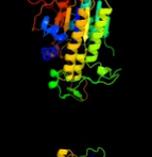
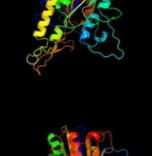
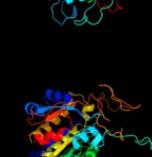
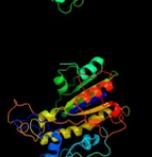
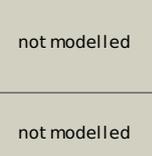


Phyre2

Email	l.a.kelley@imperial.ac.uk
Description	P77318
Date	Thu Jan 5 12:27:41 GMT 2012
Unique Job ID	1ce50719fc06e2c5

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3ed4A_	 Alignment		100.0	27	PDB header: transferase Chain: A: PDB Molecule: arylsulfatase; PDBTitle: crystal structure of putative arylsulfatase from escherichia coli
2	d1hdha_	 Alignment		100.0	29	Fold: Alkaline phosphatase-like Superfamily: Alkaline phosphatase-like Family: Arylsulfatase
3	c2qzuA_	 Alignment		100.0	23	PDB header: hydrolase Chain: A: PDB Molecule: putative sulfatase yidj; PDBTitle: crystal structure of the putative sulfatase yidj from bacteroides2 fragilis. northeast structural genomics consortium target bfr123
4	d1fsua_	 Alignment		100.0	27	Fold: Alkaline phosphatase-like Superfamily: Alkaline phosphatase-like Family: Arylsulfatase
5	d1p49a_	 Alignment		100.0	30	Fold: Alkaline phosphatase-like Superfamily: Alkaline phosphatase-like Family: Arylsulfatase
6	d1lauka_	 Alignment		100.0	26	Fold: Alkaline phosphatase-like Superfamily: Alkaline phosphatase-like Family: Arylsulfatase
7	c2vqrA_	 Alignment		100.0	22	PDB header: hydrolase Chain: A: PDB Molecule: putative sulfatase; PDBTitle: crystal structure of a phosphonate monoester hydrolase2 from rhizobium leguminosarum: a new member of the3 alkaline phosphatase superfamily
8	c3b5qB_	 Alignment		100.0	24	PDB header: hydrolase Chain: B: PDB Molecule: putative sulfatase yidj; PDBTitle: crystal structure of a putative sulfatase (np_810509.1)2 from bacteroides thetaiotaomicron vpi-5482 at 2.40 a3 resolution
9	c3lxqB_	 Alignment		100.0	18	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein vp1736; PDBTitle: the crystal structure of a protein in the alkaline2 phosphatase superfamily from vibrio parahaemolyticus to3 1.95a
10	c2w8dB_	 Alignment		100.0	19	PDB header: transferase Chain: B: PDB Molecule: processed glycerol phosphate lipoteichoic acid synthase 2; PDBTitle: distinct and essential morphogenic functions for wall-and2 lipo-teichoic acids in bacillus subtilis
11	c2w5tA_	 Alignment		100.0	19	PDB header: transferase Chain: A: PDB Molecule: processed glycerol phosphate lipoteichoic acid PDBTitle: structure-based mechanism of lipoteichoic acid synthesis by2 staphylococcus aureus ltas.

