Product Name: Calregulin Rabbit Polyclonal Antibody
Catalog #: APRab07874

Summary

Production Name	Calregulin Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IF,IHC,WB,
Reactivity	Human,Mouse,Rat,Monkey

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	CALR
Alternative Names	CALR; CRTC; Calreticulin; CRP55; Calregulin; Endoplasmic reticulum resident protein 60; ERp60; HACBP; grp60
Gene ID	811.0
SwissProt ID	P27797.The antiserum was produced against synthesized peptide derived from human CALR. AA range:21-70

Application

Dilution Ratio	WB 1:500 - 1:2000 IHC-p 1:100-500;IF ICC 1:100-500;ELISA 1:5000-20000
Molecular Weight	48kD

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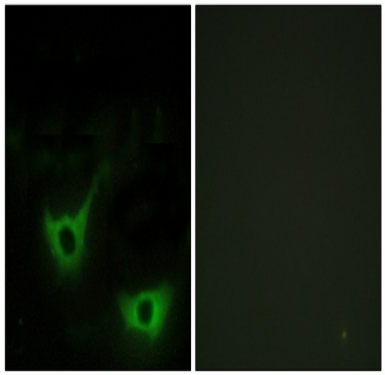
Background

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 itscaution: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 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 with the DNA-binding domain of NR3C1 and mediates its nuclear export.,mass spectrometry: PubMed:11149926,online information:Calreticulin,online information:Calreticulin entry,similarity:Belongs to the calreticulin family.,subcellular location:Also found in cell surface (T cells), cytosol and extracellular matrix. Associated with the lytic granules in the cytolytic T-lymphocytes.,subunit:Monomer. Component of an EIF2 complex at least composed of CUGBP1, CALR, CALR3, EIF2S1, EIF2S2, HSP90B1 and HSPA5. Interacts with PDIA3/ERp57 and with NR3C1.,

Research Area

Antigen processing and presentation;

Image Data



Immunofluorescence analysis of NIH/3T3 cells, using CALR Antibody. The picture on the right is blocked with the synthesized

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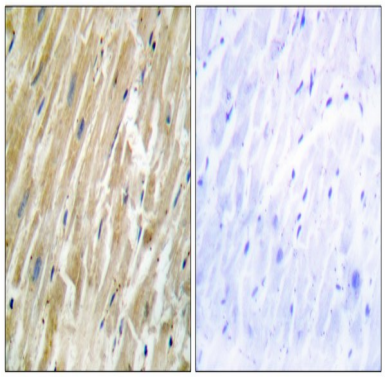
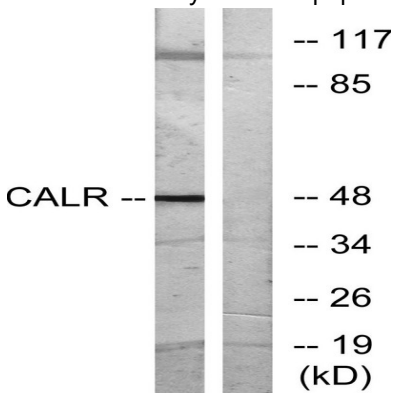
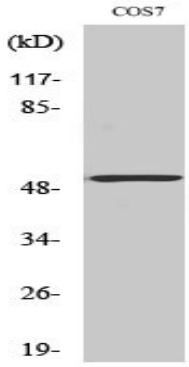
peptide.



Immunohistochemistry analysis of paraffin-embedded human heart tissue, using CALR Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from COS7 cells, using CALR Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using Calregulin Polyclonal Antibody

Note

For research use only.