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 (JAM). Claudins, which consist of four transmembrane domains and two extracellular loops, make up tight junction strands. Claudin expression is highly restricted to specific regions of different tissues and may have an important role in transcellular transport through tight junctions. mRNA studies indicate that claudin-7 is specifically expressed in mouse lung and kidney, but not in heart, brain, spleen, liver, skeletal muscle or testis. The gene encoding human claudin-7 maps to chromosome 17p13.1.

**CHROMOSOMAL LOCATION**

Genetic locus: CLDN7 (human) mapping to 17p13.1; Cldn7 (mouse) mapping to 11 B3.

**SOURCE**

claudin-7 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of claudin-7 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-17670 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-7 (C-15) is recommended for detection of claudin-7 of mouse, rat and human origin by Western Blotting (starting dilution: 1:200, dilution range: 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg 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: 1:30-1:300).

claudin-7 (C-15) is also recommended for detection of claudin-7 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for claudin-7 siRNA (h): sc-43048, claudin-7 siRNA (m): sc-43049, claudin-7 shRNA Plasmid (h): sc-43048-SH, claudin-7 shRNA Plasmid (m): sc-43049-SH, claudin-7 shRNA (h) Lentiviral Particles: sc-43048-V and claudin-7 shRNA (m) Lentiviral Particles: sc-43049-V.

Molecular Weight of claudin-7: 24 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136, T-47D cell lysate: sc-2293 or HCT-116 whole cell lysate: sc-364175.

**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: 1:200-1:100,000) 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**

**SELECT PRODUCT CITATIONS**


**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.