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Produktinformation

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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Anti-Calreticulin Antibody

Rabbit Anti-Human Calreticulin Polyclonal
Catalog No. SPC-122

StressMarq Biosciences INC.
Discovery through partnership | Excellence through quality

Overview

Product Name

Calreticulin Antibody

Description

Rabbit Anti-Human Calreticulin Polyclonal

Species Reactivity

Dog, Human, Monkey, Mouse, Rat, Bovine, Chicken, Guinea Pig (Cavia porcellus), Hamster, Pig, Rabbit, Sheep

Applications

WB, IHC, ICC/IF, IP, FCM

Antibody Dilution

WB (1:1000), IHC (1:100), ICC/IF (1:100); optimal dilutions for assays should be determined by the user.

Host Species

Rabbit

Immunogen Species

Human

Immunogen

Human calreticulin synthetic peptide with a cysteine residue added and the peptide conjugated to KLH

Concentration

1 mg/ml

Conjugates

Alkaline Phosphatase, APC, ATTO 390, ATTO 488, ATTO 565, ATTO 594, ATTO 633, ATTO 655, ATTO 680, ATTO 700, Biotin, FITC, HRP, PE/ATTO 594, PerCP, RPE, Streptavidin, Unconjugated

Properties

Storage Buffer

PBS pH7.4, 50% glycerol, 0.09% sodium azide

Storage Temperature

-20ºC

Shipping Temperature

Blue Ice or 4ºC

Purification

Peptide Affinity Purified

Clonality

Polyclonal

Specificity

Detects ~63kDa.

Cite This Product

Rabbit Anti-Human Calreticulin Polyclonal (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SPC-122)

Certificate Of Analysis

A 1:1000 dilution of SPC-122 was sufficient for detection of Calreticulin in 20 µg of HeLa cell lysate by ECL immunoblot analysis.

Biological Description

Alternative Names

CALR Antibody, Calregulin Antibody, cC1qR Antibody, CRP55 Antibody, ERp60 Antibody, HSCBP Antibody, RO Antibody, SSA Antibody, grp60 Antibody

Research Areas

Cell Signaling, Trafficking

Cellular Localization

Cytoplasm, Cell Surface, Endoplasmic Reticulum, Endoplasmic reticulum lumen, Extracellular Matrix, Sarcoplasmic Reticulum, Sarcoplasmic Reticulum Lumen

Accession Number

NP_004334.1

Gene ID

811

Swiss Prot

P27797

Scientific Background

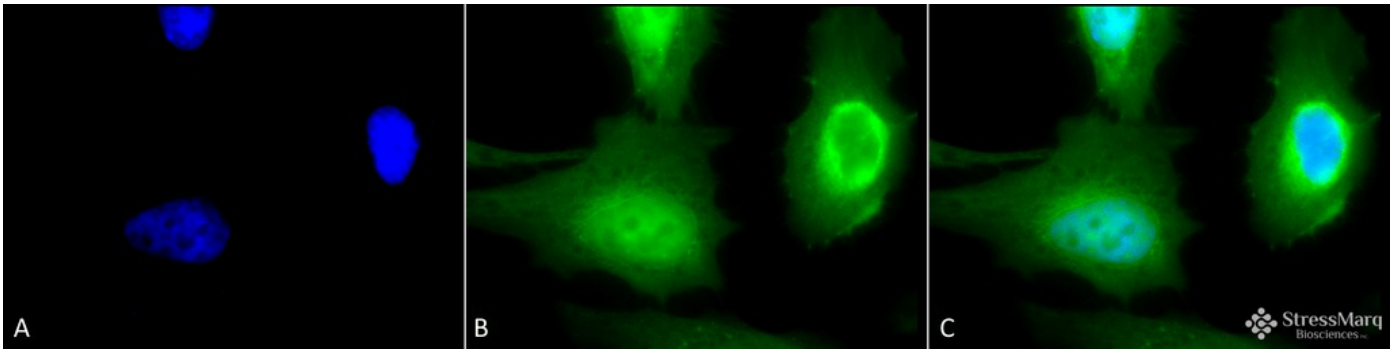
Calreticulin is a multifunctional, highly conserved Ca2+ -binding protein that is localized to the endoplasmic reticulum (ER), but has also been detected in the nucleus and nuclear envelop. Like many other ER proteins, it has the conserved ER retention KDEL (Lys-Asp-Glu-Leu) sequence at its C-terminus (1-3). CRT's three domains include a 180 residue N-terminal domain, a proline-rich P-domain (residues 189-288) that binds Ca2+ with high affinity and shares homology with calnexin (CNX) and calmegin, and a 110 residue C-terminal domain that binds Ca2+ with low affinity but high capacity (1,3). Recent studies suggest that this soluble ER protein has a multifunctional role. It appears to be involved in calcium storage and regulation as well as having a molecular chaperone activity. It has been shown to interact with the cytoskeleton and to be involved in the regulation of gene expression. Calreticulin may also play a role in cellular proliferation including its apparent activity in the proliferation of certain viruses within mammalian host cells (4, 5), and it has also been shown to be induced in response to various types of cell stress including amino acid deprivation (6). 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 therefore it crucially participates in the coordination of many functions by the cell (4, 5). Studies also suggest its involvement in a few diseases such as systemic lupus erythematosus, rheumatoid arthritis, celiac disease, complete congenital heart block, and halothane hepatitis (1).

