



## Synonym

LGR4, GPR48, G-protein coupled receptor 48, Leucine-rich repeat-containing G-protein coupled receptor 4

## Source

Human LGR4, His Tag(LG4-H52H3) is expressed from human 293 cells (HEK293). It contains AA Ala 25 - Thr 544 (Accession # [Q9BXB1-1](#)).

## Molecular Characterization

**LGR4(Ala 25 - Thr 544)  
Q9BXB1-1**      **Poly-his**

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 58.8 kDa. The protein migrates as 70-100 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  $\mu$ g by the LAL method / rFC method.

## Purity

>85% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22  $\mu$ m filtered solution in PBS, pH7.4 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

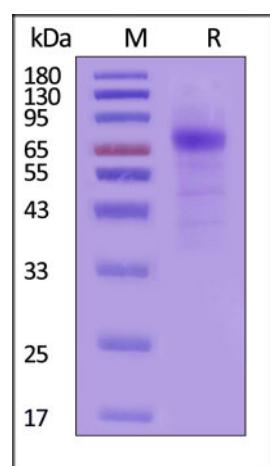
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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

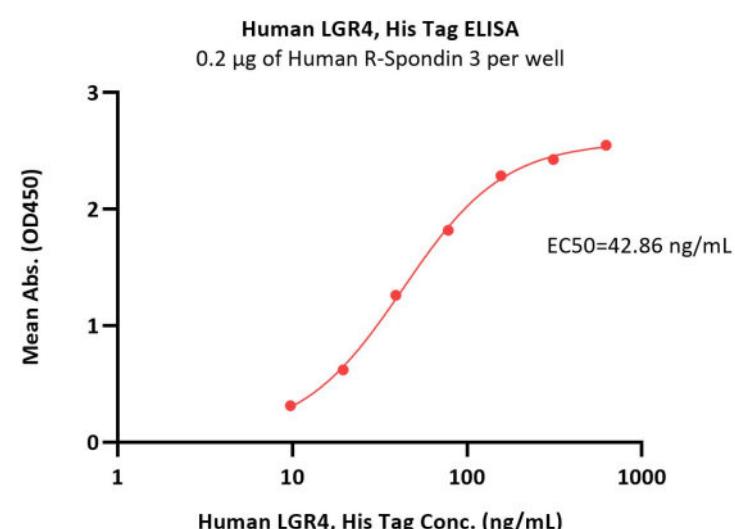


Human LGR4, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 85% (With [Star Ribbon Pre-stained Protein Marker](#)).

## Bioactivity-ELISA

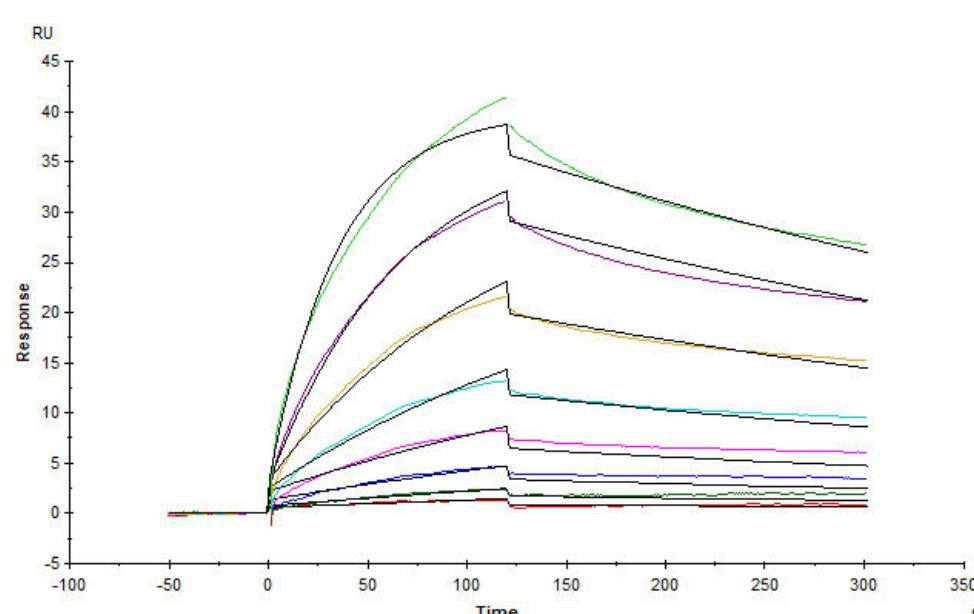
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Immobilized Human R-Spondin 3 at 2 µg/mL (100 µL/well) can bind Human LGR4, His Tag (Cat. No. LG4-H52H3) with a linear range of 10-78 ng/mL (QC tested).

### Bioactivity-SPR



Human R-Spondin 3 immobilized on CM5 Chip can bind Human LGR4, His Tag (Cat. No. LG4-H52H3) with an affinity constant of 0.394 µM as determined in a SPR assay (Biacore T200) (Routinely tested).

### Background

The fourth member of the leucine-rich repeat-containing GPCR family (LGR4, frequently referred to as GPR48) together with its family members LGR5 and -6, bind to R-spondins (RSPOs)-1–4 and result in Wnt signaling potentiation. In addition, LGR4 (as well as LGR5 and -6) is implicated in multiple cancers and promotes invasion and metastasis in colorectal, prostate, and cervical cancer cell lines.

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