

## Product datasheet for **RC229348**

### Acetyl CoA synthetase (ACSS2) (NM\_001076552) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Acetyl CoA synthetase (ACSS2) (NM_001076552) 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:**

>RC229348 representing NM\_001076552  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGGGCTTCTGAGGAGCGGGTCCGGAGCGGCAGCGGGAGCCGGGGCCAGGAGGAAGCTGGAGCCGGAG  
 GCCGGGCGGGAGTTGGTCTCCGCCGCCGAGGTCAGCCGCTCCGCGCAGTCCCCTCGCTGCAGCGCTA  
 CCGCGAGCTGCACCGCGCTCCGTGGAGAGCCCGGGAATTCGGGGAGACATTGCCAAGGAATTTTAC  
 TGGAAAGACTCCATGCCCTGGCCATTCTTCGGTACAACCTTGTGACTAAAGGGAAAATCTTCATTG  
 AGTGGATGAAAGGAGCAACTACCAACATCTGCTACAATGTACTGGATCGAAATGTCCATGAGAAAAAGCT  
 TGGAGATAAAGTTGCTTTTTACTGGGAGGGCAATGAGCCAGGGGAGACCACTCAGATCACATACCATCAG  
 CTTCTGGTCCAAGTGTGTGAGTTCAGCAATGTTCTCCGAAAACAGGGCATTGAGAAGGGGGACCGAGTGG  
 CCATCTACATGCCTATGATCCCAGAGCTTGTGGTGGCCATGCTGGCATGTGCCCGCATTGGGGCTTTGCA  
 CTCATTGTGTTTGCAGGCTTCTCTCAGAGTCTCTATGTGAACGGATCTTGGATTCCAGCTGCAGTCTT  
 CTCATCACTACAGATGCCTTCTACAGGGGGGAAAAGCTTGTGAACCTGAAGGAGCTGGCTGACGAGGCC  
 TGCAAGTGTGTCAGGAGAAGGGTTCCAGTAAGATGCTGCATTGTGGTCAAGCACCTGGGGCGGGCAGA  
 GCTCGGCATGGGTGACTCCACCAGCCAGTCCCCCAATTAAGAGGTGATGCCAGATGTGACGGGTAAA  
 CTGAAAGAGAAAATCCAAGCGTGTTCAGCCCCAGATCTCATGGAACCAAGGGATTGACTTGTGGTGGCATG  
 AGCTCATGCAAGAGGCAGGGGATGAGTGTGAGCCCGAGTGGTGTGATGCCGAGGACCCACTCTTCATCCT  
 GTACACCAGTGGTCCACAGGCAACCAAGGGTGTGGTTCACACAGTTGGGGCTACATGCTCTATGTA  
 GCCACAACCTTCAAGTATGTGTTGACTTCCATGCAGAGGATGTGTTCTGGTGCACGGCAGACATGGTT  
 GGATCACTGGTCATTCTACGTACCTATGGCCACTGGCCAATGGTGCCACCAGTGTGTTTGGTTGAGGG  
 GATTCACATATCCGGACGTGAACCGCTGTGGAGCATTGTGGACAAATACAAGGTGACCAAGTTCTAC  
 ACAGCACCCACAGCCATCCGTCTGCTCATGAAGTTTGGAGATGAGCCTGTCAACCAAGCATAGCCGGCAT  
 CTTGACAGGTGTTAGGCACAGTGGTGAACCCATCAACCCTGAGGCCTGGCTATGGTACCACCGGTGGT  
 AGGTGCCAGCGCTGCCCATCGTGGACACCTTCTGGCAACAGAGACAGGTGGCCACATGTTGACTCCC  
 CTTCTGGTGGCCACCCATGAAACCGGTTCTGCTACTTTCCATTCTTTGGTGTAGCTCCTGCAATCC  
 TGAATGAGTCCGGGAAGAGTTGGAAGGTGAAGCTGAAGGTTATCTGGTGTCAAGCAGCCCTGGCCAGG  
 GATCATGCGCACAGTCTATGGGAACCACGAACGCTTTGAGACAACCTACTTTAAGAAGTTTCTGGATAC  
 TATGTTACAGGAGATGGCTGCCAGCGGGACCAGGATGGCTATTACTGGATCACTGGCAGGATTGATGACA  
 TGCTCAATGTATCTGGACACCTGCTGAGTACAGCAGAGGTGGAGTCAAGCAGCTTGTGGAACATGAGGCTGT  
 TGCAAGGCGAGCTGTGGTGGGCCACCCTCATCCTGTGAAGGGTGAATGCCTCTACTGCTTTGTACCTTG  
 TGTGATGGCCACACCTTCAGCCCCAAGCTCACCGAGGAGCTCAAGAAGCAGATTAGAGAAAAAGTTGGCC  
 CCATTGCCACACCAGACTACATCCAGAATGCACCTGGCTTGCTAAAACCGCTCAGGAAAAATCATGAG  
 GCGAGTGTTCGGAAGATTGCTCAGAATGACCATGACCTCGGGGACATGTCTACTGTGGCTGACCCATCT  
 GTCATCAGTCACTCTTCAGCCACCGCTGCCTGACCATCCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC229348 representing NM\_001076552  
Red=Cloning site Green=Tags(s)

