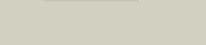
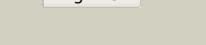
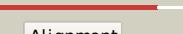
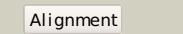
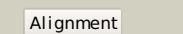
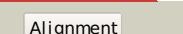
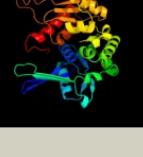
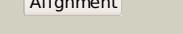
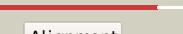
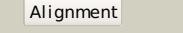
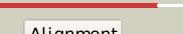


Phyre²

Email	I.a.kelley@imperial.ac.uk
Description	P37647
Date	Thu Jan 5 11:56:19 GMT 2012
Unique Job ID	91d84f335408d2f4

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3lhxA_			100.0	96	PDB header: transferase Chain: A; PDB Molecule: ketodeoxygluconokinase; PDBTitle: crystal structure of a ketodeoxygluconokinase (kdgk) from2 shigella flexneri
2	c3pl2D_			100.0	21	PDB header: transferase Chain: D; PDB Molecule: sugar kinase, ribokinase family; PDBTitle: crystal structure of a 5-keto-2-deoxygluconokinase (ncgl0155, cgl0158) from corynebacterium glutamicum atcc 13032 kitasato at 1.89 a3 resolution
3	d1bx4a_			100.0	16	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
4	c2qcvA_			100.0	24	PDB header: transferase Chain: A; PDB Molecule: putative 5-dehydro-2-deoxygluconokinase; PDBTitle: crystal structure of a putative 5-dehydro-2-deoxygluconokinase (iolc)2 from bacillus halodurans c-125 at 1.90 a resolution
5	c2pkkA_			100.0	21	PDB header: transferase Chain: A; PDB Molecule: adenosine kinase; PDBTitle: crystal structure of m tuberculosis adenosine kinase complexed with 2-2 fluro adenosine
6	d1v19a_			100.0	29	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
7	c3iq0B_			100.0	22	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
8	c2xtbA_			100.0	23	PDB header: transferase Chain: A; PDB Molecule: adenosine kinase; PDBTitle: crystal structure of trypanosoma brucei rhodesiense2 adenosine kinase complexed with activator
9	d2afba1			100.0	20	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
10	c2rbca_			100.0	21	PDB header: transferase Chain: A; PDB Molecule: sugar kinase; PDBTitle: crystal structure of a putative ribokinase from agrobacterium2 tumefaciens
11	c3kzhA_			100.0	19	PDB header: transferase Chain: A; PDB Molecule: probable sugar kinase; PDBTitle: crystal structure of a putative sugar kinase from2 clostridium perfringens

12	c2absA_			100.0	20	PDB header: signaling protein,transferase Chain: A: PDB Molecule: adenosine kinase; PDBTitle: crystal structure of t. gondii adenosine kinase complexed2 with amp-pcp
13	d2absa1			100.0	20	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
14	c3looC_			100.0	20	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
15	c2varB_			100.0	22	PDB header: transferase Chain: B: PDB Molecule: fructokinase; PDBTitle: crystal structure of sulfolobus solfataricus 2-keto-3-2 deoxygluconate kinase complexed with 2-keto-3-3 deoxygluconate
16	c3in1A_			100.0	22	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
17	c3ktmA_			100.0	23	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
18	d1tyna_			100.0	22	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
19	d1rkda_			100.0	21	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
20	c2nwhA_			100.0	22	PDB header: signaling protein,transferase Chain: A: PDB Molecule: carbohydrate kinase; PDBTitle: carbohydrate kinase from agrobacterium tumefaciens
21	c3lkiA_		not modelled	100.0	18	PDB header: transferase Chain: A: PDB Molecule: fructokinase; PDBTitle: crystal structure of fructokinase with bound atp from xylella fastidiosa
22	c1tz6B_		not modelled	100.0	23	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
23	d2dcna1		not modelled	100.0	21	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
24	c3b1qD_		not modelled	100.0	16	PDB header: transferase Chain: D: PDB Molecule: ribokinase, putative; PDBTitle: structure of burkholderia thailandensis nucleoside kinase (bthnk) in2 complex with inosine
25	d2fv7a1		not modelled	100.0	23	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
26	c2c49A_		not modelled	100.0	20	PDB header: transferase Chain: A: PDB Molecule: sugar kinase mj0406; PDBTitle: crystal structure of methanocaldococcus jannaschii2 nucleoside kinase - an archaeal member of the ribokinase3 family
27	c3go6B_		not modelled	100.0	20	PDB header: transferase Chain: B: PDB Molecule: ribokinase rbsk; PDBTitle: crystal structure of m. tuberculosis ribokinase (rv2436) in2 complex with ribose and amp-pnp
28	d1vm7a_		not modelled	100.0	26	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like

