	0.44
1:B:154:THR:H	1:B:336:THR:CG2	2.31	0.44
1:C:54:LYS:HB3	1:C:57:ASN:HD22	1.82	0.44
1:J:30:ARG:HH11	1:J:377:GLN:NE2	2.16	0.44
1:D:398:ILE:HG22	1:D:402:TRP:CZ3	2.53	0.44
1:B:178:VAL:C	1:B:180:VAL:H	2.20	0.44
1:M:120:HIS:CE1	1:M:122:LEU:H	2.34	0.44
1:J:96:GLN:C	1:J:96:GLN:HA	2.14	0.44
1:N:196:GLN:NE2	1:N:444:TYR:HD2	2.16	0.44
1:C:345:CYS:HA	1:C:361:LYS:O	2.17	0.44
1:D:143:ASN:O	1:D:144:ARG:C	2.54	0.44
1:N:219:GLU:O	1:N:220:VAL:CG1	2.66	0.44
1:O:63:PRO:O	1:O:65:VAL:HG23	2.18	0.44
1:G:24:THR:O	1:G:28:VAL:N	2.45	0.44
1:A:283:THR:HG1	1:E:142:ASP:CG	2.22	0.44
1:K:54:LYS:HE3	1:K:55:PRO:CD	2.33	0.44
1:A:150:ASP:HB3	1:B:257:VAL:HG21	1.99	0.44
1:H:329:LEU:HA	1:H:329:LEU:HD23	1.59	0.44
1:G:271:VAL:HG12	1:G:276:TYR:CE2	2.52	0.44
1:J:68:LEU:HD13	1:J:151:TYR:CD1	2.52	0.44
1:K:185:CYS:HA	1:K:186:PRO:HD3	1.81	0.44
1:K:109:ARG:NE	1:K:335:ASP:OD2	2.49	0.44
1:D:148:SER:OG	1:E:129:THR:CB	2.64	0.44
1:F:397:THR:O	1:F:401:ASP:N	2.47	0.44
1:M:365:ARG:CG	1:M:365:ARG:HH11	2.29	0.44
1:B:399:LEU:O	1:B:402:TRP:HB2	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:D:384:THR:HG23	1:D:387:VAL:HG23	2.00	0.44
1:A:399:LEU:HA	1:A:402:TRP:CE3	2.50	0.44
1:B:365:ARG:HA	1:B:365:ARG:HD3	1.77	0.44
1:L:351:SER:HB2	1:L:352:GLU:OE1	2.17	0.44
1:N:135:TYR:HE2	1:N:287:ALA:HB2	1.83	0.44
1:H:97:ARG:HH11	1:H:97:ARG:HA	1.82	0.44
1:E:166:GLY:N	1:E:193:THR:O	2.50	0.44
1:E:447:TRP:HD1	1:E:448:GLU:N	2.15	0.44
1:D:301:THR:HB	1:D:301:THR:CG2	2.19	0.44
1:I:344:LEU:HD21	1:I:365:ARG:HG2	2.00	0.44
1:I:34:TYR:CD2	1:I:377:GLN:HB2	2.52	0.44
1:H:204:GLY:HA3	1:H:295:PRO:HG3	1.99	0.44
1:B:256:PHE:CD2	1:B:296:SER:HB3	2.52	0.44
1:K:85:PHE:CE2	1:K:378:LEU:HD22	2.53	0.44
1:E:262:ASN:ND2	1:E:288:SER:HB3	2.31	0.44
1:N:149:MET:HE3	1:N:295:PRO:HD2	1.99	0.44
1:D:152:LYS:CB	1:D:255:MET:HB2	2.27	0.44
1:C:391:ILE:HG21	1:C:402:TRP:HZ3	1.82	0.44
1:H:167:GLU:HG2	1:H:231:TYR:O	2.18	0.44
1:B:214:GLN:CD	1:B:219:GLU:HB2	2.37	0.44
1:F:241:PRO:HG2	1:F:242:TYR:H	1.83	0.44
1:D:234:TYR:O	1:D:236:LYS:N	2.51	0.44
1:O:219:GLU:O	1:O:220:VAL:HG13	2.17	0.44
1:C:170:GLY:HA2	1:C:213:LEU:CD2	2.42	0.44
1:B:54:LYS:CB	1:B:57:ASN:HD22	2.31	0.44
1:K:257:VAL:HG13	1:O:115:VAL:CG2	2.48	0.44
1:H:79:ASP:HA	1:H:327:ASN:ND2	2.33	0.44
1:A:72:VAL:HG22	1:A:332:THR:HG23	1.99	0.44
1:M:281:GLY:O	1:M:282:SER:C	2.56	0.44
1:M:459:LEU:C	1:M:461:GLN:H	2.20	0.44
1:F:34:TYR:CE2	1:F:377:GLN:CB	2.98	0.44
1:D:164:PRO:HG2	1:D:195:ILE:HB	2.00	0.44
1:L:158:LEU:CD2	1:L:249:TYR:HB2	2.47	0.44
1:H:228:ILE:HD12	1:H:228:ILE:N	2.32	0.44
1:G:384:THR:O	1:G:388:MET:HB2	2.18	0.44
1:N:442:LYS:HB3	1:N:443:LYS:HD3	1.99	0.44
1:G:61:LEU:HD12	1:G:61:LEU:O	2.18	0.44
1:M:270:ASN:O	1:M:272:PRO:HD3	2.18	0.44
1:M:272:PRO:O	1:M:275:LEU:HG	2.17	0.44
1:F:163:PRO:N	1:F:330:PHE:CD1	2.86	0.44
1:B:106:GLU:HG3	1:B:309:LYS:C	2.38	0.44
1:D:125:LYS:NZ	1:D:127:ASP:HA	2.33	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:312:TRP:CH2	1:M:468:PHE:HA	2.52	0.44
1:I:165:ILE:O	1:I:165:ILE:HG22	2.16	0.44
1:N:33:ILE:HB	1:N:378:LEU:HB3	2.00	0.43
1:L:247:PHE:CD1	1:L:248:PHE:N	2.85	0.43
1:F:117:ILE:HD12	1:G:293:PRO:HB3	2.00	0.43
1:J:102:CYS:SG	1:J:105:VAL:HG23	2.58	0.43
1:G:42:LEU:HB3	1:G:447:TRP:CZ2	2.53	0.43
1:G:73:PHE:N	1:G:73:PHE:CD1	2.85	0.43
1:K:149:MET:HE1	1:K:205:PHE:HZ	1.83	0.43
1:L:117:ILE:HD11	1:M:260:LEU:HD23	1.99	0.43
1:N:35:TYR:O	1:N:376:PHE:N	2.40	0.43
1:E:155:GLN:OE1	1:E:305:GLN:HA	2.18	0.43
1:N:365:ARG:HA	1:N:365:ARG:HD3	1.65	0.43
1:N:219:GLU:C	1:N:220:VAL:CG1	2.85	0.43
1:N:217:LYS:O	1:N:218:SER:CB	2.66	0.43
1:F:299:MET:HA	1:G:255:MET:O	2.18	0.43
1:L:34:TYR:CD2	1:L:377:GLN:HB2	2.49	0.43
1:I:75:ILE:HG21	1:I:451:LEU:CD1	2.43	0.43
1:H:24:THR:O	1:H:26:GLU:N	2.51	0.43
1:A:220:VAL:O	1:A:221:PRO:C	2.55	0.43
1:K:24:THR:CG2	1:K:320:ASN:HA	2.48	0.43
1:L:21:VAL:CG1	1:L:22:VAL:N	2.81	0.43
1:J:210:PHE:CD1	1:J:224:ILE:HB	2.52	0.43
1:J:69:GLN:HA	1:J:199:ASP:O	2.17	0.43
1:G:459:LEU:C	1:G:461:GLN:N	2.71	0.43
1:C:246:LEU:H	1:C:246:LEU:CD2	2.28	0.43
1:E:72:VAL:HG23	1:E:72:VAL:H	1.62	0.43
1:O:384:THR:OG1	1:O:387:VAL:HG23	2.18	0.43
1:L:281:GLY:H	1:L:284:ALA:CB	2.31	0.43
1:J:42:LEU:HB3	1:J:447:TRP:CZ2	2.53	0.43
1:F:163:PRO:HA	1:F:330:PHE:CD1	2.53	0.43
1:O:189:GLU:O	1:O:191:ILE:HG13	2.17	0.43
1:A:43:LEU:HD21	1:B:190:LEU:HB2	1.99	0.43
1:O:114:GLY:HA3	1:O:340:THR:OG1	2.18	0.43
1:D:459:LEU:C	1:D:461:GLN:H	2.20	0.43
1:J:465:GLY:O	1:J:467:LYS:N	2.51	0.43
1:J:188:LEU:HD11	1:J:213:LEU:CD1	2.45	0.43
1:B:24:THR:CG2	1:B:320:ASN:HA	2.48	0.43
1:F:154:THR:H	1:F:336:THR:HG23	1.80	0.43
1:A:472:LEU:HD23	1:F:138:ASN:HD22	1.83	0.43
1:K:33:ILE:HD13	1:K:33:ILE:HA	1.53	0.43
1:G:46:GLY:HA3	1:G:65:VAL:HB	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:163:PRO:HB3	1:L:330:PHE:CE1	2.53	0.43
1:L:117:ILE:HD12	1:M:293:PRO:HB3	2.00	0.43
1:C:210:PHE:CD1	1:C:224:ILE:HB	2.53	0.43
1:E:66:SER:OG	1:E:67:GLY:N	2.48	0.43
1:O:205:PHE:HE2	1:O:293:PRO:O	2.01	0.43
1:B:46:GLY:N	1:B:65:VAL:HG21	2.33	0.43
1:M:344:LEU:HD13	1:N:213:LEU:HD12	2.00	0.43
1:I:329:LEU:HD23	1:I:329:LEU:HA	1.63	0.43
1:I:464:LEU:CD2	1:I:464:LEU:O	2.65	0.43
1:G:247:PHE:HD1	1:G:248:PHE:N	2.16	0.43
1:N:27:TYR:CE2	1:N:390:TYR:CE2	3.06	0.43
1:D:271:VAL:HA	1:D:272:PRO:HD3	1.85	0.43
1:D:149:MET:HB2	1:D:150:ASP:H	1.64	0.43
1:G:156:LEU:O	1:G:156:LEU:HD12	2.17	0.43
1:L:214:GLN:OE1	1:L:219:GLU:HB2	2.17	0.43
1:M:440:PRO:C	1:M:443:LYS:NZ	2.72	0.43
1:H:306:ILE:HD12	1:H:306:ILE:HG23	1.67	0.43
1:F:44:ALA:HB3	1:F:368:GLU:HB2	2.00	0.43
1:C:273:ASP:N	1:C:273:ASP:OD2	2.50	0.43
1:N:150:ASP:CG	1:N:150:ASP:O	2.57	0.43
1:J:351:SER:O	1:J:352:GLU:O	2.36	0.43
1:L:107:VAL:HG23	1:L:311:TYR:HE1	1.84	0.43
1:A:153:GLN:H	1:A:297:GLY:HA3	1.83	0.43
1:A:223:ASP:OD1	1:A:223:ASP:C	2.54	0.43
1:G:105:VAL:HG22	1:G:374:PHE:HD2	1.82	0.43
1:G:373:GLN:C	1:G:374:PHE:CD1	2.92	0.43
1:D:391:ILE:HD13	1:D:391:ILE:HG21	1.75	0.43
1:C:291:TYR:N	1:C:291:TYR:CD1	2.83	0.43
1:C:114:GLY:HA3	1:C:340:THR:OG1	2.18	0.43
1:B:461:GLN:HA	1:B:461:GLN:NE2	2.31	0.43
1:D:62:VAL:HG13	1:D:63:PRO:HD2	1.99	0.43
1:H:65:VAL:O	1:H:366:HIS:HB3	2.18	0.43
1:H:62:VAL:HA	1:H:63:PRO:HD3	1.80	0.43
1:M:68:LEU:HD13	1:M:151:TYR:CD1	2.54	0.43
1:E:120:HIS:ND1	1:E:122:LEU:N	2.63	0.43
1:F:73:PHE:CD1	1:F:73:PHE:N	2.86	0.43
1:B:259:HIS:HE1	1:C:130:GLU:HG2	1.83	0.43
1:J:247:PHE:HD1	1:J:248:PHE:H	1.64	0.43
1:B:306:ILE:HD12	1:B:306:ILE:HG23	1.72	0.43
1:H:147:ILE:HA	1:I:129:THR:O	2.18	0.43
1:H:97:ARG:NH1	1:H:97:ARG:HA	2.33	0.43
1:O:297:GLY:O	1:O:298:SER:O	2.36	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:470:LEU:O	1:I:470:LEU:CD2	2.67	0.43
1:B:80:PRO:HB3	1:B:100:TRP:NE1	2.34	0.43
1:E:162:LYS:HG2	1:E:244:ASP:HB3	2.00	0.43
1:E:74:ARG:CG	1:E:330:PHE:HE2	2.32	0.43
1:K:232:PRO:HB2	1:K:234:TYR:CZ	2.53	0.43
1:F:98:LEU:HD22	1:F:379:CYS:O	2.18	0.43
1:C:149:MET:HE2	1:C:205:PHE:CZ	2.54	0.43
1:H:299:MET:HA	1:I:256:PHE:HB3	1.99	0.43
1:D:361:LYS:CG	1:D:361:LYS:CE	2.87	0.43
1:I:179:ALA:C	1:I:180:VAL:CG2	2.86	0.43
1:G:46:GLY:N	1:G:65:VAL:HB	2.33	0.43
1:K:113:LEU:HD21	1:K:305:GLN:NE2	2.33	0.43
1:L:117:ILE:H	1:L:117:ILE:HG22	1.43	0.43
1:A:152:LYS:NZ	1:A:253:GLU:OE1	2.49	0.43
1:N:154:THR:N	1:N:336:THR:HG21	2.15	0.43
1:O:220:VAL:HB	1:O:224:ILE:HD12	2.01	0.43
1:A:120:HIS:ND1	1:A:122:LEU:N	2.56	0.43
1:M:363:TYR:CD2	1:N:185:CYS:HB2	2.53	0.43
1:M:363:TYR:CG	1:N:185:CYS:HB2	2.54	0.43
1:M:279:GLY:C	1:M:284:ALA:HB2	2.38	0.43
1:K:463:PRO:CA	1:K:466:ARG:HH21	2.31	0.43
1:A:74:ARG:HH12	1:A:441:LEU:HB2	1.83	0.43
1:O:104:GLY:O	1:O:374:PHE:CA	2.63	0.43
1:K:23:SER:OG	1:K:25:ASP:HB2	2.18	0.43
1:N:141:VAL:HG12	1:N:142:ASP:N	2.33	0.43
1:D:117:ILE:O	1:D:117:ILE:CG2	2.67	0.43
1:O:55:PRO:HG2	1:O:56:ASN:ND2	2.33	0.43
1:L:80:PRO:C	1:L:82:LYS:N	2.72	0.43
1:B:103:VAL:HA	1:B:313:LEU:HB2	2.01	0.43
1:D:365:ARG:HG3	1:D:365:ARG:HH11	1.83	0.43
1:D:267:VAL:HG11	1:D:270:ASN:CG	2.39	0.43
1:L:42:LEU:HD13	1:L:447:TRP:CE2	2.53	0.43
1:B:440:PRO:O	1:B:443:LYS:NZ	2.52	0.43
1:C:150:ASP:CG	1:D:257:VAL:HG21	2.39	0.43
1:H:149:MET:HE3	1:H:295:PRO:HD2	2.01	0.43
1:A:300:VAL:H	1:A:300:VAL:HG22	1.44	0.43
1:C:166:GLY:N	1:C:195:ILE:HD11	2.33	0.43
1:C:46:GLY:HA3	1:C:65:VAL:CG2	2.49	0.43
1:J:120:HIS:HA	1:J:222:LEU:HD13	1.99	0.43
1:I:221:PRO:HD2	1:I:224:ILE:HD11	2.01	0.43
1:C:373:GLN:C	1:C:464:LEU:HD12	2.39	0.43
1:G:66:SER:OG	1:G:68:LEU:N	2.51	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:K:302:SER:CB	1:L:253:GLU:H	2.32	0.43
1:B:120:HIS:HB3	1:B:123:LEU:HB2	2.00	0.43
1:M:130:GLU:CB	1:M:260:LEU:HD13	2.42	0.43
1:N:68:LEU:HD23	1:N:201:VAL:HG21	2.00	0.43
1:L:246:LEU:O	1:L:246:LEU:HG	2.18	0.43
1:G:27:TYR:CE2	1:G:390:TYR:HE2	2.35	0.43
1:H:372:LEU:HD23	1:H:372:LEU:N	2.32	0.43
1:H:398:ILE:HG22	1:H:402:TRP:CZ3	2.53	0.43
1:A:42:LEU:CD1	1:A:73:PHE:HE2	2.32	0.43
1:O:71:ARG:HB3	1:O:73:PHE:CE1	2.54	0.43
1:D:72:VAL:HG21	1:D:195:ILE:O	2.18	0.43
1:D:149:MET:HA	1:E:260:LEU:HD21	2.00	0.43
1:I:240:GLU:HG3	1:I:243:GLY:HA2	2.00	0.43
1:H:344:LEU:HD13	1:I:213:LEU:HD11	1.96	0.43
1:E:129:THR:HG21	1:E:291:TYR:HD2	1.82	0.43
1:F:193:THR:HG23	1:F:230:LYS:HD2	2.00	0.43
1:E:343:SER:HB3	1:E:364:LEU:CD2	2.49	0.43
1:F:163:PRO:HB3	1:F:330:PHE:CE1	2.54	0.43
1:M:251:ARG:O	1:M:252:ARG:HB2	2.17	0.43
1:N:456:SER:HB3	1:N:462:PHE:HE1	1.83	0.43
1:J:354:THR:O	1:J:356:LYS:HG3	2.18	0.43
1:G:77:LEU:O	1:G:327:ASN:HB3	2.19	0.43
1:F:470:LEU:HD23	1:F:470:LEU:O	2.19	0.43
1:N:80:PRO:HG2	1:N:98:LEU:HB2	2.01	0.43
1:F:178:VAL:C	1:F:180:VAL:H	2.19	0.43
1:I:378:LEU:HD12	1:I:378:LEU:C	2.34	0.43
1:I:99:VAL:HG12	1:I:100:TRP:O	2.18	0.43
1:G:125:LYS:HD3	1:G:127:ASP:N	2.33	0.43
1:F:139:ALA:O	1:F:140:GLY:C	2.57	0.43
1:A:113:LEU:HA	1:A:337:THR:O	2.18	0.43
1:D:260:LEU:O	1:D:261:PHE:HD2	2.01	0.43
1:I:49:TYR:CE1	1:I:364:LEU:CD1	3.02	0.43
1:N:32:ASN:ND2	1:N:32:ASN:CB	2.71	0.43
1:E:117:ILE:CG2	1:E:117:ILE:CD1	2.96	0.43
1:A:163:PRO:HA	1:A:330:PHE:CD1	2.53	0.43
1:C:300:VAL:CG2	1:C:300:VAL:O	2.54	0.43
1:H:151:TYR:HD2	1:H:203:THR:O	2.02	0.43
1:O:49:TYR:O	1:O:223:ASP:HA	2.18	0.43
1:L:181:GLN:O	1:L:182:PRO:C	2.55	0.43
1:J:240:GLU:HG3	1:J:243:GLY:N	2.34	0.43
1:B:34:TYR:HA	1:B:376:PHE:O	2.19	0.43
1:H:397:THR:HB	1:H:401:ASP:OD2	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:N:159:ILE:HG22	1:N:247:PHE:HE1	1.83	0.43
1:O:54:LYS:CG	1:O:56:ASN:OD1	2.61	0.43
1:F:462:PHE:O	1:F:466:ARG:HG3	2.19	0.43
1:E:171:LYS:HG3	1:E:187:PRO:HD2	2.01	0.43
1:G:280:SER:C	1:G:284:ALA:HB2	2.39	0.43
1:M:188:LEU:HD13	1:M:188:LEU:HA	1.62	0.43
1:L:96:GLN:HA	1:L:381:ILE:O	2.17	0.43
1:M:447:TRP:C	1:M:447:TRP:CD1	2.92	0.43
1:G:153:GLN:HA	1:G:336:THR:OG1	2.18	0.43
1:I:158:LEU:HB2	1:I:332:THR:HB	1.99	0.43
1:B:106:GLU:HG3	1:B:309:LYS:O	2.18	0.43
1:L:76:HIS:HB2	1:L:450:ASN:HA	2.00	0.43
1:C:342:MET:HB2	1:D:208:MET:HE1	2.01	0.43
1:O:386:ASP:OD2	1:O:386:ASP:N	2.51	0.43
1:L:365:ARG:HD3	1:L:365:ARG:HA	1.74	0.43
1:N:30:ARG:HD3	1:N:377:GLN:HE22	1.83	0.43
1:J:359:ASN:CG	1:J:359:ASN:O	2.57	0.43
1:J:188:LEU:HD13	1:J:188:LEU:HA	1.55	0.43
1:B:398:ILE:HG23	1:B:398:ILE:HD12	1.50	0.43
1:G:214:GLN:HE22	1:G:219:GLU:HB2	1.83	0.43
1:H:117:ILE:HD11	1:I:260:LEU:HD23	2.00	0.43
1:J:329:LEU:HA	1:J:329:LEU:HD23	1.27	0.43
1:J:74:ARG:CD	1:J:74:ARG:HB2	2.47	0.43
1:D:345:CYS:HA	1:D:361:LYS:O	2.18	0.43
1:L:163:PRO:N	1:L:330:PHE:HD1	2.16	0.43
1:F:260:LEU:HD23	1:J:117:ILE:CD1	2.37	0.43
1:E:201:VAL:O	1:E:229:CYS:SG	2.69	0.43
1:L:348:ILE:O	1:L:348:ILE:HG13	2.17	0.43
1:O:125:LYS:C	1:O:125:LYS:CD	2.87	0.43
1:L:184:ASP:O	1:L:185:CYS:O	2.36	0.43
1:A:51:PRO:C	1:A:52:ILE:HD12	2.37	0.43
1:G:316:ALA:O	1:G:318:GLY:N	2.51	0.43
1:K:262:ASN:ND2	1:K:288:SER:HB3	2.34	0.43
1:H:34:TYR:CE2	1:H:377:GLN:CG	3.01	0.43
1:A:42:LEU:HD23	1:A:42:LEU:HA	1.54	0.43
1:K:54:LYS:HG2	1:K:57:ASN:HB3	2.00	0.43
1:K:54:LYS:HB3	1:K:57:ASN:HD22	1.84	0.43
1:K:459:LEU:C	1:K:461:GLN:N	2.70	0.43
1:K:459:LEU:O	1:K:460:ASP:C	2.56	0.43
1:L:22:VAL:O	1:L:23:SER:C	2.56	0.43
1:J:72:VAL:HG22	1:J:332:THR:HG23	1.99	0.43
1:N:24:THR:HG23	1:N:320:ASN:HA	1.98	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:O:106:GLU:HG3	1:O:309:LYS:O	2.18	0.43
1:O:36:HIS:HB2	1:O:459:LEU:HD22	2.01	0.43
1:K:173:SER:HA	1:K:174:PRO:HD3	1.55	0.43
1:M:240:GLU:HG3	1:M:243:GLY:H	1.83	0.43
1:G:34:TYR:CD2	1:G:377:GLN:HB2	2.53	0.43
1:D:149:MET:CE	1:D:205:PHE:CZ	3.01	0.43
1:K:183:GLY:O	1:K:185:CYS:N	2.51	0.43
1:L:75:ILE:HG12	1:L:374:PHE:CZ	2.54	0.43
1:F:272:PRO:HD2	1:F:275:LEU:CD1	2.49	0.43
1:B:33:ILE:HA	1:B:33:ILE:CD1	2.49	0.43
1:J:156:LEU:C	1:J:156:LEU:CD1	2.82	0.43
1:M:24:THR:HG23	1:M:320:ASN:HA	2.00	0.43
1:K:68:LEU:CD2	1:K:201:VAL:HG21	2.42	0.43
1:G:126:LEU:HB3	1:G:262:ASN:HB3	2.00	0.43
1:A:302:SER:N	1:B:253:GLU:O	2.50	0.43
1:I:46:GLY:HA3	1:I:65:VAL:HG23	2.00	0.43
1:E:124:ASN:HD22	1:E:216:ASN:ND2	2.17	0.43
1:I:149:MET:HA	1:J:260:LEU:HD21	2.00	0.43
1:C:35:TYR:O	1:C:375:ILE:HA	2.19	0.43
1:L:152:LYS:CG	1:L:152:LYS:CE	2.80	0.43
1:G:463:PRO:CG	1:G:464:LEU:H	2.02	0.43
1:J:149:MET:HE3	1:J:294:THR:HG22	2.01	0.43
1:M:293:PRO:CG	1:M:293:PRO:O	2.66	0.43
1:E:47:HIS:CE1	1:E:49:TYR:HD1	2.37	0.43
1:D:37:ALA:CB	1:D:451:LEU:HD13	2.47	0.43
1:D:60:ILE:H	1:D:60:ILE:HG12	1.51	0.43
1:M:68:LEU:HA	1:M:68:LEU:HD23	2.00	0.43
1:B:219:GLU:O	1:B:220:VAL:CG1	2.66	0.43
1:D:224:ILE:H	1:D:224:ILE:HG12	1.51	0.43
1:O:180:VAL:HG13	1:O:184:ASP:CB	2.37	0.43
1:O:220:VAL:HB	1:O:224:ILE:CD1	2.48	0.43
1:O:262:ASN:HD22	1:O:263:ARG:N	2.17	0.43
1:L:185:CYS:HA	1:L:186:PRO:HD3	1.51	0.43
1:A:52:ILE:HG12	1:B:269:GLU:CD	2.39	0.43
1:A:283:THR:OG1	1:E:142:ASP:OD1	2.35	0.43
1:J:54:LYS:CG	1:J:56:ASN:OD1	2.63	0.43
1:A:148:SER:HB3	1:B:291:TYR:CD2	2.53	0.43
1:A:383:LEU:HB3	1:A:388:MET:HG3	2.00	0.43
1:O:92:ASN:C	1:O:94:ASP:H	2.22	0.43
1:I:359:ASN:CG	1:I:359:ASN:O	2.56	0.43
1:B:188:LEU:CD1	1:B:213:LEU:HD11	2.48	0.43
1:G:92:ASN:ND2	1:G:95:THR:H	2.17	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:142:ASP:OD1	1:G:279:GLY:HA2	2.19	0.43
1:G:348:ILE:HG22	1:G:359:ASN:HA	2.00	0.43
1:B:92:ASN:HD21	1:B:94:ASP:HB2	1.82	0.43
1:K:326:GLY:O	1:K:327:ASN:CB	2.65	0.43
1:B:99:VAL:HG12	1:B:100:TRP:N	2.34	0.43
1:N:34:TYR:CE2	1:N:377:GLN:CB	2.96	0.43
1:N:383:LEU:HD22	1:N:388:MET:CE	2.49	0.43
1:M:320:ASN:C	1:M:320:ASN:OD1	2.57	0.43
1:B:395:ASN:ND2	1:B:397:THR:OG1	2.51	0.43
1:D:175:CYS:HB3	1:D:177:GLN:OE1	2.19	0.43
1:N:125:LYS:HG3	1:N:261:PHE:CD1	2.54	0.43
1:J:24:THR:HG21	1:J:323:ILE:HG13	1.99	0.43
1:N:120:HIS:ND1	1:N:121:PRO:CD	2.82	0.43
1:C:181:GLN:O	1:C:182:PRO:C	2.57	0.43
1:L:30:ARG:HH11	1:L:377:GLN:HE22	1.66	0.43
1:J:345:CYS:SG	1:J:345:CYS:O	2.76	0.43
1:E:156:LEU:HD13	1:E:158:LEU:HG	2.01	0.43
1:M:372:LEU:HB3	1:M:374:PHE:CE1	2.53	0.43
1:C:155:GLN:OE1	1:C:306:ILE:N	2.48	0.43
1:I:300:VAL:HG11	1:I:337:THR:HA	2.01	0.43
1:H:300:VAL:CG1	1:H:337:THR:HG22	2.48	0.43
1:J:21:VAL:C	1:J:22:VAL:HG13	2.39	0.43
1:E:272:PRO:HD2	1:E:275:LEU:HD12	1.98	0.43
1:N:459:LEU:C	1:N:461:GLN:N	2.71	0.43
1:G:356:LYS:O	1:G:359:ASN:HB3	2.18	0.43
1:F:148:SER:OG	1:G:129:THR:HB	2.18	0.43
1:B:92:ASN:HA	1:B:93:PRO:HD2	1.85	0.43
1:H:92:ASN:HA	1:H:93:PRO:HD2	1.76	0.43
1:D:75:ILE:HB	1:D:329:LEU:CB	2.48	0.43
1:E:247:PHE:HD1	1:E:248:PHE:N	2.15	0.43
1:I:41:ARG:HH22	1:J:192:ASN:HD21	1.67	0.43
1:L:73:PHE:HA	1:L:447:TRP:HB3	2.01	0.43
1:E:39:THR:CG2	1:E:449:VAL:CG1	2.97	0.43
1:I:116:GLY:N	1:I:339:SER:OG	2.52	0.43
1:H:446:PHE:O	1:H:448:GLU:N	2.52	0.43
1:D:461:GLN:NE2	1:E:21:VAL:HB	2.33	0.43
1:F:256:PHE:CE2	1:F:296:SER:OG	2.65	0.43
1:J:156:LEU:HD12	1:J:157:CYS:N	2.33	0.43
1:M:80:PRO:C	1:M:82:LYS:H	2.21	0.43
1:I:390:TYR:C	1:I:392:HIS:N	2.70	0.43
1:F:166:GLY:N	1:F:195:ILE:HG13	2.33	0.43
1:A:115:VAL:N	1:B:255:MET:CE	2.78	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:68:LEU:HD13	1:C:151:TYR:CD1	2.54	0.43
1:L:358:THR:HA	1:M:266:THR:CG2	2.49	0.43
1:I:218:SER:C	1:I:219:GLU:HG2	2.39	0.43
1:D:79:ASP:HA	1:D:80:PRO:HD3	1.77	0.43
1:G:178:VAL:C	1:G:180:VAL:H	2.19	0.43
1:A:257:VAL:HG22	1:A:257:VAL:H	1.40	0.43
1:A:255:MET:SD	1:E:114:GLY:HA2	2.59	0.43
1:B:271:VAL:HA	1:B:272:PRO:HD3	1.64	0.43
1:B:465:GLY:O	1:B:466:ARG:C	2.56	0.43
1:I:241:PRO:CG	1:I:242:TYR:H	2.28	0.43
1:O:223:ASP:OD1	1:O:224:ILE:N	2.52	0.43
1:E:120:HIS:CE1	1:E:122:LEU:H	2.37	0.43
1:H:33:ILE:HA	1:H:33:ILE:HD13	1.72	0.43
1:A:149:MET:HE2	1:A:205:PHE:CZ	2.54	0.43
1:L:66:SER:OG	1:L:68:LEU:N	2.52	0.43
1:F:323:ILE:HG23	1:F:323:ILE:HD12	1.84	0.43
1:A:123:LEU:HD23	1:A:147:ILE:HG21	2.00	0.43
1:F:374:PHE:HB3	1:F:376:PHE:CE1	2.54	0.43
1:E:451:LEU:O	1:E:454:LYS:N	2.50	0.43
1:E:54:LYS:O	1:E:57:ASN:O	2.36	0.43
1:I:44:ALA:HB3	1:I:368:GLU:HB2	2.01	0.43
1:F:155:GLN:HB3	1:F:252:ARG:HB3	2.01	0.43
1:G:459:LEU:C	1:G:461:GLN:H	2.23	0.43
1:D:158:LEU:HB2	1:D:332:THR:OG1	2.19	0.43
1:G:75:ILE:CG2	1:G:451:LEU:HD12	2.49	0.43
1:F:153:GLN:NE2	1:F:300:VAL:HA	2.32	0.43
1:A:173:SER:HA	1:A:174:PRO:HD2	1.48	0.43
1:K:280:SER:CA	1:K:284:ALA:HB2	2.49	0.43
1:J:124:ASN:C	1:J:124:ASN:OD1	2.56	0.43
1:M:87:ASP:C	1:M:88:THR:HG23	2.38	0.43
1:E:317:GLN:HG3	1:E:317:GLN:H	1.50	0.42
1:E:384:THR:H	1:E:387:VAL:HB	1.84	0.42
1:I:85:PHE:C	1:I:87:ASP:H	2.22	0.42
1:C:54:LYS:CA	1:C:54:LYS:HZ3	2.25	0.42
1:E:80:PRO:HB2	1:E:98:LEU:HB3	2.01	0.42
1:D:348:ILE:HA	1:D:348:ILE:HD12	1.71	0.42
1:K:259:HIS:CA	1:K:260:LEU:HD12	2.48	0.42
1:A:33:ILE:HB	1:A:378:LEU:HB3	2.01	0.42
1:A:286:LEU:CD1	1:E:122:LEU:CD2	2.87	0.42
1:A:139:ALA:CB	1:A:143:ASN:HD21	2.31	0.42
1:G:363:TYR:HE2	1:H:269:GLU:HG3	1.84	0.42
1:H:241:PRO:HG2	1:H:242:TYR:H	1.84	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:395:ASN:O	1:H:398:ILE:HG12	2.18	0.42
1:H:81:ASN:ND2	1:H:402:TRP:CD1	2.87	0.42
1:J:43:LEU:HA	1:J:368:GLU:O	2.19	0.42
1:L:383:LEU:HD23	1:L:388:MET:CE	2.49	0.42
1:F:144:ARG:HD3	1:J:355:TYR:CE1	2.53	0.42
1:F:105:VAL:HG22	1:F:374:PHE:CD2	2.54	0.42
1:M:156:LEU:HD12	1:M:157:CYS:N	2.34	0.42
1:D:150:ASP:OD1	1:E:257:VAL:HG21	2.18	0.42
1:H:126:LEU:HD23	1:H:262:ASN:OD1	2.19	0.42
1:K:109:ARG:HE	1:K:338:ARG:HD2	1.83	0.42
1:F:259:HIS:HE1	1:G:130:GLU:OE1	2.02	0.42
1:K:48:PRO:HB3	1:K:341:ASN:ND2	2.32	0.42
1:E:36:HIS:ND1	1:E:36:HIS:C	2.71	0.42
1:N:208:MET:SD	1:N:210:PHE:CE2	3.12	0.42
1:H:90:PHE:HD1	1:H:91:TYR:HB3	1.84	0.42
1:A:290:ASN:ND2	1:A:290:ASN:N	2.66	0.42
1:N:292:PHE:CG	1:N:292:PHE:O	2.71	0.42
1:M:303:ASP:OD1	1:M:303:ASP:N	2.52	0.42
1:E:320:ASN:ND2	1:E:325:TRP:NE1	2.66	0.42
1:J:300:VAL:HG22	1:J:300:VAL:H	1.41	0.42
1:K:66:SER:C	1:K:68:LEU:H	2.21	0.42
1:I:397:THR:O	1:I:398:ILE:C	2.58	0.42
1:F:166:GLY:HA2	1:F:232:PRO:HA	2.01	0.42
1:N:228:ILE:CD1	1:N:228:ILE:N	2.82	0.42
1:E:33:ILE:HD13	1:E:33:ILE:HA	2.01	0.42
1:K:33:ILE:HG23	1:K:33:ILE:HD12	1.76	0.42
1:K:391:ILE:HD13	1:K:391:ILE:HG21	1.85	0.42
1:C:219:GLU:O	1:C:220:VAL:HG13	2.18	0.42
1:E:216:ASN:O	1:E:217:LYS:HB3	2.20	0.42
1:K:260:LEU:HD23	1:O:117:ILE:HD11	2.00	0.42
1:C:74:ARG:O	1:C:449:VAL:HG23	2.19	0.42
1:B:459:LEU:C	1:B:461:GLN:N	2.72	0.42
1:C:355:TYR:C	1:C:355:TYR:CD2	2.93	0.42
1:D:71:ARG:HG2	1:D:71:ARG:HH11	1.84	0.42
1:O:266:THR:O	1:O:266:THR:OG1	2.38	0.42
1:B:54:LYS:HB2	1:B:54:LYS:HZ2	1.84	0.42
1:G:381:ILE:O	1:G:383:LEU:HD12	2.18	0.42
1:K:155:GLN:HG3	1:K:307:PHE:HE1	1.84	0.42
1:A:120:HIS:CG	1:A:222:LEU:CD1	3.02	0.42
1:B:164:PRO:HG2	1:B:195:ILE:HB	2.00	0.42
1:C:181:GLN:OE1	1:C:182:PRO:O	2.36	0.42
