

Datasheet for ABIN7448166

Glypican 3 Protein-VLP (GPC3) (AA 438-554)



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2 Images

Overview

Quantity:	100 µg
Target:	Glypican 3 (GPC3)
Protein Characteristics:	AA 438-554
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	VLP
Biological Activity:	Active
Application:	Immunogen (Imm), ELISA, Functional Studies (Func), Surface Plasmon Resonance (SPR)

Product Details

Purpose:	Human GPC3 Protein-VLP
Sequence:	Arg438-Asn554
Characteristics:	Recombinant Human GPC3 (438-554) Protein-VLP is expressed from HEK293. It contains Arg438-Asn554.
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 GPC3 (438-554) VLP at 5µg/ml (100µl/Well) on the plate. Dose response curve for Anti-GPC3 Antibody, hFc Tag with the EC50 of 24.1ng/ml determined by ELISA.

Target Details

Target:	Glypican 3 (GPC3)
Alternative Name:	GPC3 (GPC3 Products)
Background:	Glypican-3 is a protein ,which is encoded by the GPC3 gene in humans.The protein core of GPC3 consists of two subunits, where the N-terminal subunit has a size of ~40 kDa and the C-terminal subunit is ~30 kDa.Glypican 3 is a potential therapeutic target for treating liver cancer and other cancers. Several therapeutic anti-GPC3 antibodies have been developed.
Molecular Weight:	21.5 kDa.
Pathways:	Glycosaminoglycan Metabolic Process

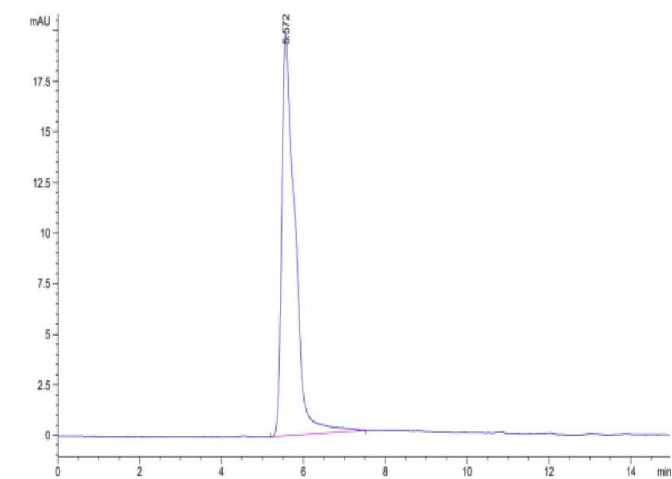
Application Details

Application Notes:	<ul style="list-style-type: none">• 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:	<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>

Application Details

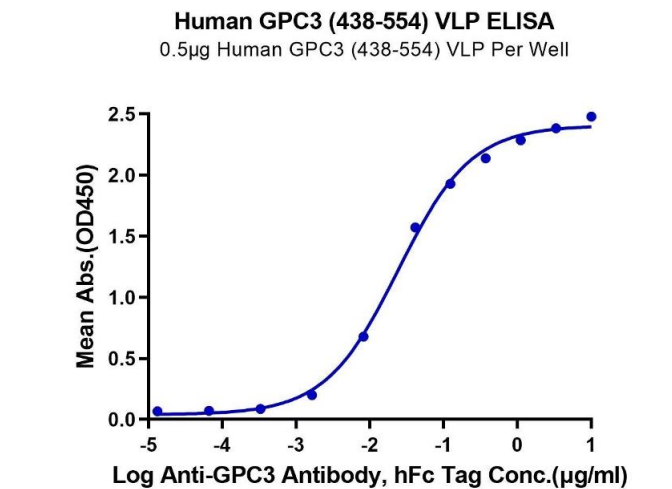
Restrictions:	For Research Use only
Handling	
Format:	Liquid
Buffer:	Supplied as 0.22µm filtered solution in PBS (pH 7.4). Notice: If you need it for immunization, Do Not use any adjuvant.
Storage:	-80 °C
Storage Comment:	Valid for 12 months from date of receipt when stored at -80°C.,Recommend to aliquot 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 GPC3 (438-554) VLP is greater than 95 % as determined by SEC-HPLC.



ELISA

Image 2. Immobilized Human GPC3 (438-554) VLP at 5 µg/mL (100 µL/Well) on the plate. Dose response curve for Anti-GPC3 Antibody, hFc Tag with the EC50 of 24.1 ng/mL determined by ELISA.