

Product datasheet for **MR207232**

Acot2 (NM_134188) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Acot2 (NM_134188) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Acot2
Synonyms:	AA571646; MTE-I; Mte1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MR207232 representing NM_134188
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGGTGGCCTCGTCTTTTCGCTGTCTGAGAGCAAGCAGGTTGTGCCAACAGGATTGGAAGAGCTGGGCGC
 GGCTGTTTGTACCTCCGCCGCTCAGCACTGGTGGCCGGACCATTGGGCGCGGACAAATGCGACGCTGAG
 CGTAGAGCCCAGGGCCGAGCTGCTGGGACGAGCCGCTGAGCATCGCCGTGCGCGGCTGGCCCCCGAG
 CAGCCCGTCACGCTGCGCTCTGCCTTGCAGCAGAGAAGGGCGCGCTCTCCGAGCCACGCGCGTACC
 GCGCCGACGCTGGCGGAGCTGAACCTGGCGCGCGCCCGCGCTGGGCGGAGCTTCTCGGGGCTCGA
 GCCCATGGGGCTGCTCTGGGCCATGGAGCCGAACGGCCTCTCTGGCGCTGATCAAGCGGACGTGCAG
 ACGCCCTTCTTGGTGGAGCTGGAGGTGCTGGACGGACACGAGCCCGATGGCGGGCAGCGGCTGGCGCAGG
 CGGTGCACGAGCGTCACTTCTGGCTCCCGGGGTGCGGCGCTGCCCGTACGAGAGGGCCGGGTGCGCGC
 CAGCTCTTCTGCCCCAGAACCTGGACCCTTCTCTGGGATCATAGACCTTTTTGGAGTTGGAGGTGGC
 CTCTGGAGTATCGGGCAGCCTGCTGGCTGGGAAGGGCTTTGCCGTGATGGCTCTGGCTTATTACAAC
 ACGACGACCTCCCAAGAGCATAGAAACATGCACATGGAGTACTTTGAAGAAGCCGTGAACCTACCTGCG
 CAGCCACCCCGAGGTAAGGACCTGGAATTGGGCTGCTTGGGATTTCCAAGGGGGTGAACCTGGCCTT
 GCTATGGCCTCCTTCTGAAGGGCATCACAGCTGCTGTGGTCAATGGCTCCGTGGCTGCTGTTGGGA
 ACACCATCTCCTACAAGGATGAGACTATACCCCTGTGTCCCTTCTGAGAAACCAAGTCAAAATGACCAA
 AGATGGTCTCTTGGATGTCGTGGAAGCTCTGCAAAGCCCTCTGGTAGACAAGAAGAGCTTCAATCCCGTG
 GAAAGGCTGACACGACCTTCTGTTCTCGTAGGTGAGGACGACCAACTGGAAGAGCGAGTTCTATG
 CTGATGAGATCTCAAACGCCTGCAGGCGCACGGGAAGGAGAAGCCCGATCATCTGCTACCCAGCAGC
 AGGGCATTACATCGAGCCCTTACTTCCGCTGTGCAGCGCTGGCATGCACCTCCTGGTGGGTGCCAAC
 ATCACCTTTGGAGGGGAGCCAGGGCTCATGCCGTGGCCAGGTGGACGATGGCAGCAGCTCCAGACTT
 TCTCCACAAACAGTTGGGTAGCAAGAGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR207232 representing NM_134188
 Red=Cloning site Green=Tags(s)

MVASSFAVLRASRLCQQDWKSWARLFVPPPLSTGGRTTWARTNATLSVEPEGRSCWDEPLSI AVRGLAPE
 QPVTLSALRDEK GAL FRAHARYRADAGGELN LARAPALGGSFSGLEPMGLLWAMEPERPLWRLIKRDVQ
 TPFLVELEVL DGHEDGGQRLAQAVHERHFLAPGVRVVPVREGRVRATLFLPPEPGPFPGIIDLFGVGGG
 LLEYRASLLAGKFV MALAYNYDDLPKSIETMHMEYFEEAVNYLRSHPEVKGPGLLGLISKGGELGL
 AMASFLKGITAAVVINGSVAAVGN TISYKDETI PPVSLLRNQVKMTKDGLLDVVEALQSPLVDKKSFI PV
 ERSDDTFLFLVGQDDHNWSEFYADEISKRLQAHGKEKQIICYPAAGHYIEPPYFPLCSAGMHLLVGAN
 ITFGGEPRAHAVAQVDAWQQLQTFHKLGSKS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mm9091_f12.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_134188

ORF Size: 1359 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_134188.3](#), [NP_598949.3](#)

RefSeq Size: 2215 bp

RefSeq ORF: 1362 bp

Locus ID: 171210

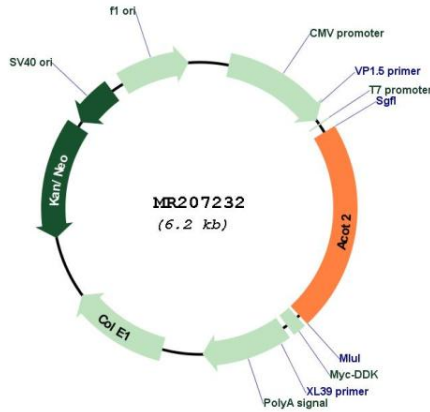
UniProt ID: [Q9QYR9](#)

Cytogenetics: 12 D1

MW: 49.7 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:25114170). Acyl-coenzyme A thioesterase 2/ACOT2 displays higher activity toward long chain acyl CoAs (C14-C20) (PubMed:25114170). The enzyme is involved in enhancing the hepatic fatty acid oxidation in mitochondria (PubMed:25114170).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR207232