SANTA CRUZ BIOTECHNOLOGY, INC.

LEMD1 siRNA (h): sc-88658

BACKGROUND

LEMD1 (LEM domain-containing protein 1), also known as cancer/testis antigen 50, is a 181 amino acid protein containing one LEM domain. The LEM domain is conserved in various nuclear-membrane proteins. A single-pass membrane protein, LEMD1 is testis-specific. Six isoforms of LEMD1 are produced by alternative splicing events, with isoform 6 being detected in 17 or 18 colon cancer tissues examined. It has been suggested that increased expression of LEMD1 may be involved in the mitosis of rapidly growing cancer cells. The gene encoding LEMD1 maps to human chromosome 1q32.1 and mouse chromosome 1 E4. Chromosome 1 is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome. There are about 3,000 genes on chromosome 1, and considering the great number of genes there are also a large number of diseases associated with chromosome 1, including schizophrenia, Stickler syndrome, Parkinsons and Gaucher disease.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: LEMD1 (human) mapping to 1q32.1.

PROTOCOLS

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

PRODUCT

LEMD1 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 LEMD1 shRNA Plasmid (h): sc-88658-SH and LEMD1 shRNA (h) Lentiviral Particles: sc-88658-V as alternate gene silencing products.

For independent verification of LEMD1 (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-88658A and sc-88658B.

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

LEMD1 siRNA (h) is recommended for the inhibition of LEMD1 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 LEMD1 gene expression knockdown using RT-PCR Primer: LEMD1 (h)-PR: sc-88658-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.