

**TBC1D1 Antibody**  
**Catalog # ASC10543****Specification**

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**TBC1D1 Antibody - Product Information**

Application	WB, E
Primary Accession	<a href="#">Q86TI0</a>
Other Accession	<a href="#">NP_055988</a> , <a href="#">50658061</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	TBC1D1 antibody can be used for detection of TBC1D1 by Western blot at 1 - 4 µg/mL.

**TBC1D1 Antibody - Additional Information**

Gene ID	23216
<b>Target/Specificity</b>	
TBC1D1;	

**Reconstitution & Storage**

TBC1D1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

TBC1D1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**TBC1D1 Antibody - Protein Information**

**Name** TBC1D1

**Synonyms** KIAA1108

**Function**

May act as a GTPase-activating protein for Rab family protein(s). May play a role in the cell cycle and differentiation of various tissues. Involved in the trafficking and translocation of GLUT4-containing vesicles and insulin-stimulated glucose uptake into cells (By similarity).

**Cellular Location**

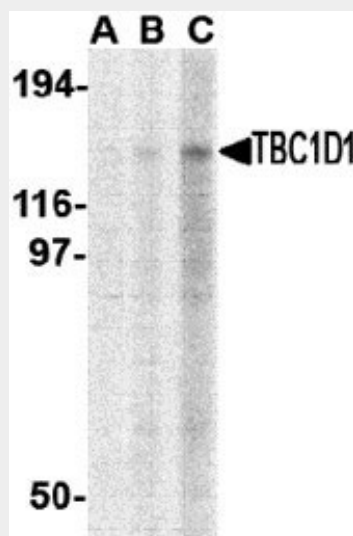
Nucleus.

**TBC1D1 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **TBC1D1 Antibody - Images**



Western blot analysis of TBC1D1 in Daudi cell lysate with TBC1D1 antibody at (A) 1, (B) 2 and (C) 4  $\mu\text{g/mL}$ .

#### **TBC1D1 Antibody - Background**

**TBC1D1 Antibody:** TBC1D1 is the founding member of a family of proteins sharing a 180- to 200-amino acid TBC domain and presumed to have a role in regulating cell growth and differentiation. These proteins share significant homology with TRE2/USP6, yeast Bub2, and CDC16. TBC1D1 and TBC1D4 (AS160) have been demonstrated to be Rab GAPs (GTPase-activating proteins) that link upstream to Akt and phosphoinositide 3-kinase and downstream to Rabs involved in trafficking of GLUT4 vesicles. TBC1D1 regulates insulin-mediated GLUT4 translocation through its GAP activity, and is a likely Akt substrate. Mutations in the *Tbc1d1* gene lead to some cases of severe human obesity.

#### **TBC1D1 Antibody - References**

White RA, Pasztor LM, Richardson PM, et al. The gene encoding TBC1D1 with homology to the tre-2/USP6 oncogene, Bub2, and cdc16 maps to mouse chromosome 5 and human chromosome 4. *Cytogenet. Cell Genet.*2000; 89:272-5.

Koumanov F and Holman GD. Thrifty *Tbc1d1* and *Tbc1d4* proteins link signalling and membrane trafficking pathways. *Biochem. J.*2007; 403:e9-11.

Roach WG, Chavez JA, Miinea CP, et al. Substrate specificity and effect on GLUT4 translocation of the Rab GTPase-activating protein *Tbc1d1*. *Biochem J.*2007; 403:353-8.

Stone S, Abkevich V, Russell DL, et al. TBC1D1 is a candidate for a severe obesity gene and evidence for a gene/gene interaction in obesity predisposition. *Hum. Mol. Genet.*2006; 15:2709-20.