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

Catalog Number: PKSH031269

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

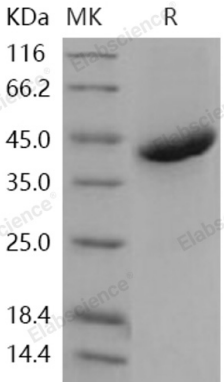
Description

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 ßcatenin 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 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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



> 95 % as determined by reducing SDS-PAGE.

Background

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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