

Figure 1**Table 1 – Gremlin-1 structural coordinates**

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HEADER      ----                      XX-XXX-XX   xxxx
COMPND      ---
REMARK      3
REMARK      3 REFINEMENT.
REMARK      3   PROGRAM       : REFMAC 5.8.0049
REMARK      3   AUTHORS        : MURSHUDOV, SKUBAK, LEBEDEV, PANNU,
REMARK      3                       STEINER, NICHOLLS, WINN, LONG, VAGIN
REMARK      3
REMARK      3   REFINEMENT TARGET : MAXIMUM LIKELIHOOD
REMARK      3
REMARK      3 DATA USED IN REFINEMENT.
REMARK      3 RESOLUTION RANGE HIGH (ANGSTROMS) : 2.72
REMARK      3 RESOLUTION RANGE LOW  (ANGSTROMS) : 26.19
REMARK      3 DATA CUTOFF              (SIGMA(F)) : NONE
REMARK      3 COMPLETENESS FOR RANGE      (%) : 98.44
REMARK      3 NUMBER OF REFLECTIONS      : 14964
REMARK      3
REMARK      3 FIT TO DATA USED IN REFINEMENT.
REMARK      3 CROSS-VALIDATION METHOD      : THROUGHOUT
REMARK      3 FREE R VALUE TEST SET SELECTION : RANDOM
REMARK      3 R VALUE (WORKING + TEST SET) : 0.23756
REMARK      3 R VALUE (WORKING SET)       : 0.23451
REMARK      3 FREE R VALUE                : 0.29736
REMARK      3 FREE R VALUE TEST SET SIZE (%) : 4.9
REMARK      3 FREE R VALUE TEST SET COUNT : 773
REMARK      3
REMARK      3 FIT IN THE HIGHEST RESOLUTION BIN.
REMARK      3 TOTAL NUMBER OF BINS USED      : 20
REMARK      3 BIN RESOLUTION RANGE HIGH      : 2.720
REMARK      3 BIN RESOLUTION RANGE LOW       : 2.790
REMARK      3 REFLECTION IN BIN (WORKING SET) : 1079
REMARK      3 BIN COMPLETENESS (WORKING+TEST) (%) : 98.87
REMARK      3 BIN R VALUE (WORKING SET)      : 0.341
REMARK      3 BIN FREE R VALUE SET COUNT     : 57
REMARK      3 BIN FREE R VALUE              : 0.392
REMARK      3
REMARK      3 NUMBER OF NON-HYDROGEN ATOMS USED IN REFINEMENT.
REMARK      3 ALL ATOMS                      : 3560
REMARK      3
REMARK      3 B VALUES.
REMARK      3 FROM WILSON PLOT (A**2) : NULL
REMARK      3 MEAN B VALUE (OVERALL, A**2) : 53.076
REMARK      3 OVERALL ANISOTROPIC B VALUE.
REMARK      3 B11 (A**2) : 0.43
REMARK      3 B22 (A**2) : -0.60
REMARK      3 B33 (A**2) : 0.16
REMARK      3 B12 (A**2) : -0.00
REMARK      3 B13 (A**2) : -0.09
REMARK      3 B23 (A**2) : 0.00
REMARK      3
REMARK      3 ESTIMATED OVERALL COORDINATE ERROR.
REMARK      3 ESU BASED ON R VALUE (A) : 1.446
REMARK      3 ESU BASED ON FREE R VALUE (A) : 0.403
REMARK      3 ESU BASED ON MAXIMUM LIKELIHOOD (A) : 0.357
REMARK      3 ESU FOR B VALUES BASED ON MAXIMUM LIKELIHOOD (A**2) : 17.961
REMARK      3
REMARK      3 CORRELATION COEFFICIENTS.
REMARK      3 CORRELATION COEFFICIENT FO-FC : 0.911
REMARK      3 CORRELATION COEFFICIENT FO-FC FREE : 0.836
REMARK      3
REMARK      3 RMS DEVIATIONS FROM IDEAL VALUES
REMARK      3 BOND LENGTHS REFINED ATOMS (A) : 3642 ; 0.013 ; 0.019
REMARK      3 BOND LENGTHS OTHERS (A) : 3547 ; 0.007 ; 0.020

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REMARK 3 BOND ANGLES REFINED ATOMS (DEGREES): 4886 ; 1.782 ; 1.958
REMARK 3 BOND ANGLES OTHERS (DEGREES): 8200 ; 1.654 ; 3.000
REMARK 3 TORSION ANGLES, PERIOD 1 (DEGREES): 427 ; 8.651 ; 5.000
REMARK 3 TORSION ANGLES, PERIOD 2 (DEGREES): 164 ; 38.669 ; 22.683
REMARK 3 TORSION ANGLES, PERIOD 3 (DEGREES): 736 ; 22.228 ; 15.000
REMARK 3 TORSION ANGLES, PERIOD 4 (DEGREES): 36 ; 17.287 ; 15.000
REMARK 3 CHIRAL-CENTER RESTRAINTS (A**3): 530 ; 0.108 ; 0.200
REMARK 3 GENERAL PLANES REFINED ATOMS (A): 3942 ; 0.008 ; 0.021
REMARK 3 GENERAL PLANES OTHERS (A): 854 ; 0.004 ; 0.020
REMARK 3
REMARK 3 ISOTROPIC THERMAL FACTOR RESTRAINTS. COUNT RMS WEIGHT
REMARK 3 MAIN-CHAIN BOND REFINED ATOMS (A**2): 1726 ; 3.529 ; 4.962
REMARK 3 MAIN-CHAIN BOND OTHER ATOMS (A**2): 1725 ; 3.527 ; 4.962
REMARK 3 MAIN-CHAIN ANGLE REFINED ATOMS (A**2): 2147 ; 5.858 ; 7.435
REMARK 3 MAIN-CHAIN ANGLE OTHER ATOMS (A**2): 2148 ; 5.857 ; 7.434
REMARK 3 SIDE-CHAIN BOND REFINED ATOMS (A**2): 1916 ; 3.552 ; 5.470
REMARK 3 SIDE-CHAIN BOND OTHER ATOMS (A**2): 1917 ; 3.551 ; 5.469
REMARK 3 SIDE-CHAIN ANGLE OTHER ATOMS (A**2): 2740 ; 5.862 ; 7.995
REMARK 3 LONG RANGE B REFINED ATOMS (A**2): 3832 ; 9.862 ; 38.248
REMARK 3 LONG RANGE B OTHER ATOMS (A**2): 3833 ; 9.861 ; 38.250
REMARK 3
REMARK 3 NCS RESTRAINTS STATISTICS
REMARK 3 NCS TYPE: LOCAL
REMARK 3 NUMBER OF DIFFERENT NCS PAIRS : 6
REMARK 3 GROUP CHAIN1 RANGE CHAIN2 RANGE COUNT RMS WEIGHT
REMARK 3 1 A 53 160 B 53 160 5128 0.19 0.05
REMARK 3 2 A 52 162 C 52 162 5290 0.21 0.05
REMARK 3 3 A 52 162 D 52 162 4611 0.21 0.05
REMARK 3 4 B 53 160 C 53 160 5263 0.18 0.05
REMARK 3 5 B 53 161 D 53 161 4735 0.19 0.05
REMARK 3 6 C 52 162 D 52 162 4896 0.18 0.05
REMARK 3
REMARK 3 TWIN DETAILS
REMARK 3 NUMBER OF TWIN DOMAINS : NULL
REMARK 3
REMARK 3 TLS DETAILS
REMARK 3 NUMBER OF TLS GROUPS : NULL
REMARK 3
REMARK 3 BULK SOLVENT MODELLING.
REMARK 3 METHOD USED : MASK
REMARK 3 PARAMETERS FOR MASK CALCULATION
REMARK 3 VDW PROBE RADIUS : 1.20
REMARK 3 ION PROBE RADIUS : 0.80
REMARK 3 SHRINKAGE RADIUS : 0.80
REMARK 3
REMARK 3 OTHER REFINEMENT REMARKS:
REMARK 3 HYDROGENS HAVE BEEN ADDED IN THE RIDING POSITIONS
REMARK 3 U VALUES : REFINED INDIVIDUALLY
REMARK 3
SSBOND 1 CYS A 123 CYS A 73
SSBOND 2 CYS A 137 CYS A 87
SSBOND 3 CYS A 155 CYS A 97
SSBOND 4 CYS A 157 CYS A 101
SSBOND 5 CYS B 123 CYS B 73
SSBOND 6 CYS B 137 CYS B 87
SSBOND 7 CYS B 155 CYS B 97
SSBOND 8 CYS B 157 CYS B 101
SSBOND 9 CYS C 123 CYS C 73
SSBOND 10 CYS C 137 CYS C 87
SSBOND 11 CYS C 155 CYS C 97
SSBOND 12 CYS C 157 CYS C 101
SSBOND 13 CYS D 123 CYS D 73
SSBOND 14 CYS D 155 CYS D 97
SSBOND 15 CYS D 157 CYS D 101
LINKR HIS D 83 CYS D 87 gap
LINKR LEU D 135 LYS D 145 gap

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LINKR	PRO C 138				GLN C 141				gap	
CISPEP	1	GLN A	141	PRO A	142			0.00		
CISPEP	2	GLN B	141	PRO B	142			0.00		
CISPEP	3	ARG C	111	LYS C	112			0.00		
CISPEP	4	GLN C	141	PRO C	142			0.00		
CISPEP	5	VAL D	133	THR D	134			0.00		
CRYST1	84.550	107.220	77.090	90.00	120.43	90.00	C 1 2 1			
SCALE1	0.011827	0.000000	0.006947			0.000000				
SCALE2	-0.000000	0.009327	0.000000			0.000000				
SCALE3	0.000000	-0.000000	0.015044			0.000000				
ATOM	1	N	VAL A	52	63.902	-36.852	66.449	1.00	85.32	A N
ATOM	2	CA	VAL A	52	65.116	-37.732	66.303	1.00	84.10	A C
ATOM	3	CB	VAL A	52	66.190	-37.499	67.416	1.00	84.08	A C
ATOM	4	CG1	VAL A	52	66.993	-36.226	67.129	1.00	79.47	A C
ATOM	5	CG2	VAL A	52	65.566	-37.441	68.805	1.00	82.47	A C
ATOM	6	C	VAL A	52	64.771	-39.226	66.169	1.00	78.63	A C
ATOM	7	O	VAL A	52	63.832	-39.736	66.786	1.00	83.52	A O
ATOM	8	N	LEU A	53	65.543	-39.905	65.328	1.00	75.19	A N
ATOM	9	CA	LEU A	53	65.447	-41.356	65.106	1.00	74.92	A C
ATOM	10	CB	LEU A	53	65.227	-42.105	66.409	1.00	78.67	A C
ATOM	11	CG	LEU A	53	65.169	-43.630	66.314	1.00	86.26	A C
ATOM	12	CD1	LEU A	53	63.719	-44.106	66.394	1.00	90.10	A C
ATOM	13	CD2	LEU A	53	65.880	-44.245	65.106	1.00	85.38	A C
ATOM	14	C	LEU A	53	64.353	-41.740	64.124	1.00	67.49	A C
ATOM	15	O	LEU A	53	63.238	-42.083	64.531	1.00	57.52	A O
ATOM	16	N	GLU A	54	64.696	-41.764	62.835	1.00	58.62	A N
ATOM	17	CA	GLU A	54	63.671	-41.743	61.820	1.00	54.38	A C
ATOM	18	CB	GLU A	54	64.198	-41.147	60.519	1.00	57.18	A C
ATOM	19	CG	GLU A	54	64.837	-39.776	60.652	1.00	56.22	A C
ATOM	20	CD	GLU A	54	63.796	-38.771	60.918	1.00	54.86	A C
ATOM	21	OE1	GLU A	54	63.255	-38.207	59.951	1.00	54.03	A O
ATOM	22	OE2	GLU A	54	63.488	-38.615	62.102	1.00	61.76	A O
ATOM	23	C	GLU A	54	63.148	-43.116	61.638	1.00	50.88	A C
ATOM	24	O	GLU A	54	62.587	-43.640	62.579	1.00	62.43	A O
ATOM	25	N	SER A	55	63.287	-43.733	60.477	1.00	49.07	A N
ATOM	26	CA	SER A	55	62.667	-45.047	60.315	1.00	51.27	A C
ATOM	27	CB	SER A	55	61.159	-44.964	60.326	1.00	53.55	A C
ATOM	28	OG	SER A	55	60.551	-46.190	60.735	1.00	60.97	A O
ATOM	29	C	SER A	55	63.103	-45.712	59.044	1.00	48.81	A C
ATOM	30	O	SER A	55	63.275	-46.928	59.006	1.00	43.40	A O
ATOM	31	N	SER A	56	63.215	-44.900	57.998	1.00	48.75	A N
ATOM	32	CA	SER A	56	63.832	-45.294	56.758	1.00	51.43	A C
ATOM	33	CB	SER A	56	62.782	-45.750	55.738	1.00	49.64	A C
ATOM	34	OG	SER A	56	61.723	-44.785	55.733	1.00	55.81	A O
ATOM	35	C	SER A	56	64.565	-44.117	56.180	1.00	51.53	A C
ATOM	36	O	SER A	56	64.352	-42.944	56.548	1.00	55.19	A O
ATOM	37	N	GLN A	57	65.412	-44.481	55.236	1.00	52.31	A N
ATOM	38	CA	GLN A	57	66.079	-43.566	54.356	1.00	52.66	A C
ATOM	39	CB	GLN A	57	66.854	-44.372	53.331	1.00	54.15	A C
ATOM	40	CG	GLN A	57	67.938	-45.238	53.957	1.00	62.25	A C
ATOM	41	CD	GLN A	57	67.508	-46.698	54.247	1.00	71.48	A C
ATOM	42	OE1	GLN A	57	66.349	-47.067	54.050	1.00	76.83	A O
ATOM	43	NE2	GLN A	57	68.448	-47.527	54.717	1.00	74.09	A N
ATOM	44	C	GLN A	57	65.093	-42.601	53.685	1.00	52.63	A C
ATOM	45	O	GLN A	57	65.328	-41.395	53.655	1.00	55.99	A O
ATOM	46	N	GLU A	58	63.959	-43.114	53.225	1.00	54.42	A N
ATOM	47	CA	GLU A	58	62.990	-42.301	52.518	1.00	55.43	A C
ATOM	48	CB	GLU A	58	62.006	-43.229	51.767	1.00	59.07	A C
ATOM	49	CG	GLU A	58	62.692	-44.113	50.732	1.00	64.32	A C
ATOM	50	CD	GLU A	58	61.712	-44.714	49.733	1.00	71.69	A C
ATOM	51	OE1	GLU A	58	60.508	-44.808	50.060	1.00	77.17	A O
ATOM	52	OE2	GLU A	58	62.136	-45.101	48.621	1.00	72.86	A O
ATOM	53	C	GLU A	58	62.309	-41.332	53.496	1.00	55.42	A C
ATOM	54	O	GLU A	58	62.189	-40.147	53.218	1.00	52.68	A O
ATOM	55	N	ALA A	59	61.930	-41.804	54.676	1.00	55.43	A N
ATOM	56	CA	ALA A	59	61.206	-40.947	55.612	1.00	57.55	A C
ATOM	57	CB	ALA A	59	60.931	-41.707	56.888	1.00	56.65	A C
ATOM	58	C	ALA A	59	61.938	-39.656	55.930	1.00	59.38	A C

ATOM	59	O	ALA	A	59	61.349	-38.562	56.037	1.00	63.21	A	O
ATOM	60	N	LEU	A	60	63.233	-39.773	56.093	1.00	60.14	A	N
ATOM	61	CA	LEU	A	60	63.993	-38.664	56.612	1.00	65.84	A	C
ATOM	62	CB	LEU	A	60	65.083	-39.213	57.446	1.00	76.50	A	C
ATOM	63	CG	LEU	A	60	66.145	-39.911	56.648	1.00	84.66	A	C
ATOM	64	CD1	LEU	A	60	67.296	-38.963	56.363	1.00	91.47	A	C
ATOM	65	CD2	LEU	A	60	66.617	-41.120	57.415	1.00	92.46	A	C
ATOM	66	C	LEU	A	60	64.479	-37.843	55.473	1.00	60.07	A	C
ATOM	67	O	LEU	A	60	64.634	-36.645	55.589	1.00	64.13	A	O
ATOM	68	N	HIS	A	61	64.699	-38.511	54.357	1.00	55.81	A	N
ATOM	69	CA	HIS	A	61	64.897	-37.832	53.111	1.00	52.43	A	C
ATOM	70	CB	HIS	A	61	64.948	-38.845	52.001	1.00	53.54	A	C
ATOM	71	CG	HIS	A	61	65.058	-38.227	50.662	1.00	60.17	A	C
ATOM	72	ND1	HIS	A	61	66.160	-37.494	50.298	1.00	64.46	A	N
ATOM	73	CE1	HIS	A	61	66.001	-37.052	49.066	1.00	74.00	A	C
ATOM	74	NE2	HIS	A	61	64.827	-37.467	48.623	1.00	77.65	A	N
ATOM	75	CD2	HIS	A	61	64.213	-38.204	49.605	1.00	66.40	A	C
ATOM	76	C	HIS	A	61	63.758	-36.849	52.848	1.00	50.86	A	C
ATOM	77	O	HIS	A	61	63.979	-35.708	52.506	1.00	49.17	A	O
ATOM	78	N	VAL	A	62	62.532	-37.320	53.010	1.00	49.20	A	N
ATOM	79	CA	VAL	A	62	61.356	-36.499	52.866	1.00	47.00	A	C
ATOM	80	CB	VAL	A	62	60.079	-37.396	52.881	1.00	49.55	A	C
ATOM	81	CG1	VAL	A	62	58.804	-36.578	53.064	1.00	51.74	A	C
ATOM	82	CG2	VAL	A	62	59.996	-38.221	51.594	1.00	47.72	A	C
ATOM	83	C	VAL	A	62	61.354	-35.447	53.979	1.00	46.88	A	C
ATOM	84	O	VAL	A	62	61.002	-34.308	53.746	1.00	51.42	A	O
ATOM	85	N	THR	A	63	61.756	-35.828	55.183	1.00	45.44	A	N
ATOM	86	CA	THR	A	63	61.790	-34.903	56.339	1.00	42.08	A	C
ATOM	87	CB	THR	A	63	61.943	-35.714	57.662	1.00	39.72	A	C
ATOM	88	OG1	THR	A	63	60.810	-36.582	57.793	1.00	38.93	A	O
ATOM	89	CG2	THR	A	63	62.005	-34.832	58.902	1.00	36.49	A	C
ATOM	90	C	THR	A	63	62.793	-33.744	56.209	1.00	40.71	A	C
ATOM	91	O	THR	A	63	62.585	-32.679	56.772	1.00	41.30	A	O
ATOM	92	N	GLU	A	64	63.838	-33.916	55.418	1.00	45.87	A	N
ATOM	93	CA	GLU	A	64	64.729	-32.798	55.007	1.00	51.53	A	C
ATOM	94	CB	GLU	A	64	65.445	-33.192	53.757	1.00	53.77	A	C
ATOM	95	CG	GLU	A	64	66.400	-34.308	53.934	1.00	56.10	A	C
ATOM	96	CD	GLU	A	64	66.930	-34.283	55.342	1.00	55.54	A	C
ATOM	97	OE1	GLU	A	64	66.347	-34.986	56.172	1.00	53.14	A	O
ATOM	98	OE2	GLU	A	64	67.847	-33.495	55.654	1.00	62.00	A	O
ATOM	99	C	GLU	A	64	64.030	-31.558	54.556	1.00	55.96	A	C
ATOM	100	O	GLU	A	64	64.641	-30.503	54.493	1.00	56.87	A	O
ATOM	101	N	ARG	A	65	62.774	-31.737	54.156	1.00	59.80	A	N
ATOM	102	CA	ARG	A	65	61.849	-30.666	53.781	1.00	53.47	A	C
ATOM	103	CB	ARG	A	65	60.734	-31.260	52.968	1.00	58.93	A	C
ATOM	104	CG	ARG	A	65	61.213	-32.185	51.848	1.00	68.79	A	C
ATOM	105	CD	ARG	A	65	61.977	-31.516	50.707	1.00	73.04	A	C
ATOM	106	NE	ARG	A	65	62.738	-32.507	49.922	1.00	71.19	A	N
ATOM	107	CZ	ARG	A	65	63.975	-32.929	50.195	1.00	58.16	A	C
ATOM	108	NH1	ARG	A	65	64.634	-32.463	51.244	1.00	53.71	A	N
ATOM	109	NH2	ARG	A	65	64.553	-33.824	49.396	1.00	52.45	A	N
ATOM	110	C	ARG	A	65	61.194	-29.943	54.950	1.00	51.77	A	C
ATOM	111	O	ARG	A	65	60.642	-28.876	54.758	1.00	58.01	A	O
ATOM	112	N	LYS	A	66	61.183	-30.547	56.131	1.00	48.97	A	N
ATOM	113	CA	LYS	A	66	61.078	-29.773	57.361	1.00	48.79	A	C
ATOM	114	CB	LYS	A	66	60.700	-30.613	58.607	1.00	51.70	A	C
ATOM	115	CG	LYS	A	66	59.207	-30.945	58.737	1.00	56.11	A	C
ATOM	116	CD	LYS	A	66	58.679	-31.865	57.625	1.00	60.10	A	C
ATOM	117	CE	LYS	A	66	57.785	-32.973	58.194	1.00	64.07	A	C
ATOM	118	NZ	LYS	A	66	57.033	-33.713	57.137	1.00	63.72	A	N
ATOM	119	C	LYS	A	66	62.423	-29.139	57.615	1.00	46.55	A	C
ATOM	120	O	LYS	A	66	62.498	-27.943	57.793	1.00	44.88	A	O
ATOM	121	N	TYR	A	67	63.482	-29.943	57.660	1.00	45.72	A	N
ATOM	122	CA	TYR	A	67	64.740	-29.474	58.249	1.00	46.30	A	C
ATOM	123	CB	TYR	A	67	65.698	-30.631	58.559	1.00	50.14	A	C
ATOM	124	CG	TYR	A	67	65.204	-31.652	59.544	1.00	52.44	A	C
ATOM	125	CD1	TYR	A	67	64.347	-31.304	60.585	1.00	51.52	A	C
ATOM	126	CE1	TYR	A	67	63.901	-32.256	61.471	1.00	50.75	A	C

ATOM	127	CZ	TYR	A	67	64.331	-33.559	61.343	1.00	51.48	A	C
ATOM	128	OH	TYR	A	67	63.898	-34.517	62.219	1.00	59.59	A	O
ATOM	129	CE2	TYR	A	67	65.195	-33.921	60.344	1.00	52.16	A	C
ATOM	130	CD2	TYR	A	67	65.632	-32.969	59.454	1.00	52.15	A	C
ATOM	131	C	TYR	A	67	65.503	-28.498	57.403	1.00	46.61	A	C
ATOM	132	O	TYR	A	67	66.203	-27.639	57.938	1.00	50.12	A	O
ATOM	133	N	LEU	A	68	65.431	-28.665	56.087	1.00	45.60	A	N
ATOM	134	CA	LEU	A	68	66.189	-27.847	55.172	1.00	42.79	A	C
ATOM	135	CB	LEU	A	68	66.978	-28.724	54.222	1.00	42.94	A	C
ATOM	136	CG	LEU	A	68	68.135	-29.514	54.816	1.00	45.32	A	C
ATOM	137	CD1	LEU	A	68	68.818	-30.286	53.699	1.00	47.47	A	C
ATOM	138	CD2	LEU	A	68	69.139	-28.643	55.549	1.00	47.01	A	C
ATOM	139	C	LEU	A	68	65.195	-27.038	54.347	1.00	38.36	A	C
ATOM	140	O	LEU	A	68	65.242	-27.023	53.134	1.00	37.94	A	O
ATOM	141	N	LYS	A	69	64.262	-26.386	54.999	1.00	38.41	A	N
ATOM	142	CA	LYS	A	69	63.213	-25.693	54.261	1.00	38.91	A	C
ATOM	143	CB	LYS	A	69	62.063	-25.367	55.222	1.00	41.09	A	C
ATOM	144	CG	LYS	A	69	60.674	-25.506	54.638	1.00	41.79	A	C
ATOM	145	CD	LYS	A	69	59.612	-25.205	55.678	1.00	42.71	A	C
ATOM	146	CE	LYS	A	69	59.528	-23.725	55.968	1.00	42.81	A	C
ATOM	147	NZ	LYS	A	69	58.404	-23.452	56.899	1.00	47.17	A	N
ATOM	148	C	LYS	A	69	63.731	-24.383	53.703	1.00	36.90	A	C
ATOM	149	O	LYS	A	69	63.274	-23.898	52.678	1.00	35.61	A	O
ATOM	150	N	ARG	A	70	64.693	-23.802	54.402	1.00	36.90	A	N
ATOM	151	CA	ARG	A	70	65.125	-22.448	54.062	1.00	36.20	A	C
ATOM	152	CB	ARG	A	70	64.246	-21.427	54.784	1.00	39.86	A	C
ATOM	153	CG	ARG	A	70	63.301	-21.995	55.801	1.00	41.47	A	C
ATOM	154	CD	ARG	A	70	63.051	-20.924	56.809	1.00	45.37	A	C
ATOM	155	NE	ARG	A	70	62.230	-19.864	56.264	1.00	49.35	A	N
ATOM	156	CZ	ARG	A	70	61.829	-18.836	56.996	1.00	56.53	A	C
ATOM	157	NH1	ARG	A	70	62.155	-18.781	58.282	1.00	63.73	A	N
ATOM	158	NH2	ARG	A	70	61.103	-17.866	56.458	1.00	56.00	A	N
ATOM	159	C	ARG	A	70	66.619	-22.103	54.124	1.00	35.61	A	C
ATOM	160	O	ARG	A	70	67.203	-21.572	55.057	1.00	39.22	A	O
ATOM	161	N	ASP	A	71	67.178	-22.326	52.975	1.00	37.26	A	N
ATOM	162	CA	ASP	A	71	68.529	-21.885	52.619	1.00	38.60	A	C
ATOM	163	CB	ASP	A	71	69.009	-22.760	51.458	1.00	42.18	A	C
ATOM	164	CG	ASP	A	71	68.120	-22.683	50.222	1.00	49.01	A	C
ATOM	165	OD1	ASP	A	71	66.945	-22.292	50.369	1.00	56.89	A	O
ATOM	166	OD2	ASP	A	71	68.571	-23.037	49.094	1.00	55.13	A	O
ATOM	167	C	ASP	A	71	68.523	-20.396	52.257	1.00	36.32	A	C
ATOM	168	O	ASP	A	71	67.458	-19.773	52.173	1.00	32.62	A	O
ATOM	169	N	TRP	A	72	69.708	-19.816	52.068	1.00	34.64	A	N
ATOM	170	CA	TRP	A	72	69.802	-18.457	51.519	1.00	33.15	A	C
ATOM	171	CB	TRP	A	72	69.778	-17.441	52.629	1.00	30.00	A	C
ATOM	172	CG	TRP	A	72	70.916	-17.489	53.549	1.00	29.10	A	C
ATOM	173	CD1	TRP	A	72	71.063	-18.311	54.648	1.00	29.32	A	C
ATOM	174	NE1	TRP	A	72	72.252	-18.019	55.300	1.00	28.82	A	N
ATOM	175	CE2	TRP	A	72	72.867	-16.979	54.647	1.00	27.71	A	C
ATOM	176	CD2	TRP	A	72	72.058	-16.626	53.530	1.00	27.68	A	C
ATOM	177	CE3	TRP	A	72	72.479	-15.591	52.679	1.00	27.02	A	C
ATOM	178	CZ3	TRP	A	72	73.670	-14.959	52.951	1.00	26.66	A	C
ATOM	179	CH2	TRP	A	72	74.459	-15.353	54.057	1.00	27.59	A	C
ATOM	180	CZ2	TRP	A	72	74.065	-16.354	54.914	1.00	26.76	A	C
ATOM	181	C	TRP	A	72	71.043	-18.231	50.653	1.00	33.14	A	C
ATOM	182	O	TRP	A	72	72.065	-18.892	50.842	1.00	34.49	A	O
ATOM	183	N	CYS	A	73	70.930	-17.311	49.698	1.00	30.97	A	N
ATOM	184	CA	CYS	A	73	72.036	-16.958	48.797	1.00	31.56	A	C
ATOM	185	CB	CYS	A	73	72.075	-17.924	47.613	1.00	30.97	A	C
ATOM	186	SG	CYS	A	73	73.316	-17.618	46.354	1.00	32.57	A	S
ATOM	187	C	CYS	A	73	71.871	-15.521	48.309	1.00	31.32	A	C
ATOM	188	O	CYS	A	73	70.903	-15.217	47.628	1.00	30.33	A	O
ATOM	189	N	LYS	A	74	72.814	-14.656	48.679	1.00	30.37	A	N
ATOM	190	CA	LYS	A	74	72.758	-13.254	48.354	1.00	32.45	A	C
ATOM	191	CB	LYS	A	74	73.167	-12.422	49.573	1.00	33.68	A	C
ATOM	192	CG	LYS	A	74	72.094	-11.801	50.463	1.00	34.53	A	C
ATOM	193	CD	LYS	A	74	70.720	-12.435	50.410	1.00	36.12	A	C
ATOM	194	CE	LYS	A	74	69.705	-11.664	51.228	1.00	36.03	A	C

ATOM	195	NZ	LYS	A	74	68.315	-11.919	50.749	1.00	36.20	A	N
ATOM	196	C	LYS	A	74	73.670	-12.902	47.179	1.00	35.93	A	C
ATOM	197	O	LYS	A	74	74.789	-13.426	47.047	1.00	39.59	A	O
ATOM	198	N	THR	A	75	73.192	-11.975	46.353	1.00	35.55	A	N
ATOM	199	CA	THR	A	75	73.983	-11.340	45.315	1.00	34.19	A	C
ATOM	200	CB	THR	A	75	73.198	-11.247	43.999	1.00	32.96	A	C
ATOM	201	OG1	THR	A	75	72.674	-12.531	43.646	1.00	33.48	A	O
ATOM	202	CG2	THR	A	75	74.086	-10.750	42.874	1.00	32.20	A	C
ATOM	203	C	THR	A	75	74.273	-9.929	45.806	1.00	35.52	A	C
ATOM	204	O	THR	A	75	73.385	-9.263	46.289	1.00	36.72	A	O
ATOM	205	N	GLN	A	76	75.496	-9.454	45.641	1.00	36.01	A	N
ATOM	206	CA	GLN	A	76	75.835	-8.136	46.117	1.00	39.15	A	C
ATOM	207	CB	GLN	A	76	76.385	-8.251	47.520	1.00	43.80	A	C
ATOM	208	CG	GLN	A	76	76.701	-6.917	48.159	1.00	45.97	A	C
ATOM	209	CD	GLN	A	76	76.998	-7.040	49.625	1.00	51.40	A	C
ATOM	210	OE1	GLN	A	76	76.408	-7.869	50.321	1.00	58.10	A	O
ATOM	211	NE2	GLN	A	76	77.904	-6.191	50.121	1.00	52.67	A	N
ATOM	212	C	GLN	A	76	76.848	-7.451	45.210	1.00	38.30	A	C
ATOM	213	O	GLN	A	76	77.735	-8.103	44.681	1.00	38.19	A	O
ATOM	214	N	PRO	A	77	76.722	-6.121	45.033	1.00	38.80	A	N
ATOM	215	CA	PRO	A	77	77.604	-5.451	44.081	1.00	38.04	A	C
ATOM	216	CB	PRO	A	77	76.896	-4.120	43.843	1.00	34.66	A	C
ATOM	217	CG	PRO	A	77	76.173	-3.861	45.110	1.00	33.98	A	C
ATOM	218	CD	PRO	A	77	75.659	-5.207	45.498	1.00	36.17	A	C
ATOM	219	C	PRO	A	77	78.993	-5.206	44.617	1.00	39.81	A	C
ATOM	220	O	PRO	A	77	79.173	-5.029	45.824	1.00	46.95	A	O
ATOM	221	N	LEU	A	78	79.957	-5.157	43.713	1.00	40.62	A	N
ATOM	222	CA	LEU	A	78	81.297	-4.727	44.052	1.00	45.63	A	C
ATOM	223	CB	LEU	A	78	82.141	-5.910	44.513	1.00	47.23	A	C
ATOM	224	CG	LEU	A	78	83.023	-6.604	43.482	1.00	49.43	A	C
ATOM	225	CD1	LEU	A	78	84.043	-7.503	44.141	1.00	48.73	A	C
ATOM	226	CD2	LEU	A	78	82.214	-7.380	42.478	1.00	51.89	A	C
ATOM	227	C	LEU	A	78	81.916	-3.994	42.847	1.00	45.78	A	C
ATOM	228	O	LEU	A	78	81.498	-4.207	41.716	1.00	39.80	A	O
ATOM	229	N	LYS	A	79	82.875	-3.108	43.112	1.00	46.76	A	N
ATOM	230	CA	LYS	A	79	83.501	-2.324	42.057	1.00	46.86	A	C
ATOM	231	CB	LYS	A	79	84.041	-0.994	42.587	1.00	54.58	A	C
ATOM	232	CG	LYS	A	79	82.986	-0.009	43.045	1.00	60.97	A	C
ATOM	233	CD	LYS	A	79	83.617	1.102	43.856	1.00	67.31	A	C
ATOM	234	CE	LYS	A	79	82.588	2.111	44.339	1.00	73.20	A	C
ATOM	235	NZ	LYS	A	79	83.213	3.089	45.279	1.00	78.49	A	N
ATOM	236	C	LYS	A	79	84.651	-3.096	41.467	1.00	41.74	A	C
ATOM	237	O	LYS	A	79	85.331	-3.849	42.156	1.00	40.67	A	O
ATOM	238	N	GLN	A	80	84.859	-2.875	40.182	1.00	40.78	A	N
ATOM	239	CA	GLN	A	80	85.970	-3.433	39.431	1.00	43.40	A	C
ATOM	240	CB	GLN	A	80	85.553	-4.641	38.618	1.00	45.81	A	C
ATOM	241	CG	GLN	A	80	85.520	-5.910	39.449	1.00	49.45	A	C
ATOM	242	CD	GLN	A	80	85.658	-7.170	38.616	1.00	51.51	A	C
ATOM	243	OE1	GLN	A	80	85.085	-7.268	37.530	1.00	44.18	A	O
ATOM	244	NE2	GLN	A	80	86.435	-8.142	39.122	1.00	51.33	A	N
ATOM	245	C	GLN	A	80	86.368	-2.366	38.473	1.00	44.55	A	C
ATOM	246	O	GLN	A	80	85.504	-1.676	37.927	1.00	44.72	A	O
ATOM	247	N	THR	A	81	87.659	-2.215	38.261	1.00	42.36	A	N
ATOM	248	CA	THR	A	81	88.112	-1.189	37.351	1.00	43.77	A	C
ATOM	249	CB	THR	A	81	89.060	-0.186	38.041	1.00	46.04	A	C
ATOM	250	OG1	THR	A	81	89.873	0.442	37.043	1.00	51.74	A	O
ATOM	251	CG2	THR	A	81	89.957	-0.857	39.071	1.00	49.28	A	C
ATOM	252	C	THR	A	81	88.728	-1.815	36.104	1.00	43.38	A	C
ATOM	253	O	THR	A	81	89.417	-2.822	36.205	1.00	46.37	A	O
ATOM	254	N	ILE	A	82	88.453	-1.224	34.938	1.00	45.72	A	N
ATOM	255	CA	ILE	A	82	89.009	-1.668	33.642	1.00	51.64	A	C
ATOM	256	CB	ILE	A	82	88.003	-1.584	32.502	1.00	48.69	A	C
ATOM	257	CG1	ILE	A	82	86.883	-2.614	32.595	1.00	49.76	A	C
ATOM	258	CD1	ILE	A	82	86.472	-3.067	33.959	1.00	52.74	A	C
ATOM	259	CG2	ILE	A	82	88.638	-1.981	31.199	1.00	52.20	A	C
ATOM	260	C	ILE	A	82	90.122	-0.699	33.251	1.00	60.82	A	C
ATOM	261	O	ILE	A	82	89.876	0.504	33.213	1.00	64.18	A	O
ATOM	262	N	HIS	A	83	91.315	-1.212	32.947	1.00	68.49	A	N

ATOM	263	CA	HIS	A	83	92.490	-0.355	32.667	1.00	76.67	A	C
ATOM	264	CB	HIS	A	83	93.385	-0.239	33.921	1.00	79.17	A	C
ATOM	265	CG	HIS	A	83	93.105	-1.290	34.948	1.00	86.03	A	C
ATOM	266	ND1	HIS	A	83	92.438	-1.033	36.128	1.00	88.62	A	N
ATOM	267	CE1	HIS	A	83	92.327	-2.155	36.818	1.00	89.28	A	C
ATOM	268	NE2	HIS	A	83	92.882	-3.130	36.123	1.00	92.66	A	N
ATOM	269	CD2	HIS	A	83	93.373	-2.617	34.948	1.00	89.93	A	C
ATOM	270	C	HIS	A	83	93.298	-0.832	31.477	1.00	78.47	A	C
ATOM	271	O	HIS	A	83	94.168	-1.681	31.634	1.00	78.83	A	O
ATOM	272	N	GLU	A	84	93.055	-0.264	30.296	1.00	81.05	A	N
ATOM	273	CA	GLU	A	84	93.744	-0.718	29.107	1.00	81.26	A	C
ATOM	274	CB	GLU	A	84	92.771	-1.254	28.042	1.00	85.05	A	C
ATOM	275	CG	GLU	A	84	93.322	-2.496	27.376	1.00	89.92	A	C
ATOM	276	CD	GLU	A	84	92.354	-3.128	26.402	1.00	95.02	A	C
ATOM	277	OE1	GLU	A	84	92.280	-2.613	25.269	1.00	97.56	A	O
ATOM	278	OE2	GLU	A	84	91.687	-4.139	26.749	1.00	100.30	A	O
ATOM	279	C	GLU	A	84	94.621	0.387	28.544	1.00	83.59	A	C
ATOM	280	O	GLU	A	84	94.245	1.557	28.578	1.00	84.51	A	O
ATOM	281	N	GLU	A	85	95.751	-0.034	27.962	1.00	88.78	A	N
ATOM	282	CA	GLU	A	85	96.987	0.788	27.785	1.00	83.78	A	C
ATOM	283	CB	GLU	A	85	97.794	0.274	26.583	1.00	86.02	A	C
ATOM	284	CG	GLU	A	85	98.412	-1.136	26.689	1.00	90.64	A	C
ATOM	285	CD	GLU	A	85	97.789	-2.128	25.713	1.00	99.32	A	C
ATOM	286	OE1	GLU	A	85	97.339	-1.703	24.620	1.00	102.48	A	O
ATOM	287	OE2	GLU	A	85	97.760	-3.345	26.030	1.00	108.08	A	O
ATOM	288	C	GLU	A	85	96.795	2.293	27.600	1.00	76.44	A	C
ATOM	289	O	GLU	A	85	97.206	3.090	28.450	1.00	82.89	A	O
ATOM	290	N	GLY	A	86	96.211	2.678	26.474	1.00	65.41	A	N
ATOM	291	CA	GLY	A	86	96.105	4.098	26.107	1.00	59.99	A	C
ATOM	292	C	GLY	A	86	94.843	4.804	26.568	1.00	58.20	A	C
ATOM	293	O	GLY	A	86	94.583	5.954	26.184	1.00	59.35	A	O
ATOM	294	N	CYS	A	87	94.060	4.126	27.408	1.00	59.17	A	N
ATOM	295	CA	CYS	A	87	92.706	4.561	27.743	1.00	58.03	A	C
ATOM	296	CB	CYS	A	87	91.727	3.424	27.442	1.00	59.04	A	C
ATOM	297	SG	CYS	A	87	91.770	2.828	25.732	1.00	57.91	A	S
ATOM	298	C	CYS	A	87	92.543	4.982	29.194	1.00	52.74	A	C
ATOM	299	O	CYS	A	87	93.166	4.422	30.088	1.00	51.83	A	O
ATOM	300	N	ASN	A	88	91.683	5.965	29.416	1.00	50.02	A	N
ATOM	301	CA	ASN	A	88	91.286	6.313	30.758	1.00	48.55	A	C
ATOM	302	CB	ASN	A	88	90.269	7.475	30.772	1.00	48.81	A	C
ATOM	303	CG	ASN	A	88	90.887	8.827	30.407	1.00	51.24	A	C
ATOM	304	OD1	ASN	A	88	90.166	9.815	30.255	1.00	46.34	A	O
ATOM	305	ND2	ASN	A	88	92.216	8.880	30.269	1.00	52.00	A	N
ATOM	306	C	ASN	A	88	90.668	5.053	31.351	1.00	51.33	A	C
ATOM	307	O	ASN	A	88	89.831	4.382	30.729	1.00	56.17	A	O
ATOM	308	N	SER	A	89	91.068	4.753	32.572	1.00	53.63	A	N
ATOM	309	CA	SER	A	89	90.492	3.668	33.339	1.00	50.31	A	C
ATOM	310	CB	SER	A	89	91.278	3.522	34.616	1.00	54.22	A	C
ATOM	311	OG	SER	A	89	90.685	2.622	35.519	1.00	62.37	A	O
ATOM	312	C	SER	A	89	89.047	3.972	33.662	1.00	45.00	A	C
ATOM	313	O	SER	A	89	88.681	5.124	33.798	1.00	44.21	A	O
ATOM	314	N	ARG	A	90	88.224	2.932	33.736	1.00	44.70	A	N
ATOM	315	CA	ARG	A	90	86.789	3.075	34.000	1.00	40.64	A	C
ATOM	316	CB	ARG	A	90	86.009	2.947	32.693	1.00	37.90	A	C
ATOM	317	CG	ARG	A	90	84.507	2.949	32.851	1.00	37.42	A	C
ATOM	318	CD	ARG	A	90	83.812	3.149	31.510	1.00	36.35	A	C
ATOM	319	NE	ARG	A	90	82.352	3.191	31.692	1.00	38.43	A	N
ATOM	320	CZ	ARG	A	90	81.439	3.049	30.723	1.00	39.02	A	C
ATOM	321	NH1	ARG	A	90	81.810	2.859	29.460	1.00	41.94	A	N
ATOM	322	NH2	ARG	A	90	80.142	3.100	31.014	1.00	35.29	A	N
ATOM	323	C	ARG	A	90	86.327	2.010	35.003	1.00	40.08	A	C
ATOM	324	O	ARG	A	90	86.773	0.874	34.970	1.00	38.01	A	O
ATOM	325	N	THR	A	91	85.432	2.389	35.894	1.00	40.30	A	N
ATOM	326	CA	THR	A	91	84.990	1.494	36.939	1.00	41.76	A	C
ATOM	327	CB	THR	A	91	85.048	2.193	38.325	1.00	42.78	A	C
ATOM	328	OG1	THR	A	91	86.419	2.457	38.667	1.00	47.03	A	O
ATOM	329	CG2	THR	A	91	84.412	1.342	39.429	1.00	43.34	A	C
ATOM	330	C	THR	A	91	83.585	1.027	36.627	1.00	41.58	A	C

ATOM	331	O	THR	A	91	82.726	1.825	36.271	1.00	43.20	A	O
ATOM	332	N	ILE	A	92	83.376	-0.277	36.773	1.00	39.62	A	N
ATOM	333	CA	ILE	A	92	82.091	-0.886	36.537	1.00	39.18	A	C
ATOM	334	CB	ILE	A	92	82.079	-1.809	35.296	1.00	40.51	A	C
ATOM	335	CG1	ILE	A	92	83.209	-2.852	35.336	1.00	41.03	A	C
ATOM	336	CD1	ILE	A	92	82.719	-4.267	35.490	1.00	41.14	A	C
ATOM	337	CG2	ILE	A	92	82.195	-0.978	34.034	1.00	41.88	A	C
ATOM	338	C	ILE	A	92	81.708	-1.678	37.758	1.00	39.47	A	C
ATOM	339	O	ILE	A	92	82.521	-1.897	38.651	1.00	39.18	A	O
ATOM	340	N	ILE	A	93	80.449	-2.086	37.781	1.00	39.61	A	N
ATOM	341	CA	ILE	A	93	79.878	-2.818	38.882	1.00	40.90	A	C
ATOM	342	CB	ILE	A	93	78.504	-2.227	39.284	1.00	43.09	A	C
ATOM	343	CG1	ILE	A	93	78.660	-0.899	40.091	1.00	43.79	A	C
ATOM	344	CD1	ILE	A	93	79.985	-0.152	39.986	1.00	46.79	A	C
ATOM	345	CG2	ILE	A	93	77.739	-3.194	40.173	1.00	44.47	A	C
ATOM	346	C	ILE	A	93	79.706	-4.269	38.453	1.00	41.58	A	C
ATOM	347	O	ILE	A	93	78.949	-4.540	37.515	1.00	41.60	A	O
ATOM	348	N	ASN	A	94	80.419	-5.182	39.128	1.00	38.38	A	N
ATOM	349	CA	ASN	A	94	80.142	-6.610	39.053	1.00	34.28	A	C
ATOM	350	CB	ASN	A	94	81.424	-7.415	38.990	1.00	33.51	A	C
ATOM	351	CG	ASN	A	94	81.293	-8.688	38.173	1.00	33.49	A	C
ATOM	352	OD1	ASN	A	94	80.212	-9.272	38.038	1.00	31.82	A	O
ATOM	353	ND2	ASN	A	94	82.415	-9.142	37.645	1.00	33.13	A	N
ATOM	354	C	ASN	A	94	79.365	-7.000	40.294	1.00	34.48	A	C
ATOM	355	O	ASN	A	94	78.916	-6.142	41.054	1.00	34.34	A	O
ATOM	356	N	ARG	A	95	79.152	-8.298	40.477	1.00	38.10	A	N
ATOM	357	CA	ARG	A	95	78.475	-8.814	41.666	1.00	35.94	A	C
ATOM	358	CB	ARG	A	95	77.031	-9.162	41.323	1.00	38.60	A	C
ATOM	359	CG	ARG	A	95	76.296	-7.978	40.760	1.00	42.74	A	C
ATOM	360	CD	ARG	A	95	74.861	-8.243	40.418	1.00	49.54	A	C
ATOM	361	NE	ARG	A	95	74.299	-7.061	39.759	1.00	57.68	A	N
ATOM	362	CZ	ARG	A	95	74.363	-6.780	38.450	1.00	60.82	A	C
ATOM	363	NH1	ARG	A	95	74.997	-7.566	37.575	1.00	60.41	A	N
ATOM	364	NH2	ARG	A	95	73.782	-5.666	38.009	1.00	64.61	A	N
ATOM	365	C	ARG	A	95	79.188	-10.031	42.197	1.00	32.53	A	C
ATOM	366	O	ARG	A	95	79.908	-10.691	41.475	1.00	29.01	A	O
ATOM	367	N	PHE	A	96	78.974	-10.314	43.473	1.00	33.61	A	N
ATOM	368	CA	PHE	A	96	79.437	-11.557	44.069	1.00	32.57	A	C
ATOM	369	CB	PHE	A	96	80.668	-11.321	44.927	1.00	32.96	A	C
ATOM	370	CG	PHE	A	96	80.440	-10.487	46.148	1.00	32.04	A	C
ATOM	371	CD1	PHE	A	96	80.356	-9.113	46.055	1.00	32.54	A	C
ATOM	372	CE1	PHE	A	96	80.169	-8.339	47.186	1.00	32.51	A	C
ATOM	373	CZ	PHE	A	96	80.097	-8.939	48.429	1.00	33.50	A	C
ATOM	374	CE2	PHE	A	96	80.224	-10.310	48.542	1.00	32.61	A	C
ATOM	375	CD2	PHE	A	96	80.410	-11.073	47.405	1.00	32.53	A	C
ATOM	376	C	PHE	A	96	78.344	-12.283	44.834	1.00	31.83	A	C
ATOM	377	O	PHE	A	96	77.306	-11.725	45.171	1.00	34.07	A	O
ATOM	378	N	CYS	A	97	78.575	-13.555	45.057	1.00	32.17	A	N
ATOM	379	CA	CYS	A	97	77.592	-14.431	45.673	1.00	34.11	A	C
ATOM	380	CB	CYS	A	97	77.438	-15.686	44.811	1.00	35.95	A	C
ATOM	381	SG	CYS	A	97	77.182	-15.365	43.059	1.00	38.11	A	S
ATOM	382	C	CYS	A	97	78.089	-14.856	47.032	1.00	30.93	A	C
ATOM	383	O	CYS	A	97	79.269	-15.135	47.191	1.00	29.55	A	O
ATOM	384	N	TYR	A	98	77.200	-14.951	48.001	1.00	29.65	A	N
ATOM	385	CA	TYR	A	98	77.539	-15.651	49.255	1.00	29.24	A	C
ATOM	386	CB	TYR	A	98	78.341	-14.775	50.205	1.00	28.70	A	C
ATOM	387	CG	TYR	A	98	77.627	-13.535	50.580	1.00	30.40	A	C
ATOM	388	CD1	TYR	A	98	77.712	-12.406	49.781	1.00	31.69	A	C
ATOM	389	CE1	TYR	A	98	77.038	-11.250	50.108	1.00	32.92	A	C
ATOM	390	CZ	TYR	A	98	76.273	-11.216	51.253	1.00	34.29	A	C
ATOM	391	OH	TYR	A	98	75.591	-10.066	51.551	1.00	35.12	A	O
ATOM	392	CE2	TYR	A	98	76.173	-12.327	52.068	1.00	33.54	A	C
ATOM	393	CD2	TYR	A	98	76.850	-13.481	51.721	1.00	32.63	A	C
ATOM	394	C	TYR	A	98	76.280	-16.142	49.936	1.00	27.25	A	C
ATOM	395	O	TYR	A	98	75.229	-15.523	49.824	1.00	28.27	A	O
ATOM	396	N	GLY	A	99	76.381	-17.293	50.572	1.00	25.49	A	N
ATOM	397	CA	GLY	A	99	75.242	-17.878	51.209	1.00	25.62	A	C
ATOM	398	C	GLY	A	99	75.525	-19.198	51.883	1.00	25.51	A	C

