

# CHAMOT

## Recombinant R-spondin 1, Human, Animal-Free

CM181-5HP

CM181-20HP

CM181-100HP

CM181-500HP

CM181-1000HP



CHAMOT

乔默®生物

*Specialize In Cytokines*



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## Recombinant R-spondin 1, Human, Animal-Free

| Catalog# | CM181-5HP | CM181-20HP | CM181-100HP | CM181-500HP | CM181-1000HP |
|----------|-----------|------------|-------------|-------------|--------------|
| Size     | 5 ug      | 20 ug      | 100 ug      | 500 ug      | 1 mg         |

### Product Specifications

#### Background

R-spondin 1 (RSPO1, Roof plate-specific Spondin 1) is a cysteine-rich secreted glycoprotein that belongs to the R-Spondin family. Structurally, R-spondin 1 harbors an N-terminal signal peptide, two cysteine-rich furin-like (FU1-FU2) domains, a thrombospondin (TSP) domain, and a basic amino acid-rich (BR) C-terminal domain. R-spondin 1 acts as a ligand for the leucine-rich repeat-containing G-protein coupled receptor (LGR) family (LGR4/5/6), subsequent clearing negative regulators ZNRF3/RNF43 from the membrane, leading to the availability of Wnt receptor and activating Wnt/ $\beta$ -catenin signaling. The signal cascade is essential for regulating stem cell proliferation, embryonic development, and tissue homeostasis.

#### Synonyms

RSPO1, Roof plate-specific spondin-1

#### Uniprot ID

Q2MKA7

#### Molecular Weight

The protein has a calculated MW of 46.8 kDa. The protein migrates as 62-68 kDa under reducing condition (SDS-PAGE analysis).

#### Expression System

HEK293

#### Purity

>95% as determined by SDS-PAGE.

#### Activity

R-Spondin-1 enhances BMP-2-mediated differentiation of MC3T3-E1 cells. The ED<sub>50</sub> for this effect is 1-3  $\mu$ g/mL.

#### Endotoxin Level

<1 EU per 1  $\mu$ g of the protein by the LAL method.

#### Protein Sequence

A DNA sequence encoding Human R-Spondin 1 Protein (#Q2MKA7) (Ser21 - Ala263) was expressed with polyhistidine-SUMO tag at the N-terminus.

#### Form

Liquid (1X PBS, pH 7.4) If you have any concerns or special requirements, please confirm with us.

## Product Note

Centrifuge at 3000 rpm for 5 mins before opening. Do Not Vortex! Vigorous shaking may impair the biological activity of the protein.

## Storage/Shipping

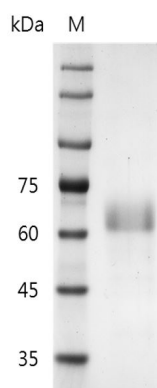
### Stability & Storage

Store at 2°C to 8°C for up to 2 weeks, -20°C or -80°C for 6 months. Further dilute in a buffer containing a carrier protein or stabilizer (e.g. 0.1% BSA, 10%FBS, 5%HSA or 5% trehalose solution), protein aliquots should be stored at -20°C or -80°C for 3-6 months. Avoid repeated freeze/thaw cycles.

### Shipping

Blue Ice

## Scientific Data



SDS- PAGE analysis of recombinant human R-spondin 1

For Research Use or Further Manufacturing Only

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