

**Product Name: PI 3-kinase p85 $\alpha$  Rabbit Polyclonal Antibody**  
**Catalog #: APRab16101**



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## Summary

|                        |   |
|------------------------|---|
| <b>Production Name</b> | PI 3-kinase p85 $\alpha$ Rabbit Polyclonal Antibody |
| <b>Description</b>     | Rabbit Polyclonal Antibody                          |
| <b>Host</b>            | Rabbit  |
| <b>Application</b>     | IF,IHC,WB,  |
| <b>Reactivity</b>      | Human,Mouse,Rat                                     |

## Performance

|                     |  |
|---------------------|--|
| <b>Conjugation</b>  | Unconjugated   |
| <b>Modification</b> | Unmodified   |
| <b>Isotype</b>      | IgG  |
| <b>Clonality</b>    | Polyclonal   |
| <b>Form</b>         | Liquid   |
| <b>Storage</b>      | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. |
| <b>Buffer</b>       | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.       |
| <b>Purification</b> | Affinity purification  |

## Immunogen

|                          |   |
|--------------------------|---|
| <b>Gene Name</b>         | PIK3R1  |
| <b>Alternative Names</b> | PIK3R1; GRB1; 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 |
| <b>Gene ID</b>           | 5295.0  |
| <b>SwissProt ID</b>      | P27986.The antiserum was produced against synthesized peptide derived from human PI3-kinase p85-alpha. AA range:573-622   |

## Application

|                       |   |
|-----------------------|---|
| <b>Dilution Ratio</b> | WB 1:500 - 1:2000 IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:5000. Not yet tested |
|-----------------------|---|

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in other applications.

**Molecular Weight** 85kD

## Background

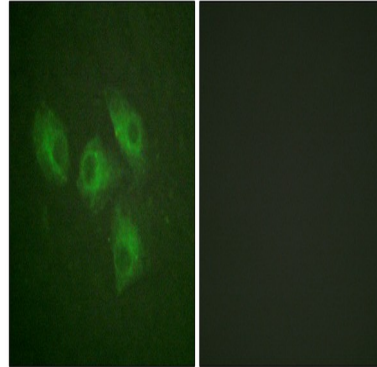
Phosphatidylinositol 3-kinase phosphorylates the inositol ring of phosphatidylinositol at the 3-prime position. The enzyme comprises a 110 kD catalytic subunit and a regulatory subunit of either 85, 55, or 50 kD. This gene encodes the 85 kD regulatory subunit. Phosphatidylinositol 3-kinase plays an important 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],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 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),,

## Research Area

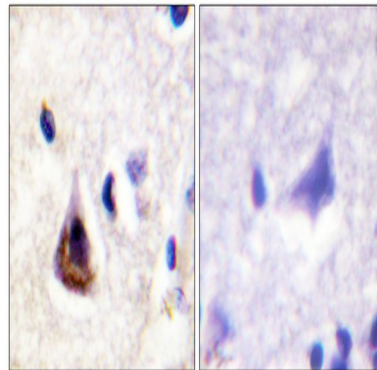
Regulates Angiogenesis; Regulation\_Microtubule; Regulation of Actin Dynamics; SAPK\_JNK; Stem cell pathway; Insulin Receptor; ErbB/HER; AMPK; mTOR; B Cell Receptor; Adherens\_Junction

## Image Data

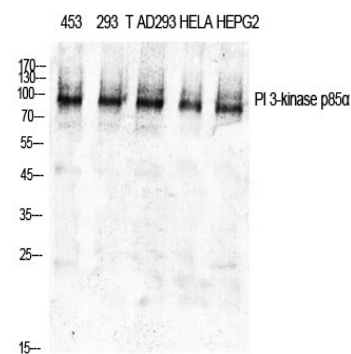
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Immunofluorescence analysis of HeLa cells, using PI3-kinase p85-alpha Antibody. The picture on the right is blocked with the synthesized peptide.

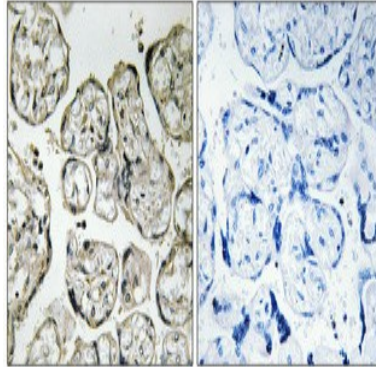


Immunohistochemistry analysis of paraffin-embedded human brain tissue, using PI3-kinase p85-alpha Antibody. The picture on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using PI 3-kinase p85 $\alpha$  Polyclonal Antibody diluted at 1 : 1000

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Immunohistochemical analysis of paraffin-embedded Human placenta. Antibody was diluted at 1:100 (4 $^{\circ}$ , overnight) . High-pressure and temperature Tris-EDTA, pH8.0 was used for antigen retrieval. Negative control (right) obtained from antibody was pre-absorbed by immunogen peptide.

### **Note**

For research use only.