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# PI 4 Kinase type 2 beta antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8033a

## Product Information

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|---|---|
| **Application** | WB, IHC-P, E |
| **Primary Accession** | Q8TCG2 |
| **Other Accession** | NP_060793 |
| **Reactivity** | Human |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB1681 |
| **Calculated MW** | 54744 |
| **Antigen Region** | 1-30 |

## Additional Information

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|---|---|
| **Gene ID** | 55300 |
| **Other Names** | Phosphatidylinositol 4-kinase type 2-beta, Phosphatidylinositol 4-kinase type II-beta, PI4KII-BETA, PI4K2B |
| **Target/Specificity** | This PI 4 Kinase type 2 beta antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human PI 4 Kinase type 2 beta. |
| **Dilution** | WB~~1:500 IHC-P~~1:100~500 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. 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** | PI 4 Kinase type 2 beta antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | PI4K2B |
| **Function** | Together with PI4K2A and the type III PI4Ks (PIK4CA and PIK4CB) it contributes to the overall PI4-kinase activity of the cell (PubMed:11923287, PubMed:12324459). This contribution may be especially significant in plasma |

membrane, endosomal and Golgi compartments (PubMed:11923287, PubMed:12324459). The phosphorylation of phosphatidylinositol (PI) to PI4P is the first committed step in the generation of phosphatidylinositol 4,5-bisphosphate (PIP2), a precursor of the second messenger inositol 1,4,5-trisphosphate (InsP3) (PubMed:11923287, PubMed:12324459). Contributes to the production of InsP3 in stimulated cells and is likely to be involved in the regulation of vesicular trafficking.

**Cellular Location** Cytoplasm, cytosol. Golgi apparatus membrane; Peripheral membrane protein. Endoplasmic reticulum membrane. Cell membrane. Early endosome membrane. Note=Mainly cytosolic, association with membranes of the Golgi, endoplasmic and plasma membrane is stimulated by active RAC1 (PubMed:12324459). Association with early endosomes has not been confirmed (PubMed:11923287, PubMed:12324459).

**Tissue Location** Widely expressed..

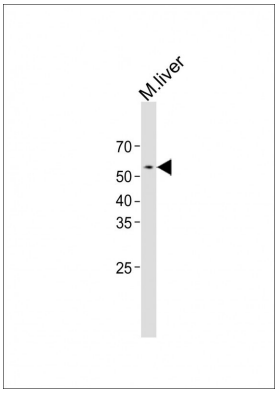
## Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains.

## References

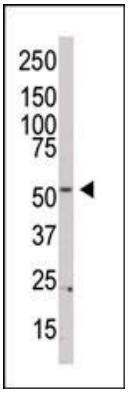
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Mora, S., et al., J. Biol. Chem. 277(30):27494-27500 (2002).
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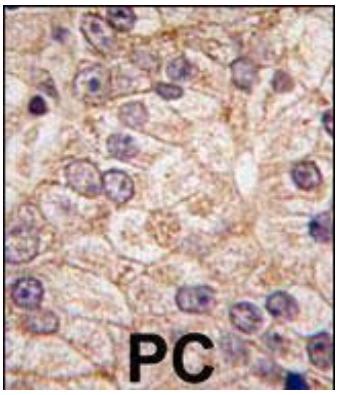
## Images



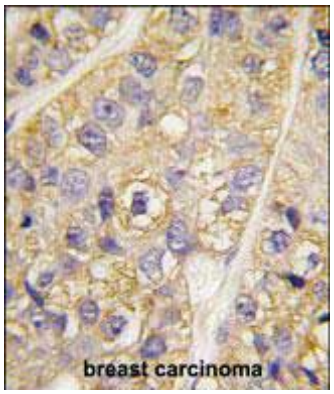

All lanes: Anti-PI 4 Kinase type 2 beta antibody (N-term) at 1:500 dilution + Mouse liver lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 54. 7 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

Western blot analysis of anti-PI4K II beta Pab (Cat. #AP8033a) in HL60 cell lysate. PI4K II beta (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.




Formalin-fixed and paraffin-embedded human prostata carcinoma tissue reacted with PI4K II beta antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.




Formalin-fixed and paraffin-embedded human breast carcinoma tissue reacted with PI4K II beta antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.