

Product datasheet for **RC209796**

TIMP2 (NM_003255) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TIMP2 (NM_003255) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TIMP2
Synonyms:	CSC-21K; DDC8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC209796 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGCGCCGGCCCGCACCCCTGCGGCTGGCGCTCGGCCTCCTGCTGCTGGCGACGCTGCTTCGCCCGG
CCGACGCCTGCAGCTGCTCCCCGGTGCACCCGCAACAGGCGTTTTGCAATGCAGATGTAGTGATCAGGGC
CAAAGCGGTCAGTGAGAAGGAAGTGGACTCTGAAACGACATTTATGGCAACCCTATCAAGAGGATCCAG
TATGAGATCAAGCAGATAAAGATGTTCAAAGGGCCTGAGAAGGATATAGAGTTTATCTACACGGCCCCCT
CCTCGGCAGTGTGTGGGTCTCGCTGGACGTTGGAGGAAAGAAGGAATATCTCATTGCAGGAAAGGCCGA
GGGGGACGGCAAGATGCACATCACCCCTCTGTGACTTCATCGTGCCTGGGACACCCTGAGCACCACCCAG
AAGAAGAGCCTGAACCACAGGTACCAGATGGGCTGCGAGTGAAGATCACGCGCTGCCCATGATCCCGT
GCTACATCTCCTCCCGGACGAGTGCCTCTGGATGGACTGGGTCACAGAGAAGAACATCAACGGGACCA
GGCCAAGTTCTTCGCTGCATCAAGAGAAGTGACGGCTCCTGTGCGTGGTACCGCGGCGCGGCCCCCC
AAGCAGGAGTTTCTCGACATCGAGGACCA

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC209796 protein sequence
 Red=Cloning site Green=Tags(s)

MGAAARTLRLALGLLLLATLLRPADACSCSPVHPQQAFCNADVIRAKAVSEKEVDSGNDIYGNPICKRIQ
 YEIKQIKMFKGPEKDIEFIYTAPSSAVCGVSLDVGGKKEYLIAGKAEGDGKMHITLCDFI VPWDTLSTTQ
 KKSLNHRVYQMGCECKITRCMPICYI SSPDECLWMDWVTEKNINGHQAKFFACIKRSDGSCAWYRGAAPP
 KQEFLDIEDP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6092_f10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003255

ORF Size: 660 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_003255.5](#)

RefSeq Size: 3670 bp

RefSeq ORF: 663 bp

Locus ID: 7077

UniProt ID: [P16035](#)

Cytogenetics: 17q25.3

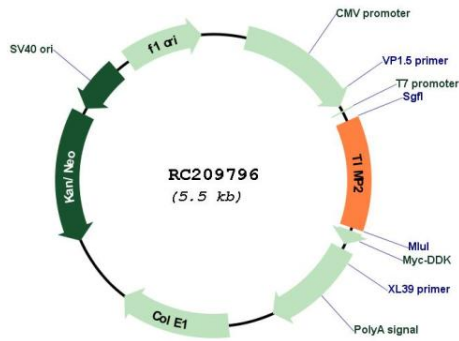
Domains: NTR

Protein Families: Druggable Genome, Secreted Protein

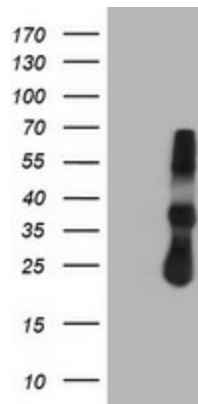
MW: 24.4 kDa

Gene Summary: This gene is a member of the TIMP gene family. The proteins encoded by this gene family are natural inhibitors of the matrix metalloproteinases, a group of peptidases involved in degradation of the extracellular matrix. In addition to an inhibitory role against metalloproteinases, the encoded protein has a unique role among TIMP family members in its ability to directly suppress the proliferation of endothelial cells. As a result, the encoded protein may be critical to the maintenance of tissue homeostasis by suppressing the proliferation of quiescent tissues in response to angiogenic factors, and by inhibiting protease activity in tissues undergoing remodelling of the extracellular matrix. [provided by RefSeq, Jul 2008]

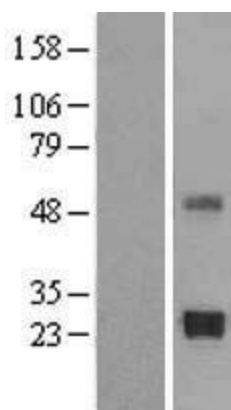
Product images:



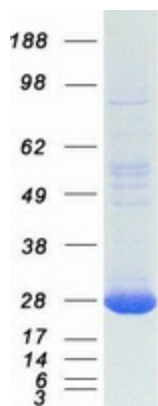
Circular map for RC209796



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TIMP2 (Cat# RC209796, 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-TIMP2 (Cat# [TA504044]). Positive lysates [LY418809] (100ug) and [LC418809] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY418809]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209796 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TIMP2 protein (Cat# [TP309796]). The protein was produced from HEK293T cells transfected with TIMP2 cDNA clone (Cat# RC209796) using MegaTran 2.0 (Cat# [TT210002]).