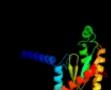


Phyre²

Email	i.a.kelley@imperial.ac.uk
Description	P0AAP1
Date	Thu Jan 5 11:13:24 GMT 2012
Unique Job ID	992dd48c0956d666

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1w25B_			100.0	28	PDB header: signaling protein Chain: B; PDB Molecule: stalked-cell differentiation controlling protein; PDBTitle: response regulator plef in complex with c-digmp
2	c3ezuA_			100.0	27	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	35	PDB header: signaling protein Chain: A; PDB Molecule: probable two-component response regulator; PDBTitle: crystal structure of p.aeruginosa pa3702
4	c3i5cA_			100.0	35	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
5	c3ignA_			100.0	38	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
6	c3i5aA_			100.0	32	PDB header: signaling protein Chain: A; PDB Molecule: response regulator/ggdef domain protein; PDBTitle: crystal structure of full-length wpsr from pseudomonas syringae
7	c3hvaA_			100.0	23	PDB header: transferase Chain: A; PDB Molecule: protein fimx; PDBTitle: crystal structure of fimx ggdef domain from pseudomonas2 aeruginosa
8	c3i5bA_			100.0	35	PDB header: signaling protein Chain: A; PDB Molecule: wpsr response regulator; PDBTitle: crystal structure of the isolated ggdef domain of wpsr from2 pseudomonas aeruginosa
9	c3icla_			100.0	29	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
10	c3qyyB_			100.0	32	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
11	d1w25a3			100.0	33	Fold: Ferrodoxin-like Superfamily: Nucleotide cyclase Family: GGDEF domain

12	c3mtkA			100.0	22	PDB header: transferase Chain: A: PDB Molecule: diguanilate cyclase/phosphodiesterase; PDBTitle: x-ray structure of diguanilate cyclase/phosphodiesterase from2 caldicellulosiruptor saccharolyticus, northeast structural genomics3 consortium target clr27c
13	c3pjwA			99.9	25	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			99.9	14	PDB header: lyase Chain: A: PDB Molecule: diguanilate-cyclase (dgc); PDBTitle: crystal structure of the ggdef domain of the pa2567 protein2 from pseudomonas aeruginosa, northeast structural genomics3 consortium target par365c
15	c3gfzB			99.4	14	PDB header: hydrolase, signaling protein Chain: B: PDB Molecule: klebsiella pneumoniae blrp1; PDBTitle: klebsiella pneumoniae blrp1 ph 6 manganese/cy-digmp complex
16	c3p7nB			98.2	8	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			96.0	18	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			95.0	13	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	dlazsa			94.8	13	Fold: Ferrodoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
20	c3mr7B			94.7	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
21	d1wc1a		not modelled	94.0	19	Fold: Ferrodoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
22	c2w01C		not modelled	93.9	14	PDB header: lyase Chain: C: PDB Molecule: adenylate cyclase; PDBTitle: crystal structure of the guanylyl cyclase cya2
23	c1y10C		not modelled	92.5	13	PDB header: lyase Chain: C: PDB Molecule: hypothetical protein rv1264/mt1302; PDBTitle: mycobacterial adenylyl cyclase rv1264, holoenzyme, inhibited state
24	c1wc6B		not modelled	91.0	19	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
25	c3uvjC		not modelled	90.9	19	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.
26	d1fx2a		not modelled	90.4	14	Fold: Ferrodoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
27	c1ybuA		not modelled	89.7	14	PDB header: hydrolase Chain: A: PDB Molecule: lip; PDBTitle: mycobacterium tuberculosis adenylyl cyclase rv1900c chd, in complex2 with a substrate analog.
28	c2wz1B		not modelled	89.5	9	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.
29	d1fx4a_	Alignment	not modelled	89.0	17	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: Adenyllyl and guanyllyl cyclase catalytic domain
30	c3et6A_	Alignment	not modelled	88.4	11	PDB header: lyase Chain: A: PDB Molecule: soluble guanyllyl cyclase beta; PDBTitle: the crystal structure of the catalytic domain of a eukaryotic2 guanyllyl cyclase
31	c1yk9A_	Alignment	not modelled	87.2	16	PDB header: lyase Chain: A: PDB Molecule: adenylate cyclase; PDBTitle: crystal structure of a mutant form of the mycobacterial2 adenyllyl cyclase rv1625c
32	c2aq4A_	Alignment	not modelled	81.6	18	PDB header: transferase Chain: A: PDB Molecule: dna repair protein rev1; PDBTitle: ternary complex of the catalytic core of rev1 with dna and dctp.
33	c3gqcB_	Alignment	not modelled	76.2	22	PDB header: transferase/dna Chain: B: PDB Molecule: dna repair protein rev1; PDBTitle: structure of human rev1-dna-dntp ternary complex
34	d1azsb_	Alignment	not modelled	73.6	12	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: Adenyllyl and guanyllyl cyclase catalytic domain
35	c3onqB_	Alignment	not modelled	67.3	11	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
36	d1im4a_	Alignment	not modelled	61.1	19	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
37	c1s97D_	Alignment	not modelled	57.2	16	PDB header: transferase/dna Chain: D: PDB Molecule: dna polymerase iv; PDBTitle: dpo4 with gt mismatch
38	c1k1qA_	Alignment	not modelled	52.1	17	PDB header: transcription Chain: A: PDB Molecule: dbh protein; PDBTitle: crystal structure of a dinb family error prone dna2 polymerase from sulfolobus solfataricus
39	c1jihA_	Alignment	not modelled	46.2	22	PDB header: translation Chain: A: PDB Molecule: dna polymerase eta; PDBTitle: yeast dna polymerase eta
40	c2oh2B_	Alignment	not modelled	39.5	20	PDB header: transferase/dna Chain: B: PDB Molecule: dna polymerase kappa; PDBTitle: ternary complex of human dna polymerase
41	c3mr2A_	Alignment	not modelled	38.4	22	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)
42	c2r8kB_	Alignment	not modelled	36.0	20	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
43	d1xxaa_	Alignment	not modelled	35.3	12	Fold: DCoH-like Superfamily: C-terminal domain of arginine repressor Family: C-terminal domain of arginine repressor
44	d1k1sa2	Alignment	not modelled	34.6	17	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
45	d1jiha2	Alignment	not modelled	34.1	12	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
46	d1gx1a_	Alignment	not modelled	33.2	17	Fold: Bacillus chorismate mutase-like Superfamily: ipsF-like Family: ipsF-like
47	d1jx4a2	Alignment	not modelled	29.8	15	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
48	d1w5sa2	Alignment	not modelled	29.6	12	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Extended AAA-ATPase domain
49	d1vh8a_	Alignment	not modelled	29.5	15	Fold: Bacillus chorismate mutase-like Superfamily: ipsF-like Family: ipsF-like
50	d1w55a2	Alignment	not modelled	24.1	13	Fold: Bacillus chorismate mutase-like Superfamily: ipsF-like Family: ipsF-like
51	d1j27a_	Alignment	not modelled	24.0	12	Fold: Ferredoxin-like Superfamily: Hypothetical protein TT1725 Family: Hypothetical protein TT1725
52	d1t0aa_	Alignment	not modelled	23.3	15	Fold: Bacillus chorismate mutase-like Superfamily: ipsF-like Family: ipsF-like
53	c1xaxA_	Alignment	not modelled	22.5	12	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
54	c3af5A_	Alignment	not modelled	21.7	10	PDB header: hydrolase Chain: A: PDB Molecule: putative uncharacterized protein ph1404; PDBTitle: the crystal structure of an archaeal cpsf subunit, ph1404 from2 pyrococcus horikoshii
						PDB header: hydrolase Chain: B: PDB Molecule: hit family hydrolase;

