Active Recombinant Human RSPO1 Protein, Biotinylated

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

SPECIFICATION

Product Overview	Recombinant Human RSPO1(Arg31-Ala263) was expressed in CHO, Biotinylated.
Species	Human
Source	CHO
ProteinLength	Arg31-Ala263
Description	R-Spondin 1 (RSPO1), 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.
Predicted N Terminal	Arg31
Form	Lyophilized from a 0.2 μm filtered solution in PBS and NaCl with BSA as a carrier protein.

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Bio-activity	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.
Molecular Mass	Predicted Molecular Mass: 26 kDa (unlabeled)
Endotoxin	<0.10 EU per 1 μg of the protein by the LAL method.
Purity	>90%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Notes	Structure / Form: Biotinylated protein via sugars
Storage	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
Reconstitution	Reconstitute at 100 μg/mL in PBS containing at least 0.1% human or bovine serum albumin.
Conjugation	Biotin

GENE INFORMATION

Gene Name	RSPO1 R-spondin 1 [Homo sapiens]
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;

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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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