

PPAP2A Blocking Peptide (C-term)
Synthetic peptide
Catalog # BP21024c**Specification**

PPAP2A Blocking Peptide (C-term) - Product InformationPrimary Accession [O14494](#)**PPAP2A Blocking Peptide (C-term) - 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

The synthetic peptide sequence is selected from aa 270-284 of HUMAN PPAP2A

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PPAP2A Blocking Peptide (C-term) - 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:9305923, PubMed:9705349, PubMed:9607309, PubMed:10962286, PubMed:17379599). 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.

PPAP2A Blocking Peptide (C-term) - Protocols

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

- [Blocking Peptides](#)

PPAP2A Blocking Peptide (C-term) - Images

PPAP2A Blocking Peptide (C-term) - 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.

PPAP2A Blocking Peptide (C-term) - References

Kai M.,et al.J. Biol. Chem. 272:24572-24578(1997).
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).