

Product datasheet for **RC204260**

Acetyl CoA synthetase (ACSS2) (NM_018677) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Acetyl CoA synthetase (ACSS2) (NM_018677) 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:

>RC204260 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGGGCTTCTGAGGAGCGGGTCCGGAGCGGCAGCGGGAGCCGGGGCCAGGAGGAAGCTGGAGCCGGAG
GCCGGGCGGGAGTTGGTCTCCGCCGCCGAGGTGAGCCGCTCCGCGCAGTCCCCTCGCTGCAGCGCTA
CCGCGAGCTGCACCGCGCTCCGTGGAGGAGCCGCGGAATTCGGGAGACATTGCCAAGGAATTTTAC
TGGAACTCCATGCCCTGGCCATTCTTCGGTACAACCTTGTGACTAAAGGGAAAATCTTTATTG
AGTGGATGAAAGGAGCACTACCAACATCTGCTACAATGTACTGGATCGAAATGTCCATGAGAAAAAGCT
TGGAGATAAAGTTGCTTTTTACTGGGAGGGCAATGAGCCAGGGGAGACCACTCAGATCACATACCATCAG
CTTCTGGTCCAAGTGTGTGAGTTCAGCAATGTTCTCCGAAAACAGGGCATTGAGAAGGGGGACCGAGTGG
CCATCTACATGCCTATGATCCCAGAGCTTGTGGTGGCCATGCTGGCATGTGCCCGCATTGGGGCTTTGCA
CTCCATTGTGTTGCAGGCTTCTTTCAGAGTCTCTATGTGAACGGATCTTGGATTCCAGCTGCAGTCTT
CTCATCACTACAGATGCCTTCTACAGGGGGGAAAAGCTTGTGAACCTGAAGGAGCTGGCTGACGAGGCC
TGCAAGTGTGACAGGAGAAGGGTTCCAGTAAGATGCTGCATTGTGGTCAAGCACCTGGGGCGGGCAGA
GCTCGGCATGGGTGACTCCACCAGCCAGTCCCCCAATTAAGAGGTGATGCCAGATGTGCAGATCTCA
TGGAAACCAAGGGATTGACTTGTGGTGGCATGAGCTCATGCAAGAGGCAGGGGATGAGTGTGAGCCCGAGT
GGTGTGATGCCGAGGACCACTTTCATCTGTACACAGTGGCTCCACAGGCAACCCAAAGGGTGTGGT
TCACACAGTTGGGGCTACATGCTCTATGTAGCCACAACCTTCAAGTATGTGTTGACTTCCATGCAGAG
GATGTGTTCTGGTGCACGGCAGACATTGGTGGATCACTGGTCACTTCTACGTACCTATGGGCCACTGG
CCAATGGTGCCACCAGTGTGTTGTTGAGGGGATCCACATATCCGGACGTGAACCGCCTGTGGAGCAT
TGTGGACAAATACAAGGTGACCAAGTCTACACAGCACCCACAGCCATCCGTCTGCTCATGAAGTTTGG
GATGAGCCTGTACCAAGCATAGCCGGGCATCCTTGCAGGTGTTAGGCACAGTGGGTGAACCCATCAACC
CTGAGGCCTGGCTATGGTACCACCGGTGGTAGGTGCCACGCGTCCCCATCGTGGACACCTTCTGGCA
AACAGAGACAGGTGGCCACATGTTGACTCCCCTCCTGGTGCCACACCCATGAAACCCGGTTCTGCTACT
TTCCATCTTTGGTGTAGCTCCTGCAATCCTGAATGAGTCCGGGAAGAGTTGGAAGGTGAAGCTGAAG
GTTATCTGGTGTCAAGCAGCCCTGGCCAGGGATCATGCGCACAGTCTATGGGAACCACGAACGCTTTGA
GACAACCTACTTTAAGAAGTTTCTGGATACTATGTTACAGGAGATGGCTGCCAGCGGGACCAGGATGGC
TATTACTGGATCACTGGCAGGATTGATGACATGCTCAATGTATCTGGACACCTGTGAGTACAGCAGAGG
TGGAGTCAGCACTTGTGGAACATGAGGCTGTTGCAGAGGCAGCTGTGGTGGGCCACCTCATCCTGTGAA
GGGTGAATGCCTCTACTGCTTTTTACCTTGTGTGATGGCCACACCTTACGCCCCAAGCTCACCGAGGAG
CTCAAGAAGCAGATTAGAGAAAAGATTGGCCCCATTGCCACACCAGACTACATCCAGAATGCACCTGGCT
TGCCATAAACCCGCTCAGGGAAAATCATGAGGCGAGTGTTCGGAAGATTGCTCAGAATGACCATGACCT
CGGGGACATGTCTACTGTGGTGAACCATCTGTATCATGCTCACCTTTCAGCCACCGCTGCCTGACCATC
CAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC204260 protein sequence
Red=Cloning site Green=Tags(s)

