

Product datasheet for **RR210732**

Gpx1 (NM_030826) Rat Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Gpx1 (NM_030826) Rat Tagged ORF Clone
Symbol: Gpx1
Synonyms: GSHPx; GSHPx-1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RR210732 representing NM_030826
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCTGCTGCTCGGCTCTCCGCGGTGGCACAGTCCACCGTGTATGCCTTCTCCGCGGCCCGCTGGCGG
 GCGGGGAGCCCGTGAGCCTGGGCTCCCTGCGGGCAAGGTGCTGCTCATTGAGAAATGTCGCGTCCCTCTG
 AGGCACCACGACCCGGGACTACACCGAAATGAATGATCTGCAGAAGCGTCTGGGGCTCGTGGCCTGGTG
 GTGCTCGGTTTCCCGTGCAATCAGTTCGGACATCAGGAGAATGGCAAGAATGAAGAGATTCTGAATCCC
 TCAAGTATGTCCGACCCGGTGGTGGTTCGAGCCCACTTACATTGTTTGAGAAGTGCAGGTGAATGG
 TGAGAAGGCTCACCCGCTTTTACCTTCCTGCGGAATGCCTTGCCAGCACCCAGTGACGATCCCACTGCG
 CTGATGACCGACCCCAAGTACATCATTTGGTCCCCGGTGTGCCGCAACGACATTTCTGGAACCTTGAGA
 AGTTCTGGTAGGTCCAGACGGTGTCCAGTGCAGATACAGCAGGCGCTTTCGCACCATCGACATCGA
 ACCCGATATAGAAGCCCTGCTGTCCAAGCAGCCTAGCAACCCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR210732 representing NM_030826
Red=Cloning site Green=Tags(s)

MSAARLSAVAQSTVYAFSARPLAGGEPVSLGSLRGKVLLIENVASL*GTTTRDYTEMNDLQKRLGPRGLV
 VLGFPNCQFGHQENGNKNEEILNSLKYVRPGGGFEPNFTLFEKCEVNGEKAHPLFTFLRNALPAPSDPTA
 LMTDPKYIIWSPVCRNDISWNFEKFLVGPDPVPRRYSRRFRTIDIEPDIEALLSKQPSNP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI



[View online »](#)

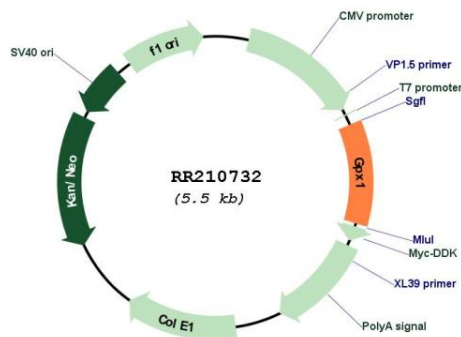
UniProt ID: [P04041](#)

Cytogenetics: 8q32

MW: 22.3 kDa

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. Other studies indicate that H₂O₂ is also essential for growth-factor mediated signal transduction, mitochondrial function, and maintenance of thiol redox-balance; therefore, by limiting H₂O₂ accumulation, glutathione peroxidases are also involved in modulating these processes. Several isozymes of this gene family exist in vertebrates, which vary in cellular location and substrate specificity. This isozyme is the most abundant, is ubiquitously expressed and localized in the cytoplasm, and whose preferred substrate is hydrogen peroxide. It 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, Jul 2016]

Product images:



Circular map for RR210732