

Product datasheet for **MC201768**

Micu2 (NM_028643) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Micu2 (NM_028643) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Micu2
Synonyms:	1110008L20Rik; 4833427E09Rik; AU041871; Efha1; Smhs2
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC031172 sequence for NM_028643
 CCGACGCGTGGGCGCTTCCGCAAAGATGGCGGCGGCTGCGGGAAGAAGCGCTTGGCTGGCGGCCTGGGGC
 GGAAGGCTGCGGCGCGGGCTCGCGGCCGGCCGACGAGCTGTGCCGACTCGCGGCCCTCTCGCAGCGGCTG
 TGGCCGGGTAGCCCTGGCAGGCGCAGGAGCGGCATGGCATCACGGCCGCGTAAAGCAGCCGCGCGCA
 GGGCTCCCGAACGGTGTGGCGCAGAAAAATTATTTGGGACCAATAGAGAACTTTCTCTCCGAAACAG
 CGGTTCCATGCAGTTTTTCATCCCTGGAGCACGACGAGAGTATTACATGACACCCCGAGACTTCCTCTTCT
 CAGTCATGTTTTGAGCAAGTGGAGCGTAAACACTGGTCAAGAAGCTGGCAAAAAAGGATATCGAGGATGT
 ACTGTCAGGAATCCAAACAGCACGCTGTGGATCAACATTTTTTAGAGACCTGGGTGATAAAGGGTAATT
 TCATATACCGAGTATCTTTTCTTCTTACAATCCTCACAAAACCTCACTCTGGGTTCATGTTGCTTTTA
 AAATGCTGGATGTGGATGGGAATGAGATGATCGAGAGGAAGGAGTTTGTAAAGCTGCAGAAGATCATAAG
 TAAACAAGATGGCTTCAAGACAGTGAAGACTAATGAGACAGAATACCAGGACCCAACAGTAAAGAGCCT
 GGCGTTAACACAACCTTCAAGTGCCTTTCTTTGGGAAAAGAGGAGAAAAAACTCCATTATAAAGAAAT
 TTCGAAGATTTATGAAAATTTACAAACAGAAGTTCAAGAAATGGAATTCCTTCAGTTCTCTAAAGCCT
 GAATTTTCATGAGAAAAGAAGACTTTGCAGAATGGCTACTTTTCTCACTAACACTGAAAAATAAGATATT
 TACTGGAGAAACGTGAGAGAAAAGTTGTCAGTAGGAGAGAGCATTAGTTTGGATGAGTTCAAGTCCTTTT
 GCCATTTTACAACGCATTTGGAAGACTTTGCTATCGCCATGCAAAATGTTTAGTTTAGCTCATCGCCCTGT
 GCGGCTGGCAGAGTTCAAGAGAGCTGTGAAGGTAGCGACTGGACAGGAGCTCTCGACAATCTTCTGGAC
 ACCGCTTCAAGATCTTTGACCTGGACGGGACGAGTGCCTCAGCCACGGCGAGTTCTTGGGGTACTGA
 AAAACAGGATGCACCGAGGCTTATGGGTGTACAGCAGCAGAGTGTGCAAGAATACTGGAAGTGTGTGAA
 GAAGGAAAGCATCAAGGGAGTAAAGGAAGCCTGGAGACAACAAGCCGGCAAGGGCCCTTCAAGGGGAA
 GCTGATGGAGCTCCAGGAGCCAGAAAGTGGTTTTTCCAAGAGCTGACTGTTTCTATGTCTTCATTGAGTT
 TCTTTTGAAGTGTGAAGATGTGAAGACTCACTTTCTGATTTGGGGATTTGGGAGGATGACGGGAGGTGA
 ATAAGTGTGTGCCACAGTGGGAAGTCAAGAGCCAGCCTGTAGGAGCTGGTTCTCTGTCTACCATGGGA
 GTCCCAGAGATTGAACACTAGGTCTCGAGCTTTGACATCAAGTGCCTTTACCTGATGAGCCATCTACCAG
 CTCCGACTCCATATTTCTTGGTGAATTTTCATTACACAAAGTATTCTTTATGAAAATACACACTGCTC
 TATTAAGACTTGTGTACAAAGTGTGCTTTCTGGAGGGCTAAACAAGTCAGGGAAGGAACTTCATCCCA
 AGACAGGTAAGTATCCCAGAAGCCGTGATAGCTTAGGGAATACTGCAAGTAAAGGCTTGTCCAGTGT
 CTTTGCTCCCTGCCTTGAATAGCACATAATGGCAGTGTCCGGTCTGGCAGCAGGATGAAGATTTACAT
 TGATACAAAAAATTTTTCTTTTTTAAATGTTCCATGCTTTTGAATATAAATAGAGTGTCTCTCCCA
 GACTCCAGGGGAGCTCAGCCAGCAAAGGACACAGCTGTGTACCATGCTTTCTAACAAAGCAGCACAC
 AGAGTTCCATCTAAAACCACTCATACACACAGATCACACACAGATCACACACATACAGTGATCATAAT
 AGCAAGTTTTCTTAAGCTACGGGATCTTGGGTTGTGGGAAATATGGCACTATAAAGTAGCTTGAATAAA
 ATAAATAGGAAATATGTTATGTGGAGATGGACATGTGTATGTATACAGGTGGACATACATGTGTGTGTG
 GAAGCCCTGCTCCTGTAATACCCCATGTTTCTGAAGTATCCCAATAAACCCATGAGCTCACCAGG
 TAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: RsrII-NotI

ACCN: NM_028643

Insert Size: 1299 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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: [BC031172](#), [AAH31172](#)

RefSeq Size: 2333 bp

RefSeq ORF: 1299 bp

Locus ID: 68514

UniProt ID: [Q8CD10](#)

Cytogenetics: 14 C3

Gene Summary: Key regulator of mitochondrial calcium uniporter (MCU) required to limit calcium uptake by MCU when cytoplasmic calcium is low (PubMed:23409044, PubMed:24560927). MICU1 and MICU2 form a disulfide-linked heterodimer that stimulate and inhibit MCU activity, depending on the concentration of calcium (PubMed:24560927). MICU2 acts as a gatekeeper of MCU that senses calcium level via its EF-hand domains: prevents channel opening at resting Ca(2+), avoiding energy dissipation and cell-death triggering (PubMed:24560927).[UniProtKB/Swiss-Prot Function]