

PPAPDC1A Antibody

Catalog # ASC11026

Product Information

Application	WB, IF, E
Primary Accession	Q5VZY2
Other Accession	NP_001025230 , 73611920
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	30395
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	PPAPDC1A antibody can be used for detection of PPAPDC1A by Western blot at 1 µg/mL. For immunofluorescence start at 20 µg/mL.

Additional Information

Gene ID	196051
Other Names	Phosphatidate phosphatase PPAPDC1A, 3.1.3.4, Phosphatidic acid phosphatase type 2 domain-containing protein 1A, PPAPDC1A, DPPL2, PPAPDC1
Target/Specificity	PPAPDC1A;
Reconstitution & Storage	PPAPDC1A antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	PPAPDC1A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PLPP4 (HGNC:23531)
Function	Magnesium-independent phospholipid phosphatase with broad substrate specificity (PubMed: 17590538). Preferentially catalyzes the conversion of diacylglycerol pyrophosphate into phosphatidate but can also act on phosphatidate and lysophosphatidate (PubMed: 17590538). Phospholipid phosphatases are involved in both the synthesis of lipids and the degradation or generation of lipid-signaling molecules like diacylglycerol (PubMed: 28851360).
Cellular Location	Membrane; Multi-pass membrane protein

Tissue Location

Expressed mainly to the brain, kidney and testis, and to a lesser extent the bone marrow, thymus, prostate, liver and uterus.

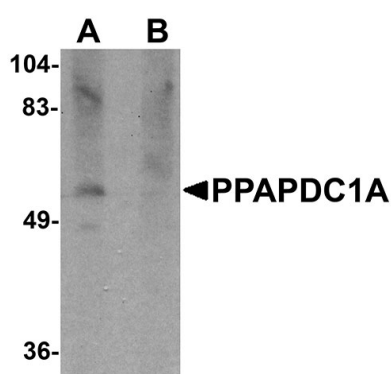
Background

PPAPDC1A Antibody: Phosphatidate phosphatase (PAP) plays important role in lipid-signaling metabolism in eukaryotic cells. Two distinct types of PAP (PAP1 and PAP2) activity have been distinguished by their subcellular localization and differential sensitivity to N-ethylmaleimide(NEM) and Mg^{2+} . A yeast diacylglycerol pyrophosphate (DGPP) phosphatase (DPP1) and mammalian DGPP phosphatase (PAP2) have been identified as Mg^{2+} -independent and NEM-insensitive membrane-associated. PPAPDC1A (also known as DPPL2) and PPAPDC1B (DPPL1) form a novel type of Mg^{2+} -independent and NEM-sensitive mammalian phosphatidate phosphatase showing broad substrate specificity. PPAPDC1A is preferentially expressed in endothelial cells. Studies of PPAPDC1A and PAP activity suggest that they may play a role in angiogenesis.

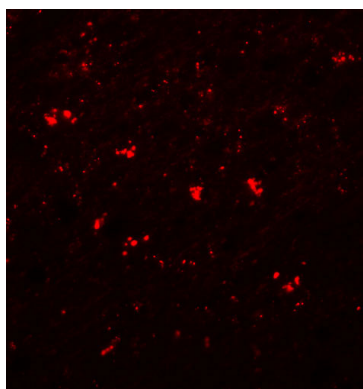
References

Takeuchi M, Harigai M, Momohara S, et al. Cloning and characterization of DPPL1 and DPPL2, representatives of a novel type of mammalian phosphatidate phosphatase. *Gene* 2007; 399:174-80.
Bernard-Pierrot I, Gruel N, Stransky N, et al. Characterization of the recurrent 8p11-12 amplicon identifies PPAPDC1B, a phosphatase protein, as a new therapeutic target in breast cancer. *Cancer Res.* 2008; 68:7165-75.

Images



Western blot analysis of PPAPDC1A in human brain tissue lysate with PPAPDC1A antibody at 1 $\mu\text{g/mL}$ in (A) the absence and (B) the presence of blocking peptide.



Immunofluorescence of PPAPDC1A in human brain tissue with PPAPDC1A antibody at 20 $\mu\text{g/mL}$.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.