




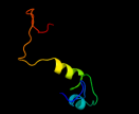












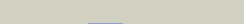





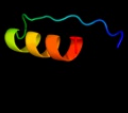


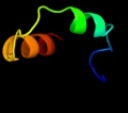





Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P46850
Date	Thu Jan 5 12:04:22 GMT 2012
Unique Job ID	c6e4a64e36197fd1






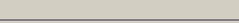
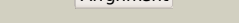
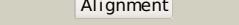
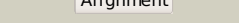
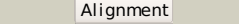
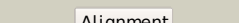

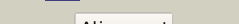




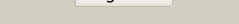


Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1uc2a_	 Alignment		100.0	29	Fold: Hypothetical protein PH1602 Superfamily: Hypothetical protein PH1602 Family: Hypothetical protein PH1602
2	c2epgB_	 Alignment		100.0	31	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: hypothetical protein ttha1785; PDBTitle: crystal structure of ttha1785
3	d1el6a_	 Alignment		56.3	26	Fold: Baseplate structural protein gp11 Superfamily: Baseplate structural protein gp11 Family: Baseplate structural protein gp11
4	d1xmta_	 Alignment		52.7	19	Fold: Acyl-CoA N-acyltransferases (Nat) Superfamily: Acyl-CoA N-acyltransferases (Nat) Family: N-acetyl transferase, NAT
5	d2pd4a1	 Alignment		47.7	8	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Tyrosine-dependent oxidoreductases
6	c2btwA_	 Alignment		43.5	19	PDB header: transferase Chain: A: PDB Molecule: alr0975 protein; PDBTitle: crystal structure of alr0975
7	d1fxkc_	 Alignment		35.0	16	Fold: Long alpha-hairpin Superfamily: Prefoldin Family: Prefoldin
8	c3emkA_	 Alignment		34.4	22	PDB header: oxidoreductase Chain: A: PDB Molecule: glucose/ribitol dehydrogenase; PDBTitle: 2.5a crystal structure of glucose/ribitol dehydrogenase2 from brucella melitensis
9	d1hxha_	 Alignment		31.9	22	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Tyrosine-dependent oxidoreductases
10	d2bu3a1	 Alignment		29.4	19	Fold: Cysteine proteinases Superfamily: Cysteine proteinases Family: Phytochelatin synthase
11	c3grkE_	 Alignment		27.4	16	PDB header: oxidoreductase Chain: E: PDB Molecule: enoyl-(acyl-carrier-protein) reductase (nadh); PDBTitle: crystal structure of short chain dehydrogenase reductase2 sdr glucose-ribitol dehydrogenase from brucella melitensis

