

Phospho-PIK3R2(Y464) Antibody Blocking peptide
Synthetic peptide
Catalog # BP3494a**Specification****Phospho-PIK3R2(Y464) Antibody Blocking peptide - Product Information**Primary Accession [O00459](#)**Phospho-PIK3R2(Y464) Antibody Blocking peptide - Additional Information****Gene ID** 5296**Other Names**

Phosphatidylinositol 3-kinase regulatory subunit beta, PI3-kinase regulatory subunit beta, PI3K regulatory subunit beta, PtdIns-3-kinase regulatory subunit beta, Phosphatidylinositol 3-kinase 85 kDa regulatory subunit beta, PI3-kinase subunit p85-beta, PtdIns-3-kinase regulatory subunit p85-beta, PIK3R2

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP3494a](/product/products/AP3494a) was selected from the region of human Phospho-PIK3R2-pY467. 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-PIK3R2(Y464) Antibody Blocking peptide - Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the γ phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. PIK3R2 binds to activated Protein Tyrosine Kinases, which are phosphorylated, through its SH2 domain, and acts as an adaptor, mediating the association of the P110 catalytic unit to the plasma membrane.

Phospho-PIK3R2(Y464) Antibody Blocking peptide - References

Khan, N.A., et al., J. Neurovirol. 9(6):584-593 (2003). Deregibus, M.C., et al., J. Biol. Chem. 277(28):25195-25202 (2002). Cook, J.A., et al., J. Immunol. 169(1):254-260 (2002). Park, I.W., et al., Blood 97(2):352-358 (2001). Zauli, G., et al., FASEB J. 15(2):483-491 (2001).

Phospho-PIK3R2(Y464) Antibody Blocking peptide - Protein Information**Name** PIK3R2**Function**

Regulatory subunit of phosphoinositide-3-kinase (PI3K), a kinase that phosphorylates PtdIns(4,5)P2 (Phosphatidylinositol 4,5- biphosphate) to generate phosphatidylinositol 3,4,5-trisphosphate (PIP3). PIP3 plays a key role by recruiting PH domain-containing proteins to the membrane, including AKT1 and PDK1, activating signaling cascades involved in cell growth, survival, proliferation, motility and morphology. Binds to activated (phosphorylated) protein-tyrosine kinases, through its SH2 domain, and acts as an adapter, mediating the association of the p110 catalytic unit to the plasma membrane. Indirectly regulates autophagy (PubMed: [23604317](http://www.uniprot.org/citations/23604317)). Promotes 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 (By similarity).

Phospho-PIK3R2(Y464) Antibody Blocking peptide - Protocols

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

- [Blocking Peptides](#)