# Calreticulin monoclonal antibody (FMC 75) (PE conjugate)

The multifunctional, multi -compartmental protein Calreticulin (Crt) functions as a soluble molecular chaperone of new or misfolded proteins, as well as a Ca2+-binding protein. Most abundant in the ER lumen, Crt expression also occurs in other membrane-bound organelles, the cell surface, and extracellularly. Also known as CRP-55, calregulin and HACBP (high affinity calcium-binding protein), Crt contains the ER-retrieval sequence, KDEL, and is the solub le paralog of the ER membrane protein Calnexin (Cnx). Crt's three domains include a 180 residue N-terminal domain, a proline-rich Pdomainresidues 189 -288) that binds Ca2+ with high affinity and shares homology with Cnx and calmegin, and a 110 residue C-terminal domain that binds Ca2+ with low affinity but high capacity. The P-domain may interact with the co-chaperone ERp57 (Grp58), a thiol reductase. The NMR structure of the P -domain consists of an extended hairpin that appears to form a curved protrusion from the Crt core domain. Both Crt and its membrane bound homolog CNX interact with proteins and glycoproteins possessing monoglucosylated N -glycans. The Crt/Cnx cycle promotes correct folding, inhibits aggregation of folding intermediates, blocks premature oligomerization, regulates ER degradation, and prevents incompletely folded glycoproteins from exiting to the Golgi complex. Crt also appears to function as an auto-antigen in systemic lupus erythematosus, rheumatoid arthritis, celiac disease, complete congenital heart block, and halothane hepatitis. A diversity of additional functions attributed to Crt includes adhesion, blood function, and cardiac and neuronal development gene expression.

This antibody is covered by our Worry-Free Guarantee.

Citations: 17

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# **Ordering Information**

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ADI-SPA-601PE-D	50µg
ADI-SPA-601PE-F	200μg

Manuals, SDS & CofA

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### **Handling & Storage**

**Handling** Avoid freeze/thaw cycles. Protect from light.

Long Term Storage +4°C

Shipping Blue Ice

## Regulatory Status RUO - Research Use Only

### **Product Details**

Alternative Name CALR, CRT

**Application** Flow Cytometry

**Application Notes** Predicted MW of ~63kDa.

Clone FMC 75

**Formulation** Liquid. In PBS, pH 7.2, containing 0.09% sodium azide.

**Host** Mouse

**Immunogen** Recombinant calreticulin.

lsotype lgG1

Purity Detail Protein G affinity purified.

**Recommendation Dilutions/Conditions** Flow Cytometry (1:100)Suggested dilutions/conditions may

not be available for all applications. Optimal conditions must be determined individually for each application.

**Source** Purified from ascites

Species Reactivity Human, Monkey

UniProt ID P27797 (human)

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Last modified: May 29, 2024



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