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Anti-Claudin 2 Antibody

Catalog # AP51093

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P57739
Reactivity	Human, Mouse, Rat, Pig, Bovine, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	24549

Additional Information

Gene ID	9075
Other Names	Claudin-2; SP82
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human Claudin 2. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

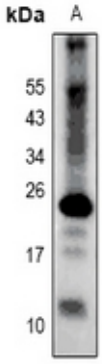
Protein Information

Name	CLDN2 {ECO:0000303|PubMed:31320686, ECO:0000312|HGNC:HGNC:2041}
Function	Forms paracellular channels: polymerizes in tight junction strands with cation- and water-selective channels through the strands, conveying epithelial permeability in a process known as paracellular tight junction permeability (PubMed:20460438, PubMed:36008380). In intestinal epithelium, allows for sodium and water fluxes from the peritoneal side to the lumen of the intestine to regulate nutrient absorption and clear enteric pathogens as part of mucosal immune response (By similarity). In kidney, allows passive sodium and calcium reabsorption across proximal tubules from the lumen back to the bloodstream (By similarity). In the hepatobiliary tract, allows paracellular water and cation fluxes in the hepatic perivenous areas and biliary epithelium to generate bile flow and maintain osmotic gradients (By similarity).
Cellular Location	Cell junction, tight junction. Cell membrane {ECO:0000250|UniProtKB:O88552}; Multi-pass membrane protein

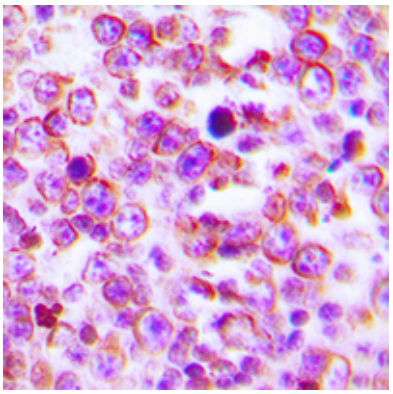
References

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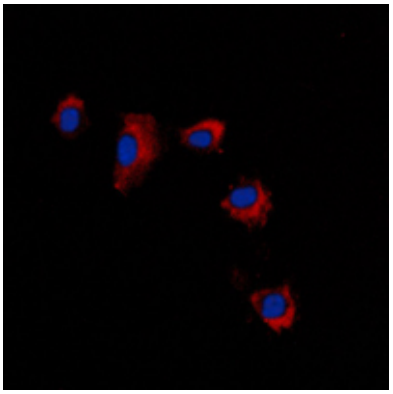
Images



Western blot analysis of Claudin 2 expression in AML12 (A) whole cell lysates. (Predicted band size: 24 kD; Observed band size: 24 kD)



Immunohistochemical analysis of Claudin 2 staining in human tonsil formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Claudin 2 staining in A431 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

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