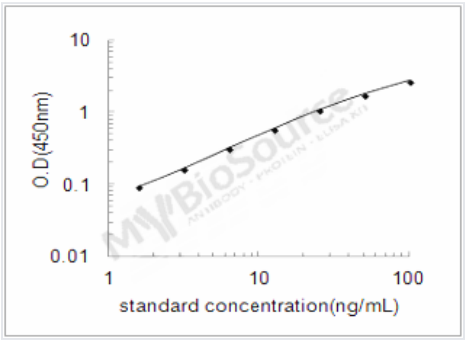
Thioredoxin (TXN) ELISA Kit for Rat

PRODUCT OVERVIEW

Product Name	Thioredoxin (Txn), ELISA Kit
Full Product Name	Rat Thioredoxin ELISA Kit
Product Gene Name	Txn elisa kit
Product Synonym Names	Thioredoxin; Trx; Txn; Txn1
Species Reactivity	Rat
Assay Type	Sandwich
Detection Range	1.56-100 ng/mL
Sensitivity	0.79 ng/mL
Preparation and Storage	For long term storage, please store the entire kit at -20 degree C.
Molecular Weight	11,673 Da
3D Structure	ModBase 3D Structure for P11232
Intra-Assay CV	<=5.1%
Inter-Assay CV	<=9.4%
Recovery	99%
Related Product Information for Txn elisa kit	MBS2884511 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Thioredoxin (Txn) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing Txn. The ELISA analytical biochemical technique of the MBS2884511 kit is based on Txn antibody-Txn antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect Txn antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, Txn. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of Txn elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Typical Testing Data/Standard Curve (for reference only) of Txn elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Txn. It may not necessarily be applicable to this product.

NCBI GI #	16758644
NCBI GeneID	116484
NCBI Accession #	NP_446252.1
UniProt Primary Accession #	P11232
UniProt Related Accession #	P11232
GenBank Nucleotide #	NM_053800.3
NCBI Official Full Name	thioredoxin
NCBI Official Synonym Full Names	thioredoxin 1
NCBI Official Symbol	Txn1
NCBI Official Synonym Symbols	Txn
UniProt Protein Name	Thioredoxin
Protein Family	Thioredoxin
UniProt Gene Name	Txn
UniProt Synonym Gene Names	Txn1; Trx
UniProt Entry Name	THIO_RAT
NCBI Protein Information	thioredoxin
NCBI Summary for Txn	protein-disulfide reductase enzyme that is important for redox signalling during apoptosis and cell growth [RGD, Feb 2006]
UniProt Comments for Txn	TXN: 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. Homodimer; disulfide-linked. Interacts with TXNIP through the redox-active site. Interacts with MAP3K5 and CASP3. In case of infection, interacts with S.typhimurium protein slrP. Interacts with APEX1; the interaction stimulates the FOS/JUN AP-1 DNA- binding activity in a redox-dependent manner. Up-regulated by ionizing radiation. Belongs to the thioredoxin family. Protein type: Nuclear receptor co-regulator Cellular Component: axon; cell soma; cytoplasm; cytosol; dendrite; extracellular region; mitochondrion; nucleus Molecular Function: enzyme binding; oxidoreductase activity, acting on sulfur group of donors, disulfide as acceptor; peptide disulfide oxidoreductase activity; protein disulfide oxidoreductase activity; thioredoxin-disulfide reductase activity Biological Process: cell redox homeostasis; glycerol ether metabolic process; negative regulation of protein export from nucleus; negative regulation of transcription from RNA polymerase II promoter; positive regulation of DNA binding; positive regulation of peptidyl-serine phosphorylation; protein folding; regulation of protein import into nucleus, translocation; regulation of transcription, DNA-dependent; response to activity; response to axon injury; response to drug; response to radiation; response to selenium ion; sulfate assimilation; transcription, DNA-dependent
Research Articles on Txn	**1.** Results revealed that Trx-1, which is more likely regulated by Nrf2, exerts a neuroprotective role following cerebral ischemia/reperfusion probably through maintaining the reduction activity of Prdx1-4
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