Recombinant Human R-Spondin 1/RSPO1 Protein (His

Tag)

Catalog Number: PKSH031269



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

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Descri	ntion

Synonyms RSPO1;R-spondin1;RP11-566C13.1;CRISTIN3;FLJ40906;RSPO Rspo1;R-

spondin;Rspondin;RP23-325M14.2;Roof plate-specific spondin-1

Species Human

Expression Host HEK293 Cells
Sequence Met 1-Ala 263
Accession NP_001033722.1

Calculated Molecular Weight 28.2 kDa

Observed molecular weight 42 kDa

Tag C-His

Bioactivity 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 ED50 for this effect is typically 0.1-0.9 μ g/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

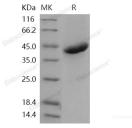
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

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.

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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 chemotherapyinduced 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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