



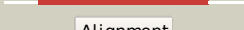

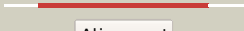









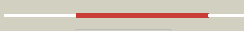
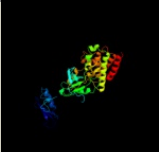






Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P09769
Date	Fri May 25 09:50:58 BST 2012
Unique Job ID	588e887b398b2c02

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1y57A_	 Alignment		100.0	75	PDB header: transferase Chain: A: PDB Molecule: proto-oncogene tyrosine-protein kinase src; PDBTitle: structure of unphosphorylated c-src in complex with an inhibitor
2	c2h8hA_	 Alignment		100.0	75	PDB header: transferase Chain: A: PDB Molecule: proto-oncogene tyrosine-protein kinase src; PDBTitle: src kinase in complex with a quinazoline inhibitor
3	c2fo0A_	 Alignment		100.0	42	PDB header: transferase Chain: A: PDB Molecule: proto-oncogene tyrosine-protein kinase abl1 (1b isoform); PDBTitle: organization of the sh3-sh2 unit in active and inactive forms of the2 c-abl tyrosine kinase
4	c1oplA_	 Alignment		100.0	43	PDB header: transferase Chain: A: PDB Molecule: proto-oncogene tyrosine-protein kinase; PDBTitle: structural basis for the auto-inhibition of c-abl tyrosine2 kinase
5	c2c0iA_	 Alignment		100.0	63	PDB header: transferase Chain: A: PDB Molecule: tyrosine-protein kinase hck; PDBTitle: src family kinase hck with bound inhibitor a-420983
6	c1k9aB_	 Alignment		100.0	41	PDB header: transferase Chain: B: PDB Molecule: carboxyl-terminal src kinase; PDBTitle: crystal structure analysis of full-length carboxyl-terminal2 src kinase at 2.5 a resolution
7	c2ozoA_	 Alignment		100.0	33	PDB header: transferase Chain: A: PDB Molecule: tyrosine-protein kinase zap-70; PDBTitle: autoinhibited intact human zap-70
8	c3cblA_	 Alignment		100.0	38	PDB header: transferase Chain: A: PDB Molecule: proto-oncogene tyrosine-protein kinase fes/fps; PDBTitle: crystal structure of human feline sarcoma viral oncogene homologue (v-2 fes) in complex with staurosporine and a consensus peptide
9	c2j0kB_	 Alignment		100.0	32	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.
10	d1qcfa3	 Alignment		100.0	64	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
11	d1qpca_	 Alignment		100.0	62	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit

12	d1opja_	Alignment		100.0	47	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
13	c3zzwA_	Alignment		100.0	37	PDB header: transferase Chain: A: PDB Molecule: tyrosine-protein kinase transmembrane receptor ror2; PDBTitle: crystal structure of the kinase domain of ror2
14	d1fmka3	Alignment		100.0	81	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
15	d1u59a_	Alignment		100.0	34	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
16	d1k2pa_	Alignment		100.0	41	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
17	c2ivsA_	Alignment		100.0	37	PDB header: transferase Chain: A: PDB Molecule: proto-oncogene tyrosine-protein kinase receptor PDBTitle: crystal structure of non-phosphorylated ret tyrosine kinase2 domain
18	c3g0eA_	Alignment		100.0	38	PDB header: transferase Chain: A: PDB Molecule: mast/stem cell growth factor receptor; PDBTitle: kit kinase domain in complex with sunitinib
19	c1lufA_	Alignment		100.0	36	PDB header: transferase Chain: A: PDB Molecule: muscle-specific tyrosine kinase receptor musk; PDBTitle: crystal structure of the musk tyrosine kinase: insights2 into receptor autoregulation
20	d1lufa_	Alignment		100.0	36	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
21	c3pfgA_	Alignment	not modelled	100.0	24	PDB header: transferase Chain: A: PDB Molecule: protein kinase c beta type; PDBTitle: crystal structure and allosteric activation of protein kinase c beta2 ii
22	c3dpkA_	Alignment	not modelled	100.0	39	PDB header: transferase Chain: A: PDB Molecule: macrophage colony-stimulating factor 1 receptor; PDBTitle: cfms tyrosine kinase in complex with a pyridopyrimidinone2 inhibitor
23	c2pvfA_	Alignment	not modelled	100.0	37	PDB header: transferase Chain: A: PDB Molecule: fibroblast growth factor receptor 2; PDBTitle: crystal structure of tyrosine phosphorylated activated fgf receptor 22 (fgfr2) kinase domain in complex with atp analog and substrate3 peptide
24	c2acxB_	Alignment	not modelled	100.0	24	PDB header: transferase Chain: B: PDB Molecule: g protein-coupled receptor kinase 6; PDBTitle: crystal structure of g protein coupled receptor kinase 6 bound to2 amppnp
25	c3ckxA_	Alignment	not modelled	100.0	26	PDB header: transferase Chain: A: PDB Molecule: serine/threonine-protein kinase 24; PDBTitle: crystal structure of sterile 20-like kinase 3 (mst3, stk24)2 in complex with staurosporine
26	c2vwiC_	Alignment	not modelled	100.0	29	PDB header: transferase Chain: C: PDB Molecule: serine/threonine-protein kinase osr1; PDBTitle: structure of the osr1 kinase, a hypertension drug target
27	d2psqa1	Alignment	not modelled	100.0	37	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
28	c2psqA_	Alignment	not modelled	100.0	37	PDB header: transferase Chain: A: PDB Molecule: fibroblast growth factor receptor 2; PDBTitle: crystal structure of unphosphorylated unactivated wild

