

Product datasheet for **RG211093**

EIF3B (NM_003751) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EIF3B (NM_003751) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	EIF3B
Synonyms:	EIF3-ETA; EIF3-P110; EIF3-P116; EIF3S9; PRT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG211093 representing NM_003751
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCAGGACGCGGAGAACGTGGCGGTGCCGAGGCGGCCGAGGAGCGCGCCGAGCCCGCCAGCAGCAGC
 CGGCCCGAGCCGCGCCAGCCGAGGGGCTGCTGCGGCCCGCGGGCCCGGCGCTCCGGAGGCCGCGGG
 GACCGAGGCCTCCAGTGAGGAGGTGGGGATCGCGGAGGCCGCGGCCGAGCCCGAGGTGAGGACCGAGCCG
 GCGGCCGAGGACAGAGCGGCCCTCCGGCCCGTCCGAGTCCGCTCGCCGCGGCCGCGCCGAGGAGCTGCCCG
 GGTGCGATGCTGAGCCCTGTCCCGGCACAGGGCGAGGCCCCAGGAGAGCAGGCTCGGGACGAGCGCTC
 CGACAGCCGGGCCAGGCGGTGTCCGAGGACGCGGGAGGAAACGAGGGCAGAGCGGCCGAGGCCGAACCC
 CGGGCGTGGAGAATGGCGACGCGGACGAGCCCTCCTTCAGCGACCCGAGGACTTCGTGGACGACGTGA
 GCGAGGAAGAATTACTGGGAGATGTAACAAGATCGGCCCCAGGAAGCAGATGGAATCGATTCCGGTGAT
 TGTAGTGGACAATGCCCTCAGGTGGGACCCGACCGACTTGAGAACTCAAAAATGTCATCCACAAGATC
 TTTTCAAAGTTTGGGAAAATCACAAATGATTTTTATCCTGAAGAGGATGGGAAGACAAAAGGGTATATTT
 TCCTGGAGTACGCGTCCCTGCCACGCTGTGGATGCTGTGAAGAACGCCGACGGCTACAAGCTTGACAA
 GCAGCACACATCCGGGTCAACCTCTTTACGGATTTTGACAAGTATATGACGATCAGTGACGAGTGGGAT
 ATTCCAGAGAAACAGCCTTTCAAAGACCTGGGGAACCTTACGTTACTGGCTTGAAGAGGCAGAATGCAGAG
 ATCAGTACAGTGTGATTTTTGAGAGTGGAGACCGCACTTCCATATTCTGGAATGACGTAAGGACCTGT
 CTCAATTGAAGAAAGAGCGAGATGGACAGAGACGTATGTGCGTTGGTCTCCTAAGGGCACCTACCTGGCT
 ACCTTTTCATAAAGAGGCATTGCTCTATGGGGGGAGAGAAAATCAAGCAAATTCAGAGATTCAGCCACC
 AAGGGTTTCAGCTTATTGACTTTCACCTTGTGAAAGGTACCTGGTGACCTTTAGCCCTGATGGACAC
 GCAGGATGACCCTCAGGCCATAATCATCTGGGACATCCTTACGGGGCACAGAAGAGGGGTTTTCACTGT
 GAGAGCTCAGCCATTGGCCTATTTTTAAGTGGAGCCATGATGGCAAATTCCTTGGCAGAATGACCTGG
 ATACGCTTAGCATCTATGAACTCCTTCTATGGGTCTTTTGGACAAGAAGAGTTTGAAGATCTCTGGGAT
 AAAAGACTTTTCTGGTCTCCTGGTGGTAACATAATCGCCTTCTGGGTGCCTGAAGACAAAGATATTCCA
 GCCAGGTAACCTGATGCAGCTCCCTACCAGGCAAGAGATCCGAGTGAGGAACCTGTTCAATGTGGTGG
 ACTGCAAGCTCCATTGGCAGAAGAACGGAGACTACTTGTGTGTAAGTAGATAGGACTCCGAAAGGCAC
 CCAGGGTGTGTACAAAATTTGAAATTTCCGAATGAGGGAGAAACAGGTACCTGTGGATGTGGTCCGAG
 ATGAAAGAAACCATCATAGCCTTTGCCCTGGGAACCAAATGGAAGTAAGTTTGTGTGCTGCACGGAGAGG
 CTCGCGGATATCTGTGCTTTCTACCAGCTCAAAAACAACGGGAAGATTGAACTCATCAAGATGTTTGA
 CAAGCAGCAGGCGAACACCATCTTCTGGAGCCCCAAGGACAGTTCGTGGTGTGGCGGGCTGAGGAGT
 ATGAACGGTGCCTTAGCGTTTGTGGACACTTCGGACTGCACGGTGCATGAACATCGCAGAGCACTACATGG
 CTTCCGACGTGCAATGGGATCCTACTGGGCGCTACGTCGTACCTCTGTGCTCCTGGTGGAGCCATAAGGT
 GGACAACGCGTACTGGCTGTGGACTTCCAGGGACGCCTCCTGCAGAAGAACAACAAGGACCGCTTCTGC
 CAGCTGCTGTGGCGGCCCGCCCTCCACACTCCTGAGCCAGGAACAGATCAAGCAAATTAAGGATC
 TGAAGAAATACTAAGATCTTTGAACAGAAGGATCGTTTGTGAGTCAAGCAAGCCTCAAAGGAATTGGT
 GGAGAGAAGGCGCACCATGATGGAAGATTTCCGGAAGTACCGGAAAATGGCCAGGAGCTATATGGAG
 CAGAAAAACGAGCGCCTGGAGTTGCGAGGAGGGTGGACACTGACGAGCTGGACAGCAACGTGGACGACT
 GGAAGAGGAGACCATTGAGTTCTCGTCACTGAAGAAATCATTCCCCTCGGAATCAGGAG

