

Product datasheet for RC205623

EIF4A2 (NM_001967) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EIF4A2 (NM_001967) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	EIF4A2
Synonyms:	BM-010; DDX2B; eIF-4A-II; EIF4A; eIF4A-II; EIF4F
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205623 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCGGTGGCTCCGCGGATTATAACAGAGAACATGGCGGCCAGAGGGAATGGACCCCGATGGTGTCA
TCGAGAGCAGCTGGAATGAGATTGTTGATAACTTTGATGATATGAATTTAAAGGAGTCTCTCCTTCGTGG
CATCTATGCTTACGGTTTTGAGAAGCCTCCGCTATTCAGCAGAGAGCTATTATCCCTGTATTAAGGG
TATGATGTGATTGCTCAAGCTCAGTCAGTACTGGCAAGACAGCCACATTTGCTATTTCCATCCTGCAAC
AGTTGGAGATTGAGTTCAAGGAGACCAAGCACTAGTATTGGCCCCACCAGAGAAGTGGCTCAACAGAT
CCAAAAGGTAATTCGGCACTTGGAGACTATATGGGAGCCACTTGTGCATGCCTGCATTGGTGAACAAAT
GTTCGAAATGAAATGCAAAAAGTGCAGGCTGAAGCACCACATATTGTTGTTGGTACACCCGGGAGAGTGT
TTGATATGTTAAACAGAAAGATACCTTTCTCCAAAATGGATCAAAAATGTTTGGTGGATGAAGCAGATGA
AATGTTGAGCCGTGGTTTTAAGGATCAAATCTATGAGATTTTCCAAAAGTAAACACAAGTATTCAGGTT
GTGTTGCTTTCTGCCACAATGCCAACTGATGTGTTGGAAGTGACCAAAAATTCATGAGAGATCCAATTC
GAATTCGGTGAAAAGGAAGAATTGACCCTTGAAGGAATCAAACAGTTTTATTAATGTTGAGAGAGA
GGAATGGAAGTTGGATACACTTTGTGACTTGTACGAGACACTGACCATTACACAGGCTGTTATTTTTCTC
AATACGAGGCGCAAGGTGGACTGGCTGACTGAGAAGATGCATGCCAGAGACTTACAGTTTCTGCTCTGC
ATGGTGACATGGACCAGAAAGGAGAGAGATGTTATCATGAGGAAATTCGGTCCAGGTCAGGTCGTGTTCT
GATCACTACTGACTTGTGGCTCGCGGGATTGATGTGCAACAAGTGTCTTTGGTTATAAATTATGATCTA
CCTACCAATCGTGAAAATATATTCACAGAATTGGCAGAGGGGTCGATTTGGGAGGAAAGGTGGGCTA
TAAACTTTGTTACTGAAGAAGACAAGAGGATTCTTCGTGACATTGAGACTTTCTACAATACTACAGTGGA
GGAGATGCCCATGAATGTGGCTGACCTTATT

ACGCGTACGCGGCCGCTCGAGCAGAAAATCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC205623 protein sequence
 Red=Cloning site Green=Tags(s)

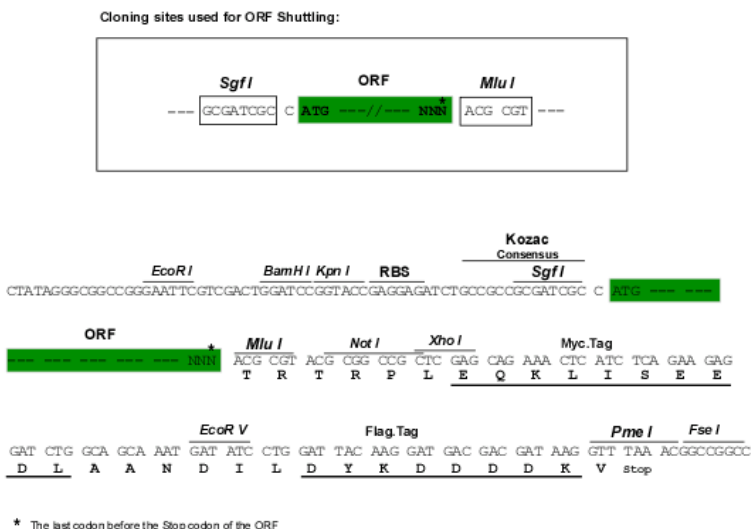
MSGGSADYNREHGGPEGMPDGVIESSWNEIVDNFDDMNLKESLLRGIYAYGFEKPSAIQQRRAIIPCIGK
 YDVIAQAQSGTGKTATFAISILQLEIEFKETQALVLAPTRELAQQIQKVILALGDYMGATCHACIGGTN
 VRNEMQKLQAEAPHIVVGTGPRVFDMLNRRYLSPKWIKMFLVDEADEMLSRGFKDQIYEIFQKLNTSIQV
 VLLSATMPTDVLVETKKFMRDPIRILVKKEELTEGIKQFYINVEREEWKLDLTLCDLYETLTITQAVIFL
 NTRRKVDWLTEKM HARDFTVSALHGDMQKERDVMREFRSGSSRVLITDLLARGIDVQVSLVINYDL
 PTNRENYIHRIGRGRFGRKGVAINFVTEEDKRILRDIETFYNTTVEEMPMNVADLI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6199_d01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

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_001967.4](#)

RefSeq Size: 1905 bp

RefSeq ORF: 1224 bp

Locus ID: 1974

UniProt ID: [Q14240](#)

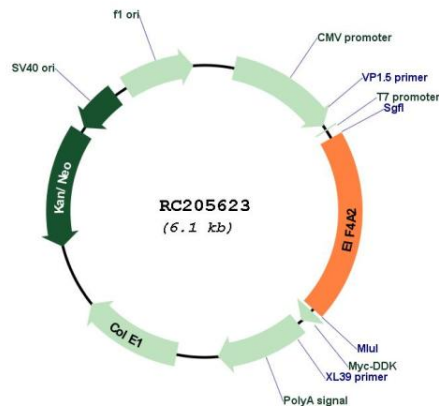
Cytogenetics: 3q27.3

Domains: DEAD, helicase_C

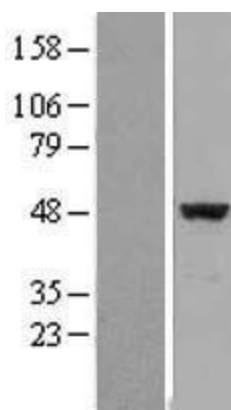
MW: 46.4 kDa

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]

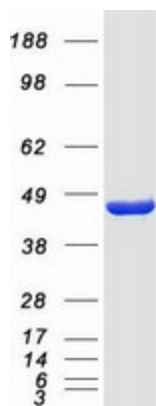
Product images:



Circular map for RC205623



Western blot validation of overexpression lysate (Cat# [LY400722]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205623 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified EIF4A2 protein (Cat# [TP305623]). The protein was produced from HEK293T cells transfected with EIF4A2 cDNA clone (Cat# RC205623) using MegaTran 2.0 (Cat# [TT210002]).