

## Product datasheet for **MC224276**

### Myo3b (NM\_177376) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Myo3b (NM\_177376) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Myo3b  
**Synonyms:** A430065P19Rik  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC224276 representing NM\_177376  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCAGCAGCCTCGGAGGTGAGCGGTGAGCACACAGGAGACAAAACCGGAAGCACCTGTATGGATTAT  
 TTCACTATAACCCCATGATGCTTGGCCTGGAATCACTCCCGATCCCATGGAGACCTGGGAGATTATAGA  
 GACGATTGGCAAAGGCACCTTATGGCAAGGTCTACAAGGTAGCCAACAAGAGAGATGGGAGCCTGGCTGCC  
 GTGAAGGTTCTGGACCCGTCAGTGATATGGATGAGGAGATTGAGGCTGAATACAACATTCTGCAGTTTC  
 TCCCCAGCCATCCAACGTTGTAAGGTTTTATGGGATGTTTTACAAAGCCGATCGCTGTGTGGGAGGACA  
 GCTATGGCTGGTCTGGAGCTGTGTAATGGGGGCTCTGCTACTGAGCTTGTCAAGGGCCTTCTGAGGTGC  
 GGCAAGAGGCTGGACGAAGCTGTGATTTCTACATTCTGTATGGAGCCCTCTTGGGCCTTCAGCATTTC  
 ACTGCCACCGAATCATCCACCGAGATGTGAAGGGGAATAACATTCTTCTGACGACAGAAGGAGGATTAA  
 GCTCGTTGACTTTGGTGTCTCTGCTCAACTTACAAGCACACGGCTGCGGAGAAACACATCAGTTGGGACC  
 CCATTCTGGATGGCTCCTGAGGTCATTGCTTGCAGCAGCAGTATGACTCGTCTATGACGCTCGTTGTG  
 ACGTCTGGTCTTGGGCATCACAGCCATTGAGCTGGGAGATGGAGACCCTCCCCTTTGAAATGCATCC  
 TGTGAAAATGCTCTTTAAGATACCAAGAAACCCTCCACCACTTTGCTGCACCCTGACAGCTGGTGTGAG  
 GAATTTAACCACTTCATTTACAGTGTCTTATTAAGATTTTGAAGGCGCCTTCGGTCAACCATCTCT  
 TGGACCACCCATTCATTAAGGAACCAAGGCAAGGTTTTGTGTCTGCAAAAACAGCTGGCCAAGGTGCT  
 CCAGGACCAGAAGCATCGAAACCCTGTTGCTAAAACAGGCATGAAAGGATGCATACTGGAAGACCCCAT  
 CGAGTAGAGGATGCCGGCAAGTGTGCTTGGAGTACCTGGTCAATCTCGAGGCTCTGGACGAGGACA  
 CGATTACTACTGGCTGCAGAAGCGGTATGCAGATGCACTGATCTACACCTATGTTGGAGACATTCTAAT  
 TGCCTTAAACCCCTTCCAGAATCTAAGTATATACTCTCCACAGTTTTCCAGGCTTTATCATGGGGTAA  
 CGTTCTCGAATCCCCCCACATATTTGCATCAGCAGACAACGCTTATCAGTGTGTTGTTACTTTACGCA  
 AAGACCAGTGTATTGTATCAGTGGAGAAAGCGGATCGGGGAAGACGGAAGCGCCCATCTGATTGTTCA  
 GCATCTTACTTTCTTAGGAAAGGCTGACAAATCAGACCCTACGCCAGAAAATCCTCCAAGTGAACCTCGT  
 GTGGAAGCCTTCGGGAACGCCCGCACAGCCATCAATGATAACTCCAGCCGCTTCGGGAAGTATCTAGAAA



