

# Human R-Spondin 1, His-SUMO Tag, HEK293

 Catalog Number
 LDG013PHM

 Package
 5 ug / 20 μg / 100 μg / Customized package

For full product information, images and publications, please visit our website.



## **Specifications**

**Species of Origin** 

Human

**Affinity Tag** 

His-SUMO Tag (N-term)

**Storage Buffer** 

Liquid. Phosphate buffered saline, pH 7.4.

Molecular weight

The protein has a calculated MW of 46.8 kDa. The protein migrates as 62-68 kDa under reducing condition (SDS-PAGE analysis).

**Endotoxin Level** 

<1 EU per 1  $\mu g$  of the protein by the LAL method.

**Expression System** 

**HEK293** 

Concentration

Please refer to the product label.

**Purity** 

>95% as determined by SDS-PAGE analysis.

**Activity** 

R-Spondin-1 enhances BMP-2-mediated differentiation of MC3T3-E1 cells. The ED $_{50}$  for this effect is < 3  $\mu$ g/mL.

**Form** 

Liquid

## **Background**



#### **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 proliferation, embryonic development, and tissue homeostasis.

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Uniprot ID
Q2MKA7

**Synonyms** 

Roof plate-specific spondin-1, hRspo1

**Sequence Note** 

Ser21-Ala263

#### Instruction

#### Shipping

The product is shipped with polar packs. Upon receipt, store it immediately at -20°C or lower for long-term storage.

#### Stability & Storage

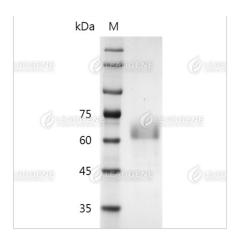
This product is stable after storage at:

 -80°C for long-term storage under sterile conditions.

Avoid repeated free-thaw cycles.

### **Image**





SDS-PAGE analysis of recombinant human R-Spondin 1.

**Disclaimer:** For Research Use or Further Manufacturing Only.