

Fluorescent Human Claudin-18.2 Full Length Protein (VLP)

Catalog # CL2-HF218



Synonym

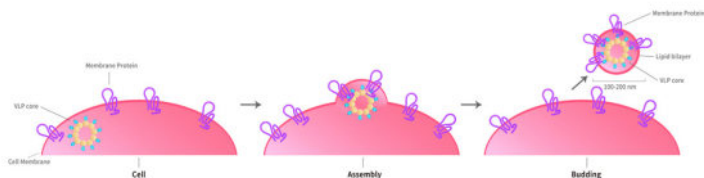
Claudin-18.2,CLDN18,Claudin-18

Source

Fluorescent Human Claudin-18.2 Full Length Protein-VLP(CL2-HF218) is expressed from human 293 cells (HEK293). It contains AA Met 1 - Val 261 (Accession # [P56856-2](#)).  
Predicted N-terminus: Met 1

Molecular Characterization

This protein carries a GFP tag.  
Virus-like particles(VLPs) are formed by self-assembly of capsid proteins from viruses. Membrane Proteins can be constituted in-situ with VLPs produced from HEK293 cell cultures. These VLPs concentrate conformationally intact membrane proteins directly on the cell surface and produce soluble, high-concentration proteins perfect for immunization and antibody screening.



The VLPs provide the display of properly folded membrane proteins in their native cellular membrane in a compact size of 100~300 nm diameter (similar to the size of most viruses) making it optimal targets for dendritic cells in vivo and surface attachment for phage display.

Conjugate

GFP  
Excitation source: 488 nm spectral line, argon-ion laser  
Excitation Wavelength: 488 nm  
Emission Wavelength: 530 nm

\*The isotype control of empty/mock VLP (Cat. No. [VLP-NF2P4](#)) is sold separately and not included in protein, you can follow [this link](#) for product information.

Purity

>95% as determined by SEC-HPLC.

Formulation

*The VLPs are highly immunogenic, so the immunization strategy should be optimized (antigen dose, regimen and adjuvant).*  
Supplied as 0.2 μm filtered solution in PBS, pH7.4 with trehalose 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 protect from light and avoid repeated freeze-thaw cycles.*  
This product is stable after storage at:  

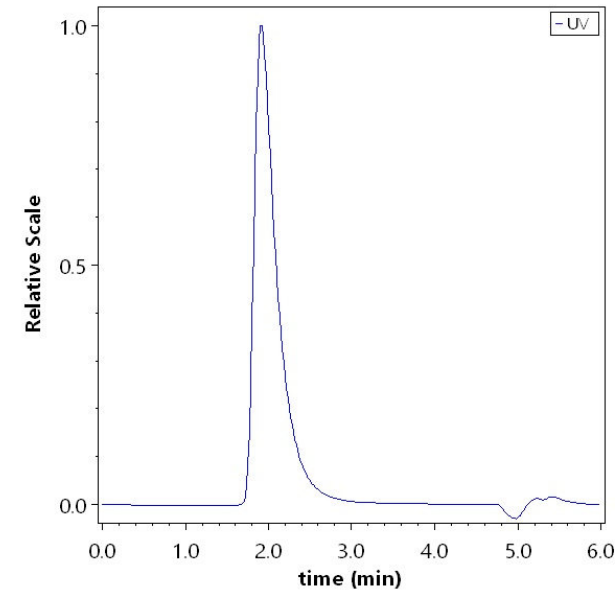
- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 12 months under sterile conditions.

