

Recombinant Human, Rspo1 / R-spondin 1, HEK293,

Animal Free & Carrier Free

Cat #: C-CYP395

Size: 5µg, 20µg, 100µg, 500µg, 1mg

Shipping: Blue Ice

Product Overview

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.

Product Information

Source: HEK 293.

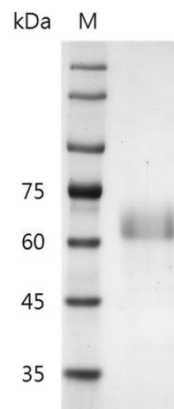
Purity: >95% as determined by SDS-PAGE. Ni-NTA chromatography.

Biological Activity: R-Spondin-1 enhances BMP-2-mediated differentiation of MC3T3-E1 cells. The ED50 for this effect is 1-3 µg/mL.

Endotoxin: <1EU per 1µg of the protein by the LAL method.

Amino acid sequence: A DNA sequence encoding Human R-Spondin 1 Protein (#Q2MKA7) (Ser21-Ala263) was expressed with polyhistidine-SUMO tag at the N terminus.

Formulation: aqueous solution containing 1×PBS, pH 7.4.



SDS-PAGE analysis of recombinant human R-Spondin 1

Usage Method

1. Before opening, it is recommended to centrifuge at 3000-3500 rpm for 5 minutes.
2. The stock solution can be stored at 2-8°C for up to 2 week. Store, frozen at -20-80°C for 6 months.
3. For long-term storage on dilution, it is recommended to dilute the solution with a carrier protein (such as 0.1% BSA, 10% FBS, or 5% HSA) and aliquot for storage at -20°C to -80°C for 3 to 6 months. If serum-free experiments are required, a 5% trehalose solution can be used as a carrier instead. Avoid repeated freeze-thaw cycles.

Storage

Physical Appearance	Storage	Stability
Stock solution	-20°C to -80°C	6 months
	2°C to 8°C	Less than 2 weeks
dilution	-20°C to -80°C	3 to 6 months

Note

The reagent is only used in the field of scientific research, not suitable for clinical diagnosis or other purposes.