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antibody and ELISA experts

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Anti-RPA70/RPA1 Antibody Picoband®

Catalog Number: PB9886

About RPA1

Replication protein A 70 kDa DNA-binding subunit is a protein that in humans is encoded by the RPA1 gene. This gene is mapped to chromosome 17p13.3. Replication protein A (RPA) is a heterotrimeric single-strand DNA (ssDNA)-binding protein essential for DNA replication, repair, and recombination. It is composed of 70-kD (RPA1), 32-kD (RPA2), and 14-kD (RPA3) subunits. The RPA1 subunit is responsible for high-affinity ssDNA binding. The RPA complex was originally isolated as a factor essential for in vitro replication of the papovavirus SV40. It had been found that recombinant human RPA1, purified from bacteria, exhibited ssDNA-binding activity comparable to that of the complete RPA complex. RPA1 could substitute for the complete complex in stimulating the activity of DNA polymerase alpha-primase, but it could not substitute for the complete complex in SV40 DNA replication in vitro, suggesting an important functional role for the other subunits.

Overview

Product Name	Anti-RPA70/RPA1 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-RPA70/RPA1 Antibody Picoband® catalog # PB9886. Tested in Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human. 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.
Application	Flow Cytometry, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na2HPO4, and 0.05 mg NaN3. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P27694

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human RPA70, different from the related mouse sequence by three amino acids.

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Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10^6 cells, Human

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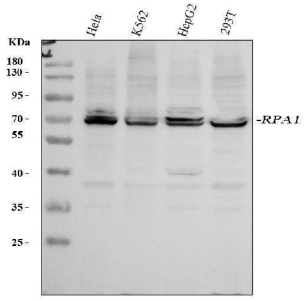
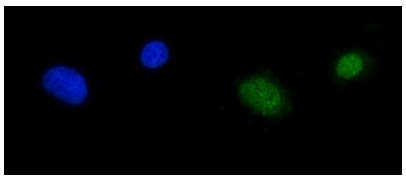
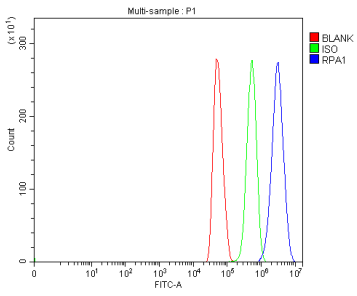
Anti-RPA70/RPA1 Antibody Picoband® (PB9886) Images



Western blot analysis of RPA70 using anti-RPA70 antibody (PB9886). 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 K562 whole cell lysates, Lane 3: human HepG2 whole cell lysates, Lane 4: 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-RPA70 antigen affinity purified polyclonal antibody (Catalog # PB9886) at 0.5 ug/mL overnight at 4°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 (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for RPA70 at approximately 70 kDa. The expected band size for RPA70 is at 68 kDa.



IF analysis of RPA70 using anti-RPA70 antibody (PB9886). RPA70 was detected in an immunocytochemical section of A549 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-RPA70 Antibody (PB9886) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of U251 cells using anti-RPA70 antibody (PB9886). Overlay histogram showing U251 cells stained with PB9886 (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-RPA70 Antibody (PB9886, 1 ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

Submit a product review to Biocompare.com

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For Research Use Only. Not for use in diagnostic procedures.