SANTA CRUZ BIOTECHNOLOGY, INC.

TSARG2 siRNA (m): sc-61729

BACKGROUND

The testis spermatocyte apoptosis-related gene 2 protein (TSARG2, also designated spermatogenesis associated-4 or SPATA4) is involved in spermatogenesis. TSARG2 is specifically expressed in spermatogonia and spermatocytes of the seminiferous tubules, and it localizes to the nucleus. The predicted molecular weight of TSARG2 ranges depending on the species. TSARG2 is significantly upregulated in cryptorchidism and therefore, is a testis-specific apoptosis candidate oncogene.

REFERENCES

1. Liu, S.F., et al. 2002. Rapid identification of human testis spermatocyte apoptosis-related gene, TSARG2, by nested PCR and draft human genome searching. Sheng Wu Hua Xue Yu Sheng Wu Wu Li Xue Bao 34: 378-382.
2. Liu, S.F., et al. 2002. Molecular cloning of SRG2, a mouse testis spermatocyte apoptosis-related gene. Sheng Wu Hua Xue Yu Sheng Wu Wu Li Xue Bao 34: 796-799.
3. Liu, S.F., et al. 2003. Molecular cloning and expression in cryptorchid testis of SRG2 from a mouse testis spermatocyte apoptosis-related gene. Yi Chuan Xue Bao 30: 943-948.
4. Liu, S.F., et al. 2004. Cloning of a full-length cDNA of human testis-specific spermatogenic cell apoptosis inhibitor TSARG2 as a candidate oncogene. Biochem. Biophys. Res. Commun. 319: 32-40.
5. Liu, S.F., et al. 2004. Cloning and characterization of testis-specific spermatogenesis associated gene homologous to human SPATA4 in rat. Biol. Pharm. Bull. 27: 1867-1870.
6. Liu, S.F., et al. 2005. Molecular cloning and bioinformatic analysis of SPATA4 gene. J. Biochem. Mol. Biol. 38: 739-747.

CHROMOSOMAL LOCATION

Genetic locus: Spata4 (mouse) mapping to 8 B1.3.

PRODUCT

TSARG2 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TSARG2 shRNA Plasmid (m): sc-61729-SH and TSARG2 shRNA (m) Lentiviral Particles: sc-61729-V as alternate gene silencing products.

For independent verification of TSARG2 (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-61729A, sc-61729B and sc-61729C.

RESEARCH USE

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

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

TSARG2 siRNA (m) is recommended for the inhibition of TSARG2 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 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 TSARG2 gene expression knockdown using RT-PCR Primer: TSARG2 (m)-PR: sc-61729-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.