SANTA CRUZ BIOTECHNOLOGY, INC.

TSARG6 siRNA (m): sc-63170

BACKGROUND

TSARG6 (testis spermatogenesis apoptosis-related gene 6 protein), also known as DnaJB13 (DnaJ homolog subfamily B member 13) or TSARG5, is a 316 amino acid member of the DnaJ/HSP 40 family of ATPase-stimulating proteins. Strongly expressed in testis and weakly expressed in liver, spleen, heart and lung, TSARG6 contains one J domain and is thought to be involved in inhibiting testis spermatogenesis apoptosis. The gene encoding TSARG6 contains eight exons and the TSARG6 protein shares 87% sequence identity with its mouse counterpart. In mice, this protein is implicated in assembly and stability of axoneme during sperm development. Three isoforms of TSARG6 exist due to alternative splicing events.

REFERENCES

1. Ohtsuka, K. and Hata, M. 2000. Mammalian HSP40/DnaJ homologs: cloning of novel cDNAs and a proposal for their classification and nomenclature. Cell Stress Chaperones 5: 98-112.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 6102063. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Liu, G., Lu, G., Fu, J., Liu, S., Xing, X. and Li, L. 2003. Molecular cloning of TSARG3 gene related to apoptosis in human spermatogenic cells. Zhonghua Yi Xue Yi Chuan Xue Za Zhi 20: 107-110.
4. Liu, G., Lu, G.X. and Xing, X.W. 2004. Molecular cloning of TSARG6 gene related to apoptosis in human spermatogenic cells. Acta Biochim. Biophys. Sin. 36: 93-98.
5. Guan, J. and Yuan, L. 2008. A heat-shock protein 40, DnaJB13, is an axoneme-associated component in mouse spermatozoa. Mol. Reprod. Dev. 75: 1379-1386.

CHROMOSOMAL LOCATION

Genetic locus: Dnajb13 (mouse) mapping to 7 E3.

PRODUCT

TSARG6 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 TSARG6 shRNA Plasmid (m): sc-63170-SH and TSARG6 shRNA (m) Lentiviral Particles: sc-63170-V as alternate gene silencing products.

For independent verification of TSARG6 (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-63170A, sc-63170B and sc-63170C.

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

TSARG6 siRNA (m) is recommended for the inhibition of TSARG6 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 TSARG6 gene expression knockdown using RT-PCR Primer: TSARG6 (m)-PR: sc-63170-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.