

Human Recombinant TXNRD1

CATALOG #: 6330-100 100 µg

ALTERNATE NAMES: Thioredoxin Reductase, GRIM-12, MGC9145, TR, TR1, TRXR1, TXNR.

SOURCE: E.Coli

PURITY: > 95% by SDS - PAGE

MOL. WEIGHT: 55.7 kDa (508 aa + His Tag (NT))

FORMULATION: 0.5 mg/ml solution in PBS (pH 7.4) containing 20% glycerol.

STORAGE CONDITIONS:

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.

DESCRIPTION:

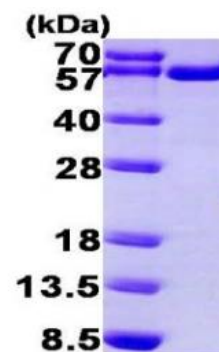
Thioredoxin reductase 1, cytoplasmic is an enzyme that in humans is encoded by the TXNRD1 gene. This gene encodes a member of the family of pyridine nucleotide oxidoreductases. This protein reduces thioredoxins as well as other substrates, and plays a role in selenium metabolism and protection against oxidative stress. The functional enzyme is thought to be a homodimer which uses FAD as a cofactor. Inhibition of TXNRD1 activity may provide for potential treatments of cancer, AIDS and other autoimmune diseases as well as bacterial infections and parasitic diseases

AMINO ACID SEQUENCE:

MGSSHHHHHH SSGLVPRGSH MYDYDLIIG GSGGLAAAK EAAQYGKKVM
 VLDFVTPTPL GTRWGLGGTC VNVGCIPKKL MHQAALLGQA LQDSRNYGWK
 VEETVKHDWD RMIEAVQNHI GSLNWGYRVA LREKKVVYEN AYGQFIGPHR
 IKATNNKGKE KIYSAERFLI ATGERPRYLG IPGDKEYCIS SDDLFSLPYC PGKTLVVGAS
 YVALECAGFL AGIGLDVTVM VRSILLRGFD QDMANKIGEHEE MEEHGKIFIR QFVPIKVEQI
 EAGTPGRLRV VAQSTNSEEI IEGEYNTVML AIGRDACTRK IGLETVGVKI NEKTGKIPVT
 DEEQTNVPYI YAIGDILEDK VELTPVAIQA GRLLAQRLYA GSTVKCDYEN VPTTVFTPLE
 YGACGLSEEK AVEKFGREENI EVYHSYFWPL EWTIPSRDNN KCYAKIICNT KDNERVVGFFH
 VLGPNAGEVT QGFAAALKCG LTKKQLDSTI GIHPVCAEVF TTLSVTKRSG ASILQAGC

BIOLOGICAL ACTIVITY:

Specific activity is 0.48-0.60 units/ml, 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.



15% SDS-PAGE (3µg)

Human Recombinant TXNRD1

RELATED PRODUCTS:

- Thioredoxin Reductase Assay kit (Cat. No. K763-100)
- Human Recombinant Thioredoxin 1 (Cat. No. 6305-100)
- Human Recombinant Thioredoxin 2 (Cat. No. 6318-100)
- E. Coli Recombinant Thioredoxin 1 (Cat. No. 6329-50)
- E. Coli Recombinant TRXB (Cat. No. 6331-100)

FOR RESEARCH USE ONLY! Not to be used in humans.

