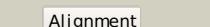
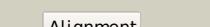
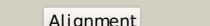
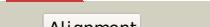
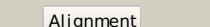
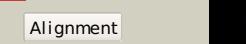
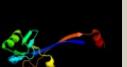
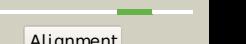
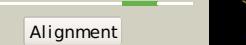
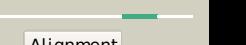
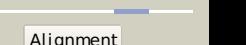
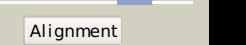
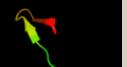
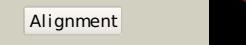
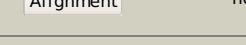
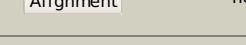
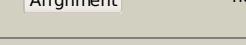
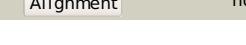


Phyre²

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Date	Wed Jan 25 15:20:19 GMT 2012
Unique Job ID	d381a67183fa0e58

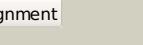
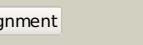
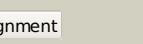
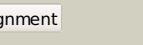
Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3iydC_			100.0	99	PDB header: transcription/dna Chain: C: PDB Molecule: dna-directed rna polymerase subunit beta; PDBTitle: three-dimensional em structure of an intact activator-dependent transcription initiation complex
2	d1smyc_			100.0	50	Fold: beta and beta-prime subunits of DNA dependent RNA-polymerase Superfamily: beta and beta-prime subunits of DNA dependent RNA-polymerase Family: RNA-polymerase beta
3	d1ynjc1			100.0	50	Fold: beta and beta-prime subunits of DNA dependent RNA-polymerase Superfamily: beta and beta-prime subunits of DNA dependent RNA-polymerase Family: RNA-polymerase beta
4	c2pmzB_			100.0	31	PDB header: translation, transferase Chain: B: PDB Molecule: dna-directed rna polymerase subunit b; PDBTitle: archaeal rna polymerase from sulfobolus solfataricus
5	c3h0gN_			100.0	27	PDB header: transcription Chain: N: PDB Molecule: dna-directed rna polymerase ii subunit rpb2; PDBTitle: rna polymerase ii from schizosaccharomyces pombe
6	d1twfb_			100.0	30	Fold: beta and beta-prime subunits of DNA dependent RNA-polymerase Superfamily: beta and beta-prime subunits of DNA dependent RNA-polymerase Family: RNA-polymerase beta
7	c3mlqD_			100.0	54	PDB header: transferase/transcription Chain: D: PDB Molecule: dna-directed rna polymerase subunit beta; PDBTitle: crystal structure of the thermus thermophilus transcription-repair coupling factor rna polymerase interacting domain with the thermus3 aquaticus rna polymerase betal domain
8	c3mlqB_			100.0	59	PDB header: transferase/transcription Chain: B: PDB Molecule: dna-directed rna polymerase subunit beta; PDBTitle: crystal structure of the thermus thermophilus transcription-repair coupling factor rna polymerase interacting domain with the thermus3 aquaticus rna polymerase betal domain
9	c3tbiB_			100.0	100	PDB header: transcription Chain: B: PDB Molecule: dna-directed rna polymerase subunit beta; PDBTitle: crystal structure of t4 gp33 bound to e. coli rnap beta-flap domain
10	c3ltiA_			100.0	92	PDB header: transferase Chain: A: PDB Molecule: dna-directed rna polymerase subunit beta; PDBTitle: crystal structure of the escherichia coli rna polymerase beta subunit2 beta2-beta1 domains
11	c3qqcA_			99.4	23	PDB header: transcription Chain: A: PDB Molecule: dna-directed rna polymerase subunit b, dna-directed rna PDBTitle: crystal structure of archaeal spt4/5 bound to the rnap clamp domain

12	c3e7hA			95.6	75	PDB header: transferase Chain: A: PDB Molecule: dna-directed rna polymerase subunit beta; PDBTitle: the crystal structure of the beta subunit of the dna-2 directed rna polymerase from vibrio cholerae o1 biovar3 eltor
13	d1r46a1			50.9	20	Fold: Glycosyl hydrolase domain Superfamily: Glycosyl hydrolase domain Family: alpha-Amylases, C-terminal beta-sheet domain
14	c1gjIA			50.3	20	PDB header: membrane protein Chain: A: PDB Molecule: lap2; PDBTitle: n-terminal constant region of the nuclear envelope protein2 lap2
15	c2gtiA			41.6	14	PDB header: viral protein Chain: A: PDB Molecule: replicase polyprotein 1ab; PDBTitle: mutation of mhv coronavirus non-structural protein nsp15 (f307I)
16	d1n26a2			30.8	11	Fold: Immunoglobulin-like beta-sandwich Superfamily: Fibronectin type III Family: Fibronectin type III
17	d2eyqa5			28.1	16	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
18	d1gm5a4			27.8	15	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
19	d1y4oa1			26.6	53	Fold: Profilin-like Superfamily: Roadblock/LC7 domain Family: Roadblock/LC7 domain
20	d2f3na1			25.7	10	Fold: SAM domain-like Superfamily: SAM/Pointed domain Family: SAM (sterile alpha motif) domain
21	d1zq1c1		not modelled	24.5	36	Fold: GatB/YqeY motif Superfamily: GatB/YqeY motif Family: GatB/GatE C-terminal domain-like
22	c2db3D		not modelled	24.0	38	PDB header: hydrolase/rna Chain: D: PDB Molecule: atp-dependent rna helicase vasa; PDBTitle: structural basis for rna unwinding by the dead-box protein2 drosophila vasa
23	d2g7ja1		not modelled	22.8	32	Fold: Secretion chaperone-like Superfamily: YgaC/TfoX-N like Family: YgaC-like
24	d1nbwa1		not modelled	21.4	17	Fold: The "swivelling" beta/beta/alpha domain Superfamily: Swiveling domain of dehydratase reactivase alpha subunit Family: Swiveling domain of dehydratase reactivase alpha subunit
25	d2gtia2		not modelled	21.2	10	Fold: EndoU-like Superfamily: EndoU-like Family: Nsp15 C-terminal domain-like
26	c2c2ID		not modelled	20.5	19	PDB header: chaperone Chain: D: PDB Molecule: carboxy terminus of hsp70-interacting protein; PDBTitle: crystal structure of the chip u-box e3 ubiquitin ligase
27	d1sy7a1		not modelled	20.5	15	Fold: Flavodoxin-like Superfamily: Class I glutamine amidotransferase-like Family: Catalase, C-terminal domain
28	c2aujD		not modelled	20.4	33	PDB header: transferase Chain: D: PDB Molecule: dna-directed rna polymerase beta' chain; PDBTitle: structure of thermus aquaticus rna polymerase beta'-subunit2 insert
29	c3mjhd		not modelled	19.3	38	PDB header: protein transport Chain: D: PDB Molecule: early endosome antigen 1; PDBTitle: crystal structure of human rab5a in complex with the

					c2h2 zinc finger2 of eea1
30	c3bxzA	Alignment	not modelled	19.2	PDB header: transport protein Chain: A: PDB Molecule: preprotein translocase subunit secA; PDBTitle: crystal structure of the isolated dead motor domains from <i>escherichia coli</i> secA
31	c3cwiA	Alignment	not modelled	18.9	PDB header: biosynthetic protein Chain: A: PDB Molecule: thiamine-biosynthesis protein this; PDBTitle: crystal structure of thiamine biosynthesis protein (this)2 from <i>geobacter metallireducens</i> . northeast structural3 genomics consortium target gmr137
32	d1d02a	Alignment	not modelled	18.7	Fold: Restriction endonuclease-like Superfamily: Restriction endonuclease-like Family: Restriction endonuclease MunI
33	d1ujpa	Alignment	not modelled	18.4	Fold: TIM beta/alpha-barrel Superfamily: Ribulose-phosphate binding barrel Family: Tryptophan biosynthesis enzymes
34	c3izbX	Alignment	not modelled	18.3	PDB header: ribosome Chain: X: PDB Molecule: 40s ribosomal protein rps27 (s27e); PDBTitle: localization of the small subunit ribosomal proteins into a 6.1 a2 cryo-em map of <i>saccharomyces cerevisiae</i> translating 80s ribosome
35	d1lqna	Alignment	not modelled	18.1	Fold: TIM beta/alpha-barrel Superfamily: Phosphoenolpyruvate/pyruvate domain Family: Phosphoenolpyruvate carboxylase
36	d1tf5a4	Alignment	not modelled	17.7	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
