abcam

ab211962

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

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR3924
Purification technique	Affinity purification Protein A
Concentration	1.006 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-

Notes	The use of a HRP/AP polymerized secondary antibody is recommended for enhanced staining. Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

Species	Mouse
Dilution info	-
Notes	The use of a HRP/AP polymerized secondary antibody is recommended for enhanced staining. Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

Species	Rat
Dilution info	-
Notes	The use of a HRP/AP polymerized secondary antibody is recommended for enhanced staining. Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

Expected

Species	African green monkey
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Monkey
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse, Rat, African green monkey
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Monkey
Dilution info	-
Notes	-

WB

Tested

Species	Mouse, Rat, African green monkey, Human
Dilution info	-
Notes	-

Predicted

Species	Monkey
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

Species	Mouse, Rat, African green monkey
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Monkey
Dilution info	-
Notes	-

Target data

See full target information CALR

Function	Calcium-binding chaperone that promotes folding, oligomeric assembly and quality control in the endoplasmic reticulum (ER) via the calreticulin/calnexin cycle. This lectin interacts transiently with almost all of the monoglucosylated glycoproteins that are synthesized in the ER (PubMed:7876246). Interacts with the DNA-binding domain of NR3C1 and mediates its nuclear export (PubMed:11149926). Involved in maternal gene expression regulation. May participate in oocyte maturation via the regulation of calcium homeostasis (By similarity). Present in the cortical granules of non-activated oocytes, is exocytosed during the cortical reaction in response to oocyte activation and might participate in the block to polyspermy (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab211962 is the carrier-free version of ab92516.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For

details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. 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.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

What does low endotoxin mean?
Our low endotoxin, azide-free formats have low endotoxin level (1 EU/mg, determined by the TAL assay) and are free from azide, to achieve consistent experimental results in functional assays.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

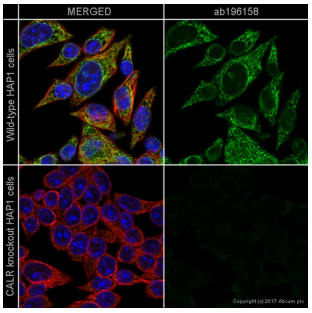
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

14 product images



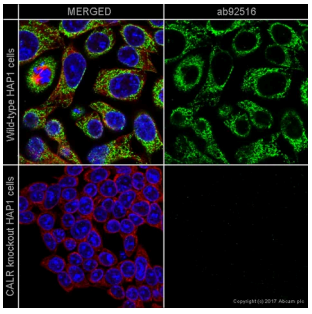
Immunocytochemistry/ Immunofluorescence - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

Calreticulin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Calreticulin antibody

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).

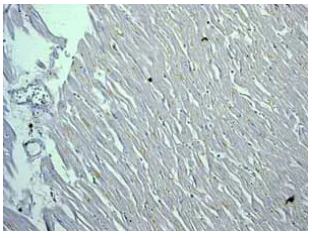


Immunocytochemistry/ Immunofluorescence - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

Calreticulin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Calreticulin antibody

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).



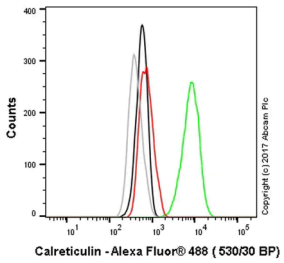
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

Calreticulin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Calreticulin antibody

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).

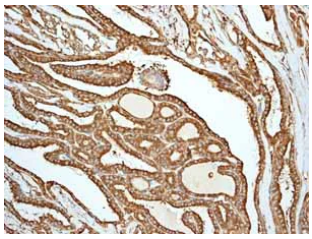
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



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

Calreticulin Flow Cytometry (Intracellular) staining using rabbit Anti-Calreticulin antibody

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, 1µg/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).



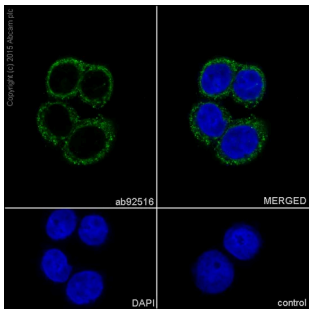
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

Calreticulin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Calreticulin antibody

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.

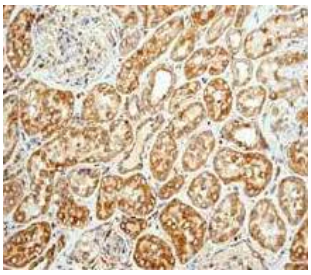


Immunocytochemistry/ Immunofluorescence - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

Calreticulin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Calreticulin antibody

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).

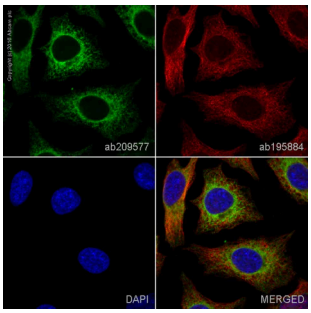


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

Calreticulin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Calreticulin antibody

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.

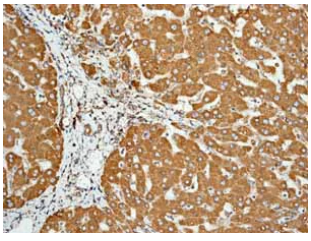


Immunocytochemistry/ Immunofluorescence - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

Calreticulin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Calreticulin antibody

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).



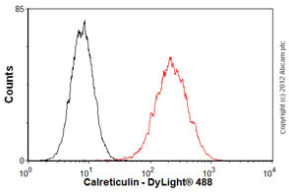
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

Calreticulin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Calreticulin antibody

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).

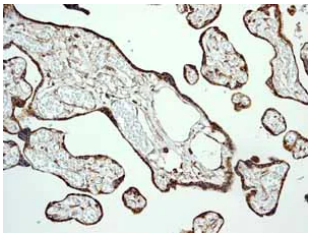
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



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

Calreticulin Flow Cytometry (Intracellular) staining using rabbit Anti-Calreticulin antibody

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) (1µg/1x10^6 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).



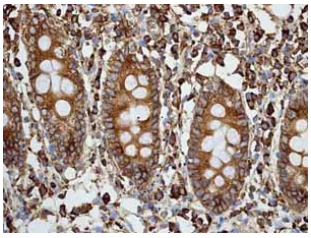
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

Calreticulin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Calreticulin antibody

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.



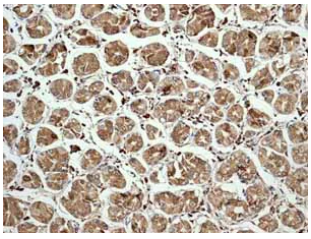
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

Calreticulin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Calreticulin antibody

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.



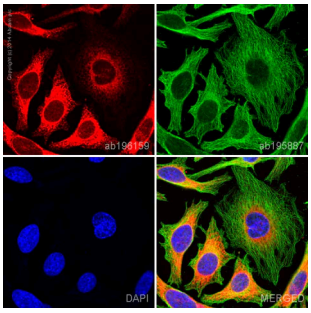
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calreticulin antibody [EPR3924] - Low endotoxin, Azide free (ab211962)

Calreticulin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Calreticulin antibody

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.



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

Calreticulin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Calreticulin antibody

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), permeabiliszd 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).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.