12	c2zktB	Alignment		100.0	19	PDB header: isomerase Chain: B: PDB Molecule: 2,3-bisphosphoglycerate-independent phosphoglycerate PDBTitle: structure of ph0037 protein from pyrococcus horikoshii
13	c3m8yC	Alignment		100.0	16	PDB header: isomerase Chain: C: PDB Molecule: phosphopentomutase; PDBTitle: phosphopentomutase from bacillus cereus after glucose-1,6-bisphosphate2 activation
14	c3q3gA	Alignment		100.0	22	PDB header: hydrolase Chain: A: PDB Molecule: alkaline phosphatase; PDBTitle: crystal structure of spap: an novel alkaline phosphatase from2 bacterium sphingomonas sp. strain bsar-1
15	c2gsoB	Alignment		100.0	24	PDB header: hydrolase Chain: B: PDB Molecule: phosphodiesterase-nucleotide pyrophosphatase; PDBTitle: structure of xac nucleotide2 pyrophosphatase/phosphodiesterase in complex with vanadate
16	c2i09A	Alignment		100.0	15	PDB header: isomerase Chain: A: PDB Molecule: phosphopentomutase; PDBTitle: crystal structure of putative phosphopentomutase from streptococcus2 mutans
17	d1o98a2	Alignment		100.0	18	Fold: Alkaline phosphatase-like Superfamily: Alkaline phosphatase-like Family: 2,3-Bisphosphoglycerate-independent phosphoglycerate mutase, catalytic domain
18	c3szzA	Alignment		100.0	15	PDB header: hydrolase Chain: A: PDB Molecule: phosphonoacetate hydrolase; PDBTitle: crystal structure of phosphonoacetate hydrolase from sinorhizobium2 meliloti 1021 in complex with acetate
19	d2i09a1	Alignment		100.0	20	Fold: Alkaline phosphatase-like Superfamily: Alkaline phosphatase-like Family: DeoB catalytic domain-like
20	d1ei6a	Alignment		100.0	16	Fold: Alkaline phosphatase-like Superfamily: Alkaline phosphatase-like Family: Phosphonoacetate hydrolase
21	c2xrgA	Alignment	not modelled	100.0	16	PDB header: hydrolase Chain: A: PDB Molecule: ectonucleotide pyrophosphatase/phosphodiesterase family PDBTitle: crystal structure of autotaxin (enpp2) in complex with the2 ha155 boronic acid inhibitor
22	c2xr9A	Alignment	not modelled	100.0	16	PDB header: hydrolase Chain: A: PDB Molecule: ectonucleotide pyrophosphatase/phosphodiesterase family PDBTitle: crystal structure of autotaxin (enpp2)
23	c2d1gB	Alignment	not modelled	99.9	11	PDB header: hydrolase Chain: B: PDB Molecule: acid phosphatase; PDBTitle: structure of francisella tularensis acid phosphatase a (acpa) bound to2 orthovanadate
24	c1o98A	Alignment	not modelled	99.9	22	PDB header: isomerase Chain: A: PDB Molecule: 2,3-bisphosphoglycerate-independent phosphoglycerate mutase PDBTitle: 1.4a crystal structure of phosphoglycerate mutase from2 bacillus stearotherophilus complexed with3 2-phosphoglycerate
25	c3igzB	Alignment	not modelled	99.8	14	PDB header: isomerase Chain: B: PDB Molecule: cofactor-independent phosphoglycerate mutase; PDBTitle: crystal structures of leishmania mexicana phosphoglycerate2 mutase at low cobalt concentration
26	d1y6va1	Alignment	not modelled	99.6	19	Fold: Alkaline phosphatase-like Superfamily: Alkaline phosphatase-like Family: Alkaline phosphatase
27	c2iucB	Alignment	not modelled	99.6	14	PDB header: hydrolase Chain: B: PDB Molecule: alkaline phosphatase; PDBTitle: structure of alkaline phosphatase from the antarctic2 bacterium tab5
28	c2w0yB	Alignment	not modelled	99.5	14	PDB header: hydrolase Chain: B: PDB Molecule: alkaline phosphatase;

						PDBTitle: h.salinarum alkaline phosphatase
29	c2x98A_	Alignment	not modelled	99.5	16	PDB header: hydrolase Chain: A: PDB Molecule: alkaline phosphatase; PDBTitle: h.salinarum alkaline phosphatase
30	c1ew2A_	Alignment	not modelled	99.5	17	PDB header: hydrolase Chain: A: PDB Molecule: phosphatase; PDBTitle: crystal structure of a human phosphatase
31	d1k7ha_	Alignment	not modelled	99.5	17	Fold: Alkaline phosphatase-like Superfamily: Alkaline phosphatase-like Family: Alkaline phosphatase
32	d1zeda1	Alignment	not modelled	99.5	17	Fold: Alkaline phosphatase-like Superfamily: Alkaline phosphatase-like Family: Alkaline phosphatase
33	c3a52A_	Alignment	not modelled	99.4	14	PDB header: hydrolase Chain: A: PDB Molecule: cold-active alkaline phosphatase; PDBTitle: crystal structure of cold-active alkaline phosphatase from2 psychrophile shewanella sp.
