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LPP3 / PPAP2B Antibody
Rabbit Polyclonal Antibody
Catalog # ALS11511

Specification

LPP3 / PPAP2B Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	O14495
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**35kDa KDa**
Dilution	**WB~~1:1000** **IHC-P~~N/A**

LPP3 / PPAP2B Antibody - Additional Information

Gene ID 8613

Other Names
Lipid phosphate phosphohydrolase 3, 3.1.3.4, PAP2-beta, Phosphatidate phosphohydrolase type 2b, Phosphatidic acid phosphatase 2b, PAP-2b, PAP2b, Vascular endothelial growth factor and type I collagen-inducible protein, VCIP, PPAP2B, LPP3

Reconstitution & Storage
Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

Precautions
LPP3 / PPAP2B Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

LPP3 / PPAP2B Antibody - Protein Information

Name PLPP3 (HGNC:9229)

Synonyms LPP3, PPAP2B

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:27694435, PubMed:9607309, PubMed:9705349). Also acts on N-oleoyl ethanolamine phosphate/N-(9Z-octadecenoyl)- ethanolamine phosphate, a potential physiological compound (PubMed:9607309). Has both an extracellular and an intracellular phosphatase

activity, allowing the hydrolysis and the cellular uptake of these bioactive lipid mediators from the milieu, regulating signal transduction in different cellular processes (PubMed:23591818, PubMed:27694435, PubMed:9607309). Through the dephosphorylation of extracellular sphingosine-1-phosphate and the regulation of its extra- and intracellular availability, plays a role in vascular homeostasis, regulating endothelial cell migration, adhesion, survival, proliferation and the production of pro-inflammatory cytokines (PubMed:27694435). By maintaining the appropriate levels of this lipid in the cerebellum, also ensure its proper development and function (By similarity). Through its intracellular lipid phosphatase activity may act in early compartments of the secretory pathway, regulating the formation of Golgi to endoplasmic reticulum retrograde transport carriers (PubMed:23591818).

Cellular Location
Cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P97544}. Basolateral cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P97544}. Endoplasmic reticulum membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P97544}. Endoplasmic reticulum-Golgi intermediate compartment membrane; Multi- pass membrane protein {ECO:0000250|UniProtKB:P97544}. Golgi apparatus membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P97544}. Golgi apparatus, trans-Golgi network membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P97544}. Membrane raft; Multi-pass membrane protein {ECO:0000250|UniProtKB:P97544}. Note=Cycles between the endoplasmic reticulum and the Golgi.

Tissue Location
Ubiquitously expressed (PubMed:12660161, PubMed:9305923). Highly expressed in heart and placenta (PubMed:9305923).

LPP3 / PPAP2B Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

LPP3 / PPAP2B Antibody - Images

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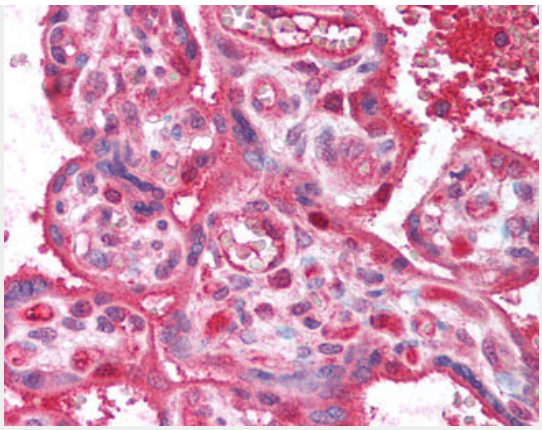

Anti-PPAP2B antibody IHC of human placenta.

LPP3 / PPAP2B Antibody - Background

Catalyzes the conversion of phosphatidic acid (PA) to diacylglycerol (DG). In addition it hydrolyzes lysophosphatidic acid (LPA), ceramide-1-phosphate (C-1-P) and sphingosine-1- phosphate (S-1-P). The relative catalytic efficiency is LPA = PA > C-1-P > S-1-P. May be involved in cell adhesion and in cell-cell interactions.

LPP3 / PPAP2B Antibody - References

Kai M.,et al.J. Biol. Chem. 272:24572-24578(1997).
Roberts R.,et al.J. Biol. Chem. 273:22059-22067(1998).
Humtsoe J.O.,et al.EMBO J. 22:1539-1554(2003).
Leung D.W.,et al.Submitted (JAN-1998) to the EMBL/GenBank/DDBJ databases.
Yu W.,et al.Genome Res. 7:353-358(1997).