

GPX1 Rabbit pAb

Catalog No.: A1110SP **16 Publications**

Basic Information

Observed MW

22 kDa

Calculated MW

10 kDa/22 kDa

Category

Primary antibody

Applications

WB, IHC-P, ELISA

Cross-Reactivity

Human, Mouse, Rat

Background

The protein encoded by this gene belongs to the glutathione peroxidase family, members of which catalyze the reduction of organic hydroperoxides and hydrogen peroxide (H₂O₂) by glutathione, and thereby protect cells against oxidative damage. Other studies indicate that H₂O₂ is also essential for growth-factor mediated signal transduction, mitochondrial function, and maintenance of thiol redox-balance; therefore, by limiting H₂O₂ accumulation, glutathione peroxidases are also involved in modulating these processes. Several isozymes of this gene family exist in vertebrates, which vary in cellular location and substrate specificity. This isozyme is the most abundant, is ubiquitously expressed and localized in the cytoplasm, and whose preferred substrate is hydrogen peroxide. It is also a selenoprotein, containing the rare amino acid selenocysteine (Sec) at its active site. Sec is encoded by the UGA codon, which normally signals translation termination. The 3' UTRs of selenoprotein mRNAs contain a conserved stem-loop structure, designated the Sec insertion sequence (SECIS) element, that is necessary for the recognition of UGA as a Sec codon, rather than as a stop signal. This gene contains an in-frame GCG trinucleotide repeat in the coding region, and three alleles with 4, 5 or 6 repeats have been found in the human population. The allele with 4 GCG repeats has been significantly associated with breast cancer risk in premenopausal women. Alternatively spliced transcript variants have been found for this gene. Pseudogenes of this locus have been identified on chromosomes X and 21.

Recommended Dilutions

WB 1:5000 - 1:10000

IHC-P 1:50 - 1:200

ELISA Recommended starting concentration is 1 µg/mL. Please optimize the concentration based on your specific assay requirements. For high-ratio antibody dilutions (≥1:10000) a sequential dilution method is strongly recommended to ensure measurement accuracy.

Immunogen Information

Gene ID

2876

Swiss Prot

P07203

Immunogen

This information is considered to be commercially sensitive.

Synonyms

GPXD; GSHPX1; GPX1

Product Information

Source

Rabbit

Isotype

IgG

Purification

Affinity purification

Storage

Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS, pH 7.3, containing 50% glycerol. Preserved with Proclin300 or sodium azide.

May contain 0.05% BSA as specified on the Certificate of Analysis.

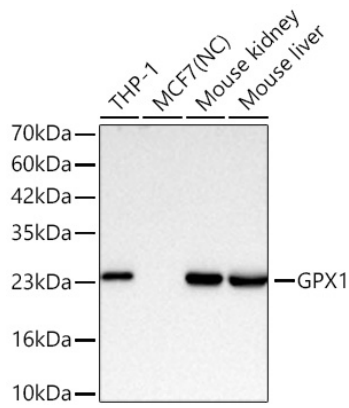
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Validation Data



Western blot analysis of various lysates using GPX1 Rabbit pAb (A1110SP) at 1:9000 dilution incubated overnight at 4°C.

Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.

Lysates/proteins: 25 µg per lane.

Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

Negative control (NC): MCF7.

Exposure time: 20 s.