



# RIN2 siRNA (h): sc-76407

## BACKGROUND

RIN2 (Ras and Rab interactor 2) or RASSF4, Ras interaction/interference protein 2, Ras inhibitor JC265 or Ras association domain family 4, is an 895 amino acid Ras effector protein which localizes to the cytoplasm. As a member of the RIN family of Ras interaction-interference proteins, RIN2 may be necessary for Rab 5 protein activation via guanine nucleotide exchange, and plays a role in endocytosis. RIN2 is broadly expressed in heart, placenta, lung and kidney and is also known to be expressed at lower levels in spleen, skeletal muscle and peripheral blood. With the exception of Rab 5, RIN2 does not associate with other members of the Rab family and exists as a homotetramer likely formed by two dimers in anti-parallel conformation. RIN2 has two known isoforms and contains three domains: Ras associating, SH2 and VPS9.

## REFERENCES

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- Kimura, T., Sakisaka, T., Baba, T., Yamada, T. and Takai, Y. 2006. Involvement of the Ras-Ras-activated Rab5 guanine nucleotide exchange factor RIN2-Rab5 pathway in the hepatocyte growth factor-induced endocytosis of E-cadherin. J. Biol. Chem. 281: 10598-10609.

## CHROMOSOMAL LOCATION

Genetic locus: RIN2 (human) mapping to 20p11.23.

## PRODUCT

RIN2 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see RIN2 shRNA Plasmid (h): sc-76407-SH and RIN2 shRNA (h) Lentiviral Particles: sc-76407-V as alternate gene silencing products.

For independent verification of RIN2 (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-76407A, sc-76407B and sc-76407C.

## 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

RIN2 siRNA (h) is recommended for the inhibition of RIN2 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  $\mu$ 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 RIN2 gene expression knockdown using RT-PCR Primer: RIN2 (h)-PR: sc-76407-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## SELECT PRODUCT CITATIONS

- Torres, P., Díaz, J., Arce, M., Silva, P., Mendoza, P., Lois, P., Molina-Berríos, A., Owen, G.I., Palma, V. and Torres, V.A. 2017. The salivary peptide histatin-1 promotes endothelial cell adhesion, migration, and angiogenesis. FASEB J. 31: 4946-4958.

## 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.