

Product datasheet for **RG221497**

MYH14 (NM_001077186) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MYH14 (NM_001077186) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MYH14
Synonyms:	DFNA4; DFNA4A; FP17425; MHC16; MYH17; myosin; NMHC-II-C; NMHC II-C; PNMHH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG221497 representing NM_001077186 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCAGCCGTGACCATGTCGGTGCCCGGGCGGAAGGCGCCCCCAGGCCGGGCCAGTGCCCGAGGCGG
CCCAGCCGTTCTGTTCACGCCCGCGGGCCAGCGGGGTGGCGGCCCTGGCTCGGGCACCTCCCCGCA
GGTGGAGTGGACGGCCCGCGTCTCGTGTGGTGCCTTCGGAGCTTCACGGGTCGAGGCGGCGGCGCTG
CGGGACGAAGGCGAGGAGGAGGCGGAGGTGGAGCTGGCGGAGAGCGGGAGCGGCTGCGACTGCCCGGG
ACCAGATCCAGCGCATGAACCCGCCAAGTTCAGCAAGGCGGAGGACATGGCCGAGCTGACTGCCTCAA
CGAGGCCCTCGGTCTGCACAACCTCCGGGAGCGGTACTACTCCGGCTCATCTACACGTACTCCGGCCTT
TTCTGTGTGGTCATCAACCCGTACAAGCAGCTTCCCATCTACACAGAAGCCATTGTGGAGATGTACCGGG
GCAAGAAGCGCCACGAGGTGCCACCCACGTGTACGCAGTGACCGAGGGGGCCTATCGGAGCATGTGCA
GGATCGTGAGGACCAGTCCATTCTGCACTGGAGAGTCTGGAGCTGGGAAGACGAAACACCAAGAAG
GTCATCCAGTACCTCGCCACGTGGCGTCTGCTCAAAGGCGAGGAAGGACCGGGTGTCCCGCCTCCG
TCAGCACCGTGTCTTATGGTGAAGTGGAGCGGAGCTGCTTCAGGCCAACCCATCTAGAGGCTTTGG
CAATGCCAAGACAGTGAAGAATGACAACCTCCCGGATTCGGCAAATTCATCCGCATCAACTTTGATGTT
GCCGGGTACATCGTGGCGCCAACATTGAGACCTACCTGCTGGAGAAGTGGCGGCCATCCGCCAGGCCA
AGGACGAGTGCAGCTTCCACATCTTACCAGCTGCTGGGGGGCGCTGGAGAGCAGCTCAAAGCCGACCT
CCTCCTCGAGCCCTGCTCCCACTACCGGTTCTGACCAACGGGCCGTCATCCTCTCCCGGCCAGGAGCGG
GAACTCTTCCAGGAGACGCTGGAGTCTGCGGGTCTGGGATTGAGCCAGGAGAAATCATCTCCATGC
TGCGGATGGTCTCAGCAGTTCTCCAGTTTGGCAACATTGCCTTGAAGAGAGAACGGAACACCGATCAAGC
CACCATGCCTGACAACACAGCTGCACAGAAGCTCTGCCGCTCTTGGGACTGGGGGTGACGGATTCTCC
CGAGCCTTGCTCACCCCTCGCATCAAAGTTGGCCGAGACTATGTGCAGAAAGCCAGACTAAGGAACAGG
CTGACTTCGCGCTGGAGGCCCTGGCCAAGGCCACCTACGAGCGCCTCTCCGCTGGTGGTCTGCGCCT
CAACCGGGCCTTGACCGCAGCCCCGCCAAGGCGCCTCTTCTGGGCATCCTGGACATCGCGGGCTTT



[View online >](#)

