



## Synonym

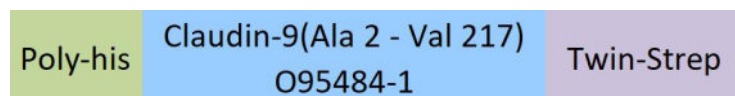
CLDN9

## Source

Human Claudin-9, His, Twin-Strep Tag (CL9-H5586) is expressed from Baculovirus-Insect cells. It contains AA Ala 2 - Val 217 (Accession # [O95484-1](#)).

Predicted N-terminus: Met

## Molecular Characterization



This protein carries a polyhistidine tag at the N-terminus and a twin strep tag at the C-terminus.

The protein has a calculated MW of 27.9 kDa. The protein migrates as 23-24 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE).

## Endotoxin

Less than 1.0 EU per µg by the LAL method.

\*\*The DDM/CHS buffer (Cat. No. [DC-11](#)) is sold separately and not included in protein, you can follow [this link](#) for product information.

## Purity

>90% as determined by SDS-PAGE.

## Formulation

*This product is not suitable for cell based experiments due to cytotoxicity of DDM.*

*DDM and CHS are INDISPENSABLE to keep membrane protein soluble and active, under no circumstance should you remove DDM and CHS.*

*DDM/CHS buffer (DC-11) is sold separately and not included in protein, and please contact us if you need the buffer.*

*If glycerol is not compatible to your application, remove glycerol just before immediate experiment, and NEVER store glycerol-free protein solution.*

Supplied as 0.2 µm filtered solution in 50 mM HEPES, 150 mM NaCl, DDM, CHS, pH7.5 with glycerol as protectant.

Contact us for customized product form or formulation.

## Shipping

*This product is supplied and shipped with dry ice, please inquire the shipping cost.*

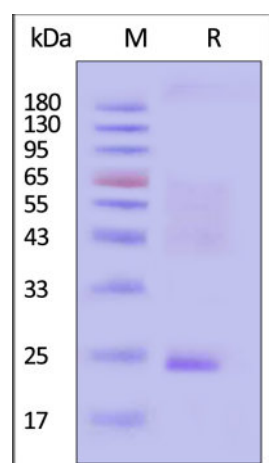
## Storage

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 12 months under sterile conditions.

## SDS-PAGE



Human Claudin-9, His, Twin-Strep Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

## Bioactivity-ELISA

Discounts, Gifts,  
and more!

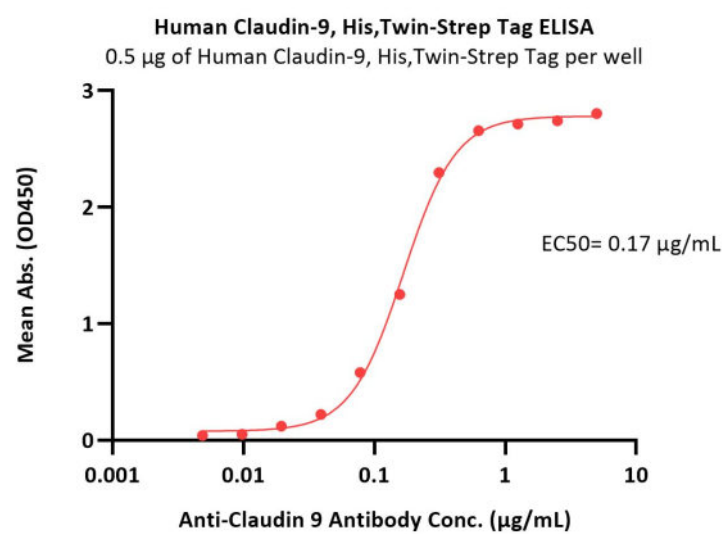


# Human Claudin-9 / CLDN9 Protein, His,Twin-Strep Tag (Detergent)

Catalog # CL9-H5586

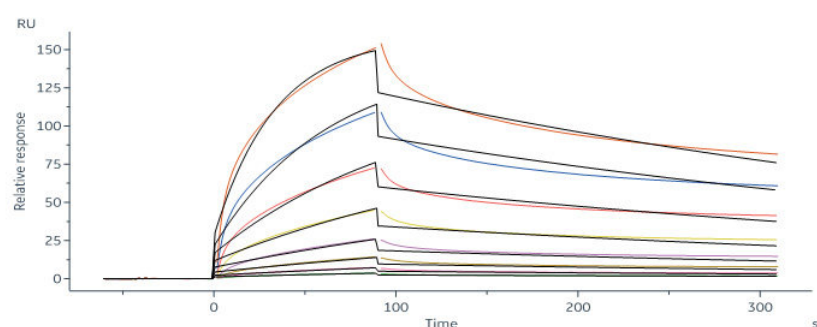


BIOSYSTEMS  
**Acro**  
Surprise Inside!



Immobilized Human Claudin-9, His,Twin-Strep Tag (Cat. No. CL9-H5586) at 5 µg/mL (100 µL/well) on a Nickel Coated plate (Cat. No. SP-16) can bind Anti-Claudin 9 Antibody with a linear range of 0.005-0.625 µg/mL (QC tested).

## Bioactivity-SPR



Anti-Claudin 9 antibody captured on Protein G-Series S sensor chip can bind Human Claudin-9, His,Twin-Strep Tag (Cat. No. CL9-H5586) with an affinity constant of 38.8 nM as determined in a SPR assay (in presence of DDM and CHS) (Biacore 8K) (Routinely tested).

## Background

Claudin-9 belongs to the claudin family. Claudins constitute integral membrane proteins responsible for solute and electrolyte permeability of the tight junction that serve as a physical barrier to prevent solutes and water from passing freely through the paracellular space between epithelial or endothelial cell sheets. Tight junctions also play a critical role in maintaining cell polarity and signal transductions. Claudin-9 creates charge specific channels in the paracellular space, plays a major role in tight junction-specific obliteration of the intercellular space, through calcium-independent cell-adhesion activity, is required to preserve sensory cells in the hearing organ because claudin-9-defective tight junctions fail to shield the basolateral side of hair cells from the K<sup>+</sup>-rich endolymph. Its ion barrier function is essential in the cochlea, but appears to be dispensable in other organs. Is one of the entry cofactors for hepatitis C virus; it enables HCV entry into target cells just as efficiently as CLDN1.

## Clinical and Translational Updates

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