

Anti-PI 3 Kinase p85 Alpha Antibody
Catalog # ABO10732

Specification

Anti-PI 3 Kinase p85 Alpha Antibody - Product Information

Application	WB
Primary Accession	P27986
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

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 Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

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: [17626883](http://www.uniprot.org/citations/17626883), PubMed: [19805105](http://www.uniprot.org/citations/19805105), PubMed: [7518429](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/20348923)).

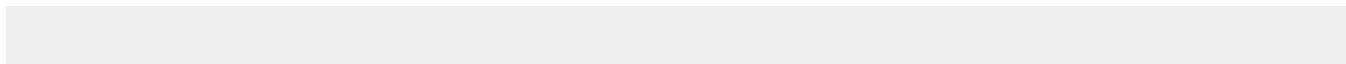
Tissue Location

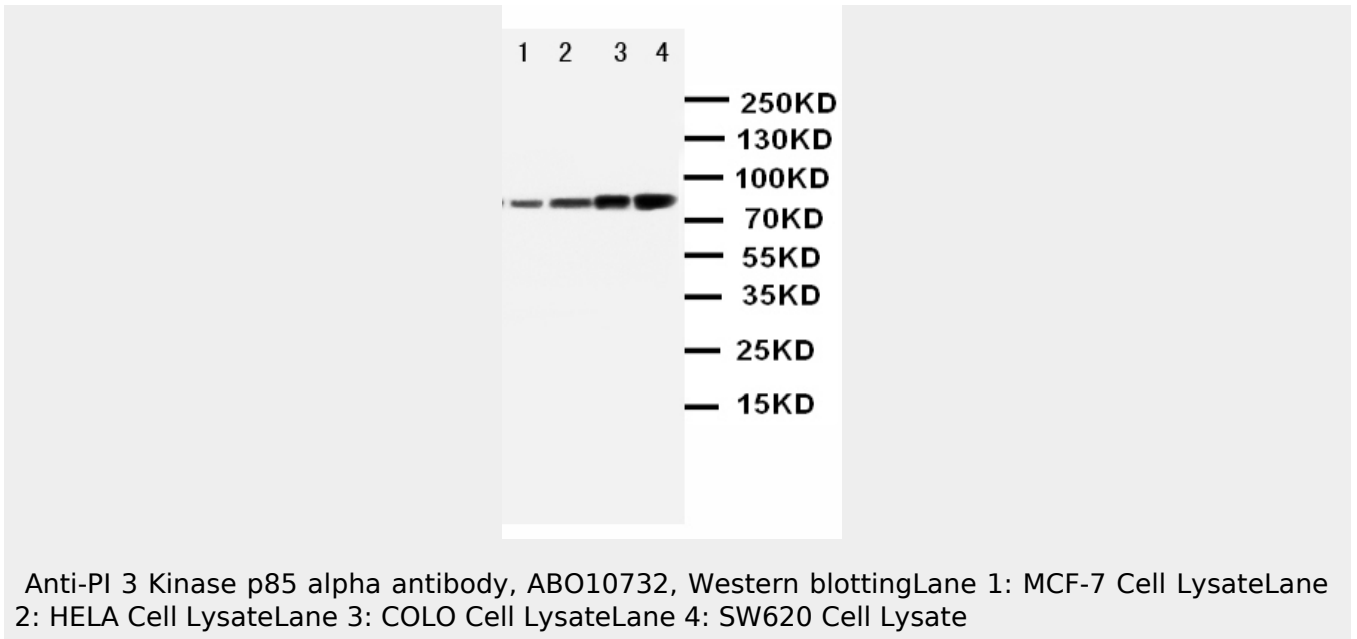
Isoform 2 is expressed in skeletal muscle and brain, and at lower levels in kidney and cardiac muscle. Isoform 2 and isoform 4 are present in skeletal muscle (at protein level)

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.