10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Peroxiredoxin 3 Antibody
Catalog # ABO11144

Specification

Anti-Peroxiredoxin 3 Antibody - Product Information

Application	**IHC, WB**
Primary Accession	P20108
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Thioredoxin-dependent peroxide reductase, mitochondrial(PRDX3) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Peroxiredoxin 3 Antibody - Additional Information

Gene ID 11757

Other Names
Thioredoxin-dependent peroxide reductase, mitochondrial, 1.11.1.15, Antioxidant protein 1, AOP-1, PRX III, Perioredoxin-3, Protein MER5, Prdx3, Aop1, Mer5

Calculated MW
28127 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, Mouse, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization
Mitochondrion .

Tissue Specificity
Housekeeping-type gene preferentially expressed in murine erythroleukemia (MEL) cells.

Protein Name
Thioredoxin-dependent peroxide reductase, mitochondrial

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of mouse Peroxiredoxin 3(240-257aa TIKPSPTASKEYFEKVHQ), identical to the related rat sequence, and different from the related human sequence by three amino acids.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Belongs to the AhpC/TSA family.

Anti-Peroxiredoxin 3 Antibody - Protein Information

Name Prdx3

Synonyms Aop1, Mer5

Function
Thiol-specific peroxidase that catalyzes the reduction of hydrogen peroxide and organic hydroperoxides to water and alcohols, respectively. Plays a role in cell protection against oxidative stress by detoxifying peroxides. Acts synergistically with MAP3K13 to regulate the activation of NF-kappa-B in the cytosol (By similarity). Required for the maintenance of physical strength (PubMed:27037278).

Cellular Location
Mitochondrion. Cytoplasm {ECO:0000250|UniProtKB:P30048}. Early endosome {ECO:0000250|UniProtKB:P30048}. Note=Localizes to early endosomes in a RPS6KC1-dependent manner. {ECO:0000250|UniProtKB:P30048}

Tissue Location
Housekeeping-type gene preferentially expressed in murine erythroleukemia (MEL) cells

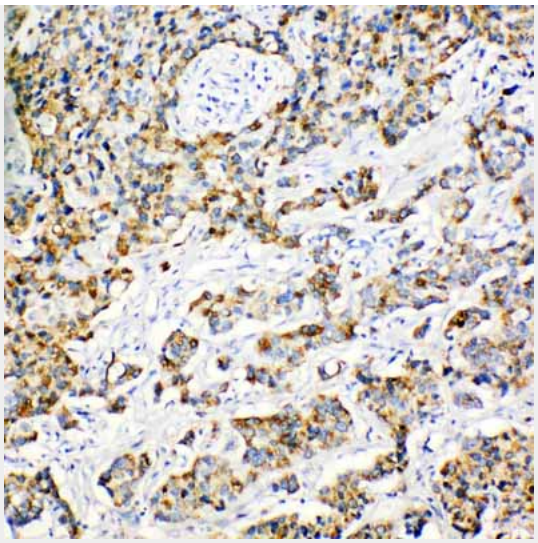
Anti-Peroxiredoxin 3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

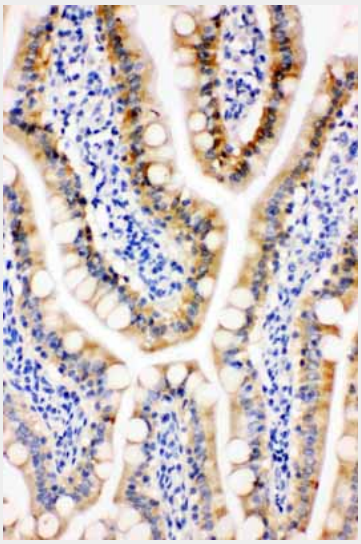
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Peroxiredoxin 3 Antibody - Images

