



MAMDC2 siRNA (m): sc-149239

BACKGROUND

MAM (meprin/A5-protein/PTP) domains are found in a variety of proteins and have been characterized as homophilic binding sites which promote PTP dimerization at the cell surface. MAMDC2 (MAM domain containing 2), also known as MAM domain-containing proteoglycan (Mamcan) is a 686 amino acid secreted protein that localizes to extracellular matrix. Containing four MAM domains and existing as two alternatively spliced isoforms, MAMDC2 is encoded by a gene located on human chromosome 9q21.11. Chromosome 9 consists of about 145 million bases, 4% of the human genome and encodes nearly 900 genes. Considered to play a role in gender determination, deletion of the distal portion of 9p can lead to development of male to female sex reversal, the phenotype of a female with a male X,Y genotype. Hereditary hemorrhagic telangiectasia, Familial dysautonomia and certain leukemias are also associated with chromosome 9.

REFERENCES

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4. Zheng, X., et al. 2006. Bcr and its mutants, the reciprocal t(9;22)-associated Abl/Bcr fusion proteins, differentially regulate the cytoskeleton and cell motility. *BMC Cancer* 7: 262.
5. Burmeister, T., et al. 2007. Atypical Bcr-Abl mRNA transcripts in adult acute lymphoblastic leukemia. *Haematologica* 92: 1699-1702.
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CHROMOSOMAL LOCATION

Genetic locus: Mamdc2 (mouse) mapping to 19 B.

PRODUCT

MAMDC2 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 MAMDC2 shRNA Plasmid (m): sc-149239-SH and MAMDC2 shRNA (m) Lentiviral Particles: sc-149239-V as alternate gene silencing products.

For independent verification of MAMDC2 (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-149239A, sc-149239B and sc-149239C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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

MAMDC2 siRNA (m) is recommended for the inhibition of MAMDC2 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 MAMDC2 gene expression knockdown using RT-PCR Primer: MAMDC2 (m)-PR: sc-149239-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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