**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-1 is a multi-pass membrane protein that is expressed at high levels in kidney and liver and at lower levels in spleen, heart, brain, lung and testis. Defects in the gene encoding claudin-1 are the cause of ichthyosis-sclerosing cholangitis neonatal syndrome (NISCH), an autosomal recessive syndrome characterized by vulgar type ichthyosis, scalp hypotrichosis, scarring alopecia and sclerosing cholangitis.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: CLDN1 (human) mapping to 3q28; ClDN1 (mouse) mapping to 16 B2.

**SOURCE**

Claudin-1 (A-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 168-207 at the C-terminus of claudin-1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Claudin-1 (A-9) is available conjugated to agarose (sc-166338 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166338 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-166338 PE), fluorescein (sc-166338 FITC), Alexa Fluor® 488 (sc-166338 AF488) or Alexa Fluor® 647 (sc-166338 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-166338 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

**STORAGE**

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