

Product datasheet for **RG203298**

EIF4A1 (NM_001416) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EIF4A1 (NM_001416) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	EIF4A1
Synonyms:	DDX2A; EIF-4A; eIF-4A-I; EIF4A; eIF4A-I
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG203298 representing NM_001416 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCTGCGAGCCAGGATCCCGATCCAGAGACAATGGCCCCGATGGGATGGAGCCCGAAGGCGTCATCG
AGAGTAACTGGAATGAGATTGTTGACAGCTTTGATGACATGAACCTCTCGGAGTCCCTTCTCCGTGGCAT
CTACGCCATATGGTTTTGAGAAGCCCTCTGCCATCCAGCAGCGAGCCATTCTACCTTGATCAAGGGTTAT
GATGTGATTGCTCAAGCCCAATCTGGGACTGGGAAAACGGCCACATTTGCCATATCAATTCTGCAGCAGA
TTGAATTAGATCTAAAAGCCACCAGGCCCTTGGTCTAGCACCCACTCGAGAATTGGCTCAGCAGATACA
GAAGGTGGTCATGGCACTAGGAGACTACATGGGCGCTCCTGTCACGCCTGTATCGGGGGACCAACCGTG
CGTGCTGAGGTGCAGAACTGCAGATGGAAGCTCCCCACATCATCGTGGGTACCCCTGGCCGTGTGTTTTG
ATATGCTTAACCGGAGATACCTGTCCCCAAATACATCAAGATGTTTGTACTGGATGAAGCTGACGAAAT
GTTAAGCCGTGGATTCAAGGACCAGATCTATGACATATTCCAAAAGCTCAACAGCAACACCCAGGTAGTT
TTGCTGTCAGCCACAATGCCTTCTGATGTGCTTGAGGTGACCAAGAAGTTCATGAGGGACCCATTCCGA
TTCTTGCAAGAAGGAAGAGTTGACCCTGGAGGGTATCCGCCAGTTCTACATCAACGTGGAACGAGAGGA
GTGGAAGCTGGACACACTATGTGACTTGTATGAAACCTGACCATCACCCAGGCAGTCATCTTCAAC
ACCCGGAGGAAGGTGGACTGGCTCACCGAGAAGATGCATGCTCGAGATTTCACTGTATCCGCCATGCATG
GAGATATGGACCAAAAGGAACGAGACGTGATTATGAGGGAGTTTCGTTCTGGCTCTAGCAGAGTTTTGAT
TACCCTGACCTGCTGGCCAGAGGCATTGATGTGCAGCAGGTTTCTTTAGTCATCAACTATGACCTTCCC
ACCAACAGGGAAAATATCCACAGAATCGGTGAGGTGGACGGTTTGGCCGTAAGGTGTGGCTATTA
ACATGGTGACAGAAGAAGACAAGAGGACTCTTCGAGACATTGAGACCTTCTACAACACCTCCATTGAGGA
AATGCCCTCAATGTTGCTGACCTCATC

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG203298 representing NM_001416
 Red=Cloning site Green=Tags(s)

MSASQDSRSRDNGPDGMEPEGVIESNWNEIVDSFDDMNLSESLLRGIYAYGFKPSAIQQRILPCIKGY
 DVIAQAQSGTGKTATFAISILQQIELDLKATQALVLAPTRELAQQIQKVMALGDYMGASCHACIGGTNV
 RAEVQKLQMEAPHIIVGTPGRVFDMLNRRYLSPKYIKMFVLDEADEMLSRGFKDQIYDIFQKLSNTQVV
 LLSATMPSDVLEVTKKFMRDPIRILVKKEELTLEGIRQFYINVEREEWKLDLTLCDLYETLTITQAVIFIN
 TRRKVDWLTEKMHARDFTVSAMHGDMQKERDVMREFRSGSSRVLITDILLARGIDVQVSLVINVDLP
 TNRENYIHRIGRGRFRGKGVAINMVTEEDKRTLRLDIETFYNTSIEEMPLNVADLI

SGPTRRRLE - GFP Tag - V

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.

RefSeq: [NM_001416.2](#), [NP_001407.1](#)

RefSeq Size: 1844 bp

RefSeq ORF: 1221 bp

Locus ID: 1973

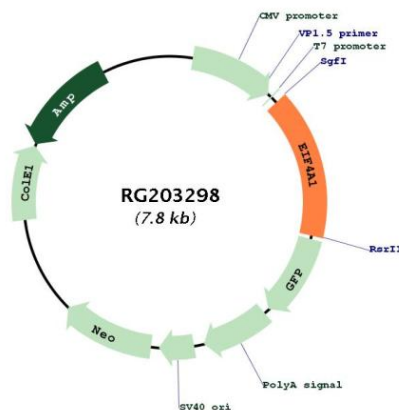
UniProt ID: [P60842](#)

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]

Product images:



Circular map for RG203298