



Full wwPDB X-ray Structure Validation Report ⓘ

May 15, 2020 – 02:51 am BST

PDB ID : 1L1F
Title : Structure of human glutamate dehydrogenase-apo form
Authors : Smith, T.J.; Schmidt, T.; Fang, J.; Wu, J.; Siuzdak, G.; Stanley, C.A.
Deposited on : 2002-02-15
Resolution : 2.70 Å(reported)

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

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

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Xtrriage (Phenix) : **NOT EXECUTED**
EDS : **NOT EXECUTED**
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.11

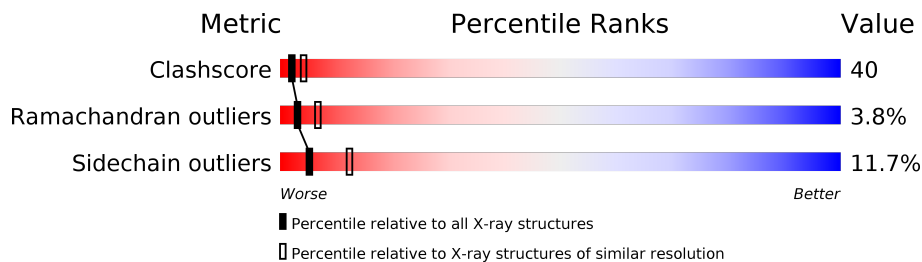
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.70 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))
Clashscore	141614	3122 (2.70-2.70)
Ramachandran outliers	138981	3069 (2.70-2.70)
Sidechain outliers	138945	3069 (2.70-2.70)

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

Note EDS was not executed.

Mol	Chain	Length	Quality of chain
1	A	505	43% 46% 8% ..
1	B	505	41% 48% 9% ..
1	C	505	40% 49% 9% ..
1	D	505	43% 46% 9% ..
1	E	505	43% 45% 9% ..
1	F	505	43% 46% 8% ..

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 23244 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Glutamate Dehydrogenase 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	496	3874	2450	679	726	19	0	0	0
1	B	496	3874	2450	679	726	19	0	0	0
1	C	496	3874	2450	679	726	19	0	0	0
1	D	496	3874	2450	679	726	19	0	0	0
1	E	496	3874	2450	679	726	19	0	0	0
1	F	496	3874	2450	679	726	19	0	0	0

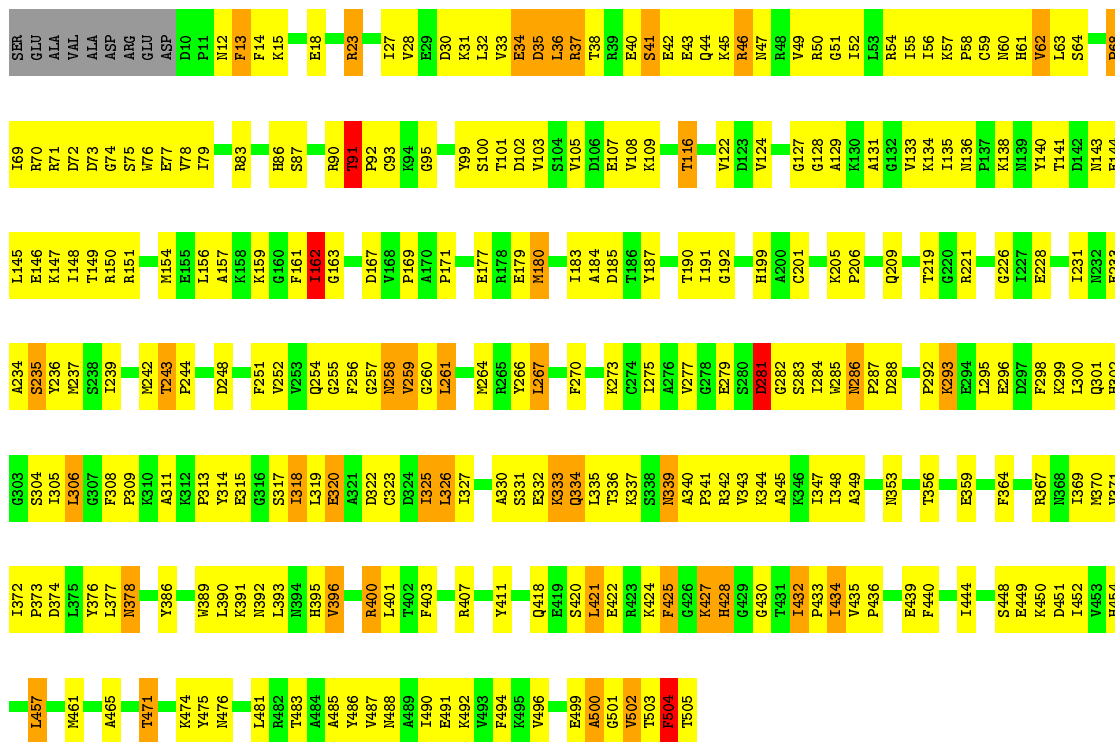
3 Residue-property plots

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

Note EDS was not executed.

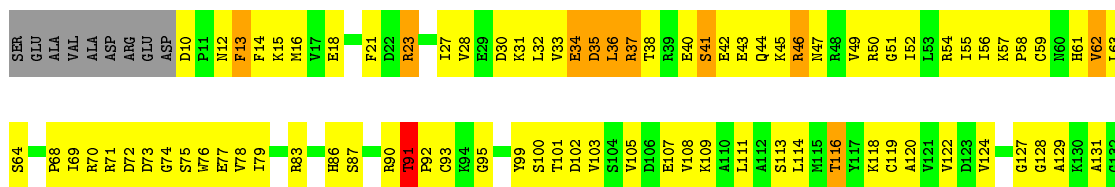
- Molecule 1: Glutamate Dehydrogenase 1

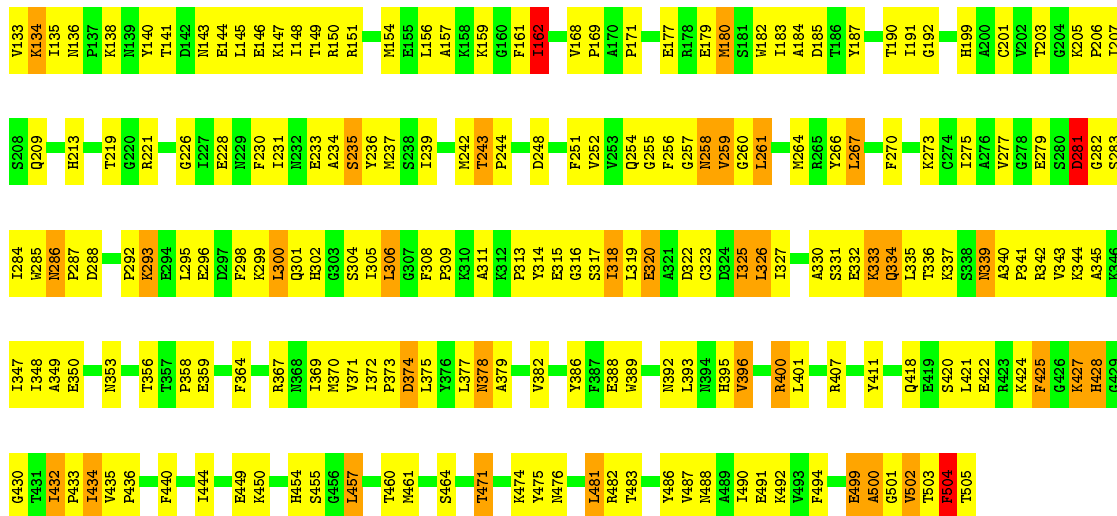
Chain A: 



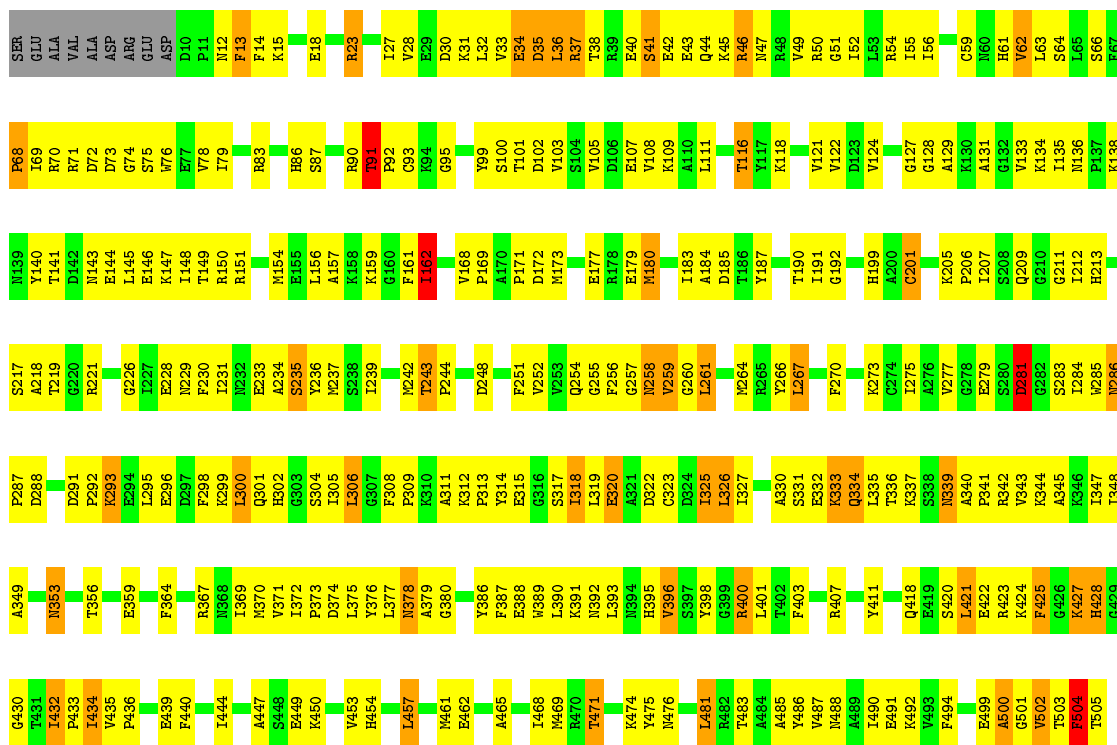
- Molecule 1: Glutamate Dehydrogenase 1

Chain B: 

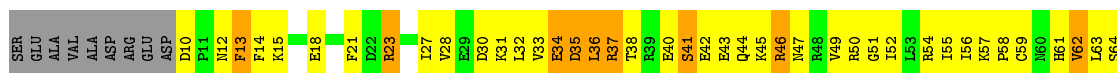




• Molecule 1: Glutamate Dehydrogenase 1



• Molecule 1: Glutamate Dehydrogenase 1



H454	V371	G808	A234	E144	P68	SER
L457	I372	S304	S235	L145	I69	GLU
E462	P373	I305	Y236	E146	R70	ALA
R463	D374	L306	M237	K147	R71	VAL
S464	L375	G307	S238	K148	D72	ALA
A465	Y376	F308	I239	T149	D73	ASP
T471	L377	P309	L240	R150	G74	ARG
K474	M378	K310	M242	R151	S75	GLU
Y475	A379	A311	T243	M154	W76	ASP
M476	Y386	K312	P244	E155	E77	D10
L481	H389	P313	D248	L156	V78	P11
R482	L390	E315	F251	A157	V78	M12
T483	K391	S317	V252	K158	I79	F14
A484	N392	I318	V253	K159	H86	K15
A485	L393	L319	Q254	G160	S87	E18
Y486	N394	E320	G255	F161	R90	E18
V487	H395	A321	F256	I162	R91	R23
N488	V396	D322	G257	P169	P92	I27
A489	R400	C323	N258	A170	C93	V28
I490	L401	I325	V259	P171	K94	E29
E491	T402	L326	G260	E177	G95	D30
K492	F403	I327	L261	E178	Y99	K31
F494	R407	P328	M264	E179	S100	L32
E499	Y411	A329	R265	M180	T101	L33
A500	Q418	A330	Y266	I183	D102	V33
G501	E419	S331	L267	I184	D103	E34
V502	L421	E332	F270	D185	V103	D35
T503	S420	K333	K273	I186	S104	L36
F504	E422	Q334	C274	Y187	R37	R37
T505	L424	L335	I275	T190	V105	T38
	K425	T336	I276	I191	D106	R39
	F425	K337	G277	G192	E107	S41
	G426	M338	V277	H199	K109	E42
	K427	A340	E279	G201	T116	E43
	H428	P341	S280	A200	Y117	Q44
	G429	R342	D281	C201	K118	K45
	G430	V343	G282	K205	V122	R48
	T431	K344	S283	P206	D123	V49
	I432	A345	I284	Q209	V124	R50
	P433	K346	M285	G127	G127	G51
	V435	I347	N286	G128	G128	I53
	P436	A349	D288	A129	R54	I55
	E439	M353	P292	K130	I55	I56
	F440	T356	K293	A131	G132	I56
	I444	E359	E294	V133	C59	C59
	A447	F364	L295	K134	N60	N60
	S448	R367	E296	I227	H61	H61
	E449	M368	D297	E228	V62	V62
	K450	I369	F298	N229	P137	L63
		M370	K299	F230	K138	S64
			L300	I231	M139	L65
			Q301	N232	Y140	S66
			H302	E233	T141	F67

4 Data and refinement statistics

Xtrriage (Phenix) and EDS were not executed - this section is therefore incomplete.

Property	Value	Source
Space group	P 1	Depositor
Cell constants a, b, c, α , β , γ	97.80Å 98.80Å 124.20Å 86.26° 70.28° 60.34°	Depositor
Resolution (Å)	8.00 – 2.70	Depositor
% Data completeness (in resolution range)	(Not available) (8.00-2.70)	Depositor
R_{merge}	(Not available)	Depositor
R_{sym}	0.05	Depositor
Refinement program		Depositor
R, R_{free}	0.262 , 0.302	Depositor
Estimated twinning fraction	No twinning to report.	Xtrriage
Total number of atoms	23244	wwPDB-VP
Average B, all atoms (Å ²)	53.0	wwPDB-VP

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	0.62	1/3958 (0.0%)	0.82	3/5340 (0.1%)
1	B	0.63	1/3958 (0.0%)	0.82	5/5340 (0.1%)
1	C	0.65	2/3958 (0.1%)	0.82	4/5340 (0.1%)
1	D	0.62	1/3958 (0.0%)	0.82	5/5340 (0.1%)
1	E	0.62	1/3958 (0.0%)	0.82	4/5340 (0.1%)
1	F	0.62	2/3958 (0.1%)	0.82	5/5340 (0.1%)
All	All	0.63	8/23748 (0.0%)	0.82	26/32040 (0.1%)

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	59	CYS	CB-SG	8.91	1.97	1.82
1	C	59	CYS	CB-SG	8.33	1.96	1.82
1	A	59	CYS	CB-SG	7.79	1.95	1.82
1	B	59	CYS	CB-SG	7.48	1.95	1.82
1	F	201	CYS	CB-SG	-7.10	1.70	1.82
1	E	59	CYS	CB-SG	6.18	1.92	1.82
1	C	201	CYS	CB-SG	-6.09	1.71	1.82
1	F	59	CYS	CB-SG	5.80	1.92	1.82

All (26) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	504	PHE	N-CA-C	-7.28	91.34	111.00
1	C	504	PHE	N-CA-C	-7.28	91.35	111.00
1	B	504	PHE	N-CA-C	-7.27	91.38	111.00
1	F	504	PHE	N-CA-C	-7.25	91.43	111.00
1	D	504	PHE	N-CA-C	-7.19	91.60	111.00
1	A	504	PHE	N-CA-C	-7.17	91.64	111.00
1	D	326	LEU	CA-CB-CG	6.70	130.71	115.30
1	C	326	LEU	CA-CB-CG	6.64	130.58	115.30
1	E	326	LEU	CA-CB-CG	6.63	130.55	115.30
1	F	326	LEU	CA-CB-CG	6.63	130.54	115.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	326	LEU	CA-CB-CG	6.60	130.47	115.30
1	B	326	LEU	CA-CB-CG	6.58	130.43	115.30
1	B	91	THR	N-CA-C	6.03	127.29	111.00
1	C	91	THR	N-CA-C	6.02	127.25	111.00
1	F	91	THR	N-CA-C	5.93	127.03	111.00
1	A	91	THR	N-CA-C	5.87	126.85	111.00
1	E	91	THR	N-CA-C	5.86	126.83	111.00
1	D	91	THR	N-CA-C	5.84	126.77	111.00
1	F	66	SER	N-CA-C	-5.11	97.21	111.00
1	B	316	GLY	N-CA-C	-5.09	100.38	113.10
1	E	66	SER	N-CA-C	-5.08	97.27	111.00
1	D	66	SER	N-CA-C	-5.06	97.35	111.00
1	F	316	GLY	N-CA-C	-5.05	100.47	113.10
1	B	374	ASP	CB-CG-OD2	5.04	122.84	118.30
1	D	316	GLY	N-CA-C	-5.03	100.53	113.10
1	C	66	SER	N-CA-C	-5.01	97.48	111.00

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3874	0	3841	316	0
1	B	3874	0	3841	333	0
1	C	3874	0	3841	366	0
1	D	3874	0	3841	326	0
1	E	3874	0	3841	341	0
1	F	3874	0	3841	324	0
All	All	23244	0	23046	1865	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 40.

All (1865) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:285:TRP:HB2	1:C:314:TYR:HB2	1.31	1.13
1:E:285:TRP:HB2	1:E:314:TYR:HB2	1.30	1.12
1:F:285:TRP:HB2	1:F:314:TYR:HB2	1.29	1.09
1:A:285:TRP:HB2	1:A:314:TYR:HB2	1.30	1.08
1:B:285:TRP:HB2	1:B:314:TYR:HB2	1.29	1.08
1:D:285:TRP:HB2	1:D:314:TYR:HB2	1.29	1.06
1:C:427:LYS:HD3	1:C:430:GLY:HA3	1.45	0.99
1:E:427:LYS:HD3	1:E:430:GLY:HA3	1.45	0.98
1:A:99:TYR:OH	1:A:149:THR:HG22	1.63	0.98
1:F:427:LYS:HD3	1:F:430:GLY:HA3	1.46	0.98
1:A:427:LYS:HD3	1:A:430:GLY:HA3	1.46	0.97
1:D:427:LYS:HD3	1:D:430:GLY:HA3	1.47	0.96
1:C:99:TYR:OH	1:C:149:THR:HG22	1.65	0.95
1:B:427:LYS:HD3	1:B:430:GLY:HA3	1.46	0.94
1:E:99:TYR:OH	1:E:149:THR:HG22	1.69	0.93
1:B:99:TYR:OH	1:B:149:THR:HG22	1.68	0.93
1:F:99:TYR:OH	1:F:149:THR:HG22	1.68	0.93
1:E:41:SER:HA	1:E:46:ARG:HD2	1.50	0.93
1:C:61:HIS:HD2	1:F:159:LYS:HE3	1.33	0.93
1:A:40:GLU:HG3	1:A:46:ARG:HH12	1.35	0.92
1:D:41:SER:HA	1:D:46:ARG:HD2	1.50	0.92
1:F:41:SER:HA	1:F:46:ARG:HD2	1.50	0.92
1:B:41:SER:HA	1:B:46:ARG:HD2	1.51	0.92
1:C:159:LYS:HE3	1:F:61:HIS:HD2	1.35	0.92
1:F:40:GLU:HG3	1:F:46:ARG:HH12	1.35	0.92
1:E:327:ILE:HG22	1:E:349:ALA:HB3	1.53	0.91
1:C:40:GLU:HG3	1:C:46:ARG:HH12	1.35	0.91
1:A:327:ILE:HG22	1:A:349:ALA:HB3	1.53	0.91
1:C:41:SER:HA	1:C:46:ARG:HD2	1.50	0.91
1:B:327:ILE:HG22	1:B:349:ALA:HB3	1.53	0.91
1:A:41:SER:HA	1:A:46:ARG:HD2	1.51	0.90
1:D:99:TYR:OH	1:D:149:THR:HG22	1.67	0.90
1:E:40:GLU:HG3	1:E:46:ARG:HH12	1.36	0.90
1:E:83:ARG:HD2	1:E:131:ALA:HB2	1.54	0.90
1:A:83:ARG:HD2	1:A:131:ALA:HB2	1.53	0.89
1:B:40:GLU:HG3	1:B:46:ARG:HH12	1.36	0.89
1:F:83:ARG:HD2	1:F:131:ALA:HB2	1.53	0.89
1:C:83:ARG:HD2	1:C:131:ALA:HB2	1.55	0.89
1:F:327:ILE:HG22	1:F:349:ALA:HB3	1.53	0.89
1:D:327:ILE:HG22	1:D:349:ALA:HB3	1.53	0.89
1:D:40:GLU:HG3	1:D:46:ARG:HH12	1.35	0.89
1:E:427:LYS:HA	1:E:427:LYS:HE2	1.54	0.89

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:427:LYS:HE2	1:F:427:LYS:HA	1.55	0.88
1:D:83:ARG:HD2	1:D:131:ALA:HB2	1.54	0.88
1:C:427:LYS:HE2	1:C:427:LYS:HA	1.54	0.88
1:B:83:ARG:HD2	1:B:131:ALA:HB2	1.54	0.87
1:D:427:LYS:HE2	1:D:427:LYS:HA	1.54	0.87
1:D:325:ILE:HG22	1:D:347:ILE:HB	1.56	0.87
1:B:427:LYS:HA	1:B:427:LYS:HE2	1.55	0.87
1:B:61:HIS:HD2	1:D:159:LYS:HE3	1.39	0.87
1:F:325:ILE:HG22	1:F:347:ILE:HB	1.56	0.87
1:A:325:ILE:HG22	1:A:347:ILE:HB	1.56	0.86
1:C:325:ILE:HG22	1:C:347:ILE:HB	1.57	0.86
1:C:327:ILE:HG22	1:C:349:ALA:HB3	1.54	0.86
1:C:159:LYS:HE3	1:F:61:HIS:CD2	2.11	0.86
1:A:427:LYS:HA	1:A:427:LYS:HE2	1.55	0.86
1:A:159:LYS:HE3	1:E:61:HIS:HD2	1.41	0.85
1:E:325:ILE:HG22	1:E:347:ILE:HB	1.56	0.85
1:D:145:LEU:O	1:D:149:THR:HG23	1.76	0.85
1:C:145:LEU:O	1:C:149:THR:HG23	1.77	0.85
1:B:418:GLN:HB2	1:B:433:PRO:HD2	1.60	0.84
1:C:61:HIS:CD2	1:F:159:LYS:HE3	2.11	0.84
1:F:145:LEU:O	1:F:149:THR:HG23	1.76	0.84
1:B:159:LYS:HE3	1:D:61:HIS:HD2	1.40	0.84
1:D:146:GLU:O	1:D:150:ARG:HG3	1.77	0.84
1:C:376:TYR:OH	1:C:465:ALA:HB2	1.77	0.83
1:C:13:PHE:HD1	1:C:14:PHE:N	1.77	0.82
1:E:486:TYR:O	1:E:490:ILE:HG12	1.79	0.82
1:D:147:LYS:HD2	1:D:151:ARG:HH21	1.44	0.82
1:E:146:GLU:O	1:E:150:ARG:HG3	1.79	0.82
1:E:418:GLN:HB2	1:E:433:PRO:HD2	1.61	0.82
1:A:418:GLN:HB2	1:A:433:PRO:HD2	1.62	0.82
1:F:13:PHE:HD1	1:F:14:PHE:N	1.77	0.82
1:B:13:PHE:HD1	1:B:14:PHE:N	1.78	0.82
1:E:147:LYS:HD2	1:E:151:ARG:HH21	1.45	0.82
1:A:145:LEU:O	1:A:149:THR:HG23	1.80	0.82
1:B:147:LYS:HD2	1:B:151:ARG:HH21	1.45	0.82
1:B:325:ILE:HG22	1:B:347:ILE:HB	1.58	0.82
1:B:86:HIS:CD2	1:B:116:THR:HG21	2.14	0.82
1:D:13:PHE:HD1	1:D:14:PHE:N	1.77	0.82
1:C:229:ASN:OD1	1:C:462:GLU:HG3	1.78	0.82
1:D:486:TYR:O	1:D:490:ILE:HG12	1.79	0.82
1:E:13:PHE:HD1	1:E:14:PHE:N	1.78	0.82

