Recombinant Mouse Gpx3 protein, His & T7-tagged

Cat. No. Gpx3-8202M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Gpx3 aa. (Arg3~Tyr72 (Accession # P46412)) fused with N-terminal His & T7 tag was produced in E. coli cells.
Species	Mouse
Source	E.coli
ProteinLength	Arg3~Tyr72
Description	The protein encoded by this gene belongs to the glutathione peroxidase family, members of which catalyze the reduction of organic hydroperoxides and hydrogen peroxide (H2O2) by glutathione, and thereby protect cells against oxidative damage. Several isozymes of this gene family exist in vertebrates, which vary in cellular location and substrate specificity. This isozyme is secreted and is highly expressed in mouse kidney, which appears to be the major source of the enzyme in plasma. It has a role in mouse organogenesis, and dysregulation of this isozyme has been associated with obesity-related metabolic complications, platelet-dependent thrombosis, colitis-associated carcinoma, and thermosensitive phenotype. This isozyme is also a selenoprotein, containing the rare amino acid selenocysteine (Sec) at its active site. Sec is encoded by the UGA codon, which normally signals translation termination. The 3' UTRs of selenoprotein mRNAs contain a conserved stem-loop structure, designated the Sec insertion sequence (SECIS) element, that is necessary for the recognition of UGA as a Sec codon, rather than as a stop signal. Alternatively spliced transcript variants have been found for this gene.

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Form	Freeze-dried powder
Molecular Mass	Predicted Molecular Mass: 11.5kDa.
Endotoxin	<1.0EU per 1ug (determined by the LAL method)
Purity	>95%
Characteristic	The isoelectric point is 8.7.
Applications	SDS-PAGE; WB; ELISA; IP.
Stability	The thermal stability is described by the loss rate of the target protein. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. (Referring from China Biological Products Standard, which was calculated by the Arrhenius equation.) The loss of this protein is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.
Storage Buffer	Supplied as lyophilized form in PBS, pH7.4, containing 5% trehalose, 0.01% sarcosyl.
Reconstitution	Reconstitute in sterile PBS, pH7.2-pH7.4.

GENE INFORMATION

Gene Name	Gpx3 glutathione peroxidase 3 [Mus musculus (house mouse)]
Official Symbol	Gpx3

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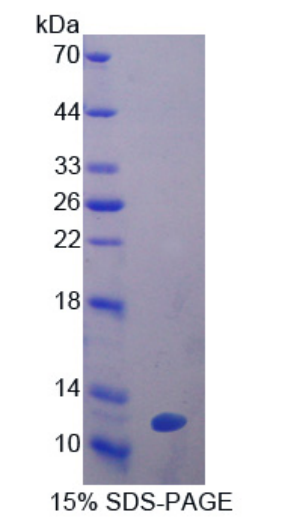
Synonyms	Gpx3; glutathione peroxidase 3; GPx; EGPx; GSHPx-3; GSHPx-P; AA960521; GPx-3; GPx-P; extracellular GPx; plasma GPx; plasma glutathione peroxidase
Gene ID	14778
mRNA Refseq	NM_001329860.1
Protein Refseq	NP_001316789.1
UniProt ID	P46412
SDS-PAGE	 15% SDS-PAGE

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