

Datasheet for ABIN7448174

**Envelop VLP Control protein-VLP**[Go to Product page](#)**1** Image

## Overview

Quantity:	100 µg
Target:	Envelop VLP Control
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	VLP
Application:	ELISA, Functional Studies (Func), Immunogen (Imm), Surface Plasmon Resonance (SPR)

## Product Details

Purpose:	Human Envelop VLP Control
Characteristics:	Recombinant Human Envelop VLP Control is expressed from HEK293. Human Envelop VLP Control is formed by self-assembly of envelop/capsid proteins from viruses, which is pure viral protein particle structure without the displayed proteins. Human Envelop VLP Control can be used as isotype control for VLPs displaying membrane proteins in various applications.
Purity:	> 95 % as determined by HPLC
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 1EU per µg by the LAL method.

## Target Details

Target:	Envelop VLP Control
Background:	VLPs are formed by spontaneous interaction between one or more viral structural capsid proteins to form the final structure. VLPs are structurally and visually similar to live viruses but

## Target Details

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lack either a complete virus genome or lack the entire virus genome[1]. The envelop VLP control is pure viral protein particle structure without the displayed proteins, which can be used as control for the activity assay of the envelope VLP display proteins.

## Application Details

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- Application Notes:
- Antibody Discovery: Immunization, Screening, Functional Characterization
  - Affinity determination: ELISA, SPR
  - In vivo pharmacokinetic analysis
  - CMC method development
  - CAR-T Positive Rate Detection
  - Blood sample determination: ELISA

Comment: 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.

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.

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.

Restrictions: For Research Use only

## Handling

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Format: Liquid

Buffer: Supplied as 0.22µm filtered solution in PBS (pH 7.4).

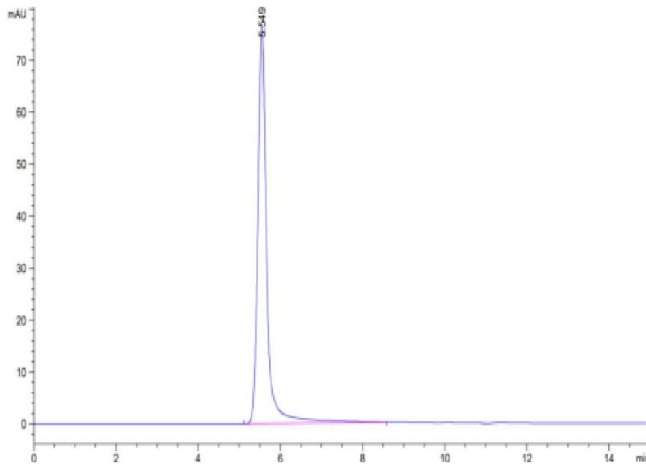
## Handling

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 Envelop VLP Control is greater than 95 % as determined by SEC-HPLC.