						type2 fgf receptor 2 (fgfr2) kinase domain
29	d3bu3a1	Alignment	not modelled	100.0	40	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
30	c3qa8A	Alignment	not modelled	100.0	25	PDB header: immune system, signaling protein Chain: A: PDB Molecule: mgc80376 protein; PDBTitle: crystal structure of inhibitor of kappa b kinase beta
31	d1sm2a	Alignment	not modelled	100.0	45	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
32	d1t46a	Alignment	not modelled	100.0	39	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
33	d2j4za1	Alignment	not modelled	100.0	22	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
34	c3plsA	Alignment	not modelled	100.0	37	PDB header: transferase Chain: A: PDB Molecule: macrophage-stimulating protein receptor; PDBTitle: ron in complex with ligand amp-pnp
35	c3c4yA	Alignment	not modelled	100.0	22	PDB header: transferase Chain: A: PDB Molecule: rhodopsin kinase; PDBTitle: crystal structure of apo form of g protein coupled receptor kinase 12 at 7.51a
36	c3lxaA	Alignment	not modelled	100.0	36	PDB header: transferase Chain: A: PDB Molecule: tyrosine-protein kinase jak3; PDBTitle: structural and thermodynamic characterization of the tyk2 and jak32 kinase domains in complex with cp-690550 and cmp-6
37	c1ym7C	Alignment	not modelled	100.0	20	PDB header: transferase Chain: C: PDB Molecule: beta-adrenergic receptor kinase 1; PDBTitle: g protein-coupled receptor kinase 2 (grk2)
38	d1xbba	Alignment	not modelled	100.0	38	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
39	c2c30A	Alignment	not modelled	100.0	24	PDB header: transferase Chain: A: PDB Molecule: serine/threonine-protein kinase pak 6; PDBTitle: crystal structure of the human p21-activated kinase 6
40	c1koaA	Alignment	not modelled	100.0	26	PDB header: kinase Chain: A: PDB Molecule: twitchin; PDBTitle: twitchin kinase fragment (c.elegans), autoregulated protein2 kinase and immunoglobulin domains
41	d1mp8a	Alignment	not modelled	100.0	38	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
42	c3eygA	Alignment	not modelled	100.0	33	PDB header: transferase Chain: A: PDB Molecule: tyrosine-protein kinase; PDBTitle: crystal structures of jak1 and jak2 inhibitor complexes
43	d1fgka	Alignment	not modelled	100.0	36	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
44	c3lvpD	Alignment	not modelled	100.0	39	PDB header: transferase Chain: D: PDB Molecule: insulin-like growth factor 1 receptor; PDBTitle: crystal structure of bisphosphorylated igf1-r kinase domain (2p) in2 complex with a bis-azaindole inhibitor
45	c3l9pA	Alignment	not modelled	100.0	37	PDB header: transferase Chain: A: PDB Molecule: anaplastic lymphoma kinase; PDBTitle: crystal structure of the anaplastic lymphoma kinase catalytic domain
46	d1p4oa	Alignment	not modelled	100.0	38	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
47	d1uwha	Alignment	not modelled	100.0	36	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
48	c3sxaA	Alignment	not modelled	100.0	43	PDB header: transferase/transferase inhibitor Chain: A: PDB Molecule: cytoplasmic tyrosine-protein kinase bmx; PDBTitle: crystal structure of bmx non-receptor tyrosine kinase complex with2 dasatinib
49	c3q5iA	Alignment	not modelled	100.0	27	PDB header: transferase Chain: A: PDB Molecule: protein kinase; PDBTitle: crystal structure of pbanka_031420
50	c1yviA	Alignment	not modelled	100.0	35	PDB header: transferase Chain: A: PDB Molecule: tyrosine-protein kinase jak3; PDBTitle: crystal structure of the jak3 kinase domain in complex with2 a staurosporine analogue
51	c3soaA	Alignment	not modelled	100.0	22	PDB header: transferase/transferase inhibitor Chain: A: PDB Molecule: calcium/calmodulin-dependent protein kinase type ii subunit PDBTitle: full-length human camkii
52	c2bujA	Alignment	not modelled	100.0	23	PDB header: transferase Chain: A: PDB Molecule: serine/threonine-protein kinase 16; PDBTitle: crystal structure of the human serine-threonine kinase 162 in complex with staurosporine
53	c2wtkC	Alignment	not modelled	100.0	25	PDB header: transferase/metal-binding protein Chain: C: PDB Molecule: serine/threonine-protein kinase 11; PDBTitle: structure of the heterotrimeric lkb1-stradalpha-mo25alpha2 complex
54	c3cc6A	Alignment	not modelled	100.0	37	PDB header: transferase Chain: A: PDB Molecule: protein tyrosine kinase 2 beta; PDBTitle: crystal structure of kinase domain of protein tyrosine kinase 2 beta2 (ptk2b)
						Fold: Protein kinase-like (PK-like)

