

# claudin-5 (H-52): sc-28670

## 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 and in junctions of acinar cells of the pancreas. Human claudin-5 is abundantly expressed in adult lung, heart and skeletal muscle and is deleted in patients with velocardiofacial syndrome, which is characterized by cleft palate, facial dysmorphism and conotruncal heart defects.

## CHROMOSOMAL LOCATION

Genetic locus: CLDN5 (human) mapping to 22q11.21; Cldn5 (mouse) mapping to 16 A3.

## SOURCE

claudin-5 (H-52) is a rabbit polyclonal antibody raised against amino acids 167-218 mapping at the C-terminus of claudin-5 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.

## APPLICATIONS

claudin-5 (H-52) is recommended for detection of claudin-5 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 1:30-1:3000).

claudin-5 (H-52) is also recommended for detection of claudin-5 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for claudin-5 siRNA (h): sc-43044, claudin-5 siRNA (m): sc-43045, claudin-5 shRNA Plasmid (h): sc-43044-SH, claudin-5 shRNA Plasmid (m): sc-43045-SH, claudin-5 shRNA (h) Lentiviral Particles: sc-43044-V and claudin-5 shRNA (m) Lentiviral Particles: sc-43045-V.

Molecular Weight of phosphorylated claudin-5: 23 kDa.

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

Positive Controls: claudin-5 (h): 293T Lysate: sc-114920.

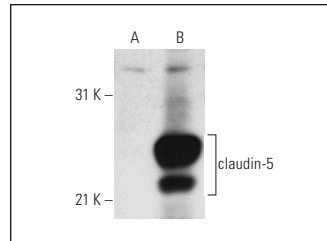
## STORAGE

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.

## DATA



claudin-5 (H-52): sc-28670. Western blot analysis of claudin-5 expression in non-transfected: sc-117752 (A) and human claudin-5 transfected: sc-114920 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- Liao, C.W., et al. 2008. Blood-brain barrier impairment with enhanced SP, NK-1R, GFAP and claudin-5 expressions in experimental cerebral toxocarisis. *Parasite Immunol.* 30: 525-534.
- Wongdee, K., et al. 2008. Osteoblasts express claudins and tight junction-associated proteins. *Histochem. Cell Biol.* 130: 79-90.
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- Escudero-Esparza, A., et al. 2012. Claudin-5 is involved in breast cancer cell motility through the N-WASP and ROCK signalling pathways. *J. Exp. Clin. Cancer Res.* 31: 43.
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