

## Product datasheet for MC211915

### Lrat (NM\_023624) Mouse Untagged Clone

#### Product data:

Product Type: Expression Plasmids  
Product Name: Lrat (NM\_023624) Mouse Untagged Clone  
Tag: Tag Free  
Symbol: Lrat  
Synonyms: 1300010A18Rik; AI449251  
Vector: pCMV6-Entry (PS100001)  
E. coli Selection: Kanamycin (25 ug/mL)  
Cell Selection: Neomycin  
Fully Sequenced ORF: >MC211915 representing NM\_023624  
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGAAGAACCCAATGCTGGAAGCTGCGTCCCTCCTCCTGGAGAACTGCTCCTTATTTCCAACCTCAAGC  
TCTTTAGCGTGAGCGTCCCGGGAGGAGGCACAGGAAGAACCCTCCCTATGAAATCAGCTCTTTCGTCCG  
GGGCGACGTGTTGGAGGTGTACGGACCCATTTATCCACTATGGGATCTACCTGGGGAAAACCGTGTC  
GCCCATCTAATGCCTGACATCCTGTTGGCCCTGACCAATGACAAGGAACGCACTCAGAAGGTGGTCTCCA  
ACAAGCGTCTCCTCCTGGGAGTCATTTGAAGGTGGCTAGCATCCGTGTGGACACAGTAGAGGACTTTGC  
CTACGGAGCAGACATCCTAGTCAATCACCTAGACGGGACTCTCAAGAAGAAGTCCTTACTCAATGAGGAG  
GTGGCAGCAGAGCTGAGCAGCAGTTGGGACTGACTCCATACAGCCTACTGTGGAACAACCTGCGAACACT  
TTGTGACTTACTGCAGATATGGCTCTCGGATCAGTCCACAGGCTGAGAAGTTCTATGACACCGTGAAGAT  
AATCATTTCGTGATCAGAGAAGCAGTCTTGCTTCGGCTGTCTTGGGATTAGCATCTATTGTCTACACAGGC  
CTGGCATCATATATGACCCTTCTGCAATCTGTATCCCATTCTGCTTGTGGATGATGTCTGGC**TAG**

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI  
ACCN: NM\_023624  
Insert Size: 696 bp



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<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_023624.4</a> , <a href="#">NP_076113.1</a>
<b>RefSeq Size:</b>	5349 bp
<b>RefSeq ORF:</b>	696 bp
<b>Locus ID:</b>	79235
<b>UniProt ID:</b>	<a href="#">Q9J160</a>
<b>Cytogenetics:</b>	3 E3
<b>Gene Summary:</b>	Transfers the acyl group from the sn-1 position of phosphatidylcholine to all-trans retinol, producing all-trans retinyl esters (By similarity). Retinyl esters are storage forms of vitamin A (By similarity). LRAT plays a critical role in vision (By similarity). It provides the all-trans retinyl ester substrates for the isomerohydrolase which processes the esters into 11-cis-retinol in the retinal pigment epithelium; due to a membrane-associated alcohol dehydrogenase, 11 cis-retinol is oxidized and converted into 11-cis-retinaldehyde which is the chromophore for rhodopsin and the cone photopigments (By similarity). Required for the survival of cone photoreceptors and correct rod photoreceptor cell morphology (PubMed:25416279). [UniProtKB/Swiss-Prot Function]