

## Product datasheet for **RC210841**

### TMX3 (NM\_019022) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TMX3 (NM_019022) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TMX3
Synonyms:	PDIA13; TXNDC10
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC210841 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCAGCGTGGAAAGAGTTGGACGGCCCTGCGGCTCTGCGCCACAGTTGTTGTACTTGATATGGTCGTCT  
 GTAAAGGATTTGTAGAAGATTTAGATGAATCGTTTAAAGAAAATCGAAATGATGACATTTGGCTTGATAGA  
 TTTTATGCGCCATGGTGTGGCCATTGTAAAAAGCTGGAACCAATTTGGAATGAAGTTGGTCTTGAGATG  
 AAAAGCATTGGTTCTCCAGTTAAGGTTGGAAAGATGGATGCTACTTCTATTCTAGCATTGCTTCAGAGT  
 TTGGAGTTCGAGGTTATCCAACAATTAAGCTATTAAGGGGACTTGGCATATAATTATAGAGGACCACG  
 AACAAAAGATGATATTATTGAGTTTGTCTCACAGAGTATCTGGGGCTCTAATTCGGCCACTTCCAAGTCAA  
 CAAATGTTTGAACATATGCAGAAGAGACACCGTGTATTTTCGTTTATGTAGGTGGAGAATCACCTTTGA  
 AAGAGAAATACATAGATGCTGCTCAGAATTGATTGTATATACATACTTCTTTTCTGCCTCAGAAGAAGT  
 GGTTCTGAGTATGTGACACTAAAAGAGATGCCAGCTGTGCTTGTTCGTTTCAAAGATGAAACTTACTTTGTT  
 TATGATGAGTATGAAGATGGTGATCTGTATCATGGATCAACAGGGAAAGGTTTCAGAATTACCTTGCTA  
 TGGATGGCTTCTCTTGTATGAAGTTGGAGACACAGGAAAGCTTGTGGCTCTTGCAAGTATTGATGAGAA  
 AAATACATCAGTTGAACATACCAGATTGAAGTCAATTATTAGGAAGTTGCAAGAGATTACAGAGACCTC  
 TTCCATAGGGATTTTTCAGTTTGGCCACATGGATGGAAATGACTACATAAAATACCTTGCTGATGGATGAAT  
 TGACAGTCCCAACTGTAGTTGACTGAATACTTCAAACCAGCAATATTTCTTGCTAGATAGACAGATTAA  
 GAATGTTGAAGACATGGTCCAGTTTATTAATAACATTTTGGATGGCACAGTAGAAGCCCAAGGAGGTGAT  
 AGCATTTTGCAGAGATTGAAAAGAATAGTATTTGATGCCAAATCTACTATTGTGTCTATATTCAAGAGCT  
 CACCAGTATGGGCTGCTTCTCTTTGGCTGCCACTGGGTGTCATCAGTATCATGTGATGGAATCTA  
 CACAGCCGACACAGATGGAGGTTATATAGAAGAACGATATGAAGTGTCTAAAAGTAAAAATGAAAACCAA  
 GAACAGATAGAAGAGAGCAAAGAACAGCAGGAGCCAGCAGTGGAGGATCTGTAGTGCCTACAGTGCAGG  
 AGCCCAAGGATGTATTAGAAAAGAAGAAAGAT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC210841 protein sequence  
 Red=Cloning site Green=Tags(s)

MAAWKSWTALRLCATVVVLDMMVCKGFVEDLDESFKENRNDIWLVDYFAPWCGHCKKLEPIWNEVGLEM  
 KSIGSPVKVGMDATSYSSIASEFGVRYPTIKLLKGDLAYNYRGPRTKDDIEFAHRVSGALIRPLSQ  
 QMFEHMQKRHRVFFVYVGGESPLKEKYIDAASELIVYTYFFSASEEVVPEYVTLKEMPAVLVFKDETYFV  
 YDEYEDGDLSSWINRERFQNYLAMDGFLLYELGDTGKLVALAVIDEKNTSVEHTRLKSIIQEVARDYRDL  
 FHRDFQFGHMDGNDYINTLLMDELTVPTVVVLTNSNQYFLLDRQIKNVEDMVQFINNILDGTVEAQGGD  
 SILQRLKRIVFDKSTIVSIFKSSPLMGCFGLPLGVISIMCYGIYTADTDGGYIEERYEVSKSENEHQ  
 EQIEESKEQQEPSSGGSVVPTVQEPKDVLEKKD

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6728\\_e04.zip](https://cdn.origene.com/chromatograms/mk6728_e04.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_019022

**ORF Size:** 1362 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\\_019022.5](#)

**RefSeq Size:** 4767 bp

**RefSeq ORF:** 1365 bp

**Locus ID:** 54495

**UniProt ID:** [Q96J17](#)

**Cytogenetics:** 18q22.1

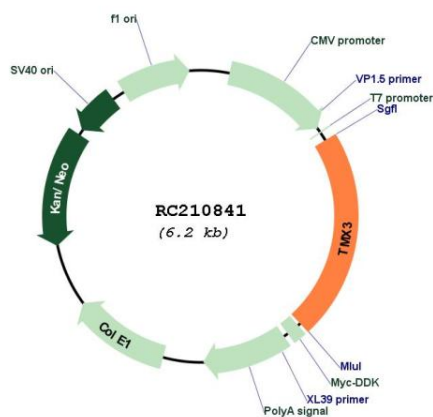
**Domains:** thioered

**Protein Families:** Druggable Genome, Transmembrane

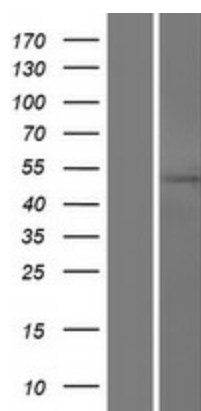
**MW:** 51.9 kDa

**Gene Summary:** This gene encodes a member of the disulfide isomerase (PDI) family of endoplasmic reticulum (ER) proteins that catalyze protein folding and thiol-disulfide interchange reactions. The canonical protein encoded by this gene has an N-terminal ER-signal sequence, a catalytically active thioredoxin domain, one transmembrane domain and a C-terminal ER-retention sequence. This gene is expressed in many tissues but has its highest expression in heart and skeletal muscle. It is expressed in the retinal neuroepithelium and lens epithelium in the developing murine eye and haploinsufficiency of this gene in humans and zebrafish is associated with microphthalmia. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Apr 2017]

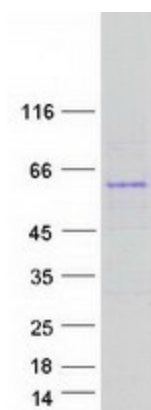
**Product images:**



Circular map for RC210841



Western blot validation of overexpression lysate (Cat# [LY412814]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210841 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TMX3 protein (Cat# [TP310841]). The protein was produced from HEK293T cells transfected with TMX3 cDNA clone (Cat# RC210841) using MegaTran 2.0 (Cat# [TT210002]).