Active Recombinant Thioredoxin, His-tagged

Cat. No. TXN-4662H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Thioredoxin Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 125 amino acids (1-105 a.a.) and having a molecular mass of 13.9 kDa. TXN protein is fused to a 20 amino acid His-Tag at N-terminus and purified by standard chromatography.
Species	Human
Source	Human
ProteinLength	1-105 a.a.
Description	Thioredoxins are small disulphide-containing redox proteins (within the conserved Cys-Gly-Pro-Cys active site) that have been found in all the kingdoms of living organisms. Thioredoxin contains a single disulfide active site and serves as a general protein disulphide oxidoreductase. Thioredoxins are involved in the first unique step in DNA synthesis. It interacts with a broad range of proteins by a redox mechanism based on reversible oxidation of two cysteine thiol groups to a disulphide, accompanied by the transfer of two electrons and two protons. The net result is the covalent interconversion of a disulphide and a dithiol. It has been suggested that thioredoxin may catalyze the formation of correct disulfides during protein folding because of its ability to act as an efficient oxidoreductant. Trx also provides control over a number of transcription factors affecting cell proliferation and death through a mechanism referred to as redox regulation.

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Form	TXN1 solution containing 1x PBS pH 7.4.
Purity	Greater than 95.0% as determined by SDS-PAGE.
Bio-activity	Specific activity is 7-10 A650/min/mg, obtained by measuring the increase of insulin precipitation in absorbance at 650 nm resulting from the reduction of insulin.
Physical Appearance	Sterile filtered colorless solution.
Amino acid sequence	MGSSHHHHHH SSGLVPRGSH MVKQIESKTA FQEALDAAGD KLVVVDFSAT WCGPCKMIKP FFHSLSEKYS NVIFLEVDVD DCQDVASECE VKCMPTFQFF KKGQKVGEFS GANKEKLEAT INELV.
Storage	Thioredoxin human although stable at 4ºC for 1 week, should be stored desiccated below -18ºC. Please prevent freeze thaw cycles.
Pathways	Nucleotide metabolism

GENE INFORMATION

Gene Name	TXN thioredoxin [Homo sapiens]
Official Symbol	TXN
Synonyms	TXN; MGC61975; TRX; ADF; DKFZp686B1993; MGC61975; OTTHUMP00000021892; SASP; TRDX; TRX1; Trx; thioredoxin; ATL-derived factor; Surface-associated sulphydryl protein
Gene ID	7295
mRNA Refseq	NM_003329

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Protein Refseq	NP_003320
MIM	187700
UniProt ID	P10599
Chromosome Location	9q31
Function	protein binding

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