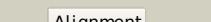
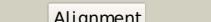
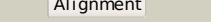
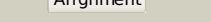
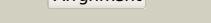
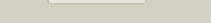
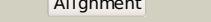
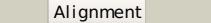
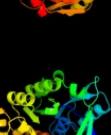
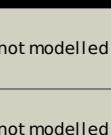


Phyre²

Email	I.a.kelley@imperial.ac.uk
Description	P0A9J6
Date	Thu Jan 5 11:10:28 GMT 2012
Unique Job ID	4746256fc891f5e5

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1rkda_			100.0	100	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
2	c3kzhA_			100.0	22	PDB header: transferase Chain: A: PDB Molecule: probable sugar kinase; PDBTitle: crystal structure of a putative sugar kinase from2 clostridium perfringens
3	d2fv7a1			100.0	36	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
4	c3go6B_			100.0	37	PDB header: transferase Chain: B: PDB Molecule: ribokinase rbsk; PDBTitle: crystal structure of m. tuberculosis ribokinase (rv2436) in2 complex with ribose and amp-pnp
5	d1vm7a_			100.0	39	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
6	c2rbcA_			100.0	22	PDB header: transferase Chain: A: PDB Molecule: sugar kinase; PDBTitle: crystal structure of a putative ribokinase from agrobacterium2 tumefaciens
7	c2c49A_			100.0	21	PDB header: transferase Chain: A: PDB Molecule: sugar kinase mj0406; PDBTitle: crystal structure of methanocaldococcus jannaschii nucleoside kinase - an archaeal member of the ribokinase3 family
8	c3pl2D_			100.0	25	PDB header: transferase Chain: D: PDB Molecule: sugar kinase, ribokinase family; PDBTitle: crystal structure of a 5-keto-2-deoxygluconokinase (ncgl0155, cgl01582) from corynebacterium glutamicum atcc 13032 kitasato at 1.89 a3 resolution
9	c2nwhA_			100.0	26	PDB header: signaling protein,transferase Chain: A: PDB Molecule: carbohydrate kinase; PDBTitle: carbohydrate kinase from agrobacterium tumefaciens
10	c3j3yB_			100.0	31	PDB header: transferase Chain: B: PDB Molecule: carbohydrate kinase; PDBTitle: crystal structure of ribokinase in complex with d-ribose from2 klebsiella pneumoniae
11	c2pkkA_			100.0	19	PDB header: transferase Chain: A: PDB Molecule: adenosine kinase; PDBTitle: crystal structure of m tuberculosis adenosine kinase complexed with 2-2 fluro adenosine

12	c3iq0B_	Alignment		100.0	26	PDB header: transferase Chain: B; PDB Molecule: putative ribokinase ii; PDBTitle: crystal structure of a putative ribokinase ii in complex2 with atp and mg+2 from e.coli
13	c3in1A_	Alignment		100.0	27	PDB header: transferase Chain: A; PDB Molecule: uncharacterized sugar kinase ydjh; PDBTitle: crystal structure of a putative ribokinase in complex with2 adp from e.coli
14	c3cqdB_	Alignment		100.0	20	PDB header: transferase Chain: B; PDB Molecule: 6-phosphofructokinase isozyme 2; PDBTitle: structure of the tetrameric inhibited form of2 phosphofructokinase-2 from escherichia coli
15	c3b1qD_	Alignment		100.0	18	PDB header: transferase Chain: D; PDB Molecule: ribokinase, putative; PDBTitle: structure of burkholderia thailandensis nucleoside kinase (bthnk) in2 complex with inosine
16	d1v19a_	Alignment		100.0	26	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
17	c2qcvA_	Alignment		100.0	23	PDB header: transferase Chain: A; PDB Molecule: putative 5-dehydro-2-deoxygluconokinase; PDBTitle: crystal structure of a putative 5-dehydro-2-deoxygluconokinase (iolc) from bacillus halodurans c-125 at 1.90 a resolution
18	d2abqa1	Alignment		100.0	22	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
19	c2varB_	Alignment		100.0	19	PDB header: transferase Chain: B; PDB Molecule: fructokinase; PDBTitle: crystal structure of sulfobolbus solfataricus 2-keto-3-2 deoxygluconate kinase complexed with 2-keto-3-3 deoxygluconate
