

Recombinant Human TXNRD1 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. TXNRD1-5936H Lot. No. (See product label)

SPECIFICATION

Product Overview

TXNRD1 MS Standard C13 and N15-labeled recombinant protein (NP_877393) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.

Species

Human

Source

HEK293

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, including a glutaredoxin-containing isoform that is predominantly expressed in testis.

Molecular Mass

54.6 kDa

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AA Sequence	MNGPEDLPKSYDYDLIIIGGGSGGLAAAKEAAQYGKKVMVLDVFTPTPLGTRWGLG GTCVNVGCIPKMLHQAALLGQALQDSRNYGWKVEETVKHDWDRMIEAVQNHIGS LNWGYRVALREKKVYENAYGQFIGPHRIKATNNKGKEKIYSAERFLIATGERPRYL GIPGDKEYCISSDDLFLPYCPGKTLVVGASYVALECAGFLAGIGLDVTVMVRSILLR GFDQDMANKIGEHEMEEHGIKFIHQFVPIKVEQIEAGTPGRLRVVAQSTNSEEIIEGEY NTVMLAIGRDACTRKIGLETVGVKINEKTGKIPVTDEEQTNVPYIYAIGDILEDKVELTP VAIQAGRLLAQRLYAGSTVKCDYENVPTTVFTPLEYGACGLSEEKAVEKFGEENIEV YHSYFWPLEWTIPSRDNNKCYAKIICNTKDNERVVGFHVLGPNAGEVTQGFAAALK CGLTKKQLDSTIGIHPVCAEVFTTLSVTKRSGASILQAGCUGTRTRPLEQKLISEEDLA ANDILDYKDDDDKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 3 months from receipt of products under proper storage and handling conditions.
Storage	Store at -80 centigrade. Avoid repeated freeze-thaw cycles.
Concentration	50 µg/mL as determined by BCA
Storage Buffer	100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name	TXNRD1 thioredoxin reductase 1 [Homo sapiens (human)]
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

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IFN-induced mortality 12 protein; gene associated with retinoic and interferon-induced mortality 12 protein; TR; TR1; TRXR1; GRIM-12; MGC9145;

Gene ID 7296

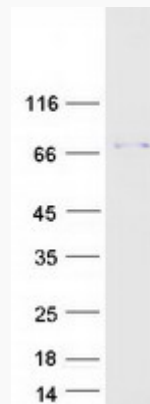
mRNA Refseq NM_182729

Protein Refseq NP_877393

MIM 601112

UniProt ID Q16881

SDS-PAGE



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