

## Product datasheet for RC210156

### MYF5 (NM\_005593) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MYF5 (NM_005593) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MYF5
Synonyms:	bHLHc2; EORVA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210156 representing NM_005593 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGACGTGATGGATGGCTGCCAGTTCTCACCTTCTGAGTACTTCTACGACGGCTCCTGCATACCGTCCC  
CCGAGGGTGAATTTGGGACGAGTTTGTGCCGCGAGTGGCTGCCTTCGGAGCGCACAAAGCAGAGCTGCA  
GGGCTCAGATGAGGACGAGCACGTGCGAGCGCCTACCGGCCACCACCAGGCTGGTCACTGCCTCATGTGG  
GCCTGCAAAGCCTGCAAGAGGAAGTCCACCACCATGGATCGGCGGAAGGCAGCCACTATGCGCGAGCGGA  
GGCGCCTGAAGAAGGTCAACCAGGCTTTCGAAACCCTCAAGAGGTGTACCACGACCAACCCCAACCAGAG  
GCTGCCCAAGGTGGAGATCCTCAGGAATGCCATCCGCTACATCGAGAGCCTGCAGGAGTTGCTGAGAGAG  
CAGGTGGAGAACTACTATAGCCTGCCGGACAGAGCTGCTCGGAGCCCACCAGCCCCACCTCCAAGTCT  
CTGATGGCATGCCGAATGTAACAGTCTGTCTGGTCCAGAAAGAGCAGTACTTTTGACAGCATCTACTG  
TCCTGATGTATCAAATGTATATGCCACAGATAAAAACCTCTTATCCAGCTTGGATTGCTTATCCAACATA  
GTGGACCGGATCACCTCCTCAGAGCAACCTGGGTTGCCTCCTCAGGATCTGGCTTCTCTCTCCAGTTG  
CCAGCACCGATTACAGCCTGCAACTCCAGGGGCTTAGTTCAGGCTTATCTATCATGTGCTA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC210156 representing NM\_005593  
Red=Cloning site Green=Tags(s)

MDVMDGCQFSPSEYFYDGCIPSPGEGFDEFVPRVAAFGAHKAEIQGSDDEHVRAPTGHHQAGHCLMW  
 ACKACKRKSTTMDRRKAATMRERRRLKKNQAFETLKRCTTTNPNQRLPKVEILRNAIRYIESLQELLRE  
 QVENYYSLPGQSCSEPTSPNSDCGMPECNSPVWSRKSSTFDSIYCPDVSNNVYATDKNSLSSLDCLSN  
 VDRITSSEQPLPLQDLASLSPVASTDSQPRTPGASSRLLIYHVL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg3202\\_b01.zip](https://cdn.origene.com/chromatograms/mg3202_b01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_005593

**ORF Size:** 765 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_005593.3](#)

**RefSeq Size:** 1427 bp

**RefSeq ORF:** 768 bp

**Locus ID:** 4617

**UniProt ID:** [P13349](#)

**Cytogenetics:** 12q21.31

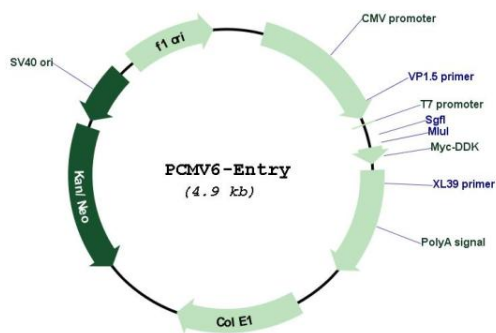
**Domains:** HLH, Basic

**Protein Families:** Druggable Genome, Transcription Factors

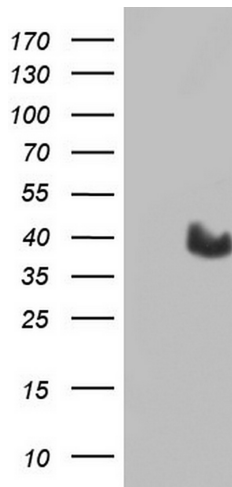
**MW:** 28.1 kDa

**Gene Summary:** Transcriptional activator that promotes transcription of muscle-specific target genes and plays a role in muscle differentiation (PubMed:29887215). Together with MYOG and MYOD1, co-occupies muscle-specific gene promoter core region during myogenesis. Induces fibroblasts to differentiate into myoblasts. Probable sequence specific DNA-binding protein. [UniProtKB/Swiss-Prot Function]

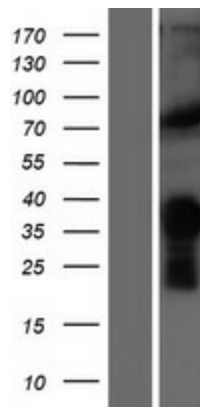
### Product images:



Circular map for RC210156



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MYF5 (Cat# RC210156, 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-MYF5 (Cat# [TA804187]). Positive lysates [LY417200] (100ug) and [LC417200] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY417200]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210156 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).