

TSGA2 siRNA (m): sc-154718

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 (mouse) mapping to 17 A3.3.

PRODUCT

TSGA2 siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TSGA2 shRNA Plasmid (m): sc-154718-SH and TSGA2 shRNA (m) Lentiviral Particles: sc-154718-V as alternate gene silencing products.

For independent verification of TSGA2 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-154718A, sc-154718B and sc-154718C.

PROTOCOLS

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

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNases and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

TSGA2 siRNA (m) is recommended for the inhibition of TSGA2 expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 μ M in 66 μ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor TSGA2 gene expression knockdown using RT-PCR Primer: TSGA2 (m)-PR: sc-154718-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

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