

#13995 Store at -20°C

Claudin-1 (D3H7C) Rabbit mAb**Cell Signaling**
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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IF-IC	H	Endogenous	20	Rabbit IgG	#O95832	9076

Product Usage Information	Application Western Blotting Immunofluorescence (Immunocytochemistry)	Dilution 1:1000 1:200 - 1:800
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. <i>Do not aliquot the antibody.</i>	
Specificity / Sensitivity	Claudin-1 (D3H7C) Rabbit mAb recognizes endogenous levels of total claudin-1 protein. In both claudin-1-positive and claudin-1-negative cell lines, the antibody cross-reacts with a band of unknown origin, which migrates at approximately 120 kDa by SDS-PAGE electrophoresis.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro194 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) <i>Annu Rev Cell Dev Biol</i> 22, 207-35. 2. Oliveira, S.S. and Morgado-Díaz, J.A. (2007) <i>Cell Mol Life Sci</i> 64, 17-28. 3. Hewitt, K.J. et al. (2006) <i>BMC Cancer</i> 6, 186. 4. Brandner, J.M. et al. (2002) <i>Eur J Cell Biol</i> 81, 253-63. 5. Krämer, F. et al. (2000) <i>Hum Genet</i> 107, 249-56. 6. Swisshelm, K. et al. (1999) <i>Gene</i> 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	WB: Western Blotting IF-IC: Immunofluorescence (Immunocytochemistry)
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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