

## Product datasheet for **RC228407**

### MTF2 (NM\_001164393) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MTF2 (NM_001164393) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MTF2
Synonyms:	dj976O13.2; M96; PCL2; TDRD19A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC228407 representing NM\_001164393  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGTCTGTACAATATGTCAAGAAGAGTATTCAGAAGCTCCCAATGAAATGGTTATATGTGACAAGTGTG  
 GCCAAGGATATCATCAGTTGTGTACACACCTCATATTGATTCCAGTGTGATTGATTGAGATGAAAAATG  
 GCTCTGTGCGCAGTGTGTTTTGCAACAACAACAAGAGGGGTGGTGCACCTTAAGAAAGGACCAAAATGCC  
 AAAGCATTGCAAGTCATGAAGCAGACATTACCCTATAGTGTGGCAGACCTTGAATGGGATGCAGGTCATA  
 AAACCAATGTCCAGCAGTGTACTGCTATTGTGGAGGCCCTGGAGACTGGTATTTGAAGATGCTACAGTG  
 CTGCAATGTAAGCAGTGGTTTCATGAGGCTTGTGTGCAATGCCTTCAAAGCCAATGCTATTTGGAGAC  
 AGATTTTATACGTTTATATGCTCTGTCTGCAGTCTGGACCAGAATACCTCAAACGTCTACCATTACAGT  
 GGGTAGATATAGCACACCTATGCCTTTACAACCTAAGTGTATTTCATAAGAAGAAATACTTTGATTCTGA  
 ACTTGAGCTTATGACATACATTAATGAAAACCTGGGATAGATTGCACCCTGGAGAGCTGGCAGACACACCA  
 AAATCTGAAAGATATGAGCATGTTCTGGAGGCATTAATGATTACAAGACCATGTTTATGCTGGGAAAG  
 AAATAAAGAAGAAGAAGCATTGTTTGGGTTGCGAATTCGTGTTCTCTCTGTGCCACCAAAATGTGGCTTT  
 CAAAGCAGAGAAAGAACCTGAAGGAACATCTCATGAATTTAAATTAAGGCAGAAAGGCATCCAAACCT  
 ATATCTGATTCAGGGAAGTAAGCAATGGCATAGAAAAAAAGGAAAGAAAAATCTGTAGGTCGTCAC  
 CTGGCCCATATACAAGAAAAATGATTCAAAAACCTGCTGAGCCACTTTTGGAAGGAATCAATTTGAGA  
 GAATCTACTTTGGATTTACCTTGTTCTATAGGGAGAAGTGGGAACTGCACATTCATCAATACCTCA  
 GATGTGGATTTACGGGTGCTTCCAGTGCAAAAGAACTACCTCGTCTAGCATTTCAGGCATTATGGAT  
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 AAGAGGTCGTCTTCCAAGAAGAGCACTCCAGACTCAGAAGTGTAAAAGATGATGAAGGCAAA  
 GAAGATTACAGTTTGTGAAGTCAACACAGAGATTCTGAATAACTTAGCAGATCAGGAGTTACAACCTCA  
 ATCATCTAAAGAACTCCATTACCAGTTATTTGGTGTGTCAGGTAGAATAGCATGTGGCGAAAAATACCG  
 AGTTTTGGCACGTCGGGTGACACTTGATGGAAAGTGCAGTATCTTGTGGAATGGGAAGGAGCAACTGCA  
 TCC

AG**GCGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC228407 representing NM\_001164393  
 Red=Cloning site Green=Tags(s)

MVCTICQEEYSEAPNEMVICDKCGQGYHQLCHTPHIDSSVIDSDEKWLCRQCVFATTTKRGGALKKGPNA  
 KALQVMKQTL PYSVADLEWDAGHKTNVQQCYCYCGGPGDWYLMKLQCKCKQWFHEACVQCLQKPM LFGD  
 RFYTFICSVCSGPEYLKRLPLQWVDIAHLCLYNLSVIHKKKYFDFSELELMTYINENWDRLHPGELADTP  
 KSERYEHLVLEALNDYKTMFMSGKEIKKKKHLFGLRIRVPPVPPNVAFKAEKEPEGTSHEFKIKGRKASKP  
 ISDSREVSNGIEKKKKKSVGRPPGYTRKMIQKTAEP LLDKESISENPTLDLPCSIGRTEGTAHSSNTS  
 DVDFTGASSAKETTSSSISRHYGLSDSRKRTRTGRSWPAAIPHLRRRRGRLPRRALQTQNSEIVKDDEGK  
 EDYQFDELNTEILNNLADQELQLNHLKNSITSYFGAAGRIACGEKYRVLARRVTLDGKVQYLVEWEGATA  
 S

