

Product datasheet for **RC205455**

EFHA1 (MICU2) (NM_152726) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | EFHA1 (MICU2) (NM_152726) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | EFHA1 |
| Synonyms: | 1110008L20Rik; EFHA1 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



[View online »](#)

ORF Nucleotide Sequence:

>RC205455 representing NM_152726
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCGCGGCTCGGGTAGCTGCGCGCGGGTGGCGGCCCTGGGGCGGAAACTGCGACGGGGCTCGCTG
 TCAGCCGACAGGCTGTGCGGAGTCCCGGCCCTTGGCAGCGGCAGTGCCGGCGCGGCCCTGGCAGGAGC
 AGGAGCGGCTGGCACCACAGCCGCGTCAGTGTTGCGGCGGGATGGCAGTTTTACAGTCTCCGCACAG
 AAAAATGTTGAACATGGAATAATATATATTGGGAAACCGTCTCTTCGTAAGCAGCGCTTCATGCAGTTTT
 CTTCACTCGAACATGAAGGAGAAATATTATGACACCACGAGACTTCTCTTCTCAGTGATGTTTGAGCA
 AATGGAACGTA AAACTTCAGTCAAGAAGCTGACAAAAAGGACATCGAGGATACTGTCAGGGATCCAA
 ACAGCTGGCTGTGGATCAACTTTTTTTCAGAGACCTTGGCGATAAAGGGCTAATTTTCATATACCGAGTATC
 TTTTCTTGCTTACAATCCTCACTAAACCCATTCTGGATTTTCATGTTGCTTTTAAAAATGCTGGATACAGA
 TGGAATGAGATGATTGAAAAAAGGGAATTTTTAAGCTGCAGAAGATCATAAGTAAACAAGATGACTTG
 ATGACAGTGAAAATAATGAAAATGGATATCAGGAAGCAATAGTGAAAGAACCTGAAATTAACACAACCTC
 TTCAGATGCGTTTCTTTGGAAAAAGAGGACAAAGAAAACCTCATTATAAAGAATTTGCAAGATTTATGGA
 AAATTTACAAACAGAGATTCAAGAAATGGAATTCCTTCAGTTTTCTAAAGGTTTGAGTTTCATGAGAAAA
 GAAGACTTTGCAGAGTGGCTACTTTTTTCACTAACACTGAAAATAAAGATATTTATTGGAAAAATGTGA
 GAGAGAAGTTGTCAGCAGGAGAGAGCATTAGTTTGGATGAATTCAGTCAATTTGCCATTTTACAACCCA
 CTTGGAAGACTTTGCTATTGCCATGCAGATGTTTCAAGTTTAGCTCATCGTCCTGTCAGACTAGCGGAGTTT
 AAGAGAGCTGTGAAAGTAGCAACAGGACAAGAAGCTCTCAACAATATTTTGGACTGTCTTTAAGATCT
 TTGATTTGGATGGTGATGAATGTCTTAGTCATGAAGAGTTTCTTGGGGTGTAAAAAACAGAATGCATCG
 AGGTTTTATGGGTACCACAACATCAGAGTATACAAGAACTGGAAGTGTGTGAAGAAAGAAAGCATTAA
 GGAGTAAAGAAGTCTGGAAACAAGCTGAAAAAGGTCTTTTT

ACGCGTACGCGCGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC205455 representing NM_152726
 Red=Cloning site Green=Tags(s)

MAAAGSCARVAAWGGLRRGLAVSRQAVRSPGLAAAVAGAALAGAGAAWHHSRVSVAARDGSFTVSAQ
 KNVEHGIYIGKPSLRKQRFMQFSSLEHEGEYYMTPRDFLFVSMFEQMERKTSVKKLTKKDIEDTLSGIQ
 TAGCGSTFFRDLGDKGLISYTEYLFLLTILTKPHSGFHVAFKMLD TDGNEMIEKREFFKLQKIISKQDDL
 MTVKTNETGYQEAIVKEPEINTTLQMRFFGKRGQRKLHYKEFRFRFMENLQTEIQEMEF LQF SKGLSFMRK
 EDFAEWLLFFNTENKDIYWKNVREKLSAGESISLDEFKSFCHFTHLEDFAIAMQMFSLAHRPVRLAEF
 KRAVKVATGQELSNNILDTVFKIFDLGDDECLSHEEFLGVLKMRMHRGLWVPQHQS IQEYWKCVKKESIK
 GVKEVWKQAGKGLF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8077_c02.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_152726

ORF Size: 1302 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 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](#)

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).

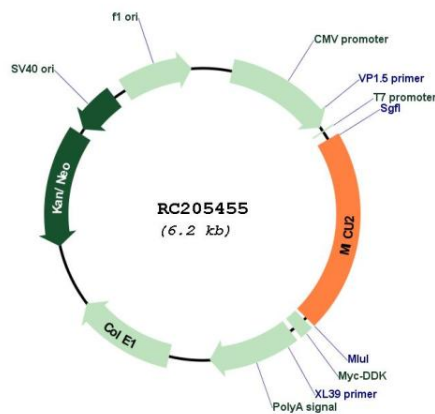
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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_152726.3](#)

RefSeq Size: 1891 bp
 RefSeq ORF: 1305 bp
 Locus ID: 221154
 UniProt ID: [Q8IYU8](#)
 Cytogenetics: 13q12.11
 Domains: EFh
 MW: 49.5 kDa

Gene Summary: Key regulator of mitochondrial calcium uniporter (MCU) required to limit calcium uptake by MCU when cytoplasmic calcium is low (PubMed:24503055, PubMed:24560927, PubMed:26903221). 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 calcium, avoiding energy dissipation and cell-death triggering (PubMed:24560927).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC205455