

## Product datasheet for **RG204260**

### 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:	TurboGFP
Symbol:	ACSS2
Synonyms:	ACAS2; ACECS; AceCS1; ACS; ACSA; dj1161H23.1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RG204260 representing NM\_018677  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGGGCTTCTGAGGAGCGGGTCCGGAGCGGCAGCGGGAGCCGGGGCCAGGAGGAAGCTGGAGCCGGAG  
GCCGGGCGGGAGTTGGTCTCCGCCGCCGAGGTCAGCCGCTCCGCGCAGTCCCCTCGCTGCAGCGCTA  
CCGCGAGCTGCACCGCGCTCCGTGGAGAGCCCGGGAATTCGGGAGACATTGCCAAGGAATTTTAC  
TGGAACTCCATGCCCTGGCCATTCTTCGGTACAACCTTGTGACTAAAGGGAAAATCTTTATTG  
AGTGGATGAAAGGAGCACTACCAACATCTGCTACAATGTACTGGATCGAAATGTCCATGAGAAAAAGCT  
TGGAGATAAAGTTGCTTTTTACTGGGAGGGCAATGAGCCAGGGGAGACCACTCAGATCACATACCATCAG  
CTTCTGGTCCAAGTGTGTGAGTTCAGCAATGTTCTCCGAAAACAGGGCATTGAGAAGGGGGACCGAGTGG  
CCATCTACATGCCTATGATCCCAGAGCTTGTGGTGGCCATGCTGGCATGTGCCCGCATTGGGGCTTTGCA  
CTCCATTGTGTTGCAGGCTTCTTTCAGAGTCTCTATGTGAACGGATCTTGGATTCCAGCTGCAGTCTT  
CTCATCACTACAGATGCCTTCTACAGGGGGGAAAAGCTTGTGAACCTGAAGGAGCTGGCTGACGAGGCC  
TGCAAGTGTGACAGGAGAAGGGTTCCAGTAAGATGCTGCATTGTGGTCAAGCACCTGGGGCGGGCAGA  
GCTCGGCATGGGTGACTCCACCAGCCAGTCCCCCAATTAAGAGGTGATGCCAGATGTGCAGATCTCA  
TGGAAACCAAGGGATTGACTTGTGGTGGCATGAGCTCATGCAAGAGGCAGGGGATGAGTGTGAGCCCGAGT  
GGTGTGATGCCGAGGACCACTTTCATCTGTACACAGTGGCTCCACAGGCAACCCAAAGGGTGTGGT  
TCACACAGTTGGGGCTACATGCTCTATGTAGCCACAACCTTCAAGTATGTGTTGACTTCCATGCAGAG  
GATGTGTTCTGGTGCACGGCAGACATTGGTTGGATCACTGGTCATTCTACGTACCTATGGGCCACTGG  
CCAATGGTGCACCAAGTGTGTTGTTGAGGGGATCCACATATCCGGACGTGAACCGCCTGTGGAGCAT  
TGTGGACAAATACAAGGTGACCAAGTCTACACAGCACCCACAGCCATCCGTCTGCTCATGAAGTTTGA  
GATGAGCCTGTACCAAGCATAGCCGGGCATCCTTGCAGGTGTTAGGCACAGTGGGTGAACCCATCAACC  
CTGAGGCCTGGCTATGGTACCACCGGTGGTAGGTGCCACGCTGCCCATCGTGGACACCTTCTGGCA  
AACAGAGACAGGTGGCCACATGTTGACTCCCCTCCTGGTGCCACACCCATGAAACCCGGTTCTGCTACT  
TCCCATTCTTTGGTGTAGCTCCTGCAATCCTGAATGAGTCCGGGAAGAGTTGGAAGGTGAAGCTGAAG  
GTTATCTGGTGTCAAGCAGCCCTGGCCAGGGATCATGCGCACAGTCTATGGGAACCACGAACGCTTTGA  
GACAACCTACTTTAAGAAGTTTCTGGATACTATGTTACAGGAGATGGCTGCCAGCGGGACCAGGATGGC  
TATTACTGGATCACTGGCAGGATTGATGACATGCTCAATGTATCTGGACACCTGCTGAGTACAGCAGAGG  
TGGAGTCAGCACTTGTGGAACATGAGGCTGTTGCAGAGGCAGCTGTGGTGGGCCACCTCATCCTGTGAA  
GGGTGAATGCCTCTACTGCTTTTTACCTTGTGTGATGGCCACACCTTACGCCCCAAGCTCACCGAGGAG  
CTCAAGAAGCAGATTAGAGAAAAGATTGGCCCCATTGCCACACCAGACTACATCCAGAATGCACCTGGCT  
TGCCATAAACCCGCTCAGGGAAAATCATGAGGCGAGTGTTCGGAAGATTGCTCAGAATGACCATGACCT  
CGGGGACATGTCTACTGTGGCTGACCCATCTGTATCATGCTCACCTTTCAGCCACCGCTGCCTGACCATC  
CAG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG204260 representing NM\_018677  
 Red=Cloning site Green=Tags(s)

