



Anti-Thioredoxin Reductase II

Background : The mammalian thioredoxin reductases (TrxRs) are a family of selenocysteine-containing pyridine nucleotide-disulfide oxidoreductases. 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 (1).

Immunogen : Recombinant human protein purified from *E.coli*

Host : Rabbit

Note : This antibody can detect not only Trx2 but also all Trx1,2 and 3.

Size : 100 µl

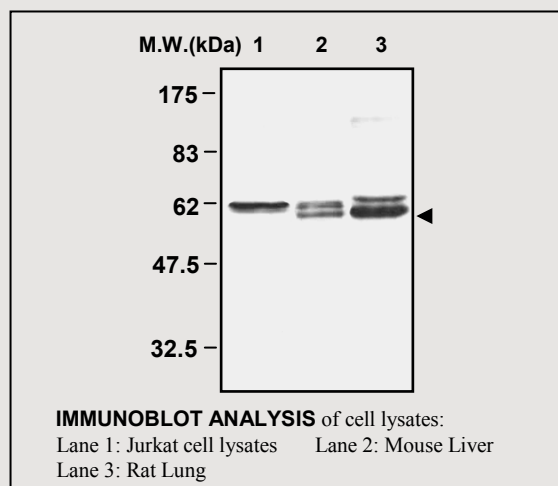
Positive control : Jurkat cell lysates

Composition : PBS containing 50% glycerol

Storage : Store for 1 year at -20°C from date of shipment

Species cross reactivity

Human	Mouse	Rat
+	+	+



Application :

Western blotting (1:2000)

Background Reference :

1) Mustacich, D. and Powis, G. (2000) *Biochem J.* 15. 346 Pt 1:1-8.

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