

## Active Recombinant Human RSP01 Protein, Biotinylated

Cat. No. RSPO1-169H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human RSP01(Arg31-Ala263) was expressed in CHO, Biotinylated.
<b>Species</b>	Human
<b>Source</b>	CHO
<b>ProteinLength</b>	Arg31-Ala263
<b>Description</b>	<p>R-Spondin 1 (RSP01), also known as Cristin 3, is a 27 kDa secreted protein in the R-Spondin family of Wnt/ beta -catenin signaling regulators. These proteins contain two adjacent cysteine-rich furin-like domains followed by a thrombospondin (TSP-1) motif and a region rich in basic residues. Mature human R-Spondin 1 shares 87% amino acid sequence identity with mouse and rat R-Spondin 1. Alternative splicing generates additional isoforms that have a substituted N-terminus or lack the TSP-1 domain. R-Spondin 1 enhances canonical Wnt/ beta -catenin signaling by competing with the Wnt antagonist Dkk-1, binding to Frizzled-8, Kremen, LRP-6, Lgr4, Lgr5, and Lgr6, and enhancing cell surface availability of Wnt receptors. R-Spondin 1 functions in dorsal neural tube development as well as male and female germ cell development. It also induces bone formation, intestinal crypt cell proliferation, angiogenesis, and insulin secretion from pancreatic beta cells.</p>
<b>Predicted N Terminal</b>	Arg31
<b>Form</b>	Lyophilized from a 0.2 µm filtered solution in PBS and NaCl with BSA as a carrier protein.

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<b>Bio-activity</b>	Measured by its ability to induce Topflash reporter activity in HEK293T human embryonic kidney cells. The ED50 for this effect is typically 5-30 ng/mL in the presence of 5 ng/mL recombinant mouse Wnt-3a.
<b>Molecular Mass</b>	Predicted Molecular Mass: 26 kDa (unlabeled)
<b>Endotoxin</b>	<0.10 EU per 1 µg of the protein by the LAL method.
<b>Purity</b>	>90%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
<b>Notes</b>	Structure / Form: Biotinylated protein via sugars
<b>Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile
<b>Reconstitution</b>	Reconstitute at 100 µg/mL in PBS containing at least 0.1% human or bovine serum albumin.
<b>Conjugation</b>	Biotin

## GENE INFORMATION

<b>Gene Name</b>	RSPO1 R-spondin 1 [ Homo sapiens ]
<b>Official Symbol</b>	RSPO1
<b>Synonyms</b>	RSPO1; R-spondin 1; R spondin homolog (Xenopus laevis); R-spondin-1; FLJ40906; RSPONDIN; R-spondin homolog; roof plate-specific spondin-1; RSPO; CRISTIN3;

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RP11-566C13.1;

**Gene ID**

284654

**mRNA Refseq**

NM\_001038633

**Protein Refseq**


NP\_001033722

**MIM**

609595

**UniProt ID**

Q2MKA7

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