

TBC1D2B (Y-16): sc-137824

BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. TBC1D2B (TBC1 domain family, member 2B) is a 963 amino acid protein that is thought to play a role in GTPase activation. Containing one PH domain and a Rab-GAP TBC domain, TBC1D2B exists as three alternatively spliced isoforms. The gene encoding TBC1D2B maps to human chromosome 15, which houses over 700 genes and comprises nearly 3% of the human genome. Angelman syndrome, Prader-Willi syndrome, Tay-Sachs disease and Marfan syndrome are all associated with defects in chromosome 15-localized genes.

REFERENCES

- Hurowitz, G.I., et al. 1993. Neuropsychiatric aspects of adult-onset Tay-Sachs disease: two case reports with several new findings. *J. Neuropsychiatry Clin. Neurosci.* 5: 30-36.
- Girard, A., et al. 2006. A germline-specific class of small RNAs binds mammalian Piwi proteins. *Nature* 442: 199-202.

CHROMOSOMAL LOCATION

Genetic locus: TBC1D2B (human) mapping to 15q24.3; Tbc1d2b (mouse) mapping to 9 E3.1.

SOURCE

TBC1D2B (Y-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of TBC1D2B 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-137824 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TBC1D2B (Y-16) is recommended for detection of TBC1D2B 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.

TBC1D2B (Y-16) is also recommended for detection of TBC1D2B in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TBC1D2B siRNA (h): sc-89950, TBC1D2B siRNA (m): sc-154105, TBC1D2B shRNA Plasmid (h): sc-89950-SH, TBC1D2B shRNA Plasmid (m): sc-154105-SH, TBC1D2B shRNA (h) Lentiviral Particles: sc-89950-V and TBC1D2B shRNA (m) Lentiviral Particles: sc-154105-V.

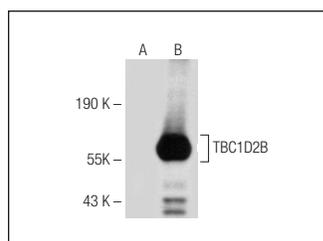
Molecular Weight of TBC1D2B isoforms: 110/104/36 kDa.

Positive Controls: TBC1D2B (h): 293T Lysate: sc-114988.

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



TBC1D2B (Y-16): sc-137824. Western blot analysis of TBC1D2B expression in non-transfected: sc-117752 (A) and human TBC1D2B transfected: sc-114988 (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.

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **TBC1D2B (E-8): sc-398906** or **TBC1D2B (G-10): sc-515390**, our highly recommended monoclonal alternatives to TBC1D2B (Y-16).