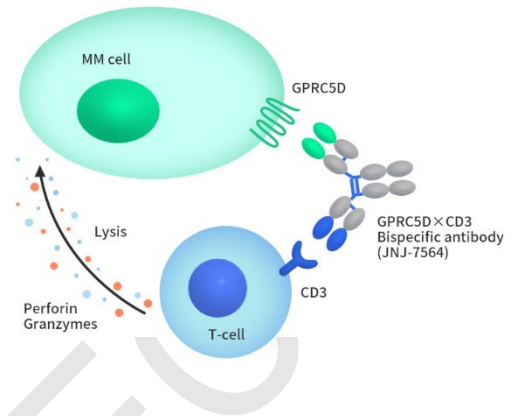
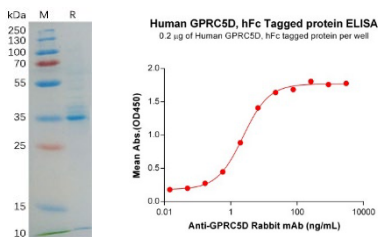


GPRC5D is a seven-transmembrane protein and belongs to the orphan receptors. It is highly expressed on the surface of primary multiple myeloma cells, whereas in normal tissues, it has minor expression in hair follicles. Studies have shown that 65% of multiple myeloma patients have a GPRC5D expression threshold of more than 50%, making GPRC5D a potential target for the treatment of MM. The expression profile of GPRC5D is independently from BCMA in MM patients, so it can be developed as a single-target or dual-target drug. The research on GPRC5D has been focused on bispecific antibodies: CD3×GPRC5D bispecific antibodies (Johnson & Johnson), BCMA×GPRC5D bispecific antibodies (URENCO), and GPRC5D CAR-T therapy (Memorial Sloan Kettering Cancer Center).

DIMA Biotech offers many functionally validated GPRC5D proteins and antibodies, which can be used in different applications, such as immunogens, CAR T-cell development and validation, Bioassays, etc.



Bioactive GPRC5D Proteins

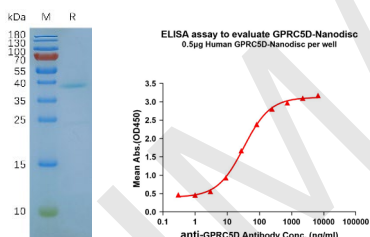


Cat. No. PME100677

ECD Proteins: Active human GPRC5D recombinant protein is produced from HEK293 cells which are likely to have the native protein structures and post-translational modifications.

- The purity >95% as determined by SDS-PAGE
- Active binding to anti-GPRC5D antibody in ELISA validation assay

Cat. No.	Product Name
PME100559	Human GPRC5D Protein, mFc Tag
PME100560	Mouse GPRC5D Protein, hFc Tag
PME100561	Cynomolgus GPRC5D (1-21) Protein, hFc Tag
PME100066	Human GPRC5D Protein, hFc-His Tag
PME100677	Human GPRC5D Protein, hFc Tag
PME100559P	PE-conjugated Human GPRC5D Protein, mFc Tag



Cat. No. FLP100011

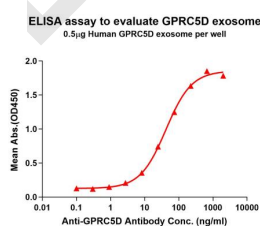
Full Length Nanodisc Protein: Full length active human GPRC5D recombinant protein is produced from HEK293 cells and purified in Nanodisc format.

- The purity >95% as determined by SDS-PAGE
- Active binding to anti-GPRC5D antibody in ELISA validation assay

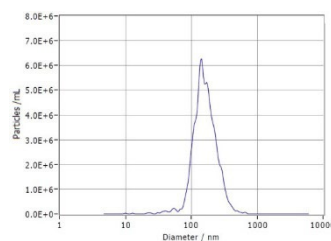
Full Length Exosome Protein: Full length active human GPRC5D recombinant protein on exosome.

- Active binding to anti-GPRC5D antibody in ELISA validation assay

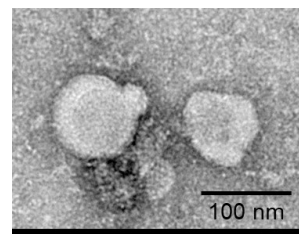
Cat. No.	Product Name
FLP100011	Human GPRC5D full length protein-synthetic nanodisc
FLP100010	Human GPRC5D full length protein-exosome



ELISA Analysis of GPRC5D exosomes



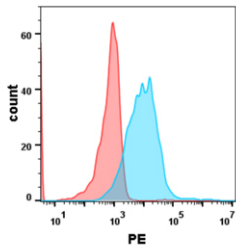
Cat. No. FLP100010



TEM image of GPRC5D exosomes

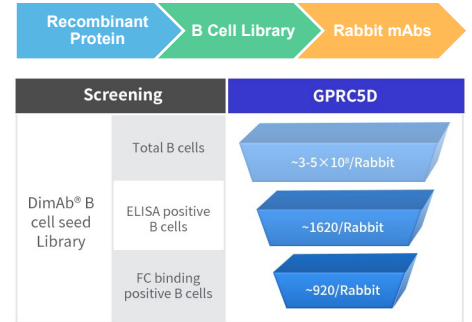
GPRC5D Antibodies

Benchmark Antibody

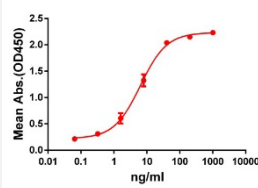


Flow cytometry analysis with Anti-GPRC5D mAb (Cat. No. BME100072, Talquetamab) on Expi293 cells transfected with human GPRC5D (Blue) or Expi293 transfected with irrelevant protein (Red).

