Human/Mouse/Rat Glutaredoxin 3/GLRX3 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7560

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse and rat Glutaredoxin 3/GLRX3 in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human Glutaredoxin 3/GLRX3 Asn126-Lys294 Accession # O76003
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

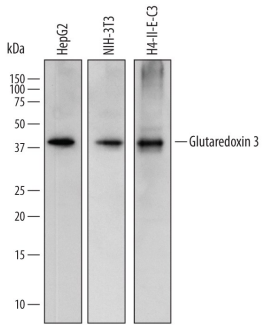
APPLICATIONS

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.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

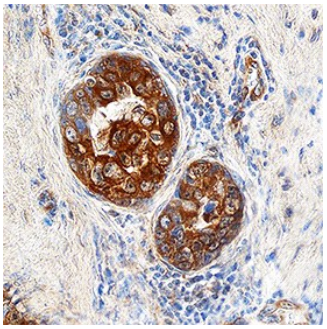
DATA

Western Blot



Detection of Human, Mouse, and Rat Glutaredoxin 3/GLRX3 by Western Blot. Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line, NIH-3T3 mouse embryonic fibroblast cell line, and H4-II-E-C3 rat hepatoma cell line. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human Glutaredoxin 3/GLRX3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7560) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). 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.

Immunohistochemistry



Glutaredoxin 3/GLRX3 in Human Breast Cancer Tissue. Glutaredoxin 3/GLRX3 was detected in immersion fixed paraffin-embedded sections of human breast cancer tissue using Sheep Anti-Human/Mouse/Rat Glutaredoxin 3/GLRX3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7560) at 5 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in ductal cells. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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 expresses GLRX3. The function of GLRX3 is not clear. 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.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449