

## TESK2 (E-15): sc-82372

### BACKGROUND

TESK2 (testicular protein kinase 2) is a nuclear protein that belongs to the protein kinase superfamily and is expressed in testis and prostate. Functioning as a dual-specificity protein kinase, TESK2 catalyzes the ATP-dependent phosphorylation of substrates and autophosphorylation on tyrosine and serine/threonine residues, thereby mediating intracellular signal transduction pathways. TESK2 requires magnesium as a cofactor and its catalytic activity is thought to play an important role in meiotic events such as spermatogenesis. TESK2 contains one protein kinase domain that is 65% identical to the kinase domain found in TESK1 (testicular protein kinase 1), suggesting a similar role for these proteins in phosphorylation events. Three isoforms of TESK2 are expressed due to alternative splicing.

### REFERENCES

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3. Toshima, J., Toshima, J.Y., Takeuchi, K., Mori, R. and Mizuno, K. 2001. Cofilin phosphorylation and actin reorganization activities of testicular protein kinase 2 and its predominant expression in testicular Sertoli cells. *J. Biol. Chem.* 276: 31449-31458.
4. Toshima, J.Y., Toshima, J., Watanabe, T. and Mizuno, K. 2001. Binding of 14-3-3  $\beta$  regulates the kinase activity and subcellular localization of testicular protein kinase 1. *J. Biol. Chem.* 276: 43471-43481.
5. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604746. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Oliveira, S.A., Li, Y.J., Noureddine, M.A., Zuchner, S., Qin, X., Pericak-Vance, M.A. and Vance, J.M. 2005. Identification of risk and age-at-onset genes on chromosome 1p in Parkinson disease. *Am. J. Hum. Genet.* 77: 252-264.

### CHROMOSOMAL LOCATION

Genetic locus: TESK2 (human) mapping to 1p34.1; Tesk2 (mouse) mapping to 4 D1.

### SOURCE

TESK2 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TESK2 of human origin.

### PRODUCT

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

Blocking peptide available for competition studies, sc-82372 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

TESK2 (E-15) is recommended for detection of TESK2 of mouse, rat and human 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 family member TESK1.

TESK2 (E-15) is also recommended for detection of TESK2 in additional species, including bovine.

Suitable for use as control antibody for TESK2 siRNA (h): sc-76644, TESK2 siRNA (m): sc-76645, TESK2 shRNA Plasmid (h): sc-76644-SH, TESK2 shRNA Plasmid (m): sc-76645-SH, TESK2 shRNA (h) Lentiviral Particles: sc-76644-V and TESK2 shRNA (m) Lentiviral Particles: sc-76645-V.

Molecular Weight of TESK2: 62 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

### 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **TESK2 (31-F): sc-100373**, our highly recommended monoclonal alternative to TESK2 (E-15).