

Product datasheet for **MR201418**

Gpx4 (BC106147) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Gpx4 (BC106147) Mouse Tagged ORF Clone
Symbol: Gpx4
Synonyms: 1700027O09Rik, PHGPx, mtPHGPx, snGPx
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR201418 representing BC106147
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTGTGCATCCCGCATGATTGGCGCTGTGCGCGCTCCATGCACGAATTCTCAGCCAAGGACATCGACG
GGCACATGGTCTGCCTGGATAAGTACAGGGGTTTCGTGTGCATCGTCACCAACGTGGCCTCGCAATGAGG
CAAACTGACGTAAACTACACTCAGCTAGTCGATCTGCATGCCGATATGCTGAGTGTGGTTTACGAATC
CTGGCCTTCCCCTGCAACCAAGTTTGGGAGGCAGGAGCCAGGAAGTAATCAAGAAATCAAGGAGTTTGCAG
CCGGTACAACGTCAAGTTTGCATGTACAGCAAGATCTGTAAATGGGGACGATGCCACCCACTGTG
GAAATGGATGAAAGTCCAGCCCAAGGGCAGGGGCATGCTGGGAAATGCCATCAAATGGAACCTTACCAAG
TTTCTATTGATAAGAACGGCTGCGTGGTGAAGCGCTATGGTCCCATGGAGGAGCCCCAGGTGATAGAGA
AGGACCTGCCGTGCTATCTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR201418 representing BC106147
Red=Cloning site Green=Tags(s)

MCASRDDWRCARSMHEFSAKDIDGHMVCLDKYRGFVCIVTNVASQ*GKTDVNYTQLVDLHARYAECGLRI
LAFPCNQFGRQEPGSNQEIKEFAAGYNVVKFDMYSKICVNGDDAHLPLWKWMKVQPKGRGMLGNAIKWNFTK
FLIDKNGCVVKRYGPMEEPQVIEKDLPCYL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

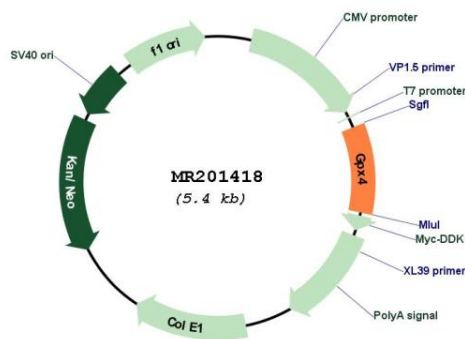
Chromatograms: https://cdn.origene.com/chromatograms/mm9034_d12.zip

Restriction Sites: Sgfl-Mlul



Gene Summary:

The protein encoded by this gene belongs to the glutathione peroxidase family, members of which catalyze the reduction of hydrogen peroxide, organic hydroperoxides and lipid hydroperoxides, 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 has a high preference for lipid hydroperoxides and protects cells against membrane lipid peroxidation and cell death. It is also required for normal sperm development; thus, it has been identified as a 'moonlighting' protein because of its ability to serve dual functions as a peroxidase, as well as a structural protein in mature spermatozoa. Disruption of this gene in mouse spermatocytes is associated with male infertility. 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. Transcript variants resulting from alternative splicing or use of alternate promoters have been described to encode isoforms with different subcellular localization. Pseudogenes of this locus have been identified on chromosomes 10 and 17. [provided by RefSeq, Jan 2019]

Product images:


Circular map for MR201418