# SANTA CRUZ BIOTECHNOLOGY, INC.

# TCP-1 ε (K-17): sc-30514



# 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  $\zeta2$ . 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.

# CHROMOSOMAL LOCATION

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

## SOURCE

TCP-1  $\epsilon$  (K-17) 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  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-30514 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  $\varepsilon$  (K-17) is recommended for detection of TCP-1  $\varepsilon$  of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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  $\epsilon$  (K-17) 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 ɛ: 60 kDa.

Positive Controls: F9 cell lysate: sc-2245, Caki-1 cell lysate: sc-2224 or mouse testis extract: sc-2405.

## **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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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<sup>™</sup> Mounting Medium: sc-24941.

### DATA



TCP-1  $\epsilon$  (K-17). SC-30514. Western blot analysis of TCP-1  $\epsilon$  expression in F9 whole cell lysate (**A**) and mouse testis tissue extract (**B**).

#### **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 or our catalog for detailed protocols and support products.

#### MONOS Satisfation Guaranteed

Try TCP-1  $\epsilon$  (G-3): sc-376188 or TCP-1  $\epsilon$  (D-6): sc-374554, our highly recommended monoclonal aternatives to TCP-1  $\epsilon$  (K-17).