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**Product Data Sheet**


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Product Name: LPCAT1 Human

Cat. No.: GP21887

Batch No.: 1

**Product Data**

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.

Synonyms AYTL2; lpcat; PFAAP3; Lysophosphatidylcholine acyltransferase 1; LPC acyltransferase 1; LPCAT-1; LysoPC acyltransferase 1; 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 2; Phosphonoformate immuno-associated protein 3.

Amino Acid Sequence  
 MGSSHHHHH SGLVPRGSH MGSSAEKEPE QPPALWRKVV DFLKAIMRT  
 MWFAGGFHRV AVKGRQALPT EAAILTLAPH SSYFDAIPVT MTMSSIVMKA  
 ESRDIPIWGT LIQYIRPVFV SRSDQDSRRK TVEEIKRRAQ SNGKWPQIMI  
 FPEGTCTNRT CLITFKPGAF IPGAPVQPVV LRYPNKLDTI TWTWQGPAL  
 EILWLTLCQF HNQVEIEFLP VYSPSEEEKR NPALYASNVR RVMAEALGVS  
 VTDYTFEDCQ LALAEGQLRL PADTCLLEFA RLVRGLGLKP EKLEKDLDRY  
 SERARMKGGE KIGIAEFAAS LEVPVSDLLE DMFSLFDESG SGEVDLRECV  
 VALSVVCRPA RTLDTIQLAF KMYGAQEDGS VGEGDLSCIL KTALGVAELT  
 VTDLFRAIDQ EEKGKITFAD FHRFAEMYPFAEEYLYPDQ THFESCAETS  
 PAPIPNGFCA DFSPENS DAG RKPVRKKLD.

Formulation The LPCAT1 solution (0.25mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 1M Urea and 10% glycerol.

**Introduction**

Lysophosphatidylcholine acyltransferase 1 (LPCAT1) is a part of the 1-acyl-sn-glycerol-3-phosphate acyltransferase family. LPCAT1 is a key enzyme for remodeling phospholipids, including phosphatidylcholine. LPCAT1 possesses both acyltransferase and acetyltransferase activities and also mediates the conversion of 1-acyl-sn-glycero-3-

**Caution: Product has not been fully validated for medical applications. For research use only.**

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phosphocholine (LPC) into phosphatidylcholine (PC). LPCAT1 presents a clear preference for saturated fatty acyl-CoAs, and 1-myristoyl or 1-palmitoyl LPC as acyl donors and acceptors, respectively. LPCAT1 synthesizes phosphatidylcholine in pulmonary surfactant and therefore playing an important role in respiratory physiology.

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Background

LPCAT1 Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 479 amino acids (79-534a.a) and having a molecular mass of 53.4kDa. LPCAT1 is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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