

**Claudin 1 (CLDN1) Antibody (Loop2) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP6308b****Specification**

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**Claudin 1 (CLDN1) Antibody (Loop2) Blocking peptide - Product Information**Primary Accession [O95832](#)**Claudin 1 (CLDN1) Antibody (Loop2) Blocking peptide - Additional Information****Gene ID** 9076**Other Names**

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

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP6308b](/product/products/AP6308b) was selected from the Loop2 region of human CLDN1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**Claudin 1 (CLDN1) Antibody (Loop2) Blocking peptide - 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: <http://www.uniprot.org/citations/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 (Loop2) Blocking peptide - Protocols**

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

- [Blocking Peptides](#)

**Claudin 1 (CLDN1) Antibody (Loop2) Blocking peptide - Images****Claudin 1 (CLDN1) Antibody (Loop2) Blocking peptide - Background**

CLDN1, a member of the claudin family, is an integral membrane protein and a component of tight junction strands. 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. Loss of function mutations result in neonatal ichthyosis-sclerosing cholangitis syndrome.

**Claudin 1 (CLDN1) Antibody (Loop2) Blocking peptide - 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)