# SANTA CRUZ BIOTECHNOLOGY, INC.

# TESK1 (D-17): sc-82369



BACKGROUND

TESK1 (testis-specific kinase 1) is a 626 amino acid serine/threonine kinase that belongs to the protein kinase superfamily and contains a unique structure composed of a N-terminal protein kinase domain and a C-terminal prolinerich domain. The protein kinase domain of TESK1 is most closely related to those of the LIM motif-containing protein kinases (LIMKs). Functioning as a dual-specificity protein kinase, TESK1 catalyzes the ATP-dependent phosphorylation of exogenous substrates and autophosphorylation on tyrosine and serine/threonine residues, thereby mediating intracellular signal transduction pathways. Predominantly expressed in testicular germ cells, TESK1 may play an important role in spermatogenesis.

## REFERENCES

- Toshima, J., Ohashi, K., Okano, I., Nunoue, K., Kishioka, M., Kuma, K., Miyata, T., Hirai, M., Baba, T. and Mizuno, K. 1995. Identification and characterization of a novel protein kinase, TESK1, specifically expressed in testicular germ cells. J. Biol. Chem. 270: 31331-31337.
- Toshima, J., Koji, T. and Mizuno, K. 1998. Stage-specific expression of testis-specific protein kinase 1 (TESK1) in rat spermatogenic cells. Biochem. Biophys. Res. Commun. 249: 107-112.
- Toshima, J., Nakagawara, K., Mori, M., Noda, T. and Mizuno, K. 1998. Structural organization and chromosomal localization of the mouse TESK1 (testis-specific protein kinase 1) gene. Gene 206: 237-245.
- Toshima, J., Tanaka, T. and Mizuno, K. 1999. Dual specificity protein kinase activity of testis-specific protein kinase 1 and its regulation by autophosphorylation of serine-215 within the activation loop. J. Biol. Chem. 274: 12171-12176.
- Toshima, J., Toshima, J.Y., Suzuki, M., Noda, T. and Mizuno, K. 2001. Celltype-specific expression of a TESK1 promoter-linked lacZ gene in transgenic mice. Biochem. Biophys. Res. Commun. 286: 566-573.
- Toshima, J.Y., Toshima, J., Watanabe, T. and Mizuno, K. 2001. Binding of 14-3-3β regulates the kinase activity and subcellular localization of testicular protein kinase 1. J. Biol. Chem. 276: 43471-43481.

#### CHROMOSOMAL LOCATION

Genetic locus: TESK1 (human) mapping to 9p13.3; Tesk1 (mouse) mapping to 4 B1.

### SOURCE

TESK1 (D-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TESK1 of human origin.

## PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-82369 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

TESK1 (D-17) is recommended for detection of TESK1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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 family member TESK2.

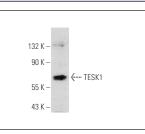
TESK1 (D-17) is also recommended for detection of TESK1 in additional species, including equine, canine, bovine and porcine.

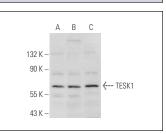
Suitable for use as control antibody for TESK1 siRNA (h): sc-76642, TESK1 siRNA (m): sc-76643, TESK1 shRNA Plasmid (h): sc-76642-SH, TESK1 shRNA Plasmid (m): sc-76643-SH, TESK1 shRNA (h) Lentiviral Particles: sc-76642-V and TESK1 shRNA (m) Lentiviral Particles: sc-76643-V.

Molecular Weight of TESK1: 68 kDa.

Positive Controsl: F9 cell lysate: sc-2245, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

#### DATA





TESK1 (D-17): sc-82369. Western blot analysis of TESK1 expression in F9 whole cell lysate.

TESK1 (D-17): sc-82369. Western blot analysis of TESK1 expression in K-562 (**A**), HeLa (**B**) and Jurkat (**C**) whole cell lysates.

# 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.