SANTA CRUZ BIOTECHNOLOGY, INC.

ARHGAP24 siRNA (m): sc-141211

BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in down regulation of their active form. ARHGAP24, also designated p73RhoGAP, RC-GAP72 or FILGAP, is a 748 amino acid Rho GTPase activating protein implicated in cell polarity, cell morphology and cytoskeletal organization. ARHGAP24 exhibits differential expression as isoform 1 is widely expressed, with highest levels observed in kidney, while isoform 2 is primarily expressed in endothelial cells and has been shown to participate in the modulation of angiogenesis. The N-termini of ARHGAP22 and ARHGAP24 share significant amino acid sequence identity.

REFERENCES

1. Katoh, M. and Katoh, M. 2004. Identification and characterization of ARHGAP24 and ARHGAP25 genes in silico. Int. J. Mol. Med. 14: 333-338.
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3. Lavelin, I. and Geiger, B. 2005. Characterization of a novel GTPase-activating protein associated with focal adhesions and the actin cytoskeleton. J. Biol. Chem. 280: 7178-7185.
4. Ohta, Y., Hartwig, J.H. and Stossel, T.P. 2006. FilGAP, a Rho- and ROCK-regulated GAP for Rac binds filamin A to control actin remodelling. Nat. Cell Biol. 8: 803-814.
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CHROMOSOMAL LOCATION

Genetic locus: Arhgap24 (mouse) mapping to 5 E5.

PRODUCT

ARHGAP24 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ARHGAP24 shRNA Plasmid (m): sc-141211-SH and ARHGAP24 shRNA (m) Lentiviral Particles: sc-141211-V as alternate gene silencing products.

For independent verification of ARHGAP24 (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-141211A, sc-141211B and sc-141211C.

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.

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 µM in 66 µl. 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.

APPLICATIONS

ARHGAP24 siRNA (m) is recommended for the inhibition of ARHGAP24 expression in mouse cells.

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RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor ARHGAP24 gene expression knockdown using RT-PCR Primer: ARHGAP24 (m)-PR: sc-141211-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.