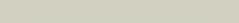
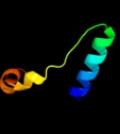
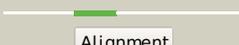
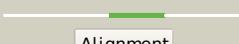
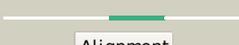
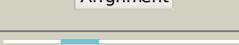
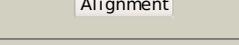
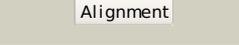
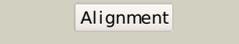


Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P0A8R0
Date	Thu Jan 5 11:08:32 GMT 2012
Unique Job ID	02a4893a965230d2

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1q5xa_	 Alignment		100.0	100	Fold: The "swivelling" beta/beta/alpha domain Superfamily: RraA-like Family: RraA-like
2	c3c8oB_	 Alignment		100.0	55	PDB header: hydrolase regulator Chain: B: PDB Molecule: regulator of ribonuclease activity a; PDBTitle: the crystal structure of rraa from pao1
3	c2pcnA_	 Alignment		100.0	38	PDB header: transferase Chain: A: PDB Molecule: s-adenosylmethionine:2-demethylmenaquinone PDBTitle: crystal structure of s-adenosylmethionine: 2-dimethylmenaquinone2 methyltransferase (gk_1813) from geobacillus kaustophilus hta426
4	d1vi4a_	 Alignment		100.0	44	Fold: The "swivelling" beta/beta/alpha domain Superfamily: RraA-like Family: RraA-like
5	d1j3la_	 Alignment		100.0	44	Fold: The "swivelling" beta/beta/alpha domain Superfamily: RraA-like Family: RraA-like
6	d1nxja_	 Alignment		100.0	45	Fold: The "swivelling" beta/beta/alpha domain Superfamily: RraA-like Family: RraA-like
7	c1nxjA_	 Alignment		100.0	45	PDB header: unknown function Chain: A: PDB Molecule: probable s-adenosylmethionine:2- PDBTitle: structure of rv3853 from mycobacterium tuberculosis
8	c3noja_	 Alignment		100.0	20	PDB header: lyase Chain: A: PDB Molecule: 4-carboxy-4-hydroxy-2-oxoadipate aldolase/oxaloacetate PDBTitle: the structure of hmg/cha aldolase from the protocatechuate degradation2 pathway of pseudomonas putida
9	c3k4iC_	 Alignment		100.0	19	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of uncharacterized protein pspto_3204 from2 pseudomonas syringae pv. tomato str. dc3000
10	c2c5qE_	 Alignment		100.0	19	PDB header: structural genomics, unknown function Chain: E: PDB Molecule: rraa-like protein yer010c; PDBTitle: crystal structure of yeast yer010cp
11	d1vbga2	 Alignment		76.9	15	Fold: The "swivelling" beta/beta/alpha domain Superfamily: Phosphohistidine domain Family: Pyruvate phosphate dikinase, central domain

12	d1kbla2	 Alignment		75.0	20	Fold: The "swivelling" beta/beta/alpha domain Superfamily: Phosphohistidine domain Family: Pyruvate phosphate dikinase, central domain
13	d2gp4a1	 Alignment		60.6	20	Fold: The "swivelling" beta/beta/alpha domain Superfamily: LeuD/IlvD-like Family: IlvD/EDD C-terminal domain-like
14	d1f5va_	 Alignment		55.4	18	Fold: FMN-dependent nitroreductase-like Superfamily: FMN-dependent nitroreductase-like Family: NADH oxidase/flavin reductase
15	d1e8ca2	 Alignment		55.2	20	Fold: MurD-like peptide ligases, peptide-binding domain Superfamily: MurD-like peptide ligases, peptide-binding domain Family: MurCDEF C-terminal domain
16	c3n2sD_	 Alignment		53.4	21	PDB header: oxidoreductase Chain: D: PDB Molecule: nadph-dependent nitro/flavin reductase; PDBTitle: structure of nfra1 nitroreductase from b. subtilis
