

## TSPY (M-40): sc-68432

### BACKGROUND

Testis-specific protein Y-encoded (TSPY) is the product of a tandem gene cluster on the human proximal Yp gene. TSPY genes have been conserved and maintained on the mammalian Y chromosome since before the radiation of eutheria, 80 million years ago. TSPY functions as an important factor in cell cycle progression, cell proliferation and tumorigenesis. TSPY may participate in the oncogenesis of gonadoblastoma expression and a variety of other tumor tissues, including testicular germ cell tumors, prostate cancer, melanoma and liver cancer. The SOX family of proteins regulate the expression of TSPY, and its activity is phosphorylation dependent. TSPY may be a potential candidate in vaccine strategy for immunotherapy in hepatocellular carcinoma patients.

### REFERENCES

1. Schnieders, F., Dörk, T., Arnemann, J., Vogel, T., Werner, M. and Schmidtke, J. 1997. Testis-specific protein, Y-encoded (TSPY) expression in testicular tissues. *Hum. Mol. Genet.* 5: 1801-1807.
2. Ratti, A., Stuppia, L., Gatta, V., Fogh, I., Calabrese, G., Pizzuti, A. and Palka, G. 2000. Characterization of a new TSPY gene family member in Yq (TSPYq1). *Cytogenet. Cell Genet.* 88: 159-162.
3. Dechend, F., Williams, G., Skawran, B., Schubert, S., Krawczak, M., Tyler-Smith, C. and Schmidtke, J. 2001. TSPY variants in six loci on the human Y chromosome. *Cytogenet. Cell Genet.* 91: 67-71.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 480100. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Schubert, S., Skawran, B., Dechend, F., Nayernia, K., Meinhardt, A., Nanda, I., Schmid, M., Engel, W. and Schmidtke, J. 2003. Generation and characterization of TSPY. *Biol. Reprod.* 69: 968-975.
6. Bartmann, A.K., Ramos, E.S., Caetano, L.C., Rios, A.F., and Vila, R.A. 2004. TSPY detection in blood, buccal, and urine cells of patients with 45,X karyotype. *Am. J. Med. Genet. A* 130: 320-321.
7. Skawran, B., Schubert, S., Dechend, F., Vervoorts, J., Nayernia, K., Lüscher, B. and Schmidtke, J. 2005. Characterization of a human TSPY promoter. *Mol. Cell. Biochem.* 276: 159-167.
8. Yin, Y.H., Li, Y.Y., Qiao, H., Wang, H.C., Yang, X.A., Zhang, H.G., Pang, X.W., Zhang, Y. and Chen, W.F. 2005. TSPY is a cancer testis antigen expressed in human hepatocellular carcinoma. *Br. J. Cancer* 93: 458-463.
9. Su, M.T., Lee, I.W. and Kuo, P.L. 2006. Presence of TSPY transcript and absence of genes in a case of microscopic gonadoblastoma. *Gynecol. Oncol.* 103: 357-360.

### CHROMOSOMAL LOCATION

Genetic locus: TSPY1 (human) mapping to Yp11.2; Tspyl1 (mouse) mapping to 10 B1.

### SOURCE

TSPY (M-40) is a rabbit polyclonal antibody raised against amino acids 71-110 mapping at the N-terminus of TSPY of mouse origin.

### PRODUCT

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

### APPLICATIONS

TSPY (M-40) is recommended for detection of TSPY of mouse and, to a lesser extent, rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1–2 µg per 100–500 µg 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).

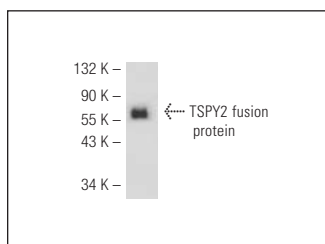
Suitable for use as control antibody for TSPY siRNA (m): sc-76767, TSPY shRNA Plasmid (m): sc-76767-SH and TSPY shRNA (m) Lentiviral Particles: sc-76767-V.

Molecular Weight of TSPY: 43 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### DATA



TSPY (M-40): sc-68432. Western blot analysis of human recombinant TSPY2.

### 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.