

Product datasheet for **RC213310**

ACSM4 (NM_001080454) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ACSM4 (NM_001080454) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ACSM4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC213310 representing NM_001080454
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAAGATTTTTTTCGCTACCAGACATTTAGATTCATCTGGCTACCAAGCCACCTGGCCGGCGCTTAC
 ACAAGATCACCAGCTTTGGACGCTCTGACTCTTGCTGACTTTGAAGCCATAAAATCGCTGTAACAGGCC
 ATTGCCTAAAACTTTAACTTTGCTGCAGATGTCTGGACCAGTGGTCCAAAAGGAGAAGACAGGGGAG
 AGACCAGCTAACCAGCCCTGTGGTGGTGAATGGCAAAGGGGATGAGGTAAAAATGGAGCTTCAGAGAAC
 TGGGCTCCTTGTCCCAAAAGCTGCCAACGTGCTACCAAGCCCTGTGGCCTGCAGAGAGGAGACCGTTT
 GGCCGTGATTCTGCCAGAATCCCTGAGTGGTGGCTGGTCAATGTAGCTTGACATACGAACAGGGATCATC
 TTCATGCCGGGAACAATCCAGCTGACAGCAAAGACATCTCTACCGGCTGCGAGCATCCAAGGCCAAGT
 GCATTGTGGCCAGTGAGGAGTGGCCCCAGCGGTGGAGTCCATTGTATTGGAGTGTCTGACCTTAAGAC
 AAACTCCTGGTGTCTCCACAAAGCTGGAATGGGTGGCTCAGCTTCCAGGAGTTATTTCAATTCCGCTCT
 GAAGAGCACAGCTGTGTGAAACAGGAAGTCAAGAACCAATGACCATTTATTTACCAGTGGGACCACAG
 GCTTTCCTAAAAATGGCCAGCACTCTCAGAGCAGCCTCGGCATTGGGTTACCCTCTGCGAAGGTATTG
 GCTGGACTTGAAGTCTCAGATATCATATGGAATATGTCTGACACGGGCTGGGTCAAGGCCGCCATTGGC
 AGTGTGTTTTCTCTGGCTGTGTGGAGCCTGTGTTTTGTGCATCGAATGGCACAGTTTGACACTGACA
 CCTTCTAGACACACTTACTACTTATCCCATCACGACCCTGTGCAGTCTCCACTGTGTACCGGATGCT
 CGTGCAAAAAGACCTTAAGAGATATAAATCAAGAGTCTGCGGCACTGCTTGACCGGAGGGGAGCCACTC
 AACCCAGAAGTGTGGAGCAGTGGAGGGTGCAAACTGGGCTGGAGCTATATGAGGGCTATGGACAGACGG
 AAGTGGGAATGATTTGTGCAATCAGAAAGGCCAAGAAATTAACCAGGTTCAATGGGAAAGGAATGCT
 GCCTATGATGTCAGATTATAGATGAAAATGGCAATGTTCTACCACCTGGCAAAGAAGGGGAAATTGCC
 CTCAGACTCAAACCTACACGGCCCTTCTGTTTCTCTCTAAATATGTGGACAATCCACAGAAAATGCTG
 CCACGATAAGAGGAGATTTTTATGCTACTGGAGACAGAGGAGTATGGACAGTATGGGTATTTCTGGTT
 TGTGCGCAGAGCTGATGATGTCATTATATCCTCTGGGTACCGTATTGGGCCATTTGAAGTGGAGAGTGCA
 CTCATTGAGCATCCAGCAGTTGTTGAATCGGCTGTTGTCAGTAGTCCAGATCAAATCCGCGGAGAGGTGG
 TGAAGCTTTTGTGCTTAGCTGCACCCTTAAGTCTACAACCAGAGAAATTAAGTCTTGAAGTCA
 GGATCATGTGAAAAATCAACTGCACCTTACAAATATCCAAGAAAGGTGGAATTTGTTCAAGAACTCCCA
 AAGACAATCACTGGGAAATCAAACGCAACGTTTTAAGAGACCAAGAATGGAGAGGAAGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC213310 representing NM_001080454
 Red=Cloning site Green=Tags(s)

MKIFFRYQTFRFIWLTKPPGRRLHKDHQLWTPPLTADFEAINRCNRPLPKNFNAADVLDQWSQKEKTGE
 RPNPALWVWNGKDEVKWSFRELGSLSRKAANVLTKPCGLQRGDRILVILPRIPWVWLVNACIRTGII
 FMPGTIQLTAKDILYRLRASKAKCIVASEEVAPAVESIVLECPDLKTKLLVSPQSWNGWLSFQELFQFAS
 EEHSCVETGSQEPMTIYFTSGTTGFPKMAQHSQSSLGIFTLCGRYWLDLKSSDIWNNMSDTGWVAAAIG
 SVFSSWLCGACVHVHRMAQFDLDTLDTLTYPIITLCSPTVYRMLVQKDLKRYKFKSLRHCLTGGEPL
 NPEVLEQWRVQTGLELYEGYQTEVGMICANQKQGEIKPGSMGKMLPYDVQIIDENGNLPPGKEGEIA
 LRLKPTRPFCFFSKYVDNPQKTAATIRGDFYVTGDRGVMDSGDYFWFVGRADDVVISSGYRIGPFEVESA
 LIEHPAVVESAVVSSPDQIRGEVVKAFVLAAPFKSYNPEKLTLELQDHVKKSTAPYKYPRKVEFVQELP
 KTIITGKIKRNVLRDQEWGR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8024_f04.zip

Restriction Sites:

Sgfl-Mlul

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](#)

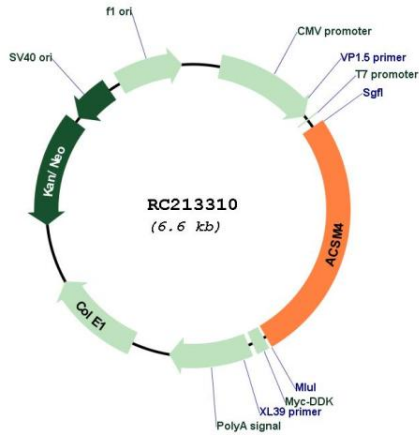
Cytogenetics: 12p13.31

Protein Pathways: Butanoate metabolism, Metabolic pathways

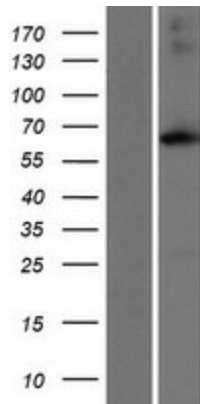
MW: 65.5 kDa

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]

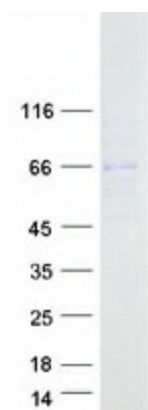
Product images:



Circular map for RC213310



Western blot validation of overexpression lysate (Cat# [LY420712]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213310 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ACSM4 protein (Cat# [TP313310]). The protein was produced from HEK293T cells transfected with ACSM4 cDNA clone (Cat# RC213310) using MegaTran 2.0 (Cat# [TT210002]).