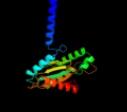


Phyre²

Email	I.a.kelley@imperial.ac.uk
Description	P46139
Date	Thu Jan 5 12:04:08 GMT 2012
Unique Job ID	b27646750872164d

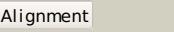
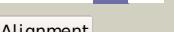
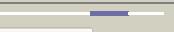
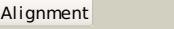
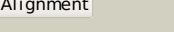
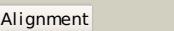
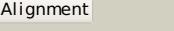
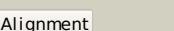
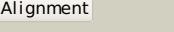
Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1w25B_			100.0	31	PDB header: signaling protein Chain: B: PDB Molecule: stalked-cell differentiation controlling protein; PDBTitle: response regulator pld in complex with c-digmp
2	c3ezuA_			100.0	28	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	c3i5aA_			100.0	30	PDB header: signaling protein Chain: A: PDB Molecule: response regulator/ggdef domain protein; PDBTitle: crystal structure of full-length wpsr from pseudomonas syringae
4	c3breA_			100.0	32	PDB header: signaling protein Chain: A: PDB Molecule: probable two-component response regulator; PDBTitle: crystal structure of p.aeruginosa pa3702
5	c3ignA_			100.0	26	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	c3icla_			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
7	c3hvaA_			100.0	24	PDB header: transferase Chain: A: PDB Molecule: protein fimx; PDBTitle: crystal structure of fimx ggdef domain from pseudomonas2 aeruginosa
8	c3qyyB_			100.0	33	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
9	d1w25a3			100.0	32	Fold: Ferrodoxin-like Superfamily: Nucleotide cyclase Family: GGDEF domain
10	c3i5cA_			100.0	27	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
11	c3i5bA_			100.0	29	PDB header: signaling protein Chain: A: PDB Molecule: wspr response regulator; PDBTitle: crystal structure of the isolated ggdef domain of wpsr from2 pseudomonas aeruginosa

12	c3mtkA			100.0	26	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	c3hwvA			100.0	16	PDB header: lyase Chain: A: PDB Molecule: cyclic dimeric gmp binding protein; PDBTitle: crystal structure of the ggdef domain of the pa2567 protein2 from pseudomonas aeruginosa, northeast structural genomics3 consortium target par365c
14	c3pjwA			100.0	22	PDB header: lyase Chain: A: PDB Molecule: cyclic dimeric gmp binding protein; PDBTitle: structure of pseudomonas fluorescence lapd ggdef-eal dual domain, i23
15	c3gfzB			99.7	11	PDB header: hydrolase, signaling protein Chain: B: PDB Molecule: klebsiella pneumoniae blrp1; PDBTitle: klebsiella pneumoniae blrp1 ph 6 manganese/cy-digmp complex
16	c3pznB			98.4	16	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			97.7	19	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	c3lnrA			95.9	13	PDB header: signaling protein Chain: A: PDB Molecule: aerotaxis transducer aer2; PDBTitle: crystal structure of poly-hamp domains from the p. aeruginosa soluble2 receptor aer2
19	c3uvjC			95.7	17	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.
20	c1cjkA			95.6	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
21	d1azsa		not modelled	95.3	13	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
22	d1fx2a		not modelled	95.3	18	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
23	c3mr7B		not modelled	95.1	10	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
24	c3pjvD			94.7	13	PDB header: lyase Chain: D: PDB Molecule: cyclic dimeric gmp binding protein; PDBTitle: structure of pseudomonas fluorescence lapd periplasmic domain
25	d1wcla		not modelled	94.7	13	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
26	d2asxa1			94.6	12	Fold: HAMP domain-like Superfamily: HAMP domain-like Family: HAMP domain