ATOM	399	O	GLY	A	99	76.655	-19.651	51.998	1.00	24.28	A	O
ATOM	400	N	GLN	A	100	74.451	-19.810	52.339	1.00	28.05	A	N
ATOM	401	CA	GLN	A	100	74.505	-21.086	53.015	1.00	28.07	A	C
ATOM	402	CB	GLN	A	100	74.344	-20.877	54.511	1.00	29.37	A	C
ATOM	403	CG	GLN	A	100	75.362	-19.864	55.054	1.00	31.89	A	C
ATOM	404	CD	GLN	A	100	75.222	-19.627	56.547	1.00	30.82	A	C
ATOM	405	OE1	GLN	A	100	74.134	-19.770	57.088	1.00	32.80	A	O
ATOM	406	NE2	GLN	A	100	76.313	-19.263	57.216	1.00	30.42	A	N
ATOM	407	C	GLN	A	100	73.398	-21.933	52.434	1.00	28.33	A	C
ATOM	408	O	GLN	A	100	72.197	-21.709	52.726	1.00	30.31	A	O
ATOM	409	N	CYS	A	101	73.801	-22.857	51.566	1.00	26.41	A	N
ATOM	410	CA	CYS	A	101	72.853	-23.636	50.826	1.00	28.26	A	C
ATOM	411	CB	CYS	A	101	73.323	-23.810	49.388	1.00	29.41	A	C
ATOM	412	SG	CYS	A	101	73.461	-22.241	48.520	1.00	34.57	A	S
ATOM	413	C	CYS	A	101	72.683	-24.962	51.506	1.00	27.40	A	C
ATOM	414	O	CYS	A	101	73.415	-25.283	52.410	1.00	28.72	A	O
ATOM	415	N	ASN	A	102	71.725	-25.742	51.048	1.00	28.47	A	N
ATOM	416	CA	ASN	A	102	71.454	-27.025	51.624	1.00	27.55	A	C
ATOM	417	CB	ASN	A	102	70.051	-27.462	51.289	1.00	26.85	A	C
ATOM	418	CG	ASN	A	102	69.012	-26.541	51.850	1.00	29.69	A	C
ATOM	419	OD1	ASN	A	102	69.175	-25.937	52.906	1.00	32.21	A	O
ATOM	420	ND2	ASN	A	102	67.927	-26.442	51.150	1.00	32.26	A	N
ATOM	421	C	ASN	A	102	72.368	-28.088	51.108	1.00	29.06	A	C
ATOM	422	O	ASN	A	102	72.688	-28.125	49.927	1.00	31.94	A	O
ATOM	423	N	SER	A	103	72.772	-28.976	51.999	1.00	29.17	A	N
ATOM	424	CA	SER	A	103	73.439	-30.195	51.599	1.00	28.46	A	C
ATOM	425	CB	SER	A	103	74.944	-29.997	51.580	1.00	28.34	A	C
ATOM	426	OG	SER	A	103	75.388	-29.569	52.848	1.00	30.40	A	O
ATOM	427	C	SER	A	103	73.054	-31.252	52.597	1.00	28.74	A	C
ATOM	428	O	SER	A	103	72.700	-30.938	53.742	1.00	29.19	A	O
ATOM	429	N	PHE	A	104	73.107	-32.496	52.165	1.00	28.85	A	N
ATOM	430	CA	PHE	A	104	72.833	-33.602	53.051	1.00	30.40	A	C
ATOM	431	CB	PHE	A	104	71.333	-33.767	53.288	1.00	31.54	A	C
ATOM	432	CG	PHE	A	104	70.519	-34.053	52.029	1.00	33.21	A	C
ATOM	433	CD1	PHE	A	104	70.493	-35.295	51.464	1.00	33.65	A	C
ATOM	434	CE1	PHE	A	104	69.731	-35.541	50.334	1.00	34.82	A	C
ATOM	435	CZ	PHE	A	104	68.974	-34.544	49.763	1.00	33.74	A	C
ATOM	436	CE2	PHE	A	104	68.973	-33.301	50.329	1.00	34.15	A	C
ATOM	437	CD2	PHE	A	104	69.735	-33.065	51.454	1.00	35.51	A	C
ATOM	438	C	PHE	A	104	73.409	-34.888	52.497	1.00	33.55	A	C
ATOM	439	O	PHE	A	104	73.828	-34.970	51.333	1.00	32.74	A	O
ATOM	440	N	TYR	A	105	73.437	-35.896	53.358	1.00	34.02	A	N
ATOM	441	CA	TYR	A	105	73.939	-37.203	52.987	1.00	32.62	A	C
ATOM	442	CB	TYR	A	105	75.421	-37.288	53.274	1.00	30.89	A	C
ATOM	443	CG	TYR	A	105	75.985	-38.614	52.916	1.00	31.58	A	C
ATOM	444	CD1	TYR	A	105	75.832	-39.713	53.762	1.00	33.78	A	C
ATOM	445	CE1	TYR	A	105	76.362	-40.947	53.439	1.00	32.36	A	C
ATOM	446	CZ	TYR	A	105	77.039	-41.091	52.257	1.00	30.64	A	C
ATOM	447	OH	TYR	A	105	77.588	-42.280	51.917	1.00	33.60	A	O
ATOM	448	CE2	TYR	A	105	77.194	-40.032	51.409	1.00	31.88	A	C
ATOM	449	CD2	TYR	A	105	76.673	-38.794	51.740	1.00	32.05	A	C
ATOM	450	C	TYR	A	105	73.192	-38.218	53.812	1.00	34.08	A	C
ATOM	451	O	TYR	A	105	73.205	-38.158	55.041	1.00	35.01	A	O
ATOM	452	N	ILE	A	106	72.540	-39.155	53.138	1.00	35.19	A	N
ATOM	453	CA	ILE	A	106	71.662	-40.112	53.806	1.00	33.62	A	C
ATOM	454	CB	ILE	A	106	70.196	-39.784	53.539	1.00	32.11	A	C
ATOM	455	CG1	ILE	A	106	69.837	-38.428	54.142	1.00	31.60	A	C
ATOM	456	CD1	ILE	A	106	68.598	-37.816	53.538	1.00	31.50	A	C
ATOM	457	CG2	ILE	A	106	69.301	-40.855	54.127	1.00	33.13	A	C
ATOM	458	C	ILE	A	106	71.948	-41.497	53.257	1.00	35.24	A	C
ATOM	459	O	ILE	A	106	71.697	-41.739	52.077	1.00	35.15	A	O
ATOM	460	N	PRO	A	107	72.506	-42.391	54.093	1.00	35.71	A	N
ATOM	461	CA	PRO	A	107	72.836	-43.727	53.637	1.00	36.21	A	C
ATOM	462	CB	PRO	A	107	73.485	-44.394	54.836	1.00	35.69	A	C
ATOM	463	CG	PRO	A	107	73.503	-43.399	55.924	1.00	36.86	A	C
ATOM	464	CD	PRO	A	107	72.659	-42.233	55.542	1.00	36.77	A	C
ATOM	465	C	PRO	A	107	71.565	-44.430	53.235	1.00	39.81	A	C
ATOM	466	O	PRO	A	107	70.554	-44.329	53.904	1.00	38.66	A	O

ATOM	467	N	ARG	A	108	71.640	-45.145	52.129	1.00	47.91	A	N
ATOM	468	CA	ARG	A	108	70.458	-45.385	51.323	1.00	54.83	A	C
ATOM	469	CB	ARG	A	108	70.682	-44.962	49.868	1.00	57.65	A	C
ATOM	470	CG	ARG	A	108	69.722	-45.571	48.852	1.00	58.78	A	C
ATOM	471	CD	ARG	A	108	68.671	-44.589	48.510	1.00	59.30	A	C
ATOM	472	NE	ARG	A	108	68.082	-45.018	47.273	1.00	62.75	A	N
ATOM	473	CZ	ARG	A	108	68.484	-44.689	46.049	1.00	64.27	A	C
ATOM	474	NH1	ARG	A	108	69.502	-43.855	45.808	1.00	58.97	A	N
ATOM	475	NH2	ARG	A	108	67.812	-45.204	45.034	1.00	74.19	A	N
ATOM	476	C	ARG	A	108	70.151	-46.812	51.382	1.00	60.29	A	C
ATOM	477	O	ARG	A	108	71.073	-47.623	51.291	1.00	52.82	A	O
ATOM	478	N	HIS	A	109	68.842	-47.093	51.475	1.00	78.23	A	N
ATOM	479	CA	HIS	A	109	68.315	-48.466	51.551	1.00	87.51	A	C
ATOM	480	CB	HIS	A	109	66.737	-48.597	51.324	1.00	89.41	A	C
ATOM	481	CG	HIS	A	109	66.111	-47.517	50.473	1.00	92.22	A	C
ATOM	482	ND1	HIS	A	109	66.069	-47.599	49.098	1.00	95.93	A	N
ATOM	483	CE1	HIS	A	109	65.435	-46.549	48.608	1.00	88.42	A	C
ATOM	484	NE2	HIS	A	109	65.043	-45.794	49.617	1.00	85.15	A	N
ATOM	485	CD2	HIS	A	109	65.433	-46.384	50.797	1.00	88.03	A	C
ATOM	486	C	HIS	A	109	69.094	-49.222	50.505	1.00	89.49	A	C
ATOM	487	O	HIS	A	109	68.759	-49.217	49.316	1.00	90.22	A	O
ATOM	488	N	ILE	A	110	70.240	-49.705	50.969	1.00	88.72	A	N
ATOM	489	CA	ILE	A	110	70.834	-50.910	50.505	1.00	91.31	A	C
ATOM	490	CB	ILE	A	110	70.296	-52.114	51.346	1.00	84.46	A	C
ATOM	491	CG1	ILE	A	110	69.925	-51.693	52.788	1.00	75.07	A	C
ATOM	492	CD1	ILE	A	110	71.056	-51.718	53.783	1.00	70.15	A	C
ATOM	493	CG2	ILE	A	110	71.241	-53.320	51.283	1.00	82.84	A	C
ATOM	494	C	ILE	A	110	70.464	-51.085	49.034	1.00	101.03	A	C
ATOM	495	O	ILE	A	110	69.640	-51.948	48.703	1.00	125.66	A	O
ATOM	496	N	ARG	A	111	71.063	-50.270	48.159	1.00	91.88	A	N
ATOM	497	CA	ARG	A	111	70.734	-50.266	46.705	1.00	86.41	A	C
ATOM	498	CB	ARG	A	111	71.564	-49.211	45.991	1.00	89.22	A	C
ATOM	499	CG	ARG	A	111	71.092	-48.948	44.565	1.00	94.69	A	C
ATOM	500	CD	ARG	A	111	72.205	-48.652	43.529	1.00	96.79	A	C
ATOM	501	NE	ARG	A	111	72.374	-49.776	42.592	1.00	99.25	A	N
ATOM	502	CZ	ARG	A	111	71.552	-50.054	41.576	1.00	96.22	A	C
ATOM	503	NH1	ARG	A	111	70.487	-49.292	41.345	1.00	98.15	A	N
ATOM	504	NH2	ARG	A	111	71.787	-51.100	40.791	1.00	87.48	A	N
ATOM	505	C	ARG	A	111	70.934	-51.661	46.048	1.00	79.51	A	C
ATOM	506	O	ARG	A	111	71.710	-51.853	45.100	1.00	80.72	A	O
ATOM	507	N	LYS	A	112	70.201	-52.628	46.583	1.00	76.45	A	N
ATOM	508	CA	LYS	A	112	70.603	-54.032	46.582	1.00	80.62	A	C
ATOM	509	CB	LYS	A	112	70.275	-54.682	45.245	1.00	88.65	A	C
ATOM	510	CG	LYS	A	112	69.932	-56.180	45.452	1.00	94.22	A	C
ATOM	511	CD	LYS	A	112	68.449	-56.473	45.305	1.00	94.84	A	C
ATOM	512	CE	LYS	A	112	68.038	-57.586	46.244	1.00	93.67	A	C
ATOM	513	NZ	LYS	A	112	66.759	-58.175	45.797	1.00	95.40	A	N
ATOM	514	C	LYS	A	112	72.078	-54.227	46.937	1.00	79.13	A	C
ATOM	515	O	LYS	A	112	72.692	-55.214	46.558	1.00	72.19	A	O
ATOM	516	N	GLU	A	113	72.610	-53.294	47.727	1.00	87.06	A	N
ATOM	517	CA	GLU	A	113	74.047	-53.003	47.771	1.00	86.61	A	C
ATOM	518	CB	GLU	A	113	74.489	-52.440	46.419	1.00	85.09	A	C
ATOM	519	CG	GLU	A	113	75.991	-52.410	46.229	1.00	80.73	A	C
ATOM	520	CD	GLU	A	113	76.484	-53.655	45.545	1.00	79.23	A	C
ATOM	521	OE1	GLU	A	113	76.324	-54.735	46.146	1.00	81.24	A	O
ATOM	522	OE2	GLU	A	113	77.008	-53.554	44.418	1.00	74.12	A	O
ATOM	523	C	GLU	A	113	74.308	-51.972	48.918	1.00	86.09	A	C
ATOM	524	O	GLU	A	113	73.882	-52.199	50.050	1.00	91.56	A	O
ATOM	525	N	GLU	A	114	74.971	-50.841	48.636	1.00	81.30	A	N
ATOM	526	CA	GLU	A	114	75.098	-49.737	49.616	1.00	78.79	A	C
ATOM	527	CB	GLU	A	114	76.105	-50.056	50.736	1.00	82.00	A	C
ATOM	528	CG	GLU	A	114	76.037	-49.079	51.911	1.00	88.87	A	C
ATOM	529	CD	GLU	A	114	74.711	-49.128	52.667	1.00	93.88	A	C
ATOM	530	OE1	GLU	A	114	74.199	-50.242	52.908	1.00	99.73	A	O
ATOM	531	OE2	GLU	A	114	74.188	-48.053	53.037	1.00	83.56	A	O
ATOM	532	C	GLU	A	114	75.486	-48.401	48.950	1.00	68.37	A	C
ATOM	533	O	GLU	A	114	76.573	-48.272	48.400	1.00	65.80	A	O
ATOM	534	N	GLY	A	115	74.594	-47.414	49.017	1.00	59.08	A	N

ATOM	535	CA	GLY	A	115	74.853	-46.066	48.504	1.00	54.50	A	C
ATOM	536	C	GLY	A	115	74.134	-45.047	49.354	1.00	51.70	A	C
ATOM	537	O	GLY	A	115	73.887	-45.297	50.526	1.00	57.40	A	O
ATOM	538	N	SER	A	116	73.750	-43.922	48.763	1.00	49.37	A	N
ATOM	539	CA	SER	A	116	73.201	-42.815	49.541	1.00	48.35	A	C
ATOM	540	CB	SER	A	116	74.363	-42.016	50.117	1.00	51.52	A	C
ATOM	541	OG	SER	A	116	75.148	-41.451	49.082	1.00	49.54	A	O
ATOM	542	C	SER	A	116	72.317	-41.879	48.727	1.00	44.59	A	C
ATOM	543	O	SER	A	116	72.428	-41.841	47.509	1.00	44.26	A	O
ATOM	544	N	PHE	A	117	71.425	-41.155	49.405	1.00	41.14	A	N
ATOM	545	CA	PHE	A	117	70.767	-39.976	48.836	1.00	39.76	A	C
ATOM	546	CB	PHE	A	117	69.383	-39.725	49.433	1.00	39.91	A	C
ATOM	547	CG	PHE	A	117	68.350	-40.745	49.082	1.00	42.89	A	C
ATOM	548	CD1	PHE	A	117	67.994	-40.973	47.762	1.00	43.87	A	C
ATOM	549	CE1	PHE	A	117	67.018	-41.906	47.437	1.00	43.53	A	C
ATOM	550	CZ	PHE	A	117	66.373	-42.611	48.442	1.00	43.10	A	C
ATOM	551	CE2	PHE	A	117	66.700	-42.386	49.768	1.00	42.64	A	C
ATOM	552	CD2	PHE	A	117	67.674	-41.451	50.089	1.00	44.61	A	C
ATOM	553	C	PHE	A	117	71.623	-38.790	49.242	1.00	37.99	A	C
ATOM	554	O	PHE	A	117	71.829	-38.583	50.424	1.00	36.61	A	O
ATOM	555	N	GLN	A	118	72.134	-38.017	48.292	1.00	37.40	A	N
ATOM	556	CA	GLN	A	118	72.935	-36.860	48.666	1.00	37.81	A	C
ATOM	557	CB	GLN	A	118	74.407	-37.231	48.783	1.00	39.01	A	C
ATOM	558	CG	GLN	A	118	75.002	-37.791	47.518	1.00	40.21	A	C
ATOM	559	CD	GLN	A	118	76.417	-38.236	47.784	1.00	42.99	A	C
ATOM	560	OE1	GLN	A	118	76.654	-39.395	48.072	1.00	47.39	A	O
ATOM	561	NE2	GLN	A	118	77.357	-37.303	47.754	1.00	45.99	A	N
ATOM	562	C	GLN	A	118	72.797	-35.690	47.736	1.00	37.37	A	C
ATOM	563	O	GLN	A	118	72.400	-35.822	46.590	1.00	39.59	A	O
ATOM	564	N	SER	A	119	73.140	-34.525	48.262	1.00	36.95	A	N
ATOM	565	CA	SER	A	119	72.921	-33.286	47.578	1.00	33.24	A	C
ATOM	566	CB	SER	A	119	71.475	-32.873	47.707	1.00	33.89	A	C
ATOM	567	OG	SER	A	119	71.277	-31.625	47.104	1.00	37.49	A	O
ATOM	568	C	SER	A	119	73.793	-32.239	48.206	1.00	32.27	A	C
ATOM	569	O	SER	A	119	74.048	-32.258	49.384	1.00	32.39	A	O
ATOM	570	N	CYS	A	120	74.279	-31.343	47.380	1.00	34.02	A	N
ATOM	571	CA	CYS	A	120	75.069	-30.222	47.812	1.00	33.94	A	C
ATOM	572	CB	CYS	A	120	76.550	-30.568	47.870	1.00	34.89	A	C
ATOM	573	SG	CYS	A	120	77.566	-29.243	48.611	1.00	40.95	A	S
ATOM	574	C	CYS	A	120	74.810	-29.104	46.818	1.00	32.94	A	C
ATOM	575	O	CYS	A	120	74.894	-29.312	45.624	1.00	34.19	A	O
ATOM	576	N	SER	A	121	74.433	-27.936	47.319	1.00	32.93	A	N
ATOM	577	CA	SER	A	121	74.217	-26.795	46.483	1.00	31.93	A	C
ATOM	578	CB	SER	A	121	72.822	-26.265	46.670	1.00	33.02	A	C
ATOM	579	OG	SER	A	121	71.901	-27.168	46.095	1.00	34.68	A	O
ATOM	580	C	SER	A	121	75.249	-25.750	46.806	1.00	31.45	A	C
ATOM	581	O	SER	A	121	75.886	-25.782	47.853	1.00	32.91	A	O
ATOM	582	N	PHE	A	122	75.426	-24.846	45.864	1.00	30.96	A	N
ATOM	583	CA	PHE	A	122	76.559	-23.952	45.838	1.00	32.93	A	C
ATOM	584	CB	PHE	A	122	77.484	-24.430	44.720	1.00	33.29	A	C
ATOM	585	CG	PHE	A	122	78.774	-23.665	44.584	1.00	34.35	A	C
ATOM	586	CD1	PHE	A	122	79.043	-22.515	45.314	1.00	33.74	A	C
ATOM	587	CE1	PHE	A	122	80.248	-21.842	45.151	1.00	33.97	A	C
ATOM	588	CZ	PHE	A	122	81.196	-22.300	44.251	1.00	33.96	A	C
ATOM	589	CE2	PHE	A	122	80.942	-23.444	43.513	1.00	34.41	A	C
ATOM	590	CD2	PHE	A	122	79.737	-24.115	43.679	1.00	34.87	A	C
ATOM	591	C	PHE	A	122	75.977	-22.578	45.539	1.00	32.00	A	C
ATOM	592	O	PHE	A	122	75.358	-22.408	44.494	1.00	34.58	A	O
ATOM	593	N	CYS	A	123	76.133	-21.622	46.456	1.00	31.50	A	N
ATOM	594	CA	CYS	A	123	75.642	-20.267	46.211	1.00	34.21	A	C
ATOM	595	CB	CYS	A	123	75.533	-19.455	47.504	1.00	33.79	A	C
ATOM	596	SG	CYS	A	123	75.144	-17.703	47.266	1.00	31.89	A	S
ATOM	597	C	CYS	A	123	76.592	-19.607	45.213	1.00	35.86	A	C
ATOM	598	O	CYS	A	123	77.744	-19.324	45.547	1.00	33.04	A	O
ATOM	599	N	LYS	A	124	76.119	-19.434	43.976	1.00	36.05	A	N
ATOM	600	CA	LYS	A	124	76.984	-19.058	42.862	1.00	37.18	A	C
ATOM	601	CB	LYS	A	124	77.725	-20.295	42.335	1.00	39.54	A	C
ATOM	602	CG	LYS	A	124	76.806	-21.189	41.534	1.00	42.47	A	C

ATOM	603	CD	LYS	A	124	77.421	-22.529	41.237	1.00	48.85	A	C
ATOM	604	CE	LYS	A	124	78.531	-22.426	40.203	1.00	51.64	A	C
ATOM	605	NZ	LYS	A	124	78.499	-23.646	39.353	1.00	56.45	A	N
ATOM	606	C	LYS	A	124	76.159	-18.469	41.731	1.00	35.21	A	C
ATOM	607	O	LYS	A	124	74.940	-18.461	41.798	1.00	34.34	A	O
ATOM	608	N	PRO	A	125	76.827	-17.985	40.673	1.00	37.40	A	N
ATOM	609	CA	PRO	A	125	76.083	-17.360	39.594	1.00	37.50	A	C
ATOM	610	CB	PRO	A	125	77.190	-16.854	38.663	1.00	37.31	A	C
ATOM	611	CG	PRO	A	125	78.328	-16.581	39.575	1.00	37.66	A	C
ATOM	612	CD	PRO	A	125	78.278	-17.717	40.545	1.00	38.15	A	C
ATOM	613	C	PRO	A	125	75.178	-18.310	38.853	1.00	36.37	A	C
ATOM	614	O	PRO	A	125	75.591	-19.383	38.473	1.00	30.75	A	O
ATOM	615	N	LYS	A	126	73.949	-17.872	38.623	1.00	42.73	A	N
ATOM	616	CA	LYS	A	126	73.029	-18.566	37.737	1.00	46.02	A	C
ATOM	617	CB	LYS	A	126	71.611	-18.377	38.223	1.00	53.04	A	C
ATOM	618	CG	LYS	A	126	70.591	-19.160	37.429	1.00	59.92	A	C
ATOM	619	CD	LYS	A	126	69.419	-19.537	38.318	1.00	68.50	A	C
ATOM	620	CE	LYS	A	126	68.074	-19.373	37.621	1.00	72.15	A	C
ATOM	621	NZ	LYS	A	126	67.582	-20.713	37.187	1.00	74.53	A	N
ATOM	622	C	LYS	A	126	73.132	-18.039	36.323	1.00	44.93	A	C
ATOM	623	O	LYS	A	126	73.158	-18.813	35.378	1.00	42.75	A	O
ATOM	624	N	LYS	A	127	73.173	-16.715	36.186	1.00	49.66	A	N
ATOM	625	CA	LYS	A	127	73.296	-16.054	34.871	1.00	51.43	A	C
ATOM	626	CB	LYS	A	127	71.980	-15.327	34.438	1.00	56.95	A	C
ATOM	627	CG	LYS	A	127	70.968	-15.092	35.561	1.00	64.84	A	C
ATOM	628	CD	LYS	A	127	69.621	-14.552	35.057	1.00	69.23	A	C
ATOM	629	CE	LYS	A	127	68.565	-15.640	34.985	1.00	69.04	A	C
ATOM	630	NZ	LYS	A	127	68.008	-15.931	36.339	1.00	70.51	A	N
ATOM	631	C	LYS	A	127	74.477	-15.088	34.917	1.00	47.57	A	C
ATOM	632	O	LYS	A	127	74.682	-14.379	35.913	1.00	43.73	A	O
ATOM	633	N	PHE	A	128	75.299	-15.133	33.872	1.00	45.23	A	N
ATOM	634	CA	PHE	A	128	76.296	-14.091	33.626	1.00	43.64	A	C
ATOM	635	CB	PHE	A	128	77.594	-14.703	33.156	1.00	42.33	A	C
ATOM	636	CG	PHE	A	128	78.271	-15.549	34.185	1.00	40.94	A	C
ATOM	637	CD1	PHE	A	128	77.897	-16.864	34.367	1.00	42.68	A	C
ATOM	638	CE1	PHE	A	128	78.541	-17.656	35.301	1.00	42.56	A	C
ATOM	639	CZ	PHE	A	128	79.565	-17.127	36.065	1.00	42.82	A	C
ATOM	640	CE2	PHE	A	128	79.946	-15.806	35.889	1.00	42.45	A	C
ATOM	641	CD2	PHE	A	128	79.305	-15.029	34.952	1.00	40.96	A	C
ATOM	642	C	PHE	A	128	75.802	-13.131	32.552	1.00	43.33	A	C
ATOM	643	O	PHE	A	128	74.943	-13.484	31.763	1.00	47.14	A	O
ATOM	644	N	THR	A	129	76.316	-11.908	32.552	1.00	41.30	A	N
ATOM	645	CA	THR	A	129	75.982	-10.911	31.533	1.00	35.65	A	C
ATOM	646	CB	THR	A	129	75.434	-9.638	32.167	1.00	36.52	A	C
ATOM	647	OG1	THR	A	129	74.109	-9.884	32.643	1.00	37.37	A	O
ATOM	648	CG2	THR	A	129	75.384	-8.506	31.181	1.00	36.25	A	C
ATOM	649	C	THR	A	129	77.252	-10.599	30.809	1.00	33.26	A	C
ATOM	650	O	THR	A	129	78.323	-10.634	31.383	1.00	34.28	A	O
ATOM	651	N	THR	A	130	77.157	-10.400	29.509	1.00	35.45	A	N
ATOM	652	CA	THR	A	130	78.320	-9.982	28.714	1.00	33.88	A	C
ATOM	653	CB	THR	A	130	78.613	-10.942	27.566	1.00	31.58	A	C
ATOM	654	OG1	THR	A	130	79.249	-12.104	28.105	1.00	34.50	A	O
ATOM	655	CG2	THR	A	130	79.544	-10.322	26.562	1.00	33.45	A	C
ATOM	656	C	THR	A	130	78.019	-8.606	28.206	1.00	33.47	A	C
ATOM	657	O	THR	A	130	76.948	-8.368	27.657	1.00	30.77	A	O
ATOM	658	N	MET	A	131	78.968	-7.710	28.403	1.00	35.90	A	N
ATOM	659	CA	MET	A	131	78.783	-6.319	28.108	1.00	40.66	A	C
ATOM	660	CB	MET	A	131	78.519	-5.472	29.368	1.00	46.80	A	C
ATOM	661	CG	MET	A	131	79.369	-5.737	30.593	1.00	52.77	A	C
ATOM	662	SD	MET	A	131	79.113	-4.563	31.995	1.00	65.12	A	S
ATOM	663	CE	MET	A	131	77.870	-3.369	31.437	1.00	59.85	A	C
ATOM	664	C	MET	A	131	80.001	-5.868	27.345	1.00	38.26	A	C
ATOM	665	O	MET	A	131	81.117	-6.253	27.659	1.00	36.69	A	O
ATOM	666	N	MET	A	132	79.771	-5.146	26.258	1.00	38.83	A	N
ATOM	667	CA	MET	A	132	80.847	-4.388	25.610	1.00	36.18	A	C
ATOM	668	CB	MET	A	132	80.553	-4.119	24.129	1.00	36.68	A	C
ATOM	669	CG	MET	A	132	80.984	-5.177	23.131	1.00	38.25	A	C
ATOM	670	SD	MET	A	132	82.047	-6.497	23.750	1.00	42.89	A	S

ATOM	671	CE	MET	A	132	83.711	-6.115	23.227	1.00	42.11	A	C
ATOM	672	C	MET	A	132	80.884	-3.079	26.380	1.00	33.94	A	C
ATOM	673	O	MET	A	132	79.886	-2.379	26.451	1.00	33.48	A	O
ATOM	674	N	VAL	A	133	82.018	-2.770	26.982	1.00	31.14	A	N
ATOM	675	CA	VAL	A	133	82.178	-1.534	27.698	1.00	32.10	A	C
ATOM	676	CB	VAL	A	133	82.788	-1.779	29.076	1.00	31.79	A	C
ATOM	677	CG1	VAL	A	133	83.064	-0.451	29.763	1.00	32.17	A	C
ATOM	678	CG2	VAL	A	133	81.842	-2.636	29.895	1.00	32.31	A	C
ATOM	679	C	VAL	A	133	83.076	-0.633	26.898	1.00	34.17	A	C
ATOM	680	O	VAL	A	133	84.151	-1.041	26.494	1.00	35.41	A	O
ATOM	681	N	THR	A	134	82.628	0.591	26.657	1.00	37.93	A	N
ATOM	682	CA	THR	A	134	83.426	1.507	25.854	1.00	39.67	A	C
ATOM	683	CB	THR	A	134	82.617	2.349	24.826	1.00	39.61	A	C
ATOM	684	OG1	THR	A	134	82.435	3.677	25.302	1.00	40.54	A	O
ATOM	685	CG2	THR	A	134	81.263	1.729	24.546	1.00	39.68	A	C
ATOM	686	C	THR	A	134	84.244	2.369	26.804	1.00	39.24	A	C
ATOM	687	O	THR	A	134	83.726	2.927	27.766	1.00	37.08	A	O
ATOM	688	N	LEU	A	135	85.544	2.403	26.544	1.00	41.66	A	N
ATOM	689	CA	LEU	A	135	86.485	3.220	27.271	1.00	42.61	A	C
ATOM	690	CB	LEU	A	135	87.762	2.423	27.506	1.00	42.44	A	C
ATOM	691	CG	LEU	A	135	87.605	1.126	28.298	1.00	41.68	A	C
ATOM	692	CD1	LEU	A	135	88.920	0.359	28.322	1.00	40.41	A	C
ATOM	693	CD2	LEU	A	135	87.114	1.439	29.705	1.00	42.57	A	C
ATOM	694	C	LEU	A	135	86.823	4.410	26.413	1.00	44.30	A	C
ATOM	695	O	LEU	A	135	86.801	4.326	25.189	1.00	43.69	A	O
ATOM	696	N	ASN	A	136	87.149	5.529	27.031	1.00	48.58	A	N
ATOM	697	CA	ASN	A	136	87.718	6.583	26.220	1.00	52.89	A	C
ATOM	698	CB	ASN	A	136	86.966	7.911	26.351	1.00	58.52	A	C
ATOM	699	CG	ASN	A	136	87.493	8.792	27.444	1.00	61.38	A	C
ATOM	700	OD1	ASN	A	136	87.965	8.321	28.481	1.00	69.27	A	O
ATOM	701	ND2	ASN	A	136	87.401	10.100	27.225	1.00	61.43	A	N
ATOM	702	C	ASN	A	136	89.238	6.694	26.338	1.00	52.17	A	C
ATOM	703	O	ASN	A	136	89.848	6.596	27.418	1.00	45.77	A	O
ATOM	704	N	CYS	A	137	89.824	6.890	25.167	1.00	54.07	A	N
ATOM	705	CA	CYS	A	137	91.254	6.835	24.972	1.00	56.98	A	C
ATOM	706	CB	CYS	A	137	91.594	5.519	24.251	1.00	60.40	A	C
ATOM	707	SG	CYS	A	137	90.532	4.122	24.757	1.00	58.77	A	S
ATOM	708	C	CYS	A	137	91.624	8.079	24.164	1.00	53.97	A	C
ATOM	709	O	CYS	A	137	91.710	8.022	22.942	1.00	58.20	A	O
ATOM	710	N	PRO	A	138	91.788	9.229	24.848	1.00	54.13	A	N
ATOM	711	CA	PRO	A	138	91.950	10.534	24.175	1.00	54.05	A	C
ATOM	712	CB	PRO	A	138	92.054	11.517	25.344	1.00	53.89	A	C
ATOM	713	CG	PRO	A	138	91.390	10.830	26.482	1.00	52.18	A	C
ATOM	714	CD	PRO	A	138	91.750	9.387	26.313	1.00	53.31	A	C
ATOM	715	C	PRO	A	138	93.190	10.650	23.322	1.00	52.87	A	C
ATOM	716	O	PRO	A	138	93.185	11.333	22.299	1.00	50.67	A	O
ATOM	717	N	GLU	A	139	94.237	9.957	23.731	1.00	57.62	A	N
ATOM	718	CA	GLU	A	139	95.516	10.069	23.093	1.00	65.84	A	C
ATOM	719	CB	GLU	A	139	96.672	9.833	24.098	1.00	73.41	A	C
ATOM	720	CG	GLU	A	139	96.490	10.438	25.473	1.00	81.67	A	C
ATOM	721	CD	GLU	A	139	95.936	9.477	26.531	1.00	88.60	A	C
ATOM	722	OE1	GLU	A	139	95.393	8.401	26.177	1.00	92.67	A	O
ATOM	723	OE2	GLU	A	139	96.039	9.811	27.734	1.00	85.00	A	O
ATOM	724	C	GLU	A	139	95.473	9.003	22.028	1.00	64.64	A	C
ATOM	725	O	GLU	A	139	96.286	8.100	22.039	1.00	71.95	A	O
ATOM	726	N	LEU	A	140	94.505	9.055	21.124	1.00	56.33	A	N
ATOM	727	CA	LEU	A	140	94.333	7.854	20.279	1.00	54.53	A	C
ATOM	728	CB	LEU	A	140	93.901	6.663	21.174	1.00	56.07	A	C
ATOM	729	CG	LEU	A	140	94.337	5.231	20.872	1.00	60.00	A	C
ATOM	730	CD1	LEU	A	140	95.753	5.071	21.386	1.00	60.59	A	C
ATOM	731	CD2	LEU	A	140	93.447	4.142	21.485	1.00	63.09	A	C
ATOM	732	C	LEU	A	140	93.322	7.967	19.172	1.00	52.39	A	C
ATOM	733	O	LEU	A	140	92.352	8.666	19.335	1.00	58.74	A	O
ATOM	734	N	GLN	A	141	93.552	7.254	18.065	1.00	47.92	A	N
ATOM	735	CA	GLN	A	141	92.640	7.212	16.935	1.00	46.63	A	C
ATOM	736	CB	GLN	A	141	93.274	7.873	15.707	1.00	52.10	A	C
ATOM	737	CG	GLN	A	141	92.283	8.184	14.580	1.00	57.27	A	C
ATOM	738	CD	GLN	A	141	91.206	9.184	15.007	1.00	60.27	A	C

ATOM	739	OE1	GLN	A	141	91.496	10.164	15.704	1.00	68.13	A	O
ATOM	740	NE2	GLN	A	141	89.965	8.944	14.592	1.00	60.04	A	N
ATOM	741	C	GLN	A	141	92.333	5.757	16.611	1.00	46.44	A	C
ATOM	742	O	GLN	A	141	93.245	4.999	16.273	1.00	47.45	A	O
ATOM	743	N	PRO	A	142	91.055	5.338	16.736	1.00	44.73	A	N
ATOM	744	CA	PRO	A	142	89.924	6.135	17.190	1.00	42.37	A	C
ATOM	745	CB	PRO	A	142	88.716	5.293	16.800	1.00	41.07	A	C
ATOM	746	CG	PRO	A	142	89.224	3.888	16.716	1.00	41.72	A	C
ATOM	747	CD	PRO	A	142	90.723	3.904	16.700	1.00	42.33	A	C
ATOM	748	C	PRO	A	142	89.997	6.297	18.687	1.00	43.09	A	C
ATOM	749	O	PRO	A	142	90.653	5.487	19.362	1.00	42.20	A	O
ATOM	750	N	PRO	A	143	89.316	7.320	19.224	1.00	46.72	A	N
ATOM	751	CA	PRO	A	143	89.476	7.658	20.654	1.00	48.69	A	C
ATOM	752	CB	PRO	A	143	89.064	9.139	20.712	1.00	45.97	A	C
ATOM	753	CG	PRO	A	143	88.227	9.368	19.477	1.00	45.57	A	C
ATOM	754	CD	PRO	A	143	88.294	8.160	18.580	1.00	45.17	A	C
ATOM	755	C	PRO	A	143	88.619	6.814	21.624	1.00	48.13	A	C
ATOM	756	O	PRO	A	143	88.332	7.254	22.739	1.00	50.89	A	O
ATOM	757	N	THR	A	144	88.222	5.624	21.186	1.00	49.28	A	N
ATOM	758	CA	THR	A	144	87.366	4.729	21.943	1.00	50.32	A	C
ATOM	759	CB	THR	A	144	85.899	4.905	21.553	1.00	51.98	A	C
ATOM	760	OG1	THR	A	144	85.794	4.814	20.137	1.00	56.43	A	O
ATOM	761	CG2	THR	A	144	85.381	6.262	22.005	1.00	52.56	A	C
ATOM	762	C	THR	A	144	87.796	3.288	21.684	1.00	49.21	A	C
ATOM	763	O	THR	A	144	88.143	2.929	20.571	1.00	50.98	A	O
ATOM	764	N	LYS	A	145	87.837	2.491	22.737	1.00	50.31	A	N
ATOM	765	CA	LYS	A	145	87.981	1.059	22.638	1.00	48.70	A	C
ATOM	766	CB	LYS	A	145	89.275	0.648	23.302	1.00	54.16	A	C
ATOM	767	CG	LYS	A	145	90.439	1.253	22.554	1.00	61.67	A	C
ATOM	768	CD	LYS	A	145	91.110	0.262	21.609	1.00	61.98	A	C
ATOM	769	CE	LYS	A	145	92.392	0.840	21.027	1.00	62.42	A	C
ATOM	770	NZ	LYS	A	145	92.781	0.216	19.732	1.00	62.60	A	N
ATOM	771	C	LYS	A	145	86.836	0.469	23.376	1.00	45.71	A	C
ATOM	772	O	LYS	A	145	86.461	0.977	24.414	1.00	46.01	A	O
ATOM	773	N	LYS	A	146	86.283	-0.604	22.844	1.00	45.81	A	N
ATOM	774	CA	LYS	A	146	85.282	-1.386	23.537	1.00	45.56	A	C
ATOM	775	CB	LYS	A	146	84.166	-1.768	22.555	1.00	47.83	A	C
ATOM	776	CG	LYS	A	146	83.636	-0.556	21.742	1.00	52.68	A	C
ATOM	777	CD	LYS	A	146	82.141	-0.286	21.743	1.00	57.37	A	C
ATOM	778	CE	LYS	A	146	81.808	0.749	20.666	1.00	61.46	A	C
ATOM	779	NZ	LYS	A	146	80.513	1.449	20.913	1.00	63.96	A	N
ATOM	780	C	LYS	A	146	86.015	-2.601	24.148	1.00	43.85	A	C
ATOM	781	O	LYS	A	146	86.820	-3.265	23.483	1.00	41.00	A	O
ATOM	782	N	LYS	A	147	85.778	-2.846	25.430	1.00	41.56	A	N
ATOM	783	CA	LYS	A	147	86.377	-3.974	26.138	1.00	45.71	A	C
ATOM	784	CB	LYS	A	147	87.135	-3.513	27.371	1.00	48.92	A	C
ATOM	785	CG	LYS	A	147	87.643	-4.665	28.209	1.00	54.66	A	C
ATOM	786	CD	LYS	A	147	88.935	-5.288	27.717	1.00	55.50	A	C
ATOM	787	CE	LYS	A	147	89.251	-6.560	28.493	1.00	57.87	A	C
ATOM	788	NZ	LYS	A	147	88.730	-7.777	27.794	1.00	60.18	A	N
ATOM	789	C	LYS	A	147	85.275	-4.934	26.542	1.00	44.02	A	C
ATOM	790	O	LYS	A	147	84.247	-4.525	27.057	1.00	43.49	A	O
ATOM	791	N	ARG	A	148	85.479	-6.214	26.273	1.00	46.97	A	N
ATOM	792	CA	ARG	A	148	84.487	-7.237	26.652	1.00	45.15	A	C
ATOM	793	CB	ARG	A	148	84.463	-8.416	25.690	1.00	46.80	A	C
ATOM	794	CG	ARG	A	148	84.795	-9.731	26.363	1.00	49.81	A	C
ATOM	795	CD	ARG	A	148	83.649	-10.166	27.225	1.00	52.05	A	C
ATOM	796	NE	ARG	A	148	84.125	-11.295	27.983	1.00	57.96	A	N
ATOM	797	CZ	ARG	A	148	84.285	-12.519	27.505	1.00	65.37	A	C
ATOM	798	NH1	ARG	A	148	83.934	-12.816	26.257	1.00	64.74	A	N
ATOM	799	NH2	ARG	A	148	84.778	-13.467	28.298	1.00	75.10	A	N
ATOM	800	C	ARG	A	148	84.657	-7.606	28.135	1.00	41.49	A	C
ATOM	801	O	ARG	A	148	85.766	-7.861	28.632	1.00	37.80	A	O
ATOM	802	N	VAL	A	149	83.554	-7.565	28.861	1.00	39.33	A	N
ATOM	803	CA	VAL	A	149	83.557	-7.976	30.260	1.00	41.03	A	C
ATOM	804	CB	VAL	A	149	83.655	-6.769	31.209	1.00	42.33	A	C
ATOM	805	CG1	VAL	A	149	82.851	-5.615	30.667	1.00	46.28	A	C
ATOM	806	CG2	VAL	A	149	83.179	-7.130	32.606	1.00	44.45	A	C

ATOM	807	C	VAL	A	149	82.318	-8.802	30.560	1.00	42.24	A	C
ATOM	808	O	VAL	A	149	81.203	-8.435	30.206	1.00	45.07	A	O
ATOM	809	N	THR	A	150	82.528	-9.939	31.204	1.00	44.05	A	N
ATOM	810	CA	THR	A	150	81.447	-10.816	31.597	1.00	44.25	A	C
ATOM	811	CB	THR	A	150	81.767	-12.289	31.254	1.00	46.81	A	C
ATOM	812	OG1	THR	A	150	81.642	-12.480	29.836	1.00	47.80	A	O
ATOM	813	CG2	THR	A	150	80.804	-13.237	31.937	1.00	46.89	A	C
ATOM	814	C	THR	A	150	81.264	-10.604	33.083	1.00	39.93	A	C
ATOM	815	O	THR	A	150	82.220	-10.658	33.825	1.00	43.86	A	O
ATOM	816	N	ARG	A	151	80.049	-10.309	33.518	1.00	37.99	A	N
ATOM	817	CA	ARG	A	151	79.807	-10.019	34.920	1.00	38.91	A	C
ATOM	818	CB	ARG	A	151	79.442	-8.556	35.104	1.00	39.74	A	C
ATOM	819	CG	ARG	A	151	78.018	-8.292	34.697	1.00	43.32	A	C
ATOM	820	CD	ARG	A	151	77.232	-7.170	35.350	1.00	45.74	A	C
ATOM	821	NE	ARG	A	151	77.704	-5.802	35.149	1.00	47.69	A	N
ATOM	822	CZ	ARG	A	151	76.915	-4.744	34.922	1.00	50.19	A	C
ATOM	823	NH1	ARG	A	151	75.594	-4.862	34.799	1.00	49.45	A	N
ATOM	824	NH2	ARG	A	151	77.460	-3.540	34.792	1.00	53.93	A	N
ATOM	825	C	ARG	A	151	78.689	-10.918	35.430	1.00	40.19	A	C
ATOM	826	O	ARG	A	151	77.897	-11.460	34.641	1.00	40.00	A	O
ATOM	827	N	VAL	A	152	78.619	-11.062	36.744	1.00	37.13	A	N
ATOM	828	CA	VAL	A	152	77.615	-11.899	37.357	1.00	37.14	A	C
ATOM	829	CB	VAL	A	152	78.013	-12.257	38.802	1.00	38.41	A	C
ATOM	830	CG1	VAL	A	152	76.871	-12.929	39.539	1.00	39.81	A	C
ATOM	831	CG2	VAL	A	152	79.240	-13.145	38.809	1.00	38.57	A	C
ATOM	832	C	VAL	A	152	76.311	-11.124	37.343	1.00	37.67	A	C
ATOM	833	O	VAL	A	152	76.307	-9.934	37.588	1.00	35.29	A	O
ATOM	834	N	LYS	A	153	75.208	-11.798	37.035	1.00	40.11	A	N
ATOM	835	CA	LYS	A	153	73.884	-11.161	37.020	1.00	41.30	A	C
ATOM	836	CB	LYS	A	153	73.084	-11.631	35.798	1.00	43.14	A	C
ATOM	837	CG	LYS	A	153	71.768	-10.942	35.475	1.00	46.14	A	C
ATOM	838	CD	LYS	A	153	71.467	-10.996	33.977	1.00	49.60	A	C
ATOM	839	CE	LYS	A	153	70.025	-11.377	33.598	1.00	51.18	A	C
ATOM	840	NZ	LYS	A	153	69.013	-10.315	33.854	1.00	53.43	A	N
ATOM	841	C	LYS	A	153	73.144	-11.536	38.285	1.00	41.69	A	C
ATOM	842	O	LYS	A	153	72.749	-10.673	39.058	1.00	43.07	A	O
ATOM	843	N	GLN	A	154	72.969	-12.834	38.496	1.00	41.88	A	N
ATOM	844	CA	GLN	A	154	72.144	-13.334	39.590	1.00	44.68	A	C
ATOM	845	CB	GLN	A	154	70.746	-13.688	39.063	1.00	48.28	A	C
ATOM	846	CG	GLN	A	154	69.744	-14.059	40.163	1.00	52.77	A	C
ATOM	847	CD	GLN	A	154	69.316	-12.849	40.977	1.00	59.47	A	C
ATOM	848	OE1	GLN	A	154	70.128	-12.310	41.723	1.00	63.25	A	O
ATOM	849	NE2	GLN	A	154	68.041	-12.436	40.882	1.00	63.57	A	N
ATOM	850	C	GLN	A	154	72.791	-14.558	40.239	1.00	40.54	A	C
ATOM	851	O	GLN	A	154	73.195	-15.487	39.534	1.00	38.94	A	O
ATOM	852	N	CYS	A	155	72.894	-14.542	41.564	1.00	35.89	A	N
ATOM	853	CA	CYS	A	155	73.335	-15.711	42.307	1.00	35.93	A	C
ATOM	854	CB	CYS	A	155	74.191	-15.313	43.503	1.00	35.47	A	C
ATOM	855	SG	CYS	A	155	75.519	-14.202	43.064	1.00	36.10	A	S
ATOM	856	C	CYS	A	155	72.166	-16.532	42.812	1.00	34.79	A	C
ATOM	857	O	CYS	A	155	71.079	-16.032	43.038	1.00	34.66	A	O
ATOM	858	N	ARG	A	156	72.413	-17.811	43.013	1.00	37.51	A	N
ATOM	859	CA	ARG	A	156	71.413	-18.683	43.581	1.00	39.64	A	C
ATOM	860	CB	ARG	A	156	70.346	-19.005	42.533	1.00	44.44	A	C
ATOM	861	CG	ARG	A	156	69.072	-18.185	42.632	1.00	50.28	A	C
ATOM	862	CD	ARG	A	156	68.054	-18.722	41.630	1.00	63.22	A	C
ATOM	863	NE	ARG	A	156	68.274	-20.163	41.306	1.00	75.49	A	N
ATOM	864	CZ	ARG	A	156	67.330	-21.056	40.992	1.00	72.51	A	C
ATOM	865	NH1	ARG	A	156	66.048	-20.699	40.946	1.00	75.07	A	N
ATOM	866	NH2	ARG	A	156	67.681	-22.322	40.718	1.00	66.61	A	N
ATOM	867	C	ARG	A	156	72.060	-19.942	44.111	1.00	37.30	A	C
ATOM	868	O	ARG	A	156	73.205	-20.273	43.764	1.00	41.15	A	O
ATOM	869	N	CYS	A	157	71.342	-20.624	44.992	1.00	35.77	A	N
ATOM	870	CA	CYS	A	157	71.753	-21.948	45.457	1.00	33.28	A	C
ATOM	871	CB	CYS	A	157	70.957	-22.368	46.676	1.00	30.58	A	C
ATOM	872	SG	CYS	A	157	71.509	-21.578	48.199	1.00	31.82	A	S
ATOM	873	C	CYS	A	157	71.501	-22.929	44.340	1.00	33.95	A	C
ATOM	874	O	CYS	A	157	70.356	-23.276	44.090	1.00	39.33	A	O

ATOM	875	N	ILE	A	158	72.569	-23.365	43.679	1.00	32.27	A	N
ATOM	876	CA	ILE	A	158	72.487	-24.278	42.552	1.00	32.61	A	C
ATOM	877	CB	ILE	A	158	73.209	-23.675	41.339	1.00	36.06	A	C
ATOM	878	CG1	ILE	A	158	72.398	-22.486	40.818	1.00	39.76	A	C
ATOM	879	CD1	ILE	A	158	73.213	-21.513	39.993	1.00	41.39	A	C
ATOM	880	CG2	ILE	A	158	73.431	-24.715	40.242	1.00	33.32	A	C
ATOM	881	C	ILE	A	158	73.128	-25.613	42.909	1.00	29.41	A	C
ATOM	882	O	ILE	A	158	74.240	-25.648	43.415	1.00	27.01	A	O
ATOM	883	N	SER	A	159	72.419	-26.702	42.638	1.00	28.71	A	N
ATOM	884	CA	SER	A	159	72.857	-28.009	43.084	1.00	29.40	A	C
ATOM	885	CB	SER	A	159	71.685	-28.982	43.165	1.00	30.03	A	C
ATOM	886	OG	SER	A	159	71.650	-29.805	42.046	1.00	31.08	A	O
ATOM	887	C	SER	A	159	73.936	-28.555	42.186	1.00	31.08	A	C
ATOM	888	O	SER	A	159	73.966	-28.313	41.001	1.00	34.51	A	O
ATOM	889	N	ILE	A	160	74.857	-29.269	42.791	1.00	34.61	A	N
ATOM	890	CA	ILE	A	160	76.032	-29.749	42.134	1.00	37.05	A	C
ATOM	891	CB	ILE	A	160	77.241	-29.756	43.102	1.00	36.26	A	C
ATOM	892	CG1	ILE	A	160	77.672	-28.321	43.335	1.00	36.92	A	C
ATOM	893	CD1	ILE	A	160	78.803	-28.199	44.318	1.00	38.37	A	C
ATOM	894	CG2	ILE	A	160	78.428	-30.546	42.565	1.00	35.36	A	C
ATOM	895	C	ILE	A	160	75.695	-31.143	41.695	1.00	40.64	A	C
ATOM	896	O	ILE	A	160	74.961	-31.867	42.373	1.00	45.46	A	O
ATOM	897	N	ASP	A	161	76.297	-31.526	40.582	1.00	44.53	A	N
ATOM	898	CA	ASP	A	161	76.122	-32.823	40.007	1.00	45.42	A	C
ATOM	899	CB	ASP	A	161	76.214	-32.727	38.487	1.00	48.72	A	C
ATOM	900	CG	ASP	A	161	75.795	-33.992	37.783	1.00	52.42	A	C
ATOM	901	OD1	ASP	A	161	74.580	-34.147	37.636	1.00	59.67	A	O
ATOM	902	OD2	ASP	A	161	76.652	-34.797	37.327	1.00	54.62	A	O
ATOM	903	C	ASP	A	161	77.235	-33.663	40.617	1.00	44.02	A	C
ATOM	904	O	ASP	A	161	78.402	-33.554	40.245	1.00	40.35	A	O
ATOM	905	N	LEU	A	162	76.872	-34.436	41.633	1.00	44.52	A	N
ATOM	906	CA	LEU	A	162	77.765	-35.447	42.179	1.00	42.69	A	C
ATOM	907	CB	LEU	A	162	77.304	-35.841	43.573	1.00	41.17	A	C
ATOM	908	CG	LEU	A	162	77.448	-34.941	44.796	1.00	42.67	A	C
ATOM	909	CD1	LEU	A	162	78.204	-33.649	44.575	1.00	43.14	A	C
ATOM	910	CD2	LEU	A	162	76.091	-34.636	45.402	1.00	42.89	A	C
ATOM	911	C	LEU	A	162	77.728	-36.629	41.196	1.00	43.16	A	C
ATOM	912	O	LEU	A	162	76.928	-37.550	41.330	1.00	42.79	A	O
ATOM	913	N	ASP	A	163	78.582	-36.580	40.184	1.00	45.44	A	N
ATOM	914	CA	ASP	A	163	78.403	-37.406	38.993	1.00	52.08	A	C
ATOM	915	CB	ASP	A	163	78.951	-38.793	39.235	1.00	55.18	A	C
ATOM	916	CG	ASP	A	163	80.433	-38.797	39.267	1.00	55.99	A	C
ATOM	917	OD1	ASP	A	163	81.026	-38.781	38.165	1.00	59.24	A	O
ATOM	918	OD2	ASP	A	163	80.987	-38.785	40.382	1.00	49.29	A	O
ATOM	919	C	ASP	A	163	76.944	-37.499	38.554	1.00	56.36	A	C
ATOM	920	O	ASP	A	163	76.651	-37.858	37.416	1.00	62.49	A	O
ATOM	921	N	LEU	B	53	81.614	-1.347	47.644	1.00	50.78	B	N
ATOM	922	CA	LEU	B	53	82.939	-1.915	48.082	1.00	54.23	B	C
ATOM	923	CB	LEU	B	53	82.773	-3.191	48.958	1.00	56.50	B	C
ATOM	924	CG	LEU	B	53	81.955	-4.417	48.568	1.00	57.39	B	C
ATOM	925	CD1	LEU	B	53	82.041	-5.422	49.716	1.00	55.31	B	C
ATOM	926	CD2	LEU	B	53	80.505	-4.091	48.226	1.00	59.46	B	C
ATOM	927	C	LEU	B	53	83.811	-2.221	46.892	1.00	53.97	B	C
ATOM	928	O	LEU	B	53	83.428	-3.052	46.098	1.00	52.55	B	O
ATOM	929	N	GLU	B	54	84.955	-1.535	46.737	1.00	58.38	B	N
ATOM	930	CA	GLU	B	54	85.867	-1.831	45.630	1.00	62.52	B	C
ATOM	931	CB	GLU	B	54	86.722	-0.645	45.142	1.00	70.46	B	C
ATOM	932	CG	GLU	B	54	87.479	0.112	46.190	1.00	72.13	B	C
ATOM	933	CD	GLU	B	54	86.746	1.351	46.652	1.00	76.55	B	C
ATOM	934	OE1	GLU	B	54	85.623	1.209	47.190	1.00	77.64	B	O
ATOM	935	OE2	GLU	B	54	87.293	2.464	46.460	1.00	82.79	B	O
ATOM	936	C	GLU	B	54	86.759	-2.867	46.148	1.00	59.60	B	C
ATOM	937	O	GLU	B	54	87.121	-2.815	47.313	1.00	69.09	B	O
ATOM	938	N	SER	B	55	87.100	-3.811	45.289	1.00	56.12	B	N
ATOM	939	CA	SER	B	55	88.029	-4.868	45.628	1.00	55.63	B	C
ATOM	940	CB	SER	B	55	88.885	-4.407	46.767	1.00	54.74	B	C
ATOM	941	OG	SER	B	55	89.803	-5.395	47.071	1.00	58.49	B	O
ATOM	942	C	SER	B	55	87.467	-6.270	45.920	1.00	57.20	B	C

