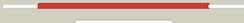
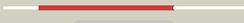
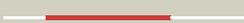
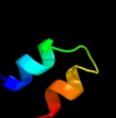
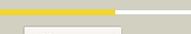
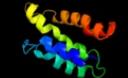
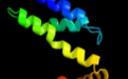
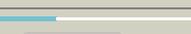
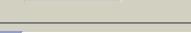
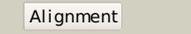


Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P76514
Date	Thu Jan 5 12:23:54 GMT 2012
Unique Job ID	889660b4e77bade2

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d2gz4a1	 Alignment		100.0	29	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
2	c3mzoA	 Alignment		99.4	23	PDB header: hydrolase Chain: A: PDB Molecule: lin2634 protein; PDBTitle: crystal structure of a hd-domain phosphohydrolase (lin2634) from2 listeria innocua at 1.98 a resolution
3	d2paqa1	 Alignment		99.2	18	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
4	c2cqzA	 Alignment		98.8	21	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: 177aa long hypothetical protein; PDBTitle: crystal structure of ph0347 protein from pyrococcus horikoshii ot3
5	d1xx7a	 Alignment		98.8	25	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
6	d1ynba1	 Alignment		98.2	21	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
7	c3kh1B	 Alignment		98.1	18	PDB header: hydrolase Chain: B: PDB Molecule: predicted metal-dependent phosphohydrolase; PDBTitle: crystal structure of predicted metal-dependent2 phosphohydrolase (zp_00055740.2) from magnetospirillum3 magnetotacticum ms-1 at 1.37 a resolution
8	d3b57a1	 Alignment		80.3	17	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
9	c2ogiA	 Alignment		76.2	23	PDB header: hydrolase Chain: A: PDB Molecule: hypothetical protein sag1661; PDBTitle: crystal structure of a putative metal dependent phosphohydrolase2 (sag1661) from streptococcus agalactiae serogroup v at 1.85 a3 resolution
10	c2pgsA	 Alignment		73.1	14	PDB header: hydrolase Chain: A: PDB Molecule: putative deoxyguanosinetriphosphate triphosphohydrolase; PDBTitle: crystal structure of a putative deoxyguanosinetriphosphate2 triphosphohydrolase from pseudomonas syringae pv. phaseolicola 1448a
11	c2o08B	 Alignment		71.2	27	PDB header: hydrolase Chain: B: PDB Molecule: bh1327 protein; PDBTitle: crystal structure of a putative hd superfamily hydrolase (bh1327) from2 bacillus halodurans at 1.90 a resolution

12	c3ccgA_	 Alignment		70.6	23	PDB header: hydrolase Chain: A: PDB Molecule: hd superfamily hydrolase; PDBTitle: crystal structure of predicted hd superfamily hydrolase involved in2 nad metabolism (np_347894.1) from clostridium acetobutylicum at 1.503 a resolution
13	d2pq7a1	 Alignment		70.2	17	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
14	c3nr1A_	 Alignment		65.8	14	PDB header: hydrolase Chain: A: PDB Molecule: hd domain-containing protein 3; PDBTitle: a metazoan ortholog of spot hydrolyzes ppppp and plays a role in2 starvation responses
15	c1vj7B_	 Alignment		58.9	13	PDB header: hydrolase, transferase Chain: B: PDB Molecule: bifunctional rela/spot; PDBTitle: crystal structure of the bifunctional catalytic fragment of relseq,2 the rela/spot homolog from streptococcus equisimilis.
