

Anti-Thioredoxin Reductase 1 (TrxR1)

(rabbit immunoaffinity purified IgG)

Catalog # 07-613

Lot # 27050

Immunogen: KLH-conjugated, synthetic peptide corresponding to amino acids 137-150 (C-PHRIKATNNKGKEK) of human thioredoxin reductase 1.

Specificity: Recognizes thioredoxin reductase 1, Mr 58kDa. An additional protein was also detected, Mr ~70kDa, that was inhibited by the immunizing peptide.

Species Cross-reactivity: Rat and human.

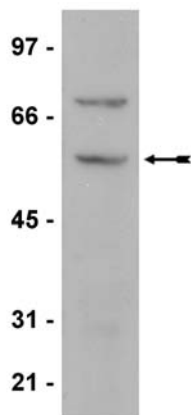
Formulation: 100µg of immunoaffinity purified rabbit IgG in 142µl of 0.1M Tris-glycine, pH 7.4, 0.15M NaCl, 0.05% sodium azide before the addition of glycerol to 30%. Liquid at -20°C.

Storage and Stability: Stable for 1 year at -20°C from date of shipment. For maximum recovery of product, centrifuge the vial prior to removing the cap.

**FOR RESEARCH USE ONLY
NOT FOR USE IN HUMANS**

Quality Control Testing

Immunoblot Analysis: 1-2µg/ml of this lot detected thioredoxin reductase 1 in RIPA lysates from rat brain microsomal preparation (Catalog # 12-144) and HeLa cells.



Immunoblot Analysis

Rat brain microsomal preparation was resolved by electrophoresis, transferred to nitrocellulose and probed with anti-Thioredoxin Reductase 1 (1µg/ml). Proteins were visualized using a goat anti-rabbit secondary antibody conjugated to HRP and a chemiluminescence detection system. Arrow indicates thioredoxin reductase 1 (~58kDa).

Additional Research Applications

Immunocytochemistry: This antibody has been reported by an independent laboratory to detect thioredoxin reductase 1 in U937 cells stained with DAPI and CMXRos.

General References:

1. Lee, S.R., *et al.*, *J. Biol. Chem.* **274**: 4722-4734, 1999.
2. Lee, S.R., *et al.*, *Proc. Natl. Acad. Sci. USA* **97**: 2521-2526, 2000.

Immunoblot Protocol

1. Perform SDS-polyacrylamide gel electrophoresis (SDS-PAGE) on a cell lysate sample (cell lysis buffer: 50mM Tris-HCl, pH 7.4; 1% NP-40; 0.25% sodium deoxycholate; 150mM NaCl; 1mM EDTA; 1mM PMSF; 1 μ g/ml each aprotinin, leupeptin, pepstatin; 1mM Na₃VO₄, 1mM NaF). **Do not boil lysate.** Instead, warm at 37°C for 30 minutes. Transfer the proteins to nitrocellulose. Wash the blotted nitrocellulose twice with water.
2. Block the blotted nitrocellulose in freshly prepared 5% nonfat dry milk (Catalog # 20-200) in TBS with 0.05% Tween[®]-20 (TBST-MLK) for 2 hours at room temperature with constant agitation.
3. Incubate the nitrocellulose with **1-2 μ g/ml of anti-Thioredoxin reductase 1**, diluted in freshly prepared TBST-MLK for 2 hours at room temperature with agitation.
4. Wash the nitrocellulose three with water.
5. Incubate the nitrocellulose in the secondary reagent of choice (a goat anti-rabbit HRP conjugated IgG, Catalog # 12-348, 1:3000 dilution was used) in TBST-MLK for 1.5 hours with agitation at room temperature.
6. Rinse the nitrocellulose twice with water.
7. Wash the nitrocellulose in TBS-0.05% Tween[®]-20 for 3-5 minutes.
8. Wash the nitrocellulose three times with water.
9. Use detection method of choice (enhanced chemiluminescence was used).