

RSPO1

Recombinant Human R-Spondin 1

Catalog No.	CRH332A CRH332B CRH332C	Quantity:	5 µg 25 µg 1.0 mg
Alternate Names:	Roof plate-specific spondin-1, hRspo1, RSPO-1		
Description:	Activator of the canonical Wnt signaling pathway by acting as a ligand for LGR4-6 receptors. Upon binding to LGR4-6 (LGR4, LGR5 or LGR6), LGR4-6 associates 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. RSPO-1 is expressed in many tissues and regulates female sex determination, XX gonad development, oocyte differentiation, and hematopoietic stem cell specification. Recombinant RSPO-1 is a critical protein used to establish 3D intestinal organoid cultures.		
Gene ID:	284654		
UniProt ID:	Q2MKA7		
Source:	CHO cells		
Molecular Weight:	Monomer, 25.6 kDa (with 233 amino acids)		
Formulation:	Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing phosphate buffered saline (PBS).		
Purity:	> 95% by reducing and non-reducing SDS-PAGE		
Endotoxin Level:	≤ 1 EU/µg by kinetic LAL		
Biological Activity:	ED50 ≤ 50 ng/ml, determined by Luciferase induction in HEK-293 STF cells in the presence of Murine Wnt-3a.		
Specific Activity:	≥ 2.0 x 10 ⁴ U/mg		
Amino Acid Sequence:	RISAEGSQAC AKGCELCSEV NGCLKCSPKL FILLERNDIR QVGVCLPSCP PGYFDARNPD MNKCIKCKIE HCEACFSHNF CTKCKEGLYL HKGRCYPACP EGSSAANGTM ECSSPAQCEM SEWSPWGPCS KKQQLCGFRR GSEERTRRVL HAPVGDHAAC SDTKETRRCT VRRVPCPEGQ KRRKGGQGRR ENANRNLARK ESKEAGAGSR RRGQQQQQQ QGTVGPLTSA GPA		
Reconstitution:	Centrifuge vial prior to opening. Add sterile distilled water to a recommended concentration of 0.1 mg/mL and gently pipet solution up and down sides of vial. DO NOT VORTEX. Allow several minutes for complete reconstitution.		



Storage & Stability:

Store as supplied at -20°C to -80°C for up to 1 year. Upon reconstitution, prepare working aliquots and store at -20°C to -80°C. It is recommended that a carrier protein such as 0.1% HSA or BSA is added for long term storage. **Avoid repeated freeze-thaw cycles.**

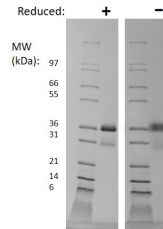
**Human R-Spondin 1**

Figure: 1 ug in each lane (-) non-reducing conditions and (+) reducing conditions in a 4-20% Tris-Glycine gel, stained with Coomassie Blue. Human RSPO-1 has a predicted MW of 25.6 kDa. This protein is produced in CHO cells and is detected at a higher MW due to glycosylation.

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