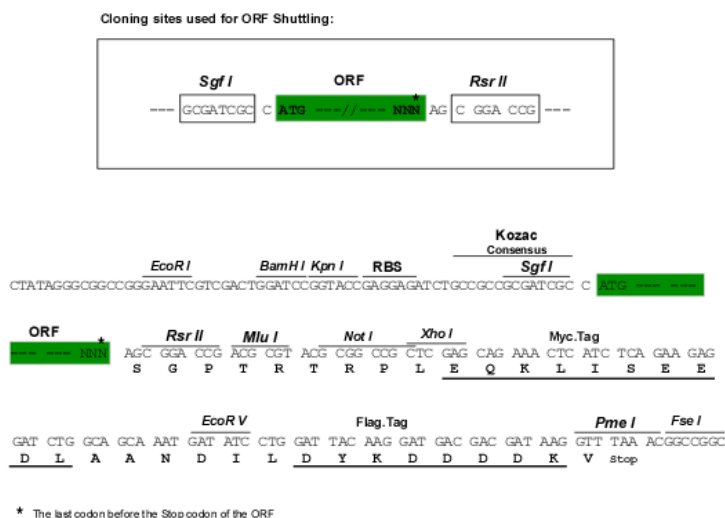
SGP**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8063\\_b08.zip](https://cdn.origene.com/chromatograms/mk8063_b08.zip)

**Restriction Sites:**

SgfI-RsrII

**Cloning Scheme:**


**ACCN:** NM\_001164393

**ORF Size:** 1473 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\\_001164393.1](#), [NP\\_001157865.1](#)

**RefSeq Size:** 3863 bp

**RefSeq ORF:** 1476 bp

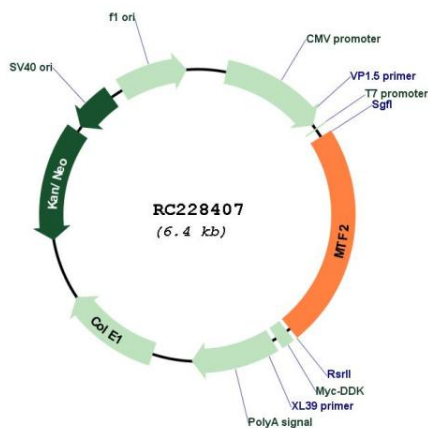
**Locus ID:** 22823

**UniProt ID:** [Q9Y483](#)

**Cytogenetics:** 1p22.1

<b>Protein Families:</b>	Druggable Genome, Transcription Factors
<b>MW:</b>	55.7 kDa
<b>Gene Summary:</b>	Polycomb group (PcG) that specifically binds histone H3 trimethylated at 'Lys-36' (H3K36me3) and recruits the PRC2 complex. Acts by binding to H3K36me3, a mark for transcriptional activation, and recruiting the PRC2 complex, leading to enhance PRC2 H3K27me3 methylation activity. Regulates the transcriptional networks during embryonic stem cell self-renewal and differentiation. Promotes recruitment of the PRC2 complex to the inactive X chromosome in differentiating XX ES cells and PRC2 recruitment to target genes in undifferentiated ES cells. Required to repress Hox genes by enhancing H3K27me3 methylation of the PRC2 complex. In some conditions may act as an inhibitor of PRC2 activity: able to activate the CDKN2A gene and promote cellular senescence by suppressing the catalytic activity of the PRC2 complex locally. Binds to the metal-regulating-element (MRE) of MT1A gene promoter (By similarity). [UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for RC228407