

Recombinant Human R-Spondin 1/RSPO1 Protein (His Tag)

Catalog Number: PKSH031269

Note: Centrifuge before opening to ensure complete recovery of vial contents.

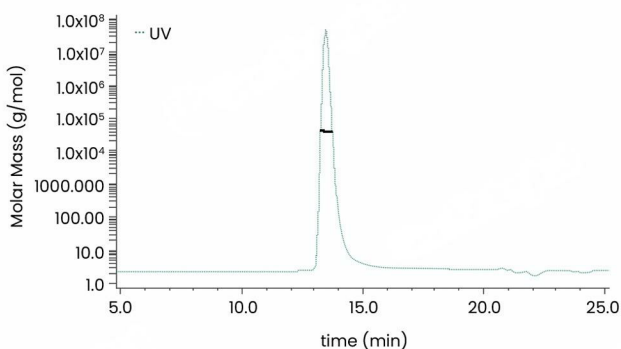
Description

Species	Human
Source	HEK293 Cells-derived Human R-Spondin 1/RSPO1 protein Met 1-Ala 263, with an C-terminal His
Calculated MW	28.2 kDa
Observed MW	42 kDa
Accession	NP_001033722.1
Bio-activity	1. Immobilized human RSPO1 at 20 µg/ml (100 µl/well) can bind human LIMPII with a linear ranger of 32-800 ng/ml. 2. Immobilized human RSPO1 at 20 µg/ml (100 µl/well) can bind mouse CD36 with a linear ranger of 6. 4-800 ng/ml. 3. Measured by its ability to induce activation of βcatenin response in a Topflash Luciferase assay using HEK293T human embryonic kidney cells. The ED ₅₀ for this effect is typically 0.1-0.9 µg/mL in the presence of 5 ng/mL recombinant mouse Wnt3a.

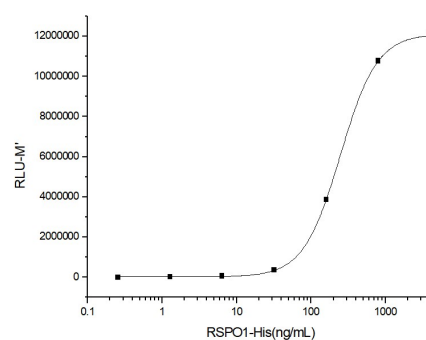
Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



Recombinant Human R-Spondin 1 / RSPO1 Protein, His Tag, HPLC-verified(Cat: PKSH031269)was more than 95% and the molecular weight of this protein is around 40.1 kDa verified by SEC-MALS .



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Background

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RSPO1 gene is a member of the R-spondin family. It encodes RSPO1 which is known as a secreted activator protein with two cystein-rich, furin-like domains and one thrombospondin type 1 domain. In mice, RSPO1 induces the rapid onset of crypt cell proliferation and increases intestinal epithelial healing, providing a protective effect against chemotherapy-induced adverse effects. This protein is an activator of the beta-catenin signaling cascade, leading to TCF-dependent gene activation. RSPO1 acts both in the canonical Wnt/beta-catenin-dependent pathway and in non-canonical Wnt signaling pathway, probably by acting as an inhibitor of ZNRF3, an important regulator of the Wnt signaling pathway. It also acts as a ligand for frizzled FZD8 and LRP6.

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