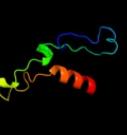


Phyre²

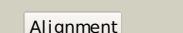
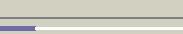
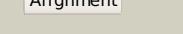
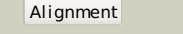
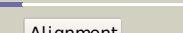
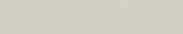
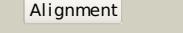
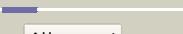
Email	i.a.kelley@imperial.ac.uk
Description	P77649
Date	Thu Jan 5 12:31:20 GMT 2012
Unique Job ID	3e99a79321d5f665

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d2ppqa1	 Alignment		90.7	13	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: APH phosphotransferases
2	d1zyla1	 Alignment		84.1	10	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: APH phosphotransferases
3	c3dxqB_	 Alignment		79.8	18	PDB header: transferase Chain: B: PDB Molecule: choline/ethanolamine kinase family protein; PDBTitle: crystal structure of choline/ethanolamine kinase family protein2 (np_106042.1) from mesorhizobium loti at 2.55 a resolution
4	d1nd4a_	 Alignment		67.5	15	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: APH phosphotransferases
5	c3akjB_	 Alignment		58.5	9	PDB header: transferase Chain: B: PDB Molecule: ctka; PDBTitle: crystal structure of a helicobacter pylori proinflammatory kinase ctna
6	c3ovcA_	 Alignment		50.2	13	PDB header: transferase/antibiotic Chain: A: PDB Molecule: hygromycin-b 4-o-kinase; PDBTitle: crystal structure of aminoglycoside phosphotransferase aph(4)-ia
7	c2j0kB_	 Alignment		47.1	13	PDB header: transferase Chain: B: PDB Molecule: focal adhesion kinase 1; PDBTitle: crystal structure of a fragment of focal adhesion kinase2 containing the ferm and kinase domains.
8	c1u0bB_	 Alignment		40.6	24	PDB header: ligase/rna Chain: B: PDB Molecule: cysteinyl trna; PDBTitle: crystal structure of cysteinyl-trna synthetase binary2 complex with trnacys
9	c1zp9A_	 Alignment		40.1	24	PDB header: transferase Chain: A: PDB Molecule: rio1 kinase; PDBTitle: crystal structure of full-length a.fulgidus rio1 serine kinase bound2 to atp and mn2+ ions.
10	c2vzaD_	 Alignment		39.6	25	PDB header: cell adhesion Chain: D: PDB Molecule: cell filamentation protein; PDBTitle: type iv secretion system effector bepa
11	d1dx4a_	 Alignment		39.5	23	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: Acetylcholinesterase-like

12	c1unhD_			37.9	29	PDB header: cell cycle Chain: D: PDB Molecule: cyclin-dependent kinase 5 activator 1; PDBTitle: structural mechanism for the inhibition of cdk5-p25 by2 roscovitine, aloisine and indirubin.
13	d1unld_			37.6	29	Fold: Cyclin-like Superfamily: Cyclin-like Family: Cyclin
14	d2i8da1			37.2	13	Fold: Secretion chaperone-like Superfamily: YdhG-like Family: YdhG-like
15	d1zara2			34.9	18	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: RIO1-like kinases
16	c3dxpA_			34.1	11	PDB header: transferase Chain: A: PDB Molecule: putative acyl-coa dehydrogenase; PDBTitle: crystal structure of a putative aminoglycoside phosphotransferase2 (reut_a1007) from ralstonia eutropha jmp134 at 2.32 a resolution
17	d1dgja4			34.0	23	Fold: Molybdenum cofactor-binding domain Superfamily: Molybdenum cofactor-binding domain Family: Molybdenum cofactor-binding domain
18	d1p0ia_			33.0	22	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: Acetylcholinesterase-like
19	d2f2ab1			32.3	18	Fold: GatB/YqeY motif Superfamily: GatB/YqeY motif Family: GatB/GatE C-terminal domain-like
20	c3e7eA_			31.5	21	PDB header: transferase Chain: A: PDB Molecule: mitotic checkpoint serine/threonine-protein kinase bub1; PDBTitle: structure and substrate recruitment of the human spindle checkpoint2 kinase bub
21	c2pm8A_		not modelled	31.0	22	PDB header: hydrolase Chain: A: PDB Molecule: cholinesterase; PDBTitle: crystal structure of recombinant full length human2 butyrylcholinesterase
22	c1vibA_		not modelled	31.0	18	PDB header: oxidoreductase Chain: A: PDB Molecule: aldehyde oxidoreductase; PDBTitle: structure refinement of the aldehyde oxidoreductase from2 desulfovibrio gigas at 1.28 a
