


# Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free ab211962

敲除验证
重组
RabMAb

2 References 15 图像

## 概述

产品名称	Anti-Calreticulin抗体[EPR3924] - Low endotoxin, Azide free
描述	兔单克隆抗体[EPR3924] to Calreticulin - Low endotoxin, Azide free
宿主	Rabbit
经测试应用	适用于: WB, ICC/IF, Flow Cyt (Intra), IHC-P
种属反应性	与反应: Mouse, Rat, Human, African green monkey 预测可用于: Monkey 
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. (Peptide available as <a href="#">ab180826</a> )
阳性对照	WB: SH-SY5Y, HL-60, HepG2, HeLa, Fetal kidney and Fetal brain lysates; Human kidney tissue; Mouse and Rat brain lysates. ICC/IF: HAP1 cells (HAP1-CALR as negative cell line) IHC-P: Human colon, kidney, liver, placenta, stomach, breast carcinoma and Papillary carcinoma of thyroid gland tissues; Mouse liver and Rat lung tissues.
常规说明	<p>ab211962 is the carrier-free version of <a href="#">ab92516</a>.</p> <p>Our <b>carrier-free</b> antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <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> </ul>

- Animal-free production

For more information [see here](#).

Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb<sup>®</sup> patents](#).

Our **Low endotoxin, azide-free formats** have low endotoxin level ( $\leq 1$  EU/ml, determined by the LAL assay) and are free from azide, to achieve consistent experimental results in functional assays.

## 性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C. Do Not Freeze.
存储溶液	pH: 7.20 Constituent: PBS
无载体	是
纯度	Protein A purified
克隆	单克隆
克隆编号	EPR3924
同种型	IgG

## 应用

**The Abpromise guarantee**      **Abpromise<sup>™</sup>** 承诺保证使用 ab211962 于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度；实际最佳的稀释度/浓度应由使用者检定。

应用	Ab 评论	说明
WB		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use at an assay dependent concentration. <b>ab199376</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. The use of a HRP/AP polymerized secondary antibody is recommended for enhanced staining.

## 靶标

功能	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
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monoglucosylated glycoproteins that are synthesized in the ER. Interacts with the DNA-binding domain of NR3C1 and mediates its nuclear export.

#### 序列相似性

Belongs to the calreticulin family.

#### 结构域

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.

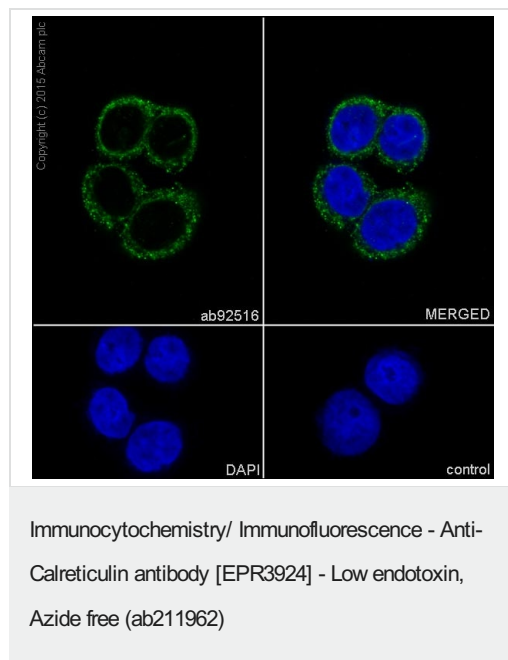
Associates with PDIA3 through the tip of the extended arm formed by the P-domain.

#### 细胞定位

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.

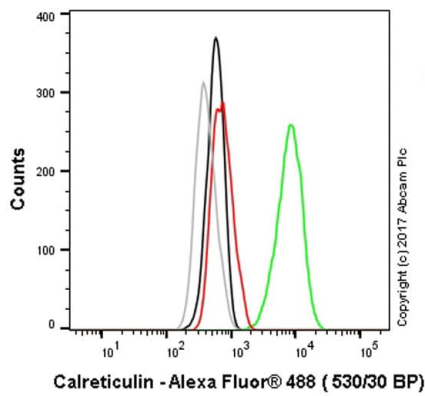
#### 图片



Immunocytochemistry/Immunofluorescence analysis of HT-29 (human colorectal adenocarcinoma) labelling Calreticulin with purified **ab92516** at 1/500. Cells were fixed with 100% methanol. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody (Ab150077). Nuclei counterstained with DAPI (blue).

