

## Product datasheet for **SC304463**

### MYO3A (NM\_017433) Human Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** MYO3A (NM\_017433) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** MYO3A  
**Synonyms:** DFNB30  
**Vector:** pCMV6 series

**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_017433, the custom clone sequence may differ by one or more nucleotides

```
ATGTTTCCATTAATTGGAAAAACAATCATCTTTGATAACTTTCCTGATCCTTCTGATACA
TGGGAAATCACTGAGACAATTGGCAAAGGAACCTATGGGAAAGTTTTAAAGTATTGAAT
AAGAAAAATGGCCAAAAAGCAGCAGTCAAAATCTTGATCCAATTCACGATATTGACGAA
GAGATTGAAGCAGAATATAACATCTTAAAAGCACTTTCTGACCACCCTAATGTGGTCAGA
TTCTATGGGATATACTTTAAGAAGGATAAAGTAAATGGAGACAAGCTGTGGTTGGTTCTT
GAGCTCTGCAGTGGAGGATCAGTGACTGACCTTGTGAAAGGATTTCTGAAGAGGGGTGAA
AGAATGAGTGAGCCTCTAATTGCCTATATTTTACATGAAGCACTAATGGGACTTCAACAT
TTGCATAACAACAAAACATCCACAGAGATGTGAAAGGCAATAACATTCTATTGACCACG
GAAGGTGGAGTGAACACTAGTAGATTTTGGTGTGTCTGCACAGCTACCCAGTACCCGGCAC
CGTCGGAACACATCCGTAGGAACACCGTTTTGGATGGCTCCTGAGGTGATTGCATGTGAA
CAGCAATTGGATACCACTTATGACGCCAGATGTGACACTTGGTCCCTGGGTATCACGGCC
ATTGAGCTGGGTGATGGAGATCTCCACTAGCTGACCTTCATCCCATGAGAGCACTCTTC
AAAATACCAAGGAATCCACCCCAAAAATAAGGCAGCCTGAGCTATGGTCAGCAGAATTC
AATGACTTCATAAGCAAGTGCTTGACTAAAGATTATGAAAAGCGTCCAACAGTGTCAGAA
CTTTTACAGCATAAATTCATTAATCAAAATGAGGGCAAAGATGTGATGCTACAAAAACAA
CTAACGGAATTCATTGGCATCCATCAATGCATGGGAGGCACAGAAAAGGCCAGACGTGAA
CGTATTACACGAAGAAAAGGGAACCTCAACCGACCTCTAATATCCAATCTGAAGGATGTA
GATGATTTAGCAACCCTAGAAATTTTGGATGAGAATACAGTCTCAGAGCAACTTGAGAAG
TGTTATTCCAGAGATCAGATCTACGTCTATGTGGGAGACATACTCATTGCTCTTAACCT
TTTCAGAGTCTGGGTCTTACTCCACAAAGCATTCCAACTATATATTGGATCAAAGAGA
ACTGCCAGTCTCCTCACATTTTGAATGGCTGACTTAGGATATCAATCTATGATAACA
TATAATTCAGATCAGTGCATTGTTATTTCTGGAGAAAGTGGTGTGAAAGACTGAAAAT
GCTCATCTTTTAGTTCAGCAGCTGACAGTCTTGGAAAGGCTAATAACAGAACCTTGCAA
GAGAAGATTTTACAAGTGAACAATTTGGTAGAAGCCTTTGGCAATGCCTGCACTATTATA
AATGACAATTCTAGCAGATTTGGAAAATACTTAGAAATGAAATTCACCTCTTCTGGAGCG
GTAGTGGGAGCACAGATTTCTGAATATCTCCTGGAAAAATCCCGAGTTATCCACCAAGCT
ATTGGAGAAAAAATTTTCATATTTTTACTACATTTATGCTGGTTTGGCTGAAAAGAAG
AAACTAGCCCATTAACAACTGCCTGAAAATAAGCCTCCAGGTACCTACAAAATGACCAC
CTCAGAACAGTACAAGACATCATGAATAATAGTTTCTATAAATCCAGTATGAATTAAT
```



