

## Product datasheet

# Anti-Clusterin antibody [EPR2911] ab92548

**KO VALIDATED** Recombinant RabMAB

★★★★☆ 3 Abreviews 6 References 6 Images

### Overview

<b>Product name</b>	Anti-Clusterin antibody [EPR2911]
<b>Description</b>	Rabbit monoclonal [EPR2911] to Clusterin
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	IHC-P: human breast carcinoma and testis tissue; WB: human testis, brain, tonsil, fetal brain and plasma lysates.
<b>General notes</b>	<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> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAB<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAB<sup>®</sup> patents</a>.</p> <p><b>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.</b></p> <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>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.20

Preservative: 0.01% Sodium azide  
Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

**Purity** Protein A purified  
**Clonality** Monoclonal  
**Clone number** EPR2911  
**Isotype** IgG

## Applications

**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab92548 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)	1/1000 - 1/2000. Predicted molecular weight: 52 kDa.
IHC-P		1/100 - 1/450. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See <a href="#">IHC antigen retrieval protocols</a> .

## Target

**Function** Isoform 1 functions as extracellular chaperone that prevents aggregation of nonnative proteins. Prevents stress-induced aggregation of blood plasma proteins. Inhibits formation of amyloid fibrils by APP, APOC2, B2M, CALCA, CSN3, SNCA and aggregation-prone LYZ variants (in vitro). Does not require ATP. Maintains partially unfolded proteins in a state appropriate for subsequent refolding by other chaperones, such as HSPA8/HSC70. Does not refold proteins by itself. Binding to cell surface receptors triggers internalization of the chaperone-client complex and subsequent lysosomal or proteasomal degradation. Secreted isoform 1 protects cells against apoptosis and against cytolysis by complement. Intracellular isoforms interact with ubiquitin and SCF (SKP1-CUL1-F-box protein) E3 ubiquitin-protein ligase complexes and promote the ubiquitination and subsequent proteasomal degradation of target proteins. Promotes proteasomal degradation of COMMD1 and IKBKB. Modulates NF-kappa-B transcriptional activity. Nuclear isoforms promote apoptosis. Mitochondrial isoforms suppress BAX-dependent release of cytochrome c into the cytoplasm and inhibit apoptosis. Plays a role in the regulation of cell proliferation.

**Tissue specificity** Detected in blood plasma, cerebrospinal fluid, milk, seminal plasma and colon mucosa. Detected in the germinal center of colon lymphoid nodules and in colon parasympathetic ganglia of the Auerbach plexus (at protein level). Ubiquitous. Detected in brain, testis, ovary, liver and pancreas, and at lower levels in kidney, heart, spleen and lung.

**Sequence similarities** Belongs to the clusterin family.

**Post-translational modifications** Isoform 1 is proteolytically cleaved on its way through the secretory system, probably within the Golgi lumen.

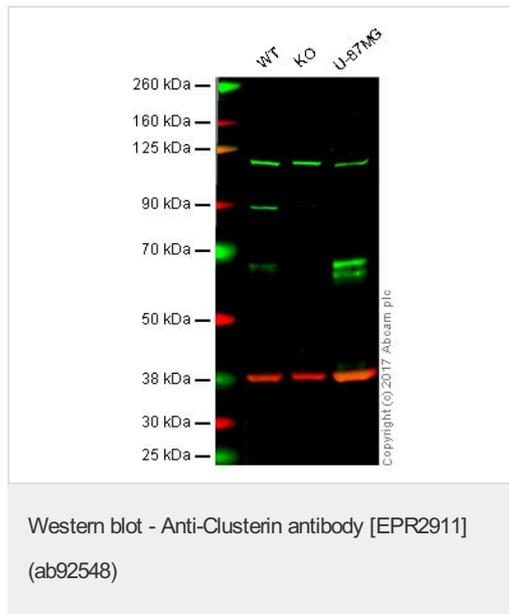
Polyubiquitinated, leading to proteasomal degradation.

Heavily N-glycosylated. About 30% of the protein mass is comprised of complex N-linked carbohydrate.

**Cellular localization** Secreted. Can retrotranslocate from the secretory compartments to the cytosol upon cellular stress and Nucleus. Cytoplasm. Mitochondrion membrane. Cytoplasm, cytosol. Microsome.

Endoplasmic reticulum. Cytoplasmic vesicle, secretory vesicle, chromaffin granule. Isoforms lacking the N-terminal signal sequence have been shown to be cytoplasmic and/or nuclear. Secreted isoforms can retrotranslocate from the secretory compartments to the cytosol upon cellular stress. Detected in perinuclear foci that may be aggresomes containing misfolded, ubiquitinated proteins. Detected at the mitochondrion membrane upon induction of apoptosis.