20	d2dcna1	Alignment		100.0	22	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
21	c2ig1C_	Alignment	not modelled	100.0	15	PDB header: transferase Chain: C; PDB Molecule: tagatose-6-phosphate kinase; PDBTitle: structure of staphylococcus aureus d-tagatose-6-phosphate2 kinase with cofactor and substrate
22	c2jg5B_	Alignment	not modelled	100.0	17	PDB header: transferase Chain: B; PDB Molecule: fructose 1-phosphate kinase; PDBTitle: crystal structure of a putative phosphofructokinase from2 staphylococcus aureus
23	c2xtbA_	Alignment	not modelled	100.0	19	PDB header: transferase Chain: A; PDB Molecule: adenosine kinase; PDBTitle: crystal structure of trypanosoma brucei rhodesiense2 adenosine kinase complexed with activator
24	d2f02a1	Alignment	not modelled	100.0	19	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
25	d1bx4a_	Alignment	not modelled	100.0	26	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
26	c3looC_	Alignment	not modelled	100.0	22	PDB header: transferase Chain: C; PDB Molecule: anopheles gambiae adenosine kinase; PDBTitle: crystal structure of anopheles gambiae adenosine kinase in complex2 with p1,p4-di(adenosine-5) tetraphosphate
27	c3ktmA_	Alignment	not modelled	100.0	17	PDB header: transferase Chain: A; PDB Molecule: carbohydrate kinase, pfkb family; PDBTitle: crystal structure of a putative 2-keto-3-deoxygluconate2 kinase from enterococcus faecalis
28	d2afba1	Alignment	not modelled	100.0	24	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
						PDB header: transferase

29	c3gbuD	Alignment	not modelled	100.0	25	Chain: D: PDB Molecule: uncharacterized sugar kinase ph1459; PDBTitle: crystal structure of an uncharacterized sugar kinase ph1459 from2 pyrococcus horikoshii in complex with atp
30	c3b3IC	Alignment	not modelled	100.0	19	PDB header: transferase Chain: C: PDB Molecule: ketohexokinase; PDBTitle: crystal structures of alternatively-spliced isoforms of human2 ketohexokinase
31	d1tyya	Alignment	not modelled	100.0	29	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
32	c2absA	Alignment	not modelled	100.0	21	PDB header: signaling protein,transferase Chain: A: PDB Molecule: adenosine kinase; PDBTitle: crystal structure of t. gondii adenosine kinase complexed2 with amp-pcp
33	d2absa1	Alignment	not modelled	100.0	21	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
34	c3julA	Alignment	not modelled	100.0	17	PDB header: transferase Chain: A: PDB Molecule: lin2199 protein; PDBTitle: crystal structure of listeria innocua d-tagatose-6-phosphate2 kinase bound with substrate
35	d2ajra1	Alignment	not modelled	100.0	16	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
36	c3lkiA	Alignment	not modelled	100.0	22	PDB header: transferase Chain: A: PDB Molecule: fructokinase; PDBTitle: crystal structure of fructokinase with bound atp from2 xylella fastidiosa
37	c1tz6B	Alignment	not modelled	100.0	30	PDB header: transferase Chain: B: PDB Molecule: putative sugar kinase; PDBTitle: crystal structure of aminoimidazole riboside kinase from2 salmonella enterica complexed with aminoimidazole riboside3 and atp analog
38	c3kd6B	Alignment	not modelled	100.0	23	PDB header: transferase Chain: B: PDB Molecule: carbohydrate kinase, pfkb family; PDBTitle: crystal structure of nucleoside kinase from chlorobium tepidum in2 complex with amp
39	c3bf5A	Alignment	not modelled	100.0	18	PDB header: transferase Chain: A: PDB Molecule: ribokinase related protein; PDBTitle: crystal structure of putative ribokinase (10640157) from thermoplasma2 acidophilum at 1.91 a resolution
