

Active Recombinant Human RSPO1 protein, His-tagged

Cat. No. RSPO1-2341H Lot. No. (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human RSPO1 protein(Q2MKA7)(21-263 aa), fused with N-terminal His tag, was expressed in HEK293.
Species	Human
Source	HEK293
ProteinLength	21-263 aa
Form	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	<p>R-Spondin 1 (RSPO1, Roof plate-specific Spondin 1), also known as cysteine-rich and single thrombospondin domain containing protein 3 (Cristin 3), is a 27 kDa secreted protein that shares~40% amino acid (aa) identity with three other R-Spondin family members. R-Spondin 1 competes with the Wnt antagonist DKK-1 for binding to the Wnt co-receptors, Kremen and LRP-6, reducing their DKK-1-mediated internalization. Postnatally, R-Spondin 1 is expressed by neuroendocrine cells in the intestine, adrenal gland and pancreas, and by epithelia in kidney and prostate. Besides, Leucine Rich Repeat Containing G Protein Coupled Receptor 5 (LGR5) has been identified as an interactor of RSPO1, thus a binding ELISA assay was conducted to detect the interaction of recombinant human RSPO1 and recombinant mouse LGR5. Briefly, biotin-linked RSPO1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to LGR5-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST 3 times</p>

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and incubation with Streptavidin-HRP for 30min, then wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 µstop solution to the wells and read at 450nm immediately. The binding activity of recombinant human RSPO1 and recombinant mouse LGR5 was shown, the EC50 for this effect is 0.099 ug/mL.

Molecular Mass 28.4kDa

Endotoxin <1.0EU per 1µg (determined by the LAL method).

Purity > 90%

Storage Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.

Reconstitution Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

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; RP11-566C13.1;

Gene ID [284654](#)

mRNA Refseq [NM_001038633](#)

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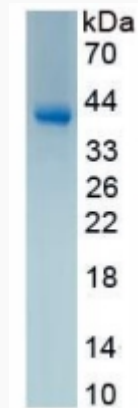
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Protein Refseq NP_001033722

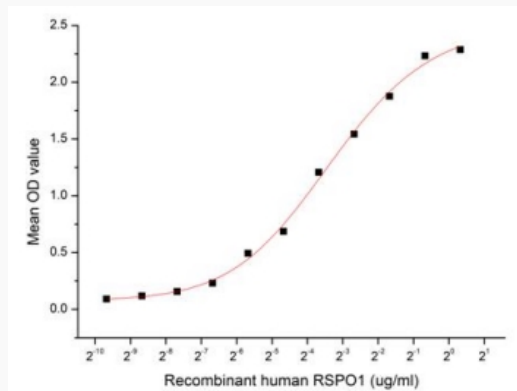
MIM 609595

UniProt ID Q2MKA7

SDS-PAGE



Activity



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