SANTA CRUZ BIOTECHNOLOGY, INC.

LMF2 siRNA (h): sc-75684

BACKGROUND

LMF2 (lipase maturation factor 2), also known as TMEM112B (transmembrane protein 112B) and TMEM153 (transmembrane protein 153), is a 707 amino acid multi-pass membrane protein that localizes to the endoplasmic reticulum (ER) and belongs to the lipase maturation family. LMF2 is involved in the maturation of ER-localized proteins and is required for the transport of active LPL (lipoprotein lipase) through the secretory pathway. The gene encoding LMF2 maps to human chromosome 22, contains over 500 genes and about 49 million bases. Being the second smallest human chromosome, 22 contains a surprising variety of interesting genes. Phelan-McDermid syndrome, neurofibromatosis type 2 and autism are associated with chromosome 22. A schizophrenia susceptibility locus has been identified on chromosome 22 and studies show that 22q11 deletion symptoms include a high incidence of schizophrenia. There are three isoforms of LMF2 that are expressed as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: LMF2 (human) mapping to 22q13.33.

PROTOCOLS

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

PRODUCT

LMF2 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 LMF2 shRNA Plasmid (h): sc-75684-SH and LMF2 shRNA (h) Lentiviral Particles: sc-75684-V as alternate gene silencing products.

For independent verification of LMF2 (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-75684A and sc-75684B.

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

LMF2 siRNA (h) is recommended for the inhibition of LMF2 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 LMF2 gene expression knockdown using RT-PCR Primer: LMF2 (h)-PR: sc-75684-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.