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Anti-Claudin 2 Antibody
Catalog # ABO12727

Specification

Anti-Claudin 2 Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	P57739
Host	**Rabbit**
Reactivity	**Human, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Claudin-2(CLDN2) detection. Tested with WB, IHC-P in Human;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Claudin 2 Antibody - Additional Information

Gene ID 9075

Other Names
Claudin-2, SP82, CLDN2

Calculated MW
24549 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat
Western blot, 0.1-0.5 µg/ml, Rat, Human

Subcellular Localization
Cell junction, tight junction . Cell membrane ; Multi-pass membrane protein .

Protein Name
Claudin-2

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E.coli-derived human Claudin 2 recombinant protein (Position: A38-V230). Human Claudin 2 shares 92% amino acid (aa) sequence identity with mouse Claudin 2.

Purification
Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-Claudin 2 Antibody - 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

Anti-Claudin 2 Antibody - 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

Anti-Claudin 2 Antibody - Images

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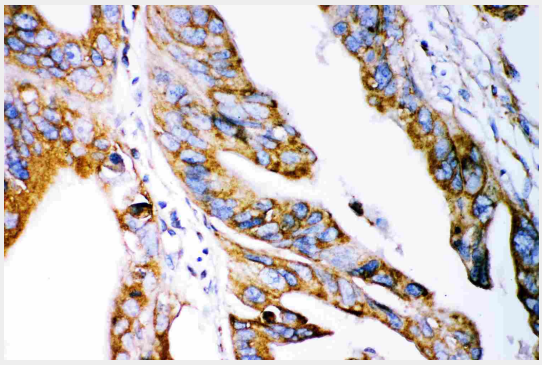
Anti- Claudin 2 antibody, ABO12727, Western blottingAll lanes: Anti Claudin 2 (ABO12727) at 0.5ug/mlLane 1: Rat Kidney Tissue Lysate at 50ugLane 2: Rat Liver Tissue Lysate at 50ugPredicted bind size: 25KDObserved bind size: 25KD



Anti- Claudin 2 antibody, ABO12727, IHC(P)IHC(P): Human Intestinal Cancer Tissue

Anti-Claudin 2 Antibody - Background

Claudin-2 is a protein that in humans is encoded by the CLDN2 gene. By genomic sequence analysis, this gene is mapped to chromosome Xq22.3-q23. 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. By expression in a human intestinal epithelial cell line, it was determined that the intestine-specific homeodomain proteins CDX1 and CDX2 activated a reporter plasmid driven by the CLDN2 promoter.