1:H:185:CYS:SG	1:H:186:PRO:HD2	2.59	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:151:TYR:OH	1:A:221:PRO:HB2	2.18	0.42
1:O:71:ARG:HH12	1:O:198:GLY:H	1.68	0.42
1:N:399:LEU:HA	1:N:402:TRP:HE3	1.83	0.42
1:E:54:LYS:HB2	1:E:57:ASN:HD22	1.84	0.42
1:K:21:VAL:CG1	1:K:390:TYR:OH	2.60	0.42
1:K:142:ASP:CG	1:L:283:THR:HG1	2.18	0.42
1:I:57:ASN:HD21	1:I:59:LYS:CB	2.32	0.42
1:C:333:VAL:CG1	1:C:334:VAL:N	2.82	0.42
1:J:263:ARG:HG2	1:J:292:PHE:HD2	1.84	0.42
1:D:159:ILE:O	1:D:247:PHE:CD1	2.71	0.42
1:N:375:ILE:HD11	1:N:465:GLY:HA2	2.00	0.42
1:L:151:TYR:CD2	1:L:203:THR:HB	2.55	0.42
1:K:29:ALA:CB	1:K:380:LYS:O	2.66	0.42
1:C:147:ILE:HD13	1:C:261:PHE:CE1	2.55	0.42
1:F:278:LYS:HB2	1:I:354:THR:HG22	2.01	0.42
1:H:92:ASN:HD21	1:H:94:ASP:HB2	1.83	0.42
1:L:224:ILE:O	1:L:226:THR:N	2.52	0.42
1:L:451:LEU:HA	1:L:451:LEU:HD23	1.79	0.42
1:E:113:LEU:HD12	1:E:113:LEU:N	2.34	0.42
1:M:191:ILE:HD13	1:M:191:ILE:HG21	1.69	0.42
1:M:386:ASP:N	1:M:386:ASP:OD2	2.52	0.42
1:N:80:PRO:C	1:N:82:LYS:N	2.71	0.42
1:I:80:PRO:HG2	1:I:98:LEU:O	2.19	0.42
1:G:49:TYR:HE1	1:G:364:LEU:HD13	1.84	0.42
1:A:153:GLN:NE2	1:A:300:VAL:HG12	2.34	0.42
1:A:300:VAL:HG22	1:B:255:MET:O	2.18	0.42
1:O:156:LEU:HD22	1:O:234:TYR:OH	2.19	0.42
1:C:153:GLN:NE2	1:C:300:VAL:HG12	2.34	0.42
1:C:399:LEU:O	1:C:402:TRP:HB2	2.19	0.42
1:M:299:MET:CE	1:N:298:SER:CB	2.98	0.42
1:K:272:PRO:HB2	1:K:275:LEU:HG	2.01	0.42
1:H:104:GLY:CA	1:H:375:ILE:HB	2.49	0.42
1:G:54:LYS:HG2	1:G:56:ASN:OD1	2.19	0.42
1:B:42:LEU:HD13	1:B:73:PHE:HE2	1.83	0.42
1:A:450:ASN:ND2	1:A:452:LYS:HD2	2.35	0.42
1:F:106:GLU:HB3	1:F:373:GLN:HB2	2.01	0.42
1:N:142:ASP:OD1	1:O:279:GLY:HA2	2.18	0.42
1:A:390:TYR:C	1:A:392:HIS:H	2.21	0.42
1:O:348:ILE:HG22	1:O:359:ASN:OD1	2.19	0.42
1:H:21:VAL:CG1	1:H:390:TYR:OH	2.63	0.42
1:B:209:ASP:O	1:B:213:LEU:HD23	2.20	0.42
1:J:52:ILE:HD12	1:J:52:ILE:N	2.34	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:H:263:ARG:HD3	1:H:292:PHE:CD2	2.54	0.42
1:B:241:PRO:C	1:B:243:GLY:N	2.72	0.42
1:D:196:GLN:NE2	1:D:444:TYR:CD2	2.81	0.42
1:G:168:HIS:CE1	1:G:191:ILE:HB	2.54	0.42
1:L:226:THR:HG21	1:M:275:LEU:HD23	2.00	0.42
1:O:277:ILE:HD13	1:O:277:ILE:HG21	1.53	0.42
1:N:124:ASN:OD1	1:N:264:ALA:N	2.34	0.42
1:K:45:VAL:CG2	1:L:169:TRP:CZ3	3.02	0.42
1:O:169:TRP:HD1	1:O:207:ALA:O	2.02	0.42
1:N:357:ASN:H	1:O:141:VAL:HG13	1.85	0.42
1:L:50:PHE:HB2	1:L:51:PRO:HD2	2.02	0.42
1:J:61:LEU:O	1:J:61:LEU:HD12	2.18	0.42
1:J:155:GLN:HE21	1:J:155:GLN:HB2	1.53	0.42
1:G:208:MET:SD	1:G:210:PHE:HE2	2.42	0.42
1:G:220:VAL:HB	1:G:224:ILE:HG13	2.00	0.42
1:A:274:ASP:N	1:A:274:ASP:OD1	2.51	0.42
1:G:98:LEU:HD13	1:G:378:LEU:HD11	2.00	0.42
1:G:361:LYS:CA	1:H:266:THR:HG1	2.19	0.42
1:N:313:LEU:CD2	1:N:313:LEU:HD11	2.48	0.42
1:H:345:CYS:HA	1:H:361:LYS:O	2.19	0.42
1:C:169:TRP:N	1:C:208:MET:HA	2.32	0.42
1:L:240:GLU:CD	1:L:241:PRO:HD2	2.40	0.42
1:B:54:LYS:CB	1:B:54:LYS:HZ2	2.32	0.42
1:A:52:ILE:CD1	1:A:52:ILE:H	2.27	0.42
1:K:124:ASN:OD1	1:K:264:ALA:N	2.51	0.42
1:J:31:THR:HG23	1:J:378:LEU:O	2.19	0.42
1:B:166:GLY:HA2	1:B:232:PRO:HA	2.02	0.42
1:A:119:GLY:N	1:A:221:PRO:HB3	2.34	0.42
1:K:123:LEU:O	1:K:125:LYS:N	2.52	0.42
1:G:248:PHE:CE2	1:G:311:TYR:CB	3.02	0.42
1:I:200:MET:HB2	1:I:228:ILE:O	2.20	0.42
1:F:373:GLN:C	1:F:374:PHE:CD1	2.93	0.42
1:F:356:LYS:O	1:F:359:ASN:N	2.50	0.42
1:K:71:ARG:HB3	1:K:73:PHE:CE1	2.55	0.42
1:I:306:ILE:HD12	1:I:306:ILE:HG23	1.60	0.42
1:A:323:ILE:HG21	1:A:325:TRP:CE2	2.54	0.42
1:A:395:ASN:HB3	1:A:398:ILE:HG12	2.02	0.42
1:O:365:ARG:HD3	1:O:365:ARG:HA	1.65	0.42
1:J:126:LEU:HA	1:J:126:LEU:HD12	1.72	0.42
1:D:311:TYR:CD2	1:D:311:TYR:N	2.82	0.42
1:B:233:ASP:OD2	1:B:236:LYS:HB2	2.19	0.42
1:H:271:VAL:O	1:H:272:PRO:C	2.57	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:J:42:LEU:HD22	1:J:447:TRP:CZ2	2.54	0.42
1:I:40:SER:O	1:I:41:ARG:HB2	2.19	0.42
1:L:278:LYS:HB3	1:O:354:THR:HG22	2.01	0.42
1:F:76:HIS:HB2	1:F:450:ASN:HA	2.01	0.42
1:N:106:GLU:HG3	1:N:309:LYS:O	2.18	0.42
1:K:231:TYR:CD1	1:K:232:PRO:HD2	2.54	0.42
1:F:222:LEU:HA	1:F:225:CYS:SG	2.59	0.42
1:A:305:GLN:HE22	1:A:337:THR:HG21	1.84	0.42
1:E:85:PHE:C	1:E:87:ASP:H	2.23	0.42
1:B:358:THR:HA	1:C:266:THR:HG22	2.01	0.42
1:C:162:LYS:HA	1:C:162:LYS:HD3	1.83	0.42
1:G:464:LEU:HD23	1:G:464:LEU:HA	1.80	0.42
1:C:78:PRO:HD2	1:C:455:PHE:CZ	2.54	0.42
1:O:320:ASN:ND2	1:O:325:TRP:NE1	2.66	0.42
1:B:180:VAL:HG12	1:B:181:GLN:N	2.34	0.42
1:M:115:VAL:HG22	1:N:255:MET:HE1	2.00	0.42
1:N:154:THR:H	1:N:336:THR:HG23	1.81	0.42
1:G:345:CYS:SG	1:H:216:ASN:N	2.88	0.42
1:A:342:MET:SD	1:B:208:MET:CE	3.07	0.42
1:B:54:LYS:HB3	1:B:57:ASN:HB3	2.02	0.42
1:G:194:VAL:HG21	1:G:444:TYR:CZ	2.55	0.42
1:K:219:GLU:HB3	1:K:263:ARG:NH1	2.34	0.42
1:N:77:LEU:HA	1:N:78:PRO:HD2	1.79	0.42
1:A:216:ASN:ND2	1:A:219:GLU:OE2	2.52	0.42
1:A:71:ARG:HD3	1:A:197:ASP:OD1	2.20	0.42
1:A:237:MET:CE	1:A:246:LEU:HD13	2.50	0.42
1:L:120:HIS:ND1	1:L:122:LEU:N	2.49	0.42
1:F:126:LEU:HB3	1:F:127:ASP:H	1.34	0.42
1:J:48:PRO:HB3	1:J:341:ASN:ND2	2.35	0.42
1:O:36:HIS:C	1:O:36:HIS:ND1	2.72	0.42
1:K:242:TYR:CE2	1:K:394:MET:HB2	2.55	0.42
1:B:90:PHE:CD1	1:B:91:TYR:HB3	2.54	0.42
1:K:122:LEU:CD1	1:L:286:LEU:HD11	2.48	0.42
1:O:356:LYS:HB2	1:O:359:ASN:HB3	2.01	0.42
1:L:395:ASN:ND2	1:L:397:THR:OG1	2.52	0.42
1:E:105:VAL:HG22	1:E:374:PHE:CE2	2.55	0.42
1:D:42:LEU:HA	1:D:42:LEU:HD23	1.73	0.42
1:F:193:THR:HG23	1:F:230:LYS:CD	2.49	0.42
1:L:188:LEU:HA	1:L:188:LEU:HD13	1.81	0.42
1:O:297:GLY:C	1:O:298:SER:O	2.56	0.42
1:H:106:GLU:HG3	1:H:310:PRO:CA	2.49	0.42
1:D:302:SER:O	1:D:304:ALA:N	2.53	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:105:VAL:HG12	1:L:106:GLU:N	2.35	0.42
1:L:307:PHE:N	1:L:307:PHE:CD1	2.86	0.42
1:L:464:LEU:HD22	1:L:464:LEU:C	2.39	0.42
1:A:178:VAL:HB	1:A:178:VAL:CG1	2.20	0.42
1:M:395:ASN:O	1:M:398:ILE:CG1	2.67	0.42
1:M:137:ALA:HA	1:M:137:ALA:CB	2.21	0.42
1:B:384:THR:H	1:B:387:VAL:HB	1.85	0.42
1:I:98:LEU:HA	1:I:379:CYS:O	2.19	0.42
1:G:149:MET:CE	1:G:205:PHE:HE1	2.31	0.42
1:F:81:ASN:OD1	1:F:98:LEU:N	2.52	0.42
1:E:90:PHE:HE1	1:E:98:LEU:HD11	1.84	0.42
1:E:216:ASN:OD1	1:E:218:SER:N	2.53	0.42
1:I:120:HIS:CE1	1:I:218:SER:HB3	2.55	0.42
1:K:150:ASP:OD1	1:L:257:VAL:HG21	2.19	0.42
1:B:125:LYS:HE2	1:B:127:ASP:O	2.20	0.42
1:O:325:TRP:HB3	1:O:398:ILE:HD11	2.02	0.42
1:M:257:VAL:HG22	1:M:257:VAL:H	1.29	0.42
1:E:223:ASP:OD1	1:E:224:ILE:HG12	2.19	0.42
1:A:80:PRO:HB2	1:A:98:LEU:HB2	2.02	0.42
1:N:69:GLN:HA	1:N:199:ASP:O	2.19	0.42
1:C:358:THR:HA	1:D:266:THR:CG2	2.48	0.42
1:O:149:MET:HE2	1:O:205:PHE:CZ	2.54	0.42
1:O:120:HIS:HB2	1:O:221:PRO:HA	2.00	0.42
1:O:66:SER:C	1:O:68:LEU:H	2.22	0.42
1:I:472:LEU:HD22	1:M:138:ASN:HD22	1.71	0.42
1:C:75:ILE:HB	1:C:329:LEU:HB3	2.01	0.42
1:O:105:VAL:HG12	1:O:106:GLU:N	2.33	0.42
1:K:21:VAL:CG1	1:K:22:VAL:N	2.83	0.42
1:A:167:GLU:HG2	1:A:231:TYR:O	2.20	0.42
1:M:262:ASN:HD21	1:M:288:SER:CB	2.32	0.42
1:N:155:GLN:HB3	1:N:252:ARG:HB3	2.02	0.42
1:K:61:LEU:C	1:K:62:VAL:HG23	2.39	0.42
1:F:231:TYR:CD1	1:J:112:PRO:HB3	2.55	0.42
1:L:398:ILE:HG23	1:L:398:ILE:HD12	1.12	0.42
1:H:96:GLN:CA	1:H:382:THR:HA	2.50	0.42
1:H:96:GLN:HA	1:H:381:ILE:O	2.19	0.42
1:L:323:ILE:HD12	1:L:323:ILE:HG23	1.44	0.42
1:G:92:ASN:ND2	1:G:94:ASP:HB2	2.29	0.42
1:L:149:MET:HE2	1:L:205:PHE:HE1	1.83	0.42
1:M:54:LYS:CE	1:M:55:PRO:HD2	2.48	0.42
1:C:143:ASN:OD1	1:C:143:ASN:N	2.52	0.42
1:M:233:ASP:O	1:M:234:TYR:C	2.58	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:348:ILE:O	1:A:348:ILE:HG13	2.19	0.42
1:F:24:THR:O	1:F:26:GLU:N	2.53	0.42
1:J:155:GLN:OE1	1:J:305:GLN:HA	2.20	0.42
1:J:185:CYS:SG	1:J:186:PRO:HD2	2.59	0.42
1:O:43:LEU:HD12	1:O:369:GLU:HA	2.02	0.42
1:B:24:THR:O	1:B:25:ASP:C	2.57	0.42
1:B:336:THR:O	1:B:338:ARG:N	2.52	0.42
1:C:356:LYS:HD2	1:C:356:LYS:NZ	2.29	0.42
1:G:196:GLN:CA	1:G:199:ASP:OD2	2.67	0.42
1:I:219:GLU:CA	1:I:263:ARG:HH12	2.31	0.42
1:G:375:ILE:CG1	1:G:464:LEU:HD13	2.46	0.42
1:B:141:VAL:HG12	1:B:142:ASP:N	2.26	0.42
1:C:390:TYR:HB3	1:C:391:ILE:H	1.69	0.42
1:H:121:PRO:HG3	1:I:289:SER:HB2	2.02	0.42
1:N:68:LEU:CB	1:N:201:VAL:CG2	2.96	0.42
1:N:262:ASN:ND2	1:N:288:SER:CB	2.67	0.42
1:F:77:LEU:HA	1:F:78:PRO:HD2	1.85	0.42
1:A:139:ALA:O	1:A:141:VAL:N	2.53	0.42
1:K:440:PRO:O	1:K:443:LYS:NZ	2.53	0.42
1:H:77:LEU:HD21	1:H:376:PHE:CZ	2.53	0.42
1:D:240:GLU:HG3	1:D:243:GLY:N	2.35	0.42
1:A:133:SER:O	1:A:134:ALA:HB2	2.20	0.42
1:A:149:MET:HA	1:B:260:LEU:CD2	2.48	0.42
1:C:292:PHE:CD1	1:C:292:PHE:C	2.93	0.42
1:L:120:HIS:HE2	1:L:218:SER:HB3	1.84	0.42
1:O:35:TYR:O	1:O:375:ILE:HA	2.20	0.42
1:K:110:GLY:O	1:K:111:GLN:NE2	2.53	0.42
1:I:240:GLU:HG3	1:I:243:GLY:CA	2.50	0.42
1:C:52:ILE:HG12	1:D:269:GLU:OE2	2.20	0.42
1:M:57:ASN:CG	1:M:58:ASN:N	2.73	0.42
1:O:366:HIS:CD2	1:O:367:GLY:N	2.87	0.42
1:B:81:ASN:ND2	1:B:402:TRP:HD1	2.15	0.42
1:H:365:ARG:HG3	1:H:365:ARG:HH11	1.84	0.42
1:K:36:HIS:ND1	1:K:37:ALA:N	2.68	0.42
1:H:348:ILE:HD12	1:I:182:PRO:O	2.19	0.42
1:F:367:GLY:C	1:F:368:GLU:HG2	2.40	0.42
1:K:121:PRO:HG2	1:L:289:SER:HB2	2.01	0.42
1:N:150:ASP:O	1:N:296:SER:HA	2.18	0.42
1:C:342:MET:SD	1:D:208:MET:CE	3.07	0.42
1:E:168:HIS:HB2	1:E:208:MET:HA	2.01	0.42
1:G:317:GLN:NE2	1:G:317:GLN:C	2.73	0.42
1:A:381:ILE:CG2	1:A:381:ILE:C	2.88	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:46:GLY:O	1:F:365:ARG:HA	2.20	0.42
1:D:358:THR:HG22	1:E:266:THR:HG22	2.01	0.42
1:G:85:PHE:CE1	1:G:98:LEU:CD1	3.02	0.42
1:N:61:LEU:O	1:N:61:LEU:CD1	2.63	0.42
1:C:373:GLN:HB3	1:C:464:LEU:HG	2.02	0.42
1:G:66:SER:HA	1:G:366:HIS:ND1	2.34	0.42
1:G:42:LEU:CD1	1:G:73:PHE:HE2	2.33	0.42
1:E:165:ILE:CB	1:E:165:ILE:CD1	2.85	0.42
1:C:163:PRO:HA	1:C:164:PRO:HD2	1.80	0.42
1:O:398:ILE:CD1	1:O:398:ILE:CG2	2.97	0.42
1:J:276:TYR:CD1	1:J:277:ILE:N	2.87	0.42
1:N:365:ARG:HG2	1:N:365:ARG:NH1	2.35	0.42
1:L:213:LEU:HD13	1:L:213:LEU:HA	1.78	0.42
1:C:185:CYS:HA	1:C:186:PRO:HD3	1.71	0.42
1:M:149:MET:CE	1:M:205:PHE:CE1	3.02	0.42
1:I:147:ILE:HA	1:J:129:THR:O	2.20	0.42
1:H:35:TYR:O	1:H:376:PHE:N	2.39	0.42
1:I:329:LEU:HD13	1:I:374:PHE:HE2	1.82	0.42
1:A:149:MET:CE	1:A:205:PHE:CZ	3.03	0.42
1:C:255:MET:HG3	1:C:295:PRO:HB2	2.01	0.42
1:H:74:ARG:NH2	1:H:441:LEU:HD12	2.34	0.42
1:B:42:LEU:HD22	1:B:447:TRP:HZ2	1.83	0.42
1:F:99:VAL:HG11	1:F:323:ILE:CG2	2.41	0.42
1:M:107:VAL:O	1:M:307:PHE:HB3	2.20	0.42
1:D:164:PRO:HG3	1:D:332:THR:HG21	2.02	0.42
1:M:53:LYS:HD3	1:M:58:ASN:HA	2.02	0.42
1:M:54:LYS:HG3	1:M:55:PRO:CD	2.50	0.42
1:C:317:GLN:HE21	1:C:317:GLN:C	2.23	0.42
1:H:440:PRO:C	1:H:443:LYS:NZ	2.73	0.42
1:B:440:PRO:HA	1:B:443:LYS:HZ1	1.84	0.42
1:E:39:THR:CG2	1:E:449:VAL:HG11	2.50	0.42
1:O:188:LEU:HA	1:O:188:LEU:HD13	1.86	0.42
1:I:338:ARG:HH11	1:I:338:ARG:HG3	1.85	0.42
1:N:80:PRO:C	1:N:82:LYS:H	2.22	0.42
1:A:185:CYS:HB2	1:E:363:TYR:CE2	2.55	0.42
1:G:210:PHE:HE1	1:G:224:ILE:HD12	1.85	0.42
1:J:105:VAL:HG22	1:J:374:PHE:CD2	2.55	0.42
1:G:113:LEU:HD13	1:H:253:GLU:CD	2.39	0.42
1:I:180:VAL:HG13	1:I:184:ASP:CB	2.50	0.42
1:N:123:LEU:O	1:N:125:LYS:N	2.53	0.42
1:M:143:ASN:O	1:M:144:ARG:C	2.59	0.42
1:B:464:LEU:O	1:B:464:LEU:HD23	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:L:183:GLY:O	1:L:184:ASP:C	2.57	0.42
1:G:57:ASN:HD21	1:G:59:LYS:CB	2.32	0.42
1:F:122:LEU:HD11	1:G:286:LEU:CD1	2.48	0.42
1:F:125:LYS:HE3	1:F:261:PHE:CD2	2.54	0.42
1:J:220:VAL:O	1:J:221:PRO:O	2.37	0.42
1:F:375:ILE:HG12	1:F:464:LEU:CD1	2.44	0.42
1:A:96:GLN:HA	1:A:382:THR:HA	2.00	0.42
1:L:471:GLN:C	1:L:471:GLN:CD	2.78	0.42
1:K:186:PRO:HD2	1:O:344:LEU:HD12	2.01	0.42
1:C:472:LEU:CD2	1:H:138:ASN:HD22	2.32	0.42
1:L:43:LEU:HA	1:L:43:LEU:HD12	1.62	0.42
1:I:281:GLY:N	1:I:284:ALA:CB	2.83	0.42
1:C:274:ASP:OD1	1:C:274:ASP:N	2.52	0.42
1:C:276:TYR:C	1:C:277:ILE:CG1	2.88	0.42
1:O:21:VAL:HG13	1:O:390:TYR:OH	2.20	0.42
1:K:235:ILE:HD11	1:O:109:ARG:O	2.20	0.42
1:C:45:VAL:HG21	1:D:169:TRP:CH2	2.54	0.42
1:I:365:ARG:NH2	1:J:269:GLU:OE1	2.47	0.42
1:M:320:ASN:ND2	1:M:325:TRP:NE1	2.68	0.42
1:I:392:HIS:HB2	1:I:399:LEU:HD11	2.02	0.42
1:I:398:ILE:HG22	1:I:402:TRP:CH2	2.55	0.42
1:J:34:TYR:CE2	1:J:377:GLN:HG3	2.55	0.42
1:O:234:TYR:O	1:O:235:ILE:C	2.58	0.42
1:D:344:LEU:CD1	1:E:213:LEU:HD13	2.49	0.42
1:H:54:LYS:HB2	1:H:57:ASN:HD22	1.85	0.42
1:I:112:PRO:HB2	1:J:202:ASP:OD2	2.20	0.42
1:L:163:PRO:N	1:L:330:PHE:CD1	2.87	0.42
1:N:148:SER:HG	1:O:129:THR:HB	1.83	0.42
1:E:117:ILE:CD1	1:E:117:ILE:HG21	2.50	0.42
1:A:85:PHE:CZ	1:A:378:LEU:HD22	2.55	0.42
1:N:219:GLU:HB3	1:N:263:ARG:NH2	2.35	0.42
1:O:68:LEU:HD23	1:O:201:VAL:HG21	2.01	0.42
1:A:271:VAL:CG2	1:E:222:LEU:HD21	2.50	0.42
1:A:222:LEU:HD12	1:A:222:LEU:HA	1.77	0.42
1:H:31:THR:HG23	1:H:31:THR:H	1.59	0.42
1:H:98:LEU:HD13	1:H:378:LEU:HD11	2.02	0.42
1:K:21:VAL:C	1:K:22:VAL:CG1	2.88	0.42
1:H:280:SER:CA	1:H:284:ALA:HB2	2.50	0.42
1:K:323:ILE:CG2	1:K:325:TRP:CZ3	3.03	0.42
1:G:30:ARG:HG2	1:G:377:GLN:NE2	2.35	0.42
1:B:117:ILE:HG22	1:B:117:ILE:H	1.57	0.42
1:B:117:ILE:HD11	1:C:260:LEU:CD2	2.41	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:325:TRP:CE2	1:C:394:MET:HE1	2.55	0.42
1:H:73:PHE:CD1	1:H:73:PHE:N	2.86	0.42
1:G:250:LEU:C	1:G:250:LEU:HD12	2.40	0.42
1:L:208:MET:CG	1:L:210:PHE:CE2	3.02	0.42
1:K:208:MET:SD	1:O:342:MET:HB2	2.60	0.42
1:C:99:VAL:HG12	1:C:100:TRP:O	2.20	0.42
1:O:59:LYS:HE2	1:O:59:LYS:HB3	1.89	0.42
1:D:290:ASN:HD22	1:D:290:ASN:N	2.18	0.42
1:N:39:THR:H	1:N:39:THR:HG23	1.37	0.42
1:E:27:TYR:CE2	1:E:390:TYR:HE2	2.37	0.41
1:O:43:LEU:HD12	1:O:43:LEU:HA	1.95	0.41
1:F:47:HIS:HA	1:F:48:PRO:HD2	1.54	0.41
1:H:117:ILE:HD11	1:I:260:LEU:CB	2.45	0.41
1:I:126:LEU:N	1:I:262:ASN:O	2.52	0.41
1:M:121:PRO:O	1:M:122:LEU:HD23	2.19	0.41
1:G:107:VAL:O	1:G:307:PHE:HB3	2.19	0.41
1:E:305:GLN:C	1:E:306:ILE:HD13	2.41	0.41
1:C:326:GLY:O	1:C:327:ASN:CB	2.68	0.41
1:H:122:LEU:HD13	1:H:144:ARG:HH22	1.82	0.41
1:N:47:HIS:HA	1:N:48:PRO:HD2	1.42	0.41
1:O:46:GLY:N	1:O:65:VAL:HG21	2.35	0.41
1:B:54:LYS:CA	1:B:54:LYS:NZ	2.81	0.41
1:N:217:LYS:CD	1:O:274:ASP:O	2.44	0.41
1:A:120:HIS:HA	1:A:121:PRO:HD3	1.92	0.41
1:B:348:ILE:HD11	1:C:181:GLN:HE22	1.85	0.41
1:H:399:LEU:H	1:H:399:LEU:HG	1.68	0.41
1:D:240:GLU:HG3	1:D:243:GLY:H	1.84	0.41
1:B:71:ARG:HA	1:B:71:ARG:HD3	1.60	0.41
1:J:355:TYR:CD2	1:J:355:TYR:C	2.93	0.41
1:F:35:TYR:CD1	1:F:100:TRP:HH2	2.38	0.41
1:I:107:VAL:HG13	1:I:372:LEU:HD21	2.02	0.41
1:C:459:LEU:C	1:C:461:GLN:N	2.68	0.41
1:B:81:ASN:HD21	1:B:402:TRP:HE1	1.67	0.41
1:E:280:SER:CA	1:E:284:ALA:HB2	2.50	0.41
1:M:169:TRP:HD1	1:M:207:ALA:O	2.02	0.41
1:L:277:ILE:HG21	1:L:277:ILE:HD13	1.86	0.41
1:J:73:PHE:HD1	1:J:73:PHE:H	1.64	0.41
1:J:443:LYS:HD3	1:J:443:LYS:H	1.85	0.41
1:J:124:ASN:OD1	1:J:264:ALA:N	2.52	0.41
1:I:273:ASP:N	1:I:273:ASP:OD2	2.52	0.41
1:C:87:ASP:O	1:C:88:THR:CG2	2.68	0.41
1:N:92:ASN:C	1:N:94:ASP:N	2.73	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:184:ASP:O	1:A:185:CYS:C	2.56	0.41
1:M:24:THR:CG2	1:M:320:ASN:HA	2.50	0.41
1:B:21:VAL:C	1:B:22:VAL:HG13	2.39	0.41
1:A:157:CYS:HB2	1:A:307:PHE:HE2	1.84	0.41
1:O:156:LEU:O	1:O:156:LEU:HD12	2.20	0.41
1:G:113:LEU:HA	1:G:337:THR:O	2.21	0.41
1:C:35:TYR:CE2	1:C:457:ALA:CB	2.94	0.41
1:C:372:LEU:HA	1:C:372:LEU:HD23	1.72	0.41
1:B:139:ALA:HB1	1:B:143:ASN:OD1	2.20	0.41
1:G:438:GLU:HG2	1:G:442:LYS:NZ	2.36	0.41
1:D:383:LEU:HD23	1:D:388:MET:CE	2.49	0.41
1:C:115:VAL:H	1:D:255:MET:CE	2.33	0.41
1:A:256:PHE:CE1	1:A:257:VAL:O	2.73	0.41
1:M:302:SER:C	1:M:304:ALA:N	2.67	0.41
1:L:165:ILE:HG22	1:L:165:ILE:O	2.19	0.41
1:C:50:PHE:CB	1:C:51:PRO:HD2	2.50	0.41
1:G:325:TRP:HB3	1:G:398:ILE:HD11	2.02	0.41
1:A:139:ALA:C	1:A:141:VAL:H	2.24	0.41
1:M:363:TYR:CD1	1:N:185:CYS:HB2	2.56	0.41
1:O:73:PHE:O	1:O:330:PHE:HD2	2.03	0.41
1:O:71:ARG:NH1	1:O:71:ARG:HA	2.29	0.41
1:I:42:LEU:HA	1:I:42:LEU:HD23	1.74	0.41
1:M:75:ILE:HG12	1:M:374:PHE:CZ	2.55	0.41
1:M:126:LEU:HD13	1:M:264:ALA:CB	2.49	0.41
1:I:348:ILE:HA	1:I:348:ILE:HD12	1.90	0.41
1:A:100:TRP:CZ2	1:A:455:PHE:CE2	3.08	0.41
1:M:173:SER:HA	1:M:174:PRO:HD3	1.57	0.41
1:D:385:ALA:O	1:D:389:THR:HG23	2.19	0.41
1:L:276:TYR:HB2	1:L:277:ILE:H	1.54	0.41
1:J:42:LEU:HB3	1:J:447:TRP:CH2	2.55	0.41
1:A:306:ILE:HG23	1:A:306:ILE:HD12	1.30	0.41
1:J:317:GLN:HE21	1:J:317:GLN:HB2	1.70	0.41
1:G:386:ASP:OD2	1:G:386:ASP:N	2.52	0.41
1:K:158:LEU:HD23	1:K:249:TYR:HB2	2.02	0.41
1:K:246:LEU:CD2	1:K:246:LEU:O	2.56	0.41
1:F:151:TYR:OH	1:F:221:PRO:CB	2.68	0.41
1:F:70:TYR:HE1	1:F:201:VAL:HA	1.85	0.41
1:A:153:GLN:N	1:A:297:GLY:HA3	2.34	0.41
1:D:259:HIS:C	1:D:260:LEU:HD12	2.41	0.41
1:I:262:ASN:HD22	1:I:262:ASN:C	2.20	0.41
1:D:451:LEU:HA	1:D:454:LYS:CG	2.51	0.41
1:H:202:ASP:OD1	1:H:206:GLY:O	2.38	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:70:TYR:OH	1:M:230:LYS:O	2.16	0.41
1:N:120:HIS:ND1	1:N:121:PRO:HD2	2.35	0.41
1:O:120:HIS:CE1	1:O:122:LEU:H	2.35	0.41
1:O:126:LEU:N	1:O:262:ASN:O	2.51	0.41
1:A:67:GLY:C	1:A:68:LEU:HG	2.41	0.41
1:B:166:GLY:CA	1:B:195:ILE:HD11	2.50	0.41
1:A:279:GLY:HA2	1:E:142:ASP:OD1	2.20	0.41
1:D:237:MET:HB3	1:D:246:LEU:HD21	2.03	0.41
1:L:173:SER:HA	1:L:174:PRO:HD2	1.53	0.41
1:N:159:ILE:HG22	1:N:247:PHE:CE1	2.55	0.41
1:F:468:PHE:O	1:F:468:PHE:CD1	2.74	0.41
1:A:92:ASN:N	1:A:96:GLN:OE1	2.44	0.41
1:M:167:GLU:HB2	1:M:190:LEU:HD11	2.01	0.41
1:G:237:MET:CB	1:G:246:LEU:HD22	2.46	0.41
1:L:101:ALA:O	1:L:376:PHE:HA	2.20	0.41
1:M:57:ASN:HD21	1:M:59:LYS:HB3	1.85	0.41
1:K:164:PRO:HG3	1:K:332:THR:HG21	2.00	0.41
1:L:381:ILE:HD13	1:L:381:ILE:HG21	1.61	0.41
1:I:158:LEU:CD2	1:I:249:TYR:HB2	2.51	0.41
1:J:124:ASN:OD1	1:J:124:ASN:O	2.39	0.41
1:H:106:GLU:HG3	1:H:310:PRO:HA	2.01	0.41
1:F:357:ASN:H	1:G:141:VAL:HG13	1.84	0.41
1:M:306:ILE:HD12	1:M:306:ILE:HG23	1.74	0.41
1:F:319:HIS:CE1	1:J:466:ARG:HD3	2.55	0.41
1:G:117:ILE:HG13	1:G:149:MET:O	2.19	0.41
1:E:81:ASN:O	1:E:82:LYS:HG3	2.21	0.41
1:J:105:VAL:HG11	1:J:159:ILE:HD11	2.02	0.41
1:I:52:ILE:HB	1:I:62:VAL:HB	2.03	0.41
1:E:228:ILE:N	1:E:228:ILE:HD12	2.36	0.41
1:G:373:GLN:O	1:G:374:PHE:CG	2.73	0.41
1:D:85:PHE:CZ	1:D:378:LEU:HD22	2.56	0.41
1:D:50:PHE:HB2	1:D:51:PRO:HD2	2.02	0.41
1:G:111:GLN:HB2	1:G:338:ARG:HD3	2.02	0.41
1:N:70:TYR:CE1	1:N:201:VAL:HA	2.55	0.41
1:D:70:TYR:CZ	1:D:230:LYS:O	2.73	0.41
1:O:120:HIS:ND1	1:O:121:PRO:N	2.69	0.41
1:H:80:PRO:HG2	1:H:98:LEU:O	2.20	0.41
1:D:109:ARG:N	1:D:308:ASN:OD1	2.47	0.41
1:M:463:PRO:HB3	1:M:466:ARG:NH2	2.30	0.41
1:M:465:GLY:O	1:M:466:ARG:C	2.58	0.41
1:O:457:ALA:O	1:O:459:LEU:CD2	2.68	0.41
1:O:459:LEU:N	1:O:459:LEU:CD2	2.64	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:E:465:GLY:O	1:E:467:LYS:N	2.54	0.41
1:I:109:ARG:N	1:I:308:ASN:OD1	2.51	0.41
1:A:92:ASN:HA	1:A:93:PRO:HD2	1.79	0.41
1:I:188:LEU:HA	1:I:188:LEU:HD13	1.76	0.41
1:L:323:ILE:O	1:L:325:TRP:N	2.51	0.41
1:D:281:GLY:O	1:D:284:ALA:HB3	2.20	0.41
1:L:52:ILE:O	1:L:52:ILE:HG22	2.21	0.41
1:J:279:GLY:HA3	1:J:283:THR:O	2.21	0.41
1:L:96:GLN:CA	1:L:382:THR:HA	2.49	0.41
1:M:50:PHE:CB	1:M:51:PRO:HD2	2.48	0.41
1:C:154:THR:H	1:C:336:THR:CG2	2.33	0.41
1:C:42:LEU:HD22	1:C:447:TRP:HZ2	1.85	0.41
1:C:97:ARG:HG3	1:C:383:LEU:HD11	2.02	0.41
1:F:116:GLY:HA3	1:F:339:SER:HB2	2.02	0.41
1:I:194:VAL:HG23	1:I:194:VAL:H	1.67	0.41
1:H:39:THR:HG23	1:H:39:THR:H	1.61	0.41
1:B:320:ASN:ND2	1:B:323:ILE:HB	2.35	0.41
1:J:222:LEU:HA	1:J:222:LEU:HD12	1.85	0.41
1:G:201:VAL:C	1:G:201:VAL:CG2	2.89	0.41
1:G:69:GLN:HB3	1:G:198:GLY:HA2	2.02	0.41
1:M:147:ILE:HG23	1:N:129:THR:O	2.20	0.41
1:D:256:PHE:O	1:D:295:PRO:HA	2.21	0.41
