SANTA CRUZ BIOTECHNOLOGY, INC.

EMILIN-1 siRNA (m): sc-60017

BACKGROUND

EMILIN (elastin microfibril interface located protein) is an extracellular matrix glycoprotein that localizes to sites where elastin and microfibrils are in proximity. EMILIN protein is abundant in elastin-rich tissues such as blood vessels, skin, heart, and lung. EMILIN-1 influences placenta formation and initial organogenesis and a later role in interstitial connective tissue.

REFERENCES

1. Doliana, R., et al. 1999. EMILIN, a component of the elastic fiber and a new member of the C1q/tumor necrosis factor superfamily of proteins. J. Biol. Chem. 274: 16773-16781.
2. Mongiat, M., et al. 2000. Self-assembly and supramolecular organization of EMILIN. J. Biol. Chem. 275: 25471-25480.
3. Braghetta, P., et al. 2002. Expression of the EMILIN-1 gene during mouse development. Matrix Biol. 21: 603-609.
4. Spessotto, P., et al. 2003. β1 Integrin-dependent cell adhesion to EMILIN-1 is mediated by the γC1q domain. J. Biol. Chem. 278: 6160-6167.
5. Verdone, G., et al. 2004. Sequence-specific backbone NMR assignments for the C-terminal globular domain of EMILIN-1. J. Biomol. NMR 29: 91-92.
6. Zanetti, M., et al. 2004. EMILIN-1 deficiency induces elastogenesis and vascular cell defects. Mol. Cell. Biol. 24: 638-650.
7. LocusLink Report (LocusID: 11117). http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

Genetic locus: Emilin1 (mouse) mapping to 5 B1.

PRODUCT

EMILIN-1 siRNA (m) 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 EMILIN-1 shRNA Plasmid (m): sc-60017-SH and EMILIN-1 shRNA (m) Lentiviral Particles: sc-60017-V as alternate gene silencing products.

For independent verification of EMILIN-1 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-60017A, sc-60017B and sc-60017C.

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

EMILIN-1 siRNA (m) is recommended for the inhibition of EMILIN-1 expression in mouse 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.

GENE EXPRESSION MONITORING

EMILIN-1 (C-6): sc-365737 is recommended as a control antibody for monitoring of EMILIN-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-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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 EMILIN-1 gene expression knockdown using RT-PCR Primer: EMILIN-1 (m)-PR: sc-60017-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.

PROTOCOLS

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