

Active Recombinant Mouse RSPO3 Protein

Cat. No. RSPO3-14554M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse RSPO3 Protein (Met1-His277) without tag was expressed in Chinese Hamster Ovary cell line.
Species	Mouse
Source	CHO
ProteinLength	1-277 a.a.
Description	Activator of the canonical Wnt signaling pathway by acting as a ligand for LGR4-6 receptors, which acts as a key regulator of angiogenesis. Upon binding to LGR4-6 (LGR4, LGR5 or LGR6), LGR4-6 associate with phosphorylated LRP6 and frizzled receptors that are activated by extracellular Wnt receptors, triggering the canonical Wnt signaling pathway to increase expression of target genes. Also regulates the canonical Wnt/beta-catenin-dependent pathway and non-canonical Wnt signaling by acting as an inhibitor of ZNRF3, an important regulator of the Wnt signaling pathway. Acts as a ligand for frizzled FZD8 and LRP6. May negatively regulate the TGF-beta pathway. Acts as a key regulator of angiogenesis by controlling vascular stability and pruning: acts by activating the non-canonical Wnt signaling pathway in endothelial cells. Can also amplify Wnt signaling pathway independently of LGR4-6 receptors, possibly by acting as a direct antagonistic ligand to RNF43 and ZNRF3.
Bio-activity	Measured by its ability to induce Topflash reporter activity in HEK293T human embryonic kidney cells. The ED50 for this effect is 0.25-1 ng/mL in the presence of 5

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	ng/mL Recombinant Mouse Wnt-3a.
Molecular Mass	28.9 kDa
N-terminal Sequence Analysis	Met33
Endotoxin	< 0.10 EU/μg of the protein by the LAL method.
Purity	> 95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Storage Buffer	Lyophilized from a 0.2 μm filtered solution in PBS with BSA as a carrier protein.
Reconstitution	Reconstitute at 200 μg/mL in PBS.
Shipping	The product is shipped at ambient temperature.

GENE INFORMATION

Gene Name	Rspo3 R-spondin 3 [<i>Mus musculus</i> (house mouse)]
Official Symbol	Rspo3
Synonyms	Rspo3; R-spondin 3; Cri; Thsd; Thsd2; AW742308; Cristin1; 2810459H04Rik; R-spondin-3; R-spondin 3 homolog; cabriolet; cristin 1; cysteine-rich and single

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thrombospondin domain-containing protein 1; nucleopondin; roof plate-specific
spondin-3; thrombospondin, type I, domain 2

Gene ID 72780

mRNA Refseq NM_028351

Protein Refseq NP_082627

UniProt ID Q2TJ95

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