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Product datasheet for RC204303

EIF2A (NM_032025) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EIF2A (NM_032025) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	EIF2A
Synonyms:	CDA02; EIF-2A; MST089; MSTP004; MSTP089
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC204303 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGCCGTCCACGCCGCTCTTGACAGTCCGAGGATCAGAAGGACTGTACATGGTGAATGGACCACCAC
ATTTTACAGAAAGCACAGTGTTTCCAAGGGAATCTGGGAAGAATTGCAAAGTCTGTATCTTTAGTAAGGA
TGGGACCTTGTTTGCCTGGGGCAATGGAGAAAAAGTAAATATTATCAGTGTCACTAACAAGGGACTACTG
CACTCCTTCGACCTCCTGAAGGCAGTTTGCCTTGAATTCTCACCCAAAAATACTGTCCTGGCAACGTGGC
AGCCTTACACTACTTCTAAAGATGGCACAGCTGGGATACCCAACCTACAACTTTATGATGTGAAAACTGG
GACATGTTTGAAATCTTTCATCCAGAAAAAAATGCAAAATTGGTGTCCATCCTGGTCAGAAGATGAAACT
CTTTGTGCCCGCAATGTTAACAATGAAGTTCACTTCTTTGAAAACAACAATTTTAACACAATTGCAAATA
AATTGCATTTGCAAAAAATTAATGACTTTGTATTATCACCTGGACCCCAACCATACAAGGTGGCTGTCTA
TGTTCCAGGAAGTAAAGGTGCACCTTCATTTGTTAGATTATATCAGTACCCCAACTTTGCTGGACCTCAT
GCAGCTTTAGCTAATAAAAGTTTCTTTAAGGCAGATAAAGTTACAATGCTGTGGAATAAAAAAGCTACTG
CTGTGTTGGTAATAGCTAGCACAGATGTTGACAAGACAGGAGCTTCCTACTATGGAGAACAAACTCTACA
CTACATTGCAACAAATGGAGAAAGTGCTGTAGTGCAATTACCAAAAAATGGCCCCATTTATGATGTAGTT
TGGAATTCTAGTTCTACTGAGTTTTGTGCTGTATATGGTTTTATGCCTGCCAAAGCGACAATTTTCAACT
TGAAATGTGATCCTGTATTTGACTTTGGAACTGGTCCTCGTAATGCAGCCTACTATAGCCCTCATGGACA
TATATTAGTATTAGCTGGATTTGGAAATCTGAGGGGACAAATGGAAGTGTGGGATGTGAAAAACTACAAA
CTTATTTCTAAACCGGTGGCTTCTGATTCTACATATTTTGCTTGGTGCCCGGATGGTGAGCATATTTTAA
CAGCTACATGTGCTCCCAGGTTACGGGTTAATAATGGATACAAAATTTGGCATTATACTGGCTCTATCTT
GCACAAGTATGATGTGCCATCAAATGCAGAATTATGGCAGGTTTCTTGGCAGCCATTTTTGGATGGAATA
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CAGCTTATAGACCCCCAGCTTTAAGAAATAAACCAATCACCAATTCCAAATTGCATGAAGAGGAACCACC
TCAGAATATGAAACCACAATCAGGAAACGATAAGCCATTATCAAAAACAGCTCTTAAAAATCAAAGGAAG
CATGAAGCTAAGAAAGCTGCAAAGCAGGAAGCAAGAAGTGACAAGAGTCCAGATTTGGCACCTACTCCTG
CCCCACAGAGCACACCACGAAACACTGTCTCTCAGTCAATTTCTGGGGACCCTGAGATAGACAAAAAAAT
CAAGAACCTAAAGAAGAAACTGAAAGCAATCGAACAACTGAAAGAACAAGCAGCAACTGGAAAACAGCTA
GAAAAAAATCAGTTGGAGAAAATTCAGAAAGAAACAGCCCTTCTCCAGGAGCTGGAAGATTTGAAATTGG
GTATT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC204303 protein sequence
Red=Cloning site Green=Tags(s)

