

## GFH208 Recombinant Human R-Spondin 1

### Description

R-Spondin 1 (RSPO-1) is a secreted growth factor that stabilizes  $\beta$ -catenin and enhances WNT signaling. R-Spondin 1 is expressed in many tissues and regulates female sex determination, XX gonad development, oocyte differentiation, and hematopoietic stem cell specification. R-Spondin 1 is suggested to function as a stem cell growth factor and may have therapeutic potential in the treatment of gastrointestinal diseases and chemotherapy-induced intestinal mucositis. Additionally, recombinant R-spondin 1 protein is used to initiate and maintain intestinal organoid cultures.

<b>Length</b>	243 aa
<b>Molecular Weight</b>	26.8 kDa
<b>Source</b>	CHO cells
<b>Accession Number</b>	Q2MKA7
<b>Purity</b>	$\geq 95\%$ determined by reducing and non-reducing SDS-PAGE

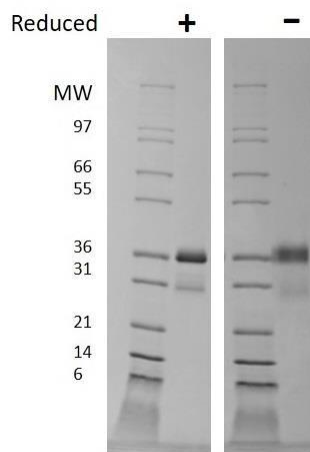
### Specifications

<b>Alternative Names</b>	RSPO-1, RSPO 1, hRspo1, Roof plate-specific spondin-1
<b>Biological Activity</b>	Human R-Spondin 1 is fully biologically active when compared to standard. The activity is determined by luciferase induction in HEK-293 STF cells in the presence of mouse Wnt-3a and it is typically less than 50 ng/ml. This corresponds to an expected specific activity higher than $2.0 \times 10^4$ units/mg.
<b>Endotoxin Level</b>	$\leq 1.00$ EU/ $\mu$ g as measured by kinetic LAL
<b>Formulation</b>	Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing phosphate buffered saline (PBS)
<b>AA Sequence</b>	SRGIKGRQR RISAEGSQAC AKGCELCSEV NGCLKCSPKL FILLERNDIR QVGVCLPSCP PGYFDARNPD MNKCIKCKIE HCEACFSHNF CTKCKEGLYL HKGRCYPACP EGSSAANGTM ECSSPAQCEM SEWSPWGPCS KKQQLCGFRR GSEERTRRVL HAPVGDHAAC SDTKETRRCT VRRVPCPEGQ KRRKGGQGR ENANRNLRK ESKEAGAGSR RRRGQQQQQQ QGTVGPLTSA GPA

### Preparation and Storage

<b>Reconstitution</b>	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at 0.1 mg/ml, which can be further diluted into other aqueous solutions.
<b>Stability and Storage</b>	12 months from date of receipt when stored at $-20^{\circ}\text{C}$ to $-80^{\circ}\text{C}$ as supplied. 1 month when stored at $4^{\circ}\text{C}$ after reconstituting as directed. 3 months when stored at $-20^{\circ}\text{C}$ to $-80^{\circ}\text{C}$ after reconstituting as directed.

### Data



Non-reducing (-) and reducing (+) conditions in a 4 - 20% Tris-Glycine gel stained with Coomassie Blue. 1  $\mu$ g of protein was loaded in each lane. Human R-spondin 1 has a predicted Mw of 25.6 kDa. This protein is produced in CHO cells and is detected at a h