

RSPO1 active protein

RSPO1 Protein, Human, Recombinant (aa 1-146, His Tag)

CATALOG #
AAA257963

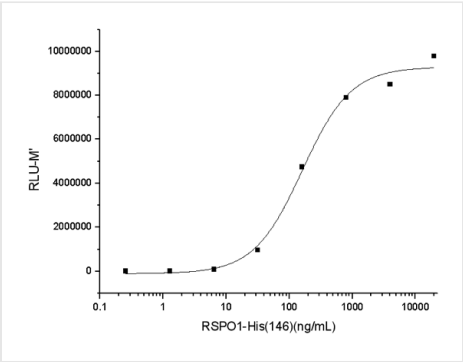
HOST
HEK293 Cells

PRODUCT SYNONYMS

RSPO1; RSPO1 Protein; Human; Recombinant (aa 1-146; His Tag); Human R-Spondin 1/RSPO1 Protein (aa 1-146; CRISTIN3 Protein; R-Spondin 1 Protein; RSPO Protein; R-spondin 1; RSPO1 active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>98% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Sequence	Met1-Ala14 6
Species	Human
Activity	1. Measured by its ability to bind recombinant mouse CD36 in a functional ELISA. 2. Measured by its ability to induce activation of beta-catenin response in a Topflash Luciferase assay using HEK293T human embryonic kidney cells. The ED50 for this effect is typically 0.1-0.5ug/mL in the presence of 5ng/mL recombinant mouse Wnt3a.
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Ser 21
Tag	C-His
Protein Construction	A DNA sequence encoding the amino acids (Met 1-Ala 146) of human RSPO1 (NP_001033722.1) was expressed, fused with a polyhistidine tag at the C-terminus.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.



SDS-PAGE

Application Data
Measured by its ability to induce activation of beta-catenin response in a Topflash Luciferase assay using HEK293T human embryonic kidney cells. The ED50 for this effect is typically 0.1-0.5 ug/mL in the presence of 5 ng/mL recombinant mouse Wnt3a.

ADDITIONAL INFORMATION

Related Product Information for RSPO1 active protein	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.
References	Kamata T, et al. (2004) R-spondin, a novel gene with thrombospondin type 1 domain, was expressed in the dorsal neural tube and affected in Wnts mutants. <i>Biochim Biophys Acta.</i> 1676(1):51-62.Ota T, et al. (2004) Complete sequencing and characterization of 21,243 full-length human cDNAs. <i>Nat Genet.</i> 36(1):40-5.Strausberg RL, et al. (2003) Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. <i>Proc Natl Acad Sci.</i> 99(26):16899-903.

NCBI AND UNIPROT INFORMATION

NCBI GI #	84490388
NCBI GeneID	284654
NCBI Accession #	NP_001033722.1
NCBI GenBank Nucleotide #	NM_001038633.3
UniProt Accession #	Q2MKA7; Q0H8S6; Q14C72; Q5T0F2; Q8N7L5; A2A420
Molecular Weight	28,959 Da
NCBI Official Full Name	R-spondin-1 isoform 1
NCBI Official Synonym Full Names	R-spondin 1
NCBI Official Symbol	RSPO1
NCBI Official Synonym Symbols	RSPO; CRISTIN3
NCBI Protein Information	R-spondin-1; R-spondin homolog; roof plate-specific spondin-1
UniProt Protein Name	R-spondin-1
UniProt Gene Name	RSPO1
UniProt Synonym Gene Names	hRspo1
UniProt Entry Name	RSPO1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/hek293-active-protein/rspo1/257963>