34	c3e2dB_	Alignment	not modelled	99.3	16	PDB header: hydrolase Chain: B: PDB Molecule: alkaline phosphatase; PDBTitle: the 1.4 a crystal structure of the large and cold-active2 vibrio sp. alkaline phosphatase
35	c3iddA_	Alignment	not modelled	95.8	30	PDB header: isomerase Chain: A: PDB Molecule: 2,3-bisphosphoglycerate-independent PDBTitle: cofactor-independent phosphoglycerate mutase from2 thermoplasma acidophilum dsm 1728
36	d1b4ub_	Alignment	not modelled	59.3	24	Fold: Phosphorylase/hydrolase-like Superfamily: LigB-like Family: LigB-like
37	d3cu0a1	Alignment	not modelled	40.3	35	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: 1,3-glucuronyltransferase
38	d2iw0a1	Alignment	not modelled	33.7	34	Fold: 7-stranded beta/alpha barrel Superfamily: Glycoside hydrolase/deacetylase Family: NodB-like polysaccharide deacetylase
39	c2d0jD_	Alignment	not modelled	33.4	24	PDB header: transferase Chain: D: PDB Molecule: galactosylgalactosylxylosylprotein 3-beta- PDBTitle: crystal structure of human g1cat-s apo form
40	c2r1fB_	Alignment	not modelled	32.7	13	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: predicted aminodeoxychorismate lyase; PDBTitle: crystal structure of predicted aminodeoxychorismate lyase from2 escherichia coli
41	d1v82a_	Alignment	not modelled	30.8	34	Fold: Nucleotide-diphospho-sugar transferases Superfamily: Nucleotide-diphospho-sugar transferases Family: 1,3-glucuronyltransferase
42	c30aaO_	Alignment	not modelled	25.4	6	PDB header: hydrolase/transport protein Chain: O: PDB Molecule: atp synthase gamma chain; PDBTitle: structure of the e.coli f1-atp synthase inhibited by subunit epsilon
43	d1xo1a2	Alignment	not modelled	24.2	15	Fold: PIN domain-like Superfamily: PIN domain-like Family: 5' to 3' exonuclease catalytic domain
44	c2iw0A_	Alignment	not modelled	24.2	36	PDB header: hydrolase Chain: A: PDB Molecule: chitin deacetylase; PDBTitle: structure of the chitin deacetylase from the fungal2 pathogen colletotrichum lindemuthianum
45	d1h7na_	Alignment	not modelled	21.1	20	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: 5-aminolaevulinate dehydratase, ALAD (porphobilinogen synthase)
46	d1j33a_	Alignment	not modelled	18.6	11	Fold: Nicotinate mononucleotide:5,6-dimethylbenzimidazole phosphoribosyltransferase (CobT) Superfamily: Nicotinate mononucleotide:5,6-dimethylbenzimidazole phosphoribosyltransferase (CobT) Family: Nicotinate mononucleotide:5,6-dimethylbenzimidazole phosphoribosyltransferase (CobT)
47	d1mm0a_	Alignment	not modelled	18.0	6	Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: Scorpion toxin-like Family: Insect defensins
48	d1okga1	Alignment	not modelled	17.9	15	Fold: Rhodanese/Cell cycle control phosphatase Superfamily: Rhodanese/Cell cycle control phosphatase Family: Multidomain sulfurtransferase (rhodanese)
49	d1dc1a_	Alignment	not modelled	17.9	16	Fold: Restriction endonuclease-like Superfamily: Restriction endonuclease-like Family: Restriction endonuclease BsoBI
50	d1l5oa_	Alignment	not modelled	16.9	20	Fold: Nicotinate mononucleotide:5,6-dimethylbenzimidazole phosphoribosyltransferase (CobT) Superfamily: Nicotinate mononucleotide:5,6-dimethylbenzimidazole phosphoribosyltransferase (CobT) Family: Nicotinate mononucleotide:5,6-dimethylbenzimidazole phosphoribosyltransferase (CobT)
51	d1skyb3	Alignment	not modelled	16.5	33	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain)
52	d1tfra2	Alignment	not modelled	15.2	19	Fold: PIN domain-like Superfamily: PIN domain-like Family: 5' to 3' exonuclease catalytic domain
53	d1fx0a3	Alignment	not modelled	14.4	15	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain) PDB header: hydrolase/transport protein

54	c30aaC_	Alignment	not modelled	14.1	19	Chain: C: PDB Molecule: atp synthase subunit alpha; PDBTitle: structure of the e.coli f1-atp synthase inhibited by subunit epsilon
55	d1uzdc1	Alignment	not modelled	13.9	19	Fold: RuBisCO, small subunit Superfamily: RuBisCO, small subunit Family: RuBisCO, small subunit
56	c2vyoA_	Alignment	not modelled	11.7	19	PDB header: hydrolase Chain: A: PDB Molecule: chitooligosaccharide deacetylase; PDBTitle: chitin deacetylase family member from encephalitozoon2 cuniculi
57	d1v7ba2	Alignment	not modelled	11.7	21	Fold: Tetracyclin repressor-like, C-terminal domain Superfamily: Tetracyclin repressor-like, C-terminal domain Family: Tetracyclin repressor-like, C-terminal domain
58	c3k6sB_	Alignment	not modelled	11.6	18	PDB header: cell adhesion Chain: B: PDB Molecule: integrin beta-2; PDBTitle: structure of integrin alphaxbeta2 ectodomain
59	d2cz4a1	Alignment	not modelled	11.6	19	Fold: Ferredoxin-like Superfamily: GlnB-like Family: Prokaryotic signal transducing protein
60	d1l6sa_	Alignment	not modelled	11.5	33	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: 5-aminolaevulinate dehydratase, ALAD (porphobilinogen synthase)
61	d1skye3	Alignment	not modelled	11.1	16	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain)
62	c3k1tA_	Alignment	not modelled	10.9	17	PDB header: ligase Chain: A: PDB Molecule: glutamate--cysteine ligase gsha; PDBTitle: crystal structure of putative gamma-glutamylcysteine synthetase2 (yp_546622.1) from methylobacillus flagellatus kt at 1.90 a3 resolution
63	d1ej7s_	Alignment	not modelled	10.4	21	Fold: RuBisCO, small subunit Superfamily: RuBisCO, small subunit Family: RuBisCO, small subunit
64	c1kmhA_	Alignment	not modelled	10.3	15	PDB header: hydrolase Chain: A: PDB Molecule: atpase alpha subunit; PDBTitle: crystal structure of spinach chloroplast f1-atpase2 complexed with tentoxin
65	c3nrxB_	Alignment	not modelled	10.2	11	PDB header: protein binding Chain: B: PDB Molecule: protein regulator of cytokinesis 1; PDBTitle: insights into anti-parallel microtubule crosslinking by prc1, a2 conserved non-motor microtubule binding protein
66	c2w6jG_	Alignment	not modelled	10.1	25	PDB header: hydrolase Chain: G: PDB Molecule: atp synthase subunit gamma, mitochondrial; PDBTitle: low resolution structures of bovine mitochondrial f1-atpase2 during controlled dehydration: hydration state 5.
