

Thioredoxin 1 Antibody (3A1)
Mouse Monoclonal Antibody
Catalog # ABV11159**Specification**

Thioredoxin 1 Antibody (3A1) - Product Information

Application	WB, E, IP
Primary Accession	O43396
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG 1
Calculated MW	32251

Thioredoxin 1 Antibody (3A1) - Additional Information**Gene ID** 9352

Positive Control	WB analysis of cell lysates.
Application & Usage	Western blot: 1:1000, IP: 1-2 µl, ELISA.
Other Names	
TXN, TRX, TRX1.	

Target/Specificity

Thioredoxin 1

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 1 Antibody (3A1) is for research use only and not for use in diagnostic or therapeutic procedures.

Thioredoxin 1 Antibody (3A1) - Protein Information

Name TXNL1

Synonyms TRP32, TXL, TXNL

Function

Active thioredoxin with a redox potential of about -250 mV.

Cellular Location

Cytoplasm. Nucleus. Note=At least 85% of the cellular TXNL1 is proteasome-associated

Tissue Location

Ubiquitous.

Thioredoxin 1 Antibody (3A1) - 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 1 Antibody (3A1) - Images

Thioredoxin 1 Antibody (3A1) - 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. TrxR1 plays a central role as a glucosyl donor in cellular metabolic pathways.