

## ARG70238

## Human RSPO1 / R spondin 1 recombinant protein (Active) (His-tagged, C-ter)

Package: 50 µg

Store at: -20°C

### Summary

Product Description	HEK293 expressed, His-tagged (C-ter) Active Human RSPO1 / R spondin 1 recombinant protein.
Tested Reactivity	Hu
Tested Application	FuncSt, SDS-PAGE
Target Name	RSPO1 / R spondin 1
Species	Human
A.A. Sequence	Arg31 - Ala263 of Human RSPO1 / R spondin 1 (NP_001033722.1) with 6X His tag at the C - terminus.
Expression System	HEK293
Activity	Active
Activity Note	Measured by its ability to enhance Cyclin D1 expression in HCT116 human colon adenocarcinoma cells. 0.1-10 ng/ml of Recombinant Human RSPO1 can effectively enhance Cyclin D1 expression.
Alternate Names	hRspo1; Roof plate-specific spondin-1; R-spondin-1; RSPO; CRISTIN3

### Properties

Form	Powder
Purification Note	0.22 µm filter sterilized. Endotoxin level is 92% (by SDS-PAGE)
Buffer	PBS (pH 7.4)
Reconstitution	Reconstitute to a concentration of 0.1 - 0.5 mg/ml in sterile distilled water.
Storage instruction	For long term, lyophilized protein should be stored at -20°C or -80°C. After reconstitution, aliquot and store at -20°C for up to one month, at 2-8°C for up to one week. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening.
Note	For laboratory research only, not for drug, diagnostic or other use.

### Bioinformation

Gene Symbol	RSPO1
Gene Full Name	R-spondin 1
Background	This gene encodes a secreted activator protein with two cysteine-rich, furin-like domains and one thrombospondin type 1 domain. The encoded protein is a ligand for leucine-rich repeat-containing G-protein coupled receptors (LGR proteins) and positively regulates the Wnt signaling pathway. 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. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 2014]
Function	Activator of the canonical Wnt signaling pathway by acting as a ligand for LGR4-6 receptors (PubMed:29769720). Upon binding to LGR4-6 (LGR4, LGR5 or LGR6), LGR4-6 associate with phosphorylated LRP6 and frizzled receptors that are activated by extracellular Wnt receptors, triggering

the canonical Wnt signaling pathway to increase expression of target genes. Also regulates the canonical Wnt/beta-catenin-dependent pathway and non-canonical Wnt signaling by acting as an inhibitor of ZNRF3, an important regulator of the Wnt signaling pathway. Acts as a ligand for frizzled FZD8 and LRP6. May negatively regulate the TGF-beta pathway. Has a essential roles in ovary determination. Regulates Wnt signaling by antagonizing DKK1/KREM1-mediated internalization of LRP6 through an interaction with KREM1 (PubMed:17804805). [UniProt]

Calculated Mw

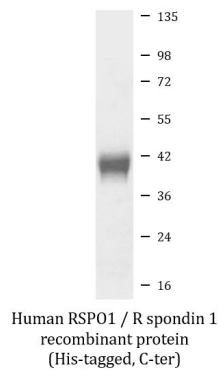
29 kDa

Cellular Localization

Secreted. Nucleus. Note=Seems to mainly localize to nucleoli. [UniProt]

## Images

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ARG70238 Human RSP01 / R spondin 1 recombinant protein (Active) (His-tagged, C-ter) SDS-PAGE image

SDS-PAGE analysis of ARG70238 Human RSP01 / R spondin 1 recombinant protein (Active) (His-tagged, C-ter).