

Recombinant *Thauera selenatis* TXNRD1 Protein

Cat. No. TXNRD1-109T **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant <i>Thauera selenatis</i> TXNRD1 Protein was expressed in <i>E.coli</i> .
Species	<i>Thauera selenatis</i>
Source	<i>E.coli</i>
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 homeostasis. 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	PBS, pH 7.4.
Molecular Mass	25.5 kDa
AA Sequence	MHHHHHHHHHHADGAPAAQRTIQVLSVKGGDAASPQAAVWKKAPTGQVALQTAFP

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GHASIVGTALTQQMTAQAVRAGDRLFVRLAWRDATANTEIKDTDQFVDGAAVQFPV
 NGKDTTLAFMGDPDPNPVNVWHWRADGRTRNLVAKGFGTATPVPAEGLRSTATRTR
 DGWEVVISRPLRVKAEEGADLQGRRTMPIAFAAWDGENQERDGLKAVTMEWWQL
 NFEQKLISEEDL

Purity >90%

Storage Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Concentration 0.35 mg/mL

GENE INFORMATION

Official Symbol TXNRD1

Synonyms TR; TR1; TXNR; TRXR1; GRIM-12; TR; TR1; TXNR; TRXR1; GRIM-12

UniProt ID [Q9S1G7](#)

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