

**PIK3R1/2 Blocking Peptide (Center)**Synthetic peptide  
Catalog # BP20768c**Specification****PIK3R1/2 Blocking Peptide (Center) - Product Information**Primary Accession [P27986](#)  
Other Accession [Q00459](#), [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****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.

**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/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)

**PIK3R1/2 Blocking Peptide (Center) - Protocols**

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

- [Blocking Peptides](#)