

Product datasheet for RR211963

Gpx3 (NM 022525) Rat Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: Gpx3 (NM_022525) Rat Tagged ORF 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)

ORF Nucleotide >RR211963 representing NM_022525

Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATCCTGTCCTATATGAGGCGGCAGGCAGCCCTGGGGGCCAGAGGGAAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT

ACAAGGATGACGACGATAAG**GTTTAA**

Protein Sequence: >RR211963 representing NM_022525

Red=Cloning site Green=Tags(s)

MARILRASCLLSLLLAGFVPPGRGQEKSKTDCHGGMSGTIYEYGALTIDGEEYIPFKQYAGKYILFVNVA SY*GLTDQYLELNALQEELGPFGLVILGFPCNQFGKQEPGENSEILPSLKYVRPGGGFVPNFQLFEKGDV NGEKEQKFYTFLKNSCPPTAELLGSPGRLFWEPMKIHDIRWNFEKFLVGPDGIPIMRWYHRTTVSNVKMD

ILSYMRRQAALGARGK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



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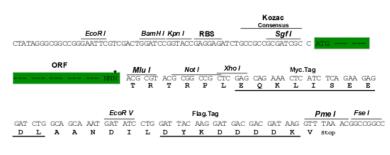


Restriction Sites:

Sgfl-Mlul

Cloning Scheme:





^{*} The last codon before the Stop codon of the ORF

ACCN: NM_022525

ORF Size: 678 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of

reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing

variants is recommended prior to use. <u>More info</u> 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: <u>NM 022525.4</u>

RefSeq Size: 1488 bp RefSeq ORF: 681 bp



Locus ID: 64317

UniProt ID: P23764

Cytogenetics: 10q22

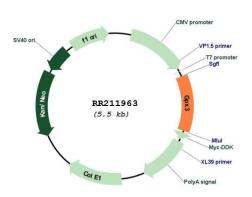
MW: 25.4 kDa

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. 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]

Product images:



Circular map for RR211963