

Product datasheet for **MR206988**

Lcat (NM_008490) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lcat (NM_008490) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Lcat
Synonyms:	A1046659; D8Wsu61e
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR206988 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGGCTGCCTGGCTCCCCATGGCAGCGGGTGTCTGTTGCTGTTGGGGCTACTGCTCCCTCTGCCACCC
 CCTTCTGGCTCCTCAATGTGCTCTTCCCCCGCACACCACGCCAAGGCTGAACTCAGTAACCACACACG
 GCCTGTATCCTCGTGCCTGGCTGCTTGGGAATCGGCTAGAAGCCAAGCTGGATAAACCAGATGTGGT
 AACTGGATGTGCTACCGTAAGACAGAGGACTTCTTACCACCTGGCTGGATTTCAACTTGTCTCCCC
 TCGGGGTGGACTGCTGGATTGATAATACCAGGATTGTCTACAACCACAGCTCTGGGCGGTGTCATGC
 CCCTGGTGTCCAGATCCGTGTCCCTGGCTTGGCAAGACCGAATCTGTTGAGTACGTGGATGACAACAAG
 CTAGCAGGCTACCTGCACACACTGGTGCAGAATCTGGTTAACACGGATATGTGCGGGATGAGACAGTGC
 GGGCCGACCCCTATGACTGGCGTCTGGCACCCACCAGCAGGATGAATACTACAAGAAGCTGGCTGGCT
 GGTAGAGGAGATGTATGCCGCTTATGGGAAGCCTGTCTTCTCATTGGGCATAGCCTTGGCTGTCTGCAT
 GTGCTCCACTTCTTACTGCGGCAGCCTCAGTCTGGAAGGACCCTTATTGATGGTTTTATCTCTCTCG
 GGGCTCCGTGGGGTGGTCCATCAAGGCCATGCGGATCCTGGCCTCAGGTGACAACCAGGGCATCCCCAT
 CCTGTCCAACATAAAGCTGAAAGAGGAGCAGCGCATAACCACGACTTCCCCCTGGATGCTCCAGCCCT
 CACGTGTGGCCTGAAGACCATGTGTTTATTTCCACACCAAACCTCAACTACACCGTCCAAGACTTTGAGC
 GTTTTTTACAGATCTGCATTTTGAAGAAGGCTGGCACATGTTTCTTCACTCTCGTGACCTACTGGAGCG
 CCTCCCCGACCTGGTGTAGAAGTATATTGTCTCTACGGTGTGGGAGACCCACACCCACACCTACATC
 TATGACCACAACCTCCCCTACAAAGACCCCGTGGCTGACTCTATGAAGATGGGGAGCAGACCCGTAGCCA
 CCCGCAGCACTGAGCTCTGTGGCCAGTGGCAGGGCCGACAGTGCAGCCCGTACATTTGCTGCCCATGAA
 CGAGACAGATCACCTCAACATGGTCTTACAGAAATAAGACACTGGAGCATATCAATGCCATCCTACTGGGT
 GCCTACCGCACTCCTAAGTCGCCAGCTGCCAGCCCAAGTCCCCACCCCTGAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR206988 protein sequence
 Red=Cloning site Green=Tags(s)

MGLPGSPWQRVLLLLGLLLPPATPFWLLNVLFPHTTPKAELSNHTRPVILVPGCLGNRLEAKLDKPDVV
 NWMCYRKTEFFTIWLDNFNLFPLGVDCWIDNTRIVYNHSSGRVSNAPGVQIRVPGFGKTESVEYVDDNK
 LAGYLHTLVQNLVNNGYVRDETVRAAPYDWRLAPHQQDEYKKLAGLVEEMYAAYGKPVFLIGHSLGCLH
 VLHFLLRQPQSWKDHFIIDGFIISLGAPWGGSIKAMRILASGDNQGIPILSNIKLKEEQRITTTSPWMLPAP
 HVWPEHVFISTPNFNVTQDFERFFDHLHFEEGWHMFLQSRDLLELRLPAPGVEVYCLYGVGRPTPHYI
 YDHNFPYKDPVAALYEDGDDTVATRSTELCGWQGRQSPVHLLPMNETDHLNMVFSNKLTLEHINAILLG
 AYRTPKSPAASPPPPPE

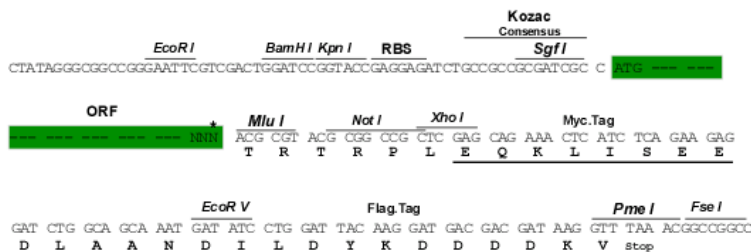
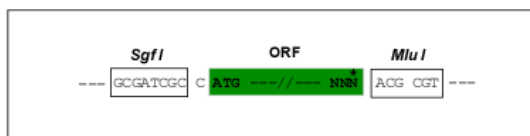
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



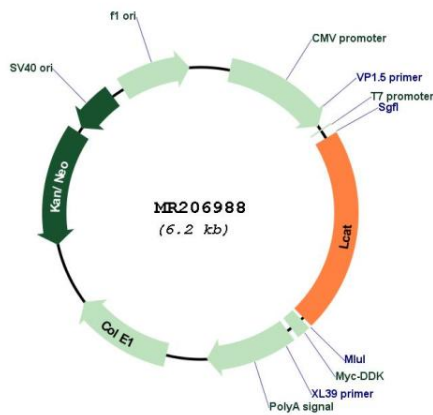
* The last codon before the Stop codon of the ORF

- ACCN: NM_008490
- ORF Size: 1317 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_008490.2](#)
- RefSeq Size: 1370 bp
- RefSeq ORF: 1317 bp
- Locus ID: 16816
- UniProt ID: [P16301](#)
- Cytogenetics: 8 53.06 cM

MW: 49.7 kDa

Gene Summary: Central enzyme in the extracellular metabolism of plasma lipoproteins. Synthesized mainly in the liver and secreted into plasma where it converts cholesterol and phosphatidylcholines (lecithins) to cholesteryl esters and lysophosphatidylcholines on the surface of high and low density lipoproteins (HDLs and LDLs) (PubMed:19065001). The cholesterol ester is then transported back to the liver. Also produced in the brain by primary astrocytes, and esterifies free cholesterol on nascent APOE-containing lipoproteins secreted from glia and influences cerebral spinal fluid (CSF) APOE- and APOA1 levels (PubMed:19065001). Together with APOE and the cholesterol transporter ABCA1, plays a key role in the maturation of glial-derived, nascent lipoproteins (PubMed:19065001). Required for remodeling high-density lipoprotein particles into their spherical forms (PubMed:19065001). Has a preference for plasma 16:0-18:2 or 18:0-18:2 phosphatidylcholines (PubMed:8820107).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR206988