

## Product datasheet for RC218001

### ACAD10 (NM\_025247) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ACAD10 (NM_025247) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ACAD10
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC218001 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCCGATCGCC

ATGTGTGCAGGAGCTGTTCCAGTCCCCCGTCTCCAGTGGGTGTGGAGAACAGCCTTCTGAAACACA  
CCCAGCGCAGGCACCAGGGTCCCACCGATGGACACACCTTGGAGGCAGCACCTACAGAGCGGTGATTTT  
CGCATGGGCGGAGTTCTCATTCTTCTCCAGGGAGAGTCGTCGAGAATGGGAGGTACAGAATCGTATC  
CCTTCTGGAATATATTAAGGCCCTTGATGGAAGGTGGTAAAAATGGGCCCTGGATGAGATTTATGAGAG  
CAGAAATAACAGCAGAGGGTTTTTACGAGAATTTGGGAGACTTCTCTGAAATGTTAAAGACCTCCGT  
GCCTGTGACTCATTCTCTCTGTTGACCAGTGGCAGAGTGGCAAAGCAGTCCCAAGTATCCCAAGC  
GCCATAACTCAAATTCGGGCAAAAGGTCTTCAGACTGCAGTCTTGGCAATAATTTTTATCTTCCCAACC  
AGAAAAGCTTTTTGCCCTGGACCGAAACAGTTTGTGATGATTGTGGAGTCTGCATGGAAGGGATCTG  
TAAGCCAGACCCTAGGATCTACAAGCTGTGCTTGGAGCAGCTCGGCCTGCAGCCCTCTGAGTCCATCTTT  
CTTGATGACCTTGAACAAATCTAAAAGAAGCTGCCAGACTTGGTATTACACCATTAAGGTTAATGACC  
CAGAGACTGCAGTAAAGGAATTAGAAGCTCTTGGGTTTTACATTGAGAGTAGGTGTTCCAAACACTCG  
GCCTGTGAAAAAGACGATGGAATTCGAAAGATTCTTGAGAAAGTACCTCAAAGACTTACTGGGTATC  
CAGACCACAGGCCATTGGAACTACTTCACTTTGATCACGGGCAGTCAAATCCAACTTACTACATCAGGC  
TGGCTAATCGTGATCTAGTTCTGAGGAAGAAGCCCCAGGGACACTCCTTCCATCTGCCATGCCATAGA  
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GAAGATTCAAGTGTCAATGGCACCCCTTCTATGTGATGGAGTACTGCCAGGTCTCATCTACAAAGACC  
CTTCCCTGCCAGGCTTGGAGCCAGCCACAGACGACCATATACACTGCCATGAACACAGTCTGTGCAA  
AATTCACAGTGTGGATCTGCAGGCTGTGGGACTTGAAGACTATGGGAAGCAAGGGGACTATATCCACGC  
CAGGTACGAACCTGGGTTAAGCAGTATCGAGCTCCGAAACTAGCACCATCCCAGCCATGGAGAGGCTGA  
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CAACCTGGTGTTCATCCAGAAGAGCCAGAGGTGCTTGTCTTCTGACTGGGAACCTTTCTACCTGGGC  
GACCCCTTGTGATGTGGCCTACAGCTGCCTGGCTCATTACCTGCCATCCAGTTTTCCCGTGTGAGAG  
GTATTAATGACTGTGACTTGACACAGCTGGGAATCCCTGCTGCAGAGGAGTATTTCCAGGATGACTGTCT



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CCAATGGGGCTCCCTCCCACTGAGAACTGGAACCTCTATATGGCTTTTTCTTTTTCCGTGTGGCTGCA  
 ATCCTACAGGGAGTCTACAAGCGATCACTCACAGGGCAAGCAAGCTCCACATATGCGGAACAACTGGAA  
 AGCTGACCGAATTTGTGTCTAACCTGGCGTGGGATTCGCAGTCAAAGAAGGGTTCGGGTTTTCAAAGA  
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 GCCAAGCTAGAGCTGAAGCACCGCATT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC218001 protein sequence  
 Red=Cloning site Green=Tags(s)

