

Human R spondin 1/RSP01 Protein, Ultra Low Endotoxin

Cat. No. RS1-HM101-UL

Description

Source	Recombinant Human R spondin 1/RSP01 Protein is expressed from CHO with His tag at the C-Terminus. It contains Arg31-Ala263.
Accession	Q2MKA7
Molecular Weight	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.
Endotoxin	Less than 0.01 EU per µg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE

Formulation and Storage

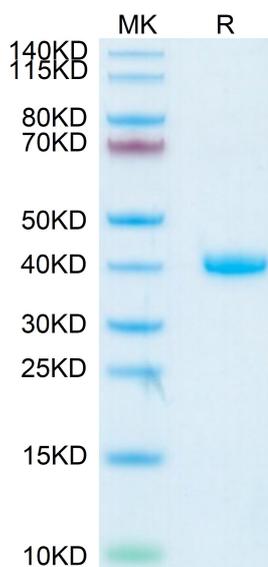
Formulation	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
Storage	-20 to -80°C for 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

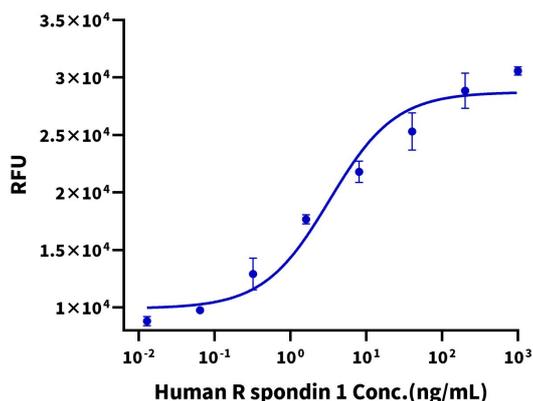
Bis-Tris PAGE



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

Cell Based Assay

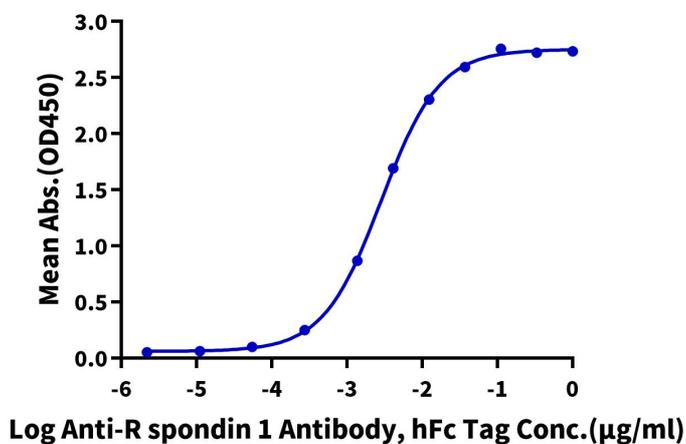
Recombinant Human R spondin 1 Bioactivity



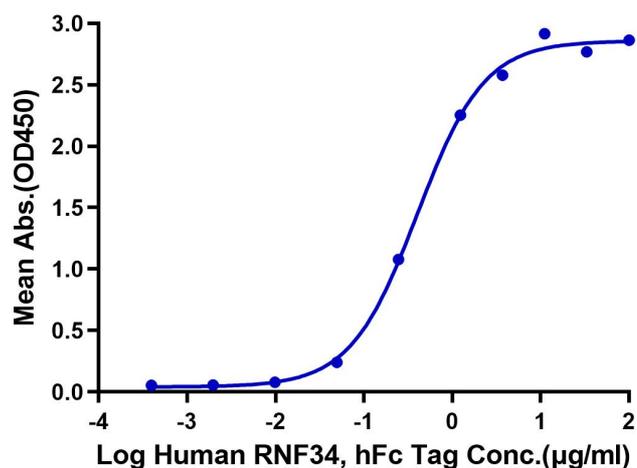
Measured by its ability to induce Topflash reporter activity in HEK293T human embryonic kidney cells. The ED50 for this effect is 1.0 - 10.0 ng/mL in the presence of 5 ng/mL recombinant Human Wnt Surrogate-Fc Fusion (WNT-HM23A) (QC Test).

Assay Data

ELISA Data

Human R spondin 1, His Tag ELISA0.05 μ g Human R spondin 1, His Tag Per Well

Immobilized Human R spondin 1, His Tag at 0.5 μ g/ml (100 μ 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).

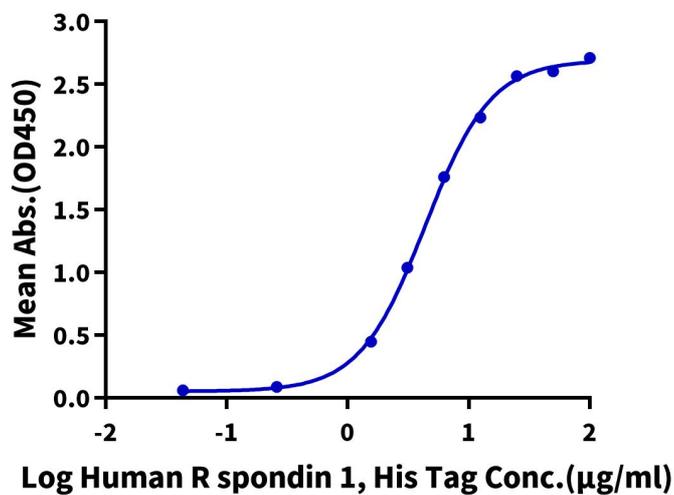
Human R spondin 1, His Tag ELISA0.5 μ g Human R spondin 1, His Tag Per Well

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

Assay Data

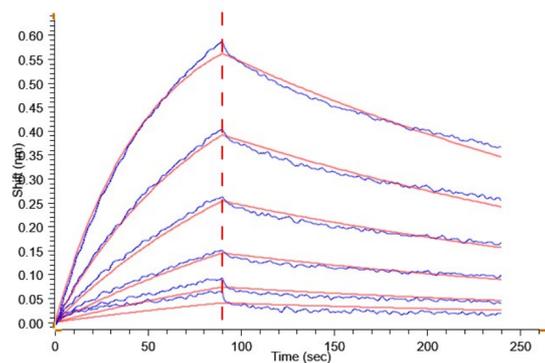
Human R spondin 1, His Tag ELISA

0.5µg Human LRP-6, mFc Tag Per Well

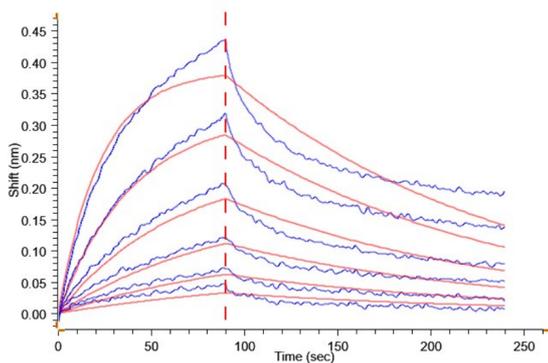


Immobilized Human LRP-6, mFc Tag at 5µg/ml (100µl/well) on the plate. Dose response curve for Human R spondin 1, His Tag with the EC50 of 4.4µg/ml determined by ELISA.

BLI Data



Loaded Human R spondin 1, His Tag on Anti-His-Biosensor can bind Human RNF43, hFc Tag with an affinity constant of 18.50 nM as determined in BLI assay .



Loaded Human R spondin 1, His Tag on Anti-His-Biosensor can bind Human LRP-6, mFc Tag with an affinity constant of 8.97 nM as determined in BLI assay .