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Odf4 siRNA (m): sc-150180

BACKGROUND

The major cytoskeletal structures in the mammalian sperm tail are the outer dense fibers (Odf) and the fibrous sheath. Human Odfs consist of approximately 10 major and at least 15 minor proteins. Odf4 (outer dense fiber protein 4), also known as OOP01 or outer dense fiber of sperm tails protein 4, is a 257 amino acid multi-pass membrane protein. Odf4 is a component of the Odfs of spermatozoa and is therefore thought to be involved in sperm movement, sperm tail structure and general organization of cellular cytoskeleton. Odf4 is expressed in testis and sperm, with higher levels at the protein level in sperm tail. The gene encoding Odf4 maps to human chromosome 17p13.1 and mouse chromosome 11 B3.

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CHROMOSOMAL LOCATION

Genetic locus: Odf4 (mouse) mapping to 11 B3.

PRODUCT

Odf4 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 Odf4 shRNA Plasmid (m): sc-150180-SH and Odf4 shRNA (m) Lentiviral Particles: sc-150180-V as alternate gene silencing products.

For independent verification of Odf4 (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-150180A, sc-150180B and sc-150180C.

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

Odf4 siRNA (m) is recommended for the inhibition of Odf4 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 Odf4 gene expression knockdown using RT-PCR Primer: Odf4 (m)-PR: sc-150180-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.