55	c3i24B_	Alignment	not modelled	21.3	18	PDBTitle: crystal structure of a hit family hydrolase protein from <i>vibrio fischeri</i> . northeast structural genomics consortium3 target id vfr176
56	c2zttA_	Alignment	not modelled	20.8	16	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
57	d1wdia_	Alignment	not modelled	20.4	25	Fold: QueA-like Superfamily: QueA-like Family: QueA-like
58	c3b6nA_	Alignment	not modelled	20.3	14	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
59	c2pmpA_	Alignment	not modelled	20.0	13	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
60	c2jroA_	Alignment	not modelled	19.1	18	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
61	d1xm5a_	Alignment	not modelled	18.5	17	Fold: Zincin-like Superfamily: Metalloproteases ("zincins"), catalytic domain Family: Predicted metal-dependent hydrolase
62	c3f0gA_	Alignment	not modelled	18.5	16	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
63	d3bypa1	Alignment	not modelled	18.4	20	Fold: Alpha-lytic protease prodomain-like Superfamily: Cation efflux protein cytoplasmic domain-like Family: Cation efflux protein cytoplasmic domain-like
64	d1oz9a_	Alignment	not modelled	18.4	15	Fold: Zincin-like Superfamily: Metalloproteases ("zincins"), catalytic domain Family: Predicted metal-dependent hydrolase
65	d1iv3a_	Alignment	not modelled	18.1	18	Fold: Bacillus chorismate mutase-like Superfamily: IpsF-like Family: IpsF-like
66	c1qgeE_	Alignment	not modelled	17.4	23	PDB header: hydrolase Chain: E: PDB Molecule: protein (triacylglycerol hydrolase); PDBTitle: new crystal form of pseudomonas glumae (formerly chromobacterium viscosum atcc 6918) lipase
67	c3v4gA_	Alignment	not modelled	17.1	18	PDB header: dna binding protein Chain: A: PDB Molecule: arginine repressor; PDBTitle: 1.60 angstrom resolution crystal structure of an arginine repressor2 from vibrio vulnificus cmcp6
68	c3mc6C_	Alignment	not modelled	17.0	11	PDB header: lyase Chain: C: PDB Molecule: sphingosine-1-phosphate lyase; PDBTitle: crystal structure of scdp1
69	c3oheA_	Alignment	not modelled	16.3	14	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
70	d2ox6a1	Alignment	not modelled	16.3	19	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: YdI-like
71	d2o5aa1	Alignment	not modelled	15.9	11	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: IoJap/YbeB-like
72	d1y4ia1	Alignment	not modelled	14.6	33	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: Cystathionine synthase-like
73	d2qfia1	Alignment	not modelled	14.5	13	Fold: Alpha-lytic protease prodomain-like Superfamily: Cation efflux protein cytoplasmic domain-like Family: Cation efflux protein cytoplasmic domain-like
74	c1t3nB_	Alignment	not modelled	14.1	26	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 dntp
75	d1n8pa_	Alignment	not modelled	13.6	35	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: Cystathionine synthase-like
76	d2phcb2	Alignment	not modelled	13.1	11	Fold: DCoH-like Superfamily: PH0987 N-terminal domain-like Family: PH0987 N-terminal domain-like
77	c3upsA_	Alignment	not modelled	12.6	13	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: ioJap-like protein; PDBTitle: crystal structure of ioJap-like protein from zymomonas mobilis
78	c3l5aA_	Alignment	not modelled	12.5	15	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
79	c2htfA_	Alignment	not modelled	12.4	27	PDB header: transferase Chain: A: PDB Molecule: dna polymerase mu; PDBTitle: the solution structure of the brct domain from human2 polymerase reveals homology with the tdt brct domain
80	d1t94a2	Alignment	not modelled	12.2	21	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases

					Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
81	d2fsqa1	Alignment	not modelled	12.1	Fold: LigT-like Superfamily: LigT-like Family: Atu0111-like
82	c1t94B_	Alignment	not modelled	12.0	PDB header: replication Chain: B; PDB Molecule: polymerase (dna directed) kappa; PDBTitle: crystal structure of the catalytic core of human dna2 polymerase kappa
83	d2c0ra1	Alignment	not modelled	11.6	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: GABA-aminotransferase-like
84	c3k30B_	Alignment	not modelled	11.4	PDB header: oxidoreductase Chain: B; PDB Molecule: histamine dehydrogenase; PDBTitle: histamine dehydrogenase from nocardiodes simplex
85	c2gfiB_	Alignment	not modelled	11.3	PDB header: transport protein Chain: B; PDB Molecule: ferrous-iron efflux pump fief; PDBTitle: structure of the zinc transporter yip
86	c3nrdb_	Alignment	not modelled	11.2	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 Å resolution
87	c3l7xA_	Alignment	not modelled	11.2	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
88	c3nj2B_	Alignment	not modelled	11.0	PDB header: unknown function Chain: B; PDB Molecule: duf269-containing protein; PDBTitle: crystal structure of cce_0566 from the cyanobacterium cyanothece2 51142, a protein associated with nitrogen fixation from the duf269 family
89	d2p5ma1	Alignment	not modelled	11.0	Fold: DCoH-like Superfamily: C-terminal domain of arginine repressor Family: C-terminal domain of arginine repressor
90	d1zaka2	Alignment	not modelled	10.7	Fold: Rubredoxin-like Superfamily: Microbial and mitochondrial ADK, insert "zinc finger" domain Family: Microbial and mitochondrial ADK, insert "zinc finger" domain
91	c3jurA_	Alignment	not modelled	10.7	PDB header: hydrolase Chain: A; PDB Molecule: exo-poly-alpha-d-galacturonosidase; PDBTitle: the crystal structure of a hyperthermophilic exopolysaccharidase from2 thermotoga maritima
92	c1x31A_	Alignment	not modelled	10.7	PDB header: oxidoreductase Chain: A; PDB Molecule: sarcosine oxidase alpha subunit; PDBTitle: crystal structure of heterotetrameric sarcosine oxidase from2 corynebacterium sp. u-96
93	c2flIA_	Alignment	not modelled	10.6	PDB header: replication/dna Chain: A; PDB Molecule: dna polymerase iota; PDBTitle: ternary complex of human dna polymerase iota with dna and dttp
94	c3km1B_	Alignment	not modelled	10.6	PDB header: viral protein Chain: B; PDB Molecule: coat protein; PDBTitle: circular permutant of the tobacco mosaic virus
95	d1ei7a_	Alignment	not modelled	10.6	Fold: Four-helical up-and-down bundle Superfamily: TMV-like viral coat proteins Family: TMV-like viral coat proteins
96	d1iwga2	Alignment	not modelled	10.1	Fold: Ferrodoxin-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
97	d1b4ba_	Alignment	not modelled	10.1	Fold: DCoH-like Superfamily: C-terminal domain of arginine repressor Family: C-terminal domain of arginine repressor
98	c2uzhb_	Alignment	not modelled	10.0	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	d1vtmp_	Alignment	not modelled	9.9	Fold: Four-helical up-and-down bundle Superfamily: TMV-like viral coat proteins Family: TMV-like viral coat proteins