

Recombinant Human TXNRD2, His-tagged

Cat. No. TXNRD2-31640TH Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human TXNRD2 with N terminal His tag
Species	Human
Source	E.coli
Description	Thioredoxin reductase (TR) is a dimeric NADPH-dependent FAD containing enzyme that catalyzes the reduction of the active site disulfide of thioredoxin and other substrates. TR is a member of a family of pyridine nucleotide-disulfide oxidoreductases and is a key enzyme in the regulation of the intracellular redox environment. Three thioredoxin reductase genes have been found that encode selenocysteine containing proteins. This gene partially overlaps the COMT gene on chromosome 22.
Conjugation	HIS
Tissue specificity	Highly expressed in the prostate, ovary, liver, testis, uterus, colon and small intestine. Intermediate levels in brain, skeletal muscle, heart and spleen. Low levels in placenta, pancreas, thymus and peripheral blood leukocytes. According to PubMed:10608
Form	Lyophilised
Purity	>95% by SDS-PAGE
Storage buffer	Preservative: None Constituents: 20mM HEPES, pH 7.4

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Storage	Aliquot and store at -80°C. Avoid repeated freeze / thaw cycles.
Sequence Similarities	Belongs to the class-I pyridine nucleotide-disulfide oxidoreductase family.
Full Length	Full L.

GENE INFORMATION

Gene Name	TXNRD2 thioredoxin reductase 2 [Homo sapiens]
Official Symbol	TXNRD2
Synonyms	TXNRD2; thioredoxin reductase 2; thioredoxin reductase 2, mitochondrial; selenoprotein Z; thioredoxin reductase beta; TR; TR3; TRXR2;
Gene ID	10587
mRNA Refseq	NM_006440
Protein Refseq	NP_006431
MIM	606448
Uniprot ID	Q9NNW7
Chromosome Location	22q11.21
Pathway	Oxidative Stress, organism-specific biosystem; Pyrimidine metabolism, organism-specific biosystem; Pyrimidine metabolism, conserved biosystem; Selenium Metabolism and Selenoproteins, organism-specific biosystem; Selenium Pathway,

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organism-specific biosystem;

Function

NADP binding; flavin adenine dinucleotide binding; oxidoreductase activity; protein binding; protein homodimerization activity;

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