BOSTER BIOLOGICAL TECHNOLOGY
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Anti-peroxiredoxin 2/PRDX2 Antibody Picoband®

Catalog Number: A01982-2

About PRDX2

PRDX2(peroxiredoxin 2) also known as NKEFB, PRP, PRX2, PRXII or TPX1, is a?protein?that in humans is encoded by the?PRDX2?gene. This gene encodes a member of the peroxiredoxin family of antioxidant?enzymes, which reduce hydrogen peroxide and alkyl hydroperoxides.?The encoded protein may play an antioxidant protective role in cells, and may contribute to the antiviral activity of CD8(+) T-cells. This protein may have a proliferative effect and play a role in cancer development or progression. The?Prdx2?-/- mice were healthy in appearance and fertile. Choi et al.(2005)?demonstrated that?PRDX2?is a negative regulator of PDGF signaling. Prx II deficiency results in increased production of peroxide, enhanced activation of PDGF receptor and phospholipase C-gamma-1, and subsequently increased cell proliferation and migration in response to PDGF. PRX2 accounted for about half of the thioredoxin activity in parasite extracts, and PRX2 expression was increased in the presence of chloroquine, regardless of P. falciparum strain susceptibility to the drug.

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Overview

Product Name	Anti-peroxiredoxin 2/PRDX2 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-peroxiredoxin 2/PRDX2 Antibody Picoband® catalog # A01982-2. Tested in ELISA, WB, Flow Cytometry 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	ELISA, Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	P32119

Technical Details

BOSTER
antibody and ELISA experts

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Immunogen	E.coli-derived human peroxiredoxin 2/PRDX2 recombinant protein (Position: N5-R127).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
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 μg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10^6 cells, Human ELISA, 0.1-0.5 ug/ml, - Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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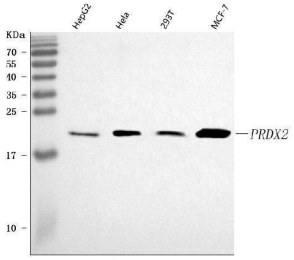
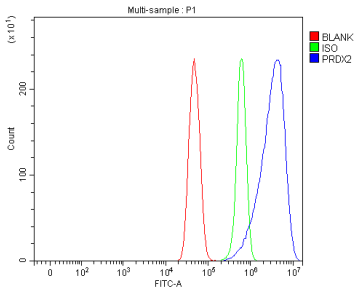
Anti-peroxiredoxin 2/PRDX2 Antibody Picoband® (A01982-2) Images



Western blot analysis of Peroxiredoxin 2/PRDX2 using anti-Peroxiredoxin 2/PRDX2 antibody (A01982-2). 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 HepG2 whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human 293T whole cell lysates, Lane 4: human MCF-7 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-Peroxiredoxin 2/PRDX2 antigen affinity purified polyclonal antibody (Catalog # A01982-2) 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 Peroxiredoxin 2/PRDX2 at approximately 22 kDa. The expected band size for Peroxiredoxin 2/PRDX2 is at 22 kDa.



Flow Cytometry analysis of U251 cells using anti-Peroxiredoxin 2/PRDX2 antibody (A01982-2). Overlay histogram showing U251 cells stained with A01982-2 (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-Peroxiredoxin 2/PRDX2 Antibody (A01982-2, 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 (Red line) was also used as a control.

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