

## Product datasheet for **RG221302**

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

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** ACOT1 (NM\_001037161) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** ACOT1  
**Synonyms:** ACH2; CTE-1; LACH2  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG221302 representing NM\_001037161  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCGGCGACGCTGATCCTGGAGCCCGGGCCGCTGCTGCTGGGACGAACCGGTGCGAATCGCCGTGC  
 GCGGCCTAGCCCCGAGCAGCCGGTCACGCTGCGCGCTCCCTGCGCGACGAGAAGGGCGCGCTTTTCCA  
 GGCCACGCGCGTACCAGCGCCACACCCTTGGCGAGCTGGACCTGGAGCGCGCCCGCGCTGGGCGG  
 AGCTTCGCGGGGCTTGGCCCATGGGGCTGCTCTGGCCCTGGAGCCGAGAAACCCTTGGTGGCGTGG  
 TGAAGCGCGACGTGCGAACGCCCTTGGCCGTGGAGCTGGAGGTGCTGGATGGCCACGACCCCGACCCGG  
 GCGGCTGCTGTGCCGGGTGCGGCACGAGCGCTACTTCTCCCGCCGGGTGCGGCGGAGCCGGTGGC  
 GCGGGCCGGGTGCGAGGCACGCTCTTCTGCCCGCAGAACCTGGGCCCTTCTGGCATTGTGGACATGT  
 TCGGAAGTGGAGGTGGCCTGCTGGAGTATCGGGCTAGTCTGCTGGCTGGGAAGGGTTTTGCTGTGATGGC  
 TCTGGCTTACTATAACTATGAAGACCTCCCAAGACCATGGAGACGCTCCATCTGGAGTACTTTGAAGAA  
 GCTGTGAAGTACTTGGTCACTCCTGAGGTAAGAGTCCAGGAGTGGGCTGCTTGAATTTCCAAG  
 GGGGTGAGCTCTGCCTTCCATGGCCTCTTCTGAAGGGCATCACGGCTGCTGTGTCATCAACGGCTC  
 TGTGGCAATGTTGGGGAACTTACGCTACAAGGGCAGACCCCTGCCCTGTGGGCGTCAACAGAAAT  
 CGCATCAAGGTGACCAAAGATGGCTATGCAGACATTGTGGATGCTGTAACAGCCCTTTGAAGGACCTG  
 ACCAGAAGAGCTTCACTTCTGTGAAAGGGCAGAGACCTTCTGTTCTGTTAGGTACAGGATGACCA  
 CAACTGGAAGAGTGAGTTCTATGCTAATGAGGCCTGTAACGCTTGCAGGCCATGGGAGGAGAAAGCCC  
 CAGATCATCTGTTACCCAGAGACAGGGCACTATATTGAGCCTCCTTACTTCCCCCTGTGTCGGGCTTCCC  
 TGCATGCCTTGGTGGCAGTCTATTATCTGGGGAGGGGAGCCAGGGCTCATGCCATGGCTCAGGTGGA  
 TGCTTGGAAACAACCTCCAGACTTCTTCCACAACACTTGGGTGGCCACGAGGGGACAATCCCATCAAAA  
 GTG

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA



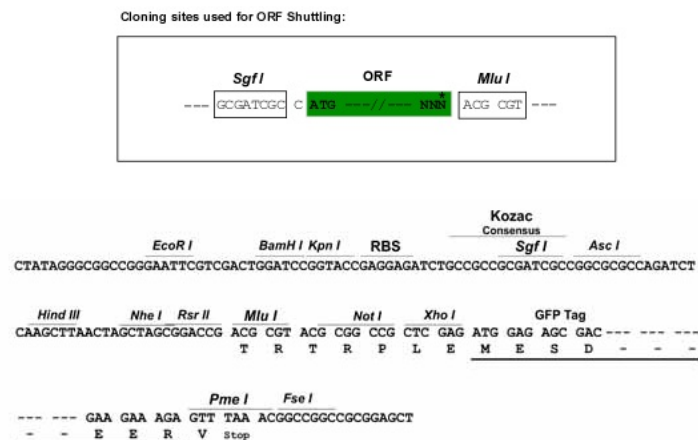
**Protein Sequence:** >RG221302 representing NM\_001037161  
Red=Cloning site Green=Tags(s)

MAATLILEPAGRCWDEPVRIAVRGLAPEQPVTLRASLRDEKGFQAHARYRADTLGELDLERAPALGG  
 SFAGLEPMGLLWALEPEKPLVRLVKRDVRTPLAVELEVLGDHDPDGRLLCRVRHERYFLPPGVRREPVR  
 AGRVRLTLFLPPEPGPFPGIVDMFGTGGGLLEYRASLLAGKGFAYMALAYNYEDLPKTMETLHLEYFEE  
 AVNYLLSHPEVKPGVGLLGISKGGELCLSMASFLKGITAAVVINGSVANVGGTLRYKGETLPPVGVNRRN  
 RIKVTKDGYADIVDLNSPLEGPDQKSFIPVERAESTFLFLVGQDDHNWKSEFYANEACKRLQAHGRRKP  
 QIICYPETGHYIEPPYFPLCRASLHALVGSPIIWGGEPRAHAMAQVDAWKQLQTFHKKHLGGHEGTIPSK  
 V

TRTRPLE – GFP Tag – V

**Restriction Sites:** SgfI-MluI

**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.

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

**RefSeq Size:** 1603 bp

**RefSeq ORF:** 1266 bp

**Locus ID:** 641371

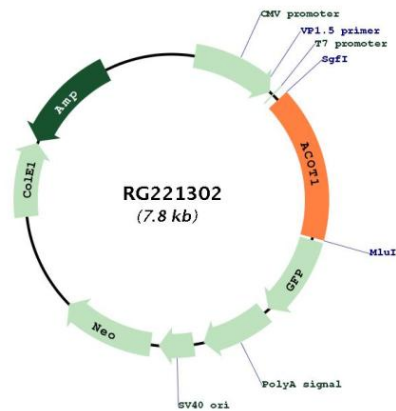
**UniProt ID:** [Q86TX2](#)

**Cytogenetics:** 14q24.3

**Protein Pathways:** Biosynthesis of unsaturated fatty acids

**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 RG221302