

## DATASHEET

Version 20181206

# RSPO1, His, Human

**Cat. No.:** Z03433-10

**Size:** 10.0 µg

**Synonyms:** RSPO1, R-spondin1, RP11-566C13.1, CRISTIN3, FLJ40906, RSPO Rspo1, R-spondin, Rspodin, RP23-325M14.2, Roof plate-specific spondin-1

### Description:

RSPO1 is a secreted protein, containing 2 FU(furin-like) repeats and 1 TSP type-1 domain and belonging to the R-spondin family. RSPO1 is required for the early development of gonads, regardless of sex. It has been found in mice only eleven days after fertilization. To induce cell proliferation, it acts synergistically with WNT4. They help stabilize β catenin, which activates downstream targets. RSPO1 is necessary in female sex development. It augments the WNT/β catenin pathway to oppose male sex development. In critical gonadal stages, between six and nine weeks after fertilization, the ovaries upregulate it while the testes downregulate it. RSPO1 can potentially aid in the treatment of mucositis, which is characterized by inflammation of the oral cavity. This unfortunate condition often accompanies chemotherapy and radiation in cancer patients with head and neck tumors.

Recombinant Human RSPO1 produced by a mammalian expression system is a polypeptide chain containing 241 amino acids. A fully biologically active molecule; rh RSPO1 a molecular mass of 35 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

### Amino Acid Sequence:

**Accession #:** Q2MKA7;

```
00001 RISAEGSQAC AKGCELCSEV NGCLKCSPL FILLERNDIR
00041 QVGVCLPSCP PGYFDARNPD MNKCIKCKIE HCEACFSHNF
00081 CTKCKEGLYL HKGRCPACP EGSSAANGTM ECSSPAQCEM
00121 SEWSPWGPCS KKQQLCGFRR GSEERTRRVL HAPVGDHAAC
00161 SDTKETRRCT VRRVPCPEGQ KRRKGGQGRR ENANRNLARK
00201 ESKEAGAGSR RRKGQQQQQ QGTVGPLTSA GPAVDHHHHH
00241 H
```

**Source:** *Human Cells*

**Biological Activity:** Not available.

**Molecular Weight:** 35 kDa; observed by reducing SDS-PAGE.

**Formulation:** Lyophilized from a 0.2 µm filtered solution in PBS.

**Reconstitution:** Reconstituted in ddH<sub>2</sub>O at 100 µg/ml.

**Purity:** > 95% as analyzed by reducing SDS-PAGE.

**Endotoxin Level:** < 1 EU/µg; determined by LAL method.

**Storage:** Lyophilized recombinant RSPO1, His, Human remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution; Human RSPO1 should be stable up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.