abcam

ab207300

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

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR18073
Purification technique	Affinity purification Protein A
Concentration	0.67 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/250
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/120
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/1000
Notes	-

Target data

See full target information CLDN7

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

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Claudin 7 often referred to as CLDN-7 is a transmembrane protein with a molecular mass of approximately 22 kDa. It is part of the claudin family which includes other members like claudin-1 and claudin-3. CLDN-7 is prominently found in epithelial cells and plays an important role in forming tight junctions between cells. These tight junctions are integral in maintaining cell polarity and controlling the paracellular transport of ions and molecules.
Biological function summary	Claudin 7 contributes to the integrity and function of tight junctions by directly interacting with other claudins and zonula occludens-1 (ZO-1) thereby becoming part of a larger complex. This structure regulates the movement of substances between epithelial cells protecting tissues from pathogens and maintaining homeostasis. Claudin 7 is essential for proper barrier function in tissues like the respiratory tract and renal structures.
Pathways	The function of claudin 7 integrates within the epithelial barrier signaling pathway and the Wnt signaling pathway. Through these pathways CLDN-7 interacts with proteins like β-catenin. In the epithelial barrier pathway CLDN-7 helps maintain cellular adhesion and barrier function while in the Wnt pathway it might influence cell proliferation and differentiation indirectly through associated proteins.
Associated diseases and disorders	Claudin 7 has a significant connection with certain cancers such as gastric and colorectal cancer. Alterations in CLDN-7 expression can disrupt cell adhesion leading to increased invasiveness of cancer cells. It is often observed that in these cancers changes in CLDN-7 expression correlate with E-cadherin another key protein in maintaining tissue architecture and integrity. Additionally variations in CLDN-7 are linked to renal disorders where disrupted tight junctions can affect kidney function.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

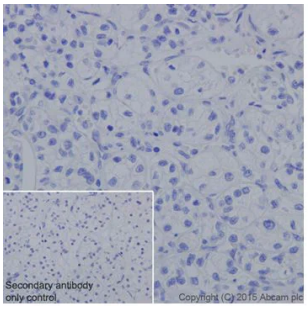
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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6 product images



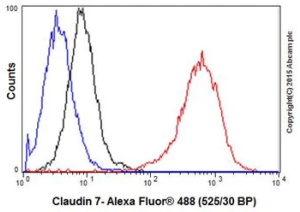
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 7/CLDN-7 antibody [EPR18073] (ab207300)

Claudin 7/CLDN-7 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Claudin 7/CLDN-7 antibody

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 IgG H&L (HRP) (ab97051).

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

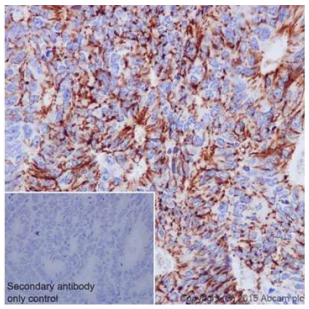


Flow Cytometry (Intracellular) - Anti-Claudin 7/CLDN-7 antibody [EPR18073] (ab207300)

Claudin 7/CLDN-7 Flow Cytometry (Intracellular) staining using rabbit Anti-Claudin 7/CLDN-7 antibody

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® 20. Goat anti rabbit IgG (Alexa Fluor®488) at 1/500 dilution was used as a secondary antibody. Isotype control - Rabbit monoclonal IgG (ab172730) (black). Unlableled control - cell without incubation with primary antibody and secondary antibody (blue).



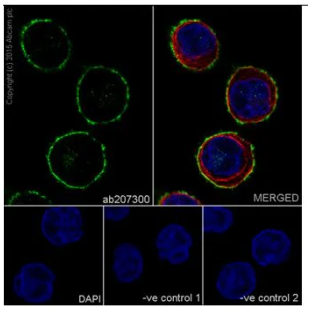
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Claudin 7/CLDN-7 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Claudin 7/CLDN-7 antibody

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 IgG 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.



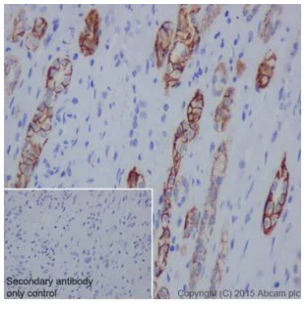
Immunocytochemistry/ Immunofluorescence - Anti-Claudin 7/CLDN-7 antibody [EPR18073] (ab207300)

Claudin 7/CLDN-7 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Claudin 7/CLDN-7 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed 0.1% Triton X-100 permeabilized SW480 (Human colorectal 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 SW480 cell line is observed.

The nuclear counterstain is DAPI (blue).

Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (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 IgG H&L) at 1/1000 dilution.



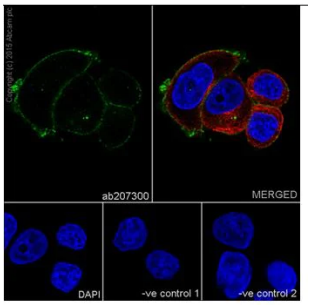
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Claudin 7/CLDN-7 antibody [EPR18073] (ab207300)

Claudin 7/CLDN-7 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Claudin 7/CLDN-7 antibody

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 IgG 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.



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

Claudin 7/CLDN-7 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Claudin 7/CLDN-7 antibody

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 ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution (red).
The negative controls are as follows:-
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-ve control 2. - ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/1000 dilution.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.