

Product datasheet for **RG227025**

ACAD10 (NM_001136538) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: ACAD10 (NM_001136538) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: ACAD10
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG227025 representing NM_001136538
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGATCGCC

ATGTGTGCAGGAGCTGTTCCAGTCCCCCGTCTCCAGTGGGTGTGGAGAACAGCCTTCTGAAACACA
 CCCAGCGCAGGCACCAGGGTCCCACCGATGGACACACCTTGGAGGCAGCACCTACAGAGCGGTGATTTT
 CGCATGGGCGGAGTTCTCATTCTTCTCCAGGGAGAGTCGCTGCAGAATGGGAGGTACAGAATCGTATC
 CCTTCTGGAATATATTAAGGCCCTTGATGGAAGTGGTGAATAATGGGCCCTGGATGAGATTTATGAGAG
 CAGAAATAACAGCAGAGGGTTTTTACGAGAATTTGGGAGACTTCTCTGAAATGTTAAAGACCTCCGT
 GCCTGTGACTCATTCTCTCTGTTGACCAGTGAGCGAGTGGCAAAGCAGTCCCACTGATGACTGAG
 GCCATAACTCAAATTCGGGCAAAGGTCTCAGACTGCAGTCTTGAGCAATAATTTTATCTTCCCAACC
 AGAAAAGCTTTTTGCCCTGGACCGAAACAGTTTGTGTTGATTGTGGAGTCTGCATGGAAGGGATCTG
 TAAGCCAGACCCTAGGATCTACAAGCTGTGCTTGGAGCAGCTCGGCCTGCAGCCCTCTGAGTCCATCTTT
 CTTGATGACCTTGAACAACTAAAAGAAGCTGCCAGACTTGGTATTACACCATTAAGAGACAGGGTT
 TTGCCGTGTGCCAAGCTGGTGTGAACTCCTGGGCTCAAGCGATCTACCCACCTACCCTCCCAAAGT
 GGTGAGATTACAGTTAATGACCAGAGACTGCAGTAAAGGAATTAGAAGCTCTCTGGGTTTTACATTG
 AGAGTAGGTGTTCCAAACTCGGCCTGTGAAAAGACGATGAAATTCGAAAGATTCTTGCAGAAGT
 ACCTCAAAGACTTACTGGGTATCCAGACCACAGGCCATTGGAATACTTCAAGTTTATCAGCGGAGCTC
 AAATCAAATTAATACATCAGGCTGGCTAATCGTGATCTAGTTCTGAGGAAGAAGCCCCAGGGACTCT
 CTTCCATCTGCCATGCCATAGAGAGGGAGTTCAGGATTATGAAAGCCCTTGCAAATGCTGGAGTACCTG
 TCCCTAACGTTCTTGATCTGTGAAGATTCAAGTGTGATTGGCACCCCTTCTATGTGATGGAGTACTG
 CCCAGGTCTCATCAAAAGACCCTCCCTGCCAGGCTTGGAGCCAGCCACAGACGAGCCATATACACT
 GCCATGAACACAGTCTGTGCAAATTCACAGTGTGATCTGCAGGCTGTGGGACTTGAAGACTATGGGA
 AGCAAGGGGACTATATCCACGCCAGGTACGAACCTGGGTTAAGCAGTATCGAGCTTCCGAACTAGCAC
 CATCCCAGCCATGGAGAGGCTGATCGAATGGCTGCCCTCCATCTTCCCGTCAGCAGAGGACCACAGTG
 GTGCACGGGACTTCAGGCTCGACAACCTGGTGTTCATCCAGAAGAGCCAGAGGTGCTTGTCTGCTTGTG
 ACTGGAACTTTCTACCTTGGGCGACCCCTTGTGATGTGGCTACAGTGCCTGGCTCATTACCTGCC



[View online »](#)

