

## Product datasheet for **RG233786**

### MCU (NM\_001270679) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** MCU (NM\_001270679) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** MCU  
**Synonyms:** C10orf42; CCDC109A; HsMCU  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG233786 representing NM\_001270679  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCGGCCGCCGAGGTAGATCGCTCCTGCTCCTCTCCTCTCGGGCGGGCGGGCGGGGGCGCCG  
 GCGGCTGCGGGCGCTGACTGCCGGTCTTCCCTGGGCTGGGCGTCAGCCGCCACCGGCAGCAGCA  
 CCACCGGACGGTACACCAGAGGATCGTTCCTGGCAGAATTTGGGAGCTGTTATTGCAGCACTGTTGTG  
 CCCTCTGATGATGTTACAGTGGTTATCAAATGGTTACCTGTGATATCTGTGAGGCTACCATCCCGG  
 GTGAACGCTGTCACTCACACTCAAGCCTATCTGACTCTGTTGGTGTATTTTTACGACAACTGCAAGA  
 AGAGGATCGGGGAATTGACAGAGTTGCTATCTATTACCAGATGGTGTTCGCGTTGCTGCTCAACAGGA  
 ATAGACCTCCTCCTCTTATGACTTTAAGCTGGTCAATTAATGACTTAACATACCACGTACGACCACAA  
 AAAGAGTAGAGATGGGGTTTTGCCATGTTGGCCAGAATGGTTTTGAACTCCTGACCTCAAGTTATCTACC  
 TGCCTCAGCCTCCCAAAGTGCCGAGATTATAGCCGTACGAATTGAGATTAGCAGAAAAGCTGAGAAGAGG  
 ACCACTTTGGTGTATGGGGTGGCCTTGCCATACATGGCCACACAGTTTGGCATTGTTGGCCCGGCTTACCT  
 GGTGGGAATATCCTGGGACATCATGGAGCCAGTAACATACTTCATCACTTATGGAAGTGCCATGGCAAT  
 GTATGCATATTTGTAATGACACGCCAGGAATATGTTTATCCAGAAGCCAGAGACAGACAATACTACTA  
 TTTTCCATAAAGGAGCCAAAAGTCACGTTTTGACCTAGAGAAAACAATCAACTCAAGGATGCAATTG  
 CTAGGCAGAAATGGACCTTAAGAGACTGAGAGACCCATTACAAGTACATCTGCCTCTCCGACAAATTGG  
 TAAAAAGAT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG233786 representing NM\_001270679  
Red=Cloning site Green=Tags(s)

MAAAAGRSLLLLLSSRGGGGGAGGCGALTAGCFPGLGVSRRHQQHHRTVHQRIASWQNLGAVYCSTVV  
 PSDDVTVVYQNGLPVISVRLPSRRERCQFTLKPISDSVGVFLRQLQEEDRGIDRVAIYSPDGVVAASTG  
 IDLLLLDDFKLVINDLTYHVRPPKRVEMGFCHVGQNGFELLTSSYLPASASQSAEIIAVRIEISRKAER  
 TTLVLWGLAYMATQFGILARLTWWEYSWDIMEPVTYFITYGSAAMYAYFVMTREQEYVYPEARDRQYLL  
 FFHKGAKKSRFDLEKYNQLKDAIAQAEMDLKRLRDPLQVHPLRQIGEKD

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001270679

**ORF Size:** 990 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\\_001270679.1](#), [NP\\_001257608.1](#)

**RefSeq Size:** 2899 bp

**RefSeq ORF:** 993 bp

**Locus ID:** 90550

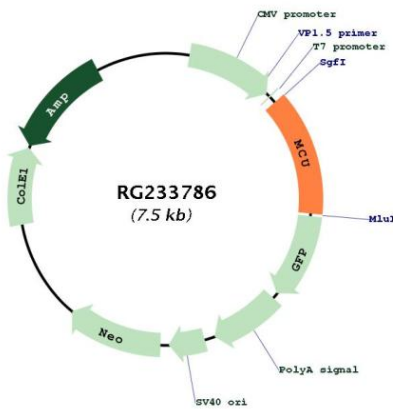
**UniProt ID:** [Q8NE86](#)

**Cytogenetics:** 10q22.1

**Protein Families:** Transmembrane

**Gene Summary:** This gene encodes a calcium transporter that localizes to the mitochondrial inner membrane. The encoded protein interacts with mitochondrial calcium uptake 1. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2012]

### Product images:



Circular map for RG233786