

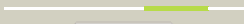


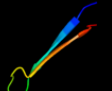
























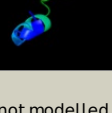


Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	P69432
Date	Thu Jan 5 12:11:36 GMT 2012
Unique Job ID	34884a1586ddc1d5

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	d1wi9a_	 Alignment		72.8	11	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: PCI domain (PINT motif)
2	d1od5a1	 Alignment		60.9	18	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
3	c2kxxA_	 Alignment		52.7	21	PDB header: protein binding Chain: A: PDB Molecule: small protein a; PDBTitle: nmr structure of escherichia coli bame, a lipoprotein component of the2 beta-barrel assembly machinery complex
4	c3f2hA_	 Alignment		52.7	15	PDB header: lyase Chain: A: PDB Molecule: alkylmercury lyase; PDBTitle: crystal structure of the mercury-bound form of merB mutant2 c160s, the organomercurial lyase involved in a bacterial3 mercury resistance system
5	d1s6la1	 Alignment		42.0	19	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: MerB N-terminal domain-like
6	c1y6uA_	 Alignment		35.7	16	PDB header: dna binding protein Chain: A: PDB Molecule: excisionase from transposon tn916; PDBTitle: the structure of the excisionase (xis) protein from2 conjugative transposon tn916 provides insights into the3 regulation of heterobivalent tyrosine recombinases
7	d1j9ia_	 Alignment		32.3	11	Fold: Putative DNA-binding domain Superfamily: Putative DNA-binding domain Family: Terminase gpNU1 subunit domain
8	d1l0oc_	 Alignment		32.1	32	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Sigma3 and sigma4 domains of RNA polymerase sigma factors Family: Sigma4 domain
9	c1l0oC_	 Alignment		32.1	32	PDB header: protein binding Chain: C: PDB Molecule: sigma factor; PDBTitle: crystal structure of the bacillus stearothermophilus anti-2 sigma factor spoIIAB with the sporulation sigma factor3 sigmaF
10	c2kfsA_	 Alignment		30.0	18	PDB header: dna-binding protein Chain: A: PDB Molecule: conserved hypothetical regulatory protein; PDBTitle: nmr structure of rv2175c
11	d1fxza1	 Alignment		29.2	12	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein

12	dlrp3a1	Alignment		28.8	29	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Sigma3 and sigma4 domains of RNA polymerase sigma factors Family: Sigma3 domain
13	dlfxza2	Alignment		26.8	4	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
14	c3fljA_	Alignment		25.0	11	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein conserved in bacteria with a PDBTitle: crystal structure of uncharacterized protein conserved in bacteria2 with a cystatin-like fold (yp_168589.1) from silicibacter pomeroyi3 dss-3 at 2.00 a resolution
15	dldgwa_	Alignment		24.6	14	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
16	dlt47a2	Alignment		24.1	8	Fold: Glyoxalase/Bleomycin resistance protein/Dihydroxybiphenyl dioxygenase Superfamily: Glyoxalase/Bleomycin resistance protein/Dihydroxybiphenyl dioxygenase Family: Extradiol dioxygenases
17	c2cw1A_	Alignment		23.7	26	PDB header: de novo protein Chain: A: PDB Molecule: sn4m; PDBTitle: solution structure of the de novo-designed lambda cro fold2 protein
18	dlod5a2	Alignment		23.7	12	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
19	dlwdva_	Alignment		22.8	17	Fold: YbaK/ProRS associated domain Superfamily: YbaK/ProRS associated domain Family: YbaK/ProRS associated domain
20	dly0pa3	Alignment		22.4	10	Fold: Succinate dehydrogenase/fumarate reductase flavoprotein, catalytic domain Superfamily: Succinate dehydrogenase/fumarate reductase flavoprotein, catalytic domain Family: Succinate dehydrogenase/fumarate reductase flavoprotein, catalytic domain
21	d1ku2a1	Alignment	not modelled	21.2	19	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Sigma3 and sigma4 domains of RNA polymerase sigma factors Family: Sigma3 domain
22	d1hlva1	Alignment	not modelled	20.9	19	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Centromere-binding
23	d3e11a1	Alignment	not modelled	20.8	33	Fold: Zincin-like Superfamily: Metalloproteases ("zincins"), catalytic domain Family: TTHA0227-like
24	d1bw6a_	Alignment	not modelled	20.6	19	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Centromere-binding
25	d2ph1a1	Alignment	not modelled	19.5	15	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
26	d1qo8a3	Alignment	not modelled	19.5	11	Fold: Succinate dehydrogenase/fumarate reductase flavoprotein, catalytic domain Superfamily: Succinate dehydrogenase/fumarate reductase flavoprotein, catalytic domain Family: Succinate dehydrogenase/fumarate reductase flavoprotein, catalytic domain
27	c3t72o_	Alignment	not modelled	19.4	21	PDB header: transcription/dna Chain: O: PDB Molecule: pho box dna (strand 1); PDBTitle: phob(e)-sigma70(4)-(rnap-beta-flap-tip-helix)-dna transcription2 activation sub-complex
28	d1uika1	Alignment	not modelled	18.2	11	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein

29	d1uika2	Alignment	not modelled	17.4	21	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
30	c3r1fO_	Alignment	not modelled	17.4	12	PDB header: transcription Chain: O: PDB Molecule: esx-1 secretion-associated regulator espr; PDBTitle: crystal structure of a key regulator of virulence in mycobacterium2 tuberculosis
31	d1rzhh2	Alignment	not modelled	17.2	17	Fold: Single transmembrane helix Superfamily: Photosystem II reaction centre subunit H, transmembrane region Family: Photosystem II reaction centre subunit H, transmembrane region
32	d3orca_	Alignment	not modelled	16.7	9	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: Phage repressors
33	c1hlvA_	Alignment	not modelled	16.5	19	PDB header: dna binding protein/dna Chain: A: PDB Molecule: major centromere autoantigen b; PDBTitle: crystal structure of cenp-b(1-129) complexed with the cenp-2 b box dna
34	d1eysh2	Alignment	not modelled	16.1	13	Fold: Single transmembrane helix Superfamily: Photosystem II reaction centre subunit H, transmembrane region Family: Photosystem II reaction centre subunit H, transmembrane region
35	d2oa4a1	Alignment	not modelled	15.8	17	Fold: DNA/RNA-binding 3-helical bundle Superfamily: TrpR-like Family: SPO1678-like
36	c2jo1A_	Alignment	not modelled	15.6	17	PDB header: hydrolase regulator Chain: A: PDB Molecule: phospholemman; PDBTitle: structure of the na,k-atpase regulatory protein fxyd1 in2 micelles
37	d1l9bh2	Alignment	not modelled	15.3	17	Fold: Single transmembrane helix Superfamily: Photosystem II reaction centre subunit H, transmembrane region Family: Photosystem II reaction centre subunit H, transmembrane region
38	d2rcrh2	Alignment	not modelled	15.0	20	Fold: Single transmembrane helix Superfamily: Photosystem II reaction centre subunit H, transmembrane region Family: Photosystem II reaction centre subunit H, transmembrane region
39	c2e9qA_	Alignment	not modelled	14.9	19	PDB header: plant protein Chain: A: PDB Molecule: 11s globulin subunit beta; PDBTitle: recombinant pro-11s globulin of pumpkin
40	d2jn6a1	Alignment	not modelled	14.7	17	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Cgl2762-like
41	c2d5fB_	Alignment	not modelled	14.6	19	PDB header: plant protein Chain: B: PDB Molecule: glycinin a3b4 subunit; PDBTitle: crystal structure of recombinant soybean proglycinin a3b4 subunit, its2 comparison with mature glycinin a3b4 subunit, responsible for hexamer3 assembly
42	c2jrtA_	Alignment	not modelled	14.5	13	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: nmr solution structure of the protein coded by gene2 rhos4_12090 of rhodobacter sphaeroides. northeast3 structural genomics target rhr5
43	c3f8xD_	Alignment	not modelled	14.4	24	PDB header: isomerase Chain: D: PDB Molecule: putative delta-5-3-ketosteroid isomerase; PDBTitle: crystal structure of a putative delta-5-3-ketosteroid isomerase2 (eca2236) from pectobacterium atrosepticum scri1043 at 1.55 a3 resolution
44	d2et1a1	Alignment	not modelled	14.2	8	Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
45	c1dgrW_	Alignment	not modelled	14.1	15	PDB header: plant protein Chain: W: PDB Molecule: canavalin; PDBTitle: refined crystal structure of canavalin from jack bean
46	d3dxa1	Alignment	not modelled	13.6	28	Fold: Cystatin-like Superfamily: NTF2-like Family: Atu0744-like
47	d2phcb1	Alignment	not modelled	13.5	10	Fold: Cyclophilin-like Superfamily: Cyclophilin-like Family: PH0987 C-terminal domain-like
48	d1bl0a1	Alignment	not modelled	13.4	7	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: AraC type transcriptional activator
49	d2p7vb1	Alignment	not modelled	12.5	20	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Sigma3 and sigma4 domains of RNA polymerase sigma factors Family: Sigma4 domain
50	c2rn7A_	Alignment	not modelled	12.5	14	PDB header: unknown function Chain: A: PDB Molecule: is629 orfa; PDBTitle: nmr solution structure of tpe protein from shigella2 flexneri. northeast structural genomics target sfr125
51	d1sqda2	Alignment	not modelled	12.4	13	Fold: Glyoxalase/Bleomycin resistance protein/Dihydroxybiphenyl dioxygenase Superfamily: Glyoxalase/Bleomycin resistance protein/Dihydroxybiphenyl dioxygenase Family: Extradiol dioxygenases
52	c2elha_	Alignment	not modelled	11.5	13	PDB header: dna binding protein Chain: A: PDB Molecule: cgl1849-pa; PDBTitle: solution structure of the cenp-b n-terminal dna-binding2 domain of fruit fly distal antenna cgl1849-pa
						Fold: DNA/RNA-binding 3-helical bundle