1:C:364:LEU:O	1:C:365:ARG:HD3	2.20	0.41
1:C:49:TYR:HB2	1:C:50:PHE:CD2	2.54	0.41
1:D:118:SER:HB2	1:D:151:TYR:CE1	2.55	0.41
1:N:119:GLY:O	1:N:221:PRO:HB3	2.21	0.41
1:G:323:ILE:C	1:G:325:TRP:H	2.24	0.41
1:G:74:ARG:HA	1:G:330:PHE:CD2	2.55	0.41
1:J:80:PRO:HB2	1:J:98:LEU:HB3	2.02	0.41
1:B:77:LEU:HA	1:B:78:PRO:HD2	1.81	0.41
1:K:257:VAL:HG21	1:O:150:ASP:CB	2.51	0.41
1:N:24:THR:O	1:N:25:ASP:C	2.58	0.41
1:N:397:THR:HB	1:N:401:ASP:OD2	2.20	0.41
1:C:31:THR:HG23	1:C:379:CYS:HA	2.02	0.41
1:E:54:LYS:HG3	1:E:55:PRO:CD	2.50	0.41
1:O:271:VAL:HG13	1:O:275:LEU:HD12	2.01	0.41
1:G:34:TYR:HA	1:G:376:PHE:O	2.20	0.41
1:B:329:LEU:HA	1:B:329:LEU:HD23	1.85	0.41
1:D:22:VAL:N	1:D:390:TYR:OH	2.47	0.41
1:B:117:ILE:CG2	1:B:117:ILE:O	2.68	0.41
1:B:259:HIS:CE1	1:C:130:GLU:CG	3.01	0.41
1:G:451:LEU:HA	1:G:454:LYS:HG2	2.01	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:280:SER:O	1:F:280:SER:OG	2.38	0.41
1:E:375:ILE:HG21	1:E:468:PHE:CD2	2.56	0.41
1:F:300:VAL:O	1:F:300:VAL:HG23	2.19	0.41
1:A:130:GLU:HG2	1:E:259:HIS:CE1	2.56	0.41
1:H:110:GLY:O	1:H:111:GLN:NE2	2.50	0.41
1:O:39:THR:CG2	1:O:449:VAL:HG11	2.50	0.41
1:C:271:VAL:HA	1:C:272:PRO:HD3	1.81	0.41
1:K:46:GLY:N	1:K:65:VAL:HB	2.35	0.41
1:F:68:LEU:HD22	1:F:203:THR:HG22	2.02	0.41
1:G:219:GLU:CB	1:G:263:ARG:NH2	2.83	0.41
1:F:96:GLN:NE2	1:F:382:THR:HG22	2.36	0.41
1:J:34:TYR:OH	1:J:377:GLN:OE1	2.08	0.41
1:D:259:HIS:HB3	1:D:260:LEU:H	1.67	0.41
1:I:193:THR:CG2	1:I:193:THR:HB	2.19	0.41
1:I:175:CYS:C	1:I:177:GLN:H	2.23	0.41
1:I:185:CYS:HA	1:I:186:PRO:HD3	1.88	0.41
1:K:258:ARG:HG3	1:K:259:HIS:ND1	2.36	0.41
1:I:369:GLU:OE1	1:J:190:LEU:CD2	2.67	0.41
1:J:191:ILE:HG21	1:J:191:ILE:HD13	1.85	0.41
1:G:201:VAL:HG23	1:G:202:ASP:O	2.21	0.41
1:A:255:MET:CG	1:A:256:PHE:H	2.15	0.41
1:M:72:VAL:HG21	1:M:195:ILE:O	2.21	0.41
1:B:151:TYR:OH	1:B:221:PRO:CB	2.69	0.41
1:C:224:ILE:HG21	1:C:224:ILE:HD13	1.76	0.41
1:A:372:LEU:HA	1:A:372:LEU:HD23	1.75	0.41
1:G:391:ILE:HD12	1:G:402:TRP:CZ3	2.55	0.41
1:A:120:HIS:ND1	1:A:121:PRO:N	2.69	0.41
1:I:106:GLU:HB3	1:I:373:GLN:HG3	2.02	0.41
1:G:248:PHE:CE2	1:G:311:TYR:CG	3.08	0.41
1:O:163:PRO:HA	1:O:330:PHE:CD1	2.55	0.41
1:O:74:ARG:HH21	1:O:441:LEU:HD12	1.82	0.41
1:N:390:TYR:HB3	1:N:391:ILE:H	1.73	0.41
1:E:158:LEU:HD23	1:E:249:TYR:HB2	2.01	0.41
1:D:162:LYS:O	1:D:330:PHE:HD1	2.04	0.41
1:K:96:GLN:HE21	1:K:382:THR:HG23	1.85	0.41
1:M:57:ASN:HD21	1:M:59:LYS:N	2.18	0.41
1:L:391:ILE:HD13	1:L:402:TRP:HH2	1.86	0.41
1:M:42:LEU:HD13	1:M:447:TRP:CZ2	2.55	0.41
1:N:111:GLN:HG2	1:N:369:GLU:HB3	2.01	0.41
1:G:121:PRO:HG3	1:H:289:SER:CB	2.51	0.41
1:D:125:LYS:HZ3	1:D:127:ASP:HA	1.85	0.41
1:L:137:ALA:O	1:L:138:ASN:C	2.59	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:267:VAL:HG23	1:F:267:VAL:H	1.47	0.41
1:O:158:LEU:O	1:O:331:VAL:HA	2.20	0.41
1:D:463:PRO:HA	1:D:466:ARG:HE	1.85	0.41
1:A:168:HIS:HB2	1:A:208:MET:CA	2.50	0.41
1:F:220:VAL:O	1:F:221:PRO:O	2.38	0.41
1:J:105:VAL:CA	1:J:105:VAL:CG2	2.82	0.41
1:C:217:LYS:HD3	1:D:274:ASP:O	2.21	0.41
1:I:174:PRO:HB3	1:I:175:CYS:H	1.56	0.41
1:L:201:VAL:HG11	1:L:334:VAL:CG1	2.50	0.41
1:E:235:ILE:CA	1:E:235:ILE:CD1	2.99	0.41
1:A:443:LYS:HG2	1:A:443:LYS:HZ3	1.86	0.41
1:B:459:LEU:HB3	1:B:465:GLY:HA3	2.02	0.41
1:D:219:GLU:O	1:D:220:VAL:HG13	2.20	0.41
1:D:219:GLU:HB3	1:D:263:ARG:NH2	2.36	0.41
1:O:262:ASN:HD22	1:O:262:ASN:C	2.24	0.41
1:A:68:LEU:HD23	1:A:201:VAL:CG2	2.39	0.41
1:K:329:LEU:HD23	1:K:329:LEU:HA	1.80	0.41
1:M:289:SER:O	1:M:291:TYR:CD1	2.74	0.41
1:H:384:THR:N	1:H:387:VAL:HB	2.35	0.41
1:L:126:LEU:HD12	1:L:126:LEU:HA	1.94	0.41
1:O:329:LEU:HD13	1:O:374:PHE:CE2	2.56	0.41
1:O:463:PRO:HG2	1:O:464:LEU:H	1.85	0.41
1:F:253:GLU:O	1:J:302:SER:N	2.50	0.41
1:O:459:LEU:C	1:O:461:GLN:H	2.22	0.41
1:F:248:PHE:CE2	1:F:311:TYR:HB3	2.54	0.41
1:I:23:SER:O	1:I:26:GLU:N	2.42	0.41
1:E:312:TRP:HH2	1:E:468:PHE:HB2	1.78	0.41
1:G:36:HIS:ND1	1:G:37:ALA:N	2.69	0.41
1:B:367:GLY:O	1:B:368:GLU:HG2	2.21	0.41
1:G:251:ARG:HD2	1:G:251:ARG:HH11	1.63	0.41
1:M:458:ASP:C	1:M:460:ASP:H	2.23	0.41
1:O:390:TYR:C	1:O:392:HIS:N	2.74	0.41
1:B:47:HIS:HD2	1:C:269:GLU:OE2	2.03	0.41
1:D:235:ILE:HG22	1:D:235:ILE:O	2.21	0.41
1:D:461:GLN:HE22	1:E:21:VAL:H	1.69	0.41
1:A:186:PRO:HD2	1:E:344:LEU:HD12	2.03	0.41
1:B:323:ILE:HG21	1:B:325:TRP:CZ2	2.56	0.41
1:F:166:GLY:HA3	1:F:195:ILE:HD11	2.02	0.41
1:F:223:ASP:OD1	1:F:224:ILE:N	2.53	0.41
1:B:345:CYS:HG	1:C:216:ASN:HB2	1.79	0.41
1:C:216:ASN:CG	1:C:219:GLU:OE2	2.59	0.41
1:E:178:VAL:C	1:E:180:VAL:H	2.24	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:72:VAL:HA	1:G:332:THR:HG23	2.03	0.41
1:G:105:VAL:CG2	1:G:105:VAL:CA	2.84	0.41
1:A:129:THR:HB	1:E:148:SER:OG	2.20	0.41
1:A:80:PRO:C	1:A:82:LYS:N	2.74	0.41
1:D:355:TYR:C	1:D:355:TYR:CD2	2.94	0.41
1:M:180:VAL:CG1	1:M:181:GLN:N	2.82	0.41
1:N:119:GLY:HA3	1:O:291:TYR:CE1	2.56	0.41
1:O:221:PRO:HD2	1:O:224:ILE:HD11	2.03	0.41
1:B:344:LEU:HD13	1:C:213:LEU:CD1	2.51	0.41
1:M:117:ILE:CG1	1:M:149:MET:O	2.69	0.41
1:A:61:LEU:O	1:A:62:VAL:CG2	2.69	0.41
1:B:34:TYR:CE2	1:B:377:GLN:HB2	2.55	0.41
1:A:41:ARG:HG2	1:A:42:LEU:O	2.20	0.41
1:J:54:LYS:HZ2	1:J:54:LYS:HA	1.84	0.41
1:F:120:HIS:CE1	1:F:122:LEU:H	2.37	0.41
1:K:144:ARG:CZ	1:O:355:TYR:HB2	2.50	0.41
1:H:96:GLN:HB3	1:H:382:THR:CG2	2.43	0.41
1:L:324:CYS:O	1:L:325:TRP:C	2.59	0.41
1:L:80:PRO:CG	1:L:98:LEU:O	2.68	0.41
1:J:471:GLN:O	1:J:472:LEU:OXT	2.38	0.41
1:E:438:GLU:HG2	1:E:439:ASP:N	2.36	0.41
1:M:365:ARG:HA	1:M:365:ARG:HD3	1.86	0.41
1:N:302:SER:C	1:N:304:ALA:N	2.71	0.41
1:B:43:LEU:CD1	1:B:369:GLU:HG3	2.50	0.41
1:L:457:ALA:O	1:L:459:LEU:HD23	2.21	0.41
1:K:121:PRO:HG3	1:L:289:SER:HB2	2.03	0.41
1:D:372:LEU:HB3	1:D:374:PHE:HE1	1.85	0.41
1:I:92:ASN:HA	1:I:93:PRO:HD2	1.72	0.41
1:J:39:THR:H	1:J:39:THR:HG23	1.61	0.41
1:N:312:TRP:HA	1:N:312:TRP:CE3	2.54	0.41
1:I:297:GLY:C	1:I:298:SER:O	2.59	0.41
1:E:163:PRO:HB3	1:E:330:PHE:CE1	2.56	0.41
1:E:390:TYR:C	1:E:392:HIS:N	2.73	0.41
1:C:348:ILE:CG2	1:C:359:ASN:OD1	2.59	0.41
1:M:321:ASN:O	1:M:321:ASN:CG	2.59	0.41
1:M:323:ILE:HG21	1:M:325:TRP:CE2	2.56	0.41
1:M:399:LEU:HA	1:M:402:TRP:CE3	2.51	0.41
1:B:74:ARG:CB	1:B:330:PHE:HE2	2.34	0.41
1:H:461:GLN:NE2	1:I:21:VAL:HG23	2.36	0.41
1:I:33:ILE:O	1:I:377:GLN:HA	2.21	0.41
1:I:381:ILE:HG21	1:I:381:ILE:HD13	1.47	0.41
1:F:49:TYR:HE1	1:F:364:LEU:CD1	2.34	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:219:GLU:H	1:G:219:GLU:HG2	1.63	0.41
1:E:79:ASP:O	1:E:80:PRO:C	2.57	0.41
1:J:105:VAL:HG11	1:J:159:ILE:CD1	2.51	0.41
1:J:74:ARG:HD2	1:J:330:PHE:CZ	2.56	0.41
1:K:30:ARG:HH11	1:K:377:GLN:HE22	1.67	0.41
1:B:360:PHE:CE2	1:C:216:ASN:HA	2.56	0.41
1:C:39:THR:HG22	1:C:449:VAL:CG1	2.51	0.41
1:K:301:THR:OG1	1:K:302:SER:N	2.52	0.41
1:G:103:VAL:HG23	1:G:104:GLY:N	2.36	0.41
1:D:395:ASN:HB3	1:D:398:ILE:CG1	2.45	0.41
1:D:80:PRO:O	1:D:82:LYS:N	2.54	0.41
1:O:217:LYS:CG	1:O:217:LYS:O	2.65	0.41
1:B:184:ASP:O	1:B:185:CYS:C	2.58	0.41
1:E:151:TYR:CD2	1:E:203:THR:CB	2.94	0.41
1:G:115:VAL:H	1:H:255:MET:CE	2.34	0.41
1:G:299:MET:HA	1:H:256:PHE:HB3	2.02	0.41
1:H:119:GLY:O	1:H:222:LEU:N	2.41	0.41
1:N:68:LEU:HA	1:N:201:VAL:HG21	2.02	0.41
1:E:68:LEU:HD23	1:E:201:VAL:HG21	2.03	0.41
1:D:231:TYR:HA	1:D:232:PRO:HD3	1.93	0.41
1:A:101:ALA:HB3	1:A:377:GLN:HB3	2.03	0.41
1:J:98:LEU:CD2	1:J:379:CYS:O	2.66	0.41
1:H:103:VAL:HG22	1:H:375:ILE:HG22	2.02	0.41
1:N:170:GLY:HA2	1:N:213:LEU:HD21	2.03	0.41
1:D:307:PHE:O	1:D:308:ASN:CB	2.67	0.41
1:G:152:LYS:O	1:G:152:LYS:CG	2.65	0.41
1:N:52:ILE:H	1:N:52:ILE:HD13	1.86	0.41
1:I:373:GLN:CB	1:I:464:LEU:HD12	2.50	0.41
1:I:75:ILE:HB	1:I:329:LEU:CB	2.50	0.41
1:A:241:PRO:HG2	1:A:242:TYR:N	2.32	0.41
1:H:224:ILE:HD13	1:H:224:ILE:HG21	1.74	0.41
1:B:71:ARG:HA	1:B:71:ARG:NH1	2.18	0.41
1:N:471:GLN:CD	1:N:472:LEU:N	2.74	0.41
1:L:121:PRO:CD	1:L:222:LEU:CD1	2.99	0.41
1:I:333:VAL:CG1	1:I:334:VAL:N	2.82	0.41
1:E:451:LEU:HD23	1:E:451:LEU:HA	1.76	0.41
1:L:316:ALA:CB	1:L:321:ASN:OD1	2.67	0.41
1:L:320:ASN:OD1	1:L:323:ILE:HG12	2.21	0.41
1:C:316:ALA:HB3	1:C:321:ASN:OD1	2.21	0.41
1:C:325:TRP:CE2	1:C:394:MET:CE	3.04	0.41
1:M:150:ASP:HB3	1:N:257:VAL:HG21	2.02	0.41
1:N:277:ILE:HD13	1:N:277:ILE:HG21	1.44	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:F:258:ARG:HG3	1:F:259:HIS:ND1	2.35	0.41
1:B:248:PHE:CE2	1:B:311:TYR:CG	3.09	0.41
1:L:49:TYR:CE2	1:L:118:SER:HB3	2.56	0.41
1:K:135:TYR:CE2	1:K:287:ALA:HB2	2.53	0.41
1:N:234:TYR:CD1	1:N:251:ARG:NH2	2.89	0.41
1:L:109:ARG:NH1	1:L:370:TYR:CZ	2.88	0.41
1:H:439:ASP:O	1:H:442:LYS:HB2	2.21	0.41
1:G:161:CYS:SG	1:G:244:ASP:O	2.67	0.41
1:M:40:SER:O	1:M:41:ARG:HB2	2.20	0.41
1:E:133:SER:O	1:E:134:ALA:HB2	2.21	0.41
1:C:351:SER:O	1:C:352:GLU:O	2.39	0.41
1:M:76:HIS:HB2	1:M:450:ASN:HA	2.03	0.41
1:M:328:GLN:HB2	1:M:328:GLN:HE21	1.34	0.41
1:A:185:CYS:SG	1:E:344:LEU:CD1	3.08	0.41
1:A:185:CYS:HA	1:A:186:PRO:HD3	1.95	0.41
1:K:234:TYR:O	1:K:236:LYS:N	2.54	0.41
1:K:66:SER:N	1:K:69:GLN:NE2	2.63	0.41
1:G:126:LEU:HD12	1:G:126:LEU:HA	1.65	0.41
1:G:219:GLU:O	1:G:263:ARG:NH2	2.37	0.41
1:J:76:HIS:O	1:J:451:LEU:HB2	2.21	0.41
1:K:30:ARG:CB	1:K:30:ARG:CD	2.86	0.41
1:C:70:TYR:CG	1:C:195:ILE:CG2	3.04	0.41
1:O:85:PHE:CE2	1:O:378:LEU:HD22	2.56	0.41
1:K:115:VAL:HG21	1:L:257:VAL:HG13	2.02	0.41
1:H:152:LYS:HE2	1:H:154:THR:OG1	2.21	0.41
1:M:71:ARG:HG3	1:M:370:TYR:OH	2.21	0.41
1:D:231:TYR:CD1	1:D:232:PRO:HD2	2.56	0.41
1:M:149:MET:CE	1:M:205:PHE:HE1	2.34	0.41
1:M:294:THR:O	1:M:294:THR:OG1	2.38	0.41
1:G:24:THR:HG22	1:G:27:TYR:OH	2.20	0.41
1:G:398:ILE:HG22	1:G:402:TRP:CZ3	2.56	0.41
1:L:263:ARG:HD3	1:L:292:PHE:CD2	2.56	0.41
1:O:246:LEU:O	1:O:246:LEU:HD23	2.21	0.41
1:H:162:LYS:HG2	1:H:244:ASP:HB3	2.02	0.41
1:F:372:LEU:HA	1:F:372:LEU:HD23	1.78	0.41
1:D:166:GLY:H	1:D:195:ILE:HG13	1.84	0.41
1:B:241:PRO:C	1:B:243:GLY:H	2.24	0.41
1:F:398:ILE:HD12	1:F:398:ILE:HG23	1.88	0.41
1:B:364:LEU:O	1:B:365:ARG:CD	2.69	0.41
1:H:90:PHE:CD1	1:H:91:TYR:HB3	2.56	0.41
1:E:255:MET:HG2	1:E:256:PHE:N	2.36	0.40
1:M:387:VAL:HG13	1:M:391:ILE:CD1	2.51	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:M:387:VAL:O	1:M:391:ILE:HG13	2.20	0.40
1:B:316:ALA:CB	1:B:321:ASN:OD1	2.70	0.40
1:A:155:GLN:HB2	1:A:155:GLN:HE21	1.60	0.40
1:O:76:HIS:HB2	1:O:450:ASN:HA	2.03	0.40
1:C:46:GLY:N	1:C:65:VAL:HB	2.35	0.40
1:E:216:ASN:ND2	1:E:219:GLU:OE2	2.54	0.40
1:E:262:ASN:HD22	1:E:263:ARG:N	2.19	0.40
1:H:355:TYR:CE1	1:I:144:ARG:HD3	2.56	0.40
1:L:162:LYS:HD3	1:L:162:LYS:HA	1.88	0.40
1:B:122:LEU:HD11	1:C:286:LEU:CD1	2.42	0.40
1:F:260:LEU:CD1	1:F:260:LEU:N	2.65	0.40
1:A:260:LEU:HD21	1:E:149:MET:HA	2.03	0.40
1:M:85:PHE:HA	1:M:86:PRO:HD2	1.92	0.40
1:A:255:MET:SD	1:E:115:VAL:HG22	2.61	0.40
1:H:336:THR:H	1:H:336:THR:HG23	1.47	0.40
1:L:440:PRO:C	1:L:443:LYS:NZ	2.75	0.40
1:D:151:TYR:OH	1:D:221:PRO:HG2	2.22	0.40
1:D:122:LEU:HD21	1:E:286:LEU:HD12	2.03	0.40
1:N:119:GLY:O	1:N:221:PRO:CA	2.69	0.40
1:G:392:HIS:HB2	1:G:399:LEU:HD11	2.03	0.40
1:H:185:CYS:HA	1:H:186:PRO:HD3	1.79	0.40
1:H:242:TYR:CD2	1:H:394:MET:HG3	2.57	0.40
1:A:117:ILE:CG2	1:B:293:PRO:HD3	2.50	0.40
1:H:373:GLN:HB3	1:H:464:LEU:CD1	2.39	0.40
1:A:123:LEU:HD23	1:A:147:ILE:HB	2.03	0.40
1:C:463:PRO:CA	1:C:466:ARG:HH21	2.34	0.40
1:E:154:THR:O	1:E:334:VAL:HG12	2.21	0.40
1:B:451:LEU:O	1:B:454:LYS:CB	2.59	0.40
1:I:306:ILE:HD13	1:I:306:ILE:N	2.17	0.40
1:C:325:TRP:NE1	1:C:394:MET:HE3	2.37	0.40
1:F:276:TYR:HA	1:J:217:LYS:HG2	2.02	0.40
1:M:443:LYS:H	1:M:443:LYS:HD3	1.84	0.40
1:M:172:GLY:O	1:M:173:SER:O	2.39	0.40
1:E:247:PHE:N	1:E:247:PHE:CD1	2.87	0.40
1:I:196:GLN:HA	1:I:446:PHE:CE2	2.55	0.40
1:J:316:ALA:C	1:J:318:GLY:N	2.73	0.40
1:C:41:ARG:O	1:C:41:ARG:HG2	2.13	0.40
1:C:137:ALA:O	1:C:138:ASN:C	2.58	0.40
1:A:351:SER:HB2	1:A:352:GLU:H	1.75	0.40
1:H:193:THR:OG1	1:H:194:VAL:N	2.53	0.40
1:E:27:TYR:CZ	1:E:390:TYR:HE2	2.39	0.40
1:B:163:PRO:CA	1:B:330:PHE:CD1	3.05	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:99:VAL:CG2	1:I:402:TRP:HZ2	2.34	0.40
1:J:233:ASP:OD2	1:J:236:LYS:HB2	2.21	0.40
1:C:231:TYR:HA	1:C:232:PRO:HD3	1.80	0.40
1:A:224:ILE:HG12	1:A:224:ILE:H	1.76	0.40
1:G:71:ARG:NH1	1:G:198:GLY:N	2.50	0.40
1:N:96:GLN:HA	1:N:382:THR:HA	2.02	0.40
1:D:33:ILE:HD12	1:D:33:ILE:HG23	1.84	0.40
1:C:398:ILE:HG22	1:C:402:TRP:CZ3	2.56	0.40
1:G:115:VAL:N	1:H:255:MET:SD	2.93	0.40
1:N:345:CYS:SG	1:O:216:ASN:N	2.91	0.40
1:O:62:VAL:HA	1:O:63:PRO:HD3	1.96	0.40
1:C:451:LEU:HA	1:C:454:LYS:HG2	2.01	0.40
1:G:28:VAL:HG22	1:G:381:ILE:HD11	2.03	0.40
1:A:141:VAL:O	1:A:142:ASP:CB	2.66	0.40
1:H:103:VAL:HG22	1:H:375:ILE:O	2.21	0.40
1:H:81:ASN:ND2	1:H:402:TRP:HD1	2.19	0.40
1:M:343:SER:C	1:M:344:LEU:HD23	2.38	0.40
1:O:451:LEU:HA	1:O:454:LYS:CG	2.51	0.40
1:C:33:ILE:O	1:C:377:GLN:HA	2.21	0.40
1:M:61:LEU:O	1:M:62:VAL:HG23	2.22	0.40
1:C:461:GLN:HE22	1:D:21:VAL:CG2	2.34	0.40
1:K:42:LEU:HD23	1:K:42:LEU:HA	1.83	0.40
1:K:92:ASN:C	1:K:94:ASP:N	2.75	0.40
1:B:43:LEU:HD12	1:B:369:GLU:HA	2.04	0.40
1:B:339:SER:O	1:B:340:THR:C	2.59	0.40
1:I:50:PHE:HB2	1:I:51:PRO:HD2	2.02	0.40
1:L:302:SER:O	1:L:304:ALA:N	2.53	0.40
1:C:458:ASP:OD2	1:C:458:ASP:N	2.55	0.40
1:I:470:LEU:O	1:I:470:LEU:HD23	2.21	0.40
1:G:317:GLN:HE21	1:G:317:GLN:C	2.25	0.40
1:C:120:HIS:HA	1:C:222:LEU:HD13	2.03	0.40
1:K:397:THR:O	1:K:401:ASP:OD2	2.40	0.40
1:D:293:PRO:HG2	1:D:293:PRO:O	2.21	0.40
1:C:328:GLN:HB2	1:C:328:GLN:HE21	1.51	0.40
1:O:165:ILE:O	1:O:165:ILE:HG22	2.17	0.40
1:N:384:THR:HG23	1:N:387:VAL:HG21	2.03	0.40
1:N:90:PHE:C	1:N:90:PHE:CD1	2.95	0.40
1:E:320:ASN:ND2	1:E:325:TRP:CD1	2.90	0.40
1:K:346:ALA:CB	1:K:346:ALA:N	2.71	0.40
1:I:398:ILE:CG2	1:I:402:TRP:CZ3	3.02	0.40
1:E:389:THR:CA	1:E:389:THR:CG2	2.82	0.40
1:F:94:ASP:C	1:F:95:THR:CG2	2.87	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:B:258:ARG:HB2	1:B:296:SER:HB2	2.03	0.40
1:E:83:PHE:HD2	1:E:85:PHE:CZ	2.40	0.40
1:I:174:PRO:HD3	1:I:187:PRO:HG2	2.00	0.40
1:I:343:SER:HB3	1:I:364:LEU:CD2	2.51	0.40
1:K:178:VAL:HB	1:K:178:VAL:CG1	2.20	0.40
1:D:176:THR:CG2	1:D:176:THR:CA	2.84	0.40
1:M:120:HIS:ND1	1:M:121:PRO:CD	2.85	0.40
1:M:120:HIS:ND1	1:M:121:PRO:N	2.69	0.40
1:A:98:LEU:HB3	1:A:378:LEU:HD11	2.04	0.40
1:A:443:LYS:CD	1:A:443:LYS:H	2.32	0.40
1:D:36:HIS:ND1	1:D:36:HIS:C	2.74	0.40
1:E:306:ILE:HD13	1:E:306:ILE:N	2.27	0.40
1:O:440:PRO:O	1:O:443:LYS:NZ	2.49	0.40
1:D:62:VAL:CG1	1:D:63:PRO:CD	2.99	0.40
1:H:143:ASN:O	1:H:144:ARG:O	2.39	0.40
1:L:59:LYS:CD	1:L:59:LYS:NZ	2.73	0.40
1:I:74:ARG:CZ	1:I:441:LEU:HD12	2.50	0.40
1:K:290:ASN:HA	1:O:364:LEU:CD1	2.50	0.40
1:O:143:ASN:N	1:O:143:ASN:OD1	2.53	0.40
1:A:217:LYS:HG2	1:B:276:TYR:HA	2.03	0.40
1:D:155:GLN:HB3	1:D:252:ARG:HB3	2.03	0.40
1:A:71:ARG:HD3	1:A:71:ARG:HA	1.84	0.40
1:D:246:LEU:HD23	1:D:246:LEU:N	2.10	0.40
1:I:103:VAL:CG2	1:I:375:ILE:HG22	2.51	0.40
1:J:345:CYS:HA	1:J:361:LYS:O	2.21	0.40
1:H:196:GLN:O	1:H:197:ASP:C	2.59	0.40
1:K:147:ILE:CG2	1:K:148:SER:N	2.84	0.40
1:N:398:ILE:HG22	1:N:402:TRP:CH2	2.56	0.40
1:J:50:PHE:CB	1:J:51:PRO:CD	2.96	0.40
1:K:21:VAL:HA	1:K:390:TYR:HE1	1.86	0.40
1:F:252:ARG:CD	1:F:306:ILE:HD11	2.42	0.40
1:L:375:ILE:HG21	1:L:468:PHE:CE2	2.55	0.40
1:L:85:PHE:CZ	1:L:378:LEU:HD22	2.57	0.40
1:H:262:ASN:HD22	1:H:263:ARG:N	2.19	0.40
1:I:461:GLN:HA	1:I:461:GLN:HE21	1.85	0.40
1:N:276:TYR:O	1:N:277:ILE:HG12	2.22	0.40
1:B:391:ILE:HD13	1:B:402:TRP:HH2	1.87	0.40
1:K:217:LYS:HG2	1:L:276:TYR:HA	2.04	0.40
1:K:207:ALA:O	1:K:208:MET:CB	2.65	0.40
1:H:335:ASP:OD2	1:H:338:ARG:HD2	2.21	0.40
1:F:65:VAL:CA	1:F:69:GLN:HE22	2.21	0.40
1:G:117:ILE:CG1	1:G:149:MET:O	2.70	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:C:217:LYS:O	1:C:218:SER:CB	2.68	0.40
1:C:149:MET:CE	1:C:294:THR:HG22	2.52	0.40
1:D:259:HIS:CE1	1:E:130:GLU:HG2	2.56	0.40
1:I:62:VAL:HG13	1:I:63:PRO:CD	2.51	0.40
1:O:85:PHE:CE1	1:O:98:LEU:HD13	2.57	0.40
1:G:46:GLY:CA	1:G:63:PRO:O	2.67	0.40
1:C:194:VAL:HG21	1:C:444:TYR:CZ	2.57	0.40
1:G:465:GLY:O	1:G:468:PHE:N	2.55	0.40
1:F:129:THR:HG22	1:J:146:CYS:O	2.22	0.40
1:N:123:LEU:HD23	1:N:147:ILE:HB	2.03	0.40
1:O:99:VAL:HG21	1:O:325:TRP:CZ3	2.56	0.40
1:A:443:LYS:CG	1:A:443:LYS:NZ	2.85	0.40
1:D:152:LYS:CE	1:D:253:GLU:OE1	2.70	0.40
1:A:293:PRO:CD	1:A:293:PRO:O	2.69	0.40
1:M:115:VAL:N	1:N:255:MET:CE	2.73	0.40
1:H:302:SER:C	1:H:304:ALA:H	2.25	0.40
1:C:440:PRO:CA	1:C:443:LYS:NZ	2.82	0.40
1:G:111:GLN:HA	1:G:112:PRO:HD2	1.86	0.40
1:N:46:GLY:O	1:N:365:ARG:HD3	2.22	0.40
1:D:121:PRO:C	1:D:122:LEU:HD23	2.41	0.40
1:C:454:LYS:HA	1:C:454:LYS:HD2	1.93	0.40
1:N:217:LYS:O	1:N:218:SER:HB3	2.21	0.40
1:B:231:TYR:HA	1:B:232:PRO:HD3	1.88	0.40
1:H:70:TYR:CE1	1:H:230:LYS:O	2.74	0.40
1:H:372:LEU:HA	1:H:372:LEU:HD23	1.64	0.40
1:I:208:MET:N	1:I:229:CYS:O	2.55	0.40
1:C:250:LEU:CD1	1:C:250:LEU:O	2.68	0.40
1:O:107:VAL:HB	1:O:307:PHE:HD2	1.86	0.40
1:E:154:THR:O	1:E:336:THR:HG23	2.21	0.40
1:M:246:LEU:HD23	1:M:246:LEU:N	2.36	0.40
1:D:241:PRO:HG2	1:D:242:TYR:N	2.34	0.40
1:C:246:LEU:HD12	1:C:249:TYR:CD2	2.57	0.40
1:M:96:GLN:NE2	1:M:382:THR:CG2	2.84	0.40
1:F:142:ASP:OD1	1:G:283:THR:OG1	2.34	0.40
1:C:280:SER:O	1:C:281:GLY:C	2.60	0.40
1:M:35:TYR:CZ	1:M:457:ALA:HB2	2.56	0.40
1:D:196:GLN:HB3	1:D:445:THR:O	2.20	0.40
1:B:333:VAL:HG12	1:B:334:VAL:N	2.37	0.40
1:I:312:TRP:HA	1:I:312:TRP:HE3	1.87	0.40
1:C:85:PHE:HA	1:C:86:PRO:HD2	1.88	0.40
1:A:348:ILE:HG22	1:A:359:ASN:OD1	2.21	0.40
1:B:302:SER:C	1:B:304:ALA:H	2.24	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:233:ASP:OD2	1:G:236:LYS:HB2	2.22	0.40
1:O:222:LEU:HA	1:O:225:CYS:SG	2.61	0.40
1:F:135:TYR:HE2	1:F:287:ALA:HB2	1.85	0.40
1:L:106:GLU:HG3	1:L:310:PRO:HA	2.03	0.40
1:F:389:THR:O	1:F:392:HIS:HB3	2.22	0.40
1:F:185:CYS:HB2	1:J:363:TYR:CD2	2.56	0.40
1:M:384:THR:H	1:M:387:VAL:HB	1.87	0.40
1:M:98:LEU:HD13	1:M:378:LEU:CD2	2.35	0.40
1:F:66:SER:OG	1:F:68:LEU:N	2.54	0.40
1:E:80:PRO:HD3	1:E:327:ASN:OD1	2.21	0.40
1:J:372:LEU:HA	1:J:372:LEU:HD23	1.76	0.40
1:I:152:LYS:HB3	1:I:255:MET:CB	2.49	0.40
1:G:80:PRO:HB2	1:G:98:LEU:CB	2.52	0.40
1:C:354:THR:HG22	1:E:278:LYS:CB	2.50	0.40
1:J:147:ILE:HG22	1:J:148:SER:H	1.85	0.40
1:B:177:GLN:O	1:B:178:VAL:C	2.60	0.40
1:E:149:MET:HE3	1:E:294:THR:CG2	2.11	0.40
1:N:451:LEU:HD22	1:N:454:LYS:HB2	2.04	0.40
1:C:300:VAL:H	1:C:300:VAL:HG22	1.42	0.40
1:N:216:ASN:CG	1:N:219:GLU:HG2	2.42	0.40
1:J:80:PRO:O	1:J:85:PHE:HE1	2.05	0.40
1:K:255:MET:HE3	1:O:115:VAL:H	1.85	0.40
1:A:121:PRO:HG2	1:B:289:SER:HB2	2.03	0.40
1:H:400:GLU:C	1:H:402:TRP:N	2.74	0.40
1:L:263:ARG:NE	1:L:292:PHE:CD2	2.89	0.40
1:N:178:VAL:C	1:N:180:VAL:N	2.74	0.40
1:C:152:LYS:NZ	1:C:253:GLU:OE1	2.54	0.40
1:O:307:PHE:N	1:O:307:PHE:CD1	2.89	0.40
1:B:188:LEU:HD13	1:B:188:LEU:HA	1.69	0.40
1:G:92:ASN:HA	1:G:93:PRO:HD2	1.68	0.40
1:C:315:ARG:O	1:C:316:ALA:HB2	2.21	0.40
1:F:141:VAL:CG1	1:F:142:ASP:N	2.81	0.40
1:I:246:LEU:HD23	1:I:246:LEU:O	2.21	0.40
1:N:271:VAL:HA	1:N:272:PRO:HD3	1.88	0.40
1:K:91:TYR:HD1	1:K:96:GLN:HG3	1.86	0.40
1:A:60:ILE:O	1:A:60:ILE:CG1	2.69	0.40
1:H:272:PRO:HD2	1:H:275:LEU:HD11	2.02	0.40
1:M:214:GLN:HE22	1:M:219:GLU:HB2	1.86	0.40
1:G:312:TRP:HA	1:G:312:TRP:HE3	1.85	0.40
1:L:109:ARG:NH1	1:L:370:TYR:CE1	2.89	0.40
1:M:259:HIS:CE1	1:N:130:GLU:HG2	2.57	0.40
1:E:196:GLN:HB3	1:E:445:THR:O	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:G:160:GLY:HA3	1:G:245:SER:O	2.21	0.40
1:D:277:ILE:HD13	1:D:277:ILE:HG21	1.77	0.40
1:C:159:ILE:HG21	1:C:159:ILE:HD13	1.80	0.40

All (47) 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:E:177:GLN:OE1	1:M:87:ASP:N[3_645]	1.49	0.71
1:E:177:GLN:OE1	1:M:86:PRO:C[3_645]	1.62	0.58
1:I:177:GLN:CG	1:J:95:THR:C[3_645]	1.66	0.54
1:D:175:CYS:O	1:N:88:THR:CG2[3_545]	1.72	0.48
1:D:177:GLN:N	1:N:88:THR:CA[3_545]	1.73	0.47
1:I:177:GLN:CG	1:J:95:THR:O[3_645]	1.80	0.40
1:I:177:GLN:CG	1:J:96:GLN:N[3_645]	1.81	0.39
1:E:177:GLN:OE1	1:M:86:PRO:N[3_645]	1.82	0.38
1:E:177:GLN:OE1	1:M:86:PRO:CA[3_645]	1.82	0.38
1:I:177:GLN:CA	1:J:96:GLN:N[3_645]	1.82	0.38
1:D:177:GLN:CA	1:N:88:THR:O[3_545]	1.84	0.36
1:I:177:GLN:N	1:J:92:ASN:O[3_645]	1.86	0.34
1:I:177:GLN:O	1:J:92:ASN:O[3_645]	1.87	0.33
1:I:178:VAL:CA	1:J:92:ASN:ND2[3_645]	1.92	0.28
1:E:177:GLN:CD	1:M:87:ASP:N[3_645]	1.93	0.27
1:I:177:GLN:O	1:J:94:ASP:N[3_645]	1.97	0.23
1:I:178:VAL:O	1:J:94:ASP:N[3_645]	1.99	0.21
1:F:384:THR:N	1:H:176:THR:O[3_555]	2.02	0.18
1:I:176:THR:O	1:J:96:GLN:C[3_645]	2.02	0.18
1:I:177:GLN:CG	1:J:96:GLN:CA[3_645]	2.03	0.17
1:I:176:THR:O	1:J:96:GLN:CG[3_645]	2.05	0.15
1:I:176:THR:OG1	1:J:98:LEU:CG[3_645]	2.05	0.15
1:I:177:GLN:N	1:J:96:GLN:O[3_645]	2.05	0.15
1:I:177:GLN:C	1:J:92:ASN:O[3_645]	2.05	0.15
1:I:175:CYS:CA	1:J:97:ARG:NE[3_645]	2.07	0.13
1:I:176:THR:O	1:J:96:GLN:CB[3_645]	2.07	0.13
1:I:177:GLN:CB	1:J:96:GLN:O[3_645]	2.07	0.13
1:D:176:THR:CG2	1:N:87:ASP:O[3_545]	2.08	0.12
1:F:384:THR:O	1:H:176:THR:O[3_555]	2.09	0.11
1:D:177:GLN:N	1:N:88:THR:CB[3_545]	2.10	0.10
1:I:176:THR:C	1:J:96:GLN:C[3_645]	2.10	0.10
1:D:176:THR:OG1	1:N:87:ASP:N[3_545]	2.11	0.09
1:D:177:GLN:CA	1:N:88:THR:C[3_545]	2.11	0.09
1:F:385:ALA:O	1:H:177:GLN:NE2[3_555]	2.11	0.09

