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RSPO3 Antibody (C-Term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21989b

Product Information

Application	WB, E
Primary Accession	Q9BXY4
Reactivity	Human
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB54572
Calculated MW	30929

Additional Information

Gene ID	84870
Other Names	R-spondin-3, Protein with TSP type-1 repeat, hPWTSR, Roof plate-specific spondin-3, hRspo3, Thrombospondin type-1 domain-containing protein 2, RSPO3, PWTSR, THSD2
Target/Specificity	This RSPO3 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 197-230 amino acids from human RSPO3.
Dilution	WB~~1:8000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	RSPO3 Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RSPO3
Synonyms	PWTSR, THSD2
Function	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 (PubMed:21727895, PubMed:21909076, PubMed:22615920). 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 (By similarity) (PubMed:21727895, PubMed:21909076, PubMed:22615920). Can also amplify Wnt signaling pathway independently of LGR4-6 receptors, possibly by acting as a direct antagonistic ligand to RNF43 and ZNRF3 (PubMed:29769720).
Cellular Location	Secreted {ECO:0000250|UniProtKB:Q2TJ95}.
Tissue Location	Ubiquitously expressed. Expressed at higher level in placenta, small intestine, fetal thymus and lymph node (PubMed:12463421). Highly expressed in endothelial cells (PubMed:26766444).

Background

Activator of the canonical Wnt signaling pathway by acting as a ligand for LGR4-6 receptors. 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.

References

Chen J.-Z.,et al.Mol. Biol. Rep. 29:287-292(2002).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
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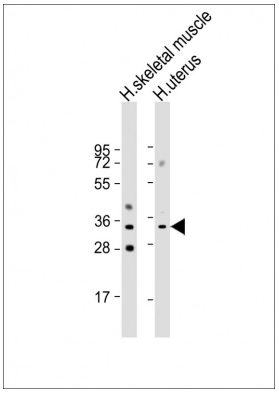
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Kim K.-A.,et al.Cell Cycle 5:23-26(2006).

Images



All lanes : Anti-RSPO3 Antibody (C-Term) at 1:8000 dilution Lane 1: human skeletal muscle lysate Lane 2: human uterus lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 31 kDa Blocking/Dilution buffer: 5% NFDM/TBST.