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R-spondin1 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1258a

Product Information

Application	WB, E
Primary Accession	Q2MKA7
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	7A6
Isotype	IgG1
Calculated MW	28959
Description	R-spondin1, also known as RSPO1, CRISTIN3, FLJ40906. Entrez Protein NP_001033722.1. It is a member of the R-spondin family and a 28.9kDa secreted activator protein with two cystein-rich, furin-like domains and one thrombospondin type 1 domain. In mice, the protein induces the rapid onset of crypt cell proliferation and increases intestinal epithelial healing, providing a protective effect against chemotherapy-induced adverse effects.It is 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.
Immunogen	Purified recombinant fragment of R-spondin1 expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	284654
Other Names	R-spondin-1, Roof plate-specific spondin-1, hRspo1, RSPO1
Dilution	WB~~1/500 - 1/2000 E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	R-spondin1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RSPO1
Function	Activator of the canonical Wnt signaling pathway by acting as a ligand for LGR4-6 receptors (PubMed:29769720). 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. Has a essential roles in ovary determination. Regulates Wnt signaling by antagonizing DKK1/KREM1- mediated internalization of LRP6 through an interaction with KREM1 (PubMed:17804805).
Cellular Location	Secreted. Nucleus {ECO:0000250|UniProtKB:Q9Z132} Note=Seems to mainly localize to nucleoli {ECO:0000250|UniProtKB:Q9Z132}
Tissue Location	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.

References

1. Nat Genet. 2006 Nov;38(11):1304-9. 2. Hum Mutat. 2008 Feb;29(2):220-6.

Images

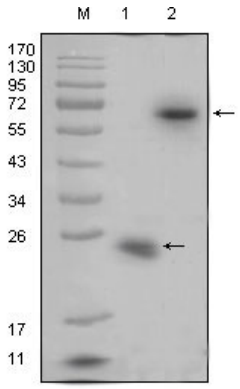


Figure 1: Western blot analysis using R-spondin1 mouse mAb against recombinant R-spondin1 protein (1) and R-spondin1(aa21-263)-hIgGFc transfected HEK293 cell lysate(2).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.