abcam

Product datasheet

Anti-Calreticulin antibody [EPR3925] - ER Marker ab108395

Recombinant RabMAb

1 References 4 Images

Overview

Product name	Anti-Calreticulin antibody [EPR3925] - ER Marker
Description	Rabbit monoclonal [EPR3925] to Calreticulin - ER Marker
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF **Unsuitable for:** Flow Cyt or IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	A synthetic peptide corresponding to residues in Human Calreticulin.
Positive control	WB: Fetal brain, fetal kidney, and NIH 3T3 cell lysates IHC-P: Human thyroid gland tissue ICC/IF: HeLa cells
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information see here. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	PBS 49%,Sodium azide 0.01%,Glycerol 50%,BSA 0.05%
Purity	Tissue culture supernatant
Clonality	Monoclonal

Clone number	EPR3925
Isotype	IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab108395 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		1/1000 - 1/10000. Detects a band of approximately 55 kDa (predicted molecular weight: 48 kDa).
IHC-P		1/100 - 1/250. Perform antigen retrieval before commencing with IHC staining protocol.
ICC/IF		1/100 - 1/250.

Application notes Is unsuitable for Flow Cyt or IP.

Target

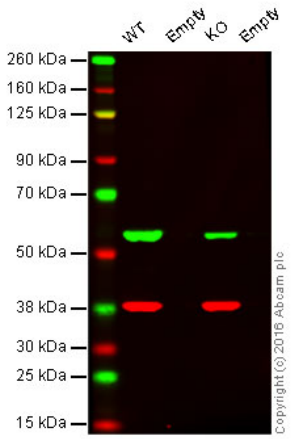
Function Molecular calcium-binding chaperone promoting folding, oligomeric assembly and quality control in the ER via the calreticulin/calnexin cycle. This lectin interacts transiently with almost all of the monoglucosylated glycoproteins that are synthesized in the ER. Interacts with the DNA-binding 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.

Images

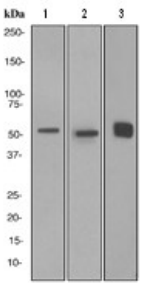


Western blot - Anti-Calreticulin antibody [EPR3925] - ER Marker (ab108395)

Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: Calreticulin knockout HAP1 cell lysate (20 µg)

Lanes 1 - 2: Merged (red and green) signal. Green - ab108395 observed at 55 kDa. Red - loading control, ab8245, observed at 37 kDa.

ab108395 was shown not to specifically react with Calreticulin, when Calreticulin knockout samples were used. Wild-type and Calreticulin knockout samples were subjected to SDS-PAGE. ab108395 and ab8245 (loading control to GAPDH) were diluted at 1/1000 and 1/10000 respectively and incubated overnight at 4°C. Blots were developed with goat anti-rabbit IgG (H + L) and goat anti-mouse IgG (H + L) secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



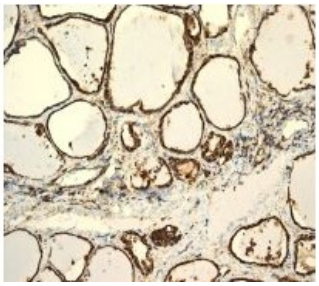
Western blot - Anti-Calreticulin antibody [EPR3925] - ER Marker (ab108395)

All lanes : Anti-Calreticulin antibody [EPR3925] - ER Marker (ab108395) at 1/1000 dilution

Lane 1 : Fetal brain
Lane 2 : Fetal kidney
Lane 3 : NIH 3T3 cell lysates

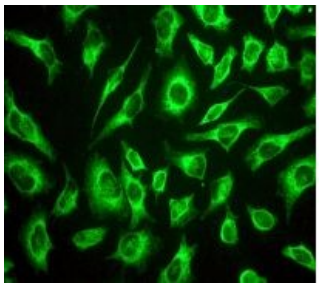
Lysates/proteins at 10 µg per lane.

Predicted band size: 48 kDa
Observed band size: 55 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calreticulin antibody [EPR3925] - ER Marker (ab108395)

Immunohistochemical staining of Calreticulin in paraffin embedded Human thyroid gland tissue, using ab108395 at a 1/100 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-Calreticulin antibody [EPR3925] - ER Marker (ab108395)

Immunofluorescent staining of Calreticulin in HeLa cells, using ab108395 at a 1/100 dilution.

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors