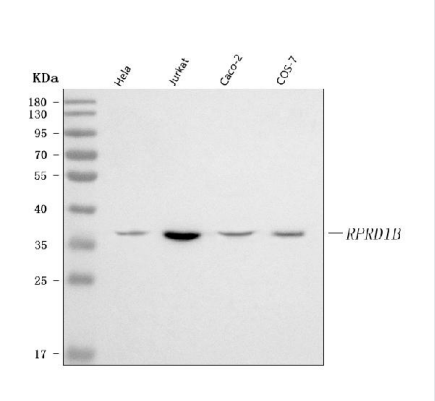
RPRD1B Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

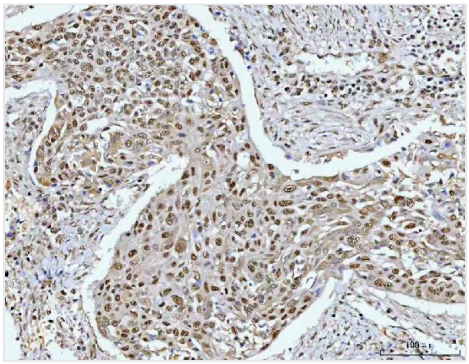
Product Name	RPRD1B, Polyclonal Antibody
Full Product Name	Anti-RPRD1B Antibody Picoband
Product Gene Name	anti-RPRD1B antibody
Product Synonym Names	Chromaffin granule amine transporter; fascin actin-bundling protein 2, retinal; Fascin-2; Retinal fascin; FSCN2
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human, Monkey
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Purity/Purification	Immunogen affinity purified.
Specificity	Localized specifically in the outer and inner segments of the photoreceptor cells in the retina.
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.
Molecular Weight	36,900 Da
OMIM	614694
3D Structure	ModBase 3D Structure for Q9NQG5
Immunogen	E coli-derived human RPRD1B recombinant protein (Position: R79-K272).
Subcellular Localization	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	Acts as an actin bundling protein. May play a pivotal role in photoreceptor cell-specific events, such as disk morphogenesis.
Product Categories/Family for anti-RPRD1B antibody	Primary Antibodies; Golgi Proteins; Protein Trafficking; Signal Transduction; Vesicle Transport
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-RPRD1B antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunocytochemistry (ICC), Immunofluorescence (IF), Flow Cytometry (FC/FACS), ELISA (EIA)
Application Notes for anti-RPRD1B antibody	WB: 0.25-0.5ug/ml, Human, Monkey 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
Related Product Information for anti-RPRD1B 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 References and Citations for anti-RPRD1B antibody	1. Hartz, P. A. Personal Communication. Baltimore, Md. 6/22/2012.2. Lu, D., Wu, Y., Wang, Y., Ren, F., Wang, D., Su, F., Zhang, Y., Yang, X., Jin, G., Hao, X., He, D., Zhai, Y., Irwin, D. M., Hu, J., Sung, J. J. Y., Yu, J., Jia, B., Chang, Z. CREPT accelerates tumorigenesis by regulating the transcription of cell-cycle-related genes. Cancer Cell 21: 92-104, 2012. 3. Ni, Z., Olsen, J. B., Guo, X., Zhong, G., Ruan, E. D., Marcon, E., Young, P., Guo, H., Li, J., Moffat, J., Emili, A., Greenblatt, J. F. Control of the RNA polymerase II phosphorylation state in promoter regions by CTD interaction domain-containing proteins RPRD1A and RPRD1B. Transcription 2: 237-242, 2011.
Other Notes	Small volumes of anti-RPRD1B 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 RPRD1B purchase	MBS1758870 is an antibody targeting RPRD1B. Also known as Anti-RPRD1B Antibody Picoband. Reactive in Human, Monkey. Host: Rabbit.



