



PIP5KIII (phospho Ser307) Polyclonal Antibody

Catalog No	YP-Ab-14573
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	IHC;IF;ELISA
Gene Name	PIKFYVE
Immunogen	The antiserum was produced against synthesized peptide derived from human PIP5K around the phosphorylation site of Ser307. AA range:273-322
Specificity	Phospho-PIP5KIII (S307) Polyclonal Antibody detects endogenous levels of PIP5KIII protein only when phosphorylated at S307.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	CFD;FAB1;KIAA0981;PIKFYVE;PIP5K;PIP5K3;PIPkin III;Type III PIP kinase;1-phosphatidylinositol 3-phosphate 5-kinase;Phosphatidylinositol 3-phosphate 5-kinase;FYVE finger-containing phosphoinositide kinase;Phosphatidylinositol 3-phosphate 5-kinase type III;PIPkin-III;Type
Observed Band	
Calculated Molecular Weight	
Cell Pathway	Endosome membrane ; Peripheral membrane protein . Early endosome membrane ; Peripheral membrane protein. Cytoplasmic vesicle, phagosome membrane ; Peripheral membrane protein . Late endosome membrane ; Peripheral membrane protein . Mainly associated with membranes of the late endocytic pathway. .
Tissue Specificity	Brain,Epithelium,PCR rescued clones,T-cell,
Function	catalytic activity:ATP + 1-phosphatidyl-1D-myo-inositol 4-phosphate = ADP + 1-phosphatidyl-1D-myo-inositol 4,5-bisphosphate.,disease:Defects in PIKFYVE are the cause of corneal fleck dystrophy (CFD) [MIM:121850]. CFD is an autosomal dominant disorder of the cornea characterized by numerous small



white flecks scattered in all levels of the stroma. Although CFD may occasionally cause mild photophobia, patients are typically asymptomatic and have normal vision.,function:Supports the intracellular PIP pool and to a lesser extent, the PI 4,5-P(2) pool. It generates PIP from PI and, to a lesser extent, PI 4,5-P(2) from PI 4-P. There are indications that it phosphorylates the D-5 rather than the D-4 position. Has a role in endosome-related membrane trafficking.,similarity:Contains 1 DEP domain.,similarity:Contains 1 FYVE-type zinc finger.,similarity:Contains 1 PI5K domain.,subcellular location:

Background

Phosphorylated derivatives of phosphatidylinositol (PtdIns) regulate cytoskeletal functions, membrane trafficking, and receptor signaling by recruiting protein complexes to cell- and endosomal-membranes. Humans have multiple PtdIns proteins that differ by the degree and position of phosphorylation of the inositol ring. This gene encodes an enzyme (PIKfyve; also known as phosphatidylinositol-3-phosphate 5-kinase type III or PIPKIII) that phosphorylates the D-5 position in PtdIns and phosphatidylinositol-3-phosphate (PtdIns3P) to make PtdIns5P and PtdIns(3,5)biphosphate. The D-5 position also can be phosphorylated by type I PtdIns4P-5-kinases (PIP5Ks) that are encoded by distinct genes and preferentially phosphorylate D-4 phosphorylated PtdIns. In contrast, PIKfyve preferentially phosphorylates D-3 phosphorylated PtdIns. In addition to being a lipid kinase, PIKf

matters needing attention

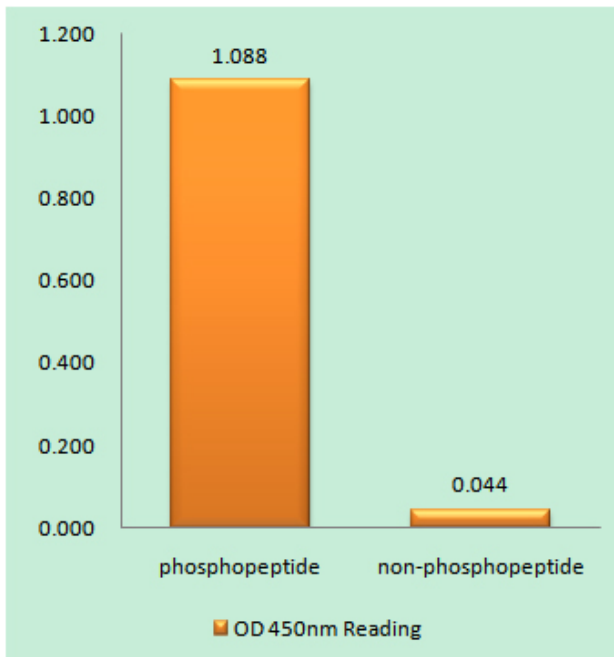
Avoid repeated freezing and thawing!

Usage suggestions

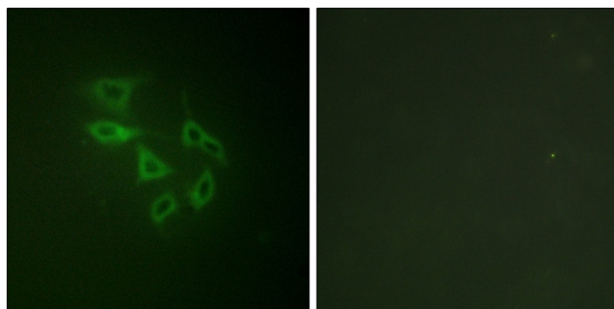
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



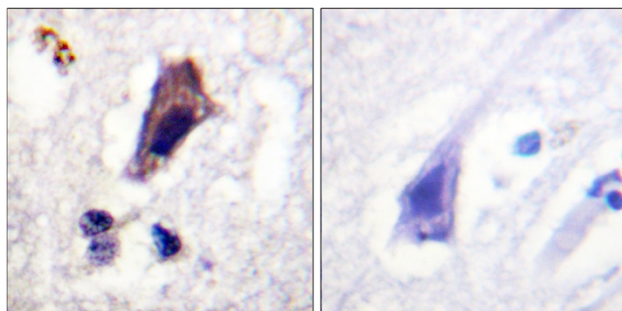
Products Images



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using PIP5K (Phospho-Ser307) Antibody



Immunofluorescence analysis of HeLa cells, using PIP5K (Phospho-Ser307) Antibody. The picture on the right is blocked with the phospho peptide.



Immunohistochemistry analysis of paraffin-embedded human brain, using PIP5K (Phospho-Ser307) Antibody. The picture on the right is blocked with the phospho peptide.