

# R-Spondin-1, human recombinant

<b>CATALOG #:</b>	7189-10	10 µg
	7189-50	50 µg
<b>ALTERNATE NAMES:</b>	Roof plate-specific Spondin, Rspo1	
<b>SOURCE:</b>	CHO cells	
<b>PURITY:</b>	≥ 95% by SDS-PAGE gel and HPLC analyses	
<b>MOL. WEIGHT:</b>	40.0 kDa	
<b>ENDOTOXIN LEVEL:</b>	< 0.1 ng/µg of protein (<1EU/µg).	
<b>FORM:</b>	Lyophilized	
<b>FORMULATION:</b>	Sterile filtered through a 0.2 micron filter. Lyophilized from 10mM Sodium Phosphate, pH 7.5 and 150 mM NaCl.	
<b>STORAGE CONDITIONS:</b>	Store at -20°C. After reconstitution, aliquot and store at -20°C to -80°C. Avoid repeated freezing and thawing cycles.	

## RECONSTITUTION:

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

## DESCRIPTION:

R-Spondin-1 (Rspo-1) belongs to the (Rspo) family of Wnt modulators. Currently, the family consists of four structurally related secreted ligands (Rspo 1-4), all containing furin-like and thrombospondin structural domains. Rspo-1 is expressed in certain areas of the developing central nervous system, as well as in adrenal glands, ovary, testis, thyroid, and trachea. Rspo can interact with the Frizzled/LRP6 receptor complex in a manner that stimulates the Wnt/beta-catenin signaling pathway. Recombinant human R-Spondin-1 is a 26.7 kDa protein consisting of 243 amino acid residues. Due to glycosylation, R-Spondin-

1 migrates at an apparent molecular weight of approximately 40.0 kDa by SDS PAGE analysis under reducing conditions.

## AMINO ACID SEQUENCE:

SRGIKGRQR RISAEGSQAC AKGCELCSEV NGCLKCSPKL FILLERNDIR  
 QVGVCLPSCP PGYFDARNPD MNKCIKCKIE HCEACFSHNF CTKCKEGLYL  
 HKGRCYPACP EGSSAANGTM ECSSPAQCEM SEWSPWGPCS KKQLCGFRR  
 GSEERTRRVL HAPVGDHAAC SDTKETRRCT VRRVPCPEGQ KRRKGGQGRR  
 ENANRNLARK ESKEAGAGSR RRRKQQQQQQ QGTVGPLTSA GPA

## BIOLOGICAL ACTIVITY:

R-spondin-1 enhances BMP-2 mediated differentiation of MC3T3-E1 cells. The expected ED<sub>50</sub> is 1.0-3.0 ug/ml.

## RELATED PRODUCTS:

- R-Spondin-2, human recombinant (**Cat. No. 7190-10, -50**)
- R-Spondin-3, human recombinant (**Cat. No. 7191-10, -50**)
- Thrombospondin, human (**Cat. No. 4806-25**)
- Thrombospondin, human recombinant (**Cat. No. 4805-10, -50, -1000**)

**FOR RESEARCH USE ONLY! Not to be used in humans.**

AMSBIO | [www.amsbio.com](http://www.amsbio.com) | [info@amsbio.com](mailto:info@amsbio.com)

 **UK & Rest of the World**  
 184 Park Drive, Milton Park  
 Abingdon OX14 4SE, UK  
 T: +44 (0)1235 828 200  
 F: +44 (0) 1235 820 482

 **North America**  
 1035 Cambridge Street,  
 Cambridge, MA 02141  
 T: +1 (617) 945-5033 or  
 T: +1 (800) 987-0985  
 F: +1 (617) 945-8218

 **Germany**  
 Bockenheimer Landstr. 17/19  
 60325 Frankfurt/Main  
 T: +49 (0) 69 779099  
 F: +49 (0) 69 13376880

 **Switzerland**  
 Centro Nord-Sud 2E  
 CH-6934 Bioggio-Lugano  
 T: +41(0) 91 604 55 22  
 F: +41(0) 91 605 17 85