

## Product datasheet for **RG201666**

### Thioredoxin 2 (TXN2) (NM\_012473) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Thioredoxin 2 (TXN2) (NM\_012473) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Thioredoxin 2  
**Synonyms:** COXPD29; MT-TRX; MTRX; TRX2; TXN  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG201666 representing NM\_012473  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCTCAGCGACTTCTTCTGAGGAGGTTCTGGCCTCTGTCTCCAGGAAGCCCTCTCAGGGTCAGT  
 GGCCACCCTCACTTCCAGAGCCCTGCAGACCCACAATGCAGTCCTGGTGGCCTGACTGTAACACCCAA  
 CCCAGCCCGACAATATACACCACGAGGATCTCCTTGACAACCTTAATATCCAGGATGGACCTGACTTT  
 CAAGACCGAGTGGTCAACAGTGAGACACCAGTGGTTGTGGATTTCCACGCACAGTGGTGTGGACCCTGCA  
 AGATCCTGGGGCCGAGGTTAGAGAAGATGGTGGCCAAGCAGCACGGGAAGGTGGTATGGCCAAGGTGGA  
 TATTGATGACCACAGACCTCGCCATTGAGTATGAGGTGTGAGCGGTGCCCACTGTGCTGGCCATGAAG  
 AATGGGGACGTGGTGGACAAGTTTGTGGCCATCAAGGATGAGGATCAGTTGGAGGCCCTCTGAAGAAGC  
 TGATTGGC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG201666 representing NM\_012473  
 Red=Cloning site Green=Tags(s)

MAQRLLRRFLASVISRKPSQGQWPPLTSRALQTPQCSPGGLTVTPNPARTIYTTRISLTTFNIQDGPDF  
 QDRVNVSETPVVVDFHAQWCGPCKILGPRLEKMKVAKQHKGKVMKVDIDDHTDLAIEYEVSAPVTLAMK  
 NGDVVDKDFVGIKDEDQLEAFLKLLIG

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** SgfI-MluI



**Cloning Scheme:**


**ACCN:** NM\_012473

**ORF Size:** 498 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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:** [NM\\_012473.4](#)

**RefSeq Size:** 1342 bp

**RefSeq ORF:** 501 bp

**Locus ID:** 25828

**UniProt ID:** [Q99757](#)

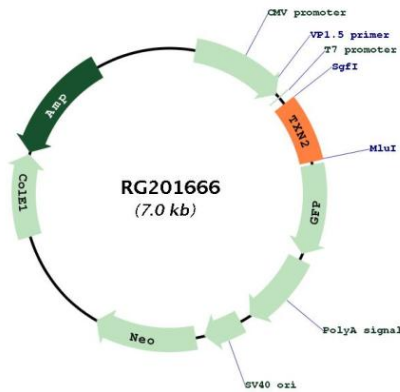
**Cytogenetics:** 22q12.3

**Domains:** thiored

**Protein Families:** Druggable Genome

**Gene Summary:** This nuclear gene encodes a mitochondrial member of the thioredoxin family, a group of small multifunctional redox-active proteins. The encoded protein may play important roles in the regulation of the mitochondrial membrane potential and in protection against oxidant-induced apoptosis. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RG201666