

Product datasheet

# Anti-Calreticulin antibody [EPR3924] - ER Marker (HRP) ab195511

**KO VALIDATED** Recombinant RabMAb<sup>®</sup>

3 Images

Overview

<b>Product name</b>	Anti-Calreticulin antibody [EPR3924] - ER Marker (HRP)
<b>Description</b>	Rabbit monoclonal [EPR3924] to Calreticulin - ER Marker (HRP)
<b>Host species</b>	Rabbit
<b>Conjugation</b>	HRP
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat 
<b>Immunogen</b>	Synthetic peptide within Human Calreticulin aa 50-150. The exact sequence is proprietary. (Peptide available as <a href="#">ab180826</a> )
<b>Positive control</b>	WB: HepG2 and HeLa whole cell lysates. Human Fetal Brain tissue lysate. IHC-P: FFPE human normal kidney tissue sections.
<b>General notes</b>	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> For more information <a href="#">see here</a> .  Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a> .

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C. Store In the Dark.
<b>Storage buffer</b>	pH: 7.4 Preservative: 0.1% Proclin Constituents: PBS, 30% Glycerol, 1% BSA

<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR3924
<b>Isotype</b>	IgG

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab195511** 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		1/5000. Detects a band of approximately 55 kDa (predicted molecular weight: 48 kDa).
IHC-P		1/250 - 1/500. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

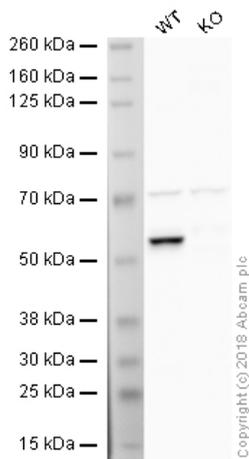
## Target

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<b>Function</b>	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.
<b>Sequence similarities</b>	Belongs to the calreticulin family.
<b>Domain</b>	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.
<b>Cellular localization</b>	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

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Western blot - Anti-Calreticulin antibody [EPR3924]  
 - ER Marker (HRP) (ab195511)

**All lanes :** Anti-Calreticulin antibody [EPR3924] - ER Marker (HRP) (ab195511) at 1/5000 dilution

**Lane 1 :** Wild-type HAP1 whole cell lysate

**Lane 2 :** CALR knockout HAP1 whole cell lysate

Lysates/proteins at 20 µg per lane.

Developed using the ECL technique.

Performed under reducing conditions.

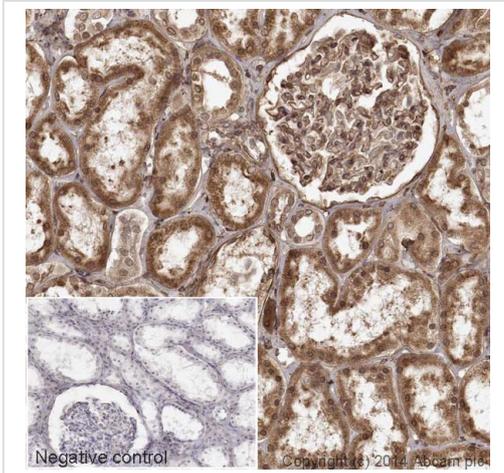
**Predicted band size:** 48 kDa

**Observed band size:** 55 kDa

[why is the actual band size different from the predicted?](#)

**Exposure time:** 90 seconds

ab195511 was shown to recognise Calreticulin in wild-type HAP1 cells as signal was lost at the expected MW in CALR knockout cells. Additional cross-reactive bands were observed in the wildtype and knockout cells. Wild-type and CALR knockout samples were subjected to SDS-PAGE. Ab195511 was incubated overnight at 4°C at 1/5000 dilution. Blots were developed with ECL technique.

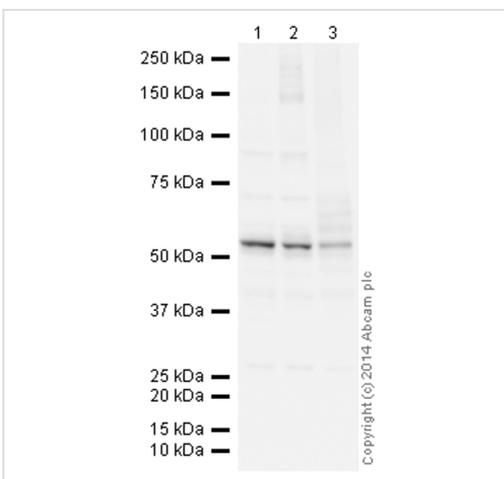


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calreticulin antibody [EPR3924] - ER Marker (HRP) (ab195511)

IHC image of Calreticulin staining in a section of formalin-fixed paraffin-embedded human normal kidney\*. The section was pre-treated using pressure cooker heat mediated antigen retrieval with sodium citrate buffer (pH6) for 30mins, and incubated overnight at +4°C with ab195511 at 1µg/ml. DAB was used as the chromogen (ab103723), diluted 1/100 and incubated for 10min at room temperature. The section was counterstained with haematoxylin and mounted with DPX. The inset negative control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

\*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre



Western blot - Anti-Calreticulin antibody [EPR3924] - ER Marker (HRP) (ab195511)

**All lanes :** Anti-Calreticulin antibody [EPR3924] - ER Marker (HRP) (ab195511) at 1/5000 dilution

**Lane 1 :** HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate

**Lane 2 :** HeLa whole cell lysate (ab150035)

**Lane 3 :** Brain (Human) Tissue Lysate - fetal normal tissue

Lysates/proteins at 10 µg per lane.

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 48 kDa

**Observed band size:** 55 kDa [why is the actual band size different from the predicted?](#)

**Exposure time:** 8 seconds

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with ab195511 overnight at 4°C. Antibody binding was visualised using ECL development solution [ab133406](#).

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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