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:86:HIS:CD2	1:E:116:THR:HG21	2.14	0.82
1:F:147:LYS:HD2	1:F:151:ARG:HH21	1.45	0.81
1:F:486:TYR:O	1:F:490:ILE:HG12	1.80	0.81
1:B:145:LEU:O	1:B:149:THR:HG23	1.79	0.81
1:C:38:THR:HG23	1:C:41:SER:HB3	1.62	0.81
1:E:145:LEU:O	1:E:149:THR:HG23	1.79	0.81
1:A:13:PHE:HD1	1:A:14:PHE:N	1.77	0.81
1:E:38:THR:HG23	1:E:41:SER:HB3	1.62	0.81
1:F:146:GLU:O	1:F:150:ARG:HG3	1.79	0.81
1:A:146:GLU:O	1:A:150:ARG:HG3	1.81	0.81
1:A:38:THR:HG23	1:A:41:SER:HB3	1.63	0.81
1:D:418:GLN:HB2	1:D:433:PRO:HD2	1.61	0.81
1:A:86:HIS:CD2	1:A:116:THR:HG21	2.16	0.81
1:A:486:TYR:O	1:A:490:ILE:HG12	1.80	0.81
1:F:38:THR:HG23	1:F:41:SER:HB3	1.63	0.81
1:C:116:THR:HG22	1:C:128:GLY:HA3	1.63	0.81
1:A:61:HIS:HD2	1:E:159:LYS:HE3	1.47	0.80
1:C:486:TYR:O	1:C:490:ILE:HG12	1.81	0.80
1:B:486:TYR:O	1:B:490:ILE:HG12	1.81	0.80
1:D:38:THR:HG23	1:D:41:SER:HB3	1.63	0.80
1:C:147:LYS:HD2	1:C:151:ARG:HH21	1.45	0.80
1:D:86:HIS:CD2	1:D:116:THR:HG21	2.17	0.80
1:F:63:LEU:HD22	1:F:161:PHE:CD2	2.16	0.80
1:F:418:GLN:HB2	1:F:433:PRO:HD2	1.63	0.80
1:F:86:HIS:CD2	1:F:116:THR:HG21	2.16	0.80
1:A:147:LYS:HD2	1:A:151:ARG:HH21	1.45	0.80
1:A:116:THR:HG22	1:A:128:GLY:HA3	1.64	0.80
1:B:146:GLU:O	1:B:150:ARG:HG3	1.82	0.80
1:C:146:GLU:O	1:C:150:ARG:HG3	1.82	0.80
1:C:63:LEU:HD22	1:C:161:PHE:CD2	2.17	0.80
1:B:285:TRP:CB	1:B:314:TYR:HB2	2.11	0.79
1:B:38:THR:HG23	1:B:41:SER:HB3	1.63	0.79
1:D:285:TRP:CB	1:D:314:TYR:HB2	2.12	0.79
1:E:63:LEU:HD22	1:E:161:PHE:CD2	2.17	0.79
1:B:77:GLU:HA	1:D:54:ARG:NH1	1.97	0.79
1:D:505:THR:HG23	1:E:185:ASP:OD1	1.82	0.79
1:F:221:ARG:HD2	1:F:454:HIS:NE2	1.97	0.79
1:C:86:HIS:CD2	1:C:116:THR:HG21	2.16	0.79
1:E:285:TRP:CB	1:E:314:TYR:HB2	2.12	0.79
1:A:281:ASP:HB2	1:A:306:LEU:HD11	1.64	0.79
1:C:281:ASP:HB2	1:C:306:LEU:HD11	1.63	0.79

