

Product datasheet for **RG220982**

ACSM2A (NM_001010845) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ACSM2A (NM_001010845) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ACSM2A
Synonyms:	A-923A4.1; ACSM2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG220982 representing NM_001010845
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCATTGGCTGCGAAAAGTT**CAGGACTTTGCACCC**GTGGG**TA**CTCAGATGTCCAGCCGACTCTCT
 ACATTAATAGTAGGCAACTGGTGTCCCTGCAGTGGGGCCACCAGGAAGTGCCGGCCAAGTTAACTTTGC
 TAGTGATGTGTTGGATCACTGGGCTGACATGGAGAAGGCTGGCAAGCGACTCCCAAGCCAGCCCTGTGG
 TGGGTGAATGGGAAGGGGAAGGAATTAATGTGGAATTT**CAGAGA**ACTGAGT**GAAAACAGCCAGCAGGCAG**
 CCAACGTCCTCTCGGGAGCCTGTGGCTGCAGCGTGGGGATCGTGTGGCAGTGGTCTGCCCCGAGTGCC
 TGAGTGGTGGCTGGTATCCTGGGCTGCATT**CGAGCAGG**TCTCATCTTTATGCCTGGAACCATCCAGATG
 AAATCCACTGACATACTGTATAGGTTGCAGATGTCTAAGGCCAAGGCTATTGTTGCTGGGGATGAAGTCA
 TCCAAGAAGTGGACACAGTGGCATCTGAATGCCTTCTCTGAGAATTAAGCTACTGGTGTCTGAGAAAAG
 CTGTGATGGTGGCTGAACTTCAAGAACTACTAAATGAGGCATCCACCCTCATCACTGTGTGGAGACT
 GGAAGCCAGGAAGCATCTGCCATCTACTCACTAGTGGGACCAGTGGTCTTCCCAAGATGGCAGAACATT
 CCTACTCGAGCCTGGGCCTCAAGGCCAAGATGGATGCTGGTTGGACAGGCCTGCAAGCCTCTGATATAAT
 GTGGACCATATCAGACACAGGTTGGATACTGAACATCTTGTGCTCACTTATGGAACCTTGGGCATTAGGA
 GCATGCACATTTGTTTCTCTTCCAAAGTTTGACCCACTGGTATTCTAAAGACACTCTCCAGTTATC
 CAATCAAGAGTATGATGGGTGCCCCATTGTTTACCGGATGTTGCTACAGCAGGATCTTCCAGTTACAA
 GTTCCCCATCTACAGA**ACTGCGTCACTGTAGGGGAGTCCCTTCTCCAGAACTCTGGAGA**ACTGGAGG
 GCCCAGACAGGACTGGACATCCGAGAATCCTATGGCCAGACAGAAACGGGATTA**ACTTGCATGGTTTCCA**
 AGACAATGAAAA**TCAAACCAGGATACATGGGAACGGCTGCTTCCGTTATGATGTACAGATCATAGATGA**
 TAAGGGCAACGTCTGCCCCCGCACAGAAAGGAGACATTGGCATCAGGGTCAAACCCATCAGGCCTATA
 GGCATCTTCTCTGGCTATGTGGACAATCCCGACAAAGACAGCAGCCAACATT**CGAGGAGACTTTTGGCTCC**
 TTGGAGACCGGGGAATCAAAGATGAAGATGGGTATTTCCAGTTTATGGGACGGGCAGATGATATCATTAA
 CTCCAGCGGTACCGGATTGGACCCTCGGAGGTAGAGAATGCACTGATGGAGCACCCCTGCTGTGGTTGAG
 ACGGCCGTGATCAGCAGCCAGACCCCGTCCGAGGAGAGTGGTGAAGGCATTTGTGGTCTGGCCTCGC
 AGTTCTGTCCCATGACCAGAACAGCTACCAAGGAGCTGCAGCAGCATGTGAAGT**CAGTGACAGCCCC**
 ATACAAGTACCAAGAAAGATAGAGTTTGTCTTGAACCTGCCAAGACTGTCACAGGGAAAATTCACGA
 GCCAAGCTTCGAGACAAGGAGTGAAGATGTCCGGAAAAGCCCGTGCAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG220982 representing NM_001010845
 Red=Cloning site Green=Tags(s)

MHWLRKVQGLCTLWGTQMSRPLYINSRQLVSLQWGHQEVPAKFNFASDVL~~DHWADMEKAGKRLPSPALW~~
 WVNGKGKELMWNFRELSENSQAANVLSGACGLQRGDRVAVVLPRVPEWWLVILGCIRAGLIFMPGTIQM
 KSTDILYRLQMSKAKAIVAGDEVIQEVDTVASECPSLRIKLLVSEKSCDGWLNFKKLLNEASTTHHCVET
 GSQEASAIYFTSGTSGLPKMAEHSYSSLGLKAKMDAGWTGLQASDIMWTISDTGWILNILCSLMEPWALG
 ACTFVHLLPKFDPLVILKTLSSYPIKSMGAPIVYRMLLQQDLSSYKFPHLQNCVTVGESLLPETLENWR
 AQTGLDIRESYQTETGLTCMVSKTMKIKPGYMGTAASCYDVQIIDDKGNVLPPTGEGDIGIRVKPIRPI
 GIFSGYVDNPKTAANIRGDFWLLGDRGIKDEDGYFQFMGRADDIINSSGYRIGPSEVENALMEHPAVVE
 TAVISSPDPVRGEVVKAFVVLASQFLSHDPEQLTKELQQHVKSVTAPYKYPRKIEFVNLNPKTVTGIQR
 AKLRDKEWKMSGKARAQ

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001010845

ORF Size: 1731 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_001010845.1, NP_001010845.1

RefSeq Size: 2322 bp

RefSeq ORF: 1734 bp

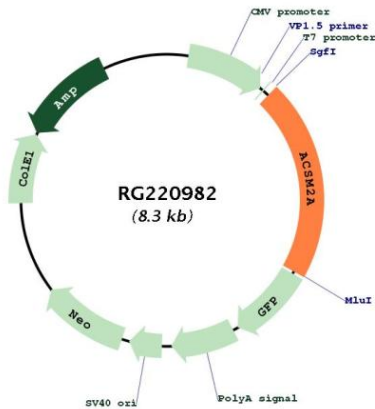
Locus ID: 123876

Cytogenetics: 16p12.3

Protein Pathways: Butanoate metabolism, Metabolic pathways

Gene Summary: This gene encodes a mitochondrial acyl-coenzyme A synthetase that is specific for medium chain fatty acids. These enzymes catalyze fatty acid activation, the first step of fatty acid metabolism, through the transfer of acyl-CoA. These enzymes also participate in the glycine conjugation pathway in the detoxification of xenobiotics such as benzoate and ibuprofen. Expression levels of this gene in the kidney may be correlated with kidney function. This gene and its paralog ACSM2B (Gene ID: 348158), both present on chromosome 16, likely arose from a chromosomal duplication event. [provided by RefSeq, May 2017]

Product images:



Circular map for RG220982