

Fibulin-1 siRNA (h): sc-35372

BACKGROUND

Fibulin-1 is a modular glycoprotein component of the elastic extracellular matrix fibers, basement membranes and blood. Fibulin-1 self associates as well as binds to calcium, Fibronectin, Laminin, nidogen and Fibrinogen. These interactions, individually or in combination, may account for the observed association of Fibulin-1 with basement membranes, connective tissue, elastic fibers and fibrin clots. Fibulin-1 expression is stimulated by estrogen in ovarian cancer cell lines and has been suggested as both an agent of metastasis in ovarian cancer cells and an indicator for predicting cancer risk or aggressiveness in ovarian carcinomas. Other studies point to the inhibition of cancer cell motility with increasing exposure to Fibulin-1. The exact function of Fibulin-1 in the cell is unknown.

REFERENCES

- Clinton, G.M., et al. 1996. Estrogens increase the expression of Fibulin-1, an extracellular matrix protein secreted by human ovarian cancer cells. *Proc. Natl. Acad. Sci. USA* 93: 316-320.
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- Barth, J.L., et al. 1998. Identification of chicken and *C. elegans* Fibulin-1 homologs and characterization of the *C. elegans* Fibulin-1 gene. *Matrix Biol.* 17: 635-646.
- Roger, P., et al. 1998. Increased immunostaining of Fibulin-1, an estrogen-regulated protein in the stroma of human ovarian epithelial tumors. *Am. J. Pathol.* 153: 1579-1588.
- Hayashido, Y., et al. 1998. Estradiol and Fibulin-1 inhibit motility of human ovarian- and breast-cancer cells induced by Fibronectin. *Int. J. Cancer* 75: 654-658.
- Rocheffort, H., et al. 1998. Estrogen receptor mediated inhibition of cancer cell invasion and motility: an overview. *J. Steroid Biochem. Mol. Biol.* 65: 163-168.
- Pan, T.C., et al. 1999. Complete exon-intron organization of the mouse Fibulin-1 gene and its comparison with the human Fibulin-1 gene. *FEBS Lett.* 444: 38-42.

CHROMOSOMAL LOCATION

Genetic locus: FBLN1 (human) mapping to 22q13.31.

PRODUCT

Fibulin-1 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Fibulin-1 shRNA Plasmid (h): sc-35372-SH and Fibulin-1 shRNA (h) Lentiviral Particles: sc-35372-V as alternate gene silencing products.

For independent verification of Fibulin-1 (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-35372A, sc-35372B and sc-35372C.

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-1 siRNA (h) is recommended for the inhibition of Fibulin-1 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 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.

GENE EXPRESSION MONITORING

Fibulin-1 (B-5): sc-25281 is recommended as a control antibody for monitoring of Fibulin-1 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Fibulin-1 gene expression knockdown using RT-PCR Primer: Fibulin-1 (h)-PR: sc-35372-PR (20 μ l, 491 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

- Ducros, E., et al. 2007. Expression of extracellular matrix proteins Fibulin-1 and Fibulin-2 by human corneal fibroblasts. *Curr. Eye Res.* 32: 481-490.

RESEARCH USE

For research use only, not for use in diagnostic procedures.