abcam

ab278733

# APC Anti-PI3K p85 (phospho Y467) + PI3 Kinase p55 (phospho Y199) antibody [PI3KY458-1A11]

Recombinant

## Key facts

| | |
|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Conjugation** | APC |
| **Excitation/Emission** | Ex: 650nm, Em: 660nm |
| **Storage buffer** | Preservative: 0.09% Sodium azide Constituents: PBS, 0.2% BSA |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | Synthetic Peptide within Human PIK3R1 pY467. The exact immunogen used to generate this antibody is proprietary information. Database link P27986 |
| **Clone number** | PI3KY458-1A11 |
| **Purification technique** | Affinity purification Protein A/G |
| **Specificity** | Recent data suggests this antibody can recognize PI 3 Kinase p85 and p55. |
| **Light chain type** | kappa |

## Reactivity data

## Flow Cyt

**Tested**

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 5 µL for $10^6$ Cells |
| **Notes** | - |

## Target data

See full target information PIK3R1 pY467

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|---|---|
| **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. Plays an important role in signaling in response to FGFR1, FGFR2, FGFR3, FGFR4, KITLG/SCF, KIT, PDGFRA and PDGFRB. Likewise, plays a role in ITGB2 signaling (PubMed:17626883, PubMed:19805105, PubMed:7518429). Modulates the cellular response to ER stress by promoting nuclear translocation of XBP1 isoform 2 in a ER stress- and/or insulin-dependent manner during metabolic overloading in the liver and hence plays a role in glucose tolerance improvement (PubMed:20348923). |

## Storage

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|---|---|
| **Shipped at conditions** | Blue Ice |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | +4°C |
| **Storage information** | Store in the dark |

## Notes

**What are the advantages of a recombinant monoclonal antibody?**
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

## Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

| | |
|---|---|
| **Activity summary** | The PI 3 Kinase p85 alpha also known as PI3K p85 or PI3-kinase p85 is a regulatory subunit part of the phosphoinositide 3-kinases (PI3Ks) complex which is integral to cellular functions. The p85 alpha form partners with the catalytic subunit to form PI3K p55 known for its significant role in signaling. This subunit exhibits a molecular weight of approximately 85 kDa. It shows expression in various tissues including liver muscle and brain where it aids in cellular communication responding to extracellular signals. |
| **Biological function summary** | PI 3 Kinase p85 alpha plays an essential role in intracellular signaling where it functions as part of the PI3K complex. It functions to regulate metabolic processes by interacting with phosphatidylinositol lipids in the cell membrane. PI3K p55 form contributes to cell growth survival and proliferation often collaborating with the catalytic subunit p110 to execute these functions. The phospho PI3K form becomes active upon receiving external growth factors facilitating downstream signaling. |
| **Pathways** | The involvement of PI 3 Kinase p85 alpha extends to critical cellular pathways like the PI3K/AKT pathway and the insulin signaling pathway. It engages with proteins such as AKT (protein kinase B) and IRS-1 linking to various cellular functions including metabolism protein synthesis and cellular proliferation. The activity of PI3K p55 form regulates these pathways by influencing enzyme activity and pathways associated with cell survival and apoptosis. |
| **Associated diseases and disorders** | Dysregulation of PI 3 Kinase p85 alpha associates closely with cancers and metabolic disorders like type 2 diabetes. Aberrations in the p55 form link to tumorigenesis due to its role in uncontrolled cell proliferation. PI3K pathway disorders also relate to insulin resistance where the malfunction of PI3K components disrupts normal glucose uptake and insulin signaling. This target when interacting with proteins like PTEN further influences the development of cancer highlighting its critical role in both oncogenic and metabolic pathologies. |

## Product promise

**Tested**

We have tested this species and application combination and it works. It is covered by our product promise.

**Expected**

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

**Predicted**

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

**Not recommended**

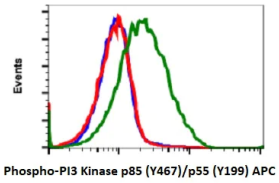
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

## 1 product image




### Flow Cytometry - APC Anti-PI3K p85 (phospho Y467) + PI3 Kinase p55 (phospho Y199) antibody [PI3KY458-1A11] (ab278733)

Flow cytometric analysis of Ramos cells untreated and unstained as negative control (blue) or untreated (red) or treated with pervanadate (green) and stained using ab278733.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.