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Product datasheet for SC118819

Glutathione Peroxidase 3 (GPX3) (NM_002084) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Glutathione Peroxidase 3 (GPX3) (NM_002084) Human Untagged Clone
Symbol:	Glutathione Peroxidase 3
Synonyms:	GPx-P; GSHPx-3; GSHPx-P
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC118819 sequence for NM_002084 edited (data generated by NextGen Sequencing)

ATGGCCCGGCTGCTGCAGGCGTCCTGCCTGCTTTCCCTGCTCCTGGCCGGCTTCGTCTCG
CAGAGCCGGGGACAAGAGAAGTCGAAGATGGACTGCCATGGTGGCATAAGTGGCACCATT
TACGAGTACGGAGCCCTCACCATTGATGGGGAGGAGTACATCCCCTTCAAGCAGTATGCT
GGCAAATACGTCCTCTTTGTCAACGTGGCCAGCTACTGAGGCCTGACGGGCCAGTACATT
GAACTGAATGCACTACAGGAAGAGCTTGCACCATTCGGTCTGGTCATTCTGGGCTTTCCC
TGCAACCAATTTGGAAAACAGGAACCAGGAGAGAACTCAGAGATCCTTCCTACCCTCAAG
TATGTCCGACCAGGTGGAGGCTTTGTCCCTAATTTCCAGCTCTTTGAGAAAGGGGATGTC
AATGGAGAGAAAGAGCAGAAATTCTACACTTTCCTAAAGAACTCCTGTCCTCCCACCTCG
GAGCTCCTGGGTACATCTGACCGCCTCTTCTGGGAACCCATGAAGGTTCACGACATCCGC
TGGAACTTTGAGAAGTTCCTGGTGGGGCCAGATGGTATACCCATCATGCGCTGGCACCAC
CGGACCACGGTCAGCAACGTCAAGATGGACATCCTGTCCTACATGAGGCGGCAGGCAGCC
CTGGGGGTCAAGAGGAAGTAA

Clone variation with respect to NM_002084.3

View online »

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_002084 unedited
TGCGTCGAGATTTGTAAACGACTCACTATAGGCGGCCGCGAATTCGCACGAGGCCTCGTG
CCCGAATTCGCACGAGGGGGATCAGGCAGCGGCTCAGGCGACCCTGAGTGTGCCCCCACC
CCGCCATGGCCCGGCTGCTGCAGGCGTCCTGCCTGCTTTCCCTGCTCCTGGCCGGCTTCG
TCTCGCAGAGCCGGGGACAAGAGAAGTCGAAGATGGACTGCCATGGTGGCATAAGTGGCA
CCATTTACGAGTACGGAGCCCTCACCATTGATGGGGAGGAGTACATCCCCTTCAAGCAGT
ATGCTGGCAAATACGTCCTCTTTGTCAACGTGGCCAGCTACTGAGGCCTGACGGGCCAGT
ACATTGAACTGAATGCACTACAGGAAGAGCTTGCACCATTCGGTCTGGTCATTCTGGGCT
TTCCCTGCAACCAATTTGGAAAACAGGAACCAGGAGAGAACTCAGAGATCCTTCCTACCC
TCAAGTATGTCCGACCAGGTGGAGGCTTTGTCCCTAATTTCCAGCTCTTTGAGAAAGGGG
ATGTCAATGGAGAGAAAGAGCAGAAATTCTACACTTTCCTAAAGAACTCCTGTCCTCCCA
CCTCGGAGCTCCCTGGTACATCTGACCGCCTCTTCTGGGAACCCATGAAGGTCACGACAT
CCGCTGGAACTTTGAGAAGTTCCTGGTGGGGCCAGATGGTATACCCATCATGCGCTGGCA
CCCACGGACCACGGTCAGCAACGTCAAGATGGACATCCCTGTCTACATGAGGCGGCCAGC
AGCCCTGGGGGTCAAAGAGAAGTAAACTGAGGCCGTCTCATCCCATGTCCCACATGTAGG
GGAGGAACTTTTGTTCAGGAAGAAATCCGTGTCTTCCACACACTATCTACCCATCACAGA
CCCCTTTCCTATCACTCAGG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_002084 unedited
NNNTTTTAGCTATGGACCGGCGGCCGCAATCTAGNGTCGAGTTTTTTTTTTTTTTTTTTT
TTTTGCTGCAGAAAGGCTTTTACTGGGCAGACGGGGTGAGTCTCAAGCCAGTGGACCAGT
GAGGGGTGAGGGCACGTCCTCCGAAGGAGCAGGGGTGGCATCCCTGCCCAGGGGCCTTAG
CCTGAATGCACTAAGGGCTGGCCCCTCAGACAGGCTCAGGGGAGGTCCGCCCACAAGGGC
TTTGGGCCCCTCCCTCATGAAGACGCCACCCCTGCCATGGGGTCCGTGGCCCTTGCTGTC
ACATCTGCCTTGGTTGATCTCAGGGAGGTTGATCTCTCTCAGGGAGAACTGTGGGGTGGG
GATGTAGCCTTGGGAGGGCCCTTCAGGAAGTAAGAGTGGGGGGTTGGGGAGTGTTNGTAN
ACCCANAAACTTCTGGGGACGTCAGTCATAGTTACTAATATTTGGAGGCAGTGGGAGATG
CTGGCCCCAAGGTTGAGGTATCAGTTAGAGCAGAACAATTGGACCTAGAGCTGGTTTTTC
CTTTGGGTTTAGGTGTAAGTGAACTATTATCATTGGAGTGGAGAACTGGAGAGAAAGGGT
TGTCACTGTCCAGCACTACACAGCTGCAGGCACACAGATGGTACACCATTCCAGAAAGAC
ACATAGGCTGACATGTACTTGGNCACNNATGCNNACACACNCAATNANGCATACCTGGAG
GCATGNGGGNAAACACCACATGCACCCACACCCCATGCCTGGCAGTACAAGAACTGTTGC
ATTCATTTGTGCCAGGCTGGGCCCTGACAGAAGGAAAGGGGCTGTGTTGTTACACCCCCT
GTCTGCAAACCCTCCTTTCTTAAAAAATCCTCCCCTCTGGGGCATCGCAGAACGGCTTAT
TCCTTCCTCCAACCCCG

Restriction Sites: NotI-NotI

ACCN: NM_002084

Insert Size: 1660 bp

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.

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.
RefSeq:	NM_002084.2, NP_002075.2
RefSeq Size:	1856 bp
Locus ID:	2878
UniProt ID:	P22352
Cytogenetics:	5q33.1
Protein Families:	Druggable Genome, Secreted Protein
Protein Pathways:	Arachidonic acid metabolism, Glutathione metabolism
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 secreted, and is abundantly found in plasma. Downregulation of expression of this gene by promoter hypermethylation has been observed in a wide spectrum of human malignancies, including thyroid cancer, hepatocellular carcinoma and chronic myeloid leukemia. 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] Transcript Variant: This variant (1) represents the predominant transcript and encodes isoform 1.