

## Product datasheet for **MR225880**

### **Maf1 (NM\_001164607) Mouse Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Maf1 (NM_001164607) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Maf1
Synonyms:	1110068E11Rik; AU042856
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>MR225880 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGAAGCTATTGGAGAACTCCAGCTTTGAGGCCATCAACTCACAGTTGACAGTGGAGACTGGAGATGCC  
ATATTATTGGCAGGATTGAAAGCTACTCGTGAAGATGGCGGGAGATGATAAACATATGTTCAAGCAGTT  
CTGCCAGGAGGGCCAGCCCATGTGTTGGAGGCACTGTCCCACCCAACTTCAGGCCTCAGTCCCAGC  
AGACTGAGCAAGAGCCAGGGTGGTGAGGATGAGAGTCCTCTGAGCGACAAGTGCAGCCGCAAGACCCCTCT  
TCTATCTGATTGCCACCCTCAATGAGTCCTTCCGGCCAGACTATGACTTCAGCACAGCCAGAAGTCATGA  
ATTCAGCCGAGAGCCAAGCCTCCGCTGGGTGGTAAATGCAGTCAACTGCAGCCTGTTTTAGCTGTTTCGT  
GAAGACTTCAAGGCCCTGAAGCCACAGCTGTGGAATGCAGTGGATGAGGAGATCTGCTTAGCTGAGTGTG  
ACATCTACAGCTATAACCCAGATCTAGACTCCGACCCCTTTGGGGAAGATGGAAGCCTCTGGTCATTCAA  
CTATTTCTTTTACAATAAGAGACTGAAGCGAATTGTCTTCTTTAGCTGCCGCTCCATCAGTGGCTCCAGC  
TACACACCCTCAGAGGCAGGCAATGCACTGGACTTGAAGTGGGGCAGAGGAGGCTGATGAAGAGAGTG  
GAGGTGGAGGCGGTGAGGGCAGGGCAGAGGAGACCAGCACCATGGAGGAAGACAGGGTCCAGTGATCTG  
TATG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR225880 protein sequence  
 Red=Cloning site Green=Tags(s)

MKLLNSSFEAINSQLTVETGDAHIIGRIESYSCKMAGDDKHMFKQFCQEGQPHVLEALSPPTSGLSPLS  
 RLSKSQGGEDSPLSDKCSRKTLFYLIATLNEFRPDYDFSTARSHFESREPSLRWVVNAVNCSLFSAVR  
 EDFKALKPQLWNAVDEEICLAECDIYSYNDLSDPFGEDGSLWSFNFFYNKRLKRIVFFSCRISIGST  
 YTPSEAGNALDLELGAEAEDEESGGGGEGRAEETSTMEEDRVPVICM

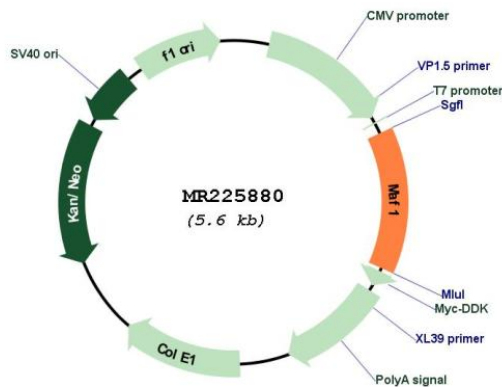
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001164607  
 ORF Size: 774 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>	<a href="#">NM_001164607.1</a> , <a href="#">NP_001158079.1</a>
<b>RefSeq Size:</b>	1749 bp
<b>RefSeq ORF:</b>	777 bp
<b>Locus ID:</b>	68877
<b>UniProt ID:</b>	<a href="#">Q9D0U6</a>
<b>Cytogenetics:</b>	15 D3
<b>MW:</b>	28.8 kDa
<b>Gene Summary:</b>	Plays a role in the repression of RNA polymerase III-mediated transcription in response to changing nutritional, environmental and cellular stress conditions to balance the production of highly abundant tRNAs, 5S rRNA, and other small non-coding RNAs with cell growth and maintenance (By similarity). Plays also a key role in cell fate determination by promoting mesoderm induction and adipocyte differentiation (PubMed:30110641). Mechanistically, associates with the RNA polymerase III clamp and thereby impairs its recruitment to the complex made of the promoter DNA, TBP and the initiation factor TFIIB. When nutrients are available and mTOR kinase is active, MAF1 is hyperphosphorylated and RNA polymerase III is engaged in transcription. Stress-induced MAF1 dephosphorylation results in nuclear localization, increased targeting of gene-bound RNA polymerase III and a decrease in the transcriptional readout. Additionally, may also regulate RNA polymerase I and RNA polymerase II-dependent transcription through its ability to regulate expression of the central initiation factor TBP (By similarity).[UniProtKB/Swiss-Prot Function]