

## Product datasheet for **RR207155**

### Myh10 (NM\_031520) Rat Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Myh10 (NM\_031520) Rat Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Myh10  
**Synonyms:** MCH-B; NMMHC-B; SMemb  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RR207155 representing NM\_031520  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGCCCAGAACTGGACTGGAGGATCCCGAGAGGTATCTCTTTGTGGACAGGGCTGTCATCTACAACC  
CTGCCACTCAAGCTGACTGGACAGCTAAAAGCTGGTGTGGATCCATCTGAACGCCATGGTTTTGAGGC  
AGCTAGTATTAAGAAGAACGGGGCGATGAGGTTATGGTGGAGCTGGCAGAGAACGGGAAGAAAGCGATG  
GTCAACAAAGATGACATTCAGAAGATGAACCCGCCGAAGTTCTCCAAGGTGGAGGACATGGCAGAGCTCA  
CGTGCTTGAACGAAGCCTCTGTTTTACACAATCTGAAGGATCGCTACTATTCAGGACTCATCTATACTTA  
CTCGGGACTCTTCTGTGTGGTATAAATCCCTACAAGAACCTTCCGATTTACTCTGAGAATATTATTGAG  
ATGTACAGAGGGAAGAAGCGCCATGAGAAGCCGCCACACATCTACGCCATATCAGAGTCTGCCTACAGAT  
GCATGCTTCAAGATCGTAAGGACCAGTCGATTTTGCACGGGTGAATCAGGTGCCGGGAAGACAGAAAA  
TACAAAGAAAGTCATTCAGTACCTTGCCACGTTGCTTCTCACACAAAGGAAGAAAGGACCACAATATT  
CCTGGGGAACCTGAACGGCAGCTTTTACAAGCAAATCCAATTCTGGAATCATTGGAAATGCGAAGACTG  
TGAAAAATGATAACTCATCTCGCTTTGGCAAGTTATCCGGATCAACTTTGATGTAACCGGCTATATTGT  
TGGGGCCAAACATTGAAACATACCTTCTGGAAAAGTCCCCTGCTGTTTCGTCGCAAGCTAAAGATGAACGCACG  
TTTCATATCTTTTATCAGTTGCTCTCTGGAGCAGGGGAACACCTGAAGTCCGACTTACTCTGGAAGGCT  
TTAATAACTACAGATTCCTCTCCAACGGCTACATCCCTATTCTGGACAGCAAGACAAGGATAAATTCA  
GGAGACCATGGAAGCCATGCACATAATGGGCTTCTCTCACGAAGAGATCCTCTCAATGCTTAAAGTCGTG  
TCTTCAGTGTGCAGTTTGGAAACATCTCTTTCAAAAAGGAGAGGAACACTGACCAAGCTTCCATGCCCG  
AGAACACAGTTGCACAGAAACTCTGCCACCTGCTTGGGATGAATGTGATGGAGTTCACTCGGGCTATCCT  
CACGCCAGGATCAAAGTTGGCCGAGATTATGTACAGAAAAGCCAGACCAAGAGCAGGCAGATTTTGA  
GTGGAAGCATTGGCAAAGGCTACCTATGAGCGGTTGTTTCGCTGGCTCGTTCACCGCATCAATAAGCGC  
TGGATAGGACCAACGCCAGGGAACGTCTTTCATTGGGATCCTGGATATTGCTGGTTTTGAAATTTTGA  
GCTGAACTCCTTTGAACAACTATGCATCAACTACCAATGAGAAGCTGCAGCAGCTGTTCAACCAACC  
ATGTTTCATCTGGAGCAGGAGGAGTACCAGCGAGAGGGCATCGAGTGGAACTTCATCGACTTTGGTCTCG



