

Product datasheet for **TA336776**

Calreticulin (CALR) Mouse Monoclonal Antibody [Clone ID: 1G6A7]

Product data:

Product Type:	Primary Antibodies
Clone Name:	1G6A7
Applications:	ELISA, FC, ICC/IF, IHC, WB
Recommended Dilution:	Immunohistochemistry: 1:200 - 1:1000, Immunohistochemistry-Paraffin: 1:200 - 1:1000, ELISA: 1:1000, Flow Cytometry: 1 ug/ml, Flow (Intracellular): 1 ug/ml, In vitro assay, Western Blot: 1:500 - 1:2000, Immunocytochemistry/ Immunofluorescence: 1:200 - 1:1000
Reactivity:	Human, Mouse
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	A synthetic peptide corresponding to the C-terminus (EEEDVPGQAKDELG) of human Calreticulin, conjugated to KLH. [UniProt# P27797]
Formulation:	PBS, 0.03% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Ammonium sulfate precipitation
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	48 kDa
Gene Name:	calreticulin
Database Link:	NP_004334 Entrez Gene 12317 Mouse Entrez Gene 811 Human P27797



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Background: Calreticulin is the major calcium binding protein found in smooth muscle sarcoplasmic reticulum (SR) and non-muscle endoplasmic reticulum (ER) membranes. This protein was originally identified in SR membranes and plays a minor role in calcium storage in skeletal and cardiac muscle SR. Calreticulin is also known as calregulin, CRP55, CaBP3, calsequestrin-like protein and Ro/SS-A antigen. Calreticulin binds calcium with low affinity and high capacity, however, it also exhibits a single high affinity binding site. The highly conserved sequence Lys-Asp-Glu-Leu (KDEL) is present at the C-terminus of calreticulin and other resident ER proteins including glucose regulated protein 78 (GRP78), GRP94 and protein disulfide isomerase (PDI). This sequence is responsible for the retention of newly synthesized proteins within the ER lumen. This retention is reported to be mediated by a KDEL receptor. Recent reports indicate that calreticulin can act as a modulator of the regulation of gene transcription by nuclear hormone receptors and may also act as a molecular chaperone.

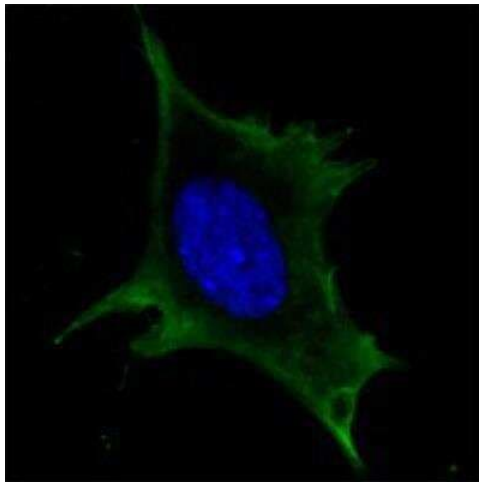
Synonyms: cC1qR; CRT; HEL-S-99n; RO; SSA

Note: This Calreticulin (1G6A7) antibody is useful in Western Blot, Immunocytochemistry/Immunofluorescence, Immunohistochemistry on paraffin-embedded sections and ELISA.

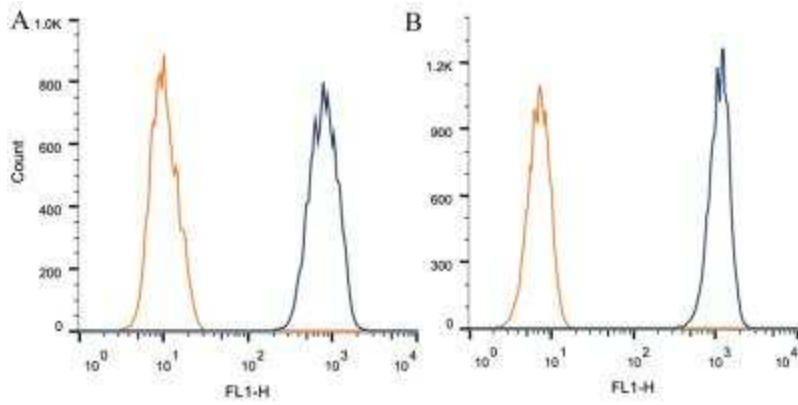
Protein Families: Druggable Genome, Secreted Protein, Transcription Factors

Protein Pathways: Antigen processing and presentation

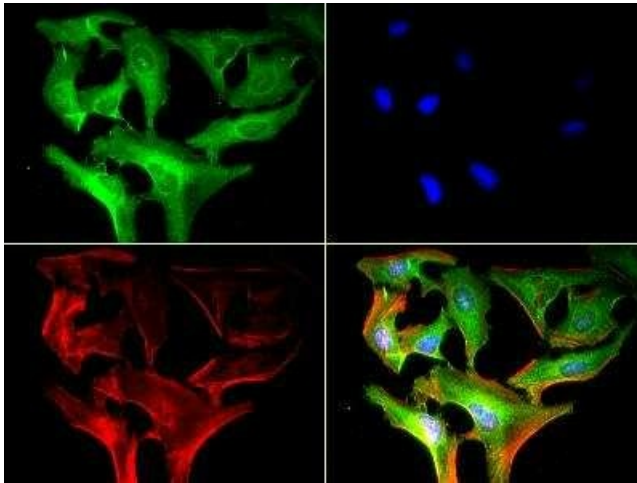
Product images:



