

**PI3 Kinase p110 beta Antibody**  
Rabbit mAb  
Catalog # AP93057

**Specification**

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**PI3 Kinase p110 beta Antibody - Product Information**

Application	WB, IHC, ICC
Primary Accession	<a href="#">P42338</a>
Reactivity	Rat
Clonality	Monoclonal
<b>Other Names</b>	
p110Beta; PI3K; PI3K beta; PI3KCB; PIK3C1; Pik3cb;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	122762 Da

**PI3 Kinase p110 beta Antibody - Additional Information**

Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human PI3 Kinase p110 beta
Description	Phosphorylates PtdIns, PtdIns4P and PtdIns(4,5)P2 with a preference for PtdIns(4,5)P2.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

**PI3 Kinase p110 beta Antibody - Protein Information**

**Name** PIK3CB

**Synonyms** PIK3C1

**Function**

Phosphoinositide-3-kinase (PI3K) phosphorylates phosphatidylinositol derivatives at position 3 of the inositol ring to produce 3-phosphoinositides (PubMed:[15135396](http://www.uniprot.org/citations/15135396)). Uses ATP and PtdIns(4,5)P2 (phosphatidylinositol 4,5-bisphosphate) to generate phosphatidylinositol 3,4,5-trisphosphate (PIP3) (PubMed:[15135396](http://www.uniprot.org/citations/15135396)). PIP3 plays a key role by recruiting PH domain-containing proteins to the membrane, including AKT1 and PDK1, activating signaling cascades involved in cell growth, survival, proliferation, motility and morphology. Involved in the activation of AKT1 upon stimulation by G- protein coupled receptors (GPCRs) ligands such as CXCL12, sphingosine 1-phosphate, and lysophosphatidic acid. May also act downstream receptor tyrosine kinases. Required in different signaling pathways for stable platelet adhesion and aggregation. Plays a role

in platelet activation signaling triggered by GPCRs, alpha-IIb/beta-3 integrins (ITGA2B/ ITGB3) and ITAM (immunoreceptor tyrosine-based activation motif)-bearing receptors such as GP6. Regulates the strength of adhesion of ITGA2B/ ITGB3 activated receptors necessary for the cellular transmission of contractile forces. Required for platelet aggregation induced by F2 (thrombin) and thromboxane A2 (TXA2). Has a role in cell survival. May have a role in cell migration. Involved in the early stage of autophagosome formation. Modulates the intracellular level of PtdIns3P (phosphatidylinositol 3-phosphate) and activates PIK3C3 kinase activity. May act as a scaffold, independently of its lipid kinase activity to positively regulate autophagy. May have a role in insulin signaling as scaffolding protein in which the lipid kinase activity is not required. May have a kinase-independent function in regulating cell proliferation and in clathrin-mediated endocytosis. Mediator of oncogenic signal in cell lines lacking PTEN. The lipid kinase activity is necessary for its role in oncogenic transformation. Required for the growth of ERBB2 and RAS driven tumors. Has also a protein kinase activity showing autophosphorylation (PubMed:<a href="http://www.uniprot.org/citations/12502714" target="\_blank">12502714</a>).

#### Cellular Location

Cytoplasm. Nucleus. Note=Interaction with PIK3R2 is required for nuclear localization and export

#### Tissue Location

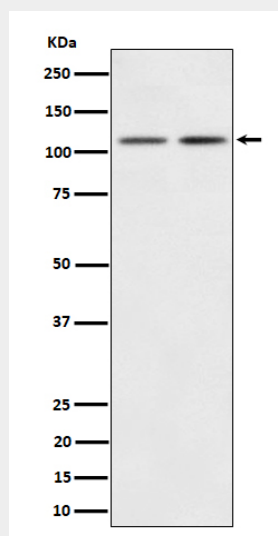
Expressed ubiquitously.

### PI3 Kinase p110 beta Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### PI3 Kinase p110 beta Antibody - Images



Western blot analysis of PI3 Kinase p110 beta expression in (1) 293 cell lysate; (2) Mouse Brain

lysate.