

claudin-6 (C-20): sc-17669

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-6 is expressed in differentiated F9 cells that resemble tight junction-bearing visceral endoderm resulting from stimulation with retinoic acid and mediated by RXR α and RAR γ . Claudin-6 is absent in mouse brain and lung. The human claudin-6 gene maps to chromosome 16p13.3.

REFERENCES

1. Fanning, A.S., et al. 1999. Transmembrane proteins in the tight junction barrier. *J. Am. Soc. Nephrol.* 10: 1337-1345.
2. Morita, K., et al. 1999. Endothelial claudin: claudin-5/TMVCF constitutes tight junction strands in endothelial cells. *J. Cell Biol.* 147: 185-194.

CHROMOSOMAL LOCATION

Genetic locus: CLDN6 (human) mapping to 16p13.3; Cldn6 (mouse) mapping to 17 A3.3.

SOURCE

claudin-6 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of claudin-6 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-17669 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

claudin-6 (C-20) is recommended for detection of claudin-6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for claudin-6 siRNA (h): sc-43046, claudin-6 siRNA (m): sc-43047, claudin-6 shRNA Plasmid (h): sc-43046-SH, claudin-6 shRNA Plasmid (m): sc-43047-SH, claudin-6 shRNA (h) Lentiviral Particles: sc-43046-V and claudin-6 shRNA (m) Lentiviral Particles: sc-43047-V.

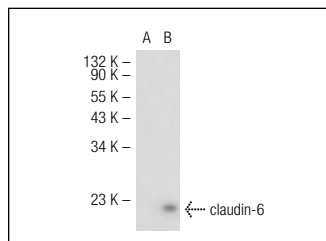
Molecular Weight of claudin-6: 23 kDa.

Positive Controls: claudin-6 (m): 293T Lysate: sc-119291.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



claudin-6 (C-20): sc-17669. Western blot analysis of claudin-6 expression in non-transfected: sc-117752 (A) and mouse claudin-6 transfected: sc-119291 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Michlig, S., et al. 2007. Claudin-based permeability barriers in taste buds. *J. Comp. Neurol.* 502: 1003-1011.
2. Väre, P. and Soini, Y. 2010. Twist is inversely associated with claudins in germ cell tumors of the testis. *APMIS* 118: 640-647.
3. Chen, A.E., et al. 2013. Functional evaluation of ES cell-derived endodermal populations reveals differences between nodal and activin A-guided differentiation. *Development* 140: 675-686.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **claudin-6 (A-4): sc-393671**, our highly recommended monoclonal alternative to claudin-6 (C-20).