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Product datasheet for RG233006

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:	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)

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ORF Nucleotide Sequence:

>RG233006 representing NM_001242393
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAAAGGAGCAACTACCAACATCTGCTACAATGTACTGGATCGAAATGTCCATGAGAAAAAGCTTGGAG
ATAAAGTTGCTTTTTACTGGGAGGGCAATGAGCCAGGGGAGACCACTCAGATCACATACCATCAGCTTCT
GGTCCAAGTGTGTCAGTTCAGCAATGTTCTCCGAAAACAGGGCATTCAGAAGGGGGACCGAGTGGCCATC
TACATGCCTATGATCCCAGAGCTTGTGGTGGCCATGCTGGCATGTGCCCGCATTGGGGCTTTGCACTCCA
TTGTGTTTGCAGGCTTCTCTTCAGAGTCTCTATGTGAACGGATCTTGGATTCCAGCTGCAGTCTTCTCAT
CACTACAGATGCCTTCTACAGGGGGGAAAAGCTTGTGAACCTGAAGGAGCTGGCTGACGAGGCCCTGCAG
AAGTGTCAGGAGAAGGGTTTCCCAGTAAGATGCTGCATTGTGGTCAAGCACCTGGGGCGGGCAGAGCTCG
GCATGGGTGACTCCACCAGCCAGTCCCCCCCAATTAAGAGGTCATGCCCAGATGTGCAGATCTCATGGAA
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GATGCCGAGGACCCACTCTTCATCCTGTACACCAGTGGCTCCACAGGCAAACCCAAGGGTGTGGTTCACA
CAGTTGGGGGCTACATGCTCTATGTAGCCACAACCTTCAAGTATGTGTTTGACTTCCATGCAGAGGATGT
GTTCTGGTGCACGGCAGACATTGGTTGGATCACTGGTCATTCCTACGTCACCTATGGGCCACTGGCCAAT
GGTGCCACCAGTGTTTTGTTTGAGGGGATTCCCACATATCCGGACGTGAACCGCCTGTGGAGCATTGTGG
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CCTACTTTAAGAAGTTTCCTGGATACTATGTTACAGGAGATGGCTGCCAGCGGGACCAGGATGGCTATTA
CTGGATCACTGGCAGGATTGATGACATGCTCAATGTATCTGGACACCTGCTGAGTACAGCAGAGGTGGAG
TCAGCACTTGTGGAACATGAGGCTGTTGCAGAGGCAGCTGTGGTGGGCCACCCTCATCCTGTGAAGGGTG
AATGCCTCTACTGCTTTGTCACCTTGTGTGATGGCCACACCTTCAGCCCCAAGCTCACCGAGGAGCTCAA
GAAGCAGATTAGAGAAAAGATTGGCCCCATTGCCACACCAGACTACATCCAGAATGCACCTGGCTTGCCT
AAAACCCGCTCAGGGAAAATCATGAGGCGAGTGCTTCGGAAGATTGCTCAGAATGACCATGACCTCGGGG
ACATGTCTACTGTGGCTGACCCATCTGTCATCAGTCACCTCTTCAGCCACCGCTGCCTGACCATCCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

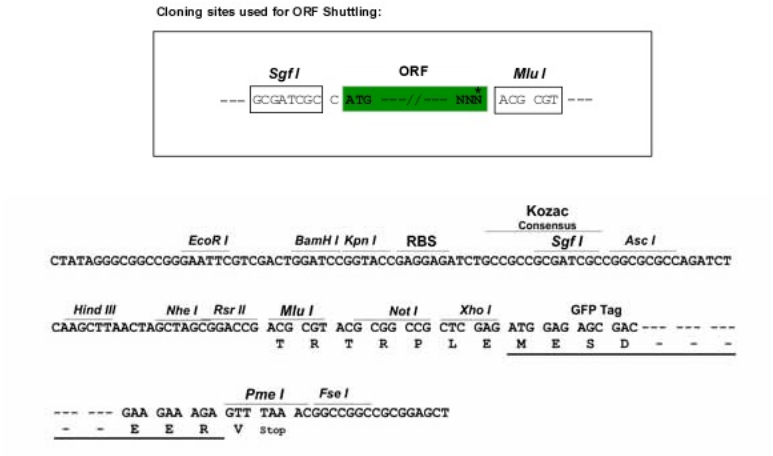
>RG233006 representing NM_001242393
Red=Cloning site Green=Tags(s)

MKGATTNICYNVLDRNVHEKKLGDKVAFYWEGNEPGETTQITYHQLLVQVCQFSNVLRKQGIQKGDRVAI
YMPMIPELVVAMLACARIGALHSIVFAGFSSESLCERILDSSCSLLITTDAFYRGEKLVNLKELADEALQ
KCQEKGFPVRCCIVVKHLGRAELGMGDSTSQSPPIKRSCPDVQISWNQGIDLWWHELMQEAGDECEPEWC
DAEDPLFILYTSGSTGKPKGVVHTVGGYMLYVATTFKYVFDFHAEDVFWCTADIGWITGHSYVTYGPLAN
GATSVLFEGIPTYPDVNRLWSIVDKYKVTKFYTAPTAIRLLMKFGDEPVTKHSRASLQVLGTVGEPINPE
AWLWYHRVVGAQRCPIVDTFWQTETGGHMLTPLPGATPMKPGSATFPFFGVAPAILNESGEELEGEAEGY
LVFKQPWPGIMRTVYGNHERFETTYFKKFPGYYVTGDGCQRDQDGYYWITGRIDDMLNVSGHLLSTAEVE
SALVEHEAVAEAAVVGHPHPVKGECLYCFVTLCDGHTFSPKLTEELKKQIREKIGPIATPDYIQNAPGLP
KTRSGKIMRRVLRKIAQNDHDLGDMSTVADPSVISHLFSHRCLTIQ

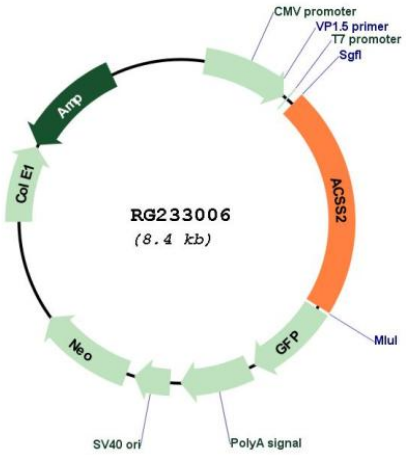
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



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
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]