

## Product datasheet for **MG223457**

### Myh14 (NM\_028021) Mouse Tagged ORF Clone

#### Product data:

|                           |                                                                             |
|---------------------------|-----------------------------------------------------------------------------|
| Product Type:             | Expression Plasmids                                                         |
| Product Name:             | Myh14 (NM_028021) Mouse Tagged ORF Clone                                    |
| Tag:                      | TurboGFP                                                                    |
| Symbol:                   | Myh14                                                                       |
| Synonyms:                 | 2400004E04Rik; II-C; NHMCII; NMHC II-C                                      |
| Mammalian Cell Selection: | Neomycin                                                                    |
| Vector:                   | pCMV6-AC-GFP (PS100010)                                                     |
| E. coli Selection:        | Ampicillin (100 ug/mL)                                                      |
| ORF Nucleotide Sequence:  | >MG223457 representing NM_028021<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**

ATGGCTGCAGTGACCATGTCCGTGTCTGGGAGGAAGGTAGCCTCCAGGCCAGGCCCGGTGCCTGAGGCAG  
CCCAATCGTTCCTCTACGCGCCCCGACGCCAAATGTAGGTGGCCCTGGAGGGCCACAGGTGGAGTGGAC  
AGCCCCGGCGCATGGTGTGGGTGCCCTCGGAAGTGCATGGGTTCGAGGCAGCAGCCCTGCGGGATGAAGGG  
GAGGAGGAGGCAGAAGTGGAGCTGGCGGAGAGTGGGCGCCGCTGCGGCTGCCAGGGACCAGATCCAGC  
GCATGAACCCACCAAGTTCAGCAAGGCAGAAGATATGGCTGAGCTCACCTGCCTCAACGAGGCCTCGGT  
CCTGCACAACCTGCGAGAAGCTACTACTCCGGGCTCATTATACCTACTCTGGCCTCTTCTGTGTGGTC  
ATTAACCCATACAAGCAGCTGCCATCTACACGGAGGCCATTGTTGAAATGTACCGGGGCAAGAAGCGCC  
ATGAGGTGCCACCTCACGTGTATGCTGTGACGGAGGGCGCGTACCGCAGCATGCTTCAGGATCGTGAGGA  
TCAATCCATTCTCTGCACGGGAGAGTCTGGCGCTGGGAAGACGGAGAACCAAGAAGGTATCCAGTAC  
CTGGCCCATGTGGCATCATCTCCAAGGGCAGGAAGGAGCCTGGTGTCCCTGGGGAGCTAGAGCGTCAGC  
TTCTTCAAGCCAACCCCATCCTAGAAGCCTTTGGCAATGCCAAGACGGTGAAGAACGACAACCTTTCCCG  
ATTTGGCAAATTCATCCGCATCAACTTTGATATTGCTGGCTACATCGTGGGAGCAAACATCGAGACCTAT  
CTGTTGGAGAAGTCCCGGCCATCAGACAGGCCAAGGATGAATGCAGCTTCCATATCTTCTACCAGCTGC  
TAGGGGGCGCTGGGGAGCAGCTAAAAGCTGACCTCCTTCTGGAGCCCTGTTCCCATATCGCTTCTCTGAC  
CAATGGGCCCTCATCGTCCCCGGGCCAGGAGCGTGAGTTATTCCAGGAGACCCTGGAGTCCCTGCGTGTG  
CTGGGCCCTCCTCCAGAAGAGATCACTGCCATGCTGCGCACTGTCTGTGTCTCCAGTTTGGCAACA  
TTGTCCTGAAGAAAGAGCGCAATACGGACCAAGCCACCATGCCTGACAACACAGCTGCCAGAAGCTTTG  
CCGCTCTTGGGACTCGGAGTGACCGACTTCTCCAGAGCCCTTCTCACACCCGCATCAAAGTGGGCCGA  
GATTATGTTCAAGAACCAACCAAGGAGCAGGCTGACTTTGCGCTGGAGGCTCTGGCCAAAGCTACCT  
ATGAGCGCTGTTCGCTGGTGTCTGCGGCTCAACCGTGCCTGGACAGAAGCCCGCGGCAGGGTGC  
CTCCTTCTGGGCATCCTGGACATCGCGGGCTTTGAGATCTTCAGCTGAACCTCTTCGAGCAGCTGTGC



[View online »](#)

