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Product datasheet for MC202331

Gpx2 (NM_030677) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gpx2 (NM_030677) Mouse Untagged Clone
Symbol:	Gpx2
Synonyms:	GI-G; GI-GPx; GPx-; GPx-GI; GSHPx-2; GSHPx-GI
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>BC034335 sequence for NM_030677 CAGGGCAGGGCTCACTGCTCTTCAGCATGGCTTACATTGCCAAGTCGTTCTACGATCTCAGTGCCATTGG CCTGGATGGGGAGAAGATAGACTTCAATACGTTCAGAGGCAGGGCTGTGCTGATTGAGAATGTGGCGTCA CTCTGAGGAACAACTACCCGGGACTACAACCAGCTCAATGAGCTGCAATGTCGCTTTCCCAGGCGCCTGG TAGTTCTCGGCTTCCCTTGCAACCAGTTCGGACATCAGGAGAACTGTCAGAACGAGGAGATCCTGAACAG CCTCAAGTATGTCCGACCTGGGGGTGGGTACCAGCCCACCTTTAGTCTTACCCAAAAGTGTGACGTCAAT GGGCAGAACGAGCATCCTGTCTTTGCCTACCTGAAAGACAAGCTGCCCTACCCTTATGATGACCCGTTCT CCCTCATGACCGATCCCAAGCTCATCATATGGAGTCCCGTGCGCCGCTCAGACGTGTCCTGGAACTTTGA GAAGTTCCTCATAGGGCCAGAAGGGGAGCCCTTCCGTCGCTACAGCCGCAGCTTCCAGACCATCAACATC GAGCCTGACATCAAACGGCTCCTCAAAGTTGCCATCTAGATGAGAGCTGCTCAGCCCAGGAATCTCCCAC TGTTTCCCCTGAGCAGTCTTCCTCAGGGCTCAGTGTACCCTCGGGAGACCCTGGGAGACCAAGGCATTCC CTGAATATCGTCCCCTTGCCTTCCCTACCGGCCATTTCCTTTAGCTCCCTCAAGGCTCTTGGGGAGTTTG CTTGGGGCTCTAAGTCTGGGGTAGGTTCTGGGCCTTCACAGAATGATGGCATCTTCCTAAACCCTTCTGG GAGATGTCTGAGAAGTTGTGAAGGGTCCAGAGCCAGTCTGCTTTAGAGTCCAATAAAGTGTAGGTGTGGC AAAAAAAAAAAAAAAAAAAAAAAAAAAA
Restriction Sites:	RsrII-NotI
ACCN:	NM_030677
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.
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.

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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:	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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	BC034335, AAH34335
RefSeq Size:	938 bp
Locus ID:	14776
UniProt ID:	Q9JHC0
Cytogenetics:	12 33.73 cM
Gene 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 in rodents, is localized in the cytoplasm, and whose preferred substrate is hydrogen peroxide. Knockout studies in mice lacking this gene suggest a role for this isozyme in intestinal inflammation and colon cancer development. 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. A pseudogene of this locus has been identified on chromosome 7. [provided by RefSeq, Aug 2017]