

Rabbit anti-Human PRPF4 Polyclonal Antibody | anti-PRPF4 antibody

Anti-PRPF4 Antibody Picoband

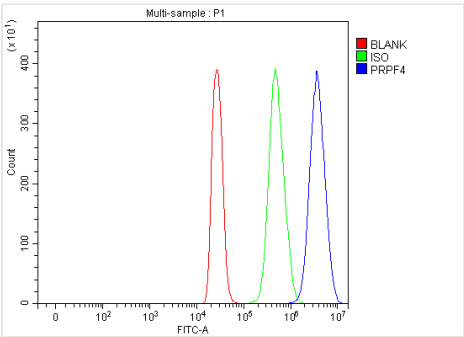
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA127509	Rabbit	Human	ELISA, Flow Cytometry, Functional Assay, Immunofluorescence, Immunocytochemistry, Western Blot

PRODUCT SYNONYMS

PRPF4; Polyclonal Antibody; Anti-PRPF4 Antibody Picoband; leucine rich repeat containing 32; Transforming growth factor beta activator LRRC32; Garpin; Glycoprotein A repetitions predominant; GARP; Leucine-rich repeat-containing protein 32; LRRC32; D11S833E; anti-PRPF4 antibody

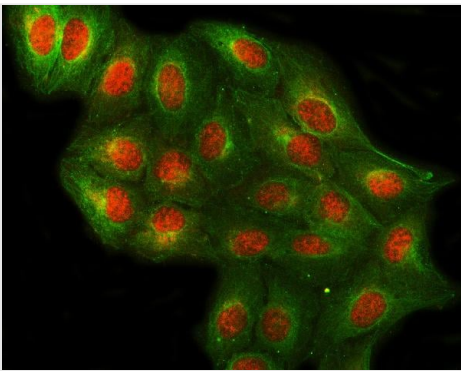
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Heart, placenta, skeletal muscle, kidney, lung and pancreas.
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-PRPF4 antibody	ELISA, FCM/FACS (Flow Cytometry), IF (Immunofluorescence), ICC (Immunocytochemistry), WB (Western Blot)
Immunogen	E coli-derived human PRPF4 recombinant protein (Position: R5-H461).
Subcellular Localization	Cell membrane. Single-pass type I membrane protein. Cell surface
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	Key regulator of transforming growth factor beta (TGFB1, TGFB2 and TGFB3) that controls TGF-beta activation by maintaining it in a latent state during storage in extracellular space. Associates specifically via disulfide bonds with the Latency-associated peptide (LAP), which is the regulatory chain of TGF-beta, and regulates integrin-dependent activation of TGF-beta. Able to outcompete LTBP1 for binding to LAP regulatory chain of TGF-beta. Controls activation of TGF-beta-1 (TGFB1) on the surface of activated regulatory T-cells (Tregs). Required for epithelial fusion during palate development by regulating activation of TGF-beta-3 (TGFB3)(By similarity).
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.



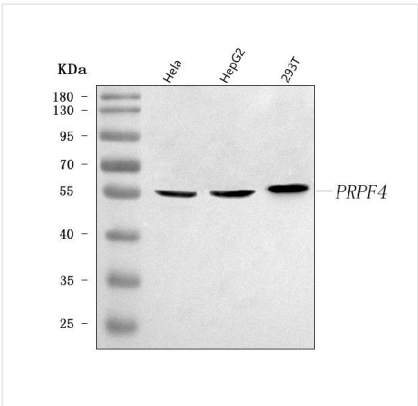
FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of 293T cells using anti-PRPF4 antibody (AAA127509).Overlay histogram showing 293T cells stained with AAA127509 (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-PRPF4 Antibody (AAA127509, 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.



IF (Immunofluorescence)

Figure 2. IF analysis of PRPF4 using anti-PRPF4 antibody (AAA127509) and anti-Beta Tubulin antibody (M01857-3).PRPF4 was detected in immunocytochemical section of U2OS cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-PRPF4 Antibody (AAA127509) and mouse anti-Beta Tubulin antibody (M01857-3) 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.



WB (Western Blot)

Figure 1. Western blot analysis of PRPF4 using anti-PRPF4 antibody (AAA127509).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 HepG2 whole cell lysates,Lane 3: human 293T 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-PRPF4 antigen affinity purified polyclonal antibody (#AAA127509) 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 PRPF4 at approximately 55 kDa. The expected band size for PRPF4 is at 58kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-PRPF4 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-PRPF4 antibody	Primary Antibodies; Immune System Diseases; Immunology; Protein Trafficking; Signal Transduction; Signaling Pathway

References	1. Chen, X., Liu, Y., Sheng, X., Tam, P. O. S., Zhao, K., Chen, X., Rong, W., Liu, Y., Liu, X., Pan, X., Chen, L. J., Zhao, Q., Vollrath, D., Pang, C. P., Zhao, C. PRPF4 mutations cause autosomal dominant retinitis pigmentosa. Hum. Molec. Genet. 23: 2926-2939, 2014. 2. Gonzalez-Santos, J. M., Wang, A., Jones, J., Ushida, C., Liu, J., Hu, J. Central region of the human splicing factor Hrp3p interacts with Hrp4p. J. Biol. Chem. 277: 23764-23772, 2002. 3. Heng, H. H. Q., Wang, A., Hu, J. Mapping of the human HPRP3 and HPRP4 genes encoding U4/U6-associated splicing factors to chromosomes 1q21.1 and 9q31-q33. Genomics 48: 273-275, 1998.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	349732206
NCBI GeneID	9128
NCBI Accession #	NP_001231855
NCBI GenBank Nucleotide #	NM_004697
UniProt Accession #	O43172; O43445; O43864; Q5T1M8; Q96DG2; Q96IK4
Molecular Weight	58,321 Da
NCBI Official Full Name	U4/U6 small nuclear ribonucleoprotein Prp4 isoform 2
NCBI Official Synonym Full Names	pre-mRNA processing factor 4
NCBI Official Symbol	PRPF4
NCBI Official Synonym Symbols	PRP4; RP70; HPRP4; Prp4p; HPRP4P; SNRNP60
NCBI Protein Information	U4/U6 small nuclear ribonucleoprotein Prp4; PRP4 homolog; PRP4 pre-mRNA processing factor 4 homolog; PRP4/STK/WD splicing factor; U4/U6 snRNP 60 kDa protein; WD splicing factor Prp4
UniProt Protein Name	U4/U6 small nuclear ribonucleoprotein Prp4
UniProt Gene Name	PRPF4
UniProt Synonym Gene Names	PRP4; hPrp4
UniProt Entry Name	PRP4_HUMAN

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