10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

RSPO1 Blocking Peptide (C-Term)

Synthetic peptide
Catalog # BP21954b

Specification

RSPO1 Blocking Peptide (C-Term) - Product Information

Primary Accession Q2MKA7

RSPO1 Blocking Peptide (C-Term) - Additional Information

Gene ID 284654

Other Names
R-spondin-1, Roof plate-specific spondin-1, hRspo1, RSPO1

Target/Specificity
The synthetic peptide sequence is selected from aa 226-240 of HUMAN RSPO1

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

RSPO1 Blocking Peptide (C-Term) - 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),

RSPO1 Blocking Peptide (C-Term) - 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. Has a essential roles in ovary determination.

RSPO1 Blocking Peptide (C-Term) - References

Kim K.-A.,et al.Science 309:1256-1259(2005).
Parma P.,et al.Nat. Genet. 38:1304-1309(2006).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
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Hao H.X.,et al.Nature 485:195-200(2012).

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 {ECO:0000250|UniProtKB:Q9Z132}.
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.

RSPO1 Blocking Peptide (C-Term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides