

GPX1 Polyclonal Antibody

Cat #: ABP58706

Size: 30μl /100μl /200μl

Product Information

	Product Name: GPX1 Polyclonal Antibody		
	Applications: WB, ELISA		Isotype: Rabbit IgG
	Reactivity: Human, Mouse, Rat		
REF	Catalog Number: ABP58706	LOT	Lot Number: Refer to product label
	Formulation: Liquid		Concentration: 1 mg/ml
	Storage: Store at -20°C. Avoid repeated freeze / thaw cycles.		Note: Contain sodium azide.

Background: Glutathione Peroxidase 1, encoded by GPX1 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.

Application Notes: Optimal working dilutions should be determined experimentally by the investigator. Suggested starting dilutions are as follows: WB (1:500-1:2000), ELISA (1:5000-1:20000).

Storage Buffer: PBS, pH 7.4, containing 0.02% Sodium Azide as preservative and 50% Glycerol.

Storage Instructions: Stable for one year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing.

Note: The product listed herein is for research use only and is not intended for use in human or clinical diagnosis. Suggested

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