# R-spondin 1/RSPO1, Human, Recombinant

Cat. No.: PCK214

## **General Information**

**Synonyms** RSPO1, Roof plate-specific spondin-1

**Species** Human **Expression host HEK293** 

Sequence A DNA sequence encoding Human R-Spondin 1 Protein (#Q2MKA7) (Ser21 -

Ala263) was expressed with polyhistidine-SUMO tag at the N-terminus.

Q2MKA7 Accession

His-SUMO tag at the N-terminus Tag

42.43 kDa Mol mass **Expiration date** 12 months

Bio activity R-Spondin-1 enhances BMP-2-mediated differentiation of MC3T3-E1 cells. The

ED50 for this effect is 1-3  $\mu$ g/mL.

#### Product feature

**Purity** > 95% as determined by SDS-PAGE. Ni-NTA chromatography.

Endotoxin < 1.0 EU per µg as determined by LAL test.

Store at -5~-20°C or -80°C for 6 months. Further dilute in a buffer containing a Storage

> carrier protein or stabilizer (e.g. 0.1% BSA, 10%FBS, 5%HSA or 5% trehalose solution), protein aliquots should be stored at -5~-20°C or -80°C for 3-6 months.

The product is shipped on dry ice/polar packs. Upon receipt, store it immediately at Shipping

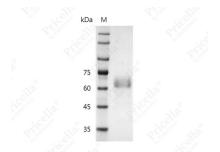
the temperature listed below.

Formulation Liquid (1× PBS, pH 7.4)

## **Background**

R-spondin 1 (RSPO1, Roof plate-specific Spondin 1) is a cysteine-rich secreted glycoprotein that belongs to the R-Spondin family. Structurally, R-spondin 1 harbors an N-terminal signal peptide, two cysteine-rich furin-like (FU1-FU2) domains, a thrombospondin (TSP) domain, and a basic amino acid-rich (BR) C-terminal domain. R-spondin 1 acts as a ligand for the leucine-rich repeat-containing G-protein coupled receptor (LGR) family (LGR4/5/6), subsequent clearing negative regulators ZNRF3/RNF43 from the membrane, leading to the availability of Wnt receptor and activating Wnt/β-catenin signaling. The signal cascade is essential for regulating stem cell PT1Ce1 proliferation, embryonic development, and tissue homeostasis.

### **SDS-PAGE**



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