SANTA CRUZ BIOTECHNOLOGY, INC.

NOMO1 siRNA (m): sc-75945

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The Power to Question

BACKGROUND

Three highly similar proteins termed NOMO1, NOMO2 and NOMO3, are encoded by a gene mapping to a region of duplication on the p arm of human chromosome 16. All three NOMO proteins share similar functions and have been difficult to characterize individually. NOMO1 (Nodal modulator 1), also known as PM5, is a 1,222 amino acid highly conserved single-pass type I membrane protein expressed in colon tumor tissue and normal colonic mucosa. NOMO proteins are novel antagonists of Nodal signaling which interact with Nicalin to form a Nicalin-NOMO complex, and are rapidly degraded or stabilized by Nicalin. NOMO proteins were once considered candidates for the development of pseudoxanthoma elasticum (PXE), a heritable disorder of connective tissue, as the NOMO genes are located in close proximity to the gene responsible for PXE development (MRP6).

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Nomo1 (mouse) mapping to 7 B4.

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.

PRODUCT

NOMO1 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 NOMO1 shRNA Plasmid (m): sc-75945-SH and NOMO1 shRNA (m) Lentiviral Particles: sc-75945-V as alternate gene silencing products.

For independent verification of NOMO1 (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-75945A, sc-75945B and sc-75945C.

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

NOMO1 siRNA (m) is recommended for the inhibition of NOMO1 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 NOMO1 gene expression knockdown using RT-PCR Primer: NOMO1 (m)-PR: sc-75945-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.