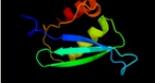
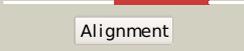
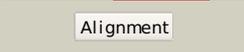
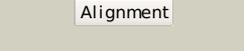
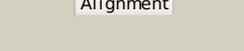


Phyre2

Email	I.a.kelley@imperial.ac.uk
Description	Q47718
Date	Thu Jan 5 12:37:09 GMT 2012
Unique Job ID	871c808457684bec

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c1c0mA_	 Alignment		99.6	19	PDB header: transferase Chain: A: PDB Molecule: protein (integrase); PDBTitle: crystal structure of rsv two-domain integrase
2	d1asua_	 Alignment		99.5	18	Fold: Ribonuclease H-like motif Superfamily: Ribonuclease H-like Family: Retroviral integrase, catalytic domain
3	d1cxqa_	 Alignment		99.5	18	Fold: Ribonuclease H-like motif Superfamily: Ribonuclease H-like Family: Retroviral integrase, catalytic domain
4	d1c0ma2	 Alignment		99.4	18	Fold: Ribonuclease H-like motif Superfamily: Ribonuclease H-like Family: Retroviral integrase, catalytic domain
5	d1bcoa2	 Alignment		99.3	16	Fold: Ribonuclease H-like motif Superfamily: Ribonuclease H-like Family: mu transposase, core domain
6	d1exqa_	 Alignment		99.0	11	Fold: Ribonuclease H-like motif Superfamily: Ribonuclease H-like Family: Retroviral integrase, catalytic domain
7	c3nf9A_	 Alignment		99.0	11	PDB header: hydrolase/hydrolase inhibitor Chain: A: PDB Molecule: integrase; PDBTitle: structural basis for a new mechanism of inhibition of hiv integrase2 identified by fragment screening and structure based design
8	d1c6va_	 Alignment		99.0	10	Fold: Ribonuclease H-like motif Superfamily: Ribonuclease H-like Family: Retroviral integrase, catalytic domain
9	c1ex4A_	 Alignment		98.9	11	PDB header: viral protein Chain: A: PDB Molecule: integrase; PDBTitle: hiv-1 integrase catalytic core and c-terminal domain
10	c3f9kV_	 Alignment		98.9	10	PDB header: viral protein, recombination Chain: V: PDB Molecule: integrase; PDBTitle: two domain fragment of hiv-2 integrase in complex with ledgf ibd
11	c1k6yB_	 Alignment		98.9	9	PDB header: transferase Chain: B: PDB Molecule: integrase; PDBTitle: crystal structure of a two-domain fragment of hiv-1 integrase

12	c3kksB	Alignment		98.7	11	PDB header: dna binding protein Chain: B: PDB Molecule: integrase; PDBTitle: crystal structure of catalytic core domain of biv integrase in crystal2 form ii
13	c1bcoA	Alignment		98.7	14	PDB header: transposase Chain: A: PDB Molecule: bacteriophage mu transposase; PDBTitle: bacteriophage mu transposase core domain
14	c3hpgC	Alignment		98.6	13	PDB header: transferase Chain: C: PDB Molecule: integrase; PDBTitle: visna virus integrase (residues 1-219) in complex with ledgf2 ibd: examples of open integrase dimer-dimer interfaces
15	c3dlrA	Alignment		98.5	14	PDB header: transferase Chain: A: PDB Molecule: integrase; PDBTitle: crystal structure of the catalytic core domain from pfv2 integrase
16	d1hyva	Alignment		98.5	10	Fold: Ribonuclease H-like motif Superfamily: Ribonuclease H-like Family: Retroviral integrase, catalytic domain
17	c3l2tB	Alignment		98.3	13	PDB header: recombination/dna Chain: B: PDB Molecule: integrase; PDBTitle: crystal structure of the prototype foamy virus (pfv) intasome in2 complex with magnesium and mk0518 (raltegravir)
18	c3hosA	Alignment		97.4	11	PDB header: transferase, dna binding protein/dna Chain: A: PDB Molecule: transposable element mariner, complete cds; PDBTitle: crystal structure of the mariner mos1 paired end complex with mg
19	c3v4gA	Alignment		95.4	14	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
20	c1u78A	Alignment		94.6	11	PDB header: dna binding protein/dna Chain: A: PDB Molecule: transposable element tc3 transposase; PDBTitle: structure of the bipartite dna-binding domain of tc32 transposase bound to transposon dna
21	d1aoya	Alignment	not modelled	93.8	11	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Arginine repressor (ArgR), N-terminal DNA-binding domain
