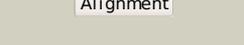
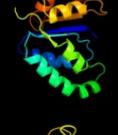
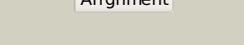
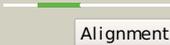
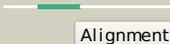
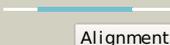
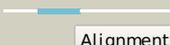
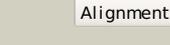
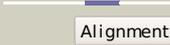
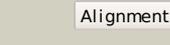
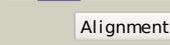
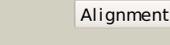


Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P33022
Date	Thu Jan 5 11:50:57 GMT 2012
Unique Job ID	2311f30c31505ade

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3b9xA_	 Alignment		100.0	100	PDB header: hydrolase Chain: A: PDB Molecule: pyrimidine-specific ribonucleoside hydrolase rihb; PDBTitle: crystal structure of the e. coli pyrimidine nucleoside hydrolase yeik2 in complex with inosine
2	d1q8fa_	 Alignment		100.0	100	Fold: Nucleoside hydrolase Superfamily: Nucleoside hydrolase Family: Nucleoside hydrolase
3	d2masa_	 Alignment		100.0	39	Fold: Nucleoside hydrolase Superfamily: Nucleoside hydrolase Family: Nucleoside hydrolase
4	d1ezra_	 Alignment		100.0	41	Fold: Nucleoside hydrolase Superfamily: Nucleoside hydrolase Family: Nucleoside hydrolase
5	c1yoeA_	 Alignment		100.0	39	PDB header: hydrolase Chain: A: PDB Molecule: hypothetical protein ybek; PDBTitle: crystal structure of a the e. coli pyrimidine nucleoside hydrolase2 ybek with bound ribose
6	c3fz0C_	 Alignment		100.0	28	PDB header: hydrolase Chain: C: PDB Molecule: nucleoside hydrolase, putative; PDBTitle: inosine-guanosine nucleoside hydrolase (ig-nh)
7	c2c40B_	 Alignment		100.0	21	PDB header: hydrolase Chain: B: PDB Molecule: inosine-uridine preferring nucleoside hydrolase family PDBTitle: crystal structure of inosine-uridine preferring nucleoside2 hydrolase from bacillus anthracis at 2.2a resolution
8	d1kica_	 Alignment		100.0	21	Fold: Nucleoside hydrolase Superfamily: Nucleoside hydrolase Family: Nucleoside hydrolase
9	c2yhqA_	 Alignment		99.6	17	PDB header: hydrolase Chain: A: PDB Molecule: cellulose-binding protein; PDBTitle: ab initio phasing of a nucleoside hydrolase-related hypothetical2 protein from saccharophagus degradans that is associated with3 carbohydrate metabolism
10	d1gpma1	 Alignment		81.5	17	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: N-type ATP pyrophosphatases
11	c2dplA_	 Alignment		65.5	16	PDB header: ligase Chain: A: PDB Molecule: gmp synthase [glutamine-hydrolyzing] subunit b; PDBTitle: crystal structure of the gmp synthase from pyrococcus horikoshii ot3

12	c3tqiB_	 Alignment		51.6	18	PDB header: ligase Chain: B: PDB Molecule: gmp synthase [glutamine-hydrolyzing]; PDBTitle: structure of the gmp synthase (guaa) from coxiella burnetii
13	c2hmaA_	 Alignment		42.6	15	PDB header: transferase Chain: A: PDB Molecule: probable trna (5-methylaminomethyl-2-thiouridylate)- PDBTitle: the crystal structure of trna (5-methylaminomethyl-2-thiouridylate)-2 methyltransferase trmu from streptococcus pneumoniae
14	d1f74a_	 Alignment		39.4	10	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: Class I aldolase
15	c3fiuD_	 Alignment		39.0	16	PDB header: ligase Chain: D: PDB Molecule: nh(3)-dependent nad(+) synthetase; PDBTitle: structure of nmh synthetase from francisella tularensis
16	d1o5za2	 Alignment		37.7	15	Fold: Ribokinase-like Superfamily: MurD-like peptide ligases, catalytic domain Family: Folypolyglutamate synthetase
17	c3uowB_	 Alignment		32.9	16	PDB header: ligase Chain: B: PDB Molecule: gmp synthetase; PDBTitle: crystal structure of pf10_0123, a gmp synthetase from plasmodium2 falciparum
