# abcam

## Product datasheet

# Anti-Claudin 7/CLDN-7 antibody [EPR18073] ab207300

Recombinant RabMAb

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#### Overview

**Product name** Anti-Claudin 7/CLDN-7 antibody [EPR18073]

**Description** Rabbit monoclonal [EPR18073] to Claudin 7/CLDN-7

Host species Rabbit

Tested applications Suitable for: Flow Cyt (Intra), ICC/IF, IHC-P

Species reactivity Reacts with: Human

**Immunogen** Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

Positive control IHC-P; Human renal oncocytoma and Human endometrial cancer tissue. ICC/IF; MCF7 and

SW480 cells. Flow Cyt (intra); MCF7 cells.

**General notes**This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information  $\underline{\text{see here}}$ .

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**.

**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 long

term. Avoid freeze / thaw cycle.

Storage buffer pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol, 0.05% BSA

Purity Protein A purified

Clonality Monoclonal
Clone number EPR18073

**Isotype** IgG

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#### **Applications**

#### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab207300 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
Flow Cyt (Intra)		1/120.
ICC/IF	<b>★★★</b> ☆☆ (1)	1/250.
IHC-P	**** (1)	1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

#### **Target**

**Function** 

Plays a major role in tight junction-specific obliteration of the intercellular space.

Tissue specificity

Expressed in kidney, lung and prostate. Isoform 1 seems to be predominant, except in some normal prostate samples, where isoform 2 is the major form. Down-regulated in breast cancers, including ductal carcinoma in situ (DCIS), lobular carcinoma in situ (LCIS) and invasive ductal carcinoma (IDC) (at protein level), as well as in several cancer cell lines. Loss of expression correlates with histological grade, occurring predominantly in high-grade lesions.

Sequence similarities

Belongs to the claudin family.

Post-translational

modifications

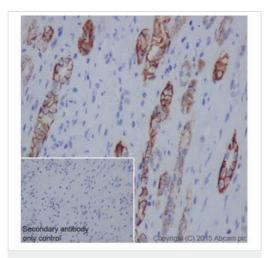
Phosphorylated.

**Cellular localization** 

 $\label{lem:condition} \textbf{Cell membrane. Cell junction > tight junction. Co-localizes with EPCAM\ at}$ 

the lateral cell membrane and tight junction.

## **Images**



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Claudin 7/CLDN-7 antibody [EPR18073] (ab207300)

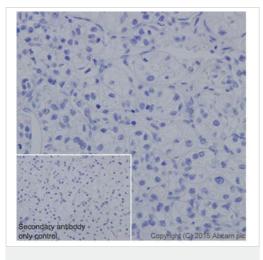
Immunohistochemical analysis of paraffin-embedded human renal oncocytoma tissue labeling Claudin 7/CLDN-7 with ab207300 at 1/1000 dilution followed by Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/500 dilution.

Membrane staining on human renal oncocytoma tissue is observed.

Counter stained with Hematoxylin.

Negative control: Used PBS instead of primary ab, secondary ab is Goat Anti-Rabbit IgG H&L (HRP) (ab97051).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Claudin 7/CLDN-7 antibody [EPR18073] (ab207300)

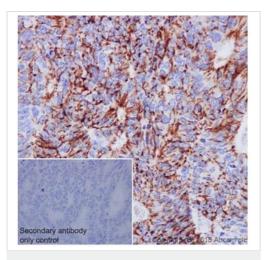
Immunohistochemical analysis of paraffin-embedded human renal clear cell carcinoma tissue labeling Claudin 7/CLDN-7 with ab207300 at 1/1000 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Negative staining on human renal clear cell carcinoma tissue is observed.

Counter stained with Hematoxylin.

Negative control: Used PBS instead of primary ab, secondary ab is Goat Anti-Rabbit lgG H&L (HRP) (ab97051).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Claudin 7/CLDN-7 antibody [EPR18073] (ab207300)

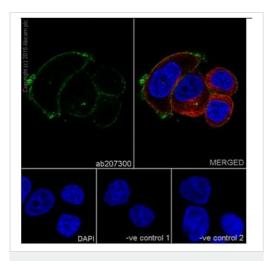
Immunohistochemical analysis of paraffin-embedded Human endometrial cancer tissue labeling Claudin 7/CLDN-7 with ab207300 at 1/1000 dilution followed by Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/500 dilution.

Membrane staining on human endometrial cancer tissue is observed.

Counter stained with Hematoxylin.

Negative control: Used PBS instead of primary ab, secondary ab is Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Claudin 7/CLDN-7 antibody [EPR18073] (ab207300)

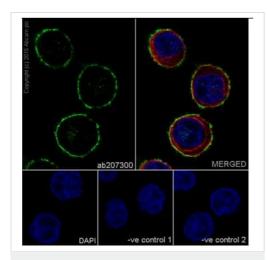
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized MCF7 (Human breast adenocarcinoma cell line) cells labeling Claudin 7/CLDN-7 with ab207300 at 1/250 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green).

Membranous staining on MCF7 cell line is observed.

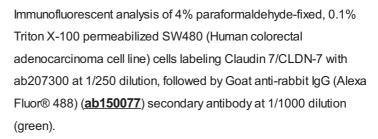
The nuclear counterstain is DAPI (blue). Tubulin is detected with <a href="mailto:ab7291">ab7291</a> (anti-Tubulin mouse mAb) at 1/1000 dilution and <a href="mailto:ab150120">ab150120</a> (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution (red).

The negative controls are as follows:-

-ve control 1 - ab207300 at 1/250 dilution followed byab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution. -ve control 2. - <u>ab7291</u> (anti-Tubulin mouse mAb) at 1/1000 dilution followed by <u>ab150077</u> (Alexa Fluor®488 Goat Anti-Rabbit lgG H&L) at 1/1000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-Claudin 7/CLDN-7 antibody [EPR18073] (ab207300)



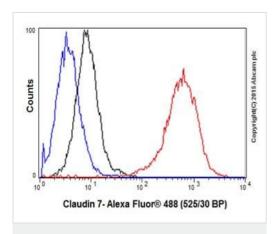
Membranous staining on SW480 cell line is observed.

The nuclear counterstain is DAPI (blue).

Tubulin is detected with <u>ab7291</u> (anti-Tubulin mouse mAb) at 1/1000 dilution and <u>ab150120</u> (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution (red).

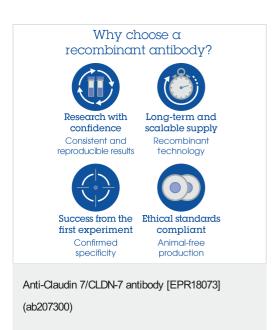
The negative controls are as follows:-

-ve control 1 - ab207300 at 1/250 dilution followed byab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution. -ve control 2. - **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution followed by **ab150077** (Alexa Fluor®488 Goat Anti-Rabbit lgG H&L) at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-Claudin 7/CLDN-7 antibody [EPR18073] (ab207300)

Intracellular Flow Cytometry analysis of MCF-7 (human breast carcinoma) labeling Claudin 7 with ab207300 at 1/120 dilution (0.5ug) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 0.1% Tween<sup>®</sup> 20. Goat anti rabbit lgG (Alexa Fluor<sup>®</sup>488) at 1/500 dilution was used as a secondary antibody. Isotype control - Rabbit monoclonal lgG (ab172730) (black). Unlableled control - cell without incubation with primary antibody and secondary antibody (blue).



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

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