

Mrf-2 siRNA (h): sc-90532

BACKGROUND

Mrf-2 (modulator recognition factor 2), also known as ARID5B (AT-rich inter-active domain-containing protein 5B), MRF1-like protein or DESRT, is a 1,188 amino acid nuclear protein that functions as a transcription coactivator and is involved in adipogenesis. Also implicated as a regulator of smooth muscle cell differentiation and proliferation, Mrf-2 is widely expressed, contains one ARID domain which it utilizes to interact with DNA, and is a member of the ARID5B family. Mrf-2 exists as three alternatively spliced isoforms that are encoded by a gene that maps to human chromosome 10q21.2. Defects in the Mrf-2 gene may contribute to susceptibility to acute lymphoblastic leukemia (ALL), a cancer of white blood cells that is one of the most common malignancies found in children.

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CHROMOSOMAL LOCATION

Genetic locus: ARID5B (human) mapping to 10q21.2.

PRODUCT

Mrf-2 siRNA (h) 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 Mrf-2 shRNA Plasmid (h): sc-90532-SH and Mrf-2 shRNA (h) Lentiviral Particles: sc-90532-V as alternate gene silencing products.

For independent verification of Mrf-2 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-90532A, sc-90532B and sc-90532C.

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

Mrf-2 siRNA (h) is recommended for the inhibition of Mrf-2 expression in human 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 Mrf-2 gene expression knockdown using RT-PCR Primer: Mrf-2 (h)-PR: sc-90532-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.