

CHASELECTION**Recombinant Human R-Spondin 1, Tag Free**

货号(Catalog Number): CY082FXXXX(L)

别名(synonym):Cristin 3; HRspo1; roof plate-specific spondin;
RSPO1; RSpondin 1; R-Spondin 1.**来源(Source):** Human embryonic kidney cell,
HEK293-derived human R-Spondin 1 protein**蛋白结构 (Structure):**

该蛋白不含标签

基因 ID: Q2MKA7**氨基酸序列:**

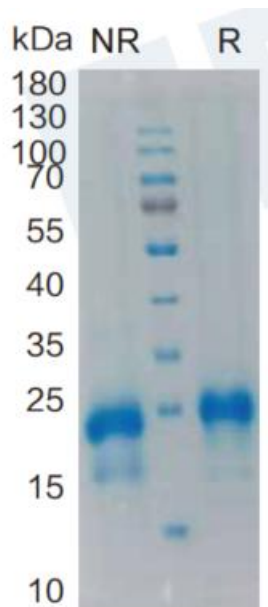
Ser21-Ala263

分子量大小(MW):

25.6kDa

纯度 (Purity) :

> 95%, determined by SDS-PAGE

SDS-PAGE

2 ug/lane protein was resolved with SDS-PAGE under non-reducing (NR) and reducing (R) conditions and visualized by CoomassieBlue staining.

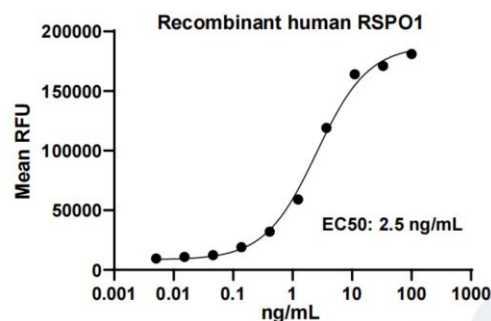
内毒素含量 (Endotoxin) :

<0.010 EU per 1 ug of the protein by the LAL method

制剂(Formulation):

Solution protein. Dissolved in sterile PBS buffer. This solution can be diluted into other aqueous buffers.

Centrifuge the vial prior to opening.

活性检测 (Biological Activity) :

Recombinant human R-Spondin 1 (Catalog # HF-2027) induce Topflash reporter activity in human embryonic kidney cells (HEK293T).

储存与运输(Storage):

Avoid repeated freeze-thaw cycles.

It is recommended that the protein be aliquoted for optimal storage.

36 months from date of receipt, -20 to -70 ° C as supplied.

Shipping with dry ice

产品背景介绍 (Production) :

R-Spondin 1 (RSPO1), also known as cysteine-rich and single thrombospondin domain containing protein 3 (Cristin 3), is a 27 kDa secreted protein that shares ~40% amino acid (aa) identity with three other R-Spondin family members. All R-Spondins regulate Wnt/ beta-Catenin signaling but have distinct



expression patterns . Human R-Spondin 1 (aa21-263) shares 89%, 87%, 92%, 91%, 91% and 89% aa identity with mouse, rat, horse, dog, goat, and cow RSPO-1, respectively. R-Spondin 1 competes with the Wnt antagonist DKK-1 for binding to the Wnt co-receptors, Kremen and LRP-6, reducing their DKK-1-mediated internalization. However, reports are mixed on whether R-Spondin 1 binds LRP-6 directly. R-Spondin 1 is expressed in early development at the roof plate boundary and is thought to contribute to dorsal neural tube development. Interest in R-Spondin 1 as a cell culture supplement has grown with the expansion of the organoid field. R-Spondin 1 is widely used in organoid cell culture workflows as a vital component that promotes both growth and survival of 3D organoids . Structurally similar to other R-Spondins, R-Spondin 1 contains two adjacent cysteine-rich furin-like domains (aa 34-135) with one potential N-glycosylation site, followed by a thrombospondin (TSP-1) motif (aa 147-207) and a region rich in basic residues (aa 211-263). Only the furin-like domains are needed for beta-catenin stabilization. A putative nuclear localization signal at the C-terminus may allow some expression in the nucleus . Potential isoforms of 200 and 236 aa have an alternate, shorter N-terminus or are missing aa 146-208, respectively .

