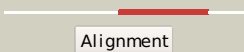
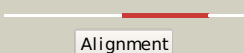
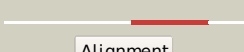
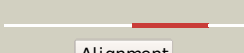
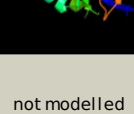


Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P75908
Date	Thu Jan 5 12:15:54 GMT 2012
Unique Job ID	1f6d82655f9b412d

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1w25B	 Alignment		100.0	32	PDB header: signaling protein Chain: B: PDB Molecule: stalked-cell differentiation controlling protein; PDBTitle: response regulator pled in complex with c-digmp
2	c3ezuA	 Alignment		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	 Alignment		100.0	27	PDB header: signaling protein Chain: A: PDB Molecule: probable two-component response regulator; PDBTitle: crystal structure of p.aeruginosa pa3702
4	c3i5aA	 Alignment		100.0	27	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	 Alignment		100.0	30	PDB header: signaling protein Chain: A: PDB Molecule: fusion of general control protein gcn4 and wpsr response PDBTitle: crystal structure of a fusion protein containing the leucine zipper of2 gcn4 and the ggdef domain of wpsr from pseudomonas aeruginosa
6	c3i5bA	 Alignment		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	 Alignment		100.0	39	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	d1w25a3	 Alignment		100.0	36	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: GGDEF domain
9	c3hvaA	 Alignment		100.0	18	PDB header: transferase Chain: A: PDB Molecule: protein fimx; PDBTitle: crystal structure of fimx ggdef domain from pseudomonas2 aeruginosa
10	c3icIA	 Alignment		100.0	30	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	c3qyyB	 Alignment		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

12	c3mtkA_	Alignment		100.0	22	PDB header: transferase Chain: A: PDB Molecule: diguanylate cyclase/phosphodiesterase; PDBTitle: x-ray structure of diguanylate cyclase/phosphodiesterase from2 caldicellulosi ruptor saccharolyticus, northeast structural genomics3 consortium target clr27c
13	c3pjwA_	Alignment		99.9	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_	Alignment		99.9	17	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	c3gfbB_	Alignment		99.4	8	PDB header: hydrolase, signaling protein Chain: B: PDB Molecule: klebsiella pneumoniae blrp1; PDBTitle: klebsiella pneumoniae blrp1 ph 6 manganese/cy-digmp complex
16	c3p7nB_	Alignment		98.2	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	c2qv6D_	Alignment		97.2	21	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
18	c1cjkA_	Alignment		95.6	11	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 thio)-triphosphate (rp),3 mg, and mn
19	dlfx2a_	Alignment		95.4	15	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
20	dlwc1a_	Alignment		95.0	15	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
21	c3mr7B_	Alignment	not modelled	94.7	15	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
22	c1wc6B_	Alignment	not modelled	94.5	14	PDB header: lyase Chain: B: PDB Molecule: adenylate cyclase; PDBTitle: soluble adenylyl cyclase cyac from s. platensis in complex2 with rp-atpalphas in presence of bicarbonate
23	dlazsa_	Alignment	not modelled	94.4	11	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
24	c2w01C_	Alignment	not modelled	94.0	13	PDB header: lyase Chain: C: PDB Molecule: adenylate cyclase; PDBTitle: crystal structure of the guanylyl cyclase cya2
25	c1ybuA_	Alignment	not modelled	93.6	17	PDB header: hydrolase Chain: A: PDB Molecule: lipj; PDBTitle: mycobacterium tuberculosis adenylyl cyclase rv1900c chd, in complex2 with a substrate analog.
26	dlfx4a_	Alignment	not modelled	93.3	22	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
27	c3uvjC_	Alignment	not modelled	92.1	11	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.
28	c2aq4A_	Alignment	not modelled	92.0	25	PDB header: transferase Chain: A: PDB Molecule: dna repair protein rev1; PDBTitle: ternary complex of the catalytic core of rev1 with dna

					and dctp.
