

## Product datasheet for **MR211011**

### **Eif4g2 (NM\_001040131) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Eif4g2 (NM_001040131) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Eif4g2
Synonyms:	DAP; DAP-5; E130105L11Rik; Na; Nat; Nat1; Natm1; p97
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR211011 representing NM\_001040131  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

GTGGAGAGTGCATTGCAGAAGGGGTGCTTCTCGTTTCAGTGCCTTTCGGGCGGAGGAGGAAGTAGGG  
 GTGCACCTCAGCACTATCCCAAGACTGCTGGCAACAGCGAGTTCCTGGGAAAACCCAGGGCAAAACGC  
 TCAGAAATGGATTCTGCACGAAGCACTAGACGAGATGACAACCTCCGCAGCAAACAACCTCCGCAAATGAA  
 AAAGAACGACATGATGCAATCTTCAGGAAAGTAAGAGGCATACTAAATAAGCTTACTCCTGAAAAGTTTG  
 ACAAGCTATGCCTTGAGCTCCTCAATGTGGGTGTAGAGTCTAACTCATCCTTAAAGGGGTCACTACTGCT  
 GATTGTGGACAAAGCCTTAGAAGAGCCAAAGTATAGCTCGCTGTATGCTCAGCTATGCTGCGATTGGCA  
 GAAGATGCACCAAACCTTGTAGGGCCAGCAGAGGGTCAACCAGGACAGAAGCAAAGCACAACATTCA  
 GACGCCTCTTGATTTCAAATTCGAAGATGAATTTGAAAACCGAACAGAAATGTTGATGCTATGATAA  
 GCGTGAAAATCCCCTCCTCCTGAGGAGGAGAACAGAGAGCCATTGCTAAGATCAAGATGTTGGGGAAC  
 ATCAAATTCATTGGAGAACTTGGCAAGCTTGATCTTATTCATGAATCTATCCTTCATAAGTGCATCAAAA  
 CACTTTTGGAAAAGAAGAAGAGAGTCCAACCAAGATATGGGAGAGGATTTGGAGTGCCTCTGTAGAT  
 AATGAGGACAGTGGACCTCGATTAGACCATGAACGAGCCAAGTCTTAATGGATCAGTACTTTGCCAGA  
 ATGTGTTCTTAATGTTAAGTAAGGAATTGCCAGCCAGGATTCGTTTCTACTGCAGGATACTGTAGAGT  
 TGCGAGAGCACCATTGGGTTCTCGCAAGGCTTTTCTTGACAATGGACCAAGACGATCAATCAAATCCG  
 TCAAGATGCAGTAAAAGATCTAGGAGTGTATTCCTGCTCCTATGGCTCAAGGGAGGAATGACTTCTTC  
 TTGGAGGGACCGTTTCATGCCCAAGGATGAAAATGGATAGGGACCCACTTGGGGGACTTGTGATATGT  
 TGGACAATGCCAGGTAGTGAATTGGTACTGGTCCAGGAGTTATCCAGGATAGATTTTACCACCAAT  
 GGGACGTCATCGTTCAAATCAGCTCTTCAATGGCCATGGGGGACATCATGCCTCCCACGCAATCGCAG  
 TTTGGAGAGATGGGGGCAAGTTTATGAAAAGCCAGATTAGTTTGGAGCCTGCTCAGTCTTTCTAATGA  
 ATAAAAATCAGGTGCCAAAGCTTCAGCCCCAGATAACTATGATTCCTCCAGTGCACAGCCACCACGCAC  
 TCAAACACCGCTCTGGGACAGACACCTCAACTGGTCTCAAACCAATCCACCCTTATCCAGGAAAAG  
 CCTGCCAAGACTAGCAAAAAGCCACCACCATCAAAGGAAGAACTACTTAACTGACCGAAGCCGTTGTGA  
 CTGACTATCTGAACAGTGGAAATGCCAACGACGCTGTGAGTGGTGTGAGAGAAATGAGAGCTCCAAAACA  
 CTTTCTCCTGAGATGCTAAGCAAAGTATCATCCTGTCACTTGTAGAGAAGTATGAAGATAAAGAAAAA  
 GCAAGCTCTTTAATCAGTTTACTCAAACAGGAAGGGATAGCCACAAGTGACAACCTCATGCAGGCTTTCC  
 TGAATGTATTGGAGCAGTGCCCAAACCTGGAGGTTGACATCCCCTTGGTGAATCTTACTTGGCACAGTT  
 TGCAGCTCGTGCTATAATTTAGAGTGGTGGAGCATTTCGAACTAGCTCAACCCTGGAGAGTGGCACC  
 CACTTCCCTCTCTTCTTACTTTGTCTTCAACAATTAGCTAAATTCGAAGCCGAGAGTGGTTAACCGAAC  
 TTTTTCAACAAAGCAAGGTCAATATGCAGAAAAATGCTGCCAGAAATGATCAGAAATAAGGATCGAATGTT  
 GGAGATTTTGAAGGAAAGGGACTGAGTTTCTTATCCCACTCCTTAAATGGAGAAGGAACTATTGAAG  
 CAAATTAAGCTGGATCCATCCCCTCAAACATATATAAATGGATTAAGATAACATCTCTCCAACTTC  
 ATGTAGATAAAGGATTCGTGAACATCTTAATGACCAGCTTCTTACAGTACATTTCTAGTGAAGTAAGCCC  
 ACCCAGCGATGAAACAGATTTCTCCTCTGCTCCTTCCAAAGAGCAGTTAGAGCAGGAAAAACAGCTGCTG  
 CTCTCTTTAAGCCAGTATGCAGAAATTTCTTATGATCATGTGGATCTACAGGTCAGTGCCCTGTATG  
 CTTTGCAGGTGCACTGTTACAACAGCAGCTTCCAAAAGGCATGTTACTTCGATTTTTTGTCACTTCTA  
 TGACATGGAAATATTGAAGAGGAAGCTTTCTTAGCTTGAAGGAAGACATAACTCAAGAGTTTCCAGGA  
 AAAGGCAAGGCTTTGTTCCAGGTGAATCAGTGGCTAACCTGGCTAGAAACTGCTGAAGAAGAAGAATCAG  
 AGGAAGAAGCTGAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR211011 representing NM\_001040131  
 Red=Cloning site Green=Tags(s)

