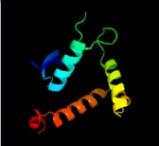
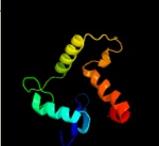
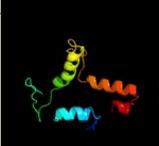
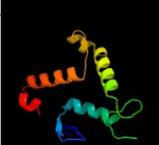


Phyre2

Email	mdejesus@rockefeller.edu
Description	RVBD1054 (-)_1176933_1177247
Date	Wed Jul 31 22:05:13 BST 2019
Unique Job ID	6fba87eb50d374e0

Detailed template
information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c3nkhB_	 Alignment		99.2	19	PDB header: recombination Chain: B: PDB Molecule: integrase; PDBTitle: crystal structure of integrase from mrsa strain staphylococcus aureus
2	c1z1bA_	 Alignment		99.1	13	PDB header: dna binding protein/dna Chain: A: PDB Molecule: integrase; PDBTitle: crystal structure of a lambda integrase dimer bound to a2 coc' core site
3	c5dcfA_	 Alignment		99.1	19	PDB header: recombination Chain: A: PDB Molecule: tyrosine recombinase xerd,dna translocase ftsk; PDBTitle: c-terminal domain of xerd recombinase in complex with gamma domain of ftsk
4	c5jivA_	 Alignment		99.1	18	PDB header: recombination Chain: A: PDB Molecule: tyrosine recombinase xerh; PDBTitle: crystal structure of xerh site-specific recombinase bound to 2 palindromic difh substrate: post-cleavage complex
5	c2a3vA_	 Alignment		98.8	15	PDB header: recombination Chain: A: PDB Molecule: site-specific recombinase inti4; PDBTitle: structural basis for broad dna-specificity in integron recombination
6	c6en2A_	 Alignment		98.6	17	PDB header: recombination Chain: A: PDB Molecule: int protein; PDBTitle: structure of the tn1549 transposon integrase (aa 82-397, r225k) in 2 complex with a circular intermediate dna (ci6b-dna)
7	c5vzfA_	 Alignment		98.5	18	PDB header: dna binding protein Chain: A: PDB Molecule: gp33; PDBTitle: integrase from mycobacterium phage brujita
8	d1p7da_	 Alignment		98.4	13	Fold: DNA breaking-rejoining enzymes Superfamily: DNA breaking-rejoining enzymes Family: Lambda integrase-like, catalytic core
9	c1ma7A_	 Alignment		98.3	9	PDB header: hydrolase, ligase/dna Chain: A: PDB Molecule: cre recombinase; PDBTitle: crystal structure of cre site-specific recombinase 2 complexed with a mutant dna substrate, loxp-a8/t27
10	c5hxyE_	 Alignment		98.2	19	PDB header: recombination Chain: E: PDB Molecule: tyrosine recombinase xera; PDBTitle: crystal structure of xera recombinase
11	c1crxA_	 Alignment		98.0	11	PDB header: replication/dna Chain: A: PDB Molecule: cre recombinase; PDBTitle: cre recombinase/dna complex reaction intermediate i

12	d1aiha_	Alignment		98.0	19	Fold: DNA breaking-rejoining enzymes Superfamily: DNA breaking-rejoining enzymes Family: Lambda integrase-like, catalytic core
13	d1ae9a_	Alignment		97.8	13	Fold: DNA breaking-rejoining enzymes Superfamily: DNA breaking-rejoining enzymes Family: Lambda integrase-like, catalytic core
14	d5crxb2	Alignment		97.7	11	Fold: DNA breaking-rejoining enzymes Superfamily: DNA breaking-rejoining enzymes Family: Lambda integrase-like, catalytic core
15	c4a8eA_	Alignment		97.6	19	PDB header: cell cycle Chain: A: PDB Molecule: probable tyrosine recombinase xerc-like; PDBTitle: the structure of a dimeric xer recombinase from archaea
16	c5c6kB_	Alignment		97.4	24	PDB header: hydrolase Chain: B: PDB Molecule: integrase; PDBTitle: bacteriophage p2 integrase catalytic domain
17	c1a0pA_	Alignment		97.2	19	PDB header: dna recombination Chain: A: PDB Molecule: site-specific recombinase xerd; PDBTitle: site-specific recombinase, xerd
