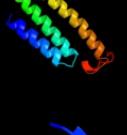
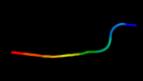
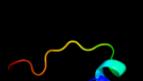
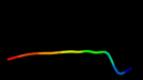


Phyre²

Email	I.a.kelley@imperial.ac.uk
Description	P77416
Date	Thu Jan 5 12:29:02 GMT 2012
Unique Job ID	65e9888d47d12a86

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3rkoL_			100.0	32	PDB header: oxidoreductase Chain: L: PDB Molecule: nadh-quinone oxidoreductase subunit l; PDBTitle: crystal structure of the membrane domain of respiratory complex i from2 e. coli at 3.0 angstrom resolution
2	c3rkoM_			100.0	19	PDB header: oxidoreductase Chain: M: PDB Molecule: nadh-quinone oxidoreductase subunit m; PDBTitle: crystal structure of the membrane domain of respiratory complex i from2 e. coli at 3.0 angstrom resolution
3	c3rkoN_			100.0	19	PDB header: oxidoreductase Chain: N: PDB Molecule: nadh-quinone oxidoreductase subunit n; PDBTitle: crystal structure of the membrane domain of respiratory complex i from2 e. coli at 3.0 angstrom resolution
4	c3rkoK_			61.3	20	PDB header: oxidoreductase Chain: K: PDB Molecule: nadh-quinone oxidoreductase subunit k; PDBTitle: crystal structure of the membrane domain of respiratory complex i from2 e. coli at 3.0 angstrom resolution
5	c2l3iA_			33.3	50	PDB header: antimicrobial protein Chain: A: PDB Molecule: aoxki4a, antimicrobial peptide in spider venom; PDBTitle: oxki4a, spider derived antimicrobial peptide
6	d1a6gq1			24.6	26	Fold: Another 3-helical bundle Superfamily: Protein serine/threonine phosphatase 2C, C-terminal domain Family: Protein serine/threonine phosphatase 2C, C-terminal domain
7	c3r24A_			14.9	22	PDB header: transferase, viral protein Chain: A: PDB Molecule: 2'-o-methyl transferase; PDBTitle: crystal structure of nsp10/nsp16 complex of sars coronavirus" if2 possible
8	d1s1qa_			14.6	31	Fold: UBC-like Superfamily: UBC-like Family: UEV domain
9	d1n9wa2			14.5	63	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
10	c1n9wA_			14.5	63	PDB header: biosynthetic protein Chain: A: PDB Molecule: aspartyl-tRNA synthetase 2; PDBTitle: crystal structure of the non-discriminating and archaeal-2 type aspartyl-tRNA synthetase from thermus thermophilus
11	c2kseA_			14.0	19	PDB header: transferase Chain: A: PDB Molecule: sensor protein qsec; PDBTitle: backbone structure of the membrane domain of e. coli2 histidine kinase receptor qsec, center for structures of3 membrane proteins (csmp) target 4311c

12	c2k21A	Alignment		13.9	28	PDB header: membrane protein Chain: A: PDB Molecule: potassium voltage-gated channel subfamily e PDBTitle: nmr structure of human kcne1 in lmpg micelles at ph 6.0 and2 40 degree c
13	c3bjub	Alignment		13.8	50	PDB header: ligase Chain: B: PDB Molecule: lysyl-trna synthetase; PDBTitle: crystal structure of tetrameric form of human lysyl-trna2 synthetase
14	d1r6ra	Alignment		13.7	30	Fold: Flavivirus capsid protein C Superfamily: Flavivirus capsid protein C Family: Flavivirus capsid protein C
15	c1r6rA	Alignment		13.7	30	PDB header: viral protein Chain: A: PDB Molecule: genome polyprotein; PDBTitle: solution structure of dengue virus capsid protein reveals a2 new fold
16	c3c25A	Alignment		13.4	50	PDB header: hydrolase/dna Chain: A: PDB Molecule: noti restriction endonuclease; PDBTitle: crystal structure of noti restriction endonuclease bound to cognate2 dna
17	c1b8aB	Alignment		12.9	63	PDB header: ligase Chain: B: PDB Molecule: protein (aspartyl-trna synthetase); PDBTitle: aspartyl-trna synthetase
18	c1wydB	Alignment		12.6	63	PDB header: ligase Chain: B: PDB Molecule: hypothetical aspartyl-trna synthetase; PDBTitle: crystal structure of aspartyl-trna synthetase from sulfolobus tokodaii
19	c3fq6A	Alignment		12.5	42	PDB header: transferase Chain: A: PDB Molecule: methyltransferase; PDBTitle: the crystal structure of a methyltransferase domain from bacteroides2 thetaiotaomicron vpi
