

Product datasheet for **MC225756**

Glrx2 (NM_001038593) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Glrx2 (NM_001038593) Mouse Untagged Clone
Tag: Tag Free
Symbol: Glrx2
Synonyms: 1700010P22Rik; AI645710; Grx2
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC225756 representing NM_001038593
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGGAAACAGCACATCGTCGTTTTGGGGGAAGTCTACAACACTCCTGTGAACCAGATCCAAGAAACAA
 TTTCTAACAATTGTGGTGATCTTCTCAAAAACATCCTGCTTACTGTTCCATGGCCAAGAAGATTTT
 CCATGACATGAATGTCAACTACAAGGCTGTGGAGTTGGATATGCTGGAATATGGCAACCAGTTTCAAGAT
 GCGCTTACAAGATGACTGGGAAAGAACCGTTCCAGGATATTTGTCAATGGACGATTTATTGGAGGCC
 CAGCGGACACTCACAGGCTTACAAAGAAGGAAATTGCTGCCTCTGTTTCATCAGTGTTATTTAAAAAA
 AAAACAAGAGGAAAGACAT**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001038593
Insert Size: 372 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).
OTI Annotation: Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.



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| 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_001038593.1, NP_001033682.1</u> |
| RefSeq Size: | 3506 bp |
| RefSeq ORF: | 372 bp |
| Locus ID: | 69367 |
| UniProt ID: | <u>Q923X4</u> |
| Cytogenetics: | 1 62.53 cM |
| Gene Summary: | Glutathione-dependent oxidoreductase that facilitates the maintenance of mitochondrial redox homeostasis upon induction of apoptosis by oxidative stress. Involved in response to hydrogen peroxide and regulation of apoptosis caused by oxidative stress. Acts as a very efficient catalyst of monothiol reactions because of its high affinity for protein glutathione-mixed disulfides. Can receive electrons not only from glutathione (GSH), but also from thioredoxin reductase supporting both monothiol and dithiol reactions. Efficiently catalyzes both glutathionylation and deglutathionylation of mitochondrial complex I, which in turn regulates the superoxide production by the complex. Overexpression decreases the susceptibility to apoptosis and prevents loss of cardiolipin and cytochrome c release. [UniProtKB/Swiss-Prot Function] |