18	d1a0pa2	Alignment		96.6	19	Fold: DNA breaking-rejoining enzymes Superfamily: DNA breaking-rejoining enzymes Family: Lambda integrase-like, catalytic core
19	d1f44a2	Alignment		95.9	9	Fold: DNA breaking-rejoining enzymes Superfamily: DNA breaking-rejoining enzymes Family: Lambda integrase-like, catalytic core
20	c3uxuA_	Alignment		95.4	13	PDB header: recombination Chain: A: PDB Molecule: probable integrase; PDBTitle: the structure of the catalytic domain of the sulfobolus spindle-shaped2 viral integrase reveals an evolutionarily conserved catalytic core3 and supports a mechanism of dna cleavage in trans
21	c5ks8F_	Alignment	not modelled	58.4	4	PDB header: ligase Chain: F: PDB Molecule: pyruvate carboxylase subunit beta; PDBTitle: crystal structure of two-subunit pyruvate carboxylase from2 methylobacillus flagellatus
22	c5ks8D_	Alignment	not modelled	47.5	4	PDB header: ligase Chain: D: PDB Molecule: pyruvate carboxylase subunit beta; PDBTitle: crystal structure of two-subunit pyruvate carboxylase from2 methylobacillus flagellatus
23	c3bleA_	Alignment	not modelled	45.4	15	PDB header: transferase Chain: A: PDB Molecule: citramalate synthase from leptospira interrogans; PDBTitle: crystal structure of the catalytic domain of licms in complexed with2 malonate
24	c3ivuB_	Alignment	not modelled	43.4	8	PDB header: transferase Chain: B: PDB Molecule: homocitrate synthase, mitochondrial; PDBTitle: homocitrate synthase lys4 bound to 2-og
25	c2nx9B_	Alignment	not modelled	39.8	10	PDB header: lyase Chain: B: PDB Molecule: oxaloacetate decarboxylase 2, subunit alpha; PDBTitle: crystal structure of the carboxyltransferase domain of the2 oxaloacetate decarboxylase na+ pump from vibrio cholerae
26	c1ydnA_	Alignment	not modelled	38.1	8	PDB header: lyase Chain: A: PDB Molecule: hydroxymethylglutaryl-coa lyase; PDBTitle: crystal structure of the hmg-coa lyase from brucella melitensis,2 northeast structural genomics target lr35.
27	d1rqba2	Alignment	not modelled	36.5	10	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: HMGL-like
						PDB header: lyase/oxidoreductase Chain: C: PDB Molecule: 4-hydroxy-2-oxoalate aldolase; PDBTitle: crystal and solution structures of the bifunctional

28	c4lrtC_	Alignment	not modelled	35.5	15	enzyme2 (aldolase/aldehyde dehydrogenase) from thermomonospora curvata,3 reveal a cofactor-binding domain motion during nad+ and coa4 accommodation within the shared cofactor-binding site
29	c4jn6C_	Alignment	not modelled	35.4	13	PDB header: lyase/oxidoreductase Chain: C: PDB Molecule: 4-hydroxy-2-oxovalerate aldolase; PDBTitle: crystal structure of the aldolase-dehydrogenase complex from2 mycobacterium tuberculosis hrv37
30	c3dxiB_	Alignment	not modelled	32.9	8	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: putative aldolase; PDBTitle: crystal structure of the n-terminal domain of a putative2 aldolase (bvj_2661) from bacteroides vulgatus
31	c3ewbX_	Alignment	not modelled	30.2	9	PDB header: transferase Chain: X: PDB Molecule: 2-isopropylmalate synthase; PDBTitle: crystal structure of n-terminal domain of putative 2-isopropylmalate2 synthase from listeria monocytogenes
32	c3rmjB_	Alignment	not modelled	27.1	8	PDB header: transferase Chain: B: PDB Molecule: 2-isopropylmalate synthase; PDBTitle: crystal structure of truncated alpha-isopropylmalate synthase from2 neisseria meningitidis