20	c1x55A	Alignment		12.4	50	PDB header: ligase Chain: A: PDB Molecule: asparaginyl-trna synthetase; PDBTitle: crystal structure of asparaginyl-trna synthetase from pyrococcus2 horikoshii complexed with asparaginyl-adenylate analogue
21	c1e22A	Alignment	not modelled	12.3	50	PDB header: ligase Chain: A: PDB Molecule: lysyl-trna synthetase; PDBTitle: lysyl-trna synthetase (lysu) hexagonal form complexed with2 lysine and the non-hydrolysable atp analogue amp-ppc PDB header: ligase Chain: B: PDB Molecule: asparaginyl-trna synthetase, cytoplasmic;
22	c2xgtB	Alignment	not modelled	12.3	38	PDB header: asparaginyl-trna synthetase from brugia malayi complexed2 with the sulphamoyl analogue of asparaginyl-adenylate
23	c2kncA	Alignment	not modelled	11.8	0	PDB header: cell adhesion Chain: A: PDB Molecule: integrin alpha-iib; PDBTitle: platelet integrin alfa1ib-beta3 transmembrane-cytoplasmic2 heterocomplex
24	d1o8bb1	Alignment	not modelled	11.7	19	Fold: NagB/RpiA/CoA transferase-like Superfamily: NagB/RpiA/CoA transferase-like Family: D-ribose-5-phosphate isomerase (RpiA), catalytic domain
25	clasyA	Alignment	not modelled	11.6	50	PDB header: complex (aminoacyl-trna synthase/trna) Chain: A: PDB Molecule: aspartyl-trna synthetase; PDBTitle: class ii aminoacyl transfer rna synthetases: crystal2 structure of yeast aspartyl-trna synthetase complexed with3 trna asp
26	c3e9hb	Alignment	not modelled	11.0	50	PDB header: ligase Chain: B: PDB Molecule: lysyl-trna synthetase; PDBTitle: lysyl-trna synthetase from bacillus stearothermophilus2 complexed with l-lysylsulfamoyl adenosine
27	c3m4qA	Alignment	not modelled	10.8	38	PDB header: ligase Chain: A: PDB Molecule: asparaginyl-trna synthetase, putative; PDBTitle: entamoeba histolytica asparaginyl-trna synthetase (asnrs)
28	c1efwA	Alignment	not modelled	10.8	50	PDB header: ligase/rna Chain: A: PDB Molecule: aspartyl-trna synthetase; PDBTitle: crystal structure of aspartyl-trna synthetase from

						thermus2 thermophilus complexed to trnaasp from escherichia coli
29	d2gf4a1	Alignment	not modelled	10.2	17	Fold: immunoglobulin/albumin-binding domain-like Superfamily: Vng1086c-like Family: Vng1086c-like
30	c3mesB	Alignment	not modelled	10.2	31	PDB header: transferase Chain: B: PDB Molecule: choline kinase; PDBTitle: crystal structure of choline kinase from cryptosporidium2 parvum iowa ii, cgd3_2030
31	c1ceuA	Alignment	not modelled	9.9	25	PDB header: viral protein Chain: A: PDB Molecule: protein (hiv-1 regulatory protein n-terminal PDBTitle: nmr structure of the (1-51) n-terminal domain of the hiv-12 regulatory protein
32	c2voyK	Alignment	not modelled	9.7	14	PDB header: hydrolase Chain: K: PDB Molecule: sarcoplasmic/endoplasmic reticulum calcium PDBTitle: cryoem model of copa, the copper transporting atpase from2 archaeoglobus fulgidus
33	d1l0wa3	Alignment	not modelled	9.7	50	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
34	d1c0aa3	Alignment	not modelled	9.4	50	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
35	c2i3fA	Alignment	not modelled	9.4	13	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: glycolipid transfer-like protein; PDBTitle: crystal structure of a glycolipid transfer-like protein2 from galdieria sulphuraria
36	d3d37a2	Alignment	not modelled	9.4	36	Fold: Phage tail proteins Superfamily: Phage tail proteins Family: Baseplate protein-like
37	c1egrC	Alignment	not modelled	9.2	50	PDB header: ligase Chain: C: PDB Molecule: aspartyl-trna synthetase; PDBTitle: crystal structure of free aspartyl-trna synthetase from2 escherichia coli
38	d1b8aa2	Alignment	not modelled	9.2	63	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
39	d1eova2	Alignment	not modelled	9.1	50	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
40	c3i7fA	Alignment	not modelled	9.1	38	PDB header: ligase Chain: A: PDB Molecule: aspartyl-trna synthetase; PDBTitle: aspartyl trna synthetase from entamoeba histolytica
41	c2ejbA	Alignment	not modelled	9.0	40	PDB header: lyase Chain: A: PDB Molecule: probable aromatic acid decarboxylase; PDBTitle: crystal structure of phenylacrylic acid decarboxylase from2 aquifex aeolicus
42	d1lgha	Alignment	not modelled	9.0	29	Fold: Light-harvesting complex subunits Superfamily: Light-harvesting complex subunits Family: Light-harvesting complex subunits
43	c2re3A	Alignment	not modelled	9.0	27	PDB header: unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of a duf1285 family protein (spo_0140) from2 silicibacter pomeroyi dss-3 at 2.50 a resolution
44	c3rpfc	Alignment	not modelled	8.9	50	PDB header: transferase Chain: C: PDB Molecule: molybdopterin converting factor, subunit 1 (moad); PDBTitle: protein-protein complex of subunit 1 and 2 of molybdopterin-converting2 factor from helicobacter pylori 26695
45	c2hg5D	Alignment	not modelled	8.8	10	PDB header: membrane protein Chain: D: PDB Molecule: kcsa channel; PDBTitle: cs+ complex of a k channel with an amide to ester substitution inthe2 selectivity filter
46	c3na2C	Alignment	not modelled	8.8	25	PDB header: structural genomics, unknown function Chain: C: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of protein of unknown function from mine drainage2 metagenome leptospirillum rubarum
47	d1sfka	Alignment	not modelled	8.7	19	Fold: Flavivirus capsid protein C Superfamily: Flavivirus capsid protein C Family: Flavivirus capsid protein C
48	d1sfkb	Alignment	not modelled	8.7	19	Fold: Flavivirus capsid protein C Superfamily: Flavivirus capsid protein C Family: Flavivirus capsid protein C
49	c2uwjG	Alignment	not modelled	8.7	32	PDB header: chaperone Chain: G: PDB Molecule: type iii export protein pscg; PDBTitle: structure of the heterotrimeric complex which regulates2 type iii secretion needle formation
50	d1unca	Alignment	not modelled	8.6	33	Fold: VHP, Villin headpiece domain Superfamily: VHP, Villin headpiece domain Family: VHP, Villin headpiece domain
51	c2jwaA	Alignment	not modelled	8.6	15	PDB header: transferase Chain: A: PDB Molecule: receptor tyrosine-protein kinase erb2-2; PDBTitle: erb2 transmembrane segment dimer spatial structure
52	d1yu8x1	Alignment	not modelled	8.5	33	Fold: VHP, Villin headpiece domain Superfamily: VHP, Villin headpiece domain Family: VHP, Villin headpiece domain
53	c2p04B	Alignment	not modelled	8.4	14	PDB header: transferase Chain: B: PDB Molecule: signal transduction histidine kinase; PDBTitle: 2.1 ang structure of the dimerized pas domain of signal transduction2 histidine kinase from nostoc punctiforme pcc 73102 with homology to3 the h-noxa/h-noba domain of the soluble guanylyl cyclase

54	d1lunda_		Alignment	not modelled	8.3	33	Fold: VHP, Villin headpiece domain Superfamily: VHP, Villin headpiece domain Family: VHP, Villin headpiece domain
55	c3g1zB_		Alignment	not modelled	8.1	38	PDB header: ligase Chain: B: PDB Molecule: putative lysyl-tRNA synthetase; PDBTitle: structure of idp01693/yjea, a potential t-RNA synthetase from <i>Salmonella typhimurium</i>
56	c1m93A_		Alignment	not modelled	8.1	15	PDB header: viral protein Chain: A: PDB Molecule: serine proteinase inhibitor 2; PDBTitle: 1.65 a structure of cleaved viral serpin crma
57	d1swxa_		Alignment	not modelled	8.0	13	Fold: Glycolipid transfer protein, GLTP Superfamily: Glycolipid transfer protein, GLTP Family: Glycolipid transfer protein, GLTP
58	d1sbza_		Alignment	not modelled	7.9	40	Fold: Homo-oligomeric flavin-containing Cys decarboxylases, HFCD Superfamily: Homo-oligomeric flavin-containing Cys decarboxylases, HFCD Family: Homo-oligomeric flavin-containing Cys decarboxylases, HFCD
