

Product datasheet for **MG226111**

Lclat1 (NM_001081071) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Lclat1 (NM_001081071) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Lclat1
Synonyms: Agpat8; A1181996; Alcat1; Gm91; Lycat
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG226111 representing NM_001081071
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTGCATGGAAGGGGATTTACTTTATACTCTTCTGTTTGCTGGAAGCTTTTTGGAAGTATTTTTA
TGCTCGGCCCATTTTACCTTTGATGTTTATAACCTGTCGTGGTATCGTGGATTAGCAGCCGCTTGT
GGCTACATGGCTCACACTTCTGTGGCATTGCTGGAGACCATGTTGGTGTGAGAGTGGTTATAACAGGT
GACGCCTTTGTGCTGGAGAGCGGAGCGTCATCATGAACCACCGACACGTGTGGACTGGATGTTCC
TGTGGAAGTGTCTAATGAGGTACAGCTACCTCAGGGTGGAGAAGATTTGCCTCAAATCCAGTCTCAAAG
TGTTCTGGATTCGGCTGGGCCATGCAAGTTGCGGCCTTTATCTTTATTCATAGGAAGTGAAGGATGAT
AAGAGCCATTTTGAAGACATGATTGATTATTTTTGTGCCATCCATGAACCACTACAGCTTCTCATTTTTTC
CAGAAGGAACTGACCTCACAGAAAATAAAGGCTAGGAGTAATGATTTTGTGAGAAGAACGGACTTCA
GAAATATGAGTATGTTTTACCCCAAGAACCACTGGCTTTACCTTTGTGGTGGACCGCCTAAGAGAAGGG
AAGAACCTCGATGCTGTTTCATGACATCACGGTCGCATATCCTTACAACATCCCTCAAAGTGAAGCACC
TTCTCCTGGAGACTTTCCCAAGGAGATCCACTCCACGTCCAGCGGTATCCAGCTGACTCTTCCCAC
ATCCAAGGAGGACCTTCAGCTCTGGTGCCACAGAAGGTGGGAAGAAAAGGAGGAGAGGCTTCGGTCTTC
TACCAAGGAGAGAAAACTTCCACTTTACTGGCAGAGTACAGTTCACCTTGCAAGTCTGAGCTCAGAG
TCCTTGTGGTCAAGCTACTGTCCATAGTACTGGGCCTTGTCTGCTCTGCAATGTGCCTGCTCATATA
TCTGTACAGCCCTGTTCCGGTGGTATTTTATAATCAGCATTGTGTTCTTCGTGCTGCAGGAGAGAATATT
GGTGGACTGGAATCATTGAACTTGCATGTTACCGTTTTTTACACAAGCACCCACATTTAAATTCAAAGA
AAAATGAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG226111 representing NM_001081071
 Red=Cloning site Green=Tags(s)

MVSWKGIYFILFLFAGSFFGSI FMLGPILPLMFINLSWYRWISSRLVATWLTLPVALLETMFGVRVITG
 DAFVPGERSVIIMNHRTRVDMFLWNCLMRYSLRVEKICLKSSLKSVPGFGWAMQVAAFIFIHRKWKDD
 KSHFEDMIDYFCAIHEPLQLLIFPEGDTLTENNKARSNDFAEKNGLQKYEYVLHPRTTGFTFVVDRLREG
 KNLDVAVHDITVAYPINIPQTEKHLLLGDFPKEIHFHVQRYPADSLPTSKEDLQLWCHRRWEEKEERLRSF
 YQGEKNFHFTGQSTVPPCKSELRLVLVVKLLSIVYWALFCSAMCLLIYLYSPVRWYFIISIVFFVLQERIF
 GGLEIIEIACYRFLHKHPHLNSKKNE

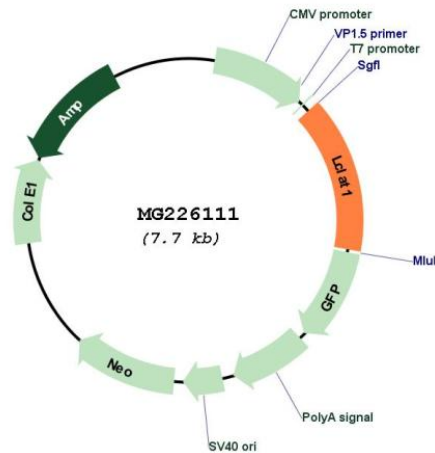
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001081071

ORF Size:	1128 bp
OTI Disclaimer:	<p>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.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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_001081071.2 , NP_001074540.1
RefSeq Size:	4476 bp
RefSeq ORF:	1131 bp
Locus ID:	225010
UniProt ID:	Q3UN02
Cytogenetics:	17 E1.3- E2

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 dilysocardiolipin 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]