

Product Name: PLA2G2A (17112) Rabbit Monoclonal Antibody
Catalog #: AMRe16233



Summary

Production Name	PLA2G2A (17112) Rabbit Monoclonal Antibody
Description	Rabbit Monoclonal Antibody
Host	Rabbit
Application	WB
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Supplied in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% New type preservative N and 0.05% BSA.
Purification	Affinity purification

Immunogen

Gene Name	PLA2G2A
Alternative Names	MOM1; PLA2; PLA2B; PLA2L; PLA2S; PLAS1; sPLA2;
Gene ID	5320.0
SwissProt ID	P14555.A synthetic peptide of human Secretory phospholipase A2

Application

Dilution Ratio	WB: 1:1000
Molecular Weight	16kDa

Background

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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. Secretory calcium-dependent phospholipase A2 that primarily targets extracellular phospholipids with implications in host antimicrobial defense, inflammatory response and tissue regeneration (PubMed:[10455175](http://www.uniprot.org/citations/10455175)), PubMed:[10681567](http://www.uniprot.org/citations/10681567)), PubMed:[2925633](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/10455175)), PubMed:[10681567](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/11694541)), PubMed:[10358193](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/14998370)). Independent of its catalytic activity, acts as a ligand for integrins (PubMed:[18635536](http://www.uniprot.org/citations/18635536)), PubMed:[25398877](http://www.uniprot.org/citations/25398877)). Binds to and activates integrins ITGA5:ITGB3, ITGA4:ITGB1 and ITGA5:ITGB1 (PubMed:[18635536](http://www.uniprot.org/citations/18635536)), PubMed:[25398877](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/25398877)). Induces cell proliferation in an integrin-dependent manner (PubMed:[18635536](http://www.uniprot.org/citations/18635536))

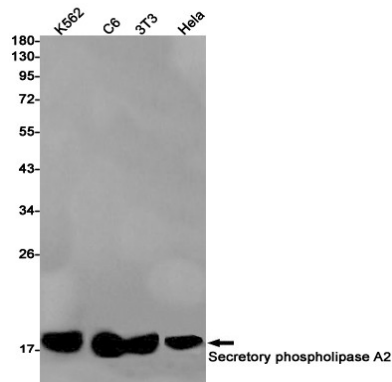
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target="_blank">18635536).

Research Area

Image Data



Western blot detection of Secretory phospholipase A2 in K562,C6,3T3,HeLa cell lysates using Secretory phospholipase A2 antibody(1:1000 diluted).

Note

For research use only.