SANTA CRUZ BIOTECHNOLOGY, INC.

fibrillin-3 siRNA (h): sc-97083

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The Power to Question

BACKGROUND

Fibrillin-3 (FBN3) is a 2,809 amino acid protein that belongs to the fibrillin family. Fibrillins are structural components of 10-12 nm extracellular calcium-binding microfibrils, which occur either in association with elastin or in elastin-free bundles. Microfibrils provide long-term force-bearing structural support with uniform small-diameter fibrils. Containing 44 EGF-like domains, as well as 9 TB (TGF-β binding) domains, fibrillin-3 is predominantly expressed in connective tissues, such as skeletal muscle, tendon, skin, perichondrium and periosteum. Fibrillin-3 is also highly expressed in fetal lung, brain and kidney, but expressed at low levels in prostate, testis, mammary gland, uterus, ovary, placenta, bladder, adrenal gland, thyroid, heart, fetal thymus, fetal liver, liver, and fetal heart. The fibrillin-3 gene contains 66 exons, spans about 85 kb and maps to human chromosome 19p13.2.

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CHROMOSOMAL LOCATION

Genetic locus: FBN3 (human) mapping to 19p13.2.

PRODUCT

fibrillin-3 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 fibrillin-3 shRNA Plasmid (h): sc-97083-SH and fibrillin-3 shRNA (h) Lentiviral Particles: sc-97083-V as alternate gene silencing products.

For independent verification of fibrillin-3 (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-97083A, sc-97083B and sc-97083C.

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

fibrillin-3 siRNA (h) is recommended for the inhibition of fibrillin-3 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 fibrillin-3 gene expression knockdown using RT-PCR Primer: fibrillin-3 (h)-PR: sc-97083-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.