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG211093 representing NM_003751
 Red=Cloning site Green=Tags(s)

```

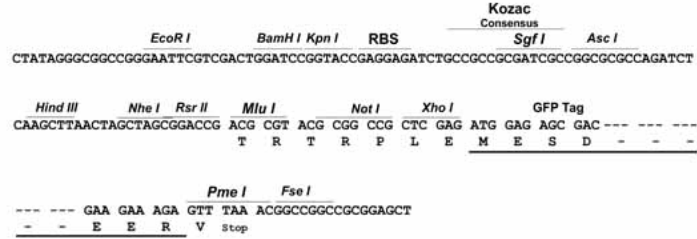
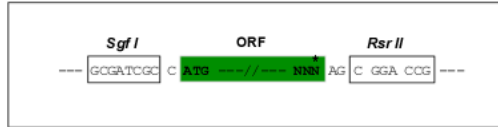
MQDAENVAVPEAAEERAEPGQQPAAEPPPAEGLLRPAGPGAPEAAGTEASSEEVGIAEAGPEPEVRTEP
AAEAEAASGPSESPSPAAEELPGSHAEPVPAQGEAPGEQARDERSDSRAQAVSEDAGGNEGRAEAEAP
RALENGDADEPSFSDPEDFVDDYSEEELLGDVLKDRPQEADGIDSVIVDNPVQVGPDRLEKLNVIHKI
FSKFGKITNDFYPEEDGKTKGYIFLEYASPAHAVDAVKNADGYKLDKQHTFRVNLFTDFDKYMTISDEWD
IPEKQPFKDLGNLRYWLEEAECRDQYSVIFESGDRTSIFWNDVKDPVSIERARWTETYVRWSPKGTyla
TFHQRGIALWGGEKFKQIQRFHQVQLIDFSPCERYLVTFSPMLDTQDDPQAIIIWDILTGHKRGRFHC
ESSAHWPIFKWSHDGKFFARMTLDTLSIYETPSMGLLDKSLKISGKDFSWSPGGNIIAFWVPEDKDIP
ARVTLMLQLPTRQEIRVRNLFNVVDCKLHWQKNGDYLCVKVDRTPKGTQGVVTFNFEIFRMREKQVPVDVVE
MKETIIAFWEPNGSKFAVLHGEAPRISVSFYHVKNNGKIELIKMFDKQQANTIFWSPQGQFVVLAGLRS
MNGALAFVDTSDCTVMNIAEHYMASDVEWDPTGRYVVTSVSWWSHKVDNAYWLWTFQGRLLQKNNKDRFC
QLLWRPRPPTLLSQEQIKQIKKDLKKYSKIFEQKDRLSQSKASKELVERRRTMMEDFRKYRQMAQELYME
QKNERLELRGGVDTDELDSNVDDWEEETIEFFVTEEIIPLGNQE
  
```

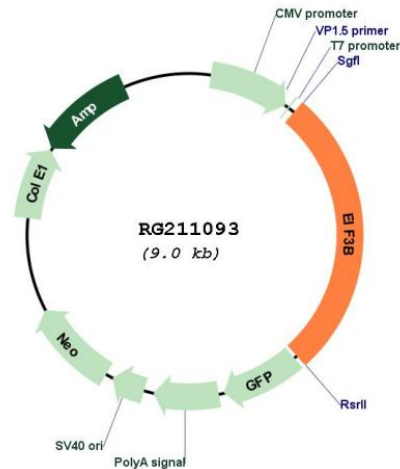
SGPTRRRLE - GFP Tag - V

Restriction Sites: Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:


ACCN: NM_003751

ORF Size: 2442 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_003751.3](#), [NP_003742.2](#)

RefSeq Size: 3009 bp

RefSeq ORF: 2445 bp

Locus ID: 8662

UniProt ID: [P55884](#)

Cytogenetics: 7p22.3

Domains: RRM

Gene Summary: RNA-binding component of the eukaryotic translation initiation factor 3 (eIF-3) complex, which is required for several steps in the initiation of protein synthesis (PubMed:9388245, PubMed:17581632, PubMed:25849773, PubMed:27462815). The eIF-3 complex associates with the 40S ribosome and facilitates the recruitment of eIF-1, eIF-1A, eIF-2:GTP:methionyl-tRNAⁱ and eIF-5 to form the 43S pre-initiation complex (43S PIC). The eIF-3 complex stimulates mRNA recruitment to the 43S PIC and scanning of the mRNA for AUG recognition. The eIF-3 complex is also required for disassembly and recycling of post-termination ribosomal complexes and subsequently prevents premature joining of the 40S and 60S ribosomal subunits prior to initiation (PubMed:9388245, PubMed:17581632). The eIF-3 complex specifically targets and initiates translation of a subset of mRNAs involved in cell proliferation, including cell cycling, differentiation and apoptosis, and uses different modes of RNA stem-loop binding to exert either translational activation or repression (PubMed:25849773). [UniProtKB/Swiss-Prot Function]