55	dljpa_	Alignment	not modelled	100.0	41	Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
56	c3fupB_	Alignment	not modelled	100.0	32	PDB header: transferase Chain: B: PDB Molecule: tyrosine-protein kinase jak2; PDBTitle: crystal structures of jak1 and jak2 inhibitor complexes
57	c3d4qA_	Alignment	not modelled	100.0	36	PDB header: transferase Chain: A: PDB Molecule: b-raf proto-oncogene serine/threonine-protein kinase; PDBTitle: pyrazole-based inhibitors of b-raf kinase
58	c3v5qB_	Alignment	not modelled	100.0	35	PDB header: transferase/transferase inhibitor Chain: B: PDB Molecule: int-3 growth factor receptor; PDBTitle: discovery of a selective trk inhibitor with efficacy in rodent cancer2 tumor models
59	c2w1iB_	Alignment	not modelled	100.0	32	PDB header: transferase Chain: B: PDB Molecule: jak2; PDBTitle: structure determination of aurora kinase in complex with2 inhibitor
60	d1yhwa1	Alignment	not modelled	100.0	22	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
61	c2a1aB_	Alignment	not modelled	100.0	21	PDB header: protein synthesis/transferase Chain: B: PDB Molecule: interferon-induced, double-stranded rna-activated protein PDBTitle: pkr kinase domain-eif2alpha complex
62	d1mqba_	Alignment	not modelled	100.0	42	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
63	c3lijA_	Alignment	not modelled	100.0	27	PDB header: transferase Chain: A: PDB Molecule: calcium/calmodulin dependent protein kinase with PDBTitle: crystal structure of full length cpcdpk3 (cgd5_820) in2 complex with ca2+ and amppnp
64	d1xkka_	Alignment	not modelled	100.0	34	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
65	c1xkka_	Alignment	not modelled	100.0	34	PDB header: transferase Chain: A: PDB Molecule: epidermal growth factor receptor; PDBTitle: egfr kinase domain complexed with a quinazoline inhibitor-2 gw572016
66	d1rjba_	Alignment	not modelled	100.0	40	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
67	c2bmcD_	Alignment	not modelled	100.0	22	PDB header: transferase Chain: D: PDB Molecule: serine threonine-protein kinase 6; PDBTitle: aurora-2 t287d t288d complexed with pha-680632
68	d1phka_	Alignment	not modelled	100.0	22	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
69	d1fvra_	Alignment	not modelled	100.0	36	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
70	c3lxnA_	Alignment	not modelled	100.0	35	PDB header: transferase Chain: A: PDB Molecule: non-receptor tyrosine-protein kinase tyk2; PDBTitle: structural and thermodynamic characterization of the tyk2 and jak32 kinase domains in complex with cp-690550 and cmp-6
71	c3fbvL_	Alignment	not modelled	100.0	27	PDB header: transferase, hydrolase Chain: L: PDB Molecule: serine/threonine-protein kinase/endoribonuclease ire1; PDBTitle: crystal structure of the oligomer formed by the kinase-ribonuclease2 domain of ire1
72	c2clqA_	Alignment	not modelled	100.0	24	PDB header: transferase Chain: A: PDB Molecule: mitogen-activated protein kinase kinase kinase 5; PDBTitle: structure of mitogen-activated protein kinase kinase kinase2 5
73	c2j51A_	Alignment	not modelled	100.0	24	PDB header: transferase Chain: A: PDB Molecule: ste20-like serine/threonine-protein kinase; PDBTitle: crystal structure of human ste20-like kinase bound to 5-2 amino-3-((4-(aminosulfonyl)phenyl)amino)-n-(2,6-3 difluorophenyl)-1h-1,2,4-triazole-1-carbothioamide
74	c3dfaA_	Alignment	not modelled	100.0	26	PDB header: transferase Chain: A: PDB Molecule: calcium-dependent protein kinase cgd3_920; PDBTitle: crystal structure of kinase domain of calcium-dependent protein kinase2 cgd3_920 from cryptosporidium parvum
75	c2qobA_	Alignment	not modelled	100.0	40	PDB header: transferase Chain: A: PDB Molecule: ephrin receptor; PDBTitle: human epha3 kinase domain, base structure
76	d1byga_	Alignment	not modelled	100.0	48	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
77	d2jfla1	Alignment	not modelled	100.0	23	Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
78	c3d9vA_	Alignment	not modelled	100.0	23	PDB header: transferase Chain: A: PDB Molecule: rho-associated protein kinase 1; PDBTitle: crystal structure of rock i bound to h-1152p a di-2 methylated variant of fasudil
79	c1mruB_	Alignment	not modelled	100.0	29	PDB header: transferase Chain: B: PDB Molecule: probable serine/threonine-protein kinase pknb; PDBTitle: intracellular ser/thr protein kinase domain of2

