

Rabbit RSPO4 Polyclonal Antibody | anti-RSPO4 antibody

Anti-RSPO4 Antibody Picoband

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA127594	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Western Blot

PRODUCT SYNONYMS

RSPO4; Polyclonal Antibody; Anti-RSPO4 Antibody Picoband; Serine/threonine-protein kinase AtPK1/AtPK6; 70 kDa ribosomal protein S6 kinase 1 antibody; KS6B1_HUMAN antibody; p70 alpha antibody; P70 beta 1 antibody; p70 ribosomal S6 kinase alpha antibody; p70 ribosomal S6 kinase beta 1 antibody; p70 S6 kinase alpha antibody; P70 S6 Kinase antibody; p70 S6 kinase alpha 1 antibody; p70 S6 kinase alpha 2 antibody; p70 S6K antibody; p70 S6K-alpha antibody; p70 S6KA antibody; p70(S6K) alpha antibody; p70(S6K)-alpha antibody; p70-alpha antibody; p70-S6K 1 antibody; p70-S6K antibody; P70S6K antibody; P70S6K1 antibody; p70S6Kb antibody; PS6K antibody; Ribosomal protein S6 kinase 70kDa polypeptide 1 antibody; Ribosomal protein S6 kinase beta 1 antibody; Ribosomal protein S6 kinase beta-1 antibody; Ribosomal protein S6 kinase I antibody; RPS6KB1 antibody; S6K antibody; S6K-beta-1 antibody; S6K1 antibody; Serine/threonine kinase 14 alpha antibody; Serine/threonine-protein kinase 14A antibody; STK14A antibody; anti-RSPO4 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Expressed in all tissues.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Applicable Applications for anti-RSPO4 antibody	ELISA, FCM/FACS (Flow Cytometry), WB (Western Blot)
Immunogen	E coli-derived human RSPO4 recombinant protein (Position: R60-K206). Human RSPO4 shares 82.2% amino acid (aa) sequence identity with mouse RSPO4.
Subcellular Localization	Cytoplasm, Nucleus
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross reactivity with other proteins.
Protein Function	Downstream effector of TOR signaling pathway involved in osmotic stress response. Could be involved in the control of plant growth and development. Phosphorylates the ribosomal proteins P14, P16 and S6. Functions as a repressor of cell proliferation and required for maintenance of chromosome stability and ploidy levels through the RBR1-E2F pathway.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.



FCM/FACS (Flow Cytometry)
Figure 2. Flow Cytometry analysis of 293T cells using anti-RSPO4 antibody (AAA127594).Overlay histogram showing 293T cells stained with AAA127594 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-RSPO4 Antibody (AAA127594, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)
Figure 1. Western blot analysis of RSPO4 using anti-RSPO4 antibody (AAA127594).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: human U2OS whole cell lysates,Lane 2: human SH-SY5Y whole cell lysates,Lane 3: human 293T whole cell lysates,Lane 4: rat brain tissue lysates,Lane 5: mouse brain tissue lysates,Lane 6: mouse Neuro-2a whole cell lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-RSPO4 antigen affinity purified polyclonal antibody (#AAA127594) at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for RSPO4 at approximately 26 kDa. The expected band size for RSPO4 is at 26 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-RSPO4 antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product Categories/Family for anti-RSPO4 antibody	Primary Antibodies; Signal Transduction; Signaling Pathway; Small G Proteins
References	1. Bergmann, C., Senderek, J., Anhof, D., Thiel, C. T., Ekici, A. B., Poblete-Gutierrez, P., van Steensel, M., Seelow, D., Nurnberg, G., Schild, H. H., Nurnberg, P., Reis, A., Frank, J., Zerres, K. Mutations in the gene encoding the Wnt-signaling component R-spondin 4 (RSPO4) cause autosomal recessive anonychia. Am. J. Hum. Genet. 79: 1105-1109, 2006. 2. Blaydon, D. C., Ishii, Y., O'Toole, E. A., Unsworth, H. C., Teh, M.-T., Ruschendorf, F., Sinclair, C., Hopsu-Havu, V. K., Tidman, N., Moss, C., Watson, R., de Berker, D., Wajid, M., Christiano, A. M., Kelsell, D. P. The gene encoding R-spondin 4 (RSPO4), a secreted protein implicated in Wnt signaling, is mutated in inherited anonychia. Nature Genet. 38: 1245-1247, 2006. 3. Bruchle, N. O., Frank, J., Frank, V., Senderek, J., Akar, A., Koc, E., Rigopoulos, D., van Steensel, M., Zerres, K., Bergmann, C. RSPO4 is the major gene in autosomal-recessive anonychia and mutations cluster in the furin-like cysteine-rich domains of the Wnt signaling ligand R-spondin 4. J. Invest. Derm. 128: 791-796, 2008.

NCBI AND UNIPROT INFORMATION

NCBI GI #	83722284
NCBI GeneID	343637
NCBI Accession #	NP_001025042.2
NCBI GenBank Nucleotide #	NM_001029871.3
UniProt Accession #	Q2I0M5; Q9UGB2; A2A2I6
Molecular Weight	19,607 Da
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
NCBI Protein Information	R-spondin-4
UniProt Protein Name	R-spondin-4

UniProt Gene Name	RSPO4
UniProt Synonym Gene Names	C20orf182; hRspo4
UniProt Entry Name	RSPO4_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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