ATCCAGTTTTCCCGTGTGAGAGGTATTAATGACTGTGACTTGACACAGCTGGGAATCCCTGCTGCAGAG
 GAGTATTTCCAGGATGACTGTCTCCAAATGGGGCTCCCTCCCCTGAGAACTGGAATTCTATATGGCTT
 TTTCTTTTTCCGTGTGGCTGCAATCCTACAGGGAGTCTACAAGCGATCACTCACAGGGCAAGCAAGCTC
 CACATATGCGGAACAACTGGAAAGCTGACCGAATTTGTGTCTAACCTGGCGTGGGATTTTCGAGTCAAA
 GAAGGGTTCGGGTTTTCAAAGAGATGCCCTTCACAAATCCGTTAAACAAGGTCTACCACACGTGGGCCA
 GGCCCCAGTCCCAGTGGTGGCCACAGGCAGCAGGAGTTATAGCTCCGTTCCAGAAGCTTCCCCAGCTCA
 TACCTCAAGGGGAGGTCTGGTTATCTCTCCAGAGAGCCTCTCTCCACCTGTCAGAGAGCTGATCACCGG
 CTGAAGCACTTTCATGGAGCAACGTGTGTACCCTGCAGAGCCAGAGCTGCAGAGTACCAGGCCTCAGCAG
 CCAGGTGGAGCCCTCCCCTACTGATCGAAGACCTCAAGGAGAAAGCCAAAGCTGAAGGACTTTGGAACCT
 TTTCTACCCTTAGAGGCTGATCCCAGAAAAATACGGAGCAGGACTGACCAATGTGGAATATGCACAT
 CTGTGTGAGCTCATGGGCACGTCCCTGTATGCCCCGAGGTATGTAAGTCTCTGCGCCTGACACGGGCA
 ACATGGAGCTGCTGGTGGATGGCACCGAAGCGCAGAAGGCTCGTGGCTGATTCCTCTGCTGGAGGG
 GAAAGCCCCTCTGTTTTGCTATGACCGAGCCCCAGGTGCCTTTTCCAGATGCCACCAACATTGAGGCT
 TCCATCAGAGAGGAGGACAGCTTCTATGTCATAAACGGTCAAAATGGTGGATCACAGGCATCCTGGATC
 CTGTTGCCAACTCTGTGTGTTTATGGGAAAAACAGACCACATGCACCAAGACACCGGCAGCAGTCTGT
 GCTCTTGGTTCCCATGGATACCCAGGGATAAAAAATCATCCGGCCTCTGACGGTGTATGGACTGGAAGAT
 GCACCAGGTGGCCATGGTGAAGTCCGATTTGAGCACGTGCGTGTGCCAAAGAGAACATGGTCTGGGCC
 CTGGCCGAGGCTTTGAGATCGCCAGGGCAGACTGGGCCCGGCAGGATCCATCACTGCATGAGGCTGAT
 CGGGTTCTCAGAGAGGGCCCTGGCACTCATGAAGGCCCGCGTGAAGTCCCCTTGGCTTTTGGGAAGCCC
 CTGGTGGAGCAGGGCACAGTGTGGCGGACATCGCGCAGTCCGCGTGGAGATTGAGCAGGCACGGCTGC
 TGGTGTGAGAGCTGCCACCTCATGGACCTGGCAGGAAACAAGGCTGCAGCCTTGGATATAGCCATGAT
 TAAATGGTCCGCCGTCCATGGCCTCCGAGTGATTGATCGTGCATTACAGCCTTTGGAGCAGCAGGC
 CTGAGCAGCGACTACCCACTGGCTCAGTCTTCCACTGGGCCGAGCCCTGCGCTTTGCCAGCGCCCTG
 ACGAGGTGCACCCGGGCCACGGTGGCCAAGCTAGAGCTGAAGCACCGCATT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG227025 representing NM_001136538
 Red=Cloning site Green=Tags(s)

