

Product datasheet for **SC119268**

EIF4A1 (NM_001416) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EIF4A1 (NM_001416) Human Untagged Clone
Tag:	Tag Free
Symbol:	EIF4A1
Synonyms:	DDX2A; EIF-4A; eIF-4A-I; EIF4A; eIF4A-I
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001416, the custom clone sequence may differ by one or more nucleotides

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ATGTCTGCGAGCCAGGATTCGCCATCCAGAGACAATGGCCCCGATGGGATGGAGCCGAAGGCGTCATCG
AGAGTAACTGGAATGAGATTGTTGACAGCTTTGATGACATGAACCTCTCGGAGTCCCTTCTCCGTGGCAT
CTACGCGTATGGTTTTGAGAAGCCCTCTGCCATCCAGCAGCGAGCCATTCTACCTTGTATCAAGGGTTAT
GATGTGATTGCTCAAGCCCAATCTGGGACTGGGAAAACGGCCACATTTGCCATATCGATTCTGCAGCAGA
TTGAATTAGATCTAAAAGCCACCCAGGCCTTGGTCTAGCACCCACTCGAGAATTGGCTCAGCAGATACA
GAAGGTGGTCATGGCACTAGGAGACTACATGGGCGCTCCTGTCACGCCGTATCGGGGGCACCAACGTG
CGTGCTGAGGTGCAGAACTGCAGATGGAAGCTCCCCACATCATCGTGGGTACCCCTGGCCGTGTGTTTG
ATATGCTTAACCGGAGATACCTGTCCCCAAATACATCAAGATGTTTGTACTGGATGAAGCTGACGAAAT
GTTAAGCCGTGGATTCAAGGACCAGATCTATGACATATTCAAAAAGCTCAACAGCAACACCCAGGTAGTT
TTGCTGTGAGCCACAATGCCTTCTGATGTGCTTGAGGTGACCAAGAAGTTCATGAGGGACCCCATTCGGA
TTCTTGTCAAGAAGGAAGAGTTGACCCTGGAGGGTATCCGCCAGTTCTACATCAACGTGGAACGAGAGGA
GTGGAAGCTGGACACACTATGTGACTTGTATGAAACCCTGACCATCACCCAGGCAGTCATCTTATCAAC
ACCCGGAGGAAGGTGGACTGGCTACCGAGAAGATGCATGCTCGAGATTTCACTGTATCCGCCATGCATG
GAGATATGGACCAAAAAGGAACGAGACGTGATTATGAGGGAGTTTCGTTCTGGCTTAGCAGAGTTTTGAT
TACCATGACCTGCTGGCCAGAGGCATTGATGTGCAGCAGGTTTCTTTAGTCATCAACTATGACCTTCCC
ACCAACAGGGAAAACATATCCACAGAATCGGTGAGGTGGACGGTTTGGCCGTAAGGTGTGGCTATTA
ACATGGTGACAGAAGAAGACAAGAGGACTCTTCGAGACATTGAGACCTTCTACAACACCTCCATTGAGGA
AATGCCCTCAATGTTGCTGACCTCATCTGA
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001416 unedited
GATTTGTATACGACTCACTATAGGCGGCCGCGATTCTGGCACGAGGGGATCATGTCTGCGA
GCCAGGATTTCCGATCCAGAGACATGGCCCCGATGGGATGGAGCCGAAGGCGTCATCGA
GAGTAACTGGAATGAGATTGTTGACAGCTTTGATGACATGAACCTCTCGGAGTCCCTTCT
CCGTGGCATCTACGCCTATGGTTTTGAGAAGCCCTCTGCCATCCAGCAGCGAGCCATTCT
ACCTTGTATCAAGGGTTATGATGTGATTGCTCAAGCCCAATCTGGGACTGGGAAAACGGC
CACATTTGCCATATCAATTCTGCAGCAGATTGAATTAGATCTAAAAGCCACCCAGGCCCT
GGTCCTAGCACCCTCGAGAATTGGCTCAGCAGATACAGAAGGTGGTCATGGCACTAGG
AGACTACATGGGCGCCTCCTGTACGCCTGTATCGGGGGACCAACGTGCGTGCTGAGGT
GCAGAACTGCAGATGGAAGCTCCCCACATCATCGTGGGTACCCCTGGCCGTGTGTTTGA
