

Recombinant Human TXNRD1 cell lysate

Cat. No. TXNRD1-1866HCL **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species	Human
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.
Size	100 ul
Storage Buffer	1X Sample Buffer (50 mM Tris-HCl, 2% SDS, 10% glycerol, 300 mM 2-mercaptoethanol, 0.01% Bromophenol blue)
Applications	Western Blot;

GENE INFORMATION

Gene Name	TXNRD1 thioredoxin reductase 1 [Homo sapiens]
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Official Symbol	TXNRD1
Synonyms	TXNRD1; thioredoxin reductase 1; thioredoxin reductase 1, cytoplasmic; GRIM 12; Trxr1; TXNR; oxidoreductase; thioredoxin reductase TR1; thioredoxin reductase GRIM-12; KM-102-derived reductase-like factor; gene associated with retinoic and IFN-induced mortality 12 protein; gene associated with retinoic and interferon-induced mortality 12 protein; TR; TR1; TRXR1; GRIM-12; MGC9145;
Gene ID	7296
mRNA Refseq	NM_001093771
Protein Refseq	NP_001087240
MIM	601112
UniProt ID	Q16881
Chromosome Location	12q23-q24.1
Pathway	Fatty acid, triacylglycerol, and ketone body metabolism, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of lipids and lipoproteins, organism-specific biosystem; Metabolism of nucleotides, organism-specific biosystem; Oxidative Stress, organism-specific biosystem; PPARA Activates Gene Expression, organism-specific biosystem; Pyrimidine metabolism, organism-specific biosystem;
Function	NADP binding; electron carrier activity; flavin adenine dinucleotide binding; oxidoreductase activity; protein disulfide oxidoreductase activity; thioredoxin-disulfide reductase activity;

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