12	c2jyD_	Alignment		26.7	8	PDB header: oxidoreductase Chain: D: PDB Molecule: enoyl-[acyl-carrier-protein] reductase; PDBTitle: crystal structure of francisella tularensis enoyl reductase2 (ftfabl) with bound nad
13	c2zdiC_	Alignment		25.6	27	PDB header: chaperone Chain: C: PDB Molecule: prefoldin subunit alpha; PDBTitle: crystal structure of prefoldin from pyrococcus horikoshii2 ot3
14	c3ek2D_	Alignment		25.4	12	PDB header: oxidoreductase Chain: D: PDB Molecule: enoyl-(acyl-carrier-protein) reductase (nadh); PDBTitle: crystal structure of enoyl-(acyl carrier protein) reductase2 from burkholderia pseudomallei 1719b
15	c2c4rL_	Alignment		24.9	33	PDB header: hydrolase Chain: L: PDB Molecule: ribonuclease e; PDBTitle: catalytic domain of e. coli rnase e
16	d2h7ma1	Alignment		24.5	8	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Tyrosine-dependent oxidoreductases
17	c2bpbB_	Alignment		20.5	9	PDB header: oxidoreductase Chain: B: PDB Molecule: sulfite\cytochrome c oxidoreductase subunit b; PDBTitle: sulfite dehydrogenase from starkeya novella
18	c2o2sA_	Alignment		20.4	24	PDB header: oxidoreductase Chain: A: PDB Molecule: enoyl-acyl carrier reductase; PDBTitle: the structure of t. gondii enoyl acyl carrier protein reductase in2 complex with nad and triclosan
19	d1jmxal	Alignment		20.1	11	Fold: Cytochrome c Superfamily: Cytochrome c Family: Quinohemoprotein amine dehydrogenase A chain, domains 1 and 2
20	c2quoA_	Alignment		19.6	33	PDB header: toxin Chain: A: PDB Molecule: heat-labile enterotoxin b chain; PDBTitle: crystal structure of c terminal fragment of clostridium2 perfringens enterotoxin
21	d1pbya1	Alignment	not modelled	19.5	19	Fold: Cytochrome c Superfamily: Cytochrome c Family: Quinohemoprotein amine dehydrogenase A chain, domains 1 and 2
22	d1w96a2	Alignment	not modelled	19.5	43	Fold: PreATP-grasp domain Superfamily: PreATP-grasp domain Family: BC N-terminal domain-like
23	d2j9ga2	Alignment	not modelled	18.9	27	Fold: PreATP-grasp domain Superfamily: PreATP-grasp domain Family: BC N-terminal domain-like
24	c1jmuE_	Alignment	not modelled	18.6	67	PDB header: viral protein Chain: E: PDB Molecule: protein mu-1; PDBTitle: crystal structure of the reovirus mu1/sigma3 complex
25	d1ulza2	Alignment	not modelled	18.4	43	Fold: PreATP-grasp domain Superfamily: PreATP-grasp domain Family: BC N-terminal domain-like
26	d1kx7a_	Alignment	not modelled	17.9	27	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
27	c2ptgA_	Alignment	not modelled	17.8	20	PDB header: oxidoreductase Chain: A: PDB Molecule: enoyl-acyl carrier reductase; PDBTitle: crystal structure of eimeria tenella enoyl reductase
28	d1uoua3	Alignment	not modelled	17.7	7	Fold: alpha/beta-Hammerhead Superfamily: Pyrimidine nucleoside phosphorylase C-terminal domain Family: Pyrimidine nucleoside phosphorylase C-terminal domain
29	c2ig6B_	Alignment	not modelled	17.1	13	PDB header: oxidoreductase Chain: B: PDB Molecule: nimc/nima family protein;

29	c2tgvb	Alignment	not modelled	17.1	13	PDBTitle: crystal structure of a nimc/nima family protein (ca_c2569) from2 clostridium acetobutylicum at 1.80 a resolution
30	c1w4zA	Alignment	not modelled	17.0	20	PDB header: antibiotic biosynthesis Chain: A: PDB Molecule: ketoacyl reductase; PDBTitle: structure of actinorhodin polyketide (actiii) reductase
31	c3gdfA	Alignment	not modelled	16.8	20	PDB header: oxidoreductase Chain: A: PDB Molecule: probable nadp-dependent mannitol dehydrogenase; PDBTitle: crystal structure of the nadp-dependent mannitol dehydrogenase from2 cladosporium herbarum.
32	c2nq8B	Alignment	not modelled	16.8	13	PDB header: oxidoreductase Chain: B: PDB Molecule: enoyl-acyl carrier reductase; PDBTitle: malarial enoyl acyl acp reductase bound with inh-nad adduct
33	c2foiB	Alignment	not modelled	16.8	13	PDB header: oxidoreductase Chain: B: PDB Molecule: enoyl-acyl carrier reductase; PDBTitle: synthesis, biological activity, and x-ray crystal structural analysis2 of diaryl ether inhibitors of malarial enoyl acp reductase.
34	c3svtA	Alignment	not modelled	16.4	21	PDB header: oxidoreductase Chain: A: PDB Molecule: short-chain type dehydrogenase/reductase; PDBTitle: structure of a short-chain type dehydrogenase/reductase from2 mycobacterium ulcerans
35	d1xqla	Alignment	not modelled	15.8	29	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Tyrosine-dependent oxidoreductases
36	d1wkqa	Alignment	not modelled	15.8	41	Fold: Cytidine deaminase-like Superfamily: Cytidine deaminase-like Family: Deoxycytidylate deaminase-like
37	c3cu4A	Alignment	not modelled	15.7	27	PDB header: electron transport Chain: A: PDB Molecule: cytochrome c family protein; PDBTitle: omcf, outer membrane cytochrome f from geobacter2 sulfurreducens
38	d2rhca1	Alignment	not modelled	15.7	21	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Tyrosine-dependent oxidoreductases
39	d1r0ua	Alignment	not modelled	15.3	24	Fold: Lipocalins Superfamily: Lipocalins Family: Hypothetical protein YwiB
40	d1ulua	Alignment	not modelled	15.1	20	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Tyrosine-dependent oxidoreductases
41	d1h5qa	Alignment	not modelled	14.2	29	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Tyrosine-dependent oxidoreductases
42	d1uh5a	Alignment	not modelled	13.1	12	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Tyrosine-dependent oxidoreductases
43	d2ag5a1	Alignment	not modelled	13.0	29	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Tyrosine-dependent oxidoreductases
44	c3giwA	Alignment	not modelled	12.9	18	PDB header: unknown function Chain: A: PDB Molecule: protein of unknown function duf574; PDBTitle: crystal structure of a duf574 family protein (sav_2177) from2 streptomyces avermitilis ma-4680 at 1.45 a resolution
45	c3db0B	Alignment	not modelled	12.8	10	PDB header: oxidoreductase Chain: B: PDB Molecule: lin2891 protein; PDBTitle: crystal structure of putative pyridoxamine 5'-phosphate oxidase2 (np_472219.1) from listeria innocua at 2.00 a resolution
46	c2d0sA	Alignment	not modelled	12.6	17	PDB header: electron transport Chain: A: PDB Molecule: cytochrome c; PDBTitle: crystal structure of the cytochrome c552 from moderate2 thermophilic bacterium, hydrogenophilus thermoluteolus
47	c2v07A	Alignment	not modelled	12.3	27	PDB header: photosynthesis Chain: A: PDB Molecule: cytochrome c6; PDBTitle: structure of the arabidopsis thaliana cytochrome c6a v52q2 variant
48	c3gr6A	Alignment	not modelled	12.3	8	PDB header: oxidoreductase Chain: A: PDB Molecule: enoyl-[acyl-carrier-protein] reductase [nahh]; PDBTitle: crystal structure of the staphylococcus aureus enoyl-acyl2 carrier protein reductase (fabI) in complex with nadp and3 triclosan
49	c3ku1E	Alignment	not modelled	12.0	40	PDB header: transferase Chain: E: PDB Molecule: sam-dependent methyltransferase; PDBTitle: crystal structure of streptococcus pneumoniae sp1610, a2 putative trna (m1a22) methyltransferase, in complex with s-3 adenosyl-l-methionine
50	d2tpa3	Alignment	not modelled	11.6	3	Fold: alpha/beta-Hammerhead Superfamily: Pyrimidine nucleoside phosphorylase C-terminal domain Family: Pyrimidine nucleoside phosphorylase C-terminal domain
51	c2p91A	Alignment	not modelled	11.6	16	PDB header: oxidoreductase Chain: A: PDB Molecule: enoyl-[acyl-carrier-protein] reductase [nahh]; PDBTitle: crystal structure of enoyl-[acyl-carrier-protein] reductase (nahh)2 from aquifex aeolicus vf5
52	d1cc5a	Alignment	not modelled	11.4	36	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
53	d1qsga	Alignment	not modelled	11.2	16	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Tyrosine-dependent oxidoreductases
						PDB header: transferase

