Product Name: PI 3-kinase p110α Rabbit Polyclonal Antibody
Catalog #: APRab16098

Summary

Production Name	PI 3-kinase p110α Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IF,WB,IHC,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	PIK3CA
Alternative Names	PIK3CA; Phosphatidylinositol 4; 5-bisphosphate 3-kinase catalytic subunit alpha isoform; PI3-kinase subunit alpha; PI3K-alpha; PI3Kalpha; PtdIns-3-kinase subunit alpha; Phosphatidylinositol 4,5-bisphosphate 3-kinase 110 kDa catalytic subunit
Gene ID	5290.0
SwissProt ID	P42336.The antiserum was produced against synthesized peptide derived from human PI 3-kinase p110alpha. AA range:470-519

Application

Dilution Ratio	IF 1:50-200 WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:40000. Not yet tested in other

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	applications.
Molecular Weight	110kD

Background

Phosphatidylinositol 3-kinase is composed of an 85 kDa regulatory subunit and a 110 kDa catalytic subunit. The protein encoded by this gene represents the catalytic subunit, which uses ATP to phosphorylate PtdIns, PtdIns4P and PtdIns(4,5)P2. This gene has been found to be oncogenic and has been implicated in cervical cancers. A pseudogene of this gene has been defined on chromosome 22. [provided by RefSeq, Apr 2016],catalytic activity:ATP + 1-phosphatidyl-1D-myo-inositol 4,5-bisphosphate = ADP + 1-phosphatidyl-1D-myo-inositol 3,4,5-trisphosphate.,disease:Defects in PIK3CA are associated with breast cancer [MIM:114480].,disease:Defects in PIK3CA are associated with colorectal cancer (CRC) [MIM:114500].,disease:Defects in PIK3CA are associated with ovarian cancer [MIM:167000]. Ovarian cancer is the leading cause of death from gynecologic malignancy. It is characterized by advanced presentation with loco-regional dissemination in the peritoneal cavity and the rare incidence of visceral metastases. These typical features relate to the biology of the disease, which is a principal determinant of outcome.,disease:Defects in PIK3CA may underlie hepatocellular carcinoma (HCC) [MIM:114550].,disease:PI3KCA mutations affecting exons 9 and 20 display gender-and tissue-specific patterns, thus suggesting that the different amino acid changes could exert distinct functional effects on the oncogenic properties of this enzyme. Furthermore, sexual dimorphisms and tissue specific factors might directly or indirectly influence the occurrence of PI3KCA cancer alleles.,function:Phosphorylates PtdIns, PtdIns4P and PtdIns(4,5)P2 with a preference for PtdIns(4,5)P2.,similarity:Belongs to the PI3/PI4-kinase family.,similarity:Contains 1 C2 domain.,similarity:Contains 1 PI3K/PI4K domain.,subunit:Heterodimer of a p110 (catalytic) and a p85 (regulatory) subunit. Binds to IRS1 in nuclear extracts. Interacts with RUFY3.,

Research Area

Inositol phosphate metabolism;ErbB_HER;Chemokine;Phosphatidylinositol signaling system;mTOR;Apoptosis_Inhibition;Apoptosis_Mitochondrial;Apoptosis_Overview;VEGF;Focal adhesion;Toll_Like;Jak_STAT;Natural killer cell mediated cytotoxicity;T_Cell_Receptor;B_Cell_Antigen;Fc epsilon RI;Fc gamma R-mediated phagocytosis;Leukocyte transendothelial migration;Neurotrophin;Regulates Actin and Cytoskeleton;Insulin_Receptor;Progesterone-mediated oocyte maturation;Type II diabetes mellitus;Aldosterone-regulated sodium reabsorption;Pathways in cancer;Colorectal cancer;Renal cell carcinoma;Pancreatic cancer;Endometrial cancer;Glioma;Prostate cancer;Melanoma;Chronic myeloid leukemia;Acute myeloid leukemia;Small cell lung cancer;Non-small cell lung cancer;

Image Data

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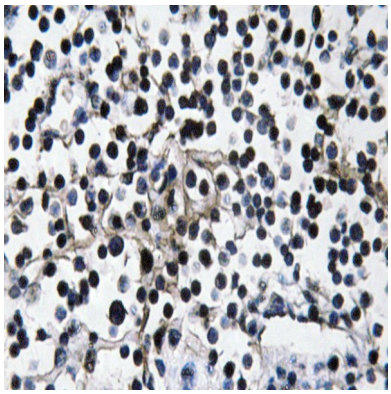
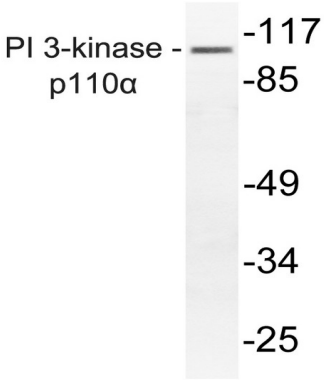
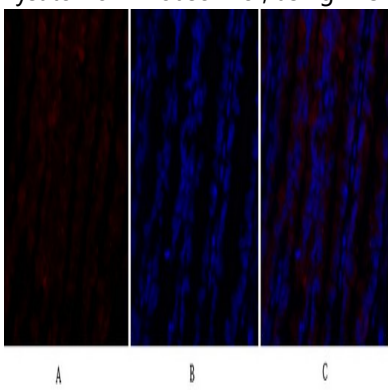


Immunohistochemistry analysis of PI 3-kinase p110α antibody in paraffin-embedded human lymph node tissue.



