



# claudin-8 (h): 293T Lysate: sc-176061

## 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-8 is a multi-pass membrane protein that belongs to the claudin family. Localized to the apical and the lateral margins of principal cells, claudin-8 plays an important role in tight junction-specific obliteration of the intercellular space.

## 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. 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.
6. Wolburg, H., Wolburg-Buchholz, K., Liebner, S. and Engelhardt, B. 2001. Claudin-1, claudin-2 and claudin-11 are present in tight junctions of choroid plexus epithelium of the mouse. *Neurosci. Lett.* 307: 77-80.
7. LocusLink Report (LocusID: 5010). <http://www.ncbi.nlm.nih.gov/Locuslink/>

## CHROMOSOMAL LOCATION

Genetic locus: CLDN8 (human) mapping to 21q22.11.

## PRODUCT

claudin-8 (h): 293T Lysate represents a lysate of human claudin-8 transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

claudin-8 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive claudin-8 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.

## STORAGE

Store at  $-20^{\circ}$  C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## RESEARCH USE

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

## PROTOCOLS

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