

Product datasheet for **TP761984**

Glutathione Peroxidase 2 (GPX2) (NM_002083) Human Recombinant Protein

Product data:

| | |
|---------------------------------------|---|
| Product Type: | Recombinant Proteins |
| Description: | Purified recombinant protein of Human glutathione peroxidase 2 (gastrointestinal) (GPX2), Val63-Ala151, with N-terminal His-ABP tag, expressed in E. coli, 50ug |
| Species: | Human |
| Expression Host: | E. coli |
| Expression cDNA Clone or AA Sequence: | A DNA sequence encoding the region (Val63-Ala151) of GPX2 |
| Tag: | N-His-ABP (Albumin-Binding Protein) |
| Predicted MW: | 25.2 kDa |
| Concentration: | >0.05 µg/µL as determined by microplate BCA method |
| Purity: | > 80% as determined by SDS-PAGE and Coomassie blue staining |
| Buffer: | 25 mM Tris-HCl, pH 8.0, 150 mM NaCl, 10% glycerol |
| Note: | For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process. |
| Storage: | Store at -80°C. |
| Stability: | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| RefSeq: | NP_002074 |
| Locus ID: | 2877 |
| UniProt ID: | P18283 |
| RefSeq Size: | 1105 |
| Cytogenetics: | 14q23.3 |
| RefSeq ORF: | 570 |
| Synonyms: | GI-GPx; GPRP; GPRP-2; GPx-2; GPx-GI; GSHPx-2; GSHPX-GI |



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Summary:

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 predominantly expressed in the gastrointestinal tract (also in liver in human), is localized in the cytoplasm, and whose preferred substrate is hydrogen peroxide. Overexpression of this gene is associated with increased differentiation and proliferation in colorectal cancer. 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. [provided by RefSeq, Jul 2016]

Protein Families:

Druggable Genome

Protein Pathways:

Arachidonic acid metabolism, Glutathione metabolism

Product images: