

Datasheet for ABIN3043904
anti-Peroxiredoxin 3 antibody (AA 110-256)

5 Images

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Overview

Quantity:	100 µg
Target:	Peroxiredoxin 3 (PRDX3)
Binding Specificity:	AA 110-256
Reactivity:	Human, Rat, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Purpose:	Rabbit IgG polyclonal antibody for Thioredoxin-dependent peroxide reductase, mitochondrial(PRDX3) detection. Tested with WB, IHC-P in Human,Mouse,Rat.
Immunogen:	E.coli-derived human Peroxiredoxin 3 recombinant protein (Position: T110-Q256). Human Peroxiredoxin 3 shares 93% amino acid (aa) sequence identity with both mouse and rat Peroxiredoxin 3.
Isotype:	IgG
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	<p>Rabbit IgG polyclonal antibody for Thioredoxin-dependent peroxide reductase, mitochondrial(PRDX3) detection. Tested with WB, IHC-P in Human,Mouse,Rat.</p> <p>Gene Name: peroxiredoxin 3</p> <p>Protein Name: Thioredoxin-dependent peroxide reductase, mitochondrial</p>
Purification:	Immunogen affinity purified.

Target Details

Target:	Peroxiredoxin 3 (PRDX3)
Alternative Name:	PRDX3 (PRDX3 Products)
Background:	<p>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. The PRDX3 gene is mapped on 10q26.11. Expression of PRDX3 is induced by MYC and is reduced in c-myc ^{-/-} cells. Chromatin immunoprecipitation analysis spanning the entire PRDX3 genomic sequence revealed that MYC binds preferentially to a 930-bp region surrounding exon 1. Results using mitochondria-specific fluorescent probes demonstrated that PRDX3 is essential for maintaining mitochondrial mass and membrane potential in transformed rat and human cells. These data provided evidence that PRDX3 is a MYC target gene that is required to maintain normal mitochondrial function.</p> <p>Synonyms: Antioxidant Protein 1 antibody AOP 1 antibody AOP-1 antibody AOP1 antibody HBC189 antibody MER 5 antibody MER5 antibody MGC104387 antibody MGC24293 antibody mitochondrial antibody Mitochondrial thioredoxin dependent peroxide reductase antibody peroxiredoxin 3 antibody Peroxiredoxin III antibody Peroxiredoxin-3 antibody Peroxiredoxin3 antibody PRDX 3 antibody PRDX3 antibody PRDX3_HUMAN antibody PRO1748 antibody Protein MER5 homolog antibody PRX III antibody Prx-III antibody PRX3 antibody SP 22 antibody SP-22 antibody SP22 antibody Thioredoxin dependent peroxide reductase mitochondrial antibody Thioredoxin dependent peroxide reductase precursor antibody Thioredoxin-dependent peroxide reductase antibody</p>
Gene ID:	10935
UniProt:	P30048
Pathways:	Ribonucleoside Biosynthetic Process , Methionine Biosynthetic Process

Application Details

Application Notes:	<p>WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Human, Mouse, Rat, The detection limit for Peroxiredoxin 3 is approximately 0.1 ng/lane under reducing conditions.</p> <p>IHC-P: Concentration: 0.5-1 µg/mL, Tested Species: Human, Epitope Retrieval by Heat: Boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections.</p>
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Application Details

Notes: Tested Species: Species with positive results. Other applications have not been tested.
Optimal dilutions should be determined by end users.

Comment: Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na₂HPO₄, 0.05 mg Sodium azide.

Preservative: Sodium azide

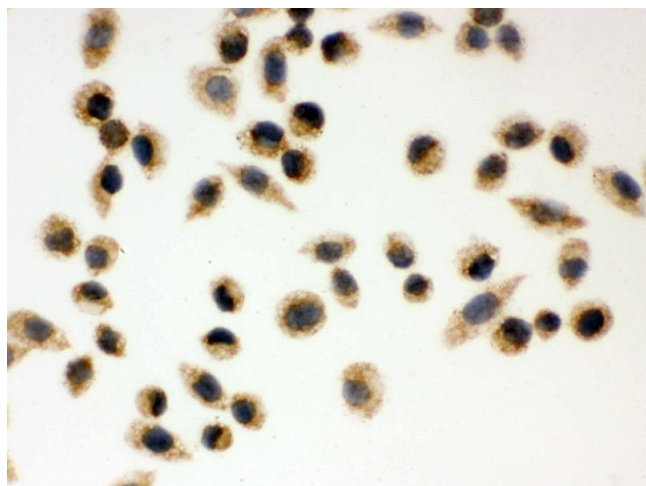
Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling Advice: Avoid repeated freezing and thawing.

Storage: 4 °C/-20 °C

Storage Comment: At -20°C for one year. After reconstitution, 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.

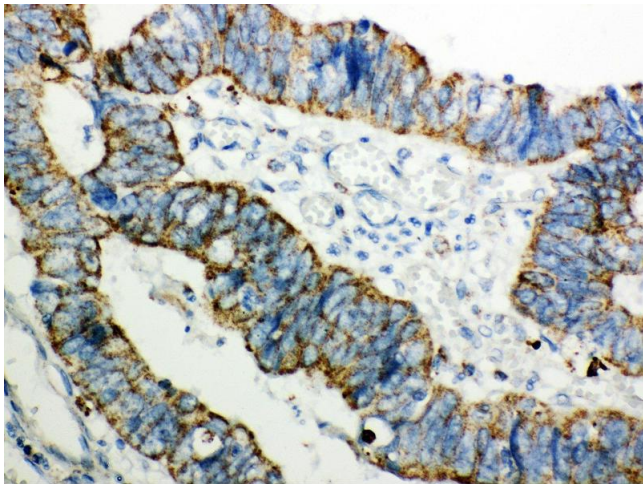
Images



Immunohistochemistry

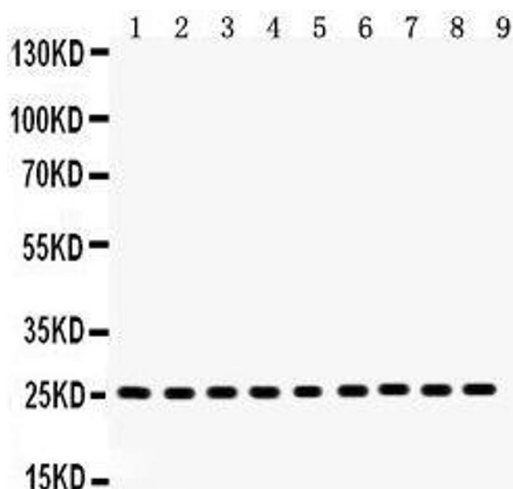
Image 1. IHC analysis of Peroxiredoxin 3 using anti-Peroxiredoxin 3 antibody. Peroxiredoxin 3 was detected in immunocytochemical section of SMMC-7721 cell. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-Peroxiredoxin 3 Antibody 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.



Immunohistochemistry

Image 2. Anti- Peroxiredoxin 3 Picoband antibody,IHC(P)
IHC(P): Human Intestinal Cancer Tissue



Western Blotting

Image 3. Anti- Peroxiredoxin 3 Picoband antibody, Western blotting All lanes: Anti Peroxiredoxin 3 at 0.5ug/ml Lane 1: Rat Brain Tissue Lysate at 50ug Lane 2: Mouse Brain Tissue Lysate at 50ug Lane 3: Rat Skeletal Muscle Tissue Lysate at 50ug Lane 4: Mouse Skeletal Muscle Tissue Lysate at 50ug Lane 5: U20S Whole Cell Lysate at 40ug Lane 6: HELA Whole Cell Lysate at 40ug Lane 7: SMMC Whole Cell Lysate at 40ug Lane 8: RH35 Whole Cell Lysate at 40ug Lane 9: A549 Whole Cell Lysate at 40ug Predicted bind size: 25KD Observed bind size: 25KD

Please check the [product details page](#) for more images. Overall 5 images are available for ABIN3043904.