Human LGR4 / GPR48 protein, His Tag

Catalog # LG4-H52H3

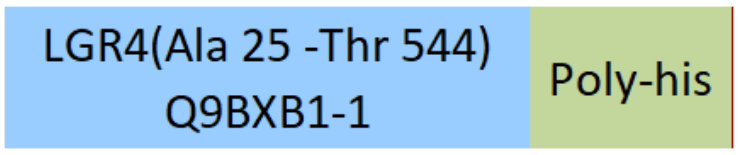
Synonym

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



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 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

Lyophilized from 0.22 μm 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

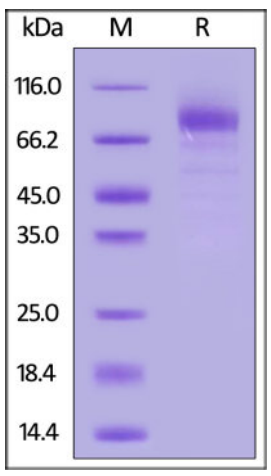
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

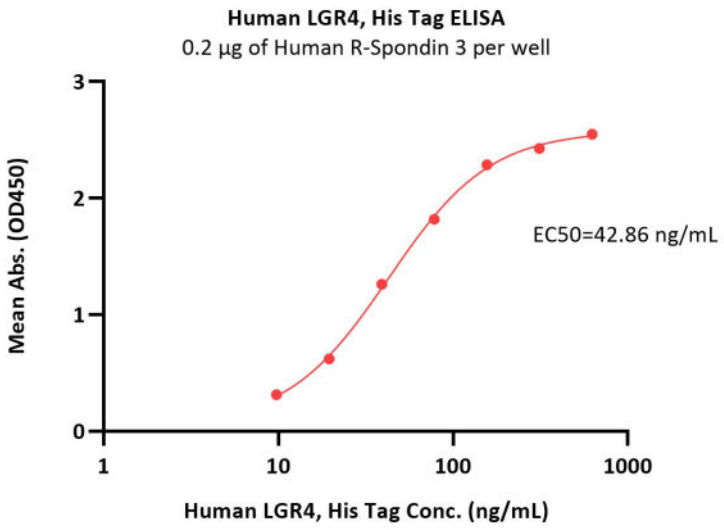
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



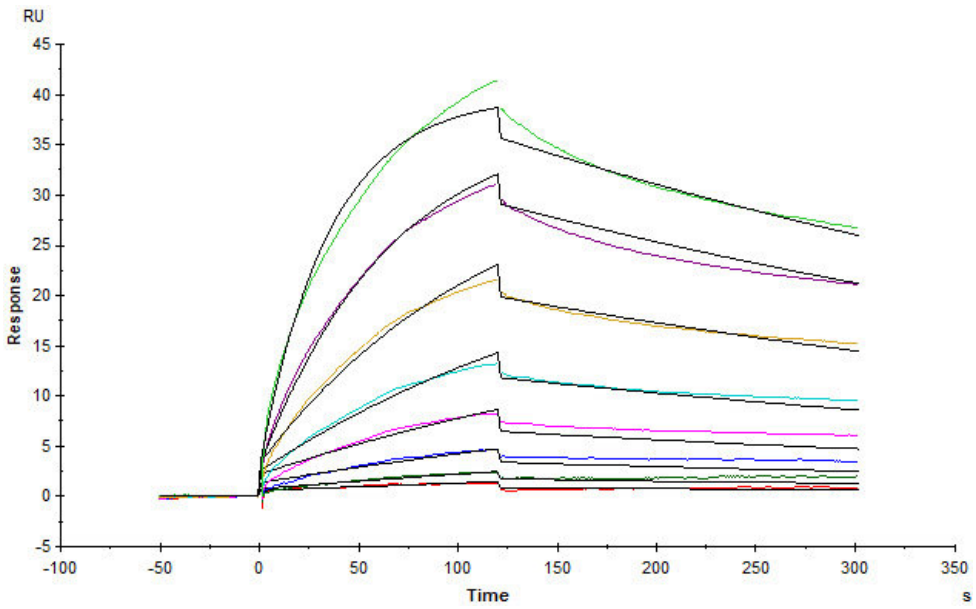
Human LGR4, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 85%.

Bioactivity-ELISA



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.

Clinical and Translational Updates