

Thioredoxin Reductase 2 Antibody (7B2)
Mouse Monoclonal Antibody
Catalog # ABV11158**Specification**

Thioredoxin Reductase 2 Antibody (7B2) - Product Information

Application	WB
Primary Accession	Q9NNW7
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG 1
Calculated MW	56507

Thioredoxin Reductase 2 Antibody (7B2) - Additional Information**Gene ID** 10587

Positive Control	WB analysis of cell lysates
Application & Usage	Western blot: 1:1000, IP: 1-2 µl.
Other Names	
Thioredoxin Reductase, GRIM-12, MGC9145, TR, TRXR2.	

Target/Specificity

Thioredoxin Reductase 2

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

100 µl of antibody in HEPES with 0.15 M NaCl, 0.01 % BSA, 0.03 % sodium azide, and 50 % glycerol

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

Thioredoxin Reductase 2 Antibody (7B2) is for research use only and not for use in diagnostic or therapeutic procedures.

Thioredoxin Reductase 2 Antibody (7B2) - Protein Information

Name TXNRD2 ([HGNC:18155](#))

Synonyms KIAA1652, TRXR2

Function

Involved in the control of reactive oxygen species levels and the regulation of mitochondrial redox homeostasis (PubMed:24601690). Maintains thioredoxin in a reduced state. May play a role in redox- regulated cell signaling.

Cellular Location

Mitochondrion.

Tissue Location

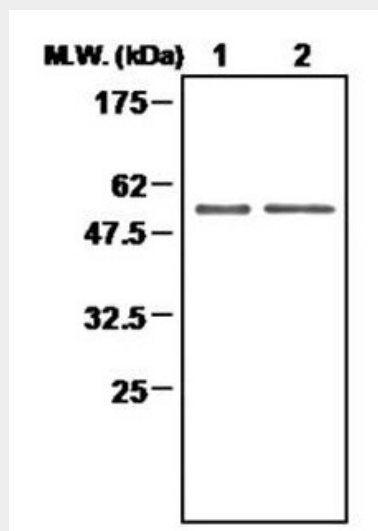
Highly expressed in the prostate, ovary, liver, testis, uterus, colon and small intestine. Intermediate levels in brain, skeletal muscle, heart and spleen. Low levels in placenta, pancreas, thymus and peripheral blood leukocytes. According to PubMed:10608886, high levels in kidney, whereas according to PubMed:9923614, levels are low. High expression is observed in the adrenal cortex (PubMed:24601690).

Thioredoxin Reductase 2 Antibody (7B2) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Thioredoxin Reductase 2 Antibody (7B2) - Images



WB analysis of cell lysates. Lane 1: Input. Lane 2: Precipitated sample.

Thioredoxin Reductase 2 Antibody (7B2) - Background

The mammalian thioredoxin reductases (TrxRs) are a family of seleno-cysteine 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 seleno-cysteine (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 kDa 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. TrxR2 maintains thioredoxin in a reduced state. Implicated in the defenses against oxidative stress. May play a role in redox-regulated cell signaling.