VESIAIEGGASRFSASSGGGSRGAPQHYPKTAGNSEFLGKTPGQNAQKWIPARSTRRDDNSAANNSANE  
 KERHDAIFRKVRGILNKLTPKFDKLCLELLNVGVESKILKGVILLIVDKALEEPKYSSLYAQLCLRLA  
 EDAPNFDGPAAEQPGQKQSTTFRLLISKLQDEFENRTRNVVYDKRENPLLPPEEQRAIAKIKMLGN  
 IKFIGELGKLDLIESILHKCIKTLLEKKKRVQLKDMGEDLECLCQIMRTVGPRLDHERAKSLMDQYFAR  
 MCSLMLSKELPARIRFLLQDVELREHHWVPRKAFLDNGPKTINQIRQDAVKDLGVFIPAPMAQGRNDF  
 LEGPFMPRPMKMDRDPLGGLADMFGQMPGSGIGTGPVIGQDRFSPTMGRHRSNQLFNGHGGHIMPPTQSQ  
 FGEMGGKFMKSQISLRPAQSFLMNKNQVPKLQPQITMIPPSAQPRTQTPPLGQTPQLGLKTNPPLIQEK  
 PAKTSKKPPPSKEELLKLEAVVTDYLNNSGNANDAVSGVREMRAPKHFLPEMLSKVIIISLDRSDEDKEK  
 ASSLISLLKQEGIATSDNFMQAFNLVLEQCPKLEVDIPLVKSILAQFAARAISELVSISELAQPLESQT  
 HFPLFLCLQLAKLQDREWLTELQQSKVNMQKMLPEIDQNKDRMLEILEGKLSFLPPLKLEKELLK  
 QIKLDPSPTIYKWKIDNISPKLHVDKGFVNILMTSFLQYISSEVSPSDETDSSAPSKEQLEQEKQLL  
 LSFKPMQKFLHDHVDLQVSALYALQVHCYNSSFPGMLLRFFVHFYDMEIEEEAFLAWKEDITQEFPG  
 KGKALFQVNQWLTWLETAESEEESEAD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9048\\_a02.zip](https://cdn.origene.com/chromatograms/mm9048_a02.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

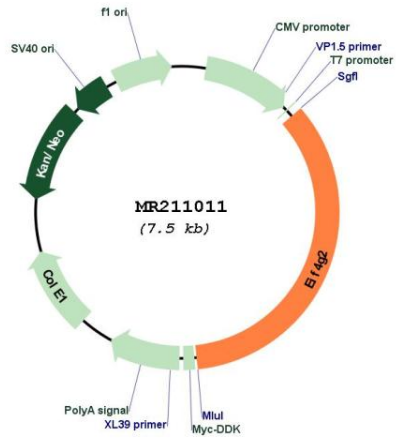
Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

<b>ACCN:</b>	NM_001040131
<b>ORF Size:</b>	2604 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001040131.2</a> , <a href="#">NP_001035221.1</a>
<b>RefSeq Size:</b>	7646 bp
<b>RefSeq ORF:</b>	2607 bp
<b>Locus ID:</b>	13690
<b>UniProt ID:</b>	<a href="#">Q62448</a>
<b>Cytogenetics:</b>	7 58.0 cM
<b>MW:</b>	98.3 kDa
<b>Gene Summary:</b>	Translation initiation is mediated by specific recognition of the cap structure by eukaryotic translation initiation factor 4F (eIF4F), which is a cap binding protein complex that consists of three subunits: eIF4A, eIF4E and eIF4G. The protein encoded by this gene shares similarity with the C-terminal region of eIF4G, that contains the binding sites for eIF4A and eIF3; eIF4G in addition, contains a binding site for eIF4E at the N-terminus. Unlike eIF4G which supports cap-dependent and independent translation, this gene product functions as a general repressor of translation by forming translationally inactive complexes. Transgene expression of the apolipoprotein B mRNA-editing enzyme (APOBEC-1) causes extensive editing of this mRNA, which could contribute to the potent oncogenesis induced by overexpression of APOBEC-1. In vitro and in vivo studies in human indicate that translation of this mRNA initiates exclusively at a non-AUG (GUG) codon. This also appears to be true for mouse. Two alternatively spliced transcript variants that encode different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for MR211011