

Product datasheet for **RG231119**

CBARA1 (MICU1) (NM_001195519) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CBARA1 (MICU1) (NM_001195519) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MICU1
Synonyms:	ara CALC; CALC; CBARA1; EFHA3; MPXPS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG231119 representing NM_001195519 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAAAGAATATATACTTACAGACGGGCCAAGGAGATCTCAAGGACACTCCTAAAGCTCCTCAGAGAA
ATTTTGAATTCCTTCAAGATGTTTGATTTGAATGGAGATGGAGAAGTAGATATGGAAGAATTTGAACA
GGTTCAGAGCATCATTGCTCCCAACCAGTATGGGTATGCGCCACAGAGATCGTCCAACACTGGCAAC
ACCCTCAAGTCTGGCTTGTGTTAGCCCTCACAACTACTTTTTGGAGCTGATCTGAAGGAAAGCTGA
CAATCAAAAACCTCCTCGAATTTAGCGTAAACTGCAGCATGATGTTCTGAAGCTTGAGTTGAACGCCA
TGACCCTGTGGATGGGAGAATTACTGAGAGGCAGTTTGGTGGCATGCTACTTGCCTACAGTGGGGTGCAG
TCCAAGAAGCTGACCGCCATGCAGAGGCAGCTCAAGAAGCACTTCAAAGAAGGAAAGGGTCTGACATTT
AGGAGGTGGAGAACTTCTTTACTTTCTAAAGAACATTAATGATGTGGACTGCATTGAGTTTTACCA
TATGGCTGGAGCATCTCTTGATAAAGTGACCATGCAGCAGGTGGCCAGGACAGTGGCTAAAGTGGAGCTC
TCAGACCACGTGTGTGATGTGGTGTGCACTCTTACTGTGATGGCAATGGCGAAGTGAACAATAGG
AATTTGTTCCATCATGAAGCAACGGCTGATGAGAGGCCTGGAAGCCCAAGACATGGGTTTCACTCG
CCTCATGCAGGCCATGTGAAATGTGCACAGGAACTGCCTGGGACTTCGCTTTACCCAAACAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG231119 representing NM_001195519
 Red=Cloning site Green=Tags(s)

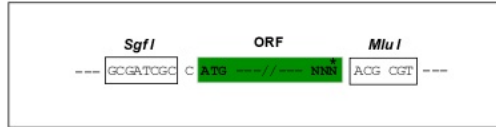
MKRIYTYRRAKEIFKDTPKAPQRNFEIAFKMFDLNGDGEVDMEEFEQVQSIIRSQTSMGMRHRDRPTTGN
 TLKSG LCSALTYFFGADLKGKLTIKNFLEFQRKLQHDV LKLEFERHDPVDGRITERQFGGMLLAYSGVQ
 SKKLTAMQRQLKKHFKEGKGLTFQEVENFFTLKNINDVDTALSFYHMAGASLDKVTMQQVARTVAKVEL
 SDHVCDVVFALFDCDNGELSNKEFVSIKQRLMRGLEKPKDMGFTRLMQAMWKAQETA WDFALPKQ

TRTRPLE - GFP Tag - V

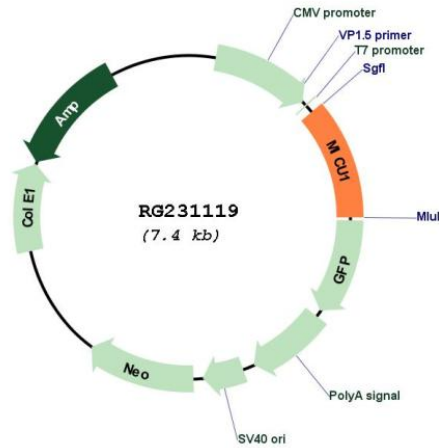
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_001195519

ORF Size: 834 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:	<ol style="list-style-type: none">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_001195519.1 , NP_001182448.1
RefSeq Size:	1850 bp
RefSeq ORF:	837 bp
Locus ID:	10367
UniProt ID:	Q9BPX6
Cytogenetics:	10q22.1
Gene Summary:	This gene encodes an essential regulator of mitochondrial Ca ²⁺ uptake under basal conditions. The encoded protein interacts with the mitochondrial calcium uniporter, a mitochondrial inner membrane Ca ²⁺ channel, and is essential in preventing mitochondrial Ca ²⁺ 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]