

Claudin 19 Rabbit pAb

Catalog # AP97254

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q8N6F1
Other Accession	Q8N6F1
Reactivity	Mouse
Predicted	Rat, Human, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	23229
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Claudin 19
Epitope Specificity	21-120/224
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the claudin family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The Claudin superfamily consists of many structurally related proteins in humans. These proteins are important structural and functional components of tight junctions in paracellular transport. Claudins are located in both epithelial and endothelial cells in all tight junction-bearing tissues. Three classes of proteins are known to localize to tight junctions, including the claudins, Occludin and Junction adhesion molecules. Claudins, which consist of four transmembrane domains and two extracellular loops, make up tight junction strands. Claudin expression is often highly restricted to specific regions of different tissues and may have an important role in transcellular transport through tight junctions. Claudin-19 is a 224 amino acid multi-pass membrane protein that belongs to the claudin family and is expressed as two isoforms due to alternative splicing events. Defects in the gene encoding claudin-19 are the cause of hypomagnesemia renal with ocular involvement (HOMGO), a renal disease characterized by hypomagnesemia, hypercalciuria and nephrocalcinosis.

Additional Information

Gene ID	149461
Other Names	HOMG5; CLD19_HUMAN; CLDN19; claudin 19
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C 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 °C.

Protein Information

Name	CLDN19 {ECO:0000303 PubMed:25555744, ECO:0000312 HGNC:HGNC:2040}
Function	Forms paracellular channels: coassembles with CLDN16 into tight junction strands with cation-selective channels through the strands, conveying epithelial permeability in a process known as paracellular tight junction permeability (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 (By similarity) (PubMed: 17033971 , PubMed: 25555744). Forms paracellular barriers on its own. In the peripheral nervous system, represents a major constituent of the tight junctions in Schwann cells and contributes to electrical sealing. During retinal neurogenesis, may regulate the barrier properties of tight junctions in retinal pigment epithelium, required for proper retinal tissue differentiation and vision (By similarity) (PubMed: 17033971 , PubMed: 30937396).
Cellular Location	Cell junction, tight junction. Cell membrane; Multi-pass membrane protein. Note=Cotrafficks with CLDN16 from ER to tight junctions. Colocalizes with CLDN16 and CLDN3 in cell- cell contact areas of the TAL spatially separated from CLDN10b paracellular channels.

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