References

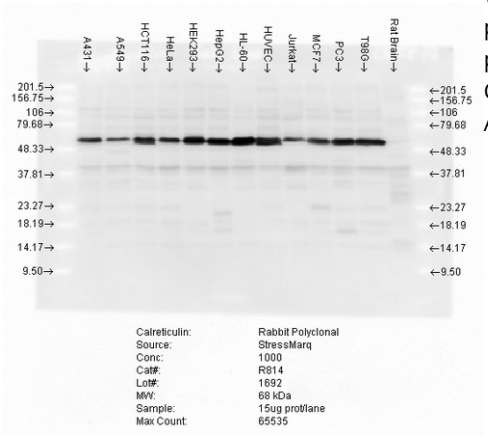
1. Johnson S., et al. (2001) Trends Cell Biol 11: 122-129.
2. Smith M.J., et al. (1989) EMBO J. 8: 3581-3586.

3. Ellgaard L., et al. (2001) Curr Opin Cell Biol. 13: 431-437.
4. Krause K.H., and Michalak M. (1997) Cell. 88: 439-443.
5. Nash P.D., et al. (1994) Mol Cell Biochem. 135: 71-78.
6. Heal R., and McGivan J. (1998) Biochem J. 329: 389-394.
7. Lucero H.A., et al. (1998) J Biol Chem. 273: 9857-9863.
8. Tanaka S., et al. (2000) J Biol Chem. 275: 10388-10393.
9. Yoon G.S., et al. (2000) Cancer Res. 60: 1117-1120.
10. Antoniou A.N., et al. (2002) Immunology 106: 182-189.
11. Wada I., et al. (1997) EMBO J. 16: 5420-5432.
12. Laguerre D.B., et al. (1998) J Vir. 72: 4940-4949.

