

Calreticulin Antibody

Rabbit Polyclonal Antibody Catalog # ABV10058

Specification

Calreticulin Antibody - Product Information

Application WB, IHC Primary Accession P27797

Reactivity Human, Mouse, Rat

Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Calculated MW 48142

Calreticulin Antibody - Additional Information

Gene ID 811

Application & Usage Western blot analysis (0.5-4 μg/ml) and in

Immunohistochemistry (10-20 μ g/ml). However, the optimal conditions should be

determined individually.

Other Names

CRP55, CRTC, CALR, Calregulin, cC1qR, ERp60, HACBP, RO, SSA,

Target/Specificity

Calreticulin

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

 $100~\mu g$ (200 $\mu g/ml)$ protein A purified antibody in PBS containing 30% glycerol, 0.5 mg/ml BSA, and 0.01% thimerosal.

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions

Precautions

Calreticulin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.



Calreticulin Antibody - Protein Information

Name CALR (HGNC:1455)

Synonyms CRTC

Function

Calcium-binding chaperone that promotes folding, oligomeric assembly and quality control in the endoplasmic reticulum (ER) via the calreticulin/calnexin cycle. This lectin interacts transiently with almost all of the monoglucosylated glycoproteins that are synthesized in the ER (PubMed:7876246). Interacts with the DNA-binding domain of NR3C1 and mediates its nuclear export (PubMed:11149926). Involved in maternal gene expression regulation. May participate in oocyte maturation via the regulation of calcium homeostasis (By similarity). Present in the cortical granules of non-activated oocytes, is exocytosed during the cortical reaction in response to oocyte activation and might participate in the block to polyspermy (By similarity).

Cellular Location

Endoplasmic reticulum lumen. Cytoplasm, cytosol. Secreted, extracellular space, extracellular matrix. Cell surface. Sarcoplasmic reticulum lumen {ECO:0000250|UniProtKB:P28491}. Cytoplasmic vesicle, secretory vesicle, Cortical granule {ECO:0000250|UniProtKB:Q8K3H7}. Cytolytic granule. Note=Also found in cell surface (T cells), cytosol and extracellular matrix (PubMed:10358038). During oocyte maturation and after parthenogenetic activation accumulates in cortical granules. In pronuclear and early cleaved embryos localizes weakly to cytoplasm around nucleus and more strongly in the region near the cortex (By similarity). In cortical granules of non-activated oocytes, is exocytosed during the cortical reaction in response to oocyte activation (By similarity). {ECO:0000250|UniProtKB:P28491, ECO:0000250|UniProtKB:Q8K3H7, ECO:0000269|PubMed:8418194}

Calreticulin Antibody - Protocols

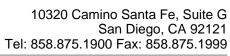
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

Calreticulin Antibody - Images

Calreticulin Antibody - Background

Calreticulin is a calcium binding protein found in abundance in the endoplasmic reticulum and the sarcoplasmic reticulum. Like many other ER proteins, it has the conserved ER retention KDEL (Lys-Asp-Glu-Leu) sequence at its C-terminus. Calreticulin has also been detected in the nucleus and nuclear envelop. Recent studies s μ ggest that this soluble ER protein has a multifunctional role as it appears to be involved in calcium storage and regulation as well as having a molecular chaperone activity. Studies also s μ ggest its involvement in certain autoimmune diseases. Consistence with its multiple functions the calreticulin molecule appears to have a zonal character.





The protein has both high and low affinity calcium binding sites.