


Anti-Claudin 1 antibody ab15098

★★★★★ [21 Abreviews](#) [210 References](#) [4 Images](#)

Overview

Product name	Anti-Claudin 1 antibody
Description	Rabbit polyclonal to Claudin 1
Host species	Rabbit
Specificity	From Jan 2024, QC testing of replenishment batches of this polyclonal changed. All tested and expected application and reactive species combinations are still covered by our Abcam product promise. However, we no longer test all applications. For more information on a specific batch, please contact our Scientific Support who will be happy to help. You may also be interested in our alternative recombinant antibody, ab211737 .
Tested applications	Suitable for: ICC/IF, WB, IHC-P
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat, Dog, Monkey 
Immunogen	Synthetic peptide within Human Claudin 1 aa 150 to the C-terminus (C terminal). The exact sequence is proprietary. Database link: O95832
General notes	This product is FOR RESEARCH USE ONLY. For commercial use, please contact partnerships@abcam.com. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

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

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab15098 in the following tested applications.

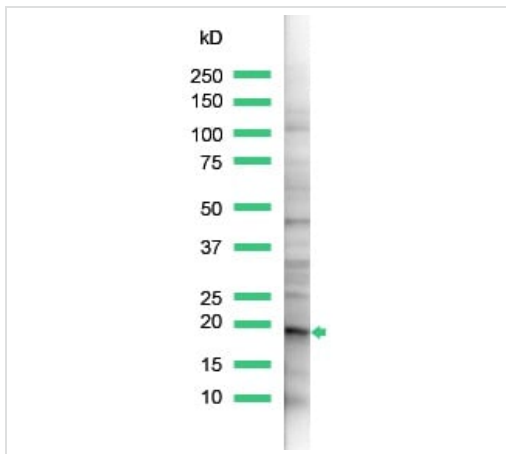
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF	★★★★★ (2)	Use a concentration of 5 µg/ml.
WB	★★★☆☆ (6)	Use at an assay dependent concentration. Predicted molecular weight: 23 kDa.
IHC-P	★★★★★ (10)	Use at an assay dependent concentration.

Target

Function	<p>Claudins function as major constituents of the tight junction complexes that regulate the permeability of epithelia. While some claudin family members play essential roles in the formation of impermeable barriers, others mediate the permeability to ions and small molecules. Often, several claudin family members are coexpressed and interact with each other, and this determines the overall permeability. CLDN1 is required to prevent the paracellular diffusion of small molecules through tight junctions in the epidermis and is required for the normal barrier function of the skin. Required for normal water homeostasis and to prevent excessive water loss through the skin, probably via an indirect effect on the expression levels of other proteins, since CLDN1 itself seems to be dispensable for water barrier formation in keratinocyte tight junctions (PubMed:23407391).</p> <p>(Microbial infection) Acts as a receptor for hepatitis C virus in hepatocytes (PubMed:17325668).</p> <p>Acts as a receptor for dengue virus (PubMed:24074594).</p>
Tissue specificity	Strongly expressed in liver and kidney. Expressed in heart, brain, spleen, lung and testis.
Involvement in disease	Ichthyosis-sclerosing cholangitis neonatal syndrome
Sequence similarities	Belongs to the claudin family.
Cellular localization	Cell junction, tight junction. Cell membrane.

Images

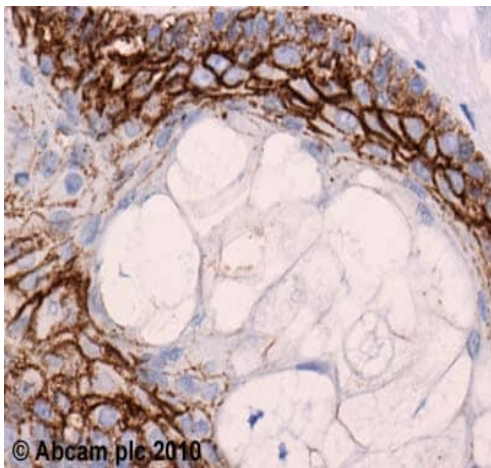


Western blot - Anti-Claudin 1 antibody (ab15098)

Anti-Claudin 1 antibody (ab15098) at 1/25 dilution + HeLa cell lysate

Predicted band size: 23 kDa

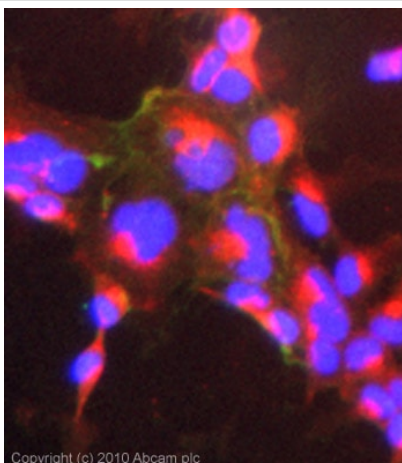
Observed band size: 19 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 1 antibody (ab15098)

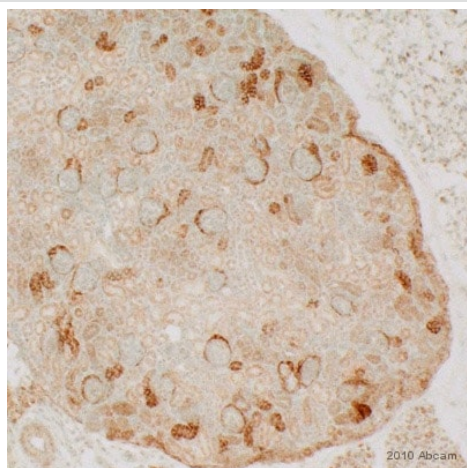
ab15098 (1 µg/ml) staining Claudin 1 in human skin using an automated system (DAKO Autostainer Plus). Using this protocol there is strong staining of the cell membrane.

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.



ICC/IF image of ab15098 stained Hek293 cells. The cells were 100% methanol fixed (5 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 (ab15098, 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.

Immunocytochemistry/ Immunofluorescence - Anti-Claudin 1 antibody (ab15098)



ab15098 staining Claudin 1 in mouse kidney tissue sections by IHC-P (paraformaldehyde-fixed paraffin-embedded sections). Tissue samples were fixed with paraformaldehyde and blocked with 20% serum for 30 minutes at 22°C; antigen retrieval was by heat mediation in Citrate buffer (pH6). The sample was incubated with primary antibody (1/500 in blocking buffer) at 22°C for 16 hours. A Biotin-conjugated Donkey polyclonal to rabbit IgG (1/250) was used as secondary antibody.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 1 antibody (ab15098)

This image is courtesy of an anonymous Abreview

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