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

Catalog Number: PKSM040742



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

## **Description**

Synonyms R-spondin;Rspondin

Species Mouse

Expression Host

CHO Stable Cells

Met 1-Gln 265

Accession

NP\_619624.2

Calculated Molecular Weight

Observed molecular weight

Tag

CHO Stable Cells

44 kDa

C-His

**Bioactivity** Measured by its ability to induce activation of  $\beta$ -catenin response in a Topflash

Luciferase assay using HEK293T human embryonic kidney cells. The ED50 for this effect is typically 50-200 ng/ml in the presence of 50 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

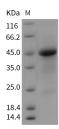
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

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.

#### **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

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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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