TATGCTTAAACCGNAGATACCTGTCCCCAAATACATCAAGATGTNTTGTACTGGATGAA
GCTGACGAAATGTTAAGCCGTGGATTCAAGGACCAGATCTATGACATATCCAAAAGCTC
AACAGCAACACCCAGGNTAGTTNTTGTGTCAGCCACAATGCCTTTCTGATGTGCTTGAG
GTGCCCAAGAAGTTCATGANGGGACCCATTTCNGNATTCTTGTCAGAAGGNAAGAGTTGA
CCCTGGAGGGTATNCCGCCAGTTCTCCATCAACGTGAACGAANAGANTGGGAACTGGACC
CACTATGTGACTTGAATGAACCCTGACCATACCC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_001416 unedited
CCCTTGANGCCGGCGACCTCGGGGTTGAGACCTACCCCAAATAACAGGTGTCTAAAAGTT
CCGGTTCCTTCTTTTGCCTCAAAAATGACATTTATTCAAAGAAAAAATGACAAGATGTC
CATCCCTTGGCTCCCTCCCTCCCCCTCCTGCTGCTCCTCAGCCCCAGAGATTGAGCC
CTGGCTGGGGCTGGGTGGCAGGACAGCCCTCAGATGATGTCAGCAACATTGAGGGGCAT
TTCCTCAATGGAGGTGTTGTAGAAGGTCTCAATGTCTCGAAGAGTCTTGTCTTCTTC
TGTACCATGTTAATAGCCACACCTTTACGGCCAAACCGTCCACCTCGACCGATTCTGTG
GATATAGTTTTCCCTGTTGGTGGGAAGGTCATAGTTGATGACTAAAGAAACCTGTGTCAC
ATCAATGCCTCTGGCCAGCAGGTCAGTGGTAATCAAACTCTGCTAGAGCCAGAACGAAA
CTCCCTCATAATCACGTCTCGTTCCTTTTGGTCCATATCTCCATGCATGGCGGATACAGT
GAAATCTCGAGCATGCATCTTCTCGGTGAGCCAGTCCACCTTCTCCGGGTGTTGATGAA
GATGACTGCCTGGGTGATGGTCAGGGTTTCATAACAAGTCACATAGTGTGTCCAGCTTCCA
CTCCTCTCGTTCACGTTGATGTAGAAGTGGCGGATACCCTCCAGGGTCAACTCTTCCTT
CTTGACAAGAATCCGAATGGGGTCCCTCATGAACTTCTTGGTCACCTCAAGCACATCAGA
AGGCATTGTGGCTGACAGCAAACTACCTGAGTGTGCTGNTGAGCTTTTGAATATGTCA
TAGATCTGGGTCTTGATCCACGNCTTACATTTCTGTCAGCTTTCATCCAGTACAAACATC
TTGATGTATTTGGGGACAAGTATCTCCAGTTAAAT

Restriction Sites:

NotI-NotI

ACCN:

NM_001416

Insert Size:

1900 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 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](#)

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_001416.1](#), [NP_001407.1](#)

RefSeq Size: 1894 bp

RefSeq ORF: 1221 bp

Locus ID: 1973

UniProt ID: [P60842](#)

Cytogenetics: 17p13.1

Domains: DEAD, helicase_C

Gene Summary: ATP-dependent RNA helicase which is a subunit of the eIF4F complex involved in cap recognition and is required for mRNA binding to ribosome. In the current model of translation initiation, eIF4A unwinds RNA secondary structures in the 5'-UTR of mRNAs which is necessary to allow efficient binding of the small ribosomal subunit, and subsequent scanning for the initiator codon.[UniProtKB/Swiss-Prot Function]
Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).