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Product datasheet for RC206855

ACADS (NM_000017) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ACADS (NM_000017) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ACADS
Synonyms:	ACAD3; SCAD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC206855 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCGCCGCGCTGCTCGCCCGGGCCTCGGGCCCTGCCCGCAGAGCTCTCTGTCCTAGGGCCTGGCGGC
AGTTACACACCATCTACCAGTCTGTGGAACTGCCCGAGACACACCAGATGTTGCTCCAGACATGCCGGGA
CTTTGCCGAGAAGGAGTTGTTTCCCATTGCAGCCCAGGTGGATAAGGAACATCTCTTCCCAGCGGCTCAG
GTGAAGAAGATGGGCGGGCTTGGGCTTCTGGCCATGGACGTGCCCGAGGAGCTTGGCGGTGCTGGCCTCG
ATTACCTGGCCTACGCCATCGCCATGGAGGAGATCAGCCGCGGCTGCGCCTCCACCGGAGTCATCATGAG
TGTCAACAACTCTCTCTACCTGGGGCCCATCTTGAAGTTTGGCTCCAAGGAGCAGAAGCAGGCGTGGGTC
ACGCCTTTCACCAGTGGTGACAAAATTGGCTGCTTTGCCCTCAGCGAACCAGGGAACGGCAGTGATGCAG
GAGCTGCGTCCACCACCGCCCGGGCCGAGGGCGACTCATGGGTTCTGAATGGAACCAAAGCCTGGATCAC
CAATGCCTGGGAGGCTTCGGCTGCCGTGGTCTTTGCCAGCACGGACAGAGCCCTGCAAAACAAGAGCATC
AGTGCCTTCCTGGTCCCCATGCCAACGCCTGGGCTCACGTTGGGGAAGAAAGAAGACAAGCTGGGCATCC
GGGGCTCATCCACGGCCAACCTCATCTTTGAGGACTGTCGCATCCCCAAGGACAGCATCCTGGGGGAGCC
AGGGATGGGCTTCAAGATAGCCATGCAAACCCTGGACATGGGCCGCATCGGCATCGCCTCCCAGGCCCTG
GGCATTGCCCAGACCGCCCTCGATTGTGCTGTGAACTACGCTGAGAATCGCATGGCCTTCGGGGCGCCCC
TCACCAAGCTCCAGGTCATCCAGTTCAAGTTGGCAGACATGGCCCTGGCCCTGGAGAGTGCCCGGCTGCT
GACCTGGCGTGCTGCCATGCTGAAGGATAACAAGAAGCCTTTCATCAAGGAGGCAGCCATGGCCAAGCTG
GCCGCCTCGGAGGCCGCGACCGCCATCAGCCACCAGGCCATCCAGATCCTGGGCGGCATGGGCTACGTGA
CAGAGATGCCGGCAGAGCGGCACTACCGCGACGCCCGCATCACTGAGATCTACGAGGGCACCAGCGAAAT
CCAGCGGCTGGTGATCGCCGGGCATCTGCTCAGGAGCTACCGGAGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC206855 protein sequence
Red=Cloning site Green=Tags(s)

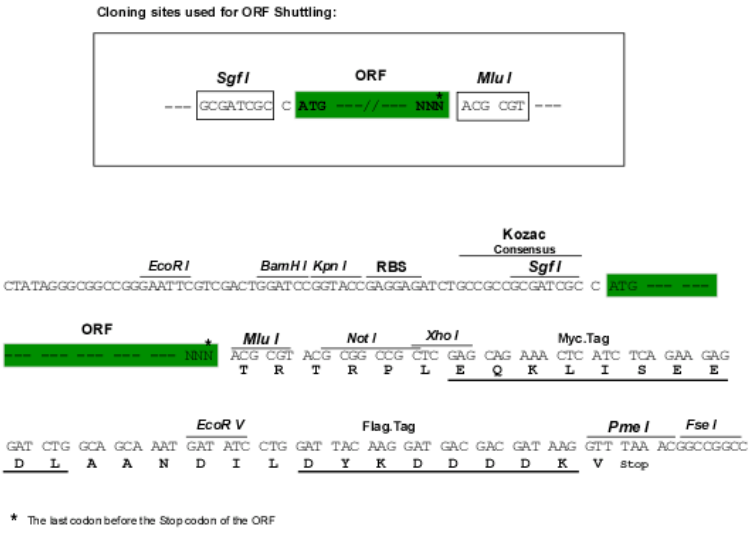
MAAALLARASGPARRALCPRAWRQLHTIYQSVELPETHQMLLQTCRDFAEKELFPIAAQVDKEHLFPAAQ
VKKMGGLGLLAMDVPEELGGAGLDYLAYAIAMEEISRGCASTGVIMSVNNSLYLGPILKFGSKEQKQAWV
TPFTSGDKIGCFALSEPGNGSDAGAASTTARAEGDSWVLNGTKAWITNAWEASAAVVFASTDRALQNKSI
SAFLVPMPTPGLTLGKKEDKLGIRGSSTANLIFEDCRIPKDSILGEPGMGFKIAMQTLDMGRIGIASQAL
GIAQTALDCAVNYAENRMAFGAPLTKLQVIQFKLADMALALESARLLTWRAAMLKDNKKPFIKEAAMAKL
AASEAATAISHQAIQILGGMGYVTEMPAERHYRDARITEIYEGTSEIQRLVIAGHLLRSYRS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6066_d02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000017

ORF Size: 1236 bp

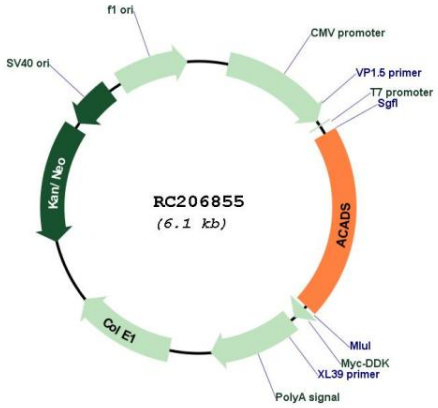
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

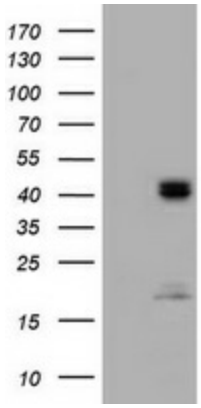
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000017.4
RefSeq Size:	1934 bp
RefSeq ORF:	1239 bp
Locus ID:	35
UniProt ID:	P16219
Cytogenetics:	12q24.31
Domains:	Acyl-CoA_dh, Acyl-CoA_dh_M, Acyl-CoA_dh_N
Protein Families:	Druggable Genome
Protein Pathways:	Butanoate metabolism, Fatty acid metabolism, Metabolic pathways, Valine, leucine and isoleucine degradation
MW:	44.3 kDa
Gene Summary:	This gene encodes a tetrameric mitochondrial flavoprotein, which is a member of the acyl-CoA dehydrogenase family. This enzyme catalyzes the initial step of the mitochondrial fatty acid beta-oxidation pathway. Mutations in this gene have been associated with short-chain acyl-CoA dehydrogenase (SCAD) deficiency. Alternative splicing results in two variants which encode different isoforms. [provided by RefSeq, Oct 2014]

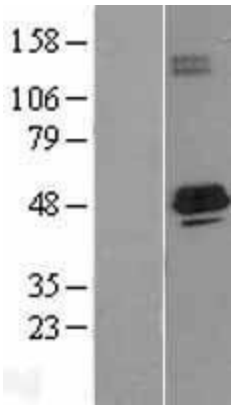
Product images:



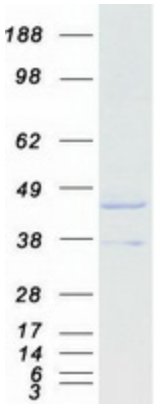
Circular map for RC206855



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ACADS (Cat# RC206855, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ACADS(Cat# [TA800429]). Positive lysates [LY400002] (100ug) and [LC400002] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400002]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206855 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ACADS protein (Cat# [TP306855]). The protein was produced from HEK293T cells transfected with ACADS cDNA clone (Cat# RC206855) using MegaTran 2.0 (Cat# [TT210002]).