

Product datasheet for RC227025

ACAD10 (NM_001136538) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ACAD10 (NM_001136538) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ACAD10
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC227025 representing NM_001136538 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTGTGTCAGGAGCTGTTCCAGTCCCCCGTCTCCAGTGGGTGTGGAGAACAGCCTTCTGAAACACA
CCCAGCGCAGGCACCAGGGTCCCACCGATGGACACACCTTGGAGGCAGCACCTACAGAGCGGTGATTTT
CGACATGGGCGGAGTTCTCATTCTTCTCCAGGAGAGTCGCTGCAGAATGGGAGGTACAGAATCGTATC
CCTTCTGGAATATATTAAGGCCCTTGATGGAAGGTGGTAAAAATGGGCCCTGGATGAGATTTATGAGAG
CAGAAATAACAGCAGAGGGTTTTTACGAGAATTTGGGAGACTTTGCTCTGAAATGTTAAAGACCTCCGT
GCCTGTGGACTCATTTTTCTCTCTGTTGACCAGTGAAGGAGTGGCAAAGCAGTTCACAGTATGACTGAG
GCCATACTCAAATTCGGGCAAAGGTCTTCACTGAGTCTTGGCAATAATTTTTATCTTCCCAACC
AGAAAAGCTTTTTGCCCTGGACCGAAACAGTTTGTGATGATTGGAGTCTGCATGGAAGGGATCTG
TAAGCCAGACCCTAGGATCTACAAGCTGTGCTTGGAGCAGCTCGGCCTGCAGCCCTGAGTCCATCTTT
CTTGATGACCTTGAACAAATCTAAAAGAAGCTGCCAGACTTGGTATTCACACCATTAAGAGACAGGGTT
TTGCCGTGTGCCAAGCTGGTGTGCAACTCCTGGGCTCAAGCGATCTACCCACCTTACCCTCCAAAGT
GGTGAGATTACAGGTTAATGACCCAGAGACTGCAGTAAAGGAATTAGAAGCTCTCTTGGGTTTTACATTG
AGAGTAGGTGTTCCAAACACTCGGCCTGTGAAAAAGACGATGGAATTCGAAAGATTCTTGCAGAAGT
ACCTCAAAGACTTACTGGGTATCCAGACCACAGGCCCATTTGGAATACTTCAAGTTGATCACGGGCAGTC
AAATCAAATTAATACATCAGGCTGGCTAATCGTGATCTAGTTCTGAGGAAGAAGCCCCAGGGACACTC
CTTCCATCTGCCATGCCATAGAGAGGGAGTTCAGGATTATGAAAGCCCTTGCAATGCTGGAGTACCTG
TCCCTAACGTTCTTGATCTCTGTGAAGATTCAAGTGTCTTGGCACCCCTTCTATGTGATGGAGTACTG
CCCAGGTCTCATCTACAAAGACCCTTCCCTGCCAGGCTTGGAGCCAGCCACAGACGACCATATACACT
GCCATGAACACAGTCTGTGCAAAATTCACAGTGTGGATCTGCAGGCTGTGGGACTTGAAGACTATGGGA
AGCAAGGGGACTATATTCACGCCAGGTACGAACCTGGGTTAAGCAGTATCGAGCTTCCGAAACTAGCAC
CATCCCAGCCATGGAGAGGCTGATCGAATGGCTGCCCTCCATCTTCCCCGTGAGCAGAGGACCACAGTG
GTGCACGGGGACTTCAAGGCTCGACAACCTGGTGTTCATCCAGAAGGCCAGAGGTGCTTGTCTGCTTGT
ACTGGGAACTTTTACCTTGGGCGACCCCTTGTGATGTGGCTACAGCTGCCTGGCTCATTACCTGCC
ATCCAGTTTTCCCGTGTGAGAGGTATAATGACTGTGACTTGACACAGCTGGGAATCCCTGCTGCAGAG



