

Anti-GPX1 Picoband Antibody
Catalog # ABO11894**Specification**

Anti-GPX1 Picoband Antibody - Product Information

Application	WB, IHC-P
Primary Accession	P07203
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Glutathione peroxidase 1(GPX1) 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-GPX1 Picoband Antibody - Additional Information

Gene ID 2876

Other Names

Glutathione peroxidase 1, GPx-1, GSHPx-1, 1.11.1.9, Cellular glutathione peroxidase, GPX1

Calculated MW

22088 MW KDa

Application Details

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

Subcellular Localization

Cytoplasm.

Protein Name

Glutathione peroxidase 1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence in the middle region of human GPX1(116-146aa EVNGAGAHPLFAFLREALPAPSDDATALMTD), different from the related mouse sequence by six amino acids and from the related rat sequence by five amino acids.

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 glutathione peroxidase family.

Anti-GPX1 Picoband Antibody - Protein Information

Name GPX1 ([HGNC:4553](#))

Function

Catalyzes the reduction of hydroperoxides in a glutathione- dependent manner thus regulating cellular redox homeostasis (PubMed: [11115402](http://www.uniprot.org/citations/11115402), PubMed: [36608588](http://www.uniprot.org/citations/36608588)). Can reduce small soluble hydroperoxides such as H₂O₂, cumene hydroperoxide and tert-butyl hydroperoxide, as well as several fatty acid-derived hydroperoxides (PubMed: [11115402](http://www.uniprot.org/citations/11115402), PubMed: [36608588](http://www.uniprot.org/citations/36608588)). In platelets catalyzes the reduction of 12-hydroperoxyeicosatetraenoic acid, the primary product of the arachidonate 12-lipoxygenase pathway (PubMed: [11115402](http://www.uniprot.org/citations/11115402)).

Cellular Location

Cytoplasm {ECO:0000250|UniProtKB:P11352}. Mitochondrion {ECO:0000250|UniProtKB:P11352}

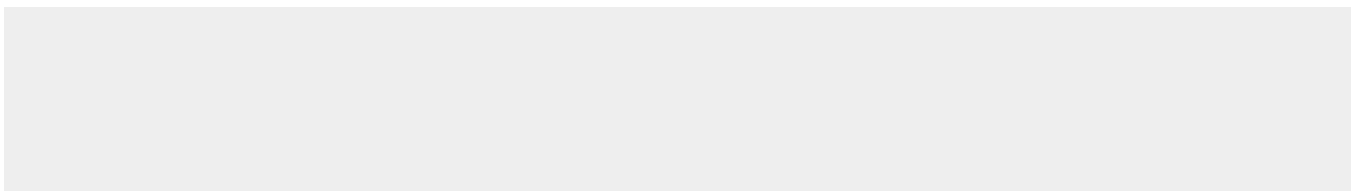
Tissue Location

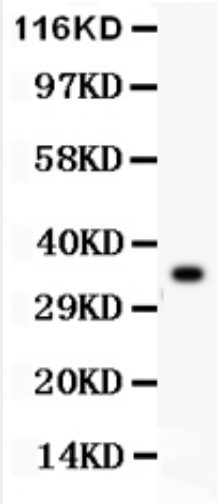
Expressed in platelets (at protein level).

Anti-GPX1 Picoband Antibody - Protocols

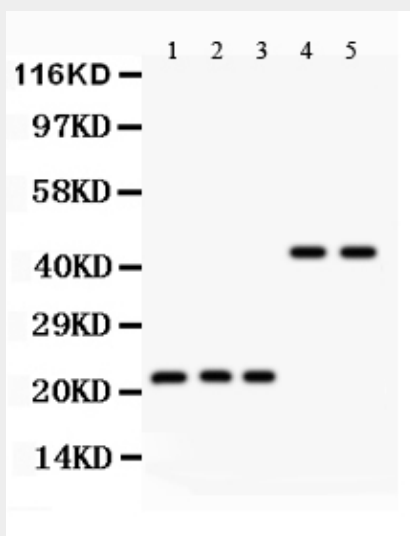
Provided below are standard protocols that you may find useful for product applications.