59	d2axth1		Alignment	not modelled	7.9	10	Fold: Single transmembrane helix Superfamily: Photosystem II 10 kDa phosphoprotein PsbH Family: PsbH-like
60	d2axti1		Alignment	not modelled	7.8	17	Fold: Single transmembrane helix Superfamily: Photosystem II reaction center protein I, PsbI Family: PsbI-like
61	c2pjmA_		Alignment	not modelled	7.8	19	PDB header: isomerase Chain: A: PDB Molecule: ribose-5-phosphate isomerase a; PDBTitle: structure of ribose 5-phosphate isomerase a from <i>Methanocaldococcus jannaschii</i>
62	d1ogwa_		Alignment	not modelled	7.8	20	Fold: Pili subunits Superfamily: Pili subunits Family: Pili
63	d1r89a1		Alignment	not modelled	7.8	15	Fold: PAP/OAS1 substrate-binding domain Superfamily: PAP/OAS1 substrate-binding domain Family: Archaeal tRNA CCA-adding enzyme substrate-binding domain
64	d2q7ra1		Alignment	not modelled	7.6	21	Fold: MAPEG domain-like Superfamily: MAPEG domain-like Family: MAPEG domain
65	d1nnha_		Alignment	not modelled	7.5	38	Fold: Class II aaRS and biotin synthetases Superfamily: Class II aaRS and biotin synthetases Family: Class II aminoacyl-tRNA synthetase (aaRS)-like, catalytic domain
66	d2b1xa1		Alignment	not modelled	7.4	40	Fold: ISP domain Superfamily: ISP domain Family: Ring hydroxylating alpha subunit ISP domain
67	d2f05a1		Alignment	not modelled	7.4	30	Fold: PAH2 domain Superfamily: PAH2 domain Family: PAH2 domain
68	d1qzpa_		Alignment	not modelled	7.4	21	Fold: VHP, Villin headpiece domain Superfamily: VHP, Villin headpiece domain Family: VHP, Villin headpiece domain
69	c3kv0A_		Alignment	not modelled	7.3	33	PDB header: transport protein Chain: A: PDB Molecule: het-c2; PDBTitle: crystal structure of het-c2: a fungal glycolipid transfer protein2 (gltp)
70	c2l3xA_		Alignment	not modelled	7.3	21	PDB header: protein binding Chain: A: PDB Molecule: ablim2 protein; PDBTitle: villin head piece domain of human ablim2
71	d2gamt1		Alignment	not modelled	7.2	9	Fold: L35p-like Superfamily: L35p-like Family: Ribosomal protein L35p
72	d1m0sa1		Alignment	not modelled	7.2	45	Fold: NagB/RpiA/CoA transferase-like Superfamily: NagB/RpiA/CoA transferase-like Family: D-ribose-5-phosphate isomerase (RpiA), catalytic domain
73	c3zquA_		Alignment	not modelled	7.2	30	PDB header: lyase Chain: A: PDB Molecule: probable aromatic acid decarboxylase; PDBTitle: structure of a probable aromatic acid decarboxylase
74	c2zyIA_		Alignment	not modelled	7.1	40	PDB header: oxidoreductase Chain: A: PDB Molecule: possible oxidoreductase; PDBTitle: crystal structure of 3-ketosteroid-9-alpha-hydroxylase2 (ksha) from <i>M. tuberculosis</i>
75	d1zvpa1		Alignment	not modelled	7.0	22	Fold: Ferredoxin-like Superfamily: ACT-like Family: VC0802-like
76	c2k6nA_		Alignment	not modelled	7.0	22	PDB header: structural protein Chain: A: PDB Molecule: supervillin; PDBTitle: solution structure of human supervillin headpiece, minimized2 average
77	c2qieB_		Alignment	not modelled	7.0	50	PDB header: transferase Chain: B: PDB Molecule: molybdopterin synthase small subunit; PDBTitle: staphylococcus aureus molybdopterin synthase in complex2 with precursor z
78	c3cu4A_		Alignment	not modelled	6.9	17	PDB header: electron transport Chain: A: PDB Molecule: cytochrome c family protein; PDBTitle: omcf, outer membrane cytochrome f from <i>geobacter</i> 2 sulphureducens
79	d2cosal1		Alignment	not modelled	6.9	17	Fold: RuvA C-terminal domain-like Superfamily: UBA-like Family: UBA domain
							PDB header: isomerase

80	c1m0sA	Alignment	not modelled	6.9	28	Chain: A: PDB Molecule: ribose-5-phosphate isomerase a; PDBTitle: northeast structural genomics consortium (nesg id ir21)
81	c1lkzB	Alignment	not modelled	6.9	19	PDB header: isomerase Chain: B: PDB Molecule: ribose 5-phosphate isomerase a; PDBTitle: crystal structure of d-ribose-5-phosphate isomerase (rpia)2 from escherichia coli.
