

## Product datasheet for **MG224284**

### Acot12 (NM\_028790) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Acot12 (NM_028790) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Acot12
Synonyms:	1300004O04Rik; 4930449F15Rik; AV027244; Cach; mCACH-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG224284 representing NM\_028790  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGTCGATGGTGGCCGGGTGAGGTGCTCATGAGCCAGGCCATCCAGCCGGCTCATGCCACTCCC  
 GCGGCGAGCTGAGCGCAGGGCAGCTGCTCAAGTGGATGGACACCACCGCTTGCCTGGCGCCGAAAAGCA  
 TGCTGGGATTTCCCTGTGTACAGCCTCCATGGATGACATTCTGTTTGAGGACACAGCGAGAATTGGACAA  
 ATTATTACCATCAGAGCAAAAGTACTAGGGCGTTGAGCACAAGCATGGAGATCAGTATCAAGGTCATAG  
 TCCAGGACAAGTTCACGGGCATCCAGAAGCTCCTCTGCGTGGCTTCTCTACGTTTGTAGCTAAACCAGT  
 TGGCAAAGAAAAGTTCACTTAAAACCTGTCTGCTTCAAACAGAGCAAGAACAAGTGGAGCACAATCTG  
 GCTTCAGAGAGAAGGAAAGTCCGACTGCAGCATGAGAACACCTTCAACAACATTATGAAGGAGAGCAGCA  
 GGTTCCAGCGATTCCATTTGTAATGAAGAAGAAGGAACGGCCACCACCATGGGCACCTCTGTCCAGAGCAT  
 CGAGCTTGTCTCCGCCACGCAACCATCACGAAACACATTTGGTGGCCAGATCATGGCATGGATG  
 GAGACAGTCGCCACCATTTCTGCAAGCCGCTGTGTATGGGCATCCCTTCTGAAGTCTGTGGATATGT  
 TTAATTCGGGGACCGTCCACAGTTGGAGACCGCTTGTCTTCAAGTGCATAGTCAACAACACCTTTCA  
 GAACAGTGTGGAAGTCCGAGTGCCTGTTGAGGCCTTTGACTGTCAGGAGTGGGCCGAGGGCCAAGGCCGC  
 CACATCAACAGCGCTTTTCTCATTTACAATGCTGTTGATGACCAGGAGAACTCATCACCTTTCCAGAA  
 TCCAACCCATTTCAAAGGACGATTTTCGCCGTTACCAGGGAGCCATCGCACGGAGGAGAATTCGCCTAGG  
 CAGGAAATATGTTATTTCCACAAGAAAGTCCACTCAGTGCACAGTGGGATATAAGCAAAAAGGGA  
 TCCCTAAGTAACCAATGTGGAAGCTCTCAAAAATCTGGCATCCAAAAGCGGTTGGGAGATTACCACCA  
 CCTTGGAGAAGATAAAAATATATACCCTGGAGGAGCAAGATGCCATATCTGTTAAGGTTGAAAAGCTTGT  
 GGGCAGTCCAGCCACATAGCTTATCATCTCTTGTCTGACCTCACAAGCGACCTTTATGGGACCCCAT  
 TACATATCTTGTGAAGTTATAGACCAGGTGAGCGAGGACGATCAGATATATTACATCACTTGTCTCGTGG  
 TAAATGGAGACAAACCAAGGACTTTGTGGTGTGTGTGTCACGAAGAAAGCCCTCAAAGACAACAACAC  
 CTACACCGTGGCACTAAGGTCAGTTGTGCTGCCGTCTGTCCCCTCATCTCCACAGTACATCAGAAGTGAG  
 GTCATTTGTGCTGGTTTCTCATCCAGGCTGTCGACAGCAATTCGTGCACCGTAACGTACCTGAACCAGA  
 TGTCAGACAGCATCCTCCCTTACTTTGCTGGCAATATTGGTGGCTGGTCAAATCCATTGAGGAAGCTGC  
 AGCCTCTGTATAAAATTCATAGAGAATGCTACTCCTGATGGACTTAAAAGTGTGTTA

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG224284 representing NM\_028790  
 Red=Cloning site Green=Tags(s)

MESMVAPGEVLMSEQAIQPAHADSRGEL SAGQLLKWMDTTACLA AEKHAGISCVTASMD DILFEDTARIGQ  
 IITIRAKVTRAFSTSM EISIKVIVQDKFTGIQKLLCVAFSTFVAKPVGKEKVHLKPVLLQTEQEVEHNL  
 ASERRKVR LQHENTFN NIMKESRFS DSICNEEEGTATTMGTSVQSIELVLP PHANHHGNTFGGQIMAWM  
 ETVATISASRLCHGHPFLK SVD MFKFRGPSTVGDRLVFS AIVNNTFQNSVEVGVRVEAFDCQEWAEQGGR  
 HINSAFLIYNAVDDQEKLI TFPRIQPI SKDDFRRYQGA IARRRIRLGRKYVISHKKEVPLSAQWDISKKG  
 SLSNTNVEALKNLASKSGWEIT TLEKIKIYTL EEQDAISVKVEKLVGSPAHIAYHLLSDLTKRPLWDPH  
 YISCEVIDQVSEDDQIYYITCSV VNGDKPKDFVVLVSR RKPLKDNNTYVALRSVVLPSVPSPQYIRSE  
 VICAGFLIQAVDSNSCTV TYLNQMSDSILPYFAGNIGGWSKSIEEAAA SIKFIENATPDGLKSVL

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_028790

**ORF Size:** 1668 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\\_028790.3](#), [NP\\_083066.1](#)

**RefSeq Size:** 3049 bp

**RefSeq ORF:** 1671 bp

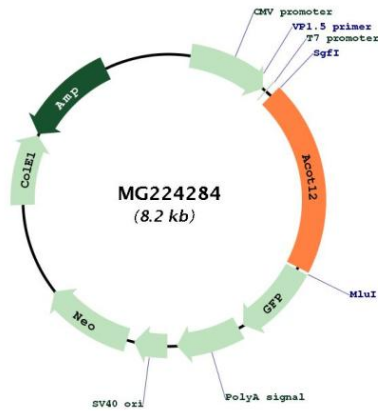
**Locus ID:** 74156

**UniProt ID:** [Q9DBK0](#)

**Cytogenetics:** 13 C3

**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. Acyl-coenzyme A thioesterase 12/ACOT12 preferentially hydrolyzes acetyl-CoA.[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MG224284