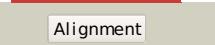
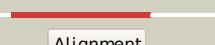
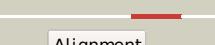


Phyre²

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Description	P23331
Date	Thu Jan 5 11:39:23 GMT 2012
Unique Job ID	5dc004b84284dc9c

Detailed template information

#	Template	Alignment Coverage	3D Model	Confidence	% i.d.	Template Information
1	c2b8tA_			100.0	26	PDB header: transferase Chain: A; PDB Molecule: thymidine kinase; PDBTitle: crystal structure of thymidine kinase from u.urealyticum in2 complex with thymidine
2	c3e2iA_			100.0	25	PDB header: transferase Chain: A; PDB Molecule: thymidine kinase; PDBTitle: crystal structure of thymidine kinase from s. aureus
3	c1w4rC_			100.0	28	PDB header: transferase Chain: C; PDB Molecule: thymidine kinase; PDBTitle: structure of a type ii thymidine kinase with bound dntp
4	c2orvB_			100.0	28	PDB header: transferase Chain: B; PDB Molecule: thymidine kinase; PDBTitle: human thymidine kinase 1 in complex with tp4a
5	c2qq0B_			100.0	25	PDB header: transferase Chain: B; PDB Molecule: thymidine kinase; PDBTitle: thymidine kinase from thermotoga maritima in complex with2 thymidine + appnhp
6	c2ja1A_			100.0	25	PDB header: transferase Chain: A; PDB Molecule: thymidine kinase; PDBTitle: thymidine kinase from b. cereus with ttp bound as phosphate2 donor.
7	c1xx6B_			100.0	23	PDB header: transferase Chain: B; PDB Molecule: thymidine kinase; PDBTitle: x-ray structure of clostridium acetobutylicum thymidine kinase with2 adp. northeast structural genomics target car26.
8	d2b8ta1			100.0	23	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Type II thymidine kinase
9	d1xx6a1			100.0	22	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Type II thymidine kinase
10	d1xbta1			100.0	23	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Type II thymidine kinase
11	d2b8ta2			99.5	37	Fold: Glucocorticoid receptor-like (DNA-binding domain) Superfamily: Glucocorticoid receptor-like (DNA-binding domain) Family: Type II thymidine kinase zinc finger

12	d1xbta2			99.2	45	Fold: Glucocorticoid receptor-like (DNA-binding domain) Superfamily: Glucocorticoid receptor-like (DNA-binding domain) Family: Type II thymidine kinase zinc finger
13	c2zroA			98.9	16	PDB header: hydrolase Chain: A: PDB Molecule: protein reca; PDBTitle: msreca adp form iv
14	c2j7pA			98.9	16	PDB header: signal recognition Chain: A: PDB Molecule: signal recognition particle protein; PDBTitle: gmpnnp-stabilized ng domain complex of the srp gtpases ffh2 and ftsy
15	d1xx6a2			98.9	33	Fold: Glucocorticoid receptor-like (DNA-binding domain) Superfamily: Glucocorticoid receptor-like (DNA-binding domain) Family: Type II thymidine kinase zinc finger
16	c3e1sA			98.9	18	PDB header: hydrolase Chain: A: PDB Molecule: exodeoxyribonuclease v, subunit recd; PDBTitle: structure of an n-terminal truncation of deinococcus radiodurans recd2
17	c3b85A			98.9	12	PDB header: hydrolase Chain: A: PDB Molecule: phosphate starvation-inducible protein; PDBTitle: crystal structure of predicted phosphate starvation-induced atpase2 phoh2 from corynebacterium glutamicum
18	c3b9qA			98.9	13	PDB header: protein transport Chain: A: PDB Molecule: chloroplast srp receptor homolog, alpha subunit PDBTitle: the crystal structure of cpftsy from arabidopsis thaliana
19	c2j37W			98.8	12	PDB header: ribosome Chain: W: PDB Molecule: signal recognition particle 54 kda protein PDBTitle: model of mammalian srp bound to 80s rncs
20	c2vbcA			98.8	12	PDB header: hydrolase Chain: A: PDB Molecule: dengue 4 ns3 full-length protein; PDBTitle: crystal structure of the ns3 protease-helicase from dengue2 virus
21	c2cnwF		not modelled	98.8	16	PDB header: signal recognition Chain: F: PDB Molecule: cell division protein ftsy; PDBTitle: gdalf4 complex of the srp gtpases ffh and ftsy
22	d1mo6a1		not modelled	98.8	17	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain) PDB header: rna binding protein, transport protein
23	c3dm5A		not modelled	98.8	11	Chain: A: PDB Molecule: signal recognition 54 kda protein; PDBTitle: structures of srp54 and srp19, the two proteins assembling2 the ribonucleic core of the signal recognition particle3 from the archaeon pyrococcus furiosus. PDB header: rna-binding
24	c2iy3A		not modelled	98.8	16	Chain: A: PDB Molecule: signal recognition particle protein ffh; PDBTitle: structure of the e. coli signal recognition particle2 bound to a translating ribosome
25	c2recB		not modelled	98.7	18	PDB header: helicase PDB COMPND:
26	d1u94a1		not modelled	98.7	18	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain) PDB header: transport protein
27	c3dmdA		not modelled	98.7	11	Chain: A: PDB Molecule: signal recognition particle receptor; PDBTitle: structures and conformations in solution of the signal recognition2 particle receptor from the archaeon pyrococcus furiosus
28	d1w36d1		not modelled	98.7	13	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases

29	c1xp8A	Alignment	not modelled	98.7	18	Family: Tandem AAA-ATPase domain PDB header: dna binding protein Chain: A: PDB Molecule: reca protein; PDBTitle: "deinococcus radiodurans reca in complex with atp-gamma-s" Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain)
30	d1ubea1	Alignment	not modelled	98.7	14	
31	c3hr8A	Alignment	not modelled	98.7	16	
32	c2og2A	Alignment	not modelled	98.7	12	PDB header: protein transport Chain: A: PDB Molecule: putative signal recognition particle receptor; PDBTitle: crystal structure of chloroplast ftsy from arabidopsis2 thaliana Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain)
33	d1cr2a	Alignment	not modelled	98.7	14	
34	c2wv9A	Alignment	not modelled	98.7	13	
35	c2qy9A	Alignment	not modelled	98.6	12	
36	c2yhsA	Alignment	not modelled	98.6	12	PDB header: cell cycle Chain: A: PDB Molecule: cell division protein ftsy; PDBTitle: structure of the ng+1 construct of the e. coli srp receptor2 ftsy
37	d1xp8a1	Alignment	not modelled	98.6	17	
38	c2v6jA	Alignment	not modelled	98.6	15	PDB header: hydrolase Chain: A: PDB Molecule: rna helicase; PDBTitle: kokobera virus helicase: mutant met47thr
39	d1tf7a2	Alignment	not modelled	98.6	17	
40	c1w36G	Alignment	not modelled	98.6	12	PDB header: recombination Chain: G: PDB Molecule: exodeoxyribonuclease v alpha chain; PDBTitle: recbcd:dna complex
41	c1vmaA	Alignment	not modelled	98.6	13	
42	c1zu4A	Alignment	not modelled	98.6	16	
43	c2jlrA	Alignment	not modelled	98.6	14	PDB header: hydrolase Chain: A: PDB Molecule: serine protease subunit ns3; PDBTitle: dengue virus 4 ns3 helicase in complex with amppnp
44	c3bh0A	Alignment	not modelled	98.5	18	
45	d1yksa1	Alignment	not modelled	98.5	15	
46	c2vyeA	Alignment	not modelled	98.5	17	
47	c2v3cc	Alignment	not modelled	98.5	9	
48	c2j289	Alignment	not modelled	98.5	11	
49	c2q6tB	Alignment	not modelled	98.4	14	
50	c3te6A	Alignment	not modelled	98.4	9	
51	c2ztsB	Alignment	not modelled	98.4	14	
52	c2w0mA	Alignment	not modelled	98.4	15	
53	d1qzx3	Alignment	not modelled	98.4	12	
54	c2z83A	Alignment	not modelled	98.4	12	PDB header: viral protein Chain: A: PDB Molecule: helicase/nucleoside triphosphatase; PDBTitle: crystal structure of catalytic domain of japanese2