29	c2ghpA	Alignment	not modelled	100.0	19	PDB header: transferase Chain: A; PDB Molecule: fructokinase; PDBTitle: crystal structure of fructokinase (np_810670.1) from bacteroides2 thetaiotomicron vpi-5482 at 1.80 a resolution
30	c3gbuD	Alignment	not modelled	100.0	21	PDB header: transferase Chain: D; PDB Molecule: uncharacterized sugar kinase ph1459; PDBTitle: crystal structure of an uncharacterized sugar kinase ph1459 from2 pyrococcus horikoshii in complex with atp
31	c3hj6B	Alignment	not modelled	100.0	24	PDB header: transferase Chain: B; PDB Molecule: fructokinase; PDBTitle: structure of halothermothrix orenii fructokinase (frk)
32	c3b3lC	Alignment	not modelled	100.0	16	PDB header: transferase Chain: C; PDB Molecule: ketohexokinase; PDBTitle: crystal structures of alternatively-spliced isoforms of human2 ketohexokinase
33	c3kd6B	Alignment	not modelled	100.0	20	PDB header: transferase Chain: B; PDB Molecule: carbohydrate kinase, pfkb family; PDBTitle: crystal structure of nucleoside kinase from chlorobium tepidum in2 complex with amp
34	c3cqdB	Alignment	not modelled	100.0	19	PDB header: transferase Chain: B; PDB Molecule: 6-phosphofructokinase isozyme 2; PDBTitle: structure of the tetrameric inhibited form of2 phosphofructokinase-2 from escherichia coli
35	c3i3yB	Alignment	not modelled	100.0	22	PDB header: transferase Chain: B; PDB Molecule: carbohydrate kinase; PDBTitle: crystal structure of ribokinase in complex with d-ribose from2 klebsiella pneumoniae
36	d2f02a1	Alignment	not modelled	100.0	18	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
37	c2jg1C	Alignment	not modelled	100.0	16	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
38	d1vk4a	Alignment	not modelled	100.0	14	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
39	d2abqa1	Alignment	not modelled	100.0	18	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
40	c3julA	Alignment	not modelled	100.0	14	PDB header: transferase Chain: A; PDB Molecule: lin2199 protein; PDBTitle: crystal structure of listeria innocua d-tagatose-6-phosphate2 kinase bound with substrate
41	c2jg5B	Alignment	not modelled	100.0	16	PDB header: transferase Chain: B; PDB Molecule: fructose 1-phosphate kinase; PDBTitle: crystal structure of a putative phosphofructokinase from2 staphylococcus aureus
42	d2ajra1	Alignment	not modelled	100.0	11	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Ribokinase-like
43	c3bf5A	Alignment	not modelled	100.0	20	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
44	c2ddmA	Alignment	not modelled	99.9	20	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	19	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: PfkB-like kinase
46	c3mbjA	Alignment	not modelled	99.7	13	PDB header: transferase Chain: A; PDB Molecule: putative phosphomethylpyrimidine kinase; PDBTitle: crystal structure of a putative phosphomethylpyrimidine kinase2 (bt_4458) from bacteroides thetaiotomicron vpi-5482 at 2.10 a3 resolution (rhombohedral form)
47	c2i5bC	Alignment	not modelled	99.6	16	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
48	d1hpa	Alignment	not modelled	99.6	16	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: PfkB-like kinase
49	c3ibqA	Alignment	not modelled	99.5	14	PDB header: transferase Chain: A; PDB Molecule: pyridoxal kinase; PDBTitle: crystal structure of pyridoxal kinase from lactobacillus2 plantarum in complex with atp
50	d1ub0a	Alignment	not modelled	99.4	16	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Thiamin biosynthesis kinases
51	c3rm5B	Alignment	not modelled	99.3	15	PDB header: transferase Chain: B; PDB Molecule: hydroxymethylpyrimidine/phosphomethylpyrimidine kinase PDBTitle: structure of trifunctional thi20 from yeast
52	c3dzvB	Alignment	not modelled	99.2	15	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
53	d1jxha	Alignment	not modelled	99.1	12	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Thiamin biosynthesis kinases