29	c1yk9A_	Alignment	not modelled	91.5	14 PDB header: lyase Chain: A: PDB Molecule: adenylate cyclase; PDBTitle: crystal structure of a mutant form of the mycobacterial2 adenyllyl cyclase rv1625c
30	c1y10C_	Alignment	not modelled	89.8	13 PDB header: lyase Chain: C: PDB Molecule: hypothetical protein rv1264/mt1302; PDBTitle: mycobacterial adenyllyl cyclase rv1264, holoenzyme, inhibited state
31	c3gqcB_	Alignment	not modelled	85.9	27 PDB header: transferase/dna Chain: B: PDB Molecule: dna repair protein rev1; PDBTitle: structure of human rev1-dna-dntp ternary complex
32	c3et6A_	Alignment	not modelled	84.1	8 PDB header: lyase Chain: A: PDB Molecule: soluble guanylyl cyclase beta; PDBTitle: the crystal structure of the catalytic domain of a eukaryotic2 guanylate cyclase
33	dlazsb_	Alignment	not modelled	82.4	15 Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: Adenyllyl and guanylyl cyclase catalytic domain
34	dlim4a_	Alignment	not modelled	80.9	21 Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
35	c1s97D_	Alignment	not modelled	79.1	19 PDB header: transferase/dna Chain: D: PDB Molecule: dna polymerase iv; PDBTitle: dpo4 with gt mismatch
36	c1k1qA_	Alignment	not modelled	76.8	20 PDB header: transcription Chain: A: PDB Molecule: dbh protein; PDBTitle: crystal structure of a dinb family error prone dna2 polymerase from sulfolobus solfataricus
37	c3mr2A_	Alignment	not modelled	75.1	26 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)
38	c2r8kB_	Alignment	not modelled	75.0	25 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(gpg)-cisplatin containing dna
39	dlk1sa2	Alignment	not modelled	74.1	20 Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
40	c3onqB_	Alignment	not modelled	73.8	7 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
41	c3l7xA_	Alignment	not modelled	71.0	27 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
42	c1jihA_	Alignment	not modelled	70.5	25 PDB header: translation Chain: A: PDB Molecule: dna polymerase eta; PDBTitle: yeast dna polymerase eta
43	c2oh2B_	Alignment	not modelled	68.7	23 PDB header: transferase/dna Chain: B: PDB Molecule: dna polymerase kappa; PDBTitle: ternary complex of human dna polymerase
44	c3i24B_	Alignment	not modelled	67.7	16 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
45	c3l5aA_	Alignment	not modelled	64.4	19 PDB header: oxidoreductase Chain: A: PDB Molecule: nadh/flavin oxidoreductase/nadh oxidase; PDBTitle: crystal structure of a probable nadh-dependent flavin oxidoreductase2 from staphylococcus aureus
46	dljx4a2	Alignment	not modelled	62.9	20 Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
47	dljiha2	Alignment	not modelled	62.0	25 Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
48	c3p0tB_	Alignment	not modelled	58.6	13 PDB header: unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of an hit-like protein from mycobacterium2 paratuberculosis
49	c2wz1B_	Alignment	not modelled	54.8	12 PDB header: lyase Chain: B: PDB Molecule: guanylate cyclase soluble subunit beta-1; PDBTitle: structure of the catalytic domain of human soluble2 guanylate cyclase 1 beta 3.