						encephalitis virus ns3 helicase/nucleoside triphosphatase3 at a resolution 1.8
55	c2qeqA	Alignment	not modelled	98.4	17	PDB header: hydrolase Chain: A: PDB Molecule: flavivirin protease ns3 catalytic subunit; PDBTitle: crystal structure of kunjin virus ns3 helicase
56	c3cmvG	Alignment	not modelled	98.4	17	PDB header: recombination Chain: G: PDB Molecule: protein reca; PDBTitle: mechanism of homologous recombination from the reca-2 ssdna/ds dna structures
57	c1qzwC	Alignment	not modelled	98.4	12	PDB header: signaling protein/rna Chain: C: PDB Molecule: signal recognition 54 kda protein; PDBTitle: crystal structure of the complete core of archaeal srp and2 implications for inter-domain communication
58	d1fnna2	Alignment	not modelled	98.4	12	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Extended AAA-ATPase domain PDB header: replication
59	c3bgwD	Alignment	not modelled	98.4	16	Chain: D: PDB Molecule: dnab-like replicative helicase; PDBTitle: the structure of a dnab-like replicative helicase and its interactions2 with primase
60	d1pjra1	Alignment	not modelled	98.4	21	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
61	d1g5ta	Alignment	not modelled	98.3	17	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain) PDB header: hydrolase
62	c1ymfA	Alignment	not modelled	98.3	15	Chain: A: PDB Molecule: genome polyprotein [contains: flavivirin PDBTitle: crystal structure of yellow fever virus ns3 helicase2 complexed with adp
63	d1g64b	Alignment	not modelled	98.3	15	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain)
64	c1q57G	Alignment	not modelled	98.3	13	PDB header: transferase Chain: G: PDB Molecule: dna primase/helicase; PDBTitle: the crystal structure of the bifunctional primase-helicase of2 bacteriophage t7
65	c2wiyA	Alignment	not modelled	98.3	16	PDB header: hydrolase Chain: A: PDB Molecule: regulator of nonsense transcripts 1; PDBTitle: crystal structure of the complex between human nonsense2 mediated decay factors upf1 and upf2 orthorhombic form
66	c1u9iA	Alignment	not modelled	98.3	14	PDB header: circadian clock protein Chain: A: PDB Molecule: kaic; PDBTitle: crystal structure of circadian clock protein kaic with phosphorylation2 sites
67	d1tf7a1	Alignment	not modelled	98.3	17	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain)
68	c3pf1B	Alignment	not modelled	98.3	16	PDB header: hydrolase Chain: B: PDB Molecule: holliday junction atp-dependent dna helicase ruvb; PDBTitle: 2.7 angstrom resolution crystal structure of a probable holliday2 junction dna helicase (ruvb) from campylobacter jejuni subsp. jejuni3 nctc 11168 in complex with adenosine-5'-diphosphate
69	c2kjgA	Alignment	not modelled	98.3	18	PDB header: replication Chain: A: PDB Molecule: dnaa-related protein; PDBTitle: solution structure of protein nmb1076 from neisseria meningitidis.2 northeast structural genomics consortium target mr101b.
70	c2hcbC	Alignment	not modelled	98.2	17	PDB header: replication Chain: C: PDB Molecule: chromosomal replication initiator protein dnna; PDBTitle: structure of amppcp-bound dnna from aquifex aeolicus
71	c2xzIA	Alignment	not modelled	98.2	19	PDB header: hydrolase/rna Chain: A: PDB Molecule: atp-dependent helicase nam7; PDBTitle: upf1-rna complex
72	d1n0wa	Alignment	not modelled	98.2	19	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain)
73	c1fnnB	Alignment	not modelled	98.2	13	PDB header: cell cycle Chain: B: PDB Molecule: cell division control protein 6; PDBTitle: crystal structure of cdc6p from pyrobaculum aerophilum
74	d1uaa1	Alignment	not modelled	98.2	21	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
75	d1alaval	Alignment	not modelled	98.2	20	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RNA helicase
76	c2eyqA	Alignment	not modelled	98.2	12	PDB header: hydrolase Chain: A: PDB Molecule: transcription-repair coupling factor; PDBTitle: crystal structure of escherichia coli transcription-repair2 coupling factor
77	c3pvsA	Alignment	not modelled	98.2	11	PDB header: recombination Chain: A: PDB Molecule: replication-associated recombination protein a; PDBTitle: structure and biochemical activities of escherichia coli mgsa
78	c3ec2A	Alignment	not modelled	98.2	10	PDB header: replication Chain: A: PDB Molecule: dna replication protein dnac; PDBTitle: crystal structure of the dnac helicase loader