17	d1zcha1	 Alignment		49.8	15	Fold: FMN-dependent nitroreductase-like Superfamily: FMN-dependent nitroreductase-like Family: NADH oxidase/flavin reductase
18	c2gp4A_	 Alignment		47.1	18	PDB header: lyase Chain: A: PDB Molecule: 6-phosphogluconate dehydratase; PDBTitle: structure of [fes]cluster-free apo form of 6-phosphogluconate2 dehydratase from shewanella oneidensis
19	c3eofB_	 Alignment		43.7	13	PDB header: oxidoreductase Chain: B: PDB Molecule: putative oxidoreductase; PDBTitle: crystal structure of putative oxidoreductase (yp_213212.1) from2 bacteroides fragilis nctc 9343 at 1.99 a resolution
20	d1bkja_	 Alignment		42.7	18	Fold: FMN-dependent nitroreductase-like Superfamily: FMN-dependent nitroreductase-like Family: NADH oxidase/flavin reductase
21	c1vfgB_	 Alignment	not modelled	42.6	17	PDB header: transferase/rna Chain: B: PDB Molecule: poly a polymerase; PDBTitle: crystal structure of trna nucleotidyltransferase complexed2 with a primer trna and an incoming atp analog
22	c1ou5A_	 Alignment	not modelled	40.9	36	PDB header: translation, transferase Chain: A: PDB Molecule: trna cca-adding enzyme; PDBTitle: crystal structure of human cca-adding enzyme
23	d1vfga2	 Alignment	not modelled	37.7	17	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Poly A polymerase head domain-like
24	d1ou5a2	 Alignment	not modelled	33.3	36	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Poly A polymerase head domain-like
25	c1dbgA_	 Alignment	not modelled	33.1	19	PDB header: lyase Chain: A: PDB Molecule: chondroitinase b; PDBTitle: crystal structure of chondroitinase b
26	c2vpiA_	 Alignment	not modelled	31.2	16	PDB header: ligase Chain: A: PDB Molecule: gmp synthase; PDBTitle: human gmp synthetase - glutaminase domain
27	d1ofla_	 Alignment	not modelled	30.1	22	Fold: Single-stranded right-handed beta-helix Superfamily: Pectin lyase-like Family: Chondroitinase B
28	c1e8cB_	 Alignment	not modelled	27.4	20	PDB header: ligase Chain: B: PDB Molecule: udp-n-acetylmuramoylalanyl-d-glutamate--2,6- PDBTitle: structure of mure the udp-n-acetylmuramyl tripeptide2 synthetase from e. coli Fold: Nucleotidyltransferase

29	d1miwa2	Alignment	not modelled	24.8	23	Superfamily: Nucleotidyltransferase Family: Poly A polymerase head domain-like
30	c3mvaA	Alignment	not modelled	23.7	14	PDB header: ligase Chain: A: PDB Molecule: udp-n-acetylmuramate:l-alanyl-gamma-d-glutamyl-medo- PDBTitle: crystal structure of a domain from a putative udp-n-acetylmuramate:l-2 alanyl-gamma-d-glutamyl-medo-diaminopimelate ligase from haemophilus3 ducreyi 35000hp
31	c3h37B	Alignment	not modelled	21.7	22	PDB header: transferase Chain: B: PDB Molecule: trna nucleotidyl transferase-related protein; PDBTitle: the structure of cca-adding enzyme apo form i
32	c3aqaA	Alignment	not modelled	19.5	18	PDB header: transferase Chain: A: PDB Molecule: poly(a) polymerase; PDBTitle: complex structure of bacterial protein (apo form ii)
33	d1thfd	Alignment	not modelled	18.7	12	Fold: TIM beta/alpha-barrel Superfamily: Ribulose-phosphate binding barrel Family: Histidine biosynthesis enzymes
34	c3l7oB	Alignment	not modelled	18.4	14	PDB header: isomerase Chain: B: PDB Molecule: ribose-5-phosphate isomerase a; PDBTitle: crystal structure of ribose-5-phosphate isomerase a from streptococcus2 mutans ua159
