

## Synonym

Claudin-18.2, CLDN18, Claudin-18

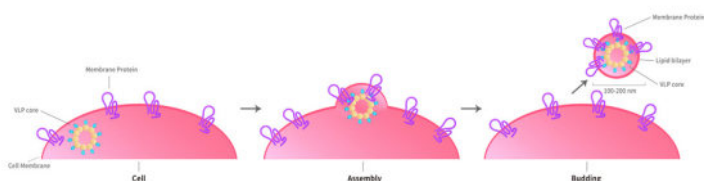
## Source

Human Claudin-18.2 Full Length Protein-VLP (CL2-H52P7) is expressed from human 293 cells (HEK293). It contains AA Met 1 - Val 261 (Accession # [P56856-2](#)).

Predicted N-terminus: Met 1

## Molecular Characterization

Virus-like particles (VLPs) are formed by self-assembly of envelop/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.

## Endotoxin

Less than 1.0 EU per µg by the LAL method.

## 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 as sterile liquid solution with dry ice, please inquire the shipping cost.*

## Storage

*Please avoid repeated freeze-thaw cycles.*

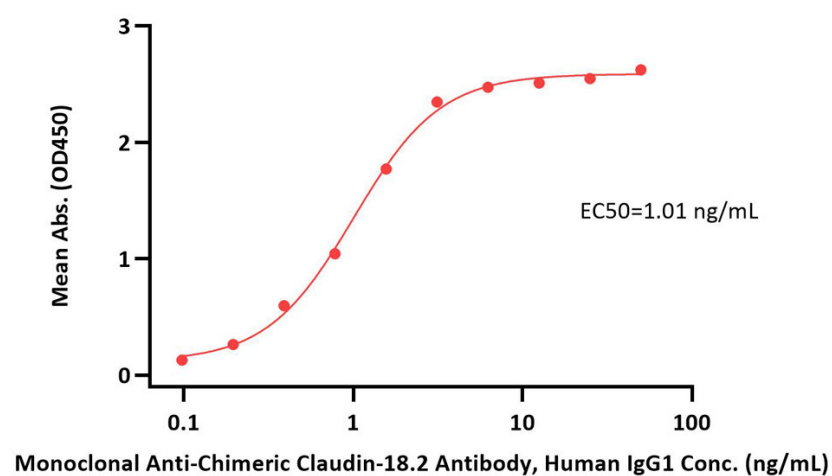
This product is stable after storage at:

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

\*The isotype control of empty/mock VLP (Cat. No. [VLP-N5213](#)) is sold separately and not included in protein, you can follow [this link](#) for product information.

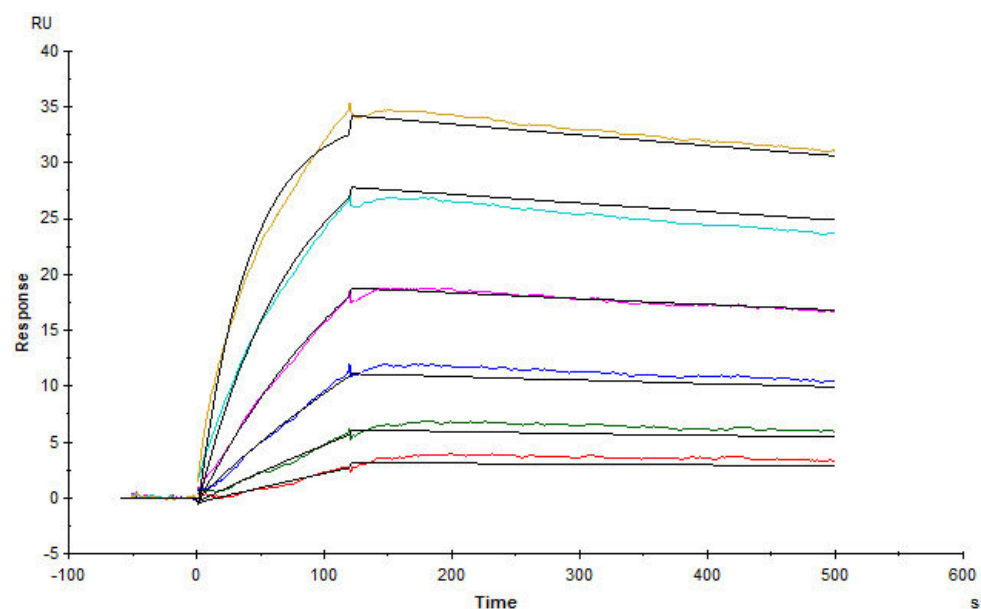
## Bioactivity-ELISA

**Human Claudin-18.2 Full Length Protein-VLP ELISA**  
0.5 µg of Human Claudin-18.2 Full Length Protein-VLP per well



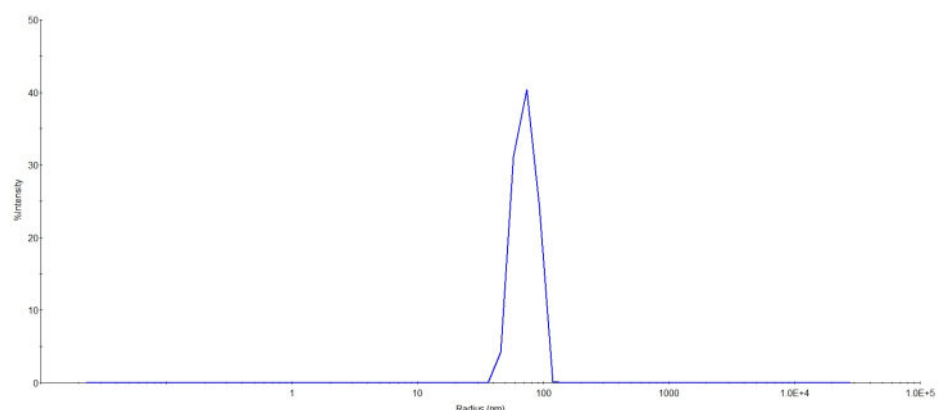
Immobilized Human Claudin-18.2 Full Length Protein-VLP (Cat. No. CL2-H52P7) at 5 µg/mL (100 µL/well) can bind Monoclonal Anti-Chimeric Claudin-18.2 Antibody, Human IgG1 with a linear range of 0.2-3 ng/mL (QC tested).

**Bioactivity-SPR**



Human Claudin-18.2 Full Length Protein-VLP (Cat. No. CL2-H52P7) captured on CM5 Chip via Anti-Claudin-18.2 antibody can bind Anti-Claudin-18.2 antibody with an affinity constant of 0.374 nM as determined in a SPR assay (Biacore T200) (Routinely 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.

**Clinical and Translational Updates**

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.