

Human CellExp R spondin-1, human recombinant protein
RSPO1, RSPO-1, CRISTIN3, CRISTIN-3, FLJ40906, RP11-566C13.1, RSPO, R-spondin-1,
R-spondin-1, Rspondin
Catalog # PBV11103r

Specification

Human CellExp R spondin-1, human recombinant protein - Product info

Primary Accession
Calculated MW

[Q2MKA7](#)

This protein is fused with a 6×his tag at C-terminal, and has a calculated molecular mass of 27.6 kDa. The predicted N-terminal is Ser 21. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhRSPO1 is approximately 40 kDa due to the glycosylation. KDa

Human CellExp R spondin-1, human recombinant protein - Additional Info

Gene ID **284654**
Gene Symbol **RSPO1**

Other Names

RSPO1, RSPO-1, CRISTIN3, CRISTIN-3, FLJ40906, RP11-566C13.1, RSPO, R-spondin-1, Rspondin-1, Rspondin1, Rspondin.

Gene Source **Human**
Source **HEK293 cells**
Assay&Purity **SDS-PAGE; ≥98%**
Assay2&Purity2 **N/A;**
Recombinant **Yes**
Results **Measured by its binding ability in a functional ELISA. Immobilized human RSPO1 at 20 µg/ml (100 µl/well) can bind human LIMP2 with a linear range of 31.25 - 1000 ng/ml.**

Target/Specificity

R spondin-1

Application Notes

Centrifuge the vial prior to opening. Reconstitute in sterile PBS, pH 7.4 to a concentration of 50 µg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 month. For extended storage, it is recommended to store at -20°C.

Format

Lyophilized

Storage

-20°C; Lyophilized from 0.22 µm filtered solution in PBS, pH 7.4. Normally Mannitol or Trehalose is added as protectants before lyophilization.

Human CellExp R spondin-1, human recombinant protein - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Human CellExp R spondin-1, human recombinant protein - Images

Human CellExp R spondin-1, human recombinant protein - Background

R-spondin-1, also known as Roof plate-specific Spondin 1 (RSPO1) and cysteine rich and single thrombospondin domain containing protein 3 (Cristin 3), 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/ β -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 β -catenin stabilization. A putative nuclear localization signal at the C-terminus may allow some expression in the nucleus. Potential isoforms of 200 and 236 aa have an alternate, shorter N-terminus or are missing aa 146-208, respectively. R-Spondin-1 is expressed in early development at the roof plate boundary and is thought to contribute to dorsal neural tube development. Human RSPO1 disruption results in a recessive syndrome characterized by XX sex reversal, palmoplantar hyperkeratosis and predisposition to squamous cell carcinoma of the skin. It has been shown that the complete female-to-male sex reversal is due to the absence of the testis-determining gene, SRY. R-Spondin-1 regulates Wnt/ β -catenin by competing with the Wnt antagonist DKK1 for binding to the Wnt co receptors, Kremen and LRP6, reducing their DKK1 mediated internalization. Reports differ on whether R-spondin 1 binds LRP6 directly.

Human CellExp R spondin-1, human recombinant protein - References

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Parma P.,et al.Nat. Genet. 38:1304-1309(2006).
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