

## Product datasheet for **TA326507**

### TCP1 alpha (TCP1) Rat Monoclonal Antibody [Clone ID: 91a]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	91a
Applications:	WB
Recommended Dilution:	WB: 1:1000
Reactivity:	Mouse, Rat, Rabbit, Hamster, Dog, Human, Pig, Saccharomyces cerevisiae, C. elegans, Monkey, Cow, Guinea Pig, Drosophila melanogaster
Host:	Rat
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Recombinant Mouse TCP1 alpha protein fragment (carboxy terminal region).
Formulation:	PBS pH7.4, 50% glycerol, 0.1% sodium azide
Concentration:	lot specific
Purification:	Protein G Purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	t-complex 1
Database Link:	<a href="#">NP_110379</a> <a href="#">Entrez Gene 21454 Mouse</a> <a href="#">Entrez Gene 24818 Rat</a> <a href="#">Entrez Gene 484064 Dog</a> <a href="#">Entrez Gene 702500 Monkey</a> <a href="#">Entrez Gene 6950 Human</a> <a href="#">P17987</a>



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**Background:**

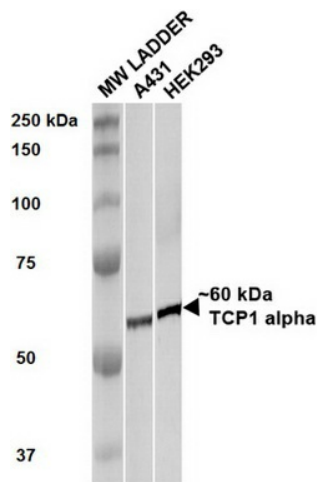
T-complex polypeptide-1 (TCP1) is a ~60 kDa protein constitutively expressed in almost all eukaryotic cells, and is up-regulated during spermatogenesis. It is found in the cytosol as a subunit of a hetero-oligomeric chaperone that is known to be involved in the folding of actin and tubulin. The family of proteins termed chaperonins act to recognize and stabilize polypeptide intermediates during folding, assembly and disassembly, and share many characteristics with Heat Shock Protein 70 (HSP 70) including high abundance, induction by environmental stress, and ATPase activity. The chaperonin family includes the mitochondrial HSP60, Escherichia coli GroEL, the plastid Rubisco-subunit binding protein, and the archaeobacterial protein TF55. The TCP1 sequence shows nearly 40% identity to TF55, but only minimal similarity to HSP60 and GroEL.

**Synonyms:**

CCT-alpha; CCT1; CCTa; D6S230E; TCP-1-alpha

**Note:**

Detects a 60kDa protein corresponding to the molecular weight of TCP1 alpha; also detects a molecular mass band of ~92kDa. Cross reactivity with human Hsp60 has been observed with this antibody in immunoblot analysis. Reacts weakly with *Saccharomyces cerevisiae*, consistent with the epitope sequence being AKLRS (instead of AKLRA). In *C. elegans*, it reacts with TCP1 alpha and another CCT subunit. In plants, it recognizes TCP1 of *Pisum sativum*, and the sequence of *Arabidopsis thaliana* TCP1 over the region of the epitope AKLRA. It has also been shown that it reacts with a subunit of a specialized chaperonin which folds phytochrome.

**Product images:**

WB of human lysates showing detection of ~60 kDa TCP1-alpha protein using Anti-TCP1, clone 91a. Lane 1: MW ladder. Lane 2: A431 lysate, 20 ug. Lane 3: HEK293 lysate, 20ug. Block: 5% milk + TBST 1hr at RT. Primary antibody: Rat monoclonal Anti-TCP1-alpha, clone 91a incubated for 60 min at RT. Secondary antibody: Goat Anti-Rat HRP antibody (1:1000) for 60 min at RT. Colour Development: TMB solution for 5 min at RT.