

# Human R spondin 1/RSPO1 Protein

Cat. No. RS1-HM101

## Description

<b>Source</b>	Recombinant Human R spondin 1/RSPO1 Protein is expressed from CHO with His tag at the C-Terminus. It contains Arg31-Ala263.
<b>Accession</b>	Q2MKA7
<b>Molecular Weight</b>	The protein has a predicted MW of 27.3 kDa. Due to glycosylation, the protein migrates to 38-42 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 0.05EU per $\mu\text{g}$ by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE

## Formulation and Storage

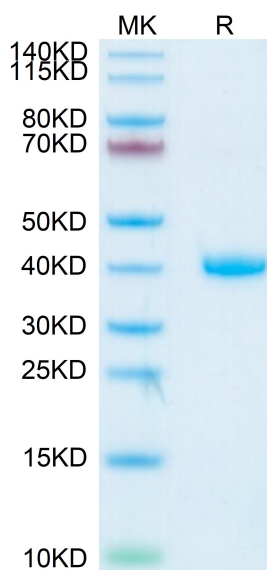
<b>Formulation</b>	Lyophilized from 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

The R-spondins are members of a superfamily of thrombospondin type 1 repeat (TSR-1)-containing proteins. The prototype member (discovered in 1971) was isolated from platelets that had been stimulated with thrombin, and was therefore designated "thrombin-sensitive protein."

## Assay Data

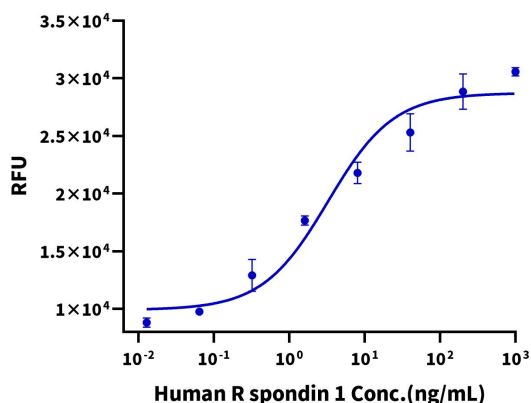
### Bis-Tris PAGE



Human R spondin 1 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### Cell Based Assay

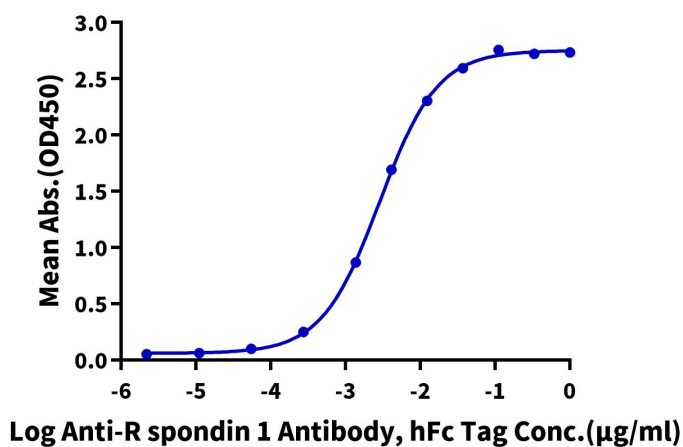
#### Recombinant Human R spondin 1 Bioactivity



Measured by its ability to induce Topflash reporter activity in HEK293T human embryonic kidney cells. The ED50 for this effect is 1.0 - 10.0 ng/mL in the presence of 5 ng/mL recombinant Human Wnt Surrogate-Fc Fusion (WNT-HM23A) (QC Test).

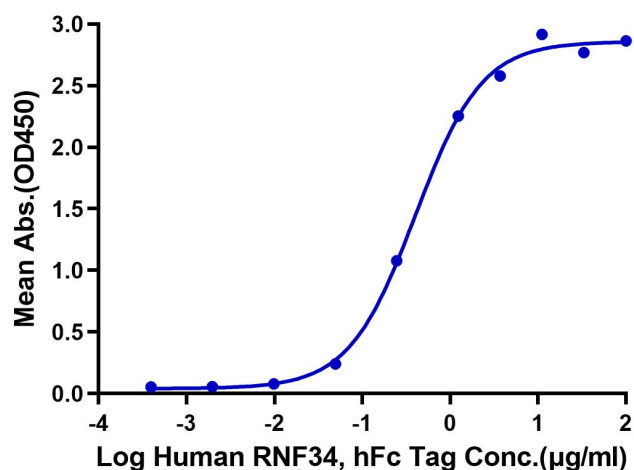
## Assay Data

## ELISA Data

**Human R spondin 1, His Tag ELISA**0.05 $\mu$ g Human R spondin 1, His Tag Per Well

Immobilized Human R spondin 1, His Tag at 0.5 $\mu$ g/ml (100 $\mu$ l/well) on the plate. Dose response curve for Anti-R spondin 1 Antibody, hFc Tag with the EC50 of 2.9ng/ml determined by ELISA (QC Test).

## ELISA Data

**Human R spondin 1, His Tag ELISA**0.5 $\mu$ g Human R spondin 1, His Tag Per Well

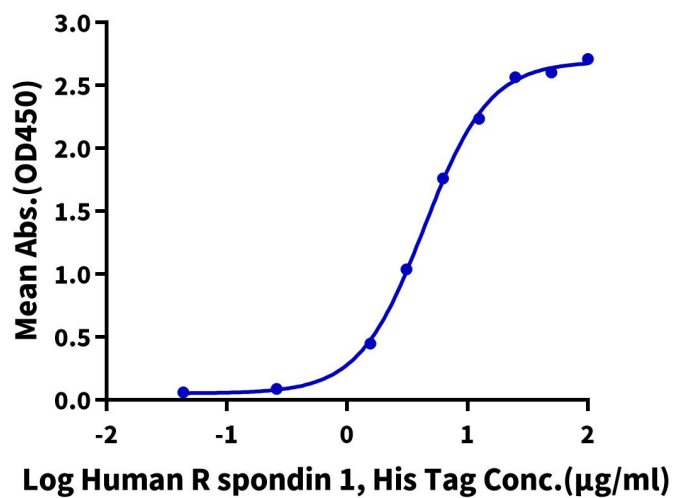
Immobilized Human R spondin 1, His Tag at 5 $\mu$ g/ml (100 $\mu$ l/well) on the plate. Dose response curve for Human RNF34, hFc Tag with the EC50 of 0.4 $\mu$ g/ml determined by ELISA.

## ELISA Data

## Assay Data

**Human R spondin 1, His Tag ELISA**

0.5µg Human LRP-6, mFc Tag Per Well



Immobilized Human LRP-6, mFc Tag at 5µg/ml (100µl/well) on the plate. Dose response curve for Human R spondin 1, His Tag with the EC50 of 4.4µg/ml determined by ELISA.