

## Recombinant Human GLRX2

**Cat. No.** GLRX2-27693TH    **Lot. No.** (See product label)

### SPECIFICATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>    | Recombinant fragment corresponding to amino acids 41-164 of Human Glutaredoxin 2, 14.1kDa.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Species</b>             | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Source</b>              | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>ProteinLength</b>       | 41-164 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Description</b>         | The protein encoded by this gene is a member of the glutaredoxin family of proteins, which maintain cellular thiol homeostasis. These proteins are thiol-disulfide oxidoreductases that use a glutathione-binding site and one or two active cysteines in their active site. This gene undergoes alternative splicing to produce multiple isoforms, one of which is ubiquitously expressed and localizes to mitochondria, where it functions in mitochondrial redox homeostasis and is important for the protection against and recovery from oxidative stress. Other isoforms, which have more restrictive expression patterns, show cytosolic and nuclear localization, and are thought to function in cellular differentiation and transformation, possibly with a role in tumor progression. |
| <b>Tissue specificity</b>  | Widely expressed. Expressed in brain, heart, skeletal muscle, colon, thymus, spleen, kidney, liver, small intestine, placenta and lung. Not expressed in peripheral blood leukocytes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Biological activity</b> | Specific activity : 45 U/mgOne unit will cause the oxidation of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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|                              |                                                                     |
|------------------------------|---------------------------------------------------------------------|
|                              | 1μmole of NADPH per min.                                            |
| <b>Form</b>                  | Liquid                                                              |
| <b>Purity</b>                | >95% by SDS-PAGE                                                    |
| <b>Storage buffer</b>        | Preservative: None<br>Constituents: 10% Glycerol, 20mM HEPES, pH 7  |
| <b>Storage</b>               | Aliquot and store at -80°C. Avoid repeated freeze / thaw cycles.    |
| <b>Sequence Similarities</b> | Belongs to the glutaredoxin family. Contains 1 glutaredoxin domain. |

## GENE INFORMATION

|                        |                                                                                               |
|------------------------|-----------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | GLRX2 glutaredoxin 2 [ Homo sapiens ]                                                         |
| <b>Official Symbol</b> | GLRX2                                                                                         |
| <b>Synonyms</b>        | GLRX2; glutaredoxin 2; bA101E13.1; bA101E13.1 (GRX2 glutaredoxin (thioltransferase) 2); GRX2; |
| <b>Gene ID</b>         | 51022                                                                                         |
| <b>mRNA Refseq</b>     | NM_001243399                                                                                  |
| <b>Protein Refseq</b>  | NP_001230328                                                                                  |
| <b>MIM</b>             | 606820                                                                                        |
| <b>Uniprot ID</b>      | Q9NS18                                                                                        |

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|                                |                                                                                                                                                                            |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Chromosome<br/>Location</b> | 1p31.2-q31.3                                                                                                                                                               |
| <b>Function</b>                | 2 iron, 2 sulfur cluster binding; arsenate reductase (glutaredoxin) activity; electron carrier activity; glutathione disulfide oxidoreductase activity; metal ion binding; |