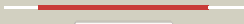
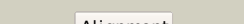
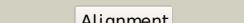
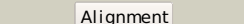
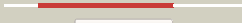
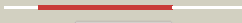
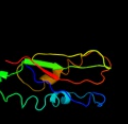
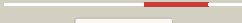
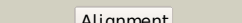


Phyre2

Email	l.a.kelley@imperial.ac.uk
Description	Q47155
Date	Thu Jan 5 12:36:31 GMT 2012
Unique Job ID	86ad007dd52c01c0

Detailed template information

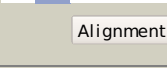
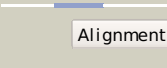
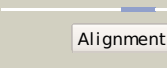
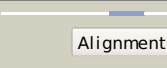
#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3gqcB_	 Alignment		100.0	32	PDB header: transferase/dna Chain: B: PDB Molecule: dna repair protein rev1; PDBTitle: structure of human rev1-dna-dntp ternary complex
2	c2oh2B_	 Alignment		100.0	38	PDB header: transferase/dna Chain: B: PDB Molecule: dna polymerase kappa; PDBTitle: ternary complex of human dna polymerase
3	c1jihA_	 Alignment		100.0	20	PDB header: translation Chain: A: PDB Molecule: dna polymerase eta; PDBTitle: yeast dna polymerase eta
4	c2r8kB_	 Alignment		100.0	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
5	c1t94B_	 Alignment		100.0	38	PDB header: replication Chain: B: PDB Molecule: polymerase (dna directed) kappa; PDBTitle: crystal structure of the catalytic core of human dna2 polymerase kappa
6	c1s97D_	 Alignment		100.0	29	PDB header: transferase/dna Chain: D: PDB Molecule: dna polymerase iv; PDBTitle: dpo4 with gt mismatch
7	c3mr2A_	 Alignment		100.0	31	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)
8	c2aq4A_	 Alignment		100.0	24	PDB header: transferase Chain: A: PDB Molecule: dna repair protein rev1; PDBTitle: ternary complex of the catalytic core of rev1 with dna and dctp.
9	c2filA_	 Alignment		100.0	29	PDB header: replication/dna Chain: A: PDB Molecule: dna polymerase iota; PDBTitle: ternary complex of human dna polymerase iota with dna and dttp
10	c1t3nB_	 Alignment		100.0	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
11	c1k1qA_	 Alignment		100.0	31	PDB header: transcription Chain: A: PDB Molecule: dbb protein; PDBTitle: crystal structure of a dinb family error prone dna2 polymerase from sulfolobus solfataricus

12	dljx4a2	 Alignment		100.0	33	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
13	dlt94a2	 Alignment		100.0	46	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
14	dljiha2	 Alignment		100.0	24	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
15	dlk1sa2	 Alignment		100.0	37	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
16	dlzeta2	 Alignment		100.0	36	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
17	dlim4a	 Alignment		100.0	40	Fold: DNA/RNA polymerases Superfamily: DNA/RNA polymerases Family: Lesion bypass DNA polymerase (Y-family), catalytic domain
18	dlunnc	 Alignment		99.8	98	Fold: Lesion bypass DNA polymerase (Y-family), little finger domain Superfamily: Lesion bypass DNA polymerase (Y-family), little finger domain Family: Lesion bypass DNA polymerase (Y-family), little finger domain
19	dlzeta1	 Alignment		99.1	12	Fold: Lesion bypass DNA polymerase (Y-family), little finger domain Superfamily: Lesion bypass DNA polymerase (Y-family), little finger domain Family: Lesion bypass DNA polymerase (Y-family), little finger domain
20	dlt94a1	 Alignment		99.1	25	Fold: Lesion bypass DNA polymerase (Y-family), little finger domain Superfamily: Lesion bypass DNA polymerase (Y-family), little finger domain Family: Lesion bypass DNA polymerase (Y-family), little finger domain
21	dljiha1	 Alignment	not modelled	99.0	14	Fold: Lesion bypass DNA polymerase (Y-family), little finger domain Superfamily: Lesion bypass DNA polymerase (Y-family), little finger domain Family: Lesion bypass DNA polymerase (Y-family), little finger domain
22	dljx4a1	 Alignment	not modelled	98.1	18	Fold: Lesion bypass DNA polymerase (Y-family), little finger domain Superfamily: Lesion bypass DNA polymerase (Y-family), little finger domain Family: Lesion bypass DNA polymerase (Y-family), little finger domain
23	dlk1sa1	 Alignment	not modelled	97.4	13	Fold: Lesion bypass DNA polymerase (Y-family), little finger domain Superfamily: Lesion bypass DNA polymerase (Y-family), little finger domain Family: Lesion bypass DNA polymerase (Y-family), little finger domain
24	dlszpa1	 Alignment	not modelled	96.9	25	Fold: SAM domain-like Superfamily: Rad51 N-terminal domain-like Family: DNA repair protein Rad51, N-terminal domain
25	dlpzna1	 Alignment	not modelled	96.8	20	Fold: SAM domain-like Superfamily: Rad51 N-terminal domain-like Family: DNA repair protein Rad51, N-terminal domain
26	d2i1qa1	 Alignment	not modelled	96.4	24	Fold: SAM domain-like Superfamily: Rad51 N-terminal domain-like Family: DNA repair protein Rad51, N-terminal domain
27	c1b22A	 Alignment	not modelled	96.0	19	PDB header: dna binding protein Chain: A: PDB Molecule: dna repair protein rad51; PDBTitle: rad51 (n-terminal domain)

