

## Product datasheet for **RG205623**

### EIF4A2 (NM\_001967) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	EIF4A2 (NM_001967) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	EIF4A2
Synonyms:	BM-010; DDX2B; eIF-4A-II; EIF4A; eIF4A-II; EIF4F
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG205623 representing NM_001967 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTGGTGGCTCCGCGGATTATAACAGAGAACATGGCGGCCAGAGGGAATGGACCCCGATGGTGTCA  
TCGAGAGCAGCTGGAATGAGATTGTTGATAACTTTGATGATATGAATTTAAAGGAGTCTCTCCTTCGTGG  
CATCTATGCTTACGGTTTTGAGAAGCCTCCGCTATTCAGCAGAGAGCTATTATCCCTGTATTAAGGG  
TATGATGTGATTGCTCAAGCTCAGTCAGTACTGGCAAGACAGCCACATTTGCTATTTCCATCCTGCAAC  
AGTTGGAGATTGAGTTCAAGGAGACCAAGCACTAGTATTGGCCCCACCAGAGAAGTGGCTCAACAGAT  
CCAAAAGGTAATTCGGCACTTGGAGACTATATGGGAGCCACTTGTGCATGCCTGCATTGGTGAACAAAT  
GTTCGAAATGAAATGCAAAAAGTGCAGGCTGAAGCACCACATATTGTTGTTGGTACACCCGGGAGAGTGT  
TTGATATGTTAAACAGAAGATACCTTTCTCAAAAATGGATCAAAAATGTTTGGATGAAGCAGATGA  
AATGTTGAGCCGTGGTTTTAAGGATCAAATCTATGAGATTTTCAAAAAGTAAACACAAGTATTCAGGTT  
GTGTTGCTTTCTGCCACAATGCCAAGTGTGTTGGAAGTGACCAAAAATTCATGAGAGATCCAATTC  
GAATTCGGTGAAAAGGAAGAATTGACCCTTGAAGGAATCAAACAGTTTTATTAATGTTGAGAGAGA  
GGAATGGAAGTTGGATACACTTTGTGACTTGTACGAGACACTGACCATTACACAGGCTGTTATTTTTCTC  
AATACGAGGCGCAAGGTGGACTGGCTGACTGAGAAGATGCATGCCAGAGACTTACAGTTTCTGCTCTGC  
ATGGTGACATGGACCAGAAGGAGAGAGATGTTATCATGAGGAATTCGGTCCAGGTCAGGTCGTGTTCT  
GATCACTACTGACTTGTGGCTCGCGGGATTGATGTGCAACAAGTGTCTTTGGTTATAAATTATGATCTA  
CCTACCAATCGTGAAAATATATTCACAGAATTGGCAGAGGGGTCGATTTGGGAGGAAAGGTGGGCTA  
TAACTTTGTTACTGAAGAAGACAAGAGGATTCTTCGTGACATTGAGACTTTCTACAATACTACAGTGGA  
GGAGATGCCCATGAATGTGGCTGACCTTATT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG205623 representing NM\_001967  
 Red=Cloning site Green=Tags(s)

MSGGSADYNREHGGPEGMDPDGVISSWNEIVDNFDDMNLKESLLRGIYAYGF EKPSAIQQRRAIIPCIKG  
 YDVIAQAQSGTGKTATFAISILQQLIEFKETQALVLAPTRELAQQIQKIVILALGDYMGATCHACIGGTN  
 VRNEMQKLQAEAPHIVVGTGPRVFDMLNRRYLSPKWIKMFLVDEADEMLSRGFKDQIYEIFQKLNTSIQV  
 VLLSATMPTDVLVETKKFMRDPIRILVKKEELTLEGIKQFYINVEREEWKLDTLCDLYETLTITQAVIFL  
 NTRRKVDWLTEKMHARDFTVSALHGDMDQKERDVMREFRSGSSRVLITDLLARGIDVQVSLVINYDL  
 PTNRENYIHRIGRGRFRGRKGVAINFVTEEDKRILRDIETFYNTTVEEMPMNVADLI

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001967

**ORF Size:** 1221 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\\_001967.3](#), [NP\\_001958.2](#)

**RefSeq Size:** 1905 bp

**RefSeq ORF:** 1224 bp

**Locus ID:** 1974

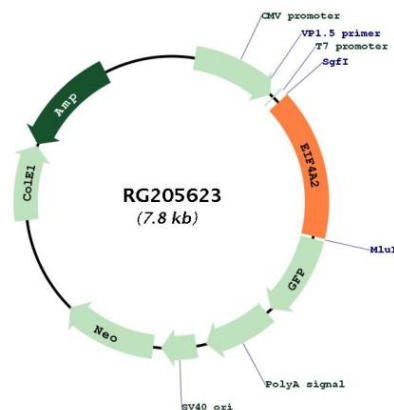
**UniProt ID:** [Q14240](#)

**Cytogenetics:** 3q27.3

**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 RG205623