

## Product datasheet for **MR206849**

### Acadl (NM\_007381) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Acadl (NM_007381) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Acadl
Synonyms:	AA960361; AU018452; C79855; LC; LCAD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR206849 representing NM_007381. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTGTAGTAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGCTGCGCGCCTGCTCCTCCGCTCCCTGCGCGTCTGAAAGCCCGCTCGGCGCCACGCCCGCCGCC
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TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
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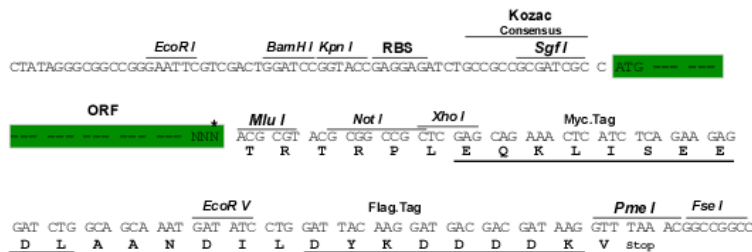
**Protein Sequence:** >Peptide sequence encoded by MR206849  
 Blue=ORF Red=Cloning site Green=Tag(s)

MAARLLLRLSLRVLKARSAPRPPPSARCSHSGAEARLETPSAKLLTDVGIIRRFSSSEHDIFRESVRKFFQ  
 EEVIPHHTEWEKAGEVSREVWEKAGKQGLLGINIAEKHGGIGDILLSTAVTWEEQAYSNCTGPGFSLHS  
 DIVMPYIANYGTKEQIEKFIQMTAGKICIGAIAMTEPGAGSDLQGVRTNAKRSGSDWILNGSKVFITNG  
 WLSDLVIVVAVTNREARSPAHGISLFLVENGKGFVIGRKLHKMGKMQAQTAEFFEDVRLPANALLGE  
 ENKGFYLMQELPQERLLIAELAISACEFMFEETRNYVKQRKAFGKTVAHIQTVQHKLAELKTHICVTR  
 AFVDSCLQLHETKRLDSGSASMAKYWASELQNSVAYECVQLHGGWGYMWEYPIAKAYVDARVQPIYGGT  
 NEIMKELIARQIVSDS  
 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\_007381

**ORF Size:** 1290 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 Size:** 1948 bp

**RefSeq ORF:** 1293 bp

**Locus ID:** 11363

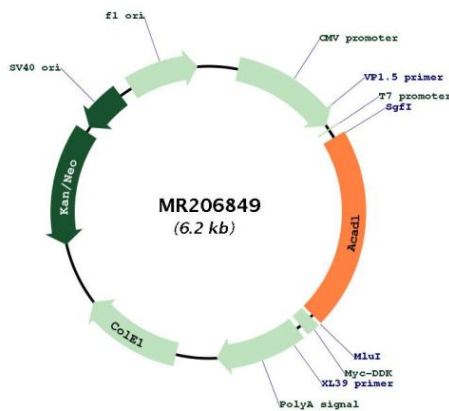
**UniProt ID:** [P51174](#)

**Cytogenetics:** 1 33.64 cM

**MW:** 47.9 kDa

**Gene Summary:** This gene encodes a homotetrameric mitochondrial flavoprotein and is a member of the acyl-CoA dehydrogenase family. Members of this family catalyze the first step of fatty acid beta-oxidation, forming a C2-C3 trans-double bond in a FAD-dependent reaction. As beta-oxidation cycles through its four steps, each member of the acyl-CoA dehydrogenase family works at an optimum fatty acid chain-length. This enzyme has its optimum length between C12- and C16-acylCoA. In mice, deficiency of this gene can cause sudden death, cardiomyopathy as well as fasting and cold intolerance. [provided by RefSeq, Nov 2012]

## Product images:



Circular map for MR206849