

Recombinant Mouse Lpcat1 Protein, Myc/DDK-tagged

Cat. No. Lpcat1-1793M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length acyltransferase like 2 (cDNA clone MGC:76519 IMAGE:30475544), complete cds, with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	Exhibits both acyltransferase and acetyltransferase activities. Activity is calcium-independent. Catalyzes the conversion of lysophosphatidylcholine (1-acyl-sn-glycero-3-phosphocholine or LPC) into phosphatidylcholine (1,2-diacyl-sn-glycero-3-phosphocholine or PC). 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. Displays a clear preference for saturated fatty acyl-CoAs, and 1-myristoyl or 1-palmitoyl LPC as acyl donors and acceptors, respectively. 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). May synthesize phosphatidylcholine in pulmonary surfactant, thereby playing a pivotal role in respiratory physiology. Involved in the regulation of lipid droplet number and size.
Molecular Mass	54.6 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining

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Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Lpcat1 lysophosphatidylcholine acyltransferase 1 [Mus musculus (house mouse)]
Official Symbol	Lpcat1
Synonyms	Lpcat1; lysophosphatidylcholine acyltransferase 1; LP; Ayt; rd1; rd11; Ayt12; LPCAT; C87117; LPCAT-1; mLPCAT1; BB137372; BC005662; lysoPAFAT; 2900035H07Rik; lysophosphatidylcholine acyltransferase 1; 1-acylglycerol-3-phosphate O-acyltransferase; 1-acylglycerophosphocholine O-acyltransferase; 1-alkenylglycerophosphocholine O-acyltransferase; 1-alkylglycerophosphocholine O-acetyltransferase; LPC acyltransferase 1; acetyl-CoA:lyso-PAF acetyltransferase; acetyl-CoA:lyso-platelet-activating factor acetyltransferase; acyltransferase-like 2; lyso-PAF acetyltransferase; lysoPC acyltransferase 1; EC 2.3.1.23; EC 2.3.1.25; EC 2.3.1.51; EC 2.3.1.67
Gene ID	210992
mRNA Refseq	NM_145376
Protein Refseq	NP_663351

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UniProt ID

Q3TFD2

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