

## Product datasheet for **SC300038**

### MYO5A (NM\_000259) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MYO5A (NM_000259) Human Untagged Clone
Tag:	Tag Free
Symbol:	MYO5A
Synonyms:	GS1; MYH12; MYO5; MYR12
Vector:	<u>pCMV6 series</u>
Fully Sequenced ORF:	>NCBI ORF sequence for NM_000259, the custom clone sequence may differ by one or more nucleotides

```

ATGGCTGCGTCGGAGCTCTACACAAAGTTTGCCAGGGTTTGGATACCTGATCCAGAGGAA
GTCTGGAAGTCAGCAGAGCTGCTCAAAGATTATAAGCCAGGAGATAAAGTCCTCCTGCTT
CACCTCGAGGAAGGAAAGGATTTGGAATACCATCTAGATCCAAAGACCAAGGAGCTGCCT
CACTTACGAAATCCTGACATACTTGTGGTGAAAATGACCTCACAGCCCTCAGCTATCTT
CATGAGCCTGCTGTGCTCCATAATCTCAGAGTCCGCTTTATTGATTCCAACTTATTTAT
ACGTATTGTGGTATAGTCTAGTAGCTATAAATCCCTATGAACAGCTGCCTATTTATGGA
GAAGATATTATTAATGCATACAGTGGTCAGAACATGGGTGATATGGATCCACATATCTTT
GCAGTAGCTGAAGAAGCTTACAAGCAAATGGCCAGAGATGAACGAAATCAGTCCATCATC
GTAAGTGGAGAGTCTGGGGCAGGAAAAACAGTCTCAGCTAAGTATGCCATGCGATACTTT
GCAACTGTGAGTGGTTCTGCCAGTGAAGCCAATGTGGAGGAAAAGGTCTTGGCCTCCAAC
CCCATCATGGAGTCCATTGGAAATGCTAAAACAACCAGGAATGATAATAGCAGCCGTTTT
GGGAAGTATATTGAGATTGGTTTTGATAAGAGATATCGAATCATTGGTGCCAATATGAGA
ACTTATCTTTTAGAGAAATCCAGAGTGGTATCCAGGCAGAAGAGGAGAGAACTATCAT
ATCTTCTATCAGCTTTGTGCCTCAGCAAAGTTACCTGAATTTAAAATGCTACGATTAGGA
AATGCAGATAACTTTAATTACACAAAACAAGGAGGCAGTCTGTGATTGAAGGAGTGGAT
GATGCAAAGGAGATGGCACATACTAGGCAGGCCTGCACCTTTGCTAGGAATTAGTGAATCT
CATCAAATGGGAATTTTCCGAATACTTGCTGGCATCCTTCACTTAGGCAATGTTGGATTT
ACATCCCAGAGATGCAGACAGCTGCAATAACCTCCAAGCATGAACCTCTCTGCATCTTC
TGTGACCTCATGGGTGTGGACTATGAGGAGATGTGCACTGGCTCTGCCATCGGAAACTG
GCTACTGCCACAGAGACATACATCAAGCCCATCTCCAAGCTGCAGGCCACGAATGCCCGC
GATGCTTTGGCCAAGCACATCTATGCCAAGCTCTTTAACTGGATTGTAGATAATGTCAAT
CAGGCTCTCCATTCTGCTGTCAAACAGCACTCTTTTATTGGTGTGCTAGACATTTACGGA
TTTGAAACATTTGAGATAAATAGTTTTGAACAGTTTTGCATAAATATGCAAATGAAAAA
CTACAGCAAATTTCAATATGCATGTCTCAAATTTGGAGCAAGAAGAATATATGAAGGAA
CAAATTCATGGACACTCATAGATTTTTATGATAATCAGCCTTGTATTAATCTTATAGAA
TCAAAACTAGGCATTCTAGATTTACTGGATGAGGAATGCAAGATGCCTAAAGGCACAGAT
GACACCTGGGCCCAAAAATTGTACAACACACATTTGAACAAATGTGCACTCTTTGAAAAG
CCTCGTCTATCAAACAAAGCTTTTCATCATCCAACATTTTGTGACAAAAGTGAATACCAG
TGTGAAGGATTTCTCGAAAAGAATAAAGACACCGTTTTTGAAGAACAATTAAGTTCTT

```



[View online »](#)

