

## 32-2872: TXNRD1 Recombinant Protein

**Alternative Name :** Thioredoxin reductase 1 cytoplasmic,TR, Gene associated with retinoic and interferon-induced mortality 12 protein, GRIM-12, Gene associated with retinoic and IFN-induced mortality 12 protein, KM-102-derived reductase-like factor

### Description

Source : Escherichia Coli. TXNRD1 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 508 amino acids (161-647 a.a.) and having a molecular mass of 55.7 kDa. TXNRD1 protein is fused to a 20 amino acid His tag at N-terminus and is purified by standard chromatography. TXNRD1 belongs to the selenium-containing pyridine nucleotide-disulphide oxidoreductase family, which has a conserved catalytic site of Cys-Val-Asn-Val-Gly-Cys. TXNRD1 decreases thioredoxins as well as other substrates, and participates in selenium metabolism and protection against oxidative stress. Inhibition of TXNRD1 activity serves as a potential treatment for cancer, AIDS and other autoimmune diseases as well as bacterial infections and parasitic diseases.

### Product Info

**Amount :** 25 µg  
**Purification :** Greater than 90% as determined by SDS-PAGE.  
**Content :** TXNRD1 Human solution (0.5mg/ml) containing 1x PBS pH-7.4 & 10% glycerol.  
**Storage condition :** Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.  
**Amino Acid :** MGSSHHHHHH SSGLVPRGSH MYDYDLIIG GSGGLAAAK EAAQYGKKVM VLDFVTPTPL  
GTRWGLGGTC VNVGCIPKKL MHQAALLGQALQDSRNYGWK VEETVKHDWD RMIEAVQNH  
GSLNWGYRVA LREKKVYYEN AYGQFIGPHR IKATNKGKE KIYSAERFLI ATGERPRYLIGIPGDKEYCIS  
SDDLFSLYC PGKTLVVGAS YVALECAGFL AGIGLDVTVM VRSILLRGFD QDMANKIGEH MEEHGIFIR  
QFVPIKVEQIEAGTPGRLRV VAQSTNSEEI IEGEYNTVML AIGRDACTRK IGLETGVVKI NEKTGKIPVT  
DEEQTNVPYI YAIGDILEDK VELTPVAIQAGRLLAQLRYA GSTVKCDYEN VPTTVFTPLE YGACGLSEEK  
AVEKFGEENI EVYHSYFWPL EWTIPSRDNN KCYAKIICNT KDNERVVGFH VLGPNAGEVT QGFAALKCG  
LTKKQLDSTI GIHPVCAEVF TTLSVTKRSG ASILQAGC.

### Application Note

Specific activity is > 15 units/mg, and was measured in a coupled assay with 5,5'-Dithiobis(2-nitrobenzoic acid)(DTNB) and NADPH. The amount of TNB generated by NADPH was measured in absorbance at 412 nm.