33	c2qqdG_	Alignment	not modelled	27.0	25	PDB header: lyase Chain: G: PDB Molecule: pyruvoyl-dependent arginine decarboxylase (ec PDBTitle: n47a mutant of pyruvoyl-dependent arginine decarboxylase2 from methanococcus jannashii
34	c6e1jB_	Alignment	not modelled	26.2	9	PDB header: plant protein Chain: B: PDB Molecule: 2-isopropylmalate synthase, a genome specific 1; PDBTitle: crystal structure of methylthioalkylmalate synthase (bjmam1.1) from2 brassica juncea
35	c3eegB_	Alignment	not modelled	25.2	13	PDB header: transferase Chain: B: PDB Molecule: 2-isopropylmalate synthase; PDBTitle: crystal structure of a 2-isopropylmalate synthase from2 cytophaga hutchinsonii
36	c2hjnA_	Alignment	not modelled	24.8	14	PDB header: cell cycle Chain: A: PDB Molecule: maintenance of ploidy protein mob1; PDBTitle: structural and functional analysis of saccharomyces2 cerevisiae mob1
37	c2xfiB_	Alignment	not modelled	24.8	19	PDB header: hydrolase Chain: B: PDB Molecule: dyne7; PDBTitle: induced-fit and allosteric effects upon polyene binding2 revealed by crystal structures of the dynemicin3 thioesterase
38	c2b9sA_	Alignment	not modelled	23.6	18	PDB header: isomerase/dna Chain: A: PDB Molecule: topoisomerase i-like protein; PDBTitle: crystal structure of heterodimeric l. donovani topoisomerase i-2 vanadate-dna complex
39	c3hzpA_	Alignment	not modelled	21.4	22	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: ntf2-like protein of unknown function; PDBTitle: crystal structure of ntf2-like protein of unknown function mn2a_05052 from prochlorococcus marinus (yp_291699.1) from prochlorococcus sp.3 natl2a at 1.40 a resolution
40	c5eo4A_	Alignment	not modelled	20.8	19	PDB header: hydrolase Chain: A: PDB Molecule: thioesterase; PDBTitle: structural and biochemical characterization of the hypothetical2 protein sav2348 from staphylococcus aureus.
41	c1nvmG_	Alignment	not modelled	18.3	8	PDB header: lyase/oxidoreductase Chain: G: PDB Molecule: 4-hydroxy-2-oxovalerate aldolase; PDBTitle: crystal structure of a bifunctional aldolase-dehydrogenase :2 sequestering a reactive and volatile intermediate
42	c1ydoC_	Alignment	not modelled	17.8	12	PDB header: lyase Chain: C: PDB Molecule: hmg-coa lyase; PDBTitle: crystal structure of the bacillis subtilis hmg-coa lyase, northeast2 structural genomics target sr181.
43	c2w3xE_	Alignment	not modelled	17.7	20	PDB header: hydrolase Chain: E: PDB Molecule: cale7; PDBTitle: crystal structure of a bifunctional hotdog fold2 thioesterase in enediyne biosynthesis, cale7
44	c4ov9A_	Alignment	not modelled	17.1	8	PDB header: transferase Chain: A: PDB Molecule: isopropylmalate synthase; PDBTitle: structure of isopropylmalate synthase binding with alpha-2 isopropylmalate
45	d1k4ta2	Alignment	not modelled	17.0	16	Fold: DNA breaking-rejoining enzymes Superfamily: DNA breaking-rejoining enzymes Family: Eukaryotic DNA topoisomerase I, catalytic core
46	d1rr8c1	Alignment	not modelled	16.4	15	Fold: DNA breaking-rejoining enzymes Superfamily: DNA breaking-rejoining enzymes Family: Eukaryotic DNA topoisomerase I, catalytic core
47	c3m0zD_	Alignment	not modelled	14.9	13	PDB header: lyase Chain: D: PDB Molecule: putative aldolase; PDBTitle: crystal structure of putative aldolase from klebsiella pneumoniae.
