## FITC-Labeled Human GPRC5D Protein, Flag, His Tag (Nanodisc)

Catalog # GPD-HF2D7



### **Synonym**

GPRC5D

#### Source

FITC-Labeled Human GPRC5D Protein, Flag,His Tag(GPD-HF2D7) 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

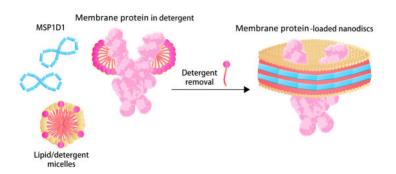
## **Molecular Characterization**



This protein carries flag tag at the N-terminus and polyhistidine tag at the C-terminus.

The protein has a calculated MW of 51.8 kDa. The protein migrates as 19-27 kDa, 36-37 kDa and 66 kDa when calibrated against <u>Star Ribbon Pre-stained</u> <u>Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

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.

### Conjugate

FITC

Excitation source: 488 nm spectral line, argon-ion laser

Excitation Wavelength: 488 nm

Emission Wavelength: 535 nm

## Labeling

The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with FITC using standard chemical labeling method. The residual FITC is removed by molecular sieve treatment during purification process.

### Endotoxin



### **Purity**

>80% as determined by SDS-PAGE.

#### **Formulation**

Supplied as 0.2  $\mu m$  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 protect from light and 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. <u>APO-H51H3</u>) is sold separately and not included in protein, you can follow <u>this link</u> for product information.

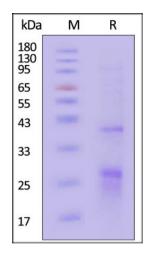
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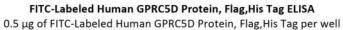
Less than 1.0 EU per µg by the LAL method.

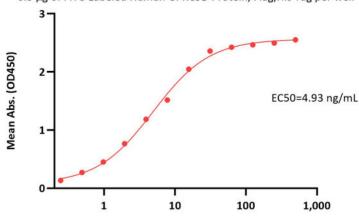
### **SDS-PAGE**



FITC-Labeled Human GPRC5D Protein, Flag, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 80% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

## **Bioactivity-ELISA**





Monoclonal Anti-Human GPRC5D antibody, Human IgG4 Conc. (ng/mL)

Immobilized FITC-Labeled Human GPRC5D Protein, Flag,His Tag (Cat. No. GPD-HF2D7) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Monoclonal Anti-Human GPRC5D antibody, Human IgG4 with a linear range of 0.2-16 ng/mL (QC tested).

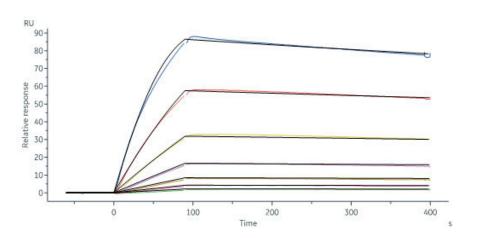
# **Bioactivity-SPR**



# FITC-Labeled Human GPRC5D Protein, Flag, His Tag (Nanodisc)







Anti-GPRC5D Antibody, Human IgG4 captured on Protein A Chip can bind FITC-Labeled Human GPRC5D Protein, Flag, His Tag (Cat. No. GPD-HF2D7) with an affinity constant of 9.29 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

## **Background**

The protein encoded by this gene is a member of the G protein-coupled receptor family; however, the specific function of this gene has not yet been determined. (provided by RefSeq, Jul 2008)

## **Clinical and Translational Updates**

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

