

## Product datasheet for **RC220982**

### ACSM2A (NM\_001010845) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ACSM2A (NM_001010845) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ACSM2A
Synonyms:	A-923A4.1; ACSM2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC220982 representing NM\_001010845  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCATTGGCTGCGAAAAGTT**CAGGACTTTG**CACCCTGTGGG**TA**CTCAGATGTCCAGCCGACTCTCT  
 ACATTAATAGTAGGCAACTGGTGTCCCTGCAGTGGGGCCACCAGGAAGTCCGGCCAAGTTAACTTTGC  
 TAGTGATGTGTTGGATCACTGGGCTGACATGGAGAAGGCTGGCAAGCGACTCCCAAGCCAGCCCTGTGG  
 TGGGTGAATGGGAAGGGGAAGGAATTAATGTGGAATTT**CAGAGA**ACTGAGTAAAA**CAGCCAGCAGGCAG**  
 CCAACGTCCTCTCGGGAGCCTGTGGCTGCAGCGTGGGGATCGTGTGGCAGTGGTCTGCCCCGAGTGCC  
 TGAGTGGTGGCTGGTATCCTGGGCTGCATT**CGAGCAGG**TCTCATCTTTATGCCTGGAACCATCCAGATG  
 AAATCCACTGACATACTGTATAGGTTGCAGATGTCTAAGGCCAAGGCTATTGTTGCTGGGGATGAAGTCA  
 TCCAAGAAGTGGACACAGTGGCATCTGAATGCCTTCTCTGAGAATTAAGCTACTGGTGTCTGAGAAAAG  
 CTGTGATGGTGGCTGA**ACTTCAAGAACTACT**AAATGAGGCATCCACC**ACTCAT**ACTGTGTGGAGACT  
 GGAAGCCAGGAAGCATCTGCCATCTACTCACTAGTGGGACCAGTGGTCTTCCCAAGATGGCAGAACATT  
 CCTACTCGAGCCTGGGCCTCAAGGCCAAGATGGATGCTGGTTGGACAGGCCTGCAAGCCTCTGATATAAT  
 GTGGACCATATCAGACACAGGTTGGACTGAACATCTTGTGCTCACTTATGGAACCTTGGGCATTAGGA  
 GCATGCACATTTGTTCACTCTTGGCAAAGTTTGACCCACTGGTATTCTAAAGACACTCCAGTTATC  
 CAATCAAGAGTATGATGGGTGCCCCATTGTTTACCGGATGTTGCTACAGCAGGATCTTCCAGTTACAA  
 GTTCCCCATCTACAGA**ACTGCGTCACTGT**AGGGGAGTCCCTTCTCCAGAACTCTGGAGA**ACTGGAGG**  
 GCCCAGACAGGACTGGACATCCGAGAATCCTATGGCCAGACAGAAACGGGATTA**ACTTGCAT**GGTTTCCA  
 AGACAATGAAAA**TCAAACCAGGATACAT**GGGAACGGCTGCTTCCGTTATGATGTACAGATCATAGATGA  
 TAAGGGCAACGTCTGCCCCCGCACAGAAGGAGACATTGGCATCAGGGTCAAACCCATCAGGCCTATA  
 GGCATCTTCTCTGGCTATGTGGACAATCCCGACAAGACAGCAGCCAACATT**CGAGGAGACTTTT**GGCTCC  
 TTGGAGACCGGGGAATCAAAGATGAAGATGGGTATTTCCAGTTTATGGGACGGGCAGATGATATCATTAA  
 CTCCAGCGGGTACCGGATTGGACCCTCGGAGGTAGAGAATGCACTGATGGAGCACCCCTGCTGTGGTTGAG  
 ACGGCCGTGATCAGCAGCCAGACCCCGTCCGAGGAGAGGTGGTGAAGGCATTTGTGGTCTGGCCTCGC  
 AGTTCTGTCCCATGACCAGAACAGCTACCAAGGAGCTGCAGCAGCATGTGAAGT**CAGTGACAGCCCC**  
 ATACAAGTACCCAAGAAAGATAGAGTTTGTCTTGAACCTGCCAAGACTGTCACAGGGAAAATTCACGA  
 GCCAAGCTTCGAGACAAGGAGTGAAGATGTCCGGAAAAGCCCGTGCCGAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAA**ACTCATCTC**AGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC220982 representing NM\_001010845  
 Red=Cloning site Green=Tags(s)

