

Product datasheet for **RG228407**

MTF2 (NM_001164393) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
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)



ORF Nucleotide Sequence: >RG228407 representing NM_001164393
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGTCTGTACAATATGTCAAGAAGAGTATTCAGAAGCTCCCAATGAAATGGTTATATGTGACAAGTGTG
 GCCAAGGATATCATCAGTTGTGTACACACCTCATATTGATTCCAGTGTGATTGATTGAGATGAAAAATG
 GCTCTGTGCGCAGTGTGTTTTGCAACAACAACAAGAGGGGTGGTGCACCTTAAGAAAAGGACCAATGCC
 AAAGCATTGCAAGTCATGAAGCAGACATTACCTATAGTGTGGCAGACCTTGAATGGGATGCAGGTCATA
 AAACCAATGTCCAGCAGTGTACTGCTATTGTGGAGGCCCTGGAGACTGGTATTTGAAGATGCTACAGTG
 CTGCAAAATGTAAGCAGTGGTTTCATGAGGCTTGTGTGCAATGCCTTCAAAAGCCAATGCTATTTGGAGAC
 AGATTTTATACGTTTATATGCTCTGTCTGCACTTCTGGACCAGAATACCTCAAACGTCTACCATTACAGT
 GGGTAGATATAGCACACCTATGCCTTTACAACCTAAGTGTATTTCATAAGAAGAAATACTTTGATTCTGA
 ACTTGAGCTTATGACATACATTAATGAAACTGGGATAGATTGCACCTGGAGAGCTGGCAGACACACCA
 AAATCTGAAAAGATATGAGCATGTTCTGGAGGCATTAAATGATTACAAGACCATGTTTATGCTGGGAAAG
 AAATAAAGAAGAAGAAGCATTGTTTGGGTGCGAATTCGTGTTCTCCTGTGCCACCAATGTGGCTTT
 CAAAGCAGAGAAAACCTGAAGGAACATCTCATGAATTTAAATTAAGGCAGAAAGGCATCCAAACCT
 ATATCTGATTCAAGGGAAGTAAGCAATGGCATAGAAAAAAGGAAAGAAAAATCTGTAGGTCGTCCAC
 CTGGCCCATATACAAGAAAAATGATTCAAAAACTGCTGAGCCACTTTTGGATAAGGAATCAATTTTCAGA
 GAATCTACTTTGGATTACCTTGTCTATAGGGAGAAGTGAAGGAAGTGCACATTTCATCAATACCTCA
 GATGTGGATTTACGGGTGCTTCCAGTGCAAAAGAACTACCTCGTCTAGCATTTCCAGGCATTATGGAT
 TATCTGACTCCAGAAAAAGACGCTACAGGAAGATCTTGGCTGCTGCAATACCACATTTCCGGAGAAG
 AAGAGGTCGTCTTCCAAGAAAGAGCACTCCAGACTCAGAACTCAGAAATTGTAAGATGATGAAGGCAAA
 GAAGATTATCAGTTTGTGAATCAACACAGAGATTCTGAATAACTTAGCAGATCAGGAGTTACAACCTCA
 ATCATCTAAGAACTCCATTACCAGTTATTTGGTGTGTCAGGTAGAATAGCATGTGGCGAAAAATACCG
 AGTTTGGCACGTGGGTGACACTTGATGGAAGGTGCAGTATCTTGTGGAATGGGAAGGAGCAACTGCA
 TCC

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG228407 representing NM_001164393
 Red=Cloning site Green=Tags(s)

MVCTICQEEYSEAPNEMVICDKCGQGYHQLCHTPHIDSSVIDSDEKWLCRQCVFATTTKRGGALKKGPNA
 KALQVMKQTLPYSVADLEWDAGHKTNVQQCYCYCGPGDWYLMQLQCKCKQWFHEACVQCLQKPMFLGD
 RFYTFICSVSSSGPEYLKRLPLQWVDIAHLCLYNLSVIHKKKYFDELELMTYINENWDRHPGELADTP
 KSERYEHVLEALNDYKTMFMSGKEIKKKHLLFGLRIRVPPVPPNVAFKAKEPEGTSHEFKIKGRKASKP
 ISDSREVSNGIEKKGKKKSVGRPPGPYTRKMIQKTAEPPLDKESISENPTLDLPCSIGRTEGTAHSSNTS
 DVDFTGASSAKETTSSISRHYGLSDSRKRTRTGRSWPAAIPHLRRRRGRRLPRRALQTQNSEIVKDEGK
 EDYQFDELNTEILNNLADQELQLNHLKNSITSYFGAAGRIACGEKYRVLARRVTLDGKVQYLVVEGATA
 S

SGPTRRRLE - GFP Tag - V

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.

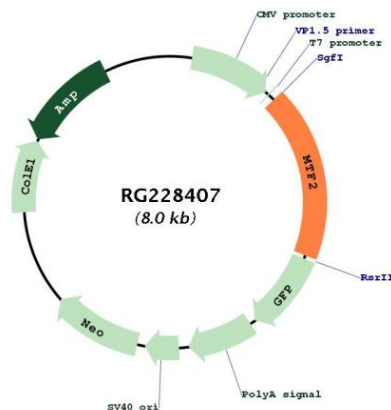
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001164393.1](#), [NP_001157865.1](#)

RefSeq Size: 3863 bp

RefSeq ORF:	1476 bp
Locus ID:	22823
UniProt ID:	Q9Y483
Cytogenetics:	1p22.1
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 RG228407