

# TXN Antibody

Purified Mouse Monoclonal Antibody (Mab)

Catalog # AM8704b

## Product Information

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<b>Application</b>	WB, E
<b>Primary Accession</b>	<a href="#">P10599</a>
<b>Reactivity</b>	Human
<b>Host</b>	Mouse
<b>Clonality</b>	monoclonal
<b>Isotype</b>	IgG1,k
<b>Clone Names</b>	1850CT671.41.3
<b>Calculated MW</b>	11737

## Additional Information

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<b>Gene ID</b>	7295
<b>Other Names</b>	Thioredoxin, Trx, ATL-derived factor, ADF, Surface-associated sulphhydryl protein, SASP, TXN, TRDX, TRX, TRX1
<b>Target/Specificity</b>	This antibody is generated from a mouse immunized with a recombinant protein from human.
<b>Dilution</b>	WB~~1:2000 E~~Use at an assay dependent concentration.
<b>Format</b>	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	TXN Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	TXN
<b>Synonyms</b>	TRDX, TRX, TRX1
<b>Function</b>	Participates in various redox reactions through the reversible oxidation of its active center dithiol to a disulfide and catalyzes dithiol-disulfide exchange reactions (PubMed: <a href="#">17182577</a> , PubMed: <a href="#">19032234</a> , PubMed: <a href="#">2176490</a> ). Plays a role in the reversible S- nitrosylation of cysteine residues in target proteins,

and thereby contributes to the response to intracellular nitric oxide. Nitrosylates the active site Cys of CASP3 in response to nitric oxide (NO), and thereby inhibits caspase-3 activity (PubMed:[16408020](#), PubMed:[17606900](#)). Induces the FOS/JUN AP-1 DNA-binding activity in ionizing radiation (IR) cells through its oxidation/reduction status and stimulates AP-1 transcriptional activity (PubMed:[11118054](#), PubMed:[9108029](#)).

### Cellular Location

Nucleus. Cytoplasm. Secreted Note=Translocates from the cytoplasm into the nucleus after phorbol 12- myristate 13-acetate induction (PMA) (PubMed:[9108029](#)). Predominantly in the cytoplasm in non irradiated cells (PubMed:[11118054](#)). Radiation induces translocation of TRX from the cytoplasm to the nucleus (PubMed:[11118054](#)). Secreted by a leaderless secretory pathway (PubMed:[1332947](#)).

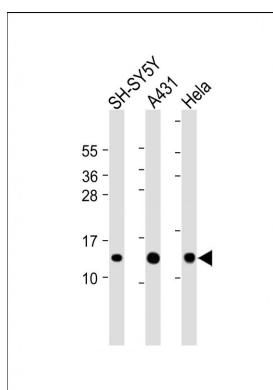
## Background

Participates in various redox reactions through the reversible oxidation of its active center dithiol to a disulfide and catalyzes dithiol-disulfide exchange reactions. Plays a role in the reversible S-nitrosylation of cysteine residues in target proteins, and thereby contributes to the response to intracellular nitric oxide. Nitrosylates the active site Cys of CASP3 in response to nitric oxide (NO), and thereby inhibits caspase-3 activity. Induces the FOS/JUN AP-1 DNA-binding activity in ionizing radiation (IR) cells through its oxidation/reduction status and stimulates AP-1 transcriptional activity.

## References

Wollman E.E.,et al.J. Biol. Chem. 263:15506-15512(1988).  
Tagaya Y.,et al.EMBO J. 8:757-764(1989).  
Tonissen K.F.,et al.Gene 102:221-228(1991).  
Reddy P.G.,et al.Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases.  
Liu A.,et al.Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.

## Images



All lanes : Anti-TXN at 1:2000 dilution Lane 1: SH-SY5Y whole cell lysate Lane 2: A431 whole cell lysate Lane 3: HeLa whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 12 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.