



Rabbit Anti-PI3 Kinase p110 beta antibody

SL10657R

Product Name:	PI3 Kinase p110 beta
Chinese Name:	磷脂酰肌醇激酶 (PI3K β) 抗体
Alias:	PI3-kinase p110 subunit beta; p110 BETA; p110Beta; PI3K beta; Phosphatidylinositol 3 kinase catalytic beta polypeptide; Phosphatidylinositol 4 5 bisphosphate 3 kinase 110 kDa catalytic subunit beta; Phosphatidylinositol 4 5 bisphosphate 3 kinase catalytic subunit beta isoform; Phosphatidylinositol-4; Phosphoinositide 3 kinase catalytic beta polypeptide; PI3 kinase p110 subunit beta; PI3-kinase subunit beta; PI3K; PI3K beta; PI3K-beta; PI3Kbeta; PI3KCB; PIK3C1; Pik3cb; PK3CB_HUMAN; PtdIns 3 kinase p110; PtdIns-3-kinase subunit beta; PtdIns-3-kinase subunit p110-beta; 5-bisphosphate 3-kinase 110 kDa catalytic subunit beta; 5-bisphosphate 3-kinase catalytic subunit beta isoform.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Cow,Horse,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=3ug/testICC=1:100-500IF=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:	123kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human PI3 Kinase p110 beta:971-1070/1070
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:	<p>This gene encodes an isoform of the catalytic subunit of phosphoinositide 3-kinase (PI3K). These kinases are important in signaling pathways involving receptors on the outer membrane of eukaryotic cells and are named for their catalytic subunit. The encoded protein is the catalytic subunit for PI3Kbeta (PI3KB). PI3KB has been shown to be part of the activation pathway in neutrophils which have bound immune complexes at sites of injury or infection. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2011].</p> <p>Function: Phosphoinositide-3-kinase (PI3K) that phosphorylates PtdIns (Phosphatidylinositol), PtdIns4P (Phosphatidylinositol 4-phosphate) and PtdIns(4,5)P2 (Phosphatidylinositol 4,5-bisphosphate) to generate phosphatidylinositol 3,4,5-trisphosphate (PIP3). PIP3 plays a key role by recruiting PH domain-containing proteins to the membrane, including AKT1 and PDK1, activating signaling cascades involved in cell growth, survival, proliferation, motility and morphology. Involved in the activation of AKT1 upon stimulation by G-protein coupled receptors (GPCRs) ligands such as CXCL12, sphingosine 1-phosphate, and lysophosphatidic acid. May also act downstream receptor tyrosine kinases. Required in different signaling pathways for stable platelet adhesion and aggregation. Plays a role in platelet activation signaling triggered by GPCRs, alpha-IIb/beta-3 integrins (ITGA2B/ ITGB3) and ITAM (immunoreceptor tyrosine-based activation motif)-bearing receptors such as GP6. Regulates the strength of adhesion of ITGA2B/ ITGB3 activated receptors necessary for the cellular transmission of contractile forces. Required for platelet aggregation induced by F2 (thrombin) and thromboxane A2 (TXA2). Has a role in cell survival. May have a role in cell migration. Involved in the early stage of autophagosome formation. Modulates the intracellular level of PtdIns3P (Phosphatidylinositol 3-phosphate) and activates PIK3C3 kinase activity. May act as a scaffold, independently of its lipid kinase activity to positively regulate autophagy. May have a role in insulin signaling as scaffolding protein in which the lipid kinase activity is not required. May have a kinase-independent function in regulating cell proliferation and in clathrin-mediated endocytosis. Mediator of oncogenic signal in cell lines lacking PTEN. The lipid kinase activity is necessary for its role in oncogenic transformation. Required for the growth of ERBB2 and RAS driven tumors.</p> <p>Subunit: Heterodimer of a catalytic subunit PIK3CB and a p85 regulatory subunit (PIK3R1, PIK3R2 or PIK3R3). Interaction with PIK3R2 is required for nuclear localization and nuclear export. Part of a complex with PIK3R1 and PTEN. Binding to PTEN may antagonize the lipid kinase activity under normal growth conditions. Part of a complex involved in autophagosome formation composed of PIK3C3 and PIK3R4. Interacts with BECN1, ATG14 and RAB5A.</p> <p>Subcellular Location: Cytoplasm. Nucleus. Note=Interaction with PIK3R2 is required for nuclear localization and export.</p>

Tissue Specificity:

Expressed ubiquitously.

Post-translational modifications:

Phosphorylation at Ser-1070 down-regulates lipid kinase activity.

