Rat Phospholipid hydroperoxide glutathione peroxidase, mitochondrial(GPX4) ELISA kit

Product Code	CSB-EL009869RA
Abbreviation	GPX4
Target Name	glutathione peroxidase 4 (phospholipid hydroperoxidase)
Uniprot No.	P36970
Alias	MCSP, PHGPx, snGPx, snPHGPx, glutathione peroxidase 4|phospholipid hydroperoxidase|phospholipid hydroperoxide glutathione peroxidase, mitochondrial|sperm nucleus glutathione peroxidase
Product Type	ELISA Kit
Immunogen Species	Rattus norvegicus (Rat)
Sample Types	serum, plasma, tissue homogenates
Detection Range	4.68 μU/mL-300 μU/mL
Sensitivity	1.17 μU/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Cancer
Gene Names	Gpx4
Tag Info	quantitative
Protein Description	Sandwich
Description	This Rat GPX4 ELISA Kit was designed for the quantitative measurement of Rat GPX4 protein in serum, plasma, tissue homogenates. It is a Sandwich ELISA kit, its detection range is 4.68 μU/mL-300 μU/mL and the sensitivity is 1.17 μU/mL.
Target Details	Glutathione peroxidase catalyzes the reduction of hydrogen peroxide, organic hydroperoxide, and lipid peroxides by reduced glutathione and functions in the protection of cells against oxidative damage. Human plasma glutathione peroxidase has been shown to be a selenium-containing enzyme and the UGA codon is translated into a selenocysteine. Through alternative splicing and transcription initiation, rat produces proteins that localize to the nucleus, mitochondrion, and cytoplasm. In humans, experimental evidence for alternative splicing exists; alternative transcription initiation and the cleavage sites of the

mitochondrial and nuclear transit peptides need to be experimentally verified.

Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%

Three samples of known concentration were tested in twenty assays to assess.

Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of rat GPX4 in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

	Sample	Serum(n=4)
1:200	Average %	85
	Range %	80-90
1:400	Average %	102
	Range %	97-107
1:800	Average %	87
	Range %	83-91
1:1600	Average %	97
	Range %	91-103

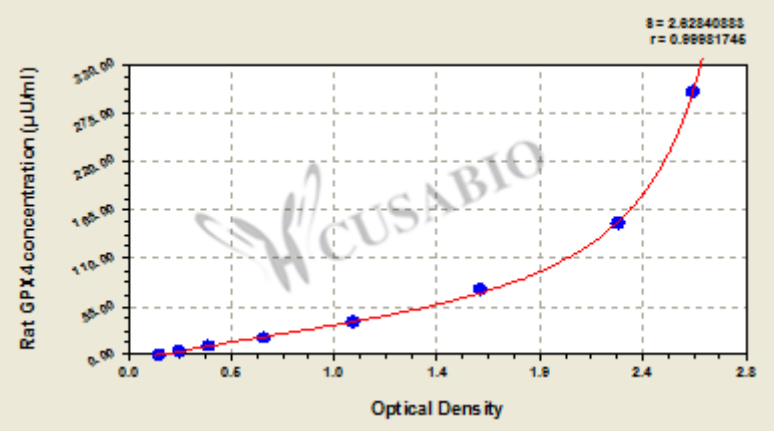
Recovery

The recovery of rat GPX4 spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	83	80-86
EDTA plasma (n=4)	92	87-97

Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



µU/ml	OD1	OD2	Average	Corrected
300	2.588	2.597	2.593	2.439
150	2.292	2.212	2.252	2.098
75	1.614	1.635	1.625	1.471
37.5	1.021	1.065	1.043	0.889
18.75	0.622	0.638	0.630	0.476
9.37	0.384	0.374	0.379	0.225
4.68	0.242	0.252	0.247	0.093
0	0.152	0.156	0.154	

Msds

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