

PIP4K2B Antibody

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For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, F Endogenous	H, M, R, Mk	48 kDa	Rabbit**

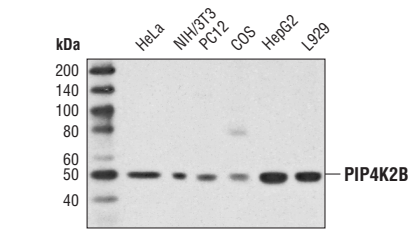
Background: Phosphatidylinositol-5-phosphate 4-kinases (PIP4K) synthesize phosphatidylinositol-4,5-bisphosphate (PtdIns(4,5)P₂), a key precursor in phosphoinositide signaling that directly modulates the activity of signaling proteins and cellular processes. There are two subfamilies of PIP kinases, type I and II, that generate PtdIns(4,5)P₂ from distinct substrate pools. PIP4 type I kinases use PtdIns5P as a substrate, whereas PIP5 type II kinases use PtdIns4P (1,2). In mammalian cells, three isoforms of each PIP4K and PIP5K subfamily, encoded by distinct genes, have been characterized (3-7). All PIP kinases are stimulated by phosphatidic acid, extensively regulated by ARF and Rho GTPases, and inhibited by protein kinase A and PI-stimulated autophosphorylation (8).

Specificity/Sensitivity: PIP4K2B Antibody recognizes endogenous levels of total PIP4K2B protein.

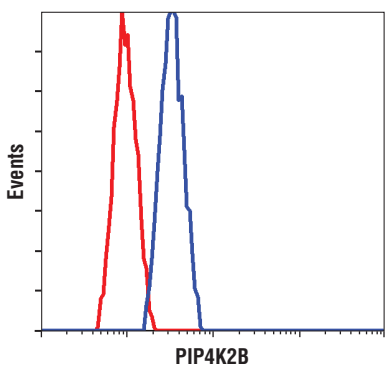
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the residues of human PIP4K2B. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Rameh, L.E. et al. (1997) *Nature* 390, 192-6.
- (2) Zhang, X. et al. (1997) *J Biol Chem* 272, 17756-61.
- (3) Ishihara, H. et al. (1996) *J Biol Chem* 271, 23611-4.
- (4) Loijens, J.C. and Anderson, R.A. (1996) *J Biol Chem* 271, 32937-43.
- (5) Ishihara, H. et al. (1998) *J Biol Chem* 273, 8741-8.
- (6) Itoh, T. et al (1998) *J. Biol. Chem.* 273, 20292-20299
- (7) Boronenkov, I.V. et al. (1998) *Mol Biol Cell* 9, 3547-60.
- (8) Oude Weernink, P.A. et al. (2004) *Eur J Pharmacol* 500, 87-99.



Western blot analysis of extracts from various cell lines using PIP4K2B Antibody.



Flow cytometric analysis of HeLa cells using PIP4K2B Antibody (blue) compared to a nonspecific negative control antibody (red).

Entrez-Gene ID# 8396
Swiss-Prot Acc. #P78356

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:
Western blotting 1:1000
Flow Cytometry 1:400

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

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