16	c2dqbB_	 Alignment		49.5	36	PDB header: hydrolase, dna binding protein Chain: B: PDB Molecule: deoxyguanosinetriphosphate triphosphohydrolase, putative; PDBTitle: crystal structure of dntp triphosphohydrolase from thermus2 thermophilus hb8, which is homologous to dgtp triphosphohydrolase
17	c3mltA_	 Alignment		48.6	9	PDB header: hydrolase Chain: A: PDB Molecule: putative phosphohydrolase; PDBTitle: crystal structure of putative phosphohydrolase (yp_929327.1) from2 shewanella amazonensis sb2b at 1.62 a resolution
18	d2heka1	 Alignment		47.5	23	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
19	d2pjqa1	 Alignment		45.6	25	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
20	c3nqwB_	 Alignment		42.4	19	PDB header: hydrolase Chain: B: PDB Molecule: cg11900; PDBTitle: a metazoan ortholog of spot hydrolyzes ppppp and plays a role in2 starvation responses
21	c3hc1A_	 Alignment	not modelled	41.8	12	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized hdod domain protein; PDBTitle: crystal structure of hdod domain protein with unknown function2 (np_953345.1) from geobacter sulfurreducens at 1.90 a resolution
22	c3u1nC_	 Alignment	not modelled	40.2	36	PDB header: hydrolase Chain: C: PDB Molecule: sam domain and hd domain-containing protein 1; PDBTitle: structure of the catalytic core of human samhd1
23	d3dtoa1	 Alignment	not modelled	38.3	19	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
24	d1vqra_	 Alignment	not modelled	36.0	11	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: modified HD domain
25	d2qgsa1	 Alignment	not modelled	29.3	18	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
26	d1rm6c1	 Alignment	not modelled	29.0	29	Fold: CO dehydrogenase ISP C-domain like Superfamily: CO dehydrogenase ISP C-domain like Family: CO dehydrogenase ISP C-domain like
27	c2o6iA_	 Alignment	not modelled	28.5	41	PDB header: hydrolase Chain: A: PDB Molecule: hd domain protein; PDBTitle: structure of an enterococcus faecalis hd domain phosphohydrolase
28	d2o6ia1	 Alignment	not modelled	28.5	41	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
29	c3aqaA_	 Alignment	not modelled	27.5	10	PDB header: transferase Chain: A: PDB Molecule: poly(a) polymerase;

						PDBTitle: complex structure of bacterial protein (apo form ii)
30	d1n62a1	Alignment	not modelled	27.3	24	Fold: CO dehydrogenase ISP C-domain like Superfamily: CO dehydrogenase ISP C-domain like Family: CO dehydrogenase ISP C-domain like
31	c2q14A	Alignment	not modelled	27.0	27	PDB header: hydrolase Chain: A: PDB Molecule: phosphohydrolase; PDBTitle: crystal structure of phosphohydrolase (bt4208) from bacteroides2 thetaiotaomicron vpi-5482 at 2.20 a resolution
32	d1zxia1	Alignment	not modelled	26.3	24	Fold: CO dehydrogenase ISP C-domain like Superfamily: CO dehydrogenase ISP C-domain like Family: CO dehydrogenase ISP C-domain like
33	c3hrdH	Alignment	not modelled	22.3	38	PDB header: oxidoreductase Chain: H: PDB Molecule: nicotinate dehydrogenase small fes subunit; PDBTitle: crystal structure of nicotinate dehydrogenase
34	d3djbA1	Alignment	not modelled	21.1	30	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
35	d1ffva1	Alignment	not modelled	20.6	29	Fold: CO dehydrogenase ISP C-domain like Superfamily: CO dehydrogenase ISP C-domain like Family: CO dehydrogenase ISP C-domain like
36	c1ffuA	Alignment	not modelled	20.4	29	PDB header: hydrolase Chain: A: PDB Molecule: cuts, iron-sulfur protein of carbon monoxide PDBTitle: carbon monoxide dehydrogenase from hydrogenophaga2 pseudoflava which lacks the mo-pyranopterin moiety of the3 molybdenum cofactor
37	c3memA	Alignment	not modelled	20.2	14	PDB header: signaling protein Chain: A: PDB Molecule: putative signal transduction protein; PDBTitle: crystal structure of a putative signal transduction protein2 (maqu_0641) from marinobacter aquaeolei vt8 at 2.25 a resolution
