

**TXNRD1, 161-647aa, Human, His tag, E.coli**

**Cat.NO.: TP04360**

3th Edition

**Synonyms:**GRIM-12, MGC9145, TR, TR1, TRXR1, TXNR, Thioredoxin reductase 1 Gene associated with retinoid IFN induced mortality 12 protein, GRIM 12, GRIM12, KDRF, KM 102 derived reductase like factor, MGC9145, Oxidoreductase

**Description:**TXNRD1, also known as Thioredoxin reductase 1, is a part of a selenium-containing pyridine nucleotide-disulphide oxidoreductase family, which has a conserved catalytic site of Cys-Val-Asn-Val-Gly-Cys. This protein reduces thioredoxins as well as other substrates, and plays a role in selenium metabolism and protection against oxidative stress. Inhibition of TXNRD1 activity may provide for potential treatments of cancer, AIDS and other autoimmune diseases as well as bacterial infections and parasitic diseases. Recombinant human TXNRD1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.

**Form:**Liquid. In Phosphate Buffered Saline pH7.4 containing 10% glycerol

**Molecular Weight:**55.7 kDa (508aa), confirmed by MALDI-TOF

**Sequences:**

MGSSHHHHHSSGLVPRGSHMYDYDLIIIGGGSGGLAAAKEAAQYGKKVMVLDVFTPTPLGTRWGLGGTCVNVG  
CIPKMLMHQAALLGQALQDSRNYGKWVEETVKHWDWMIEAVQNHIGSLNWGYRVALREKKVVYENAYGQFIGPH  
RIKATNKGKEKIYSAERFLIATGERPRYLGIPGDKEYCISDDLFLSLPYCPGKTLVVGASYVALECAGFLAGIGLDVT  
VMVRSILLRGFDDQDMANKIGEHEMEEHGIFIRQFVPIKVEQIEAGTPGRLRVVAQSTNSEEIEGEYNTVMLAIGRDA  
CTRKIGLETVGVKINEKTGKIPVTDEEQTNVPYIYAIGDILEDKVELTPVAIQAGRLLAQRLYAGSTVKCDYENVPTTV  
FTPLEYGACGLSEEKAVEKFGREENIEVYHSYFWPLEWTIPSRDNNKCYAKIICNTKDNERVVG FHVLPNAGEVTQ  
GFAAALKCGLTKKQLDSTIGIHPVCAEVFTTLSVTKRSGASILQAGC

**Purity:**> 95% by HPLC

**Concentration:**0.5mg/ml (determined by Bradford assay)

**Endotoxin Level:**<1.0 EU per 1 ug of protein (determined by LAL method)

**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.