

Product datasheet for **RC206952**

MCU (NM_138357) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MCU (NM_138357) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MCU
Synonyms:	C10orf42; CCDC109A; HsMCU
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC206952 representing NM_138357 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGCCGCCGAGGTAGATCGCTCCTGCTCCTCTCCTCTCGGGCGGGCGGGCGGGGGCGCCG
GCGGCTGCGGGCGCTGACTGCCGGTCTCCCTGGGCTGGGCGTCAGCCGCCACCGCAGCAGCAGCA
CCACCGGACGGTACACCAGAGGATCGTTCCTGGCAGAATTTGGGAGCTGTTATTGCAGCACTGTTGTG
CCCTCTGATGATGTTACAGTGGTTATCAAATGGTTACCTGTGATATCTGTGAGGCTACCATCCCGGC
GTGAACGCTGTCACTCACACTCAAGCCTATCTCTGACTCTGTTGGTGTATTTTTACGACAACTGCAAGA
AGAGGATCGGGGAATTGACAGAGTTGCTATCTATTACCAGATGGTGTTCGCGTTGCTGCTCAACAGGA
ATAGACCTCCTCCTCTTATGACTTTAAGCTGGTCATTAATGACTTAACATACCACGTACGACCACCAA
AAAGAGACCTCTTAAGTCATGAAAATGCAGCAACGCTGAATGATGTAAGACATTGGTCCAGCACTATA
CACCACACTGTGCATTGAGCAGCACCAGTTAAACAAGGAAAGGGAGCTTATTGAAAGACTAGAGGATCTC
AAAGAGCAGCTGGCTCCCTGGAAAAGGTACGAATTGAGATTAGCAGAAAAGCTGAGAAGAGGACCACTT
TGGTGCATGGGGTGGCCTTGCCTACATGGCCACACAGTTTGGCATTGTTGGCCCGGCTTACCTGGTGGGA
ATATTCCTGGGACATCATGGAGCCAGTAACATACTTCATCACTTATGGAAGTGCCATGGCAATGTATGCA
TATTTTGTAAATGACACGCCAGGAATATGTTTATCCAGAAGCCAGAGACAGACAATACTTACTATTTTCC
ATAAAGGAGCCAAAAGTCACGTTTTGACCTAGAGAAAATACAATCAACTCAAGGATGCAATTGCTCAGGC
AGAAAATGGACCTTAAGAGACTGAGAGACCCATTACAAGTACATCTGCCTCTCCGACAAATTGGTGAAAA
GAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >RC206952 representing NM_138357
Red=Cloning site Green=Tags(s)

MAAAAGRLLLLSSRGGGGGAGGCGALTAGCFPGLGVSRRHQQHRTVHQRIASWQNLGAVYCSTVV
 PSDDVTVVYQNGLPVISVRLPSRRERCQFTLKPISDSVGVFLRQLQEEDRGIDRVAIYSPDGVVAASTG
 IDLLLLDDFKLVINDLTYHVRPPKRDLLSHENAATLNDVKTLVQQLYTTLCIEQHQLNKERELIERLEDL
 KEQLAPLEKVRIEISRKAERKRTTLVLWGGLAYMATQFGILARLTWWEYSWDIMEPVTYFITYGSAAMYA
 YFVMTQRQEYVYPEARDRQYLLFFHKGAKKSRFDLEKYNQLKDAIAQAEMDLKRLRDLPLQVHLPLRQIGEK
 D

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg4598_c08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_138357

ORF Size: 1053 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_138357.2](#)

RefSeq Size: 2978 bp

RefSeq ORF: 1056 bp

Locus ID: 90550

UniProt ID: [Q8NE86](#)

Cytogenetics: 10q22.1

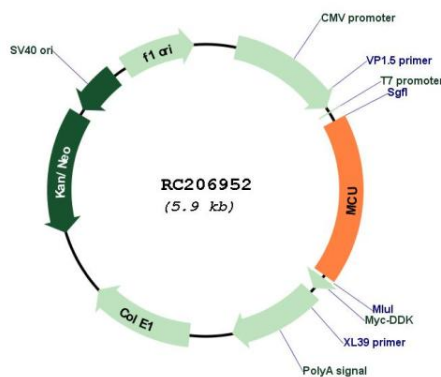
Domains: DUF607

Protein Families: Transmembrane

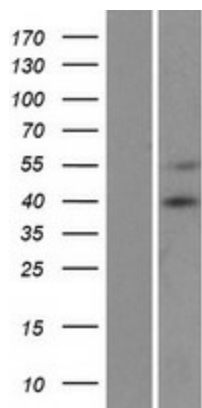
MW: 39.7 kDa

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]

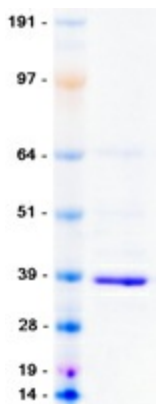
Product images:



Circular map for RC206952



Western blot validation of overexpression lysate (Cat# [LY408629]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206952 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MCU protein (Cat# [TP306952]). The protein was produced from HEK293T cells transfected with MCU cDNA clone (Cat# RC206952) using MegaTran 2.0 (Cat# [TT210002]).