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

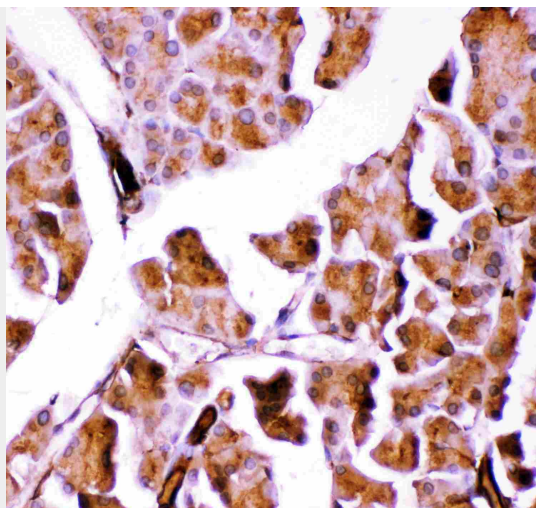
Anti-GPX1 Picoband Antibody - Images



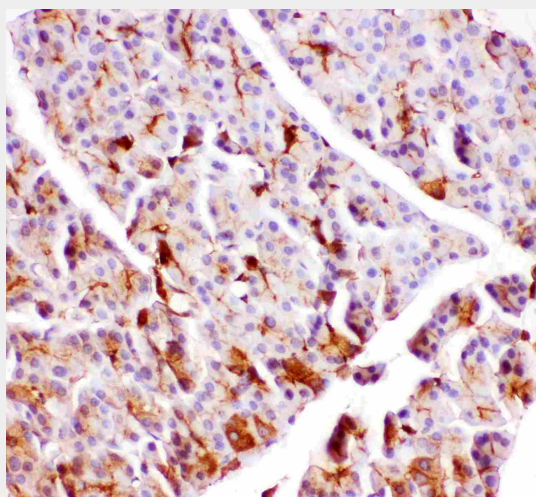
Anti- GPX1 antibody, ABO11894, Western blotting All lanes: Anti GPX1 (ABO11894) at 0.5ug/ml WB: Recombinant Human GPX1 Protein 0.5ng Predicted bind size: 36KD Observed bind size: 36KD



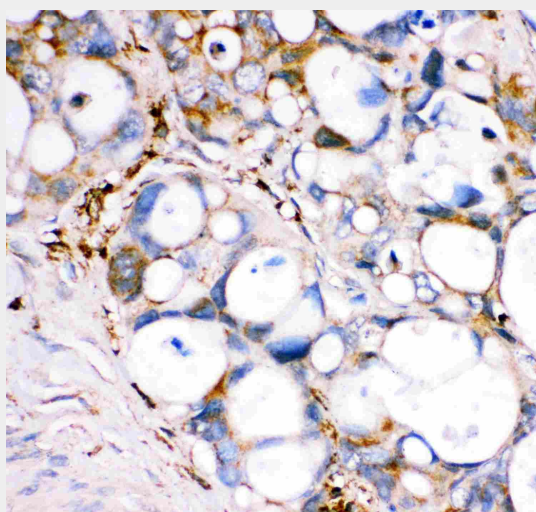
Anti- GPX1 antibody, ABO11894, Western blotting All lanes: Anti GPX1 (ABO11894) at 0.5ug/ml Lane 1: Rat Kidney Tissue Lysate at 50ug Lane 2: Mouse Kidney Tissue Lysate at 50ug Lane 3: Rat Spleen Tissue Lysate at 50ug Lane 4: HELA Whole Cell Lysate at 40ug Lane 5: JURKAT Whole Cell Lysate at 40ug Predicted bind size: 22,44KD Observed bind size: 22,44KD



Anti- GPX1 antibody, ABO11894, IHC(P)IHC(P): Mouse Pancreas Tissue



Anti- GPX1 antibody, ABO11894, IHC(P)IHC(P): Rat Pancreas Tissue



Anti- GPX1 antibody, ABO11894, IHC(P)IHC(P): Human Intestinal Cancer Tissue

Anti-GPX1 Picoband Antibody - Background

Glutathione peroxidase 1, also known as, GPX-1 is an enzyme that in humans is encoded by the

GPX1 gene. It is mapped to 3p21.31. This gene encodes a member of the glutathione peroxidase family, consisting of eight known glutathione peroxidases (Gpx1-8) in humans. Glutathione peroxidase functions in the detoxification of hydrogen peroxide, and is one of the most important antioxidant enzymes in humans. It has been reported that the protein encoded by this gene protects from CD95-induced apoptosis in cultured breast cancer cells and inhibits 5-lipoxygenase in blood cells, and its overexpression delays endothelial cell growth and increases resistance to toxic challenges. GPX1 is one of only a few proteins known in higher vertebrates to contain selenocysteine, which occurs at the active site of glutathione peroxidase and is coded by the nonsense (stop) codon TGA.