

## Product datasheet for **MG205198**

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

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Mcub (NM_025779) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Mcub
Synonyms:	9030408N13Rik; Ccdc109b; MCUB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG205198 representing NM_025779 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCAGGAGCTCTGTCCGGCAGGAGGATGCTCCCGAGCGGGCTATGTCTGGGTCGGTGGCAGCTGCTGC  
GGACGATCCGAGCCCGCGCCGCGGGATCCCAGGAGCTGCCATCCACACCCAGGTTTTATGTATGAA  
ACTCTATGGAAATCCAAAATACCACCAAGCACTCCATTATGGGACAGTGGAGCCACAGGATGAAATAACA  
GTTACTTATAAACACGGCCTTCCCTTGGTAACCCTCACTCTGCCATCCAGAAAAGAGCGCTGCCAGTTTG  
TAGTCAAGCCGATGTTGTCGACAGTAGGCTCATTCTGCAGGACTTACAGAATGAGGATAAAGGCATCAA  
AACTGCAGCCATCATCACGGCAGATGGCAGTGAATTCAGCTTCAACATTGATGGACACTTTGCTAATG  
ACAGATTTTAAGCTCATCATTAAACAAACTACGGTATGATATACGGTGTCAAGAAAGAAGGCCAAGTG  
GAGAGCATATGACTGAGTTGAAAAACCAAGTCTTGGTTACAGACTATTCACATATCCTGCATTTAGA  
GGAGATCCAGAAGAGACGAGAGCGCCATCTGATGGCGAAGATCGACCACCTGCAGGAACAGCTGCGGCC  
TTGGAGCAGGTCAAAGCTGCAATAGAAGCCGGTGGAAAGCAACACCAGTGGTCTCCTGTGGGCCGGCT  
TAGCTCTGCTCTCCGTGCAGGGCGGGCGCTGGCTGGCTTACTTGGTGGGTGACTCCTGGGATATCAT  
GGAGCCAGTTACCTTCTCCCTGTCGTTTGGCAATCCATCGTCTTTTTGCATACTTCATCATAACCCGG  
CAGAACTACACATACTCCTCCGGAGCAGGCAGTTTCTTCCAGTCTTCCACAAGAAATCGCAGCGGC  
GGTGTGATGTGGAACAATACAAGCTAAAGGAAGACCTTGCTGAGGCTACAGAATCCCTGGAAGG  
CGTGCGCCGCTCCCTCCGCTTGGCAATCCAAGGAGAGGAAGCCAGCGAGAAGAAC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG205198 representing NM\_025779  
 Red=Cloning site Green=Tags(s)

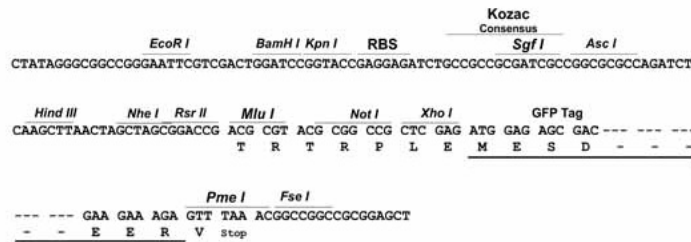
MPGALSGRRMLPSGLCLGRWQLLRTIRARGRGDPRELPSTPQVLCMKLYGNPKYHQALHYGTVEPQDEIT  
 VTYKHGLPLVTLTLP SRKERQCFVVKPMLSTVGSFLQDLQNEKGIKTAIITADGSEIPASTLMDTLLM  
 TDFKLIINKLRYDIRCHKKEEPSGEHMTLENTKSLVHRLFTILHLEEIQRRERHLMKIDHLQEQLRP  
 LEQVKAATIEARSEANTSGLLWAGLALLSVQGGALAWLTWWVYSDIMEPVTFFLSFANSIVFFAYFIITR  
 QNYTYSSLRSRQFLQFFHKKSQRRCFDVEQYNKLIKEDLAEATESLESVRRSLRLRIQGEEASEKN

TRTRPLE - GFP Tag - V

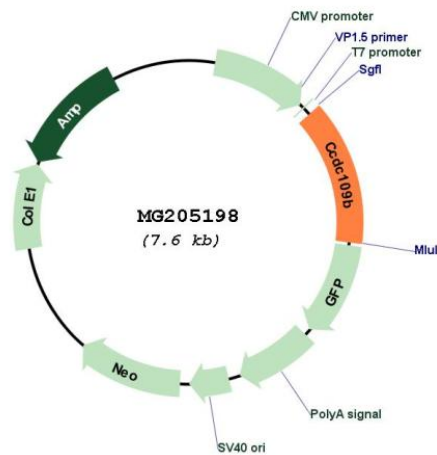
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_025779

**ORF Size:** 1035 bp

<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<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>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]