

## Product datasheet for **SC116993**

### MYO6 (NM\_004999) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MYO6 (NM_004999) Human Untagged Clone
Tag:	Tag Free
Symbol:	MYO6
Synonyms:	DFNA22; DFNB37
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_004999, the custom clone sequence may differ by one or more nucleotides

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ATGGAGGATGAAAGCCCGTTTGGGCGCCACACCTACAGATGGATTTTCAGATGGCAATATTGTGGATA
TTGGCCCCGACAGCTTAACAATTGAACCCTTGAATCAGAAAGGCAAGACATTTTTGGCTCTCATAAACCA
AGTGTTTCCTGCAGAAGAGGACAGTAAAAAGATGTGGAAGATAACTGTTCACTAATGTATTTAAATGAA
GCCACACTGCTCCATAATATCAAAGTTCGATATAGTAAAGACAGAATTTATACATATGTCGCCAACATTC
TGATTGCAGTGAATCCATACTTTGACATACCTAAAATATATTCTTCAGAAGCAATAAAGTCATATCAAGG
AAAATCTCTTGGACAAGACCACCTCATGTCTTGCAATTGCTGATAAAGCTTTTCGAGACATGAAGGTG
CTCAAGATGAGTCAGTCTATCATTGTATCTGGAGAATCAGGAGCCGGCAAAACAGAAAATACAAAATTTG
TTCTAAGATACCTGACTGAATCCTATGGAACAGGTCAAGATATTGATGACAGAATTGTTGAAGCTAACCC
ACTCCTAGAAGCCTTTGGAAATGCGAAGACTGTTGCGCAACAATAATAGCAGTCGATTTGGGAAATTTGTA
GAAATACATTTTAAATGAAAAGAGCTCAGTTGTTGGAGGATTTGTTTCACATTATCTCCTAGAGAAATCTA
GGATCTGTGTTCAAGGCAAGAGGAAAGAAATTATCATATCTTTTATAGGTTGTGTGCTGGTGCTTCTGA
AGATATTAGAGAAAACTTCATTTGAGTTCACCAGATAATTTTCGGTATTTAAACCGAGGCTGACTAGA
TACTTTGCTAACAAAGAACTGACAAACAGATTTACAGAACCGCAAAAGTCCTGAGTACCTTAAGGCAG
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AACAGCAGGGGGCACAAAGGAACAGTTATAAAGGTACCTCTGAAAGTGGAGCAAGCAAACAATGCTCGT
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GCCAAGTGATCAACACTTTACATCTGCAGTTCACCAAAAAGCACAAGGATCATTTTCGACTCACTATTCCC  
 AGAAAACTAAGCTGGCAGTTTCATAGGAATATCAGAGACGACGAAGGCTTCATTATCAGGCATTTTGGCG  
 GGGCAGTGTGCTATGAAACAACCCAGTTTGTGGAGAAAAATAATGATGCTTTACATATGTCTCTTGAATC  
 CTTAATATGTGAATCCAGAGATAAGTTTATACGGGAATTTTGAATCATCCACAATAACAACAAAGAT  
 ACTAAACAAAAAGCAGGAAAACTTAGCTTCATCAGCGTGGGAAACAAGTTAAGACACAGTTAAATTTGC  
 TTCTGGATAAACTTCGAAGTACTGGAGCAAGCTTTATTCGTTGCATCAAACCTAACTTAAAGATGACAAG  
 CCACCACCTTGAAGGTGCTCAAATCTGTCTCAGCTTCAGTGTTCAGGGATGGTGTGTTTGGACTTG  
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 CACTATGATGACGCAGGAACAAATCCAGAAAGAATATGATGCACTGGTTAAAAGCTCAGAGGAACCTCTC  
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 ATTCAGCTGAAGTGGAGGCACAGCTGGCCCGACAGAAGGAGGAGGAATCCCAACAGCAAGCAGTTCTGG  
 AGCAGGAGCGCAGGGACCGGAGCTGGCCCTGAGGATTGCCAGAGTGAAGCCGAGCTCATCAGTGATGA  
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 AATATGATCTTAGTAAATGGAAATATGCAGAACTACGTGATACCATCAATACTTCTTGATATTGAGCT  
 CCTGGCAGCTTGCAAGAGAAGATTTTCATAGGAGACTAAAAGTGTATCATGCTTGGAATCTAAGAACAAG  
 AAGAGAAATACTGAAACAGAGCAACGTGCTCAAAGTCTGTTACTGATTATGATTTGCACCATTTTGA  
 ACAATTCACCTCAGCAAAACCCAGCAGCTCAGATTCCTGCCAGGCAGCGGAGATTGAAATGAACCGACA  
 GCAACGCTTCTCCGCATCCATTTCATCCGCCCTGCCAGCAGTACAAGACCCTCAGAGTAAGAAAAAA  
 GGCTGGTGGTATGCCATTTTGTGGACCATGGATTGCCCGCAAATGGAACCTCATCTGACAAGCCAC  
 CCATCCTACTTGTGGCTGTAAGGACGACATGGAGATGTGTGAGCTGAATCTTGAGGAGACTGGCCTGAC  
 TCGGAAGCGTGGTCTGAGATCTTGCAAGACAGTTTGAAGAAATCTGGGAACGCTGTGGAGGCATCCAG  
 TACCTTCAGAATGCGATTGAGAGCAGACAGGCTCGGCCACCTATGCAACAGCCATGCTGCAGAGTCTGT  
 TAAAGTAG

