

TBC1D16 (P-13): sc-136914

BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. TBC1D16 (TBC1 domain family, member 16) is a 767 amino acid protein containing one Rab-GAP TBC domain. TBC1D16 belongs to a family of proteins that share a TBC domain of about 200 amino acids that may convey a role in the regulation of cell growth and differentiation. TBC1D16 is thought to function as a GTPase-activating protein for Rab proteins, possibly participating in Rab-mediated cell cycle control and, ultimately, cellular differentiation. TBC1D16 is encoded by a gene located on human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes.

REFERENCES

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3. Rak, A., et al. 2000. Crystal structure of the GAP domain of Gyp1p: first insights into interaction with Ypt/Rab proteins. *EMBO J.* 19: 5105-5113.
4. Zhang, X.M., et al. 2005. TBC domain family, member 15 is a novel mammalian Rab GTPase-activating protein with substrate preference for Rab7. *Biochem. Biophys. Res. Commun.* 335: 154-161.
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7. Ishibashi, K., et al. 2009. Identification and characterization of a novel Tre-2/Bub2/Cdc16 (TBC) protein that possesses Rab3A-GAP activity. *Genes Cells* 14: 41-52.

CHROMOSOMAL LOCATION

Genetic locus: TBC1D16 (human) mapping to 17q25.3; Tbc1d16 (mouse) mapping to 11 E2.

SOURCE

TBC1D16 (P-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TBC1D16 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-136914 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TBC1D16 (P-13) is recommended for detection of TBC1D16 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 other TBC1D family members.

TBC1D16 (P-13) is also recommended for detection of TBC1D16 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TBC1D16 siRNA (h): sc-93565, TBC1D16 siRNA (m): sc-154094, TBC1D16 shRNA Plasmid (h): sc-93565-SH, TBC1D16 shRNA Plasmid (m): sc-154094-SH, TBC1D16 shRNA (h) Lentiviral Particles: sc-93565-V and TBC1D16 shRNA (m) Lentiviral Particles: sc-154094-V.

Molecular Weight of TBC1D16: 86 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.

RESEARCH USE

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

PROTOCOLS

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