

Product datasheet for **RC227028**

TMX2 (NM_001144012) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: TMX2 (NM_001144012) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: TMX2
Synonyms: CGI-31; NEDMCMS; PDIA12; PIG26; TXNDC14
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC227028 representing NM_001144012
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGTCTTGGCACCTCTAATTGCTCTCGTGTATTCGGTGCCGCGACTTTCACGATGGCTCGCCCAAC
 CTTACTACCTTCTGTGGCCCTGCTCTCTGCTGCCTTCTACTCGTGAGGAACTGCCGCCGCTCTGCCA
 CGGTCTGCCACCCAACGCGAAGACGGTAACCCGTGTGACTTTGACTGGAGAGAAGTGGAGATCCTGATG
 TTTCTCAGTGCCATTGTGATGATGAAGAACCAGATCCATGTTCTGATGACGTGCAAACCCCCCTAT
 ATATGGGCCCTGAGTATATCAAGTACTTCAATGATAAAACCATTGATGAGGAACTAGAACGGACAAGAG
 GGTCACTTGGATTGTGGAGTTCTTTGCCAATTGGTCTAATGACTGCCAATCATTGGCCCTATCTATGCT
 GACCTCTCCCTTAAATACAACGTACAGGGCTAAATTTTGGGAAGTGGATGTTGGACGCTATACTGATG
 TTAGTACGCGGTACAAAGTGAGCACATCACCCCTACCAAGCAACTCCCTACCCTGATCCTGTTCCAAGG
 TGGCAAGGAGGCAATGCGGCGGCCACAGATTGACAAGAAAGGACGGGCTGTCTATGGACCTTCTCTGAG
 GAGAATGTGATCCGAGAATTTAACTTAAATGAGCTATACCAGCGGGCCAAGAACTATCAAAGGCTGGAG
 ACAATATCCCTGAGGAGCAGCCTGTGGCTTCAACCCCAACACAGTGTGATGGGAAAACAAGAAGGA
 TAAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC227028 representing NM_001144012
 Red=Cloning site Green=Tags(s)

MAVLAPLIALVYSPRLSRWLAQPYYLLSALLSAAFLLVRKLPPLCHGLPTQREDGNPCDFDWREVEILM
 FLSAIVMMKNRRSMFLMTCKPPLYMGPEYIKYFNDKTIIDEELERDKRVTWIVEFFANWSNDCQSFAPIYA
 DLSLKYNCTGLNFGKVDVGRYTDVSTRYKYSTSPLTKQLPTLILFQGGKEAMRRPQIDKKGRAVSWTFSE
 ENVIREFNLNELYQRAKKLSKAGDNIPEEQPVASTPTTVSDGENKKDK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1472_b11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001144012

ORF Size: 774 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_001144012.2](#), [NP_001137484.1](#)

RefSeq ORF: 777 bp

Locus ID: 51075

UniProt ID: [Q9Y320](#)

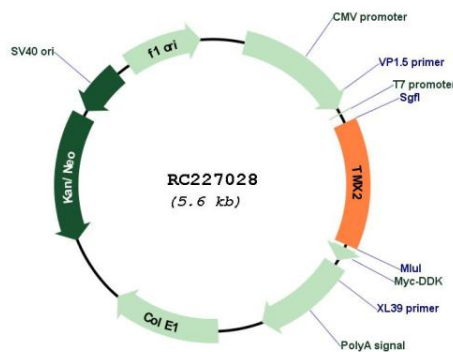
Cytogenetics: 11q12.1

Protein Families: Druggable Genome, Transmembrane

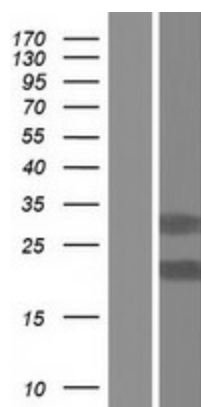
MW: 29.5 kDa

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 encoded protein has an N-terminal ER-signal sequence, a catalytically active thioredoxin domain, one transmembrane domain and a C-terminal ER-retention sequence. This protein is enriched on the mitochondria-associated-membrane of the ER via palmitoylation of two of its cytosolically exposed cysteines. [provided by RefSeq, Jan 2017]

Product images:



Circular map for RC227028



Western blot validation of overexpression lysate (Cat# [LY428471]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227028 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).