

Product datasheet for **RC230839**

CBARA1 (MICU1) (NM_001195518) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CBARA1 (MICU1) (NM_001195518) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MICU1
Synonyms:	ara CALC; CALC; CBARA1; EFHA3; MPXPS
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC230839 representing NM_001195518
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTTTCTGCTGAACTCACTTTCTGCTTTGGCAGAAGTGGCTGTGGGTTCTCGATGGTACCATGGAGGAT
 CACAGCCCATCCAGATCCGGCGAAGACTAATGATGGTGGCTTTCTGGGAGCATCTGCAGTAACTGCAAG
 TACTGGTCTTTTGTGGAAGAGGGCCCATGCAGAATCTCCACCATGTGTAGACAACCTAAAAAGTGACATC
 GGTGATAAAGGGAAGAATAAAGATGAAGGGGATGTTTGAACCATGAGAAAAAGACTGCAGATCTTGCCC
 CTCACCCAGAAGAAAAAGAAGAACGTTCTGGATTCAGAGACAGAAAAGTGTGGAATATGAGAATAG
 GATTCGAGCCTACTCCACGCCAGACAAAATCTCCGATATTTGCCACCTTGAAAGTTCATCAGTGAGCCT
 GGTGAAGCAGAAGTGTATGACACCAGAAGATTTGTGCGATCCATAACACCCAATGAAAAACAACCGAG
 AACACTTGGGTCTGGATCAATATATAATAAACGCTTTGATGAAAGAAAATTTCCAGGAACGAGAAAA
 ATTTGCTGATGAAGGCAGTATATTTACACCTTGGAGAATGTGGGCTCATATCCTTTTCAGACTACATT
 TTCTCACAACCTGTTCTTCCACTCCTCAGAGAAATTTGAAATTCCTCAAGATGTTTGAATG
 GAGATGGAGAAGTAGATATGGAAGAATTTGAACAGGTTTCAGAGCATCATTGCTCCCAAACAGTATGGG
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 AGCATGATGTTCTGAAGCTTGAAGTTGAAACCCATGACCTGTGGATGGGAGAATTACTGAGAGGCAGTT
 TGGTGGCATGCTACTTGCCTACAGTGGGTGCAGTCCAAGAAGCTGACCGCCATGCAGAGGCAGCTCAAG
 AAGCACTCAAAGAAGGAAAGGGTCTGACATTTACAGAGGTGGAGAATCTTTACTTTCTAAAGAACA
 TTAATGATGTGGACACTGCATTGAGTTTTTACCATATGGCTGGAGCATCTTTGATAAAGTGACCATGCA
 GCAGGTGGCCAGGACAGTGGCTAAAGTGGAGCTCAGACCACGTGTGATGTGGTGTTCAGACTCTTT
 GACTGTGATGGCAATGGCGAACTGAGCAATAAGGAATTTGTTTCCATCATGAAGCAACGGCTGATGAGAG
 GCCTGGAAAAGCCCAAAGACATGGGTTTCACTCGCCTCATGCAGGCCATGTGAAATGTGCACAGGAAAC
 TGCCTGGGACTTCGCTTTACCCAAACAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC230839 representing NM_001195518
 Red=Cloning site Green=Tags(s)

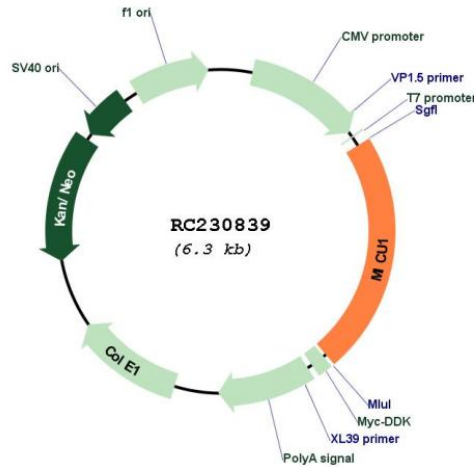
MFRLNSLSALAEAVGSRWYHGGSQPIQIRRLMMVAFLGASAVTASTGLLWKRAHAESPPCVDNLKSDI
 GDKGKNKDEGDVCNHEKKTADLAPHPEEKKKRSGFRDRKVMYENRIRAYSTPDKIFRYFATLKVISEP
 GEAEVFMTPEDFVRSITPNEKQPEHLGLDQYIIKRFDGKKISQEREKFADEGSIFYTLGECGLISFSDYI
 FLTTVLSTPQRNFEIAFKMFDLNGDGEVDMEEFEQVQSIIRSQTSMGMRHRDRPTTGNTLKSGLCSALTT
 YFFGADLKGLTIKNFLEFQRKLQHDVLEFERHDPVDGRITERQFGMMLLAYSQVQSKKLTAMQRQLK
 KHFKEGKGLTFQEVENFFTLKNINDVDTALSFYHMAGASLDKVTMQQVARTVAKVELSDHVCDVVFALF
 DCDGNGELSNKEFVSIKQRLMRGLEKPKDMGFTRLMQAMWKAQETAWDFALPKQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Plasmid Map:

ACCN:

NM_001195518

ORF Size:

1428 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_001195518.2](#)

RefSeq ORF: 1431 bp

Locus ID: 10367

UniProt ID: [Q9BPX6](#)

Cytogenetics: 10q22.1

MW: 54.8 kDa

Gene Summary: This gene encodes an essential regulator of mitochondrial Ca²⁺ uptake under basal conditions. The encoded protein interacts with the mitochondrial calcium uniporter, a mitochondrial inner membrane Ca²⁺ channel, and is essential in preventing mitochondrial Ca²⁺ overload, which can cause excessive production of reactive oxygen species and cell stress. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Mar 2013]