

Claudin-1 (D5H1D) XP[®] Rabbit mAb

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Applications: W, IP, IHC-P	Reactivity: H Dg	Sensitivity: Endogenous	MW (kDa): 20	Source/Isotype: Rabbit IgG	UniProt ID: #O95832	Entrez-Gene Id: 9076
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Product Usage Information**Application**

Western Blotting
Immunoprecipitation
Immunohistochemistry (Paraffin)

Dilution

1:1000
1:200
1:125 - 1:500

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Claudin-1 (D5H1D) XP[®] Rabbit mAb recognizes endogenous levels of total claudin-1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human claudin-1 protein.

Background

Tight junctions, or zonula occludens, form a continuous barrier to fluids across the epithelium and endothelium. They function in regulation of paracellular permeability and in the maintenance of cell polarity, blocking the movement of transmembrane proteins between the apical and the basolateral cell surfaces. Tight junctions are composed of claudin and occludin proteins, which join the junctions to the cytoskeleton (1,2). The claudin family is composed of 23 integral membrane proteins, and their expression, which varies among tissue types, may determine both the strength and properties of the epithelial barrier. Alteration in claudin protein expression pattern is associated with several types of cancer (2,3). Claudin-1 is expressed primarily in keratinocytes (4) and normal mammary epithelial cells, but is absent or reduced in breast carcinomas and breast cancer cell lines (5,6).

Background References

1. Shin, K. et al. (2006) *Annu Rev Cell Dev Biol* 22, 207-35.
2. Oliveira, S.S. and Morgado-Díaz, J.A. (2007) *Cell Mol Life Sci* 64, 17-28.
3. Hewitt, K.J. et al. (2006) *BMC Cancer* 6, 186.
4. Brandner, J.M. et al. (2002) *Eur J Cell Biol* 81, 253-63.
5. Krämer, F. et al. (2000) *Hum Genet* 107, 249-56.
6. Swisshelm, K. et al. (1999) *Gene* 226, 285-95.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human **Dg:** Dog

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