

Anti-Claudin 1 CLDN1 Rabbit Monoclonal Antibody

Catalog # ABO14010

Product Information

Application	WB
Primary Accession	O95832
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-Claudin 1 CLDN1 Rabbit Monoclonal Antibody . Tested in WB application. This antibody reacts with Human, Mouse, Rat.

Additional Information

Gene ID	9076
Other Names	Claudin-1, Senescence-associated epithelial membrane protein, CLDN1, CLD1, SEMP1
Calculated MW	22744
Application Details	WB 1:500-1:2000
Subcellular Localization	Cell junction, tight junction. Cell membrane; Multi-pass membrane protein.
Tissue Specificity	Strongly expressed in liver and kidney. Expressed in heart, brain, spleen, lung and testis..
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: ABEH-3
Immunogen	A synthesized peptide derived from human Claudin 1
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

Name	CLDN1
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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.

Images

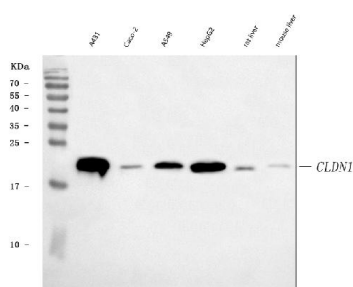


Figure 1. Western blot analysis of Claudin 1 using anti-Claudin 1 antibody (M01585).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human A431 whole cell lysates,
Lane 2: human Caco-2 whole cell lysates,
Lane 3: human A549 whole cell lysates,
Lane 4: human HepG2 whole cell lysates,
Lane 5: rat liver tissue lysates,
Lane 6: mouse liver tissue lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Claudin 1 antigen affinity purified monoclonal antibody (Catalog # M01585) at 1:500 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Claudin 1 at approximately 23 kDa. The expected band size for Claudin 1 is at 23 kDa.

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