Product datasheet

Anti-Claudin 3 antibody ab15102

Product name          Anti-Claudin 3 antibody
Description           Rabbit polyclonal to Claudin 3
Host species          Rabbit
Tested applications   Suitable for: ICC/IF, WB, IHC-P
Species reactivity    Reacts with: Mouse, Rat, Chicken, Human, Pig
Immunogen             Synthetic peptide within Mouse Claudin 3 aa 200 to the C-terminus (C terminal). The exact sequence is proprietary.
                        Database link: Q9Z0G9
Positive control       Tested with small intestine cells.
General notes         This product is FOR RESEARCH USE ONLY. For commercial use, please contact partnerships@abcam.com.

Overview

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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer        pH: 7.60
                        Preservative: 0.1% Sodium azide
                        Constituents: PBS, 1% BSA
Purity                Immunogen affinity purified
Clonality             Polyclonal
Isotype               IgG

Applications

Our Abpromise guarantee covers the use of ab15102 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
### Function
Plays a major role in tight junction-specific obliteration of the intercellular space, through calcium-independent cell-adhesion activity.

### Involvement in disease
Note=CLDN3 is located in the Williams-Beuren syndrome (WBS) critical region. WBS results from a hemizygous deletion of several genes on chromosome 7q11.23, thought to arise as a consequence of unequal crossing over between highly homologous low-copy repeat sequences flanking the deleted region.

### Sequence similarities
Belongs to the claudin family.

### Cellular localization
Cell junction > tight junction. Cell membrane.

### Images

**ICC/IF** image of ab15102 stained Mcf7 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab15102, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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<th>Abreviews</th>
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<tr>
<td>ICC/IF</td>
<td>⭐⭐⭐⭐⭐</td>
<td>1/100.</td>
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<tr>
<td>WB</td>
<td>⭐⭐⭐⭐</td>
<td>Use at an assay dependent concentration. PubMed: 18192323</td>
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<td>IHC-P</td>
<td>⭐⭐⭐⭐⭐</td>
<td>1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.</td>
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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 3 antibody (ab15102)

ab15102 (2µg/ml) staining Claudin 3 in human ileum using an automated system (DAKO Autostainer Plus). Using this protocol there is strong membrane staining of the mucosal epithelial cells. Sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffer EDTA pH 9.0 in a DAKO PT link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako envision flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that, for manual staining, optimization of primary antibody concentration and incubation time is recommended. Signal amplification may be required.

Immunocytochemistry/ Immunofluorescence - Anti-Claudin 3 antibody (ab15102)

Immunocytochemistry/ Immunofluorescence analysis of pig primary porcine brain capillary endothelial cells labeling Claudin 3 with ab15102 (undiluted). Cells were fixed with Acetone/Methanol (3:7) and blocked with 10% BSA for 30 minutes at 22°C. A Goat anti-Rabbit IgG (H+L) Alexa Fluor® 488 conjugate secondary antibody was used at 1/200. DAPI nuclear staining.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse liver tissue sections labeling Claudin 3 with ab15102 at 1/300 dilution. Slides were rehydrated and then boiled for antigen retrieval in TE pH 9 buffer for 15min in standard microwave oven at 650W. After 30min blocking in PBS-Triton 0,1% / BSA 5% slides were incubated overnight with Anti-Claudin 3 antibody (ab15102) at 1/300 dilution at 4°C. The secondary antibody was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/200 dilution for 1h. Nuclei were stained with Hoechst.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 3 antibody (ab15102)
This image is courtesy of an abreview submitted by Daniel Alpern.

Immunohistochemical analysis of PFA-fixed, paraffin embedded BALB/c murine ear tissue sections.

Claudin 3 was stained, using ab15102 at 1/10 dilution, in the inner ear at the organ of Corti, Reissner’s membrane, periosteal lining of otic capsule, and the apical surface of the marginal cells of stria vascularis (upper panel) and in the middle ear intercellular junctions along lateral and basal cell membranes in the mucosal epithelium (lower panel). An AlexaFluor®488-conjugated IgG (1/50) was used as the secondary antibody.

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