

RP00036

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# Recombinant Human Thioredoxin/SASP/TXN Protein

Catalog No.: RP00036

Recombinant

## Sequence Information

Species	Gene ID	Swiss Prot
Human	7295	P10599

### Tags

C-His

### Synonyms

TRDX; TRX; TRX1;TXN;TRX;TRX1

## Product Information

Source	Purification
<I>E. coli</I>	> 95% by SDS-PAGE.

### Endotoxin

< 0.1 EU/μg of the protein by LAL method.

### Formulation

Lyophilized from a 0.22 μm filtered solution of 20mM Tris, 150mM NaCl, pH 8.0. Contact us for customized product form or formulation.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact



[www.abclonal.com](http://www.abclonal.com)

## Background

Thioredoxin, also known as ATL-derived factor, Surface-associated sulphhydryl protein, SASP and TXN, is a nucleus, cytoplasm and secreted protein which belongs to the thioredoxin family. Trx-1 is the only extracellular occurring thioredoxin, and is secreted by lymphocytes, hepatocytes, fibroblasts, and several tumor cells. Plasma concentrations of Trx-1 are up to 6 nM. In cells, Trx-1 is localized predominantly in the cytoplasm. Small amounts have been detected in the nucleus and in association with the outside surface of the cells. Biological functions of Trx-1 include growth factor activity, antioxidant properties, a cofactor that provides reducing equivalents, and transcriptional regulation.

## Basic Information

### Description

Recombinant Human Thioredoxin/SASP/TXN Protein is produced by <I>E. coli</I> expression system. The target protein is expressed with sequence (Val2-Val105) of human Thioredoxin (Accession #NP\_003320.2) fused with a 6×His tag at the C-terminus.

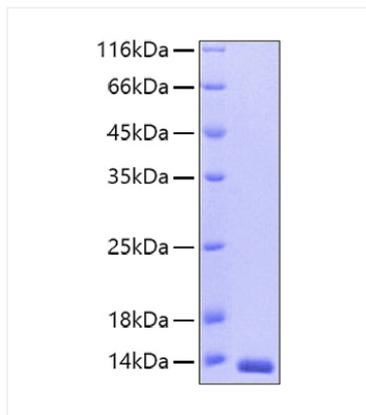
### Bio-Activity

1. Measured by its binding ability in a functional ELISA. Immobilized Human TXN Protein at 1 μg/mL (100 μL/well) can bind TXN Rabbit mAb with a linear range of 0.976-5.3 ng/mL. 2. Measured by its ability to catalyze the reduction of insulin. The reaction leads to precipitation, which can be measured by absorbance at 650 nm. The specific activity is >9 A650/min/mg.

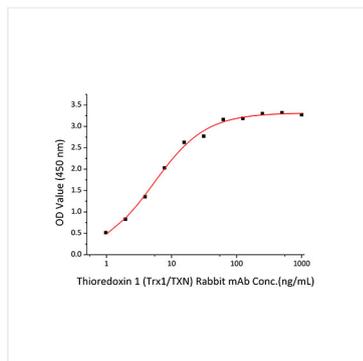
### Storage

Store the lyophilized protein at -20°C to -80 °C for long term. After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week. Avoid repeated freeze/thaw cycles.

## Validation Data



Recombinant Human Thioredoxin/SASP/TXN Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 13 kDa.



Immobilized recombinant Human TXN Protein at 1 $\mu$ g/mL (100  $\mu$ L/well) can bind TXN Rabbit mAb with a linear range of 0.976-5.3ng/mL.