54	c3ckkA	Alignment	not modelled	10.8	100	Chain: A: PDB Molecule: trna (guanine-n(7)-)-methyltransferase; PDBTitle: crystal structure of human methyltransferase-like protein 1
55	d1mz4a	Alignment	not modelled	10.7	21	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
56	c3qivA	Alignment	not modelled	10.6	19	PDB header: oxidoreductase Chain: A: PDB Molecule: short-chain dehydrogenase or 3-oxoacyl-[acyl-carrier- PDBTitle: crystal structure of a putative short-chain dehydrogenase or 3-2 oxoacyl-[acyl-carrier-protein] reductase from mycobacterium3 paratuberculosis atcc baa-968 / k-10
57	d1fcdc1	Alignment	not modelled	10.5	33	Fold: Cytochrome c Superfamily: Cytochrome c Family: Two-domain cytochrome c
58	d1t2a	Alignment	not modelled	10.4	10	Fold: OB-fold Superfamily: Staphylococcal nuclease Family: Staphylococcal nuclease
59	d1cyja	Alignment	not modelled	10.4	27	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
60	d1brwa3	Alignment	not modelled	10.4	13	Fold: alpha/beta-Hammerhead Superfamily: Pyrimidine nucleoside phosphorylase C-terminal domain Family: Pyrimidine nucleoside phosphorylase C-terminal domain
61	c3g5tA	Alignment	not modelled	10.4	80	PDB header: transferase Chain: A: PDB Molecule: trans-aconitate 3-methyltransferase; PDBTitle: crystal structure of trans-aconitate 3-methyltransferase2 from yeast
62	d1wvec1	Alignment	not modelled	10.4	18	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
63	d2fd5a2	Alignment	not modelled	10.3	20	Fold: Tetracyclin repressor-like, C-terminal domain Superfamily: Tetracyclin repressor-like, C-terminal domain Family: Tetracyclin repressor-like, C-terminal domain
64	c2bh1Y	Alignment	not modelled	10.1	23	PDB header: transport protein Chain: Y: PDB Molecule: general secretion pathway protein e.; PDBTitle: x-ray structure of the general secretion pathway complex of2 the n-terminal domain of epse and the cytosolic domain of3 epsl of vibrio cholerae
65	d2bh1x1	Alignment	not modelled	10.1	23	Fold: Alpha-lytic protease prodomain-like Superfamily: EspE N-terminal domain-like Family: GSPII protein E N-terminal domain-like
66	c3dliB	Alignment	not modelled	10.0	100	PDB header: transferase Chain: B: PDB Molecule: methyltransferase; PDBTitle: crystal structure of a sam dependent methyltransferase from2 archaeoglobus fulgidus
67	c3bkwB	Alignment	not modelled	9.8	80	PDB header: transferase Chain: B: PDB Molecule: s-adenosylmethionine dependent methyltransferase; PDBTitle: crystal structure of s-adenosylmethionine dependent methyltransferase2 (np_104914.1) from mesorhizobium loti at 1.60 a resolution
68	c1j6qA	Alignment	not modelled	9.7	26	PDB header: chaperone Chain: A: PDB Molecule: cytochrome c maturation protein e; PDBTitle: solution structure and characterization of the heme2 chaperone ccme
69	d1j6qa	Alignment	not modelled	9.7	26	Fold: OB-fold Superfamily: Heme chaperone CcmE Family: Heme chaperone CcmE
70	c3lf2B	Alignment	not modelled	9.6	33	PDB header: oxidoreductase Chain: B: PDB Molecule: short chain oxidoreductase q9hya2; PDBTitle: nadph bound structure of the short chain oxidoreductase q9hya2 from2 pseudomonas aeruginosa pao1 containing an atypical catalytic center
71	d1ja9a	Alignment	not modelled	9.5	25	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Tyrosine-dependent oxidoreductases
72	c3fzgA	Alignment	not modelled	9.4	80	PDB header: transferase Chain: A: PDB Molecule: 16s rrna methylase; PDBTitle: structure of the 16s rrna methylase arma
73	c3dlcA	Alignment	not modelled	9.4	80	PDB header: transferase Chain: A: PDB Molecule: putative s-adenosyl-l-methionine-dependent PDBTitle: crystal structure of a putative s-adenosyl-l-methionine-dependent2 methyltransferase (mmp1179) from methanococcus maripaludis at 1.15 a3 resolution
74	d1vz6a	Alignment	not modelled	9.4	12	Fold: DmpA/ArgJ-like Superfamily: DmpA/ArgJ-like Family: ArgJ-like
75	d2h00a1	Alignment	not modelled	9.2	45	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: Methyltransferase 10 domain
76	d1xxla	Alignment	not modelled	9.2	80	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: UbiE/COQ5-like
77	c2p35A	Alignment	not modelled	9.1	80	PDB header: transferase Chain: A: PDB Molecule: trans-aconitate 2-methyltransferase; PDBTitle: crystal structure of trans-aconitate methyltransferase from2 agrobacterium tumefaciens
78	c2qioA	Alignment	not modelled	9.0	9	PDB header: unknown function Chain: A: PDB Molecule: enoyl-(acyl-carrier-protein) reductase; PDBTitle: x-ray structure of enoyl-acyl carrier protein reductase

