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SPEM1 siRNA (m): sc-153748

BACKGROUND

SPEM1 (spermatid maturation 1) is a 309 amino acid transmembrane and cytoplasmic protein that is required for proper cytoplasm removal during spermatogenesis. SPEM1 interacts with both Ran BP-17 and PLIC-1. Since PLIC-1 functions through binding and directing poly-ubiquitinated proteins to the proteasome for degradation, interactions between PLIC-1 and SPEM1 suggest a role in the regulation of protein ubiquitination during spermiogenesis. The SPEM1 gene maps to human chromosome 17p13.1. Comprising over 2.5% of the human genome, chromosome 17 consists of about 81 million bases, encodes over 1,200 genes and has the highest gene density in the genome. Chromosome 17 is also enriched in segmental duplications, ranking third in density among the autosomes.

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CHROMOSOMAL LOCATION

Genetic locus: Spem1 (mouse) mapping to 11 B3.

PROTOCOLS

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

PRODUCT

SPEM1 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 SPEM1 shRNA Plasmid (m): sc-153748-SH and SPEM1 shRNA (m) Lentiviral Particles: sc-153748-V as alternate gene silencing products.

For independent verification of SPEM1 (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-153748A, sc-153748B and sc-153748C.

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

SPEM1 siRNA (m) is recommended for the inhibition of SPEM1 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 SPEM1 gene expression knockdown using RT-PCR Primer: SPEM1 (m)-PR: sc-153748-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.