

## Product datasheet for **RC224602**

### EIF2B4 (NM\_172195) Human Tagged ORF Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids                       |
| Product Name:             | EIF2B4 (NM_172195) Human Tagged ORF Clone |
| Tag:                      | Myc-DDK                                   |
| Symbol:                   | EIF2B4                                    |
| Synonyms:                 | EIF-2B; EIF2B; EIF2Bdelta                 |
| Mammalian Cell Selection: | Neomycin                                  |
| Vector:                   | pCMV6-Entry (PS100001)                    |
| E. coli Selection:        | Kanamycin (25 ug/mL)                      |



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**ORF Nucleotide Sequence:**

>RC224602 representing NM\_172195  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCAACCCAGCAGCCGGCTGCGCCGAGTACTCGTGCCCAAAACCCTCCCGGAGTCTCTCTGGCTCAC  
 TTTGTGCCCTGTTTTCTGATGCAGACTCGGGATCCGGGATGAAGGCGGAGCTTCCCCTGGCCTGGGGC  
 AGTGGGGAGGAAATGACCAAAGAAGAAAAGCTGCAGCTTCGGAAGGAAAAGAAACAGCAGAAGAAGAAA  
 CGGAAGGAAGAAAAGGGGCAGAACAGAGACTGGCTCTGCTGTATCTGCAGCCCAATGTCAAGGCCAA  
 CCAGAGAAGTCCAGAATCGGGCATTAGTTGGGCACTCCTCGGGAGAAAGTTCCAGCTGGTCGGAGTAA  
 GGCCGAACCTCGGGCTGAGCGTCGAGCCAAGCAGGAGGCCGAGCGGGCCCTGAAACAGGCAAGAAAAGGG  
 GAACAAGGAGGACCCTCCTAAGGCCAGCCCAGCACAGCTGGAGAAACCCCTCAGGAGTGAAGCGTC  
 TCCCTGAGTACCCTCAGTTGATGACCTACTTCTGAGAAGGCTTGTTAAAAAACAGAGCGTCAACAGGT  
 TCCTACACGAAAGGATTATGGATCCAAAGTCAGTCTTCTCTCACCTACCCAGTACAGCAGACAAAAC  
 TCTCTGACCCAGTTTATGAGCATCCCATCTGTGTATCCACCCAGCCATGGTGGACTCGGCCTGCAGT  
 ACTCCCAGGGCCTGGTCACTGGCTCCAATGCCCGGTGATTGCCCTGCTTCGTGCCTTGACGAGGTGAT  
 TCAGGATTACACAACACCGCCTAATGAAGAACTCTCCAGGGATCTAGTGAATAAACTAAAACCTACATG  
 AGCTTCTGACTCAGTCCCGTCCCCTGTGAGCGAGCATGCACAACGCCATCAAGTTCCCTAACAGGAAA  
 TCACCAGTGTGGGCAGTTCCAAGCGGGAAGAGGAGGCCAAGTCAGAACTTCGAGCAGCCATTGATCGGTA  
 TGTGCAAGAGAAGATTGTGCTAGCAGCTCAGGCAATTCACGCTTTGCTTACCAGAAGATCAGTAATGGA  
 GATGTGACTCCTGGTATATGGATGCTCATCTCTGGTATCACGAATCTTTCAGGAGGCTTGGACAGAGGGCC  
 GGCGGTTTCGGGTGGTAGTGGTGGACAGCCGGCCATGGCTGGAAGGAAGGCACACACTACGTTCTAGT  
 CCATGCTGGTGTCCAGCCTCCTACCTGCTGATTCTGTCAGCCTCCTATGTGCTCCAGAGGTTTCCAAG  
 GTGCTATTGGGAGCTCATGCACTCTGGCCAACGGGTCTGTGATGTCACGGGTAGGGACAGCACAGTTAG  
 CCCTGGTGGCTCGAGCCATAATGTACCAGTGTGGTTTGTGTGAAACATAAAGTTCTGTGAGCGTGT  
 GCAGACTGATGCCTTTGTCTAATGAGCTAGATGACCCTGATGATCTGCAATGTAAGCGGGGAGAACAT  
 GTTGCGCTGGCTAACTGGCAGAACCACGCATCCCTACGGTTGTTGAATCTAGTCTATGATGTGACTCCCC  
 CAGAGCTGTGGATCTGGTATCACGGAGCTGGGGATGATCCCTTGCACTTCTGTACCTGTTGTTCTACG  
 AGTCAAGAGCAGTGACCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC224602 representing NM\_172195  
 Red=Cloning site Green=Tags(s)