Control: PBS only

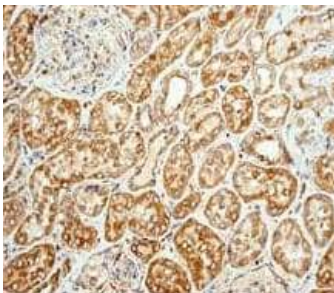
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab92516**).



Flow Cytometry (Intracellular) - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

Overlay histogram showing HAP1 wildtype (green line) and HAP1-CALR knockout cells (red line) stained with [ab92516](#). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS / 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody ([ab92516](#), 1 µg/ml) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H&L) preadsorbed ([ab150081](#)) at 1/2000 dilution for 30 min at 22°C. A rabbit IgG isotype control antibody ([ab172730](#)) was used at the same concentration and conditions as the primary antibody (HAP1 wildtype - black line, HAP1-CALR knockout - grey line). Unlabelled sample was also used as a control (this line is not shown for the purpose of simplicity). Acquisition of >5,000 events were collected using a 50 mW Blue laser (488nm) and 530/30 bandpass filter.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab92516](#)).

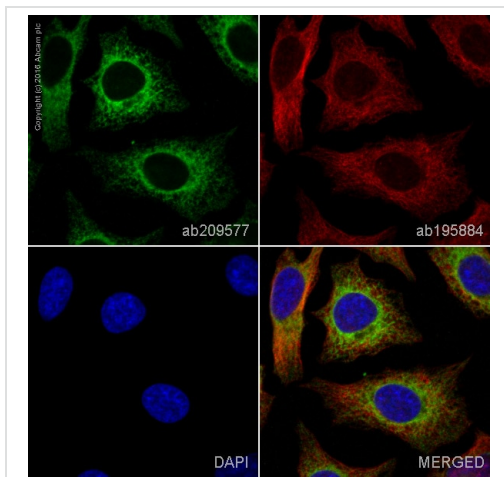


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

[ab92516](#), at 1/250 dilution, staining Calreticulin in paraffin embedded Human kidney tissue by Immunohistochemistry.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab92516](#)).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

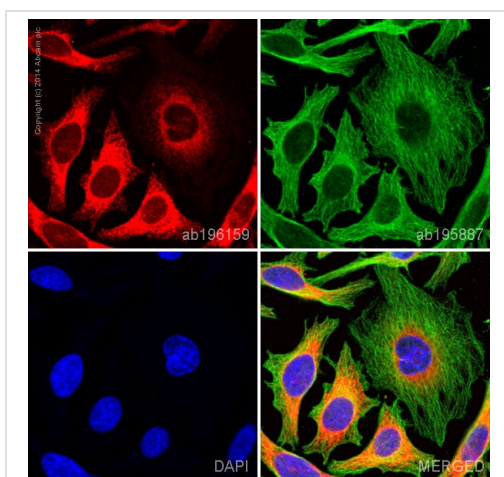


Immunocytochemistry/ Immunofluorescence - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

Clone EPR3924 (ab211962) has been successfully conjugated by Abcam. This image was generated using Anti-Calreticulin antibody [EPR3924] - ER Marker (PE). Please refer to [ab209577](#) for protocol details.

[ab209577](#) staining Calreticulin in HeLa cells. The cells were fixed with 100% methanol (5min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with [ab209577](#) at 1/1000 dilution (**pseudocolored in green**) and [ab195884](#), Rat monoclonal to Tubulin (Alexa Fluor® 647), at 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

