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

## Catalog Number: PKSM040742

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

Description	
Species	Mouse
Source	CHO Stable Cells-derived Mouse R-Spondin 1/RSPO1 protein Met 1-Gln 265, with an
	C-terminal His
Calculated MW	28.5 kDa
Observed MW	44 kDa
Accession	NP_619624.2
<b>Bio-activity</b>	Measured by its ability to induce activation of $\beta$ -catenin response in a Topflash
	Luciferase assay using HEK293T human embryonic kidney cells. The ED <sub>50</sub> 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 $< -20^{\circ}C$ 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	
	KDa M
	116
	66.2

45.0	
35.0	-
25.0	
18.4 14.4	=

> 95 % as determined by reducing SDS-PAGE.

Background

For Research Use Only

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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.