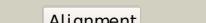
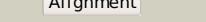
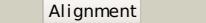
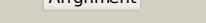
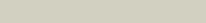
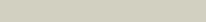
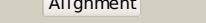


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P33644
Date	Thu Jan 5 11:52:29 GMT 2012
Unique Job ID	b40af02053b229da

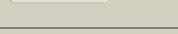
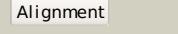
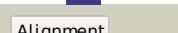
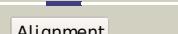
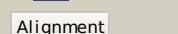
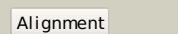
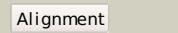
Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1rw0a_			100.0	87	Fold: CNF1/YfiH-like putative cysteine hydrolases Superfamily: CNF1/YfiH-like putative cysteine hydrolases Family: YfiH-like
2	d1xafa_			100.0	97	Fold: CNF1/YfiH-like putative cysteine hydrolases Superfamily: CNF1/YfiH-like putative cysteine hydrolases Family: YfiH-like
3	d1rv9a_			100.0	50	Fold: CNF1/YfiH-like putative cysteine hydrolases Superfamily: CNF1/YfiH-like putative cysteine hydrolases Family: YfiH-like
4	d1t8ha_			100.0	36	Fold: CNF1/YfiH-like putative cysteine hydrolases Superfamily: CNF1/YfiH-like putative cysteine hydrolases Family: YfiH-like
5	d1xfja_			100.0	38	Fold: CNF1/YfiH-like putative cysteine hydrolases Superfamily: CNF1/YfiH-like putative cysteine hydrolases Family: YfiH-like
6	d2f9zc1			93.2	17	Fold: CNF1/YfiH-like putative cysteine hydrolases Superfamily: CNF1/YfiH-like putative cysteine hydrolases Family: CheD-like
7	d1np7a2			49.0	12	Fold: Cryptochrome/photolyase, N-terminal domain Superfamily: Cryptochrome/photolyase, N-terminal domain Family: Cryptochrome/photolyase, N-terminal domain
8	c3sdsA_			46.9	19	PDB header: transferase Chain: A: PDB Molecule: ornithine carbamoyltransferase, mitochondrial; PDBTitle: crystal structure of a mitochondrial ornithine carbamoyltransferase2 from coccidioides immitis
9	c3giwA_			38.1	9	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
10	c3grfA_			35.2	21	PDB header: transferase Chain: A: PDB Molecule: ornithine carbamoyltransferase; PDBTitle: x-ray structure of ornithine transcarbamoylase from giardia2 lamblia
11	c3g7kD_			33.4	25	PDB header: isomerase Chain: D: PDB Molecule: 3-methylitaconate isomerase; PDBTitle: crystal structure of methylitaconate-delta-isomerase

12	c2qe6B_	Alignment		28.1	13	PDB header: transferase Chain: B: PDB Molecule: uncharacterized protein tfu_2867; PDBTitle: crystal structure of a putative methyltransferase (tfu_2867) from2 thermobifida fusca yx at 1.95 a resolution
13	c1kjkA_	Alignment		26.8	33	PDB header: viral protein Chain: A: PDB Molecule: integrase; PDBTitle: solution structure of the lambda integrase amino-terminal2 domain
14	d1z1ba1	Alignment		24.4	33	Fold: DNA-binding domain Superfamily: DNA-binding domain Family: lambda integrase N-terminal domain
15	d1lowla2	Alignment		23.8	12	Fold: Cryptochrome/photolyase, N-terminal domain Superfamily: Cryptochrome/photolyase, N-terminal domain Family: Cryptochrome/photolyase, N-terminal domain
16	c1ecjB_	Alignment		22.4	11	PDB header: transferase Chain: B: PDB Molecule: glutamine phosphoribosylpyrophosphate PDBTitle: escherichia coli glutamine phosphoribosylpyrophosphate2 (prpp) amidotransferase complexed with 2 amp per tetramer
17	c2otcA_	Alignment		21.0	20	PDB header: transferase Chain: A: PDB Molecule: ornithine carbamoyltransferase; PDBTitle: ornithine transcarbamoylase complexed with n-2 (phosphonacetyl)-l-ornithine
18	d1duvg2	Alignment		20.3	18	Fold: ATC-like Superfamily: Aspartate/ornithine carbamoyltransferase Family: Aspartate/ornithine carbamoyltransferase
