

Product datasheet for **TP761190**

TXNRD1 (NM_182743) Human Recombinant Protein

Product data:

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| Product Type: | Recombinant Proteins |
| Description: | Purified recombinant protein of Human thioredoxin reductase 1 (TXNRD1), transcript variant 4, (Note, selenocysteine protein, internal stop codon, see reference data summary), full length, with N-terminal HIS tag, expressed in E. coli, 50ug |
| Species: | Human |
| Expression Host: | E. coli |
| Expression cDNA Clone or AA Sequence: | A DNA sequence encoding human full-length TXNRD1 |
| Tag: | N-His |
| Predicted MW: | 54.6 kDa |
| Concentration: | >0.05 µg/µL as determined by microplate BCA method |
| Purity: | > 80% as determined by SDS-PAGE and Coomassie blue staining |
| Buffer: | 50 mM Tris-HCl, pH 8.0, 8 M urea |
| Note: | For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process. |
| Storage: | Store at -80°C. |
| Stability: | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| RefSeq: | NP_877420 |
| Locus ID: | 7296 |
| UniProt ID: | Q16881 , Q16881-5 |
| RefSeq Size: | 3576 |
| Cytogenetics: | 12q23.3 |
| RefSeq ORF: | 1497 |
| Synonyms: | 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: