

Recombinant Human RSPO1 Protein

Cat. No. RSPO1-34H Lot. No. (See product label)

SPECIFICATION

Product Overview	<p>Recombinant human R-spondin 1 protein without tag was expressed in E. coli. Animal-free (AOF) and carrier protein-free.</p> <p>Mass spectrometry: single species with expected mass. Analytical reversed-phase: single sharp peak. Recovery from stock vial: >95%</p>
Species	Human
Source	E.coli
Description	<p>This gene encodes a secreted activator protein with two cysteine-rich, furin-like domains and one thrombospondin type 1 domain. The encoded protein is a ligand for leucine-rich repeat-containing G-protein coupled receptors (LGR proteins) and positively regulates the Wnt signaling pathway. In mice, the protein induces the rapid onset of crypt cell proliferation and increases intestinal epithelial healing, providing a protective effect against chemotherapy-induced adverse effects. Alternative splicing results in multiple transcript variants.</p>
Molecular Mass	13 kDa
Endotoxin	<0.005 EU/μg protein (below level of detection)
Applications	Neuronal Differentiation
Storage	Resuspend in 10mM HCl at >100 μg/mL, prepare single use aliquots, add carrier

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

protein if desired and store frozen at -20 or -80 centigrade

Storage Buffer Lyophilized from acetonitrile, TFA

GENE INFORMATION

Gene Name [RSPO1 R-spondin 1 \[Homo sapiens \(human\) \]](#)

Official Symbol [RSPO1](#)

Synonyms [RSPO1](#); [R-spondin 1](#); [RSPO](#); [CRISTIN3](#); [R-spondin-1](#); [R-spondin homolog](#); [roof plate-specific spondin-1](#)

Gene ID [284654](#)

mRNA Refseq [NM_001038633](#)


Protein Refseq [NP_001033722](#)

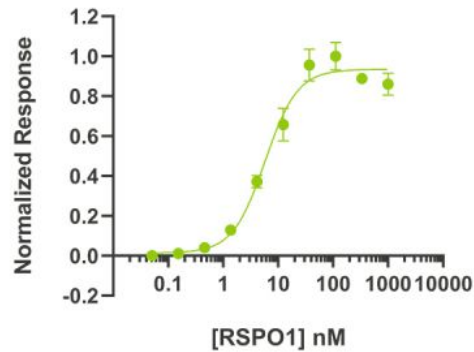
MIM [609595](#)

UniProt ID [Q2MKA7](#)

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA



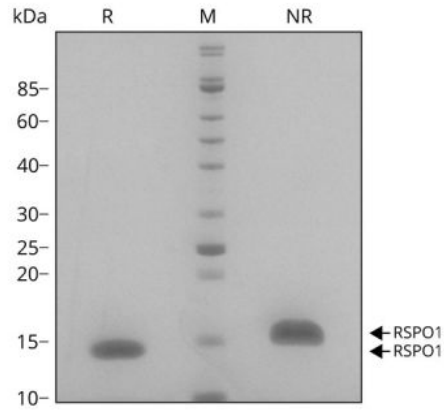
Bioactivity

RSPO 1 enhances Wnt signalling in TOP-Flash reporter assay in Wnt reporter assay. HEK293T cells transfected with Wnt-responsive firefly luciferase reporter TOP-FLASH are treated with increasing concentration of R-spondin 1 (diluted in DMEM with 0.5 % of FCS), in the presence of Wnt-conditioned media (1: 8 dilution), in triplicate. Cells are grown overnight and luciferase activity measured by luminescence. RSP1 enhances Wnt- β catenin signaling in HEK239T cells. EC50 = 72.4ng/mL (5.8 nM).

Tel: 1-631-559-9269 1-516-512-3133

Email: info@creative-biomart.com Fax: 1-631-938-8127

45-1 Ramsey Road, Shirley, NY 11967, USA

Purity

RSP01 migrates as a single band at 16 kDa in non-reducing and 13 kDa in reducing conditions. Purified recombinant protein was resolved using 15% w/v SDS-PAGE in reduced and non-reduced conditions and stained with Coomassie Brilliant Blue R250.

Tel: 1-631-559-9269 1-516-512-3133

Email: info@creative-biomart.com Fax: 1-631-938-8127

45-1 Ramsey Road, Shirley, NY 11967, USA