SANTA CRUZ BIOTECHNOLOGY, INC.

RICS siRNA (h): sc-96831

BACKGROUND

RICS, also known as GRIT, p200RhoGAP, p250GAP or GC-GAP, is a 2,087 amino acid protein that localizes to various regions within the cell, including the cell junction, the endosomal membrane and the endoplasmic reticulum, and contains one SH3 domain, one Rho-GAP domain and one PX domain. Existing as multiple alternatively spliced isoforms that are expressed in a tissue-specific manner, RICS functions as a GTPase-activating protein (GAP) that promotes GTP hydrolysis on a variety of target proteins and is thought to be involved in neuronal differentiation. Additionally, RICS is involved in Actin reorganization in dendritic spines and may participate in Rho- and Ras-regulated signaling pathways in cell growth regulation. Specific RICS isoforms are subject to *in vitro* phosphorylation, an event which inhibits GAP activity.

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CHROMOSOMAL LOCATION

Genetic locus: ARHGAP32 (human) mapping to 11q24.3.

PRODUCT

RICS 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see RICS shRNA Plasmid (h): sc-96831-SH and RICS shRNA (h) Lentiviral Particles: sc-96831-V as alternate gene silencing products.

For independent verification of RICS (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-96831A, sc-96831B and sc-96831C.

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

RICS siRNA (h) is recommended for the inhibition of RICS 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 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor RICS gene expression knockdown using RT-PCR Primer: RICS (h)-PR: sc-96831-PR (20 µl). 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.

PROTOCOLS

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