

Product datasheet for **RC221006**

MTF2 (NM_007358) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MTF2 (NM_007358) 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:

>RC221006 representing NM_007358
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGAGACTCTACAGGGCAGGTAATTCCTGGTCCACAAGCGGTCTCCTTTACGTCGAAACAAAAGA
 CCCAACATCCTTGACCAAGCTGTCTTTACAGGATGGACATAAAGCCAAAAGCCAGCATGTAAATTTGA
 AGAGGGTCAGGATGTCCTAGCTAGATGGTCAGATGGCTTGTCTTTTCTTGGCACTATCAAAAAGATAAAC
 ATATTGAAACAGAGCTGCTTCATCATATTTGAAGACAGTTCTAAATCCTGGGTTCTCTGGAAGGACATTC
 AAACAGGAGCCACTGGAAGTGGGAAAATGGTCTGTACAATATGTCAAGAAGAGTATTGAGAAGCTCCCAA
 TGAAATGGTTATATGTGACAAGTGTGGCAAGGATATCATCAGTTGTGTACACACCTCATATTGATTCC
 AGTGTGATTGATTGAGATGAAAAATGGCTCTGTCCGCGAGTGTGTTTTGCAACAACAACAAAGAGGGGTG
 GTGCACCTAAGAAAGGACCAAATGCCAAAGCATTGCAAGTGTGCAAGCAGACATTACCCTATAGTGTGGC
 AGACCTTGAATGGGATGCAGGTCATAAAACCAATGTCCAGCAGTGTACTGCTATTGTGGAGGCCCTGGA
 GACTGGTATTGAAAGATGCTACAGTGTGCAAAATGTAAGCAGTGGTTTCATGAGGCTTGTGTGCAATGCC
 TTCAAAGCCAATGCTATTTGGAGACAGATTTTATACGTTTATATGCTCTGTCTGCACTTCTGGACCAGA
 ATACCTCAAACGCTACCATACAGTGGGTAGATATAGCACACCTATGCCTTTACAACCTAAGTGTATT
 CATAAGAAGAAACTTTGATTCTGAACTTGAGCTTATGACATACATTAATGAAAAGTGGGATAGATTGC
 ACCCTGGAGAGCTGGCAGACACACCAAAATCTGAAAGATATGAGCATGTTCTGGAGGCATTAATGATTA
 CAAGACCATGTTTATGTCTGGGAAAGAAATAAAGAAGAAGAAGCATTGTTTGGGTTGCGAATTCGTT
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 TTAAGGCGAGAAAGGCATCCAAACCTATATCTGATTCAAGGGAAGTAAGCAATGGCAATGAAAAAAAAGG
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 CTTTTGGATAAGGAATCAATTTAGAGAATCCTACTTTGGATTTACCTTGTCTATAGGGAGAAGTGGG
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 GCTGCAATACCACATTTGCGGAGAAGAAGAGTCTTCCAAGAAGAGCACTCCAGACTCAGAAGTCAAG
 AAATTGTAAGATGATGAAGGCAAGAAGATTATCAGTTTGTGAACTCAACACAGAGATTCTGAATAA
 CTTAGCAGATCAGGAGTTACAACCTCAATCATCTAAGAAGTCCATTACCAGTATTTTGGTCTGCAGGT
 AGAATAGCATGTGGCGAAAAATACCGAGTTTGGCACGTGGGTGACACTTGATGAAAGGTGCAGTATC
 TTGTGGAATGGGAAGGAGCAACTGCATCCAGCGGACCG

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC221006 representing NM_007358
 Red=Cloning site Green=Tags(s)

MRDSTGAGNSLVHKRSPLRNRQKTPSTLTKLSLQDGHKAKKPACKFEEGQDVLARWSDGLFYLGTIKKIN
 ILKQSCFIIIFEDSSKSWLWKDIQTGATGSGEMVCTICQEEYSEAPNEMVICDKCGQYHQLCHTPHIDS
 SVIDSDEKWLCRQCVFATTTKRGALKKGPNAKALQVMKQTLPSVADLEWDAGHKTNVQCYCYCGGPG
 DWYLMKLCQCKCKQWFHEACVQLQKPMFLGDRFYTFICSVCSGPEYLRPLQWVDIAHLCLYNLSVI
 HKKKYFDSELELMTYINENWDRLHPGELADTPKSERYEHVLEALNDYKTMFMSGKEIKKKHLFGLRIRV
 PPVPPNVAFAEKEPEGTSHEFKIKGRKASKPISDSREVSNGIEKKGKSVGRPPGYPYTRKMIQKTAEP
 LLDKESISENPTLDLPCSIGRTEGTAHSSNTSDVDFTGASSAKETTSSSISRHYGLSDSRKRTRTGRSWP
 AAIPHLRRRRGRLLPRRALQTQNSEIVKDDDEKEDYQFDELNTEILNNLADQELQLNHLKNSITSYFGAAG
 RIACGEKYRVLARRVTLDGKVQYLVEWEGATASSGP

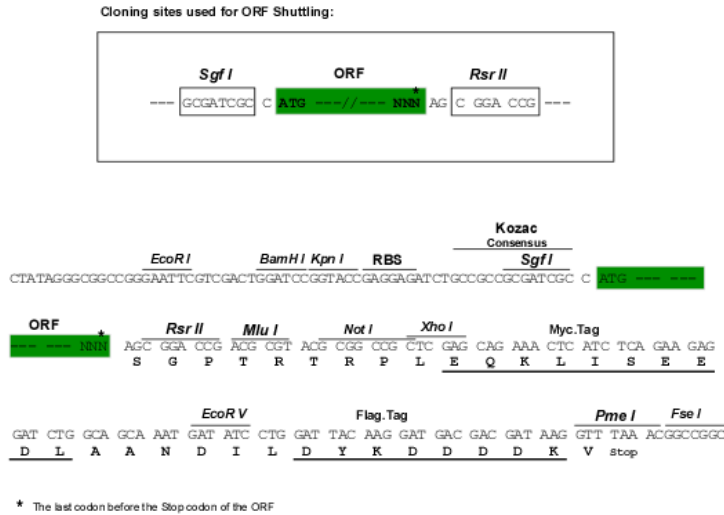
SGP**TRRRLEQKLI**SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6621_h08.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_007358

ORF Size: 2174 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_007358.4](#)

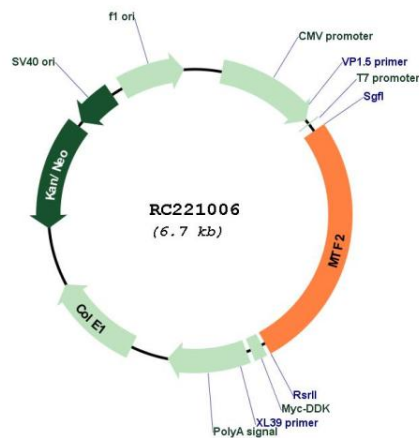
RefSeq Size: 2648 bp

RefSeq ORF: 1782 bp

Locus ID: 22823

UniProt ID:	<u>Q9Y483</u>
Cytogenetics:	1p22.1
Domains:	PHD, TUDOR
Protein Families:	Druggable Genome, Transcription Factors
MW:	66.9 kDa
Gene Summary:	<p>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]</p>

Product images:



Circular map for RC221006