37	c3kdeC	Alignment	not modelled	17.6	PDB header: dna binding protein/dna Chain: C: PDB Molecule: transposable element p transposase; PDBTitle: crystal structure of the thap domain from <i>d. melanogaster</i> p-element2 transposase in complex with its natural dna binding site
38	c2nu9E	Alignment	not modelled	16.8	PDB header: ligase Chain: E: PDB Molecule: succinyl-coa synthetase beta chain; PDBTitle: c123at mutant of <i>e. coli</i> succinyl-coa synthetase2 orthorhombic crystal form
39	c3bq7A	Alignment	not modelled	16.2	PDB header: transferase Chain: A: PDB Molecule: diacylglycerol kinase delta; PDBTitle: sam domain of diacylglycerol kinase delta1 (e35g)
40	c2hsIB	Alignment	not modelled	16.2	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: putative peptidase m23; PDBTitle: crystal structure of putative peptidase m23 from <i>pseudomonas aeruginosa</i> , new york structural genomics3 consortium
41	d1cf2o2	Alignment	not modelled	16.0	Fold: FwdE/GAPDH domain-like Superfamily: Glyceraldehyde-3-phosphate dehydrogenase-like, C-terminal domain Family: GAPDH-like
42	c3lvwA	Alignment	not modelled	16.0	PDB header: ligase Chain: A: PDB Molecule: glutamate--cysteine ligase; PDBTitle: glutathione-inhibited scgcl
43	c3u5cl	Alignment	not modelled	15.4	PDB header: ribosome Chain: I: PDB Molecule: 40s ribosomal protein s8-a; PDBTitle: the structure of the eukaryotic ribosome at 3.0 a resolution
44	c2ivfC	Alignment	not modelled	15.3	PDB header: oxidoreductase Chain: C: PDB Molecule: ethylbenzene dehydrogenase gamma-subunit; PDBTitle: ethylbenzene dehydrogenase from <i>aromatoleum aromaticum</i>
45	c2bhmE	Alignment	not modelled	15.2	PDB header: bacterial protein Chain: E: PDB Molecule: type iv secretion system protein virB8; PDBTitle: crystal structure of virB8 from <i>brucella suis</i>
46	c3iz6X	Alignment	not modelled	15.2	PDB header: ribosome Chain: X: PDB Molecule: 40s ribosomal protein s27 (s27e); PDBTitle: localization of the small subunit ribosomal proteins into a 5.5 a2 cryo-em map of <i>triticum aestivum</i> translating 80s ribosome
47	c6paxA	Alignment	not modelled	14.3	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
48	d2bpA2	Alignment	not modelled	14.1	Fold: Nucleoplasmin-like/VP (viral coat and capsid proteins) Superfamily: ssDNA viruses Family: Microviridae-like VP
49	d2d6fc2	Alignment	not modelled	13.6	Fold: DCoH-like Superfamily: GAD domain-like Family: GAD domain
50	c2vb0A	Alignment	not modelled	13.4	PDB header: hydrolase Chain: A: PDB Molecule: polyprotein 3bcd; PDBTitle: crystal structure of coxsackievirus b3 proteinase 3c
51	d2hz5a1	Alignment	not modelled	13.1	Fold: Profilin-like Superfamily: Roadblock/LC7 domain Family: Roadblock/LC7 domain
52	c3eq5G	Alignment	not modelled	12.9	PDB header: signaling protein Chain: G: PDB Molecule: ski-like protein; PDBTitle: crystal structure of fragment 137 to 238 of the human ski-like protein
53	c1mljA	Alignment	not modelled	12.9	PDB header: blood clotting Chain: A: PDB Molecule: fibrinogen alpha subunit; PDBTitle: crystal structure of native chicken fibrinogen with two different2 bound ligands
54	d2gpra	Alignment	not modelled	12.6	Fold: Barrel-sandwich hybrid Superfamily: Duplicated hybrid motif Family: Glucose permease-like

55	d1dcza	Alignment	not modelled	12.4	27	Fold: Barrel-sandwich hybrid Superfamily: Single hybrid motif Family: Biotinyl/lipoyl-carrier proteins and domains
56	d1flja	Alignment	not modelled	12.2	33	Fold: Carbonic anhydrase Superfamily: Carbonic anhydrase Family: Carbonic anhydrase
57	d2pxyd2	Alignment	not modelled	12.2	56	Fold: MHC antigen-recognition domain Superfamily: MHC antigen-recognition domain Family: MHC antigen-recognition domain
58	c3dlmA	Alignment	not modelled	12.1	16	PDB header: transferase Chain: A: PDB Molecule: histone-lysine n-methyltransferase setdb1; PDBTitle: crystal structure of tudor domain of human histone-lysine n-2 methyltransferase setdb1
59	c2qm3A	Alignment	not modelled	11.8	30	PDB header: transferase Chain: A: PDB Molecule: predicted methyltransferase; PDBTitle: crystal structure of a predicted methyltransferase from pyrococcus furiosus
60	d1px5a1	Alignment	not modelled	11.7	28	Fold: PAP/OAS1 substrate-binding domain Superfamily: PAP/OAS1 substrate-binding domain Family: 2'-5'-oligoadenylate synthetase 1, OAS1, second domain
61	c2cwpA	Alignment	not modelled	11.7	15	PDB header: ligase Chain: A: PDB Molecule: metrs related protein; PDBTitle: crystal structure of metrs related protein from pyrococcus horikoshii
62	c2gu1A	Alignment	not modelled	11.4	30	PDB header: hydrolase Chain: A: PDB Molecule: zinc peptidase; PDBTitle: crystal structure of a zinc containing peptidase from2 vibrio cholerae
63	d1lk5a2	Alignment	not modelled	11.4	19	Fold: Ferredoxin-like Superfamily: D-ribose-5-phosphate isomerase (RpiA), lid domain Family: D-ribose-5-phosphate isomerase (RpiA), lid domain
64	d1pfva2	Alignment	not modelled	11.3	40	Fold: Adenine nucleotide alpha hydrolase-like Superfamily: Nucleotidyl transferase Family: Class I aminoacyl-tRNA synthetases (RS), catalytic domain
65	d2ppwa1	Alignment	not modelled	11.2	7	Fold: TBP-like Superfamily: YugN-like Family: YugN-like
66	d1prtc1	Alignment	not modelled	11.1	14	Fold: OB-fold Superfamily: Bacterial enterotoxins Family: Bacterial AB5 toxins, B-subunits
67	c2f1mA	Alignment	not modelled	11.1	20	PDB header: transport protein Chain: A: PDB Molecule: acriflavine resistance protein a; PDBTitle: conformational flexibility in the multidrug efflux system protein acra
68	d1glaf	Alignment	not modelled	10.8	20	Fold: Barrel-sandwich hybrid Superfamily: Duplicated hybrid motif Family: Glucose permease-like
69	c2oy7A	Alignment	not modelled	10.7	13	PDB header: membrane protein Chain: A: PDB Molecule: outer surface protein a; PDBTitle: the crystal structure of ospa mutant
70	d1gjja1	Alignment	not modelled	10.5	29	Fold: LEM/SAP HeH motif Superfamily: LEM domain Family: LEM domain
71	c2hxyC	Alignment	not modelled	10.3	33	PDB header: hydrolase Chain: C: PDB Molecule: probable atp-dependent rna helicase ddx48; PDBTitle: crystal structure of human apo-eif4aiii
72	c2dneA	Alignment	not modelled	10.2	13	PDB header: transferase Chain: A: PDB Molecule: dihydrolipoylysine-residue acetyltransferase PDBTitle: solution structure of rsg1 ruh-058, a lipoyl domain of human 2-oxoacid dehydrogenase
73	c2pjmA	Alignment	not modelled	10.2	14	PDB header: isomerase Chain: A: PDB Molecule: ribose-5-phosphate isomerase a; PDBTitle: structure of ribose 5-phosphate isomerase a from2 methanocaldococcus jannaschii
74	c3nyyA	Alignment	not modelled	10.2	32	PDB header: hydrolase Chain: A: PDB Molecule: putative glycyl-glycine endopeptidase lytm; PDBTitle: crystal structure of a putative glycyl-glycine endopeptidase lytm2 (rumgna_02482) from rumicococcus gnavus atcc 29149 at 1.60 a3 resolution
75	d1m0sa2	Alignment	not modelled	10.2	19	Fold: Ferredoxin-like Superfamily: D-ribose-5-phosphate isomerase (RpiA), lid domain Family: D-ribose-5-phosphate isomerase (RpiA), lid domain
76	d1pk1c1	Alignment	not modelled	10.2	3	Fold: SAM domain-like Superfamily: SAM/Pointed domain Family: SAM (sterile alpha motif) domain
77	d1f46a	Alignment	not modelled	10.1	57	Fold: TBP-like Superfamily: Cell-division protein ZipA, C-terminal domain Family: Cell-division protein ZipA, C-terminal domain
78	c3ghgD	Alignment	not modelled	10.0	29	PDB header: blood clotting Chain: D: PDB Molecule: fibrinogen alpha chain; PDBTitle: crystal structure of human fibrinogen
79	c1pk1A	Alignment	not modelled	9.9	5	PDB header: transcription repression Chain: A: PDB Molecule: polyhomeotic-proximal chromatin protein; PDBTitle: hetero sam domain structure of ph and scm.
