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Product datasheet for RC200921

CBARA1 (MICU1) (NM_006077) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CBARA1 (MICU1) (NM_006077) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CBARA1
Synonyms:	ara CALC; CALC; CBARA1; EFHA3; MPXPS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC200921 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTTTCGTCTGAACTCACTTTCTGCTTTGGCAGAACTGGCTGTGGGTTCTCGATGGTACCATGGAGGAT
CACAGCCCATCCAGATCCGGCGAAGACTAATGATGGTGGCTTTCCTGGGAGCATCTGCAGTAACTGCAAG
TACTGGTCTTTTGTGGAAGAGGGCCCATGCAGAATCTCCACCATGTGTAGACAACCTAAAAAGTGACATC
GGTGATAAAGGGAAGAATAAAGATGAAGGGGATGTTTGTAACCATGAGAAAAAGACTGCAGATCTTGCCC
CTCACCCAGAAGAGAAAAAGAAGAAACGTTCTGGATTCAGAGACAGAAAAGTGATGGAATATGAGAATAG
GATTCGAGCCTACTCCACGCCAGACAAAATCTTCCGATATTTTGCCACCTTGAAAGTCATCAGTGAGCCT
GGTGAAGCAGAAGTGTTTATGACACCAGAAGATTTTGTGCGATCCATAACACCCAATGAAAAACAACCAG
AACACTTGGGTCTGGATCAATATATAATAAAACGCTTTGATGGAAAGAAAATTTCCCAGGAACGAGAAAA
ATTTGCTGATGAAGGCAGTATATTTTACACCCTTGGAGAATGTGGGCTCATATCCTTTTCAGACTACATT
TTCCTCACAACTGTTCTTTCCACTCCTCAGAGAAATTTTGAAATTGCCTTCAAGATGTTTGATTTGAATG
GAGATGGAGAAGTAGATATGGAAGAATTTGAACAGGTTCAGAGCATCATTCGCTCCCAAACCAGTATGGG
TATGCGCCACAGAGATCGTCCAACTACTGGCAACACCCTCAAGTCTGGCTTGTGTTCAGCCCTCACAACC
TACTTTTTTGGAGCTGATCTGAAGGGAAAGCTGACAATCAAAAACTTCCTCGAATTTCAGCGTAAACTGC
AGCATGATGTTCTGAAGCTTGAGTTTGAACGCCATGACCCTGTGGATGGGAGAATTACTGAGAGGCAGTT
TGGTGGCATGCTACTTGCCTACAGTGGGGTGCAGTCCAAGAAGCTGACCGCCATGCAGAGGCAGCTCAAG
AAGCACTTCAAAGAAGGAAAGGGTCTGACATTTCAGGAGGTGGAGAACTTCTTTACTTTCCTAAAGAACA
TTAATGATGTGGACACTGCATTGAGTTTTTACCATATGGCTGGAGCATCTCTTGATAAAGTGACCATGCA
GCAGGTGGCCAGGACAGTGGCTAAAGTGGAGCTCTCAGACCACGTGTGTGATGTGGTGTTTGCACTCTTT
GACTGTGATGGCAATGGCGAACTGAGCAATAAGGAATTTGTTTCCATCATGAAGCAACGGCTGATGAGAG
GCCTGGAAAAGCCCAAAGACATGGGTTTCACTCGCCTCATGCAGGCCATGTGGAAATGTGCACAGGAAAC
TGCCTGGGACTTCGCTTTACCCAAACAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC200921 protein sequence
Red=Cloning site Green=Tags(s)

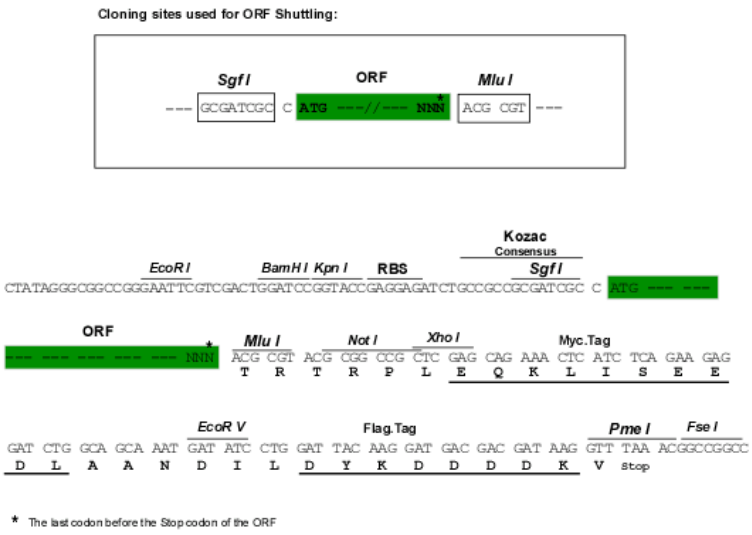
MFRLNSLSALAELAVGSRWYHGGSQPIQIRRRLMMVAFLGASAVTASTGLLWKRAHAESPPCVDNLKSDI
GDKGKNKDEGDVCNHEKKTADLAPHPEEKKKKRSGFRDRKVMEYENRIRAYSTPDKIFRYFATLKVISEP
GEAEVFMTPEDFVRSITPNEKQPEHLGLDQYIIKRFDGKKISQEREKFADEGSIFYTLGECGLISFSDYI
FLTTVLSTPQRNFEIAFKMFDLNGDGEVDMEEFEQVQSIIRSQTSMGMRHRDRPTTGNTLKSGLCSALTT
YFFGADLKGKLTIKNFLEFQRKLQHDVLKLEFERHDPVDGRITERQFGGMLLAYSGVQSKKLTAMQRQLK
KHFKEGKGLTFQEVENFFTFLKNINDVDTALSFYHMAGASLDKVTMQQVARTVAKVELSDHVCDVVFALF
DCDGNGELSNKEFVSIMKQRLMRGLEKPKDMGFTRLMQAMWKCAQETAWDFALPKQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6669_g12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006077

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_006077.3

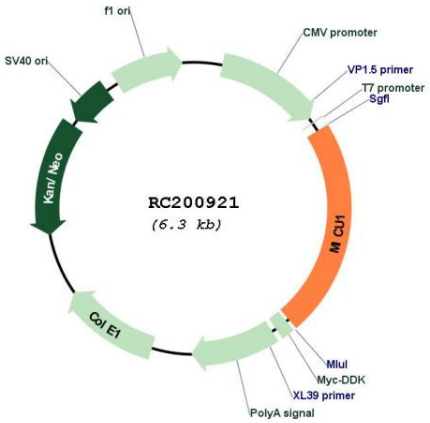
RefSeq Size: 2506 bp

RefSeq ORF: 1437 bp

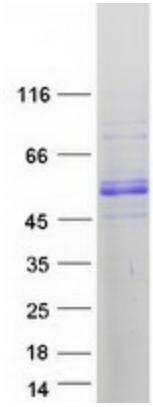
Locus ID: 10367

UniProt ID:	Q9BPX6
Cytogenetics:	10q22.1
Domains:	EFh
MW:	54.4 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]

Product images:



Circular map for RC200921



Coomassie blue staining of purified MICU1 protein (Cat# [TP300921]). The protein was produced from HEK293T cells transfected with MICU1 cDNA clone (Cat# RC200921) using MegaTran 2.0 (Cat# [TT210002]).