28	d1b22a_	Alignment	not modelled	96.0	19	Fold: SAM domain-like Superfamily: Rad51 N-terminal domain-like Family: DNA repair protein Rad51, N-terminal domain
29	d1gm5a2	Alignment	not modelled	95.7	29	Fold: OB-fold Superfamily: Nucleic acid-binding proteins Family: RecG "wedge" domain
30	d2p6ra2	Alignment	not modelled	95.2	24	Fold: Sec63 N-terminal domain-like Superfamily: Sec63 N-terminal domain-like Family: Achaeal helicase C-terminal domain
31	c3bqsB_	Alignment	not modelled	95.2	21	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of an uncharacterized protein from2 listeria monocytogenes, trigonal form
32	d1lb2b_	Alignment	not modelled	94.8	24	Fold: SAM domain-like Superfamily: C-terminal domain of RNA polymerase alpha subunit Family: C-terminal domain of RNA polymerase alpha subunit
33	d1doqa_	Alignment	not modelled	94.5	21	Fold: SAM domain-like Superfamily: C-terminal domain of RNA polymerase alpha subunit Family: C-terminal domain of RNA polymerase alpha subunit
34	c1t4ga_	Alignment	not modelled	94.5	22	PDB header: recombination Chain: A: PDB Molecule: dna repair and recombination protein rada; PDBTitle: atpase in complex with amp-pnp
35	d1z3eb1	Alignment	not modelled	94.2	13	Fold: SAM domain-like Superfamily: C-terminal domain of RNA polymerase alpha subunit Family: C-terminal domain of RNA polymerase alpha subunit
36	d2aq0a1	Alignment	not modelled	94.0	17	Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: Hef domain-like
37	d2q0zx1	Alignment	not modelled	94.0	8	Fold: Sec63 N-terminal domain-like Superfamily: Sec63 N-terminal domain-like Family: Sec63 N-terminal domain
38	c2va8A_	Alignment	not modelled	93.4	28	PDB header: hydrolase Chain: A: PDB Molecule: ski2-type helicase; PDBTitle: dna repair helicase hel308
39	d1cooa_	Alignment	not modelled	93.4	24	Fold: SAM domain-like Superfamily: C-terminal domain of RNA polymerase alpha subunit Family: C-terminal domain of RNA polymerase alpha subunit
40	c1kdhA_	Alignment	not modelled	93.3	25	PDB header: transferase/dna Chain: A: PDB Molecule: terminal deoxynucleotidyltransferase short PDBTitle: binary complex of murine terminal deoxynucleotidyl2 transferase with a primer single stranded dna
41	d1szpb1	Alignment	not modelled	92.9	29	Fold: SAM domain-like Superfamily: Rad51 N-terminal domain-like Family: DNA repair protein Rad51, N-terminal domain
42	c1gm5A_	Alignment	not modelled	92.9	27	PDB header: helicase Chain: A: PDB Molecule: recg; PDBTitle: structure of recg bound to three-way dna junction
43	c2kz3A_	Alignment	not modelled	92.9	20	PDB header: unknown function Chain: A: PDB Molecule: putative uncharacterized protein rad51l3; PDBTitle: backbone 1h, 13c, and 15n chemical shift assignments for human rad51d2 from 1 to 83
44	c2ihmA_	Alignment	not modelled	92.5	29	PDB header: transferase/dna Chain: A: PDB Molecule: dna polymerase mu; PDBTitle: polymerase mu in ternary complex with gapped 11mer dna2 duplex and bound incoming nucleotide
45	d2a1ja1	Alignment	not modelled	92.5	18	Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: Hef domain-like
46	d1kfta_	Alignment	not modelled	92.4	14	Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: Excinuclease UvrC C-terminal domain
47	c1kftA_	Alignment	not modelled	92.4	14	PDB header: dna binding protein Chain: A: PDB Molecule: excinuclease abc subunit c; PDBTitle: solution structure of the c-terminal domain of uvrc from e-2 coli
48	c3im2A_	Alignment	not modelled	92.4	14	PDB header: hydrolase Chain: A: PDB Molecule: pre-mrna-splicing helicase brr2; PDBTitle: structure of the c-terminal sec63 unit of yeast brr2, p41212 form
49	d1jmsa3	Alignment	not modelled	92.3	36	Fold: SAM domain-like Superfamily: PsbU/PolX domain-like Family: DNA polymerase beta-like, second domain
50	d2vana1	Alignment	not modelled	92.1	36	Fold: SAM domain-like Superfamily: PsbU/PolX domain-like Family: DNA polymerase beta-like, second domain
51	d2fmpa2	Alignment	not modelled	92.1	32	Fold: SAM domain-like Superfamily: PsbU/PolX domain-like Family: DNA polymerase beta-like, second domain
52	d2bcqa2	Alignment	not modelled	91.9	25	Fold: SAM domain-like Superfamily: PsbU/PolX domain-like Family: DNA polymerase beta-like, second domain
53	c2bcuA_	Alignment	not modelled	91.8	21	PDB header: transferase, lyase/dna Chain: A: PDB Molecule: dna polymerase lambda; PDBTitle: dna polymerase lambda in complex with a dna duplex2 containing an unpaired damp and a t:t mismatch
54	c1nomA_	Alignment	not modelled	91.6	36	PDB header: nucleotidyltransferase Chain: A: PDB Molecule: dna polymerase beta; PDBTitle: dna polymerase beta (pol b) (e.c.2.7.7.7), 31-kd domain;

					soaked in the2 presence of mnc12 (5 millimolar)
55	c8icZA_	Alignment	not modelled	90.9	31 PDB header: transferase/dna Chain: A: PDB Molecule: protein (dna polymerase beta (e.c.2.7.7.7)); PDBTitle: dna polymerase beta (pol b) (e.c.2.7.7.7) complexed with2 seven base pairs of dna; soaked in the presence of of datp3 (1 millimolar), mnc12 (5 millimolar), and lithium sulfate4 (75 millimolar)
56	c2w9mB_	Alignment	not modelled	90.3	18 PDB header: dna replication Chain: B: PDB Molecule: polymerase x; PDBTitle: structure of family x dna polymerase from deinococcus2 radiodurans
57	d1qw2a_	Alignment	not modelled	89.2	16 Fold: Hypothetical protein Ta1206 Superfamily: Hypothetical protein Ta1206 Family: Hypothetical protein Ta1206
58	c2df1A_	Alignment	not modelled	88.5	18 PDB header: recombination Chain: A: PDB Molecule: dna repair and recombination protein rada; PDBTitle: crystal structure of left-handed rada filament
59	c3ezuA_	Alignment	not modelled	88.1	25 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
60	d2bgwa1	Alignment	not modelled	87.8	16 Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: Hef domain-like
61	d1x2ia1	Alignment	not modelled	87.7	18 Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: Hef domain-like
62	c2p6uA_	Alignment	not modelled	87.0	24 PDB header: dna binding protein Chain: A: PDB Molecule: afuhel308 helicase; PDBTitle: apo structure of the hel308 superfamily 2 helicase
63	c2nrzB_	Alignment	not modelled	85.4	19 PDB header: hydrolase Chain: B: PDB Molecule: uvrabc system protein c; PDBTitle: crystal structure of the c-terminal half of uvrC bound to2 its catalytic divalent cation
64	c2q0zX_	Alignment	not modelled	85.3	8 PDB header: protein transport Chain: X: PDB Molecule: protein pro2281; PDBTitle: crystal structure of q9p172/sec63 from homo sapiens.2 northeast structural genomics target hr1979.
65	d1ci4a_	Alignment	not modelled	85.3	28 Fold: SAM domain-like Superfamily: Barrier-to-autointegration factor, BAF Family: Barrier-to-autointegration factor, BAF
66	c1w25B_	Alignment	not modelled	84.4	23 PDB header: signaling protein Chain: B: PDB Molecule: stalked-cell differentiation controlling protein; PDBTitle: response regulator pled in complex with c-digmp
67	c1wcnA_	Alignment	not modelled	84.1	26 PDB header: rna-binding protein Chain: A: PDB Molecule: transcription elongation protein nusa; PDBTitle: nmr structure of the carboxyterminal domains of escherichia2 coli nusa
68	c3i5aA_	Alignment	not modelled	84.0	29 PDB header: signaling protein Chain: A: PDB Molecule: response regulator/ggdef domain protein; PDBTitle: crystal structure of full-length wpsr from pseudomonas syringae
69	c3ldaA_	Alignment	not modelled	83.9	23 PDB header: dna binding protein Chain: A: PDB Molecule: dna repair protein rad51; PDBTitle: yeast rad51 h352y filament interface mutant
70	d2a1jb1	Alignment	not modelled	82.5	16 Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: Hef domain-like
71	d1dgsa1	Alignment	not modelled	78.6	25 Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: NAD+-dependent DNA ligase, domain 3
72	c1szpC_	Alignment	not modelled	77.5	29 PDB header: dna binding protein Chain: C: PDB Molecule: dna repair protein rad51; PDBTitle: a crystal structure of the rad51 filament
73	d1bvsa2	Alignment	not modelled	77.4	31 Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: DNA helicase RuvA subunit, middle domain
74	c2h5xA_	Alignment	not modelled	74.5	31 PDB header: dna binding protein Chain: A: PDB Molecule: holliday junction atp-dependent dna helicase ruva; PDBTitle: ruva from mycobacterium tuberculosis
75	c1ixrA_	Alignment	not modelled	72.9	23 PDB header: hydrolase Chain: A: PDB Molecule: holliday junction dna helicase ruva; PDBTitle: ruva-ruvb complex
76	c1d8lA_	Alignment	not modelled	71.9	33 PDB header: gene regulation Chain: A: PDB Molecule: protein (holliday junction dna helicase ruva); PDBTitle: e. coli holliday junction binding protein ruva nh2 region2 lacking domain iii
77	c3breA_	Alignment	not modelled	68.2	28 PDB header: signaling protein Chain: A: PDB Molecule: probable two-component response regulator; PDBTitle: crystal structure of p.aeruginosa pa3702
78	c1dgsB_	Alignment	not modelled	65.4	28 PDB header: ligase Chain: B: PDB Molecule: dna ligase; PDBTitle: crystal structure of nad+-dependent dna ligase from t.2 filiformis
79	c1wwuA_	Alignment	not modelled	62.7	25 PDB header: structural genomics, unknown function Chain: A: PDB Molecule: hypothetical protein flj21935; PDBTitle: solution structure of the sam_pnt domain of human