38	d1t3qa1	Alignment	not modelled	19.5	24	Fold: CO dehydrogenase ISP C-domain like Superfamily: CO dehydrogenase ISP C-domain like Family: CO dehydrogenase ISP C-domain like
39	c3l09B	Alignment	not modelled	19.5	11	PDB header: transcription regulator Chain: B: PDB Molecule: putative transcriptional regulator; PDBTitle: crystal structure of putative transcriptional regulator2 (jann_22dec04_contig27_revised_gene3569) from jannaschia sp. ccs1 at3 2.81 a resolution
40	c3gw7A	Alignment	not modelled	17.4	22	PDB header: hydrolase Chain: A: PDB Molecule: uncharacterized protein yedj; PDBTitle: crystal structure of a metal-dependent phosphohydrolase2 with conserved hd domain (yedj) from escherichia coli in3 complex with nickel ions. northeast structural genomics4 consortium target er63
41	c3skdA	Alignment	not modelled	17.2	23	PDB header: hydrolase Chain: A: PDB Molecule: putative uncharacterized protein tthb187; PDBTitle: crystal structure of the thermus thermophilus cas3 hd domain in the2 presence of ni2+
42	c1t3qD	Alignment	not modelled	17.2	24	PDB header: oxidoreductase Chain: D: PDB Molecule: quinoline 2-oxidoreductase small subunit; PDBTitle: crystal structure of quinoline 2-oxidoreductase from pseudomonas2 putida 86
43	d1v97a1	Alignment	not modelled	17.0	29	Fold: CO dehydrogenase ISP C-domain like Superfamily: CO dehydrogenase ISP C-domain like Family: CO dehydrogenase ISP C-domain like
44	d1b93a	Alignment	not modelled	17.0	11	Fold: Methylglyoxal synthase-like Superfamily: Methylglyoxal synthase-like Family: Methylglyoxal synthase, MgsA
45	c3bg2A	Alignment	not modelled	16.7	19	PDB header: hydrolase Chain: A: PDB Molecule: dgtp triphosphohydrolase; PDBTitle: crystal structure of deoxyguanosinetriphosphate triphosphohydrolase2 from flavobacterium sp. med217
46	d1vj7a1	Alignment	not modelled	16.4	13	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: HD domain
47	d1vmda	Alignment	not modelled	15.8	16	Fold: Methylglyoxal synthase-like Superfamily: Methylglyoxal synthase-like Family: Methylglyoxal synthase, MgsA
48	c1n60D	Alignment	not modelled	13.6	24	PDB header: oxidoreductase Chain: D: PDB Molecule: carbon monoxide dehydrogenase small chain; PDBTitle: crystal structure of the cu,mo-co dehydrogenase (codh); cyanide-2 inactivated form
49	c2jo7A	Alignment	not modelled	12.9	23	PDB header: surface active protein Chain: A: PDB Molecule: glycosylphosphatidylinositol-anchored merozoite PDBTitle: solution structure of the adhesion protein bd37 from2 babesia divergens
50	c1rm6F	Alignment	not modelled	11.7	29	PDB header: oxidoreductase Chain: F: PDB Molecule: 4-hydroxybenzoyl-coa reductase gamma subunit; PDBTitle: structure of 4-hydroxybenzoyl-coa reductase from thauera2 aromatica
51	d1dgia1	Alignment	not modelled	11.5	25	Fold: CO dehydrogenase ISP C-domain like Superfamily: CO dehydrogenase ISP C-domain like Family: CO dehydrogenase ISP C-domain like
52	c3ljvA	Alignment	not modelled	11.4	18	PDB header: transcription Chain: A: PDB Molecule: mmoq response regulator; PDBTitle: crystal structure of mmoq response regulator (fragment 29-302) from2 methylococcus capsulatus str. bath, northeast structural genomics3 consortium target mcr175m
						Fold: alpha-alpha superhelix

53	dlz2cb1	Alignment	not modelled	10.7	17	Superfamily: ARM repeat Family: Diap1 N-terminal region-like
54	dlvlba1	Alignment	not modelled	10.3	21	Fold: CO dehydrogenase ISP C-domain like Superfamily: CO dehydrogenase ISP C-domain like Family: CO dehydrogenase ISP C-domain like
55	dleila1	Alignment	not modelled	10.3	11	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: DNA gyrase/MutL, second domain
56	dltuza	Alignment	not modelled	9.2	18	Fold: EF Hand-like Superfamily: EF-hand Family: EF-hand modules in multidomain proteins
