SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

SANTA CRUZ BIOTECHNOLOGY, INC.

TBC1D1 siRNA (m): sc-154087

BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. TBC1D1 (TBC1 (tre-2/USP6, Bub2, Cdc16) domain family, member 1), also known as TBC1 or TBC, is a 1,168 amino acid protein that belongs to a family of proteins which share a 200 amino acid TBC domain that may convey a role in the regulation of cell growth and differentiation. Localized to the nucleus and containing one PID domain and one Rab-GAP TBC domain, TBC1D1 is thought to function as a GTPase-activating protein for Rab proteins, possibly participating in Rab-mediated cell cycle control and, ultimately, cellular differentiation. TBC1D1 is highly expressed in ovary, kidney and testis and is encoded by a gene which maps to human chromosome 4 and may be associated with an increased susceptibility to severe obesity.

REFERENCES

1. White, R.A., et al. 2000. The gene encoding TBC1D1 with homology to the tre-2/USP6 oncogene, Bub2, and Cdc16 maps to mouse chromosome 5 and human chromosome 4. Cytogenet. Cell Genet. 89: 272-275.
2. Stone, S., et al. 2006. TBC1D1 is a candidate for a severe obesity gene and evidence for a gene/gene interaction in obesity predisposition. Hum. Mol. Genet. 15: 2709-2720.
3. Koumanov, F. and Holman, G.D. 2007. Thrifty TBC1D1 and TBC1D4 proteins link signalling and membrane trafficking pathways. Biochem. J. 403: E9-E11.
4. Roach, W.G., et al. 2007. Substrate specificity and effect on Glut4 translocation of the Rab GTPase-activating protein TBC1D1. Biochem. J. 403: 353-358.
5. Sakamoto, K. and Holman, G.D. 2008. Emerging role for AS160/TBC1D4 and TBC1D1 in the regulation of Glut4 traffic. Am. J. Physiol. Endocrinol. Metab. 295: E29-E37.
6. Zhou, Q.L., et al. 2008. Akt substrate TBC1D1 regulates Glut1 expression through the mTOR pathway in 3T3-L1 adipocytes. Biochem. J. 411: 647-655.

CHROMOSOMAL LOCATION

Genetic locus: Tbc1d1 (mouse) mapping to 5 C3.1.

PRODUCT

TBC1D1 siRNA (m) 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 TBC1D1 shRNA Plasmid (m): sc-154087-SH and TBC1D1 shRNA (m) Lentiviral Particles: sc-154087-V as alternate gene silencing products.

For independent verification of TBC1D1 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-154087A, sc-154087B and sc-154087C.

RESEARCH USE

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

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

TBC1D1 siRNA (m) is recommended for the inhibition of TBC1D1 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 TBC1D1 gene expression knockdown using RT-PCR Primer: TBC1D1 (m)-PR: sc-154087-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.