Product datasheet

Anti-PRDX1 Antibody

Catalog Number: *PB9348*

BOSTER
antibody and ELISA experts
BOSTER BIOLOGICAL TECHNOLOGY
Building C21, 3rd to 5th Floors, Optics Valley Biopharmaceutical Accelerator,
East Lake High-Tech Development Zone, Wuhan.
Web: www.boster.com ***Phone:*** 027-67845390/1/2 ***Email:*** boster@boster.com

Basic Information

Product Name	Anti-PRDX1 Antibody
Gene Name	PRDX1
Source	Rabbit
Clonality	Polyclonal
Isotype	IgG
Species Reactivity	human, mouse, rat
Tested Application	WB, IHC, ICC/IF, FCM
Contents	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human Peroxiredoxin 1, different from the related mouse sequence by one amino acid, and identical to the related rat sequence.
Concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	22 kDa
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 Flow Cytometry (Fixed): 1:50-200 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.

Storage

12 months from date of receipt，-20℃ as supplied.

Background Information

PRDX1(Peroxiredoxin 1), also called PRX1, PAGA or NKEFA, is a thiol reductase that plays critical roles in oxidative and thermal stress defense mechanisms through its abilities to metabolize H2O2 and act as a molecular chaperone, respectively. This gene encodes a member of the peroxiredoxin family of antioxidant enzymes, which reduce hydrogen peroxide and alkyl hydroperoxides. The PRDX1 gene is mapped on 1p34.1. Prdx1 was expressed in differentiating motor neuron cells in developing embryonic chicken and mouse spinal cords. mmunoprecipitation analysis showed that GDE2 interacted directly with PRDX1 in embryonic chicken spinal cord extracts and in transfected HEK293T cells. This protein may have a proliferative effect and play a role in cancer development or progression. In differentiating spinal cord, Prdx1 was required to activate Gde2 by reducing an

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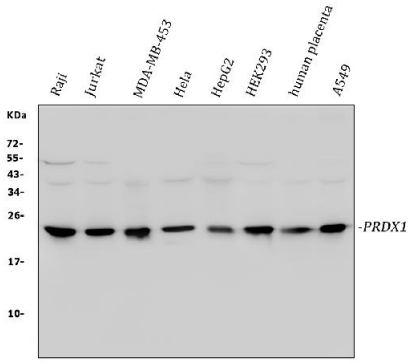
intramolecular cystine bridge between the Gde2 N- and C-terminal domains. An intramolecular disulfide bond between the GDE2 N- and C-terminal domains inhibits GDE2 function, and that reduction of this cystine by PRDX1 activates GDE2 for the induction of motor neuron differentiation.

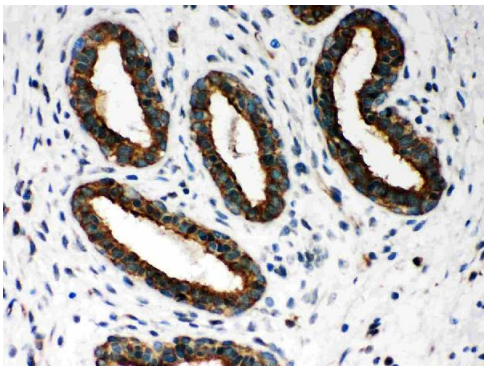
Reference

Anti-PRDX1 Antibody被引用在3文献中。

Selected Validation Data



Western blot analysis of anti-PRDX1 antibody (PB9348). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human Raji whole cell lysates,
Lane 2: human Jurkat whole cell lysates,
Lane 3: human MDA-MB-453 whole cell lysates,
Lane 4: human Hela whole cell lysates,
Lane 5: human HepG2 whole cell lysates,
Lane 6: human HEK293 whole cell lysates,
Lane 7: human placenta tissue lysates,
Lane 8: human A549 whole cell lysates.
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-PRDX1 antigen affinity purified polyclonal antibody (PB9348) and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for PRDX1 at approximately 24 kDa. The expected band size for PRDX1 is at 22 kDa.



IHC analysis of PRDX1 using anti-PRDX1 antibody (PB9348).
PRDX1 was detected in a paraffin-embedded section of human mammary cancer tissue. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.

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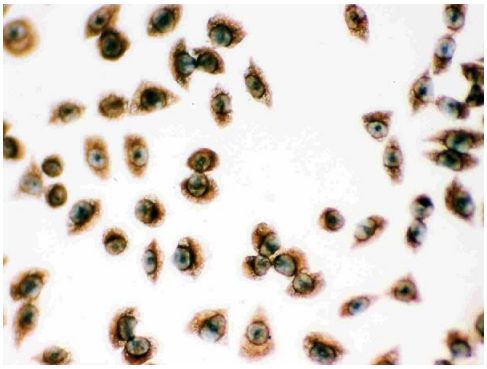
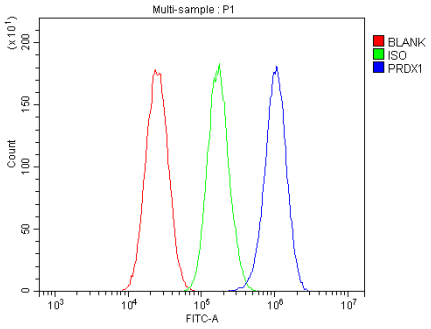


ICC analysis of PRDX1 using anti-PRDX1 antibody (PB9348).
PRDX1 was detected in an immunocytochemical section of SMMC-7721 cells. The section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.



Flow Cytometry analysis of HepG2 cells using anti-PRDX1 antibody (PB9348).
Overlay histogram showing HepG2 cells stained with PB9348 (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-PRDX1 Antibody (PB9348) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.