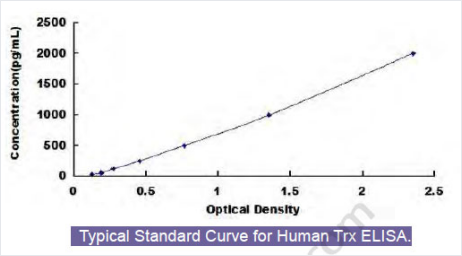
Thioredoxin (TRX) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Thioredoxin (Trx), ELISA Kit
Full Product Name	Human Thioredoxin (Trx) ELISA Kit
Product Gene Name	Trx elisa kit
Product Synonym Names	TXN; ADF; SASP; TRDX; TRX1; ATL-derived factor; Surface-associated sulphydryl protein
Species Reactivity	Human
Assay Type	Quantitative Sandwich
Samples	Human serum, plasma Saliva or other biological fluids
Detection Range	31.2-2000pg/mL
Sensitivity	<14.2pg/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of Trx. No significant cross-reactivity or interference between Trx and analogues was observed.
Preparation and Storage	For unopened kit, all reagents should be kept according to the labels on vials. The TMB Substrate, Wash Buffer, Stop Solution should be stored at 4 degree C. All others should be stored at -20 degree C.
Inter-assay Precision	Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level Trx were tested on 3 different plates, 8 replicates in each plate. CV(%) = SD/meanX100. Inter-Assay: CV<12%
Intra-assay Precision	Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level Trx were tested 20 times on one plate, respectively. Intra-Assay: CV<10%
Molecular Weight	9,452 Da
OMIM	J04026 mRNA
3D Structure	ModBase 3D Structure for P10599
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for Trx elisa kit	Intended Uses: The kit is a sandwich enzyme immunoassay for the in vitro quantitative measurement of Trx in human serum, plasma Saliva or other biological fluids. Principle of the Assay: The microtiter plate provided in this kit has been pre-coated with an antibody specific to Trx. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to Trx. Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain Trx, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm +/- 10nm. The concentration of Trx in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of Trx 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.

Searchable Terms for Trx purchase	MBS455321 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Thioredoxin (Trx) 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 Trx. The ELISA analytical biochemical technique of the MBS455321 kit is based on Trx antibody-Trx antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect Trx antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, Trx. 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(%).



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

ADDITIONAL DETAILS

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

NCBI GI #	349732256
NCBI GeneID	7295
NCBI Accession #	NP_001231867.1
UniProt Primary Accession #	P10599
UniProt Secondary Accession #	O60744; Q53X69; Q96KI3; Q9UDG5; B1ALW1
UniProt Related Accession #	P10599
GenBank Nucleotide #	NM_001244938.1
NCBI Official Full Name	thioredoxin isoform 2
NCBI Official Synonym Full Names	thioredoxin
NCBI Official Symbol	TXN
NCBI Official Synonym Symbols	TRX; TRDX; TRX1
UniProt Protein Name	Thioredoxin
UniProt Synonym Protein Names	ATL-derived factor; ADF; Surface-associated sulphydryl protein; SASP
Protein Family	Histone-lysine N-methyltransferase
UniProt Gene Name	TXN
UniProt Synonym Gene Names	TRDX; TRX; TRX1; Trx; ADF; SASP
NCBI Protein Information	thioredoxin
NCBI Summary for Trx	The protein encoded by this gene acts as a homodimer and is involved in many redox reactions. The encoded protein is active in the reversible S-nitrosylation of cysteines in certain proteins, which is part of the response to intracellular nitric oxide. This protein is found in the cytoplasm. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2011]

UniProt Comments for Trx	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.
Research Articles on Trx	**1.** Elevated plasma thioredoxin levels are correlated with the severity and poor prognosis in subarachnoid hemorrhage patients.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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