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:I:178:VAL:N	1:J:95:THR:N[3.645]	2.11	0.09
1:D:177:GLN:N	1:N:88:THR:CG2[3.545]	2.12	0.08
1:F:383:LEU:C	1:H:177:GLN:N[3.555]	2.12	0.08
1:D:176:THR:CA	1:N:87:ASP:O[3.545]	2.13	0.07
1:I:176:THR:C	1:J:96:GLN:O[3.645]	2.14	0.06
1:I:177:GLN:CB	1:J:95:THR:C[3.645]	2.15	0.05
1:I:177:GLN:CB	1:J:96:GLN:N[3.645]	2.16	0.04
1:I:177:GLN:OE1	1:J:383:LEU:CD1[3.645]	2.16	0.04
1:I:174:PRO:O	1:J:97:ARG:NH2[3.645]	2.17	0.03
1:I:179:ALA:N	1:J:92:ASN:CA[3.645]	2.17	0.03
1:D:176:THR:OG1	1:N:85:PHE:C[3.545]	2.19	0.01
1:D:177:GLN:O	1:N:88:THR:CB[3.545]	2.19	0.01
1:F:384:THR:N	1:H:176:THR:C[3.555]	2.19	0.01

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	415/424 (98%)	316 (76%)	69 (17%)	30 (7%)	2	32
1	B	415/424 (98%)	327 (79%)	64 (15%)	24 (6%)	3	39
1	C	415/424 (98%)	322 (78%)	63 (15%)	30 (7%)	2	32
1	D	415/424 (98%)	309 (74%)	76 (18%)	30 (7%)	2	32
1	E	415/424 (98%)	321 (77%)	66 (16%)	28 (7%)	2	35
1	F	415/424 (98%)	325 (78%)	63 (15%)	27 (6%)	2	36
1	G	415/424 (98%)	310 (75%)	71 (17%)	34 (8%)	1	27
1	H	415/424 (98%)	322 (78%)	59 (14%)	34 (8%)	1	27
1	I	415/424 (98%)	321 (77%)	64 (15%)	30 (7%)	2	32
1	J	415/424 (98%)	316 (76%)	65 (16%)	34 (8%)	1	27
1	K	415/424 (98%)	322 (78%)	66 (16%)	27 (6%)	2	36
1	L	415/424 (98%)	321 (77%)	67 (16%)	27 (6%)	2	36
1	M	415/424 (98%)	319 (77%)	72 (17%)	24 (6%)	3	39

