

## Product datasheet for **RG220083**

### LPCAT1 (NM\_024830) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	LPCAT1 (NM_024830) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	LPCAT1
Synonyms:	AGPAT9; AGPAT10; AYTL2; lpcat; LPCAT-1; lysoPAFAT; PFAAP3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG220083 representing NM\_024830  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGGCTGCGGGGATGCGGACCCGGGCCCCCTGCCTCCAGCGCAGGGGCCAGCGACGCTCGGCTGC  
 TGGCGCCCCGGGGCGGAACCCCTTCGTGCACGAGCTGCGCCTCAGCGCCTGCAGAAGGCCAGGTGGC  
 CCTCATGACACTGACGCTCTTCCCGTCCGGCTCCTGGTTGCCGCTGCCATGATGCTGCTGGCCTGGCC  
 CTCGCACTTGTGCATCCCTGGGCTCTGCGGAGAAGGAACCCGAGCAGCCCCGGCCCTGTGGAGGAAGG  
 TTGTGGACTTCTGCTGAAGGCCATCATGCGCACCATGTGGTTCGCCGGCGGCTTCCACCGGGTGGCCGT  
 GAAGGGGCGCAGGCGCTGCCACCGAGGGGCCATCCTCAGCTCGCGCCTCACTCGTCTACTTCGAC  
 GCCATCCCTGTGACCATGACGATGCTCCTCATCGTGATGAAGGCAGAGAGCAGAGACATCCCGATCTGGG  
 GAACTCTGATCCAGTATACGGCCTGTGTTCTGTGCCGGTCCAGCAGGATTCTCGCAGGAAAACAGT  
 AGAAGAAATCAAGAGACGGGCGCAGTCCAACGGAAAGTGGCCACAGATAATGATTTTTCCAGAAGGAACT  
 TGTACAAACAGGACCTGCCTAATTACCTTCAAACCTGGTGCAATTCATCCCTGGAGCGCCCGTCCAGCCTG  
 TGGTTTTACGATATCAAATAAACTGGACACCATCACATGGACGTGGCAAGGACCTGGAGCGCTGGAAT  
 CCTGTGGCTCACGCTGTGTCAAGTTTCAACCAAGTGGAAATCGAGTTCCCTTCTGTGTACAGCCCTTCT  
 GAGGAGGAGAAGAGGAACCCCGCCTGTATGCCAGCAACGTGCGGCGAGTCATGGCCGAGGCCTTGGGTG  
 TCTCCGTGACTGACTACAGTTCGAGGACTGCCAGCTGGCCCTGGCGGAAGGACAGCTCCGTCTCCCCGC  
 TGACACTTGCCTTTTGAATTTGCCAGGCTCGTGGGGCCCTCGGGTAAAACAGAAAAGCTTGAAAAA  
 GATCTGGACAGATACTCAGAAAGAGCCAGGATGAAGGGAGGAGAGAAGATAGGTATTGCGGAGTTTGCCG  
 CCTCCCTGGAAGTCCCCGTTTCTGACTTGCTGGAAGACATGTTTTCACTGTTTCGACGAGAGCCGCGCAGCGG  
 CGAGGTGGACCTGCGAGAGTGTGTGGTTGCCCTGTCTGCTGCTGCCGGCCGGCCCGACCTGGACACC  
 ATCCAGCTGGCTTTCAAGATGTACGAGCGCAAGAGGACGGCAGCGTCGCGCAAGGTGACCTGTCCTGCA  
 TCCTCAAGACGGCCCTGGGGTGGCAGAGCTCACCGTGACCGACCTATCCGAGCCATTGACCAAGAGGA  
 GAAGGGGAAGATCACATTCGCTGACTTCCACAGGTTTGCAGAAATGTACCCTGCCTTCGACAGGAAATC  
 CTGTACCCGGATCAGACACATTTCAAAGCTGTGCAGAGACCTCACCTGCCCAATCCCAAACGGCTTCT  
 GTGCCGATTTAGCCCGAAAACCTCAGACGCTGGGCGGAAGCCTGTTCCGAAGAAGCTGGAT

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG220083 representing NM\_024830  
 Red=Cloning site Green=Tags(s)

MRLRGCGPRAAPASSAGASDARLLAPPGRNPFVHELRLSALQKAQVALMTLTLFPVRLLVAAAMLLAWP  
 LALVASLGSAAEKEPEQPPALWRKVVDFLLKAIMRTMWFAGGFHRVAVKGRQALPTEAAILTLAPHSSYFD  
 AIPVTMTSSIVMKAESRDIPIWGTLIQYIRPVFVSRSDQDSRRKTVVEEIKRRAQSNKWPQIMIFPEGT  
 CTNRTCLITFKPGAFIPGAPVQPVVLRYPNKLDITWTWQGPAGLEILWLTLCQFHNQVEIEFLPVYSPS  
 EEEKRNPALYASNVRRVMAEALGVSVTDYTFEDCQLALAEGLRLPADTCLLEFARLVRGLGLKPEKLEK  
 LDLDRYSERARMKGGEKIGIAEFAASLEVPVSDLLEDMSLFDSESGSEVDLRECVVALSVVCRPARTLDT  
 IQLAFKMYGAQEDGSGEGDLSCILKTALGVAELTVTDLFRAIDQEKGITFADFHRFAEMYPFAEEY  
 LYPDQTHFESCAETSPAPIPNGFCADFSPENSDAGRKPVRKKLD

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_024830

**ORF Size:** 1602 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\\_024830.5](#)

**RefSeq Size:** 3994 bp

**RefSeq ORF:** 1605 bp

**Locus ID:** 79888

**UniProt ID:** [Q8NF37](#)

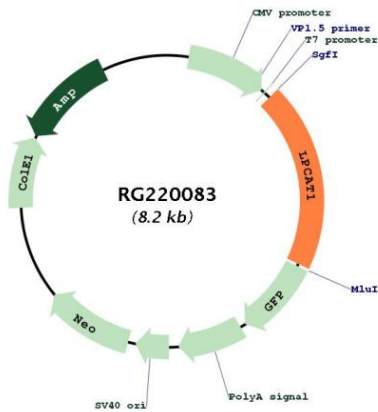
**Cytogenetics:** 5p15.33

**Domains:** EFh, Acyltransferase

**Protein Families:** Transmembrane

**Gene Summary:** This gene encodes a member of the 1-acyl-sn-glycerol-3-phosphate acyltransferase family of proteins. The encoded enzyme plays a role in phospholipid metabolism, specifically in the conversion of lysophosphatidylcholine to phosphatidylcholine in the presence of acyl-CoA. This process is important in the synthesis of lung surfactant and platelet-activating factor (PAF). Elevated expression of this gene may contribute to the progression of oral squamous cell, prostate, breast, and other human cancers. [provided by RefSeq, Sep 2016]

**Product images:**



Circular map for RG220083