ATOM	943	O	SER	B	55	86.618	-6.474	46.776	1.00	61.53	B	O
ATOM	944	N	SER	B	56	88.007	-7.248	45.198	1.00	57.55	B	N
ATOM	945	CA	SER	B	56	87.684	-8.649	45.412	1.00	53.44	B	C
ATOM	946	CB	SER	B	56	88.274	-9.507	44.300	1.00	51.92	B	C
ATOM	947	OG	SER	B	56	87.776	-9.104	43.046	1.00	51.65	B	O
ATOM	948	C	SER	B	56	88.255	-9.107	46.725	1.00	56.87	B	C
ATOM	949	O	SER	B	56	87.604	-9.841	47.453	1.00	59.77	B	O
ATOM	950	N	GLN	B	57	89.493	-8.703	46.996	1.00	58.93	B	N
ATOM	951	CA	GLN	B	57	90.126	-8.911	48.294	1.00	62.02	B	C
ATOM	952	CB	GLN	B	57	91.395	-8.080	48.384	1.00	70.90	B	C
ATOM	953	CG	GLN	B	57	92.157	-8.192	49.735	1.00	82.79	B	C
ATOM	954	CD	GLN	B	57	91.695	-7.268	50.873	1.00	88.94	B	C
ATOM	955	OE1	GLN	B	57	90.988	-7.690	51.808	1.00	93.22	B	O
ATOM	956	NE2	GLN	B	57	92.129	-6.015	50.820	1.00	86.97	B	N
ATOM	957	C	GLN	B	57	89.235	-8.470	49.432	1.00	57.84	B	C
ATOM	958	O	GLN	B	57	89.114	-9.156	50.432	1.00	54.85	B	O
ATOM	959	N	GLU	B	58	88.650	-7.297	49.296	1.00	54.62	B	N
ATOM	960	CA	GLU	B	58	87.838	-6.767	50.362	1.00	59.53	B	C
ATOM	961	CB	GLU	B	58	87.458	-5.332	50.082	1.00	65.71	B	C
ATOM	962	CG	GLU	B	58	87.027	-4.561	51.312	1.00	71.48	B	C
ATOM	963	CD	GLU	B	58	86.181	-3.353	50.947	1.00	76.58	B	C
ATOM	964	OE1	GLU	B	58	86.243	-2.906	49.787	1.00	82.82	B	O
ATOM	965	OE2	GLU	B	58	85.443	-2.848	51.804	1.00	80.06	B	O
ATOM	966	C	GLU	B	58	86.588	-7.616	50.488	1.00	54.29	B	C
ATOM	967	O	GLU	B	58	86.212	-8.011	51.585	1.00	53.12	B	O
ATOM	968	N	ALA	B	59	85.966	-7.909	49.356	1.00	48.56	B	N
ATOM	969	CA	ALA	B	59	84.780	-8.740	49.346	1.00	44.94	B	C
ATOM	970	CB	ALA	B	59	84.246	-8.881	47.932	1.00	42.09	B	C
ATOM	971	C	ALA	B	59	85.052	-10.105	49.973	1.00	43.85	B	C
ATOM	972	O	ALA	B	59	84.233	-10.621	50.701	1.00	42.52	B	O
ATOM	973	N	LEU	B	60	86.217	-10.682	49.709	1.00	47.84	B	N
ATOM	974	CA	LEU	B	60	86.570	-11.977	50.297	1.00	48.50	B	C
ATOM	975	CB	LEU	B	60	87.824	-12.543	49.621	1.00	48.85	B	C
ATOM	976	CG	LEU	B	60	88.414	-13.847	50.161	1.00	49.60	B	C
ATOM	977	CD1	LEU	B	60	87.450	-14.975	49.862	1.00	49.56	B	C
ATOM	978	CD2	LEU	B	60	89.776	-14.131	49.540	1.00	52.02	B	C
ATOM	979	C	LEU	B	60	86.732	-11.909	51.823	1.00	53.48	B	C
ATOM	980	O	LEU	B	60	86.161	-12.718	52.554	1.00	55.92	B	O
ATOM	981	N	HIS	B	61	87.475	-10.922	52.301	1.00	55.59	B	N
ATOM	982	CA	HIS	B	61	87.654	-10.713	53.731	1.00	58.19	B	C
ATOM	983	CB	HIS	B	61	88.569	-9.525	53.944	1.00	67.88	B	C
ATOM	984	CG	HIS	B	61	88.781	-9.165	55.381	1.00	81.82	B	C
ATOM	985	ND1	HIS	B	61	89.436	-10.005	56.254	1.00	85.51	B	N
ATOM	986	CE1	HIS	B	61	89.500	-9.435	57.443	1.00	84.19	B	C
ATOM	987	NE2	HIS	B	61	88.902	-8.257	57.374	1.00	84.90	B	N
ATOM	988	CD2	HIS	B	61	88.448	-8.059	56.094	1.00	83.80	B	C
ATOM	989	C	HIS	B	61	86.342	-10.487	54.445	1.00	50.94	B	C
ATOM	990	O	HIS	B	61	86.060	-11.133	55.430	1.00	50.71	B	O
ATOM	991	N	VAL	B	62	85.528	-9.582	53.929	1.00	49.76	B	N
ATOM	992	CA	VAL	B	62	84.244	-9.269	54.561	1.00	47.16	B	C
ATOM	993	CB	VAL	B	62	83.600	-8.024	53.889	1.00	46.60	B	C
ATOM	994	CG1	VAL	B	62	82.154	-7.808	54.332	1.00	46.48	B	C
ATOM	995	CG2	VAL	B	62	84.433	-6.788	54.175	1.00	45.11	B	C
ATOM	996	C	VAL	B	62	83.291	-10.479	54.515	1.00	45.32	B	C
ATOM	997	O	VAL	B	62	82.599	-10.789	55.485	1.00	44.08	B	O
ATOM	998	N	THR	B	63	83.274	-11.170	53.387	1.00	42.02	B	N
ATOM	999	CA	THR	B	63	82.461	-12.355	53.256	1.00	41.62	B	C
ATOM	1000	CB	THR	B	63	82.568	-12.950	51.850	1.00	38.54	B	C
ATOM	1001	OG1	THR	B	63	81.963	-12.046	50.935	1.00	36.43	B	O
ATOM	1002	CG2	THR	B	63	81.844	-14.268	51.751	1.00	40.55	B	C
ATOM	1003	C	THR	B	63	82.839	-13.411	54.295	1.00	42.40	B	C
ATOM	1004	O	THR	B	63	81.965	-14.052	54.854	1.00	44.50	B	O
ATOM	1005	N	GLU	B	64	84.123	-13.609	54.528	1.00	42.91	B	N
ATOM	1006	CA	GLU	B	64	84.551	-14.599	55.516	1.00	46.67	B	C
ATOM	1007	CB	GLU	B	64	86.013	-15.006	55.322	1.00	47.40	B	C
ATOM	1008	CG	GLU	B	64	86.286	-15.740	54.013	1.00	49.57	B	C
ATOM	1009	CD	GLU	B	64	87.769	-15.857	53.708	1.00	52.06	B	C
ATOM	1010	OE1	GLU	B	64	88.189	-16.911	53.187	1.00	54.68	B	O

ATOM	1011	OE2	GLU	B	64	88.506	-14.877	53.973	1.00	49.72	B	O
ATOM	1012	C	GLU	B	64	84.333	-14.133	56.954	1.00	49.13	B	C
ATOM	1013	O	GLU	B	64	83.787	-14.864	57.766	1.00	48.04	B	O
ATOM	1014	N	ARG	B	65	84.750	-12.912	57.264	1.00	52.61	B	N
ATOM	1015	CA	ARG	B	65	84.685	-12.397	58.626	1.00	52.95	B	C
ATOM	1016	CB	ARG	B	65	85.662	-11.194	58.760	1.00	57.56	B	C
ATOM	1017	CG	ARG	B	65	87.089	-11.475	58.275	1.00	64.08	B	C
ATOM	1018	CD	ARG	B	65	87.919	-12.303	59.231	1.00	71.32	B	C
ATOM	1019	NE	ARG	B	65	87.155	-13.147	60.153	1.00	73.28	B	N
ATOM	1020	CZ	ARG	B	65	86.691	-12.786	61.357	1.00	70.13	B	C
ATOM	1021	NH1	ARG	B	65	86.889	-11.563	61.841	1.00	66.46	B	N
ATOM	1022	NH2	ARG	B	65	86.001	-13.666	62.077	1.00	71.39	B	N
ATOM	1023	C	ARG	B	65	83.222	-12.093	59.024	1.00	50.44	B	C
ATOM	1024	O	ARG	B	65	82.707	-12.621	60.018	1.00	50.03	B	O
ATOM	1025	N	LYS	B	66	82.525	-11.315	58.210	1.00	49.51	B	N
ATOM	1026	CA	LYS	B	66	81.213	-10.829	58.579	1.00	48.59	B	C
ATOM	1027	CB	LYS	B	66	81.068	-9.380	58.140	1.00	50.57	B	C
ATOM	1028	CG	LYS	B	66	80.089	-8.578	58.972	1.00	52.95	B	C
ATOM	1029	CD	LYS	B	66	79.908	-7.171	58.413	1.00	55.61	B	C
ATOM	1030	CE	LYS	B	66	78.438	-6.760	58.446	1.00	58.04	B	C
ATOM	1031	NZ	LYS	B	66	78.265	-5.303	58.209	1.00	62.60	B	N
ATOM	1032	C	LYS	B	66	80.023	-11.640	58.062	1.00	48.09	B	C
ATOM	1033	O	LYS	B	66	79.191	-12.053	58.860	1.00	48.35	B	O
ATOM	1034	N	TYR	B	67	79.916	-11.848	56.747	1.00	47.65	B	N
ATOM	1035	CA	TYR	B	67	78.650	-12.333	56.151	1.00	45.53	B	C
ATOM	1036	CB	TYR	B	67	78.615	-12.107	54.640	1.00	46.29	B	C
ATOM	1037	CG	TYR	B	67	78.700	-10.668	54.186	1.00	46.08	B	C
ATOM	1038	CD1	TYR	B	67	78.180	-9.634	54.952	1.00	45.09	B	C
ATOM	1039	CE1	TYR	B	67	78.273	-8.327	54.527	1.00	46.50	B	C
ATOM	1040	CZ	TYR	B	67	78.853	-8.040	53.306	1.00	46.52	B	C
ATOM	1041	OH	TYR	B	67	78.935	-6.732	52.880	1.00	45.13	B	O
ATOM	1042	CE2	TYR	B	67	79.366	-9.051	52.526	1.00	44.70	B	C
ATOM	1043	CD2	TYR	B	67	79.287	-10.352	52.970	1.00	44.72	B	C
ATOM	1044	C	TYR	B	67	78.351	-13.794	56.394	1.00	44.82	B	C
ATOM	1045	O	TYR	B	67	77.198	-14.177	56.466	1.00	45.72	B	O
ATOM	1046	N	LEU	B	68	79.385	-14.610	56.482	1.00	46.55	B	N
ATOM	1047	CA	LEU	B	68	79.211	-16.047	56.587	1.00	49.20	B	C
ATOM	1048	CB	LEU	B	68	80.050	-16.747	55.508	1.00	48.49	B	C
ATOM	1049	CG	LEU	B	68	79.549	-16.562	54.071	1.00	46.03	B	C
ATOM	1050	CD1	LEU	B	68	80.464	-17.311	53.119	1.00	45.48	B	C
ATOM	1051	CD2	LEU	B	68	78.106	-17.021	53.929	1.00	45.11	B	C
ATOM	1052	C	LEU	B	68	79.582	-16.548	57.963	1.00	53.25	B	C
ATOM	1053	O	LEU	B	68	80.708	-16.970	58.189	1.00	58.18	B	O
ATOM	1054	N	LYS	B	69	78.611	-16.524	58.865	1.00	56.48	B	N
ATOM	1055	CA	LYS	B	69	78.784	-17.037	60.222	1.00	59.99	B	C
ATOM	1056	CB	LYS	B	69	78.858	-15.936	61.299	1.00	62.47	B	C
ATOM	1057	CG	LYS	B	69	79.112	-14.517	60.826	1.00	65.06	B	C
ATOM	1058	CD	LYS	B	69	79.242	-13.556	61.997	1.00	62.25	B	C
ATOM	1059	CE	LYS	B	69	80.560	-13.751	62.715	1.00	63.04	B	C
ATOM	1060	NZ	LYS	B	69	80.715	-12.725	63.774	1.00	66.70	B	N
ATOM	1061	C	LYS	B	69	77.621	-17.947	60.528	1.00	58.25	B	C
ATOM	1062	O	LYS	B	69	76.581	-17.865	59.882	1.00	50.57	B	O
ATOM	1063	N	ARG	B	70	77.806	-18.824	61.508	1.00	58.72	B	N
ATOM	1064	CA	ARG	B	70	76.730	-19.632	61.981	1.00	59.40	B	C
ATOM	1065	CB	ARG	B	70	75.565	-18.668	62.332	1.00	68.75	B	C
ATOM	1066	CG	ARG	B	70	74.817	-18.942	63.648	1.00	77.02	B	C
ATOM	1067	CD	ARG	B	70	73.731	-20.000	63.453	1.00	88.15	B	C
ATOM	1068	NE	ARG	B	70	74.215	-21.356	63.689	1.00	96.12	B	N
ATOM	1069	CZ	ARG	B	70	73.415	-22.415	63.732	1.00	99.62	B	C
ATOM	1070	NH1	ARG	B	70	72.105	-22.273	63.541	1.00	101.30	B	N
ATOM	1071	NH2	ARG	B	70	73.923	-23.615	63.963	1.00	99.82	B	N
ATOM	1072	C	ARG	B	70	76.345	-20.717	60.937	1.00	54.48	B	C
ATOM	1073	O	ARG	B	70	75.176	-21.108	60.860	1.00	51.67	B	O
ATOM	1074	N	ASP	B	71	77.309	-21.238	60.152	1.00	49.61	B	N
ATOM	1075	CA	ASP	B	71	77.027	-22.425	59.320	1.00	47.79	B	C
ATOM	1076	CB	ASP	B	71	78.160	-22.789	58.338	1.00	48.61	B	C
ATOM	1077	CG	ASP	B	71	79.471	-23.045	59.034	1.00	50.94	B	C
ATOM	1078	OD1	ASP	B	71	79.754	-22.336	60.011	1.00	55.45	B	O

ATOM	1079	OD2	ASP	B	71	80.224	-23.940	58.605	1.00	54.93	B	O
ATOM	1080	C	ASP	B	71	76.755	-23.594	60.278	1.00	43.66	B	C
ATOM	1081	O	ASP	B	71	77.180	-23.574	61.429	1.00	43.97	B	O
ATOM	1082	N	TRP	B	72	76.038	-24.600	59.809	1.00	39.69	B	N
ATOM	1083	CA	TRP	B	72	75.701	-25.727	60.651	1.00	36.06	B	C
ATOM	1084	CB	TRP	B	72	74.394	-25.435	61.378	1.00	33.68	B	C
ATOM	1085	CG	TRP	B	72	73.182	-25.288	60.510	1.00	31.17	B	C
ATOM	1086	CD1	TRP	B	72	72.767	-24.168	59.861	1.00	28.92	B	C
ATOM	1087	NE1	TRP	B	72	71.591	-24.414	59.194	1.00	28.41	B	N
ATOM	1088	CE2	TRP	B	72	71.216	-25.710	59.415	1.00	28.61	B	C
ATOM	1089	CD2	TRP	B	72	72.200	-26.292	60.248	1.00	29.62	B	C
ATOM	1090	CE3	TRP	B	72	72.058	-27.625	60.626	1.00	28.39	B	C
ATOM	1091	CZ3	TRP	B	72	70.957	-28.339	60.145	1.00	28.53	B	C
ATOM	1092	CH2	TRP	B	72	70.000	-27.734	59.308	1.00	27.84	B	C
ATOM	1093	CZ2	TRP	B	72	70.103	-26.423	58.943	1.00	27.38	B	C
ATOM	1094	C	TRP	B	72	75.591	-27.028	59.876	1.00	37.02	B	C
ATOM	1095	O	TRP	B	72	75.267	-27.022	58.697	1.00	41.55	B	O
ATOM	1096	N	CYS	B	73	75.827	-28.135	60.572	1.00	36.95	B	N
ATOM	1097	CA	CYS	B	73	75.720	-29.461	60.007	1.00	37.95	B	C
ATOM	1098	CB	CYS	B	73	77.037	-29.807	59.330	1.00	37.81	B	C
ATOM	1099	SG	CYS	B	73	77.163	-31.460	58.616	1.00	39.65	B	S
ATOM	1100	C	CYS	B	73	75.360	-30.480	61.104	1.00	38.75	B	C
ATOM	1101	O	CYS	B	73	76.138	-30.692	62.009	1.00	41.59	B	O
ATOM	1102	N	LYS	B	74	74.188	-31.108	60.986	1.00	38.46	B	N
ATOM	1103	CA	LYS	B	74	73.679	-32.058	61.962	1.00	38.96	B	C
ATOM	1104	CB	LYS	B	74	72.197	-31.799	62.207	1.00	42.24	B	C
ATOM	1105	CG	LYS	B	74	71.942	-30.678	63.190	1.00	44.07	B	C
ATOM	1106	CD	LYS	B	74	72.036	-31.271	64.624	1.00	50.33	B	C
ATOM	1107	CE	LYS	B	74	73.514	-31.249	65.191	1.00	48.08	B	C
ATOM	1108	NZ	LYS	B	74	74.285	-32.537	65.419	1.00	40.69	B	N
ATOM	1109	C	LYS	B	74	73.847	-33.514	61.547	1.00	38.20	B	C
ATOM	1110	O	LYS	B	74	73.714	-33.858	60.373	1.00	41.55	B	O
ATOM	1111	N	THR	B	75	74.179	-34.349	62.532	1.00	37.31	B	N
ATOM	1112	CA	THR	B	75	74.214	-35.798	62.406	1.00	35.71	B	C
ATOM	1113	CB	THR	B	75	75.475	-36.395	63.047	1.00	37.24	B	C
ATOM	1114	OG1	THR	B	75	76.647	-35.730	62.542	1.00	40.64	B	O
ATOM	1115	CG2	THR	B	75	75.570	-37.888	62.736	1.00	36.99	B	C
ATOM	1116	C	THR	B	75	73.026	-36.336	63.174	1.00	35.00	B	C
ATOM	1117	O	THR	B	75	72.761	-35.878	64.273	1.00	34.60	B	O
ATOM	1118	N	GLN	B	76	72.298	-37.286	62.601	1.00	35.28	B	N
ATOM	1119	CA	GLN	B	76	71.088	-37.793	63.243	1.00	36.43	B	C
ATOM	1120	CB	GLN	B	76	69.915	-36.957	62.788	1.00	39.58	B	C
ATOM	1121	CG	GLN	B	76	68.608	-37.340	63.442	1.00	43.18	B	C
ATOM	1122	CD	GLN	B	76	67.517	-36.337	63.193	1.00	46.39	B	C
ATOM	1123	OE1	GLN	B	76	67.764	-35.131	63.111	1.00	46.79	B	O
ATOM	1124	NE2	GLN	B	76	66.291	-36.825	63.091	1.00	50.10	B	N
ATOM	1125	C	GLN	B	76	70.828	-39.260	62.908	1.00	34.89	B	C
ATOM	1126	O	GLN	B	76	71.127	-39.685	61.802	1.00	38.03	B	O
ATOM	1127	N	PRO	B	77	70.285	-40.037	63.861	1.00	32.22	B	N
ATOM	1128	CA	PRO	B	77	70.174	-41.466	63.624	1.00	31.04	B	C
ATOM	1129	CB	PRO	B	77	69.978	-42.037	65.039	1.00	31.41	B	C
ATOM	1130	CG	PRO	B	77	69.343	-40.922	65.800	1.00	31.04	B	C
ATOM	1131	CD	PRO	B	77	70.045	-39.712	65.286	1.00	31.94	B	C
ATOM	1132	C	PRO	B	77	68.982	-41.831	62.771	1.00	32.94	B	C
ATOM	1133	O	PRO	B	77	67.974	-41.115	62.770	1.00	34.41	B	O
ATOM	1134	N	LEU	B	78	69.093	-42.954	62.072	1.00	33.61	B	N
ATOM	1135	CA	LEU	B	78	67.993	-43.489	61.296	1.00	36.62	B	C
ATOM	1136	CB	LEU	B	78	67.983	-42.862	59.877	1.00	36.85	B	C
ATOM	1137	CG	LEU	B	78	69.052	-43.063	58.762	1.00	36.23	B	C
ATOM	1138	CD1	LEU	B	78	70.250	-43.930	59.105	1.00	37.46	B	C
ATOM	1139	CD2	LEU	B	78	68.411	-43.576	57.505	1.00	37.26	B	C
ATOM	1140	C	LEU	B	78	68.109	-45.000	61.238	1.00	39.63	B	C
ATOM	1141	O	LEU	B	78	69.211	-45.536	61.353	1.00	39.46	B	O
ATOM	1142	N	LYS	B	79	66.975	-45.682	61.067	1.00	46.56	B	N
ATOM	1143	CA	LYS	B	79	66.945	-47.138	60.994	1.00	47.02	B	C
ATOM	1144	CB	LYS	B	79	65.609	-47.708	61.405	1.00	49.23	B	C
ATOM	1145	CG	LYS	B	79	65.271	-47.526	62.864	1.00	53.56	B	C
ATOM	1146	CD	LYS	B	79	63.797	-47.804	63.089	1.00	58.13	B	C

ATOM	1147	CE	LYS	B	79	63.399	-47.620	64.542	1.00	64.46	B	C
ATOM	1148	NZ	LYS	B	79	61.924	-47.729	64.700	1.00	68.58	B	N
ATOM	1149	C	LYS	B	79	67.189	-47.586	59.586	1.00	49.88	B	C
ATOM	1150	O	LYS	B	79	66.843	-46.917	58.610	1.00	56.25	B	O
ATOM	1151	N	GLN	B	80	67.825	-48.734	59.498	1.00	51.43	B	N
ATOM	1152	CA	GLN	B	80	68.190	-49.305	58.255	1.00	49.62	B	C
ATOM	1153	CB	GLN	B	80	69.549	-48.704	57.940	1.00	50.32	B	C
ATOM	1154	CG	GLN	B	80	70.362	-49.373	56.865	1.00	50.50	B	C
ATOM	1155	CD	GLN	B	80	71.075	-48.323	56.083	1.00	50.15	B	C
ATOM	1156	OE1	GLN	B	80	70.699	-47.949	54.957	1.00	50.85	B	O
ATOM	1157	NE2	GLN	B	80	72.075	-47.789	56.711	1.00	47.69	B	N
ATOM	1158	C	GLN	B	80	68.191	-50.808	58.500	1.00	50.71	B	C
ATOM	1159	O	GLN	B	80	68.558	-51.282	59.584	1.00	44.30	B	O
ATOM	1160	N	THR	B	81	67.703	-51.560	57.531	1.00	55.42	B	N
ATOM	1161	CA	THR	B	81	67.596	-53.004	57.720	1.00	63.87	B	C
ATOM	1162	CB	THR	B	81	66.148	-53.534	57.527	1.00	64.39	B	C
ATOM	1163	OG1	THR	B	81	66.194	-54.927	57.191	1.00	63.53	B	O
ATOM	1164	CG2	THR	B	81	65.406	-52.785	56.414	1.00	66.68	B	C
ATOM	1165	C	THR	B	81	68.594	-53.723	56.818	1.00	66.86	B	C
ATOM	1166	O	THR	B	81	68.775	-53.329	55.671	1.00	67.18	B	O
ATOM	1167	N	ILE	B	82	69.237	-54.769	57.345	1.00	73.75	B	N
ATOM	1168	CA	ILE	B	82	70.167	-55.578	56.536	1.00	83.82	B	C
ATOM	1169	CB	ILE	B	82	71.592	-55.766	57.197	1.00	86.13	B	C
ATOM	1170	CG1	ILE	B	82	71.517	-55.749	58.734	1.00	88.36	B	C
ATOM	1171	CD1	ILE	B	82	72.779	-56.055	59.515	1.00	88.36	B	C
ATOM	1172	CG2	ILE	B	82	72.559	-54.702	56.682	1.00	86.43	B	C
ATOM	1173	C	ILE	B	82	69.415	-56.883	56.222	1.00	89.51	B	C
ATOM	1174	O	ILE	B	82	68.996	-57.588	57.145	1.00	87.05	B	O
ATOM	1175	N	HIS	B	83	69.203	-57.177	54.926	1.00	98.90	B	N
ATOM	1176	CA	HIS	B	83	68.138	-58.148	54.522	1.00	102.40	B	C
ATOM	1177	CB	HIS	B	83	67.132	-57.626	53.429	1.00	99.49	B	C
ATOM	1178	CG	HIS	B	83	67.594	-56.434	52.658	1.00	100.69	B	C
ATOM	1179	ND1	HIS	B	83	67.007	-55.188	52.770	1.00	107.59	B	N
ATOM	1180	CE1	HIS	B	83	67.604	-54.351	51.937	1.00	111.12	B	C
ATOM	1181	NE2	HIS	B	83	68.541	-55.012	51.282	1.00	112.09	B	N
ATOM	1182	CD2	HIS	B	83	68.546	-56.317	51.705	1.00	107.77	B	C
ATOM	1183	C	HIS	B	83	68.634	-59.582	54.190	1.00	107.69	B	C
ATOM	1184	O	HIS	B	83	69.840	-59.867	54.119	1.00	99.31	B	O
ATOM	1185	N	GLU	B	84	67.633	-60.447	54.000	1.00	120.55	B	N
ATOM	1186	CA	GLU	B	84	67.748	-61.939	53.845	1.00	123.08	B	C
ATOM	1187	CB	GLU	B	84	66.353	-62.554	53.650	1.00	123.41	B	C
ATOM	1188	CG	GLU	B	84	65.441	-62.363	54.870	1.00	124.59	B	C
ATOM	1189	CD	GLU	B	84	64.005	-61.936	54.567	1.00	116.30	B	C
ATOM	1190	OE1	GLU	B	84	63.127	-62.820	54.455	1.00	113.42	B	O
ATOM	1191	OE2	GLU	B	84	63.734	-60.715	54.510	1.00	104.58	B	O
ATOM	1192	C	GLU	B	84	68.666	-62.539	52.759	1.00	115.01	B	C
ATOM	1193	O	GLU	B	84	68.375	-62.444	51.573	1.00	107.07	B	O
ATOM	1194	N	GLU	B	85	69.746	-63.189	53.188	1.00	107.12	B	N
ATOM	1195	CA	GLU	B	85	70.528	-64.085	52.363	1.00	98.96	B	C
ATOM	1196	CB	GLU	B	85	71.999	-63.683	52.459	1.00	99.31	B	C
ATOM	1197	CG	GLU	B	85	72.174	-62.160	52.441	1.00	99.77	B	C
ATOM	1198	CD	GLU	B	85	72.645	-61.594	53.771	1.00	101.28	B	C
ATOM	1199	OE1	GLU	B	85	73.374	-62.303	54.501	1.00	102.73	B	O
ATOM	1200	OE2	GLU	B	85	72.306	-60.428	54.078	1.00	98.98	B	O
ATOM	1201	C	GLU	B	85	70.327	-65.516	52.892	1.00	94.57	B	C
ATOM	1202	O	GLU	B	85	71.291	-66.209	53.219	1.00	91.97	B	O
ATOM	1203	N	GLY	B	86	69.068	-65.941	53.013	1.00	93.19	B	N
ATOM	1204	CA	GLY	B	86	68.714	-67.088	53.854	1.00	90.24	B	C
ATOM	1205	C	GLY	B	86	68.781	-66.762	55.344	1.00	92.83	B	C
ATOM	1206	O	GLY	B	86	68.516	-67.619	56.181	1.00	91.24	B	O
ATOM	1207	N	CYS	B	87	69.144	-65.524	55.680	1.00	90.65	B	N
ATOM	1208	CA	CYS	B	87	69.232	-65.080	57.064	1.00	83.95	B	C
ATOM	1209	CB	CYS	B	87	70.518	-64.295	57.296	1.00	88.79	B	C
ATOM	1210	SG	CYS	B	87	72.040	-65.228	57.001	1.00	92.29	B	S
ATOM	1211	C	CYS	B	87	68.052	-64.192	57.395	1.00	79.04	B	C
ATOM	1212	O	CYS	B	87	67.554	-63.459	56.540	1.00	69.91	B	O
ATOM	1213	N	ASN	B	88	67.607	-64.252	58.643	1.00	78.99	B	N
ATOM	1214	CA	ASN	B	88	66.613	-63.311	59.126	1.00	80.47	B	C

ATOM	1215	CB	ASN	B	88	66.229	-63.594	60.586	1.00	76.73	B	C
ATOM	1216	CG	ASN	B	88	65.396	-64.857	60.753	1.00	74.39	B	C
ATOM	1217	OD1	ASN	B	88	65.117	-65.266	61.885	1.00	68.81	B	O
ATOM	1218	ND2	ASN	B	88	64.983	-65.475	59.641	1.00	69.89	B	N
ATOM	1219	C	ASN	B	88	67.210	-61.910	58.992	1.00	82.89	B	C
ATOM	1220	O	ASN	B	88	68.372	-61.683	59.339	1.00	84.97	B	O
ATOM	1221	N	SER	B	89	66.415	-60.993	58.448	1.00	82.23	B	N
ATOM	1222	CA	SER	B	89	66.803	-59.609	58.294	1.00	77.61	B	C
ATOM	1223	CB	SER	B	89	65.751	-58.839	57.449	1.00	75.09	B	C
ATOM	1224	OG	SER	B	89	64.892	-58.142	58.312	1.00	77.21	B	O
ATOM	1225	C	SER	B	89	66.936	-59.015	59.704	1.00	73.65	B	C
ATOM	1226	O	SER	B	89	66.276	-59.461	60.646	1.00	70.62	B	O
ATOM	1227	N	ARG	B	90	67.818	-58.031	59.845	1.00	70.16	B	N
ATOM	1228	CA	ARG	B	90	68.074	-57.371	61.131	1.00	64.25	B	C
ATOM	1229	CB	ARG	B	90	69.383	-57.909	61.717	1.00	60.59	B	C
ATOM	1230	CG	ARG	B	90	69.858	-57.190	62.965	1.00	56.28	B	C
ATOM	1231	CD	ARG	B	90	70.958	-57.969	63.657	1.00	57.29	B	C
ATOM	1232	NE	ARG	B	90	71.408	-57.236	64.836	1.00	57.22	B	N
ATOM	1233	CZ	ARG	B	90	72.506	-57.509	65.536	1.00	57.05	B	C
ATOM	1234	NH1	ARG	B	90	73.319	-58.503	65.192	1.00	59.81	B	N
ATOM	1235	NH2	ARG	B	90	72.799	-56.775	66.604	1.00	56.51	B	N
ATOM	1236	C	ARG	B	90	68.142	-55.857	60.946	1.00	59.89	B	C
ATOM	1237	O	ARG	B	90	68.651	-55.383	59.943	1.00	59.85	B	O
ATOM	1238	N	THR	B	91	67.649	-55.099	61.916	1.00	57.22	B	N
ATOM	1239	CA	THR	B	91	67.641	-53.649	61.804	1.00	58.17	B	C
ATOM	1240	CB	THR	B	91	66.263	-53.073	62.194	1.00	59.34	B	C
ATOM	1241	OG1	THR	B	91	65.291	-53.498	61.233	1.00	61.50	B	O
ATOM	1242	CG2	THR	B	91	66.270	-51.523	62.255	1.00	60.41	B	C
ATOM	1243	C	THR	B	91	68.729	-53.047	62.669	1.00	57.08	B	C
ATOM	1244	O	THR	B	91	68.878	-53.416	63.830	1.00	58.35	B	O
ATOM	1245	N	ILE	B	92	69.479	-52.112	62.085	1.00	54.73	B	N
ATOM	1246	CA	ILE	B	92	70.557	-51.417	62.775	1.00	53.15	B	C
ATOM	1247	CB	ILE	B	92	71.946	-51.798	62.220	1.00	62.76	B	C
ATOM	1248	CG1	ILE	B	92	72.032	-51.635	60.698	1.00	67.31	B	C
ATOM	1249	CD1	ILE	B	92	72.989	-50.555	60.256	1.00	71.08	B	C
ATOM	1250	CG2	ILE	B	92	72.295	-53.233	62.601	1.00	66.73	B	C
ATOM	1251	C	ILE	B	92	70.356	-49.926	62.655	1.00	47.15	B	C
ATOM	1252	O	ILE	B	92	69.504	-49.474	61.903	1.00	48.49	B	O
ATOM	1253	N	ILE	B	93	71.150	-49.173	63.406	1.00	43.16	B	N
ATOM	1254	CA	ILE	B	93	71.106	-47.719	63.407	1.00	41.44	B	C
ATOM	1255	CB	ILE	B	93	71.154	-47.163	64.852	1.00	43.75	B	C
ATOM	1256	CG1	ILE	B	93	69.895	-47.551	65.621	1.00	44.41	B	C
ATOM	1257	CD1	ILE	B	93	68.600	-47.042	65.050	1.00	45.44	B	C
ATOM	1258	CG2	ILE	B	93	71.414	-45.658	64.882	1.00	43.30	B	C
ATOM	1259	C	ILE	B	93	72.300	-47.167	62.647	1.00	39.02	B	C
ATOM	1260	O	ILE	B	93	73.432	-47.392	63.054	1.00	38.06	B	O
ATOM	1261	N	ASN	B	94	72.034	-46.458	61.547	1.00	38.19	B	N
ATOM	1262	CA	ASN	B	94	73.040	-45.628	60.881	1.00	38.79	B	C
ATOM	1263	CB	ASN	B	94	72.937	-45.776	59.366	1.00	39.00	B	C
ATOM	1264	CG	ASN	B	94	74.277	-45.612	58.663	1.00	38.97	B	C
ATOM	1265	OD1	ASN	B	94	75.183	-44.961	59.158	1.00	37.07	B	O
ATOM	1266	ND2	ASN	B	94	74.391	-46.200	57.489	1.00	40.71	B	N
ATOM	1267	C	ASN	B	94	72.808	-44.166	61.274	1.00	39.83	B	C
ATOM	1268	O	ASN	B	94	71.991	-43.897	62.152	1.00	41.58	B	O
ATOM	1269	N	ARG	B	95	73.505	-43.238	60.614	1.00	37.34	B	N
ATOM	1270	CA	ARG	B	95	73.270	-41.825	60.780	1.00	36.90	B	C
ATOM	1271	CB	ARG	B	95	74.371	-41.219	61.624	1.00	38.67	B	C
ATOM	1272	CG	ARG	B	95	74.467	-41.901	62.961	1.00	40.96	B	C
ATOM	1273	CD	ARG	B	95	75.532	-41.317	63.863	1.00	44.66	B	C
ATOM	1274	NE	ARG	B	95	75.671	-42.067	65.118	1.00	50.83	B	N
ATOM	1275	CZ	ARG	B	95	76.622	-41.829	66.024	1.00	58.48	B	C
ATOM	1276	NH1	ARG	B	95	77.524	-40.871	65.821	1.00	63.89	B	N
ATOM	1277	NH2	ARG	B	95	76.674	-42.541	67.143	1.00	61.94	B	N
ATOM	1278	C	ARG	B	95	73.212	-41.116	59.444	1.00	36.56	B	C
ATOM	1279	O	ARG	B	95	73.709	-41.616	58.451	1.00	32.50	B	O
ATOM	1280	N	PHE	B	96	72.579	-39.947	59.429	1.00	37.33	B	N
ATOM	1281	CA	PHE	B	96	72.589	-39.104	58.245	1.00	39.94	B	C
ATOM	1282	CB	PHE	B	96	71.254	-39.178	57.484	1.00	43.53	B	C

ATOM	1283	CG	PHE	B	96	70.075	-38.607	58.222	1.00	43.39	B	C
ATOM	1284	CD1	PHE	B	96	69.446	-39.339	59.222	1.00	45.73	B	C
ATOM	1285	CE1	PHE	B	96	68.356	-38.826	59.903	1.00	46.06	B	C
ATOM	1286	CZ	PHE	B	96	67.856	-37.576	59.567	1.00	46.94	B	C
ATOM	1287	CE2	PHE	B	96	68.465	-36.847	58.554	1.00	44.36	B	C
ATOM	1288	CD2	PHE	B	96	69.566	-37.367	57.887	1.00	42.63	B	C
ATOM	1289	C	PHE	B	96	72.971	-37.677	58.555	1.00	38.38	B	C
ATOM	1290	O	PHE	B	96	72.918	-37.242	59.702	1.00	40.31	B	O
ATOM	1291	N	CYS	B	97	73.387	-36.971	57.510	1.00	38.84	B	N
ATOM	1292	CA	CYS	B	97	73.899	-35.617	57.621	1.00	37.93	B	C
ATOM	1293	CB	CYS	B	97	75.227	-35.515	56.890	1.00	39.69	B	C
ATOM	1294	SG	CYS	B	97	76.399	-36.819	57.295	1.00	42.37	B	S
ATOM	1295	C	CYS	B	97	72.960	-34.663	56.943	1.00	35.54	B	C
ATOM	1296	O	CYS	B	97	72.416	-34.967	55.897	1.00	36.20	B	O
ATOM	1297	N	TYR	B	98	72.768	-33.499	57.523	1.00	36.04	B	N
ATOM	1298	CA	TYR	B	98	72.114	-32.418	56.803	1.00	37.70	B	C
ATOM	1299	CB	TYR	B	98	70.592	-32.570	56.811	1.00	38.63	B	C
ATOM	1300	CG	TYR	B	98	70.021	-32.646	58.180	1.00	39.89	B	C
ATOM	1301	CD1	TYR	B	98	69.752	-31.501	58.900	1.00	42.52	B	C
ATOM	1302	CE1	TYR	B	98	69.221	-31.571	60.179	1.00	44.18	B	C
ATOM	1303	CZ	TYR	B	98	68.963	-32.799	60.740	1.00	41.16	B	C
ATOM	1304	OH	TYR	B	98	68.442	-32.845	61.991	1.00	41.89	B	O
ATOM	1305	CE2	TYR	B	98	69.227	-33.956	60.045	1.00	41.31	B	C
ATOM	1306	CD2	TYR	B	98	69.756	-33.873	58.769	1.00	41.94	B	C
ATOM	1307	C	TYR	B	98	72.498	-31.095	57.406	1.00	37.91	B	C
ATOM	1308	O	TYR	B	98	72.711	-30.991	58.621	1.00	36.97	B	O
ATOM	1309	N	GLY	B	99	72.573	-30.081	56.560	1.00	35.29	B	N
ATOM	1310	CA	GLY	B	99	72.958	-28.777	57.030	1.00	34.83	B	C
ATOM	1311	C	GLY	B	99	73.028	-27.731	55.939	1.00	34.72	B	C
ATOM	1312	O	GLY	B	99	72.649	-27.962	54.781	1.00	32.92	B	O
ATOM	1313	N	GLN	B	100	73.528	-26.571	56.337	1.00	32.10	B	N
ATOM	1314	CA	GLN	B	100	73.692	-25.458	55.445	1.00	30.94	B	C
ATOM	1315	CB	GLN	B	100	72.584	-24.443	55.688	1.00	31.34	B	C
ATOM	1316	CG	GLN	B	100	71.210	-25.125	55.600	1.00	32.74	B	C
ATOM	1317	CD	GLN	B	100	70.008	-24.231	55.763	1.00	33.31	B	C
ATOM	1318	OE1	GLN	B	100	68.921	-24.523	55.239	1.00	31.17	B	O
ATOM	1319	NE2	GLN	B	100	70.177	-23.149	56.496	1.00	34.91	B	N
ATOM	1320	C	GLN	B	100	75.076	-24.906	55.703	1.00	30.87	B	C
ATOM	1321	O	GLN	B	100	75.319	-24.278	56.716	1.00	30.96	B	O
ATOM	1322	N	CYS	B	101	75.994	-25.214	54.795	1.00	32.62	B	N
ATOM	1323	CA	CYS	B	101	77.387	-24.866	54.954	1.00	33.06	B	C
ATOM	1324	CB	CYS	B	101	78.275	-26.012	54.486	1.00	35.51	B	C
ATOM	1325	SG	CYS	B	101	77.994	-27.528	55.412	1.00	41.49	B	S
ATOM	1326	C	CYS	B	101	77.649	-23.633	54.134	1.00	30.73	B	C
ATOM	1327	O	CYS	B	101	76.793	-23.203	53.387	1.00	30.58	B	O
ATOM	1328	N	ASN	B	102	78.823	-23.042	54.293	1.00	30.48	B	N
ATOM	1329	CA	ASN	B	102	79.131	-21.820	53.582	1.00	29.55	B	C
ATOM	1330	CB	ASN	B	102	80.208	-21.052	54.292	1.00	30.25	B	C
ATOM	1331	CG	ASN	B	102	79.775	-20.577	55.639	1.00	31.72	B	C
ATOM	1332	OD1	ASN	B	102	78.613	-20.247	55.883	1.00	34.37	B	O
ATOM	1333	ND2	ASN	B	102	80.711	-20.538	56.529	1.00	33.34	B	N
ATOM	1334	C	ASN	B	102	79.608	-22.087	52.207	1.00	29.04	B	C
ATOM	1335	O	ASN	B	102	80.358	-23.036	51.979	1.00	32.68	B	O
ATOM	1336	N	SER	B	103	79.188	-21.231	51.292	1.00	28.19	B	N
ATOM	1337	CA	SER	B	103	79.752	-21.202	49.967	1.00	29.39	B	C
ATOM	1338	CB	SER	B	103	78.954	-22.103	49.040	1.00	28.26	B	C
ATOM	1339	OG	SER	B	103	77.606	-21.679	48.996	1.00	27.39	B	O
ATOM	1340	C	SER	B	103	79.726	-19.763	49.473	1.00	30.45	B	C
ATOM	1341	O	SER	B	103	78.908	-18.970	49.921	1.00	31.28	B	O
ATOM	1342	N	PHE	B	104	80.605	-19.444	48.543	1.00	29.30	B	N
ATOM	1343	CA	PHE	B	104	80.593	-18.141	47.943	1.00	31.33	B	C
ATOM	1344	CB	PHE	B	104	81.216	-17.097	48.885	1.00	34.69	B	C
ATOM	1345	CG	PHE	B	104	82.659	-17.366	49.241	1.00	38.41	B	C
ATOM	1346	CD1	PHE	B	104	83.691	-17.095	48.334	1.00	38.92	B	C
ATOM	1347	CE1	PHE	B	104	85.016	-17.351	48.673	1.00	41.07	B	C
ATOM	1348	CZ	PHE	B	104	85.330	-17.872	49.923	1.00	38.01	B	C
ATOM	1349	CE2	PHE	B	104	84.325	-18.118	50.822	1.00	38.22	B	C
ATOM	1350	CD2	PHE	B	104	82.998	-17.868	50.484	1.00	39.15	B	C

ATOM	1351	C	PHE	B	104	81.303	-18.174	46.600	1.00	29.75	B	C
ATOM	1352	O	PHE	B	104	81.989	-19.134	46.251	1.00	28.47	B	O
ATOM	1353	N	TYR	B	105	81.136	-17.099	45.857	1.00	30.99	B	N
ATOM	1354	CA	TYR	B	105	81.765	-16.959	44.560	1.00	33.87	B	C
ATOM	1355	CB	TYR	B	105	80.872	-17.501	43.480	1.00	36.40	B	C
ATOM	1356	CG	TYR	B	105	81.470	-17.369	42.116	1.00	41.71	B	C
ATOM	1357	CD1	TYR	B	105	81.446	-16.159	41.431	1.00	42.93	B	C
ATOM	1358	CE1	TYR	B	105	82.010	-16.037	40.174	1.00	44.45	B	C
ATOM	1359	CZ	TYR	B	105	82.605	-17.134	39.582	1.00	46.37	B	C
ATOM	1360	OH	TYR	B	105	83.157	-17.046	38.330	1.00	45.98	B	O
ATOM	1361	CE2	TYR	B	105	82.639	-18.342	40.239	1.00	47.39	B	C
ATOM	1362	CD2	TYR	B	105	82.072	-18.454	41.500	1.00	47.03	B	C
ATOM	1363	C	TYR	B	105	82.009	-15.476	44.337	1.00	35.48	B	C
ATOM	1364	O	TYR	B	105	81.080	-14.671	44.367	1.00	36.09	B	O
ATOM	1365	N	ILE	B	106	83.261	-15.113	44.111	1.00	35.43	B	N
ATOM	1366	CA	ILE	B	106	83.637	-13.721	43.994	1.00	35.76	B	C
ATOM	1367	CB	ILE	B	106	84.418	-13.265	45.242	1.00	36.18	B	C
ATOM	1368	CG1	ILE	B	106	83.530	-13.335	46.470	1.00	36.58	B	C
ATOM	1369	CD1	ILE	B	106	84.302	-13.366	47.760	1.00	38.66	B	C
ATOM	1370	CG2	ILE	B	106	84.929	-11.836	45.065	1.00	36.08	B	C
ATOM	1371	C	ILE	B	106	84.521	-13.580	42.761	1.00	35.56	B	C
ATOM	1372	O	ILE	B	106	85.647	-14.082	42.775	1.00	35.14	B	O
ATOM	1373	N	PRO	B	107	84.037	-12.887	41.716	1.00	34.68	B	N
ATOM	1374	CA	PRO	B	107	84.860	-12.651	40.542	1.00	36.49	B	C
ATOM	1375	CB	PRO	B	107	83.978	-11.842	39.607	1.00	35.65	B	C
ATOM	1376	CG	PRO	B	107	82.710	-11.624	40.307	1.00	36.82	B	C
ATOM	1377	CD	PRO	B	107	82.868	-12.015	41.743	1.00	35.95	B	C
ATOM	1378	C	PRO	B	107	86.095	-11.871	40.904	1.00	40.87	B	C
ATOM	1379	O	PRO	B	107	86.047	-10.887	41.662	1.00	43.07	B	O
ATOM	1380	N	ARG	B	108	87.204	-12.315	40.351	1.00	44.94	B	N
ATOM	1381	CA	ARG	B	108	88.464	-12.038	40.967	1.00	49.41	B	C
ATOM	1382	CB	ARG	B	108	89.277	-13.294	41.158	1.00	51.56	B	C
ATOM	1383	CG	ARG	B	108	90.552	-13.075	41.920	1.00	51.75	B	C
ATOM	1384	CD	ARG	B	108	91.384	-14.305	42.013	1.00	57.45	B	C
ATOM	1385	NE	ARG	B	108	92.598	-14.038	42.784	1.00	59.69	B	N
ATOM	1386	CZ	ARG	B	108	93.625	-14.878	42.851	1.00	69.37	B	C
ATOM	1387	NH1	ARG	B	108	93.570	-16.049	42.225	1.00	73.31	B	N
ATOM	1388	NH2	ARG	B	108	94.713	-14.557	43.544	1.00	75.02	B	N
ATOM	1389	C	ARG	B	108	89.095	-11.035	40.097	1.00	56.92	B	C
ATOM	1390	O	ARG	B	108	89.067	-11.151	38.868	1.00	53.86	B	O
ATOM	1391	N	HIS	B	109	89.625	-10.020	40.768	1.00	75.35	B	N
ATOM	1392	CA	HIS	B	109	89.920	-8.749	40.134	1.00	96.51	B	C
ATOM	1393	CB	HIS	B	109	90.720	-7.803	41.050	1.00	102.32	B	C
ATOM	1394	CG	HIS	B	109	90.219	-6.395	41.025	1.00	110.32	B	C
ATOM	1395	ND1	HIS	B	109	89.154	-6.003	41.802	1.00	110.73	B	N
ATOM	1396	CE1	HIS	B	109	88.904	-4.725	41.589	1.00	117.97	B	C
ATOM	1397	NE2	HIS	B	109	89.764	-4.274	40.689	1.00	117.90	B	N
ATOM	1398	CD2	HIS	B	109	90.597	-5.301	40.314	1.00	112.77	B	C
ATOM	1399	C	HIS	B	109	90.689	-9.107	38.893	1.00	106.83	B	C
ATOM	1400	O	HIS	B	109	91.918	-9.221	38.915	1.00	113.28	B	O
ATOM	1401	N	ILE	B	110	89.940	-9.401	37.835	1.00	108.35	B	N
ATOM	1402	CA	ILE	B	110	90.516	-9.568	36.553	1.00	110.52	B	C
ATOM	1403	CB	ILE	B	110	90.573	-8.195	35.825	1.00	111.09	B	C
ATOM	1404	CG1	ILE	B	110	89.341	-7.321	36.148	1.00	107.24	B	C
ATOM	1405	CD1	ILE	B	110	88.120	-7.598	35.306	1.00	106.16	B	C
ATOM	1406	CG2	ILE	B	110	90.820	-8.381	34.332	1.00	111.14	B	C
ATOM	1407	C	ILE	B	110	91.922	-10.064	36.866	1.00	117.16	B	C
ATOM	1408	O	ILE	B	110	92.879	-9.291	36.805	1.00	138.26	B	O
ATOM	1409	N	ARG	B	111	92.030	-11.337	37.255	1.00	112.29	B	N
ATOM	1410	CA	ARG	B	111	93.305	-11.975	37.681	1.00	111.10	B	C
ATOM	1411	CB	ARG	B	111	93.041	-13.431	38.024	1.00	106.43	B	C
ATOM	1412	CG	ARG	B	111	94.201	-14.117	38.708	1.00	102.95	B	C
ATOM	1413	CD	ARG	B	111	94.149	-15.612	38.403	1.00	103.24	B	C
ATOM	1414	NE	ARG	B	111	94.573	-15.877	37.035	1.00	100.89	B	N
ATOM	1415	CZ	ARG	B	111	95.839	-16.018	36.647	1.00	97.95	B	C
ATOM	1416	NH1	ARG	B	111	96.843	-15.935	37.520	1.00	95.15	B	N
ATOM	1417	NH2	ARG	B	111	96.102	-16.247	35.368	1.00	97.20	B	N
ATOM	1418	C	ARG	B	111	94.407	-11.834	36.597	1.00	117.72	B	C

