

## Product datasheet for MR205198

### Mcub (NM\_025779) Mouse Tagged ORF Clone

#### Product data:

Product Type: Expression Plasmids  
 Product Name: Mcub (NM\_025779) Mouse Tagged ORF Clone  
 Tag: Myc-DDK  
 Symbol: Mcub  
 Synonyms: 9030408N13Rik; Ccdc109b; MCUB  
 Mammalian Cell Selection: Neomycin  
 Vector: pCMV6-Entry (PS100001)  
 E. coli Selection: Kanamycin (25 ug/mL)  
 ORF Nucleotide Sequence: >MR205198 representing NM\_025779  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCCAGGAGCTCTGTCCGGCAGGAGGATGCTCCCGAGCGGGCTATGTCTGGGTCGGTGGCAGCTGCTGC  
 GGACGATCCGAGCCCGCGGCCGCGGGATCCCAGGAGCTGCCATCCACACCCAGGTTTATGTATGAA  
 ACTCTATGGAAATCCAAAATACCACCAAGCACTCCATTATGGGACAGTGGAGCCACAGGATGAAATAACA  
 GTTACTTATAAACACGGCCTTCCCTTGGTAACCCTCACTCTGCCATCCAGAAAAGAGCGCTGCCAGTTTG  
 TAGTCAAGCCGATGTTGTCGACAGTAGGCTCATTCTGCAGGACTTACAGAATGAGGATAAAGGCATCAA  
 AACTGCAGCCATCATCACGGCAGATGGCAGTGAATTCAGCTTCAACATTGATGGACACTTTGCTAATG  
 ACAGATTTTAAGCTCATCATTAAACAAACTACGGTATGATATACGGTGTCAAGAAAAGAGCCAAAGTG  
 GAGAGCATATGACTGAGTTGGAAAAACCAAGTCTTGGTTACAGACTATTCATATCCTGCATTTAGA  
 GGAGATCCAGAAGAGACGAGAGCGCCATCTGATGGCGAAGATCGACCACCTGCAGAACAGCTGCGGCC  
 TTGGAGCAGGTCAAAGCTGCAATAGAAGCCGGTCGGAAGCCAACACCAGTGGTCTCCTGTGGGCCGGCT  
 TAGCTCTGCTCTCCGTGCAGGGCGGGCGCTGGCTGGCTTACTTGGTGGGTGACTCCTGGGATATCAT  
 GGAGCCAGTTACCTTCTCCTGTCGTTTGCGAATCCATCGTCTTTTTGCATACTTCATCATAACCCGG  
 CAGAACTACACATACTCATCCCTCCGAGCAGGCAGTTTCTTCAGTCTTCCACAAGAAATCGCAGCGGC  
 GGTGTTTTGATGTGGAACAATACAACAAGCTAAAGGAAGACCTTGCTGAGGCTACAGAATCCCTGGAAG  
 CGTGCGCCGCTCCCTCCGCTTGGCAATCCAAGGAGAGGAAGCCAGCGAGAAGAAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR205198 representing NM\_025779  
Red=Cloning site Green=Tags(s)

MPGALSGRRMLPSGLCLGRWQLLRTIRARGRGDPRELPSTPQVLCMKLYGNPKYHQALHYGTVEPQDEIT  
 VTYKHGLPLVTLTLP SRKERCFVVKPMLSTVGSFLQDLQNEKGIKTAIITADGSEIPASTLMDTLLM  
 TDFKLIINKLRYDIRCHKKEEPSGEHMTLENTKSLVHRLFTILHLEEIQRRERHLMKIDHLQEQLRP  
 LEQVKAATIEARSEANTSGLLWAGLALLSVQGGALAWLTWWVYSDIMEPVTFFLSFANSIVFFAYFIITR  
 QNYTYSSLRSRQFLQFFHKKSQRRCFDVEQYNKLEKDLAEATESLESVRRSLRLRIQGEEASEKN

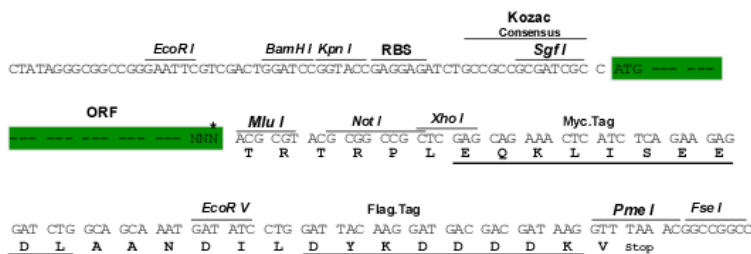
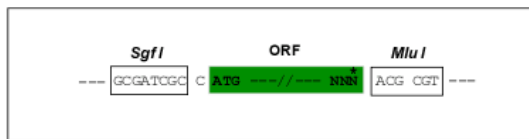
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1844\\_e05.zip](https://cdn.origene.com/chromatograms/ja1844_e05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_025779

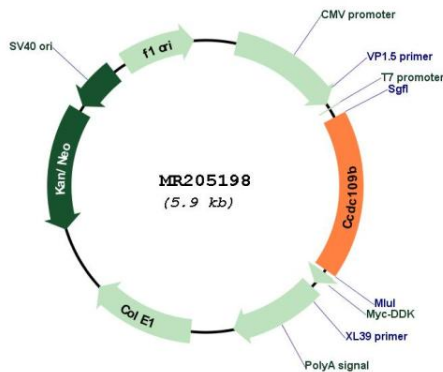
**ORF Size:** 1035 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_025779.3</a> , <a href="#">NP_080055.2</a>
<b>RefSeq Size:</b>	1332 bp
<b>RefSeq ORF:</b>	1038 bp
<b>Locus ID:</b>	66815
<b>UniProt ID:</b>	<a href="#">Q810S1</a>
<b>Cytogenetics:</b>	3 G3
<b>MW:</b>	40.2 kDa
<b>Gene Summary:</b>	Negatively regulates the activity of MCU, the mitochondrial inner membrane calcium uniporter, and thereby modulates calcium uptake into the mitochondrion. Does not form functional calcium channels by itself. Mitochondrial calcium homeostasis plays key roles in cellular physiology and regulates cell bioenergetics, cytoplasmic calcium signals and activation of cell death pathways.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR205198