

Product datasheet for MR226119

Lclat1 (NM_001177968) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lclat1 (NM_001177968) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Lclat1
Synonyms:	Agpat8; A1181996; Alcat1; Gm91; Lycat
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR226119 representing NM_001177968 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTGCATGGAAGGGGATTTACTTTTACTCTTCTGTTTGGTGAAGCTTTTTTGAAGTATTTTTA
TGCTCGGCCCATTTTACCTTTGATGTTTATAAACCTGTCGTGGTATCGCTGGATTAGCAGCCGCTTTGT
GGCTACATGGCTCACACTTCTGTGGCATTGCTGGAGACCATGTTTGGTGTGAGAGTGGTTATAACAGGT
GACGCCTTTGTGCTGGAGAGCGGAGCGTCATCATGAACCACCGACACGTGTGGACTGGATGTTCC
TGTGGAAGTGTCTAATGAGGTACAGCTACCTCAGGGTGGAGAAGATTTGCCTCAAATCCAGTCTCAAAG
TGTTCTGGATTCGGCTGGGCCATGCAAGTTGCGGCCTTTATCTTTATTCATAGGAAGTGAAGGATGAT
AAGAGCCATTTTGAAGACATGATTGATTATTTTTGTGCCATCCATGAACCACTACAGCTTCTCATTTTTTC
CAGAAGGAACTGACCTCACAGAAAATAAAGGCTAGGAGTAATGATTTTGTGAGAAGAACGGACTTCA
GAAATATGAGTATGTTTTACACCAAGAACCACTGGCTTTACCTTTGTGGTGGACCGCCTAAGAGAAGGG
AAGAACCTCGATGCTGTTTCATGACATCACGGTCGCATATCCTTACAACATCCCTCAAAGTGAAGCACC
TTCTCCTGGAGACTTTCCCAAGGAGATCCACTCCACGTCCAGCGGTATCCAGCTGACTCTTCCCAC
ATCCAAGGAGGACCTTCAGCTCTGGTGCCACAGAAGGTGGGAAGAAAAGGAGGAGAGGCTTCGGTCTTC
TACCAAGGAGAGAAAACTTCCACTTTACTGGCAGAGTACAGTCCACCTTGAAGTTCAGCTCAGAG
TCCTTGTGGTCAAGTACTGTCCATAGTGTACTGGGCCTTGTCTGCTCTGCAATGTGCCTGCTCATATA
TCTGTACAGCCCTGTTCCGGTGGTATTTTATAATCAGCATTGTGTTCTTCGTGCTGCAGGAGAGAATATT
GGTGGACTGGAATCATTGAACTGCATGTTACCGTTTTTTACACAAGCACCCACATTTAAATTCAAAGA
AAAATGAG

ACGCGTACGGCGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

Protein Sequence: >MR226119 representing NM_001177968
Red=Cloning site Green=Tags(s)

MVSWKGIYFILFLFAGSFFGSIIFMLGPILPLMFINLSWYRWISSRLVATWLTLPVALLETMFGVRVITG
 DAFVPGERSVIIMNHRTRVDWMFLWNCLMRYSLRVEKICLKSSLKSVPGFGWAMQVAAFIFIHRKWKDD
 KSHFEDMIDYFCAIHEPLQLLIFPEGTDLTENNKARSNDFAEKNGLQKYEVVLPRTTGFVVDRLREG
 KNLDAVHDITVAYPINIPQTEKHLLLGDFPKEIHFHVQRYPADSLPTSKEDLQLWCHRRWEEKEERLRSF
 YQGEKNFHFTGQSTVPPCKSELRLVVKLLSIVYWALFCSAMCLLIYLYSPVRWYFIIISIVFFVLQERIF
 GGLEIIEIACYRFLHKHPLNSKKNE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9019_b08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_001177968

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).

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_001177968.1](#), [NP_001171439.1](#)

RefSeq Size: 4444 bp

RefSeq ORF: 1131 bp

Locus ID: 225010

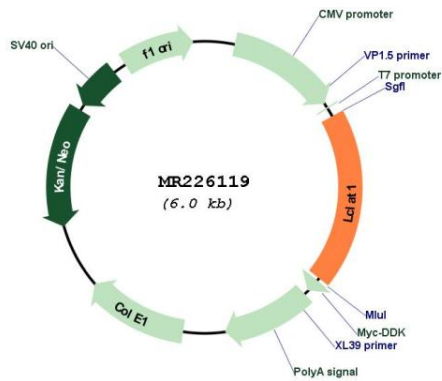
UniProt ID: [Q3UN02](#)

Cytogenetics: 17 E1.3- E2

MW: 44.8 kDa

Gene Summary: Exhibits acyl-CoA:lysocardiolipin acyltransferase (ALCAT) activity; catalyzes the reacylation of lyso-cardiolipin to cardiolipin (CL), a key step in CL remodeling (PubMed:15152008). Recognizes both monolysocardiolipin and dilyocardiolipin as substrates with a preference for linoleoyl-CoA and oleoyl-CoA as acyl donors (PubMed:15152008). 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 (By similarity). Possesses lysophosphatidylinositol acyltransferase (LPIAT) activity (PubMed:20668164). Possesses lysophosphatidylglycerol acyltransferase (LPGAT) activity (By similarity). Required for establishment of the hematopoietic and endothelial lineages (PubMed:17675553).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR226119