SANTA CRUZ BIOTECHNOLOGY, INC.

OLFML3 siRNA (h): sc-78816

BACKGROUND

OLFML3 (olfactomedin-like protein 3), also known has HNOEL-iso or hOLF44, is a 406 amino acid protein that belongs to the OLFML3 family and contains one olfactomedin-like domain. As a secreted scaffold protein, OLFML3 plays an essential role in dorsoventral patterning during early development by restricting chordin activity on the dorsal side, thus stabilizing axial formation. OLFML3 also facilitates the association between the tolloid proteases and chordin, enhancing chordin degradation. OLFML3 may also be involved in placental and embryonic development, or play a similar role in other physiological processes. Abundantly expressed in placenta, OLFML3 is mainly extracellularly localized around syncytiotrophoblastic cells on term placenta. OLFML3 is also moderately expressed in liver and heart. Three isoforms of OLFML3 are produced by alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: OLFML3 (human) mapping to 1p13.2.

PROTOCOLS

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

PRODUCT

OLFML3 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 OLFML3 shRNA Plasmid (h): sc-78816-SH and OLFML3 shRNA (h) Lentiviral Particles: sc-78816-V as alternate gene silencing products.

For independent verification of OLFML3 (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-78816A, sc-78816B and sc-78816C.

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

OLFML3 siRNA (h) is recommended for the inhibition of OLFML3 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 OLFML3 gene expression knockdown using RT-PCR Primer: OLFML3 (h)-PR: sc-78816-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.