

TSSK 1B (W-12): sc-169725

BACKGROUND

The phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions in eukaryotes, including cell division, homeostasis and apoptosis. A group of proteins that are intimately involved in this process are the serine/threonine (Ser/Thr) protein kinases. TSSK 1B (testis-specific serine/threonine-protein kinase 1B) in human and designated TSSK 1 in mice, also known as STK22a or TSK-1, is a 367 amino acid protein that contains one protein kinase domain and belongs to the Ser/Thr protein kinase family. Using magnesium as a cofactor, TSSK 1B catalyzes the ATP-dependent phosphorylation of target proteins and is thought to be involved in the late stages of spermatogenesis during the reconstruction of the cytoplasm. TSSK 1B is activated by phosphorylation on Thr 174, possibly by autophosphorylation, and binds to TSSK 2. Localized to the cytoplasm, TSSK 1B is only expressed in spermatids in the final stages of cytodifferentiation in the seminiferous tubules.

REFERENCES

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- Xu, B., et al. 2008. TSKS concentrates in spermatid centrioles during flagellogenesis. *Dev. Biol.* 319: 201-210.
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CHROMOSOMAL LOCATION

Genetic locus: TSSK1B (human) mapping to 5q22.2.

STORAGE

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

SOURCE

TSSK 1B (W-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TSSK 1B of human 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-169725 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TSSK 1B (W-12) is recommended for detection of TSSK 1B of 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 other TSSK family members.

Suitable for use as control antibody for TSSK 1B siRNA (h): sc-91685, TSSK 1B shRNA Plasmid (h): sc-91685-SH and TSSK 1B shRNA (h) Lentiviral Particles: sc-91685-V.

Molecular Weight of TSSK 1B: 42 kDa.

Positive Controls: MIA PaCa-2 cell lysate: sc-2285.

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.

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.