57	c2zklA	Alignment	not modelled	9.1	11	PDB header: isomerase Chain: A: PDB Molecule: capsular polysaccharide synthesis enzyme cap5f; PDBTitle: crystal structure of capsular polysaccharide assembling protein capf2 from staphylococcus aureus
58	c3eu8D	Alignment	not modelled	8.9	20	PDB header: hydrolase Chain: D: PDB Molecule: putative glucoamylase; PDBTitle: crystal structure of putative glucoamylase (yp_210071.1) from2 bacteroides fragilis nctc 9343 at 2.12 a resolution
59	c2lbbA	Alignment	not modelled	8.5	11	PDB header: protein binding Chain: A: PDB Molecule: acyl coa binding protein; PDBTitle: solution structure of acyl coa binding protein from babesia bovis t2bo
60	c2bnxA	Alignment	not modelled	8.4	17	PDB header: structural protein Chain: A: PDB Molecule: diaphanous protein homolog 1; PDBTitle: crystal structure of the dimeric regulatory domain of mouse2 diaphaneous-related formin (drf), mdia1
61	d2bnxa1	Alignment	not modelled	8.4	17	Fold: alpha-alpha superhelix Superfamily: ARM repeat Family: Diap1 N-terminal region-like
62	d2enda	Alignment	not modelled	8.0	50	Fold: T4 endonuclease V Superfamily: T4 endonuclease V Family: T4 endonuclease V
63	c1vlbA	Alignment	not modelled	7.8	24	PDB header: oxidoreductase Chain: A: PDB Molecule: aldehyde oxidoreductase; PDBTitle: structure refinement of the aldehyde oxidoreductase from2 desulfovibrio gigas at 1.28 a
64	d1kija1	Alignment	not modelled	7.7	12	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: DNA gyrase/MutL, second domain
65	d1mx3a2	Alignment	not modelled	7.7	33	Fold: Flavodoxin-like Superfamily: Formate/glycerate dehydrogenase catalytic domain-like Family: Formate/glycerate dehydrogenases, substrate-binding domain
66	d1b4ua	Alignment	not modelled	7.6	11	Fold: LigA subunit of an aromatic-ring-opening dioxygenase LigAB Superfamily: LigA subunit of an aromatic-ring-opening dioxygenase LigAB Family: LigA subunit of an aromatic-ring-opening dioxygenase LigAB
67	c2it8A	Alignment	not modelled	7.5	67	PDB header: plant protein Chain: A: PDB Molecule: trypsin inhibitor 2; PDBTitle: solution structure of a linear analog of the cyclic squash2 trypsin inhibitor mcoi-ii
68	d2it8a1	Alignment	not modelled	7.5	67	Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: Plant inhibitors of proteinases and amylases Family: Plant inhibitors of proteinases and amylases
69	c2copA	Alignment	not modelled	7.4	16	PDB header: lipid binding protein Chain: A: PDB Molecule: acyl-coenzyme a binding domain containing 6; PDBTitle: solution structure of rsgi ruh-040, an acbp domain from2 human cdna
70	d2ibna1	Alignment	not modelled	7.4	27	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: MioX-like
71	c2huoA	Alignment	not modelled	7.3	24	PDB header: oxidoreductase Chain: A: PDB Molecule: inositol oxygenase; PDBTitle: crystal structure of mouse myo-inositol oxygenase in complex with2 substrate
72	d3bxda1	Alignment	not modelled	7.3	24	Fold: HD-domain/PDEase-like Superfamily: HD-domain/PDEase-like Family: MioX-like
73	dlivza	Alignment	not modelled	7.0	5	Fold: Ferredoxin-like Superfamily: SEA domain Family: SEA domain
74	d1y8xb1	Alignment	not modelled	6.8	31	Fold: Activating enzymes of the ubiquitin-like proteins Superfamily: Activating enzymes of the ubiquitin-like proteins Family: Ubiquitin activating enzymes (UBA)
75	c3i7aA	Alignment	not modelled	6.8	11	PDB header: hydrolase Chain: A: PDB Molecule: putative metal-dependent phosphohydrolase; PDBTitle: crystal structure of putative metal-dependent phosphohydrolase2 (yp_926882.1) from shewanella amazonensis sb2b at 2.06 a resolution
76	c3fnvB	Alignment	not modelled	6.8	19	PDB header: metal binding protein Chain: B: PDB Molecule: cdgsh iron sulfur domain-containing protein 2; PDBTitle: crystal structure of miner1: the redox-active 2fe-2s protein causative2 in wolfram syndrome 2
