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Fibulin-5 siRNA (m): sc-43122

BACKGROUND

Fibulin proteins contribute to normal development of elastic fiber systems in various types of organs that require elasticity, such as vasculature, lung and skin. Fibulin-5 (EVEC, UP50, DANCE) is an integrin-binding extracellular matrix protein that mediates endothelial cell adhesion. Fibulin-5 is also a calcium-dependent elastin-binding protein that scaffolds cells to elastic fibers, thereby preventing elastinopathy in the skin, lung and vasculature. The Arg-Gly-Asp (RGD) motif in Fibulin-5 interacts with cell surface integrins $\alpha v\beta 3$, $\alpha v\beta 5$ and $\alpha 9\beta 1$, serves as an anchorage for elastic fibers to cells and promotes organization of elastic fibers. The human Fibulin-5 gene maps to chromosome 14q32.12 and encodes a 488 amino acid protein.

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CHROMOSOMAL LOCATION

Genetic locus: Fbln5 (mouse) mapping to 12 E.

PRODUCT

Fibulin-5 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Fibulin-5 shRNA Plasmid (m): sc-43122-SH and Fibulin-5 shRNA (m) Lentiviral Particles: sc-43122-V as alternate gene silencing products.

For independent verification of Fibulin-5 (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-43122A, sc-43122B and sc-43122C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

Fibulin-5 siRNA (m) is recommended for the inhibition of Fibulin-5 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 μ M in 66 μ l. 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 Fibulin-5 gene expression knockdown using RT-PCR Primer: Fibulin-5 (m)-PR: sc-43122-PR (20 μ l). 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.

PROTOCOLS

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