54	d1v8aa		Alignment	not modelled	98.9	13	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Thiamin biosynthesis kinases
55	d1ekqa		Alignment	not modelled	98.7	14	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: Thiamin biosynthesis kinases
56	d1kyha		Alignment	not modelled	98.4	13	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: YjeF C-terminal domain-like
57	d1l2la		Alignment	not modelled	98.3	13	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: ADP-specific Phosphofructokinase/Glucokinase
58	d1gc5a		Alignment	not modelled	98.3	15	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: ADP-specific Phosphofructokinase/Glucokinase
59	d2ax3a1		Alignment	not modelled	98.3	8	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: YjeF C-terminal domain-like
60	c3drwA		Alignment	not modelled	98.1	14	PDB header: transferase Chain: A: PDB Molecule: adp-specific phosphofructokinase; PDBTitle: crystal structure of a phosphofructokinase from pyrococcus2 horikoshii ot3 with amp
61	d1u2xa		Alignment	not modelled	98.1	12	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: ADP-specific Phosphofructokinase/Glucokinase
62	c2r3ba		Alignment	not modelled	98.1	10	PDB header: transferase Chain: A: PDB Molecule: yjeF-related protein; PDBTitle: crystal structure of a ribokinase-like superfamily protein (ef17902) from enterococcus faecalis v583 at 1.80 a resolution
63	d1ua4a		Alignment	not modelled	97.9	14	Fold: Ribokinase-like Superfamily: Ribokinase-like Family: ADP-specific Phosphofructokinase/Glucokinase
64	c3nm3D		Alignment	not modelled	97.8	12	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
65	c2ax3A		Alignment	not modelled	97.6	8	PDB header: transferase Chain: A: PDB Molecule: hypothetical protein tm0922; PDBTitle: crystal structure of a putative carbohydrate kinase (tm0922) from thermotoga maritima msb8 at 2.25 a resolution
66	c3bgkA		Alignment	not modelled	97.5	11	PDB header: unknown function Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: the crystal structure of hypothetical protein smu.573 from streptococcus mutans
67	c3k5wA		Alignment	not modelled	96.7	15	PDB header: transferase Chain: A: PDB Molecule: carbohydrate kinase; PDBTitle: crystal structure of a carbohydrate kinase (yjeF family)from helicobacter pylori
68	d1pqua1		Alignment	not modelled	80.0	18	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Glyceraldehyde-3-phosphate dehydrogenase-like, N-terminal domain
69	d1t4ba1		Alignment	not modelled	79.2	12	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Glyceraldehyde-3-phosphate dehydrogenase-like, N-terminal domain
70	c2f00A		Alignment	not modelled	75.9	19	PDB header: ligase Chain: A: PDB Molecule: udp-n-acetyl muramate-l-alanine ligase; PDBTitle: escherichia coli murc
71	d1mb4a1		Alignment	not modelled	71.5	13	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Glyceraldehyde-3-phosphate dehydrogenase-like, N-terminal domain
72	c2weuD		Alignment	not modelled	59.9	33	PDB header: antifungal protein Chain: D: PDB Molecule: tryptophan 5-halogenase; PDBTitle: crystal structure of tryptophan 5-halogenase (pyrh) complex2 with substrate tryptophan
73	c3d8xB		Alignment	not modelled	46.8	32	PDB header: oxidoreductase Chain: B: PDB Molecule: thioredoxin reductase 1; PDBTitle: crystal structure of saccharomyces cerevisiae nadph dependent2 thioredoxin reductase 1
74	c1j6uA		Alignment	not modelled	43.9	23	PDB header: ligase Chain: A: PDB Molecule: udp-n-acetyl muramate-alanine ligase murc; PDBTitle: crystal structure of udp-n-acetyl muramate-alanine ligase2 murc (tm0231) from thermotoga maritima at 2.3 a resolution
75	c2gr2A		Alignment	not modelled	37.2	17	PDB header: oxidoreductase Chain: A: PDB Molecule: ferredoxin reductase; PDBTitle: crystal structure of ferredoxin reductase, bpha4 (oxidized form)
76	d2gz1a1		Alignment	not modelled	35.2	13	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Glyceraldehyde-3-phosphate dehydrogenase-like, N-terminal domain
77	c3c7cB		Alignment	not modelled	32.0	5	PDB header: oxidoreductase Chain: B: PDB Molecule: octopine dehydrogenase; PDBTitle: a structural basis for substrate and stereo selectivity in2 octopine dehydrogenase (odh-nadh-l-arginine)
78	c3i3IA		Alignment	not modelled	31.0	29	PDB header: hydrolase Chain: A: PDB Molecule: alkyl halidase cm1s; PDBTitle: crystal structure of cm1s, a flavin-dependent halogenase
79	c2yy7B		Alignment	not modelled	29.6	55	PDB header: oxidoreductase Chain: B: PDB Molecule: l-threonine dehydrogenase; PDBTitle: crystal structure of thermolabile l-threonine