					protein2 flj21935
80	d2axtu1	Alignment	not modelled	57.3	13 Fold: SAM domain-like Superfamily: PsbU/PolX domain-like Family: PsbU-like
81	c1vddC	Alignment	not modelled	57.1	44 PDB header: recombination Chain: C: PDB Molecule: recombination protein recr; PDBTitle: crystal structure of recombinational repair protein recr
82	c2owoA	Alignment	not modelled	56.2	19 PDB header: ligase/dna Chain: A: PDB Molecule: dna ligase; PDBTitle: last stop on the road to repair: structure of e.coli dna ligase bound2 to nicked dna-adenylate
83	c1s5lu	Alignment	not modelled	56.1	13 PDB header: photosynthesis Chain: U: PDB Molecule: photosystem ii 12 kda extrinsic protein; PDBTitle: architecture of the photosynthetic oxygen evolving center
84	c1hjpA	Alignment	not modelled	55.6	33 PDB header: dna recombination Chain: A: PDB Molecule: ruva; PDBTitle: holliday junction binding protein ruva from e. coli
85	d1vdda	Alignment	not modelled	54.1	44 Fold: Recombination protein RecR Superfamily: Recombination protein RecR Family: Recombination protein RecR
86	d2edua1	Alignment	not modelled	52.1	13 Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: ComEA-like
87	d1ixra1	Alignment	not modelled	49.8	26 Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: DNA helicase RuvA subunit, middle domain
88	d1d8ba	Alignment	not modelled	49.2	22 Fold: SAM domain-like Superfamily: HRDC-like Family: HRDC domain from helicases
89	c1v9pB	Alignment	not modelled	45.5	25 PDB header: ligase Chain: B: PDB Molecule: dna ligase; PDBTitle: crystal structure of nad+-dependent dna ligase
90	c3f10A	Alignment	not modelled	45.2	15 PDB header: hydrolase, lyase Chain: A: PDB Molecule: 8-oxoguanine-dna-glycosylase; PDBTitle: crystal structure of clostridium acetobutylicum 8-2 oxoguanine dna glycosylase in complex with 8-oxoguanosine
91	c2csdB	Alignment	not modelled	43.8	32 PDB header: isomerase Chain: B: PDB Molecule: topoisomerase v; PDBTitle: crystal structure of topoisomerase v (61 kda fragment)
92	d2bcqa1	Alignment	not modelled	38.3	39 Fold: SAM domain-like Superfamily: DNA polymerase beta, N-terminal domain-like Family: DNA polymerase beta, N-terminal domain-like
93	d2fmpa1	Alignment	not modelled	38.2	39 Fold: SAM domain-like Superfamily: DNA polymerase beta, N-terminal domain-like Family: DNA polymerase beta, N-terminal domain-like
94	d3bzka1	Alignment	not modelled	36.3	30 Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: Tex HhH-containing domain-like
95	d1cuka2	Alignment	not modelled	33.7	27 Fold: SAM domain-like Superfamily: RuvA domain 2-like Family: DNA helicase RuvA subunit, middle domain
96	d1jmsa1	Alignment	not modelled	32.1	22 Fold: SAM domain-like Superfamily: DNA polymerase beta, N-terminal domain-like Family: DNA polymerase beta, N-terminal domain-like