SEC-HPLC



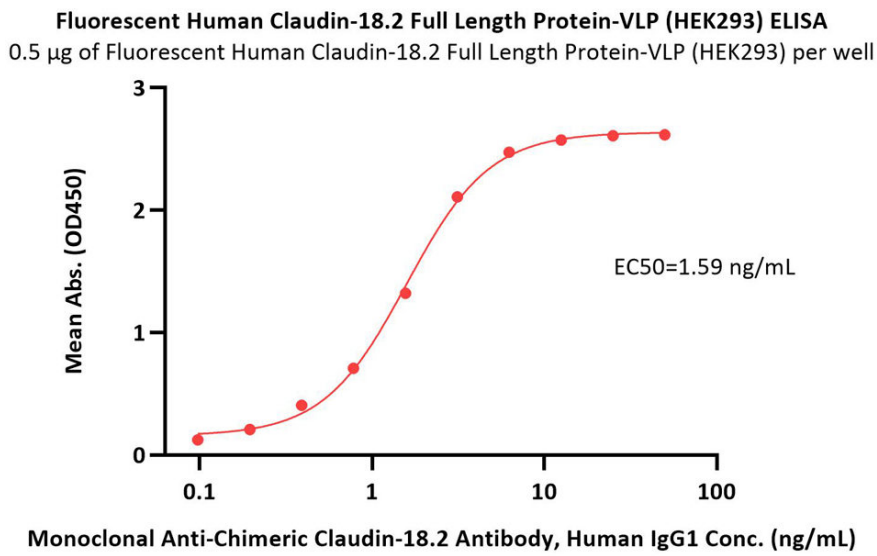
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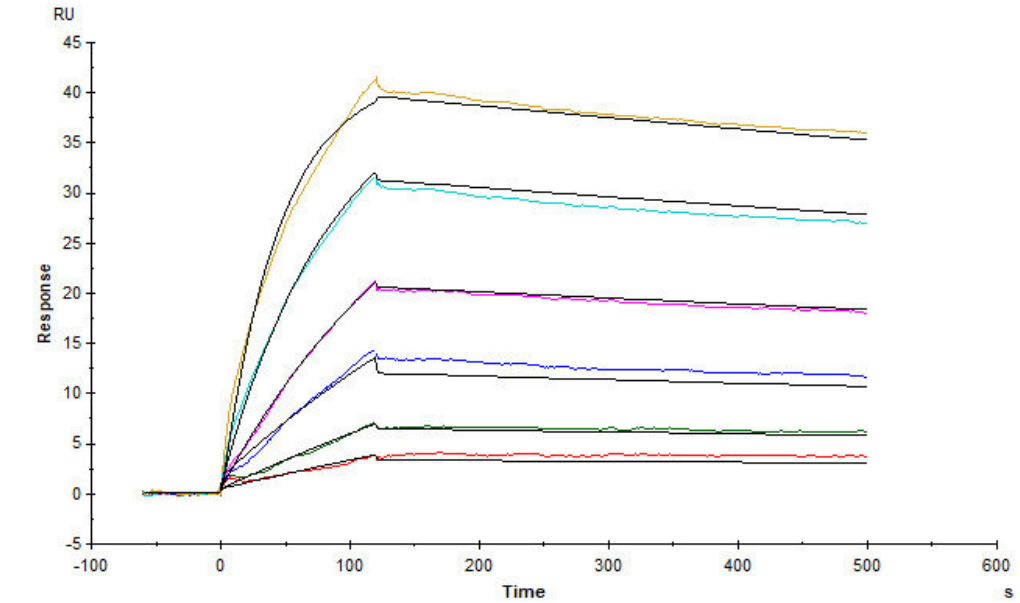
The purity of Fluorescent Human Claudin-18.2 Full Length Protein-VLP (Cat. No. CL2-HF218) was greater than 95% as determined by SEC-HPLC.

Bioactivity-ELISA



Immobilized Fluorescent Human Claudin-18.2 Full Length Protein-VLP (HEK293) (Cat. No. CL2-HF218) at 5 µg/mL (100 µL/well) can bind Monoclonal Anti-Chimeric Claudin-18.2 Antibody, Human IgG1 with a linear range of 0.1-3 ng/mL (QC tested).