35	c3k6hB	Alignment	not modelled	18.1	5	PDB header: oxidoreductase Chain: B: PDB Molecule: nitroreductase family protein; PDBTitle: crystal structure of a nitroreductase family protein from2 agrobacterium tumefaciens str. c58
36	c3tbiB	Alignment	not modelled	16.6	33	PDB header: transcription Chain: B: PDB Molecule: dna-directed rna polymerase subunit beta; PDBTitle: crystal structure of t4 gp33 bound to e. coli rnap beta-flap domain
37	c2pjaA	Alignment	not modelled	16.4	19	PDB header: isomerase Chain: A: PDB Molecule: ribose-5-phosphate isomerase a; PDBTitle: structure of ribose 5-phosphate isomerase a from2 methanocaldococcus jannaschii
38	c3bm2B	Alignment	not modelled	16.4	15	PDB header: oxidoreductase Chain: B: PDB Molecule: protein ydja; PDBTitle: crystal structure of a minimal nitroreductase ydja from escherichia2 coli k12 with and without fmn cofactor
39	c1fdvA	Alignment	not modelled	16.4	19	PDB header: dehydrogenase Chain: A: PDB Molecule: 17-beta-hydroxysteroid dehydrogenase; PDBTitle: human 17-beta-hydroxysteroid-dehydrogenase type 1 mutant2 h221l complexed with nad+
40	c2wzvB	Alignment	not modelled	15.3	8	PDB header: oxidoreductase Chain: B: PDB Molecule: nfnb protein; PDBTitle: crystal structure of the fmn-dependent nitroreductase nfnb2 from mycobacterium smegmatis
41	d1uj4a1	Alignment	not modelled	14.3	15	Fold: NagB/RpiA/CoA transferase-like Superfamily: NagB/RpiA/CoA transferase-like Family: D-ribose-5-phosphate isomerase (RpiA), catalytic domain
42	c1miyB	Alignment	not modelled	12.5	25	PDB header: translation, transferase Chain: B: PDB Molecule: trna cca-adding enzyme; PDBTitle: crystal structure of bacillus stearothermophilus cca-adding enzyme in2 complex with ctp
43	d1jtvA	Alignment	not modelled	11.1	19	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Tyrosine-dependent oxidoreductases
44	d1fcqa	Alignment	not modelled	10.3	16	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: Bee venom hyaluronidase
45	c3cioA	Alignment	not modelled	9.7	35	PDB header: signaling protein, transferase Chain: A: PDB Molecule: tyrosine-protein kinase etk; PDBTitle: the kinase domain of escherichia coli tyrosine kinase etk
46	c3bemA	Alignment	not modelled	9.6	16	PDB header: oxidoreductase Chain: A: PDB Molecule: putative nad(p)h nitroreductase ydfn; PDBTitle: crystal structure of putative nitroreductase ydfn (2632848) from2 bacillus subtilis at 1.65 a resolution
47	c2atmA	Alignment	not modelled	9.6	32	PDB header: hydrolase Chain: A: PDB Molecule: hyaluronoglucosaminidase; PDBTitle: crystal structure of the recombinant allergen ves v 2
48	c1skoA	Alignment	not modelled	9.5	17	PDB header: signaling protein Chain: A: PDB Molecule: mitogen-activated protein kinase kinase 1 PDBTitle: mp1-p14 complex
49	c1fcuA	Alignment	not modelled	9.4	16	PDB header: hydrolase Chain: A: PDB Molecule: hyaluronoglucosaminidase; PDBTitle: crystal structure (trigonal) of bee venom hyaluronidase
50	c3emkA	Alignment	not modelled	9.3	24	PDB header: oxidoreductase Chain: A: PDB Molecule: glucose/ribitol dehydrogenase; PDBTitle: 2.5a crystal structure of glucose/ribitol dehydrogenase2 from brucella melitensis
51	d1h6za2	Alignment	not modelled	9.3	15	Fold: The "swivelling" beta/beta/alpha domain Superfamily: Phosphohistidine domain Family: Pyruvate phosphate dikinase, central domain
