

Product datasheet for **RC219910**

EIF4G1 (NM_198242) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: EIF4G1 (NM_198242) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: EIF4G1
Synonyms: EIF-4G1; EIF4F; EIF4G; EIF4GI; P220; PARK18
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC219910 representing NM_198242
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGAACCGCCACCCAGATTGCTCCCAAGAGGGAGCGTAAGACGATCCGAATTCGAGATCCAAACCAAG
GAGGAAAGGATATCACAGAGGAGATCATGTCTGGGGCCCGCACTGCCTCCACACCCACCCCTCCCCAGAC
GGGAGGCGGTCTGGAGCCTCAAGCTAATGGGGAGACGCCCCAGGTTGCTGTCATTGTCGGCCAGATGAC
CGGTACAGGGAGCAATCATTGCTGACCGCCAGGGCTGCCTGGCCAGAGCATAGCCCTTCAGAATCCC
AGCCTTCGTCGCCTTCTCCGACCCCATCCATCCCCAGTCTTGGAAACCGGGTCTGAGCCTAATCTCGC
AGTCTCTCTATTCTGGGGACACTATGACAACTATAAAATGTCTGTAGAAGAATCAACCCCCATCTCC
CGTGAAACTGGGGAGCCATATCGCTCTCTCCAGAACCCACTCCTCTCGCCGAACCCATACTGGAAGTAG
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CCCAACCTGAGGAAGTCTCAACGGAGCCCCCTCGCCACCAGCTGTGGACTTAAGCCCAGTCCAGTACCC
AGAGGAGCAGGCCAAGGAGGTGACAGCATCAATGGCGCCCCCACCATCCCCTCTGCTACTCCAGTACG
GCTCCTTCAGCTACTTCCCCAGCTCAGGAGGAGGAAATGGAAGAAGAAGAAGAAGAGGAAGAAGGAGAAG
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ACCCGGCAGTACCAGAGGTGAAAATCAGCCTCCTGCAGGCAGCAATCCAGGCCAGAGTCTGAGGGCAG
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AGTAGCAAGGACCCCGCTGAGCAGCAGGGCAAGGGTGTGGCCCTTAAATCTGTACAGCCTTCTTCAAGT
GGCTCCGTGAAGCAGAGGAGGAGTCTGACCACAAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC219910 representing NM_198242
 Red=Cloning site Green=Tags(s)

MNQPPQIAPKRERKTIRIRDPNQGGKDITEEIMSGARTASTPTPPQTGGGLEPQANGETPQVAVIVRPDD
 RSQGAIIADRPGLPGPEHSPSESQSPSPSPVLEPGSEPNLAVLSIPGDTMTTIQMSVEESTPIS
 RETGEPYRLSPEPTPLAEPFILEVEVTL SKVPVESEFSSSPLQAPTPLASHTVEIHEPNGMVPSEDLPEV
 ESSPELAPPPACPSESPVPIAPTAQPEELLNGAPSPPAVDLSPVSEPEEQAKEVTASMAPPTIPSATPAT
 APSATSPAQEEMEEEEEEEEEGEAGEAGEAESEKGGEELLPESTPIPANLSQNLEAAAATQVAVSVPKR
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 IKLNKAEKAWKPKSRKTAADKDRGEEDADGSKTQDLFRVRSILNKLTPQMFQQLMKQVTLAIDTEERL
 KGVIDLIFEKAISEPNF SVAYANMCRCLMALKVPTTEKPTVTNFRKLLLNRCQKEFEKDKDDDEVFEKK
 QKEMDEAATAERGRLEKELEEARDIARRRSLGNIKF IGELFKLKMLTEAIMHDCVVKLLKNHDEESLEC
 LCRLLTTIGKDLDFEKAPRMDQYFNQMEKIIKEKKTSSRIRFMLQDVLDLRGSNWVPRRGDQGPKTIDQ
 IHKEAEMEEREHIKVVQLMAKGS DKRRGPPGPPISRGLPLVDDGGWNTVPISKGRPIDTSRLTKITK
 PGSIDSNNQLFAPGGRLSWGKGS SGGSGAKPSDAASEARPATSTLNRF SALQQAVPTESTDNRRVVQRS
 SLSRERGEKAGDRDLERSERGGDRGDRDLDRARTPATKRSFSKEVEERSRERPSQPEGLRKAASLTEDR
 DRGRDAVKREAALPPVSPKAAALSEELEKSKAIIIEYHLNMDKEAVQCVELASPLLFIFVRHGV
 STLERSAIAREHMGQLLHQLLCAGHLSTAQYYQGLYEILEAEDMEIDIPHWLYLAELVTPILQEGGVP
 MGELFREITKPLRPLGKAASLLLEILGLLCKSMGPKKVGTLWREAGLSWKEFLPEGQDIGAFVAEQKVEY
 TLGEESEAPGQRALPSEELNRQLEKLLKEGSSNQRFVDWIEANLSEQQIVSNTLVRALMTAVCYS
 AIFETPLRVDVAVLKARAKLLQKYLCEQKELQALYALQALVVTLEQPPNLLRMFFDALYDEDVVKEDAFY
 SWE SSKDPAEQQKGVALKSVTAFFKWLREAEESDHN

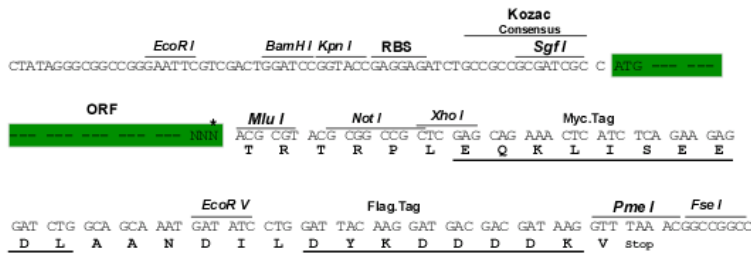
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

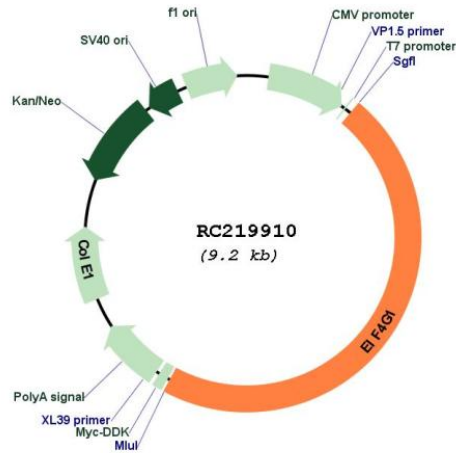
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_198242

ORF Size: 4305 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_198242.3](#)

RefSeq Size: 5123 bp

RefSeq ORF: 4308 bp

Locus ID: 1981

UniProt ID: [Q04637](#)

Cytogenetics: 3q27.1

Protein Pathways: Viral myocarditis

MW: 158.5 kDa

Gene Summary: The protein encoded by this gene is a component of the multi-subunit protein complex EIF4F. This complex facilitates the recruitment of mRNA to the ribosome, which is a rate-limiting step during the initiation phase of protein synthesis. The recognition of the mRNA cap and the ATP-dependent unwinding of 5'-terminal secondary structure is catalyzed by factors in this complex. The subunit encoded by this gene is a large scaffolding protein that contains binding sites for other members of the EIF4F complex. A domain at its N-terminus can also interact with the poly(A)-binding protein, which may mediate the circularization of mRNA during translation. Alternative splicing results in multiple transcript variants, some of which are derived from alternative promoter usage. [provided by RefSeq, Aug 2010]