SANTA CRUZ BIOTECHNOLOGY, INC.

ARHGEF37 siRNA (h): sc-91898

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The Power to Question

BACKGROUND

Rho GTPases, which play fundamental roles in numerous cellular processes, are initiated by external stimuli that signal though G-protein coupled receptors. ARHGEF37 (Rho guanine nucleotide exchange factor (GEF) 37) is a 675 amino acid protein that contains one BAR domain, one DH (DBL-homology) domain and two SH3 domains. Conserved in chimpanzee, canine, bovine, mouse, rat, chicken and zebrafish, ARHGEF37 is encoded by a gene that maps to human chromosome 5q33.1. Chromosome 5 makes up approximately 6% of the human genome and contains 181 million base pairs, which encode 1,000 genes. Chromosome 5 is associated with Cockayne syndrome, familial adenomatous polyposis and Treacher Collins syndrome. Deletion of 5q, or chromosome 5 altogether, is common in myelodysplastic syndrome and acute myelogenous leukemias.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ARHGEF37 (human) mapping to 5q32.

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.

PRODUCT

ARHGEF37 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 ARHGEF37 shRNA Plasmid (h): sc-91898-SH and ARHGEF37 shRNA (h) Lentiviral Particles: sc-91898-V as alternate gene silencing products.

For independent verification of ARHGEF37 (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-91898A, sc-91898B and sc-91898C.

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

ARHGEF37 siRNA (h) is recommended for the inhibition of ARHGEF37 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 ARHGEF37 gene expression knockdown using RT-PCR Primer: ARHGEF37 (h)-PR: sc-91898-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.