

# TBC1D2B (G-10): sc-515390

## 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

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- Girard, A., et al. 2006. A germline-specific class of small RNAs binds mammalian Piwi proteins. *Nature* 442: 199-202.
- Midla, G.S. 2008. Diagnosis and management of patients with Marfan syndrome. *JAAPA* 21: 21-25.
- Dan, B. 2009. Angelman syndrome: current understanding and research prospects. *Epilepsia* 50: 2331-2339.
- Ferrer-Bolufer, I., et al. 2009. Tyrosinemia type 1 and Angelman syndrome due to paternal uniparental isodisomy 15. *J. Inherit. Metab. Dis.* 32: S349-S353.
- Behrends, C., et al. 2010. Network organization of the human autophagy system. *Nature* 466: 68-76.
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## CHROMOSOMAL LOCATION

Genetic locus: TBC1D2B (human) mapping to 15q24.3.

## SOURCE

TBC1D2B (G-10) is a mouse monoclonal antibody raised against amino acids 540-712 mapping within an internal region of TBC1D2B of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

TBC1D2B (G-10) is recommended for detection of TBC1D2B of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 TBC1D2B siRNA (h): sc-89950, TBC1D2B shRNA Plasmid (h): sc-89950-SH and TBC1D2B shRNA (h) Lentiviral Particles: sc-89950-V.

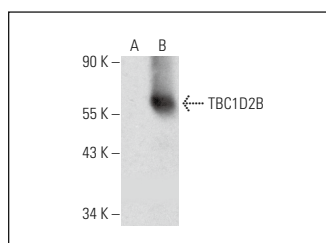
Molecular Weight of TBC1D2B isoforms: 110/104/36 kDa.

Positive Controls: RT-4 whole cell lysate: sc-364257 or TBC1D2B (h): 293T Lysate: sc-114988.

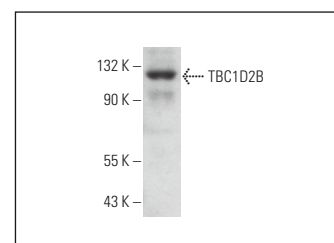
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



TBC1D2B (G-10): sc-515390. Western blot analysis of TBC1D2B expression in non-transfected: sc-117752 (A) and human TBC1D2B transfected: sc-114988 (B) 293T whole cell lysates.



TBC1D2B (G-10): sc-515390. Western blot analysis of TBC1D2B expression in RT-4 whole cell lysates.

## RESEARCH USE

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