

Product datasheet for **TA336669**

Calreticulin (CALR) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, IHC, Simple Western, WB
Recommended Dilution:	Immunocytochemistry/ Immunofluorescence: 1:20-1:100, Immunohistochemistry-Frozen, Immunohistochemistry: 1:20, Immunohistochemistry-Paraffin: 1:20, Western Blot: 1:1000-1:10000, Simple Western: 1:500, Knockdown Validated: 1:2500, Knockout Validated
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	A full-length protein to mouse Calreticulin [UniProt# P14211]
Formulation:	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Whole antisera
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	55 kDa
Gene Name:	calreticulin
Database Link:	NP_004334 Entrez Gene 12317 Mouse Entrez Gene 811 Human P27797



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Background:

Calreticulin (CRT) is a ubiquitous multifunctional calcium-binding protein which attaches to the surface of cells and implicates in signal transduction events associated with innate immunity, cell adhesion, and apoptosis. Because CRT lacks a trans-membrane domain, CD91 (LDLR-related protein 1) has been proposed as a candidate anchoring receptor for this protein. CRT is mainly localized in ER lumen, cytoplasmic granules as well as in sarcoplasmic reticulum lumen as a monomer where it forms a component of an EIF2 complex (CELF1/CUGBP1, CALR, CALR3, EIF2S1, EIF2S2, HSP90B1 and HSPA5) and interacts with GABARAP, NR3C1, PDIA3/Erp57, TRIM21 etc. CRT is a calcium-binding chaperone that promotes folding, oligomeric assembly and quality control in ER via the calreticulin/calnexin cycle. It interacts with DNA-binding domain of NR3C1 for facilitating its nuclear export. CRT is involved in maternal gene expression regulation and participates in oocyte maturation via regulation of calcium homeostasis. In immune system, cell surface CRT (csCRT) serves as the signal-transducing receptor for collectin family proteins which binds to foreign organisms or apoptotic cells through their globular heads, while their collagen-like tails bind to csCRT, which leads to phagocytosis. CRT located in the cytoplasm, at the cell membrane and extracellular matrix functions in many physiological processes, such as cell adhesion, phagocytosis, and tumor recognition.

Synonyms:

cC1qR; CRT; HEL-S-99n; RO; SSA

Note:

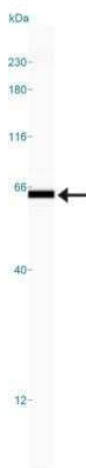
This Calreticulin antibody is useful for Western blot, where a band at ~55 kDa is seen. Note that Calreticulin has several reported isoforms that range from 48-62 kDa. ICC data from customer review.

Protein Families:

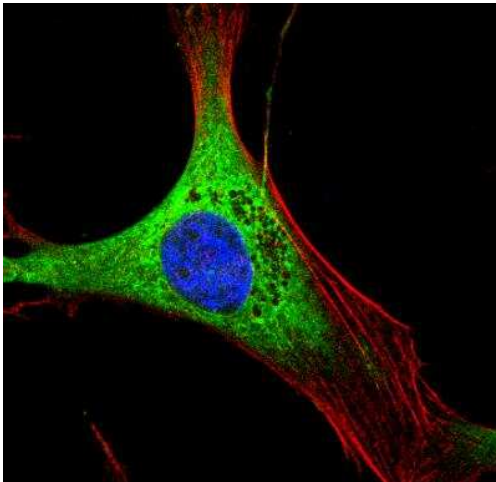
Druggable Genome, Secreted Protein, Transcription Factors

Protein Pathways:

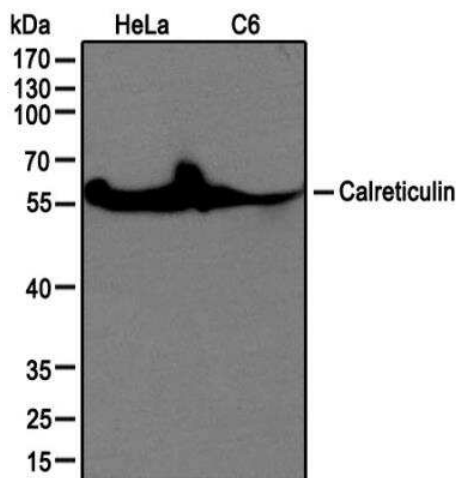
Antigen processing and presentation

Product images:

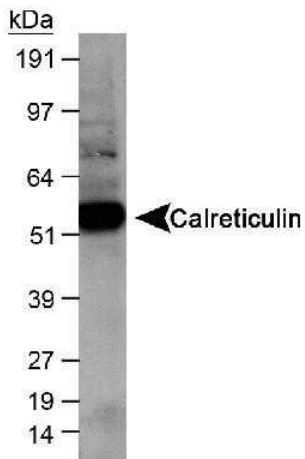
Simple Western: Calreticulin Antibody TA336669 - Lane view shows a specific band for Calreticulin in 0.2 mg/ml of HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



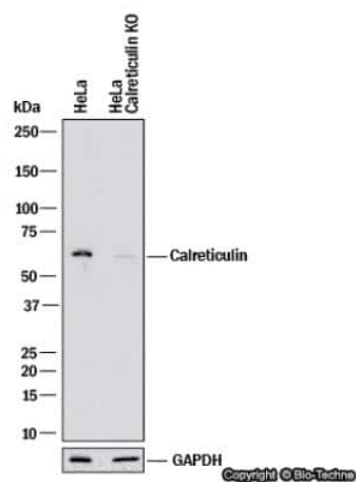
Immunocytochemistry/Immunofluorescence: Calreticulin Antibody TA336669 - IF Confocal analysis of 3T3 cells using Calreticulin antibody (TA336669, 1:20). An Alexa Fluor 488-conjugated Goat to rabbit IgG was used as secondary antibody (green). Actin filaments were labeled with Alexa Fluor 568 phalloidin (red). DAPI was used to stain the cell nuclei (blue).



Western Blot: Calreticulin Antibody TA336669 - Analysis of HeLa and C6 cell lysate using calreticulin antibody at 1:1000.



Western Blot: Calreticulin Antibody TA336669 - Detection of calreticulin in human kidney lysate using TA336669 at 1:1,000. ECL exposure, 10 seconds.



Knockout Validated: Calreticulin Antibody TA336669 - Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line and Calreticulin knockout (KO) HeLa cell line. PVDF membrane was probed with 1:2500 of Rabbit Anti-Human Calreticulin Polyclonal Antibody (Catalog # TA336669) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog #HAF008). Specific band was detected for Calreticulin at approximately 55 kDa (as indicated) in the parental HeLa cell line, but is not detectable in the knockout HeLa cell line. This experiment was conducted under reducing conditions.