SANTA CRUZ BIOTECHNOLOGY, INC.

TCP-1 δ (H-225): sc-50454

BACKGROUND

The protein TCP-1 (t-complex polypeptide 1) is a subunit of the hetero-oligomeric complex CCT (chaperonin containing TCP-1) present in the eukaryotic cytosol. The CCT of eukaryotic cytosol is composed of eight different subunit species that 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

1. Ahnert, V., May, C., Gerke, R. and Kindl, H. 1996. Cucumber T-complex protein. Molecular cloning, bacterial expression and characterization within a 22-S cytosolic complex in cotyledons and hypocotyls. Eur. J. Biochem. 235: 114-119.
2. 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.

CHROMOSOMAL LOCATION

Genetic locus: CCT4 (human) mapping to 2p15; Cct4 (mouse) mapping to 11 A3.2.

SOURCE

TCP-1 δ (H-225) is a rabbit polyclonal antibody raised against amino acids 176-400 mapping within an internal region of TCP-1 δ of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

TCP-1 δ (H-225) is recommended for detection of TCP-1 δ 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 δ (H-225) is also recommended for detection of TCP-1 δ in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TCP-1 δ siRNA (h): sc-43445, TCP-1 δ siRNA (m): sc-43446, TCP-1 δ shRNA Plasmid (h): sc-43445-SH, TCP-1 δ shRNA Plasmid (m): sc-43446-SH, TCP-1 δ shRNA (h) Lentiviral Particles: sc-43445-V and TCP-1 δ shRNA (m) Lentiviral Particles: sc-43446-V.

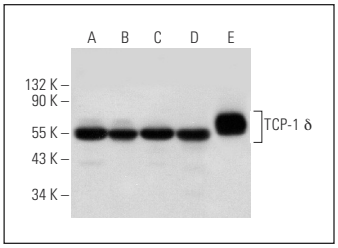
Molecular Weight of TCP-1 δ: 58 kDa.

Positive Controls: mouse brain extract: sc-2253, Ramos cell lysate: sc-2216 or Jurkat whole cell lysate: sc-2204.

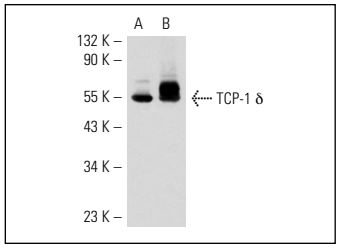
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



TCP-1 δ (H-225): sc-50454. Western blot analysis of TCP-1 δ expression in Jurkat (**A**), Hep G2 (**B**), HEK293T (**C**) and NIH/3T3 (**D**) whole cell lysates and mouse heart tissue extract (**E**).



TCP-1 δ (H-225): sc-50454. Western blot analysis of TCP-1 δ expression in Ramos whole cell lysate (**A**) and mouse brain 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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.