

## GPRC5D Protein-VLP, Human, Recombinant

### General Information

Synonyms:	GPRC5D
Protein Construction:	A DNA sequence encoding the human GPRC5D (Q9NZD1-1) (Met1-Val345) was expressed. Predicted N terminal: Met 1
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q9NZD1-1
Molecular Weight:	38.80 kDa (predicted)

### QC Testing

Biological Activity:	Immobilized Human GPRC5D-VLP (Full Length) Protein at 5 µg/mL (100 µL/well) can bind anti-GPRC5D Antibody, the EC50 is 3-10 ng/mL.
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Supplied as sterile solution in 50 mM HEPES, 150 mM NaCl, 10% Trehalose, pH 7.2.

### Preparation and Storage

#### Stability & Storage:

It is recommended to store the product under sterile conditions at -70°C or lower. Samples are stable for up to 12 months at -80°C. Please avoid multiple freeze-thaw cycles and store products in aliquots.

*Actual storage temperature shall be subject to the COA.*

#### Shipping:

Proteins are shipped with blue ice.

### Protein Background

Orphan G-protein-coupled receptor family C group 5 member D (GPRC5D) has seven transmembrane segments forming the core of the receptor, as well as an intracellular C-tail and an extracellular N-terminal domain. GPRC5D is highly and selectively expressed on the surface of CD138+ multiple myeloma (MM) cells, whereas in normal tissues, a much lower expression is limited to plasma cells and certain hard keratinizing tissues. This makes GPRC5D a promising marker for monitoring tumor load and a target antigen for MM-specific T cell-engaging therapies such as bispecific antibodies and CAR-T cells.

#### Reference

Eric L. Smith, et al. GPRC5D is a target for the immunotherapy of multiple myeloma with rationally designed CAR T cells. *Sci. Transl. Med.* 2019.

Christie, et al. Preclinical activity and determinants of response of the GPRC5DxCD3 bispecific antibody talquetamab in multiple myeloma. *Blood Adv* 2021.

Tatsushi Kodama, et al. Anti-GPRC5D/CD3 Bispecific T-Cell-Redirecting Antibody for the Treatment of Multiple Myeloma. *Mol Cancer Ther* 1 September 2019.

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