

Product datasheet for **RG220664**

LCLAT1 (NM_182551) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LCLAT1 (NM_182551) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	LCLAT1
Synonyms:	1AGPAT8; AGPAT8; ALCAT1; HSRG1849; LYCAT; UNQ1849
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG220664 representing NM_182551 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCATCCAGGGGAAGGGAAATTGTGGTGCTTCTGAACCCATGGTCAATTAACGAGGCAGTTTCTAGCT
ACTGCACGTACTTCATAAAGCAGGACTCTAAAAGCTTTGGAATCATGGTGTATGGAAGGGATTACTT
TATACTGACTCTGTTTTGGGAAGCTTTTTGGAAGCATTTTCATGCTGAGTCCCTTTTACCTTTGATG
TTTGTAACCCATCTTGGTATCGCTGGATCAACAACCGCCTGTGGCAACATGGCTCACCTACCTGTGG
CATTATTGGAGACCATGTTTGGTGTAAAAGTGATTATAACTGGGGATGCATTTGTTCTGGAGAAAGAAG
TGTCATTATCATGAACCATCGGACAAGAATGGACTGGATGTTCCGTGGAATTGCCTGATGCGATATAGC
TACCTCAGATTGGAGAAAATTTGCCTCAAAGCGAGTCTCAAAGGTGTTCCCTGGATTTGGTTGGGCCATGC
AGGCTGCTGCCTATATCTTCATTCATAGGAAATGGAAGGATGACAAGAGCCATTTGGAAGACATGATTGA
TTACTTTTGTGATATTCACGAACCACTCAACTCCTCATATCCAGAAGGGACTGATCTCACAGAAAAC
AGCAAGTCTCGAAGTAATGCATTTGCTGAAAAAATGGACTTCAGAAATATGAATATGTTTTACATCCAA
GAACTACAGGCTTTACTTTTGTGGTAGACCGTCTAAGAGAAGTAAGAACCTTGATGCTGTCATGATAT
CACTGTGGCGTATCCTCACAACATTCCTCAATCAGAGAAGCACCTCCCAAGGAGACTTTCCAGGGAA
ATCCATTTACGTCACCGGTATCCAATAGACACCCCTCCACATCCAAGGAGACTTCAACTCTGTTGTT
GCCACAAACGGTGGGAAGAGAAAGAAGAGAGGCTGCGTTCTTCTATCAAGGGGAGAAGAATTTTTATT
TACCGGACAGAGTGTATTCCACCTTGCAAGTCTGAACTCAGGGTCCCTTGTGGTCAAATTGCTCTTATA
CTGTATTGGACCCTGTTGAGCCCTGCAATGTGCCTACTCATATTTGTACAGTCTTGTAAAGTGGTATT
TTATAATCACCATTGTAATCTTTGTGCTGCAAGAGAGAATATTTGGTGGACTGGAGATCATAGAACTTGC
ATGTTACCGACTTTTACACAAACAGCCACATTTAAATTCAAAGAAAAATGAG

ACGGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG220664 representing NM_182551
 Red=Cloning site Green=Tags(s)

MHSRGREIVVLLNPWSINEAVSSYCTYFIKQDSKSFSGIMVSWKGIYFILTLFWGSFFGSIIFMLSPFLPLM
 FVNPSWYRWNNRLVATWLTLPVALLETMFGVKVITGDADFVPGERSVIIMNHRTRMDWMFLWNCLMRY
 YLRLEKICLKASLKGVPFGFWAMQAAAYIFIHRKWKDDKSHFEDMIDYFCDIHEPLQLLIFPEGDTL
 TEN SKRSNAFAEKNGLQKYEYVLPRTTGFVVDRLREGKNLDAVHDITVAYPHNIPQSEKHLQGD
 FPRE IHFHVHRYPIDTLPTSKEDLQLWCHKRWEEKEERLRSFYQGEKNFYFTGQSVIPPCKSEL
 RVLVVKLLSILYWTLFSPAMCLLIYLYSLVKWYFIITIVIFVLQERIFGGLEIIELACYRLLHKQ
 PHLNSKKNE

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_182551

ORF Size: 1242 bp

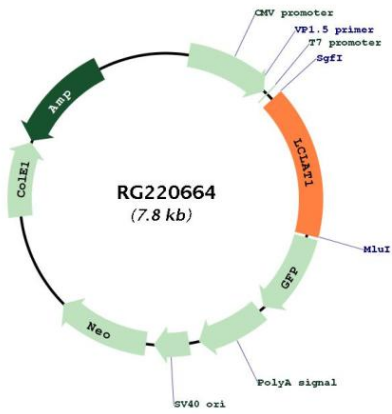
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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 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:	<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_182551.5
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
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 RG220664