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_004999 unedited  
 TTCAAATTTTGTAAATACGACTCACTATAGGGCGGCCGCGAAATTCGCACGAGCTCCCGCA  
 CCGGTGACAGTGGATAGTGGAACAGGAGATCGTGGATCCTCCTTCAAAAATGGAGGATG  
 GAAAGCCCGTTTGGGCGCCACACCCTACAGATGGATTTTCAGATGGCAATATTGTGGATA  
 TTGGCCCCGACAGCTTAAACAATTGAACCCTTGAATCAGAAAGGCAAGACATTTTGGCTC  
 TCATAAACCAAGTGTTCCTGCAGAAGAGGACAGTAAAAAGATGTGGAAGATAACTGTT  
 CACTAATGATTTAAATGAAGCCCACTGCTCCATAATATCAAAGTTCGATATAGTAAAG  
 ACAGAATTTATACATATGTCGCCAACATTCTGATTGCAGTGAATCCATACTTTGACATAC  
 CTAATAATATTTCTCAGAAGCAATAAAGTCATATCAAGGAAAATCTCTTGGGACAAGAC  
 CACCTCATGTCTTTGCAATTGCTGATAAAGCTTTTCGAGACATGAAGGTGCTCAAGATGA  
 GTCAGTCTATCATTGTATCTGGAGAATCAGGAGCCGGCAAAAACAGAAAAACAAAAATTTG  
 TTCTAAGATACCTGACTGAATCCTATGGAACAGGTCAAGATATTGATGACAGAATTGTTG  
 AAGCTAACCCACTCCTAGAAGCCTTTGGAATGCGAAGACTGTTGCAACAATAATAGCA  
 GTCGATTTGGGAAATTTGTAGAAATACATTNNTAATGAAAATGGCTCAGTTGTTGGAGGAT  
 TTGTTTACATTATCTCTAGAGAATCTANGATCTGTGTTCAAGGGCAAGAGAAGAAATA  
 TCATATCTTTATAGGNTGTGTGCTGGTCTTCTGAAGATATAGAGAAAAACTCATTNNGA  
 GTCACCAGATANNNTCGTATTTAACCCGAGCTGCACTAGATACTNNTGCTACAAGAAC  
 TGACAACAGATTTACAGAC

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_004999 unedited  
 NGGGTATTACTATGNACCCGCGGCCGCAANCTAGGATCGAGTTTTTTTTTTTTTTTTTTTT  
 CATTTTACTTTTATAATTTTATTCTAAAAACAACAAAACCTTTAGAATTATGTCAGCATA  
 ACTCCTTGATGTATTTTTGTCTTTAAATTCCAAATGTGAAAGTCATAAATATTAGGCTTA  
 AAGCTGCTGACATTTGAATCAATACTAACAGCACACAAAGAAAACATTTTAAAATTATCA  
 GTTATGTAAAACAAGCACTTACTAAATACAAGGATTTCTGAATTACAAAGCTTATGAAAC  
 AGGTCTACAATTACAAAACCTCAAAGGCCAAAAAGACACTAGGAATTTCTTAAAAAGA  
 AAGATGTTGGAAGCAGAACACTTACTAAATCAATGAAACAACCTGGACAAGATTCTGATA  
 CAAAAATCACTATTGAGATGAAGTTGAAAGAATATTTGAATTCAGTCCAGTTAAGCCACT  
 ATGCCACCTAAAACCTATTTCTTTTCTAATTGAAACAAAACCTTATCTCAAACCTTTAG  
 GCATTTAAACAATCTGAATTTCTTTATTTTTCCACAGAATATAAAAAGAATATTCTGAC  
 AGCAACACACATTGTGCTAGCAAAGAAAAGCAAATCTGTGCTGGATACTATTAGTACCTC  
 TTATCACAGAATACATCAAATACATTAAGGGCTCTTTCTAGAATTCTAGAACTTCGAAGT  
 GTTTCATTCAAACCTAAGACACTGCAAAGGAGGAAAAAAAAGATTTTCCACCTTTAATGGA  
 AATTCCAAAAATGTCTGAAAATGTCTATAAAGTACACAGCTTTTCAGACCAAAACATTAG  
 TGCCTTGATCATTTTAAGTGGTTTAGTTATGTAAAGATGAAGCTCATGTTTTATTACTC  
 CCAGTATATGGTACTGG

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_004999

**Insert Size:**

4700 bp

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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\\_004999.2](#), [NP\\_004990.2](#)

**RefSeq Size:** 8662 bp

**RefSeq ORF:** 3858 bp

**Locus ID:** 4646

**UniProt ID:** [Q9UM54](#)

**Cytogenetics:** 6q14.1

**Domains:** IQ, myosin\_head

**Gene Summary:** This gene encodes a reverse-direction motor protein that moves toward the minus end of actin filaments and plays a role in intracellular vesicle and organelle transport. The protein consists of a motor domain containing an ATP- and an actin-binding site and a globular tail which interacts with other proteins. This protein maintains the structural integrity of inner ear hair cells and mutations in this gene cause non-syndromic autosomal dominant and recessive hearing loss. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2014]  
Transcript Variant: This variant (1) encodes isoform (1). Isoforms 1 and 8 are the same length but differ in sequence.