ATCAACTACACCAACGAGAAGCTACAGCAGCTATTCAACCACACCATGTTCTGCTGGAGCAGGAGGAGT  
 ACCAGCGAGAGGGCATCCCCTGGACCTTCCTAGACTTCGGGTTGGACCTGCAACCTTGCATCGACCTCAT  
 TGAGCGTCCGGCCAACCTCCAGGTCTCCTGGCCCTGCTGGACGAGGAGTGCTGGTTCCCAAGGCCACG  
 GACAAGTCTTTTGTGGAGAAGGTTGCCAGGAGCAGGGCAGCCACCCCAAGTTCAGCGCCCCAGGAACC  
 TGCGAGATCAGGCCGACTTCAGCGTCTGCACTATGCCGGCAAGGTTGACTACAAAGCCAGTGAGTGGCT  
 GATGAAGAATCATGGACCACTGAATGACAATGTGGCCGCTTGTTCACCAGAGCAGGATCGTCTCACA  
 GCTGAGATCTGGAAGGATGTGGAGGGCATCGTGGGGCTGGAGCAAGTAAGCAGCCTTGAGATGGCCAC  
 CGGGAGGCCGCCCCCGCGTGGAATGTTCCGGACTGTGGGGCAGCTCTACAAAGAATCCCTGAGCCGCT  
 CATGGCCACGCTCAGCAACACCAACCCTAGTTTTGTCCGCTGCATCGTTCCTCAATCATGAGAAGAGGGCT  
 GGAAAGCTGGAGCCGCGCTGGTCTGGACCAACTCCGTTGTAACGGGGTCTCGAGGTATCCGCATCT  
 GTCGCCAAGGCTTCCCAACCGCATCTCTCCAGGAGTTCGACAGCGCTATGAAATCCTACCCCCGAA  
 CGCTATTCCTCAAGGGCTTCATGGACGGCAACAGGCCTGTGAGAAGATGATCCAGGCCCTGGAGCTAGAC  
 CCCAACCTGTACCGTGTGGCCAAAGCAAGATCTTCTCCGGGCAGGGGTCTGGCCAGCTGGAGGAGG  
 AGCGGGACCTGAAAGTACCCGACATCATAGTGTCTTCCAGGCAGCGGCACGGGGCTACCTGGCCCCGTAG  
 GGCTTTCCAGAGACGGCAGCAGCAGCAGAGTGCTCTGAGGGTGATGCAGAGAACTGTGCTGCCTACCTC  
 AAGCTCAGGAAGTGGCAGTGGTGGAGGGTGTTCATCAAGGTGAAGCCCCCTGCTGCAGGTGACACGGCAGG  
 ATGAGGTGCTGCAGGCGCGCGCCAGGAGCTGCAGAAAGTTAGGAGCTGCAGCAGCAGAGCGCTCGTGA  
 AGTGGGGAACTGCAGGGTGCAGTGGCAGAGCTAGAGGAGGAGCGCACGCGCTGGCTGAGCAGCTTCGA  
 GCAGAAGCCGAGCTCTGCTCTGAGGCCGAGGAGACGCGGCGCGACTGGCTGCCCGGAAGCAGGAGCTGG  
 AGCTGGTGGTGACAGAGCTGGAGGCAGAGTGGGCGAGGAAGAAGAGTGCAGCCGGCAGCTGCAGAGTGA  
 GAAGAAGAGGCTGCAGCAGCATATCCAGGAGCTAGAGAGCCACCTGGAAGCTGAGGAGGGTGCCCGGCAG  
 AAGCTACAGCTGGAGAAGGTGACCACAGAGGCCAAGATGAAGAAATTTGAGGAGGACCTGCTGCTCTCTGG  
 AGGACCAGAATTCCAAGCTGAGCAAGGAGCGGAGGCTGCTGGAGGAGCGGCTGGTGAGTTCTCTCTCACA  
 GGCAGCAGAAGAGGAAGAGAAAGTCAAAAGTCTCAACAAGCTGAGGCTCAAATATGAAGCCACAATCTCA  
 GACATGGAAGACCGGCTGAAGAAGGAGGAGAAGGGACGCCAGGAAGTGAAGAAGTGAAGCGACGGCTGG  
 ACGGGGAGAGCTCAGAGCTTCAGGAGCAGATGGTGGAGCAGAAGCAGAGGGCAGAGGAAGTCTCGCACA  
 GCTGGGCCGAAGGAGGATGAGCTGCAGGCCGCCCTGCTCAGGGCAGAGGAAGAGGGTGGTGCCCGTGCC  
 CAGTTGCTCAAGTCCCTGCGAGAGGCACAGGCTGGCCTTGCTGAGGCTCAGGAGGACCTGGAAGCTGAGC  
 GGGTAGCCAGGGCAAGGCGGAGAAGCAGCGCCGGGACCTGGGCGAGGAGTTGGAGGCCCTACGTGGGGA  
 GCTCGAGGACACTCTGGATTCCACCAACGCCCAGCAGGAGCTGCGGTCCAAGAGGGAGCAGGAGGTGACA  
 GAGCTGAAGAAAGCATTGAAGAGGAGTCCCGTCCCATGAGGTGTCCATGCAGGAGCTGAGACAGAGGC  
 ATAGCCAGGCACTGGTGGAGATGGCCGAGCAGTTGGAGCAAGCCGAGGGGCAAGGTGTGTGGGAGAA  
 GACTCGGCTATCCCTGGAGGCTGAGGTGTCCGAGCTGAAGGCCGAGCTGAGCAGCCTGCAGACCTCGAGA  
 CAGGAGGGTGAGCAGAAGAGGCGCCGCTGGAGTCCCAGCTACAGGAGGTCCAGGGCCGATCCAGTGATT  
 CGGAGCGGGCTCGGTCTGAGGCTGCTGAGAAGCTGCAGAGAGCCAGGCGGAAGTTCAGAGCGTGTCCAC  
 AGCCCTGAGTGAGGCGGAGTCCAAAGCCATCAGGCTGGGCAAGGAGCTGAGCAGTGACAGTCCCAGCTG  
 CATGACACCCAGGAAGTCTTCAGGAGGAGACAGGGCAAAGTGGCCTTGGGGTCCCGTGTGCGTGCC  
 TAGAGGCCGAGGCGCGGGGCTTCGGGAGCAGATGGAAGAGGAGGTGGTTGCCAGGAACGGGCTGGCCG  
 GGAGCTGCAGAGCAGCAGGCCAGCTCTCTGAATGGCGGCGCCGCCAGGAAGAAGAGGCCGCGGTGCTG  
 GAGGCTGGGGAGGAGGCTCGGCGCCGTGCAGCCGGGAGGCAGAGACCTGACCCAGCGCTGGCAGAAA  
 AGACTGAGGCTGTAGAAGACTGGAGCAGGCCGCGCCGACTGCAGCAGGAGTTGGACGATGCCACTGT  
 GGATCTGGGGCAGCAGAAGCAGCTCCTGAGCACACTGGAGAAGAAGCAGCGGAAATTTGACCAGCTCCTG  
 GCAGAGGAGAAGGCTGCAGTTCTACGGGCTGTGAAGACCGTGAACGGATAGAGGCCAAGGCCGGGAGC  
 GAGAGGCCCGGGCCCTGTCGCTGACCCGGGCCCTGGAAGAGGAGCAGGAGGCCCGGGAGGAGCTGGAGAG  
 GCAGAACCGTGTCTGAGGGCTGAGCTGGAAGCACTGCTGAGCAGCAAGGATGACGTGGGAAGAAGCTG  
 CACGAGCTGGAGCGAGCCGTAAGGCGGCTGAACAGGCAGCCAGTGACCTGCGGACACAGGTGACAGAAT  
 TGGAGGATGAGCTGACAGCCGAGAGGATGCCAAGCTGCGCTGGAGGTGACTGTGACGGCTCTGAAGGC  
 TCAACATGAACGCGACCTGCAGGGCCGCGATGATGCCGCTGAGGAGAGGCGGAGGAGCTGGCCAAGCAG  
 CTAAGAGACGCAGAGGTAGAGCGCGATGAGGAACGGAAGCAGAGGGCACTGGCTATGGCTGCCCGCAAGA  
 AGCTGGAGCTGGAAGTGGAGGAGTTGAAGGCGCAGACATCTGCTGCTGGGCAGGGCAAGGAAGAGGCAGT  
 GAAGCAGCTGAAGAAGATGCAGGTCCAGATGAAGGAGCTGTGGCGGGAGGTAGAGGAGACCGTAGCTCC  
 CGCGACGAGATGTTTACCCTGAGCAGGGAAAATGAGAAGAAGCTCAAGGGGCTGGAAGCTGAGGTGCTGC

