SANTA CRUZ BIOTECHNOLOGY, INC.

SPACA1 siRNA (h): sc-95205

BACKGROUND

SPACA1 (sperm acrosome associated 1), also known as SAMP32 (sperm acrosome membrane-associated protein 1), is a 294 amino acid single-pass type I membrane protein that localizes to the acrosomal membrane of spermatids and mature spermatozoa where it is thought to participate in acrosomal morphogenesis and in sperm-egg binding and fusion, respectively. Expressed exclusively in testis, SPACA1 is encoded by a gene located on human chromosome 6q15. Chromosome 6 contains around 1,200 genes within 170 million base pairs of sequence. Notably, the PARK2 gene, which is associated with Parkinson's disease, and the genes encoding the major histocompatiblity complex proteins, which are key molecular components of the immune system and determine predisposition to rheumatic diseases, are located on chromosome 6.

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CHROMOSOMAL LOCATION

Genetic locus: SPACA1 (human) mapping to 6q15.

RESEARCH USE

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

PRODUCT

SPACA1 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SPACA1 shRNA Plasmid (h): sc-95205-SH and SPACA1 shRNA (h) Lentiviral Particles: sc-95205-V as alternate gene silencing products.

For independent verification of SPACA1 (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-95205A, sc-95205B and sc-95205C.

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

SPACA1 siRNA (h) is recommended for the inhibition of SPACA1 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 SPACA1 gene expression knockdown using RT-PCR Primer: SPACA1 (h)-PR: sc-95205-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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