GAGATCTTCCAGCTGAACTCCTTCGAGCAGCTCTGCATCAACTACACCAACGAGAAGCTGCAGCAGCTCT
 TCAACCACACCATGTTTCGTGCTGGAGCAGGAGGAGTACCAGCGTGAGGGCATCCCCTGGACCTTCCTCGA
 CTTTGGCCTCGACCTGCAGCCCTGCATCGACCTCATCGAGCGGCCGCAACCCCCTGGACTCCTGGCC
 CTGCTGGATGAGGAGTGTGTTCCCGAAGGCCACAGACAAGTCGTTTGTGGAGAAGGTAGCCCAGGAGC
 AGGGCGGCCACCCCAAGTTCAGCGGCCGAGGCACCTGCGGGATCAGGCCGACTTCAGTGTCTCCACTA
 CGCGGGCAAGGTCGACTACAAGGCCAACGAGTGGCTGATGAAAAACATGGACCCTCTGAATGACAACGTC
 GCAGCCTTGTCCACCAGAGCACAGACCGGCTGACGGCAGAGATCTGAAAAGACGTGGAGGGCATCGTGG
 GGCTGGAAACAGGTGAGCAGCCTGGGCGACGGCCACCAGGTGGCCGCCCGTGGGGTATGTTCCGGAC
 AGTGGGACAGCTCTACAAGGAGTCCCTGAGCCGCTCATGGCCACACTCAGCAACACCAACCCAGTTTT
 GTCGCTGCATTGTCCTCCCAACCACGAGAAGAGGGCCGGGAAGCTGGAGCCACGGCTGGTGTGGACCAGC
 TTCGCTGCAACGGGGTCTGGAGGGCATCCGCATCTGTCGCCAGGGCTTCCCAACCCGCATCCTTCCCA
 GGAGTTCGGCAGCGATACGAGATCCTGACACCCAATGCCATCCCAAGGGCTTCATGGATGGGAAGCAG
 GCCTGTGAAAAGATGATCCAGGCGCTGAACTGGACCCCAACCTCTACCGCTGGGACAGAGCAAGATCT
 TCTTCGGGCTGGGTCTGGCCAGCTGGAAGAGGAGCGAGACCTGAAGGTACCGACATCATCGTCTC
 CTTCCAGGCAGCTGCCCGGGATACCTGGCTCGCAGGGCCTTCCAGAAGCGCCAGCAGCAGCAGAGCGCC
 CTGAGGGTGATGCAGCGAACTGCGCGGCTACCTCAAGCTGAGACACTGGCAGTGGTGGCGGCTGTTA
 CCAAGGTGAAGCCACTGCTGCAGGTGACGCGGCAGGATGAGGTGCTGCAGGCACGGGCCAGGAGCTGCA
 GAAAGTGCAGGAGCTACAGCAGCAGAGCGCCCGGAAGTTGGGGAGCTCCAGGGCCGAGTGGCACAGCTG
 GAAGAGGAGCGCGCCCGCTGGCAGAGCAATTGCGAGCAGAGGCAGAAGTGTGTGCAGAGGCCGAGGAGA
 CGCGGGGGAGGCTGGCAGCCCGCAAGCAGGAGCTGGAGCTGGTGGTGTGAGAGCTGGAGGCTCGCGTGGG
 CGAGGAGGAGGAGTGCAGCCGTCAAATGCAAAACGAGAAGAAGAGGCTGCAGCAGCACATACAGGAGCTA
 GAGGCCACCTTGAGGCTGAGGAGGTCGCGCGGAGAAGCTGCAGCTGGAGAAGGTGACGACAGAGGCCAA
 AAATGAAGAAATTTGAAGAGGACCTGCTCTCTGGAAGACCAGAATTCGAAGCTGAGCAAGAGCGGAA
 GCTGTGGAAGATCGTCTGGCCGAGTTCTCATCCAGGCAGCTGAGGAGGAGGAGAAGGTAAGAGCTC
 AATAAGCTACGGCTCAAATATGAGGCCACAATCGCAGACATGGAGGACCGCTACGGAAGGAGGAGAAGG
 GTCGCCAGGAGCTGGAGAAGCTGAAGCGGAGGCTGGATGGGGAGAGCTCAGAGCTGCAGGAGCAGATGGT
 GGAGCAGCAACAGCGGCAGAGGAGCTGCGGGCCAGCTGGGCCGGAAGGAGGAGGAGCTGCAGGCTGCC
 CTGGCCAGGGCAGAAGACGAGGGTGGGGCCGGGCCAGCTGCTGAAATCCCTGCGGGAGGCTCAAGCAG
 CCCTGGCCGAGGCCAGGAGGACCTGGAGTCTGAGCGTGTGGCCAGGACCAAGGCGGAGAAGCAGCGCCG
 GGACCTGGGCGAGGAGCTGGAGGCGCTGCGGGGCGAGCTGGAGGACACGCTGGACTCCACCAACGCACAG
 CAGGAGCTCCGGTCCAAGAGGGAACAGGAGGTGACGGAGCTGAAGAAGACTCTGGAGGAGGAGACTCGCA
 TCACAGAGGGCGGAGTGCAGGAGCTGAGGCAGCGCCACGCCAGGCCCTGGGGGAGCTGGCGGAGCAGCT
 GGAGCAGGCCCGAGGGGCAAAGGTGCATGGGAGAAGACCCGGCTGGCCCTGGAGGCCGAGGTGTCCGAG
 CTGCGGGCAGAAGTGCAGCAGCTGCAGACTGCACGTGAGGAGGCTGAGCAGCGGAGGCGCCCGCTGGAGT
 TACAGCTGCAGGAGGTGCAGGGCCGGGCTGGTGTGGGGAGAGGGCACGAGCGGAGGCTGCTGAGAAGCT
 GCAGCGAGCCAGGCTGAACTGGAGAATGTGTCTGGGGCGCTGAACGAGGCTGAGTCCAAAACCATCCGT
 CTTAGCAAGGAGCTGAGCAGCACAGAAGCCAGCTGCACGATGCCAGGAGCTGCTGCAGGAGGAGACCA
 GGGCGAAATGGCCTTGGGTCCCGGTGCGAGCCATGGAGCTGAGGCAGCCGGGCTGCGTGCAGCAGCT
 GGAGGAGGAGGACGCTGCCAGGGAACGGGCGGGCCGTAAGTGCAGACTGCCAGGCCAGCTTTCCGAG
 TGGCGGCGCGCCAGGAGGAGGAGGCAGGGCACTGGAGGAGGGGAGGAGGCACGGCGCGGGCAGGCC
 GGGAGGCCGAGGCCCTGACCCAGCGCTGGCAGAAAAGACAGAGACCGTGGATCGCTGGAGCGGGGCCG
 CCGCCGGCTGCAGCAGGAGCTGGACGACGCCACCATGGACCTGGAGCAGCAGCGGACGCTTGTGAGCACC
 CTGGAGAAGAAGCAGCGCAAGTTTGACCAGCTTCTGGCAGAGGAGAAGGCAGCTGTACTTCGGGAGTGG
 AGGAACGTGAGCGGGCCGAGGCAGAGGGCCGGGAGCGTGGAGCTCGGGCCCTGTCACTGACACGGGCACT
 GGAGGAGGAGCAGGAGGCAGTGGAGGCTGGAGCGGCAACCGGGCCCTGCGGGCTGAGCTGGAGGCA
 CTGCTGAGCAGCAAGGATGACGTCGGCAAGAGCGTGCATGAGCTGGAACGAGCCTGCCGGTATGAGCAAC
 AGGCAGCCAATGATCTGCGAGCACAGGTGACAGAAGTGGAGGATGAGCTGACAGCGGCCGAGGATGCCAA
 GCTGCGTCTGGAGGTGACTGTGCAGGCTCTCAAGACTCAGCATGAGCGTACCTGCAGGGCCGATGAG
 GCTGGTGAAGAGAGGCGGAGGCAGCTGGCCAAGCAGCTGAGAGATGCAGAGGTGGAGCGGGATGAGGAGC
 GGAAGCAGCGCACTCTGGCCGTGGCTGCCCGAAGAAGCTGGAGGGAGAGCTGGAGGAGCTGAAGGCTCA
 GATGGCCTCTGCCGGCAGGGCAAGGAGGAGGCGGTGAAGCAGCTTCGAAGATGCAGGCCAGATGAAG
 GAGCTATGGCGGGAGGTGGAGGAGACACGCACCTCCCGGGAGGAGATCTTCTCCAGAATCGGAAAAGTG

