

**Anti-Peroxiredoxin 5 Antibody**  
**Catalog # ABO11146****Specification**

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**Anti-Peroxiredoxin 5 Antibody - Product Information**

Application	WB, IHC-P
Primary Accession	<a href="#">P30044</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Peroxiredoxin-5, mitochondrial (PRDX5) detection. Tested with WB, IHC-P in Human; Mouse; Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-Peroxiredoxin 5 Antibody - Additional Information**

**Gene ID** 25824

**Other Names**

Peroxiredoxin-5, mitochondrial, 1.11.1.15, Alu corepressor 1, Antioxidant enzyme B166, AOEB166, Liver tissue 2D-page spot 71B, PLP, Peroxiredoxin V, Prx-V, Peroxisomal antioxidant enzyme, TPx type VI, Thioredoxin peroxidase PMP20, Thioredoxin reductase, PRDX5, ACR1

**Calculated MW**

22086 MW KDa

**Application Details**

Immunohistochemistry (Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, Mouse, By Heat<br>Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse<br>

**Subcellular Localization**

Isoform Mitochondrial: Mitochondrion.

**Tissue Specificity**

Widely expressed. .

**Protein Name**

Peroxiredoxin-5, mitochondrial

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human Peroxiredoxin 5 (166-181aa DDSLVSIFGNRRRLKRF), 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 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.

**Sequence Similarities**

Belongs to the peroxiredoxin 2 family.

**Anti-Peroxiredoxin 5 Antibody - Protein Information**

**Name** PRDX5 ([HGNC:9355](#))

**Synonyms** ACR1

**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.

**Cellular Location**

[Isoform Mitochondrial]: Mitochondrion

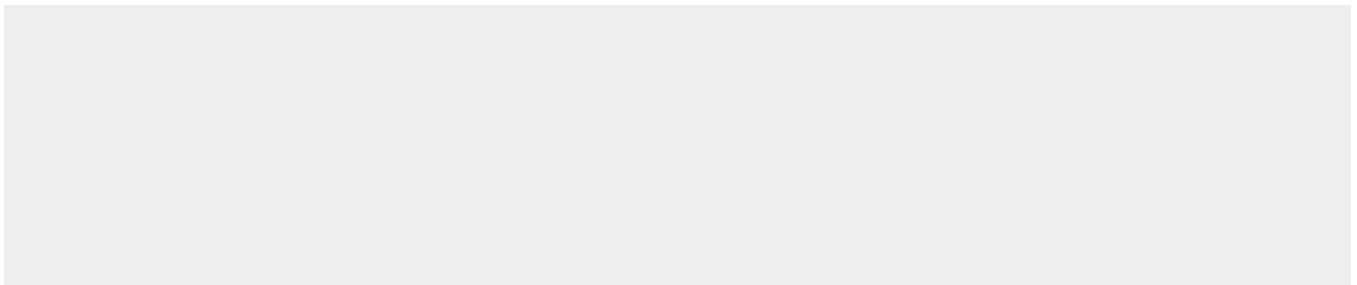
**Tissue Location**

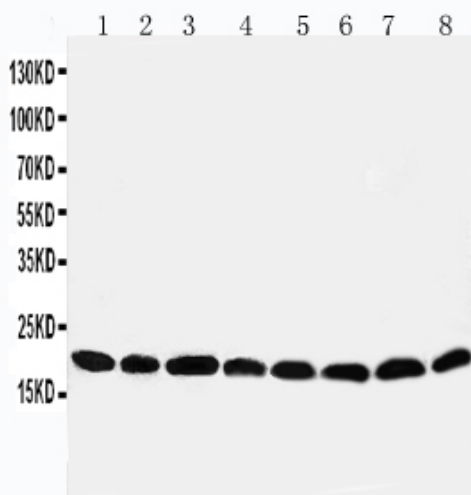
Widely expressed..

**Anti-Peroxiredoxin 5 Antibody - Protocols**

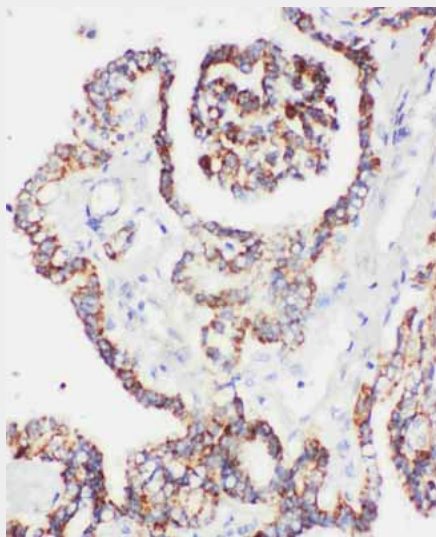
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

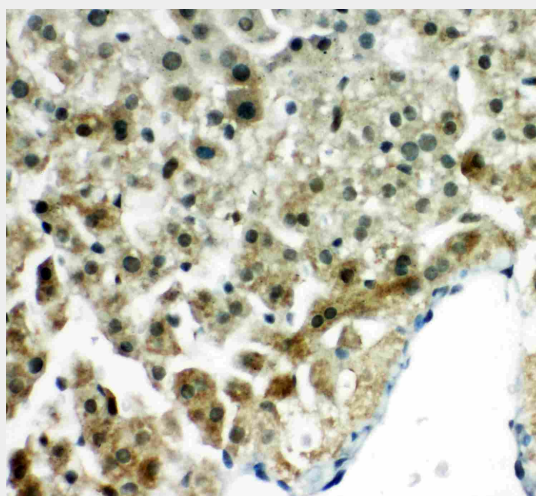
**Anti-Peroxiredoxin 5 Antibody - Images**



Anti-Peroxiredoxin 5 antibody, ABO11146, 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  
Lane 8: A549 Cell Lysate



Anti-Peroxiredoxin 5 antibody, ABO11146, IHC(P)  
IHC(P): Human Prostatic Cancer Tissue



Anti-Peroxiredoxin 5 antibody, ABO11146, IHC(P)  
IHC(P): Rat Liver Tissue

## **Anti-Peroxiredoxin 5 Antibody - Background**

PRDX5(peroxiredoxin 5) also known as AOEB166, ACR1,B166, MGC117264, MGC142283, MGC142285, PLP, PMP20, PRDX6, PRXV, SBB110, is a member of the peroxiredoxin family and may play an antioxidant protective role in various tissues under nonpathologic conditions and during inflammatory processes. The PRDX5 gene is mapped on 11q13.1. PRDX5 displays mitochondrial presequence features and has 3 cysteines implicated in antioxidant activity and a C-terminal SQL peroxisomal targeting sequence. Northern blot analysis revealed ubiquitous expression of a 1.0-kb PRDX5 transcript in tissues and cell lines. Functional analysis showed that PRDX5 has antioxidant activity equivalent to that of CAT. While PRDX5 was localized to fibroblasts in normal tendon, it was localized to fibroblasts and endothelial cells in degenerative tendon. PRDX5 mRNA and protein levels increased at 12 hours, and the increase in PRDX5 expression correlated with reduced peroxide levels. PRDX5 plays a protective role against oxidative stress in human cartilage.