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TBC1D1 Antibody

Catalog # ASC10543

Product Information

Application	WB, E
Primary Accession	Q86TI0
Other Accession	NP_055988, 50658061
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	133084
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TBC1D1 antibody can be used for detection of TBC1D1 by Western blot at 1 - 4 g/mL.

Additional Information

Gene ID	23216
Other Names	TBC1 domain family member 1, TBC1D1, KIAA1108
Target/Specificity	TBC1D1;
Reconstitution & Storage	TBC1D1 antibody can be stored at 4℃ for three months and -20℃, 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.

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.

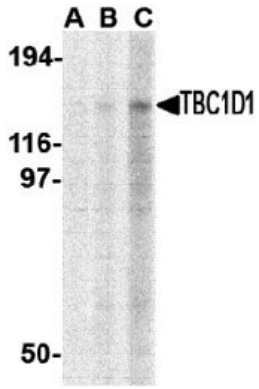
Background

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.

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.

Images



Western blot analysis of TBC1D1 in Daudi cell lysate with TBC1D1 antibody at (A) 1, (B) 2 and (C) 4 µg/mL.