

## Product datasheet for **MC215826**

### Efemp2 (NM\_021474) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Efemp2 (NM_021474) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Efemp2
Synonyms:	0610011K11Rik; Fbln4; MBP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >MC215826 representing NM\_021474  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCTCCCTTTTGCCTCCTGCCTCCCGGGTCTTTGCTGCTCTGGCGTTTCTGCTGTTGCTCTTGGGAG  
 CAGCGTCCCACAGGATCCCAGAGGCCGACAGCTACACGGAATGCACAGATGGCTATGAGTGGGATGC  
 AGACAGCCAGCACTGCCGGGATGTCAACGAGTGCCTGACCATCCCAGGAGGCTTGAAGGGTGAGATGAAA  
 TGCATCAACCACTACGGGGTTATTTGTGTCTGCCTCGCTCTGCTGCCGTCATCAGTGATCTCCATGGTG  
 AAGGACCTCCACCGCCAGCGGCCATGTCTCAACAACCAACCCTTCCCCGAGGGCTACGAGCCTGATGA  
 ACAGGAGAGCTGTGTGGATGTGGACGAGTGTACCCAGGCTTTCATGACTGTGCGCCTAGTCAGGACTGC  
 CATAACCTTCTGGCTCCTACCAGTGCACCTGCCCTGATGGTTACCGAAAAATTGGACCCGAATGTGTGG  
 ACATAGATGAGTGTGTTACCGCTATTGCCAGCATCGATGTGAACTGCCGGGCTCTTTTCGATGCCA  
 GTGTGAGCCAGGCTTCCAGTTGGGACCTAACAACCGCTCTGTGTGGATGTGAATGAGTGTGACATGGGA  
 GCCCATGTGAGCAGCGCTGTTCAACTCCTATGGGACCTTCTGTGTCGCTGTAAACCAGGGCTATGAGC  
 TGCACCGGGATGGCTTCTCCTGCAGCGATATCGATGAGTGCAGGCTACTCCAGTTACCTCTGCCAGTACCG  
 CTGTGTCAACGAGCCAGGCCGATTCTCCTGTCACTGCCCAAGGCTACCAGCTGCTGGCTACAAGGCTC  
 TGCCAAGATATTGACGAGTGTGAAACAGGTGCACACCAATGTTCTGAGGCCAAACCTGTGTCAACTTCC  
 ATGGGGTTACCCTGTGTGGACACCAACCGTGTGTGGAGCCCTATGTCCAAGTGTGAGACAACCGCTG  
 CCTCTGCCCTGCCTCCAATCCCCTTTGTGAGAGCAGCCTTACCCATTGTGACCGCTACATGAGCATC  
 ACCTCAGAGCGAAGTGTGCCTGCTGACGTGTTTCAGATCCAGGCAACCTCTGTCTACCCTGGTGCCTACA  
 ATGCCTTTCAGATCCGTTCTGGAACACACAGGGGGACTTCTACATTAGGCAAATCAACAATGTCAGCGC  
 CATGCTGGTCTCGCCAGGCCAGTGACGGGACCCCGGGAGTACGTGCTGGACCTGGAGATGGTCACCATG  
 AATTCCCTTATGAGCTACCGGGCCAGCTCTGACTGAGACTCACGGTCTTTGTGGGAGCCTATACCTTCT  
 GA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI

**ACCN:** NM\_021474

**Insert Size:** 1332 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](#)

**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\\_021474.3](#), [NP\\_067449.3](#)

**RefSeq Size:** 1561 bp

**RefSeq ORF:** 1332 bp

**Locus ID:** 58859

**UniProt ID:** [Q9WVJ9](#)

**Cytogenetics:** 19 A

**Gene Summary:** Plays a crucial role in elastic fiber formation in tissue, and in the formation of ultrastructural connections between elastic laminae and smooth muscle cells in the aorta, therefore participates in terminal differentiation and maturation of smooth muscle cell (SMC) and in the mechanical properties and wall integrity maintenance of the aorta (PubMed:16478991, PubMed:19855011, PubMed:20019329, PubMed:26486174, PubMed:26711913, PubMed:28508064). In addition, is involved in the control of collagen fibril assembly in tissue through proteolytic activation of LOX leading to cross-linking of collagen and elastin (PubMed:26690653, PubMed:26711913, PubMed:26220971, PubMed:26178373). Also promotes ELN coacervation and participates in the deposition of ELN coacervates on to microfibrils but also regulates ELN cross-linking through LOX interaction (PubMed:17324935). Moreover adheres to the cells through heparin binding in a calcium-dependent manner and regulates vascular smooth muscle cells proliferation through angiotensin signaling (PubMed:23636094).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) represents the more frequently occurring transcript.