53	d1ufma_	Alignment	not modelled	11.5	22	Superfamily: "Winged helix" DNA-binding domain Family: PCI domain (PINT motif)
54	c2hq2a1	Alignment	not modelled	11.2	19	Fold: Heme iron utilization protein-like Superfamily: Heme iron utilization protein-like Family: HemS/ChuS-like
55	c2k9lA_	Alignment	not modelled	11.0	13	PDB header: transcription Chain: A: PDB Molecule: rna polymerase sigma factor rpon; PDBTitle: structure of the core binding domain of sigma54
56	c2htfA_	Alignment	not modelled	11.0	20	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
57	d1t1da_	Alignment	not modelled	10.9	0	Fold: POZ domain Superfamily: POZ domain Family: Tetramerization domain of potassium channels
58	c2zp2B_	Alignment	not modelled	10.8	14	PDB header: transferase inhibitor Chain: B: PDB Molecule: kinase a inhibitor; PDBTitle: c-terminal domain of kipi from bacillus subtilis
59	d1b4ua_	Alignment	not modelled	10.1	14	Fold: LigA subunit of an aromatic-ring-opening dioxygenase LigAB Superfamily: LigA subunit of an aromatic-ring-opening dioxygenase LigAB Family: LigA subunit of an aromatic-ring-opening dioxygenase LigAB
60	c3lsgD_	Alignment	not modelled	10.1	18	PDB header: transcription regulator Chain: D: PDB Molecule: two-component response regulator yesn; PDBTitle: the crystal structure of the c-terminal domain of the two-2 component response regulator yesn from fusobacterium3 nucleatum subsp. nucleatum atcc 25586
61	c2lfcA_	Alignment	not modelled	10.1	19	PDB header: oxidoreductase Chain: A: PDB Molecule: fumarate reductase, flavoprotein subunit; PDBTitle: solution nmr structure of fumarate reductase flavoprotein subunit from2 lactobacillus plantarum, northeast structural genomics consortium3 target lpr145j
62	c1y66D_	Alignment	not modelled	9.8	30	PDB header: de novo protein Chain: D: PDB Molecule: engrailed homeodomain; PDBTitle: dioxane contributes to the altered conformation and2 oligomerization state of a designed engrailed homeodomain3 variant
63	d2ofya1	Alignment	not modelled	9.8	14	Fold: lambda repressor-like DNA-binding domains Superfamily: lambda repressor-like DNA-binding domains Family: SinR domain-like
64	c3msoA_	Alignment	not modelled	9.8	19	PDB header: isomerase Chain: A: PDB Molecule: steroid delta-isomerase; PDBTitle: crystal structure of a steroid delta-isomerase (np_250810.1) from2 pseudomonas aeruginosa at 2.57 a resolution
65	d2p6ra2	Alignment	not modelled	9.6	9	Fold: Sec63 N-terminal domain-like Superfamily: Sec63 N-terminal domain-like Family: Achaeal helicase C-terminal domain