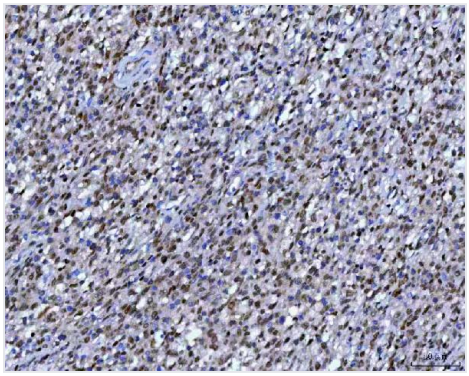
Western Blot (WB) of anti-RPRD1B antibody

Figure 1. Western blot analysis of RPRD1B using anti-RPRD1B antibody (MBS1758870).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 Hela whole cell lysates,Lane 2: human Jurkat whole cell lysates,Lane 3: human Caco-2 whole cell lysates,Lane 4: monkey COS-7 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-RPRD1B antigen affinity purified polyclonal antibody (#MBS1758870) 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 (#MBS176460) with Tanon 5200 system. A specific band was detected for RPRD1B at approximately 37 kDa. The expected band size for RPRD1B is at 37 kDa.



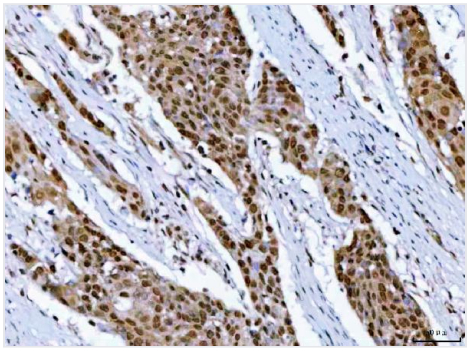
Immunohistochemistry (IHC) of anti-RPRD1B antibody

Figure 2. IHC analysis of RPRD1B using anti-RPRD1B antibody (MBS1758870).RPRD1B was detected in a paraffin-embedded section of human esophageal squamous carcinoma 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 2ug/ml rabbit anti-RPRD1B Antibody (MBS1758870) 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 (#MBS176453) with DAB as the chromogen.



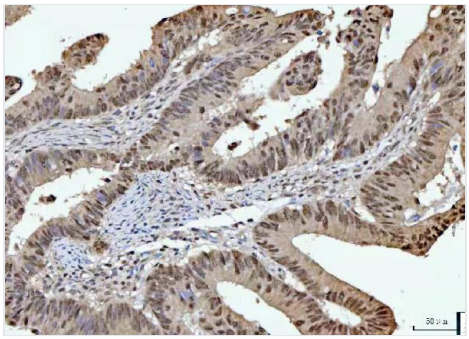
Immunohistochemistry (IHC) of anti-RPRD1B antibody

Figure 3. IHC analysis of RPRD1B using anti-RPRD1B antibody (MBS1758870).RPRD1B was detected in a paraffin-embedded section of human B cell lymphoma 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 2ug/ml rabbit anti-RPRD1B Antibody (MBS1758870) 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 (#MBS176453) with DAB as the chromogen.



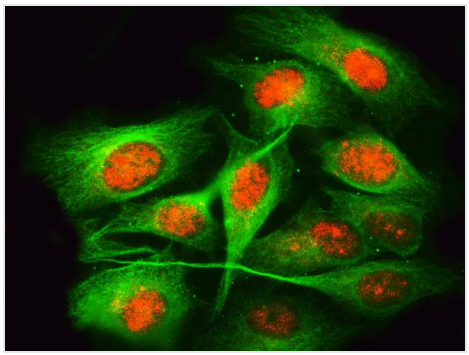
Immunohistochemistry (IHC) of anti-RPRD1B antibody

Figure 4. IHC analysis of RPRD1B using anti-RPRD1B antibody (MBS1758870).RPRD1B was detected in a paraffin-embedded section of human esophageal squamous carcinoma 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 2ug/ml rabbit anti-RPRD1B Antibody (MBS1758870) 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 (#MBS176453) with DAB as the chromogen.



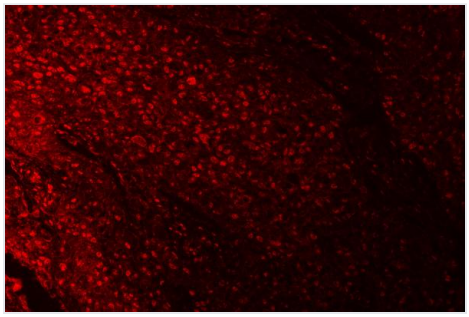
Immunohistochemistry (IHC) of anti-RPRD1B antibody

Figure 5. IHC analysis of RPRD1B using anti-RPRD1B antibody (MBS1758870).RPRD1B 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 2ug/ml rabbit anti-RPRD1B Antibody (MBS1758870) 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 (#MBS176453) with DAB as the chromogen.



