

Product datasheet for **RC220584**

MEF2C (NM_002397) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MEF2C (NM_002397) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MEF2C
Synonyms:	C5DELq14.3; DEL5q14.3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC220584 representing NM_002397
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGGGAGAAAAAGATTACAGTTACGAGGATTATGGATGAACGTAACAGACAGGTGACATTTACAAGA
 GGAAATTTGGTTGATGAAGAAGGCTTATGAGCTGAGCGTGCTGTGTACTGTGAGATTGCGCTGATCAT
 CTTCAACAGCACCAACAAGCTGTTCCAGTATGCCAGCACCGACATGGACAAAGTGCTTCTCAAGTACAG
 GAGTACAACGAGCCGCATGAGAGCCGGACAACTCAGACATCGTGGAGACGTTGAGAAAGAAGGGCCTTA
 ATGGCTGTGACAGCCAGACCCCGATGCGGACGATTCCGTAGGTCACAGCCCTGAGTCTGAGGACAAGTA
 CAGGAAAATTAACGAAGATTTGATCTAATGATCAGCAGGCAAAGATTGTGTGCTGTTCCACCTCCCAAC
 TTCGAGATGCCAGTCTCCATCCAGTGTCCAGCCACAACAGTTTGGTGTACAGCAACCCTGTCAGCTCAC
 TGGGAAACCCCAACCTATTGCCACTGGCTACCCTTCTCTGCAGAGGAATAGTATGTCTCCTGGTGAAC
 ACATCGACCTCCAAGTGCAGGTAACACAGGTGGTCTGATGGTGGAGACCTCACGCTGGTGCAGGCACC
 AGTGCAGGGAACGGGTATGGCAATCCCCGAACTACCAGGTCTGCTGGTCTCACCTGGTAACTGAACA
 AGAATATGCAAGCAAAATCTCCTCCCCCAATGAATTTAGGAATGAATAACCGTAAACCAGATCTCCGAGT
 TCTTATCCACCAGGCAGCAAGAATACGATGCCATCAGTGTCTGAGGATGTGACCTGCTTTTGAATCAA
 AGGATAAACTCCAGTCGGCTCAGTCATTGGTACCCAGTGGTTCCGTAGCAACTCTACTTTAC
 CAGGACAAGGAATGGGAGGATATCCATCAGCCATTTCAACAACATATGGTACCGAGTACTCTGAGTAG
 TGCAGACCTGTCTCTGTCTGGGTTAACACCGCCAGCGCTTTCACCTTGGTTCAGTAACTGGCTGG
 CAACAGCAACACCTACATAACATGCCACCATCTGCCCTCAGTCAGTTGGGAGCTTGCACTAGCACTCATT
 TATCTCAGAGTTCAAATCTCTCCCTGCCTCTACTCAAAGCCTCAACATCAAGTCAGAAGCTGTTTCTCC
 TCCTAGAGACCGTACCACCACCCCTTCGAGATACCCACAACACACGCGCCACGAGGCGGGAGATCTCCT
 GTTGACAGCTTGAGCAGCTGTAGCAGTTCGTACGACGGGAGCGACCGAGAGGATCACCGGAACGAATTCC
 ACTCCCCATTGGACTACCAGACCTTCGCCGGACGAAAGGGAAAGTCCCTCAGTCAAGCGCATGCGACT
 TTCTGAAGGATGGGCAACA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC220584 representing NM_002397
 Red=Cloning site Green=Tags(s)

MGRKKIQITRIMDERNRQVFTTKRKFGLMKKAYELSVLCDCEIALIIFNSTNKL FQYASTMDKVLKLYT
 EYNPHESTRNSDIVETLRKKGLNGCDSPDPDADDSVGHSPESDKYRKINEDIDLMSRQRLCAVPPPN
 FEMPVSI PVSSHNSLVSNPVSSLGNPNLLPLAHPQLRNSMSPGVTHRPPSAGNTGGLMGDLTSGAGT
 SANGYGNPRNSPGLLVSPGNLNKNMQAKSPPPMNLGMNRPDLRVLIPPGSKNTMPSVSEDVDLLLNQ
 RINNSQSAQSLATPVVSVATPTLPQGGMGYPSAISTTYGTEYSLSSADLSSLSGFNTASALHLGSVTGW
 QQQHLHNMPPSALSQLGACTSTHLSQSSNLSLPSTQSLNIKSEPVSPDRRTTTPSRYPQHRHEAGRSP
 VDSLSSCSSSYDGSREDHRNEFHSPIGLTRPSPDERESPSVKRMRLSEGWAT

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6271_c08.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

