

## Product datasheet for RC200508L3

#### OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

## ATP citrate lyase (ACLY) (NM\_001096) Human Tagged Lenti ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

Product Name: ATP citrate lyase (ACLY) (NM\_001096) Human Tagged Lenti ORF Clone

Tag: Myc-DDK

**Symbol:** ATP citrate lyase

Synonyms: ACL; ATPCL; CLATP

Mammalian Cell

Selection:

Puromycin

**Vector:** pLenti-C-Myc-DDK-P2A-Puro (PS100092)

E. coli Selection: Chloramphenicol (34 ug/mL)

**ORF Nucleotide** 

The ORF insert of this clone is exactly the same as(RC200508).

Sequence:

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF.

**ACCN:** NM\_001096

ORF Size: 3303 bp



### ATP citrate lyase (ACLY) (NM\_001096) Human Tagged Lenti ORF Clone - RC200508L3

**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:** <u>NM 001096.2</u>

RefSeq Size: 4450 bp RefSeq ORF: 3306 bp

Locus ID: 47

 UniProt ID:
 P53396

 Cytogenetics:
 17q21.2

**Domains:** CoA binding, ligase-CoA

**Protein Families:** Druggable Genome

**Protein Pathways:** Citrate cycle (TCA cycle), Metabolic pathways

**MW:** 120.8 kDa

**Gene Summary:** ATP citrate lyase is the primary enzyme responsible for the synthesis of cytosolic acetyl-CoA

in many tissues. The enzyme is a tetramer (relative molecular weight approximately 440,000) of apparently identical subunits. It catalyzes the formation of acetyl-CoA and oxaloacetate from citrate and CoA with a concomitant hydrolysis of ATP to ADP and phosphate. The product, acetyl-CoA, serves several important biosynthetic pathways, including lipogenesis

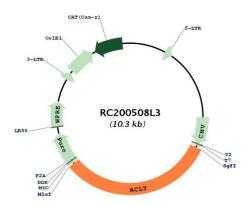
and cholesterogenesis. In nervous tissue, ATP citrate-lyase may be involved in the

biosynthesis of acetylcholine. Multiple transcript variants encoding distinct isoforms have

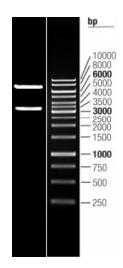
been identified for this gene. [provided by RefSeq, Dec 2014]



# **Product images:**



Circular map for RC200508L3



Double digestion of RC200508L3 using Sgfl and Mlul