

Rabbit anti-Human PTPIP51/RMDN3 Polyclonal Antibody | anti-PTPIP51/RMDN3 antibody

Anti-PTPIP51/RMDN3 Antibody Picoband

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19923	Rabbit	Human	Western Blot, Immunohistochemistry, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay, ELISA

PRODUCT SYNONYMS

PTPIP51/RMDN3; Polyclonal Antibody; Anti-PTPIP51/RMDN3 Antibody Picoband; CD72 molecule; B-cell differentiation antigen CD72; Lyb-2; CD72; anti-PTPIP51/RMDN3 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Pre-B-cells and B-cells but not terminally differentiated plasma cells.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Applicable Applications for anti-PTPIP51/RMDN3 antibody	WB (Western Blot), IHC (Immunohistochemistry), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry), ELISA
Application Notes	WB: 0.25-0.5ug/ml, Human IHC(Paraffin-embedded Section): 2-5ug/ml, Human ICC/IF: 5ug/ml, Human IF: 5ug/ml, Human FC/FACS (Fixed): 1-3ug/1x10 ⁶ cells, Human ELISA: 0.1-0.5ug/ml
Immunogen	E coli-derived human PTPIP51/RMDN3 recombinant protein (Position: Q45-R438).
Subcellular Localization	Membrane, Single-pass type II membrane protein
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	Plays a role in B-cell proliferation and differentiation.
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 (Flow Cytometry)

Figure 8. Flow Cytometry analysis of HepG2 cells using anti-PTPIP51/RMDN3 antibody (AAA19923). Overlay histogram showing HepG2 cells stained with AAA19923 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PTPIP51/RMDN3 Antibody (AAA19923, 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 without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



IF (Immunofluorescence)

Figure 6. IF analysis of PTPIP51/RMDN3 using anti-PTPIP51/RMDN3 antibody (AAA19923).PTPIP51/RMDN3 was detected in an immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-PTPIP51/RMDN3 Antibody (AAA19923) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-PTPIP51/RMDN3 Antibody (AAA19923) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-PTPIP51/RMDN3 Antibody (AAA19923) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-PTPIP51/RMDN3 Antibody (AAA19923) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Lane 2: human Caco-2 whole cell lysates, Lane 3: human K562 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-PTPIP51/RMDN3 antigen affinity purified polyclonal antibody (#AAA19923) 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 PTPIP51/RMDN3 at approximately 55 kDa. The expected band size for PTPIP51/RMDN3 is at 52 kDa.



IF (Immunofluorescence)

Figure 7. IF analysis of PTPIP51/RMDN3 using anti-PTPIP51/RMDN3 antibody (AAA19923).PTPIP51/RMDN3 was detected in a paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5ug/mL rabbit anti-PTPIP51/RMDN3 Antibody (AAA19923) overnight at 4 degree C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37 degree C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

ADDITIONAL INFORMATION

Related Product Information for anti-PTPIP51/RMDN3 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-PTPIP51/RMDN3 antibody	Primary Antibodies; Adaptive Immunity; B Cells; Hematopoietic Progenitors; Immunology; Lymphoid; Stem Cells

References	<p>1. De Vos, K. J., Morotz, G. M., Stoica, R., Tudor, E. L., Lau, K.-F., Ackerly, S., Warley, A., Shaw, C. E., Miller, C. C. J. VAPB interacts with the mitochondrial protein PTP51 to regulate calcium homeostasis. <i>Hum. Molec. Genet.</i> 21: 1299-1311, 2012. 2. Lv, B. F., Yu, C. F., Chen, Y. Y., Lu, Y., Guo, J. H., Song, Q. S., Ma, D. L., Shi, T. P., Wang, L. Protein tyrosine phosphatase interacting protein 51 (PTPIP51) is a novel mitochondria protein with an N-terminal mitochondrial targeting sequence and induces apoptosis. <i>Apoptosis</i> 11: 1489-1501, 2006. 3. Oishi, K., Okano, H., Sawa H. RMD-1, a novel microtubule-associated protein, functions in chromosome segregation in <i>Caenorhabditis elegans</i>. <i>J. Cell Biol.</i> 179: 1149-1162, 2007. Note: Erratum: <i>J. Cell Biol.</i> 186: 629 only, 2009.</p>
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NCBI AND UNIPROT INFORMATION

NCBI GI #	8922532
NCBI GeneID	55177
NCBI Accession #	NP_060615.1
NCBI GenBank Nucleotide #	NM_018145.1
UniProt Accession #	Q96TC7 ; Q6ZWE9 ; Q96H23 ; Q96SD6 ; Q9H6G1 ; Q9NVQ6 ; A9UMZ9 ; B3KRR3
Molecular Weight	52,118 Da
NCBI Official Full Name	regulator of microtubule dynamics protein 3
NCBI Official Synonym Full Names	regulator of microtubule dynamics 3
NCBI Official Symbol	RMDN3
NCBI Official Synonym Symbols	RMD3; RMD-3; FAM82C; FAM82A2; ptpip51
NCBI Protein Information	regulator of microtubule dynamics protein 3; cerebral protein 10; TCPTP-interacting protein 51; microtubule-associated protein; family with sequence similarity 82, member C; family with sequence similarity 82, member A2; protein tyrosine phosphatase-inter
UniProt Protein Name	Regulator of microtubule dynamics protein 3
UniProt Gene Name	RMDN3
UniProt Synonym Gene Names	FAM82A2; FAM82C; PTP51; hucep-10; UNQ3122/PRO10274; RMD-3; hRMD-3
UniProt Entry Name	RMD3_HUMAN

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AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

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