SANTA CRUZ BIOTECHNOLOGY, INC.

Olfactorin siRNA (h): sc-91416

BACKGROUND

Olfactorin, also known as UMODL1 (uromodulin-like 1), is a 1,318 amino acid single-pass type I membrane protein that localizes to both the cell membrane and the cytoplasm. Expressed as four tissue-specific isoforms (isoform 3 is present in testis, prostate and fetal thymus, while isoforms 4 is present in kidney and testis), Olfactorin is thought to play a role in the maturation of the olfactory system and may participate in developmental neurobiology events. Olfactorin contains several functional domains, including one ZP domain, one WAP domain, one EMI domain, two SEA domains, two fibronectin type-III domains and three EGF-like domains. Defects in the gene encoding Olfactorin may contribute to an increased susceptibility for high myopia, a degenerative condition that effects overall eye structure and vision.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: UMODL1 (human) mapping to 21q22.3.

PRODUCT

Olfactorin 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 Olfactorin shRNA Plasmid (h): sc-91416-SH and Olfactorin shRNA (h) Lentiviral Particles: sc-91416-V as alternate gene silencing products.

For independent verification of Olfactorin (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-91416A, sc-91416B and sc-91416C.

PROTOCOLS

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

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

Olfactorin siRNA (h) is recommended for the inhibition of Olfactorin 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 Olfactorin gene expression knockdown using RT-PCR Primer: Olfactorin (h)-PR: sc-91416-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.