

# Anti-Clusterin alpha chain antibody [EPR17539-95] - BSA and Azide free ab230150

Recombinant RabMAb

11 Images

### Overview

<b>Product name</b>	Anti-Clusterin alpha chain antibody [EPR17539-95] - BSA and Azide free
<b>Description</b>	Rabbit monoclonal [EPR17539-95] to Clusterin alpha chain - BSA and Azide free
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-Fr, IP, IHC-P, WB <b>Unsuitable for:</b> ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	IHC-P: Rat adrenal gland tissue.
<b>General notes</b>	<p>ab230150 is the carrier-free version of <a href="#">ab184100</a>.</p> <p>Our <b>carrier-free</b> antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>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.</p> <p>Use our <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</p> <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>

## Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C. Do Not Freeze.
<b>Storage buffer</b>	pH: 7.2 Constituent: PBS
<b>Carrier free</b>	Yes
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR17539-95
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab230150 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
<b>IHC-Fr</b>		Use at an assay dependent concentration. Perform heat-mediated antigen retrieval by using Tris-EDTA buffer (pH9.0) ( <a href="#">ab94681</a> ).
<b>IP</b>		Use at an assay dependent concentration.
<b>IHC-P</b>		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
<b>WB</b>		Use at an assay dependent concentration. Detects a band of approximately 38 kDa (predicted molecular weight: 52 kDa).

**Application notes** Is unsuitable for ICC/IF.

## 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.

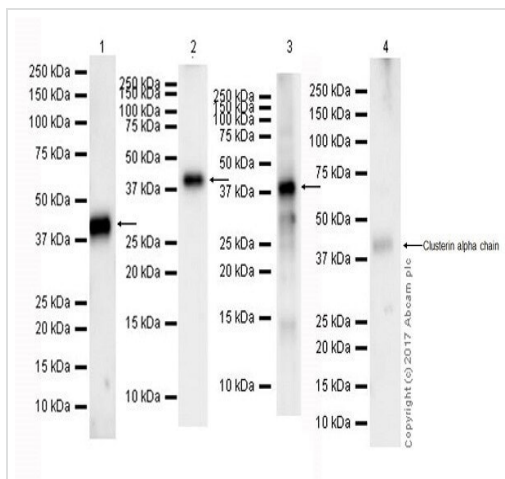
### Post-translational modifications

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

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 aggregates containing misfolded, ubiquitinated proteins. Detected at the mitochondrion membrane upon induction of apoptosis and Secreted. Can retrotranslocate from the secretory compartments to the cytosol upon cellular stress.

## Images



Western blot - Anti-Clusterin alpha chain antibody [EPR17539-95] - BSA and Azide free (ab230150)

**All lanes :** Anti-Clusterin alpha chain antibody [EPR17539-95] ([ab184100](#)) at 1/1000 dilution

**Lane 1 :** Mouse serum lysate at 20 µg

**Lane 2 :** Rat serum lysate at 10 µg

**Lane 3 :** Mouse lung lysate at 10 µg

**Lane 4 :** Mouse adrenal gland lysate at 20 µg

### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Developed using the ECL technique.

**Predicted band size:** 52 kDa

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab184100](#)).

**Blocking/Dilution buffer and concentration:** 5% NFDm/TBST.

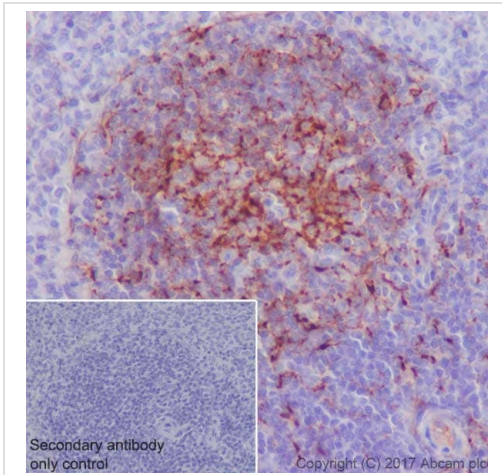
**Exposure times:**

Lanes 1,3,4: 24 seconds;

Lane 2: 3 seconds.

The molecular mass observed is consistent with what has been described in the literature (PMID: 8373947).