67	d2b8ea1	Alignment	not modelled	9.8	32	Fold: HAD-like Superfamily: HAD-like Family: Meta-cation ATPase, catalytic domain P
68	c2wl8D_	Alignment	not modelled	9.0	24	PDB header: protein transport Chain: D: PDB Molecule: peroxisomal biogenesis factor 19; PDBTitle: x-ray crystal structure of pex19p
69	d1gzga_	Alignment	not modelled	8.9	26	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: 5-aminolaevulinate dehydratase, ALAD (porphobilinogen synthase)
70	c1w0jB_	Alignment	not modelled	8.7	15	PDB header: hydrolase Chain: B: PDB Molecule: atp synthase alpha chain heart isoform, PDBTitle: beryllium fluoride inhibited bovine f1-atpase
71	d2c1ha1	Alignment	not modelled	8.7	26	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: 5-aminolaevulinate dehydratase, ALAD (porphobilinogen synthase)
72	c2ihnA_	Alignment	not modelled	8.7	16	PDB header: hydrolase/dna Chain: A: PDB Molecule: ribonuclease h; PDBTitle: co-crystal of bacteriophage t4 rnase h with a fork dna2 substrate
73	c3tixB_	Alignment	not modelled	8.6	50	PDB header: gene regulation/protein binding Chain: B: PDB Molecule: chromo domain-containing protein 1; PDBTitle: crystal structure of the chp1-tas3 complex core
74	c1okgA_	Alignment	not modelled	8.4	14	PDB header: transferase Chain: A: PDB Molecule: possible 3-mercaptopyruvate sulfurtransferase; PDBTitle: 3-mercaptopyruvate sulfurtransferase from leishmania major
75	c2qe7G_	Alignment	not modelled	8.1	44	PDB header: hydrolase Chain: G: PDB Molecule: atp synthase subunit gamma; PDBTitle: crystal structure of the f1-atpase from the thermoalkaliphilic bacterium bacillus sp. ta2.a1
76	c2c61A_	Alignment	not modelled	8.0	7	PDB header: hydrolase Chain: A: PDB Molecule: a-type atp synthase non-catalytic subunit b; PDBTitle: crystal structure of the non-catalytic b subunit of a-type2 atpase from m. maezi go1
77	c2pw0A_	Alignment	not modelled	7.8	15	PDB header: unknown function Chain: A: PDB Molecule: prpf methylaconitate isomerase; PDBTitle: crystal structure of trans-aconitate bound to methylaconitate2 isomerase prpf from shewanella oneidensis
78	d2jdig1	Alignment	not modelled	7.7	38	Fold: Pyruvate kinase C-terminal domain-like Superfamily: ATP synthase (F1-ATPase), gamma subunit Family: ATP synthase (F1-ATPase), gamma subunit
79	c3olhA_	Alignment	not modelled	7.6	12	PDB header: transferase Chain: A: PDB Molecule: 3-mercaptopyruvate sulfurtransferase; PDBTitle: human 3-mercaptopyruvate sulfurtransferase

80	d8rucI_	Alignment	not modelled	7.6	19	Fold: RuBisCO, small subunit Superfamily: RuBisCO, small subunit Family: RuBisCO, small subunit
81	c3obkH_	Alignment	not modelled	7.3	41	PDB header: lyase Chain: H: PDB Molecule: delta-aminolevulinic acid dehydratase; PDBTitle: crystal structure of delta-aminolevulinic acid dehydratase2 (porphobilinogen synthase) from toxoplasma gondii me49 in complex3 with the reaction product porphobilinogen
82	c2qe7C_	Alignment	not modelled	7.2	26	PDB header: hydrolase Chain: C: PDB Molecule: atp synthase subunit alpha; PDBTitle: crystal structure of the f1-atpase from the thermoalkaliphilic2 bacterium bacillus sp. ta2.a1
83	c2r9vA_	Alignment	not modelled	7.1	22	PDB header: hydrolase Chain: A: PDB Molecule: atp synthase subunit alpha; PDBTitle: crystal structure of atp synthase subunit alpha (tm1612) from2 thermotoga maritima at 2.10 a resolution
84	c2xokG_	Alignment	not modelled	7.0	26	PDB header: hydrolase Chain: G: PDB Molecule: atp synthase subunit gamma, mitochondrial; PDBTitle: refined structure of yeast f1c10 atpase complex to 3 a2 resolution
85	c2fa5B_	Alignment	not modelled	6.9	25	PDB header: transcription Chain: B: PDB Molecule: transcriptional regulator marr/emrr family; PDBTitle: the crystal structure of an unliganded multiple antibiotic-2 resistance repressor (marr) from xanthomonas campestris
86	c2w6fA_	Alignment	not modelled	6.6	15	PDB header: hydrolase Chain: A: PDB Molecule: atp synthase subunit alpha heart isoform, PDBTitle: low resolution structures of bovine mitochondrial f1-atpase2 during controlled dehydration: hydration state 2.
