

# Anti-CLSTN1 antibody [EPR2963] - BSA and Azide free ab248693

Recombinant RabMAb

[5 Images](#)

### Overview

<b>Product name</b>	Anti-CLSTN1 antibody [EPR2963] - BSA and Azide free
<b>Description</b>	Rabbit monoclonal [EPR2963] to CLSTN1 - BSA and Azide free
<b>Host species</b>	Rabbit
<b>Specificity</b>	The immunogen used for this product shares 91% homology with CLSTN2. Cross-reactivity with this protein has not been confirmed experimentally.
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, ICC/IF <b>Unsuitable for:</b> Flow Cyt or IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>General notes</b>	<p>ab248693 is the carrier-free version of <a href="#">ab134130</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</p>

monoclonal antibodies. For details on our patents, please refer to [RabMAb® patents](#).

Rat: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.

## 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>	EPR2963
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab248693 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>WB</b>		Use at an assay dependent concentration. Predicted molecular weight: 110 kDa.
<b>IHC-P</b>		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
<b>ICC/IF</b>		Use at an assay dependent concentration.

**Application notes** Is unsuitable for Flow Cyt or IP.

## Target

**Function** Induces KLC1 association with vesicles and functions as a cargo in axonal anterograde transport. Complex formation with APBA2 and APP, stabilizes APP metabolism and enhances APBA2-mediated suppression of beta-APP40 secretion, due to the retardation of intracellular APP maturation. In complex with APBA2 and C99, a C-terminal APP fragment, abolishes C99 interaction with PSEN1 and thus APP C99 cleavage by gamma-secretase, most probably through stabilization of the direct interaction between APBA2 and APP. The intracellular fragment AICD suppresses APBB1-dependent transactivation stimulated by APP C-terminal intracellular fragment (AICD), most probably by competing with AICD for APBB1-binding. May modulate calcium-mediated postsynaptic signals.

**Tissue specificity** Expressed in the brain and, a lower level, in the heart, skeletal muscle, kidney and placenta.

Accumulates in dystrophic neurites around the amyloid core of Alzheimer disease senile plaques (at protein level).

### Sequence similarities

Contains 2 cadherin domains.

### Domain

The cytoplasmic domain is involved in interaction with APBA2, as well as the binding of synaptic Ca(2+).

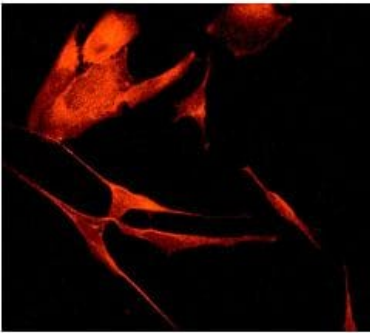
### Post-translational modifications

Proteolytically processed under normal cellular conditions. A primary zeta-cleavage generates a large extracellular (soluble) N-terminal domain (sAlc) and a short C-terminal transmembrane fragment (CTF1). A secondary cleavage catalyzed by presenilin gamma-secretase within the transmembrane domain releases the beta-Alc-alpha chain in the extracellular milieu and produces an intracellular fragment (AlcICD). This processing is strongly suppressed in the tripartite complex formed with APBA2 and APP, which seems to prevent the association with PSEN1.

### Cellular localization

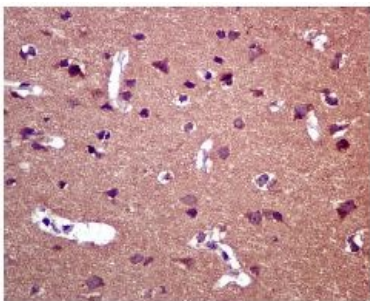
Endoplasmic reticulum membrane. Golgi apparatus membrane. Cell projection. Cell junction > synapse > postsynaptic cell membrane. Nucleus. Neurite tips. Localized in the postsynaptic membrane of both excitatory and inhibitory synapses (By similarity). The AlcICD fragment is translocated to the nucleus upon interaction with APBB1.

## Images



Immunocytochemistry/ Immunofluorescence - Anti-CLSTN1 antibody [EPR2963] - BSA and Azide free (ab248693)

This data was developed using [ab134130](#), the same antibody clone in a different buffer formulation. Immunofluorescent staining of paraffin embedded Human SH SY 5Y cells labelling CLSTN1 with [ab134130](#) at 1/100 dilution

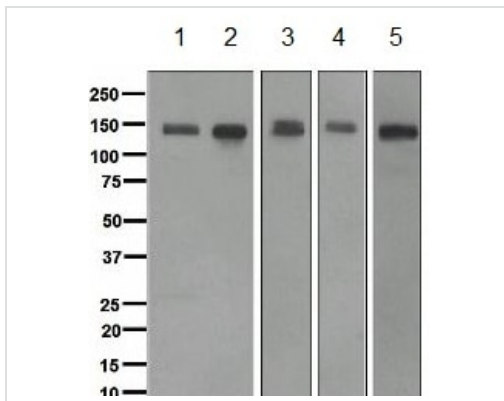


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CLSTN1 antibody [EPR2963] - BSA and Azide free (ab248693)

This data was developed using [ab134130](#), the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin embedded Human brain tissue labelling CLSTN1 with [ab134130](#) at 1/100 dilution.

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



Western blot - Anti-CLSTN1 antibody [EPR2963] - BSA and Azide free (ab248693)

**All lanes :** Anti-CLSTN1 antibody [EPR2963] ([ab134130](#)) at 1/1000 dilution

**Lane 1 :** Human fetal brain lysate

**Lane 2 :** 293T cell lysate

**Lane 3 :** U87 MG lysate

**Lane 4 :** SH SY5Y lysate

**Lane 5 :** Neuro 2a lysate

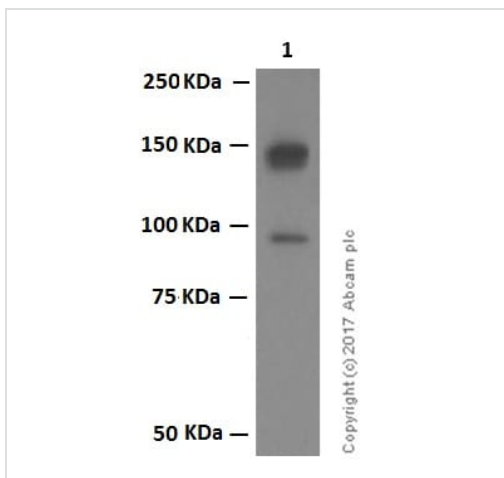
Lysates/proteins at 10 µg per lane.

### Secondary

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

**Predicted band size:** 110 kDa

This data was developed using [ab134130](#), the same antibody clone in a different buffer formulation.



Western blot - Anti-CLSTN1 antibody [EPR2963] - BSA and Azide free (ab248693)

Anti-CLSTN1 antibody [EPR2963] ([ab134130](#)) at 1/200000 dilution + Human fetal brain tissue lysate at 20 µg

### Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

**Predicted band size:** 110 kDa

**Observed band size:** 150 kDa

**Exposure time:** 3 minutes

This data was developed using [ab134130](#), the same antibody clone in a different buffer formulation.

**Blocking and dilution buffer:** 5% NFD/MTBST.

**Extra band at:** 90kDa. We are unsure as to the identity of this extra band.

### 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

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

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