

Anti-PRDX6 Antibody Picoband™ (monoclonal, 6I8)

Catalog Number: M01847-1

About PRDX6

PRDX6 is also known as PRX, p29 or AOP2. The protein encoded by this gene is a member of the thiol-specific antioxidant protein family. This protein is a bifunctional enzyme with two distinct active sites. It is involved in redox regulation of the cell; it can reduce H₂O₂ and short chain organic, fatty acid, and phospholipid hydroperoxides. It may play a role in the regulation of phospholipid turnover as well as in protection against oxidative injury.

Overview

Product Name	Anti-PRDX6 Antibody Picoband™ (monoclonal, 6I8)
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PRDX6 Antibody Picoband™ (monoclonal, 6I8) catalog # M01847-1. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Monoclonal 6I8
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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	Mouse
Uniprot ID	P30041

Technical Details

Immunogen	E.coli-derived human Peroxiredoxin 6 recombinant protein (Position: E15-P224). Human Peroxiredoxin 6 shares 90% and 91% amino acid (aa) sequence identity with mouse and rat Peroxiredoxin 6, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG2b
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, 0.25-0.5ug/ml, Human, Rat

Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human

Immunocytochemistry/Immunofluorescence, 2ug/ml, Human

Flow Cytometry, 1-3ug/1x10⁶ cells, Human

Anti-PRDX6 Antibody Picoband™ (monoclonal, 6I8) (M01847-1) Images

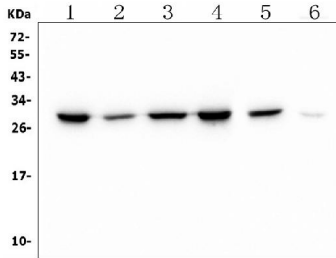


Figure 1. Western blot analysis of PRDX6 using anti-PRDX6 antibody (M01847-1).

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 tissue lysates,

Lane 2: human Jurkat whole cell lysates,

Lane 3: human HEK293 whole cell lysates,

Lane 4: human K562 whole cell lysates,

Lane 5: human SW620 whole cell lysates.

Lane 6: rat RH35 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 mouse anti-PRDX6 ntigen affinity purified polyclonal antibody (Catalog # M01847-1) 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-mouse 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 # EK1001) with Tanon 5200 system. A

specific band was detected for PRDX6 at approximately 29KD. The expected band size for PRDX6 is at 25KD.

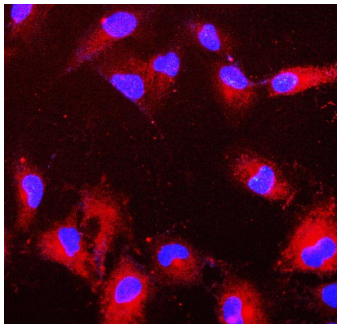


Figure 2. IF analysis of PRDX6 using anti-PRDX6 antibody (M01847-1).

PRDX6 was detected in immunocytochemical section of A549. 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 2ug/mL mouse anti-PRDX6 Antibody (M01847-1) overnight at 4°C. Cy3 Conjugated Goat Anti-Mouse IgG (BA1031) 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.

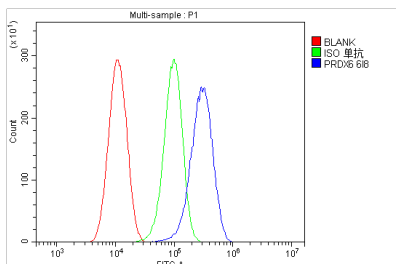


Figure 3. Flow Cytometry analysis of Hela cells using anti-PRDX6 antibody (M01847-1).

Overlay histogram showing Hela cells stained with M01847-1 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-PRDX6 Antibody (M01847-1, 1ug/1x10⁶ cells) for 30 min at 20°C.

DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

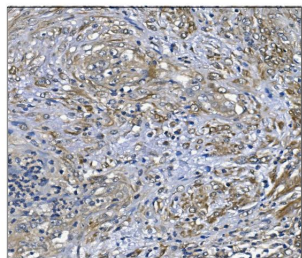


Figure 4. IHC analysis of PRDX6 using anti-PRDX6 antibody (M01847-1). PRDX6 was detected in paraffin-embedded section of human endometrial carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml mouse anti-PRDX6 Antibody (M01847-1) overnight at 4°C. Biotinylated goat anti-mouse 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 # SA1021) with DAB as the chromogen.

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