97	d1nzpa	Alignment	not modelled	31.6	39 Fold: SAM domain-like Superfamily: DNA polymerase beta, N-terminal domain-like Family: DNA polymerase beta, N-terminal domain-like
98	c1ko9A	Alignment	not modelled	30.8	19 PDB header: hydrolase Chain: A: PDB Molecule: 8-oxoguanine dna glycosylase; PDBTitle: native structure of the human 8-oxoguanine dna glycosylase2 hogg1
99	c2e8mA	Alignment	not modelled	29.2	19 PDB header: signaling protein Chain: A: PDB Molecule: epidermal growth factor receptor kinase PDBTitle: solution structure of the c-terminal sam-domain of2 epidermal growth receptor pathway substrate 8
100	d2phna1	Alignment	not modelled	27.6	9 Fold: CofE-like Superfamily: CofE-like Family: CofE-like
101	c2bhnD	Alignment	not modelled	26.5	16 PDB header: hydrolase Chain: D: PDB Molecule: xpf endonuclease; PDBTitle: xpf from aeropyrum pernix
102	c1yqmA	Alignment	not modelled	26.0	20 PDB header: hydrolase/dna Chain: A: PDB Molecule: n-glycosylase/dna lyase; PDBTitle: catalytically inactive human 8-oxoguanine glycosylase2 crosslinked to 7-deazaguanine containing dna
103	d1ykga1	Alignment	not modelled	25.8	9 Fold: Flavodoxin-like Superfamily: Flavoproteins Family: Cytochrome p450 reductase N-terminal domain-like
104	c1hl8B	Alignment	not modelled	25.8	10 PDB header: hydrolase Chain: B: PDB Molecule: putative alpha-l-fucosidase; PDBTitle: crystal structure of thermotoga maritima alpha-fucosidase
105	d1dk2a	Alignment	not modelled	24.1	39 Fold: SAM domain-like Superfamily: DNA polymerase beta, N-terminal domain-like Family: DNA polymerase beta, N-terminal domain-like
106	c3lw9B	Alignment	not modelled	23.7	12 PDB header: protein transport Chain: B: PDB Molecule: invasion protein inva; PDBTitle: structure of a cytoplasmic domain of salmonella inva

107	dlrqp1	 Alignment	not modelled	23.4	14	Fold: Bacterial fluorinating enzyme, C-terminal domain Superfamily: Bacterial fluorinating enzyme, C-terminal domain Family: Bacterial fluorinating enzyme, C-terminal domain
108	c2dzaA	 Alignment	not modelled	22.5	8	PDB header: transferase Chain: A: PDB Molecule: dihydropteroate synthase; PDBTitle: crystal structure of dihydropteroate synthase from thermus2 thermophilus hb8 in complex with 4-aminobenzoate
109	dly88a1	 Alignment	not modelled	21.7	22	Fold: SAM domain-like Superfamily: Rad51 N-terminal domain-like Family: Hypothetical protein AF1548, C-terminal domain
110	c2kp7A	 Alignment	not modelled	21.6	12	PDB header: hydrolase Chain: A: PDB Molecule: crossover junction endonuclease mus81; PDBTitle: solution nmr structure of the mus81 n-terminal hhh.2 northeast structural genomics consortium target mmt1a