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PIK3R2 Antibody (Y467)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8028c

Product Information

Application	WB, IHC-P, E
Primary Accession	O00459
Other Accession	Q63788, O08908, P23726
Reactivity	Human
Predicted	Bovine, Mouse, Rat, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB13091
Calculated MW	81545
Antigen Region	445-474

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 445-474 amino acids from human PIK3R2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. 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	PIK3R2 Antibody (Y467) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

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).

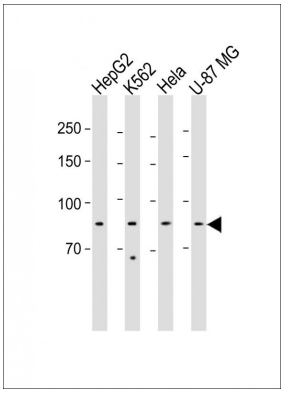
Background

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.

References

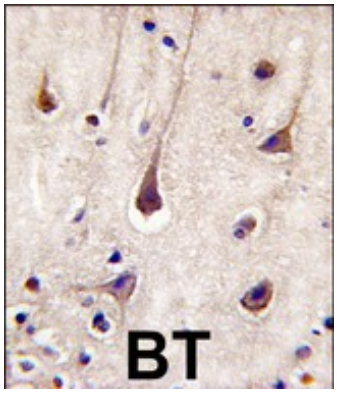
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Images



All lanes: Anti-PIK3R2 Antibody (Y467) at 1:1000 dilution Lane 1: HepG2 whole cell lysate Lane 2: K562 whole cell lysate Lane 3: Hela whole cell lysate Lane 4: U-87 MG whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 85 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

Formalin-fixed and paraffin-embedded human brain tissue reacted with PIK3R2-pY467, 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.



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