

Biotinylated Human GPRC5D Protein-Nanodisc

Cat. No. GPR-HM45PB

Description

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

Formulation and Storage

Formulation	Supplied as 0.22 μm filtered solution in PBS (pH 7.4). Notice: Not recommended for immunization.
Storage	Valid for 12 months from date of receipt when stored at -80°C . Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

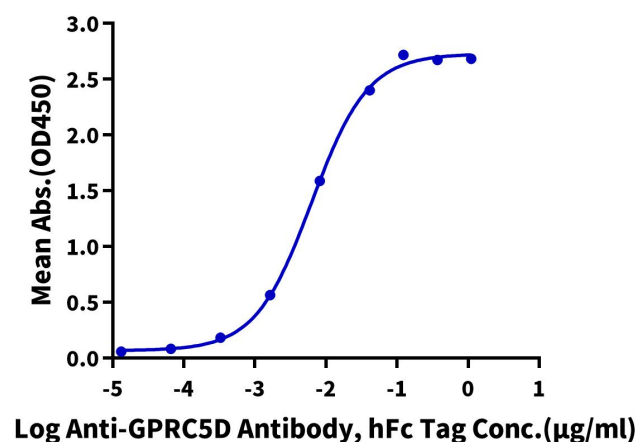
Chimeric antigen receptor (CAR) T cells, a type of cell-based immunotherapy, have shown some promising results in multiple myeloma, a bone marrow cancer. The orphan G protein-coupled receptor, class C group 5 member D (GPRC5D), normally expressed only in the hair follicle. Using quantitative immunofluorescence, 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 μg Biotinylated Human GPRC5D Nanodisc, His Tag Per Well

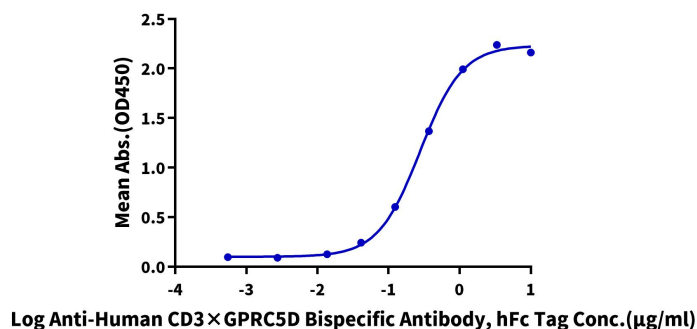


Immobilized Biotinylated Human GPRC5D Nanodisc, His Tag at $5\mu\text{g}/\text{ml}$ ($100\mu\text{l}/\text{well}$) on the streptavidin precoated plate ($5\mu\text{g}/\text{ml}$). Dose response curve for Anti-GPRC5D Antibody, hFc Tag with the EC_{50} of $6.3\text{ng}/\text{ml}$ determined by ELISA (QC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

ELISA Data

Biotinylated Human GPRC5D, His Tag ELISA

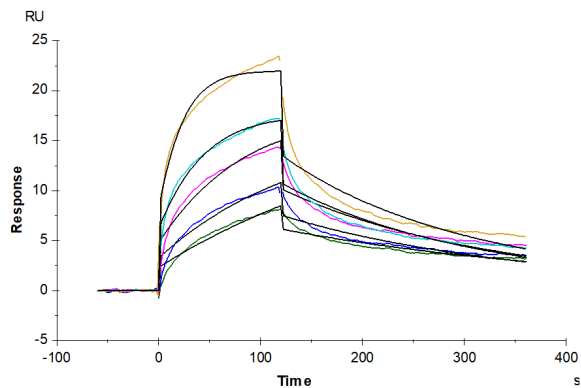
0.2 μg Human CD3E&CD3D, His Tag Per Well



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_{50} of $0.28\mu\text{g}/\text{ml}$ determined by ELISA.

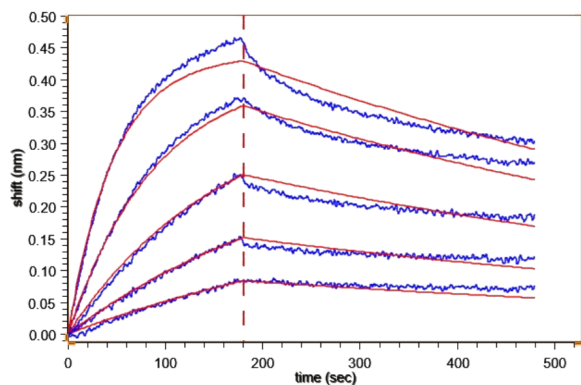
SPR Data

Assay 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).