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ARHGAP23 siRNA (h): sc-93592

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The Power to Question

BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. ARHGAP23 (Rho GTPase activating protein 23) is a 1,491 amino acid protein that interacts with MPP6 and exists as two alternatively spliced isoforms. ARHGAP23 contains 25 exons, one PDZ (DHR) domain, one PH (pleckstrin homology) domain and one Rho-GAP domain. ARHGAP23 is expressed in placenta, prostate, hippocampus and brain medulla, as well as brain tumor, salivary gland tumor and head and neck tumor. Conserved in canine, bovine, mouse and zebrafish, ARHGAP23 shares significant similarity with a *Caenorhabditis elegans* GTPase-activating protein. ARHGAP23 is encoded by a gene that maps to human chromosome 17q12, with its locus paralogous to the chromosome 10p12 locus of ARHGAP21.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ARHGAP23 (human) mapping to 17q12.

PROTOCOLS

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

PRODUCT

ARHGAP23 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 ARHGAP23 shRNA Plasmid (h): sc-93592-SH and ARHGAP23 shRNA (h) Lentiviral Particles: sc-93592-V as alternate gene silencing products.

For independent verification of ARHGAP23 (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-93592A, sc-93592B and sc-93592C.

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

ARHGAP23 siRNA (h) is recommended for the inhibition of ARHGAP23 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 ARHGAP23 gene expression knockdown using RT-PCR Primer: ARHGAP23 (h)-PR: sc-93592-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.