# abcam

# Product datasheet

# Recombinant human RSPO1 protein ab155744

# 3 Images

**Description** 

Product name Recombinant human RSPO1 protein

Biological activity Measured by its binding ability in a functional ELISA. Immobilised Human RSPO1 at 20 µg/ml

(100 µl/well) can bind Human LIMPII with a linear ranger of 31.25 - 1000 ng/ml.

**Purity** > 95 % SDS-PAGE.

ab155744 was lyophilised from 0.22  $\mu m$  filtered solution.

**Endotoxin level** < 1.000 Eu/µg

Expression system HEK 293 cells

Accession Q2MKA7

Protein length Full length protein

Animal free No

**Nature** Recombinant

**Species** Human

Sequence SRGIKGKRQR RISAEGSQAC AKGCELCSEV

NGCLKCSPKL FILLERNDIR QVGVCLPSCP
PGYFDARNPD MNKCIKCKIE HCEACFSHNF
CTKCKEGLYL HKGRCYPACP EGSSAANGTM
ECSSPAQCEM SEWSPWGPCS KKQQLCGFRR
GSEERTRRVL HAPVGDHAAC SDTKETRRCT
VRRVPCPEGQ KRRKGGQGRR ENANRNLARK

ESKEAGAGSR RRKGQQQQQ QGTVGPLTSA GPA

Predicted molecular weight 28 kDa including tags

Amino acids 21 to 263

Tags His tag C-Terminus

## **Specifications**

Our Abpromise guarantee covers the use of ab155744 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications** ELISA

SDS-PAGE

**Functional Studies** 

Form Lyophilized

Additional notes Measured by its binding ability in a functional ELISA. Immobilised Human RSPO1 at 20 µg/ml

(100  $\mu$ l/well) can bind Human LIMPII with a linear ranger of 31.25 - 1000 ng/ml.

#### **Preparation and Storage**

Stability and Storage Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

80°C. Avoid freeze / thaw cycle.

pH: 7.4

Constituents: 0.75% Glycine, 0.61% Tris

5-10% trehalose is commonly used for freeze drying, and after reconstitution, the trehalose is

mostly about 3-5%

This product is an active protein and may elicit a biological response in vivo, handle with caution.

**Reconstitution** Reconstitute with sterile deionized water to a concentration of 400 μg/ml.

#### **General Info**

**Function** Activator of the beta-catenin signaling cascade, leading to TCF-dependent gene activation. Acts

both in the canonical Wnt/beta-catenin-dependent pathway, possibly via a direct interaction with Wnt proteins, and in a Wnt-independent beta catenin pathway through a receptor signaling pathway that may not use frizzled/LRP receptors. Acts as a ligand for frizzled FZD8 and LRP6.

May negatively regulate the TGF-beta pathway. Has a essential roles in ovary determination.

**Tissue specificity** Abundantly expressed in adrenal glands, ovary, testis, thyroid and trachea but not in bone marrow,

spinal cord, stomach, leukocytes colon, small intestine, prostate, thymus and spleen.

**Involvement in disease**Defects in RSPO1 are the cause of palmoplantar keratoderma with squamous cell carcinoma of

skin and sex reversal (PKKSCC) [MIM:610644]. This recessive syndrome is characterized by XX (female to male) SRY-independent sex reversal, palmoplantar hyperkeratosis and predisposition

to squamous cell carcinoma of the skin.

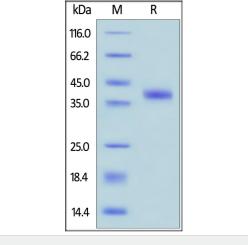
Sequence similarities Belongs to the R-spondin family.

Contains 2 FU (furin-like) repeats. Contains 1 TSP type-1 domain.

**Domain** The FU repeats are required for activation and stabilization of beta-catenin.

Cellular localization Secreted.

#### **Images**



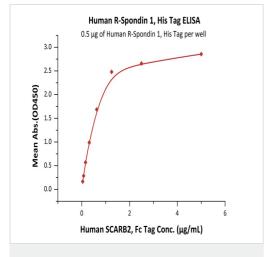
SDS-PAGE - Recombinant human RSPO1 protein (ab155744)

Immobilized Human R-Spondin 1, His Tag at 5 µg/mL (100 µL/well) can bind Human SCARB2, Fc Tag with a linear range of 0.02-0.156 μg/mL.

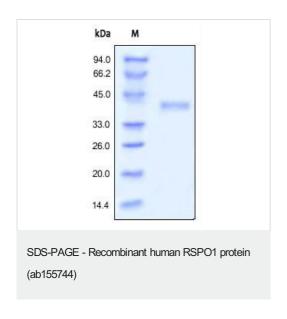
Human R-Spondin 1, His Tag on SDS-PAGE under reducing (R)

purity of the protein is greater than 95%.

condition. The gel was stained overnight with Coomassie Blue. The



Functional Studies - Recombinant human RSPO1 protein (ab155744)



SDS-PAGE analysis of reduced ab155744 stained overnight with Coomassie Blue.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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