40	c2qhpA	Alignment	not modelled	100.0	19	PDB header: transferase Chain: A: PDB Molecule: fructokinase; PDBTitle: crystal structure of fructokinase (np_810670.1) from bacteroides2 thetaiotaomicron vpi-5482 at 1.80 a resolution
41	c3lhxA	Alignment	not modelled	100.0	20	PDB header: transferase Chain: A: PDB Molecule: ketodeoxygluconokinase; PDBTitle: crystal structure of a ketodeoxygluconokinase (kdgk) from2 shigella flexneri
42	c3hj6B	Alignment	not modelled	100.0	24	PDB header: transferase Chain: B: PDB Molecule: fructokinase; PDBTitle: structure of halothermothrix orenii fructokinase (frk)
43	d1vk4a	Alignment	not modelled	100.0	17	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
44	c2ddmA	Alignment	not modelled	99.9	24	PDB header: transferase Chain: A: PDB Molecule: pyridoxine kinase; PDBTitle: crystal structure of pyridoxal kinase from the escherichia2 coli pdxk gene at 2.1 a resolution
45	d1vi9a	Alignment	not modelled	99.7	25	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: PfkB-like kinase
46	c2i5bC	Alignment	not modelled	99.7	21	PDB header: transferase Chain: C: PDB Molecule: phosphomethylpyrimidine kinase; PDBTitle: the crystal structure of an adp complex of bacillus2 subtilis pyridoxal kinase provides evidence for the3 parallel emergence of enzyme activity during evolution
47	c3mbjA	Alignment	not modelled	99.6	18	PDB header: transferase Chain: A: PDB Molecule: putative phosphomethylpyrimidine kinase; PDBTitle: crystal structure of a putative phosphomethylpyrimidine kinase2 (bt_4458) from bacteroides thetaiotaomicron vpi-5482 at 2.10 a3 resolution (rhombohedral form)
48	d1ub0a	Alignment	not modelled	99.6	28	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Thiamin biosynthesis kinases
49	c3ibqA	Alignment	not modelled	99.6	17	PDB header: transferase Chain: A: PDB Molecule: pyridoxal kinase; PDBTitle: crystal structure of pyridoxal kinase from lactobacillus2 plantarum in complex with atp
50	d1lhpA	Alignment	not modelled	99.6	23	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: PfkB-like kinase
51	d1jxha	Alignment	not modelled	99.4	23	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Thiamin biosynthesis kinases
52	c3rm5B	Alignment	not modelled	99.3	19	PDB header: transferase Chain: B: PDB Molecule: hydroxymethylpyrimidine/phosphomethylpyrimidine kinase PDBTitle: structure of trifunctional thi20 from yeast
53	c3dzvB	Alignment	not modelled	98.9	17	PDB header: transferase Chain: B: PDB Molecule: 4-methyl-5-(beta-hydroxyethyl)thiazole kinase; PDBTitle: crystal structure of 4-methyl-5-(beta-hydroxyethyl)thiazole2 kinase (np_816404.1) from enterococcus faecalis v583 at3 2.57 a resolution

54	d1kyha_		Alignment	not modelled	98.8	17	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: YjeF C-terminal domain-like
55	d2ax3a1		Alignment	not modelled	98.8	11	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: YjeF C-terminal domain-like
56	d1v8aa_		Alignment	not modelled	98.7	22	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Thiamin biosynthesis kinases
57	c2ax3A_		Alignment	not modelled	98.4	10	PDB header: transferase Chain: A: PDB Molecule: hypothetical protein tm0922; PDBTitle: crystal structure of a putative carbohydrate kinase (tm0922) from2 thermotoga maritima msb8 at 2.25 a resolution
58	c2r3bA_		Alignment	not modelled	97.9	19	PDB header: transferase Chain: A: PDB Molecule: yjeF-related protein; PDBTitle: crystal structure of a ribokinase-like superfamily protein (ef1790)2 from enterococcus faecalis v583 at 1.80 a resolution
59	d1ekqa_		Alignment	not modelled	97.9	18	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Thiamin biosynthesis kinases
60	c3k5wA_		Alignment	not modelled	97.9	17	PDB header: transferase Chain: A: PDB Molecule: carbohydrate kinase; PDBTitle: crystal structure of a carbohydrate kinase (yjeF family)from2 helicobacter pylori
