

Product datasheet for **RC224276**

ATP citrate lyase (ACLY) (NM_198830) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP citrate lyase (ACLY) (NM_198830) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ACLY
Synonyms:	ACL; ATPCL; CLATP
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC224276 representing NM_198830 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGTCGGCCAAGGCAATTCAGAGCAGACGGGCAAGAAGTCTTTACAAGTTCATCTGTACCACCTCAG
CCATCCAGAATCGTTCAAGTATGCTCGGGTCACTCCTGACACAGACTGGGCCGCTTGTCTGACGAGCA
CCCCTGGCTGCTCAGCCAGAAGTGGTAGTCAAGCCAGACCAGCTGATCAAACGTCGTGGAAAATTGGT
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CAGTTGGCAAGGCCACAGGCTTCTCAAGAAGTCTTCTGATCGAGCCCTTCGTCCCCACAGTCAGGCTGA
GGAGTTCTATGTCTGCATCTATGCCACCCGAGAAGGGGACTACGTCTGTCCACCACGAGGGGGGTGTG
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CAATCTTTGTCCGAAGAGGTGGCCCAACTATCAGGAGGGCTTACGGGTGATGGGAGAAGTCGGGAAGAC
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CCTCAGTGGCTGCCATGGTCTACCCCTTCACTGGGGACCACAAGCAGAAGTTTTACTGGGGGCACAAAGA
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC224276 representing NM_198830

Red=Cloning site Green=Tags(s)

MSAKAISEQTGKELLYKFICTTSAIQNRFKYARVTPDWDWARLLQDHPWLLSQNLVVKPDQLIKRRGKLG
 LVGVNLTLDGVKSWLKPRLGQEAIVGKATGFLKNFLIEPFVPHSQAEFYVCIYATREGDYVLFHHEGGV
 DVGVDVAKAQKLLVGVDEKLNPEIDIKHLLVHAPEDKKEILASFISGLFNFYEDLYFTYLEINPLVVTGD
 GVVYLDLAAKVDATADYICKVKWGDIEFPPPGREAYPEEAYIADLDAKSGASLKLTLNPKGRIWMTVA
 GGGASVVYSDTICDLGGVNELANYGEYSGAPSEQTYDYAKTILSLMTREKHPDGKILIIIGGSIANFTNV
 AATFKGIVRAIRDYQGPKLKEHEVTIFVRRGGPNYQEGLRVMGEVGTGPIHVFGEETHMTAIVGMALG
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 VWGMQTRAVQGMDFDYVCSRDEPSVAAMVYPTGDHKQKFWGHKEILIPVFNKADAMRKHPEVDVLI
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 KMIIVLGEIGGTEEYKICRGIKEGRLTKPIVCWCIGTCATMFSSEVQFGHAGACANQASETAVAKNQALK
 EAGVFPVRSFDELGEIIQSVYEDLVANGVIVPAQEVPPTVPMDYSWARELGLIRKPASFMTSICDERGQ
 ELIYAGMPITEVFKEEMGIGGVLGLLWFQKRLPKYSCQFIEMCLMVTADHGPAVSGAHTIICARAGKDL
 VSSLTSGLLTIGDRFGGALDAAAKMFSKAFDSGIIPMEFVNKMKKEGKLMGIGHRVKSIINPNPDMRVQIL
 KDYYVRQHFAPATPLLDYALEVEKITTSKPNLILNVDGLIGVAFVMDLRNCGSFTREEADEYIDIGALNGI
 FVLGRSMGFIGHYLDQKRLKQGLYRHPWDDISYVLPHEMSM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-Mlul

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:	<ol style="list-style-type: none">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_198830.1, NP_942127.1</u>
RefSeq Size:	4420 bp
RefSeq ORF:	3276 bp
Locus ID:	47
UniProt ID:	<u>P53396</u>
Cytogenetics:	17q21.2
Protein Families:	Druggable Genome
Protein Pathways:	Citrate cycle (TCA cycle), Metabolic pathways
MW:	119.6 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 cholesterologenesis. 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]