

Product datasheet for **RG221006**

MTF2 (NM_007358) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MTF2 (NM_007358) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MTF2
Synonyms:	dj976O13.2; M96; PCL2; TDRD19A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG221006 representing NM_007358
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGAGACTCTACAGGGCAGGTAATTCCTGGTCCACAAGCGGTCTCCTTTACGTCGAAACAAAAGA
 CCCCAACATCCTTGACCAAGCTGTCTTTACAGGATGGACATAAAGCCAAAAGCCAGCATGTAAATTTGA
 AGAGGGTCAGGATGTCCTAGCTAGATGGTCAGATGGCTTGTCTTTTATCTTGGCACTATCAAAAAGATAAAC
 ATATTGAAACAGAGCTGCTTCATCATATTTGAAGACAGTTCTAAATCCTGGGTTCTCTGGAAGGACATTC
 AAACAGGAGCCACTGGAAGTGGGAAAATGGTCTGTACAATATGTCAAGAAGAGTATTGAGAAGCTCCCAA
 TGAAATGGTTATATGTGACAAGTGTGGCAAGGATATCATCAGTTGTGTACACACCTCATATTGATTCC
 AGTGTGATTGATTGAGATGAAAAATGGCTCTGTCCGCGAGTGTGTTTTGCAACAACAACAAAGAGGGGTG
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 GACTGGTATTTGAAGATGCTACAGTGTGCAAAATGTAAGCAGTGGTTTCATGAGGCTTGTGTGCAATGCC
 TTCAAAAGCCAATGCTATTTGGAGACAGATTTTATACGTTTATATGCTCTGTCTGCACTTCTGGACCAGA
 ATACCTCAAACGCTACCATACAGTGGGTAGATATAGCACACCTATGCCTTTACAACCTAAGTGTATT
 CATAAGAAGAAACTTTGATTCTGAACCTGAGCTTATGACATACATTAATGAAAAGTGGGATAGATTGC
 ACCCTGGAGAGCTGGCAGACACCCGAAATCTGAAAGATATGAGCATGTTCTGGAGGCATTAATGATTA
 CAAGACCATGTTTATGTCTGGGAAAGAAATAAAGAAGAAGAAGCATTGTTTGGGTTGCGAATTCGTGTT
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 CTTTTGGATAAGGAATCAATTTAGAGAATCCTACTTTGGATTTACCTTGTCTATAGGGAGAAGTGGG
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 GTCTAGCATTTCCAGGCATTATGGATTATCTGACTCCAGAAAAAGAACGCGTACAGGAAGATCTTGGCCT
 GCTGCAATACCACATTTGAGGAGAAGAAGAGGTCGTCTTCAAGAAGAGCACTCCAGACTCAGAAGTCAAG
 AAATTGAAAAGATGATGAAGGCAAAGAAGATTATCAGTTTGTGAACTCAACACAGAGATTCTGAATAA
 CTTAGCAGATCAGGAGTTACAACCTCAATCATCTAAAGAACTCCATTACCAGTATTTTGGTCTGCAGGT
 AGAATAGCATGTGGCGAAAAATACCGAGTTTTGGCACGTGGGTGACACTTGATGAAAGGTGCAGTATC
 TTGTGGAATGGGAAGGAGCAACTGCATCC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

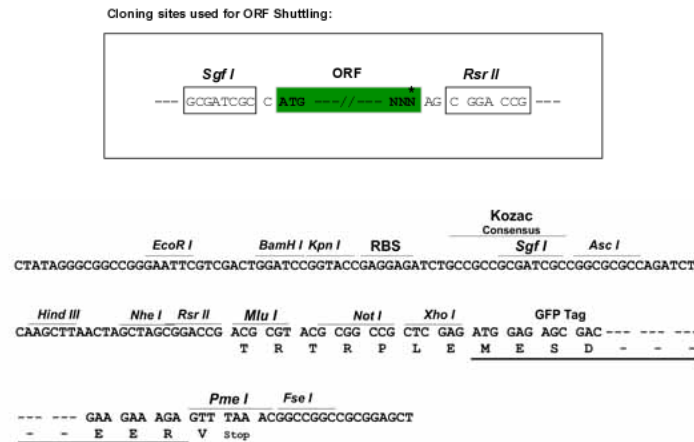
>RG221006 representing NM_007358
 Red=Cloning site Green=Tags(s)

MRDSTGAGNSLVHKRSPRRNQKTPSLTKLSLQDGHKAKKPACKFEEQDVLARWSDGLFYLGTIKKIN
 ILKQSCFIIFEDSSKSWLWKDIQTGATGSGEMVCTICQEEYSEAPNEMVICDKCGQGYHQLCHTPHIDS
 SVIDSDEKWLCRQCVFATTTKRGGALKKGPNAKALQVMKQTLPYSVADLEWDAGHKTNVQCYCYCGGPG
 DWYLMKLQCKCKQWFHEACVQLQKPMFLGDRFYTFICSVCSGPEYLKRLPLQWVDIAHLCLYNLSVI
 HKKKYFDSELELMTYINENWDRLHPGELADTPKSERYEHVLEALNDYKTMFMSGKEIKKKKHLFGLRIRV
 PPVPPNVAFAEKEPEGTSHEFKIKGRKASKPISDSREVSNGIEKKGKSSVGRPPGPYTRKMIQKTAEP
 LLDKESISENPTLDLPCSIGRTEGTAHSSNTSDVDFTGASSAKETTSSSISRHYGLSDSRKRTRTGRSWP
 AAIPHLRRRRGRLLPRRALQTQNSEIVKDEGKEDYQFDELNTEILNNLADQELQLNHLKNSITSYFGAAG
 RIACGEKYRVLARRVTLDGKVQYLVEWEGATAS

SGP**TRRRLE** - GFP Tag - V

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:


ACCN: NM_007358

ORF Size: 1779 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_007358.2](#)

RefSeq Size: 2648 bp

RefSeq ORF: 1782 bp

Locus ID: 22823

UniProt ID: [Q9Y483](#)

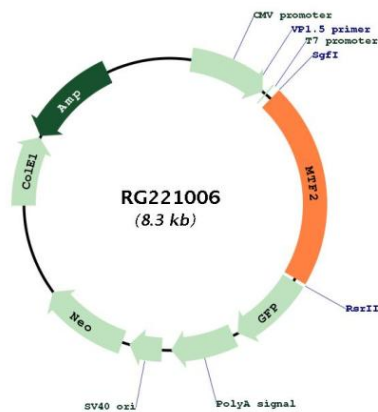
Cytogenetics: 1p22.1

Domains: PHD, TUDOR

Protein Families: Druggable Genome, Transcription Factors

Gene Summary: 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 RG221006