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CLDN2 Antibody (C-term Y224)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12633b

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P57739
Other Accession	NP_001164566.1, NP_001164563.1
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB16648
Calculated MW	24549
Antigen Region	200-227

Additional Information

Gene ID	9075
Other Names	Claudin-2, SP82, CLDN2
Target/Specificity	This CLDN2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 200-227 amino acids from the C-terminal region of human CLDN2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CLDN2 Antibody (C-term Y224) is for research use only and not for use in diagnostic or therapeutic procedures.

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

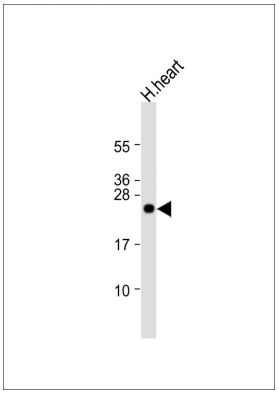
Background

This gene product belongs to the claudin protein family whose members have been identified as major integral membrane proteins localized exclusively at tight junctions. Claudins are expressed in an organ-specific manner and regulate tissue-specific physiologic properties of tight junctions. This protein is expressed in the intestine. Alternatively spliced transcript variants with different 5' untranslated region have been found for this gene.

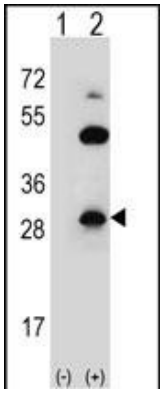
References

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Kojima, F., et al. Oncol. Rep. 23(4):927-931(2010)
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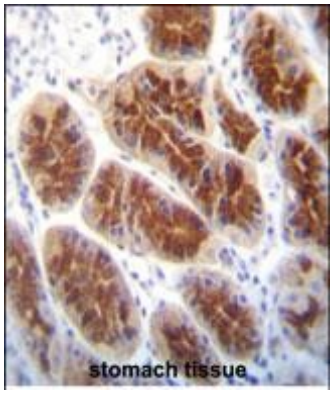
Images



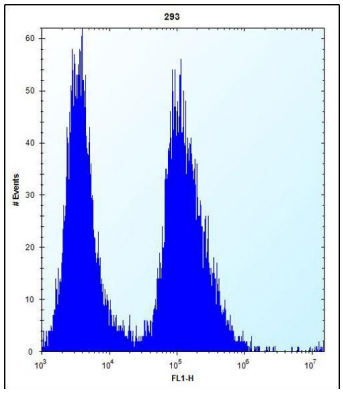
Anti-CLDN2 Antibody at 1:1000 dilution + human heart lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 25 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot analysis of CLDN2 (arrow) using rabbit polyclonal CLDN2 Antibody (Y224) (Cat. #AP12633b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the CLDN2 gene.



CLDN2 Antibody (C-term Y224) (Cat. #AP12633b)immunohistochemistry analysis in formalin fixed and paraffin embedded human stomach tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of CLDN2 Antibody (C-term Y224) for immunohistochemistry. Clinical relevance has not been evaluated.



CLDN2 Antibody (C-term Y224) (Cat. #AP12633b) flow cytometric analysis of 293 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

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