

# TSARG4 (W-19): sc-55399

## BACKGROUND

TSARG4 (testis and spermatogenesis-related gene 4 protein), also known as SPAG4L (sperm-associated antigen 4-like protein) or SRG4 (spermatogenesis-related gene 4) in mice, is a ubiquitously expressed protein in humans but, in mice, it is specifically expressed in the testis. TSARG4 belongs to the spindle pole body family of proteins and contains one Unc84/SUN domain and a potential transmembrane region. The human TSARG4 protein shares 74% amino acid identity with its mouse counterpart. In mice, TSARG4 is found in round spermatids and spermatocytes and may participate in mitosis. It has been hypothesized that TSARG4 localizes to the nuclear envelope.

## REFERENCES

- Jiang, Y., et al. 1999. A role for GATA-4/5/6 in the regulation of Nkx2.5 expression with implications for patterning of the precardiac field. *Dev. Biol.* 216: 57-71.
- Liu, G., et al. 2003. Molecular cloning of TSARG3 gene related to apoptosis in human spermatogenic cells. *Zhonghua Yi Xue Yi Chuan Xue Za Zhi* 20: 107-110.
- Xing, X.W., et al. 2003. Cloning of cDNA of TSARG4, a human spermatogenesis related gene. *Sheng Wu Hua Xue Yu Sheng Wu Wu Li Xue Bao* 35: 283-288.
- Xing, X.W., et al. 2004. Cloning of cDNA of SRG4, a mouse spermatogenesis related gene and expression in mouse different developing stages. *Yi Chuan Xue Bao* 31: 1066-1071.
- Liu, G., et al. 2004. Molecular cloning of TSARG6 gene related to apoptosis in human spermatogenic cells. *Acta Biochim. Biophys. Sin.* 36: 93-98.
- Xing, X.W., et al. 2004. Identification of a novel gene SRG4 expressed at specific stages of mouse spermatogenesis. *Acta Biochim. Biophys. Sin.* 36: 351-359.

## CHROMOSOMAL LOCATION

Genetic locus: SUN5 (human) mapping to 20q11.21; Sun5 (mouse) mapping to 2 H1.

## SOURCE

TSARG4 (W-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TSARG4 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-55399 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

TSARG4 (W-19) is recommended for detection of TSARG4 of mouse, rat and human 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).

TSARG4 (W-19) is also recommended for detection of TSARG4 in additional species, including canine.

Suitable for use as control antibody for TSARG4 siRNA (h): sc-63167, TSARG4 siRNA (m): sc-63168, TSARG4 shRNA Plasmid (h): sc-63167-SH, TSARG4 shRNA Plasmid (m): sc-63168-SH, TSARG4 shRNA (h) Lentiviral Particles: sc-63167-V and TSARG4 shRNA (m) Lentiviral Particles: sc-63168-V.

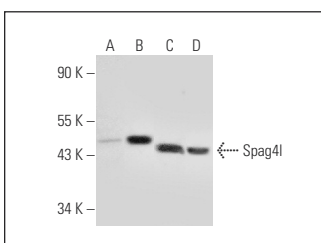
Molecular Weight of TSARG4: 43 kDa.

Positive Controls: Spag4l (m): 293T Lysate: sc-179492, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



TSARG4 (W-19): sc-55399. Western blot analysis of Spag4l expression in non-transfected 293T: sc-117752 (A), mouse Spag4l transfected 293T: sc-179492 (B), Jurkat (C) and K-562 (D) whole cell lysates.

## 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.