

PRODUCT DATA SHEET

Product: Anti-Thioredoxin Reductase 1 mAb, clone 19A1

Cat. No.: MC-1044 (100 µL)

Description:

The mammalian thioredoxin reductases (TrxRs) are a family of selenocysteine-containing pyridine nucleotide-disulfide oxido-reductases. All the mammalian TrxRs are homologous to glutathione reductase with respect to primary structure including the conserved redox catalytic site (-Cys-Val-Asn-Val-Gly-Cys-) but distinctively with a C-terminal extension containing a catalytically active penultimate selenocysteine (SeCys) residue in the conserved sequence(-Gly-Cys-SeCys-Gly). TrxR is homodimeric protein in which each monomer includes an FAD prosthetic group, a NADPH binding site and a redox catalytic site. Electrons are transferred from NADPH via FAD and the active-site disulfide to C-terminal SeCys-containing redox center, which then reduces the substrate like thioredoxin. The members of TrxR family are 55 – 58 kilodalton in molecular size and composed of three isoforms including cytosolic TrxR1, mitochondrial TrxR2, and TrxR3, known as Trx and GSSG reductase (TGR). TrxR plays a key role in protection of cells against oxidative stress and redox-regulatory mechanism of transcription factors and various biological phenomena.

Immunogen:

Recombinant human protein purified from E.coli

Host:

Mouse

Isotype:

IgG1

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

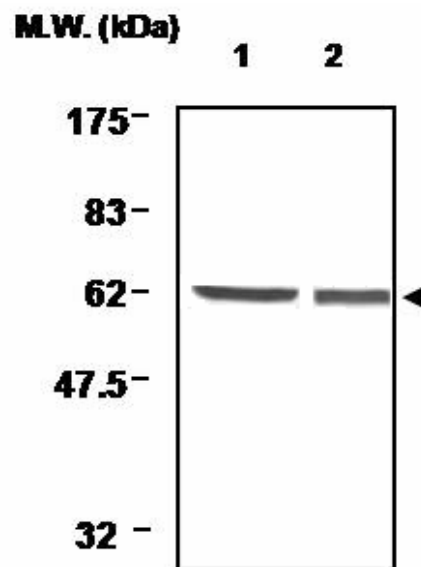
Storage:

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

Applications:

- ELISA
- Western Blot: 1:1000 Suggested dilution
- Immunoprecipitation: 1-2 µL

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.