

Recombinant Mouse Gpx3 Protein, His-tagged

Cat. No. Gpx3-01M Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant mouse Gpx 3 (aa25-226) fused to a N-terminal His-tag was expressed in E. coli.

Species Mouse

Source E.coli

ProteinLength 25-226

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	Lyophilized
Molecular Mass	23 kDa
Purity	≥ 95% (SDS-PAGE)
Storage	Short Term Storage: +4 centigrade Long Term Storage: -20 centigrade
Concentration	1 mg/mL
Storage Buffer	Lyophilized from 20mM Tris, pH 8.0 , 10mM NaCl, 100mM L-Arginine.

GENE INFORMATION

Gene Name	Gpx3 glutathione peroxidase 3 [<i>Mus musculus</i> (house mouse)]
Official Symbol	Gpx3
Synonyms	Gpx3; glutathione peroxidase 3; GP; EGP; GPx; EGPx; GSHPx-3; GSHPx-P; AA960521; glutathione peroxidase 3; GPx-3; GPx-P; extracellular GPx; plasma GPx; plasma glutathione peroxidase; EC 1.11.1.9
Gene ID	14778
mRNA Refseq	NM_008161
Protein Refseq	NP_032187
UniProt ID	P46412

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