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SANTA CRUZ BIOTECHNOLOGY, INC.

LSmD1 siRNA (m): sc-149134

BACKGROUND

Sm and Sm-like (LSm) proteins form donut shaped heptameric complexes that are involved in various steps of RNA metabolism. Lsm proteins facilitate RNA protein interactions and structural changes that are required during ribosomal subunit assembly. LSmD1 (LSM domain-containing protein 1), also known as MAK31 and PFAAP2 (phosphonoformate immuno-associated protein 2), is a 125 amino acid protein that is a component of the N-terminal acetyltransferase C (NatC) complex. Composed of MAK10, NAT-12 and LSmD1, the NatC complex catalyzes the acetylation of amino-terminal methionine residues. siRNA knockdown of NatC complex subunits leads to p53-dependent cell death and reduced growth of cell lines. There are two isoforms of LSmD1 that are produced as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Lsmd1 (mouse) mapping to 11 B3.

PROTOCOLS

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

PRODUCT

LSmD1 siRNA (m) is a target-specific 19-25 nt siRNA 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 LSmD1 shRNA Plasmid (m): sc-149134-SH and LSmD1 shRNA (m) Lentiviral Particles: sc-149134-V as alternate gene silencing 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

LSmD1 siRNA (m) is recommended for the inhibition of LSmD1 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 LSmD1 gene expression knockdown using RT-PCR Primer: LSmD1 (m)-PR: sc-149134-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.