

Product datasheet for **SC127553**

Acetyl CoA synthetase (ACSS2) (NM_139274) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Acetyl CoA synthetase (ACSS2) (NM_139274) Human Untagged Clone
Tag:	Tag Free
Symbol:	Acetyl CoA synthetase
Synonyms:	ACS, ACSA, ACAS2, AceCS, MYH7B, dj1161H23.1, DKFZp762G026
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for NM_139274, the custom clone sequence may differ by one or more nucleotides

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ATGAAAGGAGCAACTACCAACATCTGCTACAATGTACTGGATCGAAATGTCCATGAGAAAAAGCTTGGAG
ATAAAGTTGCTTTTTACTGGGAGGGCAATGAGCCAGGGGAGACCACTCAGATCACATACCATCAGCTTCT
GGTCCAAGTGTGTGTCAGTTCAGCAATGTTCTCCGAAAACAGGGCATTGAGAAGGGGGACCGAGTGGCCATC
TACATGCCATGATCCCAGAGCTTGTGGTGGCCATGCTGGCATGTGCCCGCATTGGGGCTTTCAGCTCCA
TTGTGTTTGCAGGCTTCTCTCAGAGTCTCTATGTGAACGGATCTTGGATTCCAGCTGCAGTCTTCTCAT
CACTACAGATGCCTTCTACAGGGGGGAAAAAGCTTGTGAACCTGAAGGAGCTGGCTGACGAGGCCCTGCAG
AAGTGTGACAGGAGAAGGGTTTCCAGTAAGATGCTGCATTGTGGTCAAGCACCTGGGGCGGCAGAGCTCG
GCATGGGTGACTCCACCAGCCAGTCCCCCAATTAAGAGGTGATGCCAGATGTGCAGATCTCATGGAA
CCAAGGGATTGACTTGTGGTGGCATGAGCTCATGCAAGAGGCAGGGGATGAGTGTGAGCCCGAGTGGTGT
GATGCCGAGGACCACTTTCATCTGTACACCAGTGGCTCCACAGGCAAACCAAGGGTGTGGTTCACA
CAGTTGGGGGCTACATGCTCTATGTAGCCACAACCTTCAAGTATGTGTTGACTTCCATGCAGAGGATGT
GTTCTGGTGCACGGCAGACATTGGTTGGATCACTGGTCATTTCCTACGTACCTATGGGCCACTGGCCAAT
GGTGCCACCAGTGTGTTTGTGGAGGGATTCCACATATCCGGACGTGAACCCGCTGTGGAGCATTGTGG
ACAAATACAAGGTGACCAAGTTCTACACAGCACCCACAGCCATCCGTCTGCTCATGAAGTTTGGAGATGA
GCCTGTACCAAGCATAGCCGGGCATCCTTGCAGGTGTTAGGCACAGTGGGTGAACCCATCAACCCCTGAG
GCCTGGCTATGGTACCACGGGTGGTAGGTGCCAGCGCTGCCCATCGTGGACACCTTCTGGCAAACAG
AGACAGGTGGCCACATGTTGACTCCCCTCCTGGTGCCACACCCATGAAACCCGGTTCTGCTACTTTCCC
ATTCTTTGGTGTAGCTCCTGCAATCCTGAATGAGTCCGGGAAGAGTTGGAAGGTGAAGCTGAAGGTTAT
CTGGTGTCAAGCAGCCCTGGCCAGGGATCATGCGCACAGTCTATGGGAACCAAGCAAGCTTTGAGACAA
CCTACTTTAAGAAGTTTCTGGATACTATGTTACAGGAGATGGCTGCCAGCGGGACAGGATGGCTATTA
CTGGATCACTGGCAGGATTGATGACATGCTCAATGTATCTGGACACCTGTGAGTACAGCAGAGGTGGAG
TCAGCACTTGTGGAACATGAGGCTGTTGCAGAGGCAGCTGTGGTGGGCCACCCTCATCTGTGAAGGGTG
AATGCCTCTACTGCTTTGTACCTTGTGTGATGGCCACACCTTACAGCCCAAGCTCACCGAGGAGCTCAA
GAAGCAGATTAGAGAAAAGATTGGCCCCATTGCCACACCAGACTACATCCAGAATGCACCTGGCTTGCT
AAAACCCGCTCAGGGAAAATCATGAGGCGAGTCTTCCGGAAGATTGCTCAGAATGACCATGACCTCGGG
ACATGTCTACTGTGGCTGACCCATCTGCATCAGTACCTTTCAGCCACCGCTGCCTGACCATCCAGTG
A
    
