

### Anti-Claudin 1 antibody [EPR25359-48] - BSA and Azide free ab307693

敲除验证
重组
RabMAb

#### 11 图像

#### 概述

产品名称	Anti-Claudin 1抗体[EPR25359-48] - BSA and Azide free
描述	兔单克隆抗体[EPR25359-48] to Claudin 1 - BSA and Azide free
宿主	Rabbit
特异性	ICC/IF: Unsuitable for mouse and rat samples.
经测试应用	<b>适用于:</b> WB, IHC-P, ICC/IF, IP <b>不适用于:</b> Flow Cyt or IHC-Fr
种属反应性	<b>与反应:</b> Mouse, Rat, Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: A431, Mouse liver, kidney and colon, Rat liver and kidney lysates. IHC-P: Human colon, gastric adenocarcinoma, Mouse colon, breast cancer, Rat colon and parental A431 cell pellet. ICC/IF: CLDN1 KO A431 cells. IP: Mouse liver cell.
常规说明	<p>ab307693 is the carrier-free version of <a href="#">ab307692</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>

For more information [see here](#).

Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb<sup>®</sup> patents](#).

## 性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C.
存储溶液	pH: 7.20 Constituent: 100% PBS
无载体	是
纯度	Protein A purified
克隆	单克隆
克隆编号	EPR25359-48

## 应用

**The Abpromise guarantee**      **Abpromise<sup>™</sup>承诺保证使用ab307693于以下的经测试应用**

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB		Use at an assay dependent concentration. Predicted molecular weight: 22 kDa.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.

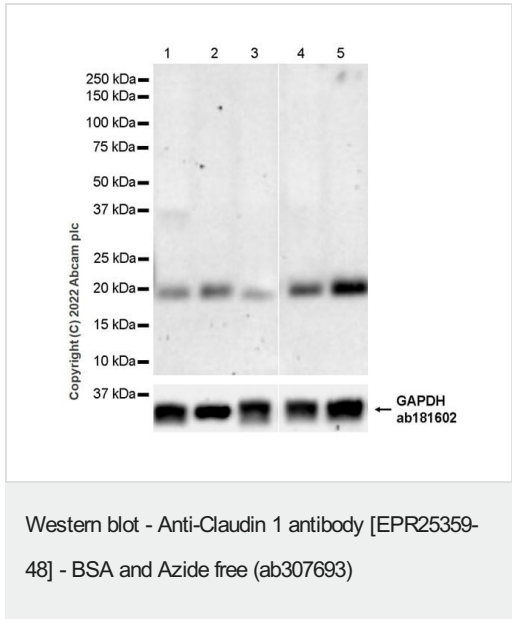
**应用说明**      Is unsuitable for Flow Cyt or IHC-Fr.

## 靶标

**功能**      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).

	(Microbial infection) Acts as a receptor for hepatitis C virus in hepatocytes (PubMed:17325668). Acts as a receptor for dengue virus (PubMed:24074594).
组织特异性	Strongly expressed in liver and kidney. Expressed in heart, brain, spleen, lung and testis.
疾病相关	Ichthyosis-sclerosing cholangitis neonatal syndrome
序列相似性	Belongs to the claudin family.
细胞定位	Cell junction, tight junction. Cell membrane.

图片



**All lanes :** Anti-Claudin 1 antibody [EPR25359-48] ([ab307692](#)) at 1/1000 dilution

- Lane 1 :** Mouse liver tissue lysate 20 µg
- Lane 2 :** Mouse kidney tissue lysate 20 µg
- Lane 3 :** Mouse colon tissue lysate 20 µg
- Lane 4 :** Rat liver tissue lysate 20 µg
- Lane 5 :** Rat kidney tissue lysate 20 µg

**Secondary**  
**All lanes :** Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated ([ab97051](#)) at 1/100000 dilution

**Predicted band size:** 22 kDa  
**Observed band size:** 19 kDa

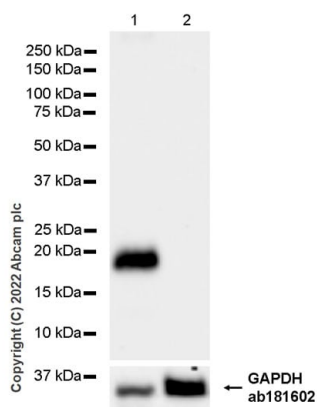
This data was developed using [ab307692](#), the same antibody clone in a different buffer formulation.

