

Product datasheet for **RN207284**

Maf1 (NM_001014085) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Maf1 (NM_001014085) Rat Untagged Clone
Tag: Tag Free
Symbol: Maf1
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >RN207284 representing NM_001014085
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAGCTATTGGAGAACTCCAGCTTTGAGGCCATCAACTCACAGTTGACAGTGGAGACTGGAGATGCC
ATATTATTGGCAGGATCGAAAGCTATTCCTGTAAGATGGCAGGCGACGATAAGCATATGTTAAGCAGTT
CTGCCAGGAGGGCCAGCCCATGTGCTGGAGGCACTGTCCCCGCCAGACCTCAGGCCTCAGTCCCAGC
AGACTGAGCAAGAGCCAGGGTGGTGGAGGATGAAAGTCCTCTAAGTGACAAGTGCAGTCGTAAGACCCCTCT
TCTATCTGATTGCCACCCTCAACGAGTCTTCCGGCCAGACTATGACTTCAGCACAGCCAGAAGTACGA
ATTCAGCCGGGAGCCAAGCCTCCGCTGGGTGGTAAATGCGGTCAACTGCAGCCTGTTTTAGCTGTTTCGG
GAAGACTTCAAGGCCCTGAAGCCACAGCTGTGGAATGCAGTGGACGAGGAAATCTGCTTGCTGAATGTG
ACATCTACAGCTATAACCCAGATCTAGACTCCGACCCCTTTGGGAAGATGGAAGCCTCTGGTATTCAA
CTACTTCTTACAACAAGCGACTTAACGAATTGTCTTCTTTAGCTGCCGCTCCATCAGTGGCTCCACC
TACACACCCTCAGAGGCAGGCAACGCCCTGGACTTGGAACTGGGGCAGAAGAGGTTGATGAAGAGAGTG
GAGGTGGAGGTGGAGGTGGTGGAGGCAGGGCGGAGGAGACCAGCACCATGGAGGAAGACAGGGTTCCAGT
GATATGTATG**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001014085
Insert Size: 783 bp



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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).
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:	<ol style="list-style-type: none"> 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_001014085.1</u> , <u>NP_001014107.1</u>
RefSeq Size:	1649 bp
RefSeq ORF:	783 bp
Locus ID:	315093
UniProt ID:	<u>Q5XIH0</u>
Cytogenetics:	7q34
Gene Summary:	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 (By similarity). 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 TFIIIB. 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]