AAATCAAGCAAGTTTAAGATGCTACCAGAACTATTTCAAGATGATGAGAAGGCCATCAGT  
CCAACCTCAGCCACCTCCTCAGGGCGCACACCCCTCACACGAACTCCTGCAAAGCCCACC  
AAAGGCAGACCAGGCCAAATGGCCAAAGAGCACAAGAAAAAGTGGGGCATCAGTTCAGA  
AACTCCCTGCACCTGCTTATGGAGACACTCAATGCCACTACCCCTCACTATGTGCGCTGT  
ATCAAGCCTAATGACTTCAAGTCCCATTACGTTTGTGAGAAGAGGGCAGTGCAGCAG  
CTGAGAGCATGTGGTGTCTGAAACCATCCGAATCAGTGGCGCCGGTTTCCCCTCACGG  
TGGACTTACCAAGAATTTTTAGCCGCTACCGTGTCTAATGAAGCAGAAAGATGTGCTG  
AGTGACAGAAAGCAACATGCAAGAATGTGTTAGAGAACTGATACTGGACAAGGACAAA  
TACCAGTTTGGTAAGACAAGATCTTTTTCCGTGCCGGTCAAGTGGCCTATCTAGAAAAA  
TTGAGAGCTGACAACTGAGAGCTGCCTGCATCCGGATCCAGAAGACCATCCGAGGGTGG  
CTGCTGAGAAAGAAGTACCTACGCATGCGGAAGGCAGCCATCACCATGCAGAGATACGTG  
CGGGGCTACCAGGCCGATGCTATGCTAAGTTTCTGCGCAGAACCAAGGCAGCAACCATC  
ATTCAAAAGTACTGGCGCATGTATGTGGTCCGCAGGAGGTACAAGATTAGACGAGCTGCC  
ACTATTGTTCTTCACTTACTTGGCAGGCTTCTTGGCCAGAAATAGGTATCGCAAGATA  
CTCCGTGAGCACAAGCAGTCATCATTGAGAGGAGTCCGGGGTGGCTGGCCCGCACA  
CACTACAAGAGGAGCATGCATGCCATCATCTACCTTCACTGCTGCTTACAGCGGATGATG  
GCCAAGCGTGAGCTAAAGAAGCTCAAAATCGAGGCTCGCTCAGTGGAGCGCTATAAGAAG  
CTGCACATCGGCATGGAGAAAGATCATGCAGCTGCAGCGCAAAGTTGATGAGCAGAAC  
AAAGACTACAAATGCCTTGTGGAGAACTAACCAATCTGGAAGGAATATACAACCTGAG  
ACTGAGAACTACGAAGTGACTTAGAACGCTTCAACTAAGTGAAGAGGAAGCGAAAGTT  
GCCACTGGGCGGGTCTTAGTCTGCAGGAAGAAATGCCAAGCTCCGGAAGACCTGGAG  
CAAACCTCGTTAGAGAAAAATGCATTGAGGAACATGCAGATCGATACAAACAAGAAACA  
GAGCAGCTGGTATCAAACTGAAGGAAGAAAATCTTTGCTGAAGCAAGAAAAAGAAAGCC  
CTCAATCACCGCATCGTGCAGCAGGCTAAGGAGATGACAGAACTATGGAGAAGAAAGTTA  
GTAGAAGAAACGAAACAACCTGGAACCTGACCTTAAATGATGAAAGGCTGAGATATCAGAAC  
CTTCTGAATGAGTTCAGTCGCTGGAAGAAAGATATGATGACCTCAAGGAAGAGATGACC  
CTTATGGTGCATGTGCCTAAGCCTGGACACAAGAGAACAGACTCCACCCACAGCAGCAAC  
GAGTCTGAATATATCTTTAGCTCTGAAATTGCAGAAATGGAAGACATTCCATCAAGGACA  
GAGGAACCAAGTGAAGAAAGGTACCTCTGGACATGTCATTGTTCTTAAGCTCCAGAAG  
CGGGTACAGAGCTGGAGCAGGAGAAGCAGGTGATGCAGGATGAGCTGGACCGCAAGGAG  
GAGCAGGTGCTCCGCAGCAAGGCCAAGGAAGAAGAAAGACCACAAATAGAGGTGCAGAA  
CTGGAATATGAGTCACTCAAGCGTCAAGAACTAGAATCAGAAAACAAAAACTGAAGAAT  
GAGCTAAATGAGTTGCGCAAGGCCCTCAGTGAAGAAAGTCCCCAGAGGTGACCGCCCCA  
GGTGCACCTGCCTACCGTGTCTCATGGAGCAGCTGACCTCTGTGAGCGAGGAGCTTGTAT  
GTCCGCAAGGAGGAAGTCTCATCTTAAGGTCTCAACTGGTGAGCCAGAAAGAGGCCATC  
CAACCCAAAGGATGACAAGAATACAATGACAGATTCCACAATACTTTTGGAAAGATGTACAA  
AAAATGAAAGATAAAGGTGAAATAGCACAAAGCATACATTGGTTTGAAGAAACAAATAGA  
TCATCTGCTCTGGATTACCATGAGTTGAATGAGGATGGAGAGCTGTGGCTGGTTTATGAA  
GGGTTAAAACAAGCCAAACAGGCTCCTGGAATCCCAGCTGCAGTCACAGAAGAGGAGCCAT  
GAGAAATGAGGCCGAGGCCCTCCGTGGGGAGATCCAGAGCCTGAAGGAGGAGAAACAACCGA  
CAGCAGCAGCTGCTGGCCAGAACCTGCAGCTGCCCCAGAGGCCCGCATTGAGGCCAGC  
CTGCAGCAGGATCACCCGGCTGACCAACGAAAACCTGGATTTGATGGAACAACCTTGAA  
AAACAGGATAAGACGGTCCGTAACTGAAAAACAACCTGAAAGTATTTGCCAAAAAATTT  
GGCGAAGTGAAGTGGCCAGATGGAGAACATATCCCAGGACAGATCATTGATGAACCC  
ATCCGACCAGTCAACATCCCAGGAAAGAAAAGGATTTCCAAGGGATGCTGGAATACAAG  
AAGGAGGATGAGCAAAAACCTTGTTAAGAACCTGATTCTGGAACCTGAAGCCAGTGGTGTG  
GCAGTCAATTTGATTCCAGGATTACCGCATATATCCTGTTTATGTTGCTGATGCTGATGCT  
GACTACCTGAATGATGATCAGAAAGTAAGGTGCTTGTAAACATCAACAATTAACAGCATC  
AAAAAAGTATTGAAGAAAAGAGGTGATGATTTTGAACCGTCTCCTTCTGGCTCTCTAAC  
ACATGCCGATTTTTGCACTGCTTGAACAGTACAGTGGAGAAGAGGGCTTTATGAAGCAC  
AACACATCTCGCCAGAATGAACACTGCCTCACCAATTTTACCTGGCTGAGTATCGGCAG  
GTGCTGAGTGACTTGGCCATTAGATCTACCAGCAGCTCGTGGGGTGTAGAGAATC