18	c2derA_	 Alignment		31.3	20	PDB header: transferase/rna Chain: A: PDB Molecule: trna-specific 2-thiouridylase mnma; PDBTitle: cocrystal structure of an rna sulfuration enzyme mnma and2 trna-glu in the initial trna binding state
19	d1ccwa_	 Alignment		30.1	25	Fold: Flavodoxin-like Superfamily: Cobalamin (vitamin B12)-binding domain Family: Cobalamin (vitamin B12)-binding domain
20	c1gpmD_	 Alignment		25.8	16	PDB header: transferase (glutamine amidotransferase) Chain: D: PDB Molecule: gmp synthetase; PDBTitle: escherichia coli gmp synthetase complexed with amp and pyrophosphate
21	c3p52B_	 Alignment	not modelled	23.7	15	PDB header: ligase Chain: B: PDB Molecule: nh(3)-dependent nad(+) synthetase; PDBTitle: nh3-dependent nad synthetase from campylobacter jejuni subsp. jejuni2 nctc 11168 in complex with the nitrate ion
22	d2c5sa1	 Alignment	not modelled	22.4	15	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: Thil-like
23	c2zyiB_	 Alignment	not modelled	19.0	24	PDB header: hydrolase Chain: B: PDB Molecule: lipase, putative; PDBTitle: a. fulgidus lipase with fatty acid fragment and calcium
24	d2ocda1	 Alignment	not modelled	18.8	16	Fold: Glutaminase/Asparaginase Superfamily: Glutaminase/Asparaginase Family: Glutaminase/Asparaginase
25	c3bl5E_	 Alignment	not modelled	18.4	17	PDB header: hydrolase Chain: E: PDB Molecule: queuosine biosynthesis protein quec; PDBTitle: crystal structure of quec from bacillus subtilis: an enzyme2 involved in preq1 biosynthesis
26	d2b3ya2	 Alignment	not modelled	18.1	17	Fold: Aconitase iron-sulfur domain Superfamily: Aconitase iron-sulfur domain Family: Aconitase iron-sulfur domain
27	d3bula2	 Alignment	not modelled	17.7	20	Fold: Flavodoxin-like Superfamily: Cobalamin (vitamin B12)-binding domain Family: Cobalamin (vitamin B12)-binding domain
28	c3dlaD_	 Alignment	not modelled	17.5	19	PDB header: ligase Chain: D: PDB Molecule: glutamine-dependent nad(+) synthetase; PDBTitle: x-ray crystal structure of glutamine-dependent nad+ synthetase from2 mycobacterium tuberculosis bound to naad+ and don

29	d1nnsa_	Alignment	not modelled	16.0	15	Fold: Glutaminase/Asparaginase Superfamily: Glutaminase/Asparaginase Family: Glutaminase/Asparaginase
30	d1e0ta3	Alignment	not modelled	15.9	16	Fold: Pyruvate kinase C-terminal domain-like Superfamily: PK C-terminal domain-like Family: Pyruvate kinase, C-terminal domain
31	d1xnga1	Alignment	not modelled	15.2	18	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: N-type ATP pyrophosphatases
32	d7reqa2	Alignment	not modelled	13.9	12	Fold: Flavodoxin-like Superfamily: Cobalamin (vitamin B12)-binding domain Family: Cobalamin (vitamin B12)-binding domain
33	c2ehhE_	Alignment	not modelled	13.7	12	PDB header: lyase Chain: E: PDB Molecule: dihydrodipicolinate synthase; PDBTitle: crystal structure of dihydrodipicolinate synthase from2 aquifex aeolicus
34	c3si9B_	Alignment	not modelled	13.5	14	PDB header: lyase Chain: B: PDB Molecule: dihydrodipicolinate synthase; PDBTitle: crystal structure of dihydrodipicolinate synthase from bartonella2 henselae
35	d2gc6a2	Alignment	not modelled	13.3	15	Fold: Ribokinase-like Superfamily: MurD-like peptide ligases, catalytic domain Family: Folylpolyglutamate synthetase
36	c2yxgD_	Alignment	not modelled	12.9	13	PDB header: lyase Chain: D: PDB Molecule: dihydrodipicolinate synthase; PDBTitle: crystal structure of dihydrodipicolinate synthase (dapa)
37	d1vbkA1	Alignment	not modelled	12.7	16	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: ThiI-like
