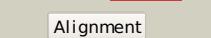
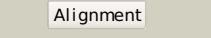


Phyre²

Email	I.a.kelley@imperial.ac.uk
Description	P76330
Date	Thu Jan 5 12:21:53 GMT 2012
Unique Job ID	de78e33ef15407a0

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1w25B_			100.0	34	PDB header: signaling protein Chain: B; PDB Molecule: stalked-cell differentiation controlling protein; PDBTitle: response regulator pled in complex with c-digmp
2	c3ezuA_			100.0	31	PDB header: signaling protein Chain: A; PDB Molecule: ggdef domain protein; PDBTitle: crystal structure of multidomain protein of unknown function with2 ggdef-domain (np_951600.1) from geobacter sulfurreducens at 1.95 a3 resolution
3	c3breA_			100.0	30	PDB header: signaling protein Chain: A; PDB Molecule: probable two-component response regulator; PDBTitle: crystal structure of p.aeruginosa pa3702
4	c3i5aA_			100.0	31	PDB header: signaling protein Chain: A; PDB Molecule: response regulator/ggdef domain protein; PDBTitle: crystal structure of full-length wpsr from pseudomonas syringae
5	c3i5cA_			100.0	31	PDB header: signaling protein Chain: A; PDB Molecule: fusion of general control protein gcn4 and wspR response PDBTitle: crystal structure of a fusion protein containing the leucine zipper of2 gcn4 and the ggdef domain of wspR from pseudomonas aeruginosa
6	c3i5bA_			100.0	34	PDB header: signaling protein Chain: A; PDB Molecule: wpsr response regulator; PDBTitle: crystal structure of the isolated ggdef domain of wpsr from2 pseudomonas aeruginosa
7	c3ignA_			100.0	35	PDB header: transferase Chain: A; PDB Molecule: diguanylate cyclase; PDBTitle: crystal structure of the ggdef domain from marinobacter2 aquaeolei diguanylate cyclase complexed with c-di-gmp -3 northeast structural genomics consortium target mqr89a
8	c3hvaA_			100.0	19	PDB header: transferase Chain: A; PDB Molecule: protein fimX; PDBTitle: crystal structure of fimX ggdef domain from pseudomonas2 aeruginosa
9	c3qyyB_			100.0	31	PDB header: signaling protein/inhibitor Chain: B; PDB Molecule: response regulator; PDBTitle: a novel interaction mode between a microbial ggdef domain and the bis-2 (3, 5)-cyclic di-gmp
10	c3icIA_			100.0	33	PDB header: structural genomics, unknown function Chain: A; PDB Molecule: eal/ggdef domain protein; PDBTitle: x-ray structure of protein (eal/ggdef domain protein) from2 m.capsulatus, northeast structural genomics consortium3 target mcr174c
11	d1w25a3			100.0	38	Fold: Ferrodoxin-like Superfamily: Nucleotide cyclase Family: GGDEF domain

12	c3mtkA		100.0	21	PDB header: transferase Chain: A: PDB Molecule: diguanylate cyclase/phosphodiesterase; PDBTitle: x-ray structure of diguanylate cyclase/phosphodiesterase from2 caldicellulosiruptor saccharolyticus, northeast structural genomics3 consortium target clr27c
13	c3pjwA		100.0	21	PDB header: lyase Chain: A: PDB Molecule: cyclic dimeric gmp binding protein; PDBTitle: structure of pseudomonas fluorescence lapd ggdef-eal dual domain, i23
14	c3hvwA		100.0	16	PDB header: lyase Chain: A: PDB Molecule: diguanylate-cyclase (dgc); PDBTitle: crystal structure of the ggdef domain of the pa2567 protein2 from pseudomonas aeruginosa, northeast structural genomics3 consortium target par365c
15	c3gfzB		99.8	10	PDB header: hydrolase, signaling protein Chain: B: PDB Molecule: klebsiella pneumoniae blrp1; PDBTitle: klebsiella pneumoniae blrp1 ph 6 manganese/cy-digmp complex
16	c3p7nB		99.0	10	PDB header: dna binding protein Chain: B: PDB Molecule: sensor histidine kinase; PDBTitle: crystal structure of light activated transcription factor el222 from2 erythrobacter litoralis
17	c3liaA		98.0	12	PDB header: signaling protein Chain: A: PDB Molecule: hypothetical sensory transduction histidine kinase; PDBTitle: crystal structure of the extracellular domain of the putative2 histidine kinase mmhk1s-z2
18	c3libA		98.0	10	PDB header: signaling protein Chain: A: PDB Molecule: hypothetical sensory transduction histidine kinase; PDBTitle: crystal structure of the extracellular domain of the putative2 histidine kinase mmhk1s-z3
