

Datasheet for ABIN7448160

**Claudin 18.2 (AA 1-261) (Active) protein-VLP****3** Images[Go to Product page](#)

## Overview

Quantity:	100 µg
Target:	Claudin 18.2
Protein Characteristics:	AA 1-261
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	VLP
Biological Activity:	Active
Application:	ELISA, Functional Studies (Func), Immunogen (Imm), Surface Plasmon Resonance (SPR)

## Product Details

Purpose:	Human Claudin 18.2 Protein-VLP
Sequence:	Met1-Val261
Characteristics:	Full length Human Claudin 18.2 Protein-VLP is expressed from HEK293. It contains Met1-Val261.
Purity:	> 95 % as determined by HPLC
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 1EU per µg by the LAL method.
Biological Activity Comment:	Immobilized Human Claudin 18.2 VLP at 5µg/ml (100µl/Well). Dose response curve for Anti-Claudin 18.2 Antibody, hFc Tag with the EC50 of 9.8ng/ml determined by ELISA (QC Test). The affinity constant of 2.20 nM as determined in SPR assay (Biacore T200).

## Target Details

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Target:	Claudin 18.2
Background:	Claudin18(CLDN18) belongs to the large claudin family of proteins, which form tight junction strands in epithelial cells. CLDN18 is specifically expressed in the stomach and lung. CLDN18 has two alternatively spliced variants, CLDN18.1 and CLDN18.2. Isoform 2 (Claudin 18.2) is abundant in gastric tumors.
Molecular Weight:	29 kDa.

## Application Details

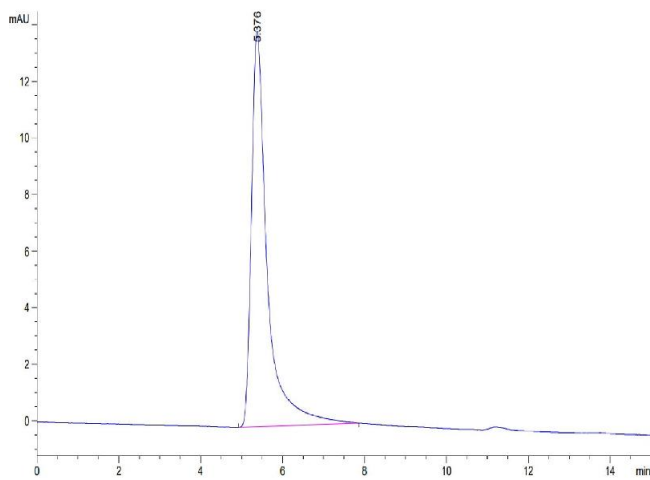
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Application Notes:	<ul style="list-style-type: none"><li>• Antibody Discovery: Immunization, Screening, Functional Characterization</li><li>• Affinity determination: ELISA, SPR</li><li>• In vivo pharmacokinetic analysis</li><li>• CMC method development</li><li>• CAR-T Positive Rate Detection</li><li>• Blood sample determination: ELISA</li></ul>
Comment:	<p>Virus-like particles (VLPs) are formed from the outer capsid protein of a virus and are tiny nanoparticles formed by the automatic assembly of one or more capsid proteins. VLPs do not contain viral infectious genomes, so they are relatively safe during production operations. The SAMS™ protein engineering platform has been used to express a series of biotinylated, non-biotinylated, and fluorescently-labeled VLP-displayed antigens. They are suitable for SPR, ELISA, CAR-T positive rate detection, and other experimental scenarios.</p> <p>Virus-Like Particles (VLPs) are highly immunogenic, meaning that they can elicit a strong immune response in the host. VLPs are recognized by the immune system and are taken up by antigen-presenting cells (APCs) such as dendritic cells. Once taken up by APCs, VLPs are processed and presented to T cells, which can trigger the activation of B cells to produce antibodies against the displayed antigen. Because VLPs resemble the structure and composition of native viruses, they are highly effective at inducing both humoral and cellular immune responses.</p> <p>Generally, VLPs range in size from approximately 20 to 200 nanometers (nm). Compared to a cell-based immunization approach, their smaller size can optimize the immune response to target the specific antigen displayed on the surface of the engineered VLPs.</p>
Restrictions:	For Research Use only

## Handling

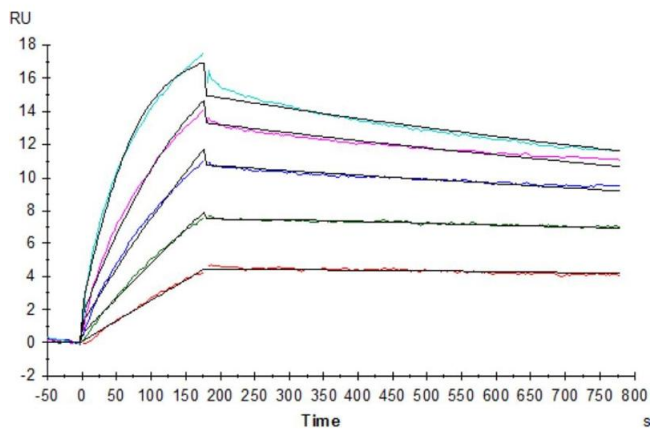
Format:	Liquid
Buffer:	Supplied as 0.22µm filtered solution in PBS ( pH 7.4). Notice: If you need it for immunization, Do Not use any adjuvant.
Storage:	-80 °C
Storage Comment:	Valid for 12 months from date of receipt when stored at -80°C., Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
Expiry Date:	12 months

## Images



### Size-exclusion chromatography-High Pressure Liquid Chromatography

**Image 1.** The purity of Human Claudin 18.2 VLP is greater than 95 % as determined by SEC-HPLC.

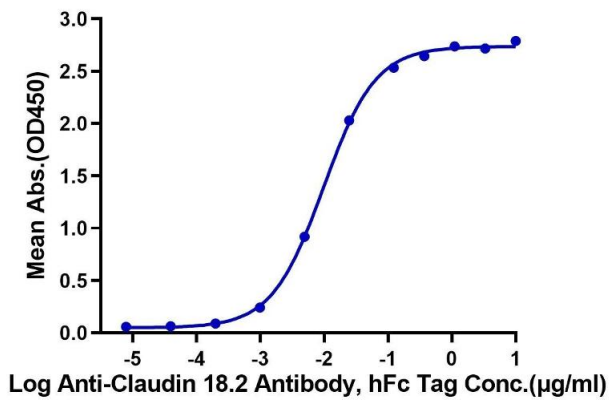


### Surface Plasmon Resonance

**Image 2.** Human Claudin 18.2 VLP immobilized on CM5 Chip can bind Anti-Claudin18.2 Antibody with an affinity constant of 2.20 nM as determined in SPR assay (Biacore T200).

**Human Claudin 18.2 VLP ELISA**

0.5µg Human Claudin 18.2 VLP Per Well

**ELISA**

**Image 3.** Immobilized Human Claudin 18.2 VLP at 5 µg/mL (100 µL/Well). Dose response curve for Anti-Claudin 18.2 Antibody, hFc Tag with the EC50 of 9.8 ng/mL determined by ELISA (QC Test).