

## Product datasheet for **SC327042**

### MTF2 (NM\_001164393) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MTF2 (NM_001164393) Human Untagged Clone
Tag:	Tag Free
Symbol:	MTF2
Synonyms:	dj976O13.2; M96; PCL2; TDRD19A
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001164393, the custom clone sequence may differ by one or more nucleotides

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ATGGTCTGTACAATATGTCAAGAAGAGTATTCAGAAGCTCCCAATGAAATGGTTATATGT
GACAAAGTGTGGCCAAGGATATCATCAGTTGTGTACACACCTCATATTGATTCCAGTGTG
ATTGATTCAGATGAAAAATGGCTCTGTCGGCAGTGTGTTTTTGCAACAACAACAAAGAGG
GGTGGTGCACCTTAAGAAAGGACCAATGCCAAAGCATTGCAAGTCATGAAGCAGACATTA
CCCTATAGTGTGGCAGACCTTGAATGGGATGCAGGTCATAAAACCAATGTCCAGCAGTGT
TACTGCTATTGTGGAGGCCCTGGAGACTGGTATTTGAAGATGCTACAGTGTGCAATGT
AAGCAGTGGTTTCATGAGGCTTGTGTGCAATGCCTTCAAAGCCAATGCTATTTGGAGAC
AGATTTTATACGTTTATATGCTCTGTCTGCAGTCTGGACCAGAATAACCTCAAACGTCTA
CCATTACAGTGGGTAGATATAGCACACCTATGCCTTTACAACCTAAGTGTATTTCATAAG
AAGAAATACTTTGATTCTGAACTTGAGCTTATGACATACATTAATGAAAACCTGGGATAGA
TTGCACCCCTGGAGAGCTGGCAGACACACCAAAATCTGAAAGATATGAGCATGTTCTGGAG
GCATTAATGATTACAAGACCATGTTTATGTCTGGGAAAGAAATAAAGAAGAAGAAGCAT
TTGTTTGGGTGGCAATTCGTGTTCCCTCTGTGCCACCAATGTGGCTTTCAAAGCAGAG
AAAGAACCTGAAGGAACATCTCATGAATTTAAATTAAGGCAGAAAGGCATCCAACCT
ATATCTGATTCAAGGGAAGTAAGCAATGGCATAGAAAAAAGGAAAGAAAAATCTGTA
GGTCGTCCACCTGGCCCATATACAAGAAAAATGATTCAAAAACTGCTGAGCCACTTTTG
GATAAGGAATCAATTTAGAGAAATCCTACTTTGGATTTACCTTGTCTATAGGGAGAACT
GAGGGAACCTGCACATTCATCCAATACCTCAGATGTGGATTTACCGGTGCTTCCAGTGCA
AAAGAACTACCTCGTCTAGCATTTCAGGCATTATGGATTATCTGACTCCAGAAAAAGA
ACGCGTACAGGAAGATCTTGGCCTGCTGCAATACCACATTTGCGGAGAAGAAGAGTGTG
CTTCCAAGAAGAGCACTCCAGACTCAGAACTCAGAAATTTGAAAAGATGATGAAGGCAAA
GAAGATTATCAGTTTGTGAAGTCAACACAGAGATTCTGAATAACTTAGCAGATCAGGAG
TTACAACCTCAATCATCTAAAGAACTCCATTACCAGTTATTTGGTGTGCAGGTAGAATA
GCATGTGGCGAAAAATACCGAGTTTGGCACGTGGGTGACACTTGATGGAAGGTGCAG
TATCTTGTGGAATGGGAAGGAGCAACTGCATCC

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<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_001164393
<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	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.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_001164393.1</a></u> , <u><a href="#">NP_001157865.1</a></u>
<b>RefSeq Size:</b>	3863 bp
<b>RefSeq ORF:</b>	1476 bp
<b>Locus ID:</b>	22823
<b>UniProt ID:</b>	<u><a href="#">Q9Y483</a></u>
<b>Cytogenetics:</b>	1p22.1
<b>Protein Families:</b>	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 (4) lacks two coding exons compared to variant 1, that causes a frameshift. The resulting isoform (c) is shorter at the N-terminus 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.