MGLPEERVRSRSGSRGQEEAGAGGRARSWSPPEVSRSAHVPSLQRYRELHRRSVVEEPREFWGDIAKEY  
 WKTPCPGPFRLRYNFDVTKGKIFIEWMKGATTNICYNVLDNRVHEKKLGDKVAFYWEGNEPGETTQITYHQ  
 LLVQVCQFSNVLKQGIQKGRVAIYMPMIPELVVAMLACARIGALHSIVFAGFSSESLCERILDSSCSL  
 LITTDAFYRGEKLVNLKELADEALQKQEKGFVVRCCIIVVKHLGRAELGMDSTSSPPIKRSCPVDQIS  
 WNQGIDLWWHELMQEAGDECEPEWCDAEDPLFILYTSGSTGKPKGVVHTVGGYMLYVATTFKYVDFHAE  
 DVFWCTADIGWITGHSYVYGPLANGATSVLFEGIPTYPDVNRLWSIVDKYKVTKFYTAAPTIRLLMKFG  
 DEPVTKHSRASLQVLGTVGEPINPEAWLWYHRVGAQRCPVDTFWQTETGGHMLTPLPGATPMKPGSAT  
 FPFVGVAPAILNESGEELEGEAEGYL VFKQPWPGIMRTVYGNHERFETTYFKKFPGYVYVTDGDCQRDQDG  
 YYWITGRIDDMLNVSGHLLSTAEVESALVEHEAVAEAAVVGHPHPVKGECLYCFFTLCDGHTFSPKLTEE  
 LKKQIREKIGPIATPDYIQNAPGLPKTRSGKIMRRVLRKIAQNDHDLGDMSTVADPSVISHLFSHRCLTI  
 Q

TRTRPLE - GFP Tag - V

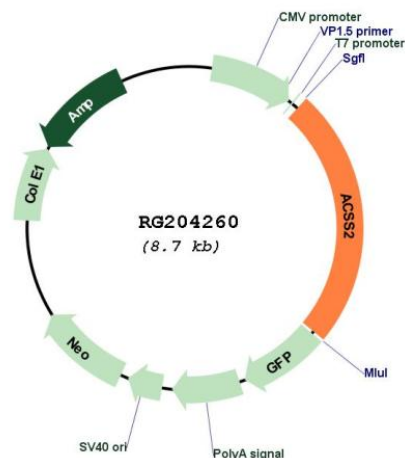
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



## Plasmid Map:



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:

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\\_018677.2](#), [NP\\_061147.1](#)

RefSeq Size: 2925 bp

RefSeq ORF: 2106 bp

<b>Locus ID:</b>	55902
<b>UniProt ID:</b>	<a href="#">Q9NR19</a>
<b>Cytogenetics:</b>	20q11.22
<b>Domains:</b>	AMP-binding
<b>Protein Pathways:</b>	Glycolysis / Gluconeogenesis, Metabolic pathways, Propanoate metabolism, Pyruvate metabolism
<b>Gene Summary:</b>	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]