

## Anti-P53/TP53 Antibody Picoband®

Catalog Number: PB9008

### About TP53

The p53 tumor antigen is found in increased amounts in a wide variety of transformed cells. The protein is also detectable in many actively proliferating, nontransformed cells, but it is undetectable or present at low levels in resting cells. This protein induces cell cycle arrest or apoptosis in response to sublethal or severe DNA damage, respectively, by differential transcription of target genes and through transcription-independent apoptotic functions. The p53 protein contains 393 amino acids. Human p53 tumour antigen is Located to band 17p13. p53 mutations are common in pancreatic cancer and are absent in chronic pancreatitis.

### Overview

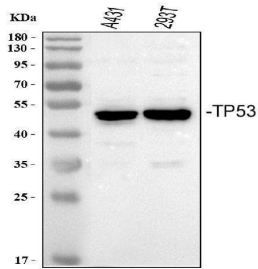
Product Name	Anti-P53/TP53 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-P53/TP53 Antibody Picoband® catalog # PB9008. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees 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, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.01mg NaN <sub>3</sub> .
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	P04637

### Technical Details

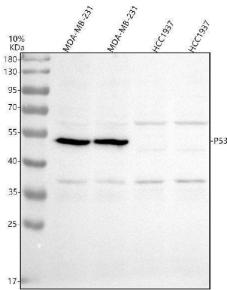
Immunogen	E.coli-derived human P53 recombinant protein (Position: A74-D393). Human P53 shares 83% and 85% amino acid (aa) sequences identity with mouse and rat P53, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and 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 Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 <sup>6</sup> cells, Human

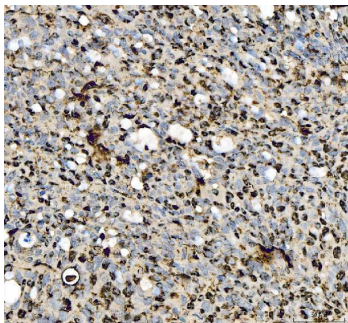
## Anti-P53/TP53 Antibody Picoband® (PB9008) Images



Western blot analysis of P53 using anti-P53 antibody (PB9008). 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 A431 whole cell lysates, Lane 2: human 293T whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-P53 antigen affinity purified polyclonal antibody (Catalog # PB9008) 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 P53 at approximately 53 kDa. The expected band size for P53 is at 53 kDa.

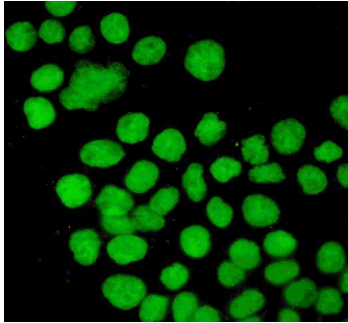


Western blot analysis of P53 using anti-P53 antibody (PB9008). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human MDA-MB-231 whole cell lysates, Lane 2: human MDA-MB-231 whole cell lysates, Lane 3: human HCC1937 whole cell lysates, Lane 4: human HCC1937 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-P53 antigen affinity purified polyclonal antibody (PB9008) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween-20 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for P53 at approximately 53 kDa. The expected band size for P53 is at 53 kDa.

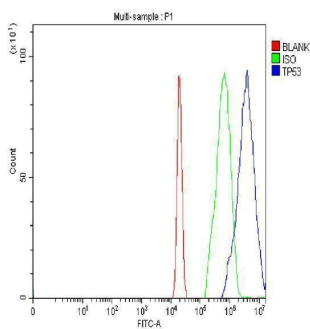


IHC analysis of P53 using anti-P53 antibody (PB9008). P53 was detected in a paraffin-embedded section of human ovarian cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-P53 Antibody (PB9008) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with

DAB as the chromogen.



IF analysis of P53 using anti-P53 antibody (PB9008). P53 was detected in immunocytochemical section of A431 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 5ug/mL rabbit anti- P53 Antibody (PB9008) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of A431 cells using anti-P53 antibody (PB9008). Overlay histogram showing A431 cells stained with PB9008 (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-P53 Antibody (PB9008, 1ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

## 71 Publications Citing This Product

1. PubMed ID: 10.3892/or.16.5.1021, Histological type of oncogeny and expression of cell cycle genes in tumor cells from human mesenchymal stem cells
2. PubMed ID: 10.5483/BMBRep.2008.41.10.745, P53 transcription-independent activity mediates selenite-induced acute promyelocytic leukemia NB4 cell apoptosis
3. PubMed ID: 10.3892/or.2015.4395, Fra-1 is upregulated in lung cancer tissues and inhibits the apoptosis of lung cancer cells by the P53 signaling pathway

Visit [bosterbio.com/anti-p53-picoband-trade-antibody-pb9008-boster.html](http://bosterbio.com/anti-p53-picoband-trade-antibody-pb9008-boster.html) to see all 71 publications.

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