

Mouse Glutathione Peroxidase 4 (GPX4) ELISA Kit | GPX4 elisa kit

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CATALOG #
AAA161491

REACTIVITY
Mouse

PRODUCT SYNONYMS

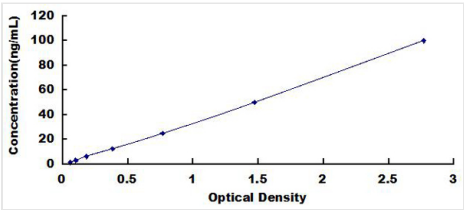
Glutathione Peroxidase 4 (GPX4); Mouse Glutathione Peroxidase 4 (GPX4) ELISA Kit; GPX4 ELISA kit (Mouse); MCSP; PHGPx; SnGPx; SnPHGPx; Phospholipid Hydroperoxidase; Phospholipid hydroperoxide glutathione peroxidase; mitochondrial; GPX4 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Mouse
Specificity	This assay has high sensitivity and excellent specificity for detection of Glutathione Peroxidase 4 (GPX4). No significant cross-reactivity or interference between Glutathione Peroxidase 4 (GPX4) and analogues was observed. Reactive with Mouse GPX4/Glutathione Peroxidase 4
Assay Type	Double-antibody Sandwich
Samples	Serum, Plasma, Tissue homogenates, Cell lysates, Cell culture supernates and other biological fluids
Detection Method	Colormetric
Featured Series	SE kit
Detection Range	1.56-100ng/mL
Sensitivity	0.68ng/mL
Sample Size	100uL
Assay Time	3h
Function	Detects protein (regular version)
Precision	Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level Glutathione Peroxidase 4 (GPX4) were tested 20 times on one plate, respectively. Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level Glutathione Peroxidase 4 (GPX4) were tested on 3 different plates, 8 replicates in each plate. CV(%) = SD/meanX100 Intra-Assay: CV<10%, Inter-Assay: CV<12%
Assay Procedure Summary	1. Prepare all reagents, samples and standards 2. Add 100ul standard or sample to each well. Incubate 2 hours at 37 degree C 3. Aspirate and add 100ul prepared Detection Reagent A. Incubate 1 hour at 37 degree C 4. Aspirate and wash 3 times 5. Add 100ul prepared Detection Reagent B. Incubate 30 minutes at 37 degree C 6. Aspirate and wash 5 times 7. Add 90ul Substrate Solution. Incubate 10-20 minutes at 37 degree C 8. Add 50ul Stop Solution. Read at 450nm immediately.

Test Principle	The test principle applied in this kit is Sandwich enzyme immunoassay. The microtiter plate provided in this kit has been pre-coated with an antibody specific to Glutathione Peroxidase 4 (GPX4). Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody specific to Glutathione Peroxidase 4 (GPX4). Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain Glutathione Peroxidase 4 (GPX4), biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm +/- 10nm. The concentration of Glutathione Peroxidase 4 (GPX4) in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Research Area	Enzyme & Kinase
Preparation and Storage	Store at 4 degree C for 1 month/-20 degree C for long-term (One year within shelf life) The stability of kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition. To minimize extra influence on the performance, operation procedures and lab conditions, especially room temperature, air humidity, incubator temperature should be strictly controlled. It is also strongly suggested that the whole assay is performed by the same operator from the beginning to the end.

IMAGES



Standard Curve (Sample)
Typical Standard Curve for GPX4 ELISA (Sandwich)

NCBI AND UNIPROT INFORMATION

NCBI GI #	90903233
NCBI GeneID	625249
NCBI Accession #	NP_001032830.2
NCBI GenBank Nucleotide #	NM_001037741.3
UniProt Accession #	O70325; O35560; Q9JK35; Q91XR9
Molecular Weight	29,252 Da
NCBI Official Full Name	phospholipid hydroperoxide glutathione peroxidase, nuclear isoform 1
NCBI Official Synonym Full Names	glutathione peroxidase 4
NCBI Official Symbol	Gpx4
NCBI Official Synonym Symbols	GPx-4; PHGPx; snGPx; GSHPx-4; mtPHGPx
NCBI Protein Information	phospholipid hydroperoxide glutathione peroxidase, nuclear; phospholipid hydroperoxide glutathione peroxidase, mitochondrial; sperm nuclei glutathione peroxidase
UniProt Protein Name	Phospholipid hydroperoxide glutathione peroxidase, mitochondrial
UniProt Gene Name	Gpx4
UniProt Synonym Gene Names	PHGPx; GPx-4; GSHPx-4
UniProt Entry Name	GPX41_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/mouse-elisa-kits/glutathione-peroxidase-4-gpx4/161491>