

Product datasheet for **RG204696**

CASQ1 (NM_001231) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CASQ1 (NM_001231) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CASQ1
Synonyms:	CASQ; PDIB1; VMCQA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG204696 representing NM_001231 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGGCCCAGAGCTGTGCCGGTCTGCGGCTGGCACTGCTGTTGCTGCTGGTGCTAGGGACACCCAAGT
CAGGGGTACAGGGGCAGGAAGGGCTGGACTTCCCTGAGTACGATGGTGTGGACCGTGATCAATGTCAA
TGCAAAGAAGTACAAGAATGTGTTCAAGAAGTATGAGGTGCTGGCACTCCTCTACCATGAACCCCCGAG
GATGACAAGGCCCTACAAAGACAATTTGAGATGGAGGAGCTGATCCTGGAGTTAGCAGCCCAAGTCTTAG
AAGACAAGGGTGTGGCTTCGGGCTGGTAGACTCTGAGAAGGATGCAGCTGTGGCCAAGAACTAGGCCT
AACTGAAGTGGACAGCATGTATGTATTCAAGGGAGATGAAGTCATTGAGTACGATGGCGAGTTTTCTGCT
GACACCATCGTGGAGTTTCTGCTTGATGTCTTAGAGGACCTGTGGAATTGATTGAAGGTGAACGAGAGC
TGCAGGCGTTTGAGAATATTGAGGATGAGATCAAACCTATTGGCTACTTCAAGAGCAAAGACTCAGAGCA
TTACAAAGCCTTCGAGGATGCAGCTGAGGAGTTTCATCCCTACATCCCCTTCTTCGCCACCTTCGACAGC
AAGGTGGCAAAGAAGCTGACCCTGAAGCTGAATGAGATTGATTTCTACGAGGCCTTCATGGAAGAGCCTG
TGACCATCCCAGACAAGCCCAATAGCGAAGAGGAGATTGTCAACTTCGTGGAGGAGCACAGGAGATCAAC
CCTGAGGAAACTGAAGCCGGAGAGTATGTATGAGACCTGGGAGGATGATATGGATGGAATCCACATTGTG
GCCTTCGAGAGGAAGCTGATCCTGATGGTTTCGAGTTCTTAGAGACTCTCAAGGCTGTGGCCCAAGATA
ACACTGAAAACCCAGATCTTAGCATCATCTGGATTGACCCTGATGACTTCCCCCTGCTGGTCCCATACTG
GGAGAAGACGTTTGACATCGACTTGTGACGCCCCACAAATAGGAGTCGTCAATGTTACTGATGCGGATAGC
GTATGGATGGAATGGACGATGAGGAGGACCTGCCTTCTGCTGAGGAGCTGGAGGACTGGCTGGAGGATG
TCCTGGAGGGCGAGATCAACACAGAGGACGATGACGATGATGATGATGAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA


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Protein Sequence: >RG204696 representing NM_001231
 Red=Cloning site Green=Tags(s)

MGPRAVPGLRLALLLLVLGTPKSGVQGGQEGLDPEYDGVDRVINVNAKNYKNVFKKYEVLLALLYHEPPE
 DDKASQRQFEMEELILELAAQVLEDKGVGFLVDSEKDAAVAKKLGLTEVDSMYVFKGDEVIEYDGEFSA
 DTIVEFLLDVLEDPVELIEGERELQAFENIEDEIKLIGYFKSKDSEHYKAFEDAAEEFHPYIPFFATFDS
 KVAKKLTLLKNEIDFYEAFFMEEPVTIPDKPNSEEEIVNFVEEHRRSTLRKLKPESMYETWEDDMGHIHIV
 AFEEADPDGFEFLETLKAVAQDNTENPDLSIIWIDPDDFPLLVPYWEKTFDIDLAPQIGVVNVTDADS
 VWMEMDDEEDLPAAELEDWLEDVLEGEINTEDDDDDDDD

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_001231

ORF Size: 1170 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_001231.3](#), [NP_001222.2](#)

RefSeq Size: 1886 bp

RefSeq ORF: 1191 bp

Locus ID: 844

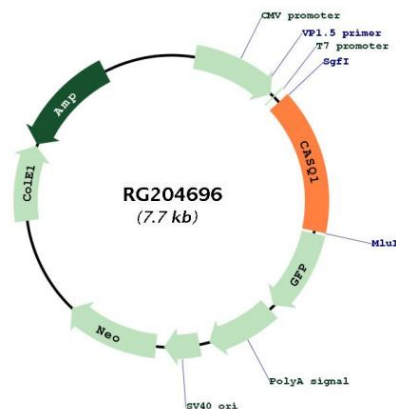
UniProt ID: [P31415](#)

Cytogenetics: 1q23.2

Domains: Calsequestrin

Gene Summary: This gene encodes the skeletal muscle specific member of the calsequestrin protein family. Calsequestrin functions as a luminal sarcoplasmic reticulum calcium sensor in both cardiac and skeletal muscle cells. This protein, also known as calmitine, functions as a calcium regulator in the mitochondria of skeletal muscle. This protein is absent in patients with Duchenne and Becker types of muscular dystrophy. [provided by RefSeq, Jun 2013]

Product images:



Circular map for RG204696