

Product datasheet for PH316045

TXNRD1 (NM_182729) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	TXNRD1 MS Standard C13 and N15-labeled recombinant protein (NP_877393)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC216045
Predicted MW:	54.6 kDa
Protein Sequence:	>RC216045 representing NM_182729 Red=Cloning site Green=Tags(s)

MNGPEDLPKSYDYDLIIIGGGSGGLAAAKEAAQYGKKVMVLDVFTPTPLGTRWGLGGTCVNVGCIPKKLM
HQAALLGQALQDSRNYGKVEETVKHDWDRMIEAVQNHIGSLNHWGYRVALREKKVYENAYGQFIGPHRI
KATNNGKKEKIYSAERFLIATGERPRYLGIPGDKEYCISSDDLFSLPYCPGKTLVVGASYVALECAFLA
GIGLDVTVMRSILLRQFDQDMANKIGEHEHGKIFIRQFVPIKVEQIEAGTPGRLRVVAQSTNSEEII
EGEYNTVMLAIGRDACTRKIGLETVGKINEKTGKIPVTDEEQTNVPYIYAIGDILEDKVELTPVAIQAG
RLLAQRLYAGSTVKCDYENVPTTFTPTLEYGACGLSEEKAVEKFGEENIEVYHSYFWPLEWTIPSRDNNK
CYAKIICNTKDNERNVGFHVLGPNAGEVTQGFAAALKCGLTKKQLDSTIGIHPVCAEVFTTLSVTKRSGA
SILQAGCUG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	NP_877393
RefSeq Size:	3694
RefSeq ORF:	1497



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Synonyms: GRIM-12; TR; TR1; TRXR1; TXNR

Locus ID: 7296

UniProt ID: [Q16881](#), [Q16881-5](#)

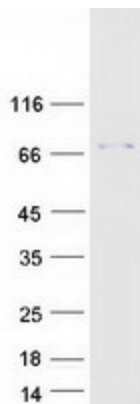
Cytogenetics: 12q23.3

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]).