

Product datasheet for **RR207284**

Maf1 (NM_001014085) Rat Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Maf1 (NM_001014085) Rat Tagged ORF Clone
Tag: Myc-DDK
Symbol: Maf1
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RR207284 representing NM_001014085
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAGCTATTGGAGAACTCCAGCTTTGAGGCCATCAACTCACAGTTGACAGTGGAGACTGGAGATGCC
ATATTATTGGCAGGATCGAAAGCTATTCCTGTAAGATGGCAGGCGACGATAAGCATATGTTAAGCAGTT
CTGCCAGGAGGGCCAGCCCATGTGCTGGAGGCACTGTCCCGCCAGACCTCAGGCCTCAGTCCCAGC
AGACTGAGCAAGAGCCAGGGTGGTGAGGATGAAAGTCCTCTAAGTGACAAGTGCAGTCGTAAGACCCCTCT
TCTATCTGATTGCCACCCTCAACGAGTCTTCCGGCCAGACTATGACTTCAGCACAGCCAGAAGTACGA
ATTCAGCCGGGAGCCAAGCCTCCGCTGGGTGGTAAATGCGGTCAACTGCAGCCTGTTTTAGCTGTTTCGG
GAAGACTTCAAGGCCCTGAAGCCACAGCTGTGGAATGCAGTGGACGAGGAAATCTGCTTGCTGAATGTG
ACATCTACAGCTATAACCCAGATCTAGACTCCGACCCCTTTGGGGAAGATGGAAGCCTCTGGTATTCAA
CTACTTCTTACAACAAGCGACTTAACGAATTGTCTTCTTTAGCTGCCGCTCCATCAGTGGCTCCACC
TACACACCCTCAGAGGCAGGCAACGCCCTGGACTTGGAACTGGGGCAGAAGAGGTTGATGAAGAGAGTG
GAGGTGGAGGTGGAGGTGGTGAGGGCAGGGCGGAGGAGACCAGCACCATGGAGGAAGACAGGTTCCAGT
GATATGTATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RR207284 representing NM_001014085
Red=Cloning site Green=Tags(s)

MKLLSENSFEAINSQLTVETGDAHIIGRIESYSCKMAGDDKHMFKQFCQEGQPHVLEALSPPTSGLSPLS
 RLKSKSQGGEDESPLSDKCSRKTLFYLIATLNEFRPDYDFSTARSHESREPSLRWVNVNCSLFSAVR
 EDFKALKPQLWNAVDEEICLAECDIYSYNDLSDPFGEDGSLWSFNFFYNKRLKRIVFFSCRSISGST
 YTPSEAGNALDLELGAEVDEESGGGGGGEGRAEETSTMEEDRVPVICM

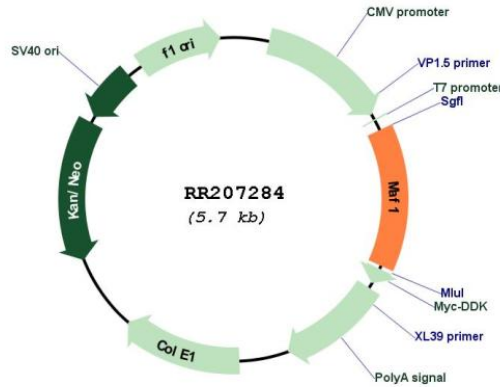
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001014085

ORF Size: 780 bp

OTI Disclaimer:	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. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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:	NM_001014085.1 , NP_001014107.1
RefSeq Size:	1649 bp
RefSeq ORF:	783 bp
Locus ID:	315093
UniProt ID:	Q5XIH0
Cytogenetics:	7q34
MW:	28.9 kDa
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 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]