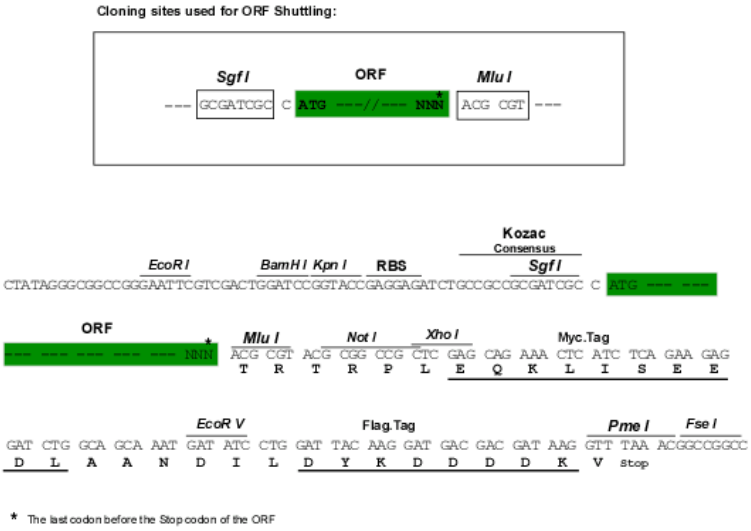
MAPSTPLLTVRGSEGLYMVNGPPHFTESTVFPRESGKNCKVCIFSKDGTLFAWGNGEKVNIISVTNKGLL
HSFDLLKAVCLEFSPKNTVLATWQPYTTSKDGTAGIPNLQLYDVKTGTCLKSFIQKKMQNWCPSWSEDET
LCARNVNNEVHFFENNNFNTIANKLHLQKINDFVLSPGPQPYKVAVYVPGSKGAPSFVRLYQYPNFAGPH
AALANKSFFKADKVTMLWNKKATAVLVIASTDVDKTGASYYGEQTLHYIATNGESAVVQLPKNGPIYDVV
WNSSSTEFCAVYGFMPAKATIFNLKCDPVFDFGTGPRNAAYYSPHGHILVLAGFGNLRGQMEVWDVKNYK
LISKPVASDSTYFAWCPDGEHILTATCAPRLRVNNGYKIWHYTGSILHKYDVPSNAELWQVSWQPFLDGI
FPAKTITYQAVPSEVPNEEPKVATAYRPPALRNKPITNSKLHEEEPPQNMKPQSGNDKPLSKTALKNQRK
HEAKKAAKQEARSDKSPDLAPTPAPQSTPRNTVSQSISGDPEIDKKIKNLKKKLKAIEQLKEQAATGKQL
EKNQLEKIQKETALLQELEDLKLGI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6231_d05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_032025

ORF Size: 1755 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_032025.5

RefSeq Size: 3894 bp

RefSeq ORF: 1758 bp

Locus ID: 83939

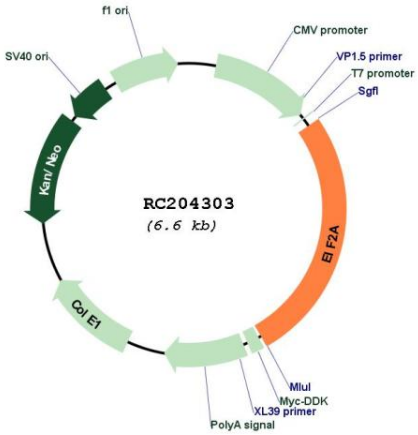
UniProt ID: Q9BY44

Cytogenetics: 3q25.1

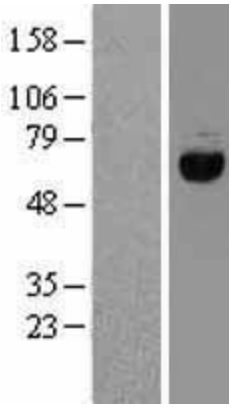
MW: 65 kDa

Gene Summary: This gene encodes a eukaryotic translation initiation factor that catalyzes the formation of puromycin-sensitive 80 S preinitiation complexes and the poly(U)-directed synthesis of polyphenylalanine at low concentrations of Mg2+. This gene should not be confused with eIF2-alpha (EIF2S1, Gene ID: 1965), the alpha subunit of the eIF2 translation initiation complex. Although both of these proteins function in binding initiator tRNA to the 40 S ribosomal subunit, the encoded protein does so in a codon-dependent manner, whereas eIF2 complex requires GTP. Alternative splicing of this gene results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jan 2016]

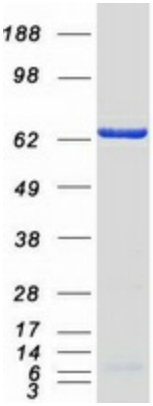
Product images:



Circular map for RC204303



Western blot validation of overexpression lysate (Cat# [LY410358]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204303 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified EIF2A protein (Cat# [TP304303]). The protein was produced from HEK293T cells transfected with EIF2A cDNA clone (Cat# RC204303) using MegaTran 2.0 (Cat# [TT210002]).