

SPARCL1 siRNA (h): sc-89018

BACKGROUND

SPARC (secreted protein acidic and rich in cysteine) is a phosphorylated, acidic, glycine-rich glycoprotein that is secreted by endothelial cells and is present in large amounts in the parietal endoderm of mouse embryos and in human placenta. SPARC-like protein 1 (SPARCL1), also known as high endothelial venule protein (Hevin) or MAST9, is a 664 amino acid member of the SPARC family of proteins. Highly expressed in lymph node, heart, lung, brain, skeletal muscle, ovary, colon and small intestine, SPARCL1 is a secreted protein that contains one EF-hand domain, one follistatin-like domain and one Kazal-like domain. SPARCL1 is implicated to play a role in neuronal remodeling and tumor suppression. The gene encoding SPARCL1 maps to chromosome 4q22.1.

REFERENCES

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6. Lively, S. and Brown, I.R. 2008. Extracellular matrix protein SC1/hevin in the hippocampus following pilocarpine-induced status epilepticus. *J. Neurochem.* 107: 1335-1346.
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CHROMOSOMAL LOCATION

Genetic locus: SPARCL1 (human) mapping to 4q22.1.

PRODUCT

SPARCL1 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 SPARCL1 shRNA Plasmid (h): sc-89018-SH and SPARCL1 shRNA (h) Lentiviral Particles: sc-89018-V as alternate gene silencing products.

For independent verification of SPARCL1 (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-89018A, sc-89018B and sc-89018C.

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

SPARCL1 siRNA (h) is recommended for the inhibition of SPARCL1 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

SPARCL1 (G-5): sc-514275 is recommended as a control antibody for monitoring of SPARCL1 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 SPARCL1 gene expression knockdown using RT-PCR Primer: SPARCL1 (h)-PR: sc-89018-PR (20 μ l). 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.

PROTOCOLS

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