SANTA CRUZ BIOTECHNOLOGY, INC.

Multimerin-2 siRNA (h): sc-75844

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Multimerin-2 belongs to a class of proteins called EMILINs (elastin microfibril interface located proteins) due to its EMI domain. EMILINs are extracellular matrix glycoproteins that localize to sites where elastin and microfibrils are in proximity. EMILINs are abundant in elastin-rich tissues such as blood vessels, skin, heart and lung. Multimerin-2 (also known as Emilin-3 or EndoGlyx-1) is expressed during embryonic development. During skeletal development, Multimerin-2 is present at sites of cartilage and bone formation. Further along in development, Multimerin-2 is expressed in the nervous plexus of the digestive tract and in the main bronchial branches. Being a developmental protein, Multimerin-2 is detected much more readily in immature osteoblasts than in mature osteoblasts.

REFERENCES

1. Hayward, C.P. and Kelton, J.G. 1995. Multimerin. Curr. Opin. Hematol. 2: 339-344.
2. Hayward, C.P. 1997. Multimerin: a bench-to-bedside chronology of a unique platelet and endothelial cell protein—from discovery to function to abnormalities in disease. Clin. Invest. Med. 20: 176-187.
3. 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.
4. Doliana, R., et al. 2000. EMI, a novel cysteine-rich domain of EMILINs and other extracellular proteins, interacts with the gC1q domains and participates in multimerization. FEBS Lett. 484: 164-168.
5. Doliana, R., et al. 2000. Structure, chromosomal localization and promoter analysis of the human elastin microfibril interfase located protein (EMILIN) gene. J. Biol. Chem. 275: 785-792.
6. Colombatti, A., et al. 2000. The EMILIN protein family. Matrix Biol. 19: 289-301.
7. Christian, S., et al. 2001. Molecular cloning and characterization of EndoGlyx-1, an EMILIN-like multisubunit glycoprotein of vascular endothelium. J. Biol. Chem. 276: 48588-48595.

CHROMOSOMAL LOCATION

Genetic locus: MMRN2 (human) mapping to 10q23.2.

PRODUCT

Multimerin-2 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 Multimerin-2 shRNA Plasmid (h): sc-75844-SH and Multimerin-2 shRNA (h) Lentiviral Particles: sc-75844-V as alternate gene silencing products.

For independent verification of Multimerin-2 (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-75844A, sc-75844B and sc-75844C.

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

Multimerin-2 siRNA (h) is recommended for the inhibition of Multimerin-2 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.

GENE EXPRESSION MONITORING

Multimerin-2 (H572): sc-65432 is recommended as a control antibody for monitoring of Multimerin-2 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).

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Multimerin-2 gene expression knockdown using RT-PCR Primer: Multimerin-2 (h)-PR: sc-75844-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.