ATOM	1419	O	ARG	B	111	94.999	-12.811	36.103	1.00113.44	B	O
ATOM	1420	N	LYS	B	112	94.692	-10.571	36.286	1.00118.27	B	N
ATOM	1421	CA	LYS	B	112	95.270	-10.140	35.011	1.00107.01	B	C
ATOM	1422	CB	LYS	B	112	96.792	-10.343	35.040	1.00105.03	B	C
ATOM	1423	CG	LYS	B	112	97.665	-9.244	34.427	1.00106.51	B	C
ATOM	1424	CD	LYS	B	112	98.906	-9.828	33.778	1.00106.61	B	C
ATOM	1425	CE	LYS	B	112	99.737	-8.710	33.158	1.00105.62	B	C
ATOM	1426	NZ	LYS	B	112	99.291	-8.187	31.831	1.00104.21	B	N
ATOM	1427	C	LYS	B	112	94.568	-10.864	33.847	1.00100.99	B	C
ATOM	1428	O	LYS	B	112	95.124	-10.997	32.768	1.00 93.56	B	O
ATOM	1429	N	GLU	B	113	93.302	-11.243	34.067	1.00 99.14	B	N
ATOM	1430	CA	GLU	B	113	92.659	-12.333	33.327	1.00 96.82	B	C
ATOM	1431	CB	GLU	B	113	93.420	-13.640	33.619	1.00 95.99	B	C
ATOM	1432	CG	GLU	B	113	93.202	-14.801	32.647	1.00 93.48	B	C
ATOM	1433	CD	GLU	B	113	94.509	-15.382	32.155	1.00 95.19	B	C
ATOM	1434	OE1	GLU	B	113	95.161	-14.749	31.294	1.00 95.77	B	O
ATOM	1435	OE2	GLU	B	113	94.880	-16.475	32.621	1.00 95.47	B	O
ATOM	1436	C	GLU	B	113	91.137	-12.451	33.724	1.00 93.65	B	C
ATOM	1437	O	GLU	B	113	90.376	-11.460	33.707	1.00 91.96	B	O
ATOM	1438	N	GLU	B	114	90.699	-13.641	34.141	1.00 91.26	B	N
ATOM	1439	CA	GLU	B	114	89.288	-13.891	34.425	1.00 84.54	B	C
ATOM	1440	CB	GLU	B	114	88.478	-14.000	33.125	1.00 84.57	B	C
ATOM	1441	CG	GLU	B	114	86.970	-14.011	33.336	1.00 84.04	B	C
ATOM	1442	CD	GLU	B	114	86.429	-12.700	33.888	1.00 82.58	B	C
ATOM	1443	OE1	GLU	B	114	86.876	-11.616	33.450	1.00 84.72	B	O
ATOM	1444	OE2	GLU	B	114	85.551	-12.747	34.774	1.00 84.22	B	O
ATOM	1445	C	GLU	B	114	89.208	-15.158	35.279	1.00 79.96	B	C
ATOM	1446	O	GLU	B	114	89.363	-16.281	34.783	1.00 82.33	B	O
ATOM	1447	N	GLY	B	115	89.050	-14.949	36.585	1.00 69.85	B	N
ATOM	1448	CA	GLY	B	115	88.789	-16.036	37.510	1.00 63.07	B	C
ATOM	1449	C	GLY	B	115	88.040	-15.558	38.738	1.00 59.17	B	C
ATOM	1450	O	GLY	B	115	87.417	-14.498	38.721	1.00 62.79	B	O
ATOM	1451	N	SER	B	116	88.126	-16.314	39.824	1.00 49.97	B	N
ATOM	1452	CA	SER	B	116	87.289	-16.059	40.986	1.00 44.97	B	C
ATOM	1453	CB	SER	B	116	85.940	-16.696	40.744	1.00 44.24	B	C
ATOM	1454	OG	SER	B	116	86.071	-18.096	40.613	1.00 44.94	B	O
ATOM	1455	C	SER	B	116	87.871	-16.613	42.287	1.00 42.99	B	C
ATOM	1456	O	SER	B	116	88.703	-17.505	42.264	1.00 45.15	B	O
ATOM	1457	N	PHE	B	117	87.477	-16.032	43.414	1.00 40.89	B	N
ATOM	1458	CA	PHE	B	117	87.667	-16.664	44.714	1.00 40.70	B	C
ATOM	1459	CB	PHE	B	117	87.801	-15.642	45.838	1.00 41.27	B	C
ATOM	1460	CG	PHE	B	117	89.055	-14.820	45.783	1.00 45.45	B	C
ATOM	1461	CD1	PHE	B	117	90.308	-15.425	45.861	1.00 46.26	B	C
ATOM	1462	CE1	PHE	B	117	91.463	-14.678	45.834	1.00 45.37	B	C
ATOM	1463	CZ	PHE	B	117	91.377	-13.307	45.761	1.00 48.26	B	C
ATOM	1464	CE2	PHE	B	117	90.135	-12.682	45.697	1.00 48.93	B	C
ATOM	1465	CD2	PHE	B	117	88.983	-13.435	45.711	1.00 47.28	B	C
ATOM	1466	C	PHE	B	117	86.408	-17.447	44.978	1.00 39.79	B	C
ATOM	1467	O	PHE	B	117	85.337	-16.857	44.996	1.00 40.42	B	O
ATOM	1468	N	GLN	B	118	86.499	-18.749	45.201	1.00 38.26	B	N
ATOM	1469	CA	GLN	B	118	85.285	-19.500	45.502	1.00 39.37	B	C
ATOM	1470	CB	GLN	B	118	84.640	-20.020	44.219	1.00 38.66	B	C
ATOM	1471	CG	GLN	B	118	85.534	-20.922	43.409	1.00 38.84	B	C
ATOM	1472	CD	GLN	B	118	84.860	-21.274	42.105	1.00 39.49	B	C
ATOM	1473	OE1	GLN	B	118	85.086	-20.620	41.101	1.00 39.43	B	O
ATOM	1474	NE2	GLN	B	118	83.974	-22.262	42.130	1.00 39.11	B	N
ATOM	1475	C	GLN	B	118	85.487	-20.643	46.474	1.00 37.02	B	C
ATOM	1476	O	GLN	B	118	86.578	-21.166	46.628	1.00 35.97	B	O
ATOM	1477	N	SER	B	119	84.391	-21.045	47.092	1.00 34.99	B	N
ATOM	1478	CA	SER	B	119	84.435	-22.033	48.130	1.00 34.06	B	C
ATOM	1479	CB	SER	B	119	84.847	-21.387	49.440	1.00 34.89	B	C
ATOM	1480	OG	SER	B	119	84.805	-22.345	50.474	1.00 36.74	B	O
ATOM	1481	C	SER	B	119	83.081	-22.627	48.282	1.00 32.49	B	C
ATOM	1482	O	SER	B	119	82.092	-21.954	48.079	1.00 31.02	B	O
ATOM	1483	N	CYS	B	120	83.055	-23.910	48.607	1.00 35.13	B	N
ATOM	1484	CA	CYS	B	120	81.823	-24.608	48.835	1.00 36.15	B	C
ATOM	1485	CB	CYS	B	120	81.245	-25.135	47.526	1.00 35.69	B	C
ATOM	1486	SG	CYS	B	120	79.573	-25.814	47.688	1.00 38.85	B	S

ATOM	1487	C	CYS B 120	82.121	-25.753	49.787	1.00	37.91	B	C
ATOM	1488	O	CYS B 120	83.017	-26.547	49.548	1.00	40.36	B	O
ATOM	1489	N	SER B 121	81.350	-25.836	50.865	1.00	39.01	B	N
ATOM	1490	CA	SER B 121	81.439	-26.944	51.770	1.00	35.52	B	C
ATOM	1491	CB	SER B 121	81.695	-26.429	53.154	1.00	37.45	B	C
ATOM	1492	OG	SER B 121	83.001	-25.917	53.195	1.00	39.75	B	O
ATOM	1493	C	SER B 121	80.171	-27.767	51.704	1.00	35.27	B	C
ATOM	1494	O	SER B 121	79.141	-27.311	51.252	1.00	38.32	B	O
ATOM	1495	N	PHE B 122	80.273	-28.992	52.173	1.00	35.59	B	N
ATOM	1496	CA	PHE B 122	79.283	-30.010	51.954	1.00	37.04	B	C
ATOM	1497	CB	PHE B 122	79.873	-30.999	50.932	1.00	35.74	B	C
ATOM	1498	CG	PHE B 122	78.943	-32.100	50.484	1.00	33.17	B	C
ATOM	1499	CD1	PHE B 122	77.713	-32.322	51.081	1.00	33.00	B	C
ATOM	1500	CE1	PHE B 122	76.902	-33.366	50.658	1.00	33.91	B	C
ATOM	1501	CZ	PHE B 122	77.332	-34.214	49.652	1.00	33.36	B	C
ATOM	1502	CE2	PHE B 122	78.560	-34.007	49.061	1.00	32.10	B	C
ATOM	1503	CD2	PHE B 122	79.357	-32.962	49.488	1.00	32.20	B	C
ATOM	1504	C	PHE B 122	79.059	-30.678	53.314	1.00	38.65	B	C
ATOM	1505	O	PHE B 122	79.999	-31.232	53.880	1.00	35.68	B	O
ATOM	1506	N	CYS B 123	77.837	-30.601	53.847	1.00	39.33	B	N
ATOM	1507	CA	CYS B 123	77.529	-31.262	55.115	1.00	38.08	B	C
ATOM	1508	CB	CYS B 123	76.256	-30.706	55.750	1.00	38.45	B	C
ATOM	1509	SG	CYS B 123	75.677	-31.615	57.208	1.00	40.71	B	S
ATOM	1510	C	CYS B 123	77.428	-32.756	54.838	1.00	36.42	B	C
ATOM	1511	O	CYS B 123	76.494	-33.212	54.206	1.00	33.78	B	O
ATOM	1512	N	LYS B 124	78.429	-33.503	55.289	1.00	38.77	B	N
ATOM	1513	CA	LYS B 124	78.588	-34.914	54.919	1.00	39.60	B	C
ATOM	1514	CB	LYS B 124	79.256	-35.002	53.548	1.00	40.70	B	C
ATOM	1515	CG	LYS B 124	80.730	-34.672	53.624	1.00	45.13	B	C
ATOM	1516	CD	LYS B 124	81.346	-34.453	52.259	1.00	49.22	B	C
ATOM	1517	CE	LYS B 124	81.487	-35.761	51.508	1.00	53.75	B	C
ATOM	1518	NZ	LYS B 124	82.735	-35.709	50.699	1.00	54.44	B	N
ATOM	1519	C	LYS B 124	79.453	-35.647	55.951	1.00	39.19	B	C
ATOM	1520	O	LYS B 124	79.999	-35.015	56.860	1.00	37.81	B	O
ATOM	1521	N	PRO B 125	79.593	-36.982	55.814	1.00	38.46	B	N
ATOM	1522	CA	PRO B 125	80.396	-37.738	56.778	1.00	39.12	B	C
ATOM	1523	CB	PRO B 125	80.246	-39.177	56.300	1.00	37.18	B	C
ATOM	1524	CG	PRO B 125	78.918	-39.192	55.640	1.00	37.43	B	C
ATOM	1525	CD	PRO B 125	78.876	-37.890	54.907	1.00	37.32	B	C
ATOM	1526	C	PRO B 125	81.853	-37.350	56.810	1.00	39.65	B	C
ATOM	1527	O	PRO B 125	82.485	-37.220	55.770	1.00	44.72	B	O
ATOM	1528	N	LYS B 126	82.364	-37.140	58.006	1.00	42.71	B	N
ATOM	1529	CA	LYS B 126	83.783	-36.950	58.216	1.00	48.61	B	C
ATOM	1530	CB	LYS B 126	84.019	-36.025	59.384	1.00	50.56	B	C
ATOM	1531	CG	LYS B 126	85.479	-35.708	59.614	1.00	57.68	B	C
ATOM	1532	CD	LYS B 126	85.617	-34.322	60.218	1.00	65.92	B	C
ATOM	1533	CE	LYS B 126	86.643	-34.259	61.338	1.00	74.51	B	C
ATOM	1534	NZ	LYS B 126	87.903	-33.655	60.810	1.00	80.39	B	N
ATOM	1535	C	LYS B 126	84.441	-38.288	58.505	1.00	50.60	B	C
ATOM	1536	O	LYS B 126	85.513	-38.579	57.981	1.00	55.29	B	O
ATOM	1537	N	LYS B 127	83.800	-39.099	59.340	1.00	51.47	B	N
ATOM	1538	CA	LYS B 127	84.276	-40.445	59.622	1.00	54.86	B	C
ATOM	1539	CB	LYS B 127	84.795	-40.545	61.049	1.00	58.61	B	C
ATOM	1540	CG	LYS B 127	85.506	-39.297	61.546	1.00	66.55	B	C
ATOM	1541	CD	LYS B 127	86.145	-39.509	62.909	1.00	66.51	B	C
ATOM	1542	CE	LYS B 127	87.645	-39.744	62.797	1.00	63.77	B	C
ATOM	1543	NZ	LYS B 127	88.377	-38.468	62.577	1.00	63.96	B	N
ATOM	1544	C	LYS B 127	83.168	-41.467	59.438	1.00	50.92	B	C
ATOM	1545	O	LYS B 127	82.036	-41.236	59.852	1.00	46.98	B	O
ATOM	1546	N	PHE B 128	83.518	-42.599	58.834	1.00	47.21	B	N
ATOM	1547	CA	PHE B 128	82.668	-43.790	58.834	1.00	44.58	B	C
ATOM	1548	CB	PHE B 128	82.691	-44.436	57.472	1.00	39.94	B	C
ATOM	1549	CG	PHE B 128	82.096	-43.589	56.399	1.00	39.77	B	C
ATOM	1550	CD1	PHE B 128	82.857	-42.604	55.773	1.00	39.98	B	C
ATOM	1551	CE1	PHE B 128	82.325	-41.837	54.752	1.00	37.39	B	C
ATOM	1552	CZ	PHE B 128	81.013	-42.037	54.351	1.00	36.05	B	C
ATOM	1553	CE2	PHE B 128	80.247	-43.010	54.966	1.00	36.72	B	C
ATOM	1554	CD2	PHE B 128	80.790	-43.779	55.988	1.00	37.94	B	C

ATOM	1555	C	PHE	B	128	83.143	-44.805	59.878	1.00	45.58	B	C
ATOM	1556	O	PHE	B	128	84.296	-44.790	60.270	1.00	46.02	B	O
ATOM	1557	N	THR	B	129	82.251	-45.689	60.310	1.00	47.04	B	N
ATOM	1558	CA	THR	B	129	82.604	-46.809	61.180	1.00	45.11	B	C
ATOM	1559	CB	THR	B	129	81.752	-46.802	62.450	1.00	43.77	B	C
ATOM	1560	OG1	THR	B	129	82.186	-45.733	63.285	1.00	44.72	B	O
ATOM	1561	CG2	THR	B	129	81.867	-48.091	63.216	1.00	46.31	B	C
ATOM	1562	C	THR	B	129	82.368	-48.091	60.398	1.00	47.17	B	C
ATOM	1563	O	THR	B	129	81.445	-48.168	59.616	1.00	43.04	B	O
ATOM	1564	N	THR	B	130	83.223	-49.084	60.604	1.00	52.27	B	N
ATOM	1565	CA	THR	B	130	83.009	-50.405	60.047	1.00	57.38	B	C
ATOM	1566	CB	THR	B	130	84.178	-50.841	59.164	1.00	61.37	B	C
ATOM	1567	OG1	THR	B	130	84.102	-50.135	57.924	1.00	63.80	B	O
ATOM	1568	CG2	THR	B	130	84.118	-52.336	58.872	1.00	63.77	B	C
ATOM	1569	C	THR	B	130	82.841	-51.384	61.187	1.00	57.28	B	C
ATOM	1570	O	THR	B	130	83.609	-51.366	62.137	1.00	57.73	B	O
ATOM	1571	N	MET	B	131	81.833	-52.239	61.078	1.00	61.33	B	N
ATOM	1572	CA	MET	B	131	81.528	-53.210	62.133	1.00	62.81	B	C
ATOM	1573	CB	MET	B	131	80.423	-52.697	63.060	1.00	67.37	B	C
ATOM	1574	CG	MET	B	131	80.229	-53.489	64.354	1.00	70.38	B	C
ATOM	1575	SD	MET	B	131	79.088	-52.712	65.540	1.00	71.23	B	S
ATOM	1576	CE	MET	B	131	78.136	-54.085	66.228	1.00	74.12	B	C
ATOM	1577	C	MET	B	131	81.058	-54.506	61.515	1.00	64.78	B	C
ATOM	1578	O	MET	B	131	80.454	-54.505	60.433	1.00	67.07	B	O
ATOM	1579	N	MET	B	132	81.328	-55.597	62.229	1.00	69.46	B	N
ATOM	1580	CA	MET	B	132	80.816	-56.924	61.890	1.00	67.30	B	C
ATOM	1581	CB	MET	B	132	81.791	-58.042	62.315	1.00	68.53	B	C
ATOM	1582	CG	MET	B	132	82.910	-58.431	61.353	1.00	68.89	B	C
ATOM	1583	SD	MET	B	132	82.728	-57.935	59.629	1.00	74.84	B	S
ATOM	1584	CE	MET	B	132	83.374	-56.276	59.728	1.00	75.98	B	C
ATOM	1585	C	MET	B	132	79.493	-57.119	62.626	1.00	60.27	B	C
ATOM	1586	O	MET	B	132	79.432	-57.062	63.845	1.00	58.16	B	O
ATOM	1587	N	VAL	B	133	78.430	-57.328	61.877	1.00	56.55	B	N
ATOM	1588	CA	VAL	B	133	77.118	-57.558	62.461	1.00	58.40	B	C
ATOM	1589	CB	VAL	B	133	76.057	-56.649	61.808	1.00	59.64	B	C
ATOM	1590	CG1	VAL	B	133	74.650	-56.980	62.298	1.00	59.33	B	C
ATOM	1591	CG2	VAL	B	133	76.401	-55.198	62.089	1.00	58.53	B	C
ATOM	1592	C	VAL	B	133	76.766	-59.002	62.262	1.00	55.56	B	C
ATOM	1593	O	VAL	B	133	76.852	-59.500	61.156	1.00	49.82	B	O
ATOM	1594	N	THR	B	134	76.338	-59.660	63.334	1.00	58.85	B	N
ATOM	1595	CA	THR	B	134	75.981	-61.067	63.219	1.00	61.90	B	C
ATOM	1596	CB	THR	B	134	76.480	-61.952	64.395	1.00	62.09	B	C
ATOM	1597	OG1	THR	B	134	75.414	-62.244	65.295	1.00	60.20	B	O
ATOM	1598	CG2	THR	B	134	77.599	-61.277	65.160	1.00	63.82	B	C
ATOM	1599	C	THR	B	134	74.471	-61.169	63.000	1.00	61.34	B	C
ATOM	1600	O	THR	B	134	73.684	-60.561	63.713	1.00	57.34	B	O
ATOM	1601	N	LEU	B	135	74.107	-61.907	61.963	1.00	65.17	B	N
ATOM	1602	CA	LEU	B	135	72.731	-62.221	61.629	1.00	66.49	B	C
ATOM	1603	CB	LEU	B	135	72.559	-62.119	60.114	1.00	66.43	B	C
ATOM	1604	CG	LEU	B	135	72.881	-60.757	59.499	1.00	66.86	B	C
ATOM	1605	CD1	LEU	B	135	72.833	-60.844	57.982	1.00	69.16	B	C
ATOM	1606	CD2	LEU	B	135	71.918	-59.702	60.028	1.00	64.54	B	C
ATOM	1607	C	LEU	B	135	72.430	-63.652	62.032	1.00	64.78	B	C
ATOM	1608	O	LEU	B	135	73.328	-64.502	62.043	1.00	58.47	B	O
ATOM	1609	N	ASN	B	136	71.172	-63.962	62.327	1.00	71.66	B	N
ATOM	1610	CA	ASN	B	136	70.827	-65.377	62.425	1.00	80.09	B	C
ATOM	1611	CB	ASN	B	136	70.163	-65.752	63.758	1.00	78.69	B	C
ATOM	1612	CG	ASN	B	136	68.660	-65.690	63.719	1.00	81.33	B	C
ATOM	1613	OD1	ASN	B	136	68.075	-64.845	63.047	1.00	89.94	B	O
ATOM	1614	ND2	ASN	B	136	68.020	-66.595	64.450	1.00	80.34	B	N
ATOM	1615	C	ASN	B	136	70.113	-65.964	61.190	1.00	90.15	B	C
ATOM	1616	O	ASN	B	136	69.218	-65.364	60.574	1.00	85.34	B	O
ATOM	1617	N	CYS	B	137	70.573	-67.159	60.844	1.00	99.88	B	N
ATOM	1618	CA	CYS	B	137	70.221	-67.824	59.607	1.00	104.74	B	C
ATOM	1619	CB	CYS	B	137	71.415	-67.750	58.646	1.00	105.37	B	C
ATOM	1620	SG	CYS	B	137	72.356	-66.193	58.784	1.00	110.37	B	S
ATOM	1621	C	CYS	B	137	69.852	-69.261	59.985	1.00	108.35	B	C
ATOM	1622	O	CYS	B	137	70.700	-70.149	59.959	1.00	114.91	B	O

ATOM	1623	N	PRO	B	138	68.584	-69.484	60.391	1.00106.23	B	N
ATOM	1624	CA	PRO	B	138	68.133	-70.798	60.877	1.00105.33	B	C
ATOM	1625	CB	PRO	B	138	66.656	-70.556	61.227	1.00105.78	B	C
ATOM	1626	CG	PRO	B	138	66.566	-69.081	61.458	1.00106.65	B	C
ATOM	1627	CD	PRO	B	138	67.494	-68.494	60.442	1.00105.19	B	C
ATOM	1628	C	PRO	B	138	68.306	-71.929	59.856	1.00102.55	B	C
ATOM	1629	O	PRO	B	138	68.470	-73.080	60.252	1.00 92.96	B	O
ATOM	1630	N	GLU	B	139	68.282	-71.591	58.566	1.00104.97	B	N
ATOM	1631	CA	GLU	B	139	68.586	-72.548	57.480	1.00106.53	B	C
ATOM	1632	CB	GLU	B	139	67.766	-72.222	56.202	1.00105.57	B	C
ATOM	1633	CG	GLU	B	139	66.282	-71.816	56.359	1.00100.30	B	C
ATOM	1634	CD	GLU	B	139	65.300	-72.952	56.694	1.00 95.00	B	C
ATOM	1635	OE1	GLU	B	139	65.648	-74.147	56.595	1.00 88.56	B	O
ATOM	1636	OE2	GLU	B	139	64.141	-72.639	57.057	1.00 90.31	B	O
ATOM	1637	C	GLU	B	139	70.101	-72.662	57.085	1.00104.99	B	C
ATOM	1638	O	GLU	B	139	70.394	-73.025	55.942	1.00101.13	B	O
ATOM	1639	N	LEU	B	140	71.045	-72.322	57.978	1.00104.82	B	N
ATOM	1640	CA	LEU	B	140	72.482	-72.638	57.807	1.00103.04	B	C
ATOM	1641	CB	LEU	B	140	73.297	-71.412	57.329	1.00101.26	B	C
ATOM	1642	CG	LEU	B	140	73.777	-71.415	55.867	1.00103.52	B	C
ATOM	1643	CD1	LEU	B	140	74.431	-72.705	55.353	1.00 99.38	B	C
ATOM	1644	CD2	LEU	B	140	72.622	-71.038	54.966	1.00109.65	B	C
ATOM	1645	C	LEU	B	140	73.140	-73.257	59.052	1.00106.97	B	C
ATOM	1646	O	LEU	B	140	72.579	-73.294	60.165	1.00107.19	B	O
ATOM	1647	N	GLN	B	141	74.332	-73.792	58.802	1.00109.94	B	N
ATOM	1648	CA	GLN	B	141	75.222	-74.325	59.821	1.00108.79	B	C
ATOM	1649	CB	GLN	B	141	75.435	-75.833	59.633	1.00104.59	B	C
ATOM	1650	CG	GLN	B	141	76.084	-76.525	60.829	1.00100.38	B	C
ATOM	1651	CD	GLN	B	141	75.218	-76.454	62.082	1.00 99.67	B	C
ATOM	1652	OE1	GLN	B	141	73.995	-76.598	62.013	1.00104.83	B	O
ATOM	1653	NE2	GLN	B	141	75.843	-76.207	63.228	1.00 95.38	B	N
ATOM	1654	C	GLN	B	141	76.556	-73.591	59.673	1.00113.16	B	C
ATOM	1655	O	GLN	B	141	77.191	-73.693	58.626	1.00116.80	B	O
ATOM	1656	N	PRO	B	142	76.976	-72.829	60.699	1.00113.61	B	N
ATOM	1657	CA	PRO	B	142	76.265	-72.606	61.946	1.00116.04	B	C
ATOM	1658	CB	PRO	B	142	77.332	-72.007	62.864	1.00112.60	B	C
ATOM	1659	CG	PRO	B	142	78.336	-71.390	61.949	1.00112.75	B	C
ATOM	1660	CD	PRO	B	142	78.110	-71.903	60.552	1.00111.15	B	C
ATOM	1661	C	PRO	B	142	75.142	-71.619	61.706	1.00117.35	B	C
ATOM	1662	O	PRO	B	142	75.185	-70.864	60.727	1.00121.67	B	O
ATOM	1663	N	PRO	B	143	74.147	-71.594	62.598	1.00114.12	B	N
ATOM	1664	CA	PRO	B	143	72.991	-70.735	62.337	1.00111.69	B	C
ATOM	1665	CB	PRO	B	143	71.932	-71.267	63.316	1.00110.09	B	C
ATOM	1666	CG	PRO	B	143	72.661	-72.148	64.297	1.00109.29	B	C
ATOM	1667	CD	PRO	B	143	74.113	-72.202	63.938	1.00107.71	B	C
ATOM	1668	C	PRO	B	143	73.309	-69.237	62.519	1.00107.33	B	C
ATOM	1669	O	PRO	B	143	72.489	-68.486	63.035	1.00 96.93	B	O
ATOM	1670	N	THR	B	144	74.473	-68.814	62.017	1.00102.41	B	N
ATOM	1671	CA	THR	B	144	74.966	-67.447	62.200	1.00 94.19	B	C
ATOM	1672	CB	THR	B	144	75.705	-67.208	63.546	1.00 90.28	B	C
ATOM	1673	OG1	THR	B	144	76.376	-65.940	63.499	1.00 94.91	B	O
ATOM	1674	CG2	THR	B	144	76.744	-68.282	63.815	1.00 89.54	B	C
ATOM	1675	C	THR	B	144	75.928	-67.050	61.098	1.00 91.80	B	C
ATOM	1676	O	THR	B	144	76.622	-67.862	60.477	1.00 99.82	B	O
ATOM	1677	N	LYS	B	145	75.995	-65.753	60.904	1.00 85.19	B	N
ATOM	1678	CA	LYS	B	145	76.663	-65.223	59.720	1.00 82.98	B	C
ATOM	1679	CB	LYS	B	145	75.751	-65.347	58.460	1.00 84.82	B	C
ATOM	1680	CG	LYS	B	145	76.391	-65.944	57.189	1.00 89.35	B	C
ATOM	1681	CD	LYS	B	145	76.082	-65.142	55.916	1.00 93.75	B	C
ATOM	1682	CE	LYS	B	145	76.299	-65.974	54.647	1.00 96.22	B	C
ATOM	1683	NZ	LYS	B	145	76.542	-65.153	53.420	1.00 96.94	B	N
ATOM	1684	C	LYS	B	145	76.947	-63.770	60.007	1.00 79.01	B	C
ATOM	1685	O	LYS	B	145	76.068	-63.058	60.460	1.00 80.03	B	O
ATOM	1686	N	LYS	B	146	78.172	-63.331	59.760	1.00 74.17	B	N
ATOM	1687	CA	LYS	B	146	78.531	-61.951	59.977	1.00 68.56	B	C
ATOM	1688	CB	LYS	B	146	80.013	-61.860	60.308	1.00 66.34	B	C
ATOM	1689	CG	LYS	B	146	80.493	-62.919	61.258	1.00 69.38	B	C
ATOM	1690	CD	LYS	B	146	79.910	-62.710	62.639	1.00 68.18	B	C

ATOM	1691	CE	LYS	B	146	80.898	-61.855	63.401	1.00	69.99	B	C
ATOM	1692	NZ	LYS	B	146	80.631	-61.833	64.858	1.00	72.80	B	N
ATOM	1693	C	LYS	B	146	78.252	-61.255	58.667	1.00	69.47	B	C
ATOM	1694	O	LYS	B	146	78.293	-61.880	57.596	1.00	62.27	B	O
ATOM	1695	N	LYS	B	147	77.893	-59.982	58.769	1.00	72.08	B	N
ATOM	1696	CA	LYS	B	147	77.916	-59.074	57.630	1.00	72.48	B	C
ATOM	1697	CB	LYS	B	147	76.498	-58.660	57.233	1.00	77.76	B	C
ATOM	1698	CG	LYS	B	147	76.340	-57.570	56.153	1.00	79.89	B	C
ATOM	1699	CD	LYS	B	147	75.053	-57.777	55.376	1.00	83.08	B	C
ATOM	1700	CE	LYS	B	147	74.872	-56.732	54.286	1.00	86.35	B	C
ATOM	1701	NZ	LYS	B	147	75.372	-57.220	52.970	1.00	90.51	B	N
ATOM	1702	C	LYS	B	147	78.695	-57.829	57.979	1.00	71.37	B	C
ATOM	1703	O	LYS	B	147	78.555	-57.266	59.070	1.00	67.01	B	O
ATOM	1704	N	ARG	B	148	79.503	-57.397	57.026	1.00	74.50	B	N
ATOM	1705	CA	ARG	B	148	80.172	-56.120	57.095	1.00	74.66	B	C
ATOM	1706	CB	ARG	B	148	81.200	-56.047	55.937	1.00	83.26	B	C
ATOM	1707	CG	ARG	B	148	82.120	-57.226	55.724	1.00	89.19	B	C
ATOM	1708	CD	ARG	B	148	82.858	-57.168	54.358	1.00	93.24	B	C
ATOM	1709	NE	ARG	B	148	84.252	-57.594	54.457	1.00	92.67	B	N
ATOM	1710	CZ	ARG	B	148	85.188	-56.946	55.145	1.00	96.46	B	C
ATOM	1711	NH1	ARG	B	148	84.883	-55.842	55.821	1.00	104.15	B	N
ATOM	1712	NH2	ARG	B	148	86.431	-57.409	55.174	1.00	96.62	B	N
ATOM	1713	C	ARG	B	148	79.161	-55.016	56.841	1.00	68.44	B	C
ATOM	1714	O	ARG	B	148	78.434	-55.036	55.836	1.00	64.06	B	O
ATOM	1715	N	VAL	B	149	79.140	-54.029	57.726	1.00	65.21	B	N
ATOM	1716	CA	VAL	B	149	78.393	-52.811	57.460	1.00	64.23	B	C
ATOM	1717	CB	VAL	B	149	77.037	-52.823	58.158	1.00	62.57	B	C
ATOM	1718	CG1	VAL	B	149	77.173	-53.454	59.517	1.00	63.45	B	C
ATOM	1719	CG2	VAL	B	149	76.474	-51.411	58.275	1.00	65.82	B	C
ATOM	1720	C	VAL	B	149	79.198	-51.579	57.865	1.00	60.90	B	C
ATOM	1721	O	VAL	B	149	79.777	-51.521	58.957	1.00	55.87	B	O
ATOM	1722	N	THR	B	150	79.238	-50.610	56.954	1.00	56.95	B	N
ATOM	1723	CA	THR	B	150	79.921	-49.368	57.191	1.00	57.76	B	C
ATOM	1724	CB	THR	B	150	80.787	-48.981	55.970	1.00	61.60	B	C
ATOM	1725	OG1	THR	B	150	81.939	-49.834	55.915	1.00	69.99	B	O
ATOM	1726	CG2	THR	B	150	81.266	-47.552	56.063	1.00	61.57	B	C
ATOM	1727	C	THR	B	150	78.827	-48.346	57.480	1.00	52.14	B	C
ATOM	1728	O	THR	B	150	77.890	-48.220	56.722	1.00	50.88	B	O
ATOM	1729	N	ARG	B	151	78.948	-47.615	58.574	1.00	49.96	B	N
ATOM	1730	CA	ARG	B	151	77.946	-46.635	58.942	1.00	47.85	B	C
ATOM	1731	CB	ARG	B	151	77.176	-47.112	60.167	1.00	50.45	B	C
ATOM	1732	CG	ARG	B	151	77.818	-46.763	61.477	1.00	56.48	B	C
ATOM	1733	CD	ARG	B	151	77.328	-47.708	62.530	1.00	59.76	B	C
ATOM	1734	NE	ARG	B	151	77.544	-49.107	62.200	1.00	61.66	B	N
ATOM	1735	CZ	ARG	B	151	76.816	-50.090	62.716	1.00	61.77	B	C
ATOM	1736	NH1	ARG	B	151	75.805	-49.832	63.542	1.00	55.81	B	N
ATOM	1737	NH2	ARG	B	151	77.090	-51.341	62.387	1.00	61.06	B	N
ATOM	1738	C	ARG	B	151	78.616	-45.280	59.192	1.00	45.25	B	C
ATOM	1739	O	ARG	B	151	79.815	-45.200	59.430	1.00	39.24	B	O
ATOM	1740	N	VAL	B	152	77.822	-44.221	59.134	1.00	42.31	B	N
ATOM	1741	CA	VAL	B	152	78.321	-42.881	59.329	1.00	40.45	B	C
ATOM	1742	CB	VAL	B	152	77.308	-41.845	58.793	1.00	42.20	B	C
ATOM	1743	CG1	VAL	B	152	77.709	-40.428	59.190	1.00	44.26	B	C
ATOM	1744	CG2	VAL	B	152	77.175	-41.947	57.282	1.00	41.41	B	C
ATOM	1745	C	VAL	B	152	78.553	-42.686	60.812	1.00	40.84	B	C
ATOM	1746	O	VAL	B	152	77.733	-43.111	61.613	1.00	45.41	B	O
ATOM	1747	N	LYS	B	153	79.653	-42.042	61.180	1.00	43.32	B	N
ATOM	1748	CA	LYS	B	153	79.946	-41.744	62.586	1.00	47.45	B	C
ATOM	1749	CB	LYS	B	153	81.418	-42.023	62.898	1.00	51.70	B	C
ATOM	1750	CG	LYS	B	153	81.743	-42.427	64.352	1.00	56.65	B	C
ATOM	1751	CD	LYS	B	153	82.227	-41.328	65.259	1.00	64.78	B	C
ATOM	1752	CE	LYS	B	153	81.969	-41.702	66.714	1.00	72.57	B	C
ATOM	1753	NZ	LYS	B	153	80.555	-41.484	67.137	1.00	75.65	B	N
ATOM	1754	C	LYS	B	153	79.628	-40.287	62.883	1.00	49.15	B	C
ATOM	1755	O	LYS	B	153	78.825	-39.990	63.757	1.00	48.70	B	O
ATOM	1756	N	GLN	B	154	80.256	-39.380	62.135	1.00	53.41	B	N
ATOM	1757	CA	GLN	B	154	80.156	-37.947	62.390	1.00	51.92	B	C
ATOM	1758	CB	GLN	B	154	81.386	-37.468	63.169	1.00	54.29	B	C

ATOM	1759	CG	GLN	B	154	81.274	-36.020	63.654	1.00	59.03	B	C
ATOM	1760	CD	GLN	B	154	80.290	-35.960	64.792	1.00	62.29	B	C
ATOM	1761	OE1	GLN	B	154	79.083	-35.919	64.563	1.00	63.76	B	O
ATOM	1762	NE2	GLN	B	154	80.782	-36.124	66.009	1.00	65.67	B	N
ATOM	1763	C	GLN	B	154	80.040	-37.165	61.090	1.00	47.64	B	C
ATOM	1764	O	GLN	B	154	80.827	-37.371	60.177	1.00	46.43	B	O
ATOM	1765	N	CYS	B	155	79.059	-36.263	61.017	1.00	45.89	B	N
ATOM	1766	CA	CYS	B	155	78.947	-35.334	59.888	1.00	44.00	B	C
ATOM	1767	CB	CYS	B	155	77.492	-35.114	59.531	1.00	45.22	B	C
ATOM	1768	SG	CYS	B	155	76.562	-36.647	59.315	1.00	43.72	B	S
ATOM	1769	C	CYS	B	155	79.582	-33.980	60.183	1.00	45.13	B	C
ATOM	1770	O	CYS	B	155	79.676	-33.562	61.329	1.00	47.04	B	O
ATOM	1771	N	ARG	B	156	80.018	-33.293	59.137	1.00	46.50	B	N
ATOM	1772	CA	ARG	B	156	80.576	-31.949	59.277	1.00	43.88	B	C
ATOM	1773	CB	ARG	B	156	81.974	-31.999	59.907	1.00	48.53	B	C
ATOM	1774	CG	ARG	B	156	81.916	-31.635	61.422	1.00	55.44	B	C
ATOM	1775	CD	ARG	B	156	82.962	-32.223	62.403	1.00	63.30	B	C
ATOM	1776	NE	ARG	B	156	83.281	-31.330	63.535	1.00	73.16	B	N
ATOM	1777	CZ	ARG	B	156	84.178	-30.318	63.599	1.00	78.22	B	C
ATOM	1778	NH1	ARG	B	156	85.040	-29.975	62.616	1.00	78.96	B	N
ATOM	1779	NH2	ARG	B	156	84.238	-29.644	64.753	1.00	77.76	B	N
ATOM	1780	C	ARG	B	156	80.576	-31.221	57.937	1.00	39.59	B	C
ATOM	1781	O	ARG	B	156	80.421	-31.844	56.891	1.00	35.96	B	O
ATOM	1782	N	CYS	B	157	80.658	-29.892	58.002	1.00	37.07	B	N
ATOM	1783	CA	CYS	B	157	80.813	-29.052	56.831	1.00	35.33	B	C
ATOM	1784	CB	CYS	B	157	80.551	-27.586	57.153	1.00	35.67	B	C
ATOM	1785	SG	CYS	B	157	78.804	-27.159	57.297	1.00	41.27	B	S
ATOM	1786	C	CYS	B	157	82.233	-29.210	56.366	1.00	35.22	B	C
ATOM	1787	O	CYS	B	157	83.142	-28.685	56.987	1.00	32.12	B	O
ATOM	1788	N	ILE	B	158	82.407	-29.966	55.287	1.00	35.32	B	N
ATOM	1789	CA	ILE	B	158	83.706	-30.262	54.734	1.00	36.47	B	C
ATOM	1790	CB	ILE	B	158	83.889	-31.792	54.612	1.00	39.05	B	C
ATOM	1791	CG1	ILE	B	158	84.030	-32.412	56.011	1.00	38.44	B	C
ATOM	1792	CD1	ILE	B	158	83.710	-33.888	56.058	1.00	39.02	B	C
ATOM	1793	CG2	ILE	B	158	85.097	-32.135	53.751	1.00	38.57	B	C
ATOM	1794	C	ILE	B	158	83.825	-29.588	53.367	1.00	38.07	B	C
ATOM	1795	O	ILE	B	158	82.968	-29.747	52.513	1.00	36.68	B	O
ATOM	1796	N	SER	B	159	84.914	-28.859	53.148	1.00	40.72	B	N
ATOM	1797	CA	SER	B	159	85.074	-28.085	51.918	1.00	39.96	B	C
ATOM	1798	CB	SER	B	159	86.106	-26.975	52.121	1.00	42.03	B	C
ATOM	1799	OG	SER	B	159	87.346	-27.361	51.578	1.00	44.79	B	O
ATOM	1800	C	SER	B	159	85.452	-28.968	50.724	1.00	38.45	B	C
ATOM	1801	O	SER	B	159	86.157	-29.955	50.879	1.00	39.35	B	O
ATOM	1802	N	ILE	B	160	85.000	-28.575	49.540	1.00	37.65	B	N
ATOM	1803	CA	ILE	B	160	85.197	-29.319	48.290	1.00	39.01	B	C
ATOM	1804	CB	ILE	B	160	83.901	-29.236	47.483	1.00	42.96	B	C
ATOM	1805	CG1	ILE	B	160	82.801	-30.027	48.168	1.00	45.08	B	C
ATOM	1806	CD1	ILE	B	160	81.484	-29.940	47.424	1.00	50.02	B	C
ATOM	1807	CG2	ILE	B	160	84.092	-29.759	46.068	1.00	43.13	B	C
ATOM	1808	C	ILE	B	160	86.303	-28.639	47.422	1.00	39.38	B	C
ATOM	1809	O	ILE	B	160	86.585	-27.496	47.699	1.00	42.11	B	O
ATOM	1810	N	ASP	B	161	86.895	-29.317	46.408	1.00	41.73	B	N
ATOM	1811	CA	ASP	B	161	87.765	-28.752	45.244	1.00	42.26	B	C
ATOM	1812	CB	ASP	B	161	87.294	-27.396	44.551	1.00	41.71	B	C
ATOM	1813	CG	ASP	B	161	88.251	-26.909	43.337	1.00	45.05	B	C
ATOM	1814	OD1	ASP	B	161	89.502	-27.036	43.406	1.00	45.65	B	O
ATOM	1815	OD2	ASP	B	161	87.761	-26.361	42.298	1.00	34.98	B	O
ATOM	1816	C	ASP	B	161	89.225	-28.681	45.691	1.00	43.71	B	C
ATOM	1817	O	ASP	B	161	89.978	-29.645	45.541	1.00	39.94	B	O
ATOM	1818	N	GLU	C	51	60.843	0.105	-0.467	1.00	73.79	C	N
ATOM	1819	CA	GLU	C	51	60.571	0.115	1.003	1.00	71.92	C	C
ATOM	1820	CB	GLU	C	51	60.636	-1.310	1.610	1.00	73.77	C	C
ATOM	1821	CG	GLU	C	51	61.703	-2.256	1.022	1.00	81.04	C	C
ATOM	1822	CD	GLU	C	51	61.327	-3.750	1.086	1.00	83.38	C	C
ATOM	1823	OE1	GLU	C	51	61.047	-4.355	0.020	1.00	73.50	C	O
ATOM	1824	OE2	GLU	C	51	61.317	-4.333	2.197	1.00	84.24	C	O
ATOM	1825	C	GLU	C	51	61.500	1.121	1.706	1.00	71.03	C	C
ATOM	1826	O	GLU	C	51	62.646	0.808	2.051	1.00	70.74	C	O

ATOM	1827	N	VAL	C	52	60.993	2.348	1.874	1.00	66.81	C	N
ATOM	1828	CA	VAL	C	52	61.697	3.408	2.600	1.00	58.20	C	C
ATOM	1829	CB	VAL	C	52	61.948	4.661	1.737	1.00	57.65	C	C
ATOM	1830	CG1	VAL	C	52	62.621	5.762	2.559	1.00	57.78	C	C
ATOM	1831	CG2	VAL	C	52	62.798	4.324	0.518	1.00	59.63	C	C
ATOM	1832	C	VAL	C	52	60.872	3.811	3.807	1.00	51.77	C	C
ATOM	1833	O	VAL	C	52	59.864	4.489	3.677	1.00	51.87	C	O
ATOM	1834	N	LEU	C	53	61.361	3.453	4.984	1.00	47.85	C	N
ATOM	1835	CA	LEU	C	53	60.611	3.596	6.218	1.00	46.62	C	C
ATOM	1836	CB	LEU	C	53	61.254	2.757	7.303	1.00	47.55	C	C
ATOM	1837	CG	LEU	C	53	61.104	1.245	7.043	1.00	48.27	C	C
ATOM	1838	CD1	LEU	C	53	61.818	0.737	5.784	1.00	50.48	C	C
ATOM	1839	CD2	LEU	C	53	61.579	0.502	8.267	1.00	45.63	C	C
ATOM	1840	C	LEU	C	53	60.617	5.040	6.621	1.00	48.44	C	C
ATOM	1841	O	LEU	C	53	61.526	5.781	6.251	1.00	52.63	C	O
ATOM	1842	N	GLU	C	54	59.619	5.436	7.399	1.00	48.96	C	N
ATOM	1843	CA	GLU	C	54	59.434	6.847	7.706	1.00	48.02	C	C
ATOM	1844	CB	GLU	C	54	57.957	7.281	7.730	1.00	52.08	C	C
ATOM	1845	CG	GLU	C	54	57.488	7.860	6.380	1.00	59.23	C	C
ATOM	1846	CD	GLU	C	54	57.084	6.833	5.317	1.00	64.32	C	C
ATOM	1847	OE1	GLU	C	54	56.121	6.075	5.579	1.00	69.47	C	O
ATOM	1848	OE2	GLU	C	54	57.704	6.810	4.208	1.00	60.16	C	O
ATOM	1849	C	GLU	C	54	60.219	7.368	8.895	1.00	46.16	C	C
ATOM	1850	O	GLU	C	54	60.596	8.535	8.901	1.00	50.59	C	O
ATOM	1851	N	SER	C	55	60.522	6.531	9.873	1.00	44.71	C	N
ATOM	1852	CA	SER	C	55	61.215	7.010	11.077	1.00	42.70	C	C
ATOM	1853	CB	SER	C	55	60.201	7.571	12.110	1.00	40.66	C	C
ATOM	1854	OG	SER	C	55	59.637	6.532	12.896	1.00	42.46	C	O
ATOM	1855	C	SER	C	55	62.036	5.875	11.686	1.00	44.97	C	C
ATOM	1856	O	SER	C	55	61.930	4.716	11.263	1.00	44.53	C	O
ATOM	1857	N	SER	C	56	62.819	6.205	12.712	1.00	46.89	C	N
ATOM	1858	CA	SER	C	56	63.600	5.206	13.422	1.00	46.78	C	C
ATOM	1859	CB	SER	C	56	64.550	5.870	14.415	1.00	43.77	C	C
ATOM	1860	OG	SER	C	56	65.393	6.789	13.794	1.00	42.17	C	O
ATOM	1861	C	SER	C	56	62.701	4.244	14.190	1.00	47.96	C	C
ATOM	1862	O	SER	C	56	62.973	3.045	14.213	1.00	51.10	C	O
ATOM	1863	N	GLN	C	57	61.699	4.799	14.883	1.00	52.09	C	N
ATOM	1864	CA	GLN	C	57	60.660	4.013	15.577	1.00	52.67	C	C
ATOM	1865	CB	GLN	C	57	59.440	4.874	16.006	1.00	57.04	C	C
ATOM	1866	CG	GLN	C	57	58.977	4.657	17.431	1.00	62.85	C	C
ATOM	1867	CD	GLN	C	57	59.255	5.868	18.296	1.00	64.86	C	C
ATOM	1868	OE1	GLN	C	57	58.355	6.423	18.957	1.00	66.32	C	O
ATOM	1869	NE2	GLN	C	57	60.504	6.318	18.266	1.00	66.61	C	N
ATOM	1870	C	GLN	C	57	60.114	2.964	14.648	1.00	50.35	C	C
ATOM	1871	O	GLN	C	57	59.908	1.817	15.038	1.00	47.08	C	O
ATOM	1872	N	GLU	C	58	59.810	3.383	13.430	1.00	46.74	C	N
ATOM	1873	CA	GLU	C	58	59.154	2.479	12.519	1.00	47.59	C	C
ATOM	1874	CB	GLU	C	58	58.655	3.211	11.299	1.00	50.87	C	C
ATOM	1875	CG	GLU	C	58	57.560	2.462	10.562	1.00	54.51	C	C
ATOM	1876	CD	GLU	C	58	57.426	2.852	9.111	1.00	59.61	C	C
ATOM	1877	OE1	GLU	C	58	57.243	1.938	8.284	1.00	63.33	C	O
ATOM	1878	OE2	GLU	C	58	57.515	4.058	8.791	1.00	67.62	C	O
ATOM	1879	C	GLU	C	58	60.139	1.406	12.130	1.00	44.65	C	C
ATOM	1880	O	GLU	C	58	59.819	0.229	12.124	1.00	47.11	C	O
ATOM	1881	N	ALA	C	59	61.351	1.826	11.813	1.00	43.61	C	N
ATOM	1882	CA	ALA	C	59	62.401	0.893	11.427	1.00	39.46	C	C
ATOM	1883	CB	ALA	C	59	63.674	1.649	11.058	1.00	40.86	C	C
ATOM	1884	C	ALA	C	59	62.668	-0.124	12.530	1.00	35.23	C	C
ATOM	1885	O	ALA	C	59	62.872	-1.284	12.260	1.00	28.96	C	O
ATOM	1886	N	LEU	C	60	62.620	0.317	13.777	1.00	34.62	C	N
ATOM	1887	CA	LEU	C	60	62.828	-0.603	14.892	1.00	34.78	C	C
ATOM	1888	CB	LEU	C	60	63.018	0.189	16.205	1.00	31.60	C	C
ATOM	1889	CG	LEU	C	60	63.149	-0.598	17.508	1.00	30.83	C	C
ATOM	1890	CD1	LEU	C	60	64.455	-1.372	17.479	1.00	30.44	C	C
ATOM	1891	CD2	LEU	C	60	63.097	0.321	18.706	1.00	29.34	C	C
ATOM	1892	C	LEU	C	60	61.710	-1.658	14.995	1.00	37.02	C	C
ATOM	1893	O	LEU	C	60	61.984	-2.849	15.103	1.00	34.46	C	O
ATOM	1894	N	HIS	C	61	60.463	-1.202	14.958	1.00	39.07	C	N

ATOM	1895	CA	HIS	C	61	59.317	-2.082	15.012	1.00	40.32	C	C
ATOM	1896	CB	HIS	C	61	58.013	-1.279	15.038	1.00	44.04	C	C
ATOM	1897	CG	HIS	C	61	57.865	-0.443	16.271	1.00	48.50	C	C
ATOM	1898	ND1	HIS	C	61	57.034	0.657	16.348	1.00	52.02	C	N
ATOM	1899	CE1	HIS	C	61	57.140	1.196	17.552	1.00	53.46	C	C
ATOM	1900	NE2	HIS	C	61	58.025	0.501	18.244	1.00	50.62	C	N
ATOM	1901	CD2	HIS	C	61	58.492	-0.529	17.467	1.00	47.13	C	C
ATOM	1902	C	HIS	C	61	59.340	-3.075	13.874	1.00	39.47	C	C
ATOM	1903	O	HIS	C	61	59.196	-4.266	14.097	1.00	42.75	C	O
ATOM	1904	N	VAL	C	62	59.545	-2.597	12.658	1.00	39.11	C	N
ATOM	1905	CA	VAL	C	62	59.530	-3.474	11.483	1.00	38.43	C	C
ATOM	1906	CB	VAL	C	62	59.526	-2.633	10.174	1.00	36.50	C	C
ATOM	1907	CG1	VAL	C	62	59.763	-3.492	8.940	1.00	36.95	C	C
ATOM	1908	CG2	VAL	C	62	58.218	-1.880	10.045	1.00	35.20	C	C
ATOM	1909	C	VAL	C	62	60.706	-4.459	11.513	1.00	36.90	C	C
ATOM	1910	O	VAL	C	62	60.563	-5.640	11.222	1.00	36.95	C	O
ATOM	1911	N	THR	C	63	61.863	-3.969	11.899	1.00	38.10	C	N
ATOM	1912	CA	THR	C	63	63.019	-4.826	12.028	1.00	39.23	C	C
ATOM	1913	CB	THR	C	63	64.256	-4.018	12.463	1.00	40.02	C	C
ATOM	1914	OG1	THR	C	63	64.620	-3.134	11.409	1.00	39.59	C	O
ATOM	1915	CG2	THR	C	63	65.433	-4.918	12.740	1.00	41.32	C	C
ATOM	1916	C	THR	C	63	62.777	-5.952	13.019	1.00	39.28	C	C
ATOM	1917	O	THR	C	63	63.196	-7.073	12.781	1.00	39.39	C	O
ATOM	1918	N	GLU	C	64	62.144	-5.652	14.146	1.00	40.92	C	N
ATOM	1919	CA	GLU	C	64	61.862	-6.686	15.144	1.00	43.89	C	C
ATOM	1920	CB	GLU	C	64	61.563	-6.095	16.525	1.00	41.67	C	C
ATOM	1921	CG	GLU	C	64	62.737	-5.371	17.165	1.00	41.48	C	C
ATOM	1922	CD	GLU	C	64	62.331	-4.554	18.365	1.00	46.16	C	C
ATOM	1923	OE1	GLU	C	64	63.096	-4.513	19.357	1.00	49.44	C	O
ATOM	1924	OE2	GLU	C	64	61.231	-3.951	18.323	1.00	49.89	C	O
ATOM	1925	C	GLU	C	64	60.732	-7.627	14.722	1.00	46.06	C	C
ATOM	1926	O	GLU	C	64	60.890	-8.841	14.782	1.00	50.40	C	O
ATOM	1927	N	ARG	C	65	59.609	-7.082	14.274	1.00	48.47	C	N
ATOM	1928	CA	ARG	C	65	58.472	-7.922	13.906	1.00	52.32	C	C
ATOM	1929	CB	ARG	C	65	57.156	-7.130	13.824	1.00	60.01	C	C
ATOM	1930	CG	ARG	C	65	56.089	-7.841	12.997	1.00	69.70	C	C
ATOM	1931	CD	ARG	C	65	54.929	-7.028	12.483	1.00	70.81	C	C
ATOM	1932	NE	ARG	C	65	54.572	-5.908	13.333	1.00	74.39	C	N
ATOM	1933	CZ	ARG	C	65	55.048	-4.675	13.193	1.00	82.97	C	C
ATOM	1934	NH1	ARG	C	65	55.931	-4.392	12.237	1.00	84.94	C	N
ATOM	1935	NH2	ARG	C	65	54.650	-3.720	14.024	1.00	83.69	C	N
ATOM	1936	C	ARG	C	65	58.729	-8.693	12.603	1.00	47.07	C	C
ATOM	1937	O	ARG	C	65	58.581	-9.906	12.584	1.00	39.65	C	O
ATOM	1938	N	LYS	C	66	59.095	-7.976	11.531	1.00	48.06	C	N
ATOM	1939	CA	LYS	C	66	59.144	-8.545	10.166	1.00	48.46	C	C
ATOM	1940	CB	LYS	C	66	58.734	-7.532	9.077	1.00	57.11	C	C
ATOM	1941	CG	LYS	C	66	57.259	-7.098	9.087	1.00	65.27	C	C
ATOM	1942	CD	LYS	C	66	56.364	-8.069	8.314	1.00	72.53	C	C
ATOM	1943	CE	LYS	C	66	55.063	-8.375	9.069	1.00	75.36	C	C
ATOM	1944	NZ	LYS	C	66	54.055	-9.064	8.211	1.00	76.87	C	N
ATOM	1945	C	LYS	C	66	60.493	-9.100	9.780	1.00	43.70	C	C
ATOM	1946	O	LYS	C	66	60.594	-10.276	9.457	1.00	44.06	C	O
ATOM	1947	N	TYR	C	67	61.537	-8.276	9.827	1.00	40.43	C	N
ATOM	1948	CA	TYR	C	67	62.801	-8.649	9.175	1.00	41.49	C	C
ATOM	1949	CB	TYR	C	67	63.693	-7.426	8.962	1.00	43.27	C	C
ATOM	1950	CG	TYR	C	67	63.107	-6.326	8.115	1.00	44.23	C	C
ATOM	1951	CD1	TYR	C	67	62.239	-6.600	7.062	1.00	45.69	C	C
ATOM	1952	CE1	TYR	C	67	61.722	-5.591	6.276	1.00	46.36	C	C
ATOM	1953	CZ	TYR	C	67	62.089	-4.291	6.530	1.00	47.62	C	C
ATOM	1954	OH	TYR	C	67	61.590	-3.274	5.762	1.00	48.86	C	O
ATOM	1955	CE2	TYR	C	67	62.970	-3.999	7.552	1.00	47.81	C	C
ATOM	1956	CD2	TYR	C	67	63.475	-5.012	8.331	1.00	45.93	C	C
ATOM	1957	C	TYR	C	67	63.647	-9.703	9.891	1.00	40.37	C	C
ATOM	1958	O	TYR	C	67	64.361	-10.456	9.244	1.00	41.39	C	O
ATOM	1959	N	LEU	C	68	63.626	-9.704	11.220	1.00	38.04	C	N
ATOM	1960	CA	LEU	C	68	64.491	-10.570	12.009	1.00	36.49	C	C
ATOM	1961	CB	LEU	C	68	65.223	-9.742	13.074	1.00	34.73	C	C
ATOM	1962	CG	LEU	C	68	66.293	-8.802	12.531	1.00	33.84	C	C

ATOM	1963	CD1	LEU	C	68	66.945	-8.052	13.668	1.00	33.52	C	C
ATOM	1964	CD2	LEU	C	68	67.335	-9.565	11.714	1.00	35.36	C	C
ATOM	1965	C	LEU	C	68	63.713	-11.710	12.637	1.00	37.96	C	C
ATOM	1966	O	LEU	C	68	63.244	-11.588	13.748	1.00	42.62	C	O
ATOM	1967	N	LYS	C	69	63.587	-12.810	11.902	1.00	38.12	C	N
ATOM	1968	CA	LYS	C	69	62.890	-14.012	12.341	1.00	37.22	C	C
ATOM	1969	CB	LYS	C	69	61.615	-14.231	11.529	1.00	37.86	C	C
ATOM	1970	CG	LYS	C	69	60.782	-12.975	11.415	1.00	41.50	C	C
ATOM	1971	CD	LYS	C	69	59.724	-13.107	10.335	1.00	43.74	C	C
ATOM	1972	CE	LYS	C	69	58.587	-13.996	10.767	1.00	44.87	C	C
ATOM	1973	NZ	LYS	C	69	57.528	-13.992	9.728	1.00	47.18	C	N
ATOM	1974	C	LYS	C	69	63.832	-15.159	12.105	1.00	36.86	C	C
ATOM	1975	O	LYS	C	69	64.758	-15.063	11.311	1.00	39.18	C	O
ATOM	1976	N	ARG	C	70	63.602	-16.234	12.825	1.00	37.52	C	N
ATOM	1977	CA	ARG	C	70	64.307	-17.464	12.648	1.00	39.20	C	C
ATOM	1978	CB	ARG	C	70	64.285	-17.981	11.203	1.00	42.12	C	C
ATOM	1979	CG	ARG	C	70	62.977	-17.962	10.466	1.00	44.67	C	C
ATOM	1980	CD	ARG	C	70	62.935	-19.036	9.355	1.00	47.85	C	C
ATOM	1981	NE	ARG	C	70	61.708	-19.844	9.469	1.00	48.55	C	N
ATOM	1982	CZ	ARG	C	70	60.530	-19.500	8.939	1.00	51.08	C	C
ATOM	1983	NH1	ARG	C	70	60.379	-18.362	8.255	1.00	51.01	C	N
ATOM	1984	NH2	ARG	C	70	59.474	-20.289	9.103	1.00	52.64	C	N
ATOM	1985	C	ARG	C	70	65.738	-17.338	13.075	1.00	35.49	C	C
ATOM	1986	O	ARG	C	70	66.572	-17.972	12.461	1.00	36.11	C	O
ATOM	1987	N	ASP	C	71	66.045	-16.566	14.111	1.00	34.75	C	N
ATOM	1988	CA	ASP	C	71	67.386	-16.667	14.680	1.00	37.46	C	C
ATOM	1989	CB	ASP	C	71	67.705	-15.578	15.710	1.00	37.00	C	C
ATOM	1990	CG	ASP	C	71	66.737	-15.559	16.859	1.00	38.74	C	C
ATOM	1991	OD1	ASP	C	71	65.556	-15.816	16.635	1.00	44.04	C	O
ATOM	1992	OD2	ASP	C	71	67.149	-15.282	17.991	1.00	42.17	C	O
ATOM	1993	C	ASP	C	71	67.515	-18.057	15.308	1.00	38.65	C	C
ATOM	1994	O	ASP	C	71	66.511	-18.684	15.656	1.00	43.60	C	O
ATOM	1995	N	TRP	C	72	68.735	-18.560	15.410	1.00	37.21	C	N
ATOM	1996	CA	TRP	C	72	68.933	-19.899	15.908	1.00	33.84	C	C
ATOM	1997	CB	TRP	C	72	68.868	-20.898	14.765	1.00	32.06	C	C
ATOM	1998	CG	TRP	C	72	69.954	-20.776	13.746	1.00	32.81	C	C
ATOM	1999	CD1	TRP	C	72	69.970	-19.959	12.660	1.00	32.86	C	C
ATOM	2000	NE1	TRP	C	72	71.115	-20.159	11.921	1.00	31.97	C	N
ATOM	2001	CE2	TRP	C	72	71.855	-21.142	12.519	1.00	33.15	C	C
ATOM	2002	CD2	TRP	C	72	71.150	-21.561	13.670	1.00	34.44	C	C
ATOM	2003	CE3	TRP	C	72	71.701	-22.565	14.477	1.00	37.33	C	C
ATOM	2004	CZ3	TRP	C	72	72.916	-23.112	14.116	1.00	38.77	C	C
ATOM	2005	CH2	TRP	C	72	73.598	-22.664	12.957	1.00	36.60	C	C
ATOM	2006	CZ2	TRP	C	72	73.080	-21.684	12.156	1.00	34.00	C	C
ATOM	2007	C	TRP	C	72	70.233	-20.035	16.651	1.00	33.73	C	C
ATOM	2008	O	TRP	C	72	71.185	-19.327	16.370	1.00	35.28	C	O
ATOM	2009	N	CYS	C	73	70.254	-20.972	17.594	1.00	35.01	C	N
ATOM	2010	CA	CYS	C	73	71.429	-21.239	18.416	1.00	34.84	C	C
ATOM	2011	CB	CYS	C	73	71.439	-20.263	19.570	1.00	36.02	C	C
ATOM	2012	SG	CYS	C	73	72.763	-20.481	20.755	1.00	37.00	C	S
ATOM	2013	C	CYS	C	73	71.402	-22.682	18.930	1.00	34.57	C	C
ATOM	2014	O	CYS	C	73	70.492	-23.074	19.643	1.00	32.05	C	O
ATOM	2015	N	LYS	C	74	72.374	-23.471	18.491	1.00	35.83	C	N
ATOM	2016	CA	LYS	C	74	72.422	-24.877	18.773	1.00	38.35	C	C
ATOM	2017	CB	LYS	C	74	72.793	-25.660	17.496	1.00	43.79	C	C
ATOM	2018	CG	LYS	C	74	71.674	-25.896	16.482	1.00	46.99	C	C
ATOM	2019	CD	LYS	C	74	70.318	-25.345	16.911	1.00	52.02	C	C
ATOM	2020	CE	LYS	C	74	69.274	-25.489	15.821	1.00	53.54	C	C
ATOM	2021	NZ	LYS	C	74	67.898	-25.462	16.376	1.00	55.76	C	N
ATOM	2022	C	LYS	C	74	73.419	-25.187	19.876	1.00	39.02	C	C
ATOM	2023	O	LYS	C	74	74.490	-24.591	19.944	1.00	38.24	C	O
ATOM	2024	N	THR	C	75	73.043	-26.146	20.722	1.00	38.78	C	N
ATOM	2025	CA	THR	C	75	73.915	-26.728	21.716	1.00	38.17	C	C
ATOM	2026	CB	THR	C	75	73.194	-26.888	23.055	1.00	35.80	C	C
ATOM	2027	OG1	THR	C	75	72.601	-25.635	23.427	1.00	37.90	C	O
ATOM	2028	CG2	THR	C	75	74.160	-27.332	24.131	1.00	34.29	C	C
ATOM	2029	C	THR	C	75	74.280	-28.108	21.212	1.00	40.81	C	C
ATOM	2030	O	THR	C	75	73.421	-28.826	20.737	1.00	44.46	C	O

ATOM	2031	N	GLN	C	76	75.541	-28.493	21.320	1.00	41.47	C	N
ATOM	2032	CA	GLN	C	76	75.955	-29.770	20.797	1.00	42.94	C	C
ATOM	2033	CB	GLN	C	76	76.431	-29.604	19.369	1.00	45.56	C	C
ATOM	2034	CG	GLN	C	76	76.804	-30.908	18.691	1.00	45.15	C	C
ATOM	2035	CD	GLN	C	76	77.016	-30.755	17.199	1.00	44.23	C	C
ATOM	2036	OE1	GLN	C	76	76.360	-29.948	16.547	1.00	42.67	C	O
ATOM	2037	NE2	GLN	C	76	77.910	-31.556	16.652	1.00	43.91	C	N
ATOM	2038	C	GLN	C	76	77.050	-30.386	21.645	1.00	44.38	C	C
ATOM	2039	O	GLN	C	76	77.924	-29.678	22.123	1.00	47.28	C	O
ATOM	2040	N	PRO	C	77	77.005	-31.719	21.836	1.00	42.38	C	N
ATOM	2041	CA	PRO	C	77	77.948	-32.334	22.729	1.00	40.80	C	C
ATOM	2042	CB	PRO	C	77	77.303	-33.684	23.010	1.00	39.70	C	C
ATOM	2043	CG	PRO	C	77	76.541	-33.989	21.785	1.00	39.78	C	C
ATOM	2044	CD	PRO	C	77	75.961	-32.675	21.415	1.00	41.54	C	C
ATOM	2045	C	PRO	C	77	79.333	-32.527	22.126	1.00	43.08	C	C
ATOM	2046	O	PRO	C	77	79.468	-32.669	20.909	1.00	48.18	C	O
ATOM	2047	N	LEU	C	78	80.344	-32.530	22.988	1.00	42.76	C	N
ATOM	2048	CA	LEU	C	78	81.693	-32.864	22.592	1.00	44.23	C	C
ATOM	2049	CB	LEU	C	78	82.435	-31.623	22.099	1.00	44.34	C	C
ATOM	2050	CG	LEU	C	78	83.323	-30.878	23.097	1.00	44.63	C	C
ATOM	2051	CD1	LEU	C	78	84.254	-29.910	22.391	1.00	45.75	C	C
ATOM	2052	CD2	LEU	C	78	82.515	-30.142	24.133	1.00	46.01	C	C
ATOM	2053	C	LEU	C	78	82.414	-33.535	23.770	1.00	44.93	C	C
ATOM	2054	O	LEU	C	78	82.038	-33.350	24.914	1.00	39.73	C	O
ATOM	2055	N	LYS	C	79	83.412	-34.356	23.465	1.00	47.49	C	N
ATOM	2056	CA	LYS	C	79	84.131	-35.107	24.490	1.00	50.28	C	C
ATOM	2057	CB	LYS	C	79	84.706	-36.410	23.932	1.00	55.83	C	C
ATOM	2058	CG	LYS	C	79	83.675	-37.448	23.536	1.00	60.03	C	C
ATOM	2059	CD	LYS	C	79	84.309	-38.528	22.680	1.00	64.20	C	C
ATOM	2060	CE	LYS	C	79	83.298	-39.587	22.266	1.00	65.48	C	C
ATOM	2061	NZ	LYS	C	79	83.906	-40.522	21.287	1.00	68.25	C	N
ATOM	2062	C	LYS	C	79	85.271	-34.279	25.030	1.00	48.02	C	C
ATOM	2063	O	LYS	C	79	85.878	-33.499	24.305	1.00	50.39	C	O
ATOM	2064	N	GLN	C	80	85.555	-34.491	26.306	1.00	45.90	C	N
ATOM	2065	CA	GLN	C	80	86.669	-33.875	27.012	1.00	44.37	C	C
ATOM	2066	CB	GLN	C	80	86.210	-32.689	27.830	1.00	45.33	C	C
ATOM	2067	CG	GLN	C	80	86.063	-31.435	26.995	1.00	48.18	C	C
ATOM	2068	CD	GLN	C	80	86.144	-30.176	27.815	1.00	52.77	C	C
ATOM	2069	OE1	GLN	C	80	85.611	-30.112	28.924	1.00	56.43	C	O
ATOM	2070	NE2	GLN	C	80	86.836	-29.163	27.290	1.00	55.08	C	N
ATOM	2071	C	GLN	C	80	87.166	-34.927	27.965	1.00	44.45	C	C
ATOM	2072	O	GLN	C	80	86.363	-35.668	28.533	1.00	45.99	C	O
ATOM	2073	N	THR	C	81	88.469	-35.015	28.132	1.00	42.84	C	N
ATOM	2074	CA	THR	C	81	89.015	-36.030	29.001	1.00	47.49	C	C
ATOM	2075	CB	THR	C	81	89.969	-36.986	28.250	1.00	51.57	C	C
ATOM	2076	OG1	THR	C	81	90.843	-37.618	29.189	1.00	55.19	C	O
ATOM	2077	CG2	THR	C	81	90.797	-36.265	27.187	1.00	53.38	C	C
ATOM	2078	C	THR	C	81	89.686	-35.411	30.215	1.00	48.22	C	C
ATOM	2079	O	THR	C	81	90.360	-34.389	30.102	1.00	55.31	C	O
ATOM	2080	N	ILE	C	82	89.472	-36.027	31.377	1.00	50.25	C	N
ATOM	2081	CA	ILE	C	82	90.052	-35.584	32.639	1.00	55.45	C	C
ATOM	2082	CB	ILE	C	82	89.094	-35.774	33.829	1.00	57.28	C	C
ATOM	2083	CG1	ILE	C	82	87.643	-35.314	33.588	1.00	59.26	C	C
ATOM	2084	CD1	ILE	C	82	87.395	-33.934	33.061	1.00	65.30	C	C
ATOM	2085	CG2	ILE	C	82	89.772	-35.315	35.111	1.00	59.27	C	C
ATOM	2086	C	ILE	C	82	91.223	-36.506	32.968	1.00	61.11	C	C
ATOM	2087	O	ILE	C	82	91.049	-37.737	33.008	1.00	61.90	C	O
ATOM	2088	N	HIS	C	83	92.392	-35.925	33.248	1.00	65.54	C	N
ATOM	2089	CA	HIS	C	83	93.575	-36.700	33.604	1.00	67.92	C	C
ATOM	2090	CB	HIS	C	83	94.764	-36.438	32.708	1.00	66.48	C	C
ATOM	2091	CG	HIS	C	83	94.431	-36.088	31.295	1.00	70.49	C	C
ATOM	2092	ND1	HIS	C	83	94.407	-37.034	30.294	1.00	69.18	C	N
ATOM	2093	CE1	HIS	C	83	94.120	-36.448	29.146	1.00	71.88	C	C
ATOM	2094	NE2	HIS	C	83	93.976	-35.151	29.365	1.00	77.07	C	N
ATOM	2095	CD2	HIS	C	83	94.180	-34.895	30.700	1.00	70.55	C	C
ATOM	2096	C	HIS	C	83	94.020	-36.288	34.974	1.00	68.69	C	C
ATOM	2097	O	HIS	C	83	93.765	-35.174	35.394	1.00	71.87	C	O
ATOM	2098	N	GLU	C	84	94.740	-37.176	35.646	1.00	69.04	C	N

ATOM	2099	CA	GLU	C	84	95.278	-36.879	36.956	1.00	68.97	C	C
ATOM	2100	CB	GLU	C	84	94.172	-36.893	37.999	1.00	67.14	C	C
ATOM	2101	CG	GLU	C	84	94.534	-36.178	39.291	1.00	67.42	C	C
ATOM	2102	CD	GLU	C	84	93.483	-35.166	39.659	1.00	68.94	C	C
ATOM	2103	OE1	GLU	C	84	92.912	-35.239	40.776	1.00	66.16	C	O
ATOM	2104	OE2	GLU	C	84	93.237	-34.302	38.793	1.00	63.99	C	O
ATOM	2105	C	GLU	C	84	96.345	-37.881	37.341	1.00	69.80	C	C
ATOM	2106	O	GLU	C	84	96.253	-39.044	36.971	1.00	67.35	C	O
ATOM	2107	N	GLU	C	85	97.348	-37.423	38.090	1.00	72.04	C	N
ATOM	2108	CA	GLU	C	85	98.464	-38.292	38.481	1.00	66.30	C	C
ATOM	2109	CB	GLU	C	85	99.567	-37.534	39.227	1.00	71.50	C	C
ATOM	2110	CG	GLU	C	85	100.362	-36.618	38.347	1.00	77.34	C	C
ATOM	2111	CD	GLU	C	85	101.583	-36.048	39.033	1.00	83.45	C	C
ATOM	2112	OE1	GLU	C	85	102.135	-36.705	39.949	1.00	90.02	C	O
ATOM	2113	OE2	GLU	C	85	101.996	-34.936	38.648	1.00	85.58	C	O
ATOM	2114	C	GLU	C	85	97.962	-39.472	39.291	1.00	56.39	C	C
ATOM	2115	O	GLU	C	85	97.275	-39.301	40.292	1.00	54.98	C	O
ATOM	2116	N	GLY	C	86	98.239	-40.666	38.792	1.00	49.25	C	N
ATOM	2117	CA	GLY	C	86	97.851	-41.906	39.449	1.00	51.84	C	C
ATOM	2118	C	GLY	C	86	96.440	-42.434	39.212	1.00	52.54	C	C
ATOM	2119	O	GLY	C	86	96.103	-43.533	39.692	1.00	55.46	C	O
ATOM	2120	N	CYS	C	87	95.614	-41.671	38.490	1.00	50.75	C	N
ATOM	2121	CA	CYS	C	87	94.219	-42.038	38.245	1.00	51.10	C	C
ATOM	2122	CB	CYS	C	87	93.289	-40.879	38.615	1.00	52.49	C	C
ATOM	2123	SG	CYS	C	87	93.424	-40.327	40.320	1.00	52.16	C	S
ATOM	2124	C	CYS	C	87	93.974	-42.421	36.798	1.00	49.11	C	C
ATOM	2125	O	CYS	C	87	94.576	-41.854	35.896	1.00	46.43	C	O
ATOM	2126	N	ASN	C	88	93.072	-43.374	36.585	1.00	50.29	C	N
ATOM	2127	CA	ASN	C	88	92.605	-43.686	35.248	1.00	50.62	C	C
ATOM	2128	CB	ASN	C	88	91.582	-44.830	35.255	1.00	53.17	C	C
ATOM	2129	CG	ASN	C	88	92.197	-46.192	35.558	1.00	55.98	C	C
ATOM	2130	OD1	ASN	C	88	91.471	-47.178	35.697	1.00	54.75	C	O
ATOM	2131	ND2	ASN	C	88	93.527	-46.259	35.649	1.00	56.01	C	N
ATOM	2132	C	ASN	C	88	91.955	-42.418	34.711	1.00	53.28	C	C
ATOM	2133	O	ASN	C	88	91.199	-41.732	35.408	1.00	55.44	C	O
ATOM	2134	N	SER	C	89	92.309	-42.068	33.488	1.00	52.74	C	N
ATOM	2135	CA	SER	C	89	91.726	-40.925	32.817	1.00	50.50	C	C
ATOM	2136	CB	SER	C	89	92.462	-40.720	31.500	1.00	54.36	C	C
ATOM	2137	OG	SER	C	89	91.820	-39.805	30.634	1.00	59.45	C	O
ATOM	2138	C	SER	C	89	90.275	-41.247	32.581	1.00	44.57	C	C
ATOM	2139	O	SER	C	89	89.935	-42.392	32.395	1.00	44.43	C	O
ATOM	2140	N	ARG	C	90	89.430	-40.227	32.569	1.00	45.83	C	N
ATOM	2141	CA	ARG	C	90	88.002	-40.410	32.353	1.00	44.20	C	C
ATOM	2142	CB	ARG	C	90	87.277	-40.318	33.684	1.00	44.07	C	C
ATOM	2143	CG	ARG	C	90	85.765	-40.380	33.595	1.00	43.98	C	C
ATOM	2144	CD	ARG	C	90	85.148	-40.630	34.969	1.00	42.64	C	C
ATOM	2145	NE	ARG	C	90	83.695	-40.724	34.864	1.00	42.26	C	N
ATOM	2146	CZ	ARG	C	90	82.840	-40.607	35.877	1.00	43.28	C	C
ATOM	2147	NH1	ARG	C	90	83.265	-40.431	37.122	1.00	44.47	C	N
ATOM	2148	NH2	ARG	C	90	81.533	-40.680	35.647	1.00	42.73	C	N
ATOM	2149	C	ARG	C	90	87.473	-39.357	31.382	1.00	46.23	C	C
ATOM	2150	O	ARG	C	90	87.871	-38.189	31.413	1.00	45.41	C	O
ATOM	2151	N	THR	C	91	86.567	-39.772	30.513	1.00	45.83	C	N
ATOM	2152	CA	THR	C	91	86.047	-38.884	29.507	1.00	45.83	C	C
ATOM	2153	CB	THR	C	91	86.085	-39.566	28.123	1.00	46.41	C	C
ATOM	2154	OG1	THR	C	91	87.450	-39.752	27.729	1.00	44.85	C	O
ATOM	2155	CG2	THR	C	91	85.361	-38.732	27.050	1.00	48.28	C	C
ATOM	2156	C	THR	C	91	84.629	-38.479	29.895	1.00	45.37	C	C
ATOM	2157	O	THR	C	91	83.806	-39.313	30.272	1.00	41.79	C	O
ATOM	2158	N	ILE	C	92	84.364	-37.183	29.778	1.00	45.60	C	N
ATOM	2159	CA	ILE	C	92	83.055	-36.633	30.068	1.00	46.79	C	C
ATOM	2160	CB	ILE	C	92	83.054	-35.716	31.310	1.00	49.01	C	C
ATOM	2161	CG1	ILE	C	92	84.131	-34.621	31.225	1.00	48.98	C	C
ATOM	2162	CD1	ILE	C	92	83.549	-33.239	31.086	1.00	50.76	C	C
ATOM	2163	CG2	ILE	C	92	83.261	-36.549	32.562	1.00	52.37	C	C
ATOM	2164	C	ILE	C	92	82.567	-35.871	28.866	1.00	44.67	C	C
ATOM	2165	O	ILE	C	92	83.331	-35.603	27.936	1.00	46.33	C	O
ATOM	2166	N	ILE	C	93	81.281	-35.550	28.896	1.00	42.88	C	N

ATOM	2167	CA	ILE	C	93	80.625	-34.843	27.823	1.00	42.06	C	C
ATOM	2168	CB	ILE	C	93	79.273	-35.497	27.502	1.00	42.48	C	C
ATOM	2169	CG1	ILE	C	93	79.472	-36.887	26.893	1.00	42.61	C	C
ATOM	2170	CD1	ILE	C	93	80.271	-36.932	25.617	1.00	44.22	C	C
ATOM	2171	CG2	ILE	C	93	78.425	-34.600	26.615	1.00	44.31	C	C
ATOM	2172	C	ILE	C	93	80.388	-33.415	28.247	1.00	41.60	C	C
ATOM	2173	O	ILE	C	93	79.675	-33.189	29.217	1.00	44.24	C	O
ATOM	2174	N	ASN	C	94	81.011	-32.466	27.540	1.00	40.31	C	N
ATOM	2175	CA	ASN	C	94	80.659	-31.054	27.637	1.00	39.92	C	C
ATOM	2176	CB	ASN	C	94	81.902	-30.167	27.643	1.00	38.03	C	C
ATOM	2177	CG	ASN	C	94	81.729	-28.905	28.465	1.00	38.00	C	C
ATOM	2178	OD1	ASN	C	94	80.615	-28.402	28.664	1.00	37.84	C	O
ATOM	2179	ND2	ASN	C	94	82.837	-28.390	28.963	1.00	38.98	C	N
ATOM	2180	C	ASN	C	94	79.779	-30.700	26.447	1.00	39.67	C	C
ATOM	2181	O	ASN	C	94	79.364	-31.576	25.699	1.00	39.68	C	O
ATOM	2182	N	ARG	C	95	79.461	-29.423	26.293	1.00	40.75	C	N
ATOM	2183	CA	ARG	C	95	78.698	-28.971	25.142	1.00	40.67	C	C
ATOM	2184	CB	ARG	C	95	77.213	-28.733	25.501	1.00	42.09	C	C
ATOM	2185	CG	ARG	C	95	76.285	-29.944	25.835	1.00	44.79	C	C
ATOM	2186	CD	ARG	C	95	76.310	-30.140	27.339	1.00	52.15	C	C
ATOM	2187	NE	ARG	C	95	75.241	-30.961	27.919	1.00	54.01	C	N
ATOM	2188	CZ	ARG	C	95	75.174	-31.296	29.202	1.00	57.75	C	C
ATOM	2189	NH1	ARG	C	95	76.128	-30.906	30.046	1.00	64.24	C	N
ATOM	2190	NH2	ARG	C	95	74.164	-32.038	29.651	1.00	60.65	C	N
ATOM	2191	C	ARG	C	95	79.328	-27.682	24.574	1.00	36.06	C	C
ATOM	2192	O	ARG	C	95	80.071	-26.982	25.261	1.00	32.40	C	O
ATOM	2193	N	PHE	C	96	79.023	-27.397	23.311	1.00	34.15	C	N
ATOM	2194	CA	PHE	C	96	79.374	-26.133	22.704	1.00	34.80	C	C
ATOM	2195	CB	PHE	C	96	80.594	-26.281	21.784	1.00	38.26	C	C
ATOM	2196	CG	PHE	C	96	80.370	-27.127	20.567	1.00	40.09	C	C
ATOM	2197	CD1	PHE	C	96	80.389	-28.506	20.653	1.00	39.45	C	C
ATOM	2198	CE1	PHE	C	96	80.204	-29.280	19.526	1.00	43.32	C	C
ATOM	2199	CZ	PHE	C	96	80.027	-28.675	18.285	1.00	45.24	C	C
ATOM	2200	CE2	PHE	C	96	80.029	-27.292	18.177	1.00	44.20	C	C
ATOM	2201	CD2	PHE	C	96	80.207	-26.526	19.313	1.00	43.66	C	C
ATOM	2202	C	PHE	C	96	78.193	-25.469	21.996	1.00	32.33	C	C
ATOM	2203	O	PHE	C	96	77.195	-26.096	21.702	1.00	30.57	C	O
ATOM	2204	N	CYS	C	97	78.332	-24.176	21.751	1.00	30.62	C	N
ATOM	2205	CA	CYS	C	97	77.268	-23.361	21.198	1.00	29.86	C	C
ATOM	2206	CB	CYS	C	97	77.077	-22.128	22.078	1.00	30.35	C	C
ATOM	2207	SG	CYS	C	97	76.935	-22.487	23.840	1.00	32.66	C	S
ATOM	2208	C	CYS	C	97	77.657	-22.893	19.820	1.00	29.27	C	C
ATOM	2209	O	CYS	C	97	78.810	-22.548	19.610	1.00	29.91	C	O
ATOM	2210	N	TYR	C	98	76.715	-22.870	18.882	1.00	27.76	C	N
ATOM	2211	CA	TYR	C	98	76.937	-22.155	17.633	1.00	27.88	C	C
ATOM	2212	CB	TYR	C	98	77.764	-22.969	16.639	1.00	27.91	C	C
ATOM	2213	CG	TYR	C	98	77.115	-24.236	16.284	1.00	29.65	C	C
ATOM	2214	CD1	TYR	C	98	77.305	-25.353	17.062	1.00	32.89	C	C
ATOM	2215	CE1	TYR	C	98	76.688	-26.554	16.749	1.00	32.89	C	C
ATOM	2216	CZ	TYR	C	98	75.865	-26.631	15.654	1.00	31.70	C	C
ATOM	2217	OH	TYR	C	98	75.266	-27.821	15.378	1.00	34.71	C	O
ATOM	2218	CE2	TYR	C	98	75.654	-25.531	14.856	1.00	31.29	C	C
ATOM	2219	CD2	TYR	C	98	76.276	-24.336	15.178	1.00	31.69	C	C
ATOM	2220	C	TYR	C	98	75.632	-21.760	17.013	1.00	26.32	C	C
ATOM	2221	O	TYR	C	98	74.638	-22.451	17.159	1.00	28.62	C	O
ATOM	2222	N	GLY	C	99	75.624	-20.615	16.353	1.00	25.88	C	N
ATOM	2223	CA	GLY	C	99	74.399	-20.114	15.767	1.00	26.49	C	C
ATOM	2224	C	GLY	C	99	74.542	-18.769	15.072	1.00	26.67	C	C
ATOM	2225	O	GLY	C	99	75.634	-18.234	14.894	1.00	23.69	C	O
ATOM	2226	N	GLN	C	100	73.392	-18.223	14.713	1.00	27.46	C	N
ATOM	2227	CA	GLN	C	100	73.307	-16.948	14.063	1.00	29.08	C	C
ATOM	2228	CB	GLN	C	100	73.072	-17.149	12.564	1.00	31.64	C	C
ATOM	2229	CG	GLN	C	100	74.127	-18.074	11.955	1.00	32.55	C	C
ATOM	2230	CD	GLN	C	100	74.032	-18.293	10.462	1.00	33.07	C	C
ATOM	2231	OE1	GLN	C	100	75.045	-18.561	9.797	1.00	35.34	C	O
ATOM	2232	NE2	GLN	C	100	72.843	-18.230	9.933	1.00	33.48	C	N
ATOM	2233	C	GLN	C	100	72.174	-16.205	14.727	1.00	30.29	C	C
ATOM	2234	O	GLN	C	100	70.993	-16.518	14.524	1.00	30.87	C	O

ATOM	2235	N	CYS	C	101	72.531	-15.236	15.560	1.00	29.85	C	N
ATOM	2236	CA	CYS	C	101	71.553	-14.514	16.344	1.00	30.24	C	C
ATOM	2237	CB	CYS	C	101	72.088	-14.308	17.748	1.00	32.71	C	C
ATOM	2238	SG	CYS	C	101	72.392	-15.857	18.615	1.00	40.00	C	S
ATOM	2239	C	CYS	C	101	71.240	-13.186	15.669	1.00	29.48	C	C
ATOM	2240	O	CYS	C	101	71.894	-12.829	14.719	1.00	30.13	C	O
ATOM	2241	N	ASN	C	102	70.258	-12.450	16.181	1.00	29.02	C	N
ATOM	2242	CA	ASN	C	102	69.894	-11.180	15.604	1.00	28.60	C	C
ATOM	2243	CB	ASN	C	102	68.482	-10.859	15.960	1.00	28.26	C	C
ATOM	2244	CG	ASN	C	102	67.530	-11.846	15.372	1.00	31.20	C	C
ATOM	2245	OD1	ASN	C	102	66.517	-12.142	15.947	1.00	33.45	C	O
ATOM	2246	ND2	ASN	C	102	67.850	-12.362	14.187	1.00	34.96	C	N
ATOM	2247	C	ASN	C	102	70.754	-10.058	16.090	1.00	29.15	C	C
ATOM	2248	O	ASN	C	102	71.129	-10.023	17.246	1.00	31.56	C	O
ATOM	2249	N	SER	C	103	71.067	-9.143	15.189	1.00	28.99	C	N
ATOM	2250	CA	SER	C	103	71.691	-7.900	15.559	1.00	28.54	C	C
ATOM	2251	CB	SER	C	103	73.191	-8.020	15.506	1.00	28.87	C	C
ATOM	2252	OG	SER	C	103	73.595	-8.423	14.230	1.00	29.49	C	O
ATOM	2253	C	SER	C	103	71.233	-6.853	14.584	1.00	28.18	C	C
ATOM	2254	O	SER	C	103	70.801	-7.172	13.473	1.00	28.89	C	O
ATOM	2255	N	PHE	C	104	71.248	-5.609	15.022	1.00	28.19	C	N
ATOM	2256	CA	PHE	C	104	70.840	-4.502	14.174	1.00	31.61	C	C
ATOM	2257	CB	PHE	C	104	69.292	-4.416	14.014	1.00	32.51	C	C
ATOM	2258	CG	PHE	C	104	68.541	-4.188	15.295	1.00	31.86	C	C
ATOM	2259	CD1	PHE	C	104	68.490	-2.943	15.877	1.00	32.60	C	C
ATOM	2260	CE1	PHE	C	104	67.802	-2.747	17.073	1.00	33.71	C	C
ATOM	2261	CZ	PHE	C	104	67.135	-3.798	17.672	1.00	31.75	C	C
ATOM	2262	CE2	PHE	C	104	67.170	-5.041	17.088	1.00	32.00	C	C
ATOM	2263	CD2	PHE	C	104	67.865	-5.234	15.908	1.00	32.31	C	C
ATOM	2264	C	PHE	C	104	71.385	-3.194	14.697	1.00	32.81	C	C
ATOM	2265	O	PHE	C	104	71.855	-3.108	15.832	1.00	32.32	C	O
ATOM	2266	N	TYR	C	105	71.304	-2.178	13.853	1.00	32.81	C	N
ATOM	2267	CA	TYR	C	105	71.784	-0.856	14.214	1.00	32.42	C	C
ATOM	2268	CB	TYR	C	105	73.244	-0.719	13.840	1.00	32.74	C	C
ATOM	2269	CG	TYR	C	105	73.796	0.617	14.175	1.00	33.32	C	C
ATOM	2270	CD1	TYR	C	105	73.572	1.710	13.351	1.00	34.77	C	C
ATOM	2271	CE1	TYR	C	105	74.092	2.956	13.661	1.00	36.37	C	C
ATOM	2272	CZ	TYR	C	105	74.839	3.103	14.816	1.00	35.70	C	C
ATOM	2273	OH	TYR	C	105	75.353	4.315	15.161	1.00	37.08	C	O
ATOM	2274	CE2	TYR	C	105	75.057	2.034	15.643	1.00	34.82	C	C
ATOM	2275	CD2	TYR	C	105	74.545	0.798	15.318	1.00	34.21	C	C
ATOM	2276	C	TYR	C	105	70.963	0.160	13.458	1.00	31.04	C	C
ATOM	2277	O	TYR	C	105	70.895	0.117	12.238	1.00	29.57	C	O
ATOM	2278	N	ILE	C	106	70.321	1.058	14.191	1.00	31.12	C	N
ATOM	2279	CA	ILE	C	106	69.393	1.991	13.605	1.00	30.30	C	C
ATOM	2280	CB	ILE	C	106	67.948	1.611	13.950	1.00	30.68	C	C
ATOM	2281	CG1	ILE	C	106	67.579	0.266	13.327	1.00	30.71	C	C
ATOM	2282	CD1	ILE	C	106	66.387	-0.389	13.973	1.00	30.95	C	C
ATOM	2283	CG2	ILE	C	106	66.975	2.662	13.436	1.00	33.07	C	C
ATOM	2284	C	ILE	C	106	69.679	3.357	14.161	1.00	30.29	C	C
ATOM	2285	O	ILE	C	106	69.475	3.577	15.338	1.00	27.61	C	O
ATOM	2286	N	PRO	C	107	70.128	4.294	13.307	1.00	33.43	C	N
ATOM	2287	CA	PRO	C	107	70.443	5.652	13.760	1.00	35.14	C	C
ATOM	2288	CB	PRO	C	107	71.004	6.346	12.523	1.00	35.19	C	C
ATOM	2289	CG	PRO	C	107	70.983	5.362	11.421	1.00	36.47	C	C
ATOM	2290	CD	PRO	C	107	70.193	4.164	11.847	1.00	36.53	C	C
ATOM	2291	C	PRO	C	107	69.206	6.375	14.245	1.00	37.50	C	C
ATOM	2292	O	PRO	C	107	68.150	6.201	13.670	1.00	42.57	C	O
ATOM	2293	N	ARG	C	108	69.372	7.170	15.294	1.00	40.56	C	N
ATOM	2294	CA	ARG	C	108	68.312	7.656	16.158	1.00	43.85	C	C
ATOM	2295	CB	ARG	C	108	68.380	6.825	17.435	1.00	47.95	C	C
ATOM	2296	CG	ARG	C	108	67.226	6.872	18.419	1.00	48.96	C	C
ATOM	2297	CD	ARG	C	108	67.643	6.307	19.775	1.00	54.78	C	C
ATOM	2298	NE	ARG	C	108	66.615	6.015	20.790	1.00	58.29	C	N
ATOM	2299	CZ	ARG	C	108	65.943	6.949	21.455	1.00	63.95	C	C
ATOM	2300	NH1	ARG	C	108	66.159	8.238	21.211	1.00	69.93	C	N
ATOM	2301	NH2	ARG	C	108	65.032	6.597	22.355	1.00	66.84	C	N
ATOM	2302	C	ARG	C	108	68.634	9.082	16.547	1.00	47.03	C	C

ATOM	2303	O	ARG	C	108	69.738	9.555	16.352	1.00	45.46	C	O
ATOM	2304	N	HIS	C	109	67.696	9.752	17.181	1.00	59.39	C	N
ATOM	2305	CA	HIS	C	109	67.938	11.061	17.749	1.00	63.62	C	C
ATOM	2306	CB	HIS	C	109	66.952	12.067	17.191	1.00	64.44	C	C
ATOM	2307	CG	HIS	C	109	67.392	12.716	15.919	1.00	65.61	C	C
ATOM	2308	ND1	HIS	C	109	66.842	12.439	14.683	1.00	65.99	C	N
ATOM	2309	CE1	HIS	C	109	67.438	13.179	13.766	1.00	62.97	C	C
ATOM	2310	NE2	HIS	C	109	68.348	13.925	14.360	1.00	62.95	C	N
ATOM	2311	CD2	HIS	C	109	68.333	13.659	15.706	1.00	67.46	C	C
ATOM	2312	C	HIS	C	109	67.731	10.962	19.246	1.00	66.14	C	C
ATOM	2313	O	HIS	C	109	66.604	10.768	19.674	1.00	67.21	C	O
ATOM	2314	N	ILE	C	110	68.815	11.022	20.017	1.00	71.63	C	N
ATOM	2315	CA	ILE	C	110	68.762	11.321	21.468	1.00	72.24	C	C
ATOM	2316	CB	ILE	C	110	69.832	10.553	22.309	1.00	70.52	C	C
ATOM	2317	CG1	ILE	C	110	69.964	9.070	21.909	1.00	70.76	C	C
ATOM	2318	CD1	ILE	C	110	69.011	8.121	22.597	1.00	73.76	C	C
ATOM	2319	CG2	ILE	C	110	69.611	10.764	23.813	1.00	67.17	C	C
ATOM	2320	C	ILE	C	110	69.102	12.810	21.494	1.00	72.73	C	C
ATOM	2321	O	ILE	C	110	70.272	13.176	21.626	1.00	69.14	C	O
ATOM	2322	N	ARG	C	111	68.111	13.673	21.302	1.00	75.87	C	N
ATOM	2323	CA	ARG	C	111	68.449	15.058	20.970	1.00	79.41	C	C
ATOM	2324	CB	ARG	C	111	67.353	15.761	20.095	1.00	83.58	C	C
ATOM	2325	CG	ARG	C	111	67.686	15.825	18.601	1.00	87.57	C	C
ATOM	2326	CD	ARG	C	111	66.742	16.748	17.800	1.00	95.94	C	C
ATOM	2327	NE	ARG	C	111	67.474	17.732	16.987	1.00	102.55	C	N
ATOM	2328	CZ	ARG	C	111	68.112	18.811	17.450	1.00	100.80	C	C
ATOM	2329	NH1	ARG	C	111	68.144	19.078	18.749	1.00	98.59	C	N
ATOM	2330	NH2	ARG	C	111	68.734	19.630	16.601	1.00	100.22	C	N
ATOM	2331	C	ARG	C	111	68.835	15.838	22.241	1.00	76.36	C	C
ATOM	2332	O	ARG	C	111	68.415	15.469	23.338	1.00	70.95	C	O
ATOM	2333	N	LYS	C	112	69.681	16.867	22.128	1.00	76.98	C	N
ATOM	2334	CA	LYS	C	112	70.182	17.399	20.819	1.00	78.13	C	C
ATOM	2335	CB	LYS	C	112	70.644	18.879	20.905	1.00	84.18	C	C
ATOM	2336	CG	LYS	C	112	69.727	19.817	21.676	1.00	86.47	C	C
ATOM	2337	CD	LYS	C	112	70.331	21.181	22.068	1.00	91.33	C	C
ATOM	2338	CE	LYS	C	112	71.464	21.724	21.161	1.00	92.55	C	C
ATOM	2339	NZ	LYS	C	112	70.984	22.186	19.825	1.00	93.20	C	N
ATOM	2340	C	LYS	C	112	71.309	16.579	20.119	1.00	70.16	C	C
ATOM	2341	O	LYS	C	112	71.859	17.036	19.108	1.00	68.67	C	O
ATOM	2342	N	GLU	C	113	71.633	15.397	20.652	1.00	65.37	C	N
ATOM	2343	CA	GLU	C	113	72.688	14.501	20.143	1.00	62.33	C	C
ATOM	2344	CB	GLU	C	113	73.436	13.844	21.323	1.00	60.52	C	C
ATOM	2345	C	GLU	C	113	72.179	13.435	19.165	1.00	59.14	C	C
ATOM	2346	O	GLU	C	113	70.987	13.383	18.873	1.00	53.76	C	O
ATOM	2347	N	GLU	C	114	73.125	12.651	18.633	1.00	59.38	C	N
ATOM	2348	CA	GLU	C	114	72.902	11.534	17.710	1.00	59.96	C	C
ATOM	2349	CB	GLU	C	114	73.807	11.676	16.468	1.00	65.55	C	C
ATOM	2350	CG	GLU	C	114	73.125	11.972	15.136	1.00	73.06	C	C
ATOM	2351	CD	GLU	C	114	72.196	13.168	15.222	1.00	82.87	C	C
ATOM	2352	OE1	GLU	C	114	72.573	14.176	15.866	1.00	86.07	C	O
ATOM	2353	OE2	GLU	C	114	71.090	13.099	14.643	1.00	93.14	C	O
ATOM	2354	C	GLU	C	114	73.288	10.228	18.381	1.00	52.35	C	C
ATOM	2355	O	GLU	C	114	74.395	10.110	18.900	1.00	43.54	C	O
ATOM	2356	N	GLY	C	115	72.389	9.247	18.330	1.00	47.49	C	N
ATOM	2357	CA	GLY	C	115	72.669	7.907	18.829	1.00	45.36	C	C
ATOM	2358	C	GLY	C	115	71.951	6.897	17.983	1.00	42.67	C	C
ATOM	2359	O	GLY	C	115	71.672	7.163	16.827	1.00	45.52	C	O
ATOM	2360	N	SER	C	116	71.611	5.758	18.568	1.00	39.95	C	N
ATOM	2361	CA	SER	C	116	71.053	4.665	17.793	1.00	39.66	C	C
ATOM	2362	CB	SER	C	116	72.216	3.906	17.141	1.00	41.96	C	C
ATOM	2363	OG	SER	C	116	73.079	3.342	18.108	1.00	39.16	C	O
ATOM	2364	C	SER	C	116	70.235	3.692	18.643	1.00	38.29	C	C
ATOM	2365	O	SER	C	116	70.425	3.625	19.837	1.00	37.08	C	O
ATOM	2366	N	PHE	C	117	69.317	2.961	18.016	1.00	37.88	C	N
ATOM	2367	CA	PHE	C	117	68.741	1.733	18.588	1.00	36.25	C	C
ATOM	2368	CB	PHE	C	117	67.338	1.439	18.058	1.00	35.80	C	C
ATOM	2369	CG	PHE	C	117	66.298	2.427	18.479	1.00	38.70	C	C
ATOM	2370	CD1	PHE	C	117	66.025	2.638	19.827	1.00	39.63	C	C

ATOM	2371	CE1	PHE	C	117	65.059	3.557	20.220	1.00	37.78	C	C
ATOM	2372	CZ	PHE	C	117	64.351	4.277	19.276	1.00	37.38	C	C
ATOM	2373	CE2	PHE	C	117	64.603	4.075	17.925	1.00	37.94	C	C
ATOM	2374	CD2	PHE	C	117	65.561	3.143	17.532	1.00	38.85	C	C
ATOM	2375	C	PHE	C	117	69.623	0.591	18.108	1.00	36.84	C	C
ATOM	2376	O	PHE	C	117	69.770	0.401	16.917	1.00	37.40	C	O
ATOM	2377	N	GLN	C	118	70.216	-0.175	19.007	1.00	38.62	C	N
ATOM	2378	CA	GLN	C	118	71.026	-1.295	18.569	1.00	38.52	C	C
ATOM	2379	CB	GLN	C	118	72.476	-0.876	18.392	1.00	39.55	C	C
ATOM	2380	CG	GLN	C	118	73.105	-0.308	19.638	1.00	41.07	C	C
ATOM	2381	CD	GLN	C	118	74.461	0.286	19.340	1.00	45.64	C	C
ATOM	2382	OE1	GLN	C	118	75.431	-0.435	19.105	1.00	49.52	C	O
ATOM	2383	NE2	GLN	C	118	74.531	1.606	19.282	1.00	48.97	C	N
ATOM	2384	C	GLN	C	118	70.946	-2.498	19.490	1.00	37.65	C	C
ATOM	2385	O	GLN	C	118	70.614	-2.396	20.654	1.00	36.37	C	O
ATOM	2386	N	SER	C	119	71.308	-3.641	18.933	1.00	35.58	C	N
ATOM	2387	CA	SER	C	119	71.187	-4.874	19.619	1.00	32.80	C	C
ATOM	2388	CB	SER	C	119	69.753	-5.376	19.555	1.00	36.60	C	C
ATOM	2389	OG	SER	C	119	69.664	-6.662	20.140	1.00	40.08	C	O
ATOM	2390	C	SER	C	119	72.085	-5.840	18.943	1.00	30.54	C	C
ATOM	2391	O	SER	C	119	72.278	-5.811	17.754	1.00	28.15	C	O
ATOM	2392	N	CYS	C	120	72.645	-6.718	19.740	1.00	34.51	C	N
ATOM	2393	CA	CYS	C	120	73.492	-7.791	19.242	1.00	34.48	C	C
ATOM	2394	CB	CYS	C	120	74.943	-7.341	19.101	1.00	33.25	C	C
ATOM	2395	SG	CYS	C	120	75.986	-8.591	18.301	1.00	37.97	C	S
ATOM	2396	C	CYS	C	120	73.377	-8.922	20.242	1.00	32.36	C	C
ATOM	2397	O	CYS	C	120	73.511	-8.710	21.445	1.00	30.81	C	O
ATOM	2398	N	SER	C	121	73.072	-10.109	19.750	1.00	30.66	C	N
ATOM	2399	CA	SER	C	121	72.986	-11.259	20.604	1.00	30.91	C	C
ATOM	2400	CB	SER	C	121	71.604	-11.892	20.503	1.00	30.74	C	C
ATOM	2401	OG	SER	C	121	70.659	-11.060	21.147	1.00	30.70	C	O
ATOM	2402	C	SER	C	121	74.079	-12.214	20.225	1.00	30.09	C	C
ATOM	2403	O	SER	C	121	74.623	-12.154	19.138	1.00	29.21	C	O
ATOM	2404	N	PHE	C	122	74.362	-13.116	21.141	1.00	31.05	C	N
ATOM	2405	CA	PHE	C	122	75.539	-13.955	21.088	1.00	32.52	C	C
ATOM	2406	CB	PHE	C	122	76.495	-13.427	22.166	1.00	34.27	C	C
ATOM	2407	CG	PHE	C	122	77.837	-14.108	22.227	1.00	33.28	C	C
ATOM	2408	CD1	PHE	C	122	78.138	-15.234	21.485	1.00	30.83	C	C
ATOM	2409	CE1	PHE	C	122	79.385	-15.831	21.576	1.00	30.95	C	C
ATOM	2410	CZ	PHE	C	122	80.329	-15.330	22.445	1.00	32.27	C	C
ATOM	2411	CE2	PHE	C	122	80.040	-14.209	23.202	1.00	34.67	C	C
ATOM	2412	CD2	PHE	C	122	78.802	-13.600	23.089	1.00	34.66	C	C
ATOM	2413	C	PHE	C	122	75.066	-15.357	21.421	1.00	31.07	C	C
ATOM	2414	O	PHE	C	122	74.533	-15.582	22.522	1.00	29.37	C	O
ATOM	2415	N	CYS	C	123	75.228	-16.290	20.486	1.00	30.51	C	N
ATOM	2416	CA	CYS	C	123	74.872	-17.681	20.760	1.00	32.99	C	C
ATOM	2417	CB	CYS	C	123	74.744	-18.491	19.464	1.00	34.40	C	C
ATOM	2418	SG	CYS	C	123	74.504	-20.273	19.722	1.00	38.45	C	S
ATOM	2419	C	CYS	C	123	75.920	-18.265	21.718	1.00	31.15	C	C
ATOM	2420	O	CYS	C	123	77.049	-18.487	21.328	1.00	31.38	C	O
ATOM	2421	N	LYS	C	124	75.541	-18.466	22.977	1.00	31.07	C	N
ATOM	2422	CA	LYS	C	124	76.487	-18.817	24.037	1.00	32.23	C	C
ATOM	2423	CB	LYS	C	124	77.160	-17.551	24.542	1.00	35.69	C	C
ATOM	2424	CG	LYS	C	124	76.215	-16.723	25.402	1.00	41.22	C	C
ATOM	2425	CD	LYS	C	124	76.744	-15.341	25.670	1.00	45.71	C	C
ATOM	2426	CE	LYS	C	124	77.895	-15.379	26.658	1.00	49.55	C	C
ATOM	2427	NZ	LYS	C	124	77.819	-14.170	27.518	1.00	56.21	C	N
ATOM	2428	C	LYS	C	124	75.755	-19.504	25.206	1.00	30.55	C	C
ATOM	2429	O	LYS	C	124	74.525	-19.573	25.210	1.00	29.56	C	O
ATOM	2430	N	PRO	C	125	76.497	-19.950	26.236	1.00	30.15	C	N
ATOM	2431	CA	PRO	C	125	75.850	-20.619	27.371	1.00	31.77	C	C
ATOM	2432	CB	PRO	C	125	77.031	-21.037	28.240	1.00	30.98	C	C
ATOM	2433	CG	PRO	C	125	78.136	-21.219	27.273	1.00	31.08	C	C
ATOM	2434	CD	PRO	C	125	77.961	-20.085	26.312	1.00	30.45	C	C
ATOM	2435	C	PRO	C	125	74.907	-19.740	28.184	1.00	32.55	C	C
ATOM	2436	O	PRO	C	125	75.249	-18.623	28.523	1.00	30.12	C	O
ATOM	2437	N	LYS	C	126	73.713	-20.250	28.442	1.00	35.95	C	N
ATOM	2438	CA	LYS	C	126	72.768	-19.606	29.339	1.00	42.00	C	C

ATOM	2439	CB	LYS	C	126	71.340	-19.899	28.912	1.00	45.69	C	C
ATOM	2440	CG	LYS	C	126	70.289	-19.219	29.772	1.00	52.92	C	C
ATOM	2441	CD	LYS	C	126	68.950	-19.044	29.040	1.00	61.15	C	C
ATOM	2442	CE	LYS	C	126	67.791	-19.842	29.655	1.00	64.45	C	C
ATOM	2443	NZ	LYS	C	126	66.825	-18.933	30.341	1.00	67.74	C	N
ATOM	2444	C	LYS	C	126	72.985	-20.129	30.754	1.00	43.96	C	C
ATOM	2445	O	LYS	C	126	72.966	-19.367	31.716	1.00	35.89	C	O
ATOM	2446	N	LYS	C	127	73.166	-21.441	30.869	1.00	47.35	C	N
ATOM	2447	CA	LYS	C	127	73.450	-22.059	32.143	1.00	50.62	C	C
ATOM	2448	CB	LYS	C	127	72.266	-22.897	32.614	1.00	57.05	C	C
ATOM	2449	CG	LYS	C	127	70.892	-22.340	32.285	1.00	62.11	C	C
ATOM	2450	CD	LYS	C	127	69.773	-23.188	32.885	1.00	67.54	C	C
ATOM	2451	CE	LYS	C	127	69.211	-22.558	34.153	1.00	72.56	C	C
ATOM	2452	NZ	LYS	C	127	68.273	-21.447	33.835	1.00	73.42	C	N
ATOM	2453	C	LYS	C	127	74.669	-22.955	32.044	1.00	47.46	C	C
ATOM	2454	O	LYS	C	127	74.827	-23.698	31.066	1.00	49.77	C	O
ATOM	2455	N	PHE	C	128	75.511	-22.890	33.069	1.00	42.92	C	N
ATOM	2456	CA	PHE	C	128	76.558	-23.871	33.279	1.00	43.19	C	C
ATOM	2457	CB	PHE	C	128	77.840	-23.180	33.703	1.00	44.31	C	C
ATOM	2458	CG	PHE	C	128	78.420	-22.283	32.654	1.00	45.36	C	C
ATOM	2459	CD1	PHE	C	128	77.947	-20.992	32.492	1.00	47.77	C	C
ATOM	2460	CE1	PHE	C	128	78.494	-20.151	31.533	1.00	46.98	C	C
ATOM	2461	CZ	PHE	C	128	79.523	-20.602	30.729	1.00	45.22	C	C
ATOM	2462	CE2	PHE	C	128	80.003	-21.892	30.878	1.00	44.18	C	C
ATOM	2463	CD2	PHE	C	128	79.452	-22.726	31.832	1.00	45.27	C	C
ATOM	2464	C	PHE	C	128	76.156	-24.879	34.358	1.00	39.76	C	C
ATOM	2465	O	PHE	C	128	75.324	-24.590	35.178	1.00	41.15	C	O
ATOM	2466	N	THR	C	129	76.759	-26.062	34.335	1.00	39.09	C	N
ATOM	2467	CA	THR	C	129	76.569	-27.067	35.374	1.00	41.44	C	C
ATOM	2468	CB	THR	C	129	76.074	-28.382	34.768	1.00	46.12	C	C
ATOM	2469	OG1	THR	C	129	74.705	-28.231	34.370	1.00	48.16	C	O
ATOM	2470	CG2	THR	C	129	76.163	-29.529	35.756	1.00	46.41	C	C
ATOM	2471	C	THR	C	129	77.896	-27.288	36.069	1.00	40.47	C	C
ATOM	2472	O	THR	C	129	78.944	-27.215	35.440	1.00	42.66	C	O
ATOM	2473	N	THR	C	130	77.863	-27.509	37.375	1.00	39.94	C	N
ATOM	2474	CA	THR	C	130	79.081	-27.840	38.113	1.00	40.87	C	C
ATOM	2475	CB	THR	C	130	79.328	-26.867	39.261	1.00	41.03	C	C
ATOM	2476	OG1	THR	C	130	79.796	-25.645	38.713	1.00	44.45	C	O
ATOM	2477	CG2	THR	C	130	80.383	-27.384	40.218	1.00	43.81	C	C
ATOM	2478	C	THR	C	130	78.948	-29.246	38.638	1.00	39.90	C	C
ATOM	2479	O	THR	C	130	77.930	-29.615	39.196	1.00	34.68	C	O
ATOM	2480	N	MET	C	131	80.005	-30.018	38.456	1.00	41.64	C	N
ATOM	2481	CA	MET	C	131	79.967	-31.421	38.677	1.00	43.28	C	C
ATOM	2482	CB	MET	C	131	79.847	-32.005	37.280	1.00	48.76	C	C
ATOM	2483	CG	MET	C	131	79.511	-33.478	37.176	1.00	57.26	C	C
ATOM	2484	SD	MET	C	131	79.073	-34.029	35.492	1.00	71.78	C	S
ATOM	2485	CE	MET	C	131	80.127	-32.980	34.503	1.00	59.43	C	C
ATOM	2486	C	MET	C	131	81.242	-31.796	39.440	1.00	38.06	C	C
ATOM	2487	O	MET	C	131	82.322	-31.307	39.122	1.00	33.78	C	O
ATOM	2488	N	MET	C	132	81.096	-32.543	40.534	1.00	37.55	C	N
ATOM	2489	CA	MET	C	132	82.232	-33.273	41.095	1.00	38.31	C	C
ATOM	2490	CB	MET	C	132	82.084	-33.592	42.591	1.00	41.39	C	C
ATOM	2491	CG	MET	C	132	82.630	-32.574	43.595	1.00	46.57	C	C
ATOM	2492	SD	MET	C	132	83.822	-31.345	42.968	1.00	51.79	C	S
ATOM	2493	CE	MET	C	132	82.602	-30.163	42.355	1.00	52.94	C	C
ATOM	2494	C	MET	C	132	82.263	-34.558	40.318	1.00	33.99	C	C
ATOM	2495	O	MET	C	132	81.303	-35.304	40.310	1.00	31.04	C	O
ATOM	2496	N	VAL	C	133	83.369	-34.811	39.654	1.00	34.89	C	N
ATOM	2497	CA	VAL	C	133	83.538	-36.058	38.929	1.00	37.54	C	C
ATOM	2498	CB	VAL	C	133	84.051	-35.783	37.505	1.00	39.05	C	C
ATOM	2499	CG1	VAL	C	133	84.357	-37.087	36.795	1.00	40.26	C	C
ATOM	2500	CG2	VAL	C	133	83.015	-34.972	36.749	1.00	39.81	C	C
ATOM	2501	C	VAL	C	133	84.512	-36.924	39.685	1.00	36.80	C	C
ATOM	2502	O	VAL	C	133	85.610	-36.478	40.012	1.00	36.37	C	O
ATOM	2503	N	THR	C	134	84.130	-38.167	39.938	1.00	38.85	C	N
ATOM	2504	CA	THR	C	134	85.029	-39.060	40.663	1.00	42.18	C	C
ATOM	2505	CB	THR	C	134	84.332	-39.936	41.735	1.00	42.31	C	C
ATOM	2506	OG1	THR	C	134	84.149	-41.258	41.249	1.00	46.29	C	O

ATOM	2507	CG2	THR	C	134	82.988	-39.357	42.131	1.00	43.79	C	C
ATOM	2508	C	THR	C	134	85.819	-39.879	39.647	1.00	41.07	C	C
ATOM	2509	O	THR	C	134	85.264	-40.449	38.720	1.00	40.23	C	O
ATOM	2510	N	LEU	C	135	87.134	-39.859	39.812	1.00	44.10	C	N
ATOM	2511	CA	LEU	C	135	88.061	-40.650	39.029	1.00	44.18	C	C
ATOM	2512	CB	LEU	C	135	89.312	-39.836	38.750	1.00	43.81	C	C
ATOM	2513	CG	LEU	C	135	89.065	-38.537	38.005	1.00	45.34	C	C
ATOM	2514	CD1	LEU	C	135	90.354	-37.739	37.916	1.00	46.51	C	C
ATOM	2515	CD2	LEU	C	135	88.505	-38.831	36.629	1.00	47.25	C	C
ATOM	2516	C	LEU	C	135	88.442	-41.868	39.849	1.00	45.24	C	C
ATOM	2517	O	LEU	C	135	88.473	-41.797	41.072	1.00	42.08	C	O
ATOM	2518	N	ASN	C	136	88.671	-42.985	39.165	1.00	49.38	C	N
ATOM	2519	CA	ASN	C	136	89.227	-44.201	39.755	1.00	53.22	C	C
ATOM	2520	CB	ASN	C	136	88.740	-45.433	38.956	1.00	54.84	C	C
ATOM	2521	CG	ASN	C	136	88.947	-46.734	39.696	1.00	57.21	C	C
ATOM	2522	OD1	ASN	C	136	89.293	-46.752	40.880	1.00	64.44	C	O
ATOM	2523	ND2	ASN	C	136	88.797	-47.837	38.977	1.00	54.51	C	N
ATOM	2524	C	ASN	C	136	90.743	-44.161	39.721	1.00	49.94	C	C
ATOM	2525	O	ASN	C	136	91.339	-44.001	38.651	1.00	49.40	C	O
ATOM	2526	N	CYS	C	137	91.356	-44.355	40.882	1.00	50.53	C	N
ATOM	2527	CA	CYS	C	137	92.809	-44.335	41.018	1.00	57.86	C	C
ATOM	2528	CB	CYS	C	137	93.245	-43.050	41.752	1.00	59.27	C	C
ATOM	2529	SG	CYS	C	137	92.210	-41.618	41.353	1.00	62.11	C	S
ATOM	2530	C	CYS	C	137	93.201	-45.618	41.773	1.00	55.70	C	C
ATOM	2531	O	CYS	C	137	93.372	-45.590	42.987	1.00	46.84	C	O
ATOM	2532	N	PRO	C	138	93.303	-46.759	41.049	1.00	57.24	C	N
ATOM	2533	CA	PRO	C	138	93.467	-48.078	41.679	1.00	57.64	C	C
ATOM	2534	CB	PRO	C	138	93.494	-49.032	40.485	1.00	58.84	C	C
ATOM	2535	CG	PRO	C	138	92.795	-48.304	39.394	1.00	55.35	C	C
ATOM	2536	CD	PRO	C	138	93.190	-46.879	39.585	1.00	56.37	C	C
ATOM	2537	C	PRO	C	138	94.746	-48.223	42.487	1.00	58.32	C	C
ATOM	2538	O	PRO	C	138	94.789	-48.971	43.472	1.00	51.06	C	O
ATOM	2539	N	GLU	C	139	95.775	-47.484	42.096	1.00	64.44	C	N
ATOM	2540	CA	GLU	C	139	97.032	-47.551	42.832	1.00	76.31	C	C
ATOM	2541	CB	GLU	C	139	98.173	-46.870	42.045	1.00	85.94	C	C
ATOM	2542	CG	GLU	C	139	98.241	-47.164	40.523	1.00	92.59	C	C
ATOM	2543	CD	GLU	C	139	98.209	-48.661	40.205	1.00	95.81	C	C
ATOM	2544	OE1	GLU	C	139	98.447	-49.494	41.116	1.00	99.16	C	O
ATOM	2545	OE2	GLU	C	139	97.944	-49.013	39.036	1.00	89.83	C	O
ATOM	2546	C	GLU	C	139	96.939	-46.942	44.244	1.00	69.71	C	C
ATOM	2547	O	GLU	C	139	97.664	-47.352	45.165	1.00	68.84	C	O
ATOM	2548	N	LEU	C	140	96.002	-46.019	44.416	1.00	58.69	C	N
ATOM	2549	CA	LEU	C	140	96.054	-45.083	45.495	1.00	52.30	C	C
ATOM	2550	CB	LEU	C	140	95.688	-43.711	44.968	1.00	54.59	C	C
ATOM	2551	CG	LEU	C	140	96.638	-43.115	43.903	1.00	57.60	C	C
ATOM	2552	CD1	LEU	C	140	96.154	-41.730	43.476	1.00	59.66	C	C
ATOM	2553	CD2	LEU	C	140	98.082	-43.023	44.374	1.00	57.17	C	C
ATOM	2554	C	LEU	C	140	95.164	-45.442	46.660	1.00	48.59	C	C
ATOM	2555	O	LEU	C	140	94.258	-46.257	46.527	1.00	43.71	C	O
ATOM	2556	N	GLN	C	141	95.496	-44.847	47.809	1.00	47.32	C	N
ATOM	2557	CA	GLN	C	141	94.668	-44.858	48.992	1.00	47.62	C	C
ATOM	2558	CB	GLN	C	141	95.371	-45.567	50.150	1.00	51.12	C	C
ATOM	2559	CG	GLN	C	141	94.445	-45.915	51.313	1.00	53.24	C	C
ATOM	2560	CD	GLN	C	141	93.349	-46.904	50.901	1.00	57.83	C	C
ATOM	2561	OE1	GLN	C	141	93.599	-47.852	50.145	1.00	56.51	C	O
ATOM	2562	NE2	GLN	C	141	92.128	-46.680	51.391	1.00	54.21	C	N
ATOM	2563	C	GLN	C	141	94.391	-43.399	49.368	1.00	46.10	C	C
ATOM	2564	O	GLN	C	141	95.320	-42.665	49.660	1.00	44.68	C	O
ATOM	2565	N	PRO	C	142	93.120	-42.955	49.297	1.00	48.52	C	N
ATOM	2566	CA	PRO	C	142	91.955	-43.731	48.867	1.00	48.89	C	C
ATOM	2567	CB	PRO	C	142	90.777	-42.885	49.328	1.00	48.00	C	C
ATOM	2568	CG	PRO	C	142	91.303	-41.489	49.399	1.00	48.21	C	C
ATOM	2569	CD	PRO	C	142	92.807	-41.517	49.354	1.00	47.86	C	C
ATOM	2570	C	PRO	C	142	91.943	-43.860	47.352	1.00	49.67	C	C
ATOM	2571	O	PRO	C	142	92.589	-43.061	46.665	1.00	46.11	C	O
ATOM	2572	N	PRO	C	143	91.207	-44.846	46.828	1.00	54.52	C	N
ATOM	2573	CA	PRO	C	143	91.295	-45.184	45.395	1.00	58.89	C	C
ATOM	2574	CB	PRO	C	143	90.854	-46.664	45.345	1.00	60.33	C	C

ATOM	2575	CG	PRO	C	143	90.102	-46.906	46.629	1.00	61.21	C	C
ATOM	2576	CD	PRO	C	143	90.238	-45.701	47.537	1.00	58.17	C	C
ATOM	2577	C	PRO	C	143	90.404	-44.326	44.487	1.00	59.72	C	C
ATOM	2578	O	PRO	C	143	90.027	-44.758	43.383	1.00	60.29	C	O
ATOM	2579	N	THR	C	144	90.070	-43.132	44.973	1.00	61.16	C	N
ATOM	2580	CA	THR	C	144	89.148	-42.211	44.335	1.00	56.51	C	C
ATOM	2581	CB	THR	C	144	87.772	-42.297	45.027	1.00	56.21	C	C
ATOM	2582	OG1	THR	C	144	87.302	-43.648	45.044	1.00	57.95	C	O
ATOM	2583	CG2	THR	C	144	86.742	-41.434	44.342	1.00	61.44	C	C
ATOM	2584	C	THR	C	144	89.646	-40.793	44.541	1.00	52.92	C	C
ATOM	2585	O	THR	C	144	90.014	-40.444	45.644	1.00	53.50	C	O
ATOM	2586	N	LYS	C	145	89.670	-39.992	43.484	1.00	53.69	C	N
ATOM	2587	CA	LYS	C	145	89.831	-38.551	43.580	1.00	56.03	C	C
ATOM	2588	CB	LYS	C	145	91.079	-38.087	42.842	1.00	57.20	C	C
ATOM	2589	CG	LYS	C	145	92.387	-38.552	43.484	1.00	65.94	C	C
ATOM	2590	CD	LYS	C	145	93.421	-37.437	43.643	1.00	73.66	C	C
ATOM	2591	CE	LYS	C	145	94.832	-37.992	43.852	1.00	76.93	C	C
ATOM	2592	NZ	LYS	C	145	95.755	-37.045	44.543	1.00	77.90	C	N
ATOM	2593	C	LYS	C	145	88.607	-37.943	42.931	1.00	53.74	C	C
ATOM	2594	O	LYS	C	145	88.143	-38.447	41.922	1.00	54.45	C	O
ATOM	2595	N	LYS	C	146	88.072	-36.882	43.514	1.00	52.35	C	N
ATOM	2596	CA	LYS	C	146	86.995	-36.134	42.871	1.00	50.86	C	C
ATOM	2597	CB	LYS	C	146	85.906	-35.752	43.859	1.00	54.41	C	C
ATOM	2598	CG	LYS	C	146	84.932	-36.884	44.173	1.00	60.26	C	C
ATOM	2599	CD	LYS	C	146	84.345	-36.747	45.584	1.00	65.56	C	C
ATOM	2600	CE	LYS	C	146	82.997	-36.013	45.587	1.00	69.80	C	C
ATOM	2601	NZ	LYS	C	146	82.669	-35.386	46.911	1.00	71.67	C	N
ATOM	2602	C	LYS	C	146	87.611	-34.905	42.243	1.00	46.23	C	C
ATOM	2603	O	LYS	C	146	88.384	-34.226	42.892	1.00	44.64	C	O
ATOM	2604	N	LYS	C	147	87.254	-34.627	40.992	1.00	44.36	C	N
ATOM	2605	CA	LYS	C	147	87.750	-33.462	40.270	1.00	44.88	C	C
ATOM	2606	CB	LYS	C	147	88.471	-33.871	38.981	1.00	48.86	C	C
ATOM	2607	CG	LYS	C	147	89.089	-32.719	38.159	1.00	49.98	C	C
ATOM	2608	CD	LYS	C	147	90.590	-32.564	38.379	1.00	54.73	C	C
ATOM	2609	CE	LYS	C	147	91.137	-31.274	37.776	1.00	61.06	C	C
ATOM	2610	NZ	LYS	C	147	91.183	-30.169	38.777	1.00	63.03	C	N
ATOM	2611	C	LYS	C	147	86.587	-32.552	39.927	1.00	44.64	C	C
ATOM	2612	O	LYS	C	147	85.530	-32.989	39.475	1.00	43.34	C	O
ATOM	2613	N	ARG	C	148	86.788	-31.264	40.124	1.00	44.93	C	N
ATOM	2614	CA	ARG	C	148	85.794	-30.287	39.713	1.00	45.93	C	C
ATOM	2615	CB	ARG	C	148	86.003	-28.968	40.395	1.00	49.81	C	C
ATOM	2616	CG	ARG	C	148	84.698	-28.395	40.770	1.00	52.29	C	C
ATOM	2617	CD	ARG	C	148	84.740	-26.925	40.784	1.00	56.18	C	C
ATOM	2618	NE	ARG	C	148	84.936	-26.427	39.441	1.00	58.80	C	N
ATOM	2619	CZ	ARG	C	148	84.702	-25.166	39.120	1.00	70.18	C	C
ATOM	2620	NH1	ARG	C	148	84.215	-24.310	40.027	1.00	62.17	C	N
ATOM	2621	NH2	ARG	C	148	84.932	-24.761	37.881	1.00	78.81	C	N
ATOM	2622	C	ARG	C	148	85.810	-29.995	38.221	1.00	43.64	C	C
ATOM	2623	O	ARG	C	148	86.874	-29.734	37.653	1.00	40.88	C	O
ATOM	2624	N	VAL	C	149	84.616	-29.983	37.632	1.00	41.35	C	N
ATOM	2625	CA	VAL	C	149	84.434	-29.542	36.279	1.00	40.58	C	C
ATOM	2626	CB	VAL	C	149	84.492	-30.742	35.331	1.00	43.60	C	C
ATOM	2627	CG1	VAL	C	149	83.781	-31.928	35.939	1.00	45.71	C	C
ATOM	2628	CG2	VAL	C	149	83.892	-30.398	33.977	1.00	43.96	C	C
ATOM	2629	C	VAL	C	149	83.117	-28.757	36.092	1.00	40.38	C	C
ATOM	2630	O	VAL	C	149	82.060	-29.169	36.528	1.00	39.01	C	O
ATOM	2631	N	THR	C	150	83.207	-27.618	35.418	1.00	43.25	C	N
ATOM	2632	CA	THR	C	150	82.034	-26.812	35.068	1.00	44.59	C	C
ATOM	2633	CB	THR	C	150	82.285	-25.286	35.170	1.00	46.58	C	C
ATOM	2634	OG1	THR	C	150	83.537	-25.005	34.553	1.00	49.11	C	O
ATOM	2635	CG2	THR	C	150	82.333	-24.816	36.608	1.00	44.40	C	C
ATOM	2636	C	THR	C	150	81.789	-27.065	33.605	1.00	42.14	C	C
ATOM	2637	O	THR	C	150	82.696	-26.919	32.824	1.00	40.73	C	O
ATOM	2638	N	ARG	C	151	80.574	-27.426	33.220	1.00	42.32	C	N
ATOM	2639	CA	ARG	C	151	80.280	-27.710	31.824	1.00	40.40	C	C
ATOM	2640	CB	ARG	C	151	79.992	-29.200	31.645	1.00	41.94	C	C
ATOM	2641	CG	ARG	C	151	78.554	-29.578	31.910	1.00	43.69	C	C
ATOM	2642	CD	ARG	C	151	78.279	-30.880	32.603	1.00	47.67	C	C

ATOM	2643	NE	ARG	C	151	78.711	-32.083	31.941	1.00	49.34	C	N
ATOM	2644	CZ	ARG	C	151	78.014	-33.218	31.983	1.00	53.84	C	C
ATOM	2645	NH1	ARG	C	151	76.827	-33.283	32.591	1.00	52.86	C	N
ATOM	2646	NH2	ARG	C	151	78.495	-34.295	31.393	1.00	56.75	C	N
ATOM	2647	C	ARG	C	151	79.096	-26.882	31.371	1.00	38.48	C	C
ATOM	2648	O	ARG	C	151	78.309	-26.386	32.191	1.00	36.13	C	O
ATOM	2649	N	VAL	C	152	78.972	-26.734	30.060	1.00	38.20	C	N
ATOM	2650	CA	VAL	C	152	77.883	-25.966	29.486	1.00	40.21	C	C
ATOM	2651	CB	VAL	C	152	78.183	-25.571	28.024	1.00	38.83	C	C
ATOM	2652	CG1	VAL	C	152	76.955	-24.970	27.349	1.00	41.71	C	C
ATOM	2653	CG2	VAL	C	152	79.338	-24.589	27.970	1.00	37.90	C	C
ATOM	2654	C	VAL	C	152	76.638	-26.818	29.546	1.00	40.68	C	C
ATOM	2655	O	VAL	C	152	76.696	-27.999	29.275	1.00	35.76	C	O
ATOM	2656	N	LYS	C	153	75.512	-26.212	29.907	1.00	45.21	C	N
ATOM	2657	CA	LYS	C	153	74.258	-26.934	29.931	1.00	49.59	C	C
ATOM	2658	CB	LYS	C	153	73.445	-26.565	31.156	1.00	52.91	C	C
ATOM	2659	CG	LYS	C	153	72.185	-27.422	31.264	1.00	54.33	C	C
ATOM	2660	CD	LYS	C	153	72.234	-28.219	32.522	1.00	57.77	C	C
ATOM	2661	CE	LYS	C	153	70.836	-28.479	33.002	1.00	59.11	C	C
ATOM	2662	NZ	LYS	C	153	70.241	-27.295	33.684	1.00	63.43	C	N
ATOM	2663	C	LYS	C	153	73.437	-26.614	28.707	1.00	48.20	C	C
ATOM	2664	O	LYS	C	153	73.039	-27.507	27.983	1.00	50.72	C	O
ATOM	2665	N	GLN	C	154	73.139	-25.337	28.523	1.00	48.78	C	N
ATOM	2666	CA	GLN	C	154	72.200	-24.912	27.499	1.00	51.31	C	C
ATOM	2667	CB	GLN	C	154	70.817	-24.691	28.143	1.00	57.15	C	C
ATOM	2668	CG	GLN	C	154	69.651	-24.586	27.206	1.00	64.35	C	C
ATOM	2669	CD	GLN	C	154	68.478	-23.646	27.651	1.00	72.48	C	C
ATOM	2670	OE1	GLN	C	154	68.272	-23.313	28.840	1.00	74.29	C	O
ATOM	2671	NE2	GLN	C	154	67.698	-23.221	26.660	1.00	73.71	C	N
ATOM	2672	C	GLN	C	154	72.718	-23.632	26.839	1.00	49.04	C	C
ATOM	2673	O	GLN	C	154	73.090	-22.676	27.529	1.00	46.97	C	O
ATOM	2674	N	CYS	C	155	72.759	-23.627	25.508	1.00	44.58	C	N
ATOM	2675	CA	CYS	C	155	73.091	-22.419	24.757	1.00	42.04	C	C
ATOM	2676	CB	CYS	C	155	73.917	-22.760	23.528	1.00	39.02	C	C
ATOM	2677	SG	CYS	C	155	75.343	-23.768	23.909	1.00	42.03	C	S
ATOM	2678	C	CYS	C	155	71.848	-21.667	24.298	1.00	39.97	C	C
ATOM	2679	O	CYS	C	155	70.789	-22.236	24.095	1.00	36.50	C	O
ATOM	2680	N	ARG	C	156	71.999	-20.370	24.119	1.00	40.84	C	N
ATOM	2681	CA	ARG	C	156	70.924	-19.563	23.602	1.00	42.52	C	C
ATOM	2682	CB	ARG	C	156	69.872	-19.322	24.687	1.00	47.28	C	C
ATOM	2683	CG	ARG	C	156	68.640	-20.206	24.613	1.00	53.28	C	C
ATOM	2684	CD	ARG	C	156	67.630	-19.723	25.651	1.00	65.60	C	C
ATOM	2685	NE	ARG	C	156	67.786	-18.279	25.974	1.00	75.90	C	N
ATOM	2686	CZ	ARG	C	156	66.807	-17.484	26.404	1.00	80.55	C	C
ATOM	2687	NH1	ARG	C	156	65.586	-17.978	26.604	1.00	80.97	C	N
ATOM	2688	NH2	ARG	C	156	67.064	-16.194	26.653	1.00	74.58	C	N
ATOM	2689	C	ARG	C	156	71.459	-18.249	23.061	1.00	37.65	C	C
ATOM	2690	O	ARG	C	156	72.585	-17.857	23.347	1.00	32.73	C	O
ATOM	2691	N	CYS	C	157	70.642	-17.607	22.233	1.00	36.20	C	N
ATOM	2692	CA	CYS	C	157	70.921	-16.257	21.751	1.00	33.80	C	C
ATOM	2693	CB	CYS	C	157	70.020	-15.895	20.573	1.00	33.39	C	C
ATOM	2694	SG	CYS	C	157	70.525	-16.651	19.020	1.00	33.33	C	S
ATOM	2695	C	CYS	C	157	70.657	-15.305	22.872	1.00	31.67	C	C
ATOM	2696	O	CYS	C	157	69.508	-15.050	23.189	1.00	33.05	C	O
ATOM	2697	N	ILE	C	158	71.725	-14.799	23.473	1.00	30.60	C	N
ATOM	2698	CA	ILE	C	158	71.638	-13.921	24.608	1.00	30.25	C	C
ATOM	2699	CB	ILE	C	158	72.465	-14.488	25.780	1.00	32.29	C	C
ATOM	2700	CG1	ILE	C	158	71.756	-15.725	26.340	1.00	33.36	C	C
ATOM	2701	CD1	ILE	C	158	72.675	-16.650	27.121	1.00	34.33	C	C
ATOM	2702	CG2	ILE	C	158	72.688	-13.450	26.883	1.00	32.46	C	C
ATOM	2703	C	ILE	C	158	72.146	-12.560	24.202	1.00	30.08	C	C
ATOM	2704	O	ILE	C	158	73.242	-12.437	23.658	1.00	34.33	C	O
ATOM	2705	N	SER	C	159	71.386	-11.528	24.522	1.00	29.96	C	N
ATOM	2706	CA	SER	C	159	71.732	-10.184	24.087	1.00	31.83	C	C
ATOM	2707	CB	SER	C	159	70.498	-9.284	24.106	1.00	32.51	C	C
ATOM	2708	OG	SER	C	159	70.488	-8.495	25.268	1.00	32.61	C	O
ATOM	2709	C	SER	C	159	72.857	-9.561	24.920	1.00	31.44	C	C
ATOM	2710	O	SER	C	159	72.992	-9.833	26.091	1.00	33.02	C	O

ATOM	2711	N	ILE	C	160	73.641	-8.703	24.290	1.00	33.93	C	N
ATOM	2712	CA	ILE	C	160	74.845	-8.169	24.885	1.00	36.74	C	C
ATOM	2713	CB	ILE	C	160	75.967	-8.101	23.812	1.00	39.07	C	C
ATOM	2714	CG1	ILE	C	160	76.481	-9.512	23.533	1.00	41.83	C	C
ATOM	2715	CD1	ILE	C	160	77.566	-9.572	22.474	1.00	44.33	C	C
ATOM	2716	CG2	ILE	C	160	77.150	-7.242	24.256	1.00	40.04	C	C
ATOM	2717	C	ILE	C	160	74.864	-6.977	25.819	1.00	39.00	C	C
ATOM	2718	O	ILE	C	160	75.741	-6.980	26.654	1.00	46.50	C	O
ATOM	2719	N	ASP	C	161	73.994	-5.991	25.842	1.00	40.81	C	N
ATOM	2720	CA	ASP	C	161	74.284	-4.924	26.849	1.00	44.96	C	C
ATOM	2721	CB	ASP	C	161	74.512	-5.489	28.273	1.00	45.94	C	C
ATOM	2722	CG	ASP	C	161	74.844	-4.383	29.309	1.00	51.49	C	C
ATOM	2723	OD1	ASP	C	161	75.340	-3.291	28.933	1.00	51.06	C	O
ATOM	2724	OD2	ASP	C	161	74.596	-4.604	30.515	1.00	56.26	C	O
ATOM	2725	C	ASP	C	161	75.532	-4.173	26.377	1.00	41.31	C	C
ATOM	2726	O	ASP	C	161	76.676	-4.450	26.777	1.00	34.03	C	O
ATOM	2727	N	LEU	C	162	75.290	-3.215	25.505	1.00	45.13	C	N
ATOM	2728	CA	LEU	C	162	76.362	-2.609	24.754	1.00	47.54	C	C
ATOM	2729	CB	LEU	C	162	75.873	-2.208	23.364	1.00	46.62	C	C
ATOM	2730	CG	LEU	C	162	75.611	-3.471	22.466	1.00	45.77	C	C
ATOM	2731	CD1	LEU	C	162	74.693	-3.172	21.290	1.00	44.99	C	C
ATOM	2732	CD2	LEU	C	162	76.859	-4.167	21.927	1.00	46.82	C	C
ATOM	2733	C	LEU	C	162	76.946	-1.461	25.565	1.00	49.32	C	C
ATOM	2734	O	LEU	C	162	77.662	-1.710	26.503	1.00	52.60	C	O
ATOM	2735	N	ASP	C	163	76.596	-0.227	25.266	1.00	53.34	C	N
ATOM	2736	CA	ASP	C	163	77.539	0.925	25.428	1.00	58.37	C	C
ATOM	2737	CB	ASP	C	163	78.669	0.708	26.478	1.00	53.44	C	C
ATOM	2738	CG	ASP	C	163	78.135	0.416	27.882	1.00	57.30	C	C
ATOM	2739	OD1	ASP	C	163	77.116	-0.306	28.024	1.00	51.55	C	O
ATOM	2740	OD2	ASP	C	163	78.733	0.920	28.854	1.00	59.99	C	O
ATOM	2741	C	ASP	C	163	78.161	1.226	24.046	1.00	55.74	C	C
ATOM	2742	O	ASP	C	163	77.457	1.386	23.034	1.00	47.23	C	O
ATOM	2743	N	VAL	D	52	79.024	-36.545	18.210	1.00	52.25	D	N
ATOM	2744	CA	VAL	D	52	79.800	-36.073	19.371	1.00	50.19	D	C
ATOM	2745	CB	VAL	D	52	79.715	-37.060	20.545	1.00	48.08	D	C
ATOM	2746	CG1	VAL	D	52	80.547	-36.552	21.716	1.00	48.57	D	C
ATOM	2747	CG2	VAL	D	52	78.269	-37.265	20.960	1.00	47.24	D	C
ATOM	2748	C	VAL	D	52	81.260	-35.903	18.992	1.00	50.80	D	C
ATOM	2749	O	VAL	D	52	81.972	-36.871	18.826	1.00	51.57	D	O
ATOM	2750	N	LEU	D	53	81.700	-34.657	18.901	1.00	51.72	D	N
ATOM	2751	CA	LEU	D	53	83.015	-34.325	18.381	1.00	50.14	D	C
ATOM	2752	CB	LEU	D	53	83.088	-32.849	18.058	1.00	50.33	D	C
ATOM	2753	CG	LEU	D	53	82.216	-32.477	16.845	1.00	48.43	D	C
ATOM	2754	CD1	LEU	D	53	80.719	-32.675	17.049	1.00	47.82	D	C
ATOM	2755	CD2	LEU	D	53	82.529	-31.037	16.489	1.00	49.70	D	C
ATOM	2756	C	LEU	D	53	84.035	-34.652	19.421	1.00	49.78	D	C
ATOM	2757	O	LEU	D	53	83.722	-34.704	20.603	1.00	56.48	D	O
ATOM	2758	N	GLU	D	54	85.259	-34.865	18.981	1.00	48.77	D	N
ATOM	2759	CA	GLU	D	54	86.266	-35.402	19.862	1.00	51.63	D	C
ATOM	2760	CB	GLU	D	54	87.307	-36.180	19.059	1.00	57.04	D	C
ATOM	2761	CG	GLU	D	54	86.728	-37.281	18.149	1.00	62.49	D	C
ATOM	2762	CD	GLU	D	54	85.800	-38.253	18.890	1.00	67.06	D	C
ATOM	2763	OE1	GLU	D	54	86.171	-38.752	19.971	1.00	68.26	D	O
ATOM	2764	OE2	GLU	D	54	84.674	-38.513	18.399	1.00	71.87	D	O
ATOM	2765	C	GLU	D	54	86.999	-34.379	20.673	1.00	48.48	D	C
ATOM	2766	O	GLU	D	54	87.445	-34.691	21.757	1.00	51.05	D	O
ATOM	2767	N	SER	D	55	87.186	-33.187	20.137	1.00	46.15	D	N
ATOM	2768	CA	SER	D	55	87.998	-32.196	20.817	1.00	47.46	D	C
ATOM	2769	CB	SER	D	55	89.501	-32.353	20.446	1.00	45.97	D	C
ATOM	2770	OG	SER	D	55	89.816	-31.655	19.255	1.00	45.44	D	O
ATOM	2771	C	SER	D	55	87.496	-30.796	20.462	1.00	48.18	D	C
ATOM	2772	O	SER	D	55	86.654	-30.631	19.582	1.00	50.35	D	O
ATOM	2773	N	SER	D	56	88.041	-29.794	21.143	1.00	47.21	D	N
ATOM	2774	CA	SER	D	56	87.665	-28.416	20.905	1.00	45.51	D	C
ATOM	2775	CB	SER	D	56	88.246	-27.528	21.983	1.00	45.06	D	C
ATOM	2776	OG	SER	D	56	87.821	-27.965	23.254	1.00	44.29	D	O
ATOM	2777	C	SER	D	56	88.168	-27.920	19.573	1.00	48.69	D	C
ATOM	2778	O	SER	D	56	87.437	-27.247	18.854	1.00	52.47	D	O

ATOM	2779	N	GLN	D	57	89.425	-28.243	19.269	1.00	51.31	D	N
ATOM	2780	CA	GLN	D	57	90.041	-27.980	17.961	1.00	52.05	D	C
ATOM	2781	CB	GLN	D	57	91.508	-28.458	17.957	1.00	54.69	D	C
ATOM	2782	CG	GLN	D	57	92.458	-27.545	18.763	1.00	58.16	D	C
ATOM	2783	CD	GLN	D	57	92.491	-27.872	20.270	1.00	63.53	D	C
ATOM	2784	OE1	GLN	D	57	92.189	-28.995	20.685	1.00	64.80	D	O
ATOM	2785	NE2	GLN	D	57	92.853	-26.880	21.090	1.00	64.91	D	N
ATOM	2786	C	GLN	D	57	89.168	-28.536	16.813	1.00	49.83	D	C
ATOM	2787	O	GLN	D	57	88.891	-27.847	15.828	1.00	48.32	D	O
ATOM	2788	N	GLU	D	58	88.625	-29.727	16.991	1.00	48.08	D	N
ATOM	2789	CA	GLU	D	58	87.779	-30.298	15.965	1.00	51.71	D	C
ATOM	2790	CB	GLU	D	58	87.486	-31.762	16.267	1.00	54.16	D	C
ATOM	2791	CG	GLU	D	58	87.081	-32.576	15.058	1.00	52.09	D	C
ATOM	2792	CD	GLU	D	58	86.384	-33.855	15.473	1.00	53.37	D	C
ATOM	2793	OE1	GLU	D	58	86.565	-34.287	16.635	1.00	51.66	D	O
ATOM	2794	OE2	GLU	D	58	85.670	-34.449	14.643	1.00	58.39	D	O
ATOM	2795	C	GLU	D	58	86.481	-29.526	15.878	1.00	51.55	D	C
ATOM	2796	O	GLU	D	58	86.033	-29.179	14.789	1.00	54.36	D	O
ATOM	2797	N	ALA	D	59	85.869	-29.274	17.028	1.00	50.81	D	N
ATOM	2798	CA	ALA	D	59	84.618	-28.531	17.080	1.00	49.73	D	C
ATOM	2799	CB	ALA	D	59	84.125	-28.417	18.510	1.00	51.68	D	C
ATOM	2800	C	ALA	D	59	84.778	-27.148	16.452	1.00	46.09	D	C
ATOM	2801	O	ALA	D	59	83.902	-26.692	15.741	1.00	46.81	D	O
ATOM	2802	N	LEU	D	60	85.911	-26.504	16.670	1.00	43.08	D	N
ATOM	2803	CA	LEU	D	60	86.151	-25.197	16.053	1.00	44.09	D	C
ATOM	2804	CB	LEU	D	60	87.392	-24.536	16.672	1.00	43.72	D	C
ATOM	2805	CG	LEU	D	60	87.866	-23.194	16.111	1.00	42.00	D	C
ATOM	2806	CD1	LEU	D	60	86.832	-22.133	16.446	1.00	41.74	D	C
ATOM	2807	CD2	LEU	D	60	89.225	-22.818	16.686	1.00	41.12	D	C
ATOM	2808	C	LEU	D	60	86.258	-25.252	14.524	1.00	43.38	D	C
ATOM	2809	O	LEU	D	60	85.594	-24.483	13.824	1.00	45.35	D	O
ATOM	2810	N	HIS	D	61	87.057	-26.182	14.014	1.00	47.12	D	N
ATOM	2811	CA	HIS	D	61	87.194	-26.385	12.572	1.00	48.04	D	C
ATOM	2812	CB	HIS	D	61	88.239	-27.466	12.282	1.00	50.66	D	C
ATOM	2813	CG	HIS	D	61	89.609	-27.101	12.764	1.00	56.28	D	C
ATOM	2814	ND1	HIS	D	61	90.598	-28.027	13.046	1.00	59.20	D	N
ATOM	2815	CE1	HIS	D	61	91.682	-27.392	13.461	1.00	59.10	D	C
ATOM	2816	NE2	HIS	D	61	91.426	-26.093	13.472	1.00	59.32	D	N
ATOM	2817	CD2	HIS	D	61	90.139	-25.886	13.045	1.00	57.19	D	C
ATOM	2818	C	HIS	D	61	85.854	-26.709	11.917	1.00	48.39	D	C
ATOM	2819	O	HIS	D	61	85.462	-26.050	10.952	1.00	49.90	D	O
ATOM	2820	N	VAL	D	62	85.119	-27.673	12.460	1.00	46.25	D	N
ATOM	2821	CA	VAL	D	62	83.836	-28.033	11.834	1.00	48.23	D	C
ATOM	2822	CB	VAL	D	62	83.250	-29.375	12.304	1.00	50.26	D	C
ATOM	2823	CG1	VAL	D	62	83.562	-29.607	13.752	1.00	52.39	D	C
ATOM	2824	CG2	VAL	D	62	81.742	-29.486	12.054	1.00	52.82	D	C
ATOM	2825	C	VAL	D	62	82.817	-26.900	11.953	1.00	49.26	D	C
ATOM	2826	O	VAL	D	62	82.044	-26.666	11.035	1.00	53.03	D	O
ATOM	2827	N	THR	D	63	82.797	-26.211	13.089	1.00	49.82	D	N
ATOM	2828	CA	THR	D	63	81.881	-25.083	13.277	1.00	46.05	D	C
ATOM	2829	CB	THR	D	63	82.012	-24.482	14.670	1.00	44.49	D	C
ATOM	2830	OG1	THR	D	63	81.529	-25.429	15.620	1.00	45.97	D	O
ATOM	2831	CG2	THR	D	63	81.192	-23.229	14.801	1.00	45.49	D	C
ATOM	2832	C	THR	D	63	82.118	-23.998	12.258	1.00	47.54	D	C
ATOM	2833	O	THR	D	63	81.176	-23.445	11.713	1.00	47.68	D	O
ATOM	2834	N	GLU	D	64	83.378	-23.710	11.970	1.00	50.97	D	N
ATOM	2835	CA	GLU	D	64	83.695	-22.713	10.952	1.00	50.41	D	C
ATOM	2836	CB	GLU	D	64	85.135	-22.208	11.084	1.00	54.22	D	C
ATOM	2837	CG	GLU	D	64	85.421	-21.459	12.379	1.00	53.88	D	C
ATOM	2838	CD	GLU	D	64	86.902	-21.236	12.601	1.00	58.63	D	C
ATOM	2839	OE1	GLU	D	64	87.275	-20.154	13.101	1.00	61.98	D	O
ATOM	2840	OE2	GLU	D	64	87.690	-22.161	12.294	1.00	63.12	D	O
ATOM	2841	C	GLU	D	64	83.441	-23.213	9.517	1.00	49.15	D	C
ATOM	2842	O	GLU	D	64	82.805	-22.516	8.732	1.00	48.19	D	O
ATOM	2843	N	ARG	D	65	83.922	-24.404	9.177	1.00	49.97	D	N
ATOM	2844	CA	ARG	D	65	83.782	-24.906	7.803	1.00	57.19	D	C
ATOM	2845	CB	ARG	D	65	84.710	-26.086	7.488	1.00	59.70	D	C
ATOM	2846	CG	ARG	D	65	86.118	-25.645	7.054	1.00	65.96	D	C

ATOM	2847	CD	ARG	D	65	86.922	-24.909	8.169	1.00	70.74	D	C
ATOM	2848	NE	ARG	D	65	87.407	-23.586	7.727	1.00	76.13	D	N
ATOM	2849	CZ	ARG	D	65	88.293	-22.838	8.388	1.00	76.49	D	C
ATOM	2850	NH1	ARG	D	65	88.824	-23.265	9.530	1.00	79.99	D	N
ATOM	2851	NH2	ARG	D	65	88.656	-21.656	7.901	1.00	75.24	D	N
ATOM	2852	C	ARG	D	65	82.344	-25.300	7.483	1.00	60.50	D	C
ATOM	2853	O	ARG	D	65	81.777	-24.814	6.518	1.00	66.58	D	O
ATOM	2854	N	LYS	D	66	81.762	-26.166	8.307	1.00	60.72	D	N
ATOM	2855	CA	LYS	D	66	80.457	-26.761	8.008	1.00	58.42	D	C
ATOM	2856	CB	LYS	D	66	80.376	-28.209	8.493	1.00	63.03	D	C
ATOM	2857	CG	LYS	D	66	81.260	-29.111	7.661	1.00	69.57	D	C
ATOM	2858	CD	LYS	D	66	81.753	-30.378	8.280	1.00	74.04	D	C
ATOM	2859	CE	LYS	D	66	80.612	-31.325	8.598	1.00	75.92	D	C
ATOM	2860	NZ	LYS	D	66	81.120	-32.674	8.964	1.00	76.26	D	N
ATOM	2861	C	LYS	D	66	79.266	-26.012	8.578	1.00	56.01	D	C
ATOM	2862	O	LYS	D	66	78.392	-25.633	7.823	1.00	56.29	D	O
ATOM	2863	N	TYR	D	67	79.218	-25.818	9.895	1.00	53.97	D	N
ATOM	2864	CA	TYR	D	67	77.967	-25.415	10.551	1.00	56.56	D	C
ATOM	2865	CB	TYR	D	67	78.024	-25.641	12.055	1.00	61.39	D	C
ATOM	2866	CG	TYR	D	67	78.260	-27.057	12.504	1.00	65.08	D	C
ATOM	2867	CD1	TYR	D	67	77.807	-28.144	11.757	1.00	63.36	D	C
ATOM	2868	CE1	TYR	D	67	78.014	-29.441	12.191	1.00	65.08	D	C
ATOM	2869	CZ	TYR	D	67	78.666	-29.666	13.395	1.00	65.81	D	C
ATOM	2870	OH	TYR	D	67	78.877	-30.948	13.838	1.00	62.09	D	O
ATOM	2871	CE2	TYR	D	67	79.114	-28.601	14.158	1.00	68.02	D	C
ATOM	2872	CD2	TYR	D	67	78.906	-27.309	13.713	1.00	65.92	D	C
ATOM	2873	C	TYR	D	67	77.540	-23.969	10.353	1.00	55.42	D	C
ATOM	2874	O	TYR	D	67	76.353	-23.682	10.305	1.00	57.93	D	O
ATOM	2875	N	LEU	D	68	78.502	-23.063	10.238	1.00	57.18	D	N
ATOM	2876	CA	LEU	D	68	78.209	-21.636	10.148	1.00	54.49	D	C
ATOM	2877	CB	LEU	D	68	79.033	-20.881	11.173	1.00	52.68	D	C
ATOM	2878	CG	LEU	D	68	78.601	-21.118	12.618	1.00	49.65	D	C
ATOM	2879	CD1	LEU	D	68	79.499	-20.303	13.524	1.00	49.95	D	C
ATOM	2880	CD2	LEU	D	68	77.137	-20.768	12.823	1.00	49.59	D	C
ATOM	2881	C	LEU	D	68	78.464	-21.073	8.776	1.00	58.48	D	C
ATOM	2882	O	LEU	D	68	79.564	-20.639	8.463	1.00	60.76	D	O
ATOM	2883	N	LYS	D	69	77.431	-21.089	7.948	1.00	59.94	D	N
ATOM	2884	CA	LYS	D	69	77.503	-20.483	6.631	1.00	58.77	D	C
ATOM	2885	CB	LYS	D	69	77.640	-21.558	5.575	1.00	58.62	D	C
ATOM	2886	CG	LYS	D	69	78.558	-22.711	5.959	1.00	60.09	D	C
ATOM	2887	CD	LYS	D	69	78.558	-23.766	4.870	1.00	60.31	D	C
ATOM	2888	CE	LYS	D	69	79.333	-23.303	3.656	1.00	60.98	D	C
ATOM	2889	NZ	LYS	D	69	79.405	-24.386	2.643	1.00	63.69	D	N
ATOM	2890	C	LYS	D	69	76.259	-19.654	6.417	1.00	56.15	D	C
ATOM	2891	O	LYS	D	69	75.321	-19.725	7.202	1.00	56.24	D	O
ATOM	2892	N	ARG	D	70	76.272	-18.844	5.371	1.00	58.51	D	N
ATOM	2893	CA	ARG	D	70	75.112	-18.075	4.952	1.00	57.79	D	C
ATOM	2894	CB	ARG	D	70	73.930	-18.982	4.570	1.00	64.35	D	C
ATOM	2895	CG	ARG	D	70	72.954	-19.357	5.724	1.00	75.04	D	C
ATOM	2896	CD	ARG	D	70	72.995	-20.807	6.189	1.00	84.29	D	C
ATOM	2897	NE	ARG	D	70	71.906	-21.094	7.149	1.00	88.66	D	N
ATOM	2898	CZ	ARG	D	70	70.742	-21.704	6.866	1.00	89.45	D	C
ATOM	2899	NH1	ARG	D	70	70.455	-22.136	5.637	1.00	88.94	D	N
ATOM	2900	NH2	ARG	D	70	69.836	-21.881	7.831	1.00	84.82	D	N
ATOM	2901	C	ARG	D	70	74.716	-17.023	5.982	1.00	49.72	D	C
ATOM	2902	O	ARG	D	70	73.531	-16.714	6.095	1.00	46.98	D	O
ATOM	2903	N	ASP	D	71	75.688	-16.455	6.711	1.00	43.72	D	N
ATOM	2904	CA	ASP	D	71	75.383	-15.305	7.557	1.00	44.06	D	C
ATOM	2905	CB	ASP	D	71	76.533	-14.913	8.497	1.00	43.83	D	C
ATOM	2906	CG	ASP	D	71	77.789	-14.584	7.758	1.00	47.54	D	C
ATOM	2907	OD1	ASP	D	71	78.071	-15.264	6.753	1.00	52.10	D	O
ATOM	2908	OD2	ASP	D	71	78.509	-13.645	8.155	1.00	53.31	D	O
ATOM	2909	C	ASP	D	71	75.008	-14.139	6.625	1.00	41.39	D	C
ATOM	2910	O	ASP	D	71	75.370	-14.129	5.455	1.00	46.69	D	O
ATOM	2911	N	TRP	D	72	74.244	-13.184	7.130	1.00	38.69	D	N
ATOM	2912	CA	TRP	D	72	73.777	-12.074	6.312	1.00	33.39	D	C
ATOM	2913	CB	TRP	D	72	72.448	-12.438	5.642	1.00	30.77	D	C
ATOM	2914	CG	TRP	D	72	71.281	-12.659	6.563	1.00	29.62	D	C

