

Product datasheet for RC205398

Calreticulin 3 (CALR3) (NM_145046) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Calreticulin 3 (CALR3) (NM_145046) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Calreticulin 3
Synonyms:	CMH19; CRT2; CT93
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205398 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCCGGGCTTTGGTCCAGTTCTGGGCCATATGCATGCTGCGAGTGGCGCTGGCTACCGTCTATTTCC
AAGAGGAATTTCTAGACGGAGAGCATTGGAGAAACCGATGGTTGCAGTCCACCAATGACTCCCGATTTGG
GCATTTTAGACTTTCGTCGGCAAGTTTTATGGTCATAAAGAGAAAGATAAAGGTCTGCAAACACTCAG
AATGGCCGATTCTATGCCATCTCTGCACGTTCAAACCGTTCAGCAATAAAGGGAAAACCTGGTTATTC
AGTACACAGTAAACATGAGCAGAAGATGGACTGTGGAGGGGGCTACATTAAGGTCTTCTGCAGACAT
TGACCAGAAGAACCTGAATGGAAAATCGCAATACTATATTATGTTTGGACCCGATATTTGTGGATTTGAT
ATCAAGAAAGTTCATGTTATTTTACATTTCAAGAATAAGTATCACGAAAACAAGAACTGATCAGGTGTA
AGGTTGATGGCTTACACACCTGTACACTCTAATTTTAAAGACCAGATCTTTCTTATGATGTGAAAATTGA
TGGTCAGTCAATTGAATCCGGCAGCATAGAGTACGACTGGAACCTAACATCACTCAAGAAGGAAACGTCC
CCGGCAGAATCGAAGGATTGGGAACAGACTAAAGACAACAAGCCAGGACTGGGAGAAGCATTTTCTGG
ACGCCAGCACCAGCAAGCAGAGCGACTGGAACGGTGACCTGGATGGGGACTGGCCAGCGCCGATGCTCCA
AAGCCCCCGTACCAGGATGGCTGAAACCAGAAGGTATTCATAAAGACGCTGGCTCCACCGTAAGATG
AAGAATACCGACTATTTGACGCGATGACCTCTCAGAATTTGAGAACATTGGTGCCATTGGCTGGAGC
TTTGGCAGGTGAGATCTGGAACCATTTTTGATAACTTTCTGATCACAGATGATGAAGAGTATGCAGATAA
TTTTGGCAAGGCCACCTGGGGCGAAACCAAGGGTCCAGAAAGGGAGATGGATGCCATACAGGCCAAGGAG
GAAATGAAGAAGGCCCGCGAGGAAGAGGAGGAAGAGCTGCTGCGGGAAAAATTAACAGGCACGAACATT
ACTTCAATCAATTTACAGAAGGAATGAACTT

ACGGTACGGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC205398 protein sequence
Red=Cloning site Green=Tags(s)

MARALVQFWAICMLRVALATVYFQEEFLDGEHWRNRWLQSTNDSRFGHFRLSSGKFYGHKEKDKGLQTTQ
 NGRFYAISARFKPFSNKGKTLVIQYTVKHEQKMDCGGGYIKVFPADIDQKLNKGSQYYIMFGPDICGFD
 IKKVHVILHFKNKYHENKKLIRCKVDGFTHLYTLILRPDLSDYDKIDGQSIESGSIEYDWNLTSLKKETS
 PAESKDWEQTKDNKAQDWEKHFLLDASTSKQSDWNGDLGDWPAPMLQKPPYQDGLKPEGIHKDVWLHRKM
 KNTDYLTYQYDLSEFENIGAIGLELWQVRSGLIFDNFLITDDEEYADNFGKATWGKETKGPEREMDAIQAKE
 EMKKAREEEEEELLSGKINRHEHYFNQFHRRNEL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6027_f09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_145046

ORF Size: 1152 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_145046.2](#), [NP_659483.1](#)

RefSeq Size: 1295 bp

RefSeq ORF: 1155 bp

Locus ID: 125972

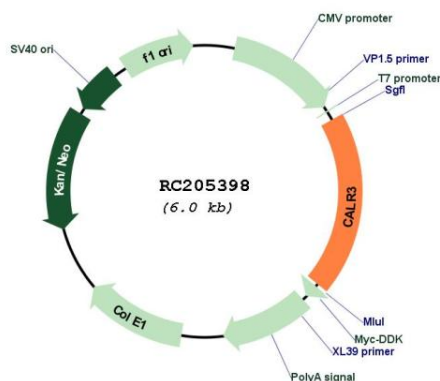
UniProt ID: [Q96L12](#)

Cytogenetics: 19p13.11

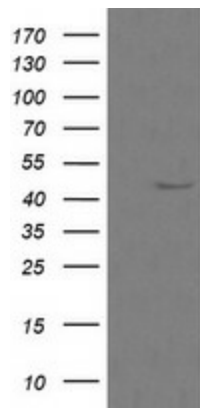
MW: 45 kDa

Gene Summary: The protein encoded by this gene belongs to the calreticulin family, members of which are calcium-binding chaperones localized mainly in the endoplasmic reticulum. This protein is also localized to the endoplasmic reticulum lumen, however, its capacity for calcium-binding may be absent or much lower than other family members. This gene is specifically expressed in the testis, and may be required for sperm fertility. Mutation in this gene has been associated with familial hypertrophic cardiomyopathy. [provided by RefSeq, Dec 2011]

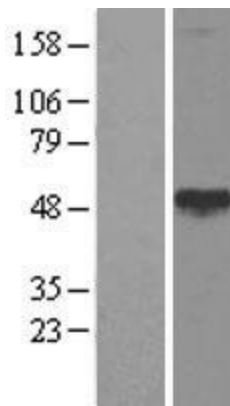
Product images:



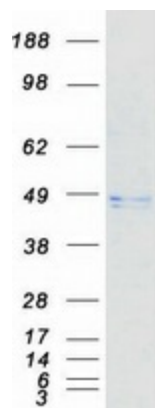
Circular map for RC205398



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CALR3 (Cat# RC205398, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CALR3(Cat# [TA505886]). Positive lysates [LY403418] (100ug) and [LC403418] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY403418]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205398 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CALR3 protein (Cat# [TP305398]). The protein was produced from HEK293T cells transfected with CALR3 cDNA clone (Cat# RC205398) using MegaTran 2.0 (Cat# [TT210002]).