52	c3mjJD	Alignment	not modelled	9.3	36	PDB header: hydrolase Chain: D: PDB Molecule: predicted acetamidase/formamidase; PDBTitle: crystal structure analysis of a recombinant predicted2 acetamidase/formamidase from the thermophile thermoanaerobacter3 tengcongensis
53	d1bvca1	Alignment	not modelled	9.1	20	Fold: Reductase/isomerase/elongation factor common domain Superfamily: Riboflavin synthase domain-like Family: Ferredoxin reductase FAD-binding domain-like
54	d1ka9f	Alignment	not modelled	9.1	14	Fold: TIM beta/alpha-barrel Superfamily: Ribulose-phosphate binding barrel Family: Histidine biosynthesis enzymes

55	c1vdzA	Alignment	not modelled	8.4	12	PDB header: hydrolase Chain: A: PDB Molecule: a-type atpase subunit a; PDBTitle: crystal structure of a-type atpase catalytic subunit a from2 pyrococcus horikoshii ot3
56	c2pe4A	Alignment	not modelled	8.4	11	PDB header: hydrolase Chain: A: PDB Molecule: hyaluronidase-1; PDBTitle: structure of human hyaluronidase 1, a hyaluronan hydrolyzing enzyme2 involved in tumor growth and angiogenesis
57	d2f4la1	Alignment	not modelled	8.4	21	Fold: CUB-like Superfamily: Acetamidase/Formamidase-like Family: Acetamidase/Formamidase-like
58	d1i1qb	Alignment	not modelled	8.4	19	Fold: Flavodoxin-like Superfamily: Class I glutamine amidotransferase-like Family: Class I glutamine amidotransferases (GAT)
59	c2xrfA	Alignment	not modelled	8.3	25	PDB header: transferase Chain: A: PDB Molecule: uridine phosphorylase 2; PDBTitle: crystal structure of human uridine phosphorylase 2
60	c3eo7A	Alignment	not modelled	8.3	24	PDB header: flavoprotein Chain: A: PDB Molecule: putative nitroreductase; PDBTitle: crystal structure of a putative nitroreductase (ava_2154) from2 anabaena variabilis atcc 29413 at 1.80 a resolution
61	c3pbiA	Alignment	not modelled	8.2	22	PDB header: hydrolase Chain: A: PDB Molecule: invasion protein; PDBTitle: structure of the peptidoglycan hydrolase ripb (rv1478) from2 mycobacterium tuberculosis at 1.6 resolution
62	d1h5ya	Alignment	not modelled	8.2	16	Fold: TIM beta/alpha-barrel Superfamily: Ribulose-phosphate binding barrel Family: Histidine biosynthesis enzymes
63	c3hj9A	Alignment	not modelled	8.2	8	PDB header: oxidoreductase Chain: A: PDB Molecule: oxidoreductase; PDBTitle: crystal structure of a putative nitroreductase (reut_a1228) from2 ralstonia eutropha jmp134 at 2.00 a resolution
64	c3b9tD	Alignment	not modelled	7.8	29	PDB header: hydrolase Chain: D: PDB Molecule: twin-arginine translocation pathway signal protein; PDBTitle: crystal structure of predicted acetamidase/formamidase (yp_546212.1)2 from methylobacillus flagellatus kt at 1.58 a resolution
65	c2xivA	Alignment	not modelled	7.7	26	PDB header: structural protein Chain: A: PDB Molecule: hypothetical invasion protein; PDBTitle: structure of rv1477, hypothetical invasion protein of2 mycobacterium tuberculosis
66	c2r01A	Alignment	not modelled	7.6	16	PDB header: oxidoreductase Chain: A: PDB Molecule: nitroreductase family protein; PDBTitle: crystal structure of a putative frn-dependent nitroreductase (ct0345)2 from chlorobium tepidum ts at 1.15 a resolution
67	d2fsua1	Alignment	not modelled	7.0	10	Fold: PLP-dependent transferase-like Superfamily: PhnH-like Family: PhnH-like
