

## Product datasheet

### Anti-Claudin 5 antibody [EPR7583] ab131259

Recombinant **RabMAb**

★★★★★ [7 Abreviews](#) [66 References](#) [14 Images](#)

#### Overview

<b>Product name</b>	Anti-Claudin 5 antibody [EPR7583]
<b>Description</b>	Rabbit monoclonal [EPR7583] to Claudin 5
<b>Host species</b>	Rabbit
<b>Specificity</b>	<p>ab131259 failed to detect target band in mouse brain tissue.</p> <p>Mouse species is recommended based on WB result. This antibody is unsuitable to be used in IHC on mouse tissues.</p> <p>This antibody failed to get signal in cell lines when performing western blot, so we do not recommend to use it when testing cell lines in western blot.</p>
<b>Tested applications</b>	<p><b>Suitable for:</b> ICC/IF, WB, IHC-P</p> <p><b>Unsuitable for:</b> IHC-Fr</p>
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human
<b>Immunogen</b>	<p>Synthetic peptide within Human Claudin 5 aa 200 to the C-terminus (intracellular). The exact sequence is proprietary.</p> <p>Database link: <a href="#">O00501</a></p>
<b>Positive control</b>	WB: Mouse lung lysates, Human fetal brain, lung squamous cell cancer and small cell lung cancer, IHC-P: Human colon, tonsil, placenta, uterus, kidney and lung tissues. ICC/IF: HUVEC cells.
<b>General notes</b>	<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> <p>Rat: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.</p>

#### Properties

**Form** Liquid

<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR7583
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab131259 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

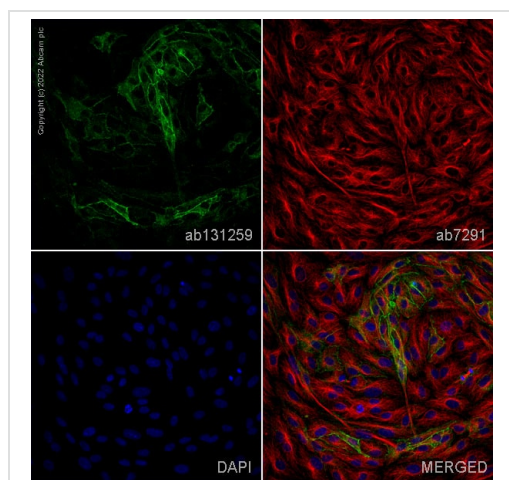
Application	Abreviews	Notes
ICC/IF	★★★★★ (1)	Use a concentration of 0.008 µg/ml.
WB	★★★★★ (1)	1/1000 - 1/10000. Detects a band of approximately 23 kDa (predicted molecular weight: 23 kDa). ab131259 failed to detect target band in mouse brain tissue.  This antibody failed to get signal in cell lines when performing western blot, so we do not recommend to use it when testing cell lines in western blot.
IHC-P	★★★★★ (4)	1/100 - 1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

**Application notes** Is unsuitable for IHC-Fr.

## Target

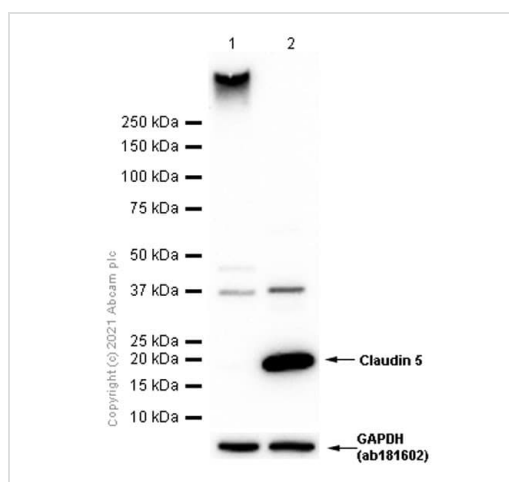
<b>Function</b>	Plays a major role in tight junction-specific obliteration of the intercellular space.
<b>Sequence similarities</b>	Belongs to the claudin family.
<b>Cellular localization</b>	Cell junction > tight junction. Cell membrane.

## Images



Immunocytochemistry/ Immunofluorescence - Anti-Claudin 5 antibody [EPR7583] (ab131259)

ab131259 staining Claudin 5 in HUVECs. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab131259 at 0.008 µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue). Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



Western blot - Anti-Claudin 5 antibody [EPR7583] (ab131259)

**All lanes** : Anti-Claudin 5 antibody [EPR7583] (ab131259) at 1/1000 dilution

**Lane 1** : Mouse lung lysates, boiled

**Lane 2** : Mouse lung lysates, unboiled

Lysates/proteins at 20 µg per lane.