Similarity:

Belongs to the PI3/PI4-kinase family.

Contains 1 C2 PI3K-type domain.

Contains 1 PI3K-ABD domain.

Contains 1 PI3K-RBD domain.

Contains 1 PI3K/PI4K domain.

Contains 1 PIK helical domain.

SWISS:

P42338

Gene ID:

5291

Database links:

[Entrez Gene: 5291](#)Human

[Entrez Gene: 74769](#)Mouse

[Entrez Gene: 85243](#)Rat

[Oimim: 602925](#)Human

[SwissProt: P42338](#)Human

[SwissProt: Q24JU2](#)Human

[SwissProt: Q3U4Q1](#)Mouse

[SwissProt: Q8BTI9](#)Mouse

[SwissProt: Q9Z1L0](#)Rat

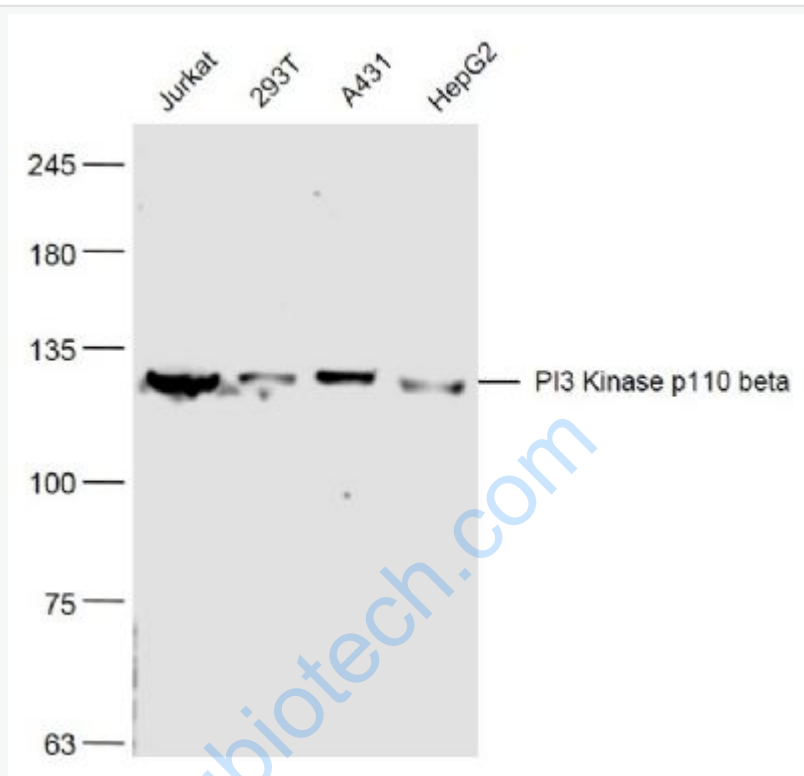
[Unigene: 239818](#)Human

[Unigene: 213128](#)Mouse

[Unigene: 44268](#)Rat

Important Note:

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



Picture:

Sample:

