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PIK3R1 Antibody (Y580)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8023f

Specification

PIK3R1 Antibody (Y580) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	P27986
Other Accession	Q63787, P26450, P23727, Q8UUU2
Reactivity	**Human**
Predicted	**Xenopus, Bovine, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**558-587**

PIK3R1 Antibody (Y580) - 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

Target/Specificity
This PIK3R1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 558-587 amino acids from human PIK3R1.

Dilution
WB~~1:1000
IHC-P~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
PIK3R1 Antibody (Y580) is for research use only and not for use in diagnostic or therapeutic procedures.

PIK3R1 Antibody (Y580) - Protein Information

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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, 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).

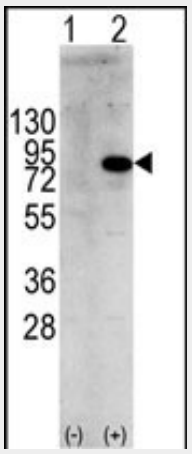
Tissue Location
Isoform 2 is expressed in skeletal muscle and brain, and at lower levels in kidney and cardiac muscle. Isoform 2 and isoform 4 are present in skeletal muscle (at protein level)

PIK3R1 Antibody (Y580) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PIK3R1 Antibody (Y580) - Images



Western blot analysis of PIK3R1 (arrow) using rabbit polyclonal PIK3R1 Antibody (Y580) (Cat.#AP8023f). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the PIK3R1 gene (Lane 2) (Origene Technologies).

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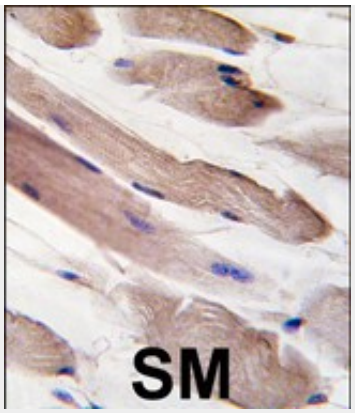

Formalin-fixed and paraffin-embedded human skeletal muscle tissue reacted with PIK3R1-pY580, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

PIK3R1 Antibody (Y580) - 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.

PIK3R1 Antibody (Y580) - References

Kobayashi, H., et al., J. Biol. Chem. 279(8):6371-6379 (2004).
Liu, H., et al., J. Cell Biol. 164(4):603-612 (2004).
Sun, M., et al., J. Biol. Chem. 278(44):42992-43000 (2003).
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Lee, H.Y., et al., J. Biol. Chem. 278(26):23630-23638 (2003).