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Product datasheet for RC220664

LCLAT1 (NM_182551) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LCLAT1 (NM_182551) 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:

>RC220664 representing NM_182551
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCATTCCAGGGGAAGGGAAATTGTGGTGCTTCTGAACCCATGGTCAATTAACGAGGCAGTTTCTAGCT
ACTGCACGTACTTCATAAAGCAGGACTCTAAAAGCTTTGGAATCATGGTGTCATGGAAAGGGATTTACTT
TATACTGACTCTGTTTTGGGGAAGCTTTTTTGGAAGCATTTTCATGCTGAGTCCCTTTTTACCTTTGATG
TTTGTAAACCCATCTTGGTATCGCTGGATCAACAACCGCCTTGTGGCAACATGGCTCACCCTACCTGTGG
CATTATTGGAGACCATGTTTGGTGTAAAAGTGATTATAACTGGGGATGCATTTGTTCCTGGAGAAAGAAG
TGTCATTATCATGAACCATCGGACAAGAATGGACTGGATGTTCCTGTGGAATTGCCTGATGCGATATAGC
TACCTCAGATTGGAGAAAATTTGCCTCAAAGCGAGTCTCAAAGGTGTTCCTGGATTTGGTTGGGCCATGC
AGGCTGCTGCCTATATCTTCATTCATAGGAAATGGAAGGATGACAAGAGCCATTTCGAAGACATGATTGA
TTACTTTTGTGATATTCACGAACCACTTCAACTCCTCATATTCCCAGAAGGGACTGATCTCACAGAAAAC
AGCAAGTCTCGAAGTAATGCATTTGCTGAAAAAAATGGACTTCAGAAATATGAATATGTTTTACATCCAA
GAACTACAGGCTTTACTTTTGTGGTAGACCGTCTAAGAGAAGGTAAGAACCTTGATGCTGTCCATGATAT
CACTGTGGCGTATCCTCACAACATTCCTCAATCAGAGAAGCACCTCCTCCAAGGAGACTTTCCCAGGGAA
ATCCACTTTCACGTCCACCGGTATCCAATAGACACCCTCCCCACATCCAAGGAGGACCTTCAACTCTGGT
GCCACAAACGGTGGGAAGAGAAAGAAGAGAGGCTGCGTTCCTTCTATCAAGGGGAGAAGAATTTTTATTT
TACCGGACAGAGTGTCATTCCACCTTGCAAGTCTGAACTCAGGGTCCTTGTGGTCAAATTGCTCTCTATA
CTGTATTGGACCCTGTTCAGCCCTGCAATGTGCCTACTCATATATTTGTACAGTCTTGTTAAGTGGTATT
TTATAATCACCATTGTAATCTTTGTGCTGCAAGAGAGAATATTTGGTGGACTGGAGATCATAGAACTTGC
ATGTTACCGACTTTTACACAAACAGCCACATTTAAATTCAAAGAAAAATGAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC220664 representing NM_182551
Red=Cloning site Green=Tags(s)

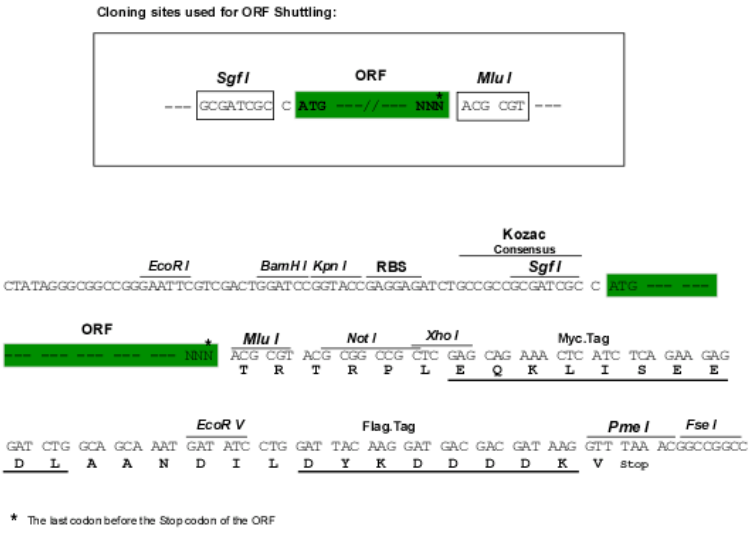
MHSRGREIVVLLNPWSINEAVSSYCTYFIKQDSKSFGIMVSWKGIYFILTLFWGSFFGSIFMLSPFLPLM
FVNPSWYRWINNRLVATWLTLPVALLETMFGVKVIITGDAFVPGERSVIIMNHRTRMDWMFLWNCLMRYS
YLRLEKICLKASLKGVPGFGWAMQAAAYIFIHRKWKDDKSHFEDMIDYFCDIHEPLQLLIFPEGTDLTEN
SKSRSNAFAEKNGLQKYEYVLHPRTTGFTFVVDRLREGKNLDAVHDITVAYPHNIPQSEKHLLQGDFPRE
IHFHVHRYPIDTLPTSKEDLQLWCHKRWEEKEERLRSFYQGEKNFYFTGQSVIPPCKSELRVLVVKLLSI
LYWTLFSPAMCLLIYLYSLVKWYFIITIVIFVLQERIFGGLEIIELACYRLLHKQPHLNSKKNE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6271_e03.zip

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

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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_182551.5
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
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 dilysocardiolipin 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]

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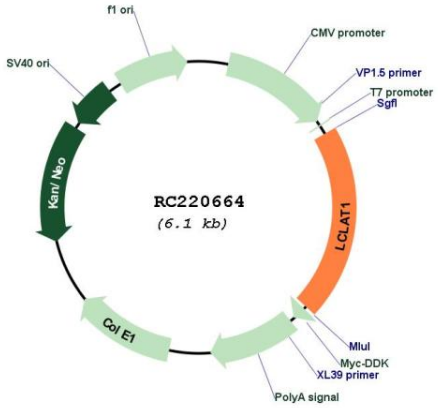
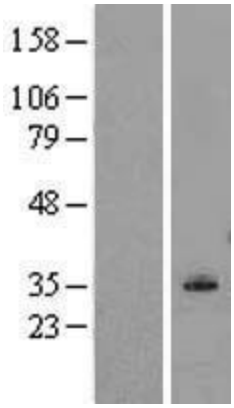
Product images:



Circular map for RC220664



Western blot validation of overexpression lysate (Cat# [LY405476]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220664 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

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