66	c2v9vA_	Alignment	not modelled	9.5	11	PDB header: transcription Chain: A: PDB Molecule: selenocysteine-specific elongation factor; PDBTitle: crystal structure of moorella thermoacetica selb(377-511)
67	c2phcB_	Alignment	not modelled	9.3	10	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein ph0987; PDBTitle: crystal structure of conserved uncharacterized protein ph0987 from2 pyrococcus horikoshii
68	c3bd1B_	Alignment	not modelled	9.2	16	PDB header: transcription Chain: B: PDB Molecule: cro protein; PDBTitle: structure of the cro protein from putative prophage element xfaso 1 in2 xylella fastidiosa strain ann-1
69	c1tfzA_	Alignment	not modelled	9.2	11	PDB header: oxidoreductase Chain: A: PDB Molecule: 4-hydroxyphenylpyruvate dioxygenase; PDBTitle: structural basis for herbicidal inhibitor selectivity revealed by2 comparison of crystal structures of plant and mammalian 4-3 hydroxyphenylpyruvate dioxygenases
70	c2k9sA_	Alignment	not modelled	9.2	9	PDB header: transcription Chain: A: PDB Molecule: arabinose operon regulatory protein; PDBTitle: solution structure of dna binding domain of e. coli arac
71	d1ku3a_	Alignment	not modelled	9.1	17	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Sigma3 and sigma4 domains of RNA polymerase sigma factors Family: Sigma4 domain
72	d1sp9a_	Alignment	not modelled	8.7	11	Fold: Glyoxalase/Bleomycin resistance protein/Dihydroxybiphenyl dioxygenase Superfamily: Glyoxalase/Bleomycin resistance protein/Dihydroxybiphenyl dioxygenase Family: Extradiol dioxygenases
73	c1cauB_	Alignment	not modelled	8.7	15	PDB header: seed storage protein Chain: B: PDB Molecule: canavalin; PDBTitle: determination of three crystal structures of canavalin by molecular2 replacement
74	d1p7ia_	Alignment	not modelled	8.5	7	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
75	c1k6nH_	Alignment	not modelled	8.5	17	PDB header: photosynthesis Chain: H: PDB Molecule: photosynthetic reaction center h subunit; PDBTitle: e(l212)a,d(l213)a double mutant structure of photosynthetic reaction2 center from rhodobacter sphaeroides
76	c2kpiA_	Alignment	not modelled	8.2	19	PDB header: transcription regulator Chain: A: PDB Molecule: sos-response transcriptional repressor, lexa; PDBTitle: solution structure of protein sos-response transcriptional2 repressor, lexa from eubacterium rectale. northeast3 structural genomics consortium target err9a
77	d1pbja3	Alignment	not modelled	8.1	20	Fold: CBS-domain pair Superfamily: CBS-domain pair

