

## Product datasheet for **SC316786**

### EIF2A (NM\_032025) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	EIF2A (NM_032025) Human Untagged Clone
Tag:	Tag Free
Symbol:	EIF2A
Synonyms:	CDA02; EIF-2A; MST089; MSTP004; MSTP089
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:**

>OriGene ORF sequence for NM\_032025 edited  
 ATGGCGCCGTCCACGCCGCTCTTGACAGTCCGAGGATCAGAAGGACTGTACATGGTGAAT  
 GGACCACCACATTTTACAGAAAGCACAGTGTTCGAAGGGAATCTGGGAAGAATTGCAAA  
 GTCTGTATCTTTAGTAAGGATGGGACCTTGTTCCTGGGCAATGGAGAAAAAGTAAAT  
 ATTATCAGTGTCTACTAACAAGGGACTACTGCACTCCTTCGACCTCCTGAAGGCAGTTTGC  
 CTTGAATTCTCACCCAAAAATACTGTCTGGCAACGTGGCAGCCTTACAGTACTTCTAAA  
 GATGGCACAGCTGGGATACCCAACCTACAACCTTATGATGTGAAAACTGGGACATGTTTG  
 AAATCTTTTCATCCAGAAAAAAATGCAAAATTGGTGTCCATCCTGGTCAGAAAGATGAAAT  
 CTTTGTGCCCGCAATGTTAAACAATGAAGTTCACCTTCTTTGAAAAACAACATTTTAAACACA  
 ATTGCAATAAAATTGCATTTGCAAAAAATTAATGATTTTGTATTATCACCTGGACCCCAA  
 CCATACAAGGTGGCTGTCTATGTTCCAGGAAGTAAAGGTGCACCTTCATTTGTTAGATTA  
 TATCAGTACCCCAACTTTGCTGGACCTCATGCAGCTTTAGCTAATAAAAGTTTCTTTAAG  
 GCAGATAAAGTTACAATGCTGTGGAATAAAAAAGCTACTGCTGTGTTGGTAAATAGCTAGC  
 ACAGATGTTGACAAGACAGGAGCTTCTACTATGGAGAACAACCTCTACACTACATTGCA  
 ACAAAATGGAGAAAGTGTGTAGTGCAATTACCAAAAAATGGCCCCATTTATGATGTAGTT  
 TGGAAATCTAGTTCTACTGAGTTTTGTGCTGTATATGGTTTTATGCCTGCCAAAGCGACA  
 ATTTTCAACTGAAATGTGATCCTGTATTTGACTTTGGAAGTGGTCCCTCGTAATGCAGCC  
 TACTATAGCCCTCATGGACATATATTAGTATTAGCTGGATTTGGAAATCTGAGGGGACAA  
 ATGGAAGTGTGGGATGTGAAAACTACAACCTTATTTCTAAACCGGTGGCTTCTGATTCT  
 ACATATTTTGCTTGGTGGCCGGATGGTGAAGCATATTTTAAACAGCTACATGTGCTCCCAGG  
 TTACGGGTTAATAATGGATACAAAATTTGGCATTATACTGGCTCTATCTTGCACAAGTAT  
 GATGTGCCATCAAATGCAGAATTATGGCAGGTTTCTTGGCAGCCATTTTGGATGGAATA  
 TTTCCAGCAAAAAACAATAACTTACCAAGCAGTTCCAAGTGAAGTACCCAATGAGGAACT  
 AAAGTTGCAACAGCTTATAGACCCCGCTTTAAGAAATAAACCAATCACCAATTCACAAA  
 TTGCATGAAGAGGAACCCCTCAGAATATGAAACCACAATCAGGAAACGATAAGCCATTA  
 TCAAAAACAGCTCTTAAAAATCAAAGGAAGCATGAAGCTAAGAAAGCTGCAAAAGCAGGAA  
 GCAAGAAGTGACAAGAGTCCAGATTTGGCACCTACTCCTGCCCCACAGAGCACACCACGA  
 AACACTGTCTCTCAGTCAATTTCTGGGGACCCTGAGATAGACAAAAAAATCAAGAACCTA  
 AAGAAGAACTGAAAGCAATCGAACAACGAAAGAACAGCAGCAACTGGAAAACAGCTA  
 GAAAAAATCAGTTGGAGAAAATTCAGAAAGAACAGCCCTTCTCCAGGAGCTGGAAGAT  
 TTGGAATTGGGTATTTAA