ACTTGCAGCCCTGCATCGACCTGATAGAGAGACCTGCCAATCCCCCTGGTGTGCTGGCCCTCCTGGATGA  
AGAATGCTGGTTCCCAAGCCACAGACAAAACGTTTGTGAGAAGCTGGTTCAGGAGCAAGGTTCCCCAC  
TCCAAGTTTCAGAAACCACGGCAACTGAAAGACAAAGCCGACTTCTGCATCATCCACTATGCAGGGAAGG  
TGGACTATAAGGCGGATGAGTGGCTGATGAAGAACATGGACCCCTGAATGACAACGTGGCCACCCTCCT  
GCACCAGTCATCAGACAGATTTGTCGCCGAGCTTTGGAAGGATGTGGACCGAATTGTAGGCTGGATCAA  
GTCACCTGGCATGACTGAGACAGCTTTGGCTCTGCATATAAAACCAAGAAGGGCATGTTCCGCAACGTCCG  
GGCAGCTCTACAAAGAGTCTCTACCAAGCTCATGGCAACCCTCGAAACACCAACCCCAACTTCGTAGC  
CTGCATCATTCCAAATCACGAGAAGCGGCTGGAAAACCTGGATCCACATCTTGTGCTGGATCAGCTCCGC  
TGTAACGGTGTCTGGAAGGAATCAGGATCTGTGCGCCAGGGATTCCCAACCCGATAGTTTTCCAGGAGT  
TCAGACAGAGATATGAGATCCTAACTCCCAACGCTATTCCCAAGGCTTCATGGATGGCAACAGGCCTG  
TGAGCGAATGATCCGAGCTTTAGAACTGGACCCAAACCTGTATAGAATTGGACAGAGCAAGATATTTTTT  
CGAGCTGGAGTTCTGGCGCACTTAGAGGAAGAAAGAGATTTAAAAATCACTGATATAATCATCTTTTTCC  
AAGCTGTATGCAGAGGCTACCTAGCCAGAAAGGCTTTGCCAAGAAACAGCAGCAGCTAAGTGCCTTAAA  
GGTCTTGACGCGAACTGTGCGGCTACCTGAAGCTGCGACACTGGCAGTGGTGGCGCTTTCACAAG  
GTGAAGCTCTCCTCCAAGTGACCCGCCAGGAGGAGCTCCAGGCTAAAGATGAGGAGCTGCTGAAGG  
TGAAAGAGAAGCAGACAAAAGTGAAGGGGAACCTTGAGGAGATGGAACCGAAGCACCAGCAGCTGCTGGA  
AGAGAAGAAATATCCTGGCAGAACAGCTGCAGGCCGAGACTGAGCTCTTGTCTGAAGCAGAGGAGATGAGA  
GCAAGACTCGCTGCCAAGAAGCAGGAACCTGGAGGAGATCCTCCATGACCTGGAGTCCAGGGTGGAGGGAG  
AGGAAGAGCGAAACCAGATCCTGCGAAGCAGAGAAGAAGAAGATGCAAGCGCACATTCAGGATCTAGAAGA  
GCAACTGGATGAGGAGGAGGGGGCGCGGAAAAGCTGCAGCTGGAGAAGGTGACCGCGGAGGCTAAAATC  
AAGAAGATGGAAGAGGAGGTTCTGCTTCTCGAGGACCAGAATTCCAAATTTATCAAGAAAAAGAACTCA  
TGAAGATCGAATTGCTGAGTGTCTCTCAGCTGGCTGAAGAGGAAGAAAAGGCAAAAACCTTAGCCAA  
AATCAGGAATAAGCAAGAAGTGATGATCTCGGATTTAGAAGAAGCTTGAAGAAGGAGGAGAAAACACGG  
CAGGAACCTGGAAGGCAAAACGAAACTGGACGGTGAACAACACTGATCTGCAGGACAGATCGCCGAGT  
TGCAAGCACAGGTCGATGAGCTCAAAGTCCAGTTGACCAAGAAGGAGGAGGAGCTTCAGGGGGCGTGGC  
CAGAGGAGATGATGAGACGCTGCACAAGAATAATGCGCTTAAAGTTGCGCGGAGCTGCAGGCCAAATC  
