

Product datasheet for **RC233006**

Acetyl CoA synthetase (ACSS2) (NM_001242393) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Acetyl CoA synthetase (ACSS2) (NM_001242393) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Acetyl CoA synthetase
Synonyms:	ACAS2; ACECS; AceCS1; ACS; ACSA; dj1161H23.1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC233006 representing NM_001242393
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAAGGAGCAACTACCAACATCTGCTACAATGTACTGGATCGAAATGTCCATGAGAAAAAGCTTGGAG
 ATAAAGTTGCTTTTTACTGGGAGGGCAATGAGCCAGGGGAGACCACTCAGATCACATACCATCAGCTTCT
 GGTCCAAGTGTGTGAGTTCAGCAATGTTCTCCGAAAACAGGGCATTTCAGAAGGGGACCGAGTGGCCATC
 TACATGCCTATGATCCCAGAGCTTGTGGTGGCCATGCTGGCATGTGCCCGCATTGGGGCTTTGCACTCCA
 TTGTGTTTGCAGGCTTCTCTCAGAGTCTCTATGTGAACGGATCTTGGATTCCAGCTGCAGTCTTCTCAT
 CACTACAGATGCCTTCTACAGGGGGAAAAGCTTGTGAACCTGAAGGAGCTGGCTGACGAGGCCCTGCAG
 AAGTGTCAAGGAGAAGGGTTCCAGTAAGATGCTGCATTGTGGTCAAGCACCTGGGGCGGCAGAGCTCG
 GCATGGGTGACTCCACCAGCCAGTCCCCCAATTAAGAGGTTCATGCCAGATGTGCAGATCTCATGGAA
 CCAAGGGATTGACTTGTGGTGGCATGAGCTCATGCAAGAGGCAGGGGATGAGTGTGAGCCCGAGTGGTGT
 GATGCCGAGGACCACTTTCATCCTGTACACCAGTGGCTCCACAGGCAAACCAAGGGTGTGGTTCACA
 CAGTTGGGGGCTACATGCTCTATGTAGCCACAACCTTCAAGTATGTGTTTGAATCCATGCAGAGGATGT
 GTTCTGGTGCACGGCAGACATTGGTTGGATCACTGGTCATTCTACGTCACCTATGGGCCACTGGCCAAT
 GGTGCCACCAGTGTGTTGTTGAGGGGATCCACATATCCGGACGTGAACCGCCTGTGGAGCATTGTGG
 ACAAATACAAGGTGACCAAGTTCTACACAGCACCCACAGCCATCCGTCTGCTCATGAAGTTTGGAGATGA
 GCCTGTACCAAGCATAGCCGGGCATCCTTGCAGGTGTAGGCACAGTGGTGAACCCATCAACCCCTGAG
 GCCTGGCTATGGTACCACGGGTGGTAGGTGCCAGCGCTGCCCATCGTGGACACCTTCTGGCAAACAG
 AGACAGTGGCCACATGTTGACTCCCTTCTGGTGGCACACCCATGAAACCCGGTCTGTACTTTCC
 ATTCTTTGGTGTAGCTCCTGCAATCCTGAATGAGTCCGGGGAAGAGTTGGAAGGTGAAGCTGAAGGTTAT
 CTGGTGTCAAGCAGCCCTGGCCAGGGATCATGCGCACAGTCTATGGGAACCACGAACGCTTTGAGACAA
 CCTACTTTAAGAAGTTTCTGGATACTATGTTACAGGAGATGGCTGCCAGCGGGACCAGGATGGCTATTA
 CTGGATCACTGGCAGGATTGATGACATGCTCAATGTATCTGGACACCTGCTGAGTACAGCAGAGGTGGAG
 TCAGCACTTGTGGAACATGAGGCTGTTGCAGAGGCAGCTGTGGTGGCCACCCTCATCCTGTGAAGGGT
 AATGCCTCTACTGCTTTGTACCTTGTGTGATGGCCACACCTTCAGCCCCAAGCTCACCGAGGAGCTCAA
 GAAGCAGATTAGAGAAAAGATTGGCCCCATTGCCACACCAGACTACATCCAGAATGCACCTGGCTTGCT
 AAAACCCGCTCAGGAAAATCATGAGGCGAGTCTTCGGAAGATTGCTCAGAATGACCATGACCTCGGG
 ACATGTCTACTGTGGCTGACCCATCTGTATCAGTCACCTTTCAGCCACCGCTGCTGACCATCCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC233006 representing NM_001242393
 Red=Cloning site Green=Tags(s)

MKGATTNICYNVLDNRVHEKKLGDVAFYWEGNEPGETTQITYHQLLVQVCQFSNVLRKQGIQKGDVVAI
 YMPMPELVVAMLACARIGALHSIVFAGFSSSELICERILDSSCSLLITDADFYRGEKLVNLKELADEALQ
 KCQEKGFVVRCCIIVKHLGRAELGMDSTSQSPPIKRSCPVDVQISWNQIDLWWHELMQEAAGDECEPEWC
 DAEDPLFILYTSGSTGPKGVVHTVGGYMLYVATTFKYVDFHAEVDVFWCTADIGWITGHSYVTYGPLAN
 GATSVLFEIPTYPDVNRLWSIVDKYKVKFYTAPTAIRLLMKFGDEPVTKHSRASLQVLGTVGEPINPE
 AWLWYHRVVGARCPIDVTFWQTEETGGHMLTPLPGATPMKPGSATFPFFGVAPAILNESGEELEGEAEGY
 LVFKQPWPGIMRTVYGNHERFETTYFKKFPYVYVTDGDCQRDQDGYWITGRIDDMLNVSGHLLSTAEVE
 SALVEHEAVAAAVVGHPPVKGECLYCFVTLCDGHTFSPKLTEELKKQIREKIGPIATPDYIQNAPGLP
 KTRSGKIMRRVLRKIAQNDHDLGDMSTVADPSVISHLFSHRCLTIQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001242393

ORF Size: 1818 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_001242393.1](#), [NP_001229322.1](#)

RefSeq Size: 2864 bp

RefSeq ORF: 1821 bp

Locus ID: 55902

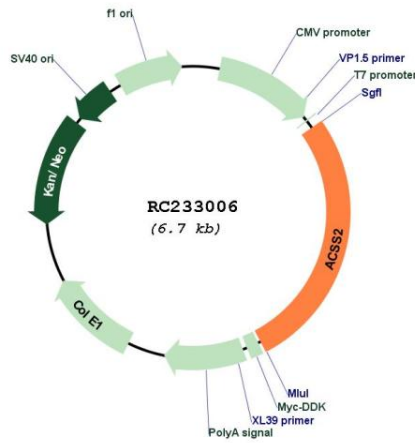
Cytogenetics: 20q11.22

Protein Pathways: Glycolysis / Gluconeogenesis, Metabolic pathways, Propanoate metabolism, Pyruvate metabolism

MW: 68.1 kDa

Gene Summary: This gene encodes a cytosolic enzyme that catalyzes the activation of acetate for use in lipid synthesis and energy generation. The protein acts as a monomer and produces acetyl-CoA from acetate in a reaction that requires ATP. Expression of this gene is regulated by sterol regulatory element-binding proteins, transcription factors that activate genes required for the synthesis of cholesterol and unsaturated fatty acids. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2009]

Product images:



Circular map for RC233006