TRX1
Recombinant Yeast Thioredoxin

Catalog No.	CSI12890	**Quantity:**	5 µg
	CSI12891		20 µg
	CSI12892		1.0 mg

Alternate Names: Thioredoxin-1, Thioredoxin I, TR-I, Thioredoxin-2, TRX1, TRX2, YLR043C.

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.
Thioredoxin Yeast Recombinant produced in *E.Coli* is a single, non-glycosylated, polypeptide chain.

Physical Appearance: Sterile Lyophilized Powder.

Gene ID: 850732

Protein Accession No: P22217

Source: *E. coli*

Molecular Weight: 12.6 kDa

Formulation: Each mg of protein contains 20 mM phosphate buffer pH 7.4.

Purity: Greater than 95.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

Biological Activity: TRX activity is assayed by measuring the change in absorbance at 650 nm at 25°C using 0.13 µM bovine insulin containing 0.33 mM DTT (pH 6.5).
The specific activity was found to be 3 IU/mg.

Reconstitution: It is recommended to reconstitute the lyophilized TRX in sterile 18 MΩ-cm H_2O.

Storage & Stability: TRX although stable at 4°C for 3 weeks, should be stored desiccated below -18°C.
Please prevent freeze thaw cycles.

Cell Sciences®
480 Neponset Street
Bldg 12A
Canton, MA 02021

Toll Free: 888-769-1246
Phone: 781-828-0610
Fax: 781-828-0542

E-mail: info@cellsciences.com
Website: www.cellsciences.com