

Datasheet for ABIN5654700 **GPX4 ELISA Kit**



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Overview

Quantity: 96 tests

Target: GPX4

Reactivity: Human

Method Type: Sandwich ELISA

Detection Range: 6.25 ng/mL - 100 ng/mL

Minimum Detection Limit: 6.25 ng/mL

Application: ELISA

Product Details

Sample Type: Cell Culture Supernatant, Cell Lysate, Plasma, Serum, Tissue Homogenate

Analytical Method: Quantitative

Detection Method: Colorimetric

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.

Sensitivity: 2.62 ng/mL

Target Details

Target: GPX4

Alternative Name: Glutathione Peroxidase 4 ([GPX4 Products](#))

Target Details

Background: Gene Name: Glutathione Peroxidase 4
Gene Aliases: MCSP, PHGPx, SnGPx, SnPHGPx, Phospholipid Hydroperoxidase, Phospholipid hydroperoxide glutathione peroxidase, mitochondrial

UniProt: [Q4AEH2](#)

Application Details

Comment: 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.

Assay Time: 3 h

Plate: Pre-coated

Protocol: 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 \pm 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.

Assay 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.
 $CV(\%) = SD/mean \times 100$
Intra-Assay: $CV < 10\%$
Inter-Assay: $CV < 12\%$

Restrictions: For Research Use only

Handling

Handling Advice:	The Stop Solution is acidic. Do not allow to contact skin or eyes. Calibrators, controls and specimen samples should be assayed in duplicate. Once the procedure has been started, all steps should be completed without interruption.
Storage:	4 °C,-20 °C
Storage Comment:	-20°C. Bring all reagents to room temperature before beginning test. The kit may be stored at 4°C for immediate use within two days upon arrival. Reseal any unused strips with desiccant pack. Minimize freeze/thaw cycles.
Expiry Date:	4-8 months