[View online »](#)

GAGCAATGTTTCAAAGTCATAGGTTTTACAATGGAGCAACTTGGTAGTATATACAGCATA  
CTCGCTGCAATCTTGAATGTTGGCAACATTGAATTTTCTTCTGTGGCAACTGAACACCAG  
ATTGACAAGAGCCACATTTCTAATCATACAGCCCTGGAGAACTGTGCTTCTTTGCTTTGC  
ATTCGGGCAGATGAGCTACAAGAAGCTCTCACCTCCCCTGTGTGGTCACTAGAGGAGAA  
ACAATTAACGACCCAATACTGTAGAAAAAGCTACCGATGTCAGGGATGCCATGGCTAAA  
ACTTTATATGGACGTCTCTTTAGTTGGATAGTCAATTGCATTAACAGTTTGTGAAGCAT  
GACTCATCACCAAGTGGGAATGGTATGAGCTGAGCATTGGCATTCTTGATATATTTGGC  
TTTGAAAATTTCAAAAAAATTCCTTCGAGCAGCTGTGCATTAACATTGCAAATGAACAA  
ATTCAGTATTATTATAATCAACATGTGTTTGCATGGGAACAGAATGAATACCTAAATGAA  
GATGTGGATGCTAGAGTTATTGAATATGAGGATAACTGGCCCCTTAGATATGTTTCTG  
CAAAAGCCAATGGGTTTACTTTCCCTACTTGATGAAGAAAGTAGATTTCCCAAGGCCACT  
GACCAGACTCTGTAGAAAAATTTGAAGTAACCTGAAATCACAATACTTCTGGAGACCC  
AAAAGAATGGAACCTAGTTTGGAAATCACCATTATGCAGGAAAGGTCTCTATAATGCA  
AGTGGATTCTTAGCCAAAAACAGAGACTCTTCTACTGACATTGTGCTACTTTTGAGG  
TCATCCGACAACAGTGTAAATAGGCAACTAGTCAACCACCCTCTGACCAAAACAGGTAAT  
CTGCCACATTCTAAAACATAAAATGTTATAAACTATCAAATGAGGACTTCAGAAAAATTA  
ATCAACCTGGCAAAGGGCGACACTGGAGAAGCCACACGTCATGCCAGAGAGACAACCAAC  
ATGAAAACACAAACGGTTGCATCATATTTTAGATATTCCTGTATGGATTTGTTGTCTAAA  
ATGGTGGTGGGCCAACCTCATTTTGTCCGTTGCATCAAACCAAATAGTGAGCGTCAGGCA  
AGAAAATATGACAAAGAGAAAGTTCTGTACAGCTTCGGTACACAGGAATTTGGAAACA  
GCAAGAATTCGAAGACTAGGATTCTCCCATCGGATACTTTTGTAACTTTATAAAGCGG  
TACTACCTTCTGTCTACAAGTCGAGCGAGGAGCCCGCATGAGCCCTGACACCTGTGCC  
ACCATTTTGGAAAAGCTGGTCTCGATAACTGGGCTCTTGGAAAAACAAAAGTTCCTT  
AAGTATTATCACGTGGAGCAGTTAAATCTAATGCGAAAGGAAGCTATTGACAAGCTTATT  
TTGATTCAAGCTTGTGTGAGAGCATTCTGTGTTCAAGAAGATACAAAAAATACAGGAG  
AAAAGGAAAGAAAGCGCTATAATAATACAGTCAGCTGCAAGAGGACACCTTGTGAGGAAA  
CAAAGAAAAGAAATTTGTTGACATGAAAAACACAGCAGTAACAACCATCAAACCTTCTGAT  
CAGGAATTCGACTACAAGAAAACTTTGAAAATACAAGGGAATCTTTCTGTAAGAAACAA  
GCAGAAAATGCAATCTCTGCTAATGAAAGATTCATTTAGCTCCAATAATAAAGGAAGT  
GTATCTGTAGTGAAGACTTCCACTTTCAAACCTGAAGAGGAAACCACCAATGCTGTGGAG  
AGTAACAACAGAGTGTATCAGACTCCAAAAAATGAATAATGTGTATGAGGAAGAGGTT  
AAGCAAGAATTCTACCTGTAGGGCCAGAAGTAAGCCCCAACAGAAGTCTGTCAAAGAC  
CTGGAAGAGAACAGCAATCTAAGGAAAAGTGGAGAAGAGGAAGCTATGATCCAGAGTTAC  
TATCAGAGGTACACAGAGGAGAGGAATTTGTAAGAGTCAAAGCAGCATATCTAGAAAAGG  
AAGGCCATATCAGAAAAGGCCAAGCTACCCAGTGCCCTTGGTTAGCTGAAAAAGAGACTTCC  
TTTAAAAAACTTTGGAACCTACACTTAGCCAAAGGTCAATTTATCAAATGCAAACAGC  
ATGGAAAAAGAAAAGAAGACATCTGTAGTTACCCAGCGTGACCCGATATGCAGCCAGGAG  
GAAGGCAGAGGCCGTCTGAGGCATGAGACAGTCAAAGAGAGGCAAGTTGAACCAAGTGACA  
CAGGCCAGGAGGAAGAAGATAAAGCAGCGGTATTCATTCAGGCAAAATACCGGGGTTAC  
AAGAGAAGGCAGCAGTTGAGGAAGGACAAGATGTCTTCTTTTAAGCATCAGAGGATTGTC  
ACAACACCAACAGAAGTAGCAAGAAACACTCATAATTTGTATTCTATCCCAAAAAACAT  
GAGGAAATCAATAACATCAAGAAGAAGGATAACAAGACTCGAAAGCAACTTCAGAAAGA  
GAAGCATGTGGTTTGGCAATTTTTTCAAACAGATATCAAAGTTATCTGAAGAATATTTCT  
ATTCTGCAGAAAAATTTGAATGAAATGATTTTGTACAGCAACTGAAGTCACTTTATCTG  
GGTGTCTCGACCATAAGCCAATTAATAGACGAGTTTCTTCTCAGCAGTGCCTCTCAGGT  
GTCTGTAAAGGAGAGGAGCCAAAAATATTGAGACCCCCAAGACGACCCCGAAACCCAAA  
ACATTAATAAACCTGAAGACTCCACATACTATTACTTTCATAAGTCAATCCAAGAA  
GAAAAACGAAGCAAGGAAAGACAGTCAAGGAAAATTATTAGATTTGGAAGATTTCTAT  
TATAAGGAATTTTTGCCAGTCGTTCTGGACCAAAGGAACATAGCCCTAGTTTAAGAGAA  
CGAAGACCACAGCAAGAACTCCAGAATCAATGTATTAAGGCTAATGAAAGGTGCTGGGCG  
GCGGAGAGCCCGAGAAGGAGGAGGAGAGAGCCAGCAGCAACCCCTACGACTTCAGG  
AGGCTCTGCGCAAAACCTCCAGCGCCGGCGCTCGTCCAGCAGTCTAA

<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_017433
<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<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>	<a href="#">NM_017433.3</a> , <a href="#">NP_059129.2</a>
<b>RefSeq Size:</b>	5597 bp
<b>RefSeq ORF:</b>	4851 bp
<b>Locus ID:</b>	53904
<b>UniProt ID:</b>	<a href="#">Q8NEV4</a>
<b>Cytogenetics:</b>	10p12.1
<b>Protein Families:</b>	Druggable Genome, Protein Kinase

**Gene Summary:**

The protein encoded by this gene belongs to the myosin superfamily. Myosins are actin-dependent motor proteins and are categorized into conventional myosins (class II) and unconventional myosins (classes I and III through XV) based on their variable C-terminal cargo-binding domains. Class III myosins, such as this one, have a kinase domain N-terminal to the conserved N-terminal motor domains and are expressed in photoreceptors. The protein encoded by this gene plays an important role in hearing in humans. Three different recessive, loss of function mutations in the encoded protein have been shown to cause nonsyndromic progressive hearing loss. Expression of this gene is highly restricted, with the strongest expression in retina and cochlea. [provided by RefSeq, Jul 2008]