77	c3ojlA	Alignment	not modelled	6.7	20	PDB header: oxidoreductase Chain: A: PDB Molecule: cap50; PDBTitle: native structure of the udp-n-acetyl-mannosamine dehydrogenase cap50a2 from staphylococcus aureus PDB header: ribosome/hydrolase

78	c4a2iV_	Alignment	not modelled	6.7	11	Chain: V: PDB Molecule: putative ribosome biogenesis gtpase rsga; PDBTitle: cryo-electron microscopy structure of the 30s subunit in complex with2 the yjeq biogenesis factor
79	d1ha9a_	Alignment	not modelled	6.5	67	Fold: Knottins (small inhibitors, toxins, lectins) Superfamily: Plant inhibitors of proteinases and amylases Family: Plant inhibitors of proteinases and amylases
80	d1hbka_	Alignment	not modelled	6.3	11	Fold: Acyl-CoA binding protein-like Superfamily: Acyl-CoA binding protein Family: Acyl-CoA binding protein
81	d1dw0a_	Alignment	not modelled	6.3	21	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
82	c2cquA_	Alignment	not modelled	6.2	18	PDB header: isomerase Chain: A: PDB Molecule: peroxisomal d3,d2-enoyl-coa isomerase; PDBTitle: solution structure of rsgi ruh-045, a human acyl-coa2 binding protein
83	c3gwnA_	Alignment	not modelled	6.1	19	PDB header: oxidoreductase Chain: A: PDB Molecule: probable fad-linked sulfhydryl oxidase r596; PDBTitle: crystal structure of the fad binding domain from mimivirus sulfhydryl2 oxidase r596
84	d2raqa1	Alignment	not modelled	6.1	23	Fold: Ferredoxin-like Superfamily: MTH889-like Family: MTH889-like
85	c2po8A_	Alignment	not modelled	6.1	67	PDB header: plant protein Chain: A: PDB Molecule: mcoti-ii; PDBTitle: the structure of a two-disulfide intermediate of mcoti-ii
86	d1hjra_	Alignment	not modelled	6.0	16	Fold: Ribonuclease H-like motif Superfamily: Ribonuclease H-like Family: RuvC resolvase
87	c1tg6G_	Alignment	not modelled	5.9	8	PDB header: hydrolase Chain: G: PDB Molecule: putative atp-dependent clp protease proteolytic subunit; PDBTitle: crystallography and mutagenesis point to an essential role for the n-2 terminus of human mitochondrial clpp
88	c1m3wA_	Alignment	not modelled	5.8	30	PDB header: de novo protein Chain: A: PDB Molecule: h10h24; PDBTitle: crystal structure of a molecular maquette scaffold
89	c1m3wB_	Alignment	not modelled	5.8	30	PDB header: de novo protein Chain: B: PDB Molecule: h10h24; PDBTitle: crystal structure of a molecular maquette scaffold
90	c1m3wC_	Alignment	not modelled	5.8	30	PDB header: de novo protein Chain: C: PDB Molecule: h10h24; PDBTitle: crystal structure of a molecular maquette scaffold
91	c1m3wD_	Alignment	not modelled	5.8	30	PDB header: de novo protein Chain: D: PDB Molecule: h10h24; PDBTitle: crystal structure of a molecular maquette scaffold
92	d1hyoa1	Alignment	not modelled	5.7	29	Fold: SH3-like barrel Superfamily: Fumarylacetoacetate hydrolase, FAH, N-terminal domain Family: Fumarylacetoacetate hydrolase, FAH, N-terminal domain
93	c3kfwX_	Alignment	not modelled	5.7	12	PDB header: structural genomics, unknown function Chain: X: PDB Molecule: uncharacterized protein; PDBTitle: uncharacterized protein rv0674 from mycobacterium tuberculosis
94	c1dgiA_	Alignment	not modelled	5.5	29	PDB header: oxidoreductase Chain: A: PDB Molecule: aldehyde oxidoreductase; PDBTitle: crystal structure of the aldehyde oxidoreductase from2 desulfovibrio desulfuricans atcc 27774
95	d1jroa1	Alignment	not modelled	5.4	40	Fold: CO dehydrogenase ISP C-domain like Superfamily: CO dehydrogenase ISP C-domain like Family: CO dehydrogenase ISP C-domain like
96	c3q7hM_	Alignment	not modelled	5.4	13	PDB header: hydrolase Chain: M: PDB Molecule: atp-dependent clp protease proteolytic subunit; PDBTitle: structure of the clpp subunit of the atp-dependent clp protease from2 coxiella burnetii
97	d1tg6a1	Alignment	not modelled	5.3	8	Fold: ClpP/crotonase Superfamily: ClpP/crotonase Family: Clp protease, ClpP subunit
98	d1hb6a_	Alignment	not modelled	5.2	11	Fold: Acyl-CoA binding protein-like Superfamily: Acyl-CoA binding protein Family: Acyl-CoA binding protein