MCVRSQFQSPRLQVWVRTAFLKHTQRRHQGSHRWTHLGGSTYRAVIFDMGGVLIQSPGRVAEWEVQNR  
 PSGTILKALMEGGENGPMWRFMRAEITAEGFLREFGRLCSEMLKTSVPVDSFFSLLTSERVAKQFPVMT  
 AITQIRAKGLQTAFLSNNFYLPNQKSFPLDRKQFDVIVESCMEGICKPDPRIYKLCLEQLGLQPSSEIF  
 LDDLGTNLKEAARLGIHTIKVNDPETAVKELEALLGFTLRVGPVNPTRPVKKTMEIPKDSLQKYLKDLLGI  
 QTTGPLELLQFDHGQSNPTYYIRLANRDLVLRKKPPGTLPSAHAIEREFRIKALANAGVPVNVLDLC  
 EDSSVIGTPFYVMEYCPGLIYKDPSPGLEPSHRRAIYAMNTVLCKIHSVDLQAVGLEDYQKQDYIPR  
 QVRTWVKQYRASETSTIPAMERLIEWLPLHLPRQRTTVVHGDFRLDNLVFHPEEPEVLAVLDWELSTLG  
 DPLADVAYSCLAHYLPSSFVLRGINDCDLTQLGIPAAEEYFRMYCLQMGLPPTENWNFYMAFSFRVAA  
 ILQGVYKRSLTGQASSTYAEQTGKLTFFVSNLAWDFAVKEGFRVFKEMPFNPLTRSYHTWARPQSQWCP  
 TGSRSYSSVPEASPAHTSRGGLVISPELSPVREL YHRLKHFMEQRVYPAEPELQSHQASAARWSPSPL  
 IEDLKEKAKAEGLNWFLPLEADPEKYGAGLTNVEYAHLCMLGTSLYAPEVCNCSAPDTGNMELLVRY  
 GTEAQKARWLIPLEGGKARSCFAMTEPQVASSDATNIEASIREEDSFYVINGHKWWITGILDPRCQLCVF  
 MGKTDPHAPRHRQSVLLVPMTPGIKIRPLTVYGLEADPGGHGEVRFHEVVRVPKENMVLGPRGFEIA  
 QGRLGPGRHHCMLIGFSEALALMKARVKSRLAFGKPLVEQGTVLADIAQSRVEIEQARLLVLRRAHL  
 MDLAGNKAALDIAMIKMVAPSMASRVIDRAIQAFGAAGLSSDYPLAQFFTWARALRFADGPDEVHRATV  
 AKLELKHRI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6680\\_f11.zip](https://cdn.origene.com/chromatograms/mk6680_f11.zip)

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_025247

**ORF Size:** 3177 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\\_025247.6](#)

**RefSeq Size:** 4031 bp

**RefSeq ORF:** 3180 bp

**Locus ID:** 80724

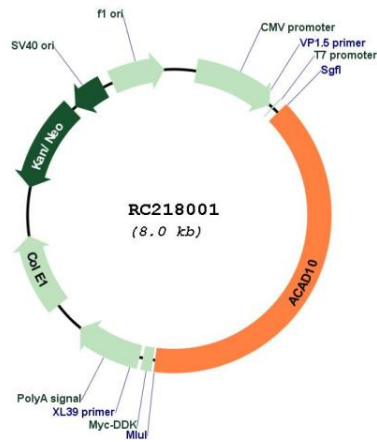
**UniProt ID:** [Q6JQN1](#)

**Cytogenetics:** 12q24.12  
**Domains:** APH, Acyl-CoA\_dh, Acyl-CoA\_dh\_M  
**Protein Families:** Druggable Genome

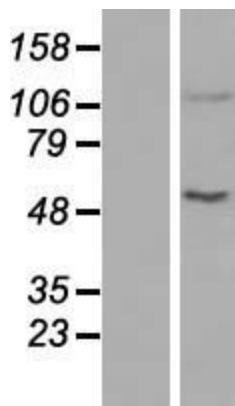
**MW:** 118.8 kDa

**Gene Summary:** This gene encodes a member of the acyl-CoA dehydrogenase family of enzymes (ACADs), which participate in the beta-oxidation of fatty acids in mitochondria. The encoded enzyme contains a hydrolase domain at the N-terminal portion, a serine/threonine protein kinase catalytic domain in the central region, and a conserved ACAD domain at the C-terminus. Several alternatively spliced transcript variants of this gene have been described, but the full-length nature of some of these variants has not been determined. [provided by RefSeq, Nov 2008]

**Product images:**



Circular map for RC218001



Western blot validation of overexpression lysate (Cat# [LY410809]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218001 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).