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# PPAP2A Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21319b

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | O14494 |
| **Reactivity** | Human |
| **Host** | Rabbit |
| **Clonality** | polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB52644 |
| **Calculated MW** | 32156 |

## Additional Information

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| **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 247-281 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

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| **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 |

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| | 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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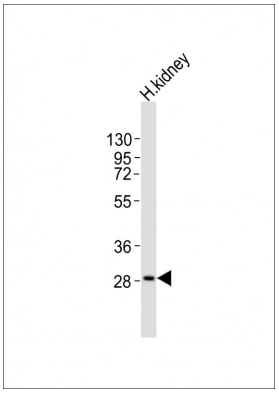
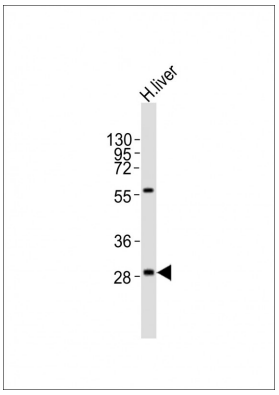
Leung D.W.,et al.DNA Cell Biol. 17:377-385(1998).
Ulrix W.E.J.,et al.J. Biol. Chem. 273:4660-4665(1998).
Roberts R.,et al.J. Biol. Chem. 273:22059-22067(1998).
Schmutz J.,et al.Nature 431:268-274(2004).

## Images



Anti-PPAP2A Antibody (C-term)at 1:2000 dilution + human kidney lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 32 kDa Blocking/Dilution buffer: 5% NFDM/TBST.




Anti-PPAP2A Antibody (C-term)at 1:1000 dilution + human liver lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 32 kDa Blocking/Dilution buffer: 5% NFDM/TBST.