

TBC1D13 (N-12): sc-137814

BACKGROUND

TBC1D13 (TBC1 domain family member 13) is a 400 amino acid protein that contains one Rab-GAP TBC domain. Existing as two alternatively spliced isoforms, TBC1D13 may act as a GTPase-activating protein for Rab family proteins. The gene that encodes TBC1D13 contains 23,229 bases and maps to human chromosome 9q34.11. Housing over 900 genes, chromosome 9 comprises nearly 4% of the human genome. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects and Familial dysautonomia, are both associated with chromosome 9. Mutations in DFNB31, located on human chromosome 9, are associated with Usher syndrome type 2, which is characterized by severe rod-cone dystrophy and varying degrees of hearing impairment. Notably, chromosome 9 encompasses the largest interferon family gene cluster.

REFERENCES

- Burmeister, T., et al. 2007. Atypical BCR-ABL mRNA transcripts in adult acute lymphoblastic leukemia. *Haematologica* 92: 1699-1702.
- Ebermann, I., et al. 2007. A novel gene for Usher syndrome type 2: mutations in the long isoform of whirlin are associated with retinitis pigmentosa and sensorineural hearing loss. *Hum. Genet.* 121: 203-211.
- Cottin, V., et al. 2007. Pulmonary vascular manifestations of hereditary hemorrhagic telangiectasia (rendu-osler disease). *Respiration* 74: 361-378.
- Zeitz, M.J., et al. 2009. Organization of the amplified type I interferon gene cluster and associated chromosome regions in the interphase nucleus of human osteosarcoma cells. *Chromosome Res.* 17: 305-319.
- 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.
- Gold-von Simson, G., et al. 2009. Kinetin in familial dysautonomia carriers: implications for a new therapeutic strategy targeting mRNA splicing. *Pediatr. Res.* 65: 341-346.
- Axelrod, F.B., et al. 2010. Neuroimaging supports central pathology in familial dysautonomia. *J. Neurol.* 257: 198-206.

CHROMOSOMAL LOCATION

Genetic locus: TBC1D13 (human) mapping to 9q34.11; Tbc1d13 (mouse) mapping to 2 B.

SOURCE

TBC1D13 (N-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of TBC1D13 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-137814 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TBC1D13 (N-12) is recommended for detection of TBC1D13 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other TBC1D family members.

TBC1D13 (N-12) is also recommended for detection of TBC1D13 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TBC1D13 siRNA (h): sc-92703, TBC1D13 siRNA (m): sc-154091, TBC1D13 shRNA Plasmid (h): sc-92703-SH, TBC1D13 shRNA Plasmid (m): sc-154091-SH, TBC1D13 shRNA (h) Lentiviral Particles: sc-92703-V and TBC1D13 shRNA (m) Lentiviral Particles: sc-154091-V.

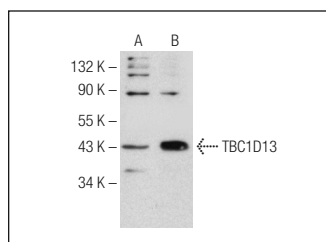
Molecular Weight of TBC1D13: 47 kDa.

Positive Controls: TBC1D13 (m): 293T Lysate: sc-127635.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



TBC1D13 (N-12): sc-137814. Western blot analysis of TBC1D13 expression in non-transfected: sc-117752 (A) and mouse TBC1D13 transfected: sc-127635 (B) 293T 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.