

## Produktinformation



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# Fibulin-3 shRNA (h) Lentiviral Particles: sc-44624-V



The Power to Overtion

#### **BACKGROUND**

Fibulin-1 is a modular glycoprotein component of elastic extracellular matrix fibers, basement membranes and blood. It can bind calcium, Fibronectin, Laminin, Nidogen and Fibrinogen. Estrogen exposure to ovarian cancer cell lines can upregulate Fibulin-1. Fibulin-2 is abundant in heart, placenta and ovarian tissue and binds several components of the extracelllar matrix including aggrecan, versican and brevican. Fibulin-3, also known as EFEMP1, is a secreted protein. Defects in the gene for Fibulin-3 cause the autosomal dominant disease Doyne honeycomb retinal dystrophy (DHRD, also known as malattia leventinese) which is characterized by yellow-white deposits (drusen) that accumulate under the retinal pigment epithelium. Fibulin-3 is not present at the site of drusen formation in normal eyes. Fibulin-5 is an integrin-binding extracellular matrix protein that mediates endothelial cell adhesion.

#### **REFERENCES**

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- Stone, E.M., et al. 1999. A single EFEMP1 mutation associated with both malattia leventinese and Doyne honeycomb retinal dystrophy. Nat. Genet. 22: 199-202.
- Giltay, R., et al. 1999. Sequence, recombinant expression and tissue localization of two novel extracellular matrix proteins, Fibulin-3 and Fibulin-4. Matrix Biol. 18: 469-480
- Matsumoto, M., et al. 2001. Dominant radial drusen and Arg345Trp EFEMP1 mutation. Am. J. Ophthalmol. 131: 810-812.
- Marmorstein, L.Y., et al. 2002. Aberrant accumulation of EFEMP1 underlies drusen formation in malattia leventinese and age-related macular degeneration. Proc. Natl. Acad. Sci. USA 99: 13067-13072.
- 6. Marmorstein, L.Y., et al. 2004. Association of EFEMP1 with malattia leventinese and age-related macular degeneration: a mini-review. Ophthalmic Genet. 25: 219-226.

#### CHROMOSOMAL LOCATION

Genetic locus: EFEMP1 (human) mapping to 2p16.1.

#### **PRODUCT**

Fibulin-3 shRNA (h) Lentiviral Particles is a pool of concentrated, transduction-ready viral particles containing 3 target-specific constructs that encode 19-25 nt (plus hairpin) shRNA designed to knock down gene expression. Each vial contains 200  $\mu$ l frozen stock containing 1.0 x  $10^6$  infectious units of virus (IFU) in Dulbecco's Modified Eagle's Medium with 25 mM HEPES pH 7.3. Suitable for 10-20 transductions. Also see Fibulin-3 siRNA (h): sc-44624 and Fibulin-3 shRNA Plasmid (h): sc-44624-SH as alternate gene silencing products.

#### **STORAGE**

Store lentiviral particles at  $-80^{\circ}$  C. Stable for at least one year from the date of shipment. Once thawed, particles can be stored at  $4^{\circ}$  C for up to one week. Avoid repeated freeze thaw cycles.

#### **APPLICATIONS**

Fibulin-3 shRNA (h) Lentiviral Particles is recommended for the inhibition of Fibulin-3 expression in human cells.

#### **SUPPORT REAGENTS**

Control shRNA Lentiviral Particles: sc-108080. Available as 200  $\mu$ l frozen viral stock containing 1.0 x 10 $^6$  infectious units of virus (IFU); contains an shRNA construct encoding a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA.

#### **GENE EXPRESSION MONITORING**

Fibulin-3 (C-3): sc-365224 is recommended as a control antibody for monitoring of Fibulin-3 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 (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo-rescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

#### **RT-PCR REAGENTS**

Semi-quantitative RT-PCR may be performed to monitor Fibulin-3 gene expression knockdown using RT-PCR Primer: Fibulin-3 (h)-PR: sc-44624-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

#### **BIOSAFETY**

Lentiviral particles can be employed in standard Biosafety Level 2 tissue culture facilities (and should be treated with the same level of caution as with any other potentially infectious reagent). Lentiviral particles are replication-incompetent and are designed to self-inactivate after transduction and integration of shRNA constructs into genomic DNA of target cells.

#### **RESEARCH USE**

The purchase of this product conveys to the buyer the nontransferable right to use the purchased amount of the product and all replicates and derivatives for research purposes conducted by the buyer in his laboratory only (whether the buyer is an academic or for-profit entity). The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party, or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes.

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