79	d1ls1a2	Alignment	not modelled	98.2	16	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Nitrogenase iron protein-like
80	c2is6B_	Alignment	not modelled	98.1	20	PDB header: hydrolase/dna Chain: B: PDB Molecule: dna helicase ii; PDBTitle: crystal structure of uvr-dna-adpmgf3 ternary complex
81	c2dr3A_	Alignment	not modelled	98.1	15	PDB header: structural genomics, unknown function Chain: A: PDB Molecule: upf0273 protein ph0284; PDBTitle: crystal structure of reca superfamily atpase ph0284 from pyrococcus2 horikoshii ot3
82	c2px0D_	Alignment	not modelled	98.1	17	PDB header: biosynthetic protein Chain: D: PDB Molecule: flagellar biosynthesis protein flhf; PDBTitle: crystal structure of flhf complexed with gmppnp/mg(2+)
83	d2eyqa3	Alignment	not modelled	98.1	12	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Tandem AAA-ATPase domain
84	c2ia5C_	Alignment	not modelled	98.1	9	PDB header: transferase Chain: C: PDB Molecule: polynucleotide kinase; PDBTitle: t4 polynucleotide kinase/phosphatase with bound sulfate and2 magnesium.
85	c3lidaA_	Alignment	not modelled	98.1	18	PDB header: dna binding protein Chain: A: PDB Molecule: dna repair protein rad51; PDBTitle: yeast rad51 h352y filament interface mutant
86	c3jvvA_	Alignment	not modelled	98.1	12	PDB header: atp binding protein Chain: A: PDB Molecule: twitching motility protein; PDBTitle: crystal structure of p. aeruginosa pilT with bound amppc
87	c2w58B_	Alignment	not modelled	98.1	7	PDB header: hydrolase Chain: B: PDB Molecule: primosome component (helicase loader); PDBTitle: crystal structure of the dnaI
88	c1cu1B_	Alignment	not modelled	98.1	15	PDB header: hydrolase Chain: B: PDB Molecule: protein (protease/helicase ns3); PDBTitle: crystal structure of an enzyme complex from hepatitis c2 virus
89	d1p9ra_	Alignment	not modelled	98.1	14	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain)
90	d2bmfa2	Alignment	not modelled	98.0	16	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RNA helicase
91	c1szpC_	Alignment	not modelled	98.0	16	PDB header: dna binding protein Chain: C: PDB Molecule: dna repair protein rad51; PDBTitle: a crystal structure of the rad51 filament
92	c1ly1A_	Alignment	not modelled	98.0	9	PDB header: transferase Chain: A: PDB Molecule: polynucleotide kinase; PDBTitle: structure and mechanism of t4 polynucleotide kinase
93	d1ly1a_	Alignment	not modelled	98.0	9	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Nucleotide and nucleoside kinases
94	c1sxjC_	Alignment	not modelled	98.0	14	PDB header: replication Chain: C: PDB Molecule: activator 1 40 kda subunit; PDBTitle: crystal structure of the eukaryotic clamp loader2 (replication factor c, rfc) bound to the dna sliding clamp3 (proliferating cell nuclear antigen, pcna)
95	c2gk7A_	Alignment	not modelled	98.0	17	PDB header: hydrolase Chain: A: PDB Molecule: regulator of nonsense transcripts 1; PDBTitle: structural and functional insights into the human upf1 helicase core
96	c2yvuA_	Alignment	not modelled	98.0	12	PDB header: transferase Chain: A: PDB Molecule: probable adenyl-sulfate kinase; PDBTitle: crystal structure of ape1195
97	d1ny5a2	Alignment	not modelled	98.0	14	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Extended AAA-ATPase domain
98	c2pirF_	Alignment	not modelled	98.0	20	PDB header: hydrolase/dna Chain: F: PDB Molecule: protein (helicase pcra); PDBTitle: helicase product complex
99	c3io5B_	Alignment	not modelled	98.0	13	PDB header: dna binding protein Chain: B: PDB Molecule: recombination and repair protein; PDBTitle: crystal structure of a dimeric form of the usvx recombinase core2 domain from enterobacteria phage t4
100	d1szpa2	Alignment	not modelled	98.0	17	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain)
101	d1nlfa_	Alignment	not modelled	98.0	13	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain)
102	c2r2aB_	Alignment	not modelled	98.0	14	PDB header: toxin Chain: B: PDB Molecule: uncharacterized protein; PDBTitle: crystal structure of n-terminal domain of zonular occludens toxin from2 neisseria meningitidis
103	c3kx2A_	Alignment	not modelled	98.0	16	PDB header: hydrolase Chain: A: PDB Molecule: pre-mrna-splicing factor atp-dependent rna PDBTitle: crystal structure of prp43p in complex with adp
104	c2eyuA_	Alignment	not modelled	98.0	11	PDB header: protein transport Chain: A: PDB Molecule: twitching motility protein pilT; PDBTitle: the crystal structure of the c-terminal domain of aquifex2 aeolicus pilT