Blocking and diluting buffer and concentration: 5% NFDM/TBST

This blot was developed using a high sensitivity ECL substrate.

Anti-GAPDH antibody ([ab181602](#)) loading control staining at 1/200000 dilution.

Exposure time: 180 seconds



Western blot - Anti-Claudin 1 antibody [EPR25359-48] - BSA and Azide free (ab307693)

**All lanes :** Anti-Claudin 1 antibody [EPR25359-48] ([ab307692](#)) at 1/1000 dilution

**Lane 1 :** A431 (human epidermoid carcinoma epithelial cell) whole cell lysate 20 µg

**Lane 2 :** CLDN1 knockout A431 whole cell lysate 20 µg

### Secondary

**All lanes :** Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated ([ab97051](#)) at 1/100000 dilution

**Predicted band size:** 22 kDa

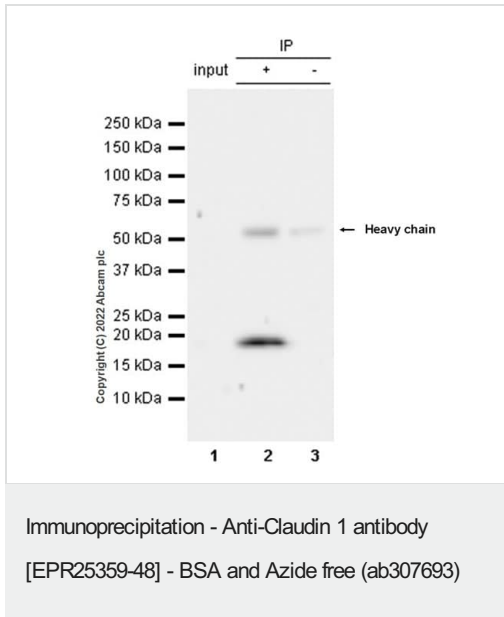
**Observed band size:** 19 kDa

This data was developed using [ab307692](#), the same antibody clone in a different buffer formulation.

Blocking and diluting buffer and concentration: 5% NFDM/TBST

In Western blot, [ab307692](#) was shown to bind specifically to Claudin 1. A band was observed at 19 kDa in A431 cell lysates whereas no signal was observed at this size in the CLDN1 knockout cell line ([ab261889](#)). Anti-GAPDH antibody ([ab181602](#)) loading control staining at 1/200000 dilution.

Exposure time: 15 seconds



This data was developed using **ab307692**, the same antibody clone in a different buffer formulation.

Claudin 1 was immunoprecipitated from 0.35 mg Mouse liver tissue lysate 10 µg with **ab307692** at 1/30 dilution (2 µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using **ab307692** at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(**ab131366**) was used at 1/5000 dilution.

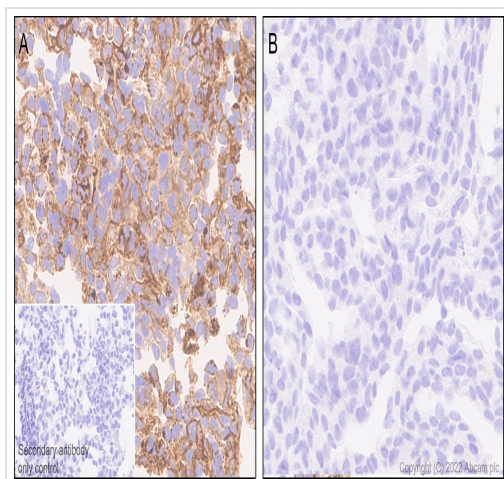
Lane 1: Mouse liver tissue lysate 10 µg

Lane 2: **ab307692** IP in Mouse liver tissue lysate

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab307692** in mouse liver whole cell lysate