Western blot analysis of lysate from mouse liver, using PI 3-kinase p110α antibody.



Immunofluorescence analysis of rat-lung tissue. 1,PI 3-kinase p110α Polyclonal Antibody（red） was diluted at 1:200（4°C,overnight）. 2, Cy3 labled Secondary antibody was diluted at 1:300（room temperature, 50min）.3, Picture B: DAPI（blue） 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

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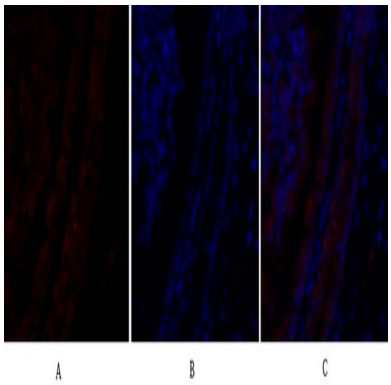

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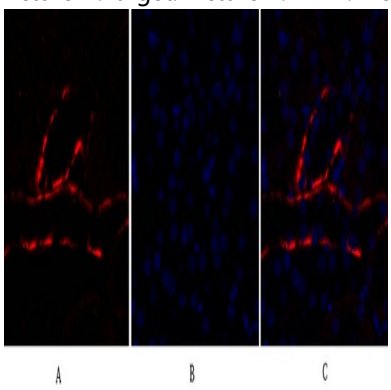
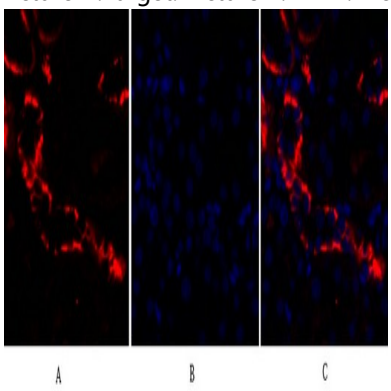


Immunofluorescence analysis of rat-kidney tissue. 1,PI 3-kinase p110α Polyclonal Antibody（red） was diluted at 1:200（4°C,overnight）. 2, Cy3 labled Secondary antibody was diluted at 1:300（room temperature, 50min）.3, Picture B: DAPI（blue） 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



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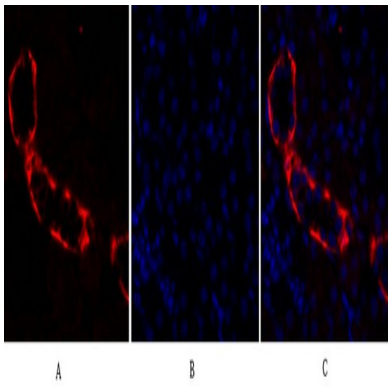
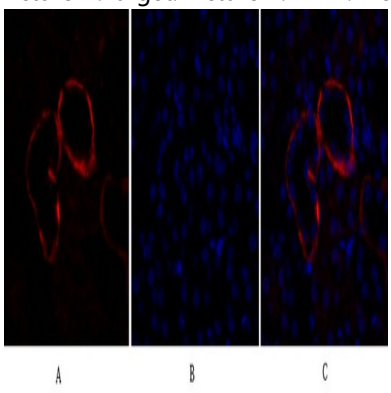


Immunofluorescence analysis of mouse-kidney tissue. 1,PI 3-kinase p110α Polyclonal Antibody（red） was diluted at 1:200（4°C,overnight）. 2, Cy3 labled Secondary antibody was diluted at 1:300（room temperature, 50min）.3, Picture B: DAPI（blue） 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



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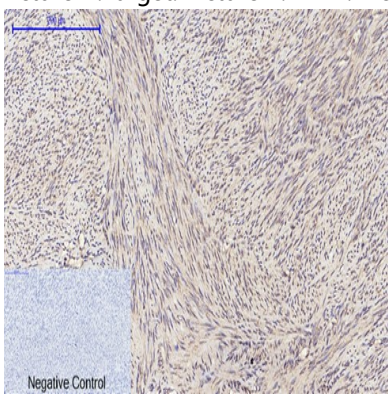

Immunohistochemical analysis of paraffin-embedded Human-uterus tissue. 1,PI 3-kinase p110α Polyclonal Antibody was diluted at 1:200（4°C,overnight）. 2, Sodium citrate pH 6.0 was used for antibody retrieval（>98°C,20min）. 3,Secondary antibody was diluted at 1:200（room tempeRature, 30min）. Negative control was used by secondary antibody only.

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Note

For research use only.