OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC214653

EML4 (NM_019063) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EML4 (NM_019063) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	EML4
Synonyms:	C2orf2; ELP120; EMAP-4; EMAPL4; ROPP120
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC214653 representing NM_019063
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGACGGTTTCGCCGGCAGTCTCGATGATAGTATTTCTGCTGCAAGTACTTCTGATGTTCAAGATCGCC
TGTCAGCTCTTGAGTCACGAGTTCAGCAACAAGAAGATGAAATCACTGTGCTAAAGGCGGCTTTGGCTGA
TGTTTTGAGGCGTCTTGCAATCTCTGAAGATCATGTGGCCTCAGTGAAAAAATCAGTCTCAAGTAAAGGC
CAACCAAGCCCTCGAGCAGTTATTCCCATGTCCTGTATAACCAATGGAAGTGGTGCAAACAGAAAACCAA
GTCATACCAGTGCTGTCTCAATTGCAGGAAAAGAAACTCTTTCATCTGCTGCTAAAAGTGGTACAGAAAA
AAAGAAAGAAAAACCACAAGGACAGAGAGAAAAAAAAGAGGAATCTCATTCTAATGATCAAAGTCCACAA
ATTCGAGCATCACCTTCTCCCCAGCCCTCTTCACAACCTCTCCAAATACACAGACAAACTCCAGAAAGCA
AGAATGCTACTCCCACCAAAAGCATAAAACGACCATCACCAGCTGAAAAGTCACATAATTCTTGGGAAAA
TTCAGATGATAGCCGTAATAAATTGTCGAAAATACCTTCAACACCCAAATTAATACCAAAAGTTACCAAA
ACTGCAGACAAGCATAAAGATGTCATCATCAACCAAGAAGGAGAATATATTAAAATGTTTATGCGCGGTC
GGCCAATTACCATGTTCATTCCTTCCGATGTTGACAACTATGATGACATCAGAACGGAACTGCCTCCTGA
GAAGCTCAAACTGGAGTGGGCATATGGTTATCGAGGAAAGGACTGTAGAGCTAATGTTTACCTTCTTCCG
ACCGGGGAAATAGTTTATTTCATTGCATCAGTAGTAGTACTATTTAATTATGAGGAGAGAACTCAGCGAC
ACTACCTGGGCCATACAGACTGTGTGAAATGCCTTGCTATACATCCTGACAAAATTAGGATTGCAACTGG
ACAGATAGCTGGCGTGGATAAAGATGGAAGGCCTCTACAACCCCACGTCAGAGTGTGGGATTCTGTTACT
CTATCCACACTGCAGATTATTGGACTTGGCACTTTTGAGCGTGGAGTAGGATGCCTGGATTTTTCAAAAG
CAGATTCAGGTGTTCATTTATGTGTTATTGATGACTCCAATGAGCATATGCTTACTGTATGGGACTGGCA
GAAGAAAGCAAAAGGAGCAGAAATAAAGACAACAAATGAAGTTGTTTTGGCTGTGGAGTTTCACCCAACA
GATGCAAATACCATAATTACATGCGGTAAATCTCATATTTTCTTCTGGACCTGGAGCGGCAATTCACTAA
CAAGAAAACAGGGAATTTTTGGGAAATATGAAAAGCCAAAATTTGTGCAGTGTTTAGCATTCTTGGGGAA
TGGAGATGTTCTTACTGGAGACTCAGGTGGAGTCATGCTTATATGGAGCAAAACTACTGTAGAGCCCACA

View online »

