

## DESCRIPTION

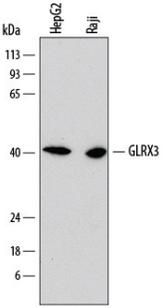
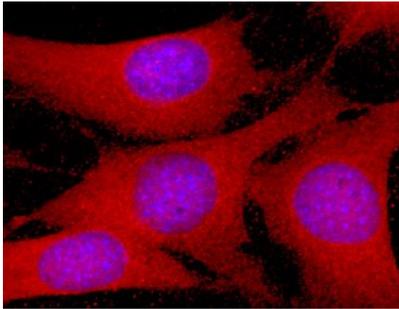
|                           |                                                                                                                                                                                         |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                   |
| <b>Specificity</b>        | Detects human Glutaredoxin 3/GLRX3 in ELISAs.                                                                                                                                           |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2B</sub> Clone # 791431                                                                                                                                       |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                              |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human Glutaredoxin 3/GLRX3<br>Asn126-Lys294<br>Accession # O76003                                                                                   |
| <b>Formulation</b>        | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS. |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

|                            | <b>Recommended Concentration</b> | <b>Sample</b> |
|----------------------------|----------------------------------|---------------|
| <b>Western Blot</b>        | 0.5 µg/mL                        | See Below     |
| <b>Immunocytochemistry</b> | 8-25 µg/mL                       | See Below     |

## DATA

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| <p><b>Western Blot</b></p>  <p><b>Detection of Human Glutaredoxin 3/GLRX3 by Western Blot.</b><br/>Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line and Raji human Burkitt's lymphoma cell line. PVDF membrane was probed with 0.5 µg/mL of Mouse Anti-Human Glutaredoxin 3/GLRX3 Monoclonal Antibody (Catalog # MAB7560) followed by HRP-conjugated Anti-Mouse Secondary Antibody (Catalog # HAF018). A specific band was detected for Glutaredoxin 3/GLRX3 at approximately 40 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p> | <p><b>Immunocytochemistry</b></p>  <p><b>Glutaredoxin 3/GLRX3 in NIH-3T3 Mouse Cell Line.</b><br/>Glutaredoxin 3/GLRX3 was detected in immersion fixed NIH-3T3 mouse embryonic fibroblast cell line using Mouse Anti-Human Glutaredoxin 3/GLRX3 Monoclonal Antibody (Catalog # MAB7560) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for <a href="#">Fluorescent ICC Staining of Cells on Coverslips</a>.</p> |
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## PREPARATION AND STORAGE

|                                |                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reconstitution</b>          | Sterile PBS to a final concentration of 0.5 mg/mL.                                                                                                                                                                                                                                                                                                       |
| <b>Shipping</b>                | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.<br>*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C                                                                                                                       |
| <b>Stability &amp; Storage</b> | <b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul> |

## BACKGROUND

GLRX3 (Glutaredoxin 3; also PICOT, PKC-theta-interacting protein, and Thioredoxin-like protein 2/TXNL2) is a 37-40 kDa member of the multidomain subgroup, monothiol glutaredoxin group of glutaredoxin/GTX proteins. It has widespread expression but is not found ubiquitously. Cells known to express cytosolic GLRX3 are principally epithelial in type, and include breast and adrenal epithelium, pancreatic exocrine gland epithelium, and proximal tubule renal epithelium. Cardiac muscle may also express GLRX3. By inference, it is suggested to be involved in cell proliferation and has also been associated with both PKC-theta regulation and MLP/muscle LIM protein-mediated cardiac contractility. Human GLRX3 is 335 amino acids (aa) in length. It contains an N-terminal thioredoxin-like domain (aa 2-117) that is followed by two PICOT homology domains (aa 144-236 and 237-335). The thioredoxin domain does not possess a typical disulfide, and it is suggested that this domain does not demonstrate redox activity. The PICOT domains will interact with intracellular proteins. GLRX3 exists as both a monomer and homodimer, with the homodimer incorporating two Fe/S clusters into their PICOT domains. These clusters serve as redox sensors within the cell. Over aa 126-294, human GLRX3 shares 98% aa sequence identity with mouse GLRX3.