

Anti-Peroxiredoxin 4 Antibody

Catalog # ABO11145

Product Information

Application	WB
Primary Accession	Q13162
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Peroxiredoxin-4(PRDX4) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	10549
Other Names	Peroxiredoxin-4, 1.11.1.15, Antioxidant enzyme AOE372, AOE37-2, Peroxiredoxin IV, Prx-IV, Thioredoxin peroxidase AO372, Thioredoxin-dependent peroxide reductase A0372, PRDX4
Calculated MW	30540
Application Details	Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse
Subcellular Localization	Cytoplasm . Secreted .
Source	Eukaryota
Protein Name	Peroxiredoxin-4
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 human Peroxiredoxin 4(253-271aa SETIIPDPAGKLKYFDKLN), identical to the related mouse and rat sequences.
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.

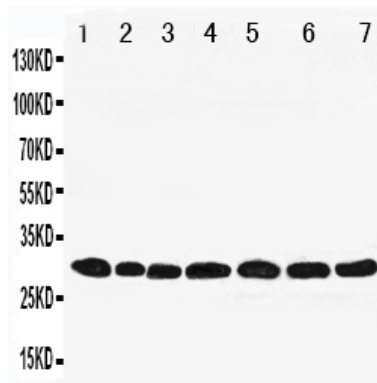
Protein Information

Name	PRDX4
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 and as sensor of hydrogen peroxide-mediated signaling events. Regulates the activation of NF-kappa-B in the cytosol by a modulation of I-kappa-B-alpha phosphorylation.
Cellular Location	Cytoplasm. Endoplasmic reticulum. Note=Cotranslationally translocated to and retained within the endoplasmic reticulum. A small fraction of the protein is cytoplasmic.

Background

PRDX4(peroxiredoxin 4) also known as AOE37-2. The protein encoded by this gene is an antioxidant enzyme and belongs to the peroxiredoxin family. Functional analysis showed that $\square$ PRDX4 $\square$ protects glutamine synthetase from inactivation. Yeast 2-hybrid, immunoprecipitation, and immunoblot analyses indicated that $\square$ PRDX4 $\square$ and PRDX1 are capable of homodimerization and heterodimerization with each other but not with the mitochondrial PRDX3. Gel mobility shift and immunoblot analysis found that $\square$ PRDX4 $\square$ depletes NFkB binding activity together with a reduction in the amounts of p50, p65, and phosphorylated IKBA, as well as a reduction in the expression of HIV-1 viral proteins. Expression of $\square$ PRDX4, alone or with PRDX1, increased the resistance of yeast cells to oxidant-induced toxicity. $\square$ Jin et al.(1997)suggested $\square$ PRDX4 $\square$ modulates IKBA phosphorylation in the cytoplasm and thus affects a peroxiredoxin-dependent redox step.

Images



Anti-Peroxiredoxin 4 antibody, ABO11145, Western blotting
Lane 1: Rat Brain Tissue Lysate
Lane 2: Rat Lung Tissue Lysate
Lane 3: Rat Liver Tissue Lysate
Lane 4: Rat Kidney Tissue Lysate
Lane 5: HELA Cell Lysate
Lane 6: 293T Cell Lysate
Lane 7: MCF-7 Cell Lysate

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.