10320 Camino Santa Fe, Suite G
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PIK3R2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP8028a

Specification

PIK3R2 Antibody (N-term) - Product Information

Application	**WB, IHC-P,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**
Antigen Region	**1-30**

PIK3R2 Antibody (N-term) - 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 peptide between 1-30 amino acids from the N-terminal region of human PIK3R2.

Dilution
WB~~1:1000
IHC-P~~1:50~100

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

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

PIK3R2 Antibody (N-term) - Protein Information

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Name PIK3R2

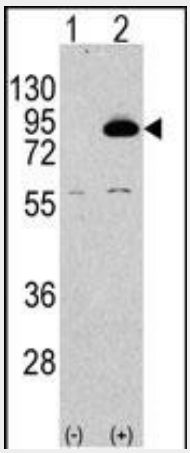
Function Regulatory subunit of phosphoinositide-3-kinase (PI3K), a kinase that phosphorylates PtdIns(4,5)P2 (Phosphatidylinositol 4,5- bisphosphate) to generate phosphatidylinositol 3,4,5-trisphosphate (PIP3). PIP3 plays a key role by recruiting PH domain-containing proteins to the membrane, including AKT1 and PDPK1, 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).

PIK3R2 Antibody (N-term) - Protocols

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

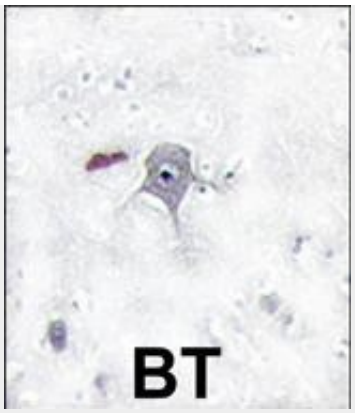
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PIK3R2 Antibody (N-term) - Images



Western blot analysis of PIK3R2 Antibody (N-term) polyclonal antibody(Cat.#AP8028a)(arrow). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the PIK3R2 gene (Lane 2) (Origene Technologies).

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Formalin-fixed and paraffin-embedded human brain tissue reacted with PIK3R2 Antibody (N-term)(Cat.#Ap8028a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

PIK3R2 Antibody (N-term) - Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g 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.

PIK3R2 Antibody (N-term) - 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).