

Recombinant Mouse Txnrd1 protein, His & T7-tagged

Cat. No. Txnrd1-684M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Txnrd1 aa. (Glu374~Gln577 (Accession # Q9JMH6)) fused with N-terminal His & T7 tag was produced in E. coli cells.
Species	Mouse
Source	E.coli
ProteinLength	Glu374~Gln577
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.
Form	Freeze-dried powder
Molecular Mass	Predicted Molecular Mass: 26.1kDa

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Endotoxin	<1.0EU per 1g (determined by the LAL method)
Purity	>95%
Characteristic	The isoelectric point is 5.6.
Applications	SDS-PAGE; WB; ELISA; IP
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°C 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°C for one month. Aliquot and store at -80°C for 12 months.
Storage buffer	Supplied as lyophilized form in PBS, pH7.4, containing 5% trehalose, 0.01% sarcosyl.
Reconstitution	Reconstitute in sterile PBS, pH7.2-pH7.4.

GENE INFORMATION

Gene Name	Txnrd1 thioredoxin reductase 1 [Mus musculus (house mouse)]
Official Symbol	Txnrd1
Synonyms	Txnrd1; thioredoxin reductase 1; TR; TR1; TrxR1; thioredoxin reductase 1, cytoplasmic; TR alpha; thioredoxin reductase TR1
Gene ID	50493

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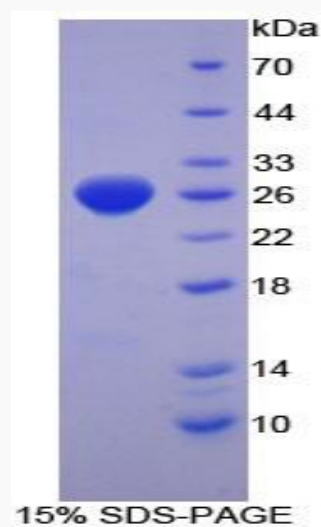
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mRNA Refseq [NM_001042513.1](#)

Protein Refseq [NP_001035978.1](#)

UniProt ID [Q9JMH6](#)

SDS-PAGE



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