

Recombinant Human Glutathione Peroxidase 3 (plasma), His-tagged

Cat. No. GPX3-1928H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant humanGPX3(U73C) protein, fused to His-tag at N-terminus, was expressed in E. coliand purified by using conventional chromatography.
Species	Human
ProteinLength	21-226 aa
Description	GPX3,also known as glutathione peroxidase 3, belongs to the glutathione peroxidasefamily, which functions in the detoxification of hydrogen peroxide. GPX3protects cells and enzymes from oxidative damage, by catalyzing the reductionof hydrogen peroxide, lipid peroxides and organic hydroperoxide, byglutathione. This protein is one of only a few proteins known in highervertebrates to contain selenocysteine, which occurs at the active site ofglutathione peroxidase and is coded by the nonsense (stop) codon TGA.
Form	Liquid. 20mMTris-HCl buffer (pH7.5) containing 40% glycerol, 0.15M NaCl, 1mM DTT.
Molecular Weight	25.7 kDa(227aa) confirmed by MALDI-TOF.
Purity	> 85%by SDS-PAGE
Concentration	0.25 mg/ml(determined by Bradford assay)

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Sequences of aminoacids	MGSSHHHHHSSGLVPRGSH MQSRGQEKSK MDCHGGISGT IYEYGALTID GEEYIPFKQY AGKYVLFVNVASYCGLTGQY IELNALQEEL APFGLVILGF PCNQFGKQEP GENSEILPTL KYVRPGGGFV PNFQLFEKGDVNGEKEQKFY TFLKNSCPPT SELLGTSDRL FWEPMKVHDI RWNFEKFLVG PDGIPIMRWH HRTTVSNVKMDILSYMRRQA ALGVKRK
Storage	Can bestored at +4°C short term (1-2 weeks). For long term storage, aliquot andstore at -20°C or -70°C. Avoid repeated freezing and thawing cycles.
Pathways	Arachidonic acid metabolism; FolateMetabolism; Glutathione metabolism; Oxidative Stress; Selenium Metabolism andSelenoproteins; Selenium Pathway; glutathione redox reactions I
GENE INFORMATION	
Gene Name	GPX3 glutathione peroxidase 3(plasma) [Homo sapiens]
Official Symbol	GPX3
Synonyms	GPX3; glutathione peroxidase 3 (plasma);GPx-P; GSHPx-3; GSHPx-P; glutathione peroxidase 3; GPx-3; plasma glutathioneperoxidase; extracellular glutathione peroxidase; EC 1.11.1.9
Gene ID	2878
mRNA Refseq	NM_002084
Protein Refseq	NP_002075
MIM	138321

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UniProt ID	P22352
Chromosome Location	5q23
Function	glutathione binding; glutathione peroxidase activity; oxidoreductase activity; selenium binding; transcription factor binding
PDB rendering based on 2r37.	

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