ATOM	2915	CD1	TRP	D	72	70.966	-13.812	7.213	1.00	29.00	D	C
ATOM	2916	NE1	TRP	D	72	69.819	-13.634	7.958	1.00	27.88	D	N
ATOM	2917	CE2	TRP	D	72	69.371	-12.351	7.787	1.00	28.07	D	C
ATOM	2918	CD2	TRP	D	72	70.264	-11.708	6.919	1.00	28.25	D	C
ATOM	2919	CE3	TRP	D	72	70.035	-10.367	6.595	1.00	29.09	D	C
ATOM	2920	CZ3	TRP	D	72	68.922	-9.718	7.130	1.00	26.55	D	C
ATOM	2921	CH2	TRP	D	72	68.052	-10.384	7.993	1.00	26.45	D	C
ATOM	2922	CZ2	TRP	D	72	68.253	-11.697	8.331	1.00	27.71	D	C
ATOM	2923	C	TRP	D	72	73.616	-10.806	7.096	1.00	31.89	D	C
ATOM	2924	O	TRP	D	72	73.370	-10.837	8.298	1.00	36.22	D	O
ATOM	2925	N	CYS	D	73	73.732	-9.687	6.398	1.00	32.23	D	N
ATOM	2926	CA	CYS	D	73	73.595	-8.369	7.002	1.00	34.19	D	C
ATOM	2927	CB	CYS	D	73	74.936	-7.956	7.628	1.00	33.76	D	C
ATOM	2928	SG	CYS	D	73	75.021	-6.314	8.352	1.00	36.36	D	S
ATOM	2929	C	CYS	D	73	73.132	-7.377	5.932	1.00	33.90	D	C
ATOM	2930	O	CYS	D	73	73.861	-7.120	4.989	1.00	37.03	D	O
ATOM	2931	N	LYS	D	74	71.938	-6.814	6.113	1.00	34.26	D	N
ATOM	2932	CA	LYS	D	74	71.315	-5.888	5.167	1.00	34.39	D	C
ATOM	2933	CB	LYS	D	74	69.833	-6.213	4.983	1.00	36.20	D	C
ATOM	2934	CG	LYS	D	74	69.545	-7.361	4.000	1.00	39.63	D	C
ATOM	2935	CD	LYS	D	74	68.079	-7.602	3.603	1.00	42.21	D	C
ATOM	2936	CE	LYS	D	74	67.956	-8.683	2.529	1.00	43.60	D	C
ATOM	2937	NZ	LYS	D	74	66.596	-9.285	2.510	1.00	44.46	D	N
ATOM	2938	C	LYS	D	74	71.436	-4.412	5.601	1.00	34.26	D	C
ATOM	2939	O	LYS	D	74	71.389	-4.092	6.795	1.00	32.27	D	O
ATOM	2940	N	THR	D	75	71.679	-3.550	4.604	1.00	34.18	D	N
ATOM	2941	CA	THR	D	75	71.680	-2.107	4.752	1.00	33.19	D	C
ATOM	2942	CB	THR	D	75	72.886	-1.447	4.065	1.00	31.73	D	C
ATOM	2943	OG1	THR	D	75	74.108	-2.059	4.498	1.00	33.42	D	O
ATOM	2944	CG2	THR	D	75	72.930	0.040	4.399	1.00	31.73	D	C
ATOM	2945	C	THR	D	75	70.436	-1.617	4.059	1.00	32.30	D	C
ATOM	2946	O	THR	D	75	70.143	-2.072	2.973	1.00	31.19	D	O
ATOM	2947	N	GLN	D	76	69.699	-0.703	4.680	1.00	31.34	D	N
ATOM	2948	CA	GLN	D	76	68.440	-0.250	4.115	1.00	31.39	D	C
ATOM	2949	CB	GLN	D	76	67.326	-1.138	4.633	1.00	34.34	D	C
ATOM	2950	CG	GLN	D	76	65.960	-0.810	4.055	1.00	37.27	D	C
ATOM	2951	CD	GLN	D	76	64.896	-1.816	4.391	1.00	36.68	D	C
ATOM	2952	OE1	GLN	D	76	63.734	-1.460	4.537	1.00	37.17	D	O
ATOM	2953	NE2	GLN	D	76	65.286	-3.069	4.548	1.00	37.25	D	N
ATOM	2954	C	GLN	D	76	68.142	1.202	4.473	1.00	30.71	D	C
ATOM	2955	O	GLN	D	76	68.458	1.634	5.572	1.00	31.17	D	O
ATOM	2956	N	PRO	D	77	67.547	1.966	3.540	1.00	29.17	D	N
ATOM	2957	CA	PRO	D	77	67.337	3.380	3.816	1.00	30.46	D	C
ATOM	2958	CB	PRO	D	77	67.042	3.960	2.430	1.00	29.10	D	C
ATOM	2959	CG	PRO	D	77	66.425	2.825	1.705	1.00	29.10	D	C
ATOM	2960	CD	PRO	D	77	67.215	1.639	2.146	1.00	27.70	D	C
ATOM	2961	C	PRO	D	77	66.162	3.681	4.743	1.00	31.81	D	C
ATOM	2962	O	PRO	D	77	65.195	2.931	4.785	1.00	31.58	D	O
ATOM	2963	N	LEU	D	78	66.258	4.804	5.455	1.00	33.85	D	N
ATOM	2964	CA	LEU	D	78	65.165	5.298	6.274	1.00	34.69	D	C
ATOM	2965	CB	LEU	D	78	65.211	4.667	7.679	1.00	35.32	D	C
ATOM	2966	CG	LEU	D	78	65.921	5.428	8.799	1.00	34.04	D	C
ATOM	2967	CD1	LEU	D	78	65.574	4.858	10.161	1.00	35.70	D	C
ATOM	2968	CD2	LEU	D	78	67.427	5.484	8.629	1.00	34.56	D	C
ATOM	2969	C	LEU	D	78	65.243	6.816	6.352	1.00	36.82	D	C
ATOM	2970	O	LEU	D	78	66.311	7.401	6.167	1.00	34.09	D	O
ATOM	2971	N	LYS	D	79	64.111	7.451	6.635	1.00	42.10	D	N
ATOM	2972	CA	LYS	D	79	64.039	8.902	6.693	1.00	44.22	D	C
ATOM	2973	CB	LYS	D	79	62.639	9.397	6.335	1.00	47.74	D	C
ATOM	2974	CG	LYS	D	79	62.195	9.144	4.896	1.00	51.60	D	C
ATOM	2975	CD	LYS	D	79	60.652	9.236	4.802	1.00	56.49	D	C
ATOM	2976	CE	LYS	D	79	60.174	10.403	3.930	1.00	60.70	D	C
ATOM	2977	NZ	LYS	D	79	58.683	10.419	3.819	1.00	60.71	D	N
ATOM	2978	C	LYS	D	79	64.387	9.388	8.078	1.00	46.43	D	C
ATOM	2979	O	LYS	D	79	64.089	8.744	9.062	1.00	51.49	D	O
ATOM	2980	N	GLN	D	80	64.996	10.563	8.131	1.00	48.71	D	N
ATOM	2981	CA	GLN	D	80	65.342	11.248	9.369	1.00	46.32	D	C
ATOM	2982	CB	GLN	D	80	66.805	11.066	9.716	1.00	45.38	D	C

ATOM	2983	CG	GLN	D	80	67.065	9.766	10.439	1.00	47.91	D	C
ATOM	2984	CD	GLN	D	80	68.327	9.795	11.285	1.00	46.65	D	C
ATOM	2985	OE1	GLN	D	80	69.338	10.346	10.875	1.00	44.49	D	O
ATOM	2986	NE2	GLN	D	80	68.259	9.212	12.477	1.00	47.64	D	N
ATOM	2987	C	GLN	D	80	65.150	12.697	9.107	1.00	50.45	D	C
ATOM	2988	O	GLN	D	80	65.453	13.163	7.998	1.00	45.81	D	O
ATOM	2989	N	THR	D	81	64.703	13.422	10.127	1.00	54.35	D	N
ATOM	2990	CA	THR	D	81	64.548	14.855	9.981	1.00	56.15	D	C
ATOM	2991	CB	THR	D	81	63.103	15.328	10.252	1.00	57.55	D	C
ATOM	2992	OG1	THR	D	81	63.113	16.717	10.580	1.00	56.44	D	O
ATOM	2993	CG2	THR	D	81	62.437	14.545	11.391	1.00	57.94	D	C
ATOM	2994	C	THR	D	81	65.564	15.582	10.842	1.00	59.44	D	C
ATOM	2995	O	THR	D	81	65.823	15.201	11.977	1.00	61.16	D	O
ATOM	2996	N	ILE	D	82	66.151	16.627	10.271	1.00	67.08	D	N
ATOM	2997	CA	ILE	D	82	67.180	17.419	10.919	1.00	71.09	D	C
ATOM	2998	CB	ILE	D	82	68.263	17.850	9.917	1.00	70.90	D	C
ATOM	2999	CG1	ILE	D	82	68.746	16.675	9.059	1.00	73.88	D	C
ATOM	3000	CD1	ILE	D	82	69.610	17.051	7.885	1.00	73.17	D	C
ATOM	3001	CG2	ILE	D	82	69.393	18.550	10.643	1.00	72.43	D	C
ATOM	3002	C	ILE	D	82	66.563	18.724	11.392	1.00	75.03	D	C
ATOM	3003	O	ILE	D	82	65.877	19.391	10.606	1.00	70.34	D	O
ATOM	3004	N	HIS	D	83	66.841	19.100	12.644	1.00	77.44	D	N
ATOM	3005	CA	HIS	D	83	66.436	20.384	13.182	1.00	76.58	D	C
ATOM	3006	CB	HIS	D	83	65.439	20.206	14.318	1.00	76.40	D	C
ATOM	3007	CG	HIS	D	83	64.638	18.941	14.256	1.00	78.12	D	C
ATOM	3008	ND1	HIS	D	83	63.413	18.883	13.633	1.00	77.58	D	N
ATOM	3009	CE1	HIS	D	83	62.916	17.662	13.748	1.00	78.38	D	C
ATOM	3010	NE2	HIS	D	83	63.777	16.925	14.425	1.00	79.32	D	N
ATOM	3011	CD2	HIS	D	83	64.861	17.701	14.763	1.00	80.64	D	C
ATOM	3012	C	HIS	D	83	67.688	21.078	13.718	1.00	72.07	D	C
ATOM	3013	O	HIS	D	83	68.171	22.051	13.147	1.00	70.11	D	O
ATOM	3014	N	CYS	D	87	68.478	26.689	9.901	1.00	60.72	D	N
ATOM	3015	CA	CYS	D	87	67.329	27.502	10.273	1.00	66.42	D	C
ATOM	3016	CB	CYS	D	87	67.220	28.767	9.362	1.00	72.03	D	C
ATOM	3017	SG	CYS	D	87	67.321	28.571	7.540	1.00	66.98	D	S
ATOM	3018	C	CYS	D	87	66.027	26.680	10.261	1.00	70.48	D	C
ATOM	3019	O	CYS	D	87	65.478	26.355	11.313	1.00	67.88	D	O
ATOM	3020	N	ASN	D	88	65.515	26.354	9.078	1.00	75.00	D	N
ATOM	3021	CA	ASN	D	88	64.208	25.683	8.990	1.00	75.70	D	C
ATOM	3022	CB	ASN	D	88	63.830	25.380	7.540	1.00	79.32	D	C
ATOM	3023	CG	ASN	D	88	63.389	26.593	6.772	1.00	81.34	D	C
ATOM	3024	OD1	ASN	D	88	62.355	27.196	7.058	1.00	78.82	D	O
ATOM	3025	ND2	ASN	D	88	64.173	26.943	5.761	1.00	84.86	D	N
ATOM	3026	C	ASN	D	88	64.083	24.360	9.722	1.00	74.35	D	C
ATOM	3027	O	ASN	D	88	63.660	24.343	10.866	1.00	73.01	D	O
ATOM	3028	N	SER	D	89	64.452	23.277	9.019	1.00	66.53	D	N
ATOM	3029	CA	SER	D	89	64.092	21.869	9.333	1.00	64.20	D	C
ATOM	3030	CB	SER	D	89	62.869	21.696	10.235	1.00	63.10	D	C
ATOM	3031	OG	SER	D	89	62.401	20.361	10.084	1.00	59.28	D	O
ATOM	3032	C	SER	D	89	63.855	21.017	8.061	1.00	64.07	D	C
ATOM	3033	O	SER	D	89	62.953	21.286	7.268	1.00	58.02	D	O
ATOM	3034	N	ARG	D	90	64.625	19.940	7.921	1.00	63.84	D	N
ATOM	3035	CA	ARG	D	90	64.753	19.235	6.641	1.00	58.07	D	C
ATOM	3036	CB	ARG	D	90	65.991	19.804	5.952	1.00	57.81	D	C
ATOM	3037	CG	ARG	D	90	66.382	19.114	4.653	1.00	55.96	D	C
ATOM	3038	CD	ARG	D	90	67.390	19.948	3.886	1.00	56.77	D	C
ATOM	3039	NE	ARG	D	90	67.771	19.279	2.644	1.00	59.48	D	N
ATOM	3040	CZ	ARG	D	90	68.813	19.604	1.879	1.00	58.21	D	C
ATOM	3041	NH1	ARG	D	90	69.629	20.601	2.208	1.00	60.34	D	N
ATOM	3042	NH2	ARG	D	90	69.044	18.919	0.771	1.00	58.61	D	N
ATOM	3043	C	ARG	D	90	64.888	17.718	6.800	1.00	52.36	D	C
ATOM	3044	O	ARG	D	90	65.492	17.255	7.754	1.00	54.18	D	O
ATOM	3045	N	THR	D	91	64.355	16.945	5.860	1.00	48.54	D	N
ATOM	3046	CA	THR	D	91	64.448	15.504	5.979	1.00	49.64	D	C
ATOM	3047	CB	THR	D	91	63.117	14.746	5.918	1.00	51.39	D	C
ATOM	3048	OG1	THR	D	91	62.926	14.242	4.601	1.00	54.64	D	O
ATOM	3049	CG2	THR	D	91	61.976	15.643	6.342	1.00	51.63	D	C
ATOM	3050	C	THR	D	91	65.444	14.939	4.990	1.00	50.96	D	C

ATOM	3051	O	THR	D	91	65.469	15.321	3.831	1.00	50.96	D	O
ATOM	3052	N	ILE	D	92	66.255	14.011	5.489	1.00	55.28	D	N
ATOM	3053	CA	ILE	D	92	67.332	13.350	4.736	1.00	55.24	D	C
ATOM	3054	CB	ILE	D	92	68.733	13.792	5.221	1.00	59.66	D	C
ATOM	3055	CG1	ILE	D	92	68.893	13.630	6.743	1.00	60.50	D	C
ATOM	3056	CD1	ILE	D	92	69.897	12.585	7.154	1.00	62.49	D	C
ATOM	3057	CG2	ILE	D	92	69.003	15.235	4.813	1.00	63.32	D	C
ATOM	3058	C	ILE	D	92	67.217	11.837	4.867	1.00	50.40	D	C
ATOM	3059	O	ILE	D	92	66.424	11.350	5.659	1.00	47.12	D	O
ATOM	3060	N	ILE	D	93	68.006	11.125	4.071	1.00	44.39	D	N
ATOM	3061	CA	ILE	D	93	68.017	9.687	4.056	1.00	42.64	D	C
ATOM	3062	CB	ILE	D	93	68.023	9.144	2.608	1.00	46.11	D	C
ATOM	3063	CG1	ILE	D	93	66.711	9.482	1.908	1.00	47.21	D	C
ATOM	3064	CD1	ILE	D	93	65.470	8.909	2.533	1.00	47.21	D	C
ATOM	3065	CG2	ILE	D	93	68.349	7.649	2.549	1.00	46.11	D	C
ATOM	3066	C	ILE	D	93	69.271	9.188	4.745	1.00	40.48	D	C
ATOM	3067	O	ILE	D	93	70.376	9.459	4.281	1.00	38.88	D	O
ATOM	3068	N	ASN	D	94	69.085	8.446	5.840	1.00	36.41	D	N
ATOM	3069	CA	ASN	D	94	70.148	7.659	6.443	1.00	32.75	D	C
ATOM	3070	CB	ASN	D	94	70.107	7.807	7.959	1.00	33.55	D	C
ATOM	3071	CG	ASN	D	94	71.483	7.743	8.591	1.00	34.02	D	C
ATOM	3072	OD1	ASN	D	94	72.402	7.086	8.077	1.00	35.30	D	O
ATOM	3073	ND2	ASN	D	94	71.609	8.343	9.756	1.00	33.97	D	N
ATOM	3074	C	ASN	D	94	69.953	6.189	6.056	1.00	31.89	D	C
ATOM	3075	O	ASN	D	94	69.108	5.884	5.229	1.00	29.80	D	O
ATOM	3076	N	ARG	D	95	70.732	5.290	6.659	1.00	31.83	D	N
ATOM	3077	CA	ARG	D	95	70.554	3.856	6.495	1.00	32.58	D	C
ATOM	3078	CB	ARG	D	95	71.629	3.305	5.598	1.00	33.96	D	C
ATOM	3079	CG	ARG	D	95	71.620	4.004	4.265	1.00	36.16	D	C
ATOM	3080	CD	ARG	D	95	72.666	3.473	3.308	1.00	40.06	D	C
ATOM	3081	NE	ARG	D	95	72.721	4.236	2.057	1.00	44.64	D	N
ATOM	3082	CZ	ARG	D	95	73.657	4.063	1.121	1.00	46.31	D	C
ATOM	3083	NH1	ARG	D	95	74.616	3.157	1.278	1.00	47.27	D	N
ATOM	3084	NH2	ARG	D	95	73.632	4.795	0.016	1.00	49.47	D	N
ATOM	3085	C	ARG	D	95	70.597	3.135	7.829	1.00	32.11	D	C
ATOM	3086	O	ARG	D	95	71.113	3.657	8.815	1.00	27.34	D	O
ATOM	3087	N	PHE	D	96	70.016	1.938	7.858	1.00	34.06	D	N
ATOM	3088	CA	PHE	D	96	70.123	1.082	9.033	1.00	37.24	D	C
ATOM	3089	CB	PHE	D	96	68.834	1.076	9.869	1.00	40.32	D	C
ATOM	3090	CG	PHE	D	96	67.646	0.462	9.189	1.00	42.81	D	C
ATOM	3091	CD1	PHE	D	96	66.943	1.165	8.231	1.00	44.60	D	C
ATOM	3092	CE1	PHE	D	96	65.835	0.618	7.610	1.00	47.54	D	C
ATOM	3093	CZ	PHE	D	96	65.401	-0.651	7.964	1.00	50.93	D	C
ATOM	3094	CE2	PHE	D	96	66.079	-1.358	8.945	1.00	48.06	D	C
ATOM	3095	CD2	PHE	D	96	67.191	-0.796	9.558	1.00	46.08	D	C
ATOM	3096	C	PHE	D	96	70.563	-0.324	8.674	1.00	35.56	D	C
ATOM	3097	O	PHE	D	96	70.456	-0.756	7.533	1.00	34.10	D	O
ATOM	3098	N	CYS	D	97	71.067	-1.018	9.685	1.00	34.36	D	N
ATOM	3099	CA	CYS	D	97	71.608	-2.336	9.542	1.00	31.62	D	C
ATOM	3100	CB	CYS	D	97	72.978	-2.374	10.203	1.00	32.81	D	C
ATOM	3101	SG	CYS	D	97	74.057	-1.002	9.754	1.00	36.03	D	S
ATOM	3102	C	CYS	D	97	70.714	-3.326	10.256	1.00	29.38	D	C
ATOM	3103	O	CYS	D	97	70.249	-3.074	11.346	1.00	26.46	D	O
ATOM	3104	N	TYR	D	98	70.544	-4.494	9.679	1.00	30.07	D	N
ATOM	3105	CA	TYR	D	98	70.009	-5.617	10.446	1.00	30.31	D	C
ATOM	3106	CB	TYR	D	98	68.485	-5.553	10.536	1.00	31.70	D	C
ATOM	3107	CG	TYR	D	98	67.824	-5.490	9.202	1.00	33.58	D	C
ATOM	3108	CD1	TYR	D	98	67.590	-6.648	8.474	1.00	36.58	D	C
ATOM	3109	CE1	TYR	D	98	67.011	-6.591	7.216	1.00	38.79	D	C
ATOM	3110	CZ	TYR	D	98	66.652	-5.362	6.691	1.00	37.11	D	C
ATOM	3111	OH	TYR	D	98	66.078	-5.326	5.472	1.00	33.30	D	O
ATOM	3112	CE2	TYR	D	98	66.884	-4.193	7.394	1.00	35.59	D	C
ATOM	3113	CD2	TYR	D	98	67.482	-4.267	8.636	1.00	34.67	D	C
ATOM	3114	C	TYR	D	98	70.453	-6.918	9.813	1.00	28.76	D	C
ATOM	3115	O	TYR	D	98	70.606	-7.005	8.583	1.00	27.80	D	O
ATOM	3116	N	GLY	D	99	70.636	-7.932	10.643	1.00	26.07	D	N
ATOM	3117	CA	GLY	D	99	71.073	-9.208	10.132	1.00	27.10	D	C
ATOM	3118	C	GLY	D	99	71.263	-10.273	11.173	1.00	26.01	D	C

ATOM	3119	O	GLY	D	99	70.880	-10.113	12.339	1.00	26.66	D	O
ATOM	3120	N	GLN	D	100	71.795	-11.393	10.716	1.00	24.64	D	N
ATOM	3121	CA	GLN	D	100	72.054	-12.504	11.570	1.00	27.07	D	C
ATOM	3122	CB	GLN	D	100	71.002	-13.597	11.370	1.00	27.49	D	C
ATOM	3123	CG	GLN	D	100	69.575	-13.072	11.525	1.00	28.04	D	C
ATOM	3124	CD	GLN	D	100	68.520	-14.141	11.249	1.00	27.72	D	C
ATOM	3125	OE1	GLN	D	100	68.767	-15.071	10.501	1.00	28.84	D	O
ATOM	3126	NE2	GLN	D	100	67.351	-14.013	11.851	1.00	27.77	D	N
ATOM	3127	C	GLN	D	100	73.455	-12.973	11.251	1.00	28.27	D	C
ATOM	3128	O	GLN	D	100	73.682	-13.590	10.221	1.00	27.26	D	O
ATOM	3129	N	CYS	D	101	74.387	-12.643	12.137	1.00	29.64	D	N
ATOM	3130	CA	CYS	D	101	75.779	-12.925	11.915	1.00	32.11	D	C
ATOM	3131	CB	CYS	D	101	76.617	-11.733	12.349	1.00	34.20	D	C
ATOM	3132	SG	CYS	D	101	76.200	-10.223	11.438	1.00	36.82	D	S
ATOM	3133	C	CYS	D	101	76.158	-14.167	12.686	1.00	32.88	D	C
ATOM	3134	O	CYS	D	101	75.362	-14.655	13.462	1.00	36.54	D	O
ATOM	3135	N	ASN	D	102	77.362	-14.692	12.466	1.00	32.68	D	N
ATOM	3136	CA	ASN	D	102	77.798	-15.901	13.143	1.00	31.82	D	C
ATOM	3137	CB	ASN	D	102	78.895	-16.583	12.379	1.00	32.44	D	C
ATOM	3138	CG	ASN	D	102	78.442	-17.079	11.044	1.00	34.87	D	C
ATOM	3139	OD1	ASN	D	102	77.300	-17.488	10.840	1.00	38.60	D	O
ATOM	3140	ND2	ASN	D	102	79.338	-17.044	10.120	1.00	37.13	D	N
ATOM	3141	C	ASN	D	102	78.335	-15.611	14.505	1.00	32.82	D	C
ATOM	3142	O	ASN	D	102	79.009	-14.602	14.712	1.00	38.29	D	O
ATOM	3143	N	SER	D	103	78.032	-16.504	15.433	1.00	32.00	D	N
ATOM	3144	CA	SER	D	103	78.652	-16.494	16.735	1.00	32.99	D	C
ATOM	3145	CB	SER	D	103	77.841	-15.657	17.713	1.00	32.84	D	C
ATOM	3146	OG	SER	D	103	76.530	-16.169	17.815	1.00	34.75	D	O
ATOM	3147	C	SER	D	103	78.736	-17.921	17.222	1.00	32.04	D	C
ATOM	3148	O	SER	D	103	77.967	-18.771	16.802	1.00	30.92	D	O
ATOM	3149	N	PHE	D	104	79.693	-18.181	18.095	1.00	32.04	D	N
ATOM	3150	CA	PHE	D	104	79.830	-19.496	18.685	1.00	30.57	D	C
ATOM	3151	CB	PHE	D	104	80.480	-20.478	17.713	1.00	31.57	D	C
ATOM	3152	CG	PHE	D	104	81.879	-20.105	17.284	1.00	34.55	D	C
ATOM	3153	CD1	PHE	D	104	82.971	-20.318	18.125	1.00	36.23	D	C
ATOM	3154	CE1	PHE	D	104	84.259	-19.960	17.733	1.00	37.21	D	C
ATOM	3155	CZ	PHE	D	104	84.471	-19.425	16.482	1.00	35.79	D	C
ATOM	3156	CE2	PHE	D	104	83.402	-19.242	15.625	1.00	36.02	D	C
ATOM	3157	CD2	PHE	D	104	82.119	-19.578	16.020	1.00	35.92	D	C
ATOM	3158	C	PHE	D	104	80.608	-19.414	19.981	1.00	28.53	D	C
ATOM	3159	O	PHE	D	104	81.221	-18.399	20.309	1.00	25.49	D	O
ATOM	3160	N	TYR	D	105	80.558	-20.505	20.722	1.00	29.76	D	N
ATOM	3161	CA	TYR	D	105	81.239	-20.597	22.003	1.00	30.79	D	C
ATOM	3162	CB	TYR	D	105	80.324	-20.115	23.122	1.00	30.84	D	C
ATOM	3163	CG	TYR	D	105	80.984	-20.198	24.454	1.00	32.75	D	C
ATOM	3164	CD1	TYR	D	105	81.094	-21.403	25.131	1.00	33.29	D	C
ATOM	3165	CE1	TYR	D	105	81.724	-21.475	26.356	1.00	35.15	D	C
ATOM	3166	CZ	TYR	D	105	82.256	-20.343	26.917	1.00	34.61	D	C
ATOM	3167	OH	TYR	D	105	82.892	-20.383	28.140	1.00	38.66	D	O
ATOM	3168	CE2	TYR	D	105	82.163	-19.145	26.268	1.00	35.69	D	C
ATOM	3169	CD2	TYR	D	105	81.533	-19.075	25.037	1.00	34.75	D	C
ATOM	3170	C	TYR	D	105	81.612	-22.040	22.226	1.00	30.10	D	C
ATOM	3171	O	TYR	D	105	80.741	-22.913	22.223	1.00	29.72	D	O
ATOM	3172	N	ILE	D	106	82.896	-22.297	22.408	1.00	31.01	D	N
ATOM	3173	CA	ILE	D	106	83.384	-23.658	22.494	1.00	34.86	D	C
ATOM	3174	CB	ILE	D	106	84.132	-24.050	21.209	1.00	37.67	D	C
ATOM	3175	CG1	ILE	D	106	83.187	-24.053	20.007	1.00	39.12	D	C
ATOM	3176	CD1	ILE	D	106	83.901	-23.959	18.679	1.00	40.54	D	C
ATOM	3177	CG2	ILE	D	106	84.750	-25.427	21.349	1.00	38.84	D	C
ATOM	3178	C	ILE	D	106	84.336	-23.743	23.657	1.00	37.21	D	C
ATOM	3179	O	ILE	D	106	85.401	-23.136	23.606	1.00	38.41	D	O
ATOM	3180	N	PRO	D	107	83.973	-24.492	24.711	1.00	41.40	D	N
ATOM	3181	CA	PRO	D	107	84.858	-24.635	25.876	1.00	44.41	D	C
ATOM	3182	CB	PRO	D	107	84.055	-25.495	26.849	1.00	43.10	D	C
ATOM	3183	CG	PRO	D	107	82.779	-25.837	26.190	1.00	42.35	D	C
ATOM	3184	CD	PRO	D	107	82.845	-25.432	24.754	1.00	41.78	D	C
ATOM	3185	C	PRO	D	107	86.150	-25.396	25.562	1.00	51.30	D	C
ATOM	3186	O	PRO	D	107	86.146	-26.247	24.694	1.00	53.01	D	O

ATOM	3187	N	ARG	D	108	87.218	-25.095	26.301	1.00	57.97	D	N
ATOM	3188	CA	ARG	D	108	88.481	-25.839	26.292	1.00	57.33	D	C
ATOM	3189	CB	ARG	D	108	89.550	-24.859	25.787	1.00	56.67	D	C
ATOM	3190	CG	ARG	D	108	89.520	-24.551	24.326	1.00	55.94	D	C
ATOM	3191	CD	ARG	D	108	90.352	-23.262	24.071	1.00	56.06	D	C
ATOM	3192	NE	ARG	D	108	91.724	-23.544	23.628	1.00	58.22	D	N
ATOM	3193	CZ	ARG	D	108	92.662	-22.617	23.460	1.00	57.72	D	C
ATOM	3194	NH1	ARG	D	108	92.406	-21.333	23.713	1.00	58.79	D	N
ATOM	3195	NH2	ARG	D	108	93.871	-22.976	23.049	1.00	54.71	D	N
ATOM	3196	C	ARG	D	108	88.869	-26.247	27.723	1.00	61.74	D	C
ATOM	3197	O	ARG	D	108	88.228	-25.852	28.705	1.00	63.14	D	O
ATOM	3198	N	HIS	D	109	89.921	-27.038	27.856	1.00	72.66	D	N
ATOM	3199	CA	HIS	D	109	90.603	-27.139	29.154	1.00	86.11	D	C
ATOM	3200	CB	HIS	D	109	90.969	-28.593	29.493	1.00	88.78	D	C
ATOM	3201	CG	HIS	D	109	89.973	-29.286	30.382	1.00	92.39	D	C
ATOM	3202	ND1	HIS	D	109	88.701	-28.803	30.640	1.00	98.38	D	N
ATOM	3203	CE1	HIS	D	109	88.068	-29.635	31.451	1.00	95.86	D	C
ATOM	3204	NE2	HIS	D	109	88.875	-30.645	31.717	1.00	97.93	D	N
ATOM	3205	CD2	HIS	D	109	90.068	-30.453	31.060	1.00	95.18	D	C
ATOM	3206	C	HIS	D	109	91.765	-26.127	29.156	1.00	94.83	D	C
ATOM	3207	O	HIS	D	109	91.494	-24.928	29.176	1.00	95.59	D	O
ATOM	3208	N	ILE	D	110	93.026	-26.565	29.191	1.00	105.05	D	N
ATOM	3209	CA	ILE	D	110	94.149	-25.780	28.632	1.00	109.23	D	C
ATOM	3210	CB	ILE	D	110	94.172	-25.884	27.082	1.00	107.61	D	C
ATOM	3211	CG1	ILE	D	110	94.406	-27.354	26.581	1.00	106.13	D	C
ATOM	3212	CD1	ILE	D	110	93.488	-28.467	27.078	1.00	101.08	D	C
ATOM	3213	CG2	ILE	D	110	95.321	-25.044	26.553	1.00	107.08	D	C
ATOM	3214	C	ILE	D	110	94.255	-24.279	29.043	1.00	115.33	D	C
ATOM	3215	O	ILE	D	110	93.279	-23.539	28.927	1.00	110.81	D	O
ATOM	3216	N	ARG	D	111	95.464	-23.812	29.406	1.00	121.65	D	N
ATOM	3217	CA	ARG	D	111	95.674	-22.472	30.013	1.00	125.06	D	C
ATOM	3218	CB	ARG	D	111	95.185	-21.390	29.030	1.00	121.63	D	C
ATOM	3219	CG	ARG	D	111	95.192	-19.960	29.534	1.00	117.54	D	C
ATOM	3220	CD	ARG	D	111	94.541	-19.078	28.521	1.00	116.02	D	C
ATOM	3221	NE	ARG	D	111	94.686	-17.647	28.846	1.00	118.15	D	N
ATOM	3222	CZ	ARG	D	111	95.603	-16.809	28.337	1.00	113.16	D	C
ATOM	3223	NH1	ARG	D	111	96.489	-17.192	27.416	1.00	109.82	D	N
ATOM	3224	NH2	ARG	D	111	95.620	-15.542	28.748	1.00	110.79	D	N
ATOM	3225	C	ARG	D	111	94.980	-22.283	31.370	1.00	133.48	D	C
ATOM	3226	O	ARG	D	111	93.789	-22.038	31.349	1.00	147.76	D	O
ATOM	3227	N	LYS	D	112	95.691	-22.344	32.519	1.00	132.66	D	N
ATOM	3228	CA	LYS	D	112	95.065	-22.238	33.852	1.00	132.99	D	C
ATOM	3229	CB	LYS	D	112	94.401	-20.851	34.008	1.00	130.80	D	C
ATOM	3230	CG	LYS	D	112	94.227	-20.439	35.457	1.00	126.33	D	C
ATOM	3231	CD	LYS	D	112	93.875	-18.969	35.706	1.00	124.61	D	C
ATOM	3232	CE	LYS	D	112	93.142	-18.232	34.560	1.00	126.38	D	C
ATOM	3233	NZ	LYS	D	112	91.723	-18.667	34.382	1.00	126.02	D	N
ATOM	3234	C	LYS	D	112	94.108	-23.461	34.025	1.00	132.32	D	C
ATOM	3235	O	LYS	D	112	94.542	-24.630	34.016	1.00	129.72	D	O
ATOM	3236	N	GLU	D	113	92.817	-23.202	34.181	1.00	128.88	D	N
ATOM	3237	CA	GLU	D	113	91.796	-24.225	34.010	1.00	120.28	D	C
ATOM	3238	CB	GLU	D	113	91.590	-25.019	35.302	1.00	115.82	D	C
ATOM	3239	C	GLU	D	113	90.529	-23.546	33.545	1.00	111.48	D	C
ATOM	3240	O	GLU	D	113	89.450	-23.774	34.079	1.00	119.55	D	O
ATOM	3241	N	GLU	D	114	90.688	-22.704	32.528	1.00	95.17	D	N
ATOM	3242	CA	GLU	D	114	89.578	-21.916	32.009	1.00	81.62	D	C
ATOM	3243	CB	GLU	D	114	89.216	-20.773	32.969	1.00	73.37	D	C
ATOM	3244	CG	GLU	D	114	87.895	-20.097	32.629	1.00	69.67	D	C
ATOM	3245	CD	GLU	D	114	86.691	-21.010	32.807	1.00	66.37	D	C
ATOM	3246	OE1	GLU	D	114	86.629	-21.737	33.817	1.00	73.36	D	O
ATOM	3247	OE2	GLU	D	114	85.800	-21.008	31.935	1.00	57.25	D	O
ATOM	3248	C	GLU	D	114	89.897	-21.366	30.614	1.00	74.32	D	C
ATOM	3249	O	GLU	D	114	90.800	-20.553	30.450	1.00	74.11	D	O
ATOM	3250	N	GLY	D	115	89.144	-21.818	29.618	1.00	68.42	D	N
ATOM	3251	CA	GLY	D	115	89.323	-21.356	28.245	1.00	61.93	D	C
ATOM	3252	C	GLY	D	115	88.127	-21.616	27.345	1.00	53.62	D	C
ATOM	3253	O	GLY	D	115	87.340	-22.547	27.558	1.00	54.76	D	O
ATOM	3254	N	SER	D	116	87.966	-20.771	26.347	1.00	45.06	D	N

ATOM	3255	CA	SER	D	116	87.017	-21.058	25.290	1.00	44.39	D	C
ATOM	3256	CB	SER	D	116	85.618	-20.505	25.614	1.00	47.28	D	C
ATOM	3257	OG	SER	D	116	85.623	-19.089	25.748	1.00	47.43	D	O
ATOM	3258	C	SER	D	116	87.500	-20.475	23.985	1.00	41.86	D	C
ATOM	3259	O	SER	D	116	88.243	-19.517	23.982	1.00	42.76	D	O
ATOM	3260	N	PHE	D	117	87.083	-21.072	22.880	1.00	39.39	D	N
ATOM	3261	CA	PHE	D	117	87.135	-20.419	21.581	1.00	39.13	D	C
ATOM	3262	CB	PHE	D	117	87.295	-21.439	20.448	1.00	40.26	D	C
ATOM	3263	CG	PHE	D	117	88.601	-22.181	20.459	1.00	40.68	D	C
ATOM	3264	CD1	PHE	D	117	89.806	-21.495	20.338	1.00	39.75	D	C
ATOM	3265	CE1	PHE	D	117	91.009	-22.167	20.327	1.00	39.78	D	C
ATOM	3266	CZ	PHE	D	117	91.021	-23.545	20.403	1.00	42.65	D	C
ATOM	3267	CE2	PHE	D	117	89.826	-24.249	20.509	1.00	43.41	D	C
ATOM	3268	CD2	PHE	D	117	88.626	-23.569	20.536	1.00	41.85	D	C
ATOM	3269	C	PHE	D	117	85.798	-19.745	21.388	1.00	37.00	D	C
ATOM	3270	O	PHE	D	117	84.780	-20.407	21.394	1.00	38.42	D	O
ATOM	3271	N	GLN	D	118	85.771	-18.443	21.191	1.00	40.33	D	N
ATOM	3272	CA	GLN	D	118	84.484	-17.777	20.951	1.00	39.45	D	C
ATOM	3273	CB	GLN	D	118	83.870	-17.310	22.251	1.00	38.07	D	C
ATOM	3274	CG	GLN	D	118	84.763	-16.370	22.997	1.00	42.01	D	C
ATOM	3275	CD	GLN	D	118	84.361	-16.097	24.428	1.00	47.31	D	C
ATOM	3276	OE1	GLN	D	118	83.378	-16.602	24.971	1.00	44.74	D	O
ATOM	3277	NE2	GLN	D	118	85.186	-15.298	25.059	1.00	50.91	D	N
ATOM	3278	C	GLN	D	118	84.570	-16.617	19.985	1.00	36.79	D	C
ATOM	3279	O	GLN	D	118	85.627	-16.030	19.755	1.00	35.95	D	O
ATOM	3280	N	SER	D	119	83.429	-16.306	19.403	1.00	35.10	D	N
ATOM	3281	CA	SER	D	119	83.362	-15.319	18.351	1.00	34.52	D	C
ATOM	3282	CB	SER	D	119	83.768	-15.938	17.020	1.00	34.63	D	C
ATOM	3283	OG	SER	D	119	83.635	-14.984	16.000	1.00	35.23	D	O
ATOM	3284	C	SER	D	119	81.955	-14.836	18.254	1.00	31.33	D	C
ATOM	3285	O	SER	D	119	81.030	-15.588	18.493	1.00	29.40	D	O
ATOM	3286	N	CYS	D	120	81.814	-13.567	17.933	1.00	29.95	D	N
ATOM	3287	CA	CYS	D	120	80.525	-12.964	17.796	1.00	32.52	D	C
ATOM	3288	CB	CYS	D	120	79.986	-12.491	19.148	1.00	32.31	D	C
ATOM	3289	SG	CYS	D	120	78.255	-11.934	19.086	1.00	34.83	D	S
ATOM	3290	C	CYS	D	120	80.674	-11.783	16.865	1.00	34.62	D	C
ATOM	3291	O	CYS	D	120	81.555	-10.954	17.049	1.00	35.67	D	O
ATOM	3292	N	SER	D	121	79.827	-11.727	15.850	1.00	34.19	D	N
ATOM	3293	CA	SER	D	121	79.838	-10.627	14.938	1.00	34.08	D	C
ATOM	3294	CB	SER	D	121	80.063	-11.128	13.517	1.00	36.11	D	C
ATOM	3295	OG	SER	D	121	81.398	-11.556	13.392	1.00	38.29	D	O
ATOM	3296	C	SER	D	121	78.532	-9.892	15.060	1.00	33.72	D	C
ATOM	3297	O	SER	D	121	77.556	-10.422	15.560	1.00	33.95	D	O
ATOM	3298	N	PHE	D	122	78.540	-8.660	14.583	1.00	33.68	D	N
ATOM	3299	CA	PHE	D	122	77.516	-7.686	14.878	1.00	33.08	D	C
ATOM	3300	CB	PHE	D	122	78.109	-6.686	15.882	1.00	31.39	D	C
ATOM	3301	CG	PHE	D	122	77.153	-5.640	16.388	1.00	29.33	D	C
ATOM	3302	CD1	PHE	D	122	75.880	-5.483	15.860	1.00	28.81	D	C
ATOM	3303	CE1	PHE	D	122	75.044	-4.487	16.321	1.00	29.09	D	C
ATOM	3304	CZ	PHE	D	122	75.471	-3.633	17.315	1.00	29.20	D	C
ATOM	3305	CE2	PHE	D	122	76.739	-3.778	17.835	1.00	28.60	D	C
ATOM	3306	CD2	PHE	D	122	77.565	-4.776	17.377	1.00	27.50	D	C
ATOM	3307	C	PHE	D	122	77.202	-7.019	13.559	1.00	34.75	D	C
ATOM	3308	O	PHE	D	122	78.087	-6.420	12.952	1.00	34.94	D	O
ATOM	3309	N	CYS	D	123	75.966	-7.174	13.077	1.00	36.28	D	N
ATOM	3310	CA	CYS	D	123	75.566	-6.521	11.832	1.00	35.86	D	C
ATOM	3311	CB	CYS	D	123	74.291	-7.133	11.250	1.00	35.73	D	C
ATOM	3312	SG	CYS	D	123	73.603	-6.239	9.827	1.00	36.73	D	S
ATOM	3313	C	CYS	D	123	75.414	-5.036	12.147	1.00	34.58	D	C
ATOM	3314	O	CYS	D	123	74.472	-4.629	12.805	1.00	34.73	D	O
ATOM	3315	N	LYS	D	124	76.364	-4.238	11.675	1.00	35.50	D	N
ATOM	3316	CA	LYS	D	124	76.458	-2.816	12.032	1.00	35.11	D	C
ATOM	3317	CB	LYS	D	124	77.181	-2.700	13.351	1.00	37.02	D	C
ATOM	3318	CG	LYS	D	124	78.659	-2.957	13.195	1.00	40.93	D	C
ATOM	3319	CD	LYS	D	124	79.348	-3.152	14.528	1.00	45.38	D	C
ATOM	3320	CE	LYS	D	124	79.463	-1.847	15.286	1.00	48.65	D	C
ATOM	3321	NZ	LYS	D	124	80.757	-1.839	16.028	1.00	50.10	D	N
ATOM	3322	C	LYS	D	124	77.233	-2.025	10.947	1.00	35.45	D	C

ATOM	3323	O	LYS	D	124	77.765	-2.623	10.000	1.00	33.28	D	O
ATOM	3324	N	PRO	D	125	77.308	-0.687	11.081	1.00	34.95	D	N
ATOM	3325	CA	PRO	D	125	78.031	0.107	10.098	1.00	35.05	D	C
ATOM	3326	CB	PRO	D	125	77.848	1.531	10.607	1.00	34.24	D	C
ATOM	3327	CG	PRO	D	125	76.561	1.482	11.325	1.00	35.29	D	C
ATOM	3328	CD	PRO	D	125	76.603	0.173	12.041	1.00	35.77	D	C
ATOM	3329	C	PRO	D	125	79.516	-0.222	9.988	1.00	35.74	D	C
ATOM	3330	O	PRO	D	125	80.207	-0.308	10.997	1.00	35.60	D	O
ATOM	3331	N	LYS	D	126	79.980	-0.408	8.762	1.00	36.80	D	N
ATOM	3332	CA	LYS	D	126	81.391	-0.510	8.486	1.00	43.57	D	C
ATOM	3333	CB	LYS	D	126	81.638	-1.416	7.297	1.00	49.54	D	C
ATOM	3334	CG	LYS	D	126	83.132	-1.599	7.012	1.00	57.67	D	C
ATOM	3335	CD	LYS	D	126	83.503	-3.078	6.704	1.00	65.41	D	C
ATOM	3336	CE	LYS	D	126	84.252	-3.273	5.381	1.00	71.15	D	C
ATOM	3337	NZ	LYS	D	126	85.511	-4.106	5.519	1.00	75.89	D	N
ATOM	3338	C	LYS	D	126	81.976	0.876	8.188	1.00	43.02	D	C
ATOM	3339	O	LYS	D	126	83.058	1.207	8.640	1.00	37.77	D	O
ATOM	3340	N	LYS	D	127	81.257	1.661	7.402	1.00	49.82	D	N
ATOM	3341	CA	LYS	D	127	81.654	3.022	7.101	1.00	56.92	D	C
ATOM	3342	CB	LYS	D	127	82.066	3.168	5.634	1.00	62.32	D	C
ATOM	3343	CG	LYS	D	127	82.764	1.963	5.013	1.00	68.03	D	C
ATOM	3344	CD	LYS	D	127	83.293	2.283	3.616	1.00	69.75	D	C
ATOM	3345	CE	LYS	D	127	84.793	2.557	3.633	1.00	70.28	D	C
ATOM	3346	NZ	LYS	D	127	85.574	1.284	3.710	1.00	70.47	D	N
ATOM	3347	C	LYS	D	127	80.512	3.982	7.363	1.00	55.15	D	C
ATOM	3348	O	LYS	D	127	79.367	3.700	7.007	1.00	53.83	D	O
ATOM	3349	N	PHE	D	128	80.846	5.121	7.963	1.00	53.29	D	N
ATOM	3350	CA	PHE	D	128	79.942	6.269	8.036	1.00	52.87	D	C
ATOM	3351	CB	PHE	D	128	80.012	6.904	9.408	1.00	47.30	D	C
ATOM	3352	CG	PHE	D	128	79.527	6.023	10.498	1.00	45.74	D	C
ATOM	3353	CD1	PHE	D	128	80.363	5.070	11.063	1.00	45.53	D	C
ATOM	3354	CE1	PHE	D	128	79.914	4.252	12.085	1.00	45.14	D	C
ATOM	3355	CZ	PHE	D	128	78.612	4.389	12.550	1.00	46.02	D	C
ATOM	3356	CE2	PHE	D	128	77.770	5.344	11.999	1.00	44.37	D	C
ATOM	3357	CD2	PHE	D	128	78.230	6.151	10.976	1.00	45.09	D	C
ATOM	3358	C	PHE	D	128	80.317	7.314	6.993	1.00	53.16	D	C
ATOM	3359	O	PHE	D	128	81.442	7.336	6.529	1.00	58.63	D	O
ATOM	3360	N	THR	D	129	79.368	8.166	6.622	1.00	52.58	D	N
ATOM	3361	CA	THR	D	129	79.628	9.291	5.745	1.00	51.95	D	C
ATOM	3362	CB	THR	D	129	78.718	9.248	4.517	1.00	54.62	D	C
ATOM	3363	OG1	THR	D	129	79.161	8.204	3.641	1.00	60.68	D	O
ATOM	3364	CG2	THR	D	129	78.738	10.547	3.748	1.00	59.27	D	C
ATOM	3365	C	THR	D	129	79.370	10.547	6.538	1.00	57.00	D	C
ATOM	3366	O	THR	D	129	78.476	10.584	7.359	1.00	55.31	D	O
ATOM	3367	N	THR	D	130	80.172	11.575	6.306	1.00	63.72	D	N
ATOM	3368	CA	THR	D	130	79.920	12.889	6.891	1.00	66.91	D	C
ATOM	3369	CB	THR	D	130	81.102	13.371	7.733	1.00	73.33	D	C
ATOM	3370	OG1	THR	D	130	81.110	12.653	8.966	1.00	74.44	D	O
ATOM	3371	CG2	THR	D	130	80.998	14.857	8.033	1.00	73.66	D	C
ATOM	3372	C	THR	D	130	79.667	13.869	5.772	1.00	61.56	D	C
ATOM	3373	O	THR	D	130	80.387	13.876	4.778	1.00	63.68	D	O
ATOM	3374	N	MET	D	131	78.633	14.682	5.932	1.00	59.03	D	N
ATOM	3375	CA	MET	D	131	78.237	15.629	4.892	1.00	58.22	D	C
ATOM	3376	CB	MET	D	131	77.106	15.063	4.021	1.00	62.74	D	C
ATOM	3377	CG	MET	D	131	76.811	15.839	2.740	1.00	65.66	D	C
ATOM	3378	SD	MET	D	131	75.699	15.013	1.570	1.00	70.86	D	S
ATOM	3379	CE	MET	D	131	74.113	15.830	1.828	1.00	68.27	D	C
ATOM	3380	C	MET	D	131	77.748	16.901	5.529	1.00	59.97	D	C
ATOM	3381	O	MET	D	131	77.193	16.877	6.635	1.00	57.29	D	O
ATOM	3382	N	MET	D	132	77.931	17.996	4.800	1.00	66.74	D	N
ATOM	3383	CA	MET	D	132	77.383	19.298	5.162	1.00	72.45	D	C
ATOM	3384	CB	MET	D	132	78.301	20.441	4.666	1.00	81.24	D	C
ATOM	3385	CG	MET	D	132	79.460	20.878	5.565	1.00	88.33	D	C
ATOM	3386	SD	MET	D	132	79.360	20.418	7.311	1.00	98.34	D	S
ATOM	3387	CE	MET	D	132	80.065	18.770	7.178	1.00	103.55	D	C
ATOM	3388	C	MET	D	132	76.009	19.452	4.503	1.00	68.45	D	C
ATOM	3389	O	MET	D	132	75.907	19.392	3.285	1.00	65.89	D	O
ATOM	3390	N	VAL	D	133	74.973	19.655	5.318	1.00	65.75	D	N

