

# Rabbit Anti-Claudin 14 antibody

# SL10554R

Product Name:	Claudin 14
Chinese Name:	紧 <b>密连接蛋白14抗体</b>
Alias:	Claudin-14; CLDN14; DFNB29; Human CLDN14 gene; OTTHUMP00000109046; OTTHUMP00000109049; OTTMUSP00000021531; UNQ777/PRO1571.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Pig, Cow, Horse, Rabbit, Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	26kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Claudin 14:21-120/221 <extracellular></extracellular>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20 °C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	<u>PubMed</u>
Product Detail:	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 specfic regions of different tissues and may have an important role in transcellular transport through tight junctions. Claudin-14 is a multi-pass membrane protein that is expressed in liver, kidney and ear. Defects in the gene encoding claudin-14 are the cause of non-syndromic sensorineural deafness autosomal recessive type 29 (DFNB29), a form of hearing loss resulting from damage to either nerve pathways or neural receptors of the inner ear.

#### **Function:**

Plays a major role in tight junction-specific obliteration of the intercellular space, through calcium-independent cell-adhesion activity. Acts as a co-receptor for HCV entry into hepatic cells.

### Subunit:

Can form homo- and heteropolymers with other CLDN. Homopolymers interact with CLDN3, but not CLDN2, homopolymers. Directly interacts with TJP1/ZO-1, TJP2/ZO-2 and TJP3/ZO-3. Interacts with MPDZ and INADL (By similarity). May interact with HCV E1 and E2 proteins.

#### **Subcellular Location:**

Cell junction, tight junction. Cell membrane; Multi-pass membrane protein.

## Tissue Specificity:

Strongly expressed in liver and kidney. Expressed in heart, brain, spleen, lung and testis.

#### **DISEASE:**

Defects in CLDN1 are the cause of ichthyosis-sclerosing cholangitis neonatal syndrome (NISCH) [MIM:607626]; also called ichthyosis with leukocyte vacuoles alopecia and sclerosing cholangitis (ILVASC). NISCH is a rare autosomal recessive complex ichthyosis syndrome characterized by scalp hypotrichosis, scarring alopecia, vulgar type ichthyosis, and sclerosing cholangitis.

#### Similarity:

Belongs to the claudin family.

# **SWISS:**

O95500

#### Gene ID:

23562

#### Database links:

Entrez Gene: 23562Human

Entrez Gene: 56173Mouse

Entrez Gene: 304073Rat

Omim: 605608Human

SwissProt: O95500Human

SwissProt: Q9Z0S3Mouse

<u>Unigene: 660278</u>Human

Unigene: 328716Mouse

# **Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.