

## Product datasheet for **RG219385**

### Glutaredoxin 1 (GLRX) (NM\_002064) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Glutaredoxin 1 (GLRX) (NM\_002064) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Glutaredoxin 1  
**Synonyms:** GRX; GRX1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG219385 representing NM\_002064  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTCAAGAGTTTGTGAAGTGC AAAATCCAGCCTGGGAAGGTGGTTGTGTTTCATCAAGCCACCTGCC  
CGTACTGCAGGAGGGCCCAAGAGATCCTCAGTCAATTGCCATCAAACAAGGGCTTCTGGAATTTGTCGA  
TATCACAGCCACCAACCACACTAACGAGATTCAAGATTATTTGCAACAGCTCACGGGAGCAAGAACGGTG  
CCTCGAGTCTTTATCGGTAAGATTGTATAGGCGGATGCAGTGATCTAGTCTCTTTGCAACAGAGTGGGG  
AACTGCTGACGGGCTAAAGCAGATTGGAGCTCTGCAG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG219385 representing NM\_002064  
Red=Cloning site Green=Tags(s)  
MAQEFVNCKIQPGKVVVFIKPTCPYCRRAQEILSQLPIKQGLLEFVDITATNHTNEIQDYLLQTLGARTV  
PRVFIGKDCIGGCSLVLQSGELLTRLKQIGALQ

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**


**ACCN:** NM\_002064

**ORF Size:** 318 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. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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.

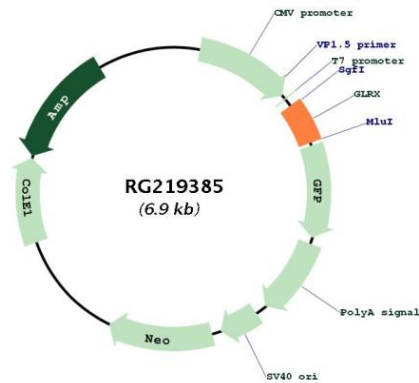
**RefSeq:** [NM\\_002064.1](#), [NP\\_002055.1](#)

**RefSeq Size:** 1328 bp

**RefSeq ORF:** 321 bp

**Locus ID:** 2745  
**UniProt ID:** [P35754](#)  
**Cytogenetics:** 5q15  
**Domains:** glutaredoxin  
**Protein Families:** Druggable Genome  
**Gene Summary:** This gene encodes a member of the glutaredoxin family. The encoded protein is a cytoplasmic enzyme catalyzing the reversible reduction of glutathione-protein mixed disulfides. This enzyme highly contributes to the antioxidant defense system. It is crucial for several signalling pathways by controlling the S-glutathionylation status of signalling mediators. It is involved in beta-amyloid toxicity and Alzheimer's disease. Multiple alternatively spliced transcript variants encoding the same protein have been identified. [provided by RefSeq, Aug 2011]

**Product images:**



Circular map for RG219385