ACCN: NM_002397

ORF Size: 1419 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_002397.5](#)

RefSeq Size: 4077 bp

RefSeq ORF: 1422 bp

Locus ID: 4208

UniProt ID: [Q06413](#)

Cytogenetics: 5q14.3

Domains: MADS

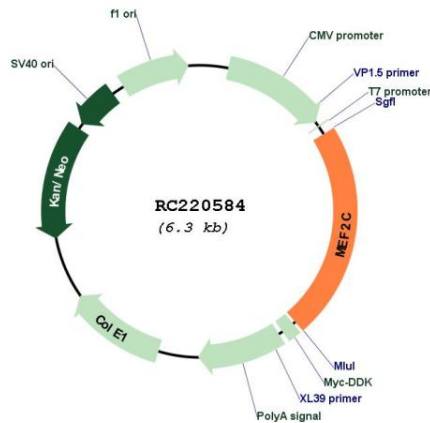
Protein Families: Transcription Factors

Protein Pathways: MAPK signaling pathway

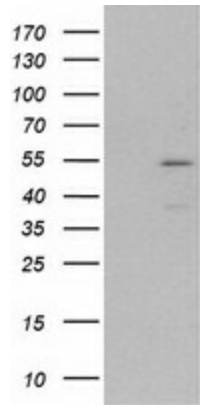
MW: 51 kDa

Gene Summary: This locus encodes a member of the MADS box transcription enhancer factor 2 (MEF2) family of proteins, which play a role in myogenesis. The encoded protein, MEF2 polypeptide C, has both trans-activating and DNA binding activities. This protein may play a role in maintaining the differentiated state of muscle cells. Mutations and deletions at this locus have been associated with severe cognitive disability, stereotypic movements, epilepsy, and cerebral malformation. Alternatively spliced transcript variants have been described. [provided by RefSeq, Jul 2010]

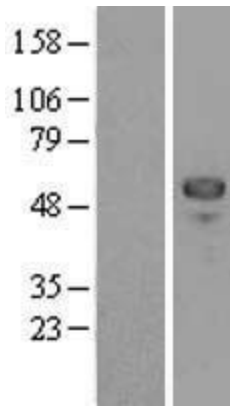
Product images:



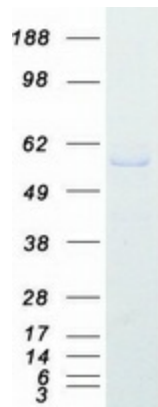
Circular map for RC220584



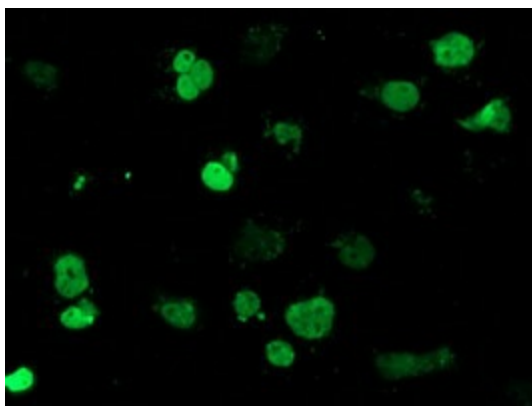
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MEF2C (Cat# RC220584, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MEF2C (Cat# [TA502565]). Positive lysates [LY419349] (100ug) and [LC419349] (20ug) can be purchased separately from OriGene.



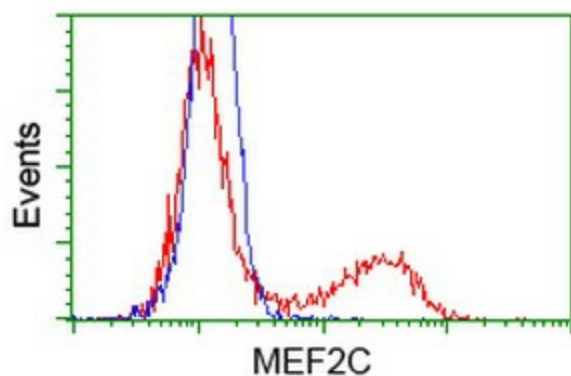
Western blot validation of overexpression lysate (Cat# [LY419349]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220584 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MEF2C protein (Cat# [TP320584]). The protein was produced from HEK293T cells transfected with MEF2C cDNA clone (Cat# RC220584) using MegaTran 2.0 (Cat# [TT210002]).



Anti-MEF2C mouse monoclonal antibody ([TA502565]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY MEF2C (RC220584).



HEK293T cells transfected with either RC220584 overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-MEF2C antibody ([TA502565]), and then analyzed by flow cytometry.