

## Product datasheet for **MG209014**

### **Acsm1 (NM\_054094) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Acsm1 (NM_054094) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Acsm1
Synonyms:	Acas3; Bucs1; Macs
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG209014 representing NM\_054094  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCAGTGGCTGAAGAGTTTCCAGATCTGCAAAGTCTTACAGGGCTTCTCCCTAAGCCCCACCCAGCTGC  
 ACAGACGGTTGTTTTCAAGAGTTGGAGCTCCAAGATGGAATGACCATGATTACACCTGAGGAGTTAACTT  
 TGCAAGTGATGTCTGGACTACTGGGCTCAAATGGAGGAGGAGGCAAGAGAGGACCAAGTCCAGCCTTT  
 TGGTGGGTGAATGGCCAAGGAGATGAAATAAAGTGGAGCTTACAGGAAGCTGAGGGACCTCACCTGTCGCA  
 CTGCCAACGTCTTTGAGCAGATTTGTGGCTGCAGCAAGGAGATCACCTGGCCTTGATTCTGCCCGAGT  
 GCCCGAGTGGTGGTTGGTACAGTGGGCTGCATGCGAACAGGGATCATCTTCATGCCTGGGACTACCCAA  
 CTGAAAGCCAAGGACATTCTCTACCGAATACAAATATCTCGAGCCAAAGCCATTGTGACCACAGTAGCC  
 TTGTCCCAGAGGTGGAATCTGTGGCTTCTGAGTGTCTGATCTGAAAACCAAGCTGGTGGTGTCTGATCA  
 CAGCCATGAAGGTGGCTTGATTCTGTCTCACTGATTAATCAGCATCCCAGACCATACTGTATTAAG  
 TCAAAGATGAAGGATCCCATGGCCATCTTCTTACCAGTGGGACCACAGGCTACCCCAAGATGGCAAAGC  
 ACAACCAGGGACTTGCCTTCCGGTCATATATCCCTTCATGCAGAAAATTATTGAAGCTGAAGACATCTGA  
 CATCTTGTGGTGCATGTGAGACCCAGGATGGATTCTGGCTACCGTGGGGTGCCTGATCGAGCCATGGACA  
 TCAGGATGTACAGTCTTCATCCACCACCTCCCTCAATTCGACCCCAAAGTCATTGTAGAGGTAAGTGTCA  
 AATACCCCATCACTCAGTGCCTTGTGCCCCAGGCGTGTATCGAATGGTCTTTCAGCAGAAAACCTCCAA  
 CCTCAGTTCCCCACCCTTGAGCATTGCACTACTGGTGGGAGAGCCTGCTGCCTGAGGAGTATGAGCAG  
 TGAAGCAAAGGACAGGCTTTCCATCCACGAGGTCATGGACAGTCAGAAAACGGGGATCAGCAGTGCCA  
 CCTCCGGGAAATGAAGATCAAGCGAGGCTCCATAGGGAAGGCCATTTACCCTTTGACTTGACATGATCAT  
 CGATGAAAAGGGCAACATCCTCCACCCAACTGAAGGATACATTGGCATCAGGATCAAGCCACCAGG  
 CCTCTAGGCCTTTCATGGAATATGAGAATAGCCAGAGAGCACATCTGAAGTGGAGTGTGGGGACTTTT  
 ACAATAGTGGGGATAGAGCGACCATTGATGAAGAGGGCTACATCTGGTCTTGGGAAGGGCGATGATGT  
 CATCAATGCTTCCGGGTATCGCATCGGGCTGTAGAGGTGGAGAACGCCTTGGCGGAGCACCAGCAGTG  
 GCAGAGTCTCGGGTGGTGAAGCAGCCGGACAAGGATCGAGGAGAGGTGGTGAAGGCGTTTATTGCTCTCA  
 ACCCAGAGTCTGTGACAGCATCAGGAACAGCTTATCAAAGAGCTACAGCATCATGTGAAGTCAAGTGC  
 GGCACCATACAAGTACCCAGGAAGGTGGAGTTTGTTCAGAATTGCCAAAACGTGCACAGGCAAAATC  
 AAAAGGAAGGAAGTTCGAAACAAGGAGTTTGGTCAGCTA

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>MG209014 representing NM\_054094  
 Red=Cloning site Green=Tags(s)

MQWLKSFQICKVLQGFSLSPQLHRRFLSRVGAAPRWNDHDSPEEFNFASDVLDYWAQMEEEGKRGSPAF  
 WWVNGQGEIKWSFRKLRDLTCRTANVFEQICGLQQGDHLALILPRVPEWWLVTVGCMRTGIIIFMPGTTQ  
 LKAKDILYRIQISRKAIVTTASLVPEVESVASECPDLKTLVSDHSHEGWLDFCSLIKASPDHTCIK  
 SKMKDPMAIFFTSGTTGYPKMAKHQGLAFRSYIPSCRLLKLTSDILWCMSDPGWILATVGCLIEPWT  
 SGCTVFIHHLPPQFDPKVIVEVLFKYPITQCLAAPGVYRMVLQKQTSNLRFPPTLEHCTTGGESLLPEEYEQ  
 WKQRTGLSIEVYQSETGISSATLREMKIKRGSIGKAILPFDLQIIDEKGNILPPNTEGYIGIRIKPTR  
 PLGLFMEYENSPESTSEVECGDFYNSGDRATIDEEGYIWFLLGRGDDVINASGYRIGPVEVENALAEHPAV  
 AESAVVSSPKDRGEVVKAFIVLNPEFLSHDQEQLIKELQHHVKSVTAPYKYPRKVEFVSELPKTVTGTGI  
 KRKELRNKEFGQL

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_054094

**ORF Size:** 1719 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\\_054094.6](#)

**RefSeq Size:** 2045 bp

**RefSeq ORF:** 1722 bp

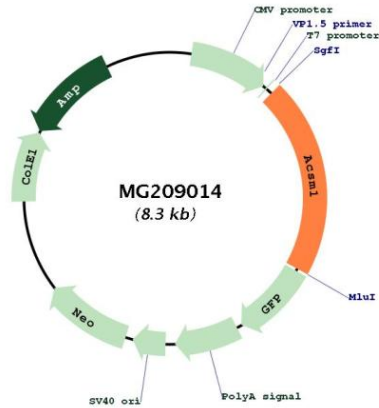
**Locus ID:** 117147

**UniProt ID:** [Q91VA0](#)

**Cytogenetics:** 7 F2

**Gene Summary:**

Functions as GTP-dependent lipoate-activating enzyme that generates the substrate for lipoyltransferase (By similarity). Has medium-chain fatty acid:CoA ligase activity with broad substrate specificity (in vitro). Acts on acids from C(4) to C(11) and on the corresponding 3-hydroxy- and 2,3- or 3,4-unsaturated acids (in vitro).[UniProtKB/Swiss-Prot Function]

**Product images:**

Circular map for MG209014