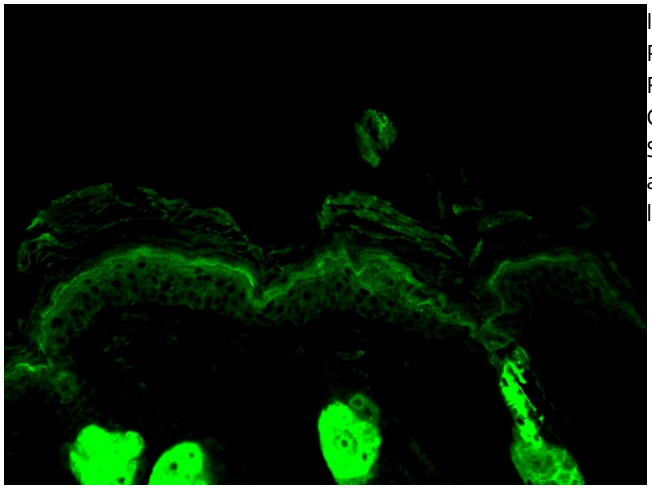
Product Images



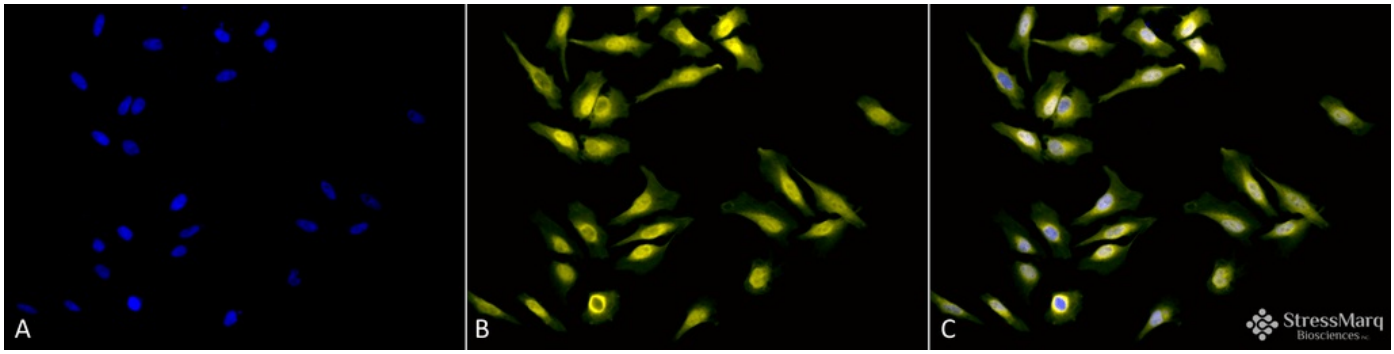
Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-Calreticulin Polyclonal Antibody (SPC-122). Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-Calreticulin Polyclonal Antibody (SPC-122) at 1:100 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Rabbit (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Endoplasmic reticulum lumen. Cytoplasm. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-Calreticulin Antibody. (C) Composite. Heat Shocked at 42°C for 1h.



Western blot analysis of multiple cell lines lysates showing detection of Calreticulin protein using Rabbit Anti-Calreticulin Polyclonal Antibody (SPC-122). Load: 15 µg protein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Rabbit Anti-Calreticulin Polyclonal Antibody (SPC-122) at 1:5000 for 2 hours at RT. Secondary Antibody: Donkey Anti-Rabbit IgG: HRP for 1 hour at RT.



Immunohistochemistry analysis using Rabbit Anti-Calreticulin Polyclonal Antibody (SPC-122). Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative Solution. Primary Antibody: Rabbit Anti-Calreticulin Polyclonal Antibody (SPC-122) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Rabbit (green) at 1:50 for 1 hour at RT. Localization: Cytoplasmic granule. Endoplasmic reticulum lumen.



Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-Calreticulin Polyclonal Antibody (SPC-122). Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-Calreticulin Polyclonal Antibody (SPC-122) at 1:100 for 12 hours at 4°C. Secondary Antibody: R-PE Goat Anti-Rabbit (yellow) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Endoplasmic reticulum lumen. Cytoplasm. Magnification: 20x. (A) DAPI (blue) nuclear stain. (B) Anti-Calreticulin Antibody. (C) Composite. Heat Shocked at 42°C for 1h.

Product Citations (6)

Western Blot

Inhibition of receptor activator of nuclear factor-?B ligand- or lipopolysaccharide-induced osteoclast formation by conophylline through downregulation of CREB.

Koide, N. et al. (2014) Immunol Lett. 161(1):31-7.

PubMed ID: 24792671 **Reactivity:** Mouse **Applications:** Western Blot

Ascorbic acid deficiency decreases hepatic cytochrome P-450, especially CYP2B1/2B2, and simultaneously induces heme oxygenase-1 gene expression in scurvy-prone ODS rats.

Kobayashi, M. et al. (2014) Biosci Biotechnol Biochem. 78(6):1060-6.

PubMed ID: 25036135 **Reactivity:** Rat **Applications:** Western Blot

Immunogenic chemotherapy with cyclophosphamide and doxorubicin against established murine carcinoma.

Tongu, M., Harashima, N., Yamada, T., Harada, T. and Harada, M. (2010) Cancer Immunol Immunother. 59 (5): 769-777.

PubMed ID: 19940990 **Reactivity:** Mouse **Applications:** Western Blot

Flow Cytometry

Independent of Plasmacytoid Dendritic Cell (pDC) infection, pDC Triggered by Virus-Infected Cells Mount Enhanced Type I IFN Responses of Different Composition as Opposed to pDC Stimulated with Free Virus.

Frenz, T. et al. (2014) J Immunol. 193(5):2496-503.

PubMed ID: 25070849 **Reactivity:** Mouse **Applications:** Flow Cytometry

Immunocytochemistry/Immunofluorescence

HIV-1 Vpu Antagonizes CD317/tetherin by Adaptor protein-1-Mediated Exclusion from Virus Assembly Sites.

Pujol, F.M. et al. (2016) J Virol. [Epub ahead of print].

PubMed ID: 27170757 **Reactivity:** Human **Applications:** Immunocytochemistry/Immunofluorescence

Nef Proteins of Epidemic HIV-1 Group O Strains Antagonize Human Tetherin.

Kluge, S.F. et al. (2014) Cell Host Microbe. 16(5):639-50.

PubMed ID: 25525794 **Reactivity:** Human **Applications:** Immunocytochemistry/Immunofluorescence

Reviews

Based on validation through cited publications.

★★★★★

StressMarq Biosciences
June 15, 2016: