

## Rabbit Anti-PI 3 Kinase p85 alpha antibody

## SL0128R

Product Name:	PI 3 Kinase p85 alpha
Chinese Name:	磷脂酰肌醇激酶抗体
Alias:	PI3-kinase p85 subunit alpha; PI3K p85; GRB1; p50 alpha; p55 alpha; p85 alpha; p85; Phosphatidylinositol 3 kinase associated p85 alpha; Phosphatidylinositol 3 kinase regulatory 1; Phosphatidylinositol 3 kinase regulatory alpha subunit; Phosphoinositide 3 kinase regulatory subunit polypeptide 1 (p85 alpha); PI3 kinase p85 alpha subunit; PI3 kinase p85 subunit alpha; PI3K; PIK3R1; PtdIns 3 kinase p85 alpha; SH3_PI3K_p85alpha; P85A_HUMAN; PI 3-kinase p85α; PI 3-kinase p85α; PI 3-kinase p85-α.
	Consider D. Construction (NCI 0129D by Language and Line) and Line (making a construction)
	<b>Specific References(6)</b>  SL0128R has been referenced in 6 publications.
	[IF=3.33]Xu, Hong-Wu, et al. "The expression of cytoglobin as a prognostic factor in
	gliomas: a retrospective analysis of 88 patients." BMC cancer 13.1 (2013): 247.IHC-
	P;Human.
	PubMed:23688241
	[IF=1.84]Sun, Yan, et al. "Thyroid hormone inhibits the proliferation of piglet Sertoli
文献引用	cell via PI3K signaling pathway." Theriogenology (2014). WB;
Pub Med	PubMed:25284282
:	[IF=2.56]Xu, C., et al. "Proteomics Analysis of Hepatocyte Proliferation Regulated by
	FGF, PDGF, Insulin, Oncostatin M and Interleukin 2 Signaling Pathways during Rat
	Liver Regeneration." J Proteomics Computational Biol 1.1 (2014): 8.WB;Rat.
	PubMed:not posted yet
	[IF=1.28] An, Xinjiang, et al. "Role of the PTEN/PI3K/VEGF pathway in the
	development of Kawasaki disease." Experimental and therapeutic medicine 11.4 (2016):
	1318-1322.IHC-P;Rabbit.

	PubMed:27073442
	[IF=2.94] Tian, L-Y., et al. "Anti-diabetic effect of methylswertianin and bellidifolin
	from Swertia punicea Hemsl. and its potential mechanism." Phytomedicine 17.7 (2010):
	533-539.IHC-P, WB;Mouse.
	<u>PubMed:19962285</u>
	[IF=3.06]Bai, Xue, et al. "Effects of water extract and crude polysaccharides from
	Liriope spicata var. prolifera on InsR/IRS-1/PI3K pathway and glucose metabolism in
	mice." Journal of ethnopharmacology 125.3 (2009): 482-486.IHC-P;Mouse.
Organism Species:	PubMed:19607904  Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Chicken, Dog, Cow, Horse,
2 Control of Process	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-
Applications:	Cyt=1µg/TestIF=1:100-500 (Paraffin sections need antigen repair)
	not yet tested in other applications.
	optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	80kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human PI3 kinase p85 subunit alpha:501-600/724
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20 °C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The enzyme phosphatidylinositol 3 kinase (PI3 kinase) is a lipid kinase that generates phosphatidylinositol 3, 4, 5-triphosphate in response to receptor activation in many signal transduction pathways. Class IA PI3Ks exist as a heterodimer of a catalytic 110 kDa (p110) and a regulatory p85 subunit (e.g. p85 alpha). p85 alpha is an adaptor molecule that regulates the activity of the catalytic p110 subunit by binding to phosphorylated receptor tyrosine kinases (RTKs) through its SH2 domain and mediating the interaction between p110 and the plasma membrane. p85 alpha is necessary for insulin-stimulated increase in glucose uptake and glycogen synthesis in insulin-sensitive tissues.
	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.

#### **Subunit:**

Heterodimer of a regulatory subunit PIK3R1 and a p110 catalytic subunit (PIK3CA, PIK3CB or PIK3CD). Interacts with FER. Interacts (via SH2 domain) with TEK/TIE2 (tyrosine phosphorylated). Interacts with PTK2/FAK1 (By similarity). Interacts with phosphorylated TOM1L1. Interacts with phosphorylated LIME1 upon TCR and/or BCR activation. Interacts with SOCS7. Interacts with RUFY3. Interacts (via SH2 domain) with CSF1R (tyrosine phosphorylated). Interacts with LYN (via SH3 domain); this enhances enzyme activity. 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. Interacts with FASLG, KIT and BCR. Interacts with AXL, FGFR1, FGFR2, FGFR3 and FGFR4 (phosphorylated). Interacts with FGR and HCK. Interacts with PDGFRA (tyrosine phosphorylated) and PDGFRB (tyrosine phosphorylated). Interacts with ERBB4 (phosphorylated). Interacts with NTRK1 (phosphorylated upon ligand-binding).

#### 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).

#### Post-translational modifications:

Polyubiquitinated in T-cells by CBLB; which does not promote proteasomal degradation but impairs association with CD28 and CD3Z upon T-cell activation.

Phosphorylated. Tyrosine phosphorylated in response to signaling by FGFR1, FGFR2, FGFR3 and FGFR4. Phosphorylated by CSF1R. Phosphorylated by ERBB4.

Phosphorylated on tyrosine residues by TEK/TIE2. Dephosphorylated by PTPRJ.

Phosphorylated by PIK3CA at Ser-608; phosphorylation is stimulated by insulin and PDGF. The relevance of phosphorylation by PIK3CA is however unclear.