MGLPEERVRSRSGSRGQEEAGAGGRARSWSPPEVSRSAHVPSLQRYRELHRRSVVEEPREFWGDIAKEFY  
 WKTPCPGPFRLRYNFDVTKGKIFIEWMKGATTNICYNVLDNRVHEKKLGDKVAFYWEGNEPGETTQITYHQ  
 LLVQVCQF SNVLRKQGIQKGRVAIYMPMIPEL VVAMLACARIGALHSIVFAGFSSESLCERILDSSCSL  
 LITTFDAFYRGEKLVNLKELADEALQKCEKGFVVRCCI VVKHLGRAELGMDSTSQSPPIKRSCP DVQ GK  
 LKEKSKRVQPQISWNQIDLWWHELMQEAGDECEPEWCD AEDPLF ILYTSGSTGKPKGVVHTVGGYMLYV  
 ATTFKYVDFHAEVDFWCTADIGWITGHSYVTYGPLANGATSVLFEGIPTYPDVNRLWSIVDKYKVTKFY  
 TAPTAIRLLMKFGDEPVTKHSRASLQVLGTVGEPINPEAWLWYHRVVGARCP IVDTFWQTETGGHMLTP  
 LPGATPMKPGSATFPFFGVAPAILNESGEELEGEAE GYL VFKQPWPGIMRTVYGNHERFETTYFKKFPGY  
 YVTGDGCQRDQDGYWITGRIDDM LNVS GHL LSTAEVESALVEHEAVAEAAVVGHPPVKGECLYCFVTL  
 CDGHTFSPKLTEELKKQIREKIGPIATPDYIQNAPGLPKTRSGKIMRRVLRKIAQN DHDLDGMSTVADPS  
 VISHLFSHRCLTIQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001076552

**ORF Size:** 2142 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\\_001076552.2](#), [NP\\_001070020.2](#)

**RefSeq ORF:** 2145 bp

**Locus ID:** 55902

**UniProt ID:** [Q9NR19](#)

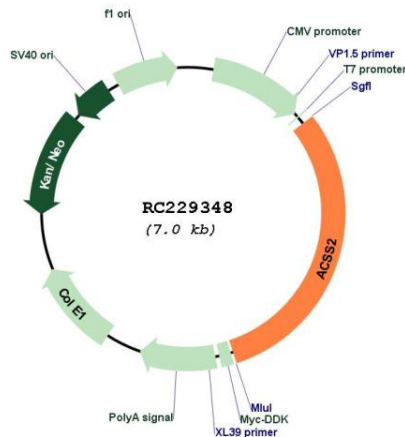
**Cytogenetics:** 20q11.22

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

**MW:** 79.9 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 RC229348