61	d1gc5a_		Alignment	not modelled	97.5	19	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: ADP-specific Phosphofructokinase/Glucokinase
62	d1u2xa_		Alignment	not modelled	97.4	16	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: ADP-specific Phosphofructokinase/Glucokinase
63	c3nm3D_		Alignment	not modelled	97.3	19	PDB header: transferase Chain: D: PDB Molecule: thiamine biosynthetic bifunctional enzyme; PDBTitle: the crystal structure of candida glabrata thi6, a bifunctional enzyme2 involved in thiamin biosynthesis of eukaryotes
64	d1l2la_		Alignment	not modelled	97.2	17	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: ADP-specific Phosphofructokinase/Glucokinase
65	c3drwA_		Alignment	not modelled	97.2	12	PDB header: transferase Chain: A: PDB Molecule: adp-specific phosphofructokinase; PDBTitle: crystal structure of a phosphofructokinase from pyrococcus2 horikoshii ot3 with amp
66	d1ua4a_		Alignment	not modelled	97.1	17	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: ADP-specific Phosphofructokinase/Glucokinase
67	c3bgkA_		Alignment	not modelled	96.9	17	PDB header: unknown function Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: the crystal structure of hypothetical protein smu.573 from2 streptococcus mutans
68	d2dw4a2		Alignment	not modelled	60.4	24	Fold: FAD/NAD(P)-binding domain Superfamily: FAD/NAD(P)-binding domain Family: FAD-linked reductases, N-terminal domain
69	c3k5iB_		Alignment	not modelled	44.1	32	PDB header: lyase Chain: B: PDB Molecule: phosphoribosyl-aminoimidazole carboxylase; PDBTitle: crystal structure of n5-carboxyaminoimidazole synthase from2 aspergillus clavatus in complex with adp and 5-3 aminoimidazole ribonucleotide
70	c1c0iA_		Alignment	not modelled	43.7	36	PDB header: oxidoreductase Chain: A: PDB Molecule: d-amino acid oxidase; PDBTitle: crystal structure of d-amino acid oxidase in complex with two anthranilate molecules
71	c3lzxB_		Alignment	not modelled	38.4	30	PDB header: oxidoreductase Chain: B: PDB Molecule: ferredoxin--nadp reductase 2; PDBTitle: crystal structure of ferredoxin-nadp+ oxidoreductase from bacillus2 subtilis (form ii)
72	c3d3jA_		Alignment	not modelled	38.2	13	PDB header: protein binding Chain: A: PDB Molecule: enhancer of mrna-decapping protein 3; PDBTitle: crystal structure of human edc3p
73	c2hkoA_		Alignment	not modelled	35.4	25	PDB header: oxidoreductase Chain: A: PDB Molecule: lysine-specific histone demethylase 1; PDBTitle: crystal structure of lsd1
74	c2x1IC_		Alignment	not modelled	34.2	11	PDB header: ligase Chain: C: PDB Molecule: methionyl-tRNA synthetase; PDBTitle: crystal structure of mycobacterium smegmatis methionyl-tRNA2 synthetase in complex with methionine and adenosine
75	c2v1dA_		Alignment	not modelled	34.0	25	PDB header: oxidoreductase/repressor Chain: A: PDB Molecule: lysine-specific histone demethylase 1; PDBTitle: structural basis of lsd1-corest selectivity in histone h32 recognition
76	c2xagA_		Alignment	not modelled	34.0	25	PDB header: transcription Chain: A: PDB Molecule: lysine-specific histone demethylase 1; PDBTitle: crystal structure of lsd1-corest in complex with para-bromo-2 (-)-trans-2-phenylcyclopropyl-1-amine
77	d1p3da1		Alignment	not modelled	33.5	29	Fold: MurCD N-terminal domain Superfamily: MurCD N-terminal domain Family: MurCD N-terminal domain
78	c3kljA_		Alignment	not modelled	28.4	35	PDB header: oxidoreductase Chain: A: PDB Molecule: nad(fad)-dependent dehydrogenase, nirb-family (n-terminal PDBTitle: crystal structure of nadh:rubredoxin oxidoreductase from clostridium2 acetobutylicum
							Fold: Molybdenum cofactor biosynthesis proteins

79	d1uz5a3	Alignment	not modelled	28.0	21	Superfamily: Molybdenum cofactor biosynthesis proteins Family: MoeA central domain-like
