

Product datasheet for **RG204465**

ACADSB (NM_001609) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ACADSB (NM_001609) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ACADSB
Synonyms:	2-MEBCAD; ACAD7; SBCAD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG204465 representing NM_001609 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGGGCTGGCAGTGCGGTTGCTGCGCGGCAGCAAGCTGCTAAGAAGAAATTCCTGACTTGTTTGT
CTTCTTGGAAAGATTCTCCTCATGTCTCAAATCTCCAGTCAGAAGCTCTACTCAATATAACAAATAA
TGGAACTACTTTGCTCCCCTGCAAACATTTACAGATGAGGAAATGATGATAAAGAGTTCAGTAAAAA
TTTGCTCAGGAACAAATGCACCTTTGGTTTCAACCATGGATGAAAATTCGAAAAATGGAGAAATCAGTAA
TACAAGGATTATTTCAACAAGGGTTGATGGGTATTGAAGTTGACCCAGAATATGGAGGCACAGGAGCTTC
ATTTTTATCCACTGTGCTGATAGAGGAATTAGCCAAAGTTGATGCATCTGTGGCTGTCTTTTGTGAG
ATCCAGAACACATTAATTAACACACTGATTAGAAAACATGGAACAGAAGAACAAAAGGCCACCTATTTGC
CTCAGCTCACTACAGAAAAAGTAGGAAGTTTCTGCCTTTCAGAGGCTGGAGCAGGTAGTGACTCATTGTC
TTTGAAGACCAGAGCTGATAAAGAGGGAGATTATTATGTCCTCAATGGATCAAAGATGTGGATCAGCAGT
GCTGAGCACGCAGGGCTCTTTCTGGTATGGCAAATGTAGACCCTACCATTGGATATAAGGGAATTACCT
CCTTCTTAGTAGATCGTGATACTCCGGGCTTCATATAGGGAACCTGAAAACAAATTTGGGCTCAGAGC
TTCTTCCACCTGCCGTTAACATTCGAAAATGTCAAGGTTCCAGAAGCCAATATCTTGGGACAAATTTGGA
CATGGCTATAAGTATGCCATAGGGAGTCTCAATGAAGGTAGAATAGGAATTGCTGCACAGATGCTGGGAC
TGGCGCAAGGATGTTTTGACTACACTATTCATATATTAAGAAAAGGATACAATTTGGCAAAAGACTATT
TGATTTTCAGGGCTCCAACACCAAGTGCTCACGTGGCCACCCAGCTGGAAGCTGCAAGATTACTAACA
TACAATGCTGCTAGGCTTTTAGAAGCTGGAAGCCATTCAAAAAGAAGCGTCAATGGCCAAATACTATG
CATCAGAGATTGCAGGACAAACAACGAGTAAATGTATCGAGTGGATGGGGGAGTAGGCTACACCAAGA
TTACCCTGTGGAGAAATACTTCCGAGATGCAAAGATTGGTACGATATATGAAGGAGCTTCCAACATCCAG
TTGAACACCATTGCAAAGCATATCGATGCAGAATAC

ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG204465 representing NM_001609
Red=Cloning site Green=Tags(s)

```
MEGLAVRLLRGSKLLRRNFLTCLSSWKIPPHVSKSSQSEALLNITNNGIHFAPLQTFDEEMMIKSSVKK
FAEQEIQIAPLVSTMDENSKMEKSVIQGLFQQGLMGIEVDPEYGGTGASFLSTVLVIEELAKVDASVAVFCE
IQNTLINTLIRKHGTEEQKATYLPQLTTEKVGSFCLSEAGAGSDSFALKTRADKEGDYVYVNGSKMWISS
AEHAGLFLVMANVDPTIGYKGITSFVDRDTPGLHIGKPKENKGLRASSTCPLTFENVKYPEANILGQIG
HGKYKAIIGSLNEGRIGIAAQMGLAQGCFDYTIPIYIKERIQFGKRLDFDQGLQHVAHVATQLEAARLLT
YNAARLLEAGKPFIKEASMAKYASEIAGQTTSKCIEWMGGVGYTKDYPVEKYFRDAKIGTIYEGASNIQ
LNTIAKHIDA EY
```

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001609

ORF Size: 1296 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_001609.3](#), [NP_001600.1](#)

RefSeq Size: 5941 bp

RefSeq ORF: 1299 bp

Locus ID: 36

UniProt ID: [P45954](#)

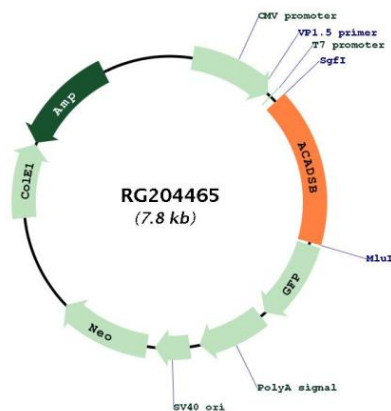
Cytogenetics: 10q26.13

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

Protein Pathways: Fatty acid metabolism, Metabolic pathways, Valine, leucine and isoleucine degradation

Gene Summary: Short/branched chain acyl-CoA dehydrogenase(ACADSB) is a member of the acyl-CoA dehydrogenase family of enzymes that catalyze the dehydrogenation of acyl-CoA derivatives in the metabolism of fatty acids or branch chained amino acids. Substrate specificity is the primary characteristic used to define members of this gene family. The ACADSB gene product has the greatest activity towards the short branched chain acyl-CoA derivative, (S)-2-methylbutyryl-CoA, but also reacts significantly with other 2-methyl branched chain substrates and with short straight chain acyl-CoAs. The cDNA encodes for a mitochondrial precursor protein which is cleaved upon mitochondrial import and predicted to yield a mature peptide of approximately 43.7-KDa. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG204465