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Phospho-PIK3R1(Y528) Antibody Blocking peptide
Synthetic peptide
Catalog # BP3580a

Specification

Phospho-PIK3R1(Y528) Antibody Blocking peptide - Product Information

Primary Accession P27986

Phospho-PIK3R1(Y528) Antibody Blocking peptide - 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
The synthetic peptide sequence used to generate the antibody AP3580a was selected from the region of human Phospho-PIK3R1-pY528. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Phospho-PIK3R1(Y528) Antibody Blocking peptide - 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:<a

href="http://www.uniprot.org/citations/7518429" target="_blank">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)

Phospho-PIK3R1(Y528) Antibody Blocking peptide - Protocols

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

- Blocking Peptides

Phospho-PIK3R1(Y528) Antibody Blocking peptide - Images

Phospho-PIK3R1(Y528) Antibody Blocking peptide - 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 antibody is directed against an epitope in the 85 kD regulatory subunit. Phosphatidylinositol 3-kinase plays an important role in the metabolic actions of insulin, and a mutation in the gene has been associated with insulin resistance.

Phospho-PIK3R1(Y528) Antibody Blocking peptide - References

Rikova K, et al. Cell 131, 1190-203 Kwon M, et al. (2006) Endocrinology 147, 1458-65