27	c1wc6B		not modelled	94.2	13	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
28	d1p0za			93.9	13	Fold: Profilin-like Superfamily: Sensory domain-like Family: Sensory domain of two-component sensor kinase
29	d3by8a1			93.3	13	Fold: Profilin-like Superfamily: Sensory domain-like Family: Sensory domain of two-component sensor kinase
30	c1yk9A		not modelled	91.8	16	PDB header: lyase Chain: A; PDB Molecule: adenylate cyclase; PDBTitle: crystal structure of a mutant form of the mycobacterial2 adenylyl cyclase rv1625c PDB header: hydrolase Chain: A; PDB Molecule: lipj; PDBTitle: mycobacterium tuberculosis adenylyl cyclase rv1900c chd, in complex2 with a substrate analog.
31	c1ybuA		not modelled	91.3	10	PDB header: lyase Chain: C; PDB Molecule: hypothetical protein rv1264/mt1302; PDBTitle: mycobacterial adenylyl cyclase rv1264, holoenzyme, inhibited state
32	c1y10C		not modelled	89.6	13	PDB header: lyase Chain: A; PDB Molecule: soluble guanylyl cyclase beta; PDBTitle: the crystal structure of the catalytic domain of a eukaryotic2 guanylyl cyclase
33	c3et6A		not modelled	89.4	9	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
34	d1fx4a		not modelled	88.7	14	PDB header: transferase Chain: A; PDB Molecule: dna repair protein rev1; PDBTitle: ternary complex of the catalytic core of rev1 with dna and dctp.
35	c2aq4A		not modelled	86.9	17	PDB header: signaling protein Chain: A; PDB Molecule: sensory rhodopsin ii transducer; PDBTitle: the solution structure of phototactic transducer protein2 htrii linker region from natronomonas pharaonis
36	c2rm8A		not modelled	84.9	7	PDB header: lyase Chain: C; PDB Molecule: adenylate cyclase; PDBTitle: crystal structure of the guanylyl cyclase cya2
37	c2w01C		not modelled	83.9	15	PDB header: signaling protein Chain: A; PDB Molecule: methyl-accepting chemotaxis protein; PDBTitle: periplasmic sensor domain of chemotaxis protein gsu0582
38	c3b47A		not modelled	79.6	12	PDB header: signaling protein Chain: B; PDB Molecule: af1503 protein, osmolarity sensor protein envz; PDBTitle: the structure of the dimeric hamp-dhp fusion a291v mutant
39	c3zrwB		not modelled	78.2	11	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.
40	c2wz1B		not modelled	77.2	11	PDB header: transferase/dna Chain: B; PDB Molecule: dna repair protein rev1; PDBTitle: structure of human rev1-dna-dntp ternary complex
41	c3gqcB		not modelled	74.9	16	PDB header: signaling protein Chain: B; PDB Molecule: methyl-accepting chemotaxis protein, putative; PDBTitle: periplasmic sensor domain of chemotaxis protein gsu0935
42	c3b42B		not modelled	65.5	12	Fold: Ferredoxin-like Superfamily: Nucleotide cyclase Family: Adenylyl and guanylyl cyclase catalytic domain
43	d1azsb		not modelled	64.6	10	PDB header: transcription Chain: A; PDB Molecule: dbh protein; PDBTitle: crystal structure of a dinb family error prone dna2 polymerase from sulfolobus solfataricus
44	c1k1qA		not modelled	61.7	16	PDB header: transferase/dna Chain: D; PDB Molecule: dna polymerase iv; PDBTitle: dpo4 with gt mismatch
45	c1s97D		not modelled	61.0	18	PDB header: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
46	d1im4a		not modelled	60.2	16	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
47	d1k1sa2		not modelled	54.5	16	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
48	d1yhta1		not modelled	45.7	22	Fold: TIM beta/alpha-barrel Superfamily: (Trans)glycosidases Family: beta-N-acetylhexosaminidase catalytic domain
49	d1jx4a2		not modelled	43.4	18	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
50	d1vr6a1		not modelled	32.1	10	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: Class I DAHP synthetase

