

Product datasheet for **MR207801**

Lpcat3 (NM_145130) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lpcat3 (NM_145130) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Lpcat3
Synonyms:	C3f; Grcc3f; Lpcat; Lpeat; Lplat5; Lpsat; Mboat5; Moact5; Oact5; PTG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR207801 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGCGTCTACAGCGGACGGGGACATGGGAGAGACGCTGGAGCAGATGCGGGGGCTGTGGCCGGGTGTCG
 AGGATCTGAGCCTTAACAAGTTGGCGACGCTCTCTGGGCGCGTCGGAACAGGCGCTGCGGCTCATCTTCTC
 CATCTTCTGGGTACCCGTTGGCTCTGTTTTACCGCATTACCTTTTCTACAAGGACAGCTACCTCATC
 CATCTTCCACACCTTCACGGGCTCTCAATTGCTTATTTCAACTTTGGCCACCAGTTCTACCACTCCT
 TGCTATGTGTCGTGCTTCAGTTCCTCATCTGCGACTCATGGGCCGACCCGTCAGTCCGTTATTACTAC
 CCTTTGCTCCAGATGGCTACCTTCTTGGCGGATATTACTACACAGCCACCGGTGACTACGATATCAAG
 TGGACAATGCCACATTGTGCTTGACACTGAAGCTAATGGGCTGTGATTGACTACTACGATGGAGGCA
 AAGACGGGAATTCCTTGACCTCTGAGCAACAGAAATATGCCATACGGGGTGTCCCTTCATTGCTGGAAGT
 TGCTGGCTTCTCCTACTTCTATGGAGCCTTCTTGGTAGGGCCCCAATTTCAATGAACCACTACATGAAG
 CTGGTGCAGGACAGCTGACTGACATACAGGGAAGATGCCAAACAGCACCATACCTGCTCTCAAGCGCC
 TGAGTCTGGGCCTGTCTACCTGGTGGGTACACCCTGCTGAGCCCCACATCACAGACGACTATCTCCT
 CACAGAAGACTATGATAACCGCCCTTTCTGGTCCGCTGCATGTACATGCTGATCTGGGGCAAATTTGTG
 CTGTACAAATACGTCACCTGCTGGCTGGTCACAGAAGGAGTGTGCATTCTGTGCGGCCTGGGCTTTAATG
 GCTTCGATGAAAATGGGACCGTGAGATGGGATGCCTGTGCCAACATGAAAGTGTGGCTCTTTGAAACCAC
 CCCTCGCTCAATGGCACCATCGCCTCTTCAACATCAATACCAATGCCTGGGTAGCCCGTTACATCTTC
 AAACGCCTCAAGTTCCTTGAAAATAAAGAGCTCTACAAGTCTCTCCTTGTCTTTGGCCCTCTGGC
 ATGGCCTACACTCAGGATACCTGATTTGCTTCCAGATGGAATTCCTCATTGTTATCGTGGAAAAGCAGGT
 CAGCAGTCTAATTCGGGACAGCCCTGCCCTGAGCAGCCTGGCCTCCATCACTGCCCTACAGCCCTTCTAC
 TACTTGGTGAACAGACCATCCACTGGCTGTTTATGGGTTACTCTATGACTGCCTTCTGCCTCTTACAT
 GGGACAAATGGCTAAGGTGTACAGATCCATCTATTTCTTGGACATGTCTTCTTCTTGGAGCCTACTATT
 CATATTGCCTTATATCCACAAAGCAATGGTGCCAAAGAAAAGAAAAGTTAAAAAGAGGGAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR207801 protein sequence
 Red=Cloning site Green=Tags(s)

MASTADGDMGETLEQMRGLWPGVEDLSLNKLATSLGASEQALRLIFSIFLGYPLALFYRHYLFYKDSYLI
 HLFHFTFTGLSIAYFNFGHQFYHSLLCVVLQFLILRLMGRVTAVITTLFCQMayLLAGYYYYATGDYDIK
 WTMPHCVLTLKLIGLCIDYYDGGKDGNSLTSEQQKYAIRGVPSLLEVAGFSYFYGAFLVGPQFSMNHYMK
 LVRGQLTDIPGKMPNSTIPALKRSLGLVYLVGYTLSPHITDDYLLTEDYDNRPFWFRMCMYLIWGFV
 LYKYVTCWLVTEGVCILSGLGFNGFDENGTVRWDACANMKVWLFETTPRFNGTIA SFNINTNAWVARYIF
 KRLKFLGNKELSQGLSLLFLALWHGLHSGYLICFQMEFLIVIVEKQVSSLIRDSPALSSLASITALQPFY
 YLVQQTIIHWLFMGYSMTAFCLFTWDKWLKVYRSIYFLGHVFFLSLLFILPYIHKAMVPRKEKLLKRE

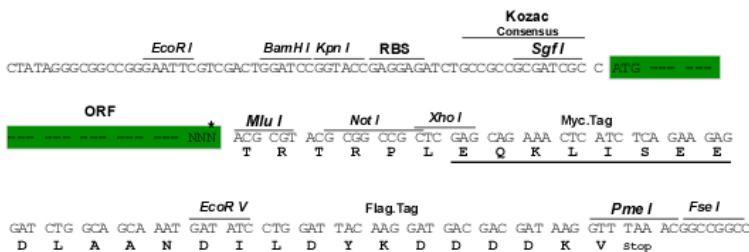
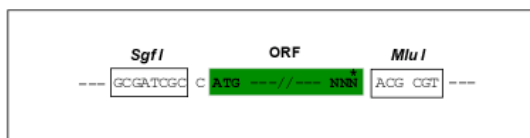
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_145130

ORF Size: 1464 bp

OTI Disclaimer: 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](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_145130.2](#)

RefSeq Size: 2502 bp

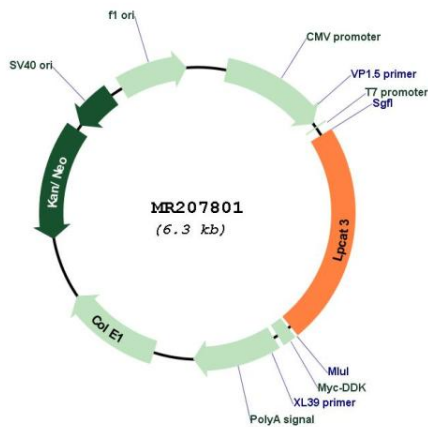
RefSeq ORF: 1464 bp

Locus ID: 14792

UniProt ID: [Q91V01](#)

Cytogenetics:	6 59.17 cM
MW:	56.1 kDa
Gene Summary:	<p>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). To a lesser extent, also catalyzes the acylation of lysophosphatidylethanolamine (1-acyl-sn-glycero-3-phosphoethanolamine or LPE) into phosphatidylethanolamine (1,2-diacyl-sn-glycero-3-phosphoethanolamine or PE) (LPEAT activity), and 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). 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]</p>

Product images:



Circular map for MR207801