22	c1b4aA	Alignment	not modelled	93.2	16	PDB header: repressor Chain: A: PDB Molecule: arginine repressor; PDBTitle: structure of the arginine repressor from bacillus stearothermophilus
23	c3ereD	Alignment	not modelled	92.1	17	PDB header: dna binding protein/dna Chain: D: PDB Molecule: arginine repressor; PDBTitle: crystal structure of the arginine repressor protein from mycobacterium2 tuberculosis in complex with the dna operator
24	c6paxA	Alignment	not modelled	92.0	12	PDB header: gene regulation/dna Chain: A: PDB Molecule: homeobox protein pax-6; PDBTitle: crystal structure of the human pax-6 paired domain-dna2 complex reveals a general model for pax protein-dna3 interactions
25	d1pdnc	Alignment	not modelled	87.1	14	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Paired domain
26	d1b4aa1	Alignment	not modelled	86.6	15	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Arginine repressor (ArgR), N-terminal DNA-binding domain
27	d2p5ka1	Alignment	not modelled	86.2	21	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Arginine repressor (ArgR), N-terminal DNA-binding domain
28	d1f9na1	Alignment	not modelled	85.6	18	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Arginine repressor (ArgR), N-terminal DNA-binding domain
29	c3mumA	Alignment	not modelled	84.3	10	PDB header: transcription Chain: A: PDB Molecule: putative metal uptake regulation protein;

29	c3mwaA	Alignment	not modelled	84.3	19	PDBTitle: graded expression of zinc-responsive genes through two regulatory2 zinc-binding sites in zur PDB header: gene regulation Chain: A: PDB Molecule: probable zinc uptake regulation protein furb; PDBTitle: crystal structure of furb from m. tuberculosis- a zinc uptake2 regulator PDB header: transcription/dna Chain: A: PDB Molecule: rna polymerase sigma factor rpon; PDBTitle: nmr structure of the sigma-54 rpon domain bound to the-242 promoter element PDB header: dna binding protein Chain: B: PDB Molecule: peroxide operon regulator; PDBTitle: the crystal structure of bacillus subtilis perr-zn reveals a novel2 zn(cys)4 structural redox switch PDB header: transcription Chain: A: PDB Molecule: ferric uptake regulation protein; PDBTitle: the structure of the helicobacter pylori ferric uptake2 regulator fur reveals three functional metal binding sites
30	c2o03A	Alignment	not modelled	83.4	17	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: FUR-like PDB header: metal transport Chain: A: PDB Molecule: ferric uptake regulation protein; PDBTitle: crystal structure of the vibrio cholerae ferric uptake2 regulator (fur) reveals structural rearrangement of the3 dna-binding domains PDB header: recombination/dna Chain: F: PDB Molecule: putative transposon tn552 dna-invertase bin3; PDBTitle: crystal structure of a serine recombinase- dna regulatory2 complex PDB header: transferase Chain: B: PDB Molecule: histone-lysine n-methyltransferase setmar; PDBTitle: structure of the transposase domain of human histone-lysine2 n-methyltransferase setmar PDB header: dna binding protein Chain: B: PDB Molecule: ferric uptake regulation protein; PDBTitle: crystal structure of the dna binding domain of e.coli fur (ferric2 uptake regulator)
31	c2o8kA	Alignment	not modelled	83.0	17	Fold: DNA-glycosylase Superfamily: DNA-glycosylase Family: 3-Methyladenine DNA glycosylase I (Tag) PDB header: hydrolase Chain: A: PDB Molecule: dna-3-methyladenine glycosidase; PDBTitle: crystal structure of a 3-methyladenine dna glycosylase i2 from staphylococcus aureus PDB header: transport Chain: A: PDB Molecule: putative iron uptake regulatory protein; PDBTitle: structural basis for the specialization of nur, a nickel-2 specific fur homologue, in metal sensing and dna3 recognition PDB header: ribosome Chain: O: PDB Molecule: rps13e; PDBTitle: crystal structure of the eukaryotic 40s ribosomal2 subunit in complex with initiation factor 1. this file3 contains the 40s subunit and initiation factor for4 molecule 1 PDB header: dna binding protein Chain: A: PDB Molecule: mos1 transposase; PDBTitle: crystal structure of the catalytic domain of mos1 mariner2 transposase