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	N	415/424 (98%)	319 (77%)	67 (16%)	29 (7%)	2	33
1	O	415/424 (98%)	325 (78%)	59 (14%)	31 (8%)	2	31
All	All	6225/6360 (98%)	4795 (77%)	991 (16%)	439 (7%)	2	32

All (439) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	140	GLY
1	A	174	PRO
1	A	180	VAL
1	A	299	MET
1	A	303	ASP
1	A	458	ASP
1	B	140	GLY
1	B	173	SER
1	B	174	PRO
1	B	185	CYS
1	B	218	SER
1	B	352	GLU
1	C	140	GLY
1	C	151	TYR
1	C	173	SER
1	C	174	PRO
1	C	178	VAL
1	C	180	VAL
1	C	303	ASP
1	C	352	GLU
1	C	391	ILE
1	D	144	ARG
1	D	174	PRO
1	D	180	VAL
1	D	218	SER
1	D	337	THR
1	D	351	SER
1	E	140	GLY
1	E	173	SER
1	E	174	PRO
1	E	180	VAL
1	E	184	ASP
1	E	185	CYS
1	E	303	ASP

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Mol	Chain	Res	Type
1	F	93	PRO
1	F	140	GLY
1	F	173	SER
1	F	174	PRO
1	F	176	THR
1	F	180	VAL
1	G	81	ASN
1	G	140	GLY
1	G	144	ARG
1	G	173	SER
1	G	174	PRO
1	G	178	VAL
1	G	180	VAL
1	G	352	GLU
1	G	391	ILE
1	H	138	ASN
1	H	140	GLY
1	H	144	ARG
1	H	174	PRO
1	H	178	VAL
1	H	179	ALA
1	H	180	VAL
1	I	140	GLY
1	I	173	SER
1	I	174	PRO
1	I	176	THR
1	I	179	ALA
1	I	180	VAL
1	I	184	ASP
1	I	235	ILE
1	I	303	ASP
1	J	81	ASN
1	J	138	ASN
1	J	174	PRO
1	J	179	ALA
1	J	180	VAL
1	J	184	ASP
1	J	185	CYS
1	J	241	PRO
1	J	242	TYR
1	J	351	SER
1	K	124	ASN

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Mol	Chain	Res	Type
1	K	140	GLY
1	K	144	ARG
1	K	173	SER
1	K	174	PRO
1	K	180	VAL
1	K	218	SER
1	L	124	ASN
1	L	140	GLY
1	L	173	SER
1	L	174	PRO
1	L	179	ALA
1	L	180	VAL
1	L	225	CYS
1	M	138	ASN
1	M	140	GLY
1	M	173	SER
1	M	174	PRO
1	M	180	VAL
1	M	184	ASP
1	M	221	PRO
1	M	303	ASP
1	M	466	ARG
1	N	140	GLY
1	N	173	SER
1	N	174	PRO
1	N	180	VAL
1	N	201	VAL
1	N	218	SER
1	N	303	ASP
1	N	391	ILE
1	N	466	ARG
1	O	140	GLY
1	O	151	TYR
1	O	173	SER
1	O	174	PRO
1	O	178	VAL
1	O	180	VAL
1	O	218	SER
1	O	324	CYS
1	O	352	GLU
1	A	144	ARG
1	A	178	VAL

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Mol	Chain	Res	Type
1	A	184	ASP
1	A	218	SER
1	A	245	SER
1	B	178	VAL
1	B	180	VAL
1	B	184	ASP
1	B	221	PRO
1	B	235	ILE
1	B	241	PRO
1	B	303	ASP
1	C	131	ASN
1	C	138	ASN
1	C	184	ASP
1	C	245	SER
1	C	278	LYS
1	C	316	ALA
1	C	357	ASN
1	D	140	GLY
1	D	151	TYR
1	D	177	GLN
1	D	179	ALA
1	D	245	SER
1	D	278	LYS
1	D	303	ASP
1	D	305	GLN
1	D	352	GLU
1	D	466	ARG
1	E	151	TYR
1	E	221	PRO
1	E	225	CYS
1	E	357	ASN
1	F	41	ARG
1	F	144	ARG
1	F	178	VAL
1	F	182	PRO
1	F	218	SER
1	F	245	SER
1	F	352	GLU
1	G	138	ASN
1	G	168	HIS
1	G	179	ALA
1	G	184	ASP