CCTGGGAAAGGACCTAAAGGTGTATATCAAATCAGCAAACAAATCAAAGCTCATGATGGCAGTGTGTTCA
CACTTTGTCAGATGAGAAATGGGATGTTATTAACTGGAGGAGGGAAAGACAGAAAAATAATTCTGTGGGA
TCATGATCTGAATCCTGAAAGAGAAATAGAGGTTCCTGATCAGTATGGCACAATCAGAGCTGTAGCAGAA
GGAAAGGCAGATCAATTTTTAGTAGGCACATCACGAAACTTTATTTTACGAGGAACATTTAATGATGGCT
TCCAAATAGAAGTACAGGGTCATACAGATGAGCTTTGGGGTCTTGCCACACATCCCTTCAAAGATTTGCT
CTTGACATGTGCTCAGGACAGGCAGGTGTGCCTGTGGAACTCAATGGAACACAGGCTGGAATGGACCAGG
CTGGTAGATGAACCAGGACACTGTGCAGATTTTCATCCAAGTGGCACAGTGGTGGCCATAGGAACGCACT
CAGGCAGGTGGTTTGTTCTGGATGCAGAAACCAGAGATCTAGTTTCTATCCACACAGACGGGAATGAACA
GCTCTCTGTGATGCGCTACTCAATAGATGGTACCTTCCTGGCTGTAGGATCTCATGACAACTTTATTTAC
CTCTATGTAGTCTCTGAAAATGGAAGAAAATATAGCAGATATGGAAGGTGCACTGGACATTCCAGCTACA
TCACACACCTTGACTGGTCCCCAGACAACAAGTATATAATGTCTAACTCGGGAGACTATGAAATATTGTA
CTGGGACATTCCAAATGGCTGCAAACTAATCAGGAATCGATCGGATTGTAAGGACATTGATTGGACGACA
TATACCTGTGTGCTAGGATTTCAAGTATTTGGTGTCTGGCCAGAAGGATCTGATGGGACAGATATCAATG
CACTGGTGCGATCCCACAATAGAAAGGTGATAGCTGTTGCCGATGACTTTTGTAAAGTCCATCTGTTTCA
GTATCCCTGCTCCAAAGCAAAGGCTCCCAGTCACAAGTACAGTGCCCACAGCAGCCATGTCACCAATGTC
AGTTTTACTCACAATGACAGTCACCTGATATCAACTGGTGGAAAAGACATGAGCATCATTCAGTGGAAAC
TTGTGGAAAAGTTATCTTTGCCTCAGAATGAGACTGTAGCGGATACTACTCTAACCAAAGCCCCCGTCTC
TTCCACTGAAAGTGTCATCCAATCTAATACTCCCACACCGCCTCCTTCTCAGCCCTTAAATGAGACAGCT
GAAGAGGAAAGTAGAATAAGCAGTTCTCCCACACTTCTGGAGAACAGCCTGGAACAAACTGTGGAGCCAA
GTGAAGACCACAGCGAGGAGGAGAGTGAAGAGGGCAGCGGAGACCTTGGTGAGCCTCTTTATGAAGAGCC
ATGCAACGAGATAAGCAAGGAGCAGGCCAAAGCCACCCTTCTGGAGGACCAGCAAGACCCTTCGCCCTCG
TCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

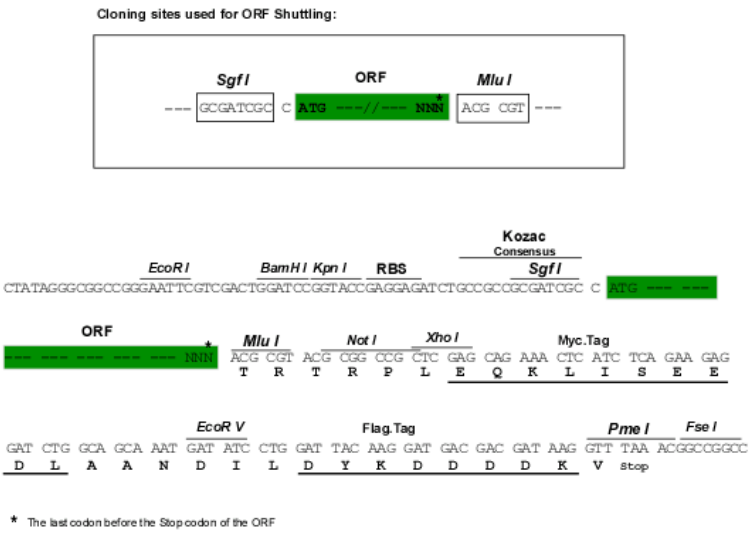
>RC214653 representing NM_019063
Red=Cloning site Green=Tags(s)

