

## Product datasheet for **RG213310**

### ACSM4 (NM\_001080454) Human Tagged ORF Clone

#### Product data:

|                           |                                             |
|---------------------------|---------------------------------------------|
| Product Type:             | Expression Plasmids                         |
| Product Name:             | ACSM4 (NM_001080454) Human Tagged ORF Clone |
| Tag:                      | TurboGFP                                    |
| Symbol:                   | ACSM4                                       |
| Mammalian Cell Selection: | Neomycin                                    |
| Vector:                   | pCMV6-AC-GFP (PS100010)                     |
| E. coli Selection:        | Ampicillin (100 ug/mL)                      |



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**ORF Nucleotide Sequence:**

>RG213310 representing NM\_001080454  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGC**

ATGAAGATTTTTTCGCTACCAGACATTTAGATTCATCTGGCTACCAAGCCACCTGGCCGGCGCTTAC  
 ACAAAGATCACCAGCTTTGGACGCCTCTGACTCTTGCTGACTTTGAAGCCATAAAATCGCTGTAACAGGCC  
 ATTGCCTAAAACTTTAACTTTGCTGCAGATGTCTGGACCAAGTGGTCCAAAAGGAGAAGACAGGGGAG  
 AGACCAGCTAACCAGCCCTGTGGTGGTGAATGGCAAAGGGGATGAGGTAAATGGAGCTTCAGAGAAC  
 TGGGCTCCTTGTCGCGAAAGCTGCCAACGTGCTACCAAGCCCTGTGGCTGCAGAGAGGAGACCGTTT  
 GGCCGTGATTCTGCCAGAATCCCTGAGTGGTGGCTGGTCAATGTAGCTTGACATACGAACAGGGATCATC  
 TTCATGCCGGGAACAATCCAGCTGACAGCAAAAGACATCTCTACCGGCTGCGAGCATCAAGGCCAAGT  
 GCATTGTGGCCAGTGAGGAGGTGGCCCCAGCGGTGGAGTCCATTGTATTGGAGTGTCTGACCTTAAGAC  
 AAACTCCTGGTGTCTCCACAAAGCTGGAATGGTGGCTCAGCTTCCAGGAGTTATTTCAATTTCGCTCT  
 GAAGAGCACAGCTGTGTGAAACAGGAAGTCAAGAACCAATGACCATTTATTTACCAAGTGGGACCACAG  
 GCTTTCCTAAATGGCCAGCACTCTCAGAGCAGCCTCGGCATTGGGTTACCCCTCTGCGGAAGGTATTG  
 GCTGGACTTGAAGTCTCAGATATCATATGGAATATGTCTGACACGGGCTGGGTCAAGGCCGCCATTGGC  
 AGTGTGTTTTCTTCTGGCTGTGTGGAGCCTGTGTTTTGTGCATCGAATGGCACAGTTTGACACTGACA  
 CCTTCCTAGACACACTTACTACTTATCCCATCACGACCTGTGCAGTCTCCCACTGTGTACCGGATGCT  
 CGTGCAAAAAGACCTTAAGAGATATAAATCAAGAGTCTGCGGCACTGCTTGACCGGAGGGGAGCCACTC  
 AACCCAGAAGTGCTGGAGCAGTGGAGGGTGCAAACTGGGCTGGAGCTATATGAGGGCTATGGACAGACGG  
 AAGTGGGAATGATTTGTCCAATCAGAAAGGCCAAGAAATTAACCAGGTTCAATGGGAAAGGAATGCT  
 GCCCTATGATGTCCAGATTATAGATGAAATGGCAATGTTCTACCACTGGCAAAAGAGGGGAAATTGCC  
 CTCAGACTCAAACCTACACGGCCCTTCTGTTTCTTCTCTAAATATGTGGACAATCCACAGAAAAGTCTG  
 CCACGATAAGAGGAGATTTTATGTCACTGGAGACAGAGGAGTATGGACAGTATGGGTATTTCTGGTT  
 TGTGCGCAGAGCTGATGATGTCATTATATCCTCTGGGTACCGTATTGGGCCATTTGAAGTGGAGAGTGCA  
 CTCATTGAGCATCCAGCAGTTGTTGAATCGGCTGTTGTCAAGTCCAGATCAAATCCGCGGAGAGGTGG  
 TGAAAGCTTTTGTGCTTAGCTGCACCCTTAAGTCTACAACCCAGAGAAATTAAGTCTTGAAGTCA  
 GGATCATGTGAAAAAATCAACTGCACCTTACAAATATCCAAGAAAGGTGGAATTTGTTCAAGAACTCCCA  
 AAGACAATCACTGGGAAATCAAACGCAACGTTTAAAGAGACCAAGAATGGAGAGGAAGA

**ACGCGTACGCGGCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG213310 representing NM\_001080454  
 Red=Cloning site Green=Tags(s)

MKIFFRYQTFRFIWLTKPPGRRRLHKDHLWTLPLTADFEAINRCNRPLPKNFNAADVLDQWSQKEKTGE  
 RPNPALWWVNGKGDEVKWSFRELGSLSRKAANVLTKPCGLQRGDRLAVILPRIPEWWLVNVACIRTGII  
 FMPGTIQLTAKDILYRLRASKAKCIVASEEVAPAVESIVLECPDLTKLLVSPQSWNGWLSFQELFQFAS  
 EEHSCVETGSQEPMTIYFTSGTTGFPKMAQHSQSSLGIGFTLCGRYWLDLKSSDIWNMSDTGWVKAAG  
 SVFSSWLCGACVFVHRMAQFDTDFTLDTLTTYPITTLCSPTVYRMLVQDLKRYKFKSLRHCLTGGEPL  
 NPEVLEQWRVQTGLELYEGYQTEVGMICANQKGQEIKP GSMGKMLPYDVQIIDENGNLPPGKEGEIA  
 LRLKPTRPFCFFSKYVDNPQKTAATIRGDFYVTGDRGVMSDGYFWFVGRADDVISSGYRIGPFEVES  
 LIEHPAVVESAVVSSPDQIRGEVVKAFVLAAPFKSYNPEKLTLELQDHVKKSTAPYKYPRKVEFVQELP  
 KTITGKIKRNLVDQEWGR

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

## Cloning Scheme:



ACCN: NM\_001080454

ORF Size: 1740 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\\_001080454.1](#), [NP\\_001073923.1](#)

RefSeq Size: 1743 bp

RefSeq ORF: 1743 bp

Locus ID: 341392

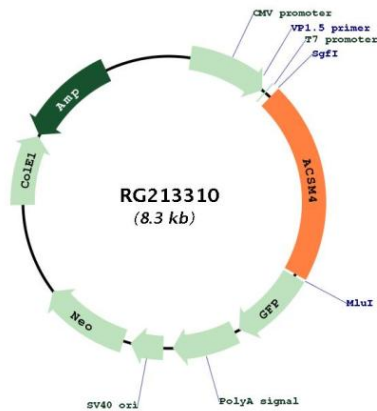
UniProt ID: [P0C7M7](#)

Cytogenetics: 12p13.31

**Protein Pathways:** Butanoate metabolism, Metabolic pathways

**Gene Summary:** 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) (By similarity).[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for RG213310