23	c3k1sE_		not modelled	27.9	23	PDB header: transferase Chain: E: PDB Molecule: pts system, cellobiose-specific iia component; PDBTitle: crystal structure of the pts cellobiose specific enzyme iia2 from bacillus anthracis
24	c1g5vB_		not modelled	26.5	28	PDB header: transcription Chain: B: PDB Molecule: nickel responsive regulator; PDBTitle: apo-nikr
25	d1dfa_		not modelled	25.4	16	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: GABA-aminotransferase-like
26	c3l8rA_		not modelled	24.1	9	PDB header: transferase Chain: A: PDB Molecule: putative pts system, cellobiose-specific iia PDBTitle: the crystal structure of ptca from s. mutans
27	c3eu8D_		not modelled	23.5	38	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
28	d1j7la_		not modelled	23.2	27	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: APH phosphotransferases

29	c1wcrA		Alignment	not modelled	23.1	27	PDB header: transferase Chain: A: PDB Molecule: pts system, n, n'-diacetylchitobiose-specific PDBTitle: trimeric structure of the enzyme iia from escherichia coli2 phosphotransferase system specific for n,n'-3 diacetylchitobiose
30	d2e2aa		Alignment	not modelled	22.5	32	Fold: Spectrin repeat-like Superfamily: Enzyme Ila from lactose specific PTS, IIa-lac Family: Enzyme Ila from lactose specific PTS, IIa-lac
31	d2ha2a1		Alignment	not modelled	22.4	26	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: Acetylcholinesterase-like
32	d1vly1a1		Alignment	not modelled	22.2	21	Fold: Elongation factor/aminomethyltransferase common domain Superfamily: Aminomethyltransferase beta-barrel domain Family: Aminomethyltransferase beta-barrel domain
33	c2zqeA		Alignment	not modelled	22.0	44	PDB header: dna binding protein Chain: A: PDB Molecule: mutS2 protein; PDBTitle: crystal structure of the smr domain of thermus thermophilus muts2
34	d1bwva2		Alignment	not modelled	21.9	17	Fold: Ferredoxin-like Superfamily: RuBisCO, large subunit, small (N-terminal) domain Family: Ribulose 1,5-bisphosphate carboxylase-oxygenase
35	c2xm5A		Alignment	not modelled	21.5	21	PDB header: transferase Chain: A: PDB Molecule: cloQ; PDBTitle: structural and mechanistic analysis of the magnesium-2 independent aromatic prenyltransferase cloQ from the3 chlorobiocin biosynthetic pathway
36	d2burb1		Alignment	not modelled	21.2	25	Fold: Prealbumin-like Superfamily: Aromatic compound dioxygenase Family: Aromatic compound dioxygenase
37	d1g8fa3		Alignment	not modelled	21.1	26	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: ATP sulfurylase C-terminal domain
38	d1qe3a		Alignment	not modelled	20.2	27	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: Acetylcholinesterase-like
39	d1wdka2		Alignment	not modelled	20.0	13	Fold: 6-phosphogluconate dehydrogenase C-terminal domain-like Superfamily: 6-phosphogluconate dehydrogenase C-terminal domain-like Family: HCDDH C-domain-like
40	d1f6wa		Alignment	not modelled	19.4	29	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: Acetylcholinesterase-like
41	d1tzva		Alignment	not modelled	19.3	6	Fold: NusB-like Superfamily: NusB-like Family: Antitermination factor NusB
42	c3f7wA		Alignment	not modelled	18.9	14	PDB header: transferase Chain: A: PDB Molecule: putative fructosamine-3-kinase; PDBTitle: crystal structure of putative fructosamine-3-kinase (yp_290396.1) from2 thermobifida fusca yx-er1 at 1.85 a resolution
43	d2oc6a1		Alignment	not modelled	18.8	11	Fold: Secretion chaperone-like Superfamily: YdhG-like Family: YdhG-like
44	c3attA		Alignment	not modelled	18.7	13	PDB header: transferase Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of rv3168 with atp
45	c3h0mE		Alignment	not modelled	18.6	12	PDB header: ligase Chain: E: PDB Molecule: aspartyl/glutamyl-tRNA(asn/gln) amidotransferase PDBTitle: structure of tRNA-dependent amidotransferase gatCAB from2 aquifex aeolicus
46	d2apla1		Alignment	not modelled	18.2	11	Fold: PG0816-like Superfamily: PG0816-like Family: PG0816-like
47	c3al0B		Alignment	not modelled	18.1	15	PDB header: ligase/rna Chain: B: PDB Molecule: aspartyl/glutamyl-tRNA(asn/gln) amidotransferase subunit b; PDBTitle: crystal structure of the glutamine transamidosome from thermotoga maritima in the glutamylation state.
