

**Anti-PI 3 Kinase p85 Alpha Antibody**  
Catalog # ABO10732**Specification****Anti-PI 3 Kinase p85 Alpha Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P27986</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Phosphatidylinositol 3-kinase regulatory subunit alpha(PIK3R1) detection. Tested with WB in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-PI 3 Kinase p85 Alpha Antibody - Additional Information**

**Gene ID** 5295

**Other Names**

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-alpha, PtdIns-3-kinase regulatory subunit p85-alpha, PIK3R1, GRB1

**Calculated MW**

83598 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse<br>

**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). .

**Protein Name**

Phosphatidylinositol 3-kinase regulatory subunit alpha(PI3-kinase regulatory subunit alpha/PI3K regulatory subunit alpha/PtdIns-3-kinase regulatory subunit alpha)

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the N-terminus of human PI 3 Kinase p85 alpha(65-80aa ERGDFPGTYVEYIGRK), identical to the related rat and mouse sequences.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

**Sequence Similarities**

Belongs to the PI3K p85 subunit family.

**Anti-PI 3 Kinase p85 Alpha Antibody - Protein Information**

**Name** PIK3R1

**Synonyms** GRB1

**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:<a href="http://www.uniprot.org/citations/17626883" target="\_blank">17626883</a>, PubMed:<a href="http://www.uniprot.org/citations/19805105" target="\_blank">19805105</a>, PubMed:<a href="http://www.uniprot.org/citations/7518429" target="\_blank">7518429</a>). 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:<a href="http://www.uniprot.org/citations/20348923" target="\_blank">20348923</a>).

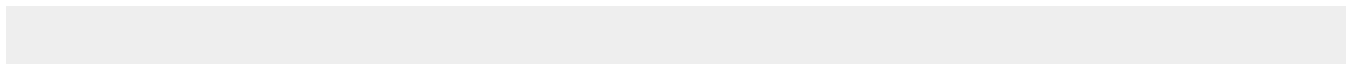
**Tissue Location**

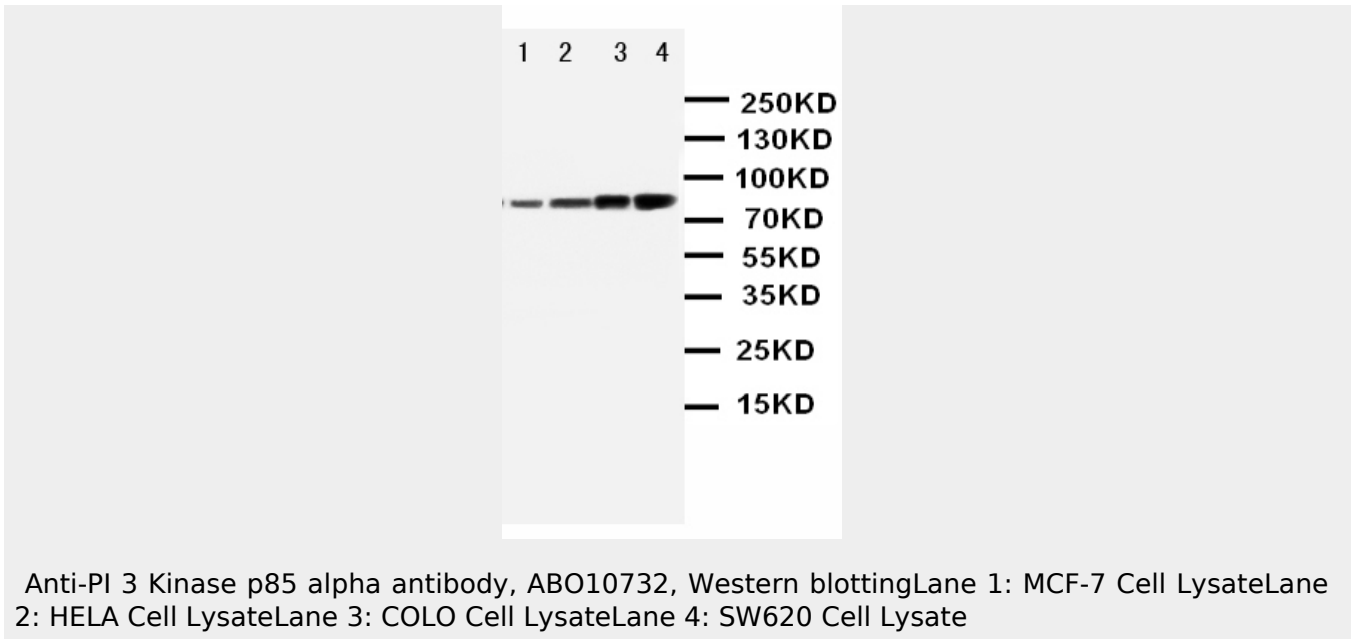
Isoform 2 is expressed in skeletal muscle and brain, and at lower levels in kidney and cardiac muscle. Isoform 2 and isoform 4 are present in skeletal muscle (at protein level)

**Anti-PI 3 Kinase p85 Alpha Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-PI 3 Kinase p85 Alpha Antibody - Images**



### Anti-PI 3 Kinase p85 Alpha Antibody - Background

Phosphatidylinositol 3-kinase regulatory subunit alpha is an enzyme that in humans is encoded by the PIK3R1 gene. Its gene is mapped to 5q13. The bovine PI3K p85 subunit consists of 2 closely related proteins, p85-alpha and p85-beta. They cloned cDNAs encoding both p85 subunits, each of which is a 724-amino acid polypeptide. 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.