Recombinant Human TXNRD1 Protein, His-tagged

Cat. No. TXNRD1-517H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human TXNRD1 Protein (Gly412-Cys646) with N-His tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	Gly412-Cys646
Description	The protein encoded by this gene belongs to the pyridine nucleotide-disulfide oxidoreductase family, and is a member of the thioredoxin (Trx) system. Three thioredoxin reductase (TrxR) isozymes are found in mammals. TrxRs are selenocysteine-containing flavoenzymes, which reduce thioredoxins, as well as other substrates, and play a key role in redox homoeostasis. This gene encodes an ubiquitously expressed, cytosolic form of TrxR, which functions as a homodimer containing FAD, and selenocysteine (Sec) at the active site. Sec is encoded by UGA codon that normally signals translation termination. The 3' UTRs of selenoprotein mRNAs contain a conserved stem-loop structure, the Sec insertion sequence (SECIS) element, which is necessary for the recognition of UGA as a Sec codon rather than as a stop signal. Alternative splicing, primarily at the 5' end, results in transcript variants encoding same or different isoforms, including a glutaredoxin-containing isoform that is predominantly expressed in testis.
Form	Freeze-dried powder

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

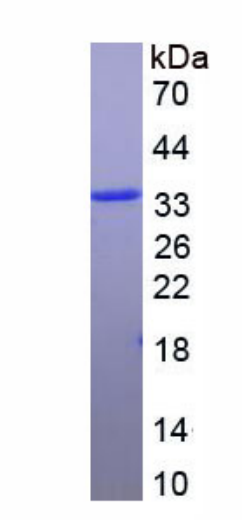
Molecular Mass	Predicted Molecular Mass: 29.4 kDa Accurate Molecular Mass: 32 kDa
Purity	> 90%
Applications	Positive Control; Immunogen; SDS-PAGE; WB.
Stability	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 centigrade for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.
Storage Buffer	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Reconstitution	Reconstitute in sterile water to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	TXNRD1 thioredoxin reductase 1 [Homo sapiens (human)]
Official Symbol	TXNRD1
Synonyms	TXNRD1; thioredoxin reductase 1; thioredoxin reductase 1, cytoplasmic; GRIM 12; Trxr1; TXNR; oxidoreductase; thioredoxin reductase TR1; thioredoxin reductase GRIM-12; KM-102-derived reductase-like factor; gene associated with retinoic and IFN-induced mortality 12 protein; gene associated with retinoic and interferon-induced mortality 12 protein; TR; TR1; TRXR1; GRIM-12; MGC9145

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Gene ID	7296
mRNA Refseq	NM_001093771
Protein Refseq	NP_001087240
MIM	601112
UniProt ID	Q16881



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