						from bacillus2 anthracis with triclosan
79	c2p8jA_	 Alignment	not modelled	9.0	60	PDB header: transferase Chain: A: PDB Molecule: s-adenosylmethionine-dependent methyltransferase; PDBTitle: crystal structure of s-adenosylmethionine-dependent methyltransferase2 (np_349143.1) from clostridium acetobutylicum at 2.00 a resolution
80	c3dxyA_	 Alignment	not modelled	9.0	60	PDB header: transferase Chain: A: PDB Molecule: trna (guanine-n(7)-)-methyltransferase; PDBTitle: crystal structure of ectrmb in complex with sam
81	d2avna1	 Alignment	not modelled	9.0	60	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: UbiE/COQ5-like
82	c3i9fB_	 Alignment	not modelled	9.0	80	PDB header: transferase Chain: B: PDB Molecule: putative type 11 methyltransferase; PDBTitle: crystal structure of a putative type 11 methyltransferase2 from sulfolobus solfataricus
83	c3l8dA_	 Alignment	not modelled	9.0	80	PDB header: transferase Chain: A: PDB Molecule: methyltransferase; PDBTitle: crystal structure of methyltransferase from bacillus2 thuringiensis
84	c3k31B_	 Alignment	not modelled	8.9	4	PDB header: oxidoreductase Chain: B: PDB Molecule: enoyl-(acyl-carrier-protein) reductase; PDBTitle: crystal structure of enoyl-(acyl-carrier-protein) reductase from2 anaplasma phagocytophilum in complex with nad at 1.9a resolution
85	c3d21C_	 Alignment	not modelled	8.8	100	PDB header: transferase Chain: C: PDB Molecule: sam-dependent methyltransferase; PDBTitle: crystal structure of sam-dependent methyltransferase (zp_00538691.1)2 from exigubacterium sp. 255-15 at 1.90 a resolution
86	d1wfwA_	 Alignment	not modelled	8.7	20	Fold: SH3-like barrel Superfamily: SH3-domain Family: SH3-domain
87	c2hxB_	 Alignment	not modelled	8.7	24	PDB header: isomerase Chain: B: PDB Molecule: l-arabinose isomerase; PDBTitle: crystal structure of mn2+ bound ecai
88	c3merA_	 Alignment	not modelled	8.7	20	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: slr1183 protein; PDBTitle: crystal structure of the methyltransferase slr1183 from2 synechocystis sp. pcc 6803, northeast structural genomics3 consortium target sgr145
89	c3opnA_	 Alignment	not modelled	8.7	60	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: putative hemolysin; PDBTitle: the crystal structure of a putative hemolysin from lactococcus lactis
90	d2fk8a1	 Alignment	not modelled	8.6	100	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: Mycolic acid cyclopropane synthase
91	d1kpgA_	 Alignment	not modelled	8.6	80	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: Mycolic acid cyclopropane synthase
92	c2fk8A_	 Alignment	not modelled	8.6	100	PDB header: transferase Chain: A: PDB Molecule: methoxy mycolic acid synthase 4; PDBTitle: crystal structure of hma (mmaa4) from mycobacterium tuberculosis2 complexed with s-adenosylmethionine
93	d1ctjA_	 Alignment	not modelled	8.6	27	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
94	c2x5sB_	 Alignment	not modelled	8.5	11	PDB header: transferase Chain: B: PDB Molecule: mannose-1-phosphate guanylyltransferase; PDBTitle: crystal structure of t. maritima gdp-mannose2 pyrophosphorylase in apo state.
95	c3egeA_	 Alignment	not modelled	8.5	80	PDB header: transferase Chain: A: PDB Molecule: putative methyltransferase from antibiotic biosynthesis PDBTitle: crystal structure of putative methyltransferase from antibiotic2 biosynthesis pathway (yp_324569.1) from anabaena variabilis atcc3 29413 at 2.40 a resolution
96	c3h2bB_	 Alignment	not modelled	8.4	60	PDB header: transferase Chain: B: PDB Molecule: sam-dependent methyltransferase; PDBTitle: crystal structure of the sam-dependent methyltransferase2 cg3271 from corynebacterium glutamicum in complex with s-3 adenosyl-l-homocysteine and pyrophosphate. northeast4 structural genomics consortium target cgr113a
97	c3g07C_	 Alignment	not modelled	8.3	60	PDB header: transferase Chain: C: PDB Molecule: 7sk snrna methylphosphate capping enzyme; PDBTitle: methyltransferase domain of human bicoid-interacting protein2 3 homolog (drosophila)
98	c3tl3A_	 Alignment	not modelled	8.3	23	PDB header: oxidoreductase Chain: A: PDB Molecule: short-chain type dehydrogenase/reductase; PDBTitle: structure of a short-chain type dehydrogenase/reductase from2 mycobacterium ulcerans
99	d2fcta1	 Alignment	not modelled	8.3	32	Fold: Double-stranded beta-helix Superfamily: Clavaminatase synthase-like Family: PhyH-like