MGLPEERVRSRSGSRGQEEAGAGGRARSWSPPEVSRSAHVPSLQRYRELHRRSVEEPREFWGDIAKEFY
 WKTPCPGPFRLRYNFDVTKGKIFIEWMKGATTNICYNVLDNRVHEKKLGDKVAFYWEGNEPGETTQITYHQ
 LLVQVCQFSNVLKQGIQKGRVAIYMPMIPELVVAMLACARIGALHSIVFAGFSSESLCERILDSSCSL
 LITTDAFYRGEKLVNLKELADEALQKQEKGFVVRCCI VVKHLGRAELGMDSTSQSPPIKRSCPVDQIS
 WNQGIDLWWHELMQEAGDECEPEWCDAEDPLF ILYTSGSTGKPKGVVHTVGGYMLYVATTFKYVDFHAE
 DVFWCTADIGWITGHSYVYGPLANGATSVLFEGIPTYPDVNRLWSIVDKYKVTKFYTAPTAIRLLMKFG
 DEPVTKHSRASLQVLGTVGEPINPEAWLWYHRVVGARCPVDLTFWQTETGGHMLTPLPGATPMKPGSAT
 FPFVGVAPAILNESGEELEGEAEGYL VFKQPWPGIMRTVYGNHERFETTYFKKFPGYVYVTDGDCQRDQDG
 YYWITGRIDDMLNVSGHLLSTAEVESALVEHEAVAEAAVVGHPHPVKGECLYCFFTLCDGHTFSPKLTEE
 LKKQIREKIGPIATPDYIQNAPGLPKTRSGKIMRRVLRKIAQNDHDLGDMSTVADPSVISHLFSHRCLTI
 Q

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6260_h03.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_018677

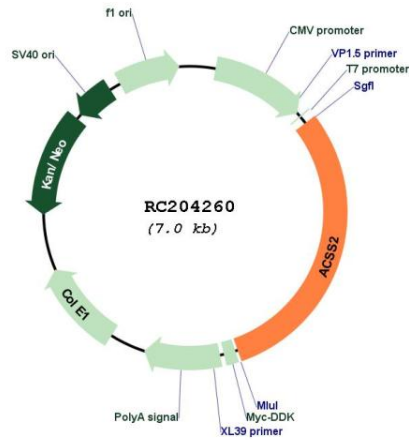
ORF Size: 2103 bp

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](#)

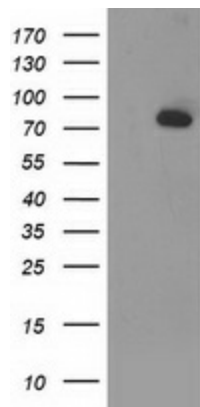
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_018677.4
RefSeq Size:	2988 bp
RefSeq ORF:	2106 bp
Locus ID:	55902
UniProt ID:	Q9NR19
Cytogenetics:	20q11.22
Domains:	AMP-binding
Protein Pathways:	Glycolysis / Gluconeogenesis, Metabolic pathways, Propanoate metabolism, Pyruvate metabolism
MW:	78.6 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]

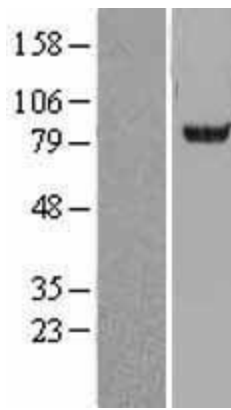
Product images:



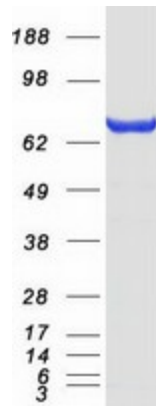
Circular map for RC204260



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ACSS2 (Cat# RC204260, 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-ACSS2 (Cat# [TA503609]). Positive lysates [LY412981] (100ug) and [LC412981] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY412981]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204260 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ACSS2 protein (Cat# [TP304260]). The protein was produced from HEK293T cells transfected with ACSS2 cDNA clone (Cat# RC204260) using MegaTran 2.0 (Cat# [TT210002]).