

## Product datasheet for **RG210445**

### ACOT12 (NM\_130767) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ACOT12 (NM_130767) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ACOT12
Synonyms:	Cach; CACH-1; STARD15; THEAL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG210445 representing NM\_130767  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAGCGGCCGGCGCCCGGCGAGGTGGTCATGAGCCAAGCCATCCAGCCGGCGCACGCCACTGCGCGCG  
 GCGAGCTGAGCGCGGGGAGCTGCTCAAGTGGATCGACACCACCGCTGCCTGGCGGCTGAGAAACATGC  
 TGGAGTTTCTGCGTTACAGCCTCAGTGGATGACATACAGTTTGAGGAGACAGCTAGAGTTGGACAAGTT  
 ATAACCATCAAAGCAAAGTTACTAGAGCATTACGACAAAGCATGGAGATCAGTATCAAGGTCATGGTAC  
 AGGATATGCTCACTGGCATTGAGAAGCTTGTAGTGTGGCTTTCTCCACATTTGTAGCCAAACCAGTTGG  
 AAAAGAAAAGATTCATTTAAAACAGTCACACTTCTAACTGAACAAGATCATGTGGAACATAATCTGGCT  
 GCTGAGAGAAGGAAAGTTCGATTACAACATGAAGATACCTTTAACATTTAATGAAGGAAAGTAGCAAT  
 TTGATGATCTCATTTTTGATGAAGAGGAAGGAGCGGTTTCCACAAGGGGCACCTCCGTTCCAGAGCATTGA  
 ACTGGTCTCCACCCCATGCAAACCATCACGGAATACATTTGGTGGCCAGATTATGGCGTGGATGGAG  
 ACAGTGGCTACTATTTCTGCAAGCCGCCTGTGTTGGGCTCATCCCTTTCTGAAGTCCGTAGATATGTTTA  
 AGTTCCGGGGACCATCTACAGTTGGAGATCGTCTTGTCTTCACTGCCATTGTCAACAATACATTTACAGC  
 CTGTGTTGAAGTTGGAGTTCGCGTGGAGGCCTTTGACTGTGAGGAATGGGCCGAGGGCCGAGGGCGTAC  
 ATCAACAGTGTCTTTCTCATTTACAATGCTGCTGATGATAAGGAAAATCTCATACGTTTCCAGAATCC  
 AACCCATTTCAAAGGATGATTTCCAGACGCTATCGGGGAGCTATTGCACGCAAGCGAATTCGCCTAGGCAG  
 AAAATATGTTATTTCCACAAAGAAGAGGTTCCACTTTGCATACACTGGGATATCAGCAAGCAGGCATCC  
 CTGAGTGACAGCAATGTGGAGGCCCTCAAAAACTGGCAGCCAAAAGGGTTGGGAGTTACCAGCACTG  
 TGGAAAAGATAAAAAATATACTCTGGAAGAGCATGATGTTTTATCTGTTGGGTTGAAAAGCAGCTGGG  
 AAGTCCAGCACATTTGGCTTATCGTCTTGTCTGACTTTACAAAAGCGACCTTTGTGGGACCCCATTTT  
 GTGCCTGTGAAGTCATAGACTGGGTGAGTGAAGATGATCAGCTGTATCATACCTGTCTATACTGA  
 ATGATGACAAACCCAAAGACTTGGTAGTACTCGTATCACGAAGAAAACCCCTCAAAGATGGTAACACTTA  
 CACAGTGGCAGTGAAGTCGGTCAATTTGCCATCGGTCCCCCGTCTCCACAGTACATCAGAAGTGAATC  
 ATATGTGCCGGATTTCTCATCCATGCTATTGACAGCAATTCATGCATCGTATCTTACTTTAACCATATGT  
 CTGCTAGCATCCTTCTTACTTTGCTGGAATCTTGGTGGCTGGTCAAAATCCATTGAAGAAACAGCAGC  
 CTCTTGATACAGTCTTAGAGAATCCTCTGATGATGGGTTTGAAGCACATTT

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG210445 representing NM\_130767  
 Red=Cloning site Green=Tags(s)

MERPAPGEVMSQAIQPAHATARGELSAGQLLKWIDTTACLAAEKHAGVSCVTASVDDIQFEETARVGQV  
 ITIKAKVTRAFSTSMESISKVMVQDMLTGIEKLVSFAFSTFVAKPVGKEKIHLPVTLLEQDHEHNLA  
 AERRKVRQLQHEDTFNNLMKESKFDDLIFDEEEGAVSTRGTSVQSIELVLPphanHHGNTFGGQIMAWME  
 TVATISASRLCWAHPFLKSVD MFKFRGPSTVGDRLVFTAIVNNTFQTCVEVGVVVEAFDCQEWAEGRGRH  
 INSAFLIYNAADDKENLITFPRIQPIKDDFRRYRGAIARKRIRLGRKYVISHKEEVPLCIHWDISKQAS  
 LSDSNVEALKKLAARGWEVTSTVEKIKIYTL EEHDVLSVWVEKHVGS PAHLAYRLLSDFTKRPLWDPHF  
 VSCEVIDWVSEDDQLYHITCPILNDDPKDLVVLVSRKPLKDGNTYTVAVKSVILPSVPPSPQYIRSEI  
 ICAGFLIHAIIDNSCIVSYFNHMSASILPYFAGNLGGWSKSIEETAASCIQFLENPPDDGFVSTF

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_130767

**ORF Size:** 1665 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\\_130767.3](#)

**RefSeq Size:** 1820 bp

**RefSeq ORF:** 1668 bp

**Locus ID:** 134526

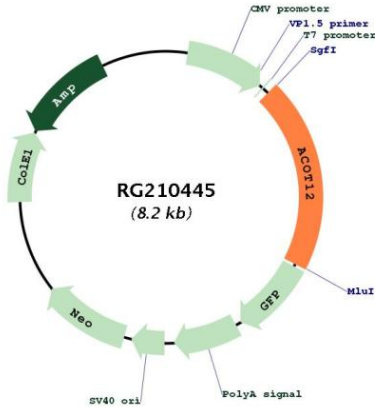
**UniProt ID:** [Q8WYK0](#)

**Cytogenetics:** 5q14.1

**Protein Pathways:** Pyruvate metabolism

**Gene Summary:** Acyl-CoA thioesterases are a group of enzymes that catalyze the hydrolysis of acyl-CoAs to the free fatty acid and coenzyme A (CoASH), providing the potential to regulate intracellular levels of acyl-CoAs, free fatty acids and CoASH (PubMed:16951743). Acyl-coenzyme A thioesterase 12/ACOT12 preferentially hydrolyzes acetyl-CoA (PubMed:16951743).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for RG210445