AAAAGCGCCTCAAGGGCCTGGAGGCTGAGGTGCTGCGGCTGCAGGAGGAAGTGGCCGCTCGGACCGTGC
TCGGCGCAGGCCAGCAGGACCGGATGAGATGGCAGATGAGGTGGCCAATGGTAACTTAGCAAGGCA
GCCATTCTGGAGGAGAAGCGTCAGCTGGAGGGGCGCTGGGGCAGTTGGAGGAAGAGCTGGAGGAGGAGC
AGAGCAACTCGGAGCTGCTCAATGACCGCTACCGCAAGCTGCTCCTGCAGGTAGAGTCACTGACCACAGA
GCTGTGAGCTGAGCGCAGTTTCTAGCCAAGGCAGAGAGCGGGCCGAGCAGCTGGAACGGCAGATCCAG
GAGCTACGGGGACGCCTGGTGAGGAGGATGCTGGGCCCCGTGCCGCCACAAGATGACCATTTCTGGCC
TTGAGCTAAGTTGGCCAGGCTGAGGAGCAGCTAGAGCAAGAGACAGAGAGCGCATCCTCTCTGGAAA
GCTGGTGCAGAGCTGAGAAGCGGCTTAAAGAGGTGGTCTCCAGGTGGAGGAGGAGCGGAGGGTGGCT
GACCAGCTCCGGGACCAGCTGGAGAAGGAAAACCTTCGAGTCAAGCAGCTGAAGCGGCAGCTGGAGGAGG
CCGAGGAGGAGGCATCCCGGGCTCAGGCCGGCCCGGAGGCTGCAGCGTGAGCTGGAAGATGTCACAGA
GTCGGCCGAGTCCATGAACCGTGAAGTGACCACACTGAGGAACCGGCTTCGACGCGGCCCCCTCACCTTC
ACCACCCGACGGTGCGCCAGGTCTCCGACTAGAGGAGGGCGTGGCATCCGACGAGGAGGCAGAGGAAG
CACAGCTGGGTCTGGCCATCCCGGAGCCTGAGGGTCCCCACCAGCCACCCCCAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG221497 representing NM_001077186

Red=Cloning site Green=Tags(s)

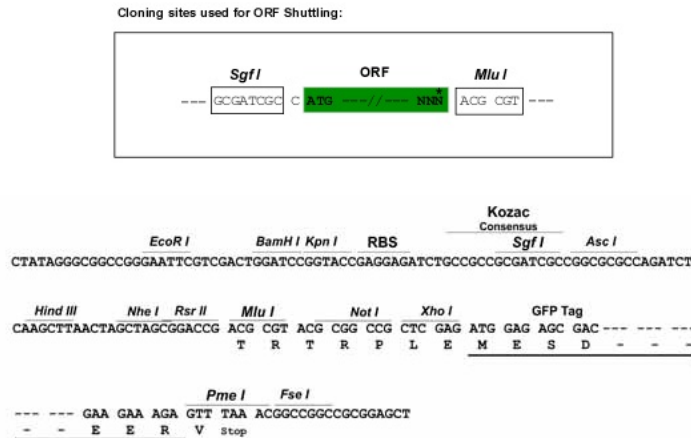
MAAVTMSVPRKAPRPGVPVPEAAQPFLLTPRGPSSAGGGPGSGTSPQVEWTARRLVWVPSLHGFEEAAL
RDEGEEEAELAESEGRRLRLPRDQIQRMNPPKF SKAEDMAEL TCLNEASVLHNL RERYYSGLIYYSGL
FCVVINPYKQLPIYTEAIVEMYRKKRHEVPPHVYAVTEGAYRSM LQDREDQSILCTGESGAGKTENTKK
VIQYLAVHASSPKGRKEPVPASVSTVSYGELERQLLQANPILEAFGNAKTVKNDNSSRFKGFIRINFDV
AGYIVGANIETYLLEKSRAIRQAKDECSFHIFYQLLGGAGEQLKADLLLEPCSHYRFLTNGPSSSPQER
ELFQETLESLRVLGFSHEEIIISMLRMVSAVLQFGNIALKRERNTDQATMPDNTAAQKLCRLLGLGVTDFS
RALLTPRIKVRDYYVQKAQTKEQADFALEALAKATYERLFRWLVLRLNRALDRSPRQGSFLGILDIAGF
EIFQLNSFEQLCINYTNEKLQQLFNHTMFVLEQEEYQREGIPWTFDFGLDLQPCIDLIERPANPPGLLA
LLDEECWFPKATDKSFVEKVAQEQQGHPKFQRPRHLRDQADF SVLHYAGKVDYKANEWLMKNMPLNDNV
AALLHQSTDRLTAEIWKDVEGIVGLEQVSSLGDGPPGGRPRRGMFRTVGQLYKESLSRLMATLSNTNPSF
VRCIVPNHEKRAGKLEPRLVLDQLRCNGVLEGI R ICRQGFPNRILFQEFQRQYEILTPNAIPKGFMDGKQ
ACEKMIQALELDPNL YRVGQSKIFFRAGVLAQLEEERDLKVTDIIVSFQAAARGYLARRAFQKRQQQSA
LRVMQRNCAAYLKL RHWQWRLFTKVKPLLQVTRQDEVLQARAQELQKVQELQQQSAREVQELQGRVAQL
EEERARLAEQLRAEAEELCAEAEETRGR LAARKQELVSELEARVGEESRQMTEKRLQQHIQEL
EAHLEAEEGARQKLQLEKVTTEAKMKFEEDLLLLLEDQNSKLSKERKLLLEDRLAEFSSQAAEEEEVKSL
NKLRLKYEATIADMEDRLRKEEKGRQLEKLRRLDGESSELQE QMVEQQQRAEELRAQLGRKEEELQAA
LARAEDGGARAQLLKS LREAQAALAEAEQEDLESERVARTKAEKQRRDLGEELEALRGELEDTL DSTNAQ
QELRSKREQEVELKKTLEETRIHEAAVQELRQRHGQALGELAEQLEQARRGKGAWEKTRLALEAEVSE
LRAELSSLQATARQEGEQRRRLELQLQEVQGRAGDGERARAEAEKLRQAQAELENVSGALNEAESKTIR
LSKELSSTEAQLHDAQELLQEETRAKLALGSRVRAMEAEAGLREQLEEEAAARERAGRELQTAQAQLSE
WRRRQEEEEAGALEAGEEARRRAAREAEALTQRLAEKTETVDRLERGRRRLQQELDDATMDLEQQRQLVST
LEKKQRKFDQLLAEKAAVLR AVEERERAEAEGREREARALS TRALEEEQEAARELERQNRALRAELEA
LLSSKDDVGKSVHELERACRVAEQAAANDLRAQVTELEDELTAEDAKLRLEVTVQALKTQHERDLQGRDE
AGEERRRLQAKQLRDAEVERDEERKQRTLAVAARKKLEGELEELKAQMASAGQGKEEAVKQLRKMQAQMK
ELWREVEETRTSREEIFSQNRESEKRLKGLEAEVLRLEELAAASDRARRQAQQDRDEMADEVANGNL SKA
AILEEKRQLEGRLGQLEEELEEEQSNSELLNDRYRKL LLQVESL TTEL SAERSFSAKAESGRQQLERIQ
ELRGRLEEDAGARARHKMTIAALESKLAQAEQLEQETREIRILSGKLVRRAEKRLKEVVLQVEEERRVA
DQLRDQLEKGNLRVKQLKRQLEEEAEESRAQAGRRRLQRELEDVTE SAESMNREVTTLNRLLRRGLTF
TTRTVRQVFRLEEGVASDEEAEEAQP GSGPSPEPEGSPPAHPQ

