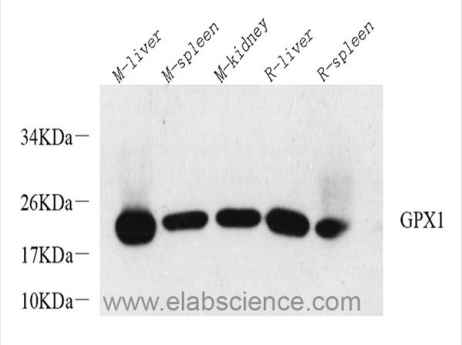
GPX1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	GPX1, Polyclonal Antibody
Full Product Name	GPX1 Polyclonal Antibody
Product Gene Name	anti-GPX1 antibody
Product Synonym Names	AL033363; Cellular glutathione peroxidase; Glutathione peroxidase 1; Glutathione peroxidase; GPx 1; GPx-1; GPX1; GPXD; GSHPx-1; GSHPX1; MGC14399; MGC88245
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Mouse, Rat
Form/Format	PBS with 0.02% sodium azide, 100 mug/ml BSA and 50% glycerol.
Purity/Purification	Affinity Purification
Concentration	400 mug/mL (lot specific)
Preparation and Storage	Store at -20 degree C. Avoid freeze/thaw cycles.
Molecular Weight	Calculated: 22kDa Observed: 22kDa
3D Structure	ModBase 3D Structure for P11352
Immunogen	KLH conjugated synthetic peptide corresponding to Mouse GPX1
Conjugation	Unconjugated
Product Categories/Family for anti-GPX1 antibody	Signal Transduction; Cell Biology; Cancer; Metabolism
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-GPX1 antibody	Western Blot (WB)
Application Notes for anti-GPX1 antibody	WB: 1:500-1:1000
Related Product Information for anti-GPX1 antibody	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.

Other Notes	Small volumes of anti-GPX1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for GPX1 purchase	MBS2556170 is an antibody targeting GPX1. Also known as GPX1 Polyclonal Antibody. Reactive in Mouse, Rat. Host: Rabbit.



Western Blot (WB) of anti-GPX1 antibody
Western Blot analysis of various samples using GPX1 Polyclonal Antibody at dilution of 1:1000.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GPX1. It may not necessarily be applicable to this product.

NCBI GI #	1043678441
NCBI GeneID	14775
NCBI Accession #	NP_001316456.1
UniProt Primary Accession #	P11352
UniProt Secondary Accession #	P12079; Q544W3; Q5RJH8; Q9CR54
UniProt Related Accession #	P11352
GenBank Nucleotide #	NM_001329527.1
NCBI Official Full Name	glutathione peroxidase 1 isoform 2
NCBI Official Synonym Full Names	glutathione peroxidase 1
NCBI Official Symbol	Gpx1
NCBI Official Synonym Symbols	Gpx; CGPx; GPx-1; GSHPx-1; AI195024; AL033363
UniProt Protein Name	Glutathione peroxidase 1
UniProt Synonym Protein Names	Cellular glutathione peroxidase; Selenium-dependent glutathione peroxidase 1
Protein Family	Hydroperoxy fatty acid reductase
UniProt Gene Name	Gpx1
UniProt Synonym Gene Names	GPx-1; GSHPx-1
NCBI Protein Information	glutathione peroxidase 1

NCBI Summary for GPX1	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. Knockout mice lacking this gene are highly sensitive to oxidants, and develop mature cataracts due to damage to the eye lens nucleus. 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. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Jul 2016]
UniProt Comments for GPX1	Protects the hemoglobin in erythrocytes from oxidative breakdown.MiscellaneousIn the absence of Sod1, Gpx1 in the liver undergoes a 40% reduction in catalytic activity as a result of the decomposition of Sec-47 to dehydroalanine.
Research Articles on GPX1	**1.** This repletion study shows that loss of capacity to incorporate Se into Gpx1 in Gpx1 KO mice does not dramatically alter expression of other Se biomarkers, nor the short-term flux of Se from intestine to liver to kidney.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/polyclonal-mouse-rat-antibody/gpx1/2556170