82	c2kwtA	Alignment	not modelled	6.9	27	PDB header: viral protein Chain: A: PDB Molecule: protease ns2-3; PDBTitle: solution structure of ns2 [27-59]
83	d1jhda1	Alignment	not modelled	6.9	17	Fold: PUA domain-like Superfamily: PUA domain-like Family: ATP sulfurylase N-terminal domain
84	d1yu5x1	Alignment	not modelled	6.8	33	Fold: VHP, Villin headpiece domain Superfamily: VHP, Villin headpiece domain Family: VHP, Villin headpiece domain
85	c3bs7A	Alignment	not modelled	6.8	13	PDB header: signaling protein Chain: A: PDB Molecule: protein aveugle; PDBTitle: crystal structure of the sterile alpha motif (sam) domain2 of hyphen/aveugle
86	d1p9qc3	Alignment	not modelled	6.8	33	Fold: Ferredoxin-like Superfamily: EF-G C-terminal domain-like Family: Hypothetical protein AF0491, C-terminal domain
87	d1o7na1	Alignment	not modelled	6.8	20	Fold: ISP domain Superfamily: ISP domain Family: Ring hydroxylating alpha subunit ISP domain
88	d1ulia1	Alignment	not modelled	6.7	20	Fold: ISP domain Superfamily: ISP domain Family: Ring hydroxylating alpha subunit ISP domain
89	d1wqla1	Alignment	not modelled	6.7	20	Fold: ISP domain Superfamily: ISP domain Family: Ring hydroxylating alpha subunit ISP domain
90	d1fm0d	Alignment	not modelled	6.7	50	Fold: beta-Grasp (ubiquitin-like) Superfamily: MoaD/This Family: MoaD
91	d2ha9a1	Alignment	not modelled	6.7	23	Fold: PFL-like glycyl radical enzymes Superfamily: PFL-like glycyl radical enzymes Family: SP0239-like
92	c3gteB	Alignment	not modelled	6.7	20	PDB header: electron transport, oxidoreductase Chain: B: PDB Molecule: ddmc; PDBTitle: crystal structure of dicamba monooxygenase with non-heme2 iron
93	c2q1kA	Alignment	not modelled	6.6	44	PDB header: chaperone Chain: A: PDB Molecule: asce; PDBTitle: cyrstal structure of asce from aeromonas hydrophilla
94	d1gdva	Alignment	not modelled	6.6	20	Fold: Cytochrome c Superfamily: Cytochrome c Family: monodomain cytochrome c
95	d1ujsa	Alignment	not modelled	6.6	11	Fold: VHP, Villin headpiece domain Superfamily: VHP, Villin headpiece domain Family: VHP, Villin headpiece domain
96	c3acgA	Alignment	not modelled	6.6	50	PDB header: hydrolase Chain: A: PDB Molecule: beta-1,4-endoglucanase; PDBTitle: crystal structure of carbohydrate-binding module family 282 from clostridiumjosui cel5a in complex with cellobiose
97	c1w2IA	Alignment	not modelled	6.6	17	PDB header: oxidoreductase Chain: A: PDB Molecule: cytochrome oxidase subunit ii; PDBTitle: cytochrome c domain of caa3 oxygen oxidoreductase
98	c3gkqB	Alignment	not modelled	6.6	20	PDB header: oxidoreductase Chain: B: PDB Molecule: terminal oxygenase component of carbazole 1,9a- PDBTitle: terminal oxygenase of carbazole 1,9a-dioxygenase from2 novosphingobium sp. ka1
99	d1vzva	Alignment	not modelled	6.5	29	Fold: Herpes virus serine proteinase, assemblin Superfamily: Herpes virus serine proteinase, assemblin Family: Herpes virus serine proteinase, assemblin