

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

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CATALOG #
AAA20064

REACTIVITY
Human

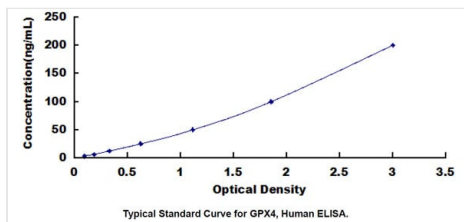
PRODUCT SYNONYMS

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

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	This assay has high sensitivity and excellent specificity for detection of GPX4. No significant cross-reactivity or interference between GPX4 and analogues was observed.
Sequence Length	170
Assay Type	Quantitative Sandwich
Samples	Human serum, plasma, tissue homogenates, cell lysates, cell culture supernates and other biological fluids
Detection Range	3.12-200ng/mL
Sensitivity	< 1.23ng/mL
Intra-assay Precision	Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level GPX4 were tested 20 times on one plate, respectively. Intra-Assay: CV<10%
Inter-assay Precision	Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level GPX4 were tested on 3 different plates, 8 replicates in each plate. CV(%) = SD/meanX100. Inter-Assay: CV<12%
Preparation and Storage	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)

ADDITIONAL INFORMATION

Related Product Information for GPX4 elisa kit	Principle of the Assay: The microplate provided in this kit has been pre-coated with an antibody specific to GPX4. Standards or samples are then added to the appropriate microplate wells with a biotin-conjugated antibody specific to 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 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 GPX4 in the samples is then determined by comparing the O.D. of the samples to the standard curve. Intended Uses: The kit is a sandwich enzyme immunoassay for in vitro quantitative measurement of GPX4 in human serum, plasma, tissue homogenates, cell lysates, cell culture supernates and other biological fluids.
Product Categories/Family for GPX4 elisa kit	Enzyme & Kinase
References	Capsaicin induces redox imbalance and ferroptosis through ACSL4/GPx4 signaling pathways in U87-MG and U251 glioblastoma cells; Metab Brain Dis; 2023 Feb;38(2):393-408.; PMID: 35438378 ; Ceyhan Hacıoglu; Faculty of Medicine, Department of Medical Biochemistry, Düzce University, Düzce, Turkey. ceyhanhacioglu@duzce.edu.tr .

NCBI AND UNIPROT INFORMATION

NCBI GI #	18407538
NCBI GeneID	819427
NCBI Accession #	NP_566128.1
NCBI GenBank Nucleotide #	NM_130382.1
UniProt Accession #	Q8L910
Molecular Weight	19,300 Da
NCBI Official Full Name	glutathione peroxidase 4
NCBI Official Symbol	GPX4
NCBI Official Synonym Symbols	ATGPX4; F11L15.5; glutathione peroxidase 4; GPX4
NCBI Protein Information	glutathione peroxidase 4
UniProt Protein Name	Probable glutathione peroxidase 4
UniProt Gene Name	GPX4
UniProt Entry Name	GPX4_ARATH

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/human-elisa-kits/glutathione-peroxidase-4-gpx4/20064>