SANTA CRUZ BIOTECHNOLOGY, INC.

TSARG1 siRNA (m): sc-63166

BACKGROUND

TSARG1 (testis spermatocyte apoptosis-related protein 1), also known as SPATA3 (spermatogenesis-associated protein 3) or mTsarg1 in mice, is a 183 amino acid protein predominantly expressed in the testis. TSARG1 was initially discovered due to its possible role in spermatogenesis or spermatogenesis cell apoptosis and it may be linked to cell cycle control. Apoptosis during spermatogenesis is a natural occurrence and typically effects 75-80% of the germ cells. This high rate of apoptosis is required for normal mature speramatogenesis. It may be a consequence of mutated DNA but it is also believed to ensure a proper ratio between Sertoli cells and germ cells.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Spata3 (mouse) mapping to 1 C5.

PRODUCT

TSARG1 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 TSARG1 shRNA Plasmid (m): sc-63166-SH and TSARG1 shRNA (m) Lentiviral Particles: sc-63166-V as alternate gene silencing products.

For independent verification of TSARG1 (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-63166A, sc-63166B and sc-63166C.

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

TSARG1 siRNA (m) is recommended for the inhibition of TSARG1 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 TSARG1 gene expression knockdown using RT-PCR Primer: TSARG1 (m)-PR: sc-63166-PR (20 µl). 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.

PROTOCOLS

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