

TCP-11 (L-16): sc-162306

BACKGROUND

TCP-11 (t-complex protein 11), also known as D6S230E, is a 503 amino acid single-pass membrane protein expressed only in fertile adult testis and is a member of the TCP-11 family. Localized to the surface of mature epididymal spermatozoa, TCP-11 may be a receptor for the fertilization promoting peptide (FPP), a peptide produced by the prostate gland and then secreted into seminal plasma. The adenylate cyclase/cyclic AMP pathway is considered to be the signal transduction pathway that is activated by the association between FPP and TCP-11. TCP-11 is suggested to play a critical role in the regulation of sperm function and fertility. The gene encoding TCP-11 is located on human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Three isoforms of TCP-11 are produced by alternative splicing events.

REFERENCES

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5. Adeoya-Osiguwa, S.A., et al. 1998. FPP modulates mammalian sperm function via TCP-11 and the adenylyl cyclase/cAMP pathway. *Mol. Reprod. Dev.* 51: 468-476.
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7. Ma, Y., et al. 2002. Molecular characterization of the TCP11 gene which is the human homologue of the mouse gene encoding the receptor of fertilization promoting peptide. *Mol. Hum. Reprod.* 8: 24-31.
8. Safronova, L.D., et al. 2002. Sterility of males determined by functional features of the mouse spermatozoa bearing t-complex. *Ontogenez* 33: 165-169.
9. Ma, Y.X., et al. 2003. Cloning, expression, and alternative splicing of the novel isoform of hTCP11 gene. *Zhongguo Yi Xue Ke Xue Yuan Xue Bao* 25: 122-128.

CHROMOSOMAL LOCATION

Genetic locus: *Tcp11* (mouse) mapping to 17 A3.3.

SOURCE

TCP-11 (L-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TCP-11 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-162306 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TCP-11 (L-16) is recommended for detection of TCP-11 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other TCP family members.

Suitable for use as control antibody for TCP-11 siRNA (m): sc-154143, TCP-11 shRNA Plasmid (m): sc-154143-SH and TCP-11 shRNA (m) Lentiviral Particles: sc-154143-V.

Molecular Weight of TCP-11: 49-56 kDa.

Positive Controls: mouse heart extract: sc-2254, mouse liver extract: sc-2256 or F9 cell lysate: sc-2245.

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) 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.

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 or our catalog for detailed protocols and support products.