

Product datasheet for **RC206187**

TXNDC (TMX1) (NM_030755) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	TXNDC
Synonyms:	PDIA11; TMX; TXNDC; TXNDC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC206187 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCGCCCTCCGGGAGTCTTGCA GTTCCCTGGCAGTCATGGTGCCGTTGCTTTGGGGTGCTCCCTGGA
 CGCACGGGCGCGGAGCAACGTTTCGCGTCATCACGGACGAGAACTGGAGAGAACTGCTGGAAGGAGACTG
 GATGATAGAATTTTATGCCCGTGGTGCCCTGCTTGTCAAAATCTTCAACCGAATGGGAAAGTTTTGCT
 GAATGGGGAGAAGATCTTGAGGTTAATATTGCGAAAGTAGATGTCACAGAGCAGCCAGGACTGAGTGGAC
 GGTTTATCATAAATGCTCTTCTACTATTTATCATTGTAAGATGGTGAATTTAGGCGCTATCAGGGTCC
 AAGGACTAAGAAGGACTTCATAAACTTTATAAGTGATAAAGAGTGGAAGAGTATTGAGCCCGTTTCATCA
 TGGTTTGGTCCAGGTTCTGTTCTGATGAGTAGTATGTCAGCACTCTTTCAGCTATCTATGTGGATCAGGA
 CGTGCCATAACTACTTTATTGAAGACCTTGATTGCCAGTGTTGGGATCATATACTGTTTTTGTCTTAGC
 AACTCTGTTTTCCGACTGTTATTAGGACTCTGTATGATATTTGTGGCAGATTGCCTTTGTCCTTCAAAA
 AGGCGCAGACCAGCCATACCCATACCCTTCAAAAAATTATTATCAGAATCTGCACAACCTTTGAAAA
 AAGTGGAGGAGGAACAAGAGCGGATGAAGAAGATGTTTCAGAAGAAGAAGCTGAAAGTAAAGAAGGAAC
 AAACAAAGACTTTCACAGAATGCCATAAGACAACGCTCTCTGGGTCCATATTGGCCACAGATAAATCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA


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Protein Sequence: >RC206187 protein sequence
 Red=Cloning site Green=Tags(s)

MAPSGSLAVPLAYMVPLLWGAPWTHGRRSNVRVITDENWRELLEGDMIEFYAPWCPACQNLQPEWESFA
 EWGEDLEVNIKVDVTEQPLSGRFIINALPTIYHCKDGEFRRYQGPRTKKDFINFISDKEWKSIEPVSS
 WFGPGSVLMSSMSALFQLSMWIRTCHNYFIEDLGLPVWGSYTVFALATLFSGLLLGLCMIFVADCLCPSK
 RRRPQYPYPYPSKKLLSESAQPLKKVEEQEADEEDVSEEEAESKEGTNKDFPQNAIRQSLGPSLATDKS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6317_a07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_030755

ORF Size: 840 bp

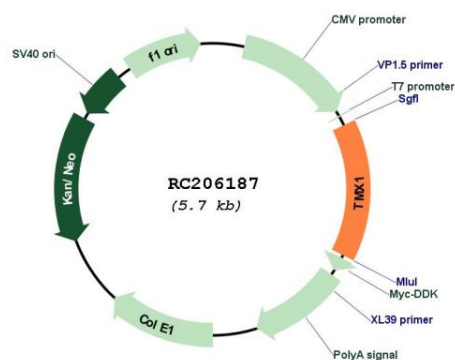
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

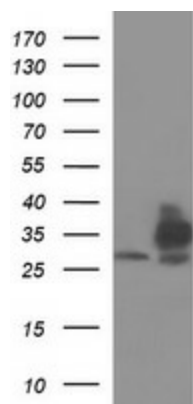
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none"> 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_030755.3, NP_110382.2</u>
RefSeq Size:	4119 bp
RefSeq ORF:	843 bp
Locus ID:	81542
UniProt ID:	<u>Q9H3N1</u>
Cytogenetics:	14q22.1
Domains:	thioredoxin
Protein Families:	Druggable Genome, Transcription Factors, Transmembrane
MW:	31.8 kDa
Gene Summary:	<p>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, and one transmembrane domain. Unlike most members of this gene family, it lacks a C-terminal ER-retention sequence. The mature membrane-bound protein can both oxidize and reduce disulfide bonds and acts selectively on membrane-associated polypeptides. [provided by RefSeq, Jan 2017]</p>

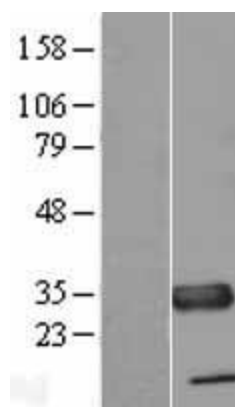
Product images:



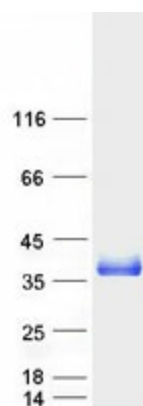
Circular map for RC206187



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TMX1 (Cat# RC206187, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-TMX1 (Cat# [TA507042]). Positive lysates [LY410692] (100ug) and [LC410692] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY410692]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206187 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TMX1 protein (Cat# [TP306187]). The protein was produced from HEK293T cells transfected with TMX1 cDNA clone (Cat# RC206187) using MegaTran 2.0 (Cat# [TT210002]).