

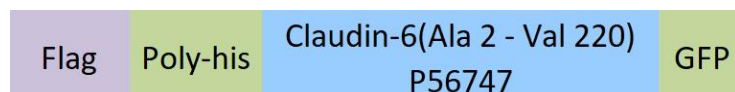
Synonym

Claudin-6,CLDN6

Source

Fluorescent Human Claudin-6 Protein, Flag,His,GFP Tag(CL6-HF2M9) is expressed from human 293 cells (HEK293). It contains AA Ala 2 - Val 220 (Accession # [P56747](#)).

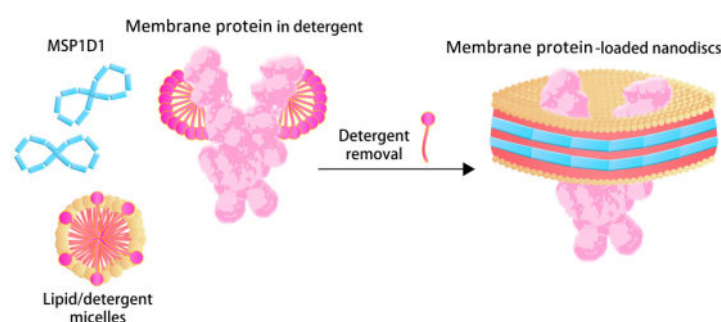
Predicted N-terminus: Met

Molecular Characterization

This protein carries a flag tag at the N-terminus, followed by a polyhistidine tag, and a GFP tag at the C-terminus

The protein has a calculated MW of 54.0 kDa. The protein migrates as 22 kDa, 25 kDa, 51-52 kDa and 100 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Nanodiscs are a new class of model membranes that are being used to solubilize and study a range of integral membrane proteins and membrane-associated proteins. The Nanodisc bilayer is bounded by a membrane scaffold protein (MSP1D1) coat that confers enhanced stability and a narrow particle size distribution.



The nanodisc assembles from a mixture of full length membrane protein in detergent, phospholipid micelles and membrane scaffold protein(MSP1D1) upon removal of the detergent.

Conjugate

GFP

Excitation source: 488 nm spectral line, argon-ion laser

Excitation Wavelength: 488 nm

Emission Wavelength: 530 nm

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>80% as determined by SDS-PAGE.

Formulation

Supplied as 0.2 µm filtered solution in 20 mM HEPES, 150 mM NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped as sterile liquid solution with dry ice, please inquire the shipping cost.

Storage

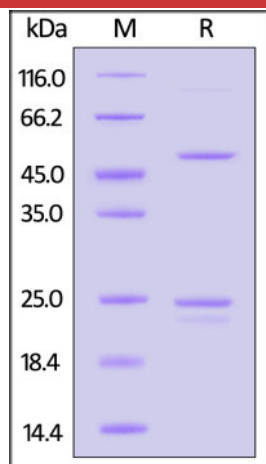
Please protect from light and avoid repeated freeze-thaw cycles.

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 isotype control of empty/mock nanodisc (Cat. No. [APO-H51H3](#)) is sold separately and not included in protein, you can follow [this link](#) for product information.

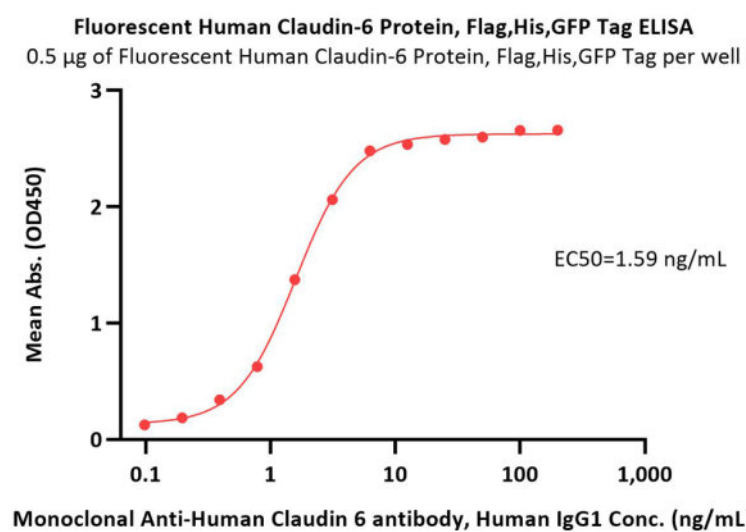
SDS-PAGE



Fluorescent Human Claudin-6 Protein, Flag,His,GFP Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue.

