

Phospho-PIK3R2(Y464) Antibody
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3494a

Specification

Phospho-PIK3R2(Y464) Antibody - Product Information

Application	WB, DB,E
Primary Accession	O00459
Other Accession	Q63788 , O08908 , P23726
Reactivity	Human
Predicted	Bovine, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	81545

Phospho-PIK3R2(Y464) Antibody - 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

This PIK3R2 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding Y464 of human PIK3R2.

Dilution

WB~~1:1000
DB~~1:500

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

Phospho-PIK3R2(Y464) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Phospho-PIK3R2(Y464) Antibody - Protein Information

Name PIK3R2

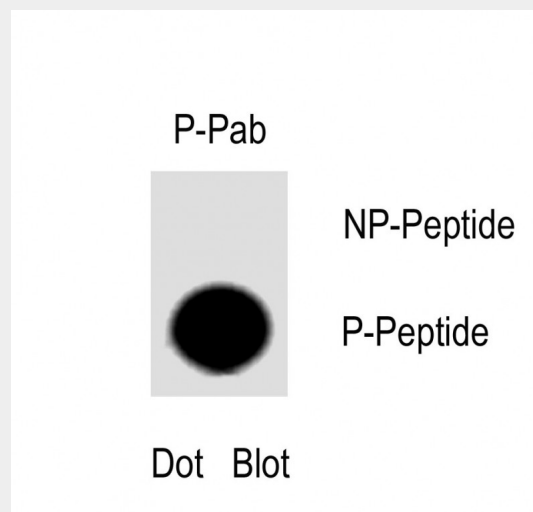
Function Regulatory subunit of phosphoinositide-3-kinase (PI3K), a kinase that phosphorylates PtdIns(4,5)P₂ (Phosphatidylinositol 4,5- biphosphate) to generate phosphatidylinositol 3,4,5-trisphosphate (PIP₃). PIP₃ plays a key role by recruiting PH domain-containing proteins to the membrane, including 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](#)). 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 - Protocols

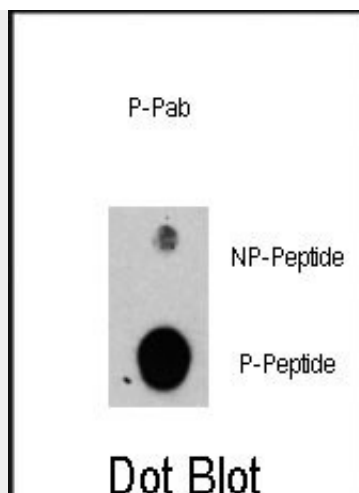
Provided below are standard protocols that you may find useful for product applications.

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

Phospho-PIK3R2(Y464) Antibody - Images



Dot blot analysis of Phospho-PIK3R2(Y464) Antibody Phospho-specific Pab (Cat. AP3494a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibodies working concentration was 0.5 µg per ml



Dot blot analysis of anti-PIK3R2-pY464 Pab (Cat. #AP3494a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.

Phospho-PIK3R2(Y464) Antibody - 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 - 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).