MPTQQPAAPSTRAPKPSRSLSGSLCALFSDADSGSMKAELPPGPGAVGREMTKEEKLQLRKEKKQKQKK  
 RKEEKGAEPETGSAVSAAQCQGPTRRELPESGIQLGTPREKVPAGRSKAELRAERRAKQEERALKQARKG  
 EQGGPPPASPSTAGETPSGVKRLPEYPQVDDLLRRLVKKPERQVPTKDYGSKVSLFSLHPQYSRQN  
 SLTQFMSIPSSVIHPAMVRLGLQYSQGLVSGSNARCIALLRALQQVIQDYTPPNEELSRDLVNKLKPYM  
 SFLTQCRPLSASMHNAIKFLNKEITSVGSSEKREEEAKSELRAAIDRYVQEKIVLAAQAISRFAYQKISNG  
 DVILVYGCSSLVSRILQEAWTEGRRFRVVDVSRPWLEGRHTLRSLVHAGVPASYLLIPAASYVLPVSK  
 VLLGAHALLANGSVMSRVGTAQLALVARAHNVPVLVCCETYKFCERVQTDAFVSNELDDPDDLQCKRGEH  
 VALANWQNHASLRLLNLVYDVTPELVDLVITELGMIPCSVPPVLRVKSSDQ

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8066\\_e05.zip](https://cdn.origene.com/chromatograms/mk8066_e05.zip)

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**ACCN:** NM\_172195

**ORF Size:** 1629 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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).

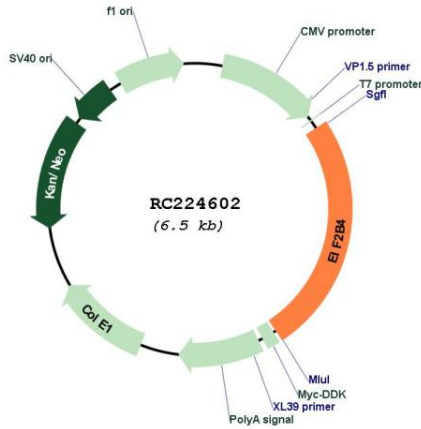
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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\\_172195.3](#), [NP\\_751945.2](#)

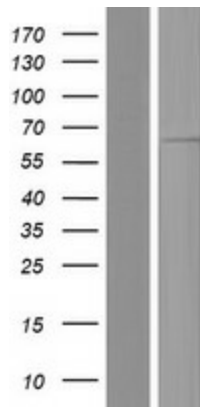
RefSeq Size: 1726 bp  
 RefSeq ORF: 1632 bp  
 Locus ID: 8890  
 UniProt ID: [Q9UI10](#)  
 Cytogenetics: 2p23.3  
 MW: 59.4 kDa

**Gene Summary:** Eukaryotic initiation factor 2B (EIF2B), which is necessary for protein synthesis, is a GTP exchange factor composed of five different subunits. The protein encoded by this gene is the fourth, or delta, subunit. Defects in this gene are a cause of leukoencephalopathy with vanishing white matter (VWM) and ovarioleukodystrophy. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RC224602



Western blot validation of overexpression lysate (Cat# [LY406769]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224602 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).