

PLA2G2A Blocking Peptide (C-Term)
Synthetic peptide
Catalog # BP21976b**Specification****PLA2G2A Blocking Peptide (C-Term) - Product Information**Primary Accession [P14555](#)**PLA2G2A Blocking Peptide (C-Term) - Additional Information**

Gene ID 5320

Other Names

Phospholipase A2, membrane associated,
3.1.1.4, GIIc sPLA2, Group IIA
phospholipase A2, Non-pancreatic secretory
phospholipase A2, NPS-PLA2,
Phosphatidylcholine 2-acylhydrolase 2A,
PLA2G2A, PLA2B, PLA2L, RASF-A

Target/Specificity

The synthetic peptide sequence is selected
from aa 126-135 of HUMAN PLA2G2A

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.

PLA2G2A Blocking Peptide (C-Term) - Protein Information

Name PLA2G2A

Synonyms PLA2B, PLA2L, RASF-A

Function**PLA2G2A Blocking Peptide (C-Term) - Background**

Thought to participate in the regulation of the
phospholipid metabolism in biomembranes
including eicosanoid biosynthesis. Catalyzes
the calcium-dependent hydrolysis of the 2- acyl
groups in 3-sn-phosphoglycerides.

PLA2G2A Blocking Peptide (C-Term) - References

Seilhamer J.J.,et al.J. Biol. Chem.
264:5335-5338(1989).
Kramer R.M.,et al.J. Biol. Chem.
264:5768-5775(1989).
Kramer R.M.,et al.Adv. Exp. Med. Biol.
275:35-53(1990).
Liang N.S.,et al.Submitted (JUN-2004) to the
EMBL/GenBank/DDBJ databases.
Ebert L.,et al.Submitted (JUN-2004) to the
EMBL/GenBank/DDBJ databases.

Secretory calcium-dependent phospholipase A2 that primarily targets extracellular phospholipids with implications in host antimicrobial defense, inflammatory response and tissue regeneration (PubMed:10455175, PubMed:10681567, PubMed:2925633). Hydrolyzes the ester bond of the fatty acyl group attached at sn-2 position of phospholipids (phospholipase A2 activity) with preference for phosphatidylethanolamines and phosphatidylglycerols over phosphatidylcholines (PubMed:10455175, PubMed:10681567). Contributes to lipid remodeling of cellular membranes and generation of lipid mediators involved in pathogen clearance. Displays bactericidal activity against Gram-positive bacteria by directly hydrolyzing phospholipids of the bacterial membrane (PubMed:11694541, PubMed:10358193). Upon sterile inflammation, targets membrane phospholipids of extracellular mitochondria released from activated platelets, generating free unsaturated fatty acids such as arachidonate that is used by neighboring leukocytes to synthesize inflammatory eicosanoids such as leukotrienes. Simultaneously, by compromising mitochondrial membrane integrity, promotes the release in circulation of potent damage-associated molecular pattern molecules that activate the innate immune response (PubMed:25082876). Plays a stem cell regulator role in the intestinal crypt. Within intracellular compartment mediates Paneth cell differentiation and its stem cell supporting

functions by inhibiting Wnt signaling pathway in intestinal stem cell (ICS). Secreted in the intestinal lumen upon inflammation, acts in an autocrine way and promotes prostaglandin E2 synthesis that stimulates Wnt signaling pathway in ICS cells and tissue regeneration (By similarity). May play a role in the biosynthesis of N-acyl ethanolamines that regulate energy metabolism and inflammation. Hydrolyzes N-acyl phosphatidylethanolamines to N-acyl lysophosphatidylethanolamines, which are further cleaved by a lysophospholipase D to release N-acyl ethanolamines (PubMed:14998370). Independent of its catalytic activity, acts as a ligand for integrins (PubMed:18635536, PubMed:25398877). Binds to and activates integrins ITGAV:ITGB3, ITGA4:ITGB1 and ITGA5:ITGB1 (PubMed:18635536, PubMed:25398877). Binds to a site (site 2) which is distinct from the classical ligand-binding site (site 1) and induces integrin conformational changes and enhanced ligand binding to site 1 (PubMed:25398877). Induces cell proliferation in an integrin-dependent manner (PubMed:18635536).

Cellular Location

Secreted. Cell membrane; Peripheral membrane protein. Mitochondrion outer membrane; Peripheral membrane protein

Tissue Location

Expressed in various tissues including heart, kidney, liver, lung, pancreas, placenta, skeletal muscle, prostate, ovary, colon and small intestine. Not detected in lymphoid organs and brain (PubMed:10455175, PubMed:10681567). Expressed in platelets (at protein level) (PubMed:25082876).

**PLA2G2A Blocking Peptide (C-Term) -
Protocols**

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

- [Blocking Peptides](#)