					mycobacterium tuberculosis pknb. PDB header: transferase Chain: B: PDB Molecule: phosphorylase b kinase gamma catalytic chain, PDBTitle: structure of human phosphorylase kinase, gamma 2
80	c2y7jB_	Alignment	not modelled	100.0	20
81	c2qg5D_	Alignment	not modelled	100.0	23
82	d1ckia_	Alignment	not modelled	100.0	21
83	c2a27B_	Alignment	not modelled	100.0	22
84	c2cgvA_	Alignment	not modelled	100.0	24
85	c2wqmA_	Alignment	not modelled	100.0	22
86	c3p86B_	Alignment	not modelled	100.0	33
87	d1jksa_	Alignment	not modelled	100.0	25
88	c3hztA_	Alignment	not modelled	100.0	28
89	c3k54A_	Alignment	not modelled	100.0	40
90	c3p23B_	Alignment	not modelled	100.0	24
91	c3comB_	Alignment	not modelled	100.0	24
92	c1xjdA_	Alignment	not modelled	100.0	23
93	d1xjda_	Alignment	not modelled	100.0	23
94	c2bdwB_	Alignment	not modelled	100.0	22
95	d1o6va_	Alignment	not modelled	100.0	29
96	c3dtcA_	Alignment	not modelled	100.0	34
97	c2vd5A_	Alignment	not modelled	100.0	22
98	c2zv2A_	Alignment	not modelled	100.0	25
99	c2chlA_	Alignment	not modelled	100.0	21
100	c2r5tA_	Alignment	not modelled	100.0	23
101	c2pziA_	Alignment	not modelled	100.0	22
102	d1koba_	Alignment	not modelled	100.0	22
103	c3brbB_	Alignment	not modelled	100.0	36

