

ARHGAP42 siRNA (m): sc-140504

BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. ARHGAP42 (Rho GTPase activating protein 42), also known as Rho GTPase-activating protein 10-like or GRAF3, is an 874 amino acid coiled-coil protein that contains one BAR domain, one PH domain, one Rho-GAP domain and one SH3 domain. Conserved in chimpanzee, canine, bovine, mouse, rat, chicken and zebrafish, ARHGAP42 participates in GTPase activator functions, SH3 domain binding and cytoskeletal adaptor activity. ARHGAP42 is encoded by a gene that maps to human chromosome 11q22.1. With approximately 135 million base pairs and 1,400 genes, chromosome 11 makes up 4% of human genomic DNA. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are all associated with defects in chromosome 11.

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CHROMOSOMAL LOCATION

Genetic locus: Arhgap42 (mouse) mapping to 9 A1.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

ARHGAP42 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ARHGAP42 shRNA Plasmid (m): sc-140504-SH and ARHGAP42 shRNA (m) Lentiviral Particles: sc-140504-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 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

ARHGAP42 siRNA (m) is recommended for the inhibition of ARHGAP42 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 ARHGAP42 gene expression knockdown using RT-PCR Primer: ARHGAP42 (m)-PR: sc-140504-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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