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CLDN2 Antibody (C-term Y195)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP12632b

Specification

CLDN2 Antibody (C-term Y195) - Product Information

Application	**FC, IHC-P, WB,E**
Primary Accession	P57739
Other Accession	NP_001164566.1, NP_065117.1
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**24549**
Antigen Region	**174-201**

CLDN2 Antibody (C-term Y195) - 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 174-201 amino acids from the C-terminal region of human CLDN2.

Dilution
FC~~1:10~50
IHC-P~~1:10~50
WB~~1:1000
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 Y195) is for research use only and not for use in diagnostic or therapeutic procedures.

CLDN2 Antibody (C-term Y195) - 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).

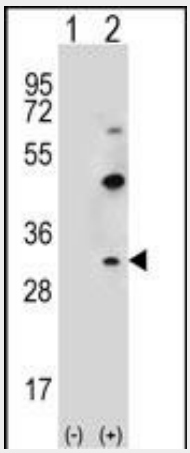
Cellular Location
Cell junction, tight junction. Cell membrane {ECO:0000250|UniProtKB:O88552}; Multi-pass membrane protein

CLDN2 Antibody (C-term Y195) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CLDN2 Antibody (C-term Y195) - Images



Western blot analysis of CLDN2 (arrow) using rabbit polyclonal CLDN2 Antibody (Y195) (Cat. #AP12632b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the CLDN2 gene.

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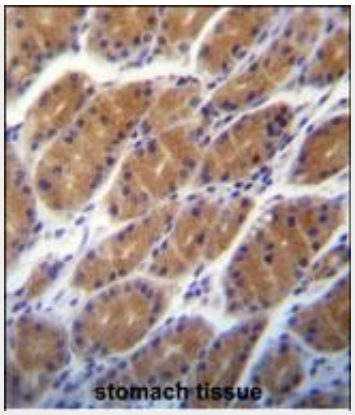
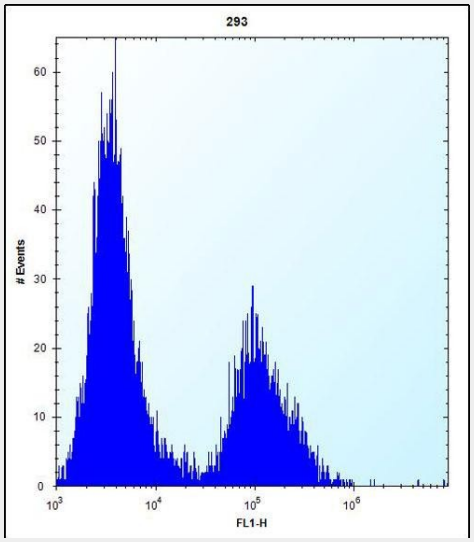


CLDN2 Antibody (C-term Y195) (Cat. #AP12632b)immunohistochemistry analysis in formalin fixed and paraffin embedded human stomach tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of CLDN2 Antibody (C-term Y195) for immunohistochemistry. Clinical relevance has not been evaluated.



CLDN2 Antibody (C-term Y195) (Cat. #AP12632b) 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.

CLDN2 Antibody (C-term Y195) - 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.

CLDN2 Antibody (C-term Y195) - References

Smith, A.J., et al. J. Acquir. Immune Defic. Syndr. 55(3):306-315(2010)
Kojima, F., et al. Oncol. Rep. 23(4):927-931(2010)
Szakal, D.N., et al. Virchows Arch. 456(3):245-250(2010)
Buchert, M., et al. Proc. Natl. Acad. Sci. U.S.A. 107(6):2628-2633(2010)

Mankertz, J., et al. Cell Tissue Res. 336(1):67-77(2009)