

## Yeast Thioredoxin Reductase - Purified

**Catalog No.:** AR10712PU-L

**Quantity:** 1 mg

**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<sup>-1</sup> H<sub>2</sub>O.

**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.