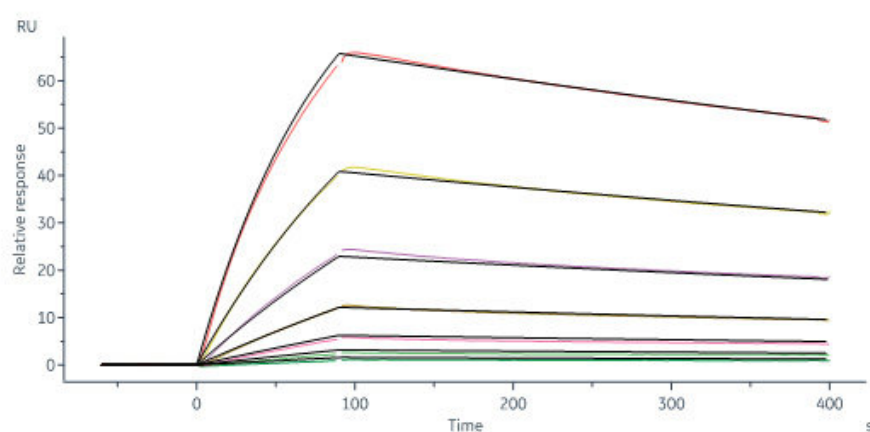
The purity of the protein is greater than 80%.

Bioactivity-ELISA



Immobilized Fluorescent Human Claudin-6 Protein, Flag,His,GFP Tag (Cat. No. CL6-HF2M9) at 5 µg/mL (100 µL/well) can bind Monoclonal Anti-Human Claudin 6 antibody, Human IgG1 with a linear range of 0.1-3 ng/mL (QC tested).