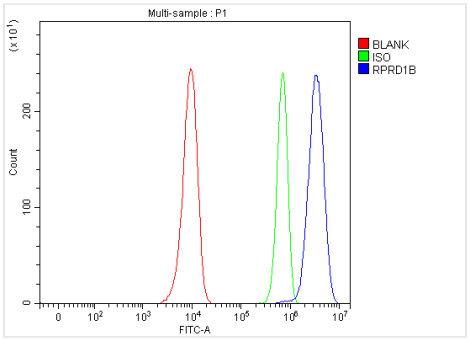
Immunofluorescence (IF) of anti-RPRD1B antibody

Figure 6. IF analysis of RPRD1B and Tubulin beta using anti-RPRD1B antibody (MBS1758870) and anti-Tubulin beta antibody (M05613-4).RPRD1B and Tubulin beta was detected in an immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (#MBS176582) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-RPRD1B Antibody (MBS1758870) and mouse anti-Tubulin beta Antibody (M05613-4) overnight at 4 degree C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) and DyLight488 Conjugated Goat Anti-Mouse IgG (BA1126) were 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.



Immunofluorescence (IF) of anti-RPRD1B antibody

Figure 7. IF analysis of RPRD1B using anti-RPRD1B antibody (MBS1758870).RPRD1B was detected in a paraffin-embedded section of human esophageal squamous cell carcinoma 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-RPRD1B Antibody (MBS1758870) overnight at 4 degree C. DyLight550 Conjugated Goat Anti-Rabbit IgG (BA1135) 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.



Flow Cytometry (FC/FACS) of anti-RPRD1B antibody

Figure 8. Flow Cytometry analysis of Hela cells using anti-RPRD1B antibody (MBS1758870).Overlay histogram showing Hela cells stained with MBS1758870 (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-RPRD1B Antibody (MBS1758870, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (MBS177405, 5-10ug/1x106 cells) 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.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for RPRD1B. It may not necessarily be applicable to this product.

NCBI GI #	11034845
NCBI GeneID	58490
NCBI Accession #	NP_067038.1
UniProt Primary Accession #	Q9NQG5
UniProt Secondary Accession #	Q1WDE7; Q6PKF4
UniProt Related Accession #	Q9NQG5
GenBank Nucleotide #	NM_021215.3
NCBI Official Full Name	regulation of nuclear pre-mRNA domain-containing protein 1B

NCBI Official Synonym Full Names	regulation of nuclear pre-mRNA domain containing 1B
NCBI Official Symbol	RPRD1B
NCBI Official Synonym Symbols	CREPT; NET60; C20orf77; dJ1057B20.2
UniProt Protein Name	Regulation of nuclear pre-mRNA domain-containing protein 1B
UniProt Synonym Protein Names	Cell cycle-related and expression-elevated protein in tumor
Protein Family	Regulation of nuclear pre-mRNA domain-containing protein
UniProt Gene Name	RPRD1B
UniProt Synonym Gene Names	C20orf77; CREPT
UniProt Entry Name	RPR1B_HUMAN
NCBI Protein Information	regulation of nuclear pre-mRNA domain-containing protein 1B
UniProt Comments for RPRD1B	RPRD1B: Interacts with phosphorylated C-terminal heptapeptide repeat domain (CTD) of the largest RNA polymerase II subunit POLR2A, and participates in dephosphorylation of the CTD. Transcriptional regulator which enhances expression of CCND1. Promotes binding of RNA polymerase II to the CCDN1 promoter and to the termination region before the poly-A site but decreases its binding after the poly-A site. Prevents RNA polymerase II from reading through the 3' end termination site and may allow it to be recruited back to the promoter through promotion of the formation of a chromatin loop. Also enhances the transcription of a number of other cell cycle-related genes including CDK2, CDK4, CDK6 and cyclin-E but not CDKN1A, CDKN1B or cyclin-A. Promotes cell proliferation. Belongs to the UPF0400 (RTT103) family. Protein type: Motility/polarity/chemotaxis Chromosomal Location of Human Ortholog: 20q11.23 Cellular Component: centrosome; cytoplasm; DNA-directed RNA polymerase II, holoenzyme; nucleoplasm; nucleus Molecular Function: protein binding Biological Process: positive regulation of cell proliferation; positive regulation of transcription from RNA polymerase II promoter; snRNA transcription from RNA polymerase II promoter
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