SANTA CRUZ BIOTECHNOLOGY, INC.

Fibulin-7 siRNA (h): sc-94915

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-7, also known as TM14 or FBLN7, is a 439 amino acid extracellular matrix protein that belongs to the Fibulin family. Containing two EGF-like domains and one sushi (CCP/SCR) domain, Fibulin-7 exists as four alternatively spliced isoforms. Fibulin-7 is considered an adhesion protein that interacts with extracellular matrix molecules in developing teeth, and may be involved in differentiation and maintenance of odontoblasts as well as in dentin formation. Fibulin-7 is post-translationally glycosylated with N-linked oligosaccharides and interacts with heparin, fibronectin, Fibulin-1 and DSP (dentin sialophosphoprotein). Fibulin-7 is encoded by a gene located on human chromosome 2, which consists of 237 million bases, encodes over 1,400 genes and makes up approximately 8% of the human genome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: FBLN7 (human) mapping to 2q13.

PROTOCOLS

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

PRODUCT

Fibulin-7 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 Fibulin-7 shRNA Plasmid (h): sc-94915-SH and Fibulin-7 shRNA (h) Lentiviral Particles: sc-94915-V as alternate gene silencing products.

For independent verification of Fibulin-7 (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-94915A, sc-94915B and sc-94915C.

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-7 siRNA (h) is recommended for the inhibition of Fibulin-7 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 Fibulin-7 gene expression knockdown using RT-PCR Primer: Fibulin-7 (h)-PR: sc-94915-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.