

## Product datasheet for **SC116519**

### LPCAT3 (NM\_005768) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	LPCAT3 (NM_005768) Human Untagged Clone
Tag:	Tag Free
Symbol:	LPCAT3
Synonyms:	C3F; LPCAT; LPLAT 5; LPSAT; MBOAT5; nesy; OACT5
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC116519 sequence for NM\_005768 edited (data generated by NextGen Sequencing)

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ATGGCGTCCTCAGCGGAGGGGACGAGGGGACTGTGGTGGCGCTGGCGGGGGTTCTGCAG
TCGGGTTTCCAGGAGCTGAGCCTTAACAAGTTGGCGACGTCCTGGGCGCGTCAGAACAG
GCGCTGCGGCTGATCATCTCCATCTTCTGGGTACCCCTTTGCTTTGTTTTATCGGCAT
TACCTTTTCTACAAGGAGACCTACCTCATCCACCTCTCCATACCTTTACAGGCCTCTCA
ATTGCTTATTTTAACTTTGAAACCAGCTCTACCACTCCCTGCTGTGTATTGTGCTTCAG
TTCTCATCCTTCGACTAATGGGCCGACCATCACTGCCGTCCTACTACCTTTTGCTTC
CAGATGGCCTACCTTCTGGCTGGATACTATTACTGCCACCGGCAACTACGATATCAAG
TGGACAATGCCACATTGTGTTCTGACTTTGAAGCTGATTGGTTTGGCTGTTGACTACTTT
GACGGAGGAAAGATCAGAATTCCTTGTCTCTGAGCAACAGAAAATGCCATACGTGGT
GTTCTTCCCTGCTGGAAGTTGCTGGTTTCTCTACTTCTATGGGGCCTTCTTGGTAGGG
CCCCAGTTCTCAATGAATCACTACATGAAGCTGGTGCAGGGAGAGCTGATTGACATACCA
GAAAGATACCAAACAGCATCATTCTGCTCTCAAGCGCCTGAGTCTGGGCCCTTTCTAC
CTAGTGGGCTACACACTGCTCAGCCCCACATCACAGAAGACTATCTCTCACTGAAGAC
TATGACAACCACCTTCTGGTTCCGCTGCATGTACATGCTGATCTGGGGCAAGTTTGTG
CTGTACAATATGTCACCTGTTGGCTGGTCACAGAAGGAGTATGCATTTTGACGGGCCTG
GGCTTCAATGGCTTTGAAGAAAAGGGCAAGGCAAAGTGGGATGCCTGTGCCAACATGAAG
GTGTGGCTCTTTGAAACAACCCCGCTTCACTGGCACCATTGCCTCATTCAACATCAAC
ACCAACGCCTGGGTGGCCCGCTACATCTTCAAACGACTCAAGTTCTTGGAAATAAAGAA
CTCTCTCAGGGTCTCTCGTTGCTATTCTGGCCCTCTGGCAGGCCTGCACTCAGGATAC
CTGGTCTGCTTCCAGATGGAATTCCTCATTGTTATTGTGAAAGACAGGCTGCCAGGCTC
ATTCGAAGAGAGCCCCACCCTGAGCAAGCTGGCCGCCATTACTGTCCTCCAGCCCTTCTAC
TATTTGGTGCAACAGACCATCCACTGGCTTTCATGGGTTACTCCATGACTGCCTTCTGC
CTCTTACGTTGGACAAAATGGCTTAAGGTGTATAAATCCATCTATTTCTTGGCCACATC
TTCTTCTGAGCCTACTATTCATATTGCCTTATATTCACAAAGCAATGGTGCCAAGGAAA
GAGAAGTTAAAGAAGATGGAATAA
    
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Clone variation with respect to NM\_005768.5

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_005768 unedited

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GGAACGTTTCAATTTGTATACGACTCATATAGGCGGCCGCGNAATTCGCACGAGGCGGAG
CTGGGGGGTCCCTGTGGGGCTCCCGAGTTAAGATGGCGTCTCAGCGGAGGGGGACGAG
GGGACTGTGGTGGCGCTGGCGGGGGTCTGCAGTCGGGTTTCCAGGAGCTGAGCCTTAAC
AAGTTGGCGACGTCCTGGGCGCGTCAGAACAGGCGCTGCGGCTGATCATCTCCATCTTC
CTGGGTTACCCCTTTGCTTTGTTTTATCGGCATTACCTTTTCTACAAGGAGACCTACCTC
ATCCACTCTTCCATACCTTTACAGGCCTCTCAATTGCTTATTTTAACTTTGAAACCAG
CTCTACCACTCCCTGCTGTGTATTGTGCTTCAGTTCTCATCCTTCGACTAATGGGCCGC
ACCATCACTGCCGTCCTCACTACCTTTTGTCTCCAGATGGCCTACCTTCTGGCTGGATAC
TATTACTGCCACCGGCAACTACGATATCAAGTGGACAATGCCACATTGTGTTCTGACT
TTGAAGCTGATTGGTTTGGCTGTTGACTACTTTGACGGAGGAAAGATCAGAATTCCTTG
TCCTCTGAGCAACAGAAAATGCCATACGTGGTGTTCCTTCCCTGCTGGAAGTTGCTGGT
TTCTCTACTTCTATGGNGCCTTCTTGGTAGGGCCCCAGTTCTCAATGAATCACTACATG
AAGCTGGTGCAGGGAGAGCTGATTGACATACCAGGAAAGATACCAAACAGCATCATTCT
GCTCTCAAGCGCCTGAGTCTGGGCCCTTTCTACCTAGTGGGCTACACACTGCTCAGCCCC
ACATCACAGAAGACTATCTCTCACTGGAGACTATGACNACCACCCC
    
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<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_005768 unedited ACCGCGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTAAAACTGAACAAACA GAAGTGATTTTATCTAATACAGTTCCAAGGTAGAAAAAGTGGAGCAGGCAGGGCCTTGCA CCCCTCTCACCCCCCATGGGGGGGTGGTGGTAGCGGCACATACAAATCATAGTAAA TTGGCAGAAGAAAAACACAATAGATTCTGGCTAGATGGGGAGAGATAAGGCAATGTGCA TGGGGGAATCAGAGGGGAGATGTGAGCCCCTCTGCTCTCCACAAGAGTTTCCCCTTTG GGCCGGGCACGGTGGCTACGCCTGTAATCCCAGCACTTTGGGAGCGGAGGCGGGTGA TCACTTGGCGTACAGGAGTTCGAGACCCAGCCTGGCCAACGTGGTAAATCCCGTTTCTACT GAAAATACAAAAATTAGCTGGGCATGGTGGCGTGCCTGTATTCCCAGCTACTTGGGAGGC TGAGGCAGGAAAACTACTTGAACCCAGGAGGTGGAGGTTGCGGTGAGCTGAGATCCCGCC ACTGCATTCCAGCGTGGGTGACAAAGCAAGACGCCTTCTCAAAAAAAGTTTCCCCTTT GGCCCCAATGAAGACTTGGCTGGCAGCAGAGGCACAGCTGGAAGCATCGATCTTTACC TCCCTGGCTTTTCCATTCTGCTCTGGNGCANAGGAGTGCTGTGAAAAGGAGACGAGTA GTTNCTGCACCAGTCCCACAGGCCACCANGGAAATGGATTATNCACTCTTTAACTC TCTTTCTGCACCATGCTTGTGATATAGGCATATGATAGTAGCTCAGAAGAGATTGCCAA GAATGATGATTATACACTTAGCATTGTCCACTGAAAGCAAAGCATCTGGATACCATGANA CCATGATGTCGTGACCAATATAAAGCTGAGACTAATGCGGCACTGCTAGTGGGCTCTTTA TGACTGACCGCTTCCAA
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_005768
<b>Insert Size:</b>	2450 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u>NM_005768.5, NP_005759.4</u>
<b>RefSeq Size:</b>	2297 bp
<b>RefSeq ORF:</b>	1464 bp
<b>Locus ID:</b>	10162
<b>UniProt ID:</b>	<u>Q6P1A2</u>
<b>Cytogenetics:</b>	12p13.31
<b>Domains:</b>	MBOAT

**Protein Families:** Transmembrane

**Gene Summary:** Acyltransferase which mediates the conversion of lysophosphatidylcholine (1-acyl-sn-glycero-3-phosphocholine or LPC) into phosphatidylcholine (1,2-diacyl-sn-glycero-3-phosphocholine or PC) (LPCAT activity). Catalyzes also the conversion of lysophosphatidylserine (1-acyl-2-hydroxy-sn-glycero-3-phospho-L-serine or LPS) into phosphatidylserine (1,2-diacyl-sn-glycero-3-phospho-L-serine or PS) (LPSAT activity). Has also weak lysophosphatidylethanolamine acyltransferase activity (LPEAT activity). Favors polyunsaturated fatty acyl-CoAs as acyl donors compared to saturated fatty acyl-CoAs. Seems to be the major enzyme contributing to LPCAT activity in the liver. Lysophospholipid acyltransferases (LPLATs) catalyze the reacylation step of the phospholipid remodeling pathway also known as the Lands cycle.[UniProtKB/Swiss-Prot Function]