

## Product datasheet for RC220664L2

### LCLAT1 (NM\_182551) Human Tagged Lenti ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	LCLAT1 (NM_182551) Human Tagged Lenti ORF Clone
Tag:	mGFP
Symbol:	LCLAT1
Synonyms:	1AGPAT8; AGPAT8; ALCAT1; HSRG1849; LYCAT; UNQ1849
Mammalian Cell Selection:	None
Vector:	pLenti-C-mGFP (PS100071)
E. coli Selection:	Chloramphenicol (34 ug/mL)
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC220664).
Restriction Sites:	SgfI-MluI
Cloning Scheme:	

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF.

ACCN:	NM_182551
ORF Size:	1242 bp



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**OTI Disclaimer:** 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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_182551.3](#)

**RefSeq Size:** 5077 bp

**RefSeq ORF:** 1245 bp

**Locus ID:** 253558

**UniProt ID:** [Q6UWP7](#)

**Cytogenetics:** 2p23.1

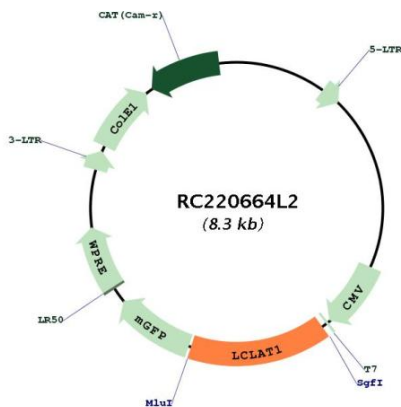
**Protein Families:** Transmembrane

**Protein Pathways:** Ether lipid metabolism, Glycerolipid metabolism, Glycerophospholipid metabolism, Limonene and pinene degradation, Metabolic pathways, Phenylalanine metabolism, Tyrosine metabolism

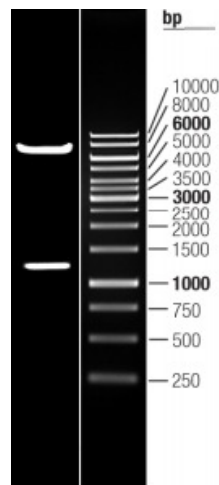
**MW:** 48.7 kDa

**Gene Summary:**

Exhibits acyl-CoA:lysocardiolipin acyltransferase (ALCAT) activity; catalyzes the reacylation of lyso-cardiolipin to cardiolipin (CL), a key step in CL remodeling (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 RC220664L2



Double digestion of RC220664L2 using SgfI and MluI