

Product datasheet for **RN214006**

Glr2 (NM_001013034) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Glrx2 (NM_001013034) Rat Untagged Clone
Tag: Tag Free
Symbol: Glrx2
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >RN214006 representing NM_001013034
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGAAACAGCACATCCTCGTTTTGGGGGAAGTCAGCCACTACTCCTGTGAACCAGATCCAAGAAACAA
TTTCTAATAATTGTGGTGATTTCTCAAATCATCCTGCTCTACTGTTCAATGGCCAAGAAGATTTT
CCATGACATGAATGTCAACTATAAAGTCGTGGAGTTGGATATGGTGAATATGGTAGCCAGTTTCAAGAG
GCTCTTTACAAGATGACTGGAGAAAGAAGCTGTTCCAGGATATTTGTGAATGGAATATTTATCGGAGGTG
CGGCCGACACTCACAGGCTTACAAAGAAGGAAATTGCTGCCTCTGTTTACCAGTGCTATTTAAACAA
AAGCAAGAGGAAAGACGTCGAATGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001013034
Insert Size: 375 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).
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).



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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_001013034.1](#), [NP_001013052.1](#)

RefSeq Size: 1432 bp

RefSeq ORF: 375 bp

Locus ID: 114022

UniProt ID: [Q6AXW1](#)

Cytogenetics: 13q21

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 (By similarity).[UniProtKB/Swiss-Prot Function]