

## Product datasheet for **RC207333**

### EIF4E (NM\_001968) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	EIF4E (NM_001968) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	EIF4E
Synonyms:	AUTS19; CBP; eIF-4E; EIF4E1; EIF4EL1; EIF4F
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC207333 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGACTGTCGAACCGGAAACCACCCCTACTCCTAATCCCCCGACTACAGAAGAGGAGAAAACGGAAT  
CTAATCAGGAGGTTGCTAACCCAGAACACTATATTAACATCCCCTACAGAACAGATGGGCACTCTGGTT  
TTTTAAAAATGATAAAAGCAAACCTGGCAAGCAAACCTGCGGCTGATCTCCAAGTTTGACTGTTGAA  
GACTTTTGGGCTCTGTACAACCATATCCAGTTGTCTAGTAATTTAATGCCTGGCTGTGACTACTCACTTT  
TTAAGGATGGTATTGAGCCTATGTGGGAAGATGAGAAAAACAAACGGGGGGACGATGGCTAATTACATT  
GAACAAACAGCAGAGACGAAGTGACCTCGATCGCTTTTGGCTAGAGACACTTCTGTGCCTTATTGGAGAA  
TCTTTTGTGACTACAGTGATGATGTATGTGGCGCTGTTGTTAATGTTAGAGCTAAAGGTGATAAGATAG  
CAATATGGACTACTGAATGTGAAAAACAGAGAAGCTGTTACACATATAGGGAGGGTATACAAGGAAAGGTT  
AGGACTTCCTCCAAAGATAGTGATTGGTTATCAGTCCCACGCAGACACAGCTACTAAGAGCGGCTCCACC  
ACTAAAAATAGGTTTGTGTT

**ACGCGT**ACGCGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC207333 protein sequence  
 Red=Cloning site Green=Tags(s)

MATVEPETTPNPPTTEEEKTESNQEVANPEHYIKHPLQNRWALWFFKNDKSKTWQANLRLISKFDTVE  
 DFWALYNHIQLSSNLMPGCDYSLFKDGIPEMWEDEKNKRGRWLITLNKQRRSDLDRFLETLLCLIGE  
 SFDDYSDDVCGAVVNVRAKGDKIAIWTTECENREAVTHIGRVYKERLGLPPKIVIGYQSHADTATKSGST  
 TKNRFVV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6002\\_b09.zip](https://cdn.origene.com/chromatograms/mk6002_b09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_001968

**ORF Size:** 651 bp

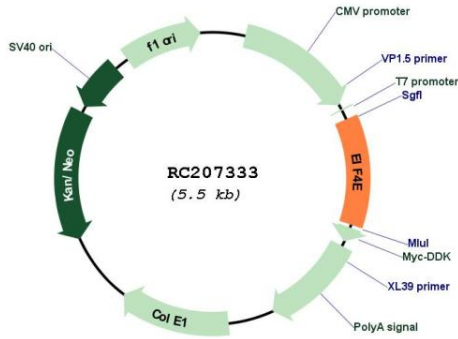
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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.

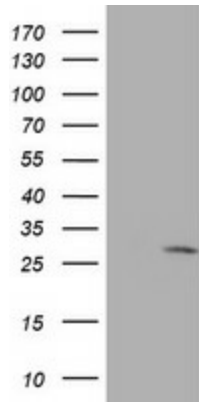
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_001968.4</a>
<b>RefSeq Size:</b>	4749 bp
<b>RefSeq ORF:</b>	654 bp
<b>Locus ID:</b>	1977
<b>UniProt ID:</b>	<a href="#">P06730</a>
<b>Cytogenetics:</b>	4q23
<b>Domains:</b>	IF4E
<b>Protein Pathways:</b>	Insulin signaling pathway, mTOR signaling pathway
<b>MW:</b>	25.1 kDa
<b>Gene Summary:</b>	<p>The protein encoded by this gene is a component of the eukaryotic translation initiation factor 4F complex, which recognizes the 7-methylguanosine cap structure at the 5' end of messenger RNAs. The encoded protein aids in translation initiation by recruiting ribosomes to the 5'-cap structure. Association of this protein with the 4F complex is the rate-limiting step in translation initiation. This gene acts as a proto-oncogene, and its expression and activation is associated with transformation and tumorigenesis. Several pseudogenes of this gene are found on other chromosomes. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2015]</p>

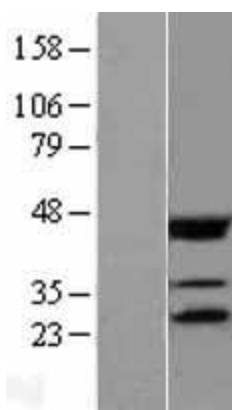
Product images:



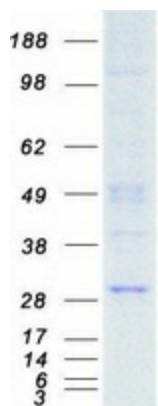
Circular map for RC207333



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY EIF4E (Cat# RC207333, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-EIF4E (Cat# [TA503042]). Positive lysates [LY400723] (100ug) and [LC400723] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400723]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207333 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified EIF4E protein (Cat# [TP307333]). The protein was produced from HEK293T cells transfected with EIF4E cDNA clone (Cat# RC207333) using MegaTran 2.0 (Cat# [TT210002]).