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

Catalog # CL9-H5586

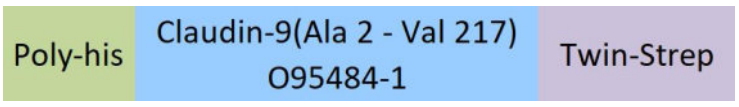
Synonym

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.

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

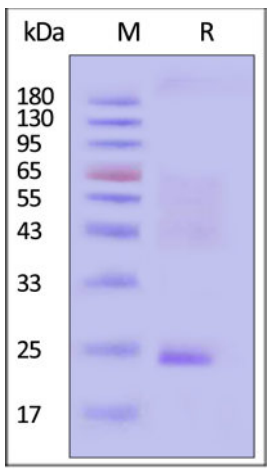
Please avoid repeated freeze-thaw cycles.

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.

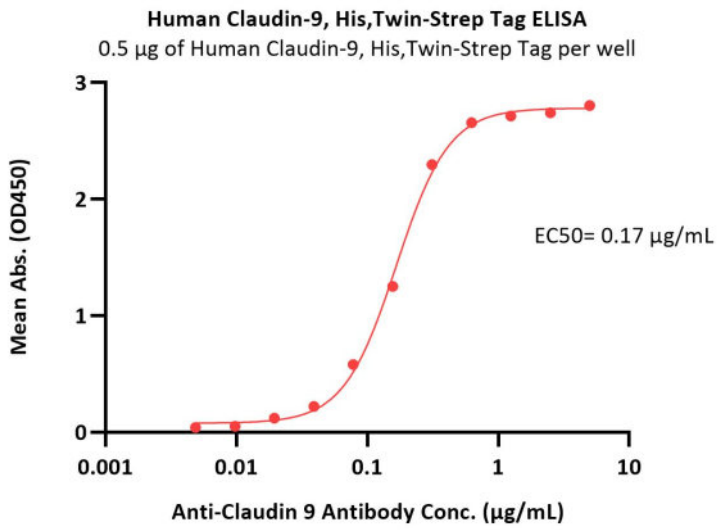
*The DDM/CHS buffer (Cat. No. DC-11) is sold separately and not included in protein, you can follow this link for product information.

SDS-PAGE



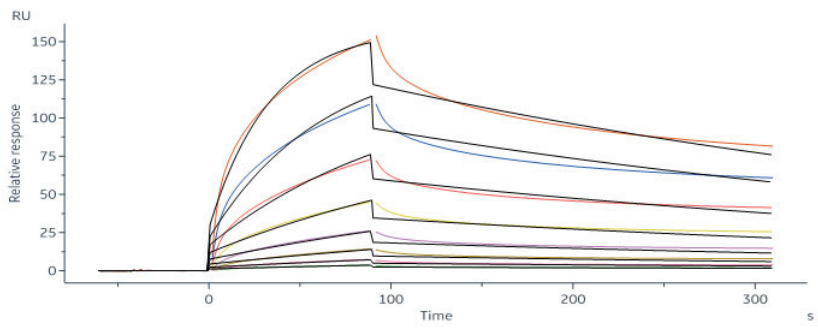
Human Claudin-9, His,Twin-Strep Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

Bioactivity-ELISA



Immobilized Human Claudin-9, His,Twin-Strep Tag (Cat. No. CL9-H5586) at 5 μg/mL (100 μL/well) on a Nickel Coated plate 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+-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