19	c2p7jA		97.6	14	PDB header: transcription Chain: A: PDB Molecule: putative sensory box/ggdef family protein; PDBTitle: crystal structure of the domain of putative sensory box/ggdef family2 protein from vibrio parahaemolyticus
20	c3licA		97.6	11	PDB header: signaling protein Chain: A: PDB Molecule: sensor protein; PDBTitle: crystal structure of the extracellular domain of the putative2 histidine kinase sohk1s-z6
21	c3c8cB	Alignment	not modelled	97.3	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: methyl-accepting chemotaxis protein; PDBTitle: crystal structure of mcp_n and cache domains of methyl-2 accepting chemotaxis protein from vibrio cholerae
22	c2qv6D	Alignment	not modelled	97.3	PDB header: hydrolase Chain: D: PDB Molecule: gtp cyclohydrolase iii; PDBTitle: gtp cyclohydrolase iii from m. jannaschii (mj0145)2 complexed with gtp and metal ions
23	c3fosA	Alignment	not modelled	97.3	PDB header: transferase Chain: A: PDB Molecule: sensor protein; PDBTitle: crystal structure of two-component sensor histidine kinase domain from2 bacillus subtilis subsp. subtilis str. 168
24	c3e4pB	Alignment	not modelled	97.0	PDB header: transferase Chain: B: PDB Molecule: c4-dicarboxylate transport sensor protein dctb; PDBTitle: crystal structure of malonate occupied dctb
25	c3lifA	Alignment	not modelled	97.0	PDB header: signaling protein Chain: A: PDB Molecule: putative diguanylate cyclase (ggdef) with pas/pac domain; PDBTitle: crystal structure of the extracellular domain of the putative2 histidine kinase rphk1s-z16
26	c1cjkA	Alignment	not modelled	96.9	PDB header: lyase/lyase/signaling protein Chain: A: PDB Molecule: adenylate cyclase, type v; PDBTitle: complex of gs-alpha with the catalytic domains of mammalian adenylyl2 cyclase; complex with adenosine 5'-(<alpha (rp),3="" <="" and="" mg,="" mn="" td="" thio)-triphosphate=""></alpha>
27	d1azsa	Alignment	not modelled	96.7	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: Adenyllyl and guanylyl cyclase catalytic domain
28	c2w01C	Alignment	not modelled	96.2	PDB header: lyase Chain: C: PDB Molecule: adenylate cyclase;

						PDBTitle: crystal structure of the guanylyl cyclase cya2
29	c3by9A_	Alignment	not modelled	95.9	14	PDB header: transferase Chain: A: PDB Molecule: sensor protein; PDBTitle: crystal structure of the v. cholerae histidine kinase dctb2 sensor domain
30	d1wc1a_	Alignment	not modelled	95.9	14	Fold: Ferrodoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
31	c3mr7B_	Alignment	not modelled	95.8	13	PDB header: hydrolase Chain: B: PDB Molecule: adenylate/guanylate cyclase/hydrolase, alpha/beta fold PDBTitle: crystal structure of adenylate/guanylate cyclase/hydrolase from2 silicibacter pomeroyi
32	c1wc6B_	Alignment	not modelled	95.7	15	PDB header: lyase Chain: B: PDB Molecule: adenylate cyclase; PDBTitle: soluble adenylyl cyclase cyac from s. platensis in complex2 with rp-atp alphas in presence of bicarbonate
33	d1fx2a_	Alignment	not modelled	95.4	14	Fold: Ferrodoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
34	c3uvjC_	Alignment	not modelled	94.8	15	PDB header: lyase Chain: C: PDB Molecule: guanylate cyclase soluble subunit alpha-3; PDBTitle: crystal structure of the catalytic domain of the heterodimeric human2 soluble guanylate cyclase 1.
35	d2p7ja2	Alignment	not modelled	94.1	15	Fold: Profilin-like Superfamily: Sensory domain-like Family: Ykul C-terminal domain-like
36	c1yk9A_	Alignment	not modelled	93.5	11	PDB header: lyase Chain: A: PDB Molecule: adenylate cyclase; PDBTitle: crystal structure of a mutant form of the mycobacterial2 adenylyl cyclase rv1625c
37	c1y10C_	Alignment	not modelled	93.5	12	PDB header: lyase Chain: C: PDB Molecule: hypothetical protein rv1264/mt1302; PDBTitle: mycobacterial adenylyl cyclase rv1264, holoenzyme, inhibited state
38	c1ybua_	Alignment	not modelled	92.9	13	PDB header: hydrolase Chain: A: PDB Molecule: lipj; PDBTitle: mycobacterium tuberculosis adenylyl cyclase rv1900c chd, in complex2 with a substrate analog.