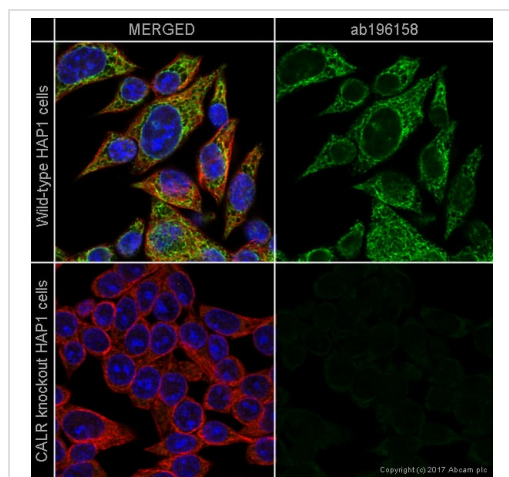


Immunocytochemistry/ Immunofluorescence - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

Clone EPR3924 (ab211962) has been successfully conjugated by Abcam. This image was generated using Anti-Calreticulin antibody [EPR3924] - ER Marker (Alexa Fluor® 647). Please refer to [ab196159](#) for protocol details.

[ab196159](#) staining Calreticulin in HeLa cells. The cells were fixed with 100% methanol (5 min), permeabilized in 0.1% Triton X-100 for 5 minutes and then blocked in 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with [ab196159](#) at 1/100 dilution (shown in red) and [ab195887](#), Mouse monoclonal [DM1A] to alpha Tubulin (Alexa Fluor® 488, shown in green) at 2µg/ml overnight at +4°C. Nuclear DNA was labelled in blue with DAPI.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunocytochemistry/ Immunofluorescence - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

Clone EPR3924 (ab211962) has been successfully conjugated by Abcam. This image was generated using Anti-Calreticulin antibody [EPR3924] - ER Marker (Alexa Fluor® 488). Please refer to [ab196158](#) for protocol details.

[ab196158](#) staining Calreticulin (shown in green) in wild-type HAP1 cells (top panel) and CALR knockout HAP1 cells (bottom panel).

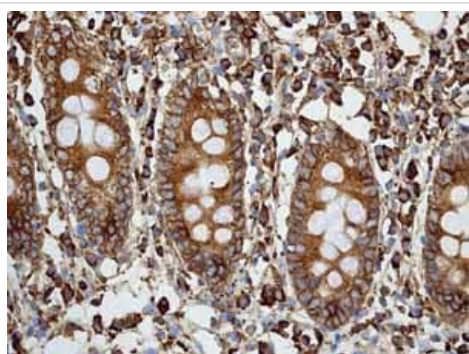
The cells were fixed with 100% methanol (5 minutes), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1 hour. The cells were then incubated with [ab196158](#) at 1/500 dilution (shown in green) and [ab195889](#) at 1/250 dilution (shown in pseudo colour red) overnight at +4°C. Nuclear DNA was labeled in blue with DAPI.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

[ab92516](#) showing positive staining in human Normal colon tissue.

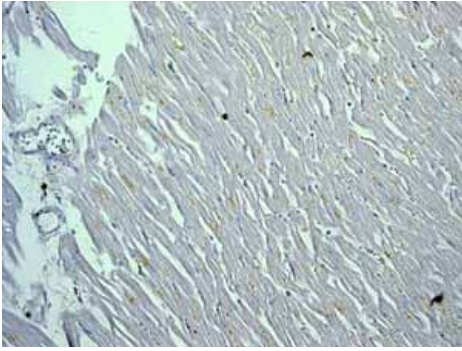
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab92516](#)).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)



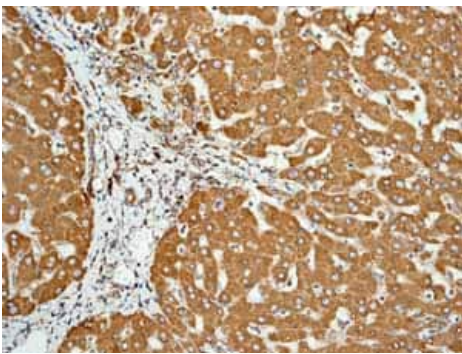


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

**ab92516** showing negative staining in Normal human heart tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab92516**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

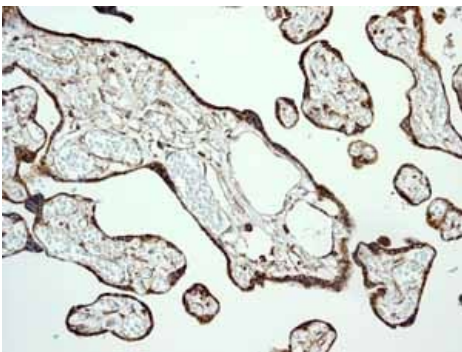


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

**ab92516** showing positive staining in Normal human liver tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab92516**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