MHWLRKVQGLCTLWGTQMSR**TY**IN**S**RQLVSLQWGHQ**VE**PAKFN**F**ASD**V**L**D**HWAD**ME**KAGK**R**LPSPAL**W**  
 WVNGK**G**KELM**W**N**F**RE**L**SENSQ**A**AN**V**LSGAC**L**QRGDR**V**AV**V**LPR**V**PE**W**W**L**V**I**LG**C**IRAG**L**IF**M**PG**T**I**Q**M  
 K**S**T**D**IL**Y**RLQ**M**S**K**AKA**I**VAG**D**EV**I**Q**E**VD**V**ASE**C**PS**L**RI**K**LL**V**SE**K**SCD**G**W**L**N**F**K**L**L**N**E**A**ST**H**H**C**VE**T**  
 G**S**Q**E**AS**A**I**Y**FT**S**GT**S**GL**P**K**M**A**E**HS**Y**SS**L**GL**K**AK**M**DAG**W**T**GL**QAS**D**IM**W**T**I**SD**T**GW**I**LN**I**L**C**SL**M**EP**W**AL**G**  
 A**C**TF**V**H**L**L**P**K**F**D**P**L**V**IL**K**TL**S**SY**P**IK**S**M**M**G**A**PI**V**Y**R**ML**L**Q**Q**DL**S**SY**K**FP**H**L**Q**NC**V**TV**G**ES**L**L**P**ET**L**EN**W**R  
 A**Q**T**G**LD**I**RES**Y**Q**T**ET**GL**TC**M**V**S**K**T**M**K**IK**P**GY**M**GT**A**AS**C**Y**D**V**Q**I**I**DD**K**GN**V**L**P**PG**T**EG**D**IG**I**R**V**K**P**IR**P**I  
 G**I**F**S**GY**D**NP**D**K**T**AAN**I**R**G**DF**W**LL**G**DR**G**IK**D**ED**G**Y**F**Q**F**M**G**R**A**DD**I**IN**S**SG**Y**R**I**GP**S**E**V**EN**A**L**M**EH**P**AV**E**  
 T**A**VI**S**SP**D**P**V**R**G**EV**V**K**A**F**V**VL**A**S**Q**FL**S**HD**P**E**Q**L**T**K**E**L**Q**Q**H**V**K**SV**T**AP**Y**K**Y**PR**K**IE**F**VL**N**L**P**KT**V**T**G**K**I**Q**R**  
 AK**L**RD**K**E**W**K**M**SG**K**ARA**Q**

**TR**TRPLE**Q**KL**I**SEED**L**A**N**D**I**LD**Y**K**D**DD**D**K**V**

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6563\\_b12.zip](https://cdn.origene.com/chromatograms/mk6563_b12.zip)

**Restriction Sites:**

Sgfl-Mlul

**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](mailto: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.

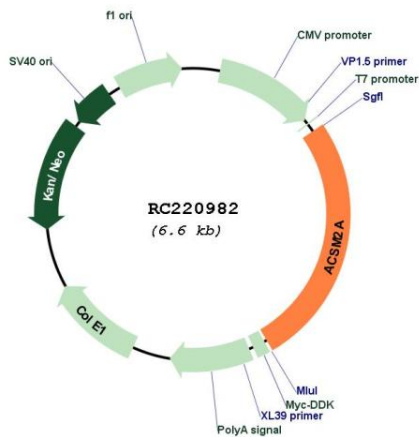
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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.

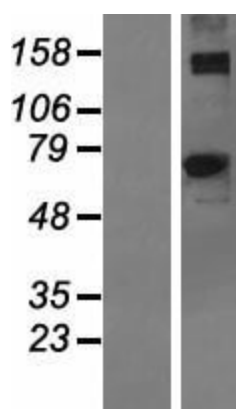
**RefSeq:** NM\_001010845.1, NP\_001010845.1  
**RefSeq Size:** 2322 bp  
**RefSeq ORF:** 1734 bp  
**Locus ID:** 123876  
**Cytogenetics:** 16p12.3  
**Protein Pathways:** Butanoate metabolism, Metabolic pathways  
**MW:** 64 kDa

**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 RC220982



Western blot validation of overexpression lysate (Cat# [LY423179]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220982 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).