19	c3bd0D_	Alignment		19.4	21	PDB header: peptide binding protein Chain: D: PDB Molecule: protein memo1; PDBTitle: crystal structure of memo, form ii
20	c2jb1C_	Alignment		17.3	26	PDB header: electron transport Chain: C: PDB Molecule: photosynthetic reaction center cytochrome c PDBTitle: photosynthetic reaction center from blastochloris viridis
21	d2i5nc1	Alignment	not modelled	17.3	26	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Photosynthetic reaction centre (cytochrome subunit)
22	d2bo9b1	Alignment	not modelled	16.1	14	Fold: Cystatin-like Superfamily: Cystatin/monellin Family: Latexin-like
23	c2w37A_	Alignment	not modelled	16.1	18	PDB header: transferase Chain: A: PDB Molecule: ornithine carbamoyltransferase, catabolic; PDBTitle: crystal structure of the hexameric catabolic ornithine2 transcarbamylase from lactobacillus hilgardii
24	d1otfa_	Alignment	not modelled	15.3	15	Fold: Tautomerase/MIF Superfamily: Tautomerase/MIF Family: 4-oxalocrotonate tautomerase-like
25	c1zrtD_	Alignment	not modelled	14.4	19	PDB header: oxidoreductase/metal transport Chain: D: PDB Molecule: cytochrome c1; PDBTitle: rhodobacter capsulatus cytochrome bc1 complex with2 stigmatellin bound
26	c2fynH_	Alignment	not modelled	14.3	19	PDB header: oxidoreductase Chain: H: PDB Molecule: cytochrome c1; PDBTitle: crystal structure analysis of the double mutant rhodobacter2 sphaeroides bc1 complex
27	c1alsA_	Alignment	not modelled	13.6	17	PDB header: transcarbamylase Chain: A: PDB Molecule: ornithine carbamoyltransferase; PDBTitle: ornithine carbamoyltransferase from pyrococcus furiosus
28	d2nvma1	Alignment	not modelled	13.6	21	Fold: Xisl-like Superfamily: Xisl-like Family: Xisl-like

29	d1dxha2		Alignment	not modelled	13.4	14	Fold: ATC-like Superfamily: Aspartate/ornithine carbamoyltransferase Family: Aspartate/ornithine carbamoyltransferase
30	c2pw0A_		Alignment	not modelled	12.9	21	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
31	c3lyvF_		Alignment	not modelled	12.4	63	PDB header: chaperone Chain: F: PDB Molecule: ribosome-associated factor y; PDBTitle: crystal structure of a domain of ribosome-associated factor y from2 streptococcus pyogenes serotype m6. northeast structural genomics3 consortium target id dr64a
32	d1vlva2		Alignment	not modelled	12.1	18	Fold: ATC-like Superfamily: Aspartate/ornithine carbamoyltransferase Family: Aspartate/ornithine carbamoyltransferase
33	d2n1va1		Alignment	not modelled	11.9	21	Fold: Xisl-like Superfamily: Xisl-like Family: Xisl-like
34	c2qlcC_		Alignment	not modelled	11.8	15	PDB header: dna binding protein Chain: C: PDB Molecule: dna repair protein radc homolog; PDBTitle: the crystal structure of dna repair protein radc from chlorobium2 tepidum tis
35	d1xbta2		Alignment	not modelled	11.5	21	Fold: Glucocorticoid receptor-like (DNA-binding domain) Superfamily: Glucocorticoid receptor-like (DNA-binding domain) Family: Type II thymidine kinase zinc finger
36	d2b8ta2		Alignment	not modelled	11.3	25	Fold: Glucocorticoid receptor-like (DNA-binding domain) Superfamily: Glucocorticoid receptor-like (DNA-binding domain) Family: Type II thymidine kinase zinc finger
37	d2h9fa1		Alignment	not modelled	11.1	24	Fold: Diaminopimelate epimerase-like Superfamily: Diaminopimelate epimerase-like Family: PA0793-like
38	c1leysC_		Alignment	not modelled	10.5	22	PDB header: electron transport Chain: C: PDB Molecule: photosynthetic reaction center; PDBTitle: crystal structure of photosynthetic reaction center from a2 thermophilic bacterium, thermochromatium tepidum
39	d1leysc_		Alignment	not modelled	10.5	22	Fold: Multiheme cytochromes Superfamily: Multiheme cytochromes Family: Photosynthetic reaction centre (cytochrome subunit)
40	c2hfqA_		Alignment	not modelled	10.1	21	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein; PDBTitle: nmr structure of protein ne1680 from nitrosomonas europaea:2 northeast structural genomics consortium target net5
41	d2hfqa1		Alignment	not modelled	10.1	21	Fold: NE1680-like Superfamily: NE1680-like Family: NE1680-like
42	c1p84D_		Alignment	not modelled	9.8	13	PDB header: oxidoreductase Chain: D: PDB Molecule: cytochrome c1, heme protein; PDBTitle: hdbt inhibited yeast cytochrome bc1 complex
43	d1wjpa2		Alignment	not modelled	9.8	45	Fold: beta-beta-alpha zinc fingers Superfamily: beta-beta-alpha zinc fingers Family: Classic zinc finger, C2H2
44	d1xkia_		Alignment	not modelled	9.8	16	Fold: Lipocalins Superfamily: Lipocalins Family: Retinol binding protein-like
45	d1lotha2		Alignment	not modelled	9.6	13	Fold: ATC-like Superfamily: Aspartate/ornithine carbamoyltransferase Family: Aspartate/ornithine carbamoyltransferase
46	c3d7qb_		Alignment	not modelled	9.5	11	PDB header: unknown function Chain: B: PDB Molecule: xisi protein-like; PDBTitle: crystal structure of a xisi-like protein (npun_ar114) from nostoc2 punctiforme pcc 73102 at 2.30 a resolution
47	d1bjpa_		Alignment	not modelled	9.5	12	Fold: Tautomerase/MIF Superfamily: Tautomerase/MIF Family: 4-oxalocrotonate tautomerase-like
48	c2f9iC_		Alignment	not modelled	9.1	13	PDB header: transferase Chain: C: PDB Molecule: acetyl-coenzyme a carboxylase carboxyl PDBTitle: crystal structure of the carboxyltransferase subunit of acc2 from staphylococcus aureus
49	d2hrva_		Alignment	not modelled	9.1	28	Fold: Trypsin-like serine proteases Superfamily: Trypsin-like serine proteases Family: Viral cysteine protease of trypsin fold
50	c3by0B_		Alignment	not modelled	8.8	18	PDB header: ligand binding protein Chain: B: PDB Molecule: neutrophil gelatinase-associated lipocalin; PDBTitle: crystal structure of siderocalin (ngal, lipocalin 2) w79a-r81a2 complexed with ferric enterobactin
51	c1z8rA_		Alignment	not modelled	8.6	20	PDB header: hydrolase Chain: A: PDB Molecule: coxsackievirus b4 polyprotein; PDBTitle: 2a cysteine proteinase from human coxsackievirus b4 (strain2 jvb / benschoten / new york / 51)
52	d2ch5a2		Alignment	not modelled	8.6	18	Fold: Ribonuclease H-like motif Superfamily: Actin-like ATPase domain Family: BadF/BadG/BcrA/BcrD-like
53	c3rlhA_		Alignment	not modelled	8.5	25	PDB header: hydrolase Chain: A: PDB Molecule: sphingomyelin phosphodiesterase d lisitox-alpha1a1; PDBTitle: crystal structure of a class ii phospholipase d from ixoosceles2 intermedia venom
54	c3updA_		Alignment	not modelled	8.5	15	PDB header: transferase Chain: A: PDB Molecule: ornithine carbamoyltransferase; PDBTitle: 2.9 angstrom crystal structure of ornithine carbamoyltransferase2 (argf) from vibrio vulnificus
							PDB header: hydrolase

55	c3ot4F_	Alignment	not modelled	8.4	23	Chain: F: PDB Molecule: putative isochorismatase; PDBTitle: structure and catalytic mechanism of bordetella bronchiseptica nicf
56	c3tvsA_	Alignment	not modelled	8.3	10	PDB header: signaling protein Chain: A: PDB Molecule: cryptochrome-1; PDBTitle: structure of full-length drosophila cryptochrome
57	d1b0aa2	Alignment	not modelled	8.1	16	Fold: Aminoacid dehydrogenase-like, N-terminal domain Superfamily: Aminoacid dehydrogenase-like, N-terminal domain Family: Tetrahydrofolate dehydrogenase/cyclohydrolase
58	d2nwva1	Alignment	not modelled	8.0	13	Fold: Xisl-like Superfamily: Xisl-like Family: Xisl-like
59	c3gbcA_	Alignment	not modelled	7.9	18	PDB header: hydrolase Chain: A: PDB Molecule: pyrazinamidase/nicotinamidas pnca; PDBTitle: determination of the crystal structure of the pyrazinamidase from2 m.tuberculosis : a structure-function analysis for prediction3 resistance to pyrazinamide
60	c2op8A_	Alignment	not modelled	7.9	23	PDB header: isomerase Chain: A: PDB Molecule: probable tautomerase ywhb; PDBTitle: crystal structure of ywhb- homologue of 4-oxalocrotonate tautomerase
61	c3m20A_	Alignment	not modelled	7.6	8	PDB header: isomerase Chain: A: PDB Molecule: 4-oxalocrotonate tautomerase, putative; PDBTitle: crystal structure of dmp1 from archaeoglobus fulgidus determined to 2.37 angstroms resolution
62	d1ppjd1	Alignment	not modelled	7.6	19	Fold: Cytochrome c Superfamily: Cytochrome c Family: Cytochrome bc1 domain
63	d3cx5d1	Alignment	not modelled	7.6	13	Fold: Cytochrome c Superfamily: Cytochrome c Family: Cytochrome bc1 domain
64	c3ecyA_	Alignment	not modelled	7.5	8	PDB header: hydrolase Chain: A: PDB Molecule: cg4584-pa, isoform a (bcdna.Id08534); PDBTitle: crystal structural analysis of drosophila melanogaster dutpase
65	c1gph1_	Alignment	not modelled	7.3	11	PDB header: transferase(glutamine amidotransferase) Chain: 1: PDB Molecule: glutamine phosphoribosyl-pyrophosphate amidotransferase; PDBTitle: structure of the allosteric regulatory enzyme of purine biosynthesis
66	d1ml4a2	Alignment	not modelled	7.0	16	Fold: ATC-like Superfamily: Aspartate/ornithine carbamoyltransferase Family: Aspartate/ornithine carbamoyltransferase
67	d1mwwa_	Alignment	not modelled	6.7	8	Fold: Tautomerase/MIF Superfamily: Tautomerase/MIF Family: Hypothetical protein HI1388.1
68	c3ry0A_	Alignment	not modelled	6.6	8	PDB header: isomerase Chain: A: PDB Molecule: putative tautomerase; PDBTitle: crystal structure of tomm, a 4-oxalocrotonate tautomerase homologue in2 tomaymycin biosynthetic pathway
69	c3cwbQ_	Alignment	not modelled	6.5	13	PDB header: oxidoreductase Chain: Q: PDB Molecule: mitochondrial cytochrome c1, heme protein; PDBTitle: chicken cytochrome bc1 complex inhibited by an iodinated analogue of2 the polyketide crocacin-d
70	d2f9ya1	Alignment	not modelled	6.4	11	Fold: ClpP/crotonase Superfamily: ClpP/crotonase Family: Biotin dependent carboxylase carboxyltransferase domain
71	c2rgwD_	Alignment	not modelled	6.3	14	PDB header: transferase Chain: D: PDB Molecule: aspartate carbamoyltransferase; PDBTitle: catalytic subunit of m. jannaschii aspartate2 transcarbamoylase
72	c215pA_	Alignment	not modelled	6.2	11	PDB header: transport protein Chain: A: PDB Molecule: lipocalin 12; PDBTitle: solution nmr structure of protein lipocalin 12 from rat epididymis
73	c3gd5D_	Alignment	not modelled	6.2	22	PDB header: transferase Chain: D: PDB Molecule: ornithine carbamoyltransferase; PDBTitle: crystal structure of ornithine carbamoyltransferase from gloeobacter2 violaceus
74	c3uzuA_	Alignment	not modelled	6.2	19	PDB header: transferase Chain: A: PDB Molecule: ribosomal rna small subunit methyltransferase a; PDBTitle: the structure of the ribosomal rna small subunit methyltransferase a2 from burkholderia pseudomallei
75	c2f9rC_	Alignment	not modelled	6.1	25	PDB header: hydrolase Chain: C: PDB Molecule: sphingomyelinase d 1; PDBTitle: crystal structure of the inactive state of the smase i, a2 sphingomyelinase d from loxosceles laeta venom
76	c2ormA_	Alignment	not modelled	6.0	23	PDB header: isomerase Chain: A: PDB Molecule: probable tautomerase hp0924; PDBTitle: crystal structure of the 4-oxalocrotonate tautomerase homologue dmp1 from helicobacter pylori.
77	c228nb_	Alignment	not modelled	5.9	24	PDB header: lyase Chain: B: PDB Molecule: 27.5 kda virulence protein; PDBTitle: structural basis for the catalytic mechanism of phosphothreonine lyase
78	c2bo9B_	Alignment	not modelled	5.9	13	PDB header: hydrolase Chain: B: PDB Molecule: human latexin; PDBTitle: human carboxypeptidase a4 in complex with human latexin.