GCCGAGCTCCAGGAAGACTTTGAGTCTGAAAAGGCTTCAAGGAACAAGGCTGAGAAAACAAAACGGGACC  
TGAGTGAGGAGCTGGAAGCTCTAAAGACAGAACTGGAGGACACCTAGACACCACAGCAGCTCAGCAGGA  
ACTCCGCACAAAGCGGGAGCAGGAAGTGTGAGCTGAAGAAGGCTCTTGAGGATGAAACTAAGAACCAC  
GAAGCTCAGATCCAGGACATGAGACAGAGGCACGCCACGGCACTGGAGGAACTCTCTGAGCAACTGGAAC  
AGGCTAAGAGGTTCAAAGCCAATCTGGAGAAGAACAACAGGGCTGGAGACGGACAACAAGGAGCTGGC  
GTGTGAGGTGAAGGTGCTGCAGCAAGTCAAGGCTGAGTCAAGGACAAGGAGAAGAGCTCGATGCCAG  
GTCCAGGAGCTCCACGCCAAGGTGTGAGAAGGTGACAGGCTCAGGGTAGAACTGGCCGAGAAAGCAAACA  
AGCTACAGAATGAGCTGGATAATGTCTCAACCCTGCTGGAAGAAGCCGAGAAGAAAGGAATGAAGTTCGC  
TAAGGACGCCGAGGCTCGAGTCTCAGCTACAGGACACACAGGAGCTCCTTCAGGAGGAGACGCGGCAG  
AAACTGAACCTGAGCAGTCGGATCCGGCAGCTGGAGGAGGAGAAGAACAGCCTTCAGGAGCAGCAGGAGG  
AGGAAGAGGAGGCCAGGAAGAACTTGGAAAAGCAGGTGTTGGCCCTGCAGTCCCAGCTGGCTGACACCAA  
GAAGAAAGTGGACGATGACCTGGGGACAATTGAGGTTTGAAGAAGCCAAGAAGAACTGCTTAAGGAC  
GTGGAGGCACTGAGTCAGCGACTGGAGGAAAAGTCTAGCATATGACAAGCTGGAGAAGACCAAGAAC  
GGCTGCAACAGGAGCTGGATGACCTGACGGTGGACCTGGACCACAGCCAGATCGTCTCCAACCTTGGGA  
GAAGAAACAGAAGAAGTTTGACCAGCTGTTGGCAGAAGAGAAGGGCATCTCTGCTCGCTATGCAAGAAGAA  
CGGGACCGGGCTGAAGCTGAGGCCAGAGAGAAAGAAACCAAGGCCTCTCCCTGGCGCGGGCCCTGGAGG  
AGGCCTTGAGAGCCAAGGAGGAATTCGAGAGGCAGAATAAGCAGCTTCGGGCAGACATGGAAGACCTCAT  
GAGCTCGAAAGATGATGTGGGAAGAACGTCCACGAGCTGGAGAAGTCCAAGCGGGCCCTGGAGCAGCAG  
GTGGAGGAGATGAGGACCAGCTGGAGGAGCTGGAGGACGAGTTGACAGGCCACTGAGGACGCCAACTCC  
GCCTGGAAGTCAACATGCAGGCCATGAAGGCCAGTTTGAAGGGACCTGCAACACAGAGATGAGCAGAA  
TGAAGAGAAGAAGCGGCTGCTGCTCAAGCAGGTACGGGAGCTCGAGGCAGAGCTGGAGGATGAGCGGAAG  
CAGCGGGCACTTCTGTGGCTTCAAAGAAGAAGATGGAGATAGACCTGAAGGACCTGGAGGCTCAGATCG  
AGGCCGCCAACAAGGCCGGGATGAAGTGTCAAGCAGCTTCGCAAGCTTCAGGCACAGATGAAGGATTA  
CCAGCGTGAACCTAGAAGAAGCTCGAGCATCTAGAGATGAGATTTTTGCTCAATCCAAAGAAAAGTGAAGAG  
AAACTGAAGAGTCTAGAAGCAGAAATCTCCAGTTGCAAGAGGAGCTGGCCTCATCTGAGCGAGCCCGCA  
GACACGCAGAGCAGGAGCGAGATGAGCTGGCTGACGAGATTGCCAACAGCGCCTCTGGGAAGTCCGCTCT

