

## PIP5KIII Polyclonal Antibody

Catalog # AP71917

### Specification

#### PIP5KIII Polyclonal Antibody - Product Information

Application	WB
Primary Accession	<a href="#">Q9Y2I7</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal

#### PIP5KIII Polyclonal Antibody - Additional Information

Gene ID 200576

#### Other 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

#### Dilution

WB~~Western Blot: 1/500 - 1/2000.  
Immunofluorescence: 1/200 - 1/1000.  
ELISA: 1/5000. Not yet tested in other  
applications.

#### Format

Liquid in PBS containing 50% glycerol, 0.5%  
BSA and 0.02% sodium azide.

#### Storage Conditions

-20°C

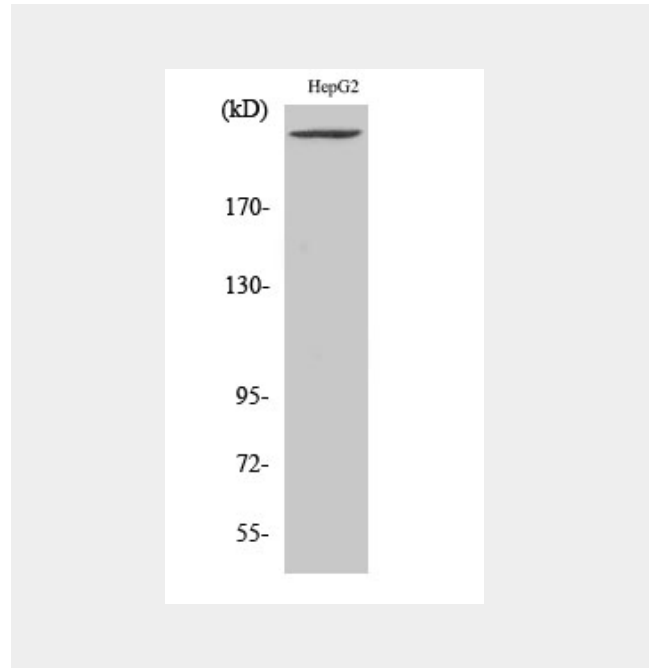
#### PIP5KIII Polyclonal Antibody - Protein Information

Name PIKFYVE ([HGNC:23785](#))

Synonyms KIAA0981, PIP5K3

#### Function

Dual specificity kinase implicated in myriad  
essential cellular processes such as  
maintenance of endomembrane  
homeostasis, and endocytic-vacuolar



#### PIP5KIII Polyclonal Antibody - Background

The PI(3,5)P2 regulatory complex regulates both the synthesis and turnover of phosphatidylinositol 3,5-bisphosphate (PtdIns(3,5)P2). Catalyzes the phosphorylation of phosphatidylinositol 3-phosphate on the fifth hydroxyl of the myo- inositol ring, to form phosphatidylinositol 3,5-bisphosphate. Required for endocytic-vacuolar pathway and nuclear migration. Plays a role in the biogenesis of endosome carrier vesicles (ECV)/ multivesicular bodies (MVB) transport intermediates from early endosomes.

pathway, lysosomal trafficking, nuclear transport, stress- or hormone-induced signaling and cell cycle progression (PubMed: <http://www.uniprot.org/citations/23086417> target="\_blank">23086417</a>). The PI(3,5)P2 regulatory complex regulates both the synthesis and turnover of phosphatidylinositol 3,5-bisphosphate (PtdIns(3,5)P2). Sole enzyme to catalyze the phosphorylation of phosphatidylinositol 3-phosphate on the fifth hydroxyl of the myo-inositol ring, to form (PtdIns(3,5)P2) (PubMed: <http://www.uniprot.org/citations/17556371> target="\_blank">17556371</a>). Also catalyzes the phosphorylation of phosphatidylinositol on the fifth hydroxyl of the myo-inositol ring, to form phosphatidylinositol 5-phosphate (PtdIns(5)P) (PubMed: <http://www.uniprot.org/citations/22621786> target="\_blank">22621786</a>). Has serine-protein kinase activity and is able to autophosphorylate and transphosphorylate. Autophosphorylation downregulates lipid product formation (By similarity). Involved in key endosome operations such as fission and fusion in the course of endosomal cargo transport (PubMed: <http://www.uniprot.org/citations/22621786> target="\_blank">22621786</a>). Required for the maturation of early into late endosomes, phagosomes and lysosomes (PubMed: <http://www.uniprot.org/citations/30612035> target="\_blank">30612035</a>). Regulates vacuole maturation and nutrient recovery following engulfment of macromolecules, initiates the redistribution of accumulated lysosomal contents back into the endosome network (PubMed: <http://www.uniprot.org/citations/27623384> target="\_blank">27623384</a>). Critical regulator of the morphology, degradative activity, and protein turnover of the endolysosomal system in macrophages and platelets (By similarity). In neutrophils, critical to perform chemotaxis, generate ROS, and undertake phagosome fusion with lysosomes (PubMed: <http://www.uniprot.org/citations/28779020> target="\_blank">28779020</a>). Plays a key role in the processing and presentation of antigens by major histocompatibility complex class II (MHC class II) mediated by

CTSS (PubMed:<a href="http://www.uniprot.org/citations/30612035" target="\_blank">30612035</a>). Regulates melanosome biogenesis by controlling the delivery of proteins from the endosomal compartment to the melanosome (PubMed:<a href="http://www.uniprot.org/citations/29584722" target="\_blank">29584722</a>). Essential for systemic glucose homeostasis, mediates insulin-induced signals for endosome/actin remodeling in the course of GLUT4 translocation/glucose uptake activation (By similarity). Supports microtubule-based endosome- to-trans-Golgi network cargo transport, through association with SPAG9 and RABEPK (By similarity). Mediates EGFR trafficking to the nucleus (PubMed:<a href="http://www.uniprot.org/citations/17909029" target="\_blank">17909029</a>).

#### Cellular Location

Endosome membrane; Peripheral membrane protein {ECO:0000250|UniProtKB:Q9Z1T6}. Early endosome membrane; Peripheral membrane protein. Cytoplasmic vesicle, phagosome membrane; Peripheral membrane protein. Late endosome membrane; Peripheral membrane protein {ECO:0000250|UniProtKB:Q9Z1T6}. Note=Mainly associated with membranes of the late endocytic pathway.

#### PIP5KIII Polyclonal 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](#)