

TBC1D10C (G-5): sc-393379

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

1. Polyak, K., et al. 1997. A model for p53-induced apoptosis. *Nature* 389: 300-305.
2. Strausberg, R.L., et al. 2002. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. *Proc. Natl. Acad. Sci. USA* 99: 16899-16903.
3. Grossfeld, P.D., et al. 2004. The 11q terminal deletion disorder: a prospective study of 110 cases. *Am. J. Med. Genet. A* 129A: 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.

CHROMOSOMAL LOCATION

Genetic locus: TBC1D10C (human) mapping to 11q13.2.

SOURCE

TBC1D10C (G-5) is a mouse monoclonal antibody raised against amino acids 26-138 mapping near the N-terminus of TBC1D10C of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TBC1D10C (G-5) is available conjugated to agarose (sc-393379 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393379 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393379 PE), fluorescein (sc-393379 FITC), Alexa Fluor® 488 (sc-393379 AF488), Alexa Fluor® 546 (sc-393379 AF546), Alexa Fluor® 594 (sc-393379 AF594) or Alexa Fluor® 647 (sc-393379 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393379 AF680) or Alexa Fluor® 790 (sc-393379 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

TBC1D10C (G-5) is recommended for detection of TBC1D10C of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

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

Molecular Weight of TBC1D10C: 50 kDa.

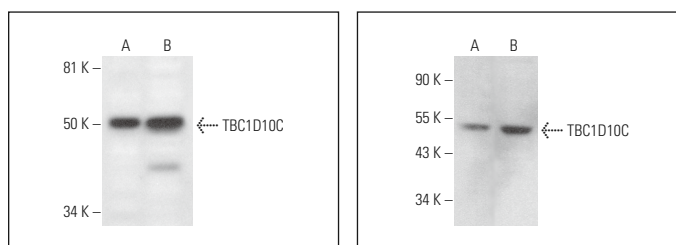
Positive Controls: HL-60 whole cell lysate: sc-2209, Jurkat whole cell lysate: sc-2204 or CCRF-CEM cell lysate: sc-2225.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
- 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



TBC1D10C (G-5): sc-393379. Western blot analysis of TBC1D10C expression in HL-60 (A) and Jurkat (B) whole cell lysates.

TBC1D10C (G-5): sc-393379. Western blot analysis of TBC1D10C expression in HL-60 (A) and CCRF-CEM (B) whole cell lysates.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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