# Biotinylated Human Claudin-6 Protein, His, Avitag™&Flag Tag (Detergent)





## **Synonym**

Claudin-6,CLDN6

#### Source

Biotinylated Human Claudin-6 Protein, His, Avitag&Flag Tag(CL6-H85D3) is expressed from Baculovirus-Insect cells. It contains AA Ala 2 - Val 220 (Accession # P56747).

Predicted N-terminus: Met

### **Molecular Characterization**



The protein has a calculated MW of 28.6 kDa. The protein migrates as 28-30 kDa, 50-55 kDa and 65-180 kDa when calibrated against <u>Star Ribbon Prestained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

### Labeling

Biotinylation of this product is performed using Avitag<sup>TM</sup> 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**

>85% 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 circumastance 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  $0.2 \mu m$  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**

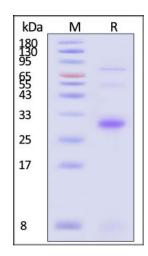
Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

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

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

# SDS-PAGE



Biotinylated Human Claudin-6 Protein, His, Avitag&Flag Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 85% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

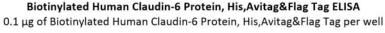
**Bioactivity-ELISA** 

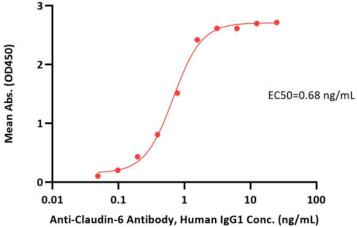


# Biotinylated Human Claudin-6 Protein, His,Avitag™&Flag Tag (Detergent)



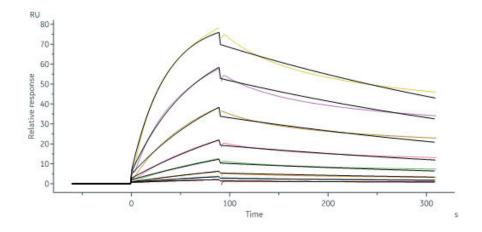






Immobilized Biotinylated Human Claudin-6 Protein, His,Avitag&Flag Tag (Cat. No. CL6-H85D3) at 1  $\mu$ g/mL (100  $\mu$ L/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5  $\mu$ g/well) plate can bind Anti-Claudin-6 Antibody, Human IgG1 with a linear range of 0.05-2 ng/mL (QC tested).

## **Bioactivity-SPR**



Anti-Claudin 6 antibody, Human IgG1 captured on Protein A Chip can bind Biotinylated Human Claudin-6 Protein, His, Avitag&Flag Tag (Cat. No. CL6-H85D3) with an affinity constant of 41.5 nM as determined in a SPR assay (in presence of DDM and CHS) (Biacore 8K) (Routinely tested).

# Background

Tight junctions represent one mode of cell-to-cell adhesion in epithelial or endothelial cell sheets, forming continuous seals around cells and serving as a physical barrier to prevent solutes and water from passing freely through the paracellular space. These junctions are comprised of sets of continuous networking strands in the outwardly facing cytoplasmic leaflet, with complementary grooves in the inwardly facing extracytoplasmic leaflet. Claudin-6, also knows as CLDN6, is a multipass transmembrane protein in the Claudin family. Claudin-6 is expressed by epithelial cells where it participates in tissue development and the maintenance of tight junction integrity. And it is one of the entry cofactors for hepatitis C virus. The methylation of CLDN6 may be involved in esophageal tumorigenesis. The gene of CLDN6 is adjacent to another family member CLDN9 on chromosome 16.

## **Clinical and Translational Updates**

