

Human TXNRD2 Knockdown Cell Lysate

Cat. No. TXNRD2-512HKCL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	WB-validated TXNRD2 Knockdown HT-1080 Cell Lysate
Species	Human
Source	HT-1080
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 a mitochondrial form important for scavenging reactive oxygen species in mitochondria. It 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. Alternatively spliced transcript variants encoding different isoforms, including a few localized in the cytosol and some lacking the C-terminal Sec residue, have been found for this gene.
Form	Cell-Tissue Lysis buffer
Molecular Mass	57 kDa
Notes	Instruction of use: This knockdown cell lysate should be paired with wild-type HT-

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1080 cell lysate for use. For Western blotting, we recommend running wild-type and knockdown lysates on the same gel, and loading each well with equal volume and equal amount of total proteins.

Storage	Store at -20 centigrade for two years.
Concentration	Lot-specific
Shipping	Blue Ice
Components	1 vial of 100 µg WT HT-1080 cell lysate 1 vial of 100 µg TXNRD2 KD HT-1080 cell lysate
Protein Families	Druggable Genome
Protein Pathways	Pyrimidine metabolism
Lysate QC	RT-qPCR; Western Blotting (WB)

GENE INFORMATION

Gene Name	TXNRD2 thioredoxin reductase 2 [Homo sapiens (human)]
Official Symbol	TXNRD2
Synonyms	TXNRD2; thioredoxin reductase 2; thioredoxin reductase 2, mitochondrial; selenoprotein Z; thioredoxin reductase beta; TR; TR3; TRXR2; thioredoxin reductase 3; thioredoxin reductase TR3; SELZ; TR-BETA;
Gene ID	10587

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mRNA Refseq	NM_006440
Protein Refseq	NP_006431
MIM	606448
UniProt ID	Q9NNW7

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