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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

SANTA CRUZ BIOTECHNOLOGY, INC.

Otolin-1 siRNA (m): sc-151343

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Otolin-1 (OTOL1) is a 477 amino acid secreted protein that belongs to the OTOL1 family. Otolin-1 contains three collagen-like domains, one C1q domain and interacts with Otoconin 90. The gene that encodes Otolin-1 consists of more than 7,000 bases and maps to human chromosome 3q26.1. As one of the largest human chromosomes, human chromosome 3 has the lowest rate of segmental duplication in the genome. It also contains a chemokine receptor gene group as well as a number of loci involved in multiple human cancers. 8.8 genes per Mb is the average gene density for chromosome 3, making it one of the more gene-poor chromosomes. Although the average gene density is low, the genes that make up chromosome 3 are larger than average and make up about 49% of the chromosome. A 13.6-cM region on 3p21.31-21.2, where a tumor suppressor gene cluster is located, is believed to be a novel locus for nasopharyngeal carcinoma.

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CHROMOSOMAL LOCATION

Genetic locus: Otol1 (mouse) mapping to 3 E2.

PRODUCT

Otolin-1 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Otolin-1 shRNA Plasmid (m): sc-151343-SH and Otolin-1 shRNA (m) Lentiviral Particles: sc-151343-V as alternate gene silencing products.

For independent verification of Otolin-1 (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-151343A, sc-151343B and sc-151343C.

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

Otolin-1 siRNA (m) is recommended for the inhibition of Otolin-1 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 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 Otolin-1 gene expression knockdown using RT-PCR Primer: Otolin-1 (m)-PR: sc-151343-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.

PROTOCOLS

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