Phosphorylated in response to KIT and KITLG/SCF. Phosphorylated by FGR.

#### Similarity:

Belongs to the PI3K p85 subunit family.

Contains 1 Rho-GAP domain.

Contains 2 SH2 domains.

Contains 1 SH3 domain.

#### **SWISS:**

P27986

# **Gene ID:** 5295

#### Database links:

Entrez Gene: 5295 Human

Entrez Gene: 18708Mouse

Entrez Gene: 25513Rat

Omim: 171833Human

SwissProt: P27986Human

SwissProt: P26450Mouse

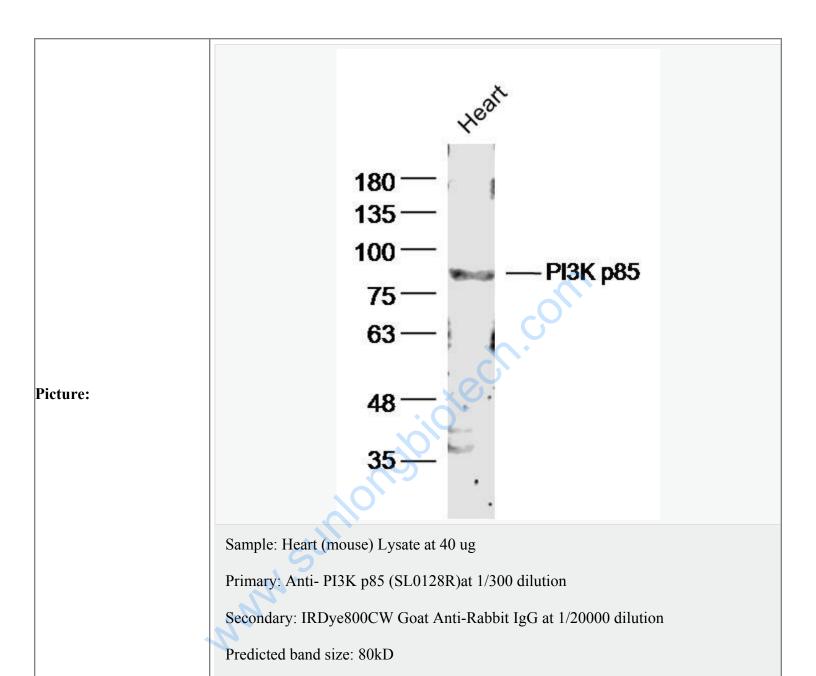
SwissProt: Q63787Rat

Unigene: 132225Human

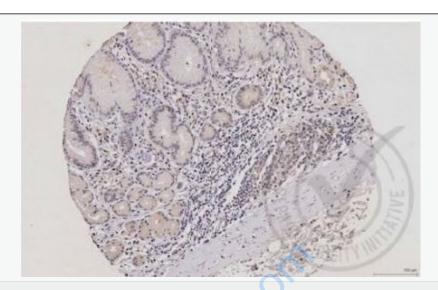
### Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

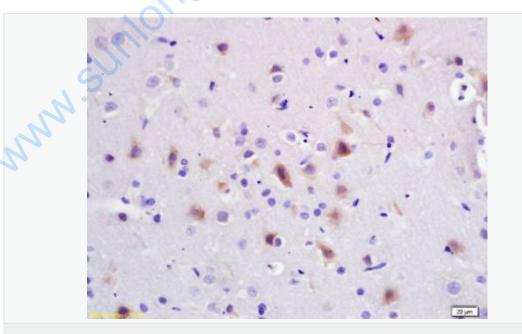
Kinases and Phosphatases (Kinases and Phosphatases)



Observed band size: 85 kD



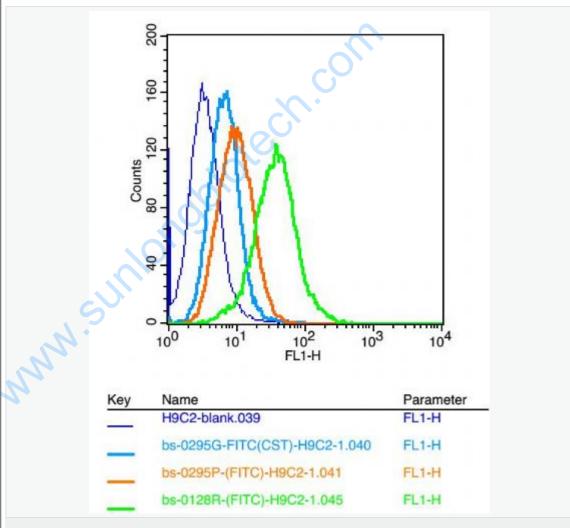
Images provided the Independent Validation Program (badge number 029650)Formalin-fixed and paraffin embedded human stomach labeled with Rabbit Anti-PI3 kinase p85 alpha subunit Polyclonal Antibody (SL0128R) at 1:250 overnight at room temperature followed by conjugation to secondary antibody.



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block

endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-PI3K/PI3 kinase p85 alpha subunit Polyclonal Antibody, Unconjugated(SL0128R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Positive control: (mo)H9C2(2% Paraformaldehyde-fixed )

Isotype Control Antibody

Antibody: Rabbit IgG; Dilution: 1µg in 100 µl 1 X PBS containing 0.5% BSA

Secondary Antibody

Antibody: Goat anti-rabbit IgG-FITC; Dilution: 1:200 in 1 X PBS containing 0.5%

BSA

Primary Antibody

Supplier catalog number: bs-1297R; Dilution: 1µg in 100 µl 1X PBS containing

www.surilongbiotech.com

0.5% BSA