

Product datasheet for **SC324551**

Glutathione Peroxidase 2 (GPX2) (NM_002083) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Glutathione Peroxidase 2 (GPX2) (NM_002083) Human Untagged Clone
Symbol: Glutathione Peroxidase 2
Synonyms: GI-GPx; GPRP; GPRP-2; GPx-2; GPx-GI; GSHPx-2; GSHPX-GI
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC (PS100020)
E. coli Selection: Ampicillin (100 ug/mL)
Fully Sequenced ORF: >OriGene sequence for NM_002083.2

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GGGGGCTCACTCTGCGCTTCACCATGGCTTTTCATTGCCAAGTCCCTCTATGACCTCAGTG
CCATCAGCCTGGATGGGAGAAGGTAGATTTCAATACGTTCCGGGCAGGGCCGTGCTGA
TTGAGAATGTGGCTTCGCTCTGAGGCACAACACCCGGGACTTCACCCAGCTCAACGAGC
TGCAATGCCGCTTTCCAGGCGCCTGGTGGTCCTTGGCTTCCCTTGCAACCAATTTGGAC
ATCAGGAGAAGTGTGAGAATGAGGAGATCCTGAACAGTCTCAAGTATGTCGGTCCTGGG
GTGGATACCAGCCACCTTCACCCTTGTCCAAAAATGTGAGGTGAATGGGCAGAACGAGC
ATCCTGTCTTCGCTACCTGAAGGACAAGCTCCCTACCTTATGATGACCCATTTTCCC
TCATGACCGATCCAAGCTCATCATTTGGAGCCCTGTGCGCCGCTCAGATGTGGCCTGGA
ACTTTGAGAAGTTCCTCATAGGGCCGGAGGGAGAGCCCTCCGACGCTACAGCCGACCT
TCCAACCATCAACATTGAGCCTGACATCAAGCGCCTCCTTAAAGTTGCCATATAGATGT
GAACTGCTCAACACACAGATCTCCTACTCCATCCAGTCCCTGAGGAGCCTTAGGATGCAGC
ATGCCTTCAGGAGACACTGCTGGACCTCAGCATTCCCTTGATATCAGTCCCTTCACTGC
AGAGCCTTGCCTTTCCCTCTGCCTGTTTCTTTTCTCTCCCAACCCTCTGGTGGTGA
TTCAACTTGGGCTCCAAGACTTGGGTAAGCTCTGGGCCTTACAGAATGATGGCACCTTC
CTAAACCCTCATGGGTGGTGTCTGAGAGGCGTGAAGGGCCTGGAGCCACTCTGCTAGAAG
AGACCAATAAAGGGCAGGTGTGAAACGGCCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAACCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
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Restriction Sites: Please inquire

ACCN: NM_002083

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP). The expression of this clone is not guaranteed due to the nature of selenoproteins.



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OTI Annotation:	This clone encodes a selenoprotein containing the rare amino acid selenocysteine (Sec). Sec is encoded by UGA codon, which normally signals translational termination. Expression of this clone is not guaranteed due to the nature of selenoproteins.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_002083.2 , NP_002074.2
RefSeq Size:	1024 bp
Locus ID:	2877
UniProt ID:	P18283
Cytogenetics:	14q23.3
Protein Families:	Druggable Genome
Protein Pathways:	Arachidonic acid metabolism, Glutathione metabolism
Gene Summary:	<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 (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]</p> <p>Transcript Variant: This variant (1) represents the protein-coding transcript.</p>