

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

**Specification**

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**Phospho-PIK3R2(Y464) Antibody - Product Information**

Application	WB, DB,E
Primary Accession	<a href="#">O00459</a>
Other Accession	<a href="#">Q63788</a> , <a href="#">O08908</a> , <a href="#">P23726</a>
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

E~~Use at an assay dependent concentration.

**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**

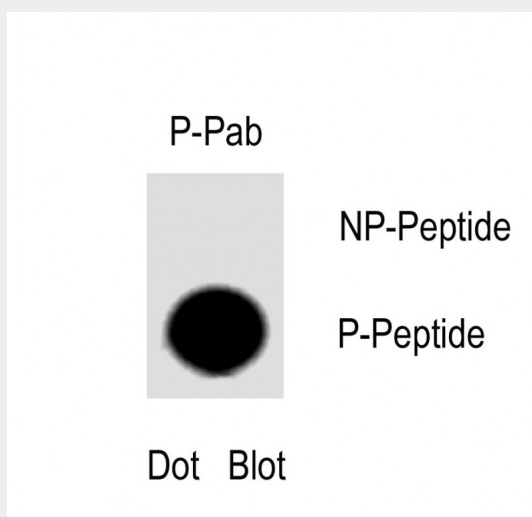
**Name** PIK3R2

**Function** Regulatory subunit of phosphoinositide-3-kinase (PI3K), a kinase that phosphorylates PtdIns(4,5)P<sub>2</sub> (Phosphatidylinositol 4,5- biphosphate) to generate phosphatidylinositol 3,4,5-trisphosphate (PIP<sub>3</sub>). PIP<sub>3</sub> 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).

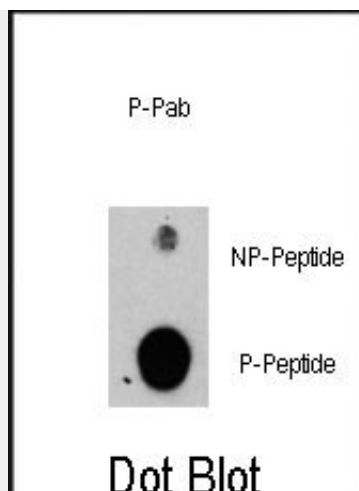
**Phospho-PIK3R2(Y464) Antibody - Protocols**

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  $\gamma$  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).