SANTA CRUZ BIOTECHNOLOGY, INC.

Lmf1 siRNA (m): sc-146766

BACKGROUND

Lmf1 (lipase maturation factor 1), also known as C16orf26, TMEM112 or JFP11, is a 567 amino acid multi-pass membrane protein that localizes to the endoplasmic reticulum (ER) and belongs to the lipase maturation family. Expressed in a variety of tissues, including pancreas, testis, liver, heart and skeletal muscle, Lmf1 is involved in the maturation of ER-localized proteins and is required for the transport of active LPL (lipoprotein lipase) through the secretory pathway. Defects in the gene encoding Lmf1 are the cause of combined lipase deficiency (CLD), an LPL disorder that is characterized by pancreatitis, lipodystrophy and tuberous xanthomas. The gene encoding Lmf1 maps to human chromosome 16, which houses over 900 genes and comprises nearly 3% of the human genome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Lmf1 (mouse) mapping to 17 A3.3.

PRODUCT

Lmf1 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 Lmf1 shRNA Plasmid (m): sc-146766-SH and Lmf1 shRNA (m) Lentiviral Particles: sc-146766-V as alternate gene silencing products.

For independent verification of Lmf1 (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-146766A, sc-146766B and sc-146766C.

PROTOCOLS

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

Lmf1 siRNA (m) is recommended for the inhibition of Lmf1 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 Lmf1 gene expression knockdown using RT-PCR Primer: Lmf1 (m)-PR: sc-146766-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.