SANTA CRUZ BIOTECHNOLOGY, INC.

ERGIC-53L siRNA (h): sc-89976

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The Power to Question

BACKGROUND

VIP36 and ERGIC-53 comprise a family of membrane bound, ubiquitous proteins involved in the selective transport of newly synthesized glycoproteins from the endoplasmic reticulum (ER) to the ER-Golgi intermediate compartment (ERGIC). VIP36 acts as an intracellular lectin in the early secretory pathway. It is involved in the sorting and transport of glycoproteins carrying high mannose-type glycans. ERGIC-53, a mannose-specific lectin, recognizes sugar residues of glycoproteins and glycolipids. It mediates the sorting and recycling of proteins and/or lipids. Null expression of ERGIC-53 results in a rare autosomal recessive bleeding disorder that causes combined deficiency of both coagulation factors V and VIII. ERGIC-53L, also known as LMAN1L or ERGL, is a 526 amino acid protein that is similar to ERGIC-53. Localized to the endoplasmic reticulum-Golgi intermediate compartment membrane, ERGIC-53L contains one L-type lectin-iike domain. ERGIC-53L is highly expressed in normal and neoplastic prostate, with lower levels found in salivary gland, cardiac atrium, spleen and selective cells in the CNS. ERGIC-53L is expressed as three isoforms produced by alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: LMAN1L (human) mapping to 15q24.1.

PRODUCT

ERGIC-53L siRNA (h) 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 ERGIC-53L shRNA Plasmid (h): sc-89976-SH and ERGIC-53L shRNA (h) Lentiviral Particles: sc-89976-V as alternate gene silencing products.

For independent verification of ERGIC-53L (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-89976A, sc-89976B and sc-89976C.

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

ERGIC-53L siRNA (h) is recommended for the inhibition of ERGIC-53L 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 ERGIC-53L gene expression knockdown using RT-PCR Primer: ERGIC-53L (h)-PR: sc-89976-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.