38	c2vosA_	Alignment	not modelled	12.4	15	PDB header: ligase Chain: A: PDB Molecule: folylpolyglutamate synthase protein folc; PDBTitle: mycobacterium tuberculosis folylpolyglutamate synthase2 complexed with adp
39	c3cseA_	Alignment	not modelled	12.1	27	PDB header: oxidoreductase Chain: A: PDB Molecule: dihydrofolate reductase; PDBTitle: candida glabrata dihydrofolate reductase complexed with2 nadph and 2,4-diamino-5-(3-(2,5-dimethoxyphenyl)prop-1-3 ynyl)-6-ethylpyrimidine (ucp120b)
40	d1tcaa_	Alignment	not modelled	11.6	16	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: Fungal lipases
41	c3r79B_	Alignment	not modelled	11.6	8	PDB header: structure genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of an uncharacterized protein from agrobacterium2 tumefaciens
42	c2eapA_	Alignment	not modelled	10.7	27	PDB header: signaling protein Chain: A: PDB Molecule: lymphocyte cytosolic protein 2; PDBTitle: solution structure of the n-terminal sam-domain of human2 lymphocyte cytosolic protein 2
43	d1o94c_	Alignment	not modelled	10.2	24	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: ETFP subunits
44	d1lw7a1	Alignment	not modelled	9.7	8	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Adenylyltransferase
45	c2ywcC_	Alignment	not modelled	9.1	20	PDB header: ligase Chain: C: PDB Molecule: gmp synthase [glutamine-hydrolyzing]; PDBTitle: crystal structure of gmp synthetase from thermophilus in2 complex with xmp
46	d2vk9a1	Alignment	not modelled	8.9	20	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: Glycosylating toxin catalytic domain-like
47	d1kqpa_	Alignment	not modelled	8.9	16	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: N-type ATP pyrophosphatases
48	c1xtyD_	Alignment	not modelled	8.9	45	PDB header: hydrolase Chain: D: PDB Molecule: peptidyl-trna hydrolase; PDBTitle: crystal structure of sulfolobus solfataricus peptidyl-trna2 hydrolase
49	d4pgaa_	Alignment	not modelled	8.6	27	Fold: Glutaminase/Asparaginase Superfamily: Glutaminase/Asparaginase Family: Glutaminase/Asparaginase
50	c2d3kA_	Alignment	not modelled	8.4	45	PDB header: hydrolase Chain: A: PDB Molecule: peptidyl-trna hydrolase; PDBTitle: structural study on project id ph1539 from pyrococcus2 horikoshii ot3
51	c1w78A_	Alignment	not modelled	8.1	16	PDB header: synthase Chain: A: PDB Molecule: folc bifunctional protein; PDBTitle: e.coli folc in complex with dhpp and adp
52	d3cx5a2	Alignment	not modelled	8.1	23	Fold: LuxS/MPP-like metallohydrolase Superfamily: LuxS/MPP-like metallohydrolase Family: MPP-like
53	c2zv3E_	Alignment	not modelled	8.1	45	PDB header: hydrolase Chain: E: PDB Molecule: peptidyl-trna hydrolase; PDBTitle: crystal structure of project mj0051 from methanocaldococcus2 jannaschii dsm 2661
54	c3rg9A_	Alignment	not modelled	8.0	22	PDB header: oxidoreductase/oxidoreductase inhibitor Chain: A: PDB Molecule: bifunctional dihydrofolate reductase-thymidylate synthase; PDBTitle: trypanosoma brucei dihydrofolate reductase (tdhfr) in complex with2 wr99210
						Fold: Adenine nucleotide alpha hydrolase-like

55	d2pg3a1	Alignment	not modelled	7.6	19	Superfamily: Adenine nucleotide alpha hydrolases-like Family: N-type ATP pyrophosphatases
56	c3bjqA_	Alignment	not modelled	7.4	12	PDB header: viral protein Chain: A: PDB Molecule: phage-related protein; PDBTitle: crystal structure of a phage-related protein (bb3626) from bordetella2 bronchiseptica rb50 at 2.05 a resolution
57	d1q7sa_	Alignment	not modelled	7.4	36	Fold: Peptidyl-tRNA hydrolase II Superfamily: Peptidyl-tRNA hydrolase II Family: Peptidyl-tRNA hydrolase II
58	d1agxa_	Alignment	not modelled	7.3	15	Fold: Glutaminase/Asparaginase Superfamily: Glutaminase/Asparaginase Family: Glutaminase/Asparaginase
