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- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic)





# Mrf-2 siRNA (m): sc-149552

## 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.

## REFERENCES

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- Papaemmanuil, E., et al. 2009. Loci on 7p12.2, 10q21.2 and 14q11.2 are associated with risk of childhood acute lymphoblastic leukemia. *Nat. Genet.* 41: 1006-1010.
- Prasad, R.B., et al. 2010. Verification of the susceptibility loci on 7p12.2, 10q21.2, and 14q11.2 in precursor B-cell acute lymphoblastic leukemia of childhood. *Blood* 115: 1765-1767.

## CHROMOSOMAL LOCATION

Genetic locus: Arid5b (mouse) mapping to 10 B5.1.

## PRODUCT

Mrf-2 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Mrf-2 shRNA Plasmid (m): sc-149552-SH and Mrf-2 shRNA (m) Lentiviral Particles: sc-149552-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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

Mrf-2 siRNA (m) is recommended for the inhibition of Mrf-2 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  $\mu$ M in 66  $\mu$ 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 (m)-PR: sc-149552-PR (20  $\mu$ l, 540 bp). 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](http://www.scbt.com) for detailed protocols and support products.