CTTCAGCCAATGATTGTCTCAGGCATGCTGGAACATGAAACGATTCAGGGCGTGTCTGGG  
 GTGAAGCCACAGGGTTGAGAAAGCGAACCTCCAGTATCGCCGATGAGGGCACCTACACA  
 CTGGACTCCATCCTCCGGCAGCTCAACTCCTTCCACTCGGTCAATGTGTCAGCATGGCATG  
 GACCCTGAACTGATCAAGCAGGTGGTCAAGCAGATGTTCTACATCATAGGGGCCATCACC  
 CTGAACAACCTTCTCCTGCGGAAGGACATGTGCTCCTGGAGTAAAGGCATGCAGATCAGG  
 TACAATGTCAGTCAACTGGAAGAATGGCTGCGTGACAAGAATCTGATGAATAGTGGGGCT  
 AAAGAAACCCTGGAACCTCTCATTTCAGGCTGCTCAACTTTTCAAGTAAAAAGAAAAACA  
 GATGATGATGCAGAAGCCATTTGTTCTATGTGCAATGCTTTAACTACTGCCAGATTGTG  
 AAAGTGTGAATTTGTATACTCCAGTTAATGAGTTTGAAGAAAGAGTCTCTGTGTCGTTT  
 ATTCGTAATAACAGATGCGTTTACGAGACAGGAAAGACTCTCCCGAGTCTCATGGAT  
 GCTAAACACATCTTCTGTACCTTTCTTTCAACCCATCTTCCCTCGCACTAGAAACC  
 ATCCAGATTCCAGCCAGCCTCGGCCTGGGCTTCATTTACGGGTCTGA

- Restriction Sites:** Please inquire
- ACCN:** NM\_000259
- 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).
- OTI Annotation:** 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.
- 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\\_000259.1](#), [NP\\_000250.1](#)
- RefSeq Size:** 6401 bp
- RefSeq ORF:** 5568 bp
- Locus ID:** 4644
- UniProt ID:** [Q9Y4I1](#)
- Cytogenetics:** 15q21.2

**Gene Summary:**

This gene is one of three myosin V heavy-chain genes, belonging to the myosin gene superfamily. Myosin V is a class of actin-based motor proteins involved in cytoplasmic vesicle transport and anchorage, spindle-pole alignment and mRNA translocation. The protein encoded by this gene is abundant in melanocytes and nerve cells. Mutations in this gene cause Griscelli syndrome type-1 (GS1), Griscelli syndrome type-3 (GS3) and neuroectodermal melanolysosomal disease, or Elejalde disease. Multiple alternatively spliced transcript variants encoding different isoforms have been reported, but the full-length nature of some variants has not been determined. [provided by RefSeq, Dec 2008]  
Transcript Variant: This variant (1) encodes the longer isoform (1).