

TCP-1 η (N-18): sc-13887

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 α , β , γ , δ , ϵ , ζ , η and θ , each encoded by a different gene. Two ζ subunits have been described: TCP-1 ζ (also designated TCP-1 ζ 1) and TCP-1 ζ 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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- Ritco-Vonsovici, M., et al. 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 β -Actin. *J. Biol. Chem.* 275: 18985-18994.
- Campos, E.G., et al. 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.
- Yokota, S.I., et al. 2000. Upregulation of cytosolic chaperonin CCT subunits during recovery from chemical stress that causes accumulation of unfolded proteins. *Eur. J. Biochem.* 267: 1658-1664.

CHROMOSOMAL LOCATION

Genetic locus: CCT7 (human) mapping to 2p13.2; Cct7 (mouse) mapping to 6 C3.

SOURCE

TCP-1 η (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of TCP-1 η of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-13887 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

TCP-1 η (N-18) is recommended for detection of TCP-1 η of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

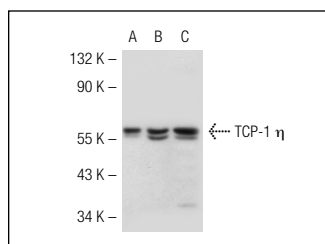
TCP-1 η (N-18) is also recommended for detection of TCP-1 η in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TCP-1 η siRNA (h): sc-43449, TCP-1 η siRNA (m): sc-43450, TCP-1 η shRNA Plasmid (h): sc-43449-SH, TCP-1 η shRNA Plasmid (m): sc-43450-SH, TCP-1 η shRNA (h) Lentiviral Particles: sc-43449-V and TCP-1 η shRNA (m) Lentiviral Particles: sc-43450-V.

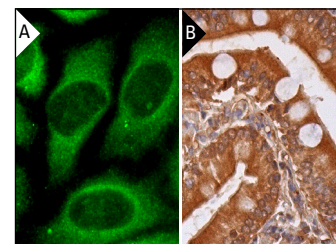
Molecular Weight of TCP-1 η : 58 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, TCP-1 η (m): 293T Lysate: sc-123957 or HeLa whole cell lysate: sc-2200.

DATA



TCP-1 η (N-18): sc-13887. Western blot analysis of TCP-1 η expression in non-transfected 293T: sc-117752 (A), mouse TCP-1 η transfected 293T: sc-123957 (B) and K-562 (C) whole cell lysates.



TCP-1 η (N-18): sc-13887. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular cells (B).

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.


 MONOS
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Try **TCP-1 η (A-8): sc-271951** or **TCP-1 η (H-4): sc-390492**, our highly recommended monoclonal alternatives to TCP-1 η (N-18).