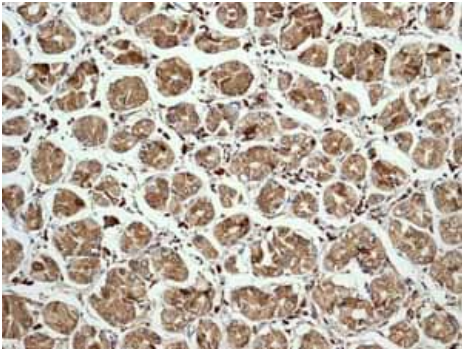


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

**ab92516** showing positive staining in Normal human placenta tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab92516**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

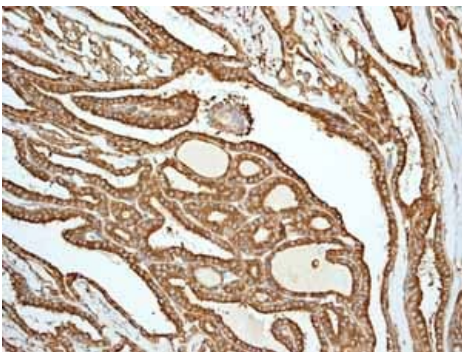


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

**ab92516** showing positive staining in Normal human stomach tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab92516**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

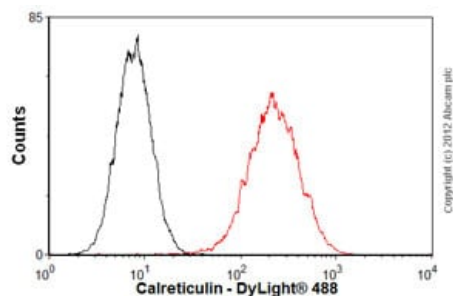


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

**ab92516** showing positive staining in human Papillary carcinoma of thyroid gland tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab92516**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



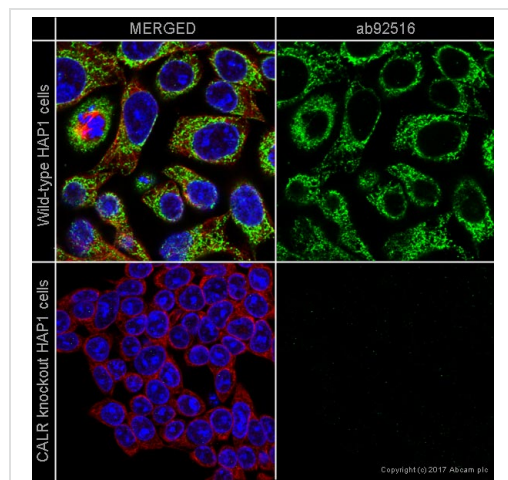
Flow Cytometry (Intracellular) - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

Overlay histogram showing HeLa cells stained with **ab92516** (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (**ab92516**, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (**ab96899**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1 µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and



sodium azide (**ab92516**).



Immunocytochemistry/ Immunofluorescence - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

This ICC/IF data was generated using the same anti-Calreticulin antibody clone, EPR3924, in a different buffer formulation (cat# **ab92516**).

**ab92516** staining Calreticulin in wild-type HAP1 cells (top panel) and CALR knockout HAP1 cells (bottom panel). The cells were fixed with 100% methanol (5min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with **ab92516** at 1/500 and **ab195889** at 1/250 dilution (shown in pseudocolour red) overnight at +4°C, followed by a further incubation at room temperature for 1h with a goat secondary antibody to Rabbit IgG (Alexa Fluor® 488) (**ab150081**) at 2 µg/ml (shown in green). Nuclear DNA was labelled in blue with DAPI.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Why choose a recombinant antibody?

Research with confidence  
Consistent and reproducible results

Long-term and scalable supply  
Recombinant technology

Success from the first experiment  
Confirmed specificity

Ethical standards compliant  
Animal-free production

Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

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

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