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:281:ASP:HB2	1:D:306:LEU:HD11	1.64	0.79
1:B:281:ASP:HB2	1:B:306:LEU:HD11	1.64	0.78
1:D:63:LEU:HD22	1:D:161:PHE:CD2	2.19	0.78
1:A:13:PHE:HD1	1:A:14:PHE:H	1.32	0.78
1:F:116:THR:HG22	1:F:128:GLY:HA3	1.66	0.78
1:F:281:ASP:HB2	1:F:306:LEU:HD11	1.65	0.78
1:B:63:LEU:HD22	1:B:161:PHE:CD2	2.18	0.78
1:C:418:GLN:HB2	1:C:433:PRO:HD2	1.64	0.78
1:B:61:HIS:CD2	1:D:159:LYS:HE3	2.19	0.77
1:C:221:ARG:HD2	1:C:454:HIS:CD2	2.20	0.77
1:D:116:THR:HG22	1:D:128:GLY:HA3	1.66	0.77
1:A:71:ARG:HH11	1:A:71:ARG:HB3	1.50	0.77
1:D:13:PHE:HD1	1:D:14:PHE:H	1.32	0.77
1:B:13:PHE:HD1	1:B:14:PHE:H	1.32	0.77
1:A:285:TRP:CB	1:A:314:TYR:HB2	2.13	0.77
1:A:63:LEU:HD22	1:A:161:PHE:CD2	2.21	0.76
1:E:116:THR:HG22	1:E:128:GLY:HA3	1.67	0.76
1:D:71:ARG:HH11	1:D:71:ARG:HB3	1.51	0.76
1:E:71:ARG:HB3	1:E:71:ARG:HH11	1.50	0.76
1:E:340:ALA:HB3	1:E:341:PRO:HD3	1.67	0.76
1:B:116:THR:HG22	1:B:128:GLY:HA3	1.65	0.76
1:C:504:PHE:CZ	1:F:151:ARG:NH2	2.52	0.76
1:E:281:ASP:HB2	1:E:306:LEU:HD11	1.64	0.76
1:B:340:ALA:HB3	1:B:341:PRO:HD3	1.66	0.76
1:F:13:PHE:HD1	1:F:14:PHE:H	1.31	0.76
1:A:159:LYS:HE3	1:E:61:HIS:CD2	2.20	0.75
1:B:71:ARG:HH11	1:B:71:ARG:HB3	1.51	0.75
1:C:285:TRP:CB	1:C:314:TYR:HB2	2.13	0.75
1:C:71:ARG:HB3	1:C:71:ARG:HH11	1.51	0.75
1:E:13:PHE:HD1	1:E:14:PHE:H	1.32	0.75
1:B:159:LYS:HE3	1:D:61:HIS:CD2	2.22	0.75
1:D:340:ALA:HB3	1:D:341:PRO:HD3	1.68	0.75
1:E:221:ARG:HD2	1:E:454:HIS:NE2	2.01	0.75
1:F:434:ILE:O	1:F:436:PRO:HD3	1.87	0.74
1:A:340:ALA:HB3	1:A:341:PRO:HD3	1.69	0.74
1:F:285:TRP:CB	1:F:314:TYR:HB2	2.12	0.74
1:C:13:PHE:HD1	1:C:14:PHE:H	1.32	0.74
1:F:71:ARG:HB3	1:F:71:ARG:HH11	1.52	0.74
1:C:434:ILE:O	1:C:436:PRO:HD3	1.88	0.74
1:A:434:ILE:O	1:A:436:PRO:HD3	1.87	0.74
1:F:340:ALA:HB3	1:F:341:PRO:HD3	1.67	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:502:VAL:HG11	1:E:76:TRP:CD1	2.23	0.74
1:C:340:ALA:HB3	1:C:341:PRO:HD3	1.69	0.73
1:E:243:THR:N	1:E:244:PRO:HD3	2.03	0.73
1:A:251:PHE:HB3	1:A:325:ILE:HG13	1.69	0.73
1:B:284:ILE:HG23	1:B:311:ALA:HB1	1.71	0.73
1:B:251:PHE:HB3	1:B:325:ILE:HG13	1.69	0.73
1:B:434:ILE:O	1:B:436:PRO:HD3	1.89	0.73
1:C:420:SER:CB	1:E:433:PRO:HA	2.19	0.73
1:D:434:ILE:O	1:D:436:PRO:HD3	1.89	0.73
1:E:251:PHE:HB3	1:E:325:ILE:HG13	1.70	0.73
1:E:434:ILE:O	1:E:436:PRO:HD3	1.88	0.73
1:D:23:ARG:HE	1:D:27:ILE:HD11	1.54	0.73
1:D:318:ILE:H	1:D:318:ILE:HD13	1.54	0.73
1:C:23:ARG:HE	1:C:27:ILE:HD11	1.54	0.72
1:D:190:THR:HG23	1:F:190:THR:HG23	1.71	0.72
1:E:318:ILE:HD13	1:E:318:ILE:H	1.54	0.72
1:A:190:THR:HG23	1:C:190:THR:HG23	1.69	0.72
1:D:251:PHE:HB3	1:D:325:ILE:HG13	1.70	0.72
1:D:284:ILE:HG23	1:D:311:ALA:HB1	1.70	0.72
1:C:284:ILE:HG23	1:C:311:ALA:HB1	1.71	0.72
1:A:318:ILE:H	1:A:318:ILE:HD13	1.55	0.72
1:F:43:GLU:HB3	1:F:45:LYS:HG3	1.72	0.72
1:F:318:ILE:H	1:F:318:ILE:HD13	1.55	0.72
1:B:318:ILE:HD13	1:B:318:ILE:H	1.53	0.72
1:E:284:ILE:HG23	1:E:311:ALA:HB1	1.71	0.72
1:D:243:THR:N	1:D:244:PRO:HD3	2.05	0.71
1:B:502:VAL:HG23	1:B:503:THR:H	1.56	0.71
1:E:502:VAL:HG23	1:E:503:THR:H	1.56	0.71
1:F:243:THR:N	1:F:244:PRO:HD3	2.05	0.71
1:F:251:PHE:HB3	1:F:325:ILE:HG13	1.70	0.71
1:B:505:THR:HG23	1:F:185:ASP:OD1	1.90	0.71
1:A:279:GLU:HG3	1:A:305:ILE:HG13	1.73	0.71
1:B:27:ILE:HG22	1:B:475:TYR:CD1	2.24	0.71
1:E:69:ILE:HA	1:E:151:ARG:NH1	2.06	0.71
1:B:23:ARG:HE	1:B:27:ILE:HD11	1.56	0.71
1:E:43:GLU:HB3	1:E:45:LYS:HG3	1.72	0.71
1:A:23:ARG:HE	1:A:27:ILE:HD11	1.56	0.71
1:F:502:VAL:HG23	1:F:503:THR:H	1.55	0.71
1:B:190:THR:HG23	1:E:190:THR:HG23	1.73	0.71
1:B:243:THR:N	1:B:244:PRO:HD3	2.04	0.71
1:C:118:LYS:NZ	1:C:353:ASN:HD21	1.89	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:502:VAL:HG23	1:D:503:THR:H	1.55	0.71
1:C:243:THR:N	1:C:244:PRO:HD3	2.05	0.71
1:A:502:VAL:HG23	1:A:503:THR:H	1.55	0.71
1:A:43:GLU:HB3	1:A:45:LYS:HG3	1.73	0.70
1:C:43:GLU:HB3	1:C:45:LYS:HG3	1.73	0.70
1:A:243:THR:N	1:A:244:PRO:HD3	2.05	0.70
1:F:69:ILE:HA	1:F:151:ARG:NH1	2.07	0.70
1:C:221:ARG:HD2	1:C:454:HIS:NE2	2.06	0.70
1:C:251:PHE:HB3	1:C:325:ILE:HG13	1.73	0.70
1:D:279:GLU:HG3	1:D:305:ILE:HG13	1.72	0.70
1:A:284:ILE:HG23	1:A:311:ALA:HB1	1.72	0.70
1:F:23:ARG:HE	1:F:27:ILE:HD11	1.56	0.70
1:C:502:VAL:HG23	1:C:503:THR:H	1.56	0.69
1:F:284:ILE:HG23	1:F:311:ALA:HB1	1.73	0.69
1:B:279:GLU:HG3	1:B:305:ILE:HG13	1.74	0.69
1:B:43:GLU:HB3	1:B:45:LYS:HG3	1.73	0.69
1:E:23:ARG:HE	1:E:27:ILE:HD11	1.56	0.69
1:F:425:PHE:HD1	1:F:427:LYS:HB2	1.57	0.69
1:B:69:ILE:HA	1:B:151:ARG:NH1	2.07	0.69
1:A:61:HIS:CD2	1:E:159:LYS:HE3	2.28	0.69
1:B:78:VAL:N	1:D:54:ARG:HH12	1.91	0.69
1:F:285:TRP:HB2	1:F:314:TYR:CB	2.17	0.69
1:A:179:GLU:O	1:A:183:ILE:HG13	1.92	0.69
1:C:318:ILE:HD13	1:C:318:ILE:H	1.58	0.69
1:D:43:GLU:HB3	1:D:45:LYS:HG3	1.73	0.69
1:C:279:GLU:HG3	1:C:305:ILE:HG13	1.73	0.69
1:D:69:ILE:HA	1:D:151:ARG:NH1	2.08	0.69
1:F:229:ASN:OD1	1:F:462:GLU:HG3	1.93	0.69
1:B:343:VAL:HG21	1:B:364:PHE:HE1	1.58	0.69
1:D:28:VAL:CG2	1:D:487:VAL:HG13	2.23	0.69
1:E:279:GLU:HG3	1:E:305:ILE:HG13	1.73	0.69
1:C:116:THR:HG22	1:C:128:GLY:CA	2.22	0.68
1:D:179:GLU:O	1:D:183:ILE:HG13	1.94	0.68
1:D:336:THR:H	1:D:339:ASN:HD21	1.41	0.68
1:A:69:ILE:HA	1:A:151:ARG:NH1	2.07	0.68
1:C:400:ARG:HH11	1:C:400:ARG:HG3	1.58	0.68
1:C:69:ILE:HA	1:C:151:ARG:NH1	2.07	0.68
1:F:279:GLU:HG3	1:F:305:ILE:HG13	1.73	0.68
1:C:205:LYS:NZ	1:C:392:ASN:HD21	1.92	0.68
1:C:231:ILE:HD12	1:C:237:MET:SD	2.33	0.68
1:C:425:PHE:HD1	1:C:427:LYS:HB2	1.59	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:400:ARG:HH11	1:E:400:ARG:HG3	1.59	0.68
1:F:336:THR:H	1:F:339:ASN:HD21	1.41	0.68
1:F:343:VAL:HG21	1:F:364:PHE:HE1	1.59	0.68
1:C:336:THR:H	1:C:339:ASN:HD21	1.41	0.68
1:D:231:ILE:HD12	1:D:237:MET:SD	2.33	0.68
1:A:336:THR:H	1:A:339:ASN:HD21	1.42	0.68
1:D:343:VAL:HG21	1:D:364:PHE:HE1	1.58	0.68
1:F:400:ARG:HG3	1:F:400:ARG:HH11	1.60	0.67
1:E:147:LYS:O	1:E:151:ARG:HG3	1.94	0.67
1:A:116:THR:HG22	1:A:128:GLY:CA	2.25	0.67
1:C:375:LEU:HD23	1:C:485:ALA:HB1	1.77	0.67
1:D:147:LYS:O	1:D:151:ARG:HG3	1.93	0.67
1:A:343:VAL:HG21	1:A:364:PHE:HE1	1.59	0.67
1:B:179:GLU:O	1:B:183:ILE:HG13	1.94	0.67
1:A:231:ILE:HD12	1:A:237:MET:SD	2.35	0.67
1:C:147:LYS:O	1:C:151:ARG:HG3	1.95	0.67
1:F:407:ARG:O	1:F:411:TYR:HD2	1.78	0.67
1:C:343:VAL:HG21	1:C:364:PHE:HE1	1.60	0.67
1:C:373:PRO:CG	1:C:481:LEU:HB3	2.25	0.67
1:E:62:VAL:HG21	1:E:105:VAL:HG13	1.77	0.67
1:A:71:ARG:HB3	1:A:71:ARG:NH1	2.11	0.67
1:B:231:ILE:HD12	1:B:237:MET:SD	2.35	0.67
1:E:179:GLU:O	1:E:183:ILE:HG13	1.94	0.66
1:D:298:PHE:CZ	1:D:302:HIS:HE1	2.13	0.66
1:C:122:VAL:HG11	1:C:379:ALA:CB	2.24	0.66
1:F:298:PHE:CZ	1:F:302:HIS:HE1	2.14	0.66
1:F:221:ARG:HD2	1:F:454:HIS:CD2	2.31	0.66
1:D:285:TRP:HB2	1:D:314:TYR:CB	2.17	0.66
1:A:407:ARG:O	1:A:411:TYR:HD2	1.79	0.66
1:E:336:THR:H	1:E:339:ASN:HD21	1.43	0.66
1:B:407:ARG:O	1:B:411:TYR:HD2	1.79	0.66
1:C:298:PHE:CZ	1:C:302:HIS:HE1	2.14	0.66
1:F:147:LYS:O	1:F:151:ARG:HG3	1.95	0.66
1:A:147:LYS:O	1:A:151:ARG:HG3	1.95	0.66
1:B:147:LYS:O	1:B:151:ARG:HG3	1.95	0.66
1:E:298:PHE:CZ	1:E:302:HIS:HE1	2.13	0.66
1:E:425:PHE:HD1	1:E:427:LYS:HB2	1.60	0.66
1:E:27:ILE:HG22	1:E:475:TYR:CD1	2.31	0.66
1:A:298:PHE:CZ	1:A:302:HIS:HE1	2.14	0.66
1:C:285:TRP:HB2	1:C:314:TYR:CB	2.18	0.66
1:E:285:TRP:HB2	1:E:314:TYR:CB	2.18	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:343:VAL:HG21	1:E:364:PHE:HE1	1.59	0.66
1:F:433:PRO:O	1:F:435:VAL:N	2.29	0.65
1:B:298:PHE:CZ	1:B:302:HIS:HE1	2.13	0.65
1:B:336:THR:H	1:B:339:ASN:HD21	1.42	0.65
1:F:231:ILE:HD12	1:F:237:MET:SD	2.36	0.65
1:B:116:THR:HG22	1:B:128:GLY:CA	2.26	0.65
1:B:264:MET:CE	1:B:292:PRO:HA	2.26	0.65
1:C:277:VAL:HG21	1:C:295:LEU:CD2	2.26	0.65
1:D:425:PHE:HD1	1:D:427:LYS:HB2	1.60	0.65
1:D:433:PRO:HA	1:E:420:SER:CB	2.25	0.65
1:C:122:VAL:HG11	1:C:379:ALA:HB3	1.77	0.65
1:D:264:MET:CE	1:D:292:PRO:HA	2.26	0.65
1:D:277:VAL:HG21	1:D:295:LEU:CD2	2.27	0.65
1:F:179:GLU:O	1:F:183:ILE:HG13	1.96	0.65
1:A:277:VAL:HG21	1:A:295:LEU:CD2	2.27	0.65
1:A:425:PHE:HD1	1:A:427:LYS:HB2	1.60	0.65
1:E:264:MET:CE	1:E:292:PRO:HA	2.25	0.65
1:E:71:ARG:HB3	1:E:71:ARG:NH1	2.11	0.65
1:B:71:ARG:HB3	1:B:71:ARG:NH1	2.12	0.65
1:C:54:ARG:HH12	1:F:78:VAL:H	1.42	0.65
1:C:54:ARG:HH12	1:F:78:VAL:N	1.95	0.65
1:B:425:PHE:HD1	1:B:427:LYS:HB2	1.60	0.65
1:D:407:ARG:O	1:D:411:TYR:HD2	1.78	0.65
1:C:62:VAL:HG21	1:C:105:VAL:HG13	1.78	0.65
1:A:264:MET:CE	1:A:292:PRO:HA	2.27	0.65
1:B:400:ARG:HG3	1:B:400:ARG:HH11	1.61	0.65
1:F:277:VAL:HG21	1:F:295:LEU:CD2	2.27	0.65
1:B:62:VAL:HG21	1:B:105:VAL:HG13	1.78	0.65
1:C:427:LYS:CD	1:C:430:GLY:HA3	2.25	0.65
1:F:264:MET:CE	1:F:292:PRO:HA	2.27	0.65
1:B:285:TRP:HB2	1:B:314:TYR:CB	2.17	0.64
1:D:71:ARG:NH1	1:D:71:ARG:HB3	2.12	0.64
1:E:37:ARG:HB2	1:E:37:ARG:HH11	1.62	0.64
1:B:162:ILE:O	1:B:162:ILE:HD13	1.97	0.64
1:A:37:ARG:HB2	1:A:37:ARG:HH11	1.63	0.64
1:C:393:LEU:O	1:C:395:HIS:CD2	2.50	0.64
1:D:62:VAL:HG21	1:D:105:VAL:HG13	1.79	0.64
1:E:231:ILE:HD12	1:E:237:MET:SD	2.36	0.64
1:F:62:VAL:HG21	1:F:105:VAL:HG13	1.79	0.64
1:A:62:VAL:HG21	1:A:105:VAL:HG13	1.79	0.64
1:D:116:THR:HG22	1:D:128:GLY:CA	2.27	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:171:PRO:HG3	1:D:180:MET:SD	2.38	0.64
1:F:71:ARG:HB3	1:F:71:ARG:NH1	2.12	0.64
1:B:37:ARG:HB2	1:B:37:ARG:HH11	1.63	0.64
1:A:285:TRP:HB2	1:A:314:TYR:CB	2.18	0.64
1:A:275:ILE:HG13	1:A:287:PRO:HA	1.80	0.64
1:B:33:VAL:HG12	1:B:38:THR:OG1	1.98	0.64
1:C:33:VAL:HG12	1:C:38:THR:OG1	1.98	0.64
1:C:407:ARG:O	1:C:411:TYR:HD2	1.80	0.64
1:E:162:ILE:O	1:E:162:ILE:HD13	1.98	0.64
1:E:433:PRO:O	1:E:435:VAL:N	2.31	0.64
1:F:116:THR:HG22	1:F:128:GLY:CA	2.27	0.64
1:A:400:ARG:HH11	1:A:400:ARG:HG3	1.61	0.64
1:B:277:VAL:HG21	1:B:295:LEU:CD2	2.28	0.64
1:B:77:GLU:HA	1:D:54:ARG:HH12	1.59	0.64
1:C:71:ARG:HB3	1:C:71:ARG:NH1	2.11	0.64
1:E:407:ARG:O	1:E:411:TYR:HD2	1.80	0.64
1:B:28:VAL:CG2	1:B:487:VAL:HG13	2.27	0.64
1:A:427:LYS:CD	1:A:430:GLY:HA3	2.26	0.64
1:D:325:ILE:HG22	1:D:347:ILE:CB	2.28	0.64
1:C:423:ARG:HH21	1:E:435:VAL:HG13	1.63	0.64
1:C:32:LEU:HD11	1:C:494:PHE:CE2	2.33	0.63
1:D:46:ARG:O	1:D:49:VAL:HG12	1.99	0.63
1:E:33:VAL:HG12	1:E:38:THR:OG1	1.98	0.63
1:B:52:ILE:O	1:B:56:ILE:HG13	1.98	0.63
1:D:275:ILE:HG13	1:D:287:PRO:HA	1.80	0.63
1:F:33:VAL:HG12	1:F:38:THR:OG1	1.98	0.63
1:A:33:VAL:HG12	1:A:38:THR:OG1	1.98	0.63
1:C:37:ARG:HH11	1:C:37:ARG:HB2	1.63	0.63
1:D:400:ARG:HG3	1:D:400:ARG:HH11	1.63	0.63
1:B:275:ILE:HG13	1:B:287:PRO:HA	1.80	0.63
1:C:179:GLU:O	1:C:183:ILE:HG13	1.99	0.63
1:C:264:MET:CE	1:C:292:PRO:HA	2.28	0.63
1:C:335:LEU:HD13	1:C:348:ILE:HD13	1.81	0.63
1:E:275:ILE:HG13	1:E:287:PRO:HA	1.81	0.63
1:D:33:VAL:HG12	1:D:38:THR:OG1	1.99	0.63
1:D:37:ARG:HH11	1:D:37:ARG:HB2	1.63	0.63
1:E:277:VAL:HG21	1:E:295:LEU:CD2	2.28	0.63
1:A:76:TRP:CD1	1:E:502:VAL:HG11	2.33	0.63
1:E:116:THR:HG22	1:E:128:GLY:CA	2.28	0.63
1:B:427:LYS:CD	1:B:430:GLY:HA3	2.25	0.63
1:D:393:LEU:O	1:D:395:HIS:CD2	2.52	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:32:LEU:HD11	1:E:494:PHE:CE2	2.34	0.63
1:E:325:ILE:HG22	1:E:347:ILE:CB	2.29	0.63
1:F:427:LYS:CD	1:F:430:GLY:HA3	2.25	0.62
1:D:433:PRO:O	1:D:435:VAL:N	2.32	0.62
1:A:335:LEU:HD13	1:A:348:ILE:HD13	1.81	0.62
1:C:46:ARG:O	1:C:49:VAL:HG12	1.99	0.62
1:E:427:LYS:CD	1:E:430:GLY:HA3	2.25	0.62
1:F:376:TYR:OH	1:F:465:ALA:HB2	1.99	0.62
1:B:49:VAL:O	1:B:52:ILE:HG12	2.00	0.62
1:C:72:ASP:OD1	1:C:144:GLU:HG3	1.99	0.62
1:F:37:ARG:HH11	1:F:37:ARG:HB2	1.64	0.62
1:B:32:LEU:HD11	1:B:494:PHE:CE2	2.35	0.62
1:B:46:ARG:O	1:B:49:VAL:HG12	2.00	0.62
1:F:49:VAL:O	1:F:52:ILE:HG12	1.99	0.62
1:A:171:PRO:HG3	1:A:180:MET:SD	2.40	0.62
1:C:52:ILE:O	1:C:56:ILE:HG13	2.00	0.62
1:C:433:PRO:O	1:C:435:VAL:N	2.33	0.62
1:D:427:LYS:CD	1:D:430:GLY:HA3	2.27	0.62
1:A:28:VAL:CG2	1:A:487:VAL:HG13	2.30	0.61
1:C:206:PRO:HB2	1:C:209:GLN:HG2	1.81	0.61
1:E:205:LYS:NZ	1:E:388:GLU:OE1	2.33	0.61
1:F:135:ILE:HG13	1:F:140:TYR:CE2	2.35	0.61
1:F:32:LEU:HD11	1:F:494:PHE:CE2	2.35	0.61
1:F:335:LEU:HD13	1:F:348:ILE:HD13	1.81	0.61
1:A:505:THR:HG23	1:B:185:ASP:OD1	2.00	0.61
1:B:433:PRO:O	1:B:435:VAL:N	2.33	0.61
1:E:49:VAL:O	1:E:52:ILE:HG12	2.00	0.61
1:F:205:LYS:NZ	1:F:392:ASN:HD21	1.98	0.61
1:B:221:ARG:HD2	1:B:454:HIS:NE2	2.15	0.61
1:D:162:ILE:HD13	1:D:162:ILE:O	2.00	0.61
1:D:335:LEU:HD13	1:D:348:ILE:HD13	1.82	0.61
1:A:162:ILE:O	1:A:162:ILE:HD13	2.00	0.61
1:B:345:ALA:O	1:B:369:ILE:HD12	2.00	0.61
1:E:37:ARG:HH21	1:E:49:VAL:HG11	1.65	0.61
1:B:95:GLY:O	1:B:169:PRO:HA	2.01	0.61
1:C:256:PHE:HE2	1:C:264:MET:HE2	1.65	0.61
1:E:46:ARG:O	1:E:49:VAL:HG12	2.00	0.61
1:F:275:ILE:HG13	1:F:287:PRO:HA	1.81	0.61
1:F:325:ILE:HG22	1:F:347:ILE:CB	2.29	0.61
1:F:345:ALA:O	1:F:369:ILE:HD12	2.00	0.61
1:F:46:ARG:O	1:F:49:VAL:HG12	2.00	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:433:PRO:O	1:A:435:VAL:N	2.33	0.61
1:A:46:ARG:O	1:A:49:VAL:HG12	1.99	0.61
1:C:14:PHE:O	1:C:18:GLU:HB2	2.00	0.61
1:C:162:ILE:O	1:C:162:ILE:HD13	2.00	0.61
1:C:135:ILE:HG13	1:C:140:TYR:CE2	2.36	0.61
1:D:32:LEU:HD11	1:D:494:PHE:CE2	2.36	0.61
1:D:49:VAL:O	1:D:52:ILE:HG12	2.00	0.61
1:A:95:GLY:O	1:A:169:PRO:HA	2.01	0.61
1:A:325:ILE:HG22	1:A:347:ILE:CB	2.29	0.61
1:B:13:PHE:CD1	1:B:14:PHE:N	2.66	0.61
1:F:72:ASP:OD1	1:F:144:GLU:HG3	2.00	0.61
1:A:32:LEU:HD11	1:A:494:PHE:CE2	2.35	0.61
1:B:393:LEU:O	1:B:395:HIS:CD2	2.54	0.61
1:C:151:ARG:NH2	1:F:504:PHE:CZ	2.69	0.61
1:A:49:VAL:O	1:A:52:ILE:HG12	2.00	0.60
1:B:72:ASP:OD1	1:B:144:GLU:HG3	2.01	0.60
1:D:345:ALA:O	1:D:369:ILE:HD12	2.01	0.60
1:D:505:THR:N	1:E:150:ARG:HH12	1.99	0.60
1:F:393:LEU:O	1:F:395:HIS:CD2	2.54	0.60
1:B:37:ARG:HH21	1:B:49:VAL:HG11	1.66	0.60
1:D:14:PHE:O	1:D:18:GLU:HB2	2.01	0.60
1:D:343:VAL:HG22	1:D:367:ARG:NH2	2.16	0.60
1:E:256:PHE:HE2	1:E:264:MET:HE2	1.66	0.60
1:C:95:GLY:O	1:C:169:PRO:HA	2.02	0.60
1:D:483:THR:O	1:D:487:VAL:HG23	2.01	0.60
1:E:335:LEU:HD13	1:E:348:ILE:HD13	1.83	0.60
1:B:335:LEU:HD13	1:B:348:ILE:HD13	1.81	0.60
1:C:49:VAL:O	1:C:52:ILE:HG12	2.00	0.60
1:C:185:ASP:OD1	1:E:505:THR:HG23	2.02	0.60
1:F:37:ARG:HH21	1:F:49:VAL:HG11	1.65	0.60
1:A:185:ASP:OD1	1:F:505:THR:HG23	2.01	0.60
1:A:37:ARG:HH21	1:A:49:VAL:HG11	1.66	0.60
1:B:325:ILE:HG22	1:B:347:ILE:CB	2.30	0.60
1:E:345:ALA:O	1:E:369:ILE:HD12	2.01	0.60
1:D:13:PHE:CD1	1:D:14:PHE:N	2.65	0.60
1:D:95:GLY:O	1:D:169:PRO:HA	2.02	0.60
1:E:95:GLY:O	1:E:169:PRO:HA	2.02	0.60
1:A:393:LEU:O	1:A:395:HIS:CD2	2.54	0.60
1:A:502:VAL:HG11	1:E:76:TRP:HD1	1.64	0.60
1:B:14:PHE:O	1:B:18:GLU:HB2	2.02	0.60
1:B:10:ASP:HB2	1:B:333:LYS:CD	2.31	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:275:ILE:HG13	1:C:287:PRO:HA	1.83	0.60
1:E:13:PHE:CD1	1:E:14:PHE:N	2.66	0.60
1:E:52:ILE:O	1:E:56:ILE:HG13	2.01	0.60
1:F:14:PHE:O	1:F:18:GLU:HB2	2.00	0.60
1:F:162:ILE:O	1:F:162:ILE:HD13	2.00	0.60
1:A:14:PHE:O	1:A:18:GLU:HB2	2.01	0.60
1:D:343:VAL:HG21	1:D:364:PHE:CE1	2.36	0.60
1:D:52:ILE:O	1:D:56:ILE:HG13	2.02	0.60
1:E:14:PHE:O	1:E:18:GLU:HB2	2.01	0.60
1:C:69:ILE:HG22	1:C:151:ARG:HD2	1.84	0.60
1:C:217:SER:OG	1:C:454:HIS:NE2	2.35	0.60
1:C:335:LEU:HB2	1:C:356:THR:HG22	1.84	0.60
1:E:135:ILE:HG13	1:E:140:TYR:CE2	2.37	0.60
1:F:52:ILE:O	1:F:56:ILE:HG13	2.02	0.60
1:B:418:GLN:CB	1:B:433:PRO:HD2	2.31	0.60
1:E:418:GLN:CB	1:E:433:PRO:HD2	2.32	0.60
1:F:256:PHE:HE2	1:F:264:MET:HE2	1.66	0.60
1:A:343:VAL:HG21	1:A:364:PHE:CE1	2.36	0.59
1:B:343:VAL:HG22	1:B:367:ARG:NH2	2.18	0.59
1:B:78:VAL:H	1:D:54:ARG:HH12	1.49	0.59
1:E:343:VAL:HG21	1:E:364:PHE:CE1	2.37	0.59
1:C:343:VAL:HG22	1:C:367:ARG:NH2	2.17	0.59
1:A:143:ASN:HD21	1:C:70:ARG:HH12	1.51	0.59
1:D:72:ASP:OD1	1:D:144:GLU:HG3	2.02	0.59
1:C:308:PHE:HD2	1:C:311:ALA:HB2	1.67	0.59
1:D:335:LEU:HB2	1:D:356:THR:HG22	1.84	0.59
1:E:343:VAL:HG22	1:E:367:ARG:NH2	2.17	0.59
1:A:54:ARG:NH1	1:E:77:GLU:HA	2.17	0.59
1:F:12:ASN:OD1	1:F:15:LYS:HG2	2.02	0.59
1:F:483:THR:O	1:F:487:VAL:HG23	2.03	0.59
1:A:72:ASP:OD1	1:A:144:GLU:HG3	2.03	0.59
1:B:335:LEU:HB2	1:B:356:THR:HG22	1.85	0.59
1:C:37:ARG:HH21	1:C:49:VAL:HG11	1.66	0.59
1:E:474:LYS:HD3	1:E:475:TYR:CE2	2.38	0.59
1:B:256:PHE:HE2	1:B:264:MET:HE2	1.67	0.59
1:C:325:ILE:HG22	1:C:347:ILE:CB	2.30	0.59
1:D:135:ILE:HG13	1:D:140:TYR:CE2	2.38	0.59
1:D:279:GLU:HG3	1:D:305:ILE:CG1	2.32	0.59
1:E:69:ILE:HG22	1:E:151:ARG:HD2	1.84	0.59
1:F:146:GLU:HG2	1:F:150:ARG:HD2	1.85	0.59
1:D:69:ILE:HG22	1:D:151:ARG:HD2	1.84	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:12:ASN:OD1	1:C:15:LYS:HG2	2.03	0.59
1:F:335:LEU:HB2	1:F:356:THR:HG22	1.84	0.59
1:F:343:VAL:HG22	1:F:367:ARG:NH2	2.18	0.59
1:B:244:PRO:HB2	1:B:248:ASP:H	1.68	0.59
1:E:335:LEU:HB2	1:E:356:THR:HG22	1.85	0.59
1:F:13:PHE:CD1	1:F:14:PHE:N	2.65	0.59
1:E:146:GLU:HG2	1:E:150:ARG:HD2	1.85	0.59
1:E:28:VAL:CG2	1:E:487:VAL:HG13	2.33	0.59
1:F:23:ARG:O	1:F:27:ILE:HG13	2.02	0.59
1:A:264:MET:HE3	1:A:292:PRO:HA	1.84	0.59
1:B:12:ASN:OD1	1:B:15:LYS:HG2	2.03	0.59
1:B:343:VAL:HG21	1:B:364:PHE:CE1	2.36	0.59
1:E:12:ASN:OD1	1:E:15:LYS:HG2	2.03	0.59
1:A:504:PHE:CE1	1:E:70:ARG:HB3	2.38	0.59
1:F:244:PRO:HB2	1:F:248:ASP:H	1.68	0.59
1:D:256:PHE:HE2	1:D:264:MET:HE2	1.68	0.58
1:D:37:ARG:HH21	1:D:49:VAL:HG11	1.66	0.58
1:F:91:THR:OG1	1:F:92:PRO:HD3	2.03	0.58
1:A:69:ILE:HG22	1:A:151:ARG:HD2	1.85	0.58
1:B:190:THR:HG22	1:B:191:ILE:N	2.18	0.58
1:B:69:ILE:HG22	1:B:151:ARG:HD2	1.84	0.58
1:D:93:CYS:HB3	1:D:129:ALA:HB2	1.85	0.58
1:D:12:ASN:OD1	1:D:15:LYS:HG2	2.03	0.58
1:D:146:GLU:HG2	1:D:150:ARG:HD2	1.84	0.58
1:D:264:MET:HE3	1:D:292:PRO:HA	1.85	0.58
1:A:483:THR:O	1:A:487:VAL:HG23	2.02	0.58
1:D:418:GLN:CB	1:D:433:PRO:HD2	2.32	0.58
1:B:54:ARG:HH12	1:D:78:VAL:N	2.02	0.58
1:F:343:VAL:HG21	1:F:364:PHE:CE1	2.37	0.58
1:A:308:PHE:HD2	1:A:311:ALA:HB2	1.68	0.58
1:A:70:ARG:HH12	1:C:143:ASN:HD21	1.51	0.58
1:C:345:ALA:O	1:C:369:ILE:HD12	2.03	0.58
1:E:91:THR:OG1	1:E:92:PRO:HD3	2.04	0.58
1:C:502:VAL:HG11	1:F:76:TRP:CD1	2.39	0.58
1:A:91:THR:OG1	1:A:92:PRO:HD3	2.04	0.58
1:B:135:ILE:HG13	1:B:140:TYR:CE2	2.38	0.58
1:A:386:TYR:OH	1:B:396:VAL:HG13	2.04	0.58
1:C:279:GLU:HG3	1:C:305:ILE:CG1	2.34	0.58
1:D:435:VAL:HG13	1:E:423:ARG:HH21	1.68	0.58
1:A:345:ALA:O	1:A:369:ILE:HD12	2.02	0.58
1:A:343:VAL:HG22	1:A:367:ARG:NH2	2.18	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:13:PHE:CD1	1:C:14:PHE:N	2.65	0.58
1:F:91:THR:CB	1:F:92:PRO:HD3	2.34	0.58
1:D:308:PHE:HD2	1:D:311:ALA:HB2	1.68	0.58
1:D:427:LYS:HZ3	1:D:428:HIS:H	1.52	0.58
1:B:54:ARG:NH1	1:D:77:GLU:HA	2.18	0.58
1:F:279:GLU:HG3	1:F:305:ILE:CG1	2.34	0.58
1:F:69:ILE:HG22	1:F:151:ARG:HD2	1.85	0.58
1:C:190:THR:HG22	1:C:191:ILE:N	2.19	0.58
1:C:93:CYS:HB3	1:C:129:ALA:HB2	1.86	0.58
1:E:427:LYS:CE	1:E:427:LYS:HA	2.32	0.58
1:C:91:THR:OG1	1:C:92:PRO:HD3	2.04	0.58
1:A:146:GLU:HG2	1:A:150:ARG:HD2	1.86	0.58
1:A:432:ILE:HG22	1:A:434:ILE:HG12	1.86	0.58
1:B:264:MET:HE3	1:B:292:PRO:HA	1.86	0.58
1:E:190:THR:HG22	1:E:191:ILE:N	2.19	0.58
1:F:308:PHE:HD2	1:F:311:ALA:HB2	1.68	0.58
1:A:157:ALA:HA	1:A:162:ILE:HG22	1.86	0.57
1:A:418:GLN:CB	1:A:433:PRO:HD2	2.32	0.57
1:B:433:PRO:HA	1:F:420:SER:CB	2.34	0.57
1:C:207:ILE:C	1:C:209:GLN:H	2.06	0.57
1:C:293:LYS:O	1:C:296:GLU:HB3	2.04	0.57
1:C:343:VAL:HG21	1:C:364:PHE:CE1	2.37	0.57
1:E:244:PRO:HB2	1:E:248:ASP:H	1.69	0.57
1:E:72:ASP:OD1	1:E:144:GLU:HG3	2.02	0.57
1:A:293:LYS:O	1:A:296:GLU:HB3	2.04	0.57
1:A:335:LEU:HB2	1:A:356:THR:HG22	1.86	0.57
1:B:252:VAL:HG11	1:B:318:ILE:HB	1.86	0.57
1:B:10:ASP:HB2	1:B:333:LYS:HD3	1.86	0.57
1:B:93:CYS:HB3	1:B:129:ALA:HB2	1.85	0.57
1:C:146:GLU:HG2	1:C:150:ARG:HD2	1.85	0.57
1:C:213:HIS:O	1:C:453:VAL:HG21	2.04	0.57
1:F:418:GLN:CB	1:F:433:PRO:HD2	2.33	0.57
1:C:171:PRO:HG3	1:C:180:MET:SD	2.44	0.57
1:C:230:PHE:CD2	1:C:469:MET:HE2	2.39	0.57
1:E:171:PRO:HG3	1:E:180:MET:SD	2.43	0.57
1:A:12:ASN:OD1	1:A:15:LYS:HG2	2.03	0.57
1:B:154:MET:SD	1:B:190:THR:HG21	2.45	0.57
1:B:76:TRP:CZ3	1:D:49:VAL:HA	2.40	0.57
1:C:252:VAL:HG11	1:C:318:ILE:HB	1.87	0.57
1:D:91:THR:OG1	1:D:92:PRO:HD3	2.04	0.57
1:E:154:MET:SD	1:E:190:THR:HG21	2.44	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:157:ALA:HA	1:E:162:ILE:HG22	1.86	0.57
1:A:504:PHE:CZ	1:E:151:ARG:NH2	2.73	0.57
1:B:28:VAL:HG23	1:B:487:VAL:HG13	1.85	0.57
1:D:105:VAL:O	1:D:109:LYS:HG3	2.04	0.57
1:E:69:ILE:HA	1:E:151:ARG:CZ	2.35	0.57
1:A:244:PRO:HB2	1:A:248:ASP:H	1.70	0.57
1:A:52:ILE:O	1:A:56:ILE:HG13	2.04	0.57
1:C:320:GLU:O	1:C:344:LYS:HG2	2.05	0.57
1:F:171:PRO:HG3	1:F:180:MET:SD	2.45	0.57
1:C:244:PRO:HB2	1:C:248:ASP:H	1.69	0.57
1:A:54:ARG:HH12	1:E:78:VAL:H	1.52	0.57
1:A:190:THR:HG22	1:A:191:ILE:N	2.20	0.57
1:A:221:ARG:HD2	1:A:454:HIS:NE2	2.19	0.57
1:A:252:VAL:HG11	1:A:318:ILE:HB	1.87	0.57
1:C:396:VAL:HG13	1:E:386:TYR:OH	2.05	0.57
1:F:105:VAL:O	1:F:109:LYS:HG3	2.04	0.57
1:F:157:ALA:HA	1:F:162:ILE:HG22	1.87	0.57
1:F:252:VAL:HG11	1:F:318:ILE:HB	1.86	0.57
1:B:279:GLU:HG3	1:B:305:ILE:CG1	2.34	0.57
1:B:308:PHE:HD2	1:B:311:ALA:HB2	1.69	0.57
1:C:205:LYS:HZ3	1:C:392:ASN:ND2	2.03	0.57
1:E:279:GLU:HG3	1:E:305:ILE:CG1	2.34	0.57
1:F:95:GLY:O	1:F:169:PRO:HA	2.04	0.57
1:A:427:LYS:HA	1:A:427:LYS:CE	2.33	0.57
1:B:293:LYS:O	1:B:296:GLU:HB3	2.05	0.57
1:C:91:THR:CB	1:C:92:PRO:HD3	2.35	0.57
1:D:157:ALA:HA	1:D:162:ILE:HG22	1.86	0.57
1:D:244:PRO:HB2	1:D:248:ASP:H	1.68	0.57
1:F:264:MET:HE3	1:F:292:PRO:HA	1.87	0.57
1:B:95:GLY:HA3	1:B:129:ALA:O	2.05	0.56
1:B:91:THR:CB	1:B:92:PRO:HD3	2.35	0.56
1:C:23:ARG:O	1:C:27:ILE:HG13	2.05	0.56
1:D:190:THR:HG22	1:D:191:ILE:N	2.20	0.56
1:D:320:GLU:O	1:D:344:LYS:HG2	2.05	0.56
1:E:320:GLU:O	1:E:344:LYS:HG2	2.05	0.56
1:E:91:THR:CB	1:E:92:PRO:HD3	2.35	0.56
1:A:256:PHE:HE2	1:A:264:MET:HE2	1.70	0.56
1:C:427:LYS:CE	1:C:427:LYS:HA	2.33	0.56
1:F:320:GLU:O	1:F:344:LYS:HG2	2.04	0.56
1:B:23:ARG:O	1:B:27:ILE:HG13	2.05	0.56
1:B:254:GLN:OE1	1:B:334:GLN:HG2	2.05	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:157:ALA:HA	1:C:162:ILE:HG22	1.87	0.56
1:E:393:LEU:O	1:E:395:HIS:CD2	2.58	0.56
1:E:432:ILE:HG22	1:E:434:ILE:HG12	1.88	0.56
1:F:93:CYS:HB3	1:F:129:ALA:HB2	1.87	0.56
1:A:135:ILE:HG13	1:A:140:TYR:CE2	2.39	0.56
1:A:320:GLU:O	1:A:344:LYS:HG2	2.04	0.56
1:B:320:GLU:O	1:B:344:LYS:HG2	2.05	0.56
1:D:304:SER:OG	1:D:306:LEU:HD13	2.06	0.56
1:F:375:LEU:HD23	1:F:485:ALA:HB1	1.87	0.56
1:B:205:LYS:NZ	1:B:388:GLU:OE1	2.35	0.56
1:E:254:GLN:OE1	1:E:334:GLN:HG2	2.05	0.56
1:F:293:LYS:O	1:F:296:GLU:HB3	2.05	0.56
1:F:500:ALA:C	1:F:505:THR:HA	2.26	0.56
1:A:91:THR:CB	1:A:92:PRO:HD3	2.36	0.56
1:B:76:TRP:CD1	1:D:502:VAL:HG11	2.41	0.56
1:E:293:LYS:O	1:E:296:GLU:HB3	2.06	0.56
1:E:252:VAL:HG11	1:E:318:ILE:HB	1.87	0.56
1:A:99:TYR:HH	1:A:149:THR:HG22	1.66	0.56
1:A:69:ILE:HA	1:A:151:ARG:CZ	2.36	0.56
1:B:91:THR:OG1	1:B:92:PRO:HD3	2.06	0.56
1:D:154:MET:SD	1:D:190:THR:HG21	2.45	0.56
1:D:500:ALA:C	1:D:505:THR:HA	2.26	0.56
1:C:503:THR:HG21	1:F:151:ARG:CD	2.35	0.56
1:A:279:GLU:HG3	1:A:305:ILE:CG1	2.33	0.56
1:D:27:ILE:HG22	1:D:475:TYR:CD1	2.41	0.56
1:D:496:VAL:O	1:E:209:GLN:NE2	2.39	0.56
1:F:69:ILE:HA	1:F:151:ARG:CZ	2.35	0.56
1:F:206:PRO:HD2	1:F:209:GLN:HB2	1.88	0.56
1:F:40:GLU:HG3	1:F:46:ARG:NH1	2.15	0.56
1:A:13:PHE:CD1	1:A:14:PHE:N	2.65	0.56
1:E:500:ALA:C	1:E:505:THR:HA	2.26	0.56
1:B:62:VAL:HG11	1:B:109:LYS:NZ	2.21	0.56
1:C:304:SER:OG	1:C:306:LEU:HD13	2.06	0.56
1:D:252:VAL:HG11	1:D:318:ILE:HB	1.88	0.56
1:B:171:PRO:HG3	1:B:180:MET:SD	2.45	0.55
1:E:23:ARG:O	1:E:27:ILE:HG13	2.06	0.55
1:F:221:ARG:CD	1:F:454:HIS:CD2	2.90	0.55
1:B:146:GLU:HG2	1:B:150:ARG:HD2	1.87	0.55
1:B:157:ALA:HA	1:B:162:ILE:HG22	1.87	0.55
1:B:483:THR:O	1:B:487:VAL:HG23	2.06	0.55
1:D:28:VAL:HG23	1:D:487:VAL:HG13	1.87	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:91:THR:CB	1:D:92:PRO:HD3	2.35	0.55
1:E:304:SER:OG	1:E:306:LEU:HD13	2.06	0.55
1:F:41:SER:CA	1:F:46:ARG:HD2	2.31	0.55
1:A:500:ALA:C	1:A:505:THR:HA	2.27	0.55
1:B:243:THR:N	1:B:244:PRO:CD	2.68	0.55
1:D:432:ILE:HG22	1:D:434:ILE:HG12	1.88	0.55
1:F:243:THR:N	1:F:244:PRO:CD	2.69	0.55
1:A:254:GLN:OE1	1:A:334:GLN:HG2	2.06	0.55
1:B:77:GLU:CA	1:D:54:ARG:NH1	2.68	0.55
1:C:483:THR:O	1:C:487:VAL:HG23	2.06	0.55
1:C:500:ALA:C	1:C:505:THR:HA	2.26	0.55
1:D:254:GLN:OE1	1:D:334:GLN:HG2	2.07	0.55
1:E:308:PHE:HD2	1:E:311:ALA:HB2	1.71	0.55
1:F:190:THR:HG22	1:F:191:ILE:N	2.20	0.55
1:F:304:SER:OG	1:F:306:LEU:HD13	2.06	0.55
1:D:293:LYS:O	1:D:296:GLU:HB3	2.06	0.55
1:A:503:THR:HG21	1:E:151:ARG:NE	2.22	0.55
1:B:304:SER:OG	1:B:306:LEU:HD13	2.06	0.55
1:B:37:ARG:NH1	1:B:37:ARG:HB2	2.22	0.55
1:B:488:ASN:HD21	1:B:492:LYS:HZ2	1.53	0.55
1:C:33:VAL:HG13	1:C:46:ARG:HB2	1.89	0.55
1:C:69:ILE:HA	1:C:151:ARG:CZ	2.36	0.55
1:D:386:TYR:OH	1:E:396:VAL:HG13	2.07	0.55
1:A:93:CYS:HB3	1:A:129:ALA:HB2	1.89	0.55
1:A:251:PHE:CB	1:A:325:ILE:HG13	2.37	0.55
1:A:304:SER:OG	1:A:306:LEU:HD13	2.06	0.55
1:C:116:THR:HG22	1:C:128:GLY:N	2.21	0.55
1:C:221:ARG:CD	1:C:454:HIS:CD2	2.89	0.55
1:F:154:MET:SD	1:F:190:THR:HG21	2.47	0.55
1:F:273:LYS:HE2	1:F:288:ASP:O	2.07	0.55
1:A:154:MET:SD	1:A:190:THR:HG21	2.47	0.55
1:B:500:ALA:C	1:B:505:THR:HA	2.27	0.55
1:B:77:GLU:CA	1:D:54:ARG:HH12	2.19	0.55
1:D:10:ASP:HB2	1:D:333:LYS:CD	2.36	0.55
1:D:505:THR:HG23	1:E:150:ARG:NH2	2.22	0.55
1:E:483:THR:O	1:E:487:VAL:HG23	2.07	0.55
1:F:33:VAL:HG13	1:F:46:ARG:HB2	1.89	0.55
1:B:16:MET:HG2	1:B:358:PRO:CG	2.37	0.55
1:A:37:ARG:HB2	1:A:37:ARG:NH1	2.21	0.55
1:B:69:ILE:HA	1:B:151:ARG:CZ	2.36	0.55
1:C:273:LYS:HE2	1:C:288:ASP:O	2.07	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:95:GLY:HA3	1:E:129:ALA:O	2.07	0.55
1:A:54:ARG:HH12	1:E:78:VAL:N	2.05	0.55
1:A:337:LYS:NZ	1:A:359:GLU:HG3	2.22	0.54
1:C:41:SER:CA	1:C:46:ARG:HD2	2.32	0.54
1:D:273:LYS:HE2	1:D:288:ASP:O	2.07	0.54
1:D:337:LYS:NZ	1:D:359:GLU:HG3	2.22	0.54
1:F:337:LYS:NZ	1:F:359:GLU:HG3	2.22	0.54
1:A:13:PHE:CZ	1:A:107:GLU:HA	2.42	0.54
1:A:87:SER:O	1:A:127:GLY:HA3	2.07	0.54
1:D:37:ARG:HB2	1:D:37:ARG:NH1	2.22	0.54
1:B:105:VAL:O	1:B:109:LYS:HG3	2.07	0.54
1:C:254:GLN:OE1	1:C:334:GLN:HG2	2.07	0.54
1:F:254:GLN:OE1	1:F:334:GLN:HG2	2.07	0.54
1:B:432:ILE:HG22	1:B:434:ILE:HG12	1.89	0.54
1:C:37:ARG:HB2	1:C:37:ARG:NH1	2.21	0.54
1:D:23:ARG:O	1:D:27:ILE:HG13	2.06	0.54
1:E:273:LYS:HE2	1:E:288:ASP:O	2.08	0.54
1:E:37:ARG:HB2	1:E:37:ARG:NH1	2.21	0.54
1:B:499:GLU:HB2	1:F:209:GLN:NE2	2.23	0.54
1:A:62:VAL:HG11	1:A:109:LYS:NZ	2.23	0.54
1:A:95:GLY:HA3	1:A:129:ALA:O	2.08	0.54
1:C:388:GLU:O	1:C:391:LYS:N	2.40	0.54
1:C:432:ILE:HG22	1:C:434:ILE:HG12	1.88	0.54
1:E:93:CYS:HB3	1:E:129:ALA:HB2	1.89	0.54
1:A:273:LYS:HE2	1:A:288:ASP:O	2.08	0.54
1:D:427:LYS:NZ	1:D:428:HIS:H	2.05	0.54
1:E:62:VAL:HG11	1:E:109:LYS:NZ	2.23	0.54
1:E:337:LYS:NZ	1:E:359:GLU:HG3	2.23	0.54
1:A:427:LYS:NZ	1:A:428:HIS:H	2.05	0.54
1:C:418:GLN:CB	1:C:433:PRO:HD2	2.34	0.54
1:C:403:PHE:CD2	1:C:447:ALA:HB1	2.43	0.54
1:C:503:THR:HG21	1:F:151:ARG:NE	2.23	0.54
1:D:69:ILE:HA	1:D:151:ARG:CZ	2.37	0.54
1:D:33:VAL:HG13	1:D:46:ARG:HB2	1.90	0.54
1:E:221:ARG:HD2	1:E:454:HIS:CD2	2.43	0.54
1:F:37:ARG:HB2	1:F:37:ARG:NH1	2.22	0.54
1:B:251:PHE:CB	1:B:325:ILE:HG13	2.38	0.54
1:C:154:MET:SD	1:C:190:THR:HG21	2.47	0.54
1:B:499:GLU:HB2	1:F:209:GLN:HE21	1.73	0.54
1:A:308:PHE:O	1:A:311:ALA:HB3	2.08	0.54
1:A:440:PHE:O	1:A:444:ILE:HG13	2.08	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:33:VAL:HG13	1:A:46:ARG:HB2	1.89	0.54
1:C:105:VAL:O	1:C:109:LYS:HG3	2.08	0.54
1:C:427:LYS:NZ	1:C:428:HIS:H	2.06	0.54
1:D:13:PHE:CZ	1:D:107:GLU:HA	2.43	0.54
1:D:255:GLY:HA3	1:D:330:ALA:HB2	1.90	0.54
1:C:337:LYS:NZ	1:C:359:GLU:HG3	2.22	0.53
1:C:28:VAL:CG2	1:C:487:VAL:HG13	2.38	0.53
1:B:33:VAL:HG13	1:B:46:ARG:HB2	1.89	0.53
1:B:474:LYS:HD3	1:B:475:TYR:CE2	2.43	0.53
1:C:264:MET:HE3	1:C:292:PRO:HA	1.91	0.53
1:A:23:ARG:O	1:A:27:ILE:HG13	2.08	0.53
1:B:13:PHE:CZ	1:B:107:GLU:HA	2.43	0.53
1:B:337:LYS:NZ	1:B:359:GLU:HG3	2.23	0.53
1:B:205:LYS:NZ	1:B:392:ASN:HD21	2.07	0.53
1:B:427:LYS:NZ	1:B:428:HIS:H	2.07	0.53
1:C:13:PHE:CZ	1:C:107:GLU:HA	2.44	0.53
1:F:432:ILE:HG22	1:F:434:ILE:HG12	1.89	0.53
1:B:21:PHE:CE1	1:B:490:ILE:HD12	2.43	0.53
1:C:423:ARG:HH21	1:E:435:VAL:CG1	2.20	0.53
1:E:105:VAL:O	1:E:109:LYS:HG3	2.09	0.53
1:A:503:THR:HG21	1:E:151:ARG:CZ	2.39	0.53
1:B:386:TYR:OH	1:F:396:VAL:HG13	2.08	0.53
1:B:335:LEU:HD12	1:B:356:THR:HG22	1.91	0.53
1:B:502:VAL:HG11	1:D:76:TRP:CD1	2.43	0.53
1:C:118:LYS:HZ1	1:C:353:ASN:HD21	1.55	0.53
1:C:207:ILE:C	1:C:209:GLN:N	2.61	0.53
1:C:243:THR:N	1:C:244:PRO:CD	2.69	0.53
1:E:427:LYS:NZ	1:E:428:HIS:H	2.06	0.53
1:E:427:LYS:HZ3	1:E:428:HIS:H	1.57	0.53
1:E:440:PHE:O	1:E:444:ILE:HG13	2.08	0.53
1:E:41:SER:CA	1:E:46:ARG:HD2	2.32	0.53
1:F:251:PHE:CB	1:F:325:ILE:HG13	2.38	0.53
1:B:243:THR:H	1:B:244:PRO:HD3	1.74	0.53
1:D:318:ILE:HG12	1:D:319:LEU:HD12	1.91	0.53
1:F:308:PHE:O	1:F:311:ALA:HB3	2.07	0.53
1:A:252:VAL:CG1	1:A:318:ILE:HB	2.39	0.53
1:B:255:GLY:HA3	1:B:330:ALA:HB2	1.90	0.53
1:E:33:VAL:HG13	1:E:46:ARG:HB2	1.89	0.53
1:E:205:LYS:NZ	1:E:392:ASN:HD21	2.06	0.53
1:A:243:THR:N	1:A:244:PRO:CD	2.69	0.53
1:B:427:LYS:HA	1:B:427:LYS:CE	2.33	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:147:LYS:HD2	1:C:151:ARG:NH2	2.21	0.53
1:C:205:LYS:NZ	1:C:392:ASN:ND2	2.55	0.53
1:E:264:MET:HE3	1:E:292:PRO:HA	1.90	0.53
1:F:373:PRO:CG	1:F:481:LEU:HB3	2.39	0.53
1:D:251:PHE:CB	1:D:325:ILE:HG13	2.38	0.52
1:F:147:LYS:HD2	1:F:151:ARG:NH2	2.21	0.52
1:B:347:ILE:HA	1:B:370:MET:O	2.09	0.52
1:C:122:VAL:CG1	1:C:379:ALA:CB	2.87	0.52
1:C:205:LYS:HZ3	1:C:392:ASN:HD21	1.53	0.52
1:F:255:GLY:HA3	1:F:330:ALA:HB2	1.91	0.52
1:F:427:LYS:NZ	1:F:428:HIS:H	2.06	0.52
1:C:78:VAL:H	1:F:54:ARG:HH12	1.57	0.52
1:A:105:VAL:O	1:A:109:LYS:HG3	2.08	0.52
1:B:273:LYS:HE2	1:B:288:ASP:O	2.09	0.52
1:C:116:THR:HG22	1:C:128:GLY:H	1.72	0.52
1:C:95:GLY:HA3	1:C:129:ALA:O	2.10	0.52
1:F:285:TRP:O	1:F:286:ASN:HB2	2.10	0.52
1:B:285:TRP:O	1:B:286:ASN:HB2	2.10	0.52
1:C:308:PHE:O	1:C:311:ALA:HB3	2.09	0.52
1:D:87:SER:O	1:D:127:GLY:HA3	2.08	0.52
1:D:336:THR:H	1:D:339:ASN:ND2	2.07	0.52
1:A:116:THR:HG22	1:A:128:GLY:N	2.25	0.52
1:C:62:VAL:HG11	1:C:109:LYS:NZ	2.24	0.52
1:A:73:ASP:O	1:A:75:SER:N	2.43	0.52
1:C:336:THR:H	1:C:339:ASN:ND2	2.07	0.52
1:D:79:ILE:N	1:D:79:ILE:HD12	2.25	0.52
1:E:255:GLY:HA3	1:E:330:ALA:HB2	1.91	0.52
1:E:41:SER:HA	1:E:46:ARG:CD	2.34	0.52
1:F:62:VAL:HG11	1:F:109:LYS:NZ	2.24	0.52
1:B:332:GLU:HG2	1:B:333:LYS:HG2	1.91	0.52
1:B:30:ASP:O	1:B:34:GLU:HG2	2.10	0.52
1:B:73:ASP:O	1:B:75:SER:N	2.43	0.52
1:C:428:HIS:N	1:C:428:HIS:CD2	2.78	0.52
1:D:41:SER:HA	1:D:46:ARG:CD	2.34	0.52
1:D:73:ASP:O	1:D:75:SER:N	2.43	0.52
1:E:87:SER:O	1:E:127:GLY:HA3	2.09	0.52
1:E:335:LEU:HD12	1:E:356:THR:HG22	1.91	0.52
1:E:205:LYS:HZ3	1:E:392:ASN:HD21	1.57	0.52
1:A:79:ILE:N	1:A:79:ILE:HD12	2.25	0.52
1:B:147:LYS:HD2	1:B:151:ARG:NH2	2.21	0.52
1:B:92:PRO:HG2	1:B:389:TRP:CZ2	2.45	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:440:PHE:O	1:F:444:ILE:HG13	2.09	0.52
1:A:255:GLY:HA3	1:A:330:ALA:HB2	1.91	0.52
1:B:41:SER:CA	1:B:46:ARG:HD2	2.32	0.52
1:C:255:GLY:HA3	1:C:330:ALA:HB2	1.92	0.52
1:E:13:PHE:CZ	1:E:107:GLU:HA	2.44	0.52
1:E:327:ILE:CG2	1:E:349:ALA:HB3	2.35	0.52
1:E:425:PHE:CD1	1:E:427:LYS:HB2	2.44	0.52
1:F:243:THR:O	1:F:243:THR:HG23	2.10	0.52
1:F:92:PRO:HG2	1:F:389:TRP:CZ2	2.45	0.52
1:B:79:ILE:N	1:B:79:ILE:HD12	2.25	0.51
1:E:243:THR:H	1:E:244:PRO:HD3	1.74	0.51
1:F:13:PHE:CZ	1:F:107:GLU:HA	2.44	0.51
1:F:252:VAL:CG1	1:F:318:ILE:HB	2.39	0.51
1:A:122:VAL:HG23	1:A:124:VAL:HG23	1.92	0.51
1:A:322:ASP:HA	1:A:344:LYS:HB2	1.93	0.51
1:B:252:VAL:CG1	1:B:318:ILE:HB	2.40	0.51
1:B:322:ASP:HA	1:B:344:LYS:HB2	1.92	0.51
1:C:376:TYR:HB2	1:C:468:ILE:CD1	2.40	0.51
1:D:95:GLY:HA3	1:D:129:ALA:O	2.09	0.51
1:E:252:VAL:CG1	1:E:318:ILE:HB	2.41	0.51
1:D:433:PRO:HA	1:E:420:SER:HB3	1.93	0.51
1:F:428:HIS:CD2	1:F:428:HIS:N	2.78	0.51
1:A:78:VAL:HG23	1:A:78:VAL:O	2.11	0.51
1:B:226:GLY:HA3	1:B:377:LEU:CD1	2.40	0.51
1:B:318:ILE:HG12	1:B:319:LEU:HD12	1.92	0.51
1:D:62:VAL:HG11	1:D:109:LYS:NZ	2.25	0.51
1:D:40:GLU:HG3	1:D:46:ARG:NH1	2.16	0.51
1:D:504:PHE:HB3	1:E:146:GLU:OE1	2.09	0.51
1:F:427:LYS:HZ3	1:F:428:HIS:H	1.58	0.51
1:C:243:THR:O	1:C:243:THR:HG23	2.09	0.51
1:C:318:ILE:HG12	1:C:319:LEU:HD12	1.92	0.51
1:C:471:THR:HA	1:C:474:LYS:HB3	1.92	0.51
1:E:308:PHE:O	1:E:311:ALA:HB3	2.10	0.51
1:A:348:ILE:HB	1:A:371:VAL:HG22	1.92	0.51
1:A:428:HIS:N	1:A:428:HIS:CD2	2.78	0.51
1:A:471:THR:HA	1:A:474:LYS:HB3	1.93	0.51
1:D:474:LYS:HD3	1:D:475:TYR:CE2	2.45	0.51
1:D:487:VAL:O	1:D:491:GLU:HG3	2.11	0.51
1:D:99:TYR:HH	1:D:149:THR:HG22	1.72	0.51
1:D:348:ILE:HB	1:D:371:VAL:HG22	1.92	0.51
1:E:147:LYS:HD2	1:E:151:ARG:NH2	2.20	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:79:ILE:HD12	1:E:79:ILE:N	2.25	0.51
1:F:28:VAL:CG2	1:F:487:VAL:HG13	2.39	0.51
1:F:318:ILE:N	1:F:318:ILE:HD13	2.25	0.51
1:F:226:GLY:HA3	1:F:377:LEU:CD1	2.40	0.51
1:A:285:TRP:O	1:A:286:ASN:HB2	2.11	0.51
1:C:221:ARG:HD2	1:C:454:HIS:CE1	2.45	0.51
1:C:251:PHE:CB	1:C:325:ILE:HG13	2.41	0.51
1:D:308:PHE:O	1:D:311:ALA:HB3	2.09	0.51
1:D:41:SER:CA	1:D:46:ARG:HD2	2.31	0.51
1:E:243:THR:HG23	1:E:243:THR:O	2.11	0.51
1:A:92:PRO:HG2	1:A:389:TRP:CZ2	2.46	0.51
1:B:266:TYR:O	1:B:270:PHE:HD2	1.94	0.51
1:B:308:PHE:O	1:B:311:ALA:HB3	2.09	0.51
1:B:40:GLU:HG3	1:B:46:ARG:NH1	2.17	0.51
1:C:252:VAL:CG1	1:C:318:ILE:HB	2.40	0.51
1:F:471:THR:HA	1:F:474:LYS:HB3	1.93	0.51
1:A:116:THR:HG22	1:A:128:GLY:H	1.76	0.51
1:B:87:SER:O	1:B:127:GLY:HA3	2.11	0.51
1:B:440:PHE:O	1:B:444:ILE:HG13	2.10	0.51
1:C:41:SER:HA	1:C:46:ARG:CD	2.34	0.51
1:D:335:LEU:HD12	1:D:356:THR:HG22	1.92	0.51
1:F:40:GLU:O	1:F:42:GLU:N	2.44	0.51
1:C:78:VAL:N	1:F:54:ARG:HH12	2.08	0.51
1:A:425:PHE:CD1	1:A:427:LYS:HB2	2.44	0.51
1:C:226:GLY:HA3	1:C:377:LEU:CD1	2.41	0.51
1:C:425:PHE:CD1	1:C:427:LYS:HB2	2.43	0.51
1:D:62:VAL:HG11	1:D:109:LYS:HZ3	1.76	0.51
1:B:54:ARG:HH12	1:D:77:GLU:HA	1.75	0.51
1:E:285:TRP:O	1:E:286:ASN:HB2	2.10	0.51
1:E:73:ASP:O	1:E:75:SER:N	2.42	0.51
1:F:266:TYR:O	1:F:270:PHE:HD2	1.94	0.51
1:F:95:GLY:HA3	1:F:129:ALA:O	2.11	0.51
1:A:298:PHE:HE1	1:A:309:PRO:HD3	1.76	0.50
1:C:30:ASP:O	1:C:34:GLU:HG2	2.11	0.50
1:B:505:THR:N	1:F:150:ARG:HH12	2.08	0.50
1:F:30:ASP:O	1:F:34:GLU:HG2	2.11	0.50
1:B:348:ILE:HB	1:B:371:VAL:HG22	1.93	0.50
1:C:73:ASP:O	1:C:75:SER:N	2.45	0.50
1:D:243:THR:O	1:D:243:THR:HG23	2.12	0.50
1:D:252:VAL:CG1	1:D:318:ILE:HB	2.41	0.50
1:D:40:GLU:O	1:D:42:GLU:N	2.44	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:251:PHE:CB	1:E:325:ILE:HG13	2.39	0.50
1:F:73:ASP:O	1:F:75:SER:N	2.44	0.50
1:A:243:THR:O	1:A:243:THR:HG23	2.12	0.50
1:B:116:THR:HG22	1:B:128:GLY:N	2.25	0.50
1:B:116:THR:HG22	1:B:128:GLY:H	1.77	0.50
1:B:425:PHE:CD1	1:B:427:LYS:HB2	2.44	0.50
1:B:40:GLU:O	1:B:42:GLU:N	2.44	0.50
1:C:40:GLU:O	1:C:42:GLU:N	2.44	0.50
1:D:488:ASN:HD21	1:D:492:LYS:HZ2	1.59	0.50
1:E:38:THR:CG2	1:E:41:SER:HB3	2.40	0.50
1:A:298:PHE:CE1	1:A:309:PRO:HD3	2.47	0.50
1:A:332:GLU:HG2	1:A:333:LYS:HG2	1.92	0.50
1:A:474:LYS:HD3	1:A:475:TYR:CE2	2.46	0.50
1:C:243:THR:H	1:C:244:PRO:HD3	1.74	0.50
1:C:332:GLU:HG2	1:C:333:LYS:HG2	1.93	0.50
1:C:372:ILE:HA	1:C:481:LEU:HD23	1.93	0.50
1:C:376:TYR:HB2	1:C:468:ILE:HD11	1.92	0.50
1:C:502:VAL:HG11	1:F:76:TRP:HD1	1.77	0.50
1:D:285:TRP:O	1:D:286:ASN:HB2	2.10	0.50
1:D:471:THR:HA	1:D:474:LYS:HB3	1.93	0.50
1:E:243:THR:N	1:E:244:PRO:CD	2.67	0.50
1:E:266:TYR:O	1:E:270:PHE:HD2	1.95	0.50
1:C:335:LEU:HD12	1:C:356:THR:HG22	1.94	0.50
1:D:30:ASP:O	1:D:34:GLU:HG2	2.11	0.50
1:D:440:PHE:O	1:D:444:ILE:HG13	2.11	0.50
1:E:318:ILE:HG12	1:E:319:LEU:HD12	1.92	0.50
1:E:428:HIS:CD2	1:E:428:HIS:N	2.78	0.50
1:A:78:VAL:N	1:E:54:ARG:HH12	2.10	0.50
1:F:335:LEU:HD12	1:F:356:THR:HG22	1.94	0.50
1:A:318:ILE:HG12	1:A:319:LEU:HD12	1.92	0.50
1:D:428:HIS:CD2	1:D:428:HIS:N	2.79	0.50
1:B:105:VAL:HG12	1:B:109:LYS:HE2	1.94	0.50
1:C:285:TRP:O	1:C:286:ASN:HB2	2.12	0.50
1:C:420:SER:HB3	1:E:432:ILE:O	2.12	0.50
1:D:122:VAL:HG23	1:D:124:VAL:HG23	1.94	0.50
1:C:390:LEU:HD13	1:D:396:VAL:HG21	1.93	0.50
1:F:318:ILE:HG12	1:F:319:LEU:HD12	1.93	0.50
1:A:343:VAL:CG2	1:A:364:PHE:HE1	2.25	0.50
1:B:428:HIS:CD2	1:B:428:HIS:N	2.79	0.50
1:C:440:PHE:O	1:C:444:ILE:HG13	2.11	0.50
1:D:347:ILE:HA	1:D:370:MET:O	2.12	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:28:VAL:HG23	1:E:487:VAL:HG13	1.94	0.50
1:F:348:ILE:HB	1:F:371:VAL:HG22	1.93	0.50
1:A:335:LEU:HD12	1:A:356:THR:HG22	1.93	0.50
1:B:435:VAL:HG13	1:F:423:ARG:HH21	1.75	0.50
1:C:348:ILE:HB	1:C:371:VAL:HG22	1.93	0.50
1:D:425:PHE:CD1	1:D:427:LYS:HB2	2.44	0.50
1:E:347:ILE:HA	1:E:370:MET:O	2.12	0.50
1:E:226:GLY:HA3	1:E:377:LEU:CD1	2.42	0.50
1:E:488:ASN:HD21	1:E:492:LYS:HZ2	1.60	0.50
1:C:421:LEU:HD21	1:E:421:LEU:HD21	1.93	0.49
1:C:213:HIS:HB2	1:C:449:GLU:HB3	1.93	0.49
1:D:319:LEU:HD12	1:D:319:LEU:N	2.27	0.49
1:D:327:ILE:CG2	1:D:349:ALA:HB3	2.34	0.49
1:E:322:ASP:HA	1:E:344:LYS:HB2	1.93	0.49
1:F:116:THR:HG22	1:F:128:GLY:N	2.27	0.49
1:F:322:ASP:HA	1:F:344:LYS:HB2	1.93	0.49
1:C:504:PHE:CE1	1:F:70:ARG:HB3	2.47	0.49
1:A:40:GLU:HG3	1:A:46:ARG:NH1	2.15	0.49
1:B:471:THR:HA	1:B:474:LYS:HB3	1.93	0.49
1:D:318:ILE:N	1:D:318:ILE:HD13	2.25	0.49
1:D:391:LYS:NZ	1:D:449:GLU:OE1	2.43	0.49
1:E:40:GLU:O	1:E:42:GLU:N	2.45	0.49
1:E:471:THR:HA	1:E:474:LYS:HB3	1.93	0.49
1:F:332:GLU:HG2	1:F:333:LYS:HG2	1.93	0.49
1:F:79:ILE:HD12	1:F:79:ILE:N	2.27	0.49
1:B:243:THR:HG23	1:B:243:THR:O	2.11	0.49
1:C:206:PRO:HB2	1:C:209:GLN:CG	2.43	0.49
1:C:78:VAL:O	1:C:78:VAL:HG23	2.13	0.49
1:D:266:TYR:O	1:D:270:PHE:HD2	1.95	0.49
1:E:30:ASP:O	1:E:34:GLU:HG2	2.12	0.49
1:A:336:THR:H	1:A:339:ASN:ND2	2.08	0.49
1:C:298:PHE:HE1	1:C:309:PRO:HD3	1.78	0.49
1:C:79:ILE:N	1:C:79:ILE:HD12	2.27	0.49
1:D:221:ARG:HD2	1:D:454:HIS:NE2	2.27	0.49
1:F:298:PHE:CE1	1:F:309:PRO:HD3	2.48	0.49
1:F:336:THR:H	1:F:339:ASN:ND2	2.08	0.49
1:F:337:LYS:HZ2	1:F:359:GLU:HG3	1.77	0.49
1:F:474:LYS:HD3	1:F:475:TYR:CE2	2.47	0.49
1:A:40:GLU:O	1:A:42:GLU:N	2.45	0.49
1:B:502:VAL:N	1:B:505:THR:HB	2.28	0.49
1:B:76:TRP:HB2	1:D:51:GLY:HA3	1.95	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:122:VAL:CG1	1:C:379:ALA:HB3	2.41	0.49
1:C:242:MET:O	1:C:243:THR:HG22	2.13	0.49
1:D:332:GLU:HG2	1:D:333:LYS:HG2	1.92	0.49
1:E:332:GLU:HG2	1:E:333:LYS:HG2	1.93	0.49
1:F:347:ILE:HA	1:F:370:MET:O	2.13	0.49
1:F:87:SER:O	1:F:127:GLY:HA3	2.12	0.49
1:A:147:LYS:HD2	1:A:151:ARG:NH2	2.20	0.49
1:A:347:ILE:HA	1:A:370:MET:O	2.13	0.49
1:A:226:GLY:HA3	1:A:377:LEU:CD1	2.42	0.49
1:B:336:THR:H	1:B:339:ASN:ND2	2.09	0.49
1:B:375:LEU:HD22	1:B:486:TYR:CE2	2.47	0.49
1:D:505:THR:HG23	1:E:150:ARG:HH22	1.77	0.49
1:E:136:ASN:OD1	1:E:138:LYS:HB2	2.13	0.49
1:E:37:ARG:NH2	1:E:49:VAL:HG11	2.28	0.49
1:F:105:VAL:HG12	1:F:109:LYS:HE2	1.95	0.49
1:F:487:VAL:O	1:F:491:GLU:HG3	2.12	0.49
1:A:30:ASP:O	1:A:34:GLU:HG2	2.13	0.49
1:B:16:MET:SD	1:B:358:PRO:HD3	2.52	0.49
1:C:105:VAL:HG12	1:C:109:LYS:HE2	1.95	0.49
1:C:376:TYR:CZ	1:C:465:ALA:HB2	2.47	0.49
1:D:116:THR:HG22	1:D:128:GLY:N	2.27	0.49
1:D:502:VAL:N	1:D:505:THR:HB	2.28	0.49
1:E:116:THR:HG22	1:E:128:GLY:N	2.27	0.49
1:E:348:ILE:HB	1:E:371:VAL:HG22	1.94	0.49
1:A:199:HIS:O	1:A:205:LYS:HE2	2.13	0.49
1:C:228:GLU:O	1:C:231:ILE:HG22	2.13	0.49
1:C:488:ASN:HD21	1:C:492:LYS:NZ	2.11	0.49
1:C:505:THR:C	1:D:150:ARG:HH22	2.15	0.49
1:C:69:ILE:HG12	1:C:79:ILE:CD1	2.43	0.49
1:D:243:THR:H	1:D:244:PRO:HD3	1.75	0.49
1:D:322:ASP:HA	1:D:344:LYS:HB2	1.93	0.49
1:E:13:PHE:CE2	1:E:107:GLU:HG3	2.48	0.49
1:A:69:ILE:HG12	1:A:79:ILE:CD1	2.43	0.49
1:C:122:VAL:HG23	1:C:124:VAL:HG23	1.94	0.49
1:C:28:VAL:HG22	1:C:487:VAL:HG13	1.94	0.49
1:F:242:MET:O	1:F:243:THR:HG22	2.12	0.49
1:A:266:TYR:O	1:A:270:PHE:HD2	1.95	0.49
1:B:91:THR:HB	1:B:92:PRO:HD3	1.95	0.49
1:C:122:VAL:HG11	1:C:379:ALA:HB1	1.94	0.49
1:C:400:ARG:NH1	1:C:400:ARG:HG3	2.28	0.49
1:C:76:TRP:CD1	1:F:502:VAL:HG11	2.46	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:13:PHE:CE2	1:D:107:GLU:HG3	2.48	0.49
1:F:285:TRP:CD1	1:F:287:PRO:HD3	2.48	0.49
1:A:233:GLU:HG2	1:A:236:TYR:HD1	1.78	0.48
1:B:13:PHE:CE2	1:B:107:GLU:HG3	2.48	0.48
1:B:343:VAL:CG2	1:B:364:PHE:HE1	2.25	0.48
1:B:487:VAL:O	1:B:491:GLU:HG3	2.13	0.48
1:D:505:THR:N	1:E:150:ARG:NH1	2.60	0.48
1:F:252:VAL:HG23	1:F:323:CYS:SG	2.53	0.48
1:F:425:PHE:CD1	1:F:427:LYS:HB2	2.42	0.48
1:D:116:THR:HG22	1:D:128:GLY:H	1.78	0.48
1:C:420:SER:HB2	1:E:433:PRO:HA	1.94	0.48
1:F:235:SER:O	1:F:239:ILE:HG12	2.13	0.48
1:F:343:VAL:CG2	1:F:364:PHE:HE1	2.25	0.48
1:F:427:LYS:HA	1:F:427:LYS:CE	2.33	0.48
1:F:91:THR:HB	1:F:92:PRO:HD3	1.95	0.48
1:A:243:THR:H	1:A:244:PRO:HD3	1.74	0.48
1:C:136:ASN:OD1	1:C:138:LYS:HB2	2.13	0.48
1:C:266:TYR:O	1:C:270:PHE:HD2	1.96	0.48
1:C:425:PHE:HD1	1:C:427:LYS:CB	2.26	0.48
1:C:78:VAL:HG13	1:F:54:ARG:NH1	2.28	0.48
1:D:78:VAL:O	1:D:78:VAL:HG23	2.12	0.48
1:F:13:PHE:CE2	1:F:107:GLU:HG3	2.49	0.48
1:A:13:PHE:CE2	1:A:107:GLU:HG3	2.48	0.48
1:A:488:ASN:HD21	1:A:492:LYS:NZ	2.12	0.48
1:B:427:LYS:HZ3	1:B:428:HIS:H	1.59	0.48
1:C:252:VAL:HG23	1:C:323:CYS:SG	2.53	0.48
1:C:322:ASP:HA	1:C:344:LYS:HB2	1.93	0.48
1:D:298:PHE:HE1	1:D:309:PRO:HD3	1.77	0.48
1:E:319:LEU:N	1:E:319:LEU:HD12	2.28	0.48
1:F:425:PHE:HD1	1:F:427:LYS:CB	2.25	0.48
1:A:187:TYR:CE2	1:A:192:GLY:HA3	2.48	0.48
1:E:221:ARG:CD	1:E:454:HIS:CD2	2.96	0.48
1:E:242:MET:O	1:E:243:THR:HG22	2.14	0.48
1:F:122:VAL:HG23	1:F:124:VAL:HG23	1.95	0.48
1:A:427:LYS:HZ3	1:A:428:HIS:H	1.60	0.48
1:A:49:VAL:HA	1:E:76:TRP:CZ3	2.48	0.48
1:A:78:VAL:H	1:E:54:ARG:HH12	1.61	0.48
1:C:13:PHE:CE2	1:C:107:GLU:HG3	2.48	0.48
1:C:187:TYR:CE2	1:C:192:GLY:HA3	2.49	0.48
1:C:40:GLU:HG3	1:C:46:ARG:NH1	2.15	0.48
1:C:87:SER:O	1:C:127:GLY:HA3	2.14	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:298:PHE:CE1	1:D:309:PRO:HD3	2.48	0.48
1:E:233:GLU:HG2	1:E:236:TYR:HD1	1.79	0.48
1:E:343:VAL:CG2	1:E:364:PHE:HE1	2.26	0.48
1:E:487:VAL:O	1:E:491:GLU:HG3	2.14	0.48
1:E:78:VAL:O	1:E:78:VAL:HG23	2.12	0.48
1:F:502:VAL:N	1:F:505:THR:HB	2.28	0.48
1:A:283:SER:HB2	1:A:314:TYR:O	2.13	0.48
1:B:319:LEU:HD12	1:B:319:LEU:N	2.29	0.48
1:C:298:PHE:CE1	1:C:309:PRO:HD3	2.48	0.48
1:C:502:VAL:N	1:C:505:THR:HB	2.28	0.48
1:D:37:ARG:NH2	1:D:49:VAL:HG11	2.29	0.48
1:A:154:MET:CE	1:A:190:THR:HG21	2.44	0.48
1:A:327:ILE:CG2	1:A:349:ALA:HB3	2.34	0.48
1:A:41:SER:CA	1:A:46:ARG:HD2	2.32	0.48
1:B:78:VAL:HG23	1:B:78:VAL:O	2.14	0.48
1:C:283:SER:HB2	1:C:314:TYR:O	2.14	0.48
1:F:118:LYS:NZ	1:F:353:ASN:HD21	2.12	0.48
1:F:298:PHE:HE1	1:F:309:PRO:HD3	1.77	0.48
1:A:242:MET:O	1:A:243:THR:HG22	2.13	0.48
1:A:319:LEU:N	1:A:319:LEU:HD12	2.29	0.48
1:B:33:VAL:O	1:B:38:THR:N	2.47	0.48
1:E:235:SER:O	1:E:239:ILE:HG12	2.14	0.48
1:A:76:TRP:HD1	1:E:502:VAL:HG11	1.76	0.48
1:E:91:THR:HB	1:E:92:PRO:HD3	1.96	0.48
1:F:38:THR:CG2	1:F:41:SER:HB3	2.41	0.48
1:A:502:VAL:N	1:A:505:THR:HB	2.28	0.48
1:B:242:MET:O	1:B:243:THR:HG22	2.13	0.48
1:D:100:SER:O	1:D:103:VAL:HG22	2.14	0.48
1:C:150:ARG:HH12	1:E:505:THR:C	2.17	0.48
1:E:502:VAL:N	1:E:505:THR:HB	2.28	0.48
1:F:283:SER:HB2	1:F:314:TYR:O	2.13	0.48
1:F:488:ASN:HD21	1:F:492:LYS:NZ	2.12	0.48
1:A:235:SER:O	1:A:239:ILE:HG12	2.14	0.47
1:A:391:LYS:NZ	1:A:449:GLU:OE1	2.41	0.47
1:B:230:PHE:CE2	1:B:481:LEU:HD21	2.49	0.47
1:C:37:ARG:NH2	1:C:49:VAL:HG11	2.29	0.47
1:D:205:LYS:NZ	1:D:388:GLU:OE1	2.43	0.47
1:B:54:ARG:HH12	1:D:78:VAL:H	1.60	0.47
1:E:336:THR:H	1:E:339:ASN:ND2	2.09	0.47
1:A:251:PHE:HB3	1:A:325:ILE:CG1	2.41	0.47
1:A:318:ILE:HD13	1:A:318:ILE:N	2.26	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:100:SER:O	1:C:103:VAL:HG22	2.15	0.47
1:C:211:GLY:O	1:C:391:LYS:NZ	2.42	0.47
1:C:217:SER:OG	1:C:454:HIS:CE1	2.67	0.47
1:D:343:VAL:CG2	1:D:364:PHE:HE1	2.25	0.47
1:A:257:GLY:O	1:A:260:GLY:N	2.48	0.47
1:C:427:LYS:HZ3	1:C:428:HIS:H	1.60	0.47
1:D:136:ASN:OD1	1:D:138:LYS:HB2	2.14	0.47
1:D:488:ASN:HD21	1:D:492:LYS:NZ	2.12	0.47
1:E:122:VAL:HG23	1:E:124:VAL:HG23	1.96	0.47
1:E:116:THR:HG22	1:E:128:GLY:H	1.79	0.47
1:F:116:THR:HG22	1:F:128:GLY:H	1.79	0.47
1:F:372:ILE:HA	1:F:373:PRO:HD3	1.64	0.47
1:A:285:TRP:CD1	1:A:287:PRO:HD3	2.49	0.47
1:B:187:TYR:CE2	1:B:192:GLY:HA3	2.49	0.47
1:B:235:SER:O	1:B:239:ILE:HG12	2.14	0.47
1:B:283:SER:HB2	1:B:314:TYR:O	2.14	0.47
1:B:285:TRP:CD1	1:B:287:PRO:HD3	2.50	0.47
1:C:343:VAL:CG2	1:C:364:PHE:HE1	2.26	0.47
1:D:226:GLY:HA3	1:D:377:LEU:CD1	2.44	0.47
1:E:69:ILE:HG12	1:E:79:ILE:CD1	2.44	0.47
1:C:503:THR:HG21	1:F:151:ARG:HD3	1.96	0.47
1:F:319:LEU:HD12	1:F:319:LEU:N	2.29	0.47
1:F:41:SER:HA	1:F:46:ARG:CD	2.33	0.47
1:F:69:ILE:HG12	1:F:79:ILE:CD1	2.44	0.47
1:A:251:PHE:CE2	1:A:264:MET:HA	2.50	0.47
1:A:432:ILE:HG22	1:A:434:ILE:CG1	2.43	0.47
1:A:487:VAL:O	1:A:491:GLU:HG3	2.14	0.47
1:C:257:GLY:O	1:C:258:ASN:C	2.53	0.47
1:C:319:LEU:HD12	1:C:319:LEU:N	2.30	0.47
1:C:373:PRO:HD3	1:C:481:LEU:HB3	1.96	0.47
1:D:105:VAL:HG12	1:D:109:LYS:HE2	1.96	0.47
1:D:184:ALA:HA	1:D:201:CYS:SG	2.54	0.47
1:E:233:GLU:CG	1:E:236:TYR:HD1	2.27	0.47
1:E:298:PHE:HE1	1:E:309:PRO:HD3	1.78	0.47
1:F:221:ARG:HD2	1:F:454:HIS:CE1	2.48	0.47
1:F:418:GLN:OE1	1:F:434:ILE:HG23	2.15	0.47
1:A:100:SER:O	1:A:103:VAL:HG22	2.15	0.47
1:A:33:VAL:O	1:A:38:THR:N	2.47	0.47
1:A:37:ARG:NH2	1:A:49:VAL:HG11	2.30	0.47
1:B:122:VAL:HG23	1:B:124:VAL:HG23	1.97	0.47
1:B:298:PHE:HE1	1:B:309:PRO:HD3	1.78	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:298:PHE:CE1	1:B:302:HIS:HE1	2.33	0.47
1:B:298:PHE:CE1	1:B:309:PRO:HD3	2.49	0.47
1:C:235:SER:O	1:C:239:ILE:HG12	2.14	0.47
1:D:154:MET:CE	1:D:190:THR:HG21	2.45	0.47
1:D:91:THR:HB	1:D:92:PRO:HD3	1.97	0.47
1:A:233:GLU:CG	1:A:236:TYR:HD1	2.27	0.47
1:C:347:ILE:HA	1:C:370:MET:O	2.14	0.47
1:D:92:PRO:HG2	1:D:389:TRP:CZ2	2.50	0.47
1:E:298:PHE:CE1	1:E:302:HIS:HE1	2.33	0.47
1:E:432:ILE:HG22	1:E:434:ILE:CG1	2.45	0.47
1:F:327:ILE:CG2	1:F:349:ALA:HB3	2.33	0.47
1:B:136:ASN:OD1	1:B:138:LYS:HB2	2.14	0.47
1:C:285:TRP:CD1	1:C:287:PRO:HD3	2.50	0.47
1:C:327:ILE:CG2	1:C:349:ALA:HB3	2.36	0.47
1:D:13:PHE:CE1	1:D:107:GLU:HA	2.50	0.47
1:E:177:GLU:HB2	1:E:206:PRO:HG3	1.97	0.47
1:E:21:PHE:CE1	1:E:490:ILE:HD12	2.49	0.47
1:F:251:PHE:HB3	1:F:325:ILE:CG1	2.41	0.47
1:A:228:GLU:O	1:A:231:ILE:HG22	2.15	0.47
1:C:33:VAL:O	1:C:38:THR:N	2.47	0.47
1:D:242:MET:O	1:D:243:THR:HG22	2.14	0.47
1:D:257:GLY:O	1:D:260:GLY:N	2.48	0.47
1:E:187:TYR:CE2	1:E:192:GLY:HA3	2.50	0.47
1:A:54:ARG:HH12	1:E:77:GLU:HA	1.80	0.47
1:B:339:ASN:N	1:B:339:ASN:HD22	2.13	0.47
1:B:374:ASP:O	1:B:378:ASN:ND2	2.48	0.47
1:C:91:THR:HB	1:C:92:PRO:HD3	1.97	0.47
1:D:432:ILE:HG22	1:D:434:ILE:CG1	2.45	0.47
1:E:105:VAL:HG12	1:E:109:LYS:HE2	1.97	0.47
1:F:243:THR:H	1:F:244:PRO:HD3	1.75	0.47
1:C:421:LEU:HA	1:C:421:LEU:HD12	1.74	0.47
1:D:187:TYR:CE2	1:D:192:GLY:HA3	2.50	0.47
1:D:283:SER:HB2	1:D:314:TYR:O	2.14	0.47
1:D:33:VAL:O	1:D:38:THR:N	2.48	0.47
1:F:298:PHE:CE1	1:F:302:HIS:HE1	2.33	0.47
1:A:41:SER:HA	1:A:46:ARG:CD	2.35	0.46
1:C:154:MET:CE	1:C:190:THR:HG21	2.45	0.46
1:C:233:GLU:HG2	1:C:236:TYR:HD1	1.80	0.46
1:C:373:PRO:CD	1:C:481:LEU:HB3	2.46	0.46
1:C:38:THR:CG2	1:C:41:SER:HB3	2.40	0.46
1:D:425:PHE:HD1	1:D:427:LYS:CB	2.27	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:54:ARG:NH1	1:F:77:GLU:HA	2.30	0.46
1:A:184:ALA:HA	1:A:201:CYS:SG	2.55	0.46
1:B:233:GLU:HG2	1:B:236:TYR:HD1	1.80	0.46
1:B:69:ILE:HG12	1:B:79:ILE:CD1	2.46	0.46
1:C:423:ARG:NH2	1:E:435:VAL:HG13	2.27	0.46
1:D:339:ASN:H	1:D:339:ASN:ND2	2.13	0.46
1:D:418:GLN:OE1	1:D:434:ILE:HG23	2.16	0.46
1:E:154:MET:CE	1:E:190:THR:HG21	2.45	0.46
1:E:320:GLU:HG3	1:E:342:ARG:HG2	1.98	0.46
1:F:233:GLU:HG2	1:F:236:TYR:HD1	1.80	0.46
1:A:13:PHE:CE1	1:A:107:GLU:HA	2.50	0.46
1:A:177:GLU:HB2	1:A:206:PRO:HG3	1.97	0.46
1:B:41:SER:HA	1:B:46:ARG:CD	2.34	0.46
1:C:298:PHE:CE1	1:C:302:HIS:HE1	2.33	0.46
1:C:334:GLN:HA	1:C:334:GLN:HE21	1.80	0.46
1:C:374:ASP:O	1:C:378:ASN:ND2	2.48	0.46
1:C:388:GLU:O	1:C:391:LYS:HB3	2.15	0.46
1:E:283:SER:HB2	1:E:314:TYR:O	2.15	0.46
1:E:488:ASN:HD21	1:E:492:LYS:NZ	2.13	0.46
1:F:257:GLY:O	1:F:260:GLY:N	2.48	0.46
1:F:251:PHE:CE2	1:F:264:MET:HA	2.50	0.46
1:F:78:VAL:O	1:F:78:VAL:HG23	2.14	0.46
1:A:425:PHE:HD1	1:A:427:LYS:CB	2.28	0.46
1:C:184:ALA:HA	1:C:201:CYS:SG	2.56	0.46
1:C:505:THR:C	1:D:150:ARG:HH12	2.19	0.46
1:D:252:VAL:HG23	1:D:323:CYS:SG	2.56	0.46
1:E:13:PHE:CE1	1:E:107:GLU:HA	2.51	0.46
1:E:33:VAL:O	1:E:38:THR:N	2.47	0.46
1:F:133:VAL:HG12	1:F:135:ILE:HB	1.98	0.46
1:A:150:ARG:HH12	1:F:505:THR:C	2.19	0.46
1:A:298:PHE:CE1	1:A:302:HIS:HE1	2.34	0.46
1:B:190:THR:HG22	1:B:191:ILE:HG12	1.98	0.46
1:B:502:VAL:HG23	1:B:503:THR:N	2.28	0.46
1:B:505:THR:HG23	1:F:150:ARG:NH2	2.31	0.46
1:C:13:PHE:CE1	1:C:107:GLU:HA	2.51	0.46
1:C:487:VAL:O	1:C:491:GLU:HG3	2.15	0.46
1:D:257:GLY:O	1:D:258:ASN:C	2.54	0.46
1:D:427:LYS:CE	1:D:427:LYS:HA	2.32	0.46
1:E:298:PHE:CE1	1:E:309:PRO:HD3	2.49	0.46
1:F:334:GLN:HE21	1:F:334:GLN:HA	1.81	0.46
1:B:257:GLY:O	1:B:260:GLY:N	2.48	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:327:ILE:CG2	1:B:349:ALA:HB3	2.34	0.46
1:B:427:LYS:HG3	1:B:430:GLY:H	1.81	0.46
1:B:418:GLN:OE1	1:B:434:ILE:HG23	2.16	0.46
1:C:233:GLU:CG	1:C:236:TYR:HD1	2.28	0.46
1:C:51:GLY:O	1:C:55:ILE:HG13	2.15	0.46
1:D:285:TRP:CD1	1:D:287:PRO:HD3	2.50	0.46
1:D:421:LEU:HD23	1:E:421:LEU:HD11	1.96	0.46
1:E:120:ALA:O	1:E:492:LYS:NZ	2.48	0.46
1:D:435:VAL:HG13	1:E:423:ARG:NH2	2.31	0.46
1:F:432:ILE:HG22	1:F:434:ILE:CG1	2.46	0.46
1:B:154:MET:CE	1:B:190:THR:HG21	2.45	0.46
1:B:322:ASP:OD1	1:B:344:LYS:HB3	2.16	0.46
1:B:432:ILE:HG22	1:B:434:ILE:CG1	2.45	0.46
1:C:150:ARG:HH12	1:E:505:THR:N	2.13	0.46
1:C:257:GLY:O	1:C:260:GLY:N	2.49	0.46
1:C:418:GLN:OE1	1:C:434:ILE:HG23	2.15	0.46
1:E:285:TRP:CD1	1:E:287:PRO:HD3	2.50	0.46
1:D:435:VAL:CG1	1:E:423:ARG:HH21	2.28	0.46
1:F:100:SER:O	1:F:103:VAL:HG22	2.15	0.46
1:F:37:ARG:NH2	1:F:49:VAL:HG11	2.29	0.46
1:A:206:PRO:HD2	1:A:209:GLN:HB2	1.98	0.46
1:A:421:LEU:HD12	1:A:421:LEU:HA	1.73	0.46
1:B:13:PHE:CE1	1:B:107:GLU:HA	2.51	0.46
1:B:257:GLY:O	1:B:258:ASN:C	2.54	0.46
1:B:91:THR:CB	1:B:92:PRO:CD	2.94	0.46
1:C:133:VAL:HG12	1:C:135:ILE:HB	1.98	0.46
1:C:427:LYS:HG3	1:C:430:GLY:H	1.81	0.46
1:D:233:GLU:HG2	1:D:236:TYR:HD1	1.80	0.46
1:E:339:ASN:ND2	1:E:339:ASN:H	2.14	0.46
1:F:136:ASN:OD1	1:F:138:LYS:HB2	2.15	0.46
1:F:187:TYR:CE2	1:F:192:GLY:HA3	2.51	0.46
1:F:339:ASN:H	1:F:339:ASN:ND2	2.14	0.46
1:A:91:THR:HB	1:A:92:PRO:HD3	1.97	0.46
1:B:184:ALA:HA	1:B:201:CYS:SG	2.56	0.46
1:B:320:GLU:HG3	1:B:342:ARG:HG2	1.98	0.46
1:C:12:ASN:ND2	1:C:14:PHE:HB3	2.30	0.46
1:C:432:ILE:HG22	1:C:434:ILE:CG1	2.45	0.46
1:D:277:VAL:HG21	1:D:295:LEU:HD22	1.98	0.46
1:E:339:ASN:N	1:E:339:ASN:HD22	2.13	0.46
1:A:70:ARG:HB3	1:E:504:PHE:CE1	2.50	0.46
1:C:49:VAL:HA	1:F:76:TRP:CZ3	2.50	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:136:ASN:OD1	1:A:138:LYS:HB2	2.15	0.46
1:A:252:VAL:HG23	1:A:323:CYS:SG	2.56	0.46
1:A:374:ASP:O	1:A:378:ASN:ND2	2.48	0.46
1:B:339:ASN:HD22	1:B:339:ASN:H	1.64	0.46
1:C:273:LYS:HE2	1:C:288:ASP:C	2.36	0.46
1:C:308:PHE:CD2	1:C:311:ALA:HB2	2.49	0.46
1:C:320:GLU:HG3	1:C:342:ARG:HG2	1.98	0.46
1:C:421:LEU:HD11	1:E:421:LEU:HD23	1.97	0.46
1:E:12:ASN:ND2	1:E:14:PHE:HB3	2.31	0.46
1:E:374:ASP:O	1:E:378:ASN:ND2	2.49	0.46
1:F:228:GLU:O	1:F:231:ILE:HG22	2.15	0.46
1:F:91:THR:CB	1:F:92:PRO:CD	2.93	0.46
1:A:339:ASN:HD22	1:A:339:ASN:N	2.14	0.45
1:A:372:ILE:HA	1:A:373:PRO:HD3	1.63	0.45
1:B:100:SER:O	1:B:103:VAL:HG22	2.17	0.45
1:B:133:VAL:HG12	1:B:135:ILE:HB	1.98	0.45
1:C:373:PRO:HG3	1:C:481:LEU:HB3	1.96	0.45
1:D:298:PHE:CE1	1:D:302:HIS:HE1	2.33	0.45
1:D:69:ILE:HG12	1:D:79:ILE:CD1	2.46	0.45
1:E:298:PHE:CE1	1:E:308:PHE:HA	2.52	0.45
1:F:12:ASN:ND2	1:F:14:PHE:HB3	2.31	0.45
1:F:233:GLU:CG	1:F:236:TYR:HD1	2.28	0.45
1:F:122:VAL:HG11	1:F:379:ALA:HB3	1.98	0.45
1:F:51:GLY:O	1:F:55:ILE:HG13	2.16	0.45
1:B:177:GLU:HB2	1:B:206:PRO:HG3	1.99	0.45
1:B:339:ASN:H	1:B:339:ASN:ND2	2.13	0.45
1:B:372:ILE:HA	1:B:373:PRO:HD3	1.62	0.45
1:B:118:LYS:NZ	1:B:378:ASN:ND2	2.64	0.45
1:C:251:PHE:CE2	1:C:264:MET:HA	2.51	0.45
1:D:233:GLU:CG	1:D:236:TYR:HD1	2.29	0.45
1:D:502:VAL:HG23	1:D:503:THR:N	2.28	0.45
1:E:149:THR:HG1	1:E:182:TRP:HE3	1.64	0.45
1:C:420:SER:HB3	1:E:433:PRO:HA	1.95	0.45
1:A:38:THR:CG2	1:A:41:SER:HB3	2.41	0.45
1:B:70:ARG:HH12	1:E:143:ASN:HD21	1.65	0.45
1:C:118:LYS:HZ3	1:C:353:ASN:HD21	1.64	0.45
1:D:235:SER:O	1:D:239:ILE:HG12	2.15	0.45
1:E:252:VAL:HG23	1:E:323:CYS:SG	2.57	0.45
1:E:257:GLY:O	1:E:260:GLY:N	2.49	0.45
1:E:427:LYS:HG3	1:E:430:GLY:H	1.81	0.45
1:A:504:PHE:CE1	1:E:70:ARG:CB	2.99	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:13:PHE:CE1	1:F:107:GLU:HA	2.51	0.45
1:A:28:VAL:HG23	1:A:487:VAL:HG13	1.98	0.45
1:B:120:ALA:O	1:B:492:LYS:NZ	2.49	0.45
1:B:12:ASN:ND2	1:B:14:PHE:HB3	2.32	0.45
1:D:133:VAL:HG12	1:D:135:ILE:HB	1.98	0.45
1:D:273:LYS:HE2	1:D:288:ASP:C	2.37	0.45
1:C:386:TYR:OH	1:D:396:VAL:HG13	2.16	0.45
1:D:496:VAL:HA	1:E:209:GLN:NE2	2.31	0.45
1:F:320:GLU:HG3	1:F:342:ARG:HG2	1.99	0.45
1:F:36:LEU:HD11	1:F:474:LYS:HZ1	1.81	0.45
1:A:12:ASN:ND2	1:A:14:PHE:HB3	2.31	0.45
1:A:180:MET:HE3	1:A:183:ILE:HD12	1.99	0.45
1:A:273:LYS:HE2	1:A:288:ASP:C	2.37	0.45
1:A:334:GLN:HA	1:A:334:GLN:HE21	1.82	0.45
1:A:339:ASN:H	1:A:339:ASN:ND2	2.14	0.45
1:E:251:PHE:HB3	1:E:325:ILE:CG1	2.42	0.45
1:F:277:VAL:HG21	1:F:295:LEU:HD22	1.99	0.45
1:F:322:ASP:OD1	1:F:344:LYS:HB3	2.16	0.45
1:A:320:GLU:HG3	1:A:342:ARG:HG2	1.99	0.45
1:B:318:ILE:N	1:B:318:ILE:HD13	2.24	0.45
1:B:334:GLN:HE21	1:B:334:GLN:HA	1.80	0.45
1:C:298:PHE:CE1	1:C:308:PHE:HA	2.52	0.45
1:C:318:ILE:HD13	1:C:318:ILE:N	2.29	0.45
1:C:474:LYS:HD3	1:C:475:TYR:CE2	2.51	0.45
1:D:251:PHE:HA	1:D:325:ILE:O	2.17	0.45
1:D:375:LEU:HD22	1:D:486:TYR:CE2	2.52	0.45
1:E:40:GLU:HG3	1:E:46:ARG:NH1	2.16	0.45
1:F:427:LYS:HG3	1:F:430:GLY:H	1.81	0.45
1:A:133:VAL:HG12	1:A:135:ILE:HB	1.98	0.45
1:D:350:GLU:OE1	1:D:482:ARG:NH2	2.50	0.45
1:E:334:GLN:HE21	1:E:334:GLN:HA	1.81	0.45
1:E:425:PHE:HD1	1:E:427:LYS:CB	2.27	0.45
1:F:308:PHE:CD2	1:F:311:ALA:HB2	2.50	0.45
1:F:374:ASP:O	1:F:378:ASN:ND2	2.50	0.45
1:B:251:PHE:CE2	1:B:264:MET:HA	2.52	0.45
1:C:209:GLN:NE2	1:E:499:GLU:HB2	2.31	0.45
1:D:12:ASN:ND2	1:D:14:PHE:HB3	2.31	0.45
1:D:243:THR:N	1:D:244:PRO:CD	2.69	0.45
1:D:372:ILE:HA	1:D:373:PRO:HD3	1.62	0.45
1:E:418:GLN:OE1	1:E:434:ILE:HG23	2.16	0.45
1:F:226:GLY:HA3	1:F:377:LEU:HD12	1.98	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:281:ASP:HB2	1:F:282:GLY:H	1.56	0.45
1:F:501:GLY:N	1:F:505:THR:HA	2.32	0.45
1:B:488:ASN:HD21	1:B:492:LYS:NZ	2.15	0.45
1:C:226:GLY:HA3	1:C:377:LEU:HD12	1.99	0.45
1:D:374:ASP:O	1:D:378:ASN:ND2	2.50	0.45
1:E:91:THR:CB	1:E:92:PRO:CD	2.94	0.45
1:A:136:ASN:OD1	1:A:138:LYS:N	2.50	0.45
1:A:322:ASP:OD1	1:A:344:LYS:HB3	2.17	0.45
1:A:91:THR:CB	1:A:92:PRO:CD	2.95	0.45
1:B:233:GLU:CG	1:B:236:TYR:HD1	2.29	0.45
1:B:350:GLU:OE1	1:B:482:ARG:NH2	2.50	0.45
1:C:502:VAL:HG23	1:C:503:THR:N	2.28	0.45
1:D:199:HIS:O	1:D:205:LYS:HE2	2.16	0.45
1:D:228:GLU:O	1:D:231:ILE:HG22	2.17	0.45
1:D:325:ILE:HG22	1:D:347:ILE:CG2	2.47	0.45
1:D:339:ASN:H	1:D:339:ASN:HD22	1.65	0.45
1:D:425:PHE:CD1	1:D:427:LYS:HD2	2.52	0.45
1:D:427:LYS:HG3	1:D:430:GLY:H	1.82	0.45
1:E:228:GLU:O	1:E:231:ILE:HG22	2.17	0.45
1:C:150:ARG:NH2	1:E:505:THR:HG23	2.32	0.45
1:F:177:GLU:HB2	1:F:206:PRO:HG3	1.99	0.45
1:F:273:LYS:HE2	1:F:288:ASP:C	2.37	0.45
1:F:298:PHE:CE1	1:F:308:PHE:HA	2.52	0.45
1:F:205:LYS:HZ3	1:F:392:ASN:HD21	1.64	0.45
1:F:400:ARG:HG3	1:F:400:ARG:NH1	2.29	0.45
1:F:425:PHE:CD1	1:F:427:LYS:HD2	2.51	0.45
1:A:298:PHE:CE1	1:A:308:PHE:HA	2.51	0.44
1:A:396:VAL:HG13	1:F:386:TYR:OH	2.17	0.44
1:B:251:PHE:HA	1:B:325:ILE:O	2.17	0.44
1:C:339:ASN:ND2	1:C:339:ASN:H	2.15	0.44
1:D:299:LYS:O	1:D:299:LYS:HG3	2.17	0.44
1:D:322:ASP:OD1	1:D:344:LYS:HB3	2.16	0.44
1:E:257:GLY:O	1:E:258:ASN:C	2.55	0.44
1:E:400:ARG:HG3	1:E:400:ARG:NH1	2.28	0.44
1:F:154:MET:CE	1:F:190:THR:HG21	2.47	0.44
1:F:339:ASN:N	1:F:339:ASN:HD22	2.14	0.44
1:F:33:VAL:O	1:F:38:THR:N	2.48	0.44
1:A:151:ARG:CZ	1:E:503:THR:HG21	2.48	0.44
1:A:257:GLY:O	1:A:258:ASN:C	2.55	0.44
1:A:51:GLY:O	1:A:55:ILE:HG13	2.17	0.44
1:B:118:LYS:HZ1	1:B:378:ASN:HD21	1.65	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:136:ASN:OD1	1:B:138:LYS:N	2.50	0.44
1:A:433:PRO:HA	1:B:420:SER:CB	2.47	0.44
1:B:425:PHE:CD1	1:B:427:LYS:HD2	2.52	0.44
1:C:277:VAL:HG21	1:C:295:LEU:HD22	1.98	0.44
1:D:28:VAL:HG22	1:D:487:VAL:HG13	1.99	0.44
1:E:86:HIS:HD2	1:E:116:THR:HG21	1.78	0.44
1:F:364:PHE:HB3	1:F:369:ILE:HB	1.98	0.44
1:F:502:VAL:C	1:F:505:THR:HB	2.38	0.44
1:A:251:PHE:HA	1:A:325:ILE:O	2.17	0.44
1:A:339:ASN:H	1:A:339:ASN:HD22	1.65	0.44
1:A:337:LYS:HZ2	1:A:359:GLU:HG3	1.83	0.44
1:C:339:ASN:N	1:C:339:ASN:HD22	2.15	0.44
1:C:322:ASP:OD1	1:C:344:LYS:HB3	2.17	0.44
1:C:440:PHE:CG	1:D:412:HIS:HB3	2.52	0.44
1:C:501:GLY:N	1:C:505:THR:HA	2.32	0.44
1:D:339:ASN:HD22	1:D:339:ASN:N	2.14	0.44
1:D:320:GLU:HG3	1:D:342:ARG:HG2	1.98	0.44
1:D:501:GLY:N	1:D:505:THR:HA	2.32	0.44
1:D:502:VAL:C	1:D:505:THR:HB	2.38	0.44
1:E:133:VAL:HG12	1:E:135:ILE:HB	1.99	0.44
1:E:318:ILE:N	1:E:318:ILE:HD13	2.25	0.44
1:E:322:ASP:OD1	1:E:344:LYS:HB3	2.18	0.44
1:E:16:MET:SD	1:E:358:PRO:HD3	2.57	0.44
1:F:251:PHE:CE1	1:F:267:LEU:HB3	2.52	0.44
1:A:427:LYS:HG3	1:A:430:GLY:H	1.81	0.44
1:B:251:PHE:HB3	1:B:325:ILE:CG1	2.41	0.44
1:B:325:ILE:HG22	1:B:347:ILE:CG2	2.48	0.44
1:B:37:ARG:NH2	1:B:49:VAL:HG11	2.29	0.44
1:C:91:THR:CB	1:C:92:PRO:CD	2.94	0.44
1:D:251:PHE:CE2	1:D:264:MET:HA	2.52	0.44
1:D:337:LYS:HZ2	1:D:359:GLU:HG3	1.83	0.44
1:E:425:PHE:CD1	1:E:427:LYS:HD2	2.52	0.44
1:A:277:VAL:HG21	1:A:295:LEU:HD22	1.98	0.44
1:B:205:LYS:HG3	1:B:388:GLU:OE1	2.18	0.44
1:C:180:MET:HE3	1:C:183:ILE:HD12	2.00	0.44
1:C:425:PHE:CD1	1:C:427:LYS:HD2	2.53	0.44
1:C:505:THR:HG23	1:D:185:ASP:OD1	2.17	0.44
1:D:308:PHE:CD2	1:D:311:ALA:HB2	2.50	0.44
1:E:136:ASN:OD1	1:E:138:LYS:N	2.50	0.44
1:F:199:HIS:O	1:F:205:LYS:HE2	2.18	0.44
1:A:105:VAL:HG12	1:A:109:LYS:HE2	1.98	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:252:VAL:HG23	1:B:323:CYS:SG	2.58	0.44
1:B:502:VAL:C	1:B:505:THR:HB	2.37	0.44
1:C:69:ILE:HD13	1:C:148:ILE:CG1	2.47	0.44
1:D:111:LEU:HA	1:D:111:LEU:HD23	1.81	0.44
1:D:147:LYS:HD2	1:D:151:ARG:NH2	2.20	0.44
1:D:421:LEU:HD12	1:D:421:LEU:HA	1.73	0.44
1:A:390:LEU:O	1:A:391:LYS:C	2.56	0.44
1:B:273:LYS:HE2	1:B:288:ASP:C	2.38	0.44
1:C:31:LYS:HA	1:C:34:GLU:HG2	2.00	0.44
1:D:400:ARG:NH1	1:D:400:ARG:HG3	2.31	0.44
1:E:100:SER:O	1:E:103:VAL:HG22	2.17	0.44
1:E:502:VAL:C	1:E:505:THR:HB	2.38	0.44
1:E:501:GLY:N	1:E:505:THR:HA	2.32	0.44
1:F:257:GLY:O	1:F:258:ASN:C	2.55	0.44
1:F:47:ASN:HD21	1:F:50:ARG:NH1	2.16	0.44
1:A:254:GLN:HE21	1:A:330:ALA:HB3	1.82	0.44
1:A:47:ASN:HD21	1:A:50:ARG:NH1	2.16	0.44
1:B:298:PHE:CE1	1:B:308:PHE:HA	2.53	0.44
1:B:27:ILE:CG2	1:B:475:TYR:CD1	2.99	0.44
1:C:284:ILE:CG2	1:C:285:TRP:N	2.81	0.44
1:D:177:GLU:HB2	1:D:206:PRO:HG3	2.00	0.44
1:D:251:PHE:HB3	1:D:325:ILE:CG1	2.42	0.44
1:E:184:ALA:HA	1:E:201:CYS:SG	2.58	0.44
1:E:273:LYS:HE2	1:E:288:ASP:C	2.38	0.44
1:A:60:ASN:HA	1:E:66:SER:OG	2.18	0.44
1:F:205:LYS:NZ	1:F:392:ASN:ND2	2.63	0.44
1:A:418:GLN:OE1	1:A:434:ILE:HG23	2.17	0.44
1:A:502:VAL:C	1:A:505:THR:HB	2.38	0.44
1:B:226:GLY:HA3	1:B:377:LEU:HD12	1.99	0.44
1:C:372:ILE:HA	1:C:373:PRO:HD3	1.64	0.44
1:E:251:PHE:CE2	1:E:264:MET:HA	2.53	0.44
1:A:190:THR:HG22	1:A:191:ILE:HG12	2.00	0.43
1:A:226:GLY:HA3	1:A:377:LEU:HD12	1.98	0.43
1:A:457:LEU:CD2	1:A:461:MET:HG2	2.48	0.43
1:B:16:MET:HG2	1:B:358:PRO:HG2	2.00	0.43
1:B:323:CYS:O	1:B:345:ALA:HA	2.18	0.43
1:B:31:LYS:HD3	1:B:35:ASP:OD2	2.18	0.43
1:C:301:GLN:O	1:C:301:GLN:HG2	2.18	0.43
1:D:251:PHE:CE1	1:D:267:LEU:HB3	2.53	0.43
1:F:69:ILE:HD13	1:F:148:ILE:CG1	2.48	0.43
1:F:284:ILE:HD13	1:F:308:PHE:HB3	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:301:GLN:O	1:F:301:GLN:HG2	2.18	0.43
1:F:488:ASN:HD21	1:F:492:LYS:HZ1	1.66	0.43
1:B:151:ARG:NH2	1:D:504:PHE:CZ	2.86	0.43
1:B:436:PRO:HB3	1:B:440:PHE:CD1	2.54	0.43
1:C:199:HIS:O	1:C:205:LYS:HE2	2.18	0.43
1:C:291:ASP:HA	1:C:292:PRO:HD3	1.88	0.43
1:C:300:LEU:HD22	1:C:300:LEU:HA	1.87	0.43
1:D:298:PHE:CE1	1:D:308:PHE:HA	2.52	0.43
1:D:334:GLN:HE21	1:D:334:GLN:HA	1.82	0.43
1:D:51:GLY:O	1:D:55:ILE:HG13	2.18	0.43
1:E:299:LYS:O	1:E:299:LYS:HG3	2.17	0.43
1:F:502:VAL:HG23	1:F:503:THR:N	2.28	0.43
1:B:228:GLU:O	1:B:231:ILE:HG22	2.18	0.43
1:B:301:GLN:O	1:B:301:GLN:HG2	2.18	0.43
1:C:284:ILE:HD13	1:C:308:PHE:HB3	2.01	0.43
1:C:503:THR:HG21	1:F:151:ARG:CZ	2.48	0.43
1:D:254:GLN:HE21	1:D:330:ALA:HB3	1.83	0.43
1:D:364:PHE:HB3	1:D:369:ILE:HB	2.00	0.43
1:D:47:ASN:HD21	1:D:50:ARG:NH1	2.16	0.43
1:D:21:PHE:CE1	1:D:490:ILE:HD12	2.54	0.43
1:E:69:ILE:HD13	1:E:148:ILE:CG1	2.49	0.43
1:E:339:ASN:H	1:E:339:ASN:HD22	1.65	0.43
1:F:184:ALA:HA	1:F:201:CYS:SG	2.58	0.43
1:F:433:PRO:C	1:F:435:VAL:N	2.70	0.43
1:F:403:PHE:CD2	1:F:447:ALA:HB1	2.53	0.43
1:A:205:LYS:NZ	1:A:392:ASN:HD21	2.17	0.43
1:A:425:PHE:CD1	1:A:427:LYS:HD2	2.54	0.43
1:B:31:LYS:HA	1:B:34:GLU:HG2	2.00	0.43
1:B:400:ARG:HG3	1:B:400:ARG:NH1	2.30	0.43
1:D:323:CYS:O	1:D:345:ALA:HA	2.18	0.43
1:E:180:MET:HE3	1:E:183:ILE:HD12	2.00	0.43
1:E:190:THR:HG22	1:E:191:ILE:HG12	2.00	0.43
1:E:226:GLY:HA3	1:E:377:LEU:HD12	1.99	0.43
1:A:69:ILE:HD13	1:A:148:ILE:CG1	2.49	0.43
1:A:284:ILE:CG2	1:A:285:TRP:N	2.82	0.43
1:A:501:GLY:N	1:A:505:THR:HA	2.33	0.43
1:D:228:GLU:HA	1:D:231:ILE:HG22	2.01	0.43
1:D:284:ILE:HD13	1:D:308:PHE:HB3	2.01	0.43
1:D:403:PHE:CE2	1:D:452:ILE:HD11	2.53	0.43
1:E:199:HIS:O	1:E:205:LYS:HE2	2.18	0.43
1:E:364:PHE:HB3	1:E:369:ILE:HB	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:422:GLU:HB3	1:E:427:LYS:HB3	2.00	0.43
1:E:47:ASN:HD21	1:E:50:ARG:NH1	2.17	0.43
1:F:28:VAL:HG22	1:F:487:VAL:HG13	2.00	0.43
1:F:68:PRO:HA	1:F:78:VAL:HA	2.01	0.43
1:C:54:ARG:NH1	1:F:78:VAL:HG13	2.34	0.43
1:A:228:GLU:HA	1:A:231:ILE:HG22	2.00	0.43
1:A:28:VAL:HG22	1:A:487:VAL:HG13	1.99	0.43
1:B:69:ILE:HD13	1:B:148:ILE:CG1	2.48	0.43
1:B:284:ILE:HD13	1:B:308:PHE:HB3	2.00	0.43
1:C:502:VAL:C	1:C:505:THR:HB	2.38	0.43
1:C:502:VAL:HG23	1:C:504:PHE:CD1	2.54	0.43
1:C:47:ASN:HD21	1:C:50:ARG:NH1	2.17	0.43
1:C:62:VAL:HG11	1:C:109:LYS:HZ3	1.83	0.43
1:D:350:GLU:CD	1:D:482:ARG:HH22	2.21	0.43
1:E:308:PHE:CD2	1:E:311:ALA:HB2	2.53	0.43
1:F:251:PHE:HA	1:F:325:ILE:O	2.19	0.43
1:F:284:ILE:CG2	1:F:285:TRP:N	2.82	0.43
1:A:325:ILE:HG22	1:A:347:ILE:CG2	2.48	0.43
1:A:436:PRO:HB3	1:A:440:PHE:CD1	2.53	0.43
1:A:376:TYR:OH	1:A:465:ALA:HB2	2.18	0.43
1:A:496:VAL:O	1:B:209:GLN:NE2	2.47	0.43
1:B:299:LYS:HG3	1:B:299:LYS:O	2.17	0.43
1:B:425:PHE:HD1	1:B:427:LYS:CB	2.27	0.43
1:B:51:GLY:O	1:B:55:ILE:HG13	2.19	0.43
1:E:325:ILE:HG22	1:E:347:ILE:CG2	2.48	0.43
1:B:143:ASN:HD21	1:E:70:ARG:HH12	1.67	0.43
1:F:180:MET:HE3	1:F:183:ILE:HD12	1.99	0.43
1:F:325:ILE:HG22	1:F:347:ILE:CG2	2.49	0.43
1:A:284:ILE:HD13	1:A:308:PHE:HB3	2.00	0.43
1:A:299:LYS:HG3	1:A:299:LYS:O	2.17	0.43
1:B:422:GLU:HB3	1:B:427:LYS:HB3	2.01	0.43
1:C:31:LYS:HD2	1:C:474:LYS:HZ1	1.84	0.43
1:D:69:ILE:HD13	1:D:148:ILE:CG1	2.49	0.43
1:E:261:LEU:HD12	1:E:261:LEU:C	2.39	0.43
1:E:291:ASP:HA	1:E:292:PRO:HD3	1.89	0.43
1:E:433:PRO:C	1:E:435:VAL:N	2.71	0.43
1:A:151:ARG:NH2	1:E:504:PHE:CZ	2.86	0.43
1:C:504:PHE:HZ	1:F:151:ARG:NH2	2.10	0.43
1:A:502:VAL:HG23	1:A:503:THR:N	2.28	0.43
1:A:504:PHE:HE1	1:E:70:ARG:CB	2.32	0.43
1:C:32:LEU:HD21	1:C:494:PHE:CD1	2.54	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:40:GLU:O	1:C:42:GLU:HG3	2.19	0.43
1:D:136:ASN:OD1	1:D:138:LYS:N	2.51	0.43
1:D:421:LEU:HD21	1:E:421:LEU:HD21	2.00	0.43
1:D:422:GLU:HB3	1:D:427:LYS:HB3	2.01	0.43
1:D:57:LYS:HB3	1:D:58:PRO:HD3	2.01	0.43
1:A:503:THR:HG21	1:E:151:ARG:CD	2.48	0.43
1:F:305:ILE:H	1:F:305:ILE:HG13	1.67	0.43
1:A:261:LEU:HD12	1:A:261:LEU:C	2.39	0.43
1:A:439:GLU:H	1:A:439:GLU:CD	2.22	0.43
1:B:111:LEU:HA	1:B:111:LEU:HD23	1.83	0.43
1:B:180:MET:HE3	1:B:183:ILE:HD12	2.00	0.43
1:B:203:THR:HA	1:B:388:GLU:OE1	2.19	0.43
1:B:501:GLY:N	1:B:505:THR:HA	2.33	0.43
1:C:177:GLU:HB2	1:C:206:PRO:HG3	2.01	0.43
1:C:325:ILE:HG22	1:C:347:ILE:CG2	2.49	0.43
1:C:387:PHE:CD1	1:D:401:LEU:HD21	2.54	0.43
1:E:375:LEU:HD22	1:E:486:TYR:CE2	2.54	0.43
1:F:31:LYS:HA	1:F:34:GLU:HG2	2.01	0.43
1:A:233:GLU:HG2	1:A:236:TYR:CD1	2.54	0.42
1:B:305:ILE:H	1:B:305:ILE:HG13	1.68	0.42
1:B:122:VAL:HA	1:B:464:SER:OG	2.19	0.42
1:C:206:PRO:HD2	1:C:209:GLN:HB2	1.99	0.42
1:C:364:PHE:HB3	1:C:369:ILE:HB	2.00	0.42
1:D:144:GLU:O	1:D:148:ILE:HG13	2.19	0.42
1:D:390:LEU:O	1:D:391:LYS:C	2.57	0.42
1:D:47:ASN:O	1:D:50:ARG:HG2	2.19	0.42
1:E:251:PHE:HA	1:E:325:ILE:O	2.18	0.42
1:E:284:ILE:CG2	1:E:285:TRP:N	2.81	0.42
1:F:435:VAL:O	1:F:435:VAL:HG13	2.19	0.42
1:A:68:PRO:HA	1:A:78:VAL:HA	2.00	0.42
1:B:199:HIS:O	1:B:205:LYS:HE2	2.19	0.42
1:B:308:PHE:CD2	1:B:311:ALA:HB2	2.51	0.42
1:B:502:VAL:HG23	1:B:504:PHE:CD1	2.54	0.42
1:C:436:PRO:HA	1:D:416:SER:OG	2.19	0.42
1:D:105:VAL:HA	1:D:108:VAL:HG22	2.01	0.42
1:D:190:THR:HG22	1:D:191:ILE:HG12	2.01	0.42
1:D:300:LEU:HD22	1:D:300:LEU:HA	1.88	0.42
1:D:391:LYS:HD2	1:D:449:GLU:OE2	2.19	0.42
1:E:105:VAL:HA	1:E:108:VAL:HG22	2.01	0.42
1:E:300:LEU:HD22	1:E:300:LEU:HA	1.88	0.42
1:E:502:VAL:HG23	1:E:504:PHE:CD1	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:77:GLU:HA	1:E:54:ARG:NH1	2.33	0.42
1:F:373:PRO:HD3	1:F:481:LEU:HB3	2.01	0.42
1:A:209:GLN:NE2	1:F:499:GLU:HB2	2.35	0.42
1:A:251:PHE:CE1	1:A:267:LEU:HB3	2.55	0.42
1:A:31:LYS:HA	1:A:34:GLU:HG2	2.01	0.42
1:A:323:CYS:O	1:A:345:ALA:HA	2.19	0.42
1:A:403:PHE:CE2	1:A:452:ILE:HD11	2.53	0.42
1:A:57:LYS:HB3	1:A:58:PRO:HD3	2.00	0.42
1:B:144:GLU:O	1:B:148:ILE:HG13	2.19	0.42
1:B:205:LYS:HZ3	1:B:392:ASN:HD21	1.67	0.42
1:C:111:LEU:HD23	1:C:111:LEU:HA	1.82	0.42
1:C:299:LYS:O	1:C:299:LYS:HG3	2.18	0.42
1:C:69:ILE:HG23	1:C:79:ILE:HD13	2.00	0.42
1:D:435:VAL:HG13	1:D:435:VAL:O	2.20	0.42
1:D:91:THR:CB	1:D:92:PRO:CD	2.94	0.42
1:E:349:ALA:HB1	1:E:377:LEU:CD2	2.49	0.42
1:F:136:ASN:OD1	1:F:138:LYS:N	2.52	0.42
1:F:323:CYS:O	1:F:345:ALA:HA	2.18	0.42
1:F:31:LYS:HD3	1:F:35:ASP:OD2	2.19	0.42
1:F:449:GLU:O	1:F:450:LYS:C	2.58	0.42
1:A:105:VAL:HA	1:A:108:VAL:HG22	2.01	0.42
1:A:448:SER:O	1:A:451:ASP:HB2	2.19	0.42
1:B:86:HIS:CG	1:B:116:THR:HG21	2.53	0.42
1:C:251:PHE:HA	1:C:325:ILE:O	2.20	0.42
1:C:254:GLN:HE21	1:C:330:ALA:HB3	1.84	0.42
1:C:32:LEU:HA	1:C:36:LEU:HD13	2.02	0.42
1:C:436:PRO:HB3	1:C:440:PHE:CD1	2.54	0.42
1:D:261:LEU:HD12	1:D:261:LEU:C	2.40	0.42
1:D:349:ALA:HB1	1:D:377:LEU:CD2	2.50	0.42
1:D:31:LYS:HA	1:D:34:GLU:HG2	2.02	0.42
1:D:502:VAL:HG23	1:D:504:PHE:CD1	2.54	0.42
1:E:233:GLU:HG2	1:E:236:TYR:CD1	2.54	0.42
1:E:254:GLN:HE21	1:E:330:ALA:HB3	1.84	0.42
1:E:284:ILE:HD13	1:E:308:PHE:HB3	2.01	0.42
1:E:449:GLU:O	1:E:450:LYS:C	2.57	0.42
1:F:261:LEU:C	1:F:261:LEU:HD12	2.40	0.42
1:F:299:LYS:HG3	1:F:299:LYS:O	2.19	0.42
1:F:424:LYS:HE3	1:F:424:LYS:HB3	1.87	0.42
1:F:40:GLU:O	1:F:42:GLU:HG3	2.20	0.42
1:F:485:ALA:O	1:F:488:ASN:HB3	2.20	0.42
1:C:251:PHE:CE1	1:C:267:LEU:HB3	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:457:LEU:CD2	1:C:461:MET:HG2	2.50	0.42
1:C:380:GLY:HA2	1:C:457:LEU:HD21	2.00	0.42
1:D:436:PRO:HB3	1:D:440:PHE:CD1	2.55	0.42
1:E:457:LEU:CD2	1:E:461:MET:HG2	2.50	0.42
1:F:502:VAL:HG23	1:F:504:PHE:CD1	2.54	0.42
1:F:50:ARG:O	1:F:50:ARG:HG3	2.20	0.42
1:A:424:LYS:HB3	1:A:424:LYS:HE3	1.88	0.42
1:B:277:VAL:HG21	1:B:295:LEU:HD22	1.99	0.42
1:B:457:LEU:CD2	1:B:461:MET:HG2	2.49	0.42
1:B:47:ASN:O	1:B:50:ARG:HG2	2.20	0.42
1:B:62:VAL:HG11	1:B:109:LYS:HZ2	1.84	0.42
1:A:502:VAL:HG23	1:A:504:PHE:CD1	2.54	0.42
1:B:99:TYR:HH	1:B:149:THR:HG22	1.81	0.42
1:B:284:ILE:CG2	1:B:285:TRP:N	2.82	0.42
1:B:364:PHE:HB3	1:B:369:ILE:HB	2.01	0.42
1:C:144:GLU:O	1:C:148:ILE:HG13	2.20	0.42
1:C:121:VAL:HG21	1:C:375:LEU:HG	2.02	0.42
1:C:68:PRO:HA	1:C:78:VAL:HA	2.01	0.42
1:D:205:LYS:NZ	1:D:392:ASN:HD21	2.18	0.42
1:E:277:VAL:HG21	1:E:295:LEU:HD22	1.99	0.42
1:E:421:LEU:HA	1:E:421:LEU:HD12	1.76	0.42
1:F:254:GLN:HE21	1:F:330:ALA:HB3	1.85	0.42
1:A:78:VAL:CG2	1:A:78:VAL:O	2.68	0.42
1:B:228:GLU:HA	1:B:231:ILE:HG22	2.01	0.42
1:B:261:LEU:HD12	1:B:261:LEU:C	2.40	0.42
1:B:32:LEU:HA	1:B:36:LEU:HD13	2.02	0.42
1:B:38:THR:CG2	1:B:41:SER:HB3	2.40	0.42
1:C:105:VAL:HA	1:C:108:VAL:HG22	2.02	0.42
1:C:433:PRO:C	1:C:435:VAL:N	2.73	0.42
1:E:111:LEU:HA	1:E:111:LEU:HD23	1.82	0.42
1:E:323:CYS:O	1:E:345:ALA:HA	2.19	0.42
1:E:33:VAL:O	1:E:34:GLU:O	2.38	0.42
1:E:436:PRO:HB3	1:E:440:PHE:CD1	2.55	0.42
1:F:144:GLU:O	1:F:148:ILE:HG13	2.20	0.42
1:F:390:LEU:O	1:F:391:LYS:C	2.57	0.42
1:A:364:PHE:HB3	1:A:369:ILE:HB	2.00	0.42
1:B:254:GLN:HE21	1:B:330:ALA:HB3	1.83	0.42
1:B:424:LYS:HE3	1:B:424:LYS:HB3	1.87	0.42
1:C:323:CYS:O	1:C:345:ALA:HA	2.19	0.42
1:C:380:GLY:CA	1:C:457:LEU:HD21	2.50	0.42
1:D:319:LEU:HD23	1:D:335:LEU:HD23	2.02	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:31:LYS:HD3	1:D:35:ASP:OD2	2.19	0.42
1:E:205:LYS:HZ3	1:E:392:ASN:ND2	2.17	0.42
1:F:105:VAL:HA	1:F:108:VAL:HG22	2.02	0.42
1:A:420:SER:CB	1:F:433:PRO:HA	2.50	0.42
1:B:118:LYS:HD3	1:B:379:ALA:HA	2.02	0.42
1:B:122:VAL:HB	1:B:460:THR:CG2	2.50	0.42
1:B:317:SER:C	1:B:319:LEU:N	2.73	0.42
1:B:433:PRO:HA	1:F:420:SER:HB3	2.02	0.42
1:B:505:THR:C	1:F:150:ARG:HH12	2.24	0.42
1:C:31:LYS:HD3	1:C:35:ASP:OD2	2.19	0.42
1:D:318:ILE:H	1:D:318:ILE:CD1	2.29	0.42
1:B:504:PHE:HB3	1:F:146:GLU:OE1	2.19	0.42
1:B:505:THR:N	1:F:150:ARG:NH1	2.68	0.42
1:F:436:PRO:HB3	1:F:440:PHE:CD1	2.55	0.42
1:B:281:ASP:HB2	1:B:282:GLY:H	1.56	0.41
1:C:190:THR:HG22	1:C:191:ILE:HG12	2.00	0.41
1:C:251:PHE:HB3	1:C:325:ILE:CG1	2.44	0.41
1:C:339:ASN:H	1:C:339:ASN:HD22	1.67	0.41
1:C:92:PRO:HG2	1:C:389:TRP:CZ2	2.55	0.41
1:D:317:SER:C	1:D:319:LEU:N	2.73	0.41
1:D:86:HIS:HD2	1:D:87:SER:HB2	1.85	0.41
1:F:150:ARG:NH2	1:F:185:ASP:OD1	2.53	0.41
1:A:31:LYS:HD3	1:A:35:ASP:OD2	2.19	0.41
1:B:118:LYS:HG3	1:B:375:LEU:O	2.20	0.41
1:B:47:ASN:HD21	1:B:50:ARG:NH1	2.17	0.41
1:D:301:GLN:HG2	1:D:301:GLN:O	2.19	0.41
1:D:40:GLU:O	1:D:42:GLU:HG3	2.20	0.41
1:B:54:ARG:NH1	1:D:78:VAL:HG13	2.35	0.41
1:E:31:LYS:HA	1:E:34:GLU:HG2	2.01	0.41
1:E:502:VAL:HG23	1:E:503:THR:N	2.28	0.41
1:E:92:PRO:HG2	1:E:389:TRP:CZ2	2.55	0.41
1:F:32:LEU:HA	1:F:36:LEU:HD13	2.02	0.41
1:A:284:ILE:CG2	1:A:311:ALA:HB1	2.48	0.41
1:A:47:ASN:O	1:A:50:ARG:HG2	2.20	0.41
1:B:105:VAL:HA	1:B:108:VAL:HG22	2.02	0.41
1:B:319:LEU:HD23	1:B:335:LEU:HD23	2.03	0.41
1:B:57:LYS:HB3	1:B:58:PRO:HD3	2.01	0.41
1:C:218:ALA:O	1:C:457:LEU:HD11	2.20	0.41
1:C:257:GLY:O	1:C:259:VAL:N	2.53	0.41
1:C:261:LEU:HD12	1:C:261:LEU:C	2.40	0.41
1:C:312:LYS:O	1:C:314:TYR:N	2.53	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:251:PHE:CE1	1:E:267:LEU:HB3	2.55	0.41
1:E:318:ILE:CD1	1:E:318:ILE:H	2.29	0.41
1:E:337:LYS:HZ2	1:E:359:GLU:HG3	1.85	0.41
1:E:31:LYS:HD3	1:E:35:ASP:OD2	2.19	0.41
1:E:51:GLY:O	1:E:55:ILE:HG13	2.19	0.41
1:E:68:PRO:HA	1:E:78:VAL:HA	2.02	0.41
1:C:228:GLU:HA	1:C:231:ILE:HG22	2.02	0.41
1:C:439:GLU:CD	1:C:439:GLU:H	2.24	0.41
1:E:149:THR:HG21	1:E:179:GLU:HG3	2.02	0.41
1:E:301:GLN:HG2	1:E:301:GLN:O	2.20	0.41
1:E:32:LEU:HA	1:E:36:LEU:HD13	2.02	0.41
1:A:32:LEU:HA	1:A:36:LEU:HD13	2.02	0.41
1:A:86:HIS:HD2	1:A:87:SER:HB2	1.84	0.41
1:B:134:LYS:HB2	1:B:134:LYS:HE3	1.94	0.41
1:B:118:LYS:HG3	1:B:379:ALA:HB2	2.02	0.41
1:B:40:GLU:O	1:B:42:GLU:HG3	2.21	0.41
1:F:33:VAL:O	1:F:34:GLU:O	2.39	0.41
1:A:400:ARG:NH1	1:A:400:ARG:HG3	2.30	0.41
1:A:435:VAL:O	1:A:435:VAL:HG13	2.20	0.41
1:B:207:ILE:HG21	1:B:213:HIS:NE2	2.36	0.41
1:C:349:ALA:HB1	1:C:377:LEU:CD2	2.51	0.41
1:C:422:GLU:HB3	1:C:427:LYS:HB3	2.02	0.41
1:C:47:ASN:O	1:C:50:ARG:HG2	2.21	0.41
1:D:12:ASN:HD21	1:D:14:PHE:HB3	1.86	0.41
1:E:281:ASP:HB2	1:E:282:GLY:H	1.56	0.41
1:E:118:LYS:HG3	1:E:375:LEU:O	2.21	0.41
1:E:474:LYS:HD3	1:E:475:TYR:HE2	1.83	0.41
1:E:57:LYS:HB3	1:E:58:PRO:HD3	2.02	0.41
1:F:228:GLU:HA	1:F:231:ILE:HG22	2.01	0.41
1:F:254:GLN:HB3	1:F:328:PRO:HA	2.03	0.41
1:F:319:LEU:HD23	1:F:335:LEU:HD23	2.03	0.41
1:A:12:ASN:HD21	1:A:14:PHE:HB3	1.86	0.41
1:B:349:ALA:HB1	1:B:377:LEU:CD2	2.51	0.41
1:B:350:GLU:CD	1:B:482:ARG:HH22	2.24	0.41
1:B:119:CYS:SG	1:B:382:VAL:HG11	2.60	0.41
1:C:33:VAL:O	1:C:34:GLU:O	2.38	0.41
1:D:86:HIS:CG	1:D:116:THR:HG21	2.55	0.41
1:D:32:LEU:HA	1:D:36:LEU:HD13	2.03	0.41
1:D:78:VAL:O	1:D:78:VAL:CG2	2.69	0.41
1:E:62:VAL:HG11	1:E:109:LYS:HZ3	1.85	0.41
1:F:339:ASN:H	1:F:339:ASN:HD22	1.66	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:439:GLU:H	1:F:439:GLU:CD	2.24	0.41
1:A:308:PHE:CD2	1:A:311:ALA:HB2	2.50	0.41
1:A:349:ALA:HB1	1:A:377:LEU:CD2	2.51	0.41
1:A:69:ILE:HG23	1:A:79:ILE:HD13	2.02	0.41
1:B:300:LEU:HD22	1:B:300:LEU:HA	1.88	0.41
1:C:168:VAL:HA	1:C:201:CYS:O	2.21	0.41
1:C:377:LEU:HD12	1:C:377:LEU:HA	1.93	0.41
1:C:212:ILE:HD11	1:C:398:TYR:CE1	2.56	0.41
1:C:435:VAL:HG13	1:C:435:VAL:O	2.21	0.41
1:D:291:ASP:HA	1:D:292:PRO:HD3	1.89	0.41
1:D:457:LEU:CD2	1:D:461:MET:HG2	2.51	0.41
1:E:183:ILE:O	1:E:184:ALA:C	2.59	0.41
1:F:47:ASN:O	1:F:50:ARG:HG2	2.21	0.41
1:A:433:PRO:C	1:A:435:VAL:N	2.73	0.41
1:B:149:THR:HG1	1:B:182:TRP:HE3	1.67	0.41
1:B:318:ILE:CD1	1:B:318:ILE:H	2.28	0.41
1:C:424:LYS:HB3	1:C:424:LYS:HE3	1.87	0.41
1:C:449:GLU:O	1:C:450:LYS:C	2.57	0.41
1:C:485:ALA:O	1:C:488:ASN:HB3	2.21	0.41
1:D:284:ILE:CG2	1:D:285:TRP:N	2.83	0.41
1:D:485:ALA:O	1:D:488:ASN:HB3	2.21	0.41
1:A:144:GLU:O	1:A:148:ILE:HG13	2.21	0.41
1:B:233:GLU:HG2	1:B:236:TYR:CD1	2.56	0.41
1:B:424:LYS:O	1:B:425:PHE:HB2	2.21	0.41
1:B:449:GLU:O	1:B:450:LYS:C	2.60	0.41
1:C:221:ARG:CD	1:C:454:HIS:CG	3.04	0.41
1:E:156:LEU:HB3	1:E:162:ILE:HB	2.03	0.41
1:E:40:GLU:O	1:E:42:GLU:HG3	2.20	0.41
1:E:50:ARG:HG3	1:E:50:ARG:O	2.21	0.41
1:F:69:ILE:HG23	1:F:79:ILE:HD13	2.03	0.41
1:A:105:VAL:HG12	1:A:109:LYS:HG3	2.03	0.41
1:A:150:ARG:HH12	1:F:505:THR:N	2.19	0.41
1:A:281:ASP:HB2	1:A:282:GLY:H	1.56	0.41
1:A:301:GLN:HG2	1:A:301:GLN:O	2.20	0.41
1:B:168:VAL:HA	1:B:201:CYS:O	2.21	0.41
1:B:319:LEU:CD1	1:B:319:LEU:H	2.34	0.41
1:C:136:ASN:OD1	1:C:138:LYS:N	2.51	0.41
1:C:31:LYS:HB2	1:C:475:TYR:HE1	1.86	0.41
1:D:177:GLU:HA	1:D:180:MET:HB2	2.03	0.41
1:D:230:PHE:CE2	1:D:481:LEU:HD21	2.55	0.41
1:D:38:THR:CG2	1:D:41:SER:HB3	2.40	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:150:ARG:NH2	1:E:185:ASP:OD1	2.54	0.41
1:E:228:GLU:HA	1:E:231:ILE:HG22	2.02	0.41
1:E:472:ALA:O	1:E:476:ASN:N	2.54	0.41
1:F:285:TRP:NE1	1:F:287:PRO:HG3	2.36	0.41
1:F:463:ARG:HB3	1:F:463:ARG:HE	1.72	0.41
1:A:317:SER:C	1:A:319:LEU:N	2.74	0.40
1:A:319:LEU:H	1:A:319:LEU:CD1	2.34	0.40
1:C:243:THR:O	1:C:243:THR:CG2	2.69	0.40
1:C:23:ARG:NE	1:C:27:ILE:HD11	2.30	0.40
1:C:317:SER:C	1:C:319:LEU:N	2.75	0.40
1:D:23:ARG:NE	1:D:27:ILE:HD11	2.30	0.40
1:D:319:LEU:H	1:D:319:LEU:CD1	2.33	0.40
1:D:119:CYS:SG	1:D:382:VAL:HG11	2.61	0.40
1:D:433:PRO:C	1:D:435:VAL:N	2.72	0.40
1:E:372:ILE:HA	1:E:373:PRO:HD3	1.64	0.40
1:A:70:ARG:CB	1:E:504:PHE:CE1	3.04	0.40
1:F:69:ILE:HG21	1:F:148:ILE:HG12	2.03	0.40
1:F:190:THR:HG22	1:F:191:ILE:HG12	2.03	0.40
1:F:91:THR:HB	1:F:92:PRO:CD	2.51	0.40
1:A:449:GLU:O	1:A:450:LYS:C	2.59	0.40
1:B:150:ARG:NH2	1:B:185:ASP:OD1	2.54	0.40
1:B:251:PHE:CE1	1:B:267:LEU:HB3	2.56	0.40
1:B:337:LYS:HZ2	1:B:359:GLU:HG3	1.84	0.40
1:C:233:GLU:HG2	1:C:236:TYR:CD1	2.55	0.40
1:D:105:VAL:HG12	1:D:109:LYS:HG3	2.03	0.40
1:D:226:GLY:HA3	1:D:377:LEU:HD12	2.01	0.40
1:E:285:TRP:NE1	1:E:287:PRO:HG3	2.37	0.40
1:F:12:ASN:HD21	1:F:14:PHE:HB3	1.86	0.40
1:C:504:PHE:CE1	1:F:70:ARG:CB	3.05	0.40
1:A:163:GLY:O	1:A:167:ASP:O	2.39	0.40
1:A:40:GLU:O	1:A:42:GLU:HG3	2.20	0.40
1:B:284:ILE:CG2	1:B:311:ALA:HB1	2.47	0.40
1:B:433:PRO:C	1:B:435:VAL:N	2.73	0.40
1:C:172:ASP:O	1:C:173:MET:C	2.60	0.40
1:C:205:LYS:HD2	1:C:209:GLN:O	2.21	0.40
1:C:69:ILE:HG12	1:C:79:ILE:HD11	2.03	0.40
1:D:500:ALA:HB1	1:D:505:THR:OXT	2.21	0.40
1:D:68:PRO:HA	1:D:78:VAL:HA	2.03	0.40
1:E:309:PRO:O	1:E:310:LYS:HB2	2.22	0.40
1:E:319:LEU:H	1:E:319:LEU:CD1	2.34	0.40
1:F:63:LEU:HD22	1:F:161:PHE:CE2	2.55	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:285:TRP:NE1	1:A:287:PRO:HG3	2.36	0.40
1:A:422:GLU:HB3	1:A:427:LYS:HB3	2.03	0.40
1:A:485:ALA:O	1:A:488:ASN:HB3	2.21	0.40
1:B:113:SER:O	1:B:114:LEU:C	2.58	0.40
1:C:12:ASN:HD21	1:C:14:PHE:HB3	1.86	0.40
1:C:433:PRO:HA	1:D:420:SER:CB	2.51	0.40
1:E:279:GLU:HB3	1:E:280:SER:H	1.73	0.40
1:F:233:GLU:HG2	1:F:236:TYR:CD1	2.56	0.40
1:F:391:LYS:NZ	1:F:449:GLU:OE1	2.50	0.40
1:A:257:GLY:O	1:A:259:VAL:N	2.54	0.40
1:A:284:ILE:CD1	1:A:308:PHE:HB3	2.51	0.40
1:A:50:ARG:HG3	1:A:50:ARG:O	2.22	0.40
1:A:69:ILE:HG12	1:A:79:ILE:HD11	2.04	0.40
1:B:243:THR:CG2	1:B:243:THR:O	2.70	0.40
1:B:257:GLY:O	1:B:259:VAL:N	2.55	0.40
1:D:279:GLU:HB3	1:D:280:SER:H	1.74	0.40
1:E:284:ILE:CG2	1:E:311:ALA:HB1	2.47	0.40
1:F:105:VAL:HG12	1:F:109:LYS:HG3	2.03	0.40
1:F:312:LYS:O	1:F:314:TYR:N	2.54	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	494/505 (98%)	428 (87%)	47 (10%)	19 (4%)	3	7
1	B	494/505 (98%)	428 (87%)	47 (10%)	19 (4%)	3	7
1	C	494/505 (98%)	428 (87%)	47 (10%)	19 (4%)	3	7
1	D	494/505 (98%)	426 (86%)	49 (10%)	19 (4%)	3	7
1	E	494/505 (98%)	425 (86%)	50 (10%)	19 (4%)	3	7