32	c2fe3B	Alignment	not modelled	80.8	16	Fold: Lipocalins Superfamily: Lipocalins Family: Retinol binding protein-like 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 Fold: Lipocalins Superfamily: Lipocalins Family: Retinol binding protein-like Fold: MTH938-like Superfamily: MTH938-like Family: MTH938-like Fold: MTH938-like Superfamily: MTH938-like Family: MTH938-like Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: FAD/NAD-linked reductases, dimerisation (C-terminal) domain Family: FAD/NAD-linked reductases, dimerisation (C-terminal) domain PDB header: viral protein Chain: B: PDB Molecule: minor nucleoprotein vp30; PDBTitle: crystal structure of the c-terminal domain of ebola virus vp30 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 Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: FAD/NAD-linked reductases, dimerisation (C-terminal) domain Family: FAD/NAD-linked reductases, dimerisation (C-terminal)
33	c2xigA	Alignment	not modelled	79.6	14	
34	d1mzba	Alignment	not modelled	79.5	14	
35	c2w57A	Alignment	not modelled	72.8	16	
36	c2r0qF	Alignment	not modelled	72.8	13	
37	c3f2kB	Alignment	not modelled	68.3	11	
38	c2fu4B	Alignment	not modelled	66.8	16	
39	d1nkua	Alignment	not modelled	64.4	23	
40	d1stza1	Alignment	not modelled	63.7	9	
41	c2jg6A	Alignment	not modelled	62.6	17	
42	c3eyyA	Alignment	not modelled	56.4	19	
43	c2xzmO	Alignment	not modelled	55.3	13	
44	c2f7tA	Alignment	not modelled	46.5	11	
45	d1u17a1	Alignment	not modelled	43.6	8	
46	c1hlvA	Alignment	not modelled	42.4	20	
47	d1x8qa	Alignment	not modelled	39.6	6	
48	d2fi9a1	Alignment	not modelled	35.2	5	
49	d2fvta1	Alignment	not modelled	33.8	6	
50	d1nhpa3	Alignment	not modelled	22.6	16	
51	c2i8bB	Alignment	not modelled	22.3	12	
52	c3r1fO	Alignment	not modelled	20.8	11	
53	d1dxla3	Alignment	not modelled	20.0	10	

						domain
54	d1ebda3	Alignment	not modelled	19.2	17	Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: FAD/NAD-linked reductases, dimerisation (C-terminal) domain Family: FAD/NAD-linked reductases, dimerisation (C-terminal) domain
55	c2rpiA_	Alignment	not modelled	18.7	11	PDB header: hydrolase Chain: A: PDB Molecule: ribonuclease h; PDBTitle: the nmr structure of the submillisecond folding2 intermediate of the thermus thermophilus ribonuclease h
56	d3grsa3	Alignment	not modelled	18.2	16	Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: FAD/NAD-linked reductases, dimerisation (C-terminal) domain Family: FAD/NAD-linked reductases, dimerisation (C-terminal) domain
57	d1gesa3	Alignment	not modelled	15.2	12	Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: FAD/NAD-linked reductases, dimerisation (C-terminal) domain Family: FAD/NAD-linked reductases, dimerisation (C-terminal) domain
58	d1ekja_	Alignment	not modelled	15.0	16	Fold: Resolvase-like Superfamily: beta-carbonic anhydrase, cab Family: beta-carbonic anhydrase, cab
59	d1pm1x_	Alignment	not modelled	14.4	9	Fold: Lipocalins Superfamily: Lipocalins Family: Retinol binding protein-like
60	d1lvla3	Alignment	not modelled	13.3	14	Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: FAD/NAD-linked reductases, dimerisation (C-terminal) domain Family: FAD/NAD-linked reductases, dimerisation (C-terminal) domain
61	c3p9kD_	Alignment	not modelled	12.5	8	PDB header: transferase Chain: D: PDB Molecule: caffeic acid o-methyltransferase; PDBTitle: crystal structure of perennial ryegrass lpomt1 complexed with s-2 adenosyl-l-homocysteine and coniferaldehyde
