Catalog # GPD-H52D3



Synonym

GPRC5D

Source

Human GPRC5D, Flag,His Tag(GPD-H52D3) is expressed from human 293 cells (HEK293). It contains AA Tyr 2 - Phe 192 & Glu 197 - Leu 262 (Accession # <u>Q9NZD1-2</u>).

Predicted N-terminus: Asp

Molecular Characterization

 Flag
 GPRC5D (Tyr 2 - Phe 192) Q9NZD1-2
 GPRC5D (Glu 197 - Leu 262) Q9NZD1-2
 His

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 35-38 kDa,55 kDa and 66 kDa when calibrated against <u>Star Ribbon Pre-stained Protein</u> <u>Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>85% as determined by SDS-PAGE.

Formulation

This product is not suitable for cell based experiments due to cytotoxicity of DDM.

DDM and CHS are INDISPENSABLE to keep membrane protein soluble and active, under no circumastance should you remove DDM and CHS. DDM/CHS buffer (DC-11) is sold separately and not included in protein, and please contact us if you need the buffer.

If glycerol is not compatible to your application, remove glycerol just before immediate experiment, and NEVER store glycerol-free protein solution.

Supplied as 0.2 µm filtered solution in 50 mM HEPES, 150 mM NaCl, DDM, CHS, 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

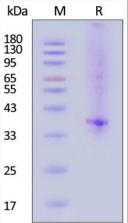
Please avoid repeated freeze-thaw cycles.

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 DDM/CHS buffer (Cat. No. <u>DC-11</u>) is sold separately and not included in protein, you can follow this link for product information.

SDS-PAGE





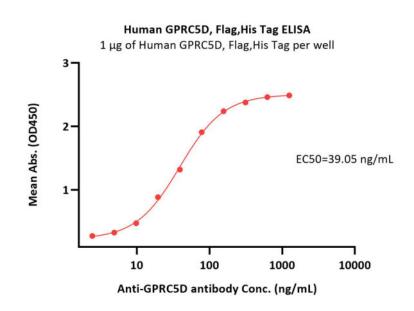
Human GPRC5D, Flag, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 85% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

Bioactivity-ELISA

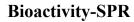


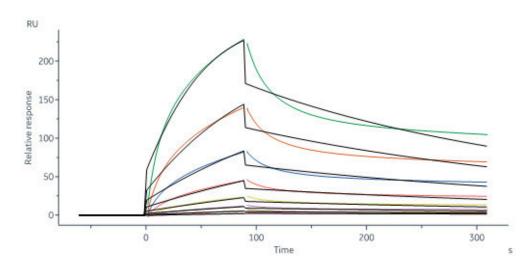
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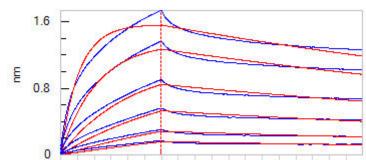
Immobilized Human GPRC5D, Flag,His Tag (Cat. No. GPD-H52D3) at 10 μ g/mL (100 μ L/well) on an Nickel Coated plate can bind Anti-GPRC5D antibody with a linear range of 2-78 ng/mL (QC tested).





Anti-GPRC5D Antibody captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind Human GPRC5D, Flag,His Tag (Cat. No. GPD-H52D3) with an affinity constant of 71 nM as determined in a SPR assay (in presence of DDM and CHS) (Biacore 8K) (Routinely tested).

Bioactivity-BLI



0 50 100 150 Time (sec)

Loaded Anti-GPRC5D Antibody, Human IgG4 on Protein A Biosensor, can bind Human GPRC5D, Flag,His Tag (Cat. No. GPD-H52D3) with an affinity constant of 12.9 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



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Background

G-protein coupled receptor family C group 5 member D (GPRC5D) is a retinoic acid-inducible 40 kDa protein with seven transmembrane segments and a short N terminal extracellular region. Widely expressed in the peripheral system. Expression pattern is high in pancreas, medium in kidney, small intestine, spleen and testis, low in lung, colon, leukocyte, prostate and thymus and not detectable in brain, heart, liver, placenta, skeletal muscle and ovary.

Clinical and Translational Updates



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