80	c1pd7B	Alignment	not modelled	9.9	60	PDB header: transcription Chain: B: PDB Molecule: mad1; PDBTitle: extended sid of mad1 bound to the pah2 domain of msin3b

81	d1aola_		Alignment	not modelled	9.8	21	Fold: ENV polyprotein, receptor-binding domain Superfamily: ENV polyprotein, receptor-binding domain Family: ENV polyprotein, receptor-binding domain
82	c2jgnB_		Alignment	not modelled	9.7	24	PDB header: hydrolase Chain: B: PDB Molecule: atp-dependent rna helicase ddx3x; PDBTitle: ddx3 helicase domain
83	c3gekA_		Alignment	not modelled	9.7	21	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: putative thioesterase yhda; PDBTitle: crystal structure of putative thioesterase yhda from lactococcus2 lactis. northeast structural genomics consortium target kr113
84	d1prt1		Alignment	not modelled	9.7	14	Fold: OB-fold Superfamily: Bacterial enterotoxins Family: Bacterial AB5 toxins, B-subunits
85	d1luga_		Alignment	not modelled	9.6	33	Fold: Carbonic anhydrase Superfamily: Carbonic anhydrase Family: Carbonic anhydrase
86	d2c4ka1		Alignment	not modelled	9.5	13	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosylpyrophosphate synthetase-like
87	c3kizA_		Alignment	not modelled	9.5	27	PDB header: ligase Chain: A: PDB Molecule: phosphoribosylformylglycinamide cyclo-ligase; PDBTitle: crystal structure of putative phosphoribosylformylglycinamide cyclo-2 ligase (yp_676759.1) from cytophaga hutchinsonii atcc 33406 at 1.50 a3 resolution
88	c1a1vA_		Alignment	not modelled	9.5	26	PDB header: hydrolase/dna Chain: A: PDB Molecule: protein (ns3 protein); PDBTitle: hepatitis c virus ns3 helicase domain complexed with single2 stranded dna
89	d1m5ha1		Alignment	not modelled	9.5	42	Fold: Ferredoxin-like Superfamily: Formylmethanofuran:tetrahydromethanopterin formyltransferase Family: Formylmethanofuran:tetrahydromethanopterin formyltransferase
90	d2d0oa1		Alignment	not modelled	9.4	12	Fold: The "swivelling" beta/beta/alpha domain Superfamily: Swiveling domain of dehydratase reactivase alpha subunit Family: Swiveling domain of dehydratase reactivase alpha subunit
91	d1u9ya1		Alignment	not modelled	9.4	20	Fold: PRTase-like Superfamily: PRTase-like Family: Phosphoribosylpyrophosphate synthetase-like
92	d1ftf1		Alignment	not modelled	9.4	54	Fold: Ferredoxin-like Superfamily: Formylmethanofuran:tetrahydromethanopterin formyltransferase Family: Formylmethanofuran:tetrahydromethanopterin formyltransferase
93	d1gpra_		Alignment	not modelled	9.3	25	Fold: Barrel-sandwich hybrid Superfamily: Duplicated hybrid motif Family: Glucose permease-like
94	d1vf7a_		Alignment	not modelled	9.3	27	Fold: HlyD-like secretion proteins Superfamily: HlyD-like secretion proteins Family: HlyD-like secretion proteins
95	c2xzr6_		Alignment	not modelled	9.2	63	PDB header: ribosome Chain: 6: PDB Molecule: rps27e; 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
96	d1m5sa1		Alignment	not modelled	9.2	42	Fold: Ferredoxin-like Superfamily: Formylmethanofuran:tetrahydromethanopterin formyltransferase Family: Formylmethanofuran:tetrahydromethanopterin formyltransferase
97	d1qxf1		Alignment	not modelled	9.2	33	Fold: Rubredoxin-like Superfamily: Zn-binding ribosomal proteins Family: Ribosomal protein S27e
98	c2kkpA_		Alignment	not modelled	9.2	36	PDB header: dna binding protein Chain: A: PDB Molecule: phage integrase; PDBTitle: solution nmr structure of the phage integrase sam-like2 domain from moth 1796 from moarella thermoacetic.3 northeast structural genomics consortium target mtr39k4 (residues 64-171).
99	c2fyuE_		Alignment	not modelled	9.1	43	PDB header: oxidoreductase Chain: E: PDB Molecule: ubiquinol-cytochrome c reductase iron-sulfur subunit; PDBTitle: crystal structure of bovine heart mitochondrial bc1 with jg1442 inhibitor