SANTA CRUZ BIOTECHNOLOGY, INC.

ARHGEF5L siRNA (h): sc-89584

BACKGROUND

Rho GTPases, which play fundamental roles in numerous cellular processes, are initiated by external stimuli that signal though G protein-coupled receptors. ARHGEF5L (Rho guanine nucleotide exchange factor (GEF) 5-like), also known as ARHGEF35 (Rho guanine nucleotide exchange factor (GEF) 35) or CTAGE4, is a 484 amino acid phosphoprotein that is encoded by a gene that maps to human chromosome 7q35. Chromosome 7 is approximately 158 million bases long, encodes over 1,000 genes and makes up approximately 5% of the human genome. Deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, unusual friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are also linked to myeloid disorders, including acute myelogenous leukemia and myelodysplasia.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ARHGEF35 (human) mapping to 7q35.

PROTOCOLS

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

PRODUCT

ARHGEF5L siRNA (h) 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ARHGEF5L shRNA Plasmid (h): sc-89584-SH and ARHGEF5L shRNA (h) Lentiviral Particles: sc-89584-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 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

ARHGEF5L siRNA (h) is recommended for the inhibition of ARHGEF5L 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 ARHGEF5L gene expression knockdown using RT-PCR Primer: ARHGEF5L (h)-PR: sc-89584-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.