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Product datasheet for MR207074

Efemp2 (NM_001164352) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Efemp2 (NM_001164352) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Efemp2
Synonyms:	0610011K11Rik; Fbln4; MBP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR207074 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCTCCCTTTTGCCTCCTGCCTCCCCGGGTCTTTGCTGCTCTGGGCGTTTCTGCTGTTGCTCTTGGGAG
CAGCGTCCCCACAGGATCCCGAGGAGCCGGACAGCTACACGGAATGCACAGATGGCTATGAGTGGGATGC
AGACAGCCAGCACTGCCGGGATGTCAACGAGTGCCTGACCATCCCGGAGGCTTGCAAGGGTGAGATGAAA
TGCATCAACCACTACGGGGGTTATTTGTGTCTGCCTCGCTCTGCTGCCGTCATCAGTGATCTCCATGGTG
AAGGACCTCCACCGCCAGCGGCCCATGCTCAACAACCAAACCCTTGCCCGCAGGGCTACGAGCCTGATGA
ACAGGAGAGCTGTGTGGATGTGGACGAGTGTACCCAGGCTTTGCATGACTGTCGCCCTAGTCAGGACTGC
CATAACCTTCCTGGCTCCTACCAGTGCACCTGCCCTGATGGTTACCGAAAAATTGGACCCGAATGTGTGG
ACATAGATGAGTGTCGTTACCGCTATTGCCAGCATCGATGTGTGAACCTGCCGGGCTCTTTTCGATGCCA
GTGTGAGCCAGGCTTCCAGTTGGGACCTAACAACCGCTCTTGTGTGGATGTGAATGAGTGTGACATGGGA
GCCCCATGTGAGCAGCGCTGCTTCAACTCCTATGGGACCTTCCTGTGTCGCTGTAACCAGGGCTATGAGC
TGCACCGGGATGGCTTCTCCTGCAGCGATATCGATGAGTGCGGCTACTCCAGTTACCTCTGCCAGTACCG
CTGTGTCAACGAGCCAGGCCGATTCTCCTGTCACTGCCCACAAGGCTACCAGCTGCTGGCTACAAGGCTC
TGCCAAGATATTGACGAGTGTGAAACAGGTGCACACCAATGTTCTGAGGCCCAAACCTGTGTCAACTTCC
ATGGGGGTTACCGCTGTGTGGACACCAACCGTTGTGTGGAGCCCTATGTCCAAGTGTCAGACAACCGCTG
CCTCTGCCCTGCCTCCAATCCCCTTTGTCGAGAGCAGCCTTCATCCATTGTGCACCGCTACATGAGCATC
ACCTCAGAGCGAAGTGTGCCTGCTGACGTGTTTCAGATCCAGGCAACCTCTGTCTACCCTGGTGCCTACA
ATGCCTTTCAGATCCGTTCTGGAAACACACAGGGGGACTTCTACATTAGGCAAATCAACAATGTCAGCGC
CATGCTGGTCCTCGCCAGGCCAGTGACGGGACCCCGGGAGTACGTGTTGGACCTGGAGATGGTCACCATG
AATTCCCTTATGAGCTACCGGGCCAGCTCTGTACTGAGACTCACGGTCTTTGTGGGAGCCTATACCTTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

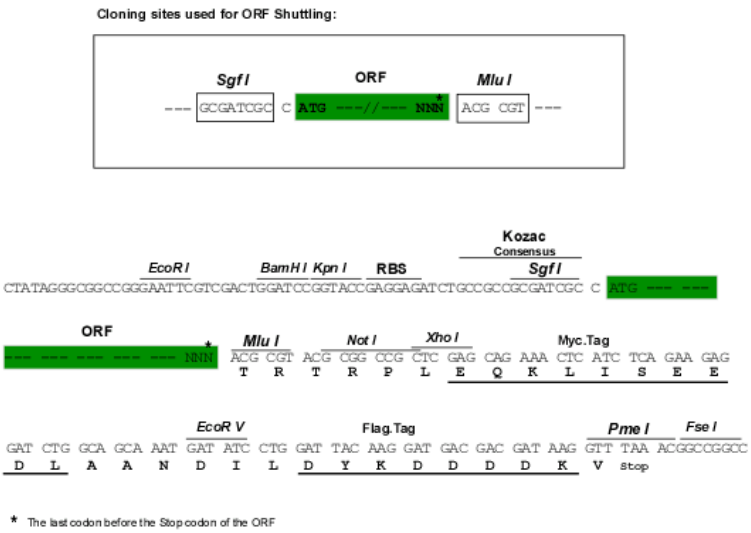
>MR207074 protein sequence
Red=Cloning site Green=Tags(s)

MLPFASCLPGSLLLWAFLLLLLGAASPQDPEEPDSYTECTDGYEWDADSQHCRDVNECLTIPEACKGEMK
CINHYGGYLCLPRSAAVISDLHGEGPPPPAAHAQQPNPCPQGYEPDEQESCVDVDECTQALHDCRPSQDC
HNLPGSYQCTCPDGYRKIGPECVDIDECRYRYCQHRCVNLPGSFRCQCEPGFQLGPNNRSCVDVNECDMG
APCEQRCFNSYGTFLCRCNQGYELHRDGFSCSDIDECGYSSYLCQYRCVNEPGRFSCHCPQGYQLLATRL
CQDIDECETGAHQCSEAQTCVNFHGGYRCVDTNRCVEPYVQVSDNRCLCPASNPLCREQPSSIVHRYMSI
TSERSVPADVFQIQATSVYPGAYNAFQIRSGNTQGDFYIRQINNVSAMLVLARPVTGPREYVLDLEMVTM
NSLMSYRASSVLRLTVFVGAYTF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001164352

ORF Size: 1332 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_001164352.1, NP_001157824.1

RefSeq Size: 1802 bp

RefSeq ORF: 1389 bp

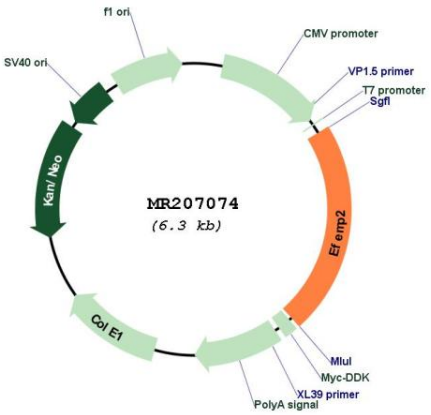
Locus ID: 58859

Cytogenetics: 19 A

MW: 49.4 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 throught 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 vascularlar smooth muscle cells proliferation through angiotensin signaling (PubMed:23636094).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR207074