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# PPP1R16B Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17590c

## Product Information

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

## Additional Information

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| **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

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| **Name** | PPP1R16B |
| **Synonyms** | ANKRD4, KIAA0823 |

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| **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} |

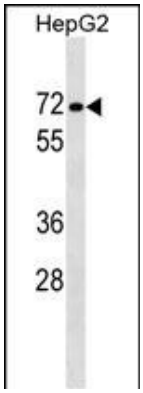
## Background

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

- The role of LR-TIMAP/PP1c complex in the occurrence and development of no-reflow
- 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.
- TIMAP-protein phosphatase 1-complex controls endothelin-1 production via ECE-1 dephosphorylation.