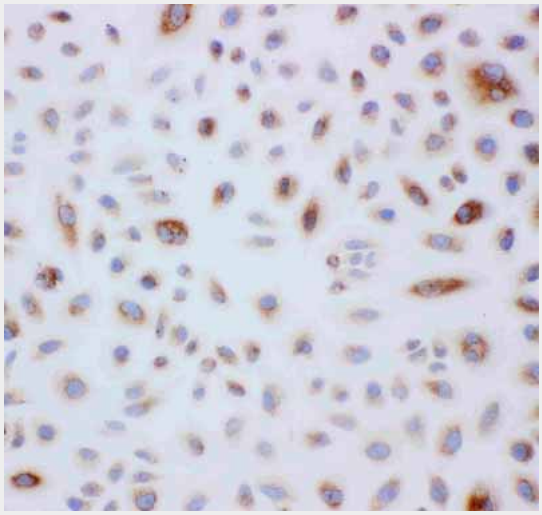
10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Anti-Peroxiredoxin 3 antibody, ABO11144, IHC(P)IHC(P): Human Mammary Cancer Tissue

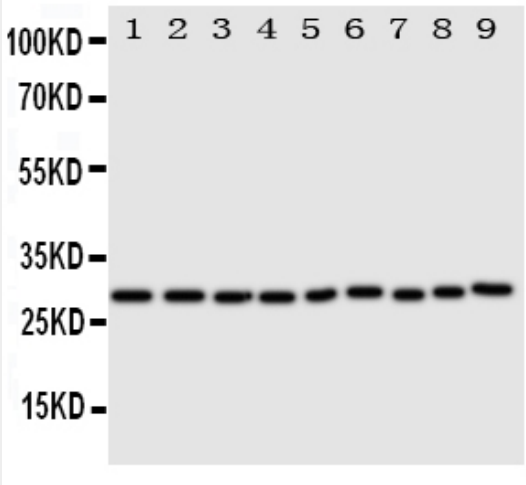


Anti-Peroxiredoxin 3 antibody, ABO11144, IHC(P)IHC(P): Rat Intestine Tissue



Anti-Peroxiredoxin 3 antibody, ABO11144, IHC(P)IHC(P): Rat Intestine Tissue

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Anti-Peroxiredoxin 3 antibody, ABO11144, Western blottingAll lanes: Anti Peroxiredoxin 3 (ABO11144) at 0.5ug/mlLane 1: Rat Brain Tissue Lysate at 50ugLane 2: Rat Lung Tissue Lysate at 50ugLane 3: Rat Kidney Tissue Lysate at 50ugLane 4: HELA Whole Cell Lysate at 40ugLane 5: JURKAT Whole Cell Lysate at 40ugLane 6: 293T Whole Cell Lysate at 40ugLane 7: MCF-7 Whole Cell Lysate at 40ugLane 8: A549 Whole Cell Lysate at 40ugLane 9: U20S Whole Cell Lysate at 40ugPredicted bind size: 28KDObserved bind size: 28KD

Anti-Peroxiredoxin 3 Antibody - Background

PRDX3(peroxiredoxin 3) also known as AOP-1, MER5, SP-22 or PRX3, is localized exclusively in mitochondria. The deduced 256-amino acid human AOP1 protein shares 86% amino acid sequence similarity with mouse Aop1, and significant similarity with both the human proliferation-associated gene A product and the mouse stress-induced peritoneal macrophage protein Msp23.Â The PRDX3 gene is mapped on 10q26.11. Expression ofÂ PRDX3Â is induced by MYC and is reduced in c-myc -/- cells. Chromatin immunoprecipitation analysis spanning the entireÂ PRDX3Â genomic sequence revealed that MYC binds preferentially to a 930-bp region surrounding exon 1. Results using mitochondria-specific fluorescent probes demonstrated thatÂ PRDX3Â is essential for maintaining mitochondrial mass and membrane potential in transformed rat and human cells. These data provided evidence thatÂ PRDX3Â is a MYC target gene that is required to maintain normal mitochondrial function.