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VMAC siRNA (m): sc-155113

BACKGROUND

VMAC (vimentin-type intermediate filament associated coiled-coil protein) is a 169 amino acid cytoplasmic protein that colocalizes with vimentin-type intermediate filaments. It is thought that vimentin-type intermediate filaments play an important role in cytoskeletal organization and cell morphology. VMAC consists of a coiled-coil domain in its N-terminal region and a PDZ-binding tetrapeptide consensus motif in its C-terminal region. Abundant in kidney, VMAC is encoded by a gene located on human chromosome 19p13.3. Consisting of around 63 million bases with over 1,400 genes, chromosome 19 makes up over 2% of human genomic DNA. Chromosome 19 includes a diversity of interesting genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin superfamily members including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family, and Fc α receptors.

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CHROMOSOMAL LOCATION

Genetic locus: Vmac (mouse) mapping to 17 D.

PROTOCOLS

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

PRODUCT

VMAC 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 VMAC shRNA Plasmid (m): sc-155113-SH and VMAC shRNA (m) Lentiviral Particles: sc-155113-V as alternate gene silencing products.

For independent verification of VMAC (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-155113A, sc-155113B and sc-155113C.

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

VMAC siRNA (m) is recommended for the inhibition of VMAC 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 VMAC gene expression knockdown using RT-PCR Primer: VMAC (m)-PR: sc-155113-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.