
Product Name: PIP5KIII (phospho Ser307) Rabbit Polyclonal Antibody**Catalog #: APRab05250**

For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	IHC,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Phosphorylated
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:5000-1:20000

Molecular Weight

Antigen Information

Gene Name	PIKFYVE
Alternative Names	PIKFYVE; KIAA0981; PIP5K3; 1-phosphatidylinositol 3-phosphate 5-kinase; Phosphatidylinositol 3-phosphate 5-kinase; FYVE finger-containing phosphoinositide kinase; PIKfyve; Phosphatidylinositol 3-phosphate 5-kinase type III; PIPkin-III; Type
Gene ID	200576.0
SwissProt ID	Q9Y2I7
Immunogen	The antiserum was produced against synthesized peptide derived from human PIP5K around the phosphorylation site of Ser307. AA range:273-322

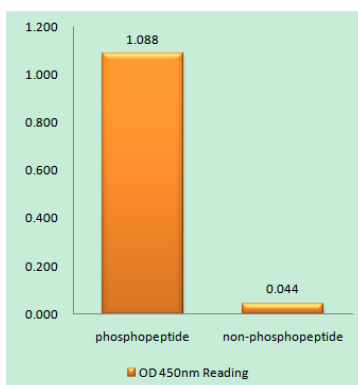
Background

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)bisphosphate. 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, PIKfcatalytic 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:Mainly associated with membranes of the late endocytic pathway.,

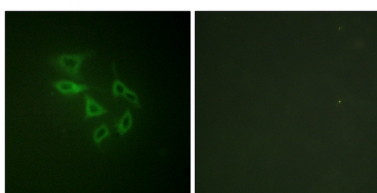
Research Area

Inositol phosphate metabolism;Phosphatidylinositol signaling system;Endocytosis;Fc gamma R-mediated phagocytosis;Regulates Actin and Cytoskeleton;

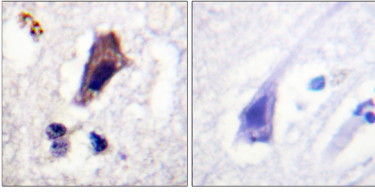
Image Data



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.