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PPAP2A Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21024c

Product Information

Application	WB, E
Primary Accession	O14494
Reactivity	Human
Predicted	Bovine, Canine, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB51855
Calculated MW	32156

Additional Information

Gene ID	8611
Other Names	Lipid phosphate phosphohydrolase 1, PAP2-alpha, Phosphatidate phosphohydrolase type 2a, Phosphatidic acid phosphatase 2a, PAP-2a, PAP2a, PPAP2A, LPP1
Target/Specificity	This PPAP2A antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 270-304 amino acids from the C-terminal region of human PPAP2A.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PPAP2A Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PLPP1 (HGNC:9228)
Synonyms	LPP1, PPAP2A
Function	Magnesium-independent phospholipid phosphatase of the plasma

	membrane that catalyzes the dephosphorylation of a variety of glycerolipid and sphingolipid phosphate esters including phosphatidate/PA, lysophosphatidate/LPA, diacylglycerol pyrophosphate/DGPP, sphingosine 1-phosphate/S1P and ceramide 1- phosphate/C1P (PubMed:10962286, PubMed:17379599, PubMed:9305923, PubMed:9607309, PubMed:9705349). Also acts on N-oleoyl ethanolamine phosphate/N-(9Z-octadecenoyl)-ethanolamine phosphate, a potential physiological compound (PubMed:9607309). Through its extracellular phosphatase activity allows both the hydrolysis and the cellular uptake of these bioactive lipid mediators from the milieu, regulating signal transduction in different cellular processes (PubMed:10962286, PubMed:12909631, PubMed:15461590, PubMed:17379599). It is for instance essential for the extracellular hydrolysis of S1P and subsequent conversion into intracellular S1P (PubMed:17379599). Involved in the regulation of inflammation, platelets activation, cell proliferation and migration among other processes (PubMed:12909631, PubMed:15461590). May also have an intracellular activity to regulate phospholipid- mediated signaling pathways (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein Apical cell membrane; Multi-pass membrane protein. Membrane raft; Multi-pass membrane protein. Membrane, caveola {ECO:0000250|UniProtKB:Q61469}; Multi-pass membrane protein
Tissue Location	Widely expressed with highest expression found in prostate (PubMed:9305923). Found to be down-regulated in colon adenocarcinomas (PubMed:9570154). [Isoform 2]: Predominant in heart and pancreas.

Background

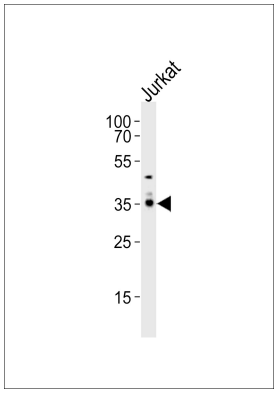
Broad-specificity phosphohydrolase that dephosphorylates exogenous bioactive glycerolipids and sphingolipids. Catalyzes the conversion of phosphatidic acid (PA) to diacylglycerol (DG). Pivotal regulator of lysophosphatidic acid (LPA) signaling in the cardiovascular system. Major enzyme responsible of dephosphorylating LPA in platelets, which terminates signaling actions of LPA. May control circulating, and possibly also regulate localized, LPA levels resulting from platelet activation. It has little activity towards ceramide-1-phosphate (C-1-P) and sphingosine-1-phosphate (S-1-P). The relative catalytic efficiency is LPA > PA > S-1-P > C-1-P. It's down-regulation may contribute to the development of colon adenocarcinoma.

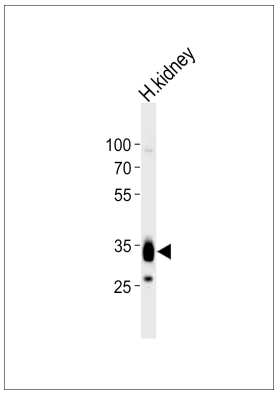
References

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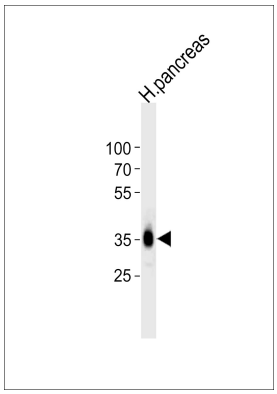
Images

Western blot analysis of lysate from Jurkat cell line, using PPAP2A Antibody (C-term)(Cat. #AP21024c). AP21024c was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.





Western blot analysis of lysate from human kidney tissue lysate, using PPAP2A Antibody (C-term)(Cat. #AP21024c). AP21024c was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.



Western blot analysis of lysate from human pancreas tissue lysate, using PPAP2A Antibody (C-term)(Cat. #AP21024c). AP21024c was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.

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