

Product datasheet

Anti-Hsp47 antibody [EPR4217] ab109117

KO VALIDATED Recombinant RabMAB

★★★★★ 5 Abreviews 9 References 5 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>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>This product is a recombinant rabbit monoclonal antibody.</p>

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.

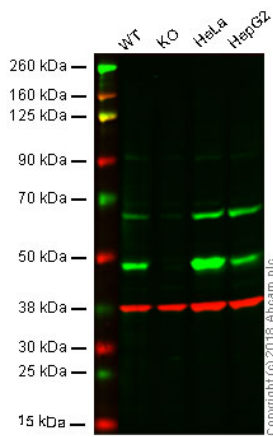
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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



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

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

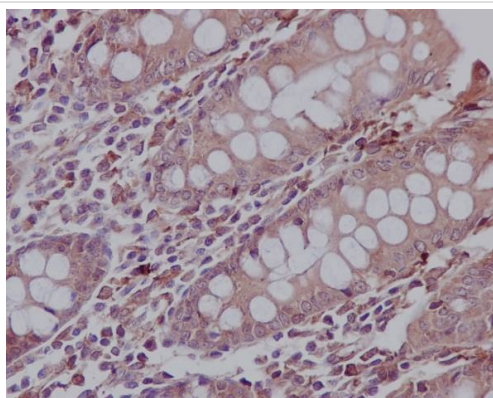
Lane 2: Hsp47 knockout HAP1 whole cell lysate (20 μ g)

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

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

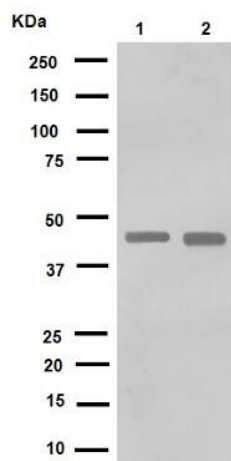
Lanes 1 - 4: Merged signal (red and green). Green - ab109117 observed at 46 kDa. Red - loading control, [ab9484](#), observed at 37 kDa.

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

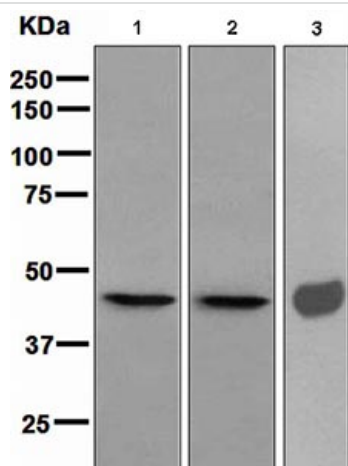
Lane 2 : NIH/3T3 Cell Lysate

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)

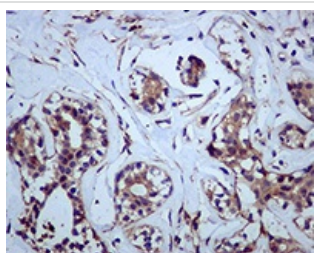
Lane 1 : HeLa cell lysate

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.

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