

## **Product datasheet for SC327581**

## MTF2 (NM\_001164392) Human Untagged Clone

## **Product data:**

**Product Type:** Expression Plasmids

**Product Name:** MTF2 (NM\_001164392) Human Untagged Clone

Tag: Tag Free Symbol: MTF2

**Synonyms:** dJ976O13.2; M96; PCL2; TDRD19A

Mammalian Cell None

Selection:

Vector: pCMV6-XL5

E. coli Selection: Ampicillin (100 ug/mL)

## OriGene Technologies, Inc.

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**Fully Sequenced ORF:** 

>NCBI ORF sequence for NM\_001164392, the custom clone sequence may differ by one or more nucleotides

ATGAGAGACTCTACAGGGGCAGGTAATTCACTGGTCCACAAGCGGTCTCCTTTACGTCGA AACCAAAAGACCCCAACATCCTTGACCAAGCTGTCTTTACAGGATGGACATAAAGCCAAA TTTTATCTTGGCACTATCAAAAAGATAAACATATTGAAACAGAGCTGCTTCATCATATTT GAAGACAGTTCTAAATCCTGGGTTCTCTGGAAGGACATTCAAACAGGAGCCACTGGAAGT GGGGAAATGGTCTGTACAATATGTCAAGAAGAGTATTCAGAAGCTCCCAATGAAATGGTT ATATGTGACAAGTGTGGCCAAGGATATCATCAGTTGTGTCACACACCTCATATTGATTCC AGTGTGATTGATTCAGATGAAAAATGGCTCTGTCGGCAGTGTGTTTTTGCAACAACAACA AAGAGGGGTGGTGCACTTAAGAAAGGACCAAATGCCAAAGCATTGCAAGTCATGAAGCAG ACATTACCCTATAGTGTGGCAGACCTTGAATGGGATGCAGGTCATAAAACCAATGTCCAG CAGTGTTACTGCTATTGTGGAGGCCCTGGAGACTGGTATTTGAAGATGCTACAGTGCTGC AAATGTAAGCAGTGGTTTCATGAGGCTTGTGTGCAATGCCTTCAAAAGCCAATGCTATTT GGAGACAGATTTTATACGTTTATATGCTCTGTCTGCAGTTCTGGACCAGAATACCTCAAA CGTCTACCATTACAGTGGGTAGATATAGCACACCTATGCCTTTACAACCTAAGTGTTATT GATAGATTGCACCCTGGAGAGCTGGCAGACACCCAAAATCTGAAAGATATGAGCATGTT AAGAAAAATCTGTAGGTCGTCCACCTGGCCCATATACAAGAAAAATGATTCAAAAAACT GCTGAGCCACTTTTGGATAAGGAATCAATTTCAGAGAATCCTACTTTGGATTTACCTTGT TCTATAGGGAGAACTGAGGGAACTGCACATTCATCCAATACCTCAGATGTGGATTTCACG GGTGCTTCCAGTGCAAAAGAAACTACCTCGTCTAGCATTTCCAGGCATTATGGATTATCT GACTCCAGAAAAAGAACGCGTACAGGAAGATCTTGGCCTGCTGCAATACCACATTTGCGG AGAAGAAGAGGTCGTCTTCCAAGAAGAGCACTCCAGACTCAGAACTCAGAAATTGTAAAA GATGATGAAGGCAAAGAAGATTATCAGTTTGATGAACTCAACACAGAGATTCTGAATAAC TTAGCAGATCAGGAGTTACAACTCAATCATCTAAAGAACTCCATTACCAGTTATTTTGGT GCTGCAGGTAGAATAGCATGTGGCGAAAAATACCGAGTTTTGGCACGTCGGGTGACACTT GATGGAAAGGTGCAGTATCTTGTGGAATGGGAAGGAGCAACTGCATCC

**Restriction Sites:** Please inquire ACCN: NM\_001164392

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning

into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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: <u>NM 001164392.1</u>, <u>NP 001157864.1</u>

 RefSeq Size:
 3973 bp

 RefSeq ORF:
 1611 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]

Transcript Variant: This variant (2) lacks an alternate in-frame exon compared to variant 1. The resulting isoform (b) has the same N- and C-termini but is shorter compared to isoform a. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.