SANTA CRUZ BIOTECHNOLOGY, INC.

TBC1D10B siRNA (h): sc-93097

BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. TBC1D10B (TBC1 domain family member 10B), also known as FP2461, is a 533 amino acid protein that contains one Rab-GAP TBC domain, a highly conserved 200 amino acid motif that conveys the the catalytic activity of GTPase-activating proteins. Via its Rab-GAP domain, TBC1D10B is thought to function as a GTPase-activating protein that may regulate the activity of target Rab proteins. TBC1D10B exists as two alternatively spliced isoforms which are encoded by a gene that is located on chromosome 16p11.2.

REFERENCES

1. Neuwald, A.F. 1997. A shared domain between a spindle assembly checkpoint protein and Ypt/Rab-specific GTPase-activators. Trends Biochem. Sci. 22: 243-244.
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3. Rak, A., Fedorov, R., Alexandrov, K., Albert, S., Goody, R.S., Gallwitz, D. and Scheidig, A.J. 2000. Crystal structure of the GAP domain of Gyp1p: first insights into interaction with Ypt/Rab proteins. EMBO J. 19: 5105-5113.
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5. Choy, K.W., Wang, C.C., Ogura, A., Lau, T.K., Rogers, M.S., Ikeo, K., Gojobori, T., Lam, D.S. and Pang, C.P. 2006. Genomic annotation of 15,809 ESTs identified from pooled early gestation human eyes. Physiol. Genomics 25: 9-15.

CHROMOSOMAL LOCATION

Genetic locus: TBC1D10B (human) mapping to 16p11.2.

PRODUCT

TBC1D10B 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 TBC1D10B shRNA Plasmid (h): sc-93097-SH and TBC1D10B shRNA (h) Lentiviral Particles: sc-93097-V as alternate gene silencing products.

For independent verification of TBC1D10B (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-93097A, sc-93097B and sc-93097C.

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

TBC1D10B siRNA (h) is recommended for the inhibition of TBC1D10B 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 TBC1D10B gene expression knockdown using RT-PCR Primer: TBC1D10B (h)-PR: sc-93097-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.