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CLDN16 Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10435A

Specification

CLDN16 Antibody (N-term) - Product Information

Application	**FC, IHC-P, WB,E**
Primary Accession	Q9Y5I7
Other Accession	NP_006571.1
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**26078**
Antigen Region	**6-33**

CLDN16 Antibody (N-term) - Additional Information

Gene ID 10686

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

Target/Specificity
This CLDN16 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 6-33 amino acids from the N-terminal region of human CLDN16.

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
CLDN16 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

CLDN16 Antibody (N-term) - 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.

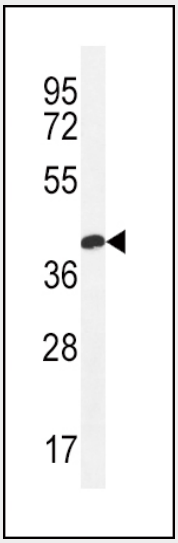
Tissue Location
Kidney-specific, including the thick ascending limb of Henle (TAL).

CLDN16 Antibody (N-term) - 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

CLDN16 Antibody (N-term) - Images



CLDN16 Antibody (N-term) (Cat. #AP10435a) western blot analysis in MDA-MB435 cell line lysates (35ug/lane).This demonstrates the CLDN16 antibody detected the CLDN16 protein (arrow).

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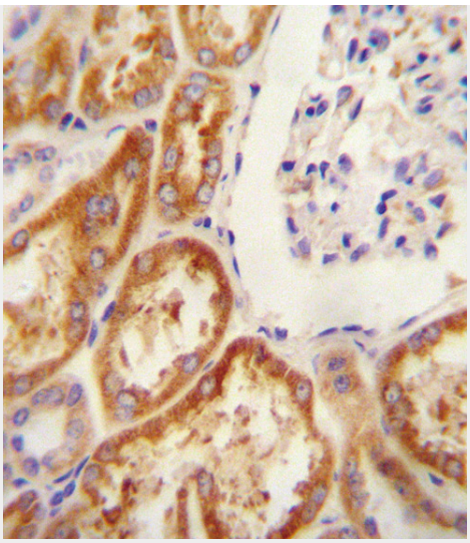
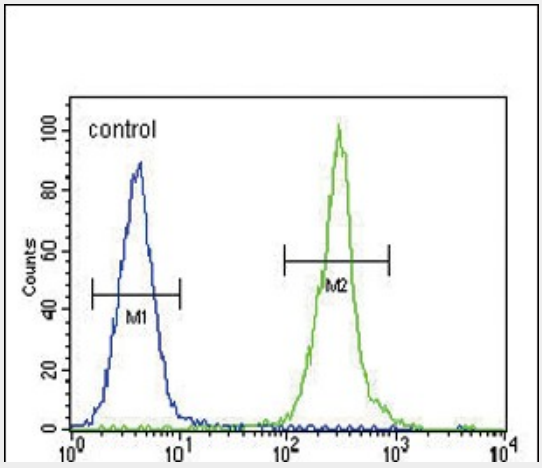


CLDN16 antibody (N-term) (Cat. #AP10435a) immunohistochemistry analysis in formalin fixed and paraffin embedded human Kidney tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the CLDN16 antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.



CLDN16 Antibody (N-term) (Cat. #AP10435a) flow cytometric analysis of MDA-MB435 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

CLDN16 Antibody (N-term) - Background

Tight junctions represent one mode of cell-to-cell adhesion in epithelial or endothelial cell sheets, forming continuous seals around cells and serving as a physical barrier to prevent solutes and water from passing freely through the paracellular space. These junctions are comprised of sets of continuous networking strands in the outwardly facing cytoplasmic leaflet, with complementary grooves in the inwardly facing extracytoplasmic leaflet. The protein encoded by this gene, a member of the claudin family, is an integral membrane protein and a component of tight junction strands. It is found primarily in the kidneys, specifically in the thick ascending limb of Henle, where it acts as either an intercellular pore or ion concentration sensor to regulate the paracellular resorption of magnesium ions. Defects in this gene are a cause of primary hypomagnesemia, which is

characterized by massive renal magnesium wasting with hypomagnesemia and hypercalciuria, resulting in nephrocalcinosis and renal failure. This gene and the CLDN1 gene are clustered on chromosome 3q28.

CLDN16 Antibody (N-term) - References

Kuo, S.J., et al. Oncol. Rep. 24(3):759-766(2010)
Efrati, E., et al. Cell. Physiol. Biochem. 25(6):705-714(2010)
Shuen, A.Y., et al. Clin. Chim. Acta 409 (1-2), 28-32 (2009) :
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