48	c1rr2A_	Alignment	not modelled	13.5	10	PDB header: transferase Chain: A: PDB Molecule: transcarboxylase 5s subunit; PDBTitle: propionibacterium shermanii transcarboxylase 5s subunit bound to 2-2 ketobutyric acid
49	c4lqqB_	Alignment	not modelled	13.0	16	PDB header: transferase/transferase activator Chain: B: PDB Molecule: cbk1 kinase activator protein mob2; PDBTitle: crystal structure of the cbk1(t743e)-mob2 kinase-coactivator complex2 in crystal form b
50	c2bcwC_	Alignment	not modelled	12.4	14	PDB header: ribosome Chain: C: PDB Molecule: elongation factor g; PDBTitle: coordinates of the n-terminal domain of ribosomal protein l11,c-2 terminal domain of ribosomal protein l7/l12 and a portion of the g3 domain of elongation factor g, as fitted into cryo-em map of an4 escherichia coli 70s*ef-g*gdp*fusidic acid complex
51	c1a31A_	Alignment	not modelled	11.6	19	PDB header: isomerase/dna Chain: A: PDB Molecule: protein (topoisomerase i); PDBTitle: human reconstituted dna topoisomerase i in covalent complex2 with a 22 base pair dna duplex
52	d2hlja1	Alignment	not modelled	10.5	18	Fold: Thioesterase/thiol ester dehydrase-isomerase Superfamily: Thioesterase/thiol ester dehydrase-isomerase

						Family: 4HBT-like
53	d2oiwa1	Alignment	not modelled	10.3	18	Fold: Thioesterase/thiol ester dehydrase-isomerase Superfamily: Thioesterase/thiol ester dehydrase-isomerase Family: 4HBT-like
54	d2oafa1	Alignment	not modelled	10.2	14	Fold: Thioesterase/thiol ester dehydrase-isomerase Superfamily: Thioesterase/thiol ester dehydrase-isomerase Family: 4HBT-like
55	c2cw6B	Alignment	not modelled	10.0	11	PDB header: lyase Chain: B: PDB Molecule: hydroxymethylglutaryl-coa lyase, mitochondrial; PDBTitle: crystal structure of human hmg-coa lyase: insights into2 catalysis and the molecular basis for3 hydroxymethylglutaric aciduria
56	c2ftpA	Alignment	not modelled	9.8	12	PDB header: lyase Chain: A: PDB Molecule: hydroxymethylglutaryl-coa lyase; PDBTitle: crystal structure of hydroxymethylglutaryl-coa lyase from pseudomonas2 aeruginosa
57	d1x9ya2	Alignment	not modelled	9.7	16	Fold: Cystatin-like Superfamily: Cystatin/monellin Family: Staphopain B, prodomain
58	c3ck1B	Alignment	not modelled	9.3	18	PDB header: hydrolase Chain: B: PDB Molecule: putative thioesterase; PDBTitle: crystal structure of a putative thioesterase (reut_a2179) from2 ralstonia eutropha jmp134 at 1.74 a resolution
59	c1p6gE	Alignment	not modelled	9.3	13	PDB header: ribosome Chain: E: PDB Molecule: 30s ribosomal protein s5; PDBTitle: real space refined coordinates of the 30s subunit fitted into the low2 resolution cryo-em map of the ef-g.gtp state of e. coli 70s ribosome
60	d1hjra	Alignment	not modelled	8.9	15	Fold: Ribonuclease H-like motif Superfamily: Ribonuclease H-like Family: RuvC resolvase
61	d2uube1	Alignment	not modelled	8.6	11	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: Translational machinery components
62	c6a4cA	Alignment	not modelled	8.5	22	PDB header: unknown function Chain: A: PDB Molecule: uncharacterized protein mxan_0049; PDBTitle: solution structure of mxan_0049
63	d1w26a2	Alignment	not modelled	8.4	19	Fold: Ribosome binding domain-like Superfamily: Trigger factor ribosome-binding domain Family: Trigger factor ribosome-binding domain
64	d1ka8a	Alignment	not modelled	7.8	13	Fold: DNA/RNA-binding 3-helical bundle Superfamily: "Winged helix" DNA-binding domain Family: P4 origin-binding domain-like
65	d2qale1	Alignment	not modelled	7.6	11	Fold: Ribosomal protein S5 domain 2-like Superfamily: Ribosomal protein S5 domain 2-like Family: Translational machinery components
66	d1h3oa	Alignment	not modelled	7.5	19	Fold: Histone-fold Superfamily: Histone-fold Family: TBP-associated factors, TAFs
67	c1h3oA	Alignment	not modelled	7.5	19	PDB header: transcription/tdp-associated factors Chain: A: PDB Molecule: transcription initiation factor tfiid 135 kda subunit; PDBTitle: crystal structure of the human taf4-taf12 (tafi135-tafii20) complex
68	c4qj1A	Alignment	not modelled	7.5	11	PDB header: isomerase Chain: A: PDB Molecule: 1-(5-phosphoribosyl)-5-[(5-phosphoribosylamino)2 methylideneamino] imidazole-4-carboxamide isomerase (hisa).
