

Product datasheet for **RC220646**

ACSM1 (NM_052956) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ACSM1 (NM_052956) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ACSM1
Synonyms:	BUCS1; MACS1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC220646 representing NM_052956
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGCAGTGGCTAATGAGTTCCGGACCCTCTGGGGCATCCACAAATCCTCCACAACATCCACCCTGCC
CTTCACAGCTGCGCTGCCGGTCTTTATCAGAATTTGGAGCCCAAGATGGAATGACTATGAAGTACCGGA
GGAATTTAACTTTGCAAGTTATGTACTGGACTACTGGGCTCAAAAAGGAGAAGGAGGGCAAGAGAGTCCA
AATCCAGCTTTTTGGTGGTGAATGGCCAAGGGGATGAAGTAAAGTGGAGCTTCAGAGAGATGGGAGACC
TAACCCGCGGTAGCCAACGTCTTCACACAGACCTGTGGCTACAACAGGGAGACCATCTGGCCTTGAT
GCTGCCTCGTGTCTGAGTGGTGGCTGGTGGCTGTGGGCTGCATGCGAACAGGGATCATCTTCATTCT
GCGACCATCTGTGAAGGCCAAAGACATTCTCTATCGACTACAGTTGTCTAAAGCCAAGGGCATTGTGA
CCATAGATGCCCTTGCCCTCAGAGGTGACTCCATAGCTTCTCAGTGCCCTCTCTGAAAACCAAGCTCT
GGTGTCTGATCACAGCCGTGAAGGGTGGCTGGACTTCGATCGTGGTTAAATCAGCATCCCAGAACAC
ACCTGTGTTAAGTCAAAGACCTTGACCCAATGGTCATCTTCTCACCAGTGGGACCACAGGCTTCCCCA
AGATGGCAAAACTCCCATGGGTTGGCCTTACAACCTCCTTCCCAGGAAGTAGAAATTACGGAGCCT
GAAGACATCTGATGTCTCCTGGTGCCTGTCCGACTCAGGATGGATTGTGGCTACCATTTGGACCCTGGTA
GAACCATGGACAGCGGTTGTACAGTCTTTATCCACCATCTGCCACAGTTTGACACCAAGGTCATCATAC
AGACATTGTTGAAATACCCATTAACCCTTTGGGGGTATCATCTATATCGAATGATTCTGCAGCA
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GATCAGGAGGAGTGGAAAAGACGGACGGCCTTCTGCTCTACGAGAATATGGGAGTGGGAAACGGGAC
TAATTTGTGCCACTACTGGGGAATGAAGATCAAGCCGGGTTTCATGGGGAAGGCCACTCCACCCTATGA
CGTCCAGGTCATTGATGACAAGGGCAGCATCTGCCACCTAACACAGAAGGAAACATTGGCATCAGAATC
AAACCTGT CAGGCTGTGAGCCTTTCATGTGCTATGAGGGTGACCCAGAGAAGACAGCTAAAGTGAAT
GTGGGACTTCTACAACACTGGGACAGAGGAAAGATGGATGAAGAGGGCTACATTTGTTTCCTGGGGAG
GAGTGTGACATCATAATGCCTCTGGGTATCGCATCGGGCTGCAGAGGTTGAAAGCGCTTTGGTGGAG
CACCCAGCGTGGCGGAGT CAGCCGTGGTGGCAGCCAGACCCGATTGAGGGGAGGTGGTGAAGGCT
TTATTGCTCTGACCCACAGTTCCTGTCCCATGACAAGGATCAGCTGACCAAGGAAGTGCAGCAGCATGT
CAAGTCAGTGACAGCCCATACAAGTACCAAGGAACGTGGAGTTGTCTCAGAGCTGCCAAAACCATC
ACTGGCAAGATTGAACGGAAGGAACTTCGAAAAAGGAGACTGGTCAGATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC220646 representing NM_052956
Red=Cloning site Green=Tags(s)

MQWLMRFRTLWGIHKSFHNIHPAPSQLRCRSLSEFGAPRWNDYEVPEEFNFASYVLDYWAQKEKEKGRGP
NPAFWVWVNGQGDEVKWSFREMGDLTRRVANVFTQTCLGQQGDHLALMLPRVPEWLVAVGCMRTGIIFIP
ATILLKAKDILYRLQLSKAKGIVTIDALASEVDSIASQCPSLTKLLVSDHSREGWLDFRSLVKSASPEH
TCVKSRTLDPMVIFFTSGTTGFPKMAKSHGLALQPSFPGSRKLRSLKTSVSWCLSDSGWIVATIWTLV
EPWTAGCTVFIHHL PQFDTKVIIQTLLKYPINHFWGVSSIRYRMIQQDFTSIRFPALEHCYTGGEVVLPK
DQEEWKRRRTGLLLYENYQSETGLICATYWMKIKPGFMGKATPPYDVQVIDDKGSILPPNTEGNIGIRI
KPVVRPVS L FMCYEGDPEKTAKVECGDFYNTGDRGKMDEEGYICFLGRSDDIINASGYRIGPAEVESALVE
HPAVAESAVVGSPPDIRGEVVKAFIVLTPQFLSHDKDQLTKELQQHVKSVTAPYKYPRNVEFVSELPKTI
TGKIERKELRKKETGQM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6159_h07.zip

Restriction Sites:

Sgfl-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_052956.3](#)

RefSeq Size: 1945 bp

RefSeq ORF: 1734 bp

Locus ID: 116285

UniProt ID: [Q08AH1](#)

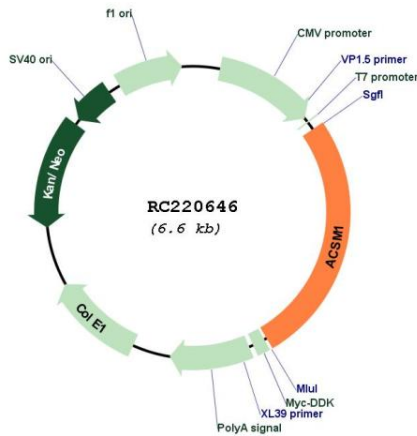
Cytogenetics: 16p12.3

Protein Pathways: Butanoate metabolism, Metabolic pathways

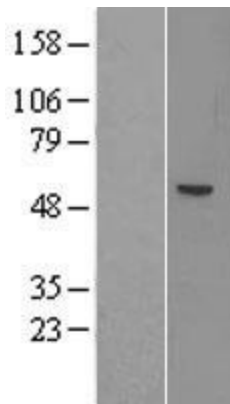
MW: 65.1 kDa

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 RC220646



Western blot validation of overexpression lysate (Cat# [LY403276]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220646 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).