

Product Datasheet

Calreticulin Antibody: FITC (orb151514)

Description

Rabbit polyclonal to Calreticulin (FITC). Calreticulin is a multifunctional, highly conserved Ca^{2+} -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). CRTs three domains include a 180 residue N-terminal domain, a proline-rich P-domain (residues 189-288) that binds Ca^{2+} with high affinity and shares homology with calnexin (CNX) and calmeglin, and a 110 residue C-terminal domain that binds Ca^{2+} 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, and it has also been shown to be induced in response to various types of cell stress including amino acid deprivation. 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. 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..

Species/Host

Rabbit

Reactivity

Bovine, Canine, Gallus, Guinea pig, Hamster, Human, Monkey, Mouse, Porcine, Rabbit, Rat, Sheep

Conjugation

FITC

Tested Applications

ICC, IF, IHC

Immunogen

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

Target

Calreticulin

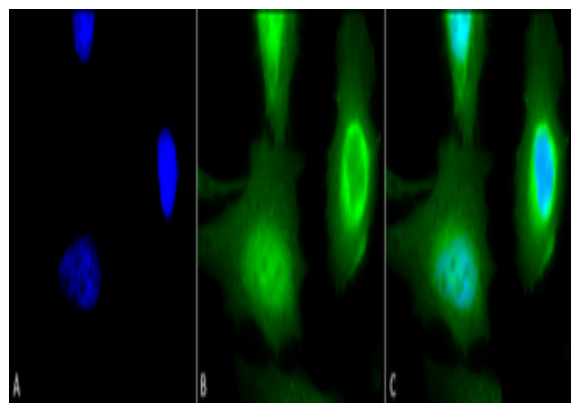
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Preservatives	640.91mM DMSO, 136.36mM Ethanolamine, and 9.09mM Sodium Bicarbonate in 90.9% PBS
Concentration	1 mg/ml
Storage	Conjugated antibodies should be stored according to the product label
Note	For research use only
Application notes	A 1:1000 dilution of SPC-122 was sufficient for detection of Calreticulin in 20 µg of HeLa cell lysate by ECL immunoblot analysis.
Clonality	Polyclonal
MW	63kDa
Uniprot ID	P27797
NCBI	NP_004334.1
Entrez	811
Dilution Range	WB (1:1000), IHC (1:100), ICC/IF (1:100)
Expiration Date	12 months from date of receipt.



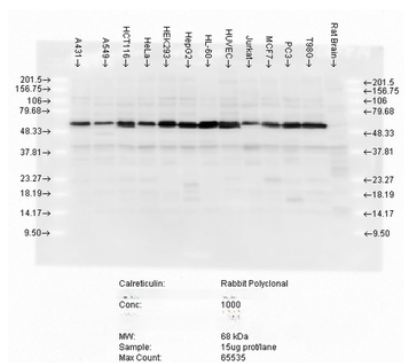
Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-Calreticulin Polyclonal Antibody. Tissue: Heat Shocked Cervical cancer cell line (HeLa). Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-Calreticulin Polyclonal Antibody at 1:100 for 12 hours at 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.

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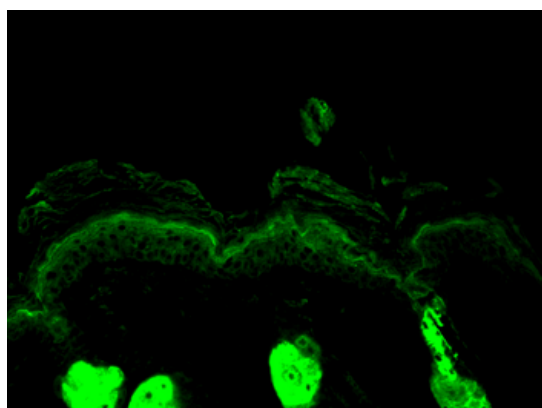
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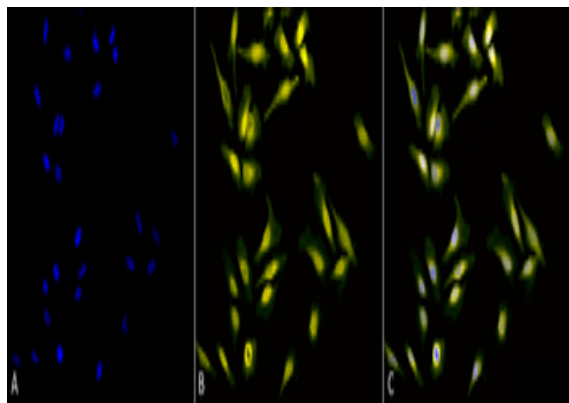
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Western blot analysis of multiple cell lines lysates showing detection of Calreticulin protein using Rabbit Anti-Calreticulin Polyclonal Antibody. Load: 15 µgprotein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Rabbit Anti-Calreticulin Polyclonal Antibody 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. Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative Solution. Primary Antibody: Rabbit Anti-Calreticulin Polyclonal Antibody 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. Tissue: Heat Shocked Cervical cancer cell line (HeLa). Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-Calreticulin Polyclonal Antibody 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.

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