

Product datasheet for RC203298

EIF4A1 (NM_001416) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EIF4A1 (NM_001416) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	EIF4A1
Synonyms:	DDX2A; EIF-4A; eIF-4A-I; EIF4A; eIF4A-I
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC203298 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTCGCAGCCAGGATCCCGATCCAGAGACAATGGCCCCGATGGGATGGAGCCCGAAGGCGTCATCG
AGAGTAACTGGAATGAGATTGTTGACAGCTTTGATGACATGAACCTCTCGGAGTCCCTTCTCCGTGGCAT
CTACGCCATATGGTTTTGAGAAGCCCTCTGCCATCCAGCAGCGAGCCATTCTACCTGTATCAAGGGTTAT
GATGTGATTGCTCAAGCCCAATCTGGGACTGGGAAAACGGCCACATTTGCCATATCAATTCTGCAGCAGA
TTGAATTAGATCTAAAAGCCACCAGGCCCTTGGTCTAGCACCCACTCGAGAATTGGCTCAGCAGATACA
GAAGGTGGTCATGGCACTAGGAGACTACATGGGCGCTCCTGTCACGCTGTATCGGGGGCACCACCGTG
CGTGCTGAGGTGCAGAACTGCAGATGGAAGCTCCCCACATCATCGTGGGTACCCCTGGCCGTGTGTTTTG
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GTTAAGCCGTGGATTCAAGGACCAGATCTATGACATATTCCAAAAGCTCAACAGCAACACCCAGGTAGTT
TTGCTGTCAGCCACAATGCCTTCTGATGTGCTTGAGGTGACCAAGAAGTTCATGAGGGACCCATTCCGA
TTCTTGTCAAGAAGGAAGAGTTGACCCTGGAGGGTATCCGCCAGTTCTACATCAACGTGGAACGAGAGGA
GTGGAAGCTGGACACACTATGTGACTTGTATGAAACCTGACCATCACCCAGGCAGTCATCTTCAAC
ACCCGGAGGAAGGTGGACTGGCTACCCGAGAAGATGCATGCTCGAGATTTCACTGTATCCGCCATGCATG
GAGATATGGACCAAAAGGAACGAGACGTGATTATGAGGGAGTTTCGTTCTGGCTCTAGCAGAGTTTTGAT
TACCCTGACCTGCTGGCCAGAGGCATTGATGTGCAGCAGGTTTCTTTAGTCATCAACTATGACCTTCCC
ACCAACAGGGAAAATATATCCACAGAATCGGTGAGGTGGACGGTTTGGCCGTAAGGTGTGGCTATTA
ACATGGTGACAGAAGAAGACAAGAGGACTCTTCGAGACATTGAGACCTTCTACAACACCTCCATTGAGGA
AATGCCCTCAATGTTGCTGACCTCATC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC203298 protein sequence
Red=Cloning site Green=Tags(s)

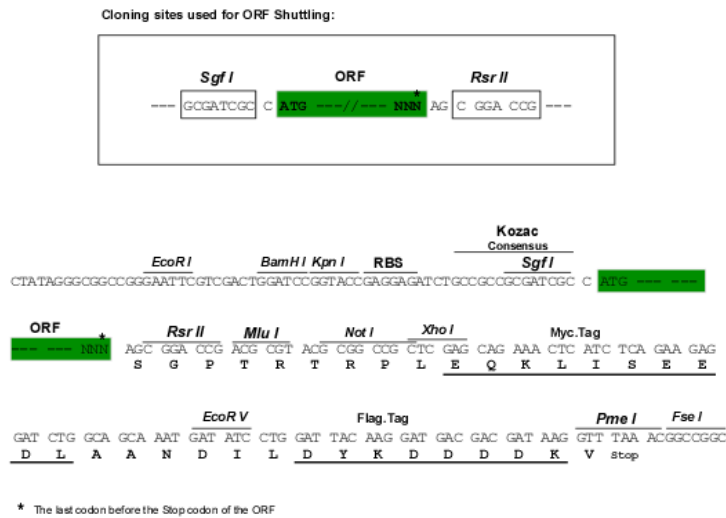
MSASQDSRSRDNGPDGMEPEGVIESNWNEIVDSFDDMNLSESLLRGIYAYGF EKPSAIQQRAILPCIKGY
 DVIAQAQSGTGKTATFAISILQQIELDLKATQALVLAPTRELAQQIQKVMALGDYMGASCHACIGGTNV
 RAEVQKLQMEAPHIIVGTPGRVFDMLNRRYLSPKYIKMFLVDEADEMLSRGFKDQIYDIFQKLSNTQVV
 LLSATMPSDVLEVTKKFMRDPIRILVKKEELTLEGIRQFYINVEREEWKLDTLCDLYETLTITQAVIFIN
 TRRKVDWLTEKMHARDFTVSAMHGDMDQKERDVMREFRSGSSRVLITDILLARGIDVQVSLVINVDLP
 TNRENYIHRIGRGRFRGKGVAINMVTEEDKRTL RDIE TFYNTSIEEMPLNVADLI

SGPTRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6190_a11.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_001416

ORF Size: 1218 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001416.4](#)

RefSeq Size: 1894 bp

RefSeq ORF: 1221 bp

Locus ID: 1973

UniProt ID: [P60842](#)

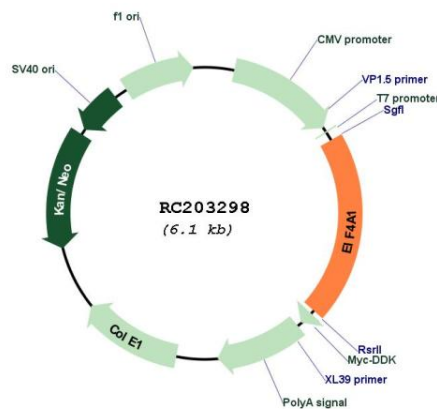
Cytogenetics: 17p13.1

Domains: DEAD, helicase_C

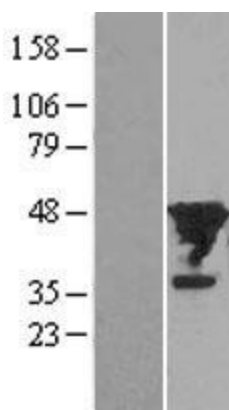
MW: 46.2 kDa

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]

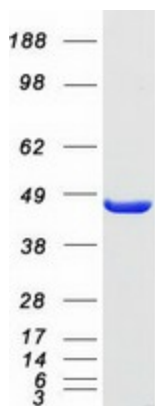
Product images:



Circular map for RC203298



Western blot validation of overexpression lysate (Cat# [LY400547]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203298 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified EIF4A1 protein (Cat# [TP303298]). The protein was produced from HEK293T cells transfected with EIF4A1 cDNA clone (Cat# RC203298) using MegaTran 2.0 (Cat# [TT210002]).