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Claudin 16 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55270

Specification

Claudin 16 Polyclonal Antibody - Product Information

Application	**IHC-P, IHC-F, IF, ICC, E**
Primary Accession	Q9Y5I7
Reactivity	**Rat, Dog, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**34 KDa**
Physical State	**Liquid**
Immunogen	**KLH conjugated synthetic peptide derived from human Claudin 16**
Epitope Specificity	**95-150/305**
Isotype	**IgG**
Purity	
affinity purified by Protein A	
Buffer	**0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.**
SUBCELLULAR LOCATION	**Cell junction; tight junction. Cell membrane.**
SIMILARITY	**Belongs to the claudin family.**
DISEASE	**Defects in CLDN16 are the cause of hypomagnesemia type 3 (HOMG3) [MIM:248250]; also known as familial hypomagnesemia with hypercalciuria and nephrocalcinosis (FHHNC). HOMG3 is a progressive renal disease characterized by primary renal magnesium wasting with hypomagnesemia, hypercalciuria and nephrocalcinosis. Recurrent urinary tract infections and kidney stones are often observed. In spite of hypercalciuria, patients do not show hypocalcemia.**
Important Note	**This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.**

Background Descriptions
Tight junctions mediate the regulation of the paracellular pathway between epithelial and endothelial cells. They form close connections to eliminate the extracellular space and regulate the flow of solutes between cells. The human gene PCLN-1 (paracellin-1) is related to the claudin family of integral membrane proteins, which localize to tight junctions. PCLN-1 contains four transmembrane domains and intracellular amino and carboxy termini, characteristic of the other claudin family members, and is detected only at the tight junctions of kidney tissue. PCLN-1 forms an intercellular pore and controls the resorption of magnesium and calcium in the thick ascending limb of Henle (TAL). Mutations in PCLN-1 cause renal magnesium wasting, which may contribute to a rare autosomal recessive disease, renal hypomagnesemia with hypercalciuria and nephrocalcinosis.

Claudin 16 Polyclonal Antibody - Additional Information

Gene ID 10686

Other Names
Claudin-16, Paracellin-1, PCLN-1, CLDN16, PCLN1

Target/Specificity
Kidney-specific, including the thick ascending limb of Henle (TAL).

Dilution
IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

Storage
Store at -20 ℃ for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 ℃.

Claudin 16 Polyclonal Antibody - Protein Information

Name CLDN16 {ECO:0000303|PubMed:18188451, ECO:0000312|HGNC:HGNC:2037}

Function
Forms paracellular channels: coassembles with CLDN19 into tight junction strands with cation-selective channels through the strands, conveying epithelial permeability in a process known as paracellular tight junction permeability (PubMed:16234325, PubMed:18188451, PubMed:28028216). Involved in the maintenance of ion gradients along the nephron. In the thick ascending limb (TAL) of Henle's loop, facilitates sodium paracellular permeability from the interstitial compartment to the lumen, contributing to the lumen- positive transepithelial potential that drives paracellular magnesium and calcium reabsorption (PubMed:10390358, PubMed:11518780, PubMed:14628289, PubMed:16528408, PubMed:28028216).

Cellular Location
Cell junction, tight junction. Cell membrane; Multi-pass membrane protein. Note=Cotrafficks with CLDN19 from ER to tight junctions.

Tissue Location
Kidney-specific, including the thick ascending limb of Henle (TAL).

Claudin 16 Polyclonal 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

Claudin 16 Polyclonal Antibody - Images