48	c2ogsA		Alignment	not modelled	17.9	22	PDB header: hydrolase Chain: A: PDB Molecule: thermostable carboxylesterase est50; PDBTitle: crystal structure of the geobacillus stearothermophilus2 carboxylesterase est55 at ph 6.2
49	c3en9B		Alignment	not modelled	17.7	15	PDB header: hydrolase Chain: B: PDB Molecule: o-sialoglycoprotein endopeptidase/protein kinase; PDBTitle: structure of the methanococcus jannaschii kae1-bud32 fusion2 protein
50	c1f8uA		Alignment	not modelled	17.6	26	PDB header: hydrolase/toxin Chain: A: PDB Molecule: acetylcholinesterase; PDBTitle: crystal structure of mutant e202q of human acetylcholinesterase2 complexed with green mamba venom peptide fasciculin-ii
51	d1f8ua		Alignment	not modelled	17.6	26	Fold: alpha/beta-Hydrolases Superfamily: alpha/beta-Hydrolases Family: Acetylcholinesterase-like
52	d1s9aa		Alignment	not modelled	17.6	19	Fold: Prealbumin-like Superfamily: Aromatic compound dioxygenase Family: Aromatic compound dioxygenase
53	d2ozla1		Alignment	not modelled	17.6	18	Fold: Thiamin diphosphate-binding fold (THDP-binding) Superfamily: Thiamin diphosphate-binding fold (THDP-binding) Family: Branched-chain alpha-keto acid dehydrogenase PP module

54	c3csvA_		Alignment	not modelled	16.9	10	PDB header: transferase Chain: A: PDB Molecule: aminoglycoside phosphotransferase; PDBTitle: crystal structure of a putative aminoglycoside phosphotransferase2 (yp_614837.1) from silicibacter sp. tm1040 at 2.15 a resolution
55	d2pyqa1		Alignment	not modelled	16.6	15	Fold: jann4075-like Superfamily: jann4075-like Family: jann4075-like
56	c2g5iB_		Alignment	not modelled	16.3	17	PDB header: ligase Chain: B: PDB Molecule: aspartyl/glutamyl-trna(asn/gln) amidotransferase PDBTitle: structure of trna-dependent amidotransferase gatcab2 complexed with adp-alf4
57	d1ug0a_		Alignment	not modelled	16.2	26	Fold: Surp module (SWAP domain) Superfamily: Surp module (SWAP domain) Family: Surp module (SWAP domain)
58	c2w1jB_		Alignment	not modelled	15.6	14	PDB header: transferase Chain: B: PDB Molecule: putative sortase; PDBTitle: crystal structure of sortase c-1 (srtc-1) from2 streptococcus pneumoniae
59	c3ecdC_		Alignment	not modelled	15.3	13	PDB header: transferase Chain: C: PDB Molecule: serine hydroxymethyltransferase 2; PDBTitle: crystal structure of serine hydroxymethyltransferase from burkholderia2 pseudomallei
60	d3pccm_		Alignment	not modelled	15.2	29	Fold: Prealbumin-like Superfamily: Aromatic compound dioxygenase Family: Aromatic compound dioxygenase
61	c2q83A_		Alignment	not modelled	15.1	18	PDB header: transferase Chain: A: PDB Molecule: ytaa protein; PDBTitle: crystal structure of ytaa (2635576) from bacillus subtilis at 2.50 a2 resolution
62	d2axtf1		Alignment	not modelled	15.1	56	Fold: Single transmembrane helix Superfamily: Cytochrome b559 subunits Family: Cytochrome b559 subunits
63	c1w5cL_		Alignment	not modelled	15.0	56	PDB header: photosynthesis Chain: L: PDB Molecule: cytochrome b559 beta subunit; PDBTitle: photosystem ii from thermosynechococcus elongatus
64	d1xm8a_		Alignment	not modelled	14.9	16	Fold: Metallo-hydrolase/oxidoreductase Superfamily: Metallo-hydrolase/oxidoreductase Family: Glyoxalase II (hydroxyacylglutathione hydrolase)
65	d1q7ea_		Alignment	not modelled	14.8	15	Fold: CoA-transferase family III (CaiB/BaiF) Superfamily: CoA-transferase family III (CaiB/BaiF) Family: CoA-transferase family III (CaiB/BaiF)
