

Recombinant Human Thioredoxin/SASP/TXN Protein

Catalog No.: RP00036

Recombinant

1 Publications

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 % as determined by SDS-PAGE.

Calculated MW	Observed MW
12.45 kDa	15 kDa

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

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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 *E. coli* 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.

Shipping

Lyophilized proteins are shipped at ambient temperature. Liquid proteins are shipped at frozen temperature with dry ice. Upon receipt, store it immediately at the temperature recommended below.

Storage

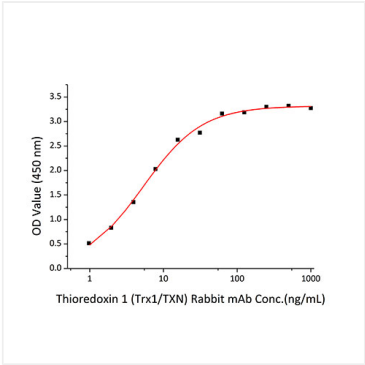
Store at -20°C
Avoid repeated freeze/thaw cycles.

Operational Notes

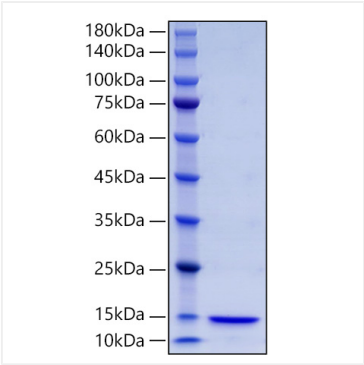
For your safety and health, please wear a lab coat and disposable gloves for handling.



Validation Data



Immobilized recombinant Human TXN Protein at 1µg/mL (100 µL/well) can bind TXN Rabbit mAb with a linear range of 0.976-5.3ng/mL.



Recombinant Human Thioredoxin/SASP/TXN Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.