87	c2go4A_	Alignment	not modelled	6.5	24	PDB header: hydrolase Chain: A: PDB Molecule: udp-3-o-[3-hydroxyristoyl] n-acetylglucosamine PDBTitle: crystal structure of aquifex aeolicus lpxc complexed with tu-514
88	c1u8cB_	Alignment	not modelled	6.5	23	PDB header: cell adhesion Chain: B: PDB Molecule: integrin beta-3; PDBTitle: a novel adaptation of the integrin psi domain revealed from its2 crystal structure
89	c3p3vB_	Alignment	not modelled	6.5	38	PDB header: transferase Chain: B: PDB Molecule: pts system, n-acetylgalactosamine-specific iib component; PDBTitle: crystal structure of a pts dependent n-acetyl-galactosamine-iib2 component (agav_spy_0631) from streptococcus pyogenes at 1.65 a3 resolution
90	d1szpb1	Alignment	not modelled	6.5	14	Fold: SAM domain-like Superfamily: Rad51 N-terminal domain-like Family: DNA repair protein Rad51, N-terminal domain
91	c3ov5A_	Alignment	not modelled	5.9	13	PDB header: protein transport Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: atomic structure of the xanthomonas citri virb7 globular domain.
92	c3iydC_	Alignment	not modelled	5.9	16	PDB header: transcription/dna Chain: C: PDB Molecule: dna-directed rna polymerase subunit beta; PDBTitle: three-dimensional em structure of an intact activator-dependent2 transcription initiation complex
93	c2eceA_	Alignment	not modelled	5.8	4	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: 462aa long hypothetical selenium-binding protein; PDBTitle: x-ray structure of hypothetical selenium-binding protein2 from sulfolobus tokodaii, st0059
94	d2jdia3	Alignment	not modelled	5.5	16	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain)
95	c2vocA_	Alignment	not modelled	5.5	29	PDB header: electron transport Chain: A: PDB Molecule: thioredoxin; PDBTitle: thioredoxin a active site mutants form mixed disulfide2 dimers that resemble enzyme-substrate reaction3 intermediate
96	c3ippA_	Alignment	not modelled	5.4	16	PDB header: transferase Chain: A: PDB Molecule: putative thiosulfate sulfurtransferase ynj6; PDBTitle: crystal structure of sulfur-free ynj6
97	d1qopb_	Alignment	not modelled	5.4	11	Fold: Tryptophan synthase beta subunit-like PLP-dependent enzymes Superfamily: Tryptophan synthase beta subunit-like PLP-dependent enzymes Family: Tryptophan synthase beta subunit-like PLP-dependent enzymes
98	d1g8fa3	Alignment	not modelled	5.3	22	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: ATP sulfurylase C-terminal domain
99	d1tg7a2	Alignment	not modelled	5.2	25	Fold: Galactose-binding domain-like Superfamily: Galactose-binding domain-like Family: Beta-galactosidase LacA, domains 4 and 5