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

# LPCAT2 Rabbit pAb

Catalog # AP99716

## Product Information

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| **Application** | IHC-P, IHC-F, IF |
| **Primary Accession** | Q7L5N7 |
| **Other Accession** | Q7L5N7 |
| **Reactivity** | Rat, Human, Mouse |
| **Predicted** | Pig, Rabbit, Horse, Sheep |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 60208 |
| **Physical State** | Liquid |
| **Immunogen** | KLH conjugated synthetic peptide derived from human LPCAT2 |
| **Epitope Specificity** | 131-230/544 |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| **SIMILARITY** | Belongs to the 1-acyl-sn-glycerol-3-phosphate acyltransferase family. Contains 2 EF-hand domains. |
| **Important Note** | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| **Background Descriptions** | This gene encodes a member of the lysophospholipid acyltransferase family. The encoded enzyme may function in two ways: to catalyze the biosynthesis of platelet-activating factor (1-O-alkyl-2-acetyl-sn-glycero-3-phosphocholine) from 1-O-alkyl-sn-glycero-3-phosphocholine, and to catalyze the synthesis of glycerophospholipid precursors from arachidonyl-CoA and lysophosphatidylcholine. The encoded protein may function in membrane biogenesis and production of platelet-activating factor in inflammatory cells. The enzyme may localize to the endoplasmic reticulum and the Golgi. [provided by RefSeq, Feb 2009]. |

## Additional Information

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| **Gene ID** | 54947 |
| **Other Names** | AGPAT11; AYTL1; LPLAT9; LysoPAFAT; PCAT2_HUMAN; LPCAT2; 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-alkenylglycerophosphocholine 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); 2.3.1.23; lysophosphatidylcholine acyltransferase 2; acyltransferase like 1; lysophospholipid acyltransferase 9 |

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| **Dilution** | 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

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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 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 |

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