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Datasheet for ABIN2486724
anti-Calreticulin antibody (Biotin)

4 Images

Overview

Quantity:	200 µL
Target:	Calreticulin (CALR)
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Calreticulin antibody is conjugated to Biotin
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunofluorescence (IF), Flow Cytometry (FACS), Immunocytochemistry (ICC)

Product Details

Immunogen:	Human calreticulin synthetic peptide with a cysteine residue added and the peptide conjugated to KLH
Specificity:	Detects ~63 kDa.
Cross-Reactivity:	Chicken, Cow, Dog, Guinea Pig, Hamster, Human, Monkey, Mouse, Pig, Rabbit, Rat, Sheep
Purification:	Peptide Affinity Purified

Target Details

Target:	Calreticulin (CALR)
Alternative Name:	Calreticulin (CALR Products)
Background:	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.

Target Details

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 calmeglin, 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).

Gene ID: 811

NCBI Accession: [NP_004334](#)

UniProt: [P27797](#)

Pathways: [Retinoic Acid Receptor Signaling Pathway](#), [Intracellular Steroid Hormone Receptor Signaling Pathway](#), [Regulation of Intracellular Steroid Hormone Receptor Signaling](#), [Nuclear Hormone Receptor Binding](#), [ER-Nucleus Signaling](#), [Unfolded Protein Response](#)

Application Details

Application Notes:

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

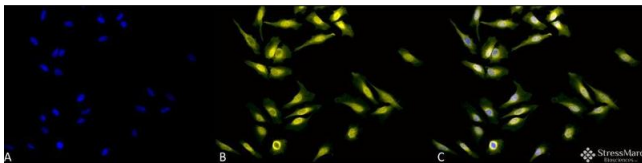
Comment: A 1:1000 dilution of ABIN2486724 was sufficient for detection of Calreticulin in 20 µg of HeLa cell lysate by ECL immunoblot analysis.

Restrictions: For Research Use only

Handling

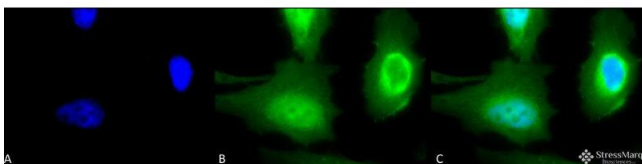
Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Conjugated antibodies should be stored at 4°C

Images



Immunofluorescence (fixed cells)

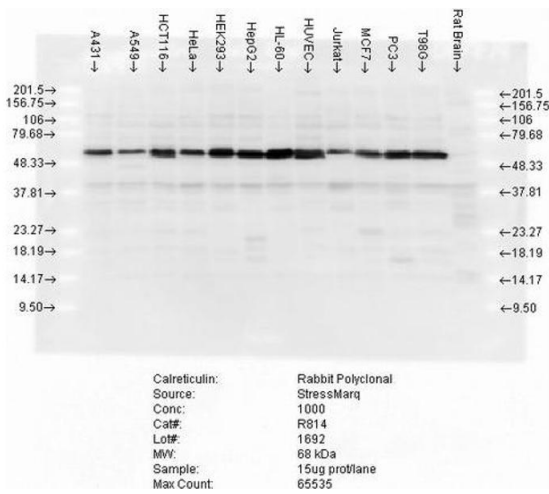
Image 1. Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-Calreticulin Polyclonal Antibody . Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-Calreticulin Polyclonal Antibody at 1:100 for 12 hours at 4°C. Secondary 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.



Immunofluorescence (fixed cells)

Image 2. Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-Calreticulin Polyclonal Antibody . Tissue: Heat Shocked HeLa Cells. 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.



Western Blotting

Image 3. Western blot analysis of multiple cell lines lysates showing detection of Calreticulin protein using Rabbit Anti-Calreticulin Polyclonal Antibody . Load: 15 µg protein. 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.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN2486724.