

Tctex2 (E-19): sc-13753

BACKGROUND

Tctex2 (t-complex testis expressed 2) is one of the distorter genes of the mouse t haplotype. This complex is responsible for the transmission ratio distortion phenomenon, in which the chromosomes of heterozygous +/t males are preferentially segregated so that the t haplotype is transmitted to >95% of the offspring. Transmission ratio distortion of t haplotypes involves dysfunction of both flagellar inner and outer dynein arms. Tctex2 might be a light chain of flagellar outer arm dynein and the abortive phosphorylation of Tctex2/outer arm dynein, light chain might be related to the less progressive movement of sperm. Tctex2 maps to the t-complex and encodes a membrane-associated protein found exclusively on the sperm tail.

REFERENCES

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- Harrison, A., Olds-Clarke, P., and King, S.M. 1998. Identification of the t complex-encoded cytoplasmic dynein light chain tctex1 in inner arm I1 supports the involvement of flagellar dyneins in meiotic drive. *J. Cell Biol.* 140: 1137-1147.
- Inaba, K., Kagami, O., and Ogawa, K. 1999. Tctex2-related outer arm dynein light chain is phosphorylated at activation of sperm motility. *Biochem. Biophys. Res. Commun.* 256: 177-183.
- Pazour, G.J., Koutoulis, A., Benashski, S.E., Dickert, B.L., Sheng, H., Patel-King, R.S., King, S.M., and Witman, G.B. 1999. LC2, the chlamydomonas homologue of the t complex-encoded protein Tctex2, is essential for outer dynein arm assembly. *Mol. Biol. Cell* 10: 3507-3520.
- Wang, W. and Chapin, R.E. 2000. Differential gene expression detected by suppression subtractive hybridization in the ethylene glycol monomethyl ether-induced testicular lesion. *Toxicol. Sci.* 56: 165-174.

CHROMOSOMAL LOCATION

Genetic locus: Tcte3 (mouse) mapping to 17 A2.

SOURCE

Tctex2 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Tctex2 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-13753 P, (100 µg 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

Tctex2 (E-19) is recommended for detection of Tctex2 long and short isoforms of mouse and rat 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), 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 Tctex2 siRNA (m): sc-43458, Tctex2 shRNA Plasmid (m): sc-43458-SH and Tctex2 shRNA (m) Lentiviral Particles: sc-43458-V.

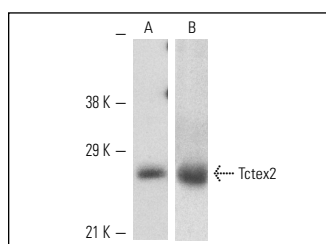
Molecular Weight of Tctex2: 14/22 kDa.

Positive Controls: mouse testis extract: sc-2405.

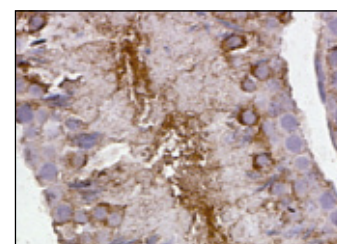
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Western blot analysis of Tctex2 expression in mouse testis tissue extract (A,B). Antibodies tested include Tctex2 (E-19): sc-13753 (A) and Tctex2 (M-16): sc-13756 (B).



Tctex2 (E-19): sc-13753. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse testis showing membrane localization.

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.