10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# LPCAT2 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50790

## Product Information

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

## Additional Information

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| **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

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| **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 |

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| | 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 |

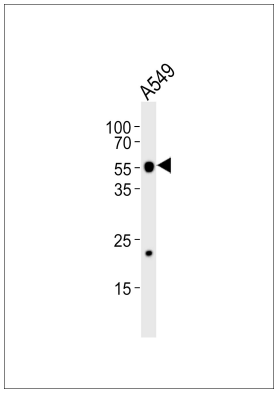
## Background

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.