



Application

- Cell based assay ([FACS](#) or functional assay)
- Affinity testing (SPR / BLI)
- Screening ([ELISA](#))

Synonyms

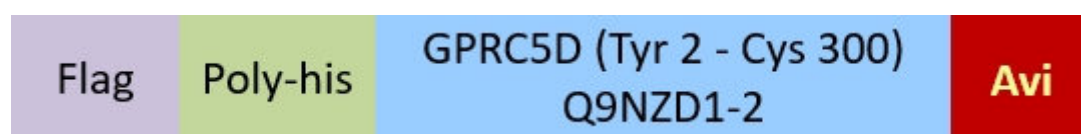
GPRC5D, G-protein coupled receptor family C group 5 member D

Source

Nanodisc Biotinylated Human GPRC5D Full Length Protein, Flag,His,Avitag (GPD-H82D7) is expressed from human 293 cells (HEK293). It contains AA Tyr 2 - Cys 300 (Accession # [Q9NZD1-2](#)).

Predicted N-terminus: Asp

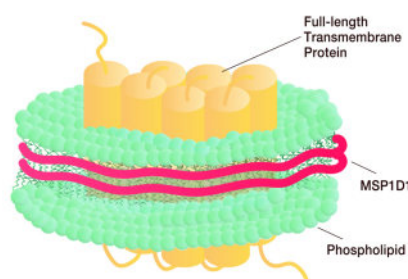
Molecular Characterization



This protein carries a Flag tag at the N-terminus, followed by a polyhistidine tag and an Avi tag (Avitag™) at the C-terminus. The protein has a calculated MW of 40.1 kDa & 24.7 kDa.

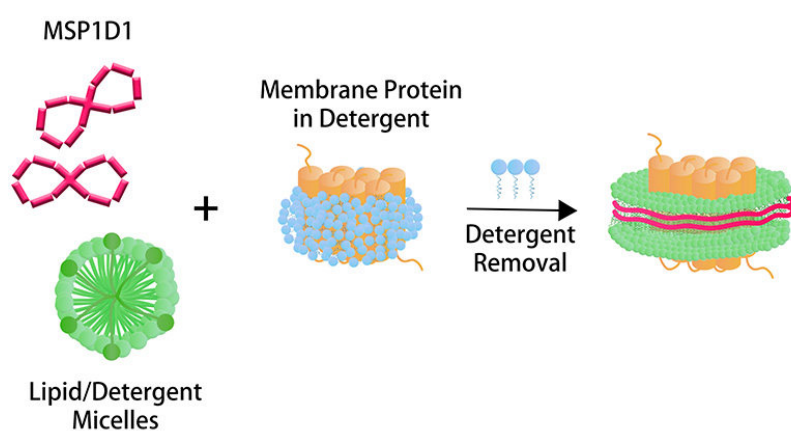
*The isotype control of empty/mock nanodisc (Cat. No. [APO-H81Q5](#)) is sold separately and not included in protein, you can follow [the link](#) for product information.

• Structure



Nanodisc membrane protein is wrapped by a synthetic phospholipid bilayer membrane structure, composed of membrane scaffold proteins (MSPs) and phospholipids.

• Synthesis Process



Nanodisc reconstitution is a self-assembly process that **starts from purified, detergent-solubilized membrane proteins** and reconstitutes them into synthetic phospholipid bilayers stabilized by MSP1D1 membrane scaffold protein. This creates a stable, detergent-free environment that preserves native conformation and biological activity, with excellent homogeneity and full compatibility with **cell-based assays such as FACS** and binding assays in antibody discovery and screening (ELISA), etc.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Formulation

Supplied as 0.2 µm filtered solution in 20 mM HEPES, 150 mM NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Shipping and Storage

This product is supplied and shipped on dry ice.

Please avoid repeated freeze-thaw cycles.

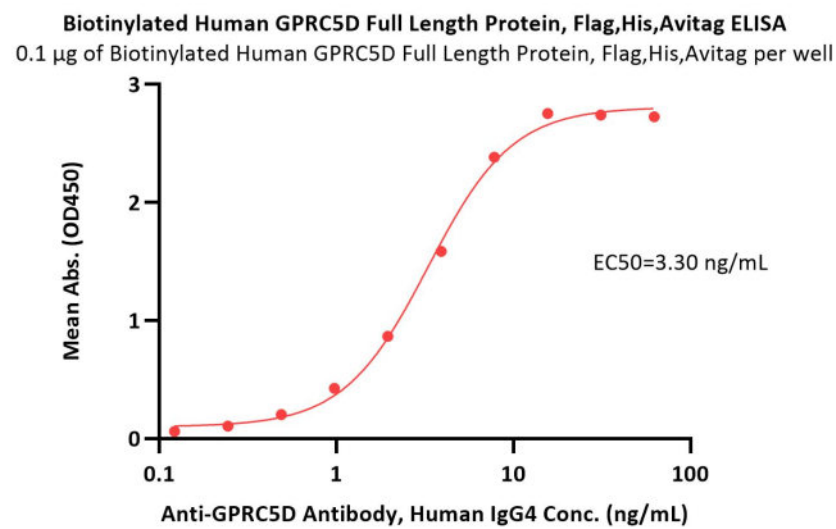
This product is stable after storage at:

- The product **MUST** be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

ACRO Quality Management System

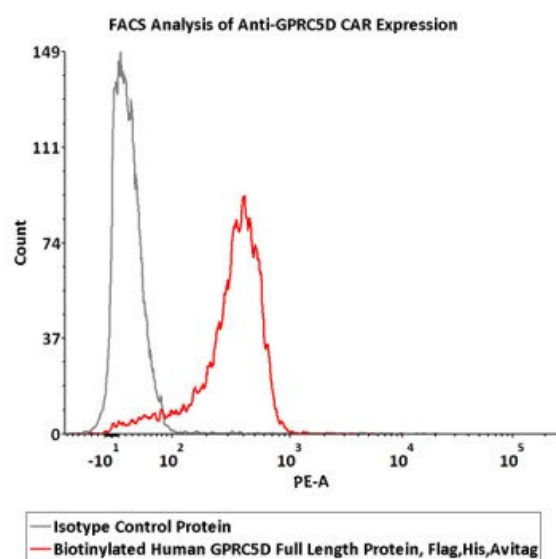
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

Bioactivity-ELISA



Immobilized Biotinylated Human GPRC5D Full Length Protein, Flag,His,Avitag (Cat. No. GPD-H82D7) at 1 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 0.1-8 ng/mL (QC tested).

Bioactivity-FACS



2e5 of Anti-GPRC5D CAR-293 were stained with 100 µL of 3 µg/mL Biotinylated Human GPRC5D Full Length Protein, Flag,His,Avitag (Cat. No. GPD-H82D7) and isotype control protein respectively, washed and then followed by PE-SA and analyzed with FACS (QC tested).

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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6/26/2026
