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SAMD4B siRNA (m): sc-153208

BACKGROUND

The sterile α motif (SAM) domain is a 70 residue structure found in a large number of proteins involved in diverse processes present throughout eukaryotes. The SAM domain is known to bind RNA and is arranged in a small five-helix bundle with two large interfaces. SAMD4B (sterile α motif domain containing 4B), also known as SMGB or hSmaug2, is a 694 amino acid protein that contains one SAM domain and belongs to the SMAUG family. SAMD4B is encoded by a gene located on human chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family and Fc receptors (FcRs).

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CHROMOSOMAL LOCATION

Genetic locus: Samd4b (mouse) mapping to 7 A3.

PROTOCOLS

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

PRODUCT

SAMD4B 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 SAMD4B shRNA Plasmid (m): sc-153208-SH and SAMD4B shRNA (m) Lentiviral Particles: sc-153208-V as alternate gene silencing products.

For independent verification of SAMD4B (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-153208A, sc-153208B and sc-153208C.

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

SAMD4B siRNA (m) is recommended for the inhibition of SAMD4B 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 SAMD4B gene expression knockdown using RT-PCR Primer: SAMD4B (m)-PR: sc-153208-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.