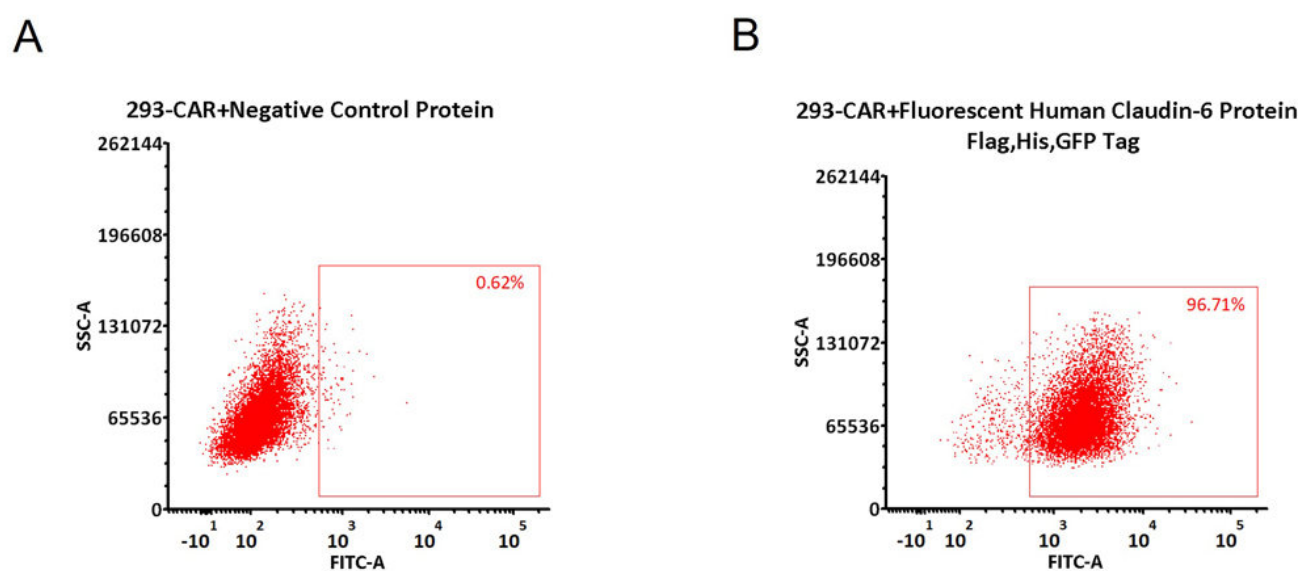
Bioactivity-SPR



Anti-Claudin-6 Antibody, Human IgG1 captured on Protein A Chip can bind Fluorescent Human Claudin-6 Protein, Flag,His,GFP Tag (Cat. No. CL6-HF2M9) with an affinity constant of 34.1 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

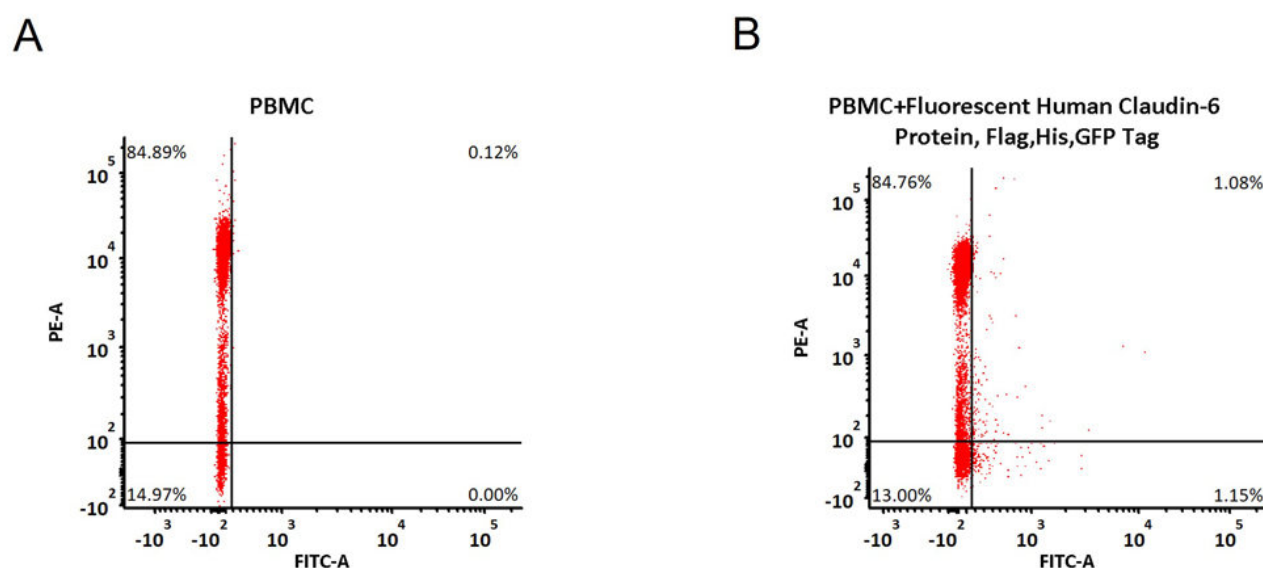
Evaluation of CAR expression

FACS Analysis of Anti-Claudin-6 CAR Expression



2e5 of anti-Claudin-6 CAR-293 cells were stained with 100 μ L of 1 μ g/mL of Fluorescent Human Claudin-6 Protein, Flag,His,GFP Tag (Cat. No.CL6-HF2M9) and negative control protein respectively (Fig. A and B), FITC signal was used to evaluate the binding activity (QC tested).

FACS Analysis of Non-specific binding to PBMCs



5e5 of PBMCs were stained with Fluorescent Human Claudin-6 Protein, Flag,His,GFP Tag (Cat. No. CL6-HF2M9) and anti-CD3 antibody, washed and then analyzed with FACS. PE signal was used to evaluate the expression of CD3+ T cells in PBMCs, and FITC signal was used to evaluate the non-specific binding activity to PBMCs (QC 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 known 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

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.