68	c2fsuA	Alignment	not modelled	7.0	10	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: protein phnH; PDBTitle: crystal structure of the phnH protein from escherichia coli
69	d1eara1	Alignment	not modelled	7.0	30	Fold: Urease metallochaperone UreE, N-terminal domain Superfamily: Urease metallochaperone UreE, N-terminal domain Family: Urease metallochaperone UreE, N-terminal domain
70	d1j5ya1	Alignment	not modelled	6.8	25	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Biotin repressor-like
71	c2i7hE	Alignment	not modelled	6.7	10	PDB header: oxidoreductase Chain: E: PDB Molecule: nitroreductase-like family protein; PDBTitle: crystal structure of the nitroreductase-like family protein from2 bacillus cereus
72	c2ii1A	Alignment	not modelled	6.6	29	PDB header: hydrolase Chain: A: PDB Molecule: acetamidase; PDBTitle: crystal structure of acetamidase (10172637) from bacillus halodurans2 at 1.95 a resolution
73	c3gt2A	Alignment	not modelled	6.6	17	PDB header: unknown function Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of the p60 domain from m. avium2 paratuberculosis antigen map1272c
74	c3rkuC	Alignment	not modelled	6.5	18	PDB header: oxidoreductase Chain: C: PDB Molecule: oxidoreductase ymr226c; PDBTitle: substrate fingerprint and the structure of nadp+ dependent serine2 dehydrogenase from saccharomyces cerevisiae complexed with nadp+
75	c1vbhA	Alignment	not modelled	6.5	16	PDB header: transferase Chain: A: PDB Molecule: pyruvate,orthophosphate di kinase; PDBTitle: pyruvate phosphate di kinase with bound mg-pep from maize
76	d2cs7a1	Alignment	not modelled	6.3	21	Fold: IL8-like Superfamily: PhtA domain-like Family: PhtA domain-like
77	d1gph12	Alignment	not modelled	6.1	16	Fold: Ntn hydrolase-like Superfamily: N-terminal nucleophile aminohydrolases (Ntn hydrolases) Family: Class II glutamine amidotransferases
78	c1y43B	Alignment	not modelled	5.9	26	PDB header: hydrolase Chain: B: PDB Molecule: aspergillopepsin ii heavy chain; PDBTitle: crystal structure of aspergilloglutamic peptidase from2 aspergillus niger
79	c2kytA	Alignment	not modelled	5.7	9	PDB header: hydrolase Chain: A: PDB Molecule: group xvi phospholipase a2; PDBTitle: solution struture of the h-rev107 n-terminal domain
						PDB header: immune system, rna binding protein Chain: D: PDB Molecule: mp18 rna editing complex protein;

80	c3k81D_	Alignment	not modelled	5.7	25	PDBTitle: structure of the central interaction protein from the trypanosoma2 brucei editosome in complex with single domain antibodies
81	d1vzwa1	Alignment	not modelled	5.7	17	Fold: TIM beta/alpha-barrel Superfamily: Ribulose-phosphate binding barrel Family: Histidine biosynthesis enzymes
82	d1p3da2	Alignment	not modelled	5.5	27	Fold: MurD-like peptide ligases, peptide-binding domain Superfamily: MurD-like peptide ligases, peptide-binding domain Family: MurCDEF C-terminal domain
83	c3ny0D_	Alignment	not modelled	5.5	20	PDB header: metal binding protein Chain: D: PDB Molecule: urease accessory protein uree; PDBTitle: crystal structure of uree from helicobacter pylori (ni2+ bound form)
84	c2wknE_	Alignment	not modelled	5.3	36	PDB header: hydrolase Chain: E: PDB Molecule: formamidase; PDBTitle: gamma lactamase from delftia acidovorans
85	d1vkya_	Alignment	not modelled	5.2	18	Fold: QueA-like Superfamily: QueA-like Family: QueA-like