



## Synonym

RSP01,CRISTIN3,FLJ40906,RP11-566C13.1,R-spondin-1

## Source

Human R-Spondin 1, His Tag(RS1-H4221) is expressed from human 293 cells (HEK293). It contains AA Ser 21 - Ala 263 (Accession # [Q2MKA7-1](#)).

Predicted N-terminus: Ser 21

## Molecular Characterization

R-Spondin 1(Ser 21 - Ala 263)  
Q2MKA7-1 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 28.7 kDa. The protein migrates as 38-42 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per µg by the LAL method.

## Purity

>95% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

## Reconstitution

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

## Storage

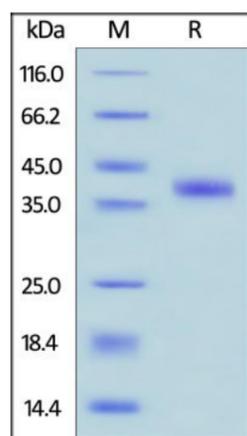
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE



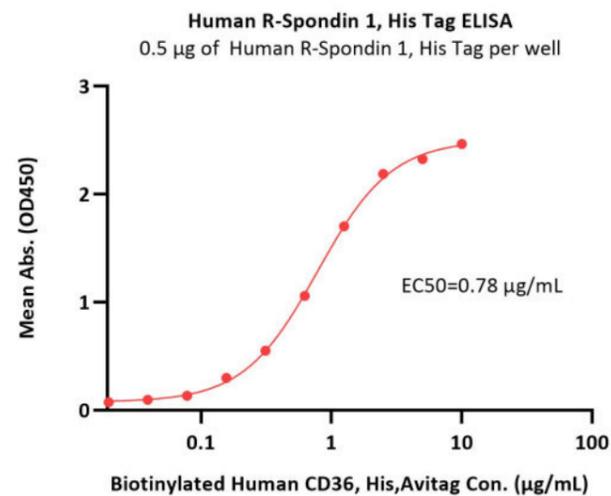
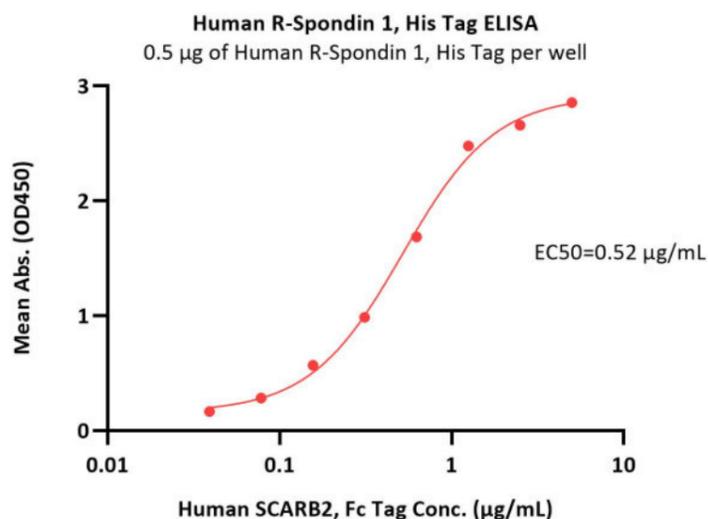
Human R-Spondin 1, His Tag on SDS-PAGE under reducing (R) condition.

The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

## Bioactivity-ELISA

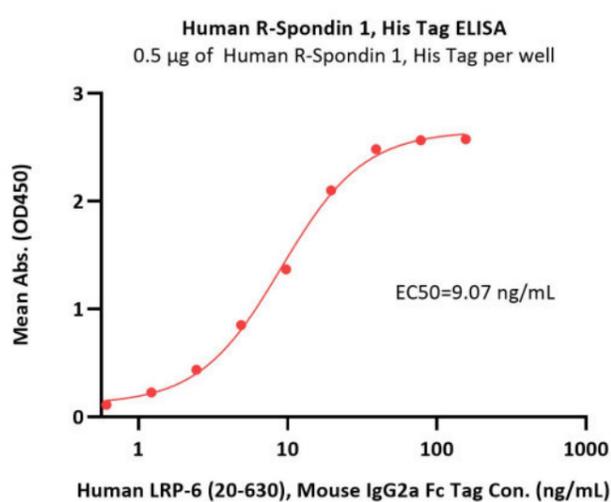
Discounts, Gifts,  
and more!





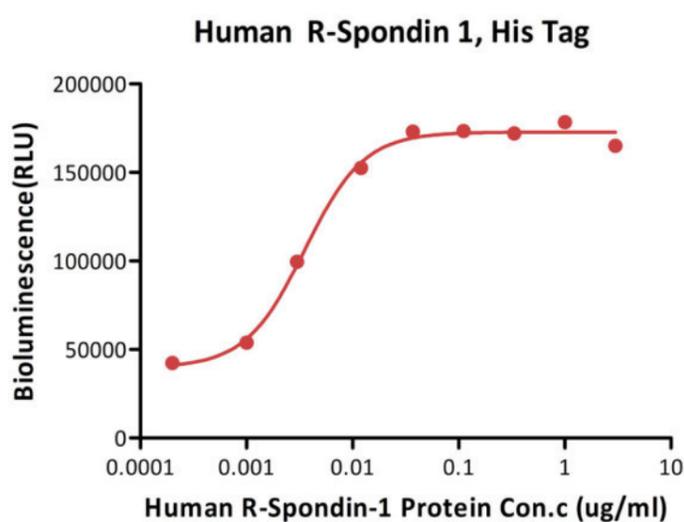
Immobilized Human R-Spondin 1, His Tag (Cat. No. RS1-H4221) at 5 µg/mL (100 µL/well) can bind Human SCARB2, Fc Tag (Cat. No. SC2-H5250) with a linear range of 0.02-1.25 µg/mL (Routinely tested).

Immobilized Human R-Spondin 1, His Tag (Cat. No. RS1-H4221) at 5 µg/mL (100 µL/well) can bind Biotinylated Human CD36, His,Avitag (Cat. No. CD6-H82E9) with a linear range of 0.01-1.25 µg/mL (Routinely tested).



Immobilized Human R-Spondin 1, His Tag (Cat. No. RS1-H4221) at 5 µg/mL (100 µL/well) can bind Human LRP-6 (20-630), Mouse IgG2a Fc Tag (Cat. No. LR6-H5253) with a linear range of 1-20 ng/mL (Routinely tested).

**Bioactivity-Bioactivity CELL BASE**



Human R-Spondin 1, His Tag (Cat. No. RS1-H4221) induced TCF reporter activity in HEK293 cells. The EC50 for this effect is 0.0035-0.0040 µg/mL (Routinely tested).

Discounts, Gifts, and more!





## Background

R-spondin-1 is also known as Roof plate-specific Spondin 1 (RSP01) and cysteine-rich and single thrombospondin domain containing protein 3 (Cristin 3), which is a secreted protein which belongs to the R-Spondin family and encodes a secreted activator protein with two cysteine-rich, furin-like domains and one thrombospondin type 1 domain. All R-spondins regulate Wnt/ $\beta$ -catenin signaling, but have distinct expression patterns. Like other R-Spondins, R-Spondin-1 contains two adjacent cysteine-rich furin-like domains (aa 34-135) with one potential N-glycosylation site, followed by a thrombospondin (TSP1) motif (aa 147-207) and a region rich in basic residues (aa 211-263). Only the furin-like domains are needed for  $\beta$ -catenin stabilization. A putative nuclear localization signal at the C-terminus may allow some expression in the nucleus.

## Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.

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