

Phospho-TBC1D4-T642 Rabbit pAb

Catalog No.: AP0791

Basic Information

Observed MW

160kDa

Calculated MW

147kDa

Category

Primary antibody

Applications

ELISA, WB

Cross-Reactivity

Human, Mouse

Background

This gene is a member of the Tre-2/BUB2/CDC16 domain family. The protein encoded by this gene is a Rab-GTPase-activating protein, and contains two phosphotyrosine-binding domains (PTB1 and PTB2), a calmodulin-binding domain (CBD), a Rab-GTPase domain, and multiple AKT phosphomotifs. This protein is thought to play an important role in glucose homeostasis by regulating the insulin-dependent trafficking of the glucose transporter 4 (GLUT4), important for removing glucose from the bloodstream into skeletal muscle and fat tissues. Reduced expression of this gene results in an increase in GLUT4 levels at the plasma membrane, suggesting that this protein is important in intracellular retention of GLUT4 under basal conditions. When exposed to insulin, this protein is phosphorylated, dissociates from GLUT4 vesicles, resulting in increased GLUT4 at the cell surface, and enhanced glucose transport. Phosphorylation of this protein by AKT is required for proper translocation of GLUT4 to the cell surface. Individuals homozygous for a mutation in this gene are at higher risk for type 2 diabetes and have higher levels of circulating glucose and insulin levels after glucose ingestion. Alternative splicing results in multiple transcript variants encoding different isoforms.

Recommended Dilutions

WB 1:500 - 1:2000

Immunogen Information

Gene ID

9882

Swiss Prot

O60343

Immunogen

A synthetic phosphorylated peptide around T642 of human TBC1D4 (NP_055647.2).

Synonyms

AS160; NIDDM5; Phospho-TBC1D4-T642

Contact

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Product Information

Source

Rabbit

Isotype

IgG

Purification

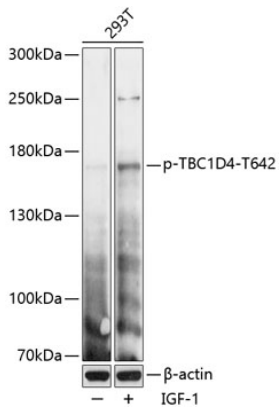
Affinity purification

Storage

Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.01% thimerosal, 50% glycerol, pH7.3.

Validation Data



Western blot analysis of lysates from 293T cells, using Phospho-TBC1D4-T642 Rabbit pAb (AP0791) at 1:2000 dilution. 293T cells were treated by IGF-1 (50ng/mL) for 5 minutes after serum-starvation overnight.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25µg per lane.
Blocking buffer: 3% BSA.
Detection: ECL Enhanced Kit (RM00021).
Exposure time: 30s.