GCTGGATGAGAAGCGGCGCTGGAAGCCCGGATCGCGCAGCTGGAGGAGGAGCTAGAAGAGGAGCAGAGT  
AACATGGAGTGTCTAATGACCGCTTCCGCAAGACCACGCTCCAGGTGGACACCCCTGAACACAGAGTTGG  
CAGCGGAGCGCAGCGCTGCCAGAAGAGCGACAATGCCCGCCAGCAGCTGGAGCGACAAAACAAGGAGCT  
GAAGGCCAAGCTGCAGGAGCTGGAGGGGGCGGTCAAGTCCAAGTTCAAAGCCACCATCTCAGCCCTGGAA  
GCCAAGATTGGGCAGCTGGAGGAACAGCTGGAGCAGGAAGCCAAGGAACGCGCAGCTGCCAACAACTAG  
TCCGTCCGACAGAGAAGAACTGAAAGAGATCTTCATGCAGTTCGAAGACGAGCGCCGCCATGCGGATCA  
GTATAAGGAGCAGATGGAGAAAGCCAATGCCAGGATGAAGCAGCTTAAACGCCAGCTGGAAGAAGCTGAG  
GAGGAGGCTACAGTGCCAATGCATCTCGGCGTAAACTCCAAGGGAAGCTGGATGATGCCACCGAGGCCA  
ATGAGGGCCTGAGCCGTGAGTCACTCTCAAGAACCAGCTTGGCGGGGGCGCCCAATCAGCTTTTC  
TTCAAGCCGATCTGGCCGGCCAGCTACACATTGAGGGGGCATCGCTAGAGCTGTGATGACGACACA  
GAAAGCAAGACCAGTGTCAATGAGACACAGCCACCCAGTCGGAA

ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RR207155 representing NM\_031520  
Red=Cloning site Green=Tags(s)

MAQRTGLEDPERYLFVDRAVIYNPATQADWTAKKLVWIPSERHGFEEAASIKEERGDEVMVELAENGGKAM  
VNKDDIQKMNPPKFSKVEDMAELTCLNEASVLHNLKDRYSSGLIYTYSGLFCVVINPYKNLPIYSENIIE  
MYRGKKRHEKPPHIYAISESAYRCMLQDRKDQSILCTGESGAGKTENTKKVIQYLAHVASSHKRKHNI  
PGELERQLLQANPILESGNAKTVKNDNSRFGKFIKIRINFDVTGYIVGANIETYLLEKSRVRAKDERT  
FHIFYQLLSGAGEHLKSDLLLEGFNNYRFLSNGYIPIPGQDQDNFQETMEAMHIMGFSHEEILSMLKV  
SSVLQFGNISFKKERNTDQASMPENTVAQKCHLLGMNVMFTRAILTPRIKVGDRDYVQKAQTKQADFA  
VEALAKATYERLFRWLVHRINKALDRTKRQGSFIIIGLIDAGFEIFELNSFEQLCINYTNEKLQQLFNHT  
MFIIEQEEYQREGIEWNFIDFGLDLQPCIDLIERPANPPGVLALLDEECWFPKATDKTFVEKLVQEQGSH  
SKFQKPRQLKDKADFCIIHYAGKVYKADDEWLMKNMDPLNDNVATLLHQSSDRFVAVELWKDQVDRIVGLDQ  
VTGMTETAFGSAYKTKKGMFRNVGQLYKESLTKLMATLRNTNPNFVRCIIPNHEKRAGKLDPHLVLDQLR  
CNGVLEGIKIRIQGFVNRIVFQEFQRQYELTPNAIPKGFMDGKQACERMIRALELDPNL YRIGQSKIFF  
RAGVLAHLEEEERDLKITDIIIFQAVCRGYLARKAFKKQQQLSALKVLQRNCAAYLKLHWHQVWRVFTK  
VKPLLVQVTRQEEELQAKDEELLKVKEKQTKVEGELEEMERKHQQLLEEKNILAEQLQAETELFAEAEEMR  
ARLAACKQLEELLDLESRVEGEEERNQILQNEKKMQAHIQDLEELQDEEGARQKLQLEKVTAEAKI  
KKMEEVLLLEDQNSKFIKEKKLMEDRIAECSSQLAEKAKNLAIRNKQEVMSDLEERLKEEKTR  
QELEKAKRKLQDGETTDLQDQIAELQAQVDELKVQLTKKEEELQGALARGDDETLHKNNALKVARELQAQI  
AELQEDFESEKASRNKAEKQKRDLESELEALKTELEDLDTTAAQQLRTKREQVAVELKKALEDETKNH  
EAQIQDMRQRHATALEELSEQLQAKRFKANLEKNKQGLETDNKEACEVKVLQVKAESEHKRKKLDAQ  
VQELHAKVSEGDRRLVELAEKANKLQNELDNVSTLLEAEKKGKMFADAAAGLESQLDQTQELLQEETRQ  
KLNLSRIRQLQEEKNSLQEQEEEEARKNLEKQVLAALQSQLADTKKVDDDLGTIEGLEEAKKLLKD  
VEALSQRLEEKVLAYDKLEKTKNRLQDELDDLTVDLDHQRQIVSNLEKKQKFDQLLAEKGI SARYAEE  
RDRAEAEAREKETKALSLARALEALEAKEEFERQNKQLRADMEDLMSSKDDVGNVHELEKSKRALEQQ  
VEEMRTQLEEELEDELQATEDAKLRLEVNMQAMKAQFERDLQTRDEQNEEKRLLKQVRELEAELEDERK  
QRALAVASKKMEIDLKLEAQIEAANKARDEVIKQLRKLQAQMKDYQRELEEARASRDEIFAQSKESEK  
KLKSLEAEILQLQEELASSERARRHAEQERDELADEIANSASGKSALLDEKRRLEARIAQLEEEEEEQS  
NMELLNDRFRKTTLVQDTLNTELAASAAQSDNARQQLERQNKELKAKLQLEGAVKSKFKATISALE  
AKIGQLEEQLEQEAKEAAAANKLVRTEKLLKEIFMQVEDERRHADQYKEQMEKANARMKQLKRQLEAE  
EEATRANASRRKLQRELDDEANEGLSREVSTLKNRLRRGGPISFSSSRSGRRQLHIEGASLELSDDDT  
ESKTSVNETQPPQSE

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

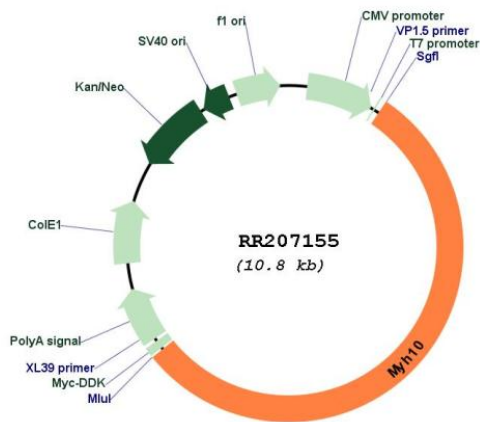
**Restriction Sites:**

Sgfl-MluI

## Cloning Scheme:



## Plasmid Map:



ACCN:

NM\_031520

ORF Size:

5928 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](#)

<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_031520.1</a></u> , <u><a href="#">NP_113708.1</a></u>
<b>RefSeq Size:</b>	7648 bp
<b>RefSeq ORF:</b>	5931 bp
<b>Locus ID:</b>	79433
<b>UniProt ID:</b>	<u><a href="#">Q9JLT0</a></u>
<b>Cytogenetics:</b>	10q24
<b>MW:</b>	229 kDa
<b>Gene Summary:</b>	nonmuscle myosin II heavy chain: produces motor activity with actin filaments; isoform B2 may play a role in neuronal cell motility [RGD, Feb 2006]