The blot was developed on a BIO-RAD® ChemiDoc™ MP instrument



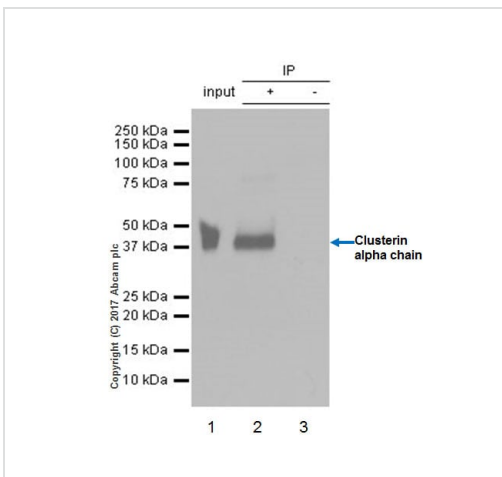
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Clusterin alpha chain antibody [EPR17539-95] - BSA and Azide free (ab230150)

Immunohistochemical analysis of paraffin-embedded rat spleen tissue labeling Clusterin alpha chain with **ab184100** at 1/4000 dilution, followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Positive staining on rat spleen (PMID: 24865838) is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab184100**).



Immunoprecipitation - Anti-Clusterin alpha chain antibody [EPR17539-95] - BSA and Azide free (ab230150)

Clusterin alpha chain was immunoprecipitated from 0.35 mg mouse serum lysate with **ab184100** at 1/30 dilution. Western blot was performed from the immunoprecipitate using **ab184100** at 1/1,000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/10,000 dilution.

**Lane 1:** Mouse serum lysate 10 µl (Input).

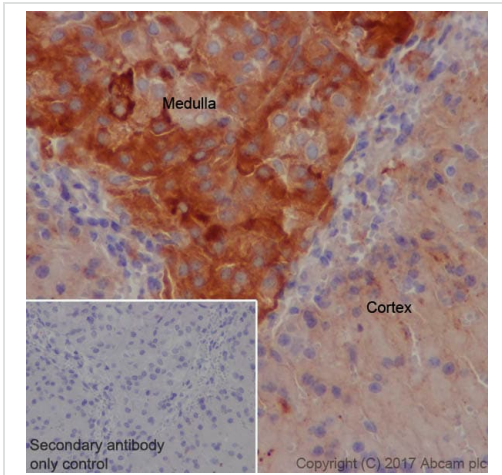
**Lane 2:** **ab184100** IP in mouse serum lysate (+).

**Lane 3:** Rabbit monoclonal IgG (**ab172730**) instead of **ab184100** in mouse serum lysate (-).

Blocking/Dilution buffer and concentration: 5% NFDm/TBST.

Exposure time: 1 second.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab184100**).



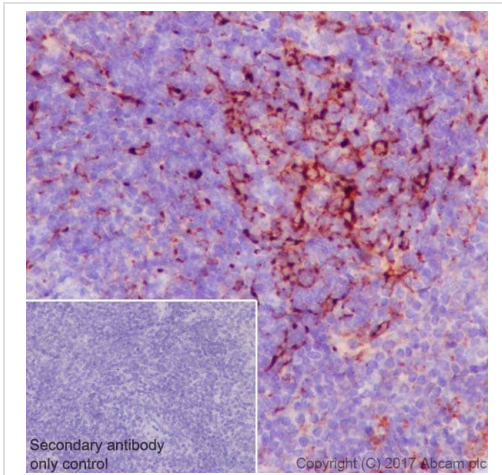
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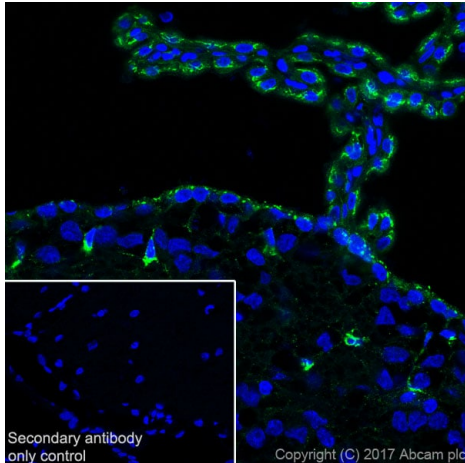
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Immunohistochemistry (Frozen sections) - Anti-Clusterin alpha chain antibody [EPR17539-95] - BSA and Azide free (ab230150)

