

## Product datasheet for **MG207798**

### Eif2a (BC030447) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Eif2a (BC030447) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Eif2a
Synonyms:	D030048D22; D3Ertd194e
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG207798 representing BC030447  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAGAAAACCTCTAAAGATGGCACTGCTGGGACGCCTAACCTACAACCTTTATGACATGAAAACCTGGAG  
 CATGTTTGAAATCGTTTCCAGAAAAAATGCAAAATGGTGTCTTCCCTGGTCAGATGATGAAATTAT  
 TTGTGCCCGGAATGTTAACAACGAAGTTCACTTCTTTGAGAACAACAATTTAACAACAATTGCAAAATAAA  
 TTACATTTGCAAAAAGTTAATGACTTTAATTTATCACCTGGAACCCAACCTTATAAGGTGGCAGTTTATG  
 TCCCAGGAAGTAAAGGTGCCCTCATTGTTGACTGTATCAGTATCCCAACTTTGCCGGACCTCAGGC  
 AGCACTGGCCAATAAAAGCTTCTTTAAAGCTGATAAGGTTACAATGCTGTGGAATAAAAAAGCTACTGCT  
 GTGCTGTAATAGCCAGTACAGAGTTGACAAGACAGGAGCCTCCTACTATGGAGAACAACACTGCACT  
 ACATTGCAACAAATGGAGAAAGTCTGTGGTACAATTACAAAAAATGGCCAATTTATGATGTAGTTTG  
 GAATTCAGTTTCTACTGAGTTTTGCGCTGTTTATGGTTTTATGCCTGCGAAAGCAACAGTTTTCAACCTG  
 AAGTGTGATCCTGTGTTGACTTTGGGACTGGTCTCGCAACGCAGCCTTCTATAGCCCTCATGGACATA  
 TATTAGTCTGGCTGGATTTGGAATCTTCGAGGACAAATGGAAGTATGGGATGTTAAAACTACAAGCT  
 TATTTCTAAGCCAGTGGCTTCTGATTCTACATATTTGCCTGGTCCCGAGATGGTGGAGCATATCTTAACA  
 GCCACATGTGCTCCTAGGTTACGTGTTAATAATGGGTATAAGTCTGGCATTATACTGGCTCTCTTTTGC  
 ATAAGTATGATGTGCCATCAATGGAGAATTATGGCAGTTTTCTTGGCAGCCATTTTTGGATGGAATATT  
 TCCAGCAAAAACGATAAAGTACCAAGCAGTTCCAAGTGAAGTGCCTAGTGAGGAGCCTAAAGTTGCAACA  
 GCTTATAGACCTCCAGCCTTAAGAAATAAGCCAGTCACCAATCCAACTGCATGAAGAGGAACCTCCCC  
 AGAATATGAAGCCACATCCAGGAAGTGACAAGCCATTATCAAAAACAGCCCTTAAAAATCAAAGGAAGCA  
 TGAAGCTAAAAAAGCTGCAAAAACAGGAAGCAAGGATGTCGGCTCCTACTCCTGCCACAGAGTGCA  
 CCACGGAACACGGTCACCCAGTCTGCTTCTGGTATCCTGAAGTAGACAAAAAATTAAGAACTAAAGA  
 AGAAACTGAAAGCCATAGAGCAGCTAAAAGAGCAGGCAGCCGCCGGGAAACAGCTAGAAAAAATCAGTT  
 GGAGAAAATTCAGAAAGAGACAGCCCTTCCAAGAGCTTGAAGATTTGGAATGGGAGTT

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

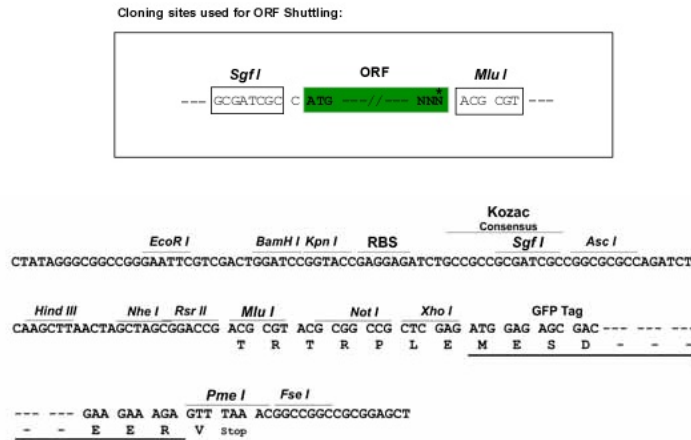
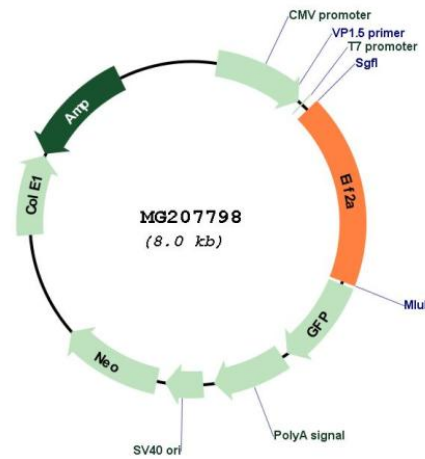
>MG207798 representing BC030447  
 Red=Cloning site Green=Tags(s)

MEKTSKDGTAGTPNLQLYDMKTGACLKSFIQKKMQNWCPSWSDDEIICARNVNNEVHFFENNNFNTIANK  
 LHLQKVNDFNLSPGTQPYKVAVYVPGSKGAPSFVRLYQYPNFAFPQAALANKSFFKADKVTMLWNKKATA  
 VLVIASTEVDKTGASYGQTLHYIATNGESAVVQLPKNGPIYDVVWNSSTEFCAVYGFMPAKATVFNL  
 KCDPVDFGTGPRNAAFYSPHGHLVLAGFNLRGQMEVWDVKNYKLIKSPVADSTYFVWCPDGEHILT  
 ATCAPRLRVNNGYKIWHYTGSLHLHKYDVPNSGELWQVSWQPFLLDGIKPAKTIKYQAVPSEVPSEPKVAT  
 AYRPPALRNKPVNTSKLHEEPPQNMKPHPGSDKPLSKTALKNQRKHEAKKAAKQEARSDAAPTVPVQSA  
 PRNTVTQSASGDPEVDKIKNLKLLKAIQLKEQAAAGKQLEKNQLEKIQTETALLQLELDLELGV

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**Plasmid Map:**


**ACCN:** BC030447

**ORF Size:** 1461 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:**

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:** [BC030447.1](#)

**RefSeq Size:** 1984 bp

**RefSeq ORF:** 1463 bp

**Locus ID:** 229317

**Cytogenetics:** 3 28.58 cM

**Gene Summary:** Functions in the early steps of protein synthesis of a small number of specific mRNAs. Acts by directing the binding of methionyl-tRNAi to 40S ribosomal subunits. In contrast to the eIF-2 complex, it binds methionyl-tRNAi to 40S subunits in a codon-dependent manner, whereas the eIF-2 complex binds methionyl-tRNAi to 40S subunits in a GTP-dependent manner. [UniProtKB/Swiss-Prot Function]