Catalog # CL2-M52P3



#### Synonym

Claudin-18.2, CLDN18, Claudin-18

#### Source

Mouse Claudin-18.2 Full Length Protein (VLP)(CL2-M52P3) is expressed from human 293 cells (HEK293). It contains AA Met 1 - Val 264 (Accession # <u>P56857-3</u>).

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, highconcentration 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.

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

## **Bioactivity-ELISA**



## Formulation

The VLPs are highly immunogenic, so the immunization strategy should be optimized (antigen dose, regimen and adjuvant).

Supplied as 0.2  $\mu$ m filtered solution in PBS, Arginine, 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 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.

Immobilized Mouse Claudin-18.2 Full Length Protein (VLP) (Cat. No. CL2-M52P3) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Monoclonal Anti-Chimeric Claudin-18.2 Antibody with a linear range of 0.2-3 ng/mL (QC tested).

**Identity-DLS** 



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# Mouse Claudin-18.2 Full Length Protein (VLP)

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

#### Background

Involved in alveolar fluid homeostasis via regulation of alveolar epithelial tight junction composition and therefore ion transport and solute permeability, potentially via downstream regulation of the actin cytoskeleton organization and beta-2-adrenergic signaling. Required for lung alveolarization and maintenance of the paracellular alveolar epithelial barrier. Acts to maintain epithelial progenitor cell proliferation and organ size, via regulation of YAP1 localization away from the nucleus and thereby restriction of YAP1 target gene transcription. Acts as a negative regulator of RANKL-induced osteoclast differentiation, potentially via relocation of TJP2/ZO-2 away from the nucleus, subsequently involved in bone resorption in response to calcium deficiency. Mediates the osteoprotective effects of estrogen, potentially via acting downstream of estrogen signaling independently of RANKL signaling pathways. Required for the formation of the gastric paracellular barrier via its role in tight junction formation, thereby involved in the response to gastric acidification.

## **Clinical and Translational Updates**



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3/12/2025