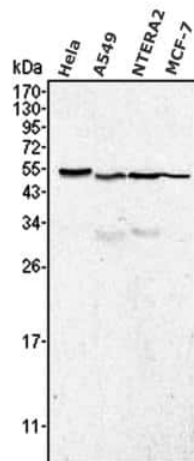
Immunocytochemistry/Immunofluorescence:
Calreticulin Antibody (1G6A7) TA336776 - Analysis
of 3T3-L1 cells using anti-Calreticulin mAb (green).
DRAQ5 fluorescent DNA dye (blue).



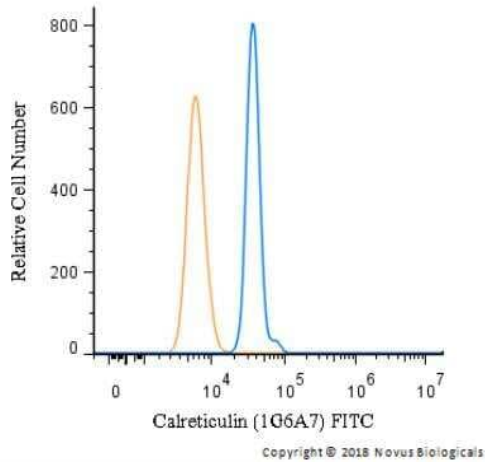
Flow (Intracellular): Calreticulin Antibody (1G6A7) TA336776 - Intracellular staining of 1×10^6 CHO (A) and HEK-293 (B) cells using Calreticulin antibody (dark blue). Isotype control shown in orange. An antibody concentration of 1 $\mu\text{g}/1 \times 10^6$ cells was used.



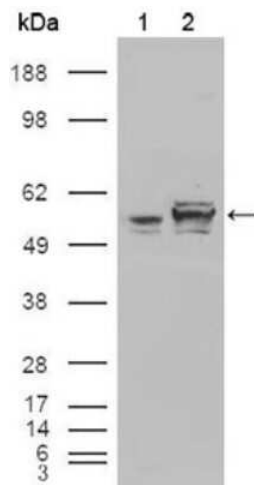
Immunocytochemistry/Immunofluorescence: Calreticulin Antibody (1G6A7) TA336776 - Antibody was tested in HeLa cells at a 1:250 against DyLight 488 (Green). Actin was counterstained against Phalloidin 568 (Red) and cells were mounted in DAPI Fluoromount (Blue).



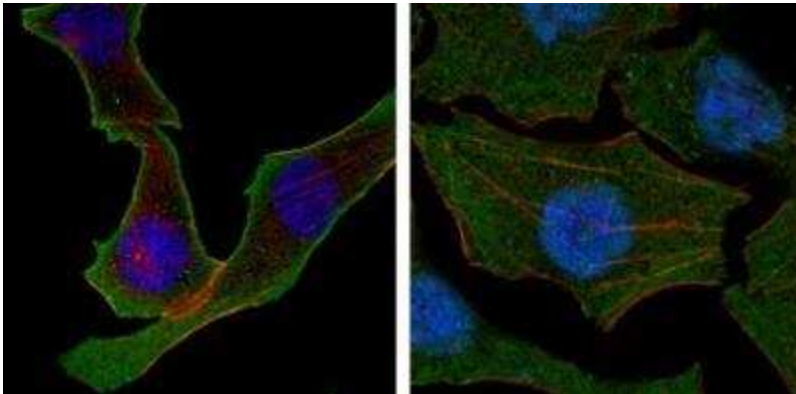
Western Blot: Calreticulin Antibody (1G6A7) TA336776 - Analysis of whole cell lysates from HeLa, A549, NTERA2 and MCF-7 using Calreticulin antibody clone 1G6A7. The antibody generated a specific band of Calreticulin protein at ~48 kDa molecular weight position.



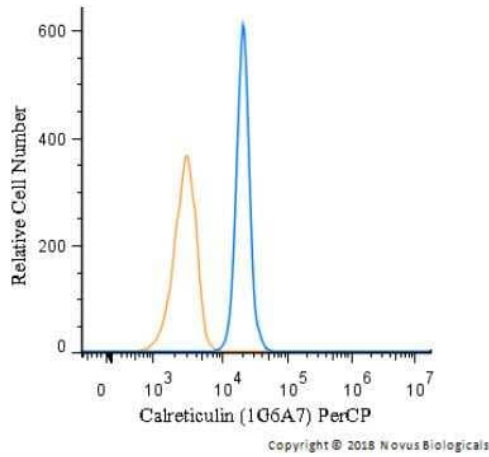
Flow (Intracellular): Calreticulin Antibody (1G6A7) TA336776 - U-937 cells stained with TA336776F (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to FITC.



