

TCP-11 (A-19): sc-162302

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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2. Hosseini, R., et al. 1994. The mouse t-complex gene, *Tcp-11*, is under translational control. *Mech. Dev.* 47: 73-80.
3. Fraser, L.R., et al. 1997. TCP-11, the product of a mouse t-complex gene, plays a role in stimulation of capacitation and inhibition of the spontaneous acrosome reaction. *Mol. Reprod. Dev.* 48: 375-382.
4. Fraser, L.R. 1998. The modulation of sperm function by fertilization promoting peptide. *Hum. Reprod.* 13: 1-10.
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.
6. Fraser, L.R., et al. 1999. Modulation of adenylyl cyclase by FPP and adenosine involves stimulatory and inhibitory adenosine receptors and γ proteins. *Mol. Reprod. Dev.* 53: 459-471.
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. Sraonova, L.D., et al. 2002. Sterility of males determined by functional features of the mouse spermatozoa bearing t-complex. *Ontogenez* 33: 165-169.

CHROMOSOMAL LOCATION

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

SOURCE

TCP-11 (A-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TCP-11 of mouse origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-162302 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TCP-11 (A-19) is recommended for detection of TCP-11 of mouse origin 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) 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.

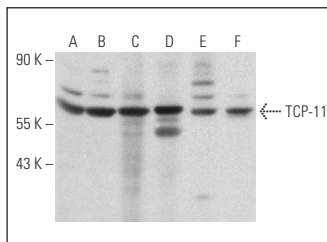
Molecular Weight of mouse TCP-11: 68 kDa.

Positive Controls: mouse liver extract: sc-2256, mouse heart extract: sc-2254 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) 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.

DATA



TCP-11 (A-19): sc-162302. Western blot analysis of TCP-11 expression in F9 (A) and c4 (B) whole cell lysates and mouse liver (C), mouse heart (D), mouse testis (E) and rat testis (F) tissue extracts.

RESEARCH USE

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