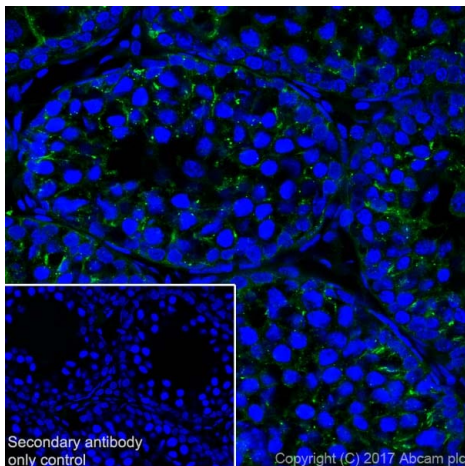
Immunohistochemical analysis of frozen rat brain (lateral ventricle) tissue labeling Clusterin alpha chain with **ab184100** at 1/250 dilution (green), followed by **ab150077** AlexaFluor<sup>®</sup>488 Goat anti-Rabbit secondary at a 1/1000 dilution. Positive cytoplasmic staining in endothelial cells of choroid plexus and astrocytes in rat brain (PMID:18620027; 21385939) is observed.

The nuclear counterstain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is **ab150077** AlexaFluor<sup>®</sup>488 Goat anti-Rabbit used at a 1/1000 dilution.

Perform heat mediated antigen retrieval using **ab94681** (Tris/EDTA buffer, pH 9.0).

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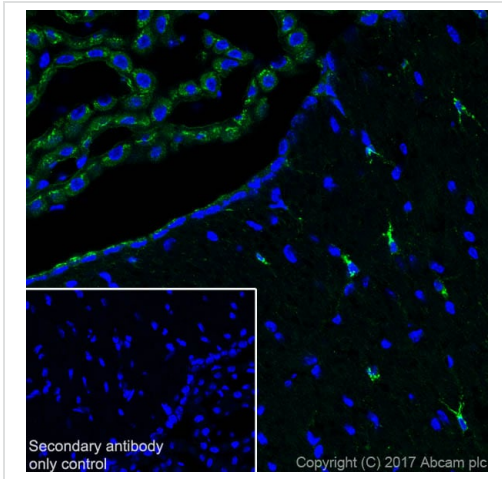
Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen rat testis tissue labeling Clusterin alpha chain with **ab184100** at 1/250 dilution (green), followed by **ab150077** AlexaFluor<sup>®</sup>488 Goat anti-Rabbit secondary at a 1/1000 dilution. Positive staining in Sertoli cells, immature spermatozoa and Leydig cells (PMID: 22552734) is observed.

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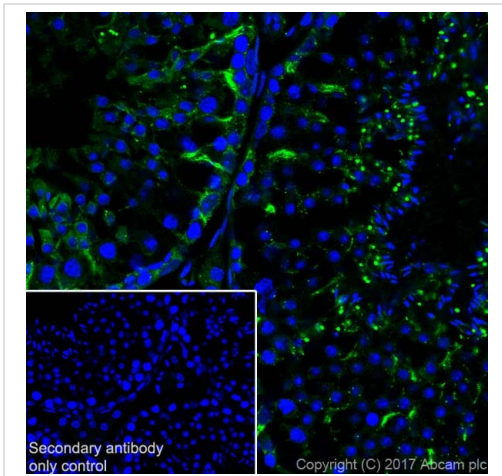
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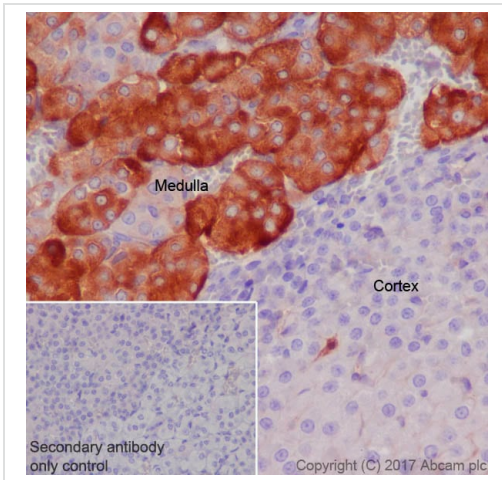
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The nuclear counterstain is DAPI (blue).

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**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>

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- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
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