Biotinylated Human Claudin-9 Full Length Protein, His,Flag Tag&Avitag™ (Detergent)

Catalog # CL9-H85D3

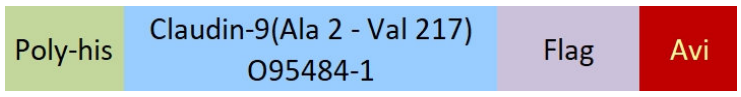
Synonym

CLDN9

Source

Biotinylated Human Claudin-9 Full Length Protein, His,Flag Tag&Avitag(CL9-H85D3) 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 Flag tag at the C-terminus followed by an Avi tag (Avitag™). The protein has a calculated MW of 28.2 kDa.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

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, pH7.5, CHS 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

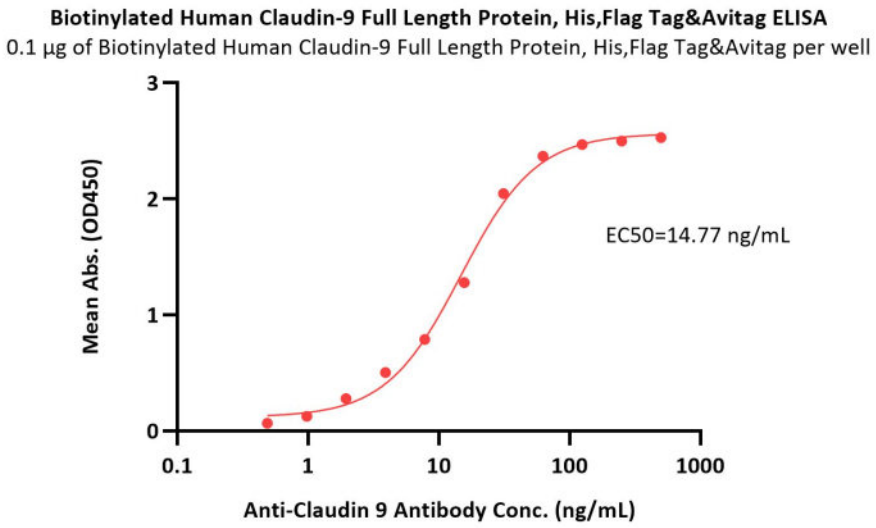
Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 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.

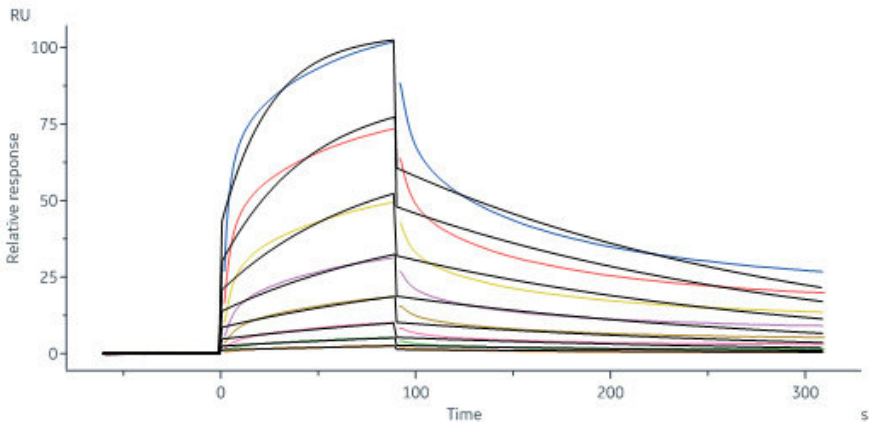
Bioactivity-ELISA



Immobilized Biotinylated Human Claudin-9 Full Length Protein, His,Flag Tag&Avitag (Cat. No. CL9-H85D3) at 1 μg/mL (100 μL/well) on streptavidin

(Cat. No. STN-N5116) precoated (0.5 μg/well) plate can bind Anti-Claudin 9 Antibody with a linear range of 0.5-31 ng/mL (QC tested).

Bioactivity-SPR



Anti-Claudin 9 antibody captured on Protein G Chip can bind Biotinylated Human Claudin-9 Full Length Protein, His,Flag Tag&Avitag (Cat. No. CL9-H85D3) with an affinity constant of 138 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