50	c3l0oB_	Alignment	not modelled	53.3	24 PDB header: hydrolase Chain: B: PDB Molecule: transcription termination factor rho; PDBTitle: structure of rna-free rho transcription termination factor from2 thermotoga maritima
51	c1t3nB_	Alignment	not modelled	50.2	25 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
52	d2o5aa1	Alignment	not modelled	49.8	10 Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: Ioja/YbeB-like
53	c3nrdB_	Alignment	not modelled	49.0	22 PDB header: nucleotide binding protein Chain: B: PDB Molecule: histidine triad (hit) protein; PDBTitle: crystal structure of a histidine triad (hit) protein (smc02904) from2 sinorhizobium meliloti 1021 at 2.06 a resolution

54	dlgx1a_	Alignment	not modelled	47.9	14	Fold: Bacillus chorismate mutase-like Superfamily: lpsF-like Family: lpsF-like
55	c3oheA_	Alignment	not modelled	47.4	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
56	c3hf3A_	Alignment	not modelled	47.3	21	PDB header: oxidoreductase Chain: A: PDB Molecule: chromate reductase; PDBTitle: old yellow enzyme from thermus scotoductus sa-01
57	c1qgeE_	Alignment	not modelled	46.8	29	PDB header: hydrolase Chain: E: PDB Molecule: protein (triacylglycerol hydrolase); PDBTitle: new crystal form of pseudomonas glumae (formerly chromobacterium2 viscosum atcc 6918) lipase
58	dlxxaa_	Alignment	not modelled	45.8	16	Fold: DcoH-like Superfamily: C-terminal domain of arginine repressor Family: C-terminal domain of arginine repressor
59	c3imiB_	Alignment	not modelled	44.0	16	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'
60	c2filA_	Alignment	not modelled	42.6	23	PDB header: replication/dna Chain: A: PDB Molecule: dna polymerase iota; PDBTitle: ternary complex of human dna polymerase iota with dna and dttp
61	c2pmpA_	Alignment	not modelled	42.4	14	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
62	d1t94a2	Alignment	not modelled	41.9	30	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
63	d1t0aa_	Alignment	not modelled	40.4	17	Fold: Bacillus chorismate mutase-like Superfamily: lpsF-like Family: lpsF-like
64	c1t94B_	Alignment	not modelled	40.1	26	PDB header: replication Chain: B: PDB Molecule: polymerase (dna directed) kappa; PDBTitle: crystal structure of the catalytic core of human dna2 polymerase kappa
65	c3f0gA_	Alignment	not modelled	39.4	17	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-cyclodiphosphate2 synthase with cmp
66	d1w55a2	Alignment	not modelled	39.2	15	Fold: Bacillus chorismate mutase-like Superfamily: lpsF-like Family: lpsF-like
67	d1gwja_	Alignment	not modelled	38.8	21	Fold: TIM beta/alpha-barrel Superfamily: FMN-linked oxidoreductases Family: FMN-linked oxidoreductases
68	d1iv3a_	Alignment	not modelled	36.4	14	Fold: Bacillus chorismate mutase-like Superfamily: lpsF-like Family: lpsF-like
69	c2jroA_	Alignment	not modelled	33.3	17	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: solution nmr structure of so0334 from shewanella oneidensis. northeast2 structural genomics target sor75
70	c3k30B_	Alignment	not modelled	32.1	13	PDB header: oxidoreductase Chain: B: PDB Molecule: histamine dehydrogenase; PDBTitle: histamine dehydrogenase from nocardioodes simplex
71	d1y23a_	Alignment	not modelled	31.4	15	Fold: HIT-like Superfamily: HIT-like Family: HIT (HINT, histidine triad) family of protein kinase-interacting proteins
72	c3af5A_	Alignment	not modelled	29.2	15	PDB header: hydrolase Chain: A: PDB Molecule: putative uncharacterized protein ph1404; PDBTitle: the crystal structure of an archaeal cpsf subunit, ph1404 from2 pyrococcus horikoshii
73	d1ps9a1	Alignment	not modelled	29.0	17	Fold: TIM beta/alpha-barrel Superfamily: FMN-linked oxidoreductases Family: FMN-linked oxidoreductases
74	c3atyA_	Alignment	not modelled	28.1	21	PDB header: oxidoreductase Chain: A: PDB Molecule: prostaglandin f2a synthase; PDBTitle: crystal structure of tcoye
75	c3ksvA_	Alignment	not modelled	27.2	11	PDB header: unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: hypothetical protein from leishmania major
76	d2ox6a1	Alignment	not modelled	25.8	14	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: YdiL-like
77	c2zztA_	Alignment	not modelled	25.2	20	PDB header: transport protein Chain: A: PDB Molecule: putative uncharacterized protein; PDBTitle: crystal structure of the cytosolic domain of the cation2 diffusion facilitator family protein
