

PIKFYVE Rabbit pAb

Catalog No.	A6689	Category	Polyclonal Antibodies
Applications	WB, IHC, IF	Observed MW	280kDa
Cross-reactivity	Human, Mouse, Rat	Calculated MW	50kDa/51kDa/61kDa/237kDa

Immunogen Information

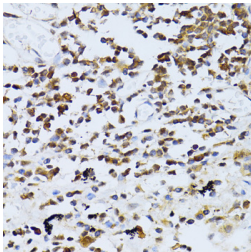
Immunogen	Recombinant fusion protein containing a sequence corresponding to amino acids 172-451 of human PIKFYVE (NP_689884.1).
Gene ID	200576
Swiss prot	Q9Y217
Synonyms	PIKFYVE;CFD;FAB1;HEL37;PIP5K;PIP5K3;ZFYVE29

Product information

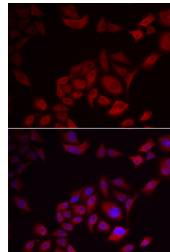
Source	Rabbit
Isotype	IgG
Purification method	Affinity purification
Storage	Store at -20°C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH 7.3.

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, PIKfyve also has protein kinase activity. PIKfyve regulates endomembrane homeostasis and plays a role in the biogenesis of endosome carrier vesicles from early endosomes. Mutations in this gene cause corneal fleck dystrophy (CFD); an autosomal dominant disorder characterized by numerous small white flecks present in all layers of the corneal stroma. Histologically, these flecks appear to be keratocytes distended with lipid and mucopolysaccharide filled intracytoplasmic vacuoles. Alternative splicing results in multiple transcript variants encoding distinct isoforms.



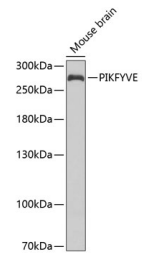
Immunohistochemistry of paraffin-embedded human lung cancer using PIKFYVE antibody (A6689) at dilution of 1:100 (40x lens).



Immunofluorescence analysis of U2OS cells using PIKFYVE antibody (A6689). Blue: DAPI for nuclear staining.

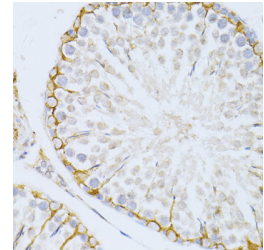
Recommended Dilutions

WB	1:500 - 1:2000
IHC	1:50 - 1:100
IF	1:10 - 1:100



Western blot analysis of extracts of mouse brain, using PIKFYVE antibody (A6689) at 1:1000 dilution.

Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25ug per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 90s.



Immunohistochemistry of paraffin-embedded rat testis using PIKFYVE antibody (A6689) at dilution of 1:100 (40x lens).