

Tctex1 (H-11): sc-365567

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 dynectin, LIS1 and NudEL(NudE-like).

REFERENCES

1. Watanabe, T.K., et al. 1996. Cloning, expression, and mapping of TCTEL, a putative human homologue of murine Tcte1, to 6q. *Cytogenet. Cell Genet.* 73: 153-156.
2. Asai, D.J., et al. 2004. The Dynein heavy chain family. *J. Eukaryot. Microbiol.* 51: 23-29.

CHROMOSOMAL LOCATION

Genetic locus: DYNLT1 (human) mapping to 6q25.3.

SOURCE

Tctex1 (H-11) is a mouse monoclonal 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_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Tctex1 (H-11) is available conjugated to agarose (sc-365567 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365567 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365567 PE), fluorescein (sc-365567 FITC), Alexa Fluor[®] 488 (sc-365567 AF488), Alexa Fluor[®] 546 (sc-365567 AF546), Alexa Fluor[®] 594 (sc-365567 AF594) or Alexa Fluor[®] 647 (sc-365567 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-365567 AF680) or Alexa Fluor[®] 790 (sc-365567 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

Tctex1 (H-11) is recommended for detection of Tctex1 of human origin by Western Blotting (starting dilution 1:100, 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).

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.

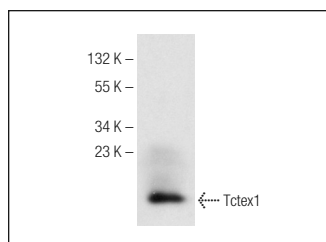
Molecular Weight of Tctex1: 14 kDa.

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

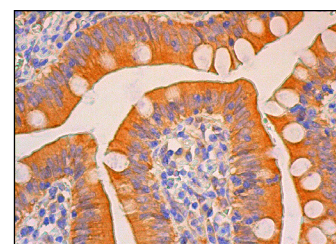
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Tctex1 (H-11): sc-365567. Western blot analysis of Tctex1 expression in T98G whole cell lysate.



Tctex1 (H-11): sc-365567. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Ziegler, C.M., et al. 2018. A proteomic survey of Junin virus interactions with human proteins reveals host factors required for arenavirus replication. *J. Virol.* 92: e01565-17.

RESEARCH USE

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

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