Jurkat(Human) Cell Lysate at 30 ug

293T(Human) Cell Lysate at 30 ug

A431(Human) Cell Lysate at 30 ug

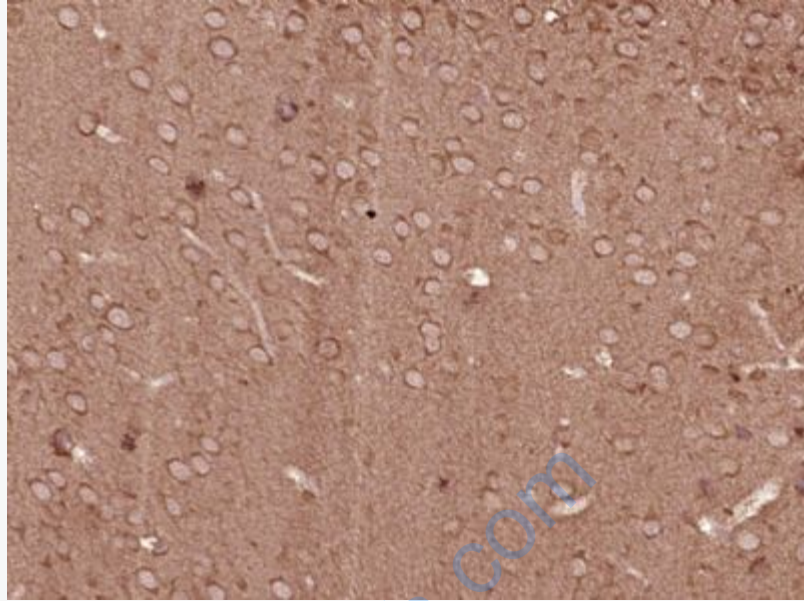
HepG2(Human) Cell Lysate at 30 ug

Primary: Anti- PI3 Kinase p110 beta (SL10657R) at 1/300 dilution

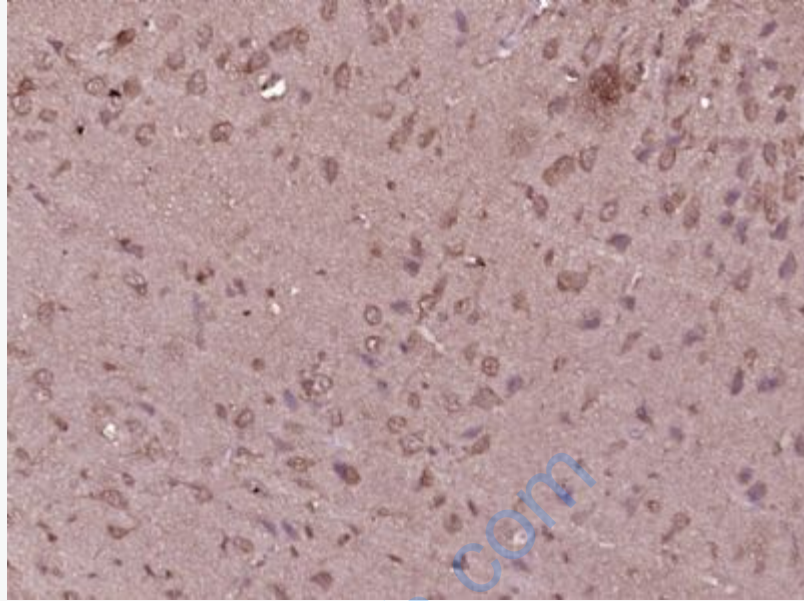
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 123 kD

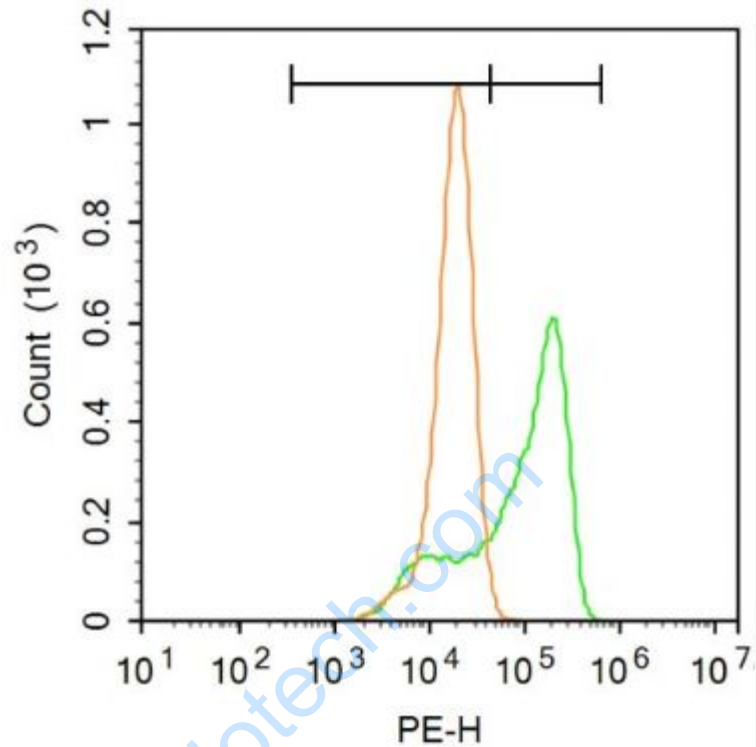
Observed band size: 123 kD



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PI3 Kinase p110 beta) Polyclonal Antibody, Unconjugated (SL10657R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PI3 Kinase p110 beta) Polyclonal Antibody, Unconjugated (SL10657R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Blank control:A549.

Primary Antibody (green line): Rabbit Anti-PI3 Kinase p110 beta antibody (SL10657R)

Dilution: 1 μ g /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-PE

Dilution: 3 μ g /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at-20°C. The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at at room temperature .Cells stained with Primary Antibody for 30 min at room

temperature. The secondary antibody used for 40 min at room temperature.

Acquisition of 20,000 events was performed.

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