### Secondary

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

**Predicted band size:** 23 kDa

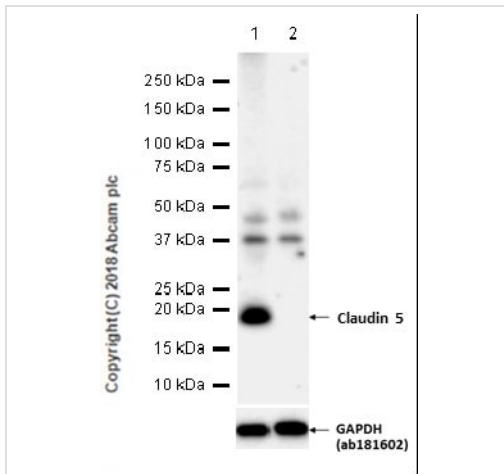
**Observed band size:** 20 kDa

**Exposure time:** 20 seconds

We recommend not to boil the samples after lysis to get desired WB results.

Blocking buffer and concentration: 5% NFDM/TBST

Diluting buffer and concentration: 5% NFDM/TBST



Western blot - Anti-Claudin 5 antibody [EPR7583] (ab131259)

**All lanes :** Anti-Claudin 5 antibody [EPR7583] (ab131259) at 1/1000 dilution

**Lane 1 :** Mouse lung tissue lysates with 5% NFDM/TBST

**Lane 2 :** Rat lung tissue lysates with 5% NFDM/TBST

Lysates/proteins at 20 µg per lane.

#### Secondary

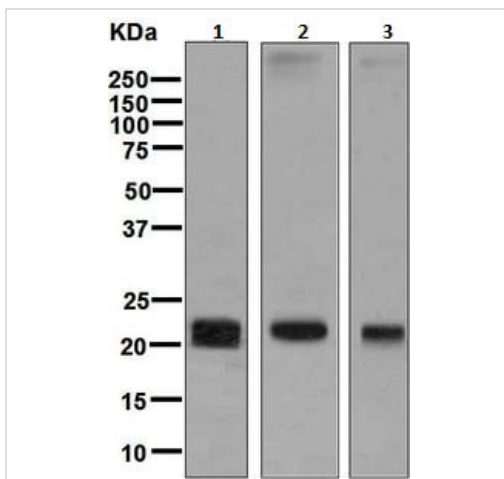
**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#))

**Predicted band size:** 23 kDa

**Observed band size:** 20 kDa

**Exposure time:** 3 minutes

We didn't recommend rat for that ab131259 failed to detect target band in rat lung in which Claudin 5 is highly expressed.



Western blot - Anti-Claudin 5 antibody [EPR7583] (ab131259)

**All lanes :** Anti-Claudin 5 antibody [EPR7583] (ab131259) at 1/1000 dilution (unpurified)

**Lane 1 :** Human fetal brain lysate

**Lane 2 :** Human lung squamous cell cancer lysate

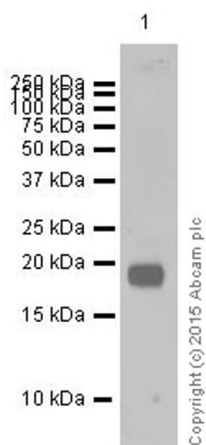
**Lane 3 :** Human small cell lung cancer lysate

Lysates/proteins at 10 µg per lane.

#### Secondary

**All lanes :** HRP labelled Goat anti Rabbit IgG at 1/2000 dilution

**Predicted band size:** 23 kDa



Western blot - Anti-Claudin 5 antibody [EPR7583]  
(ab131259)

Anti-Claudin 5 antibody [EPR7583] (ab131259) at 1/5000 dilution  
(purified) + Human small cell lung cancer at 10 µg

#### Secondary

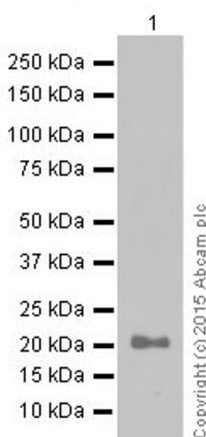
HRP goat anti-rabbit IgG (H+L) at 1/5000 dilution

**Predicted band size:** 23 kDa

**Observed band size:** 20 kDa

Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST



Western blot - Anti-Claudin 5 antibody [EPR7583]  
(ab131259)

Anti-Claudin 5 antibody [EPR7583] (ab131259) at 1/20000 dilution  
(purified) + Human lung squamous cell cancer lysate at 10 µg

#### Secondary

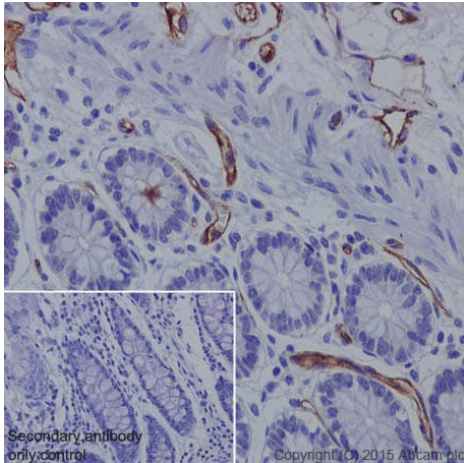
HRP goat anti-rabbit IgG (H+L) at 1/5000 dilution

