

Active Recombinant Human RSPO1 Protein (Ser21-Ala263), N-His-SUMO tagged, Animal-free, Carrier-free

Cat. No. RSPO1-132H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human RSPO1 Protein (Ser21-Ala263) with N-His-SUMO tag was expressed in HEK293 and Animal-free as well as Carrier-free.
Species	Human
Source	HEK293
ProteinLength	Ser21-Ala263
Description	<p>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.</p>
Form	Liquid
Bio-activity	R-Spondin-1 enhances BMP-2-mediated differentiation of MC3T3-E1 cells. The ED50 for this effect is 1-3 μ g/mL.

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Molecular Mass	The protein has a calculated MW of 46.8 kDa. The protein migrates as 62-68 kDa under reducing condition (SDS-PAGE analysis).
Endotoxin	< 1 EU/μg of the protein by the LAL method.
Purity	>95% as determined by SDS-PAGE analysis.
Storage	This product is stable after storage at: -80 centigrade for long-term storage under sterile conditions. Avoid repeated free-thaw cycles.
Storage Buffer	Phosphate buffered saline, pH 7.4.
Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at -20 centigrade or lower for long term storage.

GENE INFORMATION

Gene Name	RSPO1 R-spondin 1 [Homo sapiens (human)]
Official Symbol	RSPO1
Synonyms	RSPO1; R-spondin 1; R spondin homolog (Xenopus laevis); R-spondin-1; FLJ40906; RSPONDIN; R-spondin homolog; roof plate-specific spondin-1; RSPO; CRISTIN3; RP11-566C13.1;
Gene ID	284654
mRNA Refseq	NM_001038633
Protein Refseq	NP_001033722

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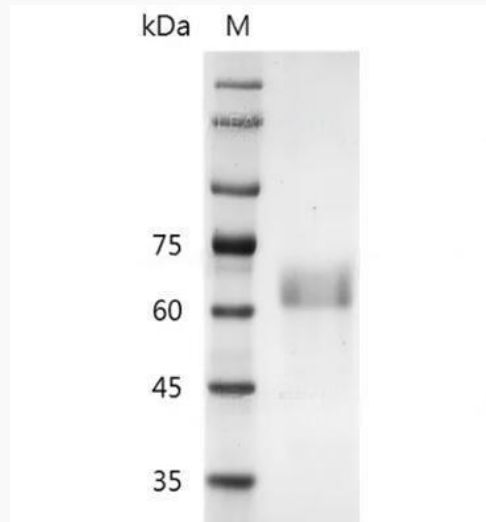
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MIM 609595

UniProt ID Q2MKA7

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



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