SANTA CRUZ BIOTECHNOLOGY, INC.

TBC1D10C (Q-13): sc-169525

BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. TBC1D10C (TBC1 domain family, member 10C), also known as Carabin, is a 446 amino acid protein that contains one Rab-GAP TBC domain. Expressed at high levels in spleen and peripheral blood leukocytes, TBC1D10C functions as a Ras GTPase-activating protein that interacts with and acts as a negative feedback inhibitor of PP2B proteins, thereby mediating crosstalk between Ras and PP2Bs. The gene encoding TBC1D10C maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

REFERENCES

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3. Grossfeld, P.D., et al. 2004. The 11q terminal deletion disorder: a prospective study of 110 cases. Am. J. Med. Genet. A 129: 51-61.
4. Zehelein, J., et al. 2006. Skipping of Exon 1 in the KCNQ1 gene causes Jervell and Lange-Nielsen syndrome. J. Biol. Chem. 281: 35397-35403.
5. Ataga, K.I., et al. 2007. β-thalassaemia and sickle cell anaemia as paradigms of hypercoagulability. Br. J. Haematol. 139: 3-13.
6. Berger, A.C., et al. 2007. The subcellular localization of the Niemann-Pick Type C proteins depends on the adaptor complex AP-3. J. Cell Sci. 120: 3640-3652.
7. Pan, F., et al. 2007. Feedback inhibition of calcineurin and Ras by a dual inhibitory protein Carabin. Nature 445: 433-436.

CHROMOSOMAL LOCATION

Genetic locus: TBC1D10C (human) mapping to 11q13.2; Tbc1d10c (mouse) mapping to 19 A.

SOURCE

TBC1D10C (Q-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TBC1D10C of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-169525 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

TBC1D10C (Q-13) is recommended for detection of TBC1D10C of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with TBC1D10B.

TBC1D10C (Q-13) is also recommended for detection of TBC1D10C in additional species, including equine, canine and porcine.

Suitable for use as control antibody for TBC1D10C siRNA (h): sc-96665, TBC1D10C siRNA (m): sc-154089, TBC1D10C shRNA Plasmid (h): sc-96665-SH, TBC1D10C shRNA Plasmid (m): sc-154089-SH, TBC1D10C shRNA (h) Lentiviral Particles: sc-96665-V and TBC1D10C shRNA (m) Lentiviral Particles: sc-154089-V.

Molecular Weight of TBC1D10C: 50 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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