59	d2nu7b1	Alignment	not modelled	7.1	17	Fold: Flavodoxin-like Superfamily: Succinyl-CoA synthetase domains Family: Succinyl-CoA synthetase domains
60	d3erja1	Alignment	not modelled	7.0	55	Fold: Peptidyl-tRNA hydrolase II Superfamily: Peptidyl-tRNA hydrolase II Family: Peptidyl-tRNA hydrolase II
61	c3sz8D_	Alignment	not modelled	7.0	7	PDB header: transferase Chain: D: PDB Molecule: 2-dehydro-3-deoxyphosphoactone aldolase 2; PDBTitle: crystal structure of 2-dehydro-3-deoxyphosphoactone aldolase from2 burkholderia pseudomallei
62	c1wnfA_	Alignment	not modelled	7.0	19	PDB header: hydrolase Chain: A: PDB Molecule: l-asparaginase; PDBTitle: crystal structure of ph0066 from pyrococcus horikoshii
63	c1bmtB_	Alignment	not modelled	7.0	20	PDB header: methyltransferase Chain: B: PDB Molecule: methionine synthase; PDBTitle: how a protein binds b12: a 3.0 angstrom x-ray structure of2 the b12-binding domains of methionine synthase
64	c2dy3B_	Alignment	not modelled	6.9	22	PDB header: isomerase Chain: B: PDB Molecule: alanine racemase; PDBTitle: crystal structure of alanine racemase from corynebacterium glutamicum
65	c2nu9E_	Alignment	not modelled	6.5	17	PDB header: ligase Chain: E: PDB Molecule: succinyl-coa synthetase beta chain; PDBTitle: c123at mutant of e. coli succinyl-coa synthetase2 orthorhombic crystal form
66	d1rlka_	Alignment	not modelled	6.5	45	Fold: Peptidyl-tRNA hydrolase II Superfamily: Peptidyl-tRNA hydrolase II Family: Peptidyl-tRNA hydrolase II
67	d1xcra1	Alignment	not modelled	6.3	25	Fold: AF0104/ALDC/Ptd012-like Superfamily: AF0104/ALDC/Ptd012-like Family: PTD012-like
68	c1k98A_	Alignment	not modelled	6.3	22	PDB header: transferase Chain: A: PDB Molecule: methionine synthase; PDBTitle: adomet complex of meth c-terminal fragment
69	d1liua3	Alignment	not modelled	6.1	15	Fold: Pyruvate kinase C-terminal domain-like Superfamily: PK C-terminal domain-like Family: Pyruvate kinase, C-terminal domain
70	d1ik6a2	Alignment	not modelled	6.0	25	Fold: TK C-terminal domain-like Superfamily: TK C-terminal domain-like Family: Branched-chain alpha-keto acid dehydrogenase beta-subunit, C-terminal-domain
71	d2bvla1	Alignment	not modelled	5.9	17	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: Glycosylating toxin catalytic domain-like
72	d1o7ja_	Alignment	not modelled	5.9	12	Fold: Glutaminase/Asparaginase Superfamily: Glutaminase/Asparaginase Family: Glutaminase/Asparaginase
73	c2vxob_	Alignment	not modelled	5.9	17	PDB header: ligase Chain: B: PDB Molecule: gmp synthase [glutamine-hydrolyzing]; PDBTitle: human gmp synthetase in complex with xmp
74	c3lciA_	Alignment	not modelled	5.6	14	PDB header: lyase Chain: A: PDB Molecule: n-acetylneuraminat lyase; PDBTitle: the d-sialic acid aldolase mutant v251w
75	d1kmva_	Alignment	not modelled	5.3	26	Fold: Dihydrofolate reductase-like Superfamily: Dihydrofolate reductase-like Family: Dihydrofolate reductases
76	c3llxA_	Alignment	not modelled	5.3	19	PDB header: isomerase Chain: A: PDB Molecule: predicted amino acid aldolase or racemase; PDBTitle: crystal structure of an ala racemase-like protein (il1761) from2 idiomarina loihiensis at 1.50 a resolution
77	d1ru8a_	Alignment	not modelled	5.3	13	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Adenine nucleotide alpha hydrolases-like Family: N-type ATP pyrophosphatases
78	c2e18B_	Alignment	not modelled	5.2	14	PDB header: ligase Chain: B: PDB Molecule: nh(3)-dependent nad(+) synthetase; PDBTitle: crystal structure of project ph0182 from pyrococcus horikoshii ot3
79	d1qf5a_	Alignment	not modelled	5.2	21	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Nitrogenase iron protein-like