

Product datasheet

Anti-Calreticulin antibody ab18847

Overview

Product name	Anti-Calreticulin antibody
Description	Rabbit polyclonal to Calreticulin
Host species	Rabbit
Specificity	Recognizes a 60 kDa calreticulin on SDS-PAGE immunoblots. Jurkat cell lysate can be used as a positive control.
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide corresponding to Human Calreticulin (C terminal). Database link: P27797
General notes	<p>This product is manufactured by BioVision, an Abcam company and was previously called 3077 Calreticulin Antibody. 3077-100 is the same size as the 100 µg size of ab18847.</p> <p>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 suggest 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 suggest its involvement in certain autoimmune diseases. Consistence with its multiple functions the calreticulin molecule appears to have a zonal character. The protein has both high and low affinity calcium binding sites.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Thimerosal (merthiolate) Constituents: 30% Glycerol (glycerin, glycerine), 0.5% BSA, 69% PBS
Purity	Affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab18847 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 0.5 - 4 µg/ml.

Target

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.

Sequence similarities

Belongs to the calreticulin family.

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. The interaction with glycans occurs through a binding site in the globular lectin domain. The zinc binding sites are localized to the N-domain. Associates with PDIA3 through the tip of the extended arm formed by the P-domain.

Cellular localization

Endoplasmic reticulum lumen. Cytoplasm > cytosol. Secreted > extracellular space > extracellular matrix. Cell surface. Also found in cell surface (T cells), cytosol and extracellular matrix. Associated with the lytic granules in the cytolytic T-lymphocytes.

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