

Product datasheet for **MC218670**

Lpcat2 (NM_173014) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lpcat2 (NM_173014) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Lpcat2
Synonyms:	A330042H22; Ayt11; Ayt11a; lpafat1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >MC218670 representing NM_173014
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAACCGATGCGCCGAGGCGGCCGCTGTGGCGGTACGGTCCCAGGTTTCGGGCGTCGGGGACGCCGGC
 TCGGGCCACCCATGGTACCTCGCCAGGCGTCCTTCTCCGCGCGGGTGCCCAACCCCTTCGTCCAGCA
 GACTACGATCAGTGCCTCCGAAGGCTGCAGATGTTTCTTCTTGAATTATTCTGCTCCCAGTCCGTGCT
 TTAAGTGGTGAATAATTTGCTGCTCGCATGGCCATTTGCTGTCAATTTCAACAGCATGCTGCTGAAA
 AGCTGACCCATCCAATAAGCAATTGGAGGAGGAAGATCACTCGGCCCGCTTTGACATTTCTGGCGGTGC
 CATGTTCTTCCATGGGGTTTACGGTTACCGTGAAAGGAAAGGTTGCAAGCCCTCTGGAAGCGCCATT
 TTTGTCGTCGCTCCTATTCCACGTTCTTCGACGGAATGCCTGTGTAGTAGCTGGGCTGCCTTCGCTGG
 TATCACGGAATGAGAATGCACAGACCCCTCTGGTTGGCAGACTGTTACGGGCTTTGCAGCCAGTTTTGGT
 ATCCCGTGTGACCTGACTCCCGAAAAACACAATCAATGAAATCAAAAAGCGAGCGACATCAGGTGGA
 GAATGGCCCCAGATACTAGTTTTCCAGAAAGTACTTGTACTAATCGCTCCTGTTTGATTACTTTTAAAC
 CAGGAGCCTTCATCCCAGGAGTTCAGTGCAGCCCGTCTCTCAGATACCCAAACAAGTTGGATACTGT
 GACCTGGACCTGGCAAGGCTATACATTCCTCCAGCTGTGTGTGCTCACTTCTGTCAACTCTTCACGAAG
 GTGGAGATTGAGTTTATGCCTGTGCAAGCACCCAGTGAGGAAGAGAAGAACGATCCTGTCCTTTTCGCCA
 GTAGAATCCGGAACTTAATGGCTGAAGCATTGGAAATACCCGTGACGGATCACACCTACGAAGACTGCAG
 GCTGATGATCTCAGCGGGACAGCTCACGTTGCCTATGGAGGCCGGGCTGGTAGAATTTTCAAAGATTAGC
 CGGAAACTGAAATTAGACTGGGATGGTATCCGGAAGCACTTGGATGAATATGCGTCTATCGCAAGCTCTT
 CCAAAGGAGGCAGAATTGGAATCGAGGAGTTTGCAGCAACTTGAAGCTACCTGTTTCCGATGCTCCTGAG
 ACAACTTTTTGCACTCTTTGACAGGAATAATGATGGCAGTATTGACTTCCGAGAGTATGTGATCGGCCTG
 GCTGTCTTGTGCAACCCTGCCAATACAGAAGAGATCATCCAGGTGGCATTAAAGCTCTTTGATGTTGATG
 AGGACGGCTACATAACAGAGGAGGAGTTTTGCACCATTCTGCAGGCTTCTTGGAGTGCCTGACCTTAA
 TGTTTTCTGGTCTTTCAGAGAAATTGCCAACGGGACTCTGTTTCTACGAGGAATTCAAAAGTTTCGCC
 CTAAGCACCCAGAATATGCCAAGATTTACCACATACCTAGACCTCCAGACATGCCATGTATTCTCCT
 TGCCAGAAGAGGTCCAGACAGCTCCCTCTGTTGCTAGTAATAAAGTCAGTCTGAGAGCCAGGAGGAGGG
 CACCTCAGACAAAAGGTGGAC**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-Mlul
ACCN: NM_173014
Insert Size: 1635 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_173014.1](#), [NP_766602.1](#)

RefSeq Size: 2800 bp

RefSeq ORF: 1635 bp

Locus ID: 270084

UniProt ID: [Q8BYI6](#)

Cytogenetics: 8 C5

Gene Summary: Possesses both acyltransferase and acetyltransferase activities (PubMed:17182612, PubMed:18156367). Activity is calcium-dependent (PubMed:17182612). 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 (PubMed:17182612, PubMed:18156367). Under resting conditions, acyltransferase activity is preferred (PubMed:17182612). Upon acute inflammatory stimulus, acetyltransferase activity is enhanced and PAF synthesis increases (PubMed:17182612). Also catalyzes the conversion of 1-acyl-sn-glycero-3-phosphocholine to 1,2-diacyl-sn-glycero-3-phosphocholine. Involved in the regulation of lipid droplet number and size (By similarity).[UniProtKB/Swiss-Prot Function]