

Recombinant Mouse R-spondin-1/RSPO1 Protein

Catalog No.: RP01807

Sequence Information

Species **Gene ID**
Mouse 192199

Swiss Prot **Tags**
Q9Z132 C-His

Synonyms
Rspodin; R-spondin; RSPO1

Product Information

Source **Purification**
HEK293 cells ≥ 95 % as
determined by
SDS-PAGE.

Calculated MW **Observed MW**
28.05 kDa 35–45 kDa

Endotoxin
< 0.01 EU/μg of the protein by LAL
method

Formulation
Lyophilized from a 0.22 μm filtered
solution of PBS, pH 7.4.

Reconstitution
Centrifuge the vial before opening.
Reconstitute to a concentration of
0.1–0.5 mg/mL in sterile distilled
water. Avoid vortex or vigorously
pipetting the protein. For long
term storage, it is recommended
to add a carrier protein or stabilizer
(e.g. 0.1% BSA, 5% HSA, 10% FBS
or 5% Trehalose), and aliquot the
reconstituted protein solution to
minimize free-thaw cycles.

Background

RSPO1 gene is a member of the R-spondin family. It encodes RSPO1 which is known as a secreted activator protein with two cystein-rich, furin-like domains and one thrombospondin type 1 domain. In mice, RSPO1 induces the rapid onset of crypt cell proliferation and increases intestinal epithelial healing, providing a protective effect against chemotherapy-induced adverse effects. This protein is an activator of the beta-catenin signaling cascade, leading to TCF-dependent gene activation. RSPO1 acts both in the canonical Wnt/beta-catenin-dependent pathway and in non-canonical Wnt signaling pathway, probably by acting as an inhibitor of ZNRF3, an important regulator of the Wnt signaling pathway. It also acts as a ligand for frizzled FZD8 and LRP6.

Basic Information

Description

Recombinant Mouse R-spondin-1/RSPO1 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ser21–Gln265) of mouse R-spondin-1/RSPO (Accession #NP_619624.2) fused with 6×His tag at the C-terminus.

Activity

Measured by its ability to induce Topflash reporter activity in HEK293T human embryonic kidney cells. The ED₅₀ for this effect is 33.52–134.08 ng/mL in the presence of 5 ng/mL Recombinant Human Wnt-3a Surrogate Protein (Catalog # RP01618SLQ), corresponding to a specific activity of 7.46×10³–2.98×10⁴ units/mg.

Shipping

Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

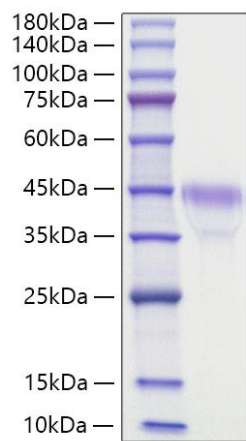
Contact

☎ | 400-999-6126

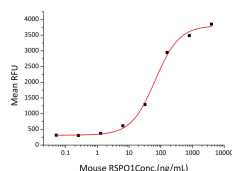
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Validation Data



Recombinant Mouse R-spondin-1/RSPO1 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Measured by its ability to induce Topflash reporter activity in HEK293T human embryonic kidney cells. The ED_{50} for this effect is 33.52-134.08 ng/mL in the presence of 5 ng/mL Recombinant Human Wnt-3a Surrogate Protein (Catalog # RP01618SLQ), corresponding to a specific activity of $7.46 \times 10^3 \sim 2.98 \times 10^4$ units/mg.