MDGFAGSLDDSISAASTSDVQDRLSALESRVQQQEDEITVLKAALADVLRRLAISEDHVASVKKSVSSKG
QPSPRAVIPMSCITNGSGANRKPSHTSAVSIAGKETLSSAAKSGTEKKKEKPQGQREKKEESHSNDQSPQ
IRASPSPQPSSQPLQIHRQTPESKNATPTKSIKRPSPAEKSHNSWENSDDSRNKLSKIPSTPKLIPKVTK
TADKHKDVIINQEGEYIKMFMRGRPITMFIPSDVDNYDDIRTELPPEKLKLEWAYGYRGKDCRANVYLLP
TGEIVYFIASVVVLFNYEERTQRHYLGHTDCVKCLAIHPDKIRIATGQIAGVDKDGRPLQPHVRVWDSVT
LSTLQIIGLGTFERGVGCLDFSKADSGVHLCVIDDSNEHMLTVWDWQKKAKGAEIKTTNEVVLAVEFHPT
DANTIITCGKSHIFFWTWSGNSLTRKQGIFGKYEKPKFVQCLAFLGNGDVLTGDSGGVMLIWSKTTVEPT
PGKGPKGVYQISKQIKAHDGSVFTLCQMRNGMLLTGGGKDRKIILWDHDLNPEREIEVPDQYGTIRAVAE
GKADQFLVGTSRNFILRGTFNDGFQIEVQGHTDELWGLATHPFKDLLLTCAQDRQVCLWNSMEHRLEWTR
LVDEPGHCADFHPSGTVVAIGTHSGRWFVLDAETRDLVSIHTDGNEQLSVMRYSIDGTFLAVGSHDNFIY
LYVVSENGRKYSRYGRCTGHSSYITHLDWSPDNKYIMSNSGDYEILYWDIPNGCKLIRNRSDCKDIDWTT
YTCVLGFQVFGVWPEGSDGTDINALVRSHNRKVIAVADDFCKVHLFQYPCSKAKAPSHKYSAHSSHVTNV
SFTHNDSHLISTGGKDMSIIQWKLVEKLSLPQNETVADTTLTKAPVSSTESVIQSNTPTPPPSQPLNETA
EEESRISSSPTLLENSLEQTVEPSEDHSEEESEEGSGDLGEPLYEEPCNEISKEQAKATLLEDQQDPSPS
S

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_019063

ORF Size: 2943 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 or by calling 301.340.3188 option 3 for pricing and delivery.

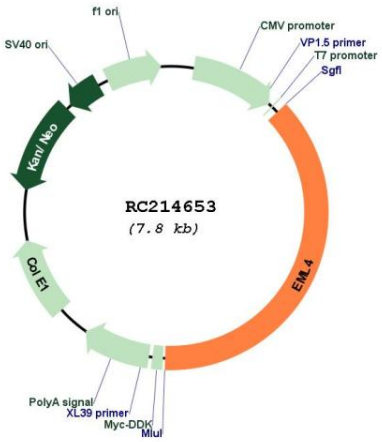
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

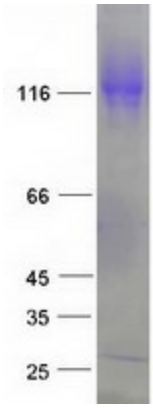
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_019063.4
RefSeq Size:	5539 bp
RefSeq ORF:	2946 bp
Locus ID:	27436
UniProt ID:	Q9HC35
Cytogenetics:	2p21
Domains:	WD40, HELP
Protein Families:	Druggable Genome
MW:	108.7 kDa
Gene Summary:	This gene is a member of the echinoderm microtubule associated protein-like family. The encoded WD-repeat protein may be involved in microtubule formation. Abnormal fusion of parts of this gene with portions of the anaplastic lymphoma receptor tyrosine kinase gene, which generates EML4-ALK fusion transcripts, is one of the primary mutations associated with non-small cell lung cancer. Alternative splicing of this gene results in two transcript variants. [provided by RefSeq, Jan 2015]

Product images:



Circular map for RC214653



Coomassie blue staining of purified EML4 protein (Cat# [TP314653]). The protein was produced from HEK293T cells transfected with EML4 cDNA clone (Cat# RC214653) using MegaTran 2.0 (Cat# [TT210002]).