

## Datasheet for ABIN7491591 **CLDN18.2 protein-VLP**



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### 2 Images

#### Overview

|               |               |
|---------------|---------------|
| Quantity:     | 100 µg        |
| Target:       | CLDN18.2      |
| Origin:       | Human         |
| Source:       | HEK-293 Cells |
| Protein Type: | VLP           |

#### Product Details

|                  |  |
|------------------|--|
| Purpose:         | Human Full length Claudin 18.2 Protein-VLP |
| Characteristics: | VLP  |

#### Target Details

|         |          |
|---------|----------|
| Target: | CLDN18.2 |
|---------|----------|

**Background:** The protein encodes a member of the claudin family. Claudins are integral membrane proteins and components of tight junction strands. Tight junction strands serve as a physical barrier to prevent solutes and water from passing freely through the paracellular space between epithelial or endothelial cell sheets, and also play critical roles in maintaining cell polarity and signal transductions. This gene is upregulated in patients with ulcerative colitis and highly overexpressed in infiltrating ductal adenocarcinomas. PKC/MAPK/AP-1 (protein kinase C/mitogen-activated protein kinase/activator protein-1) dependent pathway regulates the expression of this gene in gastric cells. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jun 2010]

|                   |   |
|-------------------|---|
| Molecular Weight: | The Human CLDN18.2 Protein has a predicted MW of 29 kDa. Due to PTM, the actual MW on |
|-------------------|---|

## Target Details

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SDS-PAGE gel is around 50kDa.

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UniProt: [P56856](#)

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## Application Details

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**Comment:** Virus-like particles (VLPs) are self-assembling multi-protein nanoparticles with similar structural organization and conformation as viruses but without viral genome. The size of the VLP is about 100-150nm. It is secreted from the surface of the cells that express target membrane proteins (MPs). The purified VLPs have the target MPs inserted in a complete bilayer phospholipid membrane structure, mimic the natural membrane-penetrating state of the protein.

VLPs can be used for routine biochemical analysis, including ELISA, SPR affinity analysis, phage display screenings, protein labeling and cell binding experiments, Flow virometry analysis, etc. It can also be used as functional protein antigens to develop active antibodies with high drug potentials because the target protein on VLP exhibits a state like its native state on the cell surface.

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**Restrictions:** For Research Use only

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## Handling

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**Format:** Lyophilized

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**Buffer:** Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose is added as protectants before lyophilization.

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**Storage:** -20 °C,-80 °C

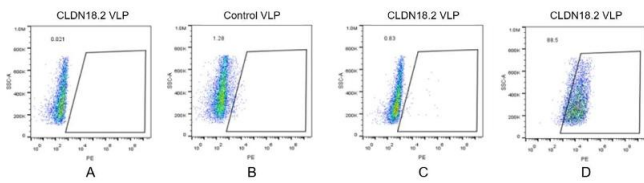
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**Storage Comment:** Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing).  
Lyophilized proteins are shipped at ambient temperature.

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**Expiry Date:** 12 months

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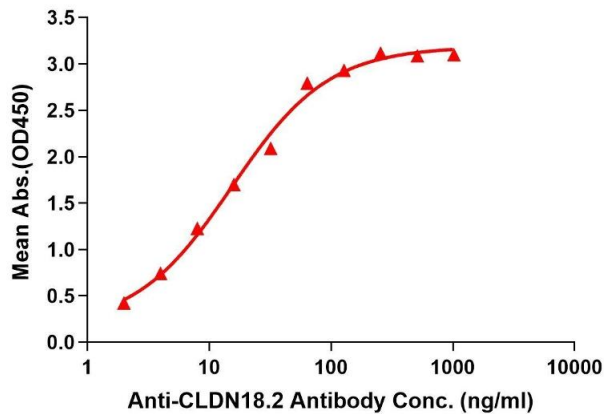


### Flow Cytometry

**Image 1.** FACS analysis of C.2 VLP A. Negative Control 1: C.2 VLP were stained only with Goat anti-human IgG Fc-PE secondary antibody. B. Negative Control 2: Control VLP were stained with anti-C.2 antibody (Zolbetuximab biosimilar, I) at 1 µg/mL, followed by Goat anti-human IgG Fc-PE secondary antibody. C. Negative Control 3: C.2 VLP were stained with anti-BCMA antibody (an irrelevant antibody) at 1 µg/mL, followed by Goat anti-human IgG Fc-PE secondary antibody. D. C.2 VLP were stained with anti-C.2 antibody (Zolbetuximab biosimilar, I) at 1 µg/mL, followed by Goat anti-human IgG Fc-PE secondary antibody.

### ELISA assay to evaluate CLDN18.2 VLP

0.5 µg Human CLDN18.2 VLP per well



### ELISA

**Image 2.** ELISA plates were pre-coated with 0.5 µg/per well purified human C.2 VLP. Serial diluted Anti-C.2 monoclonal antibody (Zolbetuximab biosimilar, I) solutions were added, washed, and incubated with secondary antibody before ELISA reading. From above data, the EC50 for I binding with C.2 VLP is 15.37 ng/mL.