62	d1y1xa_	Alignment	not modelled	12.4	9	Fold: EF Hand-like Superfamily: EF-hand Family: Penta-EF-hand proteins
63	c2jsaA_	Alignment	not modelled	11.6	8	PDB header: signaling protein Chain: A: PDB Molecule: polymyxin resistance protein pmrd; PDBTitle: antimicrobial resistance protein
64	c3izbO_	Alignment	not modelled	11.6	16	PDB header: ribosome Chain: O: PDB Molecule: 40s ribosomal protein rps13 (s15p); PDBTitle: localization of the small subunit ribosomal proteins into a 6.1 a2 cryo-em map of saccharomyces cerevisiae translating 80s ribosome
65	d1lpfa3	Alignment	not modelled	10.6	12	Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: FAD/NAD-linked reductases, dimerisation (C-terminal) domain Family: FAD/NAD-linked reductases, dimerisation (C-terminal) domain
66	d2i52a1	Alignment	not modelled	10.4	10	Fold: MK0786-like Superfamily: MK0786-like Family: MK0786-like
67	c3lasA_	Alignment	not modelled	10.2	11	PDB header: lyase Chain: A: PDB Molecule: putative carbonic anhydrase; PDBTitle: crystal structure of carbonic anhydrase from streptococcus mutans to2 1.4 angstrom resolution
68	d2coba1	Alignment	not modelled	9.9	9	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Psq domain
69	d1v59a3	Alignment	not modelled	9.9	12	Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: FAD/NAD-linked reductases, dimerisation (C-terminal) domain Family: FAD/NAD-linked reductases, dimerisation (C-terminal) domain
70	d1ixsb1	Alignment	not modelled	9.3	22	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Helicase DNA-binding domain
71	d1aoga3	Alignment	not modelled	9.3	3	Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: FAD/NAD-linked reductases, dimerisation (C-terminal) domain Family: FAD/NAD-linked reductases, dimerisation (C-terminal) domain
72	d1u3em2	Alignment	not modelled	8.9	11	Fold: DNA-binding domain of intron-encoded endonucleases Superfamily: DNA-binding domain of intron-encoded endonucleases Family: DNA-binding domain of intron-encoded endonucleases
73	c2qv5A_	Alignment	not modelled	8.9	16	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: uncharacterized protein atu2773; PDBTitle: crystal structure of uncharacterized protein atu2773 from2 agrobacterium tumefaciens c58
74	c1fpqA_	Alignment	not modelled	8.3	5	PDB header: transferase Chain: A: PDB Molecule: isoliquiritigenin 2'-o-methyltransferase; PDBTitle: crystal structure analysis of selenomethionine substituted chalcone o-2 methyltransferase
75	d1onfa3	Alignment	not modelled	8.3	14	Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: FAD/NAD-linked reductases, dimerisation (C-terminal) domain Family: FAD/NAD-linked reductases, dimerisation (C-terminal) domain
76	d1ojta3	Alignment	not modelled	8.1	12	Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: FAD/NAD-linked reductases, dimerisation (C-terminal) domain Family: FAD/NAD-linked reductases, dimerisation (C-terminal) domain
						PDB header: lyase Chain: B: PDB Molecule: carbonic anhydrase (carbonate

77	c2a5vB_	Alignment	not modelled	8.0	8	dehydratase) (carbonic PDBTitle: crystal structure of m. tuberculosis beta carbonic anhydrase, rv3588c,2 tetrameric form
78	c2j89A_	Alignment	not modelled	8.0	7	PDB header: oxidoreductase Chain: A: PDB Molecule: methionine sulfoxide reductase a; PDBTitle: functional and structural aspects of poplar cytosolic and2 plastidial type a methionine sulfoxide reductases
79	d1ej5a_	Alignment	not modelled	7.9	20	Fold: Wiscott-Aldrich syndrome protein, WASP, C-terminal domain Superfamily: Wiscott-Aldrich syndrome protein, WASP, C-terminal domain Family: Wiscott-Aldrich syndrome protein, WASP, C-terminal domain
80	d1ixrc1	Alignment	not modelled	7.8	23	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Helicase DNA-binding domain