51	d1xxaa_	Alignment	not modelled	26.9	18	Fold: DCoH-like Superfamily: C-terminal domain of arginine repressor Family: C-terminal domain of arginine repressor
52	c3l7xA_	Alignment	not modelled	26.8	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
53	c3k30B_	Alignment	not modelled	24.5	18	PDB header: oxidoreductase Chain: B: PDB Molecule: histamine dehydrogenase; PDBTitle: histamine dehydrogenase from nocardiodes simplex
54	c3hf3A_	Alignment	not modelled	22.6	14	PDB header: oxidoreductase Chain: A: PDB Molecule: chromate reductase; PDBTitle: old yellow enzyme from thermus scotoductus sa-01
55	c3nuiA_	Alignment	not modelled	21.6	12	PDB header: transferase Chain: A: PDB Molecule: pyruvate transaminase; PDBTitle: crystal structure of omega-transferase from vibrio fluvialis js17
56	c2kseA_	Alignment	not modelled	20.2	17	PDB header: transferase Chain: A: PDB Molecule: sensor protein qsec; PDBTitle: backbone structure of the membrane domain of e. coli2 histidine kinase receptor qsec, center for structures of3 membrane proteins (csmp) target 4311c
57	c3i24B_	Alignment	not modelled	19.3	14	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
58	c3oheA_	Alignment	not modelled	17.3	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
59	c2ylaA_	Alignment	not modelled	16.2	14	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
60	c3fosA_	Alignment	not modelled	15.7	11	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
61	d1szwa_	Alignment	not modelled	15.3	25	Fold: Pseudouridine synthase Superfamily: Pseudouridine synthase Family: tRNA pseudouridine synthase TruD
62	d1jiha2	Alignment	not modelled	15.2	24	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
63	c1qgeE_	Alignment	not modelled	15.1	23	PDB header: hydrolase Chain: E: PDB Molecule: protein (triacylglycerol hydrolase); PDBTitle: new crystal form of pseudomonas glumae (formerly chromobacterium2 viscosum atcc 6918) lipase
64	c1sb7A_	Alignment	not modelled	14.1	26	PDB header: lyase Chain: A: PDB Molecule: tRNA pseudouridine synthase d; PDBTitle: crystal structure of the e.coli pseudouridine synthase trud
65	d1wdia_	Alignment	not modelled	13.3	19	Fold: QueA-like Superfamily: QueA-like Family: QueA-like
66	c3iyuY_	Alignment	not modelled	13.3	20	PDB header: virus Chain: Y: PDB Molecule: outer capsid protein vp4; PDBTitle: atomic model of an infectious rotavirus particle
67	d1w6ta1	Alignment	not modelled	12.7	14	Fold: TIM beta/alpha-barrel Superfamily: Enolase C-terminal domain-like Family: Enolase
68	d2c0ra1	Alignment	not modelled	12.6	18	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: GABA-aminotransferase-like
69	d1ps9a1	Alignment	not modelled	12.5	22	Fold: TIM beta/alpha-barrel Superfamily: FMN-linked oxidoreductases Family: FMN-linked oxidoreductases
70	c1t3nB_	Alignment	not modelled	12.2	29	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
71	c3nrdB_	Alignment	not modelled	12.1	17	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
72	c1ps9A_	Alignment	not modelled	11.8	24	PDB header: oxidoreductase Chain: A: PDB Molecule: 2,4-dienoyl-coa reductase; PDBTitle: the crystal structure and reaction mechanism of e. coli 2,4-dienoyl coa reductase
73	c3onqB_	Alignment	not modelled	11.5	13	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
74	c3nvta_	Alignment	not modelled	11.5	17	PDB header: transferase/isomerase Chain: A: PDB Molecule: 3-deoxy-d-arabino-heptulose 7-phosphate synthase; PDBTitle: 1.95 angstrom crystal structure of a bifunctional 3-deoxy-7-2-phosphohexulonate synthase/chorismate mutase (aroA) from listeria3 monocytogenes egd-e
75	d2incc1	Alignment	not modelled	10.9	21	Fold: beta-Grasp (ubiquitin-like) Superfamily: TmoB-like Family: TmoB-like

