

**PI3 Kinase p110 alpha Rabbit mAb**  
Catalog # AP78949**Specification****PI3 Kinase p110 alpha Rabbit mAb - Product Information**

Application	WB, IP, ICC
Primary Accession	<a href="#">P42336</a>
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	124284

**PI3 Kinase p110 alpha Rabbit mAb - Additional Information**

Gene ID 5290

**Other Names**

PIK3CA

**Dilution**

WB~~1/500-1/1000

IP~~N/A

ICC~~N/A

**Format**

10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol.

**Storage**

Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

**PI3 Kinase p110 alpha Rabbit mAb - Protein Information**

Name PIK3CA

**Function**

Phosphoinositide-3-kinase (PI3K) phosphorylates phosphatidylinositol (PI) and its phosphorylated derivatives at position 3 of the inositol ring to produce 3-phosphoinositides (PubMed: [15135396](http://www.uniprot.org/citations/15135396), PubMed: [23936502](http://www.uniprot.org/citations/23936502), PubMed: [28676499](http://www.uniprot.org/citations/28676499)). Uses ATP and PtdIns(4,5)P<sub>2</sub> (phosphatidylinositol 4,5-bisphosphate) to generate phosphatidylinositol 3,4,5-trisphosphate (PIP<sub>3</sub>) (PubMed: [15135396](http://www.uniprot.org/citations/15135396), PubMed: [28676499](http://www.uniprot.org/citations/28676499)). PIP<sub>3</sub> 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. Participates in cellular signaling in response to various growth factors. Involved in the activation of AKT1 upon stimulation by receptor tyrosine kinases ligands such as EGF, insulin, IGF1, VEGFA and PDGF. Involved in signaling via

insulin-receptor substrate (IRS) proteins. Essential in endothelial cell migration during vascular development through VEGFA signaling, possibly by regulating RhoA activity. Required for lymphatic vasculature development, possibly by binding to RAS and by activation by EGF and FGF2, but not by PDGF. Regulates invadopodia formation through the PDPK1-AKT1 pathway. Participates in cardiomyogenesis in embryonic stem cells through a AKT1 pathway. Participates in vasculogenesis in embryonic stem cells through PDK1 and protein kinase C pathway. In addition to its lipid kinase activity, it displays a serine-protein kinase activity that results in the autophosphorylation of the p85alpha regulatory subunit as well as phosphorylation of other proteins such as 4EBP1, H-Ras, the IL-3 beta c receptor and possibly others (PubMed:<a href="http://www.uniprot.org/citations/23936502" target="\_blank">23936502</a>, PubMed:<a href="http://www.uniprot.org/citations/28676499" target="\_blank">28676499</a>). Plays a role in the positive regulation of phagocytosis and pinocytosis (By similarity).

### PI3 Kinase p110 alpha Rabbit mAb - 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 alpha Rabbit mAb - Images

