

# 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.

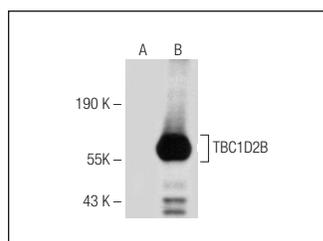
Molecular Weight of TBC1D2B isoforms: 110/104/36 kDa.

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](http://www.scbt.com) or our catalog for detailed protocols and support products.

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