# TBC1D8 (T-14): sc-169531



The Power to Question

#### **BACKGROUND**

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. TBC1D8 (TBC1 domain family member 8), also known as VRP (vascular Rab-GAP/TBC-containing protein), AD3 or HBLP1, is an 897 amino acid protein that is thought to function as a GTPase-activator for Rab proteins. TBC1D8 contains one GRAM domain and one Rab-GAP TBC domain, the latter of which is a highly conserved 200 amino acid motif that conveys the catalytic activity of GTPase-activating proteins. The gene encoding TBC1D8 maps to human chromosome 2, which houses over 1,400 genes and comprises nearly 8% of the human genome.

## **REFERENCES**

- Albert, S., Will, E. and Gallwitz, D. 1999. Identification of the catalyti domains and their functionally critical arginine residues of two yeast GTPase-activating proteins specific for Ypt/Rab transport GTPases. EMBO J. 18: 5216-5225.
- Yonekura, H., Migita, H., Sakurai, S., Wang, H., Harada, S., Abedin, M.J., Yamagishi, S. and Yamamoto, H., et al. 1999. Antisense display—a method for functional gene screening: evaluation in a cell-free system and isolation of angiogenesis-related genes. Nucleic Acids Res. 27: 2591-2600.
- Xu, Y.C., Wu, R.F., Gu, Y., Yang, Y.S., Yang, M.C., Nwariaku, F.E. and Terada, L.S. 2002. Involvement of TRAF4 in oxidative activation of c-Jun N-terminal kinase. J. Biol. Chem. 277: 28051-28057.
- Itoh, T., Satoh, M., Kanno, E. and Fukuda, M. 2006. Screening for target Rabs of TBC (Tre-2/Bub2/Cdc16) domain-containing proteins based on their Rab-binding activity. Genes Cells 11: 1023-1037.
- Sklan, E.H., Staschke, K., Oakes, T.M., Elazar, M., Winters, M., Aroeti, B., Danieli, T. and Glenn, J.S. 2007. A Rab-GAP TBC domain protein binds hepatitis C virus NS5A and mediates viral replication. J. Virol. 81: 11096-11105.
- 6. Ishibashi, K., Kanno, E., Itoh, T. and Fukuda, M. 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: TBC1D8 (human) mapping to 2q11.2; Tbc1d8 (mouse) mapping to 1 B.

# SOURCE

TBC1D8 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TBC1D8 of human origin.

# **PRODUCT**

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-169531 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

TBC1D8 (T-14) is recommended for detection of TBC1D8 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 TBC1D8B.

Suitable for use as control antibody for TBC1D8 siRNA (h): sc-94469, TBC1D8 siRNA (m): sc-154109, TBC1D8 shRNA Plasmid (h): sc-94469-SH, TBC1D8 shRNA Plasmid (m): sc-154109-SH, TBC1D8 shRNA (h) Lentiviral Particles: sc-94469-V and TBC1D8 shRNA (m) Lentiviral Particles: sc-154109-V.

Molecular Weight of TBC1D8: 103 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) 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.

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