TGATGTTACACCAACTGGAGCTGTCATGGGGCAAGAATCTCCGAGTATCTTCTTGAGAAATCCAGAGT  
 TATACAGCAGGCAGCGGGAGAGAAAAATTTTCATATATTTACTATATTTATGCTGGTCTTTATCACCAA  
 AAGAACTCGCTGAGTTCAGACTCCCGAGGAAAAAGCCTCCTAGATATATAGCTGGGAAACTGAAAGAG  
 TCATGCAGGACATCACCTCCAAAGAGTCTTACCGGACACAGTTTGGAGCCATTGAGCACTGCTTCAAGAT  
 TATTGGATTGCTGACAAGGAGGTACACTCTGTGTACAGAATTCTGGCGGGGATTTGAATATTGGCAGC  
 ATTGAATTCGCAGCTATTTCTCTCAACACCAAACTGATAAAAGTGAGGTACCTAATCCAGAAGCTCTGG  
 AAAACGCTGCCTGCGTCTGCATTAGCTCCGAAGAGCTTCAGGAGGCCCTCACTTCCCCTGTGTGGT  
 CACACGAGGGGAGACCATTGTGACAGCCAAACACAGTGGACAGGGCTGAAGACGTCAGGGACGCCATGTCT  
 AAGGCCCTCTATGGGAGGCTGTTGAGCTGGATTGTGAATCGAATCAACACACTCTGCAGCCAGATAAAA  
 ACATATGTAGTGCAGAGGACAGGATGAATGTGGGCATCTTGACATTTTTGGCTTTGAGGATTTCCAGAG  
 GAATTCCTTTGAACAGCTCTGCATAAAATTTGCCAATGAACAGATCCAGTACTACTTCAATCAGCATGTG  
 TTTGCTCTTGAGCAGATGGAGTACAAGAATGAAGGTGTCGATGCTGTCTCGTGCAGTATGAAGACAATC  
 GCCCACTCTGGACATGTTCTCCAAAAACCTTGGGCCTTCTGGCACTTCTGGATGAAGAAAGTCGATT  
 TCCCAAGGGACAGACCAGACCTTGGTTGATAAATTTGAAGACAACCTACGGTGAAGTTCTTCTGGAGG  
 CCCAAAGGTGTGGAACCTGTTTTGGCATTGAGCACTATGCTGGACCGGTGTTATACGATGCTTCTGGGG  
 TTCTTGAGAAAAACAGAGACACCCTCCCTGCTGACGTGGTGGTAGTCTGAGGACGTCGAGAACAACT  
 CCTTCAGCAACTGTTCTCAATTCCTTTGACAAAAACAGGTAATTTGGCACAACCCAGAGCTAAGATCACA  
 GCATCCTCGAGATCTTTGCCTCCACATTTGAGTCTGGGAGGGCCAAGGTAGACACCCTGGAGGTGATTC  
 GACATCCAGAAGAAACCACCAACATGAAGAGACAAACCATGGCTTCTTACTTCCGGTATTCTCTGATGGA  
 CCTGCTCTCCAAATGGTGGTCCGACAGCCTCACTTTATTCGTTGCATTAAGCCTAATGATGACCGCAAG  
 GCCCTGCAGTTCTCCAAAGACAGAGTCTTGGCCAGCTTCGCTCCACGGGCATCCTGGAGACCGTCAGCA  
 TCCGCAGGCAGGGCTACTCCCATCGCATCTTCTTTGAAGAGTTTGTAAAAGGTATTATTACTTGGCATT  
 CCGAGCACATCAACACCTCTGCTAACAAGAGAGAGCTGTGTTGCTATCTTGAAAAAGTCCAGATTAGAT  
 CACTGGGTCTGGGAAAAACAAAGGTTTTCTCAAATATTACCATGTCGAGCAATTAATTTGCTTCTGC  
 GAGAAGTCATGGGACGAGTGGTCACTGCTGCAGGCATATACCAAGGGCTGGCTCGGAGCAAGGAGATACAA  
 GAGAGCCAAAGAGAAGAGAGAGAAGGGCCCATCACCATCCAGTCAGCCTGGAGAGGCTATGATGCTCGG  
 AGGAAATTGAAGCAAAGAAGCCGGAGGAGGAGTGAAGTCCGAGGCTCACATTCACACAGTTCTCCAAACCA  
 CTCCTGATCAGAAATACTGTCCAGATTCAGGAGGAGAGTCCAACAGAGGTGATGAAGAGACGTCAGGAA  
 CTGCCCGCTGAAGCCGACACAGATGGGCACCCACAAGCCAGAGTCCCCAACAGGCTGTGATGTCACC  
 TCAGGACATGCAGATACAGCAGCTGGGTATACTGTTGCTGAGCTCTCAGTTGCTGGAACCGATGTGTAC  
 CTTCTCTGGTGTACCACACTGCCTCAGCTCACAAAGACTGAGCCCTGTGAAGACTCTCTCAAACCTGG  
 TTCCGAAGAAGGTCTCTCCAGAAGCAGCGAGCACCTCGCAGACGGTGTGACGAGCCAAAATGTTGAGT  
 AGCCCCGAGGACACCATGTACTATAACCAAGTAAATGAACTCTAGAATATCAAGGGAGCCAGAGGAAGC  
 CAAGAAAACCTGGACAAAACAAAGTGTGGATGGGGAGGACCAGTATTACAAATGCCTGTCCCCTGGGGC  
 CTGTGCCCTGAGGAAACCCACTCAGTCCACCCTTTCTTCTCTCTCCTCGTACCCAGAGAAGACCCCTTT  
 GCTCAACACTGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:**

SgfI-MluI

**ACCN:**

NM\_177376

**Insert Size:**

4002 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\\_177376.4](#), [NP\\_796350.2](#)

**RefSeq Size:** 6256 bp

**RefSeq ORF:** 4002 bp

**Locus ID:** 329421

**UniProt ID:** [Q1EG27](#)

**Cytogenetics:** 2 C2

**Gene Summary:** Probable actin-based motor with a protein kinase activity (By similarity). Required for normal cochlear hair bundle development and hearing. Plays an important role in the early steps of cochlear hair bundle morphogenesis. Influences the number and lengths of stereocilia to be produced and limits the growth of microvilli within the forming auditory hair bundles thereby contributing to the architecture of the hair bundle, including its staircase pattern (PubMed:26754646). Involved in the elongation of actin in stereocilia tips by transporting the actin regulatory factor ESPN to the plus ends of actin filaments (PubMed:22264607). [UniProtKB/Swiss-Prot Function]