

Product datasheet for **RN211963**

Gpx3 (NM_022525) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gpx3 (NM_022525) Rat Untagged Clone
Symbol:	Gpx3
Synonyms:	GPx-3; GPx-P; Gpxp; GSHPx-3; GSHPx-P
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>RN211963 representing NM_022525 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCCGGATCCTTCGGGCATCCTGCCTCCTGTCCCTGCTCCTGGCCGGGTTTGTTCGCCGGGCCGGG
GACAAGAGAAGTCCAAGACAGACTGCCATGGCGGTATGAGCGGTACCATCTACGAGTATGGAGCCCTTAC
CATCGATGGGGAGGAATACATTCCTTTTAAGCAGTATGCTGGCAAATACATCCTTTGTCAACGTAGCC
AGCTACTGAGGTCTGACAGACCAATACCTTGAAGTGAATGCACTACAAGAAGAATTGGCCATTCGGCC
TGGTCATTCTGGGCTTCCCTTGCAACCAATTTGGCAAACAGGAGCCAGGCGAGAATCGGAGATCCTGCC
TAGTCTCAAGTACGTTTCGACCGGGTGGGGCTTTGTGCCTAATTTCCAGCTCTTTGAGAAAGGAGACGTG
AACGGGGAGAAAGAGCAGAAGTTCTACACTTTCCTGAAGAATCCTGCCCTCCCACTGCGGAATCCTGG
GCTCACCTGGCCGCTCTTTGGGAACCATGAAGATCCATGACATCCGCTGGAATTTGAGAAGTTCT
GGTGGGGCCAGATGGCATACCAATTATGCGCTGGTACCACCGGACCACAGTCAGCAACGTCAAGTGGAC
ATCCTGTCCTATATGAGGCGGCAGGCAGCCCTGGGGGCCAGAGGAAG**TAA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	SgfI-MluI
ACCN:	NM_022525
Insert Size:	681 bp



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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.
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:	<u>NM_022525.3, NP_071970.2</u>
RefSeq Size:	1488 bp
RefSeq ORF:	681 bp
Locus ID:	64317
UniProt ID:	<u>P23764</u>
Cytogenetics:	10q22
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 (H ₂ O ₂) 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 predominantly expressed in rat kidney, which appears to be the major source of the enzyme in plasma. Dysregulation of this isozyme has been associated with obesity-related metabolic complications. 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. [provided by RefSeq, Aug 2016]