



Synonym

GPRC5D

Source

Biotinylated Human GPRC5D Protein, His,Avitag&Flag Tag(GPD-H82D4) is expressed from human 293 cells (HEK293). It contains AA Tyr 2 - Phe 192 & Glu 197 - Leu 262 (Accession # [Q9NZD1-2](#)).

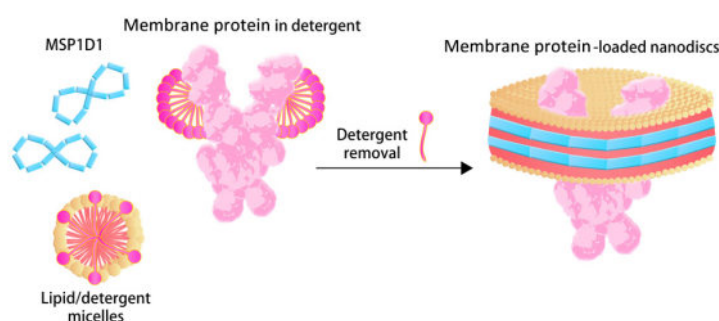
Predicted N-terminus: Asp

Molecular Characterization



This protein carries a Flag tag at the N-terminus and a polyhistidine tag at the C-terminus followed by an Avi tag with calculated MW of 53.5 kDa. The protein migrates as 35-40 kDa under reducing (R) condition (SDS-PAGE). The membrane scaffold protein (MSP1D1) has calculated MW of 24.7 kDa, and it migrates as 25 kDa under reducing (R) condition (SDS-PAGE).

Nanodiscs are a new class of model membranes that are being used to solubilize and study a range of integral membrane proteins and membrane-associated proteins. The Nanodisc bilayer is bounded by a membrane scaffold protein (MSP1D1) coat that confers enhanced stability and a narrow particle size distribution.



The nanodisc assembles from a mixture of full length membrane protein in detergent, phospholipid micelles and membrane scaffold protein(MSP1D1) upon removal of the detergent.

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.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>85% as determined by SDS-PAGE.

Formulation

Supplied as 0.2 µm filtered solution in 50 mM HEPES, 150 mM NaCl, pH7.5 with glycerol 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:

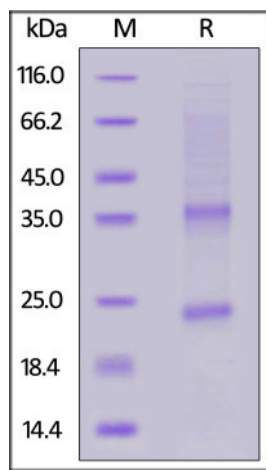
- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

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

SDS-PAGE

Discounts, Gifts,
and more!

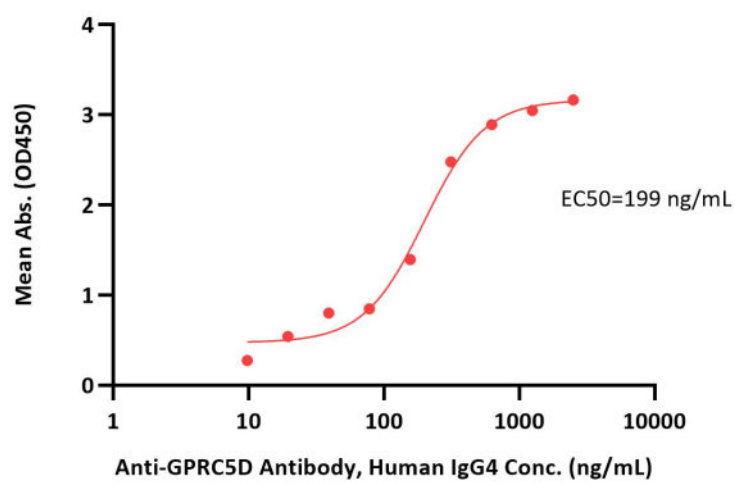




Biotinylated Human GPRC5D Protein, His,Avitag&Flag Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 85%.

