Recombinant Mouse Thioredoxin Reductase 1, His-tagged

Cat. No. Txnrd1-736M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant mouse cytosolic thioredoxin with a 6-His tag is fully active with thioredoxin reductase. Mr is approximately 12,000 D.
Species	Mouse
Source	E.coli
Description	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. Each subunit contains a selenocysteine (Sec) residue which is required for catalytic activity. The selenocysteine is encoded by the UGA codon that normally signals translation termination. The 3" UTR of selenocysteine-containing genes have a common stem-loop structure, the sec insertion sequence (SECIS), that is necessary for the recognition of UGA as a Sec codon rather than as a stop signal. Alternative splicing results in several transcript variants encoding the same or different isoforms.
Purity	Purified via immunoaffinity column chromatography, it contains no E. coli Thioredoxin-S2.
Presentation	100 μg of protein, salt-free, lyophilized from 0.5% NH4CO3.
Reconstitution	Add 100 μL of filtered deionized water or physiological buffer to generate a 1 mg/mL solution.

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Storage	Store the lyophilized product at 2°- 8°C.

GENE INFORMATION

Gene Name	Txnrd1 thioredoxin reductase 1 [Mus musculus]
Synonyms	Txnrd1; thioredoxin reductase 1; TR; TR1; TrxR1; thioredoxin reductase 1, cytoplasmic; TR alpha; thioredoxin reductase TR1; EC 1.8.1.9
Gene ID	50493
mRNA Refseq	NM_001042513
Protein Refseq	NP_001035978
UniProt ID	Q9JMH6
Chromosome Location	10 C1; 10
Pathway	Pyrimidine metabolism
Function	FAD binding; NADP or NADPH binding; oxidoreductase activity; oxidoreductase activity, acting on sulfur group of donors, NAD or NADP as acceptor; thioredoxin-disulfide reductase activity

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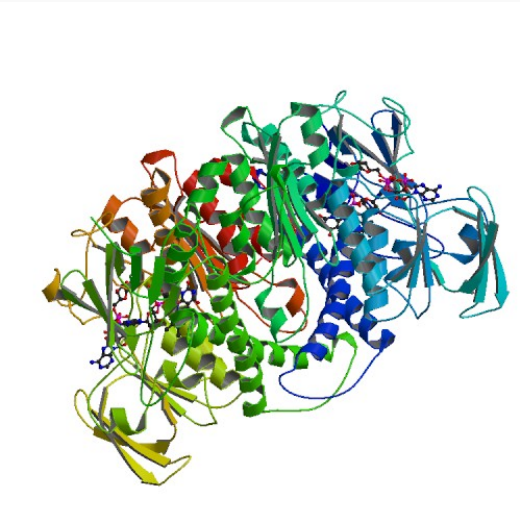
PDB rendering based on 1h6v.



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