

**Goat Anti-Glutathione Peroxidase 1 (isoform1) Antibody**  
Peptide-affinity purified goat antibody  
Catalog # AF1484a

**Specification**

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**Goat Anti-Glutathione Peroxidase 1 (isoform1) Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P07203</a>
Other Accession	<a href="#">NP_000572</a> , <a href="#">2876</a>
Reactivity	Human, Pig
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	22088

**Goat Anti-Glutathione Peroxidase 1 (isoform1) Antibody - Additional Information**

**Gene ID** 2876

**Other Names**

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

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-Glutathione Peroxidase 1 (isoform1) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-Glutathione Peroxidase 1 (isoform1) 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) target="\_blank">11115402</a>, PubMed: [36608588](http://www.uniprot.org/citations/36608588) target="\_blank">36608588</a>). 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) target="\_blank">11115402</a>, PubMed: [36608588](http://www.uniprot.org/citations/36608588) target="\_blank">36608588</a>).

target="\_blank">36608588</a>). In platelets catalyzes the reduction of 12-hydroperoxyeicosatetraenoic acid, the primary product of the arachidonate 12-lipoxygenase pathway (PubMed:<a href="http://www.uniprot.org/citations/11115402" target="\_blank">11115402</a>).

#### Cellular Location

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

#### Tissue Location

Expressed in platelets (at protein level).

### Goat Anti-Glutathione Peroxidase 1 (isoform1) Antibody - Protocols

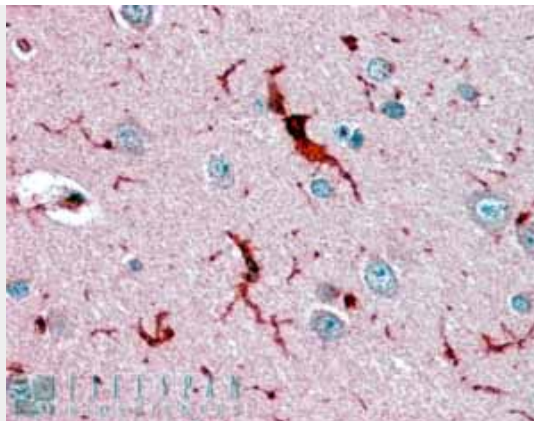
Provided below are standard protocols that you may find useful for product applications.

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

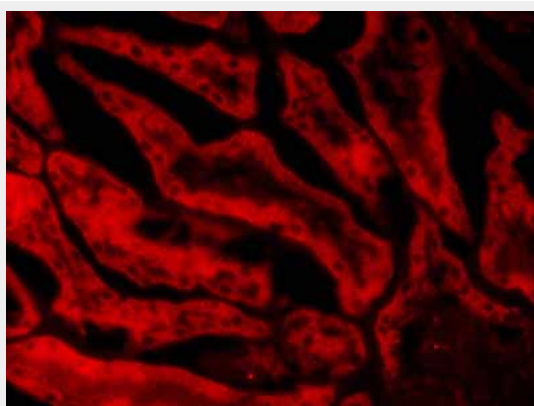
### Goat Anti-Glutathione Peroxidase 1 (isoform1) Antibody - Images



AF1484a (1 µg/ml) staining of Human Liver lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



AF1484a (3.8 µg/ml) staining of paraffin embedded Human Cerebrum. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



AF1484a (20 µg/ml) staining of PFA-perfused cryosection of Porcine Kidney. Microwave antigen retrieval with citrate buffer pH 3, CY3-staining. Data obtained from Dr. Hrvoje Brzica, University of Zagreb

### **Goat Anti-Glutathione Peroxidase 1 (isoform1) Antibody - Background**

This gene encodes a member of the glutathione peroxidase family. Glutathione peroxidase functions in the detoxification of hydrogen peroxide, and is one of the most important antioxidant enzymes in humans. This protein 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 UGA, that normally functions as a translation termination codon. In addition, this protein is characterized in a polyalanine sequence polymorphism in the N-terminal region, which includes three alleles with five, six or seven alanine (ALA) repeats in this sequence. The allele with five ALA repeats is significantly associated with breast cancer risk. Two alternatively spliced transcript variants encoding distinct isoforms have been found for this gene.

### **Goat Anti-Glutathione Peroxidase 1 (isoform1) Antibody - References**

Genetic Polymorphisms in Apolipoprotein E and Glutathione Peroxidase 1 Genes in the Ecuadorian Population Affected With Alzheimer Disease. Paz-Y-Miño C, et al. Am J Med Sci, 2010 Aug 18. PMID 20724907.

A large-scale candidate gene approach identifies SNPs in SOD2 and IL13 as predictive markers of response to preoperative chemoradiation in rectal cancer. Ho-Pun-Cheung A, et al. Pharmacogenomics J, 2010 Jul 20. PMID 20644561.

Epistasis of oxidative stress-related enzyme genes on modulating the risks in oral cavity cancer. Wu SH, et al. Clin Chim Acta, 2010 Nov 11. PMID 20643115.

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Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.

Mitochondrial superoxide dismutase and glutathione peroxidase in idiosyncratic drug-induced liver injury. Lucena MI, et al. Hepatology, 2010 Jul. PMID 20578157.