

## Product datasheet for RC214304

### LCLAT1 (NM\_001002257) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	LCLAT1 (NM_001002257) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	LCLAT1
Synonyms:	1AGPAT8; AGPAT8; ALCAT1; HSRG1849; LYCAT; UNQ1849
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC214304 representing NM_001002257 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGTGCATGGAAGGGATTTACTTTATACTGACTCTGTTTTGGGAAGCTTTTTGGAAGCATTTCAT  
TGCTGAGTCCCTTTTACCTTTGATGTTTGTAAACCCATCTTGGTATCGCTGGATCAACAACCGCCTTGT  
GGCAACATGGCTCACCTACCTGTGGCATTATTGGAGACCATGTTGGTGTAAAAGTGATTATAACTGGG  
GATGCATTTGTTCTGGAGAAAGAAGTGCATTATCATGAACCATCGGACAAGAATGGACTGGATGTTCC  
TGTGGAATTGCCTGATGCGATATAGCTACCTCAGATTGGAGAAAATTTGCCTCAAAGCGAGTCTCAAAGG  
TGTTCTGGATTTGGTTGGGCCATGCAGGCTGCTGCCTATATCTTCATTATAGGAAATGGAAGGATGAC  
AAGAGCCATTTTGAAGACATGATTGATTACTTTTGTGATATTCACGAACCACTTCAACTCCTCATATTCC  
CAGAAGGGACTGATCTCACAGAAAACAGCAAGTCTCGAAGTAATGCATTTGCTGAAAAAATGGACTTCA  
GAAATATGAATATGTTTTACATCCAAGAACTACAGGCTTTACTTTTGTGGTAGACCGTCTAAGAGAAGGT  
AAGAACCTTGATGCTGTCCATGATATCACTGTGGCGTATCCTCACAACATTCCTCAATCAGAGAAGCACC  
TCCTCCAAGGAGACTTTCCAGGGAAATCCACTTTCACGTCCACCGGTATCCAATAGACACCCTCCCCAC  
ATCCAAGGAGGACCTTCAACTCTGGTGCCACAAACGGTGGGAAGAGAAAGAAGAGAGGCTGCGTTCCTTC  
TATCAAGGGGAGAAGAATTTTTATTTACCGGACAGAGTGTCAATCCACCTTGAAGTCTGAACCTCAGGG  
TCCTTGGTCAAATTGCTCTCTATACTGTATTGGACCCTGTTACGCCCTGCAATGTGCCTACTCATATA  
TTTGTACAGTCTTGTAAAGTGGATTTTTATAATCACCATTGTAATCTTTGTGCTGCAAGAGAGAATATT  
GGTGGACTGGAGATCATAGAACTGCATGTTACCGACTTTACACAAACAGCCACATTTAAATTCAAAGA  
AAAATGAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC214304 representing NM\_001002257  
Red=Cloning site Green=Tags(s)

MVSWKGIYFILTLFWGSFFGSI FMLS PFLPLMFVNPSWYRWNNRLVATWLTLPVALLETMFGVKVIITG  
 DAFVPGERSVIIMNHRTRMDWMFLWNCLMRYSLRLEKICLKASLKGVPFGWAMQAAAYIFIHRKWKDD  
 KSHFEDMIDYFCDIHEPLQLLIFPEGDTLTENSKSRSNFAEKNGLQKYEVVLRPTTGFVVDRLREG  
 KNLDAVHDITVAYPHNIPQSEKHL LQGDFPREIHFVHRYPIDTLPTSKEDLQLWCHKRWEEKEERLRSF  
 YQGEKNFYFTGQSVIPPCKSELRLVVKLLSILYWTLFSPAMCLLIYLSLVKWFYIITIVIFVLQERIF  
 GGLEIIEI LACYRLLHKQPHLNSKKNE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8055\\_g01.zip](https://cdn.origene.com/chromatograms/mk8055_g01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001002257

**ORF Size:** 1128 bp

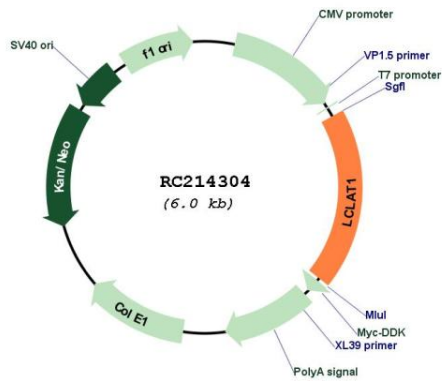
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<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>	<a href="#">NM_001002257.3</a>
<b>RefSeq Size:</b>	4872 bp
<b>RefSeq ORF:</b>	1131 bp
<b>Locus ID:</b>	253558
<b>UniProt ID:</b>	<a href="#">Q6UWP7</a>
<b>Cytogenetics:</b>	2p23.1
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Ether lipid metabolism, Glycerolipid metabolism, Glycerophospholipid metabolism, Limonene and pinene degradation, Metabolic pathways, Phenylalanine metabolism, Tyrosine metabolism
<b>MW:</b>	44.4 kDa
<b>Gene Summary:</b>	Exhibits acyl-CoA:lysocardiolipin acyltransferase (ALCAT) activity; catalyzes the reacylation of lyso-cardiolipin to cardiolipin (CL), a key step in CL remodeling (By similarity). Recognizes both monolysocardiolipin and dilyocardiolipin as substrates with a preference for linoleoyl-CoA and oleoyl-CoA as acyl donors (By similarity). Also exhibits 1-acyl-sn-glycerol-3-phosphate acyltransferase activity (AGPAT) activity; converts 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 (PubMed:16620771). Possesses both lysophosphatidylinositol acyltransferase (LPIAT) and lysophosphatidylglycerol acyltransferase (LPGAT) activities (PubMed:19075029). Required for establishment of the hematopoietic and endothelial lineages (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC214304