

PIK3R1/2 Blocking Peptide (Center)
Synthetic peptide
Catalog # BP20767c**Specification**

PIK3R1/2 Blocking Peptide (Center) - Product Information

Primary Accession [P27986](#)
Other Accession [O00459](#), [P23726](#), [Q63787](#), [P26450](#), [P23727](#),
[Q8UUU2](#)

PIK3R1/2 Blocking Peptide (Center) - 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 is selected from aa 337-350 of HUMAN PIK3R1

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.

PIK3R1/2 Blocking Peptide (Center) - 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)

PIK3R1/2 Blocking Peptide (Center) - Protocols

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

- [Blocking Peptides](#)

PIK3R1/2 Blocking Peptide (Center) - Images

PIK3R1/2 Blocking Peptide (Center) - 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.

PIK3R1/2 Blocking Peptide (Center) - References

Skolnik E.Y.,et al.Cell 65:83-90(1991).
Antonetti D.A.,et al.Mol. Cell. Biol. 16:2195-2203(1996).
Udelhoven M.,et al.Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Totoki Y.,et al.Submitted (APR-2005) to the EMBL/GenBank/DDBJ databases.