SANTA CRUZ BIOTECHNOLOGY, INC.

ARHGAP20 siRNA (h): sc-96260

BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins. ARHGAP20 (Rho GTPase activating protein 20), also known as KIAA1391, is a 1,191 amino acid protein that contains one PH domain, one Ras-associating domain and one Rho-GAP domain. Expressed primarily in brain, but also present in lymph nodes and fetal liver, ARHGAP20 functions as a GTPase-activating protein for Rho-type GTPases, effectively converting Rho-type GTPases to an inactive, GDP-bound state. ARHGAP20 exists as multiple isoforms that are produced via alternative splicing. Chromosomal aberrations involving the ARHGAP20 gene are thought to be a cause of B-cell chronic lymphocytic leukemia (B-CLL).

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ARHGAP20 (human) mapping to 11q23.1.

PRODUCT

ARHGAP20 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 ARHGAP20 shRNA Plasmid (h): sc-96260-SH and ARHGAP20 shRNA (h) Lentiviral Particles: sc-96260-V as alternate gene silencing products.

For independent verification of ARHGAP20 (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-96260A, sc-96260B and sc-96260C.

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

ARHGAP20 siRNA (h) is recommended for the inhibition of ARHGAP20 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 ARHGAP20 gene expression knockdown using RT-PCR Primer: ARHGAP20 (h)-PR: sc-96260-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.