TCP-1 α (B-3): sc-374088

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, TCP-1 α, β, γ, δ, ε, ζ, η and θ, each encoded by a different gene. Two α subunits have been described: TCP-1 α (also designated TCP-1 α1) and TCP-1 α2. 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: TCP1 (human) mapping to 6q25.3; Tcp1 (mouse) mapping to 17 A1.

SOURCE

TCP-1 α (B-3) is a mouse monoclonal antibody raised against amino acids 416-525 mapping near the C-terminus of TCP-1 α of human origin.

PRODUCT

Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. TCP-1 α (B-3) is available conjugated to agarose (sc-374088 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374088 HRP), 200 µg/ml for WB, IHC/PE and ELISA; to either phycoerythrin (sc-374088 PE), fluorescein (sc-374088 FITC), Alexa Fluor® 488 (sc-374088 AF488), Alexa Fluor® 546 (sc-374088 AF546), Alexa Fluor® 594 (sc-374088 AF594) or Alexa Fluor® 647 (sc-374088 AF647), 200 µg/ml, for WB (RGB), IF, IHC/PE and FCM; and to either Alexa Fluor® 680 (sc-374088 AF680) or Alexa Fluor® 790 (sc-374088 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

TCP-1 α (B-3) is recommended for detection of TCP-1 α of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000); immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for TCP-1 α siRNA (h); sc-36620, TCP-1 α siRNA (m): sc-36621, TCP-1 α shRNA Plasmid (h): sc-36620-SH, TCP-1 α shRNA Plasmid (m): sc-36621-SH, TCP-1 α shRNA (h) Lentiviral Particles: sc-36620-V and TCP-1 α shRNA (m) Lentiviral Particles: sc-36621-V.

Molecular Weight of TCP-1 α: 60 kDa.

Positive Controls: U-937 cell lysate: sc-2239, ECV304 cell lysate: sc-2269 or HEK293T whole cell lysate: sc-45137.

STORAGE

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

DATA

Simultaneous direct near-infrared western blot analysis of TCP-1 α expression, detected with TCP-1 α (B-3) Alexa Fluor® 680: sc-374088 AF680 and β-Actin expression, detected with β-Actin (DA) Alexa Fluor® 790: sc-47778 AF790 in U-937 (A), ECV304 (B), HEK293T (C), F9 (D) and BYOP (E). Whole cell lysates and rat testis tissue extract (I). Blocked with UltraCruz® Blocking Reagent: sc-516214.

SELECT PRODUCT CITATIONS


RESEARCH USE

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

PROTOCOLS

See our website at www.scbt.com for detailed protocols and support products.