

## Product datasheet for **RC204861**

### MTF1 (NM\_005955) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MTF1 (NM_005955) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MTF1
Synonyms:	MTF-1; ZRF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide  
Sequence:**

>RC204861 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGGGGAACACAGTCCAGACAACAACATCATCTACTTTGAGGCAGAGGAAGATGAGCTGACCCCGATG  
 ATAAAATGCTCAGGTTTGTGGATAAAAACGGACTGGTGCCTTCCTCATCTGGAACGTTTATGATAGGAC  
 CACTGTTCTTATTGAGCAGGACCCTGGCACTTTGGAGGATGAAGATGACGACGGACAGTCCGGAGAACAC  
 TTGCCTTTTCTAGTAGGGGTGAAGAGGGCTTTACCTGATAGATCATGAAGCAATGTCCAGGGTTATG  
 TGCAGCACATTATCTCACCAGATCAGATTCATTTGACAATAAACCTGGTTCCACACCCATGCCAAGAAA  
 TATTGAAGGTGCAACCCTCACTCTGCAGTCGGAATGTCCGAAACAAAACGTAAGAAGTAAAGCGGTAC  
 CAATGTACCTTTGAGGGCTGTCCCGCACCTACAGCACAGCAGGCAACCTGCGAACCCACAGAAGACTC  
 ACCGAGGAGAGTACACCTTTGTCTGTAATCAGGAGGGCTGTGGCAAAGCCTTCTTACCTTTACAGCCT  
 CAGGATCCACGTGCGAGTGCACAGGAAGAGAAGCCATTTGAGTGTGACGTGCAGGGCTGTGAGAAGGCA  
 TTCAACACACTGTACAGGCTGAAAGCACATCAGAGGCTTCACACAGGGAAAACGTTTAACTGTGAATCTG  
 AAGGCTGCAGCAATACTTCACCACACTCAGTGATCTGAGGAAGCACATTCGAACTCATACAGGGAAAA  
 GCCATTTCCGGTGCATCACGATGGCTGTGGAAAAGCATTTCAGCAAGCCACCACCTTAAAACTCACGTT  
 CGTACACATACTGGTGAAGACCCTTCTTCTGCCCCAGTAATGGCTGTGAGAAAACATTCAGCACTCAAT  
 ACAGTCTCAAAGTCACATGAAAGGTGATGATAACAAAGGACACTCATAAATGCACTTCCACAACACAA  
 TGGATCAGAGGATACAACTCACTCACTTTGTCTAAGTGACTTGAGCCTTCTGTCCACAGATTCTGAATTG  
 CGAGAAAATTCAGTACGACCCAGGGCCAGGACCTCAGCACAATTCACCAGCAATCATCTTTGAATCAA  
 TGTTCCAGAATTCAGATGATACGCAATTCAGGAAGATCCTCAACAGACGGCTTCTTACTGAAAGTTT  
 TAATGGTGATGCAGAGTCAGTCAGTGATGTTCCGCCATCCACAGGAAATTCAGCATCTTTATCTCTTCCA  
 CTTGTAAGTCAACCTGGCTCTCCGAGCCACCCAGCCTCTACTACCTGCCTCAGCTCCGCTGCTCCTC  
 CGCCTGCTCCCTCCCTAGGACCTGGCTCCAGCAAGCTGCATTTGGCAACCCCTGCTCTTTACAACC  
 TCCAGAAGTGCCTGTTCCCCACAGCACACAGTTTGTGCTAATCATCAAGAGTTTCTCCGACCCCCAG  
 GCACCGCAGCCATTGTACCAGGACTTTCTGTTGTTGCTGGGGCTTCTGCATCAGCAGCGGCAGTGGCAT  
 CAGCTGTGGCAGCACCAGCCACCACAAAGTACTACTGAGCCCTGCCAGCCATGGTCCAGACTCTGCC  
 CCTGGGTGCCAACTCTGTCCCTAACTAATAATCCACAATAACCATCACCCCACTCCCAACACAGCTATC  
 CTGCAGTCCAGCCTAGTCATGGGAGAACAGAATTACAATGGATATTAATGGTGCCACCAAGTTCTCCAC  
 AAAACCAAGAACAATTCAGCAAGCATCTAAAGTTGAGAAGGTGTTTTTACCCTGCAGTACCAGTAGC  
 CAGTAGCCAGGGAGCTCTGTCCAGCAGATTGGCCTCAGTGTTCCTGTGATCATCATCAAACAAGAAGAG  
 GCATGTGAGTGTGAGTGTGATGCCGGGACTCTGCAAAGGAGCGGGCATCCAGCAGGAGAAAGGGTGTCT  
 CCTCCCCACCCCTCCAGAGCCGAGCCCCAGGCTCCTGATGGGCCAGCCTGCAGCTCCAGCGCAGAC  
 TTTCTCTCAGCCCTGTTCCCGGGTATCATCTCTACCTTGCCTCCTCCTGTGAGCAAAGCCGACAA  
 GCAGAGACTCCTCAGACCCTCAGACAGAAACATTAAGTGCCATGGATGTGTCAGAGTTTCTATCCCTCC  
 AGAGCCTGGACACCCGTCCTCAATCTGATTCCCATTGAAGCACTACTGCAGGGGGAGGAGATGGGCCCT  
 CACCAGCAGCTTCTCAAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC204861 protein sequence  
 Red=Cloning site Green=Tags(s)

