

## Recombinant Human GPX3 Protein, His-tagged

Cat. No. GPX3-2213H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant Human GPX3 Protein (Gln21-Tyr72+Cys+Gly74-Lys226) with a N-His tag was expressed in E. coli.

**Species** Human

**Source** E.coli

**ProteinLength** Gln21-Tyr72+Cys+Gly74-Lys226

#### 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 (H<sub>2</sub>O<sub>2</sub>) 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 abundantly found in plasma. Downregulation of expression of this gene by promoter hypermethylation has been observed in a wide spectrum of human malignancies, including thyroid cancer, hepatocellular carcinoma and chronic myeloid leukemia. 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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<b>Form</b>	Freeze-dried powder
<b>Molecular Mass</b>	Predicted Molecular Mass: 27.1 kDa Accurate Molecular Mass: 27 kDa
<b>Endotoxin</b>	<1.0 EU per 1g (determined by the LAL method).
<b>Purity</b>	> 90%
<b>Applications</b>	Positive Control; Immunogen; SDS-PAGE; WB.
<b>Stability</b>	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 centigrade for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
<b>Storage</b>	Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.
<b>Storage Buffer</b>	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
<b>Reconstitution</b>	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## GENE INFORMATION

<b>Gene Name</b>	GPX3 glutathione peroxidase 3 (plasma) [ Homo sapiens (human) ]
<b>Official Symbol</b>	GPX3

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**Synonyms** GPX3; glutathione peroxidase 3 (plasma); glutathione peroxidase 3; GPx-3; plasma glutathione peroxidase; extracellular glutathione peroxidase; GPx-P; GSHPx-3; GSHPx-P;

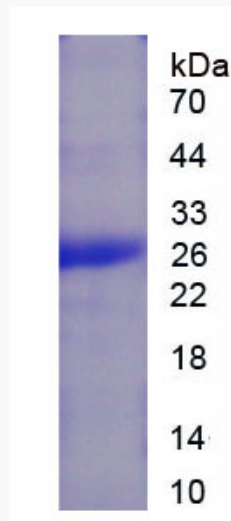
**Gene ID** [2878](#)

**mRNA Refseq** [NM\\_002084](#)

**Protein Refseq** [NP\\_002075](#)

**MIM** [138321](#)

**UniProt ID** [P22352](#)



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