

Recombinant Mouse Rspo1 Protein, Fc-tagged

Cat. No. Rspo1-054M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant mouse RSPO1 mFc Chimera (rmRSPO1-mFc), Met1-Asn 932 (Accession # P08069) was produced in human HEK293 cells.
Species	Mouse
Source	HEK293
Description	Mouse R-Spondin 1 (Roof plate-specific Spondin 1), also known as RSPO1 and CRISTIN3, FLJ40906 or RP11-566C13.1, Which is a secreted activator protein with two cystein-rich, furin-like domains and one thrombospondin type 1 domain, which belongs to the R-Spondin family. In mice, the protein induces the rapid onset of crypt cell proliferation and increases intestinal epithelial healing, providing a protective effect against chemotherapy-induced adverse effects. R-Spondin1 activity critically depends on the presence of canonical Wnt ligands and LRP6. R-Spondin1 does not directly activate LRP6, it interferes with DKK1 / Kremen-mediated internalization of LRP6 through an interaction with Kremen, resulting in increased LRP6 levels on the cell surface. Mouse R-Spondin1 shares 89%, 87%, 92%, 91%, 91%, and 89% aa identity with human R-Spondin1. Defects in RSPO1 are the cause of palmoplantar keratoderma with squamous cell carcinoma of skin and sex reversal (PKKSCC). This recessive syndrome is characterized by XX (female to male) SRY-independent sex reversal, palmoplantar hyperkeratosis and predisposition to squamous cell carcinoma of the skin.
Molecular Mass	rmRSPO1-mFc was fused with the mouse Fc region of at the C-terminus, the reduced

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monomer has a calculated molecular mass of 58.5 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rmRSPO1-mFc monomer is approximately 67-75 kDa due to the glycosylation.

Endotoxin

Less than 1.0 EU per 1 g of the rmRSPO1-mFc by the LAL method.

Purity

>95% as determined by SDS-PAGE. All lots are greater than 95% pure.

Notes

Research Use Only. Not for use in diagnostic or therapeutic procedures.

Storage

Store at -20 centigrade in lyophilized state after receipt. For long term storage, upon reconstitution rmRSPO1-mFc should be aliquot and store at -20 centigrade or -8 centigrade. Avoid repeated freeze-thaw cycles.

Storage Buffer

Bulk protein in a 0.22 µ filtered solution of PBS, pH 7.4 and delivered as liquid formulation or lyophilized powder. Normally 5-8% trehalose and mannitol are added as protectants before lyophilization.

GENE INFORMATION

Gene Name

Rspo1 R-spondin homolog (*Xenopus laevis*) [*Mus musculus*]

Official Symbol

Rspo1

Synonyms

RSPO1; R-spondin homolog (*Xenopus laevis*); R-spondin-1; cristin-3; mCristin-3; roof plate-specific spondin-1; thrombospondin type 1 domain containing gene R-spondin; cysteine-rich and single thrombospondin domain-containing protein 3; R-spondin; R-spondin;

Gene ID

192199

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mRNA Refseq	NM_138683
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Protein Refseq	NP_619624
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