

## Recombinant Mouse Gpx3 protein, His & T7-tagged

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

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Mouse Gpx3 aa. (Arg3~Tyr72 (Accession # P46412)) fused with N-terminal His & T7 tag was produced in E. coli cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Species</b>          | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>ProteinLength</b>    | Arg3~Tyr72                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Description</b>      | <p>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 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.</p> |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

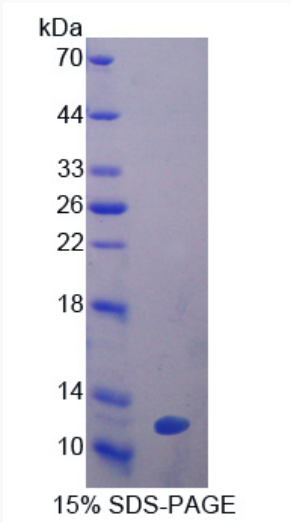
 45-1 Ramsey Road, Shirley, NY 11967, USA

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Form</b>             | Freeze-dried powder                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Molecular Mass</b>   | Predicted Molecular Mass: 11.5kDa.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Endotoxin</b>        | <1.0EU per 1ug (determined by the LAL method)                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Purity</b>           | >95%                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Characteristic</b>   | The isoelectric point is 8.7.                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Applications</b>     | SDS-PAGE; WB; ELISA; IP.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Stability</b>        | 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. |
| <b>Storage</b>          | Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.                                                                                                                                                                                                                                                                                                                                                                |
| <b>Storage Buffer</b>   | Supplied as lyophilized form in PBS, pH7.4, containing 5% trehalose, 0.01% sarcosyl.                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Reconstitution</b>   | Reconstitute in sterile PBS, pH7.2-pH7.4.                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>GENE INFORMATION</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Gene Name</b>        | Gpx3 glutathione peroxidase 3 [ Mus musculus (house mouse) ]                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Official Symbol</b>  | Gpx3                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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