

## Product datasheet for **TP316045**

### **TXNRD1 (NM\_182729) Human Recombinant Protein**

#### **Product data:**

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Recombinant protein of human thioredoxin reductase 1 (TXNRD1), transcript variant 3
<b>Species:</b>	Human
<b>Expression Host:</b>	HEK293T
<b>Tag:</b>	C-Myc/DDK
<b>Predicted MW:</b>	54.6 kDa
<b>Concentration:</b>	>50 ug/mL as determined by microplate BCA method
<b>Purity:</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining
<b>Buffer:</b>	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol
<b>Preparation:</b>	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
<b>Storage:</b>	Store at -80°C.
<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	<a href="#">NP_877393</a>
<b>Locus ID:</b>	7296
<b>RefSeq Size:</b>	3694
<b>Cytogenetics:</b>	12q23.3
<b>RefSeq ORF:</b>	1497
<b>Synonyms:</b>	GRIM-12; TR; TR1; TRXR1; TXNR



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**Summary:**

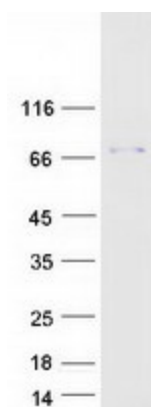
The protein encoded by this gene belongs to the pyridine nucleotide-disulfide oxidoreductase family, and is a member of the thioredoxin (Trx) system. Three thioredoxin reductase (TrxR) isozymes are found in mammals. TrxRs are selenocysteine-containing flavoenzymes, which reduce thioredoxins, as well 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. [provided by RefSeq, May 2017]

**Protein Families:**

Druggable Genome

**Protein Pathways:**

Pyrimidine metabolism

**Product images:**

Coomassie blue staining of purified TXNRD1 protein (Cat# TP316045). The protein was produced from HEK293T cells transfected with TXNRD1 cDNA clone (Cat# [RC216045]) using MegaTran 2.0 (Cat# [TT210002]).