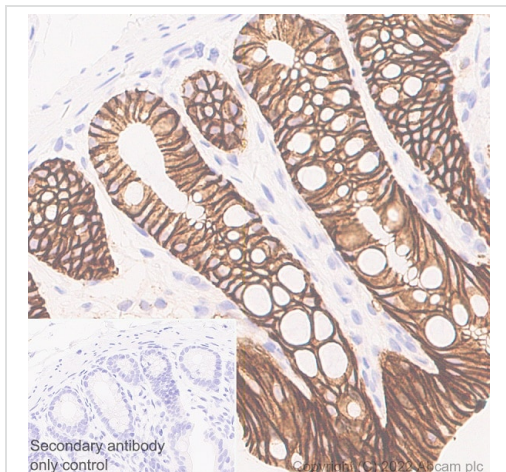
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 24 seconds



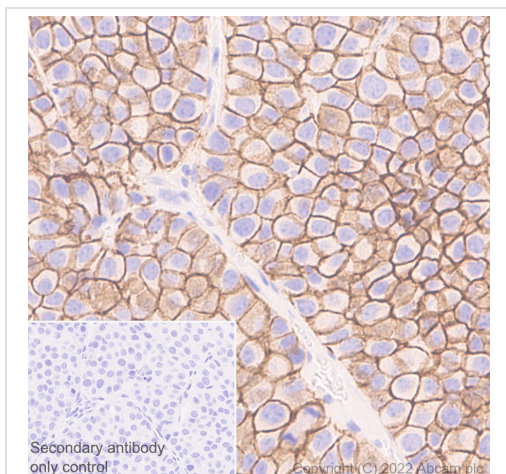
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 1 antibody  
[EPR25359-48] - BSA and Azide free (ab307693)

Immunohistochemical analysis of paraffin-embedded (A) Parental A431 (h tissue labeling Claudin 1 with **ab307692** at 1/500 (1.028 µg/ml) followed by a ready to use LeicaDS9800 (Bond® Polymer Refine Detection). Positive staining on parental A431 (human epidermal carcinoma cells) cell pellet, negative staining on CLDN1 knockout A431 cell pellet (**ab261889**). The section was incubated with **ab307692** for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond® Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 1 antibody [EPR25359-48] - BSA and Azide free (ab307693)

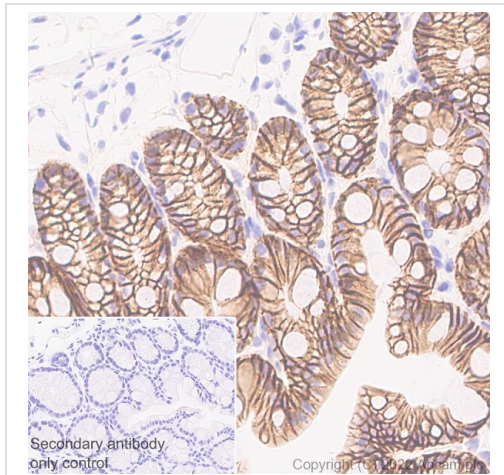
Immunohistochemical analysis of paraffin-embedded Rat colon tissue labeling Claudin 1 with **ab307692** at 1/100 (5.14 µg/ml) followed by a ready to use LeicaDS9800 (Bond® Polymer Refine Detection). Membranous staining on rat colon. The section was incubated with **ab307692** for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond® Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 1 antibody [EPR25359-48] - BSA and Azide free (ab307693)

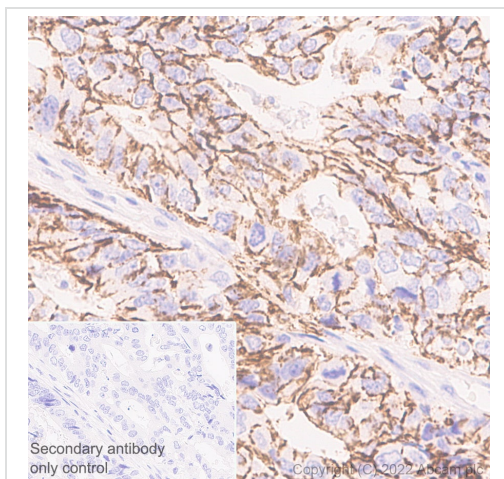
Immunohistochemical analysis of paraffin-embedded Mouse breast cancer tissue labeling Claudin 1 with **ab307692** at 1/100 (5.14 µg/ml) followed by a ready to use LeicaDS9800 (Bond® Polymer Refine Detection). Membranous staining on mouse breast cancer. The section was incubated with **ab307692** for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond® Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins





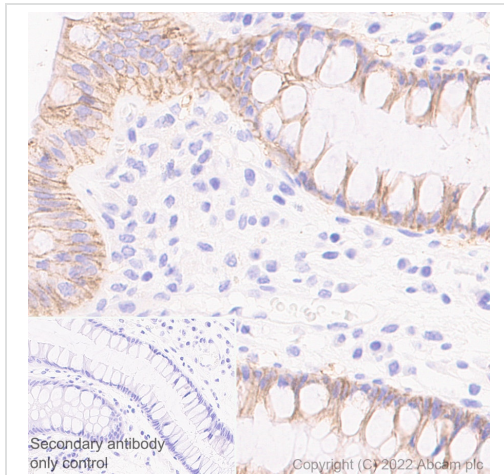
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 1 antibody [EPR25359-48] - BSA and Azide free (ab307693)

Immunohistochemical analysis of paraffin-embedded Mouse colon tissue labeling Claudin 1 with [ab307692](#) at 1/100 (5.14 µg/ml) followed by a ready to use LeicaDS9800 (Bond® Polymer Refine Detection). Membranous staining on mouse colon (PMID: 24626855). The section was incubated with [ab307692](#) for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond® Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



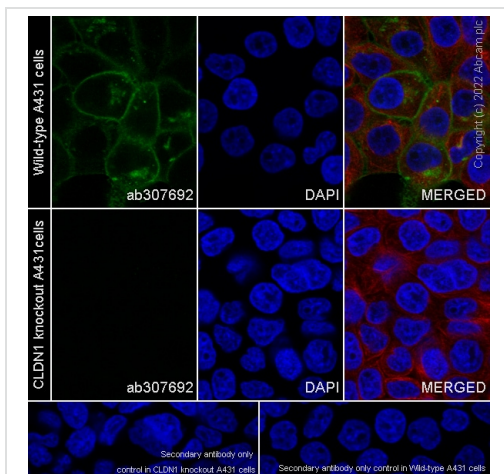
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 1 antibody [EPR25359-48] - BSA and Azide free (ab307693)

Immunohistochemical analysis of paraffin-embedded Human gastric adenoc tissue labeling Claudin 1 with [ab307692](#) at 1/100 (5.14 µg/ml) followed by a ready to use LeicaDS9800 (Bond® Polymer Refine Detection). Membranous staining on human gastric adenocarcinoma (PMID: 24535143). The section was incubated with [ab307692](#) for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond® Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 1 antibody [EPR25359-48] - BSA and Azide free (ab307693)

Immunohistochemical analysis of paraffin-embedded Human colon tissue labeling Claudin 1 with **ab307692** at 1/100 (5.14 µg/ml) followed by a ready to use LeicaDS9800 (Bond® Polymer Refine Detection). Membranous staining on human colon (PMID: 25038829). The section was incubated with **ab307692** for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond® Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunocytochemistry/ Immunofluorescence - Anti-Claudin 1 antibody [EPR25359-48] - BSA and Azide free (ab307693)

This data was developed using **ab307692**, the same antibody clone in a different buffer formulation.

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized CLDN1 KO A431 (CLDN1 knockout human epidermoid carcinoma epithelial cell) cells labelling Claudin 1 with **ab307692** at 1/50 (10.28 µg/ml) dilution, followed by **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 µg/ml dilution (Green). Confocal image showing membranous and cytoplasmic staining in wildtype A431 cells and showing no staining in CLDN1 knockout A431 cells. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). **ab195889** Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5 µg/ml dilution (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 µg/ml dilution.



### 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

Anti-Claudin 1 antibody [EPR25359-48] - BSA and Azide free (ab307693)

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

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