

TCP1-alpha Antibody

TCP1 alpha Antibody, Clone 91a Catalog # ASM10311

Specification

TCP1-alpha Antibody - Product Information

Application WB, ICC, IP, FC

Primary Accession P11983
Other Accession NP_038714.2

Host Rat Isotype IgG2a

Reactivity Human, Mouse, Rat, Rabbit, Hamster,

Monkey, Pig, Yeast, Bovine, C.Elegans,

Guinea Pig, Dog, Drosophila

Clonality Monoclonal

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 thalania 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, Al528772 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 μ g/ml of SMC-479 was sufficient for detection of TCP1 alpha in 20 μ g of 3T3 cell lysate by colorimetric immunoblot analysis using Goat anti-rat IgG:HRP as the secondary antibody.

Cellular Localization

Cytoplasm

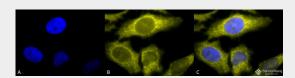
TCP1-alpha Antibody - Protocols



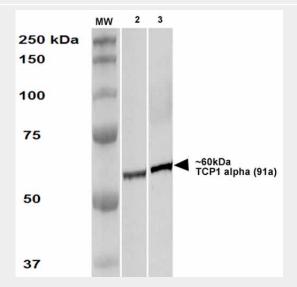
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

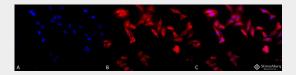
TCP1-alpha Antibody - Images



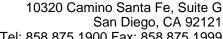
Immunocytochemistry/Immunofluorescence analysis using Rat Anti-TCP1-alpha Monoclonal Antibody, Clone 91a (ASM10311). Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rat Anti-TCP1-alpha Monoclonal Antibody (ASM10311) at 1:100 for 12 hours 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





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(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 archaebacterial protein TF55. The TCP1 sequence shows nearly 40% identity to TF55, but only minimal similarity to HSP60 and GroEL.