

## Product datasheet for **RC221302**

### ACOT1 (NM\_001037161) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ACOT1 (NM_001037161) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ACOT1
Synonyms:	ACH2; CTE-1; LACH2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC221302 representing NM\_001037161  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGCGGCGACGCTGATCCTGGAGCCCGGGCCGCTGCTGCTGGGACGAACCGGTGCGAATCGCCGTGC  
 CGGCCTAGCCCCGAGCAGCCGGTACAGCTGCGCGCTCCCTGCGCGACGAGAAGGGCGCGCTTTTCCA  
 GGCCACGCGCGCTACCGCGCCGACACCCTTGGCGAGCTGGACCTGGAGCGCGCCCGCCTGGGCGGC  
 AGCTTCGCGGGGCTTGGCCCATGGGGCTGCTCTGGCCCTGGAGCCGAGAAACCTTGGTGGCGTGG  
 TGAAGCGCGACGTGCGAACGCCCTTGGCCGTGGAGCTGGAGGTGCTGGATGGCCACGACCCCGACCCGG  
 GCGGCTGCTGTCCGGGTGCGGCACGAGCGCTACTTCTCCCGCCGGGTGCGGCGGAGCCGGTGGC  
 GCGGGCCGGTGGAGGCAGCTCTTCTGCCCCAGAACCTGGCCCTTCTGGCATTGTGGACATGT  
 TCGGAAGTGGAGTGGCCTGCTGGAGTATCGGGTAGTCTGCTGGCTGGGAAGGGTTTTGCTGTGATGGC  
 TCTGGCTTACTATAACTATGAAGACCTCCCAAGACCATGGAGACGCTCCATCTGGAGTACTTTGAAGAA  
 GCTGTGAACTACTTGCTCAGTCATCCTGAGGTAAGGTCCAGGAGTTGGGCTGCTTGAATTTCCAAG  
 GGGTGAGCTCTGCCTTCCATGGCCTTCTTCTGAAGGCATCACGGCTGCTGTGTCATCAACGGCTC  
 TGTGGCAATGTTGGGGAACTTACGCTACAAGGGCAGACCCTGCCCCCTGTGGGCGTCAACAGAAAT  
 CGCATCAAGGTGACCAAAGATGGCTATGCAGACATTGTGGATGCTCCTGAACAGCCCTTGGGAAGGACCTG  
 ACCAGAAGAGCTTCACTCTGTGAAAGGGCAGAGACACCTTCTGTTCTGGTAGGTGAGGATGACCA  
 CAACTGGAAGAGTGAATCTATGCTAATGAGGCCTGTAACGCTTGCAGGCCATGGGAGGAGAAAGCCC  
 CAGATCATCTGTTACCCAGAGACAGGGCACTATATTGAGCCTCCTACTTCCCCCTGTGTCGGGCTTCCC  
 TGCATGCCTTGGTGGGCGAGTCTATTATCTGGGAGGGGAGCCAGGGCTCATGCCATGGCTCAGGTGGA  
 TGCTTGGAAACAACTCCAGACTTCTTCCACAAACACTTGGGTGGCCACGAGGGACAATCCCATCAAAA  
 GTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC221302 representing NM\_001037161  
 Red=Cloning site Green=Tags(s)

MAATLILEPAGRCWDEPVRIAVRGLAPEQPVTLRASLRDEKGFQAHARYRADTLGELDLERAPALGG  
 SFAGLEPMGLLWALEPEKPLVRLVKRDVRTPLAVELEVLGDHDPDGRLLCRVRHERYFLPPGVRREPVR  
 AGRVVRGTLFLPPEPGPFPGIIVDFGTGGGLLEYPASLLAGKGFVMAALAYNYEDLPKTMETLHLEYFEE  
 AVNYLLSHPEVKGPGVGLLGISKGGELCLSMASFLKGITAAVVINGSVANVGGTLRYKGETLPPVGVNRN  
 RIKVTKDGYADIVDLNSPLEGPDQKSFIPVERAESTFLFLVGQDDHNWKSEFYANEACKRLQAHGRRKP  
 QIICYPETGHYIEPPYFPLCRASLHALVGSPIIWGGEPRAHAMAQVDAWKQLQTFHFKHLGGHEGTIPSK  
 V

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6117\\_e07.zip](https://cdn.origene.com/chromatograms/mk6117_e07.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001037161

**ORF Size:** 1263 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_001037161.2](#)

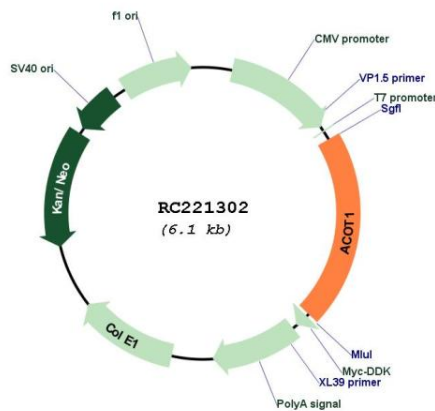
**RefSeq Size:** 1603 bp

**RefSeq ORF:** 1266 bp

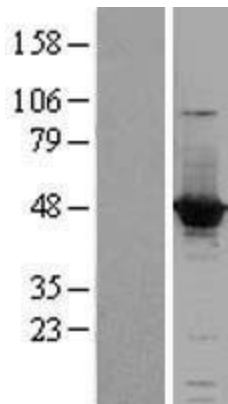
**Locus ID:** 641371

**UniProt ID:** [Q86TX2](#)  
**Cytogenetics:** 14q24.3  
**Protein Pathways:** Biosynthesis of unsaturated fatty acids  
**MW:** 46.1 kDa  
**Gene Summary:** Acyl-CoA thioesterases are a group of enzymes that catalyze the hydrolysis of acyl-CoAs into free fatty acids and coenzyme A (CoASH), regulating intracellular levels of acyl-CoAs, free fatty acids and CoASH. More active towards saturated and unsaturated long chain fatty acyl-CoAs (C12-C20).[UniProtKB/Swiss-Prot Function]

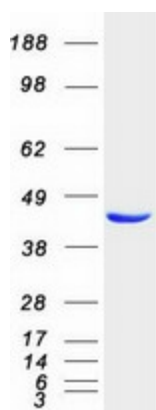
### Product images:



Circular map for RC221302



Western blot validation of overexpression lysate (Cat# [LY400415]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221302 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ACOT1 protein (Cat# [TP321302]). The protein was produced from HEK293T cells transfected with ACOT1 cDNA clone (Cat# RC221302) using MegaTran 2.0 (Cat# [TT210002]).