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Mol	Chain	Res	Type
1	G	218	SER
1	G	221	PRO
1	G	241	PRO
1	G	242	TYR
1	G	298	SER
1	G	303	ASP
1	G	316	ALA
1	H	25	ASP
1	H	151	TYR
1	H	221	PRO
1	H	235	ILE
1	H	245	SER
1	H	351	SER
1	H	391	ILE
1	H	458	ASP
1	H	460	ASP
1	H	466	ARG
1	I	41	ARG
1	I	84	GLY
1	I	201	VAL
1	I	234	TYR
1	J	41	ARG
1	J	140	GLY
1	J	151	TYR
1	J	177	GLN
1	J	216	ASN
1	J	225	CYS
1	J	245	SER
1	J	293	PRO
1	J	299	MET
1	J	316	ALA
1	J	352	GLU
1	J	466	ARG
1	K	84	GLY
1	K	178	VAL
1	K	184	ASP
1	K	216	ASN
1	K	221	PRO
1	K	282	SER
1	K	352	GLU
1	K	460	ASP
1	L	178	VAL

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Mol	Chain	Res	Type
1	L	218	SER
1	L	278	LYS
1	L	303	ASP
1	M	57	ASN
1	M	90	PHE
1	M	178	VAL
1	M	218	SER
1	M	293	PRO
1	N	41	ARG
1	N	93	PRO
1	N	124	ASN
1	N	138	ASN
1	N	179	ALA
1	N	216	ASN
1	N	349	SER
1	N	352	GLU
1	O	41	ARG
1	O	81	ASN
1	O	82	LYS
1	O	124	ASN
1	O	179	ALA
1	O	184	ASP
1	O	391	ILE
1	A	93	PRO
1	A	124	ASN
1	A	141	VAL
1	A	185	CYS
1	A	221	PRO
1	A	239	SER
1	A	241	PRO
1	A	293	PRO
1	A	351	SER
1	A	466	ARG
1	B	242	TYR
1	C	93	PRO
1	C	218	SER
1	C	221	PRO
1	C	234	TYR
1	C	235	ILE
1	D	235	ILE
1	D	391	ILE
1	D	400	GLU

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Mol	Chain	Res	Type
1	D	401	ASP
1	E	138	ASN
1	E	177	GLN
1	E	218	SER
1	E	273	ASP
1	E	466	ARG
1	F	23	SER
1	F	184	ASP
1	F	199	ASP
1	F	221	PRO
1	F	293	PRO
1	G	41	ARG
1	G	182	PRO
1	H	41	ARG
1	H	173	SER
1	H	182	PRO
1	H	216	ASN
1	H	278	LYS
1	H	293	PRO
1	H	352	GLU
1	H	400	GLU
1	H	447	TRP
1	I	124	ASN
1	I	168	HIS
1	I	178	VAL
1	I	182	PRO
1	I	241	PRO
1	I	293	PRO
1	I	298	SER
1	I	351	SER
1	J	131	ASN
1	J	221	PRO
1	J	222	LEU
1	K	182	PRO
1	K	281	GLY
1	K	324	CYS
1	K	351	SER
1	L	41	ARG
1	L	184	ASP
1	L	221	PRO
1	L	288	SER
1	L	298	SER

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Mol	Chain	Res	Type
1	M	185	CYS
1	M	299	MET
1	M	340	THR
1	M	391	ILE
1	N	26	GLU
1	N	144	ARG
1	N	176	THR
1	N	182	PRO
1	N	221	PRO
1	N	241	PRO
1	N	390	TYR
1	O	303	ASP
1	O	322	GLY
1	O	470	LEU
1	A	41	ARG
1	A	139	ALA
1	A	142	ASP
1	A	201	VAL
1	A	249	TYR
1	B	337	THR
1	B	357	ASN
1	C	182	PRO
1	C	340	THR
1	D	26	GLU
1	D	93	PRO
1	D	182	PRO
1	E	179	ALA
1	E	245	SER
1	F	25	ASP
1	F	63	PRO
1	F	299	MET
1	F	349	SER
1	G	211	THR
1	G	293	PRO
1	G	325	TRP
1	G	351	SER
1	H	93	PRO
1	H	176	THR
1	I	185	CYS
1	I	316	ALA
1	I	352	GLU
1	I	397	THR

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Mol	Chain	Res	Type
1	J	173	SER
1	J	398	ILE
1	K	41	ARG
1	K	138	ASN
1	K	293	PRO
1	K	316	ALA
1	L	93	PRO
1	L	177	GLN
1	L	185	CYS
1	L	352	GLU
1	L	357	ASN
1	M	144	ARG
1	M	239	SER
1	M	241	PRO
1	M	400	GLU
1	N	184	ASP
1	N	235	ILE
1	N	468	PHE
1	O	63	PRO
1	O	138	ASN
1	O	245	SER
1	A	182	PRO
1	B	63	PRO
1	B	124	ASN
1	B	138	ASN
1	C	26	GLU
1	C	185	CYS
1	C	208	MET
1	C	293	PRO
1	D	168	HIS
1	D	173	SER
1	E	86	PRO
1	E	233	ASP
1	E	293	PRO
1	E	458	ASP
1	F	185	CYS
1	F	208	MET
1	F	303	ASP
1	G	63	PRO
1	G	82	LYS
1	H	218	SER
1	H	276	TYR

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Mol	Chain	Res	Type
1	H	303	ASP
1	I	151	TYR
1	I	221	PRO
1	I	288	SER
1	J	303	ASP
1	K	185	CYS
1	K	241	PRO
1	L	241	PRO
1	M	235	ILE
1	M	316	ALA
1	N	398	ILE
1	O	93	PRO
1	O	235	ILE
1	O	293	PRO
1	A	173	SER
1	A	357	ASN
1	B	81	ASN
1	B	245	SER
1	B	387	VAL
1	C	323	ILE
1	C	351	SER
1	E	182	PRO
1	E	322	GLY
1	F	357	ASN
1	G	93	PRO
1	G	151	TYR
1	G	387	VAL
1	H	63	PRO
1	H	390	TYR
1	I	93	PRO
1	J	201	VAL
1	J	458	ASP
1	L	142	ASP
1	L	243	GLY
1	L	391	ILE
1	O	185	CYS
1	O	388	MET
1	C	63	PRO
1	E	178	VAL
1	F	267	VAL
1	J	45	VAL
1	J	281	GLY

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Mol	Chain	Res	Type
1	K	93	PRO
1	L	267	VAL
1	L	322	GLY
1	O	387	VAL
1	E	93	PRO
1	G	297	GLY
1	I	297	GLY
1	O	201	VAL
1	A	281	GLY
1	B	281	GLY
1	E	235	ILE
1	G	185	CYS
1	G	398	ILE
1	H	241	PRO
1	D	84	GLY
1	D	107	VAL
1	D	221	PRO
1	E	241	PRO
1	J	195	ILE
1	N	178	VAL
1	B	293	PRO
1	D	63	PRO
1	D	86	PRO
1	J	182	PRO
1	K	235	ILE
1	O	182	PRO
1	O	241	PRO

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	367/368 (100%)	304 (83%)	63 (17%)	3	21
1	B	367/368 (100%)	302 (82%)	65 (18%)	3	20
1	C	367/368 (100%)	300 (82%)	67 (18%)	2	17
1	D	367/368 (100%)	308 (84%)	59 (16%)	3	26

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	E	367/368 (100%)	299 (82%)	68 (18%)	2	17
1	F	367/368 (100%)	305 (83%)	62 (17%)	3	23
1	G	367/368 (100%)	303 (83%)	64 (17%)	3	20
1	H	367/368 (100%)	302 (82%)	65 (18%)	3	20
1	I	367/368 (100%)	310 (84%)	57 (16%)	4	28
1	J	367/368 (100%)	311 (85%)	56 (15%)	4	28
1	K	367/368 (100%)	300 (82%)	67 (18%)	2	17
1	L	367/368 (100%)	312 (85%)	55 (15%)	4	30
1	M	367/368 (100%)	305 (83%)	62 (17%)	3	23
1	N	367/368 (100%)	296 (81%)	71 (19%)	2	14
1	O	367/368 (100%)	307 (84%)	60 (16%)	3	25
All	All	5505/5520 (100%)	4564 (83%)	941 (17%)	3	22

All (941) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	32	ASN
1	A	43	LEU
1	A	54	LYS
1	A	58	ASN
1	A	61	LEU
1	A	63	PRO
1	A	64	LYS
1	A	66	SER
1	A	91	TYR
1	A	95	THR
1	A	97	ARG
1	A	129	THR
1	A	135	TYR
1	A	145	GLU
1	A	149	MET
1	A	156	LEU
1	A	173	SER
1	A	176	THR
1	A	180	VAL
1	A	182	PRO
1	A	184	ASP
1	A	188	LEU

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Mol	Chain	Res	Type
1	A	190	LEU
1	A	193	THR
1	A	197	ASP
1	A	219	GLU
1	A	220	VAL
1	A	222	LEU
1	A	224	ILE
1	A	229	CYS
1	A	244	ASP
1	A	246	LEU
1	A	247	PHE
1	A	250	LEU
1	A	252	ARG
1	A	255	MET
1	A	257	VAL
1	A	258	ARG
1	A	262	ASN
1	A	274	ASP
1	A	277	ILE
1	A	280	SER
1	A	286	LEU
1	A	291	TYR
1	A	295	PRO
1	A	296	SER
1	A	308	ASN
1	A	315	ARG
1	A	317	GLN
1	A	329	LEU
1	A	337	THR
1	A	341	ASN
1	A	344	LEU
1	A	352	GLU
1	A	353	THR
1	A	357	ASN
1	A	388	MET
1	A	395	ASN
1	A	442	LYS
1	A	443	LYS
1	A	464	LEU
1	A	470	LEU
1	A	472	LEU
1	B	23	SER

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Mol	Chain	Res	Type
1	B	31	THR
1	B	32	ASN
1	B	52	ILE
1	B	54	LYS
1	B	56	ASN
1	B	66	SER
1	B	91	TYR
1	B	95	THR
1	B	97	ARG
1	B	113	LEU
1	B	122	LEU
1	B	127	ASP
1	B	135	TYR
1	B	145	GLU
1	B	149	MET
1	B	153	GLN
1	B	167	GLU
1	B	174	PRO
1	B	182	PRO
1	B	184	ASP
1	B	187	PRO
1	B	188	LEU
1	B	193	THR
1	B	197	ASP
1	B	218	SER
1	B	222	LEU
1	B	244	ASP
1	B	246	LEU
1	B	247	PHE
1	B	250	LEU
1	B	252	ARG
1	B	255	MET
1	B	257	VAL
1	B	262	ASN
1	B	273	ASP
1	B	274	ASP
1	B	282	SER
1	B	288	SER
1	B	292	PHE
1	B	293	PRO
1	B	294	THR
1	B	295	PRO

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Mol	Chain	Res	Type
1	B	301	THR
1	B	315	ARG
1	B	317	GLN
1	B	329	LEU
1	B	332	THR
1	B	341	ASN
1	B	342	MET
1	B	343	SER
1	B	344	LEU
1	B	352	GLU
1	B	353	THR
1	B	357	ASN
1	B	358	THR
1	B	386	ASP
1	B	395	ASN
1	B	402	TRP
1	B	442	LYS
1	B	443	LYS
1	B	461	GLN
1	B	464	LEU
1	B	470	LEU
1	B	472	LEU
1	C	23	SER
1	C	31	THR
1	C	32	ASN
1	C	43	LEU
1	C	51	PRO
1	C	54	LYS
1	C	57	ASN
1	C	63	PRO
1	C	66	SER
1	C	71	ARG
1	C	91	TYR
1	C	95	THR
1	C	97	ARG
1	C	129	THR
1	C	143	ASN
1	C	145	GLU
1	C	148	SER
1	C	149	MET
1	C	155	GLN
1	C	157	CYS

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Mol	Chain	Res	Type
1	C	175	CYS
1	C	177	GLN
1	C	180	VAL
1	C	184	ASP
1	C	187	PRO
1	C	188	LEU
1	C	190	LEU
1	C	193	THR
1	C	212	THR
1	C	213	LEU
1	C	219	GLU
1	C	220	VAL
1	C	223	ASP
1	C	224	ILE
1	C	225	CYS
1	C	228	ILE
1	C	244	ASP
1	C	247	PHE
1	C	250	LEU
1	C	252	ARG
1	C	255	MET
1	C	258	ARG
1	C	262	ASN
1	C	274	ASP
1	C	280	SER
1	C	282	SER
1	C	292	PHE
1	C	293	PRO
1	C	294	THR
1	C	302	SER
1	C	315	ARG
1	C	317	GLN
1	C	329	LEU
1	C	332	THR
1	C	336	THR
1	C	338	ARG
1	C	340	THR
1	C	341	ASN
1	C	344	LEU
1	C	352	GLU
1	C	374	PHE
1	C	442	LYS

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Mol	Chain	Res	Type
1	C	443	LYS
1	C	449	VAL
1	C	464	LEU
1	C	470	LEU
1	C	472	LEU
1	D	23	SER
1	D	32	ASN
1	D	53	LYS
1	D	54	LYS
1	D	56	ASN
1	D	68	LEU
1	D	71	ARG
1	D	91	TYR
1	D	97	ARG
1	D	129	THR
1	D	135	TYR
1	D	145	GLU
1	D	149	MET
1	D	154	THR
1	D	155	GLN
1	D	163	PRO
1	D	175	CYS
1	D	180	VAL
1	D	182	PRO
1	D	184	ASP
1	D	188	LEU
1	D	193	THR
1	D	224	ILE
1	D	227	SER
1	D	246	LEU
1	D	247	PHE
1	D	250	LEU
1	D	255	MET
1	D	257	VAL
1	D	262	ASN
1	D	273	ASP
1	D	274	ASP
1	D	282	SER
1	D	292	PHE
1	D	295	PRO
1	D	308	ASN
1	D	315	ARG

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Mol	Chain	Res	Type
1	D	317	GLN
1	D	329	LEU
1	D	332	THR
1	D	336	THR
1	D	338	ARG
1	D	341	ASN
1	D	342	MET
1	D	344	LEU
1	D	352	GLU
1	D	353	THR
1	D	357	ASN
1	D	358	THR
1	D	361	LYS
1	D	365	ARG
1	D	372	LEU
1	D	384	THR
1	D	395	ASN
1	D	443	LYS
1	D	459	LEU
1	D	460	ASP
1	D	464	LEU
1	D	470	LEU
1	E	23	SER
1	E	32	ASN
1	E	49	TYR
1	E	54	LYS
1	E	57	ASN
1	E	66	SER
1	E	71	ARG
1	E	91	TYR
1	E	97	ARG
1	E	117	ILE
1	E	122	LEU
1	E	127	ASP
1	E	129	THR
1	E	135	TYR
1	E	145	GLU
1	E	149	MET
1	E	153	GLN
1	E	154	THR
1	E	163	PRO
1	E	167	GLU

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Mol	Chain	Res	Type
1	E	174	PRO
1	E	175	CYS
1	E	180	VAL
1	E	182	PRO
1	E	184	ASP
1	E	187	PRO
1	E	188	LEU
1	E	193	THR
1	E	197	ASP
1	E	212	THR
1	E	219	GLU
1	E	227	SER
1	E	229	CYS
1	E	239	SER
1	E	246	LEU
1	E	247	PHE
1	E	250	LEU
1	E	252	ARG
1	E	255	MET
1	E	257	VAL
1	E	262	ASN
1	E	273	ASP
1	E	277	ILE
1	E	280	SER
1	E	294	THR
1	E	295	PRO
1	E	301	THR
1	E	315	ARG
1	E	317	GLN
1	E	329	LEU
1	E	332	THR
1	E	336	THR
1	E	337	THR
1	E	341	ASN
1	E	344	LEU
1	E	345	CYS
1	E	352	GLU
1	E	357	ASN
1	E	358	THR
1	E	386	ASP
1	E	395	ASN
1	E	443	LYS

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Mol	Chain	Res	Type
1	E	445	THR
1	E	449	VAL
1	E	460	ASP
1	E	464	LEU
1	E	470	LEU
1	E	472	LEU
1	F	32	ASN
1	F	54	LYS
1	F	58	ASN
1	F	66	SER
1	F	72	VAL
1	F	91	TYR
1	F	97	ARG
1	F	122	LEU
1	F	127	ASP
1	F	129	THR
1	F	145	GLU
1	F	148	SER
1	F	149	MET
1	F	153	GLN
1	F	154	THR
1	F	167	GLU
1	F	173	SER
1	F	174	PRO
1	F	176	THR
1	F	180	VAL
1	F	182	PRO
1	F	184	ASP
1	F	187	PRO
1	F	188	LEU
1	F	193	THR
1	F	222	LEU
1	F	224	ILE
1	F	225	CYS
1	F	229	CYS
1	F	246	LEU
1	F	247	PHE
1	F	250	LEU
1	F	252	ARG
1	F	255	MET
1	F	257	VAL
1	F	260	LEU

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Mol	Chain	Res	Type
1	F	262	ASN
1	F	274	ASP
1	F	277	ILE
1	F	294	THR
1	F	310	PRO
1	F	315	ARG
1	F	317	GLN
1	F	320	ASN
1	F	329	LEU
1	F	332	THR
1	F	336	THR
1	F	341	ASN
1	F	343	SER
1	F	344	LEU
1	F	353	THR
1	F	358	THR
1	F	365	ARG
1	F	384	THR
1	F	386	ASP
1	F	388	MET
1	F	395	ASN
1	F	396	SER
1	F	443	LYS
1	F	464	LEU
1	F	470	LEU
1	F	472	LEU
1	G	23	SER
1	G	32	ASN
1	G	52	ILE
1	G	54	LYS
1	G	57	ASN
1	G	61	LEU
1	G	66	SER
1	G	71	ARG
1	G	77	LEU
1	G	91	TYR
1	G	97	ARG
1	G	102	CYS
1	G	122	LEU
1	G	129	THR
1	G	135	TYR
1	G	145	GLU

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Mol	Chain	Res	Type
1	G	149	MET
1	G	153	GLN
1	G	180	VAL
1	G	184	ASP
1	G	187	PRO
1	G	188	LEU
1	G	193	THR
1	G	219	GLU
1	G	223	ASP
1	G	224	ILE
1	G	225	CYS
1	G	228	ILE
1	G	229	CYS
1	G	244	ASP
1	G	247	PHE
1	G	250	LEU
1	G	252	ARG
1	G	255	MET
1	G	258	ARG
1	G	262	ASN
1	G	272	PRO
1	G	274	ASP
1	G	280	SER
1	G	282	SER
1	G	286	LEU
1	G	292	PHE
1	G	293	PRO
1	G	299	MET
1	G	303	ASP
1	G	315	ARG
1	G	317	GLN
1	G	329	LEU
1	G	332	THR
1	G	341	ASN
1	G	343	SER
1	G	344	LEU
1	G	345	CYS
1	G	348	ILE
1	G	352	GLU
1	G	353	THR
1	G	391	ILE
1	G	395	ASN

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Mol	Chain	Res	Type
1	G	442	LYS
1	G	443	LYS
1	G	461	GLN
1	G	463	PRO
1	G	464	LEU
1	G	472	LEU
1	H	31	THR
1	H	32	ASN
1	H	54	LYS
1	H	56	ASN
1	H	59	LYS
1	H	66	SER
1	H	68	LEU
1	H	71	ARG
1	H	91	TYR
1	H	97	ARG
1	H	112	PRO
1	H	129	THR
1	H	135	TYR
1	H	145	GLU
1	H	149	MET
1	H	153	GLN
1	H	174	PRO
1	H	175	CYS
1	H	180	VAL
1	H	182	PRO
1	H	184	ASP
1	H	186	PRO
1	H	187	PRO
1	H	188	LEU
1	H	193	THR
1	H	217	LYS
1	H	218	SER
1	H	222	LEU
1	H	227	SER
1	H	232	PRO
1	H	246	LEU
1	H	247	PHE
1	H	250	LEU
1	H	252	ARG
1	H	255	MET
1	H	257	VAL

