

Product datasheet for MR225915

Efemp2 (NM_021474) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Efemp2 (NM_021474) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Efemp2
Synonyms:	0610011K11Rik; Fbln4; MBP1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>MR225915 representing NM_021474 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCTCCCTTTGCTCCTGCCTCCCCGGGTCTTTGCTGCTCTGGGCGTTTCTGCTGTTGCTCTTGGGAG
CAGCGTCCCACAGGATCCCGAGGAGCCGACAGCTACACGGAATGCACAGATGGCTATGAGTGGGATGC
AGACAGCCAGCACTGCCGGGATGTCAACGAGTGCCTGACCATCCCGGAGGCTTGAAGGGTGAGATGAAA
TGCATCAACCACTACGGGGGTTATTTGTGTCTGCCTCGCTCTGCTGCCGTCATCAGTGATCTCCATGGTG
AAGGACCTCCACCGCCAGCGGCCATGTCTAACAAACCAACCCTTGCCCGCAGGGCTACGAGCCTGATGA
ACAGGAGAGCTGTGTGGATGTGGACGAGTGTACCCAGGCTTTGCATGACTGTGCGCCTAGTCAGGACTGC
CATAACCTTCTGGCTCTACCACTGCACCTGCCTGATGGTTACCGAAAAATTGGACCCGAATGTGTGG
ACATAGATGAGTGTGTTACCGCTATTGCCAGCATCGATGTGTAACCTGCCGGGCTCTTTTCGATGCCA
GTGTGAGCCAGGCTTCCAGTTGGGACCTAACAAACCGCTCTGTGTGGATGTGAATGAGTGTGACATGGGA
GCCCCATGTGAGCAGCGCTGCTTCAACTCCTATGGGACCTCCTGTGCTGCTGTAACCAAGGCTATGAGC
TGCACCGGATGGCTTCTCCTGCAGCGATATCGATGAGTGGGCTACTCCAGTTACCTCTGCCAGTACCG
CTGTGTCAACGAGCCAGGCCGATTCTCCTGTCACTGCCACAAGGCTACCAAGCTGCTGGCTACAAGGCTC
TGCCAAGATATTGACGAGTGTGAAACAGGTGCACACCAATGTTCTGAGGCCAAACCTGTGTCAACTTCC
ATGGGGGTTACCGCTGTGTGGACACCAACCGTTGTGTGGAGCCCTATGTCCAAGTGTGAGACAACCGCTG
CCTCTGCCCTGCCTCCAATCCCCTTTGTGAGAGCAGCCTTCAATCCATTGTGACCGCTACATGAGCATC
ACCTCAGAGCGAAGTGTGCTGTGACGTGTTTCAGATCCAGGCAACCTCTGTCTACCCTGGTGCCTACA
ATGCCTTTCAGATCCGTTCTGAAACACACAGGGGACTTCTACATTAGGCAATCAACAATGTCAGCGC
CATGCTGGTCTCGCCAGGCCAGTGACGGGACCCGGGAGTACGTGCTGGACCTGGAGATGGTACCATG
AATCCCTTATGAGCTACCGGGCCAGCTCTGTACTGAGACTCACGGTCTTTGTGGGAGCCTATACCTTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



Protein Sequence: >MR225915 representing NM_021474
 Red=Cloning site Green=Tags(s)

MLPFASCLPGSLLLWAFLLLLLGAASPQDPEEPDSYTECTDGYEWDADSQHCRDVNECLTIPEACKGEMK
 CINHYGGYLCLPRSAAVISDLHGEGPPPPAAHAQQPNPCPQGYEPDEQE SCVDVDECTQALHDCRPSQDC
 HNLPGSYQCTCPDGYRKIGPECVDIDECRYRYCQHRCVNLPGSFRQCCEPGFQLGPNNRSCVDVNECDMG
 APCEQRCFNISYGTFLCRCNQGYELHRDGFSCSDIDECGYSSYLQYRCVNEPGRFSCHCPQGYQLLATRL
 CQDIDECETGAHQCEAQT CVNFHGGYRCVDTNRCVEPYVQVSDNRCLCPASNPLCREQPSIVHRYMSI
 TSERSVPADV FQIQATS VYPGAYNAFQIRSGNTQGD FYIRQINNVSAMLVLARPVTGPREYVLDLEMVTM
 NSLMSYRASSVLRLTVFVGAYTF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

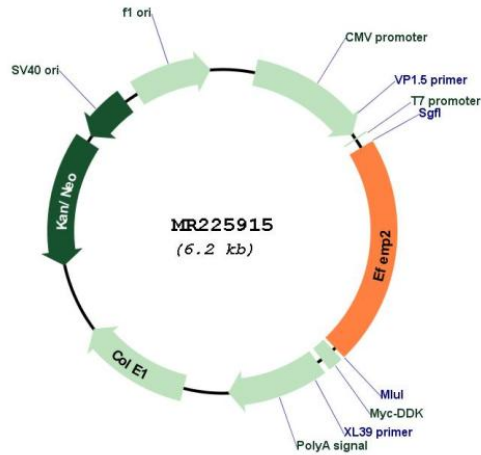
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:

NM_021474

ORF Size:	1329 bp
OTI Disclaimer:	<p>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 or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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
MW:	49.9 kDa

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]