

Peroxiredoxin 3 Polyclonal Antibody | anti-PRDX3 antibody

Anti-Peroxiredoxin 3 Antibody

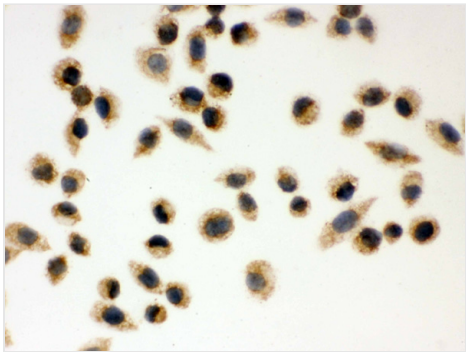
CATALOG # AAA46424	REACTIVITY Human, Mouse, Rat	APPLICATIONS Immunohistochemistry, Western Blot
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PRODUCT SYNONYMS

Peroxiredoxin 3; Polyclonal Antibody; Anti-Peroxiredoxin 3 Antibody; Thioredoxin-dependent peroxide reductase; Antioxidant Protein 1; AOP 1; AOP-1; AOP1; HBC189; MER 5; MER5; MGC104387; MGC24293; mitochondrial; Mitochondrial thioredoxin dependent peroxide reductase; peroxiredoxin 3; Peroxiredoxin III; Peroxiredoxin-3; Peroxiredoxin3; PRDX 3; PRDX3; PRDX3_HUMAN; PRO1748; Protein MER5 homolog; PRX III; Prx-III; PRX3; SP 22; SP-22; SP22; Thioredoxin dependent peroxide reductase mitochondrial; Thioredoxin dependent peroxide reductase precursor; anti-PRDX3 antibody

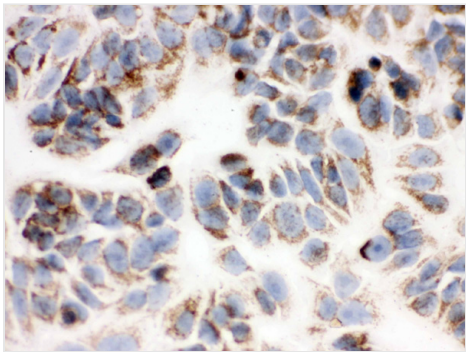
PRODUCT SPECIFICATIONS

Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Purity/Purification	Immunogen Affinity Purified
Form/Format	Lyophilized. Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Sequence Length	198
Applicable Applications for anti-PRDX3 antibody	IHC (Immunohistochemistry), WB (Western Blot)
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.
Ig Type	Rabbit IgG
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Preparation and Storage	At -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquoted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



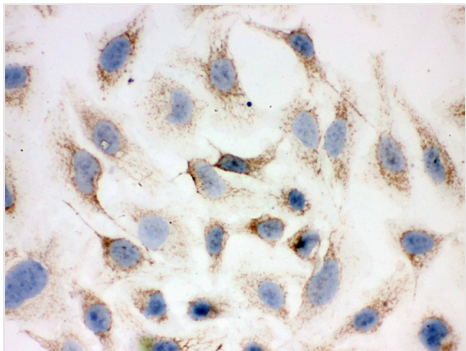
ICC (Immunocytochemistry)

Figure 5. IHC analysis of Peroxiredoxin 3 using anti-Peroxiredoxin 3 antibody (AAA46424).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 1ug/ml rabbit anti-Peroxiredoxin 3 Antibody (AAA46424) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



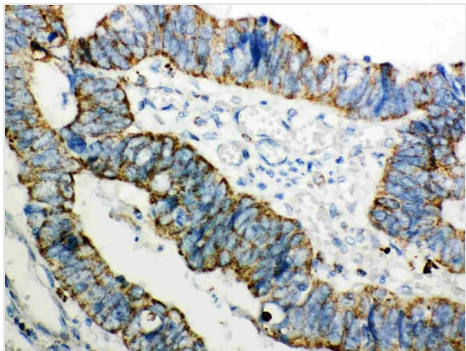
IHC (Immunohistochemistry)

Figure 4. IHC analysis of Peroxiredoxin 3 using anti-Peroxiredoxin 3 antibody (AAA46424).Peroxiredoxin 3 was detected in immunocytochemical section of MCF-7 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 1ug/ml rabbit anti-Peroxiredoxin 3 Antibody (AAA46424) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



