

Anti-Peroxiredoxin 5 Antibody
Catalog # ABO11146

Specification

Anti-Peroxiredoxin 5 Antibody - Product Information

Application	WB, IHC
Primary Accession	P30044
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
Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

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 Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

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

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

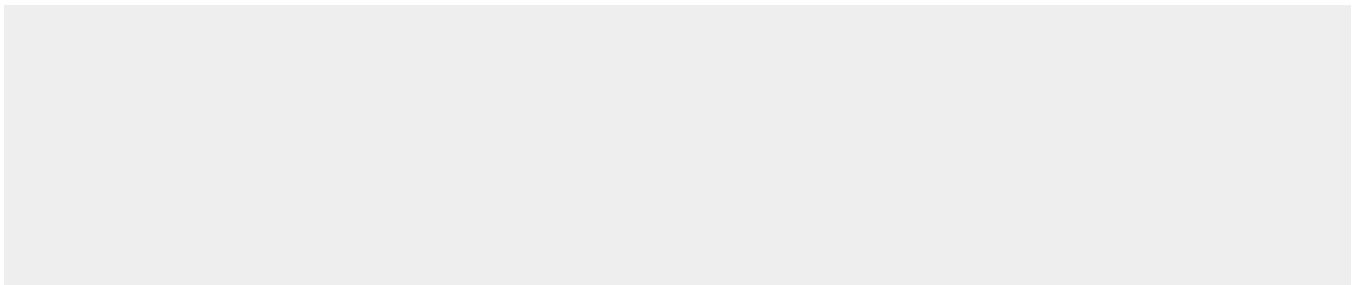
Tissue Location

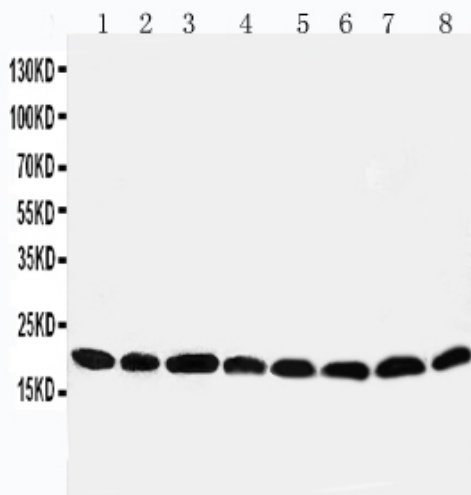
Widely expressed..

Anti-Peroxiredoxin 5 Antibody - Protocols

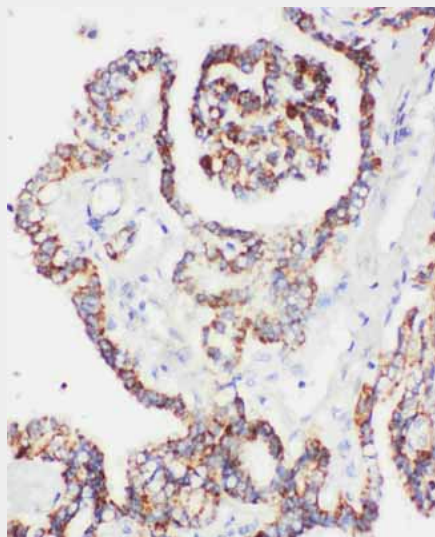
Provided below are standard protocols that you may find useful for product applications.

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

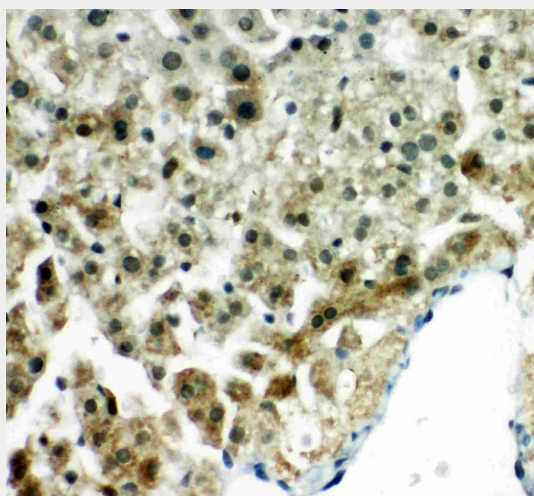
Anti-Peroxiredoxin 5 Antibody - Images



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.