

# PI3 Kinase P85α Monoclonal Antibody(2D2)

Catalog # AP63636

#### Specification

# PI3 Kinase P85α Monoclonal Antibody(2D2) - Product Information

Application Primary Accession Reactivity Host Clonality WB, IHC-P <u>P27986</u> Rat, Mouse Mouse Monoclonal

### PI3 Kinase P85α Monoclonal Antibody(2D2) - Additional Information

Gene ID 5295

**Other Names** 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; PI3-kinase subunit p85-alpha; PtdIns-3-kinase regulatory subunit p85-alpha

Dilution WB~~WB 1:1000-2000, IHC 1:100-200 IHC-P~~N/A

**Format** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions -20°C

### PI3 Kinase P85α Monoclonal Antibody(2D2) - 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/17626883" target="\_blank">19805105</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**

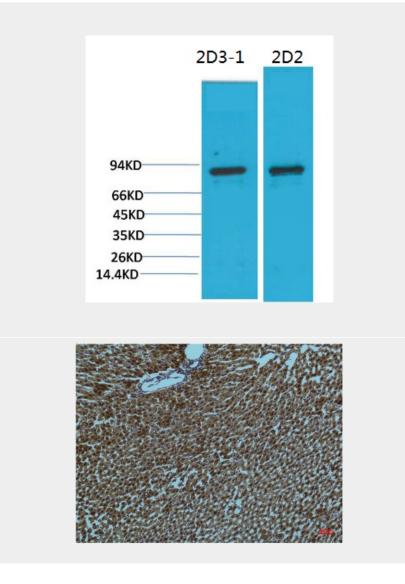
Isoform 2 is expressed in skeletal muscle and brain, and at lower levels in kidney and cardiac muscle. Isoform 2 and isoform 4 are present in skeletal muscle (at protein level)

## PI3 Kinase P85α Monoclonal Antibody(2D2) - Protocols

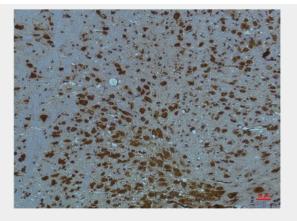
Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## PI3 Kinase P85α Monoclonal Antibody(2D2) - Images







# PI3 Kinase P85α Monoclonal Antibody(2D2) - Background

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).