					oncogene tyrosine-2 protein kinase mer in complex with adp
104	c2wtkB_	Alignment	not modelled	100.0	22 PDB header: transferase/metal-binding protein Chain: B: PDB Molecule: ste20-related kinase adapter protein alpha; PDBTitle: structure of the heterotrimeric Ikb1-stradalphamo25alpha2 complex
105	c2ya9A_	Alignment	not modelled	100.0	22 PDB header: transferase Chain: A: PDB Molecule: death-associated protein kinase 2; PDBTitle: crystal structure of the autoinhibited form of mouse dapk2
106	d1nvra_	Alignment	not modelled	100.0	24 Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
107	c2qluA_	Alignment	not modelled	100.0	23 PDB header: transferase Chain: A: PDB Molecule: activin receptor type iib; PDBTitle: crystal structure of activin receptor type ii kinase domain2 from human
108	d1uu3a_	Alignment	not modelled	100.0	23 Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
109	d1u46a_	Alignment	not modelled	100.0	39 Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
110	c2r7bA_	Alignment	not modelled	100.0	24 PDB header: signaling protein, transferase Chain: A: PDB Molecule: phosphoinositide-dependent protein kinase 1; PDBTitle: crystal structure of the phosphoinositide-dependent kinase-2 1 (pdk-1)catalytic domain bound to a dibenzonaphthridine3 inhibitor
111	c2x4fA_	Alignment	not modelled	100.0	25 PDB header: transferase Chain: A: PDB Molecule: myosin light chain kinase family member 4; PDBTitle: the crystal structure of the human myosin light chain2 kinase loc340156.
112	c2c47D_	Alignment	not modelled	100.0	20 PDB header: transferase Chain: D: PDB Molecule: casein kinase 1 gamma 2 isoform; PDBTitle: structure of casein kinase 1 gamma 2
113	c1kobB_	Alignment	not modelled	100.0	22 PDB header: kinase Chain: B: PDB Molecule: twitchin; PDBTitle: twitchin kinase fragment (aplysia), autoregulated protein2 kinase domain
114	d1koaa2	Alignment	not modelled	100.0	26 Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
115	c2vz6A_	Alignment	not modelled	100.0	23 PDB header: transferase Chain: A: PDB Molecule: calcium calmodulin dependent protein kinase type ii alpha PDBTitle: structure of human calcium calmodulin dependent protein2 kinase type ii alpha (camk2a) in complex with indirubin3 e804
116	c2h6dA_	Alignment	not modelled	100.0	28 PDB header: signaling protein,transferase Chain: A: PDB Molecule: 5'-amp-activated protein kinase catalytic subunit PDBTitle: protein kinase domain of the human 5'-amp-activated protein2 kinase catalytic subunit alpha-2 (ampk alpha-2 chain)
117	c2qofA_	Alignment	not modelled	100.0	39 PDB header: transferase Chain: A: PDB Molecule: ephrin receptor; PDBTitle: human epha3 kinase and juxtamembrane region, y596f mutant
118	d1o6la_	Alignment	not modelled	100.0	20 Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
119	d1ywna1	Alignment	not modelled	100.0	35 Fold: Protein kinase-like (PK-like) Superfamily: Protein kinase-like (PK-like) Family: Protein kinases, catalytic subunit
120	c3gupA_	Alignment	not modelled	100.0	38 PDB header: transferase/transferase inhibitor Chain: A: PDB Molecule: tyrosine-protein kinase receptor tyro3; PDBTitle: inhibitor bound structure of the kinase domain of the murine receptor2 tyrosine kinase tyro3 (sky)