MCVRSFQSPRLQVWVRTAFLKHTQRRHQGSHRWTHLGGSTYRAVIFDMGGVLIIPSPGRVAEWEVQNR
 PSGTILKALMEGGENGPWMRFMRAEITAEGFLREFGRLCSEMLKTSVPVDSFFSLLTSERVAKQFPVMTE
 AITQIRAKGLQTAFLSNNFYLPNQKSFLLPLDRKQFDVIVESCMEGICKPDPRIYKLCLEQLGLQPSSEIF
 LDDLGTNLKEAARLGIHTIKRQGFVLPKLVSNWAQAIYPPYPPKVVRQLQVNDPETAVKELEALLGFTL
 RVGVPNTRPVKKTMEIPKDSLQKYLKDLLGIQTGPLELLQFDHGQSNPTYIIRLANRDLVLRKKPPGTL
 LPSAHAIEREFRIMKALANAGVPVNVLDLCESSVIGTFFYVMEYCPGLIYKDPSPGLEPSHRRAIYT
 AMNTVLCKIHSVDLQAVGLEDYGKQGDYIPRQVRTWVKQYRASETSTIPAMERLIEWLPLHLPRQRTTV
 VHGFRLDNLVHFPEEPEVLAVLDWELSTLGDPLADVAYSCLAHYLPSSFVPLRGINDCDLTLGLIPAAE
 EYFRMYCLQMGLPPTENWNFYMAFSFRVAAILQGVYKRSLTGQASSTYAEQTGKLETFVSNLAWDFAVK
 EGRFVFKEMPFTNPLTRSYHTWARPQSQCPTGSRYSYVPEASPAHTSRGGLVISPESLSPVRELHYR
 LKHFMEQRVYPAEPELQSHQASARWSPSPLIEDLKEKAKAEGLWNLFLPLEADPEKYGAGLTNVEYAH
 LCELMGTSLYAPEVCNCSAPDTGNMELLVRYGTEAQKARWLIPLEGGKARSCFAMTEPQVASSDATNIEA
 SIREEDSFYVINGHKWITGILDRPCQLCVFMGKTDPHAPRRHQSVLLVPMDTPIKIIIRPLTVYGLD
 APGGHGEVRFVHRVVPKENMVLGPGRGFEIAQGRGPRGRIHHCMLRIGFSERALALMKARVKSRLAFGKP
 LVEQGTVLADIAQSRVEIEQARLLVLRRAHMLDLAGNKAALDIAMIKMVAPSMASRVIDRAIQAFGAAG
 LSSDYPLAQFFTWARALRFADGPDEVHRATVAKLELKHRI

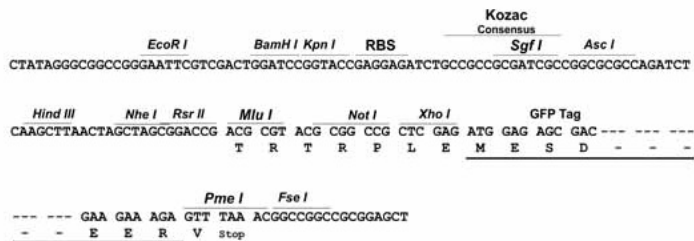
TRTRPLE - GFP Tag - V

Restriction Sites:

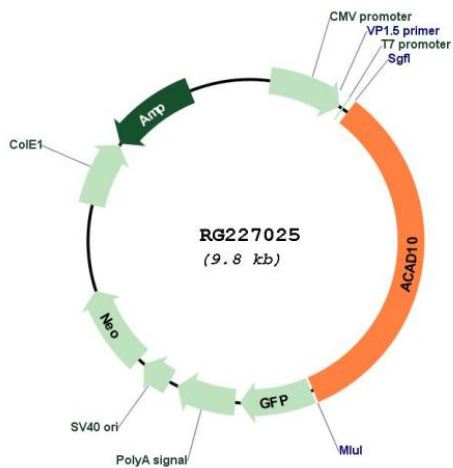
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



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 Size:	4124 bp
RefSeq ORF:	3273 bp
Locus ID:	80724
UniProt ID:	<u>Q6JQN1</u>
Cytogenetics:	12q24.12
Protein Families:	Druggable Genome
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]