

TSSK 6 (m): 293T Lysate: sc-179634

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 6 (testis-specific serine kinase 6), also known as SSTK, TSSK4, FKSG82 or CT72, is a 273 amino acid protein that contains one protein kinase domain and belongs to the Ser/Thr protein kinase family. Highly expressed in testis with lower expression in ovary, colon, thymus, small intestine and spleen, TSSK 6 catalyzes the ATP-dependent phosphorylation of proteins involved in sperm production and chromatin remodeling. TSSK 6 uses magnesium as a cofactor and is thought to be required for proper sperm development and function, as well as DNA condensation events. Defects in the gene encoding TSSK 6 are associated with male infertility characterized by low sperm count and decreased sperm motility.

REFERENCES

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2. Hanks, S.K. and Hunter, T. 1995. Protein kinases 6. The eukaryotic protein kinase superfamily: kinase (catalytic) domain structure and classification. *FASEB J.* 9: 576-596.
3. Green, G.R. 2001. Phosphorylation of histone variant regions in chromatin: unlocking the linker? *Biochem. Cell Biol.* 79: 275-287.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610712. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Hao, Z., et al 2004. Expression analysis of the human testis-specific serine/threonine kinase (TSSK) homologues. A TSSK member is present in the equatorial segment of human sperm. *Mol. Hum. Reprod.* 10: 433-444.
6. Chen, X., et al 2005. TSSK5, a novel member of the testis-specific serine/threonine kinase family, phosphorylates CREB at Ser-133, and stimulates the CRE/CREB responsive pathway. *Biochem. Biophys. Res. Commun.* 333: 742-749.

CHROMOSOMAL LOCATION

Genetic locus: Tssk6 (mouse) mapping to 8 B3.3.

PRODUCT

TSSK 6 (m): 293T Lysate represents a lysate of mouse TSSK 6 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

TSSK 6 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive TSSK 6 antibodies. Recommended use: 10-20 µl per lane.

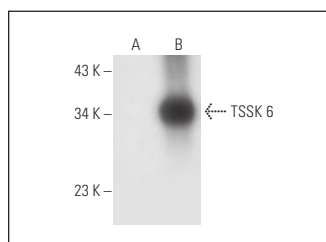
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

TSSK 6 (F-6): sc-514076 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse TSSK 6 expression in TSSK 6 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



TSSK 6 (F-6): sc-514076. Western blot analysis of TSSK 6 expression in non-transfected: sc-117752 (A) and mouse TSSK 6 transfected: sc-179634 (B) 293T whole cell lysates.

RESEARCH USE

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