

Tctex1 (H-60): sc-28537

BACKGROUND

Dyneins are multisubunit, high molecular weight ATPases that interact with microtubules to generate force by converting the chemical energy of ATP into the mechanical energy of movement. Cytoplasmic or axonemal Dynein heavy, intermediate, light and light-intermediate chains are all components of minus end-directed motors; the complex transports cellular cargos towards the central region of the cell. Axonemal Dynein motors contain one to three non-identical heavy chains and cause a sliding of microtubules in the axonemes of cilia and flagella in a mechanism necessary for cilia to beat and propel the cell. Cytoplasmic Dynein is an approximately 12 subunit complex of 2 heavy chains, 2 intermediate chains to anchor Dynein to its cargo, 4 smaller intermediate chains and several light chains. It performs functions necessary for cell survival such as organelle transport and centrosome assembly. The carboxy-terminus of Dynein is important for microtubule-dependent motility and is highly conserved, while the amino-terminal regions are more variable. Tctex1 is a cytoplasmic dynein light chain found in a complex with Na⁺ CP type X α (SCN10A). Tctex1, also designated CW-1 or TCTEL1 is expressed in heart, placenta, skeletal muscle, kidney, pancreas, spleen, prostate, testis, ovary, ileum and colon. Several proteins regulate Dynein activity, including dynactin, LIS1 and NudEL(NudE-like).

CHROMOSOMAL LOCATION

Genetic locus: DYNLT1 (human) mapping to 6q25.3; Dynlt1a/Dynlt1b/Dynlt1c/Dynlt1f (mouse) mapping to 17 A1.

SOURCE

Tctex1 (H-60) is a rabbit polyclonal antibody raised against amino acids 1-60 mapping at the N-terminus of Tctex1 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.

APPLICATIONS

Tctex1 (H-60) is recommended for detection of Tctex1 of human origin, Dynlt1a, Dynlt1b, Dynlt1c and Dynlt1f of mouse origin, and the corresponding rat homolog 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).

Tctex1 (H-60) is also recommended for detection of Tctex1 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for Tctex1 siRNA (h): sc-43319, Tctex1 shRNA Plasmid (h): sc-43319-SH and Tctex1 shRNA (h) Lentiviral Particles: sc-43319-V.

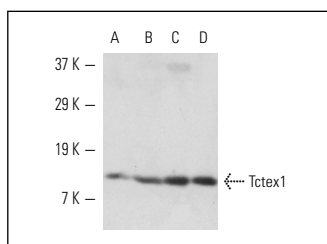
Molecular Weight of Tctex1: 14 kDa.

Positive Controls: Y79 cell lysate: sc-2240, IMR-32 cell lysate: sc-2409 or T98G cell lysate: sc-2294.

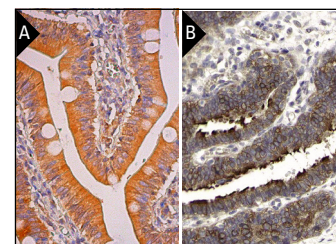
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz[™]: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Tctex1 (H-60): sc-28537. Western blot analysis of Tctex1 expression in Y79 (A), IMR-32 (B), T98G (C) and PC-3 (D) whole cell lysates.



Tctex1 (H-60): sc-28537. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human fallopian tube tissue showing cytoplasmic staining of glandular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

SELECT PRODUCT CITATIONS

- Ochiai, K., et al. 2011. Tumor suppressor REIC/Dkk-3 interacts with the dynein light chain, Tctex-1. *Biochem. Biophys. Res. Commun.* 412: 391-395.
- Liu, C., et al. 2015. A dynein independent role of Tctex-1 at the kinetochore. *Cell Cycle* 14: 1379-1388.

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.



Try **Tctex1 (H-11): sc-365567**, our highly recommended monoclonal alternative to Tctex1 (H-60).