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Anti-GPX1 Picoband Antibody

Catalog # ABO11894

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.

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
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Cytoplasm.
Source	Eukaryota
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 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 glutathione peroxidase family.

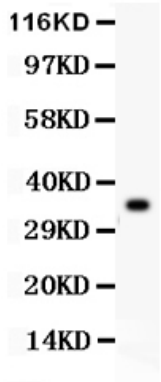
Protein Information

Name	GPX1 (HGNC:4553)
Function	Catalyzes the reduction of hydroperoxides in a glutathione- dependent manner thus regulating cellular redox homeostasis (PubMed:11115402, PubMed: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, PubMed:36608588). In platelets catalyzes the reduction of 12-hydroperoxyeicosatetraenoic acid, the primary product of the arachidonate 12-lipoxygenase pathway (PubMed:11115402).
Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:P11352}. Mitochondrion {ECO:0000250|UniProtKB:P11352}
Tissue Location	Expressed in platelets (at protein level).

Background

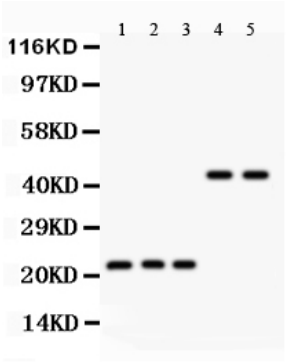
Glutathione peroxidase 1, also known as, GPX-1 is an enzyme that in humans is encoded by the GPX1 gene. It is mapped to 3p21.31. This gene encodes a member of the glutathione peroxidase family, consisting of eight known glutathione peroxidases (Gpx1-8) in humans. Glutathione peroxidase functions in the 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.

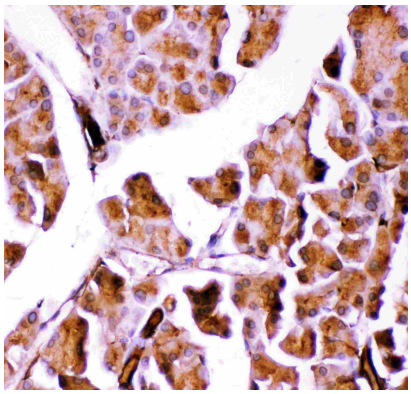
Images



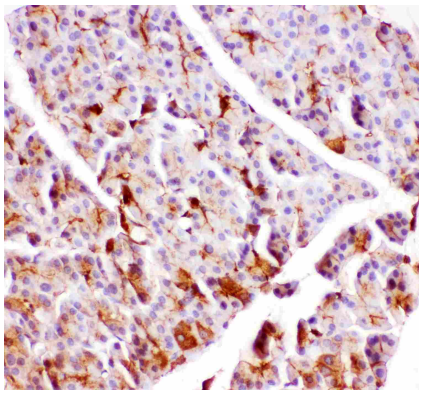
Anti- GPX1 antibody, ABO11894, Western blottingAll lanes: Anti GPX1 (ABO11894) at 0.5ug/mlWB: Recombinant Human GPX1 Protein 0.5ngPredicted bind size: 36KDObserved bind size: 36KD

Anti- GPX1 antibody, ABO11894, Western blottingAll lanes: Anti GPX1 (ABO11894) at 0.5ug/mlLane 1: Rat Kidney Tissue Lysate at 50ugLane 2: Mouse Kidney Tissue Lysate at 50ugLane 3: Rat Spleen Tissue Lysate at 50ugLane 4: HELA Whole Cell Lysate at 40ugLane 5: JURKAT Whole Cell Lysate at 40ugPredicted bind size: 22,44KDObserved bind size: 22,44KD

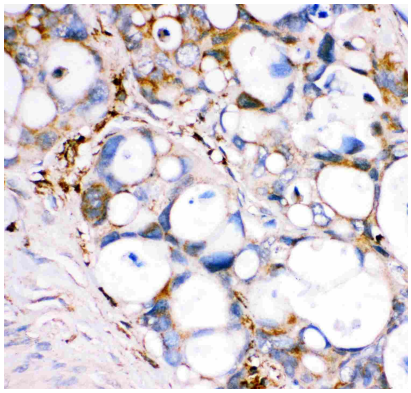




Anti- GPX1 antibody, ABO11894, IHC(P)IHC(P): Mosue Pancreas Tissue



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



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

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