					Family: CBS-domain pair
78	d1xd7a_	Alignment	not modelled	8.1	14 Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Transcriptional regulator Rrf2
79	c1sp8A_	Alignment	not modelled	8.1	11 PDB header: oxidoreductase Chain: A: PDB Molecule: 4-hydroxyphenylpyruvate dioxygenase; PDBTitle: 4-hydroxyphenylpyruvate dioxygenase
80	c3t76A_	Alignment	not modelled	8.0	17 PDB header: transcription regulator Chain: A: PDB Molecule: transcriptional regulator vanug; PDBTitle: crystal structure of transcriptional regulator vanug, form ii
81	d1yava3	Alignment	not modelled	7.8	3 Fold: CBS-domain pair Superfamily: CBS-domain pair Family: CBS-domain pair
82	d2d30a1	Alignment	not modelled	7.7	13 Fold: Cytidine deaminase-like Superfamily: Cytidine deaminase-like Family: Cytidine deaminase
83	d1wj6a_	Alignment	not modelled	7.7	8 Fold: beta-Grasp (ubiquitin-like) Superfamily: CAD & PB1 domains Family: PB1 domain
84	d1d5ya1	Alignment	not modelled	7.7	11 Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: AraC type transcriptional activator
85	c3a03A_	Alignment	not modelled	7.7	11 PDB header: gene regulation Chain: A: PDB Molecule: t-cell leukemia homeobox protein 2; PDBTitle: crystal structure of hox11l1 homeodomain
86	c1fxzC_	Alignment	not modelled	7.6	3 PDB header: plant protein Chain: C: PDB Molecule: glycinin g1; PDBTitle: crystal structure of soybean proglycinin a1ab1b homotrimer
87	d1j58a_	Alignment	not modelled	7.6	12 Fold: Double-stranded beta-helix Superfamily: RmlC-like cupins Family: Germin/Seed storage 7S protein
88	d1u5tb1	Alignment	not modelled	7.5	44 Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Vacuolar sorting protein domain
89	c3bdnB_	Alignment	not modelled	7.4	7 PDB header: transcription/dna Chain: B: PDB Molecule: lambda repressor; PDBTitle: crystal structure of the lambda repressor
90	d1pn0a3	Alignment	not modelled	7.3	33 Fold: FAD-linked reductases, C-terminal domain Superfamily: FAD-linked reductases, C-terminal domain Family: PHBH-like
91	d1ttya_	Alignment	not modelled	7.3	18 Fold: DNA/RNA-binding 3-helical bundle Superfamily: Sigma3 and sigma4 domains of RNA polymerase sigma factors Family: Sigma4 domain
92	c2ph0A_	Alignment	not modelled	7.2	8 PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of the q6d2t7_erwct protein from erwinia2 carotovora. nesg target ewr41.
93	c2f9jP_	Alignment	not modelled	7.2	7 PDB header: rna binding protein Chain: P: PDB Molecule: splicing factor 3b subunit 1; PDBTitle: 3.0 angstrom resolution structure of a y22m mutant of the spliceosomal2 protein p14 bound to a region of sf3b155
94	d1mh3a1	Alignment	not modelled	7.2	11 Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Homeodomain
95	c1eysH_	Alignment	not modelled	7.0	13 PDB header: electron transport Chain: H: PDB Molecule: photosynthetic reaction center; PDBTitle: crystal structure of photosynthetic reaction center from a2 thermophilic bacterium, thermochromatium tepidum
96	c2fjrB_	Alignment	not modelled	7.0	9 PDB header: transcription regulator Chain: B: PDB Molecule: repressor protein ci; PDBTitle: crystal structure of bacteriophage 186
97	d2yzia1	Alignment	not modelled	6.9	14 Fold: CBS-domain pair Superfamily: CBS-domain pair Family: CBS-domain pair
98	c2r5vA_	Alignment	not modelled	6.9	8 PDB header: oxidoreductase Chain: A: PDB Molecule: pcza361.1; PDBTitle: hydroxymandelate synthase crystal structure
99	c2vqaC_	Alignment	not modelled	6.9	14 PDB header: metal-binding protein Chain: C: PDB Molecule: sll1358 protein; PDBTitle: protein-folding location can regulate mn versus cu- or zn-2 binding. crystal structure of mnca.