SANTA CRUZ BIOTECHNOLOGY, INC.

OLFM2 siRNA (h): sc-97434

BACKGROUND

The Olfactomedin family comprises a diverse group of secreted glycoproteins, which includes OLFM1 (Noelin-1), OLFM2 (Noelin-2), OLFM3 (Noelin-3), OLFM4 (Noelin-4), tiarin, pancortin, gliomedin and mycocilin. These proteins are implicated in the development of the nervous system. Specifically, OLFM1 and OLFM2 expression is observed in the neural plate and neural crest, as well as in the cranial ganglia in mouse at E8-10, and later in brain tissue and in the zone of polarizing activity in the limb. Overexpression of OLFM1 causes an excess of neural crest emigrations and prolonged neural crest production. OLFM2 participates in the regulation of the development of the anterior nervous system. An Arg144Gln mutation in OLFM2 has been implicated as a possible cause for open-angle glaucoma (OAG).

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: OLFM2 (human) mapping to 19p13.2.

PROTOCOLS

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

PRODUCT

OLFM2 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see OLFM2 shRNA Plasmid (h): sc-97434-SH and OLFM2 shRNA (h) Lentiviral Particles: sc-97434-V as alternate gene silencing products.

For independent verification of OLFM2 (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-97434A and sc-97434B.

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

OLFM2 siRNA (h) is recommended for the inhibition of OLFM2 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 OLFM2 gene expression knockdown using RT-PCR Primer: OLFM2 (h)-PR: sc-97434-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.