

Product datasheet for **RG203222**

Calreticulin (CALR) (NM_004343) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Calreticulin (CALR) (NM_004343) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Calreticulin
Synonyms:	cC1qR; CRT; HEL-S-99n; RO; SSA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG203222 representing NM_004343 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTGCTATCCGTGCCGCTGCTGCTCGGCCTCCTCGGCCTGGCCGTGCCGAGCCTGCCGTCTACTTCA
AGGAGCAGTTTCTGGACGGAGACGGGTGGACTTCCCGCTGGATCGAATCCAAACACAAGTCAGATTTTGG
CAAATTCGTTCTCAGTTCGGCAAGTTCTACGGTGACGAGGAGAAAGATAAAGGTTTGCAGACAAGCCAG
GATGCACGCTTTATGCTCTGTCCGCCAGTTTCGAGCCTTTCAGCAACAAAGCCAGACGCTGGTGGTGC
AGTTCACGGTGAACATGAGCAGAACATCGACTGTGGGGCGGCTATGTGAAGCTGTTTCCCTAATAGTTT
GGACCAGACAGACATGCACGGAGACTCAGAATACAACATCATGTTTGGTCCCAGACATCTGTGGCCCTGGC
ACCAAGAAGGTTTCATGTCATCTTCAACTACAAGGCAAGAACGTGCTGATCAACAAGGACATCCGTTGCA
AGGATGATGAGTTTACACACCTGTACACACTGATTGTGCGGCCAGACAACACCTATGAGGTGAAGATTGA
CAACAGCCAGGTGGAGTCCGGCTCCTTGGAAAGACGATTGGGACTTCTGCCACCCAAGAAGATAAAGGAT
CCTGATGCTTCAAACCGGAAGACTGGGATGAGCGGGCCAAGATCGATGATCCCACAGACTCCAAGCCTG
AGGACTGGGACAAGCCCGAGCATATCCCTGACCCTGATGCTAAGAAGCCCGAGGACTGGGATGAAGAGAT
GGACGGAGAGTGGGAACCCCAAGTATTGATCAGAACCCCTGAGTACAAGGGTGAAGGAGCCCGGCAGATC
GACAACCCAGATTACAAGGGCACTTGGATCCACCCAGAAATTGACAACCCCGAGTATTCTCCCGATCCCA
GTATCTATGCCTATGATAACTTTGGCGTGTGGCCTGGACCTCTGGCAGGTCAAGTCTGGCACCATCTTT
TGACAACCTTCTCATACCAACGATGAGGCATACGCTGAGGAGTTTGGCAACGAGACGTGGGGCGTAAACA
AAGGCAGCAGAGAAAATAAAGGACAAACAGGACGAGGAGCAGAGGCTTAAGGAGGAGGAAGAAGACA
AGAAACGCAAAGAGGAGGAGGAGGACAGAGGACAAGGAGGATGTGAGGACAAAGATGAGGATGAGGAGGA
TGAGGAGGACAAGGAGGAAGATGAGGAGGAAGATGTCCCGGCCAGGCCAAGGACGAGCTG

ACGGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG203222 representing NM_004343
 Red=Cloning site Green=Tags(s)

MLLSVPLLLGLLGLAVAEPVYFKEQFLDGDGWTSRWIESKHKSDFGKFVLSGKFGDEEKDKGLQTSQ
 DARFYALSASFEPFSNKGQTLVVQFTVKHEQNIDCGGGYVKLFPNSLDQTMHGDSEYNIMFGPDICGPG
 TKKVHVIFNYKGNVLIINKDIRCKDDEFTHLYTLIVRPDNTYEVKIDNSQVESGSLEDDWDFLPPKKIKD
 PDASKPEDWDERAKIDDPDTSKPEDWDKPEHIPDPDAKKPEDWDEEMDGEWEPPIQNPEYKGEWKPRQI
 DNPDKGTWIHPEIDNPEYSPDPSIYAYDNFVGLGLDLWQVKSQGTIFDNFLITNDEAYAEFFGNETWGV
 KAAEKQMKDKQDEEQRLKEEEEDKKRKEEEEAEDEKEDDEKDEDEEEDKEEEDVPGQAKDEL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004343

ORF Size: 1251 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_004343.4](#)

RefSeq Size: 1899 bp

RefSeq ORF: 1254 bp

Locus ID: 811

UniProt ID: [P27797](#)

Cytogenetics: 19p13.13

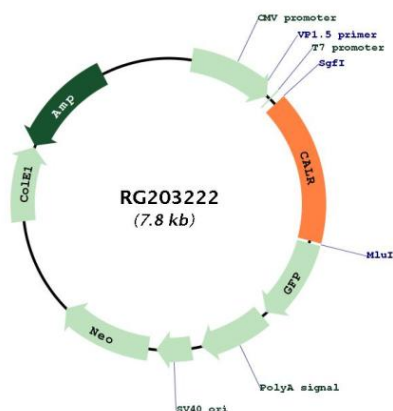
Domains: calreticulin

Protein Families: Druggable Genome, Secreted Protein, Transcription Factors

Protein Pathways: Antigen processing and presentation

Gene Summary: Calreticulin is a highly conserved chaperone protein which resides primarily in the endoplasmic reticulum, and is involved in a variety of cellular processes, among them, cell adhesion. Additionally, it functions in protein folding quality control and calcium homeostasis. Calreticulin is also found in the nucleus, suggesting that it may have a role in transcription regulation. Systemic lupus erythematosus is associated with increased autoantibody titers against calreticulin. Recurrent mutations in calreticulin have been linked to various neoplasms, including the myeloproliferative type.[provided by RefSeq, May 2020]

Product images:



Circular map for RG203222