



## TSARG1 (T-18): sc-67901

### BACKGROUND

TSARG1 (testis spermatocyte apoptosis-related protein 1), also known as SPATA3 (spermatogenesis-associated protein 3) or mTsarg1 in mice, is a 183 amino acid protein predominantly expressed in the testis. TSARG1 was initially discovered due to its possible role in spermatogenesis or spermatogenesis cell apoptosis and it may be linked to cell cycle control. Apoptosis during spermatogenesis is a natural occurrence and typically effects 75-80% of the germ cells. This high rate of apoptosis is required for normal mature spermatogenesis. It may be a consequence of mutated DNA but it is also believed to ensure a proper ratio between Sertoli cells and germ cells.

### REFERENCES

1. Fu, J.J., Lu, G.X., Li, L.Y., Liu, G., Xing, X.W. and Liu, S.F. 2003. Molecular cloning for testis spermatogenesis cell apoptosis related gene TSARG1 and Mtsarg1 and expression analysis for Mtsarg1 gene. *Yi Chuan Xue Bao* 30: 25-29.
2. Yang, H.M., Liu, G., Nie, Z.Y., Nie, D.S., Deng, Y. and Lu, G.X. 2005. Molecular cloning of a novel rat gene Tsarg1, a member of the DnaJ/HSP40 protein family. *DNA Seq.* 16: 166-172.
3. Nielsen, R., Bustamante, C., Clark, A.G., Glanowski, S., Sackton, T.B., Hubisz, M.J., Fledel-Alon, A., Tanenbaum, D.M., Civello, D., White, T.J., J Sninsky, J., Adams, M.D. and Cargill, M. 2005. A scan for positively selected genes in the genomes of humans and chimpanzees. *PLoS Biol.* 3: e170.
4. Nie, D. and Xiang, Y. 2006. Molecular cloning and characterization of a novel human testis-specific gene by use of digital differential display. *J. Genet.* 85: 57-62.
5. Pinkston-Gosse, J. and Kenyon, C. 2007. DAF-16/FOXO targets genes that regulate tumor growth in *Caenorhabditis elegans*. *Nat. Genet.* 39: 1403-1409.
6. Schaller, C.E., Wang, C.L., Beck-Engeser, G., Goss, L., Scott, H.S., Anderson, M.S. and Wabl, M. 2008. Expression of Aire and the early wave of apoptosis in spermatogenesis. *J. Immunol.* 180: 1338-1343.

### CHROMOSOMAL LOCATION

Genetic locus: Spata3 (mouse) mapping to 1 C5.

### SOURCE

TSARG1 (T-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TSARG1 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.

Blocking peptide available for competition studies, sc-67901 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### RESEARCH USE

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

### APPLICATIONS

TSARG1 (T-18) is recommended for detection of TSARG1 of mouse 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).

Suitable for use as control antibody for TSARG1 siRNA (m): sc-63166.

Molecular Weight of TSARG1: 20 kDa.

### 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.

### STORAGE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.