

Anti-Claudin-1 CLDN1 Antibody

Catalog Number: A01585-1

About CLDN1

Claudin1 (CLDN1), a member of the claudin family, is an integral membrane protein and a component of tight junction strands. Tight junctions are specialized regions of cell to cell contact consisting of networking strands that act as a molecular gasket for preventing the leakage of ions, water, etc., between cells. They are abundant in luminal epithelial sheets where they maintain epithelial cell polarity. Different tissues exhibit different Claudin composition and CLDN1 expression is often cell type and tissue dependent. Loss of function mutations result in neonatal ichthyosis-sclerosing cholangitis syndrome. CLDN1 and CLDN2 were found to be overexpressed in colonal cancer tissues and may be useful as tumor markers and targets for the treatment of colorectal cancer. Characterization of Claudins expression in human tumors can be an additional diagnostic tool. Recent studies show that CLDN1 has gastric tumor suppressive activity and is a direct transcriptional target of RUNX3. Along with SCARB1, LDL-R, and the tetraspanin superfamily member CD81, CLDN1 has been reported to be an entry factor for the Hepatitis C virus.

Overview

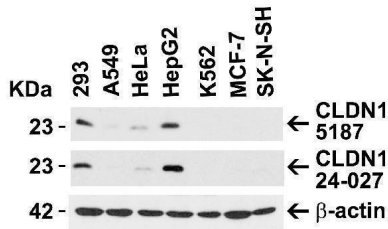
Product Name	Anti-Claudin-1 CLDN1 Antibody
Reactive Species	Human, Rat
Description	Boster Bio Anti-Claudin-1 CLDN1 Antibody (Catalog # A01585-1). Tested in ELISA, WB, ICC, IF applications. This antibody reacts with Human, Rat.
Application	ELISA, IF, ICC, WB
Clonality	Polyclonal
Formulation	CLDN1 Antibody is supplied in PBS containing 0.02% sodium azide.
Storage Instructions	CLDN1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. Avoid repeated freeze-thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Host	Rabbit
Uniprot ID	O95832

Technical Details

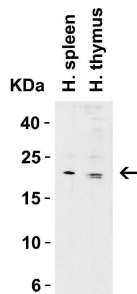
Immunogen	Anti-CLDN1 antibody was raised against a peptide corresponding to 20 amino acids near the carboxy terminus of human CLDN1. The immunogen is located within the last 50 amino acids of CLDN1.
Predicted Reactive Species	Bovine, Mouse
Isotype	IgG
Form	Liquid
Concentration	1 mg/mL

Purification	CLDN1 Antibody is affinity chromatography purified via peptide column.
Suggested Dilutions	WB: 1-2 ug/mL; ICC: 5 ug/mL; IF: 20 ug/mL. Antibody validated: Western Blot in human and rat samples; Immunocytochemistry in human samples; Immunofluorescence in human samples. All other applications and species not yet tested. Optimal dilutions for each application should be determined by the researcher.

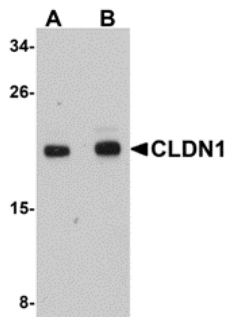
Anti-Claudin-1 CLDN1 Antibody (A01585-1) Images



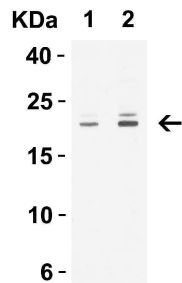
Independent Antibody Validation (IAV) via Protein Expression Profile in Human Cell Lines Loading: 15 ug of lysates per lane. Antibodies: CLDN1, A01585-1 (1 ug/mL), CLDN1, 24-027 (2 ug/mL), and beta-actin (1 ug/mL), 1h incubation at RT in 5% NFDm/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



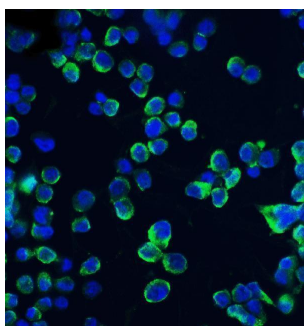
Western Blot Validation in Human Tissue Lysates Loading: 15 ug of lysates per lane. Antibodies: CLDN1, A01585-1 (1 ug/mL), 1h incubation at RT in 5% NFDm/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



Western Blot Validation in Human HepG2 Cell Lysate Loading: 15 ug of lysates per lane. Antibodies: CLDN1, A01585-1 (A: 1 ug/mL and B: 2 ug/mL), 1h incubation at RT in 5% NFDm/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



Western Blot Validation in Human Tissue Lysates Loading: 15 ug of lysates per lane. Antibodies: CLDN1, A01585-1 (1 ug/mL), 1h incubation at RT in 5% NFDm/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



Immunofluorescence Validation of CLDN1 in HepG2 Cells Immunofluorescent analysis of 4% paraformaldehyde-fixed HepG2 cells labeling CLDN1 with A01585-1 at 20 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (green) and DAPI staining (blue).

3 Publications Citing This Product

1. PubMed ID: -, Qing-qing Zhang, Ye Yang, Rong-rong Ren, Qing-qing Chen, Jing-jing Wu, Yu-yu Zheng, Xiao-hui Hou, Yu-feng Zhang, Ming-song Xue, Deng-ke Yin, Self-assembled aggregations in Coptis chinensis decoction dynamically regulate intestinal tissue permeability through peyer's patch-associated immunity, Chinese Herbal Medicines, 2021,, ISSN 1674-6384, <https://doi.org/10.1016/j.chmed.2021.06.004>.
2. PubMed ID: -, Xiaozhu Tian, Rong Li, Yiming Jiang, Fei Zhao, Zhengsheng Yu, Yiqing Wang, Zixing Dong, Pu Liu, Xiangkai Li, Bifidobacterium breve ATCC15700 pretreatment prevents alcoholic liver disease through modulating gut microbiota in mice exposed to chronic alcohol intake, J
3. PubMed ID: -, Xin-li Liang, Miao-miao Ji, Lai Chen, Ye Liao, Xiao-qiang Kong, Xi-qiang Xu, Zheng-gen Liao, Danny W. Wilson, Traditional Chinese herbal medicine Astragalus Radix and its effects on intestinal absorption of aconite alkaloids in rats, Chinese Herbal Medicines, 202

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