

Product Name: TBC1D4 Mouse Monoclonal Antibody**Catalog #: AMM82061**

For research use only.

Summary

Description	Mouse monoclonal Antibody
Host	Mouse
Application	ELISA,FC
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Mouse IgG1
Clonality	Monoclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Purified antibody in PBS with 0.05% sodium azide
Purification	Affinity Purification

Application

Dilution Ratio	ELISA 1:5000-1:20000,FC 1:200-1:400
Molecular Weight	146.5kDa

Antigen Information

Gene Name	TBC1D4
Alternative Names	AS160; NIDDM5
Gene ID	9882.0
SwissProt ID	O60343
Immunogen	Purified recombinant fragment of human TBC1D4 (AA: 574-712) expressed in E. Coli.

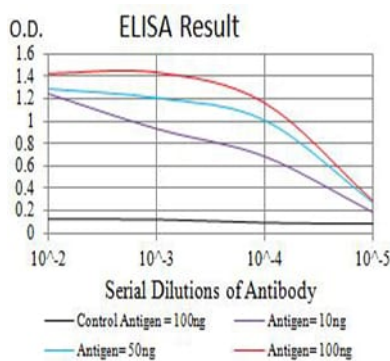
Background

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

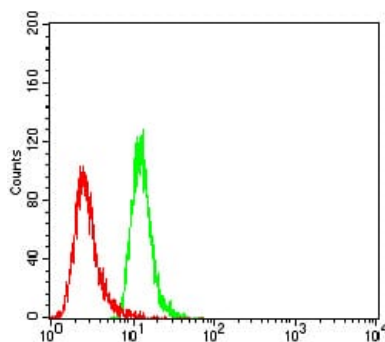
regulating the insulin-dependent trafficking of the glucose transporter 4 (GLUT4), important for removing glucose from the bloodstream into skeletal muscle and fat tissues. Reduced expression of this gene results in an increase in GLUT4 levels at the plasma membrane, suggesting that this protein is important 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.

Research Area

Image Data



Black line: Control Antigen (100 ng); Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line: Antigen (100 ng)



Flow cytometric analysis of Hela cells using TBC1D4 mouse mAb (green) and negative control (red).