**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 highly restricted to specific regions of different tissues and may have an important role in transcellular transport through tight junctions.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: CLDN5 (human) mapping to 22q11.21.

**SOURCE**

claudin-5 (A-12) is a mouse monoclonal antibody raised against amino acids 167-218 mapping at the C-terminus of claudin-5 of human origin.

**PRODUCT**

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

claudin-5 (A-12) is available conjugated to agarose (sc-374221 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374221 HRP), 200 µg/ml, for WB, (IHC) and ELISA; to either phycoerythrin (sc-374221 PE), fluorescein (sc-374221 FITC), Alexa Fluor® 488 (sc-374221 AF488), Alexa Fluor® 546 (sc-374221 AF546), Alexa Fluor® 594 (sc-374221 AF594) or Alexa Fluor® 647 (sc-374221 AF647), 200 µg/ml, for WB (RGB), IF, (IHC) and FCM; and to either Alexa Fluor® 680 (sc-374221 AF680) or Alexa Fluor® 790 (sc-374221 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**STORAGE**

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

**APPLICATIONS**

claudin-5 (A-12) is recommended for detection of claudin-5 of human origin by Western Blotting (starting dilution 1:100, 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 1:30-1:3000).

Suitable for use as control antibody for claudin-5 siRNA (h); sc-43044, claudin-5 shRNA Plasmid (h); sc-43044-HR and claudin-5 shRNA (h) Lentiviral Particles: sc-43044-V.

Molecular Weight of phosphorylated claudin-5: 23 kDa.

Molecular Weight of glycosylated claudin-5: 31-35 kDa.


**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**


**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

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