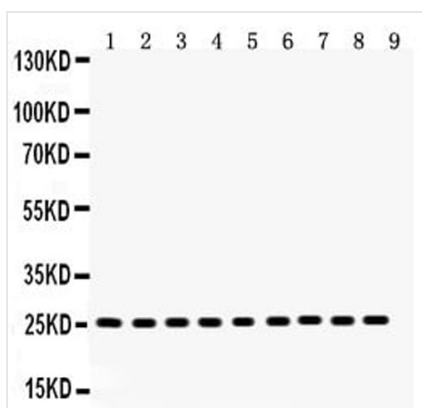
IHC (Immunohistochemistry)

Figure 3. IHC analysis of Peroxiredoxin 3 using anti-Peroxiredoxin 3 antibody (AAA46424).Peroxiredoxin 3 was detected in immunocytochemical section of Hela 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 1ug/ml rabbit anti-Peroxiredoxin 3 Antibody (AAA46424) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of Peroxiredoxin 3 using anti-Peroxiredoxin 3 antibody (AAA46424).Peroxiredoxin 3 was detected in paraffin-embedded section of Human Intestinal Cancer Tissue. 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 1ug/ml rabbit anti-Peroxiredoxin 3 Antibody (AAA46424) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of Peroxiredoxin 3 using anti-Peroxiredoxin 3 antibody (AAA46424). 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: Rat Brain Tissue Lysate, Lane 2: Mouse Brain Tissue Lysate, Lane 3: Rat Skeletal Muscle Tissue Lysate, Lane 4: Mouse Skeletal Muscle Tissue Lysate, Lane 5: U2OS Whole Cell Lysate, Lane 6: HELA Whole Cell Lysate, Lane 7: SMMC Whole Cell Lysate, Lane 8: RH35 Whole Cell Lysate, Lane 9: A549 Whole Cell Lysate. 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 rabbit anti-Peroxiredoxin 3 antigen affinity purified polyclonal antibody at 0.5ug/mL overnight at 4 degree 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 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for Peroxiredoxin 3 at approximately 25KD. The expected band size for Peroxiredoxin 3 is at 25KD.

ADDITIONAL INFORMATION

Related Product Information for anti-PRDX3 antibody	Description: Rabbit IgG polyclonal antibody for Thioredoxin-dependent peroxide reductase, mitochondrial (PRDX3) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
	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. 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.
References	1. Chiribau, C. B., Cheng, L., Cucoranu, I. C., Yu, Y.-S., Clempus, R. E., Sorescu, D. FOXO3A regulates peroxiredoxin III expression in human cardiac fibroblasts. J. Biol. Chem. 283: 8211-8217, 2008. 2. Nemoto, Y., Yamamoto, T., Takada, S., Matsui, Y., Obinata, M. Antisense RNA of the latent period gene (MER5) inhibits the differentiation of murine erythroleukemia cells. Gene 91: 261-265, 1990. 3. Wonsey, D. R., Zeller, K. I., Dang, C. V. The c-Myc target gene PRDX3 is required for mitochondrial homeostasis and neoplastic transformation. Proc. Nat. Acad. Sci. 99: 6649-6654, 2002.

NCBI AND UNIPROT INFORMATION

NCBI GI #	695917253
NCBI GeneID	10935
NCBI Accession #	NP_001289201.1
NCBI GenBank Nucleotide #	NM_001302272.1
UniProt Accession #	P30048 ; P35690 ; Q0D2H1 ; Q13776 ; Q5T5V2 ; Q96HK4 ; B2R7Z0 ; D3DRC9 ; E9PH29

Molecular Weight	25,839 Da
NCBI Official Full Name	thioredoxin-dependent peroxide reductase, mitochondrial isoform c
NCBI Official Synonym Full Names	peroxiredoxin 3
NCBI Official Symbol	PRDX3
NCBI Official Synonym Symbols	AOP1; MER5; AOP-1; SP-22; HBC189; PRO1748; prx-III
NCBI Protein Information	thioredoxin-dependent peroxide reductase, mitochondrial
UniProt Protein Name	Thioredoxin-dependent peroxide reductase, mitochondrial
UniProt Gene Name	PRDX3
UniProt Synonym Gene Names	AOP1; AOP-1; Prx-III
UniProt Entry Name	PRDX3_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/polyclonal/peroxiredoxin-3-antibody-immunohistochemistry-western-blot-elisa/46424>