


Product datasheet

Anti-Hsp47 antibody [EPR4217] ab109117

KO VALIDATED Recombinant RabMAb

★★★★★ 6 Abreviews 20 References 6 Images

Overview

Product name	Anti-Hsp47 antibody [EPR4217]
Description	Rabbit monoclonal [EPR4217] to Hsp47
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Rat 
Immunogen	Synthetic peptide within Human Hsp47 aa 400-500. The exact sequence is proprietary.
Positive control	HeLa, A431 and NIH/3T3 cell lysates; Human breast tissue; HeLa cells
General notes	<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>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</p> <p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>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.</p> <p>In preparation for this, we have started to update the applications & species that this product is</p>

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. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol, 59% PBS, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR4217
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab109117** 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. Predicted molecular weight: 46 kDa. For unpurified use at 1/100.
IHC-P	★★★★★	1/300. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. See IHC antigen retrieval protocols . For unpurified use at 1/100 - 1/250.

Target

Function	Binds specifically to collagen. Could be involved as a chaperone in the biosynthetic pathway of collagen.
Involvement in disease	Note=Defects in SERPINH1 may cause severe autosomal recessive osteogenesis imperfecta (OI). Osteogenesis imperfecta defines a group of connective tissue disorders characterized by

bone fragility and low bone mass.

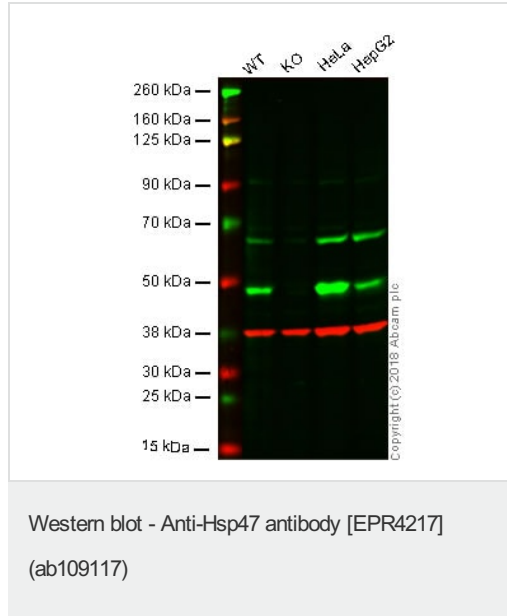
Sequence similarities

Belongs to the serpin family.

Cellular localization

Endoplasmic reticulum lumen.

Images



Lane 1: Wild-type HAP1 whole cell lysate (20 μ g)

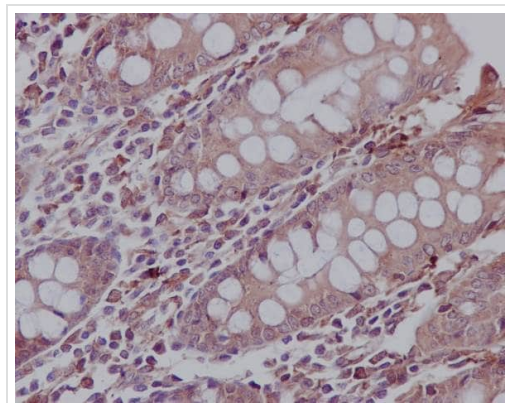
Lane 2: Hsp47 knockout HAP1 whole cell lysate (20 μ g)

Lane 3: HeLa whole cell lysate (20 μ g)

Lane 4: HepG2 whole cell lysate (20 μ g)

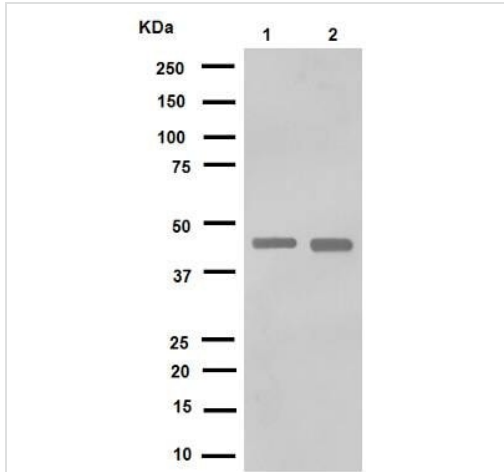
Lanes 1 - 4: Merged signal (red and green). Green - ab109117 observed at 46 kDa. Red - loading control, ab9484, observed at 37 kDa.

ab109117 was shown to recognize Hsp47 in wild-type HAP1 cells as signal was lost at the expected MW in Hsp47 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and Hsp47 knockout samples were subjected to SDS-PAGE. ab109117 and ab9484 (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hsp47 antibody [EPR4217] (ab109117)

ab109117 staining Hsp47 in Human colon tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed and paraffin-embedded, antigen retrieval was by heat mediation in Tris/EDTA buffer pH9. Samples were incubated with primary antibody (1/300). An undiluted HRP-conjugated mouse anti-rabbit IgG was used as the secondary antibody. Tissue counterstained with Hematoxylin.



Western blot - Anti-Hsp47 antibody [EPR4217] (ab109117)

All lanes : Anti-Hsp47 antibody [EPR4217] (ab109117) at 1/2000 dilution

Lane 1 : A431 Cell Lysate

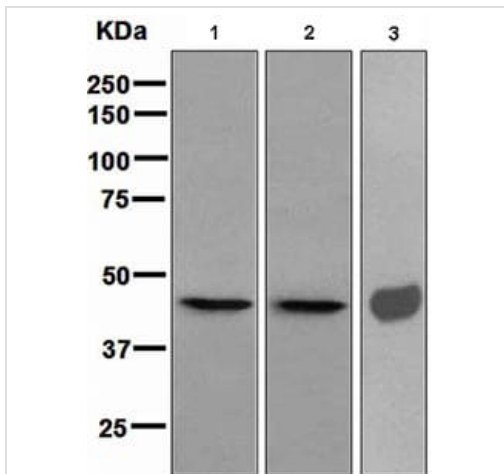
Lane 2 : NIH/3T3 Cell Lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG, (H+L), HRP- conjugated at 1/1000 dilution

Predicted band size: 46 kDa



Western blot - Anti-Hsp47 antibody [EPR4217] (ab109117)

All lanes : Anti-Hsp47 antibody [EPR4217] (ab109117) at 1/1000 dilution (unpurified)

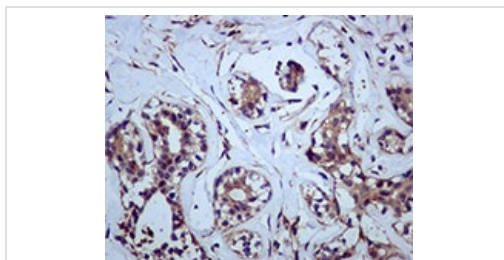
Lane 1 : HeLa cell lysate

Lane 2 : A431 cell lysate

Lane 3 : NIH/3T3 cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 46 kDa

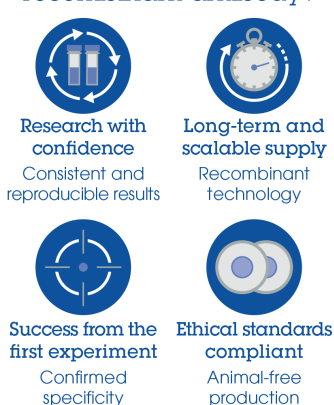


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hsp47 antibody [EPR4217] (ab109117)

ab109117, unpurified, at 1/100 dilution, staining Hsp47 in Human breast tissue by Immunohistochemistry.

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

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-Hsp47 antibody [EPR4217] (ab109117)

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

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