

Biotinylated Human GPRC5D Full Length Protein (VLP)

Catalog # GPD-H82P3



BIOSYSTEMS
Acro

Surprise Inside!

Application

- Immunization
- Cell based assay (FACS or functional assay)
- Screening ([ELISA](#))

Synonym

GPRC5D, G-protein coupled receptor family C group 5 member D

Source

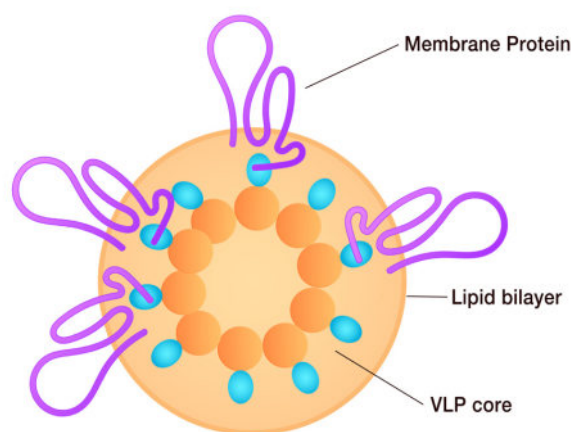
Biotinylated Human GPRC5D Full Length Protein (VLP) (GPD-H82P3) is expressed from human 293 cells (HEK293). It contains AA Tyr 2 - Val 345 (Accession # [Q9NZD1-1](#)).

Predicted N-terminus: Asp

Molecular Characterization

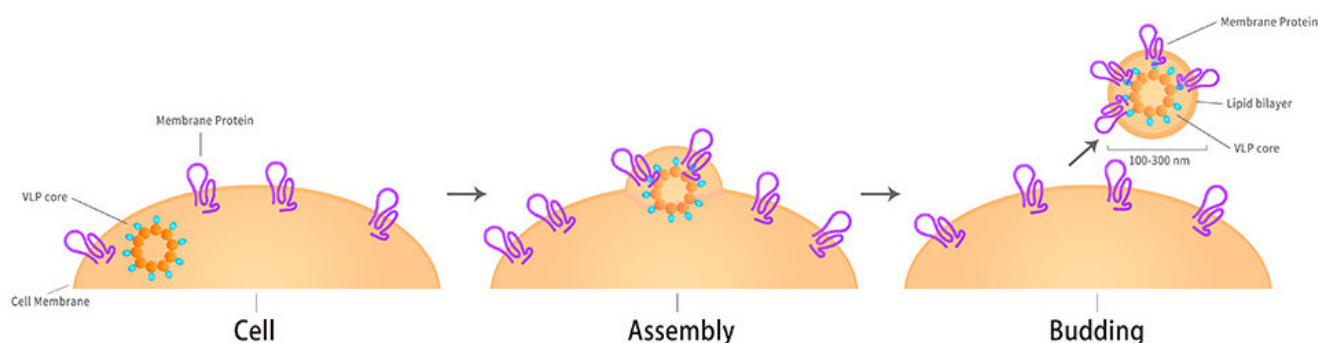
*The isotype control of empty/mock VLP (Cat. No. [VLP-N82P3](#)) is sold separately and not included in protein, you can follow [the link](#) for product information.

• Structure



Virus-like particles (VLPs) are protein particles that mimic the shape of viruses but lack a viral genome, and incorporating transmembrane proteins on the external surface.

• Synthesis Process



Envelope virus-like particles (eVLPs) are produced by **co-expressing target membrane proteins with viral structural proteins in mammalian cells**, enabling native embedding of membrane proteins into the lipid bilayer during VLP budding. This approach preserves authentic conformation, post-translational modifications, and orientation, while creating a completely detergent-free environment with repetitive multivalent display and **strong immunogenicity** making them ideal for immunization, binding assays in antibody discovery and screening (ELISA), and cell-based assays such as FACS, etc.

Labeling

The VLP is biotinylated with propriety technology.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Purity

>95% as determined by SEC-HPLC.

Formulation

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

Supplied as 0.2 μ 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.

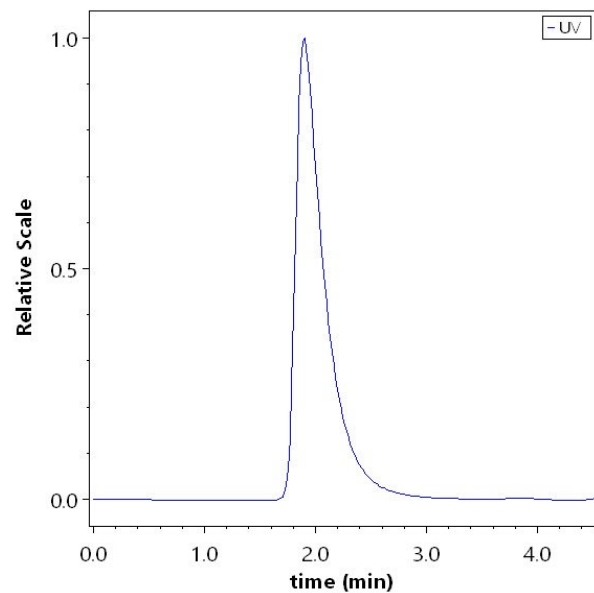
This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 12 months under sterile conditions.

