



## Synonym

LGR5, GPR49, GPR67, G-protein coupled receptor 49, G-protein coupled receptor 67, G-protein coupled receptor HG38, Leucine-rich repeat-containing G-protein coupled receptor 5

## Source

Human LGR5 protein, Fc Tag(LG5-H5253) is expressed from human 293 cells (HEK293). It contains AA Gly 22 - Arg 561 (Accession # [O75473-1](#)).

Predicted N-terminus: Gly 22

## Molecular Characterization

LGR5(Gly 22 - Arg 561) O75473-1	Fc(Pro 100 - Lys 330) P01857
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This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 86.8 kDa. The protein migrates as 95-100 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per µg by the LAL method.

## Purity

>90% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, 25 mM Arginine, 150 mM NaCl, pH 7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

## Reconstitution

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

## Storage

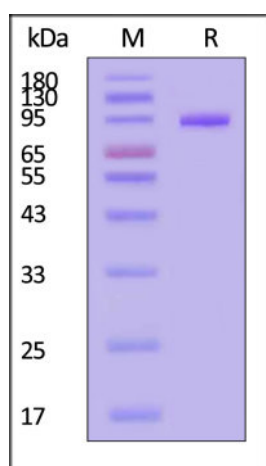
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE



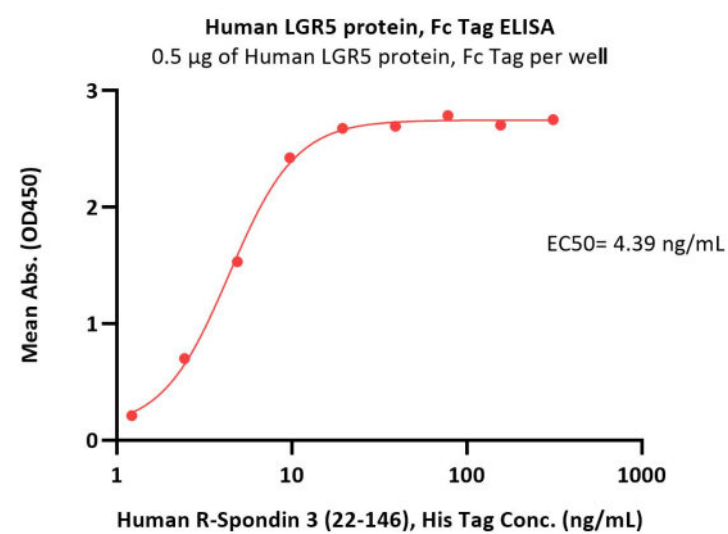
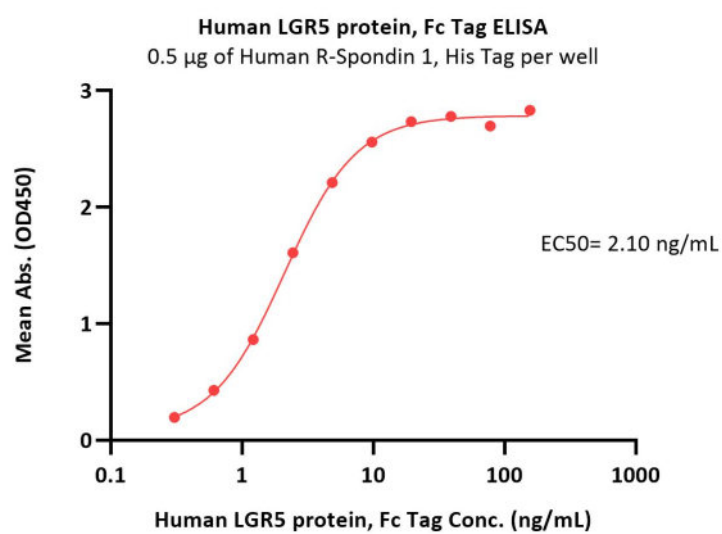
Human LGR5 protein, Fc Tag on SDS-PAGE under reducing (R) condition.

The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

## Bioactivity-ELISA

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Immobilized Human R-Spondin 1, His Tag (Cat. No. RS1-H4221) at 5 µg/mL (100 µL/well) can bind Human LGR5 protein, Fc Tag (Cat. No. LG5-H5253) with a linear range of 0.3-10 ng/mL (QC tested).

Immobilized Human LGR5 protein, Fc Tag (Cat. No. LG5-H5253) at 5 µg/mL (100 µL/well) can bind Human R-Spondin 3 (22-146), His Tag (Cat. No. RS6-H5222) with a linear range of 1-20 ng/mL (Routinely tested).

## Background

LGR5 (also known as GPR49) is a seven-transmembrane protein of the class A Rhodopsin-like family of GPCRs. LGR5 and LGR4 bind the R-spondins with high affinity and mediate the potentiation of Wnt/β-catenin signaling by enhancing Wnt-induced LRP6 phosphorylation. The LGR5/RSPO complex could promote Wnt signalling via the neutralization of two transmembrane E3 ligases, RNF43 and ZNRF3.

## Clinical and Translational Updates

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