

PRODUCT DATA SHEET

Product: Anti-Thioredoxin 1 mAb, clone 3A1

Cat. No.: MC-1042 (100 µL)

Description:

Thioredoxins (Trx) are small, multi-functional proteins with oxidoreductase activity and are ubiquitous in essentially all living cells. Trx contains a redox-active disulfide / dithiol group within the conserved Cys-Gly-Pro-Cys active site. The two cysteine residues in the conserved active centers can be oxidized to form intramolecular disulfide bonds. Reduction of the active site disulfide in oxidized Trx is catalyzed by Trx reductase with NADPH as the electron donor. The reduced Trx is a hydrogen donor for ribonucleotide reductase, the essential enzyme for DNA synthesis, and a potent general protein disulfide reductase with numerous functions in growth and redox regulations. Specific protein disulfide targets for reduction by Trx include protein disulfide-isomerase (PDI) and a number of transcription factors such as p53, NF-κB and AP-1 (T1-151). Trx is also capable of removing H₂O₂, particularly when it is coupled with either methionine sulfoxide reductase or several isoforms of peroxiredoxins.

Immunogen:

Recombinant human protein purified from E.coli

Host:

Mouse

Isotype:

IgG2b

Species Reactivity:

Human. Others not tested.

Format:

HEPES with 0.15M NaCl with protein stabilizer, 0.03% sodium azide and 50% glycerol

Positive Control:

HeLa

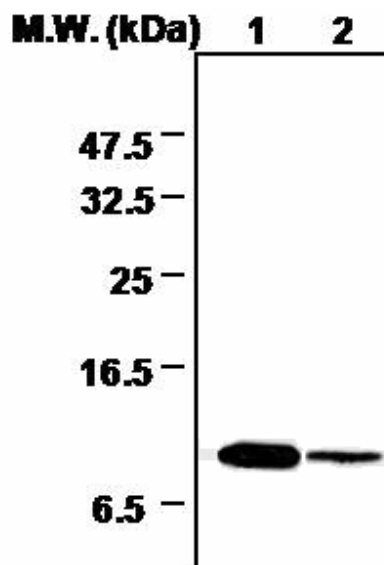
Storage:

Store at -20°C. Avoid repeated freeze/thaw cycles.

Applications:

- ELISA
- Western Blot: Suggest 1:2000 dilution.
- Immunoprecipitation: 1-2 µL
- Immunohistochemistry

The optimal dilution for a specific application should be determined by the researcher.



IMMUNOBLOT ANALYSIS of cell lysates:
 Lane 1: HeLa cell lysates
 Lane 2: Jurkat cell lysates

Limitations:

For *in vitro* research use only. Not for use in diagnostics or in humans.

Warranty:

No warranties, expressed or implied, are made regarding the use of this product. KAMIYA BIOMEDICAL COMPANY is not liable for any damage, personal injury, or economic loss caused by this product.