SANTA CRUZ BIOTECHNOLOGY, INC.

ARAP2 siRNA (m): sc-60199

BACKGROUND

The ADP-ribosylation factor (ARF) family of small GTP-binding proteins are involved in vesicular transport regulation and in controlling cytoskeletal organization and cell adhesion. These proteins are best characterized as regulators of membrane traffic. The centaurin GTPase-activating protein family comprise a subset of ARF regulatory molecules that transduce PI 3-kinase activation into coordinated control of ARF-dependent pathways. This family includes ARAP2, a GTPase-activating protein that controls Actin cytoskeleton remodeling by regulating Rho ARF family members. The ARAP2 protein localizes to the cytoplasm and is expressed in various tissues including brain, thymus, lymph node, thyroid, spinal cord, trachea, heart, skeletal muscle, spleen, kidney, liver, placenta, lung and peripheral blood leukocytes. It contains one ARF-GAP domain, five PH domains, one Ras-associating domain, one Rho-GAP domain and one SAM (sterile α motif) domain.

REFERENCES

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4. Santy, L.C. and Casanova, J.E. 2002. GTPase signaling: bridging the GAP between ARF and Rho. Curr. Biol. 12: R360-362.
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CHROMOSOMAL LOCATION

Genetic locus: Arap2 (mouse) mapping to 5 C3.1.

PRODUCT

ARAP2 siRNA (m) is a target-specific 19-25 nt siRNA designed to knock down gene expression. Each vial contains 3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ARAP2 shRNA Plasmid (m): sc-60199-SH and ARAP2 shRNA (m) Lentiviral Particles: sc-60199-V as alternate gene silencing products.

PROTOCOLS

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

ARAP2 siRNA (m) is recommended for the inhibition of ARAP2 expression in mouse 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 ARAP2 gene expression knockdown using RT-PCR Primer: ARAP2 (m)-PR: sc-60199-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.