Human FTLS / RSPO2 Protein (186 Leu/Pro, Fc Tag)

Catalog Number: 13084-H02H

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

CRISTIN2; 2610028F08Rik; AA673245; D430027K22; ftls

Protein Construction:

A DNA sequence encoding the human RSPO2 (Q6UXX9-1) N-teminal fragment (Met 1-Gly 205, 186 Leu/Pro) was fused with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to induce activation of ?-catenin response in a Topflash Luciferase assay using HEK293T human embryonic kidney cells. The ED_{50} for this effect is typically 10-60 ng/mL in the presence of 5 ng/mL recombinant mouse Wnt3a.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Gln 22

Molecular Mass:

The secreted recombinant human RSPO2/Fc is a disulfide-linked homodimer. The reduced monomer comprises 425 amino acids and has a predicted molecular mass of 48.3 kDa. ?The apparent molecular mass of rh RSPO2/Fc monomer is approximately 50 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

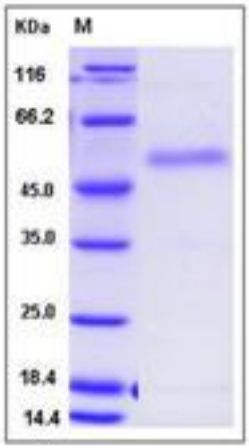
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

R-spondin-2, also known as RSPO2, synergizes with Wnt to activate beta-catenin. RSPO2 is secreted proteins that regulate beta-catenin signaling. Activator of the beta-catenin signaling cascade leads to TCF-dependent gene activation. Action 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. Probably also acts as a ligand for frizzled and LRP receptors. The encoding gene Rspo2 was identified as a novel common integration site for the mouse mammary tumor virus in viral induced mouse mammary tumors. Rspo2 and Rspo2 / Wnt1 tumors contained many spindle cells, consistent with an epithelial-mesenchymal transformation phenotype. When Rspo2 and Rspo2 / Wnt1 tumor cells were transferred into naive mice, they exhibited greater metastatic activity than cells derived from Wnt1 tumors.

References

1.Cadieu E, *et al.* (2009) Coat Variation in the Domestic Dog Is Governed by Variants in Three Genes. Science. 326: 150-153.
2.Kazanskaya O, *et al.* (2004) R-Spondin2 is a secreted activator of Wnt / beta-catenin signaling and is required for Xenopus myogenesis. Dev Cell. 7(4): 525-34.
3.Parker HG, *et al.* (2010) An insertion in the RSPO2 gene correlates with improper coat in the Portuguese water dog. J Hered. 101(5):612-7.