

Anti-PARP/PARP1 Antibody Picoband™

Catalog Number: PB9309

About PARP1

Poly [ADP-ribose] polymerase 1 (PARP1), also known as ADPRT or PPOL is an enzyme that in humans is encoded by the PARP1 gene. PARP1 gene is mapped to 1q42.12. This gene encodes a chromatin-associated enzyme, poly (ADP-ribosyl)transferase, which modifies various nuclear proteins by poly (ADP-ribosyl)ation. The modification is dependent on DNA and is involved in the regulation of various important cellular processes such as differentiation, proliferation, and tumor transformation and also in the regulation of the molecular events involved in the recovery of cell from DNA damage. In addition, this enzyme may be the site of mutation in Fanconi anemia, and may participate in the pathophysiology of type I diabetes.

Overview

Product Name	Anti-PARP/PARP1 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PARP/PARP1 Antibody Picoband™ catalog # PB9309. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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	P09874

Technical Details

Immunogen	E.coli-derived human PARP recombinant protein (Position: Q670-R858). Human PARP shares 94% and 95% amino acid (aa) sequence identity with mouse and rat PARP, respectively.
Predicted Reactive Species	Chicken
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	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat, By Heat Immunocytochemistry , 2ug/ml, Human, Rat Immunofluorescence, 2ug/ml, Human Flow Cytometry, 1-3ug/1x10⁶ cells, Human

Anti-PARP/PARP1 Antibody Picoband™ (PB9309) Images

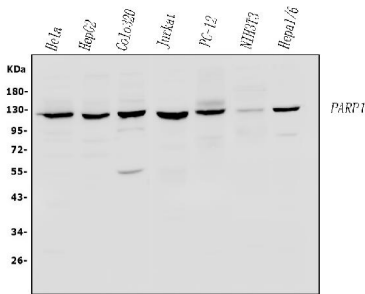


Figure 1. Western blot analysis of PARP using anti-PARP antibody (PB9309).

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 50ug of sample under reducing conditions.

Lane 1: human HeLa whole cell lysates,

Lane 2: human HepG2 whole cell lysates,

Lane 3: human COLO-320 whole cell lysates,

Lane 4: human Jurkat whole cell lysates,

Lane 5: rat PC-12 whole cell lysates,

Lane 6: mouse NIH3T3 whole cell lysates,

Lane 7: mouse HEPA1-6 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-PARP antigen affinity purified polyclonal antibody (Catalog # PB9309) 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 1:10000 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 PARP at approximately 120KD. The expected band size for PARP is at 113KD.

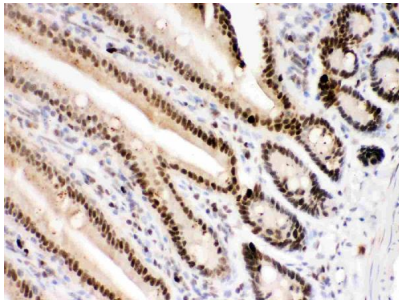


Figure 2. IHC analysis of PARP using anti-PARP antibody (PB9309).

PARP was detected in paraffin-embedded section of Mouse Intestine Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-PARP Antibody (PB9309) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

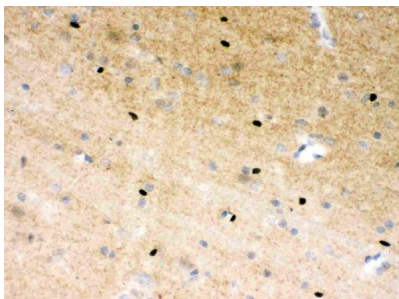


Figure 3. IHC analysis of PARP using anti-PARP antibody (PB9309).

PARP was detected in paraffin-embedded section of Rat Brain Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-PARP Antibody (PB9309) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

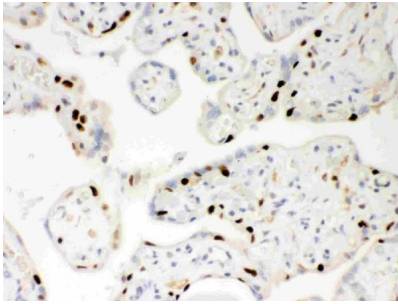


Figure 4. IHC analysis of PARP using anti-PARP antibody (PB9309).

PARP was detected in paraffin-embedded section of Human Placenta Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-PARP Antibody (PB9309) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

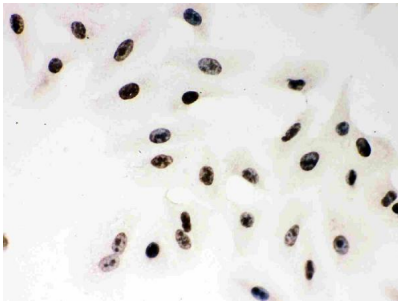


Figure 5. IHC analysis of PARP using anti-PARP antibody (PB9309).

PARP was detected in immunocytochemical section of A549 Cell. 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 1ug/ml rabbit anti-PARP Antibody (PB9309) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

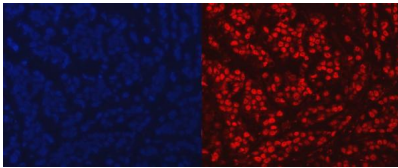


Figure 6. IF analysis of PARP using anti-PARP antibody (PB9309).

PARP was detected in a paraffin-embedded section of human breast 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-PARP Antibody (PB9309) overnight at 4°C. Biotin conjugated goat anti-rabbit IgG (BA1003) was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Cy3 Conjugated Avidin (BA1037). The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

5 Publications Citing This Product

1. PubMed ID: 10.1111/jdi.13534, CIDEc silencing attenuates diabetic nephropathy via inhibiting apoptosis and promoting autophagy
2. PubMed ID: , Downregulation of tyrosine aminotransferase at a frequently deleted region 16q22 contributes to the pathogenesis of hepatocellular carcinoma
3. PubMed ID: 33281970, Wang P,Wang C,Liu C. Antitumor effects of dioscin in A431 cells via adjusting ATM/p53-mediated cell apoptosis, DNA damage and migration. Oncol Lett. 2021 Jan;21(1):59.doi:10.3892/ol.2020.12321.Epub 2020 Nov 19.PMID:33281970;PMCID:PMC7709553.

Visit [bosterbio.com/anti-parp-picoband-trade-antibody-pb9309-boster.html](https://www.bosterbio.com/anti-parp-picoband-trade-antibody-pb9309-boster.html) to see all 5 publications.

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