

claudin-9 (h2): 293T Lysate: sc-111499

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 molecule. 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-9 is highly similar to claudin-3 (also designated clostridium perfringens enterotoxin receptor). Claudin-9 is expressed in simian virus (SV)40-immortalized human corneal epithelial (THCE) cells. The human claudin-9 gene maps to chromosome 16p13.3.

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. Yi, X., Wang, Y. and Yu, F.S. 2000. Corneal epithelial tight junctions and their response to lipopolysaccharide challenge. *Invest. Ophthalmol. Vis. Sci.* 41: 4093-4100.
4. Heiskala, M., Peterson, P.A. and Yang, Y. 2001. The roles of claudin superfamily proteins in paracellular transport. *Traffic* 2: 93-98.
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. Nishiyama, R., Sakaguchi, T., Kinugasa, T., Gu, X., MacDermott, R.P., Podolsky, D.K. and Reinecker, H.C. 2001. IL-2 receptor β subunit dependent and independent regulation of intestinal epithelial tight junctions. *J. Biol. Chem.* 276: 35571-35580.
7. LocusLink Report (LocusID: 9080). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: CLDN9 (human) mapping to 16p13.3.

PRODUCT

claudin-9 (h2): 293T Lysate represents a lysate of human claudin-9 transfected 293T cells and is provided as 100 μ g protein in 200 μ 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.

RESEARCH USE

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

APPLICATIONS

claudin-9 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive claudin-9 antibodies. Recommended use: 10-20 μ l per lane.

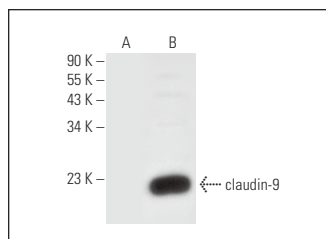
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

claudin-9 (E-7): sc-398836 is recommended as a positive control antibody for Western Blot analysis of enhanced human claudin-9 expression in claudin-9 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 κ BP-HRP: sc-516102 or m-IgG κ 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-9 (E-7): sc-398836. Western blot analysis of claudin-9 expression in non-transfected: sc-117752 (A) and human claudin-9 transfected: sc-111499 (B) 293T whole cell lysates.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.