

## Product datasheet for **MC206218**

### **Txnrd3 (BC076605) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Txnrd3 (BC076605) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Txnrd3
Synonyms:	Tgr, TR2
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >BC076605  
 CGTTCTCAAGTTCTCAGCGGCTTTGCCGGCGTCGTCCCCTAGGCGGCCGCCCGCGTCCCAGTTCCCTCAGC  
 AGGCCCGGCTCGGCCCGGAGCGACAACAAAGCCCTGGAGAAGCCACCGTCCCCGCCCGCGCTCCTCGGG  
 CGCAGACCTCGCCCGGGCTGGGAAGGTTGGAGTCTCCCAACCGCCGCTGGGTGCTGTCCGTGGCGG  
 CCTCATGTCGTCGCCACCCGGCCGCCGCCCGCTGGCTCCCCTGGGACCAGCCGCCCGTCTTCTGAG  
 GCCCGCGAGGAGCTGCGGCCGCCCTGCGGGACCTCATCGAGGGCAACAGGGTGATGATCTTCAGCAAGA  
 GTTACTGTCCACACAGCACGCGGGTTAAGGAACCTTTTTCGTCTTGGGAGTGGCTATAACATCCCTGGA  
 ACTTGATCAAGTTGATGACGGGGCCAGTGTTACAGGAAGTGTGACAGAAATCAGTAACCAGAAAACGGTG  
 CCCAATATTTTTGTGAATAAAGTGCACGTGGGTGGATGTGACCGAACTTCCAGGCACATCAGAATGGTT  
 TACTGCAGAAGCTCCTCCAAGATGACTCGGCTCATGATTACGACCTCATCATCATCGCGGGGGTCTGG  
 CGGCCTCTCTTGTGCCAAGGAAGCTGCCAATTGGGAAAGAAGGTATGGTGCTAGACTTTGTGGTCCCA  
 TCGCCTCAGGGCACGACCTGGGGCCTTGGCGGCACCTGTGTGAACGTAGGCTGTATTCCAAAGAAGCTGA  
 TGCATCAGGCAGCCCTCCTGGGCATGCTTTGCAAGATGCCAAGAAATATGGCTGGGAGTATAACCAGCA  
 GGTGAAGCACAACCTGGGAGGCCATGACAGAAGCTATCCAGAGCCACATTGGCTCCTTGAAGTGGGGTAC  
 AGGGTAACCCCTTGGGAGAAAGGCGTGACCTATGTCAACTCCTTGGGGAGTTTGTGGACCTGCATAAAA  
 TAAAGGCAACCAATAAGAAAGGGCAGGAAACGTTTACACGGCTTCGAAGTTTGTATAGCAACAGGTGA  
 AAGGCCTCGTACTTGGGAATCCAGGGAGATAAAGAGTACTGTATTACGAGTGACGACCTGTTCTCTCTG  
 CCATACTGCCCGGATGTACATTAGTCGTAGGCGCTTCTTATGTTGGTCTGGAGTGTGCGGGCTTTTTGG  
 CTGTTTTGGGGTTAGATGTGACAGTCAAGTACGCTCCGCTCCTTCTTCTGTTGGTGGTATCAAGAAATGGC  
 AGAGAAAGTGGGATCCTACCTGGAACAACAAGGTGTCAAGTTCCAAGGAAATTCACCCCATTTTGGTT  
 CAACAGTTGGAGAAAGGTTTACCAGGAAATTTGAAAGTCGTGGCTAAGTCCACCGAAGGACCGGAAACAG  
 TAGAAGGGATATAACAACCGTTTTGTTAGCAATTGGTCGTGACTCCTGTACAAGGAAAAATAGGGCTGGA  
 GAAGATCGGGTCAAAAATCAATGAGAAGAATGGCAAAATACCAGTAAACGATGTGGAGCAGACCAACGTC  
 CCTCATGTTTATGCTATTGGGGACATACTGGACGGCAAACAGAGCTCACCCCGTTGCCATACAGGCAG  
 GCAAGCTGCTAGCTCGAAGACTCTTGGGGTCTTTAGAAAAGTGTGATTATATTAACATCCCAACAAC  
 GGTGTTACACCTCTGGAATATGGCTGTGTGGACTGTCGGAAGAGAAAGCCATCGAAATGTATAAAAAA  
 GAGAATCTGGAAGTGTATCACACCTTGTGTTGGCCTCTCGAGTGGACAGTTGCTGGCAGAGACAACAACA  
 CCTGTTATGCAAAGATAATCTGCAACAAATTCGACAACGAACGTGTGGTGGGATTTACCTTCTGGGGCC  
 AAATGCTGGTGAATCACGCAGGATTTGCAGCTGCAATGAAATGTGGGCTCACGAAGCAGCTACTGGAT  
 GATACCATTGGAATCCACCCACCTGTGGTGGGTATTACAACATTGGAATCACAAAGTCTCAGGGC  
 TGGACATTACTCAGAAAGCTGCTGAGGCTAGCCCTGCTGCTGTTGGGTTCCCTGTCACTCTCACTC  
 TGTGCCCATGACATCTGCTTGGGCACTGGGACCAGTGCCGACTTTCTCCTGGCATAGAGACGAGAAGG  
 CGGCAGAGGACCAGCAGCAGCAGCATCTGGAGTCTTAGCTGACGGCATGCAGCAGCCAGGCTGCTTC  
 CTTGACACCTTGGCTCGGAACCTGCAGAGGTGAGCCAAGGCCGACTTCTGCACGTGAGCCTCGACTTAC  
 CCCACGAGGCCTTAGATGGCACAGTGGCCACCTCCCTTTCCAGTTGCTAGTGCTTTGACCCCTCACT  
 TTGTTCCATGAAGAGATTATCTTTAGTTGTGGACTTGACTGTAAGAGGCTTGTGCCCAGAGTGTAG  
 CACTTATGGATCTGTGGTGTGTTGGGGAGCCAGGTTAGAGCAATTGGTGCAGTGGCCTCCCACTAATATA  
 ACCTGCTGTCAGAAGCCTGACTCAAGCCTCACTCCTTGCATAGCTCCTGAGGGGAGAACCGTGGAGCCAT  
 TCTCCTCCAGCCTCTAGTCTAACGGAGCATCACAAAGAAGAGAAAAAAATGTCCTTGTATTGCTATTG  
 GTTTCCATGTTTATCTTAAGGGTACTATTAAGAAAGATTTTACTACAAAAAAGAAAAAAGAAAAA

**Restriction Sites:** Ascl-NotI

**ACCN:** BC076605

**Insert Size:** 1842 bp

**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).

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">BC076605</a></u> , <u><a href="#">AAH76605</a></u>
<b>RefSeq Size:</b>	2727 bp
<b>RefSeq ORF:</b>	1842 bp
<b>Locus ID:</b>	232223
<b>Cytogenetics:</b>	6 D1
<b>Gene Summary:</b>	<p>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 the third TrxR, which unlike the other two isozymes, contains an additional N-terminal glutaredoxin (Grx) domain, and shows highest expression in testis. The Grx domain allows this isozyme to participate in both Trx and glutathione systems. 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 found for this gene. There is evidence for additional isoforms resulting from the use of a non-AUG (CUG), and an in-frame downstream AUG as translation initiation codons (PMID:20018845). [provided by RefSeq, Aug 2017]</p>