81	d3lada3	Alignment	not modelled	7.6	14	Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: FAD/NAD-linked reductases, dimerisation (C-terminal) domain Family: FAD/NAD-linked reductases, dimerisation (C-terminal) domain
82	d1ff3a_	Alignment	not modelled	7.4	18	Fold: Ferredoxin-like Superfamily: Peptide methionine sulfoxide reductase Family: Peptide methionine sulfoxide reductase
83	d1fec3	Alignment	not modelled	7.4	10	Fold: CO dehydrogenase flavoprotein C-domain-like Superfamily: FAD/NAD-linked reductases, dimerisation (C-terminal) domain Family: FAD/NAD-linked reductases, dimerisation (C-terminal) domain
84	d1gkab_	Alignment	not modelled	7.3	16	Fold: Lipocalins Superfamily: Lipocalins Family: Retinol binding protein-like
85	d1in4a1	Alignment	not modelled	7.2	18	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: Helicase DNA-binding domain
86	c2k27A_	Alignment	not modelled	7.2	13	PDB header: transcription regulator Chain: A: PDB Molecule: paired box protein pax-8; PDBTitle: solution structure of human pax8 paired box domain
87	c1ylkA_	Alignment	not modelled	7.2	4	PDB header: unknown function Chain: A: PDB Molecule: hypothetical protein rv1284/mt1322; PDBTitle: crystal structure of rv1284 from mycobacterium tuberculosis in complex2 with thiocyanate
88	c1fvaA_	Alignment	not modelled	7.1	18	PDB header: oxidoreductase Chain: A: PDB Molecule: peptide methionine sulfoxide reductase; PDBTitle: crystal structure of bovine methionine sulfoxide reductase
89	c2e4jA_	Alignment	not modelled	7.0	10	PDB header: isomerase Chain: A: PDB Molecule: prostaglandin-h2 d-isomerase; PDBTitle: solution structure of mouse lipocalin-type prostaglandin d2 synthase
90	c1zgaA_	Alignment	not modelled	6.9	9	PDB header: plant protein, transferase Chain: A: PDB Molecule: isoflavanone 4'-o-methyltransferase'; PDBTitle: crystal structure of isoflavanone 4'-o-methyltransferase complexed2 with (+)-6a-hydroxyymaackiaian
91	c3g43F_	Alignment	not modelled	6.9	12	PDB header: metal binding protein Chain: F: PDB Molecule: voltage-dependent l-type calcium channel subunit PDBTitle: crystal structure of the calmodulin-bound cav1.2 c-terminal2 regulatory domain dimer
92	c3elkA_	Alignment	not modelled	6.8	10	PDB header: transcription regulator Chain: A: PDB Molecule: putative transcriptional regulator ta0346; PDBTitle: crystal structure of putative transcriptional regulator ta0346 from2 thermoplasma acidophilum
93	c3klbA_	Alignment	not modelled	6.8	17	PDB header: flavoprotein Chain: A: PDB Molecule: putative flavoprotein; PDBTitle: crystal structure of putative flavoprotein in complex with fmn2 (yp_213683.1) from bacteroides fragilis nctc 9343 at 1.75 a3 resolution
94	d1fp2a2	Alignment	not modelled	6.6	5	Fold: S-adenosyl-L-methionine-dependent methyltransferases Superfamily: S-adenosyl-L-methionine-dependent methyltransferases Family: Plant O-methyltransferase, C-terminal domain
95	c3icrA_	Alignment	not modelled	6.4	6	PDB header: oxidoreductase Chain: A: PDB Molecule: coenzyme a-disulfide reductase; PDBTitle: crystal structure of oxidized bacillus anthracis coadr-rhd
96	c3eyxB_	Alignment	not modelled	6.3	14	PDB header: lyase Chain: B: PDB Molecule: carbonic anhydrase; PDBTitle: crystal structure of carbonic anhydrase nce103 from2 saccharomyces cerevisiae
97	c2a8cE_	Alignment	not modelled	6.2	5	PDB header: lyase Chain: E: PDB Molecule: carbonic anhydrase 2; PDBTitle: haemophilus influenzae beta-carbonic anhydrase
98	c3ucoB_	Alignment	not modelled	6.1	13	PDB header: lyase/lyase inhibitor Chain: B: PDB Molecule: carbonic anhydrase; PDBTitle: coccomyxa beta-carbonic anhydrase in complex with iodide
99	c3hhhA_	Alignment	not modelled	5.9	14	PDB header: transcription regulator Chain: A: PDB Molecule: transcriptional regulator, padr family; PDBTitle: crystal structure of transcriptional regulator, a member of padr2 family, from enterococcus faecalis v583