

Rab11-FIP2 siRNA (m): sc-152661

BACKGROUND

The Ras superfamily of GTPases can be subdivided into the Ras, Rho/Rac, Sar, Rab, Arf, Rap and Ran subfamilies, all of which control multiple aspects of cell function, including cytoskeletal rearrangement, nuclear signaling and cell growth. Members of the Ras protein superfamily are regulated by a variety of GTPase-interaction proteins that control GTPase function. Rab11-FIP2 (Rab11 family-interacting protein 2), also known as NRip11, is a 512 amino acid protein that localizes to both the cell membrane and the recycling endosome membrane and contains one C2 domain. Existing in a heterooligomeric complex with a variety of other proteins, Rab11-FIP2 functions as a Rab 11 effector protein that regulates the transport of vesicles from the endosomal recycling compartment (ERC) to the plasma membrane. Additionally, Rab11-FIP2 is thought to be involved in receptor-mediated endocytosis, as well as in membrane trafficking of recycling endosomes.

REFERENCES

1. Hales, C.M., Griner, R., Hobdy-Henderson, K.C., Dorn, M.C., Hardy, D., Kumar, R., Navarre, J., Chan, E.K., Lapierre, L.A. and Goldenring, J.R. 2001. Identification and characterization of a family of Rab11-interacting proteins. *J. Biol. Chem.* 276: 39067-39075.
2. Lindsay, A.J. and McCaffrey, M.W. 2002. Rab11-FIP2 functions in transferrin recycling and associates with endosomal membranes via its COOH-terminal domain. *J. Biol. Chem.* 277: 27193-27199.
3. Junutula, J.R., Schonteich, E., Wilson, G.M., Peden, A.A., Scheller, R.H. and Prekeris, R. 2004. Molecular characterization of Rab11 interactions with members of the family of Rab11-interacting proteins. *J. Biol. Chem.* 279: 33430-33437.
4. Lindsay, A.J. and McCaffrey, M.W. 2004. The C2 domains of the class I Rab11 family of interacting proteins target recycling vesicles to the plasma membrane. *J. Cell Sci.* 117: 4365-4375.

CHROMOSOMAL LOCATION

Genetic locus: Rab11fip2 (mouse) mapping to 19 D3.

PRODUCT

Rab11-FIP2 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 Rab11-FIP2 shRNA Plasmid (m): sc-152661-SH and Rab11-FIP2 shRNA (m) Lentiviral Particles: sc-152661-V as alternate gene silencing products.

For independent verification of Rab11-FIP2 (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-152661A, sc-152661B and sc-152661C.

PROTOCOLS

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

Rab11-FIP2 siRNA (m) is recommended for the inhibition of Rab11-FIP2 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 Rab11-FIP2 gene expression knockdown using RT-PCR Primer: Rab11-FIP2 (m)-PR: sc-152661-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.