

# TCP-1 $\epsilon$ (A-16): sc-30515

## BACKGROUND

The protein TCP-1 (t complex polypeptide 1) is a subunit of the heterooligomeric complex CCT (chaperonin containing TCP-1) present in the eukaryotic cytosol. The CCT of eukaryotic cytosol is composed of eight different subunit species, TCP-1  $\alpha$ ,  $\beta$ ,  $\gamma$ ,  $\delta$ ,  $\epsilon$ ,  $\zeta$ ,  $\eta$  and  $\theta$ , each encoded by a different gene. Two  $\zeta$  subunits have been described: TCP-1  $\zeta$  (also designated TCP-1  $\zeta$ 1) and TCP-1  $\zeta$ 2. TCP-1 subunits are proposed to have independent functions in folding its *in vivo* substrates, the actins and tubulins. TCP-1 was first identified in the mouse as relevant for tail-less and embryonic lethal phenotypes. Sequences homologous to TCP-1 have been isolated in several other species, and the yeast TCP-1 has been shown to encode a molecular chaperone for Actin and Tubulin. TCP-1 found in mammalian cells and yeast plays an important role in the folding of cytosolic proteins.

## REFERENCES

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- Iijima, M., Shimizu, H., Tanaka, Y. and Urushihara, H. 1998. A Dictyostelium discoideum homologue to TCP-1 is essential for growth and development. *Gene* 213: 101-106.
- Ritco-Vonsovici, M. and Willison, K.R. 2000. Defining the eukaryotic cytosolic chaperonin-binding sites in human tubulins. *J. Mol. Biol.* 304: 81-98.
- Hynes, G.M. and Willison, K.R. 2000. Individual subunits of the eukaryotic cytosolic chaperonin mediate interactions with binding sites located on subdomains of  $\beta$ -Actin. *J. Biol. Chem.* 275: 18985-18994.
- Campos, E.G. and Hamdan, F.F. 2000. Cloning of the chaperonin t-complex polypeptide 1 gene from *Schistosoma mansoni* and studies of its expression levels under heat shock and oxidative stress. *Parasitol. Res.* 86: 253-258.

## CHROMOSOMAL LOCATION

Genetic locus: CCT5 (human) mapping to 5p15.2; Cct5 (mouse) mapping to 15 B2.

## SOURCE

TCP-1  $\epsilon$  (A-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TCP-1  $\epsilon$  of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-30515 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

TCP-1  $\epsilon$  (A-16) is recommended for detection of TCP-1  $\epsilon$  of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TCP-1  $\epsilon$  (A-16) is also recommended for detection of TCP-1  $\epsilon$  in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TCP-1  $\epsilon$  siRNA (h): sc-43447, TCP-1  $\epsilon$  siRNA (m): sc-43448, TCP-1  $\epsilon$  shRNA Plasmid (h): sc-43447-SH, TCP-1  $\epsilon$  shRNA Plasmid (m): sc-43448-SH, TCP-1  $\epsilon$  shRNA (h) Lentiviral Particles: sc-43447-V and TCP-1  $\epsilon$  shRNA (m) Lentiviral Particles: sc-43448-V.

Molecular Weight of TCP-1  $\epsilon$ : 60 kDa.

Positive Controls: F9 cell lysate: sc-2245, Caki-1 cell lysate: sc-2224 or HeLa whole cell lysate: sc-2200.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **TCP-1  $\epsilon$  (G-3): sc-376188** or **TCP-1  $\epsilon$  (D-6): sc-374554**, our highly recommended monoclonal alternatives to TCP-1  $\epsilon$  (A-16).