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Multimerin-1 siRNA (m): sc-149708

BACKGROUND

Multimerin-1, also known as MMRN1, EMILIN-4 or ECM (endothelial cell multimerin), is a 1,228 amino acid secreted protein that contains one C1q domain, one EMI domain and one EGF-like domain. Synthesized in megakaryocytes and endothelial cells and present in liver, lung and placenta, Multimerin-1 exists as a multimeric structure composed of varying disulfide-linked multimers and functions as a carrier protein for platelet factors (specifically platelet factor V), playing a role in the stabilization and storage of factor V in platelets. In addition, Multimerin-1 acts as a ligand for select Integrins and may participate in extracellular matrix adhesion. Defects in the gene encoding Multimerin-1 that lead to Multimerin-1 deficiency are associated with autosomal dominant bleeding disorders due to platelet factor malfunction. Multiple isoforms of Multimerin-1 exist due to alternative splicing events.

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CHROMOSOMAL LOCATION

Genetic locus: Mmrn1 (mouse) mapping to 6 B3.

PRODUCT

Multimerin-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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Multimerin-1 shRNA Plasmid (m): sc-149708-SH and Multimerin-1 shRNA (m) Lentiviral Particles: sc-149708-V as alternate gene silencing products.

For independent verification of Multimerin-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-149708A, sc-149708B and sc-149708C.

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

Multimerin-1 siRNA (m) is recommended for the inhibition of Multimerin-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 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 Multimerin-1 gene expression knockdown using RT-PCR Primer: Multimerin-1 (m)-PR: sc-149708-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.