

## Product datasheet for **RG204303**

### EIF2A (NM\_032025) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	EIF2A (NM_032025) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	EIF2A
Synonyms:	CDA02; EIF-2A; MST089; MSTP004; MSTP089
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG204303 representing NM\_032025  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGCCGTCCACGCCCTCTTGACAGTCCGAGGATCAGAAGGACTGTACATGGTGAATGGACCACCAC  
 ATTTTACAGAAAACACAGTGTTCCTCAAGGGAATCTGGGAAGAATTGCAAAGTCTGTATCTTTAGTAAGGA  
 TGGGACCTTGTTCCTGGGCAATGGAGAAAAAGTAAATATTATCAGTGTCACTAACAAGGACTACTG  
 CACTCCTTCGACCTCCTGAAGGCAGTTTGCCTTGAATTCTCACCCAAAAACTGTCTGGCAACGTGGC  
 AGCCTTACACTACTTCTAAAGATGGCACAGCTGGGATACCCAACCTACAACCTTTATGATGTGAAAACCTGG  
 GACATGTTTGAATCTTTCATCCAGAAAAAATGCAAAATTGGTGTCCATCCTGGTCAGAAGATGAAACT  
 CTTTGTGCCCGCAATGTTAACAATGAAGTTCACCTCTTTGAAAACAACAATTTAACACAATTGCAATA  
 AATTGCATTTGCAAAAAATTAATGACTTTGTATTATCACCTGGACCCCAACCATAACAAGGTGGCTGTCTA  
 TGTTCCAGGAAGTAAAGGTGCACCTTCATTTGTTAGATTATCAGTACCCCAACTTTGCTGGACCTCAT  
 GCAGCTTTAGCTAATAAAAGTTTCTTAAAGGCAGATAAAGTTACAATGCTGTGGAATAAAAAAGCTACTG  
 CTGTGTTGGTAATAGCTAGCACAGATGTTGACAAGACAGGAGCTTCTACTATGGAGAACAAACTCTACA  
 CTACATTGCAACAAATGGAGAAAGTGTGTAGTGAATTACCAAAAAATGGCCCCATTTATGATGTAGTT  
 TGGAAATCTAGTTCTACTGAGTTTTGTGCTGTATATGGTTTTATGCCTGCCAAAGCGACAATTTCAACT  
 TGAAATGTGATCCTGTATTTGACTTTGGAAGTGGTCCCTCGTAATGCAGCCTACTATAGCCCTCATGGACA  
 TATATTAGTATTAGCTGGATTTGAAATCTGAGGGGACAAATGGAAGTGTGGATGTGAAAAACTACAAA  
 CTTATTTCTAAACCGGTGGCTTCTGATTCTACATATTTTGCTTGGTGGCCGGATGGTGGATATTTTAA  
 CAGTACATGTGCTCCAGGTTACGGTTAATAATGGATACAAAAATTTGGCATTATACTGGCTCTATCTT  
 GCACAAGTATGATGTGCCATCAAATGCAGAATTATGGCAGGTTTCTTGGCAGCCATTTTGGATGGAATA  
 TTTCCAGCAAAAAACAATAACTTACCAAGCAGTTCCAAGTGAAGTACCCAATGAGGAACCTAAAGTTGCAA  
 CAGCTTATAGACCCCGCTTTAAGAAATAAACCAATCACCAATTCAAAATTCATGAAGAGGAACCACC  
 TCAGAATATGAAACCACAATCAGGAAACGATAAGCCATTATCAAAAAACAGCTCTTAAAAATCAAAGGAAG  
 CATGAAGCTAAGAAAGCTGCAAAGCAGGAAGCAAGAAAGTACAAGAGTCCAGATTTGGCACCTACTCCTG  
 CCCCACAGAGCACACCACGAAACTGTCTCTCAGTCAATTTCTGGGACCTGAGATAGACAAAAAAT  
 CAAGAACCTAAAGAAGAAACTGAAAGCAATCGAACAACTGAAAGAACAGCAGCAACTGGAAAACAGCTA  
 GAAAAAATCAGTTGGAGAAAATTCAGAAAGAACAGCCCTTCTCCAGGAGCTGGAAGATTTGAAATTGG  
 GTATT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG204303 representing NM\_032025  
 Red=Cloning site Green=Tags(s)

MAPSTPLLTVRGSEGLYMVNGPPHFTESTVFPRESGKNCKVCIFSKDGLTFAWNGEKVNIISVTNKGLL  
 HSFDLLKAVCLEFSPKNTVLATWQPYTTSKDGTAGIPNLQLYDVKTGTCLKSFQKMKQNWCPWSSEDET  
 LCARNVNEVHFENNNTIANKLHLQKINDFVLSPGPQPYKVAVYVPGSKGAPSFVRLYQYPNFAAGPH  
 AALANKSFFKADKVTMLWNKKATAVLVIASDVKDGTGASYYGEQTLHYIATNGESAVVQLPKNGPIYDVV  
 WNSSSTEFCAVYGFMPAKATIFNLKCDPVDFGTGPRNAAYYSPHGHLVLAGFNLRGQMEVWDVKNYK  
 LISKPVASDSTYFAWCPDGEHILTATCAPRLRVNNGYKIWHYTGSI LHKYDVPSNAELWQVSWQPFLDGI  
 FPAKTITYQAVPSEVPNEEPKVATAYRPPALRNKPIITNSKLHEEEPPQNMKPSGNDKPLSKTALKNQK  
 HEAKKAAKQEARSDKSPDLAPTAPQSTPRNTVVSQISGDPEIDKKIKNLKKLKAIEQLKEQAATGKQL  
 EKNQLEKIQKETALLQELEDLKLGI

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_032025

**ORF Size:** 1755 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:** [NM\\_032025.3](#), [NP\\_114414.2](#)

**RefSeq Size:** 3894 bp

**RefSeq ORF:** 1758 bp

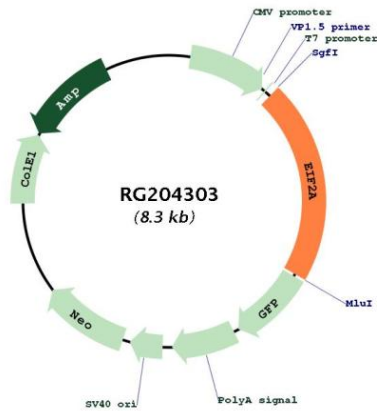
**Locus ID:** 83939

**UniProt ID:** [Q9BY44](#)

**Cytogenetics:** 3q25.1

**Gene Summary:**

This gene encodes a eukaryotic translation initiation factor that catalyzes the formation of puromycin-sensitive 80 S preinitiation complexes and the poly(U)-directed synthesis of polyphenylalanine at low concentrations of Mg<sup>2+</sup>. This gene should not be confused with eIF2-alpha (EIF2S1, Gene ID: 1965), the alpha subunit of the eIF2 translation initiation complex. Although both of these proteins function in binding initiator tRNA to the 40 S ribosomal subunit, the encoded protein does so in a codon-dependent manner, whereas eIF2 complex requires GTP. Alternative splicing of this gene results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jan 2016]

**Product images:**


Circular map for RG204303