

Website: https://www.abbkine.com

## Human RSPO1 Protein

Cat #: PRP1945

Size: 5 µg/20 µg/100 µg/1 mg

## **Product Information**

|     | Product Name: Human RSPO1 Protein                        |     |                                    |
|-----|--|-----|------------------------------------|
| REF | Catalog Number: PRP1945                                  | LOT | Lot Number: Refer to product label |
|     | Purity: > 98 % as determined by SDS-PAGE                 |     |                                    |
| Ĵ/  | Storage: Store at -20°C                                  |     | Preparation method: E.coli         |
|     | Shipping: The product is shipped at ambient temperature. |     |                                    |

**Background:** 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  $\beta$  catenin, which activates downstream targets. RSPO1 is necessary in female sex development. It augments the WNT/ $\beta$  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.

Sequence: Amino acid sequence derived from Human RSPO1 (Q2MKA7) (Ser21-Ala263) was expressed.

**Protein length:** The recombinant Human RSPO1 Protein consists of 243 amino acids and predicts a molecular mass of 26.7 kDa.

**Biological Activity:** Testing in Progress.

**<u>Endotoxin</u>**: <0.1 EU per  $\mu$ g of the protein by the LAL method.

**Formulation:** Lyophilized from sterile 20 mM Tris, 50 mM NaCl, pH8.0.

**Storage Instructions:** Lyophilized protein product should be stored desiccated below -20°C. Upon reconstitution, the protein should be stored at 4°C between 2-7 days and for future use below -20°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.



<u>Usage notes</u>: Always centrifuge tubes before opening. It is recommended to reconstitute the lyophilized protein using the buffer we provided not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

| 180<br>130 | 55<br>45<br>35<br>25<br>15 | Fig. SDS-PAGE analysis of Human RSPO1 Protein. |
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