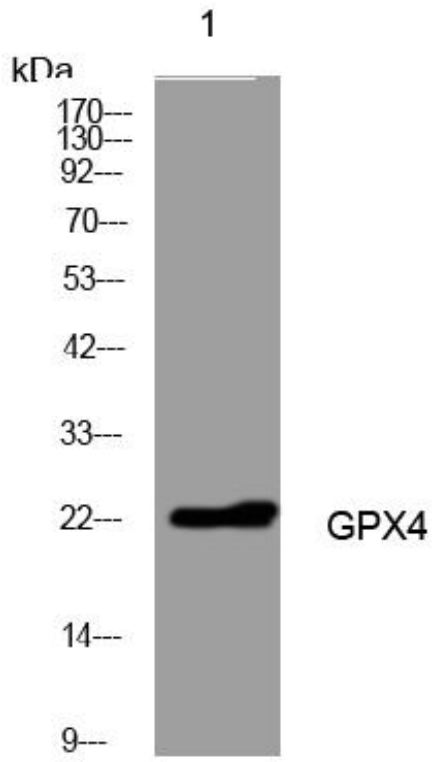
GPX4 mouse mAb

Catalog No	BYmab-07891
Isotype	IgG
Reactivity	Human;Rat;Mouse;
Applications	WB
Gene Name	GPX4
Protein Name	GPX4
Immunogen	Synthesized peptide derived from human GPX4 AA range: 84-134
Specificity	This antibody detects endogenous levels of GPX4 at Human
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.05% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	Phospholipid hydroperoxide glutathione peroxidase, mitochondrial (PHGPx) (EC 1.11.1.12) (Glutathione peroxidase 4) (GPx-4) (GSHPx-4)
Observed Band	20kD
Cell Pathway	[Isoform Mitochondrial]: Mitochondrion .; [Isoform Cytoplasmic]: Cytoplasm .
Tissue Specificity	Present primarily in testis. Expressed in platelets (at protein level) (PubMed:11115402).
Function	catalytic activity:2 glutathione + a lipid hydroperoxide = glutathione disulfide + lipid + 2 H(2)O.,disease:Defects in GPX4 may be a cause of infertility.,function:Protects cells against membrane lipid peroxidation and cell death. Required for normal sperm development and male fertility. Could play a major role in protecting mammals from the toxicity of ingested lipid hydroperoxides. Essential for embryonic development. Protects from radiation and oxidative damage.,similarity:Belongs to the glutathione peroxidase family.,subunit:Monomer. Has a tendency to form higher mass oligomers.,tissue specificity:Present primarily in testis.,

Background	The protein encoded by this gene belongs to the glutathione peroxidase family, members of which catalyze the reduction of hydrogen peroxide, organic hydroperoxides and lipid hydroperoxides, and thereby protect cells against oxidative damage. Several isozymes of this gene family exist in vertebrates, which vary in cellular location and substrate specificity. This isozyme has a high preference for lipid hydroperoxides and protects cells against membrane lipid peroxidation and cell death. It is also required for normal sperm development; thus, it has been identified as a 'moonlighting' protein because of its ability to serve dual functions as a peroxidase, as well as a structural protein in mature spermatozoa. Mutations in this gene are associated with Sedaghatian type of spondylometaphyseal dysplasia (SMDS). This isozyme 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, Oct 2016],
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western Blot analysis of various cells using GPX4 mouse mAb