

Product datasheet

Anti-Calnexin antibody [EPR3632] ab92573

KO VALIDATED Recombinant RabMAB

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Overview

Product name	Anti-Calnexin antibody [EPR3632]
Description	Rabbit monoclonal [EPR3632] to Calnexin
Host species	Rabbit
Specificity	Recognizes ER membrane, mitochondria and cis-Golgi
Tested applications	Suitable for: ICC/IF, WB, IP, IHC-P Unsuitable for: Flow Cyt
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human Calnexin aa 1-100. The exact sequence is proprietary. Database link: P27824
Positive control	WB: HeLa, A431, SH-SY5Y and HepG2 whole cell lysate (ab7900). IHC-P: Human tonsil tissue. ICC/IF: Wild-type HAP1 cells.
General notes	<p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p> <p>References regarding specificity:</p> <p>Horner SM <i>et al.</i> Mitochondrial-associated endoplasmic reticulum membranes (MAM) form innate immune synapses and are targeted by hepatitis C virus. <i>Proc Natl Acad Sci U S A</i> 108:14590-5 (2011). PubMed: 21844353</p> <p>Myhill N <i>et al.</i> The subcellular distribution of calnexin is mediated by PACS-2. <i>Mol Biol Cell</i> 19:2777-88 (2008). PubMed: 18417615</p> <p>Yoshimura SI <i>et al.</i> Direct targeting of cis-Golgi matrix proteins to the Golgi apparatus. <i>J Cell Sci</i> 114:4105-15 (2001). PubMed: 11739642</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAB[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAB[®] patents.</p> <p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next</p>

breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
Purity	Tissue culture supernatant
Clonality	Monoclonal
Clone number	EPR3632
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab92573** 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
ICC/IF		1/1000.
WB		1/20000 - 1/100000. Predicted molecular weight: 90 kDa.
IP		1/50.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target

Function

Calcium-binding protein that interacts with newly synthesized glycoproteins in the endoplasmic reticulum. It may act in assisting protein assembly and/or in the retention within the ER of unassembled protein subunits. It seems to play a major role in the quality control apparatus of the ER by the retention of incorrectly folded proteins.

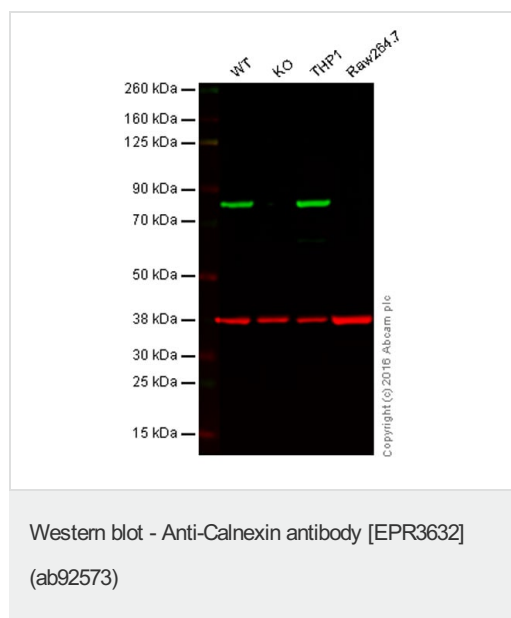
Sequence similarities

Belongs to the calreticulin family.

Cellular localization

Endoplasmic reticulum membrane. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

Images



All lanes : Anti-Calnexin antibody [EPR3632] (ab92573) at 1/20000 dilution

Lane 1 : Wild-type HAP1 cell lysate

Lane 2 : Calnexin knockout HAP1 cell lysate

Lane 3 : THP-1 cell lysate

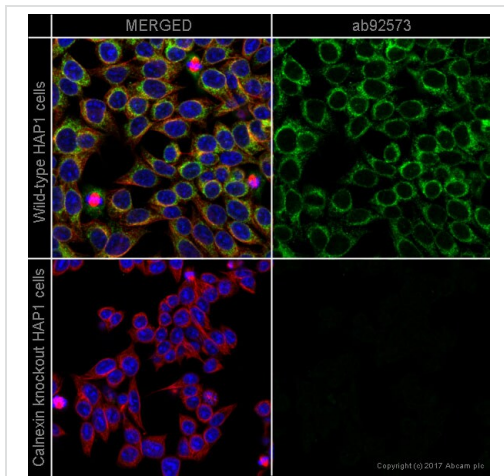
Lane 4 : RAW 264.7 cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 90 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab92573 observed at 80 kDa. Red - loading control, [ab8245](#), observed at 37 kDa.

