

Product datasheet for **TA336667**

Calreticulin (CALR) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	Block/Neutralize, Dot, Electron Microscopy, FC, ICC/IF, IHC, IP, Protein Array, Simple Western, WB
Recommended Dilution:	Protein Array, Immunoprecipitation, Flow Cytometry, Knockdown Validated: 1:1500, Western Blot: 1:1000, Simple Western: 1:50, Immunohistochemistry: 1:50 - 1:200, Immunohistochemistry-Paraffin: 1:50 - 1:200, Immunocytochemistry/ Immunofluorescence: 1:50-1:250, Block/Neutralize, Dot Blot, Electron Microscopy
Reactivity:	Human, Mouse, Rat, Bovine, Hamster, Primate
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	A fusion protein to mouse Calreticulin [UniProt# P14211]
Formulation:	PBS, 30% glycerol, 0.1% Sodium Azide. Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Immunogen affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	calreticulin
Database Link:	NP_004334 Entrez Gene 12317 Mouse Entrez Gene 64202 Rat Entrez Gene 811 Human P27797



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Background:

Calreticulin is a multifunctional, highly conserved Ca²⁺-binding protein that is localized to the endoplasmic reticulum (ER). It is also a molecular chaperone and is involved in protein folding events in the ER. Calreticulin has also been shown to interact with the cytoskeleton and to be involved in the regulation of gene expression. Calreticulin may play a role in cellular proliferation including its apparent activity in the proliferation of certain viruses within mammalian host cells. (2-3) Recently it has been shown that calreticulin is induced in response to various types of cell stress including amino acid deprivation. (1) Close interconnections among protein synthesis, gene expression and calcium signaling have been observed by many researchers in recent years. Calreticulin might be centrally located and crucially participate in the coordination of these functions by the cell.(2-3)

Synonyms:

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

Note:

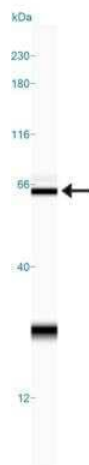
This Calreticulin antibody is useful for Immunocytochemistry/Immunofluorescence, Immunohistochemistry and Western blot, where a band is observed at ~55 kDa. Electron Microscopy, Blocking/Neutralizing, Dot Blot, Immunoprecipitation and Protein Array were reported in scientific literature.

Protein Families:

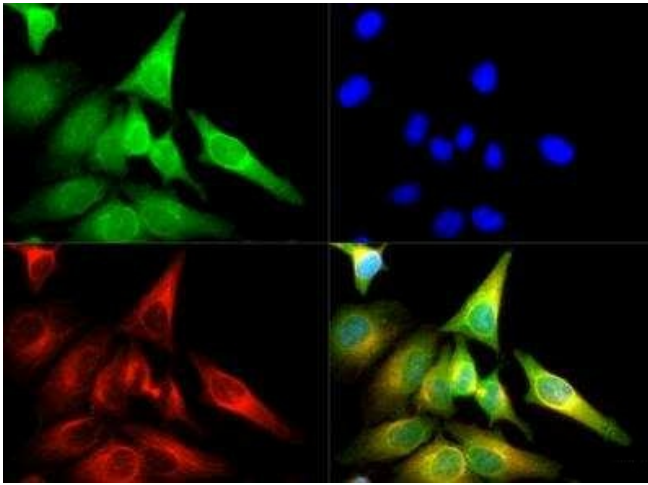
Druggable Genome, Secreted Protein, Transcription Factors

Protein Pathways:

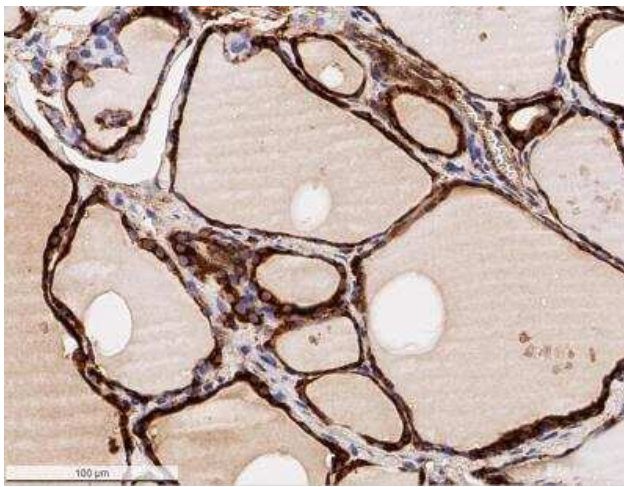
Antigen processing and presentation

Product images:

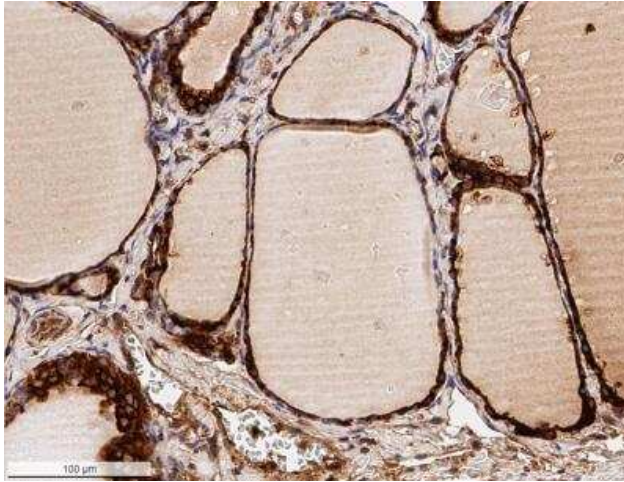
Simple Western: Calreticulin Antibody TA336667 - Lane view shows a specific band for Calreticulin in 0.5 mg/ml of HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



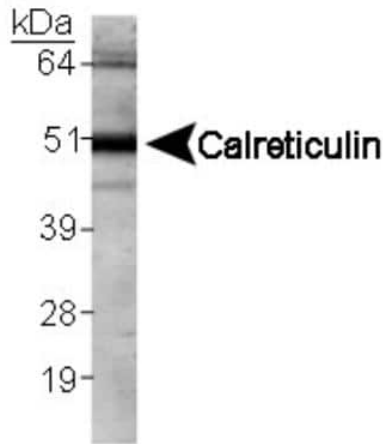
Immunocytochemistry/Immunofluorescence: Calreticulin Antibody TA336667 - The Calreticulin antibody TA336667 was tested in HeLa cells at a 1:250 dilution against DyLight 488 (Green). Alpha-tubulin and nuclei were counterstained against DyLight 550 (Red) and DAPI (Blue), respectively.



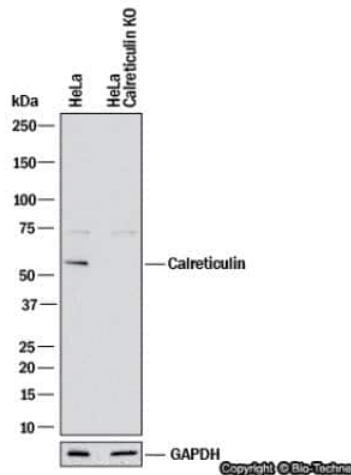
Immunohistochemistry-Paraffin: Calreticulin Antibody TA336667 - Analysis of a FFPE tissue section of human thyroid gland using 1:50 dilution of Calreticulin antibody. The signal was developed using HRP-DAB based detection method which followed counterstaining of the nuclei with hematoxylin. This representative section shows a strong positivity of Calreticulin in the follicular epithelial cells, wherein the signal was found to be very intense in the perinuclear region of the cells which correlates well with Endoplasmic reticulum localization of this protein. The para-follicular cells, endothelial cells and the loose connective tissue in the section showed a weak cytoplasmic staining. Some staining was observed in the follicles/colloids also which is potentially the secreted form of Calreticulin.



Immunohistochemistry-Paraffin: Calreticulin Antibody TA336667 - Analysis of a FFPE tissue section of human thyroid gland using 1:50 dilution of Calreticulin antibody. The signal was developed using HRP-DAB based detection method which followed counterstaining of the nuclei with hematoxylin. This representative section shows a strong positivity of Calreticulin in the follicular epithelial cells, wherein the signal was found to be very intense in the perinuclear region of the cells which correlates well with Endoplasmic reticulum localization of this protein. The para-follicular cells, endothelial cells of blood vessels (not the RBCs though) and the loose connective tissue in the section showed a weak cytoplasmic staining. Some staining was observed in the follicles/colloids also which is potentially the secreted form of Calreticulin.



Western Blot: Calreticulin Antibody TA336667 - Human kidney lysate.



Knockdown Validated: Calreticulin Antibody TA336667 - 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 1:1500 of Rabbit Anti-Human Calreticulin Polyclonal Antibody (Catalog # TA336667) 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.