78	c3nx3A_	Alignment	not modelled	24.9	21	PDB header: transferase Chain: A: PDB Molecule: acetylornithine aminotransferase; PDBTitle: crystal structure of acetylornithine aminotransferase (argd) from2 campylobacter jejuni
79	c1ps9A_	Alignment	not modelled	24.9	17	PDB header: oxidoreductase Chain: A: PDB Molecule: 2,4-dienoyl-coa reductase; PDBTitle: the crystal structure and reaction mechanism of e. coli 2,4-2 dienoyl coa reductase

80	c3i4sB	Alignment	not modelled	24.7	18	PDB header: hydrolase Chain: B: PDB Molecule: histidine triad protein; PDBTitle: crystal structure of histidine triad protein blr8122 from2 bradyrhizobium japonicum
81	d1vh8a	Alignment	not modelled	24.5	20	Fold: Bacillus chorismate mutase-like Superfamily: lpsF-like Family: lpsF-like
82	c1xaxA	Alignment	not modelled	24.1	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
83	c3iyuY	Alignment	not modelled	23.4	17	PDB header: virus Chain: Y: PDB Molecule: outer capsid protein vp4; PDBTitle: atomic model of an infectious rotavirus particle
84	c3b6nA	Alignment	not modelled	22.4	16	PDB header: lyase Chain: A: PDB Molecule: 2-c-methyl-d-erythritol 2,4-cyclodiphosphate PDBTitle: crystal structure of 2c-methyl-d-erythritol 2,4-2 cyclodiphosphate synthase pv003920 from plasmodium vivax
85	c2eh6A	Alignment	not modelled	21.9	16	PDB header: transferase Chain: A: PDB Molecule: acetylornithine aminotransferase; PDBTitle: crystal structure of acetylornithine aminotransferase from aquifex2 aeolicus vf5
86	d1cm3a	Alignment	not modelled	21.5	14	Fold: HPr-like Superfamily: HPr-like Family: HPr-like
87	c3nuiA	Alignment	not modelled	20.9	10	PDB header: transferase Chain: A: PDB Molecule: pyruvate transaminase; PDBTitle: crystal structure of omega-transferase from vibrio fluvialis js17
88	d1z7da1	Alignment	not modelled	19.9	20	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: GABA-aminotransferase-like
89	d1iwga2	Alignment	not modelled	19.6	17	Fold: Ferredoxin-like Superfamily: Multidrug efflux transporter AcrB pore domain; PN1, PN2, PC1 and PC2 subdomains Family: Multidrug efflux transporter AcrB pore domain; PN1, PN2, PC1 and PC2 subdomains
90	c1w57A	Alignment	not modelled	19.5	20	PDB header: transferase Chain: A: PDB Molecule: ispd/ispf bifunctional enzyme; PDBTitle: structure of the bifunctional ispdf from campylobacter2 jejuni containing zn
91	c3upsA	Alignment	not modelled	19.4	13	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: iojap-like protein; PDBTitle: crystal structure of iojap-like protein from zymomonas mobilis
92	d1kdga2	Alignment	not modelled	19.1	46	Fold: FAD-linked reductases, C-terminal domain Superfamily: FAD-linked reductases, C-terminal domain Family: GMC oxidoreductases
93	d1xpua3	Alignment	not modelled	18.5	20	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain)
94	c1z5wA	Alignment	not modelled	18.3	15	PDB header: structural protein Chain: A: PDB Molecule: tubulin gamma-1 chain; PDBTitle: crystal structure of gamma-tubulin bound to gtp
95	c2hl2A	Alignment	not modelled	18.2	19	PDB header: ligase Chain: A: PDB Molecule: threonyl-trna synthetase; PDBTitle: crystal structure of the editing domain of threonyl-trna2 synthetase from pyrococcus abyssi in complex with an3 analog of seryladenylate
96	d1b4ba	Alignment	not modelled	18.0	9	Fold: DCoH-like Superfamily: C-terminal domain of arginine repressor Family: C-terminal domain of arginine repressor
97	c2ordA	Alignment	not modelled	17.6	10	PDB header: transferase Chain: A: PDB Molecule: acetylornithine aminotransferase; PDBTitle: crystal structure of acetylornithine aminotransferase (ec 2.6.1.11)2 (acoat) (tm1785) from thermotoga maritima at 1.40 a resolution
98	c2uzhB	Alignment	not modelled	17.6	14	PDB header: lyase Chain: B: PDB Molecule: 2c-methyl-d-erythritol 2,4-cyclodiphosphate PDBTitle: mycobacterium smegmatis 2c-methyl-d-erythritol-2,4-2 cyclodiphosphate synthase (ispf)
99	c3anoA	Alignment	not modelled	17.6	21	PDB header: transferase Chain: A: PDB Molecule: ap-4-a phosphorylase; PDBTitle: crystal structure of a novel diadenosine 5',5'''-p1,p4-tetraphosphate2 phosphorylase from mycobacterium tuberculosis h37rv