

Calreticulin rabbit-FC recombinant protein

Catalog No: YD3135

Reactivity: Human;

Purity: >90% as determined by SDS-PAGE

Gene Name: Calreticulin

Protein Name: Calreticulin

Sequence: Amino acid:201-420, with rabbit FC tag.

Human Gene Id: 811

Human Swiss Prot

No:

Formulation: Phosphate-buffered solution

P27797

Source: Mammalian cells

Storage Stability: -15°C to -25°C/1 year(Avoid freeze / thaw cycles)

Background: Calreticulin is a multifunctional protein that acts as a major Ca(2+)-binding

(storage) protein in the lumen of the endoplasmic reticulum. It is also found in the nucleus, suggesting that it may have a role in transcription regulation. Calreticulin binds to the synthetic peptide KLGFFKR, which is almost identical to an amino acid sequence in the DNA-binding domain of the superfamily of nuclear receptors. Calreticulin binds to antibodies in certain sera of systemic lupus and Sjogren patients which contain anti-Ro/SSA antibodies, it is highly conserved among species, and it is located in the endoplasmic and sarcoplasmic reticulum where it may bind calcium. The amino terminus of calreticulin interacts with the DNA-binding domain of the glucocorticoid receptor and prevents the receptor from binding to its specific glucocorticoid response element. Calreticulin can inhibit the

binding of androgen receptor to its

Function: caution: Was originally (PubMed:2332496) thought to be the 52 kDa Ro

autoantigen.,domain:Associates with PDIA3 through the tip of the extended arm formed by the P-domain.,domain:Can be divided into a N-terminal globular domain, a proline-rich P-domain forming an elongated arm-like structure and a C-terminal acidic domain. The P-domain binds one molecule of calcium with high

1/2



affinity, whereas the acidic C-domain binds multiple calcium ions with low affinity.,domain:The interaction with glycans occurs through a binding site in the globular lectin domain.,domain:The zinc binding sites are localized to the N-domain.,function:Molecular calcium binding chaperone promoting folding, oligomeric assembly and quality control in the ER via the calreticulin/calnexin cycle. This lectin interacts transiently with almost all of the monoglucosylated glycoproteins that are synthesized in the ER. Interacts

Subcellular Location:

Endoplasmic reticulum lumen . Cytoplasm, cytosol . Secreted, extracellular space, extracellular matrix . Cell surface . Sarcoplasmic reticulum lumen . Cytoplasmic vesicle, secretory vesicle, Cortical granule . Cytolytic granule . 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).

Expression:

Brain, Cajal-Retzius cell, Colon carcinoma, Eye, Fetal brain cortex, Keratinocyte, Liver, Pancreas

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