

Product datasheet for RC201096

ACAA2 (NM_006111) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ACAA2 (NM_006111) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ACAA2
Synonyms:	DSAEC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201096 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTCTGCTCCGAGGTGTGTTTGTAGTTGCTGCTAAGCGAACGCCCTTTGGAGCTTACGGAGGCCTTC
TGAAAGACTTCACTGCTACTGACTTGTCTGAATTTGCTGCCAAGGCTGCCTTGTCTGCTGGCAAAGTCTC
ACCTGAAACAGTTGACAGTGTGATTATGGGCAATGTCCTGCAGAGTTCTTCAGATGCTATATATTTGGCA
AGGCATGTTGGTTTGCCTGTGGGAATCCCAAAGGAGACCCAGCTCTCACGATTAATAGGCTCTGTGGTT
CTGGTTTTTCAGTCCATTGTGAATGGATGTCAGGAAATTTGTGTTAAAGAAGCTGAAGTTGTTTTATGTGG
AGGAACCGAAAGCATGAGCCAAGCTCCCTACTGTGTCAGAAATGTGCGTTTTGGAACCAAGCTTGGATCA
GATATCAAGCTGGAAGATTCTTTATGGGTATCATTAAACAGATCAGCATGTCCAGCTCCCCATGGCAATGA
CTGCAGAGAATCTTGCTGTAACAACAAAAAAGCAGAGAAGAATGTGACAAATATGCCCTGCAGTCACA
GCAGAGATGGAAAGCTGCTAATGATGCTGGCTACTTTAATGATGAAATGGCACCAATTGAAGTGAAGACA
AAGAAAGGAAAACAGACAATGCAGGTAGACGAGCATGCTCGGCCCAAACCCTTGAACAGTTACAGA
AACTTCTCCAGTATTCAAGAAAGATGGAAGTGTACTGCAGGGAATGCATCGGGTGTAGCTGATGGTGC
TGGAGCTGTTATCATAGCTAGTGAAGATGCTGTTAAGAAACATAACTTCACACCACTGGCAAGAATTGTG
GGCTACTTTGTATCTGGATGTGATCCCTCATCATGGGATTGGTCTGCTCCCTGCTATCAGTGGGGC
TGAAGAAAGCAGGACTGAGTCTTAAGGACATGGATTTGGTAGAGGTGAATGAAGCTTTTGCCTCCCAAGTA
CTTGGCTGTTGAGAGGAGTTTGGATCTTGACATAAGTAAAACCAATGTGAATGGAGGAGCCATTGCTTTG
GGTCACCCACTGGGAGGATCTGGATCAAGAATTACTGCACACCTGGTTCACGAATTAAGGCGTCGAGGTG
GAAAATATGCCGTTGGATCAGCTTGCAATTGGAGGTGGCCAAGGATTGCTGTCATCATTAGAGCACAGC
C

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



Protein Sequence: >RC201096 protein sequence
Red=Cloning site Green=Tags(s)

MALLRGVVFVAAKRTPFAYGGLLKDFATDLSEFAAKAALSAGKVPETVDSVIMGNVLQSSSDAIYLA
 RHVGLRVGIPKETPAL TINRLCGSGFQSI VNGCQEICVKEAEVVL CCGTESMSQAPYCVRNVRFGTKLGS
 DIKLEDSLWVSL TDQHVQLPMAMTAENLAVKHKI SREEDKYALQSQRWKAANDAGYFNDEMAPIEVKT
 KK GKQTMQVDEHARPQT TLEQLQKLPPVFKKDGTVTAGNASGVADGAGAVIIASEDAVKKHNF TPLARIV
 GYFVSGCDPSIMGIGPVP AISGALKKAGLSLKMDLVEVNEAFAPQYLAVERSL DLDISKTNVNGGAIAL
 GHPLGGSGSRITAHLVHELRRRGKYAVGSACIGGGQGI AVIIQSTA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6083_b12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_006111

ORF Size: 1191 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_006111.3](#)

RefSeq Size: 1952 bp

RefSeq ORF: 1194 bp

Locus ID: 10449

UniProt ID: [P42765](#)

Cytogenetics: 18q21.1

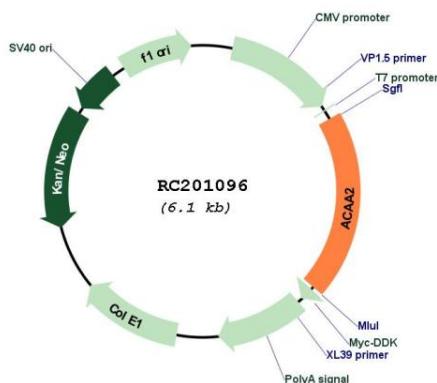
Domains: thiolase

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

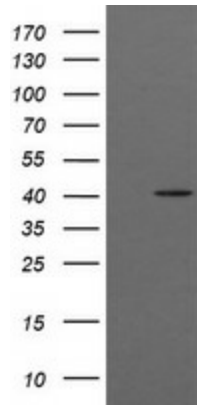
MW: 41.9 kDa

Gene Summary: The encoded protein catalyzes the last step of the mitochondrial fatty acid beta-oxidation spiral. Unlike most mitochondrial matrix proteins, it contains a non-cleavable amino-terminal targeting signal. [provided by RefSeq, Jul 2008]

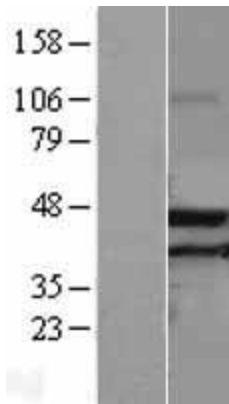
Product images:



Circular map for RC201096



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ACAA2 (Cat# RC201096, 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-ACAA2 (Cat# [TA506126]). Positive lysates [LY401843] (100ug) and [LC401843] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401843]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201096 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ACAA2 protein (Cat# [TP301096]). The protein was produced from HEK293T cells transfected with ACAA2 cDNA clone (Cat# RC201096) using MegaTran 2.0 (Cat# [TT210002]).