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_139274 unedited

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TCCGACTCACTATAGGGCGCCGCAATTCGGCACGAGGGCCGCGTTCTAGGAAGTTGA
CGTGATGGGGCTTCTGAGGAGCGGGTCCGGAGCGGCAGCGGGAGCCGGGGCCAGGAGGA
AGCTGGAGCCGGAGGCGGGCGGAGTTGGTCTCCGCCGCCGAGGTCAGCCGCTCCGC
GCACGTCCCCTCGCTGCAGCGCTACCGGAGCTGCACCGCGCTCCGTGGAGGAGCCGG
GGAATTCTGGGGAGACATTGCCAAGGAATTTTACTGGAAGACTCCATGCCCTGGCCATT
CCTTCGGTACAACCTTTGATGTGACTAAAGGGAAAATCTTTATTGAGTGGATGAAAGGAGC
AACTACCAACATCTGCTACAATGTACTGGATCGAAATGTCCATGAGAAAAAGCTTGGAGA
TAAAGTTGCTTTTTACTGGGAGGGCAATGAGCCAGGGGAGACCACTCAGATCACATACCA
TCAGCTTCTGGTCCAAGTGTGTCAGTTCAGCAATGTTCTCCGAANACAGGGCATTGAGAA
GGGGGACCGAGTGGCCATCTACATGCCTATGATCCCAGAGCTTGTGGTGGCCATGCTGGC
ATGTGCCCGCATTGGGGCTNTGCACTCCATTGTGTTTGCAGGCTTCTCTTTCAGAGTCTCT
ATGTGAACGGATCTTGGATTGAGCTGCAGTCTTCTCATCACTACAGATGCCTTCTACAGG
NGGAAAAGCTTGTGAACCTGAAGGAGCTGGCTGACGAGCCCTGCAAAGTGTGANGAGAA
TGGTTTCCAGTAAGAGCTGCATTGTGTCAAGCACCTGGGGCGGCANAGCTCGCATGGTGA
CTCACCAGCCAGCCCCCAATAAGAGTCTGCCAGAGTGACAGACTCATGGACCAGGATTG
ACTGGNGGCATGACTATGCANAGCAGGCAGATGGAACCC
    
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_139274 unedited TTTGAACCGTGTGCCGAATCTACAGTCGAGTTTTTTTTTTTTTTTTTTTGGATCCAGGC TTTATTCCTACAACCACAGGGCTTGAGCCTGACTGGGGCAAGAAACAGAGTTTCATCTGA GAATGTCTCTTATGGGCTGGGTTCTGTTTCAGGGGAGGGTGGGAACAGAGGACAAGGAAGA CAAGCTCCTCTGGCCCTAGGAACAAAACACATTTACTCCTTCAAAGAAGCAGATGATCTG AATACCTCTGGAGACTGAATCTGCCCATACAGCCCCTGGAGCCAATGGGCAGACAGTAC TGGCATCTGGCACAAAAGGGAATTCAGACCCAGAACAGAAGCAGCAAAAATATTTTAAAAA TAGCAAATTGTTCTGGACTCACAAATCATTGTTTTTAAGGGCAAGTGCATGCCCAATAT AAGTACTGGGGCTCCCTAACAGAGCTGACCTAGGATTACACAGCTGCCTCCCTGCTTCAG TGGAGGACCTAACATCCCCTTTGAACACTTAACTTGGGCAGGAGAGGTACCCTTTCCAC TCTGTTCTGGGCTCTGAGAGCTCTGCAGTCTGGAGGCACAGCACACTGACGCTGACCTGC GCCCTGCCCTTTATGCCTGCCGCCCCAGGATGTTGCCTTTTTCTGGAGACAAAACGGCT CTCGGTCCCCACAGTTGGTCAAGGGAGGGAAGTGGGCGCCACCCTGTCCCCACAACA CCTGAGGGGCCAAAAGGATGGGTTCTCTTTGCCCCACGAGGAACCTCCCGCCACGGTCC CGATCCTGCCTCTCGCATGGCCCGCCCGATGGTTGATCAGTGACTGGTGTCCCAGGGC TTTCCCCCCCACCTTGCCCCCGCCCGCCTTCTACCCACTTCCCACCTCCCCTCCT GTTCCCCTCGCCGTTACCCGTTATCTCCCCGCCTTCGCCGCCCCCTCTCCCTTTCT CT
Restriction Sites:	NotI-NotI
ACCN:	NM_139274
Insert Size:	3160 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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.
RefSeq:	<u>NM_139274.1</u> , <u>NP_644803.1</u>
RefSeq Size:	2773 bp
RefSeq ORF:	1821 bp
Locus ID:	55902
Cytogenetics:	20q11.22
Protein Pathways:	Glycolysis / Gluconeogenesis, Metabolic pathways, Propanoate metabolism, Pyruvate metabolism

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]

Transcript Variant: This variant (2) contains a distinct 5' UTR and lacks an in-frame segment of the 5' coding region, compared to variant 1. The resulting isoform (b) has a shorter N-terminus when compared to isoform a.