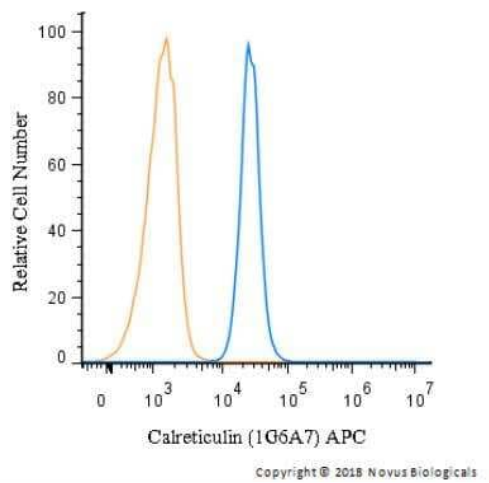
Western Blot: Calreticulin Antibody (1G6A7) TA336776 - Analysis using Calreticulin mouse mAb against HEK293T cells transfected with the pCMV6-ENTRY control (1) and pCMV6-ENTRY Calreticulin cDNA (2).



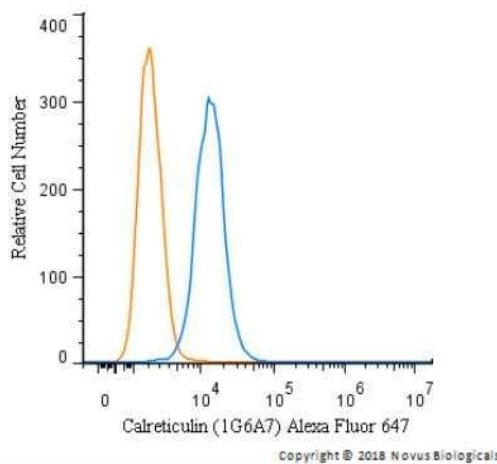
Immunocytochemistry/Immunofluorescence: Calreticulin Antibody (1G6A7) TA336776 - Analysis of SKBR-3 (left) and A549 (right) cells using anti-Calreticulin mAb (green). Actin filaments have been labeled with DY-554 phalloidin (red). DRAQ5 fluorescent DNA dye (blue).



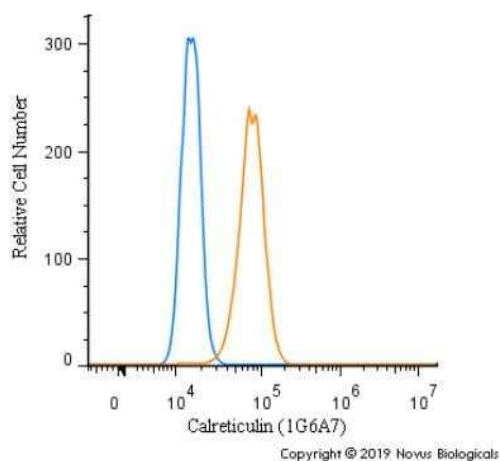
Flow (Intracellular): Calreticulin Antibody (1G6A7) TA336776 - A549 cells stained with TA336776PCP (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 10 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to PerCP.



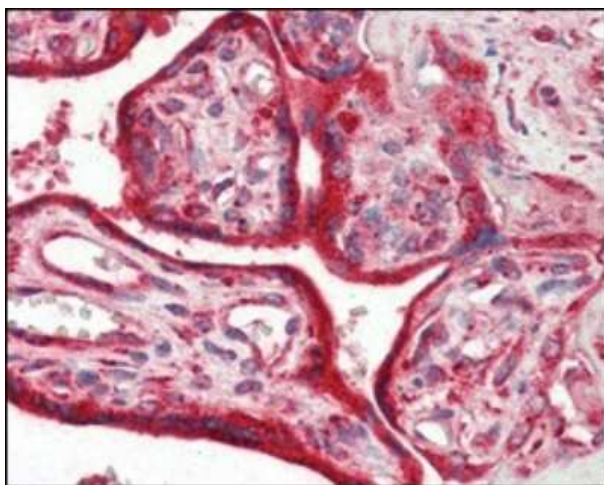
Flow (Intracellular): Calreticulin Antibody (1G6A7) TA336776 - Jurkat cells stained with TA336776APC (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to allophycocyanin.



Flow Cytometry: Calreticulin Antibody (1G6A7) TA336776 - An intracellular stain was performed on HeLa cells with Calreticulin Antibody [1G6A7] TA336776AF647 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 647.



Flow Cytometry: Calreticulin Antibody (1G6A7) TA336776 - An intracellular stain was performed on A431 cells with Calreticulin (1G6A7) Antibody TA336776 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1.0 ug/mL for 30 minutes at room temperature, followed by Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 488.



Immunohistochemistry-Paraffin: Calreticulin Antibody (1G6A7) TA336776 - Analysis of paraffin-embedded human placenta tissues using anti-Calreticulin mAb.