

# Recombinant Human TXN Protein

**Cat. No.** TXN-018H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Mutant Human TXN protein (Mutant C61S/C72S) without tag was expressed in E. coli. This is a mutant form of human thioredoxin, which lacks the structural cysteine residues C61 and C72, which are responsible for oxidative inactivation and dimer formation. The active site: C31 and C34.                                                                                 |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Description</b>      | 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. |
| <b>Form</b>             | Lyophilized                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Stability</b>        | ≥ 6 months                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Storage</b>          | 4 centigrade                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Storage Buffer</b>   | 50 mM tris-HCl, pH 7.5, 1 mM EDTA                                                                                                                                                                                                                                                                                                                                                       |
| <b>Reconstitution</b>   | Reconstitute with 100 µL H <sub>2</sub> O. This gives a solution of 210 µM thioredoxin. The protein may partly be oxidized and can be reactivated by addition of a 5-fold molar                                                                                                                                                                                                         |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

excess of DTT or by use of Reductacryl® reagent.

## GENE INFORMATION

|                        |                                                                                                                                                                                          |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | TXN thioredoxin [ Homo sapiens (human) ]                                                                                                                                                 |
| <b>Official Symbol</b> | TXN                                                                                                                                                                                      |
| <b>Synonyms</b>        | TXN; thioredoxin; TRX; TRDX; TRX1; thioredoxin; ADF; ATL-derived factor; SASP; TXN delta 3; surface-associated sulphydryl protein; testicular tissue protein Li 199; thioredoxin delta 3 |
| <b>Gene ID</b>         | 7295                                                                                                                                                                                     |
| <b>mRNA Refseq</b>     | NM_001244938                                                                                                                                                                             |
| <b>Protein Refseq</b>  | NP_001231867                                                                                                                                                                             |
| <b>MIM</b>             | 187700                                                                                                                                                                                   |
| <b>UniProt ID</b>      | P10599                                                                                                                                                                                   |

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