

## PI 3 Kinase P85a Monoclonal Antibody(3B7)

Catalog No: YM3503

**Reactivity:** Rat; Mouse

**Applications:** WB;IHC;IF

Target: PI3 Kinase P85a

**Fields:** >>EGFR tyrosine kinase inhibitor resistance;>>Endocrine

resistance;>>Platinum drug resistance;>>ErbB signaling pathway;>>Ras

signaling pathway;>>Rap1 signaling pathway;>>cAMP signaling

pathway;>>Chemokine signaling pathway;>>HIF-1 signaling pathway;>>FoxO signaling pathway;>>Phosphatidylinositol signaling system;>>Sphingolipid signaling pathway;>>Phospholipase D signaling pathway;>>Autophagy - animal;>>mTOR signaling pathway;>>Pl3K-Akt signaling pathway;>>AMPK signaling pathway;>>Apoptosis;>>Longevity regulating pathway;>>Longevity

regulating pathway - multiple species;>>Cellular senescence;>>Axon guidance;>>VEGF signaling pathway;>>Osteoclast differentiation;>>Focal adhesion;>>Signaling pathways regulating pluripotency of stem cells;>>Platelet activation;>>Neutrophil extracellular trap formation;>>Toll-like receptor signaling pathway;>>C-type lectin receptor signaling pathway;>>JAK-STAT signaling pathway;>>Natural killer cell mediated cytotoxicity;>>T cell receptor signaling

pathway;>

Gene Name: PIK3R1

**Protein Name:** Phosphatidylinositol 3-kinase regulatory subunit alpha (PI3-kinase regulatory

subunit alpha) (PI3K regulatory subunit alpha) (PtdIns-3-kinase regulatory

subunit alpha) (Phosphatidylinositol 3-kinase 8

Human Gene Id: 5295

**Human Swiss Prot** P27986

No:

Mouse Swiss Prot P26450

No:

Rat Swiss Prot No: Q63787

Immunogen: Recombinant Protein of PI3 Kinase P85α

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Specificity: PI3 Kinase P85a protein detects endogenous levels of PI3 Kinase P85a

**Formulation :** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

**Source:** Monoclonal, Mouse

**Dilution :** WB 1:1000-2000, IHC 1:100-200. IF 1:50-200

**Purification:** The antibody was affinity-purified from mouse ascites by affinity-

chromatography using specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band: 85kD

**Cell Pathway:** ErbB\_HER;Chemokine;Phosphatidylinositol signaling system;mTOR;Apoptosis\_

Inhibition; Apoptosis\_Mitochondrial; Apoptosis\_Overview; VEGF; Focal adhesion; Toll Like; Jak STAT; Natural killer cell mediated cytoto

**Background:** Phosphatidylinositol 3-kinase phosphorylates the inositol ring of

phosphatidylinositol at the 3-prime position. The enzyme comprises a 110 kD catalytic subunit and a regulatory subunit of either 85, 55, or 50 kD. This gene encodes the 85 kD regulatory subunit. Phosphatidylinositol 3-kinase plays an important role in the metabolic actions of insulin, and a mutation in this gene has been associated with insulin resistance. Alternative splicing of this gene results in four transcript variants encoding different isoforms. [provided by RefSeq, Jun

2011],

**Function:** disease:Defects in PIK3R1 are a cause of severe insulin resistance.,domain:The

SH3 domain mediates the binding to CBLB, and to HIV-1 Nef.,function:Binds to activated (phosphorylated) protein-Tyr kinases, through its SH2 domain, and acts as an adapter, mediating the association of the p110 catalytic unit to the plasma membrane. Necessary for the insulin-stimulated increase in glucose uptake and glycogen synthesis in insulin-sensitive tissues.,PTM:Polyubiquitinated in T-cells

by CBLB; which does not promote proteasomal degradation but impairs

association with CD28 and CD3Z upon T-cell activation., similarity: Belongs to the

PI3K p85 subunit family., similarity: Contains 1 Rho-GAP

domain.,similarity:Contains 1 SH3 domain.,similarity:Contains 2 SH2 domains.,subunit:Heterodimer of a p110 (catalytic) and a p85 (regulatory) subunits. Interacts with phosphorylated TOM1L1. Interacts with phosphorylated

Subcellular Location:

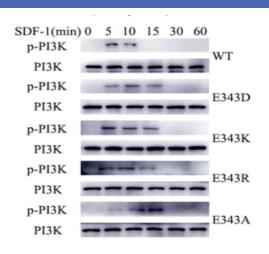
nucleus,cytoplasm,cis-Golgi network,cytosol,plasma membrane,cell-cell junction,phosphatidylinositol 3-kinase complex,phosphatidylinositol 3-kinase complex, class IA,membrane,perinuclear endoplasmic reticulum membrane,



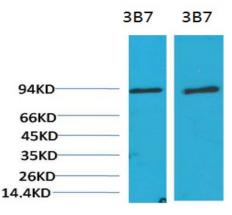
## **Expression:**

Isoform 2 is expressed in skeletal muscle and brain, and at lower levels in kidney and cardiac muscle. Isoform 2 and isoform 4 are present in skeletal muscle (at protein level).

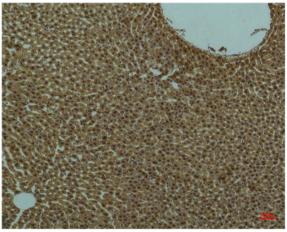
## **Products Images**



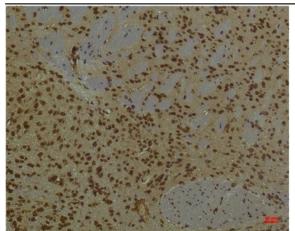
Wang, L., Xiong, Q., Li, P. et al. The negative charge of the 343 site is essential for maintaining physiological functions of CXCR4. BMC Mol and Cell Biol 22, 8 (2021).



Western blot analysis of 1)3T3, 2) Rat LiverTissue with PI3 Kinase P85α Mouse mAb diluted at 1:2,000.



Immunohistochemical analysis of paraffin-embedded Rat Liver Tissue using PI3 Kinase P85 α Mouse mAb diluted at 1:200.



Immunohistochemical analysis of paraffin-embedded Mouse BrainTissue using PI3 Kinase P85 α Mouse mAb diluted at 1:200.