MGEHSPDNNIYFEAEDELTPDDKMLRFVDKNGLVPSSSGTVYDRRTTVLIEQDPGTLEDEDDDGQCGEHL  
 LPFLVGGEEGFHLIDHEAMSQGYVQHII SPDQIHLTINPGSTPMPRNIEGATLTLQSECPETKRKEVKRY  
 QCTFEGCPRTYSTAGNLRTHQKTHRGEYTFVCNQEGCGKAFLTSYSLRIHVRVHTKEKPFECQVQCEKA  
 FNTLYRLKAHQRLHTGKTFNCESEGCSKYFTTLLSDLRKHIRTHTGKPFRCDDHDGCGKAF AASHHLKTHV  
 RTHTGERPFFCPSNGCEKTFSTQYSLKSHMKGHDNKGHSYNALPQHNGSEDTNHSLCLSDL SLLSTDSEL  
 RENSSTTQGDLSLSTISPAIIFESMFQNSDDTAIQEDPQQTASL TESFNGDAESVSDVPPSTGNSASLSLP  
 LVLQPGLSEPPQPLL PASAPSAPPAPSLGPGSQAAFGNPPALLQPPEVPVPHSTQFAANHQEFLPHPQ  
 APQPIVPLSVVAGASASAAVASAVAAPAPPQSTTEPLPAMVQTLPLGANSVL TNNPTITITPTPNTAI  
 LQSSLVMGEQNLQWILNGATSSPQNQEIQQASKVEKVFVFTTAVPVASSPGSSVQVIGLSVPVIIKQEE  
 ACQCQCACRDSAKERASSRRKGCSSPPPEPSPQAPDGP SLQLPAQTFSSAPVPGSSSTLPSSCEQSRQ  
 AETPSDPQTETLSAMDVSEFLSLQSLDTPSNLIP IEALLQGEEMGLTSSFSK

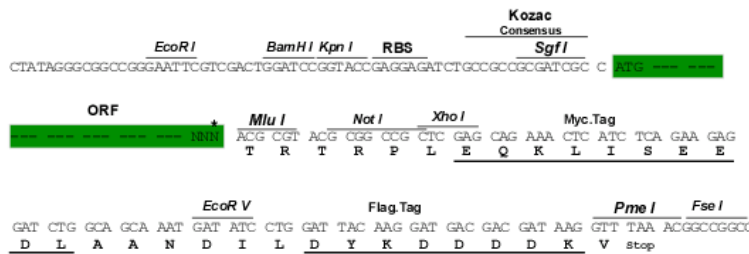
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mk6203\\_c01.zip](https://cdn.origene.com/chromatograms/mk6203_c01.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\_005955

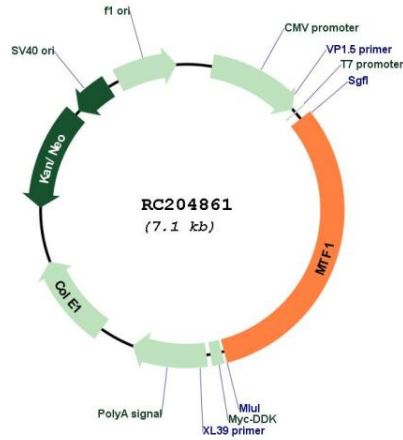
ORF Size: 2259 bp

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](#)

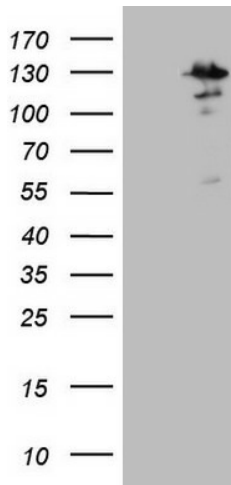
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_005955.3</a>
<b>RefSeq Size:</b>	7986 bp
<b>RefSeq ORF:</b>	2262 bp
<b>Locus ID:</b>	4520
<b>UniProt ID:</b>	<a href="#">Q14872</a>
<b>Cytogenetics:</b>	1p34.3
<b>Domains:</b>	zf-C2H2
<b>Protein Families:</b>	Transcription Factors
<b>MW:</b>	81 kDa
<b>Gene Summary:</b>	This gene encodes a transcription factor that induces expression of metallothioneins and other genes involved in metal homeostasis in response to heavy metals such as cadmium, zinc, copper, and silver. The protein is a nucleocytoplasmic shuttling protein that accumulates in the nucleus upon heavy metal exposure and binds to promoters containing a metal-responsive element (MRE). [provided by RefSeq, Jul 2008]

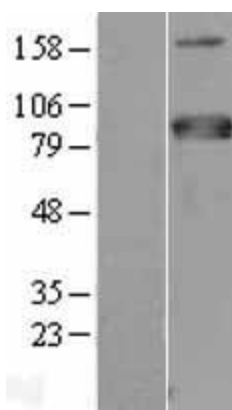
Product images:



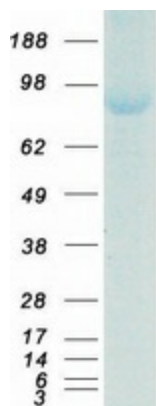
Circular map for RC204861



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MTF1 (Cat# RC204861, 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-MTF1 (Cat# [TA805480])(1:2000). Positive lysates [LY401804] (100ug) and [LC401804] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401804]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204861 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MTF1 protein (Cat# [TP304861]). The protein was produced from HEK293T cells transfected with MTF1 cDNA clone (Cat# RC204861) using MegaTran 2.0 (Cat# [TT210002]).