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MPND siRNA (m): sc-149532

BACKGROUND

Proteases are enzymes that are involved in protein catabolism by hydrolyzing the peptide bonds between amino acids in a polypeptide chain. MPND (MPN domain-containing protein) is a 471 amino acid protein that is thought to be a protease. Expressed as two isoforms produced by alternative splicing, MPND contains a JAMM motif and one MPN domain. The gene that encodes MPND maps to human chromosome 19, which consists of around 63 million bases with over 1,400 genes, making 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. Key genes for eye color and hair color also map to chromosome 19.

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CHROMOSOMAL LOCATION

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

PRODUCT

MPND 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 MPND shRNA Plasmid (m): sc-149532-SH and MPND shRNA (m) Lentiviral Particles: sc-149532-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

MPND siRNA (m) is recommended for the inhibition of MPND 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 MPND gene expression knockdown using RT-PCR Primer: MPND (m)-PR: sc-149532-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.