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	F	494/505 (98%)	428 (87%)	47 (10%)	19 (4%)	3	7
All	All	2964/3030 (98%)	2563 (86%)	287 (10%)	114 (4%)	3	7

All (114) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	34	GLU
1	A	41	SER
1	A	91	THR
1	A	102	ASP
1	A	258	ASN
1	A	331	SER
1	B	34	GLU
1	B	41	SER
1	B	91	THR
1	B	102	ASP
1	B	258	ASN
1	B	331	SER
1	C	34	GLU
1	C	41	SER
1	C	91	THR
1	C	102	ASP
1	C	258	ASN
1	C	331	SER
1	D	34	GLU
1	D	41	SER
1	D	91	THR
1	D	102	ASP
1	D	258	ASN
1	D	331	SER
1	E	34	GLU
1	E	41	SER
1	E	91	THR
1	E	102	ASP
1	E	258	ASN
1	E	331	SER
1	F	34	GLU
1	F	41	SER
1	F	91	THR
1	F	102	ASP
1	F	258	ASN
1	F	331	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	74	GLY
1	A	333	LYS
1	A	434	ILE
1	B	74	GLY
1	B	333	LYS
1	B	434	ILE
1	C	74	GLY
1	C	333	LYS
1	C	434	ILE
1	D	74	GLY
1	D	333	LYS
1	D	434	ILE
1	E	74	GLY
1	E	333	LYS
1	E	434	ILE
1	F	74	GLY
1	F	333	LYS
1	F	434	ILE
1	A	425	PHE
1	A	500	ALA
1	B	425	PHE
1	B	500	ALA
1	C	425	PHE
1	C	500	ALA
1	D	425	PHE
1	D	500	ALA
1	E	425	PHE
1	E	500	ALA
1	F	425	PHE
1	F	500	ALA
1	A	35	ASP
1	A	134	LYS
1	A	234	ALA
1	B	35	ASP
1	B	134	LYS
1	B	234	ALA
1	C	35	ASP
1	C	134	LYS
1	C	234	ALA
1	D	35	ASP
1	D	234	ALA
1	E	35	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	E	134	LYS
1	E	234	ALA
1	F	35	ASP
1	F	234	ALA
1	A	281	ASP
1	A	286	ASN
1	A	313	PRO
1	B	162	ILE
1	B	281	ASP
1	B	286	ASN
1	B	313	PRO
1	C	162	ILE
1	C	281	ASP
1	C	286	ASN
1	C	313	PRO
1	D	134	LYS
1	D	281	ASP
1	D	286	ASN
1	D	313	PRO
1	E	162	ILE
1	E	281	ASP
1	E	286	ASN
1	E	313	PRO
1	F	134	LYS
1	F	281	ASP
1	F	286	ASN
1	F	313	PRO
1	A	162	ILE
1	A	502	VAL
1	B	502	VAL
1	C	502	VAL
1	D	162	ILE
1	D	502	VAL
1	F	162	ILE
1	F	502	VAL
1	E	502	VAL

