ARG64136
anti-AS160 / TBC1D4 antibody

Package: 100 µg
Store at: -20°C

Summary

Product Description	Goat Polyclonal antibody recognizes AS160 / TBC1D4
Tested Reactivity	Hu
Predict Reactivity	Dog
Tested Application	IHC-P, WB
Host	Goat
Clonality	Polyclonal
Isotype	IgG
Target Name	AS160 / TBC1D4
Species	Human
Immunogen	C-DDPEKIEERKKSK
Conjugation	Un-conjugated
Alternate Names	AS160; TBC1 domain family member 4; Akt substrate of 160 kDa; NIDDM5

Application Instructions

Application table

Application	Dilution
IHC-P	3 - 5 µg/ml
WB	0.1 - 0.3 µg/ml

Application Note

IHC-P: Antigen Retrieval: Steam tissue section in Citrate buffer (pH 6.0).
WB: Recommend incubate at RT for 1h.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form	Liquid
Purification	Purified from goat serum by antigen affinity chromatography.
Buffer	Tris saline (pH 7.3), 0.02% Sodium azide and 0.5% BSA.
Preservative	0.02% Sodium azide
Stabilizer	0.5% BSA
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note	For laboratory research only, not for drug, diagnostic or other use.

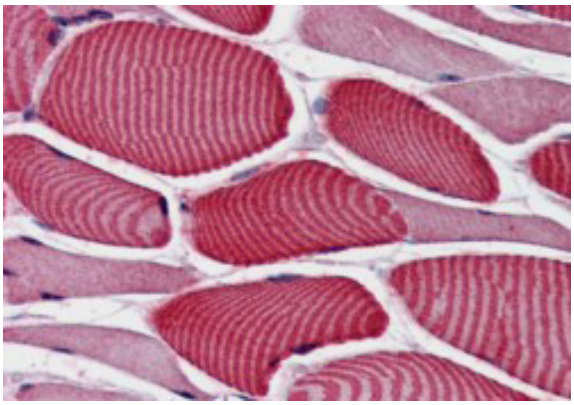
Bioinformation

Database links	GeneID: 9882 Human Swiss-port # O60343 Human
Gene Symbol	TBC1D4
Gene Full Name	TBC1 domain family, member 4
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 phopshotyrosine-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. [provided by RefSeq, Aug 2015]
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. [UniProt]
Research Area	Signaling Transduction antibody
Calculated Mw	147 kDa
PTM	Phosphorylated by AKT1; insulin-induced. Also phosphorylated by AMPK in response to insulin. Insulin-stimulated phosphorylation is required for SLC2A4/GLUT4 translocation. Has no effect on SLC2A4/GLUT4 internalization. Physiological hyperinsulinemia increases phosphorylation in skeletal muscle. Insulin-stimulated phosphorylation is reduced by 39% in type 2 diabetic patients.

Images

ARG64136 anti-AS160 / TBC1D4 antibody WB image

Western Blot: Daudi cell lysate (35 µg protein in RIPA buffer) stained with ARG64136 anti-AS160 / TBC1D4 antibody at 0.1 µg/ml dilution.



ARG64136 anti-AS160 / TBC1D4 antibody IHC-P image

Immunohistochemistry: paraffin embedded Human Skeletal Muscle. (Steamed antigen retrieval with citrate buffer pH 6) stained with ARG64136 anti-AS160 / TBC1D4 antibody at 3.8 µg/ml dilution followed by AP-staining.