

## Product datasheet for **RG226697**

### MYH14 (NM\_001145809) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** MYH14 (NM\_001145809) 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:** >RG226697 representing NM\_001145809  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCCGGATCGCC

ATGGCAGCCGTGACCATGTCGGTGCCCGGGCGGAAGGCGCCCCCAGGCCGGGCCAGTGCCCGAGGCGG  
 CCCAGCCGTTCTGTTCACGCCCGCGGGCCAGCGGGGTGGCGGCCCTGGCTCGGGCACCTCCCCGCA  
 GGTGGAGTGGACGGCCCGCGTCTCGTGTGGTGCCTTCGGAGCTTCACGGGTCGAGGCGGGCGGCTG  
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 CGAGGCCCTCGGTCTGCACAACCTCCGGGAGCGGTACTACTCCGGCTCATCTACACGTACTCCGGCCTT  
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GAGATCTTCCAGCTGAACTCCTTCGAGCAGCTCTGCATCAACTACACCAACGAGAAGCTGCAGCAGCTCT  
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 CGTGGCATCCGACGAGGAGGCAGAGGAAGCACAGCCTGGGTCTGGCCATCCCGGAGCCTGAGGGTCC  
 CCACCAGCCACCCAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG226697 representing NM\_001145809  
 Red=Cloning site Green=Tags(s)

MAAVTMSVPRKAPRPGVPVPEAAQPFLFTPRGPSAGGGPGSGTSPQVEWTARRLVWVPSSELHGFEEAAL  
 RDEGEEAEVELAESGRRLRPRDQIQRMNPKFKAEDMAELTCLNEASVLHNLRRERYSGLIYYSGL  
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 VIQYLAHVASSPKGRKEGVPASVSTVSYGELERQLLQANPILEAFGNAKTVKNDNSSRFKGFIRINFDV  
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 VLQARAQELQKVQELQQQSAREVQELQGRVAQLEERARLAEQLRAEAECAEAEETRGLAARKQEL  
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 ETVDRLERGRRLQQLDDATMDLEQQRQLVSTLEKKQRKFDQLLAEEKAAVLRAVEERERAEAEGRERE  
 ARALSLTRALEEQEAREELERQNRALRAELEALLSSKDDVGSVHELERACRVAEQAAANDLRAQVTELE  
 DELTAAEDAKLRLEVTVQALKTQHERDLQGRDEAGEERRRQLAKQLRDAEVERDEERKQRTLAVAARKKL  
 EGEEELKAQMASAGQGKEEAVKQLRKMQAQMKELWREVEETRTSREEIFSQNRESEKRLKGLAEVLRLL  
 QEELAASDRARRAQQDRDEMADEVANGNLSKAAILEEKRLQLEGRLLGQLEEELEEEQNSSELLNDRYRKL  
 LLQVESLTTLESAERSFSAKESGRQQLERQIQELRGRLGEEDAGARARHKMTIAALESKLAQAEQLEQ  
 ETRERILSGKLVRAEKRLKEVVLQVEEERRVADQLRDQLEKGNLRVKQLKRLQLEEAEEASRAQAGRRR  
 LQRELEDVTESAESMNREVTTLRNRLRRGPLTFTTRTVRQVFRLEEGVASDEEAEEAQPSSGSPPEPES  
 PPAHPQ

TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI



**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](mailto: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.

**RefSeq:** [NM\\_001145809.2](#)

**RefSeq Size:** 6930 bp

**RefSeq ORF:** 6111 bp

**Locus ID:** 79784

**UniProt ID:** [Q7Z406](#)

**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]