39	c3r5gB_	Alignment	not modelled	92.9	17	PDB header: lyase Chain: B: PDB Molecule: cyab; PDBTitle: crystal structure of the adenylyl cyclase cyab from p. aeruginosa
40	d1fx4a_	Alignment	not modelled	92.5	27	Fold: Ferrodoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
41	c2aq4A_	Alignment	not modelled	88.6	20	PDB header: transferase Chain: A: PDB Molecule: dna repair protein rev1; PDBTitle: ternary complex of the catalytic core of rev1 with dna and dctp.
42	c3et6A_	Alignment	not modelled	86.9	11	PDB header: lyase Chain: A: PDB Molecule: soluble guanylyl cyclase beta; PDBTitle: the crystal structure of the catalytic domain of a eukaryotic2 guanylyl cyclase
43	c3ongB_	Alignment	not modelled	86.5	10	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: regulator of polyketide synthase expression; PDBTitle: crystal structure of regulator of polyketide synthase expression2 bad_0249 from bifidobacterium adolescentis
44	c1k1qA_	Alignment	not modelled	80.3	25	PDB header: transcription Chain: A: PDB Molecule: dbh protein; PDBTitle: crystal structure of a dinb family error prone dna2 polymerase from sulfolobus solfataricus
45	c3mr2A_	Alignment	not modelled	79.7	31	PDB header: transferase/dna Chain: A: PDB Molecule: dna polymerase eta; PDBTitle: human dna polymerase eta in complex with normal dna and incoming2 nucleotide (nrm)
46	d2basa2	Alignment	not modelled	79.5	14	Fold: Profilin-like Superfamily: Sensory domain-like Family: Ykul C-terminal domain-like
47	c1s97D_	Alignment	not modelled	78.6	25	PDB header: transferase/dna Chain: D: PDB Molecule: dna polymerase iv; PDBTitle: dpo4 with gt mismatch
48	c3gqcB_	Alignment	not modelled	76.8	20	PDB header: transferase/dna Chain: B: PDB Molecule: dna repair protein rev1; PDBTitle: structure of human rev1-dna-dntp ternary complex
49	c2wz1B_	Alignment	not modelled	76.8	9	PDB header: lyase Chain: B: PDB Molecule: guanylyl cyclase soluble subunit beta-1; PDBTitle: structure of the catalytic domain of human soluble2 guanylyl cyclase 1 beta 3.
50	d1jx4a2	Alignment	not modelled	74.5	21	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
51	c2r8kB_	Alignment	not modelled	74.0	30	PDB header: replication, transferase/dna Chain: B: PDB Molecule: dna polymerase eta; PDBTitle: structure of the eukaryotic dna polymerase eta in complex with 1,2-2 d(gpp)-cisplatin containing dna
52	d1im4a_	Alignment	not modelled	71.5	25	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
53	d1azsb_	Alignment	not modelled	70.0	13	Fold: Ferrodoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain

54	d1k1sa2	Alignment	not modelled	66.7	25	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
55	c2oh2B_	Alignment	not modelled	66.6	23	PDB header: transferase/dna Chain: B: PDB Molecule: dna polymerase kappa; PDBTitle: ternary complex of human dna polymerase
56	c1jihA_	Alignment	not modelled	65.9	30	PDB header: translation Chain: A: PDB Molecule: dna polymerase eta; PDBTitle: yeast dna polymerase eta
57	d1jiha2	Alignment	not modelled	59.0	30	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
58	d1gx1a_	Alignment	not modelled	56.9	14	Fold: Bacillus chorismate mutase-like Superfamily: IpsF-like Family: IpsF-like
59	c2flIA_	Alignment	not modelled	55.5	31	PDB header: replication/dna Chain: A: PDB Molecule: dna polymerase iota; PDBTitle: ternary complex of human dna polymerase iota with dna and dttp
60	d1t0aa_	Alignment	not modelled	50.7	15	Fold: Bacillus chorismate mutase-like Superfamily: IpsF-like Family: IpsF-like
61	c3f0gA_	Alignment	not modelled	48.8	9	PDB header: lyase Chain: A: PDB Molecule: 2-c-methyl-d-erythritol 2,4-cyclodiphosphate synthase; PDBTitle: co-crystal structure of 2c-methyl-d-erythritol 2,4-cyclodiphosphate synthase with cmp
62	c1t3nB_	Alignment	not modelled	48.8	21	PDB header: replication/dna Chain: B: PDB Molecule: polymerase (dna directed) iota; PDBTitle: structure of the catalytic core of dna polymerase iota in2 complex with dna and dttp
