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MIA2 siRNA (m): sc-149418

BACKGROUND

Tumorigenesis is a process that is mediated by a network of membrane, cytosolic and nuclear associated factors, which regulate proliferation and cell-matrix interaction through signaling cascades. The phenotype of malignant melanomas *in vivo* depends on the global expression of stimulatory or inhibitory factors generated in both tumors cells and their environment. One such factor includes MIA2 (melanoma inhibitory activity 2), which is a 541 amino acid secreted protein that is highly expressed in hepatocytes and is considered a marker of hepatic fibrosis. Regulated by HNF-1 (hepatic nuclear factor 1), MIA2 is an inhibitor of hepatocellular carcinoma (HCC) growth and invasion, thereby acting as a tumour suppressor. MIA2 is a member of the MIA/OTOR family and contains one SH3 domain, which binds to proline-rich regions of a wide range of regulators. MIA2 exists as two alternatively spliced variants and is encoded by a gene located on human chromosome 14.

REFERENCES

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2. Bosserhoff, A.K., et al. 1997. Mouse CD-RAP/MIA gene: structure, chromosomal localization, and expression in cartilage and chondrosarcoma. *Dev. Dyn.* 208: 516-525.
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CHROMOSOMAL LOCATION

Genetic locus: Mia2 (mouse) mapping to 12 C1.

PRODUCT

MIA2 siRNA (m) is a target-specific 19-25 nt siRNA 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 MIA2 shRNA Plasmid (m): sc-149418-SH and MIA2 shRNA (m) Lentiviral Particles: sc-149418-V as alternate gene silencing products.

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

MIA2 siRNA (m) is recommended for the inhibition of MIA2 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 MIA2 gene expression knockdown using RT-PCR Primer: MIA2 (m)-PR: sc-149418-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.

PROTOCOLS

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