

**TCP1-alpha Antibody**  
**TCP1 alpha Antibody, Clone 91a**  
**Catalog # ASM10311****Specification****TCP1-alpha Antibody - Product Information**

Application	WB, ICC, IP, FC
Primary Accession	<a href="#">P11983</a>
Other Accession	<a href="#">NP_038714.2</a>
Host	Rat
Isotype	IgG2a
Reactivity	Human, Mouse, Rat, Rabbit, Hamster, Monkey, Pig, Yeast, Bovine, C.Elegans, Guinea Pig, Dog, Drosophila
Clonality	Monoclonal
Format	PerCP

**Description**  
Rat Anti-Mouse TCP1-alpha Monoclonal IgG2a

**Target/Specificity**

Detects ~60kDa. Also detects ~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.

**Other Names**

p63 Antibody, Tcp-1 Antibody, TCP1 alpha Antibody, Ccta Antibody, TRic Antibody, Tp63 Antibody, 21454 Antibody, c-cpn Antibody, CCT Antibody, Tcp1 Antibody, ccpn Antibody, AI528772 Antibody, Cct1 Antibody, Tcp 1 Antibody, c cpn Antibody

**Immunogen**

Recombinant Mouse TCP1 alpha protein fragment (carboxy terminal region).

**Purification**

Protein G Purified

**Storage**

-20°C

**Storage Buffer**

PBS pH7.4, 50% glycerol, 0.1% sodium azide

**Shipping Temperature**

Blue Ice or 4°C

**Certificate of Analysis**

1 µg/ml of SMC-479 was sufficient for detection of TCP1 alpha in 20 µg of 3T3 cell lysate by colorimetric immunoblot analysis using Goat anti-rat IgG:HRP as the secondary antibody.

**Cellular Localization**

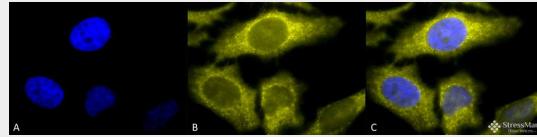
Cytoplasm

## TCP1-alpha Antibody - Protocols

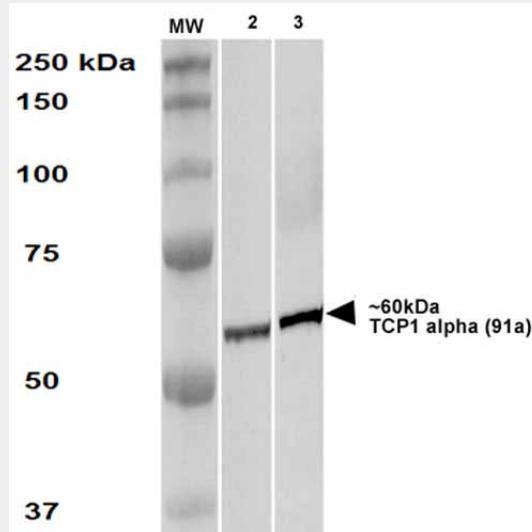
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

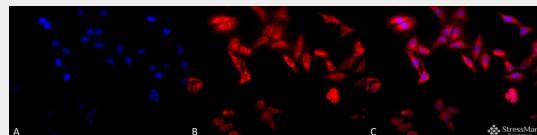
## TCP1-alpha Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Rat Anti-TCP1-alpha Monoclonal Antibody, Clone 91a (ASM10311). Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rat Anti-TCP1-alpha Monoclonal Antibody (ASM10311) at 1:100 for 12 hours at 4°C. Secondary Antibody: R-PE Goat Anti-Rat (yellow) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Cytoplasm. Centrosome. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-TCP1-alpha Antibody. (C) Composite. Heat Shocked at 42°C for 1h.



Western Blot analysis of Human A431 and HEK293 cell lysates showing detection of TCP1 alpha protein using Rat Anti-TCP1 alpha Monoclonal Antibody, Clone 91a (ASM10311). Primary Antibody: Rat Anti-TCP1 alpha Monoclonal Antibody (ASM10311) at 1:1000.



Immunocytochemistry/Immunofluorescence analysis using Rat Anti-TCP1-alpha Monoclonal Antibody, Clone 91a (ASM10311). Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2%

Formaldehyde for 20 min at RT. Primary Antibody: Rat Anti-TCP1-alpha Monoclonal Antibody (ASM10311) at 1:100 for 12 hours at 4°C. Secondary Antibody: APC Goat Anti-Rat (red) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Cytoplasm. Centrosome. Magnification: 20x. (A) DAPI (blue) nuclear stain. (B) Anti-TCP1-alpha Antibody. (C) Composite. Heat Shocked at 42°C for 1h.

### **TCP1-alpha Antibody - 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 archaeabacterial protein TF55. The TCP1 sequence shows nearly 40% identity to TF55, but only minimal similarity to HSP60 and GroEL.