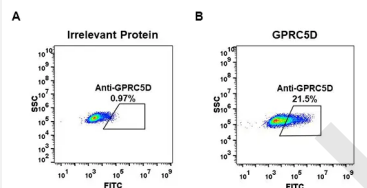
Cat. No.	Product Name
DME100060	Anti-GPRC5D antibody(DM60), Rabbit mAb
DME100061	Anti-GPRC5D antibody(DM61), Rabbit mAb
DME100062	Anti-GPRC5D antibody(DM62), Rabbit mAb
DME100089	Anti-GPRC5D antibody(DM89), Rabbit mAb
DME100090	Anti-GPRC5D antibody(DM90), Rabbit mAb
DME100091	Anti-GPRC5D antibody(DM91), Rabbit mAb
DME100060B	Biotinylated Anti-GPRC5D antibody(DM60), Rabbit mAb
DME100061B	Biotinylated Anti-GPRC5D antibody(DM61), Rabbit mAb
DME100062B	Biotinylated Anti-GPRC5D antibody(DM62), Rabbit mAb
DME100089B	Biotinylated Anti-GPRC5D antibody(DM89), Rabbit mAb
DME100090B	Biotinylated Anti-GPRC5D antibody(DM90), Rabbit mAb
DME100091B	Biotinylated Anti-GPRC5D antibody(DM91), Rabbit mAb
DME100091P	PE-conjugated Anti-GPRC5D antibody(DM91), Rabbit mAb



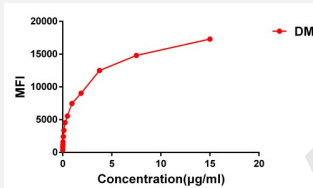
Featured Data for Cat. No. DME100061



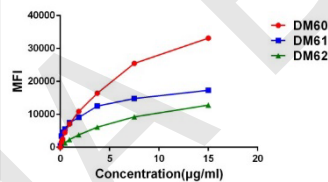
ELISA analysis of Rabbit anti-GPRC5D mAb with purified human GPRC5D protein



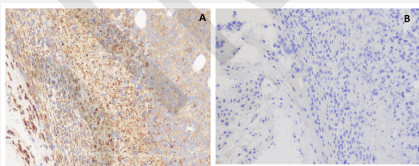
Expi 293 cells transfected with irrelevant protein (A) and human GPRC5D (B) were surface stained with Rabbit anti-GPRC5D mAb (clone: DM61) followed by Alexa 488-conjugated anti-rabbit IgG secondary antibody.



Flow cytometry data of serially titrated Rabbit anti-GPRC5D mAb (clone: DM61) on H929 cells. The Y-axis represents the mean fluorescence intensity (MFI) while the X-axis represents the concentration of IgG used.



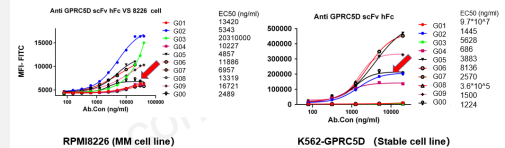
Affinity ranking of different Rabbit anti-GPRC5D mAb clones by titration of different concentration onto H929 cells. The Y-axis represents the mean fluorescence intensity (MFI) while the X-axis represents the concentration of IgG used.



IHC staining of H929 cells A. with rabbit anti-GPRC5D mAb (Cat# DME100061) at 5.9 µg/ml. B. with another anti-GPRC5D mAb (Cat# DME100090) at 8.8 µg/ml. DME100061 can specifically react with GPRC5D in IHC application.

Antibody Engineering

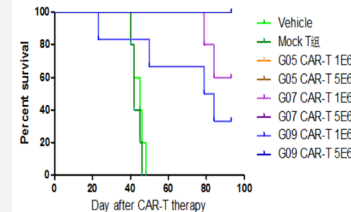
FACS affinity evaluation on different humanized Anti-GPRC5D scFv constructs



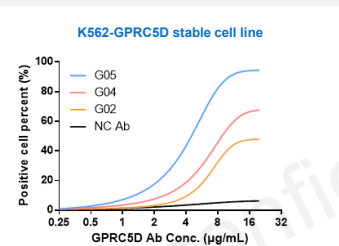
G00 (The red arrow is the construct from reference CAR (MARCH109, which is in clinical trial); G01-G09 are humanized molecules from DIMA Biotech LTD.

Affinities after humanization

GPRC5D MM 1.S SURVIVAL



Animal survival data for CAR-T therapy



Internalization assay for ADC development

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