63	d1w55a2	Alignment	not modelled	47.8	20	Fold: Bacillus chorismate mutase-like Superfamily: IpsF-like Family: IpsF-like
64	c3oheA_	Alignment	not modelled	47.0	13	PDB header: hydrolase Chain: A: PDB Molecule: histidine triad (hit) protein; PDBTitle: crystal structure of a histidine triad protein (maqu_1709) from2 marinobacter aquaeolei vt8 at 1.20 a resolution
65	d1iv3a_	Alignment	not modelled	43.7	14	Fold: Bacillus chorismate mutase-like Superfamily: IpsF-like Family: IpsF-like
66	c2pmpA_	Alignment	not modelled	43.3	17	PDB header: lyase Chain: A: PDB Molecule: 2-c-methyl-d-erythritol 2,4-cyclodiphosphate synthase; PDBTitle: structure of 2c-methyl-d-erythritol 2,4-cyclodiphosphate synthase from2 the isoprenoid biosynthetic pathway of arabidopsis thaliana
67	c3l7xA_	Alignment	not modelled	37.0	17	PDB header: cell cycle Chain: A: PDB Molecule: putative hit-like protein involved in cell-cycle PDBTitle: the crystal structure of smu.412c from streptococcus mutans ua159
68	c3p0tB_	Alignment	not modelled	34.6	15	PDB header: unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of an hit-like protein from mycobacterium2 paratuberculosis
69	c3i24B_	Alignment	not modelled	34.1	15	PDB header: hydrolase Chain: B: PDB Molecule: hit family hydrolase; PDBTitle: crystal structure of a hit family hydrolase protein from2 vibrio fischeri. northeast structural genomics consortium3 target id vfr176
70	c1t94B_	Alignment	not modelled	33.0	21	PDB header: replication Chain: B: PDB Molecule: polymerase (dna directed) kappa; PDBTitle: crystal structure of the catalytic core of human dna2 polymerase kappa
71	d2o5aa1	Alignment	not modelled	28.7	21	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: lojap/YbeB-like
72	d1y23a_	Alignment	not modelled	28.2	12	Fold: HIT-like Superfamily: HIT-like Family: HIT (HINT, histidine triad) family of protein kinase-interacting proteins
73	d1yht1	Alignment	not modelled	25.2	13	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: beta-N-acetylhexosaminidase catalytic domain
74	c1xaxA_	Alignment	not modelled	23.7	15	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical upf0054 protein hi0004; PDBTitle: nmr structure of hi0004, a putative essential gene product2 from haemophilus influenzae
75	c2ylaA_	Alignment	not modelled	23.5	7	PDB header: hydrolase Chain: A: PDB Molecule: beta-n-acetylhexosaminidase; PDBTitle: inhibition of the pneumococcal virulence factor strh and2 molecular insights into n-glycan recognition and3 hydrolysis
76	c2yl8A_	Alignment	not modelled	23.4	4	PDB header: hydrolase Chain: A: PDB Molecule: beta-n-acetylhexosaminidase; PDBTitle: inhibition of the pneumococcal virulence factor strh and2 molecular insights into n-glycan recognition and3 hydrolysis
77	c3imiB_	Alignment	not modelled	23.0	13	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: hit family protein; PDBTitle: 2.01 angstrom resolution crystal structure of a hit family protein2 from bacillus anthracis str. 'ames ancestor'
78	c1qgeE_	Alignment	not modelled	22.4	23	PDB header: hydrolase Chain: E: PDB Molecule: protein (triacylglycerol hydrolase); PDBTitle: new crystal form of pseudomonas glumiae (formerly chromobacterium2 viscosum atcc 6918) lipase
						Fold: TIM beta/alpha-barrel

79	d1vr6a1	Alignment	not modelled	22.0	18	Superfamily: Aldolase Family: Class I DAHP synthetase
80	c3rpmA	Alignment	not modelled	21.1	7	PDB header: hydrolase Chain: A: PDB Molecule: beta-n-acetyl-hexosaminidase; PDBTitle: crystal structure of the first gh20 domain of a novel beta-n-acetyl-2 hexosaminidase strh from streptococcus pneumoniae r6
81	d1vh8a	Alignment	not modelled	21.0	14	Fold: Bacillus chorismate mutase-like Superfamily: ipsF-like Family: ipsF-like