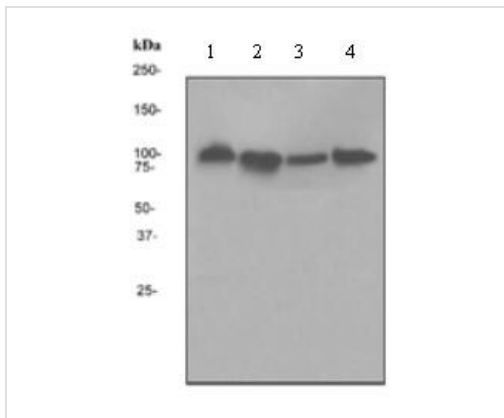
ab92573 was shown to specifically react with Calnexin when Calnexin knockout samples were used. Wild-type and Calnexin knockout samples were subjected to SDS-PAGE. ab92573 and [ab8245](#) (loading control to GAPDH) were diluted at 1/20,000 and 1/10,000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed [ab216773](#) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed [ab216776](#) secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-Calnexin antibody [EPR3632] (ab92573)

ab92573 staining Calnexin in wild-type HAP1 cells (top panel) and CANX 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 ab92573 at 1/1000 dilution 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).



Western blot - Anti-Calnexin antibody [EPR3632] (ab92573)

All lanes : Anti-Calnexin antibody [EPR3632] (ab92573) at 1/20000 dilution

Lane 1 : HeLa cell lysate

Lane 2 : A431 cell lysate

Lane 3 : SH-SY5Y cell lysate

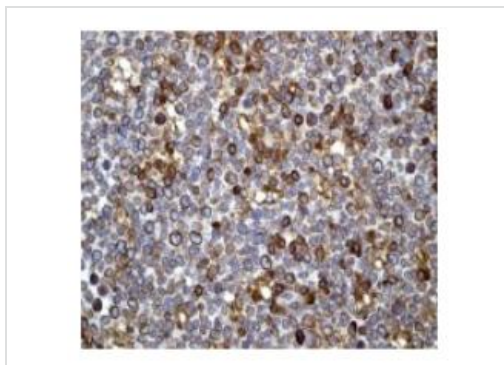
Lane 4 : HepG2 cell lysates

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : standard HRP labelled goat anti-rabbit at 1/2000 dilution

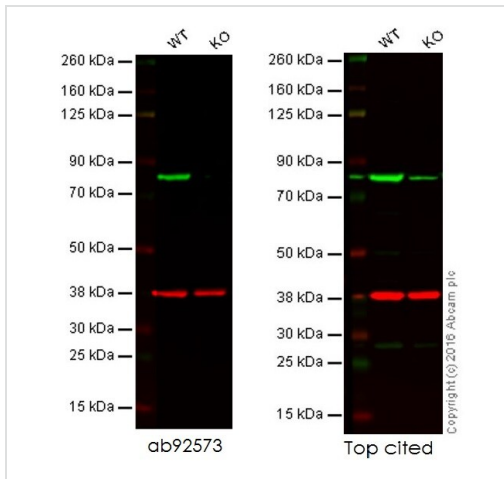
Predicted band size: 90 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calnexin antibody [EPR3632] (ab92573)

Immunohistochemical analysis of paraffin embedded Human tonsil tissue using ab92573 at a 1/100 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-Calnexin antibody [EPR3632] (ab92573)

All lanes : Anti-Calnexin antibody [EPR3632] (ab92573)

Lane 1 : Wild-type HAP1 cell lysate

Lane 2 : Calnexin knockout HAP1 cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 90 kDa

Lanes 1 - 2: Merged signal (red and green). Green - ab92573 observed at 80 kDa. Red - loading control, [ab8245](#), observed at 37 kDa.

This western blot image is a comparison between ab92573 and a competitor's top cited rabbit polyclonal antibody.

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-Calnexin antibody [EPR3632] (ab92573)

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

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