

## Product datasheet for **MR216800**

### Acot7 (NM\_001146057) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Acot7 (NM\_001146057) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Acot7  
**Synonyms:** 2410041A17Rik; Ach1; Act; Bach; Cte-II; CTE-IIa; Lach1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR216800 representing NM\_001146057  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCTGCAATGAAGCTGCTGGTCGGGACTCTGCGCCTCTGGGAGGTGGGAGGCAGGTAGCCTTTTCGA  
GCCTGACGCTGGCCAGGAGTGTTCGGGGCTCAGGAAAACATTCTGGGCTGCCATGAGGGCTGTGAGAAC  
CAGAGCAGATCACAAAAGCTTGGACATTGCGTCACCATGGGAAGGATCATGCGTCCAGATGATGCCAAT  
GTGGCTGGCAATGTTTCATGGAGGACCATTCTGAAGATGATTGAGGAGGCCGGGCCATCATCAGCACGC  
GGCACTGTAACAGCCAGAATGGGAGCGCTGTGTGGCTGCCCTGGCACGGGTGGAGCGCACTGACTTCCT  
GTCACCCATGTGCATCGGCGAGGTGGCTCATGTGAGTGCAGAGATCACCTACACTTCCAAGCACTGTG  
GAGGTCCAGGTCCACGTGATGTCGAGAACATCCTCACAGGTACCAAAAAGCTGACCAATAAAGCCACCT  
TGTGGTATGTGCCCTGTGATTGAAGAATGTGGACAAGGTCTTGAGGTGCCCTCCATTGTGATTTACG  
GCAGGAGCAGGAGGAGGAGGTGCGAAACGCTATGAAGCCAGAAGCTGGAACGCATGGAGACCAAGTGG  
AGGAACGGAGACATTGTCCAGCTGTCTGAACCCAGAGCCGAACACGGTGTGAGCTACAGCCAGTCCAGCC  
TGATCCACCTGGTGGGCCCTCGGACTGCACCCCTCATGGCTTCGTGCACGGAGGTGTACCATGAAGCT  
CATGGATGAGGTGGCTGGGATTGTGGCTGCACGCCACTGCAAGACCAACATAGTAAGTGCCTCTGTGGAT  
GCCATAATTTCCAGACAAGATCCGAAAGGCTGTGTATCACCATCTCCGACGCATGACCTTACAA  
GCAATAAGTCCATGGAGATTGAGGTCTGGTGGACGCTGACCCTGTGGTGGACAACCTACAAAAGCGCTA  
CCGGGCCGCCAGTGCCTTCTCACCTACGTGTCCCTGAACCAGGAGGGCAAGCCAATGCCTGTGCCTCAG  
CTTGTGCCAGAGACGGAGGATGAGAAGAAGCGCTTCAAGAAGGCAAGGCCGTTATCTGCAGATGAAGG  
CGAAGCGACAGGGCCACACAGAGCCTCAGCCC

**ACGGT**ACGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR216800 representing NM\_001146057  
Red=Cloning site Green=Tags(s)

MSAMKLLVGLRLWEVGRQVAFSSSLTPGQECGLRKTFFWAAMRAVRTRADHQKLGHCVTMGRIMRPDDAN  
VAGNVHGGTILKMIEEAGAIISTRHCNSQNGERCVAALARVERTDFLSPMCIGEVAVHVS AEITYTSKHSV  
EVQVHVMSENILTGKKLTNKATLWYVPLSLKNVDKVLVPPIVYLRQEQQEEGRKRYEAQKLERMETKW  
RNGDIVQPVLPNPEPNTVSYSQSSLIHLVGPSDCTLHGFFVHGGVTMMLMDEVAGIVAARHCKTNIIVTASVD  
AINFHDKIRKGCVITISGRMTFTSNKSMEIEVLVDADPVVDNSQKRYRAASAFFTYVSLNQEKGKMPVPQ  
LVPETEDEKRRFEEGKGRYLQMKAKRQGHTEPQP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001146057

**ORF Size:** 1152 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\\_001146057.1](#), [NP\\_001139529.1](#)

**RefSeq Size:** 1505 bp

**RefSeq ORF:** 1155 bp

**Locus ID:** 70025

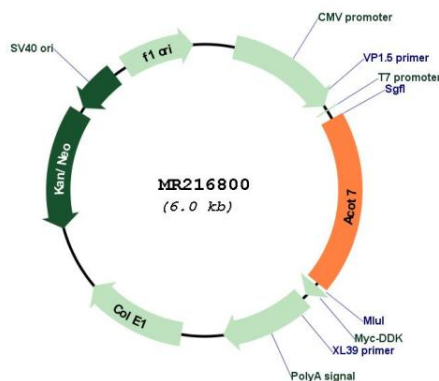
**UniProt ID:** [Q91V12](#)

**Cytogenetics:** 4 E2

**MW:** 43.3 kDa

**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:15288813). Acyl-coenzyme A thioesterase 7/ACOT7 preferentially hydrolyzes palmitoyl-CoA, but has a broad specificity acting on other fatty acyl-CoAs with chain-lengths of C8-C18 (Probable). May play an important physiological function in brain (PubMed:15288813).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR216800