

claudin-24 (L-14): sc-246288

BACKGROUND

The claudin superfamily consists of structurally related proteins that are important structural and functional components of tight junctions. Three classes of proteins are known to localize to tight junctions, including the claudins, Occludin and Junction adhesion molecules (JAMs). Claudins, which consist of four transmembrane domains and two extracellular loops make up tight junction strands. Emerging evidence suggests that the Claudin family of proteins regulates transport through tight junctions via differential discrimination for solute size and charge. Claudin-24, also known as CLDN24, is a 205 amino acid multi-pass membrane protein that localizes to tight junctions and belongs to the claudin family. Claudin-24 is involved in obliteration of intracellular space at the tight junction via calcium-independent cell-adhesion and is encoded by a gene that maps to human chromosome 4q35.1.

REFERENCES

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6. Angelow, S., Ahlstrom, R. and Yu, A.S. 2008. Biology of claudins. *Am. J. Physiol. Renal Physiol.* 295: F867-F876.
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CHROMOSOMAL LOCATION

Genetic locus: CLDN24/CLDN22 (human) mapping to 4q35.1.

SOURCE

claudin-24 (L-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of claudin-24 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-246288 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

claudin-24 (L-14) is recommended for detection of claudin-22 and claudin-24 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Molecular Weight of claudin-24: 23 kDa.

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) 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.

RESEARCH USE

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

PROTOCOLS

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