Anti-PRDX3 Antibody (Clone#ACEG-16)

Catalog Number: *BM5274*

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Basic Information

Product Name	Anti-PRDX3 Antibody (Clone#ACEG-16)
Gene Name	PRDX3
Source	Rabbit
Clonality	Monoclonal
Isotype	IgG
Species Reactivity	human
Tested Application	WB, IHC, ICC/IF, IP, FCM
Contents	500 ug/ml; Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide, 0.4-0.5 mg/ml BSA and 50% glycerol.
Immunogen	A synthesized peptide derived from human Peroxiredoxin 3 Involved in redox regulation of the cell. Protects radical-sensitive enzymes from oxidative damage by a radical-generating system. Acts synergistically with MAP3K13 to regulate the activation of NF-kappa-B in the cytosol.
Concentration	500 ug/ml
Purification	Affinity-chromatography
Observed MW	26 kDa
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-200 Immunocytochemistry/Immunofluorescence (ICC/IF):1:50-200 ImmunoPrecipitation (IP): 1:20 Flow Cytometry (FCM): 1:20

Storage

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

Background Information

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

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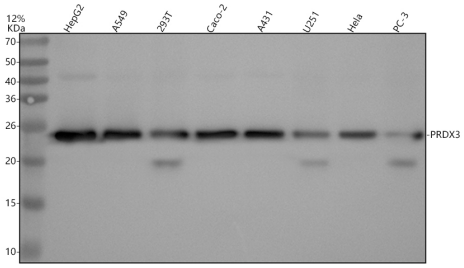
MYC and is reduced in c-myc -/- cells. Chromatin immunoprecipitation analysis spanning the entire PRDX3 genomic sequence revealed that MYC binds preferentially to a 930-bp region surrounding exon 1. Results using mitochondria-specific fluorescent probes demonstrated that PRDX3 is essential for maintaining 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.

Selected Validation Data



Western blot analysis of anti-PRDX3 antibody (BM5274). 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 A549 whole cell lysates,
Lane 3: human 293T whole cell lysates,
Lane 4: human Caco-2 whole cell lysates,
Lane 5: human A431 whole cell lysates,
Lane 6: human U251 whole cell lysates,
Lane 7: human Hela whole cell lysates,
Lane 8: human PC-3 whole cell lysates.
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-PRDX3 antigen affinity purified monoclonal antibody (BM5274) at a dilution of 1:1000 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 PRDX3 at approximately 24 kDa. The expected band size for PRDX3 is at 28 kDa.