

Recombinant Rat Txnrd1 protein, His & T7-tagged

Cat. No. Txnrd1-685R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat Txnrd1 aa. (Phe208~Glu433 (Accession # O89049)) fused with N-terminal His & T7 tag was produced in E. coli cells.
Species	Rat
Source	E.coli
ProteinLength	Phe208~Glu433
Description	This gene encodes a member of the family of pyridine nucleotide-disulfide oxidoreductases. This protein is a flavoenzyme, which uses NADPH for reduction of thioredoxins as well as other protein and nonprotein substrates, and plays a role in protection against oxidative stress. It contains a selenocysteine (Sec) residue, which is essential for catalytic activity. The selenocysteine is encoded by the UGA codon that normally signals translation termination. The 3' UTR of Sec-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.
Form	Freeze-dried powder
Molecular Mass	Predicted Molecular Mass: 29.0kDa
Endotoxin	<1.0EU per 1g (determined by the LAL method)
Purity	>95%

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Characteristic	The isoelectric point is 5.5.
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 [Rattus norvegicus (Norway rat)]
Official Symbol	Txnrd1
Synonyms	Txnrd1; thioredoxin reductase 1; Tr; thioredoxin reductase 1, cytoplasmic; NADPH-dependent thioredoxin reductase; selenoprotein oxidoreductase; thioredoxin reductase TR1
Gene ID	58819
mRNA Refseq	NM_031614.2
Protein Refseq	NP_113802.2

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UniProt ID

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