66	c3izcs_		Alignment	not modelled	14.4	35	PDB header: ribosome Chain: S: PDB Molecule: 60s ribosomal protein rpl20 (l18ae); PDBTitle: localization of the large subunit ribosomal proteins into a 6.1 a2 cryo-em map of saccharomyces cerevisiae translating 80s ribosome
67	c2x1cA_		Alignment	not modelled	13.9	14	PDB header: transferase Chain: A: PDB Molecule: acyl-coenzyme PDBTitle: the crystal structure of precursor acyl coenzyme2 a:isopenicillin n acyltransferase from penicillium3 chrysogenum
68	c2v1nA_		Alignment	not modelled	13.9	19	PDB header: nuclear protein Chain: A: PDB Molecule: protein kin homolog; PDBTitle: solution structure of the region 51-160 of human kin172 reveals a winged helix fold
69	c2djca_		Alignment	not modelled	13.6	40	PDB header: cytokine Chain: A: PDB Molecule: growth-blocking peptide; PDBTitle: solution structure of growth-blocking peptide of the2 tobacco cutworm, spodoptera litura
70	c3fc7B_		Alignment	not modelled	13.6	20	PDB header: transferase Chain: B: PDB Molecule: htr-like protein; PDBTitle: the crystal structure of a domain of htr-like protein from haloarcus2 marismortui atcc 43049
71	c2dzrA_		Alignment	not modelled	13.4	21	PDB header: transcription Chain: A: PDB Molecule: general transcription factor ii-i repeat domain- PDBTitle: solution structure of rsg1 ruh-067, a gtf2i domain in human2 cdna
72	c3isyA_		Alignment	not modelled	12.8	10	PDB header: protein binding Chain: A: PDB Molecule: intracellular proteinase inhibitor; PDBTitle: crystal structure of an intracellular proteinase inhibitor (ipi_2 bsu11130) from bacillus subtilis at 2.61 a resolution
73	c3qd7X_		Alignment	not modelled	12.5	26	PDB header: hydrolase Chain: X: PDB Molecule: uncharacterized protein ydal; PDBTitle: crystal structure of ydal, a stand-alone small muts-related protein2 from escherichia coli
74	d1ylxa1		Alignment	not modelled	12.5	22	Fold: N domain of copper amine oxidase-like Superfamily: GK1464-like Family: GK1464-like
75	c1irrA_		Alignment	not modelled	12.5	40	PDB header: cytokine Chain: A: PDB Molecule: paralytic peptide; PDBTitle: solution structure of paralytic peptide of the silkworm,2 bombyx mori
76	c1zawU_		Alignment	not modelled	12.3	36	PDB header: structural protein Chain: U: PDB Molecule: 50s ribosomal protein l7/l12; PDBTitle: ribosomal protein l10-l12(ntd) complex, space group p212121,2 form a
77	c1zawW_		Alignment	not modelled	12.3	36	PDB header: structural protein Chain: W: PDB Molecule: 50s ribosomal protein l7/l12; PDBTitle: ribosomal protein l10-l12(ntd) complex, space group p212121,2 form a
78	c1zawV_		Alignment	not modelled	12.3	36	PDB header: structural protein Chain: V: PDB Molecule: 50s ribosomal protein l7/l12; PDBTitle: ribosomal protein l10-l12(ntd) complex, space group p212121,2 form a
							PDB header: structural protein

79	c1zaxZ	Alignment	not modelled	12.1	36	Chain: Z: PDB Molecule: 50s ribosomal protein I7/I12; PDBTitle: ribosomal protein I10-I12(ntd) complex, space group p212121,2 form b
80	d2d9ia1	Alignment	not modelled	12.1	19	Fold: IF3-like Superfamily: SMR domain-like Family: Smr domain
81	c3o0pA	Alignment	not modelled	11.9	8	PDB header: transferase , hydrolase Chain: A: PDB Molecule: sortase family protein; PDBTitle: pilus-related sortase c of group b streptococcus
82	c2hyi1	Alignment	not modelled	11.8	44	PDB header: hydrolase/rna binding protein/rna Chain: J: PDB Molecule: protein casc3; PDBTitle: structure of the human exon junction complex with a trapped dead-box helicase bound to rna
