

Yeast Thioredoxin Reductase - Purified

Catalog No.: AR10712PU-S

Quantity: 5 µg

Background: Thioredoxin reductase (TrxR/NTR), an enzyme belonging to the flavoprotein family of pyridine nucleotide-disulfide oxidoreductases. Thioredoxin reductase (TrxR), a component of the thioredoxin system, including thioredoxin (Trx) and NADPH, catalyzes the transfer of electrons from NADPH to Trx, acts as a reductant of disulfide-containing proteins and participates in the defense system against oxidative stresses.

Species: Yeast

Source: E. coli

Format: **State:** Sterile Filtered White lyophilized (freeze-dried) powder
Purity: > 98.0% as determined by both RP-HPLC and SDS-PAGE analysis
Buffer System: Each mg of protein contains 20mM Phosphate buffer pH 7.4 and 0.15M Sodium Chloride
Reconstitution: Restore the lyophilized NTR in sterile 18MΩ-cm⁻¹ H₂O.

Description: Thioredoxin Reductase (NADPH) Yeast Recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain having a molecular mass of 36 kDa. Thioredoxin Reductase is purified by proprietary chromatographic techniques.

Biological Activity: The specific activity was found to be 5 IU/mg.

Unit Definition: One unit equals the change in absorbance at 412 nm per minute at 25°C using 0.2mM NADPH containing 5mM DTNB (pH 7.0).

Molecular weight: 36 kDa

Storage: Prior to reconstitution store at 2-8°C for one month or desiccated below -18°C. Following reconstitution store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.