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_032025 unedited  
 ATTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGGGACAACATGGCG  
 CCGTCCACGCCGCTCTTGACAGTCCGAGGATCAGAAGGACTGTACATGGTGAATGGACCA  
 CCACATTTTACAGAAAGCACAGTGTTCGAAGGGAATCTGGGAAGAATTGCAAAGTCTGT  
 ATCTTTAGTAAGGATGGGACCTTGTTCCTGGGCAATGGAGAAAAAGTAAATATTATC  
 AGTGTCACTAACAAGGGACTACTGCACTCCTTCGACCTCCTGAAGGCAGTTTGCCTTGA  
 TTCTCACCCAAAAATACTGTCTGGCAACGTGGCAGCCTTACAGTACTTCTAAAGATGGC  
 ACAGCTGGGATACCCAACCTACAACCTTATGATGTGAAAACTGGGACATGTTTGAATCT  
 TTCATCCAGAAAAAATGCAAAATTGGTGTCCATCCTGGTCAGAAAGTAAACTTTTGT  
 GCCCGCAATGTTAAACAATGAAGTTCACCTTCTTTGAAAACAACAATTTTAAACAATTGCA  
 AATAAATTGCATTTGCAAAAAATTAATGATTTTGTATTATCACCTGGACCCCAACCATAC  
 AAGGTGGCTGTCTATGTTCCAGGAAGTAAAGGTGCACCTTCATTTGTTAGATTATATCAG  
 TACCCCAACTTTGCTGGACCTCATGCAGCTTTAGCTAATAAAAGTTTCTTTAAGGCAGAT  
 AAAGTTACAATGCTGTGGAATAAAAAAGCTACTGCTGTGTTGGGTATAGCTAGCACAGATG  
 TTGACAGACAGGAGCTTCTACTTGGAGAACANACTCTACACTACATTGCACAATGGNAG  
 AAGTGGCTGTAGTGCCAATACAAAAATGGCCATTTATGGATGTAGTT

<b>3' Read Nucleotide Sequence:</b>	>Forward primer walk for NM_032025 unedited CTTTTTGTGGATTTCCGCAAAAACAATACTTACCAAGCAGTTCCAAGTGAAGTACCCA ATGAGGAACCTAAAGTTGCAACAGCTTATAGACCCCGAGCTTTAAGAAATAACCAATCA CCAATTCCAAATTGCATGAAGAGGAACCACCTCAGAATATGAAACCACAATCAGGAAACG ATAAGCCATTATCAAAAACAGCTCTTAAAAATCAAAGGAAGCATGAAGCTAAGAAAGCTG CAAAGCAGGAAGCAAGAAGTGACAAGAGTCCAGATTTGGCACCTACTCCTGCCCCACAGA GCACACCAGAAAACACTGTCTCTCAGTCAATTTCTGGGGACCCTGAGATAGACAAAAAAA TCAAGAACCCTAAAGAAGAACTGAAAGCAATCGAACAACCTGAAAGAACAAGCAGCAACTG GAAAACAGCTAGAAAAAATCAGTTGGAGAAAATTCAGAAAAGAAACAGCCCTTCTCCAGG AGCTGGAAGATTTGGAATTGGGTATTTAAAGATTCACGGAAGCAAGTTGATGACCAGAA ATCAGTGCAAACACATCTTCTGTAAACCCATTGGTATACACAGAATATTCCTGTGCCCA CACTTAATGTCAATCTATAATTTAAACCATTTATCCAAGATTCTACTAAGTGAAAATTA TTTAATAATGTCTATTAATTTGATATTTATATCTTGCATCCTATATCATGTCAATATGTG ATATAGAAAAGAGATACGTGAATTTTTAGCTAAGCTTGACAGATTGAAAGACAAGTGTC ATTTTTTTTTGTAGAGGGTGATATATACCATGTAATGAATAAAGACATTTTAAATTTAC AACAAAACAAAACACTCGACTTCTAGAATTGCGCCCGCGGTCAATAGCTTGTTCCTGA ACAAATCCCGGGTGGCATCCCTGGTGACCCCTCCCAAGTGGCTCTTC
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_032025
<b>Insert Size:</b>	3800 bp
<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.NA
<b>Components:</b>	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>	<u><a href="#">NM_032025.3</a></u> , <u><a href="#">NP_114414.2</a></u>
<b>RefSeq Size:</b>	3894 bp
<b>RefSeq ORF:</b>	1758 bp
<b>Locus ID:</b>	83939
<b>UniProt ID:</b>	<u><a href="#">Q9BY44</a></u>
<b>Cytogenetics:</b>	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]

Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.