105	d2i1qa2		Alignment	not modelled	97.9	16	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain)
106	c1in8A_		Alignment	not modelled	97.9	11	PDB header: dna binding protein Chain: A: PDB Molecule: holliday junction dna helicase ruvb; PDBTitle: thermotoga maritima ruvb t158v
107	c2qgza_		Alignment	not modelled	97.9	16	PDB header: hydrolase Chain: A: PDB Molecule: putative primosome component; PDBTitle: crystal structure of a putative primosome component from2 streptococcus pyogenes serotype m3. northeast structural3 genomics target dr58
108	c1sxjD_		Alignment	not modelled	97.9	8	PDB header: replication Chain: D: PDB Molecule: activator 1 41 kda subunit; PDBTitle: crystal structure of the eukaryotic clamp loader2 (replication factor c, rfc) bound to the dna sliding clamp3 (proliferating cell nuclear antigen, pcna)
109	d1v5wa_		Alignment	not modelled	97.9	13	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: RecA protein-like (ATPase-domain)
110	c3pxiB_		Alignment	not modelled	97.9	15	PDB header: protein binding Chain: B: PDB Molecule: negative regulator of genetic competence clpc/mecb; PDBTitle: structure of meca108:clpc
111	c3d8bB_		Alignment	not modelled	97.9	18	PDB header: hydrolase Chain: B: PDB Molecule: fidgetin-like protein 1; PDBTitle: crystal structure of human fidgetin-like protein 1 in complex with adp
112	d2qy9a2		Alignment	not modelled	97.9	9	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Nitrogenase iron protein-like
113	c1sxjA_		Alignment	not modelled	97.9	13	PDB header: replication Chain: A: PDB Molecule: activator 1 95 kda subunit; PDBTitle: crystal structure of the eukaryotic clamp loader2 (replication factor c, rfc) bound to the dna sliding clamp3 (proliferating cell nuclear antigen, pcna)
114	c3b9pA_		Alignment	not modelled	97.9	20	PDB header: hydrolase Chain: A: PDB Molecule: cg5977-pa, isoform a; PDBTitle: spastin
115	c2v1uA_		Alignment	not modelled	97.8	13	PDB header: replication Chain: A: PDB Molecule: cell division control protein 6 homolog; PDBTitle: structure of the aeropyrum pernix orc1 protein in complex2 with dna
116	d1l8qa2		Alignment	not modelled	97.8	13	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Extended AAA-ATPase domain
117	c1uaaB_		Alignment	not modelled	97.8	18	PDB header: hydrolase/dna Chain: B: PDB Molecule: protein (atp-dependent dna helicase rep.); PDBTitle: e. coli rep helicase/dna complex
118	d2gnoa2		Alignment	not modelled	97.8	9	Fold: P-loop containing nucleoside triphosphate hydrolases Superfamily: P-loop containing nucleoside triphosphate hydrolases Family: Extended AAA-ATPase domain
119	c2gszE_		Alignment	not modelled	97.8	12	PDB header: protein transport Chain: E: PDB Molecule: twitching motility protein pilt; PDBTitle: structure of a. aeolicus pilt with 6 monomers per2 asymmetric unit
120	c1jr3E_		Alignment	not modelled	97.8	9	PDB header: transferase Chain: E: PDB Molecule: dna polymerase iii, delta' subunit; PDBTitle: crystal structure of the processivity clamp loader gamma2 complex of e. coli dna polymerase iii