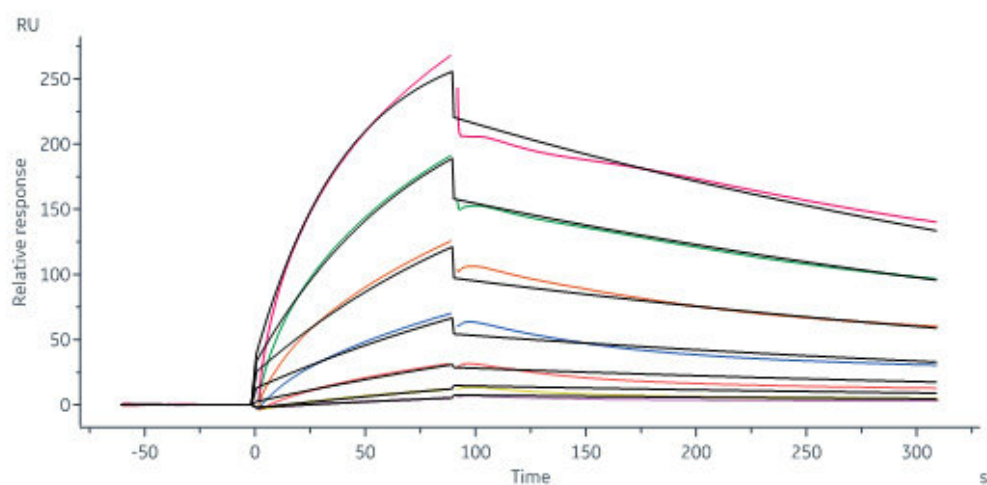
Bioactivity-ELISA

Biotinylated Human GPRC5D, His,Avitag&Flag Tag (Nanodisc) ELISA
0.1 µg of Biotinylated Human GPRC5D, His,Avitag&Flag Tag (Nanodisc) per well



Immobilized Biotinylated Human GPRC5D Protein, His,Avitag&Flag Tag (Cat. No. GPD-H82D4) 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 10-313 ng/mL (QC tested).

Bioactivity-SPR



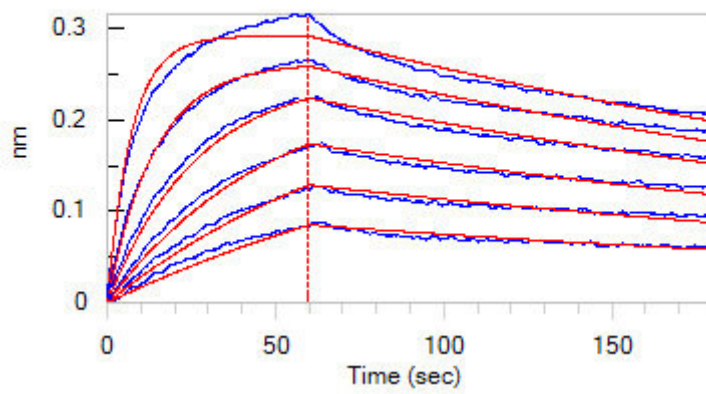
Anti-GPRC5D Antibody captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind Biotinylated Human GPRC5D, His,Avitag&Flag Tag (Nanodisc) (Cat. No. GPD-H82D4) with an affinity constant of 105 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

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Bioactivity-BLI



Loaded Biotinylated Human GPRC5D, His,Avitag&Flag Tag (Nanodisc) (Cat. No. GPD-H82D4) on SA Biosensor, can bind Anti-GPRC5D Antibody, Human IgG4 with an affinity constant of 2.36 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

G-protein coupled receptor family C group 5 member D (GPRC5D) is a retinoic acid-inducible 40 kDa protein with seven transmembrane segments and a short N terminal extracellular region. Widely expressed in the peripheral system. Expression pattern is high in pancreas, medium in kidney, small intestine, spleen and testis, low in lung, colon, leukocyte, prostate and thymus and not detectable in brain, heart, liver, placenta, skeletal muscle and ovary.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.

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