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RSPO1 Rabbit pAb

Catalog # AP98460

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q2MKA7
Other Accession	Q2MKA7
Reactivity	Rat
Predicted	Pig, Human, Mouse, Rabbit, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	28959
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human RSPO1
Epitope Specificity	31-1306/263
Isotype	IgG
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the R-spondin family.Contains 2 FU (furin-like) repeats.Contains 1 TSP type-1 domain.
SUBUNIT	Interacts with the extracellular domain of FZD8 and LRP6. It however does not form a ternary complex with FZD8 and LRP6. Interacts with WNT1. Binds heparin (By similarity).
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.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	RSPO1 is a member of the R-spondin family and encodes a 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.

Additional Information

Gene ID	284654
Other Names	CRISTIN3; RSPO; R-spondin; Rspondin; RGD1565558; RSPO1_HUMAN; RSPO1; Roof plate-specific spondin-1 (hRspo1); RSPO1_MOUSE; Cysteine-rich and single thrombospondin domain-containing protein 3 (Cristin-3 | mCristin-3); Roof plate-specific spondin-1; R-spondin 1; R-spondin homolog (Xenopus laevis)
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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.

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