10320 Camino Santa Fe, Suite G
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Calreticulin Antibody (Clone S75)

Mouse Monoclonal Antibody
Catalog # ABV10057

Specification

Calreticulin Antibody (Clone S75) - Product Information

Application	**WB, IHC**
Primary Accession	P27797
Reactivity	**Human, Mouse, Rat**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse IgG1**
Calculated MW	**48142**

Calreticulin Antibody (Clone S75) - Additional Information

Gene ID 811

Application & Usage	**Western blot analysis (0.5-4 µg/ml). However, the optimal conditions should be determined individually. Other applications have not been tested.**

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

Target/Specificity
Calreticulin

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µg (200 µg/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 (Clone S75) is for research use only and not for use in diagnostic or therapeutic procedures.

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Calreticulin Antibody (Clone S75) - 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 (Clone S75) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Calreticulin Antibody (Clone S75) - Images

Calreticulin Antibody (Clone S75) - 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 µggest 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 µggest its involvement in certain autoimmune diseases. Consistence with its multiple functions the calreticulin molecule appears to have a zonal character.

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