

Product datasheet for **RC225029**

Glutaredoxin 1 (GLRX) (NM_001118890) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Glutaredoxin 1 (GLRX) (NM_001118890) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: Glutaredoxin 1
Synonyms: GRX; GRX1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC225029 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTCAAGAGTTTGTGAAGTGCAAAATCCAGCCTGGGAAGGTGGTTGTGTTTCATCAAGCCACCTGCC
CGTACTGCAGGAGGGCCCAAGAGATCCTCAGTCAATTGCCATCAAACAAGGGCTTCTGGAATTTGTCGA
TATCACAGCCACCAACCACACTAACGAGATTCAAGATTATTTGCAACAGCTCACGGGAGCAAGAACGGTG
CCTCGAGTCTTTATTGGTAAAGATTGTATAGGCGGATGCAGTGATCTAGTCTCTTTGCAACAGAGTGGG
AACTGCTGACGGCTAAAGCAGATTGGAGCTCTGCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC225029 protein sequence
Red=Cloning site Green=Tags(s)
MAQEFVNCKIQPGKVVVFIKPTCPYCRRQAEILSQLPIKQGLLEFVDITATNHTNEIQDYLLQQLTGARTV
PRVFIGKDCIGGCSLVSLLQQSGELLTRLKQIGALQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6037_e10.zip

Restriction Sites: SgfI-MluI



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Cloning Scheme:


ACCN: NM_001118890

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_001118890.2](#)

RefSeq Size: 1093 bp

RefSeq ORF: 321 bp

Locus ID: 2745

UniProt ID: [P35754](#)

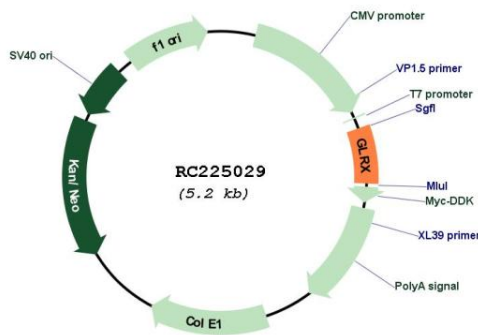
Cytogenetics: 5q15

Protein Families: Druggable Genome

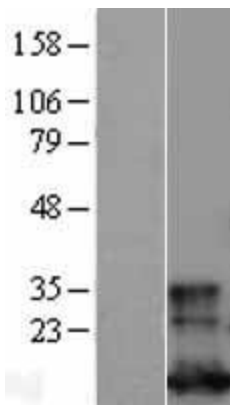
MW: 11.8 kDa

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]

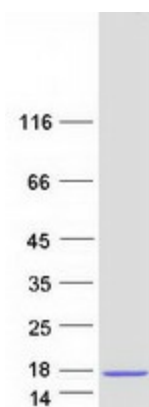
Product images:



Circular map for RC225029



Western blot validation of overexpression lysate (Cat# [LY426531]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC225029 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GLRX protein (Cat# [TP325029]). The protein was produced from HEK293T cells transfected with GLRX cDNA clone (Cat# RC225029) using MegaTran 2.0 (Cat# [TT210002]).