TRTRPLE – GFP Tag – V

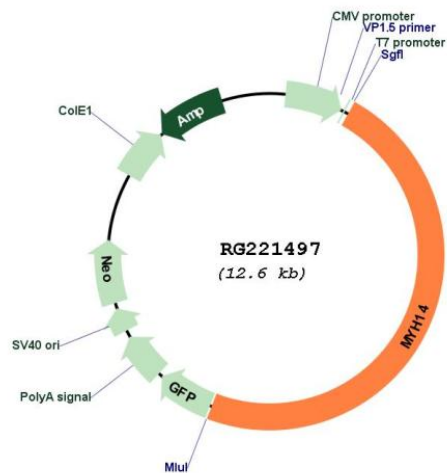
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001077186

ORF Size: 6009 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:	<ol style="list-style-type: none">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.
RefSeq:	<u>NM_001077186.2</u>
RefSeq Size:	6831 bp
RefSeq ORF:	6012 bp
Locus ID:	79784
UniProt ID:	<u>Q7Z406</u>
Cytogenetics:	19q13.33
Protein Pathways:	Regulation of actin cytoskeleton, Tight junction, Viral myocarditis
Gene Summary:	This gene encodes a member of the myosin superfamily. The protein represents a conventional non-muscle myosin; it should not be confused with the unconventional myosin-14 (MYO14). Myosins are actin-dependent motor proteins with diverse functions including regulation of cytokinesis, cell motility, and cell polarity. Mutations in this gene result in one form of autosomal dominant hearing impairment. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Dec 2011]