**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. Claudin-5 is expressed in the endothelial junctions of the rat liver (sc-374221 AF647), 200 µg/ml, for IF, IHC (P) and FCM.

**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 187-218 mapping at the C-terminus of claudin-5 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 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 (P) and ELISA; and to either phycoerythrin (sc-374221 PE), fluorescein (sc-374221 FITC), Alexa Fluor® 488 (sc-374221 AF488) or Alexa Fluor® 647 (sc-374221 AF647), 200 µg/ml, for IF, IHC (P) and FCM.

**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 1:30-1:300).

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG HRP; sc-516102 or m-IgG 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-IgG HRP-FITC: sc-516140 or m-IgG HRP-PE: sc-516141 (dilution range: 1:100-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

![Western Blot Analysis](image)

claudin-5 (A-12) sc-374221 Western blot analysis of claudin-5 expression in non-transfected: sc-117752 (A) and human claudin-5 transfected: sc-114900 (B) 293T whole cell lysates.

**SELECT PRODUCT CITATIONS**


**STORAGE**

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

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