SANTA CRUZ BIOTECHNOLOGY, INC.

ARL6IP4 siRNA (m): sc-141246

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The Power to Question

BACKGROUND

ARL6IP4 (ADP-ribosylation-like factor 6 interacting protein 4), also known as SR-25 or SRp25, is a widely expressed, 360 amino acid, hydrophilic nuclear protein with predominant expression in testis and thymus. ARL6IP4 is a binding partner of ARF6 and is also believed to function in RNA splicing, as is suggested by its serine-arginine repeat (SR) domain, a domain that is characteristic of many pre-mRNA splicing factors. ARL6IP4 also contains at least 15 putative phosphorylation sites. In addition, ARL6IP4 functionally interacts with Rac 1, a GTP binding protein of the Ras superfamily, and may play a role regulating Rac 1-dependent signaling pathways. At the amino acid level, the human and mouse ARL6IP4 proteins show 77.7% identity.

REFERENCES

1. Sasahara, K., et al. 2000. Molecular cloning and expression analysis of a putative nuclear protein, SR-25. Biochem. Biophys. Res. Commun. 269: 444-450.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607668. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Shink, E., et al. 2005. Analysis of microsatellite markers and single nucleotide polymorphisms in candidate genes for susceptibility to bipolar affective disorder in the chromosome 12q24.31 region. Am. J. Med. Genet. B Neuropsychiatr. Genet. 135: 50-58.
4. Lehrmann, E., et al. 2006. Transcriptional changes common to human cocaine, cannabis and phencyclidine abuse. PLoS ONE 1: e114.
5. Ben-Ari, S., et al. 2006. Modulated splicing-associated gene expression in P19 cells expressing distinct acetylcholinesterase splice variants. J. Neurochem. 97: 24-34.
6. Lee, S.C., et al. 2007. Dominant negative Rac 1 attenuates paclitaxel-induced apoptosis in human melanoma cells through upregulation of heat shock protein 27: a functional proteomic analysis. Proteomics 7: 4112-4122.

CHROMOSOMAL LOCATION

Genetic locus: Arl6ip4 (mouse) mapping to 5 F.

PRODUCT

ARL6IP4 siRNA (m) 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 ARL6IP4 shRNA Plasmid (m): sc-141246-SH and ARL6IP4 shRNA (m) Lentiviral Particles: sc-141246-V as alternate gene silencing products.

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.

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

ARL6IP4 siRNA (m) is recommended for the inhibition of ARL6IP4 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 ARL6IP4 gene expression knockdown using RT-PCR Primer: ARL6IP4 (m)-PR: sc-141246-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.