

Product datasheet for SC116219

ACADM (NM_000016) Human Untagged Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | ACADM (NM_000016) Human Untagged Clone |
| Tag: | Tag Free |
| Symbol: | ACADM |
| Synonyms: | ACAD1; MCAD; MCADH |
| Mammalian Cell Selection: | None |
| Vector: | <u>pCMV6-XL5</u> |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| Fully Sequenced ORF: | >OriGene ORF within SC116219 sequence for NM_000016 edited (data generated by NextGen Sequencing) |

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ATGGCAGCGGGTTCGGCGGATGCTGCAGGGTCTGAGAAGTATTCTCGTTTTTCATTGG
AGATCACAGCATACAAAAGCCAATCGACAACGTGAACCAGGATTAGGATTTAGTTTTGAG
TTCACCGAACAGCAGAAAAGAATTTCAAGCTACTGCTCGTAAATTTGCCAGAGAGGAAATC
ATCCCAGTGGCTGCAGAAATATGATAAACTGGTGAATATCCAGTCCCCTAATTAGAAGA
GCCTGGGAACCTGGTTTAAATGAACACACACATTCCAGAGAAGTGTGGAGGTCTTGGACTT
GGAACCTTTTATGCTTGTAAATAGTGAAGAATTGGCTTATGGATGTACAGGGTTCAG
ACTGCTATTGAAGGAAATCTTTGGGGCAAATGCCTATTATTATTGCTGGAAATGATCAA
CAAAAGAAGAAGTATTTGGGAGAATGACTGAGGAGCCATTGATGTGTGCTTATTGTGTA
ACAGAACCTGGAGCAGGCTCTGATGTAGCTGGTATAAAGACCAAAGCAGAAAAGAAGGA
GATGAGTATATTATTAATGGTCAGAAAGATGTGGATAACCAACGGAGGAAAAGCTAATTGG
TATTTTTTATTGGCACGTTCTGATCCAGATCCTAAAGCTCCTGCTAATAAAGCCTTTACT
GGATTCATTGTGGAAGCAGATACCCAGGAATTCAGATTGGGAGAAAAGGAATTAACATG
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GCTGGAGATATTGCAAATCAGTTAGCTACTGATGCTGTGCAGATACTTGGAGGCAATGGA
TTTAATACAGAATATCCTGTAGAAAACTAATGAGGGATGCCAAAATCTATCAGATTTAT
GAAGGTAATTCACAAATTCAAAGACTTATTGTAGCCCCTGAACACATTGACAAGTACAAA
AATTAA

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Clone variation with respect to NM_000016.4



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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000016 unedited
 TTGTATACGACTCACTATAGGGCGGCCGGAATTCGCACGAGGTGCCACCCCGCCTAGCG
 CAGCGCCCCGTCCTTCCGCAGCCCAACCGCCTCTCCCGCCCCGCCCATCCCGCCACG
 GGCTCCAGTGGGCGGGACCAGAGGAGTCCCGCCTCGGGGAGTATGTCAAGGCCGTGACC
 CGTGTATTATTGTCGAGTGGCCGGAACGGGAGCCAACATGGCAGCGGGGTTCCGGCGAT
 GCTGCAGGGTCTGAGAAGTATTTCTCGTTTTTCATTGGAGATCACAGCATACAAAAGCCA
 ATCGACAACGTGAACCAGGATTAGGATTTAGTTTTGAGTTCACCGAACAGCAGAAAAGAA
 TTCAAGCTACTGCTCGTAAATTTGCCAGAGAGGAAATCATCCAGTGGCTGCAGAATATG
 ATAAAACCTGGTGAATATCCAGTCCCCCTAATTAGAAGAGCCTGGGAACTTGGTTTAAATGA
 ACACACACATTCCAGAGAACTGTGGAGGTCTTGGACTTGGAACTTTTGATGCTTGTTTAA
 TTAGTGAAGAATTGGCTTATGGATGTACAGGGTTCAGACTGCTATTGAAGGAAATCTT
 TGGGGCAAATGCCTATTATTGCTGGAAATGATCAACAAAAGAAGAAGTATTTGGGGA
 GAATGACTGANGAGCCATTGATGTGTGCTTATTGTGAACAGAACCTGGAGCANGCTCTG
 ATGTAGCTGGGTATAAGACCANAGCAGAAAAGAAAGGAGATGAGTATATTATTAATGGTC
 AGAAGATGTGGATTACCAACGGNAGGAAAAGCTATTGGTATTTTTATTGGCACGTTCTGA
 TCCAGATCCTAAAGCTNCTGCTAATAAAGCCTTACTGGATTCTTGGGGAAGCAGATAC
 CCANG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000016 unedited
 CTATGGACCGGCGGCCGCAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTTAAAGCACTGA
 ACAATTTTATTAAGTTCTTTGCCAAAATGCAAACATATGAAATGAGATTGTGTACAATAG
 ACCAAAGGCTACCTAGAGACCAACAGTCATATAAAAATAATTTAAGGCAAGCTTTATTGA
 TTTATTTTAAATAAGGTAAGTGAATATGGGCTCAGAATTAATAAGATTTTCAAGAAAG
 TTCTTGTAGCTGTAAAATAGGAGAATATGAATGTCAAAAATTTGACTGTTTCTGTGCCAA
 ACAGAAAGTTTCAAAAATGCTTTCCAAACTGCAATAAAAAGAAGTTTAAATATACCATTA
 AGTCTACAAAAGTTACTGTCAAGTTGACAGTATTCAAATACTACAATTTTTCTAAATGTA
 AATTTTGTAAACATCTTGAATACTTTCTAAGCCCACTTTTCTGTCATTACAAAATAAAAT
 TCCAAGAAATTTCTGCTACATTAATCTTAAGAGATCAAAAATAACCTATGTAGTTTTCTAG
 GTTAATGTAATCAAGTAAAGTGGTACTAAAGAAAACACATCATTTTAAATAAAAACAAA
 CCTGCTTAAGAGACATAACAGAGTTAAGCAAAAAGTATAAACTACTATAATAAGCAGTTGC
 TTAGATTTAATAAAGAGGATTTGTTTTCACTGGAAAAACGTTAAAGCCCTTTCTTTTT
 TCTGGAGCTGAAACAGTGGCTTGTGTTCTAGTTATTCAATATTTCTACAGNAATTTTTTT
 TATTTTTTGCACCTGNNCAAGGCCGTACCGGCCCTACAATAGTCTTTGAATTTGTGAAGT
 ACCTTCATAATCTGATAGATTTGGCATCCCTCATTAGTTTTCTACAGGATATTCTGTATA
 AATCCATTGCCTCAGTTTCTGCCAGGATCAGTAGCTACTGATCTGAATATCTCCANCAA
 GCCTTTGAATAGAGCCTATAATATTTTCGACACACAATANCT

Restriction Sites:

NotI-NotI

ACCN:

NM_000016

Insert Size:

2190 bp

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_000016.2](#), [NP_000007.1](#)

RefSeq Size: 2192 bp

RefSeq ORF: 1266 bp

Locus ID: 34

UniProt ID: [P11310](#)

Cytogenetics: 1p31.1

Domains: Acyl-CoA_dh, Acyl-CoA_dh_M, Acyl-CoA_dh_N

Protein Families: Druggable Genome

Protein Pathways: beta-Alanine metabolism, Fatty acid metabolism, Metabolic pathways, PPAR signaling pathway, Propanoate metabolism, Valine, leucine and isoleucine degradation

Gene Summary: This gene encodes the medium-chain specific (C4 to C12 straight chain) acyl-Coenzyme A dehydrogenase. The homotetramer enzyme catalyzes the initial step of the mitochondrial fatty acid beta-oxidation pathway. Defects in this gene cause medium-chain acyl-CoA dehydrogenase deficiency, a disease characterized by hepatic dysfunction, fasting hypoglycemia, and encephalopathy, which can result in infantile death. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (1) encodes isoform a. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.