# Tctex2 (H-5): sc-74541



The Power to Question

#### **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**

- Huw, L.Y., Goldsborough, A.S., Willison, K. and Artzt, K. 1995. Tctex2: a sperm tail surface protein mapping to the T complex. Dev. Biol. 170: 183-194.
- 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.
- 3. 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.
- 4. 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 chlamy-domonas 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 (H-5) is a mouse monoclonal antibody raised against amino acids 1-191 representing full length Tctex2 of mouse origin.

# **PRODUCT**

Each vial contains 200  $\mu g \; lgG_{2a}$  kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Tctex2 (H-5) is available conjugated to agarose (sc-74541 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-74541 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-74541 PE), fluorescein (sc-74541 FITC), Alexa Fluor® 488 (sc-74541 AF488), Alexa Fluor® 546 (sc-74541 AF546), Alexa Fluor® 594 (sc-74541 AF594) or Alexa Fluor® 647 (sc-74541 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-74541 AF680) or Alexa Fluor® 790 (sc-74541 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

#### **APPLICATIONS**

Tctex2 (H-5) is recommended for detection of Tctex2 long and short isoforms of mouse and rat origin by Western Blotting (starting dilution 1:100, 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) 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.

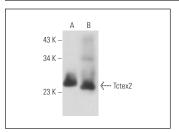
Molecular Weight of Tctex2: 14/22 kDa.

Positive Controls: mouse testis extract: sc-2405 or rat testis extract: sc-2400.

#### **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG $\kappa$  BP-HRP: sc-516102 or m-lgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>TM</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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-lgG $\kappa$  BP-FITC: sc-516140 or m-lgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

#### **DATA**



Tctex2 (H-5): sc-74541. Western blot analysis of Tctex2 expression in mouse testis (**A**) and rat testis (**B**) tissue

#### **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.

## **PROTOCOLS**

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

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