						dehydrogenase from2 flavobacterium frigidimarvis kuc-1
80	c1v59B	Alignment	not modelled	29.6	26	PDB header: oxidoreductase Chain: B: PDB Molecule: dihydrolipoamide dehydrogenase; PDBTitle: crystal structure of yeast lipoamide dehydrogenase2 complexed with nad+
81	c3dfzB	Alignment	not modelled	29.3	17	PDB header: oxidoreductase Chain: B: PDB Molecule: precorrin-2 dehydrogenase; PDBTitle: sirc, precorrin-2 dehydrogenase
82	d1gtea3	Alignment	not modelled	28.3	18	Fold: FAD/NAD(P)-binding domain Superfamily: FAD/NAD(P)-binding domain Family: C-terminal domain of adrenodoxin reductase-like
83	d1ek6a	Alignment	not modelled	28.3	36	Fold: NAD(P)-binding Rossmann-fold domains Superfamily: NAD(P)-binding Rossmann-fold domains Family: Tyrosine-dependent oxidoreductases
84	c2qk4A	Alignment	not modelled	27.8	30	PDB header: ligase Chain: A: PDB Molecule: trifunctional purine biosynthetic protein adenosine-3; PDBTitle: human glycinamide ribonucleotide synthetase
85	c3allA	Alignment	not modelled	27.7	28	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
86	d1p3dal	Alignment	not modelled	26.7	18	Fold: MurCD N-terminal domain Superfamily: MurCD N-terminal domain Family: MurCD N-terminal domain
87	c1sezA	Alignment	not modelled	26.3	38	PDB header: oxidoreductase Chain: A: PDB Molecule: protoporphyrinogen oxidase, mitochondrial; PDBTitle: crystal structure of protoporphyrinogen ix oxidase
88	c3k96B	Alignment	not modelled	26.1	29	PDB header: oxidoreductase Chain: B: PDB Molecule: glycerol-3-phosphate dehydrogenase [nad(p+)]; PDBTitle: 2.1 angstrom resolution crystal structure of glycerol-3-phosphate2 dehydrogenase (gpsa) from coxiella burnetii
89	c3gmbB	Alignment	not modelled	24.9	23	PDB header: oxidoreductase Chain: B: PDB Molecule: 2-methyl-3-hydroxypyridine-5-carboxylic acid PDBTitle: crystal structure of 2-methyl-3-hydroxypyridine-5-carboxylic2 acid oxygenase
90	c2bcpA	Alignment	not modelled	21.9	21	PDB header: oxidoreductase Chain: A: PDB Molecule: nadh oxidase; PDBTitle: structural analysis of streptococcus pyogenes nadh oxidase:2 c44s nox with azide
91	c3dfiA	Alignment	not modelled	21.5	23	PDB header: hydrolase Chain: A: PDB Molecule: pseudoaglycone deacetylase dbv21; PDBTitle: the crystal structure of antimicrobial reagent a40926 pseudoaglycone2 deacetylase dbv21
92	c3sc6F	Alignment	not modelled	21.5	18	PDB header: oxidoreductase Chain: F: PDB Molecule: dtdp-4-dehydrorhamnose reductase; PDBTitle: 2.65 angstrom resolution crystal structure of dtdp-4-dehydrorhamnose2 reductase (rfbd) from bacillus anthracis str. ames in complex with3 nadp
93	d2elca2	Alignment	not modelled	20.0	19	Fold: Nucleoside phosphorylase/phosphoribosyltransferase catalytic domain Superfamily: Nucleoside phosphorylase/phosphoribosyltransferase catalytic domain Family: Nucleoside phosphorylase/phosphoribosyltransferase catalytic domain
94	d1sezA1	Alignment	not modelled	19.9	37	Fold: FAD/NAD(P)-binding domain Superfamily: FAD/NAD(P)-binding domain Family: FAD-linked reductases, N-terminal domain
95	c1phhA	Alignment	not modelled	19.7	30	PDB header: oxidoreductase Chain: A: PDB Molecule: p-hydroxybenzoate hydroxylase; PDBTitle: crystal structure of p-hydroxybenzoate hydroxylase complexed with its2 reaction product 3,4-dihydroxybenzoate
96	c2px0D	Alignment	not modelled	19.3	13	PDB header: biosynthetic protein Chain: D: PDB Molecule: flagellar biosynthesis protein flhf; PDBTitle: crystal structure of flhf complexed with gmppnp/mg(2+)
97	c3kljA	Alignment	not modelled	19.3	24	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
98	d1af7a2	Alignment	not modelled	18.7	10	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: Chemotaxis receptor methyltransferase CheR, C-terminal domain
99	c2iyaB	Alignment	not modelled	18.6	22	PDB header: transferase Chain: B: PDB Molecule: oleandomycin glycosyltransferase; PDBTitle: the crystal structure of macrolide glycosyltransferases: a2 blueprint for antibiotic engineering