69	d1nvma2	Alignment	not modelled	7.2	8	Fold: TIM beta/alpha-barrel Superfamily: Aldolase Family: HMGL-like
70	c4y9iA	Alignment	not modelled	7.1	18	PDB header: oxidoreductase Chain: A: PDB Molecule: mycobacterium tuberculosis paralogous family 11; PDBTitle: structure of f420-h2 dependent reductase (fdr-a) msmeg_2027
71	d1p9ya	Alignment	not modelled	7.1	19	Fold: Ribosome binding domain-like Superfamily: Trigger factor ribosome-binding domain Family: Trigger factor ribosome-binding domain
72	c3bg3B	Alignment	not modelled	6.9	8	PDB header: ligase Chain: B: PDB Molecule: pyruvate carboxylase, mitochondrial; PDBTitle: crystal structure of human pyruvate carboxylase (missing the biotin2 carboxylase domain at the n-terminus)
73	d1t11a2	Alignment	not modelled	6.8	10	Fold: Ribosome binding domain-like Superfamily: Trigger factor ribosome-binding domain Family: Trigger factor ribosome-binding domain
74	d1hlva2	Alignment	not modelled	6.5	11	Fold: DNA/RNA-binding 3-helical bundle Superfamily: Homeodomain-like Family: Centromere-binding
75	d1p4wa	Alignment	not modelled	6.4	14	Fold: DNA/RNA-binding 3-helical bundle Superfamily: C-terminal effector domain of the bipartite response regulators Family: GerE-like (LuxR/UhpA family of transcriptional regulators)
76	c2d3o1	Alignment	not modelled	6.4	14	PDB header: ribosome Chain: 1: PDB Molecule: trigger factor; PDBTitle: structure of ribosome binding domain of the trigger factor on the 50s2 ribosomal subunit from d. radiodurans
77	c3a9iA	Alignment	not modelled	6.2	6	PDB header: transferase/transferase inhibitor Chain: A: PDB Molecule: homocitrate synthase; PDBTitle: crystal structure of homocitrate synthase from thermus

						thermophilus2 complexed with lys
78	d2ia9a1	Alignment	not modelled	5.8	12	Fold: SpoVG-like Superfamily: SpoVG-like Family: SpoVG-like
79	c2zyfA	Alignment	not modelled	5.6	8	PDB header: transferase Chain: A: PDB Molecule: homocitrate synthase; PDBTitle: crystal structure of homocitrate synthase from thermophilus2 complexed with magnesium ion and alpha-ketoglutarate
80	c4lifuA	Alignment	not modelled	5.6	5	PDB header: dna binding protein Chain: A: PDB Molecule: regulatory protein sdia; PDBTitle: crystal structure of escherichia coli sdia in the space group c2
81	d1hywa	Alignment	not modelled	5.5	23	Fold: gpW/XkdW-like Superfamily: Head-to-tail joining protein W, gpW Family: Head-to-tail joining protein W, gpW
82	c2jwIB	Alignment	not modelled	5.5	22	PDB header: membrane protein Chain: B: PDB Molecule: protein tolR; PDBTitle: solution structure of periplasmic domain of tolR from h.2 influenzae with saxes data
83	c4exqA	Alignment	not modelled	5.3	22	PDB header: biosynthetic protein Chain: A: PDB Molecule: uroporphyrinogen decarboxylase; PDBTitle: crystal structure of uroporphyrinogen decarboxylase (upd) from2 burkholderia thailandensis e264
84	c2nscA	Alignment	not modelled	5.3	19	PDB header: chaperone Chain: A: PDB Molecule: trigger factor; PDBTitle: structures of and interactions between domains of trigger factor from2 themotoga maritima
85	c3r5wO	Alignment	not modelled	5.3	23	PDB header: oxidoreductase Chain: O: PDB Molecule: deazaflavin-dependent nitroreductase; PDBTitle: structure of ddn, the deazaflavin-dependent nitroreductase from2 mycobacterium tuberculosis involved in bioreductive activation of pa-3 824, with co-factor f420
86	d1r3ba	Alignment	not modelled	5.2	9	Fold: Bromodomain-like Superfamily: Mob1/phocein Family: Mob1/phocein
87	c3r5yC	Alignment	not modelled	5.2	25	PDB header: unknown function Chain: C: PDB Molecule: putative uncharacterized protein; PDBTitle: structure of a deazaflavin-dependent nitroreductase from nocardia2 farcinica, with co-factor f420
88	c2i9zB	Alignment	not modelled	5.1	15	PDB header: structural genomics, unknown function Chain: B: PDB Molecule: putative septation protein spovg; PDBTitle: structural genomics, the crystal structure of full-length spovg from2 staphylococcus epidermidis atcc 12228
89	d2i9xa1	Alignment	not modelled	5.1	15	Fold: SpoVG-like Superfamily: SpoVG-like Family: SpoVG-like
90	c2ra4B	Alignment	not modelled	5.1	17	PDB header: cytokine Chain: B: PDB Molecule: small-inducible cytokine a13; PDBTitle: crystal structure of human monocyte chemoattractant protein 4 (mcp-2 4/cc113)