

**Claudin 1 (CLDN1) Antibody (Loop1)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP6308a****Specification**

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**Claudin 1 (CLDN1) Antibody (Loop1) - Product Information**

Application	IHC-P, WB,E
Primary Accession	<a href="#">O95832</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	40-82

**Claudin 1 (CLDN1) Antibody (Loop1) - Additional Information****Gene ID** 9076**Other Names**

Claudin-1, Senescence-associated epithelial membrane protein, CLDN1, CLD1, SEMP1

**Target/Specificity**

This Claudin 1(CLDN1) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 40-82 amino acids from human Claudin 1(CLDN1).

**Dilution**

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 prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**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**

Claudin 1 (CLDN1) Antibody (Loop1) is for research use only and not for use in diagnostic or therapeutic procedures.

**Claudin 1 (CLDN1) Antibody (Loop1) - Protein Information****Name** CLDN1**Synonyms** CLD1, SEMP1

**Function** Claudins function as major constituents of the tight junction complexes that regulate the permeability of epithelia. While some claudin family members play essential roles in the formation of impermeable barriers, others mediate the permeability to ions and small molecules. Often, several claudin family members are coexpressed and interact with each other, and this determines the overall permeability. CLDN1 is required to prevent the paracellular diffusion of small molecules through tight junctions in the epidermis and is required for the normal barrier function of the skin. Required for normal water homeostasis and to prevent excessive water loss through the skin, probably via an indirect effect on the expression levels of other proteins, since CLDN1 itself seems to be dispensable for water barrier formation in keratinocyte tight junctions (PubMed:[23407391](#)).

#### Cellular Location

Cell junction, tight junction. Cell membrane; Multi-pass membrane protein. Basolateral cell membrane Note=Associates with CD81 and the CLDN1-CD81 complex localizes to the basolateral cell membrane.

#### Tissue Location

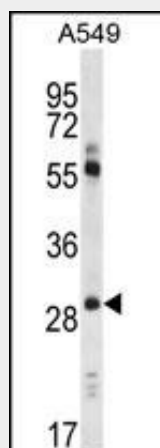
Strongly expressed in liver and kidney. Expressed in heart, brain, spleen, lung and testis.

### Claudin 1 (CLDN1) Antibody (Loop1) - Protocols

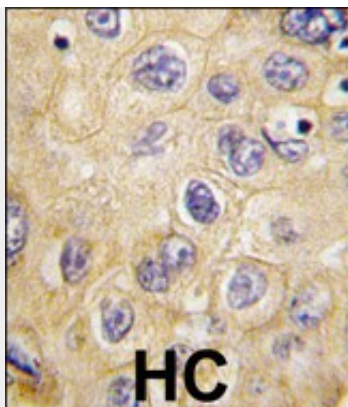
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Claudin 1 (CLDN1) Antibody (Loop1) - Images



CLDN1 Antibody (Loop1) (Cat.#AP6308a) western blot analysis in A549 cell line lysates (35ug/lane). This demonstrates the CLDN1 antibody detected the CLDN1 protein (arrow).



Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with hCLDN1-Loop1 (Cat.#AP6308a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

#### **Claudin 1 (CLDN1) Antibody (Loop1) - 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. CLDN1, a member of the claudin family, is an integral membrane protein and a component of tight junction strands. Loss of function mutations result in neonatal ichthyosis-sclerosing cholangitis syndrome.

#### **Claudin 1 (CLDN1) Antibody (Loop1) - References**

Kinugasa,T., Anticancer Res. 27 (6A), 3729-3734 (2007) Paschoud,S., Mod. Pathol. 20 (9), 947-954 (2007) Morohashi,S., Int. J. Mol. Med. 20 (2), 139-143 (2007) Krajewska,M., Prostate 67 (9), 907-910 (2007)