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MFAP1A siRNA (m): sc-149399

BACKGROUND

Microfibrils are an important component of the extracellular matrix of many tissues and can either associate with or without elastin. Several microfibril associated proteins (MFAPs) have been cloned, including MFAP1, MFAP3 and MFAP4. The MFAP1 and MFAP3 genes are localized near the fibrillin genes FBN1 and FBN2, respectively. Mutations in FBN1 are linked to Marfan syndrome. Mutations in FBN2 have been linked to congenital contractural arachnoidecty. This suggests roles for MFAP1 and MFAP3 in heritable diseases affecting microfibrils. Deletion of MFAP4 was found in 30 of 31 patients with Smith-Magenis syndrome (SMS), a clinically recognizable multiple congenital anomaly/mental retardation syndrome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Mfap1a (mouse) mapping to 2 E5.

PROTOCOLS

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

PRODUCT

MFAP1A 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see MFAP1A shRNA Plasmid (m): sc-149399-SH and MFAP1A shRNA (m) Lentiviral Particles: sc-149399-V as alternate gene silencing products.

For independent verification of MFAP1A (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-149399A, sc-149399B and sc-149399C.

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

MFAP1A siRNA (m) is recommended for the inhibition of MFAP1A 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 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor MFAP1A gene expression knockdown using RT-PCR Primer: MFAP1A (m)-PR: sc-149399-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.