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Anti-Claudin 1 Antibody

Catalog # AP59766

Product Information

Application	WB, IHC, IF/IC
Primary Accession	O95832
Reactivity	Human, Mouse, Rat, Bovine, Dog, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	22744

Additional Information

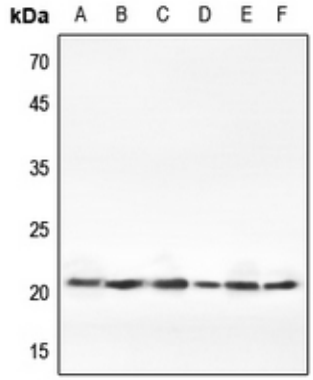
Gene ID	9076
Other Names	CLD1; SEMP1; Claudin-1; Senescence-associated epithelial membrane protein
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human Claudin 1. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/100 - 1/200) IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

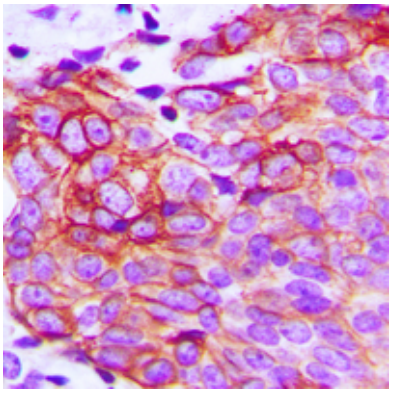
Name	CLDN1
Synonyms	CLD1, SEMP1
Function	Claudins function as major constituents of the tight junction complexes that regulate the permeability of epithelia. While some claudin family members play essential roles in the formation of impermeable barriers, others mediate the permeability to ions and small 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.

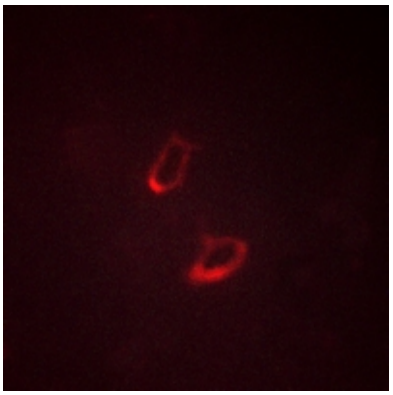
Images



Western blot analysis of Claudin 1 expression in Hela (A), H1688 (B), mouse liver (C), mouse kidney (D), rat liver (E), rat kidney (F) whole cell lysates. (Predicted band size: 22 kD; Observed band size: 22 kD)

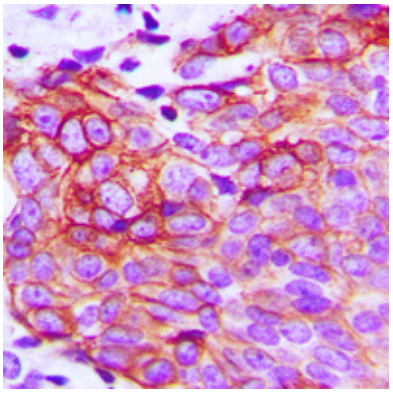


Immunohistochemical analysis of Claudin 1 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Claudin 1 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

Immunohistochemical analysis of Claudin 1 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



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