SANTA CRUZ BIOTECHNOLOGY, INC.

RAB6IP1 siRNA (h): sc-96630

BACKGROUND

RAB6IP1 (rab6-interacting protein 1), also known as DENND5A (DENN domain-containing protein 5A), is a 1,287 amino acid multi-domain protein that belongs to the RAB6IP1 family. Containing a dDENN domain, a DENN domain, a PLAT domain, two RUN domains and a uDENN domain, RAB6IP1 is thought to interact with RAB6A bound to GTP, and may be involved in Rab6-mediated GTPase signaling. The RUN1-PLAT region of Rab6IP1 is required for Rab6-binding. Golgi and endocytic traffic may be linked via Rab6/Rab11 recruitment of Rab6IP1. The RAB6IP1 gene is conserved in chimpanzee, dog, cow, mouse, rat, zebrafish and C.elegans, and maps to human chromosome 11p15.4. With approximately 135 million base pairs and 1,400 genes, chromosome 11 makes up around 4% of human genomic DNA and is considered a gene and disease association dense chromosome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are all associated with defects in chromosome 11.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: DENND5A (human) mapping to 11p15.4.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

RAB6IP1 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 RAB6IP1 shRNA Plasmid (h): sc-96630-SH and RAB6IP1 shRNA (h) Lentiviral Particles: sc-96630-V as alternate gene silencing products.

For independent verification of RAB6IP1 (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-96630A, sc-96630B and sc-96630C.

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

RAB6IP1 siRNA (h) is recommended for the inhibition of RAB6IP1 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 RAB6IP1 gene expression knockdown using RT-PCR Primer: RAB6IP1 (h)-PR: sc-96630-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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