GTCTGCAAGAGGAACCTTGTCTGCCTCAGACCGAGCCCGGAGGCAGGCCAGCAAGACAGAGACGAGATGGC  
 AGAGGAGGTGGCCAGTGGCAATCTTAGCAAGGCAGCCACCCTGGAGGAAAAACGGCAGCTGGAGGGGCGA  
 CTGAGCCAGTTGGAAGAGGAGCTGGAGGAAGAACAGAACAACTCGGAGCTGCTCAAGGACCATTACCGAA  
 AGCTAGTGCTACAGGTCGAGTCCCTCACCACAGAACTGTCTGCCGAACGAAGTTTCTCAGCCAAGGCCGA  
 GAGTGGACGGCAGCAGCTGGAGCGGCAGATCCAGGAAGTCCGGGGCCCGCTTGGGTGAAGAGGATGCTGGA  
 GCCCGAGCCAGGCAGAAAATGCTGATCGCTGCTCTGGAGTCTAACTGGCCAGGCAGAGGAGCAGCTGG  
 AGCAGGAGAGCAGGGAGCGCATCTCTTGGCAAGCTGGTACGCAGAGCTGAGAAGCGGCTGAAGGAGGT  
 AGTTCTTCAGGTGGATGAAGAGCGCAGGGTGGCTGACCAGGTCCGGGACCAGCTGGAGAAAAAGCAACCTC  
 CGGCTGAAGCAGCTCAAGAGGCAGCTGGAGGAGGCAGAGGAGGAGGCATCTCGGGCACAGCTGGTTCGGA  
 GGCGGCTGCAGCGGGAGCTGGAGGACGTCAGTCTGCAGAATCCATGAACCGGGAGGTGACCACGCT  
 GAGGAACAGGCTCCGGCGTGGCCCACTTACATTACCACACGGACTGTGCGCCAGGTGTTCCGGCTGGAA  
 GAGGGCGTGGCTTCTGACGAGGAAGAGGCTGAAGGAGCTGAACCTGGCTCTGCACCAGGCCAGGAGCCGG  
 AGGCTCCGCCCTGCCACACCCAA

AGCGGACCGACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

## Protein Sequence:

>MG223457 representing NM\_028021

Red=Cloning site Green=Tags(s)

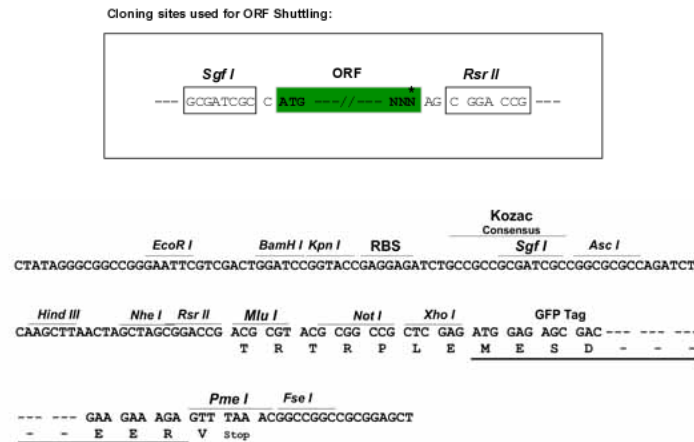
MAAVTMSVSGRKVASRPGVPVPEAAQSFLYAPRTPNVGGPGGPQVEWTARRMVWVPSSELHGFEAAALRDEG  
 EEEAEVELAESGRRLRLPRDQIQRMNPKFSKAEDMAELTCLNEASVLHNLRLERYSSGLIYTYSGFLFCVV  
 INPYKQLPIYTEAIVEMYRGKKRHEVPPHYAVTEGAYRSMQLDREDQSILCTGESGAGTKENTKKVIQY  
 LAHVASSPKGRKEPGVPGELEQLLQANPILEAFGNAKTVKNDNSSRFGKFIKINFDIAGYIVGANIETY  
 LLEKSRAIRQAKDECSFHIFYQLLGGAGEQLKADLLLEPCSHYRFLTNGPSSSPGQERELFQETLESLRV  
 LGLLPEEITAMLRTVSAVLQFGNIVLKKERNTDQATMPDNTAAQKLCRLGLGVTDFSRALLTPRIKVG  
 DYVQKAQTKQADFALEALAKATYERLFRWLVLRLNRALDRSPRGASFLGLIDIAFGFIQFQNSFEQLC  
 INYTNEKLQQLFNHTMFVLEQEEYQREGIPWTFDLDFGLDLQPCIDLIERPANPPGLLALLDEECWFPKAT  
 DKSFVEKVAQEQQGSHPKFQRPRLRDQADFVSLHYAGKVDYKASEWLMKNMDPLNDNVAALLHQSTDRLT  
 AEIWKDVEGIVGLEQVSSLDGPPGGRPRRGMFRTVGQLYKESLSRLMATLSNTNPSFVRCIVPNHEKRA  
 GKLEPRLVLDQLRCNGVLEGIKICRQGFQFNILFQEFQRQYEILTPNAIPKGFMDGKQACEKMIQALELD  
 PNLRYRVGQSKIFFRAGVLAQLEERDLKVTDIIVSFQAAARGYLARRAFQRRQQQSAALRVMQRNCAAYL  
 KLRNWWQWRLFIKVKPLLQVTRQDEVLQARAQELQKVQELQQQSAREVGELEQGRVAQLEERTRLAELR  
 AEAELCSEAEETRARLAARKQELLEVTELEARVGEEECSRQLQSEKKRLQHHIQELESHEAEEGARQ  
 KLQLEKVTTEAKMKKFEEDLLLEDQNSKLKERRLLEERLAEFSSQAAEEEEKVSLNKLRLKYEATIS  
 DMEDRLKKEEKGRQLEKLKRRLDGESSELQEQMVEQKQRAEELLAQLGRKEDELQAALLRAEEGGARA  
 QLLKSLREAQAGLAQEDLEAERVARAKAEQRRDLGEELEALRGELEDLTDSTNAQQLRSKREQEVT  
 ELKKALEEESRAHEVSMQELRQRHSQALVEMAEQLEQARRGKGVWEKTRLSLEAEVSELKAELSSLQTSR  
 QEGEQKRRRLESQLEQVQGRSSDSEARSEAAEKLQRAQAELESYSTALSEAESKAIRLGKELSSAESQL  
 HDTQELLQEETRAKLALGSRVRALEAAAGLREQMEEVVARERAGRELQSTQAQLSEWRRRQEEEEAAVL  
 EAGEEARRRAAREATLTQRLAEKTEAVERLERARRRLQQLDDATVDLQQQKQLLSTLEKKQKRFQDL  
 AEEKAAYLRAVEDRERIEAEGREREARALSLTRALEEEQEAEREERQNRALRAELEALLSSKDDVGNV  
 HELERARKAAEQASDLRTQVTELEDELTAEDAKLRLEVTQALKAQHERDLQGRDDAGEERRRLAKQ  
 LRDAEVERDEERKQALAMAARKKLELELEELKAQTSAGQGKEEAVKQLKKMQVQMKELWREVEETR  
 RDEMFTLSRENEKKLKGLEAEVLRLEELAASDRARRQAQQRDEMAEEVASGNLSKAATLEEKRLQEG  
 LSQLEEEEEEQNNSELLKDHRYKLVLQVESLTTELSAERSFSAKAESGRQQLERQIQELRRLGEEDAG  
 ARARQKMLIAALESKLAQAEQLEQESRERILSGKLVRRAEKRLKEVVLQVDEERRVADQVRDQLEKSNL  
 RLKQLKRLQLEEAEEASRAQAGRRRLQRELEDVTEAESMNRVTTLRNRLRRGPLTFTTRTVRQVFRLE  
 EGVASDEEEAEGAEPGAPGQEPPEAPPATPQ

SGPTRTRRLE – GFP Tag – V

## Restriction Sites:

Sgfl-RsrII

## Cloning Scheme:



ACCN: NM\_028021

ORF Size: 5976 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.

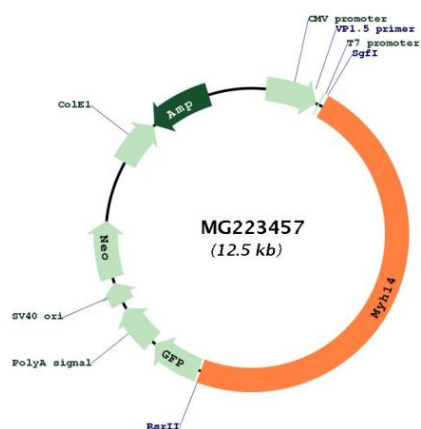
RefSeq: [NM\\_028021.3](#), [NP\\_082297.1](#)

RefSeq Size: 6376 bp

RefSeq ORF: 5979 bp

|               |                                                                                                                                                                 |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Locus ID:     | 71960                                                                                                                                                           |
| UniProt ID:   | <a href="#">Q6URW6</a>                                                                                                                                          |
| Cytogenetics: | 7 B3                                                                                                                                                            |
| Gene Summary: | Cellular myosin that appears to play a role in cytokinesis, cell shape, and specialized functions such as secretion and capping.[UniProtKB/Swiss-Prot Function] |

## Product images:



Circular map for MG223457