

## Product datasheet for **SC320287**

### Calreticulin (CALR) (NM\_004343) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Calreticulin (CALR) (NM_004343) Human Untagged Clone
Tag:	Tag Free
Symbol:	Calreticulin
Synonyms:	cC1qR; CRT; HEL-S-99n; RO; SSA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_004343.2  
 GCACGAGGGCAGAGCCGCTGCCGGAGGGTCGTTTTAAAGGGCCCGCGTTCGCCCCCC  
 TCGGCCCGCCATGCTGCTATCCGTGCCGCTGCTGCTCGGCCTCCTCGGCCTGGCCGTCG  
 CGAGCCTGCCGTACTTCAAGGAGCAGTTTCTGGACGGAGACGGGTGGACTTCCCGCTG  
 GATCGAATCCAAACACAAGTCAGATTTTGGCAAATTCGTTCTCAGTTCGGCAAGTTCTA  
 CGGTGACGAGGAGAAAAGATAAAGTTTGCAGACAAGCCAGGATGCACGCTTTTATGCTCT  
 GTCGGCCAGTTTTCGAGCCTTTCAGCAACAAGGCCAGACGCTGGTGGTGCAGTTACCGT  
 GAAACATGAGCAGAACATCGACTGTGGGGCGGCTATGTGAAGCTGTTTCCCTAATAGTTT  
 GGACCAGACAGACATGCACGGAGACTCAGAATACAACATCATGTTTGGTCCCAGACATCTG  
 TGGCCCTGGCACCAAGAAGTTTCATGTCATCTTCAACTACAAGGGCAAGAACGTGCTGAT  
 CAACAAGGACATCCGTTGCAAGGATGATGAGTTTACACACCTGTACACACTGATTGTGCG  
 GCCAGACAACACCTATGAGGTGAAGATTGACAACAGCCAGGTGGAGTCCGGCTCCTTGG  
 AGACGATTGGGACTTCTGCCACCAAGAAGATAAAGGATCCTGATGCTTCAAACCGGA  
 AGACTGGGATGAGCGGGCAAGATCGATGATCCCACAGACTCAAAGCCTGAGGACTGGGA  
 CAAGCCCAGCATATCCCTGACCCTGATGCTAAGAAGCCGAGGACTGGGATGAAGAGAT  
 GGACGGAGAGTGGGAACCCCAAGTATTGATCAGAACCCTGAGTACAAGGGTGAAGAGCC  
 CCGGCAGATCGACAACCCAGATTACAAGGGCACTTGGATCCACCCAGAAATTGACAACCC  
 CGAGTATTCTCCCGATCCAGTATCTATGCCTATGATAACTTTGGCGTGTGGCCCTGGA  
 CCTCTGGCAGGTCAAGTCTGGCACCATCTTTGACAACCTCCTCATACCAACGATGAGGC  
 ATACGCTGAGGAGTTTGGCAACGAGACGTGGGGCGTAACAAGGCAGCAGAGAAACAAAT  
 GAAGGACAAACAGGACGAGGAGCAGAGGCTTAAAGGAGGAGGAAGAAGACAAGAAACGAA  
 AGAGGAGGAGGAGGACAGAGGACAAGGAGGATGATGAGGACAAAGATGAGGATGAGGAGGA  
 TGAGGAGGACAAGGAGGAAGATGAGGAGGAAGATGTCCCGGCCAGGCCAAGGACGAGCT  
 GTAGAGAGGCCTGCCTCCAGGGCTGGACTGAGGCCTGAGCGCTCCTGCCGACAGAGCTGGC  
 CGCGCCAATAATGTCTCTGTGAGACTCGAGAACTTTCATTTTTTTTCCAGGCTGGTTCGG  
 ATTTGGGGTGGATTTTGGTTTTTGTTCCTCCTCCACTCTCCCCACCCCTCCCCGCC  
 TTTTTTTTTTTTTTTTTTAACTGGTATTTTATCTTTGATTCTCCTTCAGCCCTCACCC  
 CTGTTCTCATCTTTCTGATCAACATCTTTCTTGCCTCTGTCCCCTTCTCATCTCT  
 TAGCTCCCCTCCAACCTGGGGGACAGTGGTGTGGAGAAGCCACAGGCCTGAGATTTATC  
 TGCTCTCCTTCTGGAGCCAGAGGAGGCAGCAGAAGGGGTGGTGTCTCAACCCCC  
 AGCACTGAGGAAGAACGGGGCTTCTCATTTCACCCCTCCCTTCTCCCCTGCCCCAG  
 GACTGGGCCACTTCTGGGTGGGGCAGTGGTCCCAGATTGGCTCACACTGAGAATGTAAG  
 AACTACAAACAAAATTTCTATTAATAAATTTTGTGTCTCAAAAAAAAAAAAAAAAAA

**Restriction Sites:** Please inquire

**ACCN:** NM\_004343

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_004343.2</a> , <a href="#">NP_004334.1</a>
<b>RefSeq Size:</b>	1899 bp
<b>RefSeq ORF:</b>	1254 bp
<b>Locus ID:</b>	811
<b>UniProt ID:</b>	<a href="#">P27797</a>
<b>Cytogenetics:</b>	19p13.13
<b>Domains:</b>	calreticulin
<b>Protein Families:</b>	Druggable Genome, Secreted Protein, Transcription Factors
<b>Protein Pathways:</b>	Antigen processing and presentation
<b>Gene Summary:</b>	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]