GAGTATTT CAGGATG TACTGTCT CCAAATGGGGCTCCCTCCC ACTGAGAACTGGA AACTTCTATATGGCTT
 TTTCTTTTT CCGTGTGGCTGCAATCCTACAGGGAGTCTACAAGCGATCACTCACAGGGCAAGCAAGCTC
 CACATATGCGGAACAACTGGAAAGCTGACCGAATTTGTGTCTAACCTGGCGTGGGATTTTCGAGTCAAA
 GAAGGGTTCGGGTTTTCAAAGAGATGCCCTTCACAAATCCGTTAACAAAGGTCTACCACACGTGGGCCA
 GGCCCCAGTCCCAGTGGTGGCCACAGGCAGCAGGAGTTATAGCTCCGTTCCAGAAGCTTCCCCAGCTCA
 TACCTCAAGGGGAGGTCTGGTTATCTCTCCAGAGAGCCTCTCTCCACCTGTCAGAGAGCTGTATCACCGG
 CTGAAGCACTTCATGGAGCAACGTGTACCCTGCAGAGCCAGAGCTGCAGAGTCAACAGGCCTCAGCAG
 CCAGGTGGAGCCCTCCCCTGATCGAAGACCTCAAGGAGAAAGCCAAAGCTGAAGGACTTTGGAACCT
 TTTCTACCCTTAGAGGCTGATCCCAGAAAAAATACGGAGCAGGACTGACCAATGTGGAATATGCACAT
 CTGTGTGAGCTCATGGGCACGTCCCTGTATGCCCCGAGGTATGTAAGTCTCTGCGCTGACACGGGCA
 ACATGGAGCTGCTGGTGGGTATGGCACCAGCGCAGAAAGGCTCGTGGCTGATTCCTCTGCTGGAGGG
 GAAAGCCCGCTCTGTTTTGCTATGACCAGCCCCAGGTTGCCTCTTCAGATGCCACCAACATTGAGGCT
 TCCATCAGAGAGGAGGACAGCTTCTATGTCATAAACGGTCACAAATGGTGGATCACAGGCATCCTGGATC
 CTCGTTGCCAACTCTGTGTGTTATGGGAAAAACAGACCACATGCACCAAGACACCGGCAGCAGTCTGT
 GCTCTTGGTTCCCATGGATACCCAGGGATAAAAAATCATCCGGCCTCTGACGGTGTATGGACTGGAAGAT
 GCACCAGGTGGCCATGGTGAAGTCCGATTTGAGCACGTGCGTGTGCCAAAGAGAACATGGTCTGGGCC
 CTGGCCGAGGCTTTGAGATCGCCAGGGCAGACTGGGCCCGGCAGGATCCATCACTGCATGAGGCTGAT
 CGGGTTCTCAGAGAGGGCCCTGGCACTCATGAAGGCCCGCGTGAAGTCCCCTGGCTTTTGGGAAGCCC
 CTGGTGGAGCAGGGCACAGTGTGGCGGACATCGCGCAGTCCGCGTGGAGATTGAGCAGGCACGGCTGC
 TGGTGTGAGAGCTGCCACCTCATGGACTGGCAGGAAACAAGGCTGCAGCCTTGGATATAGCCATGAT
 TAAATGGTCGCCCGTCCATGGCTCCCGAGTGATTGATCGTGCATTACGGCCTTTGGAGCAGCAGGC
 CTGAGCAGGACTACCCACTGGCTCAGTCTTACCTGGGCCGAGCCCTGCGCTTTGCCAGCGCCCTG
 ACGAGGTGCACCGGGCCACGGTGGCCAAGCTAGAGCTGAAGCACCGCATT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC227025 representing NM_001136538
 Red=Cloning site Green=Tags(s)

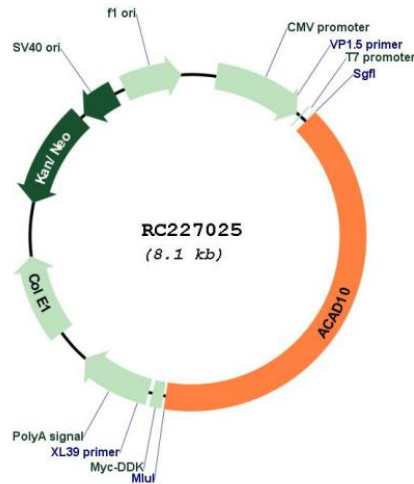
MCVRS CFQSPRLQVWVRT AFLKHTQRRHQGSHRWTHLGGSTYRAVIFDMGGVLI P SPGRVA AEWEVQNR I
 PSGITL KALMEGGENGPW MRFMRAEITAEGLREFGR L CSEMLKTSVPVDSFFSLLT SERVAKQFPVMTE
 AITQIRAKGLQTA VL SNNFYLPNQKSF LPLDRKQFDVIVESCMEGICKPDPRIYKLCLEQLGLQPSSEIF
 LDDLGNLKEAARLGIHTIKRQGF AVL PKLVSNSWAQAIYPPYPPKVVR LQVNDPETAVKELEALLGFTL
 RVGVPNTRPVKKTMEIPKDSLQKYLKDLLGIQT TGPEL LQFDHGQSNPTYYIRLANRDLVLRKKPPGTL
 LPSAHAIEREFRIKALANAGVPV PNVLDL CEDSSVIGT P FYVMEYCPGLIYKDP SLPGLEPSHRRAIYT
 AMNTVLCKIHSVDLQAVGLE DYGKQGDYIPRQVRTWVKQYRASETSTIPAMERL IEWLPLHLPRQRTTV
 VHGFRLDNLV FHPEEPEVLAVLDWELSTLGDPLADVAYSCLAHYLPSSFPVLRGINDCDL TQLGIPAAE
 EYFRMYCLQMGLPPTENWNFYMAFSFRVAAILQGVYKRSLTGQASSTYAEQTGKLT E FVSNLAWDFAVK
 EGRFVFKEMPFTNPL TRSYHTWARPQSQCPTGSRYSVPEASPAHTSRGGLVISPESL SPPVREL YHR
 LKHFMEQRVYPAEPELQSHQASARWSPSPLIEDLKEKAKAEGLWNLFLPLEADPEK KYGAGL TNVEYAH
 LCELMGTSLYAPEVCNCSAPDTGNMELLVRYGTEAQKARWLIP LLEGKARSCFAMTEPQVASSDATNIEA
 SIREEDSFYVINGHKWITGILDRQC LCVFMGKTDPHAPRRHQSVLLVPM DTPGIKIIRPLTVYGLED
 APGGHGEVRF EHV RVPKENMVLGPGRGFEIAQGR LGPGR IHHCMRLIGF SERALALMKARVKSRLAFGKP
 LVEQGTVLADIAQSRVEIEQARLLV LRAAHLMDLAGNKAALDIAMIKMVAPSMASRVIDRAIQAFGAAG
 LSSDYPLAQFFTWARALRFADGPDEVHRATVAKLELKHRI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Plasmid Map:

ACCN:

NM_001136538

ORF Size:

3270 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:	<ol style="list-style-type: none">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:	<u>NM_001136538.2</u>
RefSeq ORF:	3273 bp
Locus ID:	80724
UniProt ID:	<u>Q6JQN1</u>
Cytogenetics:	12q24.12
Protein Families:	Druggable Genome
MW:	122.2 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]