83	c3i0oA	Alignment	not modelled	11.7	9	PDB header: transferase Chain: A: PDB Molecule: spectinomycin phosphotransferase; PDBTitle: crystal structure of spectinomycin phosphotransferase,2 aph(9)-ia, in complex with adp and spectinomycin
84	d2pnwa1	Alignment	not modelled	11.7	16	Fold: Double psi beta-barrel Superfamily: Barwin-like endoglucanases Family: MLTA-like
85	c3ex7I	Alignment	not modelled	11.6	40	PDB header: hydrolase/rna binding protein/rna Chain: I: PDB Molecule: protein casc3; PDBTitle: the crystal structure of ejc in its transition state
86	c1zaxY	Alignment	not modelled	11.5	37	PDB header: structural protein Chain: Y: PDB Molecule: 50s ribosomal protein I7/I12; PDBTitle: ribosomal protein I10-I12(ntd) complex, space group p212121,2 form b
87	c1zaxX	Alignment	not modelled	11.5	37	PDB header: structural protein Chain: X: PDB Molecule: 50s ribosomal protein I7/I12; PDBTitle: ribosomal protein I10-I12(ntd) complex, space group p212121,2 form b
88	c1zavY	Alignment	not modelled	11.5	37	PDB header: structural protein Chain: Y: PDB Molecule: 50s ribosomal protein I7/I12; PDBTitle: ribosomal protein I10-I12(ntd) complex, space group p21
89	c1zavX	Alignment	not modelled	11.5	37	PDB header: structural protein Chain: X: PDB Molecule: 50s ribosomal protein I7/I12; PDBTitle: ribosomal protein I10-I12(ntd) complex, space group p21
90	c2dzqA	Alignment	not modelled	11.5	17	PDB header: transcription Chain: A: PDB Molecule: general transcription factor ii-i repeat domain- PDBTitle: solution structure of rsg1 ruh-066, a gtf2i domain in human2 cdna
91	c1zavW	Alignment	not modelled	11.4	36	PDB header: structural protein Chain: W: PDB Molecule: 50s ribosomal protein I7/I12; PDBTitle: ribosomal protein I10-I12(ntd) complex, space group p21
92	c1zaxW	Alignment	not modelled	11.4	36	PDB header: structural protein Chain: W: PDB Molecule: 50s ribosomal protein I7/I12; PDBTitle: ribosomal protein I10-I12(ntd) complex, space group p212121,2 form b
93	c1zaxU	Alignment	not modelled	11.4	36	PDB header: structural protein Chain: U: PDB Molecule: 50s ribosomal protein I7/I12; PDBTitle: ribosomal protein I10-I12(ntd) complex, space group p212121,2 form b
94	c1zavU	Alignment	not modelled	11.4	36	PDB header: structural protein Chain: U: PDB Molecule: 50s ribosomal protein I7/I12; PDBTitle: ribosomal protein I10-I12(ntd) complex, space group p21
95	d1zavu1	Alignment	not modelled	11.4	36	Fold: Ribosomal protein L7/12, oligomerisation (N-terminal) domain Superfamily: Ribosomal protein L7/12, oligomerisation (N-terminal) domain Family: Ribosomal protein L7/12, oligomerisation (N-terminal) domain
96	c1zavV	Alignment	not modelled	11.4	36	PDB header: structural protein Chain: V: PDB Molecule: 50s ribosomal protein I7/I12; PDBTitle: ribosomal protein I10-I12(ntd) complex, space group p21
97	c1zaxV	Alignment	not modelled	11.4	36	PDB header: structural protein Chain: V: PDB Molecule: 50s ribosomal protein I7/I12; PDBTitle: ribosomal protein I10-I12(ntd) complex, space group p212121,2 form b
98	c1dd3C	Alignment	not modelled	11.2	36	PDB header: ribosome Chain: C: PDB Molecule: 50s ribosomal protein I7/I12; PDBTitle: crystal structure of ribosomal protein I12 from thermotoga maritima
99	c1dd3D	Alignment	not modelled	11.2	36	PDB header: ribosome Chain: D: PDB Molecule: 50s ribosomal protein I7/I12; PDBTitle: crystal structure of ribosomal protein I12 from thermotoga maritima