

# claudin-10 (m2): 293T Lysate: sc-119283

## BACKGROUND

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 molecules. Claudins, which consist of four transmembrane domains and two extracellular loops, make up tight junction strands. Claudin expression is often highly restricted to specific regions of different tissues and may have an important role in transcellular transport through tight junctions. Claudin-10 is a 228 amino acid multi-pass membrane protein that belongs to the claudin family and plays an important role in cell-adhesion activity and tight junction-specific events.

## REFERENCES

1. Fanning, A.S., Mitic, L.L. and Anderson, J.M. 1999. Transmembrane proteins in the tight junction barrier. *J. Am. Soc. Nephrol.* 10: 1337-1345.
2. Fujita, K., Katahira, J., Horiguchi, Y., Sonoda, N., Furuse, M. and Tsukita, S. 2000. Clostridium perfringens enterotoxin binds to the second extracellular loop of claudin-3, a tight junction integral membrane protein. *FEBS Lett.* 476: 258-261.
3. Heiskala, M., Peterson, P.A. and Yang, Y. 2001. The roles of claudin superfamily proteins in paracellular transport. *Traffic* 2: 93-98.
4. Nishiyama, R., Sakaguchi, T., Kinugasa, T., Gu, X., MacDermott, R.P., Podolsky, D.K. and Reinecker, H.C. 2001. IL-2 receptor  $\beta$  subunit dependent and independent regulation of intestinal epithelial tight junctions. *J. Biol. Chem.* 276: 35571-35580.
5. Anderson, J.M. 2001. Molecular structure of tight junctions and their role in epithelial transport. *News Physiol. Sci.* 16: 126-130.
6. Rahner, C., Mitic, L.L. and Anderson, J.M. 2001. Heterogeneity in expression and subcellular localization of claudins-2, -3, -4, and -5 in the rat liver, pancreas, and gut. *Gastroenterology* 120: 411-422.

## CHROMOSOMAL LOCATION

Genetic locus: Cldn10 (mouse) mapping to 14 E4.

## PRODUCT

claudin-10 (m2): 293T Lysate represents a lysate of mouse claudin-10 transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

claudin-10 (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive claudin-10 antibodies. Recommended use: 10-20  $\mu$ l per lane.

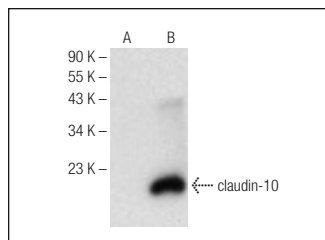
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

claudin-10 (H-10): sc-373700 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse claudin-10 expression in claudin-10 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

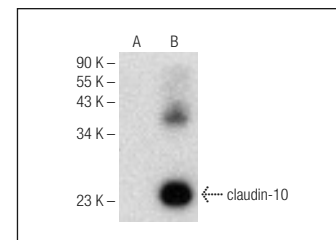
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



claudin-10 (H-10): sc-373700. Western blot analysis of claudin-10 expression in non-transfected: sc-117752 (A) and mouse claudin-10 transfected: sc-119283 (B) 293T whole cell lysates.



claudin-10 (G-12): sc-373946. Western blot analysis of claudin-10 expression in non-transfected: sc-117752 (A) and mouse claudin-10 transfected: sc-119283 (B) 293T whole cell lysates.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.