**Predicted band size:** 23 kDa

**Observed band size:** 20 kDa

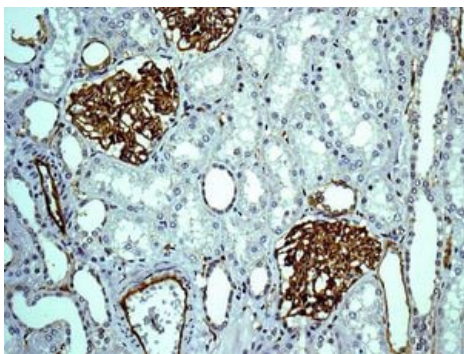
Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST



Immunohistochemical staining of paraffin embedded human colon with purified ab131259 at a working dilution of 1/1000. The secondary antibody used is HRP goat anti-rabbit IgG H&L (**ab97051**) at 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was performed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 5 antibody [EPR7583] (ab131259)

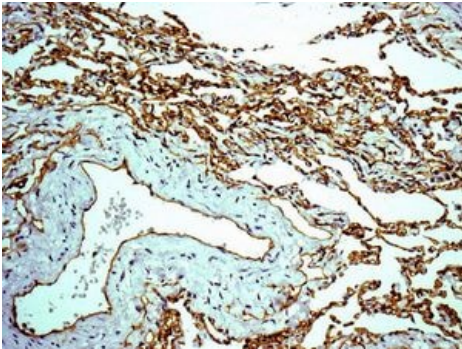


Immunohistochemical analysis of paraffin embedded Human kidney tissue labelling Claudin 5 with unpurified ab131259 antibody at 1/100 dilution.

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

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 5 antibody [EPR7583] (ab131259)

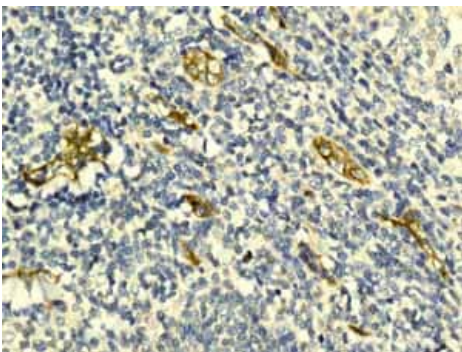




Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 5 antibody [EPR7583] (ab131259)

Immunohistochemical analysis of paraffin embedded Human lung tissue labelling Claudin 5 with unpurified ab131259 antibody at 1/100 dilution.

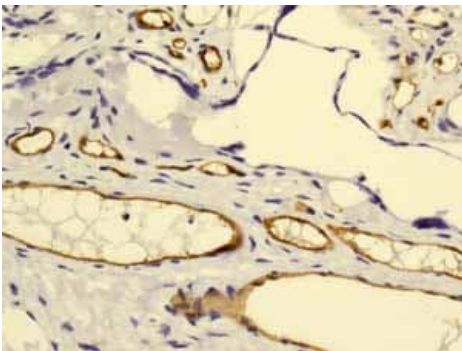
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 5 antibody [EPR7583] (ab131259)

Unpurified ab131259 showing positive staining in Normal tonsil tissue.

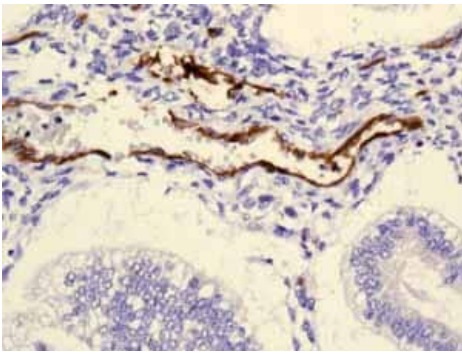
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 5 antibody [EPR7583] (ab131259)

Unpurified ab131259 showing positive staining in Normal placenta tissue.

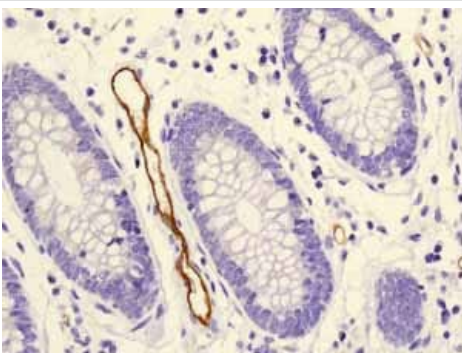
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 5 antibody [EPR7583] (ab131259)

Unpurified ab131259 showing positive staining in Normal uterus tissue.

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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 5 antibody [EPR7583] (ab131259)

Unpurified ab131259 showing positive staining in Normal colon tissue.

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

### 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 5 antibody [EPR7583] (ab131259)

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



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