

# **KD-Validated Anti-Calreticulin Rabbit Monoclonal Antibody**

Rabbit monoclonal antibody Catalog # AGI1028

### **Specification**

### **KD-Validated Anti-Calreticulin Rabbit Monoclonal Antibody - Product Information**

Application WB, FC, ICC Primary Accession P27797

Reactivity Rat, Human, Mouse Clonality Monoclonal

Isotype Rabbit IgG

Calculated MW Predicted, 48 kDa , observed, 60 kDa KDa

Gene Name CAL

Aliases CALR; Calreticulin; Calregulin; CC1qR; SSA;

CRT; RO; Sicca Syndrome Antigen A (Autoantigen Ro; Calreticulin);

Endoplasmic Reticulum Resident Protein 60; FLJ26680; CALR1; CRP55; ERp60;

HACBP; Grp60; Epididymis Secretory Sperm Binding Protein Li 99n; Autoantigen

Ro; HEL-S-99n; CRTC

Immunogen A synthesized peptide derived from human

calreticulin

## KD-Validated Anti-Calreticulin Rabbit Monoclonal Antibody - Additional Information

Gene ID 811

**Other Names** 

Calreticulin, CRP55, Calregulin, Endoplasmic reticulum resident protein 60, ERp60, HACBP, grp60, CALR (<a href="http://www.genenames.org/cgi-bin/gene\_symbol\_report?hgnc\_id=1455" target=" blank">HGNC:1455</a>), CRTC

### **KD-Validated Anti-Calreticulin Rabbit Monoclonal 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:<a href="http://www.uniprot.org/citations/7876246" target="\_blank">7876246</a>). Interacts with the DNA-binding domain of NR3C1 and mediates its nuclear export (PubMed:<a href="http://www.uniprot.org/citations/11149926" target="\_blank">11149926</a>). 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**

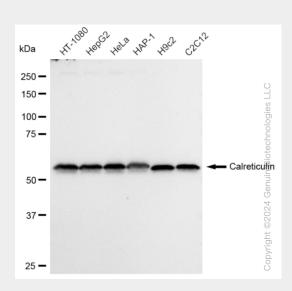
Endoplasmic reticulum lumen. Cytoplasm, cytosol. Secreted, extracellular space, extracellular matrix. Cell surface. Sarcoplasmic reticulum lumen {ECO:0000250|UniProtKB:P28491}. Cytoplasmic vesicle, secretory vesicle, Cortical granule {ECO:0000250|UniProtKB:Q8K3H7}. Cytolytic granule. Note=Also found 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}

#### KD-Validated Anti-Calreticulin Rabbit Monoclonal Antibody - Protocols

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

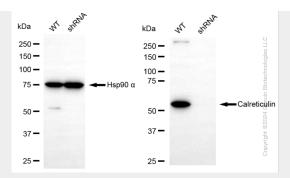
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

## KD-Validated Anti-Calreticulin Rabbit Monoclonal Antibody - Images

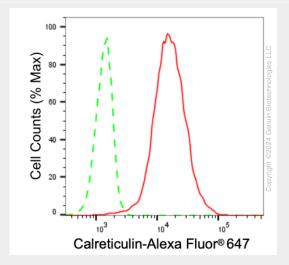


Western blotting analysis using anti-Calreticulin antibody (Cat#AGI1028). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Calreticulin antibody (Cat#AGI1028, 1:5,000) and HRP-conjugated goat anti rabbit secondary antibody respectively.

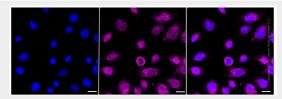




Western blotting analysis using anti-Calreticulin antibody (Cat#AGI1028). Calreticulin expression in wild type (WT) and Calreticulin shRNA knockdown (KD) HeLa cells with 30  $\mu$ g of total cell lysates.  $\beta$ -Tubulin serves as a loading control. The blot was incubated with anti-Calreticulin antibody (Cat#AGI1028, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Calreticulin expression in C2C12 cells using Calreticulin antibody (Cat#AGI1028, 1:2,000). Green, isotype control; red, Calreticulin.



Immunocytochemical staining of C2C12 cells with Calreticulin antibody (Cat#AGI1028, 1:1,000). Nuclei were stained blue with DAPI; Calreticulin was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Low. Scale bar: 20  $\mu$ m.