

Product datasheet for **RG220646**

ACSM1 (NM_052956) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ACSM1 (NM_052956) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ACSM1
Synonyms:	BUCS1; MACS1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG220646 representing NM_052956
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCAGTGGCTAATGAGGTTCCGGACCCTCTGGGGCATCCACAAATCCTCCACAACATCCACCCTGCC
 CTTACAGCTGCGCTGCCGGTCTTTATCAGAATTTGGAGCCCAAGATGGAATGACTATGAAGTACCGGA
 GGAATTTAACTTTGCAAGTTATGTACTGGACTACTGGGCTCAAAAAGGAGAAGGAGGGCAAGAGAGGTCCA
 AATCCAGCTTTTTGGTGGTGAATGGCCAAGGGGATGAAGTAAAGTGGAGCTTCAGAGAGATGGGAGACC
 TAACCCGCGGTAGCCAACGTCTTCACACAGACCTGTGGCTACAACAGGGAGACCATCTGGCCTTGAT
 GCTGCCTCGTGTCTGAGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT
 GCGACCATCTGTGAAGGCCAAAGACATTCTCTATCGACTACAGTTGTCTAAAGCCAAGGGCATTGTGA
 CCATAGATGCCCTTGCCCTCAGAGGTGGACTCCATAGCTTCTCAGTGCCCTCTCTGAAAACCAAGCTCT
 GGTGTCTGATCACAGCCGTGAAGGGTGGCTGGACTTCCGATCGTGGTTAAATCAGCATCCCAGAACAC
 ACCTGTGTTAAGTCAAAGACCTTGACCCAATGGTCATCTTCTACCAGTGGGACCACAGGCTTCCCCA
 AGATGGCAAAACTCCCATGGGTTGGCCTTACAACCCTCCTTCCAGGAAGTAGGAAATTACGGAGCCT
 GAAGACATCTGATGTCTCCTGGTGCCTGTCCGACTCAGGATGGATTGTGGCTACCATTTGGACCCTGGTA
 GAACCATGGACAGCGGTTGTACAGTCTTTATCCACCATCTGCCACAGTTTGACACCAAGGTCATCATA
 AGACATTTGAAATACCCATTAACCACTTTGGGGGGTATCATCTATATCGAATGATTCTGCAGCA
 GGATTTACCAGCATCAGGTTCCCTGCCCTGGAGCACTGCTATACTGGCGGGGAGGTCGTGTTGCCAAG
 GATCAGGAGGAGTGGAAAAGACGGACGGCCCTTCTGCTCTACGAGAATATGGGAGTGGGAAACGGGAC
 TAATTTGTGCCACTACTGGGGAATGAAGATCAAGCCGGGTTTCATGGGGAAGGCCACTCCACCCTATGA
 CGTCCAGGTCATTGATGACAAGGGCAGCATCTGCCACCTAACACAGAAGGAAACATTGGCATCAGAATC
 AAACCTGTGAGGCTGTGAGCCTTTCATGTGCTATGAGGGTGACCCAGAGAAGACAGCTAAAGTGAAT
 GTGGGGACTTCTACAACACTGGGACAGAGGAAAGATGGATGAAGAGGGCTACATTTGTTTCTGGGGAG
 GAGTGATGACATCATAATGCCTCTGGGTATCGCATCGGGCTGCAGAGGTTGAAAGCGCTTTGGTGGAG
 CACCCAGCGGTGGCGGAGTCAAGCGTGGTGGGAGCCAGACCCGATTGAGGGGAGGTTGGTGAAGGCT
 TTATTGCTGACCCACAGTTCCTGTCCCATGACAAGGATCAGCTGACCAAGGAACTGCAGCAGCATGT
 CAAGTCAGTGACAGCCCATACAAGTACCAAGGAACGTGGAGTTGTCTCAGAGCTGCCAAAACCATC
 ACTGGCAAGATTGAACGGAAGGAACTTCGAAAAAGGAGACTGGTCAGATG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG220646 representing NM_052956
 Red=Cloning site Green=Tags(s)

MQWLMRFRTLWGIHKSFHNIHPAPSQLRCRSLSEFGAPRWNDYEVPEEFNFASYVLDYWAQKEKEKRG
 NPAFWVWVNGQDEVKWVFREMGDLTRRVANVFTQTCLQQGDHLALMLPRVPEWWLVAVGMRTGIIFIP
 ATILLKAKDILYRLQLSKAKGIVTIDALASEVDSIASQCPSLTKLLVSDHSREGWLDLFRSLVKSASPEH
 TCVKSKTLDPMVIFFTSGTTGFPKMAKSHGLALQPSFPGSRKLRSLKTSVSWCLSDSGWIVATIWTLV
 EPWTAGCTVFIHHLPPQFDTKVIIQTLLKYPINHFVWVSSIYRMILQQDFTSIRFPALHICYTGGEVLPK
 DQEEWKRRTGLLLYENYQSETGLICATYWGMIKPGFMGKATPPYDVQVIDDKGSILPPNTEGNIIGIRI
 KPVRPVSFLMFCYEGDPEKTAKVECGDFYNTGDRGKMDEEGYICFLGRSDDIINASGYRIGPAEVESALVE
 HPAVAESAVVGSPPDIRGEVVKAFIVLTPQFLSHDKDQLTKELQQHVKSVTAPYKYPRNVEFVSELPKTI
 TGIKERKELRKKETGQM

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_052956

ORF Size: 1731 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_052956.1](#), [NP_443188.1](#)

RefSeq Size: 1945 bp

RefSeq ORF: 1734 bp

Locus ID: 116285

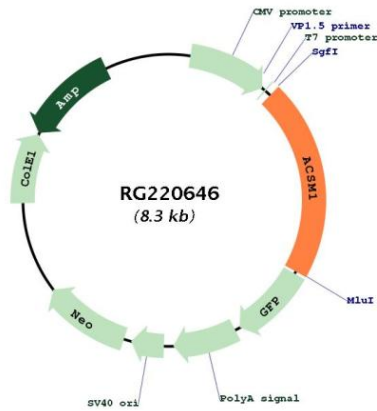
UniProt ID: [Q08AH1](#)

Cytogenetics: 16p12.3

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). Functions as GTP-dependent lipoate-activating enzyme that generates the substrate for lipoyltransferase (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG220646