

## PI3-Kinase p110 $\alpha$ (PT0873R) PT™ Rabbit mAb

CatalogNo: YM8642 **Recombinant** 

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat

#### Applications

- WB, IF, IP, ELISA

#### MW

- 124kD (Calculated)  
110kD (Observed)

#### Isotype

- IgG, Kappa

### Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)**Formulation** PBS, 50% glycerol, 0.05% Proclin 300, 0.05% BSA

### Recommended Dilution Ratios

**WB 1:2000-1:10000****IF 1:200-1:1000****ELISA 1:5000-1:20000****IP 1:50-1:200**

### Basic Information

**Clonality** Monoclonal**Clone Number** PT0873R

### Immunogen Information

**Specificity** Endogenous

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## | Target Information

**Gene name** PIK3CA

**Protein Name** 5-bisphosphate 3-kinase 110 kDa catalytic subunit alpha;5-bisphosphate 3-kinase catalytic subunit alpha isoform;caPI3K;CLOVE;CWS5;MCAP;MCM;MCMTTC;MGC142161;MGC142163;p110 alpha;p110alpha;Phosphatidylinositol 3 kinase catalytic alpha polypeptide;Phosphatidylinositol 3 kinase catalytic 110 KD alpha;Phosphatidylinositol 4 5 bisphosphate 3 kinase catalytic subunit alpha;Phosphatidylinositol 4 5 bisphosphate 3 kinase catalytic subunit alpha isoform;Phosphatidylinositol 4,5 bisphosphate 3 kinase 110 kDa catalytic subunit alpha;Phosphatidylinositol-4;Phosphoinositide 3 kinase catalytic alpha polypeptide;PI 3 Kinase catalytic subunit alpha;PI3 kinase p110 subunit alpha;PI3-kinase subunit alpha;PI3K;PI3K-alpha;PI3KC A;PIK3C A;Pik3ca;PK3CA;PK3CA\_HUMAN;PtdIns 3 kinase p110;PtdIns-3-kinase subunit alpha;PtdIns-3-kinase subunit p110-alpha;Serine/threonine protein kinase PIK3CA

Organism	Gene ID	UniProt ID
Human	<a href="#">5290;</a>	<a href="#">P42336;</a>
Mouse	<a href="#">18706;</a>	<a href="#">P42337;</a>

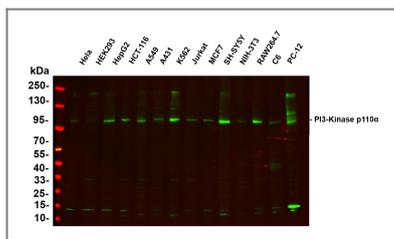
**Cellular Localization** Cytoplasmic

**Tissue specificity** Gastric adenocarcinoma with PIK3CA H1047R protein expression

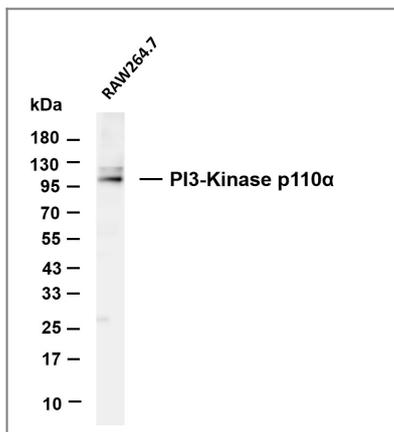
**Function** Catalytic activity:ATP + 1-phosphatidyl-1D-myo-inositol 4,5-bisphosphate = ADP + 1-phosphatidyl-1D-myo-inositol 3,4,5-trisphosphate.,Disease:Defects in PIK3CA are associated with breast cancer [MIM:114480].,Disease:Defects in PIK3CA are associated with colorectal cancer (CRC) [MIM:114500].,Disease:Defects 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.,

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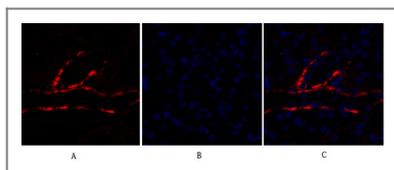
## | Validation Data



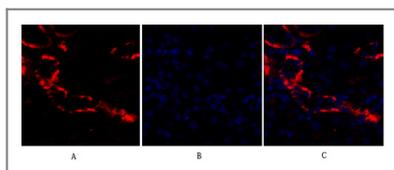
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4~C, over night with a 1:5000 dilution . The Dylight 800-conjugated Goat anti-Rabbit antibody(Cat:RS23920) was used to detect the antibody. Lane1: HeLa - Human cervical cancer Lane2: HEK293 - Human normal embryonic kidney Lane3: HepG2 - Human hepatocellular carcinoma Lane4: HCT-116 - Human colon cancer Lane5: A549 - Human lung adenocarcinoma Lane6: A431 - Human skin squamous cell carcinoma Lane7: K562 - Human chronic myeloid leukemia Lane8: Jurkat - Human acute T cell leukemia cells Lane9: MCF7 - Human breast cancer Lane10: SH-SY5Y - Human neuroblastoma cells Lane11: NIH-3T3 - NIH mouse fibroblasts Lane12: RAW264.7 - Mouse mononuclear macrophage leukemia cells Lane13: C6 - Rat glioma cells Lane14: PC-12 - Pheochromocytoma in rats



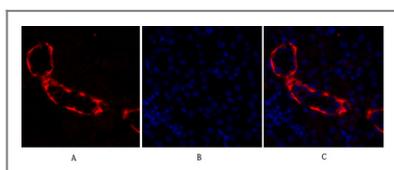
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-PI3-Kinase p110α antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: RAW264.7 Lane 2: cell name Predicted band size: 124kDa Observed band size: 110kDa



Immunofluorescence analysis of rat-kidney tissue. 1,PI 3-kinase p110α Monoclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labeled 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 Monoclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labeled 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

## Contact information

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Please scan the QR code to access additional product information:  
**PI3-Kinase p110α (PT0873R) PT™ Rabbit mAb**