ATOM	3391	CA	VAL	D	133	73.588	19.923	4.882	1.00	63.85	D	C
ATOM	3392	CB	VAL	D	133	72.640	18.864	5.466	1.00	65.19	D	C
ATOM	3393	CG1	VAL	D	133	71.195	19.086	5.000	1.00	68.34	D	C
ATOM	3394	CG2	VAL	D	133	73.075	17.446	5.151	1.00	62.45	D	C
ATOM	3395	C	VAL	D	133	73.137	21.209	5.669	1.00	64.69	D	C
ATOM	3396	O	VAL	D	133	73.065	21.066	6.885	1.00	62.40	D	O
ATOM	3397	N	THR	D	134	72.770	22.428	5.232	1.00	72.08	D	N
ATOM	3398	CA	THR	D	134	72.339	23.033	3.972	1.00	78.27	D	C
ATOM	3399	CB	THR	D	134	72.593	22.167	2.733	1.00	84.64	D	C
ATOM	3400	OG1	THR	D	134	73.954	21.748	2.705	1.00	92.16	D	O
ATOM	3401	CG2	THR	D	134	72.293	22.910	1.430	1.00	85.23	D	C
ATOM	3402	C	THR	D	134	70.825	23.345	4.181	1.00	72.08	D	C
ATOM	3403	O	THR	D	134	69.975	22.629	3.715	1.00	68.03	D	O
ATOM	3404	N	LEU	D	135	70.492	24.394	4.929	1.00	71.06	D	N
ATOM	3405	CA	LEU	D	135	69.129	24.628	5.393	1.00	71.27	D	C
ATOM	3406	CB	LEU	D	135	69.178	24.593	6.914	1.00	73.30	D	C
ATOM	3407	CG	LEU	D	135	69.733	23.293	7.539	1.00	73.76	D	C
ATOM	3408	CD1	LEU	D	135	69.767	23.398	9.057	1.00	75.34	D	C
ATOM	3409	CD2	LEU	D	135	68.942	22.055	7.129	1.00	73.08	D	C
ATOM	3410	C	LEU	D	135	68.527	25.971	4.895	1.00	68.82	D	C
ATOM	3411	O	LEU	D	135	67.402	26.380	5.252	1.00	64.59	D	O
ATOM	3412	N	LYS	D	145	72.019	27.845	6.735	1.00	72.03	D	N
ATOM	3413	CA	LYS	D	145	72.982	27.176	7.583	1.00	70.41	D	C
ATOM	3414	CB	LYS	D	145	72.354	26.837	8.925	1.00	71.07	D	C
ATOM	3415	CG	LYS	D	145	72.328	27.989	9.904	1.00	73.78	D	C
ATOM	3416	CD	LYS	D	145	73.621	28.091	10.684	1.00	77.64	D	C
ATOM	3417	CE	LYS	D	145	73.642	27.060	11.785	1.00	78.32	D	C
ATOM	3418	NZ	LYS	D	145	74.983	27.059	12.410	1.00	81.66	D	N
ATOM	3419	C	LYS	D	145	73.453	25.906	6.911	1.00	70.31	D	C
ATOM	3420	O	LYS	D	145	72.710	25.275	6.158	1.00	71.64	D	O
ATOM	3421	N	LYS	D	146	74.703	25.543	7.176	1.00	74.49	D	N
ATOM	3422	CA	LYS	D	146	75.197	24.206	6.877	1.00	73.38	D	C
ATOM	3423	CB	LYS	D	146	76.484	24.249	6.087	1.00	69.80	D	C
ATOM	3424	CG	LYS	D	146	76.277	24.569	4.619	1.00	70.43	D	C
ATOM	3425	CD	LYS	D	146	77.479	25.343	4.111	1.00	74.35	D	C
ATOM	3426	CE	LYS	D	146	77.098	26.757	3.672	1.00	76.82	D	C
ATOM	3427	NZ	LYS	D	146	78.220	27.462	2.985	1.00	78.39	D	N
ATOM	3428	C	LYS	D	146	75.395	23.453	8.180	1.00	73.23	D	C
ATOM	3429	O	LYS	D	146	76.083	23.922	9.074	1.00	78.97	D	O
ATOM	3430	N	LYS	D	147	74.764	22.293	8.284	1.00	76.18	D	N
ATOM	3431	CA	LYS	D	147	74.830	21.468	9.484	1.00	79.01	D	C
ATOM	3432	CB	LYS	D	147	73.447	21.170	10.033	1.00	79.19	D	C
ATOM	3433	CG	LYS	D	147	73.555	20.438	11.363	1.00	79.89	D	C
ATOM	3434	CD	LYS	D	147	72.538	19.333	11.522	1.00	84.87	D	C
ATOM	3435	CE	LYS	D	147	72.434	18.858	12.964	1.00	84.56	D	C
ATOM	3436	NZ	LYS	D	147	71.346	19.567	13.695	1.00	86.85	D	N
ATOM	3437	C	LYS	D	147	75.512	20.149	9.169	1.00	81.61	D	C
ATOM	3438	O	LYS	D	147	75.245	19.549	8.120	1.00	84.78	D	O
ATOM	3439	N	ARG	D	148	76.384	19.713	10.081	1.00	84.12	D	N
ATOM	3440	CA	ARG	D	148	77.036	18.413	9.977	1.00	85.04	D	C
ATOM	3441	CB	ARG	D	148	78.217	18.271	10.976	1.00	89.93	D	C
ATOM	3442	CG	ARG	D	148	79.538	18.888	10.486	1.00	95.95	D	C
ATOM	3443	CD	ARG	D	148	79.701	20.365	10.837	1.00	94.63	D	C
ATOM	3444	NE	ARG	D	148	80.411	20.598	12.101	1.00	90.44	D	N
ATOM	3445	CZ	ARG	D	148	81.727	20.465	12.256	1.00	87.47	D	C
ATOM	3446	NH1	ARG	D	148	82.479	20.072	11.234	1.00	79.96	D	N
ATOM	3447	NH2	ARG	D	148	82.288	20.708	13.439	1.00	88.21	D	N
ATOM	3448	C	ARG	D	148	76.068	17.296	10.294	1.00	80.95	D	C
ATOM	3449	O	ARG	D	148	75.379	17.314	11.327	1.00	69.68	D	O
ATOM	3450	N	VAL	D	149	76.044	16.311	9.408	1.00	71.38	D	N
ATOM	3451	CA	VAL	D	149	75.346	15.073	9.697	1.00	69.11	D	C
ATOM	3452	CB	VAL	D	149	73.956	15.041	9.051	1.00	71.04	D	C
ATOM	3453	CG1	VAL	D	149	73.998	15.688	7.685	1.00	75.13	D	C
ATOM	3454	CG2	VAL	D	149	73.433	13.615	8.947	1.00	73.80	D	C
ATOM	3455	C	VAL	D	149	76.178	13.880	9.248	1.00	63.37	D	C
ATOM	3456	O	VAL	D	149	76.703	13.856	8.128	1.00	57.97	D	O
ATOM	3457	N	THR	D	150	76.289	12.903	10.146	1.00	56.44	D	N
ATOM	3458	CA	THR	D	150	77.014	11.689	9.876	1.00	55.11	D	C

ATOM	3459	CB	THR	D	150	77.953	11.336	11.052	1.00	55.05	D	C
ATOM	3460	OG1	THR	D	150	79.061	12.245	11.061	1.00	58.15	D	O
ATOM	3461	CG2	THR	D	150	78.494	9.932	10.918	1.00	54.91	D	C
ATOM	3462	C	THR	D	150	75.963	10.613	9.630	1.00	49.64	D	C
ATOM	3463	O	THR	D	150	75.058	10.463	10.415	1.00	52.19	D	O
ATOM	3464	N	ARG	D	151	76.069	9.897	8.524	1.00	46.71	D	N
ATOM	3465	CA	ARG	D	151	75.089	8.900	8.172	1.00	46.60	D	C
ATOM	3466	CB	ARG	D	151	74.248	9.377	6.984	1.00	47.36	D	C
ATOM	3467	CG	ARG	D	151	74.872	9.123	5.634	1.00	51.71	D	C
ATOM	3468	CD	ARG	D	151	74.690	10.253	4.621	1.00	57.59	D	C
ATOM	3469	NE	ARG	D	151	73.314	10.741	4.458	1.00	55.78	D	N
ATOM	3470	CZ	ARG	D	151	72.968	11.998	4.159	1.00	57.51	D	C
ATOM	3471	NH1	ARG	D	151	73.877	12.951	3.999	1.00	56.63	D	N
ATOM	3472	NH2	ARG	D	151	71.688	12.317	4.028	1.00	61.12	D	N
ATOM	3473	C	ARG	D	151	75.794	7.579	7.862	1.00	45.50	D	C
ATOM	3474	O	ARG	D	151	76.987	7.546	7.585	1.00	44.47	D	O
ATOM	3475	N	VAL	D	152	75.050	6.485	7.945	1.00	43.35	D	N
ATOM	3476	CA	VAL	D	152	75.606	5.159	7.724	1.00	41.20	D	C
ATOM	3477	CB	VAL	D	152	74.679	4.065	8.306	1.00	39.62	D	C
ATOM	3478	CG1	VAL	D	152	75.116	2.678	7.867	1.00	39.30	D	C
ATOM	3479	CG2	VAL	D	152	74.620	4.153	9.815	1.00	38.25	D	C
ATOM	3480	C	VAL	D	152	75.755	4.978	6.220	1.00	42.44	D	C
ATOM	3481	O	VAL	D	152	74.884	5.382	5.463	1.00	37.85	D	O
ATOM	3482	N	LYS	D	153	76.860	4.376	5.800	1.00	45.95	D	N
ATOM	3483	CA	LYS	D	153	77.094	4.102	4.394	1.00	50.20	D	C
ATOM	3484	CB	LYS	D	153	78.542	4.447	4.020	1.00	57.18	D	C
ATOM	3485	CG	LYS	D	153	78.844	4.422	2.533	1.00	59.94	D	C
ATOM	3486	CD	LYS	D	153	80.191	5.041	2.139	1.00	67.24	D	C
ATOM	3487	CE	LYS	D	153	80.973	4.276	1.046	1.00	70.37	D	C
ATOM	3488	NZ	LYS	D	153	80.393	4.368	-0.335	1.00	68.90	D	N
ATOM	3489	C	LYS	D	153	76.846	2.644	4.097	1.00	48.69	D	C
ATOM	3490	O	LYS	D	153	76.019	2.325	3.255	1.00	49.79	D	O
ATOM	3491	N	GLN	D	154	77.574	1.764	4.788	1.00	47.08	D	N
ATOM	3492	CA	GLN	D	154	77.536	0.336	4.499	1.00	46.80	D	C
ATOM	3493	CB	GLN	D	154	78.731	-0.067	3.639	1.00	52.03	D	C
ATOM	3494	CG	GLN	D	154	78.736	-1.546	3.174	1.00	61.17	D	C
ATOM	3495	CD	GLN	D	154	77.945	-1.853	1.924	1.00	69.11	D	C
ATOM	3496	OE1	GLN	D	154	78.518	-1.917	0.837	1.00	78.44	D	O
ATOM	3497	NE2	GLN	D	154	76.652	-2.139	2.073	1.00	73.54	D	N
ATOM	3498	C	GLN	D	154	77.534	-0.460	5.790	1.00	43.76	D	C
ATOM	3499	O	GLN	D	154	78.343	-0.211	6.679	1.00	39.71	D	O
ATOM	3500	N	CYS	D	155	76.599	-1.408	5.901	1.00	42.50	D	N
ATOM	3501	CA	CYS	D	155	76.573	-2.346	7.033	1.00	41.07	D	C
ATOM	3502	CB	CYS	D	155	75.141	-2.646	7.456	1.00	39.83	D	C
ATOM	3503	SG	CYS	D	155	74.151	-1.162	7.738	1.00	40.54	D	S
ATOM	3504	C	CYS	D	155	77.267	-3.651	6.686	1.00	41.42	D	C
ATOM	3505	O	CYS	D	155	77.317	-4.051	5.531	1.00	42.79	D	O
ATOM	3506	N	ARG	D	156	77.776	-4.323	7.701	1.00	42.61	D	N
ATOM	3507	CA	ARG	D	156	78.373	-5.633	7.516	1.00	43.60	D	C
ATOM	3508	CB	ARG	D	156	79.749	-5.508	6.848	1.00	48.29	D	C
ATOM	3509	CG	ARG	D	156	79.712	-5.742	5.335	1.00	56.48	D	C
ATOM	3510	CD	ARG	D	156	80.989	-5.685	4.547	1.00	66.09	D	C
ATOM	3511	NE	ARG	D	156	81.911	-6.734	4.965	1.00	74.77	D	N
ATOM	3512	CZ	ARG	D	156	82.856	-7.259	4.194	1.00	83.38	D	C
ATOM	3513	NH1	ARG	D	156	83.015	-6.841	2.938	1.00	91.50	D	N
ATOM	3514	NH2	ARG	D	156	83.640	-8.211	4.687	1.00	82.71	D	N
ATOM	3515	C	ARG	D	156	78.454	-6.377	8.855	1.00	40.62	D	C
ATOM	3516	O	ARG	D	156	78.332	-5.772	9.919	1.00	35.08	D	O
ATOM	3517	N	CYS	D	157	78.592	-7.696	8.772	1.00	37.15	D	N
ATOM	3518	CA	CYS	D	157	78.854	-8.523	9.928	1.00	34.59	D	C
ATOM	3519	CB	CYS	D	157	78.667	-10.002	9.607	1.00	33.67	D	C
ATOM	3520	SG	CYS	D	157	76.938	-10.514	9.529	1.00	36.35	D	S
ATOM	3521	C	CYS	D	157	80.288	-8.288	10.323	1.00	35.68	D	C
ATOM	3522	O	CYS	D	157	81.199	-8.776	9.655	1.00	34.15	D	O
ATOM	3523	N	ILE	D	158	80.478	-7.551	11.411	1.00	35.59	D	N
ATOM	3524	CA	ILE	D	158	81.797	-7.189	11.904	1.00	37.74	D	C
ATOM	3525	CB	ILE	D	158	81.916	-5.653	12.034	1.00	38.99	D	C
ATOM	3526	CG1	ILE	D	158	81.958	-5.027	10.635	1.00	42.76	D	C

ATOM	3527	CD1	ILE	D	158	81.562	-3.565	10.609	1.00	45.23	D	C
ATOM	3528	CG2	ILE	D	158	83.143	-5.262	12.820	1.00	37.02	D	C
ATOM	3529	C	ILE	D	158	82.023	-7.855	13.251	1.00	37.86	D	C
ATOM	3530	O	ILE	D	158	81.196	-7.752	14.141	1.00	37.43	D	O
ATOM	3531	N	SER	D	159	83.160	-8.523	13.399	1.00	39.55	D	N
ATOM	3532	CA	SER	D	159	83.421	-9.300	14.590	1.00	39.84	D	C
ATOM	3533	CB	SER	D	159	84.502	-10.346	14.330	1.00	39.50	D	C
ATOM	3534	OG	SER	D	159	85.740	-9.884	14.814	1.00	40.74	D	O
ATOM	3535	C	SER	D	159	83.797	-8.406	15.766	1.00	39.53	D	C
ATOM	3536	O	SER	D	159	84.430	-7.378	15.606	1.00	44.63	D	O
ATOM	3537	N	ILE	D	160	83.413	-8.835	16.956	1.00	38.89	D	N
ATOM	3538	CA	ILE	D	160	83.593	-8.072	18.162	1.00	38.73	D	C
ATOM	3539	CB	ILE	D	160	82.388	-8.245	19.085	1.00	39.99	D	C
ATOM	3540	CG1	ILE	D	160	81.202	-7.511	18.491	1.00	41.71	D	C
ATOM	3541	CD1	ILE	D	160	79.937	-7.693	19.294	1.00	44.39	D	C
ATOM	3542	CG2	ILE	D	160	82.648	-7.712	20.486	1.00	41.37	D	C
ATOM	3543	C	ILE	D	160	84.829	-8.620	18.826	1.00	42.65	D	C
ATOM	3544	O	ILE	D	160	85.153	-9.801	18.695	1.00	48.72	D	O
ATOM	3545	N	ASP	D	161	85.530	-7.759	19.542	1.00	45.71	D	N
ATOM	3546	CA	ASP	D	161	86.757	-8.160	20.212	1.00	45.52	D	C
ATOM	3547	CB	ASP	D	161	87.639	-6.940	20.477	1.00	47.83	D	C
ATOM	3548	CG	ASP	D	161	89.081	-7.308	20.921	1.00	52.56	D	C
ATOM	3549	OD1	ASP	D	161	89.301	-8.367	21.570	1.00	53.19	D	O
ATOM	3550	OD2	ASP	D	161	90.009	-6.513	20.628	1.00	53.87	D	O
ATOM	3551	C	ASP	D	161	86.397	-8.909	21.503	1.00	47.82	D	C
ATOM	3552	O	ASP	D	161	86.011	-8.300	22.492	1.00	48.70	D	O
ATOM	3553	N	LEU	D	162	86.498	-10.236	21.455	1.00	47.09	D	N
ATOM	3554	CA	LEU	D	162	86.106	-11.142	22.542	1.00	44.91	D	C
ATOM	3555	CB	LEU	D	162	86.773	-10.798	23.899	1.00	43.07	D	C
ATOM	3556	CG	LEU	D	162	88.273	-10.945	24.159	1.00	45.95	D	C
ATOM	3557	CD1	LEU	D	162	89.091	-11.430	22.975	1.00	47.72	D	C
ATOM	3558	CD2	LEU	D	162	88.863	-9.648	24.688	1.00	48.85	D	C
ATOM	3559	C	LEU	D	162	84.568	-11.220	22.627	1.00	42.09	D	C
ATOM	3560	O	LEU	D	162	83.931	-12.066	21.966	1.00	36.05	D	O

Figure 2

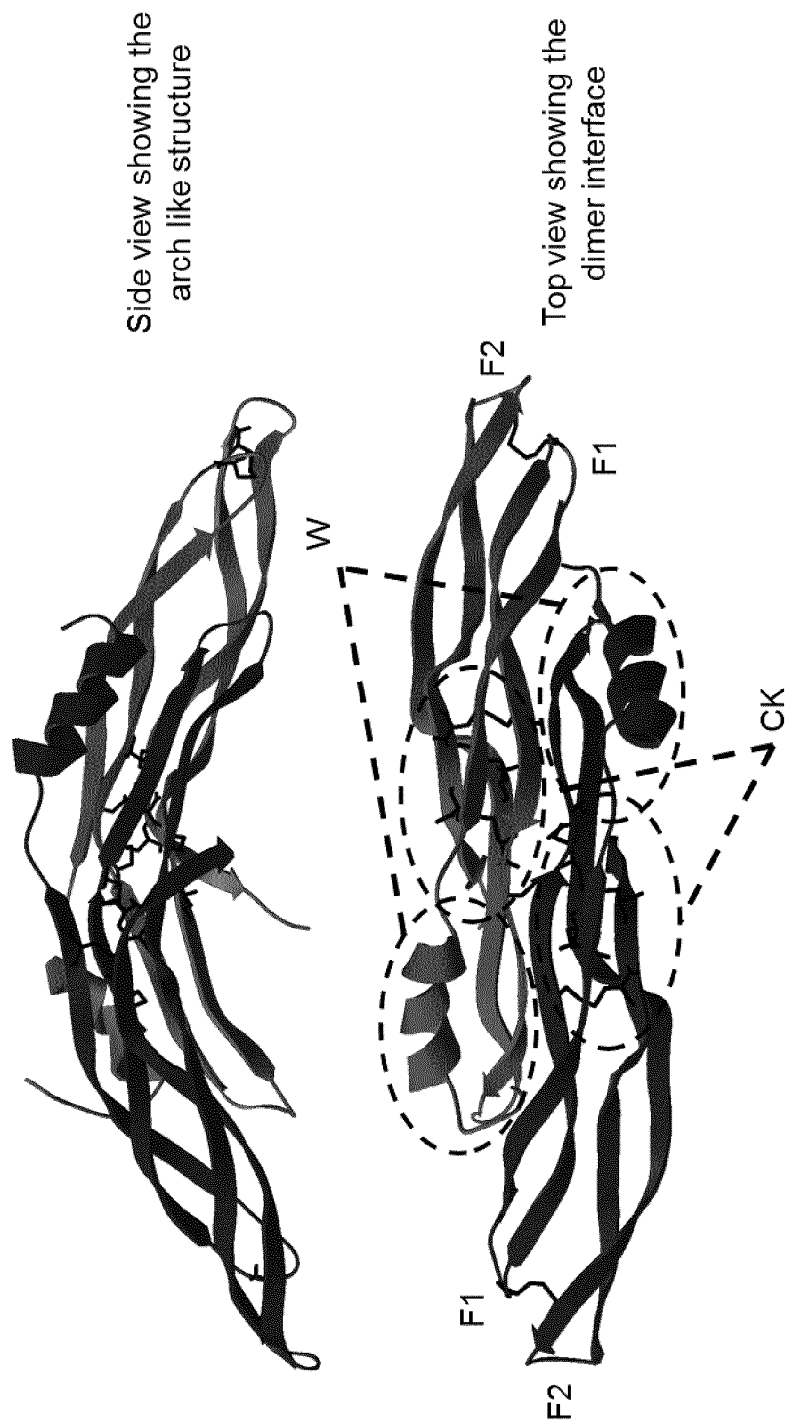
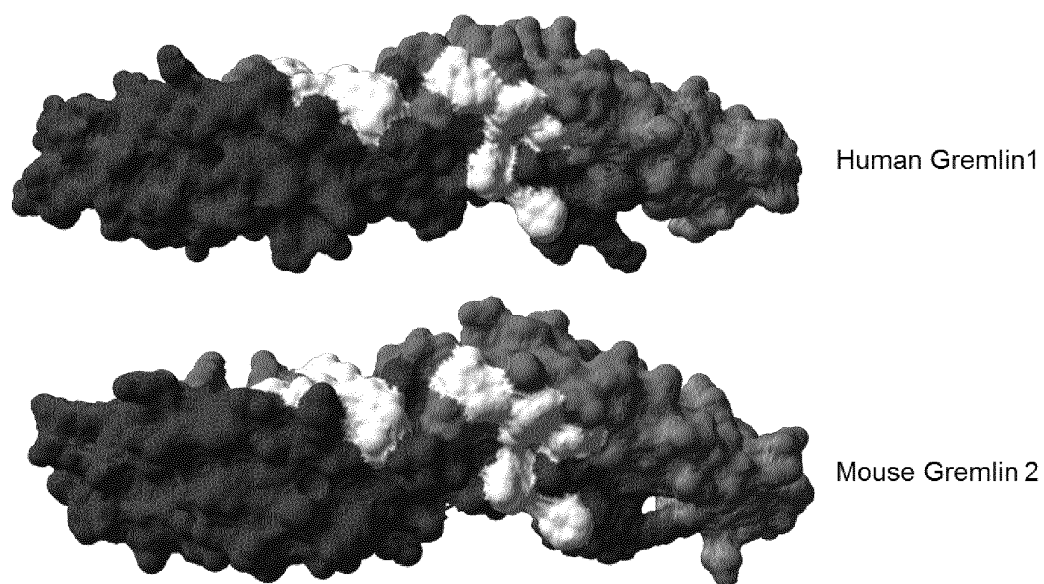


Figure 4

Surface rendering depicting each monomer in two shades of grey and the six key residues involved in BMP binding in white.

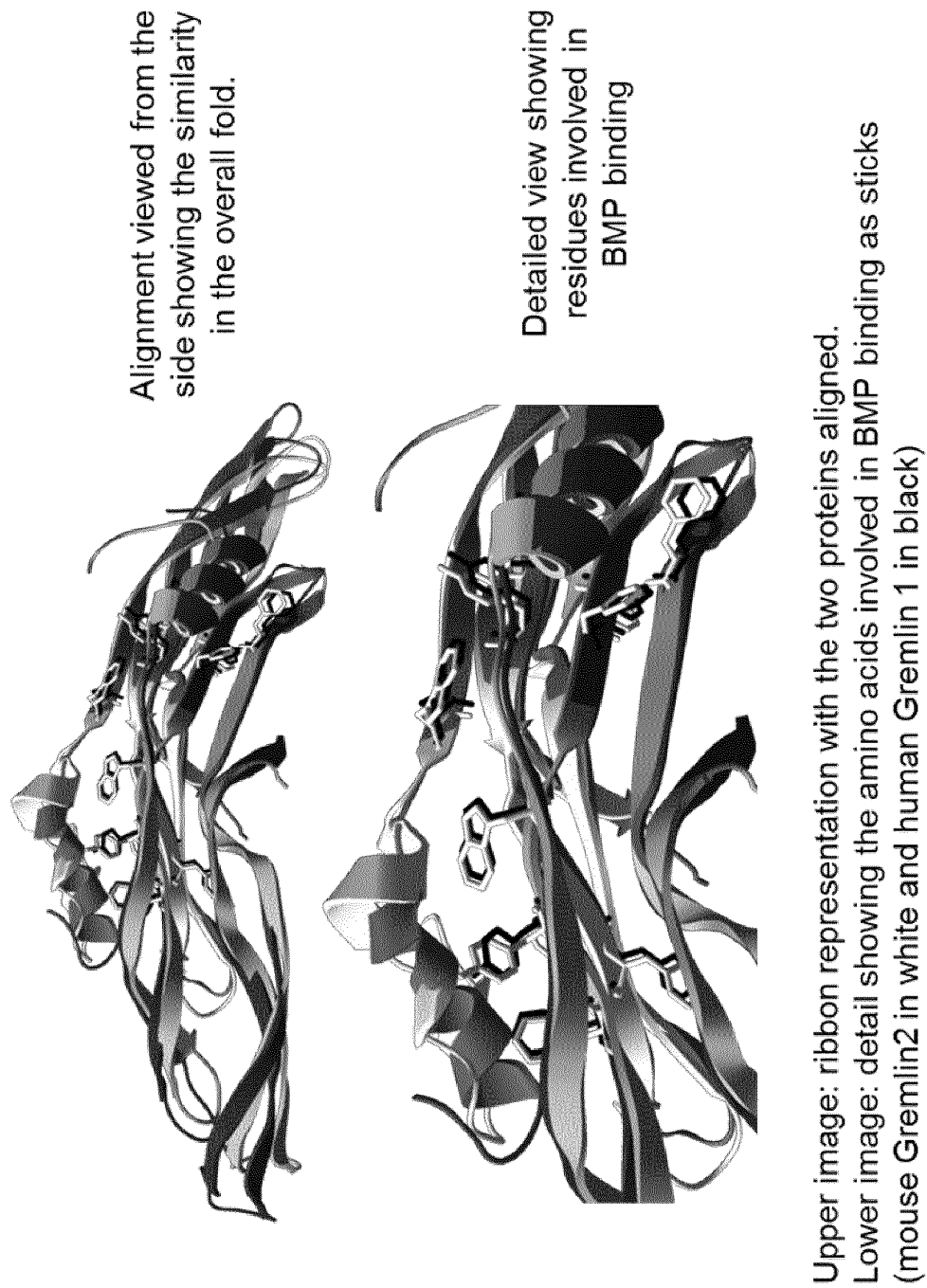
Figure 5

Figure 6(A)

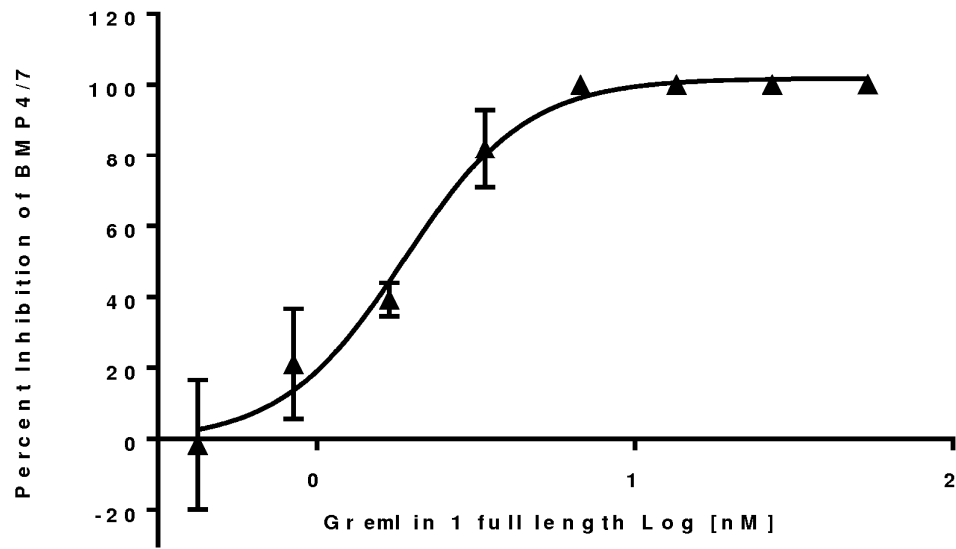


Figure 6(B)

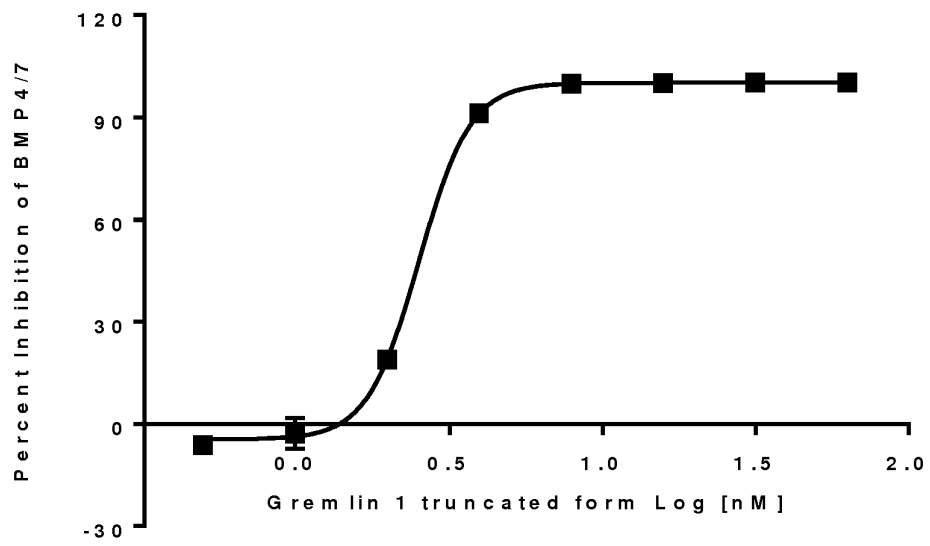


Figure 7

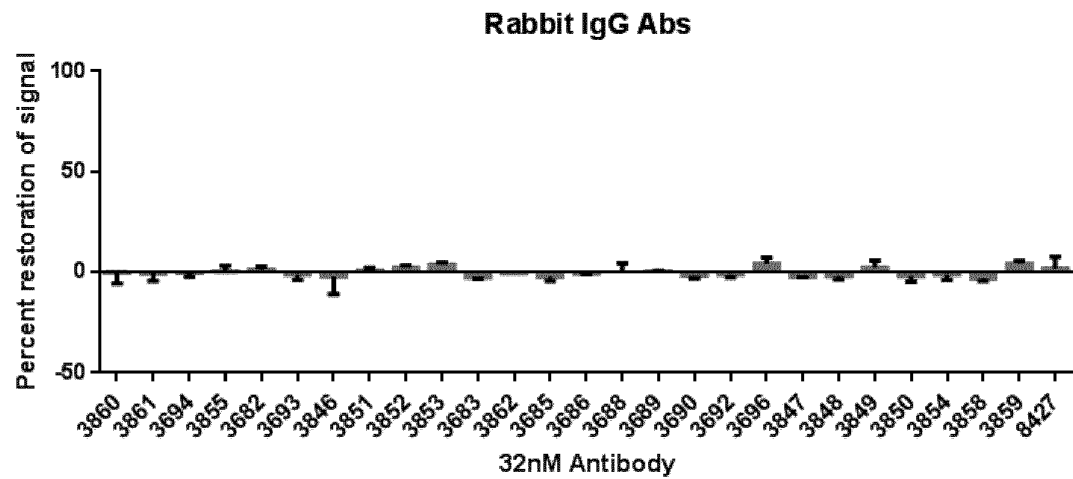


Figure 8

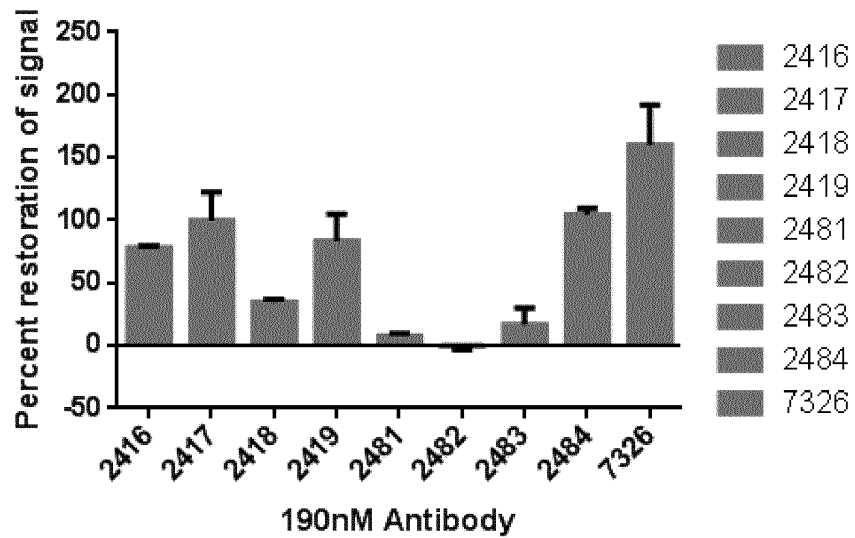
50 fold excess Phage antibodies with 50% gremlin dose

Figure 9

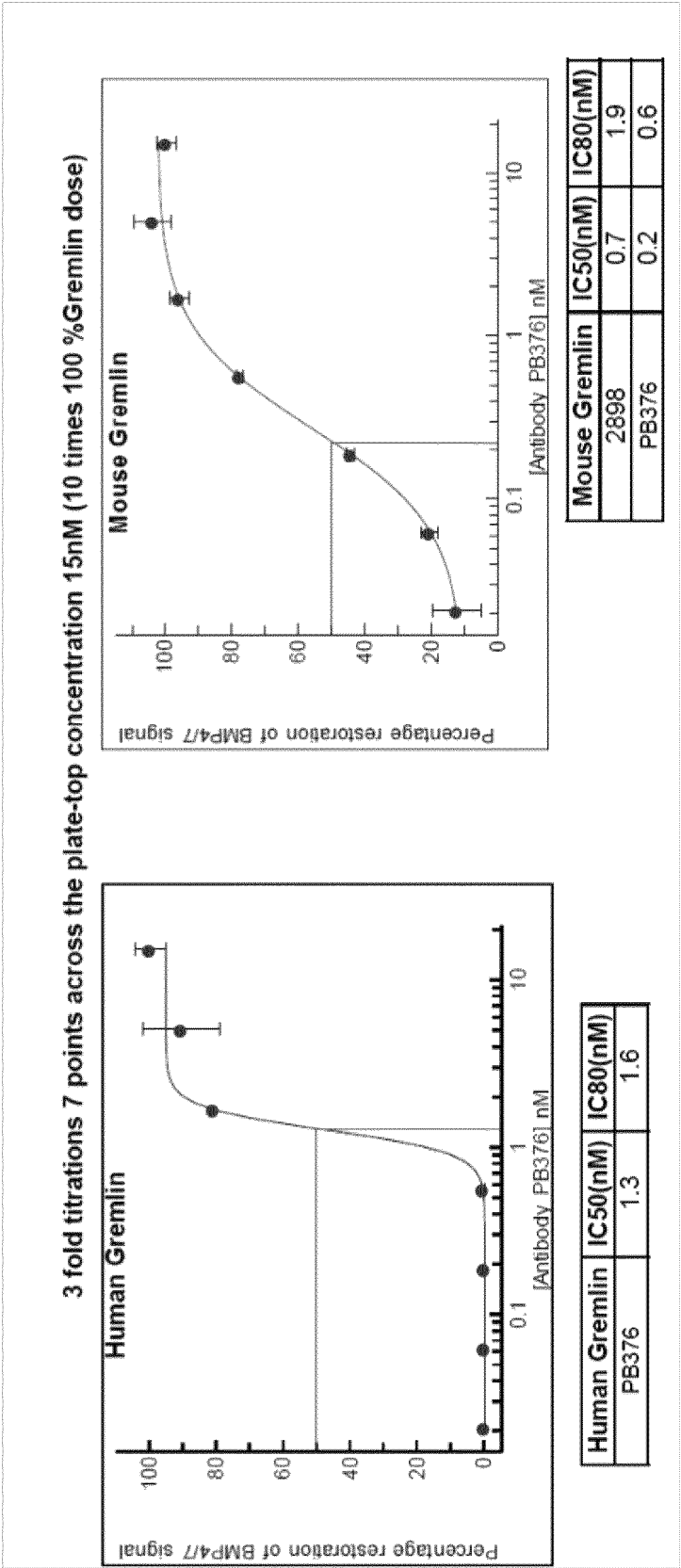


Figure 10

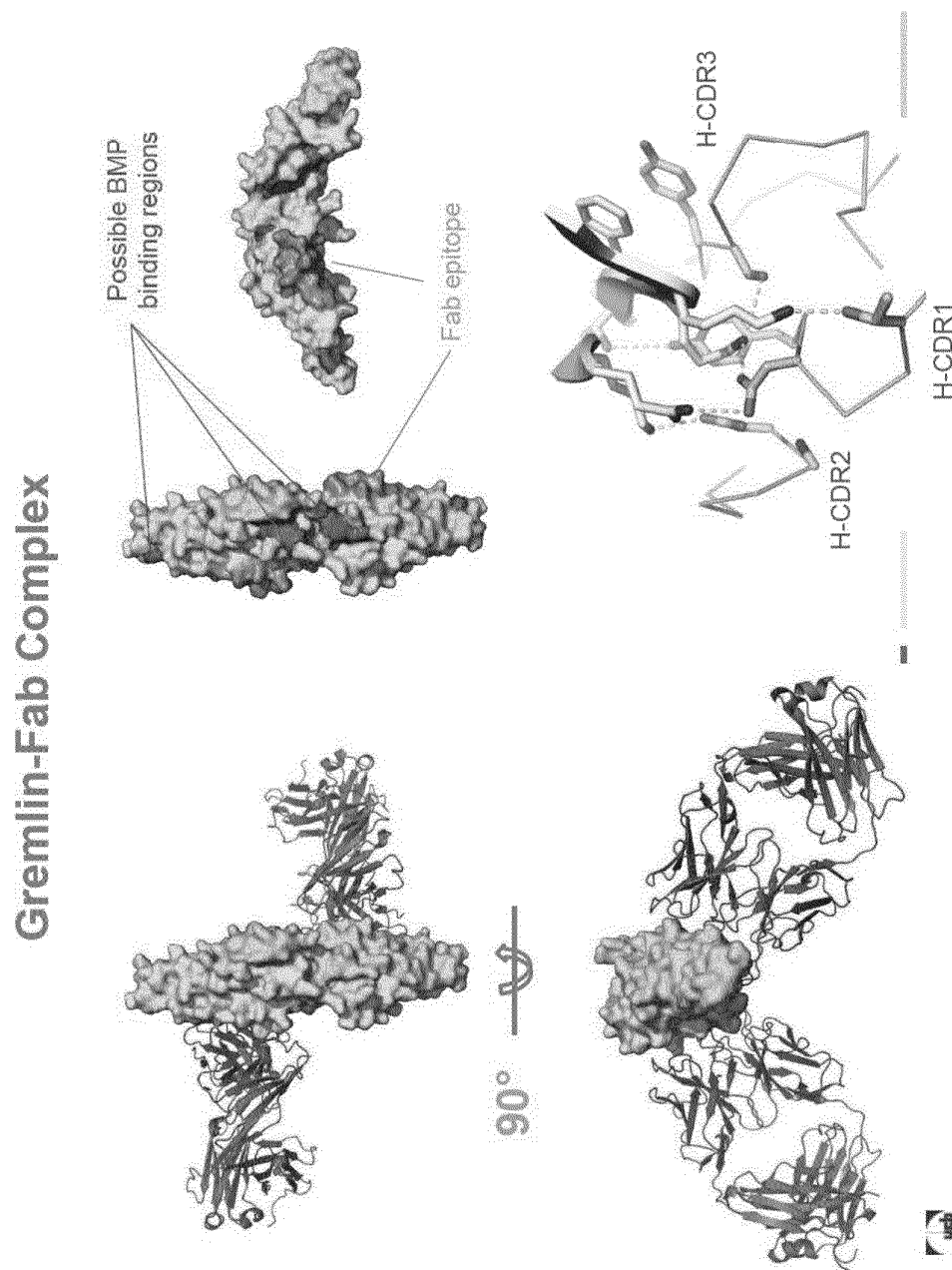


Figure 11

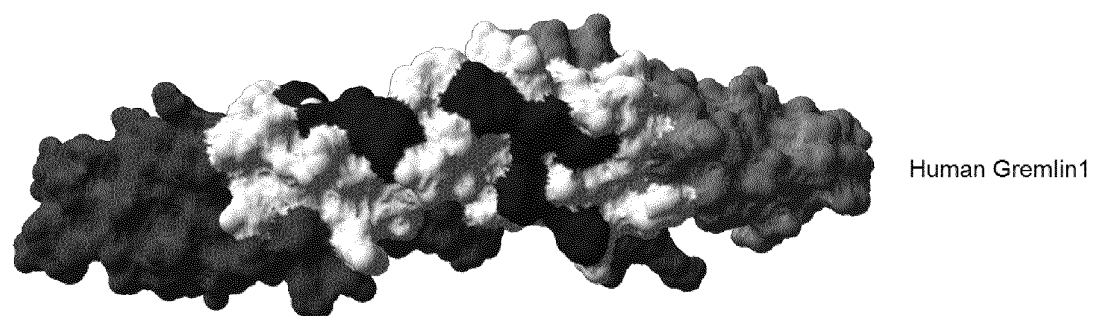


Figure 12

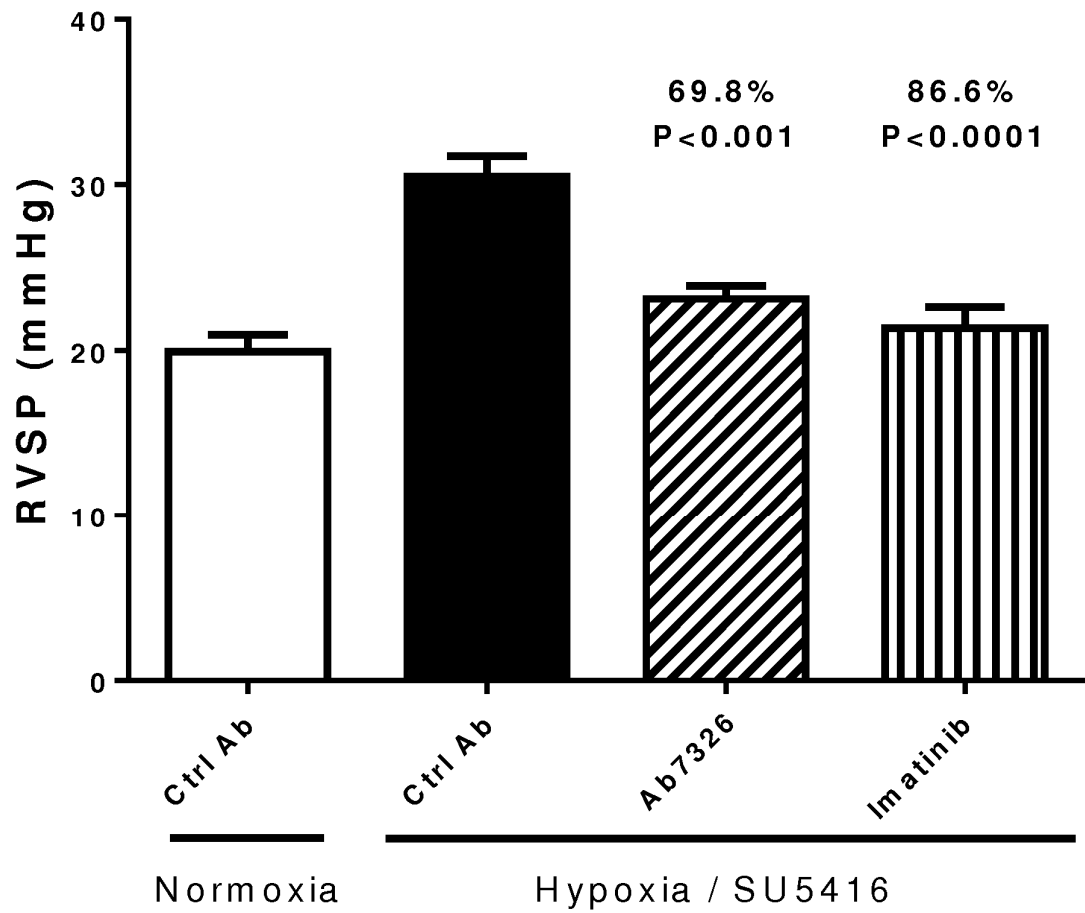
Assessment of right ventricular systolic pressures
(RVSP)

Figure 13

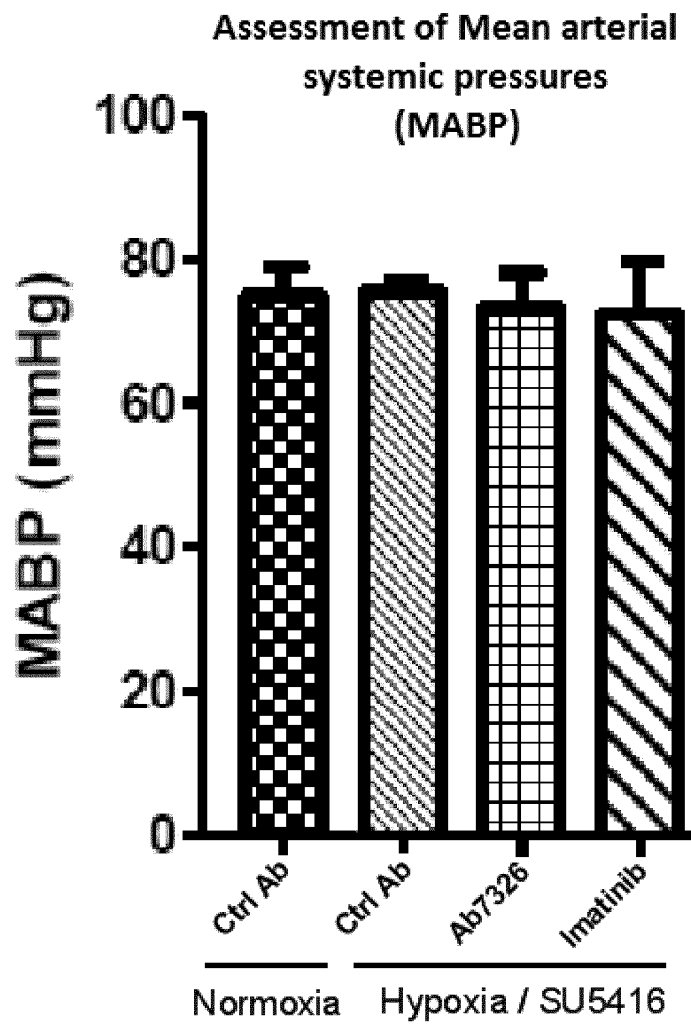


Figure 14

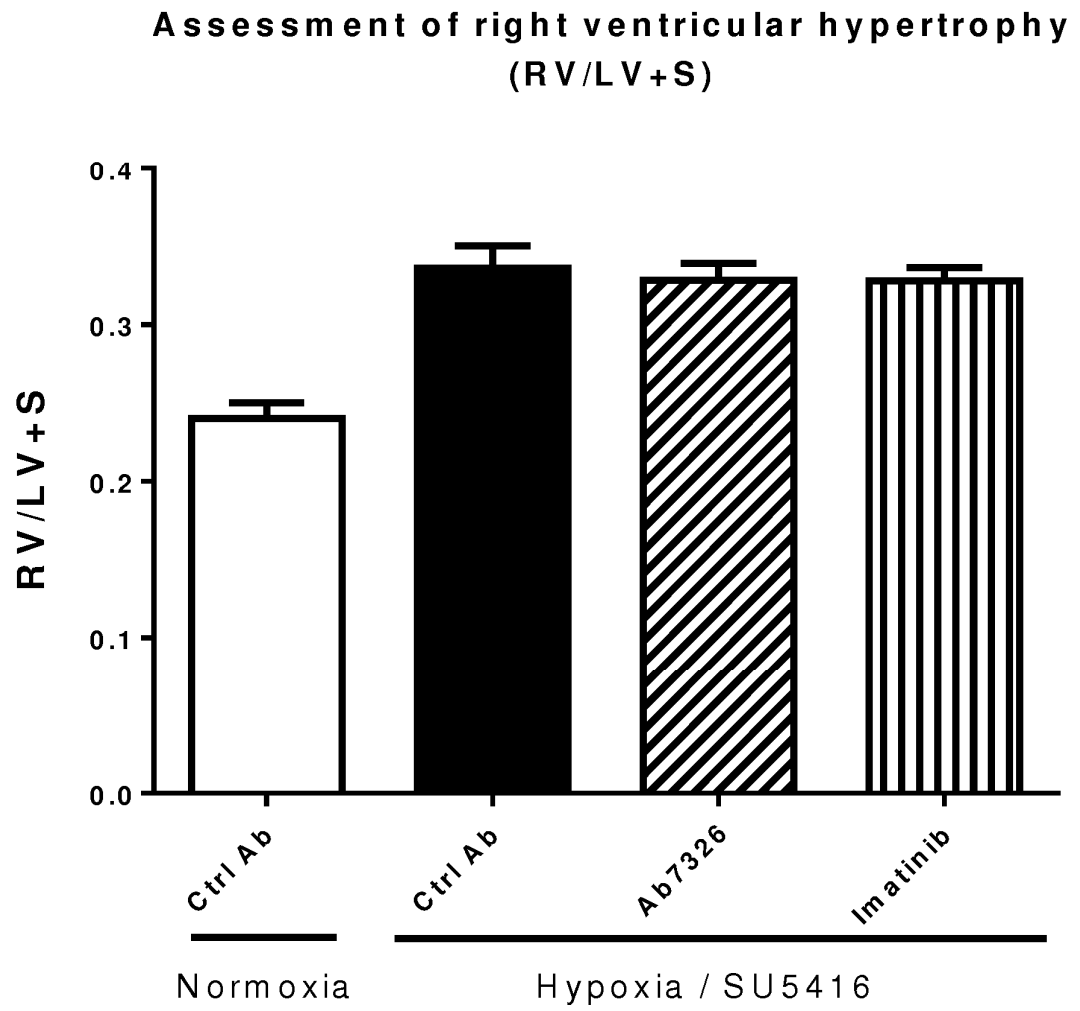


Figure 15

