

## Product datasheet for **RG223543**

### MAFK (NM\_002360) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** MAFK (NM\_002360) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** MAFK  
**Synonyms:** NFE2U; P18  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG223543 representing NM\_002360  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGACGACTAATCCCAAACCGAATAAGGCATTAAGGTCAAGAAGGAGCGGGCGAGAACGCCCCGGTGC  
TCAGCGATGATGAGCTGGTGTCCATGTCGGTGC GGAGCTGAACCAGCACCTGCGGGTCTCACCAAGGA  
GGAGGTGACCCGCTGAAGCAGCGTCGGCGCACACTCAAGAACC GCGCTACGCGCCAGCTGCCGCATC  
AAGCGGGTGACGCAGAAGGAGGAGCTGGAGCGGCAGCGCTGGAGCTGCAGCAGGAGGTGGAGAAGCTGG  
CGCGTGAGAACAGCAGCATGCGGCTGGAGCTGGAGCGCCCTGCGCTCCAAGTACGAGGCGCTGCAGACCTT  
CGCGCGCACCGTGGCCCGGGACCTGTGGCGCCCTCCAAGGTGGCCACCACCAGCGTCATCACCATCGTC  
AAGTCCACCGAGCTCTCTCCACCTCCGTGCCCTTCTCGGCTGCATCC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG223543 representing NM\_002360  
Red=Cloning site Green=Tags(s)

MTNPKPNKALKVKKEAGENAPVLSDELVSMSVRELNQHLRGLTKEEVTRLKQRRRTLKNRGYAASCR  
KRVTQKEELERQVELQQEVEKLARENSSMRLELDALRSKYEALQTFARTVARGPVAPSKVATTSVITIV  
KSTELSSVPSAAS

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI



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**Cloning Scheme:**


**ACCN:** NM\_002360

**ORF Size:** 468 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

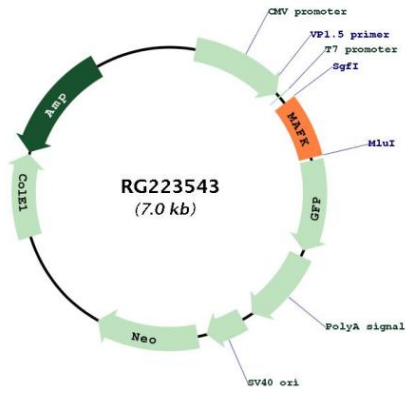
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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).

<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_002360.4</a>
<b>RefSeq Size:</b>	1581 bp
<b>RefSeq ORF:</b>	471 bp
<b>Locus ID:</b>	7975
<b>UniProt ID:</b>	<a href="#">O60675</a>
<b>Cytogenetics:</b>	7p22.3
<b>Domains:</b>	bZIP_Maf, BRLZ
<b>Protein Families:</b>	Druggable Genome, Transcription Factors
<b>Gene Summary:</b>	<p>The developmentally regulated expression of the globin genes depends on upstream regulatory elements termed locus control regions (LCRs). LCRs are associated with powerful enhancer activity that is mediated by the transcription factor NFE2 (nuclear factor erythroid-2). NFE2 recognition sites are also present in the gene promoters of 2 heme biosynthetic enzymes, porphobilinogen deaminase (PBGD; MIM 609806) and ferrochelatase (FECH; MIM 612386). NFE2 DNA-binding activity consists of a heterodimer containing an 18-kD Maf protein (MafF, MafG (MIM 602020), or MafK) and p45 (MIM 601490). Both subunits are members of the activator protein-1 superfamily of basic leucine zipper (bZIP) proteins (see MIM 165160). Maf homodimers suppress transcription at NFE2 sites.[supplied by OMIM, Nov 2008]</p>

Product images:



Circular map for RG223543