76	d2p7ja2		Alignment	not modelled	10.8	14	Fold: Profilin-like Superfamily: Sensory domain-like Family: Ykul C-terminal domain-like
77	d2o5aa1		Alignment	not modelled	10.7	19	Fold: Nucleotidyltransferase Superfamily: Nucleotidyltransferase Family: lojap/YbeB-like
78	c3rpmA		Alignment	not modelled	10.4	14	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 str from streptococcus pneumoniae r6
79	c3v4gA		Alignment	not modelled	10.3	16	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
80	c2h90A		Alignment	not modelled	10.2	22	PDB header: oxidoreductase Chain: A: PDB Molecule: xenobiotic reductase a; PDBTitle: xenobiotic reductase a in complex with coumarin
81	d1j27a		Alignment	not modelled	10.2	14	Fold: Ferredoxin-like Superfamily: Hypothetical protein TT1725 Family: Hypothetical protein TT1725
82	c3p0tB		Alignment	not modelled	10.2	11	PDB header: unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of an hit-like protein from mycobacterium2 paratuberculosis
83	c3imiB		Alignment	not modelled	9.9	19	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'
84	c2zttA		Alignment	not modelled	9.7	9	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
85	c3i5tB		Alignment	not modelled	9.3	12	PDB header: transferase Chain: B: PDB Molecule: aminotransferase; PDBTitle: crystal structure of aminotransferase prk07036 from rhodobacter sphaeroides kd131
86	d1b4ba		Alignment	not modelled	9.0	11	Fold: DCoH-like Superfamily: C-terminal domain of arginine repressor Family: C-terminal domain of arginine repressor
87	c3hmuA		Alignment	not modelled	8.3	14	PDB header: transferase Chain: A: PDB Molecule: aminotransferase, class iii; PDBTitle: crystal structure of a class iii aminotransferase from silicibacter pomeroyi
88	c1yy3A		Alignment	not modelled	8.3	19	PDB header: isomerase Chain: A: PDB Molecule: s-adenosylmethionine:trna ribosyltransferase- PDBTitle: structure of s-adenosylmethionine:trna ribosyltransferase-2 isomerase (quea)
89	d1zpdal		Alignment	not modelled	8.2	15	Fold: DHS-like NAD/FAD-binding domain Superfamily: DHS-like NAD/FAD-binding domain Family: Pyruvate oxidase and decarboxylase, middle domain
90	c1t94B		Alignment	not modelled	7.7	24	PDB header: replication Chain: B: PDB Molecule: polymerase (dna directed) kappa; PDBTitle: crystal structure of the catalytic core of human dna2 polymerase kappa
91	c3v4cB		Alignment	not modelled	7.4	15	PDB header: oxidoreductase Chain: B: PDB Molecule: aldehyde dehydrogenase (nadp+); PDBTitle: crystal structure of a semialdehyde dehydrogenase from sinorhizobium2 meliloti 1021
92	c2ordA		Alignment	not modelled	7.3	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
93	c3i82A		Alignment	not modelled	7.2	13	PDB header: structural protein Chain: A: PDB Molecule: ethanolamine utilization protein eutl; PDBTitle: ethanolamine utilization microcompartment shell subunit, eutl closed2 form
94	c2zomC		Alignment	not modelled	6.9	8	PDB header: unknown function Chain: C: PDB Molecule: protein cuta, chloroplast, putative, expressed; PDBTitle: crystal structure of cuta1 from oryza sativa
95	c3dhHC		Alignment	not modelled	6.9	17	PDB header: oxidoreductase Chain: C: PDB Molecule: toluene 4-monooxygenase hydroxylase gamma PDBTitle: crystal structure of resting state toluene 4-monooxygenase2 hydroxylase complexed with effector protein
96	c2pfCA		Alignment	not modelled	6.7	17	PDB header: unknown function Chain: A: PDB Molecule: hypothetical protein rv0098/mt0107; PDBTitle: structure of mycobacterium tuberculosis rv0098
97	d1lxna		Alignment	not modelled	6.6	12	Fold: Ferredoxin-like Superfamily: MTH1187/YkoF-like Family: MTH1187-like
98	c3nx3A		Alignment	not modelled	6.3	6	PDB header: transferase Chain: A: PDB Molecule: acetylornithine aminotransferase; PDBTitle: crystal structure of acetylornithine aminotransferase (argd) from2 campylobacter jejuni
99	d1s0aa		Alignment	not modelled	6.3	11	Fold: PLP-dependent transferase-like Superfamily: PLP-dependent transferases Family: GABA-aminotransferase-like