SANTA CRUZ BIOTECHNOLOGY, INC.

Fibulin-4 siRNA (m): sc-75018

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-4, also known as EFEMP2 (EGF-containing fibulin-like extracellular matrix protein 2), MBP1 or UPH1 is a 443 amino acid secreted protein that contains six EGF-like calcium-binding domains and belongs to the fibulin family. Expressed ubiquitously with highest expression in heart, Fibulin-4 is essential for connective tissue development and elastic fiber formation, and may also play an important role in vascular patterning and collagen biosynthesis. Defects in the gene encoding Fibulin-4 are associated with autosomal recessive cutis laxa type I (CL type I), a connective tissue disorder that is inherited in both an autosomal dominant and an autosomal recessive manner and is characterized by inelastic tissue in all affected areas of the body.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Efemp2 (mouse) mapping to 19 A.

PROTOCOLS

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

PRODUCT

Fibulin-4 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 Fibulin-4 shRNA Plasmid (m): sc-75018-SH and Fibulin-4 shRNA (m) Lentiviral Particles: sc-75018-V as alternate gene silencing products.

For independent verification of Fibulin-4 (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-75018A, sc-75018B and sc-75018C.

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

Fibulin-4 siRNA (m) is recommended for the inhibition of Fibulin-4 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 Fibulin-4 gene expression knockdown using RT-PCR Primer: Fibulin-4 (m)-PR: sc-75018-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.