

Human/Mouse/Rat Thioredoxin-2 Antibody

Antigen Affinity-purified Polyclonal Goat IgG Catalog Number: AF3254

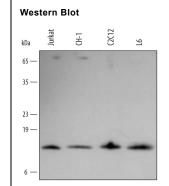
DESCRIPTION	
Species Reactivity	Human/Mouse/Rat
Specificity	Detects endogenous human, mouse and rat Thioredoxin 2 in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	E. coli-derived recombinant mouse Thioredoxin-2 Thr60-Gly166 Accession # P97493
Formulation	Lyophilized 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	0.5 μg/mL	See Below

DATA



Detection of Human/Mouse/Rat Thioredoxin-2 by Western Blot. Western blot shows lysates of Jurkat human acute T cell leukemia cell line, CH-1 mouse B cell lymphoma cell line, C2C12 mouse myoblast cell line, and L6 rat myoblast cell line. PVDF membrane was probed with 0.5 μ g/mL of Human/Mouse/Rat Thioredoxin-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3254) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). A specific band was detected for Thioredoxin-2 at approximately 12 kDa (as indicated). This experiment was conducted using Immunoblot Buffer Group 2.

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Reconstitution Reconstitute at 0.2 mg/mL in sterile PBS.

ShippingThe 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

Thioredoxin-2 (Trx2), also known as mitochondrial Thioredoxin, belongs to the evolutionarily conserved Thioredoxin family. These proteins share the Thioredoxin fold containing the active site-CGPC motif. In their reduced form, the active site cysteine residues reduce protein disulfides. The resulting active site disulfide is subsequently reduced in a reaction catalyzed by a NADPH-dependent Thioredoxin reductase. Thioredoxin-2 contains an N-terminal 59 amino acid (aa) transit sequence that is cleaved upon translocation to mitochondria. The amino acid sequence of mature mouse Thioredoxin-2 is identical to mature rat Thioredoxin-2 and 98% identical to human Thioredoxin-2. Thioredoxin-2 interacts with specific components of the mitochondrial respiratory chain and helps regulate the membrane potential. Thioredoxin-2 is ubiquitously but variably expressed and high expression confers resistance to oxidant-induced apoptosis.

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