

Product datasheet for **MC218345**

Efemp2 (NM_001164352) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Efemp2 (NM_001164352) 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: >MC218345 representing NM_001164352
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGGGGTGCTGTGGCAGAAACCCTGACTTCTGCCACCACCTCCCAGCCTCAGGATGCTCCCTTTTG
 CCTCTGCCTCCCGGGTCTTTGCTGCTCTGGGGTTTCTGCTGTTGCTCTTGGGAGCAGCGTCCCACA
 GGATCCCAGGAGCCGGACAGCTACACGAATGCACAGATGGCTATGAGTGGGATGCAGACAGCCAGCAC
 TGCCGGGATGTCAACGAGTGCCTGACCATCCCGGAGGCTTGAAGGGTGAGATGAAATGCATCAACCACT
 ACGGGGGTATTATTGTGTCTGCCTCGCTCTGCTGCCGTATCAGTGATCTCCATGGTGAAGGACCTCCACC
 GCCAGCGGCCATGCTCAACAACCAAACCTTGCCCGCAGGGCTACGAGCCTGATGAACAGGAGAGCTGT
 GTGGATGTGGACGAGTGTACCCAGGCTTGCATGACTGTCGCCCTAGTCAGGACTGCCATAACCTTCCTG
 GCTCTACCAGTGCACCTGCCCTGATGGTACCAGAAAAATGGACCCGAATGTGTGGACATAGATGAGTG
 TCGTTACCGCTATTGCCAGCATCGATGTGTGAACCTGCCGGGCTCTTTTCGATGCCAGTGTGAGCCAGGC
 TTCCAGTTGGGACCTAACACCGCTCTTGTGTGGATGTGAATGAGTGTGACATGGGAGCCCCATGTGAGC
 AGCGCTGCTTCAACTCCTATGGGACCTTCTGTGTCGCTGTAAACCAGGGCTATGAGCTGCACCGGGATGG
 CTTCTCCTGCAGCGATATCGATGAGTGGGCTACTCCAGTTACCTCTGCCAGTACCGCTGTGTCAACGAG
 CCAGGCCGATTCTCCTGTCACTGCCACAAGGCTACCAGCTGCTGGTACAAGGCTCTGCCAAGATATTG
 ACGAGTGTGAAACAGGTGCACACCAATGTTCTGAGGCCAAACCTGTGTCAACTTCCATGGGGGTTACCG
 CTGTGTGGACCAACCGTTGTGTGGAGCCCTATGTCCAAGTGTGAGACAACCGCTGCCTCTGCCCTGCC
 TCCAATCCCCTTTGTGAGAGCAGCCTTCCATCCATTGTGACCCGCTACATGAGCATCACCTCAGAGCGAA
 GTGTGCTGTGACGTGTTTCAGATCCAGGCAACCTCTGTCTACCCTGGTGCCTACAATGCCTTTTCAGAT
 CCGTTCTGGAAACACACAGGGGGACTTCTACATTAGGCAAAATCAACAATGTCAGCGCCATGCTGGTCCTC
 GCCAGGCCAGTGACGGGACCCCGGGAGTACGTGCTGGACCTGGAGATGGTCACCATGAATCCCTTATGA
 GCTACCGGCCAGCTCTGTACTGAGACTCACGGCTTTTGTGGAGCCTATACCTT**CTGA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_001164352
- Insert Size:** 1389 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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_001164352.1](#), [NP_001157824.1](#)

RefSeq Size: 1802 bp

RefSeq ORF: 1389 bp

Locus ID: 58859

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 (2) retains a segment in its 5' end which results in the use of an upstream start codon, compared to variant 1. The resulting protein (isoform 2) has a longer N-terminus when it is compared to isoform 1.