# TEX101 siRNA (h): sc-97787



The Power to Question

#### **BACKGROUND**

TEX101 (testis-expressed 101), also known as SGRG (spermatogenesis-related gene protein), scleroderma-associated autoantigen, cell surface receptor NYD-SP8, CT131, PR01884 or TES101RP, is a 249 amino acid protein that is thought to play a role in signal transduction. Functioning as a GPI-anchor, TEX101 localizes to cell membrane where it associates with lipid rafts, and is expressed in spermatogonia, testis and blood leukocytes. TEX101 is suggested to promote protein tyrosine phosphorylation and exists as two alternatively spliced isoforms. TEX101 undergoes post-translational N-glycosylation and contains one UPAR/Ly6 domain. The gene encoding TEX101 maps to human chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes.

# **REFERENCES**

- Takayama, T., Mishima, T., Mori, M., Jin, H., Tsukamoto, H., Takahashi, K., Takizawa, T., Kinoshita, K., Suzuki, M., Sato, I., Matsubara, S., Araki, Y. and Takizawa, T. 2005. Sexually dimorphic expression of the novel germ cell antigen TEX101 during mouse gonad development. Biol. Reprod. 72: 1315-1323.
- Takayama, T., Mishima, T., Mori, M., Ishikawa, T., Takizawa, T., Goto, T., Suzuki, M., Araki, Y., Matsubara, S. and Takizawa, T. 2005. TEX101 is shed from the surface of sperm located in the caput epididymidis of the mouse. Zygote 13: 325-333.
- Teng, X., Yang, J., Xie, Y., Ni, Z., Hu, R., Shi, L., Lin, Z., Hu, L., Zhao, G., Ding, X. and Kong, X. 2006. A novel spermatogenesis-specific uPAR gene expressed in human and mouse testis. Biochem. Biophys. Res. Commun. 342: 1223-1227.
- 4. Yin, L., Chung, C.M., Huo, R., Liu, H., Zhou, C., Xu, W., Zhu, H., Zhang, J., Shi, Q., Wong, H.Y., Chen, J., Lu, Y., Bi, Y., Zhao, C., Du, Y., Ma, M., Cai, Y., Chen, W.Y., Fok, K.L., Tsang, L.L., Li, K., Ni, Y., Chung, Y.W., Zhou, Z., et al. 2009. A sperm GPI-anchored protein elicits sperm-cumulus cross-talk leading to the acrosome reaction. Cell. Mol. Life Sci. 66: 900-908.
- 5. Online Mendelian Inheritance in Man, OMIM™. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 612665. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Ghafouri-Fard, S., Abbasi, A., Moslehi, H., Faramarzi, N., Taba Taba Vakili, S., Mobasheri, M.B. and Modarressi, M.H. 2010. Elevated expression levels of testis-specific genes TEX101 and SPATA19 in basal cell carcinoma and their correlation with clinical and pathological features. Br. J. Dermatol. 162: 772-779.

## CHROMOSOMAL LOCATION

Genetic locus: TEX101 (human) mapping to 19q13.31.

## **PROTOCOLS**

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

#### **PRODUCT**

TEX101 siRNA (h) 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  $\mu\text{M}$  solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TEX101 shRNA Plasmid (h): sc-97787-SH and TEX101 shRNA (h) Lentiviral Particles: sc-97787-V as alternate gene silencing products.

For independent verification of TEX101 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-97787A, sc-97787B and sc-97787C.

## 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  $\mu$ l of the RNAse-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNAse-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## **APPLICATIONS**

TEX101 siRNA (h) is recommended for the inhibition of TEX101 expression in human 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 µM in 66 µl. 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 TEX101 gene expression knockdown using RT-PCR Primer: TEX101 (h)-PR: sc-97787-PR (20  $\mu$ 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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com