

Product datasheet for RC201666

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:	Myc-DDK
Symbol:	Thioredoxin 2
Synonyms:	COXPD29; MT-TRX; MTRX; TRX2; TXN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201666 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGGCTCAGCGACTTCTTCTGAGGAGGTTCTGGCCTCTGTCTCCAGGAAGCCCTCTCAGGGTCAGTGGCCACCCTCACTTCCAGAGCCCTGCAGACCCACAATGCAGTCCTGGTGGCCTGACTGTAACACCCAA CCCAGCCCGGACAATATACACCACGAGGATCTCCTTGACAACCTTAATATCCAGGATGGACCTGACTTT CAAGACCGAGTGGTCAACAGTGAGACACAGTGGTTGTGGATTTCCACGCACAGTGGTGTGGACCCTGCA AGATCCTGGGGCCGAGGTTAGAGAAGATGGTGGCCAAGCAGCAGCGGAAGGTGGTATGGCCAAGGTGGA TATTGATGACCACACAGACCTCGCCATTGAGTATGAGGTGTGAGCGGTGCCCACTGTGCTGGCCATGAAG AATGGGGACGTGGTGGACAAGTTTGTGGGCATCAAGGATGAGGATCAGTTGGAGGCCCTCTGAAGAAGC TGATTGGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC201666 protein sequence Red=Cloning site Green=Tags(s)
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MAQRLLRRFLASVISRKPSQGQWPPLTSRALQTPQCSPGGLTVPNPARTIYTTTRISLTTFNIQDGPDFQDRVVNSETPVVDFHAQWCGPCKILGPRLEKMKVAKQHGVVMAKVDIDDHTDLAIEYEVSAPTFLAMKNGDVVDKDFVGIKDEDQLEAFLKLLIG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:	https://cdn.origene.com/chromatograms/mk6074_f12.zip
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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

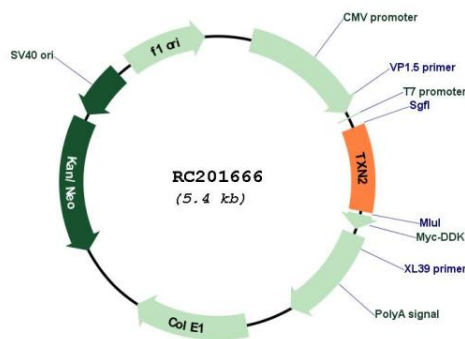
Domains: thioered

Protein Families: Druggable Genome

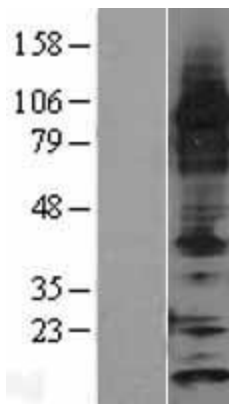
MW: 18.4 kDa

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]

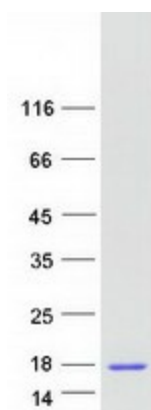
Product images:



Circular map for RC201666



Western blot validation of overexpression lysate (Cat# [LY402220]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201666 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TXN2 protein (Cat# [TP301666]). The protein was produced from HEK293T cells transfected with TXN2 cDNA clone (Cat# RC201666) using MegaTran 2.0 (Cat# [TT210002]).