

SPACA3 siRNA (h): sc-93867

BACKGROUND

SPACA3 (sperm acrosome associated 3), also known as sperm lysozyme-like protein 1, lysozyme-like protein 3, lysozyme-like acrosomal sperm-specific secretory protein ALLP-17, cancer/testis antigen 54 (CT54), LYC3, SPRASA or LYZL3, is a 215 amino acid protein that participates in the fusion and adhesion of sperm and egg plasma membrane during fertilization. Identified as a novel cancer/testis antigen in hematologic malignancies, SPACA3 has the ability to elicit B-cell immune responses in patients with cancer and is considered a potential target for immunotherapy. A member of the glycosyl hydrolase 22 family which is expressed in testis, placenta and epididymis, SPACA3 exists as two alternatively spliced isoforms; SPACA3 isoform 1 is a single-pass type II membrane protein of the sperm acrosome whereas SPACA3 isoform 2 is a secreted protein.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SPACA3 (human) mapping to 17q11.2.

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.

PRODUCT

SPACA3 siRNA (h) is a pool of 2 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 SPACA3 shRNA Plasmid (h): sc-93867-SH and SPACA3 shRNA (h) Lentiviral Particles: sc-93867-V as alternate gene silencing products.

For independent verification of SPACA3 (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-93867A and sc-93867B.

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

SPACA3 siRNA (h) is recommended for the inhibition of SPACA3 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 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 SPACA3 gene expression knockdown using RT-PCR Primer: SPACA3 (h)-PR: sc-93867-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.