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PIP5K1A Antibody



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M R Mk	Endogenous	62	Rabbit	#Q99755	8394

Product Usage Information	Application Western Blotting	Dilution 1:1000
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.	
Specificity / Sensitivity	PIP5K1A Antibody detects endogenous levels of total PIP5K1A protein.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues around Gly64 of human PIP5K1A. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	Phosphatidylinositol-5-phosphate 4-kinases (PIP4Ks) synthesize phosphatidylinositol-4,5-bisphosphate (PtdIns(4,5)P ₂), 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)P ₂ 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).	
Background References	<ol style="list-style-type: none">1. Rameh, L.E. et al. (1997) <i>Nature</i> 390, 192-6.2. Zhang, X. et al. (1997) <i>J Biol Chem</i> 272, 17756-61.3. Ishihara, H. et al. (1996) <i>J Biol Chem</i> 271, 23611-4.4. Loijens, J.C. and Anderson, R.A. (1996) <i>J Biol Chem</i> 271, 32937-43.5. Ishihara, H. et al. (1998) <i>J Biol Chem</i> 273, 8741-8.6. Itoh, T. et al (1998) <i>J. Biol. Chem.</i> 273, 20292-202997. Boronenkov, I.V. et al. (1998) <i>Mol Biol Cell</i> 9, 3547-60.8. Oude Weernink, P.A. et al. (2004) <i>Eur J Pharmacol</i> 500, 87-99.	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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