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Product datasheet for MC200667

Txnrd2 (BC013688) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Txnrd2 (BC013688) Mouse Untagged Clone
Symbol:	Txnrd2
Synonyms:	Trxrd2, TrxR2, AA118373, TR3
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>BC013688 GCCGGACCATGGCGGCGATGGTGGCGGCGATGGTGGCGGCGCTGCGTGGACCCAGCAGGCGCTTCCGGCC GCGGACACGGGCTCTGACACGCGGGACAAGGGGCGCGGCGAGTGCAGCGGGAGGGCAGCAGAGCTTTGAT CTCTTGGTGATCGGTGGGGGATCCGGTGGCCTAGCTTGTGCCAAGGAAGCTGCTCAGCTGGGAAAGAAGG TGGCTGTGGCTGACTATGTGGAACCTTCTCCCCGAGGCACCAAGTGGGGCCTTGGTGGCACCTGTGTCAA CGTGGGTTGCATACCCAAGAAGCTGATGCATCAGGCTGCACTGCTGGGGGGCATGATCAGAGATGCTCAC CACTATGGCTGGGAGGTGGCCCAGCCTGTCCAACACAACTGGAAGACAATGGCAGAAGCCGTGCAAAACC ATGTGAAATCCTTGAACTGGGGTCATCGCGTCCAACTGCAGGACAGGAAAGTCAAGTACTTTAACATCAA AGCCAGCTTTGTGGATGAGCACACAGTTCGCGGTGTGGACAAAGGCGGGAAGGCGACTCTGCTTTCAGCT GAGCACATTGTCATTGCTACAGGAGGACGGCCAAGGTACCCCACACAAGTCAAAGGAGCCCTGGAATATG GAATCACAAGTGACGACATCTTCTGGCTGAAGGAGTCCCCTGGGAAAACGTTGGTGGTTGGAGCCAGCTA TGTGGCCCTAGAGTGTGCTGGCTTCCTCACTGGAATTGGACTGGATACCACTGTCATGATGCGCAGCATC CCTCTCCGAGGCTTTGACCAGCAAATGTCATCTTTGGTCACAGAGCACATGGAGTCTCATGGCACCCAGT TCCTGAAAGGCTGTGTCCCCTCCCACATCAAAAAACTCCCAACTAACCAGCTGCAGGTCACTTGGGAGGA TCATGCTTCTGGCAAGGAAGACACAGGCACCTTTGACACTGTCCTGTGGGCCATAGGTAAGGATGCGGCG AGCCACACGGACACTGTCTCTAGCTCAAGGAAACCATATTTCCTTGGAAGAAGGGTCTTCGCCTTCCTTC CCATCACCTCCTGGATCCTCCATTCTGCTGGCTCCTAAGCAGGTTGGCCACTGCCTGGTACACCTTGCCA GTCACTGTGGAAGCTTAGGGACAGACTGTCCACACCTGGCTGTCCCAGACAAGCTGTCCTTCTAGTTCTT TTCCCATTGCCATATGATATTCTGGAAATGCAAATCACAGAAGAGAAAAAAAAAAAAAAAAAAAAAA
Restriction Sites:	RsrII-NotI
ACCN:	BC013688
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP). The expression of this clone is not guaranteed due to the nature of selenoproteins.

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OTI Annotation:	This clone encodes a selenoprotein containing the rare amino acid selenocysteine (Sec). Sec is encoded by UGA codon, which normally signals translational termination. Expression of this clone is not guaranteed due to the nature of selenoproteins.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	BC013688, AAH13688
RefSeq Size:	1256 bp
Locus ID:	26462
Cytogenetics:	16 11.41 cM
Gene 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 homoeostasis. 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 have been described for this gene. [provided by RefSeq, Jun 2017]