

## Product datasheet for **MC227991**

### **Mtf2 (NM\_001253877) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Mtf2 (NM_001253877) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Mtf2
Synonyms:	9230112N11Rik; AA537621; C76717; M96; Pcl2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >MC227991 representing NM\_001253877  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGTCTGTACAATATGTCAAGAAGAGTATTCAGAAGCTCCCAATGAAATGGTTATATGTGATAAGTGTG  
 GTCAAGGATATCATCAGCTGTGTACACACCTCATATTGACTCGAGTGTGATTGATTAGATGAAAAGTG  
 GCTTTGTGCGACAGTGCCTTTTTGCAACAACACAAAGAGGGGTGGTGCCTTAAGAAAGGACCAATGCC  
 AAAGCATTGCAAGTCATGAAGCAGACATTACCCTATAGTGTGGCTGACCTTGAATGGGATGCAGGCCATA  
 AAACCAATGTCCAGCAGTGTACTGCTATTGTGGAGGCCCTGGAGACTGGTATTTAAAGATGCTGCAGTG  
 CTGCAATGTAAGCAGTGGTTTCATGAAGCTTGTGTCCAATGCCTTCAGAAGCCAATGCTGTTTGGAGAT  
 AGGTTTTATACATTTATTTGCTCTGTCTGCAGTCTGGACCAGAATACCTCAAACGCTACCGTTACAGT  
 GGGTAGATATAGCACACCTATGCCTTTACAACCTAAGTGTATTACAAGAAGAAATACTTTGATTCTGA  
 ACTTGAGCTTATGACATACATTAATGAAAACCTGGGATAGATTGCACCCTGGAGAGCTGGCAGACACACC  
 AAATCTGAAAGATATGAGCATGTTCTGGAGGCATTAATGATTACAAGACCATGTTTATGCTGGGAAAG  
 AAATAAAGAAGAAGAAGCATTGTTTGGGTTGCGAATTCGTGTTCTCTCTGTGCCACCAATGTGGCTTT  
 CAAAGCAGAGAAAGAACCAGAAGGAACATCCCATGAATTTAAATTAAGGCAGAAAGGCATCCAAACCT  
 ACATCTGACTCAAGGGAAGTAAGCAATGGGATAGAAAAAAGGAAAGAAAAATCTGTAGGTCGTCCTC  
 CTGGCCCATATACAAGAAAAATGATTCAAAAACTGCTGAGCTACCTTTGGATAAGGAATCAGTTTCAGA  
 GAATCTACGTTGGATTTACCTTGTTCTATAGGGAGAAGTGGGAAATTCACATTCATCAATACCTCA  
 GATGTGGACCTCACGGGTGCTTCCAGTGCAAACGAAACTACCTCGGCTAGCATTTCAGGCATTGTGGAT  
 TATCAGACTCTAGAAAAAGAAGTGCACAGGAAGATCATGGCCTGCTGCAATACCAATTCGCGGAGAAG  
 AAGAGGTCGCCTTCCACGAAGAGCACTCCAGACTCAGAAGTGTGAAAGATGATGAAGGCAAAA  
 GAAGATTACAGTTTGAAGAAGTAAACACAGAAATCTGAATAACTTAGCAGATCAGGAGTTGCAGCTCA  
 ATCACCTGAAAAACTCCATCACTAGTTATTTTGGTGCCGCAGGTAGAATAGCATGTGGCGAAAAATACAG  
 AGTTTTGGCTCGTCGGGTGACGCTTGATGGGAAGGTGCAGTATCTTGTGGAATGGGAAGGAGCGACTGCA  
 TCCTGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** Sgfl-MluI

**ACCN:** NM\_001253877

**Insert Size:** 1476 bp

**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:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.

**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\\_001253877.1](#), [NP\\_001240806.1](#)

**RefSeq Size:** 4705 bp

**RefSeq ORF:** 1476 bp

**Locus ID:** 17765

**UniProt ID:** [Q02395](#)

**Cytogenetics:** 5 F

**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.  
[UniProtKB/Swiss-Prot Function]  
Transcript Variant: This variant (2) uses an alternate splice junction in the 5' end compared to variant 7, which results in the use of a downstream AUG start codon. The resulting isoform (2) is shorter at the N-terminus compared to isoform 3. Variants 2-6 all encode the same isoform (2).