

## PRODUCT DATA SHEET

**Product:** Anti-Thioredoxin Reductase 2 mAb, clone 25B3

**Cat. No.:** MC-1045 (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. Does not cross react with mouse or rat. Others not tested.

**Format:**

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

**Positive Control:**

HeLa

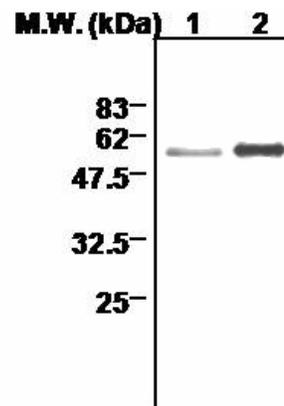
**Storage:**

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

**Applications:**

- ELISA
- Immunoprecipitation: 1-2 µL

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



IMMUNOPRECIPITATION ANALYSIS of HeLa cell lysates:

Lane 1: Input      Lane 2: Precipitates  
Immunoblot: anti-TR2 polyclonal antibody

**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.