



Rat glutathione peroxidase 3 (GPX3) ELISA kit (3.12-100 ng/mL)

Cat. No.:	0126WXX-289
Assay Type:	Quantitative sandwich ELISA
Target Species:	Rat
Assay Target:	GPX3
Size:	48T; 96T

This product is for research use only and is not intended for diagnostic use.

Product Overview

Description	Rat glutathione peroxidase 3 (GPX3) ELISA kit (3.12-100 ng/mL) is an ELISA-based <i>in vitro</i> research tool designed specifically for the quantitative detection of GPX3 in rat samples with a range of 3.12-100 ng/mL and a minimum detectable dose (sensitivity) of 1.0 ng/mL. The kit is highly sensitive and easy to use.
Assay Principle	The ELISA analytical biochemical technique is based on GPX3 antibody-GPX3 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect GPX3 antigen targets in samples.
Background	GPX3 is a crucial antioxidant enzyme that protects cells from oxidative damage by catalyzing the reduction of hydrogen peroxide, lipid peroxides, and organic hydrogen peroxides. This enzyme belongs to the glutathione peroxidase family, primarily distributed in extracellular spaces, and plays a role in multiple biological processes, including responses to reactive oxygen species and lipid hydroperoxides. The relationship between GPX3 and obesity is a key area of exploration. Research indicates that GPX3 activity or expression levels are closely associated with oxidative stress, inflammatory responses, and pathological changes in adipose tissue. Under obese conditions, GPX3 activity is frequently suppressed, potentially diminishing the body's antioxidant capacity, exacerbating oxidative stress, and thereby promoting inflammation and insulin resistance. GPX3 may serve as a potential biomarker for obesity and its associated metabolic disorders.



Synonyms	GSHPX3; GPx-P; GSHPx-P; GPXP; Plasma glutathione peroxidase; Extracellular glutathione peroxidase; Glutathione peroxidase 3, plasma
EC NO.	1.11.1.9
Formula Weight	25,552 Da
Applications	Rat glutathione peroxidase 3 (GPX3) ELISA kit (3.12-100 ng/mL) is used to quantify GPX3 in rat samples, providing data to support research in a wide range of areas, including enzyme & kinase, obesity, and others.
Research Area	Enzyme & kinase; Obesity

Specification

Sample Type	Rat samples
Detection Range	3.12-100 ng/mL
Sensitivity	1.0 ng/mL
Precision (Intra-assay)	CV<15%
Precision (Inter-assay)	CV<15%
Cross-reactivity	No significant cross-reactivity or interference was observed.
Storage	Store at 2-8°C.