

Datasheet for ABIN935101

**Thioredoxin Reductase Protein (TrxR) (AA 1-321)**[Go to Product page](#)**1** Image

## Overview

Quantity:	100 µg
Target:	Thioredoxin Reductase (TrxR)
Protein Characteristics:	AA 1-321
Origin:	E. coli
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active
Application:	SDS-PAGE (SDS)

## Product Details

Sequence:	MGTTKHSKLL ILGSGPAGYT AAVYAARANL QPVLITGMEK GGQLTTTTEV ENWPGDPNDL TGPLLMERMH EHATKFETEI IFDHINKVDL QNRPFRLNGD NGEYTCDALI IATGASARYL GLPSEEFKRGV SACATCD GFFYRNQKVA VIGGGNTAVE EALYLSNIAS EVHLIHRDGL FRAEKILIKR LMDKVENGNI ILHTNRTLEE VTGDQMGVTG VRLRDTQNSD NIESLDVAGL FVAIGHSPNT AIFEGQLELE NGYIKVQSGI HG NATQTSIP GVFAAGDVMD HIYRQAITS GTGCMAALDA ERYLDGLADA K
Characteristics:	Purified recombinant E.coli TRXB protein Expression System: E.coli Bioactivity: Specific activity is 4-5 units/mL, and was measured in a coupled assay with DTNB and NADPH. The amount of TNB generated by NADPH was measured in absorbance at 412 nm.
Purity:	> 90 % pure

## Target Details

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Target:	Thioredoxin Reductase (TrxR)
Alternative Name:	TRXB ( <a href="#">TrxR Products</a> )
Background:	<p>TRXB(Thioredoxin reductase) is a ubiquitous enzyme which is involved in many cellular processes such as cell growth, p53 activity, and protection against oxidative stress. The mammalian Thioredoxin reductase reduces thioredoxins as well as non-disulfide substrates such as selenite, lipoic acids, lipid hydroperoxides, and hydrogen peroxide. Recombinant E. coli TRXB protein was expressed in E. coli and purified by using conventional chromatography techniques.</p> <p>Alternative Names: protein, Thioredoxin reductase protein, FAD/NAD(P)-binding protein, Thioredoxin reductase JW0871 protein, TRXR., ECK0879 protein</p>
Molecular Weight:	34.6 kDa (321 AA)

## Application Details

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Application Notes:	TRXB protein has been used in SDS PAGE and may be suitable for use in other assays to be determined by the end user.
Assay Procedure:	<ol style="list-style-type: none"><li>1. Prepare a 0.7 mL reaction mixture into a suitable container: The final concentrations are 107 mM potassium phosphate, 17 mM EDTA, 0.7 mM beta-NADPH, 0.05 % BSA, 0.014 % (w/v) thioredoxin, 7 mM DTNB, 5 µg, E. coli TRXB.</li><li>2. Equilibrate to 25 °C and monitor the A412 nm until the value is constant using a spectrophotometer.</li><li>3. Add 35 µL of 107 mM DTNB into reaction mixture and mix immediately.</li><li>4. Record the increase in A412 nm for 2 minutes.</li></ol>
Restrictions:	For Research Use only

## Handling

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Format:	Liquid
Concentration:	1 mg/mL
Buffer:	Supplied as a liquid in 20 mM Tris-HCl buffer, pH 8.0, containing 0 mM DTT and 10 % glycerol.
Preservative:	Dithiothreitol (DTT)
Precaution of Use:	This product contains Dithiothreitol: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.

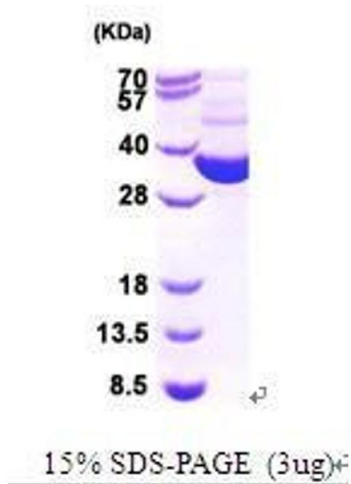
## Handling

Handling Advice: Avoid repeated freeze/thaw cycles.

Storage: RT/-20 °C

Storage Comment: Store at 4 °C for short term storage (1/2 weeks). Aliquot and store at -20 °C or -70 °C for long term storage.

## Images



### SDS-PAGE

**Image 1.** Figure annotation denotes ug of protein loaded and % gel used.