ACRO Quality Management System

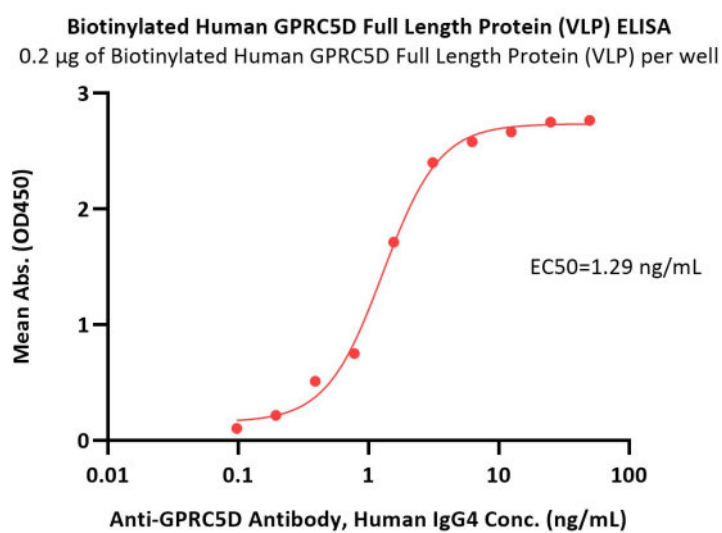
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SEC-HPLC

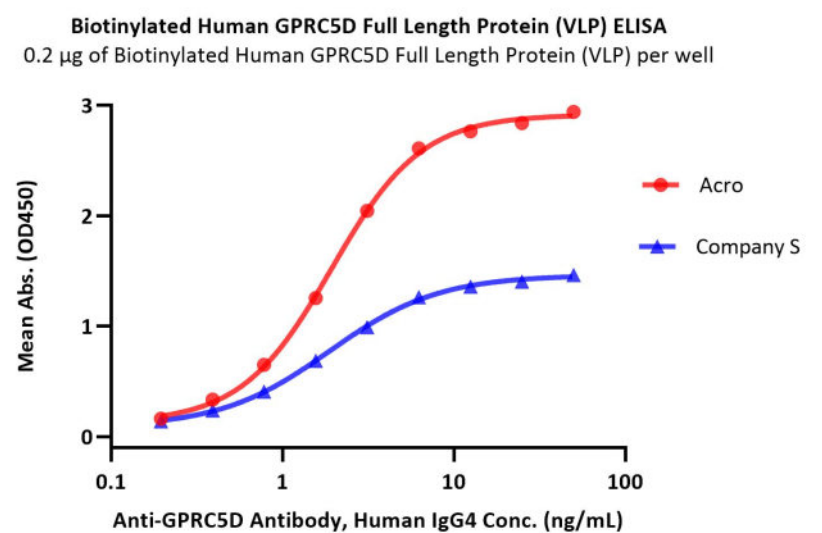


The purity of Biotinylated Human GPRC5D Full Length Protein (VLP) (Cat. No. GPD-H82P3) was greater than 95% as determined by SEC-HPLC.

Bioactivity-ELISA

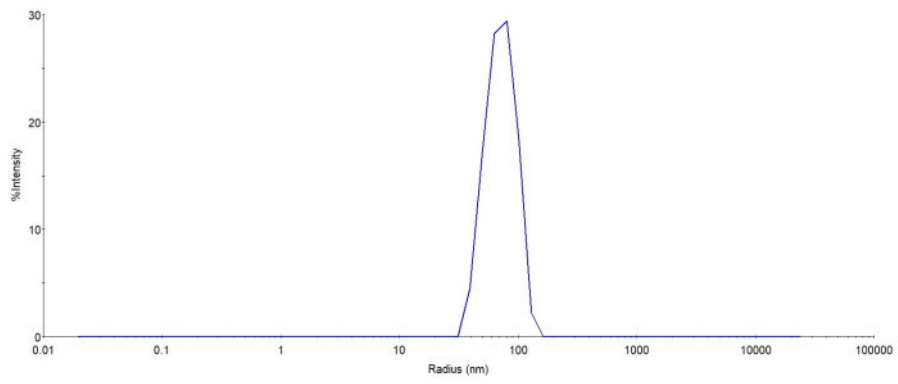


Immobilized Biotinylated Human GPRC5D Full Length Protein (VLP) (Cat. No. GPD-H82P3) at 2 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Anti-GPRC5D Antibody, Human IgG4 with a linear range of 0.1-3 ng/mL (QC tested).



ELISA comparison of biotinylated full-length human GPRC5D (virus-like particles) using anti-GPRC5D antibody shows ACRO (Cat. No. GPD-H82P3) has superior bioactivity to Company S (Routinely tested).

Identity-DLS



The mean peak Radius of VLP is 60-80 nm with more than 95% intensity as determined by dynamic light scattering (DLS).

Background

An orphan G protein-coupled receptor with highly restricted expression in malignant plasma cells and hard keratinized tissues (hair/nail). This profile mitigates off-tumor toxicity, establishing GPRC5D as a breakthrough target for bispecific antibodies and CAR-T therapies in relapsed/refractory multiple myeloma.

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