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LPCAT2 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50790

Product Information

Application	WB
Primary Accession	Q7L5N7
Reactivity	Human, Mouse
Host	Rabbit
Clonality	polyclonal
Calculated MW	60208

Additional Information

Gene ID	54947
Other Names	Lysophosphatidylcholine acyltransferase 2, LPC acyltransferase 2, LPCAT-2, LysoPC acyltransferase 2, 1-acylglycerol-3-phosphate O-acyltransferase 11, 1-AGP acyltransferase 11, 1-AGPAT 11, 1-acylglycerophosphocholine O-acyltransferase, 1-alkylglycerophosphocholine O-acetyltransferase, Acetyl-CoA:lyso-platelet-activating factor acetyltransferase, Acetyl-CoA:lyso-PAF acetyltransferase, Lyso-PAF acetyltransferase, LysoPAFAT, Acyltransferase-like 1, Lysophosphatidic acid acyltransferase alpha, LPAAT-alpha, LPCAT2, AGPAT11, AYTL1
Dilution	WB~~ 1:1000
Format	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.
Storage Conditions	-20°C

Protein Information

Name	LPCAT2
Synonyms	AGPAT11, AYTL1
Function	Exhibits both acyltransferase and acetyltransferase activities (PubMed:17182612, PubMed:20363836, PubMed:21498505). Catalyzes the conversion of lysophosphatidylcholine (1-acyl-sn-glycero- 3-phosphocholine or LPC) into phosphatidylcholine (1,2-diacyl-sn- glycero-3-phosphocholine or PC) (PubMed:21498505). Catalyzes the conversion 1-acyl-sn-glycerol-3-phosphate (lysophosphatidic acid or LPA) into 1,2-diacyl-sn-glycerol-3-phosphate (phosphatidic acid or PA) by incorporating an acyl moiety at the sn-2 position of the glycerol backbone (PubMed:20363836). Involved in platelet-activating factor (PAF) biosynthesis

	by catalyzing the conversion of the PAF precursor, 1-O-alkyl-sn-glycero-3-phosphocholine (lyso-PAF) into 1-O-alkyl-2-acetyl-sn-glycero-3-phosphocholine (PAF) (PubMed:17182612). Also converts lyso-PAF to 1-O-alkyl-2-acyl-sn-glycero-3-phosphocholine (PC), a major component of cell membranes and a PAF precursor (By similarity). Under resting conditions, acyltransferase activity is preferred (By similarity). Upon acute inflammatory stimulus, acetyltransferase activity is enhanced and PAF synthesis increases (By similarity). Involved in the regulation of lipid droplet number and size (PubMed:25491198).
Cellular Location	Endoplasmic reticulum membrane; Single-pass type II membrane protein. Golgi apparatus membrane {ECO:0000250|UniProtKB:Q8BYI6}; Single-pass type II membrane protein. Cell membrane {ECO:0000250|UniProtKB:Q8BYI6}; Single-pass type II membrane protein. Lipid droplet

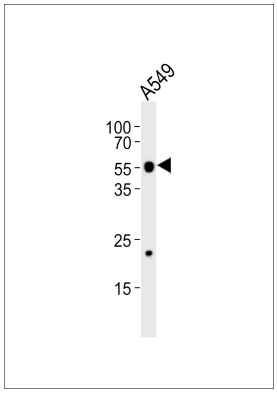
Background

Possesses both acyltransferase and acetyltransferase activities. Activity is calcium-dependent. Involved in platelet- activating factor (PAF) biosynthesis by catalyzing the conversion of the PAF precursor, 1-O-alkyl-sn-glycero-3-phosphocholine (lyso- PAF) into 1-O-alkyl-2-acetyl-sn-glycero-3-phosphocholine (PAF). Also converts lyso-PAF to 1-O-alkyl-2-acyl-sn-glycero-3- phosphocholine (PC), a major component of cell membranes and a PAF precursor. Under resting conditions, acyltransferase activity is preferred. Upon acute inflammatory stimulus, acetyltransferase activity is enhanced and PAF synthesis increases. Also catalyzes the conversion of 1-acyl-sn-glycero-3-phosphocholine to 1,2- diacyl-sn-glycero-3-phosphocholine.

References

Shindou H.,et al.J. Biol. Chem. 282:6532-6539(2007).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Bechtel S.,et al.BMC Genomics 8:399-399(2007).
Agarwal A.K.,et al.J. Lipid Res. 51:2143-2152(2010).
Burkard T.R.,et al.BMC Syst. Biol. 5:17-17(2011).

Images



Western blot analysis of lysate from A549 cell line,using LPCAT2 Antibody(AP50790). AP50790 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysate at 35ug.

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