SANTA CRUZ BIOTECHNOLOGY, INC.

LIPH siRNA (m): sc-146739

BACKGROUND

LIPH (lipase, member H) is also known as AH, LPD (lipase-related protein), Phospholipase A1 member B or membrane-associated phosphatidic acid-selective phospholipase A1-α, and is a 451 amino acid protein. LIPH is a member of the triglyceride lipase family and is highly expressed in colon, prostate, kidney, pancreas, ovary, testis, intestine, lung and pancreas. LIPH is also expressed in hair, primarily localized to stem cell-rich bulge regions of hair follicles. The ability of LIPH to regulate hair growth may be because LIPH produces LPA (lysophosphatidic acid) by hydrolyzing PA (phosphatidic acid). LPA then activates P2Y5, another hair follicle protein, which is thought to be important for hair growth regulation. In cells, LIPH associates with the peripheral membrane and is secreted just outside of it. Genetic defects in the gene encoding LIPH are associated with hypotrichosis and alopecia, both of which affect hair growth, implying that LIPH may be an important enzyme in hair growth regulation.

REFERENCES

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3. Ali, G., Chishti, M.S., Raza, S.I., John, P. and Ahmad, W. 2007. A mutation in the lipase H (LIPH) gene underlie autosomal recessive hypotrichosis. Hum. Genet. 121: 319-325.
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CHROMOSOMAL LOCATION

Genetic locus: Liph (mouse) mapping to 16 B1.

PRODUCT

LIPH 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 LIPH shRNA Plasmid (m): sc-146739-SH and LIPH shRNA (m) Lentiviral Particles: sc-146739-V as alternate gene silencing products.

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

LIPH siRNA (m) is recommended for the inhibition of LIPH 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 LIPH gene expression knockdown using RT-PCR Primer: LIPH (m)-PR: sc-146739-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.