

Recombinant human Thioredoxin-1 protein

Catalog Number: ATGP0530

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-105aa

UniProt No.

P10599

NCBI Accession No.

NP_003320

Alternative Names

Thioredoxin, TRX, TRX1, Thioredoxin JW0871, ECK0879, Thioredoxin reductase, FAD/NAD(P)-binding, TRXR.

PRODUCT SPECIFICATION

Molecular Weight

13.9 kDa (125aa) confirmed by MALDI-TOF (Molecular weight on SDS-PAGE will appear higher)

Concentration

1mg/ml (determined by BCA assay)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4)

Purity

> 95% by SDS-PAGE

Biological Activity

Specific activity is >100 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.

BACKGROUND

Description

Thioredoxin (Trx) is a low molecular weight redox protein. Trx 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. Trx also provides control over a number of transcription factors affecting cell proliferation and death through a

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mechanism referred to as redox regulation. Recombinant human TXN protein, fused to His-tag at N-terminus, was overexpressed in *E. coli* and purified by using conventional chromatography techniques.

Amino acid Sequence

<MGSSHHHHHH SSGLVPRGSH> MVKQIESKTA FQEALDAAGD KLVVVDFSAT WCGPCKMIKP FFHSLSEKYS
NVIFLEVDVD DCQDVASECE VKCMPTFQFF KKGQKVGFEFS GANKEKLEAT INELV

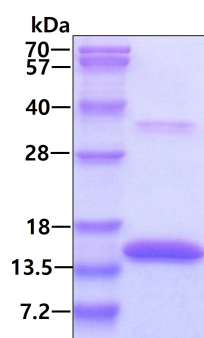
General References

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.