

# Biotinylated Human GPRC5D Protein-Nanodisc

Cat. No. GPR-HM45PB

## Description

<b>Source</b>	Recombinant Biotinylated Human GPRC5D Protein-Nanodisc is expressed from HEK293 with His tag and Avi tag at the C-terminus. It contains Met1-Val345.
<b>Accession</b>	Q9NZD1-1
<b>Molecular Weight</b>	The protein has a predicted MW of 42.10 kDa.
<b>Endotoxin</b>	Less than 1EU per $\mu\text{g}$ by the LAL method.

## Formulation and Storage

<b>Formulation</b>	Supplied as 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4). Notice: Not recommended for immunization and flow cytometry in mammalian cells.
<b>Storage</b>	Valid for 12 months from date of receipt when stored at $-80^{\circ}\text{C}$ . Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

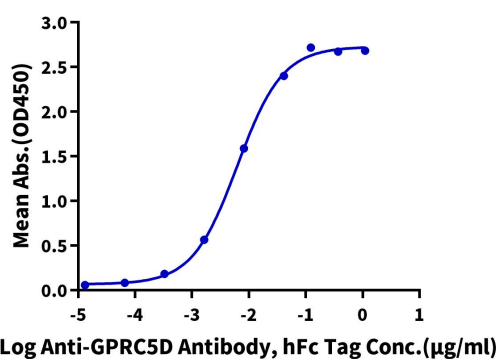
Chimeric antigen receptor (CAR) T cells, a type of cell-based immunotherapy, have shown some promising results in multiple myeloma, a bone marrow cancer. The orphan G protein-coupled receptor, class C group 5 member D (GPRC5D), normally expressed only in the hair follicle, Using quantitative immunofluorescence, we determined that GPRC5D protein is expressed on CD138 MM cells from primary marrow samples with a distribution that was similar to, but independent of, BCMA.

## Assay Data

### ELISA Data

#### Biotinylated Human GPRC5D Nanodisc, His Tag ELISA

0.5 $\mu\text{g}$  Biotinylated Human GPRC5D Nanodisc, His Tag Per Well

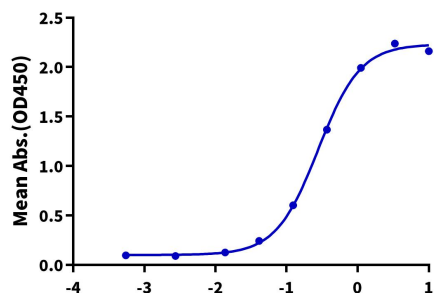


Immobilized Biotinylated Human GPRC5D Nanodisc, His Tag at 5 $\mu\text{g}/\text{ml}$  (100 $\mu\text{l}/\text{well}$ ) on the streptavidin precoated plate (5 $\mu\text{g}/\text{ml}$ ). Dose response curve for Anti-GPRC5D Antibody, hFc Tag with the EC<sub>50</sub> of 6.3ng/ml determined by ELISA (QC Test).

### ELISA Data

#### Biotinylated Human GPRC5D, His Tag ELISA

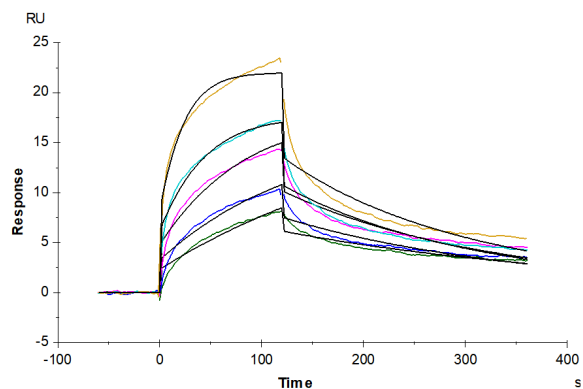
0.2 $\mu\text{g}$  Human CD3E&CD3D, His Tag Per Well



Immobilized Human CD3E&CD3D, His Tag at 2 $\mu\text{g}/\text{ml}$  (100 $\mu\text{l}/\text{well}$ ) on the plate, add serial dilutions of Anti-Human CD3 x GPRC5D Bispecific Antibody, hFc Tag and then add Biotinylated Human GPRC5D Nanodisc, His Tag at 5 $\mu\text{g}/\text{ml}$ . Detection was performed using HRP-conjugated streptavidin with the EC<sub>50</sub> of 0.28 $\mu\text{g}/\text{ml}$  determined by ELISA.

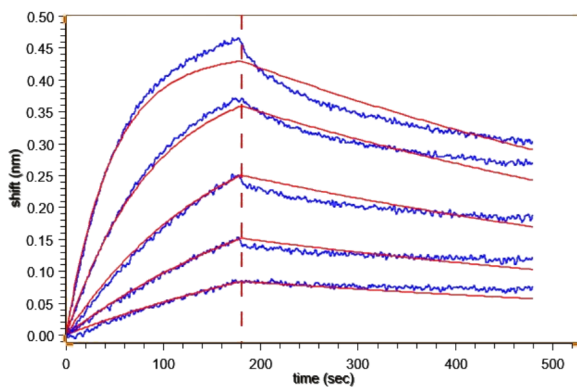
## Assay Data

### SPR Data



Biotinylated Human GPRC5D Nanodisc, His Tag captured on CM5 Chip via Streptavidin can bind Anti-GPRC5D Antibody with an affinity constant of 6.30 nM as determined in SPR assay (Biacore T200).

### BLI Data



Loaded Biotinylated Human GPRC5D Nanodisc, His Tag on SA-Biosensor, can bind Anti-GPRC5D Antibody with an affinity constant of 1.16 nM as determined in BLI assay (Gator Prime).