

Mouse Anti-Claudin 4 [A12]: MC0209, MC0209RTU7

Intended Use: For Research Use Only

Description: The claudin superfamily consists of many structurally related proteins in humans. These proteins are important structural and functional components of tight junctions in paracellular transport. Claudins are located in both epithelial and endothelial cells in all tight junction-bearing tissues. Three classes of proteins are known to localize to tight junctions, including the Claudins, Occludin and Junction adhesion molecule. Claudins, which consist of four transmembrane domains and two extracellular loops make up tight junction strands. Claudin expression is highly restricted to specific regions of different tissues and may have an important role in transcellular transport through tight junctions. Claudin-4 is not expressed in rat liver, whereas in pancreas, claudin-4 is localized to junctions of the duct epithelia and junctions of acinar cells. In the rat gut, claudin-4 displays highly restricted expression to colonic surface cells. The human claudin-4 gene maps to chromosome 7q11.23.

Specifications:

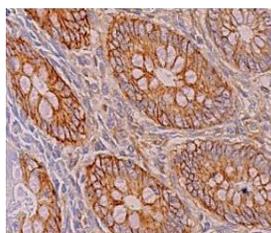
Clone: A12
 Source: Mouse
 Isotype: IgG1k
 Reactivity: Human, mouse, rat
 Immunogen: An epitope mapping between amino acids 183-209 within a C-terminal cytoplasmic domain of claudin-4 of human origin
 Localization: Cell junction, membrane
 Formulation: Antibody in PBS pH7.4, containing BSA and $\leq 0.09\%$ sodium azide (NaN₃)
 Storage: Store at 2°- 8°C
 Applications: IHC, ELISA, ICC/IF, IP, WB
 Package:

Description	Catalog No.	Size
Claudin 4 Concentrated	MC0209	1 ml
Claudin 4 Prediluted	MC0209RTU7	7 ml

IHC Procedure*:

Positive Control Tissue: Appendix, extracts from HeLa cells
 Concentrated Dilution: 50-200
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
 Incubation Time and Temp: 30-60 minutes @ RT
 Detection: Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human appendix stained with anti-Claudin 4 using DAB

References:

1. Changes in the expression profiles of claudins during gonocyte differentiation and in seminomas. Manku, G. et al. *Andrology*. 4: 95-110, 2016.
2. Claudin-4 undergoes age-dependent change in cellular localization on pig jejunal villous epithelial cells, independent of bacterial colonization. Pasternak JA, et al. *Mediators Inflamm* 2015:263629, 2015.
3. Claudin-4 expression in gastric cancer cells enhances the invasion and is associated with the increased level of matrix metalloproteinase-2 and -9 expression. Hwang TL, et al. *Oncol Lett* 8:1367-1371, 2014.