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LYPLA3 Rabbit pAb

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Catalog # AP57163

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q8NCC3
Reactivity	Human, Mouse
Predicted	Rat, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	46658
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human LYPLA3
Epitope Specificity	101-200/412
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Lysosome. Secreted.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Lysophospholipases are enzymes that act on biological membranes to regulate the multifunctional lysophospholipids. The protein encoded by this gene hydrolyzes lysophosphatidylcholine to glycerophosphorylcholine and a free fatty acid. This enzyme is present in the plasma and thought to be associated with high-density lipoprotein. A later paper contradicts the function of this gene. It demonstrates that this gene encodes a lysosomal enzyme instead of a lysophospholipase and has both calcium-independent phospholipase A2 and transacylase activities. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	23659
Other Names	Lysosomal phospholipase A and acyltransferase, 2.3.1.-, 3.1.1.32, 3.1.1.4, 1-O-acylceramide synthase, ACS, LCAT-like lysophospholipase, LLPL, 3.1.1.5, Lysophospholipase 3, Lysosomal phospholipase A2, LPLA2, Phospholipase A2 group XV, PLA2G15, PLA2G15 (HGNC:17163), LYPLA3
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

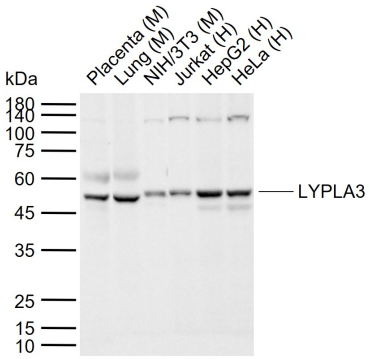
Name	PLA2G15 (HGNC:17163)
Synonyms	LYPLA3
Function	Has dual calcium-independent phospholipase and O- acyltransferase activities with a potential role in glycerophospholipid homeostasis and remodeling of acyl groups of lipophilic alcohols present in acidic cellular compartments (PubMed:10092508, PubMed:11790796, PubMed:20410020, PubMed:23958596, PubMed:25727495, PubMed:29724779). Catalyzes hydrolysis of the ester bond of the fatty acyl group attached at sn-1 or sn-2 position of phospholipids (phospholipase A1 or A2 activity) and transfer it to the hydroxyl group at the first carbon of lipophilic alcohols (O-acyltransferase activity) (PubMed:10092508, PubMed:11790796, PubMed:20410020, PubMed:23958596, PubMed:25727495, PubMed:29724779, PubMed:36823305). Among preferred fatty acyl donors are phosphatidylcholines, phosphatidylethanolamines, phosphatidylglycerols and phosphatidylserines (PubMed:29724779, PubMed:36823305). Favors sn-2 over sn-1 deacylation of unsaturated fatty acyl groups of phosphatidylcholines, phosphatidylethanolamines, and phosphatidylglycerols (PubMed:36823305). Among preferred fatty acyl acceptors are natural lipophilic alcohols including short-chain ceramide N-acetyl-sphingosine (C2 ceramide), alkylacylglycerols, monoacylglycerols, and acylethanolamides such as anandamide and oleoylethanolamide (PubMed:29724779). Selectively hydrolyzes the sn-1 fatty acyl group of truncated oxidized phospholipids and may play a role in detoxification of reactive oxidized phospholipids during oxidative stress (PubMed:30830753). Required for normal phospholipid degradation in alveolar macrophages with potential implications in the clearance of pulmonary surfactant, which is mainly composed of dipalmitoylphosphatidylcholine (1,2-dihexadecanoyl-sn-glycero-3-phosphocholine) (By similarity). Involved in the first step of bis(monoacylglycero)phosphate (BMP) de novo synthesis from phosphatidylglycerol (1,2-diacyl-sn-glycero-3-phospho-(1'-sn-glycerol), PG) (PubMed:36823305). BMP is an important player in cargo sorting and degradation, regulation of cellular cholesterol levels and intercellular communication (PubMed:36823305). At neutral pH, hydrolyzes the sn-1 fatty acyl group of the lysophosphatidylcholines (PubMed:10092508).
Cellular Location	Lysosome. Secreted. Membrane; Peripheral membrane protein
Tissue Location	Detected in blood plasma (at protein level) (PubMed:10092508, PubMed:20410020). Ubiquitous. Highly expressed in heart, placenta, skeletal muscle, kidney and pancreas. Detected at lower levels in spleen, thymus, prostate, testis, ovary, small intestine, colon and peripheral blood leukocytes (PubMed:10092508)

Background

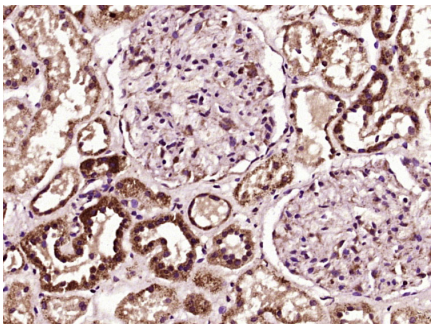
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Images

Sample:
Lane 1: Mouse Placenta tissue lysates
Lane 2: Mouse Lung tissue lysates



Lane 3: Mouse NIH/3T3 cell lysates
Lane 4: Human Jurkat cell lysates
Lane 5: Human HepG2 cell lysates
Lane 6: Human HeLa cell lysates
Primary: Anti-LYPLA3 (AP57163) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 43 kDa
Observed band size: 48 kDa



Paraformaldehyde-fixed, paraffin embedded (human brain glioma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (ZC3HAV1L) Polyclonal Antibody, Unconjugated (AP57163) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.