

PIK3R1 Antibody (Y580)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8023f

Specification

PIK3R1 Antibody (Y580) - Product Information

Application	IHC-P, WB,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

IHC-P~1:10~50

WB~1:1000

E~~Use at an assay dependent concentration.

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

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

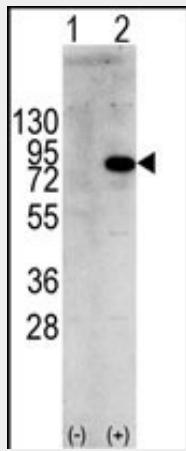
Isoform 2 is expressed in skeletal muscle and brain, and at lower levels in kidney and cardiac muscle. Isoform 2 and isoform 4 are present in skeletal muscle (at protein level)

PIK3R1 Antibody (Y580) - Protocols

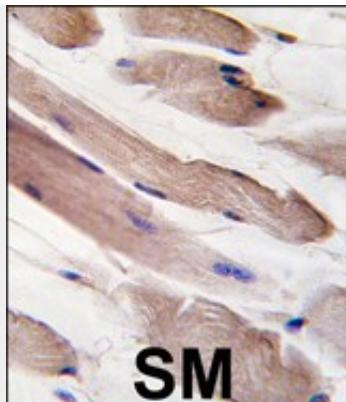
Provided below are standard protocols that you may find useful for product applications.

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



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).
- Khan, N.A., et al., *J. Neurovirol.* 9(6):584-593 (2003).
- Lee, H.Y., et al., *J. Biol. Chem.* 278(26):23630-23638 (2003).