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# PI 3 Kinase P85α (3B7) Mouse mAb

CatalogNo: YM3503 Orthogonal Validated 💽

## Key Features

Host Species
• Mouse

Reactivity

Rat,Mouse

ApplicationsWB,IHC,IF

MW • 85kD (Observed)

#### **Recommended Dilution Ratios**

WB 1:1000-2000 IHC 1:100-200 IF 1:50-200

#### **Storage**

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

#### **Basic Information**

Clonality	Monoclonal
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Clone Number 3B7

## Immunogen Information

ImmunogenRecombinant Protein of PI3 Kinase P85αSpecificityPI3 Kinase P85α protein detects endogenous levels of PI3 Kinase P85α

### **Target Information**

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 85 kDa regulatory subunit alpha) (PI3-kinase subunit p85

Organism	Gene ID	UniProt ID
Human	<u>5295;</u>	<u>P27986;</u>
Mouse	<u>18708;</u>	<u>P26450;</u>
Rat	<u>25513;</u>	<u>Q63787;</u>

#### Cellular Localization

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,

#### **Tissue specificity** 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).

**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: Polyubiguitinated 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 LIME1 upon TCR and/or BCR activation. Interacts with SOCS7. Interacts with RUFY3 (By similarity). Interacts with phosphorylated LAT, LAX1 and TRAT1 upon TCR activation. Interacts with CBLB. Interacts with HIV-1 Nef to activate the Nef associated p21-activated kinase (PAK). This interaction depends on the C-terminus of both proteins and leads to increased production of HIV. Interacts with HCV NS5A. The SH2 domains interact with the YTHM motif of phosphorylated INSR in vitro. Also interacts with tyrosine-phosphorylated IGF1R in vitro. Interacts with CD28 and CD3Z upon T-cell activation. Interacts with IRS1 and phosphorylated IRS4, as well as with NISCH and HCST., tissue specificity: 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).,

#### Validation Data

SDF-1(min	) ()	5	10	15	30	60	
p-PI3K		-					WT
PI3K	-	-	-	-	=	-	WI
p-PI3K		-	=	-		5	E343D
PI3K.	-	-	-	-	-	-	E343D
p-PI3K		-	-	-			E343K
PI3K	-	-	-	-	-	-	E343K
p-PI3K	4	-	-	-			E343R
PI3K.	-	-	-	-	-	-	LISTOR
p-PI3K		-	-	-			E343A
PI3K	-	-	-	-	-	-	13457

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).

3B7 3B7 94KD 66KD 45KD 35KD 26KD 14.4KD Western blot analysis of 1)3T3, 2) Rat LiverTissue with PI3 Kinase P85 $\alpha$  Mouse mAb diluted at 1:2,000.



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



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

## **Contact information**

Orders:	order.cn@immunoway.com
Support:	support.cn@immunoway.com
Telephone:	400-8787-807(China)
Website:	http://www.immunoway.com.cn
Address:	2200 Ringwood Ave San Jose, CA 95131 USA



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