

## Product datasheet for MR206168

### EII3 (NM\_145973) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	EII3 (NM_145973) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	EII3
Synonyms:	A930015D22Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR206168 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGGGGACCCAGGAAGCTCTGAGTGGGAAAATGCGGCTCCTCTTACCCCCGCTGCTCGGACCAGCC  
TCCTGATGCTAAGGCTCAACGAGGCGCGCTGCGGCCATTGCAAGAGTGTGAGCAGCAACAGGTACGGCC  
AGTGATCGCTTCCAAGGCCACCGAGGGTACCTAAGGTTCCAGGCCGGGATGGTCTGCCTTTCTCC  
TTCATAGTATCCAGTGTGGCCAAGAGGGCACTAATGGTGGCTTGGACCTTGTGTACCAACGCTTAGGCA  
GATCTGGGCCGAAGTGTCTCCACTGCCTGGGCTCCCTTAGAGAGCGACTCACTATTTGGGCAGCCATGGA  
TACTATCCCAGCTCCACTGTTAGCTCAGGAACACCTGACTGAAGGTACCAGAGAGTCTGAGAGCTGGCAG  
GACACTGGAGACGAACCTGAAGGCCATCCCCAGCTGGCACCAGATGAGGTGTCTGACCCACTGGCAAGCC  
ACCATGAACAGTCACTCCAGGATCCTCCAGTGAAGCCATGGCACAATGGGAAAATGAGGAACCACTTA  
TCTTCCAAGCAGAGAGCCTGATCAGTCCCTGCTTTCCCTGCTAGCCAGAAACGCTGGACAAGAAACGT  
TCAGCACCTATAACCACTGAAGAACCAGAGGAAAAGAGGCTCAGAGCTCTGCCTTAGCCTCAAGTCCAC  
TACAAGGGCTAGCAAATCAGGACTCACAAGAGGGAGAAGACTGGGGCCAAGATGAAGATGAAGAGGGAGA  
TGAAGATGGAGATTCCAGGCTTGAAGCAGAGCCTCTCAGCTCCATCAGCCTCTGAATCCCCAAGCCCTGAG  
GAGGTACCAGATTATCTCTGCAATACAGAGCCATCCACAGCAGAGCAGCAACAGGCCATGAGCAGG  
ACTTTGAGACCGACTATGCTGAGTACCGATTCTGCATGCTCGAGTTGGGGCTGCAAGCCAGAGGTTCCAC  
AGAGCTGGGGCAGAGATCAAGAGACTTCAAGGAACTCCAGAACACAAGGTGCTGGAAGACAAGATA  
GTCCAGGAGTATAAAAAGTTCAAGAAAGCGGTATCCAAGTTACAGGGAGGAGAAGCATCGCTGTGAGTACC  
TGCATCAGAAACTGTCCACATTAAGGTTCTATCCTGGAATTTGAGGAGAAGAACAGGGGCAGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR206168 protein sequence  
Red=Cloning site Green=Tags(s)

```
MEGTQEALSGKMRLFLTPAARTSLLMLRLNEAALRALQECQQQVVPVIAFQGHRGYLRFPGPGWSCLFS
FIVSQCGQEGTNGGLDLVYQRLGRSGPNCLHCLGSLRERLTIWAAMDTIPAPLLAQEHLTEGTRESESWQ
DTGDEPEGHPLAPDEVSDPLASHHEQSLPGSSSEPMAQWEMRNHTYLPSPREPDQSLSPASQKRLDKKR
SAPITTEEPEEKRLRALPLASSPLQGLANQDSQEGEDWGQDEDEEGDEDGDSRLEQSLSPASASESPSPE
EVPDYLLQYRAIHSTEQQAYEQDFETDYAEYRILHARVGAASQRFTELGAIEIKRLRQGTPEHKVLEDKI
VQEYKFRKRYPSYREEKHRCEYLHQKLSHIKGLILEFEEKNRGS
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_145973

**ORF Size:** 1188 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\\_145973.2](#), [NP\\_666085.2](#)

**RefSeq Size:** 1745 bp

**RefSeq ORF:** 1188 bp

**Locus ID:** 269344

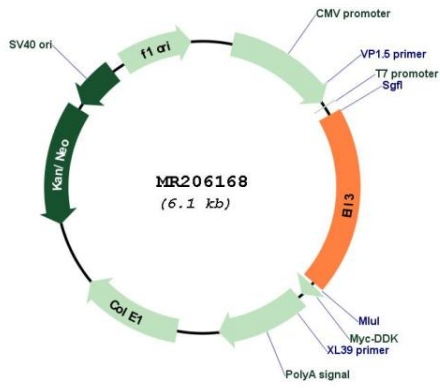
**UniProt ID:** [Q80VR2](#)

**Cytogenetics:** 2 E5

**MW:** 44.8 kDa

**Gene Summary:** Enhancer-binding elongation factor that specifically binds enhancers in embryonic stem cells (ES cells), marks them, and is required for their future activation during stem cell specification. Elongation factor component of the super elongation complex (SEC), a complex required to increase the catalytic rate of RNA polymerase II transcription by suppressing transient pausing by the polymerase at multiple sites along the DNA. Component of the little elongation complex (LEC), a complex required to regulate small nuclear RNA (snRNA) gene transcription by RNA polymerase II and III. Does not only bind to enhancer regions of active genes, but also marks the enhancers that are in a poised or inactive state in ES cells and is required for establishing proper RNA polymerase II occupancy at developmentally regulated genes in a cohesin-dependent manner. Probably required for priming developmentally regulated genes for later recruitment of the super elongation complex (SEC), for transcriptional activation during differentiation. Required for recruitment of P-TEFb within SEC during differentiation. Probably preloaded on germ cell chromatin, suggesting that it may prime gene activation by marking enhancers as early as in the germ cells. Promoting epithelial-mesenchymal transition (EMT).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR206168