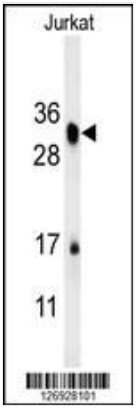
RSPO4 Antibody – Rabbit Polyclonal

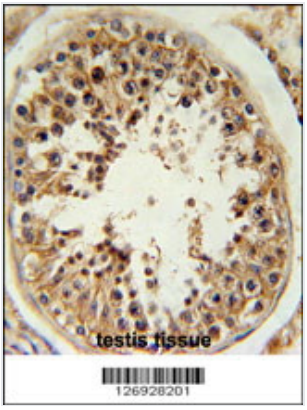
PRODUCT OVERVIEW

Product Name	RSPO4, Polyclonal Antibody
Full Product Name	RSPO4, CT (RSPO4, C20orf182, R-spondin-4, Roof plate-specific spondin-4) (Biotin)
Product Gene Name	anti-RSPO4 antibody
Product Synonym Names	RSPO4; C20orf182; R-spondin-4; Roof plate-specific spondin-4
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Biotin.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and store at -20 degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	19,607 Da
OMIM	206800
3D Structure	ModBase 3D Structure for Q2I0M5
Immunogen	RSPO4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 206-236 amino acids from the C-terminal region of human RSPO4.
Conjugate	Biotin
Note	Preservative Free
Product Categories/Family for anti-RSPO4 antibody	Antibodies; KIAA; orf
Applications Tested/Suitable for anti-RSPO4 antibody	Flow Cytometry (FC/FACS), ELISA (EIA), Immunohistochemistry (IHC), Western Blot (WB)
Application Notes for anti-RSPO4 antibody	FC/FACS: 1:10-50 ELISA: 1:1,000 IHC: 1:50-100 WB: 1:100-500 Applications are based on unconjugated antibody.
Related Product Information for anti-RSPO4 antibody	RSPO4 is a member of the R-spondin family of proteins that share a common domain organization consisting of a signal peptide, cysteine-rich/furin-like domain, thrombospondin domain and a C-terminal basic region. The encoded protein may be involved in activation of Wnt/beta-catenin signaling pathways. Mutations in this gene are associated with anonychia congenital. Alternate splicing results in multiple transcript variants.
Product References and Citations for anti-RSPO4 antibody	Bergmann, C., et al. Am. J. Hum. Genet. 79(6):1105-1109(2006). Blaydon, D.C., et al. Nat. Genet. 38(11):1245-1247(2006). Kim, K.A., et al. Cell Cycle 5(1):23-26(2006).
Other Notes	Small volumes of anti-RSPO4 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

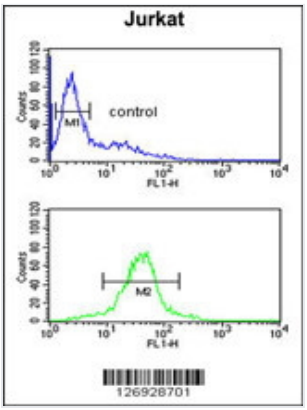
Searchable Terms for RSPO4 purchase	MBS6344229 is an antibody targeting RSPO4. Also known as RSPO4, CT (RSPO4, C20orf182, R-spondin-4, Roof plate-specific spondin-4) (Biotin). Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-RSPO4 antibody
RSPO4 Antibody (C-term) western blot analysis in Jurkat cell line lysates (15ug/lane).This demonstrates the RSPO4 antibody detected the RSPO4 protein (arrow).



Immunohistochemistry (IHC) of anti-RSPO4 antibody
RSPO4 Antibody (C-term) immunohistochemistry analysis in formalin fixed and paraffin embedded human testis tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the RSPO4 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



Flow Cytometry (FC/FACS) of anti-RSPO4 antibody
RSPO4 Antibody (C-term) flow cytometric analysis of Jurkat cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for RSPO4. It may not necessarily be applicable to this product.

NCBI GI #	83722284
NCBI GeneID	343637
NCBI Accession #	NP_001025042.2
UniProt Primary Accession #	Q2I0M5
UniProt Secondary Accession #	Q9UGB2; A2A2I6
UniProt Related Accession #	Q2I0M5
GenBank Nucleotide #	NM_001029871.3
NCBI Official Full Name	R-spondin-4 isoform 1
NCBI Official Synonym Full Names	R-spondin 4
NCBI Official Symbol	RSPO4
NCBI Official Synonym Symbols	CRISTIN4; C20orf182

UniProt Protein Name	R-spondin-4
UniProt Synonym Protein Names	Roof plate-specific spondin-4; hRspo4
Protein Family	R-spondin
UniProt Gene Name	RSPO4
UniProt Synonym Gene Names	C20orf182; hRspo4
UniProt Entry Name	RSPO4_HUMAN
NCBI Protein Information	R-spondin-4
NCBI Summary for RSPO4	This gene encodes a member of the R-spondin family of proteins that share a common domain organization consisting of a signal peptide, cysteine-rich/furin-like domain, thrombospondin domain and a C-terminal basic region. The encoded protein may be involved in activation of Wnt/beta-catenin signaling pathways. Mutations in this gene are associated with anonychia congenital. Alternate splicing results in multiple transcript variants.[provided by RefSeq, Sep 2009]
UniProt Comments for RSPO4	R-spondin-4: Activator of the beta-catenin signaling cascade, leading to TCF-dependent gene activation. Acts both in the canonical Wnt/beta-catenin-dependent pathway and in non-canonical Wnt signaling pathway, probably by acting as an inhibitor of ZNRF3, an important regulator of the Wnt signaling pathway. Defects in RSPO4 are the cause of nail disorder non- syndromic congenital type 4 (NDNC4). A nail disorder characterized by congenital anonychia or its milder phenotypic variant hyponychia. Anonychia/hyponychia is the absence or severe hypoplasia of all fingernails and toenails without significant bone anomalies. Belongs to the R-spondin family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Secreted, signal peptide; Secreted; Cell development/differentiation Chromosomal Location of Human Ortholog: 20p13 Cellular Component: extracellular region Disease: Nail Disorder, Nonsyndromic Congenital, 4
Research Articles on RSPO4	**1.** A novel nonsense mutation in RSPO4 gene involves in the development of anonychia congenita.
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