

# TSGA2 (G-19): sc-83762

## BACKGROUND

TSGA2 (testis-specific gene A2 protein), also known as RSPH1 (radial spoke head 1 homolog), meichoacidin, male meiotic metaphase chromosome-associated acidic protein or CT79 (cancer/testis antigen 79), is a 309 amino acid protein specific to testis. TSGA2 has an acidic N-terminus followed by six MORN repeats, a 7-glutamic acid sequence, a short hydrophobic region and, finally, an acidic C-terminus. It has been suggested that TSGA2 may play a role in male meiosis. TSGA2 is found in the cytoplasm of late spermatocytes, secondary spermatocytes and round spermatids. However, during meiotic divisions, TSGA2 is present around metaphase chromosomes and spindles.

## REFERENCES

1. Fawcett, D.W. 1975. The mammalian spermatozoon. *Dev. Biol.* 44: 394-436.
2. Taketo, M.M., Araki, Y., Matsunaga, A., Yokoi, A., Tsuchida, J., Nishina, Y., Nozaki, M., Tanaka, H., Koga, M., Uchida, K., Matsumiya, K., Okuyama, A., Rochelle, J.M., Nishimune, Y., Matsui, M. and Seldin, M.F. 1997. Mapping of eight testis-specific genes to mouse chromosomes. *Genomics* 46: 138-142.
3. Tsuchida, J., Nishina, Y., Wakabayashi, N., Nozaki, M., Sakai, Y. and Nishimune, Y. 1998. Molecular cloning and characterization of meichoacidin (male meiotic metaphase chromosome-associated acidic protein). *Dev. Biol.* 197: 67-76.
4. Hu, Y.H., Warnatz, H.J., Vanhecke, D., Wagner, F., Fiebitz, A., Thamm, S., Kahlem, P., Lehrach, H., Yaspo, M.L. and Janitz, M. 2006. Cell array-based intracellular localization screening reveals novel functional features of human chromosome 21 proteins. *BMC Genomics*. 7: 155.
5. Shetty, J., Klotz, K.L., Wolkowicz, M.J., Flickinger, C.J. and Herr, J.C. 2007. Radial spoke protein 44 (human meichoacidin) is an axonemal alloantigen of sperm and cilia. *Gene* 396: 93-107.

## CHROMOSOMAL LOCATION

Genetic locus: RSPH1 (human) mapping to 21q22.3; Rsph1 (mouse) mapping to 17 A3.3.

## SOURCE

TSGA2 (G-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of TSGA2 of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-83762 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

TSGA2 (G-19) is recommended for detection of TSGA2 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

TSGA2 (G-19) is also recommended for detection of TSGA2 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for TSGA2 siRNA (h): sc-91438, TSGA2 siRNA (m): sc-154718, TSGA2 shRNA Plasmid (h): sc-91438-SH, TSGA2 shRNA Plasmid (m): sc-154718-SH, TSGA2 shRNA (h) Lentiviral Particles: sc-91438-V and TSGA2 shRNA (m) Lentiviral Particles: sc-154718-V.

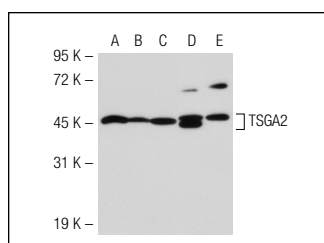
Molecular Weight of TSGA2: 40 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136, F9 cell lysate: sc-2245 or HT-1080 whole cell lysate.

## 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



TSGA2 (G-19): sc-83762. Western blot analysis of TSGA2 expression in HEK293 (A), F9 (B) and HT-1080 (C) whole cell lysates and mouse testis (D) and rat testis (E) tissue extracts.

## 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.