

Anti-Peroxiredoxin 4 Picoband Antibody

Catalog # ABO12074

Product Information

Application	WB, IHC-P, ICC
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, IHC-P, ICC 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	Immunocytochemistry , 0.5-1 μ g/ml, Human, - Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 μ g/ml, Human, Mouse, Rat
Subcellular Localization	Cytoplasm . Secreted .
Source	Eukaryota
Protein Name	Peroxiredoxin-4
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Peroxiredoxin 4 (178-2081aa SDLTHQISKDYGVYLED SGHTLRGLFIIDDK), different from the related mouse and rat sequences by one amino acid.
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

Sequence Similarities

be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated freezing and thawing.
Belongs to the AhpC/TSA family.

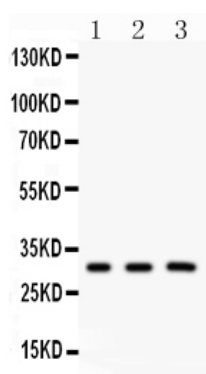
Protein Information

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

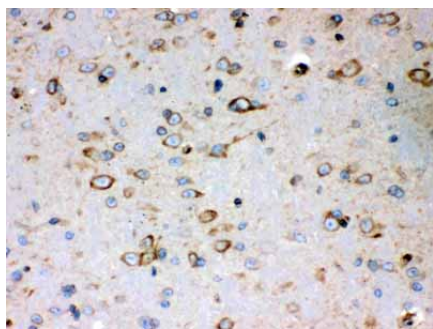
PRDX4 (peroxiredoxin 4) is also known as AOE37-2. The protein encoded by this gene is an antioxidant enzyme and belongs to the peroxiredoxin family. Functional analysis showed that PRDX4 protects glutamine synthetase from inactivation. Yeast 2-hybrid, immunoprecipitation, and immunoblot analyses indicated that PRDX4 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 PRDX4 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 PRDX4, alone or with PRDX1, increased the resistance of yeast cells to oxidant-induced toxicity. Jin et al. suggested PRDX4 modulates IKBA phosphorylation in the cytoplasm and thus affects a peroxiredoxin-dependent redox step.

Images

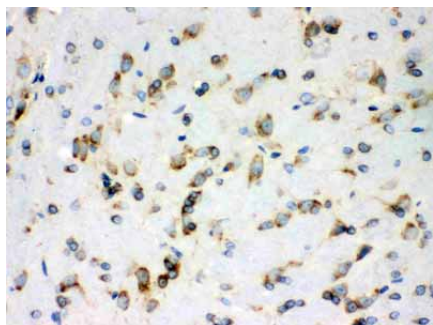


Anti- Peroxiredoxin 4 Picoband antibody, ABO12074,
Western blottingAll lanes: Anti Peroxiredoxin 4
(ABO12074) at 0.5ug/mlLane 1: Rat Brain Tissue Lysate at
50ugLane 2: Mouse Brain Tissue Lysate at 50ugLane 3:
HELA Whole Cell Lysate at 40ugPredicted bind size:
31KDObserved bind size: 31KD

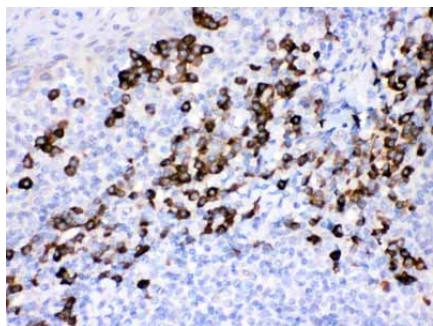
Anti- Peroxiredoxin 4 Picoband antibody, ABO12074,
IHC(P)IHC(P): Mouse Brain Tissue



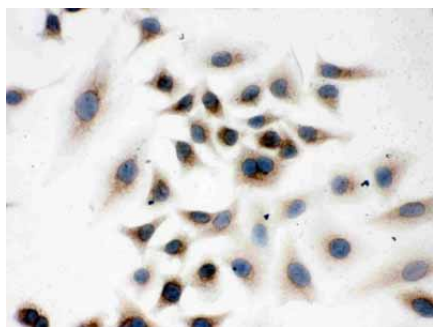
Anti- Peroxiredoxin 4 Picoband antibody, ABO12074,
IHC(P)IHC(P): Rat Brain Tissue



Anti- Peroxiredoxin 4 Picoband antibody, ABO12074,
IHC(P)IHC(P): Human Tonsil Tissue



Anti- Peroxiredoxin 4 Picoband antibody, ABO12074,
ICCICC: A549 Cell



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