

Rab GAP1L siRNA (m): sc-152655

BACKGROUND

Rab GAP1L (RAB GTPase activating protein 1-like), also known as HHL or TBC1D18, is an 815 amino acid protein that contains one PID domain and one Rab-GAP TBC domain. Expressed as multiple alternatively spliced isoforms, Rab GAP1L is upregulated in esophageal squamous cell carcinoma, suggesting a role in tumor formation and metastasis. Conversely, Rab GAP1L expression is strongly inhibited in patients affected with Alzheimer's disease, implicating that Rab GAP1L may be involved in normal brain function. The gene encoding Rab GAP1L maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

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2. Seki, N., Ohira, M., Nagase, T., Ishikawa, K., Miyajima, N., Nakajima, D., Nomura, N. and Ohara, O. 1997. Characterization of cDNA clones in size-fractionated cDNA libraries from human brain. DNA Res. 4: 345-349.
3. Hidaka, M., Caruana, G., Stanford, W.L., Sam, M., Correll, P.H. and Bernstein, A. 2000. Gene trapping of two novel genes, Hzf and Hhl, expressed in hematopoietic cells. Mech. Dev. 90: 3-15.
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5. de Yebra, L., Adroer, R., de Gregorio-Rocasolano, N., Blesa, R., Trullas, R. and Mahy, N. 2004. Reduced KIAA0471 mRNA expression in Alzheimer's patients: a new candidate gene product linked to the disease? Hum. Mol. Genet. 13: 2607-2612.

CHROMOSOMAL LOCATION

Genetic locus: Rabgap1l (mouse) mapping to 1 H2.1.

PRODUCT

Rab GAP1L 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Rab GAP1L shRNA Plasmid (m): sc-152655-SH and Rab GAP1L shRNA (m) Lentiviral Particles: sc-152655-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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

Rab GAP1L siRNA (m) is recommended for the inhibition of Rab GAP1L 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 μ M in 66 μ l. 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 Rab GAP1L gene expression knockdown using RT-PCR Primer: Rab GAP1L (m)-PR: sc-152655-PR (20 μ l). 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.