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# Rho F siRNA (m): sc-152853

## BACKGROUND

Rho, the Ras-related small GTPase, is responsible for the regulation of Actin-based cytoskeletal structures including stress fibers, focal adhesions and the contractile ring apparatus. Rho proteins function as molecular switches that are able to turn cytokinesis on and off. Although little is known about signaling downstream of Rho, a host of putative Rho effector proteins have been described. Rho F (Ras homolog gene family, member F), also known as RIF or ARHF, is a 211 amino acid membrane protein that localizes to the cytoplasmic side of the plasma membrane. Belonging to the small GTPase superfamily and the Rho family, Rho F functions cooperatively with Cdc42 and Rac to generate additional cytoskeletal structures, such as increasing variation of Actin-based morphology. Rho F exists as two alternatively spliced isoforms and is encoded by a gene located on human chromosome 12q24.31.

## REFERENCES

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3. Ellis, S. and Mellor, H. 2000. The novel Rho-family GTPase Rif regulates coordinated Actin-based membrane rearrangements. *Curr. Biol.* 10: 1387-1390.
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## CHROMOSOMAL LOCATION

Genetic locus: Rhof (mouse) mapping to 5 F.

## 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.

## PRODUCT

Rho F 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Rho F shRNA Plasmid (m): sc-152853-SH and Rho F shRNA (m) Lentiviral Particles: sc-152853-V as alternate gene silencing products.

For independent verification of Rho F (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-152853A, sc-152853B and sc-152853C.

## 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

Rho F siRNA (m) is recommended for the inhibition of Rho F 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 Rho F gene expression knockdown using RT-PCR Primer: Rho F (m)-PR: sc-152853-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.