Bioactivity-SPR



Fluorescent Human Claudin-18.2 Full Length Protein-VLP (Cat. No. CL2-HF218) captured on CM5 Chip via Anti-Claudin-18.2 antibody can bind Anti-



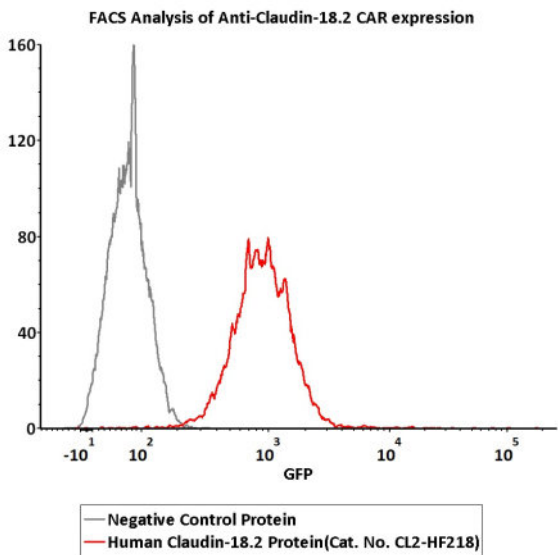
# Fluorescent Human Claudin-18.2 Full Length Protein (VLP)

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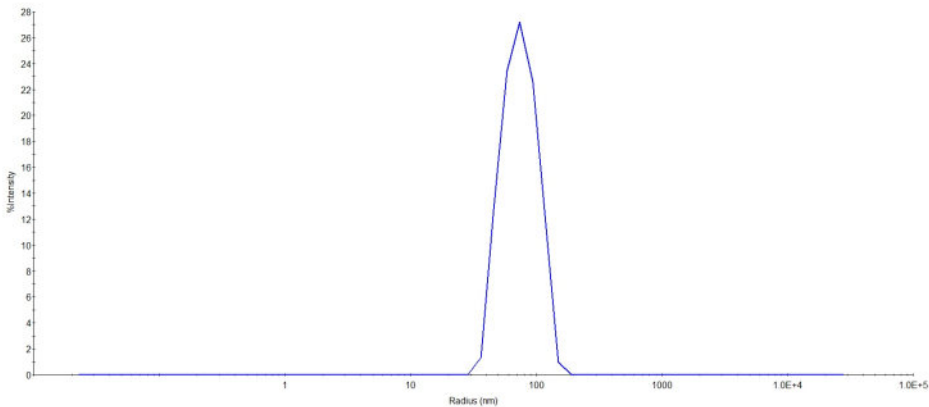
Claudin-18.2 antibody with an affinity constant of 0.433 nM as determined in a SPR assay (Biacore T200) (Routinely tested).

## Bioactivity-FACS



2e5 of Anti-Claudin-18.2 CAR-293 cells were stained with 100  $\mu$ L of 3  $\mu$ g/mL of Fluorescent Human Claudin-18.2 Full Length Protein-VLP (Cat. No.CL2-HF218) and negative control protein respectively, FITC signals was used to evaluate the binding activity (QC tested).

## Identity-DLS



The mean peak Radius of VLP is 65-85 nm with more than 95% intensity as determined by dynamic light scattering (DLS).

## Background

Claudins (CLDNs) are a family of proteins that form tight junctions and maintain the polarity of epithelial and endothelial cells. CLDN18 is specifically expressed in the stomach and lung. Of the two CLDN18 isoform transcripts produced by alternative splicing, CLDN18.2 is a highly selective gastric lineage marker that determines the gastric phenotype in a neoplastic condition, whereas CLDN18.1 is lung specific. CLDN18.2 is a highly selective gastric lineage antigen expressed exclusively on short-lived differentiated gastric epithelial cells where it has only limited accessibility to antibody drugs.<sup>14,15</sup> CLDN18.2 is maintained during the course of malignant transformation and thus frequently displayed on the surface of human gastric cancer cells.

