

Product datasheet for **RC209798**

ACSM5 (NM_017888) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ACSM5 (NM_017888) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ACSM5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC209798 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGACCATGGCTGAGACACCTAGTCCTCCAGGCACTGAGGAATCCAGGGCATTCTGTGGGTCTCATG
 GGAAGCCAGCACCTCTACCTGTTCTCAGAAGATCGTGGCCACCTGGGAAGCCATCAGCCTGGGAAGGCA
 GCTGGTGCCTGAGTACTTCAACTTCGCCATGATGTGCTGGATGTGTGGAGTCGGCTGGAAGAGGCTGGA
 CACCGCCCCCAAATCTGCCTTCTGGTGGTCAATGGCACAGGAGCAGAGATCAAGTGGAGCTTTGAGG
 AGCTGGGAAGCAGTCCAGGAAGGCAGCAATGTGCTGGGGGTGCATGCGGCCTGCAGCCTGGGGACAG
 AATGATGCTGGTACTCCCACGGCTCCCGGAGTGGTGGTGGTCAAGTACCGGCTGCAGGCTCCAGGGCCA
 GTGATGATTCCGGGTGTGACTCAGCTGACAGAGAAGGACCTCAAGTACCGGCTGCAGGCTCCAGGGCCA
 AGTCCATTATCACCAGTACTCCCTAGCTCCAAGGTGGATGCCATCAGTCCGAATGCCCTCCCTCCA
 GACCAAGCTGCTGGTGTGACAGCAGTCCGGCAGGCTGGTTGAACTTCAGGGAATCCTCCGGGAGGCT
 TCTACAGAGCACAACTGCATGAGGACAAAGAGTCGAGACCCGCTGGCCATCTACTTTACAGCGGAACCA
 CCGGGGCCCAAGATGGTTCGAGCACTCCAGAGCAGCTACGGACTGGGTTTTGTGGCCAGCGGAAGACG
 GTGGGTGGCCTTGACCGAATCTGACATCTTCTGGAACACGACTGACACTGGCTGGGTGAAGGCAGCCTGG
 ACTCTCTCTCTGCTGGCCTAATGGATCTTGCATTTTTGTGCATGAGCTGCCCGAGTTGATGCCAAAG
 TTATCCTGAATACTCTCTCAAATTCGGATAACCACCCTCTGCTGTGTCCCAACCATCTTTCCGGTCTGT
 TGTGCAGGAGGATCTGACCAGGTACCAGTTTCCAGGCTGAGGCACTGTCTGACCGGAGGAGAGGCCCTC
 AACCTGACGTGAGGGAGAAGTGGAAACACCAGACTGGTGTGGAGCTGTACGAAGGCTATGGCCAGTCTG
 AAACGGTTGTCTGTGCCAATCCAAAAGGCATGAAAATCAAGTCTGGATCCATGGGGAAGGCGTCCCC
 ACCCTACGATGTGCAGATTGTGGATGATGAGGGCAACGTCCTGCCTCTGGAGAAGAGGGGAATGTTGCC
 GTCGATCAGACCCACTCGGCCCTCTGTTTCTCAATTGCTATTTGGACAATCCTGAGAAGACAGCTG
 CATCAGAACAAGGGGACTTTTACATCACAGGGGACCGAGCTCGCATGGACAAGGATGGCTACTTTTGGTT
 CATGGGAAGAAACGACGATGTGATCAATTCTTCAAGCTACCGGATCGGGCCTGTTGAAGTGGAAAGTGC
 CTGGCAGAGCATCCTGCTGCTGGAGTCGGCTGCGGTGACGAGCCAGACCCCATCAGGGGAGAGGTGG
 TAAAGGCATTTATAGTCCTTACTCCAGCCTACTCTCTCATGACCCAGAGGCACTAACCGGGAACTCCA
 GGAGCATGTGAAAAGGTGACTGCTCCATACAAATACCCAGGAAGGTGGCCTTTGTTTCAGAACTGCCA
 AAGACGGTTTCTGGAAAGATCCAAGGAGTAAATTGCGAAGTCAGGAGTGGGGAAA

ACGGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC209798 protein sequence
 Red=Cloning site Green=Tags(s)

MRPWLRLHLVLQALRNSRAFCGSHGKPAPLPVPQKIVATWEAISLGRQLVPEYFNFAHDVLDVWSRLEEAG
 HRPPNPAFWVNGTGAEIKWSFEELGKQSRKAANVLGGACGLQPGDRMMLVLPRLPEWWLVSVACMRTGT
 VMIPGVTQLTEKDLKYRLQASRAKSIITSDSLAPRVDAISAECPSLQTKLLVSDSSRPGWLNFRELLREA
 STEHNCMRTKSRDPLAIYFTSGTTGAPKMVEHSQSSYGLGFVASGRRWVALTESDIFWNTTDTGWVKAAW
 TLFSAWPNGSCIFVHELPRVDAKVLNLTLSKFPITTLCCVPTIFRLLVQEDLTRYQFQSLRHCLTGGEAL
 NPDVREKWKHQTVLVEYGYQSETVVICANPKGMKIKSGSMGKASPPYDVQIVDDEGNLPPGEEGNVA
 VRIRPTRPFCFFNCYLDNPEKTAASEQGFYITGDRARMKDGDFWFMGRNDDVINSSSYRIGPVEVESA
 LAEHPAVLESAAVSSPDIRGEVVKAFIVLTPAYSSHDPEALTRELQEHVKRVTAPYKYPRKVFVSELP
 KTVSGKIQRSLRSQEWGK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6216_b06.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_017888

ORF Size: 1737 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_017888.2](#), [NP_060358.2](#)

RefSeq Size: 2428 bp

RefSeq ORF: 1740 bp

Locus ID: 54988

UniProt ID: [Q6NUN0](#)

Cytogenetics: 16p12.3

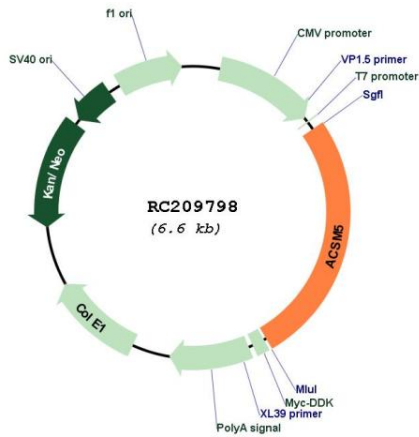
Domains: AMP-binding

Protein Pathways: Butanoate metabolism, Metabolic pathways

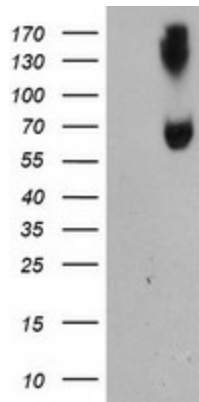
MW: 64.7 kDa

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) (By similarity).[UniProtKB/Swiss-Prot Function]

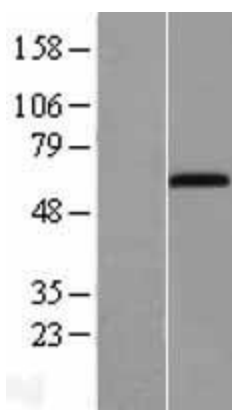
Product images:



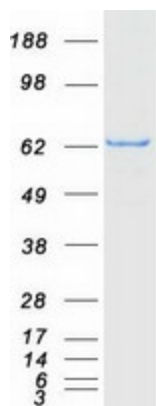
Circular map for RC209798



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ACSM5 (Cat# RC209798, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ACSM5(Cat# [TA504441]). Positive lysates [LY413471] (100ug) and [LC413471] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY413471]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209798 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ACSM5 protein (Cat# [TP309798]). The protein was produced from HEK293T cells transfected with ACSM5 cDNA clone (Cat# RC209798) using MegaTran 2.0 (Cat# [TT210002]).