79	c3mb2G_	Alignment	not modelled	5.9	8	PDB header: isomerase Chain: G: PDB Molecule: 4-oxalocrotonate tautomerase family enzyme - alpha subunit; PDBTitle: kinetic and structural characterization of a heterohexamer 4-2 oxalocrotonate tautomerase from chloroflexus aurantiacus j-10-fl:3 implications for functional and structural

						diversity in the 4 tautomerase superfamily
80	c2x4kB_		Alignment	not modelled	5.8	PDB header: isomerase Chain: B: PDB Molecule: 4-oxalocrotonate tautomerase; PDBTitle: crystal structure of sar1376, a putative 4-oxalocrotonate2 tautomerase from the methicillin-resistant staphylococcus3 aureus (mrsa)
81	c2orvB_		Alignment	not modelled	5.8	PDB header: transferase Chain: B: PDB Molecule: thymidine kinase; PDBTitle: human thymidine kinase 1 in complex with tp4a
82	d1x71a1		Alignment	not modelled	5.7	Fold: Lipocalins Superfamily: Lipocalins Family: Retinol binding protein-like
83	c3nglA_		Alignment	not modelled	5.7	PDB header: oxidoreductase, hydrolase Chain: A: PDB Molecule: bifunctional protein fold; PDBTitle: crystal structure of bifunctional 5,10-methylenetetrahydrofolate2 dehydrogenase / cyclohydrolase from thermoplasma acidophilum
84	c1hynQ_		Alignment	not modelled	5.7	PDB header: membrane protein Chain: Q: PDB Molecule: band 3 anion transport protein; PDBTitle: crystal structure of the cytoplasmic domain of human erythrocyte band-3 protein
85	c1jmxA_		Alignment	not modelled	5.7	PDB header: oxidoreductase Chain: A: PDB Molecule: amine dehydrogenase; PDBTitle: crystal structure of a quinohemoprotein amine dehydrogenase2 from pseudomonas putida
86	c3hcyB_		Alignment	not modelled	5.7	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: putative two-component sensor histidine kinase protein; PDBTitle: the crystal structure of the domain of putative two-component sensor2 histidine kinase protein from sinorhizobium meliloti 1021
87	d1gph11		Alignment	not modelled	5.7	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosyltransferases (PRTases)
88	c3uinD_		Alignment	not modelled	5.6	PDB header: ligase/isomerase/protein binding Chain: D: PDB Molecule: e3 sumo-protein ligase ranbp2; PDBTitle: complex between human rangap1-sumo2, ubc9 and the ir1 domain from2 ranbp2
89	c3abfB_		Alignment	not modelled	5.5	PDB header: isomerase Chain: B: PDB Molecule: 4-oxalocrotonate tautomerase; PDBTitle: crystal structure of a 4-oxalocrotonate tautomerase homologue2 (tthb242)
90	d1pvva2		Alignment	not modelled	5.4	Fold: ATC-like Superfamily: Aspartate/ornithine carbamoyltransferase Family: Aspartate/ornithine carbamoyltransferase
91	c3bmaC_		Alignment	not modelled	5.4	PDB header: ligase Chain: C: PDB Molecule: d-alanyl-lipoteichoic acid synthetase; PDBTitle: crystal structure of d-alanyl-lipoteichoic acid synthetase from2 streptococcus pneumoniae r6
92	d1yupa1		Alignment	not modelled	5.3	Fold: Lipocalins Superfamily: Lipocalins Family: Retinol binding protein-like
93	c2h0rD_		Alignment	not modelled	5.3	PDB header: hydrolase Chain: D: PDB Molecule: nicotinamidase; PDBTitle: structure of the yeast nicotinamidase pnc1p
94	c2kswA_		Alignment	not modelled	5.2	PDB header: hydrolase inhibitor Chain: A: PDB Molecule: oryctin; PDBTitle: backbone 1h, 13c, and 15n chemical shift assignments for oryctin
95	c3on9B_		Alignment	not modelled	5.2	PDB header: viral protein Chain: B: PDB Molecule: tumour necrosis factor receptor; PDBTitle: the secret domain from ectromelia virus
96	c3e2iA_		Alignment	not modelled	5.1	PDB header: transferase Chain: A: PDB Molecule: thymidine kinase; PDBTitle: crystal structure of thymidine kinase from s. aureus
97	d1ecfa1		Alignment	not modelled	5.1	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosyltransferases (PRTases)
98	d1hypn_		Alignment	not modelled	5.0	Fold: Phosho transferase/anion transport protein Superfamily: Phosho transferase/anion transport protein Family: Anion transport protein, cytoplasmic domain