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Mol	Chain	Res	Type
1	H	258	ARG
1	H	262	ASN
1	H	274	ASP
1	H	292	PHE
1	H	293	PRO
1	H	294	THR
1	H	300	VAL
1	H	303	ASP
1	H	308	ASN
1	H	310	PRO
1	H	315	ARG
1	H	317	GLN
1	H	329	LEU
1	H	332	THR
1	H	336	THR
1	H	341	ASN
1	H	344	LEU
1	H	353	THR
1	H	357	ASN
1	H	358	THR
1	H	380	LYS
1	H	384	THR
1	H	395	ASN
1	H	396	SER
1	H	399	LEU
1	H	402	TRP
1	H	443	LYS
1	H	460	ASP
1	H	470	LEU
1	I	21	VAL
1	I	32	ASN
1	I	54	LYS
1	I	57	ASN
1	I	66	SER
1	I	71	ARG
1	I	77	LEU
1	I	91	TYR
1	I	97	ARG
1	I	135	TYR
1	I	145	GLU
1	I	146	CYS
1	I	148	SER

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Mol	Chain	Res	Type
1	I	149	MET
1	I	150	ASP
1	I	153	GLN
1	I	156	LEU
1	I	174	PRO
1	I	180	VAL
1	I	184	ASP
1	I	218	SER
1	I	220	VAL
1	I	221	PRO
1	I	224	ILE
1	I	244	ASP
1	I	247	PHE
1	I	250	LEU
1	I	252	ARG
1	I	256	PHE
1	I	257	VAL
1	I	260	LEU
1	I	262	ASN
1	I	274	ASP
1	I	277	ILE
1	I	291	TYR
1	I	292	PHE
1	I	295	PRO
1	I	303	ASP
1	I	315	ARG
1	I	317	GLN
1	I	329	LEU
1	I	332	THR
1	I	337	THR
1	I	341	ASN
1	I	344	LEU
1	I	345	CYS
1	I	352	GLU
1	I	353	THR
1	I	357	ASN
1	I	358	THR
1	I	384	THR
1	I	395	ASN
1	I	438	GLU
1	I	443	LYS
1	I	460	ASP

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Mol	Chain	Res	Type
1	I	464	LEU
1	I	470	LEU
1	J	32	ASN
1	J	54	LYS
1	J	57	ASN
1	J	66	SER
1	J	71	ARG
1	J	74	ARG
1	J	91	TYR
1	J	94	ASP
1	J	97	ARG
1	J	117	ILE
1	J	129	THR
1	J	145	GLU
1	J	149	MET
1	J	156	LEU
1	J	163	PRO
1	J	173	SER
1	J	180	VAL
1	J	182	PRO
1	J	184	ASP
1	J	187	PRO
1	J	190	LEU
1	J	193	THR
1	J	197	ASP
1	J	219	GLU
1	J	224	ILE
1	J	225	CYS
1	J	244	ASP
1	J	246	LEU
1	J	247	PHE
1	J	250	LEU
1	J	252	ARG
1	J	253	GLU
1	J	255	MET
1	J	257	VAL
1	J	258	ARG
1	J	262	ASN
1	J	273	ASP
1	J	290	ASN
1	J	291	TYR
1	J	295	PRO

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Mol	Chain	Res	Type
1	J	303	ASP
1	J	308	ASN
1	J	315	ARG
1	J	317	GLN
1	J	329	LEU
1	J	332	THR
1	J	337	THR
1	J	341	ASN
1	J	344	LEU
1	J	345	CYS
1	J	353	THR
1	J	383	LEU
1	J	386	ASP
1	J	443	LYS
1	J	464	LEU
1	J	470	LEU
1	K	31	THR
1	K	32	ASN
1	K	54	LYS
1	K	57	ASN
1	K	66	SER
1	K	87	ASP
1	K	91	TYR
1	K	97	ARG
1	K	129	THR
1	K	135	TYR
1	K	145	GLU
1	K	149	MET
1	K	153	GLN
1	K	154	THR
1	K	180	VAL
1	K	182	PRO
1	K	184	ASP
1	K	187	PRO
1	K	188	LEU
1	K	193	THR
1	K	212	THR
1	K	219	GLU
1	K	224	ILE
1	K	227	SER
1	K	228	ILE
1	K	232	PRO

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Mol	Chain	Res	Type
1	K	240	GLU
1	K	245	SER
1	K	246	LEU
1	K	247	PHE
1	K	250	LEU
1	K	251	ARG
1	K	252	ARG
1	K	255	MET
1	K	257	VAL
1	K	258	ARG
1	K	262	ASN
1	K	273	ASP
1	K	274	ASP
1	K	283	THR
1	K	292	PHE
1	K	295	PRO
1	K	298	SER
1	K	308	ASN
1	K	315	ARG
1	K	317	GLN
1	K	329	LEU
1	K	330	PHE
1	K	332	THR
1	K	337	THR
1	K	338	ARG
1	K	341	ASN
1	K	342	MET
1	K	344	LEU
1	K	352	GLU
1	K	357	ASN
1	K	358	THR
1	K	395	ASN
1	K	399	LEU
1	K	402	TRP
1	K	442	LYS
1	K	443	LYS
1	K	445	THR
1	K	456	SER
1	K	461	GLN
1	K	464	LEU
1	K	470	LEU
1	L	23	SER

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Mol	Chain	Res	Type
1	L	32	ASN
1	L	52	ILE
1	L	54	LYS
1	L	56	ASN
1	L	57	ASN
1	L	61	LEU
1	L	63	PRO
1	L	66	SER
1	L	71	ARG
1	L	91	TYR
1	L	95	THR
1	L	97	ARG
1	L	117	ILE
1	L	145	GLU
1	L	149	MET
1	L	154	THR
1	L	167	GLU
1	L	175	CYS
1	L	180	VAL
1	L	184	ASP
1	L	187	PRO
1	L	188	LEU
1	L	193	THR
1	L	228	ILE
1	L	229	CYS
1	L	247	PHE
1	L	250	LEU
1	L	252	ARG
1	L	255	MET
1	L	257	VAL
1	L	262	ASN
1	L	288	SER
1	L	291	TYR
1	L	292	PHE
1	L	293	PRO
1	L	299	MET
1	L	306	ILE
1	L	310	PRO
1	L	315	ARG
1	L	317	GLN
1	L	329	LEU
1	L	332	THR

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Mol	Chain	Res	Type
1	L	337	THR
1	L	341	ASN
1	L	345	CYS
1	L	349	SER
1	L	352	GLU
1	L	353	THR
1	L	372	LEU
1	L	384	THR
1	L	388	MET
1	L	395	ASN
1	L	443	LYS
1	L	472	LEU
1	M	32	ASN
1	M	51	PRO
1	M	54	LYS
1	M	57	ASN
1	M	63	PRO
1	M	64	LYS
1	M	66	SER
1	M	71	ARG
1	M	91	TYR
1	M	97	ARG
1	M	117	ILE
1	M	129	THR
1	M	145	GLU
1	M	149	MET
1	M	156	LEU
1	M	157	CYS
1	M	173	SER
1	M	175	CYS
1	M	180	VAL
1	M	182	PRO
1	M	184	ASP
1	M	187	PRO
1	M	188	LEU
1	M	193	THR
1	M	219	GLU
1	M	222	LEU
1	M	223	ASP
1	M	224	ILE
1	M	225	CYS
1	M	244	ASP

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Mol	Chain	Res	Type
1	M	247	PHE
1	M	250	LEU
1	M	252	ARG
1	M	254	GLN
1	M	255	MET
1	M	257	VAL
1	M	262	ASN
1	M	273	ASP
1	M	274	ASP
1	M	280	SER
1	M	290	ASN
1	M	293	PRO
1	M	303	ASP
1	M	308	ASN
1	M	315	ARG
1	M	317	GLN
1	M	329	LEU
1	M	332	THR
1	M	336	THR
1	M	338	ARG
1	M	341	ASN
1	M	344	LEU
1	M	345	CYS
1	M	352	GLU
1	M	353	THR
1	M	395	ASN
1	M	399	LEU
1	M	443	LYS
1	M	463	PRO
1	M	464	LEU
1	M	470	LEU
1	M	472	LEU
1	N	31	THR
1	N	32	ASN
1	N	43	LEU
1	N	52	ILE
1	N	54	LYS
1	N	56	ASN
1	N	57	ASN
1	N	66	SER
1	N	71	ARG
1	N	87	ASP

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Mol	Chain	Res	Type
1	N	88	THR
1	N	91	TYR
1	N	97	ARG
1	N	115	VAL
1	N	122	LEU
1	N	129	THR
1	N	135	TYR
1	N	145	GLU
1	N	149	MET
1	N	153	GLN
1	N	154	THR
1	N	161	CYS
1	N	173	SER
1	N	174	PRO
1	N	176	THR
1	N	180	VAL
1	N	182	PRO
1	N	184	ASP
1	N	188	LEU
1	N	193	THR
1	N	225	CYS
1	N	227	SER
1	N	228	ILE
1	N	232	PRO
1	N	246	LEU
1	N	247	PHE
1	N	250	LEU
1	N	255	MET
1	N	257	VAL
1	N	262	ASN
1	N	274	ASP
1	N	277	ILE
1	N	292	PHE
1	N	293	PRO
1	N	294	THR
1	N	303	ASP
1	N	308	ASN
1	N	310	PRO
1	N	311	TYR
1	N	315	ARG
1	N	317	GLN
1	N	329	LEU

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Mol	Chain	Res	Type
1	N	332	THR
1	N	336	THR
1	N	341	ASN
1	N	344	LEU
1	N	345	CYS
1	N	352	GLU
1	N	353	THR
1	N	357	ASN
1	N	365	ARG
1	N	384	THR
1	N	386	ASP
1	N	395	ASN
1	N	402	TRP
1	N	443	LYS
1	N	459	LEU
1	N	461	GLN
1	N	464	LEU
1	N	470	LEU
1	N	472	LEU
1	O	31	THR
1	O	32	ASN
1	O	52	ILE
1	O	54	LYS
1	O	56	ASN
1	O	66	SER
1	O	91	TYR
1	O	97	ARG
1	O	117	ILE
1	O	125	LYS
1	O	127	ASP
1	O	129	THR
1	O	135	TYR
1	O	145	GLU
1	O	148	SER
1	O	149	MET
1	O	167	GLU
1	O	173	SER
1	O	175	CYS
1	O	180	VAL
1	O	182	PRO
1	O	184	ASP
1	O	187	PRO

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Mol	Chain	Res	Type
1	O	188	LEU
1	O	193	THR
1	O	222	LEU
1	O	225	CYS
1	O	228	ILE
1	O	229	CYS
1	O	247	PHE
1	O	250	LEU
1	O	252	ARG
1	O	255	MET
1	O	257	VAL
1	O	262	ASN
1	O	273	ASP
1	O	274	ASP
1	O	280	SER
1	O	282	SER
1	O	292	PHE
1	O	294	THR
1	O	295	PRO
1	O	315	ARG
1	O	317	GLN
1	O	329	LEU
1	O	332	THR
1	O	338	ARG
1	O	341	ASN
1	O	344	LEU
1	O	345	CYS
1	O	352	GLU
1	O	357	ASN
1	O	395	ASN
1	O	441	LEU
1	O	442	LYS
1	O	443	LYS
1	O	461	GLN
1	O	464	LEU
1	O	470	LEU
1	O	472	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (238) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	57	ASN

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Mol	Chain	Res	Type
1	A	69	GLN
1	A	92	ASN
1	A	143	ASN
1	A	153	GLN
1	A	168	HIS
1	A	259	HIS
1	A	262	ASN
1	A	290	ASN
1	A	317	GLN
1	A	319	HIS
1	A	327	ASN
1	A	328	GLN
1	A	366	HIS
1	A	377	GLN
1	A	395	ASN
1	A	403	ASN
1	A	450	ASN
1	A	461	GLN
1	B	57	ASN
1	B	69	GLN
1	B	92	ASN
1	B	153	GLN
1	B	192	ASN
1	B	259	HIS
1	B	262	ASN
1	B	290	ASN
1	B	317	GLN
1	B	373	GLN
1	B	377	GLN
1	B	403	ASN
1	B	461	GLN
1	C	57	ASN
1	C	69	GLN
1	C	92	ASN
1	C	153	GLN
1	C	168	HIS
1	C	259	HIS
1	C	262	ASN
1	C	290	ASN
1	C	314	GLN
1	C	317	GLN
1	C	327	ASN

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Mol	Chain	Res	Type
1	C	328	GLN
1	C	377	GLN
1	C	403	ASN
1	D	57	ASN
1	D	69	GLN
1	D	92	ASN
1	D	143	ASN
1	D	153	GLN
1	D	168	HIS
1	D	259	HIS
1	D	262	ASN
1	D	290	ASN
1	D	317	GLN
1	D	341	ASN
1	D	377	GLN
1	D	395	ASN
1	D	403	ASN
1	D	461	GLN
1	E	57	ASN
1	E	69	GLN
1	E	92	ASN
1	E	153	GLN
1	E	168	HIS
1	E	259	HIS
1	E	262	ASN
1	E	290	ASN
1	E	317	GLN
1	E	319	HIS
1	E	377	GLN
1	E	395	ASN
1	E	403	ASN
1	E	461	GLN
1	F	57	ASN
1	F	69	GLN
1	F	92	ASN
1	F	138	ASN
1	F	153	GLN
1	F	155	GLN
1	F	181	GLN
1	F	254	GLN
1	F	259	HIS
1	F	262	ASN

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Mol	Chain	Res	Type
1	F	290	ASN
1	F	317	GLN
1	F	319	HIS
1	F	377	GLN
1	F	395	ASN
1	F	450	ASN
1	F	461	GLN
1	G	57	ASN
1	G	69	GLN
1	G	92	ASN
1	G	138	ASN
1	G	153	GLN
1	G	168	HIS
1	G	181	GLN
1	G	254	GLN
1	G	259	HIS
1	G	262	ASN
1	G	290	ASN
1	G	317	GLN
1	G	319	HIS
1	G	327	ASN
1	G	328	GLN
1	G	341	ASN
1	G	373	GLN
1	G	377	GLN
1	G	395	ASN
1	G	403	ASN
1	G	450	ASN
1	G	461	GLN
1	H	57	ASN
1	H	69	GLN
1	H	92	ASN
1	H	138	ASN
1	H	153	GLN
1	H	259	HIS
1	H	262	ASN
1	H	290	ASN
1	H	317	GLN
1	H	327	ASN
1	H	377	GLN
1	H	395	ASN
1	H	403	ASN

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Mol	Chain	Res	Type
1	H	461	GLN
1	I	57	ASN
1	I	69	GLN
1	I	92	ASN
1	I	138	ASN
1	I	153	GLN
1	I	168	HIS
1	I	259	HIS
1	I	262	ASN
1	I	290	ASN
1	I	327	ASN
1	I	403	ASN
1	I	461	GLN
1	J	57	ASN
1	J	69	GLN
1	J	138	ASN
1	J	153	GLN
1	J	168	HIS
1	J	192	ASN
1	J	254	GLN
1	J	259	HIS
1	J	262	ASN
1	J	305	GLN
1	J	317	GLN
1	J	319	HIS
1	J	327	ASN
1	J	341	ASN
1	J	395	ASN
1	J	403	ASN
1	J	461	GLN
1	K	57	ASN
1	K	69	GLN
1	K	92	ASN
1	K	138	ASN
1	K	153	GLN
1	K	155	GLN
1	K	168	HIS
1	K	192	ASN
1	K	259	HIS
1	K	262	ASN
1	K	317	GLN
1	K	319	HIS

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Mol	Chain	Res	Type
1	K	341	ASN
1	K	395	ASN
1	K	403	ASN
1	K	450	ASN
1	K	461	GLN
1	L	32	ASN
1	L	57	ASN
1	L	69	GLN
1	L	92	ASN
1	L	138	ASN
1	L	153	GLN
1	L	192	ASN
1	L	262	ASN
1	L	290	ASN
1	L	305	GLN
1	L	317	GLN
1	L	341	ASN
1	L	403	ASN
1	L	461	GLN
1	M	57	ASN
1	M	69	GLN
1	M	92	ASN
1	M	138	ASN
1	M	181	GLN
1	M	192	ASN
1	M	259	HIS
1	M	262	ASN
1	M	290	ASN
1	M	317	GLN
1	M	319	HIS
1	M	328	GLN
1	M	341	ASN
1	M	395	ASN
1	M	403	ASN
1	M	461	GLN
1	N	32	ASN
1	N	57	ASN
1	N	69	GLN
1	N	92	ASN
1	N	96	GLN
1	N	138	ASN
1	N	153	GLN

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Mol	Chain	Res	Type
1	N	168	HIS
1	N	181	GLN
1	N	254	GLN
1	N	259	HIS
1	N	262	ASN
1	N	290	ASN
1	N	317	GLN
1	N	377	GLN
1	N	395	ASN
1	N	403	ASN
1	N	461	GLN
1	O	57	ASN
1	O	69	GLN
1	O	92	ASN
1	O	138	ASN
1	O	153	GLN
1	O	168	HIS
1	O	181	GLN
1	O	262	ASN
1	O	305	GLN
1	O	317	GLN
1	O	319	HIS
1	O	341	ASN
1	O	377	GLN
1	O	395	ASN
1	O	403	ASN
1	O	450	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 ⓘ

There are no ligands in this entry.

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	419/424 (98%)	-0.21	0 100 100	40, 77, 111, 122	0
1	B	419/424 (98%)	-0.21	1 (0%) 93 86	36, 76, 109, 131	0
1	C	419/424 (98%)	-0.17	2 (0%) 88 73	44, 79, 110, 121	0
1	D	419/424 (98%)	-0.18	3 (0%) 84 66	37, 78, 109, 130	0
1	E	419/424 (98%)	-0.16	3 (0%) 84 66	41, 79, 114, 128	0
1	F	419/424 (98%)	-0.15	3 (0%) 84 66	40, 80, 111, 131	0
1	G	419/424 (98%)	-0.14	1 (0%) 93 86	46, 83, 112, 135	0
1	H	419/424 (98%)	-0.16	4 (0%) 79 57	34, 78, 111, 136	0
1	I	419/424 (98%)	-0.13	2 (0%) 88 73	48, 82, 113, 132	0
1	J	419/424 (98%)	-0.14	3 (0%) 84 66	43, 79, 111, 134	0
1	K	419/424 (98%)	-0.23	0 100 100	35, 76, 109, 129	0
1	L	419/424 (98%)	-0.22	1 (0%) 93 86	38, 73, 108, 137	0
1	M	419/424 (98%)	-0.21	0 100 100	43, 75, 108, 133	0
1	N	419/424 (98%)	-0.15	1 (0%) 93 86	45, 80, 112, 128	0
1	O	419/424 (98%)	-0.13	4 (0%) 79 57	45, 82, 112, 133	0
All	All	6285/6360 (98%)	-0.17	28 (0%) 90 78	34, 78, 111, 137	0

All (28) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	H	179	ALA	4.9
1	D	175	CYS	3.8
1	J	438	GLU	3.8
1	I	174	PRO	3.8
1	D	174	PRO	3.7
1	L	403	ASN	3.4
1	H	175	CYS	3.4

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Mol	Chain	Res	Type	RSRZ
1	O	176	THR	3.3
1	O	403	ASN	3.3
1	H	178	VAL	3.3
1	F	175	CYS	3.2
1	C	175	CYS	3.1
1	O	438	GLU	3.0
1	I	175	CYS	2.6
1	H	58	ASN	2.6
1	F	176	THR	2.5
1	G	176	THR	2.4
1	E	56	ASN	2.4
1	D	55	PRO	2.3
1	O	439	ASP	2.3
1	J	55	PRO	2.2
1	J	177	GLN	2.1
1	N	114	GLY	2.1
1	C	176	THR	2.1
1	E	438	GLU	2.1
1	F	177	GLN	2.0
1	B	403	ASN	2.0
1	E	55	PRO	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 ⓘ

There are no ligands in this entry.

6.5 Other polymers ⓘ

There are no such residues in this entry.