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	413/420 (98%)	365 (88%)	48 (12%)	5	12
1	B	413/420 (98%)	364 (88%)	49 (12%)	5	12
1	C	413/420 (98%)	365 (88%)	48 (12%)	5	12
1	D	413/420 (98%)	364 (88%)	49 (12%)	5	12
1	E	413/420 (98%)	365 (88%)	48 (12%)	5	12
1	F	413/420 (98%)	365 (88%)	48 (12%)	5	12
All	All	2478/2520 (98%)	2188 (88%)	290 (12%)	5	12

All (290) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	13	PHE
1	A	23	ARG
1	A	36	LEU
1	A	37	ARG
1	A	44	GLN
1	A	46	ARG
1	A	62	VAL
1	A	64	SER
1	A	68	PRO
1	A	90	ARG
1	A	101	THR
1	A	116	THR
1	A	141	THR
1	A	156	LEU
1	A	162	ILE
1	A	180	MET
1	A	219	THR
1	A	235	SER
1	A	243	THR
1	A	259	VAL
1	A	261	LEU
1	A	267	LEU
1	A	281	ASP
1	A	293	LYS
1	A	300	LEU
1	A	306	LEU
1	A	315	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	318	ILE
1	A	320	GLU
1	A	325	ILE
1	A	326	LEU
1	A	334	GLN
1	A	339	ASN
1	A	353	ASN
1	A	378	ASN
1	A	396	VAL
1	A	400	ARG
1	A	401	LEU
1	A	421	LEU
1	A	427	LYS
1	A	428	HIS
1	A	432	ILE
1	A	457	LEU
1	A	471	THR
1	A	476	ASN
1	A	481	LEU
1	A	499	GLU
1	A	504	PHE
1	B	13	PHE
1	B	23	ARG
1	B	36	LEU
1	B	37	ARG
1	B	44	GLN
1	B	46	ARG
1	B	62	VAL
1	B	64	SER
1	B	68	PRO
1	B	90	ARG
1	B	101	THR
1	B	116	THR
1	B	141	THR
1	B	156	LEU
1	B	162	ILE
1	B	180	MET
1	B	219	THR
1	B	235	SER
1	B	243	THR
1	B	259	VAL
1	B	261	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	B	267	LEU
1	B	281	ASP
1	B	293	LYS
1	B	300	LEU
1	B	306	LEU
1	B	315	GLU
1	B	318	ILE
1	B	320	GLU
1	B	325	ILE
1	B	326	LEU
1	B	334	GLN
1	B	339	ASN
1	B	353	ASN
1	B	378	ASN
1	B	396	VAL
1	B	400	ARG
1	B	401	LEU
1	B	421	LEU
1	B	427	LYS
1	B	428	HIS
1	B	432	ILE
1	B	455	SER
1	B	457	LEU
1	B	471	THR
1	B	476	ASN
1	B	481	LEU
1	B	499	GLU
1	B	504	PHE
1	C	13	PHE
1	C	23	ARG
1	C	36	LEU
1	C	37	ARG
1	C	44	GLN
1	C	46	ARG
1	C	62	VAL
1	C	64	SER
1	C	68	PRO
1	C	90	ARG
1	C	101	THR
1	C	116	THR
1	C	141	THR
1	C	156	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	C	162	ILE
1	C	180	MET
1	C	219	THR
1	C	235	SER
1	C	243	THR
1	C	259	VAL
1	C	261	LEU
1	C	267	LEU
1	C	281	ASP
1	C	293	LYS
1	C	300	LEU
1	C	306	LEU
1	C	315	GLU
1	C	318	ILE
1	C	320	GLU
1	C	325	ILE
1	C	326	LEU
1	C	334	GLN
1	C	339	ASN
1	C	353	ASN
1	C	378	ASN
1	C	396	VAL
1	C	400	ARG
1	C	401	LEU
1	C	421	LEU
1	C	427	LYS
1	C	428	HIS
1	C	432	ILE
1	C	457	LEU
1	C	471	THR
1	C	476	ASN
1	C	481	LEU
1	C	499	GLU
1	C	504	PHE
1	D	13	PHE
1	D	23	ARG
1	D	36	LEU
1	D	37	ARG
1	D	44	GLN
1	D	46	ARG
1	D	62	VAL
1	D	64	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	D	68	PRO
1	D	90	ARG
1	D	101	THR
1	D	116	THR
1	D	141	THR
1	D	156	LEU
1	D	162	ILE
1	D	180	MET
1	D	219	THR
1	D	235	SER
1	D	243	THR
1	D	259	VAL
1	D	261	LEU
1	D	267	LEU
1	D	281	ASP
1	D	293	LYS
1	D	300	LEU
1	D	306	LEU
1	D	315	GLU
1	D	318	ILE
1	D	320	GLU
1	D	325	ILE
1	D	326	LEU
1	D	334	GLN
1	D	339	ASN
1	D	353	ASN
1	D	378	ASN
1	D	396	VAL
1	D	400	ARG
1	D	401	LEU
1	D	421	LEU
1	D	427	LYS
1	D	428	HIS
1	D	432	ILE
1	D	455	SER
1	D	457	LEU
1	D	471	THR
1	D	476	ASN
1	D	481	LEU
1	D	499	GLU
1	D	504	PHE
1	E	13	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	E	23	ARG
1	E	36	LEU
1	E	37	ARG
1	E	44	GLN
1	E	46	ARG
1	E	62	VAL
1	E	64	SER
1	E	68	PRO
1	E	90	ARG
1	E	101	THR
1	E	116	THR
1	E	141	THR
1	E	156	LEU
1	E	162	ILE
1	E	180	MET
1	E	219	THR
1	E	235	SER
1	E	243	THR
1	E	259	VAL
1	E	261	LEU
1	E	267	LEU
1	E	281	ASP
1	E	293	LYS
1	E	300	LEU
1	E	306	LEU
1	E	315	GLU
1	E	318	ILE
1	E	320	GLU
1	E	325	ILE
1	E	326	LEU
1	E	334	GLN
1	E	339	ASN
1	E	353	ASN
1	E	378	ASN
1	E	396	VAL
1	E	400	ARG
1	E	401	LEU
1	E	421	LEU
1	E	427	LYS
1	E	428	HIS
1	E	432	ILE
1	E	457	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	E	471	THR
1	E	476	ASN
1	E	481	LEU
1	E	499	GLU
1	E	504	PHE
1	F	13	PHE
1	F	23	ARG
1	F	36	LEU
1	F	37	ARG
1	F	44	GLN
1	F	46	ARG
1	F	62	VAL
1	F	64	SER
1	F	68	PRO
1	F	90	ARG
1	F	101	THR
1	F	116	THR
1	F	141	THR
1	F	156	LEU
1	F	162	ILE
1	F	180	MET
1	F	219	THR
1	F	235	SER
1	F	243	THR
1	F	259	VAL
1	F	261	LEU
1	F	267	LEU
1	F	281	ASP
1	F	293	LYS
1	F	300	LEU
1	F	306	LEU
1	F	315	GLU
1	F	318	ILE
1	F	320	GLU
1	F	325	ILE
1	F	326	LEU
1	F	334	GLN
1	F	339	ASN
1	F	353	ASN
1	F	378	ASN
1	F	396	VAL
1	F	400	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	F	401	LEU
1	F	421	LEU
1	F	427	LYS
1	F	428	HIS
1	F	432	ILE
1	F	457	LEU
1	F	471	THR
1	F	476	ASN
1	F	481	LEU
1	F	499	GLU
1	F	504	PHE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (84) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	47	ASN
1	A	86	HIS
1	A	143	ASN
1	A	302	HIS
1	A	339	ASN
1	A	353	ASN
1	A	378	ASN
1	A	392	ASN
1	A	395	HIS
1	A	410	ASN
1	A	428	HIS
1	A	488	ASN
1	A	498	ASN
1	B	47	ASN
1	B	61	HIS
1	B	86	HIS
1	B	143	ASN
1	B	302	HIS
1	B	339	ASN
1	B	353	ASN
1	B	378	ASN
1	B	392	ASN
1	B	395	HIS
1	B	410	ASN
1	B	428	HIS
1	B	488	ASN
1	B	498	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	C	47	ASN
1	C	86	HIS
1	C	143	ASN
1	C	209	GLN
1	C	302	HIS
1	C	339	ASN
1	C	353	ASN
1	C	378	ASN
1	C	392	ASN
1	C	395	HIS
1	C	410	ASN
1	C	428	HIS
1	C	488	ASN
1	C	498	ASN
1	D	47	ASN
1	D	86	HIS
1	D	143	ASN
1	D	302	HIS
1	D	339	ASN
1	D	353	ASN
1	D	378	ASN
1	D	392	ASN
1	D	395	HIS
1	D	410	ASN
1	D	428	HIS
1	D	488	ASN
1	D	498	ASN
1	E	47	ASN
1	E	61	HIS
1	E	86	HIS
1	E	143	ASN
1	E	209	GLN
1	E	302	HIS
1	E	339	ASN
1	E	353	ASN
1	E	378	ASN
1	E	392	ASN
1	E	395	HIS
1	E	410	ASN
1	E	428	HIS
1	E	488	ASN
1	E	498	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	F	47	ASN
1	F	61	HIS
1	F	86	HIS
1	F	143	ASN
1	F	209	GLN
1	F	302	HIS
1	F	339	ASN
1	F	353	ASN
1	F	378	ASN
1	F	392	ASN
1	F	395	HIS
1	F	410	ASN
1	F	428	HIS
1	F	488	ASN
1	F	498	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data [i](#)

6.1 Protein, DNA and RNA chains [i](#)

EDS was not executed - this section is therefore empty.

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

EDS was not executed - this section is therefore empty.

6.3 Carbohydrates [i](#)

EDS was not executed - this section is therefore empty.

6.4 Ligands [i](#)

EDS was not executed - this section is therefore empty.

6.5 Other polymers [i](#)

EDS was not executed - this section is therefore empty.