

TBC1D4 (phospho Thr642) Polyclonal Antibody

Catalog No :	YP1128
Reactivity :	Human;Mouse
Applications :	WB;IHC;IF;ELISA
Target :	TBC1D4
Fields :	>>Thyroid hormone signaling pathway;>>Insulin resistance;>>Diabetic cardiomyopathy
Gene Name :	TBC1D4
Protein Name :	TBC1 domain family member 4
Human Gene Id :	9882
Human Swiss Prot No :	O60343
Mouse Gene Id :	210789
Mouse Swiss Prot No :	Q8BYJ6
Immunogen :	The antiserum was produced against synthesized peptide derived from human AS160 around the phosphorylation site of Thr642. AA range:611-660
Specificity :	Phospho-TBC1D4 (T642) Polyclonal Antibody detects endogenous levels of TBC1D4 protein only when phosphorylated at T642.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500-2000 IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:5000. Not yet tested in other applications.
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Concentration : 1 mg/ml

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band : 150kD

Cell Pathway : Insulin Receptor

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. Ph

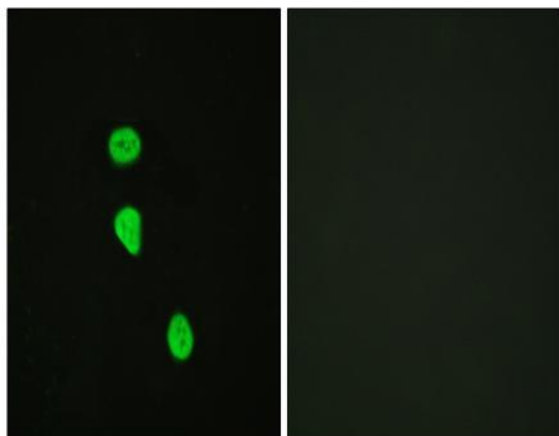
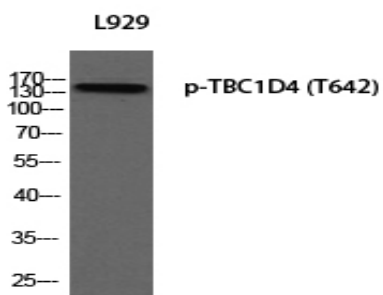
Function : disease:May be involved in atopic dermatitis (AD).,function:May act as a GTPase-activating protein for RAB2A, RAB8A, RAB10 and RAB14. Isoform 2 promotes insulin-induced glucose transporter SLC2A4/GLUT4 translocation at the plasma membrane, thus increasing glucose uptake.,PTM:Insulin-stimulated phosphorylation is required for SLC2A4/GLUT4 translocation.,PTM:Phosphorylated by AKT1; insulin-induced.,PTM:Physiological hyperinsulinemia increases phosphorylation in skeletal muscle. Insulin-stimulated phosphorylation is reduced by 39% in type 2 diabetic patients.,similarity:Contains 1 Rab-GAP TBC domain.,similarity:Contains 2 PID domains.,subcellular location:Isoform 2 shows a cytoplasmic perinuclear localization in a myoblastic cell line in resting and insulin-stimulated cells.,tissue specificity:Widely expressed, but differential expression for isoforms 1 and 2, with highest overall expressio

Subcellular Location : Cytoplasm . Isoform 2 shows a cytoplasmic perinuclear localization in a myoblastic cell line in resting and insulin-stimulated cells.

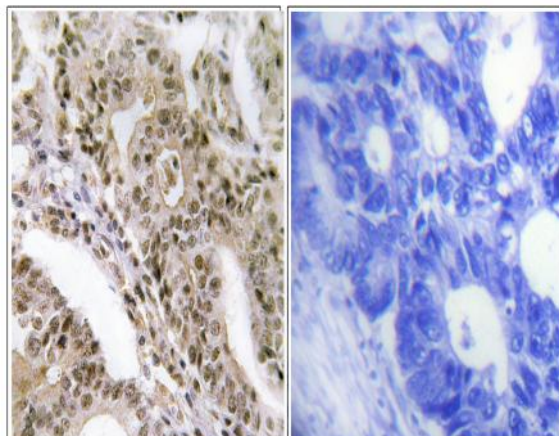
Expression : Widely expressed. Isoform 2 is the highest overexpressed in most tissues. Isoform 1 is highly expressed in skeletal muscle and heart, but was not detectable in the liver nor in adipose tissue. Isoform 2 is strongly expressed in adrenal and thyroid gland, and also in lung, kidney, colon, brain and adipose tissue. Isoform 2 is moderately expressed in skeletal muscle. Expressed in pancreatic Langerhans islets, including beta cells (at protein level). Expression is decreased by twofold in pancreatic islets in type 2 diabetes patients compared to control subjects. Up-regulated in T-cells from patients with atopic dermatitis.

Products Images

Western blot analysis of L929 using p-TBC1D4 (T642) antibody. Antibody was diluted at 1:2000



Immunofluorescence analysis of HeLa cells, using AS160 (Phospho-Thr642) Antibody. The picture on the right is blocked with the phospho peptide.



Immunohistochemistry analysis of paraffin-embedded human lung carcinoma, using AS160 (Phospho-Thr642) Antibody. The picture on the right is blocked with the phospho peptide.