80	c3crcB	Alignment	not modelled	25.7	19	PDB header: hydrolase Chain: B: PDB Molecule: protein mazg; PDBTitle: crystal structure of escherichia coli mazg, the regulator2 of nutritional stress response
81	d1sezal	Alignment	not modelled	24.9	33	Fold: FAD/NAD(P)-binding domain Superfamily: FAD/NAD(P)-binding domain Family: FAD-linked reductases, N-terminal domain
82	c3d8xB	Alignment	not modelled	24.4	23	PDB header: oxidoreductase Chain: B: PDB Molecule: thioredoxin reductase 1; PDBTitle: crystal structure of saccharomyces cerevisiae nadph dependent2 thioredoxin reductase 1
83	d1rqga2	Alignment	not modelled	23.7	12	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
84	d1c0pa1	Alignment	not modelled	22.9	36	Fold: Nucleotide-binding domain Superfamily: Nucleotide-binding domain Family: D-aminoacid oxidase, N-terminal domain
85	d1wu2a3	Alignment	not modelled	22.7	8	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MoeA central domain-like
86	d1pfva2	Alignment	not modelled	22.1	14	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
87	c3d3kd	Alignment	not modelled	22.0	11	PDB header: protein binding Chain: D: PDB Molecule: enhancer of mrna-decapping protein 3; PDBTitle: crystal structure of human edc3p
88	d2ftsa3	Alignment	not modelled	21.4	13	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MoeA central domain-like
89	c3allA	Alignment	not modelled	21.3	29	PDB header: oxidoreductase Chain: A: PDB Molecule: 2-methyl-3-hydroxypyridine-5-carboxylic acid oxygenase; PDBTitle: crystal structure of 2-methyl-3-hydroxypyridine-5-carboxylic acid2 oxygenase, mutant y270a
90	c3djeA	Alignment	not modelled	20.9	33	PDB header: oxidoreductase Chain: A: PDB Molecule: fructosyl amine: oxygen oxidoreductase; PDBTitle: crystal structure of the deglycating enzyme fructosamine2 oxidase from aspergillus fumigatus (amadoriase ii) in3 complex with fsa
91	c3kbqA	Alignment	not modelled	19.4	12	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: protein ta0487; PDBTitle: the crystal structure of the protein cina with unknown function from2 thermoplasma acidophilum
92	c2ct8A	Alignment	not modelled	19.3	11	PDB header: ligase/rna Chain: A: PDB Molecule: methionyl-trna synthetase; PDBTitle: crystal structure of aquifex aeolicus methionyl-trna2 synthetase complexed with tRNA(met) and methionyl-adenylate3 analogue
93	d2gtad1	Alignment	not modelled	18.3	22	Fold: all-alpha NTP pyrophosphatases Superfamily: all-alpha NTP pyrophosphatases Family: MazG-like
94	c2bi8A	Alignment	not modelled	17.7	26	PDB header: isomerase Chain: A: PDB Molecule: udp-galactopyranose mutase; PDBTitle: udp-galactopyranose mutase from klebsiella pneumoniae with2 reduced fad
95	d1y5ea1	Alignment	not modelled	17.3	19	Fold: Molybdenum cofactor biosynthesis proteins Superfamily: Molybdenum cofactor biosynthesis proteins Family: MogA-like
96	d1d7ya2	Alignment	not modelled	17.2	22	Fold: FAD/NAD(P)-binding domain Superfamily: FAD/NAD(P)-binding domain Family: FAD/NAD-linked reductases, N-terminal and central domains
97	c2vdcl	Alignment	not modelled	17.0	29	PDB header: oxidoreductase Chain: I: PDB Molecule: glutamate synthase [nadph] small chain; PDBTitle: the 9.5 a resolution structure of glutamate synthase from2 cryo-electron microscopy and its oligomerization behavior3 in solution: functional implications.
98	c3i3IA	Alignment	not modelled	15.4	22	PDB header: hydrolase Chain: A: PDB Molecule: alkylhalidase cmsl; PDBTitle: crystal structure of cmsl, a flavin-dependent halogenase
99	c1apzB	Alignment	not modelled	15.3	12	PDB header: complex (hydrolase/peptide) Chain: B: PDB Molecule: aspartylglucosaminidase; PDBTitle: human aspartylglucosaminidase complex with reaction product