## Images



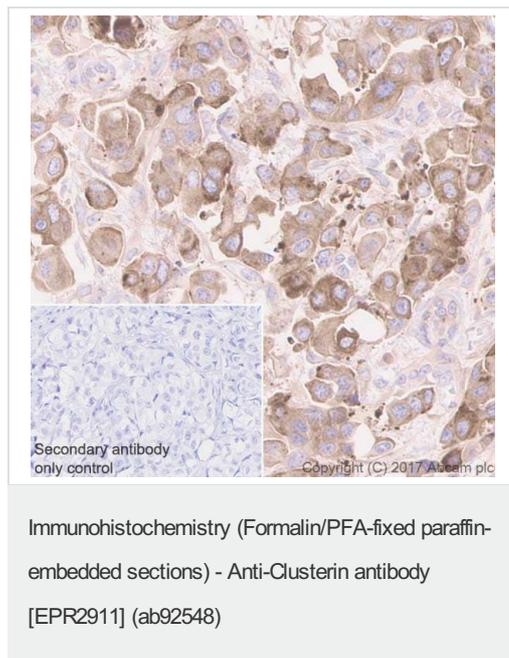
**Lane 1:** Wild-type HAP1 whole cell lysate (20  $\mu$ g)

**Lane 2:** Clusterin knockout HAP1 whole cell lysate (20  $\mu$ g)

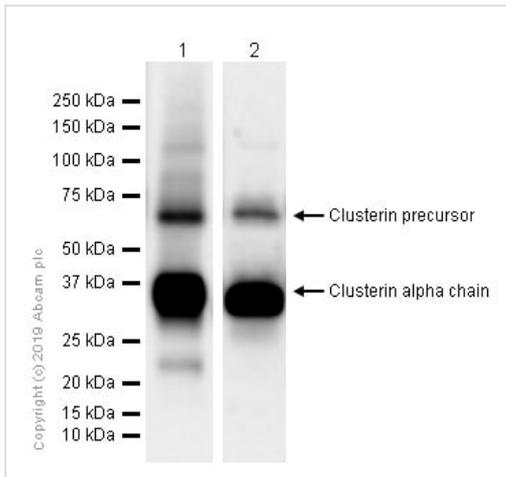
**Lane 3:** U87-MG whole cell lysate (20  $\mu$ g)

**Lanes 1 - 3:** Merged signal (red and green). Green - ab92548 observed at 68 kDa. Red - loading control, ab9484, observed at 37 kDa.

ab92548 was shown to recognize Clusterin in wild-type HAP1 cells as signal was lost at the expected MW in Clusterin knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and Clusterin knockout samples were subjected to SDS-PAGE. Ab92548 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) analysis of human breast carcinoma tissue sections labeling Clusterin with purified ab92548 at 1/450 dilution (0.23  $\mu$ g/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Western blot - Anti-Clusterin antibody [EPR2911] (ab92548)

**All lanes** : Anti-Clusterin antibody [EPR2911] (ab92548) at 1/1000 dilution (Purified)

**Lane 1** : Human testis lysates

**Lane 2** : Human brain lysates

Lysates/proteins at 20 µg per lane.

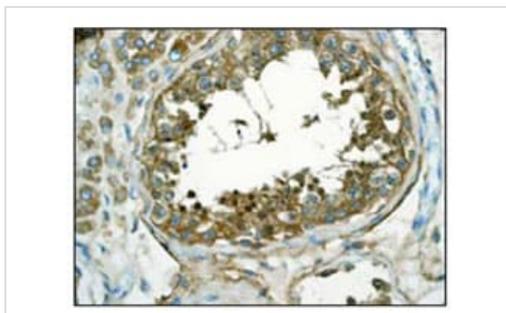
### Secondary

**All lanes** : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

**Predicted band size:** 52 kDa

**Observed band size:** 37,68 kDa

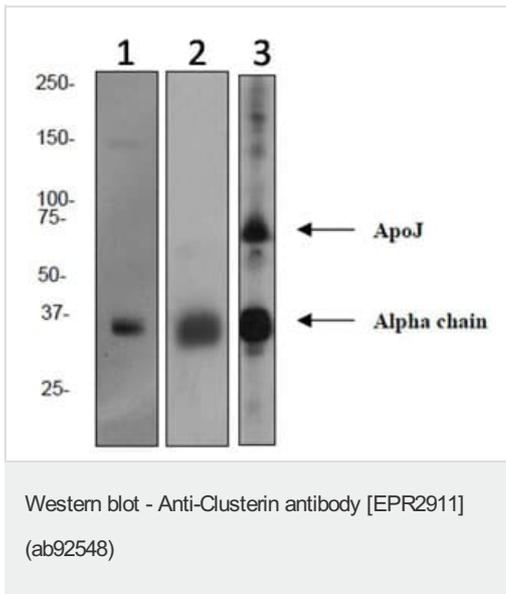
Clusterin precursor could be cleaved to produce an N-terminal  $\hat{\Gamma}$ -chain and a C-terminal  $\hat{\Gamma}$ -chain as was described by PMID: 25402950. ab92548 recognizes  $\alpha$ -chain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Clusterin antibody [EPR2911] (ab92548)

ab92548 (unpurified) at 1/100 dilution staining Apolipoprotein J in Human testis tissue by Immunohistochemistry Formalin-fixed, Paraffin-embedded tissue.

Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



**All lanes** : Anti-Clusterin antibody [EPR2911] (ab92548) at 1/1000 dilution (unpurified)

**Lane 1** : Human tonsil tissue lysate

**Lane 2** : Fetal brain tissue lysate

**Lane 3** : Human Plasma lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

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

**Predicted band size:** 52 kDa

Why choose a recombinant antibody?

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

Anti-Clusterin antibody [EPR2911] (ab92548)

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

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