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PPP1R16B Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17590c

Product Information

Application	WB, E
Primary Accession	Q96T49
Other Accession	Q8VHQ3, Q95N27, NP_001166206.1
Reactivity	Human
Predicted	Bovine, Mouse, Rat, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB37604
Calculated MW	63551
Antigen Region	372-399

Additional Information

Gene ID	26051
Other Names	Protein phosphatase 1 regulatory inhibitor subunit 16B, Ankyrin repeat domain-containing protein 4, CAAX box protein TIMAP, TGF-beta-inhibited membrane-associated protein, hTIMAP, PPP1R16B, ANKRD4, KIAA0823
Target/Specificity	This PPP1R16B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 372-399 amino acids from the Central region of human PPP1R16B.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PPP1R16B Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PPP1R16B
Synonyms	ANKRD4, KIAA0823

Function	Regulator of protein phosphatase 1 (PP1) that acts as a positive regulator of pulmonary endothelial cell (EC) barrier function (PubMed:18586956). Involved in the regulation of the PI3K/AKT signaling pathway, angiogenesis and endothelial cell proliferation (PubMed:25007873). Regulates angiogenesis and endothelial cell proliferation through the control of ECE1 dephosphorylation, trafficking and activity (By similarity). Protects the endothelial barrier from lipopolysaccharide (LPS)-induced vascular leakage (By similarity). Involved in the regulation of endothelial cell filopodia extension (By similarity). May be a downstream target for TGF-beta1 signaling cascade in endothelial cells (PubMed:16263087, PubMed:18586956). Involved in PKA-mediated moesin dephosphorylation which is important in EC barrier protection against thrombin stimulation (PubMed:18586956). Promotes the interaction of PPP1CA with RPSA/LAMR1 and in turn facilitates the dephosphorylation of RPSA/LAMR1 (PubMed:16263087). Involved in the dephosphorylation of EEF1A1 (PubMed:26497934).
Cellular Location	Cell membrane. Cell membrane; Lipid-anchor. Nucleus. Cell projection. Note=Colocalizes with RPSA/LAMR1 in the cell membrane (PubMed:16263087). Localizes to the perinuclear region (By similarity). Colocalizes with PTEN at the tip of EC projections (PubMed:25007873). {ECO:0000250|UniProtKB:Q95N27, ECO:0000269|PubMed:16263087, ECO:0000269|PubMed:25007873}

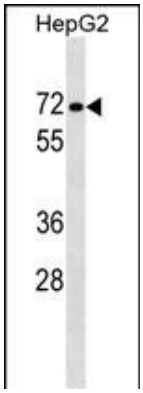
Background

The protein encoded by this gene is membrane-associated and contains five ankyrin repeats, a protein phosphatase-1-interacting domain, and a carboxy-terminal CAAX box domain. Synthesis of the encoded protein is inhibited by transforming growth factor beta-1. The protein may bind to the membrane through its CAAX box domain and may act as a signaling molecule through interaction with protein phosphatase-1. Alternatively spliced transcript variants encoding different isoforms have been identified in this gene.

References

Csortos, C., et al. Am. J. Physiol. Lung Cell Mol. Physiol. 295 (3), L440-L450 (2008) :
Kim, K., et al. Biochem. Biophys. Res. Commun. 338(3):1327-1334(2005)
Homma, K., et al. J. Mol. Biol. 343(5):1207-1220(2004)
Cao, W., et al. Am. J. Physiol., Cell Physiol. 283 (1), C327-C337 (2002) :
Deloukas, P., et al. Nature 414(6866):865-871(2001)

Images



PPP1R16B Antibody (Center) (Cat. #AP17590c) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the PPP1R16B antibody detected the PPP1R16B protein (arrow).

Citations

- TIMAP-protein phosphatase 1-complex controls endothelin-1 production via ECE-1 dephosphorylation.
- PKC mediated phosphorylation of TIMAP regulates PP1c activity and endothelial barrier function.
- Regulation of merlin by protein phosphatase 1-TIMAP and EBP50 in endothelial cells.
- The role of LR-TIMAP/PP1c complex in the occurrence and development of no-reflow

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