

# Recombinant mouse Thioredoxin-1 protein

Catalog Number: ATGP3867

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-105aa

### UniProt No.

P10639

### NCBI Accession No.

NP\_035790

### Alternative Names

TRX1, TRX2, Thioredoxin-1, Thioredoxin I, TR-I, Thioredoxin-2, Thioredoxin-1, ADF, Surface associated sulphhydryl protein, TXN protein, ATL derived factor, DKFZp686B1993, MGC61975, SASP, Thioredoxin, TRDX, TRX, TRX 1, TXN

## PRODUCT SPECIFICATION

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### Molecular Weight

14.1 kDa (128aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by BCA assay)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 90% by SDS-PAGE

### Endotoxin level

< 1 EU per 1µg of protein (determined by LAL method)

### Biological Activity

Specific activity is >60 A650/cm/min/mg, obtained by measuring the increase of insulin precipitation in absorbance at 650 nm resulting from the reduction of insulin

### Tag

His-Tag

### Application

SDS-PAGE, Enzyme Activity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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## BACKGROUND

### Description

Thioredoxin-1 is a low molecular weight redox protein. Thioredoxin-1 contains a redox active disulfide/dithiol group within the conserved Cys-Gly-Pro-Cys active site. It is involved in the first unique step in DNA synthesis. Thioredoxin-1 also provides control over a number of transcription factors affecting cell proliferation and death through a mechanism referred to as redox regulation. Recombinant Mouse Thioredoxin-1 was expressed in *E. coli* and purified by using conventional chromatography techniques.

### Amino acid Sequence

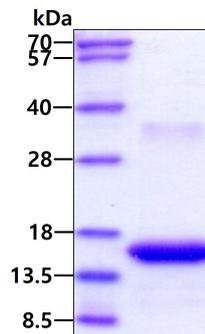
<MGSSHHHHHH SSGLVPRGSH MGS>MVKLIES KEAFQEALAA AGDKLVVDF SATWCGPCKM IKPFFHSLCD  
KYSNVVFLEV DVDDCQDVAA DCEVKCMPTF QFYKKGQKVG EFSGANKEKL EASITEYA

### General References

Pigiet VP., et al.(1986) Proc. Natl.Acad.Sci. uSA 83(20):7643-7.  
Lundstrom J., et al. (1990) J.Biol.Chem. 265(16):9114-20.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.