

Product datasheet for **AR09450PU-L**

Thioredoxin reductase / TRXB (1-321) Escherichia coli Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Thioredoxin reductase / TRXB (1-321) e. coli recombinant protein, 0.5 mg
Species:	Escherichia coli
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	MGTTKHSKLL ILGSGPAGYT AAVYAARANL QPVLITGMEK GGQLTTTTEV ENWPGDPNDL TGPLLMERMH EHATKFETEI IFDHINKVDL QNRPFLNGD NGEYTCDALI IATGASARYL GLPSEEFKRG RVSAACATCD GFFYRNQKVA VIGGGNTAVE EALYLSNIAS EVHLIHRRDG FRAEKILIKR LMDKVENGNI ILHTNRTLEE VTGDQMGVTG VRLRDTQNSD NIESLDVAGL FVAIGHSPNT AIFEGQLELE NGYIKVQSGI HGNATQTSIP GVFAAGDVMD HIYRQAITS A GTGCMAALDA ERYLDGLADA K
Predicted MW:	34.6 kDa
Concentration:	lot specific
Purity:	>90% pure by SDS - PAGE
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 1 mM DTT, 10% glycerol
Bioactivity:	Biological: Specific activity is > 10 units/mg, 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. <u>Activity Assay</u> 1. Prepare a 0.7 ml reaction mixture into a suitable container: The final concentrations are 100mM potassium phosphate, 10mM EDTA, 0.2mM beta-NADPH, 0.05% BSA, 0.014% (w/v) thioredoxin, 5mM DTNB, 5ug E.coli TRXB. 2. Equilibrate to 25°C and monitor the A412nm until the value is constant using a spectrophotometer. 3. Add 35 ul of 100 mM DTNB into reaction mixture and mix immediately. 4. Record the increase in A412nm for 2 minutes.
Preparation:	Liquid purified protein
Protein Description:	Recombinant E.coli TRXB protein was expressed in E.coli and purified by using conventional chromatography techniques.



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Storage: Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer. Avoid repeated freezing and thawing.

Stability: Shelf life: one year from despatch.

Summary: TRXB (Thioredoxin reductase) is a ubiquitous enzyme which is involved in many cellular processes such as cell growth, p53 activity, and protection against oxidation stress. The mammalian Thioredoxin reductase reduces thioredoxins as well as non-disulfide substrates such as selenite, lipoic acids, lipid hydroperoxides, and hydrogen peroxide.

Product images:

