

Product datasheet for MR204622

Acot8 (NM_133240) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Acot8 (NM_133240) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Acot8
Synonyms:	PTE-2; Pte1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR204622 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCAGCGCCAGAGGGTCTGGGAGATGCTCATGGCGACGCCGACCGCGGCGACCTTCCGGGGACCTCC
GTAGTGTGCTGGTCACGAGCGTGTCAACCTCGAGCCGCTAGATGAAGATCTCTACAGAGGAAGGCATTA
CTGGGTACCTACCTCCCAGCGGCTCTTTGGGGTCAAATTATGGGCCAGGCCCTGGTGGCTGCAGCCAAG
TCTGTGAGTGAAGACGTCCATGTCCACTCCCTGCACTGCTACTTTGTCCGGGCAGGGGACCCGAAAGTGC
CAGTGTGTACCACGTAGAGAGGATACGGACAGGAGCCAGCTTCTCAGTGCAGCCGCTGAAGGCTGTGCA
GCATGGCAAGGCCATCTTCATCTGCCAGGCCTCCTCCAGCAGATGCAGCCAGCCCGCTGCAGCACCAG
TTCTCCATGCCCTCCGTGCCCGCCAGAACCTGCTGGATCACGAGGCCCTCATTGACCAGTACTTAA
GGGACCCTAACCTTACAAGAAGTATCGAGTGGGGCTGAACCGAGTTGCTGCCAGGAGGTACCTATTGA
GATCAAGGTGGTGAACCCACCCACCTGACCCAGCTGCAGGCACTGGAGCCAAACAGATGTTCTGGGTG
CGTGCCCGGGGTACATTGGGGAAGGTGACATCAAGATGCATTGCTGTGTGGCTGTTATATCTGACT
ACGCCTTCCTGGGTACAGCACTGCTGCCACCCAGTCCAAGTATAAGGTGAATTCATGGCGTCACTGGA
TCACTCCATGTGGTTTCATGCCCATCCGAGCCGACCACTGGATGCTGTACGAGTGTGAGAGCCCTGG
GCTGGTGGCTCTCGAGGGCTGGTGCATGGCGGCTGTGGCGTCCGGATGGGGTCTTGTGTGACCTGTG
CCCAGGAGGGTGTGATCCGATTGAAGCCTCAGGTGTCAGAGAGTAAGCTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR204622 protein sequence
Red=Cloning site Green=Tags(s)

MSAPEGLGDAHGDA DRGDL S GDL RSVL V TSVL NLEPLDEDLYRGRHYWVPTSQRLF GGQIMGQALVAAAK
 SVSE DVH V HSL HCYFVRAGDPKVPVLYHVERIRTGASF SVRAVKAVQH GKAI FICQASFQQMQPSPLQHQ
 F S M P S V P P P E D L L D H E A L I D Q Y L R D P N L H K K Y R V G L N R V A A Q E V P I E I K V V N P P T L T Q L Q A L E P K Q M F W V
 R A R G Y I G E G D I K M H C C V A A Y I S D Y A F L G T A L L P H Q S K Y K V N F M A S L D H S M W F H A P F R A D H W M L Y E C E S P W
 A G G S R G L V H G R L W R R D G V L A V T C A Q E G V I R L K P Q V S E S K L

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_133240

ORF Size: 963 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_133240.2](#), [NP_573503.2](#)

RefSeq Size: 1161 bp

RefSeq ORF: 963 bp

Locus ID: 170789

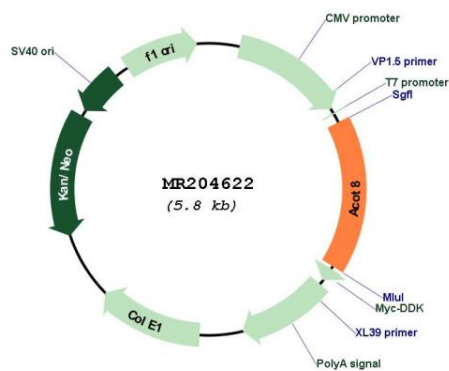
UniProt ID: [P58137](#)

Cytogenetics: 2 H3

MW: 35.8 kDa

Gene Summary: Acyl-coenzyme A (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:11673457). Acyl-coenzyme A thioesterase 8/ACOT8 display no strong substrate specificity with respect to the carboxylic acid moiety of Acyl-CoAs (PubMed:11673457). Hydrolyzes medium length (C2 to C20) straight-chain, saturated and unsaturated acyl-CoAS but is inactive towards substrates with longer aliphatic chains (PubMed:11673457). Moreover, it catalyzes the hydrolysis of CoA esters of bile acids, such as choloyl-CoA and chenodeoxycholoyl-CoA and competes with bile acid CoA:amino acid N-acyltransferase (BAAT) (PubMed:11673457). ACOT8 is also able to hydrolyze CoA esters of dicarboxylic acids (PubMed:16141203). It is involved in the metabolic regulation of peroxisome proliferation (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR204622