82	c3b6nA	Alignment	not modelled	20.8	11	PDB header: lyase Chain: A: PDB Molecule: 2-c-methyl-d-erythritol 2,4-cyclodiphosphate synthase PDBTitle: crystal structure of 2c-methyl-d-erythritol 2,4-2 cyclodiphosphate synthase pv003920 from plasmodium vivax
83	d2axta1	Alignment	not modelled	18.3	16	Fold: Bacterial photosystem II reaction centre, L and M subunits Superfamily: Bacterial photosystem II reaction centre, L and M subunits Family: Bacterial photosystem II reaction centre, L and M subunits
84	c3nrdB	Alignment	not modelled	17.9	17	PDB header: nucleotide binding protein Chain: B: PDB Molecule: histidine triad (hit) protein; PDBTitle: crystal structure of histidine triad (hit) protein (smc02904) from2 sinorhizobium meliloti 1021 at 2.06 a resolution
85	d1fi4a1	Alignment	not modelled	17.3	26	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: GHMP Kinase, N-terminal domain
86	c3fgeA	Alignment	not modelled	17.1	24	PDB header: oxidoreductase Chain: A: PDB Molecule: putative flavin reductase with split barrel domain; PDBTitle: crystal structure of putative flavin reductase with split barrel 2 domain (yp_750721.1) from shewanella frigidimarina ncimb 400 at 1.743 a resolution
87	d1l9bm	Alignment	not modelled	16.9	23	Fold: Bacterial photosystem II reaction centre, L and M subunits Superfamily: Bacterial photosystem II reaction centre, L and M subunits Family: Bacterial photosystem II reaction centre, L and M subunits
88	c2yf0A	Alignment	not modelled	16.7	11	PDB header: hydrolase Chain: A: PDB Molecule: myotubularin-related protein 6; PDBTitle: human myotubularin related protein 6 (mtmr6)
89	d1t94a2	Alignment	not modelled	16.5	30	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
90	d1leysl	Alignment	not modelled	16.4	26	Fold: Bacterial photosystem II reaction centre, L and M subunits Superfamily: Bacterial photosystem II reaction centre, L and M subunits Family: Bacterial photosystem II reaction centre, L and M subunits
91	d2i5nl1	Alignment	not modelled	16.3	32	Fold: Bacterial photosystem II reaction centre, L and M subunits Superfamily: Bacterial photosystem II reaction centre, L and M subunits Family: Bacterial photosystem II reaction centre, L and M subunits
92	d2axtd1	Alignment	not modelled	15.7	16	Fold: Bacterial photosystem II reaction centre, L and M subunits Superfamily: Bacterial photosystem II reaction centre, L and M subunits Family: Bacterial photosystem II reaction centre, L and M subunits
93	d2j8cl1	Alignment	not modelled	15.3	26	Fold: Bacterial photosystem II reaction centre, L and M subunits Superfamily: Bacterial photosystem II reaction centre, L and M subunits Family: Bacterial photosystem II reaction centre, L and M subunits
94	d2i5nm1	Alignment	not modelled	15.2	26	Fold: Bacterial photosystem II reaction centre, L and M subunits Superfamily: Bacterial photosystem II reaction centre, L and M subunits Family: Bacterial photosystem II reaction centre, L and M subunits
95	d1oz9a	Alignment	not modelled	15.1	13	Fold: Zincin-like Superfamily: Metalloproteases ("zincins"), catalytic domain Family: Predicted metal-dependent hydrolase
96	d1zsqa2	Alignment	not modelled	13.8	10	Fold: (Phosphotyrosine protein) phosphatases II Superfamily: (Phosphotyrosine protein) phosphatases II Family: Myotubularin-like phosphatases
97	d1leysm	Alignment	not modelled	13.8	26	Fold: Bacterial photosystem II reaction centre, L and M subunits Superfamily: Bacterial photosystem II reaction centre, L and M subunits Family: Bacterial photosystem II reaction centre, L and M subunits
98	d2j8cm1	Alignment	not modelled	13.7	23	Fold: Bacterial photosystem II reaction centre, L and M subunits Superfamily: Bacterial photosystem II reaction centre, L and M subunits Family: Bacterial photosystem II reaction centre, L and M subunits
99	c1m04A	Alignment	not modelled	13.6	10	PDB header: hydrolase Chain: A: PDB Molecule: beta-n-acetylhexosaminidase; PDBTitle: mutant streptomyces plicatus beta-hexosaminidase (d313n) in complex2 with product (glcnac)