

claudin-19 (T-14): sc-162690

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-19 is a 224 amino acid multi-pass membrane protein that belongs to the claudin family and is expressed as 2 isoforms due to alternative splicing events. Defects in the gene encoding claudin-19 are the cause of hypomagnesemia renal with ocular involvement (HOMGO), a renal disease characterized by hypomagnesemia, hypercalciuria and nephrocalcinosis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CLDN19 (human) mapping to 1p34.2; Cldn19 (mouse) mapping to 4 D2.1.

SOURCE

claudin-19 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of claudin-19 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-162690 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

claudin-19 (T-14) is recommended for detection of claudin-19 of mouse, rat and 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); non cross-reactive with other claudin family members.

claudin-19 (T-14) is also recommended for detection of claudin-19 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for claudin-19 siRNA (h): sc-88300, claudin-19 siRNA (m): sc-142364, claudin-19 shRNA Plasmid (h): sc-88300-SH, claudin-19 shRNA Plasmid (m): sc-142364-SH, claudin-19 shRNA (h) Lentiviral Particles: sc-88300-V and claudin-19 shRNA (m) Lentiviral Particles: sc-142364-V.

Molecular Weight of claudin-19: 22 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.

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.

PROTOCOLS

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